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INSTALLATION & OWNER'S MANUAL

10.1" Touchscreen Centralized Controller

Applicable Model: TC3-10.1-M



Thank you for choosing our products. Before you operate the product, please read this manual carefully and retain it for future reference.

Note: Figures in this manual are for illustrative reference purposes only.

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1. Safety Precautions

Safety Precautions

The safety labels in this manual comply with standards both inside and outside of China. These labels have different definitions and are used to indicate different levels of danger. Please carefully read and fully understand the following safety labels (including the descriptions of signs and text) and follow relevant precautions to avoid damage to the health or property of users or others.

Warning	Indicates a medium-risk danger. If not avoided, death or serious injury may occur.
Caution	Indicates a low-risk danger. If not avoided, minor or moderate injuries may occur.
Prohibited	Indicates the stated measure is forbidden or the stated action must be stopped.
Note	Indicates a tip whose danger level is lower than the aforesaid danger levels and which, if not avoided, may cause a reduced device performance, malfunctioning, or damage to the device or property.
Information	Indicates useful operation and maintenance information.

Warning

- Installation must be performed by authorized dealers or qualified professionals. Installation by unqualified personnel may lead to electric shock, fire hazards, or other malfunctions. The user shall assume full responsibility for any resulting issues.
- Only qualified personnel may install or disassemble the touchscreen centralized controller. Unauthorized handling may result in overheating, fire, malfunction, or damage to property.

Caution

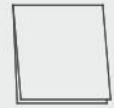
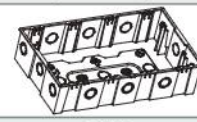
- Do not install the product in places that are prone to flammable gas leaks. Flammable gas that leaks and lingers around the touchscreen centralized controller may cause a fire.
- All wiring must be performed in strict compliance with the user manual. Do not exert mechanical stress on terminal connections, as this can result in electrical leakage, wire damage, overheating, or potential fire risks.

Note

- To ensure safety, do not apply power to the control system or carry out any installation work before fully understanding the instructions in this manual.

2. List of Accessories

List

Name	Picture	Quantity
10.1" touchscreen centralized controller		1
User Manual		1
Embedded electrical control box		1
Power adapter		1
Accessory kit		1

Statement:
Along with upgrades in the product, the information in this document is subject to change without notice.

3. Installation Instructions

Installation of the Touchscreen Centralized Controller

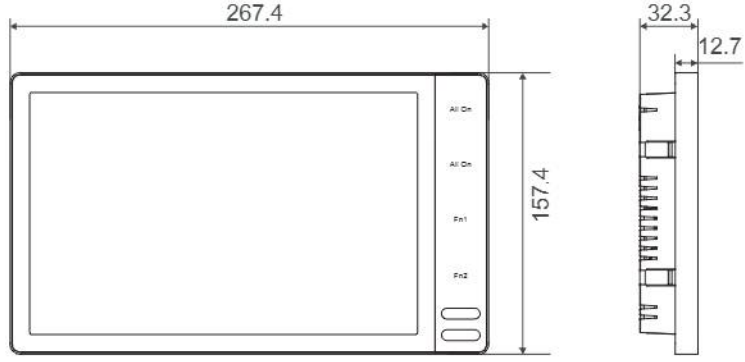
⚠ Warning

- Do not install the touchscreen centralized controller near areas with electromagnetic interference or next to a base station.
  Install the touchscreen centralized controller away from sources of steam, potential flammable gas leaks, heat, or sulfurous gases.
- The installation must comply with local laws and regulations.
  Reserve sufficient space for the installation, and leave adequate spacing between the device and surrounding community service network devices for heat dissipation.

Structure of the Touchscreen Centralized Controller

1) Front view and side view of the touchscreen centralized controller

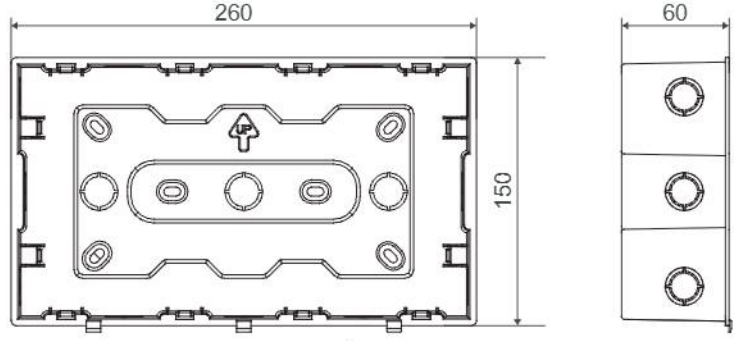
(Unit: mm)

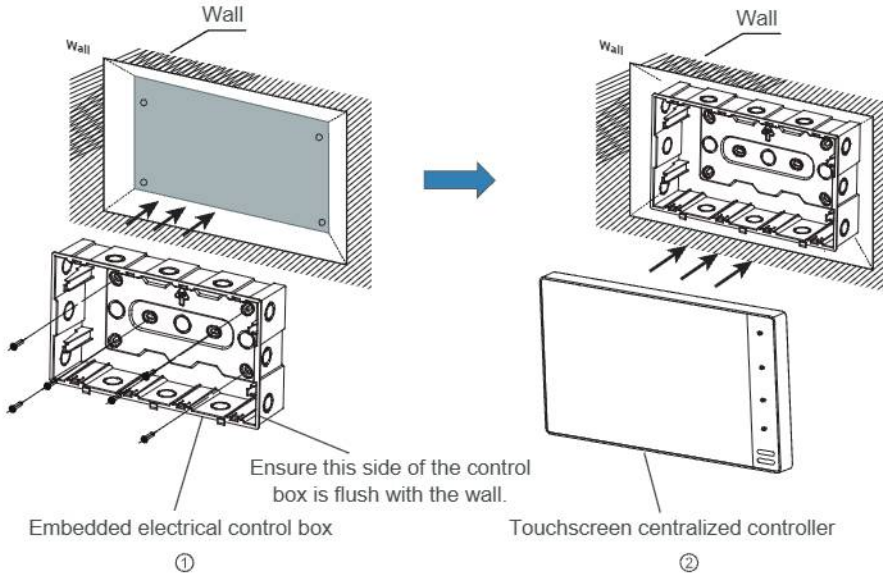


2) Embedded electrical control box dimensions

Before drilling an opening in the wall, make sure it is large enough to accommodate the embedded junction box.

(Unit: mm)





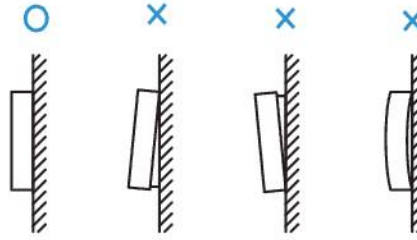
① Embedding the electrical control box

Install the embedded electrical control box within the wall, ensuring that the control box is flush with the wall surface.

② Installing the touchscreen centralized controller

Once the cable connections are completed, insert the controller vertically into the installation base and press it firmly until it clicks into place with the embedded electrical control box.

Ensure it is properly secured, as shown in the figure below.



Installation Precautions

1) Make sure that the installation site is indoors, and the network gateway is installed at a height of at least 50 cm above the ground.

2) Make sure that the installation site is not affected by dust or electromagnetic interference.

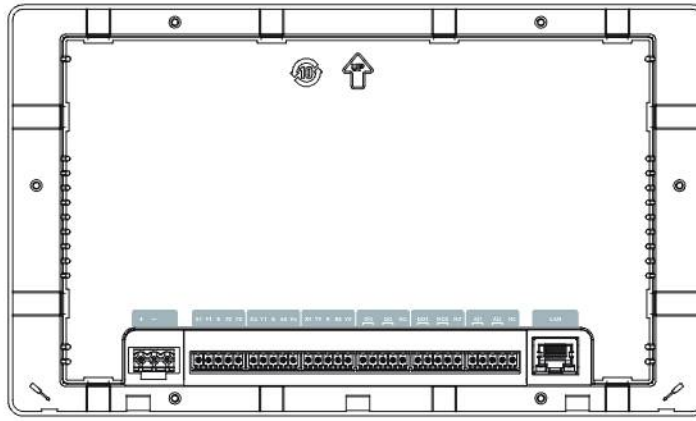
3) Make sure that the installation site is not exposed to the sun or heating devices.

4) Make sure that the device is not installed in a humid location or somewhere that easily exposes the device to contact with water.

5) Make sure the device is not installed in locations where it can be easily corroded or where there are flammable gases.

Please install the gateway device in strict accordance with the above requirements, and check the installation site carefully before installation.

Back Wiring



The centralized controller features six RS485 ports for connecting to the central air conditioning system, one LAN port for integration with a local area network or router network, and two DI ports, two DO ports, and two AI ports for connecting extended I/O devices.

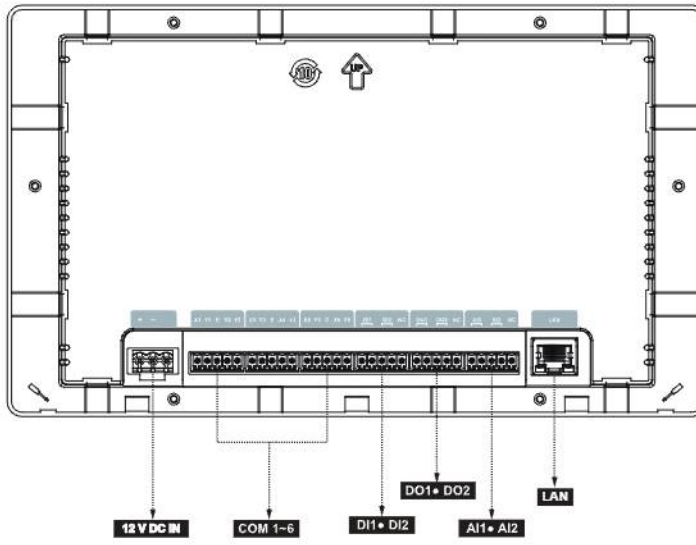
Note

- The centralized controller supports both V6 and V8 protocols. Each RS485 port supports up to eight refrigerant systems.

Caution

- The touchscreen centralized controller is installed at one end of the RS485 communication bus. Do not install it in the middle of the bus.
  You need a three-core shielded cable of 0.7 to 1.0 mm² for the signaling wires. For details, please consult a professional technician.

Port Diagram



Power Port	+	Positive pole of 12 V DC power supply
	-	Negative pole of 12 V DC power supply
		Reserved
RS485 Communication Port	X1 Y1 E X2 Y2	X1 Y1 E: the first RS485 bus X2 Y2 E: the second RS485 bus X3 Y3 E: the third RS485 bus X4 Y4 E: the fourth RS485 bus X5 Y5 E: the fifth RS485 bus X6 Y6 E: the sixth RS485 bus Each RS485 port can connect up to 8 refrigerant systems, with a maximum of 64 IDUs. Note: Two RS485 lines share a common E terminal. Note: Connect the X terminal of the centralized controller to the X terminal of the ODU, and the Y terminal of the centralized controller to the Y terminal of the ODU. When multiple refrigerant systems are connected, each must use a unique address.
	X3 Y3 E X4 Y4	
	X5 Y5 E X6 Y6	
DI Port	DI1	Emergency stop port
	DI2	Reserved digital input port
DO Port	DO1	Reserved digital output ports
	DO2	
AI Port	AI1	Reserved analog input ports
	AI2	
Network Port	LAN	Ethernet port, to access the device on the network

Specifications of the Touchscreen Centralized Controller

Power Supply Specifications	Power adapter input	100-240 V~,50/60 Hz
	Power adapter output	12 V DC
	Controller input	12 V DC
	Power consumption of centralized controller	Up to 12 W
Operating Conditions	Voltage fluctuations	Rated value±10%
	Ambient temperature	-5°C to 43°C
	Ambient humidity	10% RH to 90% RH
	Storage temperature	-10°C to 60°C
Dimensions	Length × Width × Height	267.4 mm x 157.4 mm x 32.5 mm
Device Color	Black	

Technical System/ Function Module	Modulation Mode	Frequency Range	Occupied Bandwidth	Transmitting Power
2.4 GHz Wireless Network	802.11b: CCK, DQPSK, DBPSK 802.11g: 64-QAM, 16-QAM, QPSK, BPSK 802.11n: 64-QAM, 16-QAM, QPSK, BPSK	2400 MHz -2483.5 MHz	≤ 40 MHz	≤ 20 dBm

Hereby, we declares that this model is in compliance with the essential requirements and other relevant provisions of RED directive 2014/53/EU. A copy of the full Doc is attached.

4. Overview

4.1 Introduction

The 10.1" touchscreen centralized controller, serving as a field controller based on Ethernet and RS485, is designed for centralized management of VRF systems using V8 and V6 protocols. In this document, the 10.1" touchscreen centralized controller will be referred to as "IMM-Elite" or simply "Elite".

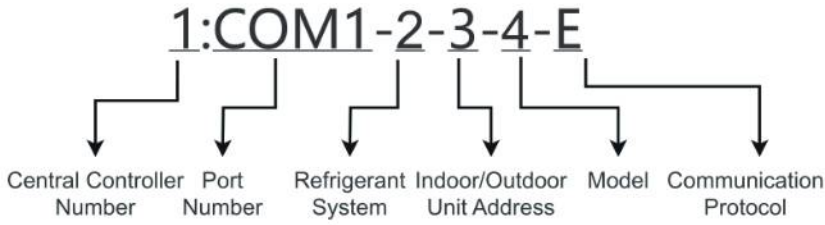
The 10.1" touchscreen centralized controller has been comprehensively upgraded to offer users an intelligent, convenient, flexible, powerful, and secure control platform for VRF systems.

4.2 Highlights

- Featuring a brand-new exterior design, the product incorporates quick-touch buttons for one-touch access.
- The IMM-Elite is designed for centralized control of VRF systems in medium-to-large-scale buildings, supporting up to 384 IDUs and 48 refrigerant systems.
- The IMM-Elite offers highly flexible network control for VRF systems while ensuring seamless interoperability with existing IMM series products (IMM-Lite, M0 Gateway, and IMMproII) to enhance the user experience.
- The IMM-Elite enables precise power distribution, providing an accurate basis for electricity billing.
- Equipped with 7 built-in energy-saving algorithms, it can detect inefficient operating states of IDUs.
- Supports OTA remote upgrades.

4.3 Terms

- IMM-Elite: 10.1" touchscreen centralized controller for the centralized control of VRF devices.
- Inefficient Detect Algorithms (IDA): Algorithms designed to detect inefficient operating actions, providing alerts based on user-defined detection device and algorithm conditions.
- Device Number: The device number comprises the centralized controller number, port number, refrigerant system number, IDU/ODU address, model, and communication protocol. It serves as the default device name. Specific rules are as follows.



Parameter Name	Range	Description
Centralized Controller Number	1 to N	Each controller is assigned a unique number.
Port Number	1 to 6	Indicates the RS485 port currently connected.
Refrigerant System Number	0 to 7	Indicates the number of the refrigerant system to which the device belongs.
IDU/ODU Address	IDU address: 0 to 63; ODU address: 129 to 132	Represents the address of the IDU or ODU.
Model Code	Defined by device model	Please refer to the appendixes.
Communication Protocol	E/S	Represents the protocol used for communication with IDUs or ODUs: E: V8, S: V6

5. About

5.1 Functions and Entries



The functions of IMM-Elite are displayed in the navigation and setting module at the top of the screen. Tap  on the far right of the navigation screen to open the settings panel.

The functions of IMM-Elite can be divided into five main categories: device management, device status monitoring, energy management, system configuration, and account and system management. See the following table for the details about each function:



Module	Screen	Function	Page
Device management	Device Tracking	Enables you to track devices and edit device names	53
	Group Setting	Enables you to create, edit and delete a device group	59
	Smart View	Device control and locking	32
	Schedule	Enables you to create, edit, view and delete a schedule/event	45
	Extended Unit	Enables you to set the emergency stop function	84

Device status monitoring	Home	Real-time errors and warnings Overview of schedules today Device status control Inefficient Detect Algorithm Energy consumption today	21
	History	User history: User login history, device operation history, and schedule operation history Status change record: Operating parameter records in case of device status changes, and schedule execution records Error and warning history: System error and warning history Periodic operation record: Real-time IDU and ODU status record query and schedule execution records Runtime statistics: Device runtime statistics in different modes	85
Energy management	Power Distribution	Power distribution based on the established rules	68
	Energy	Energy consumption statistics and comparison	50
System configuration	Network Setting	Enables you to set the wired network and Wireless Network for the centralized controller	81
	2D Setting	Enables you to configure the floor levels in 2D view, upload images, and set up IDUs.	62
	System Setting	1. Region: Enables you to set the region 2. Language: Enables you to set the language	93

		3. Date: Enables you to set the year, month, and day 4. Date format: Enables you to set the date format 5. Time: Enables you to set the time 6. Time format: 12/24-hour clock 7. Temp Unit: Enables you to set the temperature unit 8. Indicator light: Enables you to turn on or off the mode indicator 9. Backup: Enables you to set the device data backup cycle 10. Screen Off Time: Enables you to set the screen off time and screen brightness 11. Cloud Synchronization: Allows you to enable or disable synchronization of data to the cloud 12. Screensaver Settings: Enables you to set the screen password	
	Inefficient Detect Algorithm	Enables you to set algorithms for inefficient device operation through the centralized controller	75
	Hot Key Settings	All On Settings All Off Settings Memory Settings	101
Account and system management	User Management	User account management	89
	Customer Service	Enables you to set the service phone number, email address, and proactive customer service	106

	Update	Enables you to view the version No. or upgrade the OTA	98

5.2 Components

The centralized controller features six RS485 ports and supports up to 48 refrigerant systems, 192 ODUs, and 384 IDUs. It supports connection with VRF systems using V6 and V8 protocols.

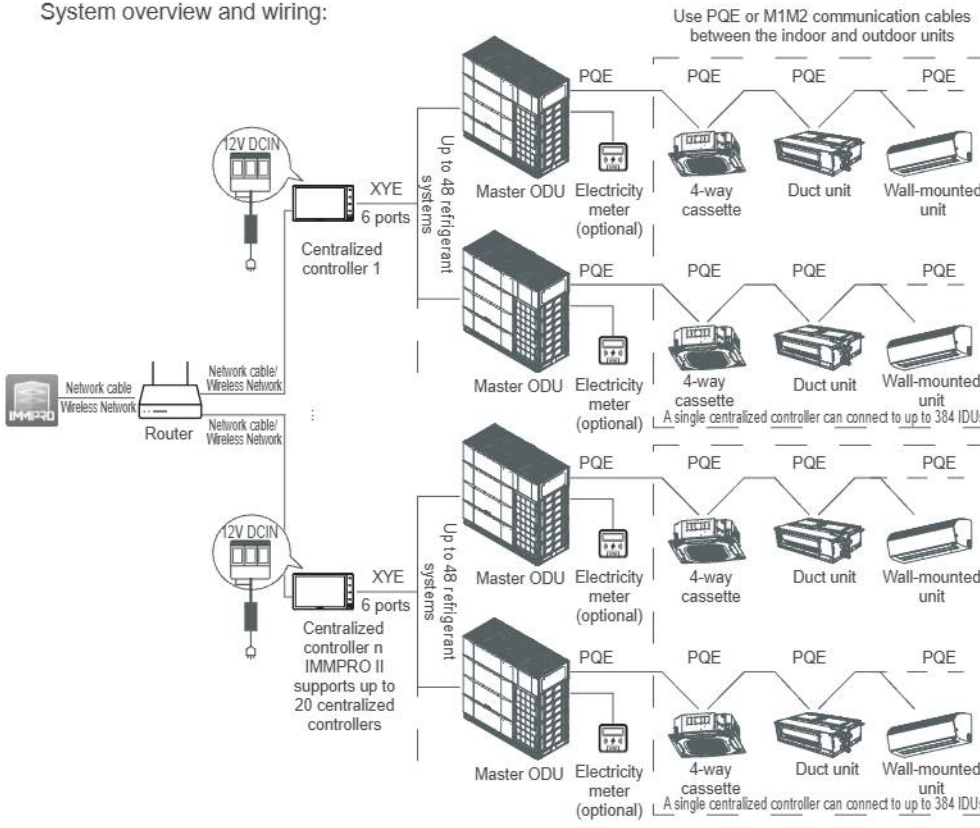
Product Name	IMM-Elite Centralized Controller
Picture	

Product Model	TC3-10.1-M
Dimensions	267.4 mm × 157.4 mm × 32.5 mm (L × W × T)
Screen Resolution	1280 px × 800 px

CPU	RK3566
Memory	4 GB + 32 GB
Ethernet	10/100 Mbps Ethernet
Wireless Network	2.4 GHz
Rated Voltage	12 V DC
Power	12 W
Operating Temperature	-5°C to 43°C
Operating Humidity	10% RH to 90% RH (non-condensing)
RS485 port	6
All On	Touch the button to apply the All On Settings (for specific functions, refer to "22. Hot Key Settings").
All Off	Touch the button to apply the All Off Settings (for specific functions, refer to "22. Hot Key Settings").
Fn1	Touch-sensitive button: Touch the button to execute customized operations (for specific functions, refer to "22. Hot Key Settings")
Fn2	Touch-sensitive button: Touch the button to execute customized operations (for specific functions, refer to "22. Hot Key Settings")
Blue Indicator	Indicates that at least one device is in cooling mode
Orange Indicator	Indicates that at least one device is in heating mode

System Overview

System overview and wiring:



Overview Diagram of the Air Conditioning System, Centralized Controller, and IMMPRO II Software

Note 1: The centralized controller supports both V6 and V8 protocols. Each RS485 port can accommodate up to 8 refrigerant systems. When multiple refrigerant systems are connected, each must be assigned a unique system address. It is essential to avoid duplicate refrigerant system addresses on the same port, and each IDU must also have a unique address.

Note 2: Connection between air conditioners and the centralized controller: Properly connect the X, Y and E terminals on the ODU control board to the centralized controller's ports. Failure to do so will prevent the centralized controller from receiving information from both IDUs and ODUs, potentially causing severe damage to the motherboard. Improper connections may prevent the controller from receiving data from both IDUs and ODUs and could result in serious damage to the motherboard. To maintain ODU data consistency during future maintenance, it is advisable to label each communication cable and record the corresponding serial number. This will help avoid data confusion caused by incorrect gateway connections during subsequent maintenance.

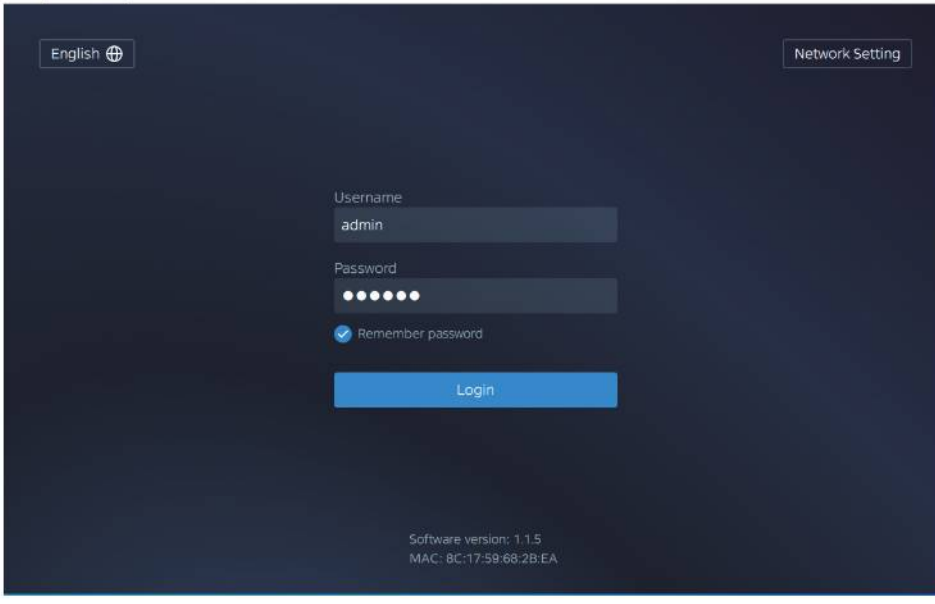
5.3 Initial Configuration

Step 1: Hardware installation and connection

Refer to the installation manual to properly install the IMM-Elite controller and connect it to the VRF system.

Step 2: Log in to IMM-Elite

Connect the power supply and start the IMM-Elite controller to access the login page. You may tap the English drop-down menu to change the system language if required.



Enter the account and password to log in to the system.

Default username: admin

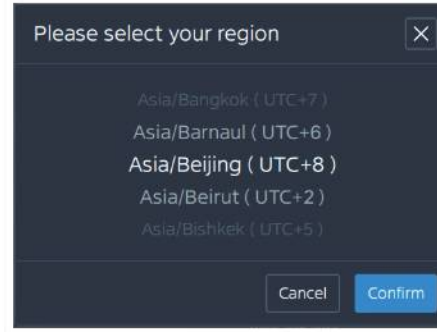
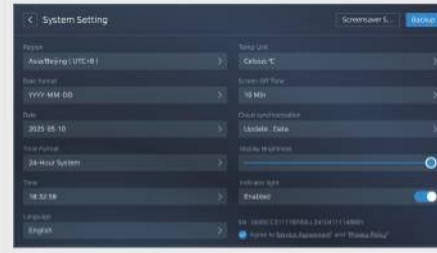
Original password: 123456

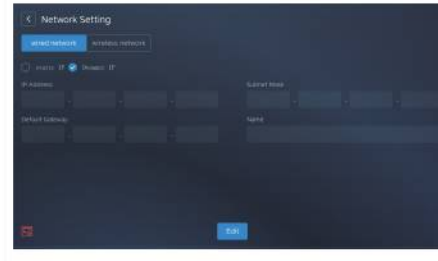
After logging in, refer to "19. User Management" to change the account password or add other accounts.

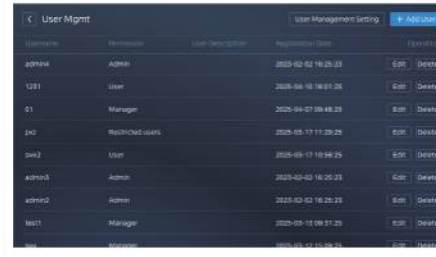
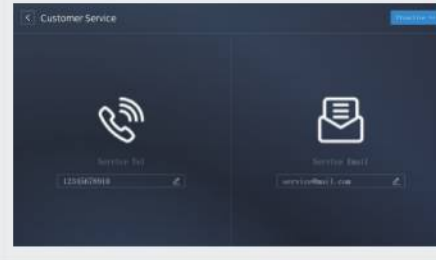
Note: The administrator must remember the password for the super administrator (admin) account. IMM-Elite does not support password recovery for the super administrator (admin) account. If the password is forgotten, you will need to contact maintenance personnel or return the device to the factory for initialization, which will result in the loss of the original device topology information.

Step 3: Initial configuration

To ensure the normal operation of IMM-Elite functions, initial configuration is required upon first use. Follow the steps below to complete the initial configuration process:

Step	Description	UI Screen
1	Region selection When you log in to IMM-Elite for the first time, a region setting window will appear. You can tap the drop-down menu to select a different region. After making your selection, tap Confirm to close the pop-up window and complete the region setting.	
2	System setting To ensure proper operation, you need to configure the basic settings of the centralized controller system after logging in to the system. This includes setting the system date and time, language, temperature unit, screen off time, screen brightness, and cloud synchronization. For further details, see "20. System Setting".	

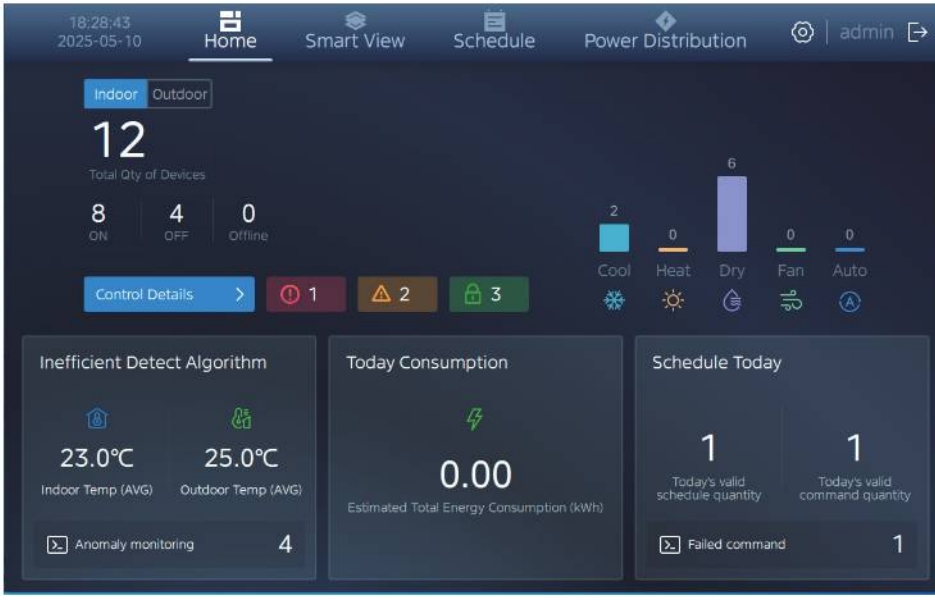
3	Device tracking This function enables you to search for devices connected to the centralized controller and to edit device names. No air conditioning devices are available for the centralized controller system under the initial status. Once the communication cables of the air conditioning devices are properly connected to the centralized controller system, you can begin searching for the devices. After conducting a search, verify that the number, addresses, and categories of the devices are correct. Meanwhile, you can edit device names. For details, see "10. Device Tracking".	
4	Group setting To better manage air conditioning devices, you can group the devices by floors or areas to realize group control of the devices. For details, see "11. Group Setting".	
5	Network setting (required for connecting to IMMproII) This menu allows users to change the centralized controller's IP address, set the IMM-Elite centralized controller's IP address or Wireless Network on this module. For details, see "16. Network Setting".	

6	IDA setting IMM-Elite incorporates 7 Inefficient Detect Algorithms. Users can add devices to be monitored and set relevant monitoring rules. Once the device operation algorithm rules are applied, the system will log data on the inefficient operations of the devices being monitored. For details, see "15. Inefficient Detect Algorithm".	
7	User management In addition to the super administrator account, you can add multiple user accounts and customize the functional permissions for each role. To enhance account security, it is advised to change the initial password of the super administrator's admin account and to securely keep track of the updated password. For details, see "19. User Management".	
8	Enables you to set the after-sales contact information and information related to proactive customer services. For details, see "24. Customer Service".	

After the initial configuration is complete, you can fully utilize and experience the functions of IMM-Elite.

6. Home

The home page displays the device status details, control details, error details, warning details, locking status, today's schedules, today's energy consumption, and real-time device operating data.



6.1 Device Operation Status Statistics



12 indicates the total number of IDUs, with 8/4/0 indicating the number of units that are on, off, and offline, respectively. By default, the interface displays statistical data for IDUs. Taping the "Outdoor" icon switches the view to ODU statistics, showing the total number of ODUs, as well as the numbers of units that are on, off, and offline respectively. Tapping the number of IDUs that are on, off, or offline will navigate to the device view, allowing you to check the status of the corresponding IDUs. ODUs do not support navigation; their status is displayed for reference only.

Tap the "Control Details" icon to access more detailed statistical information about the IDUs, as shown in the figure below.



The left side of the screen displays the number of IDUs currently operating in each mode.

The right side of the screen displays the number of on/off operations over the past 12 months, along with the operation counts for Cool, Heat, and Fan modes during the same period. (Tap the bar chart to view detailed values)

Tap the arrow on the right to navigate to the next statistical screen, as shown in the figure below.



The pie charts at the top display the proportion of cooling/heating operations over the past 24 hours and the last 30 days. (Tap the pie charts to view exact percentage values)

The bar charts at the bottom show the frequency distribution of temperature settings over the past 24 hours and the last 30 days. (Tap the bar charts to view detailed values)

Tap the arrow on the right to navigate to the next statistical screen, as shown in the figure below.



The bar charts at the top provide a comparative analysis of the number of on/off operations over the past 24 hours and the last 7 days. (Tap the bar charts to view detailed values)

The bar chart at the bottom shows the proportion of on/off settings over the past 30 days. (Tap the bar chart to view detailed values)



The bar chart on the right side of the home screen displays mode statistics, including the number of IDUs operating in Cool, Heat, Dry, Fan, and Auto modes. Tapping a mode will navigate to the device control screen, where all IDUs operating under that mode will be displayed.

Tap 

to navigate to the error display screen under the error & warning module. For details, refer to the "Error & Warning" section below.

Tap 

to navigate to the warning display screen under the error & warning module. For details, refer to the "Error & Warning" section below.

Tap 

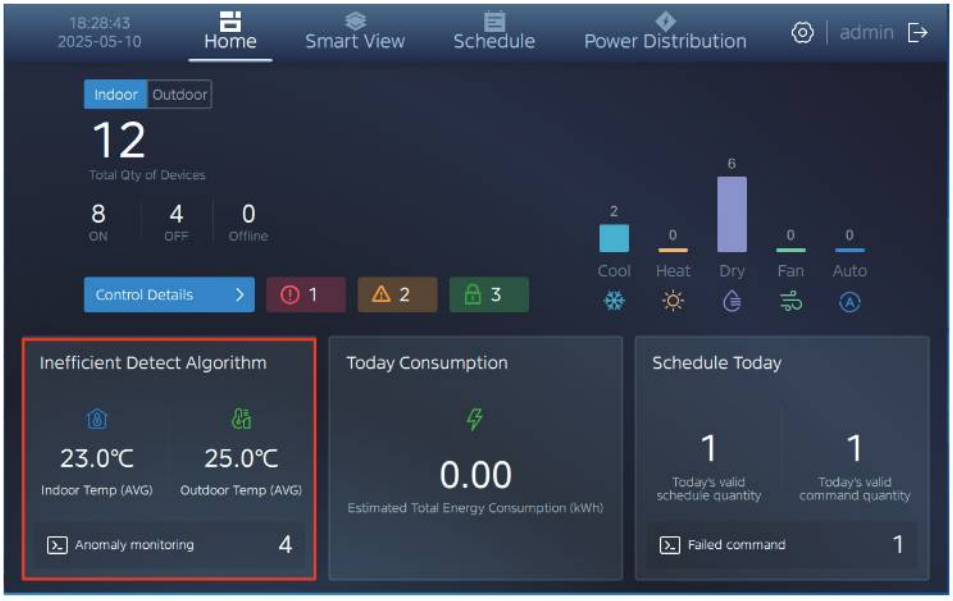
to navigate to the device lock status display screen. For details, refer to the "Device Lock Status" section below.

6.2 Inefficient Detect Algorithm Card

This card enables the detection of device operating status using user-defined energy-saving algorithms.

If a device operates under predefined inefficient conditions, the system will record the abnormal status, enabling you to manage the device based on the inefficient operation records to achieve energy-saving objectives. The IDA module on the home screen displays the average indoor and outdoor temperatures, along with the total number of inefficient operations.

Tapping this module will navigate to the device operation monitoring module, which will be discussed in detail in Chapter 12.



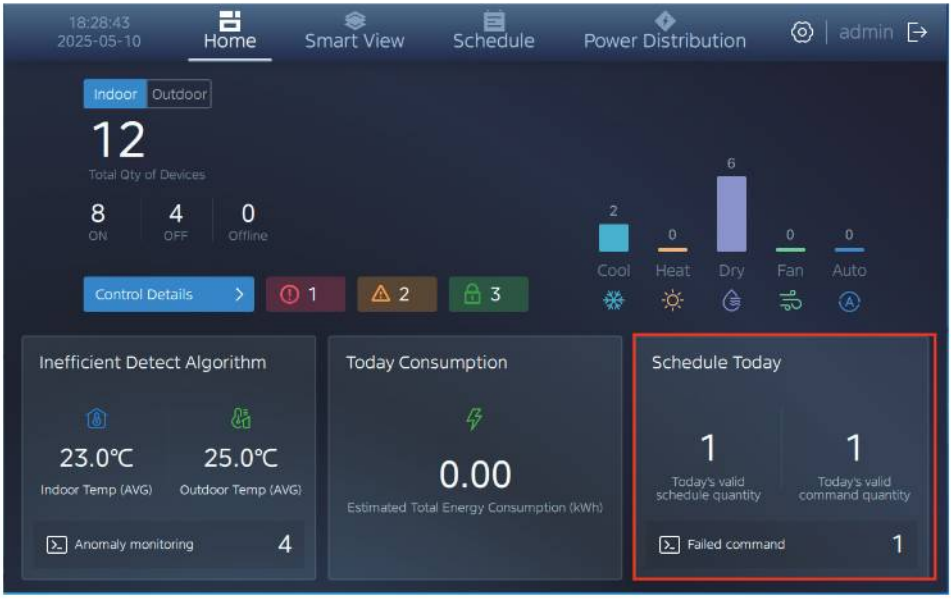
6.3 Today Consumption Card

This card displays the estimated total energy consumption of the current device for today. Tapping this card will navigate to the energy screen. For details, refer to "9. Energy".

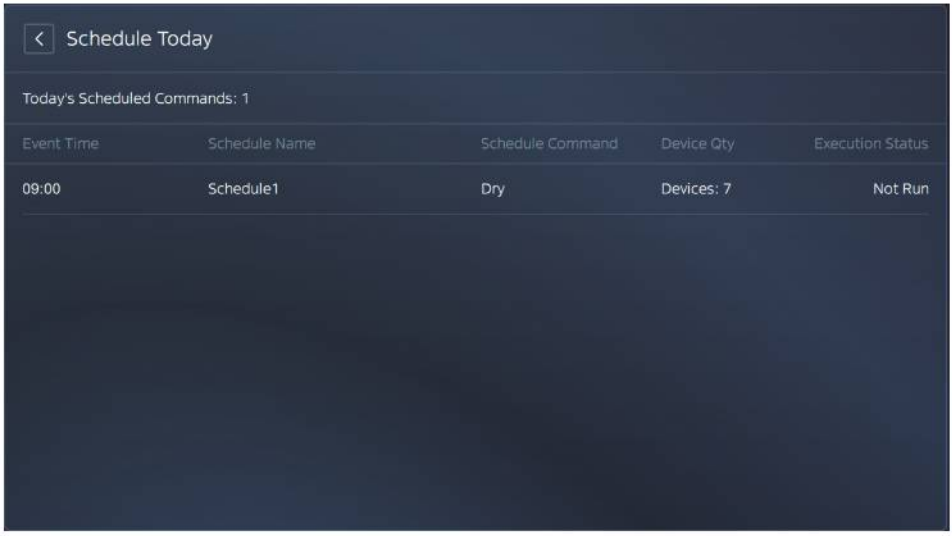


6.4 Schedule Today Card

This card displays the total number of today's schedules, the number of today's scheduled commands, and the number of scheduled commands that failed to execute properly.

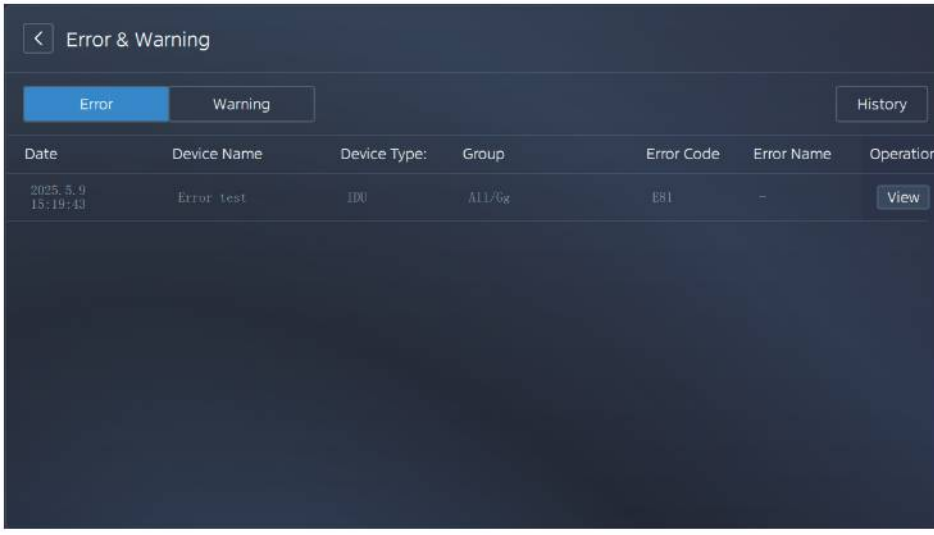


Tapping this card will navigate the Schedule Today screen, as shown in the figure below, where the execution status of today's schedules is displayed.



6.5 Error & Warning

1. Tap  to navigate to the device error screen. The error list displays the error occurrence date, device name, device type, device group, error code, error name, error description, error cause, error level, error version, and error classification.



Note: The assigned group must display the full group path, starting with the top-level group "All", such as All/Building 6/Floor 2. If the device does not belong to any custom group, the system will display "All".

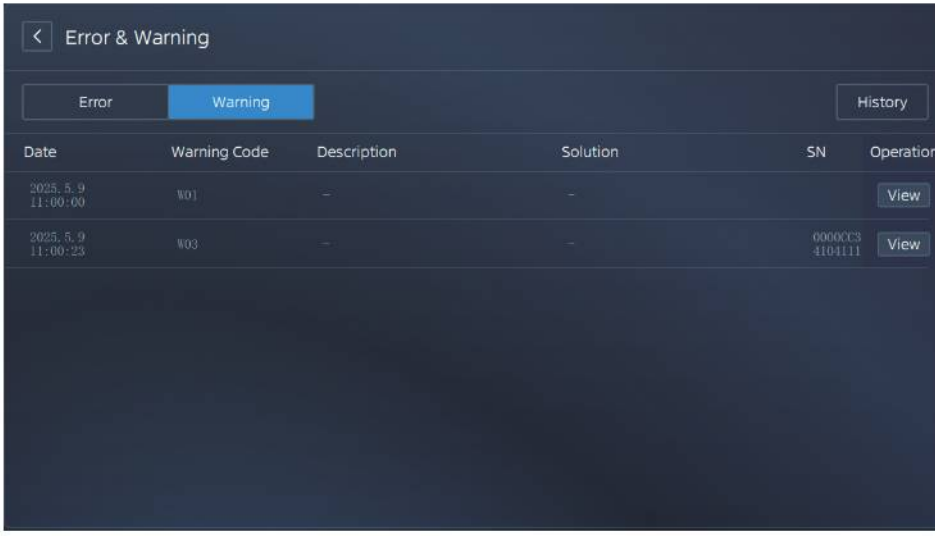
You can tap to view the error details, as shown below. (The figure is a UI example; the actual display may vary depending on the controller interface.)



Note: Troubleshooting details may be subject to change. For accurate information, please refer to the ODU user manual.

2. The warning details part displays warnings related to the centralized controller itself.

Tap ⚠ 2 to navigate to the warning display screen. The warning list shows the date, warning code, description, solution, gateway SN, and refrigerant system, as shown in the figure below.



Tap "View" to see the detailed information, as shown below.



Gateway warning codes are as follows:

Warning Code	Description
W01	Abnormal communication with gateways and connection failure between gateways
W02	Insufficient storage capacity (over 90% capacity is occupied)
W03	Abnormal ammeter reading
W04	ODU program version No. lower than 16
W05	Failure to recognize the old IDU refrigerant system No.

Note: Warning codes may be updated with software upgrades. The actual codes displayed depend on the centralized controller.

3. Device lock

Tap 3 to navigate to the device lock status screen, as shown in the figure below. The screen displays the working status, number, and operation.



Tap "View" to navigate to the device control screen, as shown in the figure below.



The device screen displays all IDUs that are currently in a locked state.

7. Smart View

7.1. Device Views

There are two types of devices: IDUs and ODUs. IDUs can be displayed in List View, Icon View, or 2D View. IDUs support individual control, group control, and lock operations. ODUs are displayed based on the system hierarchy. ODUs offer three configuration options: Mode Priority Setting, Silent Setting, and Power Limitation Setting. Tap "Smart View" on the navigation bar to enter the device view screen to view the IDU and group details. Tap "Outdoor" to view the ODU details.

IDU Views

1. Icon View (Default)

Tap "Icon View" to display IDUs in an icon card form. The icon card shows the following parameters: IDU name, model icon, on/off status, operating mode, room temperature, set temperature, lock status, faults, schedules, and IDA, as shown in the figure below.



2. List View

Tap "List View" to display IDUs in a list form. The list shows the following parameters: IDU name, model icon, on/off status, operating mode, room temperature, set temperature, lock status, faults, schedules, and IDA, as shown in the figure below.



3. 2D View

Tap "2D View" to display IDUs using a 2D floor plan layout. Then, tap the IDU icon on the 2D card to show the IDUs on the right side of the screen in icon card format. The icon card shows the following parameters: IDU name, model icon, on/off status, operating mode, room temperature, set temperature, lock status, faults, schedules, and IDA, as shown in the figure below.

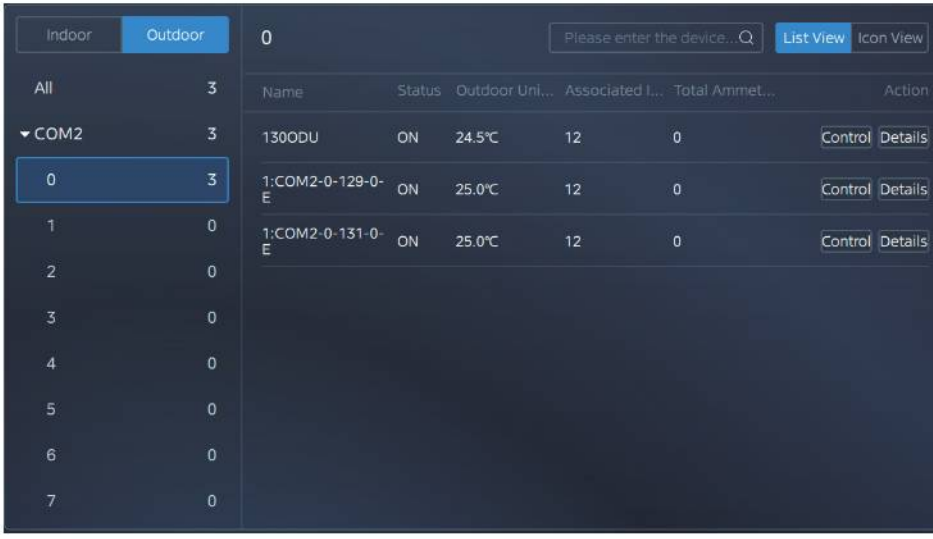


ODU Views

Tap "Outdoor" to display ODUs based on the port number and refrigerant system hierarchy. ODUs can be displayed in List View or Icon View.

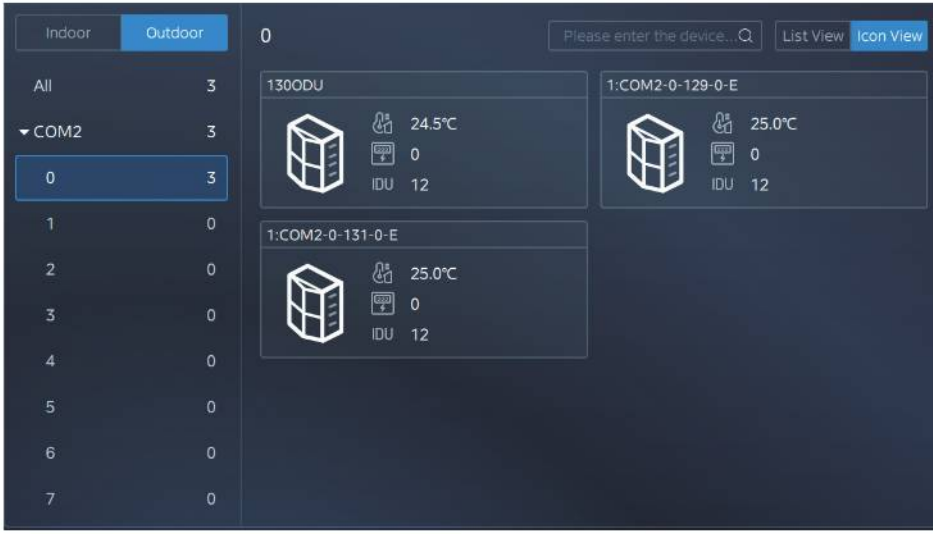
1. List View

Tap "List View" to display ODUs in a list format. The list shows the following parameters: ODU name, on/off status, outdoor temperature, number of associated IDUs, electricity meter reading, and operation, as shown in the figure below.



2. Icon View

Tap "Icon View" to display ODUs in an icon card format. The icon card shows the following parameters: ODU name, on/off status, outdoor temperature, number of associated IDUs, and electricity meter reading, as shown in the figure below.



7.2 Control and Lock

1. IDU Control and Lock

The centralized controller allows you to configure control commands in the Icon View, List View, and 2D View of IDUs.

For group control of devices, you need to group devices in advance.

IDU Control

After selecting an IDU or a group, tap "Control" to display the control panel, on which you can operate and set the selected IDU.



You need to turn on the corresponding switch to set the temperature, fan speed, vertical swing, and horizontal swing.

Notes:

1. Setting items of control parameters are displayed based on the selected device type. If multiple models are selected, the device panel displays settings items that are common to the models. If both V6 and V8 models are selected at the same time, the device panel displays settings items based on the V6 model.

2. When a single device is selected and you tap "Control", the control panel displays the control parameters' status of the current device.

3. When multiple devices are selected and you tap "Control", the control panel displays the off screen. You must enable the "ON/OFF" switch before proceeding to set other parameters.

Different device types may have different parameter setting ranges, as outlined in the table below.

Device Type	General Control Parameter	Parameter Range
Common IDU	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Cool, Heat, Dry, and Fan
	Temp	Subject to the range supported by the unit model
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, Low, and Auto) 7 speeds (Not Set, 1 to 7, and Auto)
	Horizontal Swing	No Set, 1-5°, Auto
	Vertical Swing	No Set, 1-5°, Auto

Device Type	General Control Parameter	Parameter Range
HRV	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Bypass, Heat Exchange, Free Cooling
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, Low, and Auto) 7 speeds (Not Set, 1 to 7, and Auto)

Device Type	General Control Parameter	Parameter Range
FAPU (Supply air temperature control)	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Cool, Heat, and Fan
	Set temperature	Temperature range: 13 to 30°C
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, and Low) 7 speeds (Not Set, 1 to 7)

Device Type	General Control Parameter	Parameter Range
FAPU (Room temperature control)	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Cool, Heat, and Fan
	Set temperature	Temperature range: 16 to 30°C
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, and Low) 7 speeds (Not Set, 1 to 7)

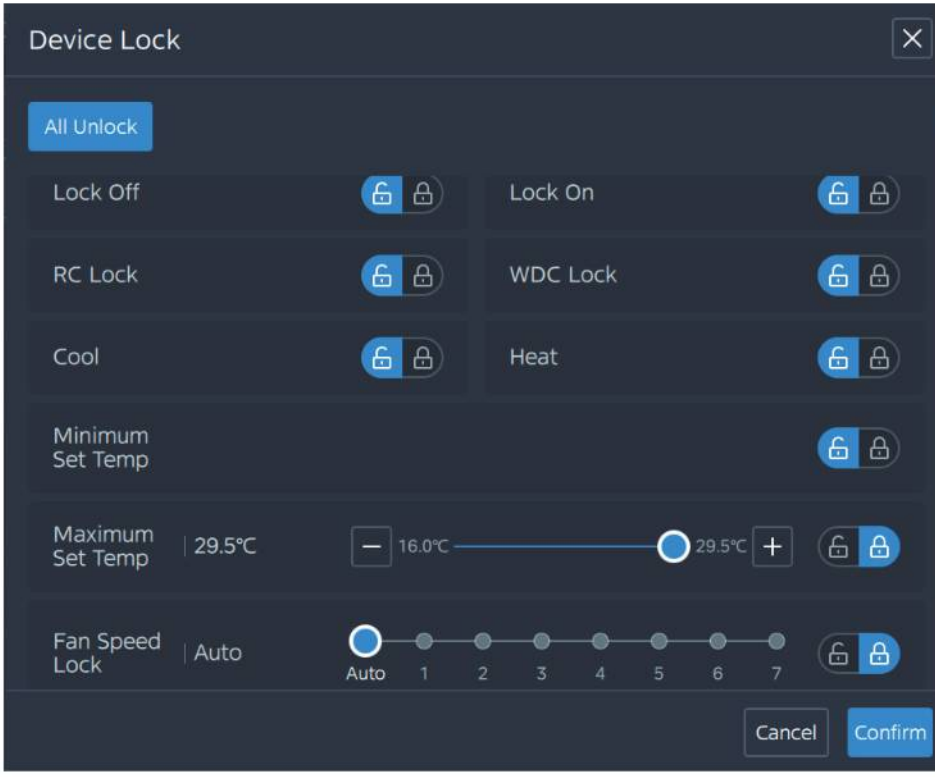
Device Type	General Control Parameter	Parameter Range
AHU-Kit (Supply air temperature control)	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Cool, Heat, and Fan
	Set temperature	Temperature range: 10 to 30°C
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, Low, and Auto) 7 speeds (Not Set, 1 to 7, and Auto)

Device Type	General Control Parameter	Parameter Range
AHU-Kit (Return air temperature control)	ON/OFF	ON, OFF
	Mode	Not Set, Auto, Cool, Heat, and Fan
	Set temperature	Temperature range: 17 to 30°C
	Fan Speed	Subject to the fan speed type supported by the unit model 3 speeds (Not Set, High, Medium, Low, and Auto) 7 speeds (Not Set, 1 to 7, and Auto)

IDU Lock

You can configure the following lock options for IDUs: RC Lock, WDC Lock, Cool, Minimum Set Temp, Heat, Maximum Set Temp, Fan Speed Lock, Lock Off, and Lock On.

Select an IDU and tap "Lock" to open the lock panel, as shown in the figure below.



After a device is selected and you tap "Lock", the lock screen displays the locked status of the selected device's parameters.

After multiple devices are selected and you tap "Lock", the lock screen displays the unlocked status of all the devices' parameters.

The following table describes the lock options.

Module Name	Lock Option	Description
Device Lock	RC Lock	Prevents the IDU from being controlled by a remote controller
	WDC Lock	Prevents the IDU from being controlled by a wired controller.
	Cool	Locks the IDU to operate in cooling mode.
	Minimum Set Temp	Sets the minimum temperature when the IDU is locked to operate in cooling mode.
	Heat	Locks the IDU to operate in heating mode.
	Maximum Set Temp	Sets the maximum temperature when the IDU is locked to operate in heating mode.
	Lock Vertical Swing	Locks the vertical swing angle
	Lock Horizontal Swing	Locks the horizontal swing angle
	Lock On/Off	Locks the IDU to remain in on or off status.

Tap "Confirm" to save the lock settings for IDUs and make the settings take effect.

You can tap "All Unlock" in the upper left corner of the panel to unlock all settings.

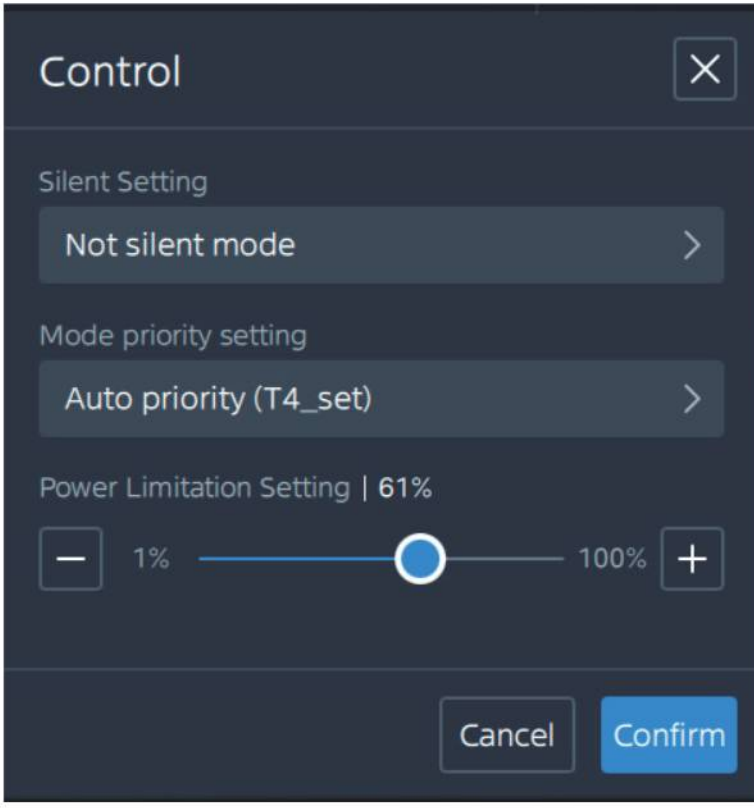
Lock parameters are displayed based on the preset reference values of the unit model.

2. ODU control and detail query

The List View and Icon View for ODUs enable you to control the ODUs and view their parameters.

ODU Control

In List View, directly tap "Control", or in Icon View, tap the icon and then tap "Control" to access the ODU control screen, as shown in the figure below.



Control Parameter	Parameter Range
Mode Priority Setting	Auto priority(T4_set) Cooling priority VIP priority Heating only Cooling only Heating priority ChangeOver Voting priority mode First on priority mode Capability requirement priority mode

	Voting priority First enabled priority Demand priority
Silent Setting	Not silent mode, Silent mode 1 to Silent mode 14
Power Limitation Setting	Range: V6: 40% to 100% (in 10% increments)V8: 1% to 100% (in 1% increments)

Associated IDU and detailed parameters of ODU

In List View, directly tap "Details", or in Icon View, tap the icon and then tap "Details" to view the associated IDUs and the detailed parameters of the ODU, as shown in the figure below.

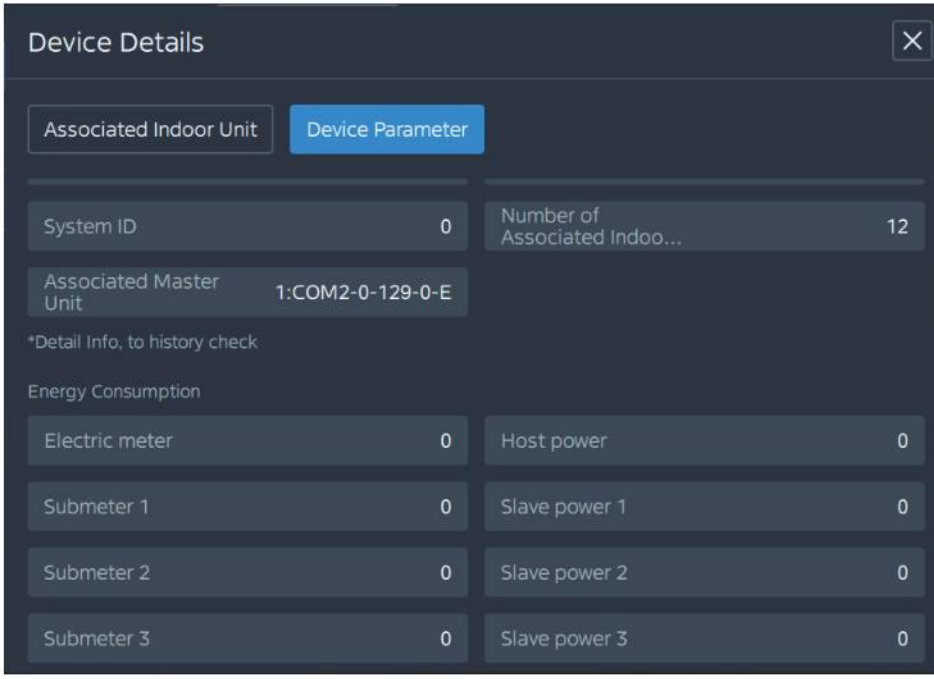


Note 1: A maximum of two schedules can be displayed per day on the calendar. If more than two schedules are set for a single day, the total number of schedules for that day will be shown in the upper right corner of the screen.

Note 2: To delete a schedule, you need to operate in the schedule list.

You can scroll up and down to view schedules for other months. Tap "Today" to display the calendar schedules for the current month. Tap the schedule list to view all current schedules, as shown in the figure below.

Tap "Device Parameter" to view device details, as shown in the figure below.



Note: The actual parameters are subject to the centralized controller's display. The figures shown above are for illustration purposes only.

The ODU parameters are listed in the table below.

Parameter	Description
Device Name	ODU name
SN	ODU SN
System ID	ODU address 0 to 7
Number of Associated Indoor Units	Number of IDUs associated with the system
Associated Master Unit	Master unit in the system
Electric Meter (Meter/Submeter 1/Submeter 2/Submeter 3)	Electricity meter readings for master and slave units

Power (Host power/Slave power 1/Slave power 2/Slave power 3)	Real-time power for master and slave units

8. Schedule

8.1 Main Calendar

To access the schedule screen, tap "Schedule" in the top navigation bar on the home page. Alternatively, you can tap "Schedule Setting" in the settings panel to access the schedule screen. The schedule calendar view facilitates schedule management, as shown in the figure below.

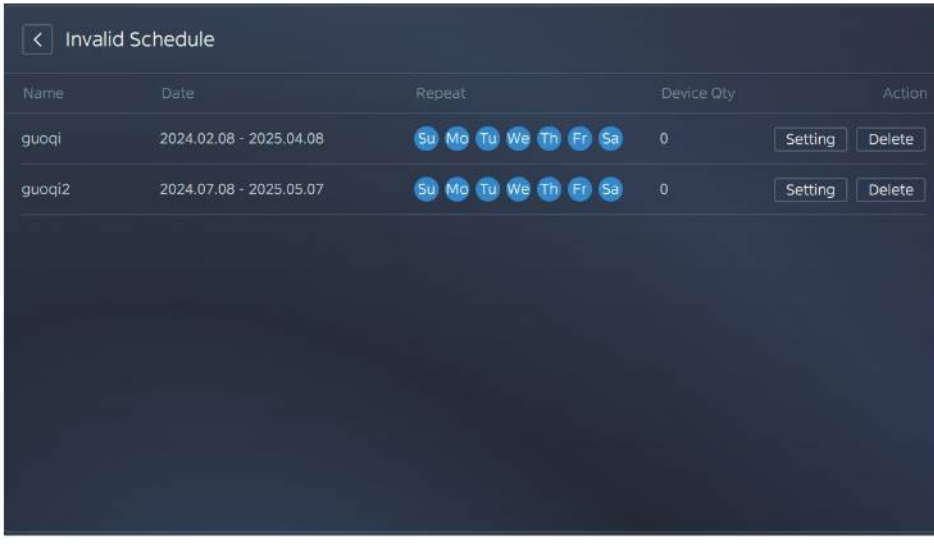


Note 1: A maximum of two schedules can be displayed per day on the calendar. If more than two schedules are set for a single day, the total number of schedules for that day will be shown in the upper right corner of the screen.
Note 2: To delete a schedule, you need to operate in the schedule list.
You can scroll up and down to view schedules for other months. Tap "Today" to display the calendar schedules for the current month.
Tap the schedule list to view all current schedules, as shown in the figure below.



The schedule list displays all current schedule information, including the schedule status (valid/invalid), schedule name, schedule cycle, days of the week on which the schedule repeats, number of devices, and schedule operations (Setting and Delete). Tap "Setting" to navigate to the schedule setting screen, where you can modify schedule parameters. Tap "Delete" to remove the schedule.

Tapping "Invalid Schedule" will open the invalid schedules list, where you can view the invalid schedules, as shown in the figure below. Additionally, you can perform operations (Setting and Delete) on the invalid schedules.



8.2 Creating a Schedule

You can create schedules in two ways: the first is by tapping "Create Schedule", and the second is by selecting a date and creating a schedule based on that date.

The first method involves tapping + Schedule to open a pop-up window for schedule creation, where the default start date is set to the current day.

The second method involves directly tapping a date to display a list of scheduled events for that day. Then, tap "+ Schedule". The schedule start time corresponds to the date selected on the calendar.

The procedure for creating a schedule is as follows:



* Up to 256 schedules can be created.

* Each schedule may include up to 24 events.

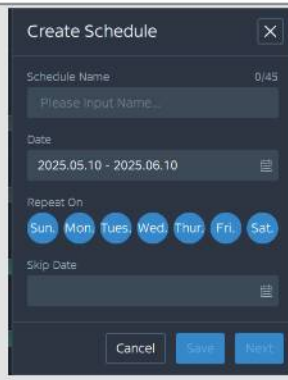
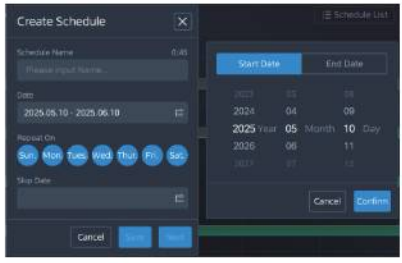
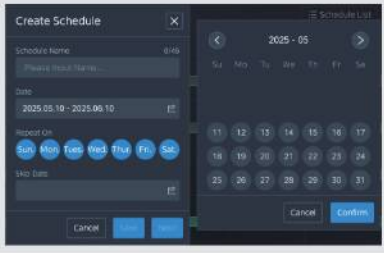
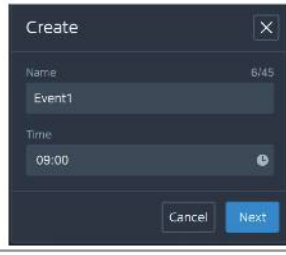
* Up to 10 schedules can be created for one day.

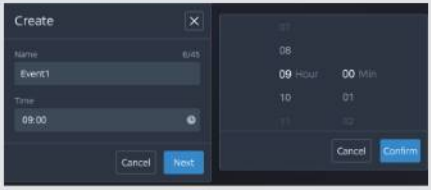
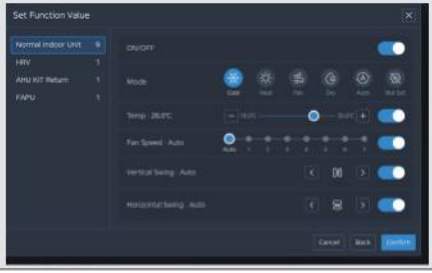
* A schedule cannot have two events at the same time.

* The schedule name must be unique, and events in the same schedule cannot have the same name.

8.3 Creating and Editing a Schedule or an Event

Below is the procedure for creating a schedule and an event.

	Set the schedule name Set the schedule execution cycle Set the days of the week on which the schedule repeats Set the days on which the schedule is not executed
	Select the start and end dates
	Select the days on which the schedule is not executed
	Create an event – Enter the event name

	Create the event time
	Select associated devices (three available views: List, Icon, and 2D). Select a device or group in the Icon View
	Select a device in the 2D View
	Select a device in the List View
	Set control commands. The selected IDUs will be automatically categorized by unit type, and separate command configurations are required for each category. The parameters vary across different device types. For details, refer to the IDU control parameters in the IDU control section.

	After creating an event, you can tap "Create Event" to create another event.
	1. Tap the event name to edit, copy, or delete the event. 2. Tap an IDU to edit it. 3. Tap a schedule command to modify it. 4. Tap to edit the schedule name and cycle. 5. Tap "Clear" to remove all events.

9. Energy

9.1 Estimated Total Power Consumption

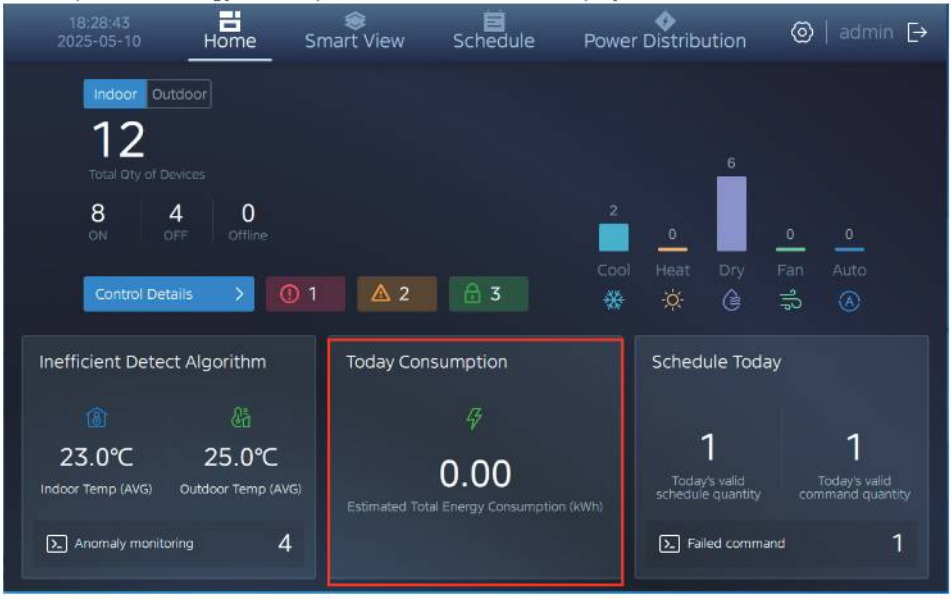
The "Today Consumption" card on the home page displays the total electricity consumption of the current device for the day, measured in kilowatt-hours (kWh). Actual energy consumption data is available only when electricity meters are installed. Without meters, only estimated values are provided for reference purposes.

Note: If electricity meters are not available, the system can only estimate the energy consumption of V8 models; energy usage data for V6 models will not be available.

1. When an electricity meter is installed, the system reads the actual meter data.

2. When no electricity meter is installed, the system provides estimated power consumption for V8 units only, which is for reference purposes.

3. When no electricity meter is installed and all connected units are V6 models, today's power consumption and energy consumption statistics will not be displayed.



9.2 Power Consumption Trend

Tap the "Today Consumption" card to navigate to the detailed power consumption statistics screen, where power consumption trends can be viewed across hourly, daily, weekly, or monthly time dimensions. The horizontal axis represents time, while the vertical axis indicates energy consumption (unit: kWh) or running time (unit: hour). The scale of the vertical axis can be adjusted based on specific values.

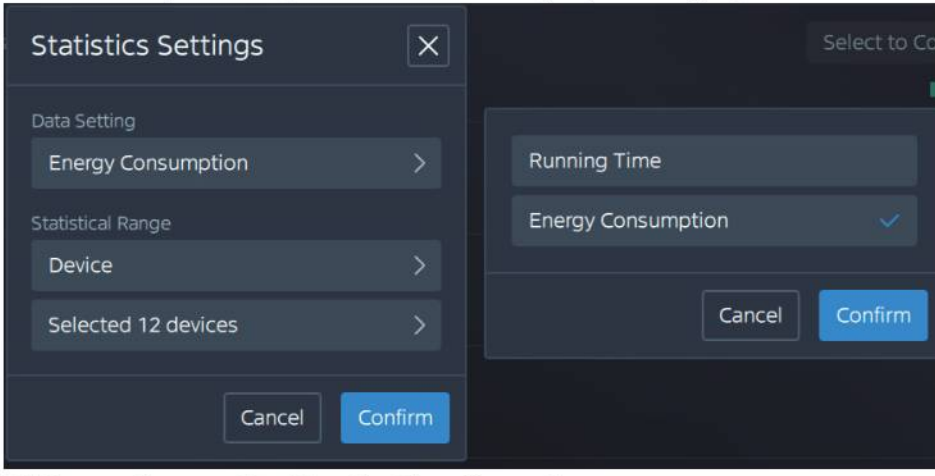


9.3 Statistics Settings

1. Data Setting: Enables you to select the energy consumption and running time.

2. Statistical Date: Enables you to specify the start and end dates.

3. Statistical Range: Enables you to set the statistical range by device or group.



9.4 Energy Consumption/Running Time Comparison

Tap "Select to Compare" to open the device or group selection screen, allowing you to choose up to 5 devices or groups. After making your selections, tap "Confirm" to display the comparison curves on the screen, as shown in the figure below.

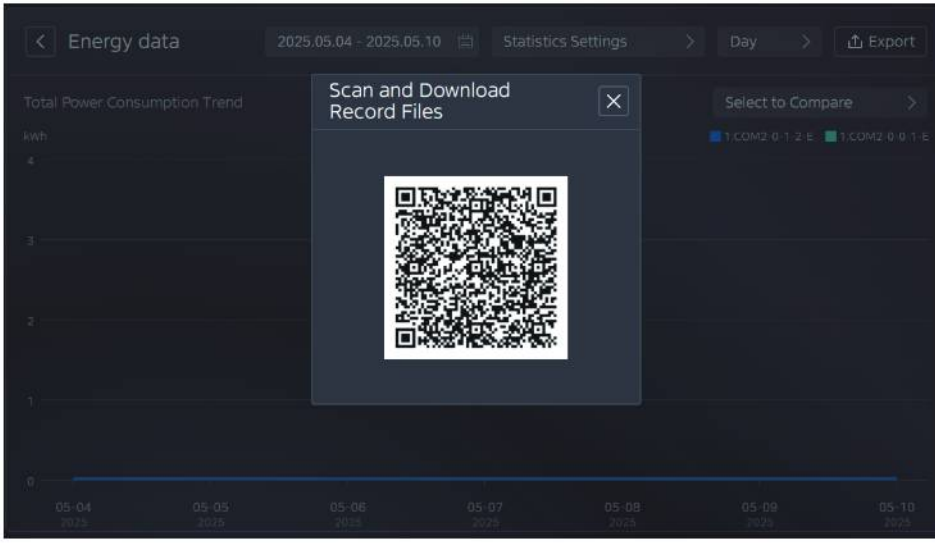


Note: Devices selected for comparison must be chosen from those specified in the Statistics Settings module.

9.5 Export

Tap "Export" in the upper right corner to export a CSV file based on the specified criteria. You can obtain the exported file by scanning the displayed QR code.

Note: Your mobile device and the centralized controller must be connected to the same LAN to scan the QR code and download the exported file. Otherwise, the file cannot be downloaded or exported.



10. Device Tracking

The Device Tracking module is used to track all devices connected to the centralized controller.

10.1 Device Tracking Functions

Searching for devices is necessary in the following cases:

1. First use of IMM-Elite.

2. A new device is added to IMM-Elite.

3. The device address is changed.

4. The topology of the refrigerant system is changed.

You can find two types of devices (IDUs and ODUs). Ensure the following before searching for devices:

1. The address of each system and that of any IDU cannot be duplicated.

2. The maximum number of IDUs that can be connected to each IMM-Elite is 384.

3. Each port supports up to 8 refrigerant systems, 32 ODUs, and 64 IDUs.

Tap in the upper right corner to open the settings panel, and then tap "Device Tracking" to access the Device Tracking screen.



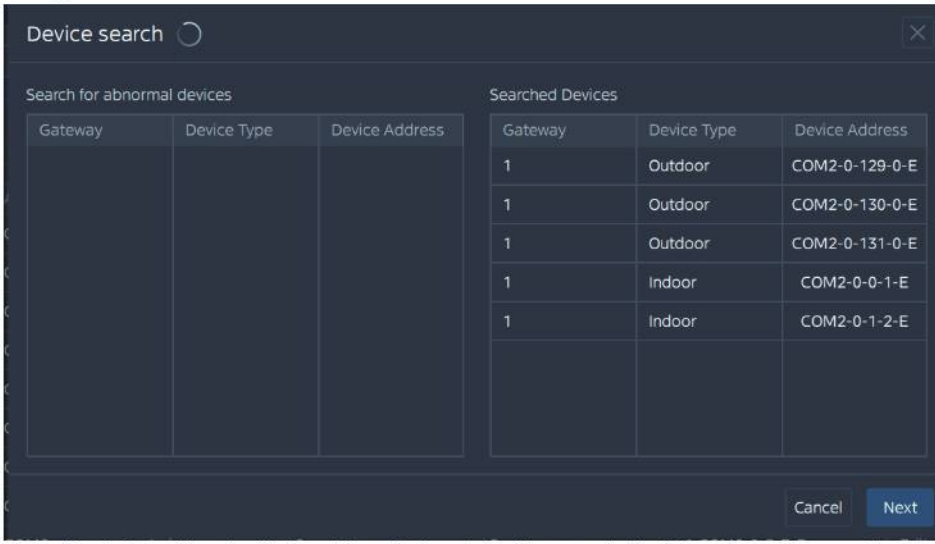
On the Device Tracking screen, you can see the number of IDUs and ODUs found by IMM-Elite in the last search. The device table will record the details of each device, as shown in the figure below.



All Ports	All Devices	All Refrigerant Syst...	All Device Addresses	Name	Oper...
COM2	Indoor	0	0	1:COM2-0-0-1-E	Edit
COM2	Indoor	0	1	1:COM2-0-1-2-E	Edit
COM2	Indoor	0	2	1:COM2-0-2-3-E	Edit
COM2	Indoor	0	21	1:COM2-0-21-8-E	Edit
COM2	Indoor	0	22	1:COM2-0-22-10-E	Edit
COM2	Indoor	0	23	1:COM2-0-23-9-E	Edit
COM2	Indoor	0	3	1:COM2-0-3-4-E	Edit
COM2	Indoor	0	4	1:COM2-0-4-6-E	Edit
COM2	Indoor	0	5	1:COM2-0-5-7-E	Edit

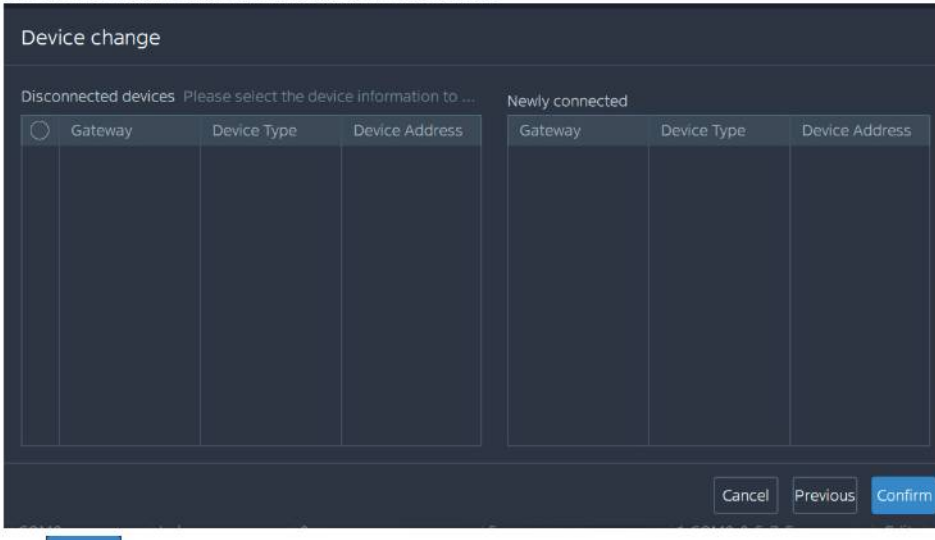
Note: No data is displayed in this table during the initial search.

Tap Tracking All in the upper right corner of the screen to start device searching, as shown in the figure below.



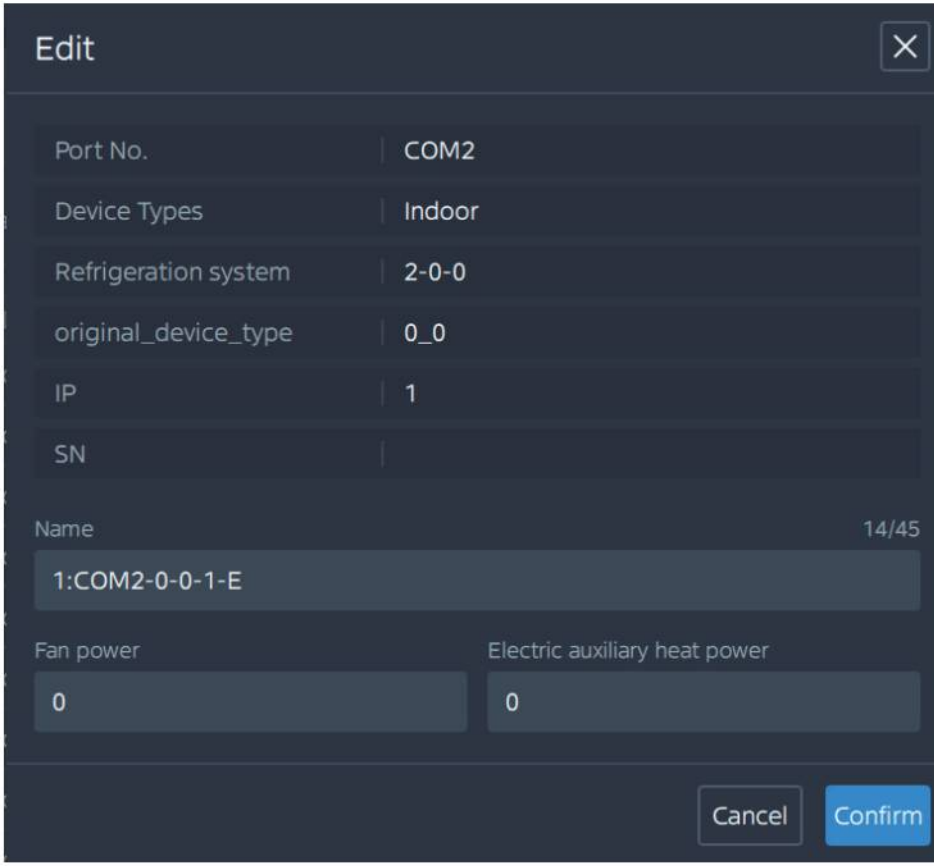
Note: If a device with a duplicate address is found, it will appear in the "Search for abnormal devices" section. You can reset the device address by following the prompts.

After the search is completed, the search result prompt screen will show unconnected devices and newly discovered devices. Unconnected devices are those saved from the last search and not found in this search (devices not connected to IMM-Elite). You can choose whether to retain the historical device information that was not found in this search.



Tap Confirm to save the search results. The device search is completed.

Tap Edit following the device to edit its name, fan power, and auxiliary heater power, as shown in the figure below.



You can filter devices by port, device type, refrigerant system number, or device address. Simply tap the arrow in the table header to apply the filter, making device commissioning more convenient.

Exporting a topology file

Tap Export the upper right corner to display the QR code, as shown in the figure below.

Scan the QR code with your mobile phone to export the topology file (in CSV format), which can be modified and imported as needed.



Note: Your mobile device and the centralized controller must be connected to the same LAN to scan the QR code and download the exported file. Otherwise, the file cannot be downloaded or exported.

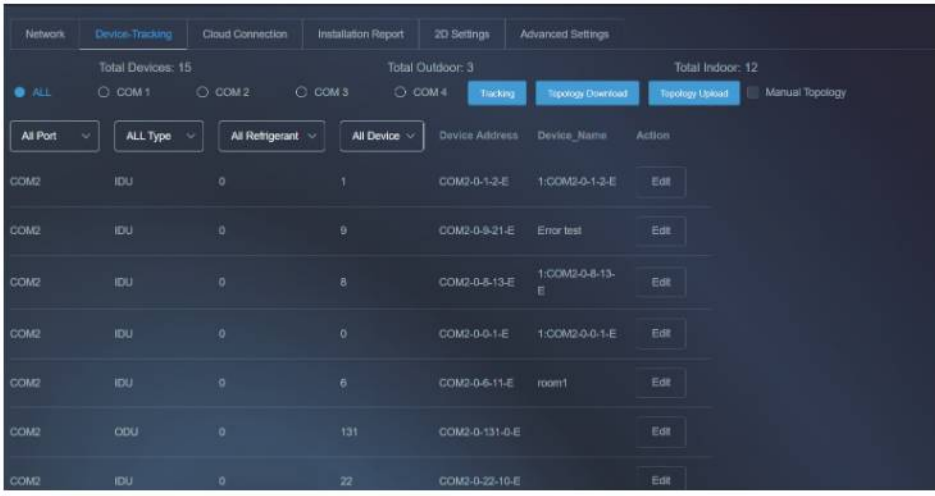
10.2 Device Import

When a large number of connected devices are available, you can utilize the built-in webpage function of the centralized controller to quickly modify device information in batches, including device names and device groups. The procedure for modifying device information in batches is as follows:

1. Ensure that your computer is connected to the same network as the centralized controller. Open a browser and enter the IP address assigned by the centralized controller (which is available on the Network Setting screen) (e.g., 192.168.100.185) to open the website.

2. On the website login screen, enter the username (admin) and password (123AB@ab) to log in to the centralized controller.

3. After logging in, switch to the "Device Tracking" interface. Tap "Topology Download" in the upper right upper right corner to download the device topology template in CSV format.



4. Open the downloaded device topology template using Office or similar software. Fill in the device name and device group according to the template requirements, and then save the information. (Tables can be exported independently or obtained with technical support.)

SN of outdoor unit	SN of indoor unit	Indoor unit number	Network address	Indoor unit address	Equipment name (room name)	Room area	Level 1	Level 2	Level 3	Level 4	Level 5	Fan power	Heat power	Tenant group
		1:COM2-0-0-1-E	0#	0	1:COM2-0-0-1-E							0	0	
		1:COM2-0-1-2-E	0#	1	1:COM2-0-1-2-E							0	0	
		1:COM2-0-2-3-E	0#	2	1:COM2-0-2-3-E							0	0	
		1:COM2-0-3-4-E	0#	3	1:COM2-0-3-4-E							0	0	
		1:COM2-0-4-6-E	0#	4	1:COM2-0-4-6-E							0	0	
		1:COM2-0-5-7-E	0#	5	1:COM2-0-5-7-E							0	0	
		1:COM2-0-6-11-E	0#	6	room1		Gg					0	0	
		1:COM2-0-8-13-E	0#	8	1:COM2-0-8-13-E		Gg					0	0	
		1:COM2-0-9-21-E	0#	9	Error test		Gg					0	0	
		1:COM2-0-21-8-E	0#	21	1:COM2-0-21-8-E							0	0	
		1:COM2-0-22-10-E	0#	22	1:COM2-0-22-10-E							0	0	
		1:COM2-0-23-9-E	0#	23	1:COM2-0-23-9-E							0	0	

Return to the webpage and tap "Topology Upload" to upload the edited topology file to complete the modification of device information. A prompt box will appear on the webpage, displaying the upload results, including the number of successful device, the number of failed devices, along with the failed devices' numbers.



If there are any failed devices, check the following:

1. Ensure that there are no duplicate device names.

2. Verify that there are no device names that exceed the length limit.

3. Confirm that the group name does not exceed the length limit.

After completing the above checks, try uploading the devices again.

11. Group Setting

The "Group Setting" feature allows you to create, edit, and delete IDU groups, facilitating group control after device grouping. You can group devices based on their spatial distribution or floor layout, allowing for efficient management and control of IDUs in groups.

The rules for creating a group are shown below:

1. Each group supports up to 5 levels (e.g., All - Level 1 - Level 2 - Level 3 - Level 4 - Level 5 - Devices).

2. The same IDU cannot be included in two groups or levels at the same time.

3. Group names at the same level cannot be duplicated.

Tap in the upper right corner to open the settings panel, and then tap "Group Setting" to access the Group Setting screen.

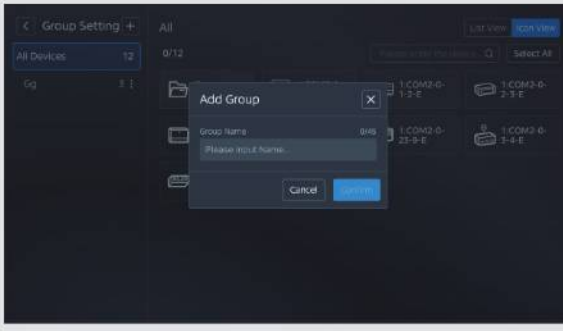


The Group Setting screen offers two view options: List View and Icon View, as shown below. The operations are identical in both views; Icon View will be used here for illustration.



The procedure for creating an IDU group is as follows:

Create a group → Select an IDU → Press and hold the selected IDU and drag it to the group



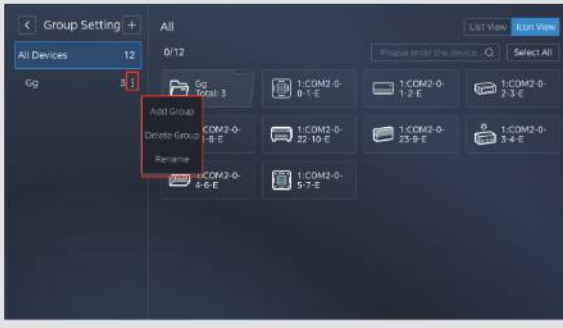
Starting group creation

Tap "+" following "Group Setting" to open the "Add Group" dialog box, and enter the group name.



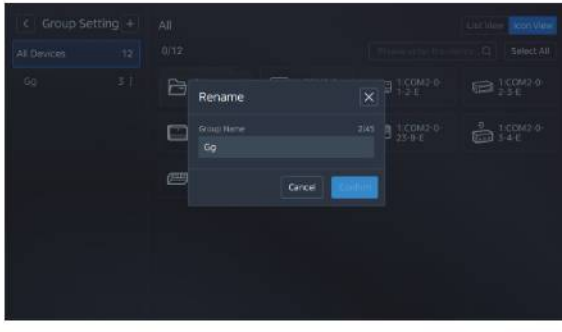
Adding a device

Select the device, press and hold it, and then drag it to the designated group on the side to add the device to the group.



Editing a group

Tap the vertical three dots next to the group name to open a pop-up menu with the options: "Add Group", "Delete Group", and "Rename". From here, you can create a subgroup, delete the group, or rename it.



Rename

After selecting the "Rename" option from the group edition menu, a dialog box will appear prompting you to enter a new name.



Selecting all and searching for a device

1. Select All: Choose all devices.

2. You can search for a device using the search box.

12. 2D Setting

Tap  in the upper right corner to open the settings panel. Then, tap "2D Setting" in the panel to access the 2D Setting screen.



The 2D Setting module displays devices in a 2D floor plan layout view. After uploading the floor plan and configuring the view IDU positions in the 2D Setting module, you can intuitively check the relative locations of the IDUs in the 2D view.

Note: The image can be moved vertically and horizontally, but zooming in or out is not supported. Please refer to the thumbnail above for guidance on movement.

The procedure for creating a 2D floor and distributing IDUs is as follows:

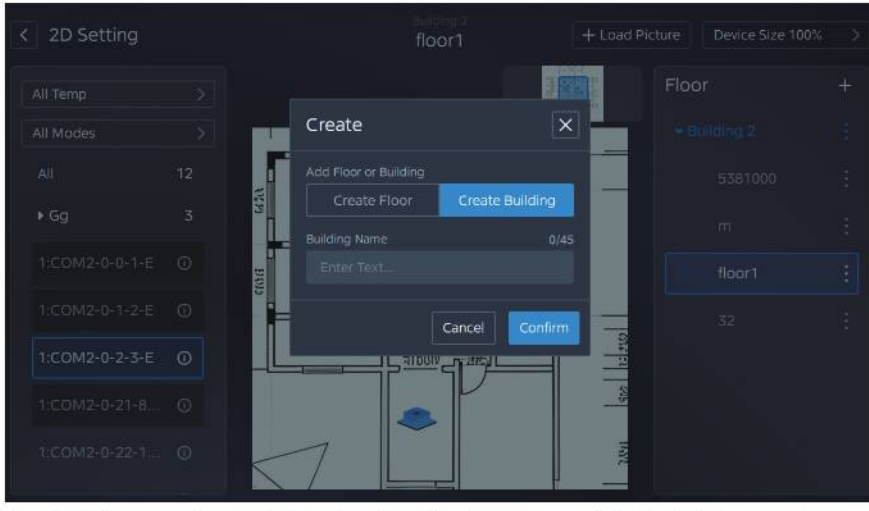
Create a building → Create a floor → Select an IDU → Drag the IDU to the floor → Check the view

Note: If IDUs are not configured in the 2D view, there will be no IDUs displayed in the 2D view.



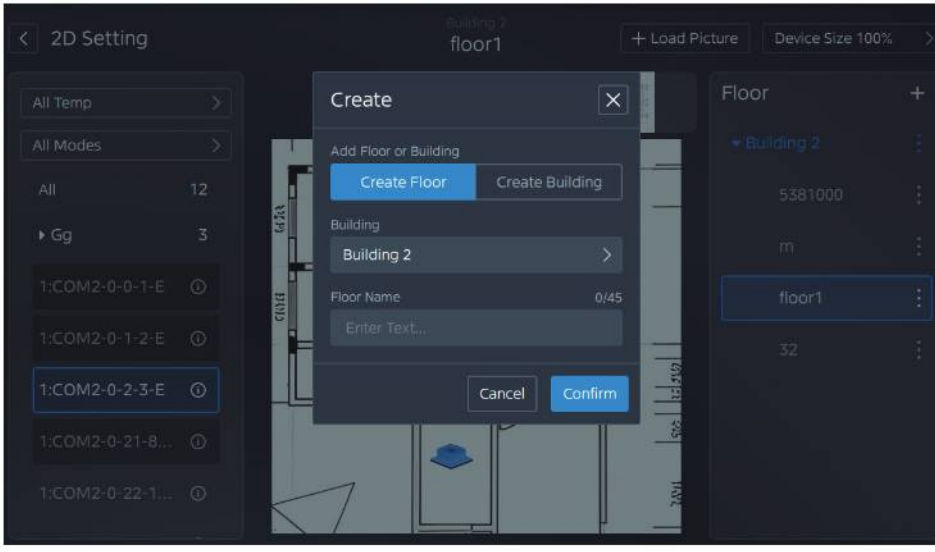
12.1 Creating a Building or Floor

Tap "+" in the building menu on the right to open the "Add Floor or Building" dialog box. Switch to "Create Building" by tapping the icon in the upper part of the dialog box.

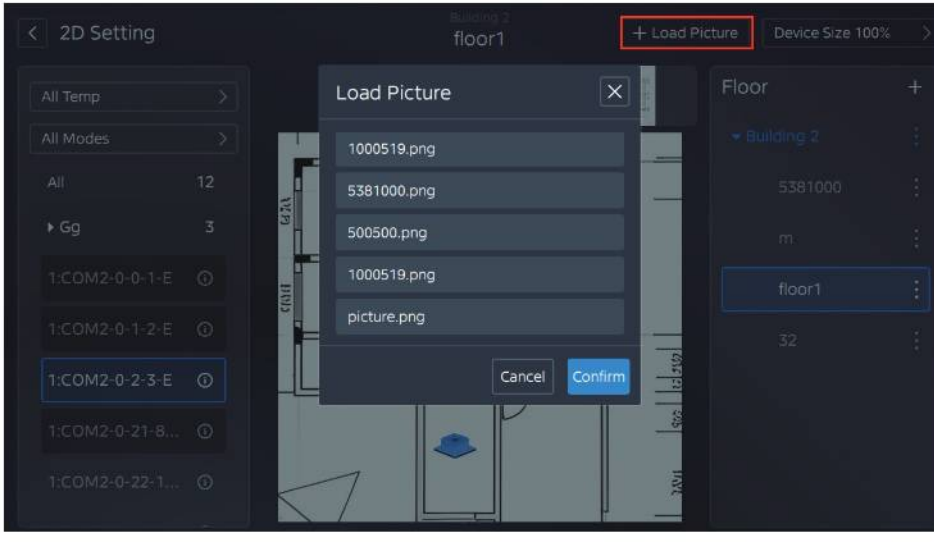


Enter a building name (up to 45 bytes) and tap "Confirm" to complete the building creation process.

After selecting a building, tap "+" to open the "Create Floor" dialog box. Select the building to which the floor belongs, and enter a floor name (up to 45 bytes) in the Floor Name box. Tap "Confirm" to complete the floor creation process, as shown in the figure below.



Load Picture: After selecting the floor, tap "+Load Picture" to open the Load Picture menu. Select the desired picture and tap "Confirm".



Upload Picture

1. Pictures must be uploaded to the centralized controller via the local web in advance and properly named. The screen terminal can display the file name of the uploaded picture.

2. The recommended picture size is 1024*1024 pixels in PNG format.

3. Ensure that your computer is connected to the same network as the centralized controller. Open a browser and enter the IP address assigned by the centralized controller (which is available on the Network Setting screen) (e.g., 192.168.100.185) to open the website.

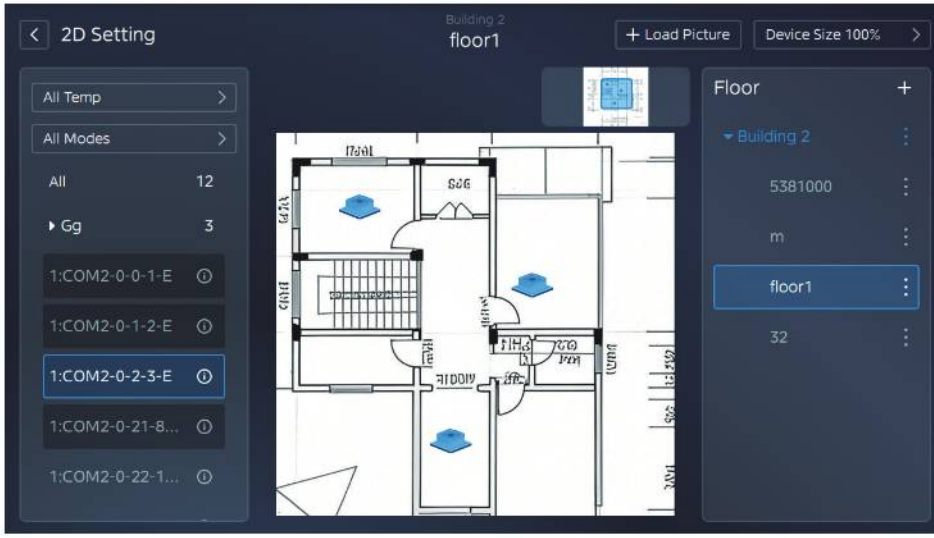
4. On the website login screen, enter the username (admin) and password (123AB@ab) to log in to the centralized controller.

5. After selecting "2D Setting", tap "Upload Picture" to upload the desired picture.



12.2 Configuring IDUs

On the 2D Setting screen, select the floor in the floor section on the right, select a device in the IDU selection section on the left, and then drag the IDU to the floor plan to complete the floor plan configuration of the IDU.

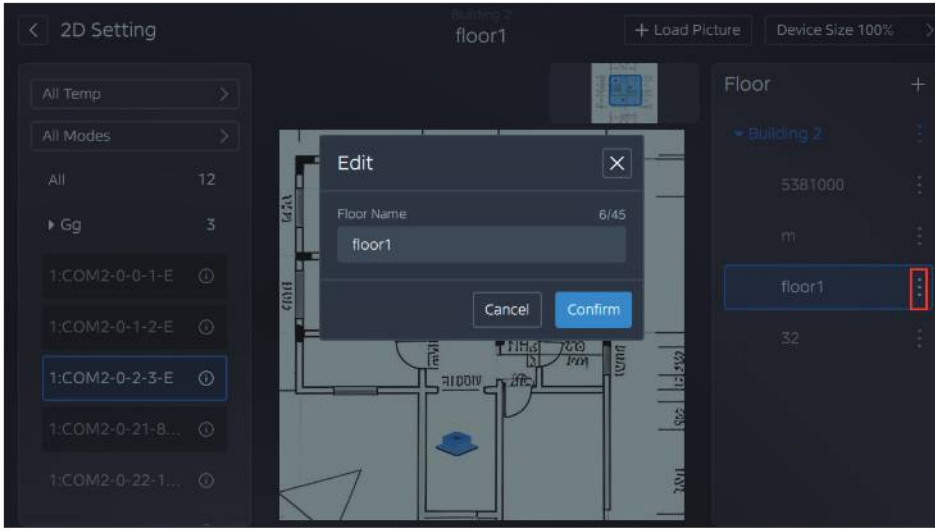


In the filter box of the left panel, you can set the temperature and running mode to filter IDUs. In the drop-down list box 

in the upper right corner of the settings page, you can adjust the size of device icons.

By tapping floor names in the building section on the right, you can switch floors to configure the floor plans of IDU distribution on each floor. The current status of the air conditioning device is indicated by its color.

12.3 Renaming and Deleting a Floor



Tap ⋮ next to a floor/building name to open a pop-up window. Select "Rename" in the window to modify the floor/building information (up to 45 bytes).

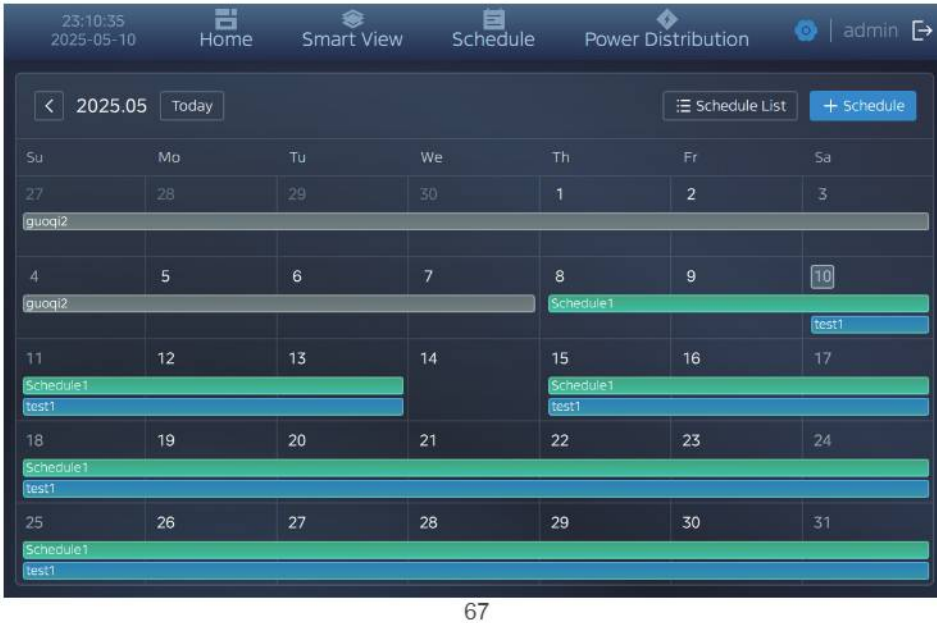
If you choose to delete a building, all floor information below the building will be deleted. Please use this feature with caution.

13. Schedule Setting

Tap "Schedule Setting" in the settings list or navigate to the schedule screen via the navigation bar.



For schedule-related settings, please refer to "8. Schedule".



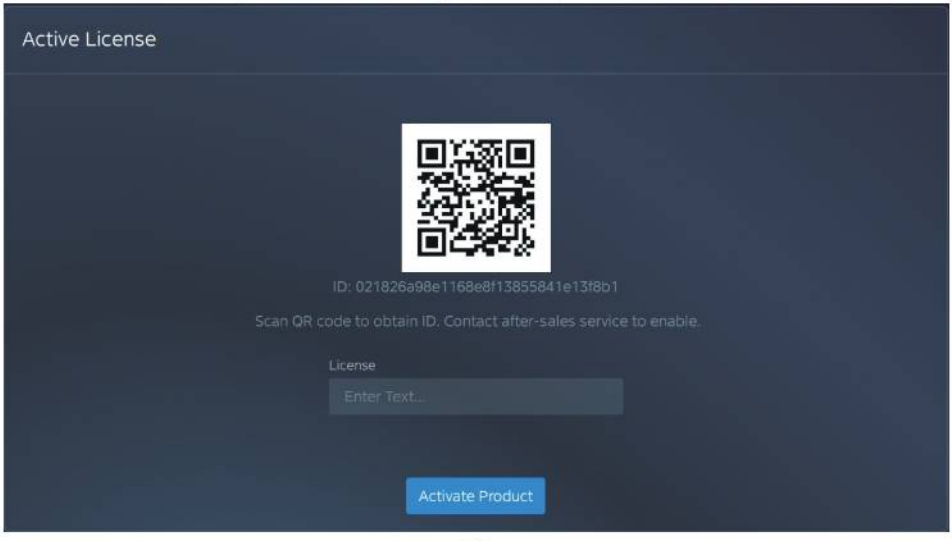
14. Power Distribution

The power distribution function involves collecting energy consumption statistics and electricity usage data, and calculating electricity costs based on predefined charging rules.

Tap  in the upper right corner to open the settings panel, and then tap "Power Distribution" to access the Power Distribution screen. Alternatively, tap "Power Distribution" in the navigation bar.



Note: This function is only available after being activated by the user.



The power distribution function is not activated, as shown in the figure above. After you purchase an activation code, the power distribution function can be enabled.

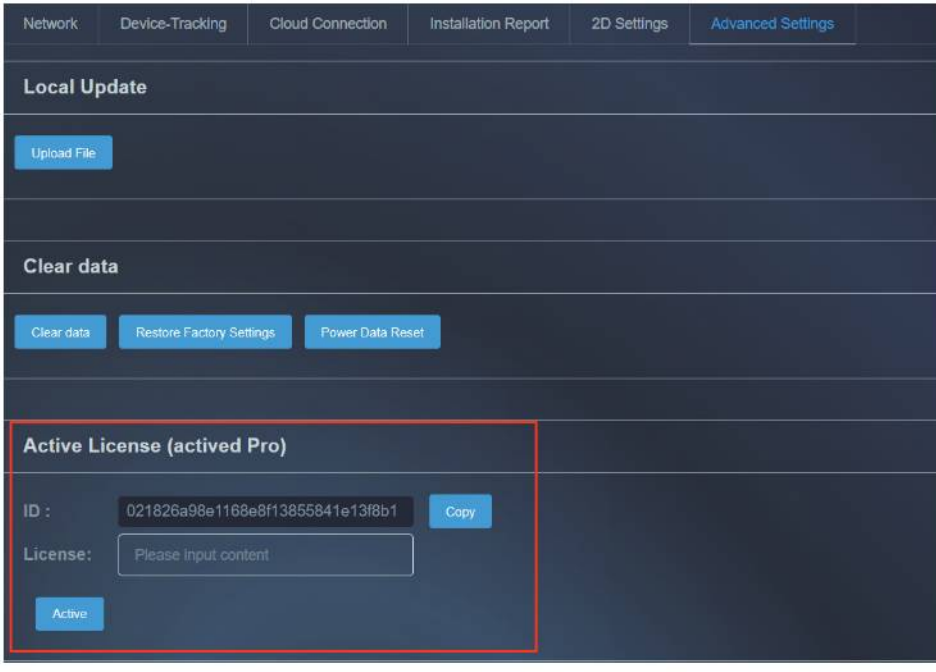
Activation method: Provide your ID to the after-sales service, enter the activation code provided by them, and tap "Activate Product" to enable the power distribution function.

You can also activate it through the web version. The web-based activation procedure is as follows:

1. Ensure that your computer is connected to the same network as the centralized controller. Open a browser and enter the IP address assigned by the centralized controller (which is available on the Network Setting screen) (e.g., 192.168.100.185) to open the website.

2. On the website login screen, enter the username (admin) and password (123AB@ab) to log in to the centralized controller.

3. Tap "Advanced Settings" > "Active License", copy the ID and provide it to the after-sales service. Enter the activation code provided by the after-sales service and tap "Active" to enable the power distribution function.

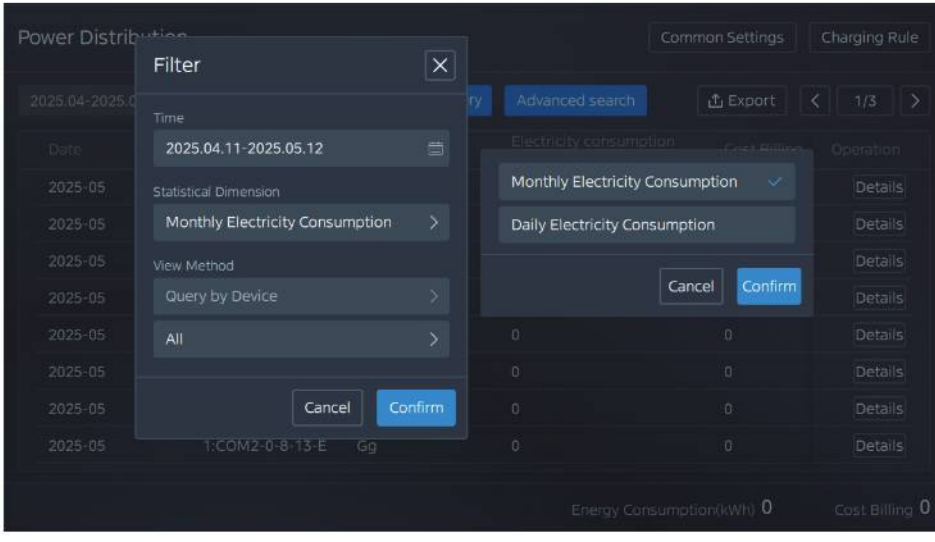


After activation, the power distribution screen is as follows: (Database information synchronization may take one to two minutes.)



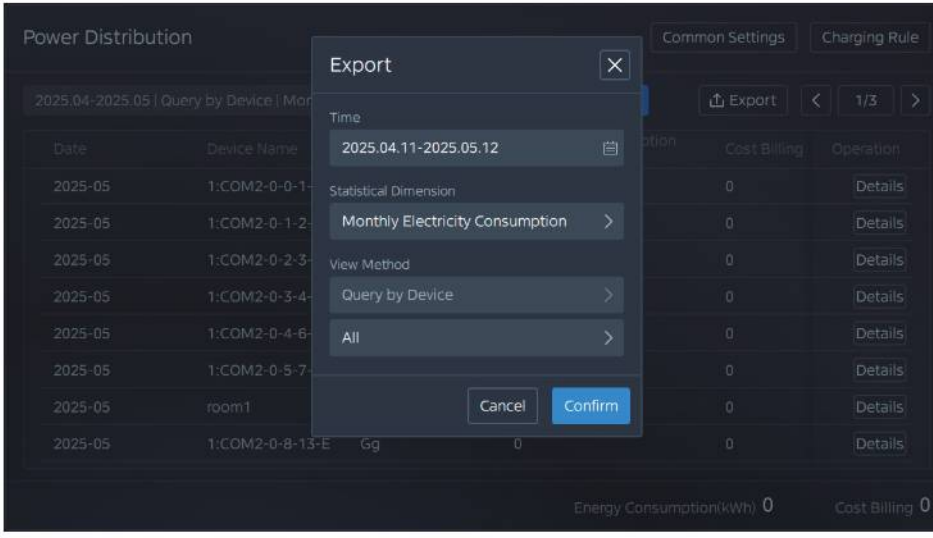
Advanced search

Tap "Advanced search" to filter power consumption data by time, monthly/daily power consumption, or device.



Exporting reports

Tap "Export" to export power consumption reports by time period, monthly/daily power consumption, and device. After tapping "Confirm", a QR code will be displayed. Scan the code to download the electricity consumption reports in CSV format. Your mobile phone must be connected to the same LAN as the centralized controller.



Note: If your mobile phone and the centralized controller are not connected to the same LAN, scanning the QR code may result in error messages such as "Unable to open webpage" or "Network error".

14.1 Charging Rule Settings

1. Basic Settings



Item	Description	Remarks
Charging Rule	Static Billing: The unit price remains constant, regardless of the time period. Dynamic Billing: Different unit prices can be set for different time periods, which must be defined in whole hours.	
Effect Date	Enables you to specify the effective date of the new rules.	Generated electricity consumption records will not change with the new rules.
Update All Billing Records	Apply the existing billing specifications to activate all current electricity charges.	

2. Advanced Settings

Tap "Advanced Settings" to display the power distribution rules for standby mode.



Tap "Advanced Settings" to configure power distribution methods in standby and offline modes.

Distribution Rules in Standby Mode	
Distribution Type	Description
Allocation of Refrigerant Systems	IDUs in a refrigerant system equally share the standby electricity consumption of ODUs in the refrigerant system (default)
Allocation of All Indoor Units	All IDUs equally share the standby electricity consumption of ODUs

Distribution Rules in Offline Mode	
Distribution Type	Description

Allocation of Refrigerant Systems	IDUs in a refrigerant system equally share the offline electricity consumption of all ODUs in the refrigerant system (default)
	Distribution based on the power distribution method used during the same period last year or the previous month
Allocation of All Indoor Units	All IDUs equally share the offline electricity consumption of all ODUs

3. Common Settings

The Common Settings section categorizes devices into Common, Idle, and Enabled groups. Tap "Common Settings" to access the screen shown in the figure below.

The default devices are Enabled. You can switch them to Common or Idle.

Enabled: "Enabled" devices will equally share the electricity consumption of all Common devices. Tap "Enabled" to set the devices to Enabled ones. (Marked in green)

Common: The electricity consumption of "Common" devices will be equally distributed among all "Enabled" devices. Tap "Common" to set the device to Common. (Marked in yellow)

Idle: "Idle" devices do not share the power consumption of Common devices. Tap "Idle" to set the devices to Idle ones. (Marked in grey)

Notes: 1) If the power distribution rules in standby mode are set to "Allocation of All Indoor Units", idle IDUs will be excluded from the distribution. However, if the rules are set to "Allocation of Refrigerant Systems", idle IDUs will be included in the distribution. Idle devices still generate operational power consumption.

2) To set common devices, you must enable the "Electricity in Public Areas" option in the Advanced Settings panel.

1. You can search for or locate a specific IDU by its name.

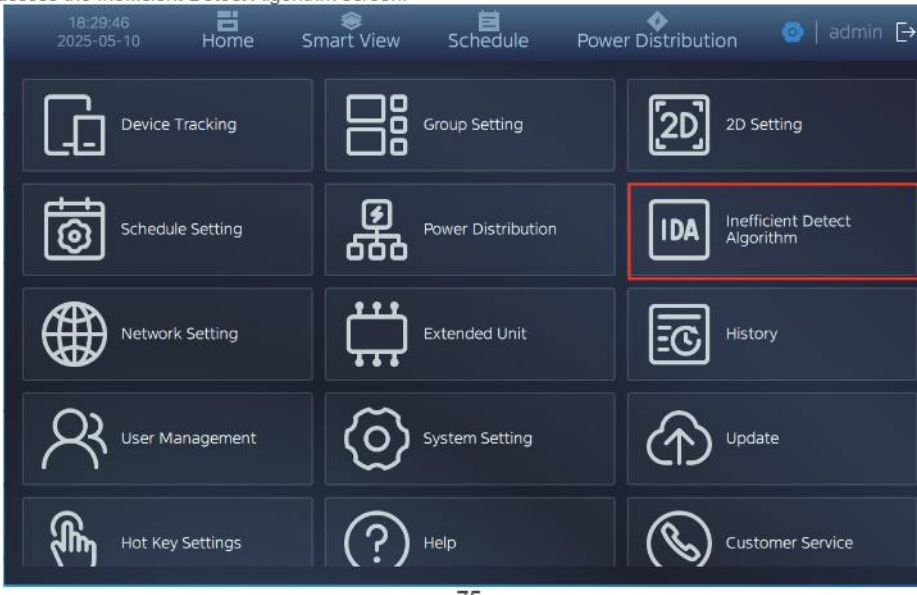
2. Tap "Filter" to select devices by status: "Enabled", "Common", "Idle", or "Select All".



15. Inefficient Detect Algorithm

An Inefficient Detect Algorithm (IDA) detects the running status of devices by using the algorithm preset on the client. If a device runs inefficiently according to certain conditions, the system records and triggers the abnormal status of the device so that you can manage the device according to the prompt and reduce energy consumption.

Tap in the upper right corner to open the settings panel, and then tap "Inefficient Detect Algorithm" to access the Inefficient Detect Algorithm screen.



There are four modules in the IDA screen, detailed as follows:

Module	Description
Qty Statistics	Number of devices that meet inefficient running conditions
Qty Trend	Statistics on the number of devices that meet inefficient running conditions in the last week
Check Record	Records of IDA detections
Rank	Ranking of IDAs

The Inefficient Detect Algorithm screen is shown below.



15.1 Setting Check Rules

Tap Setting to open the IDA settings page, on which you can edit and manage IDA warning conditions. The following table lists the system's default IDA items and their ranges:

No.	IDA Item	Default Rules	Description	Range
1	Abnormal environment	Cooling: After the unit cools for 30 minutes, if the room temperature fails to drop by more than 4°C, an alarm is triggered. Heating: After the unit heats for 50 minutes, if the room temperature fails to rise by more than 4°C, an alarm is triggered.	There are heat sources indoors or the space is not sealed, resulting in no significant changes in the indoor temperature.	Temperature options: 1 to 10 Duration options: 15, 30, 45, 50, 60, 90, 110
2	Sudden change in room temperature	Cooling: After the unit cools for 30 minutes, if the room temperature change within 60 minutes is more than 5°C, an alarm is triggered. Heating: After the unit heats for 50 minutes, if the room temperature change within 60 minutes is more than 8°C, an alarm is triggered.	After the room temperature becomes stable, it suddenly changes.	Temperature options (Celsius): 1 to 10 Duration options: 15, 30, 45, 50, 60, 90, 110

3	High load running	Cooling: After the unit cools for 90 minutes, if the difference between the room temperature and the set temperature is higher than 4°C, an alarm is triggered. Heating: After the unit heats for 110 minutes, if the difference between the room temperature and the set temperature is higher than 6°C, an alarm is triggered.	IDUs are operating inefficiently, preventing the indoor temperature from reaching the set temperature.	Temperature options: 1 to 10 Duration options: 15, 30, 45, 50, 60, 90, 110
4	Abnormal set temperature	Cooling: An alarm occurs when the set temperature is lower than 20°C. Heating: An alarm occurs when the set temperature is higher than 28°C.	The set temperature for IDUs in cool mode is too low, or the set temperature in heat mode is too high.	Temperature options: 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
5	Frequent start	IDUs have been started three or more times within 60 minutes by 24:00.	IDUs frequently start and stop within a time period.	Count options: 1 to 10 Duration options: 15, 30, 45, 50, 60, 90, 110
6	Extended operation	By 24:00, IDUs have operated for more than 18 hours in cooling or heating mode.	The IDU runtime is too long	Duration options: 12, 18
7	Abnormal running time	Cooling: IDUs are running from 20:00 to 08:00 every day. Heating: IDUs are running from 19:00 to 09:00 every day.	IDUs are running at unset times.	Time options: 00:00 to 23:00. The time span should not exceed 16 hours.

Note: The default temperature unit is Celsius. If you change the temperature unit, the system will automatically convert the option values.

Tap to enable the corresponding detection. It is disabled by default.



Tap "Edit" to enter the editing screen. Set specific conditions to trigger warnings, with configurable ranges based on the table above. Tap "Detected Device" to add the device you want to apply the current warning settings to.

15.2 Check Record

Tap "Check Record" to access the Check Record page, where you can view devices that have recently run inefficiently. The page displays the time, type, device name, group, description, and operation of inefficient events.

Use the drop-down list box in the title bar to select an IDA type.

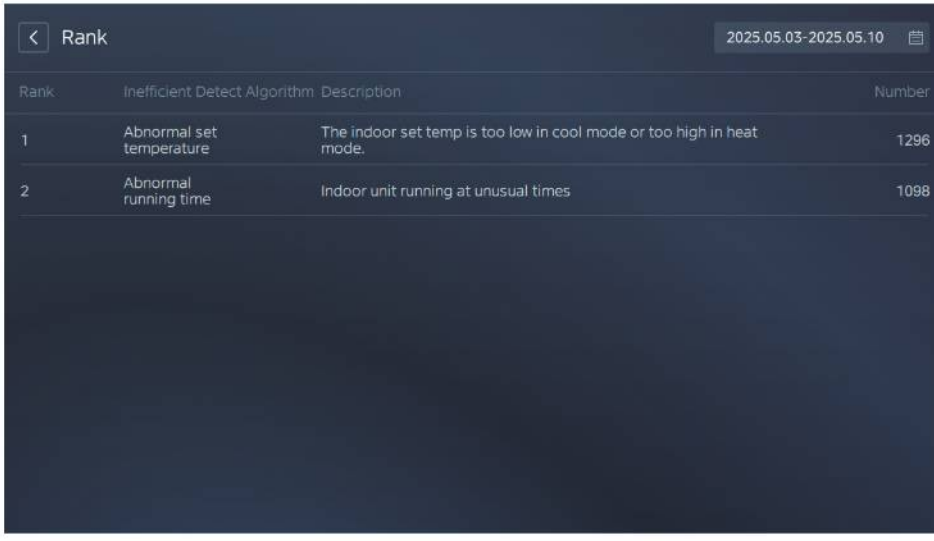
Tap to view detailed information about the inefficient device.

Tap "Export" to export the files (Your mobile phone must be connected to the same LAN as the centralized controller.)



15.3 Rank

Tap > behind the rank module to access the rank details page. The page displays the rank number, anomaly type, description, and quantity.



16. Network Setting

By default, IMM-Elite operates with a dynamic IP. You can modify its network configuration via the Network Setting screen.

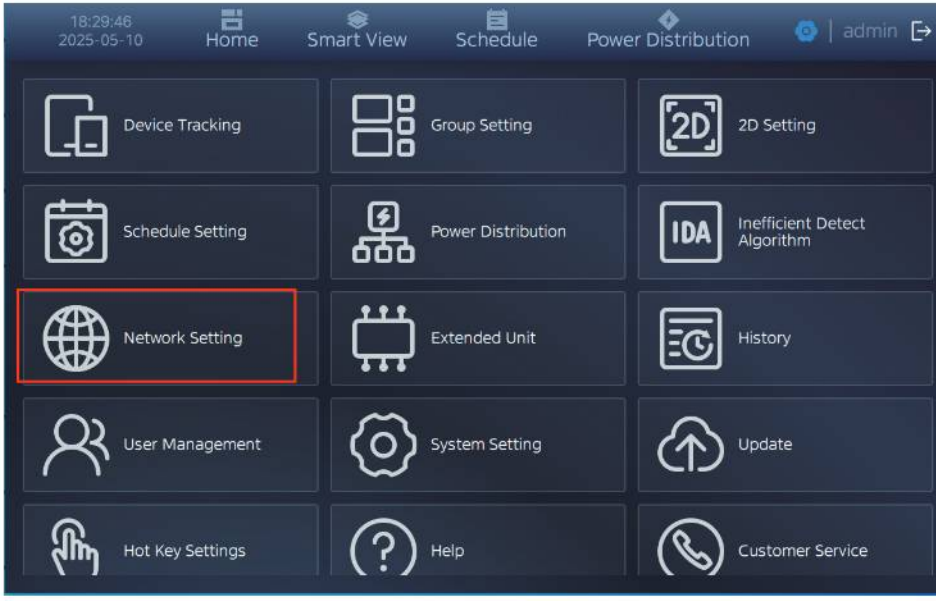
The network configuration should be modified in the following situations:

1. If the static IP address conflicts with the IP address of another device in the network, the IP address should be modified.

2. When a static IP address is required for a specific network segment to maintain communication with other devices, the IP address should be modified.

3. To connect to a Wireless Network, the IP address should be modified.

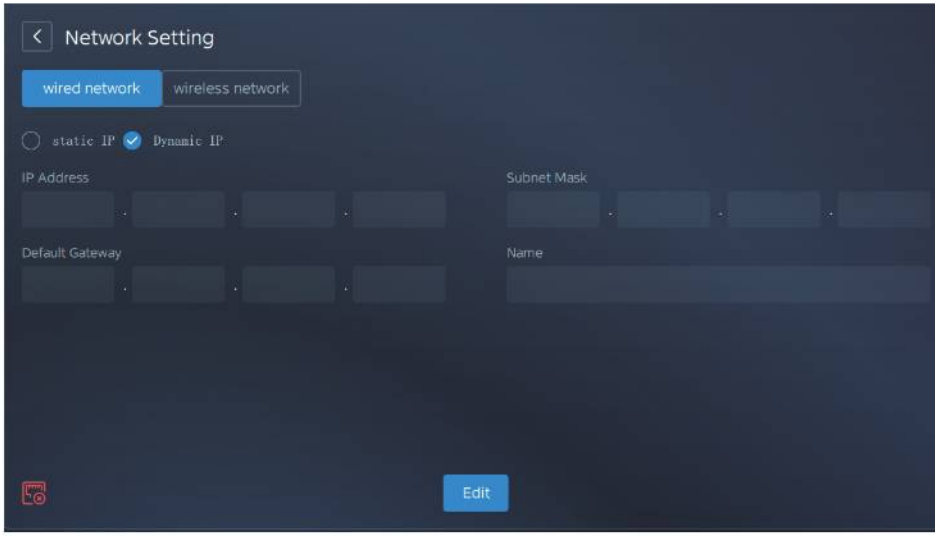
Tap in the upper right corner to open the settings panel, and then tap "Network Setting" to access the Network Setting screen.



Wired network

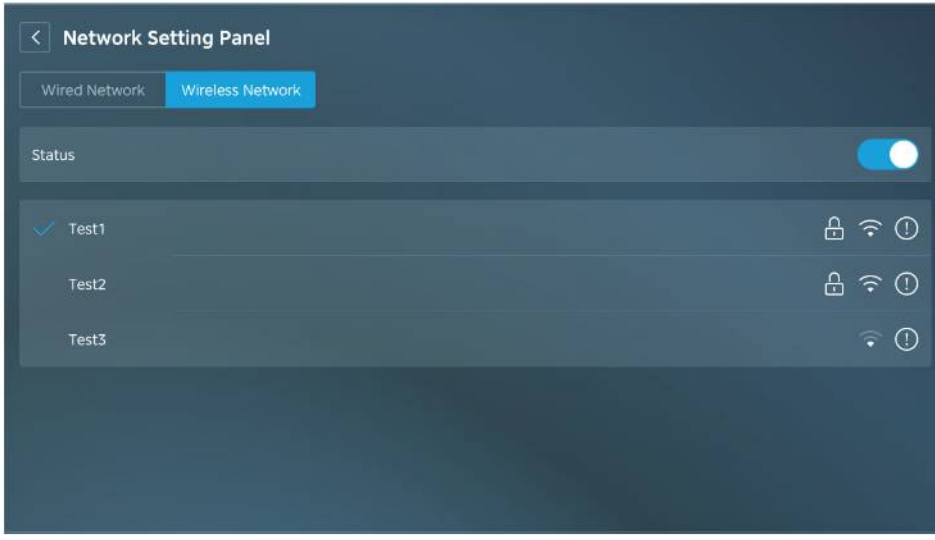
The centralized controller uses a dynamic IP address by default. You can either change it to a static IP and configure the network manually, or keep the dynamic IP to automatically obtain an address.

After selecting a static IP, you can tap "Edit" to configure the static IP address, default gateway, subnet mask, and name.



Wireless Network

Select "Wireless Network", activate the network status button, choose the desired Wireless Network, enter the password, and tap "Confirm" to complete the connection.



Note: The Wireless Network password memory function only supports the most recently connected Wireless Network

Tap ⓘ to modify the parameters of the Wireless Network. The screen is as follows:



When IPV4 Allocation is set to "Auto", the system automatically obtains IP information. When it is set to "Manual", you can manually configure the IP address, subnet mask, and gateway.

17. Extended Unit

Tap  in the upper right corner to open the settings panel, and then tap "Extended Unit" to access the Extended Unit screen.



This screen includes the following content:

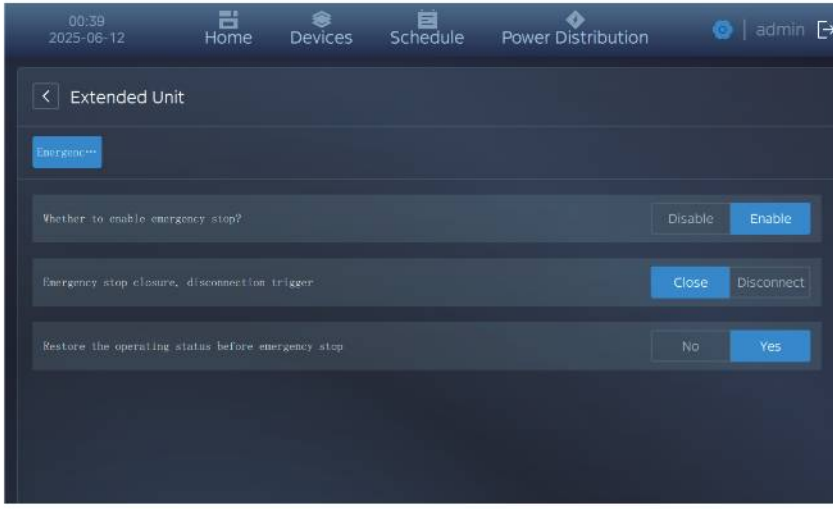
Emergency stop settings

1. By default, DI1 is designated as the emergency stop port.

2. The emergency stop function can be enabled or disabled as needed.

3. The emergency stop function can be triggered by configuring either the closure of the DI port or the opening of the DI port.

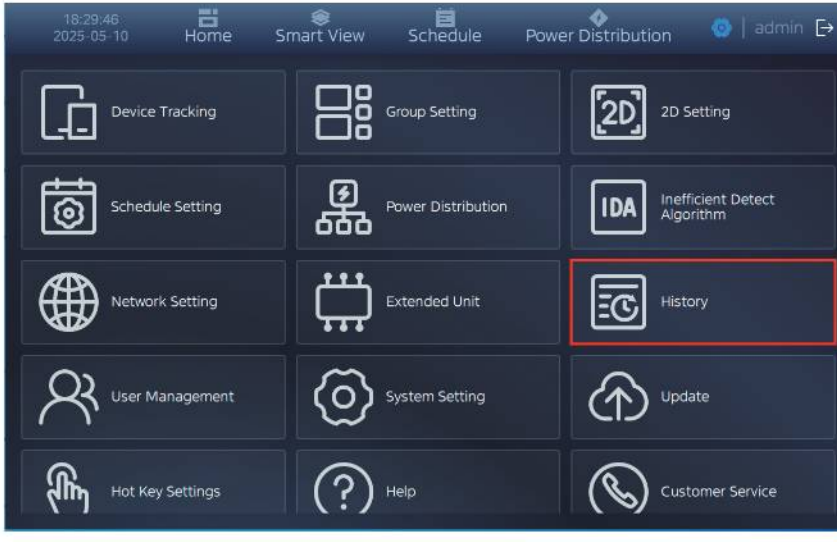
4. You can set whether the device should resume operation after the emergency stop is cleared.



18. History

To facilitate routine device maintenance of the centralized controller and help technicians troubleshoot, the History screen will record all types of device running logs and user operations.

Tap  in the upper right corner to open the settings panel, and then tap "History" to access the History screen.



It primarily includes the following sections: User History, Error & Warning History, Periodic Running Records, Status Change Records, and Running Time Statistical Records, as shown in the figure below.

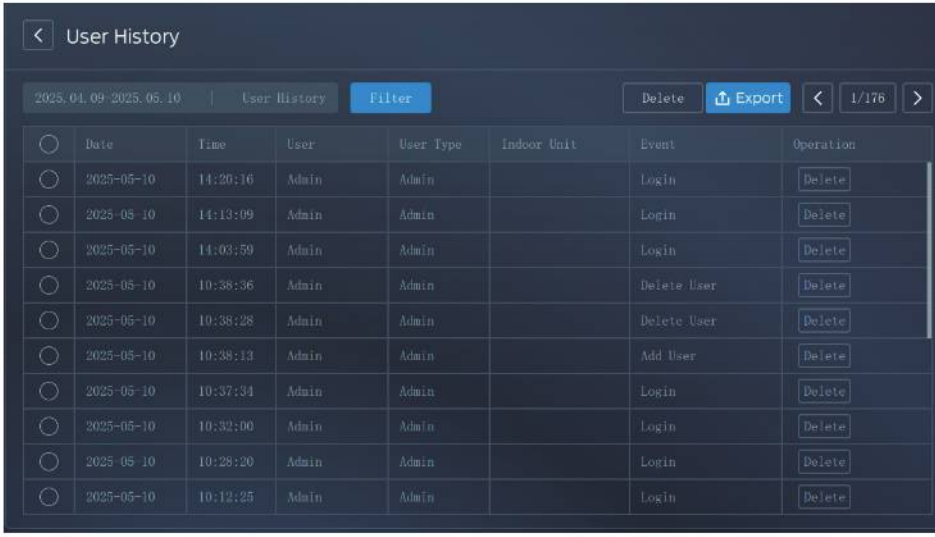


Type	Description
User History	User login history, device operation history, and schedule operation history.
Error & Warning History	Errors and warnings of system devices, including IDUs, ODUs, and gateways.
Periodic Running Records	Operating status records of IDUs and ODUs, generating data every 5 minutes.
Status Change Records	1. Once the system detects any change in the IDU operating status, it generates a record of the new status as follows: ODU [ODU malfunction, record electricity meter readings every early morning], IDU [IDU on/off, mode change]. 2. Schedule execution records can document the success, partial success, or failure of schedule execution.
Running Time Statistical Records	Daily runtime statistics of IDUs in different modes.

	The device polling cycle data is cached and synchronized with the database every hour. Updates become visible only at the top of each hour.

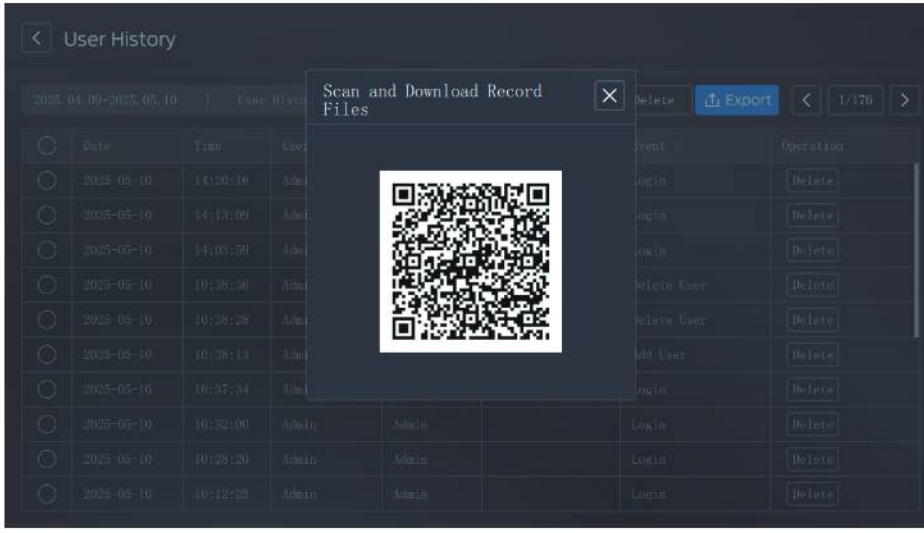
18.1 Viewing

Tap the type of history you want to view, and select the view range to check the history details.



18.2 Export

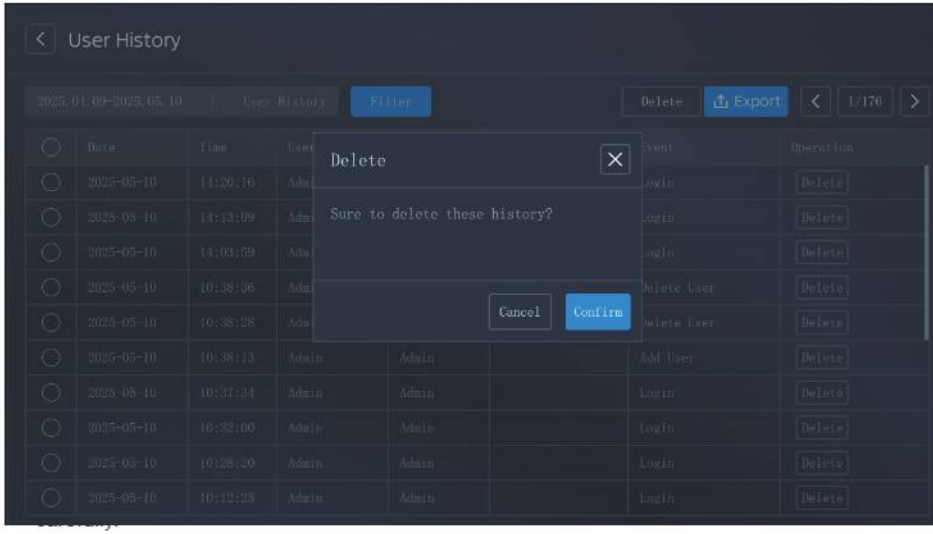
Select "User History" to enter the record details page, and tap "Export" above the table to generate a QR code for file export based on the current query range. Then, scan the QR code with your mobile phone to download and save the record file.



Note: Your mobile device and the centralized controller must be connected to the same LAN to export the file.

18.3 Deletion

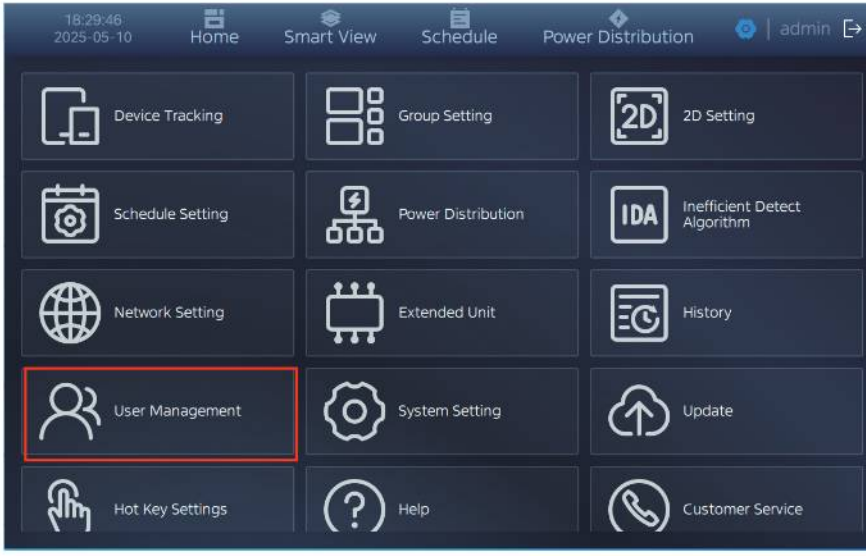
To delete a record, select the desired record data from the list and then tap "Confirm" in the pop-up window.



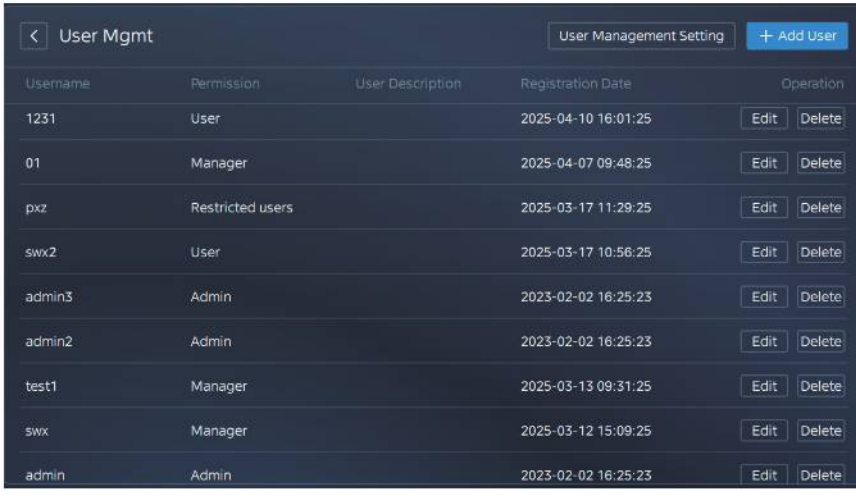
19. User Management

The user management module is exclusively accessible to super administrators, who have the authority to view, create, and edit settings, as well as manage access permissions for various personnel.

Tap in the upper right corner to open the settings panel, and then tap "User Management" to access the User Management screen.

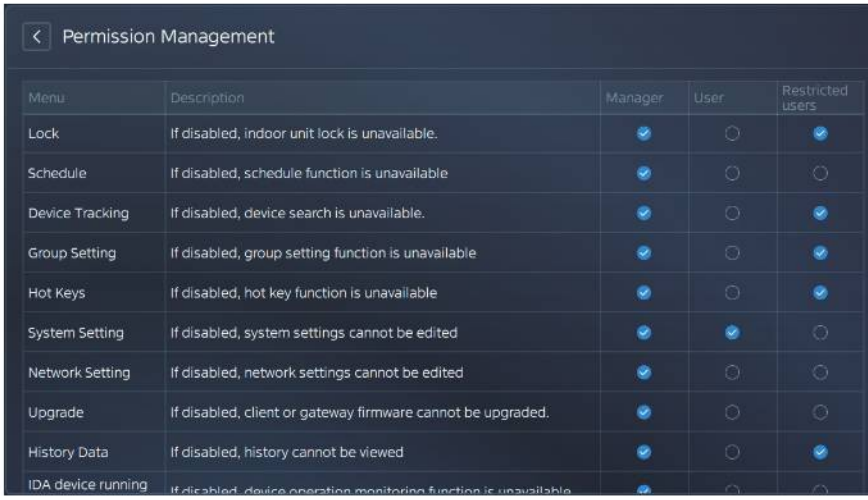


The User Management screen is as follows:



19.1 User Permission Management

The system categorizes accounts into three roles: managers, users, and restricted users. You can tap "Permission Management" on the User Management screen to access the Permission Management screen.

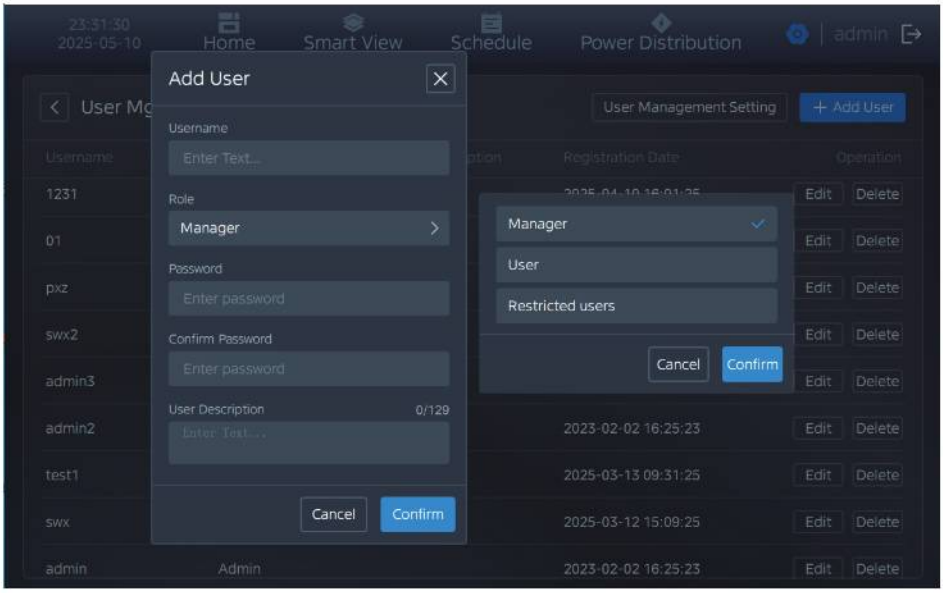


This screen allows for the configuration of different permissions for managers, users, and restricted users.

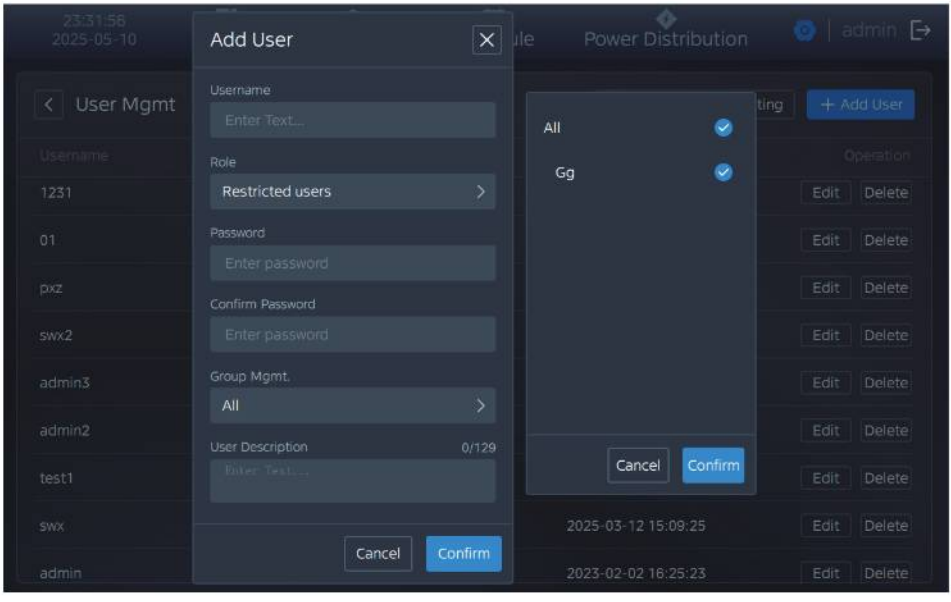
Role	Description	Remarks
Manager	Users responsible for managing air conditioning devices; the super administrator can set permissions based on the usage details of managers.	
User	Users responsible for managing air conditioning devices; the super administrator can set permissions based on the usage details of users.	
Restricted User	Users with access limited to a specific range of devices. You can define which devices these users are permitted to control.	Area-based permission settings are supported

19.2 User Mgmt

1. To add a user, tap "+Add User" to open a dialog box where you can input the username, user description, password, and role. After this, you have added a user.

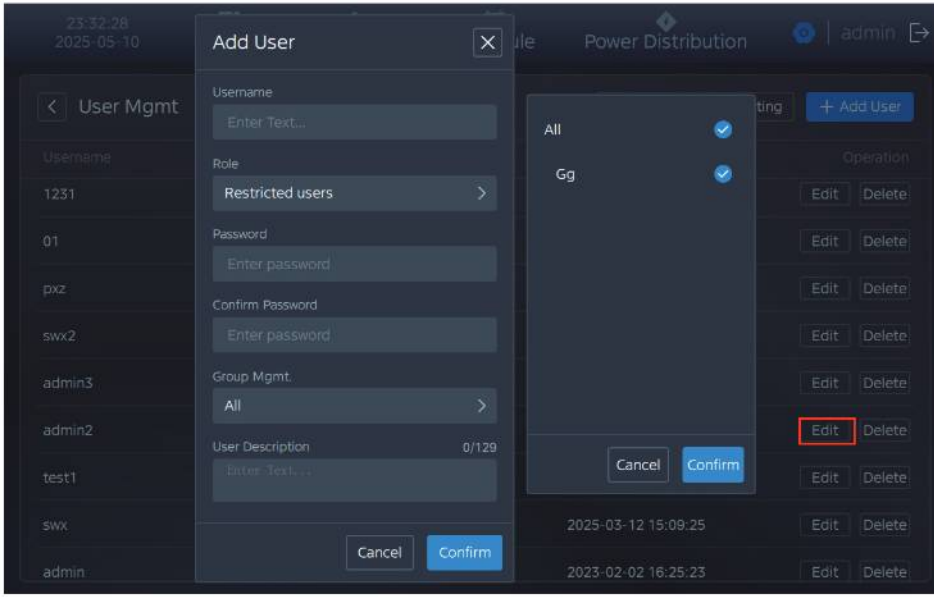


You can select the group devices that restricted users are allowed to manage.



19.3 Editing and Deleting a User

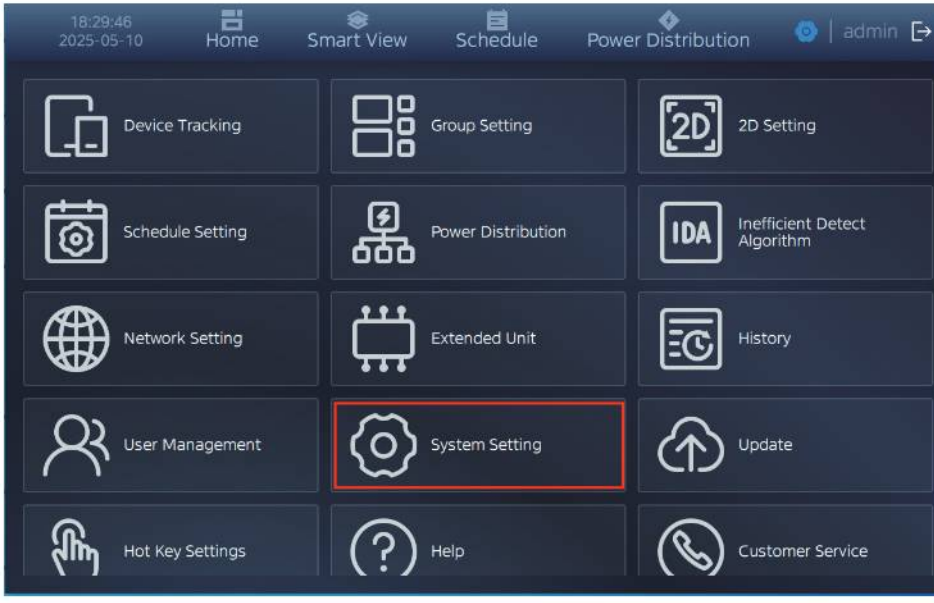
Tap "Edit" to edit user data. You can modify the user role, password, and description, as well as the air conditioning devices managed by restricted users.



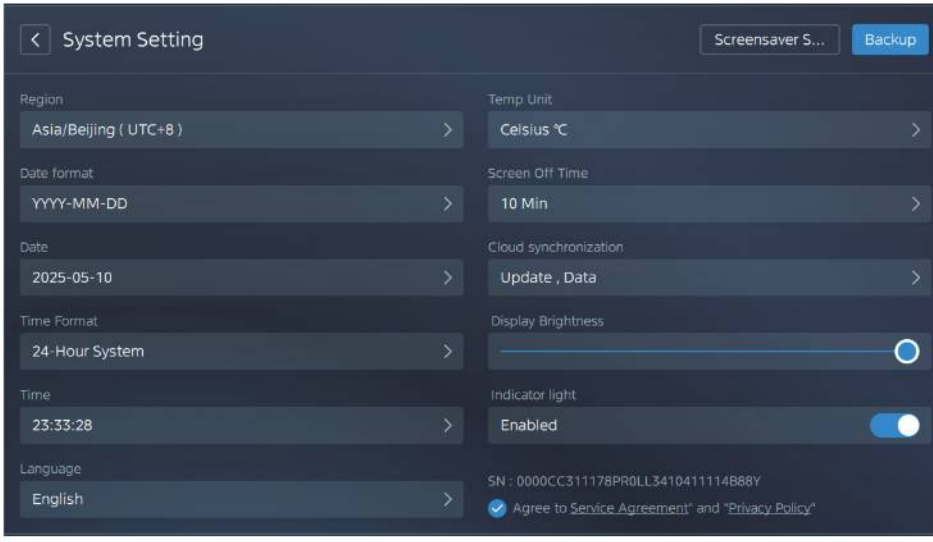
Tap "Delete" to delete user data. Once deleted, the account will no longer have access to the system.

20. System Setting

Tap  in the upper right corner to open the settings panel, and then tap "System Setting" to access the System Setting screen.



The System Setting screen includes the following items: Region, Date, Date format, Time, Time format, Language, Indicator Light, Display Brightness, Screen Off Time, Temp Unit, Cloud synchronization, Screensaver Settings, Backup, SN, and consent options for the "Service Agreement" and "Privacy Policy".



No.	Item	Options	Description
1	Region	Time zones from regions including Asia, Africa, America, Australia, Europe, and the Pacific	
2	Language	Chinese, English, Arabic, Spanish, Turkish, Portuguese, Korean, Russian, Italian, Polish, French, German, Georgian, Traditional Chinese	
3	Temp Unit	°C, °F	Default: °C

4	Screen Off Time	1 Min, 5 Min, 10 Min, 30 Min	Default: 10 Min
5	Date Format	YYYY-MM-DD MM-DD-YYYY DD-MM-YYYY	Default: YYYY-MM-DD
6	Date	Year, month, and date	Enables you to set the date
7	Time Format	12-hour clock, 24-hour clock	Default: 24-Hour System
8	Time	Hour: Minute	Enables you to set the time
9	Cloud Synchronization	Update, Data	After selecting "Update", you can update the system to the latest version online. OTA updates are supported. After selecting "Data", you can synchronize local data to iBuilding.
10	Screensaver Settings	Enables you to set a lock screen password, supporting 6-digit numeric input.	Enables you to set a screen-off password. By default, no screen-off password is provided.

11	Display Brightness	Enables you to adjust the screen backlight brightness.	
12	Backup	Enables you to back up database files Enables you to restore database files	Enables you to back up centralized controller data. When data is lost, you can read historical backup files to restore the data.
13	Indicator Light	Allows you to enable or disable the mode/status indicator	Default: Enabled
14	Privacy Agreement	Service Agreement and Privacy Policy	You must check the box before enabling the cloud synchronization feature.

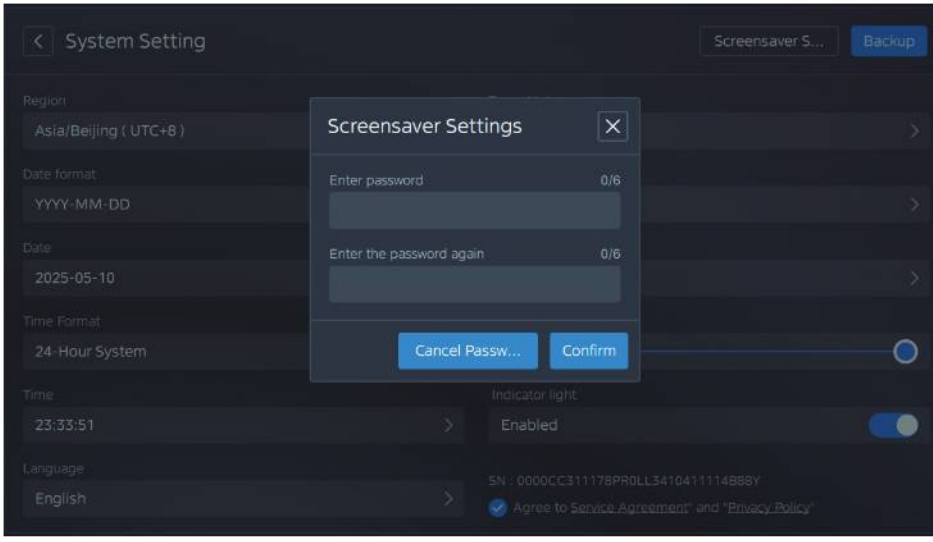
Note 1: To ensure the proper execution of scheduled events, exercise caution when modifying the region, date, time, and other related information.

20.1 Screensaver Settings

To prevent accidental touches or restrict operations after the screen turns off, you can set a screensaver password. Once the screen turns off, you will need to enter the password to log back in and access the system. The following figure shows the screensaver password setup screen. Enter your password, confirm it, and tap "Confirm" to proceed.

1. Only 6-digit numeric passwords are supported.
2. By default, no screensaver password is provided.
3. Please remember your lock screen password. Password recovery is not supported; if forgotten, please contact maintenance personnel for assistance.

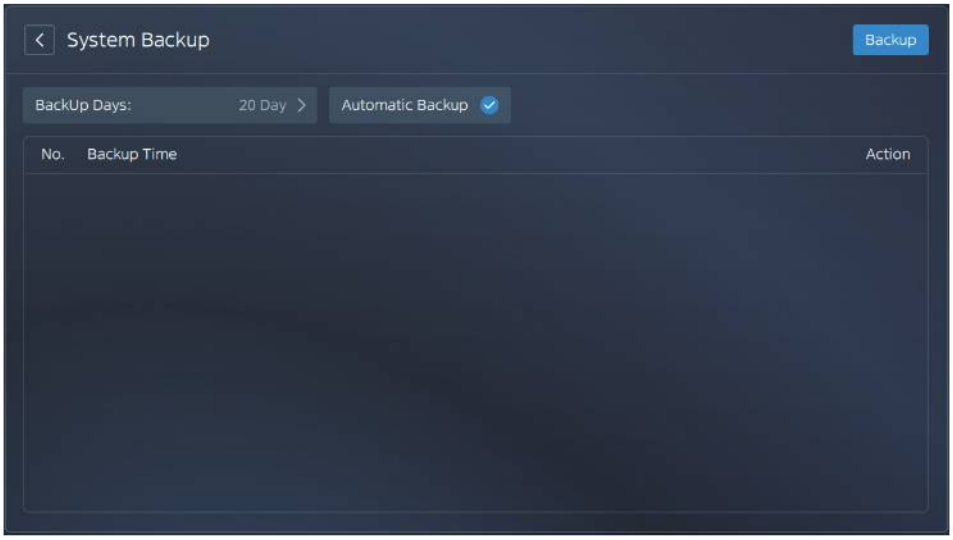
4. After the screen turns off, you must enter the screensaver password to access the operation interface.



20.2 System Backup

The backup function is used to backup data from the IMM-Elite database.

1. You can enable automatic backups by selecting a preferred interval: 20, 30, 60, or 90 days. The system will perform backups automatically based on the selected schedule.
2. Alternatively, you can manually back up the database by tapping "Backup".
3. Tap "Delete" to remove the backup database.
4. Tap "Restore" to recover the selected database.



21. Update

Tap  in the upper right corner to open the settings panel, and then tap "Update" to access the Update screen.

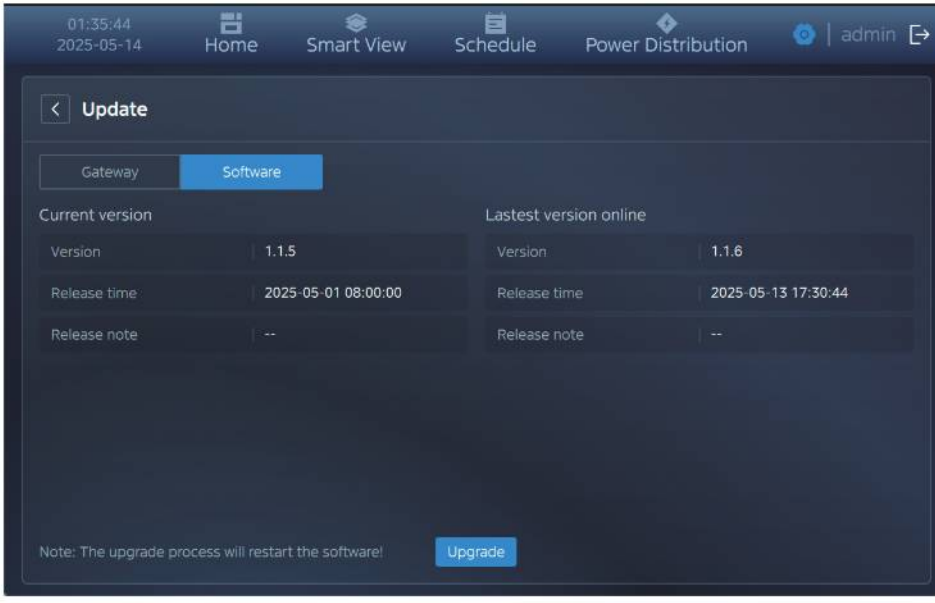


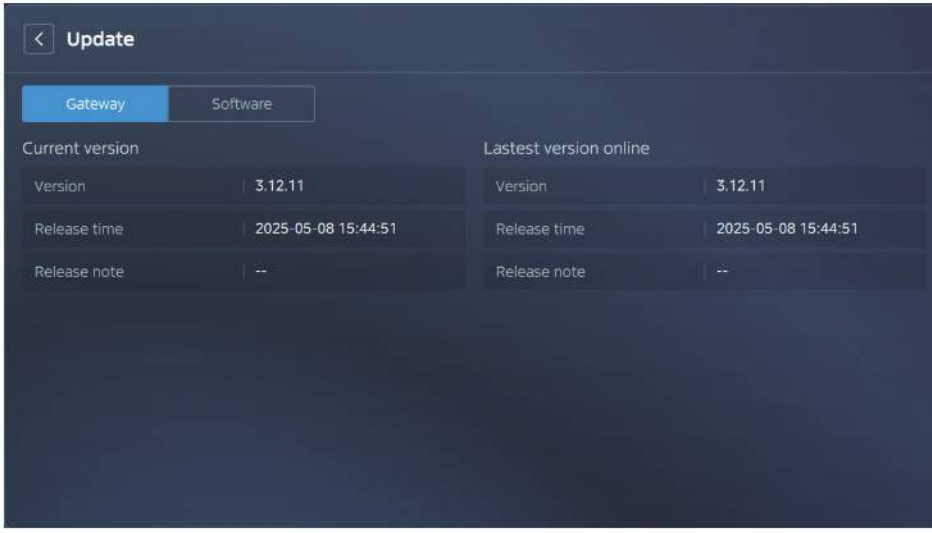
Cloud-based update: When the IMM-Elite centralized controller is connected to the cloud, it can check for and update to the latest software version. When a new version is available, the "Latest version online" section will display the latest software version, allowing you to tap "Upgrade" to update the software version.

The update module consists of two components: gateway (backend) and software (frontend) updates. Each component includes two submodules: the device's current version and the latest version online. Both submodules display the version number, release date, and update details. If a new version is available (i.e., the latest version online is higher than the current version), you may tap "Upgrade" to proceed. The system will then automatically download the latest version and complete the update. After the software update, the application will restart automatically. For gateway updates, the backend service will restart, but the system itself will not reboot. The screen is as follows:

Notes: 1. To perform an OTA update, you must select "OTA upgrade" through System Setting > Cloud Synchronization. Otherwise, the new versions will not be available.

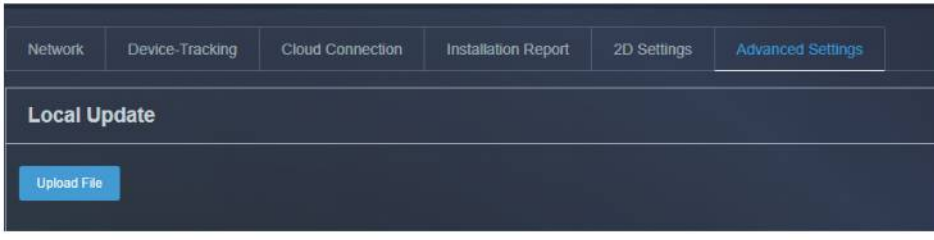
2. The centralized controller must be connected to the internet; without an internet connection, the OTA update function will be unavailable.





Local update

1. Ensure that your computer is connected to the same network as the centralized controller. Open a browser and enter the IP address assigned by the centralized controller (which is available on the Network Setting screen) (e.g., 192.168.100.185) to open the website.
2. On the website login screen, enter the username (admin) and password (123AB@ab) to log in to the centralized controller.
3. Tap "Advanced Settings" > "Local upgrade", upload the update package, and tap "Confirm" to complete the update. The software will automatically restart upon successful update.

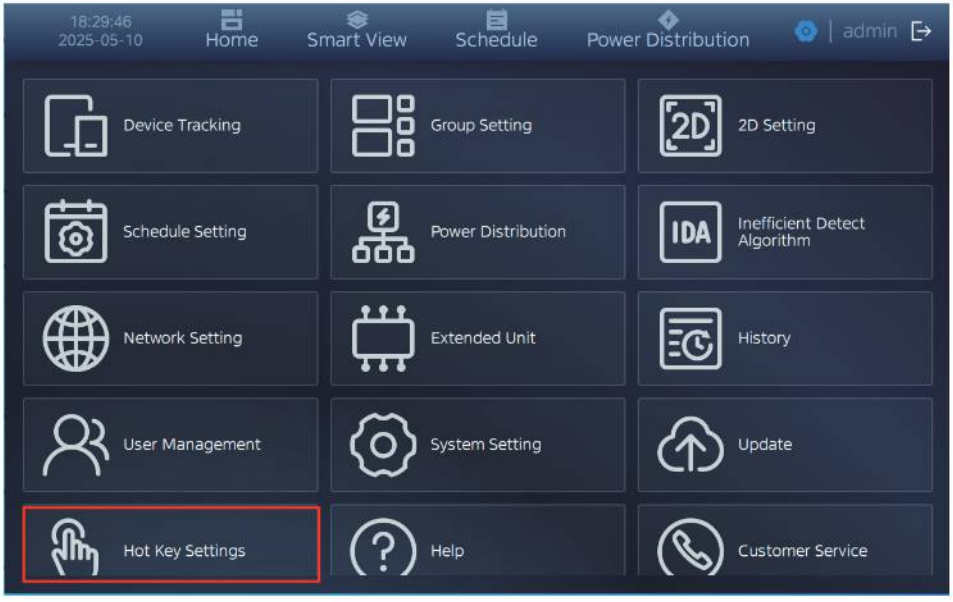


22. Hot Key Settings

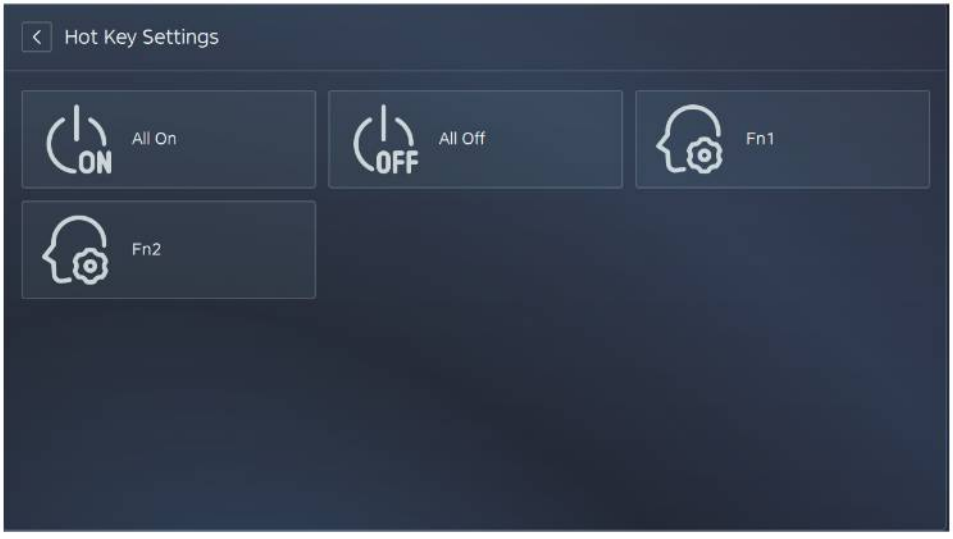
IMM-Elite enables quick control of physical keys, allowing you to manage devices without waking the screen. This feature helps eliminate the need to select devices or set commands during daily use, achieving "one-key control".
All On: Tap "All On" on the right side of the screen to turn on all associated devices.
All Off: Tap "All Off" to turn off all associated devices.
Fn1: Tap "Fn1" to view executable command options. After selecting a command, tap "Confirm" to control the associated devices according to your selected command.
Fn2: Tap "Fn2" to view executable command options. After selecting a command, tap "Confirm" to control the associated devices according to your selected commands.

Notes: 1. Before using hot keys, configure them on the Hot Key Settings screen and associate devices; otherwise, the keys will not function.
2. Tap "Hot Key Settings" on the settings panel to access the Hot Key Settings screen.
3. Fn1 and Fn2 can each store 4 commands. After you tap a hot key, the system will display the preset commands. If only one command is preset, the selection box will be skipped, and a confirmation dialog will appear directly. Tap "Confirm" to execute the command. If multiple commands are preset, a pop-up window will appear for you to select the desired command. The command will be executed only after you tap "Confirm".

Tap in the upper right corner to open the settings panel, and then tap "Hot Key Settings" to access the Hot Key Settings screen.



The Hot Key Settings screen is as follows: You can set up four distinct hot keys: All On, All Off, Fn1, and Fn2.



22.1 All On Settings

Select "All On" to enter the All On Settings screen. Initially, no devices are associated. Tap "+Add Device" to add devices that need to execute the "All Off" command. After adding the devices, tap "All On" on the right side of the screen to turn on the added devices.



22.2 All Off Settings

Select "All Off" to enter the All Off Settings screen. Initially, no devices are associated. Tap "+Add Device" to add devices that need to execute the "All Off" command. After adding the devices, tap "All Off" on the right side of the screen to turn off the added devices.



22.3 Memory Settings

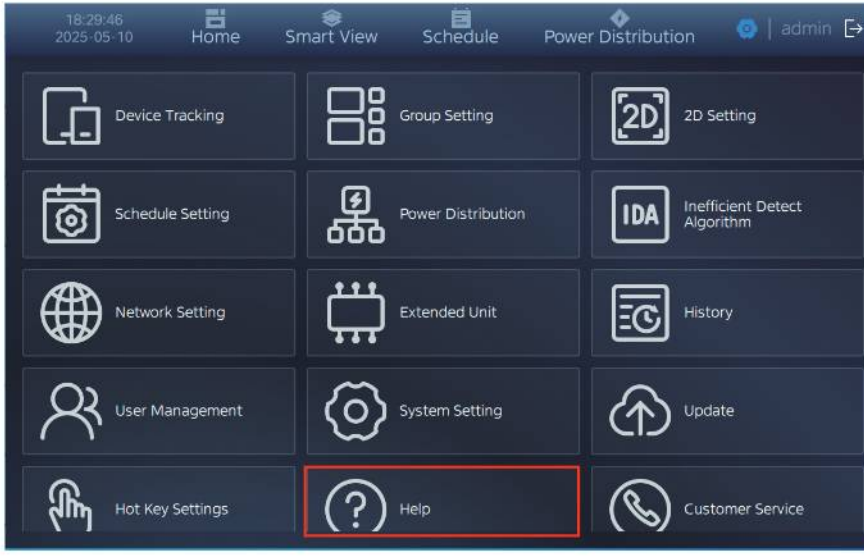
The memory function is designed for some commonly used specific commands, and allows you to set up and create quickly executable operation commands based on high-frequency control scenarios.
Enter the Memory Settings screen.
Select a command. The system supports 4 commands. Tap the desired command to enter the command setting screen.
Tap to modify the command name.
Tap "+Add Device" to add a device.
Tap "Set Instruction" to add a device control command. Control commands include on/off, mode, temperature, fan speed, and swing.
After completing the settings, tap "Fn" on the side to display the configured command, and then tap the command to execute the memory command.

Note: Devices of the same type share identical commands, while different types of devices can be configured with distinct control commands.



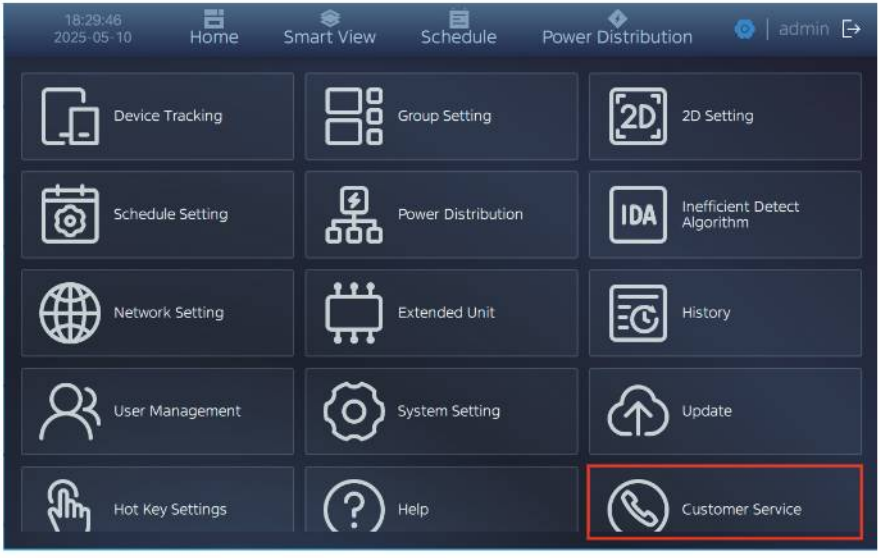
23. Help

You can access the detailed user manual for the IMM-Elite touchscreen controller in the Help menu. (The user manual may not be updated in a timely manner; actual features shall prevail.)
Tap in the upper right corner to open the settings panel, and then tap "Help" to access the Help screen.



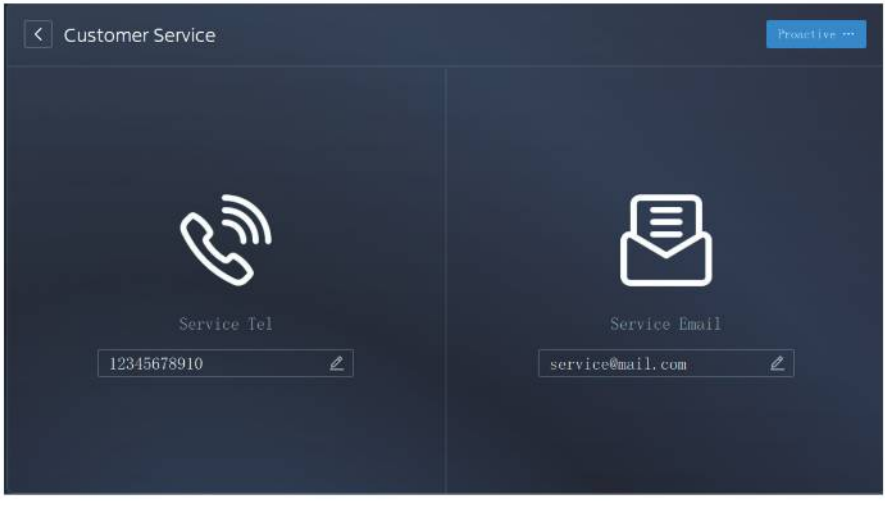
24. Customer Service

Tap in the upper right corner to open the settings panel, and then tap "Customer Service" to access the Customer Service screen.



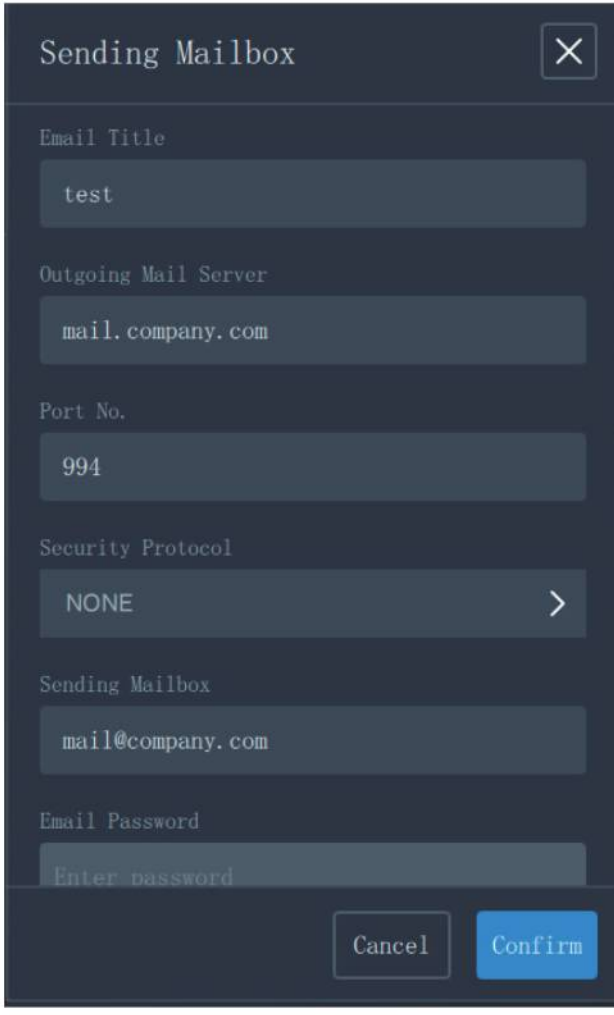
Service Tel and Email

The Customer Service screen is as follows, where you can access the technical support phone number and email address. Both the phone number and email address are editable, with default values set to 1234567890 and service@mail.com respectively. The default phone number and email address are for reference only; please update them based on actual contact information.

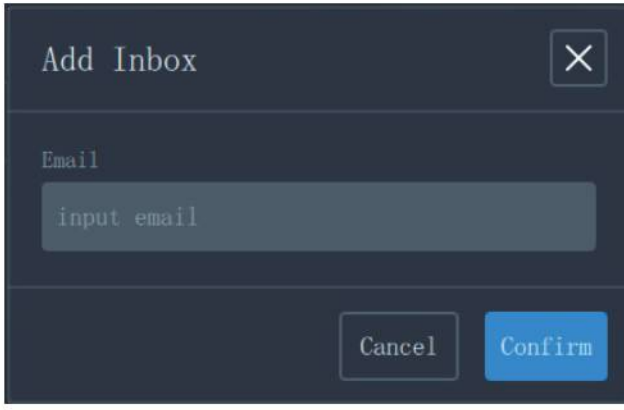


Customer-initiated service

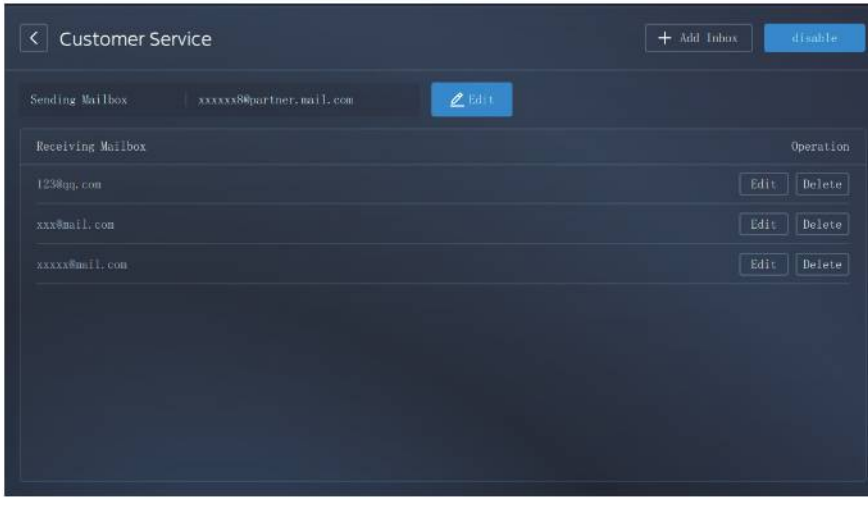
To enable the customer-initiated service function, both the sending and receiving email addresses must be configured.
To configure the sending mailbox, tap Edit to enter the Sending Mailbox screen. Fill in the email-related configuration items as required.



Tap "Add Inbox" to open the editing screen. Enter the email address and tap "Confirm" to complete the addition of the recipient mailbox. Fault information will be automatically sent to the specified email address.



After configuration, the screen will appear as follows.



You can tap "disable" to turn off this feature.
Note: To ensure timely receipt of fault alerts, verify that: 1. The email information is correct. 2. The gateway is connected to a network with internet access.

Q&A

Common Issues and Solutions

Issue	Description	Solution
Unable to find a device	When you search for devices through the centralized controller, the centralized controller's information cannot be located, or the air conditioning device loses communication connections.	Check whether all ports are normally connected: 1. Check whether the centralized controller is normally connected to the power supply. 2. Check whether the IDU and ODU are correctly connected to the power supply. 3. Check whether the X and Y terminals on the ODU control board are correctly connected to those of the centralized controller's RS485 port. If communication fails, reverse the connection and try again.

IMM-Elite Controller and M0 Gateway Collaboration

To use the IMM-Elite centralized controller together with the M0 gateway, you need to configure the network to ensure that both the controller and gateway are on the same network.

Connection method	Description	Remarks
Static IP setting	Set a static IP address for the IMM-Elite centralized controller.	Suitable for local LAN connections using a network cable to access the M0 gateway network.
Dynamic IP setting	Configure the IMM-Elite centralized controller to dynamically obtain an IP address.	The centralized controller will automatically receive an IP address from the router. When the static IP address is switched to a dynamic one, you must reconnect the IMM-Elite centralized controller.

Notes: 1) When the IMM-Elite centralized controller works with the IMMPROII system and is connected to the M0 gateway, it should be on the same network as the M0 gateway.
2) When a static IP address is used, it should not conflict with that of any other device within the LAN.

Appendixes

IDU Models and Icons

Model Code	Icon	Name
1		Four-way Cassette
2		Wall-mounted Unit
3		Medium Static Pressure Duct
4		Low Static Pressure Duct
6		High Static Pressure Duct
7		Compact Four-way Cassette
8		Ceiling & Floor
9		Floor Standing (concealed)
10		Floor Standing
11		Fresh Air Processing Unit
13		HRV
14		One-way Cassette

15		Two-way Cassette
20		Fresh Air Processing Unit
21		AHU-KIT
24		AHU-KIT

Warning Codes

Warning Code	Description
W01	Abnormal communication with gateways and connection failure between gateways (available when connected to IMMprIIo)
W02	Insufficient storage capacity (over 90% capacity is occupied)
W03	Abnormal ammeter reading
W04	ODU program version No. lower than 16
W05	Failure to recognize the old IDU refrigerant system No.

16111500002190 V.B

版本更换明细（本页不出菲林，仅作为电子文档说明）

印刷技术要求

材质	封面封底：双胶纸120g　正文：双胶纸80g
规格	145*200mm
颜色	黑白印刷
其他	/