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KINGHOME WK-010WC1 Smart Thermostat

KINGHOME WK-010WC1 Smart Thermostat Owner's Manual

Contents

KINGHOME WK-010WC1 Smart Thermostat

Specifications

- Model: WK-010WC1
- Brand: KINGHOME
- Product Type: Thermostat

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

KINGHOME PLUS

App Guide

To Users

Thank you for selecting our product. Please read this instruction manual carefully before installing and using the product, so as to master and correctly use the product. In order to guide you to correctly install and use our product and achieve expected operating effect, we hereby instruct as below:

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, we will continuously conduct improvement and innovation. If there is adjustment in the product, please subject to 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.

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Safety Notices

(Please be sure to abide)

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

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

This sign indicates that the items 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 can't 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 the above special places, please adopt special air conditioner with anti-corrosive or anti-explosion function.

Installation

NOTE: There may be slight differences between the illustrated thermostat and the actual product, which shall prevail.
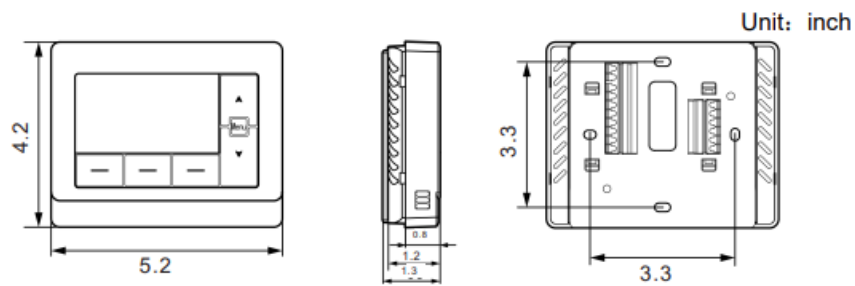
Dimension and Components of Thermostat

Figure 2-1 Dimension of Thermostat
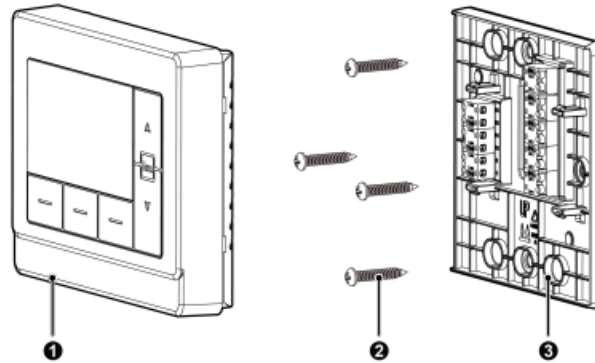
Figure 2-2 Components of Thermostat

Table 2.1.1 Introduction of Components

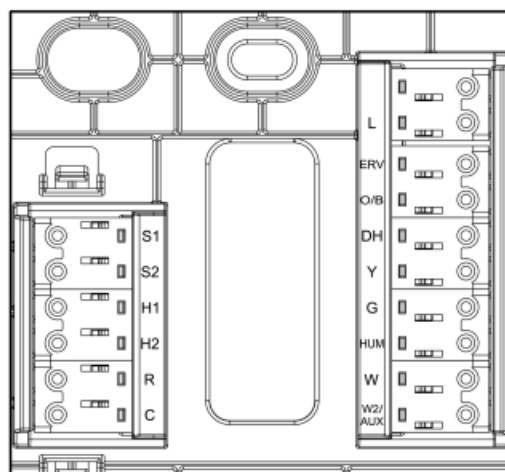| No.	①	②	③
Name	Thermostat	Tapping screw ST3.9×25 MA	Mounted plate of thermostat
Quantity	1	4	1

Instruction of Thermostat Wiring Terminal

Figure 2-3 Wiring Terminal of Thermostat

Table 2.2.1 Instruction of Thermostat Wiring Terminal

No.	Name	Instruction
1	L	Port of refrigerant detection abnormal signal sent by the unit
2	ERV	Economizer or fresh air equipment signal port
3	O/B	4-way valve signal port
4	DH	Dehumidification mode signal port

No.	Name	Instruction
5	Y	Outdoor compressor gear
6	G	Indoor fan
7	HUM	Humidification equipment signal port
8	W	Primary furnace equipment signal port
9	W2/AUX	Secondary furnace equipment or electric heater signal port
10	C	24V Common wire
11	R	24V Power supply
12	H1/H2	Communication signal port
13	S1/S2	Extended temperature sensor interface for detecting outdoor ambient temperature.

NOTES

1. The current parameters of L, ERV, O/B, DH, Y, G, HUM, W, W2/AUX, C, R: rated current≤1A, 24V~@60Hz;
2. Whether the four-way valve type of the unit is cooling energization or heating energization, it is connected to the O/B signal port, and O or B should be selected according to the four-way valve type at the system setting;
3. Other terminals are connected according to unit requirements.
4. Communication Wire Selection :

Cord type	Cord length L(feet)	Cord size (mm2)	Remark
Light/ordinary PVC sheathed twisted-copper cord	L≤98.4	2×0.75~ 2×1.25	The total length of communication cables can't exceed 30m.

Cord type	Cord length L(feet)	Cord size (mm2)	Remark
Shielded light/ordinary PVC sheathed twisted- copper cord	L≤98.4	2×0.75~ 2×1.25	When the installation environment of the thermostat is in strong magnetic or strong interference, it is necessary to use a shielded cord.

5. Other wire size (mm2 / AWG): 0.2~0.6mm2 (AWG24~AWG20).

Installing Position and Requirements of Thermostat

1. Please do not install the thermostat in the position where is wet or is likely to be splashed with water;
2. Please do not install the thermostat near high-temperature objects or under direct sunlight;
3. Before installation, please cut off the power supply of strong current wire inside the wall, it is not allowed to install under electrified status;
4. The thermostat should only be installed indoors, and its working temperature range is 0°C~50°C.

Installation of Thermostat
For installation steps of thermostat please refer to the following sketch map, brief instructions are as below:

1. Before installation, please cut off the power supply, live working during installation is not allowed.
2. Pull out the control wire from the installation hole in the wall and let this wire go through the wiring hole behind the thermostat mounting plate.
3. Align the thermostat mounting plate at the installation holes and then use the self-tapping screw ST3.9×25 MA to fix the thermostat mounting plate with the installation holes on the wall.
4. Use a slot screwdriver to insert the wire protector pressing hole of wiring terminal, and then insert the control wire into the wiring hole of the wire terminal. Pull the tool out from the wire protector pressing hole and connect all control wires according to this way. Pay attention not to connect the heavy current.
5. Set the thermostat with the thermostat mounting plate together to complete the installation.
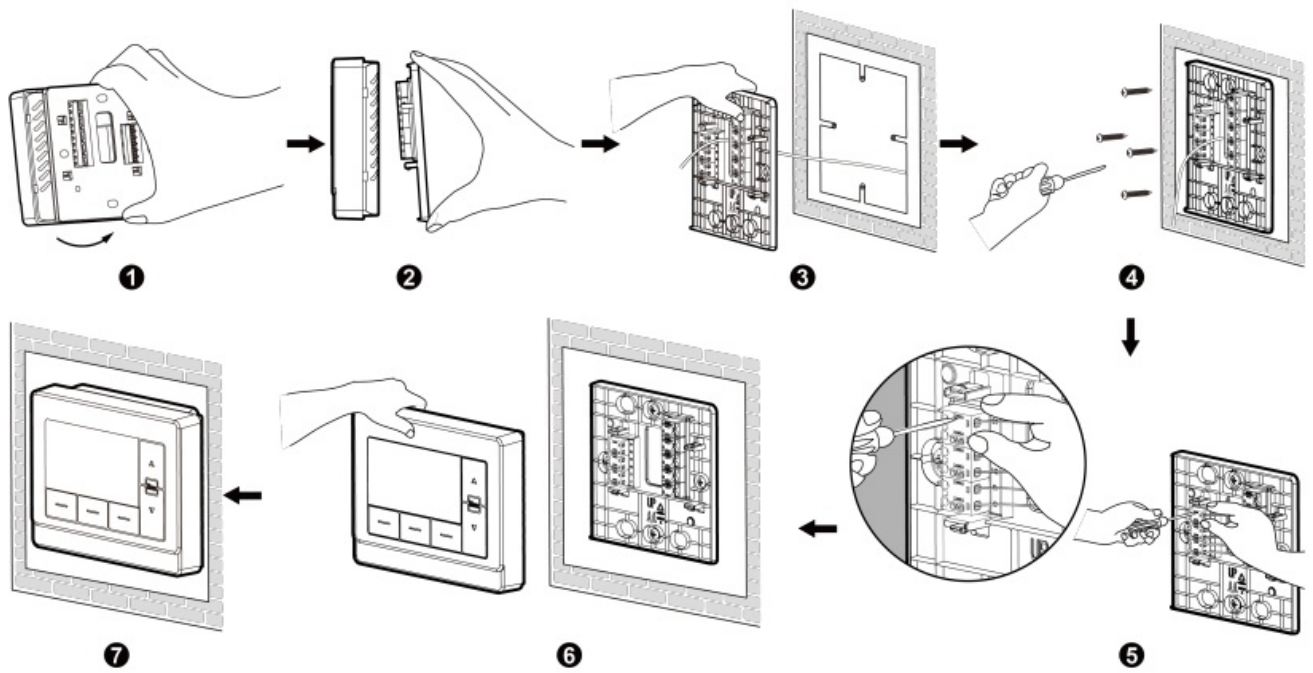
Figure 2-4 Sketch Map for Installation of Thermostat

Disassembly of Thermostat

Disassembly for thermostat is as below:
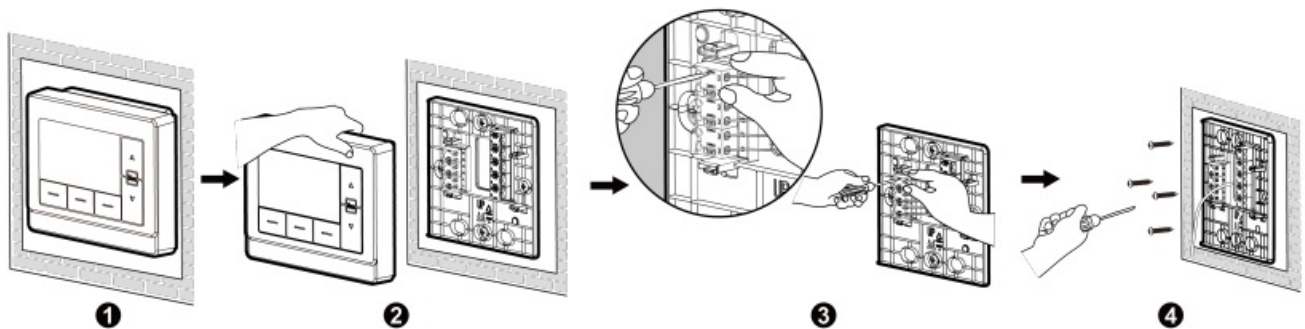
Figure 2-5 Sketch Map for Disassembly of Thermostat

Introduction to Display

Thermostat Homepage Display and Button Instruction
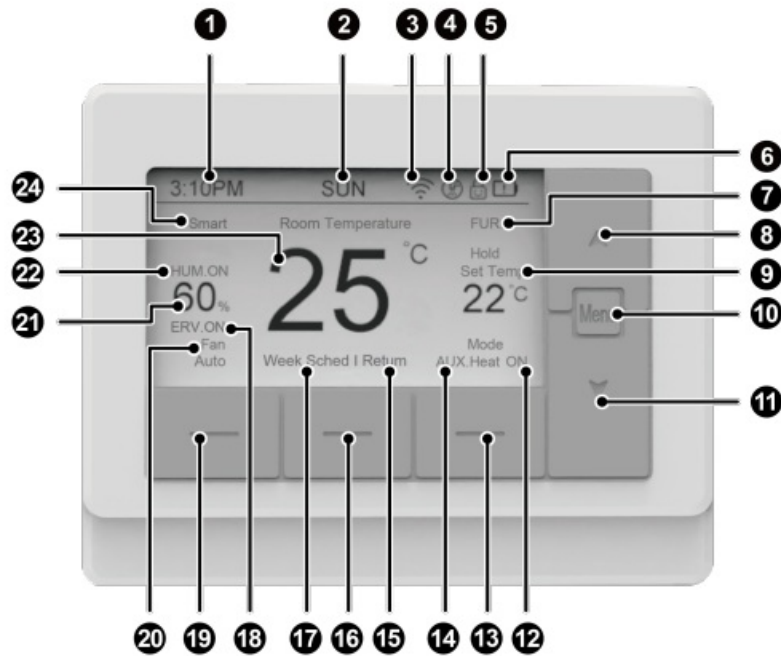
NOTE: The contents in the display shown above will not exist at the same time. The figure shows all the displayed contents just to facilitate describing where they will be displayed.

Table 3.1.1 Thermostat Homepage Display and Button Instruction

No.	Name	Instruction
1	Time	Display current time
2	Weekday	Display current weekday
3	📶	WiFi Function (It displays only when the thermostat has WiFi function)

No.	Name	Instruction
4	⊙	It is displayed to remind that the filter shall be cleaned.
5	🔒	It is displayed when the buttons are locked
6	🔋	It is displayed when the battery is low
7	Equipment in use	It is displayed to remind which equipment is in use: Heat pump / Furnace
8	▲	For increasing temperature, time and other parameters.
9	Set temperature	(1) Display the set temperature in the current mode. (2) Keep the current set temperature and "Hold" will be displayed when the set temperature of the schedule is not executed.
10	Menu	On the homepage, you can enter the Menu page by pressing this button. On other interface, you can return to the previous interface
11	▼	For decreasing temperature, time and other parameters
12	ON	Display when unit is running
13	Function button 3	On the homepage, it is the Mode button. On other interface, the button function corresponds to the button name.
14	Mode	Display current operation mode
15	Schedule status	Display the executed schedule period currently
16	Function button 2	On the homepage, it is the Schedule button. On other interface, the button function corresponds to the button name.
17	Schedule status	It is displayed when the schedule is enabled
18	Economizer/fresh air equipment status	It is displayed when the ERV function is enabled
19	Function button 1	On the homepage, it is the Fan button. On other interface, the button function corresponds to the button name

No.	Name	Instruction
20	Fan mode	Display the current fan mode
21	Indoor ambient humidity	Display the relative ambient humidity that the thermostat is currently located
22	Humidification equipment status	It is displayed when the Humidifier function is enabled
23	Indoor ambient temperature	Display the relative ambient temperature that the thermostat is currently located
24	Dual Fuel intelligent heating	After intelligent heating is turned on, energy saving heat sources can be predicted based on the external environment. The word "smart" will be displayed after the function is turned on, but it will only take effect when the Heating is running.

Operation Instructions

NOTE:
When the thermostat receives multiple control instructions in a short time, one of them shall prevail.

Settings of Unit On/Off and Mode
Press the "Mode" button on the homepage to set shutdown and operation mode. The mode can be switched in the following sequence:

Table 4.1.1 Mode Switching Sequence

ODU function setting	Mode switching sequence
AC	OFF→Cool→OFF→Dehum.→OFF→AUX Heat→OFF
HP	OFF→Cool→OFF→Dehum.→OFF→Heat→OFF→Auto→OFF→AUX Heat→OFF

NOTE:

Please set the ODU function setting according to the ODU type. Please refer "Installer Setup" section for the settings.

Setting of Fan Mode

Press the "Fan" button on the homepage to switch the Fan mode in the following sequence:

Unit control mode	Fan Mode switching sequence
24V	Auto→On→Auto
RS485	High→Medium→Low→Auto→High

- ON: The fan runs at some certain speed all the time.
- AUTO: Under 24V control mode, the fan will be turned on or off as the change of the set and ambient temperature; under RS485 control mode, the fan will be automatically adjusted according to the set temperature and ambient temperature status.
- High: Under RS485 control mode, it always runs at the highest fan speed of current static pressure.
- Medium: Under RS485 control mode, it always runs at medium fan speed of current static pressure.
- Low: Under RS485 control mode, it always runs at low fan speed of current static pressure.

NOTE:

1. Please set the Communication setting according to the Communication Type. Please refer "Installer Setup" section for the settings.
2. Under dehumidification mode, it operates at low fan speed.

Temperature Adjustment

Under Cool, Dehum, Heat, AUX heat or Auto Mode, press " ▲ " or " ▼ " button to increase or decrease the set temperature by 1°C (°F).
In each mode, the setting range of set temperature is as follows:

Table 4.3.1 Set Temperature Range

Operation mode	Temperature range	Remarks
Cool	10°C~32°C (50°F~90°F)	The lower limit can be set, range 10~30°C (50~86°F)
Dehum.	10°C~32°C (50°F~90°F)	The lower limit can be set, range 10~30°C (50~86°F)
Heat	10°C~32°C (50°F~90°F)	The upper limit can be set, range 16~32°C (61~90°F)
Auto	10°C~32°C (50°F~90°F)	—
AUX Heat	10°C~32°C (50°F~90°F)	The upper limit can be set, range 16~32°C (61~90°F)

The lower limit of set temperature in Cool mode, Dehum mode and the upper limit of the set temperature in Heat mode and Aux Heat mode can be adjusted. Please refer "User Setup" section for the settings.

Schedule Function
The Schedule function is used to set specific time of the week to execute a specific mode.
Under unit off mode, hold on pressing "Function button 2" button to enter the setting selection page of timed mode, as shown in the picture below:
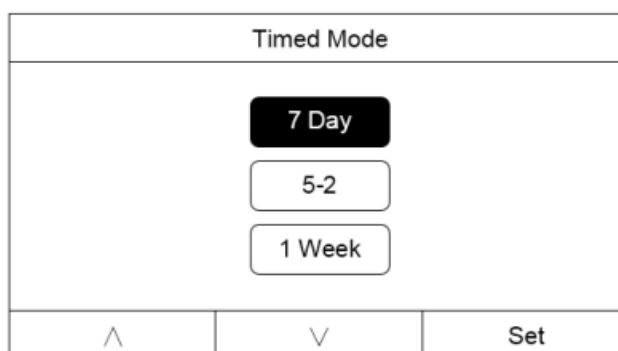
Figure 4-1 Setting Selection Page of Timed Mode

On the setting selection page of timed mode, press "∧" or "∨" button to select the timed mode. Instructions of timed mode are as follows:

Table 4.3.1 Instructions of Timed Mode

Timed mode	Instructions
7 Day	Adjust program schedule parameters for each day of a week. It will be executed circularly every week after setting.
5-2	Adjust program schedule parameters on weekdays and weekends. It will be executed circularly every week after setting.
1 Week	Adjust program schedule parameters for seven days of a week. It will be executed circularly every week after setting.

Select the schedule timed mode that you want to set and press "Set" to enter the underlying setting interface:

1. If "7 Day" mode is selected, press "Set" to enter the day selection interface. Press "<" or ">" button to select from Sunday to Saturday, and then press "Set" again to enter the schedule parameters setting page.
2. If "5-2" mode is selected, press "Set" to enter the day selection interface. Press "<" or ">" button to select "Workdays" or "Weekend", and then press "Set" again to enter the schedule parameters setting page.
3. If "1 Week" mode is selected, press "Set" to enter the schedule parameters setting page directly.

On the parameter setting page

1. Press "<" or ">" button to select the parameters.
2. Press " ▲ " or " ▼ " button to adjust the parameters.
3. Press "Set" button to save the settings.

Mon			
Schedule	Time	Heat	Cool
Wake	06:00	70℉	75℉
Leave	08:00	61℉	82℉
Return	18:00	70℉	75℉
Sleep	22:00	61℉	79℉
<	>		Set

Figure 4-2 Setting Page of Schedule Parameters

Under Cool, Heat or AUX Heat Mode, press "Function button 2" button to enable or disable the schedule function.

If "Week Sched." is displayed on the homepage as shown in the following figure, it means that the schedule function is opening. If the schedule has been executed, the executed period name will be displayed as shown in the following figure.

Figure 4-3 Schedule Running Status

After the schedule is enabled, if you press " ▲ " or " ▼ " button to adjust the set temperature, "Week Sched." will not be displayed and "Hold" will be displayed above the set temperature, indicating that the schedule function is still running, but the set temperature is not running according to the set parameter for the

schedule being and the actual adjusted value will prevail. When the next schedule period is reached, "Hold" will be cleared and run again according to the parameters set by the schedule as shown below:

```
┌─────────────────────────────────────────┐
│ 03:10PM              SUN                  │
├─────────────────────────────────────────┤
│                 Room Temp.         Hold   │
│                                  Set Temp.│
│   Humidity                                │
│               72 °F              86°F     │
│   90%                                     │
│                                           │
│   Fan                             Mode    │
│   Auto                            Cool    │
└─────────────────────────────────────────┘
```
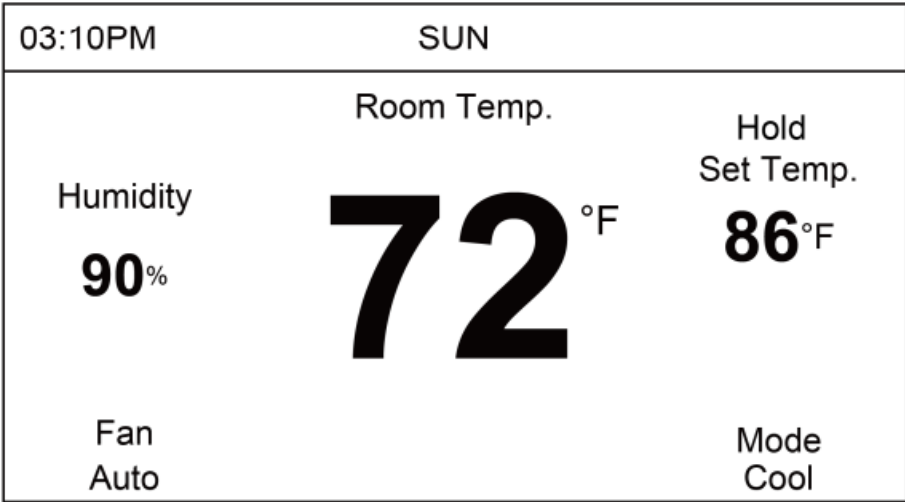
Figure 4-4 Hold Status of Schedule Running

If "Week Sched." is not displayed on the homepage and Hold is not displayed above the set temperature, it means the schedule function is off, as shown below:

```
┌─────────────────────────────────────────┐
│ 03:10PM              SUN                  │
├─────────────────────────────────────────┤
│                 Room Temp.                │
│                                 Set Temp. │
│   Humidity                                │
│               72 °F             86°F      │
│   90%                                     │
│                                           │
│   Fan                             Mode    │
│   Auto                            Cool    │
└─────────────────────────────────────────┘
```
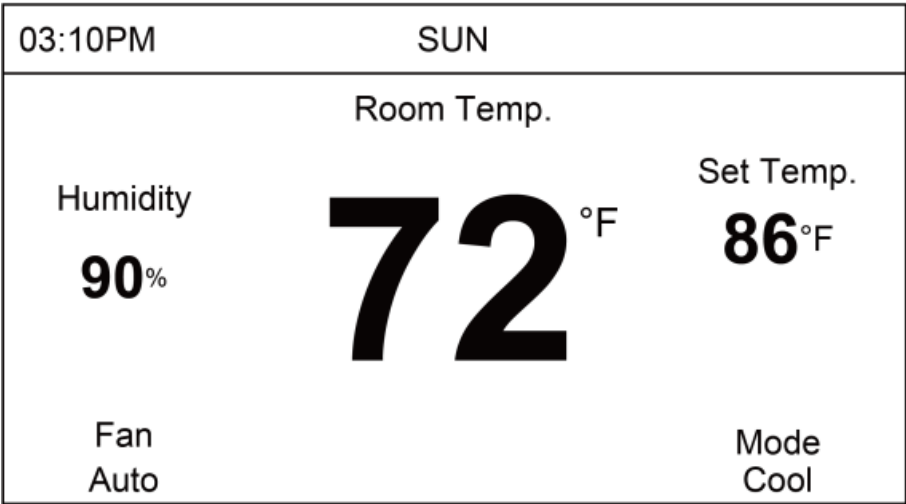
Figure 4-5 schedule Off Status

NOTES:

1. App's schedule and thermostat schedule are executed separately and they are be in valid according to the time sequence.
2. When any one of App's schedule or thermostat schedule is valid, schedule status will be displayed. When any one of App's schedule or thermostat schedule is valid, change the set temperature and the thermostat will display the reminder of "Hold".

Child-lock Function

Press " ▲ " and " ▼ " buttons simultaneously for 5 seconds can enter into child-lock function, the liquid crystal screen will display "🔒"; press " ▲ " and " ▼ " buttons simultaneously again for 5 seconds can quit the child-lock function.

Under child-lock status, no response for pressing any buttons. The unit will memorize the child-lock status after

power failure and re-energizing the unit.

WiFi Function Setting

"KINGHOME PLUS" App can be used to control thermostat. Please scan the QR code or search"KINGHOME PLUS" in the application market to download and install it. When "KINGHOME PLUS" App is installed, register the account and add the device to achieve long-distance control and LAN control of KINGHOME smart home appliances.

When using the App for the first time, please reset WiFi of thermostat at first (reset WiFi to ex-factory setting). For details about how to reset WiFi, see "5.2 User Parameter Settings". When the WiFi icon is flickering in 0.5 seconds to 0.5 seconds, it means that the reset is successful.

NOTES:

1. If the device is offline or router's name and password have been changed, please reset WiFi and add the device again.

2. WiFi networking performance is related to the distance between the thermostat and the router and the obstacles between them. During the installation process, the distance between the thermostat and the router should be as close as possible, and the obstacles should be as little as possible. If the WiFi signal is not good, use the WiFi signal enhanced router. The specific situation depends on the actual installation.

3. When the thermostat is powered by the battery, the WiFi function is unavailable and cannot control the unit through the App. When the thermostat is powered by the unit, the WiFi function can be used normally.

Parameter Settings

Menu Page

Press "Menu" button on the homepage to enter the Menu page, as shown below:
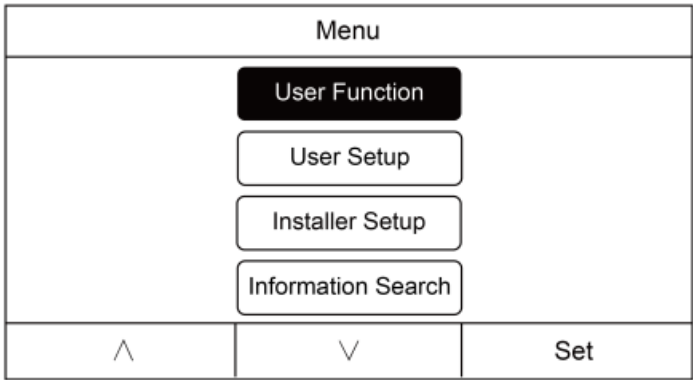
Figure 5-1 Menu Page

On the Menu page, press "∧" or "∨" button to move the cursor for selecting "User Function", "User Setup", "Installer Setup" or "Information Search", and then press "Set" button to enter the corresponding page. Press "Menu" button to return to the homepage.

5.2 User Function Settings

On the Setting page, press "∧" or "∨" button to move the cursor for selecting the parameter to be set, and press "Set" button to select the parameter to be set. Then press "▲" or "▼" button to select the parameter value, and then press "Set" to save the setting. Press "Menu" button to return to the Menu page. If there is no operation within 20 seconds, it will return to the homepage automatically. The detailed user function list is as follows:

Table 5.2.1 User Parameter List

No.	Parameter name	Parameter range	Remarks
1	Dual Fuel Type	Standard/Smart	Dual Fuel function type setting
2	Humidifier	ON/OFF	Humidifier ON/OFF setting
3	Humidity set value	20~80%	Target humidity value setting
4	ERV	ON/OFF	Economizer setting

NOTE:

1. The Smart mode of Dual Fuel function requires WiFi connection.

2. The target humidity value can be set only when the humidifier function is ON.

User Setup

On the System page, press " ∧ " or " ∨ " button to move the cursor for selecting the parameter to be set, and press "Set" button to select the parameter to be set. Then press "▲" or "▼" button to select the parameter value, and then press "Set" to save the setting. Press "Menu" button to return to the Menu page. If there is no operation within 20 seconds, it will return to the homepage automatically. The detailed user parameter list is as follows:

When a certain parameter cannot be set, it will be displayed in gray. Under ON mode, all parameters cannot be set, but can be inquired.

Table 5.3.1 System Parameter List

No.	Parameter name	Parameter range	Remarks
1	Clock Format	12H/24H	Set the clock format
2	Time and Date	2000-2099	Press "Set" button to enter the setting page of time and date.
3	Daylight Saving Time	ON/OFF	Set summer time/winter time
4	Backlight	OFF/20S/Always ON	Set backlight **NOTE:** only applicable when the power is not supplied by battery. In using battery status, backlight defaults to OFF.
5	System Memory	YES/NO	Set if the unit on/off status is memorized during power failure
6	Temperature Unit	°F/°C	Set the unit of temperature
7	Filter Cleaning Reminder	OFF/10Days/20Days/ 30Days/ 2~24Months	Set the filter cleaning reminder time
8	Language	English/French	Set Language
9	Synchronize Time with App	YES/NO	**NOTE:** The thermostat can only be set when it is connected to WiFi.
10	WiFi Reset	YES/NO	Set WiFi reset **NOTE:** only applicable to models with WiFi function.
11	Min Cool Setpoint	50~86°F (10~30°C)	Set the lower limit for the set temperature in cooling
12	Max Heat Setpoint	61~90°F (16~32°C)	Set the upper limit for the set temperature in heating
13	Factory setting	YES/NO	Restore default parameters **NOTE:** Only can be set under unit off mode. After the factory setting is restored, Fan Mode, Set Temperature, Timer Function Switch and the parameters in the User Setup list except "WiFi Reset" are restored to the default values.

NOTE:
When the thermostat is connected to WiFi, and the parameter "Synchronize App time" is set to "YES", the time of the thermostat is finally synchronized to the App time.

Installer Setup
On the System page, press "∧" or "∨" button to move the cursor for selecting the parameter to be set, and

press "Set" button to select the parameter to be set. Then press "▲" or "▼" button to select the parameter value, and then press "Set" to save the setting. Press "Menu" button to return to the Menu page. If there is no operation within 20 seconds, it will return to the homepage automatically.

When a certain parameter cannot be set, it will be displayed in gray. When you press " ∧ " or " ∨ " button, it will automatically jump to the settable parameter line; Under ON mode, all parameters cannot be set, but can be inquired.

Table 5.4.1 Installation Parameters List

No.	Parameter name	Parameter range	Remarks
1	Thermostat Set	Reserved	Reserved. This parameter is fixed to "Primary".
2	Communication	24V/RS485	Set the unit control mode **NOTE:** (1) Only can be set under unit off mode; (2) The factory default is 24V communication mode. If you need to change this setting, you need to consult the manufacturer's technical support.

No.	Parameter name	Parameter range	Remarks
3	Outdoor Unit Type	AC/HP	Set the function of outdoor unit **NOTE:** Only can be set under unit off mode
4	Four-way Valve Reversing	O/B	Set cooling/heating energization four- way valve **NOTE:** Only can be set under unit off mode
5	Indoor Unit Type	Air Handler/1st Fur/ 2nd Fur	Set the function of indoor unit **NOTE:** Only can be set under unit off mode.
6	AUX On Timer	0~120min	Set the starting time of electric heating in heating mode **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP.
7	Max Activate Temp. for AUX	50~86°F (10~30°C)	Set the upper limit of the starting temperature of the electric heating in heating mode **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP.
8	AUX On Temp. Differential	0~10°F (0~5°C)	Set the starting temperature difference of electric heating in heating mode **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP.
9	Satisfy Room Temp. With AUX	YES/NO	Set electric heating continue to operate before unit stops when reaching the temperature point **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP.

No.	Parameter name	Parameter range	Remarks
10	DualFuel Switch ODU Temp.	-13~59°F (-25~15°C)	Set Dual Fuel changeover outdoor temperature **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP and the indoor unit type is set to 1st Fur/2nd Fur
11	DualFuel Switch Timer	10~120min	Set the time of Dual Fuel changeover furnace **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP and the indoor unit type is set to 1st Fur/2nd Fur
12	Furnace Min On Time	10~60min	Set the minimum operation time of furnace **NOTE:** Only can be set when the unit is under off mode and the outdoor unit type is set to HP and the indoor unit type is set to 1st Fur/2nd Fur
13	Temp. Display Set	-6~6°F (-3~3°C)	Sets the indoor ambient temperature compensation value
14	Cool Swing	4~8°F (or 2~4°C)	Set Cooling temperature difference under Auto Mode
15	Heat Swing	4~8°F (or 2~4°C)	Set Cooling temperature difference under Auto Mode
16	Comp. Delay On	1~15min	Set the delayed start time for the compressor **NOTE:** Only can be set under unit off mode.
17	MIN Comp. On	0~6min	Set the minimum operation time of compressor **NOTE:** Only can be set under unit off mode.
18	Fan Off Timer	0~10min	Delayed shutdown time of indoor fan

No.	Parameter name	Parameter range	Remarks
19	Factory Setting	YES/NO	Restore factory settings **NOTE:** Only can be set under unit off mode. After the factory setting is restored, the parameters in the Installer Setup list are restored to the default values.

Search

In the inquiry interface, you can inquire the outdoor ambient temperature, product version, installer name, installer contact, historical errors, indoor parameters and outdoor parameters. Detailed information inquiry function and status are described as follows.

Table 5.5.1 Inquiry List

No.	Parameter name	Remarks
1	Outdoor Temperature	Outdoor ambient temperature
2	Version	Product version
3	Installer Name	Installer name, shall be set by KINGHOME PLUS App
4	Installer TeleNumber	Installer contact, shall be set by KINGHOME PLUS App
5	Error Search	The latest 10 historical errors can be inquired
6	Parameter Search	This information can only be queried when the communication is set to RS485, and is only used by maintenance personnel.

NOTE: When the S1/S2 interface is not connected to the outdoor ambient temperature sensor, the outdoor ambient temperature inquiry display is fixed to -100°C/-148°F.

Display of Errors

- When error occurs in the system, indoor ambient temperature display area in liquid crystal panel will display error code, when multiple errors occur simultaneously, it will circularly display error code.
- When error occurs, please turn off the unit and seek for professional personnel to maintain.
- The following figure refers to the Indoor temperature or humidity sensor.
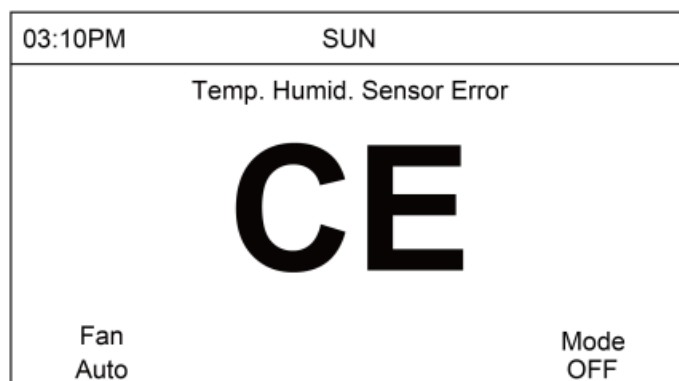
Figure 6-1 Indoor Temp. Humid. Sensor Error

Table 6.1 Error Code List

Error Code	Error
EA	Indoor unit refrigerant leakage protection
FE	Refrigerant sensor error/refrigerant sensor communication error
CE	Indoor temperature or humidity sensor error
F3	Outdoor temperature sensor error

Error Code	Error
HI	Indoor ambient temperature is too high
L0	Indoor ambient temperature is too low
C0	Communication error of thermostat
E1	Compressor high pressure protection
E3	Compressor low pressure protection
E4	Compressor discharge temperature protection
H4	Overload protection
C6	Discharge temperature sensor error
F3	Outdoor ambient temperature sensor error
e1	High pressure sensor error
e3	Low pressure sensor error
EE	Main control memory chip error
C4	Error of outdoor unit jumper cap
C3	Outdoor pipe temperature sensor error
C7	Outdoor middle pipe temperature sensor error
H3	Compressor overload protection
E2	Freeze prevention protection
b2	Subcooler air inlet temperature sensor error
b3	Subcooler air outlet temperature sensor error
E6	Indoor unit and outdoor unit communication error
H2	Low module temperature protection
PL	Low DC bus voltage

Error Code	Error
PH	High DC bus voltage
PA	AC Current protection (input side)
H5	IPM abnormality
L3	DC fan error
HC	PFC abnormality
Lc	Startup failure
U2	Phase loss
P0	Drive module reset abnormality
P5	Compressor overcurrent
LF	Overspeed
U1	Current detecting circuit error or current sensor error
H7	Non-synchronism
LE	Compressor stalling
P6	Communication error between main control and drive
P8	High temperature of radiating sheet or IPM module or PFC module
P7	Abnormality of temperature sensor of radiating sheet or IPM module or PFC module
ee	Error of drive memory chip
C8	Abnormality of compressor DIP switch
PU	Charging circuit error
PP	Abnormality of AC input voltage
PF	Error of outdoor ambient temperature sensor on the drive board

| Error Code	Error
P9	AC contactor protection
PE	Temperature drift protection
Pd	Sensor connection protection (current sensor is not connected to the corresponding U phase or V phase)
A1	Inverter outdoor fan drive IPM module protection
AC	Inverter outdoor fan startup failure
UL	Inverter outdoor fan overcurrent protection
AE	Inverter outdoor fan drive current detecting circuit error
AJ	Inverter outdoor fan out-of-step protection
Ab	Outdoor fan drive reset protection
A6	Outdoor fan drive communication error
A8	High outdoor fan module temperature
A9	Outdoor fan drive sensor error
Ad	Outdoor fan phase loss protection
AH	High voltage of outdoor fan bus
AL	Low voltage of outdoor fan bus
EH	Auxiliary electric heating misuse protection
C1	Indoor ambient temperature sensor error
C2	Indoor pipe temperature sensor error
FJ	Indoor air outlet temperature sensor error
CA	Evaporator inlet pipe temperature sensor error
Cb	Evaporator outlet pipe temperature sensor error

Error Code	Error
CJ	Indoor unit jumper cap error
E0	Indoor fan error

NOTE: In the event of an EA/FE fault, the thermostat lights up the backlight and gives a buzzer alarm. The user can cancel the backlight and buzzer alarm by pressing the "Mode" button on the homepage, but the code display can only be canceled after the fault is eliminated.

Operation Instructions and Notices of Batteries

Installation of Batteries
Install two AA dry batteries (1.5V) according to the following figure.
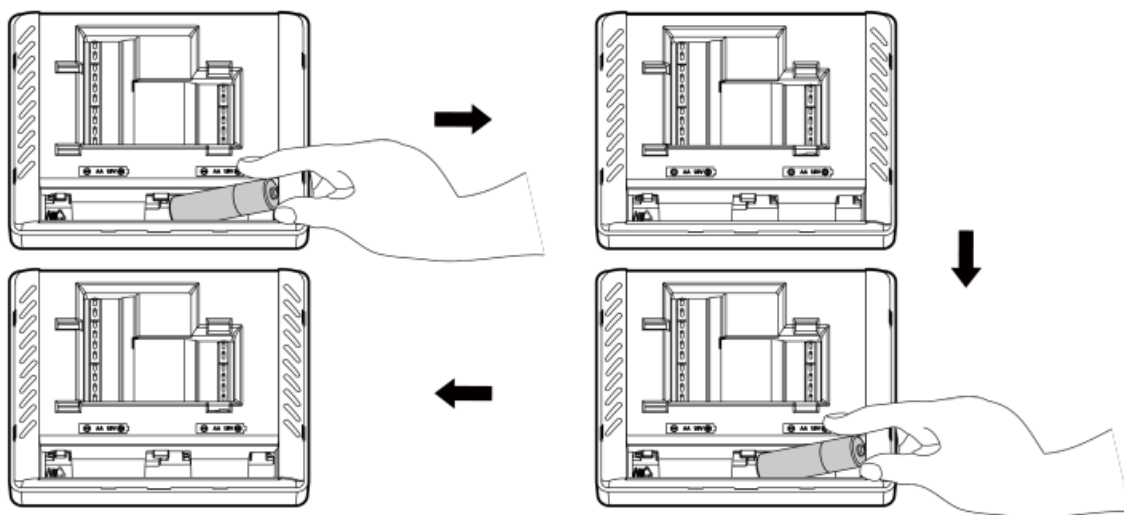
Figure 7-1 Installation of Batteries

Replacement of Batteries

Replace the batteries when the low power icon is displayed.

If only the batteries are used to supply power to the thermostat:

1. To ensure that the batteries work longer, if there is no operation within 10s, the display screen will temporarily extinguish. Please press the "Function button 2" to wake up the screen before operation again, then the thermostat can work normally.

2. The batteries only guarantee normal display. In this case, WiFi does not work and the unit cannot be controlled and the display screen backlight does not light up.

Selection of Extended Temperature Sensor

The precision of temperature sensor shall be ±1°C. Before use, measure the resistance at both ends of the temperature sensor with ohmmeter and check if the temperature sensor is in good condition by referring to the following table.

Outdoor ambient temperature		Resistance		Outdoor ambient temperature		Resistance
°C	°F	(KΩ)		°C	°F	(KΩ)
-30	-22	271.35		11	51.8	28.55709
-29	-20.2	256.1833		12	53.6	27.2395
-28	-18.4	242.5425		13	55.4	25.99929
-27	-16.6	226.3552		14	57.2	24.72681
-26	-14.8	212.0824		15	59	23.62784

Outdoor ambient temperature		Resistance		Outdoor ambient temperature		Resistance
°C	°F	(KΩ)		°C	°F	(KΩ)
-25	-13	199.4034		16	60.8	22.58804
-24	-11.2	188.0654		17	62.6	21.51573
-23	-9.4	177.8663		18	64.4	20.50291
-22	-7.6	166.4731		19	66.2	19.62262
-21	-5.8	158.2839		20	68	18.71078
-20	-4	149.0313		21	69.8	17.91612
-19	-2.2	136.1206		22	71.6	17.15807
-18	-0.4	129.0351		23	73.4	16.36994
-17	1.4	122.5843		24	75.2	15.68069
-16	3.2	115.5671		25	77	14.96251
-15	5	109.231		26	78.8	14.33309
-14	6.8	103.4814		27	80.6	13.78341
-13	8.6	97.41164		28	82.4	13.1504
-12	10.4	92.68319		29	84.2	12.5941
-11	12.2	87.64591		30	86	12.10713
-10	14	83.05884		31	87.8	11.59093
-9	15.8	78.86421		32	89.6	11.09402
-8	17.6	74.48929		33	91.4	10.65813
-7	19.4	70.50403		34	93.2	10.19517
-6	21.2	66.8586		35	95	9.788561
-5	23	63.51129		36	96.8	9.394867
-4	24.8	60.42698		37	98.6	9.013483
-3	26.6	57.23454		38	100.4	8.643841

Outdoor ambient temperature		Resistance		Outdoor ambient temperature		Resistance
°C	°F	(KΩ)		°C	°F	(KΩ)
-2	28.4	54.30137		39	102.2	8.320759
-1	30.2	51.59711		40	104	7.971981
0	32	49.09597		41	105.8	7.666881
1	33.8	46.7759		42	107.6	7.36978
2	35.6	44.38742		43	109.4	7.080366
3	37.4	42.17675		44	111.2	6.798345
4	39.2	40.12476		45	113	6.55364
5	41	38.21496		46	114.8	6.284832
6	42.8	36.43305		47	116.6	6.051459
7	44.6	34.60589		48	118.4	5.823147
8	46.4	33.05396		49	120.2	5.599735
9	48.2	31.45527		50	122	5.381066
10	50	29.95952		—	—	—

Fcc Statement

This product contains FCC ID 2ADAP-GRJWB05J10 and IC 12478A-GRJWB05J10 CAN ICES-003(B)/NMB-003(B).
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Frequently Asked Questions

Q: Can children operate this thermostat?

A: This appliance is not intended for use by children unless supervised by an adult.

Q: How can I dispose of this product responsibly?

A: Follow local regulations for electronic waste disposal or return it to designated recycling centers.

Documents / Resources

KINGHOME WK-010WC1 Smart Thermostat [pdf] Owner's Manual
WK-010WC1, WK-010WC1 Smart Thermostat, WK-010WC1, Smart Thermostat, Thermostat

References

- **User Manual**