



## ***Owner's Manual***

Wired Controller XE71-45/GC1

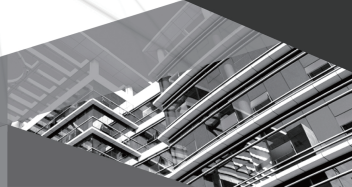
Thank you for choosing our product.

Please read this Owner's Manual carefully before operation and retain it for future reference.

If you have lost the Owner's Manual, please contact the local agent or visit [www.gree.com](http://www.gree.com) or send an email to [global@cn.gree.com](mailto:global@cn.gree.com) for the electronic version.

**NOTE:**

**Actual product may be different from graphics, please refer to actual products.**



## To Users

Thank you for choosing Gree products. Before you installs and operates the product, please read this manual carefully, so that you can understand and use this product properly. For the correct installation and operation of our product and for achieving the expected operating effect, please be aware of the following:

1. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsibility for their safety. Children should be supervised to ensure that they do not play with the appliance.
2. This instruction manual is a universal manual, some functions are only applicable to particular product. All the illustrations and information in the instruction manual are only for reference, and control interface should be subject to actual operation.
3. In order to make the product better adapt to customers, we will continuously conduct improvement and innovation. If any adjustment is made, please refer to the actual product.
4. If the product needs to be installed, moved or maintained, please contact our designated dealer or local service center for professional support. Users should not disassemble or maintain the unit by themselves, otherwise it may cause relative damage, and our company will bear no responsibilities.

# Contents

<b>Safety Notices (Please be sure to abide)</b> .....	<b>01</b>
<b>Display</b> .....	<b>02</b>
Appearance of Wired Controller .....	02
LCD and Description of Wired Controller .....	02
<b>Introduction of Operation Mode</b> .....	<b>03</b>
<b>Function Description</b> .....	<b>03</b>
<b>Operation Instructions</b> .....	<b>05</b>
Unit On/Off .....	05
Mode Setting .....	05
Temperature Settings .....	05
Function Settings .....	06
Setting of Lock Function .....	13
WiFi Function .....	13
Restoring Factory Settings .....	13
<b>Error Display</b> .....	<b>14</b>
<b>Installation of Wired Controller</b> .....	<b>17</b>
Dimension and Parts of Wired Controller .....	17
Requirements for Installation Position of Wired Controller .....	18
Installation of Wired Controller .....	18
Removal of Wired Controller .....	20

## Safety Notices (Please be sure to abide)



### **WARNING**

If not abide strictly, it may cause severe damage to the unit or the people.



### **Note**

If not abide strictly, it may cause slight or medium damage to the unit or the people.



This sign indicates that the operation must be prohibited. Improper operation may cause severe damage or death to people.



This sign indicates that the items must be observed. Improper operation may cause damage to people or property.

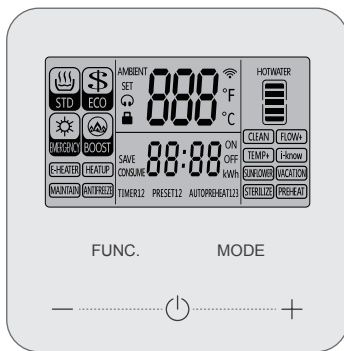


### **WARNING**

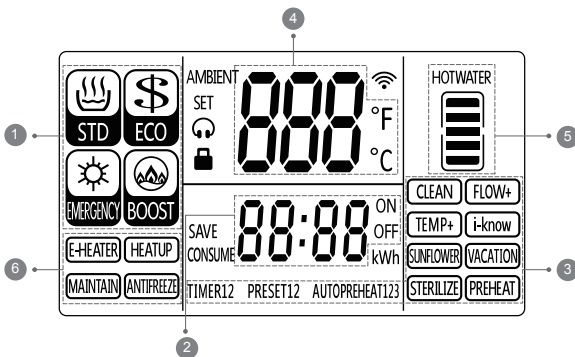
This product cannot be installed at corrosive, inflammable or explosive environment or the place with special requirements, such as kitchen. Otherwise, it will affect the normal operation or shorten the service life of the unit, or even cause fire hazard or serious injury. As for such places, please use special products with anti-corrosive or anti-explosion feature.

## Display

### Appearance of Wired Controller



### LCD and Description of Wired Controller



- 1 Mode display
- 2 System time, timer time, preset time, autopreheat time, disinfection/vacation time display
- 3 Function display
- 4 Actual water temperature, set water temperature, error code display
- 5 Hot water display (some models do not have this function)
- 6 Status display

## Introduction of Operation Mode

Mode name	Mode introduction
Standard	It automatically coordinates the operation of the heat pump or the electric heating of the models with E-heater to produce hot water. This mode has a moderate heating time and energy consumption.
Energy-saving	Maximize water heating with energy saving.
Fast	Suitable for the models with auxiliary electric heater or some inverter models, shortening heating time for fast hot water production.
Electric heating	Suitable for the models with auxiliary electric heater. It will automatically enter the electric heating mode when heat pump error occurs and produce hot water with electric heater for emergency within 48h.

**Note:** Some of the above modes can only be set for specific models, and please refer to the actual products

## Function Description

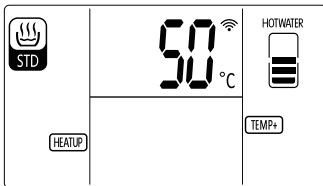

Function name	Function introduction
TIMER	Set the timer on and timer off time, and the water heater will run in the timing period. After setting, it will be executed every day.
PRESET	Set the preset time. The water heater produces hot water in advance according to the preset time, and automatically turns to standby status two hours after the preset time. After setting, it will be executed every day. Except the preset time, the water will be heated to medium temperature in maximum, to reduce the unit energy consumption.
i-know	It realizes automatic control of the unit according to the water demand by learning the user's water consumption habits. This function is only effective when the user has a regular daily water consumption habit. In the non-customary water consumption time, the water will be heated to medium temperature in maximum, to reduce the unit energy consumption.

Function name	Function introduction
TEMP+	Control the water heater to heat the water temperature to a higher temperature, providing more hot water. The temperature of some units can be set. When the temperature is set to the upper limit, hold the “+” button for 3s or press the “+” button three times within 1s to enter.
PREHEAT	Suitable for the unit that Gree instant heating module (water return device) is purchased additionally and installed. The wired controller only provides the function setting operation. The preheat function can use the hot water in the tank to cycle and preheat the water pipe.
SUNFLOWER	The higher the temperature, the easier it is for the water heater to absorb heat from the environment, and the more energy saving it is to heat hot water. When the sunflower function is enabled, the water heater will heat the water during the time period of the day with higher temperature. For the rest of the day, it will heat water to the medium temperature in maximum. Compared with heating at lower ambient temperature, it is more energy saving. It is recommended to enable this function if you only use one tank of hot water a day. After setting, it will be executed every day.
VACATION	Set the vacation date and the hot water will be prepared one day before you return. The water heater is on standby during the vacation. This function is automatically cancelled after the end of the vacation.
STERILIZE	Suitable for models with auxiliary electric heating. Heat water to 70℃ or the highest temperature that can be set according to specific control, to achieve high temperature disinfection.
CLEAN	Suitable for waterway emptying and cleaning operation of circulating water heater.

- Note:**
- The medium temperature of the water is generally 40℃, depending on the unit.
  - Some of the above functions are mainly for designated models, please subject to actual products.

## Operation Instructions

### Unit On/Off

Press the “The display shows a digital temperature of 50°C. On the left, there is a 'STD' icon with a flame symbol. Below it is a 'HEATUP' button. On the right, there is a 'HOTWATER' icon with a water tap symbol and a 'TEMP+' button. A Wi-Fi signal icon is located above the temperature display.

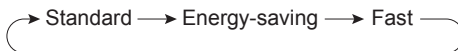
Unit On Interface



Unit Off Interface

### Mode Setting

On the unit on interface, every time you press the “Mode” button, the hot water mode will switch between standard, energy-saving and fast, and the switching sequence is shown as follows:



Mode Settings

Electric heating mode:

On unit on status, the unit will automatically start the electric heating mode when malfunction occurs, and the electric heating mode will automatically shut down after 48 hours of operation. If you need to continue operation, please turn it on. The electric heating mode will increase the power consumption of the unit, which is only to ensure the emergency water demand and not recommended for long-term use. If the electric heating mode is operating, it means that the unit is in malfunction, please contact the company's designated customer service for repair.

### Temperature Settings

Pressing “+” or “-” button under unit on status, the set temperature will increase or decrease by 1 degree (Celsius or Fahrenheit); when hold on pressing “+” or “-” button, the set temperature will increase or decrease by 1 degree (Celsius or Fahrenheit) continuously. The set temperature range



varies from mode to mode. For the specific water temperature setting range of each model, please refer to the actual unit.

## Function Settings

The functions are divided into basic functions and advanced functions. Advanced functions can only be enabled after carefully reading the "Function Introduction" section to understand the function features and application scenes. Otherwise, hot water may be insufficient for using.

**Note:** After the unit is powered off, please recalibrate the system time and function.

Basic function settings:

1. On the unit on interface, press the "Function" button to enter the function selection interface, and press the "Function" button to select the system time, timer, autopreheat, temp+, quiet, preheat and sterilize functions. When the corresponding function icon is blinking, press the "+" and "-" button to enable or disable this function.
2. On the unit off interface, press the "Function" button to enter the function selection interface, and press the "Function" button to select the system time, timer, autopreheat, preheat and cleaning functions. When the corresponding function icon is blinking, press the "+" and "-" button to enable or disable this function.

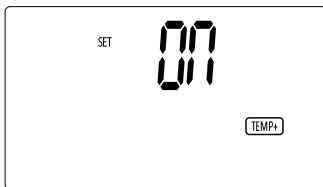
Advanced functions:

On the unit on interface, hold the "Function" button for 5s to enter the function selection interface. In addition, you can also select the second group of timer, two groups of preset, three additional groups of autopreheat, sunflower, i-know, vacation function, power consumption display and other functions. When the corresponding icon is blinking, press the "+" and "-" button to enable or disable this function.

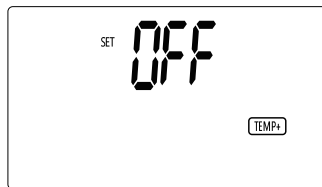
- Note:**
- On the advanced functions interface, you can set two groups of timer function (timer 1, timer 2) or two groups of preset functions (preset 1, preset 2), and three groups of autopreheat function (autopreheat 1, autopreheat 2, autopreheat 3). Timer 1 and autopreheat 1 correspond to timer and autopreheat functions in basic function settings. Its serial number is displayed only when the advanced function or the second group of functions is enabled;
  - Advanced functions that have been enabled can be set on the basic functions interface. Advanced functions that are not enabled must be set on the advanced functions interface;
  - Autopreheat and preheat functions are available for the unit that Gree instant heating module (water return device) is purchased additionally and installed;
  - The functions of "Vacation", "Timer", "Preset", "Temp+", "Sterilize", "Sunflower" and "i-know" are mutually exclusive. When any function is enabled, the other functions are automatically cancelled;
  - After the cleaning function is enabled, the unit cannot be turned on except for the cleaning operation is finished or the cleaning function is manually turned off. When the cleaning

function is enabled, the time area displays the time when the cleaning function is enabled.

- When the unit has the temp+ function and the set temperature reaches the upper limit of the mode, the temp+ mode can be enabled by holding the “+” button for 3s or pressing the “+” button three times within 1s. In this case, the set temperature can be further increased. If the set temperature is lower than the upper limit of the mode when the temp+ function is enabled, the temp+ function will be automatically exited.
- Some of the above functions are only available by specific models and please refer to the actual products.
- When a function is selected, the status of the function is displayed in the temperature area, and the “Settings” icon is displayed. “ON” is displayed when the function is enabled, and “OFF” is displayed when the function is disabled:



Temp+ Function Enabled



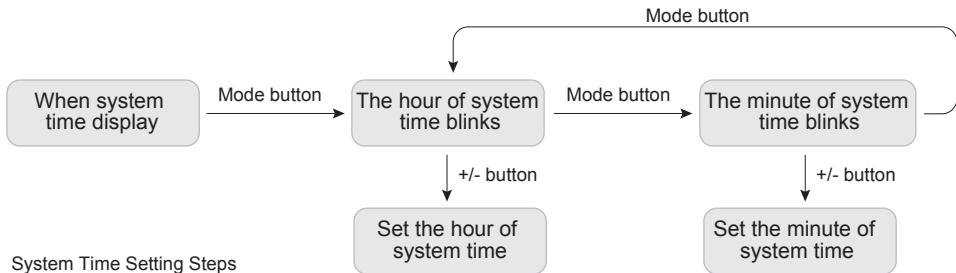
Temp+ Function Disabled

### Setting System Time

1. Press the “Mode” button, and the time hour blinks. Press the “+” or “-” button to adjust the hour.
2. Press the “Mode” button again, and the time minute blinks. Press the “+” or “-” button to adjust the minute.
3. During the setting process, pressing the “⏻” button or no button operation for 20s, it will automatically return to the main interface and the system time setting will be completed.



System Time Display



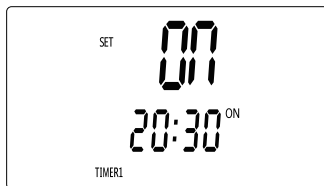
## Setting Timer On/Off Time

### Clock Timer

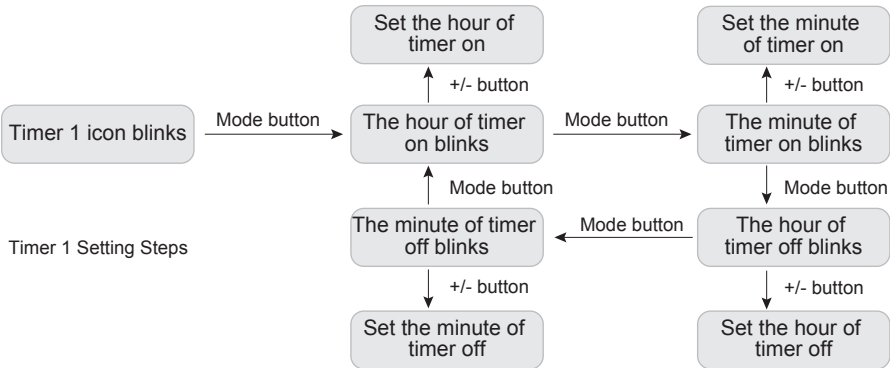
When Timer 1/Timer 2 icon blinks:

1. Press the “Mode” button, and the “Hour of Timer On Time” and “On” icon blink. Press the “+” or “-” button to adjust the hour of timer on time;
2. Press the “Mode” button again, and the “Minute of Timer On Time” and “On” icon blink. Press the “+” or “-” button to adjust the minute of timer on time;
3. Press the “Mode” button again, and the “Hour of Timer Off Time” and “Off” icon blink. Press the “+” or “-” button to adjust the hour of timer off time;
4. Press the “Mode” button again, the “Minute of Timer Off Time” and “Off” icon blink. Press the “+” or “-” button to adjust the minute of timer off time;
5. During the setting process, pressing the “⏻” button or no button operation for 20s, it will automatically return to the main interface and the timer time setting will be completed.

The setting method of timer 1 is taken as an example as follows:



Timer 1 Time display



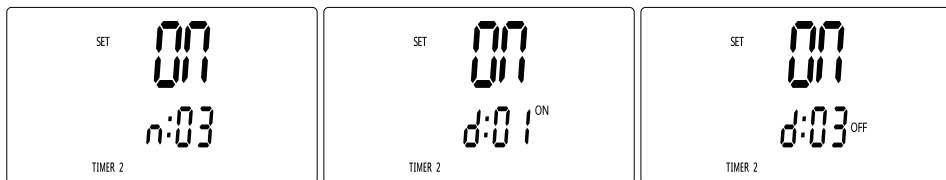
**Note:** The timer on time cannot be the same as the timer off time; otherwise the timer function will not be performed.

## Weekly Timer

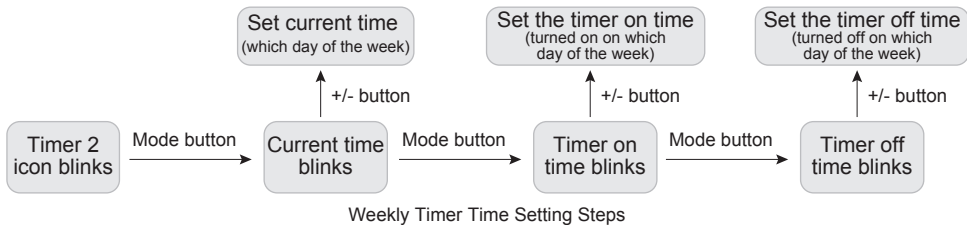
When Timer 2 icon blinks:

1. Press the “Mode” button, and “n: XX” blinks, which indicates the day of the current week. Press “+” or “-” button to adjust the calibration time;
2. Press the “Mode” button again, and “d: XX” and “On” icon blink, indicating the unit will be turned on on which day of the week. Press “+” or “-” button to adjust the timer on time;
3. Press the “Mode” button again, and “d: XX” and “Off” icon blink. Press “+” or “-” button to adjust the timer off time;
4. During the setting process, pressing the “⏻” button or no button operation for 20s, it will automatically return to the main interface and the timer time setting will be completed.

The examples of setting current time, unit on time and unit off time of weekly timer are as shown as below:



Weekly Timer Time Display Diagram



**Note:** Some models do not support the weekly timer setting. In this case, timing 2 is the clock timer and the setting method is the same as that of timer 1.

### Setting of Preset Water Consumption Time

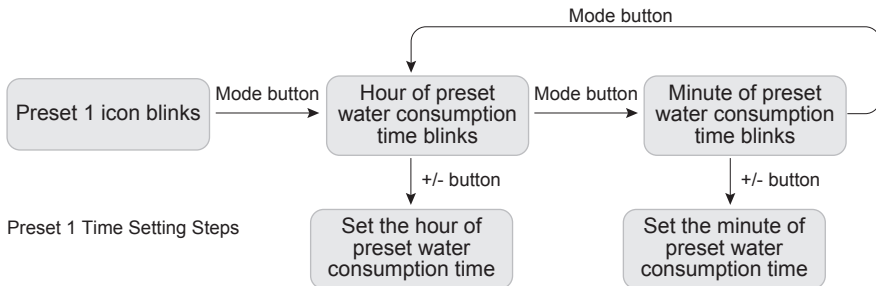
When the Preset 1/ Preset 2 icon blinks:

1. Press the “Mode” button, and the “Hour of Preset Water Consumption Time” icon blinks. Press the “+” or “-” button to adjust the hour of preset water consumption time;
2. Press the “Mode” button again, and the “Minute of Preset Water Consumption Time” icon blinks, press the “+” or “-” button to adjust the minute of preset water consumption time;
3. During the setting process, pressing the “⏻” button or no button operation for 20s, it will automatically return to the main interface and the preset water consumption time setting will be completed.

The setting method of Preset 1 is taken as an example:



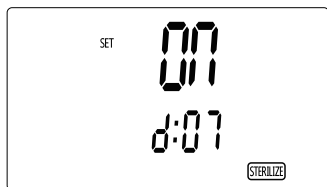
Preset 1 Time Display



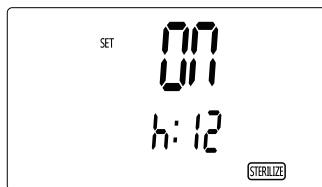
## Setting of Disinfection Time

When the Sterilize icon blinks:

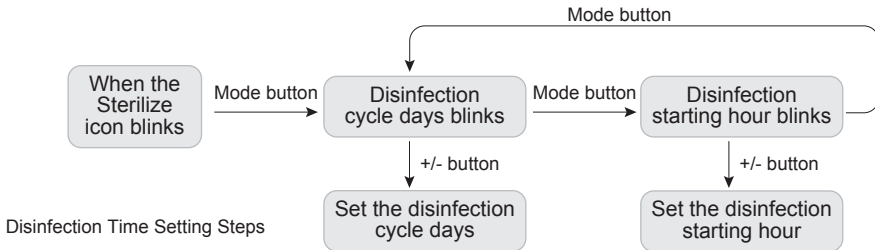
1. Press the “Mode” button, and the “Disinfection Cycle” blinks. Press the “+” or “-” button to adjust the disinfection cycle;
2. Press the “Mode” button again, and the “Disinfection Starting Hour” blinks. Press the “+” or “-” button to adjust the disinfection starting hour;
3. During the setting process, pressing the “⏸” button or no button operation for 20s, it will automatically return to the main interface and the disinfection time setting will be completed.



Disinfection Cycle Display



Disinfection Starting Hour Display

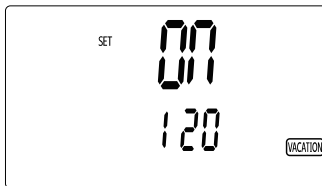


- Note:**
- Disinfection cycle: The setting value represents how many days the cycle is to disinfect once.
  - When the disinfection cycle is set to 0, it means that disinfection starts immediately, and the hour setting is shielded.

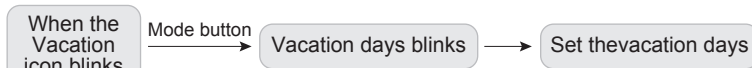
### Setting of Vacation Time

When the Vacation icon blinks:


1. Press the “Mode” button, and the “Vacation Days” blinks. Press the “+” or “-” button to adjust the vacation days;
2. During the setting process, pressing the “⏻” button or no button operation for 20s, it will automatically return to the main interface and the vacation time setting will be completed.



Vacation Time Setting



## Setting of Lock Function

When there is no malfunction, press the “+” and “-” buttons simultaneously for 5s to enable the lock function, and the LCD displays “”. Press the “+” and “-” buttons simultaneously for 5s again to exit the lock function.

Under lock status, there is no response when pressing other buttons, and lock function will be memorized when power failure occurs.

## WiFi Function

Tips: “Gree+” App supports iOS/Android smartphones. With product upgrades and improvements, the contents of the App may change. Please refer to the actual display and operation of the App.


Connect the “Gree+” device to WiFi: Please open the “Gree+” App, and click the “+” in the upper right corner of the “Home” page to select your home appliance product and model. Check whether the WiFi indicator is blinking, and connect to the network according to the prompts on the App:

1. When the device has never been connected to the network, each time the device is re-connected to the power supply, the WiFi indicator will blink, waiting for network connection.
2. When the name and password of the router are changed, the device WiFi can be reset and then reconnected to the network.
3. When reconnecting the network, the device needs to reset the WiFi before network connection.  
Device WiFi reset: On the main interface, hold the “Function” and “+” buttons simultaneously for 5s, and the wired controller will give out 3 sound and display “YES” for 5s, which means the WiFi is reset successfully. If there is communication malfunction between the WiFi module and the wired controller occurs, “JF” will be displayed for 5s and the reset will be invalid.

**Note:** The WiFi band used by this product is 2.4GHz, which supports IEEE 802.11b/g/n, and does not support 5GHz band.

## Restoring Factory Settings

If the factory default settings are changed by misoperation, resulting in the unit function cannot be fully played. In this case, you can try to solve it by restoring the factory settings of the wired controller.

Method : Hold the “” for 5s to restore factory settings.



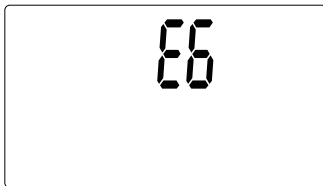
## Error Display

When there is malfunction in the operation of the system, the temperature display area will display the error code. Please shut down the unit and ask for professional maintenance.

When an error occurs, other operations of the wired controller fail except unit on/off and special parameter setting operations.

If the water heater has multiple errors at the same time, the error codes will be displayed circularly.

The following figure shows the communication error:



Error Display

Error Information Table

Error code	Error name	Error code	Error name
E1	System high pressure protection	F5	Discharge temperature sensor error
E3	System refrigerant lacking protection / low pressure protection	dc	Suction temperature sensor error
E4	Discharge protection	F4	Outdoor tube temperature sensor error
H3	Compressor overload protection	d5	Return water tube temperature sensor error
E6	Communication error	FL	Water tank lower temperature sensor error
E7	Return water board communication error	FE	Water tank upper temperature sensor error
C5	Jumper cap error	F8	Inlet water temperature sensor error (semi direct heating type)
L7	Water flow (water pressure) switch error	d8	Tube-in-tube outlet water temperature sensor error
E0	Pump error protection (semi direct heating type)	L6	Insufficient unit capacity

U7	Abnormal 4-way valve reversing protection	bH	Return water pump temperature sensor error
F3	Outdoor ambient temperature sensor error	b5	Indoor unit liquid valve temperature sensor open/short circuited
L3	Outdoor fan 1 error protection	b7	Indoor gas valve temperature sensor open/short circuited
E8	Overload protection	—	—

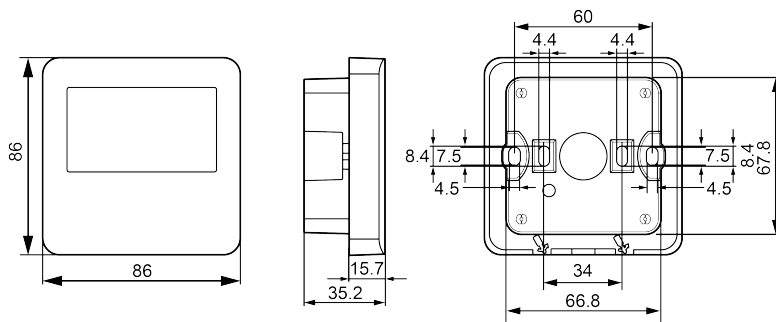
Drive Error Information Table

Error code	Error name	Error code	Error name
EE	EPROM storage chip error	AA	Inverter outdoor fan alternating current protection (input side)
ee	Inverter compressor drive storage chip error	AC	Inverter outdoor fan startup failure
H5	Inverter compressor drive IPM module protection	Ad	Inverter outdoor fan out-of-phase protection
HC	Inverter compressor drive PFC protection	AE	Inverter outdoor fan drive current detecting circuit error
H7	Inverter compressor non-synchronism protection	Ar	Inverter outdoor fan drive electric box temperature sensor error
Lc	Inverter compressor startup failure	AL	Low voltage protection or voltage drop error of inverter outdoor fan drive DC bus
Ld	Inverter compressor out-of-phase protection	AJ	Inverter outdoor fan non-synchronism protection
L9	Inverter compressor power protection	AH	High voltage protection of inverter outdoor fan drive DC bus
E5	Inverter compressor drive alternating current protection (input side)	AP	Abnormal inverter outdoor fan drive alternating current input voltage protection
U1	Inverter compressor drive current detecting circuit error	AU	Inverter outdoor fan drive charging circuit error
PF	Inverter compressor drive electric box temperature sensor error	A0	Inverter outdoor fan drive module reset
PH	High voltage protection of inverter compressor drive DC bus	A1	Inverter outdoor fan drive IPM module protection

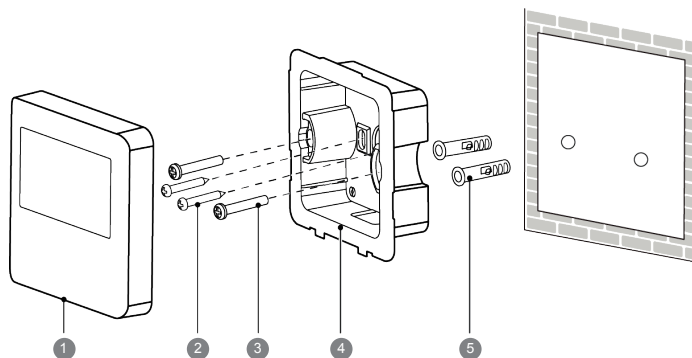
PL	Low voltage protection or voltage drop error of inverter compressor drive DC bus	A6	Communication error between main control and inverter outdoor fan drive
PP	Abnormal inverter compressor drive alternating current input voltage protection	A8	High inverter outdoor fan drive module temperature protection
PU	Inverter compressor drive charging circuit error	A9	Inverter outdoor fan drive module temperature sensor error
P0	Inverter compressor drive module reset	U9	Inverter outdoor fan drive AC input zero-crossing protection
P5	Inverter compressor overcurrent protection	An	Inverter outdoor fan drive storage chip error
P6	Communication error between main control and inverter compressor	AF	Inverter outdoor fan drive PFC protection
P7	Inverter compressor drive module temperature sensor error	UL	Inverter outdoor fan overcurrent protection
P8	High inverter compressor drive module temperature protection	UP	Inverter fan power protection
P9	Inverter compressor drive AC input zero-crossing protection	—	—

## Installation of Wired Controller

### Dimension and Parts of Wired Controller



Dimension of Wired Controller (Unit: mm)



Parts of Wired Controller

No.	1	2	3	4	5
Name	Wired controller	Tapping screw	Screw M4×25	Mounting box of wired controller	Plastic expansion tube
Quantity	1 piece	2 pieces	2 pieces	1 piece	2 pieces
Note	—	Used in exposed installation	Used in concealed installation	—	Used in exposed installation

### Requirements for Installation Position of Wired Controller

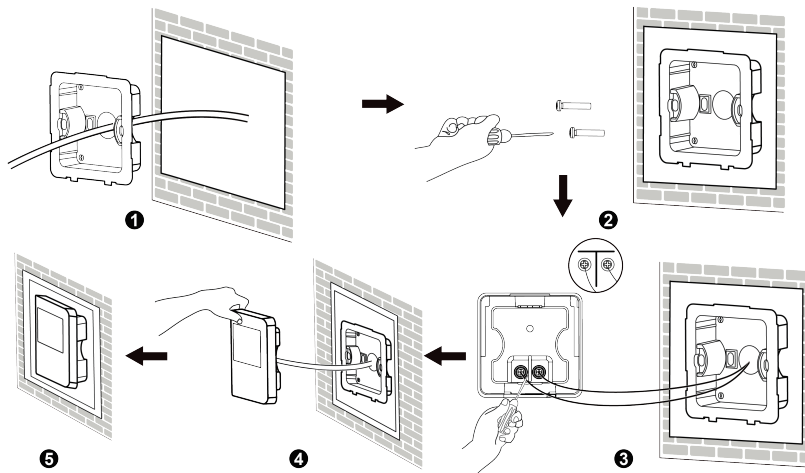
1. Prohibit installing the wired controller at the place where is damp or the wired controller might be splashed by water.
2. Prohibit installing the wired controller at the place where is closed to high-temperature objects or with direct sunshine.
3. Before installation, please cut off the power supply of the strong wire buried in the wall installation hole, and the power must be disconnected during the whole installation process.
4. In order to avoid abnormal operation of the unit due to electromagnetic interference and other reasons, please pay attention to the following matters during wiring:
  - 1) Ensure that the communication wire access interface is correct; otherwise, the communication error may be caused.
  - 2) When the wiring of the unit is laid externally, the communication wire of the wired controller should be separated from the power cord and the indoor and outdoor connection wire. The minimum distance of horizontal wiring should be greater than 20cm, otherwise it may lead to abnormal communication of the unit.
  - 3) If the unit is installed in a place that may be easily affected by electromagnetic interference, the signal wire of the wired controller must use shielding twisted pair wire.
5. The wire controller can only be installed indoors, and the operating temperature range is 0℃~50℃.
6. The wiring terminal of the wired controller does not distinguish polarity, but it cannot be connected to strong current.

### Installation of Wired Controller

First choose the appropriate signal wire for the wired controller: two-core signal wire (wire diameter $\geq$  0.75mm, length $<$ 30m). The wired controller can adopt concealed installation or exposed installation. Concealed installation means that the protruding part of the back cover of the wired controller is installed in the pre-embedded box #86 in the wall; exposed installation means that the wired controller is installed on the wall surface as a whole.

The installation process of the wired controller is as follows: Please refer to the “Wired Controller Installation Diagram” and the brief description is as follows:

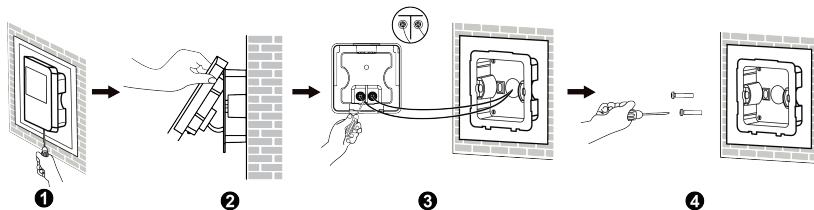
1. Pull out the two-core twisted pair wire from the wall or from the box #86, and then let it go through the hole at the back of the mounting box of wired controller.
2. Installing the mounting shell of the wired controller:
  - 1) Concealed installation: If the box #86 is embedded, please use screw M4x25 to secure the mounting box of the wired controller to the box #86 reserved in the wall.
  - 2) Exposed installation: If the box #86 is not embedded, drill two holes in the wall, and install the plastic expansion tube in the wall, and then use the self-tapping screws to fix the mounting box of the wired controller on the wall surface.
3. Connect the two-core twisted pair wires to the two terminals on the back of the wired controller, and then tighten the screws.
4. Fasten the panel of the wired controller with the mounting box of the wired controller together, and the installation is completed.



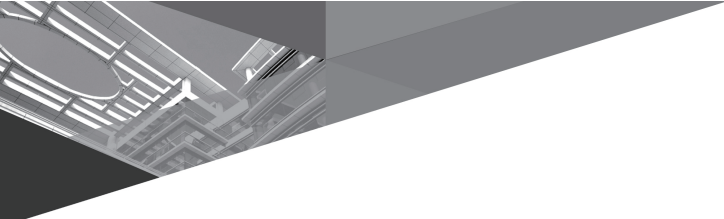
Wired Controller Installation Diagram

## Removal of Wired Controller

The removal of the wired controller is as shown in the figure below:



Wired Controller Removal Diagram



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