OMEGA VRF TECHNOLOGY

OTEC AIR CONDITIONING

BAECR-D001

Wired /2yúNJ2ffŜNJ

Installation Manual

- ✔ Read this Manual before the operation and keep it for reference.
- ✔ Read all safety precautions on the manual, improper use can cause serious injury.

Specification and performance data listed herein are subject to change without notice

- Read this manual carefully and be sure you understand the information before attempting to use the controller.
- Keep this manual where it is readily accessible after reading it through.
- If another user operates the controller in the future, be sure to hand over this manual to the new user.

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Installation

1. Safety Precautions

Please read these Safety Precautions carefully before installing the wired controller.

■ This manual classifies the precautions into WARNING and CAUTION. They both contain important information regarding safety. Be sure to follow all the precautions below.

Identifier	Meaning
⚠ Warning	Failure to follow these instructions properly may result in personal injury or loss of life.
⚠ Caution	Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.
ⓘ Important	Indicates a useful hint or additional information.

■ After completing the installation, conduct a trial operation to check for faults and explain to the customer how to operate the controller with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

⚠ Warning

- Ask your dealer or qualified personnel to carry out installation work.
  Do not attempt to install the wired controller yourself. Improper installation may result in leakage, electric shocks or fire.
- Consult your local dealer regarding relocation and reinstallation of the wired controller.
  Improper installation work may result in leakage, electric shocks or fire hazards.
- Install the wired controller in accordance with the instructions in this manual.
  Improper installation may result in water leakage, electric shocks or fire.

- Be sure to use only the specified accessories and parts for installation work.
  Failure to use the specified parts may result in the unit falling down, water leakage, electric shocks or fire.
- Install the wired controller on a foundation strong enough to withstand the weight of the wired controller.
  Insufficient strength may result in the wired controller falling down and causing injury.
- Electrical work must be performed in accordance with the relevant local and national regulations and with the instructions in this manual.
  Be sure to use a dedicated power supply circuit only. Insufficient power circuit capacity and improper workmanship may result in electric shocks or fire.
- Always perform installation work with the power turned off.
  pressing electric parts may result in electric shock.
- Do not disassemble, reconstruct or repair.
  This may result in electric shock and/or fire.
- Make sure that all wiring is secured, the specified wires are used and that there is no strain on the terminal connections or wires.
  Improper connections or securing of wires may result in abnormal heat build-up or fire.
- The choice of materials and installations must comply with the available national and international standards.

⚠ Caution

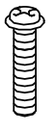
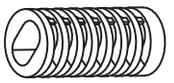
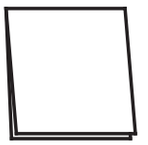
- To avoid leakage and electric shock due to entry of water or insects, fill the wiring through hole with putty.
- To avoid electric shocks, do not operate with wet hands.
- Do not wash the wired controller with water, as this may result in electric shocks or fire.
- When the follow me function of the wired controller is used, select the installation location while considering it should be a place:

  1).Where the average temperature in the room can be detected.
  2).Which is not exposed to direct sunlight.
  3).Which is not near a heat source.
  4).Which is not affected by the outside air or air draught due to, for example, opening/closing of doors, the air outlet of the indoor unit or the like.

2. Accessories

■ Please check that you have all the following parts.

Table 2.1

No.	Name	Schematic	Qty.	Remarks
1	Philips head screw, M4X25mm		2	Used to install the wired controller on the electrical box
2	Plastic support bar φ5X16mm		2	Used to install the wired controller on the electrical box
3	Operation and Installation Manual		1	/

■ Please prepare the following parts on site.

Table 2.2

No.	Name	Qty.	Remarks
1	86 electrical box	1	General specification for electrical box, which is embedded into the wall.
2	2-core shielded copper wires	1	2*AWG16-AWG20, pre-embedded into wall. Longest wiring length is 200 metres.
3	Wiring tubes (insulation suite)	1	Pre-embedded into wall.
4	Big Phillips screwdriver	1	To install the Philips screws.
5	Small slotted screwdriver	1	To dismantle the bottom lid of the wired controller.

3. Installation Procedure

3-1 Determine Where to Install the Wired Controller

Make sure to refer to "1. Safety Precautions" to determine the location.

3-2 Structural Dimensions

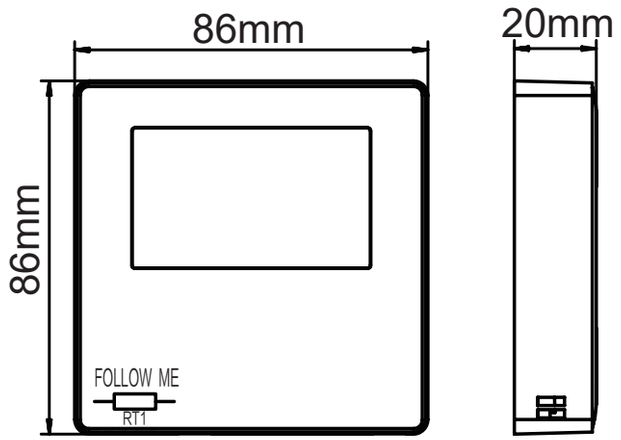


Figure 3.1

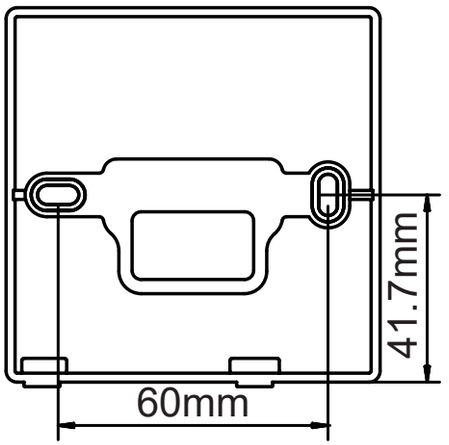


Figure 3.2

3-3 Rear Cover Installation

3-3-1 Insert a small slotted-head screwdriver into the bottom slot of the wired controller and rotate in the direction indicated to remove the rear cover of the wired controller. Pay attention to the direction of rotation to prevent any damage to the rear cover of the wired controller. (see Figure 3.3)

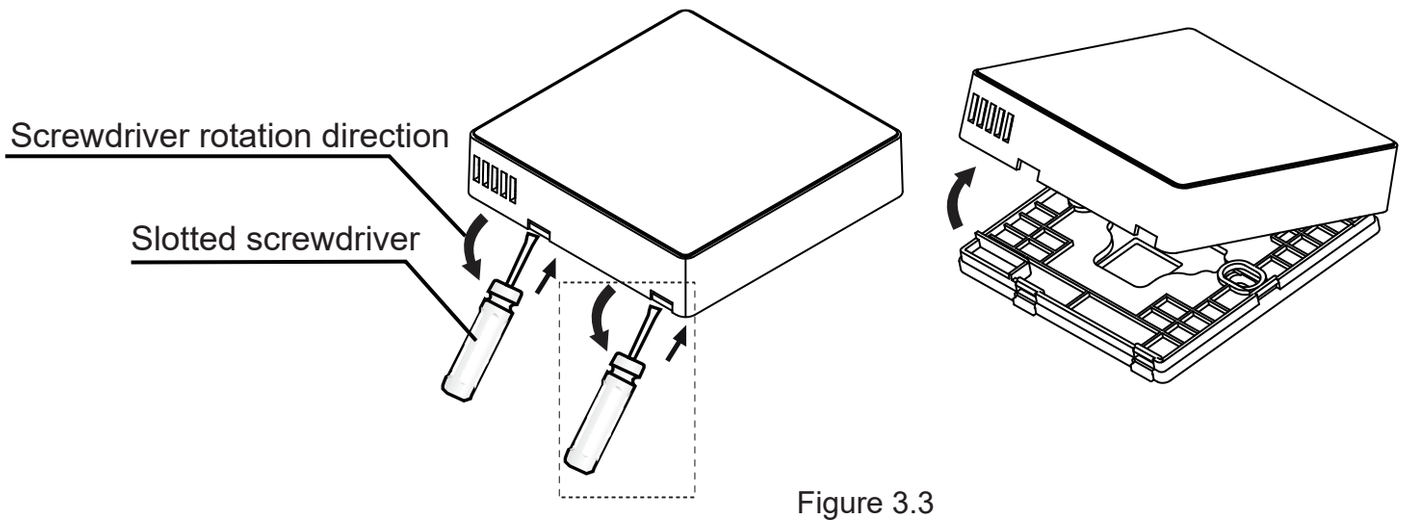


Figure 3.3

⚠ Warning

- When using the small slotted screwdriver to open the rear cover of the wired controller, be careful not to damage the PCB inside.
- Do not touch the PCB of the wired controller.

3-3-2 Use a cutting tool to adjust the height of the two plastic support bars (accessory 2) to match the standard length of the screw pillars of the electrical box to the wall surface. Make sure that the support bars are level on the wall when the screw pillars of the electrical box are mounted. (see Figure 3.4)

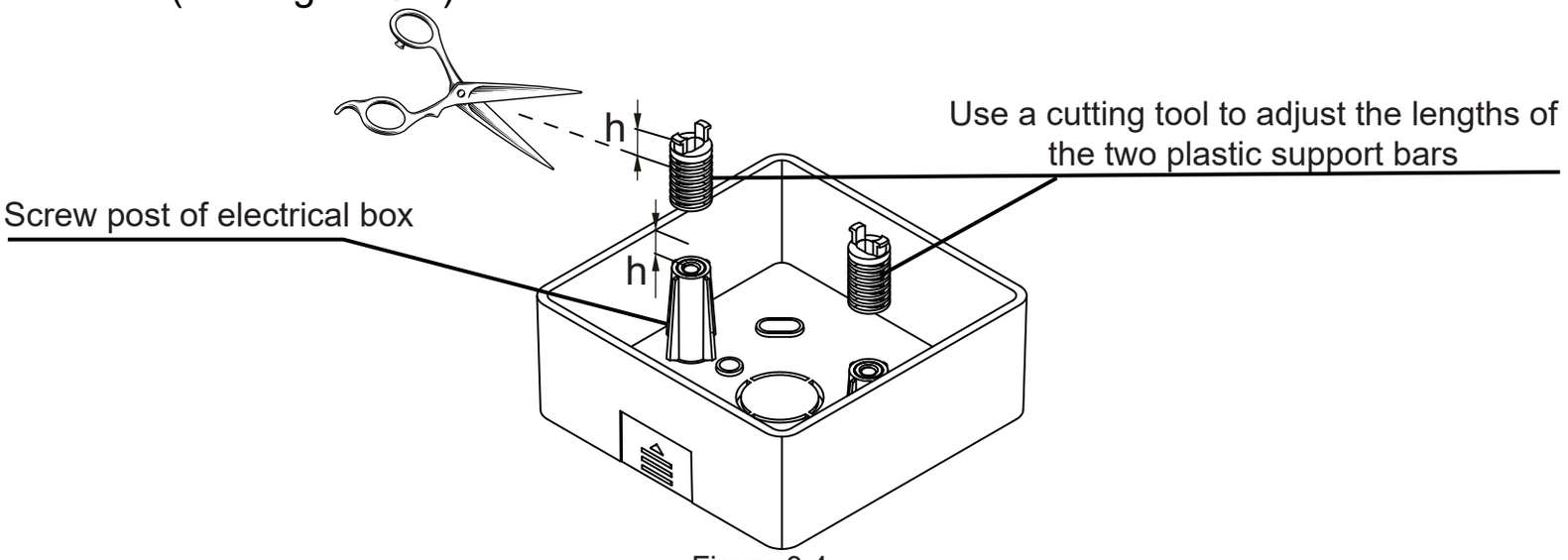


Figure 3.4

3-3-3 Once the heights of the plastic support bars are adjusted, fix the bars on the rear cover. (see Figure 3.5)

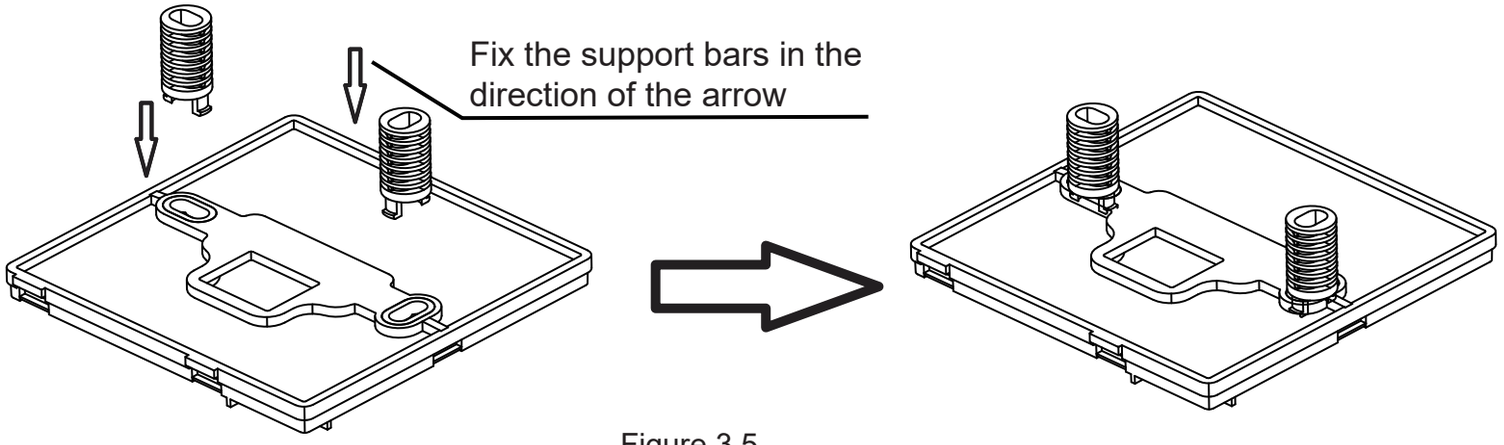


Figure 3.5

3-3-4 Take the shielded wiring that has been pre-embedded in the wall, and thread it through the wire hole of the rear cover. Use the Philips head screws (accessory 1) to fix the rear cover of the wired controller to the electrical box via the support bars. Make sure that the rear cover is not deformed after being installed (see Figure 3.6).

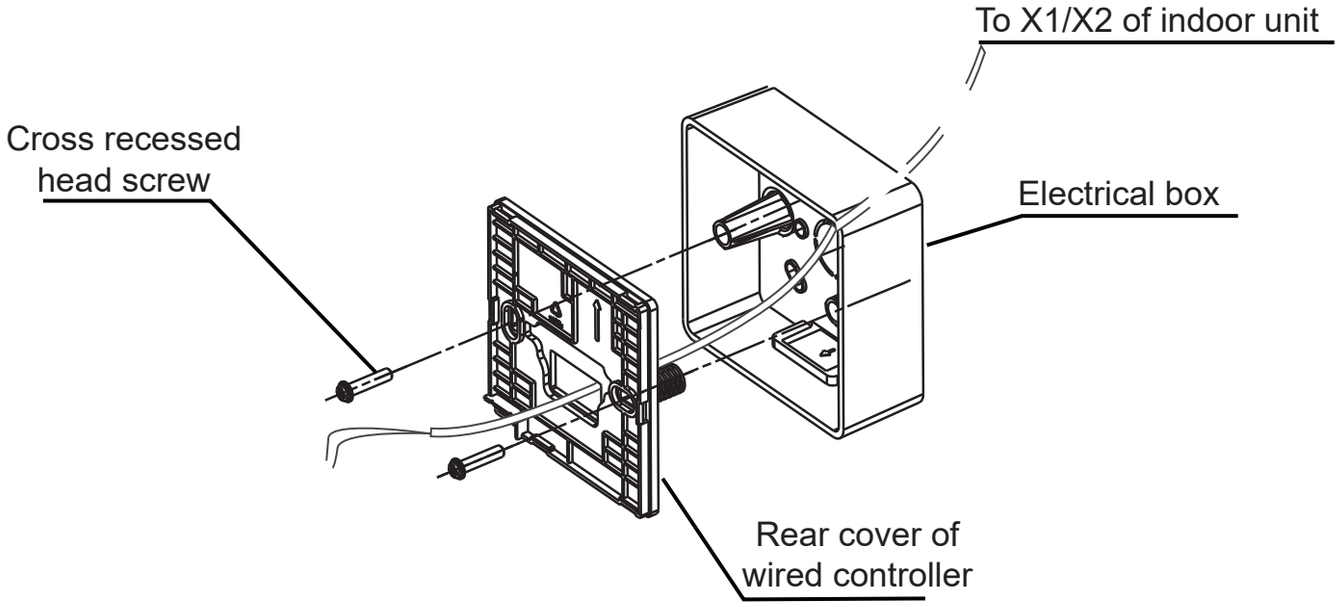


Figure 3.6

Important

- The rear cover may be deformed if the screw is too tight.

3-4 Wiring

Caution

- Prepare the electrical box and the 2-core shielded copper wire on site.
- Do not touch the PCB of the wired controller.

3-4-1 Wiring specification

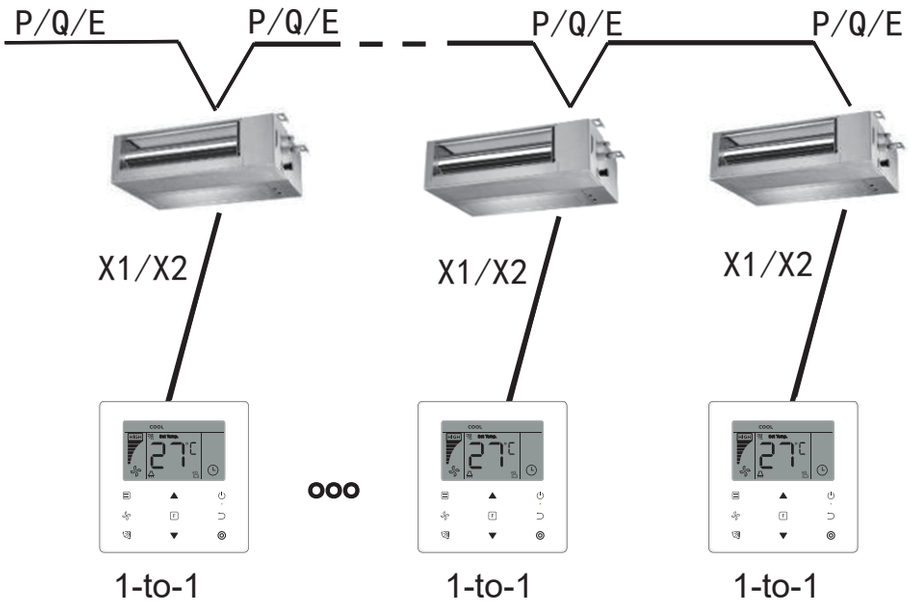
Table 3.1

Type	2-core shielded copper wire
Diameter	AWG 16-20
Length	Maximum 200m

3-4-2 Communication wiring

- The communication between the indoor unit and wired controller is bi-directional communication. The parameters displayed on the wired controller are refreshed in real time according to changes in the parameters of the indoor unit.
- X1 and X2 are terminals to connect the indoor unit and wired controller. There is no polarity between X1 and X2.
- The longest wiring length between the wired controller and indoor unit is 200 meters.

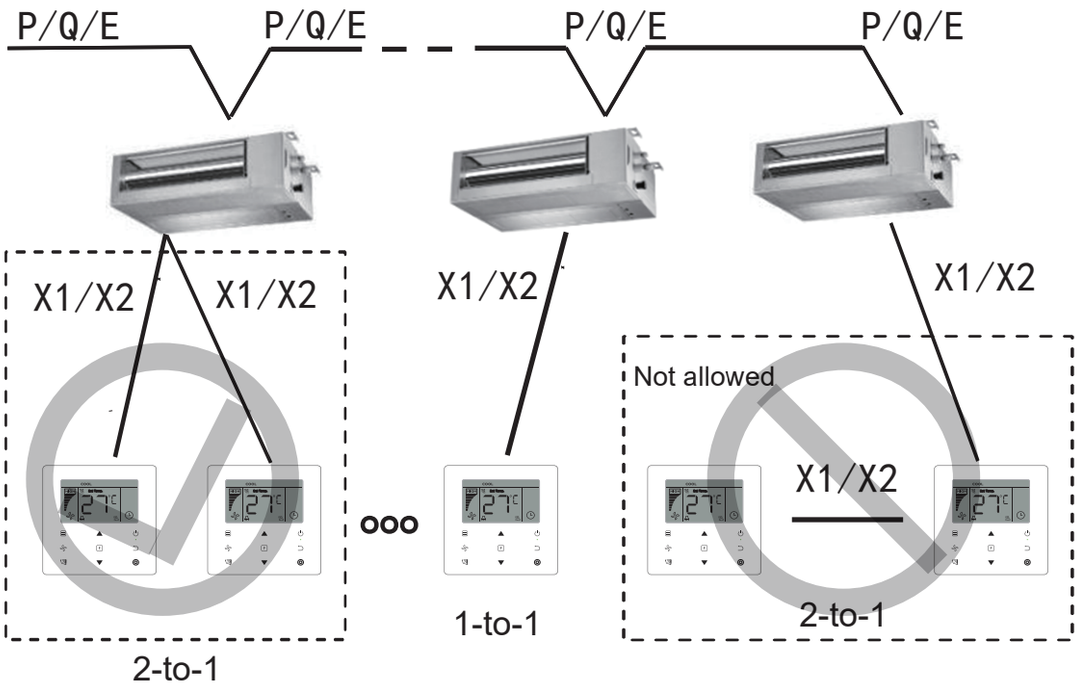
■ One controller to one indoor unit connection method



One controller to one indoor unit connection method

Figure 3.7

■ Two controllers to one indoor unit connection method



Two controllers to one indoor unit connection method

Figure 3.8

- For the two controllers to one indoor unit connection method, two wired controllers control the same indoor unit, where one controller will be the **"Main"**, and the other be the **"Secondary"**. Refer to **"Field setting"**. The default setting of the wired controller is set to main controller.
- This method is only available for two BAECR-D001 wired controllers.

3.5 Install Main Body of Wired Controller

Take the shielded wiring that has been pre-embedded in the wall and pass it through the wiring hole of the rear cover of the wired controller. Once connected, connect the wiring to the terminal X1/X2 (CN2) of the wired controller, and fix the wired controller to the rear cover. (see Figure 3.9)

Fix the wired controller correctly and firmly to the rear cover so that the wired controller will not drop. (see Figure 3.10)

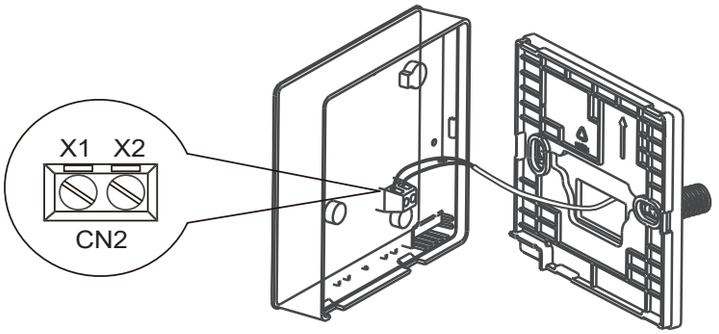


Figure 3.9

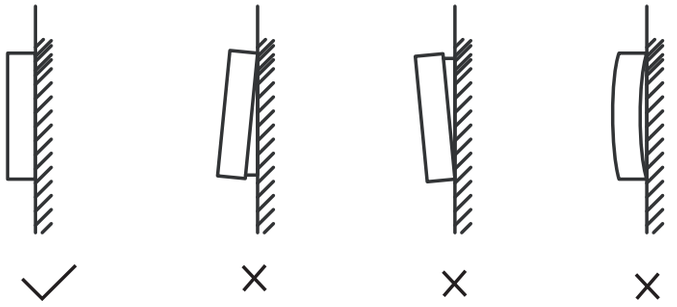


Figure 3.10

⚠ Caution

- During installation, reserve a certain length for the connecting shielded wiring to make it easier to remove the wired controller for maintenance.

Operation

1. Safety Precautions

This controller is not intended to be used by persons, including children, with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they are supervised or have been given instructions on how to use the controller by a person responsible for their safety.
Childen should be supervised to ensure that they do not play with the controller.

Please read the Safety Precautions carefully before operating the wired controller.

■ The Safety Precautions classifies the precautions into WARNING and CAUTION.

They both contain important information regarding safety. Be sure to follow all the precautions below.

Identifier	Meaning
⚠ Warning	Failure to follow these instructions properly may result in personal injury or loss of life.
⚠ Caution	Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

⚠ Warning

- **Do not install the wired controller by yourself.**
  Improper installation may result in electric shocks or fire.
  Consult your dealer.
- **Do not modify or repair the wired controller.**
  This may result in electric shocks or fire.
  Consult your dealer.
- **Do not relocate or reinstall the wired controller by yourself.**
  Improper installation may result in electric shocks or fire.
  Consult your dealer.
- **Do not use flammable materials (e.g., hairspray or insecticide) near the controller.**
  Do not clean the controller with organic solvents such as paint thinner.
  The use of organic solvents may cause crack damage to the controller, electric shocks or fire.

⚠ Caution

- **Do not play with the wired controller.**
  Accidental operation by a child may result in impairment of bodily functions and harm health.
- **Never disassemble the wired controller.**
  Pressing the interior parts may result in electric shocks or fire.
  Consult your dealer or authorized contractor for internal inspections and adjustments.
  To avoid electric shocks, do not operate with wet hands.
- **Do not wash the wired controller.**
- Doing so may cause electric leakage and result in electric shocks or fire.
  Do not leave the wired controller wherever there is a risk of wetting.
- If water gets into the wired controller there is a risk of electrical leakage and damage to electronic components.

2. Parts of the Wired Controller

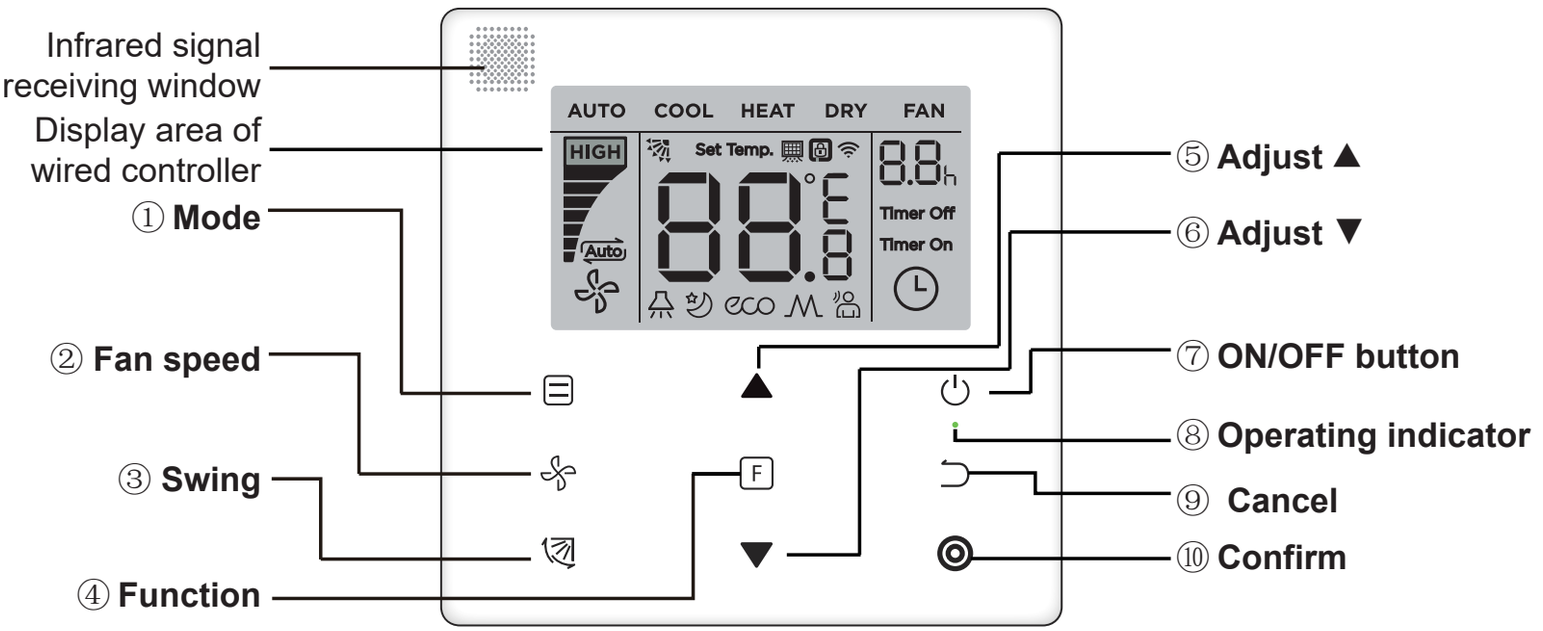


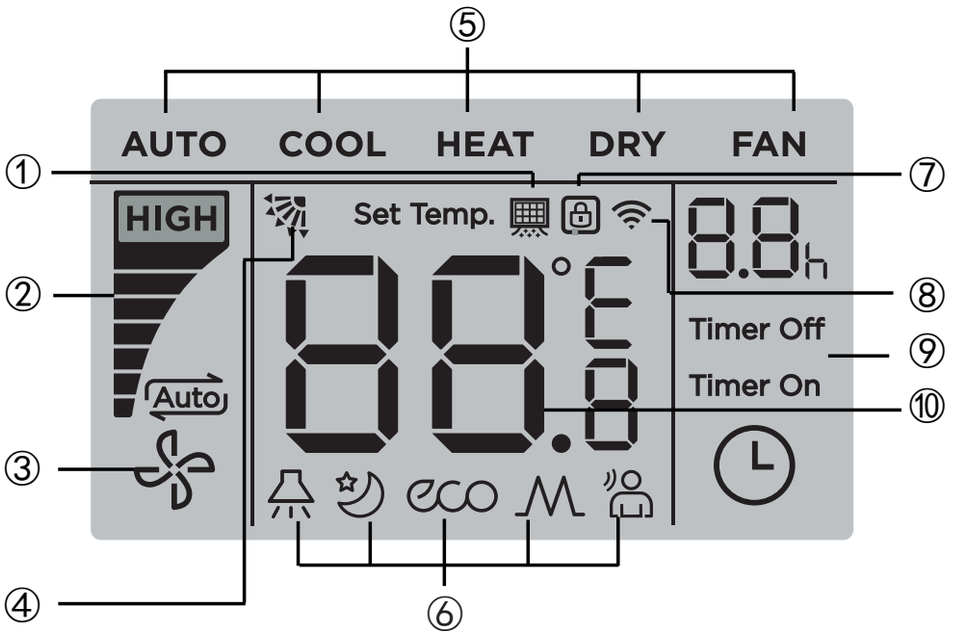
Figure 4.1

Table 4.1

Button	Functions
1. Mode	To set the operating mode: Auto → Cool→ Heat→ Dry→ Fan
2. Fan speed	To set the fan speed.
3. Swing	To set the swing function.
4. Function	To switch to functions that can be set in the current mode.
5. ▲ Adjust upwards	To adjust temperature setting and timing (for timer) upwards.
6. ▼Adjust downwards	To adjust temperature setting and timing (for timer) downwards.
7. ON/OFF	To turn on/off the unit
8. Operating indicator	To indicate the ON/OFF state of the indoor unit.
9. Cancel	To turn off the timer/IDU LED display/silent/ECO/auxiliary heater function[1]; to cancel the timer.
10. Confirm	To turn on the timer/IDU LED display/silent/ECO/auxiliary heater function[1]; to confirm the timer.

Note 1: Auxiliary heater function is reserved.

3. Icons in the Display



①	Clean filter reminder indicator	②	Fan speed
③	Indoor unit ON/OFF[1]	④	Swing
⑤	Operating mode	⑥	Function
⑦	Lock indicator	⑧	Signal transmission indicator
⑨	Timer ON/OFF	⑩	Temperature

Figure 5.1

Note1: When the indoor unit is on, the icon " " spins; when the indoor unit is off, the icon " " does not spin.

4. Operation Guide

4-1 ON/OFF Setting

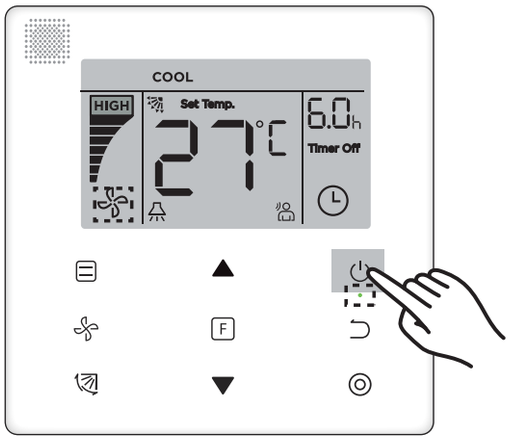


Figure 6.1

1) Press ⏻ (ON/OFF) button, and the Operating Indicator "●" on the wired controller will light up, while the ON/OFF icon " " of the indoor unit on the display will spin to indicate that the indoor unit has started running. (see Figure 6.1)
2) Press ⏻ (ON/OFF) button again, and the Operating Indicator "●" on the wired controller will turn off, and the display icon " " will stop spinning as the indoor unit stops running.

4-2 Mode Setting

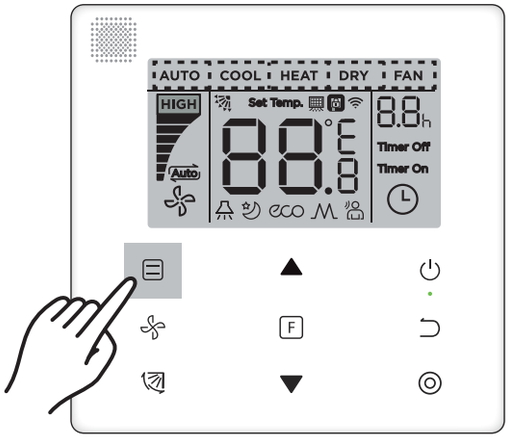


Figure 6.2

Press ☰ (Mode) button. Each time press this button, the operating mode will change in turn as shown in Figure 6.3.

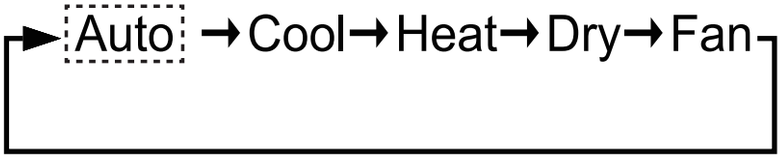


Figure 6.3

In the **"Auto"**, **"Cool"**, **"Dry"**, or **"Heat"** mode, press ▲ and ▼ buttons to adjust to the setting temperature. (see Figure 6.4)

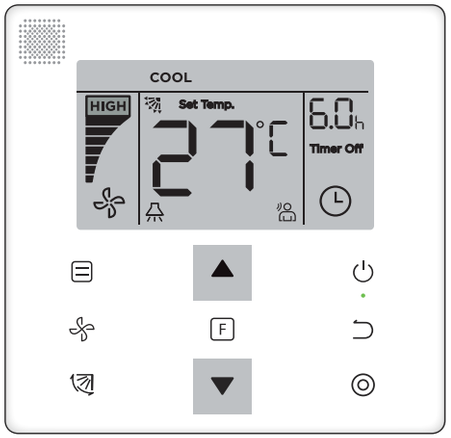


Figure 6.4

Note:

- The **"Auto"** mode is not available for all air conditioner models.
- In the **"Auto"** mode,press ▲ and ▼ buttons,**"Cool"**, **and "Heat"** button blink.Press to set cool and heat setpoint temperature. press ⮌ (Cancel) button to exit the settings page.
- Temperature setting is not available in the **"Fan"** mode.
- **"Dry"** mode is not available for FAPU .

4-3 Fan Speed Setting

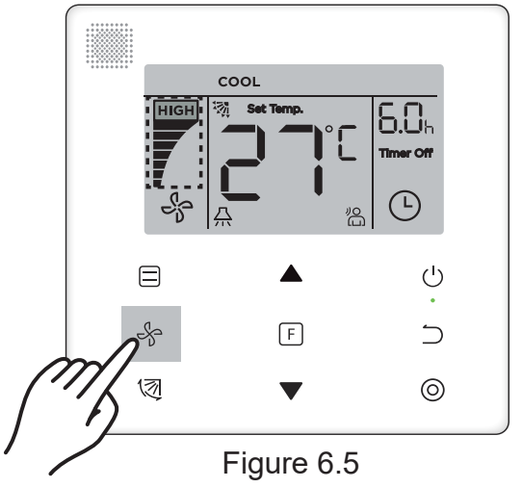


Figure 6.5

In the **"Cool"**, **"Heat"** or **"Fan"** mode, press (Fan speed) button to set the operating fan speed (see Figure 6.5).
If the wired controller is configured with seven fan speeds, press (Fan speed) button to set the fan speed in turn as shown in Figure 6.6.

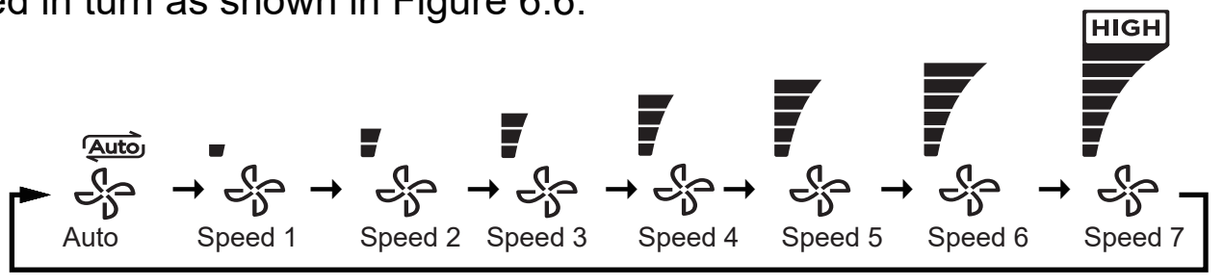


Figure 6.6

If the wired controller is configured with three fan speeds, press (Fan speed) button to set the fan speed in turn as shown in Figure 6.7.

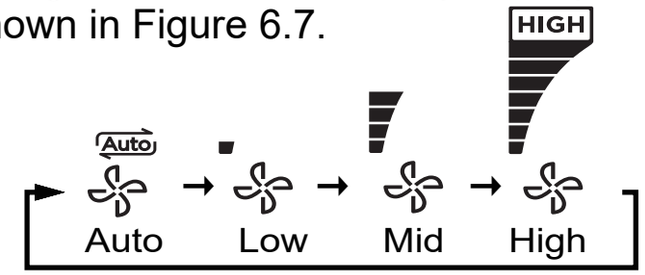


Figure 6.7

Note:

- In the **"Auto"** and **"Dry"** modes, the fan speed is set to **"Auto"**, and will not change even press (Fan speed) button.
- The default fan speed is 7 fan speeds, please refer to **"Field Setting"** to adjust the default fan speed.

4-4 Swing Setting

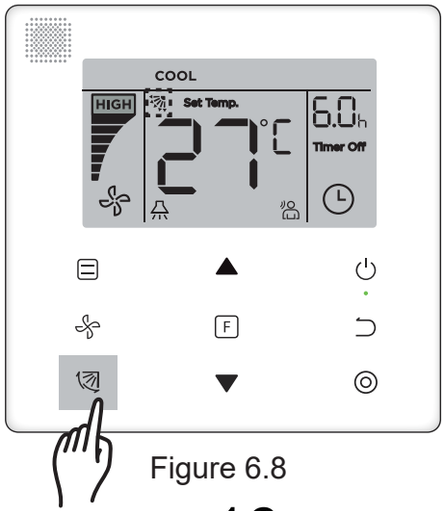


Figure 6.8

Press (Swing) button to control the swing of the vertical louver of indoor unit (see Figure 6.8). When the unit is on, the display icon shows the swing angle of the current louver.
Press (Swing) button, and the louver switches from the current angle to the angles in turn as shown in Figure 6.9.

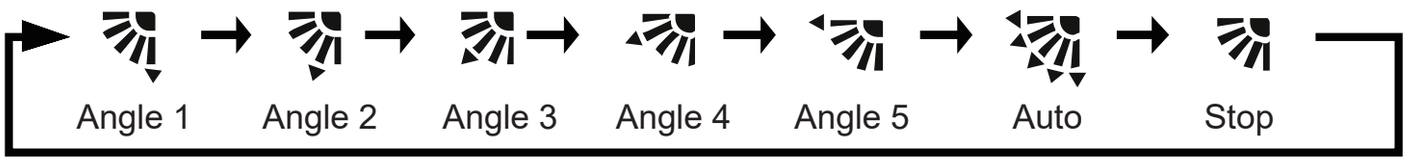


Figure 6.9

When the louver is in **"Auto"** state, Press (Swing) button again, and the louver will stop at the current operating angle, and the display icon will show the current angle of the louver after 10 seconds.

Note:

- The swing function is only available for indoor units configured with vertical louver.
- When the unit is off, the (Swing) button is invalid, and the wired controller automatically turns off the swing function, and the display icon will no longer show the swing angle.
- **This wired controller is unable to control horizontal swing in indoor unit.**

4-5 Function Setting

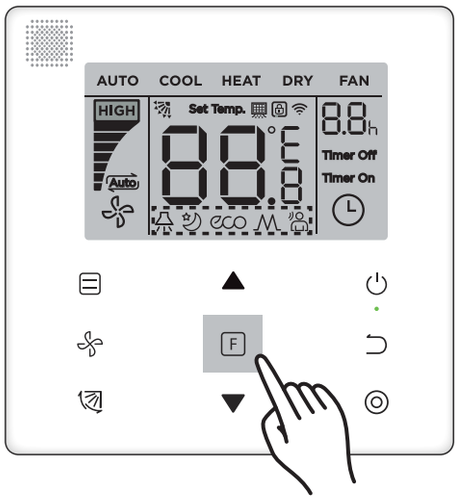


Figure 6.10

Press [F] (Function) button to switch to the function that can be set in the current mode (see Figure 6.10).

- Press [F] (Function) button to go to the function setting, and the display on the wired controller will show in turns: " ", " ", " ", " ", " " (reserved). Alternatively, you can press ▲ and ▼ buttons to switch to the selected function. (see Figure 6.11)

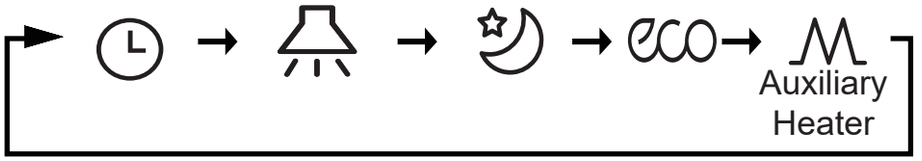


Figure 6.11

- Press [F] (Function) button to go to the function settings. Press [F] (Function) button each time to select the function, and the icon for the selected function will blink. Press ◎ (Confirm) button to confirm the function, or ⮌ (Cancel) button to cancel the function.

4-5-1 IDU LED Display

The **"IDU LED Display"** function is used to control the on/off state of display in the indoor unit.

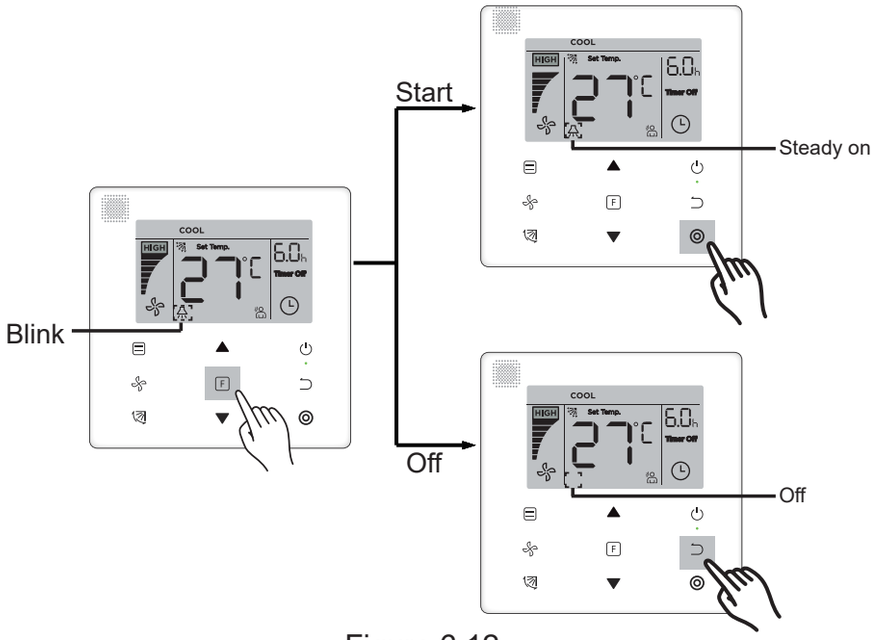


Figure 6.12

Press [F] (Function) button to go to the function setting page. Press [F] (Function) button again to select " ", and the **IDU LED Display** icon " " will blink. Then press ◎ (Confirm) button to confirm, and " " will light up, or press ⮌ (Cancel) button to cancel, and the **"IDU LED Display"** function will turn off. (see Figure 6.12)

4-5-2 Silent

The **"Silent"** function is used to send the **"Silent"** control signal to the indoor unit. The indoor unit automatically optimizes the noise it generates when it is in the **"Silent"** state.

- Turn on/off the **"Silent"** function: press [F] (Function) button to switch to the **"Silent"** function (" " blinks), and press ◎ (Confirm) button to turn on the function or ⮌ (Cancel) button to turn off the function (see Figure 6.13).

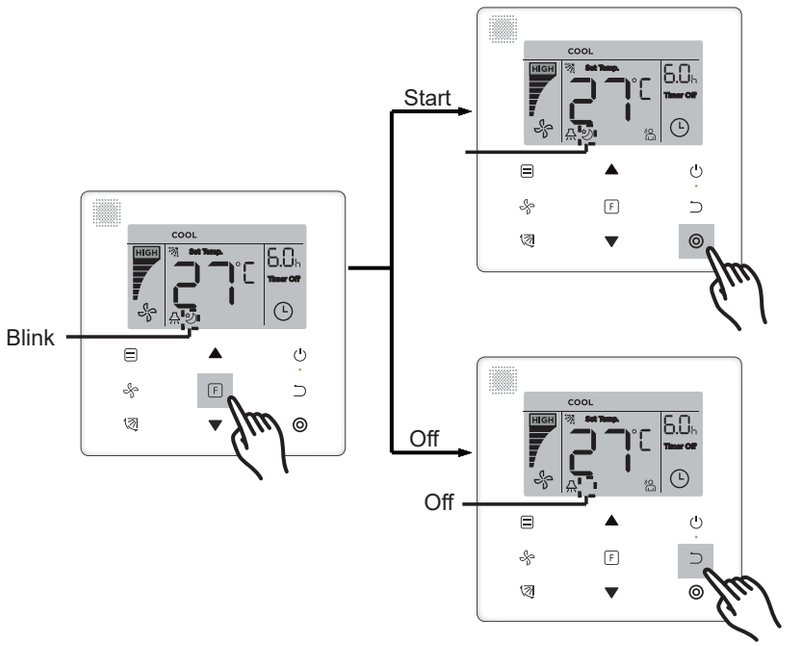


Figure 6.13

Note:

- The **"Silent"** function will be cancelled and needed to be reset when the unit is manually turned off.
- Once it has been running for 8 hours, the Silent icon " " will no longer light up, and the unit will exit the **"Silent"** operating state.
- The **"Silent"** and **"ECO"** functions cannot be set at the same time.

4-5- 3 ECO

The **"ECO"** function is used to send the **"ECO"** control signal to the indoor unit. The indoor unit will run in the energy saving mode when it is in the **"ECO"** state.

- Turn on/off the **"ECO"** function: press [F] (Function) button to switch to the **"ECO"** function (" ECO " blinks), and press ◎ (Confirm) button to turn on the function or ⮌ (Cancel) button to turn off the function (see Figure 6.14).

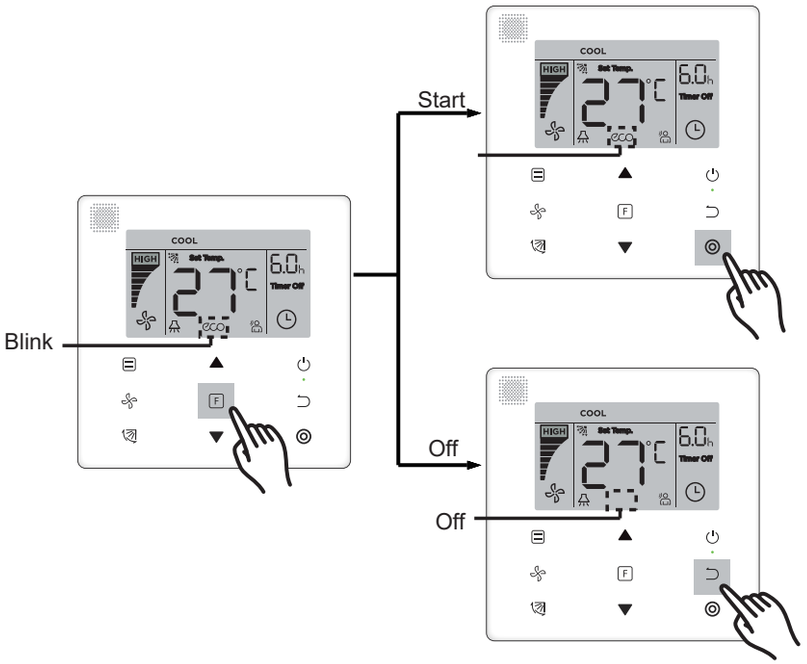


Figure 6.14

Note:

- When switching modes or turning off the unit, the unit will exit the **"ECO"** function.
- Once it has been running for 8 hours, the ECO icon " ECO " will no longer light up, and the unit will exit the **"ECO"** operating state.
- The **"Silent"** and **"ECO"** functions cannot be set at the same time.

4-5-4 Auxiliary Heater (Reserved)

4-5-5 Follow Me

The **"Follow Me"** function of the wired controller is on by default, and its icon lights up when the function is on.

1) Turn off **"Follow Me"**: Press (Swing) and (Confirm) buttons at the same time, and hold for 5 seconds to turn off the **"Follow Me"** function, and its icon disappear.
2) Turn on **"Follow Me"**: When the **"Follow Me"** function is off, Press (Swing) and (Confirm) buttons at the same time, and hold for 5 seconds to start the **"Follow Me"** function again, and display its icon "" (see Figure 6.15).

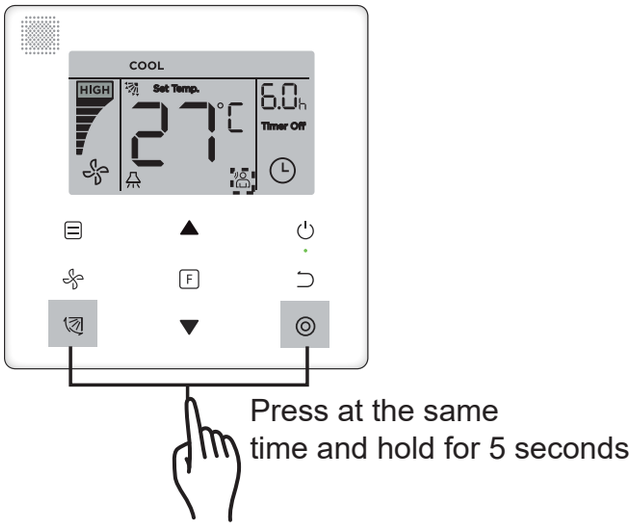


Figure 6.15

Note:

- When the **"Follow Me"** functions of wired and remote controllers are turned on at the same time, the **"Follow Me"** function priority is assigned to the wired controller.

4-5-6 Timer

"Timer" is used to set the timed on/off state of indoor unit.

- press F (Function) button to switch to the **"Timer"** function. When the indoor unit is on, first complete the **"Timer Off"** settings, and then the **"Timer On"** settings. When the indoor unit is off, first complete the **"Timer On"** settings, then the **"Timer Off"** settings.
- When the indoor unit is off:

1) **"Timer On"** setting: press F (Function) button to go to the **"Timer On"** setting, the display will show **"0.0h Time On"**, and the words "**Time On**" will blink, then press (Confirm) button to go to the timer setting. Press ▲ and ▼ buttons to adjust the time, and press (Confirm) button to complete the timer setting (see Figure 6.16).

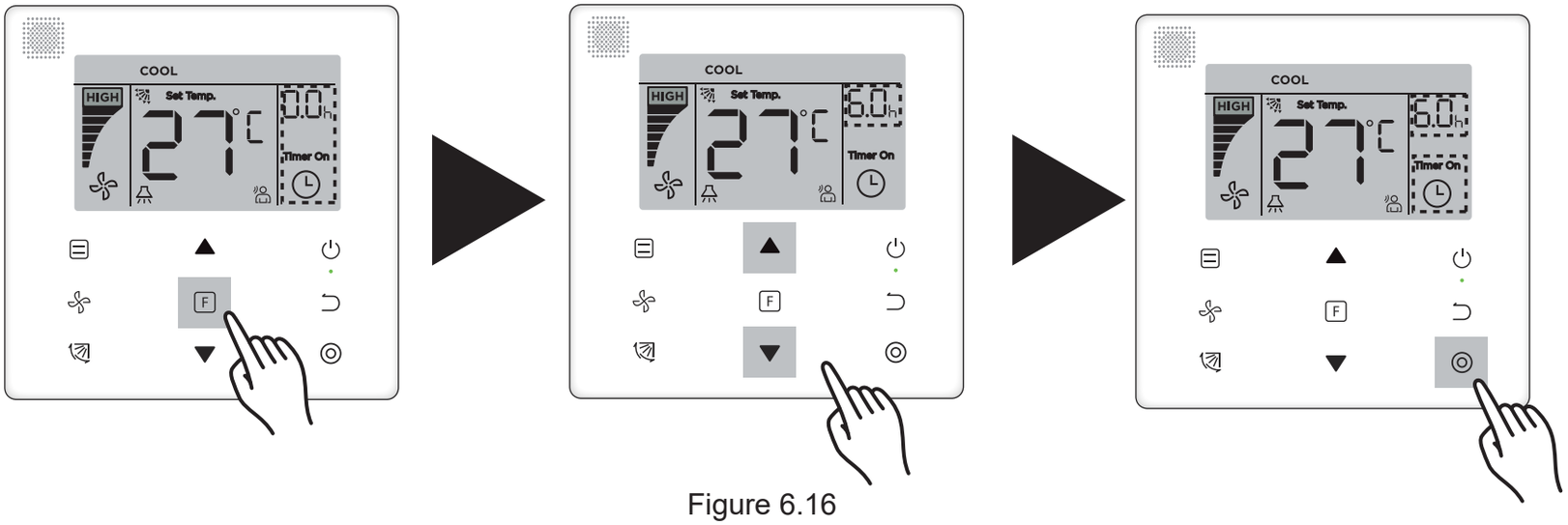


Figure 6.16

2) **"Timer Off"** setting: Once the **"Timer On"** setting is completed, press [F] (Function) button to go to the **"Timer Off"** setting, the display will show **"0.0h Time Off"**, and the words **"Time Of"** will blink. press ◎ (Confirm) button to go to the timer setting, and press ▲ and ▼ buttons to adjust the time, then press ◎ (Confirm) button to complete the timer setting.

- When the indoor unit is on: Refer to the above operations to configure the **"Timer On"** and **"Timer Off"** settings.
- When adjusting the timing steps, press and hold ▲ and ▼ buttons for more than 1 second to adjust the timing step values quickly.
- **"Cancel Timer"** Function: press [F] (Function) button to go to the timer setting, press ⮌ (Cancel) or ⏻ (ON/OFF) button or set the time value to zero to cancel the timer settings. Go back to the main page.

Note:

- When the unit is on, the wired controller can be used to set the timer information for **"Timer Off"** and **"Timer On"**, and when **"Timer Off"** is cancelled, **"Timer On"** will be cancelled as well. When the unit is off, timer information for both **"Timer On"** and **"Timer Off"** can be set, and when **"Timer On"** is cancelled, **"Timer Off"** will be cancelled as well.
- Once the wired controller has set the timer information, the Timer icon in the display of the indoor unit will not light up until the preset timing when the wired controller sends the ON/OFF signal to the indoor unit.
- Secondary wired controller has no timer function.

4-6 Clean Filer Reminder

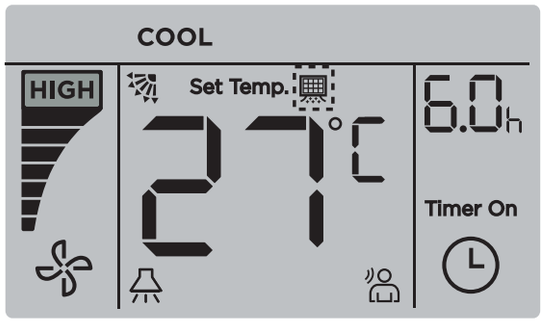


Figure 6.17

- When the operating time reaches the preset time, the **Filter** icon " " lights up to remind users to clean the filter.
- Press and hold (Swing) button for 5 seconds to remove the **Filter** icon " ".
- Go to **"Field Setting"** to turn on/off this function or preset time of this function.
- The secondary wired controller has no clean filer reminder function.

4-7 Locking Function

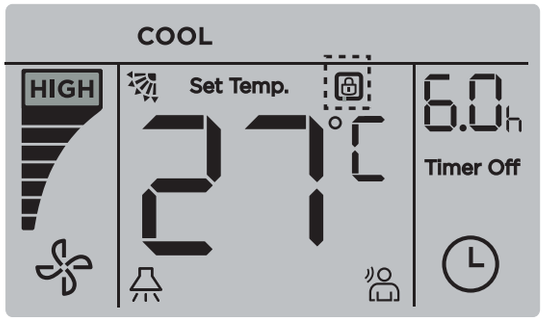


Figure 6.18

- When the system contains both the centralized controller and wired controller at the same time, the centralized controller can lock the indoor unit so that some of its functions become unavailable. If the indoor unit is locked by the centralized controller, and the display icon of the wired controller " " is on, and some operations fail to respond, please check the corresponding setting of the centralized controller.
- When the wired controller locks the temperature range by itself, the icon " " will light up, but the outer frame " " will be off. When the temperature range is locked by the centralized controller, the lock icon " " and the outer frame " " will both light up at the same time. When two locks exist, the interval for the alternating display is 5 seconds.

- One or more of the following functions of the indoor unit are locked when the icon " " lights up on the display: wireless remote controller, on/off state, lowest cooling set temperature, highest set temperature, mode, fan speed, wired controller lock.
- When the centralized controller and wired controller execute the lock function on the wired controller at the same time, priority is assigned to the centralized controller.

4.8 Main/Secondary Wired Controller

- When two wired controllers control one indoor unit at the same time, one controller will be the **"Main"**, and the other will be the **"Secondary"**.
- Go to **"Field Setting"** to configure the **"Main"** and **"Secondary"** controllers. The default setting is set to main wired controller.

Note:

- The main wired controller can set the **"Timer"**, **"Filter"** and **"Indoor unit commissioning parameter"** , but not the secondary remoter controller.
- The **"Follow Me"** function of the main wired controller is effective but the secondary wired controller does not have this function.
- If either controller is used to change the operating state of the indoor unit, the change will be synchronized to the parameters in the other controller.

Field Setting

1. Restore Factory Default

- At any time, press and hold (Mode), F (Function), ▲ and ▼ buttons at the same time for 5 seconds, and the wired controller will reset.

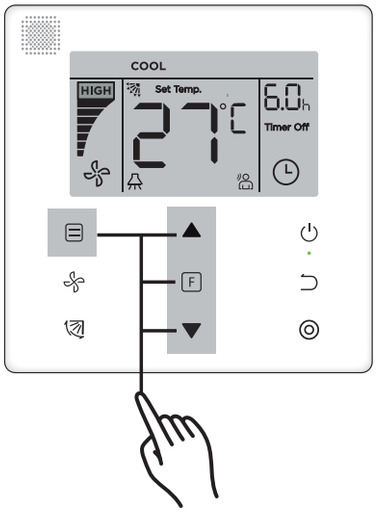


Figure 7.1

2. Query and Set the Indoor Unit Address

- If the indoor unit has no address, the display will show **"FE"**, and the wired controller will display an E9 error.
- Press and hold ▲ and ▼ buttons for 8 seconds to go to the page to set the indoor unit address. press ⮌ (Cancel) button to exit the settings page.

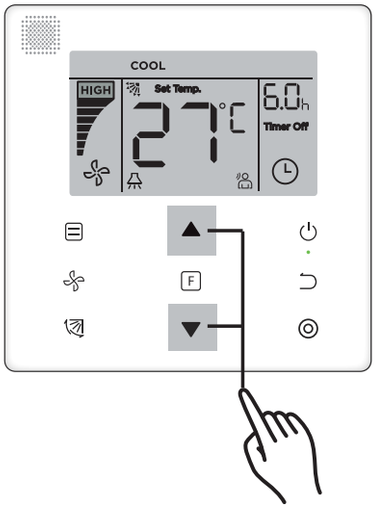


Figure 7.2

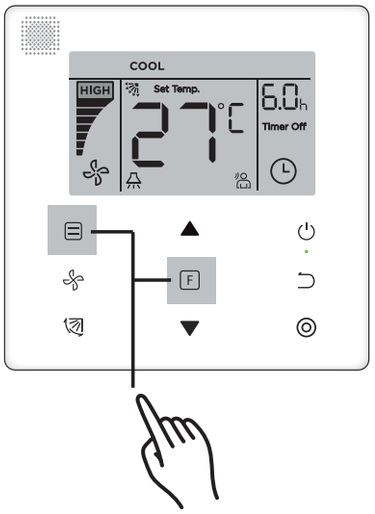
- Query and set up the address of the indoor unit is allowed in the address setting page.
- In the address setting page, the wired controller displays the current address if the indoor unit has an address. If the indoor unit has no address, press ▲ and ▼ buttons to

adjust the address to the required value (address range is 0-63). press ◎ (Confirm) button to send the current address value to the indoor unit. In 60 seconds, the wired controller will exit the address setting page, or press ⮌ (Cancel) button to exit the address setting page.

- In the address setting page, the wired controller will not respond to any remote control signals.

3. Commissioning Parameter Settings

- Commissioning parameter can be set when the unit is on or off.
- Press and hold [F] (Function) and ☰ (Mode) buttons for 5 seconds to go to the page for commissioning parameter settings.



Note:

- For cooling only operations, please do corresponding settings as described .

Figure 7.3

- Go to the commissioning parameter setting page. Check that **"C0"** is displayed in the temperature display area. Press ▲ and ▼ buttons to change the **"commissioning parameter Code"**.
- Once the **"commissioning parameter Code"** is selected, press ◎ (Confirm) button to go to the specific commissioning parameter settings, and then press ▲ and ▼ buttons to adjust the value. Press ◎ (Confirm) button to save the value and complete the commissioning parameter setting.
- Press ⮌ (Cancel) button to return to the previous page until you exit commissioning parameter settings. Alternatively, system will exit the commissioning parameter settings page if there is no operation for 60 seconds.
- When it is in the commissioning parameter settings page, the wired controller does not respond to any remote control signals.
- In the commissioning parameter setting page, the ☰ (Mode), (Fan speed), (Swing), [F] (Function) and ⏻ (ON/OFF) buttons are not available.

Table 5.1

Parameter Code	Parameter Content	Select Parameters	Default Value	Remarks
C0	Address Setting	F0: Main wired controller F1: Secondary wired controller	F0	If two wired controllers control one indoor unit, the address must be different
C1	Cooling Only/Cooling and Heating Setting	00: Cooling and Heating 01: Cooling Only	00	Heating mode is not available in cooling only setting.
C2	Reserved	/	/	/
C3	Set time to remind users to clean the filter	00/01/02/03/04	02	00: No reminder to clean filter 01: 1250h 02: 2500h 03: 5000h 04: 10000h
C4	Settings for infrared receiver of wired controller	00: Disable 01: Enable	01	When "Disable" is selected, the wired controller cannot receive remote control signal,
C5[1]	Fan speed setting in wired controller	00: 3 fan speeds 01: 4 fan speeds 02: 7 fan speeds	02	Default is 7 fan speeds. The bi-directional communication automatically identifies 3 fan speeds or 7 fan speeds.
C6	Reserved	/	/	/
C7	Display indoor room temperature	00: No 01: Yes	00	If "00" is selected, the wired controller will display the setting temperature when the backlight is off. If "01" is selected, the wired controller will display the room temperature when the backlight is off.

<table>
<tr><th>Parameter Code</th><th>Parameter Content</th><th>Select Parameters</th><th>Default Value</th><th>Remarks</th></tr>
<tr><td>C8</td><td>Settings to turn on/off operating indicator</td><td>00: Off
01: On</td><td>01</td><td>Select "On" and the operating indicator will show the ON/OFF state of the indoor unit.
Select "Off" and the operating indicator will always be off regardless if the indoor unit is on or off.</td></tr>
<tr><td>C9[1]</td><td>Static pressure setting of indoor unit</td><td>A5[2]:00/01/02/03/04/05/06/07/08/09/FF
H-DUCT[3], FAPU[4]:
00/01/~/19/FF</td><td>01</td><td>The indoor unit sets the selected corresponding static pressure.
Refer to the indoor unit for specific static pressure values. FF: initial value is based on the indoor unit data read by the wired controller.</td></tr>
<tr><td>C10[1]</td><td>Set the time delay to stop the fan of the indoor unit.</td><td>00/01/02/03/04/FF</td><td>00</td><td>
<table>
<tr><td>Parameter</td><td>00</td><td>01</td><td>02</td><td>03</td><td>04</td><td>FF</td></tr>
<tr><td>Value Represents</td><td>4 Min</td><td>8 Min</td><td>12 Min</td><td>16 Min</td><td>NO Stop</td><td>Based on the dial switches in the main PCB of the indoor unit</td></tr>
</table>
</td></tr>
<tr><td>C11[1]</td><td>Indoor unit - cold draft prevention temperature settings</td><td>00/01/02/03/FF</td><td>00</td><td>
<table>
<tr><td>Parameter</td><td>00</td><td>01</td><td>02</td><td>03</td><td>FF</td></tr>
<tr><td>Common Indoor Unit</td><td>15°C/59°F</td><td>20°C/68°F</td><td>24°C/75°F</td><td>26°C/79°F</td><td>Based on the dial switches in the main PCB of the indoor unit</td></tr>
<tr><td>FAPU</td><td>14°C/57°F</td><td>12°C/54°F</td><td>16°C/61°F</td><td>18°C/64°F</td><td>Based on the dial switches in the main PCB of the indoor unit</td></tr>
</table>
</td></tr>
</table>

Parameter Code	Parameter Content	Select Parameters	Default Value	Remarks						
C12[1 and 5]	Indoor unit heating temperature compensation setting	00/01/02/ 03/04/FF	00	Parameter	00	01	02	03	04	FF
				Value Represents	6°C/ 43°F	2°C/ 36° F	4°C/ 39°F	6°C/ 43°F	0°C/ 32° F	Based on the dial switches in the main PCB of the indoor unit
C13[1 and 5]	Indoor unit cooling - Temperature compensation setting	00/01/FF	00	Parameter	00		01		FF	
				Value Represents	0°C/32°F		2°C/36°F		Based on the dial switches in the main PCB of the indoor unit	
C14[5]	Indoor unit auxiliary heater setting	00: None 01: Available	Common Indoor Unit: 01 FAPU: 00							
C15[1]	Indoor unit auto-restart setting	00: None 01: Available	01							
C16[5]	Indoor unit vertical swing setting	00: None 01: Available	Common Indoor Unit: 01 FAPU: 00							

Parameter Code	Parameter Content	Select Parameters	Default Value	Remarks				
C17[5]	Indoor unit horizontal swing setting	00: None 01: Available	Common Indoor Unit: 01 FAPU: 00					
C18	Display of indoor unit to receive the remote control signals	00: No 01: Yes	01					
C19	Buzzer of the indoor unit rings	00: No 01: Yes	01					
C20	**Follow Me** in wired controller temperature correction	Celsius: -5.0~5.0°C Fahrenheit: -9.0~9.0°F	Celsius: -3.0°C Fahrenheit: -6.0°F	Accuracy is 0.5°C/1°F.				
C21	Set outdoor ambient temperature value when auxiliary heater is on	Celsius: -5~20°C Fahrenheit: 23-68°F	Celsius: 15 °C Fahrenheit: 59 °F	Accuracy is 1°C/1°F.				
C22	Mode switch interval in Auto mode	00/01/02/03	00	Parameter	00	01	02	03
				Value Represents	15 Min	30 Min	60 Min	90 Min

<table>
<tr><th>Parameter Code</th><th>Parameter Content</th><th>Select Parameters</th><th>Default Value</th><th colspan="6">Remarks</th></tr>
<tr><td rowspan="2">C23</td><td rowspan="2">Select opening of electronic expansion valve in Heating or Standby mode</td><td rowspan="2">00/01/02/FF</td><td rowspan="2">01</td><td>Parameter</td><td>00</td><td>01</td><td>02</td><td colspan="2">FF</td></tr>
<tr><td>Value Represents</td><td>72</td><td>96</td><td>00</td><td colspan="2">Based on the dial switches in the main PCB of the indoor unit</td></tr>
<tr><td>C24</td><td>Temperature Unit</td><td>00/01</td><td>00</td><td colspan="6">00: Celsius
01: Fahrenheit</td></tr>
<tr><td rowspan="3">C25*</td><td rowspan="3">Set lowest cooling temperature limit</td><td rowspan="3">Celsius:
30°C - 17°C (20°C)
Fahrenheit:
86°F - 62°F (68°F)</td><td rowspan="3">Celsius:
17 °C(20°C)
Fahrenheit:
62 °F(68°F)</td><td colspan="6">Fresh air processing unit:30°C/86°F~ 13°C/55°F.</td></tr>
<tr><td colspan="6">AHU controller box(outlet air temperature control):30°C/86°F~10°C/°F.</td></tr>
<tr><td colspan="6">Only available for the wired controller itself.</td></tr>
<tr><td>C26</td><td>Set highest heating temperature limit</td><td>Celsius:
30°C - 17°C

Fahrenheit:
86°F - 62°F</td><td>Celsius:
30 °C
Fahrenheit:
86 °F</td><td colspan="6">Only available for the wired controller itself.</td></tr>
<tr><td>C27</td><td>Set to display 0.5°C</td><td>00/01</td><td>00</td><td colspan="6">00: Show 1 °C
01: Show 0.5°C</td></tr>
</table>

* In the Middle East, the default lowest cooling temperature is 20°C due to the local laws and regulations .The cooling temperature can not be set lower than 20°C.

Parameter Code	Parameter Content	Select Parameters	Default Value	Remarks
C28	Capacity setting	0:Invalid value 0.1-19.9HP: 0.1HP can set 21-40HP: 1HP can set 42-80HP: 2HP can set FF:using indoor switch numbers	0	Indoor cannot change capcacity seteting when receive 0.
C29	send wired control setting parameter to indoor unit within two hours of power on (setting parameter:C9-C19,C21-23,C28)			
C30	drain pump setting	00/01	0	00:invalid 01:valid
C31	after hours	00/0.5/1/1.5 /2/3/4	00	00:invalid
C32	Constant air flow/Constant speed switch	00/01	00	00: constant flow rate 01:constant speed

1 Once the indoor unit and wired controller communicate successfully, the default parameters of the above table will synchronize to the indoor unit settings.

2 Only for medium static duct unit

Capacity	00	01	02	03	04	05	06	07	08	09
1.8-7.1kW	0Pa	10Pa	20Pa	30Pa	40Pa	50Pa	50Pa	50Pa	50Pa	50Pa
8.0-12.5kW	10Pa	20Pa	30Pa	40Pa	50Pa	60Pa	70Pa	80Pa	90Pa	100Pa
14.0kW	30Pa	40Pa	50Pa	60Pa	70Pa	80Pa	90Pa	100Pa	125Pa	150Pa

3 Only for high static duct unit

Capacity	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
7.1-16.0 kW	30 Pa	50 Pa	60 Pa	70 Pa	80 Pa	90 Pa	100 Pa	110 Pa	120 Pa	130 Pa	140 Pa	150 Pa	160 Pa	170 Pa	180 Pa	190 Pa	200 Pa	200 Pa	200 Pa	200 Pa
20.0-28.0 kW	30 Pa	50 Pa	60 Pa	70 Pa	80 Pa	90 Pa	100 Pa	110 Pa	120 Pa	130 Pa	140 Pa	150 Pa	160 Pa	170 Pa	180 Pa	190 Pa	200 Pa	210 Pa	230 Pa	250 Pa
40.0-56.0 kW	100 Pa	120 Pa	140 Pa	160 Pa	180 Pa	200 Pa	220 Pa	240 Pa	260 Pa	270 Pa	280 Pa	290 Pa	300 Pa	310 Pa	320 Pa	330 Pa	340 Pa	360 Pa	380 Pa	400 Pa

4 Only for FAPU models

Capacity	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
14.0kW	100 Pa	110 Pa	120 Pa	130 Pa	140 Pa	150 Pa	160 Pa	170 Pa	180 Pa	190 Pa	200 Pa	210 Pa	220 Pa	230 Pa	240 Pa	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa
20.0-28.0 kW	100 Pa	120 Pa	140 Pa	160 Pa	180 Pa	200 Pa	220 Pa	240 Pa	260 Pa	270 Pa	280 Pa	290 Pa	300 Pa	310 Pa	320 Pa	330 Pa	340 Pa	360 Pa	380 Pa	400 Pa
45.0-56.0 kW	100 Pa	120 Pa	140 Pa	160 Pa	180 Pa	200 Pa	220 Pa	240 Pa	260 Pa	270 Pa	280 Pa	290 Pa	300 Pa	310 Pa	320 Pa	330 Pa	340 Pa	360 Pa	380 Pa	400 Pa

5 This parameter is not available for the FAPU models.

Note:

- The secondary wired controller can only perform the parameter settings for C0-C8 and C24-C27.

4. Query Operations

In the main page, press and hold (Fan speed) and (Confirm) buttons at the same time for 5 seconds to go to the query page. You can query the check operation parameters of the outdoor and indoor units as well as the program version of the wired controller.

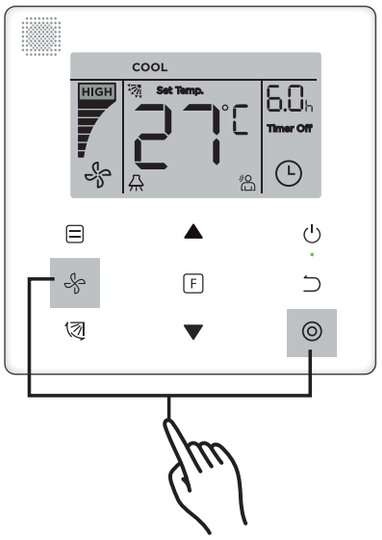


Figure 7.4

Press ▲ and ▼ buttons to select the indoor or outdoor unit: o00-o03 for outdoor unit; n00-n63 for indoor unit.

- press (Confirm) button to query the parameter, or (Cancel) button to quit the query function.
- In the query page, press ▲ and ▼ buttons to query the parameters. Parameters can be queried in turn.
- The **"Check No."** is displayed in the timer area at the top of the query page, and the contents of the checked parameter is displayed in the temperature area.

Table 6.1

No.	Parameter displayed on the wired controller during ODU spot check
1	ODU address
2	Outdoor ambient(T4) temperature (°C)
3	T2/T2B average Temp. (corrected) (°C)
4	Main heat exchanger pipe(T3) temperature (°C)
5	Discharge Temp. of compressor A(°C)
6	Discharge Temp. of compressor B(°C)
7	Inverter compressor A current (A)
8	Inverter compressor B current (A)
9	Reserved
10	Fan speed
11	EXVA position/4
12	EXVB position/4
13	EXVC position/4
14	Operating mode
15	Priority mode
16	Total capacity requirement correction of indoor unit
17	Number of outdoor units
18	Total capacity of outdoor unit

No.	Parameter displayed on the wired controller during ODU spot check
19	Inverter-module heatsink Temp. A(°C)
20	Inverter-module heatsink Temp. B(°C) (reserved)
21	Reserved
22	--
23	Plate heat exchanger outlet (T6B) temperature (°C)
24	Plate heat exchanger inlet (T6A) temperature (°C)
25	System discharge superheat degree
26	--
27	Number of operating indoor units (in case of virtual addresses, this is the number of units with the virtual addresses included)
28	--
29	High pressure of system
30	Low pressure of the system (reserved)
31	Most recent error or protection code
32	Inverter compressor A frequency
33	Inverter compressor B frequency
34	Unit capacity
35	Program version No.
36	Address of VIP indoor unit

No.	Parameter displayed on the wired controller during ODU spot check
37	Reserved 2
38	Reserved 2

Table 6.2

No.	Parameter displayed on the wired controller during IDU spot check
1	IDU communication address
2	Capacity (HP) of IDU
3	IDU network address (the same as the communication address)
4	Set temperature Ts
5	Room temperature T1
6	Actual T2 indoor temperature
7	Actual T2A indoor temperature
8	Actual T2B indoor temperature
9	Ta temperature (FAPU)
10	Compressor discharge temperature (show high discharge temperature)
11	Target superheat degree (reserved)
12	EXV position/8
13	Software version No.
14	Error Code

5. Error Display

- When there is a communication error between the wired controller and the indoor unit, the wired controller will show the error code **"E9"**, an indication of a communication failure in wired controller.
- When the indoor or outdoor unit fails, the display of the wired controller shows the address of faulty unit(s) in the timer area, and the error code in the temperature area.

Table 7.1

List of IDU error codes:	
Error Code	Error Definition and Description
FE	Indoor unit has no address
E0	Mode conflict error
E1	Communication error between indoor and outdoor units
E2	T1 sensor error
E3	T2 sensor error
E4	T2B sensor error
E5	T2A sensor error (Reserved)
E6	Fan error in indoor unit
E7	EEPROM error fault
Ed	Outdoor unit error
EE	Water level alarm error
Eb	Electronic expansion valve of indoor unit has error

Table 7.2

List of ODU error codes:			
Error Code	Error Definition and Description	Error Code	Error Definition and Description
E0	ODU communication fault	XF1	PTC error
E1	Three-phase power supply phase protection	F3	Error in temperature sensor at T6B plate heat exchanger outlet
E2	Communication error between indoor and outdoor units	F5	Error in temperature sensor at T6A plate heat exchanger inlet
E4	Error in condenser temperature sensor (T3) or ambient temperature sensor (T4)	P0	Inverter compressor top temperature protection
E5	Voltage protection	P1	High pressure protection
E7	Discharge temperature sensor fault	P2	Low pressure protection
E8	ODU address error fault	XP3	Compressor overcurrent protection
XE9	Drive mismatching fault	P4	Protection against excessive discharge temperature of compressor
EL	Reserved	P5	High temperature protection of condenser
XH0	Communication error between IR341 and master chip	P9	DC Fan Error
H1	Communication chip and master chip communication fault	PF	Reserved
H2	ODU qty decrease fault	PL	Protection against excessive temperature of the inverter module
H3	ODU qty increase fault	PP	Protection against excessively low discharge superheat

List of ODU error codes:			
Error Code	Error Definition and Description	Error Code	Error Definition and Description
XH4	Inverter module protection fault	XL0	Inverter module fault
H5	3X P2 protection fault in 60 minutes	XL1	DC bus low voltage protection
H6	3X P4 protection fault in 100 minutes	XL2	DC bus high voltage protection
H7	IDU qty decrease fault	XL3	Reserved
H8	High-pressure sensor fault	XL4	MCE fault/synchronization/closed loop
H9	3X P9 protection in 60 minutes	XL5	Zero speed protection
Hb	Low pressure sensor fault	XL7	Phase sequence error protection
C7	3X PL protection in 100 minutes	XL8	Protection against sudden speed change in compressor > 15Hz
F0	3X PP protection in 100 minutes	XL9	Protection to prevent the difference between the speed setting and actual operating speed of the compressor > 15Hz

Troubleshooting

Table 8.1

Error code and description		Possible Causes	Possible Solutions
No display on the wired controller		IDU is not powered on	Power on the IDU.
		Wired controller connection error	First power off the IDU, and then check if the wired controller connection is correct. See Section 3.4 on the wiring requirements.
		Wired controller damaged	Replace the wired controller.
		Power supply failure of the IDU main PCB	Replace the IDU main PCB.
E9	Wired controller and IDU communication fault	IDU has no address or IDU address duplicated	Set an address for the IDU; duplicated IDU addresses are not allowed in the same system.
		Wired controller damaged	Replace the wired controller.
		IDU main PCB fault	Replace the IDU main PCB.
Some functions of the indoor unit cannot be controlled, such as ON/OFF, temperature, mode, fan speed and wired controller lock.		The " " icon in the wired controller is always on.	Check if the indoor unit has been locked by the centralized controller.

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