# **DC Inverter Indoor Unit**

# Installation and User's Manual

### Applied models:

External appearance	Cooling capacity	External appearance	Cooling capacity
Compact four-way cassette unit	2200W 2800W 3600W 4500W	Round-way cassette unit	5600W 7100W 8000W 9000W 10000W 11200W 12500W 14000W 16000W
Short ducted unit	2200W 2800W 3600W 4500W 5600W 7100W	Standard ESP ducted unit and High ESP ducted unit 7.1kW~9.0kW	7100W 8000W 9000W 10000W 12000W 15000W
High ESP ducted unit 10.0kW~15.0kW and Full fresh air unit 14.0kW	10000W 12000W 14000W 15000W	High ESP ducted unit 20.0kW~ 28.0kW and Full fresh air unit 22.4kW、28.0kW	
High ESP ducted unit 45.0kW~56.0kW and Full fresh air unit 45.0kW、56.0kW	45000W 56000W	Wall-mounted unit         2200W           2800W         3600W           3600W         4500W           5600W         7100W	

Floor-ceiling unit		One-way cassette unit	
	3600W 4500W 5600W 7100W 8000W 9000W 11200W 14000W 16000W		2200W 2800W 3600W 4500W 5600W 7100W
Two-way cassette unit		Floor-standing unit	
	4500W 5600W 7100W 8000W		8000W 10000W 14000W 16000W

#### Thank you for choosing our company products!

Air conditioning facilities are valuable products. In order to protect your legitimate rights and interests, please make sure that the installations are done by professional technicians. This manual is a general-purpose version for the conditioning systems manufactured by our CO., the one that you have chosen might be a little different in appearance from the ones described in the manual. But these differences will not have any impacts upon your operation and use of the system.

Please read the manual carefully before you operate the system and check to see if the model is identical to the one you have purchased, keep the manual properly in case you might refer to it in the future.

#### Addition to the user manual:

The 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 responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. The appliance shall be installed in accordance with national wiring regulations.

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# 1. Safety instructions

1. Before use, please read this Manual carefully, and correctly operate according to this Manual.

2. Special attention shall be paid to the meanings of the following two logos:

A Warning: It means that disoperation may cause casualties or serious damage.

Attention: It means that disoperation may cause personal injuries or property damages.

Please read the host labels carefully. If any anomaly is found, such as abnormal noise, odor, smoke, temperature rise, electricity leakage and fire, please cut off the power supply immediately and timely contact the local service center or dealer of our company, but never attempt to any unauthorized repair. If necessary, immediately contact your local fire protection and emergency services.

Correct Disposal of this product		
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.		

### Attention

- Before installation, check whether all power sources conform to the requirements on the nameplate and make sure of the power supply safety.
- Before use, check and confirm whether the electric wires, drain pipes and tubes are firmly connected to prevent water leakage, refrigerant leakage, electric shock, fire or other accidents.
- The power supply socket must be equipped with ground wire to ensure the air conditioner could be effectively grounded through the power socket and avoid electric shocks. Never connect the ground wire onto the gas pipes, water pipes, lightning rods or phone wires.
- Once started, never shut down the air conditioner within 5 minutes' running, or it will affect the compressor oil return.
- Never let kids operate the air conditioner.
- Never operate the air conditioner if your hand is wet.
- While cleaning the air conditioner or replacing the air filter, please cut off the power supply at first.
- If idle for long, please cut off the power supply.
- Never step on or place any object on the air conditioner.
- Power on for leakage test after installation.

# 1. Safety instructions

### 🔔 Warning

- Please contact our authorized service center for installation. Improper installation may result in water leakage, electric shocks, fires and other accidents.
- Never put sticks or other objects into the air inlet and outlet.
- Do use within the required voltage and frequency with protection devices equipped accordingly. Never use any copper wire to replace the fuse to avoid failures or fires.
- The air conditioner shall have its ground wire firmly connected with that of the power source.
- While cleaning, never splash water onto the air conditioner, in order to avoid failures or electric shocks.
- Never have the indoor or outdoor unit inlet or outlet blocked to avoid impact on the performance of the air conditioner and prevent failures.
- If idle for long, disconnect the power supply to ensure safety and save energy.
- When restarted after a long-term shutdown, do carefully check whether the air conditioner and its power lines are normal. If the power lines are damaged or need replacing due to other reasons, please contact our after-sales service staff or authorized repair professionals to avoid electric shocks, overheating, fires or other accidents.
- Never place any water container on the air conditioner to avoid electric shocks due to water immersion.
- After a long-term use, please confirm whether the mounting platform is worn, and if worn, the air conditioner may fall to cause casualties.
- Never operate the switch if your hand is wet to avoid electric shocks.
- In time of repair, stop the air conditioner with the power supply cut off, or the high-speed rotation of the internal wind turbines may lead to injuries.
- Never use any other fuse beyond the capacity regulated in this Manual. Never use any iron or copper wire to avoid failures, fires and other consequences. Do use the special circuit under the rated voltage for air conditioners.
- The A-weighted sound pressure level is below 70 dB.
- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- The appliance shall be disconnected from its power source during service and when replacing parts and, if that the removal of the plug is foreseen, it shall be clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed.
- The appliance shall be maintained by the professional every three years.

#### 1-1 Electrical safety requirements

- 1) Wiring work must be done by formally qualified electricians.
- 2) All wiring work must meet the electrical safety specifications.

3) The air conditioner must be well grounded, namely, the air conditioner must have its main switch reliably grounded.

4) The air conditioner must be provided with separate power supply according with the rated parameter value.

#### 2-1 Compact four-way cassette unit



Figure 2.1

### 2-2 Round-way cassette unit



Figure 2.2

### 2-3 Short ducted unit



Figure 2.3

### 2-4 Standard ESP ducted unit and High ESP ducted unit 7.1kW $\sim$ 9.0kW



Figure 2.4



#### 2-5 High ESP ducted unit 10.0kW $\sim$ 15.0kW and Full fresh air unit 14.0kW

Figure 2.5

2-6 High ESP ducted unit 20.0kW $\sim$ 28.0kW and Full fresh air unit 22.4kW $_{
m V}$  28.0kW





#### 2-7 High ESP ducted unit 45.0kW $\sim$ 56.0kW and Full fresh air unit 45.0kW $_{\odot}$ 56.0kW





#### 2-8 Wall-mounted unit



#### 2-9 Floor-ceiling unit







#### 2-11 Two-way cassette unit



Figure 2.11

#### 2-12 Floor-standing unit



Figure 2.12

#### 3-1 Instruction before use

The frequency conversion Wall-mounted type (standard), Floor-ceiling type (standard), Four-way cassette type (standard), Floor-standing type (standard), Round-way cassette type (standard), Full fresh air type (optional) and ducted type (optional) have the remote controller use (Specifications: smart universal type) introduced as follows:

**"HVAC No.2" remote controller** (compatibility with wire controller or lamp board): extension code, applicable to most VRV models.

**"HVAC No.3" remote controller** (compatibility with wire controller or lamp board): general code, applicable to all models (except of Window machine).

**"HVAC No.5" remote controller** (compatibility with wire controller or lamp board): extension code, applicable to most VRV models.

### 🚺 Warning

- Never put the remote controller close to such heat sources as electric blankets or heating furnaces.
- Never put the remote controller at the place subject to direct sunlight.
- Be careful not to have it fall, or it may be damaged.
- Never have any obstacle between the signal receiver and the remote controller of the air conditioner to avoid impact on signal transmission and receiving.
- Never have water and other liquids splashed on the remote controller.

**Attention:** If the remote controller fails, please replace with new batteries and try again, but if it fails again, please contact the seller or our authorized service center.



### Attention

- Let the remote controller directing at the air conditioner, press the buttons on the remote controller and the command signal will be sent to the air conditioner.
- If the signal is correctly received, the air conditioner will "beep".

#### 3-1-1 The icon meaning of remote controller



1) The remote controller is equipped with 15 buttons, and the LCD is newly maded. All the icons are kept in touch with the touch-screen remote controller.

2) At the first power on, the LCD of the remote controller displays all the icons first and then enters the standby state, displaying only the clock 12:00 and the light icon.

3) Introduction of LCD screen icon:

- Mode display: automatic  $\textcircled{B}_{\mathbf{v}}$  cooling  $\$ , dehumidification  $\$ , fan  $\$ , and heating  $\$ .
- Temperature display: 👪 displays temperature, which range between 16 ~ 32°C or 61 ~ 90°F.
- Wind speed display: Smill means wind speed. Smeans automatic wind speed.
- Swinging display: <a><br/>
   # means external pendulum wind.</a> <br/>
   means internal pendulum wind.
- Timer display: HOUR means TIME ON. HOUR means TIME OFF.

• Other display: ⊕ means clock. € means sleep. ⊕ means TURBO. ☑ means ECON. ⊠ means cleaning. ≥ means electric heating. # means address. ∎ means lock. ≧ means lack of electricity.

• Reservation function: ④ means Auto Config. ② means power saving. ☑ means healthy. ① means new wind. ④ means intelligence. ※ means lamplight.

#### 3-1-2 Button function of remote controller

#### (1) ON/OFF

- ① When pressing this key, the remote controller switches by "on, off, on" circularly.
- ② When the first power on, the working state is set by default: setting temperature 25°C (77°F), automatic mode, automatic fan speed, internal and external pendulum wind, no TURBO, no sleep, no timer, no lock).
- ③ When the power on is not the first time, the state before shutdown is recovered. After shutdown, the sleep, TURBO, ECON and timer functions will be canceled.

#### (2) Mode

- ① When pressing this key, the remote controller swiches by "automatic, cooling, dehumidification, fan, heating, automatic" circularly.
- ② The dehumidification mode is locked at 25°C and the temperature can not be adjusted. The internal pendulum wind stays unchanged according to the state before switching, but the external pendulum wind is forced to close.

#### (3) Temperature reduction ▼

- ① Temperature setting: when pressing this key, the setting temperature will be reduced by 1. The temperature of centigrade model will be reduced progressively by "32°C, 31°C, ....., 17°C, 16°C". The temperature of fahrenheit model will be reduced progressively by "90°F, 89°F, ....., 62°F, 61°F". When pressing this key in dehumidification and fan mode, the temperature will not change.
- ② In the clock setting state (the clock icon will flicker to show the prompt), this key is used to set the clock time.
- ③ Keep pressing will continuously change the temperature.

#### (4) Temperature addition **▲**

- ① Temperature setting: when pressing this key, the setting temperature will be added by 1. The temperature of centigrade model will be added progressively by "16°C, 17°C, ....., 31°C, 32°C". The temperature of fahrenheit model will be added progressively by "61°F, 62°F, ....., 89°F, 90°F". When pressing this key in dehumidification and fan mode, the temperature will not change.
- ② In the clock setting state (the clock icon will flicker to show the prompt), this key is used to set the clock time.
- ③ Keep pressing will continuously change the temperature.

#### (5) Up and down swinging (External pendulum wind)

- ① Pressing this key in the dehumidification mode, the external pendulum wind is forced to close.
- 2 Pressing this key in the other modes, the external pendulum switches by "swing, fixed wind, swing"

circularly.

#### (6) Left and right swinging (Internal pendulum wind)

- ① Pressing this key in the dehumidification mode, the internal pendulum wind stays unchanged according to the state before switching.
- 2 Pressing this key in the other modes, the internal pendulum switches by "swing, stop, swing" circularly.

#### (7) "FAN -"

- ① When the first power on, the remote controller is set to the automatic wind speed by default. In dehumidification mode, the wind speed is fixed to low wind and is not adjustable. By pressing the wind speed key, there is no response to the remote controller.
- ② Pressing this key in the other modes, the wind speed switches by "automatic wind speed, high speed, middle speed, low speed, automatic wind speed " circularly.

#### (8) "FAN +"

- ① When the first power on, the remote controller is set to the automatic wind speed by default. In dehumidification mode, the wind speed is fixed to low wind and is not adjustable. By pressing the wind speed key, there is no response to the remote controller.
- ② Pressing this key in the other modes, the wind speed switches by "automatic wind speed, low speed, middle speed, high speed, automatic wind speed " circularly.

#### (9) Timer

- ① Under the shutdown state, press this key to set the opening time, range from 1 hour to 24 hour.
- ② Under the boot state, press this key to set the shutdown time, range from 1 hour to 24 hour.
- ③ The timing time is according to the cycle of "1h, 2h, ....., 23h, 24h, cancel, 1h".
- ④ Exit timing adjustment after 3 seconds without key pressing.

#### (10) **TURBO**

- ① Extension code remote controller has the effect. The remote controller is no TURBO by default, and the TURBO key will not work in automatic mode, dehumidification mode and fan mode.
- ② Pressing this key in the cooling or heating mode, the TURBO mode switches between opening and closing. When in the TURBO mode, it does not display the wind speed. Switching mode or entering sleep function will close TURBO mode.
- ③ If the air conditioner has four gear wind speeds, the TURBO icon will light up and the fan will run in the fourth gear wind speed by pressing this key.

#### (11) ECON

- ① The remote controller is no ECON by default, and the ECON key will not work in automatic mode, dehumidification mode and fan mode.
- ② Pressing this key in the cooling or heating mode, the ECON mode switches between opening and closing. When in the ECON mode, the setting temperature is set to 26°C (77°F) and other settings are unchanged. If closing ECON mode, the remote controller will recover to the setting before opening ECON mode. Switching mode will close ECON mode.

#### (12) Sleep

- ① Pressing this key in the modes except of the fan mode, the sleep function switches between opening and closing. Switching mode will cancle sleep function.
- ② When pressing this key, the wind speed is automatically switched to low wind. However, the wind speed can be adjusted according to the wind speed key (except of the dehumidification mode).

#### (13) Light

① When the first power on, there is no lamplight by default. Pressing this key force to turn off or turn on the lamplight. Decide whether to have this function according to the actual model.

#### (14) Clock

- ① This key is used to set the clock. Pressing enters the hour adjustment state, and the hour digital tube on the LCD is flickering at the same time. The hour can be set by temperature addition or reduction keys, and it ranges from 0 to 23.
- ② When the hour is set, press this key again to enter the minute adjustment state, and the minute digital tube on the LCD is flickering at the same time. The minute can be set by temperature addition or

reduction keys, and it ranges from 00 to 59.

③ After adjusting, press the clock key again to confirm the setting and the adjustment state exits. If do not press the clock key again to confirm, the time adjustment state will exit after 3 seconds, and recover the clock before the adjustment.

#### (15) Lock

- ① There is no lock by default. Pressing this key, the lock function switches between opening and closing.
- 2 When it is locked, the remote controller does not work except the lock key.

#### (16) Combinatorial key: "FAN -" + "FAN +"

① Extension code remote controller has the effect. Switch 3 gear wind and 6 gear wind. There is 6 gear wind on the LCD. If the 3 gear wind is switched, the first and second gear wind will be "low wind"; the third and fourth gear wind will be "middle wind"; the fifth and sixth gear wind will be "high wind".

#### (17) Combinatorial key: "Mode" + "Lock"

- ① Enter address setting
  - 1) On the shutdown interface, press the combinatorial key on the remote controller for 5 seconds to enter the address setting interface.
  - 2) The last address (when the first power on, 00 is displayed) and the "#" icon are displayed and flickering.
- ② The step instructions of setting address
  - 1) At the address setting interface, press the temperature addition or reduction to adjust the setting address, and it ranges from 00 to 63.
  - 2) When the first time entering the interface or pressing the temperature addition or reduction key, the address display flickers for 3 seconds and then does not flicker.
  - 3) Press the ON / OFF key to enter the sending state and send the address setting code.
- ③ The step instructions of inquiring address
  - 1) At the address setting interface, press the mode key to send the query code.
  - 2) At this time, the "#" icon flickers. 3 seconds later, it normally displays the last setting addresses and the "#" icon does not flicker.
- ④ Exit setting
  - 1) Pressing the mode key and lock key at the same time can exit the address setting interface.
  - 2) If there is no key pressing associated with address setting for more than 30 minutes, the remote controller will exit the address setting interface.

#### 3-2-3 Battery replacement

- 1) If the air conditioner is unable to receive the signal from the wire controller, or the LCD of wire controller is blurred, it means that the battery is depleted and needs to be replaced.
- 2)Take off the back cover and remove the old batteries. When replacing batteries, please pay attention to the "+" and "-" marking on the battery.
- 3)Install the back cover and set the current time.

### Attention

- Never use new and old batteries together.
- The remote controller should have its batteries taken out when idle for long.
- In general conditions, the dry batteries meeting the JIS or IES standard can have the service life of 6-12 months, but if beyond the service time or not meeting the above specifications, the dry batteries may be subject to leakage and may even disable the remote controller operations.
- The "recommended service life" is marked on batteries, but the actual service time may be shorter.

#### 3-2 Use of remote controller



3-2-1 The icon meaning of remote controller



1) The remote controller is equipped with 11 buttons, and the LCD is newly made.

2) At the first power on, the LCD of the remote controller displays all the icons first and then enters the standby state, displaying only the mode icon.

- 3) Introduction of LCD screen icon:
- Mode display: automatic  $\Delta$  、cooling 🗱 、dehumidification 🏠 、fan 🛠 and heating 🌣 .
- Temperature display: **BBB** displays temperature, which range between 16 ~ 32°C or
- 61~90°F.
- Swinging display: 🕏 means external pendulum wind. 🚛 means internal pendulum wind.
- Timer display: 💬 means TIME ON. 🙂 off means TIME OFF.

• Other display: 🌜 means sleep. 🍄 means TURBO. 📓 means ECO. 🞯 means electric heating. 🔒 means lock. 淡 means lamplight.

#### 3-2-2 Button function of remote controller

#### (1) ON/OFF

- ① When pressing this key, the remote controller switches by "on, off, on" circularly.
- ② When the first power on, the working state is set by default: setting temperature 25°C (77°F), automatic mode, automatic fan speed, internal and external pendulum wind, no TURBO, no sleep, no timer, no lock).
- ③ When the power on is not the first time, the state before shutdown is recovered. After shutdown, the sleep, TURBO, ECON and timer functions will be canceled.

#### (2) Mode

- ① When pressing this key, the remote controller switches by "automatic, cooling, dehumidification, fan, heating, automatic" circularly.
- ② In dehumidification mode, the setting temperature of the internal machine is 25 degree C. The remote controller does not display the setting temperature and is not adjustable. The internal pendulum wind stays unchanged according to the state before switching, but the external pendulum wind is forced to close.

#### (3) Temperature reduction -

- ① Temperature setting: when pressing this key, the setting temperature will be reduced by "32°C, 31°C, ....., 17°C, 16°C". (When pressing this key in dehumidification and fan mode, the temperature will not change.)
- ② Keep pressing will continuously change the temperature.

#### (4) Temperature addition +

- ① Temperature setting: when pressing this key, the setting temperature will be added by "16°C, 17°C, ....., 31°C, 32°C". (When pressing this key in dehumidification and fan mode, the temperature will not change.)
- ② Keep pressing will continuously change the temperature.

#### (5) Up and down swinging (External pendulum wind)

- ① Pressing this key in the dehumidification mode, the external pendulum wind is forced to close.
- ② Pressing this key in the other modes, the external pendulum switches by "swing, fixed wind, swing" circularly.

#### (6) Left and right swinging (Internal pendulum wind)

- ① Pressing this key in the dehumidification mode, the internal pendulum wind stays unchanged according to the state before switching.
- 2 Pressing this key in the other modes, the internal pendulum switches by "swing, stop, swing" circularly.

#### (7) FAN

- ① When the first power on, the remote controller is set to the automatic wind speed by default. In dehumidification mode, the wind speed is fixed to low wind and is not adjustable. By pressing the wind speed key, there is no response to the remote controller.
- ② Pressing this key in the other modes, the wind speed switches by "automatic wind speed, low speed, middle speed, high speed, automatic wind speed" circularly. Pendulum switches by "swing, stop, swing" circularly.

#### (8) Timer

- ① Under the shutdown state, press this key to set the opening time, range from 1 hour to 24 hour.
- ② Under the boot state, press this key to set the shutdown time, range from 1 hour to 24 hour.
- ③ The timing time is according to the cycle of "1h, 2h, ....., 23h, 24h, cancel, 1h".
- ④ Exit timing adjustment after 3 seconds without key pressing.

#### (9) TURBO

- ① Extension code remote controller has the effect. The remote controller is no TURBO by default, and the TURBO key will not work in automatic mode, dehumidification mode and fan mode.
- ② Pressing this key in the cooling or heating mode, the TURBO mode switches between opening and closing. When in the TURBO mode, it does not display the wind speed. Switching mode or entering sleep function will close TURBO mode.
- ③ If the air conditioner has TURBO mode, pressing this key, the remote controller still displays current windshield, and indoor unit runs with the highest wind.

#### (10) ECO

- ① The remote controller is no ECO by default, and the ECO key will not work in automatic mode, dehumidification mode and fan mode.
- ② Pressing this key in the cooling or heating mode, the ECO mode switches between opening and closing. When in the ECO mode, the setting temperature is set to 26°C (77°F) and other settings are unchanged. If closing ECO mode, the remote controller will recover to the setting before opening ECO mode. Switching mode will close ECO mode.

#### (11) Sleep

- ① Pressing this key in the modes except of the fan mode, the sleep function switches between opening and closing. Switching mode will cancle sleep function.
- ② When pressing this key, the wind speed is automatically switched to low wind. However, the wind speed can be adjusted according to the wind speed key (except of the dehumidification mode).

#### (12) Light

① When the first power on, there is no lamplight by default. Pressing Fan key 3S force to turn off or turn on the lamplight. Decide whether to have this function according to the actual model.

#### (13) Lock

- ① There is no lock by default. Pressing Sleep key 3S, the lock function switches between opening and closing.
- ② When it is locked, the remote controller does not work except the lock key.

#### (14) Electric heating (Reserved for special indoor units)

- ① Pressing Timer key 3S, the electric heating function switches between opening and closing.
- 2 It only works in heating mode, switch heating mode, the default on.

#### (15) Combinatorial key: "Mode" + "ECO"

- ① Enter address setting
  - 1) On the shutdown interface, press the combinatorial key on the remote controller for 5 seconds to enter the address setting interface.
  - 2) The last address (when the first power on, 00 is displayed) and the "#" icon are displayed and flickering.
- 2 The step instructions of setting address
  - 1) At the address setting interface, press the temperature addition or reduction to adjust the setting address, and it ranges from 00 to 63.
  - 2) When the first time entering the interface or pressing the temperature addition or reduction key, the address display flickers for 3 seconds and then does not flicker.
  - 3) Press the ON / OFF key to enter the sending state and send the address setting code.
- ③ The step instructions of inquiring address
  - 1) At the address setting interface, press the mode key to send the query code.
  - 2) At this time, the "#" icon flickers. 3 seconds later, it normally displays the last setting addresses and the "#" icon does not flicker.
- ④ Exit setting
  - 1) Pressing the mode key and lock key at the same time can exit the address setting interface.
  - 2) If there is no key pressing associated with address setting for more than 30 minutes, the remote controller will exit the address setting interface.

#### 3-2-3 Battery replacement

- 1) If the air conditioner is unable to receive the signal from the wire controller, or the LCD of wire controller is blurred, it means that the battery is depleted and needs to be replaced.
- 2) Take off the back cover and remove the old batteries. When replacing batteries, please pay attention to the "+" and "-" marking on the battery.
- 3) Install the back cover and set the current time.

### **Attention**

- Never use new and old batteries together.
- The remote controller should have its batteries taken out when idle for long.
- In general conditions, the dry batteries meeting the JIS or IES standard can have the service life of 6-12 months, but if beyond the service time or not meeting the above specifications, the dry batteries may be subject to leakage and may even disable the remote controller operations.
- The "recommended service life" is marked on batteries, but the actual service time may be shorter.

#### 3-3 Wired controller

This is three/five-core communication wired controller with WIFI controlled function.

The wired controller communicates with the system control mainboard through its mainboard, controls the operating state of the system through the keys, and displays the working state of the entire system through LCD.

The appearance of this wired controller is shown in the cover page image.



#### Functions of keys:

#### 3-3-1 " (<sup>|</sup>)" ON/OFF key

(1) Control the ON/OFF state of the system.

(2) When the wired controller enters the function setting, parameter setting or engineering parameter setting, press the "ON/OFF" key to exit the setting and return to the main display interface.

#### 3-3-2 "M" Mode key

Automatic mode  $\rightarrow$  Cooling  $\rightarrow$  Dehumidification  $\rightarrow$  Heating  $\rightarrow$  Fan  $\rightarrow$  Automatic mode, Cycle switching

3-3-2-1 Dehumidification mode: The temperature of the wired controller can be set, and the fan speed cannot be set.

3-3-2-2 Fan mode: mandatory display of T1 temperature;

3-3-2-3 Forced cooling mode: set the 6th item in the engineering parameter setting. In forced mode, press the shutdown or mode key to switch to other modes.

#### 3-3-3 " 🖧 🖧 " Fan + and Fan - key

Adjust the indoor fan speed. Each time you press the fan speed key, the fan speed will change as below:

Level 6  $\leftarrow$  Level 4  $\leftarrow$  Level 2  $\leftarrow$  Automatic fan (3 Windshield indoor unit)

Level 4  $\leftarrow$  Level 3  $\leftarrow$  Level 2  $\leftarrow$  Level 1 $\leftarrow$  Automatic fan (4 Windshield indoor unit)

Level 6  $\leftarrow$  Level 5  $\leftarrow$  Level 4  $\leftarrow$  Level 3  $\leftarrow$  Level 2  $\leftarrow$  Level 1  $\leftarrow$  Automatic fan (6 Windshield indoor unit)

#### 3-3-4 " 🕼 + " Temperature + key

Each time the "TEMP+" key is pressed, Five-core communication set temperature increased by 1°C, Three-core communication set temperature increased by 0.5°C. When the set temperature is increased to 32 °C, the temperature will remain at 32°C while pressing this key (the maximum temperature limit).

Note: If the Fahrenheit temperature display is selected: each time the "TEMP+" key is pressed, the set temperature will be increased by 1°FH. When the set temperature is increased to the set maximum temperature, it will be no longer increased.

#### 3-3-5 " ()- " Temperature - key

Each time the "TEMP-" key is pressed, Five-core communication set temperature reduced by 1°C, Three-core communication set temperature reduced by 0.5°C, and when the set temperature is reduced to 16°C, Press this key to keep the temperature at 16°C (or set the minimum temperature).

Note: If the Fahrenheit temperature display is selected: Each time the "TEMP-" key is pressed, the set temperature will be decreased by 1°FH, and when the set temperature is decreased to the set minimum temperature, it will be no longer decreased.

#### 3-3-6 " CO " Energy key

3-3-6-1 Short press this key to enter the energysaving state, the temperature is set to 26°C, and the fan speed is the level-2 wind. Press the Energy key for the second time to restore the original setting.

3-3-6-2 Press and hold the Energy key to enter the query status. The digits "double 8" will appear at the lower right corner of the LCD showing the inspection number, and the query data information will appear in the middle of the LCD. Press the "TEMP+" and "TEMP-" key to switch the query data.

3-3-6-3 To exit the query state, press and hold the Energy key, or press the ON/OFF key, or wait for 10 seconds without operation.

#### Five core communication:

**VRF indoor unit:** Parameter Description  $\rightarrow$  Indoor unit's capacity demand  $\rightarrow$  T1 temperature value  $\rightarrow$  T2 temperature value  $\rightarrow$  T2B temperature value  $\rightarrow$  Average of T2 temperature value  $\rightarrow$  Opening of EXV  $\rightarrow$  Indoor unit's address  $\rightarrow$  Parameter Description, then rapeat the cycle.

#### Three core communication:

Checked table for VRF indoor unit

Inspection No.	Parameter Description	Inspection No.	Parameter Description
1	Indoor unit's address	7	Average of T2 temperature value
2	Indoor unit's capacity	8	Opening of EXV
3	Indoor unit's capapcity demand	9	Last failure (no fault E-)
4	T1 temperature value	10	The second last failure (no fault P-)
5	T2 temperature value	11	Humidity
6	T2B temperature value	12~15	Reserved

#### 3-3-7 Wifi connection key (Only applicable with WiFi wired controller)

Press "TEAM+" and "ON/OFF" together and keep 2s, it can clear current WiFi information and re-configure user's WiFi account and password.

Relationship between WiFi Icon flashing and WiFi state

WIFI Icon	WIFI sate	
Slow flash 3s	Press wifi connection button one time	3 times flashing within 3s, then off 3s
Fast flash	In wifi configuration state	2 times flashing with 1s
Double flash	In LAN state (Reserved)	2 times fast flashing within 1s then off 0.5s
Slow flash	Failed connect to wifi	1 time flashing within 2s
ON	Failed connect to wifi, and failed connect to cloud server	
Fast flash one time every 5s when it is ON	Normal, connect to wifi and cloud server	

#### 3-3-8 "🚫" Function key

Under any operating states (except query), press the function key to enter the function setting interface.

3-3-8-1 Press "Function key "()", The up and down wind swing will flash. The "intermediate double 8 digital tube" displays the current state: 0-off, 1-open. Press the "TEMP+" "TEMP-" key to switch on and off;

PS: Press the "Fan+" "Fan-" key to adjust the angle gear (lever1-5), adjust the swing wind angle, the up and down wind swing off(Reserved).

3-3-8-2 Press "Function Key" to enter the next setting, "" The left and right wind swing will flash, the "big double 8 digital tube" shows the current state: 0-off, 1-open; Press the "TEMP+" "TEMP-" key to switch on and off.

PS: Press the "Fan+" "Fan-" key to adjust the angle gear (lever1-5), adjust the swing wind angle, the left and right wind swing off (Reserved).

3-3-8-3 Press "Function Key" to enter the next setting, it will directly enter the "Timing On" setting and the "G" icon will flash. The "Left digital tube" indicates the current status, "---" indicates no timing on, "\*\*h" indicat es turn on after setting for a few hours. Press "TEMP+" "TEMP-" key to adjust the set time for timing on.

3-3-8-4 Press "Function Key" to enter the next setting, it will directly enter the "Timing Off" setting and the "@" icon will flash. The "Left digital tube" indicates the current status, "---" indicates no timing off, "\*\*h" indicates shut-down after setting for a few hours. Press "TEMP+" "TEMP-" key to adjust the set time for timing off.

3-3-8-5 Press "Function Key" to enter the next setting, it will directly enter the "Sleep" setting and the "C" icon will flash. The "Big double 8 digital tube" indicates the current status, 0-off, 1-open, and press "TEMP+" "TEMP-" keyto adjust the on and off.

3-3-8-6 Press "Function Key" to enter the next setting and directly go to the electric auxiliary heat setting " will flash. The "Big double 8 digital tube" indicates the current state, 0-manual off; 1-manually on; 2-automatic switch, and press "TEMP+" "TEMP-" key to adjust the setting parameters.

3-3-8-7 Press "Function Key" to enter the next setting, if screen cleaning reminder icon "■" appears, the "Big double 8 digital tube" indicates the current status 1, press the "TEMP+" "TEMP-" key to switch the cancellation and no cancellation; if the "■" does not appear, it indicates that the timing cleaning reminder time has not arrived, otherwise jump to the next setting.

3-3-8-8 Press "Function Key" to enter the next setting and jump directly to the key lock ". and the icon ". wil I flash. The "Big double 8 digital tube" displays the current status, 0-off, 1-open; press "TEMP+" "TEMP-" key to switch On and Off. (It will only take effect when you exit the general function setting interface)

3-3-8-9 Press "Function key" to enter the next setting and jump directly to "WiFi Link Setting" to display the current status, The "Big double 8 digital tube" indicates the current state, 0-Smartconfig configuration status; 1-AP configuration status; 2-WIFI is configured but not connected to the router; 3-WIFI is configured and connected to the router; 4-Connected to the router and connected to the cloud; 5-WiFi device is in low power mode;

PS: Without WiFi controller or When WiFi is abnormal show "--".

3-3-8-10 Press "Function Key" to enter the next setting and directly go to the reserved items.

3-3-8-11 Press "Function Key" to enter the next setting and directly go to the Double-effect health model "⊕" will flash. The "Big double 8 digital tube" indicates the current state, 0-off, 1-open, and press "TEMP+" "TEMP-" key to adjust the setting parameters.

3-3-8-12 Press "Function Key" to enter the next setting and directly go to the Ultraviolet sterilization mode " will flash. The "Big double 8 digital tube" indicates the current state, 0-off, 1-open, and press "TEMP+" "TEMP-" key to adjust the setting parameters.

3-3-8-13 Press "Function Key" to enter the next setting and directly go to the reserved items.

3-3-8-14 In this case, the line controller is the entry for the function setting. Press and hold the "Query" key on the 3-3-8-1 interface to enter the user parameter setting interface.

In the user parameters interface, the right digital tube displays the serial number of the setting item, and the middle digital tube displays the numerical value, as shown in the table below. In the user parameter interface: press the "Fan +", "Fan -" key or function key to select the serial number of the setting item; press "TEMP+" "TEMP-" key to adjust the parameter value.

Serial number	Parameter	Parameter Description	Remarks
1	Fahrenheit/ Celsius setting	Default °C; °C->°F->°C	Displayed at set temperature
2	Set the maximum temperature	Default 32°C, with range of 24-45°C Default 88°F, with range of 76°F-88°F	Display set value
3	Set the minimum temperature	Default 16°C, with range of 5-24°C Default 61°F, with range of 61°F-76°F	Display set value
4	Temperature display in the main interface	Display set temperature by default (display indoor temperature)	Display 0/1
5	select prompt tone of press key	0: voiced(Default) 1: silent	Display 0/1
6	Cleaning reminder time setting	2000h/3000h/3500h/4000h /5000h/6000h (Default 4000h)	Display 20/30/35/40/50/60
7	Remote master /slave settings	Default 0-host; 1- slave(optional)	(This option can only be set when two line controllers are connected, otherwise normal communication will not be realized)
8	Multiple online address settings	0~99	Display set value
9	Constant air flow setting	0: OFF(Default) 1: ON	Only valid for constant air flow ducted units

Note 1: When the slave line controller is set, the engineering parameter settings and queries cannot be used.

Note 2: Multiple online address settings: Press "TEMP+" "TEMP-" key to change, then press "ON/OFF" key to save and exit.

3-3-8-15 When it is in the user parameter setting interface and in the first item setting (engineering parameter setting entry), press and hold the "Query" key to enter the project parameter setting interface. (This operation can only be performed after the machine is powered on and no operation is performed for 20 seconds)(VRF indoor unit and Five core communication does not have this function)

3-3-8-16 In the engineering settings interface, the left digital tube indicates the serial number of the setting item, and the middle digital tube indicates the numerical value, as shown in the table below. In the user parameter interface: press the "Fan+", "Fan-" key or function key to select the serial number of the setting item; press "TEMP+" "TEMP-" key to adjust the parameter value.

Serial number	Parameter	Parameter Description	
1	T1 sensor selection	0-main control board T1; 1-wire controller T1	
2	Static pressure selection (Reserved)	0: low static pressure; 1, 2, 3 high static pressure	Currently only two options are available
3	Heating temperature Compensation(Reserved)	0~8°C (default 6°C)	
4	Reserved	0: (reserved); 1: (reserved)	
5	Motherboard power-down memory function(Reserved)	0: no power-down memory; 1: power-down memory(default)	
6	Forced cooling setting	0: (no setting); 1: (forced cooling)	
7	Cooling 1 speed setting(Reserved)		
8	Cooling 2 speed setting(Reserved)		
9	Cooling 3 speed setting(Reserved)		
10	Cooling 4 speed setting(Reserved)		
11	Cooling 5 speed setting(Reserved)		
12	Cooling 6 speed setting(Reserved)	Real speed Rad/Min/10	
13	Heating 1 speed setting(Reserved)		
14	Heating 2 speed setting(Reserved)		
15	Heating 3 speed setting(Reserved)		
16	Heating 4 speed setting(Reserved)		
17	Heating 5 speed setting(Reserved)	]	
18	Heating 6 speed setting(Reserved)		

**Note:** As the static pressure is divided into low static pressure and high static pressure, corresponding to different speeds, when setting as low static pressure, then items 7-18 are set as the low static pressure speed values; when setting as high static pressure, the items are set as the high static pressure values.

#### **Description of DIP Switch:**

	ON	OFF
1	With power-off memory	Without power-off memory
2	Reserved	Reserved

#### 3-4 Air direction adjustment

According to the characteristics of cold air sinking and hot air rising, please adjust the air-out direction of the air guide in time of cooling and heating to improve the cooling and heating effects.

### Attention

- In the horizontal air-out state, the heating operation will lead to larger temperature difference in the room.
- In case of the cooling operation, the air guide should have its horizontal air-out state selected.
- In the horizontal air-out state, the cooling operation will lead to condensation on the surfaces of the air-outlet and air guide.

#### 3-4-1 Four-way cassette type

① In the cooling operation, the air guide should be kept at horizontal air-out operation.

② In the heating operation, the air guide should be kept at downward air-out operation.





③ When using the panel equipped with automatic swing air guide, press the "Swing" button, and the outlet air guide will automatically swing to get better cooling and heating effect.

#### 3-4-2 Ducted type

When the air-outlet parts (optional) are used, please adjust as follows.

① In the cooling operation (Figure a)

To have the whole room better cooled, please adjust the air guide to the horizontal air-out operation.

②In the heating operation (Figure b)

To have the whole room better heated, please adjust the air guide to the downward air-out operation.

#### 3-4-3 Wall-mounted type

Up-down air adjustment:

① In the automatic swing state

Press the "Swing" button, and the horizontal air guide will swing up and down to expand air supply.





Figure a



Figure b

② When automatic swing is not available.

If the horizontal air guide is fixed in operation, please adjust the air-out direction of the air guide in time of cooling and heating to improve the cooling and heating effects.

#### 3 In the cooling operation

To have the whole room better cooled, please adjust the air guide to the horizontal air-out state.



④ In the heating operation

To have the whole room better heated, please adjust the air guide to the downward air-out state.



### Attention

- In time of cooling operation under the horizontal air-out state, the shell and the horizontal air guide surface sometimes may have water dripping.
- In time of heating operation under the horizontal air-out state, there may be larger indoor temperature difference.
- Never drive the horizontal air guide directly by hand to avoid failures, and the horizontal air guide shall have its direction switched by the "Swing" switch on the remote controller.

#### 3-4-4 Floor-ceiling type

Air direction adjustment:

1 In time of auto swing

Press the "Swing" button, displays the state of outward swing wind, the static indicates the fixed swing wind, the static indicates the natural swing wind, and the dynamic indicates the automatic swing wind.



② When automatic swing wind is not available

If the horizontal air guide is fixed in operation, please adjust the air-out direction of the air guide in time of cooling and heating to improve the cooling and heating effects.

3 In the cooling operation

To have the whole room better cooled, please adjust the air guide to the horizontal air-out state.



④ In the heating operation

To have the whole room better heated, please adjust the air guide to the downward air-out state.



#### 3-5 Optimal operation

Pay attention to the following items to ensure the optimal operation of the system with the specific operation methods referring to the corresponding contents.

1) Adjust the airflow direction appropriately to avoid directly blowing the persons in the room. In time of cooling operation, please adjust the air guide to the horizontal air-out state in order to have the whole room better cooled; and in the heating operation, please adjust the air guide to the downward air-out state in order to have the room floor better heated.

2) Set the temperature appropriately to obtain a comfortable environment and avoid excessive heat or cold.

3) In the cooling operation, the curtains or blinds should be used to prevent direct sunlight indoors.

4) Please close the doors and windows to avoid the indoor-outdoor air convection and obtain a better refrigerating or heating effect.

5) Please well set the predetermined running time via the "Timer" button on the remote controller.

6) Never put any object near the air inlet or outlet. Otherwise, it will reduce the efficiency of the air conditioner and even have the system stop running.

7) If the air filter screen is blocked, the cooling or heating effect will be worsened, so it needs washing once every two weeks.

8) For rational use of the air conditioner, it should be operating in the conditions as designated (See the outdoor unit use instructions for details).





### Attention

- The air conditioner installation shall comply with the local regulations of Room Air Conditioner Installation.
- While the air conditioner is remounted at a new place or moved to another place, it should be mounted properly by professional installation technical personnel according to the provided Installation Instructions and never by the user himself.
- Inappropriate installation of the air conditioner may result in electric shocks or fires.

### 4. Installation

#### 4-1 User instructions

1) The user should provide the qualified power supply (with the voltage within 90%-110% of the rated value) consistent with the nameplate label of this air conditioner.

2) The power supply line should be equipped with such protection devices as leakage protector or air switch with the capacity 15 times greater than the maximum current value of the air conditioner.

3) Do use the special lines and the effective grounded socket matching the included plug of the air conditioner. Such plug has been well grounded, so never change at will.

4) Please use the fuse or circuit breaker specified in the Installation Instructions.

5) Wiring work must be completed by qualified electricians and shall comply with the safety requirements.

6) The air conditioner should be well grounded, namely, the air conditioner main switch should have reliable grounding.

7) If necessary, the power line replacement should be completed by professionals from our local customer service center or authorized service center.

8) The indoor units except floor and ceiling type shall be installed at the height of 2.5m above.

#### 4-2 Mounting position

#### 4-2-1 The air-conditioner shall not be mounted at the following places.

1) Never mount the air-conditioner only 1 meter away from the television, stereo record player or radio, or the noise from the air conditioner will have impact on the operation of such electrical equipment.

2) Never mount the air conditioner near the high-frequency machines (commercial sewing machines or massage machines), or the air conditioner may fail.

3) Never mount the air conditioner at damp places greatly subject to heavy oil gas, vapor, soot or corrosive gas.

- 4) Never mount the air conditioner at the places rich in salt, for example, the seaside.
- 5) Never mount the air conditioner at the places where a large amount of engine oil is being used.
- 6) Never mount the air conditioner at the places rich in sulfur gas, for example, hot springs.

7) Never mount the air conditioner in a vessel or mobile crane.

#### 4-2-2 Refer to the Mounting Manual for specific requirements.

### Attention

- Mount the air conditioner firmly, or abnormal noise and vibration may appear.
- The outdoor units should be mounted where the running noise and exhausted air has no impact on neighbors.



# 5. Service and maintenance

#### 5-1 Confirmation before operation

- 1) Confirm whether the grounding line is broken or shedding.
- 2) Confirm whether the air dust filter is mounted.
- 3) Turn on the power switch 12 hours before running.

#### 5-2 Maintenance instructions

Before the repair and maintenance, the air conditioner must be shut down with the power plug disconnected. Note:

1) Never insolate the air filter in the sun or bake it beside the fire, or use hot water (40°C above) for cleaning in order to avoid deformation.

2) If the air filter is clogged by dust or other substances, the cooling / heating capacity may drop, while the running noise and power consumption may increase, so the air filter should be regularly cleaned every two weeks (as regulated).

#### 5-2-1 Cleaning instructions

- 1) Disconnect the air conditioner power before cleaning.
- 2) Use soft cloth to wipe off the dust on the air conditioner.
- 3) Never clean the air conditioner with the volatile oil, gasoline, diluent or putty powder.
- 4) Please use household neutral detergent to clean the fingerprints or oil dirts.
- 5) Never flush with water.

#### 1. Filter cleaning

Gently pat or use a vacuum cleaner for cleaning. If the filter is seriously contaminated, clean it with water containing a small amount of neutral detergent and remount it after cleaned and dried.

#### 2. Filter detachment

#### a. Wall-mounted air conditioner

Gently press the air return grille lower ends, and pull it sideway towards you until you can feel the resistance; after the grille is opened, push it downward, then press its lower ends, and it can be closed. Seize the grille switch and pull out towards A, then pull out the filter towards B, and the air filter can be detached. The blower fan coil air conditioners also can follow the same method to remove the air return outlets and filters for cleaning according to the specific situations.



#### b. Roof-mounted air conditioners

Gently press the air return grille lower ends, seize the grille switch and pull out towards A, then pull out the filter towards B, and the air filter can be detached for cleaning.

# 5. Service and maintenance

#### 5-2-2 Before use seasons

- 1) Check whether the indoor and outdoor units have their air outlets blocked.
- 2) Check whether the mounting base is subject to corrosion or rust.
- 3) Check whether the power lines and ground lines are in normal conditions.
- 4) Check whether the air filter is clean enough.
- 5) Connect the power supply.
- 6) Mount the battery in the remote controller.



#### 5-2-3 After use seasons

1) Please "disconnect" the air conditioner power and pull out the power plug.

After shutdown, the air conditioner will consume the power of about 5W. For safety and energy saving, please pull out the power plug during non-use seasons.

- 2) Please properly clean, maintain and mount the air filter and other parts.
- 3) Clean the indoor and outdoor units.

### Attention

For the electric aided heating air conditioner, the electric heating elements are fixed between the indoor unit fan and the heat exchanger with screws, with the minimum clearance of 12mm away from the combustible surface. Users shall never disassemble and repair such parts to avoid fires or other risks.

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