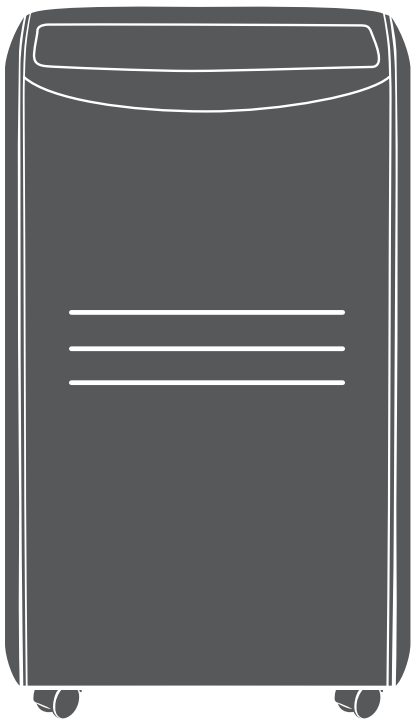
AIR CONDITIONING SYSTEMS
PORTABLE

• SERVICE MANUAL



MODELS:
COOL
FCOOL-8BS

ENGLISH

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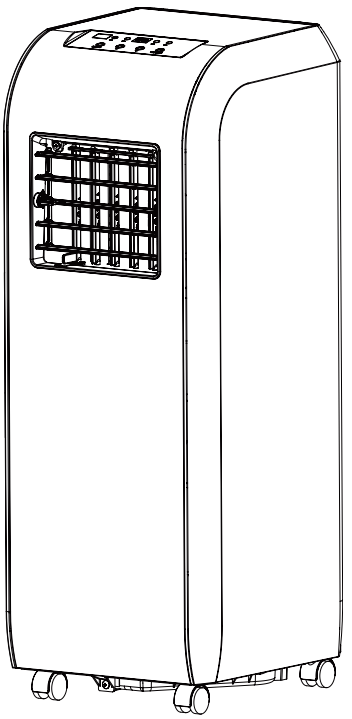
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Part Ⅰ : Technical Information

1. Summary

COOL
FCOOL-8BS



Remote Controller:

YX1F



2. Specifications

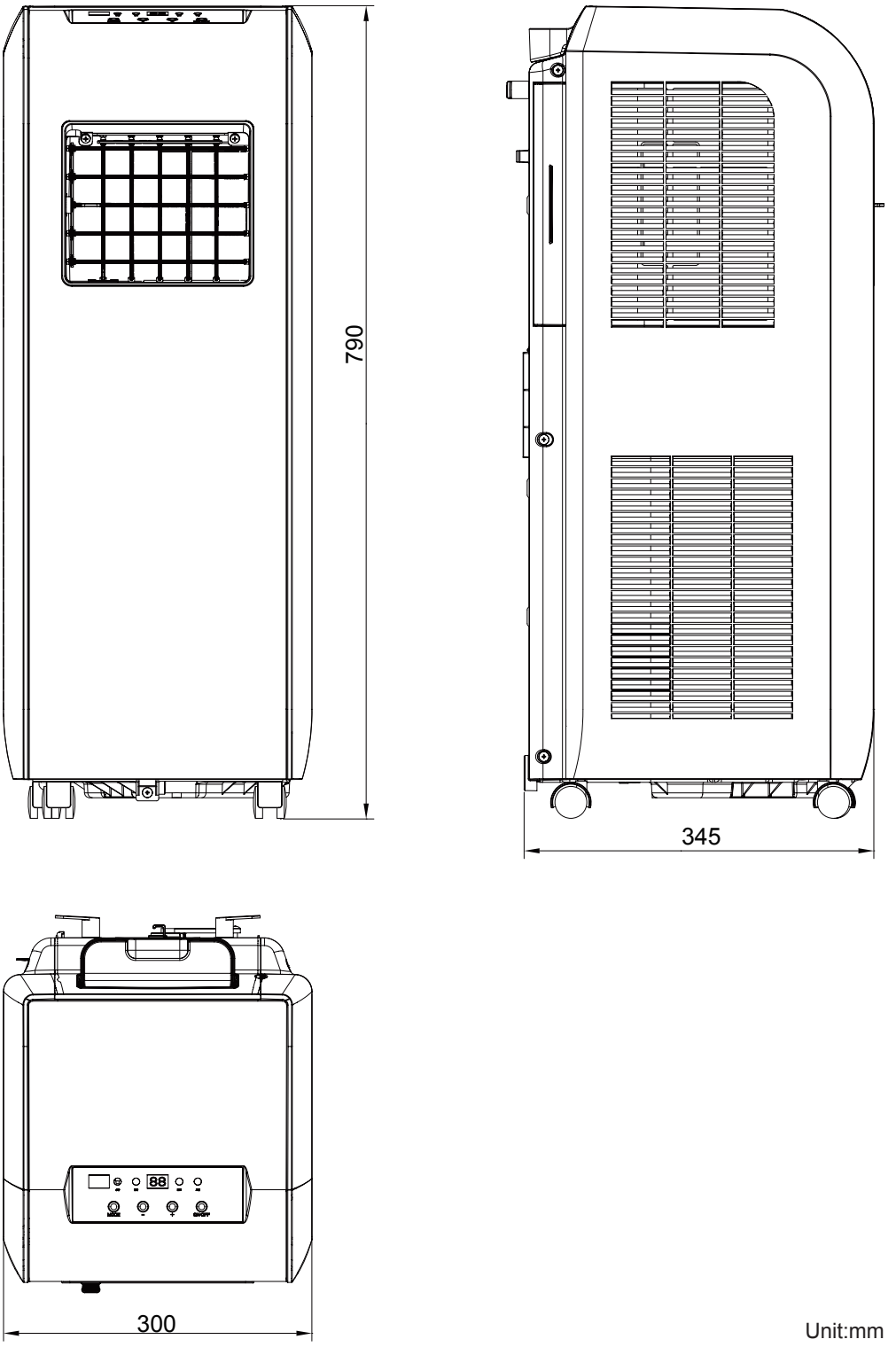
Parameter		Unit	Value
Model			GPC08AH-K3NNC3D
Power Supply	Rated Voltage	V ～	220-240
	Rated Frequency	Hz	50
	Phases		1
Cooling Capacity		Btu/h	8000
Heating Capacity		Btu/h	/
Cooling Power Input		W	900
Heating Power Input		W	/
Cooling Power Current		A	4.2
Heating Power Current		A	/
Rated Input		W	1130
Rated Current		A	4.6
Air Flow Volume(H/M/L)		m^3/h	330/300/250
Dehumidifying Volume		L/h	0.75
EER		Btu/w.h	8.89
COP		Btu/w.h	/
SEER			/
HSPF			/
Application Area		m^2	10-16
Climate Type			T1
Isolation			I
Moisture Protection			IPX0
Permissible Excessive Operating Pressure for the Discharge Side		MPa	3.8
Permissible Excessive Operating Pressure for the Suction Side		MPa	1.7
Throttling Method			Capillary
Defrosting Method			/
Fuse		A	3.15
Operation Temp		°C	16~30
Ambient Temp (Cooling)		°C	16~35
Ambient Temp (Heating)		°C	/
Sound Pressure Level (H/M/L)		dB (A)	54/52/50
Sound Power Level (H/M/L)		dB (A)	65/63/61
Dimension (WXHXD)		mm	300X790X345
Dimension of Carton Box (LXWXH)		mm	562X352X825
Dimension of Package (LXWXH)		mm	565X355X840
Net Weight		kg	24
Gross Weight		kg	28
Refrigerant			R410A
Refrigerant Charge		kg	0.46

Compressor	Compressor Manufacturer/ Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXA-A083A130
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	15
	Compressor RLA	A	3.5
	Compressor Power Input	W	740
	Overload Protector		UP3-A0
Evaporator	Fan Type		Centrifugal
	Diameter Length(DXL)	mm	Φ146X108.5
	Fan Motor Speed(H/M/L)	r/min	1250/1150/1050
	Output of Fan Motor	W	45
	Fan Motor RLA	A	0.41
	Fan Motor Capacitor	μF	3.5
	Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.3
	Coil Length (LXDXW)	mm	377.5X25.4X266.7
	Swing Motor Model		/
	Output of Swing Motor	W	/
Condenser	Fan Type		Centrifugal
	Fan Diameter	mm	Φ185X77
	Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	2-1.4
	Coil Length (LXDXW)	mm	343X25.4X266.7
	Fan Motor Speed	rpm	/
	Output of Fan Motor	W	/
	Fan Motor RLA	A	/
	Fan Motor Capacitor	μF	/

The above data is subject to change without notice. Please refer to the nameplate of the unit.

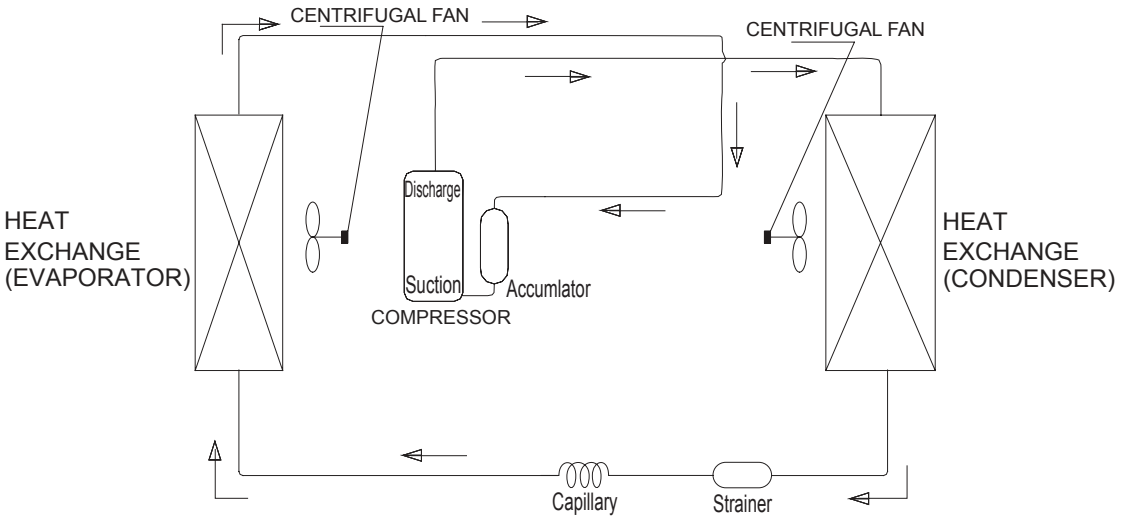
3. Outline Dimension Diagram

COOL/FCOOL-8BS



Unit:mm

4. Refrigerant System Diagram



5. Electrical Part

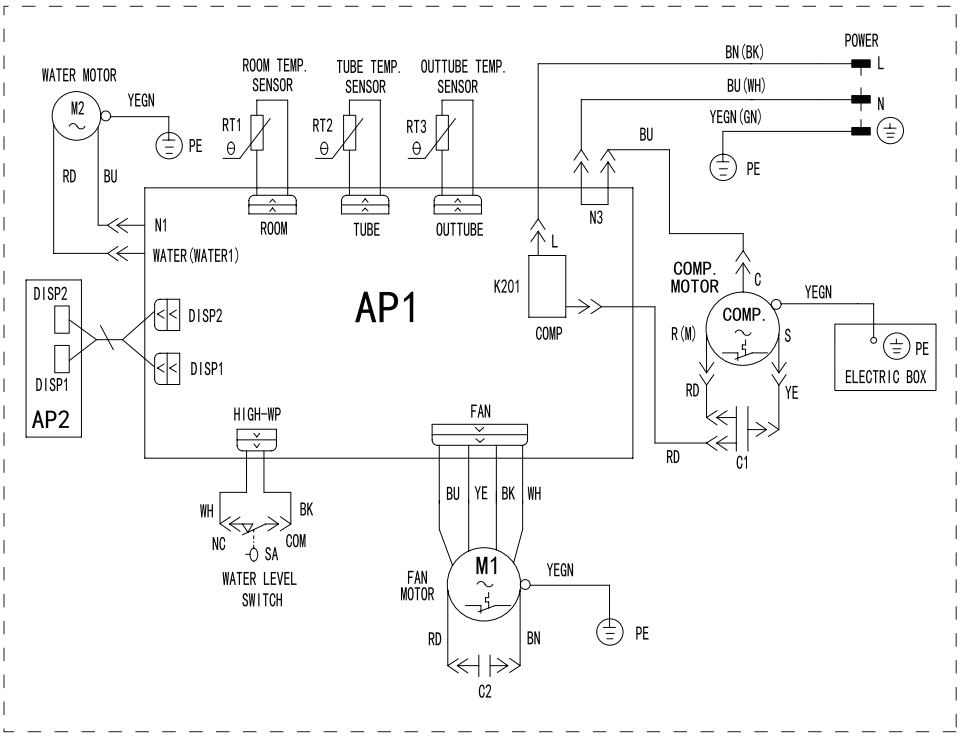
5.1 Wiring Diagram

●Instruction

Symbol	Symbol Color	Symbol	Symbol Color	Symbol	Name
WH	White	GN	Green	COMP	Compressor
YE	Yellow	BN	Brown	⏚	Grounding wire
RD	Red	BU	Blue	/	/
YEGN	Yellow/Green	BK	Black	/	/
VT	Violet	OG	Orange	/	/

●Electric Diagram

COOL/FCOOL-8BS



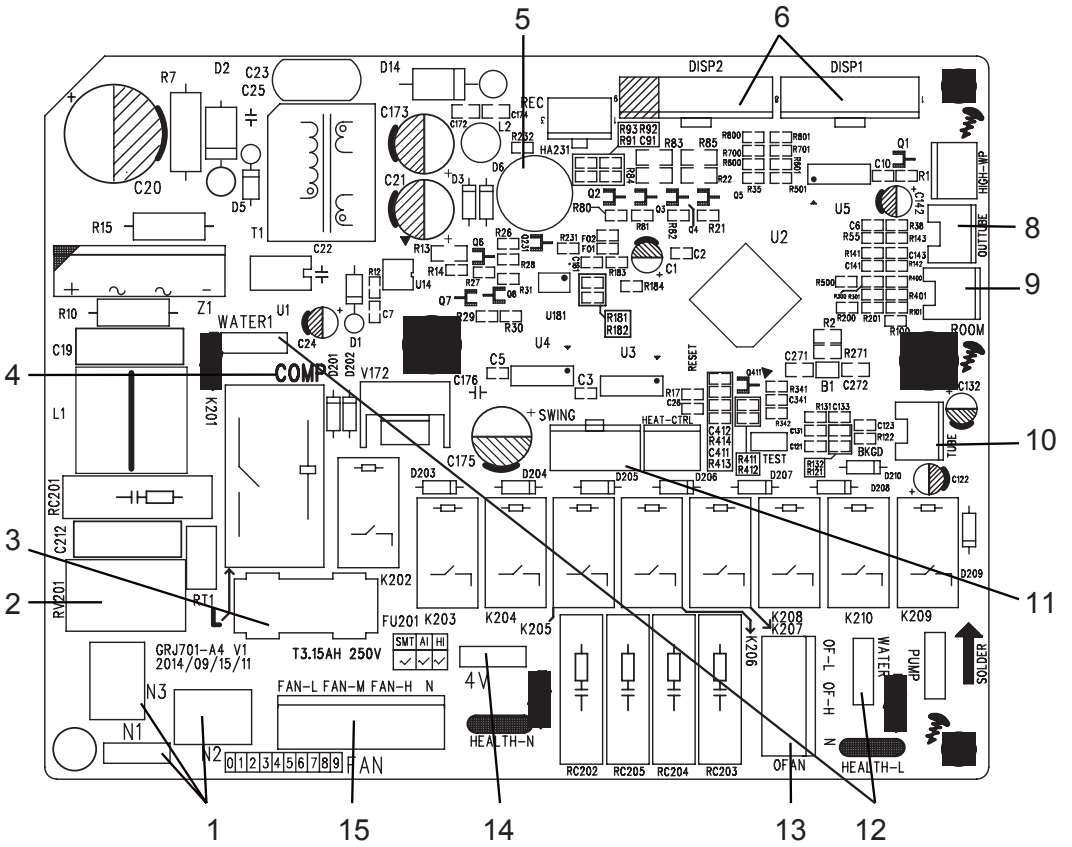
These wiring diagrams are subject to change without notice; please refer to the one supplied with the unit.

5.2 PCB Printed Diagram

(1)Silk screen on main board

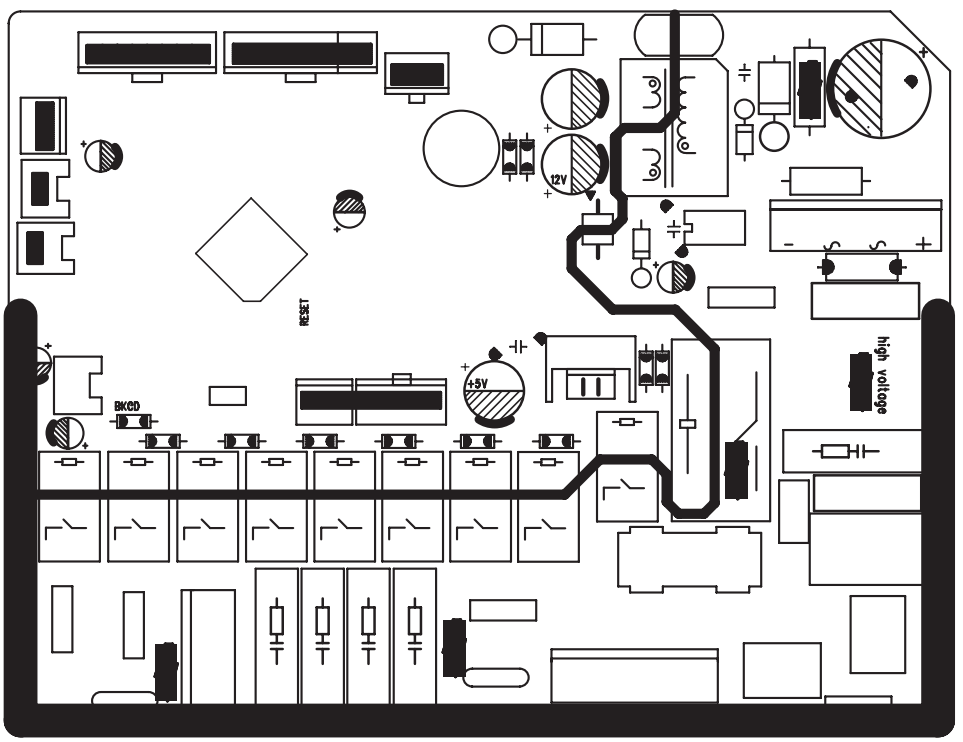
COOL/FCOOL-8BS

● **TOP VIEW**



NO.	NAME
1	Connect neutral wire
2	Piezoresistance
3	Fuse
4	Drive replay of compressor
5	Buzzer
6	Interface of display board
7	Interface of high-level detection switch
8	Terminal of outdoor tube temperature sensor
9	Terminal of ambient temperature sensor
10	Terminal of tube temperature sensor
11	Interface of swing motor
12	Interface of draw water motor
13	Interface of outdoor fan
14	Interface of 4-way valve
15	Interface of fan

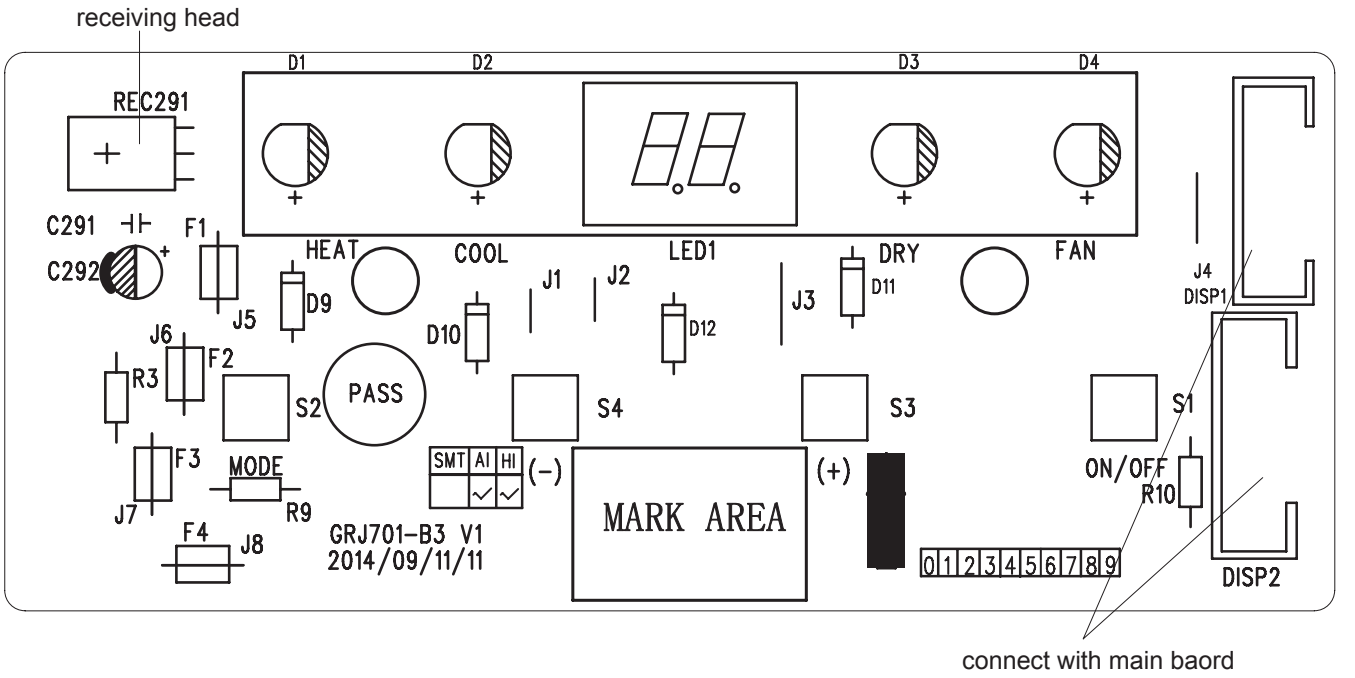
● **BOTTOM VIEW**



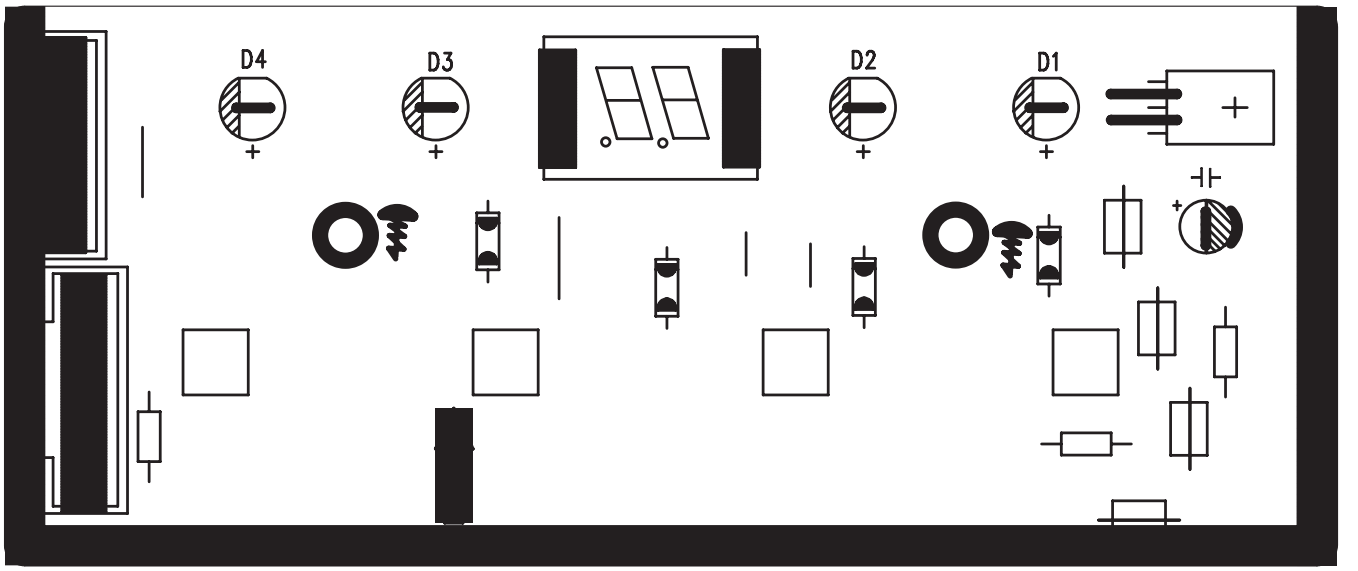
(2)Silk screen on display board

COOL/FCOOL-8BS

● **TOP VIEW**



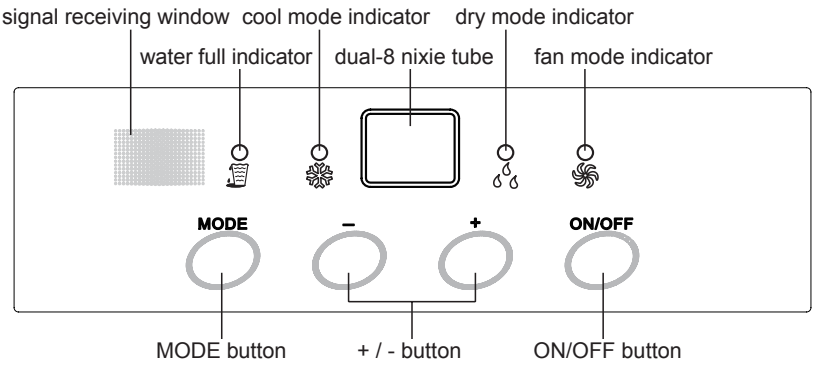
● **BOTTOM VIEW**



6. Function and Control

6.1 Introduction of control panel

COOL/FCOOL-8BS



Button function introduction ==

Note:

● After putting through the power, air conditioner will give out a sound. After that, you can operate the air condition by pressing buttons on control panel.

● Under ON status, after each pressing of button on control panel, air conditioner will give out a sound. Meanwhile, corresponding function indicator on control panel will ON.

● Under ON status, dual-8 nixie tube on control panel displays set temperature value during cooling operation, while it won't display under other modes.

● Under OFF status, dual-8 nixie tube on control panel won't display.

1. ON/OFF button

Press this button to turn on or turn off air conditioner.

2. MODE button

Press this button to select your required operation mode. Corresponding mode indicator is ON.

Cool → Dry → Fan

COOL: Under this mode, air conditioner operates under cooling mode. Press "Fan Speed" button to adjust fan speed. Cooling indicator is ON. Corresponding speed indicator is ON and dual-8 nixie tube displays set temperature. Temperature setting range is 16℃ ~30℃ .

DRY: Under this mode, air conditioner operates at low speed. Drying indicator and low speed indicator is ON. Fan speed can't be adjusted. Dual-8 nixie tube won't display.

FAN: Under this mode, air conditioner operates at set fan speed. Fan indicator and corresponding speed indicator is ON. Dual-8 nixie tube won't display.(Note: You must connect the heat-discharge pipe before operating cooling or drying mode. No need for only fan mode.)

3. "+", "-" button

Under cooling mode, press "-" or "+" button to decrease or increase set temperature 1℃ . Set temperature range is 16℃ ~30℃ .This button is invalid under auto, dry or fan mode.

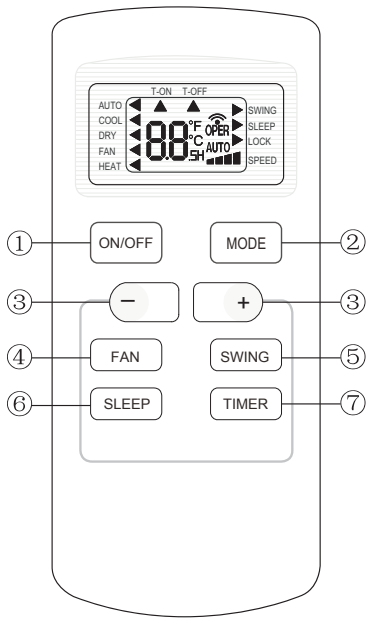
4. FAN SPEED button

Press this button to select your required fan speed. Corresponding speed indicator is ON. (This button invalid under drying mode)

low → medium → high → auto

6.2 Remote Controller Introduction

Buttons on Remote Controller



①: ON/OFF button

②: MODE button

③: +/- botton

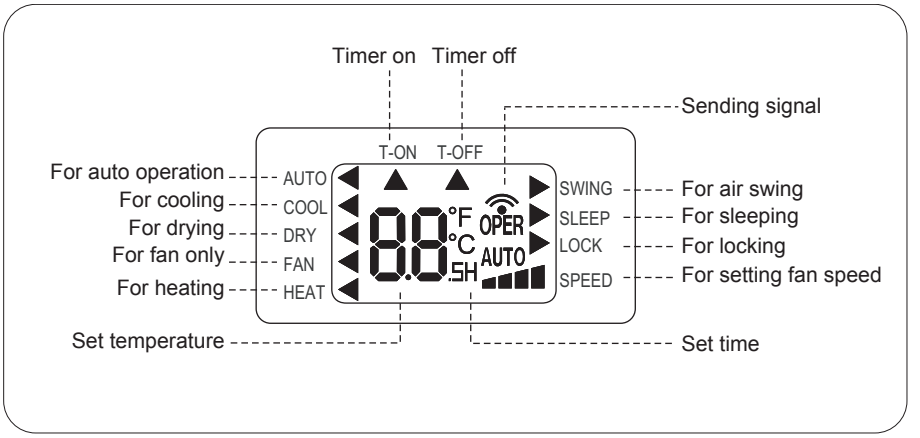
④: FAN button

⑤: SWING button

⑥: SLEEP button

⑦: TIMER button

Icon Display on Remote Controller



Operation introduction of remote controller

Note:

◆ When power is connected(stand by condition), you can operate the air conditioner through the remote controller.

◆ When unit is on, each time you press the button on remote controller, the sending signal icon on the display of remote controller will blink once. If the air conditioner gives out a beep sound, it means the signal has been sent.

◆ When unit is off, set temperature will be displayed on the remote controller(If the light of indoor unit display is turned on, the corresponding icon will be displayed); When unit is on, it will display the icon of the on-going function.

1. ON/OFF Button

Press this button to turn unit on/off.

2. MODE Button

Pressing this button once can select your required mode circularly as below(the corresponding icon ▶ will be lit up after the mode is selected):

AUTO ▶ COOL ▶ DRY ▶ FAN ▶ HEAT(Only for models with heating function.)

◆ When selecting auto mode, air conditioner will operate automatically according to ex-factory setting. Set temperature can't be adjusted and won't be displayed either. Press FAN button to adjust fan speed. (This function is not available in this air conditioner.)
◆ When selecting cool mode, air conditioner will operate under cool mode. Then press + or - button to adjust set temperature. Press FAN button to adjust fan speed.
◆ When selecting dry mode, air conditioner will operate at low fan speed under dry mode. In dry mode, fan speed can't be adjusted.
◆ When selecting fan mode, air conditioner will operate in fan mode only. Then press FAN button to adjust fan speed.
◆ When selecting heat mode, air conditioner will operate under heat mode. Then press + or - button to adjust set temperature. Pr ess FAN button to adjust fan speed.

3. +/- button

◆ Pressing + or - button once will increase or decrease set temperature by 1 °F(°C). Hold + or - button for 2s, set temperature on remote controller will change quickly. Release the button after your required set temperature is reached.
◆ When setting Timer On, Timer Off or Clock, press + or -- button to adjust the time (See TIMER Button for setting details).

4. FAN Button

Pressing this button can select fan speed circularly as: AUTO, SPEED 1(), SPEED 2(), SPEED 3(), SPEED 4() (unavailable in this air conditioner. Speed 4 is the same with speed 3).



SPEED 1 (equals to low fan speed)
SPEED 2 (equals to medium fan speed)
SPEED 3 (equals to high fan speed)
SPEED 4

Note:

◆ Under Auto mode, air conditioner will select proper fan speed automatically according to ex-factory setting.
◆ Fan speed can't be adjusted under Dry mode.

5. SWING Button

Press this button to turn on up&down air swing.

6. SLEEP Button

Under Cool, Heat, Dry mode, press this button to turn on Sleep function. Press this button to cancel Sleep function. Under Fan and Auto mode, this function is unavailable.

7. TIMER Button

◆ When unit is on, press this button to set Timer Off. T-OFF and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer Off. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-OFF and H icon will stop blinking.

◆ When unit is off, press this button to set Timer On. T-ON and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer On. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-ON and H icon will stop blinking.

◆ Cancel Timer On/Off: If Timer function is set up, press TIMER button once to review the remaining time. Within 5s, press TIMER button again to cancel this function.

Note:

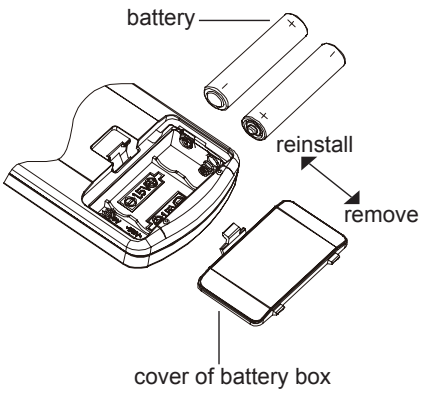
◆ Range of time setting is: 0.5~24h.
◆ The interval between two motions can't exceed 5s, otherwise the remote controller will exit setting status.

Simple operationfirst

1.After putting through power “ON/OFF” button on remote controller to turn on the air conditioner.
2.Press “ MODE ” button to select your required operation mode: AUTO, COOL, DRY, FAN.
3.Press “+” or “-” button to set your required temperature.(temperature can’t adjusted under AUTO mode)
4.Press “ FAN ” button to select your required fan speed: auto, first notch, second notch, third notch, fourth notch (fourthnotch is same as third notch for this air conditioner.)

Replacement of Batteries in Remote Controller

1. Press the back side of remote controller on the spot marked with , and then push out the cover of battery box along the arrow direction.
2. Replace two No.7 (AAA 1.5V) dry batteries and make sure the positions of + and -- polar are correct.
3. Reinstall the cover of battery box.



Note:

◆ During operation, point the signal sender of the remote controller at the receiving window of the indoor unit;
◆ The distance between signal sender and receiving window should be within 8m. There should be no obstacle between them.
◆ Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; Remote controller should be close to indoor unit during operation.
◆ Replace new batteries of the same model when replacement is required.
◆ If you don't use remote controller for a long time, please take out the batteries.
◆ If the display on remote controller is fuzzy or if there's no display, please replace batteries.

6.3 Introduction of Basic Mode Function

1. Temperature Parameter

◆ Indoor setting temperature (T_{preset})

◆ Indoor ambient temperature ($T_{amb.}$)

2. Basic Functions of System

After the unit is energized, the interval of start-up time for compressor is no less than 3min under any conditions; when the compressor is started, the unit is off without the temperature change in 6min.

2.1 Cool Mode

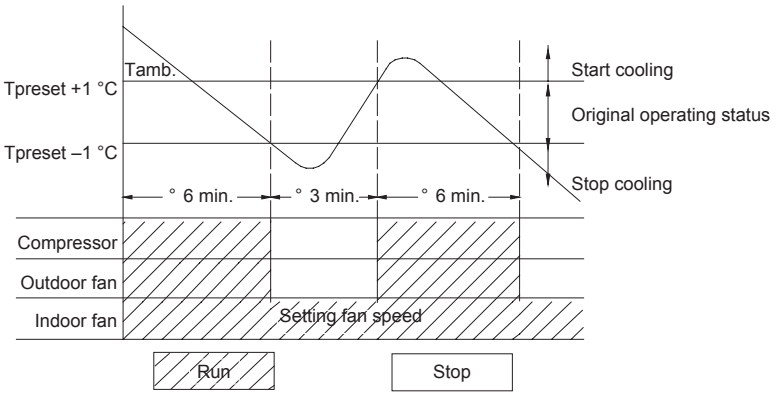
2.1.1 Working conditions and process of cooling

a) When $T_{abm.} \geq T_{preset}$ + 1°C (2°F), the unit will start to run in cooling mode, the compressor and kick motor start to run, and fan motor runs under preset fan speed.

b) When $T_{abm.} \leq T_{preset}$ - 1°C (2°F), the compressor and kick motor stop to run, and fan motor runs under preset fan speed.

c) When T_{preset} - 1°C (2°F)<$T_{amb.}$<T_{preset} + 1°C (2°F), the unit will keep the current running status.

Under this mode, the temperature setting range is 61°F-86°F (16°C -30°C).



2.2 DRY Mode

2.2.1 Working conditions and process of dry

Under this mode, the unit will not display setting temperature and ambient temperature; the fan motor runs under low fan speed; the compressor, fan motor and kick motor continue to run.

2.3 FAN Mode

Under this mode, the unit will not display setting temperature and ambient temperature; the fan motor runs under setting fan speed; the compressor, fan motor and kick motor stop to run.

Under this mode, the centigrade temperature setting range is 16°C -30°C , the fahrenheit temperature setting range is 61°F-86°F.

2.4 AUTO Mode

Under AUTO mode, the standard cooling T_{preset}=25°C (77°F), standard heating T_{preset}=20°C (68°F)

It will goes to auto cooling mode when $T_{amb.}$>26°C (79°F); and goes to auto fan mode when $T_{amb.}$<20°C (68°F); 20°C (68°F)≤$T_{amb.}$≤23°C (73°F), if the previous running is fan (including general fan and auto fan), it will keep the running status of auto fan mode, if the previous running is not fan, it will goes to auto dry mode; 26°C (79°F)≥$T_{amb.}$≥24°C (74°F), it goes to auto dry mode; when the unit is first energized, 2 °C (79°F)≥$T_{amb.}$≥20°C (68°F), it runs under dry mode.

3. Other Functions

3.1 Buzzer

When the controller is energized, receiving a signal from remote controller or button, the buzzer will give out a beep.

3.2 Sleep

a) Under cooling mode, after 1h of setting sleep process, Tpreset increases 2°F(1°C); 2h later, Tpreset increases 4°F(2°C). After 2h, the setting temperature never increases, but the upper limit of increased setting temperature is 86°F(30°C)

b) Under heating mode, after 1h of setting sleep process, Tpreset decreases 2°F(1°C); 2h later, Tpreset decreases 4°F(2°C). After 2h, the setting temperature never decreases, but the upper limit of decreased setting temperature is 61°F(16°C)

c) There is no sleep function under fan and dry mode.

d) When set sleep function, shift mode will cancel sleep function.

e) The setting temperature display is the same with remote controller; it is not influenced by the setting temperature increases/ decreases.

3.3 Auto Fan

a) Auto fan speed under Cooling mode;

Tamb≥Tpreset+4°F(2°C) High fan;

Tpreset<Tamb.< Tpreset+4°F(2°C) Med fan;

Tamb≤Tpreset Low fan

b) There is 3.5min delay for auto fan shift.

3.4 TIMER Function

● General timer

a) TIMER ON: It can set timer on when the system is off, the setting time range is 0.5h-24h, when the time of setting timer on reaches, and the system runs with the previous setting mode.

b) TIMER OFF: It can set timer on when the system is on, the setting time range is 0.5h-24h, when the time of setting timer off reaches, the system stop to work.

● Clock timer

a) TIMER ON: If set timer on when the system is running, it continues to run; if set timer on when the system is off, when the time of setting timer on reaches, and the system runs with the previous setting mode.

b) TIMER OFF: If set timer off when the system is off, the system keeps the stand-by status when setting timer off; if set timer off when the system is on, when the time of timer off reaches, the system stops to run.

3.5 Memory Function

The system memories the setting running status of previous power-off, and runs automatically with the setting running status before it power-off when it is energized again. If the unit is on before power-off, the compressor will 3min delay protection when it is energized again.

3.6 Indicator Lamp, dual-8 digital pipe

a) When the unit runs, under cooling mode, cooling indicator lamp lights, dual-8 displays preset temperature.

b) When the unit runs, under fan mode, fan indicator lamp lights, dual-8 does not display.

c) When the unit runs, under dry mode, dry indicator lamp lights, dual-8 does not display.

d) When the unit runs, under heating mode, heating indicator lamp lights, dual-8 displays preset temperature.

3.7 Setting button function

a) ON/OFF button: It controls system's switch.

b) Mode button: Mode setting cycle with below sequence: Cooling only unit: cooling-> dry-> fan.

c) Temp. ▼ button: Set temperature when the unit is on, the setting temperature decreases 1°C or °F per press Temp. ▼ button; it will never setting when the setting reaches to 16°C or 61°F. The button is not valid under auto, dry and fan mode.

d) Temp. ▲ button: Set temperature when the unit is on, the setting temperature increases 1°C or °F per press Temp. ▲ button; it will never setting when the setting reaches to 30°C or 86°F. The button is not valid under auto, dry and fan mode.

3.8 Light Control

If set the light is on with remote control, the indicator lamp and dual-8 display the current setting status; if set the light is off with remote control, turn off the lamp immediately. If there is front panel button or remote control button operation when setting light off with remote control, the indicator lamp and dual-8 display current setting status, and turn off the light 5S later. Remote control light button does not controlled by failure display.

3.9 Protection Function

● Anti-freeze Protection

When the anti-freeze protection is inspected, the compressor stops, fan motor runs with setting fan speed.

When the anti-freeze protection is canceled and reaches to the 3min time-delay, it runs with the original status.

Temperature sensor failure inspection

a) Environment temperature sensor is open, short circuit: dual-8 displays F1, the cooling indicator lamp goes out 3S and blinks 1 time, and it will light up 0.5S and go out 0.5S when it is blinking.

b) Indoor pipe temperature sensor is open, short circuit: dual-8 displays F2, the cooling indicator lamp goes out 3S and blinks 2 times, and it will light up 0.5S and go out 0.5S when it is blinking.

c) Outdoor pipe temperature sensor is open, short circuit: dual-8 displays F4, the cooling indicator lamp goes out 3S and blinks 4 times, and it will light up 0.5S and go out 0.5S when it is blinking.

d) The compressor or electric heating pipe stops when the temperature sensor failure and the unit is on, The fan motor will be deal regarding compressor or electric pipe reach to the temperature point and stops.

● Over current Protection

If the system current is inspected too large for 3min continuously, the fan motor runs with setting conditions, other load stops; 3min later, the unit runs with the previously status; if over current protection occurs for 6 times continuously, display error code "E5", the load stops this time; if block the button except ON/OFF button, it will remote control the unit to off then on, or turn off with button, or re-energized; the time of over current protection will zero clearing with remote control, press to turn on or re-energized.

● Over-flow Protection

If the over-flow is detected for 3S, it will enter into over-flow protection. Display error code H8, heating indicator lamp or over-flow indicator lamp goes out 3S and blinks 8 times.

Part Ⅱ : Installation and Maintenance

7. Notes for Installation and Maintenance

Safety Precautions: Important!

Please read the safety precautions carefully before installation and maintenance.
The following contents are very important for installation and maintenance.
Please follow the instructions below.
●The installation or maintenance must accord with the instructions.
●Comply with all national electrical codes and local electrical codes.
●Pay attention to the warnings and cautions in this manual.
●All installation and maintenance shall be performed by distributor or qualified person.
●All electric work must be performed by a licensed technician according to local regulations and the instructions given in this manual.
●Be caution during installation and maintenance. Prohibit incorrect operation to prevent electric shock, casualty and other accidents.

Warnings

Electrical Safety Precautions:

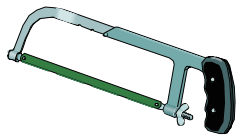
1. Cut off the power supply of air conditioner before checking and maintenance.
2. The air conditioner should be installed in suitable location and ensure the power plug is touchable.
3. Make sure each wiring terminal is connected firmly during installation and maintenance.
4. Have the unit adequately grounded. The grounding wire can't be used for other purposes.
5. Must apply protective accessories such as protective boards, cable-cross loop and wire clip.
6. The live wire, neutral wire and grounding wire of power supply must be corresponding to the live wire, neutral wire and grounding wire of the air conditioner.
7. The power cord and power connection wires can't be pressed by hard objects.
8. If power cord or connection wire is broken, it must be replaced by a qualified person.
9. For the air conditioner without plug, an air switch must be installed in the circuit. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.
10. Check if there is electric leakage on the unit body. If yes, please eliminate the electric leakage.
11. Replace the fuse with a new one of the same specification if it is burnt down; don't replace it with a cooper wire or conducting wire.
12. If the unit is to be installed in a humid place, the circuit breaker must be installed.

Refrigerant Safety Precautions:

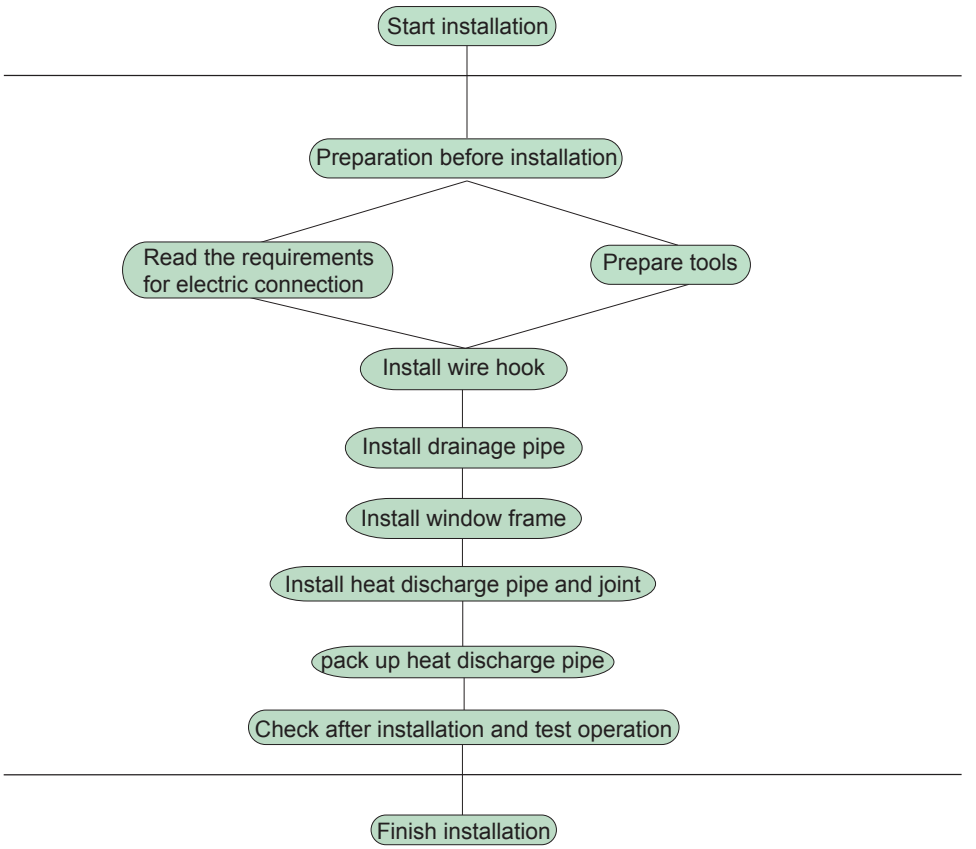
1. Avoid contact between refrigerant and fire as it generates poisonous gas. Recycle the refrigerant inside the unit completely before welding pipes.
2. Apply specified refrigerant only. Never have it mixed with any other refrigerant. Never have air remain in the refrigerant line as it may lead to rupture or other hazards.
3.If refrigerant is leaking seriously, it may cause suffocation or explosion. When using the combustible refrigerant, please put the unit at ventilated place.
4. Never touch the refrigerant piping or compressor without wearing glove to avoid scald or frostbite.

Improper installation may lead to fire hazard explosion, electric shock or injury.

Main Tools for Installation and Maintenance

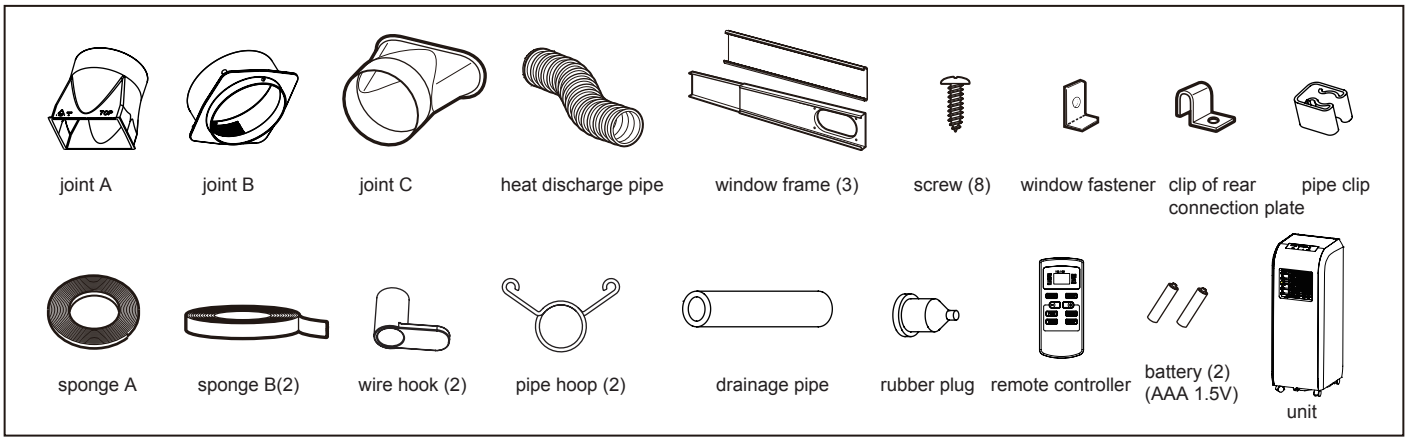
1. Level meter, measuring tape 	2.Screw driver 	3.Scissors, saw  
4.Electroprobe 	5. Universal meter 	6.Torque wrench, open-end wrench, inner hexagon spanner  
7. Electronic leakage detector 	8. Vacuum pump 	9. Pressure meter 
10. Pipe pliers, pipe cutter   	11. Pipe expander, pipe bender  	12. Soldering appliance, refrigerant container  

Installation procedures

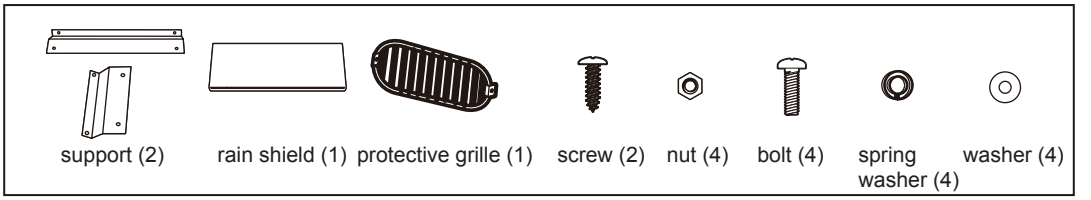


Note: this flow is only for reference; please find the more detailed installation steps in this section.

Accessory list



Optional accessories **(Note: some models are without the following accessories.)**

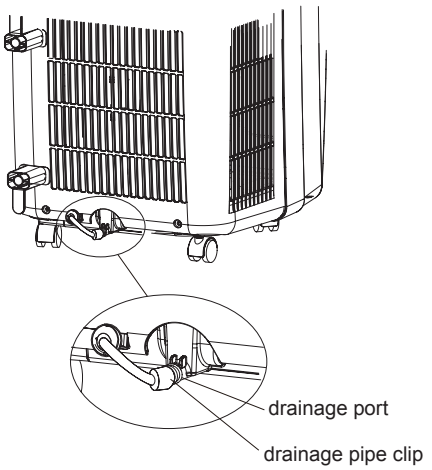


8. Install

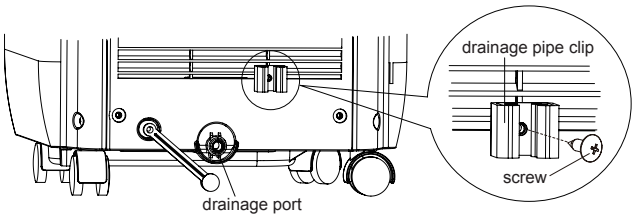
8.1 Install Drainage Pipe

Note: install drainage pipe before using, otherwise poor drainage will affect normal operation of the unit.

1. Remove the rubber plug at drainage port.(As shown in following fig

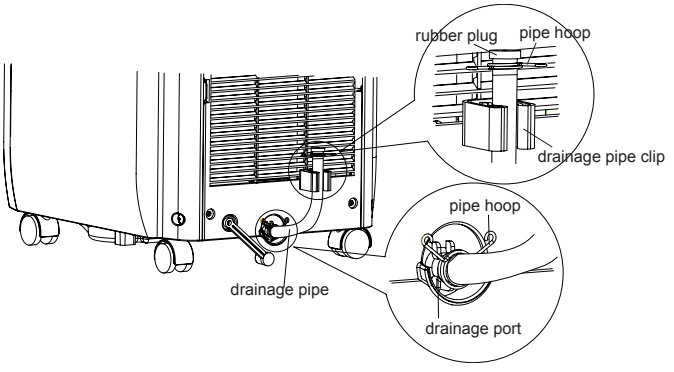


2. Fix the drainage pipe clip on the right of rear side plate near drainage port with a screw.(As shown in following fig



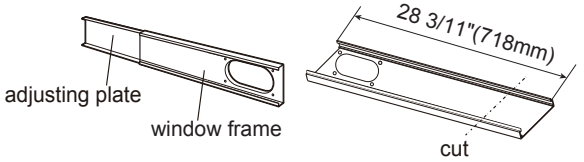
3. Put the drainage pipe into drainage port and screw it up, and then bind it with pipe hoop.(As shown in following fig

4. Put the rubber plug into the other side of drainage pipe, fi it with pipe hoop and then fix it in the drainage pipe clip.(As shown in following fig

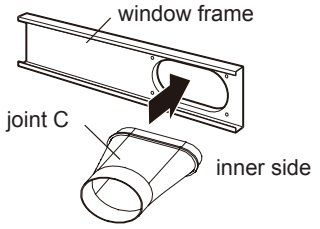


8.2 Install Window Frame

Note: If the inner width of window is below 28"(718mm), please remove the adjusting plate from window frame and then cut the window frame to make its width the same as the width of window.

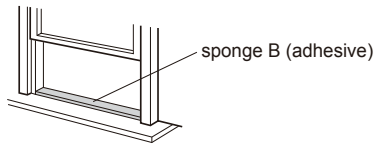


Clamp joint C into the inner side of window frame along the direction of arrow.



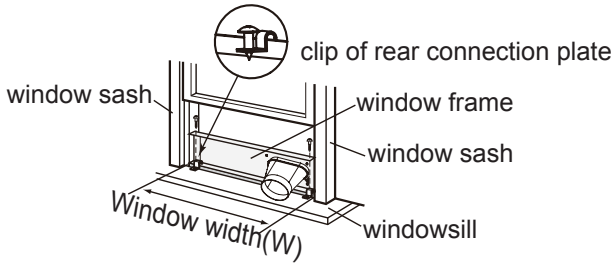
A. Installation in a double-hung sash window.

(1) Cut the sponge B to a proper length and attach it to the window sash.

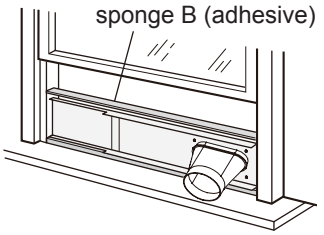


(2) Open the window; place the window frame on the window sash; slide the adjustment plate to make the window frame close to the window sashes at the left and right side of window; fix the window frame on the windowsill with screws and clips of rear connection plate. (Required quantity is shown in the sheet below)

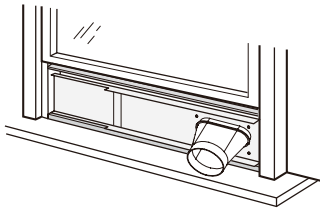
Window width (W)	Screw quantity	Clip quantity
W≤28 3/11"(718mm)	2	2
28 3/11"(718mm)<W≤36 1/2"(927mm)	3	3
36 1/2"(927mm)<W≤64″(1625mm)	4	4



(3) Cut the sponge B to a proper length and attach it to the window frame.

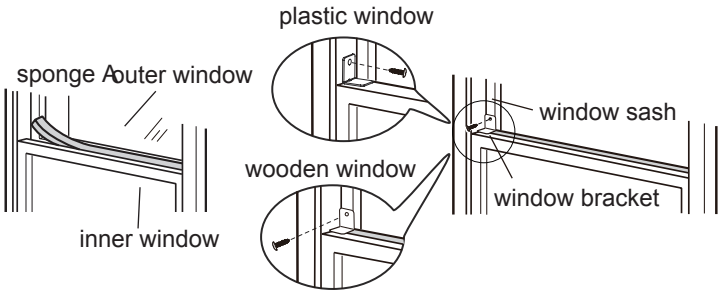


(4) Close the window securely against the window frame.



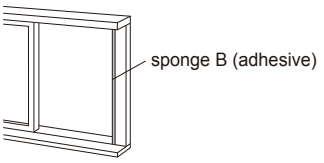
(5) Cut the sponge A to a proper length and seal the gap between upper part of inner window sash and outer window sash.

(6) Fix the inner window with window bracket and screw, so that it can not slide vertically.



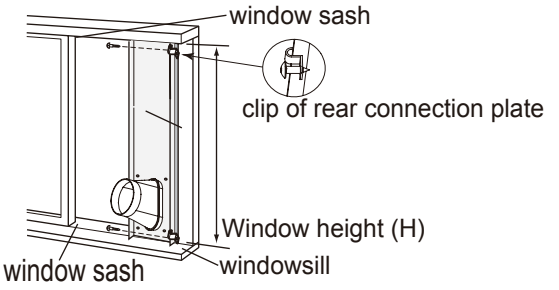
B. Installation in a sliding sash window

(1) Cut the sponge B to a proper length and attach it to the window sash.



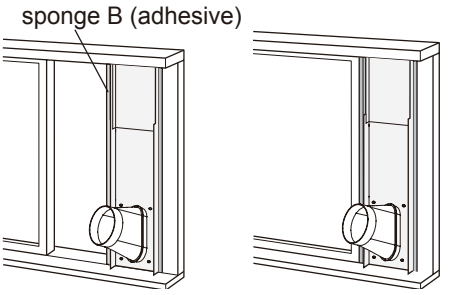
(2) Open the window; place the window frame on the window sash vertically; slide the adjustment plate to make the window frame close to the window sashes at the upper and lower side of window; fix the window frame on the windowsill with screws and clips of rear connection plate. (required quantity is shown in the sheet below)

Window height (H)	Screw quantity	Clip quantity
H≤28 3/11"(718mm)	2	2
28 3/11"(718mm)<H≤36 1/2"(927mm)	3	3
36 1/2"(927mm)<H≤64″(1625mm)	4	4



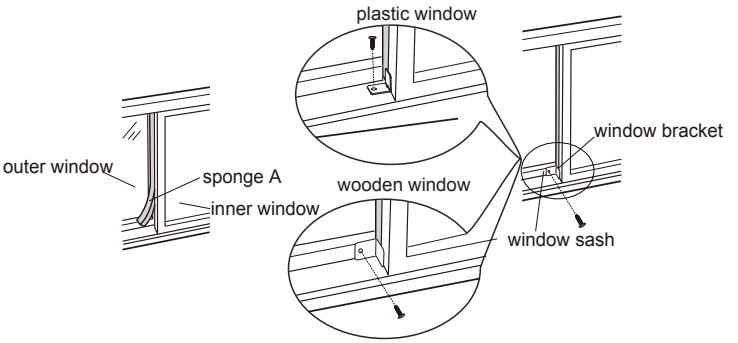
(3) Cut the sponge B to a proper length and attach it to the window frame.

(4) Close the window securely against the window frame.



(5) Cut the sponge A to a proper length and seal the gap between left side of inner window sash and outer window sash.

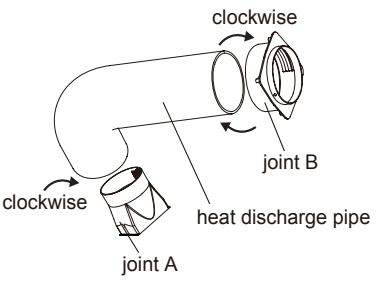
(6) Fix the inner window with window bracket and screw, so that it can not slide horizontally.



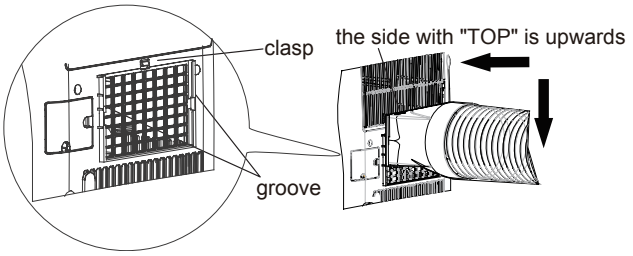
8.3 Installation and Disassembly of Heat Discharge Pipe

A. Install heat discharge pipe

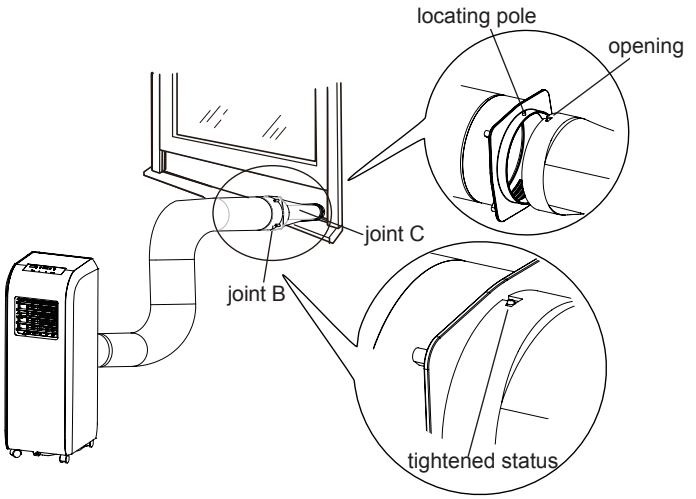
(1) Rotate joint A and joint B clockwise into the two ends of heat discharge pipe.



(2) Insert joint A of heat discharge pipe (the side with "TOP" is upwards) into the groove until you hear a sound.(As shown in following fig

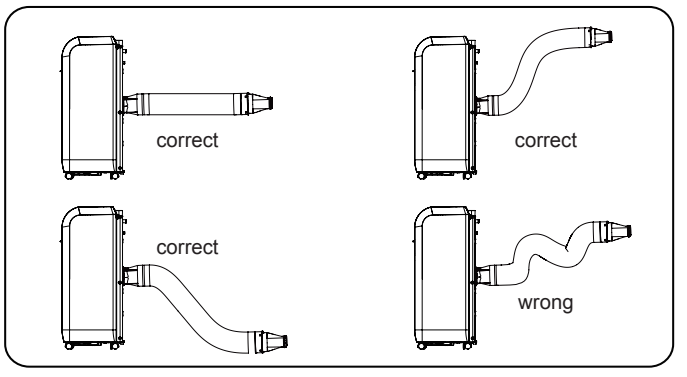


(3) Aim the locating pole of joint B of heat discharge pipe at the opening of joint C; rotate it slightly to make joint B and joint C connect tightly.



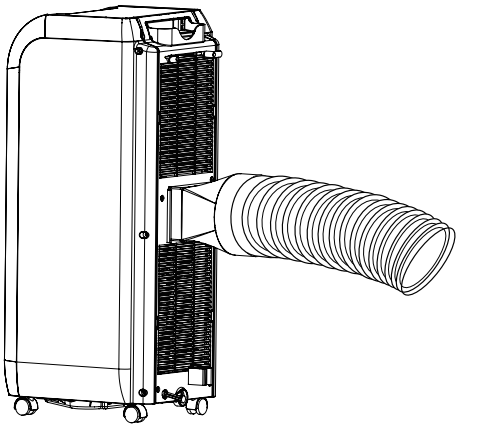
Note of Install heat discharge pipe

In order to improve cooling effici ncy, the heat discharge pipe should be as short as possible and flat without curve to ensure smooth heat discharge.(As shown in following fig

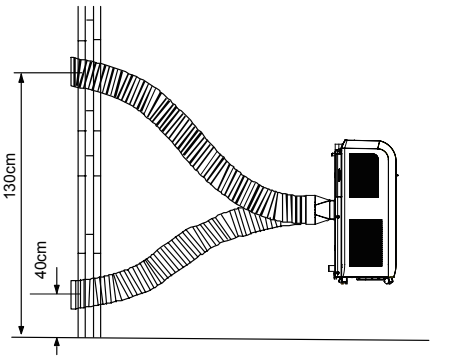


●The length of the exhaust pipe is less than 1m. It is recommended to use it with shortest length.

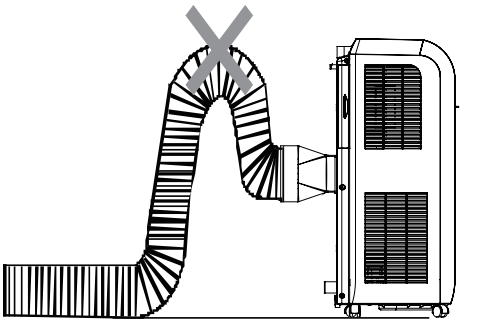
●When installing, exhaust pipe should be as flat as possible. Don't prolong the pipe or connect it with other exhaust pipe.



●Correct installation is as shown in figure (When installing it on wall, height of hall should be about 40cm-130cm from floor)

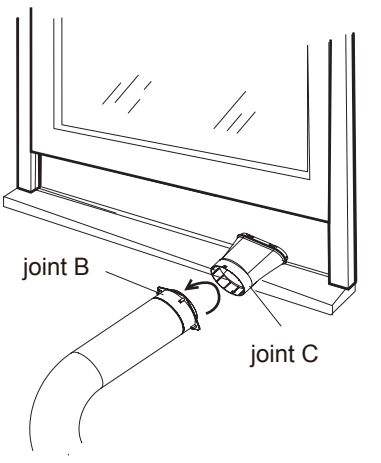


●Wrong installation is shown in following figure (If the pipe is bent too much, it would easily cause malfunction.)

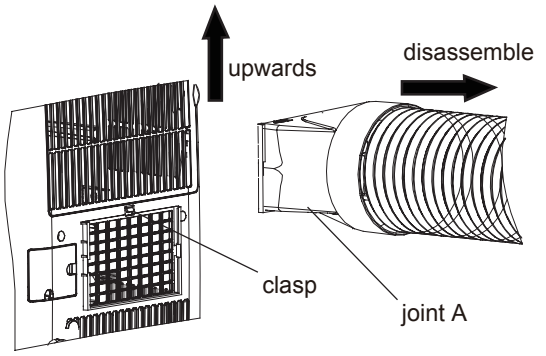


B. Disassemble heat discharge pipe

(1) Remove joint B from joint C.(As shown in following fig



(2) Press the clasp and lift joint A upwards to remove it.(As shown in following fig

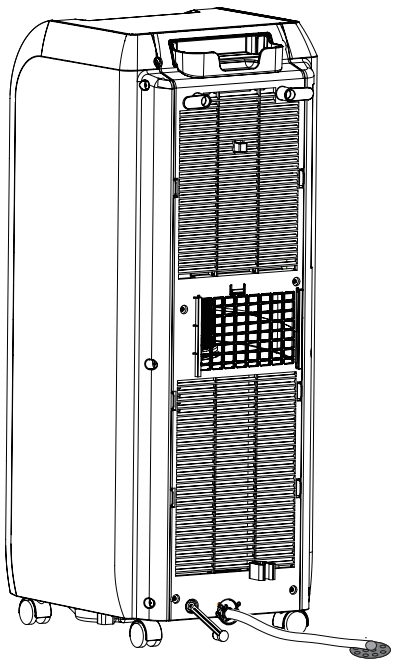


8.4 Operation test

●Put through the power supply and then press ON/OFF button on remote controller to start the unit.
●Press mode button to select auto, cooling, drying, fan or heating function, and then check if the unit operates normally.
●If ambient temperature is below 16°C, the unit can't operate in cooling mode.

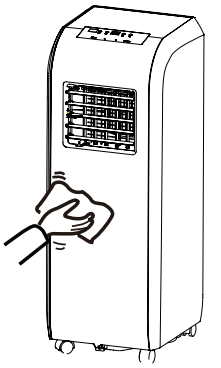
8.5 Drainage way

● In cooling or drying operation, the condensation water will be drained to the chassis and spattered by water-striking motor. As the temperature of condenser is high, most of the condensation water will be evaporated and drained to outdoor. So usually, only a little condensation water will be accumulated inside the chassis and you do not need to discharge the water frequently.
● When the chassis is full with water, the buzzer will give out 8 sounds and "H8" is displayed to remind user to discharge water:
●Move the unit to a suitable place for discharging water; do not tilt the unit and keep it horizontal during moving;
●Take the drainage pipe from the clip and pull out the rubber plug on the drainage pipe to discharge water;
●Put back the rubber plug onto drainage pipe after finishing discharging water and then fix the pipe on the cli
●After full water protection is eliminated and the compressor has been stopped for 3 minutes, the unit will resume operation.



8.6 Clean and Maintenance

Warning

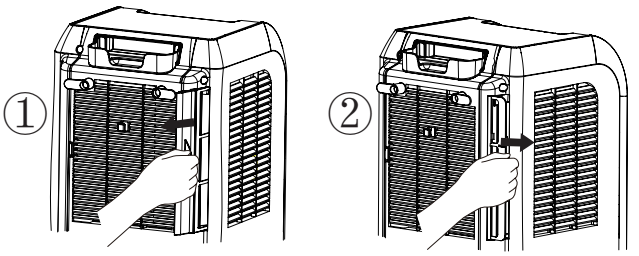


●Before cleaning the air conditioner, please turn off the unit and disconnect power. Otherwise, it may cause electric shock.
●Do not wash air conditioner with water. Otherwise, it may cause electric shock.
●Do not use volatile liquid (such as thinner or gas) to clean the air conditioner. Otherwise, it may damage the appearance of air conditioner.

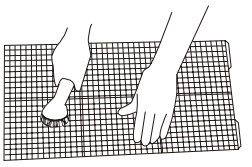
1. Clean outer case and grille
Clean outer case: If there's dust on the surface of outer case, please use soft towel to wipe it. If the outer case is very dirty (such as grease), please use neutral abluent to wipe it.
Clean grille: Use cleaner or soft brush to clean it.

2. Clean filte

(1) Remove the filte



(2) Clean filte
Use cleaner or water to clean the filte . If the filter is very dirty (such as grease), use warm water 4 ℃ (104 ℉) melted with neutral abluent to clean it and then put at shady place to dry it.



(3) Install filte
After the filer is cleaned and dried, reinstall it well.

Note:
● The filter should be cleaned about once every three months. If there's much dust in the operation environment, you can increase clean frequency.
● Do not dry the filter with fire or hair dri . Otherwise, it may be deformed or catch fire

3. Clean heat-removal pipe

Remove the heat-removal pipe from air conditioner, clean and dry it , and then reinstall it.
(For the method of installation and removal method, please refer to the instruction for "Install and Remove Heat-removal Pipe).

9. Maintenance

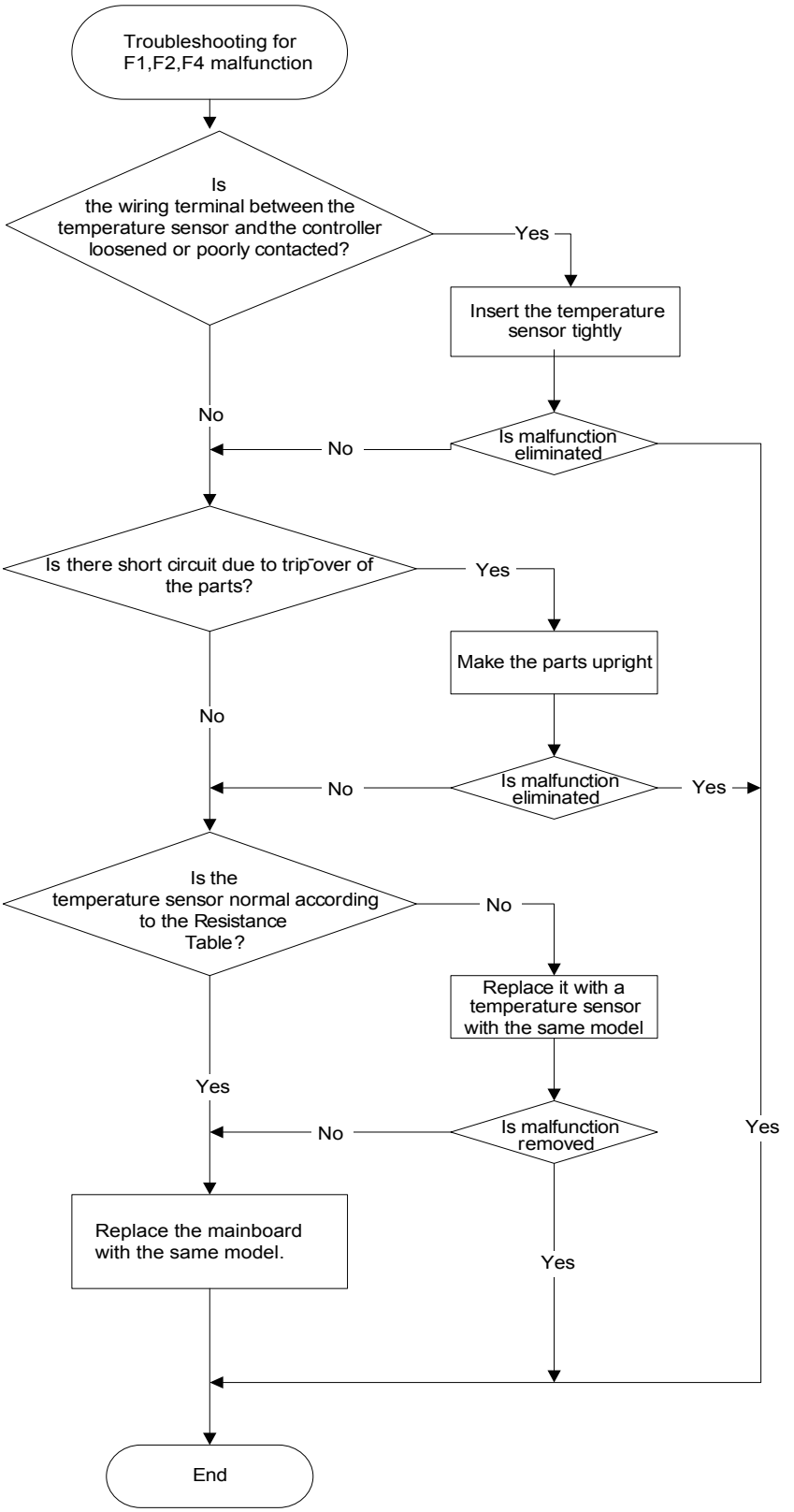
9.1 Error Code

NO.	Malfunction Name	Display Method of Indoor Unit				A/C Status	Possible Causes
		Error Code	Indicator lamp (During blinking, ON for 0.5S and OFF for 0.5 S)				
			Operation Inidicato	COOL Indicator	HEAT Indicator		
1	Indoor ambient temperature sensor is open/short-circuited	F1		OFF 3S and blinks once		Compressor and draw water motor stop operation. Fan operates at set fan speed.	1. The wiring terminal between indoor ambient temperature sensor and main board is loosened or poorly contacted. 2. There's short circuit due to trip-over of the parts on main board. 3.Indoor ambient temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor). 4. Main board is damaged.
2	Indoor evaporator temperature sensor is open/short-circuited	F2		OFF 3S and blinks twice		Compressor and draw water motor stop operation. Fan operates at set fan speed.	1. The wiring terminal between indoor evaporator temperature sensor and main board is loosened or poorly contacted. 2. There's short circuit due to the trip-over of the parts on main board. 3.Indoor evaporator temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor). 4. Main board is damaged.
3	Outdoor condenser temperature sensor is open/short-circuited	F4		OFF 3S and blinks 4 times		Compressor and draw water motor stop operation. Fan operates at set fan speed.	1. The wiring terminal between outdoor condenser temperature sensor and main board is loosened or poorly contacted. 2. There's short circuit due to the trip-over of the parts on main board. 3. Outdoor condenser temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor). 4. Main board is damaged.
4	Overcurrent protection	E5	OFF 3S and blinks 5 times			During cooling and drying operation, indoor fan operates, while other loads stop operation.	1. Unstable supply voltage. Normal fluctuatio shall be within 10% of the rated voltage on the nameplate. 2. Supply voltage is too low and load is too high. 3. Measure the current of live wire on main board. If the current isn't higher than the overcurrent protection value, please check the controller. 4. Whether heat exchangers are too dirty, or the air inlet and air outlet are blocked. 5. Whether the fan motor operates normally, fan speed is too low or the fan doesn't run. 6. Whether compressor operates normally. There is abnormal sound, oil leakage or the temperature of the shell is too high, etc. 7. There's blockage in the system (filt blockage, ice plug, greasy blockage, Y-valve hasn't been opened completely).

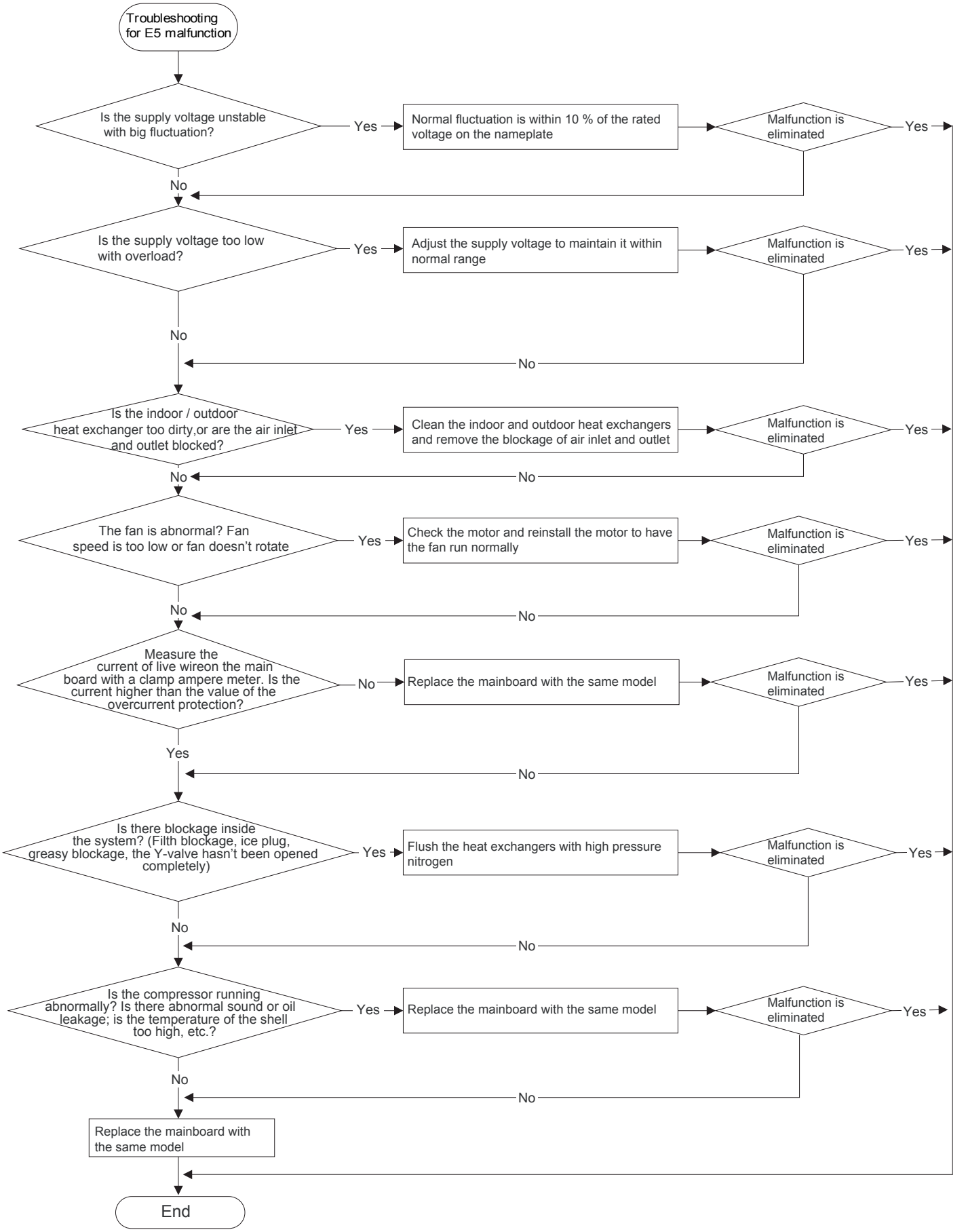
NO.	Malfunction Name	Display Method of Indoor Unit				A/C Status	Possible Causes
		Error Code	Indicator lamp (During blinking, ON for 0.5S and OFF for 0.5 S)				
			Operation Inidicato	COOL Indicator	HEAT Indicator		
5	Water over-flow protection	H8				The unit stops operation	During cooling or drying operation,condensate water will flow into chassis. If it's detected that water inside water chassis is full for 3s successively, it comes into water over-flow protection. Buzzer will give out 8 sounds and dual-8 nixie tube displays error code "H8".
6	Insufficien fluorin protection	F0				Indoor fan runs according to set fan and other loads will stop.	1. Heat exchangers are too dirty or the air inlet/outlet is blocked. 2. Compressor doesn't work normally. Strange noise or leakage occurs. Temperature of the shell is too high. 3. System is blocked inside(dirt block, ice block, oil block, Y-valve not fully open). 4. The refrigerant is leaking.
7	Overload protection for compressor	H3				Indoor fan runs according to set fan and other loads will stop.	1. Heat exchangers are too dirty or the air inlet/outlet is blocked. 2. Fan motor is not working Abnormal fan speed; fan speed is too low or the fan doesn't run. 3. Compressor doesn't work normally. Strange noise or leakage occurs. Temperature of the shell is too high. 4. System is blocked inside(dirt block, ice block, oil block, Y-valve not fully open). 5. Draw-water motor can't operate normally. 6. Water outlet hasn't been blocked well by rubber cork . 7. The refrigerant is leaking and cause overheating protection to compressor.
8	Overload malfunction	E8				During cooling or drying operation, indoor fan operates, while compressor, outdoor fan and water-striking motor stop. "E8" is displayed.	1. The environment is formidable. 2. Heat exchangers are too dirty or the air inlet/outlet is blocked. 3. Fan motor is not working Abnormal fan speed; fan speed is too low or the fan doesn't run. 4. Compressor doesn't work normally. Strange noise or leakage occurs. Temperature of the shell is too high. 5. System is blocked inside(dirt block, ice block, oil block, Y-valve not fully open). 6.Temperature sensor of main board can't detect correctly.

9.2 Malfunction Detection Flowchart

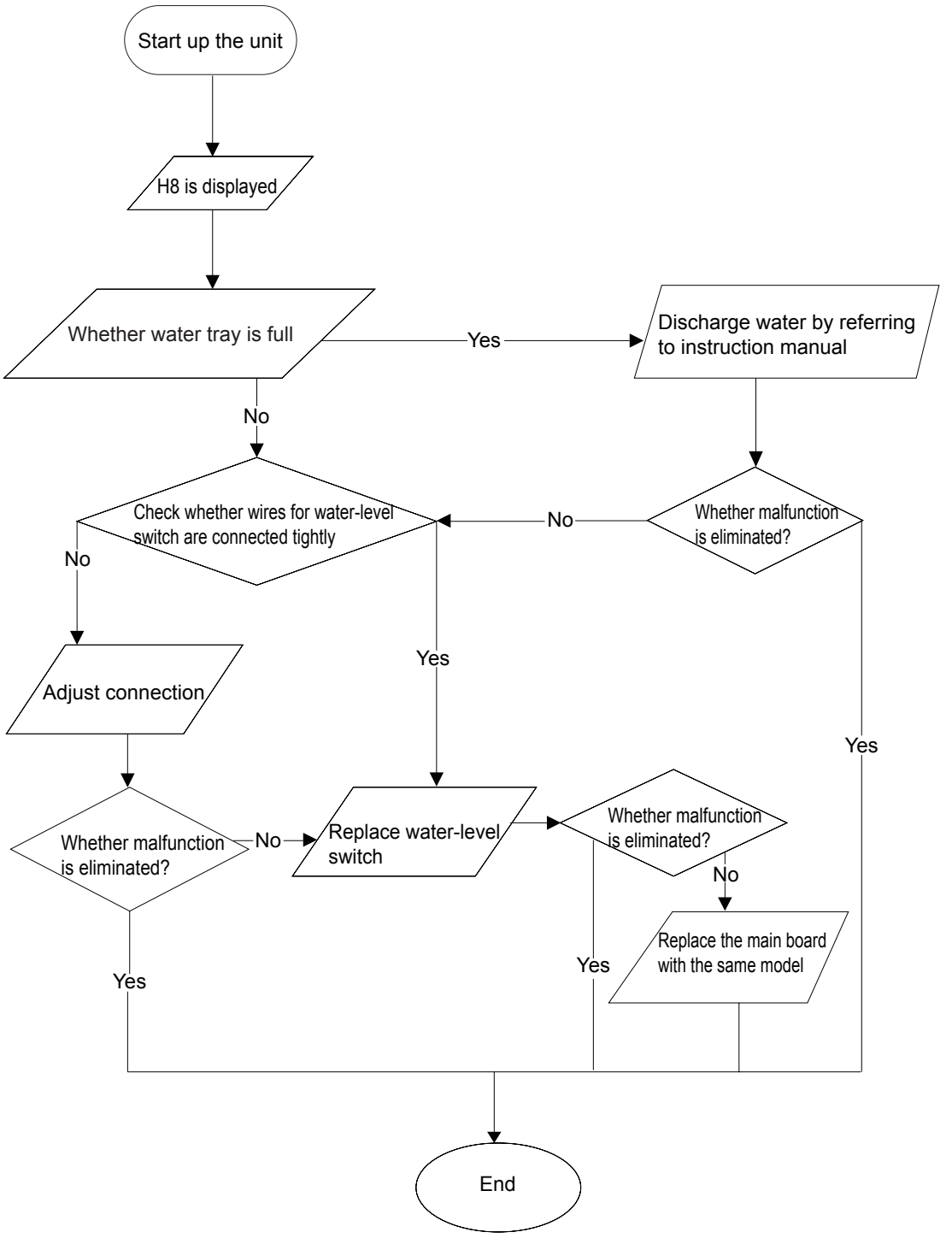
(1) Malfunction of temperature sensor F1, F2, F4



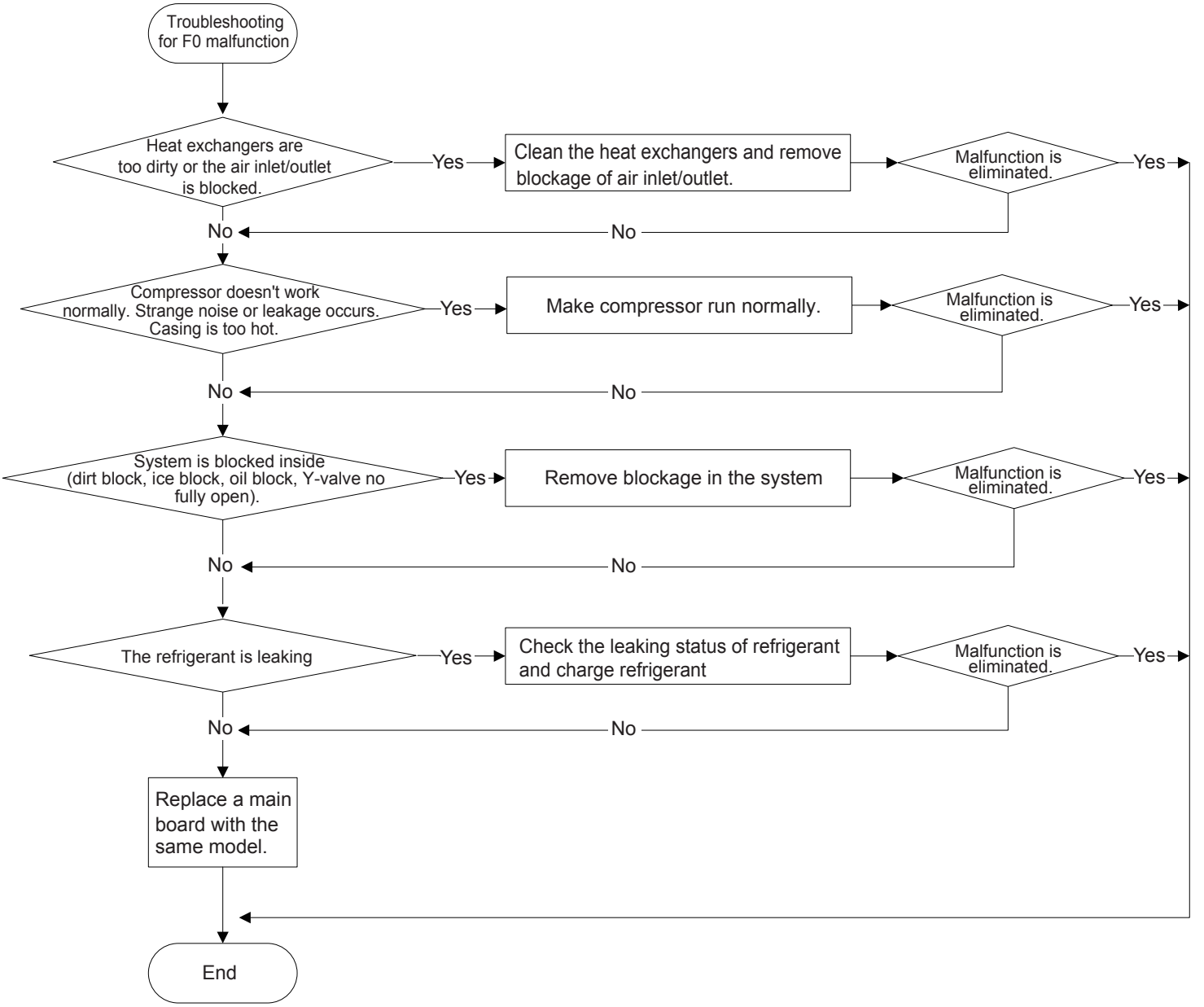
(2) Malfunction of Overcurrent Protection E5



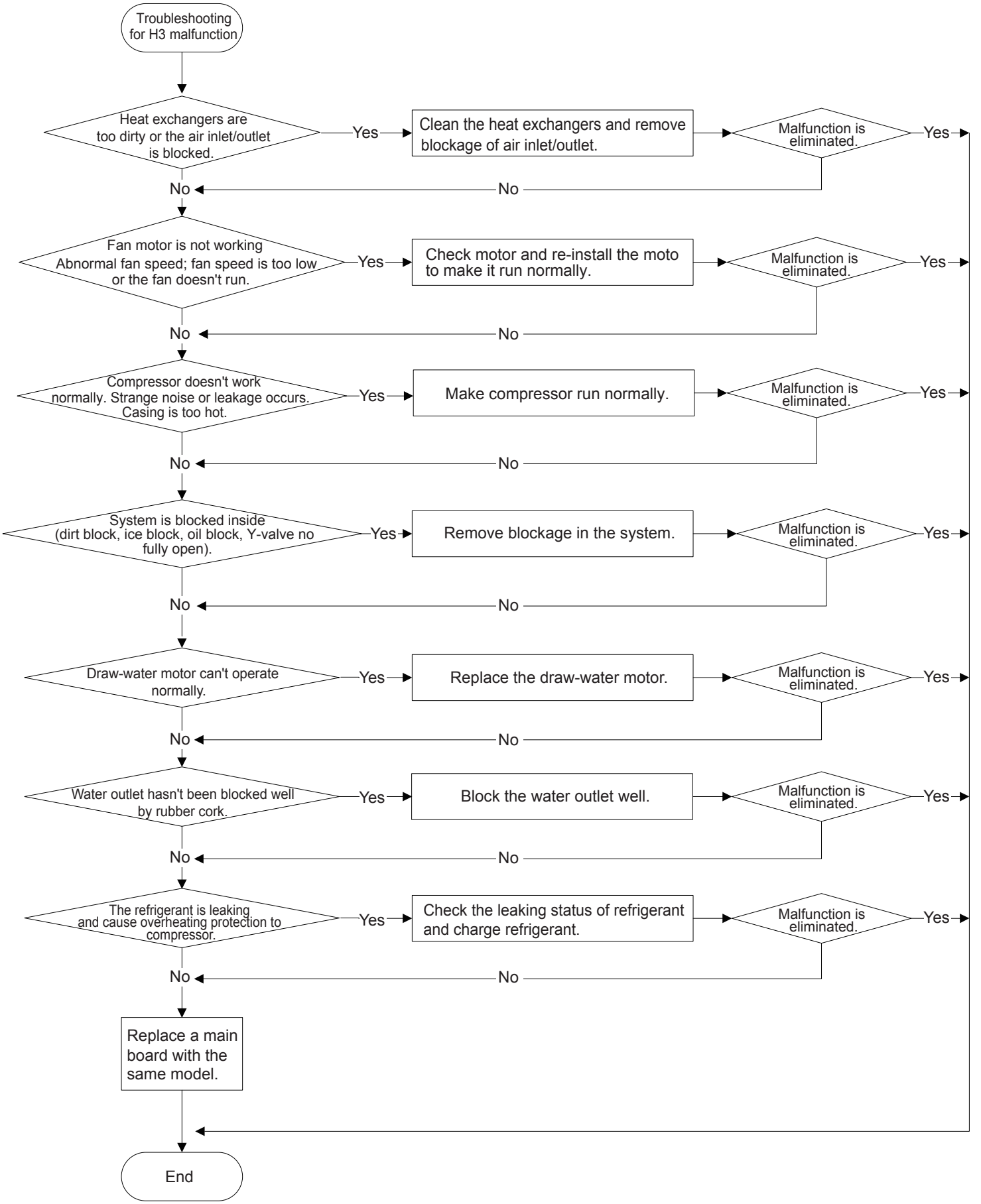
(3) Bucket full protection H8



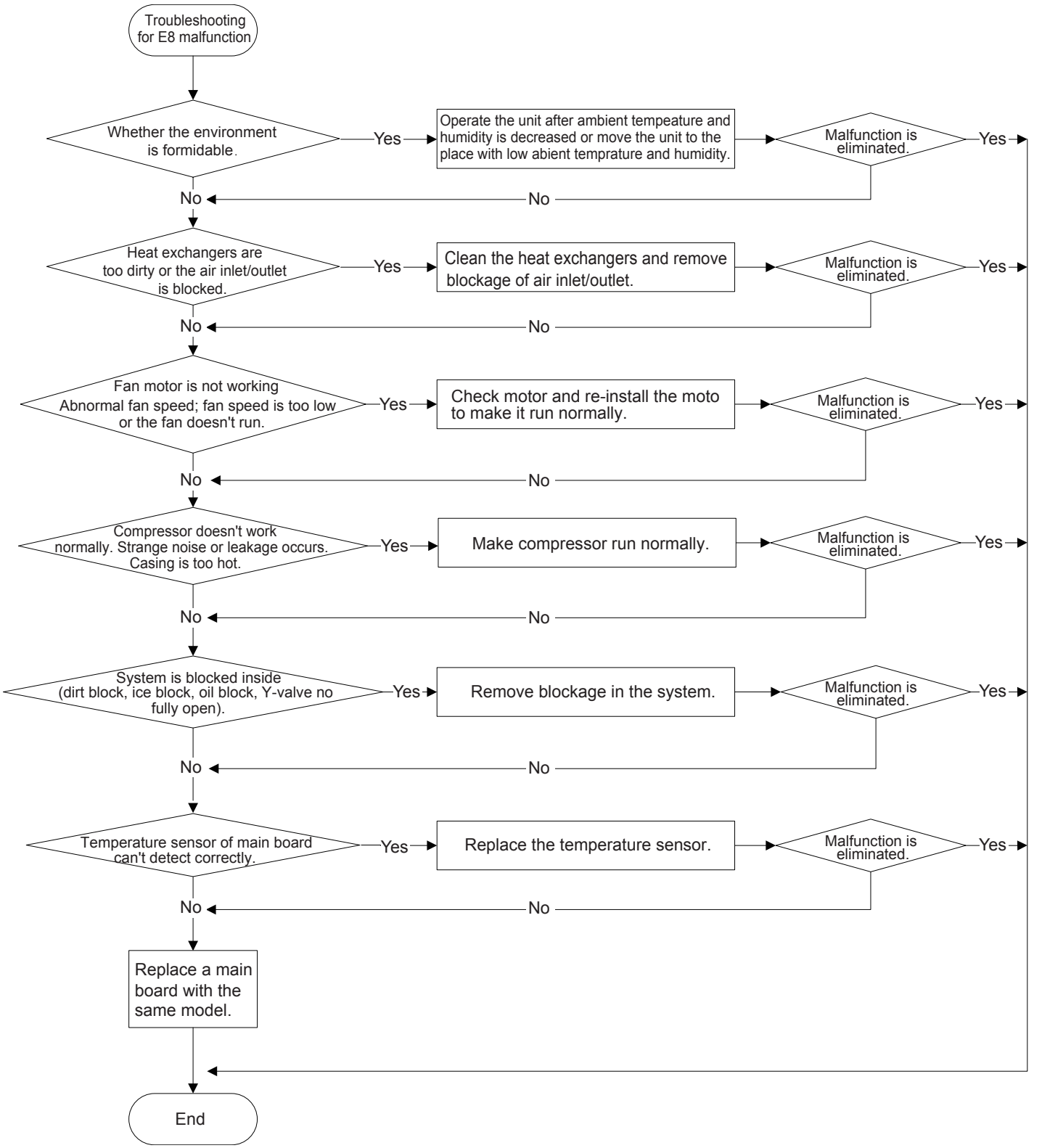
(4) Malfunction of Insufficient fluorine protection F0



(5) Malfunction of Overload protection for compressor H3



(6) Overload malfunction E8



9.3 Maintenance Method for Common Malfunction

1. Air Conditioner Can't be Started Up

Possible Causes for Malfunction	Distinguish Method (A/C status)	Maintenance Method
No power supply; power plug hasn't been inserted tightly and poorly connected; wires hasn't been connected well.	Operation indicator is OFF and buzzer won't give out sound.	Check whether there's power supply; Check power plug and wire connection.
Ambient temperature sensor is damaged (no connection, loosen, wires are damaged, resistance value for temperature sensor is abnormal).	After energization, the unit will give out a sound, while it can't be started up after pressing ON/OFF button.	Check wire connection of temperature sensor or replace temperature sensor.
Electric leakage for air conditioner	After energization, room circuit breaker trips off at once.	Make sure the air conditioner is grounded reliably. Make sure wires of air conditioner is connected correctly. Check the wiring inside air conditioner. Check whether the insulation layer of power cord is damaged; if yes, place the power cord.
Model selection for air switch is improper	After energization, air switch trips off.	Select proper air switch.
Malfunction of remote controller	After energization, operation indicator is bright, while no display on remote controller or buttons have no action.	Replace batteries for remote controller. Repair or replace remote controller.
Water inside water chassis is full	Dual8 nixie tube displays H8 and buzzer gives out 8 sounds (water over-flow protection)	Discharge condensate water.
Malfunction of water-level switch		Check water-level switch and connection (refer to detection flow chart 3).

2. Poor Cooling (Heating) for Air Conditioner

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Set temperature is improper	Observe the set temperature on remote controller	Adjust the set temperature.
Fan speed is set too slow	Small fan blow at air outlet	Set the fan speed at high or medium.
Filter unit is blocked	Check the filter to see whether it s blocked by sundries	Clean the filte .
Refrigerant is leaking	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit's pressure is much lower than regulated range	Find out the leakage causes and deal with it. Add refrigerant.
Evaporator is frosted	Has set COOL (DRY) mode, but there's no cool fan	The system is defrosting. Resume operation after defrosting is finished
Malfunction of capillary	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit't pressure is much lower than regulated range. If refrigerant isn't leaking, part of capillary is blocked	Replace the capillary.
Malfunction of fan	Fan can't operate	Refer to point 3 for detailed maintenance method.
Malfunction of compressor	Compressor can't operate	Refer to point 4 of maintenance method for details.

3. Fan Can't Swing

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firml
Fan capacitor is damaged	Use universal meter to measure voltage at both ends of fan capacitor	Replace fan capacitor
Supply voltage is too low or too high	Use universal meter to measure the voltage	You are suggested to equip with voltage regulator
Motor is damaged	Above circumstances are normal, while the fan can't operate	Repair or replace motor

4. Compressor Can't Operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firml
Capacity of compressor is damaged	Measure the capacity of fan capacitor with an universal meter and find that the capacity is out o the deviation range indicated on the nameplate of fan capacitor.	Replace the compressor capacitor
Power voltage is a little low or high	Use universal meter to measure the power supply voltage. The voltage is a little high or low	Suggest to equip with voltage regulator
Coil of compressor is burnt out	Use universal meter to measure the resistance between compressor terminals and it's 0	Repair or replace compressor
Cylinder of compressor is blocked	Compressor can't operate	Repair or replace compressor

5. Unit hasn't stop operation afer bucket full or bucket full protection occurs frequently

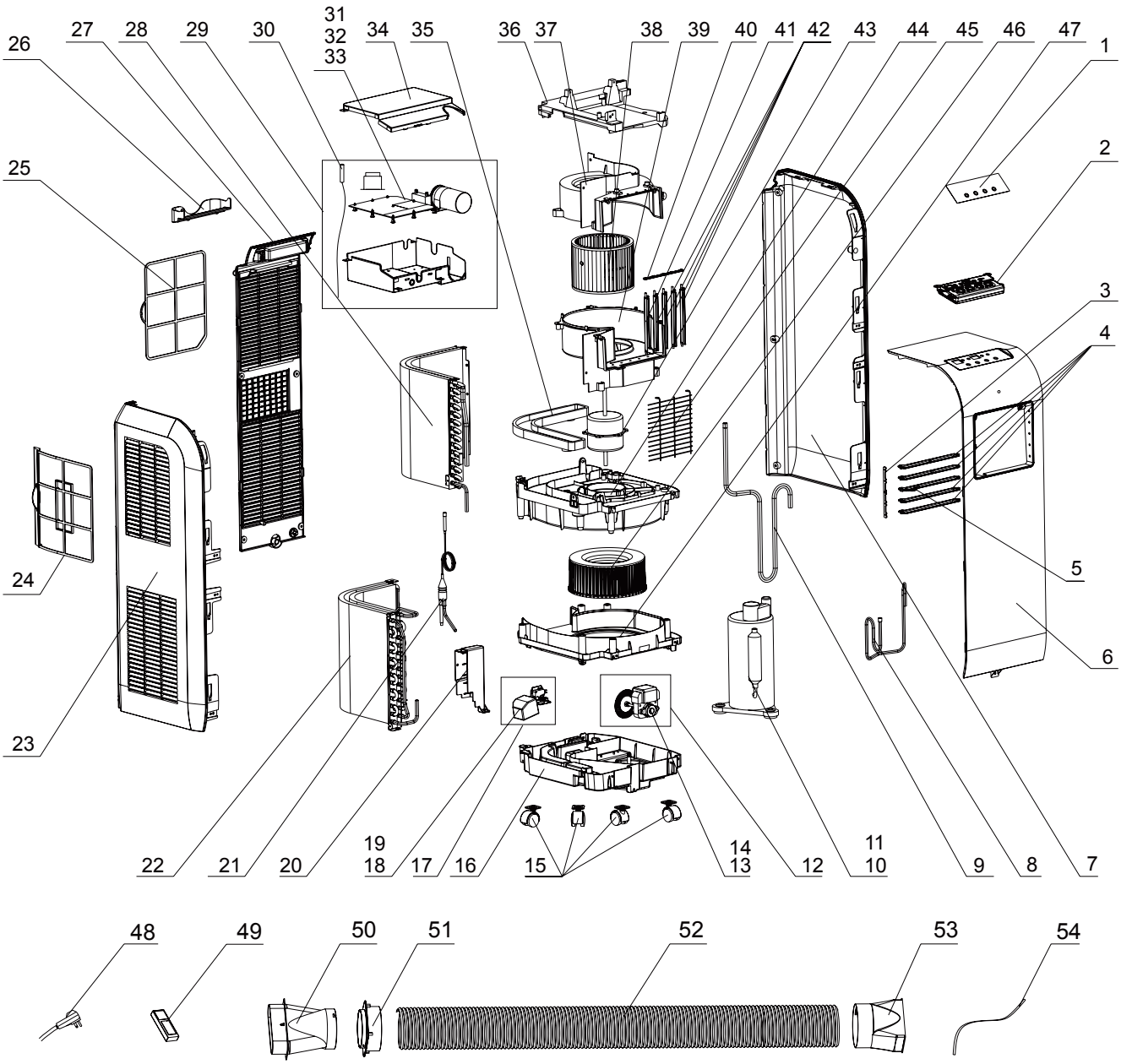
Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Water-level switch is open-circuited	The unit hasn't stop operation when water is full and there's water leakage	Check and repair the water-level switch
Draw water motor is damaged	Water over-flow protection occurs frequently and H8 is displayed	Replace draw water motor

6. Abnormal Sound and Vibration

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
When turn on or turn off the unit, the panel and other parts will expand and there's abnormal sound	There's the sound of "PAPA"	Normal phenomenon. Abnormal sound will disappear after a few minutes.
When turn on or turn off the unit, there's abnormal sound due to flow of refrigerant inside air conditioner	Water-running sound can be heard	Normal phenomenon. Abnormal sound will disappear after a few minutes.
There're foreign objects inside air conditioner or parts are contacting with each other	Abnomal sound	Take out foreign objects. Adjust the position of parts. Stick damping plaster between contacting parts.
Abnormal shake of compressor	Outdoor unit gives out abnormal sound	Adjust the support foot mat of compressor, tighten the bolts.
Abnormal sound inside the compressor	Abnormal sound inside the compressor	If add too much refrigerant during maintenance, please reduce refrigerant properly. Replace compressor for other circumstances.

10. Exploded View and Parts List

COOL/FCOOL-8BS

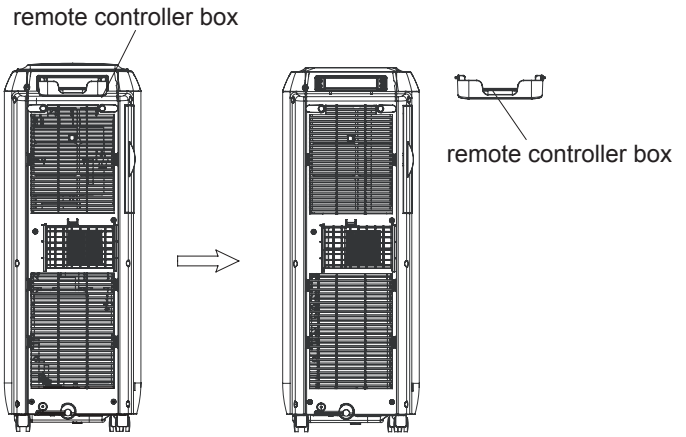
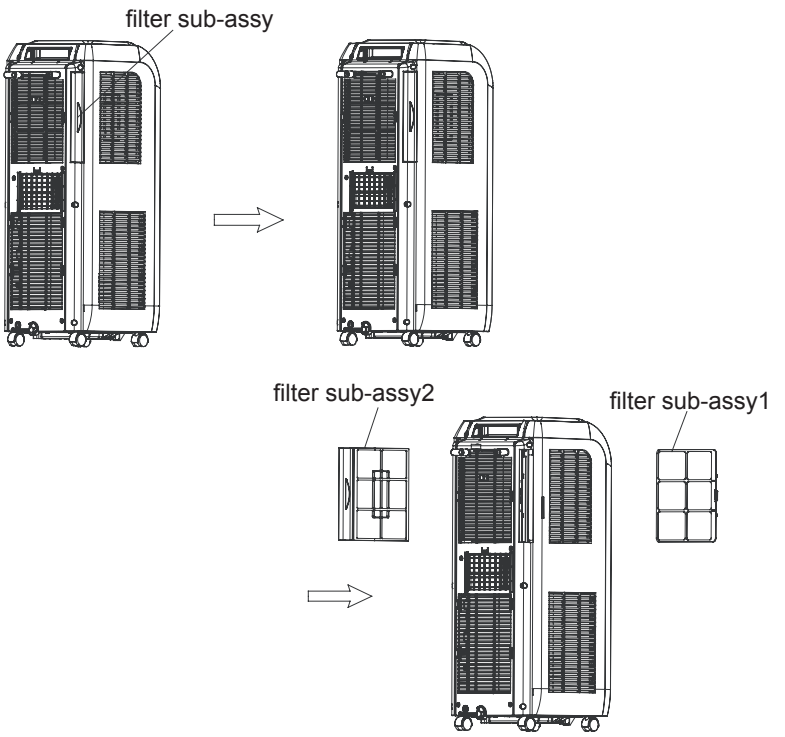


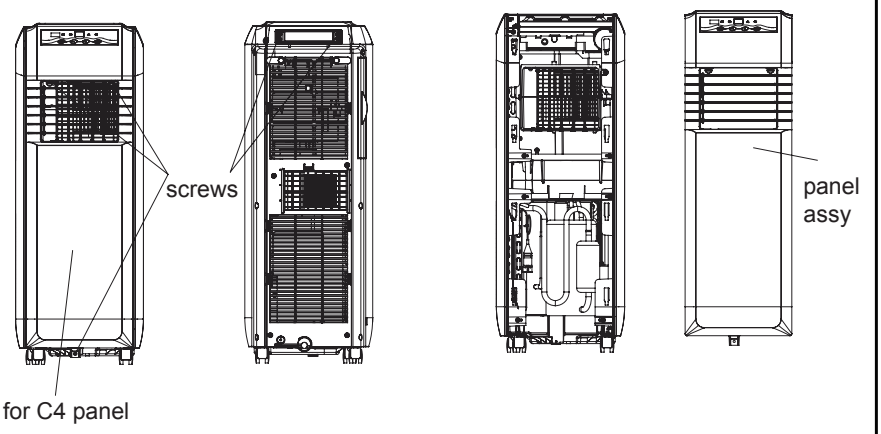
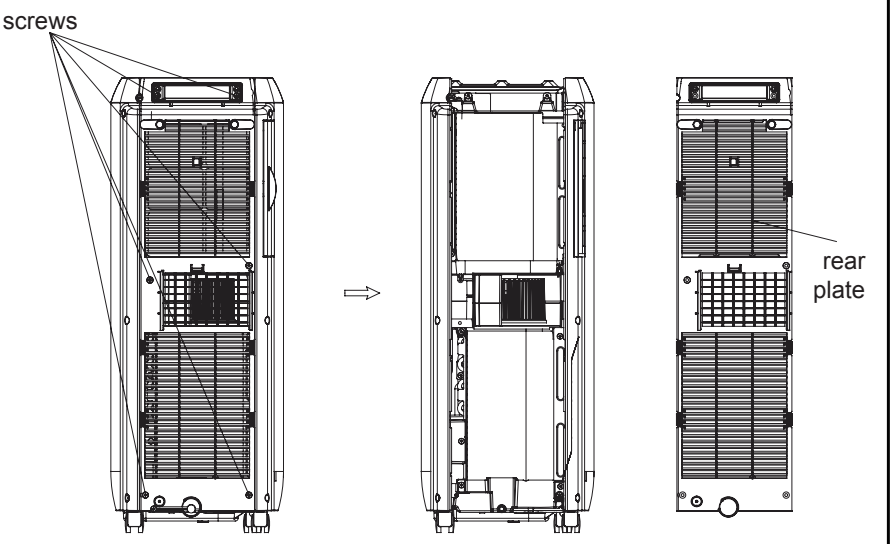
NO.	Description	Part Code	
		GPC08AH-K3NNC3D	Qty
1	Membrane	63066036	1
2	Display Board	30567026	1
3	Guide blade lever 2	10586015	1
4	Guide blade 1	10516059	4
5	Guide blade 2	10516062	1
6	Front Panel	20006078S	1
7	Right side plate	20056112	1
8	Discharge Tube	03001300037	1
9	Inhalation Tube	03001000047	1
10	Compressor and fittings	00106531	1
11	Overload Protector	00180259	1
12	Motor sub-assy (flutter)	15006032	1
13	Splash Water Flywheel	10336003	1
14	Fan Motor 2	1501606202	1
15	Castor	24236009	4
16	Chassis	22226062	1
17	Water level switch sub-assy	26156045	1
18	water level switch base	26156041	1
19	Water Level Switch	45010211	1
20	Water retaining box	20186259	1
21	Capillary Sub-Assy	03006549	1
22	Condenser Assy	01106132	1
23	Left side plate	20056111	1
24	Filter sub-assy2	11126071	1
25	Filter sub-assy1	11126070	1
26	Remote controlbox	20186094	1
27	Rear Plate	20056113	1
28	Evaporator Assy	01006107	1
29	Electric Box Assy	01406549	1
30	Ambient Temperature Sensor	390000451	1
31	Main Board	30137038	1
32	Capacitor CBB65	3300008108	1
33	Capacitor CBB61	3301074705	1
34	Electric Box Cover	01416013	1
35	Water Tray	12416009	1
36	Cover of Propeller Housing	22246086	1
37	Propeller Housing (upper)	22206044	1
38	Centrifugal fan 1	10316060	1
39	Propeller Housing (lower)	22206045	1
40	Guide blade lever 1	10586015	1
41	Air Louver 2	10516061	1
42	Air Louver 1	10516060	4
43	Fan Motor 1	1501606903	1
44	Motor Holder	26156089	1
45	Rear Grill	01476020	1
46	Centrifugal fan 2	1031606101	1
47	Diversion Circle	10376038	1
48	Power Cord	4002046431	1
49	Remote Controller	30510065	1
50	Rear Clip	2611601001	1
51	Plastic Pipe End	06646017	1
52	P Phose	0523602203	1
53	Joint	26116087	1
54	Drainage hose	05230013	1

Above data is subject to change without notice.

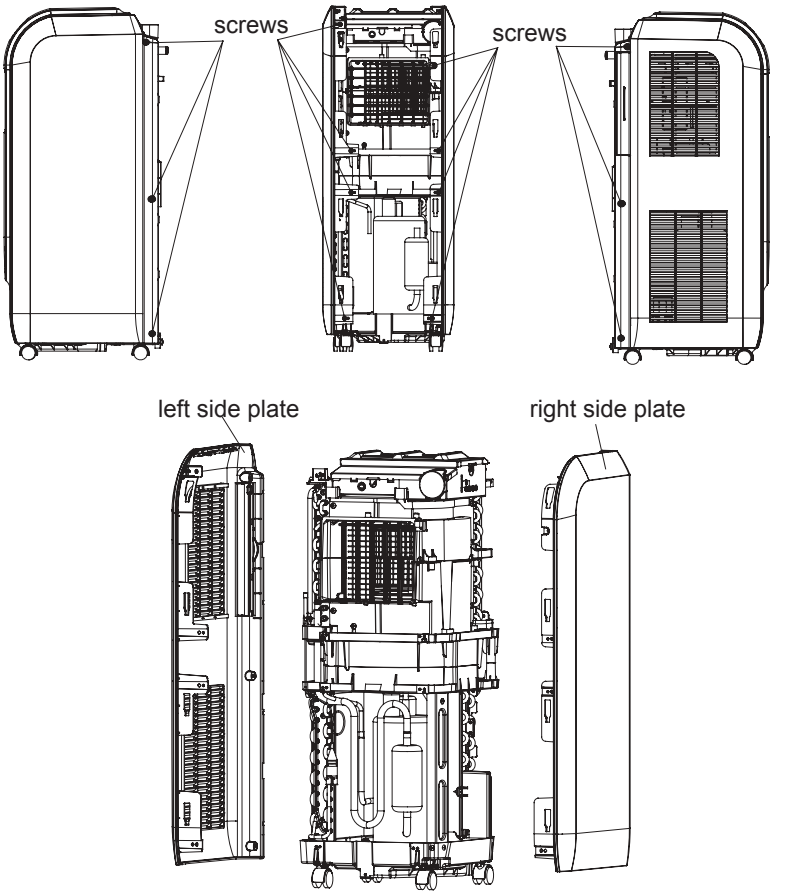
11. Removal Procedure

Warning: disconnect power supply before removal; discharge the refrigerant completely before unsoldering the pipes.

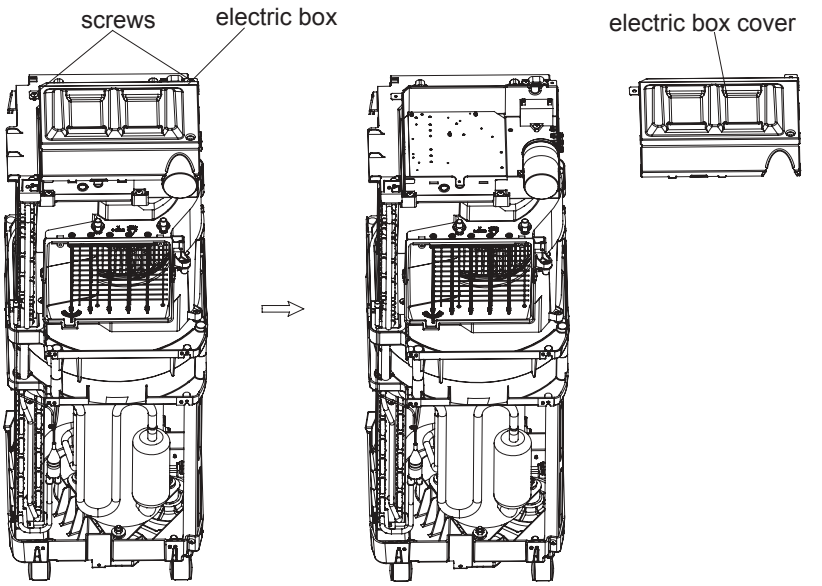
Step	Procedure
1.Remove remote controller box	
Break out the remote controller box, then push the middle of remote controller box to make clasps remove from remote controller box.	
2.Remove filter sub-assy	
Pull the filter sub-assy outward by hand to remove the filter.	

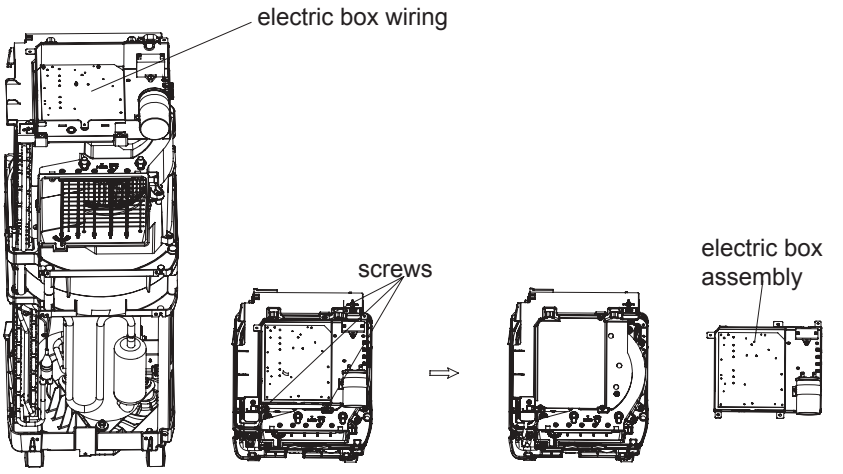
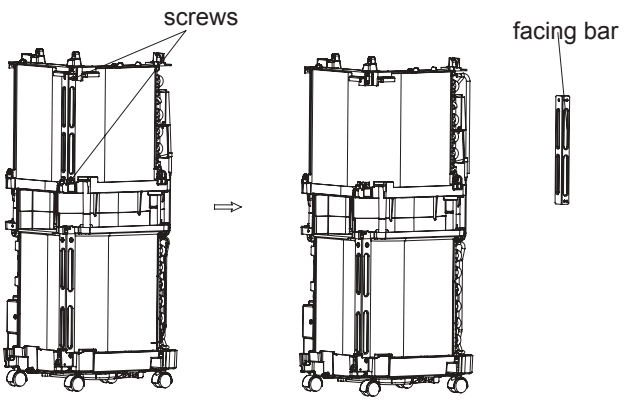
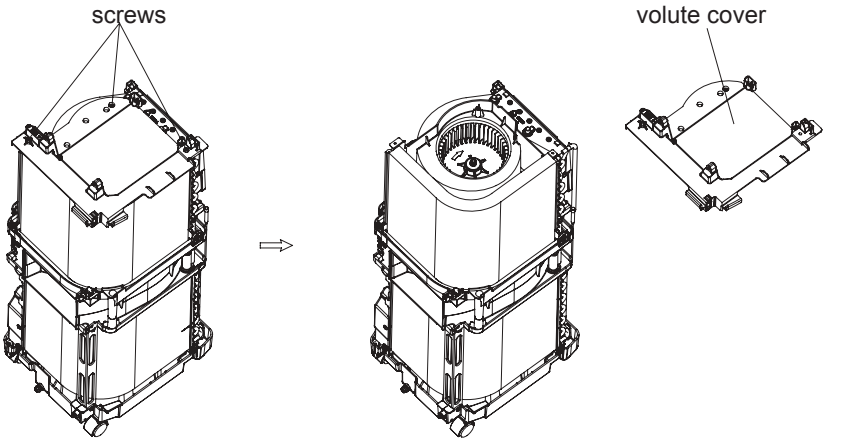
Step	Procedure
3.Remove panel assy	
	Remove the five screws fixing panel, lift and pull outward to remove the panel.
	
4.Remove rear plate	
	Remove the six screws fixing rear plate to remove the rear plate.
	

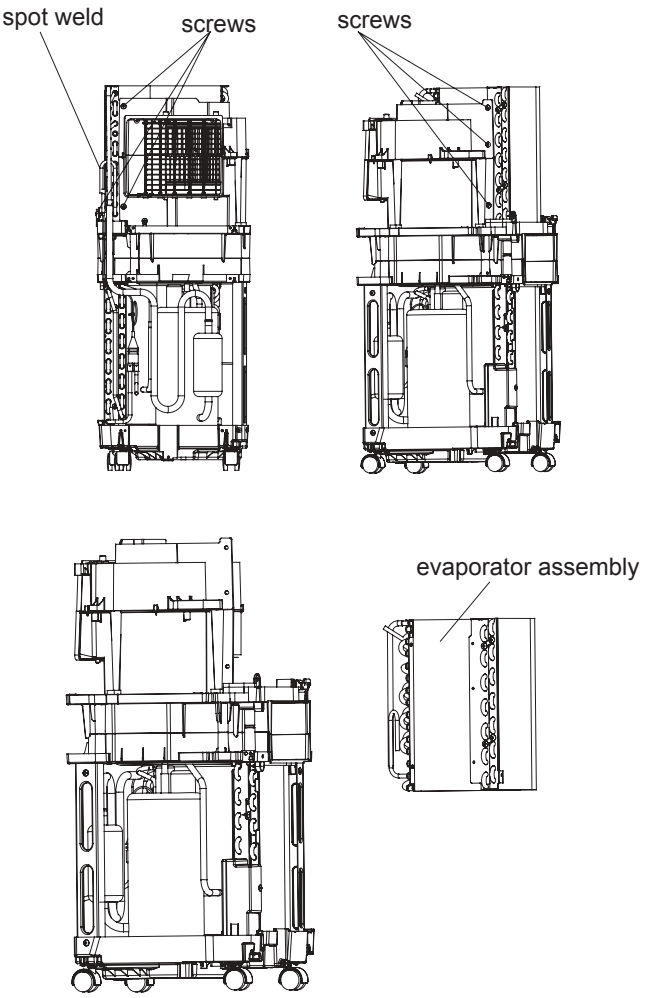
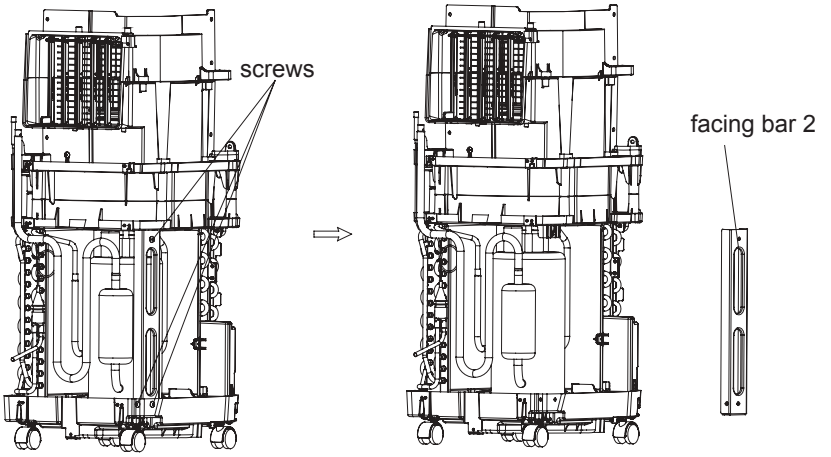
Step	Procedure
5.Remove left & right side plate	Remove left side plate: unscrew 7 screws as diagram shown to remove left side plate. Remove right side plate: unscrew 7 screws of right side plate to remove it.

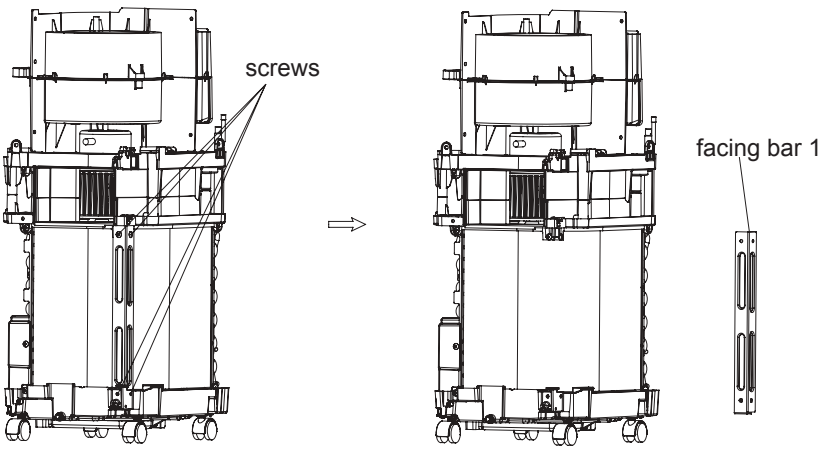
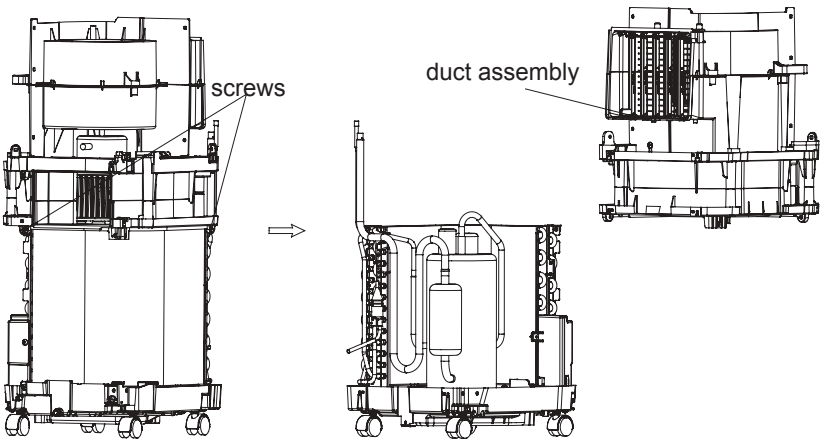


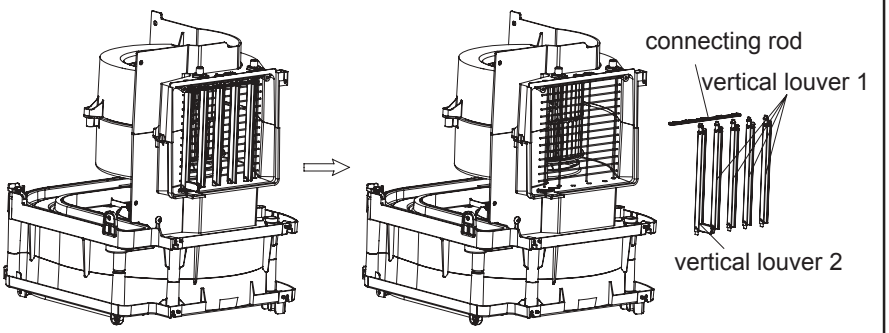
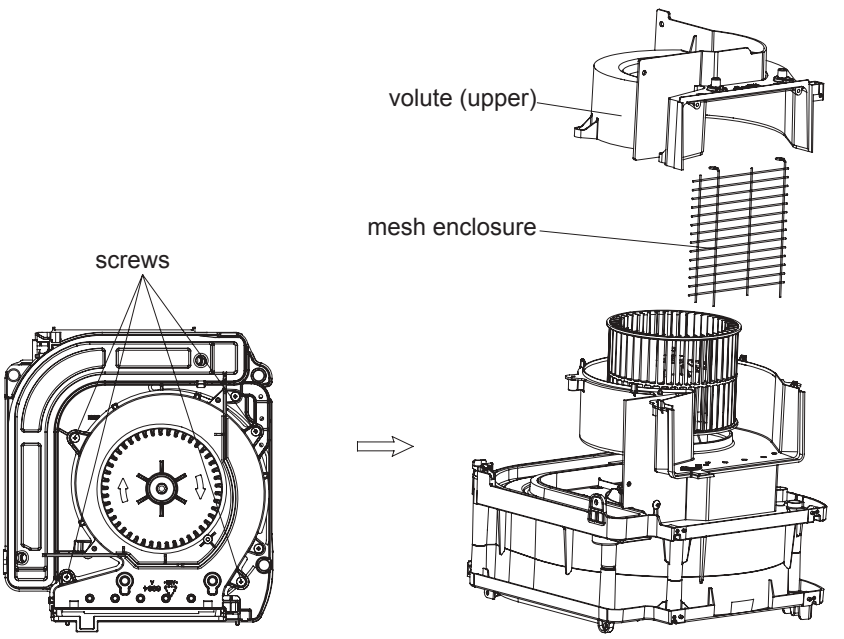
Step	Procedure
6.Remove electric box cover	Unscrew 2 screw to remove the electric box cover.



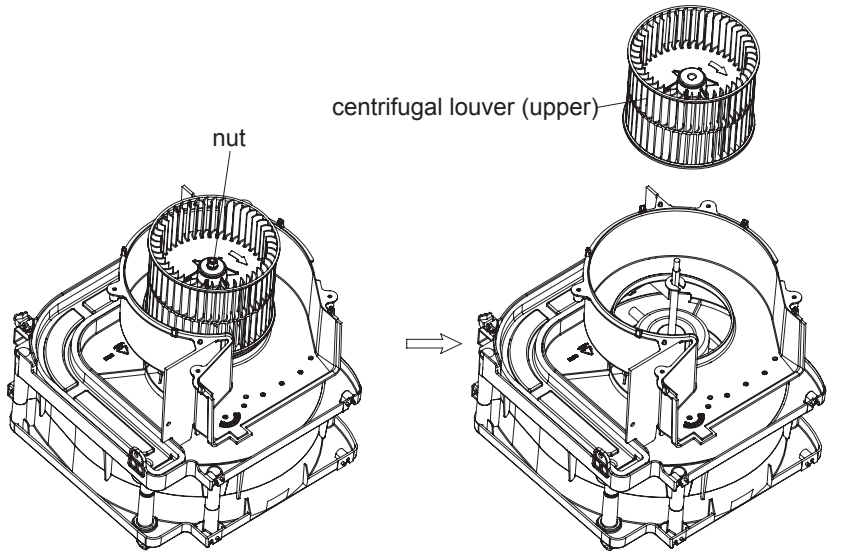
Step	Procedure
7.Remove electric box assembly	
	Pull out wiring of electric box, then unscrew 3 screws of electric box to remove electric box assembly.
	
8.Remove facing bar	
	Unscrew 2 screws fixing facing bar to remove it.
	
9.Remove volute cover	
	Unscrew 3 screws fixing volute cover to remove it.
	

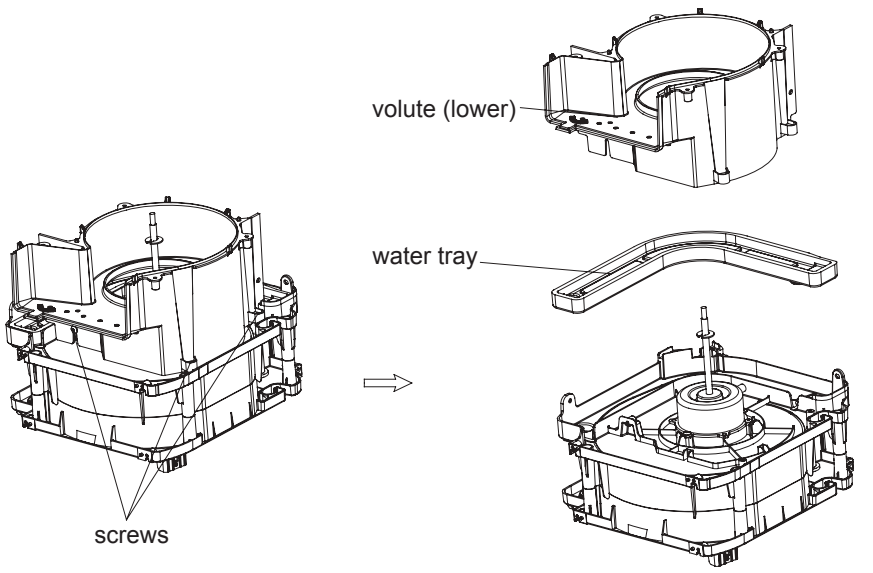
Step	Procedure
10.Remove evaporator assembly	
Unsolder the spot weld, then unscrew 5 screws fixing evaporator to remove it. (note: The refrigerant must be discharged before unsoldering.)	
11.Remove facing bar 2	
Unscrew 3 screws fixing facing bar to remove the facing bar 2.	

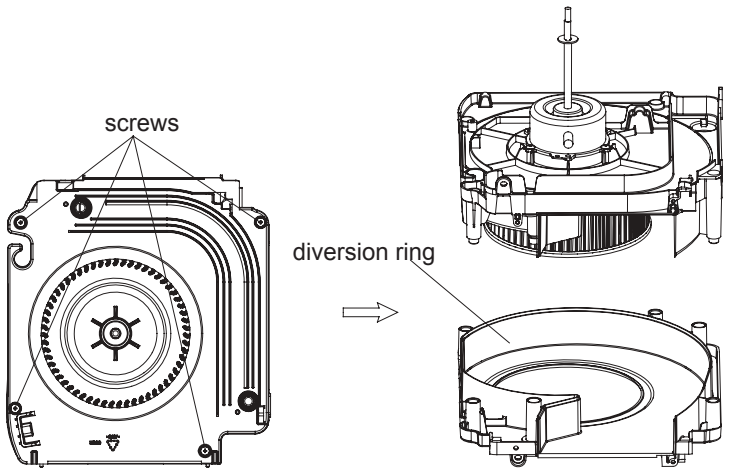
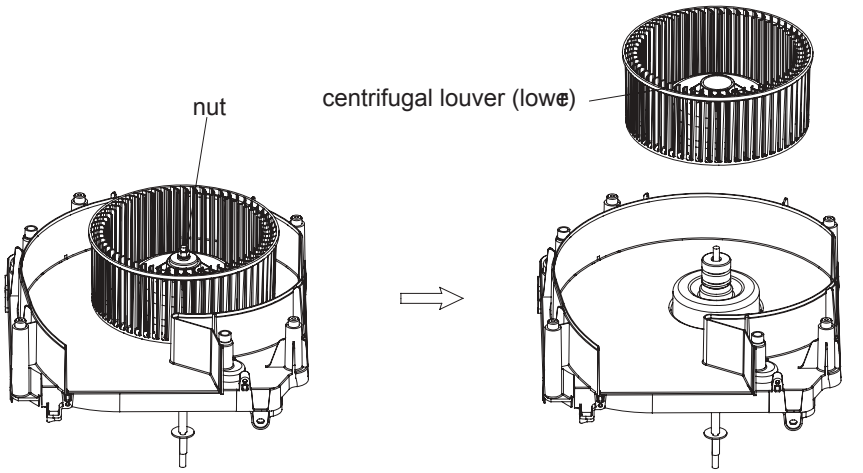
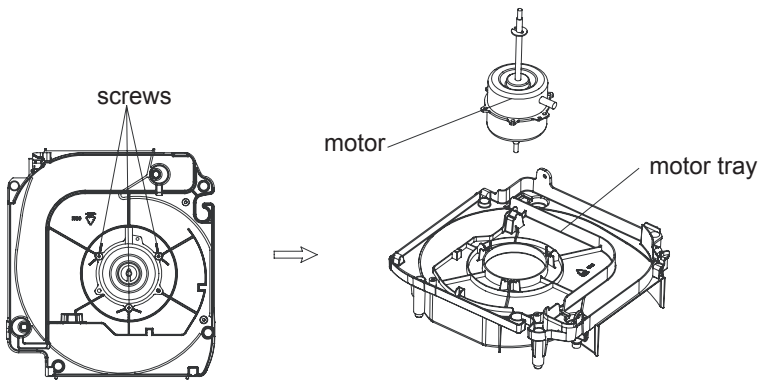
Step	Procedure
12.Remove facing bar 1	
	Unscrew 4 screws fixing facing bar to remove the facing bar 1.
	
13.Remove duct assembly	
	Unscrew 2 screws to remove duct assembly.
	

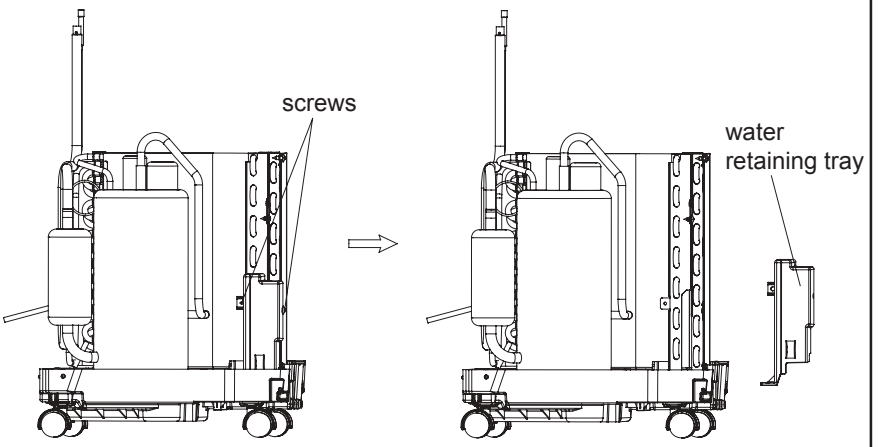
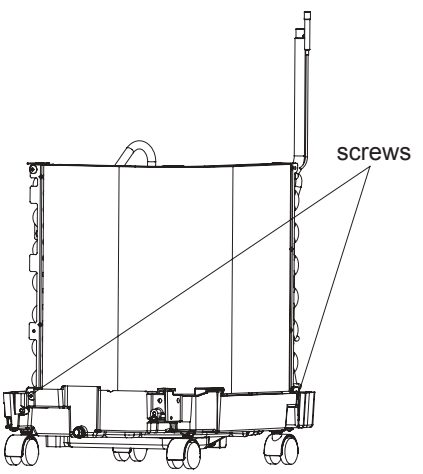
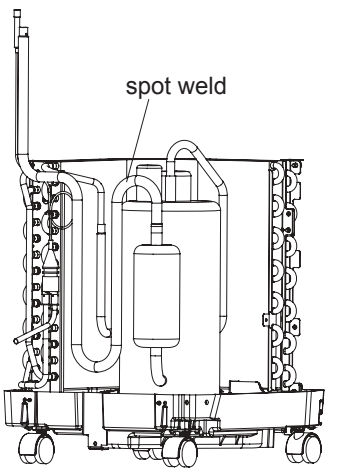
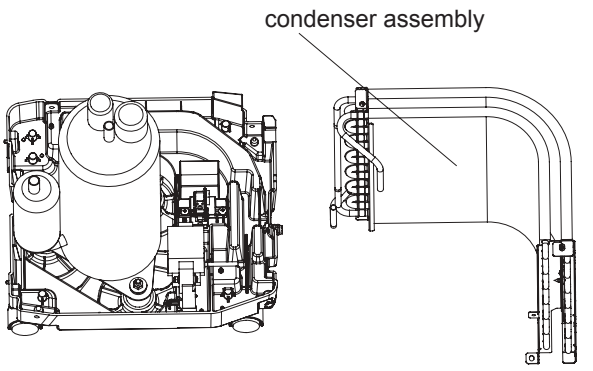
Step	Procedure
14.Remove connecting rod and vertical louver	
	Break out connecting rod and vertical louver by hand to remove them.
	
15.Remove volute (upper) and mesh enclosure	
	Unscrew 4 screws as diagram shown to remove volute (upper) and mesh enclosure.
	

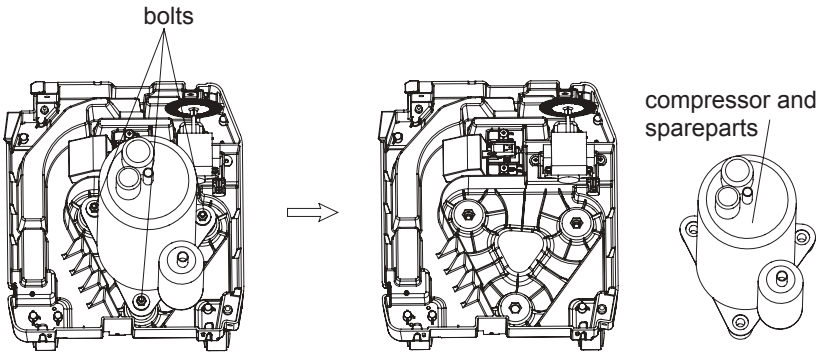
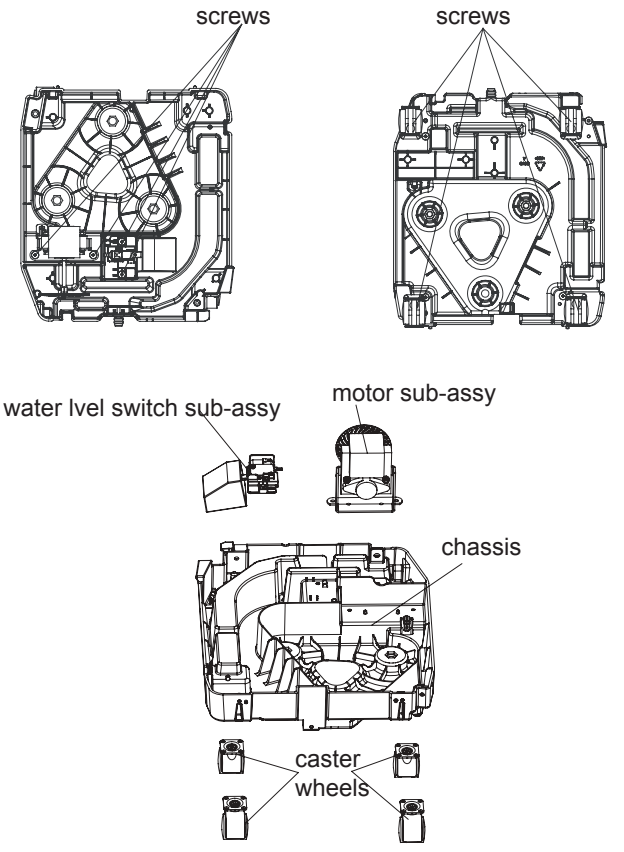
Step	Procedure
16.Remove centrifugal louver (upper)	
	Unscrew nuts of centrifugal louver (upper) and motor to remove centrifugal louver (upper).
16.Remove volute (lower) and water tray	
	Unscrew 3 screws as diagram shown to remove volute (lower) and water tray.





Step	Procedure
18.Remove diversion ring	
Unscrew 4 screws fixing diversion ring to remove diversion ring.	
19.Remove centrifugal louver (lower)	
Unscrew nuts of centrifugal louver anticlockwise, take out gasket to remove the centrifugal louver (lower).	
20.Remove motor	
Unscrew 3 screws fixing motor to remove the motor.	

Step	Procedure
21.Remove water retaining tray	
	Unscrew 2 screws fixing water retaining tray to remove water retaining tray.
	
22.Remove condenser assembly	
	Unscrew 2 screws, then unsolder the spot weld to remove condenser assembly. (Note: The refrigerant must be discharged before unsoldering.)
	
	
	

Step	Procedure
23.Remove compressor assembly	
Unscrew 3 bolts of compressor chassis, then take out gasket to remove compressor.	
24.Remove motor sub-assy, water level switch sub-assy and caster wheel	
(1) Unscrew 2 screws of bottom of sub-assy to remove motor sub-assy. (2) Unscrew 2 screws fixing water level switch to remove water level switch sub-assy. (3) Unscrew 8 screws fixing caster wheel to remove the 4 caster wheels.	

Appendix:

Appendix 1: Reference Sheet of Celsius and Fahrenheit

Conversion formula for Fahrenheit degree and Celsius degree: Tf=Tcx1.8+32

Set temperature

Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)		Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)		Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)
61	60.8	16		69/70	69.8	21		78/79	78.8	26
62/63	62.6	17		71/72	71.6	22		80/81	80.6	27
64/65	64.4	18		73/74	73.4	23		82/83	82.4	28
66/67	66.2	19		75/76	75.2	24		84/85	84.2	29
68	68	20		77	77	25		86	86	30

Ambient temperature

Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)		Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)		Fahrenheit display temperature (˚F)	Fahrenheit (˚F)	Celsius (˚C)
32/33	32	0		55/56	55.4	13		79/80	78.8	26
34/35	33.8	1		57/58	57.2	14		81	80.6	27
36	35.6	2		59/60	59	15		82/83	82.4	28
37/38	37.4	3		61/62	60.8	16		84/85	84.2	29
39/40	39.2	4		63	62.6	17		86/87	86	30
41/42	41	5		64/65	64.4	18		88/89	87.8	31
43/44	42.8	6		66/67	66.2	19		90	89.6	32
45	44.6	7		68/69	68	20		91/92	91.4	33
46/47	46.4	8		70/71	69.8	21		93/94	93.2	34
48/49	48.2	9		72	71.6	22		95/96	95	35
50/51	50	10		73/74	73.4	23		97/98	96.8	36
52/53	51.8	11		75/76	75.2	24		99	98.6	37
54	53.6	12		77/78	77	25				

Appendix 2: List of Resistance for Temperature Sensor

Resistance table of temperature sensor (15K)

Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)
-19	138.1		20	18.75		59	3.848		98	1.071
-18	128.6		21	17.93		60	3.711		99	1.039
-17	121.6		22	17.14		61	3.579		100	1.009
-16	115		23	16.39		62	3.454		101	0.98
-15	108.7		24	15.68		63	3.333		102	0.952
-14	102.9		25	15		64	3.217		103	0.925
-13	97.4		26	14.36		65	3.105		104	0.898
-12	92.22		27	13.74		66	2.998		105	0.873
-11	87.35		28	13.16		67	2.896		106	0.848
-10	82.75		29	12.6		68	2.797		107	0.825
-9	78.43		30	12.07		69	2.702		108	0.802
-8	74.35		31	11.57		70	2.611		109	0.779
-7	70.5		32	11.09		71	2.523		110	0.758
-6	66.88		33	10.63		72	2.439		111	0.737
-5	63.46		34	10.2		73	2.358		112	0.717
-4	60.23		35	9.779		74	2.28		113	0.697
-3	57.18		36	9.382		75	2.206		114	0.678
-2	54.31		37	9.003		76	2.133		115	0.66
-1	51.59		38	8.642		77	2.064		116	0.642
0	49.02		39	8.297		78	1.997		117	0.625
1	46.6		40	7.967		79	1.933		118	0.608
2	44.31		41	7.653		80	1.871		119	0.592
3	42.14		42	7.352		81	1.811		120	0.577
4	40.09		43	7.065		82	1.754		121	0.561
5	38.15		44	6.791		83	1.699		122	0.547
6	36.32		45	6.529		84	1.645		123	0.532
7	34.58		46	6.278		85	1.594		124	0.519
8	32.94		47	6.038		86	1.544		125	0.505
9	31.38		48	5.809		87	1.497		126	0.492
10	29.9		49	5.589		88	1.451		127	0.48
11	28.51		50	5.379		89	1.408		128	0.467
12	27.18		51	5.197		90	1.363		129	0.456
13	25.92		52	4.986		91	1.322		130	0.444
14	24.73		53	4.802		92	1.282		131	0.433
15	23.6		54	4.625		93	1.244		132	0.422
16	22.53		55	4.456		94	1.207		133	0.412
17	21.51		56	4.294		95	1.171		134	0.401
18	20.54		57	4.139		96	1.136		135	0.391
19	19.63		58	3.99		97	1.103		136	0.382

Resistance table of temperature sensor (20K)

Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)
-19	181.4		20	25.01		59	5.13		98	1.427
-18	171.4		21	23.9		60	4.948		99	1.386
-17	162.1		22	22.85		61	4.773		100	1.346
-16	153.3		23	21.85		62	4.605		101	1.307
-15	145		24	20.9		63	4.443		102	1.269
-14	137.2		25	20		64	4.289		103	1.233
-13	129.9		26	19.14		65	4.14		104	1.198
-12	123		27	18.13		66	3.998		105	1.164
-11	116.5		28	17.55		67	3.861		106	1.131
-10	110.3		29	16.8		68	3.729		107	1.099
-9	104.6		30	16.1		69	3.603		108	1.069
-8	99.13		31	15.43		70	3.481		109	1.039
-7	94		32	14.79		71	3.364		110	1.01
-6	89.17		33	14.18		72	3.252		111	0.983
-5	84.61		34	13.59		73	3.144		112	0.956
-4	80.31		35	13.04		74	3.04		113	0.93
-3	76.24		36	12.51		75	2.94		114	0.904
-2	72.41		37	12		76	2.844		115	0.88
-1	68.79		38	11.52		77	2.752		116	0.856
0	65.37		39	11.06		78	2.663		117	0.833
1	62.13		40	10.62		79	2.577		118	0.811
2	59.08		41	10.2		80	2.495		119	0.77
3	56.19		42	9.803		81	2.415		120	0.769
4	53.46		43	9.42		82	2.339		121	0.746
5	50.87		44	9.054		83	2.265		122	0.729
6	48.42		45	8.705		84	2.194		123	0.71
7	46.11		46	8.37		85	2.125		124	0.692
8	43.92		47	8.051		86	2.059		125	0.674
9	41.84		48	7.745		87	1.996		126	0.658
10	39.87		49	7.453		88	1.934		127	0.64
11	38.01		50	7.173		89	1.875		128	0.623
12	36.24		51	6.905		90	1.818		129	0.607
13	34.57		52	6.648		91	1.736		130	0.592
14	32.98		53	6.403		92	1.71		131	0.577
15	31.47		54	6.167		93	1.658		132	0.563
16	30.04		55	5.942		94	1.609		133	0.549
17	28.68		56	5.726		95	1.561		134	0.535
18	27.39		57	5.519		96	1.515		135	0.521
19	26.17		58	5.32		97	1.47		136	0.509

Resistance table of temperature sensor (50K)

Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)		Temp(°C)	Resistance(kΩ)
-29	853.5		10	98		49	18.34		88	4.75
-28	799.8		11	93.42		50	17.65		89	4.61
-27	750		12	89.07		51	16.99		90	4.47
-26	703.8		13	84.95		52	16.36		91	4.33
-25	660.8		14	81.05		53	15.75		92	4.20
-24	620.8		15	77.35		54	15.17		93	4.08
-23	580.6		16	73.83		55	14.62		94	3.96
-22	548.9		17	70.5		56	14.09		95	3.84
-21	516.6		18	67.34		57	13.58		96	3.73
-20	486.5		19	64.33		58	13.09		97	3.62
-19	458.3		20	61.48		59	12.62		98	3.51
-18	432		21	58.77		60	12.17		99	3.41
-17	407.4		22	56.19		61	11.74		100	3.32
-16	384.5		23	53.74		62	11.32		101	3.22
-15	362.9		24	51.41		63	10.93		102	3.13
-14	342.8		25	49.19		64	10.54		103	3.04
-13	323.9		26	47.08		65	10.18		104	2.96
-12	306.2		27	45.07		66	9.83		105	2.87
-11	289.6		28	43.16		67	9.49		106	2.79
-10	274		29	41.34		68	9.17		107	2.72
-9	259.3		30	39.61		69	8.85		108	2.64
-8	245.6		31	37.96		70	8.56		109	2.57
-7	232.6		32	36.38		71	8.27		110	2.50
-6	220.5		33	34.88		72	7.99		111	2.43
-5	209		34	33.45		73	7.73		112	2.37
-4	198.3		35	32.09		74	7.47		113	2.30
-3	199.1		36	30.79		75	7.22		114	2.24
-2	178.5		37	29.54		76	7.00		115	2.18
-1	169.5		38	28.36		77	6.76		116	2.12
0	161		39	27.23		78	6.54		117	2.07
1	153		40	26.15		79	6.33		118	2.02
2	145.4		41	25.11		80	6.13		119	1.96
3	138.3		42	24.13		81	5.93		120	1.91
4	131.5		43	23.19		82	5.75		121	1.86
5	125.1		44	22.29		83	5.57		122	1.82
6	119.1		45	21.43		84	5.39		123	1.77
7	113.4		46	20.6		85	5.22		124	1.73
8	108		47	19.81		86	5.06		125	1.68
9	102.8		48	19.06		87	4.90		126	1.64

Appendix 3: Resistance Value Table of Humidity Sensor

HIS-06 temperature and humidity characteristic5℃～ 14℃

Unit:KΩ

Relative humidity	Temperature（℃）									
%RH	5℃	6℃	7℃	8℃	9℃	10℃	11℃	12℃	13℃	14℃
90	5.35	4.92	4.55	4.23	3.95	3.70	3.47	3.25	3.05	2.87
89	5.80	5.33	4.93	4.58	4.27	4.00	3.74	3.51	3.29	3.09
88	6.29	5.77	5.33	4.95	4.62	4.32	4.03	3.78	3.54	3.32
87	6.82	6.25	5.77	5.36	4.99	4.66	4.35	4.08	3.82	3.58
86	7.40	6.78	6.25	5.80	5.40	5.04	4.70	4.40	4.11	3.85
85	8.03	7.35	6.78	6.28	5.84	5.45	5.09	4.75	4.45	4.16
84	8.71	7.97	7.35	6.81	6.33	5.91	5.50	5.14	4.80	4.49
83	9.44	8.65	7.97	7.39	6.87	6.41	5.96	5.56	5.19	4.84
82	10.25	9.39	8.65	8.02	7.46	6.96	6.47	6.03	5.62	5.24
81	11.13	10.19	9.40	8.71	8.10	7.56	7.03	6.54	6.09	5.68
80	12.09	11.07	10.21	9.46	8.80	8.21	7.62	7.08	6.59	6.13
79	13.14	12.03	11.09	10.28	9.57	8.93	8.28	7.70	7.16	6.66
78	14.27	13.07	12.05	11.17	10.40	9.70	8.99	8.35	7.75	7.20
77	15.50	14.20	13.10	12.14	11.30	10.55	9.78	9.07	8.43	7.83
76	16.84	15.43	14.24	13.21	12.30	11.48	10.64	9.87	9.16	8.51
75	18.31	16.78	15.49	14.37	13.38	12.50	11.58	10.75	9.98	9.26
74	19.91	18.25	16.85	15.64	14.57	13.62	12.62	11.72	10.89	10.12
73	21.67	19.87	18.35	17.04	15.88	14.84	13.71	12.67	11.72	10.84
72	23.61	21.66	20.00	18.57	17.31	16.18	14.98	13.90	12.89	11.96
71	25.78	23.64	21.84	20.27	18.89	17.66	16.35	15.16	14.06	13.05
70	28.15	25.82	23.85	22.15	20.65	19.30	17.91	16.63	15.46	14.37
69	30.78	28.24	26.10	24.24	22.60	21.13	19.60	18.19	16.91	15.71
68	33.69	30.92	28.58	26.55	24.76	23.16	21.48	19.94	18.53	17.22
67	36.90	33.88	31.33	29.11	27.16	25.42	23.56	21.86	20.29	18.85
66	40.45	37.16	34.37	31.96	29.84	27.93	25.83	23.92	22.15	20.52
65	44.38	40.78	37.74	35.11	32.78	30.70	28.42	26.34	24.42	22.65
64	48.75	44.81	41.48	38.59	36.05	33.77	31.24	28.93	26.80	24.83
63	53.64	49.31	45.65	42.48	39.68	37.17	34.34	31.74	29.36	27.15
62	59.14	54.36	50.32	46.82	43.73	40.97	37.83	34.96	32.32	29.87
61	65.31	60.02	55.55	51.68	48.26	45.20	41.70	38.51	35.58	32.86
60	72.27	66.40	61.43	57.13	53.33	49.94	46.07	42.53	39.28	36.27
59	80.13	73.58	68.04	63.25	59.01	55.23	50.94	47.03	43.43	40.10
58	88.92	81.61	75.43	70.08	65.36	61.14	56.40	52.08	48.11	44.43
57	98.86	90.68	83.77	77.78	72.50	67.78	62.49	57.67	53.23	49.12
56	112.59	102.79	94.50	87.33	81.00	75.33	69.42	64.03	59.07	54.48
55	122.69	112.51	103.91	96.45	89.88	84.00	77.42	71.41	65.88	60.76
54	137.09	125.76	116.19	107.89	100.57	94.03	86.69	79.99	73.82	68.11
53	153.46	140.88	130.25	121.03	112.91	105.64	97.26	89.61	82.58	76.06
52	172.19	158.19	146.35	136.10	127.05	118.96	109.52	100.90	92.97	85.63
51	193.69	178.04	164.81	153.36	143.25	134.21	123.35	113.43	104.31	95.86
50	218.48	200.85	185.94	173.02	161.63	151.44	139.14	127.90	117.57	108.01
49	247.23	227.16	210.19	195.49	182.52	170.92	156.84	143.98	132.15	121.20
48	278.74	256.20	237.15	220.64	206.08	193.06	177.34	163.00	149.80	137.58
47	315.50	289.95	268.35	249.64	233.14	218.37	200.56	184.30	169.34	155.49
46	357.93	328.94	304.43	283.20	264.47	247.72	227.57	209.18	192.25	176.59
45	406.44	373.72	346.05	322.08	300.94	282.03	259.22	238.40	219.24	201.51
44	463.66	426.44	394.96	367.70	343.66	322.14	296.25	272.62	250.87	230.74
43	531.25	488.59	452.53	421.28	393.73	369.08	339.44	312.38	287.50	264.45
42	611.22	562.01	520.40	484.35	452.55	424.11	390.24	359.31	330.86	304.52
41	707.78	650.29	601.68	559.58	522.44	489.21	450.38	414.92	382.31	352.11
40	823.98	756.22	698.93	649.30	605.53	566.37	521.46	480.46	442.74	407.81
39	962.72	882.62	814.90	756.23	704.48	658.19	604.79	556.03	511.18	469.66

38	1128.50	1033.61	953.39	883.90	822.61	767.78	704.83	647.37	594.51	545.56
37	1325.87	1213.40	1118.31	1035.94	963.29	898.30	823.48	755.17	692.34	634.16
36	1563.51	1430.14	1317.38	1219.71	1133.55	1056.48	967.04	885.39	810.28	740.74
35	1855.67	1695.83	1560.69	1443.63	1340.37	1248.00	1140.34	1042.06	951.64	867.93
34	2213.60	2020.33	1856.92	1715.37	1590.51	1478.82	1349.81	1232.04	1123.70	1023.39
33	2665.63	2426.92	2225.10	2050.27	1896.06	1758.12	1605.77	1466.69	1338.74	1220.28
32	3230.73	2933.36	2681.95	2464.17	2272.06	2100.23	1916.82	1749.39	1595.37	1452.76
31	3962.78	3585.59	3266.69	2990.44	2746.77	2528.80	2308.12	2106.66	1921.33	1749.74
30	4915.40	4431.65	4022.65	3668.35	3355.84	3076.30	2801.20	2550.06	2319.03	2105.13
29	6180.16	5548.66	5014.73	4552.22	4144.26	3779.32	3431.59	3114.13	2822.10	2551.72
28	7874.08	7035.10	6325.74	5711.27	5169.27	4684.43	4243.82	3841.57	3471.54	3128.95
27	10162.49	9029.08	8070.80	7240.70	6508.50	5853.53	5293.25	4781.75	4311.22	3875.57
26	13243.42	11702.63	10399.92	9271.46	8276.08	7385.69	6658.01	5993.68	5382.56	4816.75
25	17366.01	15270.67	13499.09	11964.48	10610.86	9400.00	8447.52	7577.98	6778.07	6037.48
24	22845.46	20023.30	17637.20	15570.26	13747.10	12116.22	10866.57	9725.72	8676.25	7704.59
23	30130.06	26367.98	23187.18	20431.85	18001.48	15827.43	14156.73	12631.50	11228.43	9929.38
22	39673.45	34712.87	30518.76	26885.65	23681.03	20814.39	18624.92	16626.08	14787.33	13084.91
21	51880.00	45447.42	40008.75	35297.56	31142.00	27424.72	24504.12	21837.82	19385.06	17114.16
20	68057.37	59623.21	52492.24	46315.10	40866.49	35992.53	32084.71	28517.14	25235.30	22196.79

HIS-06 temperature and humidity characteristic 15℃ ~24℃

Unit:KΩ

Relative humidity	Temperature（℃）									
%RH	15℃	16℃	17℃	18℃	19℃	20℃	21℃	22℃	23℃	24℃
90	2.70	2.56	2.43	2.31	2.19	2.08	1.99	1.91	1.83	1.75
89	2.91	2.76	2.61	2.48	2.35	2.23	2.13	2.04	1.95	1.86
88	3.12	2.96	2.80	2.66	2.52	2.39	2.28	2.18	2.08	1.98
87	3.36	3.18	3.01	2.85	2.70	2.56	2.44	2.33	2.22	2.12
86	3.61	3.42	3.23	3.06	2.90	2.75	2.62	2.50	2.38	2.27
85	3.90	3.69	3.49	3.30	3.12	2.95	2.81	2.67	2.54	2.42
84	4.20	3.97	3.76	3.55	3.36	3.18	3.03	2.88	2.74	2.61
83	4.52	4.28	4.05	3.83	3.63	3.43	3.26	3.10	2.94	2.79
82	4.89	4.63	4.38	4.14	3.92	3.71	3.52	3.33	3.16	2.99
81	5.29	5.00	4.73	4.48	4.24	4.01	3.80	3.60	3.42	3.23
80	5.70	5.39	5.10	4.83	4.57	4.33	4.10	3.88	3.68	3.48
79	6.19	5.85	5.53	5.22	4.94	4.67	4.41	4.17	3.94	3.72
78	6.69	6.32	5.96	5.63	5.32	5.02	4.75	4.49	4.24	4.01
77	7.27	6.85	6.46	6.09	5.74	5.41	5.11	4.83	4.56	4.31
76	7.90	7.44	7.00	6.59	6.20	5.83	5.51	5.21	4.92	4.65
75	8.60	8.08	7.60	7.14	6.71	6.30	5.95	5.62	5.30	4.99
74	9.40	8.82	8.28	7.77	7.29	6.83	6.45	6.09	5.74	5.41
73	10.02	9.44	8.89	8.38	7.89	7.43	7.01	6.60	6.21	5.84
72	11.10	10.43	9.79	9.19	8.63	8.09	7.62	7.17	6.74	6.33
71	12.10	11.36	10.67	10.02	9.40	8.82	8.31	7.82	7.36	6.92
70	13.36	12.52	11.72	10.98	10.27	9.60	9.03	8.49	7.97	7.48
69	14.60	13.67	12.79	11.97	11.19	10.45	9.82	9.23	8.66	8.11
68	16.00	14.96	13.99	13.07	12.20	11.37	10.68	10.02	9.39	8.78
67	17.50	16.35	15.27	14.26	13.30	12.39	11.61	10.86	10.15	9.47
66	19.00	17.76	16.60	15.51	14.47	13.49	12.64	11.83	11.05	10.31
65	21.00	19.59	18.26	17.01	15.82	14.70	13.76	12.86	12.01	11.19
64	23.00	21.43	19.96	18.57	17.25	16.00	14.98	14.00	13.06	12.16
63	25.10	23.38	21.77	20.24	18.80	17.44	16.31	15.24	14.22	13.24
62	27.60	25.66	23.84	22.13	20.51	18.97	17.73	16.55	15.42	14.34
61	30.33	28.17	26.14	24.23	22.42	20.71	19.37	18.10	16.88	15.72
60	33.47	31.05	28.78	26.64	24.62	22.70	21.24	19.84	18.50	17.23
59	37.00	34.31	31.77	29.39	27.13	24.99	23.37	21.83	20.36	18.95
58	41.00	38.00	35.18	32.52	30.00	27.61	25.82	24.11	22.47	20.90
57	45.30	41.99	38.88	35.95	33.18	30.54	28.59	26.72	24.94	23.24

56	50.20	46.55	43.12	39.89	36.83	33.93	31.76	29.69	27.71	25.82
55	56.00	51.92	48.08	44.47	41.05	37.80	35.35	33.02	30.79	28.65
54	62.80	58.20	53.88	49.80	45.95	42.29	39.51	36.87	34.34	31.92
53	70.00	64.95	60.21	55.74	51.51	47.50	44.33	41.31	38.42	35.65
52	78.80	73.12	67.79	62.76	58.00	53.49	49.86	46.40	43.10	39.94
51	88.00	81.79	75.97	70.47	65.27	60.34	56.11	52.08	48.23	44.54
50	99.10	92.12	85.57	79.39	73.55	68.00	63.15	58.52	54.10	49.86
49	111.00	103.28	96.04	89.20	82.74	76.61	70.94	65.54	60.38	55.44
48	126.20	117.27	108.88	100.97	93.48	86.38	79.89	73.71	67.79	62.13
47	142.60	132.48	122.97	114.00	105.52	97.48	90.16	83.18	76.51	70.12
46	162.00	150.38	139.46	129.16	119.43	110.19	101.62	93.45	85.64	78.17
45	185.00	171.49	158.81	146.85	135.53	124.80	115.00	105.66	96.74	88.20
44	212.00	196.23	181.41	167.45	154.23	141.70	130.18	119.19	108.69	98.64
43	243.00	224.65	207.41	191.15	175.78	161.19	148.03	135.48	123.49	112.01
42	280.00	258.38	238.08	218.93	200.82	183.64	168.64	154.32	140.65	127.56
41	324.00	298.37	274.29	251.59	230.12	209.75	192.53	176.11	160.43	145.41
40	375.30	344.95	316.43	289.55	264.12	240.00	220.30	201.52	183.57	166.39
39	431.00	395.97	363.07	332.05	302.71	274.87	251.94	230.08	209.19	189.19
38	500.00	458.51	419.54	382.80	348.04	315.07	289.04	264.21	240.49	217.78
37	580.00	531.11	485.18	441.88	400.92	362.06	332.09	303.52	276.21	250.07
36	676.00	618.14	563.79	512.55	464.08	418.09	383.52	350.57	319.07	288.92
35	790.00	721.80	657.74	597.34	540.20	486.00	445.77	407.41	370.75	335.66
34	930.00	848.96	772.84	701.08	633.19	568.78	521.38	476.19	433.01	391.66
33	1110.00	1011.10	918.19	830.60	747.75	669.14	613.58	560.59	509.97	461.49
32	1320.00	1201.45	1090.09	985.09	885.78	791.56	725.62	662.75	602.68	545.17
31	1590.00	1444.80	1308.40	1179.80	1058.15	942.75	863.43	787.81	715.55	646.36
30	1906.00	1731.91	1568.38	1414.20	1268.36	1130.00	1034.60	943.64	856.73	773.51
29	2300.00	2089.81	1892.37	1706.22	1530.13	1363.08	1244.55	1131.54	1023.56	920.17
28	2810.00	2550.31	2306.37	2076.38	1858.82	1652.43	1505.84	1366.07	1232.52	1104.65
27	3470.00	3144.23	2838.22	2549.70	2276.79	2017.87	1836.86	1664.27	1499.35	1341.45
26	4290.00	3885.50	3505.53	3147.28	2808.41	2486.92	2253.64	2031.21	1818.67	1615.18
25	5348.00	4843.01	4368.65	3921.40	3498.35	3097.00	2802.48	2521.66	2253.33	1996.42
24	6800.00	6152.28	5543.84	4970.19	4427.56	3912.77	3538.27	3181.20	2840.01	2513.33
23	8720.00	7888.61	7107.64	6371.32	5674.82	5014.05	4529.95	4068.38	3627.32	3205.04
22	11500.00	10371.38	9311.21	8311.65	7366.14	6469.15	5839.63	5239.39	4665.85	4116.71
21	15000.00	13512.80	12115.79	10798.65	9552.74	8370.76	7546.29	6760.17	6009.01	5289.82
20	19368.00	17441.37	15631.58	13925.26	12311.23	10780.00	9716.41	8702.31	7733.29	6805.52

HIS-06 temperature and humidity characteristic 25℃～ 34℃

Unit:KΩ

Relative humidity	Temperature（℃）									
%RH	25℃	26℃	27℃	28℃	29℃	30℃	31℃	32℃	33℃	34℃
90	1.68	1.62	1.57	1.52	1.47	1.42	1.37	1.33	1.28	1.24
89	1.78	1.72	1.66	1.61	1.55	1.50	1.45	1.40	1.36	1.31
88	1.89	1.83	1.76	1.70	1.65	1.59	1.54	1.49	1.44	1.39
87	2.02	1.95	1.88	1.81	1.74	1.68	1.63	1.57	1.52	1.47
86	2.16	2.08	2.00	1.93	1.85	1.78	1.72	1.66	1.61	1.55
85	2.30	2.21	2.13	2.05	1.97	1.89	1.82	1.76	1.70	1.64
84	2.48	2.38	2.28	2.19	2.10	2.01	1.94	1.87	1.80	1.73
83	2.65	2.54	2.43	2.33	2.24	2.14	2.06	1.98	1.91	1.83
82	2.83	2.71	2.60	2.49	2.38	2.28	2.19	2.11	2.02	1.94
81	3.06	2.93	2.80	2.67	2.55	2.44	2.34	2.24	2.15	2.06
80	3.28	3.14	3.00	2.86	2.73	2.60	2.49	2.38	2.28	2.18
79	3.51	3.35	3.20	3.05	2.91	2.78	2.65	2.54	2.42	2.31
78	3.78	3.61	3.44	3.28	3.12	2.97	2.83	2.70	2.57	2.45
77	4.06	3.87	3.69	3.51	3.34	3.17	3.03	2.88	2.74	2.61
76	4.38	4.17	3.97	3.77	3.58	3.40	3.23	3.07	2.92	2.77
75	4.70	4.47	4.25	4.04	3.84	3.64	3.46	3.28	3.11	2.94
74	5.09	4.83	4.59	4.35	4.12	3.90	3.70	3.51	3.32	3.14

73	5.49	5.21	4.94	4.68	4.43	4.19	3.97	3.75	3.54	3.34
72	5.93	5.62	5.33	5.04	4.77	4.50	4.26	4.02	3.80	3.57
71	6.49	6.13	5.79	5.46	5.14	4.84	4.57	4.32	4.07	3.83
70	7.00	6.61	6.24	5.88	5.53	5.20	4.91	4.63	4.35	4.09
69	7.59	7.16	6.75	6.35	5.96	5.59	5.27	4.97	4.67	4.38
68	8.20	7.73	7.28	6.84	6.42	6.01	5.67	5.34	5.01	4.70
67	8.82	8.32	7.83	7.36	6.91	6.47	6.10	5.74	5.38	5.04
66	9.60	9.03	8.49	7.96	7.46	6.97	6.57	6.18	5.80	5.43
65	10.40	9.78	9.18	8.61	8.06	7.52	7.08	6.65	6.24	5.84
64	11.30	10.62	9.96	9.33	8.72	8.13	7.65	7.19	6.74	6.30
63	12.30	11.55	10.82	10.12	9.45	8.80	8.27	7.75	7.26	6.78
62	13.30	12.49	11.71	10.96	10.23	9.53	8.96	8.41	7.87	7.35
61	14.60	13.69	12.81	11.97	11.15	10.36	9.73	9.12	8.53	7.96
60	16.00	14.99	14.02	13.08	12.17	11.30	10.61	9.94	9.29	8.66
59	17.60	16.48	15.40	14.35	13.35	12.38	11.61	10.87	10.15	9.46
58	19.40	18.15	16.95	15.79	14.68	13.60	12.75	11.93	11.13	10.36
57	21.60	20.18	18.81	17.49	16.22	14.99	14.05	13.14	12.26	11.41
56	24.00	22.40	20.86	19.37	17.94	16.55	15.50	14.48	13.50	12.54
55	26.60	24.81	23.10	21.44	19.84	18.30	17.13	16.00	14.90	13.83
54	29.60	27.59	25.66	23.81	22.01	20.28	18.96	17.69	16.46	15.26
53	33.00	30.74	28.57	26.48	24.46	22.52	21.04	19.62	18.24	16.90
52	36.90	34.35	31.90	29.53	27.25	25.05	23.38	21.77	20.21	18.69
51	41.00	38.18	35.47	32.86	30.34	27.90	26.03	24.22	22.46	20.76
50	45.80	42.62	39.55	36.60	33.75	31.00	28.91	26.89	24.93	23.03
49	50.70	47.20	43.83	40.59	37.45	34.43	32.08	29.81	27.61	25.47
48	56.70	52.72	48.90	45.21	41.66	38.22	35.62	33.10	30.67	28.30
47	64.00	59.37	54.91	50.61	46.46	42.46	39.57	36.78	34.07	31.45
46	71.00	65.89	60.97	56.22	51.65	47.23	43.99	40.85	37.81	34.86
45	80.00	74.13	68.48	63.03	57.78	52.70	49.02	45.46	42.00	38.65
44	89.00	82.54	76.32	70.33	64.54	58.96	54.75	50.69	46.74	42.92
43	101.00	93.48	86.25	79.28	72.55	66.06	61.28	56.65	52.17	47.82
42	115.00	106.23	97.79	89.66	81.81	74.23	68.69	63.33	58.14	53.10
41	131.00	120.81	111.01	101.56	92.44	83.64	77.33	71.23	65.31	59.57
40	149.90	138.01	126.56	115.53	104.88	94.60	87.37	80.37	73.58	66.99
39	170.00	156.52	143.54	131.04	118.97	107.32	99.08	91.11	83.38	75.88
38	196.00	180.09	164.79	150.04	135.81	122.06	112.71	103.65	94.88	86.37
37	225.00	206.61	188.92	171.87	155.41	139.52	128.86	118.54	108.53	98.82
36	260.00	238.50	217.80	197.86	178.62	160.04	147.90	136.16	124.77	113.73
35	302.00	276.83	252.61	229.27	206.76	185.00	170.96	157.37	144.19	131.41
34	352.00	322.66	294.42	267.21	240.96	215.59	199.30	183.53	168.24	153.40
33	415.00	380.13	346.58	314.24	283.04	252.90	233.57	214.84	196.70	179.09
32	490.00	448.82	409.19	371.01	334.16	298.57	275.69	253.53	232.06	211.23
31	580.00	531.32	484.48	439.35	395.79	353.72	326.76	300.66	275.37	250.83
30	693.69	634.81	578.16	523.57	470.89	420.00	387.67	356.36	326.02	296.58
29	821.00	751.60	684.82	620.48	558.38	498.40	459.39	421.61	385.00	349.49
28	982.00	898.01	817.20	739.32	664.18	591.58	544.87	499.65	455.82	413.29
27	1190.00	1085.85	985.63	889.06	795.87	705.85	649.51	594.96	542.09	490.80
26	1420.00	1297.43	1179.49	1065.83	956.17	850.22	781.68	715.32	651.00	588.59
25	1750.00	1597.27	1450.30	1308.67	1172.02	1040.00	954.91	872.53	792.68	715.22
24	2200.00	2005.83	1818.99	1638.94	1465.21	1297.38	1189.66	1085.37	984.29	886.22
23	2800.00	2551.47	2312.32	2081.87	1859.50	1644.68	1506.06	1371.84	1241.75	1115.55
22	3590.00	3270.74	2963.54	2667.51	2381.86	2105.90	1925.97	1751.75	1582.89	1419.07
21	4600.00	4191.56	3798.54	3419.81	3054.38	2701.33	2467.06	2240.24	2020.39	1807.10
20	5915.63	5385.23	4874.84	4383.03	3908.47	3450.00	3152.84	2865.12	2586.25	2315.70

HIS-06 Characteristic of temperature and humidity 35℃ ~ 45℃

Unit:KΩ

Relative humidity	Temperature（℃）										
%RH	35℃	36℃	37℃	38℃	39℃	40℃	41℃	42℃	43℃	44℃	45℃
90	1.20	1.17	1.14	1.11	1.08	1.05	1.02	1.00	0.98	0.95	0.93
89	1.27	1.23	1.20	1.16	1.13	1.10	1.07	1.05	1.02	1.00	0.97
88	1.34	1.30	1.26	1.22	1.19	1.15	1.12	1.09	1.07	1.04	1.02
87	1.42	1.37	1.33	1.29	1.25	1.21	1.18	1.15	1.12	1.09	1.06
86	1.50	1.45	1.40	1.36	1.31	1.27	1.24	1.20	1.17	1.14	1.11
85	1.58	1.53	1.48	1.43	1.38	1.33	1.29	1.26	1.23	1.19	1.16
84	1.67	1.61	1.56	1.50	1.45	1.40	1.36	1.32	1.29	1.25	1.21
83	1.76	1.70	1.64	1.58	1.52	1.47	1.43	1.39	1.35	1.31	1.27
82	1.86	1.79	1.73	1.66	1.60	1.54	1.50	1.45	1.41	1.37	1.33
81	1.97	1.90	1.82	1.75	1.69	1.62	1.57	1.53	1.48	1.44	1.40
80	2.08	2.00	1.93	1.85	1.78	1.71	1.66	1.61	1.56	1.51	1.46
79	2.20	2.12	2.03	1.95	1.88	1.80	1.74	1.69	1.64	1.59	1.54
78	2.33	2.24	2.15	2.07	1.98	1.90	1.84	1.78	1.72	1.67	1.61
77	2.48	2.38	2.28	2.18	2.09	2.00	1.94	1.87	1.81	1.75	1.69
76	2.62	2.51	2.41	2.31	2.21	2.12	2.05	1.98	1.91	1.84	1.78
75	2.78	2.67	2.56	2.45	2.34	2.24	2.16	2.09	2.01	1.94	1.87
74	2.96	2.84	2.71	2.60	2.48	2.37	2.29	2.20	2.12	2.04	1.97
73	3.14	3.01	2.88	2.75	2.63	2.51	2.42	2.33	2.24	2.15	2.07
72	3.36	3.21	3.06	2.92	2.78	2.65	2.55	2.46	2.36	2.27	2.18
71	3.60	3.44	3.28	3.12	2.97	2.82	2.71	2.61	2.50	2.40	2.30
70	3.83	3.65	3.48	3.32	3.16	3.00	2.88	2.77	2.65	2.54	2.43
69	4.10	3.91	3.73	3.55	3.37	3.20	3.07	2.94	2.82	2.70	2.58
68	4.40	4.19	3.99	3.79	3.60	3.41	3.27	3.13	2.99	2.86	2.73
67	4.71	4.49	4.27	4.06	3.85	3.65	3.49	3.34	3.19	3.05	2.90
66	5.08	4.83	4.59	4.36	4.13	3.91	3.74	3.57	3.41	3.25	3.09
65	5.45	5.19	4.93	4.68	4.44	4.20	4.01	3.83	3.65	3.47	3.30
64	5.88	5.59	5.31	5.04	4.78	4.52	4.31	4.11	3.91	3.72	3.53
63	6.31	6.00	5.70	5.41	5.13	4.85	4.63	4.41	4.20	4.00	3.80
62	6.84	6.50	6.17	5.84	5.53	5.22	4.98	4.75	4.52	4.30	4.09
61	7.40	7.03	6.66	6.31	5.97	5.63	5.37	5.12	4.88	4.64	4.41
60	8.05	7.64	7.24	6.86	6.48	6.11	5.83	5.55	5.28	5.01	4.76
59	8.78	8.33	7.89	7.46	7.05	6.64	6.33	6.02	5.72	5.43	5.14
58	9.61	9.10	8.61	8.13	7.66	7.20	6.86	6.52	6.19	5.87	5.56
57	10.58	10.00	9.43	8.88	8.34	7.82	7.44	7.08	6.72	6.36	6.02
56	11.61	10.96	10.33	9.71	9.11	8.53	8.11	7.70	7.30	6.91	6.53
55	12.80	12.07	11.36	10.68	10.00	9.35	8.88	8.42	7.97	7.53	7.10
54	14.10	13.29	12.50	11.73	10.98	10.25	9.72	9.21	8.70	8.21	7.73
53	15.60	14.68	13.78	12.90	12.05	11.22	10.63	10.06	9.50	8.96	8.42
52	17.22	16.18	15.18	14.20	13.24	12.31	11.66	11.02	10.40	9.79	9.19
51	19.10	17.93	16.79	15.68	14.59	13.54	12.81	12.10	11.40	10.72	10.05
50	21.18	19.87	18.60	17.36	16.15	14.97	14.14	13.33	12.54	11.77	11.01
49	23.40	21.97	20.57	19.21	17.89	16.60	15.65	14.73	13.82	12.94	12.08
48	26.00	24.35	22.75	21.20	19.68	18.20	17.17	16.16	15.18	14.21	13.27
47	28.90	27.06	25.28	23.54	21.85	20.20	19.03	17.88	16.77	15.68	14.61
46	32.00	29.95	27.96	26.03	24.14	22.30	21.00	19.74	18.50	17.29	16.11
45	35.40	33.16	30.99	28.87	26.81	24.80	23.33	21.90	20.50	19.14	17.80
44	39.20	36.71	34.29	31.93	29.64	27.40	25.79	24.21	22.67	21.17	19.70
43	43.60	40.77	38.02	35.35	32.74	30.20	28.45	26.73	25.06	23.43	21.83
42	48.20	45.06	42.00	39.02	36.13	33.30	31.40	29.55	27.74	25.97	24.25
41	54.00	50.43	46.97	43.59	40.30	37.10	34.98	32.92	30.90	28.93	27.00
40	60.60	56.63	52.78	49.02	45.36	41.80	39.36	36.98	34.66	32.39	30.17
39	68.60	64.04	59.61	55.30	51.10	47.00	44.23	41.53	38.89	36.31	33.78
38	78.10	72.70	67.45	62.33	57.35	52.50	49.44	46.45	43.54	40.69	37.90

37	89.40	82.99	76.75	70.68	64.76	59.00	55.58	52.24	48.98	45.80	42.68
36	103.00	95.43	88.06	80.89	73.91	67.10	63.17	59.33	55.59	51.93	48.35
35	119.00	110.35	101.94	93.75	85.77	78.00	73.18	68.47	63.88	59.39	55.00
34	139.00	129.32	119.90	110.73	101.80	93.10	86.80	80.66	74.66	68.80	63.07
33	162.00	149.97	138.28	126.90	115.81	105.00	98.24	91.63	85.19	78.89	72.73
32	191.00	176.44	162.29	148.50	135.08	122.00	114.10	106.40	98.87	91.52	84.34
31	227.00	209.28	192.04	175.27	158.93	143.00	133.62	124.46	115.52	106.79	98.25
30	268.00	247.75	228.05	208.88	190.20	172.00	160.04	148.37	136.97	125.83	114.95
29	315.00	291.16	267.97	245.41	223.43	202.00	187.96	174.26	160.88	147.81	135.03
28	372.00	342.25	313.32	285.16	257.73	231.00	215.94	201.25	186.90	172.88	159.17
27	441.00	404.50	369.01	334.45	300.80	268.00	251.39	235.18	219.35	203.88	188.76
26	528.00	484.54	442.27	401.13	361.06	322.00	301.66	281.81	262.43	243.49	224.98
25	640.00	590.21	541.79	494.65	448.75	404.00	375.91	348.49	321.72	295.57	270.00
24	791.00	735.73	681.97	629.64	578.68	529.00	486.67	445.36	405.02	365.60	327.08
23	993.00	926.97	862.74	800.23	739.35	680.00	621.22	563.85	507.84	453.11	399.61
22	1260.00	1171.18	1084.80	1000.72	918.82	839.00	766.05	694.86	625.34	557.42	491.03
21	1600.00	1476.79	1356.97	1240.33	1126.73	1016.00	929.53	845.14	762.74	682.23	603.53
20	2053.00	1880.43	1712.58	1549.22	1390.09	1235.00	1131.26	1030.03	931.17	834.59	740.18

AIR CONDITIONING SYSTEMS

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