

ORIGINAL
MANUAL



INSTALLATION AND OPERATION INSTRUCTIONS

Centralised Control



KCCT-64 IPS
KCCT-64 IPS (A)



Thank you very much for purchasing our product.
Before using your unit, please read this manual carefully and keep it for future reference.



WARNING

- This manual provides the installation instructions for this controller. Refer to the included wiring diagrams to connect the controller to the indoor unit.
 - The controller uses low voltage. Keep a minimum distance of 12" (305 mm) between low voltage control wire and high voltage power wires.
 - Ensure there are no gaps between the controller back cover and the mounting surface.
 - Ground the shielded control wiring.
 - Do not use a megger to test insulation.
-



CAUTION

Do not install controller in areas where harmful gases containing sulfur or other damaging may exist or the controller may be damaged. Clean controller using a clean, damp cloth. Do not spray cleanser on or around controller.

IMPORTANT

Read all of the information in this manual before using this controller. All wiring must conform to local and national building and electrical codes and ordinances. This is a 12 VDC controller. Do not install on voltages higher than 12 VDC.



INSTALLATION

1. Installation

• Connecting to one Outdoor Unit

Connect the controller to the main control board of the outdoor unit using 2-conductor shielded cable XY, Fig-1(a). Alternatively, user can connect the controller to the indoor units directly through XY cable in V4+ and V5 models, Fig-1(b). See Fig-1.



Fig-1(a)
Controller to Single Outdoor Unit Wiring Diagram

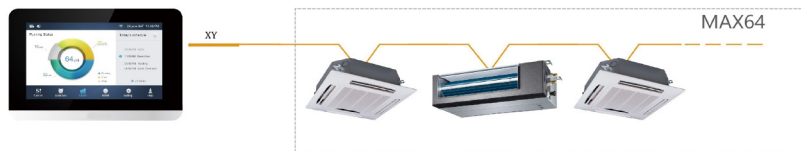


Fig-1(b)
Controller directly to Indoor Units Wiring Diagram

• Mounting the Controller

Remove the back cover from the controller using a phillips-head screwdriver as shown.

See fig-2.

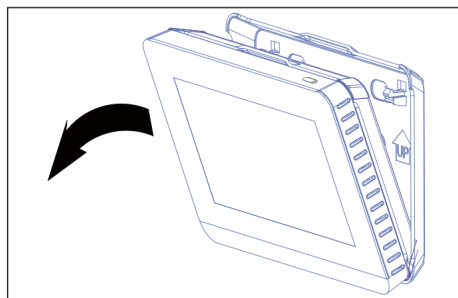


Fig-2
Remove Back Cover from Controller

Attach the back cover to the wall using screws.
See fig-3.

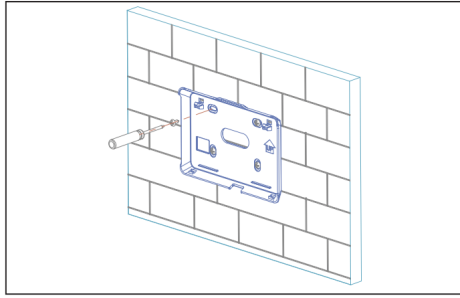


Fig-3
Attach Back Cover to Wall

Insert the controller into the bottom snap joints of the back cover at an angle.
See fig-4.

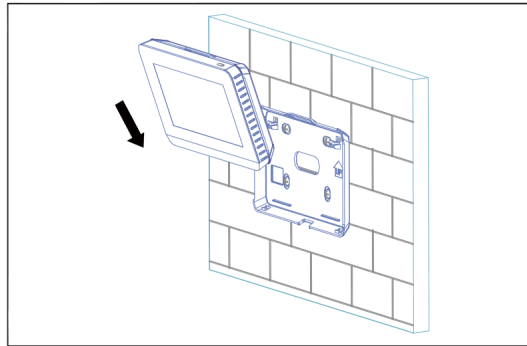


Fig-4
Insert Controller into Back Cover

Push the controller back toward the wall until it “snaps” into place.
See fig-5.

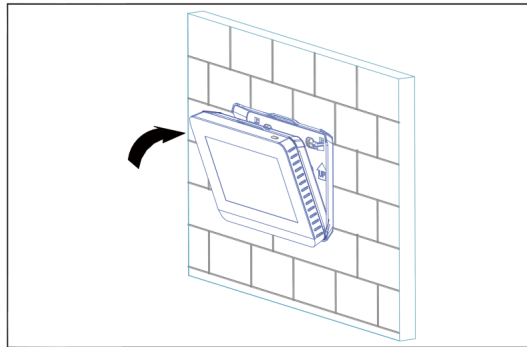


Fig-5
Snap Controller Into Place

Specification

Table-1

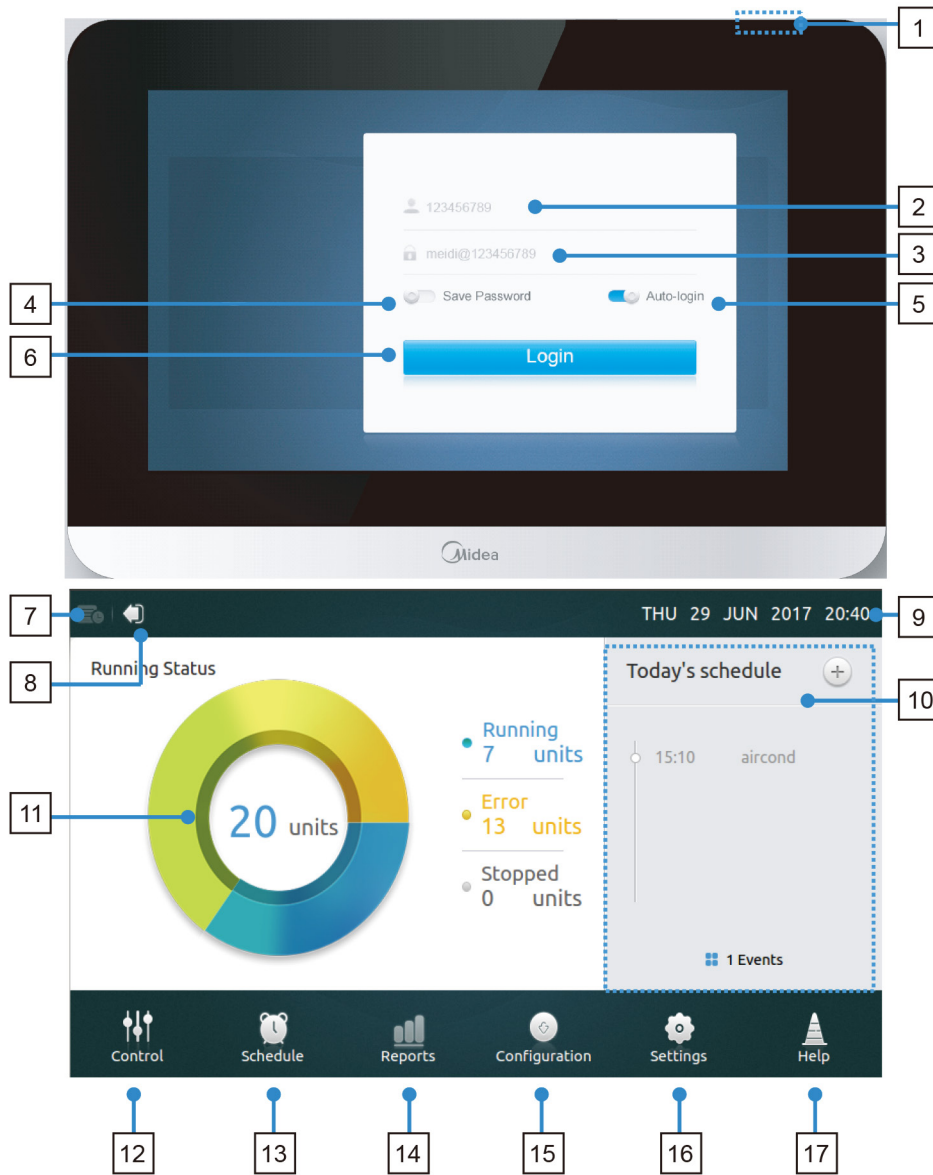
Input Voltage	12VDC
Ambient Temperature	23~110°F (-5~43°C)
Ambient Humidity	RH40%~RH90%



OPERATION

1 Home Page Button and Display Description

This section includes the descriptions for login page and home page and provides the instructions related to these two pages.



• **Table-1 Home Page Button and Display Description**

Table-1

NO.	Button and Display	Description
1	Screen ON/OFF button	Turn the Screen on/off
2	Username	Insert login username
3	Password	Insert login password
4	Save Password	Enable saving login password
5	Auto-login	Enable auto-login in every power on
6	Login	Login button
7	Operation History	Display the operating history of ODUs and IDUs
8	Logout	Back to login page
9	Date and Time	Display the date and time
10	Today's Schedule	Display the list of schedules
11	Running Status	Display the running status of the IDUs
12	Control	Enter the control page, to control the IDUs
13	Schedule	Enter the Schedule page, to setup the daily schedules
14	Reports	Enter the report page, to view the error history of ODUs and IDUs, and total running hours
15	Configuration	Enter the Install page, to search, rename and group the IDUs
16	Setting	Enter the setting page, to setup the parameters for centralized controller, IDUs, ODUs and user accounts.
17	Help	Enter the help page, to view the user manual and explanations of error codes

• **Login**

1. Power the controller
2. Enter username and password, and touch **Login** button
3. Enable both of the save password and auto login, auto login in every power on

• **Logout**

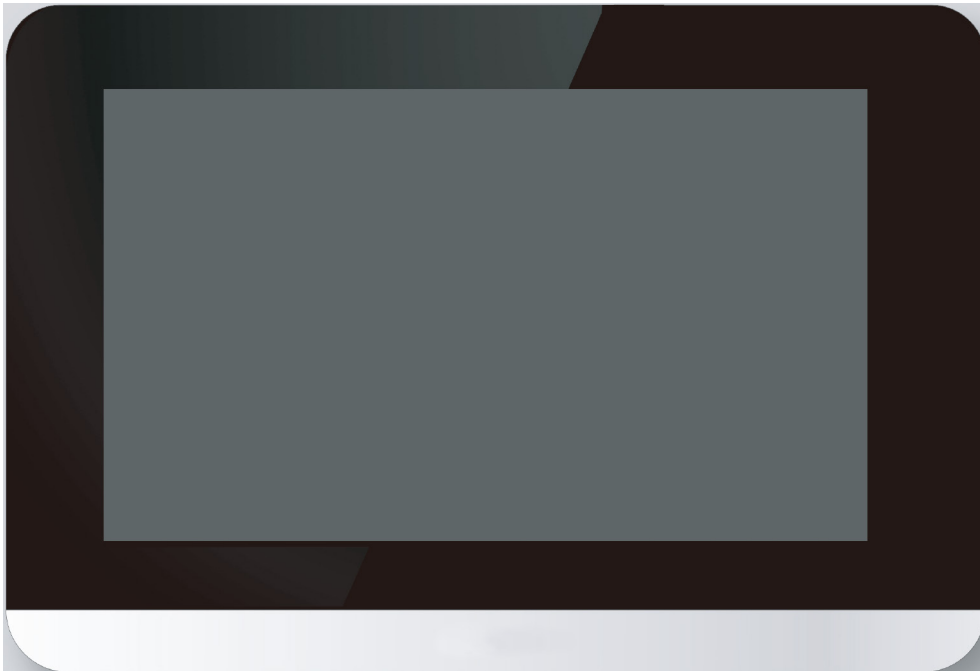
On the top left corner of the home page, touch the **Logout** icon

• **Turn the Screen ON**

After login if the screen backlight turns off, press Screen ON/OFF button or touch the Screen to turn the screen on

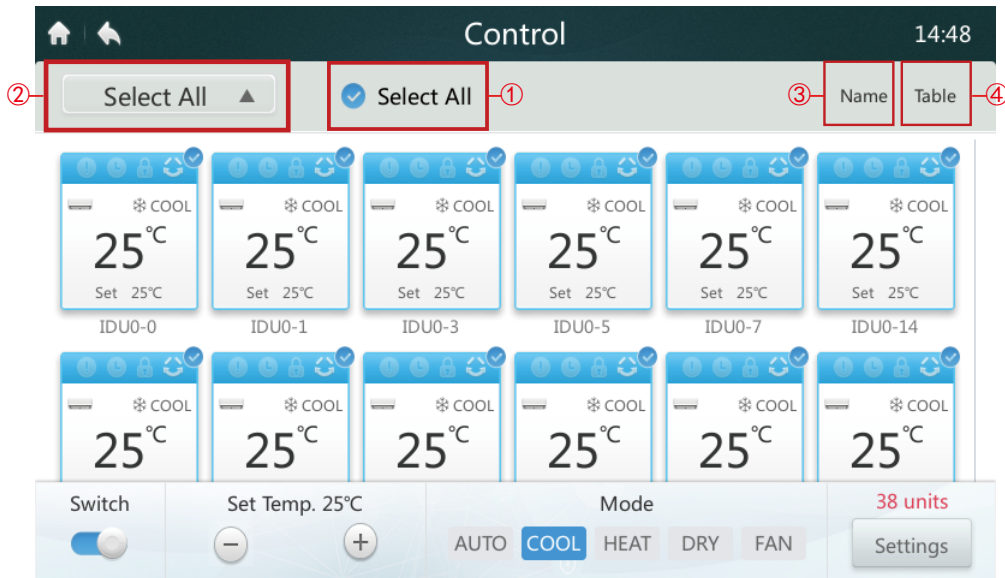
- **Turn the Screen OFF**

After login, touch the ON/OFF button to turn the screen backlight off or set the backlight automatically turns off in a period of time. More details can be found in the general setting section



2 Control Page Description

This section provides the descriptions and instructions for Control page.



- **Select/Deselect All IDUs**

Tap on the IDU icon one by one or alternatively by tapping **Select All** icon ① .

- **Choose Group List**

Tap on the drop down icon ② to select one of the groups. The group editing information can be found in Configuration section.

- **Sort IDUs in order**

Tap on the Sort By icon ③ , the IDUs can be sorted in order of Name, Mode and Model.

- **Set Display manner for IDUs** ④

Tap on Table icon, the IDUs can be viewed either in graphic or table manner, but only graphic icons are selectable and controllable.

• **Table-3 Control Page Icon Description**

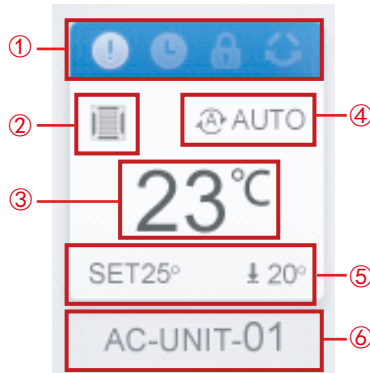


Table-3

NO.	Item	Description
1	Operation Mode and Device Status Icon	The color at the top of the icon box shows the current operation mode (see Table 4), and the status of the device is indicated as an icon.
2	Device Icon	The device to be controlled is indicated as an icon. (The device shown may not represent the appearance of the actual unit.)
3	Room Temperature	Display the room temperature.
4	Operation Mode	Display the operation mode of the device.
5	Desired Temperature	Display the setting temperature (Dual setting points in AUTO mode).
6	Unit name	Display the device name.

• **Table-4 Status, Operation Mode and the Corresponding Color**




FUNCTION	INACTIVE	ACTIVE
ERROR	LIGHT WHITE	WHITE
SCHEDULED 	LIGHT WHITE	WHITE
LOCK ON 	LIGHT WHITE	WHITE
SWING ON 	LIGHT WHITE	WHITE













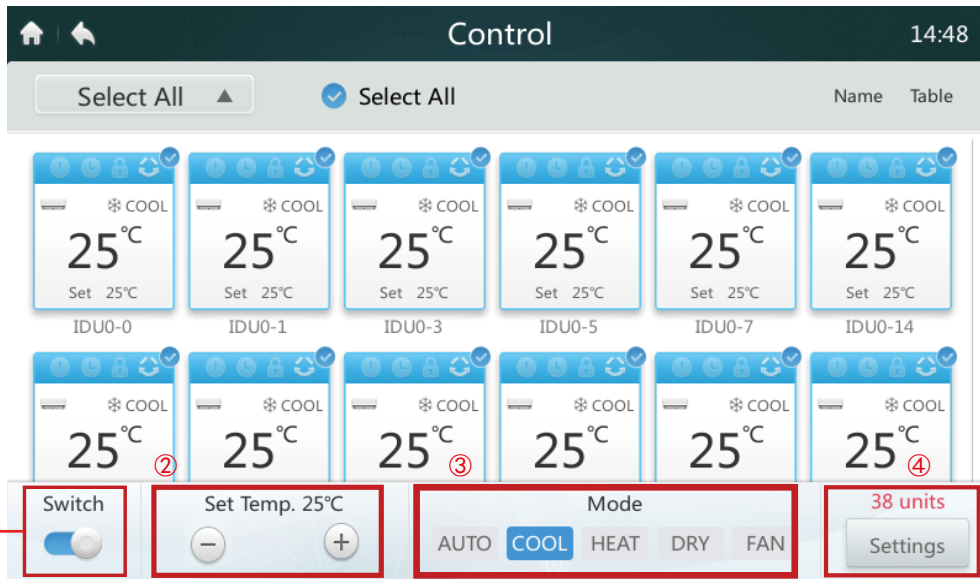
Table-4

Color	Operation Mode	Color	Operation Mode
BLUE	AUTO	LIGHT BLUE	COOL
RED	HEAT	YELLOW	DRY
GREEN	FAN	GREY	ERROR/ OFFLINE

• **Table-5 Device Icon and the Corresponding Type**

Table-5

Icon	Device Type	IDU/ODU
	L-DUCT	IDU
	M-DUCT	IDU
	H-DUCT/ FAPU	IDU
	WALL	IDU
	FS	IDU
	4-WAY	IDU
	COMPACT	IDU
	C&F	IDU
	HP/HR	ODU
	SHP	ODU



When the centralized controller is connected to OLD systems (e.g. V4+ and V5X), AUTO mode is unavailable.

- **Turn ON/OFF IDUs**

Select the IDUs and tap the Switch “” ① to turn IDUs on/off.

- **Setting Temperature**

Tap the icon ② to set the temperature of selected IDUs. (See details in Table 6).

- **Setting Mode**

Tap **Mode** icons ③ to choose one of the five modes.

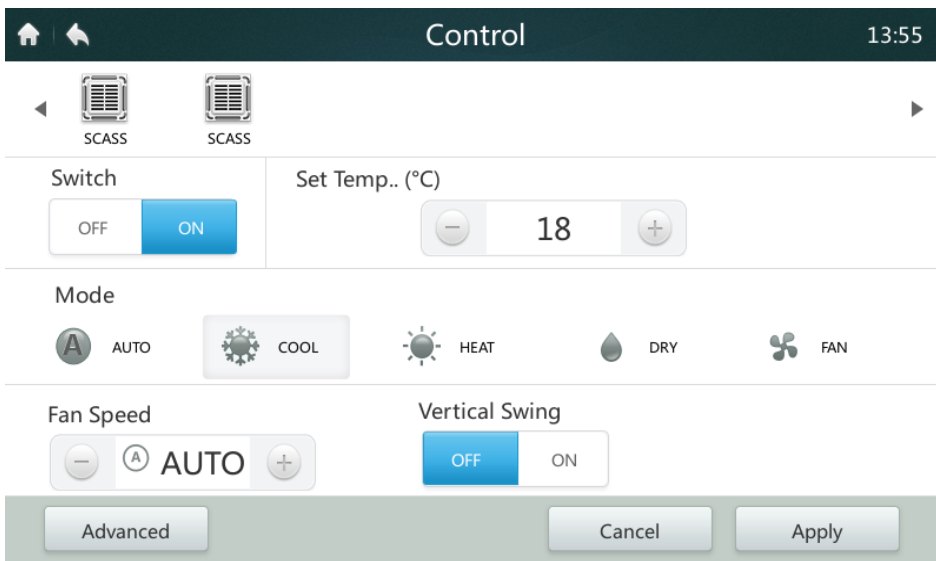
- **More Setting Options**

Tap **Setting** icon ④ on the bottom right corner, to edit the fan speed, swing and lock options.

- **Table-6 Temperature Setting Range in different operation modes**

Table-6

Operation mode	Set temperature range
COOL/DRY	62°F-86°F (17°C-30°C).
HEAT	62°F-86°F (17°C-30°C)
AUTO (Reserved Function)	[COOL] 62°F-86°F (17°C-30°C) [HEAT] 62°F-86°F (17°C-30°C)
FAN	Not settable




- When the selected IDU has an AC fan, speed mode and fan speed relationships are LOW (1, 2), MED (3, 4) and HIGH (5, 6, 7).
- In DRY mode, the fan speed is permanently set to AUTO.

- **Setting the Fan Speed**

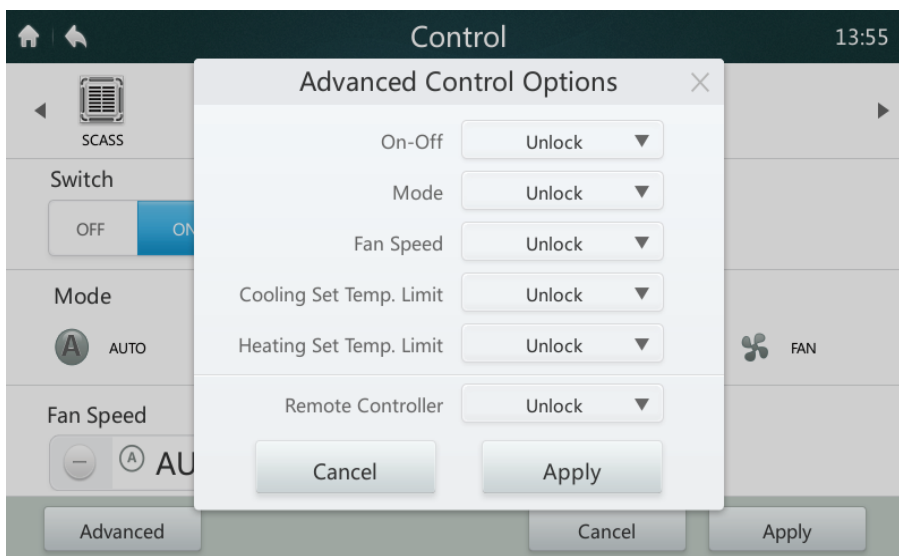
Tap the corresponding fan speed icon \oplus / \ominus to set the fan speed from 1 to 7.

- **Enabling/Disabling Louver Vertical Swing**

The air flow can also swing up and down by tapping the ON/OFF “” button.

- **Lock Control Panel**

Tap the **Advanced** button, and open the lock control settings.



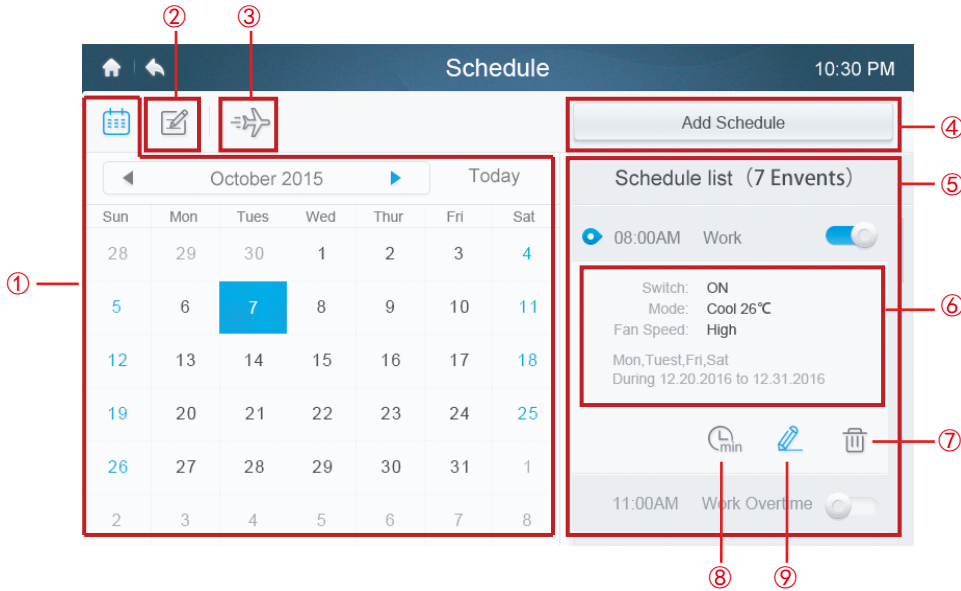
• **Table-6 Lock Control Panel Function Description**

Table-7

Item	Description
On/Off lock	[Lock-OFF] button: Disable starting operation [Lock-ON] button: Disable stopping operation [Unlock] button: Disable the lock
Mode lock	[Lock] button: Disable mode changing [Unlock] button: Disable the lock
Fan Speed lock	[Unlock] button: Disable the lock [High, Mid, Low]: Lock the fan speed in one of three speed modes.
Cooling set temp. lock	[Unlock] button: Disable the lock [Temperatures] button: Set the upper limit temperature range (17°C~30°C / 62°F~86°F).
Heating set temp. lock	[Unlock] button: Disable the lock [Temperatures] button: Set the upper limit temperature range (12°C~30°C / 54°F~86°F).
Remote controller lock	[Unlock] button: Disable the lock [Lock] button: Disables remote control for all features

3 Schedule Page Description

This section provides the descriptions and instructions for Schedule page.



• Table-7 Schedule Page Icons and Description

Table-8

Number	Item	Description
1	Date	Display the selected date.
2	View and Edit	Use [◀]/[▶] to move to the previous/next month, and Today is the shortcut to return to the current date.
		View and edit the schedules for the selected date
3	Holiday	Create and edit the expecting dates for holiday
4	Add Schedule	Register new schedules.
5	Schedule List	Display registered schedules by time, and provide shortcut to turn ON/OFF
6	Schedule Contents	Display the schedule contents
7	Delete	Delete schedule
8	Delay/Override	Delay the starting time for the selected schedule
9	Edit	Edit the selected schedule

• Create a New Schedules

1. Tap on Add Schedule Button.
2. Create an Event Name for the schedule and set the scheduled time and date range.
3. Touch **Everyday** icon to switch pattern between Everyday, Workday and Custom. In Custom selection, user can customise a pattern by touching any weekday.

Event Name

Time Date

Repeat Pattern

Select Units

Action Switch: ON Set Temp.: 25°C Mode: COOL Fan Speed: AUTO

4. Touch **Edit Units** button to choose the desired IDUs, or group of IDUs. The selected unit will have a tick in the box.

Area 0-0

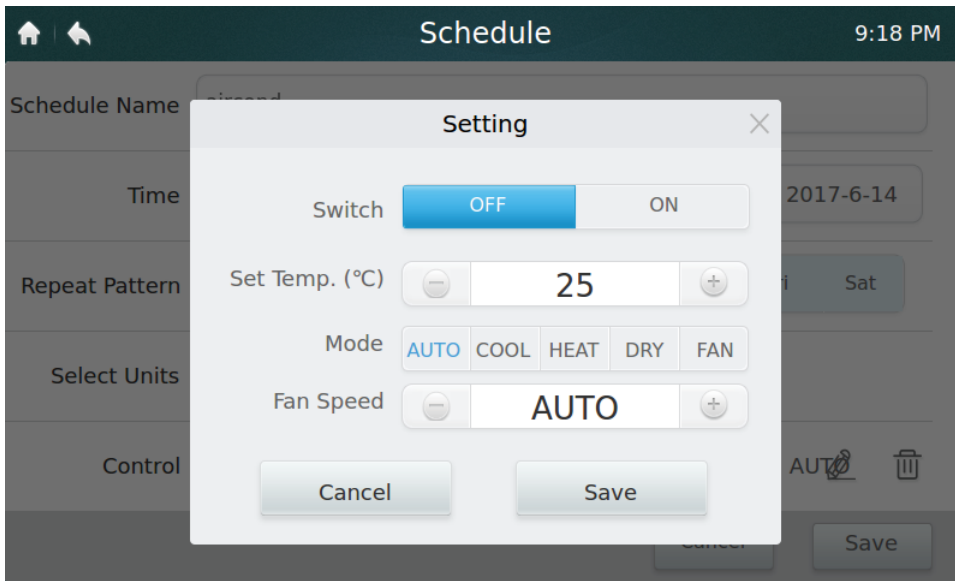
Area 0-1

Select All

IDU1-0 <input type="checkbox"/>	IDU1-1 <input type="checkbox"/>
IDU1-10 <input type="checkbox"/>	IDU1-11 <input type="checkbox"/>
IDU1-12 <input type="checkbox"/>	IDU1-13 <input type="checkbox"/>
IDU1-14 <input type="checkbox"/>	IDU1-15 <input type="checkbox"/>
IDU1-16 <input type="checkbox"/>	IDU1-17 <input type="checkbox"/>
IDU1-18 <input type="checkbox"/>	IDU1-19 <input type="checkbox"/>

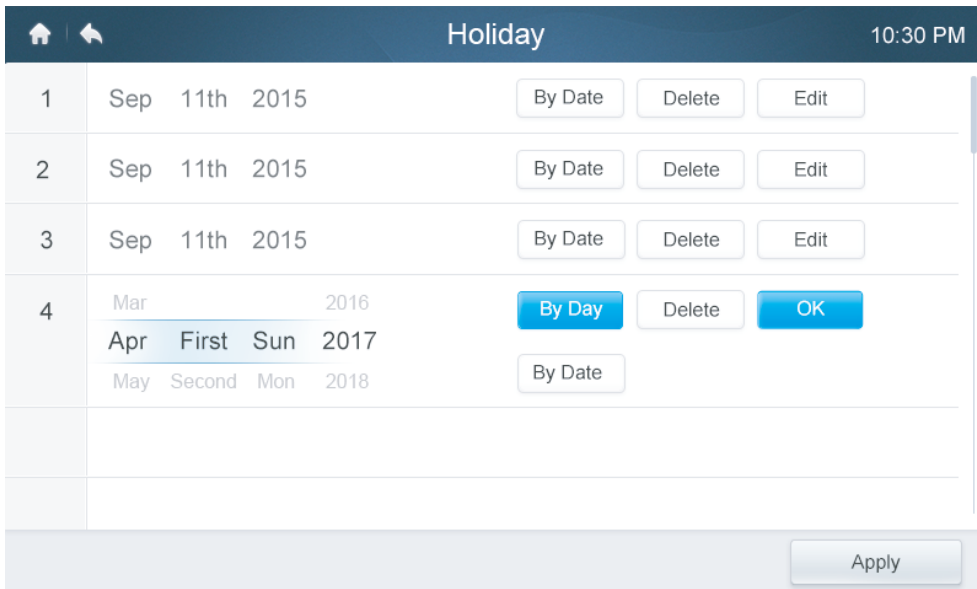
5. Touch the **Edit** button in Action bar, to setup the running mode, temperature and other relevant features.

6. Touch the **Save** button to save the schedule or **Cancel** to discard.



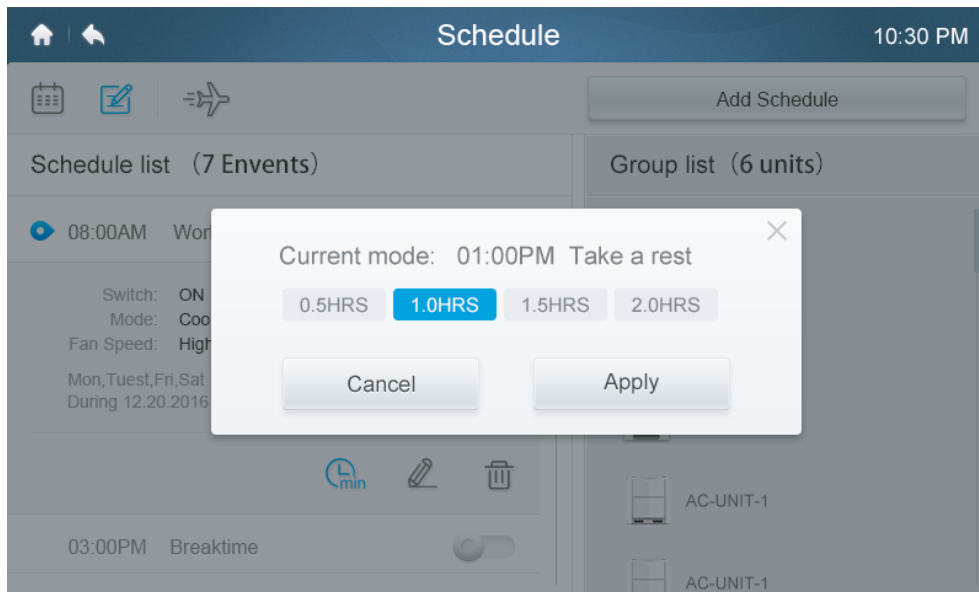
• **Holiday Settings**

1. Touch icon ③ to access Holidays settings.
2. Touch **Add** button at the bottom right corner to setup a new holiday schedule.
3. Choose the expecting date using **By Date** or **By Day** in the setting.
4. Touch **OK** button to save the holiday schedule and **Delete** button to delete the setting.



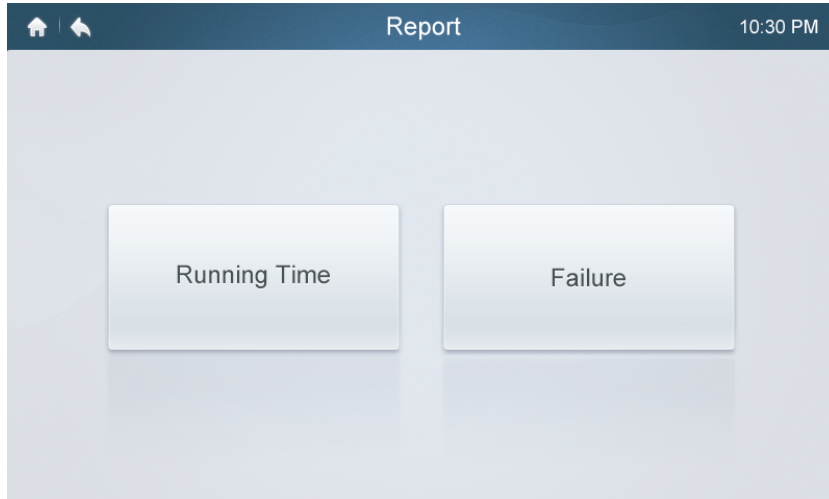
- **OVERRIDE Settings**

1. Tap the **Override** icon ⑧ in the schedule list.
2. Available lengths of delay are 0 Hrs, 0.5Hrs, 1Hrs, 1.5Hrs and 2Hrs.
3. Override delay operation is only valid once; it needs to be set again after operated every time

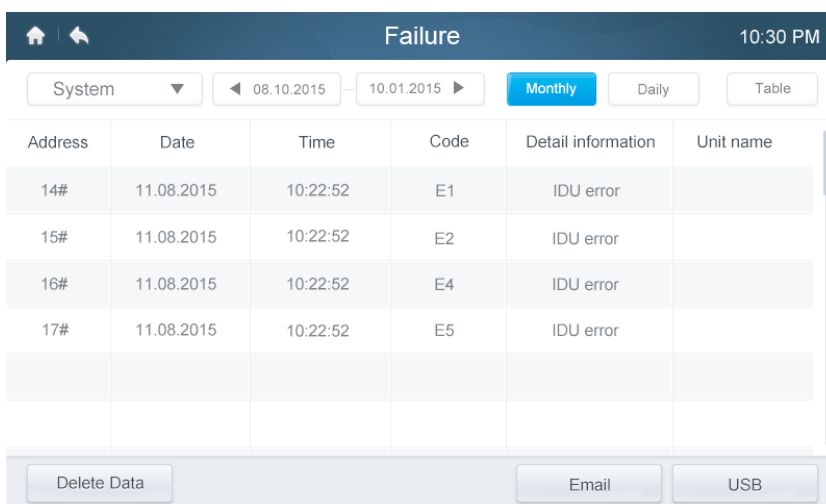


4 Report Page Description (Only available in V6 models)

This section provides the descriptions and instructions for Report page.



- **Check Operating Time**
 1. Touch **Running Time** button
 2. Select the desired units or group
 3. Select the time period
 4. Touch the **Confirm** button
- **Check Failure History**
 1. Touch Failure button
 2. Select the desired units or group
 3. Select the time period
 4. Touch the **Confirm** button

A screenshot of a mobile application interface titled "Failure". The top bar is dark blue with a home icon, a back arrow, the title "Failure", and the time "10:30 PM". Below the top bar, there is a filter section with a dropdown menu set to "System", a date range from "08.10.2015" to "10.01.2015", and three buttons: "Monthly" (highlighted in blue), "Daily", and "Table". Below this is a table with the following data:

Address	Date	Time	Code	Detail information	Unit name
14#	11.08.2015	10:22:52	E1	IDU error	
15#	11.08.2015	10:22:52	E2	IDU error	
16#	11.08.2015	10:22:52	E4	IDU error	
17#	11.08.2015	10:22:52	E5	IDU error	

At the bottom of the screen, there are three buttons: "Delete Data", "Email", and "USB".



• **Error Codes and Definitions**

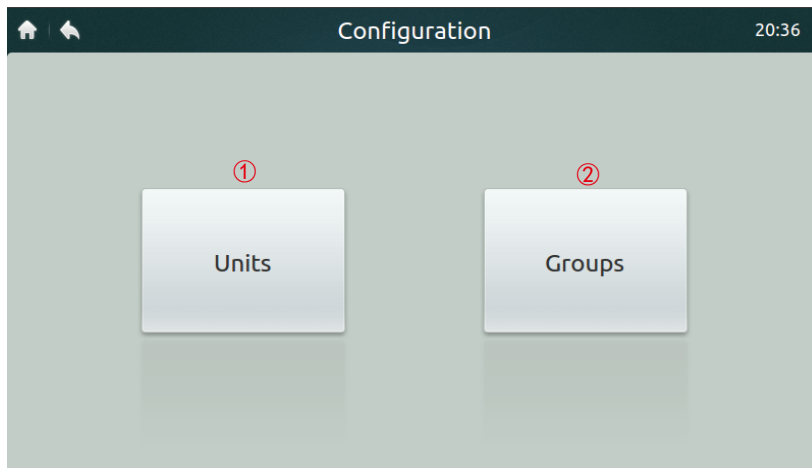
Table-9 Primary IDU and ODU Error Codes and Definitions

Table-8

IDU Error definition	Code	ODU Error definition	Code
No address setting	FE	Communication failure between IDU and ODU	E0
IDU Fan failure	Ed		
Mode conflict	E0	Power input phase error	E1
Communication failure between IDU and ODU	E1	Communication failure between IDU and ODU #0	E2
T1 sensor failure	E2	Refrigerant sensor failure	E3
T2 sensor failure	E3	T3 and T4 sensor failure	E4
T2B sensor failure	E4	Voltage protection	E5
T2A sensor failure	E5	ODU fan failure	E6
EEPROM failure	E7	Exhaust temperature sensor failure	E7
Water level sensor failure	EE	IDU address error	E8
		EEPROM failure	E9
		Communication failure between ODU modules	H0
		Communication failure with 0537	H1
		IDU number decreases	H2
		IDU number increases	H3

5 Configuration Page Description

This section provides the descriptions and instructions for Configuration page.



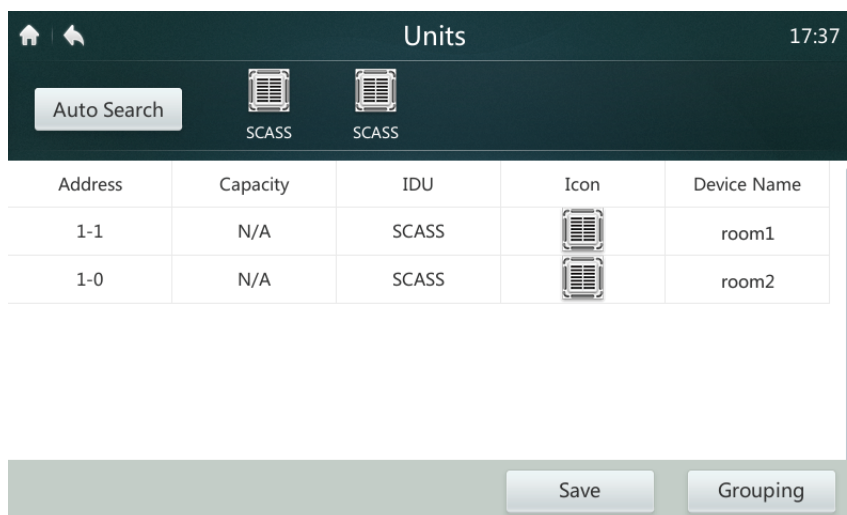
• Table-10 Install Page Icons and Description

Table-10

Number	Item	Description
1	Units	Manual search and install the IDUs
2	Groups	Check IDUs and the belonging group lists

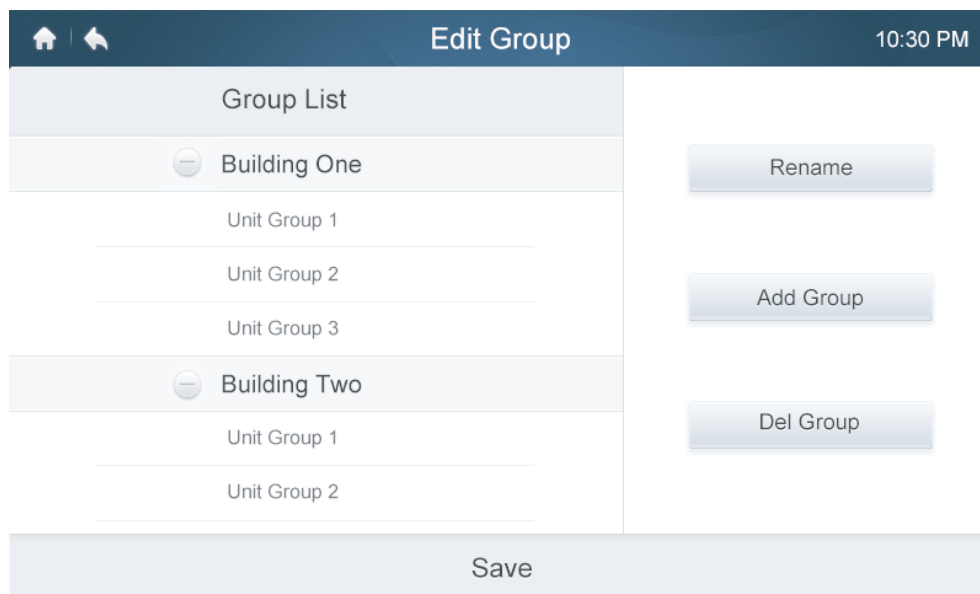
• Register Devices Automatically

1. Touch the **Units** button
2. Touch **Auto Search** button approximately 6 minutes after turning on the ODU, the connected IDUs will show in the table below. Tap on the Device Name column, user can change the name of the IDU, e.g. room1 and room2.



- **Create/Delete/Rename Groups**

1. Touch **Grouping** button
2. Touch **Edit Group** button
3. Two levels of group are available in this controller (e.g. Level one - Building One, level two - Unit Group 1). Touch **Add Group** button first level of group will be added by default, to insert a second level simply tap on the first level and touch **Add Group**.
4. Tap on a group name under the **Group List**, and touch **Del Group** button to delete
5. Tap on a group name under the **Group List**, and touch **Rename** button to enter a name from the touch keyboard



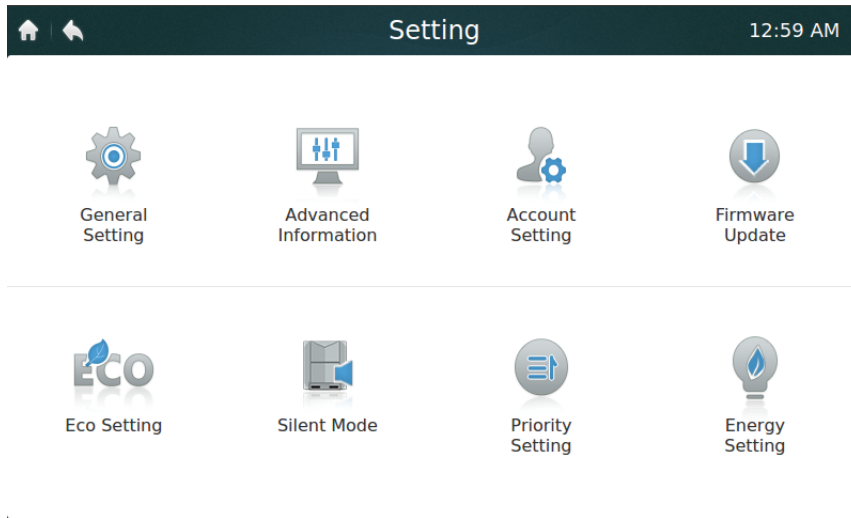
- **Add/Extract Units into Groups**

1. Touch the **Grouping** button
2. Select and tap on a group from the left
3. Tap a device in the **Unit** list on the right, and touch the **Add** button to insert to the **Registered Unit** list
4. Tap a device in the **Registered Unit** list, and touch the **Extract** button to remove from the list



6 Setting Page Description

This section provides the descriptions and instructions for setting page.



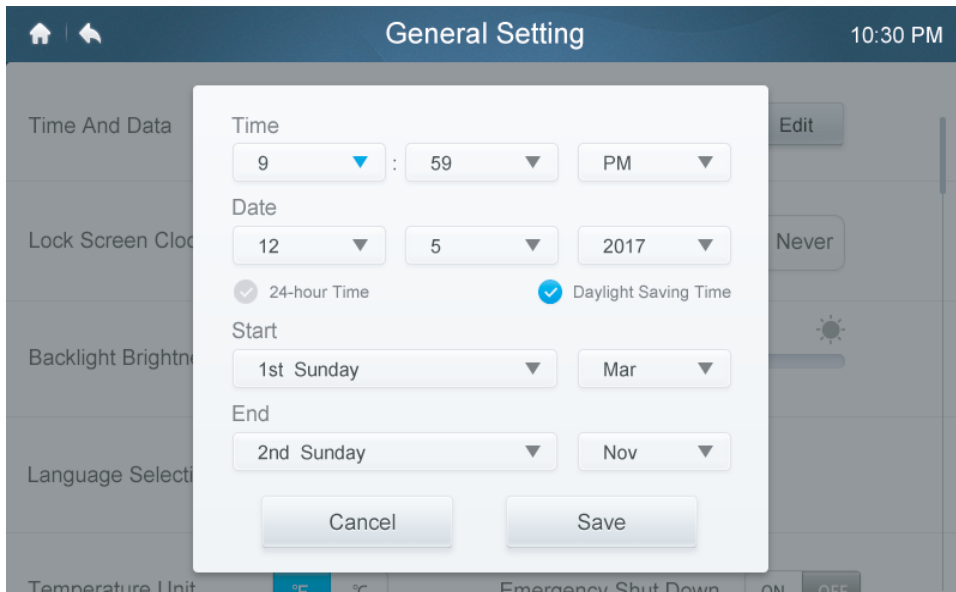
• Table-11 Setting Page Icons and Description

Table-11

Item	Description
General Setting	Set date and time, lock screen time, backlight brightness, language, temperature unit (developing) and emergency shutdown (developing)
Advanced Information	Detail information of ODUs and IDUs
Account Setting	Create and remove user accounts
Firmware Update	Update controller firmware version
Eco Setting (Reserved)	Static pressure and operation capacity settings
Silent Mode (Reserved)	Silent mode setting
Priority setting (Reserved)	ODU operating priority setting
Energy Setting (Reserved)	Energy setting

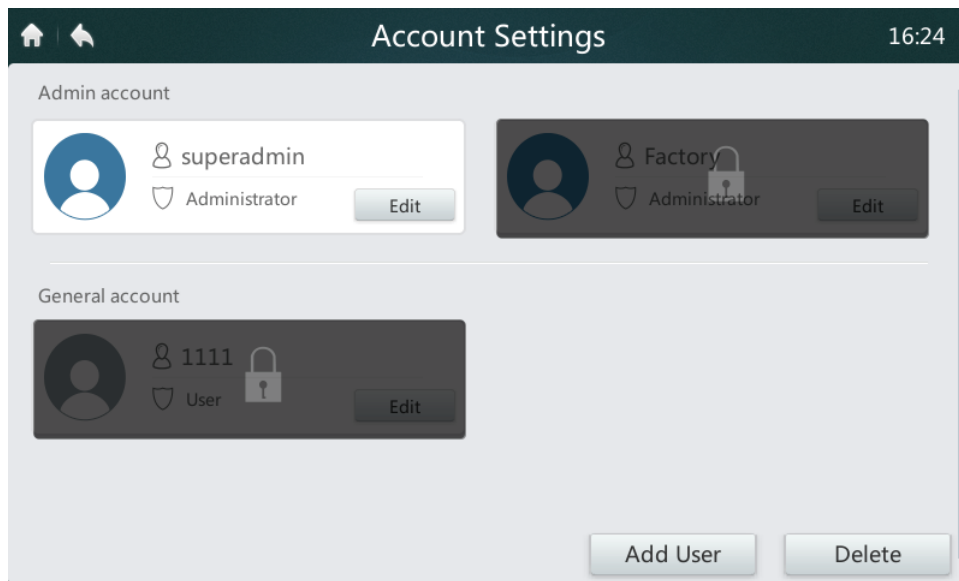
• Setting the date and time

1. Choose **General setting** and touch the **Edit** button in the row of Time and Date
2. Touch **24-Hour time** to turn on/off 24-hour time format
3. Set the date and time by sliding the corresponding items up and down from the dropdown list. Then, touch the **Save** button to save the settings. Available date range: January 1, 2000 – December 31, 2037.
4. Touch Daylight savings times to turn on/off the daylight savings times. The default daylight savings time is from 1st Sunday of March to 2nd Sunday of November. User can change it by slide the corresponding items to set the start date and end date respectively. Then, touch the Save button to save the settings.

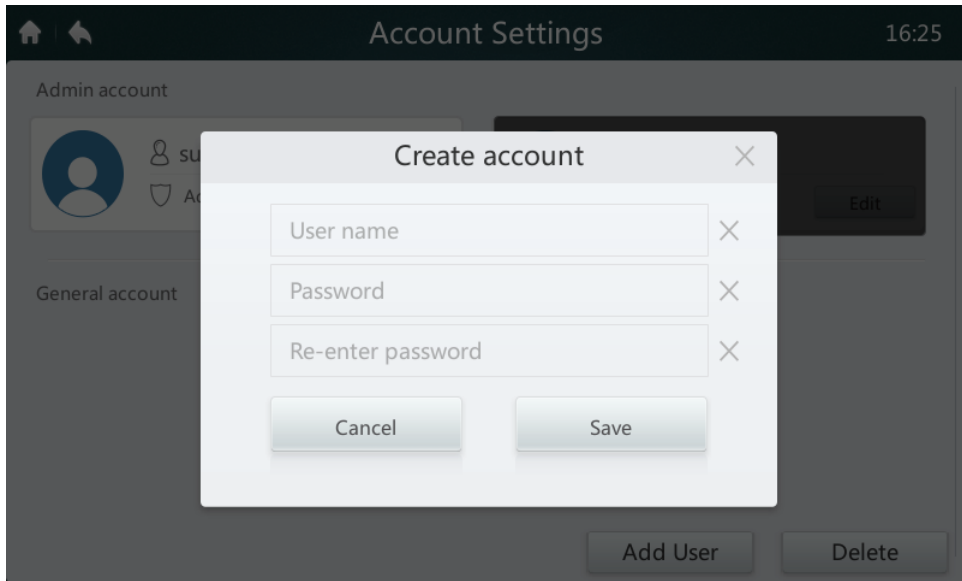


• **Add/Delete User Accounts**

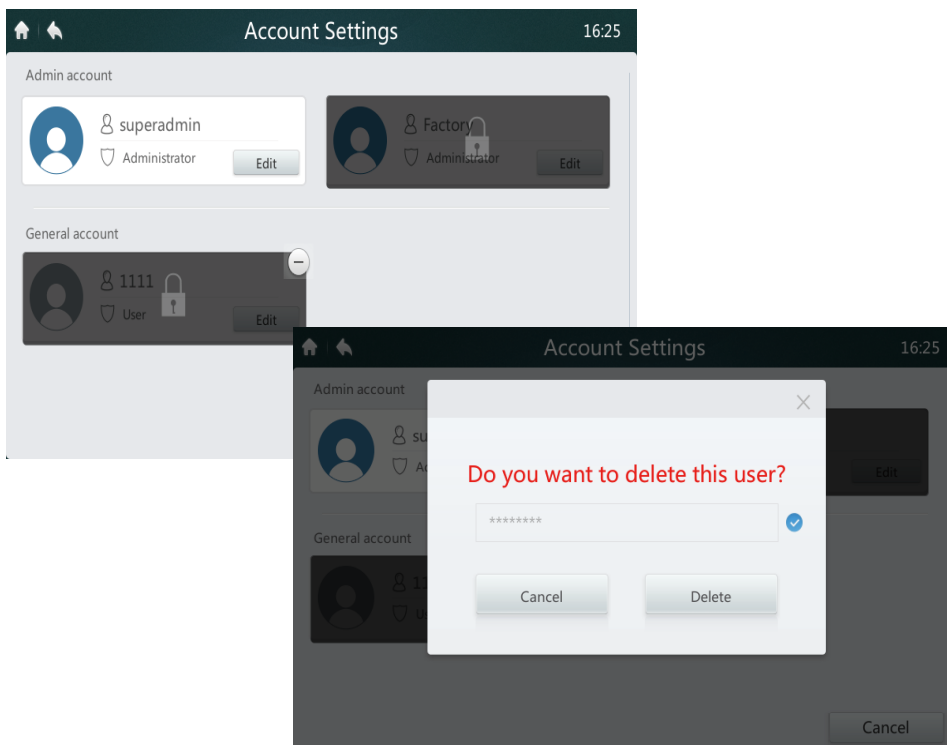
1. Login using an administrator account, only administrator has the authority to add/delete accounts.
2. Touch **General setting** and **Account Setting**.



3. In the general account list, touch **Add User** button. Enter a user name and setup a password, then press **Save** button.

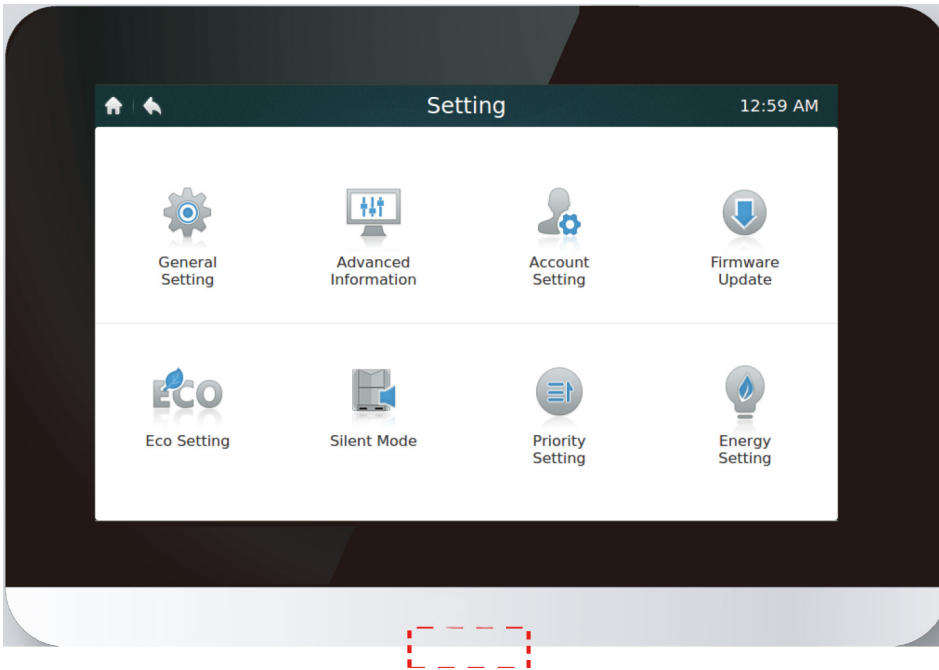


4. Touch **Delete** button, and tap on icon of the top right corner of an unwanted account. Enter the correct administrator password and touch the Delete button to delete the account.

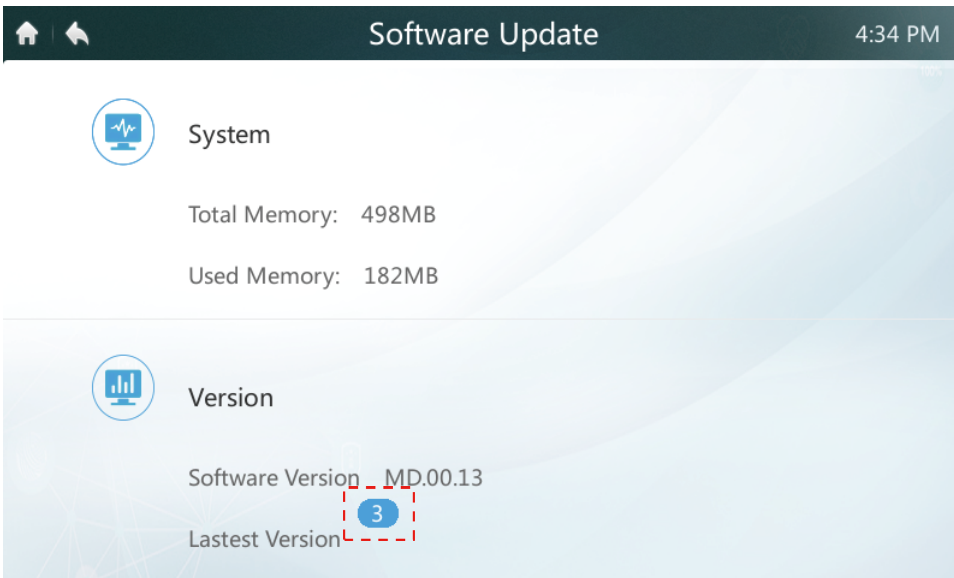


• **Update Firmware Version**

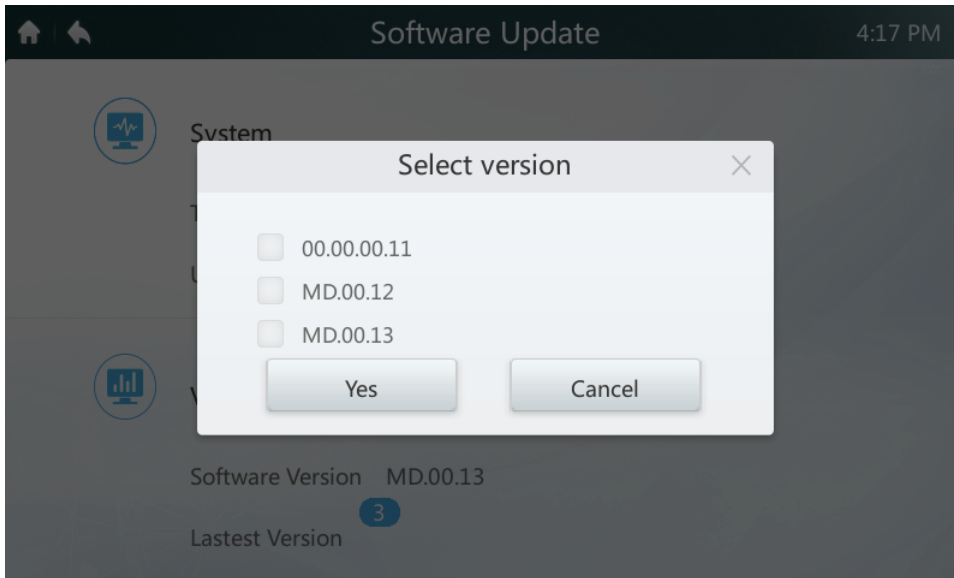
1. Connect a USB memory to the controller, the USB hub is located at the bottom of the controller as shown by the red rectangle.



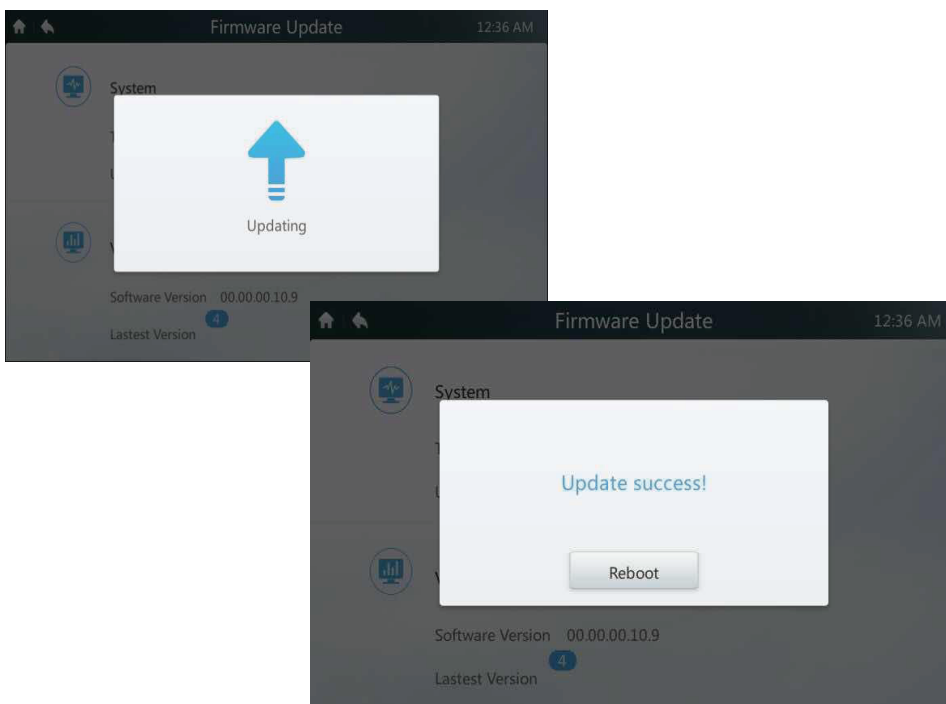
2. Touch **Firmware Update** button, controller will search the update file named update.apk in the USB memory. The number of available updates will be shown in Lastest Version shown by the red rectangle.



3. Tap on the number of updates

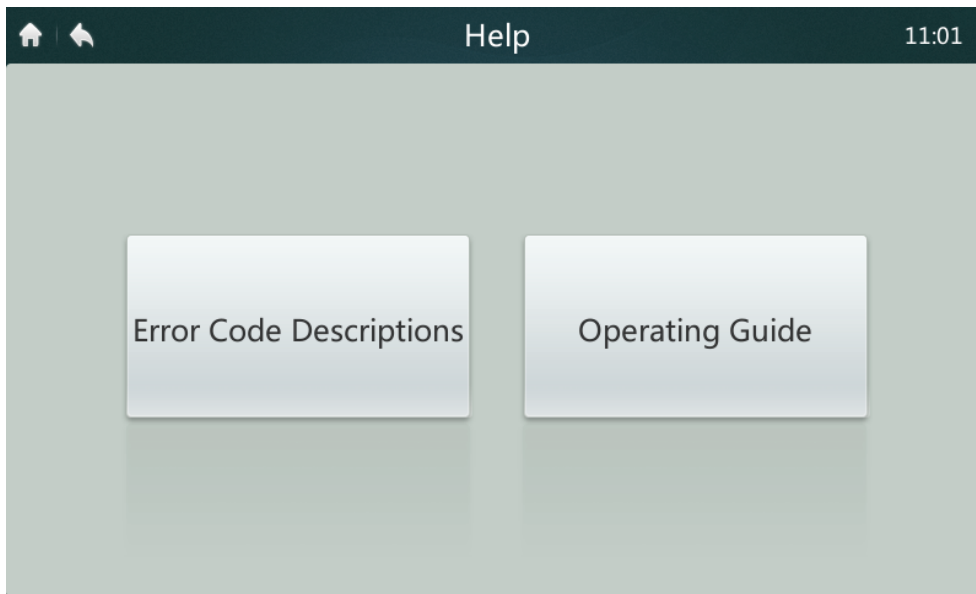


4. Select the update file, and press **Yes** button to install. If update suces, please reboot the controller.



7 Help Page Description

This section provides the descriptions for help page.



- **Error Codes and the Corresponding Definitions**

Press on the **Error Code Descriptions** button, it shows the error description lookup tables for IDUs and ODUs. The meaning of the common error codes for both Indoor Units and Outdoor Units can be found in Table 9.

- **Operation Guide**

Press **Operation Guide** button, it opens the electronic copy of the user manual.

MD17IU-014A
16117100001340



Kaysun
by frigicoll

MAIN OFFICE

Blasco de Garay, 4-6
08960 Sant Just Desvern
(Barcelona)
Tel. +34 93 480 33 22
<http://www.frigicoll.es/>
<http://www.kaysun.es/en/>

MADRID

Senda Galiana, 1
Polígono Industrial Coslada
Coslada (Madrid)
Tel. +34 91 669 97 01
Fax. +34 91 674 21 00
madrid@frigicoll.es