

SERVICE MANUAL

Wall Mounted Type ON/OFF'Q-Series Model No. HMC-HA67VA



WARNING

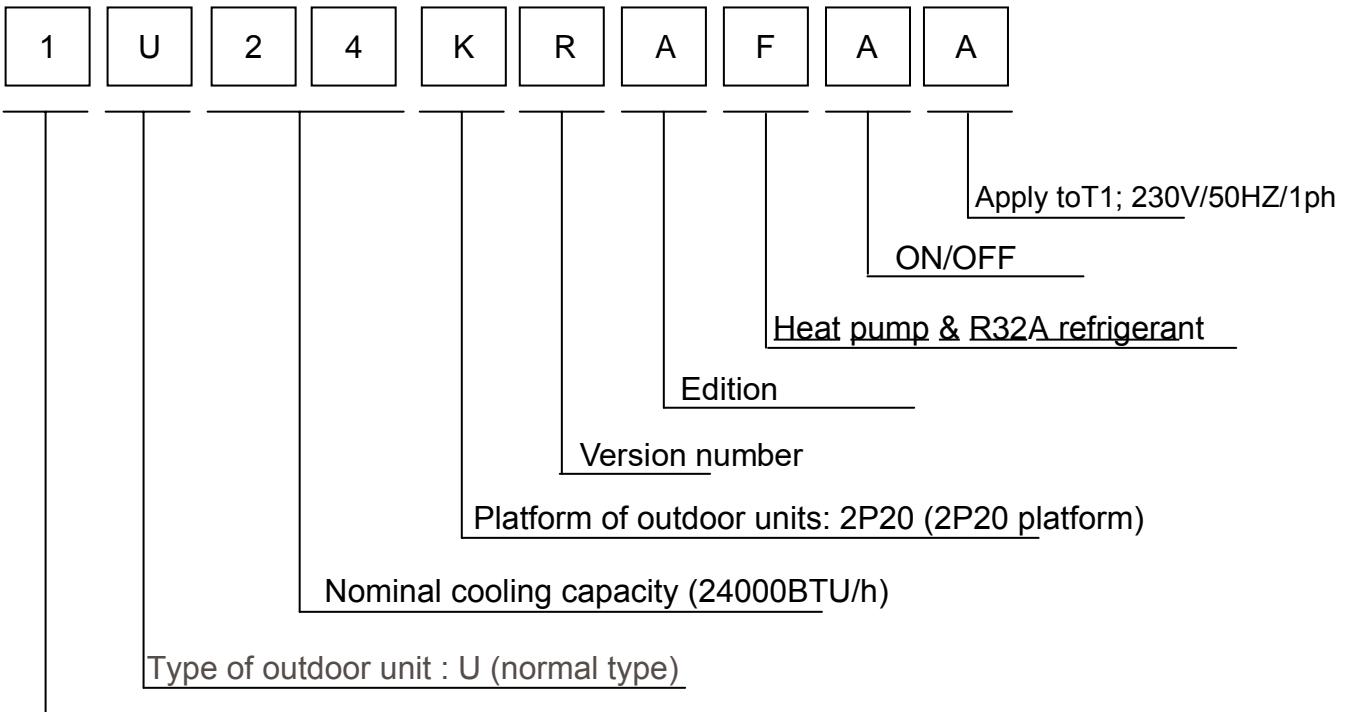
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or Repair the product or products dealt with in this service information by anyone else could result in serious injury or death

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1 Introduction

1.1 Model name explanation



1.2 Safety Cautions

Be sure to read the following safety cautions before conducting repair work.

The caution items are classified into "Warning" and "Caution". The "Warning" items are especially important since they can lead to death or serious injury if they are not followed closely. The "Caution" items can also lead

to serious accidents under some conditions if they are not followed. Therefore, be sure to observe all the safety

caution items described below.

About the pictograms

△ This symbol indicates an item for which caution must be exercised.

The pictogram shows the item to which attention must be paid.

○ This symbol indicates a prohibited action.

The prohibited item or action is shown inside or near the symbol.

● This symbol indicates an action that must be taken, or an instruction.

The instruction is shown inside or near the symbol.

After the repair work is complete, be sure to conduct a test operation to ensure that the equipment operates Normally, and explain the cautions for operating the product to the customer.

1.2.1 Caution in Repair

Warning	
Be sure to disconnect the power cable plug from the plug socket before disassembling the equipment for a repair.	
Working on the equipment that is connected to a power supply can cause an electrical shock. If it is necessary to supply power to the equipment to conduct the repair or inspecting the circuits, do not touch any electrically charged sections of the equipment.	
If the refrigerant gas discharges during the repair work, do not touch the discharging refrigerant gas .The refrigerant gas can cause frostbite.	
When disconnecting the suction or discharge pipe of the compressor at the welded section, release the refrigerant gas completely at a well-ventilated place first. If there is a gas remaining inside the compressor , the refrigerant gas or cooling machine oil discharges when the pipe is disconnected, and it can cause injury.	
If the refrigerant gas leaks during the repair work, ventilate the area. The refrigerant gas can generate toxic gases when it contacts flames.	
The step-up capacitor supplies high-voltage electricity to the electrical components of the outdoor unit. Be sure to discharge the capacitor completely before conducting repair work . A charged capacitor can cause an electrical shock.	
Do not start or stop the air conditioner operation by plugging or unplugging the power cable plug. Plugging or unplugging the power cable plug to operate the equipment can cause an electrical shock or fire.	

Warning	
Do not repair the electrical components with wet hands . Working on the equipment with wet hands can cause an electrical shock	
Do not clean the air conditioner by splashing water. Washing the unit with water can cause an electrical shock.	
Be sure to provide the grounding when repairing the equipment in a humid or wet place, to avoid electrical shock.	
Be sure to turn off the power switch and unplug the power cable when cleaning the equipment. The internal fan rotates at a high speed, and cause injury.	
Do not tilt the unit when removing it. The water inside the unit can spill and wet the furniture and floor.	
Be sure to check that the cooling cycle section has cooled down sufficiently before conducting repair work. Working on the unit when the cooling cycle section is hot can cause burns.	
Use the welder in a well-ventilated place. Using the welder in an enclosed room can cause oxygen deficiency.	

1.2.2 Cautions Regarding Products after Repair

Warning	
Be sure to use parts listed in the service parts list of the applicable model and appropriate tools to conduct repair work. Never attempt to modify the equipment. The use of inappropriate parts or tools can cause an electrical shock, excessive heat generation or fire.	
When relocating the equipment, make sure that the new installation site has sufficient strength to withstand the weight of the equipment. If the installation site does not have sufficient strength and if the installation work is not conducted securely, the equipment can fall and cause injury.	
Be sure to install the product correctly by using the provided standard installation frame. Incorrect use of the installation frame and improper installation can cause the equipment to fall, resulting in injury.	For integral units only
Be sure to install the product securely in the installation frame mounted on a window frame. If the unit is not securely mounted, it can fall and cause injury.	For integral units only

Warning	
<p>Be sure to use an exclusive power circuit for the equipment, and follow the technical standards related to the electrical equipment, the internal wiring regulations and the instruction manual for installation when conducting electrical work.</p> <p>Insufficient power circuit capacity and improper electrical work can cause an electrical shock or fire.</p>	
<p>Be sure to use the specified cable to connect between the indoor and outdoor units. Make the connections securely and route the cable properly so that there is no force pulling the cable at the connection terminals.</p> <p>Improper connections can cause excessive heat generation or fire.</p>	
<p>When connecting the cable between the indoor and outdoor units, make sure that the terminal cover does not lift off or dismount because of the cable.</p> <p>If the cover is not mounted properly, the terminal connection section can cause an electrical shock, excessive heat generation or fire.</p>	
<p>Do not damage or modify the power cable.</p> <p>Damaged or modified power cable can cause an electrical shock or fire. Placing heavy items on the power cable, and heating or pulling the power cable can damage the cable.</p>	
<p>Do not mix air or gas other than the specified refrigerant (R-410A / R22) in the refrigerant system.</p> <p>If air enters the cooling system, an excessively high pressure results, causing equipment damage and injury.</p>	
<p>If the refrigerant gas leaks, be sure to locate the leak and repair it before charging the refrigerant. After charging refrigerant, make sure that there is no refrigerant leak.</p> <p>If the leak cannot be located and the repair work must be stopped, be sure to perform pump-down and close the service valve, to prevent the refrigerant gas from leaking into the room. The refrigerant gas itself is harmless, but it can generate toxic gases when it contacts flames, such as fan and other heaters, stoves and ranges.</p>	
<p>When replacing the coin battery in the remote controller, be sure to disposed of the old battery to prevent children from swallowing it.</p> <p>If a child swallows the coin battery, see a doctor immediately.</p>	

Caution	
Installation of a leakage breaker is necessary in some cases depending on the conditions of the installation site, to prevent electrical shocks.	

<p>Do not install the equipment in a place where there is a possibility of combustible gas leaks. If a combustible gas leaks and remains around the unit, it can cause a fire.</p>	
<p>Be sure to install the packing and seal on the installation frame properly. If the packing and seal are not installed properly, water can enter the room and wet the furniture and floor.</p>	

1.2.3 Inspection after Repair

<p>Warning</p>	
<p>Check to make sure that the power cable plug is not dirty or loose, then insert the plug into a power outlet all the way. If the plug has dust or loose connection, it can cause an electrical shock or fire.</p>	
<p>If the power cable and lead wires have scratches or deteriorated, be sure to replace them. Damaged cable and wires can cause an electrical shock, excessive heat generation or fire.</p>	

<p>Warning</p>	
<p>Do not use a joined power cable or extension cable, or share the same power outlet with other electrical appliances since it can cause an electrical shock, excessive heat generation or fire.</p>	

<p>Caution</p>	
<p>Check to see if the parts and wires are mounted and connected properly, and if the connections at the soldered or crimped terminals are secure. Improper installation and connections can cause excessive heat generation, fire or an electrical shock.</p>	
<p>If the installation platform or frame has corroded, replace it. Corroded installation platform or frame can cause the unit to fall, resulting in injury.</p>	

Check the grounding, and repair it if the equipment is not properly grounded. Improper grounding can cause an electrical shock.	
Be sure to measure the insulation resistance after the repair, and make sure that the resistance is 1 M ohm or higher. Faulty insulation can cause an electrical shock.	
Be sure to check the drainage of the indoor unit after the repair. Faulty drainage can cause the water to enter the room and wet the furniture and floor.	

1.2.4 Using Icons

Icons are used to attract the attention of the reader to specific information. The meaning of each icon is described in the table below:

1.2.5 Using Icons List

Icon	Type of Information	Description
 Note	Note	A “note” provides information that is not indispensable, but may nevertheless be valuable to the reader, such as tips and tricks.
 Caution	Caution	A “caution” is used when there is danger that the reader, through incorrect manipulation, may damage equipment, lose data, get an unexpected result or has to restart (part of) a procedure.
 Warning	Warning	A “warning” is used when there is danger of personal injury.
 Reference	Reference	A “reference” guides the reader to other places in this binder or in this manual, where he/she will find additional information on a specific topic.

2 Specifications

NOMINAL DISTRIBUTION SYSTEM VOLTAGE		
Phase	/	1
Frequency	Hz	50
Voltage	V	230

NOMINAL CAPACITY and NOMINAL INPUT			
		cooling	heating
Capacity rated	KW	6.8	7.1
	Btu/h	23200	24220
Power Consumption(Rated)	KW	2.12	1.965
EER/COP	W/W	3.21	3.61
Annual energy consumption	KWh	1060	982.5
Moisture Removal	m³/h	2.8*10³	

TECHNICAL SPECIFICATIONS-UNIT			
Dimensions	W*D*H	mm	820*305*643
Packaged Dimensions	W*D*H	mm	940*390*697
Weight	/	KG	44.6
Gross weight	/	KG	47.4
Sound level	Sound pressure	dB	55
	Sound power	dB(A)	/

ELECTRICAL SPECIFICATIONS			
		cooling	heating
Nominal running current	A	9.2	8.6
Maximum running current	A	13.5	11.1
Starting current	A	8.0	7.8

TECHNICAL SPECIFICATIONS-PARTS			
		cooling	heating
Compressor	Type	Rotary Compressor	
	Model	GSL242SV-C7EU	
	Motor output	W	1432
	Oil type	HAF68D1 or equivalent	
	Oil charge volume	L	0.39
Fan	Type	Axial fan	
	Motor output	W	85
	Air flow rate(high)	m³/h	1000
	Speed(high/low)	rpm	820
Heat exchanger	Type	HSU-22HC03/R2 tube	
	Row*stage*fitch	2*28*1.4	

TECHNICAL SPECIFICATIONS-OTHERS			
Refrigerant circuit	Refrigerant type		R32
	Refrigerant charge	KG	1.05
	Maximum allowable distance between indoor an outdoor	m	25
	Maximum allowable level difference	m	15
	Refrigerant control	Capillary	
Piping connections (external diameter)	liquid	mm	Φ6.35
	gas	mm	Φ15.88
	drain	mm	Φ16
Heat insulation type		Both liquid and Gas pipes	
Max. piping Length		m	25
Max. Level Difference		m	15
Chargeless		m	7
Amount of Additional Charge of Refrigerant		g/m	20
International Protection degree		IP X4	

Note: the data are based on the conditions shown in the table below

cooling	heating	Piping length
Indoor: 27°CDB/19°CWB	Indoor:20°CDB	
Outdoor: 35°CDB/24°CWB	Outdoor: 7°CDB/6°CWB	5m

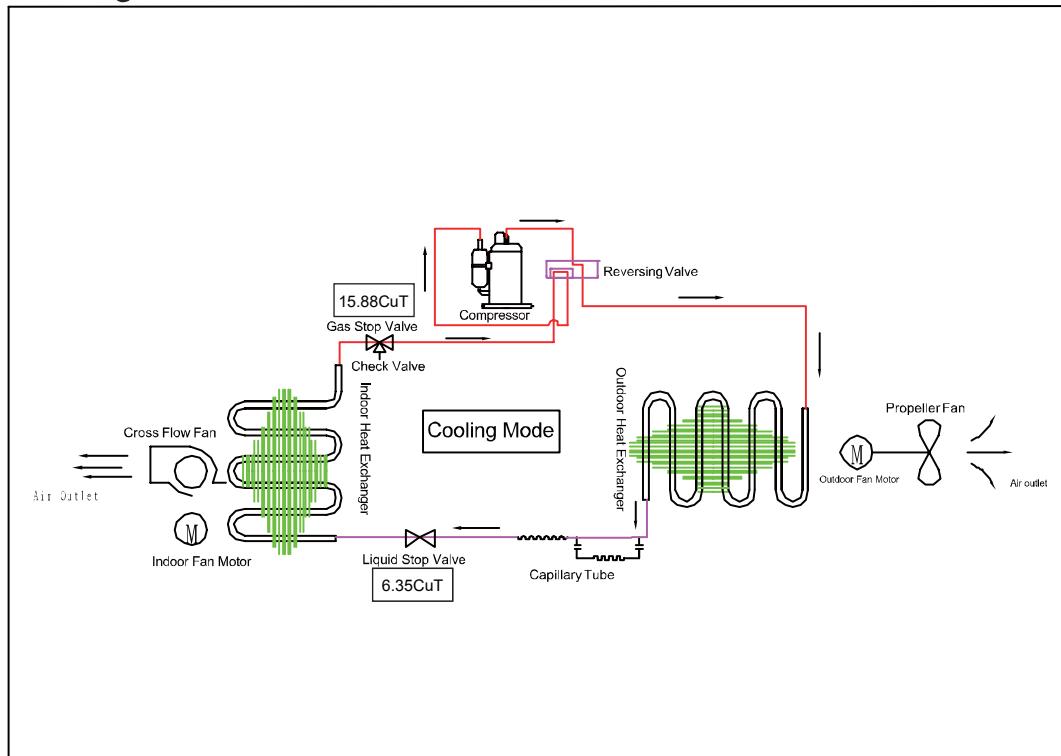
Conversation formulae
Kcal/h= KW×860
Btu/h= KW×3414
cfm=m³/min×35.3

3. Sensors list

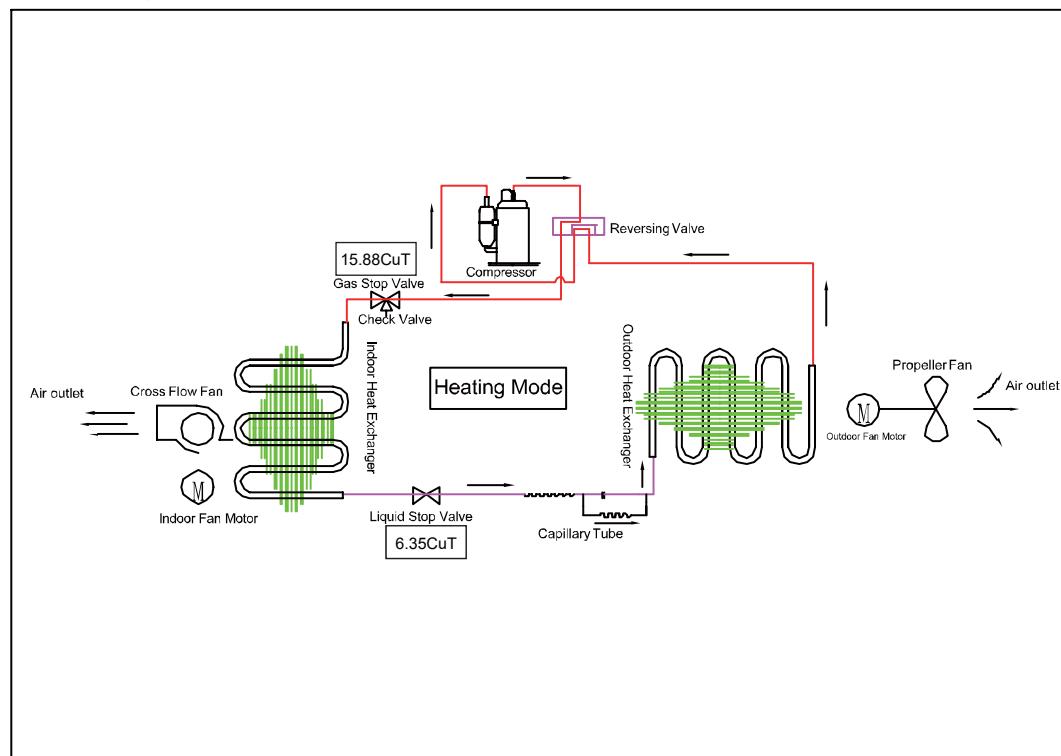
NONE

4. Piping diagrams

Cooling mode

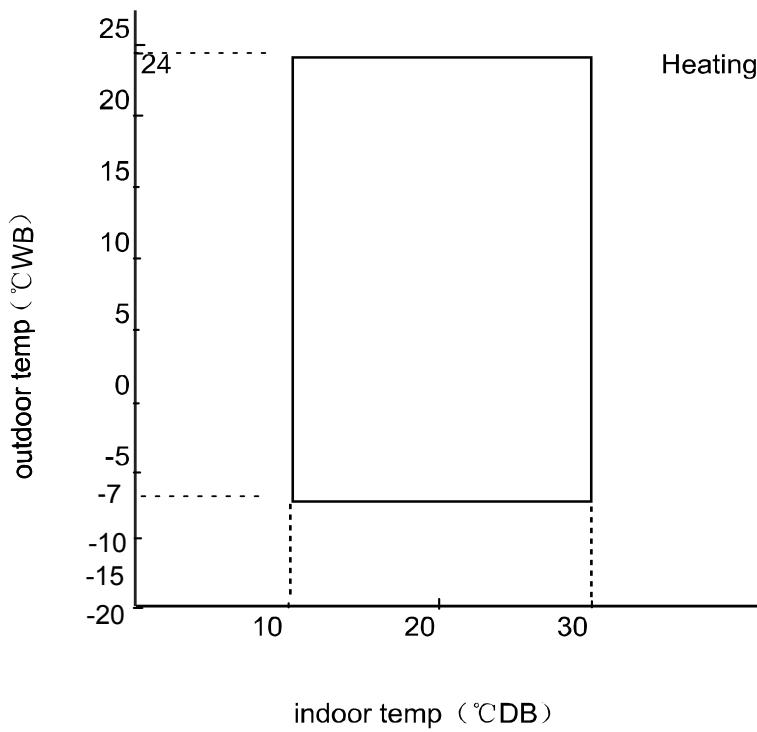
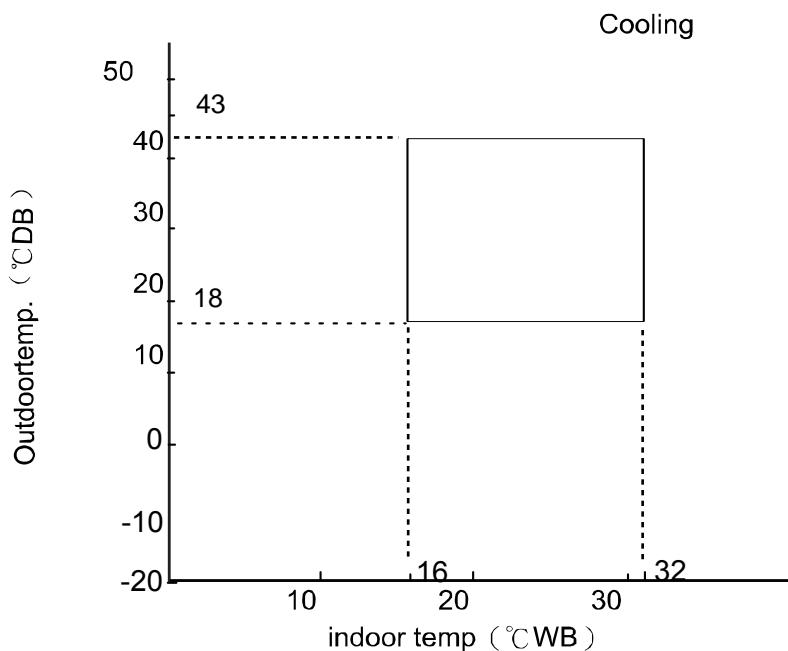


Heating mode



5. Operation range

The name of parts



Notes:

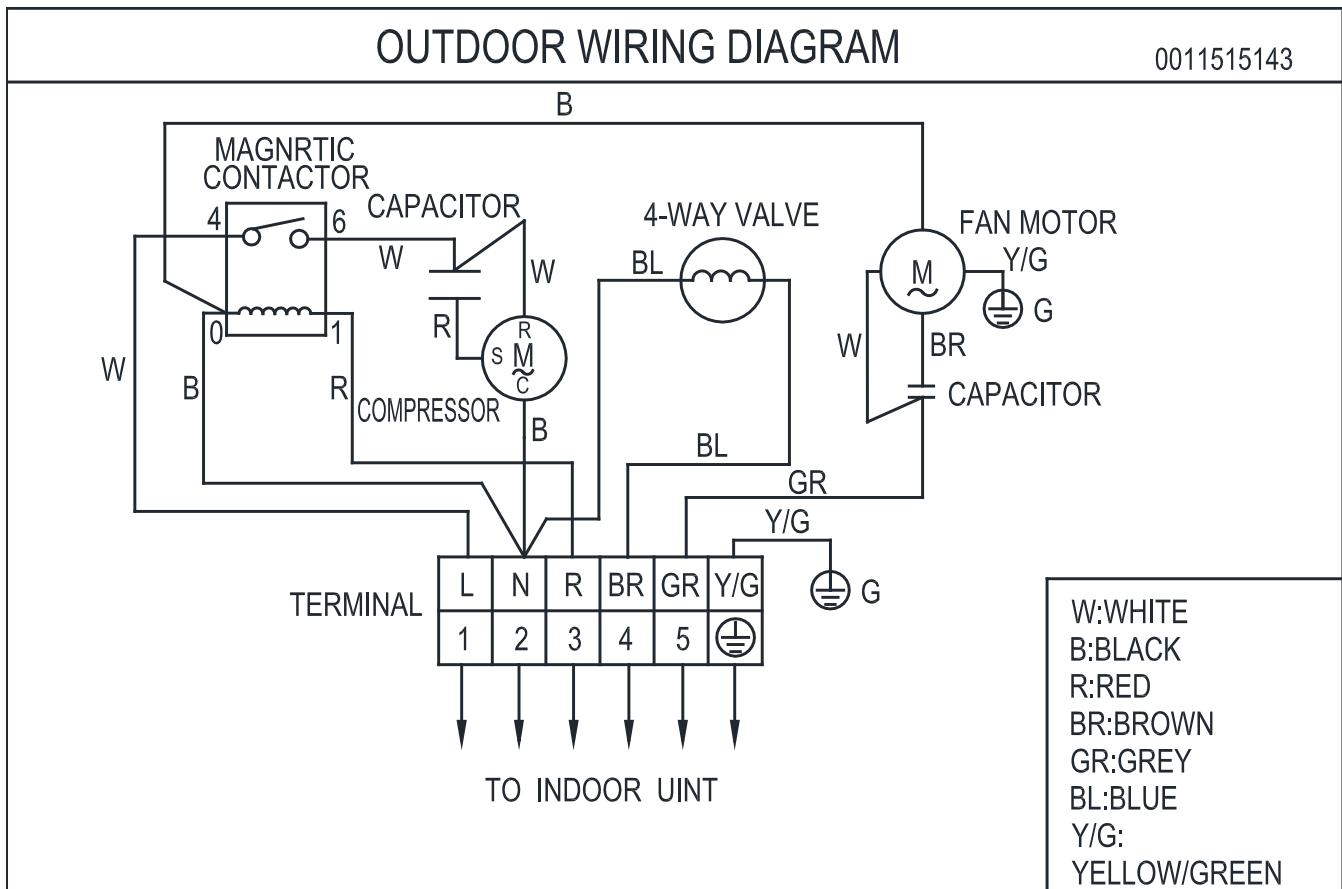
The graphs are based on the following condition:

Equivalent piping length 5m

Level difference 0m

Air flow rate high

6. Wiring Diagram



7. Functions and control

7.1 main functions and control specifications

Including brief introduction to air conditioners of series models and electric control function.

7.1.1 Automatic running

Automatic running mode

When the running mode is turned to automation after starting the system, the system will first determine the running mode according to the current room temperature and then will run according to the determined mode. Tr in the following selection conditions means room temperature, Ts means setting temperature, Tp means temperature of indoor coil pipe

- a. $Tr \geq 23^{\circ}\text{C}$ running cooling mode
- b. $Tr < 23^{\circ}\text{C}$ running heating mode

After turning to the automation mode, the running mode can be switched between cooling mode, fan mode and heating mode according to the change of the indoor ambient temperature. But the automatic conversion between cooling mode and heating mode must be conducted after 15 minutes.

7.1.2 Indoor temperature control

Temperature control range : 16°C — 30°C

Temperature control precision: $\pm 1^{\circ}\text{C}$

Compressor can't be controlled by temperature sensor within 2 minutes after it starts

7.1.2.1 Cooling mode:

When $Tr > Ts$, outdoor fan motor and compressor on, and indoor fan motor run at fixed wind speed. When $Tr < Ts$, outdoor fan motor and compressor off, and when $Tr > Ts$, outdoor fan motor and compressor are working again .If $Tr=Ts$, the indoor fan motor , outdoor fan motor and the compressor's state will not change.

7.1.2.2 Heating mode:

When $Tr \leq Ts$, compressor, four-ways valve and outdoor fan motor is on, indoor fan motor runs as in cold blast avoidance mode, and 4°C of compensation is added after compressor is started.

When $Tr > Ts + 5^{\circ}\text{C}$, compressor is off, and the indoor fan motor runs as in cold blast avoidance mode.

When $Tr < Ts + 5^{\circ}\text{C}$, compressor, four-ways valve and outdoor fan motor is on, and the indoor fan motor runs as in the mode of avoiding cold blast.

7.1.3 Cooling run mode:

temperature control range : 16°C — 30°C

temperature control precision: $\pm 1^{\circ}\text{C}$

compressor can't be controlled by temperature sensor within 2 minutes after it starts.

control character: when $Tr \geq Ts$, outlet air from compressor is on and indoor fan motor run at fixed wind speed. When $Tr < Ts$, outlet air from compressor is off , and when $Tr > Ts$, outlet air from compressor is on.

wind speed control: (the temperature difference is 1°C)

auto: when $Tr \geq Ts + 3^{\circ}\text{C}$, the wind speed is high;

When $Ts + 1^{\circ}\text{C} \leq Tr < Ts + 3^{\circ}\text{C}$, the wind speed is medium.

When $Tr < Ts + 1^{\circ}\text{C}$, the wind speed is low.

When temperature sensor is off, the fan motor runs at low speed.

when the wind speed changes from low to high, there is no delay, and when it changes from high to

low, there is a 3-minutes delay before conversion.

Manual operation: When unit is on the wind speed can be set to high, medium, low or automatic as required (execute instruction 2 seconds later after receiving remote signal)

Compressor control: The compressor can't be controlled by temperature sensor within 2 minutes after start up and can be only restarted at least 3 minutes later after shutdown. There is no 3-minute protection with power on for the first time (over 3 minutes with power off). The compressor must stands by for 3 minutes before it is restarted after shut down.

There is no 2-minute limit when changing the temperature setting or shutting down the machine through the remote controller, and the machine can be shut down immediately.

Avoiding electrical shock: outlet air is available 2 seconds later after startup.

High temperature expiration prevention:

When the temp. of coil pipe is above 62°C, compressor and outlet air stop running 10 seconds later, and inlet air runs as the temp. sensor is off. When compressor stands by for 3 minute and the temp. of coil pipe is below 60°C, the unit can be started again.

Protection of frost is available (disable in test run or heating mode): In order to prevent the indoor heat exchanger from freezing (in refrigeration or dehumidifying mode), the compressor will be shut off when the temperature of the indoor coil pipe is or below 0°C and the compressor runs for over 5 minutes. When the temperature of the indoor coil pipe ascends to over 7°C, the compressor is restarted (must meet a 3-minutes delay)

Timer on, Timer off and sleep control are available.

7.1.4 Dehumidifying mode :

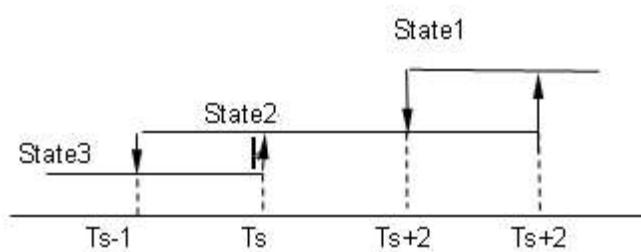
Temperature control range : 16°C—30°C

Control character:

When $Tr > Ts + 2^\circ\text{C}$, compressor and outdoor fan motor run continuously with indoor fan motor running in accordance with the wind speed setting(State 1).

When $Ts \leq Tr \leq Ts + 2^\circ\text{C}$, outlet air from compressor is on for 10 minutes and off for 6 minutes, the indoor fan motor is off in 3 minutes after shut down of compressor and gives breeze in other time(State 2).

When $Tr < Ts$, outlet air from compressor is unavailable, and the indoor fan motor enter breeze mode 3 minutes later after shut down of compressor(State 3).



When all the ranges alternate, there is $\pm 1^\circ\text{C}$ difference.

7.1.5 Heating mode: (cooling only have no the mode)

*Temperature control range : 16°C—30°C

*Temperature control precision: $\pm 1^\circ\text{C}$

*Control Character:

When $Tr \leq Ts$, compressor, four-ways valve and outdoor fan motor is on, indoor fan motor runs as in cold blast mode, and $4^{\circ}C$ of compensation is added after compressor is started.

When $Tr > Ts + 5^{\circ}C$, compressor is off, and the indoor fan motor runs as in warm blast mode.

When $Tr < Ts + 5^{\circ}C$, compressor, four-ways valve and outdoor fan motor is on, and the indoor fan motor runs as in the mode of avoiding cold blast.

* Control of indoor fan motor:

Manual operation: The wind speed can be set to high, medium, low or automatic as required.

Automatic operation: When $Tr < Ts$, the wind speed is high;

When $Ts \leq Tr < Ts + 2^{\circ}C$, the wind speed is medium.

When $Ts + 2^{\circ}C \leq Tr$, the wind speed is low.

*Control of air door: setting the position of air door as required.

*Compressor control: The compressor can't be controlled by temperature sensor in 2 minutes after start up and also can't be started again at least 3 minutes later after shut down. There are 3-minute protection with power on for the first time (over 3 minutes with power off). The compressor must be started again 3 minutes later after shut down.

*Avoiding electrical shock: outlet air is available 2 seconds later after start up.

*Timer on, Timer off and sleep control are available.

*Control of 4-way valve: When the unit is started for the first time, the 4-way valve starts running 10 seconds earlier than compressor does. After compressor stops running, the 4-way valve continues running for 2 minutes and then stops. If changing the unit from heating to cooling, the 4-way valve is shut off 2 minutes later and compressor is started 3 minutes later.

7.1.5.1 Cold draft prevention:

7.1.5.1.1 Compressor is interrupted during the defrosting operation and continues to run after defrosting is completed. When the indoor exchanging temperature is below $23^{\circ}C$, the indoor fan motor is off. When the indoor exchanging temperature is above $23^{\circ}C$, the indoor fan motor is running at weak speed.

7.1.5.1.2 If the temperature of coil pipe can't be above $38^{\circ}C$ 4 minutes later after start up, fan motor is running at the preset wind speed.

7.1.5.1.3 If the temperature of coil pipe is above $38^{\circ}C$ 4 minutes later after start up, fan motor is running at the preset wind speed.

7.1.5.1.4 If coil pipe descends to the temp. lower than $38^{\circ}C$ from $38^{\circ}C$, fan motor is running at the preset wind speed.

*Warm blast: If the temperature sensor is off. Compressor stops running. If the temperature of coil pipe is above $23^{\circ}C$, fan motor enter breeze mode; and if the temperature of coil pipe is below $20^{\circ}C$, fan motor stops running.

7.1.5.2 High temperature protection and high temperature expiration protection:

7.1.5.2.1 High temperature prevention: When the temp. of coil pipe is above $56^{\circ}C$, the outdoor fan motor stops. When the temp descends to $52^{\circ}C$, the outdoor fan motor is restarted and fan speed inververage frequence is more than 45 seconds.

7.1.5.2.2 High temperature expiration prevention: When the temp. of coil pipe is above $62^{\circ}C$, compressor and outlet air stop running 10 seconds later, and inlet air runs as the temp. sensor is off. When compressor stands by for 3 minute and the temp. of coil pipe is below $50^{\circ}C$, the unit can be started again.

*Current protection and current expiration protection: (Not detecting within 60 seconds after start up)

*Overcooling protection: One and half a minutes later after compressor starts, if the temperature of

coil pipe is below -4°C , compressor and air outlet stop, and air inlet runs according to the temp. setting. Compressor can be restarted 3 minutes later.

7.1.5.3 Defrosting:

7.1.5.3.1 Entry conditions of defrosting:

The entry conditions of defrosting is classified into two types: intelligentized defrosting and sensor defrosting. Through selecting and judging, the models without outdoor sensor defrosts according to intelligentized defrosting, and others with sensor defrosts according to sensor defrosting.

Intelligentized defrosting:

7.1.5.3.1.1 Indoor unit enter overload protection and air outlet stops when air outlet has been restarted and runs over 10 minutes, and compressor runs over 45 minutes in total and over 20 minutes continuously, and the temp. of indoor coil pipe is below 38°C .

7.1.5.3.1.2 Compressor runs 20 minutes continuously, and the temp. of indoor coil pipe decreases 1°C per 6 minutes and this operation repeats 3 times, and the temp. of coil pipe is below 38°C , and 5 minutes later after compressor is restarted.

7.1.5.3.1.3 When compressor runs over 3 hours in total and over 20 minutes continuously and after the temp. of indoor coil pipe is below 38°C , the system enters defrosting mode.

7.1.5.3.1.4 The difference between the temp. of indoor coil pipe and the indoor temp. is below 16°C and lasts 5 minutes, compressor runs over 45 minutes in total and over 20 minutes continuously after the temp. of indoor coil pipe is below 38°C , the system enters defrosting mode.

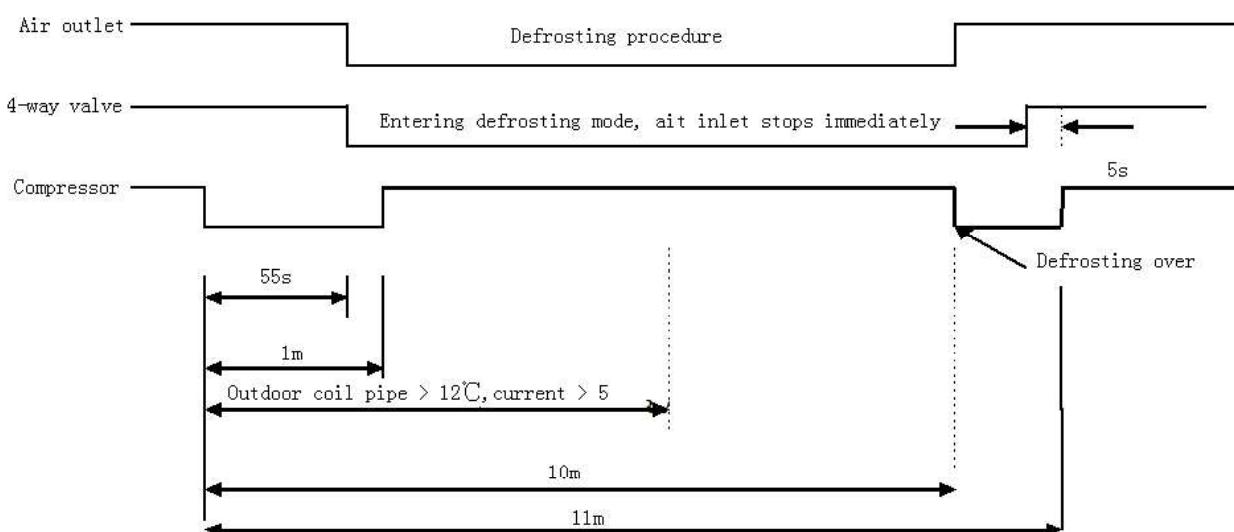
7.1.5.3.2 Exit conditions of defrosting:

Defrosting time is higher than 12 minutes (compressor is on).

7.1.5.3.2.1 During the defrosting, if current peak value is cut off, the unit quit the defrosting mode. But the protection of expiration of current peak value is unavailable with 60 seconds after compressor is started.

7.1.5.3.2.2 During the defrosting and 2 minutes After quiting the defrosting mode, abnormality of temp. sensor isn't detected.

7.1.5.3.2.3 After quiting the defrosting mode, the fan motor enter cooling prevention mode.



7.1.6 Timer function:

You can set 24-hour timer on or timer off as required, and the minum time unit is 1 minute. After setting, the indicator of indoor unit is on, and it is off when timer setting is completed. There are several

timer mode as follows.

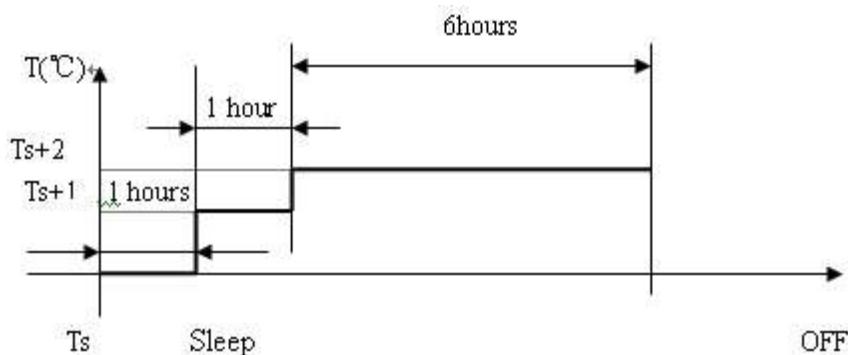
7.1.6.1 Timer on: The LED of "timer on" lights up, and unit behaves with halt status. Timer on is completed, and then unit starts running with the LED of "timer on" off. The unit starts with the last setting receiving timer signals, and sleep setting is not allowed.

7.1.6.2 Timer off: Unit starts, timer indicator lights up; When reaching time setting, the indicator goes out, unit enters shut down mode, and sleep function can be set. If timer off and sleep are set synchronously, the one which time is short run first. Executing shutdown instruction clear timer and sleep function.

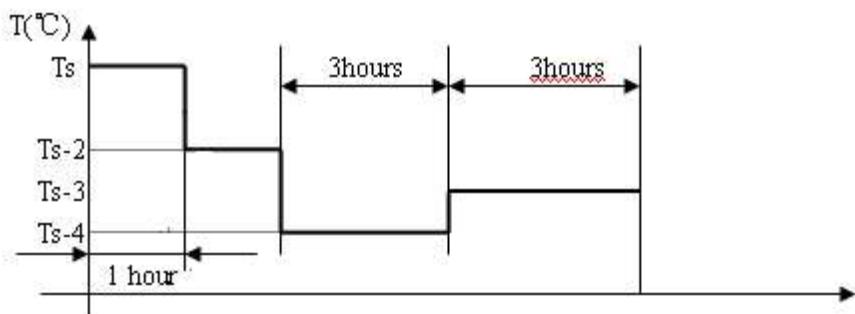
7.1.6.3 Timer on and timer off can be set synchronously.

7.1.7 Sleep function: the timer indicator lights up.

7.1.7.1 In cooling/defrosting mode, the temp. setting increases 1°C one hour later after start up. After another hour the temp. setting increase by more 1°C and then run continuously for another 6 hours and then close.



7.1.7.2 In heating mode, the temp. setting decrease 2°C one hour after start up. After another hour the temp. setting decrease by more 2°C . After 3 hours the temp. setting rise by 1°C and then run continuously for another 3 hours and then close.



7.1.7.3 If the wind speed is set to high before going to bed, the wind speed become medium after start up; If the wind speed is set to medium before going to bed, the wind speed become low after start up; If the wind speed is set to low before going to bed, the wind speed keep unchanged.

7.1.8 Emergency switch input:

7.1.8.1 Press the switch of emergency operation, then buzzer rings once and unit enters the automatic operation mode. (emergency operation)

7.1.8.2 If the switch is kept pressed for 5 seconds, buzzer ring two times and unit enter enter test run mode.

7.1.8.3 Press the switch again, and then closes.

7.1.8.4 Enter emergency operation from timer mode, then timer is cancelled.

7.1.9 Test run:

7.1.9.1 The temperature sensor of inlet air doesn't work, and compressor starts (but subject to the

limit of -minute delay excluding the first time), and high wind, cooling, and air door is open. The indoor fan motor runs, running indicator lights up, compressor relay and the one of outdoor fan motor is closed

7.1.9.2 During test run:

The prevention of freezing of evaporator doesn't work.

Current cross control doesn't work.

The control of current cross peak expiration doesn't work.

Temperature control doesn't work.

Temperature expiration control doesn't work.

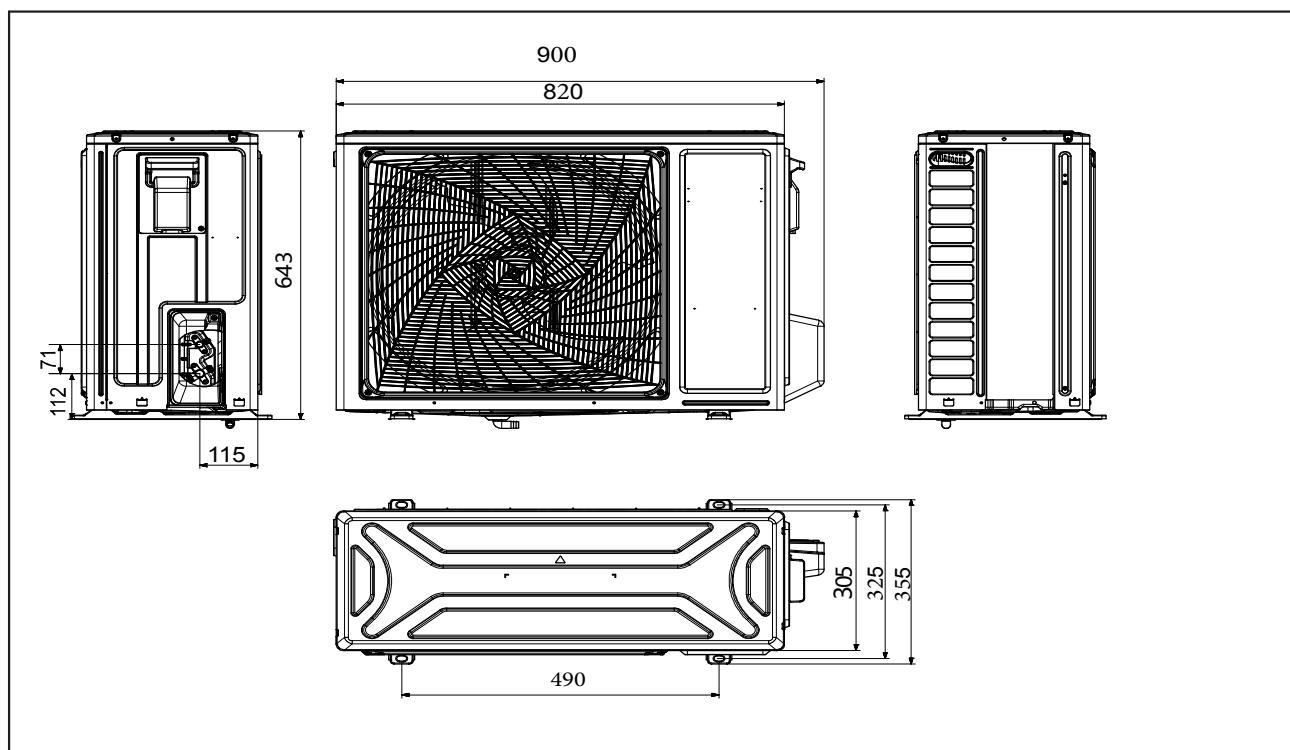
7.1.10 memory function : The memory function of power down is available, and the auto recovery function of power on is optional. (In auto, heating, cooling, or defrosting status, press the "sleeping" button 10 times within 5 seconds, and the auto recovery function of power on can be set on/off. If the buzzer rings 4 times, the the auto recovery function of power on is available; If the buzzer rings 2 times, the the auto recovery function of power on is unavailable.)

If there is no EEPROM, the unit is taken off the 'off' function of the memory function of power down. But the memory function of power down can also be set on/off, and the data is the default value of chip.

7.1.11 Alarm from indoor fan motor: 2 minutes later after the indoor fan motor is charged, and the impulse from fan motor is not detected, hen send alarm signals.

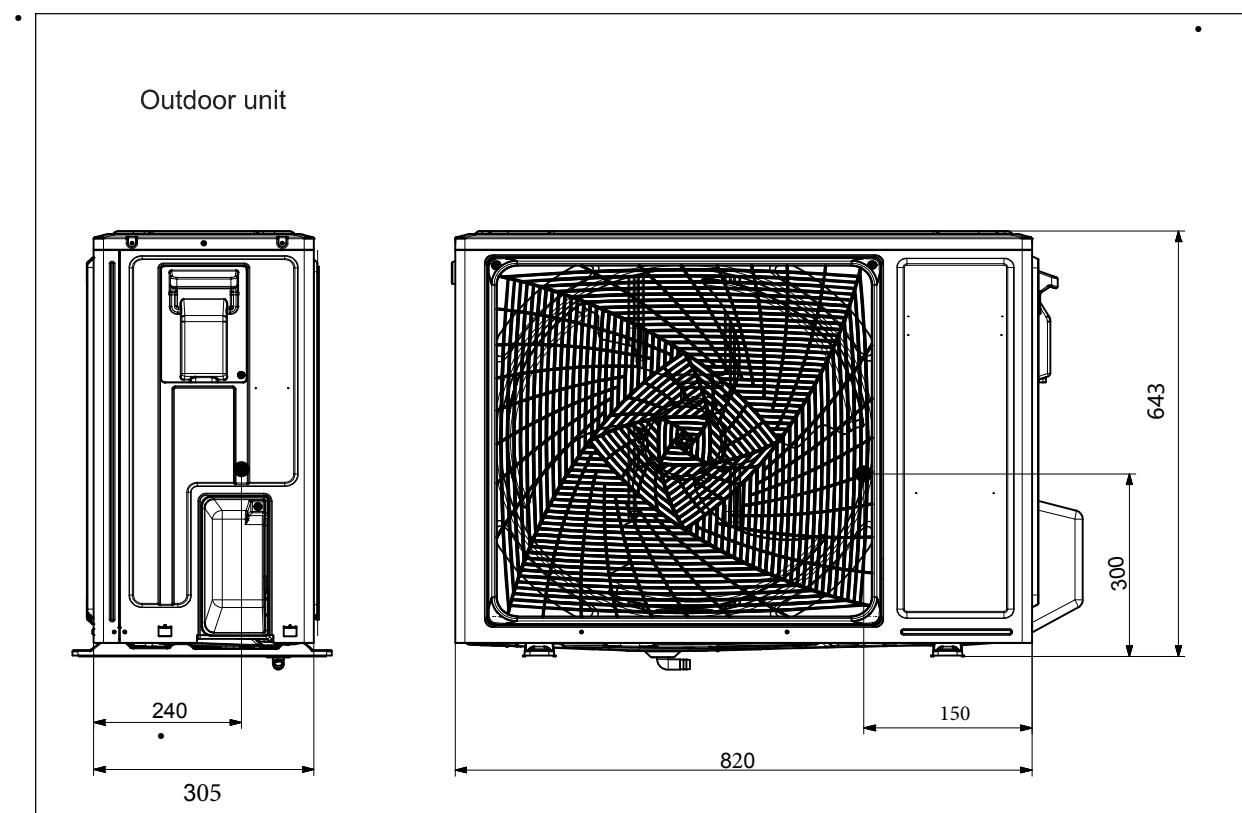
8. Dimensional drawings

unit:mm



9. Center of gravity

unit:mm



10. Service Diagnosis

10.1 Caution for Diagnosis

The operation lamp flashes when any of the following errors is detected.

1. When a protection device of the indoor or outdoor unit is activated or when the thermistor malfunctions, disabling equipment operation.
2. When a signal transmission error occurs between the indoor and outdoor units. In either case, conduct the diagnostic procedure described in the following pages.

10.2 Parameter of primary electronic appliance

NO	Name	Parameter	Picture
1	Compressor	Rated voltage: 220V Rated current: 8.8A Rated frequency: 50Hz	
2	Fan motor	Rated voltage: 220-230V Rated current: 0.55A Rated frequency: 50Hz	

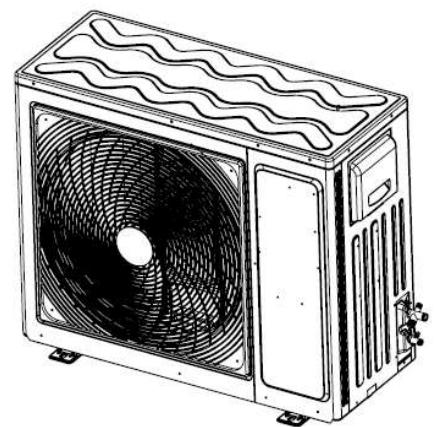
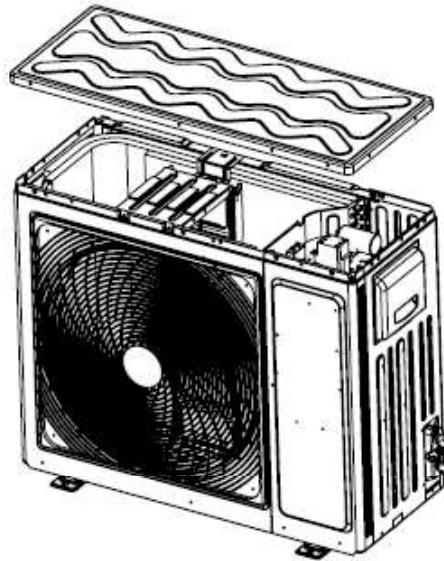
11. Removal Procedure

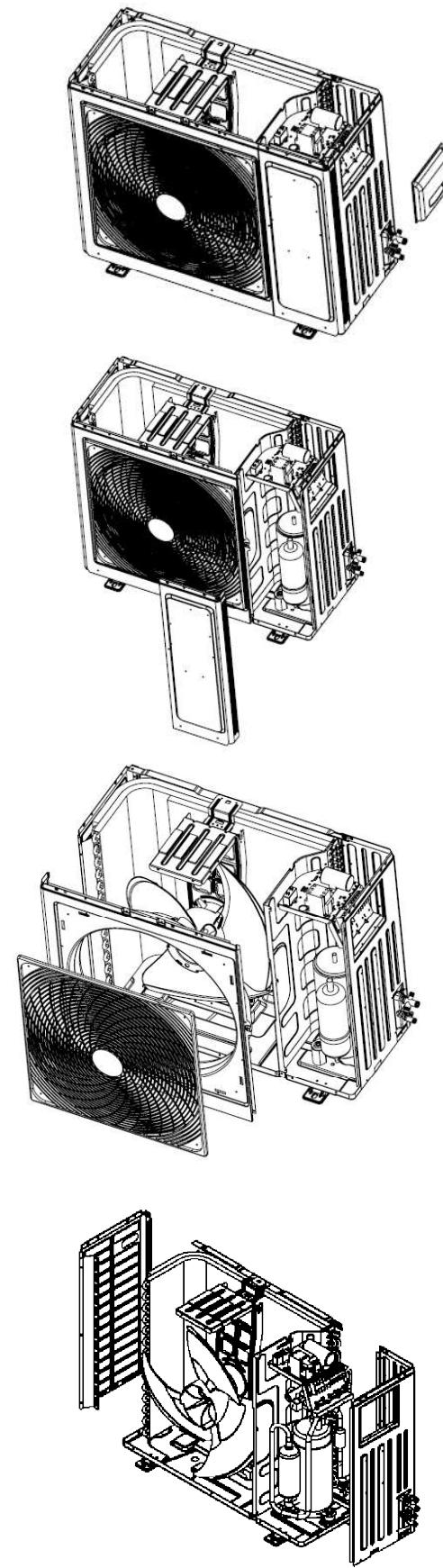
11.1 Removal of Outdoor panel

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work

Step	Procedure	Points
1. Remove the panels		
1	<p>Loosen the 8 screws and lift the top panel.</p> <ul style="list-style-type: none">•	 

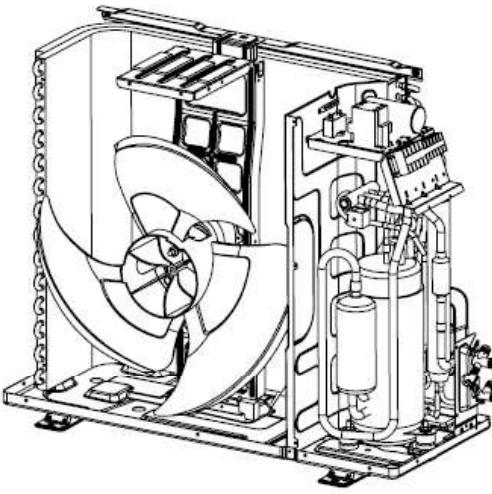
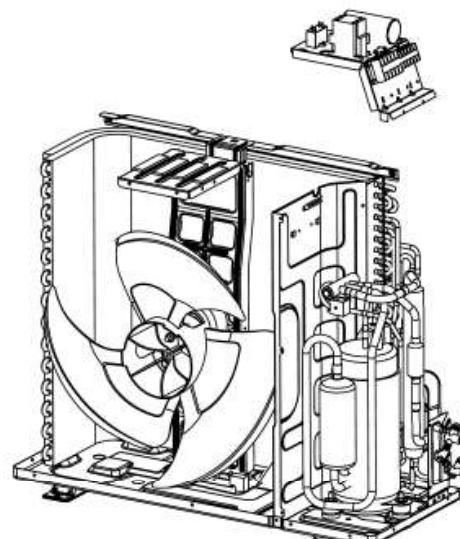
Step	Procedure	Points
2	<p>Loosen the screws of the panel, pull and remove the front panel.</p> 	

11.2 Removal of Electrical Box

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work

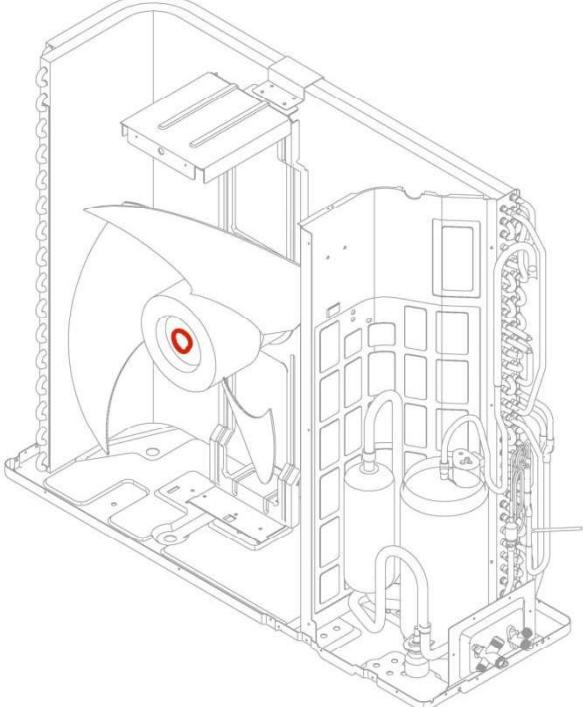
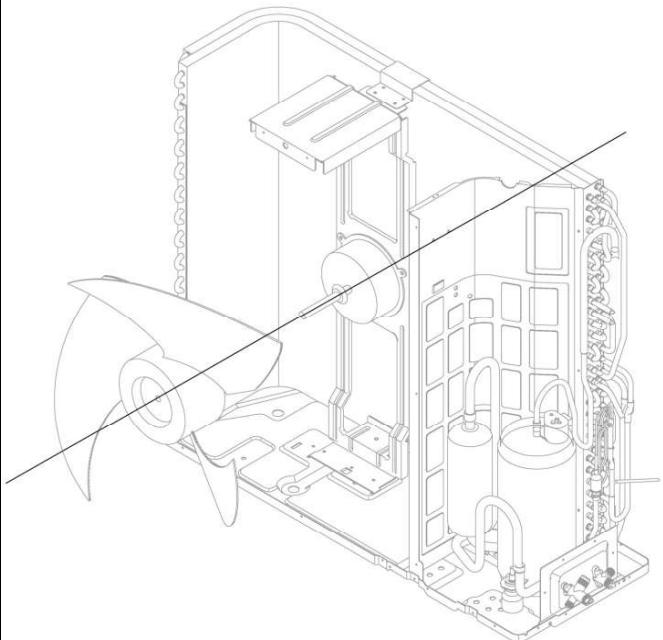
Step		Procedure	Points
1		<p>Remove the fixing screws, Then lift the electrical box.</p>  	

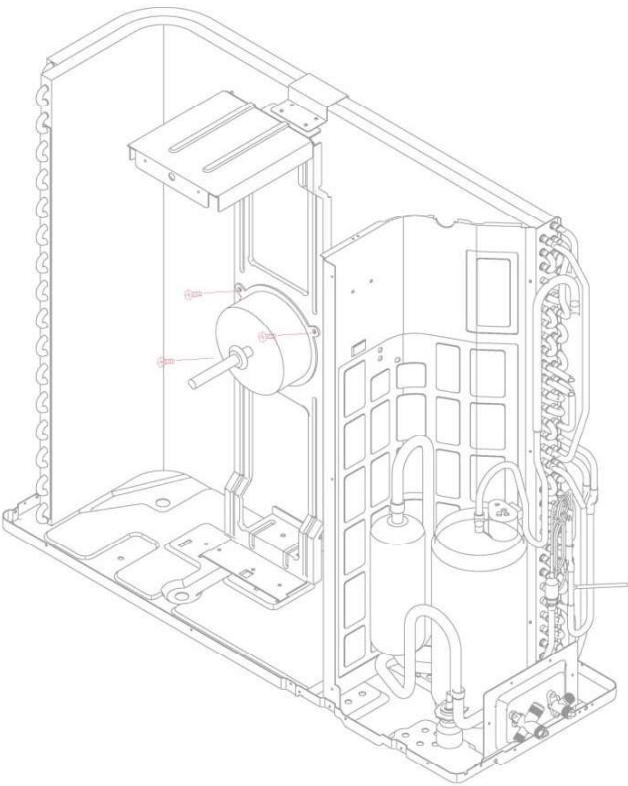
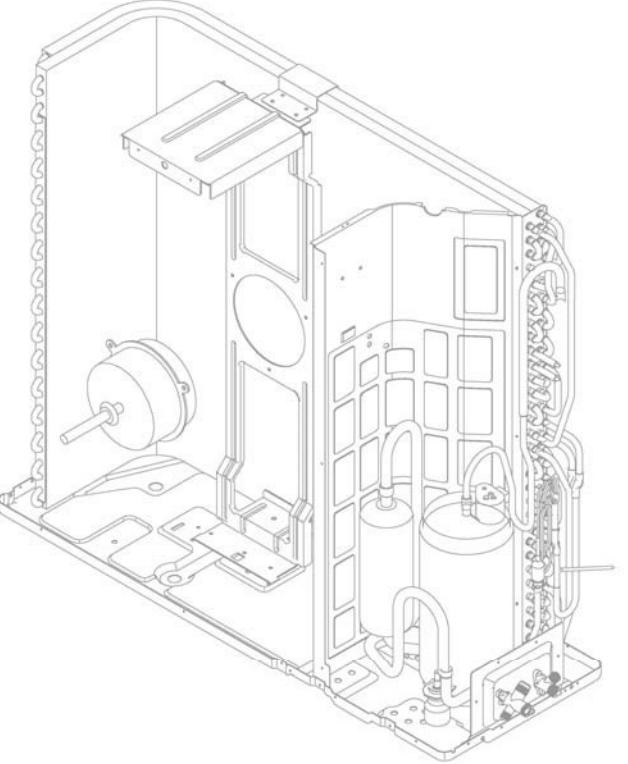
11.3 Removal of Fan and Fan Motor

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work

Step		Procedure	Points
1	Loosen the fixing screw and remove the fan.	 	Put the head wire through the back of the motor when assembling.(so as not to be entangled with the propeller fan)

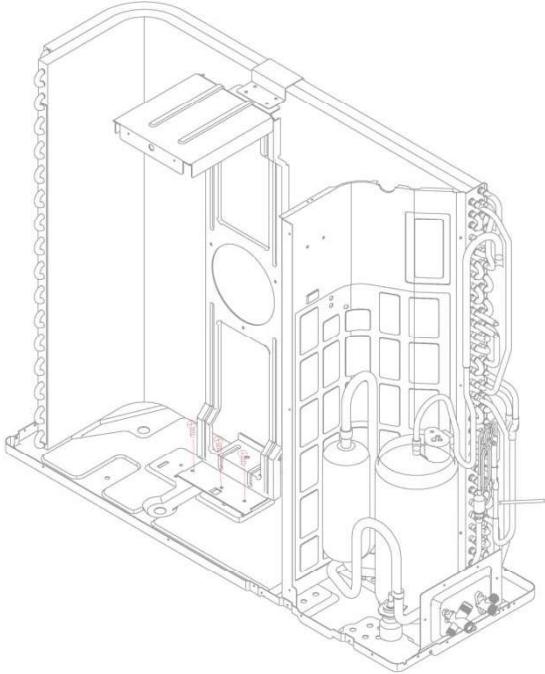
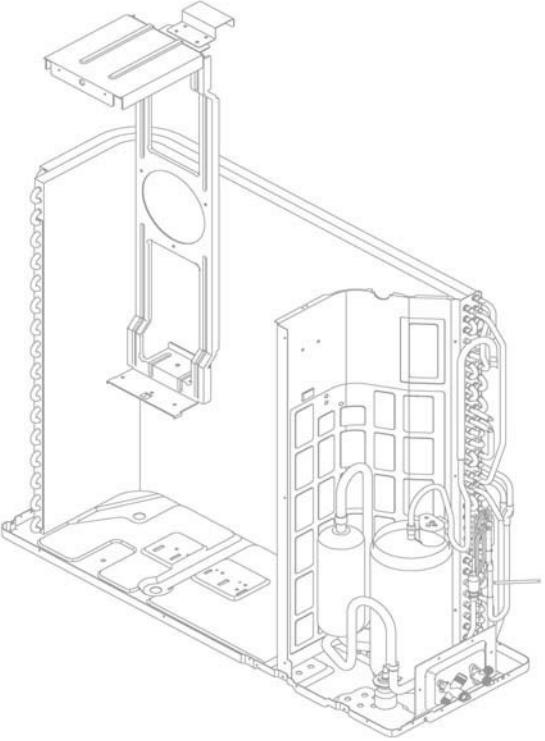
Step	Procedure	Points
2	<p>Loosen the fixing screws and remove the fan motor.</p>  	

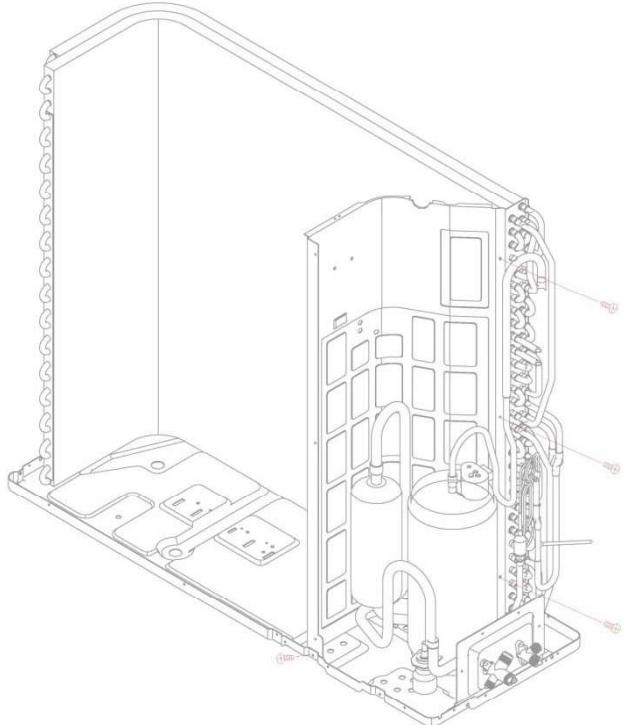
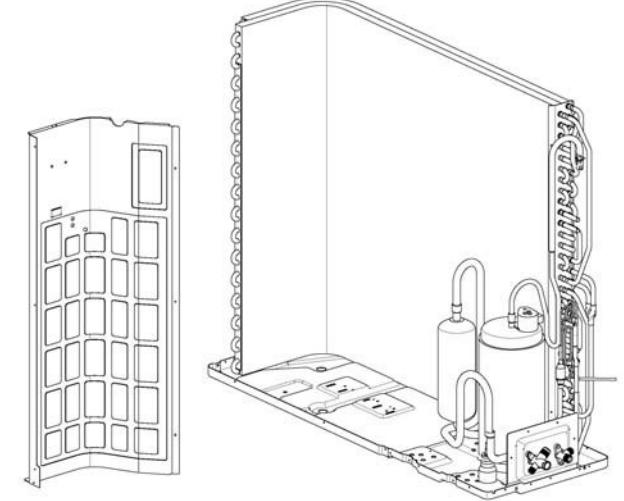
11.4 Removal of fan motor bracket and partition

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work

Step		Procedure	Points
1	Loosen the fixing screws and remove the fan motor bracket.	 	

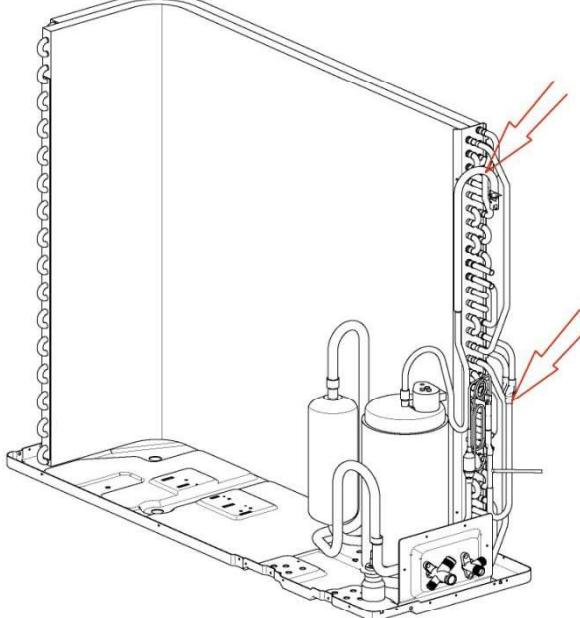
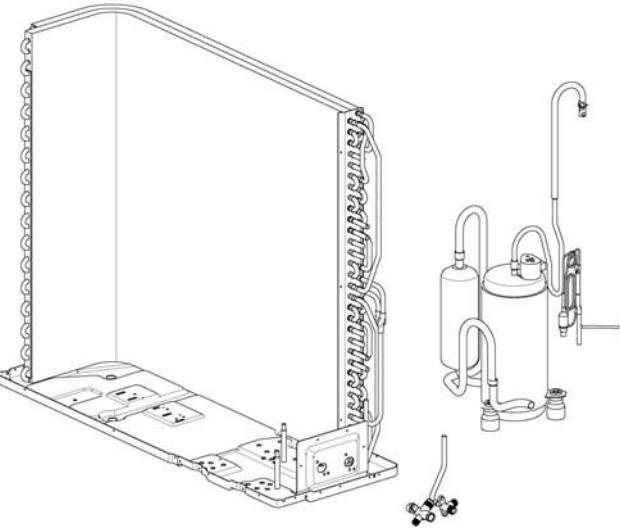
Step	Procedure	Points
2	<p>Loosen the fixing screws, the partition plate has a hook on the lower side, then lift and pull the proof plate.</p> 	 <p>When assembling, fit the lower hook into the bottom frame.</p>

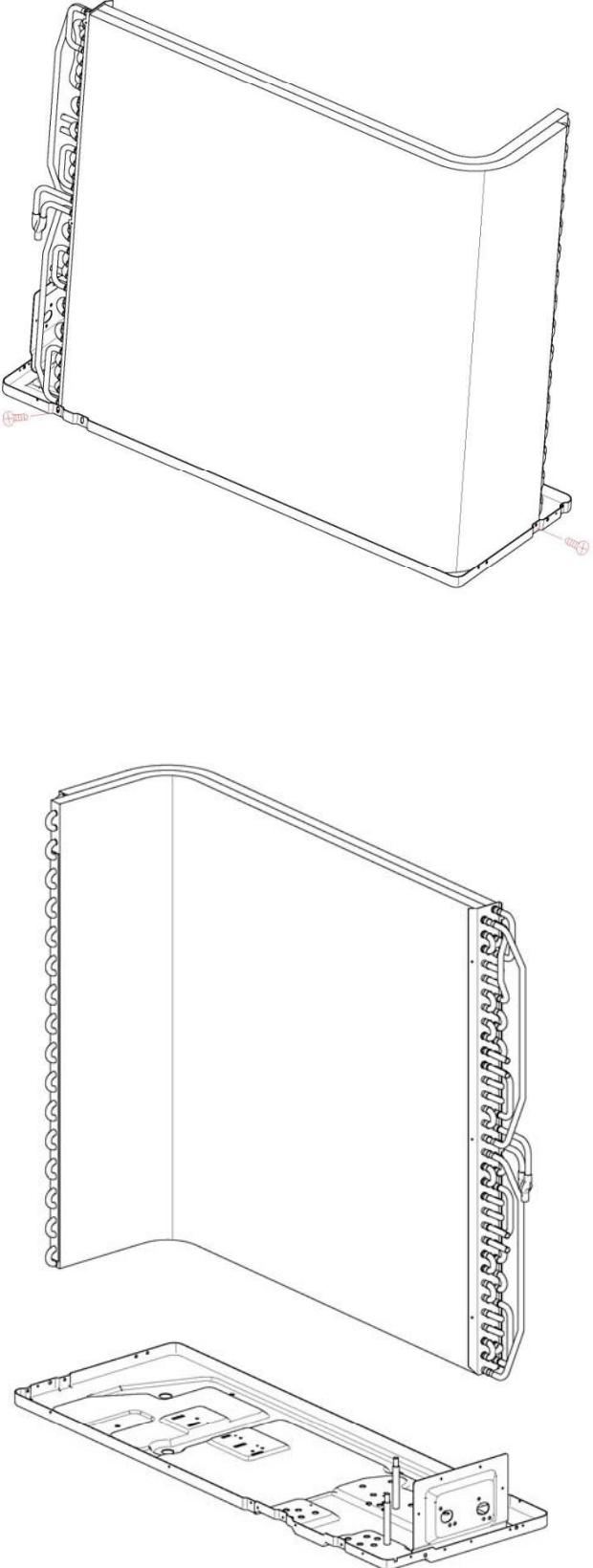
11.5 Removal of compressor and heat exchanger

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work

Step		Procedure	Points
1	Cut down the concenting pipe and put out the compressor and remove the valve bracket.	 	

Step	Procedure	Points
2	<p>Loosen the marked fixing screws and remove the heat exchanger.</p> 	

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