Hisense

H-NET III

INSTALLATION AND OPERATION MANUAL

Hisense





M00410Q 2020.04 V00

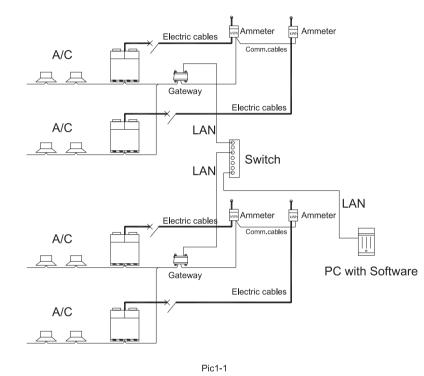
青岛海信日立空调系统有限公司 Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.

FOREWORD

- Hisense H-NET III system consists of two parts: the central A/C building monitor & control gateway
 and the host computer software. For ease of presentation, they are referred to as the gateway and
 the software below.
- There are 2 kinds of gateway: one for Billing gateway, model: HCCS-H160H2C1YM, the function includes: A/C central monitor/control, Ammeter monitor, Electricity consumption allocation. The other for Non-billing gateway, model: HCCS-H160H2C1NM, the function includes: A/C central monitor/control.
- The gateway needs to work with the server (computer with host computer software installed; which
 needs to be purchased on site) and Ethernet or the Internet.
- Do not install the gateway in the following situations:
 - Living environment
 - 2 Places where oil vapor and oil are dispersed;
 - ③ Near hot spring (acid environment);
 - ④ Places where flammable gas is generated, flowing, staying or leaking;
 - (5) Near the sea (salt water environment);
 - (6) Wet places, or places with the possibility of moisture;
 - ⑦ Places with poor ventilation;
 - \circledast Acid or alkaline environment.
- Do not install the gateway and cables in 3m from electromagnetic wave transmitters, such as medical equipment. If the gateway has to been installed in a place with electromagnetic radiation, cover the gateway and cable with a steel box and run the cable through a metal conduit.
- Gateway input voltage: DC 12V, meeting SELV requirements.
- Maximum gateway input power: 6W, meeting fire protection requirements.

I. Description of System Functions

1.1 System Connection



Note:

①The gateway and the computer on which the software is installed form a local area network;
②The gateway has a H-NET bus to communicate with A/C equipment: up to 64 A/C systems, 160 indoor units⁽ⁱ⁾; one 485 bus communicates with the ammeters, up to 64 ammeters;
③The software can be connected to up to 32 gateways and up to 5120 indoor units.

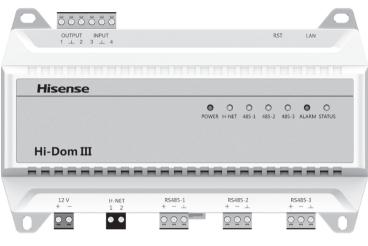
Remarks:

(1) The two qualifications of 64 A/C systems and 160 indoor units must be met at the same time.

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1.2 Gateway Connection



Pic1-2

Description of connectors and buttons:

12V	Gateway power supply, DC 12V; provided by the installer; pay attention to polarity when wiring. Connector: 2 pins, spacing 5.08mm, orange.
H-NET	H-NET bus, connected to the 12 connector of A/C system ⁽¹⁾ . Connector: 2 pins, spacing 5.08mm, black.
RS485-1	485 bus, connected to the ammeter; pay attention to the polarity when wiring: + connected to D+ or A, - connected to D- or B, \perp connected to GND. Connector: 3 pins, spacing 5.08mm, green.
RS485-2 & RS485-3	Reserved
OUTPUT 1	All on signal output, specification: 12V DC. When the gateway detects that all indoor units are powered on, the port outputs a signal; when one or more indoor units are in the off state, the port stops outputting signals
OUTPUT 2	Alarm signal output, specification: 12V DC. When the gateway detects that one or more indoor units are in an alarm state, the port outputs a signal; when all indoor units are no longer in an alarm state, the port stops outputting signals
INPUT 3	Dry contact input: All off. When the gateway detects the dry contact from open circuit to short circuit, it sends a turn-off command to all indoor units
INPUT 4	Reserved

RST	IP address reset button, used for gateway IP address reset: Press and hold it for 3 seconds, ALARM and STATUS indicators will flash for 3 seconds at the same time and then the IP address is reset
LAN	RJ45 network cable interface
	Table1-1

Description of indicators:

POWER	Power, stays on when the working is normal
H-NET	H-NET communication indicator, flashing with H-NET communication status
485-1	485-1 port communication indicator, flashing with the status of the data received by the port
485-2 & 485-3	Reserved
ALARM	Alarm
STATUS	Status

Table1-2

The combination of ALARM and STATUS indicators:

- ALARM off, STATUS slow flashing: Normal operation;
- ALARM slow flashing and STATUS slow flashing: The gateway does not have configuration.
- ALARM always on, STATUS slow flashing: The gateway battery is low;
- ALARM always on, STATUS always on: The gateway space is insufficient;
- ALARM Slow flashing, STATUS off: The gateway malfunction.

Remarks:

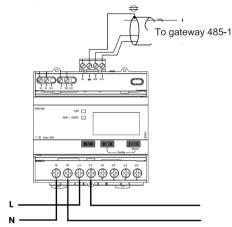
(1) For the connection diagram of H-NET bus, please refer to the installation instructions or technical manual of the A/C.

1.3 Ammeter Connection

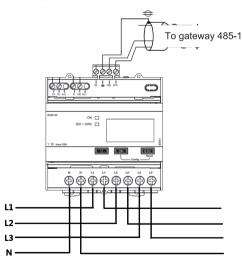
The gateway supports one types of ammeter⁽¹⁾: Schneider Modbus protocol meter⁽²⁾. An ammeter is required to correspond to a A/C system (up to 4 outdoor units)⁽³⁾.

1.3.1 Ammeter wiring

ENGLISH



Pic1-3 Schneider Modbus protocol single-phase ammeter connection



Pic1-4 Schneider Modbus protocol three-phase ammeter connection

1.3.2 Ammeter communication settings

Schneider Modbus protocol ammeter requires communication parameters setting⁽⁴⁾: Communication setting:

Command No.	Operation (R/W)	Size	Unit	Range	Description
	W	1	Unit16	-	(Reserved)
	W	1	Unit16	-	(Reserved)
	W	1	Unit16	-	(Reserved)
	W	1	Unit16	-	Address
5000	W	1	Unit16	-	Baud rate 0=9600 1=19200 2=38400
	W	1	Unit16	-	Parity bit 0= Even 1= Odd 2= None
	W	1	Unit16	-	(Reserved)
			Table1-3		

In the above communication parameters, the baud rate must be set to 19200, and the check digit must be set to even, or else the gateway will not be able to communicate normally with the ammeter. Address range: 1~247. If multiple ammeters are connected to one gateway, the address of each ammeter must not be duplicated.

Remarks:

(1) The ammeters are not provided. Please purchase from the ammeter manufacturer or dealer separately;
(3) The model corresponding to Schneider Modbus protocol ammeter is the iEM3000 series(iEM3150, iEM3155; iEM3250, iEM3255);

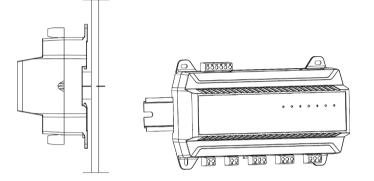
(4) If there are multiple outdoor unit module combinations in a A/C system, the ammeter selection should be calculated according to the maximum current of each module;

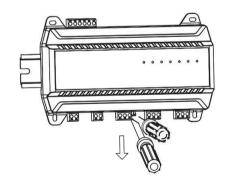
(5) For detailed communication settings, please refer to the User Manual of Schneider iEM3000 Series.

II. Gateway Installation Instructions

2.1 Gateway Installation Diagram

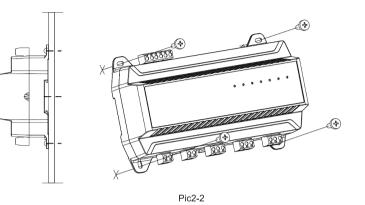
There are two methods to install gateway: Method 1: Use 35mm DIM rail for fixing



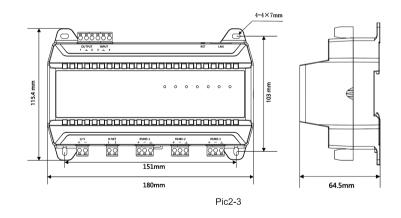




Method 2: Use lifting holes for fixing



2.2 Gateway Installation Specifications



Gateway Specifications					
Power supply	DC 12V				
Power consumption	<6W				
Environmental conditions	Ambient temperature: 0~40 C				
Environmental conditions	Ambient humidity: 20 $^{\sim}$ 85% (no condensation)				
Dimensions	Length: 180mm, Width: 115.4mm, Thickness: 64.5mm				
Weight	0.57kg				
Installation conditions	Indoor, weak current control box; rail or lifting hole fixed				
	Table2-1				
	H-NET Specifications				
Communication object	A/C indoor units/ outdoor units				
Communication wires	2-core shield wire, No polarity				
Communication distance	Max.1000m				
Quantity of A/C	Max. indoor units 160				
Table2-2					
485-1 Specifications					
Communication object	Ammeter				
Communication wires	2-core shield wire, With polarity				
Communication distance	Max.1000m(Shield wire must be connect to Ground)				
	Table2-3				
	LAN Specifications				
Communication object	PC with software, Switch				
Communication wires	Network Cable: Cat-5e and above				
Communication distance	100m with single cable				

Remarks:

Please refer to the ammeter manual for the installation method and dimensions.

Table2-4

III. System Installation Instructions

3.1 Computer Configuration

Hardware	CPU: i5-6 th generation and above Memory: 8GB and above HDD: 500GB and above
	NIC: 1.0Gbps, RJ45 interface Display: resolution should be 1920*1080.
Software	Operating system: Win10 or Win7 64bit Browser: Google Chrome, 64bit, version 65 and above Application software: Excel 2007 and above

Table3-1

Network configuration:

Network cable: Recommended specifications: Cat-5e and above; Switch: Recommended specifications: 1.0Gbps, the number of network ports depends on the number of gateways and computers.

Optional configuration:

UPS: Recommended specifications: 1000VA/600W and above.

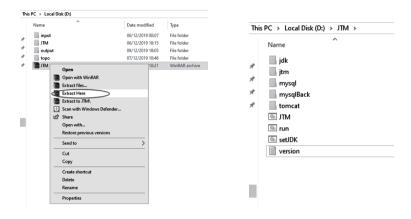
3.2 Runtime Environment Configuration

3.2.1 JTM installation(1)

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JTM is an integrated runtime environment for the tomcat web server and MySQL database. Only one computer is allowed to run JTM on the system LAN.

JTM is a green installation archive. Copy the JTM compression archive to D drive $^{\scriptsize(\!2\!)}$ of the computer, and then decompress:



Pic3-1

3.2.2 JTM runtime environment configuration

If the operating system of your computer is Win10 Professional or Enterprise, you do not need to perform this step; if it is a different version, you need to perform the runtime environment configuration.

View the operating system version of your computer:



Execute the runtime environment configuration: Select "setJDK", right click and select "Run as administrator":



Pic3-3

Select "Yes":



Pic3-4

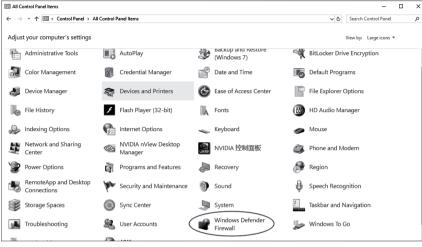
When the following prompt appears, press any key to exit and complete the configuration:



3.2.3 Firewall settings

The software needs to receive the files uploaded by the gateway through the specified TCP port. The system uses the port number 30064, which must be opened in the firewall.

Select "Windows Defender Firewall" in the Control Panel:



Pic3-6

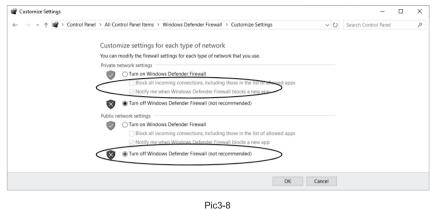
Two methods are available:

1 Turn off the firewall directly.

Select "Turn Windows Defender Firewall on or off:"



Select "Turn off Windows Defender Firewall (not recommended)":



2 If you do not want to turn off the firewall directly, you can do the following:

Select "Advanced settings":

📽 Windows Defender Firewall				-		×
$\leftarrow \rightarrow \checkmark \uparrow $	anel > All Control Panel Items > Windows Defe	nder Firewall	νŪ	Search Control Panel		م
Control Panel Home	Help protect your PC with Windo	Help protect your PC with Windows Defender Firewall				
Allow an app or feature through Windows Defender	Windows Defender Firewall can help preven through the Internet or a network.	t hackers or malicious software from gaining access to your PC	:			
Firewall	Private networks	Not connected	9			
Change notification settings						
Turn Windows Defender Firewall on or off	Guest or public networks	Connected	\sim			
Restore defaults	Networks in public places such as airports of	or coffee shops				
Advanced settings	Windows Defender Firewall state:	On				
Troubleshoot my network	Incoming connections:	Block all connections to apps that are not on the list of allowed apps	t			
	Active public networks:	一 网络				
See also		壽 未识别的网络				
Security and Maintenance	Notification state:	Notify me when Windows Defender Firewall blocks	a			
Network and Sharing Center		new app				

ENGLISH

Select "Inbound Rules":

Windows Defender Firewall with	Advanced Security	– 🗆 X
e Action View Help		
+ F B F		
Windows Defender Firewall with	Windows Defender Firewall with Advanced Security on Local Computer	Actions
Inbound Rules	Windows Defender Firewall with Advanced Security provides network secu	Windows Defender Firewall with Advanced Security on Loc
here a connection Security Rules	computers.	import Policy
Nonitoring	Overview	Export Policy
	Domain Profile	Restore Default Policy
	@ Windows Defender Firewall is on.	Diagnose / Repair
	S Inbound connections that do not match a rule are blocked.	View
	Outbound connections that do not match a rule are allowed.	G Refresh
	Private Profile	Properties
	Windows Defender Firewall is on.	2 Help
	S Inbound connections that do not match a rule are blocked.	
	Outbound connections that do not match a rule are allowed.	
	Public Profile is Active	
	Windows Defender Firewall is on.	
	S Inbound connections that do not match a rule are blocked.	
	Outbound connections that do not match a rule are allowed.	
	Nindows Defender Firewall Properties	
	Getting Started	
	Authenticate communications between computers	
	Create connection security rules to specify how and when connections betwee authenticated and protected by using Internet Frotocol security (IPsec).	
	Connection Security Rules	
	View and create firewall rules	
	Create firewall rules to allow or block connections to specified programs c also allow a connection only if it is authenticated, or if it comes from ar group, or computer. By default, inhound connections are blocked unless they allows them, and outbound connections are allowed unless they match a rule	
	Inbound Rules	
>		

Pic3-10

Click "New Rule":

14

ile Action View Help					
2					
Windows Defender Firewall with	Inbound Rules			Actions	_
Cutbound Rules	Name	Group	Profile ^	Inbound Rules	
Connection Security Rules	Ø 30064		All C	New Rule	
Monitoring	🕼 feiq.exe		Public	Filter by Profile	
_	🕼 feiq.exe		Public	Filter by State	
	Ø Microsoft Lync		Public		
	Ø Microsoft Lync		Public	Filter by Group	
	Ø Microsoft Lync UcMapi		Public	View	
	Microsoft Lync UcMapi		Public	Refresh	
	Microsoft Office Outlook		Public		
	🔮 qipmsg		Public	Export List	
	🕼 qipmsg		Public	Help	
	Teamviewer Remote Control Application		Public		
	Teamviewer Remote Control Application		Public		
	Teamviewer Remote Control Service		Public		
	R Teamieuer Remote Control Senice		Dublic		

Pic3-11

Mew Inbound Rule Wizar	rd
RuleType Select the type of firewa	ll rule to create.
Steps:	
Rule Type	What type of rule would you like to create?
 Protocol and Ports Action Profile Name 	 Processing Processing Prodefined Prodefined Processing <

Pic3-12

Select "TCP", then select "30064" in "Specific Local Port" and click "Next":

Place New Inbound Rule Wizard	1	\times
Protocol and Ports		
Specify the protocols and p	ports to which this rule applies.	
Steps:		
Rule Type	Does this rule apply to TCP or UDP?	
Protocol and Ports	TCP	
Action	O UDP	
Profile		
Name	Does this rule apply to all local ports or specific local ports?	
	○ All local ports	
	Specific local ports: 30064	
	Example: 80, 443, 5000-5010	
	< Back Next > Cancel	

Select "Allow connections" and click "Next": Piew Inbound Rule Wizard \times Action Specify the action to be taken when a connection matches the conditions specified in the rule. Steps: What action should be taken when a connection matches the specified conditions? Rule Type Protocol and Ports Allow the connection Action This includes connections that are protected with IPsec as well as those Profile O Allow the connection if it is secure This includes only connections that have been authenticated by using IFsec. Connections will be secured using the settings in IFsec properties and rules in the Connection Security Rule node. Name O Block the connection Back Next > Cancel

Pic3-14

Follow the default selection and click "Next":

Profile	
Specify the profiles for wh	hich this rule applies.
Steps:	
Rule Type	When does this rule apply?
Protocol and Ports	
Action	Domain
Profile	Applies when a computer is connected to its corporate domain.
D Nane	 Private Applies when a computer is connected to a private network location, such as a home or work place. Public Applies when a computer is connected to a public network location.
	< Back Next > Cancel

Enter "30064" in the name and click "Finish":

P New Inbound Rule Wizard	d	\times
Nane		
Specify the name and descr	iption of this rule.	
Steps:		
Rule Type		
Protocol and Ports		
Action		
Profile	Name: 30064	
Name		
	Description (optional):	
	< Back Finish Cancel	

Pic3-16

3.2.4 Operating system settings

If you do not need to use the Electricity consumption allocation function, the operating system does not need additional settings.

If you need to use the Electricity consumption allocation function, the computer with JTM installed mustn't be shut down, and the operating system needs to be set as follows: Select "Power Options" in the Control Panel:

All Control Pan → ~ ↑	el Items	I Panel Items						~ 0	Search Control Panel	
djust your c	omputer's settings								View by: Large icons •	
Admin	strative Tools	AutoPlay	齐	Backup and Restore (Windows 7)	Ą	BitLocker Drive Encryption		Color Manag	jement	
Creder	tial Manager 🛛 🕍	Date and Time	6	Default Programs		Device Manager	-	Devices and	Printers	
Ease of	Access Center	File Explorer Options	Ь	File History	£	Flash Player (32-bit)	A	Fonts		
HD Au	dio Manager 🛛 🦂	Indexing Options	e	Internet Options	~	Keyboard	0	Mouse	_	
Netwo Center	rk and Sharing 🛛 🎯	NVIDIA nView Desktop Manager		NVIDIA 控制面板	4	Phone and Modem	8	Power Optio	ns	
Progra	ms and Features	Recovery	8	Region	4	RemoteApp and Desktop Connections	1	Security and	Maintenance	
Sound	Ą	Speech Recognition		Storage Spaces	0	Sync Center		System		
Taskba	and Navigation	Troubleshooting	88	User Accounts		Windows Defender Firewall	2	Windows To	Go	
Work F	olders 🕥	邮件								

Pic3-15

Select "Change when the computer sleeps":

Power Options			-	×
← → × ↑ 🝞 > Control Pan	el > All Control Panel Items > Power Options	~ Ŭ	Search Control Panel	٩
Control Panel Home	Choose or customize a power plan			(
Choose what the power button does	A power plan is a collection of hardware and system settings (like display brightn manages how your computer uses power. <u>Tell me more about power plans</u>	ness, sleep, etc.) that		
Create a power plan	Preferred plans			
Choose when to turn off the display	Balanced (recommended) Automatically balances performance with energy consumption on capable	Change plan settings hardware.		
sleeps	O Power saver	Change plan settings		
	Saves energy by reducing your computer's performance where possible.			
	Show additional plans			
See also				
User Accounts				

Pic3-18

Set "Put the computer to sleep" to "Never", and click "Change advanced power settings":

Change settings for the plan: Balanced Choose the sleep and display settings that you want your computer to use. Turn off the display: <u>Never</u> Put the computer to sleep: <u>Never</u> Change advanced power settings Restore default settings for this plan Pic3-19

Select "Turn off hard disk after", and set to "Never":

	Options	?	
dvanced :	ettings		
7	Select the power plan that you want to custor then choose settings that reflect how you war computer to manage power.		
Balance	d [Active] V		
	Turn off hard disk after Setting (Minutes): Uters: Twret Explore ktop background settings eless Adapter Settings p settings ver buttons and lid Express		^
	ceccor nower management		۷



Remarks:

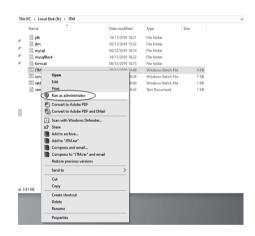
(1) Contact local branch company for the software.

(2) The JTM folder must be installed in the root directory of the D drive to be effective; if there is no D drive, please contact your computer dealer.

3.3 Software Startup Instructions

3.3.1 JTM boot

Find the decompressed JTM archive, select "JTM", right click and select "Run as administrator":





Select "Yes":



ENGLISH

Type "1" and press Enter:

l - Start Tomcat + MySQL	2 - Stop Tomcat + MySQL
3 - Start Tomcat	4 - Stop Tomcat
5 - Start MySQL	6 - Stop MySQL
7 - Set Tomcat Port	8 - Set MySQL Port
9 - Check port status	10 - Set MySQL root Password

Pic3-23

After the prompt is completed, type http://localhost:30064/Hisense/Login in the browser address bar to enter the login interface:



Pic3-24

There is chrome setup in JTM, it can be installed:

📕 jdk	2019/11/14 18:21
📕 jtm	2019/11/20 15:22
📕 mysql	2019/12/27 17:55
mysqlBack	2019/11/14 18:22
tomcat	2019/12/27 17:56
Chrome	2019/12/19 17:47
Carlo chilo nic	2010/12/10 17117
M JTM	2019/12/27 17:54
MTL @	2019/12/27 17:54
ि JTM © run	2019/12/27 17:54 2019/11/15 9:28

Pic3-25

3.3.2 JTM update

- If you need to update the JTM archive, you need to follow these steps:
- 1. Backup the database (1);
- 2. Stop the tomcat and mysql services;
- 3. Delete the JTM folder;
- 4. Decompress the new JTM archive on the original JTM path.

Stop the tomcat and mysql services: Repeat the above JTM startup steps, type "2" in the interface and press Enter:

5 - Start MySQL 6 - Stop MySQL 7 - Set Tomcat Port 8 - Set MySQL Port 9 - Check port status 10 - Set MySQL root Passwo
--

Pic3-26

After the services are stopped, delete the current JTM folder⁽²⁾. Then, decompress the new JTM archive to the original JTM path⁽³⁾.

Remarks:

(1) For the operation of database backup, please refer to 6.1;

(2) Please stop the tomcat and mysql services before deleting the JTM folder, or else the operating system will prompt that some files can't be deleted;

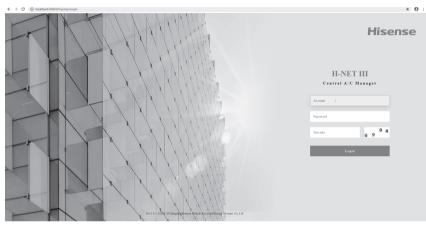
(3) If the new JTM path is inconsistent with the original JTM, the mysql service will fail to start.

3.4 System Initialization

System initialization can only be performed on a computer with JTM installed. If you import the configuration on another computer in the LAN, the system will prompt an error.

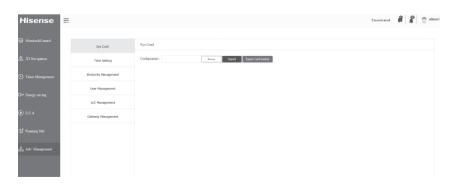
3.4.1 Log in with administrator permissions⁽¹⁾

Account name: admin1, initial password: 123456; then enter the vercode on the page:



Pic3-27

After logging in, select "Adv. Management" - "System Conf.":



Pic3-28

3.4.2 Preparing the configuration

The system commissioning personnel need to prepare a configuration according to the actual installation situation of the project. Click "Export Configuration Template" button⁽²⁾. The configuration template format is as follows:

Server IP	192.168.3.200								
No.1 GW IP	192.168.3.100	Electricity Allocation	yes						
Ammeter Type	2								
No.	ODU Address	IDU Address	Ammeter ID	Building	Floor	Room	User Name	A/C Name	User No
1	0	0	1	Fortune Tower A	B1	B101	Property office		1
2	0	1	1	Fortune Tower A	B1	B101	Property office		1
3	0	2	1	Fortune Tower A	B1	B101	Property office		1
4	0	3	1	Fortune Tower A	1	101	XX Bank	Lobby 1	3
5	18	2	2	Fortune Tower A	1	101	XX Bank	Lobby 2	3
6	18	3	2	Fortune Tower A	1	101	XX Bank	Lobby 3	3
7	18	4	2	Fortune Tower A	1	101	XX Bank	Lobby 4	3
8	18	5	2	Fortune Tower A	1	101	XX Bank	Lobby 5	3
No.2 GW IP	192.168.3.101	Electricity Allocation	no	R.					
Ammeter Type									
No.	ODU Address	IDU Address	Ammeter ID	Building	Floor	Room	User Name	A/C Name	User No
1	0	0		Fortune Tower A	2	201	XX Bank	Office 1	3
2	0	1		Fortune Tower A	2	201	XX Bank	Office 2	3
3	0	2		Fortune Tower A	2	201	XX Bank	Office 3	3
4	0	3		Fortune Tower A	2	202	XX Bank	VIP 1	3
5	1	0		Fortune Tower A	2	202	XX Bank	VIP 2	3
6	1	1		Fortune Tower B	2	203	Tea Room		6
7	1	2		Fortune Tower B	2	204	Storage Room 1		7
8	1	3		Fortune Tower B	2	205	Storage Room 2		8
9	2	0		Fortune Tower B	1	Dining Hall	Dining Hall		9
10	2	1		Fortune Tower B	1	Dining Hall	Dining Hall		9
11	2	2		Fortune Tower B	1	Dining Hall	Dining Hall		9
12	2	3		Fortune Tower B	1	Dining Hall	Dining Hall		9
13	2	4		Fortune Tower B	1	Dining Hall	Dining Hall		9
14	2	5		Fortune Tower B	1	Dining Hall	Dining Hall		9

Table3-2

Description of preparation rules:

- It must be modified on the exported configuration template rather than creating a new excel document, or else the system will not recognize it. If the configuration needs to be modified multiple times, use the "Save As" command after changing on the template.
- 2. Server IP: It must be the same as the IP address of local unit (the computer with JTM installed).
- 3. Gateway IP: The sequence number starts from 1 and ranges from 1 to 32. Repeated serial numbers and gateway IPs are not allowed. The first three segments of each gateway IP address must be the same. Whether billing: Yes, or No.
- 4. Meter type: 2: Schneider Modbus protocol ammeter.

If it is a billing gateway, the ammeter type mustn't be null; if it is not a billing gateway, the ammeter type must be null.

- 5. No.: Ascending order from 1, range: 1~160.
- ODU address column: The A/C system address connected to the gateway: ODU address DIP. Range: 0~63.
- IDU address column: The address of the indoor unit connected to each A/C system: IDU address DIP. Range: 0~63.
- 8. Ammeter ID column:

① Billing gateway: The ammeter ID column mustn't be null:

For type 2 ammeter, ID is the communication address of the ammeter, range: $1\sim247$; it must be set when the ammeter is installed⁽³⁾.

The outdoor unit system address and the ammeter ID are in one-to-one correspondence, that is, an A/C system corresponds to an ammeter ID;

② Non-billing gateway: The ammeter ID column must be null.

- Building, floor, room, user name, A/C name: Fill in according to the actual conditions; building, floor, room and user name are required, used for A/C query^(a); A/C name isn't required;
- 10. User No. column: One-to-one correspondence with the user name, only integers allowed, starting from 1. The user NO. is used for the report data combination in the A/C sorting and energy analysis menus of the software⁽⁵⁾. If there is a need for Electricity consumption allocation, please ensure that the user NO. and user name match the actual conditions.
- 11.All cells shouldn't be include blank except column: Building\Floor\Room\User Name\A/C Name.

3.4.3 Import configuration

In the system configuration interface, select the configuration compiled in the previous step, and then click "Import":

Sys Conf.	Sys Conf.
Time Setting	Configuration: C:\fakepath\software topo_1 Erronse Import Export Conf Existed
Electricity Management	
User Management	
A/C Management	
Gateway Management	
	Pic3-29

After the configuration is imported, the software will verify it. Each item of the above-mentioned preparation rules will be verified. If there is any non-conformity, an error will be reported. For example:



In addition to the above-mentioned configuration rules, the verification content also includes: brand consistency of the gateway and the software. The software will read the brand attribute of each gateway in the configuration. If any gateway is inconsistent with the software brand, it will report an error:



Pic3-31

The debugging personnel can modify the configuration as prompted. After the verification is passed, the software will compare the newly imported configuration with the last imported configuration, and prompt the debugging personnel; there are 6 update statuses:

Gateway IP	Update Condition	Submit Condition
192.168.3.101	Update(Relation Changed)	Submitting
192.168.3.103	Ndd	Submitting
192.168.3.100	🛛 Void	No Submit

Pic3-32

- Add: The gateway that is added in the newly imported configuration and did not exist in the last imported configuration;
- 2. Void: The gateway that existed in the last imported configuration but does not exist in the newly imported configuration. The gateway is only abandoned in the software: no longer communicate with it nor receive the uploaded files. But it can still be used normally in the gateway interface;
- Update (Relation no Change): The gateway that exists both in the last imported configuration and the newly imported configuration; ammeter type, ODU system address, IDU address, and ammeter ID are not changed in the new configuration;
- 4. Update (Relation Changed): The gateway that exists both in the last imported configuration and the newly imported configuration, the ammeter type, ODU system address, IDU address, and ammeter ID are changed in the new configuration;
- 5. No change: The gateway exists that both in the last imported configuration and the newly imported configuration, and the content has not changed.

Click "Cancel" to return to the previous step to import configuration interface, click "Confirm": only the "Void" and "No change" status do not need to be submitted, and other statues must be updated in the configuration:

Update status	Submit status
Void, No change	No submit
Update (Relation no Change)	Submit successfully, Submit failed ⁽⁶⁾
Add, Update (Relation Changed)	Automatically search device after submitted successfully, submit $\mbox{failed}^{\mbox{\tiny (6)}}$

Table3-3

After device search, the search results will appear:

Fotal A/C Conf Qt	y: 160	Total Ammeter Conf Qty: 4	0
Online A/C Qty :	160	Online Ammeter Qty: 36	
Online A/C Add. :	0-0,0-1,0-2,0-3,1-1,1-2,1-3,1-0,2-0,2-1,2-2,2-3,3-0,3-1,3-2,3- 3,4-0,4-1,4-2,4-3,5-0,5-1,5-2,5-3,6-0,6-1,6-2,6-3,7-0,7-1,7-2,7- 2,0,0,1,0,2,0,2,0,0,0,0,0,0,0,0,0,0,0,0,	1,1	14913,11914914,11914918,11914919,11914920,1191492 1914922,11914923,11914924,11914925,11914926,119149
Offline A/C Add. :		Offline Ammeter Add.: 119	14952,11914915,11914916,11914917

Search results description:

1. Online A/C (ammeter) address: The address of the device that exists in the configuration and is online when search;

2. Offline A/C (ammeter) address: The address of the device that exists in the configuration but is offline when search;

3. Online & No Conf A/C address: The address of the indoor unit that that does not exist in the configuration but is online when search.

In the software interface and gateway interface, both online and offline indoor units (ammeters) are displayed. The indoor unit that is online but not in the configuration is not displayed. It only prompts the debugging personnel: the actual situation of the project does not match the configuration, and it needs to be checked and modified.

Device search notes:

1. Before automatic search, make sure that the A/C and ammeter in the gateway are installed and turned on, or else the search results will be incorrect;

2. The indoor unit that is online during device search can be displayed in real time in the software interface and gateway interface if the online status changes later;

3. The indoor unit that is not online during device search will be offline afterwards, unless the device search is started again;

4. For the gateway already with configuration, the device search can be separately executed in the gateway interface⁽⁷⁾. It is applicable to gateways that are in a state of no change and Relation no change when importing configuration.

3.4.4 Time synchronization

Before importing the configuration in the previous step, make sure that the operating system time of the host computer is correct: view in the lower right corner of the desktop



As long as the gateway is successfully submitted, the system time of the computer will be synchronized to the gateway time⁽⁸⁾.

You can also manually synchronize the time in the Time Setting menu later:



After clicking "Sync Time", the software will synchronize the current time of the system to all gateways in the configuration⁽⁹⁾:



Remarks:

(1) For a detailed description of the software user permissions, please refer to 5.8;

(2) If no configuration has been imported into the system, this button displays "Export Configuration Template"; if any configuration has ever been imported, this button displays "Export Existing Configuration". The existing configuration is a configuration that at least one gateway has been successfully imported last time;

(3) For the setting of the ammeter address, please refer to 1.3;

(4) For detailed functions, please refer to 5.2;

(5) For detailed functions, please refer to 5.5;

(6) The biggest possibility of submit alarm is gateway offline. Please check the network connection of the gateway.

(7) For detailed functions, please refer to 4.6;

(8) Please refer to 4.6 to check the gateway time.

(9) The biggest possibility of time synchronization alarm is gateway offline. Please check the network connection of the gateway.

IV. Gateway Instructions

4.1 Login

The initial IP address of the gateway is 192.168.3.100.

If there are multiple gateways in the LAN, first modify the IP address of the gateway:

(1) Ensure that the IP addresses of all gateways are not duplicated;

2 Ensure that the first three segments of all gateway IP addresses are the same.

Take the initial IP: 192.168.3.100 as an example. Enter 192.168.3.100 in the browser address bar to enter the login interface:



Pic4-1

There are two types of login accounts: admin and user; default account is "user", and default password is 123123.

The admin account requires a specific action to display:

Double-click "Qingdao Hisense Hitachi Air Conditioning System Co., Ltd." in the bottom of the login interface, and then select "admin" in the account.





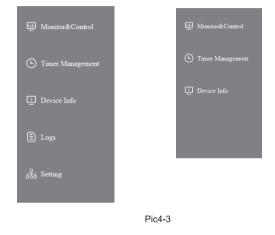
Pic4-2



The difference between the two accounts is that the admin has full permissions and the user does not have gateway Setting and Logs view permissions.

Menu after logging in as admin:

in: Menu after logging in as user:



4.2 Monitor & Control

There are two tabs under this menu: A/C, Ammeter. If the gateway is not initialized in the software, it is displayed as follows:

A/C Ammeter			
Building All Buildings \checkmark Floor \checkmark R	oom 🗸 Statu	25 All Status V Query	Reset
Totally 0			
		No Devices	
A/C Ammeter			
Ammeter Qty.: 0 Offline Ammeter Qty.: 0			
		No Devices	

Pic4-4

4.2.1 A/C tab: You can query the status and submit control commands to all indoor units in the gateway	
configuration:	

A/C Ammeter								
Building All Buildings	~ Floor	~ Room	V Status All Statu	• · ·	Query Reset			
Totally 60								
Law firm-101-0-0	• ON	Law firm-101-0-1 CM	Law firm 101-0-2	OFF	Law firm-101-0-3	Alarm19	affice-101-1-0	⊟7 Offline
20°c	Cool High	20°c 🐉 🖓	20°c	Cool High	20°c	Scool High		
Timer LM. LL. LO.		Ō ¾ Å C Å Œ			⊕ ﷺ Å C Timer LM LT LO	ah, ⊡ A.di L.5. More	ē Ime	 Mare

Pic4-5

Main features of A/C tab:

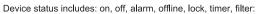
4.2.1.1 Device filter

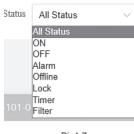
There are 4 filter conditions: Building, floor, room, and device status. The first three items are filtered according to the gateway configuration, and the last one is based on the current running status of the indoor unit.

The building, floor, and room correspond to the building, floor, and room in the configuration:



Pic4-6





Pic4-7

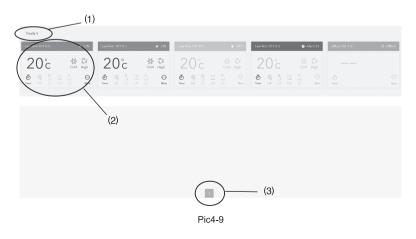
The above four filter conditions can be used in combination. After selection, click "Query" to display the result:

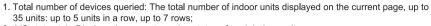


Pic4-8

Click "Reset" to clear all filters.

4.2.1.2 Status query



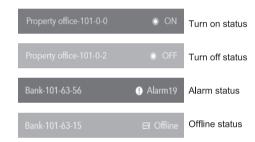


2. A/C status tab: Displays the current running status of each indoor unit.



Pic4-10

Color definition:



Tab name meaning: User name + device ID. For example, "Data center-100-1-1": Data center: The corresponding user name of the indoor unit in the configuration; 100-1-1: Device ID⁽¹⁾:

100: The last segment of the gateway IP address;

- 1: The ODU address corresponding to the indoor unit in the configuration;
- 1: The IDU address corresponding to the indoor unit in the configuration.

Tab display definition:

19°C: The current set temperature of the indoor unit. On: The indoor unit is turned on; Off: The indoor unit is turned off;



Cool The current running mode of the indoor unit. On: The indoor unit is turned on; Off: The indoor unit is turned off;

R

High The current fan of the indoor unit. On: The indoor unit is turned on; Off: The indoor unit is turned off;

Ō

Timer The current timer status of the indoor unit. On: The timer set by the software includes the indoor unit; Off: The timer set by the software does not include the indoor unit;

嬸

L.M. The current mode setting lock status of the indoor unit. On: The mode setting of the indoor unit is locked; Off: The mode setting of the indoor unit is unlocked;

L.T. The current temperature setting lock status of the indoor unit. On: The temperature setting of the indoor unit is locked; Off: The temperature setting of the indoor unit is unlocked;

(j)

L.O. The current On/Off setting lock status of the indoor unit. On: The On/Off setting of the indoor unit is locked; Off: The On/Off setting of the indoor unit is unlocked;

L.F. The current fan setting lock status of the indoor unit. On: The fan setting of the indoor unit is locked; Off: The fan setting of the indoor unit is unlocked;

More: Move the mouse pointer over the icon to display the last refresh time and the A/C name in the configuration:



Pic4-11

The refresh rate is once every 1 minute.

3. Current page. The gateway can be connected up to 160 indoor units, and each page can display up to 35 units. When there are more than 35 units, it will be displayed on next page.

4.2.1.3 Submit control command

1. Select A/C: Click the A/C status tab to be controlled to pop up the control command menu:

On/Off				
Mode	Cool	-Ò- Heat	_ Dry	Fan
Temp.		Θ 2	20	° C ⊕
Fan High	Mid Low			

Pic4-12

If the indoor unit is in "offline" state, the control command menu will not be displayed.

2. Control command menu⁽²⁾ has two tabs: A/C control, control lock
A/C control has 4 commands:
On/Off: On, off;
Mode: Cool, heat, dry, fan;
Temperature: 19~30°C;
Fan: High, medium and low.
After selecting the corresponding setting item, click "OK" to submit.

"Control lock" has 5 commands:





Pic4-13

Lock all: On/Off, mode, fan and temperature can be all locked or unlocked. The following 4 items can be selected separately only when "Lock All" is in the "Unlock" position; if "Lock All" is in the "Lock" position, the following 4 items will not unavailable:

A/C Control	CON Lock			
Lock All			Lock	Unlock
On/Off Lo	ick Unlock	Mode	Lock	Unlock
Fan Lo	ck Unlock	Temp.	Lock	Unlock

Confirm	Cancel
Pic4-14	1

4.2.2 Ammeter tab: The status of all the ammeters in the gateway configuration can be queried:

101-01-11914913	101-02-11914914	101-03-11914915	El Offline	101-04-11914916	EI Offine	101-05-11914917	El Offin
98511.20 kWh	98511.70 kWh		kWh		kWh		kWh
Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:3	0:53	Refresh Time: 2020.02.25	-14:30:53	Refresh Time: 2020.02.25-	14:30:53
101-06-11914918	101-07-11914919	101-08-11914920		101-09-11914921		101-10-11914922	
98511.90 kWh	98511.90 kWh	98512.00) _{kWh}	98512.	00 kWh	98512.0	00 kWh
Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:3	0:53	Refresh Time: 2020.02.25	-14:30:53	Refresh Time: 2020.02.25-	14:30:53
101-11-11914923	101-12-11914924	101-13-11914925		101-14-11914926		101-15-11914927	
98512.10 kWh	98512.30 kWh	98512.40	kWh	98512.4	40 kWh	98512.4	40 kWh
Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:30:53	Refresh Time: 2020.02.25-14:3	0:53	Refresh Time: 2020.02.25	-14:30:53	Refresh Time: 2020.02.25-	14:30:53

Pic4-15

The main functions of ammeter tab:

4.2.2.1 Count the number of ammeters in the gateway

Ammeter: The total number of ammeters in the gateway configuration; Offline ammeters: The total number of ammeters currently in "offline" state.

NSTALLATION AND OPERATION MANUAL

Ammeter Qty.: 40 Offline Ammeter Qty.: 3			
101-01-11914913	101-02-11914914	101-03-11914915	🖽 Offlir
98511.20 kWh	98511.70 kWh		kWh

Refresh Time: 2020.02.25-14:30:53

Pic4-16

Refresh Time: 2020.02.25-14:30:53

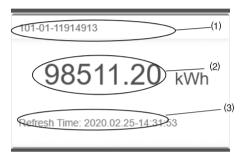
101-04-11914916

Refresh Time: 2020.02.25-14:30:53

El Offline

4.2.2.2 Ammeter status query

Refresh Time: 2020.02.25-14:30:53



Pic4-17

1. Color definition of ammeter status tab:



Tab name meaning: Ammeter $ID^{\scriptscriptstyle (3)}\!.$ For example: 102-00-3:

102: The last segment of the gateway IP address;

00: The ODU address corresponding to the ammeter in the configuration;

3: The ID of the ammeter in the configuration.

2. Current reading of ammeter: 26872.23 kWh

3. Refresh time: The time of the last refresh; the refresh rate is once every minute.

Remarks:

(1) The device ID will be reflected in the output report of the software. See 5.5 and 5.6 for details;(2) The control command menu is fixed, and there is no adaptation for different types of indoor units. Some indoor unit commands may not match.

(3) The ammeter ID will be reflected in the output report of the software. See 5.5 and 5.6 for details.

4.3 Timer Management

Task				
Timer Name 8:00				
Execute Time Week Mon Tue Wed	Thu Pri Sat Sun			
Feb,2021	Mar,2021	Apr,2021	May,2021	Jun,20
Sun Mon Tue Wed Thu Fri Sat	Sun Mon Tue Wed Thu Fri Sat	Sun Mon Tue Wed Thu Fri Sat	Sun Mon Tue Wed Thu Fri Sat	Sun Mon
1 2 3 4 5 6	123456	123		
7 8 9 10 11 12 13	7 8 9 10 11 12 13	4 5 6 7 8 9 10	2 3 4 5 6 7 8	6 7
14 15 16 17 18 19 20	14 15 16 17 18 19 20	11 12 13 14 15 16 17	9 10 11 12 13 14 15	13 14
21 22 23 24 25 26 27	21 22 23 24 25 26 27	18 19 20 21 22 23 24	16 17 18 19 20 21 22	20 21
28	28 29 30 31	25 26 27 28 29 30	23 24 25 26 27 28 29	27 28

Pic4-18

Timer management can't be set on the gateway; only the timer set in the software can be viewed⁽¹⁾. If the indoor unit under the gateway is included in the timer and has been submitted successfully, you can view it in this menu.

If "No Timer" is displayed under this menu, as shown below:

mer Schedule Hanagement										
No Timer	Task									
	Timer Name									
	Execute Time	Fook								
	Timer Setting									
	Жо.	Setting Name	Time	0n/0ff	Temp.	Rode	Fan	Controller Lock		
	A/C									

Pic4-19

The possibilities may be:

- ① The gateway is not initialized in the software;
- ② The indoor unit under the gateway is not included in the timer;
- ③ The timer including the indoor unit under the gateway is turned off in the software;
- ④ The submit of the timer including the indoor unit under the gateway failed.

Remarks:

(1) For detailed operation of timer management in software, please refer to 5.4.

H-NFT III

4.4 Device Info

Two tabs are included in the device info menu.

4.4.1 Gateway info

Gateway ID	Status	
192.168.3.101	• Normally	

Pic4-20

Display the current status of the gateway, including normal, no configuration, low battery, insufficient gateway space, and gateway malfunction.

4.4.2 A/C info

ateway Inf	io A/C Info								
ID	ODU Address	IDU Address	Building	Floor	Room	User	A/C Type	Capacity Code	Fan Motor Capacity
1	0	0	trafficbuilding	1F	501	Law firm-101-0-0	1	64	560W
2	0	1	trafficbuilding	1F	502	Law firm-101-0-1	1	64	560W
3	0	2	trafficbuilding	1F	503	Law firm-101-0-2	1	64	560W
4	0	3	trafficbuilding	1F	504	Law firm-101-0-3	1	64	560W

Pic4-21

Display the indoor unit list according to the gateway configuration, and the model, capability code, and fan power of each indoor unit are added to the configuration. The fan power is used to calculate the power consumption of the indoor unit for the Electricity consumption allocation function. If the gateway is not initialized in the software, a prompt will pop up:





4.5 Diagnosis Log



Select the appropriate date in the calendar, and then click "Download log" to download the log of the selected date; if no log is generated on the selected date, a prompt will pop up:



Pic4-24

The log is split every day at 10:30 in the morning. If the gateway does not work normally at 10:30 on the same day, the log will be kept until the next split time. The log will remain in the gateway for up to 30 days.

The downloaded log shall be processed by our professional staff.

Network Setting

4.6 Settings

4.6.1 Network settings

IP Address:	192	168	3	101
Subnet				
Mask:	255	255	255	0
Default				
Gateway:	192	168	3	1
Server IP:	192	168	3	180
Server Port:	30064			

Pic4-25

You can set the IP address, subnet mask, and default gateway of the gateway. The server IP and server port are submitted by the software at the time of initialization and can't be modified.

4.6.2 View gateway time

Sync Sys Time

Gateway Time: 2019-12-05 15:47:10

The gateway time is automatically synchronized by the software when it is initialized and can't be modified.

If the gateway is not initialized in the software, or if the gateway battery is low, wrong time may be

displayed:

Sync Sys Time

Gateway Time:

e: 1970-01-01 00:02:33

4.6.3 Firmware upgrade

Firmware Update

Firmware	No Selected file	Browse	Upload
Update			

Select the corresponding firmware file, click "Upload", and the gateway will automatically restart after the upload is successful:



Pic4-26

4.6.4	Device search	
	Search	
		Search
		Search

Pic4-27

If it is necessary to search the device again after the software initializes the gateway, click "Search". After search, the search result prompt will appear:

Search 0%	
Gateway IP: 192.168.3.101	
fotal A/C Conf Qty: 160	Total Ammeter Conf Qty: 40
Duline A/C Qty: 160	Online Ammeter Qty: 36
Daline A/C Add.: 0-0,0-1,0-2,0-3,1-1,1-2,1-3,1-0,2-0,2-1,2-2,2-3,3-0,3-1,3-2,3- 3,4-0,4-1,4-2,4-3,5-0,5-1,5-2,5-3,6+0,6+1,6-2,6-3,7+0,7+1,7+2,7	 Online Ammeter Add.: 11914913,11914914,11914918,11914919,11914920,1191492 I,11914922,11914923,11914924,11914925,119145,110000000000000000000000000000000000
Offline A/C Add. :	Offline Ammeter Add.: 11914952,11914915,11914916,11914917

If the gateway is not initialized in the software, a prompt will pop up:



HSIDS V.

V. Software Instructions

Software supply 30 days on trial since initialization finished. If software is still unactivated after trial, it will be unavailable. Please contact local branch company for the way of activate.

If software is unactivated, there will be note when logging in the main interface:

← → C ① localhost3	0064/Hisense/Login	
Click to go back, hold to see hist	ey.	
Hisense	=	



Pic5-1

After activated, the note will be disappeared.

5.1 System Login

The system has two types of accounts⁽¹⁾. One is the admin and the other is user. Admin1 has full permissions. The instructions in this chapter are based on admin1 account and the system initialization has completed.

Remarks:

(1) Please refer to 5.8 for detailed settings and usage of the two types of accounts.

5.2 Monitor & Control

There are 3 tabs under this menu: A/C, ammeter, gateway.

5.2.1 A/C tab: Query status and submit control commands to all indoor units in the configuration:

AC Annoter Gateway Belance A Building V Floor V Rom V Statu At Status V Duory Result Input Keyword IP or Uber name Q									
Select Totally 60									
Law firm-101-0-0 ON	Law firm-101-0-1 ON	Law firm-101-0-2	OFF Law frm-101-0-3	Alarm19	effice-101-1-0	E? Offline			
20°C & & & & & & & & & & & & & & & & & & &	20°C & Could Hand				Ö Timer				
effice-101-1-1 ON	office-101-1-2 ON	effice-101-1-3	0 ON office-101-2-0	• ON	effice-101-2-1	• ON			
20°C & High 5 H & C & G Times LM LT LO LF More	20°C Cor Hun O March Lin Lo Le March	20°C &	Ref 20°C		20°C				

Pic5-2

Main functions of A/C tab:

5.2.1.1 Display mode

A/C tab has 3 display modes: big tags, small tags and list.

1. Big tags mode. Each line displays 5 indoor units, and each page displays up to12 lines, that is, up to 60 indoor units:

Select Totally 60				
Law firm-101-0-0 ON	Law firm-101-0-1 💿 ON	Law firm-101-0-2 OFF	Law firm-101-0-3 ① Alarm19	office-101-1-0 EP Office
20°C 55 C	20°C 20°C	20°C # 14	20°C 20°C	
Ö ﷺ & C ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔ ↔	Ö ﷺ Å (Li Li Li Mere			
effice-101-1-1 ON	office-101-1-2 🔹 ON	effice-101-1-3 ON	effice-101-2-0 • ON	office-101-2-1 🔹 ON
20°C	20°C	20°C 20°C	20°C	
Timer LM LT LO LF More	Ö K & Q C O Timer LM LI LO LE Mere	Ö 15 8 0 8 9 Timer LM LE LO LE More		Ö 1 4 4 0 0 0 00 000 Tener LM LT L0 LE More
effice-101-2-2 • ON	office-101-2-3 🔅 ON	effice-101-3-0 • ON	office-101-3-1 . ON	office-101-3-2 🔅 ON
20°C 🐇 🖏	20°c 20°c	20°c 🐇 🖗	20°C 🚆 🕅	20°c 20°c
Ö ∰ Å Q Q ⊕ Timer LM LT LO. LE Mare	Ö ∰ Å C C C ⊕ Timer LM LT LO LE More	Ö Å Å Q Q ⊖ Timer LM LT LO. LE More	Ö Å Å Q Q Q ↔ Timer LM LT LO LE More	Ö Å Å Q Q ⊕ Timer LM LT LO LE More

Pic5-3

Click the icon to display in big tags. The display content of a single tag is the same as that of the gateway page. Please refer to 4.2 for instructions.

2. Small tags mode. Each line displays 10 indoor units, and each page displays up to 30 lines, that is, up to 300 indoor units:



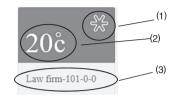
Pic5-4

Click the 📖 icon to display in small tags.

Description of tag color:



Information displayed on the tag:



Pic5-5

- 1. The current operation mode of the indoor unit;
- 2. The current temperature of the indoor unit;
- 3. The name of the tag, with the same meaning as the web page. See 4.2 for instructions.
- 3. In list mode, each line displays an indoor unit, and displays up to 600 lines:

Select	Totally 160									
	Floor	A/C Info.	A/C Name	Ou/Off Status	Setting Temp.	Setting Mode	Setting Fan	Timer	Controller Lock	Refresh Time
1	User: Law firm	User No.: 12	A/C Qty.: 4							
	1F	Law firm-101-0-0	1	ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48
	1F	Law firm-101-0-1	2	ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48
	1F	Law firm-101-0-2	3	OFF	20 °C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48
	1F	Law firm-101-0-3	office 2	Alarm	20°C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48
	User: office	User No.: 13	A/C Qty.: 14							
	27	office-101-1-0		🖂 Offline	-	-	-	No Timer	UnLock	-
	27	office-101-1-1		ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48
	27	office-101-1-2		ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 15:59:48

Pic5-6

Click the 🗮 icon to display in list. By default, the user name in the configuration is combined and displayed, and all the users can be selected for group control:

Select	Floor	A/C Info.	A/C Name	On/Off Status	Setting Temp.	Setting Mode	Setting Fan	Timer	Controller Lock	Refresh Time
	User: Law firm	User No.: 12	A/C Qty.: 4							
	1F	Law firm-101-0-0	1	ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 16:00:08
	1F	Law firm-101-0-1	2	ON	20 °C	Cool	High	No Timer	UnLock	2020-02-25 16:00:08
	1F	Law firm-101-0-2	3	OFF	20 °C	Cool	High	No Timer	UnLock	2020-02-25 16:00:08

Pic5-7

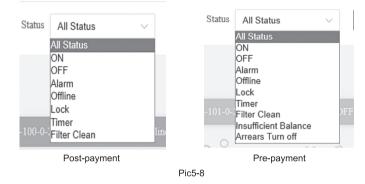
Below are the instructions for using the A/C tab in big tag display mode.

5.2.1.2 Device filter

There are five types of filter conditions: Building, floor, room, device status, keywords. The first four have the same usage methods as the gateway page. Please refer to 4.2. The device status is different from the gateway page:

When "Post-payment" is selected in Adv. Management - Electricity Setting, the device status includes: on, off, alarm, offline, lock, timer, filter clean;

When "Pre-payment" is selected in Adv. Management - Electricity Setting, the device status includes: on, off, alarm, offline, lock, timer, filter clean, insufficient balance, and arrears turn off.



The software also supports filtering by keywords. Supported keywords include: gateway IP address, user name:

Building All Buildings \sim	Floor	~ Room		 Status Al Status 	~	Query Reset	offic	R	
Select Totally 14									
office-101-1-0	ET Offlice	offlice-101-1-1	• ON	office-101-1-2	• ON	office-101-1-3	• ON	office-101-2-0	 ON
		20°c	Cool High	20°c	Cool High	20°c	222 Cool High	20°c	242 6 245 G
Timer		Timer L.M. L.T. L.O.	6,8 L.E. More	Timer L.M. L.T. L.O.	6.6 L.F. More	Timer L.M. L.T. L.O.		Ö M & Q	6.6 L.F. More
office-101-2-1	• ON	office-101-2-2	• ON	office-101-2-3	• ON	office-101-3-0	• ON	office-101-3-1	• ON
西墙各山	Ale Contraction	20°C	State Cost	20°C	Cool High	20°C		20°c	Cool High

Pic5-9

5.2.1.3 Status guery

The status query function is the same as the gateway page. Please refer to 4.2;

5.2.1.4 Control commands submit

Control commands are divided into single control and group control.

1. Single control

The single-control function adds model recognition based on the gateway page⁽ⁱ⁾: In the pop-up control command menu, the menu display is different for different models. For the sub unit of wire controller group, there's no control command menu.



1.1 A/C control

ENGLISH



Pic5-11

Mode: The display is different depending on the current model, including: auto, cooling, dry, fan, heat. Temperature: The temperature setting range is different according to the current model. Fan: It varies according to the current model. Available options include high, middle, low and auto.

1.2 Control lock

The display is different depending on the current model. If the current IDU does not have a wire controller, it displays:



Pic5-12

If it has a wire controller, the menu function is the same as the gateway page. Please refer to 4.2.

2. Group control:

For the sub unit of wire controller group, it cannot be chosen.

2.1 A/C control

Select an indoor unit that requires group control. Click the "Select" button:

Totally 60				
Law firm-101-0.0 (* ON	Law firm-101-0-1 🔹 ON	Law firm-101-0-2	Law firm-101-0-3 🕒 Alarm19	office-101-1-0 🖨 Office
20°c 🕺 🕅	20°C		20°C 20°C	
Ö ⅔ Å U Ö Ö Timer LM LT LO LF Mere	Ö ﷺ Å ⊕ 🖓 ⊖ Tmer LM LT LO. LF. More			
affice-101-1-1 🔹 ON	office-101-1-2 ON	office-101-1-3	effice-101-2-0	affine-101-2-1 🔹 ON
20°C & Cont High	20°C & Cool High	20°C & Cool High	20°C &	20°C & & High

Pic5-13

A check box appears in the upper left corner of each indoor unit status tag (except for indoor units in the offline state):

Select the indoor unit to be controlled in group as needed; you can also click the "Select All" button to select all indoor units by default (except for the indoor unit in offline state):

Select All ACControl Cased	50.60 Salacted			
🖬 Law firm-101-0-0 💿 ON	☑ Law firm-101-0-1	🖉 Law firm 101-0-2 🔹 077	Law firm-101-0-3 () Alarm19	office-101-1-0 🕞 Offline
20°C & & & & & & & & & & & & & & & & & & &	20°C & Cool High O M LA LI LO LE More	20°C this © 1/2 Cool High Timer LM LI LO LF More	20°C & & & & & & & & & & & & & & & & & & &	ē œ Timer More
🗹 office-101-1-1 🔹 ON	🗹 office-101-1-2 🔹 ON	🗹 office-101-1-3 🔹 ON	Ø office-101-2-0 ● ON	🖉 office-101-2-1 🔹 ON
20°c 💥 👬	20°C	20°C 8	20°C State	20°c 💥 🦓
Ö ﷺ Å Ü ‰ ⊖ Timer LM LT LO. LF. More	Ö ﷺ Å () ↔ ⊖ Timer LM LT LO LF More	Ö ﷺ Å () Å ⊕ Timer LM LT LO LF More	Ö ﷺ Å (L) Å ⊕ Timer LM LT LO LF More	Ö ⅔ Å Ü २२ ⊖ Timer L.M. L.T. L.O. L.F. More
✓ office-101-2-2	🗹 office-101-2-3 🔹 ON	✓ office-101-3-0 • ON	🖉 effice-101-3-1 🔹 ON	✓ office-101-3-2 • ON
20°C # #	20°C	20°C # 8		20°c # #
⊕	Ö ﷺ Å Cà Cà ⊖ Timer LM LT LO. LF. More	⊙ ½ & U & ⊖ Timer LM LII LO LF More	Ö 🏂 🌡 🖓 🚱 😁 Timer L.M. L.T. L.O. L.F. More	O M

Pic5-14

After selecting, click the "A/C control" button to pop up the control command menu:



Pic5-15

Compared to the single control mode, each command in the group control menu has a "Hold" option added. If "Hold" is selected for a command, the command will not be executed during group control. For example: when multiple indoor units are selected, but only power-on and cooling commands need to be sent, and the current temperature and fan of each indoor unit do not need change, then "Hold" can be selected in "Temperature" and "Fan" commands.

The set values of the mode are fixed: cool, heat, dry, and fan;

The temperature setting range is determined by the mode and the selected indoor unit: If the mode is selected as "Hold", the temperature defaults to "Hold" and can't be set. After selecting the specific mode, the temperature can be set, and the setting range is the intersection of the selected indoor unit setting range in this mode:

On/Off				ON	OFF Hold
Mode	500I	∑≡ Dry	Fan	-Ò- Heat	⊘ Hold
Temp.			e	32	2°C @
Fan	High Mid	Low	Hold		

Pic5-16 The set values of the fan are fixed: high, middle and low.Each command defaults to "Hold".

2.2 Control lock



If "Hold" is selected for "Lock all", the four branches are all "Hold"; If "Lock" is selected for "Lock all", the four branches are all "Lock"; If "Unlock" is selected for "Lock all", the four branches can be freely set.

5.2.2 Ammeter tab:

You can query the status of all ammeters in the configuration. 5 lines are displayed per line, up to 24 lines:

101-00-11914952	🖽 Offline	101-01-11914913	101-02-11914914	101-03-11914915 El Offline	101-04-11914916 El Offline		
	kWh	98569.1 kWh	98569.6 kWh	kWh	kWh		
Refresh Time: 2020-02-25 16:	07:38	Refresh Time: 2020-02-25 16:07:38					
101-05-11914917	⊟ Offline	101-06-11914918	101-07-11914919	101-08-11914920	101-09-11914921		
	kWh	98569.9 kWh	98569.9 kWh	98570 kwh	98570 kwh		
Refresh Time: 2020-02-25 16:	07:38	Refresh Time: 2020-02-25 16:07:38					
101-10-11914922		101-11-11914923	101-12-11914924	101-13-11914925	101-14-11914926		
98570	kWh	98570.1 kWh	98570.2 kWh	98570.3 kWh	98570.4 kwh		
Refresh Time: 2020-02-25 16:	07:38	Refresh Time: 2020-02-25 16:07-38	Refresh Time: 2020-02-25 16:07:38	Refresh Time: 2020-02-25 16:07:38	Refresh Time: 2020-02-25 16:07:38		

Pic5-18

The function of ammeter tab is the same as that of the gateway page. Please refer to 4.2.

5.2.3 Gateway tab:

You can query the status of all gateways in the configuration:

A/C Ammeter Gateway

No.	Gateway IP	Online A/C / Totally A/C	Onine Ammeter / Totally Ammeter	Status
1	192.168.3.101	159/160	36/40	Normally

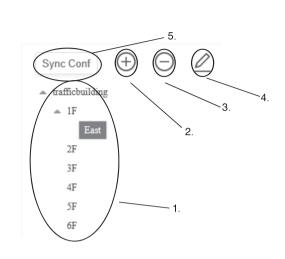
Pic5-19

Online/total ammeters: The number of ammeters online in the gateway configuration /the total number of ammeters in the configuration;

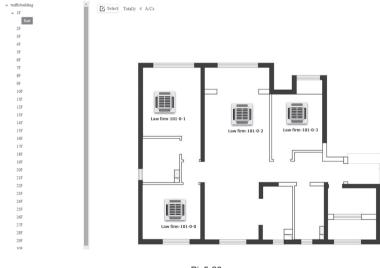
Status: Includes normal, no configuration, low battery, insufficient gateway space, brand not match, offline, and gateway alarm.

Remarks:

(1) Refer to the instructions for use of the indoor unit for specific modes, temperature/humidity settings, and fan settings for each model.



5.3 2D Navigation



Pic5-20

This menu allows the user to import the plan in a certain area, and then place the indoor unit in the area in the corresponding position in the plan, so that the indoor unit can be monitored more intuitively.

Pic5-21

1. User menu tree. A total of three levels of user directories are displayed, in which the building and floor directories are displayed according to the configuration, and the third level menu corresponds to the area, which is created by the user. Due to the limitation of the plan resolution, a maximum of 30 indoor units can be placed in each area, and each area menu corresponds to a plan;

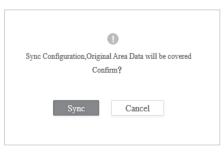
2. Add user menu. The floor menu can be manually added on the basis of the selected building menu; the area menu can also be manually added on the basis of the selected floor menu;

3. Delete user menu. Delete the selected floor or area menu;

5.3.1 Area editing

4. Edit user menu name. Modify the menu name on the selected floor or area menu;

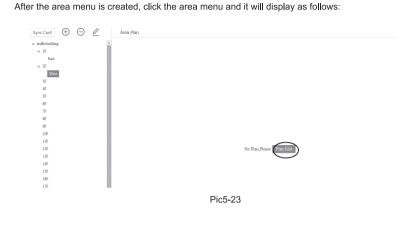
5. Synchronize configuration. If the configuration has changed, click "Sync Conf." to replace the user menu tree with the building and floor menus in the new configuration. Since the "Sync Conf." operation will clear the existing area menu and plan layout, it needs to be confirmed twice before execution:



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5.3.2 Plan layout



Click "Plan Edit" to enter the plan editing interface:

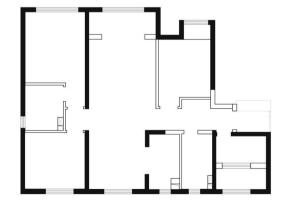


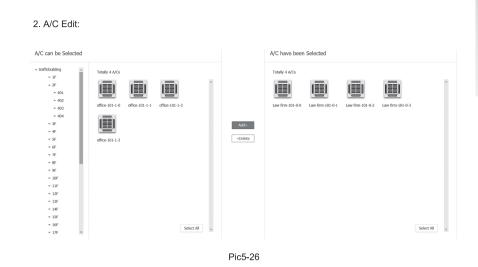
1. Import plan:

Area Plan

You can select the plan in the pop-up menu; it supports jpg, bmp and gif format.

Import Plan A/C Edit Save Cancel O For the best display effect, Each plan contain max 30 A/Cs, Please proper allocate Areas.



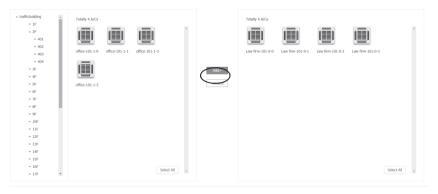


A/C can be Selected: Expand from the user menu tree on the left, select the floor menu or room menu, and display the indoor units in the current menu. You can click the IDU icon to select it, or click "Select All".

After selecting the indoor unit, click "Add" to enter the "A/C have been Selected".

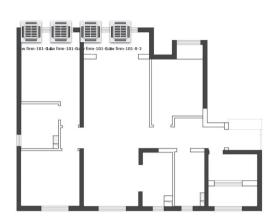
A/C have been Selected: The number of indoor units arranged in the current plan, up to 30 units. If you need to modify the selection, click the IDU icon separately, or click "Select All", and click "Delete" to remove these indoor units.

After selecting, click "Submit" to arrange the selected IDU icons in the plan:



Pic5-27



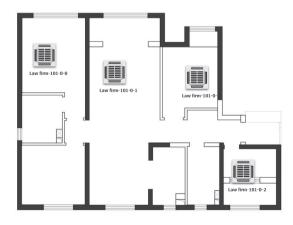


Pic5-28

After dragging each IDU icon to the corresponding location, click "Save" to complete the layout:



Save Cancel For the best display effect,Each plan contain max 30 A/Cs,Please proper allocate Areas.



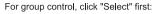
Move the mouse pointer over the IDU icon to bring up the running status menu:



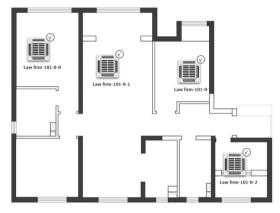
To control, click the IDU icon or the running status menu of the indoor unit to pop up the single control command menu:



The function of the single control command menu is the same as in "Monitor & Control"(1).







Pic5-32

The IDU icons can be selected separately or all selected. After selecting, click "A/C Control" to show the group control command menu:

A/C Control CON Lock Х On/Off ON OFF Hold P X G -<u>`</u>Ċ-_0 Mode Cool Drv Fan Heat Hold Temp Hold High Mid Low Hold Fan aw firm-101-0-Cancel

Pic5-33

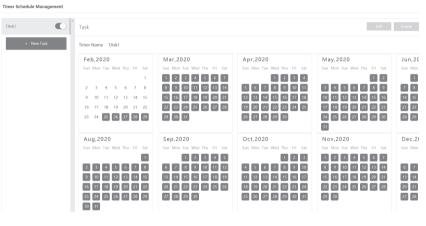
The function of group control command menu is the same as in "Monitor & Control"⁽²⁾

If you need to modify the current plan, click "Plan Reset".

Remarks:

(1) For detailed instructions, please refer to 5.2;(2) For detailed instructions, please refer to 5.2.

5.4 Timer Management



Pic5-34

You can set timer under this menu and send it to the gateway for execution.Up to 50 timers can be set.

5.4.1 New timer



Pic5-35

Click "New Task" to go to the timer setting interface.

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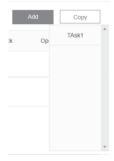
Pic5-36

- 5.4.2.1 Task name: Custom name;
- 5.4.2.2 Timer setting: Set the timer to be performed during the day in units of one day. There are two ways: ① Add setting:

	8	0	пол	100 C 001	61	0	00 30	no muT	k
	Operation	Controller Lock	UB-3	abolit	.dmaT	TOMO	əmiT	emeN gatte?	'ON
Copy	bbA	l							Timer

Pic5-37

Setting Name: Custom name; Time: Select the moment when the timer is executed; On/Off: Select to turn on or off; Temperature: Set temperature, range 19~30; Mode: Cool, heat, dry, fan Fan: Iow, middle, high; Control lock: Select whether you want to lock all timers. Up to 8 timers can be added for one day. ② Copy setting:



Pic5-38

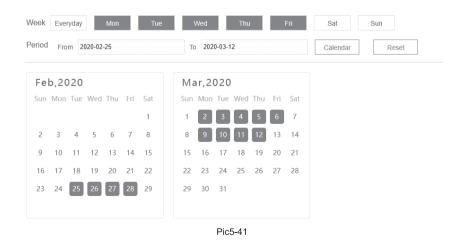
You can copy setting from an existing timer: When an existing timer is selected, the current setting will be overwritten after a second confirmation.



5.4.2.3 Set execute time



Set the execute time of timer and select through two conditions: first select the week, then select the time period. The effect set after clicking "Calendar" is as shown in the figure below. The date with color on the calendar is the date when the timer is executed:



If there are exception dates, the corresponding dates can be deselected in the calendar.

5.4.2.4 Allocate A/C

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Pic5-42

The function of "Allocate A/C" is the same as "A/C Edit" in "2D Navigation". For details, see 5.3.

5.4.2.5 Turn on task

After clicking "Submit", a prompt "Turn on the Task, Confirm?" will pop up:



Select "Yes" to turn on the task immediately:





Select "No" to return to the timer management interface:



The tasks turned on successfully can be viewed under the corresponding gateway:

Taak Taak	
Timer Nume Tdakl	
Execute Time Wesk: Men Tue Wed Thm Fri Sat Sun	
Feb,2020 Mar,2020 Apr,2020 May,2020 Ju	n,20
Sun Mon Tue Wed Thu Fri Sat Su	Mon
1 1 2 3 4 5 6 7 1 2 3 4 1 2 3	
2 3 4 5 6 7 8 8 9 10 11 12 13 14 5 6 7 8 9 10 11 3 4 5 6 7 8 9 7	8
9 10 11 12 13 14 15 15 16 17 18 19 20 21 12 13 14 15 16 17 18 10 11 12 13 14 15 16 14	15
16 17 18 19 20 21 22 22 24 25 26 27 28 19 20 21 22 22 24 25 17 18 19 20 21 22 22 24 25 17 18 19 20 21 22 22 22 24 25 17 18 19 20 21 22 22 23 24 25 17 18 19 20 21 22 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 23 24 25 17 18 19 20 21 22 23 24 25 17 18 19 20 21 23 24 25 17 18 19 20 21 23 24 25 17 18 19 20 21 23 24 25 17 18 19 20 21 23 24 25 17 18 19 20 21 24 25 17 18 19 20 21 24 24 25 17 18 19 20 21 24 24 25 17 18 19 20 21 24 24 25 18 19 20 21 24 24 25 17 18 19 20 21 24 24 25 17 18 19 20 21 24 24 25 18 19 20 21 24 24 25 17 18 19 20 21 24 24 25 18 17 18 19 20 21 24 24 25 18 17 18 19 20 21 24 24 25 18 17 18 19 20 21 24 24 25 18 17 18 19 20 21 24 24 25 18 18 18 18 18 18 18 18 18 18 18 18 18	22
23 24 25 26 27 28 29 29 30 31 26 27 28 29 30 21 22 27 28 29 30 22 27 28 29 30 22 27 28 29 30 22 28 29 30 22 28 29 30 22 28 29 30 22 28 29 30 28 29 20 28 29 20 28 29 20 28 29 20 28 29 20 28 29 20 28 29 20 28	29
A 2020 2020	

Pic5-46

When a task is turned on successfully, the gateway will perform the task according to the settings regardless of whether the software is enabled or not. If the gateway execution fails in the prompt returned by the task turned on⁽²⁾:

0
Execute Turn On-Task2 Note
A/C under Gateway 192.168.3.101 execute Failed! A/C under Gateway 192.168.3.102 execute Successfully!
Confirm Re-Execute
Pic5-47

61

In the A/C list under the task, the IDU icon that failed to execute will have a red exclamation mark:



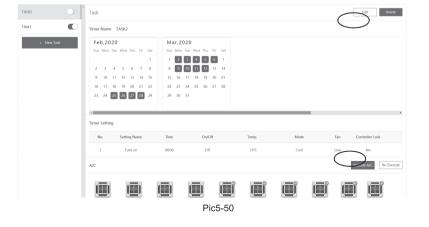
Click the red exclamation point icon, a prompt will pop up; click "Re-execute" to submit the task to the gateway again.



Pic5-49

5.4.3 Modify timer

The task that has been set can be modified by clicking "Edit", or you can click "Allocate A/C" to re-allocate the A/C.



It can be modified only when the task is turned off.

When turning on a task, the task status is displayed as ON as long as one or more gateways are successfully turned on; if all gateways under the task fail to turn on, the task status is displayed as OFF. On the Gateway page where the task failed to be turned on, the task will not be displayed and the gateway will not execute the task.

5.4.4 Turn off task

If the task needs to stop executing after it is successfully turned on, you can turn off the task. Select the task to turn off in the taskbar:



Click the C icon to turn it to n and turn off the task;

The host computer submits the task to the gateway included in the task. If it prompts that the task is turned off successfully, the task has been deleted in the gateway page, and the gateway will no longer execute the task.

If any gateway execution fails in the returned prompt of the task, you need to view the current task list of the gateway through the gateway page and determine whether the gateway will execute the task. When turning off a task, the task status is displayed as OFF as long as one or more gateways are successfully turned off; if all gateways under the task fail to turn off, the task status is displayed as ON.



Pic5-52

Failing to turn off gateway task may bring two results:

1. The task was successfully turned on in the gateway before, and now it fails to turn off in the gateway, it means that the gateway will still execute the task. Please check the network connection and re-execute;

2. The task failed to turn on in the gateway before and now it fails to turn off in the gateway, so the gateway won't execute the task actually.

5.4.5 Delete task

As explained above, if all the indoor units in the task are turned off successfully, it means that the task has actually been deleted from the timer list of all gateways and will not be executed. The task record is also retained in the software and is applicable to certain scenarios, as shown in the following figure:

imer Schedule Management					
TASK2	Task			Edit	Delete
TAsk1	Timer Name TAsk1				
+ New Task	Feb,202 Feb,202 Feb,202 Feb,202 Sun Mon Tue Wed Thu Pril 54 1 2 3 4 5 6 7 8 9 10 11 12 13 44 15 16 17 18 19 20 21 22 23 24 25 26 22 29	Mar,2020 San Mon Tue Wed The Fri Sat 2 2 2 6 10 11 12 13 6 5 15 17 16 17 20 21 2 2 2 26 55 26 27 20 2 3 3	Apr,2020 Sun Mon Tue Wed Thu Fri Sat 7 2 3 4 7 2 3 4 7 3 4 5 7 3 4 5 7 3 4 5 7 4 5 7	May,2020 San Mon Tue Wed The Tri Sat 2 3 4 5 6 7 8 0 10 12 1 4 15 16 17 16 16 17 16 16 17 16 16 17 16 16 17 17 17 17 17 17 17 17 17 17 17 </th <th>Jun, 20 Sun Mon 7 8 14 15 21 22 28 29</th>	Jun, 20 Sun Mon 7 8 14 15 21 22 28 29
	< Timer Setting				,
	No. Setting Name	Time On/Off	Temp. Mode	Fan Controller Los	k
	1 8.00	08:00 On	19°C Cool	Low No	
	A/C			Allocate A/C	Re-Execute
		Die F2			

Pic5-53

If the indoor unit and setting for the summer task are the same every year and only the execute time needs to be changed, then you can click "Edit" in the task, and then turn it on again after modifying the execute time.

If you still need to delete the task in the software, first make sure that all the indoor units under the task are turned off successfully. As described above, the gateway may continue to execute the task if it fails to turn off the task.

To ensure that all indoor units under the task are turned off successfully, there are two ways:

1. Check the network connection and re-execute the indoor unit that failed to turn off until the turn-off is successful.

2. Re-allocate indoor unit: Remove the indoor unit that fails to turn off from the task.

In the second method, the gateway may still continue to execute when the task has been deleted from the host computer.

Remarks:

(1) For detailed functions, please refer to 4.3;

(2) The biggest possibility of execution failure is that the gateway is offline. Please check the network connection;

5.5 E.C.A.(electricity consumption allocation)

If at least one of the gateways connected to the software is billing type, the menu is displayed; if the gateways connected to the software are central control type, the menu is not displayed. The format of this menu is also different according to the settings in "Adv. Management" - "Electricity Management"⁽¹⁾:

If the payment method⁽²⁾ is "Post-payment", the format of "E.C.A" is:

E.C Statistic	s Building A/C E.C					
Start Time	End Time		Report			
No.	Start Time	End Time	Report Time	Each User Cost	Management Cost	Operation
1	2019-11-30	2019-12-01	2019-12-03 10:33	Each User Cost	Management Cost	Ē
2	2019-11-28	2019-11-28	2019-11-29 15:38	Each User Cost	Management Cost	Ŵ
3	2019-11-26	2019-11-28	2019-11-29 09:01	Each User Cost	Management Cost	Ē
4	2019-11-01	2019-11-25	2019-11-27 11-31	Each User Cost	Management Cost	Ē

Pic5-54

If the payment method is "Pre-payment", the format of "E.C.A" is:

Cost Recharge Building A/C E.C Management Cost

La

building / je		and the state															
Yease Input User Name Keyword 🛛 📿	Balance:	93571.39				Recharge											
aw firm	User Name:	office			υ	ser No. :	13										
lice	Building:	trafficbuilding				loori	2F,3F,4		Time 2020			Room	40 To	2020-02-		,303,304,501,5	502
ersonal studio1	Rech	arge History	Cons	ume Hist	ory			Select	111116 2020	J-02-01		Ш	10	2020-02-	29		
ersonal studio2	Date	Building	Floor	Room	A/C Name	T.P 1 E.	Cost	T.P 2 E.	Cost	T.P 3 E.	Cost	T.P.4 E.	Cost	T.P 5 E.	Cost	Total Electri	Total Cost
echnologyco.LTD		trafficbuilding	2F	403	office-101-1-2	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
onsultancy		trafficbuilding	2F	404	office-101-1-3	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
		trafficbuilding	3F	301	office-101-2-0	108.14	129.77	53.99	\$3.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
		trafficbuilding	3F	302	office-101-2-1	108.14	129.77	53.99	53.99	27.05	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	2020.02.27	trafficbuilding	3F	303	office-101-2-2	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
		trafficbuilding	3F	304	office-101-2-3	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	<	icity(kWh): 457	1.86				-	1	otal Cost	6428 B		-		-	-		•
	-otai Eloca	sagarilly 40	1.00						0108 00001	0.120.01	·						

Pic5-55

Post-payment: The user first uses the A/C, and the property management company charges the electricity fee according to the usage;

Pre-payment: The user first recharges the electricity fee for the A/C. The software automatically deducts the fee according to the daily usage. If the user's balance is insufficient, a reminder will pop up. If the user has already owed the fee, the A/C will be turned off and locked.

5.5.1 E.C.A - Post-paid

ENGLISH

5.5.1.1 Generate a bill:



Depending on the time period selected, the time to generate a bill may be longer. Other operations are not affected while the software is generating the bill:

No.	Start Time	End Time	Report Time	Each User Cost	Management Cost	Operation
1	2019-11-03	2019-11-04	-	we Reporting		
			D: E E7			

Pic5-57

If start time before the calculate point of software, it will be note as below, Please modify the bill time period.



5.5.1.2 Each User Cost:

1	2019-11-03	2019-11-04	2020-02-25 16-53	Each User Cost
			Pic5-59	

In the generated bills, there are two lists: each user cost and management cost(3). The format of each user cost is as follows:

tart Time: 2020-01-1	6 End Time: 2020-01-16	Report Time: 2020-01-22 08:20		D D
User Nan	ae User No.	Total Electricity(kWh)	Total Cost	Operation
Law firm	12	357.16	714.32	Detailed Info

Pic5-60

Click the 🗵 icon to export the table to excel. Click the 📓 icon to output the table in pdf format.

The list of each user cost is arranged by user NO. in the configuration. Here is the total electricity and total cost of the user during the specified billing period. Among them, the unit of electricity is kWh, and the cost is calculated according to the setting value in "Adv. Management" - "Electricity Management" - "Electricity Price Setting". Click "Detailed Info" to view a breakdown of the user bill. The detailed table

has two formats depending on the electricity price setting⁽⁴⁾:

1. Single electricity price:

Back Details						
User Name: Law firm	Start Time: 2020-01-16 End	Fime: 2020-01-16 Report Time	2020-01-22 08:20	Total Electricity: 357.16kWh	Total Cost: 714.32	
Date	Building	Floor	Room	A/C ID	Electricity	Cost
	trafficbuilding	1F	501	Law firm-100-0-0	76.11	152.22
	trafficbuilding	1F	502	Law firm-100-0-1	76.11	152.22
	trafficbuilding	1F	503	Law firm-100-0-2	76.11	152.22
2020-01-16	trafficbuilding	1F	504	Law firm-100-0-3	76.11	152.22
2020-01-10	trafficbuilding	1F	501	Law firm-101-0-0	13.18	26.36
	trafficbuilding	1F	502	Law firm-101-0-1	13.18	26.36
	trafficbuilding	1F	503	Law firm-101-0-2	13.18	26.36
	trafficbuilding	1F	504	Law firm-101-0-3	13.18	26.36
				< 1		

2. T.P. electricity price:

ack Details																
lser Name : La	w firm	Start Time:	2019-12-08	End Time: 20	19-12-10	Report Ti	me: 2019-12	-11 01:16	Total Elec	tricity: 753	7.88kWh	Т	otal Cost: 77	15.57		D
Date	Building	Floor	Room	A/C ID	T.P.1 E.	Cost	T.P 2 E.	Cost	T.P 3 E.	Cost	T.P 4 E.	Cost	T.P 5 E.	Cost	Total Electricity	Total 0
	traffic building	1F	501	Law firm-102-0-0	-			-	-	-	-	-	-		-	
	traffic building	1F	502	Law firm-102-0-1	-							-			-	
	traffic building	1F	503	Law firm-102-0-2	-	-		-	-	-	-	-	-		-	-
	traffic building	1F	504	Law firm-102-0-3	54.04	64.84	17.98	17.98	36.01	28.81	44.9	26.94	62.45	31.23	215.36	169
	traffic building	2F	401	Law firm-102-1-0	54.03	64.84	17.98	17.98	36.01	28.81	44.89	26.94	62.47	31.24	215.36	169
2019-12-08	traffic building	2F	402	Law firm-102-1-1	54.03	64.84	17.98	17.98	36.01	28.81	44.89	26.94	62.47	31.24	215.36	169
	traffic building	2F	403	Law firm-102-1-2	54.03	64.84	17.98	17.98	36.01	28.81	44.89	26.94	62.47	31.24	215.36	169
	traffic building	2F	404	Law firm-102-1-3	54.03	64.84	17.98	17.98	36.01	28.81	44.89	26.94	62.47	31.24	215.36	169
	traffic building	37	301	Law firm-102-2-0	53.99	64.79	17.98	17.98	36.04	28.83	44.88	26.93	62.48	31.24	215.36	169
	traffic building	37	302	Law firm-102-2-1	53.99	64.79	17.98	17.98	36.04	28.83	44.88	26.93	62.48	31.24	215.36	169
	traffic building	3F	303	Law firm-102-2-2	53.99	64.79	17.98	17.98	36.04	28.83	44.88	26.93	62.48	31.24	215.36	169

Pic5-62

The list shows the breakdown of each user for each day and every electricity price during the billing period.

5.5.1.3 Management cost

Start Time, 2019-12-20 End Time, 2019-12-10 Report Time, 2019-12-10 Total Electricity, 16:56:20%, Total Cost, 1951.44 Dealer Total Electricity Total Cost Operation 10:52 1951.44 Dealed lab	Back Management Cost						
	Start Time: 2019-12-09	End Time: 2019-12-10	Report Time: 2019-12-11 01:13	Total Electricity: 1626.2kWh	Total Cost: 1951.44		D B
1656.2 1551.44 Detailed Info		Total Electricity		Total Cost		Operation	
		1626.2		1951.44		Detailed Info	

Pic5-63

This table lists the total electricity and total cost of the management cost⁽⁵⁾ during the specified billing period. Click "Detailed Info" to view a breakdown of the management cost. The management cost has two formats depending on the electricity price setting:

1. Single electricity price:



2. T.P. electricity price:

Start Time: 2019-	-12-08 End T	ime, 2019-12-10	Report Time	2019-12-11 01:1	5 Te	tal Electricity: 26	28.44kWh	Total Cost.	2757.51			D D
T.P 1 E.	Cost	T.P 2 E.	Cost	T.P 3 E.	Cost	T.P 4 E.	Cost	T.P 5 E.	Cost	Total Electricity	Total Cost	Operation
1818.75	2182.5	180.08	180.08	198.1	158.48	206.99	124.2	224.54	112.27	2628.44	2757.51	Detailed Info
						Pic5-6	5					

5.5.1.4 Building A/C E.C.

The building A/C E.C. is to calculate the difference in readings of all the ammeters in the menu according to the time period selected by the user based on the first-level menu in the configuration in order to display the power consumption trend of the A/C system of the entire building. There are two ways to select the time period:

①Select start time and end time

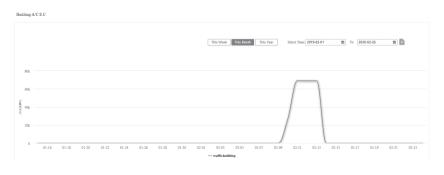


② Select according to the current time of the computer system: this week, this month, this year:



Pic5-67

After selecting the time period, the software will automatically generate the electricity consumption trend graph of the A/C system. Move the mouse pointer over the curve to display the electricity consumption of the current date:



Pic5-68

5.5.2 E.C.A. - Pre-payment

Oost Recharge Building A/C E.C	Manage	ment Cost															
Please Input User Name Keyword Q	Balance:	93571.39			I	Recharge											
Law firm	User Name:	office			τ	lser No. 1	13										
office	Building:	trafficbuilding			7	loor:	2F,3F,4	F,SF				Room:	41	01,402,403,40	04,301,302	2,303,304,501,	502
	Rech	arge History	Cons	ume Hist	огу			Select	Time 202	0-02-01			То	2020-02	29		
Personal studio1																	
Personal studio2	Date	Building	Floor	Room	A/C Name	T.P 1 E.	Cost	T.P.2 E.	Cost	T.P.3 E.	Cost	T.P.4 E.	Cost	T.P 5 E.	Cost	Total Electri	Total Cost
Technologyco LTD		trafficbuilding	2F	403	office-101-1-2	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
Consultancy		trafficbuilding	2F	404	office-101-1-3	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
		trafficbuilding	3F	301	office-101-2-0	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
		trafficbuilding	3F	302	office-101-2-1	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	2020.02.27	trafficbuilding	3F	303	office-101-2-2	108.14	129.77	\$3.99	53.99	27.05	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	2420.02.27	trafficbuilding	3F	304	office-101-2-3	108.14	129.77	\$3.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	 Total Electr 	icity(kWh), 45	1.86	-				т	otal Cost	6428.6)			-			,
					F	vic5-6	69										

In pre-payment mode, the menu has three tabs: cost recharge, building A/C E.C., and management cost. 1. cost recharge:

In the user list on the left, all users in the current host computer system are listed by the user NO. in the configuration:

Please Input User Name Keyword Q
Property office
Bank
Law firm
Personal studio1
Personal studio2
Technologyco.LTD
Consultancy
Pic5-70

After selecting the user, the upper right section lists the attributes and current balance of the user in the configuration. You can click "Recharge" to recharge the user:

Balance:	18452.21	Recharge			
User Name :	Law firm	User No. :	12		
Building:	trafficbuilding	Floor:	1F	Room:	501,502,503,504
			Pic5-71		

The lower right section lists the recharge history and consumption history for the selected time period of the user.

H-NET III

ENGLISH

INSTALLATION AND OPERATION MANUAL

Recharge history:

Recharge History	Consume History	Select Time	2020-02-01	То	2020-02-26	E	×
Recharge Time	Recharge Amount		Balance		R	emark	
2020-02-14 13:50	7000		-6.15				
2020-02-14 13:50	10		3.85				
2020-02-25 17:15	20000		18452.21	Recha	rge Successfully, 1	Unlock User A/C Fai	led,Ple
Cumulative Recharge	27010						

Pic5-72

The consume history has two formats depending on the electricity price setting:

① Single electricity price:

Recharge History	Consume History		Select Time 2020-02	2-01	To 2020-02-26	E
Date	Building	Floor	Room	A/C Name	Electricity	Cost
LAIC	Building	11001	Room	ACC IValle	LICCURRY	Cost
	trafficbuilding	1F	503	Law firm-100-0-2	111.18	133.42
2020.02.10	trafficbuilding	1F	501	Law firm-101-0-0	82.18	98.62
	trafficbuilding	1F	502	Law firm-101-0-1	82.18	98.62
	trafficbuilding	1F	503	Law firm-101-0-2	82.18	98.62
	trafficbuilding	lF	504	Law firm-101-0-3	82.18	98.62
	trafficbuilding	1F	501	Law firm-100-0-0	287.73	345.28
	trafficbuilding	115	502	T-me.firms.100.0.1	287.73	345.78
tal Electricity(kWh): 713	31.34		Total Cost: 4	3557.78		

Pic5-73

2 T.P. electricity price:

Recha	arge History	Cons	ume Hist	огу			Select	Time 2020	-02-01			То	2020-02-	29		
Date	Building	Floor	Room	A/C Name	T.P 1 E.	Cost	T.P 2 E.	Cost	T.P.3 E.	Cost	T.P 4 E.	Cost	T.P 5 E.	Cost	Total Electri	Total Cos
	trafficbuilding	2F	403	office-101-1-2	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
	trafficbuilding	2F	404	office-101-1-3	108.09	129.71	54.05	54.05	27.06	54.12	17.89	53.67	8.66	34.64	215.75	326.19
	trafficbuilding	3F	301	office-101-2-0	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
	trafficbuilding	3F	302	office-101-2-1	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
2020.02.27	trafficbuilding	3F	303	office-101-2-2	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
2020.02.21	trafficbuilding	3F	304	office-101-2-3	108.14	129.77	53.99	53.99	27.06	54.12	17.88	53.64	8.71	34.84	215.78	326.38
4	citv(kWh): 45							otal Cost.								•



The building A/C E.C. and management cost tabs have the same functions as the post-payment mode.

Remarks:

(1) For detailed functions, please refer to 5.8; (2) For details of the payment method, please refer to 6.3 (3) For details of the management cost, please refer to 6.3 (4) For details of the electricity price setting, please refer to 5.8 (5) For details of the management cost, please refer to 6.3

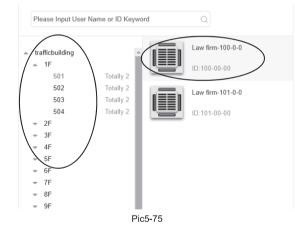
5.6 Running Statistics

There are four tabs: A/C data, ammeter data, statistics, and alarm history. Click icon 🔝 in each tab to output excel report.

5.6.1 A/C data

The tab counts the running records of each indoor unit during the time period selected by the user, including on/off, running mode, setting temperature, setting fan, inlet air temperature, and outlet air temperature.

1. Select A/C



The software generates a tree diagram on the left according to the configuration. After expanding and selecting the third level menu, the list of indoor units in the current menu is displayed on the right side, and you can click and select the corresponding indoor unit.

2. Select the running parameters and the time period



After selecting the running parameters to be generated, select the start time and end time, and click Apply to generate the curve. Move the mouse pointer over the curve to display the running parameters for the current time:



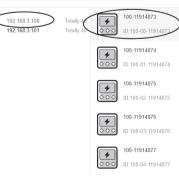
Pic5-77

Please Input Ammeter Keyword

5.6.2 Ammeter data(1)

This tab counts the readings of each ammeter.

1. Select ammeter





The software generates a list of gateways on the left according to the configuration. You can select a gateway to expand the ammeters connected to the gateway, click and select the corresponding ammeter.

2. Select time period

Select Time	2020-02-01	■ To 2020-02-25
No.	Time	Ammeter Reading(kWh)
1	2020-02-13	93741.3
2	2020-02-12	92878
3	2020-02-11	92014
4	2020-02-10	91678.7
		Pic5-79

Select the start time and end time and click Apply to generate a record of the ammeter reading.

5.6.3 Statistics

A/C Data	Ammeter Data Statistics	Alarm History					
Building	 Floor 		Select Room	 Select Tim 	ae 2020-02-01	To To	2020-02-25
Query	Reset					Please Input A/C ID Key	word Q
Time: 2020-02-0	1~2020-02-25						×
No.	A/C ID	Building	Floor	Room	User Name	On/Off Times	Running Duration(Minutes)
1	Law firm-100-0-0	trafficbuilding	1F	501	Law firm	1	5915
2	Law firm-100-0-1	trafficbuilding	1F	502	Law firm	1	5915
3	Law firm-100-0-2	trafficbuilding	1F	503	Law firm	1	5915
4	Law firm-100-0-3	trafficbuilding	lF	504	Law firm	1	0
5	Law firm-101-0-0	trafficbuilding	1F	501	Law firm	1	21583
6	Law firm-101-0-1	trafficbuilding	lF	502	Law firm	1	21583
7	Law firm-101-0-2	trafficbuilding	1F	503	Law firm	2	21449
8	Law firm-101-0-3	trafficbuilding	lF	504	Law firm	1	21579
9	offlice-100-1-0	trafficbuilding	2F	401	office	1	5915
					< 1 2	3 4 5 6	31 32 >

Pic5-80

After filtering out the user, select the time period and click Apply to generate the statistics under the selected user: the number of starts and stops and the running time of each indoor unit.

5.6.4 Alarm History

Data	Ammeter Data Statistics	Alarm History					
ling	~ Fit	oor	 Room 	 Select 	Time 2020-03-01	I To	2020-03-03
Query	Reset					Please Input A/C ID K	ayword
No.	A/C ID	Building	Floor	Room	A/C Name	Time	Alarm Code
1	XX Bank-100-43-2	Fortune-Tower	1	503	Offic3	2020-03-03 22:24	25

Pic5-81

After filtering out the user, select the time period and click Apply to generate the statistics under the selected user: the alarm code record of each indoor unit.

Remarks:

74

 $\left<1\right>$ The ammeters connected to the central control gateway can't generate ammeter data.

5.7 Energy-saving

5.7.1 Device filter function is same with the "Monitor & Control":

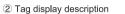
)U									
Iding All Buildings	 Floor 		Room	⇒ Statu	is All Status	Query	Reset	Input Keyword:IP or	User name
Select Totally	163								
Min \\$21 c	Min ╬19ċ	Min 😫	Min 🛟	Min ∜:17 c	Min ≵17 c	Min ╬17 c	Min ╬17 c	Min ╬17 c	Min ╬17 cੈ
мах Ҁ 26 с	мах ⇔; 30 с	Max 🖓	Max 3,	мах ⊈ 25 с	м⊪х ⊈;25 с	мах ⊈ 25 с	мах ⊈ 25 с	мах ⇔; 25 с	мак ⊈ 25 с
K Bank-100-43-0	XX Bank-100-43-2	XX Bank-100-43-3	Office A-100-43-4	Lawyer Room- 101-11-0	Lawyer Room- 101-11-1	Lawyer Room- 101-11-2	Lawyer Room- 101-11-3	Lawyer Room- 101-12-0	Lawyer Room- 101-12-1
Min 壮17 շ	™in ∜ե17 շ	Min 1817 c	Min ☆ 17 ċ	Min ≵17ċ	Min ≵17 č	Min ≵17 c	Min ☆17 c	Min \$\$17 c	տin ∜ե17 շ
Max ⊰;25 ċ	мах <\$ 25 с	мак ⊈ 25 с	мак ⊈ 25 с	мах⊰;25 с	мах⊰;25 с	мах⊰;25 с	мах ⇔;25 с̀	мах <;25 с	мах <;; 25 с
wyer Room-)1-12-2	Lawyer Room- 101-13-0	Lawyer Room- 101-13-1	Lawyer Room- 101-13-2	Lawyer Room- 101-13-3	Lawyer Room- 101-14-0	Lawyer Room- 101-14-1	Lawyer Room- 101-14-2	Lawyer Room- 101-14-3	Lawyer Room- 101-16-0
Min \$117 č		Min \$117 č	Min ∜:17 č	™in ≹i 17 č	Min ≹:17 č	 Min ≵17 č	мin ∜:17 č	Min ∰ 17 č	Min ∜:17 č
мах ⇔;25 с	мах <; 25 с	мак Ҁ 25 с	мак ;;;25 с	мах ;; 25 с	мах :;;25 с	мах ⇔; 25 с	мах ⇔; 25 с	мах ⇔; 25 с	мах ≒ 25 с
awyer Room- 01-16-1	Personal Room1- 101-16-2	Personal Room1- 101-16-3	Personal Room1- 101-17-0	Personal Room1- 101-17-1	Personal Room1- 101-17-2	Personal Room1- 101-17-3	Personal Room1- 101-18-0	Personal Room1- 101-18-1	Personal Room1- 101-18-2

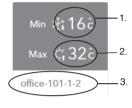
Pic5-82

5.7.2 Tag status description









Pic5-83

- 1. The lower limit of the current cooling temperature of the indoor unit;
- 2. The upper limit of the current heating temperature of the indoor unit;
- 3. Device ID command rules are the same as the "Monitor & Control " menu.
- 5.7.3 IDU energy saving settings
- 1. Single control: Click the tag of the indoor unit to pop up the setting menu:



Based on the current heating and cooling setting range of the indoor unit, the upper heating limit and the lower cooling limit can be set.

2. Group control: Click "Select" to show the figure below:

🖸 Select All	Cancel	0/320 Selected							
Min 岩 Max 岩	Min 绪 Max 琮	Min ☆ Max ☆	Min ∯i Max ∰i	Min ≵i 16ċ Max ∜i 32ċ	Min \$¦:16ċ Max \$¦;32ċ	Min ╬16ċ Max ╬32ċ	Min \$16ċ Max ∜32ċ	Min 岩 Max 賞	Min 솪 Max ☆
Law firm-100-0-0	Law firm-100-0-1	Law firm-100-0-2	Law firm-100-0-3	Law firm-101-0-0	Law firm-101-0-1	Law firm-101-0-2	Law firm-101-0-3	office-100-1-0	office-100-1-1
Min 👫 Max 🏹	Min \$∰ Max \$_1'	Min ﷺ Max ∜1	Min 🖓 Max 🖧	Min 2∰ Max 3¦4	Min ﷺ Max ∜i	Min ∰i Max ∰i	Min 3≩i Max 3ζi	Min ∯i Max ∬i	Min 2∰ Max 3¦4
office-100-1-2	office-100-1-3	office-100-2-0	office-100-2-1	office-100-2-2	office-100-2-3	office-100-3-0	office-100-3-1	office-100-3-2	office-100-3-3

Pic5-85

You can check the online IDU icon, or "Select All", and then click "Settings" to pop up the group control settings menu:



In the group control menu, the setting range is the intersection of the selected IDU settings: Heating upper limit: The lowest value of the upper heating limit of the selected indoor unit; Lower cooling limit: The highest value of the lower cooling limit of the selected indoor unit.

5.8 Adv. Management

There are five submenus under the Adv. Management menu: Sys Conf, Time setting, electricity management, user management, A/C management and Gateway management.

Sys Conf.
Time Setting
Electricity Management
User Management
A/C Management
Gateway Management
Pic5-87

For details of system configuration and time setting, see 3.4

5.8.1 Electricity management:

5.8.1.1 Payment method: pre-payment, post-payment. Select the payment method used for the Electricity consumption allocation function. The electricity allocation algorithms⁽¹⁾ of the two are completely different, and the report formats⁽²⁾ are also completely different. Please select according to the actual situation. Once the payment method is changed, it will have a great impact on the report data in the "E.C.A.".

Payment:	Pre-payment	O Post-paymen
Arrears Compulsory Turn off A/C:	 Enable 	
Note of insufficient Balance	3.0	



Arrears Compulsory Turn off A/C: If "Enable" is selected, the software will send turn-off and lock command if user has arrears after the automatic deduction on the same day. To avoid conflicts with timer management setting, the software will send a turn-off and lock command every hour. If "Enable" isn't selected, the software will pop up a reminder only for the user who has arrears after the automatic deduction and do not take any other action.

Note of insufficient balance: You can set the alert value of insufficient balance. If the balance is lower than this set value after automatic deduction on the same day, the software will pop up a reminder.

5.8.1.2 IDU energy consumption. If "Statistics" is selected, the IDU energy consumption will be calculated whether it is post-payment each user cost or pre-payment consumption details. For details on IDU energy consumption, please refer to 6.3.

5.8.1.3 Stand-by electricity allocation. There are two options:

If "Pre-payment" is selected, there will be two additional options:

1. Allocation by IDU usage of A/C system: The standby electricity of the outdoor unit will be allocated to the indoor unit in the same A/C system, and will be allocated according to the usage of each indoor unit. For the specific allocation algorithm, please refer to 6.3;

2. No allocation, as management cost: The standby electricity of the outdoor unit will not be allocated, and the accumulated value will be placed in the management cost.

5.8.1.4 Public & idle electricity (3) allocation. There are two options:

1. Allocation by all in-use IDUs: The energy consumption of public and idle A/C will be allocated to the indoor unit in the configuration that meets the following two conditions at the same time: ① Connected under billing type gateway;

② The usage status under "A/C Management" is set to in-use.

2. No allocation, as management cost: The public & idle A/C electricity consumption will not be allocated, and the accumulated value will be placed in the management cost.

5.8.1.5 Electricity price setting: There are two types of electricity prices. Electricity price: The price of 1kWh electricity.

1. If "Single" is checked:

Electricity Price Setting:	✓ Single					
	Time Period 1	00: 00	То	24: 00	Electricity Price Setting	2

Pic5-89

Only the electricity price setting of T.P. 1 is available by default from 00:00 to 24:00;

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2. If "Single" isn't checked

Electricity Price Setting :	Single					
	Time Period 1	00: 00	To	23: 00	Electricity Price Setting	2
	Time Period 2	23: 00	То	24: 00	Electricity Price Setting	1
	Add Time	Period 🕼 Max 5 Time	Period	Pic5–90		

The default is T.P. price. Up to 5 T.P. prices can be set: T.P. starts from 00:00 by default and the last T.P. is until 24:00 by default.

5.8.2 User management:

There are two user roles by default: admin and user.

Admin login account: admin1, admin. Command rules of user login account: user-n, n=user order in the configuration. Example: If the user NO.=1, the user account is user-1.

Differences in permissions for each account:

① admin1: Adv. Management menu is always displayed, and other menus can be checked;

2 admin: Adv. Management menu is unavailable, and other menus can be checked;

Authority Allocation

✓ Momitor & Control	- 2D Navigation	✓ Timer Management	E.C.A(Post-payment)	- E.C.A(Pre-payment)	✓ Running Stat	Energy-saving
✓ A/C Monitor	Area Edit	✓ Task Check	Check Report	✓ User Recharge	✓ A/C Data	IDU Check
✓ A/C Control	✓ A/C Monitor	✓ Task Edit	New Report	Check Balance	✓ Ammeter Data	DU Setting
Ammeter Monitor	✓ A/C Control		Delete Report	✓ Recharge History	✓ Statistics	ODU Check
✓ Gateway Monitor			Building A/C E.C	Consume History	✓ Alarm History	ODU Setting
				✓ Building A/C E.C		
				✓ Management Cost		

Pic5-91

③ user: Only the indoor units under this user can be displayed. Available menus: Monitor & control (IDU query, IDU monitor), 2D navigation (IDU query, IDU monitor), timer management (view task).

Authority Allocation

✓ Momitor & Control	✓ 2D Navigation	✓ Timer Management
✓ A/C Monitor	✓ A/C Monitor	✓ Task Check
✓ A/C Control	✓ A/C Control	

Save

Pic5-92

5.8.3 A/C management:

The usage status can be set for each indoor unit of the software:

Building	All Buildings ~ F	loer	Select User	✓ Search	Reset	
					Input Keyword	IP or User
No.	Building	Floor	Reom	A/C Name	A/C ID	Using Condition
1	trafficbuilding	1F	501	1	Law firm-100-0-0	In-use
2	trafficbuilding	IF	502	2	Law firm-100-0-1	In-use
3	trafficbuilding	IF	503	3	Law firm-100-0-2	In-use
4	trafficbuilding	IF	504	office 2	Law firm-100-0-3	In-use
5	trafficbuilding	2F	401		office-100-1-0	In-use
6	trafficbuilding	217	402		office-100-1-1	In-use
7	trafficbuilding	2F	403		office-100-1-2	In-use

Public: Indoor units installed in public areas;

Idle: Indoor units that are idle while the user is not found;

In use: Indoor units that are rented by users.

Public and idle indoor units are not separately displayed in the user report of energy consumption statistics, and the cost is allocated to the in-use indoor unit or calculated into the management cost through setting.

Remarks:

(1) For description of the electricity allocation algorithm, see 6.3
(2) For report format, see 5.5
(3) For details of public & idle A/C electricity consumption, see 6.3

5.9 Reminder

In the upper right corner of the main interface, there are two prompt icons, which are messages and alarm reminders:



5.9.1 Message reminder: filter clean, insufficient balance (pre-payment), arrears turn off (pre-payment).





5.9.2 Alarm reminder: the gateway offline, ammeter offline, IDU alarm, and IDU offline. Click the reminder interface to pop up a sketch:

 101-11914840

 Ammeter Offline

 Property Office-101-0-2

 Idu Offline

 Property Office-101-0-0

 Idu Offline

 Bank-101-63-15

 Idu Offline

 Bank-101-63-15

 Idu Offline

Click View More to go to the details interface:

Alarm Details						23
No.	Time	Alarm Type	User/Device	Content		
1	2019-12-05 15:26:00	Ammeter Alarm	101-11914840	Ammeter Offline		
2	2019-12-06 09:12:00	IDU Alarm	Property office-101-0-2	Idu Offline		
3	2019-12-06 09:11:00	IDU Alarm	Property office-101-0-0	Idu Offline		
4	2019-12-06 09:11:00	IDU Alarm	Bank-101-63-15	Idu Offline		
5	2019-12-06 09:11:00	IDU Alarm	Bank-101-63-56	Idu Offline		
6	2019-12-05 17:00:00	IDU Alarm	Bank-101-63-0	Idu Offline		
Info Details						Σ
No.	Info Type	User	Content		0	peration
1	Arrears Turn off	Technologyco.LTD	User Technologyco.LTD,/	Arrears Turn off,Please Recharge	I	Recharge
2	Arrears Turn off	Personal studio2	User Personal studio2,Arr	ears Turn off,Please Recharge	1	Recharge
3	Arrears Turn off	Property office	User Property office, Arres	urs Turn off,Piease Recharge	1	Recharge
4	Insufficient Balance	Property office	User Property office,Insuf	ficient Balance,Please Recharge		Recharge
5	Insufficient Balance	Technologyco.LTD	User Technologyco LTD,I	nsufficient Balance,Please Recharge	1	Recharge
6	Insufficient Balance	Personal studio2	User Personal studio2,Inst	ufficient Balance,Please Recharge	1	Recharge
7	Insufficient Balance	Law firm	User Law firm, Insufficien	t Balance,Please Recharge	1	Recharge
				< 1 >		
			F	Pic5-96		

In the message reminder interface, if the indoor unit has filter cleaning reminder, click Reset to reset the filter;

If the indoor unit has insufficient balance or arrears, click Recharge to go to the "E.C.A. – Electricity and Recharge" interface.

In the alarm reminder interface, the sorting order is divided into: Gateway > Ammeter > IDU. If a gateway is offline, all ammeters and IDU that are connected to the gateway will not be alarmed separately.

If the content of the message (alarm) reminder changes, it will remind again; if there is no change, there will be only one record.

VI. Matters Needing Attention

6.1 Database Backup

The database is MySql, which is one of the most widely used open source databases. The batch tools for backups included in JTM:

6.1.1 Manual backup, double-click "run" to perform backup automatically:

	Name	Date modified	Туре	Size
	jdk	14/11/2019 18:21	File folder	
*	jtm	20/11/2019 15:22	File folder	
*	mysql	06/12/2019 18:14	File folder	
*	mysqlBack	14/11/2019 18:22	File folder	
*	tomcat	06/12/2019 18:15	File folder	
	MTL 💿	20/11/2019 14:49	Windows Batch File	4
Ċ	less run	15/11/2019 09:28	Windows Batch File	1
0	setJDK	16/10/2019 09:40	Windows Batch File	1
	version	21/11/2019 14:33	Text Document	1

Pic6-1

The backup database file is in the mysqlBack folder:

Name	Date modified	Туре	Size
191208132954.psc	08/12/2019 13:30	PSC File	642 KB
- is it to is the second secon	00, 12/2010 10:00		042 100

6.1.2 Timer automatic backup:

Open the [Task Scheduler] of Windows. The following steps are to set daily backup, or you can modify it according to the actual situation:

(B) Task Scheduler		-	
File Action View Help			
Task Scheduler (Local) Task Scheduler Library	Name Status Triggers Actions		_
>	Adobe Acro Ready Multiple triggers defined Task Scheduler Library		-
	🐵 GoogleUpda Ready At 10:41 AM every day		
	🐵 GoogleUpda Ready At 10:41 AM every day - After triggered, repeat every 1 hour for a duration of 1 day 🐌 Create Task		
	Microsoft Of Ready Multiple triggers defined		
	OneDrive St Ready At 10:00 AM on 5/1/1992 - After triggered, repeat every 1.00:00:00 indefinitely. Display All Running Tasks		
	< Enable All Tasks History		
	General Triggers Actions Conditions Settings History (disabled)		
	Name: Adobe Acrobat Update Task		•
	Location:		
	Author: Adobe Systems Incorporated		
	Description: This task keeps your Adobe Reader and Acrobat applications up to date with the latest Selected Item		
	enhancements and security fixes		
	• End		
	4 Disable		
	Expert		
	Security options (h) Properties		
	When running the task, use the following user account:		
	> X Delete		

Pic6-3

Create Basic Task Wizard	×
Task Trigger	
Create a Basic Task	When do you want the task to start?
Trigger	Daily
Action Finish	○ Weekly
	O Monthly
	○ One time
	○ When the computer starts
	○ When I log on
	○ When a specific event is logged
	< Back Next > Cancel
	Pic6-4

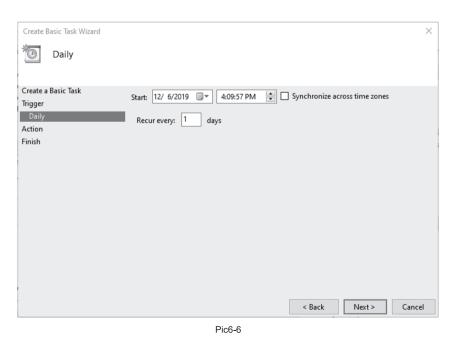
 Create Basic Task Wizard
 X

 Image: Create a Basic Task
 Use this wizard to quickly schedule a common task. For more advanced options or settings such as multiple task actions or triggers, use the Create Task command in the Actions pane.

 Action
 Name:

 Finish
 Description:

Pic6-5



Cancel

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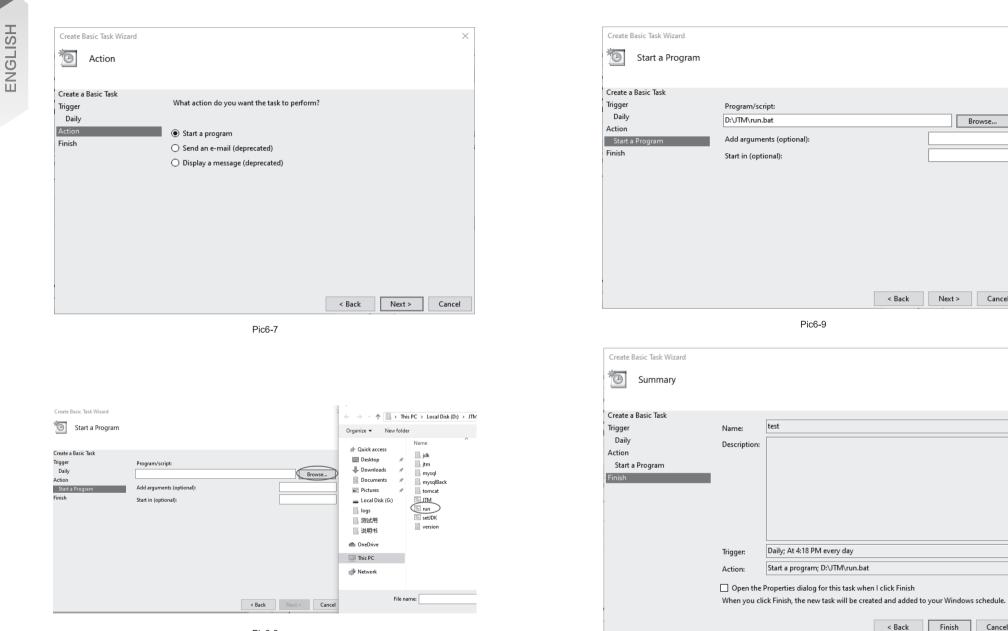
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Cancel

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Pic6-8

Pic6-10

Cancel

6.2 Browser Cache Cleanup

After JTM update or gateway firmware update, you need to clear the browser's cache to avoid error display because the login URL has not changed:

In the browser address bar, type: chrome://settings/clearBrowserData



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After clearing, restart the browser.

6.3 Electricity consumption allocation Instructions

6.3.1 Prerequisites

If you need to use the Electricity consumption allocation function, the computer with the host software installed must run continuously around the clock:

1. Ensure that the software is always running in the background;

2. Ensure that the operating system has turned off the sleep mode. For details, see 3.2.

3. To prevent abnormal power failure, it is recommended to install the UPS. Refer to 3.1 for recommended specifications.

6.3.2 Basic principle of electricity allocation

The electricity allocated by each indoor unit is divided into three parts:

1. ODU running electricity: The electricity allocated to the indoor unit according to the operating status of each indoor unit in the A/C system, the opening of the electronic expansion valve, and the running time when the outdoor unit is running. Recorded as A:

2. IDU energy consumption: The electricity of the fan, water pump, valve, etc. of the indoor unit. Recorded as B;

3. ODU standby electricity: The electricity allocated to the indoor unit in the A/C system when the outdoor unit is in the standby state. Recorded as C.

Both A and B are calculated in units of one hour, and C is calculated in units of one day.

6.3.3 ODU standby electricity calculation:

The ODU standby electricity refers to the amount of electricity generated by the outdoor unit due to the electric heating belt being still in operation when all the indoor units are in the off state.

1. If IDU allocation is selected: The software calculates the accumulative value of A for each indoor unit in the A/C system. If all the outdoor units of a A/C system are in standby on the same day and no running electricity is generated, the software will allocate the standby electricity to the management cost, and won't allocate;

2. If you choose not to allocate: The electricity won't be allocated to each indoor unit, and it will be included in the management cost.

6.3.4 Public & idle A/C electricity calculation:

First, accumulate the total electricity allocated by each indoor unit: A+B (if allocation is selected; it is 0 if not allocated) + C. Calculate the public and idle A/C electricity based on the electricity bill setting for the day:

1. If IDU allocation is selected: First count all the indoor units with the status in-use under the billing type gateway in the software, and record it as n; then accumulate the total electricity allocated by all indoor units with the status public or idle under the billing type gateways in the software, and divide it by n to get D;

2. If you choose not to allocate: Accumulate the total electricity of all indoor units with the status public or idle under the billing type gateways in the software, and save as the management cost.

Indoor units set to public or idle are no longer displayed on the user's bill; the total electricity allocated to each indoor unit in the day = A+B (if allocation is selected; 0 if not allocated) + C+D.

6.3.5 Prepayment deduction principle

With one day as the settlement cycle, the electricity of the previous day is settled and deducted at 1 o'clock every day.

If the balance of a user after deduction is lower than the set "Note of insufficient balance", the software will pop up insufficient balance prompt on all indoor units of the user.

If the balance of a user after deduction is less than 0, the software will submit a turn-off & control lock command every hour to all indoor units of the user, and pop up a reminder of the arrears turn off.