

# INSTALLATION AND OWNER'S MANUAL

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*Thermostat Type*

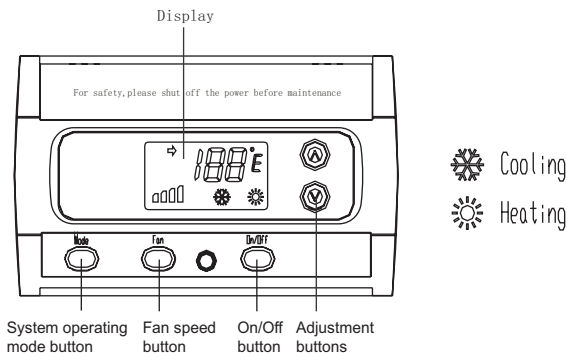
Applicable to:KJR-15B/E(P)

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

# Contents

Introduction .....	1
Use condition.....	1
Important safety precaution.....	2
Installation .....	3
Operation of the key-press.....	4

# Introduction



## Features

System operating mode button: heat, cool or fan

Fan speed button: low, middle or high

On/off button: on or off

Temperature display in °F or °C

## Use condition

### Electrical range

Input voltage: 220-230V~, 50/60Hz; output voltage: 220-230V~, 50/60Hz.

Temperature and Humidity Range:

Temperature:  $-15^{\circ}\text{C} \sim +43^{\circ}\text{C}$

Humidity: RH40%~RH90%

## Important safety precaution

Please read this safety precaution carefully before installation.  
Do observe the following safety precautions, for they are very important.  
Meaning of marks:



### **WARNING**

Failure to observe warning may result in death.



### **CAUTION**

Failure to observe a caution may result in injury or damage to the equipment.



## **WARNING**

Confirm there is no abnormal phenomena during test operation after installation completed, then hand the manual to the user.

Installation must be conducted by professionals Others may perform improper installation which cause electric shock or fire.

Follow this manual as strictly as possible, Improper installation may cause electric shock or fire.

Another installation must be performed by professionals, Improper installation may cause electric shock or fire.

Don't disassemble your thermostat at will, A random disassembly may cause abnormal operation or heating, which may result in fire.



## **CAUTION**

all it in a place where combustible gas easily leaks, Once combustible gas leaks and remains around central Controller, fire may be caused.

Wire must be suitable for the current of thermostat, otherwise electricity leakage or rating may be caused, which may result in fire.

#### Electrical range

Never bring outside force to bear on the terminal, otherwise wire break or heating may be caused, which may result in fire.

Do not install it in a place with oil, steam or sulphur gas, or else deform or malfunction may occur.

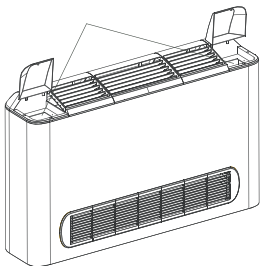
Check whether following objects are in the box after you open it.

Number	Name	Quantity	Note
1	Thermostat	1	
2	The manual	1	
3	Accessoriz	1	Include two screws and one screw cap
4	wire harness	1	

## Installation

1. Cut the plastic of thermostat installation place with knife.
2. Connect the wire in the box to the terminal on the Fan coil as figure 1 after removing the casing of the Fan Coil.
3. Pass the wire through the hole of installation place.
4. Connection the wire to the terminal of the thermostat.
5. Loosen the locking screw to separate the thermostat from its baseplate (the screw cannot be completely removed).

Thermostat installation place



### Note

According to the users' need, the thermostat can be installed in left side or right side.

6. Tilt the cover upwards.

7. Put the base in the installation place, then screw the screws with screwdriver.

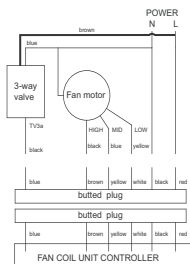
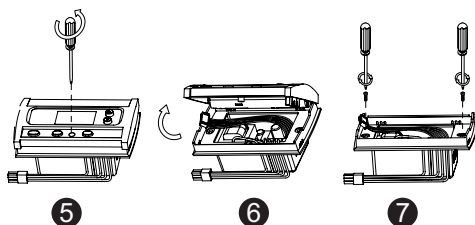
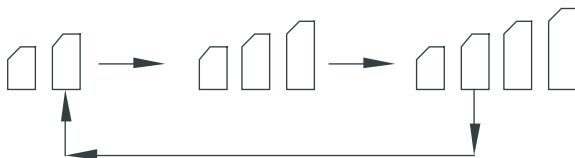


Figure 1

## Operation of the key-press

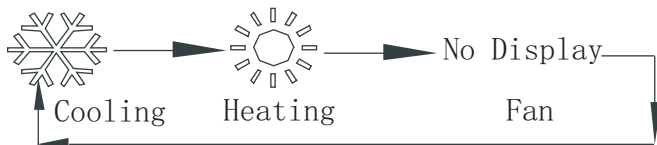
### 1. Key-press for fan speed

- It is used to change the fan speed;
- Press the key continuously, the LCD display the corresponding sign to switch back and forth, as the following order.



### 2. Key-press for mode

- Press it for select the operation mode;
- Press the key continuously, the LCD display the corresponding sign, as the figure below.



### 3. Key-press for on/off

- Press it to select to turn on/off the unit .

### 4. Key-press for“▲”and “▼”

- Except the select Contact surface of temperature pattern, when you press the “▲” once, the setting temperature increases progressively 1 degree.
- When the temperature is up to 30 °C/86 °F, Even if continue to press this key, the setting temperature will not increase any longer.
- Display when the temperature increases progressively as the following order

17... → 30 ( °C )

62 ... → 86 ( °F )

Except the Contact surface of temperature pattern select, when you press the “▼” once, the setting temperature decreases progressively 1 degree.

- When the temperature falls to 17°C/62°F, Even if continue to press this key, the setting temperature will not decrease any longer.
- Display when the temperature decreases progressively as the following order:

30 ... → 17 ( °C )

86... → 62 ( °F )

- After the power is on, press both the “▲”and “▼” for 3 seconds, switch the temperature units between Degree Celsius and degree Fahrenheit.

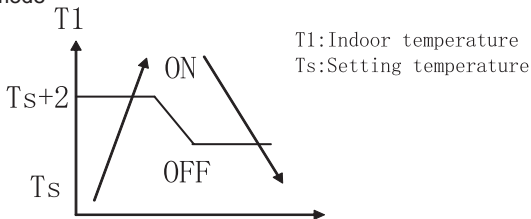
°C  $\rightleftharpoons$  °F

- Press the “▲”or “▼” for 2 seconds, the numbers keeping get up or get down.  
If no key has been pressed in 2 seconds, the system will turn back to the
- current temperature display, the figure “→”will disappear.

### 5. Function Description

#### 1.Cooling 3-way valve (TV3a)

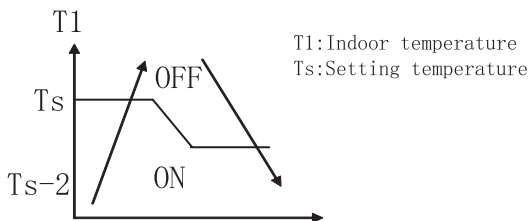
- In off, fan mode, TV3a is just on “off”situation.
- In cooling mode



- The thermostat will send signal to the 3-way valve according to the indoor temperature and setting temperature.
- When indoor temperature ( $T_1$ )-setting temperature ( $T_s$ )  $\geq 2^\circ\text{C}$ , the thermostat will send signal to the 3-way valve;
- When indoor temperature ( $T_1$ ) drop down to setting temperature ( $T_s$ ), the thermostat will stop sending signal to the 3-way valve.

## 2.Heating 3-way valve (TV3a)

- In off, fan mode,TV3a is just on "off "situation.
- In heating mode:



- The thermostat will send signal to the 3-way valve according to the indoor temperature and setting temperature.
- When setting temperature ( $T_s$ )-indoor temperature ( $T_1$ )  $\geq 2^\circ\text{C}$ , the thermostat will send signal to the 3-way valve;
- When indoor temperature ( $T_1$ ) rise up to setting temperature ( $T_s$ ), the thermostat will stop sending signal to the 3-way valve.

## 3.Fan motor control

- Three fan speeds: HIGH, MID, LOW;
- In cooling, heating mode, fan speed can be adjusted by yourself, the default setting is low speed;
- In fan mode, only fan running;
- The fan will be turn off when no power.



#### 4. Thermostat temp. sensor (T1)

- When inspect the input voltage range of indoor temperature T1 sensor is out of 0.05~4.95V, it is considered the sensor is open-circuit or short-circuit, the 3-way valve and the fan motor turn off. Display E1 in the thermostat, and any buttons is ineffective.
- When the voltage range come back in 0.05~4.95V, the E1 error disappear, the 3-way valve and the fan motor come back to previous situations.

#### 5. Fault and protection code table

P0	Anti-cool air protection at heating mode operation, fan would stop and display P0, provided that indoor coil's temperature were $< 35^{\circ}\text{C}$
P1	Anti-cool air protection at cooling mode operation, fan would stop and display P1, provided that indoor coil's temperature were $> 20^{\circ}\text{C}$
E1	Malfunction of indoor ambient temperature sensor.
E2	Malfunction of indoor pipe temperature sensor.

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