



Service Manual

MODEL: GWH09MA-K3DNA2B GWH12MB-K3DNA2B
GWC09MA-K3DNA3B GWH09MA-K3DNA3B
GWC12MB-K3DNA3B GWH12MB-K3DNA3B
GWH09MA-K3DNA4B GWH12MB-K3DNA4B
GWH09MA-K3DNA5B GWC12MB-K3DNA5B
GWH12MB-K3DNA5B GWH09MA-K3DNA8B
GWH12MB-K3DNA8B GWH09MA-K3DNA9B
GWH12MB-K3DNA9B GWH09MA-K3DNB3B
GWH12MB-K3DNB3B GWC09MA-K3DNB7B
GWH09MA-K3DNB7B GWH12MB-K3DNB7B
GWH09MA-K3DNB8B GWH12MB-K3DNB8B
GWH09MA-K3DNC1B GWH12MB-K3DNC1B
GWC12MB-K3DNC3B GWH12MB-K3DNC3B
GWH09MA-K3DNC5B GWH12MB-K3DNC5B
GWH09MA-K3DNC8B GWH09MA-K3DNC9B
GWH12MB-K3DNC9B GWH09MA-K3DNE1B
GWH12MB-K3DNE1B GWH09MA-K3DNE2B
GWH12MB-K3DNE2B GWH09MA-K3DNE3B
GWH12MB-K3DNE3B GWH09MA-K3DNE4B
GWH12MB-K3DNE4B (Refrigerant R410A)

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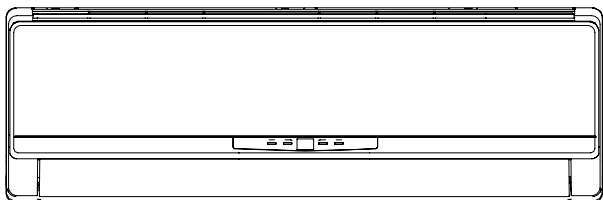
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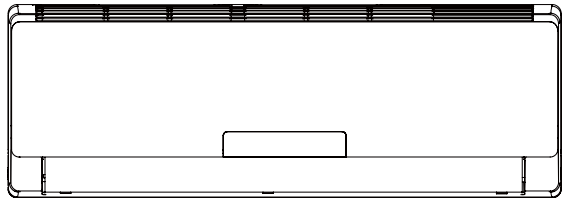
Summary and Features

Indoor Unit

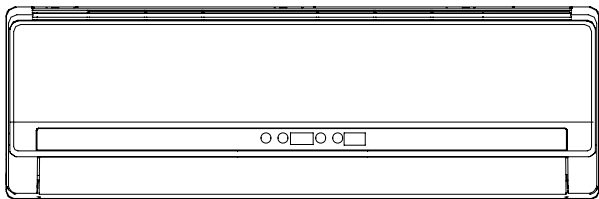
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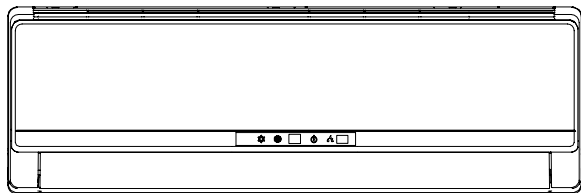
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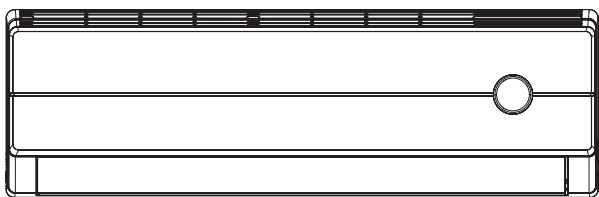
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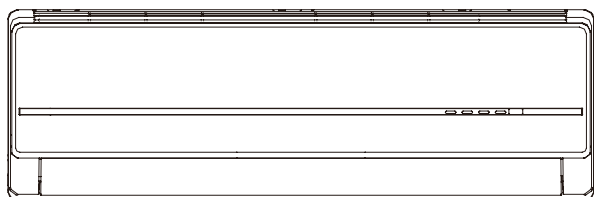
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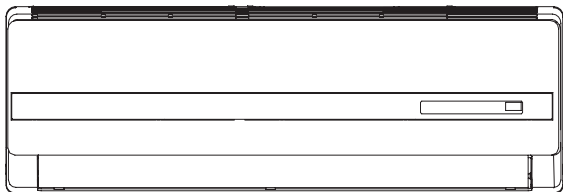
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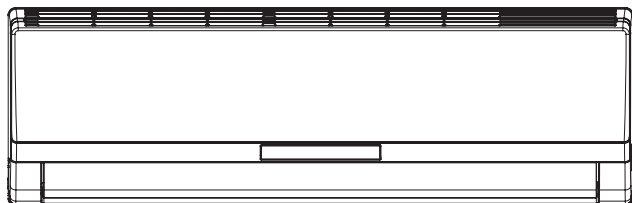
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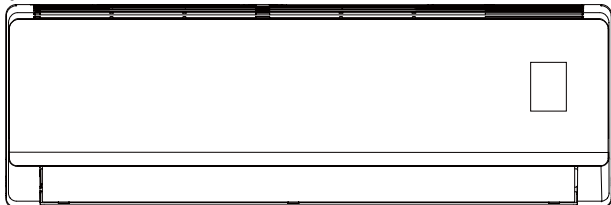
B3 Panel



B8 Panel



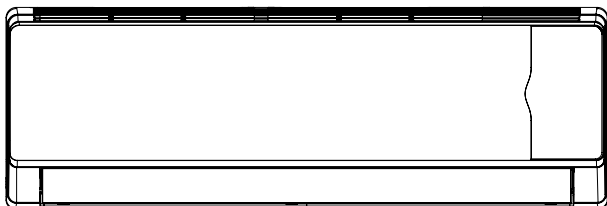
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(For CB164N01300、CB164N01304、CB164N01400)



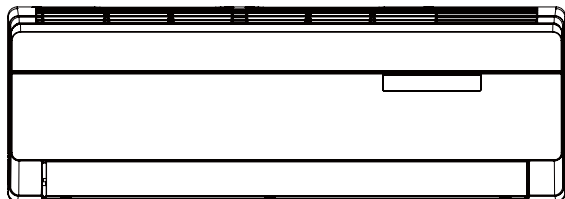
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(For CB164N01603)



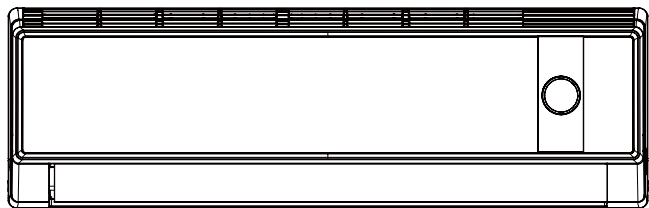
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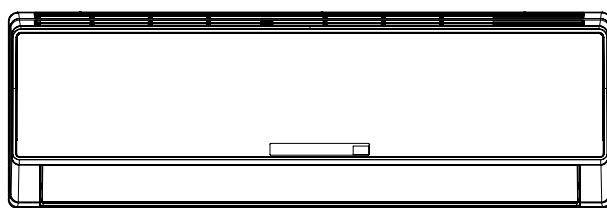
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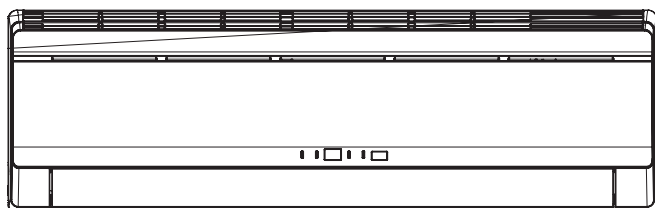
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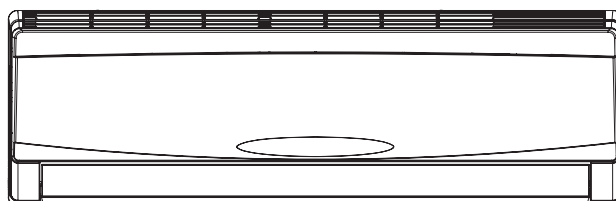
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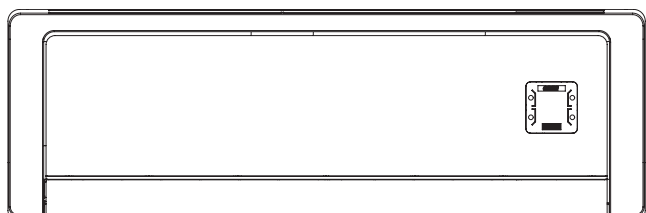
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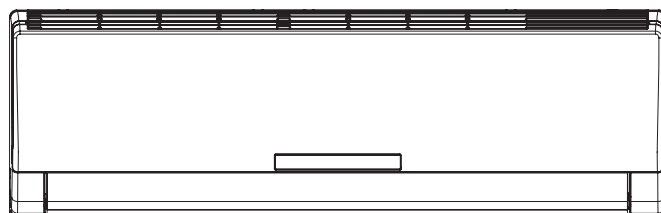
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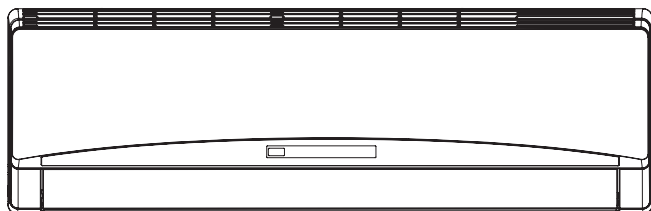
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E3 Panel



E4 Panel



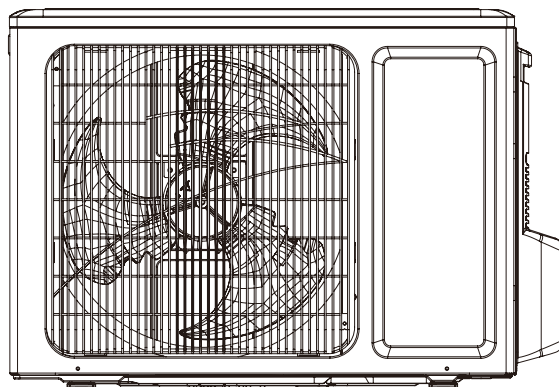
Remote Controller

YB1FA



Outdoor Unit

GWC09MA-K3DNA3B/O(CB171W0181)
 GWH09MA-K3DNA3B/O(CB171W0191)
 GWH09MA-K3DNA3B/O(CB171W0192)
 GWC12MB-K3DNA3B/O(CB171W0201)
 GWH12MB-K3DNA3B/O(CB171W0212)
 GWH12MB-K3DNA3B/O(CB171W0213)



Model list

NO.	Model	Product code	Indoor model	Indoor product code	Outdoor model	Outdoor product code
1	GWC09MA-K3DNA3B (electric heating of compressor)	CB17100183	GWC09MA-K3DNA3B/I (electric heating of compressor)	CB171N0183	GWC09MA-K3DNA3B/O (electric heating of compressor)	CB171W0181
2	GWC09MA-K3DNB7B (cold plasma+electric heating of compressor)	CB164001603	GWC09MA-K3DNB7B/I (cold plasma+electric heating of compressor)	CB164N01603		
3	GWH09MA-K3DNA3B (electric heating belt)	CB17100192	GWH09MA-K3DNA3B/I (electric heating belt)	CB171N0192	GWH09MA-K3DNA4B/O (electric heating belt)	CB171W0191
4	GWH09MA-K3DNB7B (electric heating belt)	CB164001304	GWH09MA-K3DNB7B/I (electric heating belt)	CB164N01304		
5	GWH09MA-K3DNA4B	CB155005601	GWH09MA-K3DNA4B/I	CB155N05600	GWH09MA-K3DNA3B/O	CB171W0192
6	GWH09MA-K3DNB3B	CB163003702	GWH09MA-K3DNB3B/I	CB163N03700		
7	GWH09MA-K3DNB8B (white)	CB174002602	GWH09MA-K3DNB8B/I (white)	CB174N02600		
8	GWH09MA-K3DNE3B (white, wire-drawing middle display)	CB404001303	GWH09MA-K3DNE3B/I (white, wire-drawing middle display)	CB404N01303		
9	GWH09MA-K3DNE1B	CB143000902	GWH09MA-K3DNE1B/I	CB143N00900		
10	GWH09MA-K3DNA3B	CB171001912	GWH09MA-K3DNA3B/I	CB171N0190		
11	GWH09MA-K3DNB7B	CB164001303	GWH09MA-K3DNB7B/I	CB164N01300		
12	GWH09MA-K3DNA2B	CB181003002	GWH09MA-K3DNA2B/I	CB181N03000		
13	GWH09MA-K3DNE2B	CB401000202	GWH09MA-K3DNE2B/I	CB401N00200		
14	GWH09MA-K3DNA5B	CB162002802	GWH09MA-K3DNA5B/I	CB162N02800		
15	GWH09MA-K3DNC9B	CB145000602	GWH09MA-K3DNC9B/I	CB145N00600		
16	GWH09MA-K3DNC1B	CB139001802	GWH09MA-K3DNC1B/I	CB139N01800		
17	GWH09MA-K3DNA8B	CB173002402	GWH09MA-K3DNA8B/I	CB173N02400		
18	GWH09MA-K3DNC5B	CB179001402	GWH09MA-K3DNC5B/I	CB179N01400		
19	GWH09MA-K3DNA9B	CB182001602	GWH09MA-K3DNA9B/I	CB182N01600		
20	GWH09MA-K3DNE4B	CB403000202	GWH09MA-K3DNE4B/I	CB403N00200		
21	GWH09MA-K3DNE3B	CB404001302	GWH09MA-K3DNE3B/I	CB404N01300		
22	GWH09MA-K3DNC8B (red)	CB192000102	GWH09MA-K3DNC8B/I (red)	CB192N00100		
23	GWH09MA-K3DNB8B (white + cold plasma)	CB174002603	GWH09MA-K3DNB8B/I (white + cold plasma)	CB174N02603		
24	GWC12MB-K3DNA3B (with electric heating belt of compressor)	CB17100202	GWC12MB-K3DNA3B/I (with electric heating belt of compressor)	CB171N0202	GWC12MB-K3DNA4B/O (with electric heating belt of compressor)	CB171W0201
25	GWC12MB-K3DNC3B (cold plasma+with electric heating belt of compressor)	CB136000303	GWC12MB-K3DNC3B/I (cold plasma+with electric heating belt of compressor)	CB136N00303		
26	GWC12MB-K3DNA5B (electric heating belt)	CB162005801	GWC12MB-K3DNA5B/I (electric heating belt)	CB162N05800		
27	GWH12MB-K3DNA3B (electric heating belt)	CB17100213	GWH12MB-K3DNA3B/I (electric heating belt)	CB171N0213	GWH12MB-K3DNA4B/O (electric heating belt)	CB171W0212
28	GWH12MB-K3DNC3B (cold plasma+electric heating belt)	CB13600011	GWH12MB-K3DNC3B/I (cold plasma+electric heating belt)	CB136N0011		

29	GWH12MB-K3DNA2B	CB181003103	GWH12MB-K3DNA2B/I	CB181N03100	GWH12MB-K3DNA3B/O	CB171W0213
30	GWH12MB-K3DNA3B	CB171002113	GWH12MB-K3DNA3B/I	CB171N0210		
31	GWH12MB-K3DNA4B	CB155005703	GWH12MB-K3DNA4B/I	CB155N05700		
32	GWH12MB-K3DNB3B	CB163003803	GWH12MB-K3DNB3B/I	CB163N03800		
33	GWH12MB-K3DNB8B (white)	CB174002503	GWH12MB-K3DNB8B/I (white)	CB174N02500		
34	GWH12MB-K3DNE3B (white, wire-drawing middle display)	CB404001401	GWH12MB-K3DNE3B/I (white, wire-drawing middle display)	CB404N01401		
35	GWH12MB-K3DNC3B (cold plasma)	CB136000103	GWH12MB-K3DNC3B/I (cold plasma)	CB136N00101		
36	GWH12MB-K3DNE2B	CB401000303	GWH12MB-K3DNE2B/I	CB401N00300		
37	GWH12MB-K3DNA5B	CB162002903	GWH12MB-K3DNA5B/I	CB162N02900		
38	GWH12MB-K3DNC9B	CB145000703	GWH12MB-K3DNC9B/I	CB145N00700		
39	GWH12MB-K3DNC1B	CB139001903	GWH12MB-K3DNC1B/I	CB139N01900		
40	GWH12MB-K3DNB7B	CB164001403	GWH12MB-K3DNB7B/I	CB164N01400		
41	GWH12MB-K3DNA8B	CB173002503	GWH12MB-K3DNA8B/I	CB173N02500		
42	GWH12MB-K3DNC5B	CB179001503	GWH12MB-K3DNC5B/I	CB179N01500		
43	GWH12MB-K3DNA9B	CB182001703	GWH12MB-K3DNA9B/I	CB182N01700		
44	GWH12MB-K3DNE4B	CB403000303	GWH12MB-K3DNE4B/I	CB403N00300		
45	GWH12MB-K3DNE3B	CB404001403	GWH12MB-K3DNE3B/I	CB404N01400		
46	GWH12MB-K3DNB8B (white + cold plasma)	CB174002502	GWH12MB-K3DNB8B/I (white + cold plasma)	CB174N02502		
47	GWH12MB-K3DNC3B	CB136000104	GWH12MB-K3DNC3B/I	CB136N0010		
48	GWH12MB-K3DNE1B	CB143001003	GWH12MB-K3DNE1B/I	CB143N01000		

1.Safety Precautions

Installing, starting up, and servicing air conditioner can be hazardous due to system pressure, electrical components, and equipment location, etc.

Only trained, qualified installers and service personnel are allowed to install, start-up, and service this equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils. All other operations should be performed by trained service personnel.

When handling the equipment, observe precautions in the manual and on tags, stickers, and labels attached to the equipment. Follow all safety codes. Wear safety glasses and work gloves. Keep quenching cloth and fire extinguisher nearby when brazing.

Read the instructions thoroughly and follow all warnings or cautions in literature and attached to the unit. Consult local building codes and current editions of national as well as local electrical codes.

Recognize the following safety information:



Warning Incorrect handling could result in personal injury or death.



Caution Incorrect handling may result in minor injury, or damage to product or property.



Warning

All electric work must be performed by a licensed technician according to local regulations and the instructions given in this manual.

- Before installing, modifying, or servicing system, main electrical disconnect switch must be in the OFF position. There may be more than 1 disconnect switch. Lock out and tag switch with a suitable warning label.
- Never supply power to the unit unless all wiring and tubing are completed, reconnected and checked.
- This system adopts highly dangerous electrical voltage. Incorrect connection or inadequate grounding can cause personal injury or death. Stick to the wiring diagram and all the instructions when wiring.
- Have the unit adequately grounded in accordance with local electrical codes.
- Have all wiring connected tightly. Loose connection may lead to overheating and a possible fire hazard.

All installation or repair work shall be performed by your dealer or a specialized subcontractor as there is the risk of fire, electric shock, explosion or injury.

- Make sure the outdoor unit is installed on a stable, level surface with no accumulation of snow, leaves, or trash beside.
- Make sure the ceiling/wall is strong enough to bear the weight of the unit.
- Make sure the noise of the outdoor unit does not disturb neighbors.
- Follow all the installation instructions to minimize the risk of damage from earthquakes, typhoons or strong winds.
- Avoid contact between refrigerant and fire as it generates poisonous gas.
- Apply specified refrigerant only. Never have it mixed with any other refrigerant. Never have air remain in the refrigerant line as it may lead to rupture and other hazards.
- Make sure no refrigerant gas is leaking out when installation is completed.
- Should there be refrigerant leakage, the density of refrigerant in the air shall in no way exceed its limited value, or it may lead to explosion.
- Keep your fingers and clothing away from any moving parts.
- Clear the site after installation. Make sure no foreign objects are left in the unit.
- Always ensure effective grounding for the unit.



Caution

- Never install the unit in a place where a combustible gas might leak, or it may lead to fire or explosion.
- Make a proper provision against noise when the unit is installed at a telecommunication center or hospital.
- Provide an electric leak breaker when it is installed in a watery place.
- Never wash the unit with water.
- Handle unit transportation with care. The unit should not be carried by only one person if it is more than 20kg.
- Never touch the heat exchanger fins with bare hands.
- Never touch the compressor or refrigerant piping without wearing glove.
- Do not have the unit operate without air filter.
- Should any emergency occur, stop the unit and disconnect the power immediately.
- Properly insulate any tubing running inside the room to prevent the water from damaging the wall.

2.Specifications

2.1 Unit Specifications

Model			GWC09MA-K3DNB7B GWC09MA-K3DNA3B	GWH09MA-K3DNB7B GWH09MA-K3DNA3B
Product Code			CB164001603 CB17100183	CB164001304 CB17100192
Power Supply	Rated Voltage	V ~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Indoor	Indoor
Cooling Capacity(Min ~ Max)		W	2500(550~3200)	2500(550~3200)
Heating Capacity(Min ~ Max)		W	/	2800(800~3600)
Cooling Power Input(Min ~ Max)		W	770(250~1360)	770(250~1360)
Heating Power Input(Min ~ Max)		W	/	775(200~1400)
Cooling Current Input		A	3.42	3.42
Heating Current Input		A	/	3.44
Rated Input		W	1360	1380
Rated Current		A	9	9.1
Air Flow Volume (S/H/M/L/SL)		m ³ /h	550/500/400/300/-	550/500/400/300/-
Dehumidifying Volume		L/h	0.8	0.8
EER		W/W	3.24	3.24
COP		W/W	/	3.61
Application Area		m ²	12-18	12-18
Indoor Unit	Indoor Unit Model		GWC09MA-K3DNB7B/I GWC09MA-K3DNA3B/I	GWH09MA-K3DNB7B/I GWH09MA-K3DNA3B/I
	Indoor Unit Product Code		CB164N01603 CB171N0183	CB164N01304 CB171N0192
	Fan Type		Cross-flow	Cross-flow
	Fan Diameter Length(DXL)	mm	Φ85X596	Φ85X596
	Cooling Speed(S/H/M/L/SL)	r/min	1260/1050/900/690/-	1260/1050/900/690/-
	Heating Speed(S/H/M/L/SL)	r/min	/	1320/1200/1000/910/-
	Fan Motor Power Output	W	10	10
	Fan Motor RLA	A	0.1	0.1
	Fan Motor Capacitor	μF	1	1
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ7	Φ7
	Evaporator Row-fin Gap	mm	2-1.5	2-1.5
	Evaporator Coil Length (LXDXW)	mm	582X25.4X267	582X25.4X267
	Swing Motor Model		MP24AA	MP24AA
	Swing Motor Power Output	W	1.5	1.5
	Fuse Current	A	3.15	3.15
	Sound Pressure Level (S/H/M/L/SL)	dB (A)	40/37/35/32/-	40/37/35/32/-
	Sound Power Level (S/H/M/L/SL)	dB (A)	50/47/45/43/-	50/47/45/43/-
	Dimension (WXHXD)	mm	790X265X170	790X265X170
	Dimension of Carton Box (LXWXH)	mm	870X248X355	870X248X355
	Dimension of Package(LXWXH)	mm	873X251X251	873X251X251
	Net Weight	kg	9	9
	Gross Weight	kg	12	12

Specifications

Outdoor Unit	Outdoor Unit Model		GWC09MA-K3DNA3B/O	GWH09MA-K3DNA3B/O
	Outdoor Unit Product Code		CB171W0181	CB171W0191
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO., LTD.	ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXA-B096ZC190	QXA-B096ZC190
	Compressor Oil		68EP	68EP
	Compressor Type		Rotary	Rotary
	Compressor LRA.	A	16.5	16.5
	Compressor RLA	A	4.9	4.9
	Compressor Power Input	W	950	950
	Compressor Overload Protector		INT11L-6233	INT11L-6233
	Throttling Method		Capillary	Capillary
	Set Temperature Range	°C	16~30	16~30
	Cooling Operation Ambient Temperature Range	°C	-15~43	-15~43
	Heating Operation Ambient Temperature Range	°C	/	-7~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Condenser Pipe Diameter	mm	Φ7	Φ9.52
	Condenser Rows-fin Gap	mm	1-1.4	1-1.4
	Condenser Coil Length (LXDXW)	mm	730X12.7X495	695X22X508
	Fan Motor Speed	rpm	830±30	830±30
	Fan Motor Power Output	W	30	30
	Fan Motor RLA	A	0.2	0.2
	Fan Motor Capacitor	μF	2.5	2.5
	Outdoor Unit Air Flow Volume	m³/h	1600	1600
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ400	Φ400
	Defrosting Method		/	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	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)	50/-/-	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-	60/-/-
	Dimension (WXHXD)	mm	776X540X320	776X540X320
	Dimension of Carton Box (LXWXH)	mm	848X360X580	848X360X580
	Dimension of Package(LXWXH)	mm	851X363X595	851X363X595
	Net Weight	kg	31	31
	Gross Weight	kg	35	35
	Refrigerant		R410A	R410A
	Refrigerant Charge	kg	0.7	0.73
Connection Pipe	Connection Pipe Length	m	5	5
	Connection Pipe Gas Additional Charge	g/m	15	20
	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	15

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

Model			1.GWH09MA-K3DNB3B、2.GWH09MA-K3DNB8B 3.GWH09MA-K3DNE3B、4.GWH09MA-K3DNA4B 5.GWH09MA-K3DNE1B、6.GWH09MA-K3DNA3B 7.GWH09MA-K3DNB7B、8.GWH09MA-K3DNA2B 9.GWH09MA-K3DNE2B、10.GWH09MA-K3DNA5B 11.GWH09MA-K3DNC9B、12.GWH09MA-K3DNC1B 13.GWH09MA-K3DNA8B、14.GWH09MA-K3DNC5B 15.GWH09MA-K3DNA9B、16.GWH09MA-K3DNE4B 17.GWH09MA-K3DNE3B、18.GWH09MA-K3DNC8B 19.GWH09MA-K3DNB8B
Product Code			1.CB163003702、2.CB174002602、3.CB404001303、4.CB155005601 5.CB143000902、6.CB171001912、7.CB164001303、8.CB181003002 9.CB401000202、10.CB162002802、11.CB145000602 12.CB139001802、13.CB173002402、14.CB179001402 15.CB182001602、16.CB403000202、17.CB404001302 18.CB192000102、19.CB174002603
Power Supply	Rated Voltage	V ~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity(Min ~ Max)		W	2500(550~3200)
Heating Capacity(Min ~ Max)		W	2800(800~3600)
Cooling Power Input(Min ~ Max)		W	770(250~1360)
Heating Power Input(Min ~ Max)		W	775(200~1400)
Cooling Current Input		A	3.42
Heating Current Input		A	3.44
Rated Input		W	1400
Rated Current		A	9.1
Air Flow Volume (S/H/M/L/SL)		m³/h	550/500/400/300/-
Dehumidifying Volume		L/h	0.8
EER		W/W	3.24
COP		W/W	3.61
Application Area		m²	12-18
Indoor Unit	Indoor Unit Model		1.GWH09MA-K3DNB3B/I、2.GWH09MA-K3DNB8B/I 3.GWH09MA-K3DNE3B/I、4.GWH09MA-K3DNA4B/I 5.GWH09MA-K3DNE1B/I、6.GWH09MA-K3DNA3B/I 7.GWH09MA-K3DNB7B/I、8.GWH09MA-K3DNA2B/I 9.GWH09MA-K3DNE2B/I、10.GWH09MA-K3DNA5B/I 11.GWH09MA-K3DNC9B/I、12.GWH09MA-K3DNC1B/I 13.GWH09MA-K3DNA8B/I、14.GWH09MA-K3DNC5B/I 15.GWH09MA-K3DNA9B/I、16.GWH09MA-K3DNE4B/I 17.GWH09MA-K3DNE3B/I、18.GWH09MA-K3DNC8B/I 19.GWH09MA-K3DNB8B/I
	Indoor Unit Product Code		1.CB163N03700、2.CB174N02600、3.CB404N01303、4.CB155N05600 5.CB143N00900、6.CB171N0190、7.CB164N01300、8.CB181N03000 9.CB401N00200、10.CB162N02800、11.CB145N00600 12.CB139N01800、13.CB173N02400、14.CB179N01400 15.CB182N01600、16.CB403N00200、17.CB404N01300 18.CB192N00100、19.CB174N02603
	Fan Type		Cross-flow
	Fan Diameter Length(DXL)	mm	Φ85X596
	Cooling Speed(S/H/M/L/SL)	r/min	1260/1050/900/690/-
	Heating Speed(S/H/M/L/SL)	r/min	1320/1200/1000/910/-
	Fan Motor Power Output	W	10
	Fan Motor RLA	A	0.1
	Fan Motor Capacitor	μF	1
	Evaporator Form		Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ7
	Evaporator Row-fin Gap	mm	2-1.5
	Evaporator Coil Length (LXDXW)	mm	582X25.4X267
	Swing Motor Model		MP24AA
	Swing Motor Power Output	W	1.5
	Fuse Current	A	3.15
	Sound Pressure Level (S/H/M/L/SL)	dB (A)	40/37/35/32/-
	Sound Power Level (S/H/M/L/SL)	dB (A)	50/47/45/43/-
	Dimension (WXHXD)	mm	790X265X170
	Dimension of Carton Box (LXWXH)	mm	870X248X355
	Dimension of Package(LXWXH)	mm	873X251X251
	Net Weight	kg	9
	Gross Weight	kg	12

Specifications

Outdoor Unit	Outdoor Unit Model		GWH09MA-K3DNA3B/O
	Outdoor Unit Product Code		CB171W0192
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXA-B096ZC190
	Compressor Oil		68EP
	Compressor Type		Rotary
	Compressor LRA	A	16.5
	Compressor RLA	A	4.9
	Compressor Power Input	W	950
	Compressor Overload Protector		INT11L-6233
	Throttling Method		Capillary
	Set Temperature Range	°C	16~30
	Cooling Operation Ambient Temperature Range	°C	-15~43
	Heating Operation Ambient Temperature Range	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Condenser Pipe Diameter	mm	Φ9.52
	Condenser Rows-fin Gap	mm	1-1.4
	Condenser Coil Length (LXD _{XW})	mm	695X22X508
	Fan Motor Speed	rpm	830±30
	Fan Motor Power Output	W	30
	Fan Motor RLA	A	0.2
	Fan Motor Capacitor	μF	2.5
	Outdoor Unit Air Flow Volume	m ³ /h	1600
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ400
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IP24
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	mm	776X540X320
	Dimension of Carton Box (LXWXH)	mm	848X360X580
	Dimension of Package(LXWXH)	mm	851X363X595
	Net Weight	kg	31
	Gross Weight	kg	35
	Refrigerant		R410A
	Refrigerant Charge	kg	0.73
Connection Pipe	Connection Pipe Length	m	5
	Connection Pipe Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	10
	Max Distance Length	m	15

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

Model			GWC12MB-K3DNC3B GWC12MB-K3DNA3B GWC12MB-K3DNA5B	GWH12MB-K3DNC3B GWH12MB-K3DNA3B
Product Code			CB136000303 CB17100202 CB162005801	CB13600011 CB17100213
Power Supply	Rated Voltage	V ~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Indoor	Indoor
Cooling Capacity(Min ~ Max)		W	3500(510~3900)	3500(510~3900)
Heating Capacity(Min ~ Max)		W	/	3900(880~4400)
Cooling Power Input(Min ~ Max)		W	1080(230~1300)	1080(230~1300)
Heating Power Input(Min ~ Max)		W	/	1080(250~1450)
Cooling Current Input		A	4.79	4.79
Heating Current Input		A	/	4.79
Rated Input		W	1500	1500
Rated Current		A	9	9
Air Flow Volume (S/H/M/L/SL)		m³/h	600/500/400/300/-	600/500/400/300/-
Dehumidifying Volume		L/h	1.4	1.4
EER		W/W	3.24	3.24
COP		W/W	/	3.61
Application Area		m²	16-24	16-24
Indoor Unit	Indoor Unit Model		GWC12MB-K3DNC3B/I GWC12MB-K3DNA3B/I GWC12MB-K3DNA5B/I	GWH12MB-K3DNC3B/I GWH12MB-K3DNA3B/I
	Indoor Unit Product Code		CB136N00303 CB171N0202 CB162N05800	CB136N0011 CB171N0213
	Fan Type		Cross-flow	Cross-flow
	Fan Diameter Length(DXL)	mm	Φ92X645	Φ92X645
	Cooling Speed(S/H/M/L/SL)	r/min	1290/1070/900/690/-	1290/1070/900/690/-
	Heating Speed(S/H/M/L/SL)	r/min	/	1280/1050/980/920/-
	Fan Motor Power Output	W	20	20
	Fan Motor RLA	A	0.144	0.144
	Fan Motor Capacitor	μF	1	1
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ7	Φ7
	Evaporator Row-fin Gap	mm	2-1.4	2-1.4
	Evaporator Coil Length (LXD _{XW})	mm	636X25.4X267	636X25.4X267
	Swing Motor Model		MP24AA	MP24AA
	Swing Motor Power Output	W	1.5	1.5
	Fuse Current	A	3.15	3.15
	Sound Pressure Level (S/H/M/L/SL)	dB (A)	42/39/36/33/-	42/39/36/33/-
	Sound Power Level (S/H/M/L/SL)	dB (A)	52/49/46/43/-	52/49/46/43/-
	Dimension (WXHXD)	mm	845X275X180	845X275X180
	Dimension of Carton Box (LXWXH)	mm	915X255X355	915X255X355
	Dimension of Package(LXWXH)	mm	918X258X258	918X258X258
	Net Weight	kg	11	11
	Gross Weight	kg	14	14

Specifications

Outdoor Unit	Outdoor Unit Model		GWC12MB-K3DNA3B/O	GWH12MB-K3DNA3B/O
	Outdoor Unit Product Code		CB171W0201	CB171W0212
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO., LTD.	ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXA-B096ZC190	QXA-B096ZC190
	Compressor Oil		68EP	68EP
	Compressor Type		Rotary	Rotary
	Compressor LRA	A	16.5	16.5
	Compressor RLA	A	4.9	4.9
	Compressor Power Input	W	950	950
	Compressor Overload Protector		INT11L-6233	INT11L-6233
	Throttling Method		Capillary	Capillary
	Set Temperature Range	°C	16~30	16~30
	Cooling Operation Ambient Temperature Range	°C	-15~43	-15~43
	Heating Operation Ambient Temperature Range	°C	/	-7~24
	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 (LXD _{XW})	mm	695X38.1X506	695X38.1X506
	Fan Motor Speed	rpm	830±30	830±30
	Fan Motor Power Output	W	20	20
	Fan Motor RLA	A	0.2	0.2
	Fan Motor Capacitor	μF	2.5	2.5
	Outdoor Unit Air Flow Volume	m ³ /h	1600	1600
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ400	Φ400
	Defrosting Method		/	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	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/-/-	52/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-	62/-/-
	Dimension (WXHXD)	mm	776X540X320	776X540X320
	Dimension of Carton Box (LXWXH)	mm	848X360X580	848X360X580
	Dimension of Package(LXWXH)	mm	851X363X595	851X363X595
	Net Weight	kg	32	32
	Gross Weight	kg	36	36
	Refrigerant		R410A	R410A
	Refrigerant Charge	kg	0.95	0.95
Connection Pipe	Connection Pipe Length	m	5	5
	Connection Pipe Gas Additional Charge	g/m	15	20
	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	20

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

Model			1.GWH12MB-K3DNA2B、2.GWH12MB-K3DNB3B 3.GWH12MB-K3DNE3B、4.GWH12MB-K3DNB8B 5.GWH12MB-K3DNA3B、6.GWH12MB-K3DNA4B 7.GWH12MB-K3DNC3B、8.GWH12MB-K3DNE2B 9.GWH12MB-K3DNA5B、10.GWH12MB-K3DNC9B 11.GWH12MB-K3DNC1B、12.GWH12MB-K3DNB7B 13.GWH12MB-K3DNA8B、14.GWH12MB-K3DNC5B 15.GWH12MB-K3DNA9B、16.GWH12MB-K3DNE4B 17.GWH12MB-K3DNE3B、18.GWH12MB-K3DNB8B 19.GWH12MB-K3DNC3B、20.GWH12MB-K3DNE1B
Product Code			1.CB181003103、2.CB163003803、3.CB404001401、4.CB174002503 5.CB171002113、6.CB155005703、7.CB136000103、8.CB401000303 9.CB162002903、10.CB145000703、11.CB139001903 12.CB164001403、13.CB173002503、14.CB179001503 15.CB182001703、16.CB403000303、17.CB404001403 18.CB174002502、19.CB136000104、20.CB143001003
Power Supply	Rated Voltage	V ~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity(Min ~ Max)		W	3500(510~3900)
Heating Capacity(Min ~ Max)		W	3900(880~4400)
Cooling Power Input(Min ~ Max)		W	1080(230~1300)
Heating Power Input(Min ~ Max)		W	1080(250~1450)
Cooling Current Input		A	4.79
Heating Current Input		A	4.79
Rated Input		W	1500
Rated Current		A	9
Air Flow Volume (S/H/M/L/SL)		m ³ /h	600/500/400/300/-
Dehumidifying Volume		L/h	1.4
EER		W/W	3.24
COP		W/W	3.61
Application Area		m ²	16-24
Indoor Unit	Indoor Unit Model		1.GWH12MB-K3DNA2B/I、2.GWH12MB-K3DNB3B/I 3.GWH12MB-K3DNE3B/I、4.GWH12MB-K3DNB8B/I 5.GWH12MB-K3DNA3B/I、6.GWH12MB-K3DNA4B/I 7.GWH12MB-K3DNC3B/I、8.GWH12MB-K3DNE2B/I 9.GWH12MB-K3DNA5B/I、10.GWH12MB-K3DNC9B/I 11.GWH12MB-K3DNC1B/I、12.GWH12MB-K3DNB7B/I 13.GWH12MB-K3DNA8B/I、14.GWH12MB-K3DNC5B/I 15.GWH12MB-K3DNA9B/I、16.GWH12MB-K3DNE4B/I 17.GWH12MB-K3DNE3B/I、18.GWH12MB-K3DNB8B/I 19.GWH12MB-K3DNC3B/I、20.GWH12MB-K3DNE1B/I
	Indoor Unit Product Code		1.CB181N03100、2.CB163N03800、3.CB404N01401、4.CB174N02500 5.CB171N0210、6.CB155N05700、7.CB136N00101、8.CB401N00300 9.CB162N02900、10.CB145N00700、11.CB139N01900 12.CB164N01400、13.CB173N02500、14.CB179N01500 15.CB182N01700、16.CB403N00300、17.CB404N01400 18.CB174N02502、19.CB136N0010、20.CB143N01000
	Fan Type		Cross-flow
	Fan Diameter Length(DXL)	mm	Φ92X645
	Cooling Speed(S/H/M/L/SL)	r/min	1290/1070/900/690/-
	Heating Speed(S/H/M/L/SL)	r/min	1280/1050/980/920/-
	Fan Motor Power Output	W	20
	Fan Motor RLA	A	0.1
	Fan Motor Capacitor	μF	1
	Evaporator Form		Aluminum Fin-copper Tube
	Evaporator Pipe Diameter	mm	Φ7
	Evaporator Row-fin Gap	mm	2-1.4
	Evaporator Coil Length (LXDXW)	mm	636X25.4X267
	Swing Motor Model		MP24AA
	Swing Motor Power Output	W	1.5
	Fuse Current	A	3.15
	Sound Pressure Level (S/H/M/L/SL)	dB (A)	42/39/36/33/-
	Sound Power Level (S/H/M/L/SL)	dB (A)	52/49/46/43/-
	Dimension (WXHXD)	mm	845X275X180
	Dimension of Carton Box (LXWXH)	mm	915X255X355
	Dimension of Package(LXWXH)	mm	918X258X258
	Net Weight	kg	11
	Gross Weight	kg	14

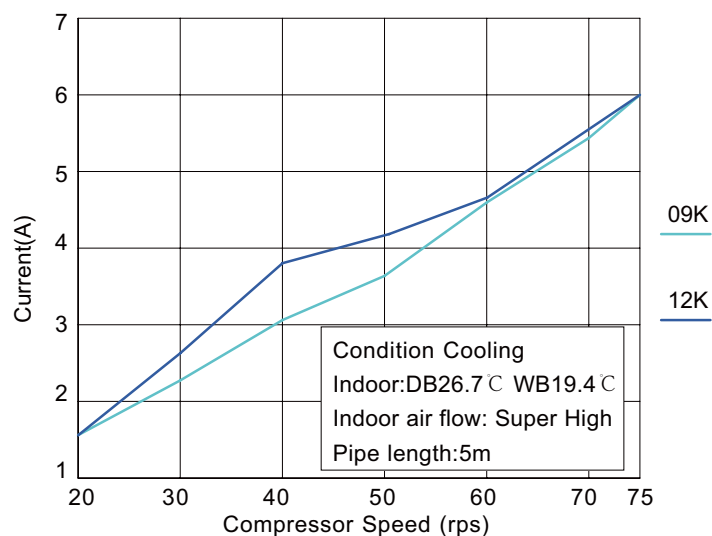
Specifications

Outdoor Unit	Outdoor Unit Model		GWH12MB-K3DNA3B/O
	Outdoor Unit Product Code		CB171W0213
	Compressor Manufacturer		ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXA-B096ZC190(GREE)
	Compressor Oil		68EP
	Compressor Type		Rotary
	Compressor LRA	A	16.5
	Compressor RLA	A	4.9
	Compressor Power Input	W	950
	Compressor Overload Protector		INT11L-6233
	Throttling Method		Capillary
	Set Temperature Range	°C	16~30
	Cooling Operation Ambient Temperature Range	°C	18~43
	Heating Operation Ambient Temperature Range	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Condenser Pipe Diameter	mm	Φ7
	Condenser Rows-fin Gap	mm	2-1.4
	Condenser Coil Length (LXD _{XW})	mm	695X38.1X506
	Fan Motor Speed	rpm	830±30
	Fan Motor Power Output	W	30
	Fan Motor RLA	A	0.236
	Fan Motor Capacitor	μF	2.5
	Outdoor Unit Air Flow Volume	m ³ /h	1600
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ400
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IP24
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-
	Dimension (WXHXD)	mm	776X540X320
	Dimension of Carton Box (LXWXH)	mm	848X360X580
	Dimension of Package(LXWXH)	mm	851X363X595
	Net Weight	kg	32
	Gross Weight	kg	36
	Refrigerant		R410A
	Refrigerant Charge	kg	0.95
Connection Pipe	Connection Pipe Length	m	5
	Connection Pipe Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	10
	Max Distance Length	m	20

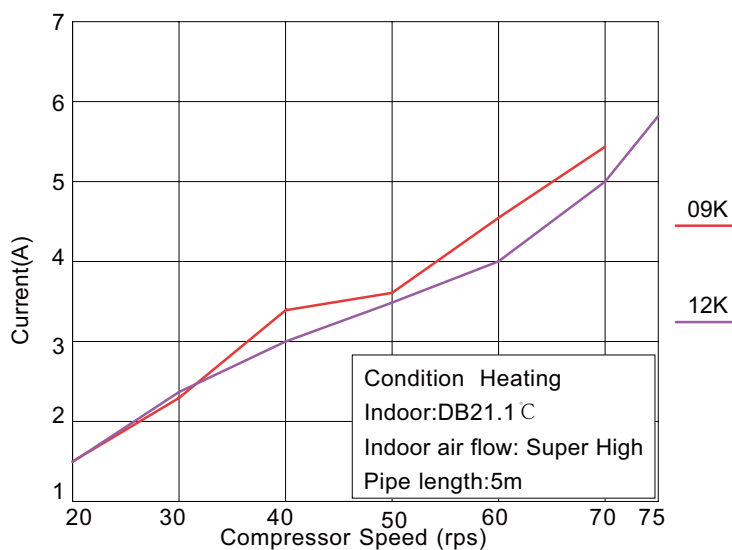
The above data is subject to change without notice. Please refer to the nameplate of the unit.

2.2 Operation Characteristic Curve

Cooling

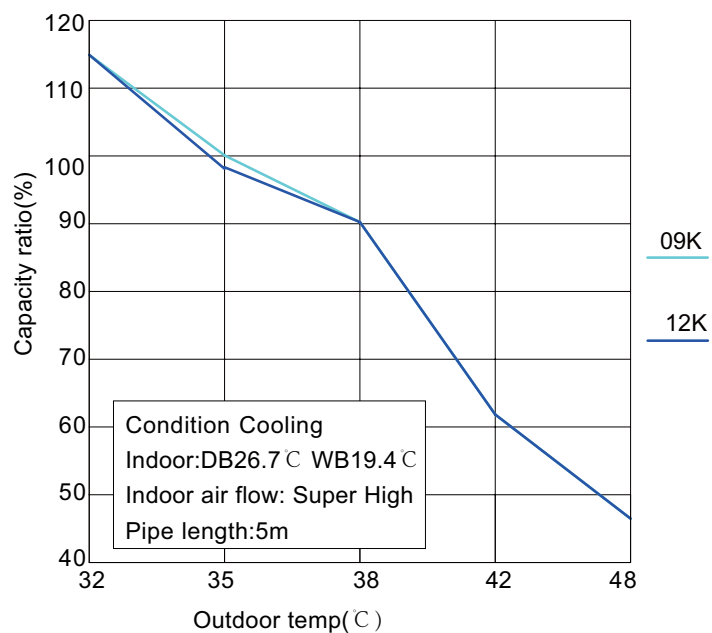


Heating

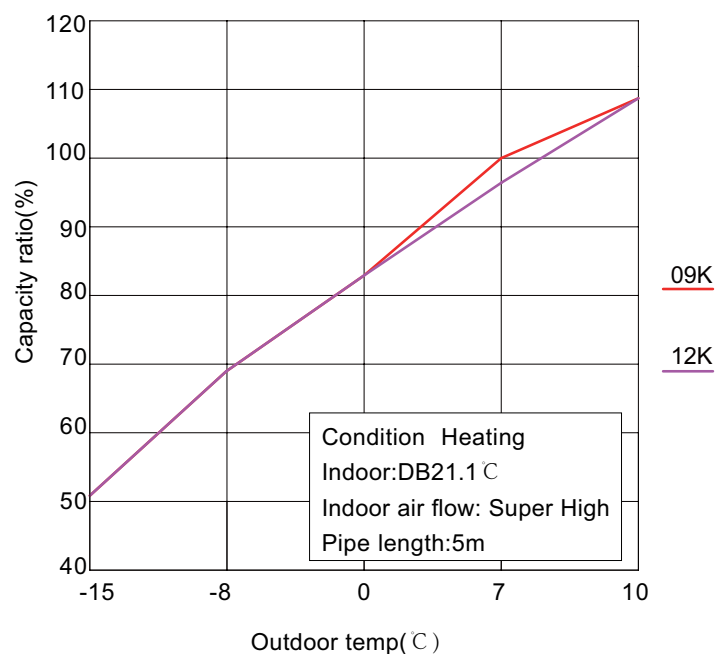


2.3 Capacity Variation Ratio According to Temperature

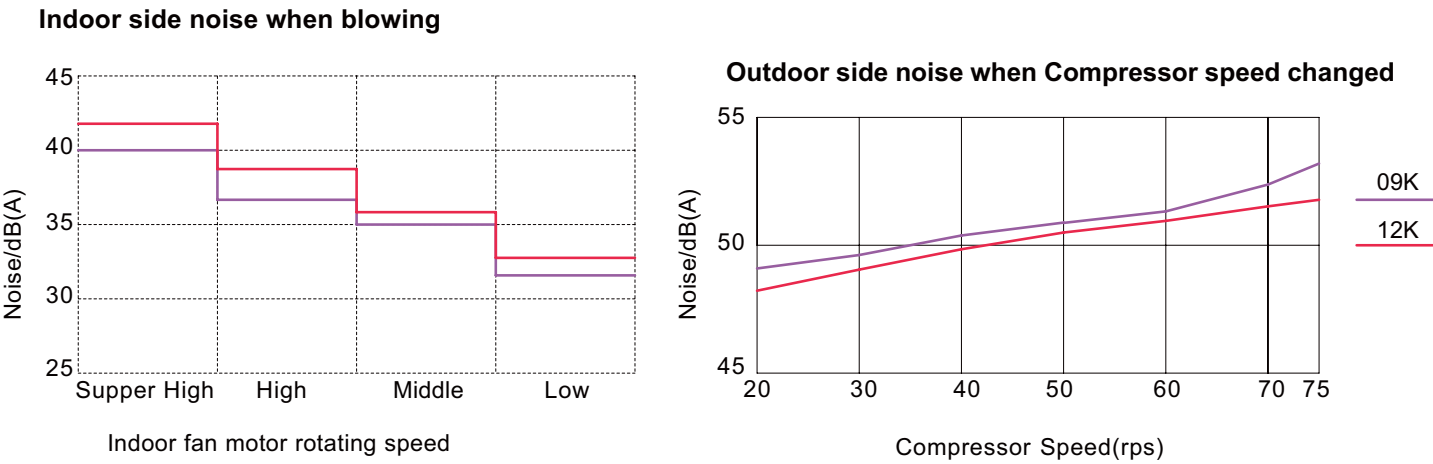
Cooling



Heating



2.4 Noise Criteria Curve Tables for Both Models



2.5 Operation Data

Cooling

Temperature condition (℃)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp		Indoor fan mode	Outdoor fan mode(rpm)	Compressor revolution (rps)
Indoor	Outdoor			T1 (℃)	T2 (℃)			
27/19	35/24	09K	0.8 ~ 1.1	12 to 15	65 to 38	Super High	830±30	54
		12K		11 to 14	64 to 37			60

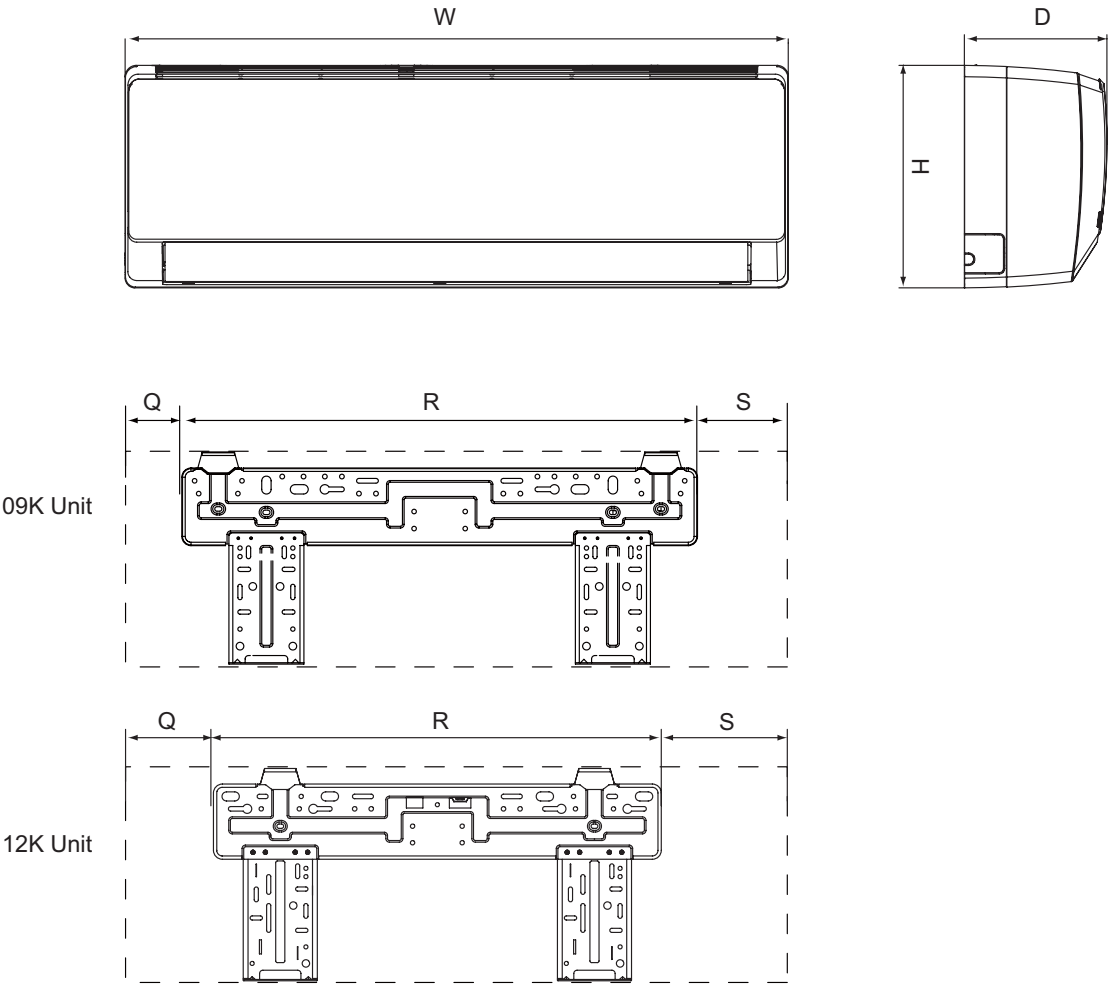
Heating

Temperature condition (℃)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp		Indoor fan mode	Outdoor fan mode(rpm)	Compressor revolution (rps)
Indoor	Outdoor			T1 (℃)	T2 (℃)			
20/-	7/6	09K	2.8 ~ 3.2	35 to 63	2 to 5	Super High	830±30	62
		12K		35 to 65	2 to 5			66

- P:** The air pipe pressure (gas valve side pressure) connect to indoor and outdoor unit
- T1:** Inlet and outlet pipe temperature of evaporator
- T2:** Inlet and outlet pipe temperature of condenser
- NOTES :**
- (1) Measure surface temperature of heat exchanger pipe around center of heat exchanger path U bent. (Thermistor thermometer)
- (2) Connecting piping condition : 5m

3. Construction Views

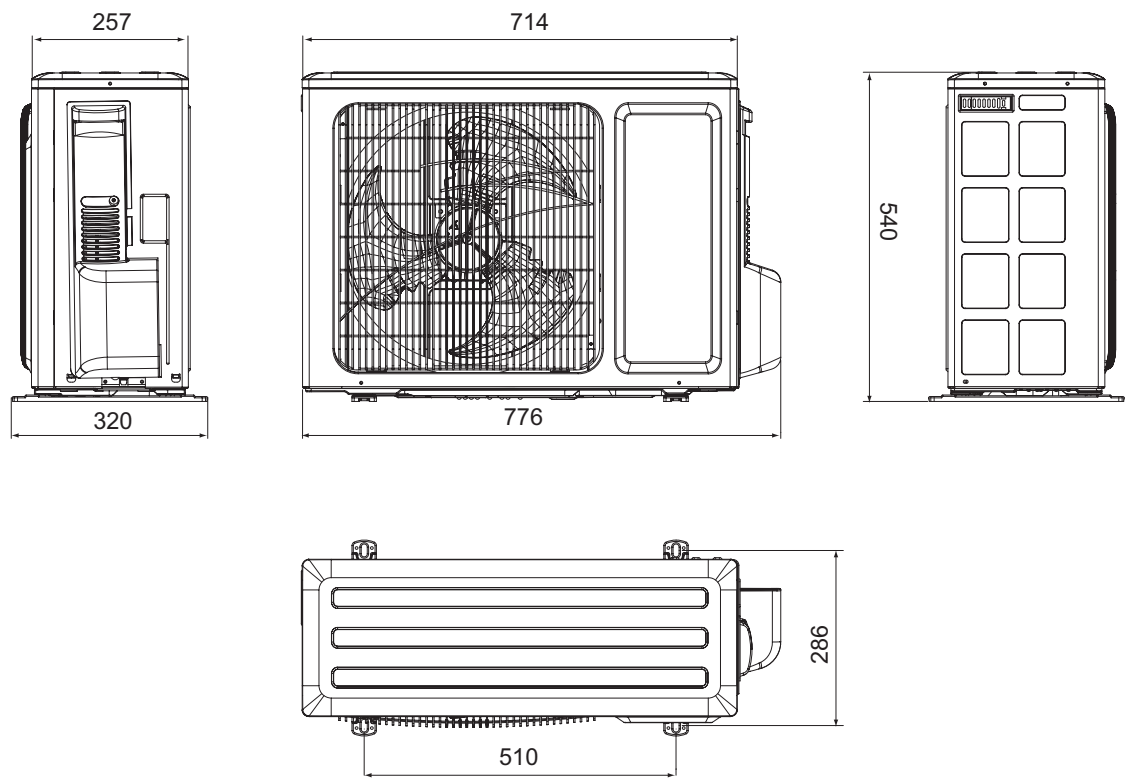
3.1 Indoor Unit



Unit:mm

Model	W	H	D	Q	R	S
09K	790	265	170	36	605	149
12K	845	275	180	130	542	173

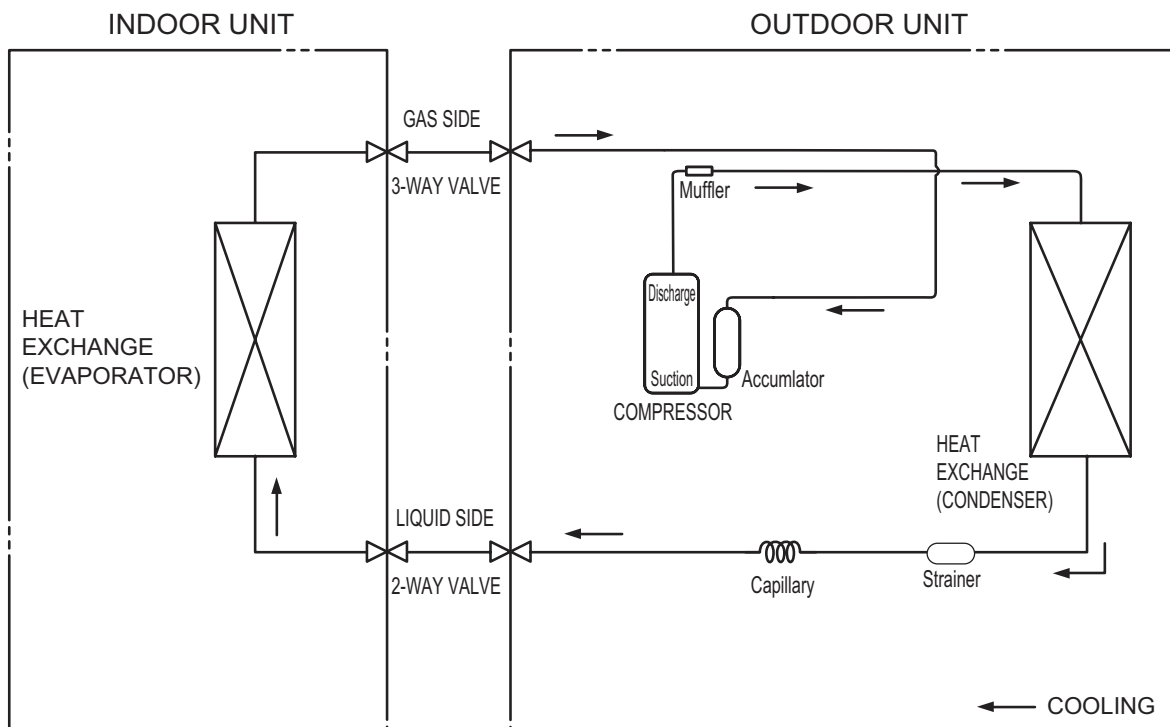
3.2 Outdoor Unit



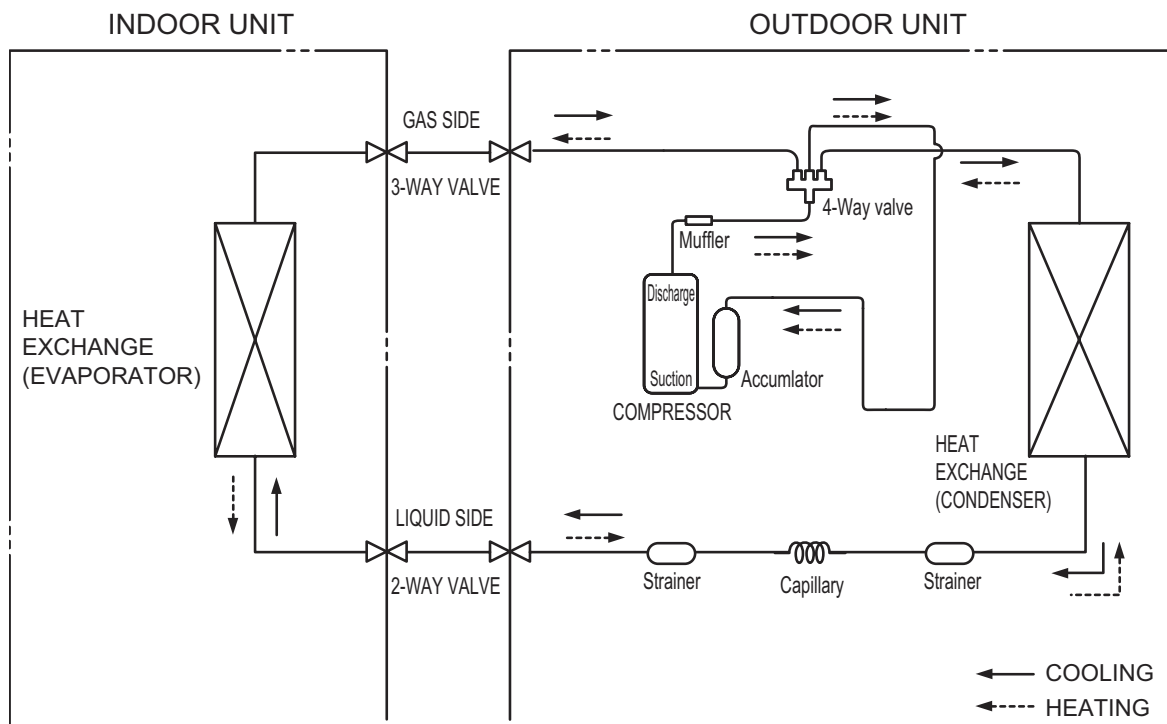
Unit:mm

4. Refrigerant System Diagram

(1) Cooling Only Models



(2) Cooling&Heating Models



Refrigerant pipe diameter

Liquid : 1/4" (6 mm)

Gas : 3/8" (9.52 mm)

5. Schematic Diagram

5.1 Electrical Data

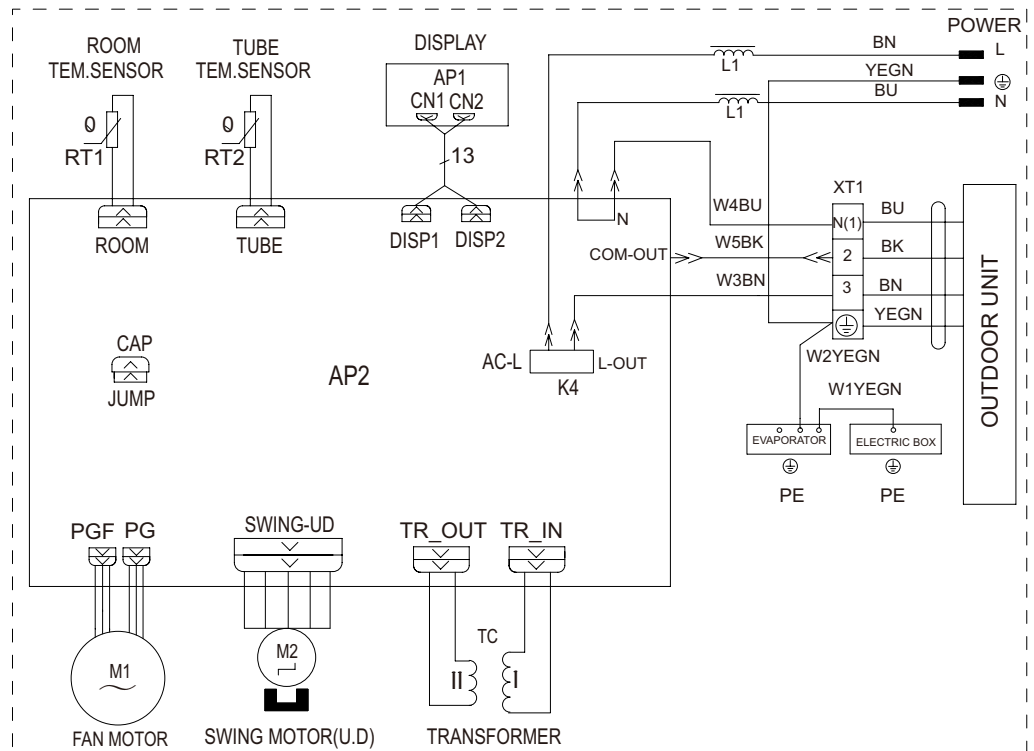
Meaning of marks

Symbol	Color Symbol	Symbol	Parts Name
OG	ORANGE		PROTECTIVE EARTH
WH	WHITE	COMP	COMPRESSOR
YE	YELLOW	SAT	OVERLOAD
RD	RED	4YV	4-WAY VALVE
YEGN	YELLOW GREEN	XT	TERMINAL BLOCK
BN	BROWN		
BU	BLUE		
BK	BLACK		

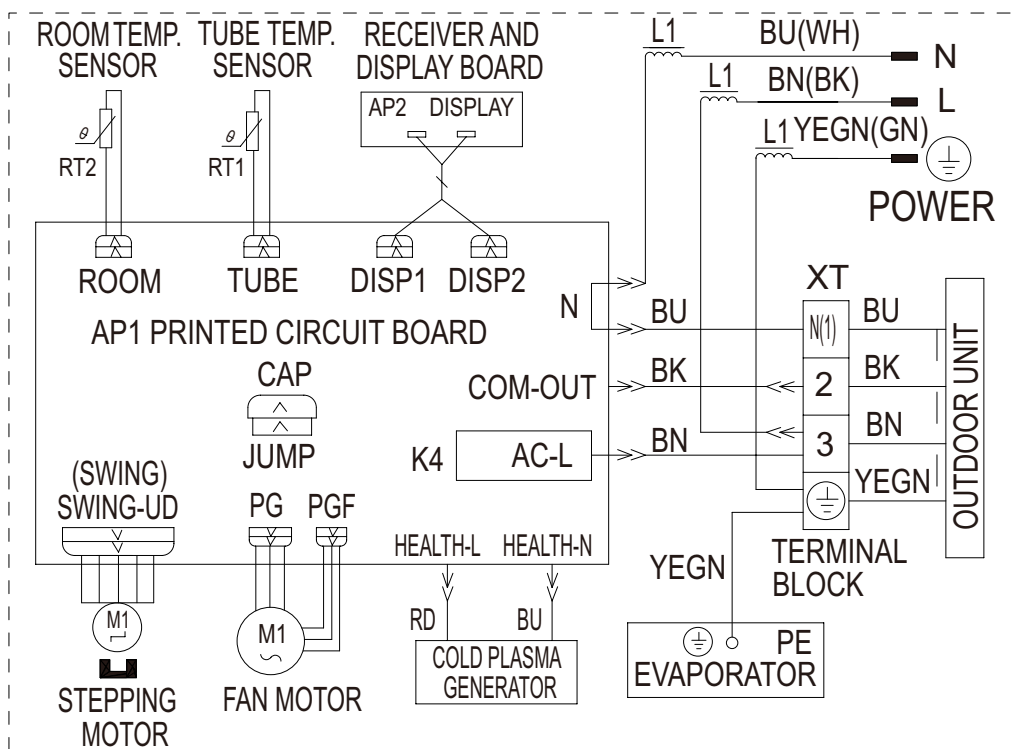
5.2 Electrical Wiring

Indoor Unit

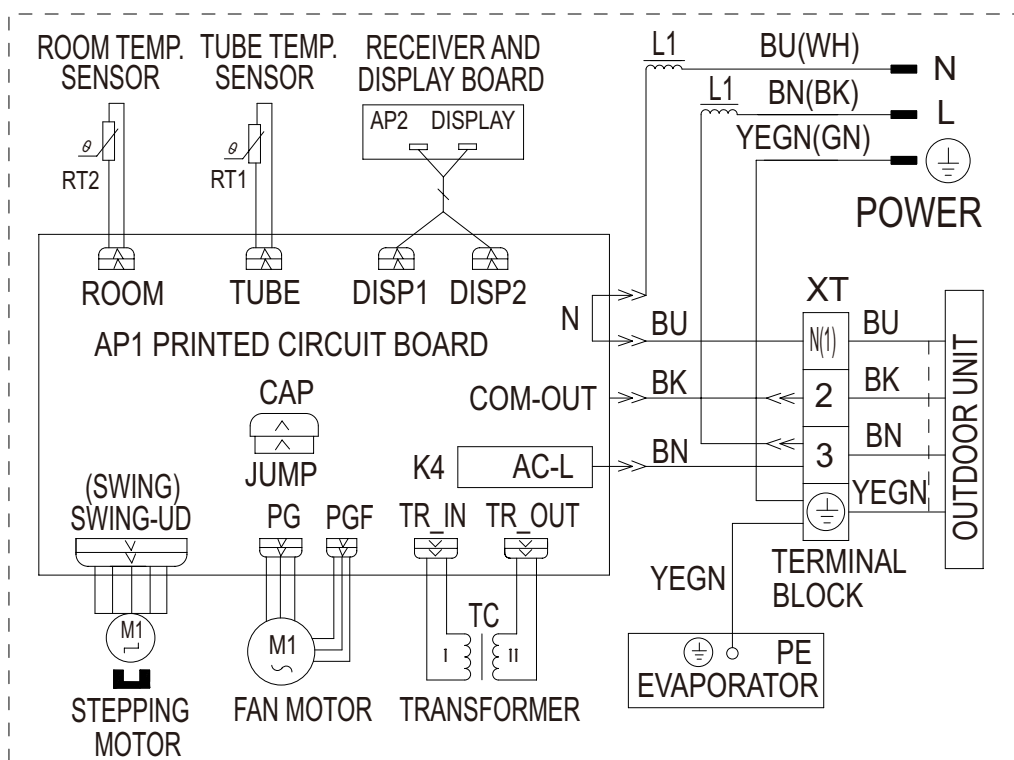
- GWH12MB-K3DNA2B/I
 GWH12MB-K3DNA3B/I
 GWH09MA-K3DNA4B/I
 GWH12MB-K3DNA4B/I
 GWH09MA-K3DNB3B/I
 GWH12MB-K3DNB3B/I
 GWH09MA-K3DNB8B/I(white)
 GWH12MB-K3DNB8B/I(white)
 GWH09MA-K3DNE3B/I(white, wire-drawing middle display)
 GWH12MB-K3DNE3B/I(white, wire-drawing middle display)
 GWH09MA-K3DNE1B/I
 GWH09MA-K3DNA3B/I
 GWH09MA-K3DNB7B/I
 GWH09MA-K3DNA2B/I
 GWH09MA-K3DNE2B/I
 GWH09MA-K3DNA5B/I
 GWH09MA-K3DNC9B/I
 GWH09MA-K3DNC1B/I
 GWH09MA-K3DNA8B/I
 GWH09MA-K3DNC5B/I
 GWH09MA-K3DNA9B/I
 GWH09MA-K3DNE4B/I
 GWH09MA-K3DNE3B/I
 GWH09MA-K3DNC8B/I(red)
 GWH12MB-K3DNE2B/I
 GWH12MB-K3DNA5B/I
 GWH12MB-K3DNC9B/I
 GWH12MB-K3DNC1B/I
 GWH12MB-K3DNB7B/I
 GWH12MB-K3DNA8B/I
 GWH12MB-K3DNC5B/I
 GWH12MB-K3DNA9B/I
 GWH12MB-K3DNE4B/I
 GWH12MB-K3DNE3B/I
 GWH12MB-K3DNC3B/I
 GWH12MB-K3DNE1B/I



2.
 GWC09MA-K3DNB7B/I(cold plasma+electric heating of compressor)
 GWC12MB-K3DNC3B/I(cold plasma+with electric heating belt of compressor)
 GWH12MB-K3DNC3B/I(cold plasma+electric heating belt)

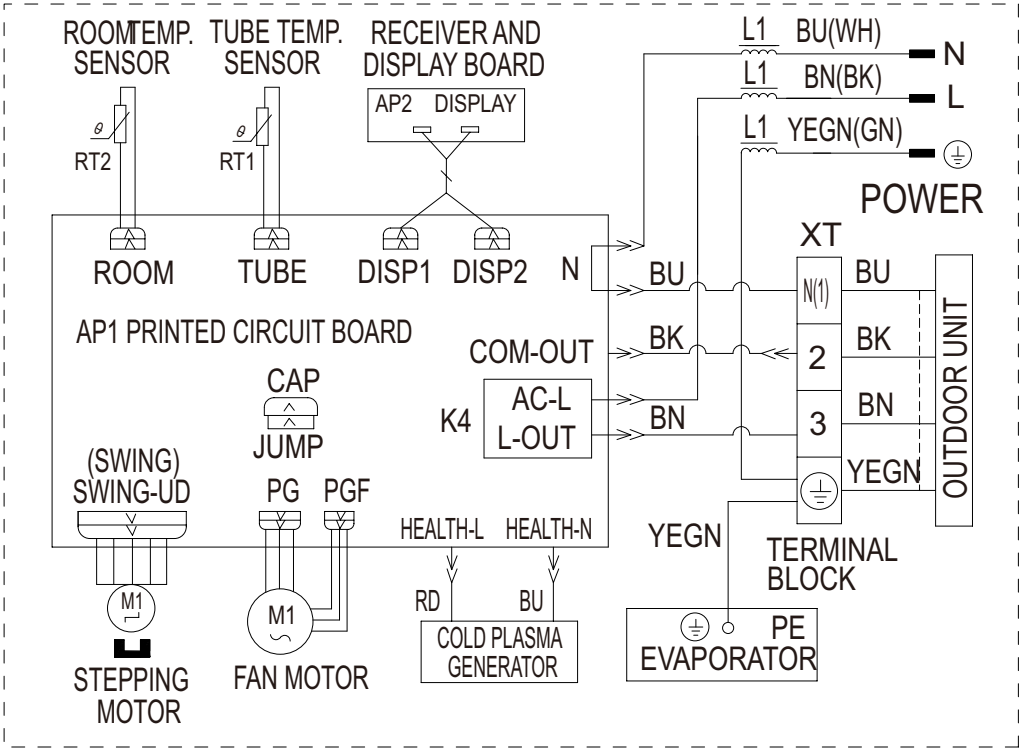


3.
 GWH09MA-K3DNA3B/I(electric heating belt)
 GWH09MA-K3DNB7B/I(electric heating belt)
 GWH12MB-K3DNA3B/I(electric heating belt)
 GWC09MA-K3DNA3B/I(electric heating of compressor)
 GWC12MB-K3DNA3B/I(with electric heating belt of compressor)
 GWC12MB-K3DNA5B/I(electric heating belt)

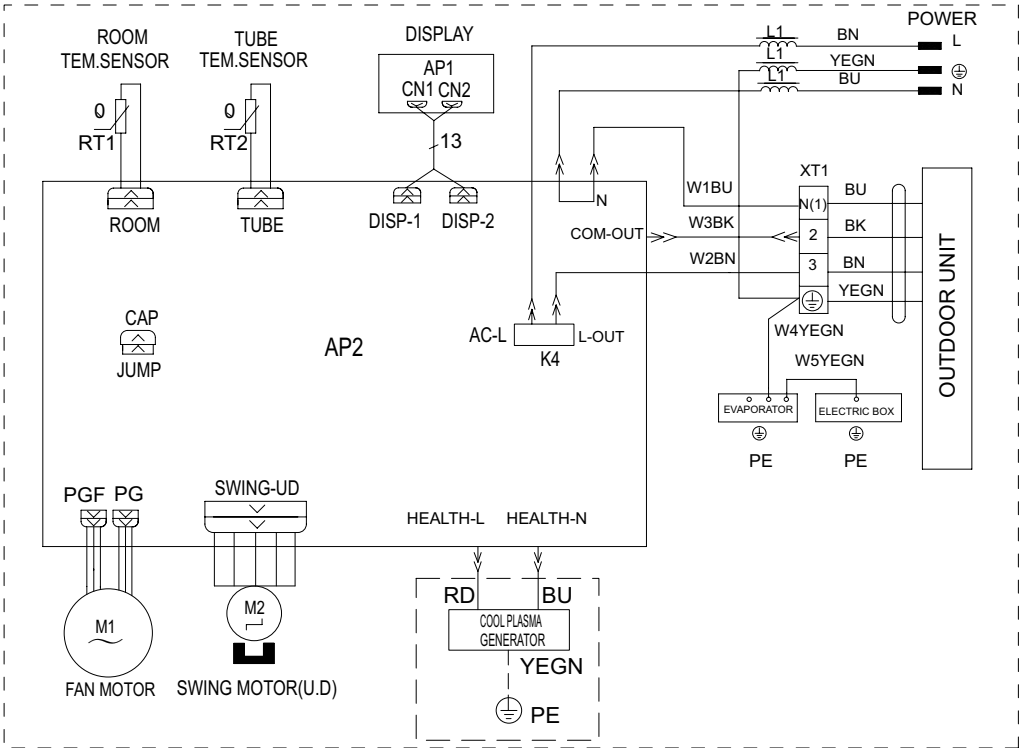


Schematic Diagram

4,
GWH12MB-K3DNB8B/I(white + cold
plasma)

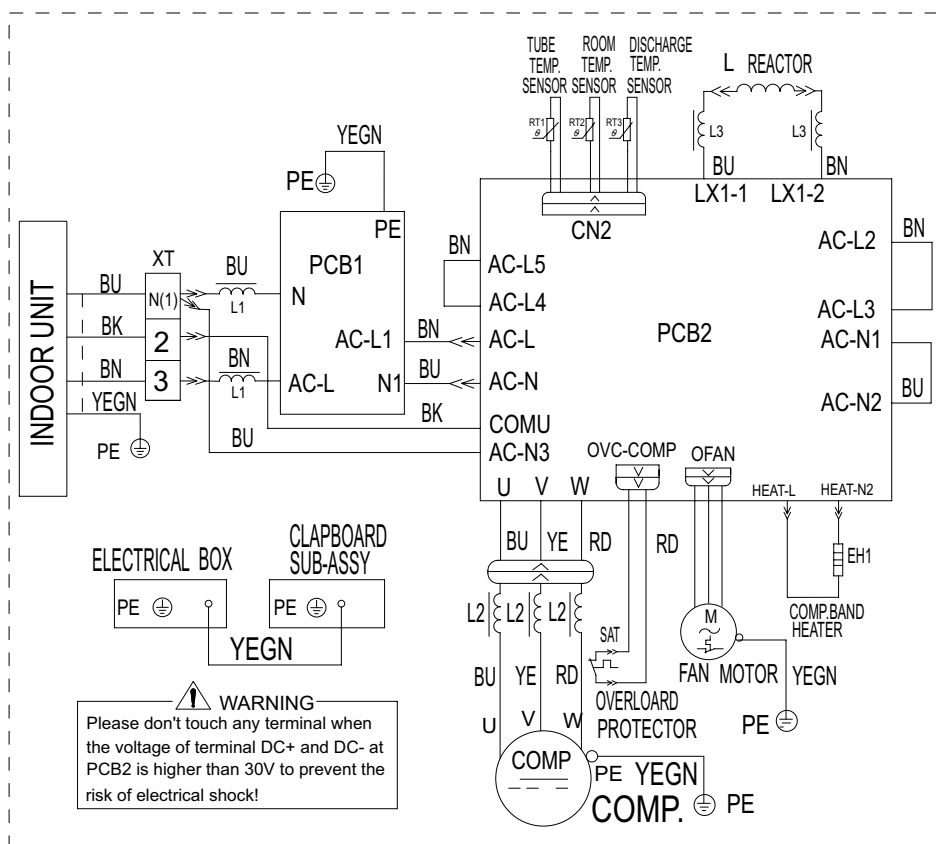


5,
GWH09MA-K3DNB8B/I(white + cold
plasma)
GWH12MB-K3DNC3B/I(cold plasma)

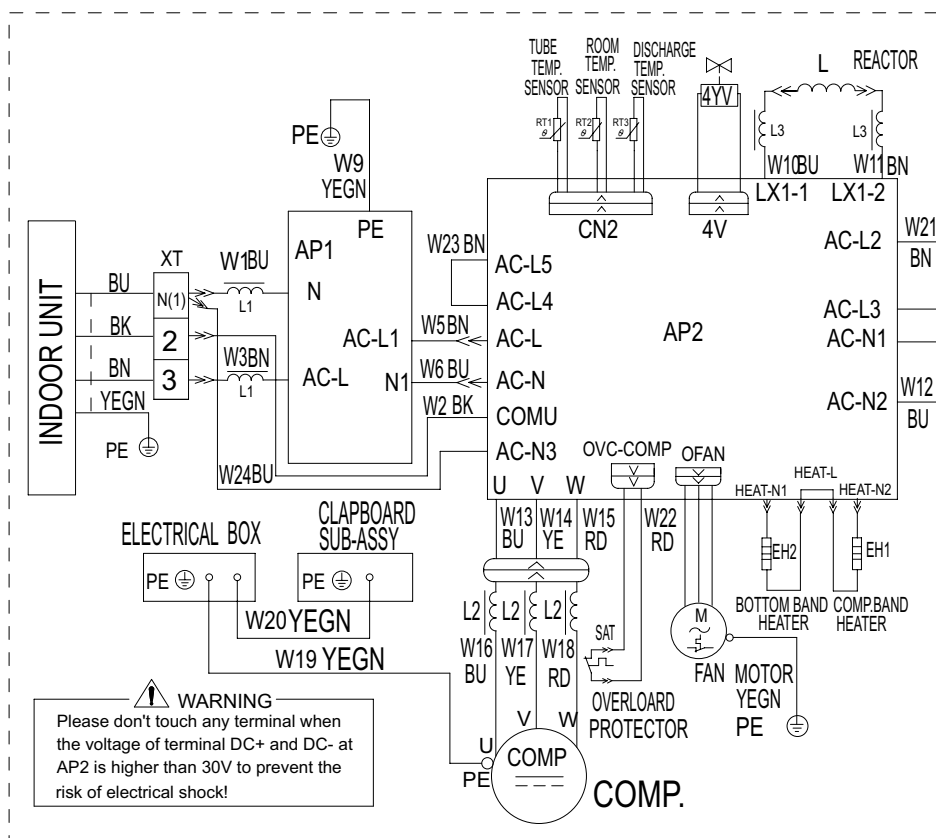


●Outdoor Unit

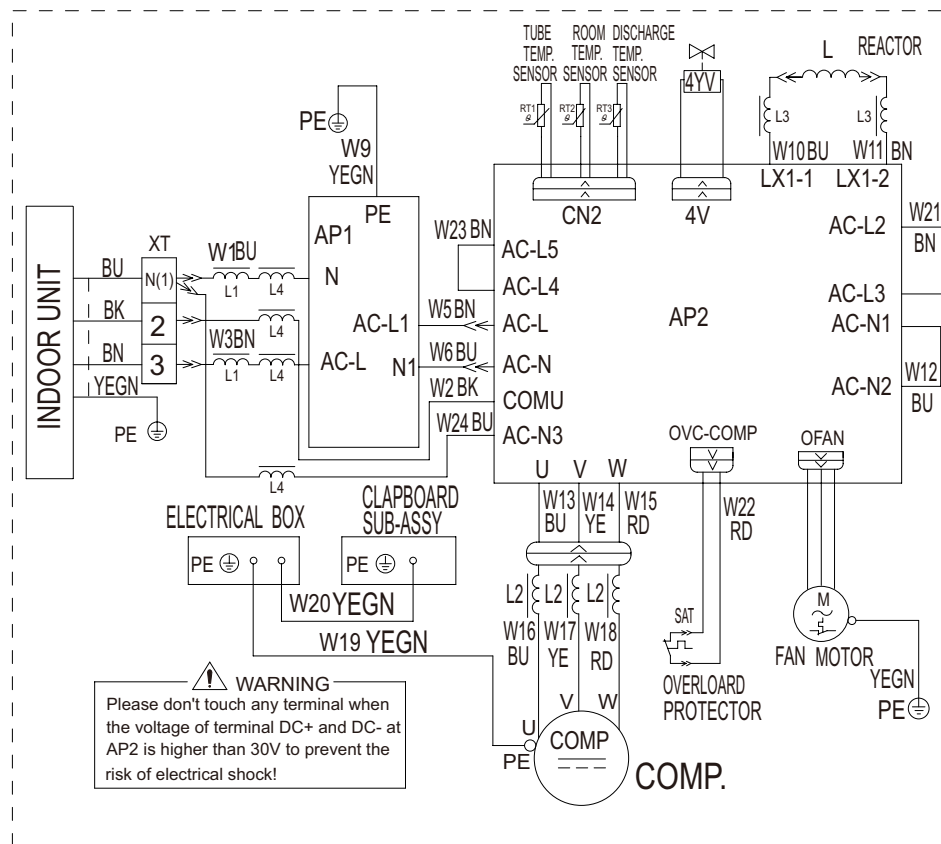
1. Cooling Only Models



2. Cooling&Heating Models



3.GWH09MA-K3DNA3B/O(CB171W0192)、GWH12MB-K3DNA3B/O(CB171W0213)



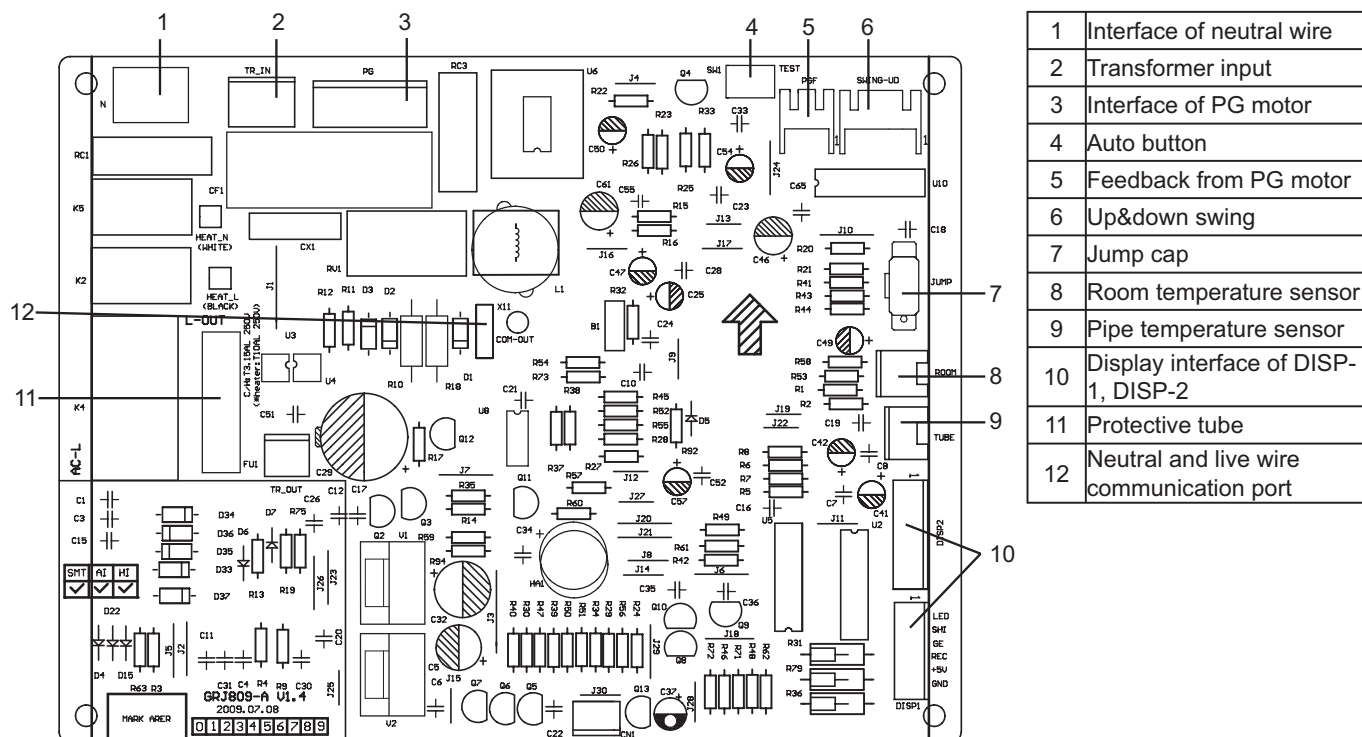
These circuit diagrams are subject to change without notice, please refer to the one supplied with the unit.

5.3 Printed Circuit Board

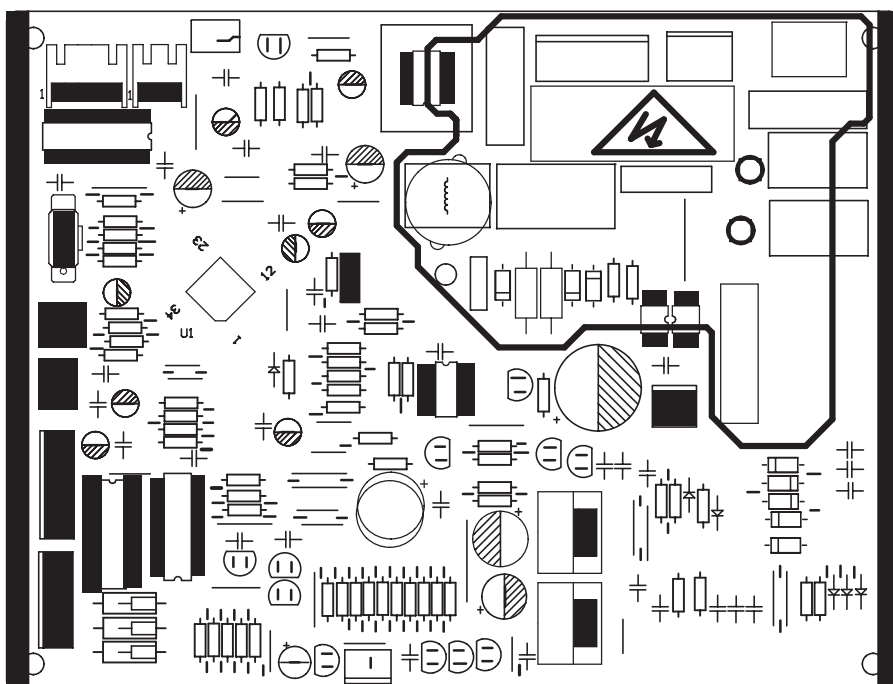
(1)Indoor Unit

※This PCB silk screen is only applicable for the models without cold plasma.

●TOP VIEW

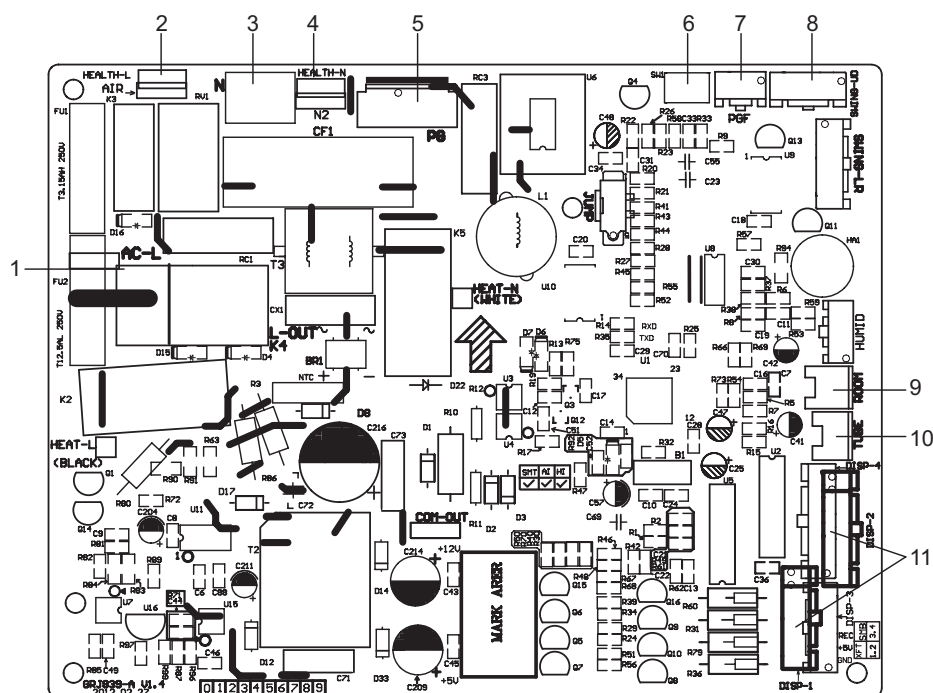


●BOTTOM VIEW



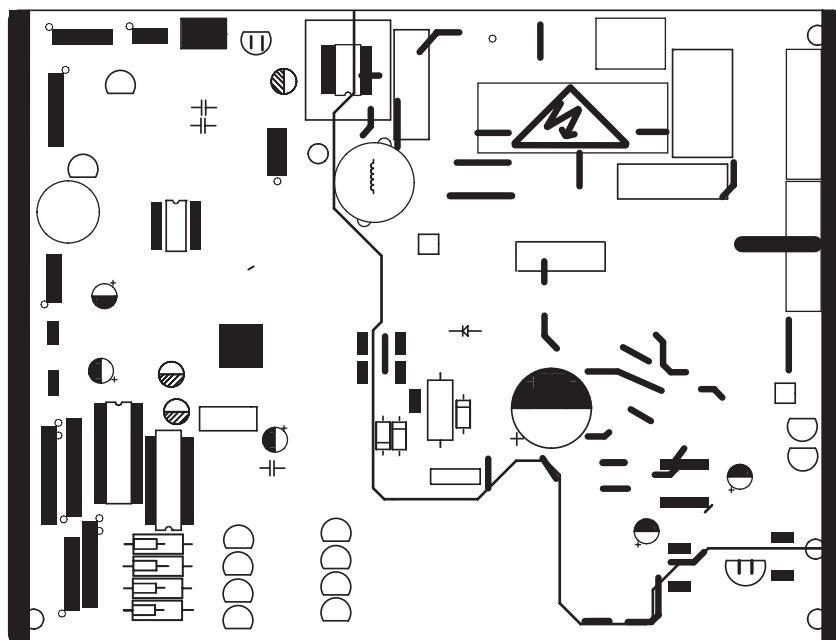
※This PCB silk screen is only applicable for the models with cold plasma.

●TOP VIEW



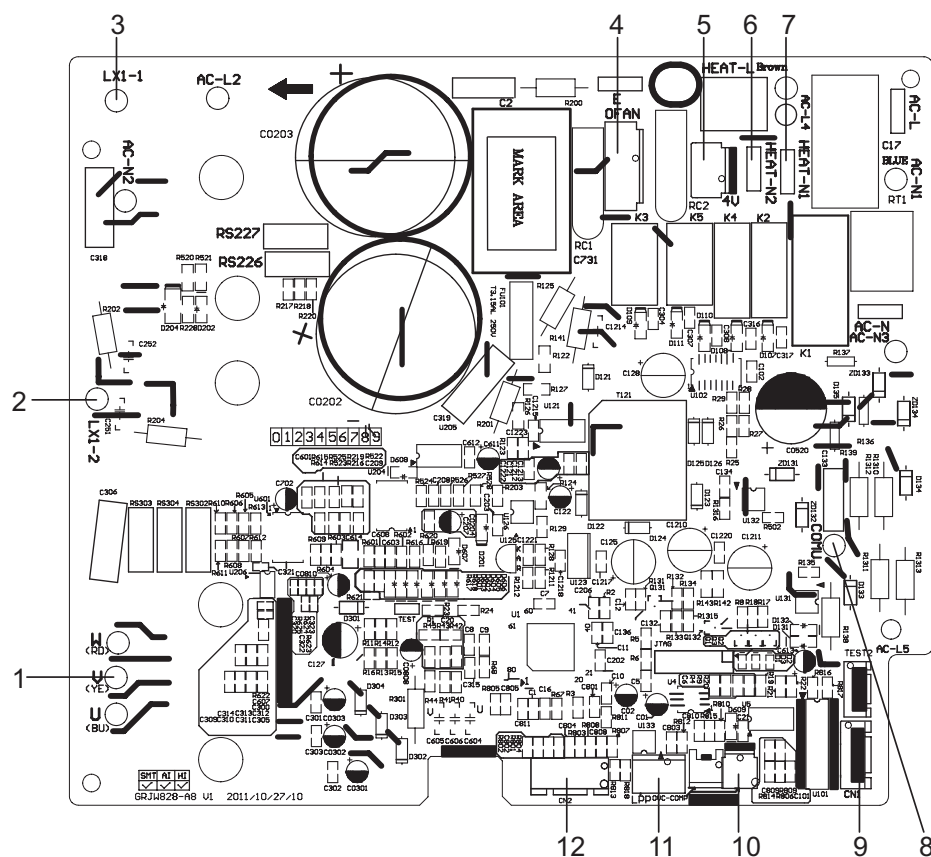
1	Live wire
2	Live wire of health function
3	Neutral wire connector
4	Neutral wire of health function
5	PG motor
6	Auto button
7	Feed back of PG motor
8	Vertical swing
9	Ambient temperature sensor
10	Indoor tube temperature sensor
11	Display connector

●BOTTOM VIEW

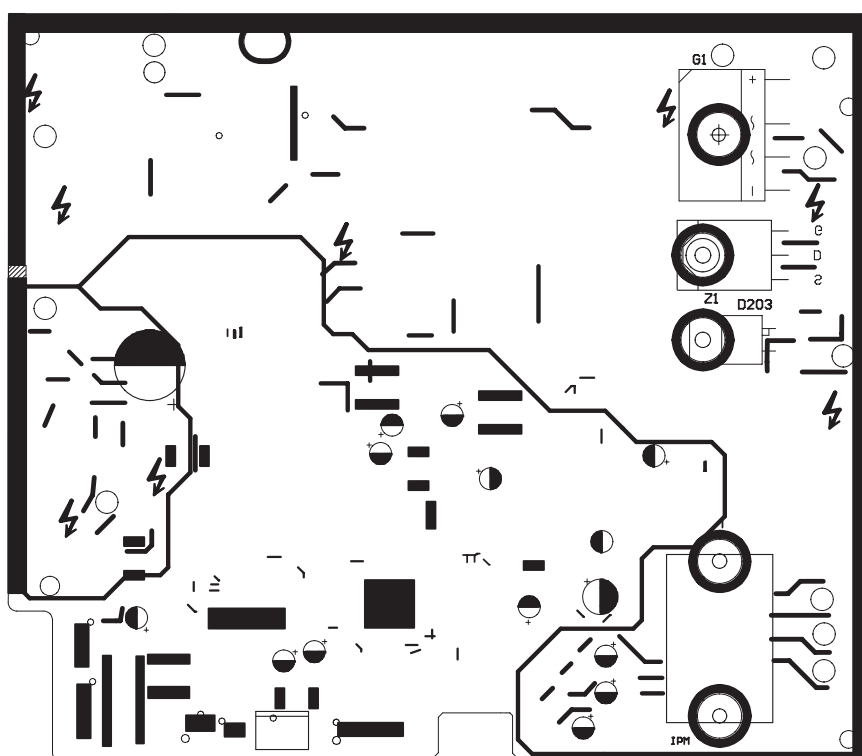


(2)Outdoor Unit

●TOP VIEW



●BOTTOM VIEW

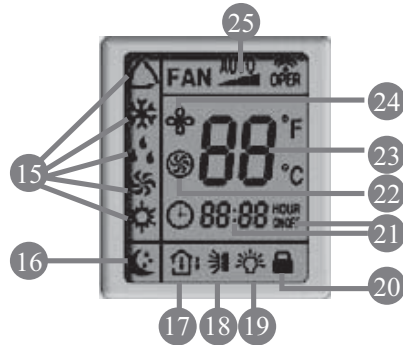


6. Function and Control

6.1 Remote Control Operations



- 1 **ON/OFF**
Press it to start or stop operation.
- 2 **MODE**
Press it to select operation mode (AUTO/COOL/DRY/FAN/HEAT).
- 3 **+**
Press it to increase temperature setting.
- 4 **-**
Press it to decrease temperature setting.
- 5 **FAN**
Press it to set fan speed.
- 6 
Press it to set swing angle.
- 7 **TIMER ON**
Press it to set auto-on timer.
- 8 **TIMER OFF**
Press it to set auto-off timer.
- 9 **CLOCK**
Press it to set clock.
- 10 **X-FAN** (X-FAN is the alternative expression of BLOW for the purpose of understanding.)
- 11 **TEMP**
- 12 **TURBO**
- 13 **SLEEP**
- 14 **LIGHT**
Press it to turn on/off the light.



- 15 **MODE icon:**
If MODE button is pressed, current operation mode icon  (AUTO),  (COOL),  (DRY),  (FAN) or  (HEAT is only for heat pump models) will show.
- 16 **SLEEP icon :**
 is displayed by pressing the SLEEP button. Press this button again to clear the display.
- 17 **TEMP icon:**
Pressing TEMP button,  (set temperature),  (indoor ambient temperature),  (outdoor ambient temperature) and blank is displayed circularly.
- 18 **Up & down swing icon:**
 is displayed when pressing the up & down swing button. Press this button again to clear the display.

19 LIGHT icon:

 is displayed by pressing the LIGHT button. Press LIGHT button again to clear the display.

20 LOCK icon:

 is displayed by pressing "+" and "-" buttons simultaneously. Press them again to clear the display.

21 SET TIME display:

After pressing TIMER button, ON or OFF will blink. This area will show the set time.

22 TURBO icon:

 is displayed when pressing the TURBO button. Press this button again to clear the display.

23 DIGITAL display:

This area will show the set temperature. In SAVE mode, "SE" will be displayed. During defrosting operation, "H1" will be displayed.

24 X-FAN icon:

 is displayed when pressing the X-FAN button. Press this button again to clear the display.

25 FAN SPEED display:

Press FAN button to select the desired fan speed setting (AUTO Low-Med-High). Your selection will be displayed in the LCD windows, except the AUTO fan speed.

1 ON/OFF:

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

2 MODE:

Each time you press this button, a mode is selected in a sequence that goes from AUTO, COOL, DRY, FAN, and HEAT *, as the following:



*Note: Only for models with heating function.

After energization, AUTO mode is defaulted. In AUTO mode, the set temperature will not be displayed on the LCD, and the unit will automatically select the suitable operation mode in accordance with the room temperature to make indoor room comfortable.

3 + :

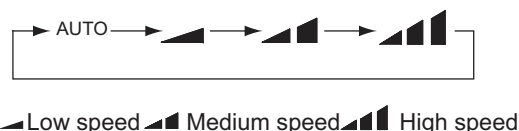
Press this button to increase set temperature. Hold it down for above 2 seconds to rapidly increase set temperature. In AUTO mode, set temperature is not adjustable.

4 - :

Press this button to decrease set temperature. Hold it down for above . 2 seconds to rapidly decrease set temperature. In AUTO mode, set temperature is not adjustable.

5 FAN :

This button is used for setting fan speed in the sequence that goes from AUTO, , ,  to then back to Auto.

**6 **

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



This remote controller is universal. If any command ,  or  is sent out, the unit will carry out the command as 

 indicates the guide louver swings as:



7 TIMER ON:

Press this button to initiate the auto-ON timer. To cancel the auto-timer program, simply press this button again. After pressing this button,  disappears and "ON" blinks. 0 0:00 is displayed for ON time setting. Within 5 seconds, press + or - button to adjust the time value. Every press of either button changes the time setting by 1 minute. Holding down either button rapidly changes the time setting by 1 minute and then 10 minutes. Within 5 seconds after setting, press TIMER ON button to confirm.

8 TIMER OFF:

Press this button to initiate the auto-off timer. To cancel the auto-timer program, simply press the button again. TIMER OFF setting is the same as TIMER ON.

9 CLOCK :

Pressing CLOCK button,  blinks. Within 5 seconds, pressing + or - button adjusts the present time. Holding down either button above 2 seconds increases or decreases the time by 1 minute every 0.5 second and then by 10 minutes every 0.5 second. During blinking after setting, press CLOCK button again to confirm the setting, and then  will be constantly displayed.

10 X-FAN:

Pressing X-FAN button in COOL or DRY mode, the icon  is displayed and the indoor fan will continue operation for 10 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.

11 TEMP:

Press this button, could select displaying the indoor setting temperature or indoor ambient temperature. When the indoor unit firstly power on it will display the setting temperature, if the temperature's displaying status is changed from other status to "  ", displays the ambient temperature, 5s later or within 5s, it receives other remote control signal that will return to display the setting temperature. if the users haven't set up the temperature displaying status, that will display the setting temperature.

12 TURBO:

Press this button to activate / deactivate the Turbo function which enables the unit to reach the preset temperature in the shortest time. In COOL mode, the unit will blow strong cooling air at super high fan speed. In HEAT mode, the unit will blow strong heating air at super high fan speed.

13 SLEEP:

Press this button to go into the SLEEP operation mode. Press it again to cancel this function. This function is available in COOL, HEAT (Only for models with heating function) or DRY mode to maintain the most comfortable temperature for you.

14 LIGHT:

Press LIGHT button to turn on the display's light and press this button again to turn off the display's light. If the light is turned on,  is displayed. If the light is turned off,  disappears.

15 Combination of "+" and "-" buttons: About lock

Press "+" and "-" buttons simultaneously to lock or unlock the keypad. If the remote controller is locked,  is displayed. In this case, pressing any button,  blinks three times.

16 Combination of "MODE" and "-" buttons: About switch between Fahrenheit and Centigrade

At unit OFF, press "MODE" and "-" buttons simultaneously to switch between $^{\circ}\text{C}$ and $^{\circ}\text{F}$.

Replacement of Batteries

1. Remove the battery cover plate from the rear of the remote controller.

(As shown in the figure)

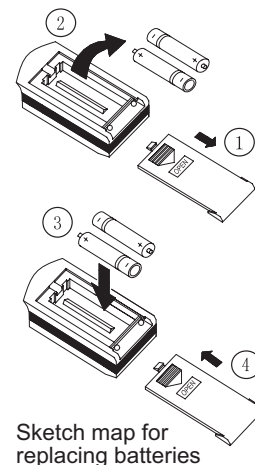
2. Take out the old batteries.

3. Insert two new AAA1.5V dry batteries, and pay attention to the polarity.

4. Reinstall the battery cover plate.

★Notes:

- When replacing the batteries, do not use old or different types of batteries. Otherwise, it may cause malfunction.
- If the remote controller will not be used for a long time, please remove batteries to prevent batteries from leaking.
- The operation should be performed in its receiving range.
- It should be kept 1m away from the TV set or stereo sound sets.
- If the remote controller does not operate normally, please take the batteries out and reinsert them after 30 seconds. If it still can't operate properly, replace the batteries.



Sketch map for replacing batteries

6.2 Description of Each Control Operation

1. Temperature Parameters

◆ Indoor preset temperature (T_{preset})

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

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 Working conditions and process of cooling

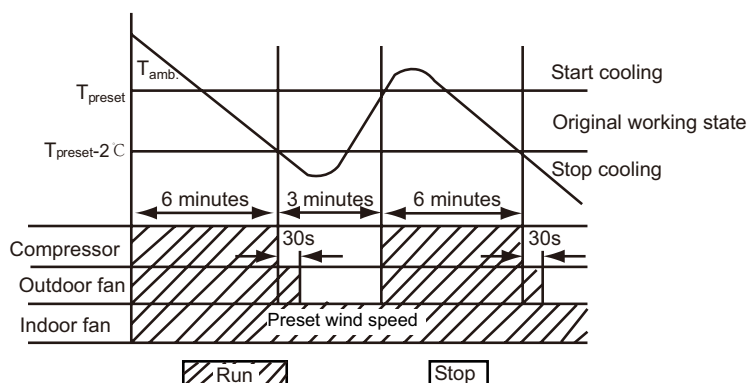
When $T_{\text{amb.}} \geq T_{\text{preset}}$, the unit will enter cooling operation, in which case the indoor fan, the outdoor fan and the compressor will work and the indoor fan will run at preset speed.

When $T_{\text{amb.}} \leq T_{\text{preset}} - 2^\circ\text{C}$, the compressor will stop to run, the outdoor fan motor will stop to run after 30 seconds and the indoor fan motor will run at set fan speed;

When $T_{\text{preset}} - 2^\circ\text{C} < T_{\text{amb.}} < T_{\text{preset}}$, the unit will keep the previous running status.

Under this mode, the four-way valve will be de-energized and temperature can be set within a range from 16 to 30°C .

If the compressor is shut down for some reason, the indoor fan and the swing device will operate at original state.



② Protection

◆ Antifreeze protection

Under cooling and dehumidifying mode, 6 minutes after the compressor is started:

If $T_{\text{evap}} \leq 2^\circ\text{C}$, the compressor will operate at reduced frequency.

If $T_{\text{evap}} \leq -1^\circ\text{C}$ is detected for durative 3 minutes, the compressor will stop, and after 30 seconds, the outdoor fan will stop; and under cooling mode, the indoor fan and the swing motor will remain at the original state.

If $T_{\text{evap.}} \geq 10^\circ\text{C}$ and the compressor has remained at OFF for at least 3 minutes, the compressor will resume its original operation state.

◆ Total current up and frequency down protection

If $I_{\text{total}} \leq 6\text{A}$, frequency rise will be allowed; if $I_{\text{total}} \geq 7\text{A}$, frequency rise will not be allowed; if $I_{\text{total}} \geq 8\text{A}$, the compressor will run at reduced frequency; and if $I_{\text{total}} \geq 9\text{A}$, the compressor will stop and the outdoor fan will stop with a time lag of 30s.

(2) Dehumidifying Mode

① Working conditions and process of dehumidifying

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

If $T_{\text{amb.}} < T_{\text{preset}} - 2^\circ\text{C}$, 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

Protection is the same as that under the cooling mode.

(3) Heating Mode

① Working conditions and process of heating

If $T_{amb} \leq T_{preset} + 2^{\circ}\text{C}$, the unit enters heating mode, in which case the four-way valve, the compressor and the outdoor fan will operate simultaneously, and the indoor fan will run at preset speed in the condition of preset cold air prevention.

If $T_{amb} \geq T_{preset} + 5^{\circ}\text{C}$, the compressor will stop, the outdoor fan will stop with a time lag of 30s, and the indoor fan will stop after 60-second blow at low speed

If $T_{preset} + 2^{\circ}\text{C} < T_{amb} < T_{preset} + 5^{\circ}\text{C}$, the unit will maintain its original operating status.

Under this mode, the four-way valve is energized and temperature can be set within a range of 16 - 30°C. The operating symbol, the heating symbol and preset temperature are revealed on the display.

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). $T_{\text{outdoor ambient}} > 5^{\circ}\text{C}$, $T_{\text{outdoor tube}} \leq -2^{\circ}\text{C}$;

(2). $-2^{\circ}\text{C} \leq T_{\text{outdoor ambient}} < 5^{\circ}\text{C}$, $T_{\text{outdoor tube}} \leq -6^{\circ}\text{C}$;

(3). $-5^{\circ}\text{C} \leq T_{\text{outdoor ambient}} < -2^{\circ}\text{C}$, $T_{\text{outdoor tube}} \leq -8^{\circ}\text{C}$;

(4). $-10^{\circ}\text{C} \leq T_{\text{outdoor ambient}} < -5^{\circ}\text{C}$, $T_{\text{outdoor tube}} - T_{\text{compensatory}} \leq (T_{\text{outdoor ambient}} - 3^{\circ}\text{C})$

(5). $T_{\text{outdoor ambient}} < -10^{\circ}\text{C}$, $T_{\text{outdoor tube}} - T_{\text{compensatory}} \leq (T_{\text{outdoor ambient}} - 3^{\circ}\text{C})$

(after energizing, $T_{\text{compensatory}} = 0^{\circ}\text{C}$ during the first defrosting; if it is not the first defrosting, $T_{\text{compensatory}}$ is confirmed by $T_{\text{outdoor tube}}$ of quitting last defrosting: a. when $T_{\text{outdoor tube}} > 2^{\circ}\text{C}$, $T_{\text{compensatory}} = 0^{\circ}\text{C}$; b. when $T_{\text{outdoor tube}} \leq 2^{\circ}\text{C}$, $T_{\text{compensatory}} = 3^{\circ}\text{C}$)

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 $T_{\text{outdoor ambient}} \geq 10^{\circ}\text{C}$, 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 $T_{\text{indoor amb.}} < 24^{\circ}\text{C}$: if $T_{\text{tube}} \leq 40^{\circ}\text{C}$ 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 $T_{\text{tube}} > 40^{\circ}\text{C}$, 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 non-operation, if $T_{\text{tube}} > 42^{\circ}\text{C}$, the fan will run at present speed.

② In the case of $T_{\text{indoor amb.}} \geq 24^{\circ}\text{C}$: if $T_{\text{tube}} \leq 42^{\circ}\text{C}$, 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 $T_{\text{tube}} > 42^{\circ}\text{C}$, the indoor fan will be converted to preset speed.

Note: $T_{\text{indoor amb.}}$ 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 $I_{\text{total}} \leq 6\text{A}$, frequency rise will be allowed; if $I_{\text{total}} \geq 7\text{A}$, frequency rise will not be allowed; if $I_{\text{total}} \geq 8\text{A}$, the compressor will run at reduced frequency; and if $I_{\text{total}} \geq 9\text{A}$, the compressor will stop and the outdoor fan will stop with a time lag of 30s.

(4) 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.

(5) AUTO Mode**① Working conditions and process of AUTO mode**

a. When $T_{\text{ambient}} \geq 26^{\circ}\text{C}$, the unit will operate in Cool mode. The set temperature is 25°C.

b. When $T_{\text{ambient}} \leq 22^{\circ}\text{C}$, the heat pump unit will operate in Heat mode., set temperature be 20°C; the cooling only unit will operate in Fan mode, set temperature be 25°C.

c. When $23^{\circ}\text{C} \leq T_{\text{ambient}} \leq 25^{\circ}\text{C}$, the unit will operate in the previous state. If it is energized for the first time, it will operate in Fan mode.

d. Under auto mode, if its cooling mode, operation frequency is same as that under cooling mode; if its heating mode, operation frequency is same as that under heating 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 will remain unchanged for at least 6 minutes.

(6) 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 $T_{\text{tube}} \leq 52^{\circ}\text{C}$, the unit will return to its original operation state.
- b. If $T_{\text{tube}} \geq 55^{\circ}\text{C}$, frequency rise is not allowed.
- c. If $T_{\text{tube}} \geq 58^{\circ}\text{C}$, the compressor will run at reduced frequency.
- d. If $T_{\text{tube}} \geq 62^{\circ}\text{C}$, the compressor will stop and the indoor fan will run at preset speed.

2) Heating overload

- a. If $T_{\text{tube}} \leq 50^{\circ}\text{C}$, the unit will return to its original operation state.
- b. If $T_{\text{tube}} \geq 53^{\circ}\text{C}$, frequency rise is not allowed.
- c. If $T_{\text{tube}} \geq 56^{\circ}\text{C}$, the compressor will run at reduced frequency.
- d. If $T_{\text{tube}} \geq 60^{\circ}\text{C}$, the compressor will stop and the indoor fan will blow residue heat and then stop.

② Exhaust temperature protection of compressor

If exhaust temperature $\geq 98^{\circ}\text{C}$, frequency is not allowed to rise.

If exhaust temperature $\geq 103^{\circ}\text{C}$, the compressor will run at reduced frequency.

If exhaust temperature $\geq 110^{\circ}\text{C}$, the compressor will stop.

If exhaust temperature $\leq 90^{\circ}\text{C}$ 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°C , the compressor will stop and the outdoor fan will stop with a time lag of 30 seconds. If temperature is below 95°C , 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**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: $16\sim 30^{\circ}\text{C}$, 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

- a. When the air conditioner is under the mode of COOL, DRY, and the SLEEP mode has been set well, after the SLEEP state keeps about 1 hour, the pre-setting T will raise 1°C , and it will raise 1°C again after 2 hours, so it raise 2°C in 2 hours, then it will run on at the setting temperature and wind speed.

b. When the air conditioner is under the mode of HEAT, and the Timer has been set well, after the SLEEP state keeps about 1 hour, the pre-setting T will reduce 1°C, and it will reduce 1°C again after 2 hours, so it reduce 2°C in 2 hours, then it will run on at the setting temperature and wind speed.

c. The setting temperature keeps the same under the FAN mode and AUTO mode.

(6) Indoor Fan Control

The Indoor Fan can be set as HIGH, MED, LOW by remote control, and the Indoor Fan will be respectively run at high, medium, low speed. It will also be set as AUTO, and the Indoor Fan is as the followings at the automatic wind speed.

① Cooling mode: in auto cooling mode or normal cooling mode, the auto fan speed will run at below mode:

a. When $T_{amb} \geq T_{preset} + 2^{\circ}\text{C}$, the indoor fan will run at high speed;

b. When $T_{preset} < T_{amb} < T_{preset} + 2^{\circ}\text{C}$, the indoor fan will run at middle speed;

c. $T_{amb} \leq T_{preset}$, the indoor fan will run at low speed;

Switches between high speed and middle speed, middle speed and low speed, high speed and low speed, running time of 3.5 minutes must be ensured.

② Heating mode: in auto heating mode or normal heating mode, the auto fan speed will run at below mode:

a. When $T_{amb} \leq T_{preset} + 1^{\circ}\text{C}$, the indoor fan will run at high speed;

b. When $T_{preset} + 1^{\circ}\text{C} < T_{amb} < T_{preset} + 3^{\circ}\text{C}$, the indoor fan will run at middle speed;

c. $T_{amb} \geq T_{preset} + 3^{\circ}\text{C}$, the indoor fan will run at low speed;

Switches between high speed and middle speed, middle speed and low speed, high speed and low speed, running time of 3.5 minutes must be ensured.

Fan mode is the same as cooling mode.

(7) Buzzer Control

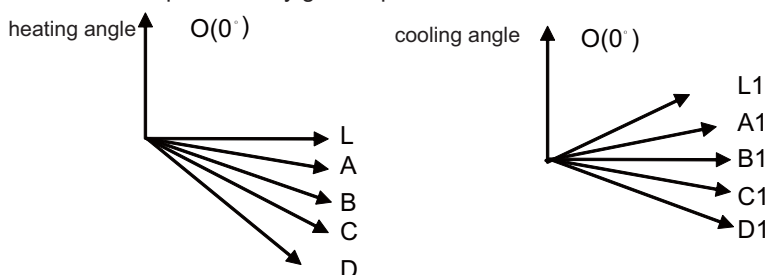
The buzzer will send a "Di" sound when the air conditioner is powered up or received the information sent by the remote control or there is a button input, the single tube cooler doesn't receive the remote control ON signal under the mode of heating mode.

(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 counter-clockwise, close the air outlet. After starting the machine, if you don't set the swinging function, 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 the heating mode, and the temperature will display H1 under the defrosting mode. (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 protection E5: Overcurrent protection

E6: Communication failure H4: Overload protection

F1: Indoor ambient sensor start and short circuit (continuously measured failure in 30S)

F2: Indoor evaporator sensor start and short circuit (continuously measured failure in 30S)

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 P2: Maximum cooling and heating

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

(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 10 minutes under low air damper (The swing will operate as the former status within 10 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. If the last remote control command has not set the timed function, the system will remember the last remote control command and operate according to it. If the last remote control command has set timed function and the power supply is interrupted before the timed time, the system will remember the timed function of the last remote control command, the timed time will be recounted from power on. If the last remote control command has set timed function, the time is out and the system is start or stop according to the set time when the power supply is interrupted, the system will remember the operation status before the power supply was interrupted, and do not carry out timed action; The timed clock will not be remembered.

(14) Electric heating band control of outdoor unit

① Compressor electric heating band control:

a) Start condition: the compressor is in off status and the outdoor ambient temperature $\leq -5^{\circ}\text{C}$.

b) Stop condition: the band is off when either of the below condition is met:

1. The compressor is in on status;

2. The compressor is in off status and the outdoor ambient temperature $\geq -5^{\circ}\text{C}$.

c) When outdoor ambient temperature sensor is in malfunction status, the electric heating band stops operation.

② Condenser electric heating band control:

1. When $T_{\text{outdoor ambient}} \leq 1^{\circ}\text{C}$, the electric heating band starts working;

2. When enter defrosting and defrosting is finished, the chassis electric heating band starts working for 3min as the compressor starts. After the compressor starts for 3min and $T_{\text{outdoor ambient}} \geq 3^{\circ}\text{C}$, the electric heating band stops operation.

3. When $T_{\text{outdoor ambient}} \geq 3^{\circ}\text{C}$, the condenser electric heating band doesn't work.

4. When $1^{\circ}\text{C} < T_{\text{outdoor ambient}} < 3^{\circ}\text{C}$, the condenser electric heating band keeps the previous status.

When outdoor ambient temperature sensor is in malfunction status, the electric heating band stops operation; the electric heating band can work again after 2min of last stop.

7. Installation Manual

7.1 Notices for Installation

Caution

- 1.The unit should be installed only by authorized service center according to local or government regulations and in compliance with this manual.
- 2.Before installing, please contact with local authorized maintenance center. If the unit is not installed by the authorized service center, the malfunction may not be solved due to inconvenient contact between the user and the service personnel.
- 3.When removing the unit to the other place, please firstly contact with the local authorized service center.
- 4.Warning: Before obtaining access to terminals, all supply circuits must be disconnected.
- 5.For appliances with type Y attachment, the instructions shall contain the substance of the following. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- 6.The appliance must be positioned so that the plug is accessible.
- 7.The temperature of refrigerant line will be high; please keep the interconnection cable away from the copper tube.
- 8.The instructions shall state the substance of the following:
This appliance is not intended for use by persons(including children)with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

7.1.1 Installation Site Instructions

Proper installation site is vital for correct and efficient operation of the unit. Avoid the following sites where:

- strong heat sources, vapours, flammable gas or volatile liquids are emitted.
- high-frequency electro-magnetic waves are generated by radio equipment, welders and medical equipment.
- salt-laden air prevails (such as close to coastal areas).
- the air is contaminated with industrial vapours and oils.
- the air contains sulphures gas such as in hot spring zones.
- corrosion or poor air quality exists.

7.1.2 Installation Site of Indoor Unit

- 1.The air inlet and outlet should be away from the obstructions. Ensure the air can be blown through the whole room.
- 2.Select a site where the condensate can be easily drained out, and where it is easily connected to outdoor unit.
- 3.Select a place where it is out of reach of children.
- 4.Select a place where the wall is strong enough to withstand the full weight and vibration of the unit.
- 5.Be sure to leave enough space to allow access for routine maintenance. The installation site should be 250cm or more above the floor.
- 6.Select a place about 1m or more away from TV set or any other electric appliance.
- 7.Select a place where the filter can be easily taken out.
- 8.Make sure that the indoor unit is installed in accordance with installation dimension instructions.
- 9.Do not use the unit in the laundry or by swimming pool etc.

7.1.3 Installation Site of Outdoor Unit

- 1.Select a site where noise and outflow air emitted by the unit will not annoy neighbors.
- 2.Select a site where there is sufficient ventilation.
- 3.Select a site where there is no obstruction blocking the inlet and outlet.
- 4.The site should be able to withstand the full weight and vibration.
- 5.Select a dry place, but do not expose the unit to direct sunlight or strong wind.
- 6.Make sure that the outdoor unit is installed in accordance with the installation instructions,and is convenient for maintenance and repair.
- 7.The height difference between indoor and outdoor units is within A m, and the length of the connecting tubing does not exceed B m.

Model	A	B
09K	10	15
12K	10	20

- 8.Select a place where it is out of reach of children.
- 9.Select a place where the unit does not have negative impact on pedestrians or on the city.

7.1.4 Safety Precautions for Electric Appliances

1. A dedicated power supply circuit should be used in accordance with local electrical safety regulations.
2. Don't drag the power cord with excessive force.
3. The unit should be reliably earthed and connected to an exclusive earth device by the professionals.
4. The air switch must have the functions of magnetic tripping and heat tripping to prevent short circuit and overload.
5. The minimum distance between the unit and combustive surface is 1.5m.
6. The appliance shall be installed in accordance with national wiring regulations.
7. An all-pole disconnection switch with a contact separation of at least 3mm in all poles should be connected in fixed wiring.

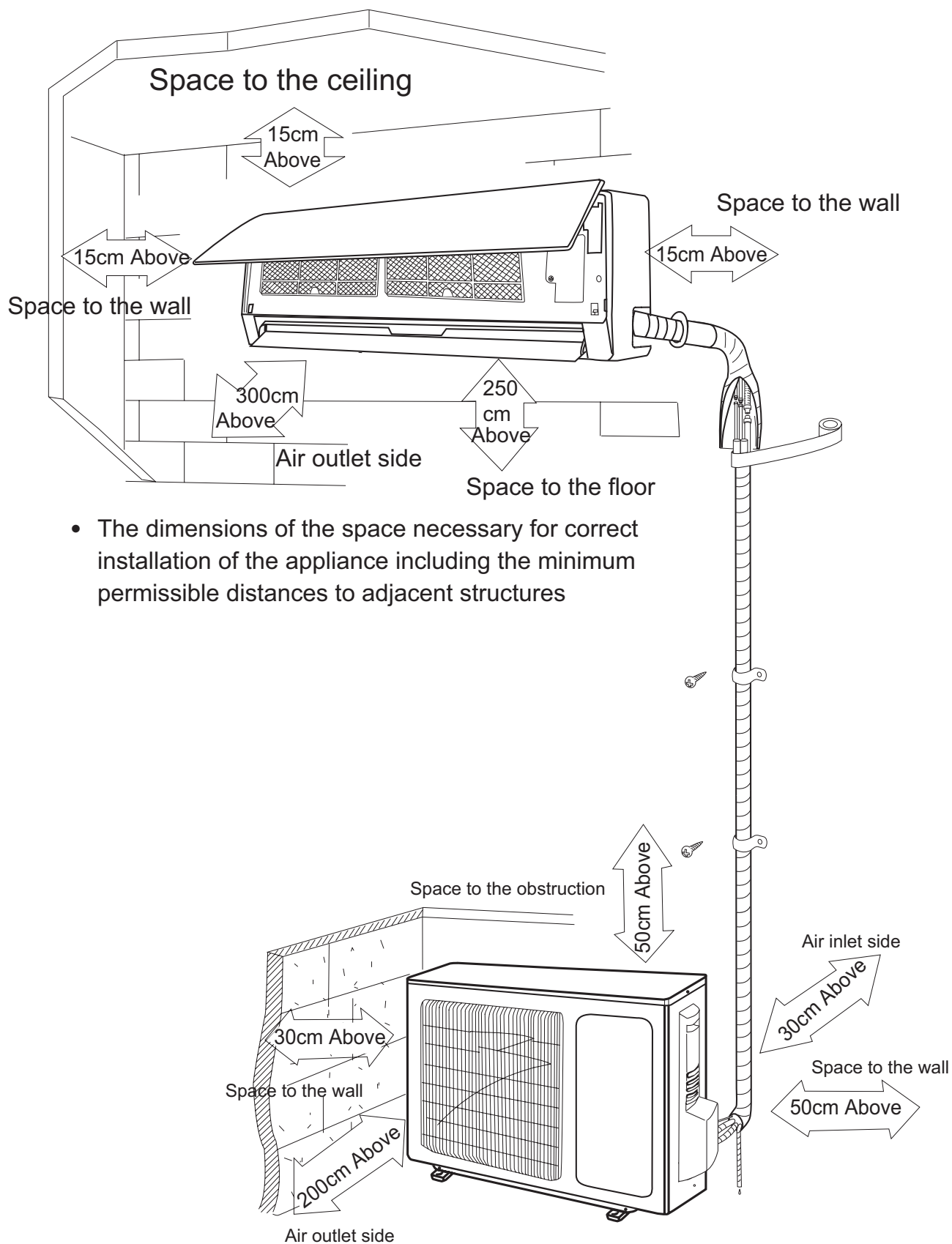
Note:

- **Make sure the live wire, neutral wire and earth wire in the family power socket are properly connected. There should be reliable circuit in the diagram.**
- **Inadequate or incorrect electrical connections may cause electric shock or fire.**

7.1.5 Earthing Requirements

1. Air conditioner is type I electric appliance. Please ensure that the unit is reliably earthed.
2. The yellow-green wire in air conditioner is the earthing wire which can not be used for other purposes. Improper earthing may cause electric shock.
3. The earth resistance should accord to the national criterion.
4. The power must have reliable earthing terminal. Please do not connect the earthing wire with the following:
① Water pipe ② Gas pipe ③ Contamination pipe
④ Other place that professional personnel consider is unreliable
5. The model and rated values of fuses should accord with the silk print on fuse cover or related PCB.

7.2 Installation Drawing



- The dimensions of the space necessary for correct installation of the appliance including the minimum permissible distances to adjacent structures

7.3 Install Indoor Unit

7.3.1 Installation of Mounting Plate

1. Mounting plate should be installed horizontally. As the water trays outlet for the indoor unit is two-way type, during installation, the indoor unit should slightly slant to water trays outlet for smooth drainage of condensate.
2. Fix the mounting plate on the wall with screws.
3. Be sure that the mounting plate has been fixed firmly enough to withstand about 60 kg. Meanwhile, the weight should be evenly shared by each screw.

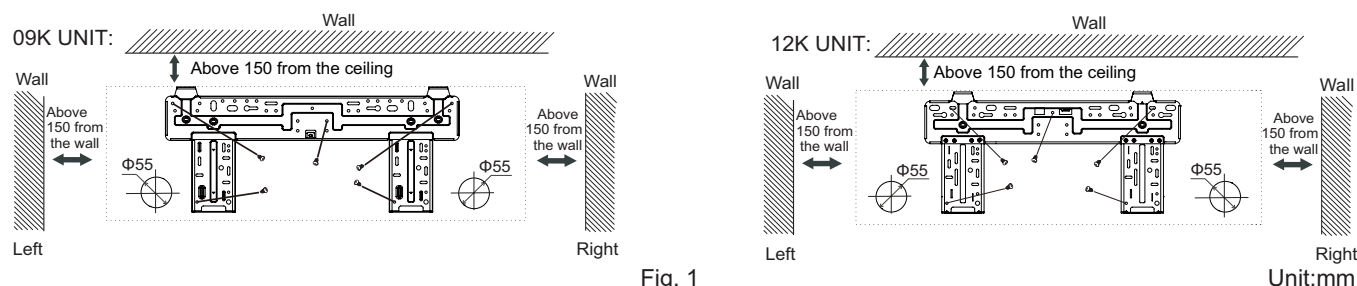
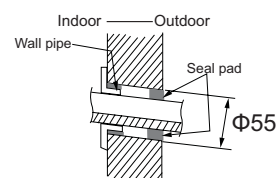


Fig. 1

7.3.2 Drill Piping Hole

1. Slant the piping hole (Φ55) on the wall slightly downward to the outdoor side.
2. Insert the piping-hole sleeve into the hole to prevent the connection piping and wiring from being damaged when passing through the hole.

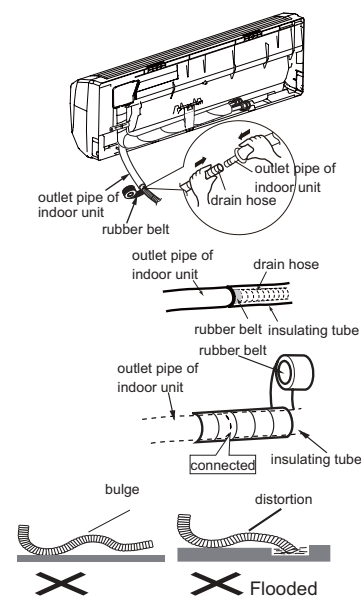


7.3.3 Installation of Drain Hose

1. Connect the drain hose to the outlet pipe of the indoor unit. Bind the joint with rubber belt.
2. Put the drain hose into insulating tube.

3. Wrap the insulating tube with wide rubber belt to prevent the shift of insulating tube. Slant the drain hose downward slightly for smooth drainage of condensate.

Note: The insulating tube should be connected reliably with the sleeve outside the outlet pipe. The drain hose should be slanted downward slightly, without distortion, bulge or fluctuation. Do not put the outlet in the water.



7.3.4 Connecting Indoor and Outdoor Electric Wires

1. Open the front panel.
2. Remove the wiring cover. Connect and fix the power connection cord to the terminal board.
3. Make the power connection cord pass through the hole at the back of indoor unit.
4. Reinstall the cord anchorage and wiring cover.
5. Reinstall the front panel.

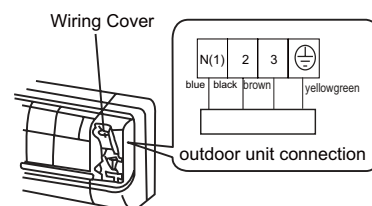


Fig. 2

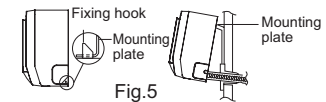
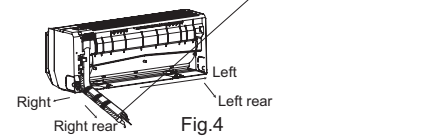
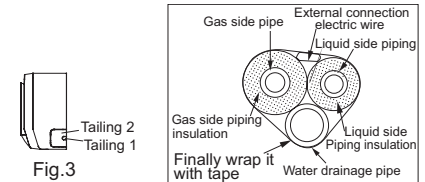
NOTE:

All wires between indoor and outdoor units must be connected by the qualified electric contractor.

- Electric wires must be connected correctly. Improper connection may cause malfunction.
- Tighten the terminal screws securely.
- After tightening the screws, pull the wire slightly to confirm whether its firm or not.
- Make sure that the electric connections are earthed properly to prevent electric shock.
- Make sure that all wiring connections are secure and the cover plates are reinstalled properly. Poor installation may cause fire or electric shock.

7.3.5 Installation of Indoor Unit

- The piping can be output from right, right rear, left or left rear.
1. When routing the piping and wiring from the left or right side of indoor unit, cut off the tailings from the chassis when necessary (As shown in Fig.3)
- (1) Cut off tailing 1 when routing the wiring only;
 - (2) Cut off tailing 1 and tailing 2 when routing both the wiring and piping.
2. Take out the piping from body case; wrap the piping, power cords, drain hose with the tape and then make them pass through the piping hole. (As shown in Fig.4)
 3. Hang the mounting slots of the indoor unit on the upper hooks of the mounting plate and check if it is firm enough. (As shown in Fig.5)
 4. The installation site should be 250cm or more above the floor.

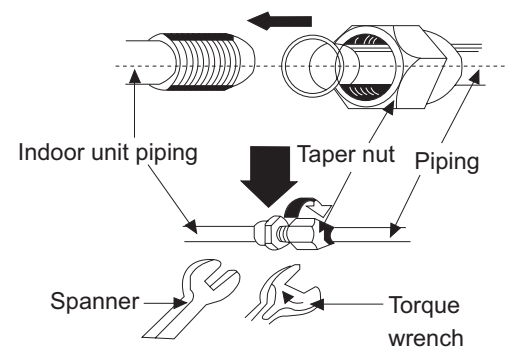


7.3.6 Installation of Connection Pipe

1. Align the center of the pipe flare with the related valve.
2. Screw in the flare nut by hand and then tighten the nut with spanner and torque wrench by referring to the following:

Hex nut diameter	Tightening torque(N·m)
Φ6	30 ~ 40
Φ9.52	15 ~ 20
Φ12	45 ~ 55
Φ16	60 ~ 65
Φ19	70 ~ 75

NOTE: Connect the connection pipe to indoor unit at first and then to outdoor unit. Handle piping bending with care. Do not damage the connection pipe. Ensure that the joint nut is tightened firmly, otherwise, it may cause leakage.



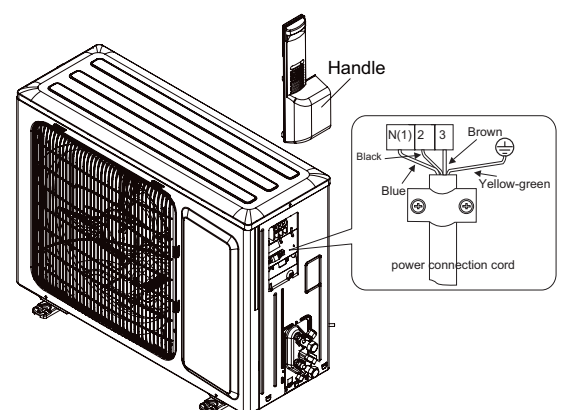
7.4 Install Outdoor Unit

7.4.1 Electric Wiring

1. Remove the handle on the right side plate of outdoor unit.
2. Take off wire clamps. Connect and fix the power connection cord to the terminal board. Wiring should fit that of indoor unit.
3. Fix the power connection cord with wire clamps.
4. Confirm if the wire has been fixed properly.
5. Reinstall the handle.

NOTE:

- Incorrect wiring may cause malfunction of spare part.
 - After the wire has been fixed, ensure there is free space between the connection and fixing places on the lead wire.
- Schematic diagram being reference only, please refer to real product for authentic information.



7.4.2 Air Purging and Leakage Test

- 1.Connect charging hose of manifold valve to charge end of low pressure valve (both high/low pressure valves must be tightly shut).
- 2.Connect joint of charging hose to vacuum pump.
- 3.Fully open the handle of Lo manifold valve.
- 4.Open the vacuum pump for vacuumization. At the beginning, slightly loosen joint nut of low pressure valve to check if there is air coming inside (If noise of vacuum pump has been changed, the reading of multimeter is 0). Then tighten the nut.
- 5.Keep vacuuming for more than 15mins and make sure the reading of multi-meter is -1.0×10^5 pa(-76cmHg).
- 6.Fully open high/low pressure valves.
- 7.Remove charging hose from charging end of low pressure valve.
- 8.Tighten lid of low pressure valve. (As shown in Fig.6)

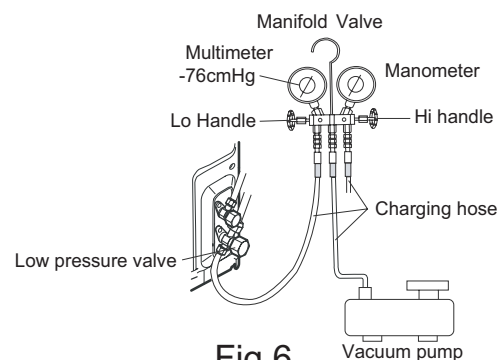


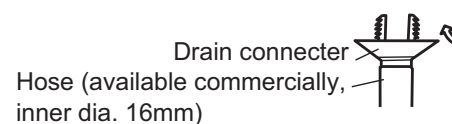
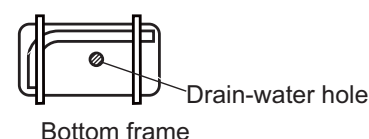
Fig.6

7.4.3 Outdoor Condensate Drainage (only for heat pump unit)

During heating operation, the condensate and defrosting water should be drained out reliably through the drain hose.

Install the outdoor drain connector in a $\Phi 25$ hole on the base plate and attach the drain hose to the connector so that the waste water formed in the outdoor unit can be drained out .The hole diameter 25 must be plugged.

Whether to plug other holes will be determined by the dealers according to actual conditions.



7.5 Check after Installation and Operation Test

7.5.1 Check after Installation

Items to be checked	Possible malfunction
Has it been fixed firmly?	The unit may drop, shake or emit noise.
Have you done the refrigerant leakage test?	It may cause insufficient cooling(heating) capacity
Is heat insulation sufficient?	It may cause condensation and dripping.
Is water drainage satisfactory?	It may cause condensation and dripping.
Is the voltage in accordance with the rated voltage marked on the nameplate?	It may cause electric malfunction or damage the product.
Is the electric wiring and piping connection installed correctly and securely?	It may cause electric malfunction or damage the part.
Has the unit been connected to a secure earth connection?	It may cause electrical leakage.
Is the power cord specified?	It may cause electric malfunction or damage the part.
Are the inlet and outlet openings blocked?	It may cause insufficient cooling(heating) capacity.
Is the length of connection pipes and refrigerant capacity been recorded?	The refrigerant capacity is not accurate.

7.5.2 Operation Test

1.Before Operation Test

- (1)Do not switch on power before installation is finished completely.
- (2)Electric wiring must be connected correctly and securely.
- (3)Cut-off valves of the connection pipes should be opened.
- (4)All the impurities such as scraps and thrums must be cleared from the unit.

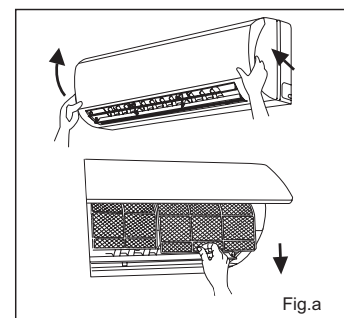
2.Operation Test Method

- (1)Switch on power and press "ON/OFF"button on the remote controller to start operation.
- (2)Press MODE button to select the COOL, HEAT (Not available for cooling only unit), FAN to check whether the operation is normal or not.

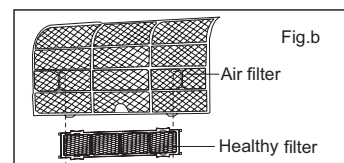
7.6 Installation and Maintenance of Healthy Filter

7.6.1 Installation of Healthy Filter

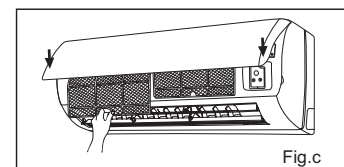
1.Lift up the front panel from its two ends, as shown by the arrow direction, and then remove the air filter. (As shown in fig. a)



2.Attach the healthy filter onto the air filter. (As shown in fig. b)



3.Install the air filter properly along the arrow direction in Fig.c, and then close the panel .



7.6.2 Cleaning and Maintenance

Remove the healthy filter and reinstall it after cleaning according to the installation instruction. Don't use brush or hard things to clean the filter. After cleaning, be sure to dry it in the shade.

7.6.3 Service Life

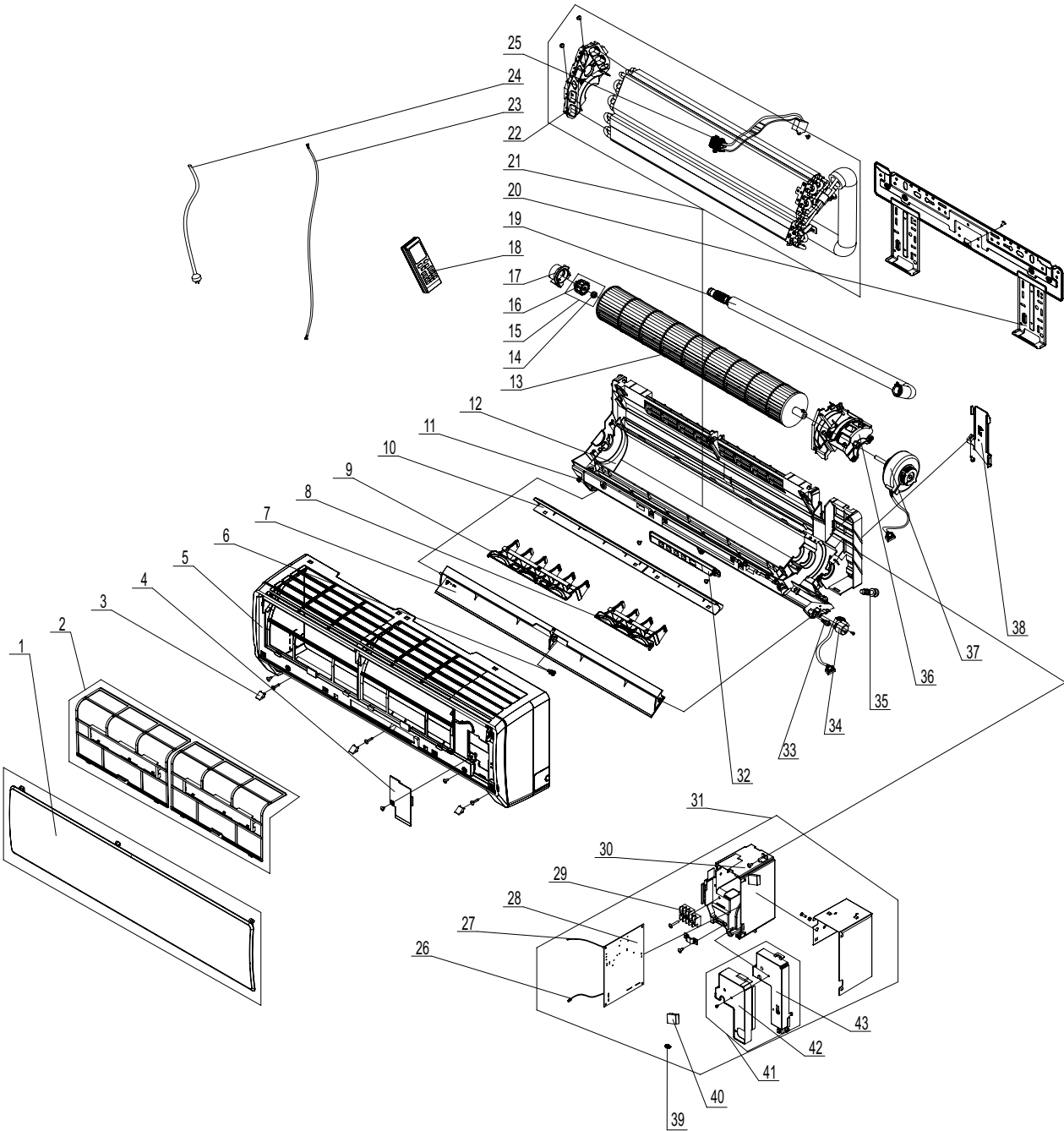
The general service life for the healthy filter is about one year under normal condition. As for silver ion filter, it is invalid when its surface becomes black (green).

●This supplementary instruction is provided for reference to the unit with healthy filter. If the graphics provided herein is different from the actual product, please refer to the actual product. The quantity of healthy filters is based on the actual delivery.

8. Exploded Views and Parts List

8.1 Indoor Unit

(1)09K Unit



Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWC09MA-K3DNB7B/I	GWH09MA-K3DNA2B/I	
	Product Code	CB164N01603	CB181N03000	
1	Front Panel	20012322S	20012896S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012179	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542036	10542704	1
12	Rear Case assy	2220210111	2220210101	1
13	Cross Flow Fan	10352043	10352018	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	4002046412	400204643	1
25	Cold Plasma Generator Sub-assy	11140009	/	1
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138785	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	2020261214	2020206218	1
32	Display Board	3056506401	30565056	1
33	Crank	10582070	10582070	1
34	Step Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Pipe Clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	20122103	22242135	1

The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWC09MA-K3DNA3B/I	GWH09MA-K3DNA3B/I	
	Product Code	CB171N0183	CB171N0192	
1	Front Panel	20012121S	20012121S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	4002046412	4002046412	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138475	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	2020212847	2020206205	1
32	Display Board	30565007	30565007	1
33	Crank	10582070	10582070	1
34	Step Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Pipe Clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	20122103	20122103	1

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Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH09MA-K3DNB3B/I	GWH09MA-K3DNB8B/I	
	Product Code	CB163N03700	CB174N02600	
1	Front Panel	20012201S	2001232634	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012179	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210101	2220210111	1
13	Cross Flow Fan	10352018	10352043	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138476	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	2020206222	2020206205	1
32	Display Board	30565037	30565007	1
33	Crank	10582070	10582070	1
34	Step Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Pipe Clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	20122103	20122103	1

The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWH09MA-K3DNE3B/I	GWH09MA-K3DNA4B/I	
	Product Code	CB404N01303	CB155N05600	
1	Front Panel	2001291101	20012151S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	2001217913	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210111	1
13	Cross Flow Fan	10352043	10352043	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138476	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	20402028	2020206208	1
32	Display Board	30565144	30565012	1
33	Crank	10582070	10582070	1
34	Step Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Pipe Clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	20122103	20122103	1

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Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH09MA-K3DNE1B/I	GWH09MA-K3DNA3B/I	
	Product Code	CB143N00900	CB171N0190	
1	Front Panel	20012657S	20012121S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	2001212007	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210101	2220210101	1
13	Cross Flow Fan	10352018	10352018	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	30510041	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138476	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	2020206205	2020206205	1
32	Display Board	30565007	30565007	1
33	Crank	10582070	10582070	1
34	Step Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Pipe Clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	22242135	22242135	1

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NO.	Description	Part Code		Qty
		GWH09MA-K3DNC8B/I	GWH09MA-K3DNE4B/I	
	Product Code	CB192N00100	CB403N00200	
1	Front Panel	2001231701	20012910S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120	20012179	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210101	1
13	Cross Flow Fan	10352043	10352018	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138476	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	20402137	2020206220	1
32	Display Board	30565083	30565155	1
33	Crank	10582070	10582070	1
34	Stepping Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Connecting pipe clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	22242135	22242135	1

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Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH09MA-K3DNE3B/I	GWH09MA-K3DNA9B/I	
	Product Code	CB404N01300	CB182N01600	
1	Front Panel	20012911B	2001219301S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	242520172	24252016	3
4	Electric Box Cover2	2010249602	20122075	1
5	Front Case	2001217906	20012179	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	1051211101	10512111	1
8	Air Louver 1	1051211301	10512113	1
9	Air Louver 2	1051211401	10512114	1
10	Helicoid tongue	2611216201	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210108	2220210101	1
13	Cross Flow Fan	10352043	10352018	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	40020538	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	/	/	/
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138476	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	20402028	2020206215	1
32	Display Board	30565144	30565018	1
33	Crank	10582070	10582070	1
34	Stepping Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Connecting pipe clamp	2611216402	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	22242135	22242135	1

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NO.	Description	Part Code		Qty
		GWH09MA-K3DNB8B/I	GWH09MA-K3DNA5B/I	
	Product Code	CB174N02603	CB162N02800	
1	Front Panel	2001232634	20022222S	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	24252016	24252016	3
4	Electric Box Cover2	20122075	20122075	1
5	Front Case	20012120	20012120	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512111	10512111	1
8	Air Louver 1	10512113	10512113	1
9	Air Louver 2	10512114	10512114	1
10	Helicoid tongue	26112162	26112162	1
11	Axile Bush	10542704	10542704	1
12	Rear Case assy	2220210111	2220210101	1
13	Cross Flow Fan	10352043	10352018	1
14	Fan Bearing	76512210	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	76512203	1
17	Ring of Bearing	26152022	26152022	1
18	Remote Controller	305100413	305100413	1
19	Drainage hose	0523001406	0523001406	1
20	Wall Mounting Frame	01252015	01252015	1
21	Evaporator Assy	0100255203	0100255203	1
22	Evaporator Support	24212090	24212090	1
23	Connecting Cable	400205236	400205236	0
24	Power Cord	400204643	400204643	1
25	Cold Plasma Generator Sub-assy	11140009	/	1
26	Temperature Sensor	390000591	390000591	1
27	Ambient Temperature Sensor	390000451	390000451	1
28	Main Board	30138662	30138476	1
29	Terminal Board	42011233	42011233	1
30	Electric Box	2011208201	2011208201	1
31	Electric Box Assy	2020212893	2020206211	1
32	Display Board	30565007	30565073	1
33	Crank	10582070	10582070	1
34	Stepping Motor	1521212901	1521212901	1
35	Rubber Plug (Water Tray)	76712012	76712012	1
36	Motor Press Plate	26112160	26112160	1
37	Fan Motor	15012115	15012115	1
38	Connecting pipe clamp	26112164	26112164	1
39	Jumper	4202300102	4202300102	1
40	Capacitor CBB61	33010002	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	01592073	1
42	Shield cover of Electric Box	01412036	01412036	1
43	Electric Box Cover1	22242135	22242135	1

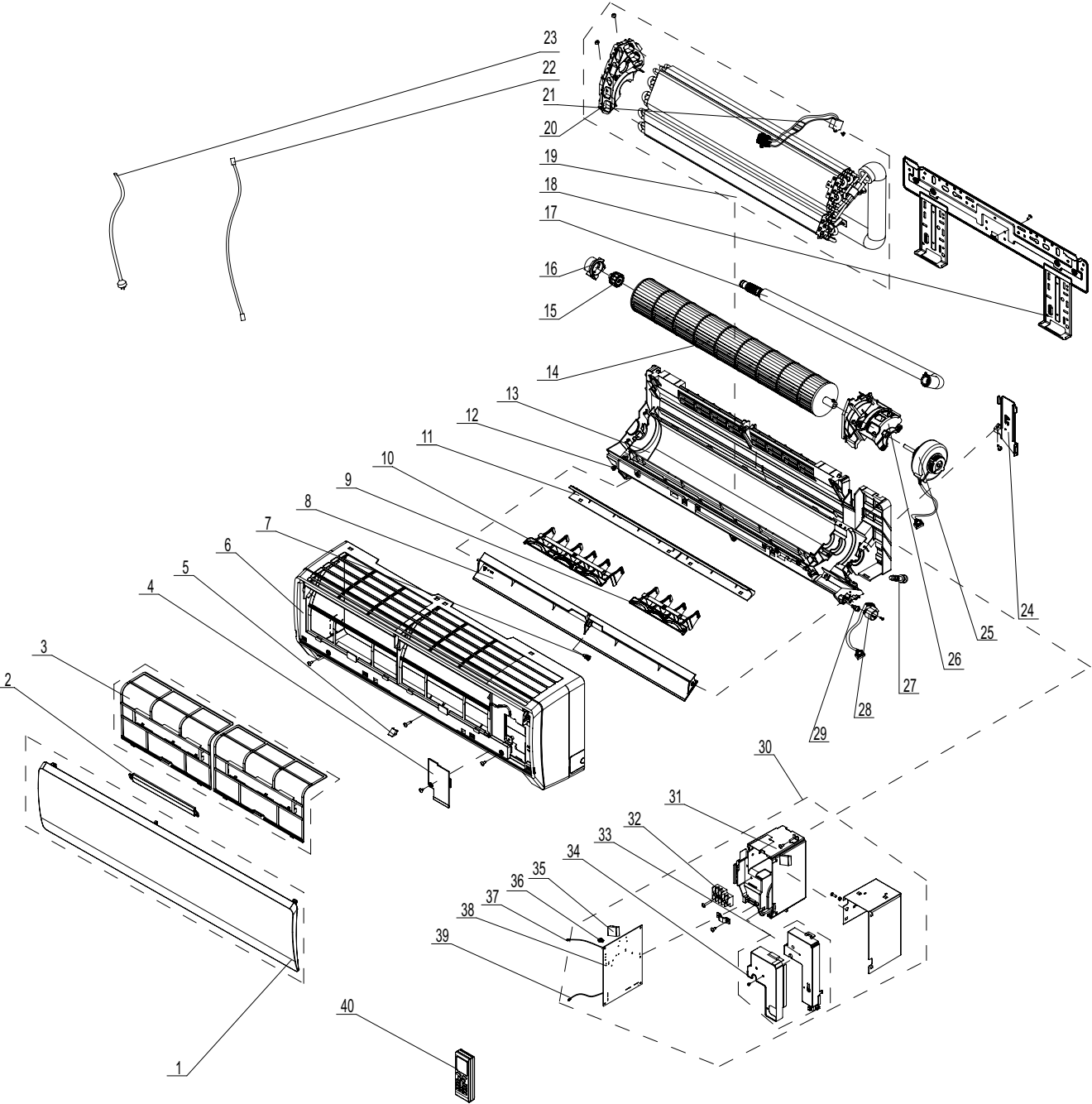
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Exploded Views and Parts List

NO.	Description	Part Code	Qty
		GWH09MA-K3DNC9B/I	
		CB145N00600	
1	Front Panel	20012690T	1
2	Filter Sub-Assy	11122081	2
3	Screw Cover	24252016	3
4	Electric Box Cover2	20122075	1
5	Front Case	20012120	1
6	Axile Bush	10542036	1
7	Guide Louver	10512111	1
8	Air Louver 1	10512113	1
9	Air Louver 2	10512114	1
10	Helicoid tongue	26112162	1
11	Axile Bush	10542704	1
12	Rear Case assy	2220210101	1
13	Cross Flow Fan	10352018	1
14	Fan Bearing	76512210	1
15	O-Gasket sub-assy of Bearing	76512051	1
16	O-Gasket of Cross Fan Bearing	76512203	1
17	Ring of Bearing	26152022	1
18	Remote Controller	305100413	1
19	Drainage hose	0523001406	1
20	Wall Mounting Frame	01252015	1
21	Evaporator Assy	0100255203	1
22	Evaporator Support	24212090	1
23	Connecting Cable	400205236	0
24	Power Cord	400204643	1
25	Cold Plasma Generator Sub-assy	/	/
26	Temperature Sensor	390000591	1
27	Ambient Temperature Sensor	390000451	1
28	Main Board	30138476	1
29	Terminal Board	42011233	1
30	Electric Box	2011208201	1
31	Electric Box Assy	2020261215	1
32	Display Board	30565107	1
33	Crank	10582070	1
34	Stepping Motor	1521212901	1
35	Rubber Plug (Water Tray)	76712012	1
36	Motor Press Plate	26112160	1
37	Fan Motor	15012115	1
38	Connecting pipe clamp	26112164	1
39	Jumper	4202300102	1
40	Capacitor CBB61	33010002	1
41	Shield cover of Electric Box sub-assy	01592073	1
42	Shield cover of Electric Box	01412036	1
43	Electric Box Cover1	22242135	1

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(2)12K Unit



Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWC12MB-K3DNC3B/I	GWH12MB-K3DNC3B/I	
	Product Code	CB136N00303	CB136N0011	
1	Front Panel	20012343S	20012343S	1
2	Display Board	30565062	30565062	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	2001213901	2001213901	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210302	2220210302	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	11140009	11140009	1
22	Connecting Cable	400205236	400205236	0
23	Power Cord	4002046412	4002046412	1
24	Pipe Clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Step Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	2020261203	2020261201	1
31	Electric Box	20112082	20112082	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	20122103	20122103	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138785	30138662	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

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NO.	Description	Part Code		Qty
		GWC12MB-K3DNA3B/I	GWH12MB-K3DNA3B/I	
	Product Code	CB171N0202	CB171N0213	
1	Front Panel	20012122S	20012122S	1
2	Display Board	30565007	30565007	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	20012139	20012139	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210302	2220210301	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/
22	Connecting Cable	400205236	400205236	0
23	Power Cord	4002046412	4002046412	1
24	Pipe Clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Step Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	2020212848	2020212810	1
31	Electric Box	2011208201	20112082	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	20122103	20122103	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138475	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

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Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH12MB-K3DNE3B/I	GWH12MB-K3DNA2B/I	
	Product Code	CB404N01401	CB181N03100	
1	Front Panel	20012888	20012150S	1
2	Display Board	30565144	30565056	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	20022420	20012139	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210301	2220210301	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/
22	Connecting Cable	400205236	400205236	0
23	Power Cord	400204643	400204643	1
24	Pipe Clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Step Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	20402040	2020261212	1
31	Electric Box	2011208201	20112082	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	20122103	20122103	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWH12MB-K3DNB3B/I	GWH12MB-K3DNB8B/I	
	Product Code	CB163N03800	CB174N02500	
1	Front Panel	20012202S	2001220414	1
2	Display Board	30565037	30565007	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	2001213901	20012139	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210301	2220210301	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/
22	Connecting Cable	400205236	400205236	0
23	Power Cord	400204643	400204643	1
24	Pipe Clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Step Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	2020206223	20302984	1
31	Electric Box	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	20122103	20122103	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

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Exploded Views and Parts List

NO.	Description	Part Code			Qty
		GWH12MB-K3DNA3B/I	GWH12MB-K3DNA4B/I	GWC12MB-K3DNA5B/I	
	Product Code	CB171N0210	CB155N05700	CB162N05800	
1	Front Panel	20012122S	20012153S	20012199S	1
2	Display Board	30565007	30565012	30565073	1
3	Filter Sub-Assy	1112220403	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	20122075	1
5	Screw Cover	24252016	24252016	24252016	1
6	Front Case Sub-Assy	20012139	20012139	20012139	1
7	Axile Bush	10542036	10542036	10542036	1
8	Guide Louver	10512157	10512157	10512157	1
9	Air Louver 1	10512156	10512156	10512156	1
10	Air Louver 2	10512155	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	10512037	1
13	Rear Case assy	2220210301	2220210301	2220210302	1
14	Cross Flow Fan	10352017	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	01002422	1
20	Evaporator Support	24212091	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/	/
22	Connecting Cable	400205236	400205236	400205236	0
23	Power Cord	400204643	400204643	4002046412	1
24	Pipe Clamp	26112164	26112164	26112164	1
25	Fan Motor	150120874	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
28	Step Motor	1521212901	1521212901	1521212901	1
29	Crank	10582070	10582070	10582070	1
30	Electric Box Assy	2020212810	20302888	20402263	1
31	Electric Box	2011208201	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	01592073	1
34	Electric Box Cover1	20122103	20122103	22242135	1
35	Capacitor CBB61	33010002	33010002	33010002	1
36	Jumper	4202300104	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	390000451	1
38	Main Board	30138476	30138476	30138475	1
39	Temperature Sensor	390000591	390000591	390000591	1
40	Remote Controller	30510041	305100413	305100413	1

The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWH12MB-K3DNC3B/I	GWH12MB-K3DNC3B/I	
	Product Code	CB136N0010	CB136N00101	
1	Front Panel	20012343S	20012343S	1
2	Display Board	30565062	30565062	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	2001213901	2001213901	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210302	2220210302	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	11140009	1
22	Connecting Cable	400205236	400205236	0
23	Power Cord	400204643	400204643	1
24	Connecting pipe clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Stepping Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	2020212891	2020261201	1
31	Electric Box	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	22242135	22242135	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138476	30138662	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	30510041	30510041	1

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Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH12MB-K3DNE4B/I	GWH12MB-K3DNC9B/I	
	Product Code	CB403N00300	CB145N00700	
1	Front Panel	20012906	20012687S	1
2	Display Board	30565155	30565056	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	2001213901	20012139	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210301	2220210301	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/
22	Connecting Cable	400205236	400205236	0
23	Power Cord	400204643	400204643	1
24	Connecting pipe clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Stepping Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	2020206221	2020261216	1
31	Electric Box	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	22242135	22242135	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWH12MB-K3DNB8B/I	GWH12MB-K3DNA5B/I	
	Product Code	CB174N02502	CB162N02900	
1	Front Panel	2001220414	20012199S	1
2	Display Board	30565007	30565073	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Electric Box Cover2	20122075	20122075	1
5	Screw Cover	24252016	24252016	1
6	Front Case Sub-Assy	20012139	20012139	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512157	10512157	1
9	Air Louver 1	10512156	10512156	1
10	Air Louver 2	10512155	10512155	1
11	Helicoid tongue	26112163	26112163	1
12	Left Axile Bush	10512037	10512037	1
13	Rear Case assy	2220210302	2220210301	1
14	Cross Flow Fan	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	1
20	Evaporator Support	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	11140009	/	1
22	Connecting Cable	400205236	400205236	0
23	Power Cord	400204643	400204643	1
24	Connecting pipe clamp	26112164	26112164	1
25	Fan Motor	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	1
28	Stepping Motor	1521212901	1521212901	1
29	Crank	10582070	10582070	1
30	Electric Box Assy	20402062	2020206212	1
31	Electric Box	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	1
34	Electric Box Cover1	22242135	22242135	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138662	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Remote Controller	305100413	305100413	1

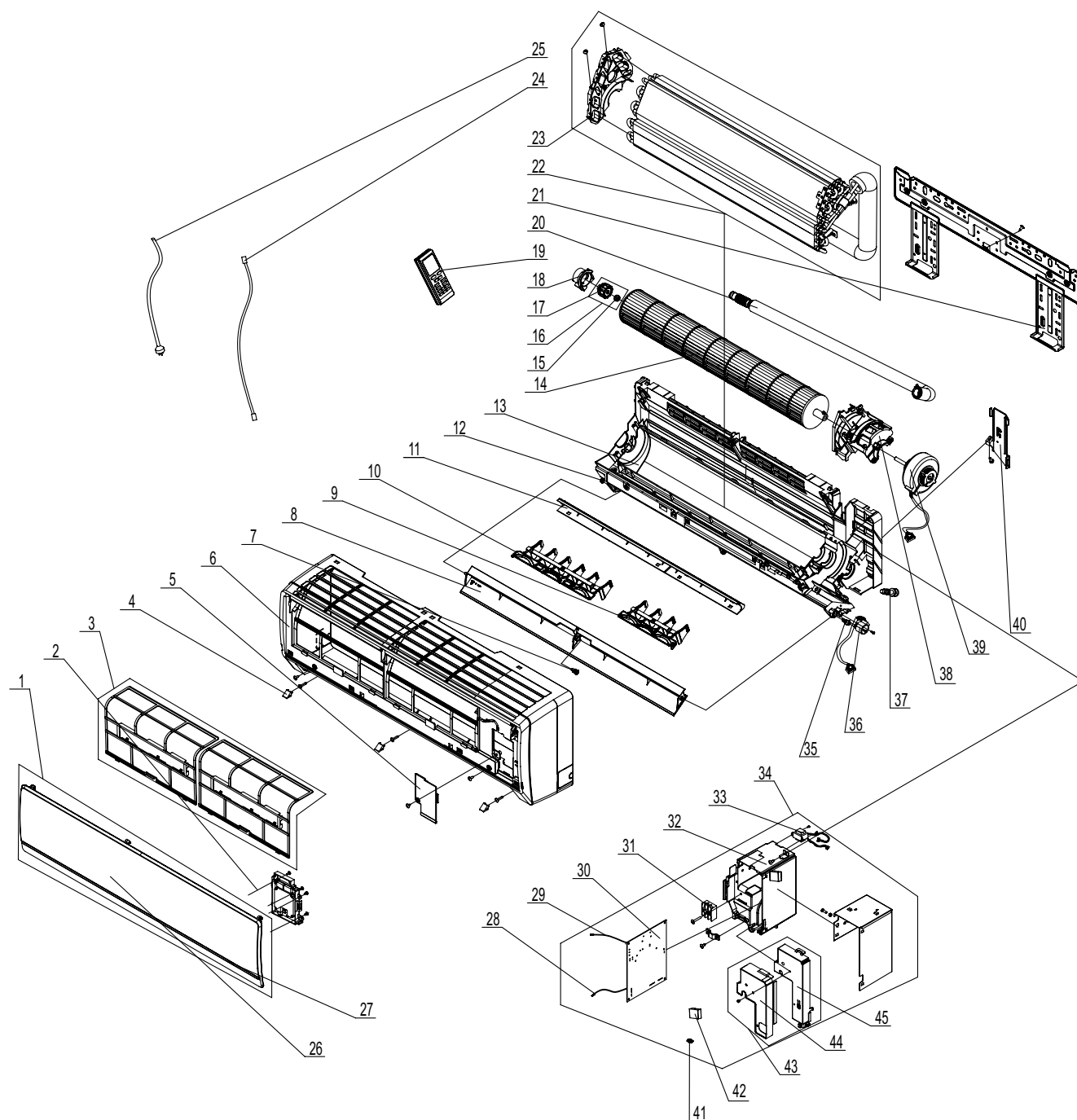
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Exploded Views and Parts List

NO.	Description	Part Code			Qty
		GWH12MB-K3DNE1B/I	GWH12MB-K3DNE3B/I	GWH12MB-K3DNA9B/I	
	Product Code	CB143N01000	CB404N01400	CB182N01700	
1	Front Panel	20012656S	2001288801P	2001219701S	1
2	Display Board	30565007	30565144	30565018	1
3	Filter Sub-Assy	1112220403	1112220403	1112220403	2
4	Electric Box Cover2	20122075	2010249602	20122075	1
5	Screw Cover	24252016	242520172	24252016	1
6	Front Case Sub-Assy	2001213919	2001213923	2001213901	1
7	Axile Bush	10542036	1054203602	10542036	1
8	Guide Louver	10512157	1051215701	10512157	1
9	Air Louver 1	10512156	1051215601	10512156	1
10	Air Louver 2	10512155	1051215501	10512155	1
11	Helicoid tongue	26112163	2611216301	26112163	1
12	Left Axile Bush	10512037	10512037	10512037	1
13	Rear Case assy	2220210301	2220210311	2220210301	1
14	Cross Flow Fan	10352017	10352017	10352017	1
15	O-Gasket sub-assy of Bearing	76512051	76512051	76512051	1
16	Ring of Bearing	26152022	26152022	26152022	1
17	Drainage hose	0523001401	0523001401	0523001401	1
18	Wall Mounting Frame	01252021	01252021	01252021	1
19	Evaporator Assy	01002422	01002422	01002422	1
20	Evaporator Support	24212091	24212091	24212091	1
21	Cold Plasma Generator Sub-assy	/	/	/	/
22	Connecting Cable	400205236	400205236	400205236	0
23	Power Cord	400204643	400204643	400204643	1
24	Connecting pipe clamp	26112164	2611216402	26112164	1
25	Fan Motor	150120874	150120874	150120874	1
26	Motor Press Plate	26112161	26112161	26112161	1
27	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
28	Stepping Motor	1521212901	1521212901	1521212901	1
29	Crank	10582070	10582070	10582070	1
30	Electric Box Assy	2020212810	20402040	2020261208	1
31	Electric Box	2011208201	2011208201	2011208201	1
32	Terminal Board	42011233	42011233	42011233	1
33	Shield cover of Electric Box sub-assy	01592073	01592073	01592073	1
34	Electric Box Cover1	22242135	22242135	22242135	1
35	Capacitor CBB61	33010002	33010002	33010002	1
36	Jumper	4202300104	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	390000451	1
38	Main Board	30138476	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	390000591	1
40	Remote Controller	305100413	305100413	305100413	1

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(3)GWH09MA-K3DNA8B/I
 GWH09MA-K3DNB7B/I
 GWH09MA-K3DNB7B/I(electric heating belt)
 GWH09MA-K3DNC1B/I
 GWH09MA-K3DNC5B/I
 GWH09MA-K3DNE2B/I



Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH09MA-K3DNB7B/I	GWH09MA-K3DNB7B/I	
	Product Code	CB164N01300	CB164N01304	
1	Front Panel Assy	20012837	20012837	1
2	Display Board	30540016	30540016	1
3	Filter Sub-Assy	11122081	11122081	2
4	Screw Cover	24252016	24252016	3
5	Electric Box Cover2	20122075	20122075	1
6	Front Case	20012179	20012179	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512111	10512111	1
9	Air Louver 1	10512113	10512113	1
10	Air Louver 2	10512114	10512114	1
11	Helicoid tongue	26112162	26112162	1
12	Axile Bush	10542704	10542704	1
13	Rear Case assy	2220210101	2220210111	1
14	Cross Flow Fan	10352018	10352043	1
15	Fan Bearing	76512210	76512210	1
16	O-Gasket sub-assy of Bearing	76512051	76512051	1
17	O-Gasket of Cross Fan Bearing	76512203	76512203	1
18	Ring of Bearing	26152022	26152022	1
19	Remote Controller	30510041	305100413	1
20	Drainage hose	0523001406	0523001406	1
21	Wall Mounting Frame	01252015	01252015	1
22	Evaporator Assy	0100255203	0100255203	1
23	Evaporator Support	24212090	24212090	1
24	Connecting Cable	400205236	400205236	1
25	Power Cord	400204643	4002046412	1
26	Front Panel 2	20012321S	20012321S	1
27	Decorative Strip	2019228301	2019228301	1
28	Temperature Sensor	390000591	390000591	1
29	Ambient Temperature Sensor	390000451	390000451	1
30	Main Board	30138476	30138476	1
31	Terminal Board	42011233	42011233	1
32	Electric Box	2011208201	2011208201	1
33	Transformer	43110283	43110283	1
34	Electric Box Assy	2020206210	2020206210	1
35	Crank	10582070	10582070	1
36	Stepping Motor	1521212901	1521212901	1
37	Rubber Plug (Water Tray)	76712012	76712012	1
38	Motor Press Plate	26112160	26112160	1
39	Fan Motor	15012115	15012115	1
40	Connecting pipe clamp	26112164	26112164	1
41	Jumper	4202300102	4202300102	1
42	Capacitor CBB61	33010002	33010002	1
43	Shield cover of Electric Box sub-assy	01592073	01592073	1
44	Electric Box Cover1	22242135	22242135	1
45	Shield cover of Electric Box	01412036	01412036	1

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NO.	Description	Part Code		Qty
		GWH09MA-K3DNC5B/I	GWH09MA-K3DNC1B/I	
	Product Code	CB179N01400	CB139N01800	
1	Front Panel Assy	20012611	20012463	1
2	Display Board	3056504301	30565088	1
3	Filter Sub-Assy	11122081	11122081	2
4	Screw Cover	24252016	24252016	3
5	Electric Box Cover2	20122075	20122075	1
6	Front Case	20012179	20012179	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512111	10512111	1
9	Air Louver 1	10512113	10512113	1
10	Air Louver 2	10512114	10512114	1
11	Helicoid tongue	26112162	26112162	1
12	Axile Bush	10542704	10542704	1
13	Rear Case assy	2220210101	2220210101	1
14	Cross Flow Fan	10352018	10352018	1
15	Fan Bearing	76512210	76512210	1
16	O-Gasket sub-assy of Bearing	76512051	76512051	1
17	O-Gasket of Cross Fan Bearing	76512203	76512203	1
18	Ring of Bearing	26152022	26152022	1
19	Remote Controller	305100413	305100413	1
20	Drainage hose	0523001406	0523001406	1
21	Wall Mounting Frame	01252015	01252015	1
22	Evaporator Assy	0100255203	0100255203	1
23	Evaporator Support	24212090	24212090	1
24	Connecting Cable	400205236	400205236	0
25	Power Cord	400204643	400204643	1
26	Front Panel	20012586S	20012450S	1
27	Decorative Board	20192382	/	1
28	Temperature Sensor	390000591	390000591	1
29	Ambient Temperature Sensor	390000451	390000451	1
30	Main Board	30138476	30138476	1
31	Terminal Board	42011233	42011233	1
32	Electric Box	2011208201	2011208201	1
33	Transformer	43110283	43110283	1
34	Electric Box Assy	2020206216	2020261211	1
35	Crank	10582070	10582070	1
36	Stepping Motor	1521212901	1521212901	1
37	Rubber Plug (Water Tray)	76712012	76712012	1
38	Motor Press Plate	26112160	26112160	1
39	Fan Motor	15012115	15012115	1
40	Connecting pipe clamp	26112164	26112164	1
41	Jumper	4202300102	4202300102	1
42	Capacitor CBB61	33010002	33010002	1
43	Shield cover of Electric Box sub-assy	01592073	01592073	1
44	Electric Box Cover1	22242135	22242135	1
45	Shield cover of Electric Box	01412036	01412036	1

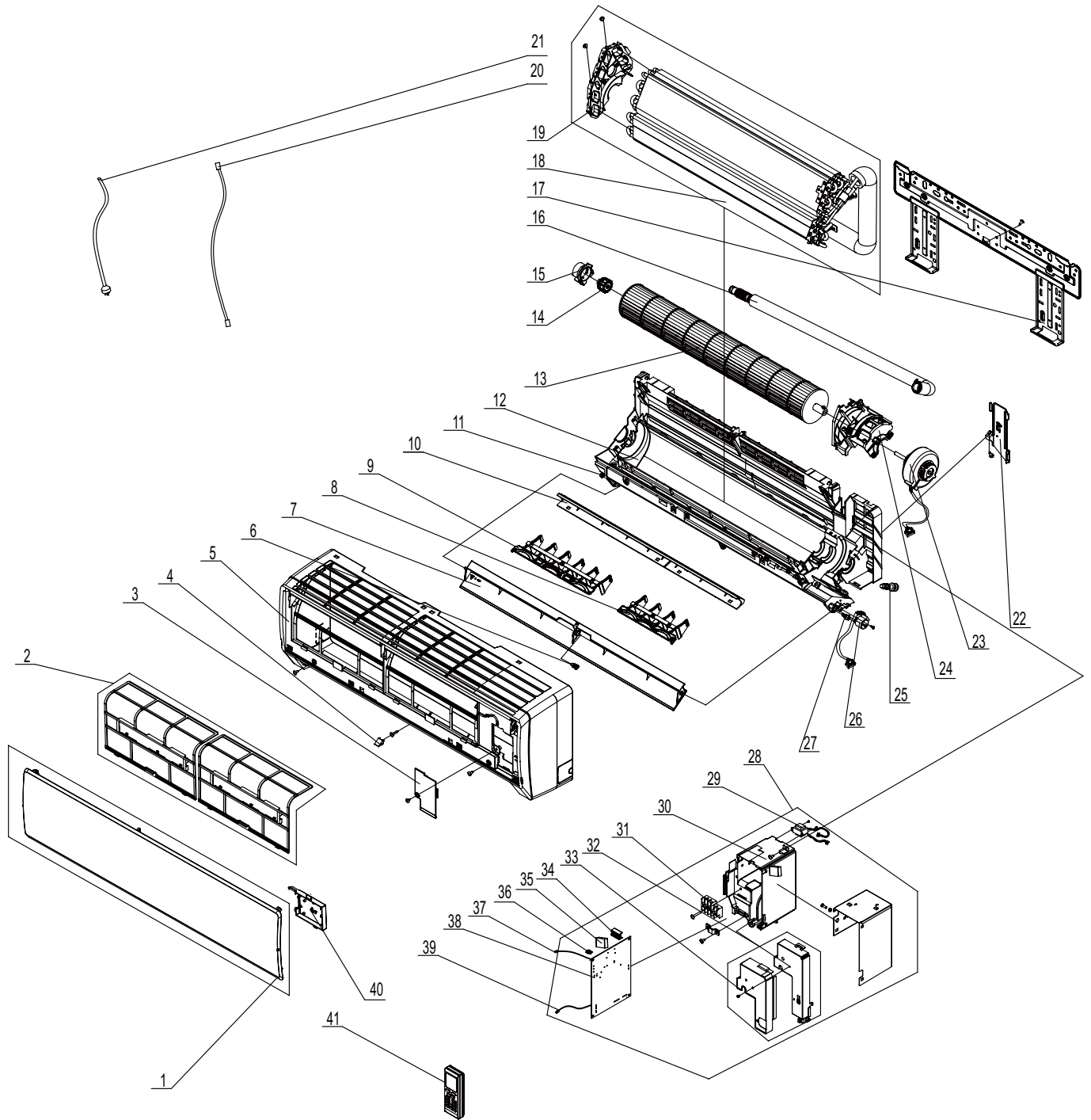
The data above are subject to change without notice.

Exploded Views and Parts List

NO.	Description	Part Code		Qty
		GWH09MA-K3DNE2B/I	GWH09MA-K3DNA8B/I	
	Product Code	CB401N00200	CB173N02400	
1	Front Panel Assy	20012816	2001223901	1
2	Display Board	30565126	3056504301	1
3	Filter Sub-Assy	11122081	11122081	2
4	Screw Cover	24252016	24252016	3
5	Electric Box Cover2	20122075	20122075	1
6	Front Case	20012179	20012179	1
7	Axile Bush	10542036	10542036	1
8	Guide Louver	10512111	10512111	1
9	Air Louver 1	10512113	10512113	1
10	Air Louver 2	10512114	10512114	1
11	Helicoid tongue	26112162	26112162	1
12	Axile Bush	10542704	10542704	1
13	Rear Case assy	2220210101	2220210101	1
14	Cross Flow Fan	10352018	10352018	1
15	Fan Bearing	76512210	76512210	1
16	O-Gasket sub-assy of Bearing	76512051	76512051	1
17	O-Gasket of Cross Fan Bearing	76512203	76512203	1
18	Ring of Bearing	26152022	26152022	1
19	Remote Controller	305100413	305100413	1
20	Drainage hose	0523001406	0523001406	1
21	Wall Mounting Frame	01252015	01252015	1
22	Evaporator Assy	0100255203	0100255203	1
23	Evaporator Support	24212090	24212090	1
24	Connecting Cable	400205236	400205236	0
25	Power Cord	400204643	400204643	1
26	Front Panel	20012815S	20012198S	1
27	Decorative Strip	/	20192243D	1
28	Temperature Sensor	390000591	390000591	1
29	Ambient Temperature Sensor	390000451	390000451	1
30	Main Board	30138476	30138476	1
31	Terminal Board	42011233	42011233	1
32	Electric Box	2011208201	2011208201	1
33	Transformer	43110283	43110283	1
34	Electric Box Assy	2030279401	2020206216	1
35	Crank	10582070	10582070	1
36	Stepping Motor	1521212901	1521212901	1
37	Rubber Plug (Water Tray)	76712012	76712012	1
38	Motor Press Plate	26112160	26112160	1
39	Fan Motor	15012115	15012115	1
40	Connecting pipe clamp	26112164	26112164	1
41	Jumper	4202300102	4202300102	1
42	Capacitor CBB61	33010002	33010002	1
43	Shield cover of Electric Box sub-assy	01592073	01592073	1
44	Electric Box Cover1	22242135	22242135	1
45	Shield cover of Electric Box	01412036	01412036	1

The data above are subject to change without notice.

(4)GWH12MB-K3DNE2B/I
GWH12MB-K3DNC5B/I
GWH12MB-K3DNC1B/I
GWH12MB-K3DNB7B/I
GWH12MB-K3DNA8B/I



Exploded Views and Parts List

NO.	Description	Part Code			Qty
		GWH12MB-K3DNE2B/I	GWH12MB-K3DNB7B/I	GWH12MB-K3DNC5B/I	
	Product Code	CB401N00300	CB164N01400	CB179N01500	
1	Front Panel Assy	20012882	20012480	20012614	1
2	Filter Sub-Assy	1112220403	1112220403	1112220403	2
3	Electric Box Cover2	20122075	20122075	20122075	1
4	Screw Cover	24252016	24252016	24252016	1
5	Front Case Sub-Assy	2001213901	2001213901	2001213901	1
6	Axile Bush	10542036	10542036	10542036	1
7	Guide Louver	10512157	10512157	10512157	1
8	Air Louver 1	10512156	10512156	10512156	1
9	Air Louver 2	10512155	10512155	10512155	1
10	Helicoid tongue	26112163	26112163	26112163	1
11	Left Axile Bush	10512037	10512037	10512037	1
12	Rear Case assy	2220210301	2220210301	2220210301	1
13	Cross Flow Fan	10352017	10352017	10352017	1
14	O-Gasket sub-assy of Bearing	76512051	76512051	76512051	1
15	Ring of Bearing	26152022	26152022	26152022	1
16	Drainage hose	0523001401	0523001401	0523001401	1
17	Wall Mounting Frame	01252021	01252021	01252021	1
18	Evaporator Assy	01002422	01002422	01002422	1
19	Evaporator Support	24212091	24212091	24212091	1
20	Connecting Cable	400205236	400205236	400205236	0
21	Power Cord	400204643	400204643	400204643	1
22	Connecting pipe clamp	26112164	26112164	26112164	1
23	Fan Motor	150120874	150120874	150120874	1
24	Motor Press Plate	26112161	26112161	26112161	1
25	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
26	Stepping Motor	1521212901	1521212901	1521212901	1
27	Crank	10582070	10582070	10582070	1
28	Electric Box Assy	20302794	2020261207	2020261210	1
29	Transformer	43110283	43110283	43110283	1
30	Electric Box	2011208201	2011208201	2011208201	1
31	Terminal Board	42011233	42011233	42011233	1
32	Shield cover of Electric Box sub-assy	01592073	01592073	01592073	1
33	Electric Box Cover1	22242135	22242135	22242135	1
34	Radiator	49010252	49010252	49010252	1
35	Capacitor CBB61	33010002	33010002	33010002	1
36	Jumper	4202300104	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	390000451	1
38	Main Board	30138476	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	390000591	1
40	Display Board	30565126	30540016	3056504301	1
41	Remote Controller	305100413	30510041	305100413	1

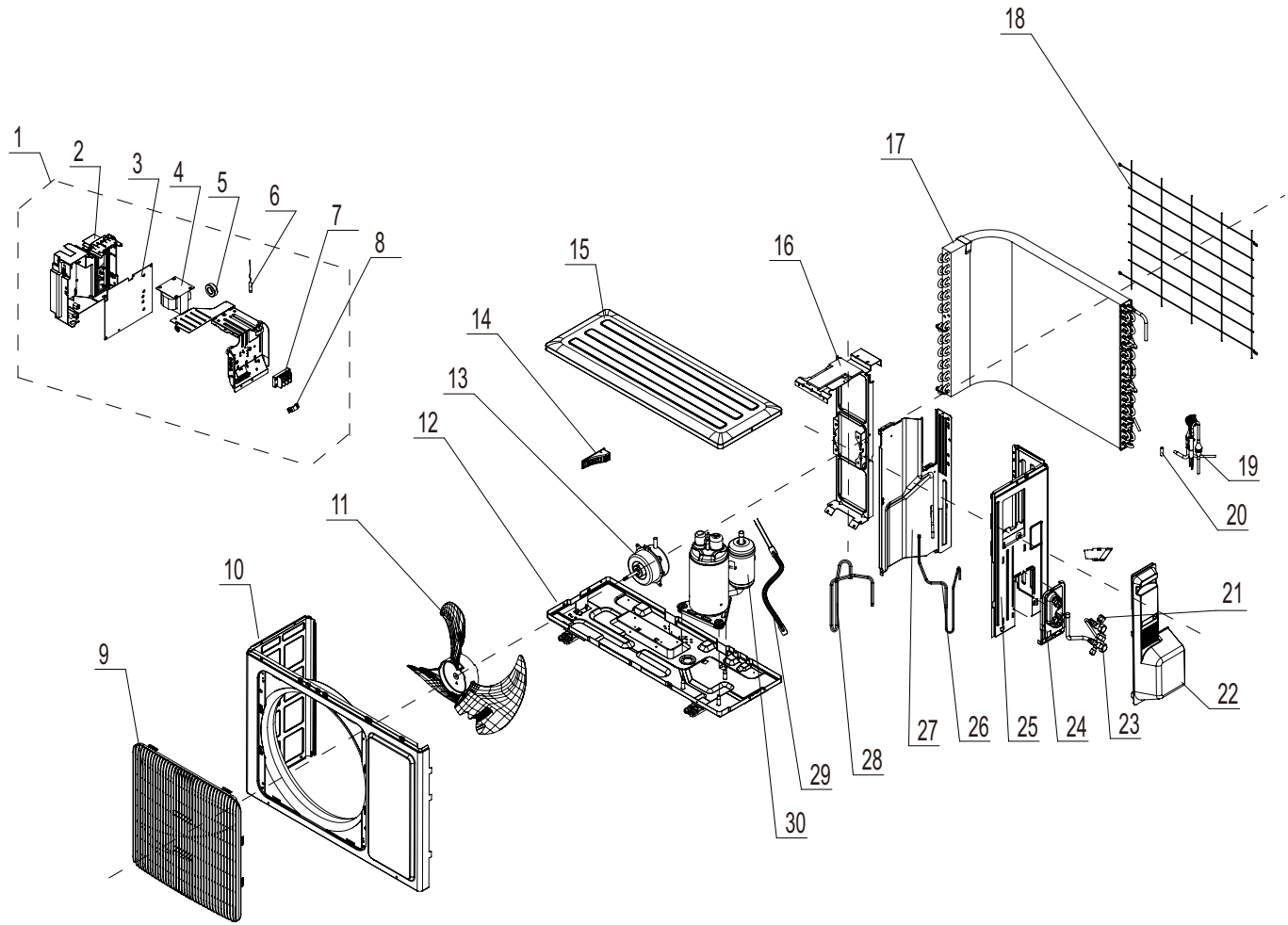
The data above are subject to change without notice.

NO.	Description	Part Code		Qty
		GWH12MB-K3DNC1B/I	GWH12MB-K3DNA8B/I	
	Product Code	CB139N01900	CB173N02500	
1	Front Panel Assy	20012464	2001222101	1
2	Filter Sub-Assy	1112220403	1112220403	2
3	Electric Box Cover2	20122075	20122075	1
4	Screw Cover	24252016	24252016	1
5	Front Case Sub-Assy	2001213901	2001213901	1
6	Axile Bush	10542036	10542036	1
7	Guide Louver	10512157	10512157	1
8	Air Louver 1	10512156	10512156	1
9	Air Louver 2	10512155	10512155	1
10	Helicoid tongue	26112163	26112163	1
11	Left Axile Bush	10512037	10512037	1
12	Rear Case assy	2220210301	2220210301	1
13	Cross Flow Fan	10352017	10352017	1
14	O-Gasket sub-assy of Bearing	76512051	76512051	1
15	Ring of Bearing	26152022	26152022	1
16	Drainage hose	0523001401	0523001401	1
17	Wall Mounting Frame	01252021	01252021	1
18	Evaporator Assy	01002422	01002422	1
19	Evaporator Support	24212091	24212091	1
20	Connecting Cable	400205236	400205236	0
21	Power Cord	400204643	400204643	1
22	Connecting pipe clamp	26112164	26112164	1
23	Fan Motor	150120874	150120874	1
24	Motor Press Plate	26112161	26112161	1
25	Rubber Plug (Water Tray)	76712012	76712012	1
26	Stepping Motor	1521212901	1521212901	1
27	Crank	10582070	10582070	1
28	Electric Box Assy	2020206219	2020261210	1
29	Transformer	43110283	43110283	1
30	Electric Box	2011208201	2011208201	1
31	Terminal Board	42011233	42011233	1
32	Shield cover of Electric Box sub-assy	01592073	01592073	1
33	Electric Box Cover1	22242135	22242135	1
34	Radiator	49010252	49010252	1
35	Capacitor CBB61	33010002	33010002	1
36	Jumper	4202300104	4202300104	1
37	Ambient Temperature Sensor	390000451	390000451	1
38	Main Board	30138476	30138476	1
39	Temperature Sensor	390000591	390000591	1
40	Display Board	30565088	3056504301	1
41	Remote Controller	305100413	305100413	1

The data above are subject to change without notice.

8.2 Outdoor Unit

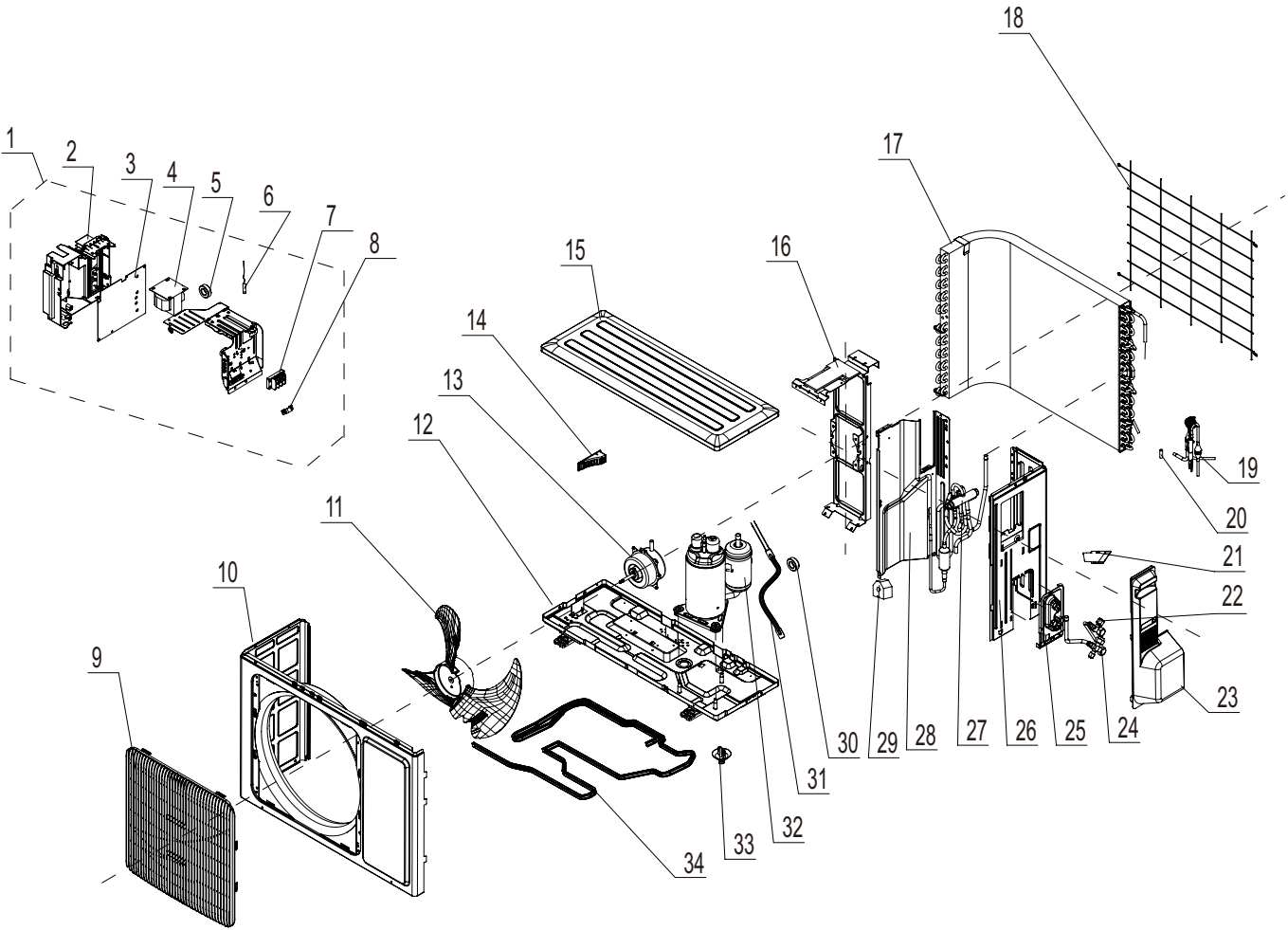
(1)GWC09MA-K3DNA3B/O



NO.	Description	Part Code	Qty
		GWC09MA-K3DNA3B/O	
	Product Code	CB171W0181	
1	Electric Box Assy	02613105	1
2	Electric Box Sub-Assy	02613106	1
3	Main Board	30148388	1
4	Reactor	43130184	1
5	Magnetic Ring	49010109	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	0280310502P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253454	1
16	Motor Support	01703103	1
17	Condenser Assy	01163541	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063149	1
20	Temp Sensor Sleeving	05212423	1
21	阀门支架档块	26113014	1
22	Cut off Valve	07133082	1
23	Big Handle	26233433	1
24	Cut off Valve Assy	07133691	1
25	Valve Support	0171314201P	1
26	Right Side Plate Sub-Assy	0130317801	1
27	Discharge Tube Sub-assy	03833150	1
28	Clapboard Sub-Assy	01233385	1
29	Electric Heater(Compressor)	76513004	1
30	Compressor and Fittings	00103869G	1

The data above are subject to change without notice.

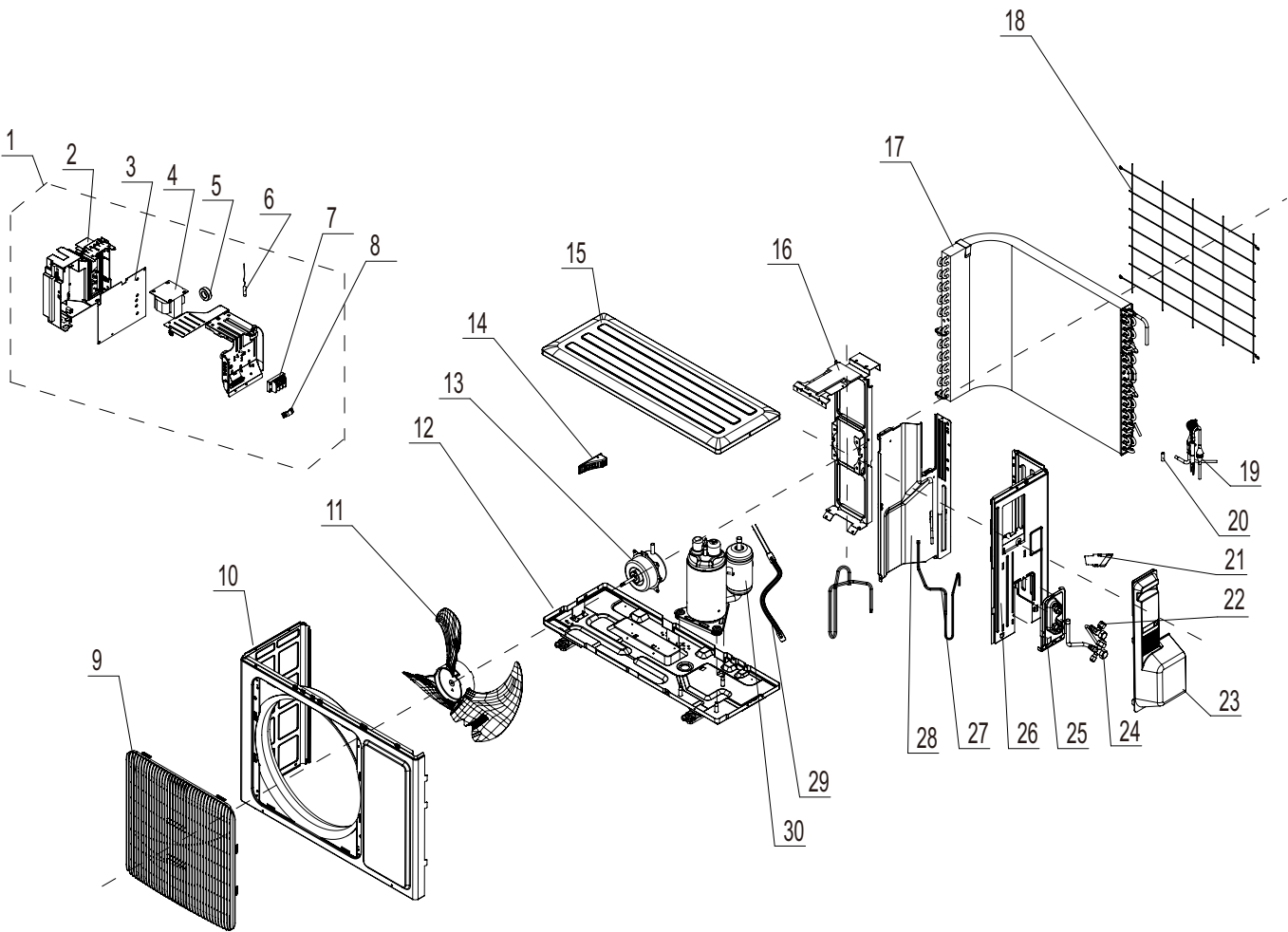
(2)GWH09MA-K3DNA3B/O



NO.	Description	Part Code	Qty
		GWH09MA-K3DNA3B/O	
		Product Code	
		CB171W0191	
1	Electric Box Assy	02613041	1
2	Electric Box Sub-Assy	02613055	1
3	Main Board	30148387	1
4	Reactor	43130184	1
5	Magnetic Ring	49010109	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	0280310501P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253454	1
16	Motor Support	01703102	1
17	Condenser Assy	01163499	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063974	1
20	Temp Sensor Sleeving	05212423	1
21	阀门支架档块	26113014	2
22	Cut off Valve	07133082	1
23	Big Handle	26233433	1
24	Cut off Valve Assy	07133691	1
25	Valve Support	0171314201P	1
26	Right Side Plate Sub-Assy	0130317801	1
27	4-Way Valve Assy	03123897	1
28	Clapboard Sub-Assy	01233385	1
29	Magnet Coil	4300040050	1
30	Magnetic Ring	49010104	1
31	Electric Heater(Compressor)	76513004	1
32	Compressor and Fittings	00103869G	1
33	Drainage Connector	06123401	1
34	Electrical Heater (Chassis)	76510004	1

The data above are subject to change without notice.

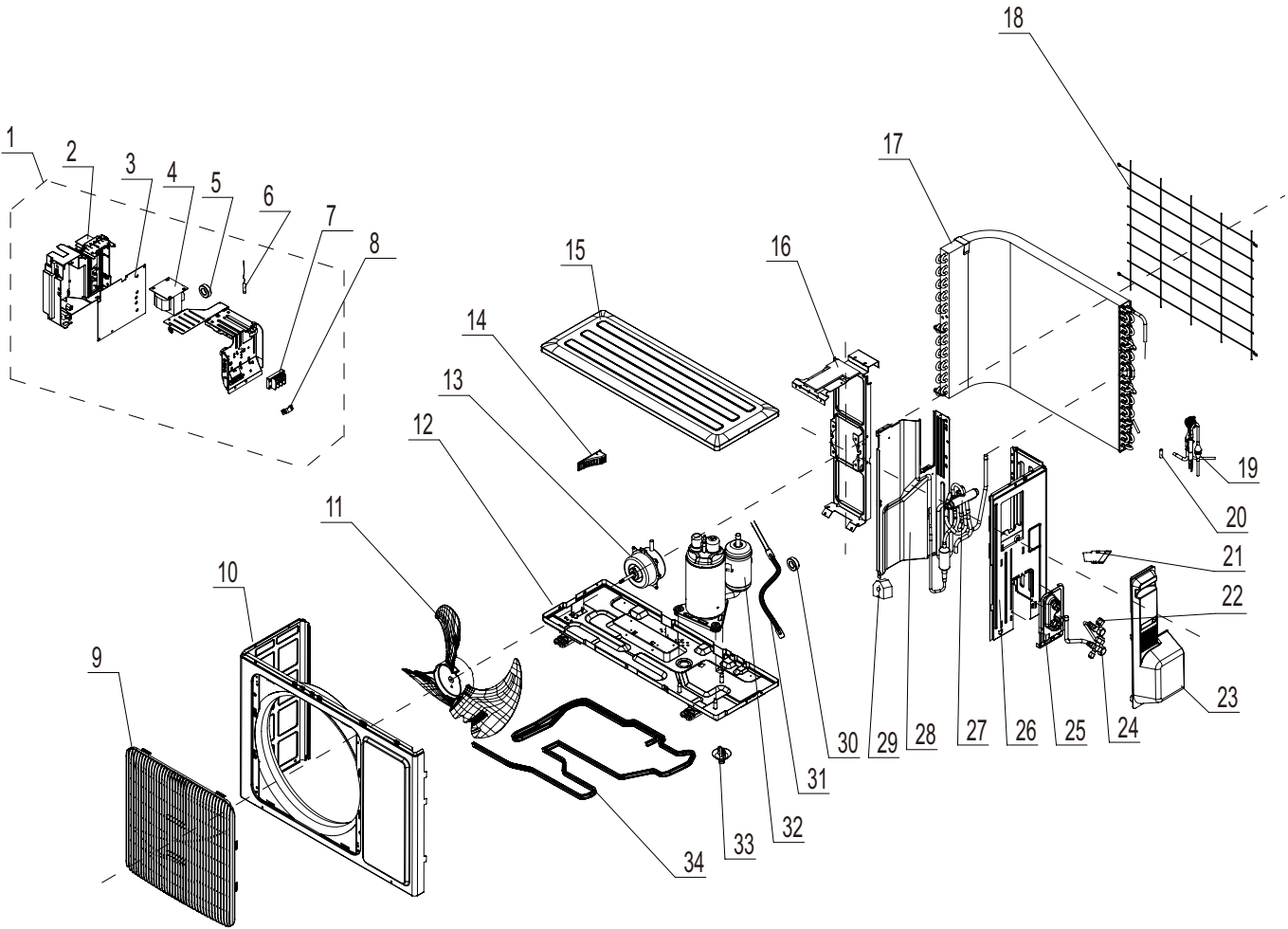
(3)GWC12MB-K3DNA3B/O



NO.	Description	Part Code	Qty
		GWC12MB-K3DNA3B/O	
	Product Code	CB171W0201	
1	Electric Box Assy	0261310501	1
2	Electric Box Sub-Assy	0261310601	1
3	Main Board	30148386	1
4	Reactor	43130184	1
5	Magnetic Ring	49010109	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	02803105P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253454	1
16	Motor Support	0170310401	1
17	Condenser Assy	01113612	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063146	1
20	Temp Sensor Sleeving	05212423	1
21	Cut off Valve	07133082	1
22	Big Handle	26233433	1
23	Valve	07100005	1
24	Valve Support	0170308901P	1
25	Right Side Plate Sub-Assy	0130317801	1
26	Discharge Tube Sub-assy	03733192	1
27	Clapboard Sub-Assy	01233385	1
28	Inhalation Tube Sub-assy	03733191	1
29	Electric Heater(Compressor)	76513004	1
30	Compressor and Fittings	00103869G	1

The data above are subject to change without notice.

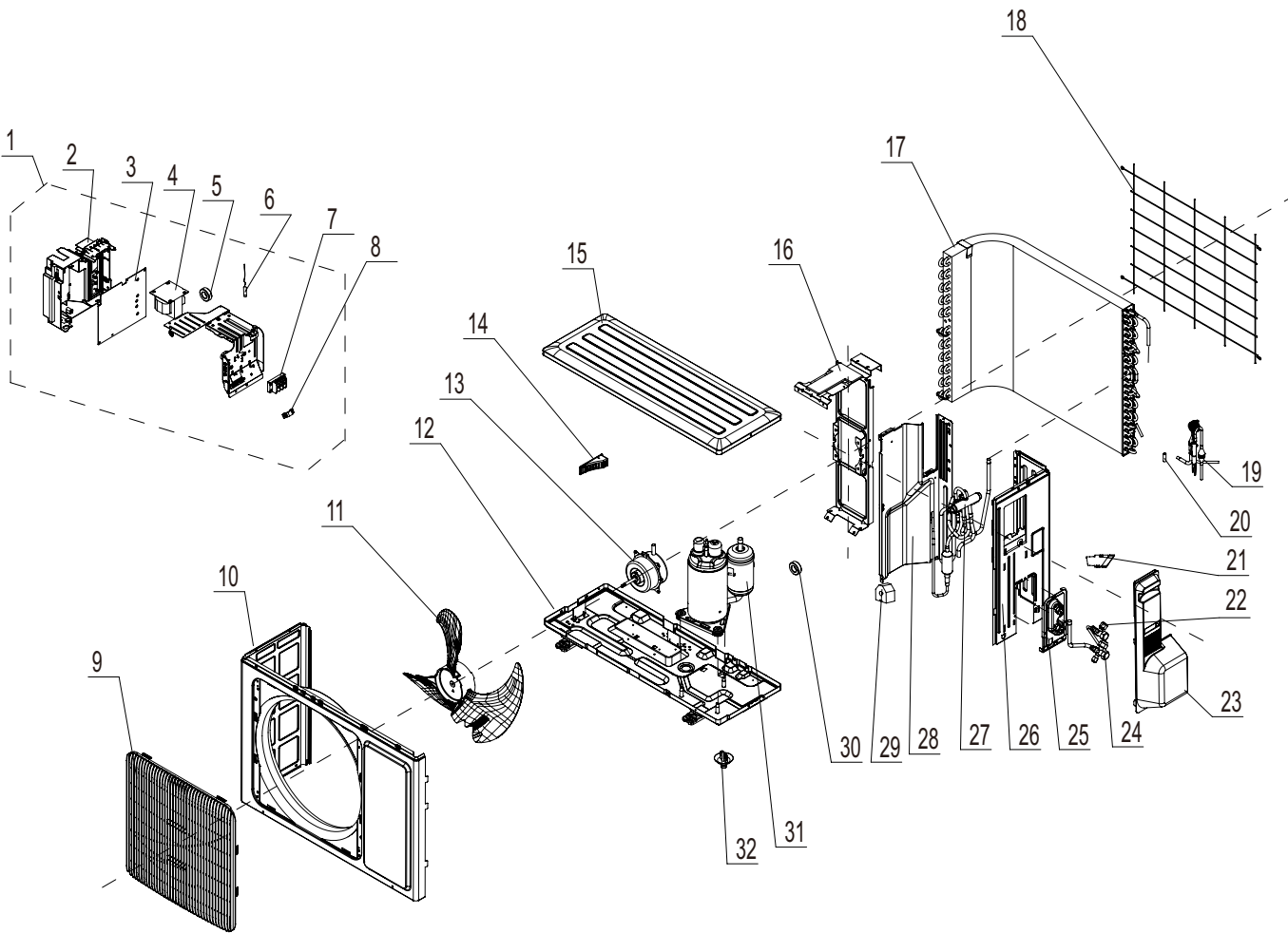
(4)GWH12MB-K3DNA3B/O(CB171W0212)



NO.	Description	Part Code	Qty
		GWH12MB-K3DNA3B/O	
	Product Code	CB171W0212	
1	Electric Box Assy	02613040	1
2	Electric Box Sub-Assy	02613054	1
3	Main Board	30148407	1
4	Reactor	43130184	1
5	Magnetic Ring	49010104	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	02803105P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253454	1
16	Motor Support	0170310401	1
17	Condenser Assy	01163500	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063750	1
20	Temp Sensor Sleeving	05212423	1
21	Valve Support shelves	26113014	2
22	Cut off Valve	07133082	1
23	Big Handle	26233433	1
24	Cut off Valve Assy	07133691	1
25	Valve Support	0171314201P	1
26	Right Side Plate Sub-Assy	0130317801	1
27	4-Way Valve Assy	03123898	1
28	Clapboard Sub-Assy	01233385	1
29	Magnet Coil	4300040050	1
30	Magnetic Ring	49010109	1
31	Electric Heater(Compressor)	76513004	1
32	Compressor and Fittings	00103869G	1
33	Drainage Connector	06123401	1
34	Electrical Heater (Chassis)	76510004	1

The data above are subject to change without notice.

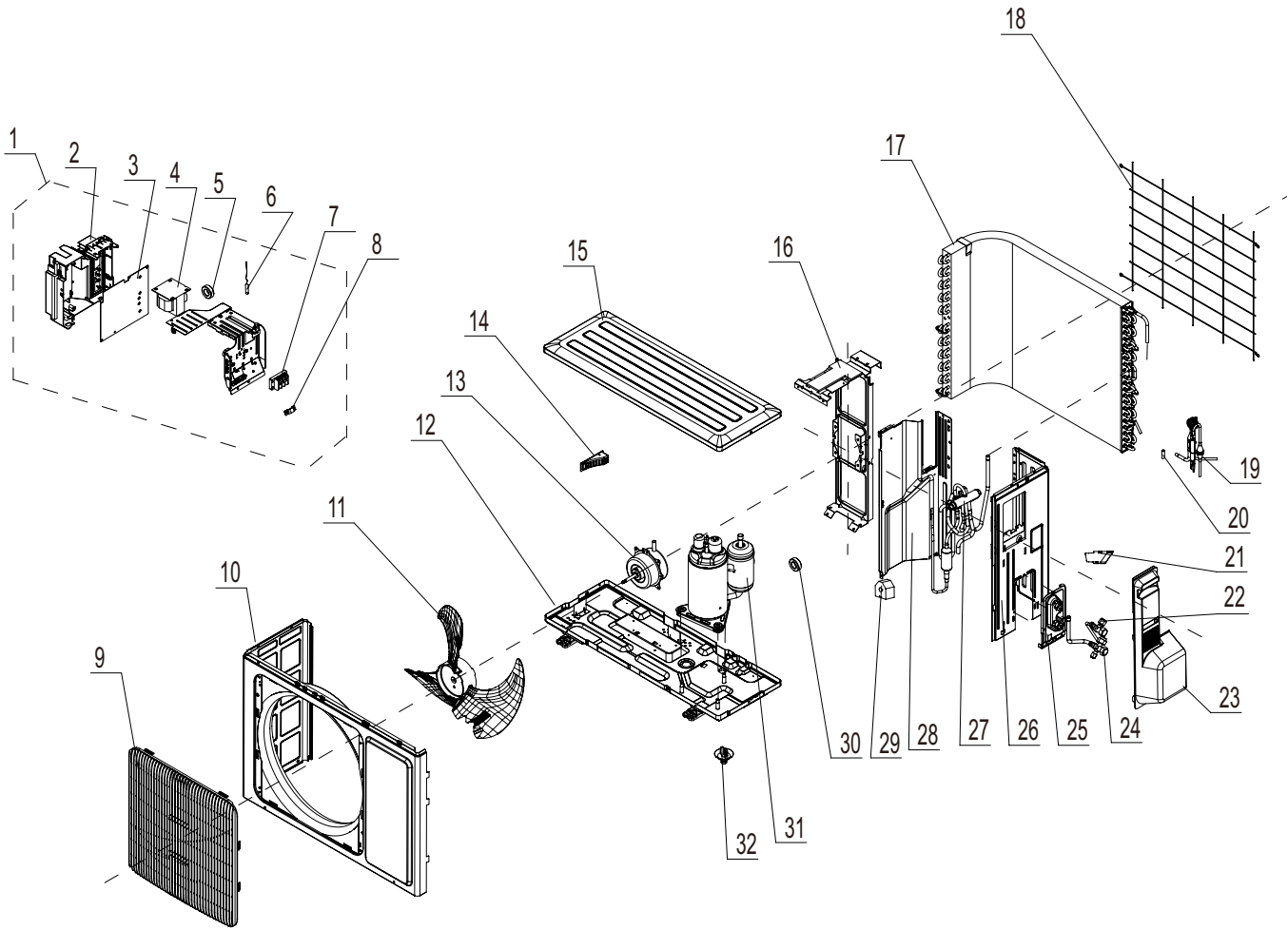
(5)GWH12MB-K3DNA3B/O(CB171W0213)



NO.	Description	Part Code	Qty
		GWH12MB-K3DNA3B/O	
		Product Code	
		CB171W0213	
1	Electric Box Assy	0261310508	1
2	Electric Box Sub-Assy	0261310608	1
3	Main Board	30148389	1
4	Reactor	43130184	1
5	Magnetic Ring	49010109	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	02803105P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253454	1
16	Motor Support	0170310401	1
17	Condenser Assy	01163500	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063982	1
20	Temp Sensor Sleeving	05212423	1
21	Valve Support shelves	26113014	2
22	Cut off Valve	071302391	1
23	Big Handle	26233433	1
24	Cut off Valve Assy	07133691	1
25	Valve Support	0171314201P	1
26	Right Side Plate Sub-Assy	0130317801	1
27	4-Way Valve Assy	03123898	1
28	Clapboard Sub-Assy	01233385	1
29	Magnet Coil	4300040050	1
30	Magnetic Ring	49010109	1
31	Compressor and Fittings	00103869G	1
32	Drainage Connector	06123401	1

The data above are subject to change without notice.

(6)GWH09MA-K3DNA3B/O(CB171W0192)



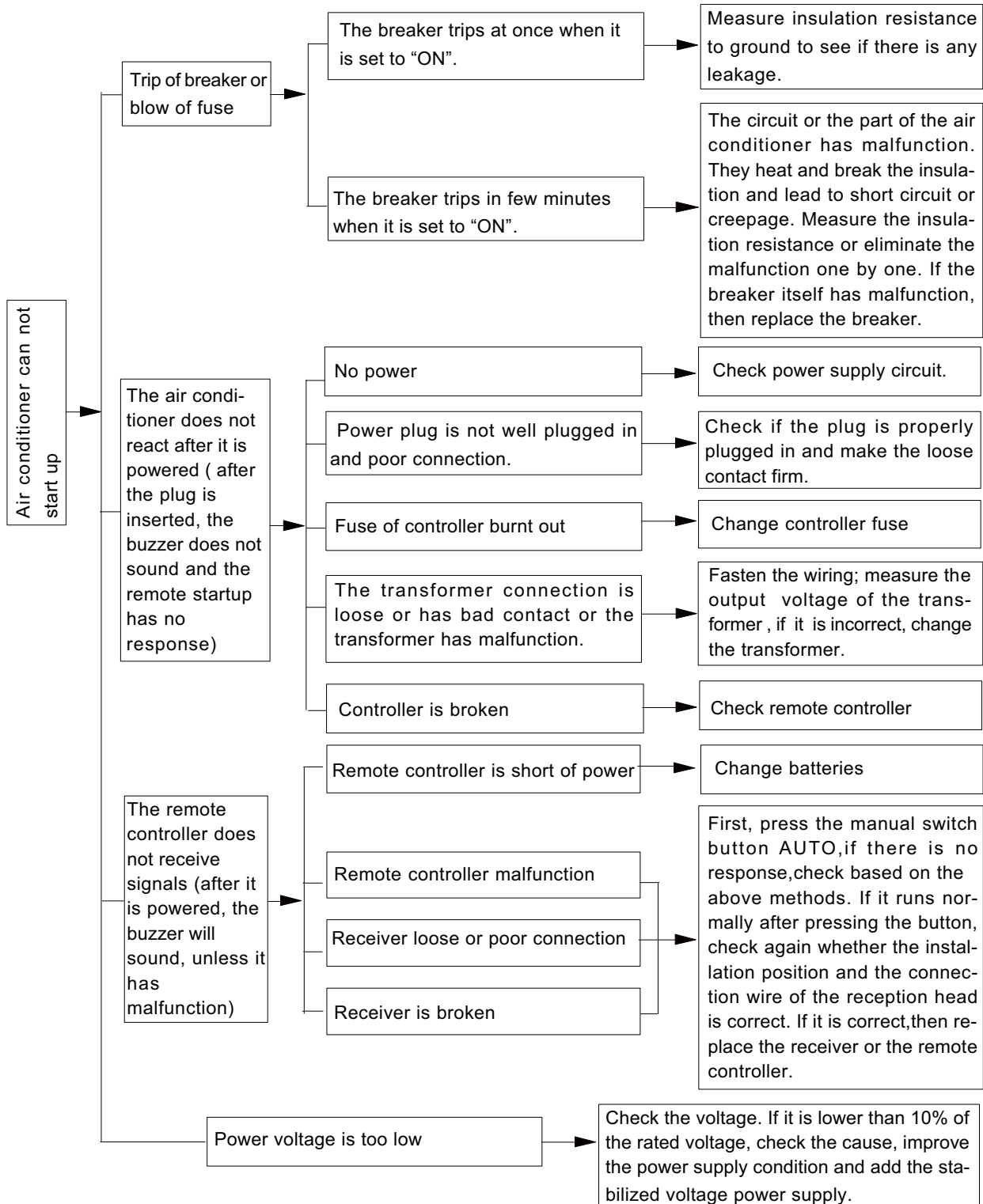
NO.	Description	Part Code	Qty
		GWH09MA-K3DNA3B/O	
	Product Code	CB171W0192	
1	Electric Box Assy	0261310506	1
2	Electric Box Sub-Assy	0261310606	1
3	Main Board	30148399	1
4	Reactor	43130184	1
5	Magnetic Ring	49010109	1
6	Temperature Sensor	3900030804	1
7	Terminal Board	42011113	1
8	Wire Clamp	71010003	1
9	Front Grill	22413433	1
10	Front Panel	01533034P	1
11	Axial Flow Fan	10333004	1
12	Chassis Sub-assy	0280308201P	1
13	Fan Motor	15013076	1
14	Small Handle	26233100	1
15	Top Cover Sub-Assy	01253073	1
16	Motor Support	01703102	1
17	Condenser Assy	01163499	1
18	Rear Grill	01473009	1
19	Capillary Sub-assy	03063974	1
20	Temp Sensor Sleeving	05212423	1
21	阀门支架档块	26113014	2
22	Cut off Valve	07133082	1
23	Big Handle	26233433	1
24	Cut off Valve Assy	07133691	1
25	Valve Support	0171314201P	1
26	Right Side Plate Sub-Assy	0130317801	1
27	4-Way Valve Assy	03123897	1
28	Clapboard Sub-Assy	01233385	1
29	Magnet Coil	4300040050	1
30	Magnetic Ring	49010109	1
32	Compressor and Fittings	00103869G	1
33	Drainage Connector	06123401	1

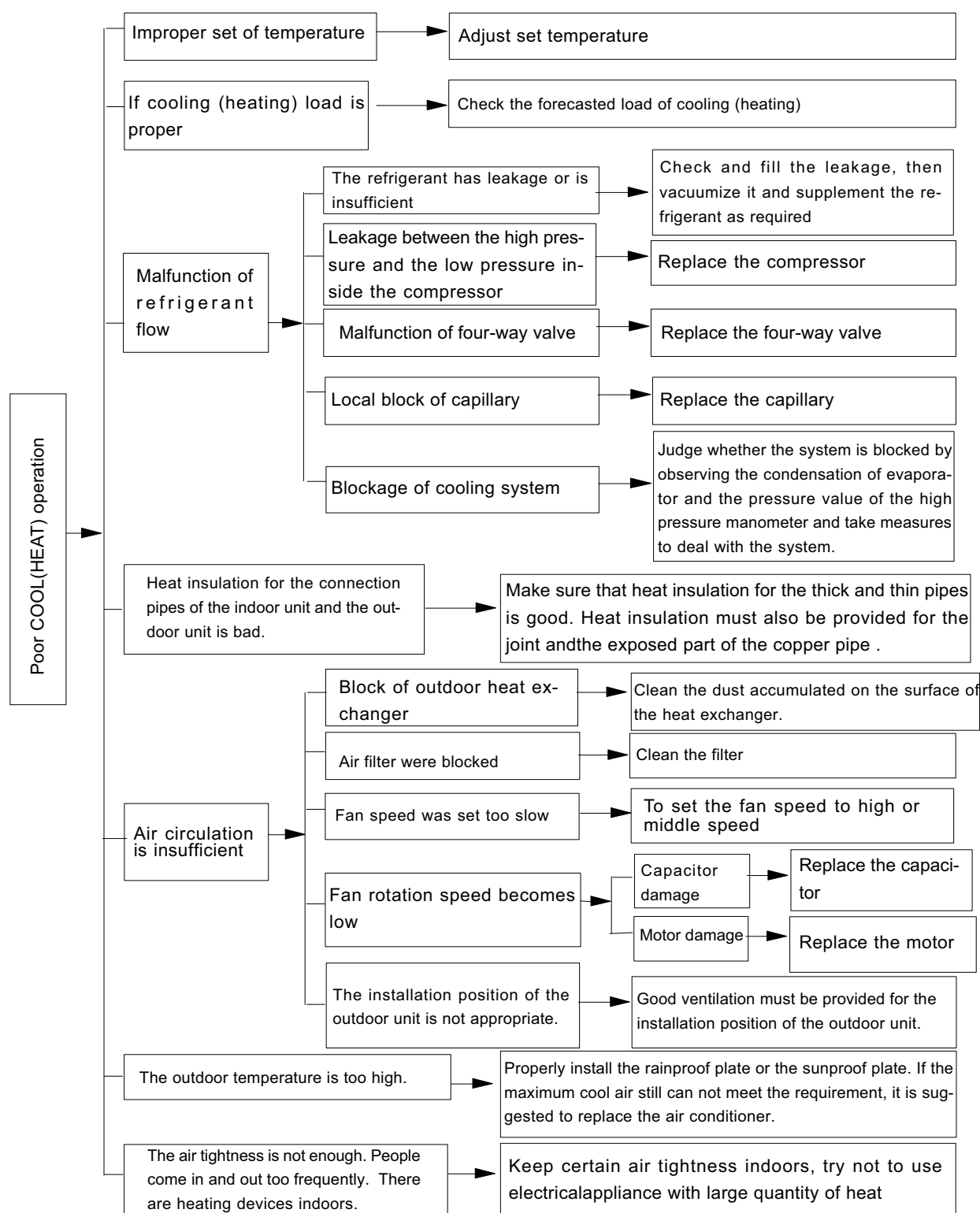
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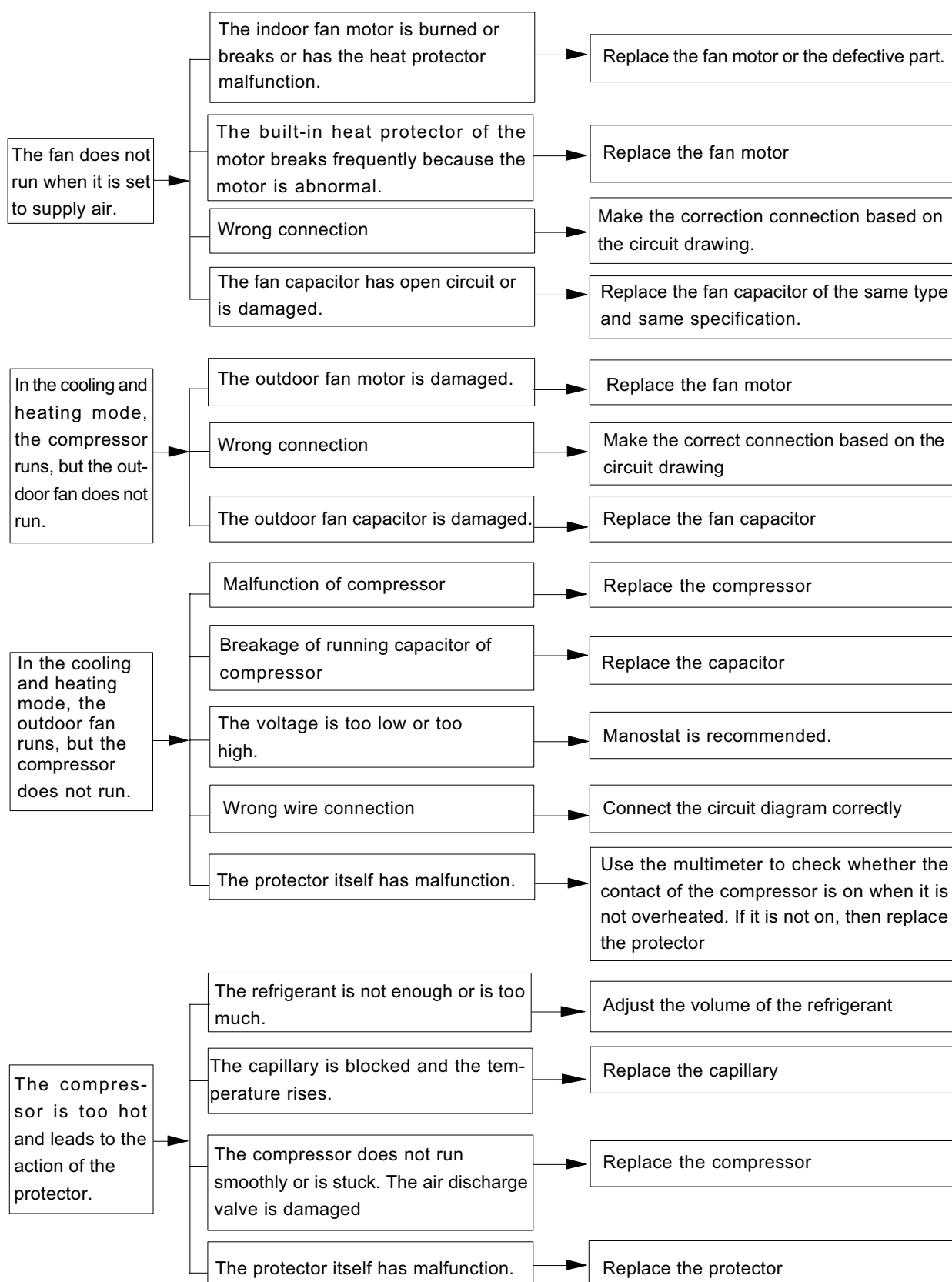
9. Troubleshooting

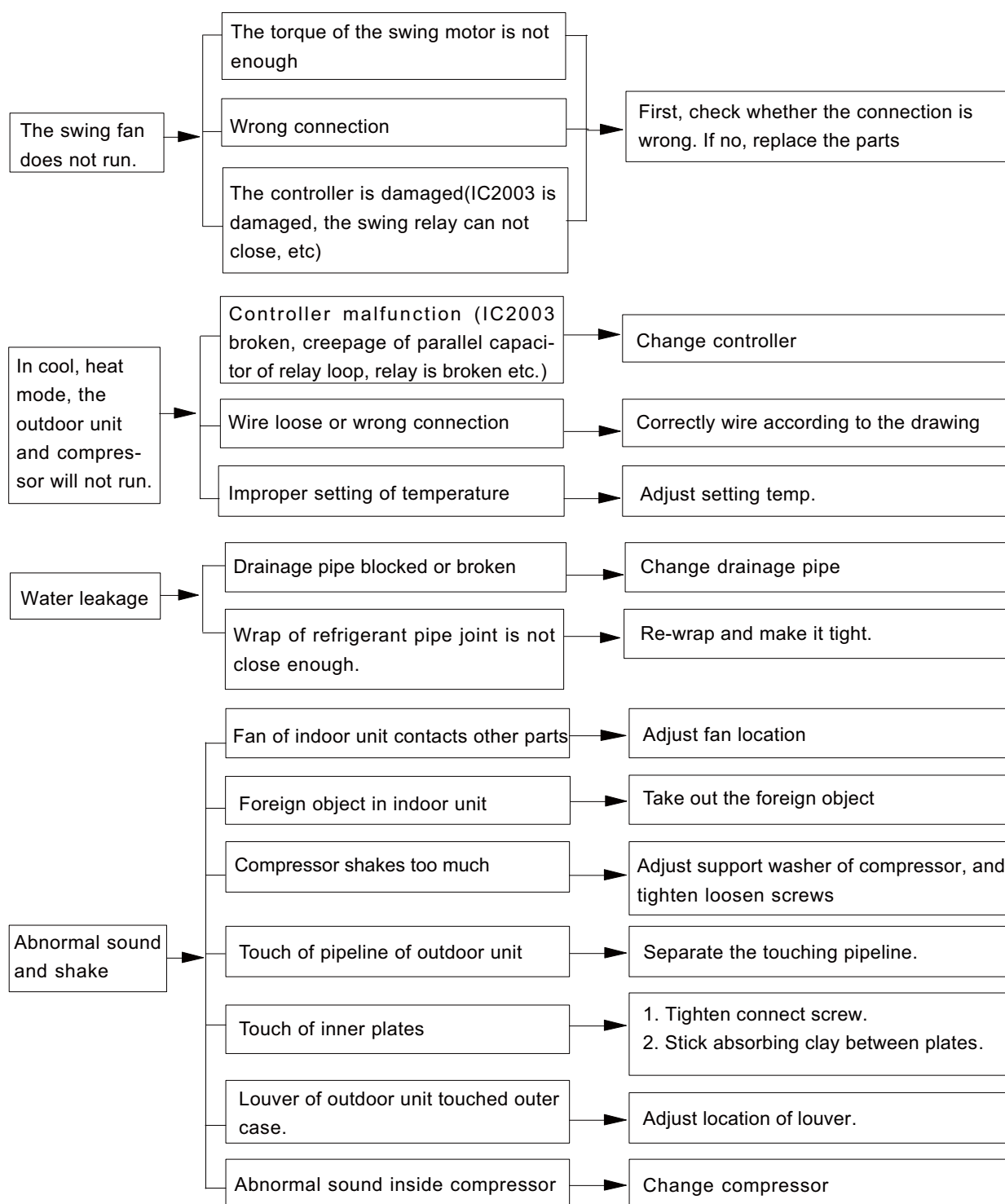
9.1 Malfunction Analysis

Note: When replacing the controller, make sure insert the wire jumper into the new controller, otherwise the unit will display C5







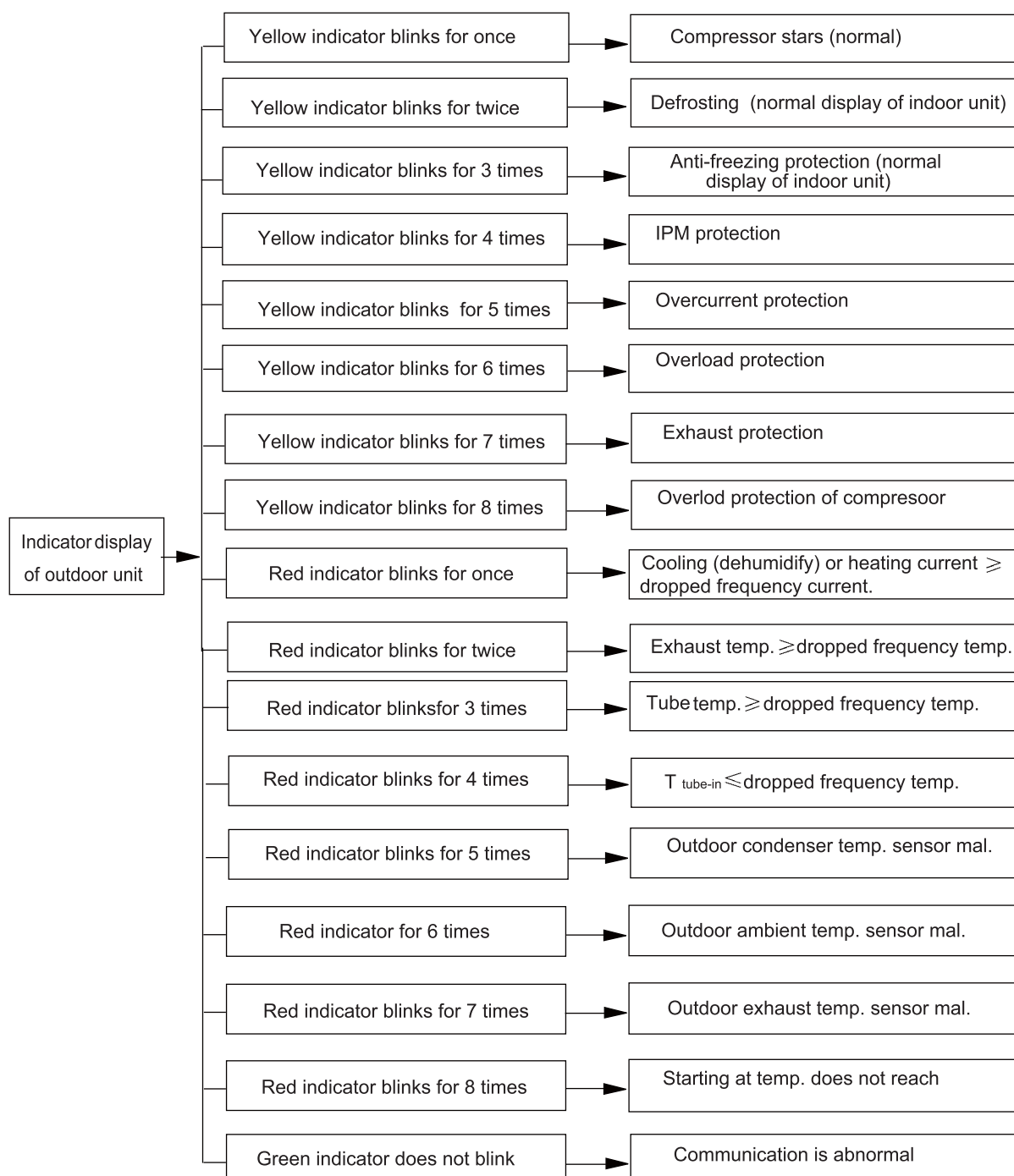


9.2 Flashing LED of Indoor/Outdoor Unit and Primary Judgement

Name of malfunction	Display of indoor unit	state of the lamps of outdoor unit PCB			Reasons
	ERROR CODE	GREEN-LED2	RED-LED3	YELLOW-LED4	
Stop for anti-freezing protection of indoor-unit	E2			blink-3times	refrigerant leakage、indoor unit air flow blocked up、filter duty
Stop for exhaust protection	E4			blink-7 times	less refrigerant、capillary blocked up、ambient temperature is abominable
Overcurrent protection	E5			blink-5 times	low voltage、ambient temperature is abominable
Stop for communication malfunction	E6	do not blink			communication line failure、main PCB failure、interfere source、connect line wrong
Stop for compressor overload protection	H3			blink-8 times	compressor shell over heat、lessrefrigerant、capillary blocked up
Overload protection	H4			blink-6 times	ambient temperature is abominable、heat exchanger blocked up
Stop for IPModule protection	H5			blink-4 times	IPM module over heat、low voltage、silica gel
PG motor (indoor fan motor) does not operate	H6				PG motor control terminal does not contact well; Blade does not rotate fluently due to incorrect installation; motor or control panel is damaged
Indoor ambient temperature sensor malfunction	F1				terminal connect not reliable、temperature sensor malfunction
Indoor tube temperature sensor malfunction	F2				terminal connect not reliable、temperature sensor malfunction
Outdoor ambient temperature sensor malfunction	F3		blink-6 times		terminal connect not reliable、temperature sensor malfunction
Outdoor tube temperature sensor malfunction	F4		blink-5 times		terminal connect not reliable、temperature sensor malfunction
Outdoor exhaust temperature sensor malfunction	F5		blink-7 times		terminal connect not reliable、temperature sensor malfunction
Jumper cap malfunction protection	C5				theres no jumper cap on the controller、jumper cap is not inserted properly and tightly、jumper cap is damaged、corresponding circuit on mainboard has malfunction
Indoor and outdoor units cant match with each other	LP			blink-16times	Indoor unit and outdoor units cant match with each other
PG motor(indoor fan) zero-cross detection circuit malfunction	U8				abnormal of zero-cross detection circuit of controller mainboard.
PFC overcurrent malfunction	HC			blink-14times	Overcurrent of PFC
High protection of power	L9			blink-9times	Complete units power is too high
High voltage protection	PH			blink-13times	DC side voltage is too high
low voltage protection	PL			blink-12times	DC side voltage is too low
Automatic defrosting	H1			blink-2 times	H1is not error code,it is noemal operation. Just heat pump has this fuction
REMARK:	1.Error codes only can be seen in the type which has the temperature display pcb.maybe some type has not this function,the lamps on the outdoor pcb are available 2.Normally,the communication between indoor unit and outdoor unit is successful, the gree lam				

9.3 Malfunction Display

If malfunction occurs, corresponding code will display and the unit will resume normal until protection or malfunction disappears.



Analysis or processing of some of the malfunction display:

1. Compressor discharge protection

Possible causes: shortage of refrigerant; blockage of air filter; poor ventilation or air flow short pass for condenser; the system has noncondensing gas (such as air, water etc.); blockage of capillary assy (including filter); leakage inside four-way valve causes incorrect operation; malfunction of compressor; malfunction of protection relay; malfunction of discharge sensor; outdoor temperature too high.

Processing method: refer to the malfunction analysis in the above section.

2. Low voltage overcurrent protection

Possible cause: Sudden drop of supply voltage.

3. Communication malfunction

Processing method: Check if communication signal cable is connected reliably.

4. Sensor open or short circuit

Processing method: Check whether sensor is normal, connected with the corresponding position on the controller and if damage of lead wire is found.

5. Compressor over load protection

Possible causes: insufficient or too much refrigerant; blockage of capillary and increase of suction temp.; improper running of compressor, burning in or stuck of bearing, damage of discharge valve; malfunction of protector.

Processing method: adjust refrigerant amount; replace the capillary; replace the compressor; use universal meter to check if the contactor of compressor is fine when it is not overheated, if not replace the protector.

6. System malfunction

i.e. overload protection. When tube temperature (Check the temperature of outdoor heat exchanger when cooling and check the temperature of indoor heat exchanger when heating) is too high, protection will be activated.

Possible causes: Outdoor temperature is too high when cooling; insufficient outdoor air circulation; refrigerant flow malfunction. please refer to the malfunction analysis in the previous section for handling method.

7. IPM module protection

Processing method: Once the module malfunction happens, if it persists for a long time and can not be self-canceled, cut off the power and turn off the unit, and then re-energize the unit again after about 10 min. After repeating the procedure for several times, if the malfunction still exists, replace the module.

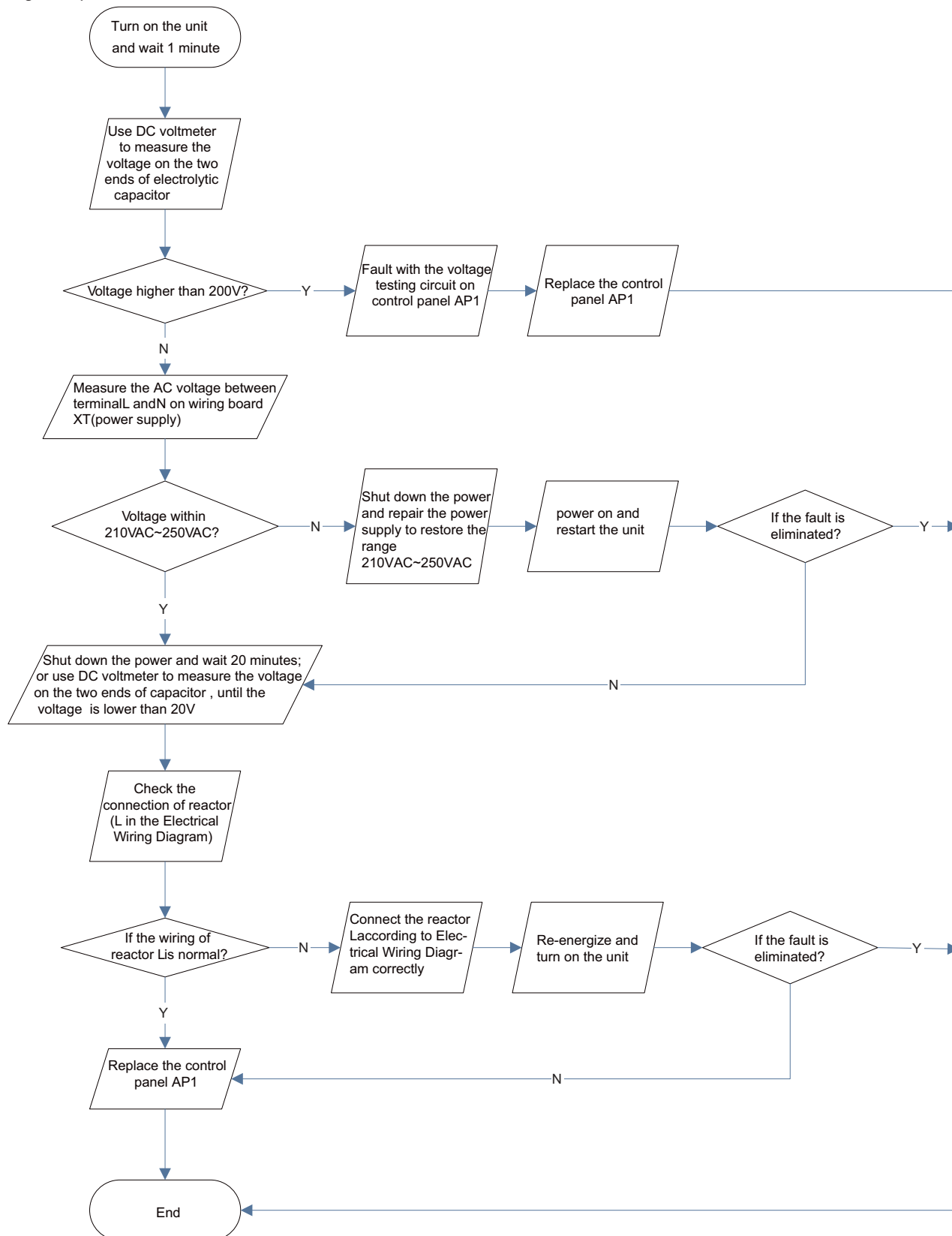
9.4 How to Check Simply the Main Part

(1) Capacitor charge fault (Fault with outdoor unit) (AP1 below refers to the outdoor control panel)

Main Check Points:

- Use AC voltmeter to check if the voltage between terminal L and N on the wiring board is within 210VAC~240VAC.
- Is the reactor (L) correctly connected? Is the connection loose or fallen? Is the reactor (L) damaged?

Fault diagnosis process:

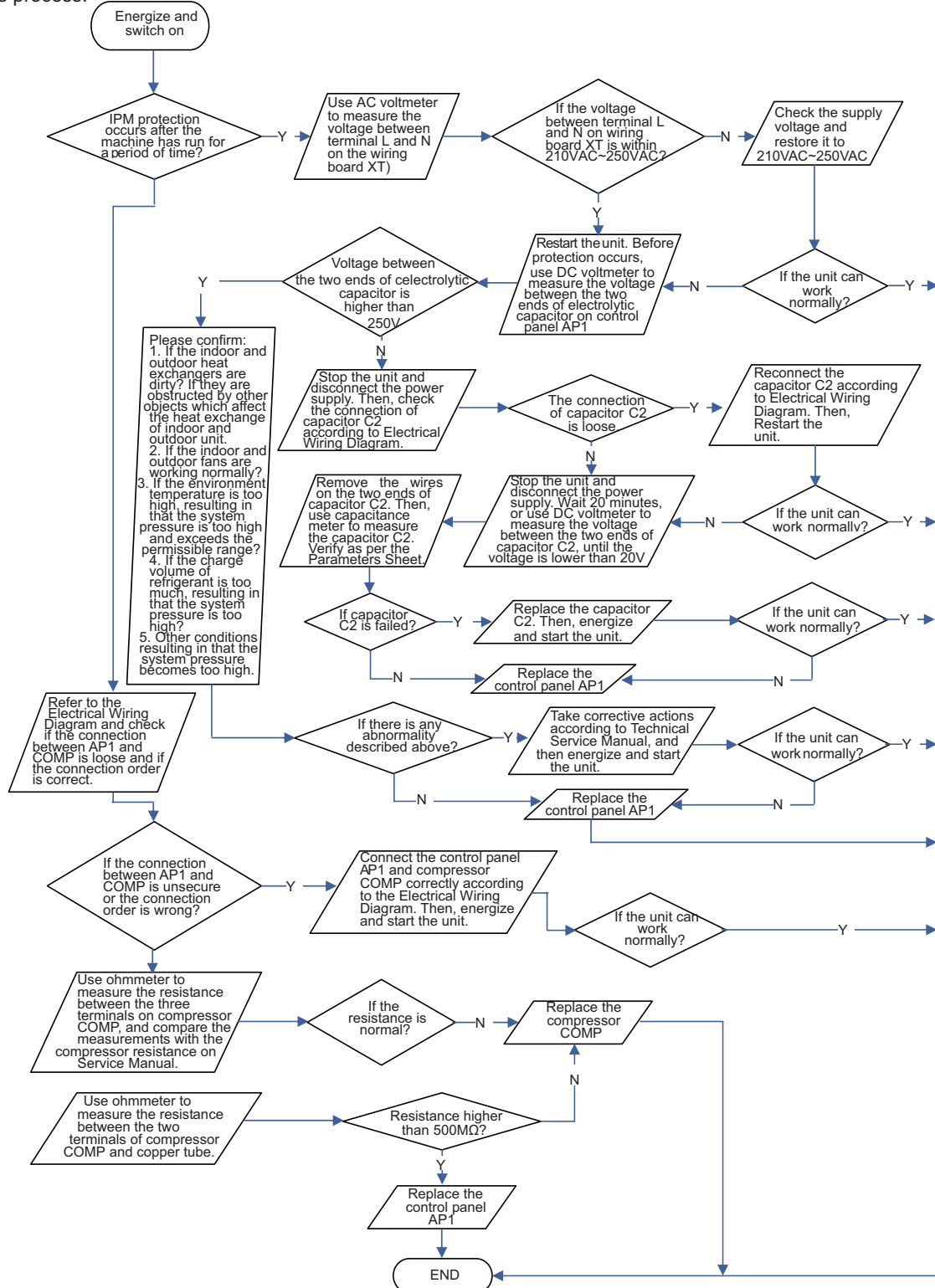


(2) IPM Protection, Out-of-step Fault, Compressor Phase Overcurrent (AP1 below refers to the outdoor control panel)

Main check points:

- Is the connection between control panel AP1 and compressor COMP secure? Loose? Is the connection in correct order?
- Is the voltage input of the machine within normal range? (Use AC voltmeter to measure the voltage between terminal L and N on the wiring board XT)
- Is the compressor coil resistance normal? Is the insulation of compressor coil against the copper tube in good condition?
- Is the working load of the machine too high? Is the radiation good?
- Is the charge volume of refrigerant correct?

Fault diagnosis process:

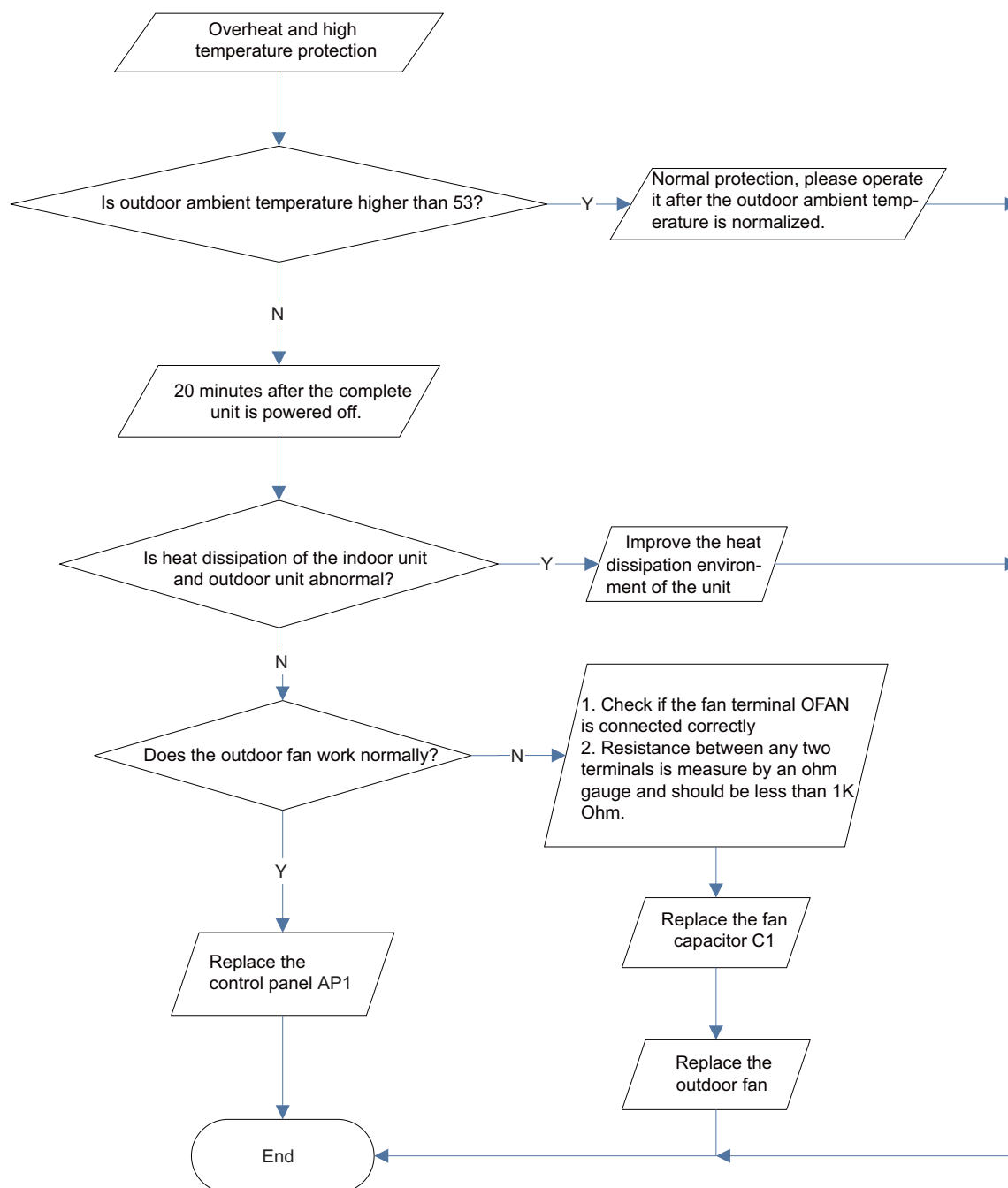


(3)High temperature and overload protection diagnosis (AP1 hereinafter refers to the control board of the outdoor unit)

Mainly detect:

- Is outdoor ambient temperature in normal range?
- Are the outdoor and indoor fans operating normally?
- Is the heat dissipation environment inside and outside the unit good?

Fault diagnosis process:

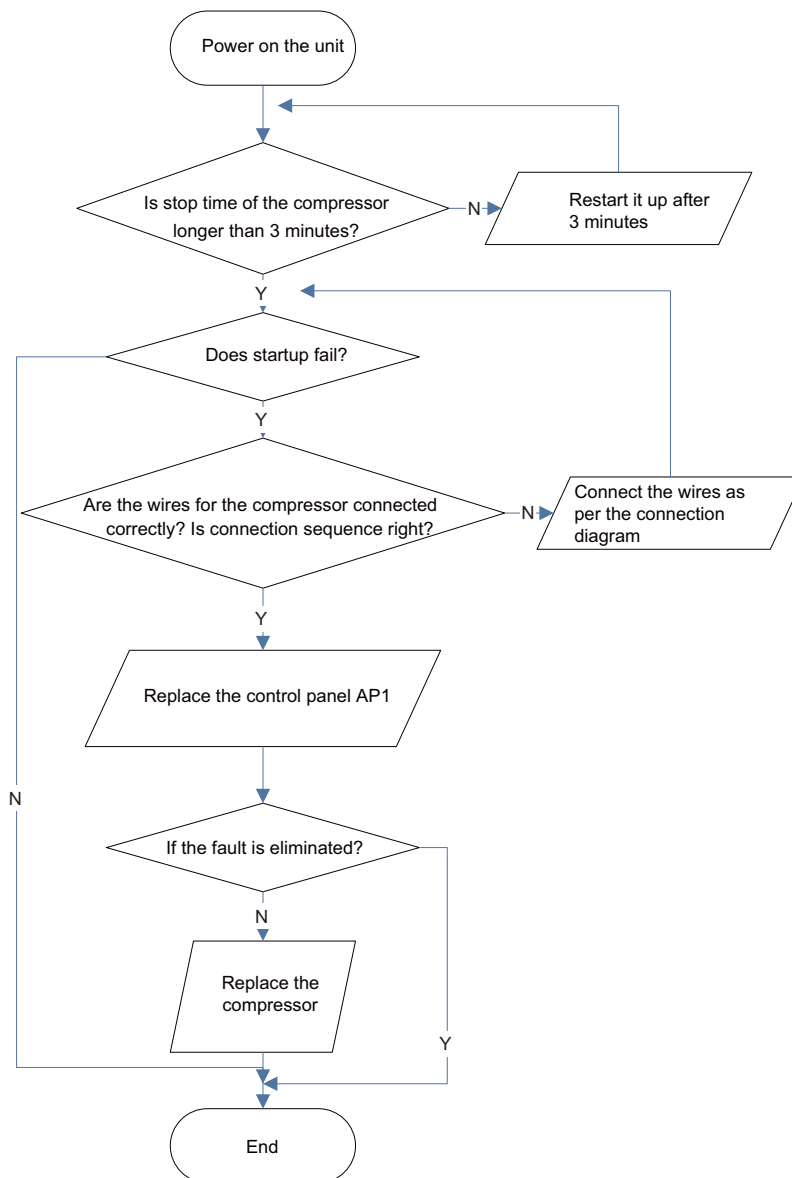


(4) Start-up failure (following AP1 for outdoor unit control board)

Mainly detect:

- Whether the compressor wiring is connected correct?
- Is compressor broken?
- Is time for compressor stopping enough?

Fault diagnosis process:

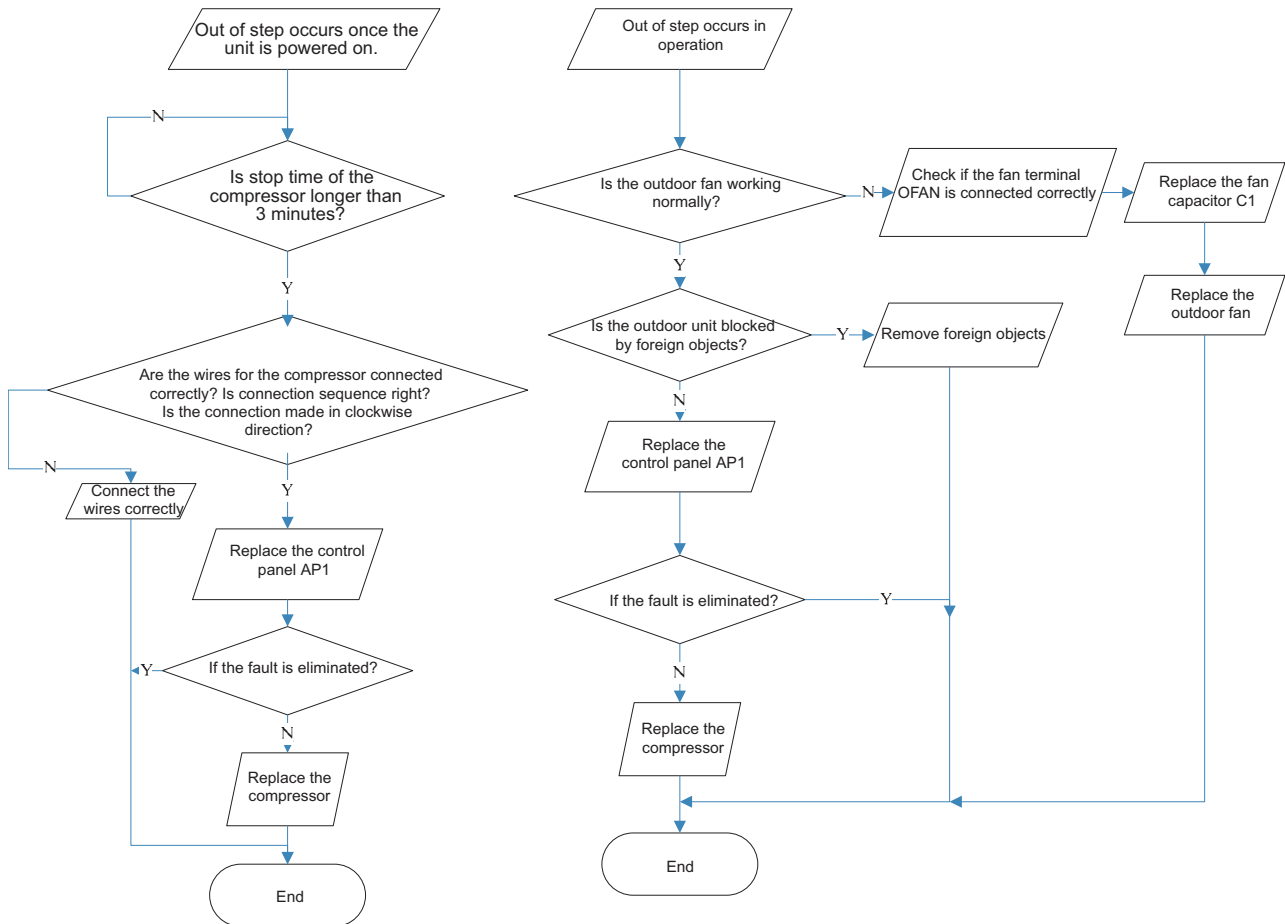


(5) Out of step diagnosis for the compressor (AP1 hereinafter refers to the control board of the outdoor unit)

Mainly detect:

- Is the system pressure too high?
- Is the input voltage too low?

Fault diagnosis process:

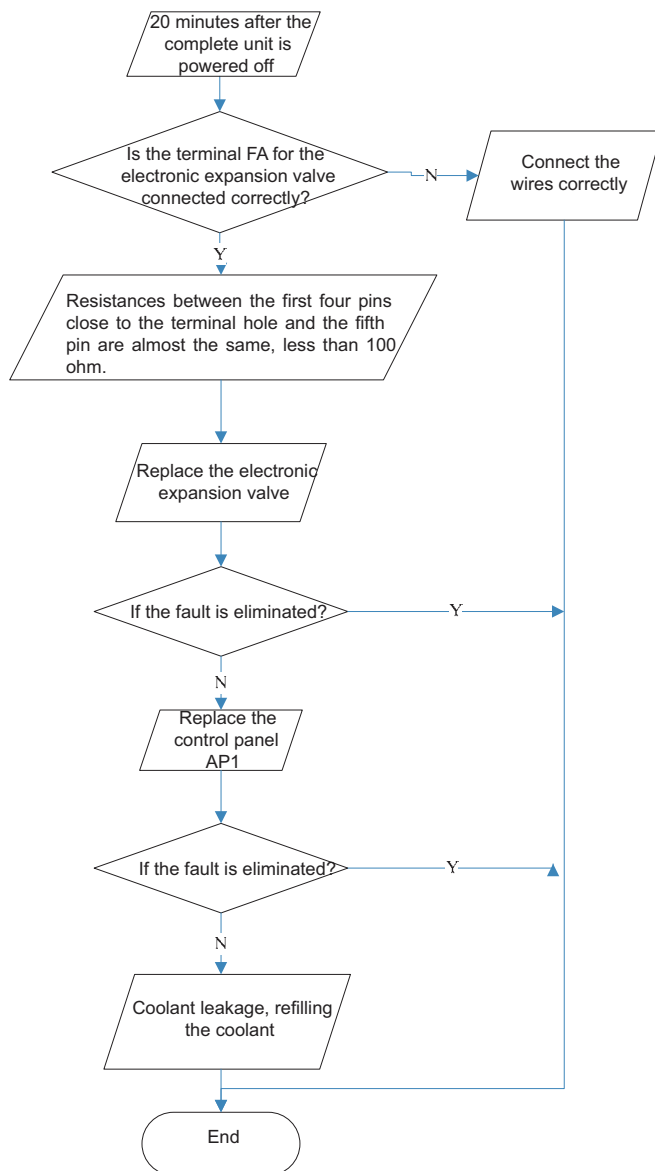


(6) Overload and air exhaust malfunction diagnosis (following AP1 for outdoor unit control board)

Mainly detect:

- Is the PMV connected well or not? Is PMV damaged?
- Is refrigerant leaked?

Fault diagnosis process:

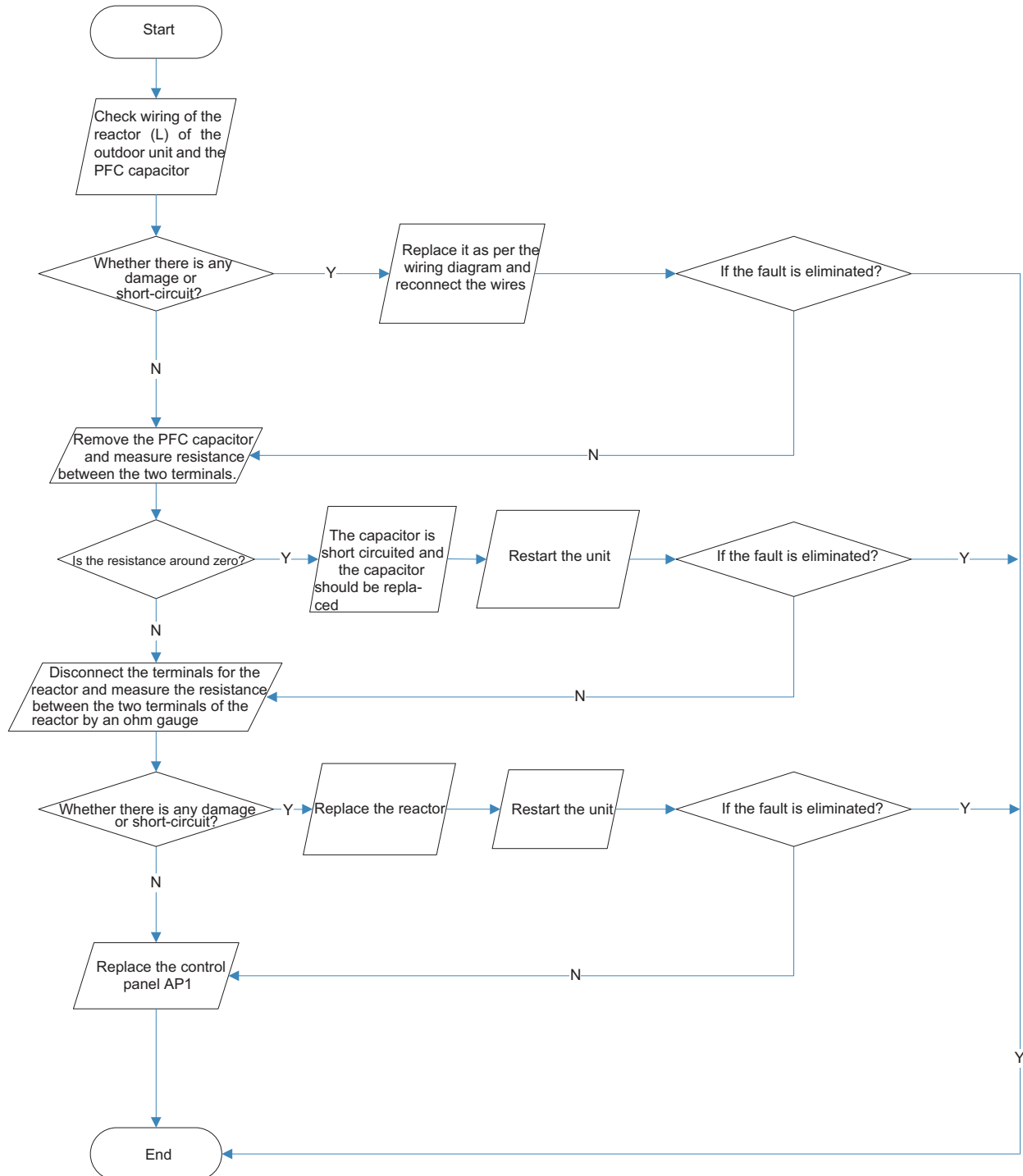


(7)Power factor correct or (PFC) fault (a fault of outdoor unit) (AP1 hereinafter refers to the control board of the outdoor unit)

Mainly detect:

- Check if the reactor (L) of the outdoor unit and the PFC capacitor are broken

Fault diagnosis process:

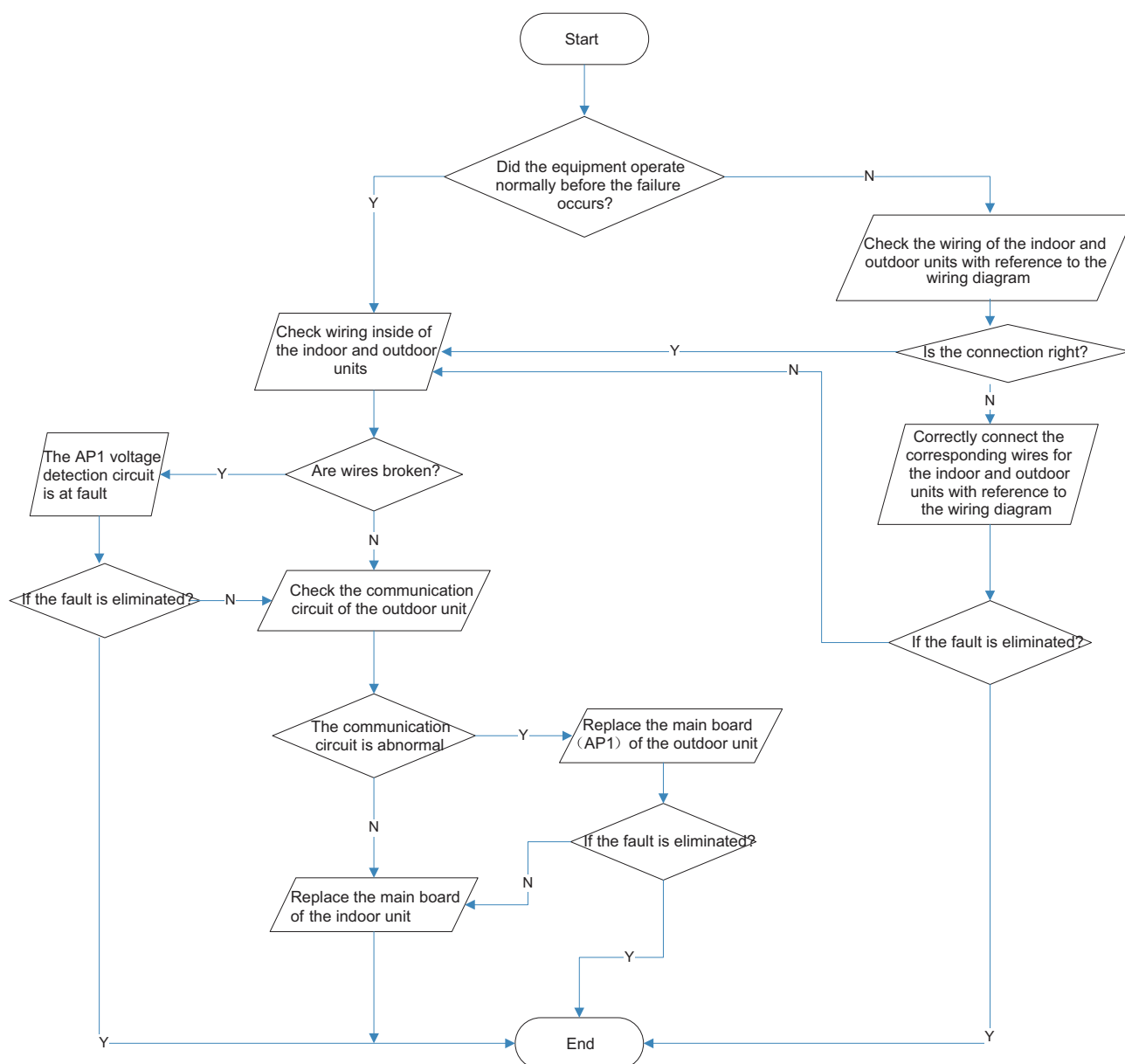


(8) Communication malfunction: (following AP1 for outdoor unit control board)

Mainly detect:

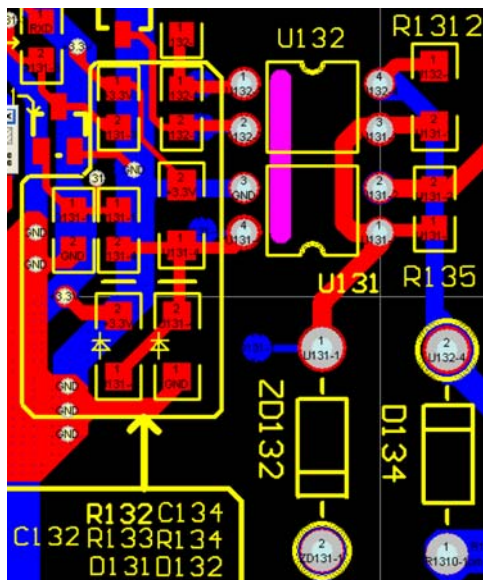
- Is there any damage for the indoor unit mainboard communication circuit? Is communication circuit damaged?
- Detect the indoor and outdoor units connection wire and indoor and outdoor units inside wiring is connect well or not, if is there any damage?

Fault diagnosis process:

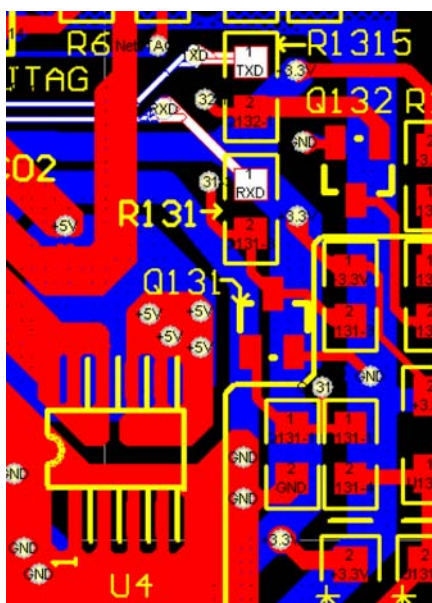


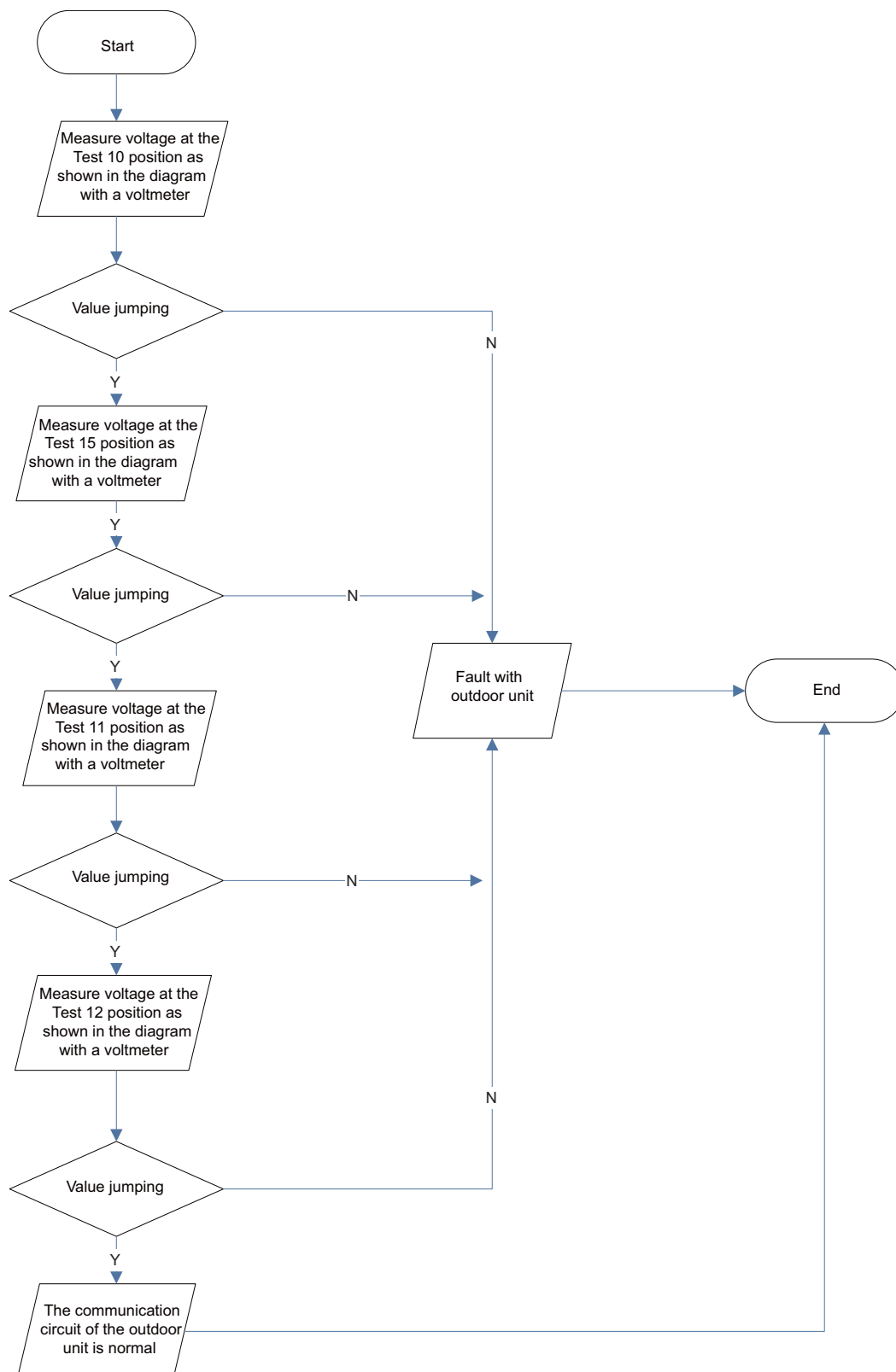
(9) Flow chart for outdoor communication circuit detecting:

- (1) Test the voltage between N point of wiring board and communication cable with universal meter. The voltage shall be variable. Otherwise, it might be malfunction of mainboard of indoor unit, or malfunction of mainboard of outdoor unit, or wrong wire connection of indoor and outdoor unit. Please ensure that there is no malfunction of mainboard of indoor unit, or wrong wire connection of indoor and outdoor unit. After removing the malfunction of indoor unit, remove the malfunction of outdoor unit.
- (2) Test the voltage of pin 1 and pin 2 of U132 with universal meter (voltage of both sides of R135). The voltage should be variable. (Test 10) Test the voltage of pin 3 and pin 4 of U132 with universal meter (voltage of both sides of R1312). The voltage should be variable. (Test 15) Otherwise, there is malfunction of mainboard of outdoor unit.



- (3) Test the voltage of pin 3 and pin 4 of U131 with universal meter (voltage of both sides of R134). The voltage should be variable. (test 11) Test the voltage of pin 1 and pin 2 of U132 with universal meter (voltage of both sides of C134). The voltage should be variable. (test 12) Otherwise, there is malfunction of mainboard of outdoor unit.
- (4) Test the voltage between pin 1 of R135 (white) and pin 1 of U4. The voltage should be variable. Test voltage between pin1 of R131 (white) and pin 1 of U4 with universal meter. The voltage should be variable. Otherwise, there is malfunction of mainboard of outdoor unit.





Appendix

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

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

Appendix 3: Resistance Table of Outdoor Discharge Temperature Sensor(50K)

Temp. (℃)	Resistance(kΩ)	Temp. (℃)	Resistance(kΩ)	Temp. (℃)	Resistance(kΩ)	Temp. (℃)	Resistance(kΩ)
-29	853.5	10	98	49	18.34	88	4.754
-28	799.8	11	93.42	50	17.65	89	4.609
-27	750	12	89.07	51	16.99	90	4.469
-26	703.8	13	84.95	52	16.36	91	4.334
-25	660.8	14	81.05	53	15.75	92	4.204
-24	620.8	15	77.35	54	15.17	93	4.079
-23	580.6	16	73.83	55	14.62	94	3.958
-22	548.9	17	70.5	56	14.09	95	3.841
-21	516.6	18	67.34	57	13.58	96	3.728
-20	486.5	19	64.33	58	13.09	97	3.619
-19	458.3	20	61.48	59	12.62	98	3.514
-18	432	21	58.77	60	12.17	99	3.413
-17	407.4	22	56.19	61	11.74	100	3.315
-16	384.5	23	53.74	62	11.32	101	3.22
-15	362.9	24	51.41	63	10.93	102	3.129
-14	342.8	25	49.19	64	10.54	103	3.04
-13	323.9	26	47.08	65	10.18	104	2.955
-12	306.2	27	45.07	66	9.827	105	2.872
-11	289.6	28	43.16	67	9.489	106	2.792
-10	274	29	41.34	68	9.165	107	2.715
-9	259.3	30	39.61	69	8.854	108	2.64
-8	245.6	31	37.96	70	8.555	109	2.568
-7	232.6	32	36.38	71	8.268	110	2.498
-6	220.5	33	34.88	72	7.991	111	2.431
-5	209	34	33.45	73	7.726	112	2.365
-4	198.3	35	32.09	74	7.47	113	2.302
-3	199.1	36	30.79	75	7.224	114	2.241
-2	178.5	37	29.54	76	6.998	115	2.182
-1	169.5	38	28.36	77	6.761	116	2.124
0	161	39	27.23	78	6.542	117	2.069
1	153	40	26.15	79	6.331	118	2.015
2	145.4	41	25.11	80	6.129	119	1.963
3	138.3	42	24.13	81	5.933	120	1.912
4	131.5	43	23.19	82	5.746	121	1.863
5	125.1	44	22.29	83	5.565	122	1.816
6	119.1	45	21.43	84	5.39	123	1.77
7	113.4	46	20.6	85	5.222	124	1.725
8	108	47	19.81	86	5.06	125	1.682
9	102.8	48	19.06	87	4.904	126	1.64

Note: The information above is for reference only.

10. Removal Procedure

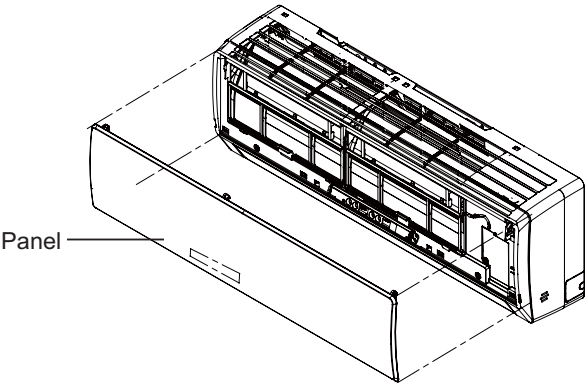
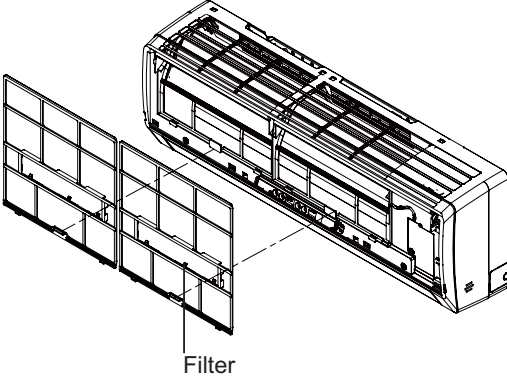
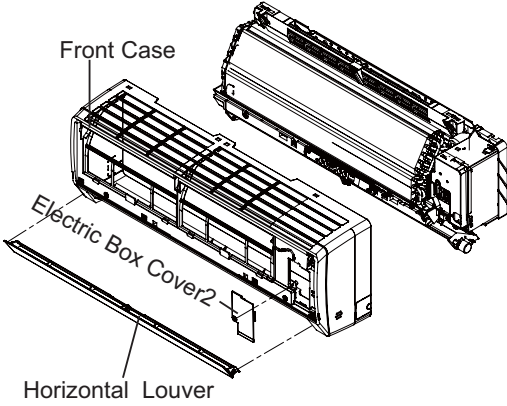
10.1 Removal Procedure of Indoor Unit

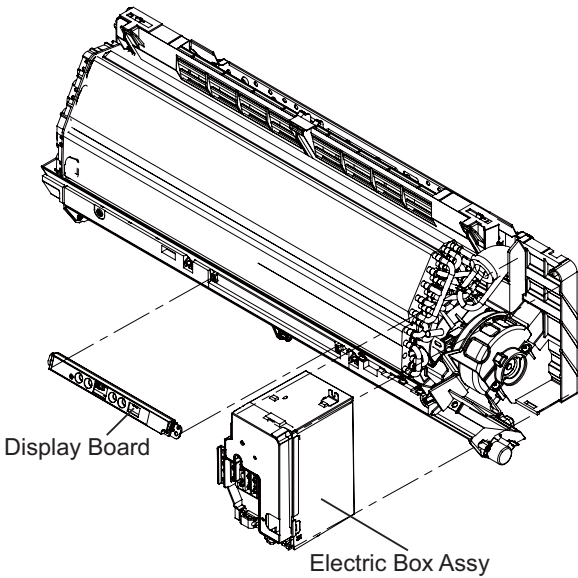
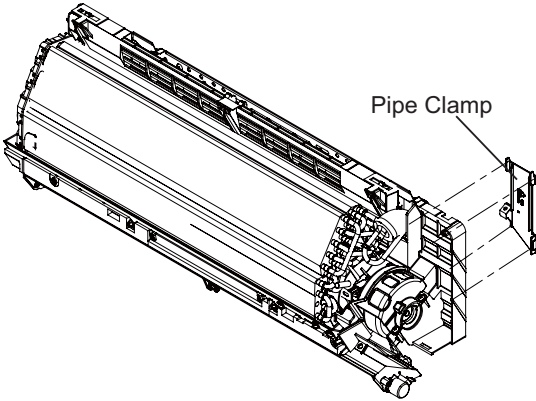
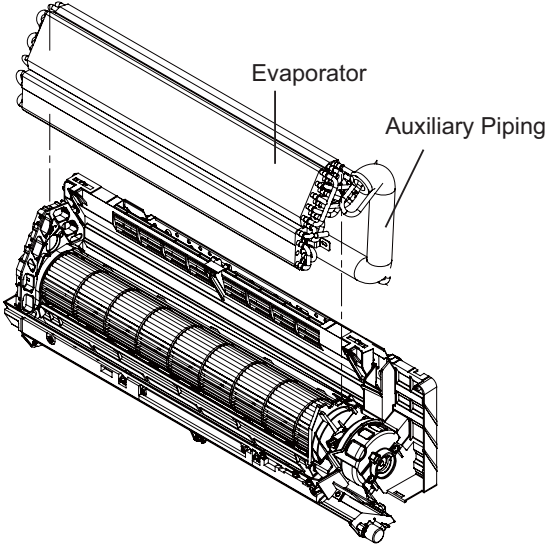


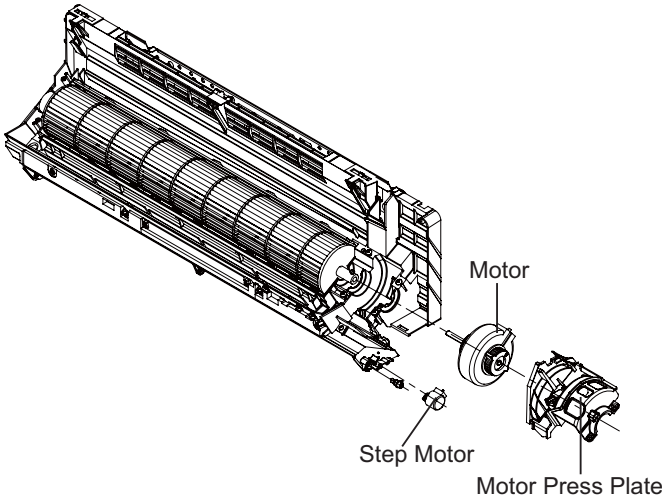
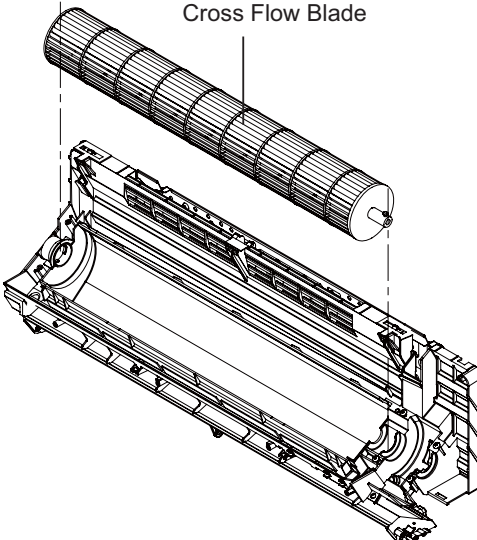
Warning

Be sure to wait for a minimum of 10 minutes after turning off all power supplies before disassembly.

NOTE:Take A2 front panel for example.

Steps	Procedure
1.Remove panel	
Open the front panel.Push the rotor shaft on both sides of the panel to make it separate from the groove .Remove the panel.	
2.Remove filter	
Loosen the clasp of the filter.Push the filter inward and then draw it upward to remove it.	
3.Remove horizontal louver and front case	
Remove axial sleeve of horizontal louver. Bend the louver outwards and then remove the louver. Loosen the screws of the electric box cover2 with screwdriver.Remove the electric box cover2. Open the screw cap on the front case. Remove the screws fixing the front case. Loosen the six clasps of the front case. Remove the front case.	

Steps	Procedure
4.Remove electric box assy	
	Remove the screws of the electric box assy.Remove the screws at the joint of the earthing wire and evaporator.Loosen the clasp at the joint of the electric box cover and the electric box.Remove the 2 screws of the display.Remove the electric box assy.  Display Board Electric Box Assy
5.Remove evaporator	
1	Remove the screws of the press plate of connecting pipe.Remove press plate of connecting pipe.  Pipe Clamp
2	Remove the 3 screws at the joint of the evaporator and rear case.Adjust slightly the pipe on the evaporator.Remove the evaporator.  Evaporator Auxiliary Piping

Steps	Procedure	
6.Remove motor and axial flow blade		
1	Remove screws of step motor and then remove the motor. Remove the screw of the motor press plate and then remove the press plate. Remove the screws at the joint of the cross flow blade and the motor. Take down the motor.	
2	Remove the cross flow blade.	

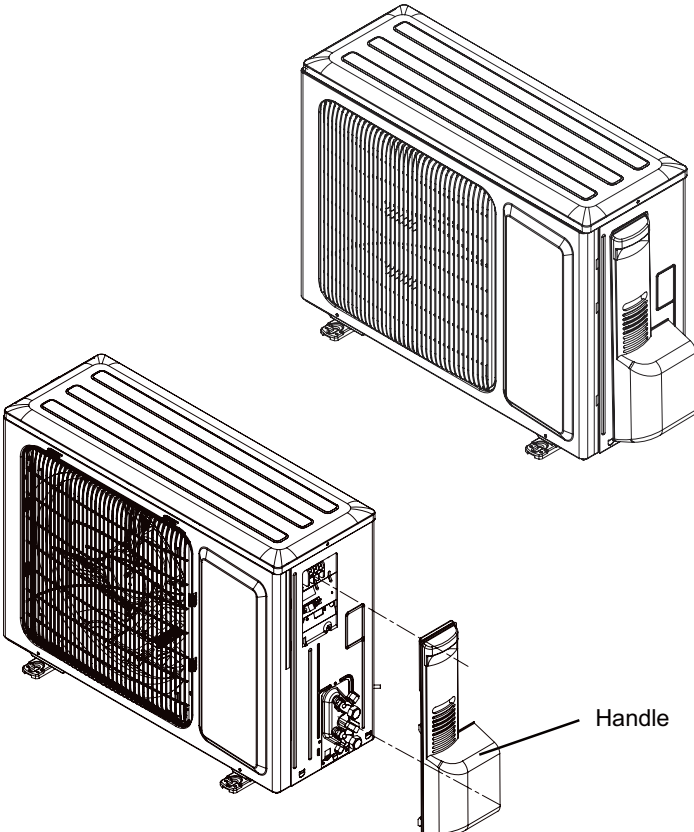
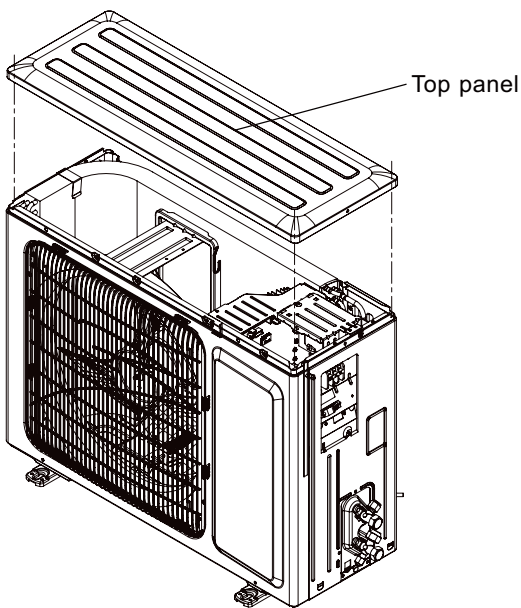
10.2 Removal Procedure of Outdoor Unit

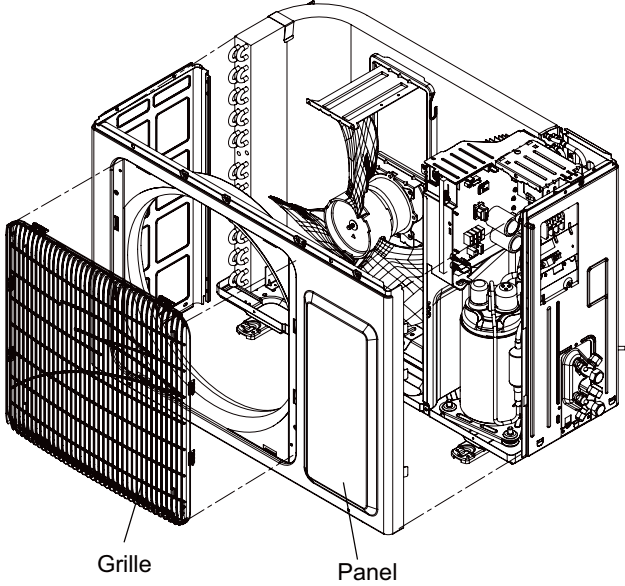
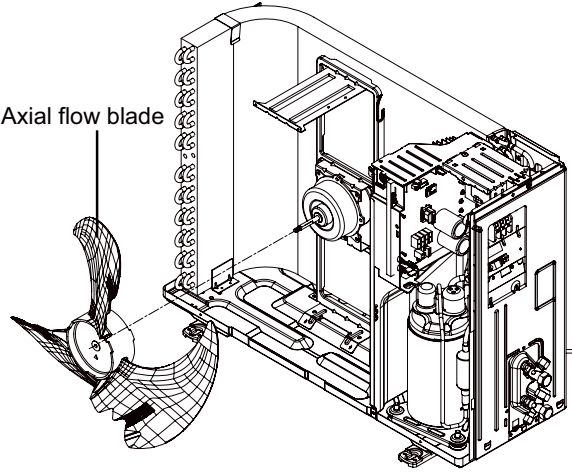
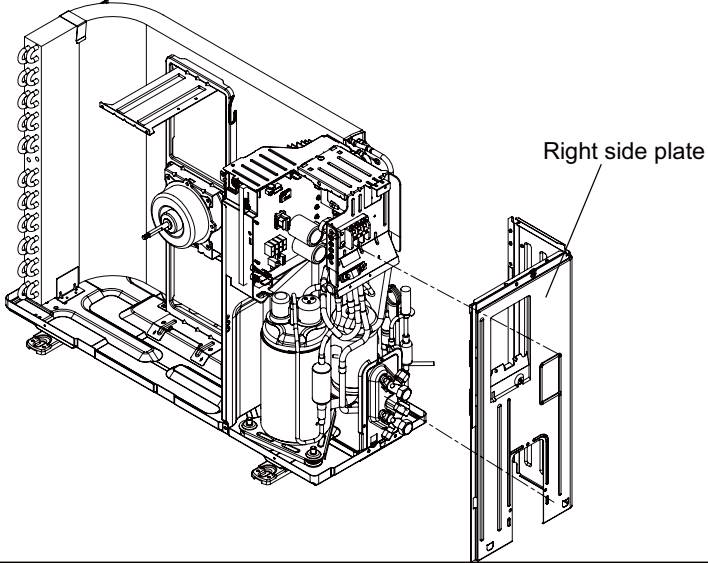


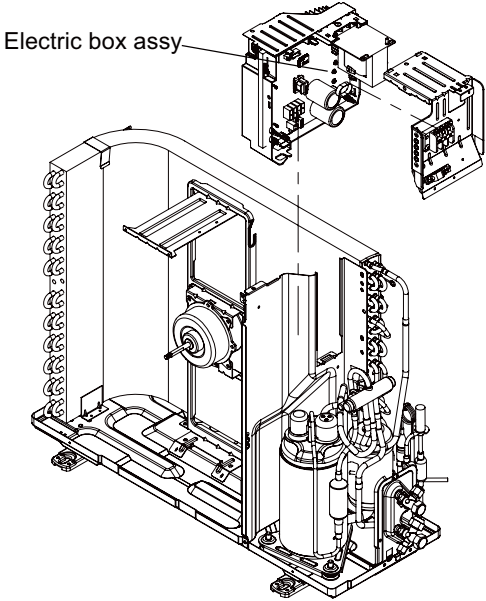
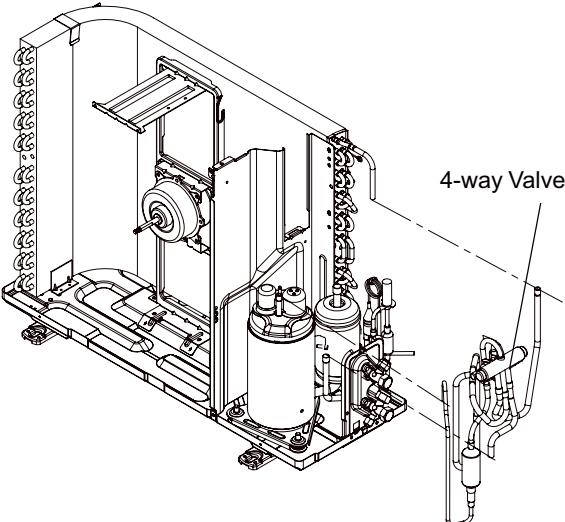
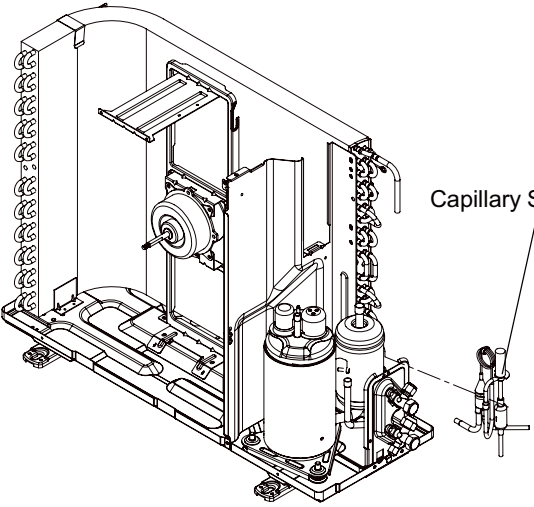
Warning

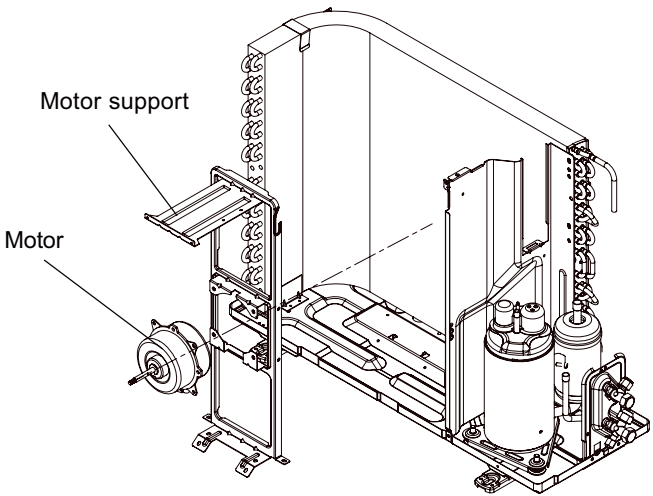
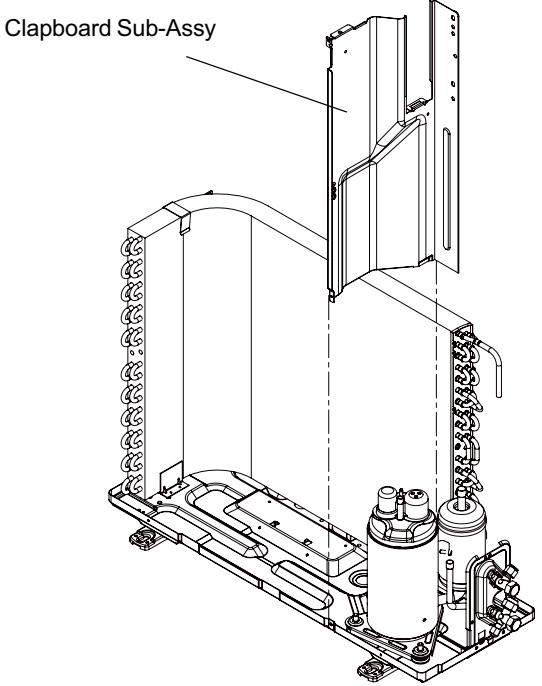
Be sure to wait for a minimum of 10 minutes after turning off all power supplies before disassembly.

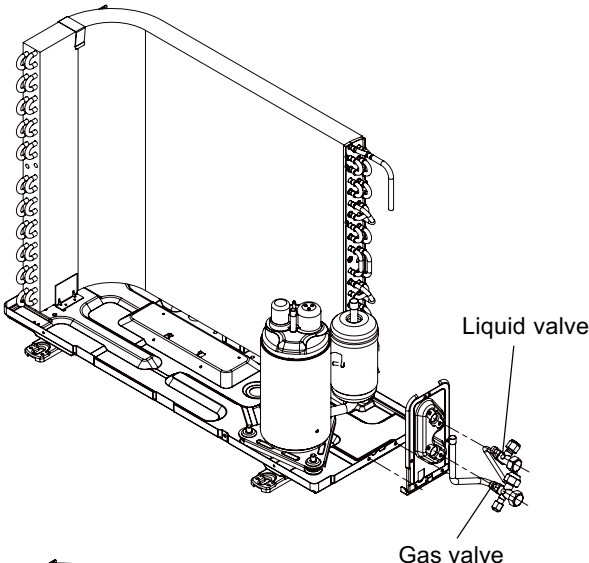
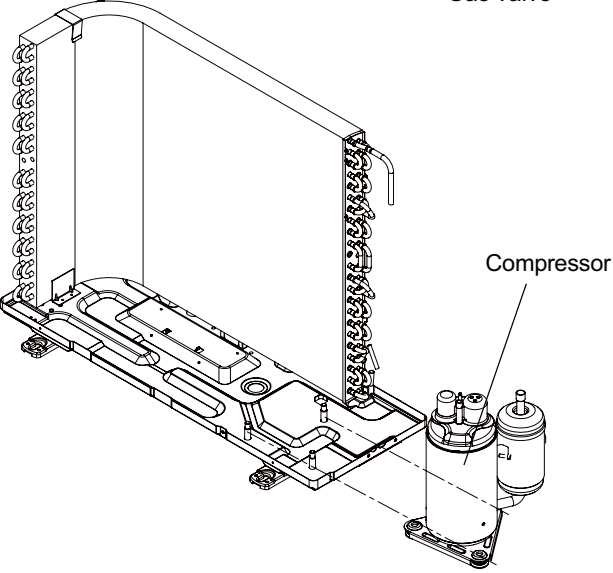
NOTE: Take heat models without electric heating belt for example.

Steps	Procedure	
1.Remove big handle		
1	Before disassembly.	
2	Remove the connection screw fixing the big handle and then remove the handle.	
2. Remove top cover		
	Remove connection screws connecting the top cover plate with the front panel and the right side plate, and then remove the top panel.	

Steps	Procedure	
3.Remove grille and front panel		
	Remove connection screws between the front grille and the front panel. Then remove the front grille. Remove connection screws connecting the front panel with the chassis and the motor support, and then remove the front panel.	
4.Remove axial flow blade		
	Remove the nut fixing the blade and then remove the axial flow blade.	
5.Remove right side plate		
	Remove connection screws connecting the right side plate with the valve support and the electric box. Then remove the right side plate.	

Steps	Procedure
6.Remove electric box assy	Remove the 2 screws fixing the cover of electric box. Lift to remove the cover. Loosen the wire and disconnect the terminal. Lift to remove the electric box assy.  Electric box assy
7.Remove 4-way valve assy	Unscrew the fastening nut of the 4-way Valve Assy coil and remove the coil. Wrap the 4-way Valve Assy with wet cotton and unsolder the 4 weld spots connecting the 4-way Valve Assy to take it out.(Note: Refrigerant should be discharged firstly.) Welding process should be as quickly as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.  4-way Valve Assy
8.Remove capillary sub-assy	Unsolder weld point of capillary Sub-assy, valve and outlet pipe of condensator. Then remove the capillary Sub-assy. Do not block the capillary when unsoldering it. (Note: before unsoldering,discharge refrigerants completely)  Capillary Sub-assy

Steps	Procedure	
9.Remove motor and motor support		
	Remove the 4 tapping screws fixing the motor. Pull out the lead-out wire and remove the motor. Remove the 2 tapping screws fixing the motor support. Lift motor support to remove it.	
10.Remove clapboard sub-assy		
	Loosen the screws of the Clapboard Sub-Assy . The Clapboard Sub-Assy has a hook on the lower side. Lift and pull the Clapboard Sub-Assy to remove.	

Steps	Procedure
11.Remove Compressor	
1	Remove the 2 screws fixing the gas valve. Unsolder the welding spot connecting gas valve and air return pipe and remove the gas valve. (Note: it is necessary to warp the gas valve when unsoldering the welding spot.) Remove the 2 screws fixing liquid valve. Unsolder the welding spot connecting liquid valve and remove the liquid valve. 
2	Remove the 3 footing screws of the compressor and remove the compressor. 

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GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI

Add: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070

Tel: (+86-756) 8522218

Fax: (+86-756) 8669426

E-mail: gree@gree.com.cn

www.gree.com

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