GREE

AIR CONDITIONER

SERVICE MANUAL

[AMBER SERIES]

GWH12YC-K6DNA1A set
(GWH12YC-K6DNA1A/I + GWH12YC-K6DNA1A/O)

CB437001101 set
(CB437N01101 + CB437W01101)

IMPORTANT NOTE:
Read this manual carefully before installing or operating your new air conditioning unit.
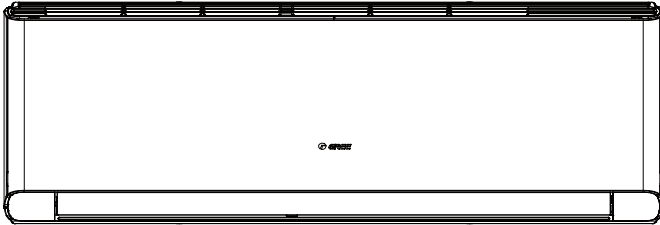Make sure to save this manual for future reference.

Part Ⅰ : Technical Information

1. Summary
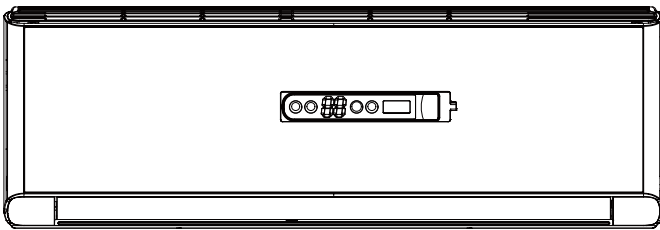
Indoor Unit

GWH09YC-K6DNA1A/I
GWH12YC-K6DNA1A/I

GWH09YC-K6DNA2A/I（CB466N01600 CB466N01601）
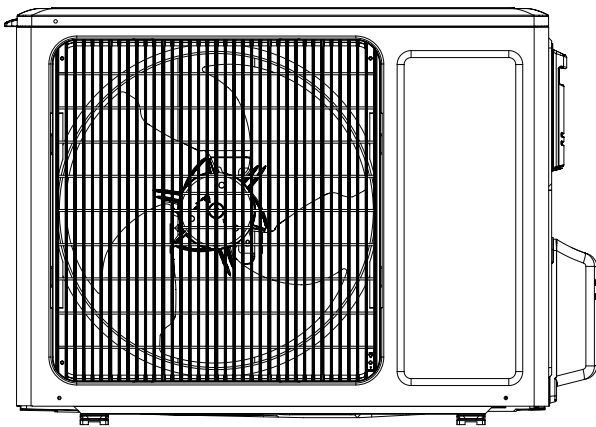GWH12YC-K6DNA2A/I（CB466N01500 CB466N01501）

GWH09YC-K6DNA2A/I（CB466N01602）
GWH12YC-K6DNA2A/I（CB466N01502）

Outdoor Unit

GWH09YC-K6DNA1A/O
GWH12YC-K6DNA1A/O

Remote Controller

YAG1FB

Model List:

No	Model	Product code	Indoor model	Indoor product code	Outdoor model	Outdoor product code
1	GWH09YC-K6DNA1A	CB437001600	GWH09YC-K6DNA1A/I	CB437N01600	GWH09YC-K6DNA1A/O	CB437W01600
2	GWH09YC-K6DNA2A	CB466001600	GWH09YC-K6DNA2A/I	CB466N01600		
3	GWH09YC-K6DNA1A	CB437001601	GWH09YC-K6DNA1A/I	CB437N01601	GWH09YC-K6DNA1A/O	CB437W01601
4	GWH09YC-K6DNA2A	CB466001601	GWH09YC-K6DNA2A/I	CB466N01601		
5		CB466001602		CB466N01602		
6	GWH12YC-K6DNA1A	CB437001100	GWH12YC-K6DNA1A/I	CB437N01100	GWH12YC-K6DNA1A/O	CB437W01100
7	GWH12YC-K6DNA2A	CB466001500	GWH12YC-K6DNA2A/I	CB466N01500		
8	GWH12YC-K6DNA1A	CB437001101	GWH12YC-K6DNA1A/I	CB437N01101	GWH12YC-K6DNA1A/O	CB437W01101
9	GWH12YC-K6DNA2A	CB466001501	GWH12YC-K6DNA2A/I	CB466N01501		
10		CB466001502		CB466N01502		

2. Specifications

2.1 Specification Sheet

Parameter		Unit	Value	
Model			GWH09YC-K6DNA1A GWH09YC-K6DNA2A	GWH12YC-K6DNA1A GWH12YC-K6DNA2A
Product Code			CB437001600 CB466001600	CB437001100 CB466001500
Power Supply	Rated Voltage	V~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity		W	2700	3500
Heating Capacity		W	2930	3810
Cooling Power Input		W	585	950
Heating Power Input		W	650	975
Cooling Current Input		A	2.6	4.0
Heating Current Input		A	2.9	4.5
Rated Input		W	1650	1650
Rated Current		A	6.4	6.4
Air Flow Volume(SH/H/MH/M/ML/L/SL)		m^3/h	660/590/540/490/450/420/390	680/590/540/490/450/420/390
Dehumidifying Volume		L/h	0.8	1.4
EER		W/W	4.62	3.68
COP		W/W	4.51	3.91
SEER		W/W	8.5	8.5
SCOP(Average/Warmer/Colder)		W/W	4.6/5.4/3.8	4.4/5.1/3.5
Application Area		m^2	12-18	16-24
Indoor Unit	Indoor Unit Model		GWH09YC-K6DNA1A/I GWH09YC-K6DNA2A/I	GWH12YC-K6DNA1A/I GWH12YC-K6DNA2A/I
	Indoor Unit Product Code		CB437N01600 CB466N01600	CB437N01100 CB466N01500
	Fan Type		Cross-flow	Cross-flow
	Fan Diameter Length(DXL)	mm	Φ98X633.5	Φ98X633.5
	Cooling Speed	r/min	1300/1200/1120/1050/980/920/750	1350/1200/1120/1050/980/920/750
	Heating Speed	r/min	1300/1200/1140/1080/1020/960/900	1350/1200/1140/1080/1020/960/900
	Fan Motor Power Output	W	20	20
	Fan Motor RLA	A	0.09	0.09
	Fan Motor Capacitor	μF	/	/
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ5	Φ5
	Evaporator Row-fin Gap	mm	2-1.4	2-1.4
	Evaporator Coil Length (LXDXW)	mm	635X22.8X306.3	635X22.8X306.3
	Swing Motor Model		MP24EB/MP24HF	MP24EB/MP24HF
	Swing Motor Power Output	W	1.5/1.5	1.5/1.5
	Fuse Current	A	3.15	3.15
	Sound Pressure Level(SH/H/MH/M/ML/L/SL)	dB (A)	41/39/37/35/33/31/24	43/39/37/35/34/32/25
	Sound Power Level(SH/H/MH/M/ML/L/SL)	dB (A)	56/53/52/50/48/46/39	58/53/52/50/48/46/46
	Dimension (WXHXD)	mm	865X290X210	865X290X210
	Dimension of Carton Box (LXWXH)	mm	928X278X364	928X278X364
	Dimension of Package(LXWXH)	mm	931X281X379	931X281X379
	Net Weight	kg	10.5	11
	Gross Weight	kg	12.5	13

			GWH09YC-K6DNA1A/O	GWH12YC-K6DNA1A/O
Outdoor Unit	Outdoor Unit Model		GWH09YC-K6DNA1A/O	GWH12YC-K6DNA1A/O
	Outdoor Unit Product Code		CB437W01600	CB437W01100
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO.,LTD	ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-B096zE190A	QXF-B096zE190A
	Compressor Oil		FW68DA	FW68DA
	Compressor Type		Rotary	Rotary
	Compressor LRA.	A	20.00	20
	Compressor RLA	A	4.21	4.21
	Compressor Power Input	W	943	943
	Compressor Overload Protector		1NT11L-6233 HPC115/95U1 KSD115ºC	1NT11L-6233 HPC115/95U1 KSD115ºC
	Throttling Method		Electron expansion valve	Electron expansion valve
	Set Temperature Range	ºC	16~30	16~30
	Cooling Operation Ambient Temperature Range	ºC	-15~43	-15~43
	Heating Operation Ambient Temperature Range	ºC	-15~24	-15~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Condenser Pipe Diameter	mm	Φ7	Φ7
	Condenser Rows-fin Gap	mm	2-1.4	2-1.4
	Condenser Coil Length (LXDXW)	mm	742X38.1X550	742X38.1X550
	Fan Motor Speed	rpm	900/650	900/650
	Fan Motor Power Output	W	30	30
	Fan Motor RLA	A	0.36	0.36
	Fan Motor Capacitor	μF	/	/
	Outdoor Unit Air Flow Volume	m³/h	2200	2200
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ438	Φ438
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5	2.5
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-	53/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-	62/-/-
	Dimension(WXHXD)	mm	848X596X320	848X596X320
	Dimension of Carton Box (LXWXH)	mm	878X360X630	878X360X630
	Dimension of Package(LXWXH)	mm	881X363X645	881X363X645
	Net Weight	kg	33.5	33.5
	Gross Weight	kg	36.5	36.5
	Refrigerant		R32	R32
	Refrigerant Charge	kg	0.7	0.75
Connection Pipe	Connection Pipe Length	m	5	5
	Connection Pipe Gas Additional Charge	g/m	16	16
	Outer Diameter Liquid Pipe	mm	Φ6	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52	Φ9.52
	Max Distance Height	m	10	10
	Max Distance Length	m	15	20
	Note: The connection pipe applies metric diameter.			

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

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Parameter		Unit	Value	
Model			1.GWH12YC-K6DNA1A 2.GWH12YC-K6DNA2A	1.GWH09YC-K6DNA1A 2.GWH09YC-K6DNA2A
Product Code			1.CB437001101 2.CB466001501 CB466001502	1.CB437001601 2.CB466001601 CB466001602
Power Supply	Rated Voltage	V~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity		W	3500	2700
Heating Capacity		W	3810	2930
Cooling Power Input		W	950	585
Heating Power Input		W	975	650
Cooling Current Input		A	4.0	2.6
Heating Current Input		A	4.5	2.9
Rated Input		W	1650	1650
Rated Current		A	6.4	6.4
Air Flow Volume(SH/H/MH/M/ML/L/SL)		m³/h	680/590/540/490/450/420/390	660/590/540/490/450/420/390
Dehumidifying Volume		L/h	1.4	0.8
EER		W/W	3.68	4.62
COP		W/W	3.91	4.50
SEER		W/W	8.5	8.5
SCOP(Average/Warmer/Colder)		W/W	4.4/5.1/3.5	4.6/5.4/3.8
Application Area		m²	16-24	12-18
Indoor Unit	Indoor Unit Model		1.GWH12YC-K6DNA1A/I 2.GWH12YC-K6DNA2A/I	1.GWH09YC-K6DNA1A/I 2.GWH09YC-K6DNA2A/I
	Indoor Unit Product Code		1.CB437N01101 2.CB466N01501 CB466N01502	1.CB437N01601 2.CB466N01601 CB466N01602
	Fan Type		Cross-flow	Cross-flow
	Fan Diameter Length(DXL)	mm	Φ98X633.5	Φ98X633.5
	Cooling Speed	r/min	1350/1200/1120/1050/980/920/750/500	1300/1200/1120/1050/980/920/750/500
	Heating Speed	r/min	1350/1200/1140/1080/1020/960/900/-	1300/1200/1140/1080/1020/960/900/-
	Fan Motor Power Output	W	20	20
	Fan Motor RLA	A	0.09	0.09
	Fan Motor Capacitor	µF	/	/
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ5	Φ5
	Evaporator Row-fin Gap	mm	2-1.4	2-1.4
	Evaporator Coil Length (LXDXW)	mm	635X22.8X306.3	635X22.8X306.3
	Swing Motor Model		MP24EB/MP24HF	MP24EB/MP24HF
	Swing Motor Power Output	W	1.5/1.5	1.5/1.5
	Fuse Current	A	3.15	3.15
	Sound Pressure Level(SH/H/MH/M/ML/L/SL)	dB (A)	43/39/37/35/34/32/25	41/39/37/35/33/31/24
	Sound Power Level(SH/H/MH/M/ML/L/SL)	dB (A)	58/53/52/50/48/46/46	56/53/52/50/48/46/39
	Dimension (WXHXD)	mm	865X290X210	865X290X210
	Dimension of Carton Box (LXWXH)	mm	928X278X364	928X278X364
	Dimension of Package(LXWXH)	mm	931X281X379	931X281X379
	Net Weight	kg	11	10.5
	Gross Weight	kg	13	12.5

			GWH12YC-K6DNA1A/O	GWH09YC-K6DNA1A/O(LCLH)
Outdoor Unit	Outdoor Unit Model		GWH12YC-K6DNA1A/O	GWH09YC-K6DNA1A/O(LCLH)
	Outdoor Unit Product Code		CB437W01101	CB437W01601
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO., LTD	ZHUHAI LANDA COMPRESSOR CO.,LTD
	Compressor Model		QXF-B096zE190A	QXF-B096zE190A
	Compressor Oil		FW68DA	FW68DA
	Compressor Type		Rotary	Rotary
	Compressor LRA.	A	20	20.00
	Compressor RLA	A	4.21	4.21
	Compressor Power Input	W	943	943
	Compressor Overload Protector		1NT11L-6233 HPC115/95U1 KSD115ºC	1NT11L-6233 HPC115/95U1 KSD115ºC
	Throttling Method		Electron expansion valve	Electron expansion valve
	Set Temperature Range	ºC	16~30	16~30
	Cooling Operation Ambient Temperature Range	ºC	-15~43	-15~43
	Heating Operation Ambient Temperature Range	ºC	-22~24	-22~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Condenser Pipe Diameter	mm	Φ7	Φ7
	Condenser Rows-fin Gap	mm	2-1.4	2-1.4
	Condenser Coil Length (LXDXW)	mm	742X38.1X550	742X38.1X550
	Fan Motor Speed	rpm	900/650	900/650
	Fan Motor Power Output	W	30	30
	Fan Motor RLA	A	0.36	0.36
	Fan Motor Capacitor	µF	/	/
	Outdoor Unit Air Flow Volume	m^3/h	2200	2200
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ438	Φ438
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5	2.5
	Sound Pressure Level (H/M/L)	dB (A)	53/-/-	52/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-	60/-/-
	Dimension(WXHXD)	mm	848X596X320	848X596X320
	Dimension of Carton Box (LXWXH)	mm	878X360X630	878X360X630
	Dimension of Package(LXWXH)	mm	881X363X645	881X363X645
	Net Weight	kg	33.5	33.5
	Gross Weight	kg	36.5	36.5
	Refrigerant		R32	R32
	Refrigerant Charge	kg	0.75	0.7
Connection Pipe	Connection Pipe Length	m	5	5
	Connection Pipe Gas Additional Charge	g/m	16	16
	Outer Diameter Liquid Pipe	mm	Φ6	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52	Φ9.52
	Max Distance Height	m	10	10
	Max Distance Length	m	20	15
	Note: The connection pipe applies metric diameter.			

The above data is subject to change without notice. Please refer to the nameplate of the unit.
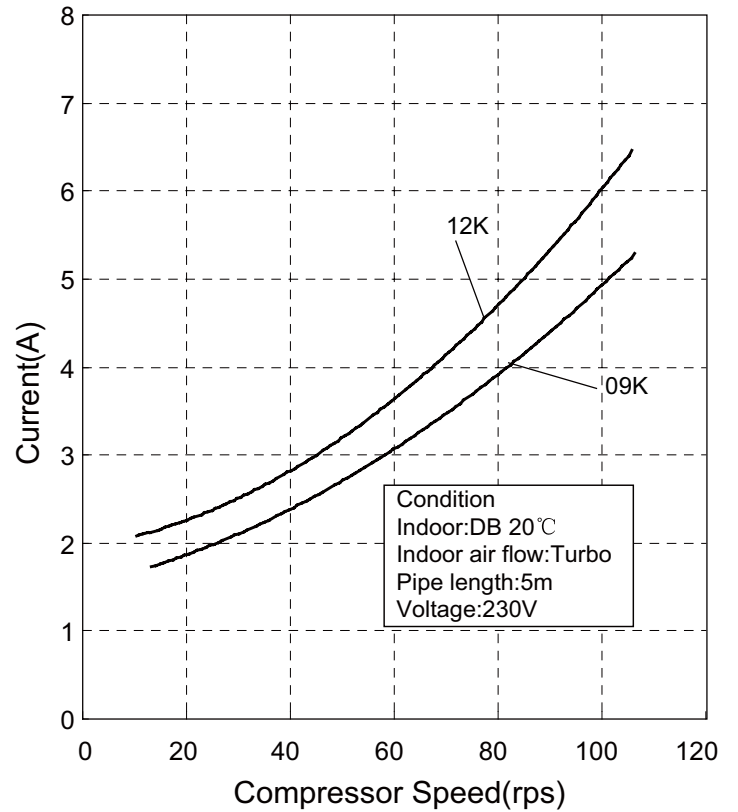
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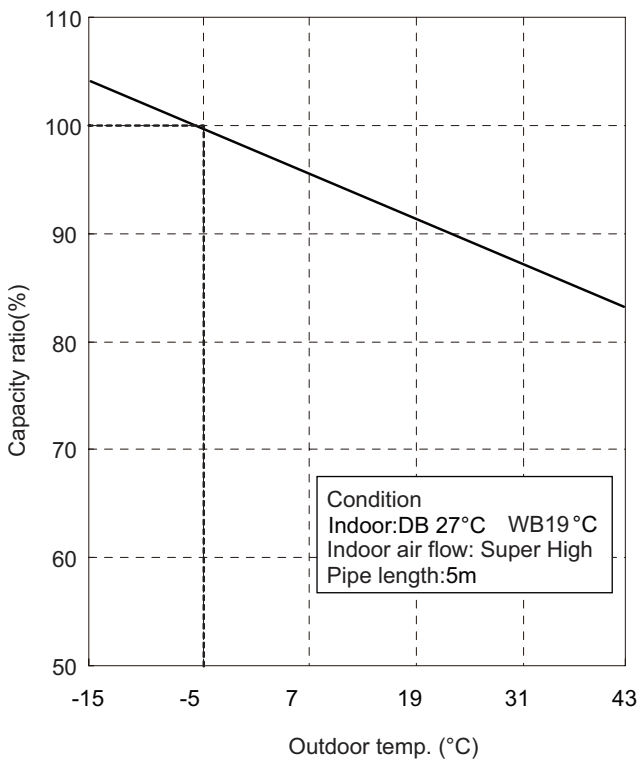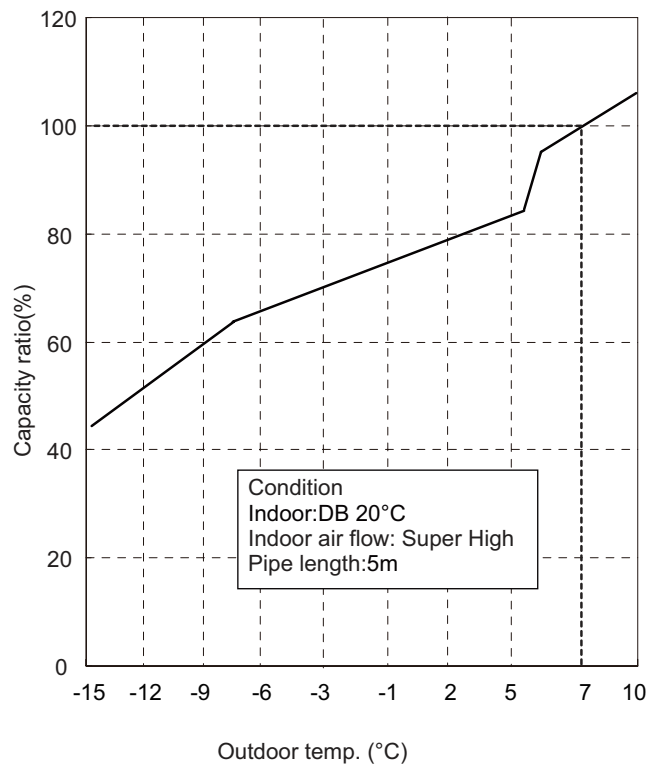## 2.2 Operation Characteristic Curve

Cooling:
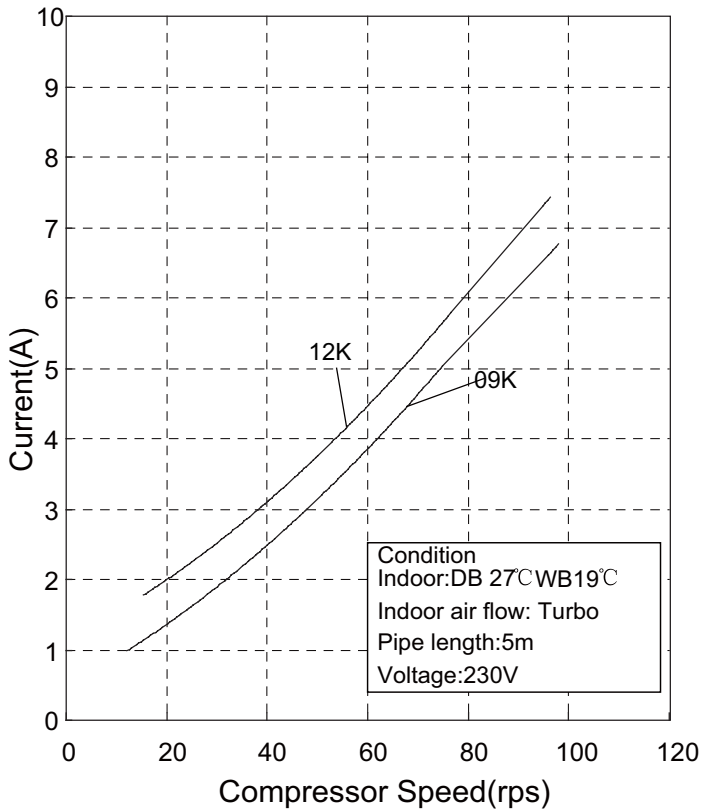
Heating:

2.3 Capacity Variation Ratio According to Temperature

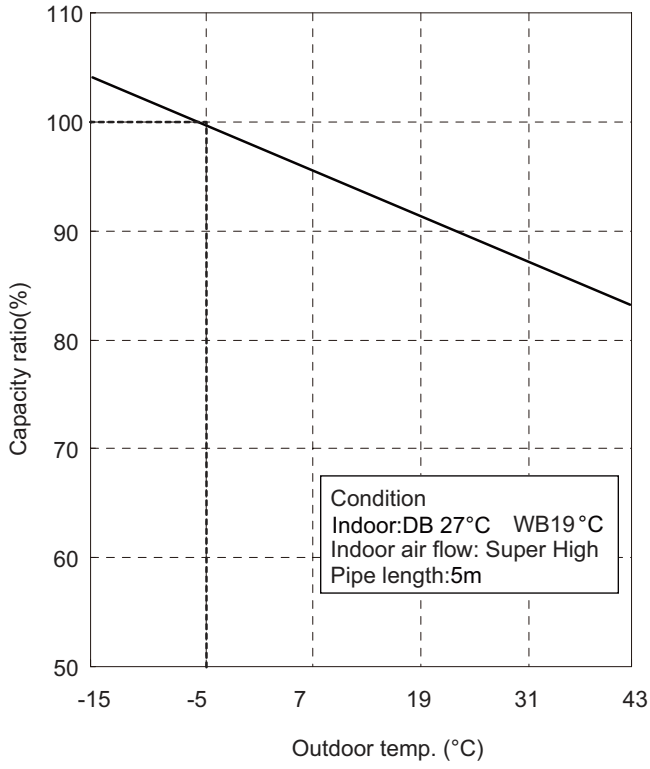Heating operation ambient temperature range is -15°C~24°C

Cooling:

Heating:
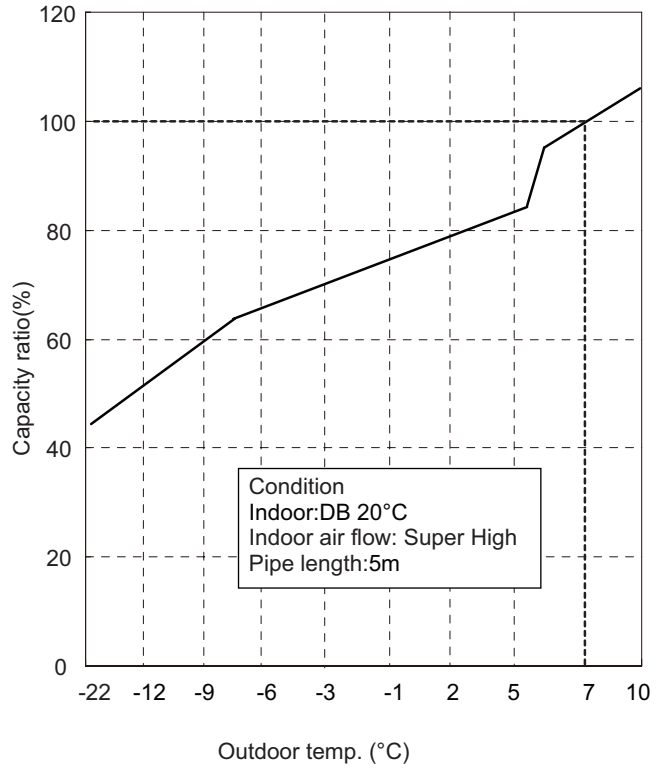
Heating operation ambient temperature range is -22°C~24°C

Cooling:

Heating:

Cooling graph:

Y-axis: Capacity ratio(%), values from 50 to 110
X-axis: Outdoor temp. (°C), values -15, -5, 7, 19, 31, 43

Condition
Indoor:DB 27°C   WB19 °C
Indoor air flow: Super High
Pipe length:5m

Heating graph:

Y-axis: Capacity ratio(%), values from 0 to 120
X-axis: Outdoor temp. (°C), values -22, -12, -9, -6, -3, -1, 2, 5, 7, 10

Condition
Indoor:DB 20°C
Indoor air flow: Super High
Pipe length:5m

Technical Information

2.4 Cooling and Heating Data Sheet in Rated Frequency

Cooling:

Rated cooling condition(°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit	Compressor revolution (rps)
Indoor	Outdoor		P (MPa)	T1 (°C)	T2 (°C)			
27/19	35/24	09K	0.8 ~ 1.1	12 to 15	65 to 38	TURBO	High	49
		12K		11 to 14	64 to 37			60

Heating:

Rated cooling condition(°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit	Compressor revolution (rps)
Indoor	Outdoor		P (MPa)	T1 (°C)	T2 (°C)			
20/-	7/6	09K	2.8 ~ 3.2	35 to 63	2 to 5	TURBO	High	59
		12K		35 to 65	2 to 5			67

Instruction:
T1: Inlet and outlet pipe temperature of evaporator
T2: Inlet and outlet pipe temperature of condenser
P: Pressure at the side of big valve
Connection pipe length: 5m.

2.5 Noise Curve

Indoor side noise — Indoor fan motor rotating speed (SL, L, ML, M, MH, H, SH); Noise dB(A)

Outdoor side noise — Compressor frequency(Hz); Noise dB(A)
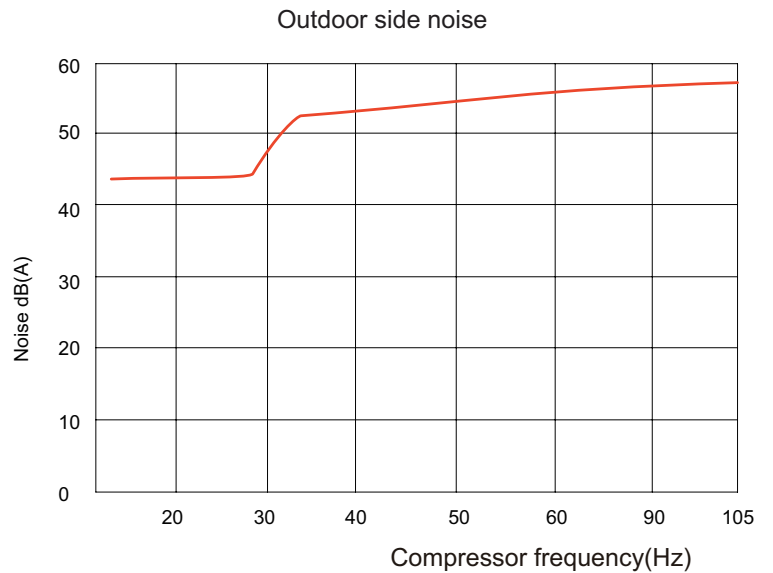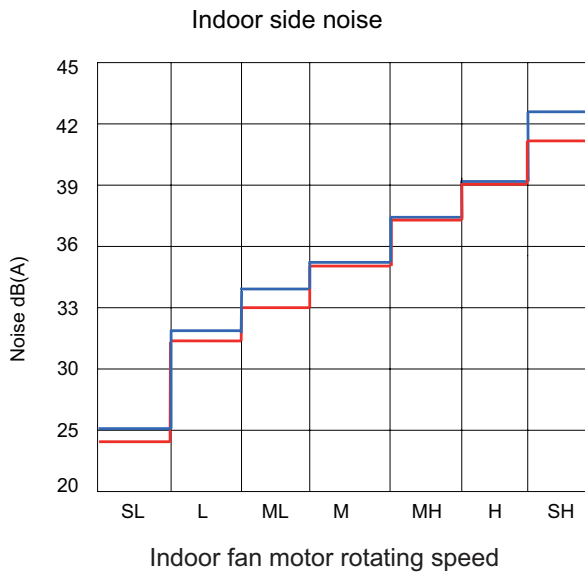
12K ——   09K ——   09/12K ——

3. Outline Dimension Diagram

3.1 Indoor Unit

Unit:mm

Technical Information

3.2 Outdoor Unit

Unit:mm
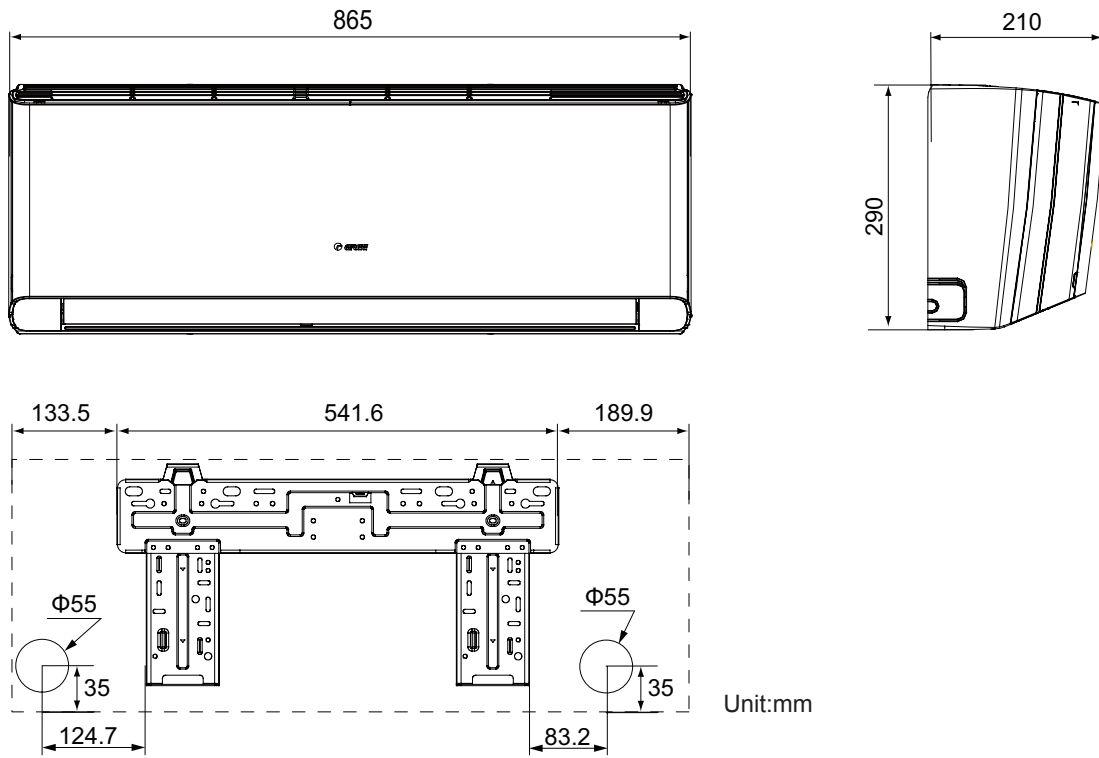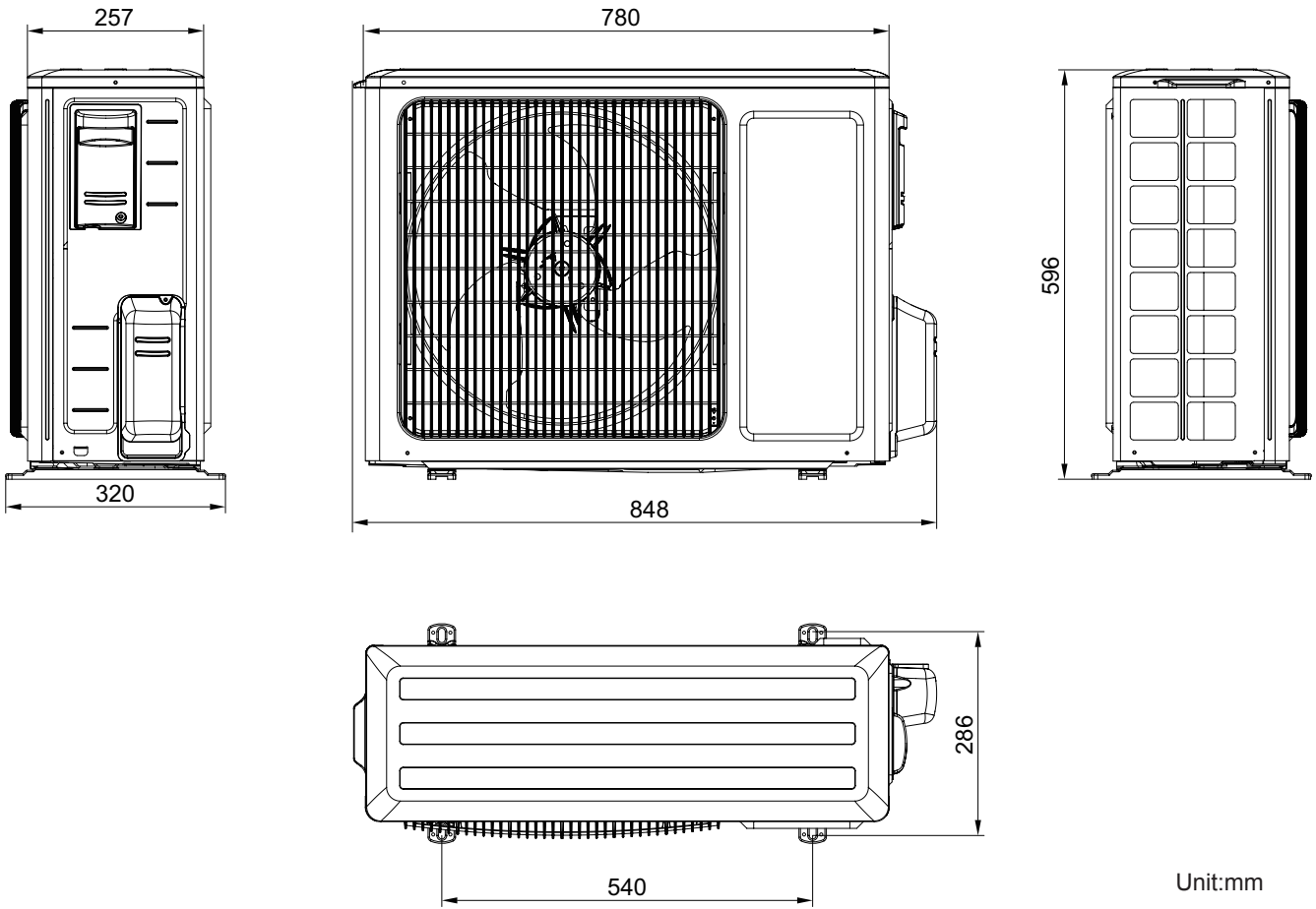
6. Function and Control

6.1 Remote Controller Introduction

Buttons on Remote Controller
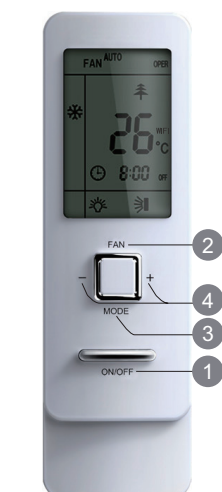
(before opening cover)　　　(after opening cover)

1	ON/OFF button
2	FAN button
3	MODE button
4	+/- button
5	TURBO button
6	🚿 button
7	🔆 button
8	CLOCK button
9	TIMER ON/ TIMER OFF button
10	TEMP button
11	🌲/🏠 button
12	I FEEL button
13	LIGHT button
14	X-FAN button
15	QUIET button
16	SLEEP button

1	ON/OFF button
2	FAN button
3	MODE button
4	+/- button

Introduction for Icons on Display Screen

I feel
Quiet

Operation mode

Auto mode
Cool mode
Dry mode
Fan mode
Heat mode

Clock
Sleep mode
Light

Set fan speed
Turbo mode
Send signal
Healthy mode
Scavenging functions
8℃ heating function
Set temperature
This is a general remote controller. Some models have this function while some do not. Please refer to the actual models.
X-FAN function
Set time
TIMER ON /TIMER OFF
Child lock
Up & down swing
Left & right swing

Temp. display type

🏠 : Set temp.　　🏠 : Indoor ambient temp.
🏠⌄ : Outdoor ambient temp.

Introduction for Buttons on Remote Controller

Note:

● This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model don't have, if press the corresponding button on the remote controller that the unit will keep the original running status.

● After putting through the power, the air conditioner will give out a sound.Operation indicator " (⏻) " is ON (red indicator). After that, you can operate the air conditioner by using remote controller.

● Under on status, pressing the button on the remote controller, the signal icon " 📶 " on the display of remote controller will blink once and the air conditioner will give out a "de" sound, which means the signal has been sent to the air conditioner.

● Under off status, set temperature and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corresponding icons will be displayed on the display of remote controller at the same time); Under on status, the display will show the corresponding set function icons.

1. ON/OFF button

Press this button to turn on the unit. Press this button again to turn off the unit.

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2. FAN button

Press this button, Auto, Low, Medium-low, Medium, Medium-high, High speed can be circularly selected. After powered on, Auto fan speed is default. Under DRY mode, Low fan speed only can be set up.
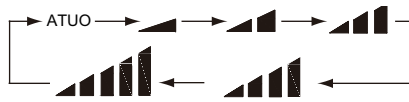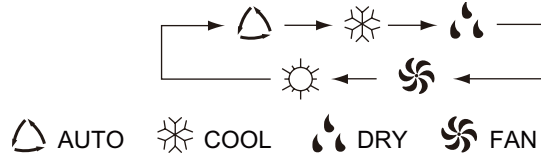
Note: It's Low fan speed under Dry mode.

 Low fan Medium-low fan Medium fan Medium-high fan High fan
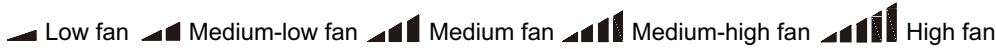
3. MODE button

Press this button, Auto, Cool, Dry, Fan, Heat mode can be selected circularly. Auto mode is default while power on. Under Auto mode, the temperature will not be displayed;Under Heat mode, the initial value is 28°C(82°F);Under other modes, the initial value is 25°C(77°F).

(only for cooling and heating unit. As for cooling only unit, it won't have any action when it receives the signal of heating operation.)

 AUTO COOL DRY FAN HEAT

4. +/- button

● Presetting temperature can be increased.

Press this button,the temperature can be set up, continuously press this button and hold for two seconds, the relative contents can quickly change,until unhold this button and send the order that the °C(°F) signal will be displayed all the time.The temperature adjustment is unavilable under the Auto mode, but the order can be sent by if pressing this button.Temperature of Celsius degree setting:16-30;for Fahrenheit degree setting:61-86.

● Presetting temperature can be decreased.

Press this button, the temperature can be set up, continuously press this button and hold for two seconds, the relative contents can quickly change,until unhold this button and send the order that the °C(°F) signal will be displayed all the time.The temperature adjustment is unavilable under the Auto mode,but the order can be sent by if pressing this button.

5. TURBO button

Under Cool or Heat mode,press this button can turn on or turn off the Turbo function.After the Turbo function turned on, the signal of Turbo will display. The signal will be automatically cancelled if changing the mode or fan speed.

6. button (This function is only available for some models)

Press this button to set left & right swing angle cycling as below:

OFF
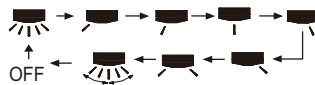
7. button

Press this button to set swing angle,which circularly changes as below:

OFF

This remote controller is universal. If it receives threes kinds of following status,the swing angle will remain origial.

If guide louver is stopped when it is swinging up and down,it will remain its present position.

 indicates guide louver swings back and forth in the five places,as shown in the figure.

8. CLOCK button

Press this button, the clock can be set up,signal blink and display.Within 5 seconds, the value can be adjusted by pressing + or - button, if continuously press this button for 2 seconds above,in every 0.5 seconds, the value on ten place of Minute will be increased 1.During blinking,repress the Clock button or Confirm button,signal will be constantly displayed and it denotes the setting succeeded. After powered on, 12:00 is defaulted to display and signal will be displayed. If there is signal be displayed that denotes the current time value is Clock value, otherwise is Timer value.

9. TIMER ON/TIMER OFF button

● Timer On setting: Signal "ON"will blink and display,signal will conceal,the numerical section will become the timer on setting status. During 5 seconds blink,by pressing + or - button to adjust the time value of numerical section,every press of that button,the value will be increased or decreased 1 minute.Hold pressing + or - button,2 seconds later,it quickly change,the way of change is: During the initial 2.5 seconds,ten numbers change in the one place of minute,then the one place is constant,ten numbers change in the ten splace of minute at 2.5 seconds speed and carry. During 5s blink,press the Timer button,the timer setting succeeds.The Timer On has been set up,repress the timer button,theTimer On will be canceled. Before setting theTimer,please adjust the Clock to the current actual time.

● One press this key to enter into TIMER OFF setup, in which case the TIMER OFF icon will blink. The method of setting is the sameas for

TIMER ON.

10. TEMP button

Press this button,the following temperature can be setted circularly: the setting temperature, indoor ambient temperature and outdoor ambient temperature.when the indoor unit firstly power on, it will display the setting temperature ⌂ . If the displaying status is changed to ⌂ ,displaying the indoor ambient temperature. ⌂ is the outdoor ambient temperature. 3s laterit will return to the setting temprature or it depends on the other received signal within3s.

Note: Outdoor ambient temperatue display range is 0~60°C (32~99°F). As for the outdoor ambient temperature below 0it displays 0°C(32°F).

Warm tips: When operating buttons on the cover, please make sure the cover is closed completely.

11. ✚ / ⌂ button(This function is only available for some models)

Press this button to achieve the on and off of healthy and scavenging functions in operation status.Press this button for the first time to start scavenging function;LCD displays"⌂".Press the button for the second time to start healthy and scavenging functions simultaneously;LCD displays"⌂"and "✚" .Press this button for the third time to quit healthy and scavenging functions simultaneously.Press the button for the fourth time to start healthy function; LCD display"✚" .Press this button again to repeat the operation above.

NOTE: This function is applicable to partial of models.

12. I FEEL button

Press this button once, to turn on the I FEEL function, then the figure of "I FEEL" will be displayed, after every press of other function button, every 200ms to send I FEEL once, after this function started,the remote control will send temperature to the main un it in every 10 minutes.When repress this button, this function will be turned off.

13. LIGHT button

Press this button at unit On or Off status,Light On and Light Off can be set up.After powered on, Light On is defaulted.

14. X-FAN button

Pressing X-FAN button in COOL or DRY mode,the icon ✿ is displayed and the indoor fan will continue operation for 2 minutes in order to dry the indoor unit even though you have turned off the unit.After energization, X-FAN OFF is defaulted.X-FAN is not available in AUTO,FAN or HEAT mode.

15. QUIET button

Press this button,the Quiet status is under the Auto Quiet mode (display"◠" and "Auto"signal) and Quiet mode(display "◠" singal) and Quiet OFF(there is no signal of "◠" displayed),after powered on,the Quiet OFF is defaulted. Under the Quiet mode (Display "◠"signal), the fan speed is not available.

16. SLEEP button

●Press this button, can select Sleep 1 (☽1), Sleep 2 (☽2),Sleep 3 (☽3) and cancel the Sleep, circulate between these, after electrified, Sleep Cancel is defaulted.

●Sleep 1 is Sleep mode 1, in Cool, Dehumidify modes: sleep status after run for one hour, the main unit setting temperature will increase 1°C, 2 hours,setting temperature increased 2°C, the unit will run at this setting temperature; In Heat mode: sleep status after run for one hour, the setting temperature will decrease 1°C, 2 hours, setting temperature will decrease 2°C, then the unit will run at this setting temperature.

●Sleep 2 is sleep mode 2, that is air conditioner will run according to the presetting a group of sleep temperature curve.

In Cool mode:

(1) When setting the initial temperature 16~23°C, after turned on Sleep function, the temperature will be increased 1°C in every hour,after 3°C the temperature will be maintained, after 7hours,the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

(2) When setting the initial temperature 24~27°C, after turned on Sleep function, the temperature will be increased 1°C in every hour,after 2°C the temperature will be maintained, after 7hours,the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

(3) When setting the initial temperature 28~29°C, after turned on Sleep function, the temperature will be increased 1°C in every hour, after 1°C the temperature will be maintained, after 7hours,the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

(4) When setting the initial temperature 30°C, under this temperature setting, after 7hours, the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

In Heat mode:

(1) Under the initial presetting temperature 16°C, it will run under this setting temperature all along.

(2) Under the initial presetting temperature17~20°C, after Sleep function started up, the temperature will decrease 1°C in every hour, after 1°C decreased, this temperature will be maintained.

(3) Under the initial presetting temperature 21~27°C, after Sleep function started up, the temperature will decrease 1°C in every hour,after 2°C decreased, this temperature will be maintained.

(4) Under the initial presetting temperature 28~30°C, after Sleep function started up, the temperature will decrease 1°C in every hour, after 3°C decreased, this temperature will be maintained

●Sleep 3- the sleep curve setting under Sleep mode by DIY:

(1) Under Sleep 3 mode, press "Turbo" button for a long time, remote control enters into user individuation sleep setting status, at this time, the time of remote control will display "1hour ", the setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink (The first entering will display according to the initial curve setting value of original factory);

(2) Adjust "+" and "-" button, could change the corresponding setting temperature, after adjusted, press "Trubo "button for confirmation;

(3) At this time, 1hour will be automatically increased at the timer postion on the remote control, (that are "2hours" or "3hours" or "8hours "),

the place of setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink;

(4) Repeat the above step (2)(3) operation, until 8hours temperature setting finished, sleep curve setting finished, at this time, the remote control will resume the original timer display;temperature display will resume to original setting temperature.

●Sleep3- the sleep curve setting under Sleep mode by DIY could be inquired:

The user could accord to sleep curve setting method to inquire the presetting sleep curve, enter into user individuation sleep setting status, but do not change the temperature, press "Turbo" button directly for confirmation.

Note: In the above presetting or enquiry procedure, if continuously within10s, there is no button pressed, the sleep curve setting status will be automatically quit and resume to display the original displaying. In the presetting or enquiry procedure, press "ON/OFF" button, "Mode" button, "Timer" button or "Sleep" button, the sleep curve setting or enquiry status will quit similarly.

17. About X-FAN function

This function indicates that moisture on evaporator of indoor unit will be blowed after the unit is stopped to avoid mould.

(1)Having set X-FAN function on: After turning off the unit by pressing ON/OFF button indoor fan will continue running for about 2 min. at low speed. In this period, press X-FAN button to stop indoor fan directly.

(2)Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

18. About AUTO RUN

When AUTO RUN mode is selected, the setting temperature will not be displayed on the LCD, the unit will be in accordance with the room temp. automatically to select the suitable running method and to make ambient comfortable.

19. About turbo function

If start this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approachs the preset temp. as soon as possible.

20. About lock

Press + and - buttons simultaneously to lock or unlock the keyboard. If the remote controlleris locked, the icon 🔒 will be displayed on it, in which case, press any button, the mark will flicker for three times. If the keyboard is unlocked, the mark will disappear.

21. About swing up and down

(1)Press swing up and down button continuously more than 2s,the main unit will swing back and forth from up to down, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.

(2)Under swing up and down mode, when the status is switched from off to ⋚|, if press this button again 2s later, ⋚| status will switch to off status directly; if press this button again within 2s,the change of swing status will also depend on the circulation sequence stated above.

22. About swing left and right(This function is only available for some models)

(1)Press swing left and right button continuously more than 2s,the main unit will swing back and forth from left to right, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.

(2)2. Under swing left and right mode, when the status is switched from off to 🔀, if press this button again 2s later, 🔀 status will switch to off status directly; if press this button again within 2s,the change of swing status will also depend on the circulation sequence stated above.

23. About switch between Fahrenheit and Centigrade

Under status of unit off, press MODE and - buttons simultaneously to switch °C and °F.

24. Combination of " TEMP" and "CLOCK" buttons : About Energy-saving Function

Press "TEMP" and "CLOCK" simultaneously in COOL mode to start energy-saving function.Nixie tube on the remote controller displays "SE". Repeat the operation to quit the function.

25. Combination of " TEMP" and "CLOCK" buttons : About 8°C Heating Function(This function is only available for some models)

Press "TEMP" and "CLOCK" simultaneously in HEAT mode to start 8°C Heating Function.Nixie tube on the remote controller displays" ⑤ "and a selected temperature of "8°C" (46°F if Fahrenheit is adopted). Repeat the operation to quit the function.

26. About Auto Quiet function

When auto quiet function is selected:

(1)Under cooling mode: indoor fan operates at notch 4 speed. 10 minutes later or when indoor ambient temperature≤28°C, indoor fan will operate at notch 2 speed or quiet mode according to the comparison between indoor ambinet temperature and set temperature.

(2)Under heating mode: indoor fan operates at notch 3 speed or quiet mode according to the comparison between indoor ambient temperature and set temperature.

(3)Under dry, fan mode: indoor fan operates at quiet mode.

(4)Under auto mode: the indoor fan operates at the auto quiet mode according to actual cooling, heating or fan mode.

27. About Sleep function

Under the Fan and Auto mode, the Sleep function cannot be set up, under Dehumidify mode, only Sleep 1 can be selected.Select and enter into any kind of Sleep mode, the Quiet function will be attached and stared, different Quiet status could be optional and turned off.

28. WIFI Function

Press "MODE" and "TURBO" button simultaneously to turn on or turn off WIFI function. When WIFI function is turned on, the "**WIFI**" icon will be displayed on remote controller; Long press "MODE" and "TURBO" buttons simultaneously for 10s, remote controller will send WIFI reset code and then the WIFI function will be turned on. WIFI function is defaulted ON after energization of the remote controller.(This function only applicable for some models.)

Operation Guide

1. General operation

(1)After powered on, press ON/OFF button, the unit will start to run. (Note: When it is powered on, the guide louver of main unit will close automatically.)

(2)Press MODE button, select desired running mode.

(3)Pressing + or - button, to set the desired temperature (It is unnecessary to set the temp. at AUTO mode.)

(4)Pressing FAN button, set fan speed, can select AUTO FAN,LOW, MEDIUM-LOW, MEDIUM, MEDIUM-HIGH and HIGH.

(5)Pressing ⌇ and 🜨 button, to select the swing.
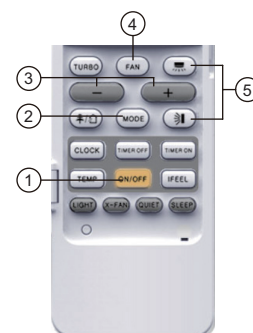
2. Optional operation

(1)Press SLEEP button, to set sleep.

(2)Press TIMER ON and TIMER OFF button, can set the scheduled timer on or timer off.

(3)Press LIGHT button, to control the on and off of the displaying part of the unit (This function may be not available for some units).

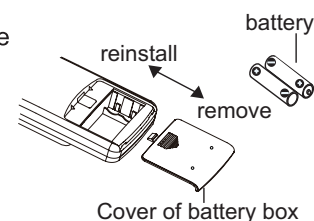(4)Press TURBO button, can realize the ON and OFF of TURBO function.
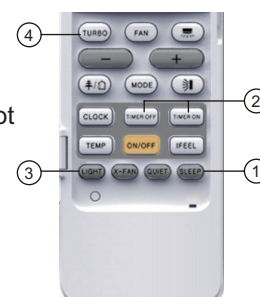
Replacement of Batteries in Remote Controller

1. Press the back side of remote controller marked with "⣿ ",as shown in the fig,and then push out the cover of battery box along the arrow direction.

2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correct.
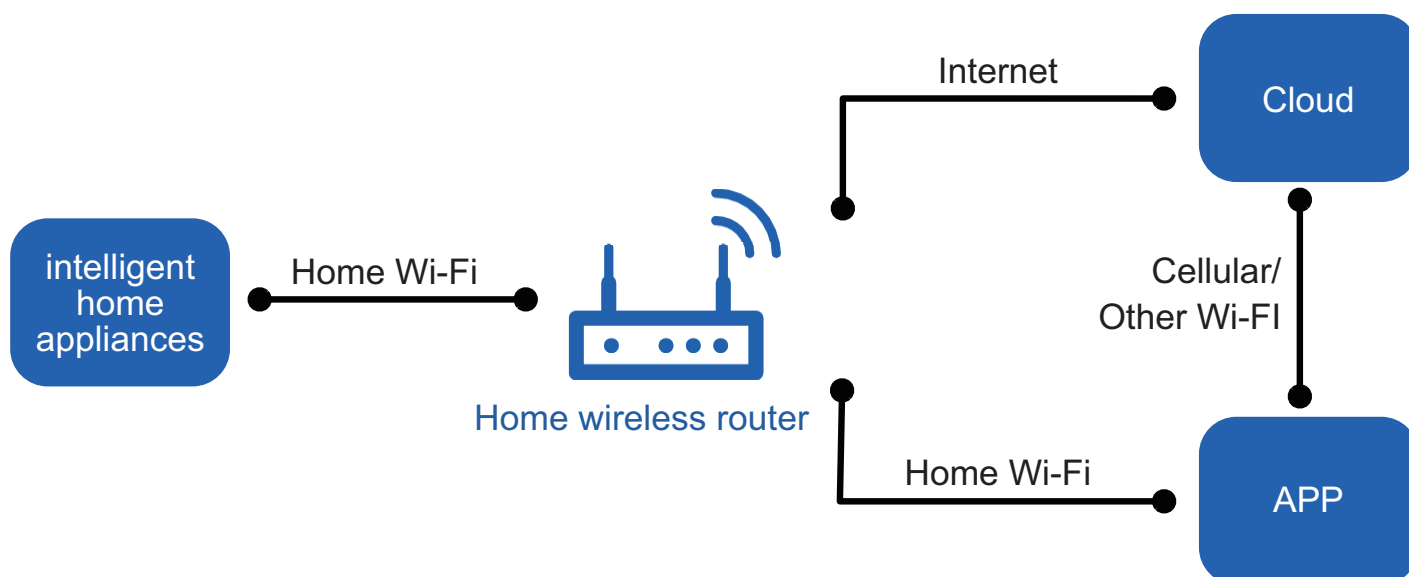
3. Reinstall the cover of battery box.

Note:

● During operation, point the remote control signal sender at the receiving window on indoor unit.

● The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles 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.

● When you don't use remote controller for a long time, please take out the batteries.

● If the display on remote controller is fuzzy or there's no display, please replace batteries.

battery
reinstall
remove
Cover of battery box

Technical Information

6.2 GREE+ App Operation Manual

Control Flow Chart

```
                                      Internet
    ┌──────────┐                                        ┌──────────┐
    │   Gree   │     Home Wi-Fi                          │Gree Cloud│
    │intelligent│─────────────────[router]──────────────│          │
    │   home   │                                         └──────────┘
    │appliances│                 Home wireless router          │
    └──────────┘                                         Cellular/
                                                         Other Wi-FI
                                      Home Wi-Fi               │
                                        ───────────────┌──────────┐
                                                        │GREE+ APP │
                                                        └──────────┘
```

Operating Systems

Requirement for User's smart phone:

iOS system
Support iOS7.0 and
above version

Android system
Support Android 4.4 and
above version

Download and installation

GREE+ App Download Linkage

Scan the QR code or search "GREE+" in the application market to download and install it. When "GREE+" App is installed, register the account and add the device to achieve long-distance control and LAN control of Gree smart home appliances.
For more information, please refer to "Help" in App.

6.3 Ewpe Smart App Operation Manual

Control Flow Chart

Operating Systems

Requirement for User's smart phone:

iOS system
Support iOS7.0 and
above version

Android system
Support Android 4.4 and
above version

Download and installation

App Download Linkage

Scan the QR code or search "Ewpe Smart" in the application market to download and install it. When "Ewpe Smart" App is installed, register the account and add the device to achieve long-distance control and LAN control of smart home appliances.
For more information, please refer to "Help" in App.

6.4 Brief Description of Modes and Functions

1. Temperature Parameters
◆ Indoor preset temperature (T_{preset})
◆ Indoor ambient temperature ($T_{amb.}$)

2. Basic Functions

Once energized, in no case should the compressor be restarted within less than 3 minutes. In the situation that memory function is available, for the first energization, if the compressor is at stop before de-energization, the compressor will be started without a 3-minute lag; if the compressor is in operation before de-energization, the compressor will be started with a 3-minute lag; and once started, the compressor will not be stopped within 6 minutes regardless of changes in room temperature.

(1)Cooling Mode

① The condition and process of cooling

If $T_{amb.} \geq T_{preset}$ cooling mode will act, the compressor and outdoor fan will run, and the indoor fan will run at the set speed.

If $T_{amb.} \leq T_{preset}-2°C$, the compressor will stop, the outdoor fan will delay 30 seconds to stop, and the indoor fan will run at the set speed.

If $T_{preset}-2°C < T_{amb.} < T_{preset}$, the unit will keep running in the previous mode.

When $0 \leq T_{preset}-T_{amb.} < 2°C$, if indoor fan speed is high, it will turn to medium fan speed; if indoor fan speed is medium or low, it will keep the same;(this condition will be valid only when the compressor is operating); if indoor fan speed is super high, it will keep the same;

When $T_{amb.}-T_{preset} \geq 1°C$, the fan speed will return to set fan speed;

In this mode, the reversal valve will not be powered on and the temperature setting range is 16~30°C.
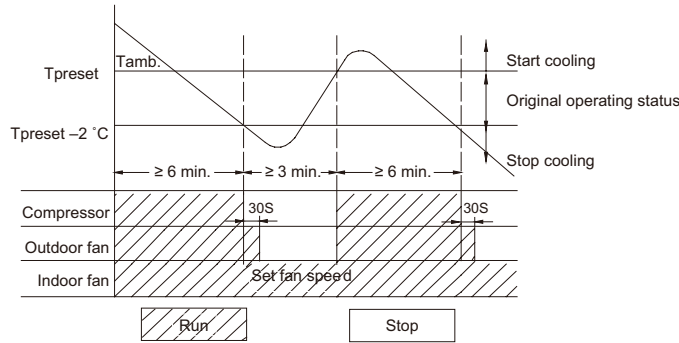

② Protection function

◆ Overcurrent protection

If total current is high, the compressor will run in limited frequency. If total current is too high , the compressor will stop, the outdoor fan will delay 30 seconds to stop, indoor unit will display E5 and out door yellow light will blink 5 times.

◆ Antifreezing protection

When the antifreezing protection is detected, the compressor will stop, the outdoor fan will stop after 30 seconds, and the indoor fan and swing motor will keep running in the original mode. When antifreezing protection is eliminated and the compressor has stopped for 3 minutes, the compressor will resume running in the original mode.
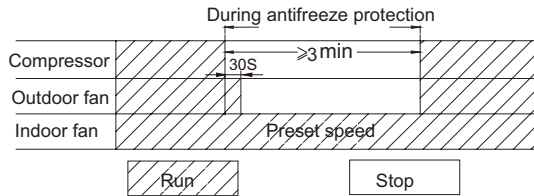
(2) Dehumidifying Mode

① Working conditions and process of dehumidifying

If $T_{amb.} > T_{preset}$, the unit will enter cooling and dehumidifying mode, in which case the compressor and the outdoor fan will operate and the indoor fan will run at low speed.

If $T_{preset}-2°C \leq T_{amb.} \leq T_{preset}$, the compressor remains at its original operation state.

If $T_{amb.} < T_{preset}-2°C$, the compressor will stop, the outdoor fan will stop with a time lag of 30s, and the indoor fan will operate at low speed.

② Protection function

Protection is the same as that under the cooling mode.

(3) Heating Mode

① The condition and process of heating

If $T_{amb.} \leq T_{preset}+2°C$, heating mode will act, the compressor, outdoor fan and reversal valve will run, the indoor fan will delay 3min to stop at the latest

If $T_{preset}+2°C < T_{amb.} < T_{preset}+5°C$,the unit will keep running in the original mode.

If $T_{amb.} \geq T_{preset}+5°C$, the compressor will stop, the outdoor fan will delay 30s to stop and indoor fan will blow 60s at low speed, the fan speed cannot be shifted within blow residual heat.

◆ In this mode, the temperature setting range is 16 ~30°C.

◆ The air conditioner will adjust the running frequency of the compressor automatically according to the change of ambient temperature.

◆ When the unit is turned off in heating mode, or switched to other mode from heating mode, the four-way valve will be powered off after the compressor stops.

◆ When compressor is running (not including each malfunction and protection):

a.When outdoor ambient temperature≥20°C and indoor fan speed is low or medium, the fan speed will turn to high; if indoor fan speed is high or super high, it will keep the same.

b.When outdoor ambient temperature≤18°C, the fan speed will resume set fan speed.

c. When 18°C<outdoor ambient temperature<20°C, it will run at present fan speed (set fan speed or high fan speed); but when first exiting cold air prevention after entering heating mode, it will run in set fan speed.
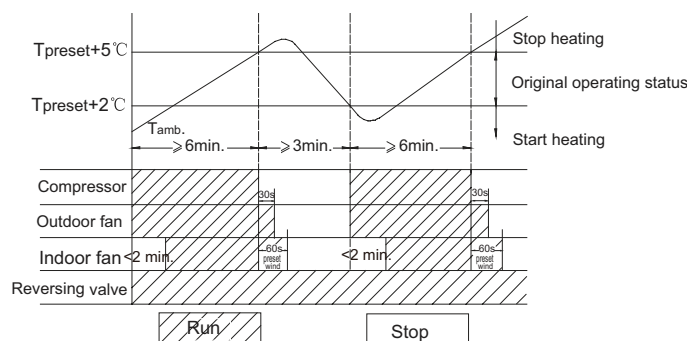
② Condition and process of defrost

When duration of successive heating operation is more than 45 minutes, or accumulated heating time more than 90 minutes, and one of the following conditions is reached, the unit will enter the defrost mode after 3 minutes.

(1). T outdoor ambient ＞ 5°C, T outdoor tube≤-2°C;

(2) -2°C≤T outdoor ambient ＜ 5°C, T outdoor tube≤-6°C;

(3) -5°C≤T outdoor ambient ＜ -2°C, T outdoor tube≤-8°C;

(4)-10°C≤T outdoor ambient ＜ -5°C, T outdoor tube-T compensatory ≤ (T outdoor ambient-3°C)

(5)T outdoor ambient ＜ -10°C, T outdoor tube-T compensatory ≤ (T outdoor ambient-3°C)

(after energizing, T compensatory=0°C during the first defrosting; if it is not the first defrosting, T compensatory is confirmed by T outdoor tube of quitting last defrosting: a. when T outdoor tube ＞ 2°C, T compensatory=0°C; b. when T outdoor tube ≤ 2°C, Tcompensatory=3°C)

At that time, the indoor fan stops and the compressor stops, and after 30 seconds the outer fan will stop, and then after 30 seconds,the four-way valve will stop. After 30 seconds, the compressor is initiated for raising the frequency to defrost frequency.When the compressor has operated under defrost mode for 7.5 minutes, or T outdoor ambient ≥ 10°C, the compressor will be converted to 46Hz operation. After 30 seconds, the compressor will stop. And after another 30 seconds, the four-way valve will be opened, and after 60 seconds, the compressor and the outer fan will be started, the indoor fan will run under preset cold air prevention conditions, and H1 will be displayed at temperature display area on the display panel. Defrost frequency is 85Hz.

③ Protection

◆ Cold air prevention

The unit is started under heating mode (the compressor is ON):

① In the case of T indoor amb. <24°C: if T tube≤40°C and the indoor fan is at stop state, the indoor fan will begin to run at low speed with a time lag of 2 minutes. Within 2 minutes, if T tube>40°C, the indoor fan also will run at low speed; and after 1-minute operation at low speed, the indoor fan will be converted to operation at preset speed. Within 1-minute low speed operation or 2-minute nonoperation,if T tube>42°C, the fan will run at present speed.

② In the case of T indoor amb. ≥24°C: if T tube≤42°C, the indoor fan will run at low speed, and after one minute, the indoor fan will be converted to preset speed. Within one-minute low speed operation, if T tube>42°C, the indoor fan will be converted to preset speed.

Note: T indoor amb. indicated in ① and ② refers to, under initially heating mode, the indoor ambient temperature before the command to start the compressor is performed according to the program, or after the unit is withdrawn from defrost, the indoor ambient temperature before the defrost symbol is cleared.

◆ Total current up and frequency down protection

If the total current I_{total}≤W, frequency rise will be allowed; if I_{total}≥X, frequency rise will not be allowed; if I_{total}≥Y, the compressor will run at reduced frequency; and if I_{total}≥Z, the compressor will stop and the outdoor fan will stop with a time lag of 30s.

09k: W=5A;X=6A;Y=7A;Z=8A

12k: W=6A;X=7A;Y=8A;Z=9A

(5) Fan Mode

Under the mode, the indoor fan will run at preset speed and the compressor, the outdoor fan, the four-way valve and the electric heater will stop.

Under the mode, temperature can be set within a range of 16~30°C.

(6)AUTO Mode

① Operation way of AUTO mode

a.When Tambient≥26°C, it will run in cooling mode. The implied set temperature is 25°C (note: the set temperature sending to outdoor unit is 25°C).

b.For heating and cooling unit, when Tambient≤22°C, it will run in heating mode. The implied set temperature is 20°C;

for cooling only unit, when Tambient≤22°C, it will run in fan mode and the displayed set temperature is 25°C.

c.For heating and cooling unit, when 22°C<Tindoor ambient<26°C (for cooling only unit, 22°C<Tindoor ambient<26°C), it will keep the original running mode. If the unit is energized for the first time, it will run in fan mode.

② Protection

a. In cooling operation, protection is the same as that under the cooling mode;

b. In heating operation, protection is the same as that under the heating mode;

c. When ambient temperature changes, operation mode will be converted preferentially. Once started, the compressor willremain unchanged for at least 6 minutes.

(7)Common Protection Functions and Fault Display under COOL, HEAT, DRY and AUTO Modes

① Overload protection

T_{tube}: measured temperature of outdoor heat exchanger under cooling mode; and measured temperature of indoor heat exchanger under heating mode.

1) Cooling overload

a.If T tube≤52°C, the unit will return to its original operation state.

b.If T tube≥55°C, frequency rise is not allowed.

c.If T tube≥58°C, the compressor will run at reduced frequency.

d.If T tube≥62°C, the compressor will stop and the indoor fan will run at preset speed.

2) Heating overload

a.If T tube≤50°C, the unit will return to its original operation state.

b.If T tube≥53°C, frequency rise is not allowed.

c.If T tube≥56°C, the compressor will run at reduced frequency.

d.If T tube≥60°C, the compressor will stop and the indoor fan will blow residue heat and then stop.

② Exhaust temperature protection of compressor

If exhaust temperature≥98°C, frequency is not allowed to rise.

If exhaust temperature≥103°C, the compressor will run at reduced frequency.

If exhaust temperature≥110°C, the compressor will stop.

If exhaust temperature≤90°C and the compressor has stayed at stop for at least 3 minutes, the compressor will resume its operation.

③ Communication fault

If the unit fails to receive correct signals for durative 3 minutes, communication fault can be justified and the whole system will stop.

④ Module protection

Under module protection mode, the compressor will stop. When the compressor remains at stop for at least 3 minutes, the compressor will resume its operation. If module protection occurs six times in succession, the compressor will not be started again.

⑤ Overload protection

If temperature sensed by the overload sensor is over 115 , the compressor will stop and the outdoor fan will stop with a time lag of 30 seconds. If temperature is below 95 , the overload protection will be relieved.

⑥ DC bus voltage protection

If voltage on the DC bus is below 150V or over 420V, the compressor will stop and the outdoor fan will stop with a time lag of 30 seconds. When voltage on the DC bus returns to its normal value and the compressor has stayed at stop for at least 3 minutes, the compressor will resume its operation.

⑦ Faults of temperature sensors

Designation of sensors	Faults
Indoor ambient temperature	The sensor is detected to be open-circuited or short-circuited for successive 5 seconds
Indoor tube temperature	The sensor is detected to be open-circuited or short-circuited for successive 5 seconds
Outdoor ambient temperature	The sensor is detected to be open-circuited or short-circuited for successive 30 seconds
Outdoor tube temperature	The sensor is detected to be open-circuited or short-circuited for successive 30 seconds, and no detection is performed within 10 minutes after defrost begins.
Exhaust	After the compressor has operated for 3 minutes, the sensor is detected to be open-circuited or short-circuited for successive 30 seconds.
Overload	After the compressor has operated for 3 minutes, the sensor is detected to be open-circuited or short-circuited for successive 30 seconds.

3. Other Controls

(1) ON/OFF

Press the remote button ON/OFF: the on-off state will be changed once each time you press the button.

(2) Mode Selection:

Press the remote button MODE, then select and show in the following ways: AUTO, COOL, DRY, FAN, HEAT, AUTO.

(3) Temperature Setting Option Button

Each time you press the remote button TEMP+ or TEMP-, the setting temperature will be up or down by 1°C. Regulating Range: 16~30°C, the button is useless under the AUTO mode.

(4) Time Switch

You should start and stop the machine according to the setting time by remote control.

(5) SLEEP State Control

1. In cooling mode:

1.1 When the initial set temperature is16-23°C,the temperature will rise 1°C by every hour after sleep function is set;the temperature will not change after rising 3°C;after running for 7hours,the temperature will decrease1°C and it will not change after that.

1.2 When the initial set temperature is 24-27°C,the temperature will rise 1°C by every hour after sleep function is set; the temperature will not change after rising 2°C;after running for 7 hours, the temperature will decrease 1°C and it will not change after that.

1.3 When the initial set temperature is 28-29°C,the temperature will rise 1°C by every hour after sleep function is set; the temperature will not change after rising 1°C; after running for 7 hours, the temperature will decrease 1°C and it will not change after that.

1.4 When the initial set temperature is 30°C, the unit will keep on running at this temperature; after running for 7 hours, the temperature will decrease 1°C and it will not change after that.

Relationship between set temperature and running time:

Initial Temp.	Running time(T)							
0(start)	1	2	3	4	5	6	7	8
16	17	18	19	19	19	19	18	18
17	18	19	20	20	20	20	19	19
18	19	20	21	21	21	21	20	20
19	20	21	22	22	22	22	21	21
20	21	22	23	23	23	23	22	22
21	22	23	24	24	24	24	23	23
22	23	24	25	25	25	25	24	24
23	24	25	26	26	26	26	25	25
24	25	26	26	26	26	26	25	25
25	26	27	27	27	27	27	26	26
26	27	28	28	28	28	28	27	27
27	28	29	29	29	29	29	28	28
28	29	29	29	29	29	29	28	28
29	30	30	30	30	30	30	29	29
30	30	30	30	30	30	30	29	29

2. In heating mode:

2.1 When the initial set temperature is 16°C, the unit will keep on running at this temperature;

2.2 When the initial set temperature is 17-20°C, the temperature will decrease 1°C by every hour after sleep function is set; the temperature will not change after decreasing 1°C;

2.3 When the initial set temperature is 21-27°C, the temperature will decrease 1°C by every hour after sleep function is set; the temperature will not change after decreasing 2°C;

2.4 When the initial set temperature is 28-30°C, the temperature will decrease 1°C by every hour after sleep function is set; the temperature will not change after decreasing 3°C;

Relationship between set temperature and running time:

Initial Temp.	Running time(T)							
0(start)	1	2	3	4	5	6	7	8
16	16	16	16	16	16	16	16	16
17	16	16	16	16	16	16	16	16
18	17	17	17	17	17	17	17	17
19	18	18	18	18	18	18	18	18
20	19	19	19	19	19	19	19	19
21	20	19	19	19	19	19	19	19
22	21	20	20	20	20	20	20	20
23	22	21	21	21	21	21	21	21
24	23	22	22	22	22	22	22	22
25	24	23	23	23	23	23	23	23
26	25	24	24	24	24	24	24	24
27	26	25	25	25	25	25	25	25
28	27	26	25	25	25	25	25	25
29	28	27	26	26	26	26	26	26
30	29	28	27	27	27	27	27	27

(6) Indoor Fan Control

Indoor fan could be set at ultra-high, high, medium, low speed by wireless remote controller and operated as that speed.

Auto fan speed could be set as well, indoor fan will operate under auto fan speed as following:

Technical Information

1. Under heating mode: auto speed under heating or auto heating mode:

a. When $T_{amb.} \leq T_{preset}+1°C$, indoor fan will operate at high speed;

b. When $T_{preset}+1°C < T_{amb.} < T_{preset}+3°C$, indoor fan will operate at medium speed;

c. When $T_{amb.} \geq T_{preset}+3°C$, indoor fan will operate at low speed;

There should be at least 180s operation time during switchover of each speed.

2. Under cooling mode: auto speed under cooling or auto cooling mode:

a. When $T_{amb.} \geq T_{preset}+2°C$, indoor fan will operate at high speed;

b. When $T_{preset} < T_{amb.} < T_{preset}+2°C$, indoor fan will operate at medium speed;

c. When $T_{amb.} \leq T_{preset}$, indoor fan will operate at low speed

There should be at least 210s operation time during switchover of each speed.

(7) Buzzer Control

The buzzer will send a "Di" sound when the air conditioner is powered up or received the information sent by the remote control or there is a button input, the single tube cooler doesn't receive the remote control ON signal under the mode of heating mode.

(8) Auto button

If the controller is on, it will stop by pressing the button, and if the controller is off, it will be automatic running state by pressing the button, swing on and light on, and the main unit will run based on the remote control if there is remote control order.

(9) Up-and-Down Swinging Control

When power on, the up-and-down motor will firstly move the air deflector to o counter-clockwise, close the air outlet.

After starting the machine, if you don't set the swinging functi on, heating mode and auto-heating mode, the up-and-down air deflector will move to D clockwise; under other modes, the up-and-down air deflector will move to L1. If you set the swinging function when you start the machine, then the wind blade will swing between L and D. The air deflector has 7 swinging states: Location L, Location A, Location B, Location C, Location D, Location L to Location D, stop at any location between L-D (the included angle between L~D is the same).
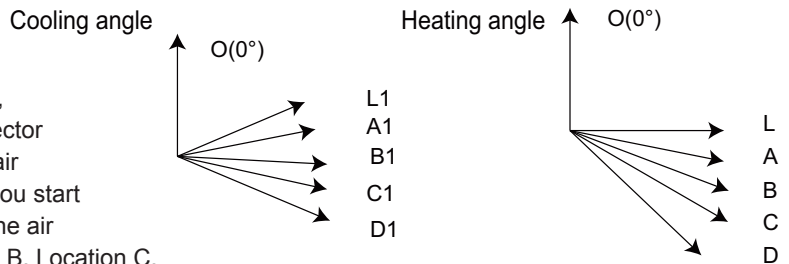
The air deflector will be closed at 0 Location, and the swinging is effectual only on condition that setting the swinging order and the inner fan is running. The indoor fan and compressor may get the power when air deflector is on the default location.

(10) Display

① Operation pattern and mode pattern display

All the display patterns will display for a time when the power on, the operation indication pattern will display in red under standby status. When the machine is start by remote control, the indication pattern will light and display the current operation mode (the mode light includes: Cooling, heating and dehumidify). If you close the light key, all the display patterns will close.

② Double-8 display

According to the different setting of remote control, the nixie light may display the current temperature (the temperature scope is from 16°C to 30°C) and indoor ambient temperature. The set temperature displayed in auto cooling and fan mode is 25°C and the set temperature displayed in auto heating mode is 20°C. Under heating mode, nixie tube displays H1 or heating indicator is off 0.5s and blinks 10s in defrosting.(If you set the fahrenheit temperature display, the nixie light will display according to fahrenheit temperature)(11) Protection function and failure display

E2: Freeze-proofing protection   E4: Exhausting protecti on   E5: Overcurrent protection   E6: Communication failure

F1: Indoor ambient sensor start and short circuit (continuously measured failure in 5s)

F2: Indoor evaporator sensor start and short circuit (continuously measured failure in 5s)

F3: Outdoor ambient sensor start and short circuit (continuously measured failure in 30s)

F4: Outdoor condenser sensor start and short circuit (continuously measured failure in 30s, and don't measure within 10 minutes after defrosted)

F5: Outdoor exhausting sensor start and short circuit (continuously measured failure in 30s after the compressor operated 3 minutes)

H3: Overload protection of compressor   H5: Module protection   PH: High-voltage protection   PL: Low-voltage protection

P1: Nominal cooling and heating test   P2: Maximum cooling and heating test

P3: Medium cooling and heating test   P0: Minimum cooling and heating test

(12) Drying Function

You may start or stop the drying function under the modes of cooling and dehumidify at the starting status (The modes of automatism, heating and air supply do not have drying function). When you start the drying function, after stop the machine by pressing the switch button, you should keep running the inner fans for 2 minutes under low air damper (The swing will operate as the D1 status within 2 minutes, and other load is stopped), then stop the entire machine; When you stop the drying function, press the switch button will stop the machine directly.When you start the drying function, operating the drying button will stop the inner fans and close the guide louver.

(13) Memory Function

When interrupting the power supply memory content: mode, swing function, light, set temperature and wind speed.

After interrupted the power supply, the machine will start when recovering the power according to the memory content automatically.