GREE
Change for Life

Service Manual

GREE ELECTRIC APPLIANCES,INC.OF ZHUHAI

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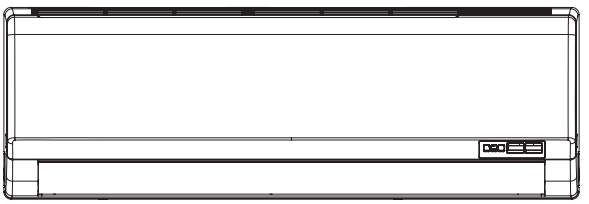
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Part Ⅰ : Technical Information

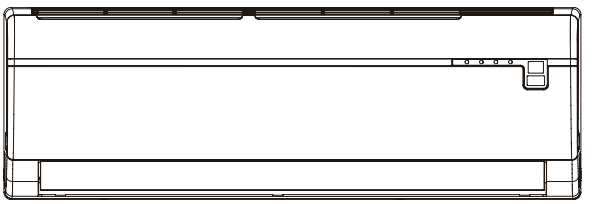
1. Summary

Indoor Unit:

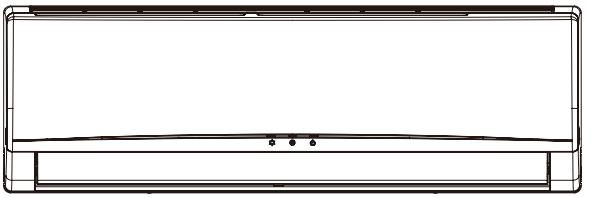
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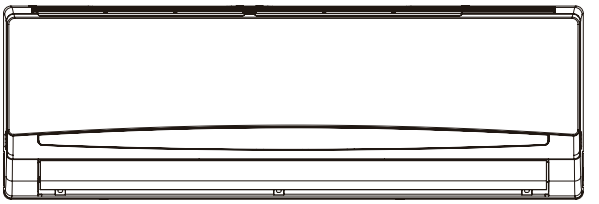
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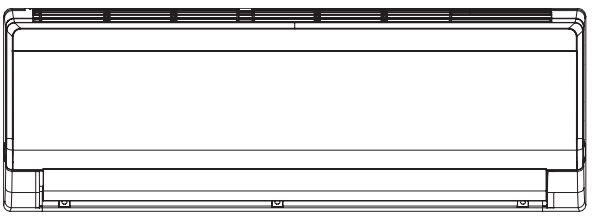
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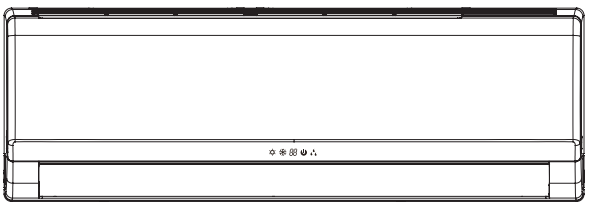
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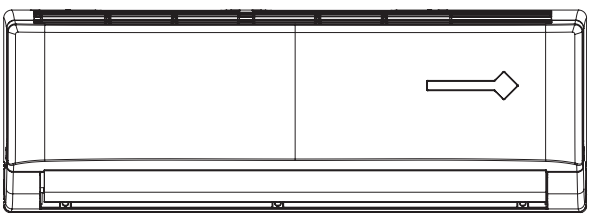
A6 Panel



A7 Panel

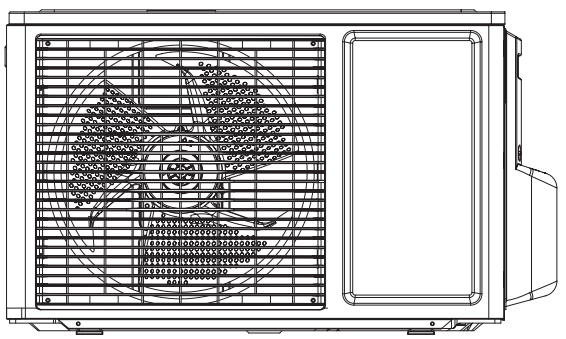


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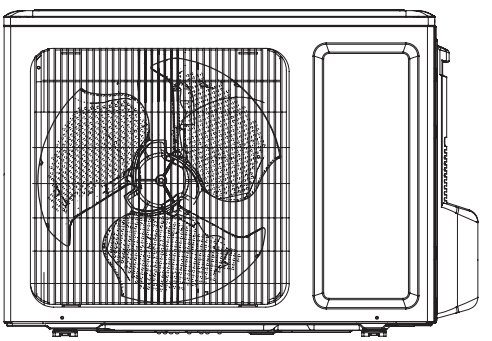


Outdoor Unit:

07/09K



12K



Remote Controller:

YX1F



YV1F7



YB1F2(XFAN)



Model List:

No.	Model	Product Code	Model	Product Code	Model	Product Code	Remote Controller
1	GWH07PA-K3NNA6E	CA430000600	GWH07PA-K3NNA6E/I	CA430N00600	GWH07NA-K3NNE4E/O	CA403W01400	YX1F
2		CA430000601		CA430N00601			YV1F7
3	GWH07PA-K3NNA5E	CA417001600	GWH07PA-K3NNA5E/I	CA417N01600			YX1F
4		CA417001601		CA417N01601			YV1F7
5	GWH07PA-K3NNA2E	CA415001600	GWH07PA-K3NNA2E/I	CA415N01600			YX1F
6		CA415001601		CA415N01601			YV1F7
7	GWH07PA-K3NNA9E	CA429000700	GWH07PA-K3NNA9E/I	CA429N00700			YX1F
8		CA429000701		CA429N00701			YV1F7
9	GWH07PA-K3NNA3E	CA416001600	GWH07PA-K3NNA3E/I	CA416N01600			YX1F
10		CA416001601		CA416N01601			YV1F7
11	GWH07PA-K3NNA7F	CA428000600	GWH07PA-K3NNA7F/I	CA428N00600	GWH07NA-K3NNC7F/O	CA195W06200	YX1F
12		CA428000601		CA428N00601			YB1F2(XFAN)
13	GWH07PA-K3NNA1F	CA414002200	GWH07PA-K3NNA1F/I	CA414N02200			YX1F
14		CA414002201		CA414N02201			YB1F2(XFAN)
15	GWH07PA-K3NNA5F	CA417001900	GWH07PA-K3NNA5F/I	CA417N01900			YX1F
16	GWH09PB-K3NNA6E	CA430000700	GWH09PB-K3NNA6E/I	CA430N00700	GWH09MA-K3NNE4E/O	CA403W01500	YX1F
17		CA430000701		CA430N00701			YV1F7
18	GWH09PB-K3NNA5E	CA417001700	GWH09PB-K3NNA5E/I	CA417N01700			YX1F
19		CA417001701		CA417N01701			YV1F7
20	GWH09PB-K3NNA2E	CA415001700	GWH09PB-K3NNA2E/I	CA415N01700			YX1F
21		CA415001701		CA415N01701			YV1F7
22	GWH09PB-K3NNA9E	CA429000800	GWH09PB-K3NNA9E/I	CA429N00800			YX1F
23		CA429000801		CA429N00801			YV1F7
24	GWH09PB-K3NNA3E	CA416001700	GWH09PB-K3NNA3E/I	CA416N01700			YX1F
25	GWH09PA-K3NNA7F	CA428000700	GWH09PA-K3NNA7F/I	CA428N00700	GWH09NA-K3NNC7F/O	CA195W06300	YX1F
26		CA428000701		CA428N00701			YB1F2(XFAN)
27	GWH09PA-K3NNA2F	CA415003100	GWH09PA-K3NNA2F/I	CA415N03100			YX1F
28	GWH09PA-K3NNA1F	CA414002301	GWH09PA-K3NNA1F/I	CA414N02301			YB1F2(XFAN)
29		CA414002300		CA414N02300			YX1F
30	GWH09PA-K3NNA5F	CA417002000	GWH09PA-K3NNA5F/I	CA417N02000			YX1F
31	GWH12PC-K3NNA6E	CA430000800	GWH12PC-K3NNA6E/I	CA430N00800	GWH12NC-K3NNE4E/O	CA403W01600	YX1F
32		CA430000801		CA430N00801			YV1F7
33	GWH12PC-K3NNA5E	CA417001800	GWH12PC-K3NNA5E/I	CA417N01800			YX1F
34		CA417001801		CA417N01801			YV1F7
35	GWH12PC-K3NNA2E	CA415001800	GWH12PC-K3NNA2E/I	CA415N01800			YX1F
36		CA415001801		CA415N01801			YV1F7
37	GWH12PC-K3NNA9E	CA429000900	GWH12PC-K3NNA9E/I	CA429N00900			YX1F
38		CA429000901		CA429N00901			YV1F7
39	GWH12PC-K3NNA3E	CA416001800	GWH12PC-K3NNA3E/I	CA416N01800			YX1F
40		CA416001801		CA416N01801			YV1F7
41	GWH12PC-K3NNA7F	CA428000800	GWH12PC-K3NNA7F/I	CA428N00800	GWH12NC-K3NNC7F/O	CA195W06400	YX1F
42		CA428000801		CA428N00801			YB1F2(XFAN)
43	GWH12PC-K3NNA1F	CA414002400	GWH12PC-K3NNA1F/I	CA414N02400			YX1F
44		CA414002401		CA414N02401			YB1F2(XFAN)
45	GWH12PC-K3NNA5F	CA417002100	GWH12PC-K3NNA5F/I	CA417N02100			YX1F

2. Specifications

2.1 Specification Sheet

Model			1.GWH07PA-K3NNA6E 2.GWH07PA-K3NNA5E 3.GWH07PA-K3NNA2E 4.GWH07PA-K3NNA9E 5.GWH07PA-K3NNA3E
Product Code			1.CA430000600 CA430000601 2.CA417001600 CA417001601 3.CA415001600 CA415001601 4.CA429000700 CA429000701 5.CA416001600 CA416001601
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	2250
Heating Capacity		W	2300
Cooling Power Input		W	700
Heating Power Input		W	637
Cooling Power Current		A	4.88
Heating Power Current		A	2.83
Rated Input		W	1100
Rated Current		A	5.75
Air Flow Volume(SH/H/M/L/SL)		m^3/h	400/360/320/290/-
Dehumidifying Volume		L/h	0.6
EER		W/W	3.21
COP		W/W	3.61
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH07PA-K3NNA6E/I 2.GWH07PA-K3NNA5E/I 3.GWH07PA-K3NNA2E/I 4.GWH07PA-K3NNA9E/I 5.GWH07PA-K3NNA3E/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ85X532
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1390/1280/1180/1080/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1350/1250/1140/1040/-
	Output of Fan Motor	W	10
	Fan Motor RLA	A	0.13
	Fan Motor Capacitor	μF	/
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	526X25.4X228.6
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	38/35/32/30/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	48/45/42/40/-
	Dimension (WXHXD)	mm	733X254X184
	Dimension of Carton Box (LXWXH)	mm	790X255X328
	Dimension of Package (LXWXH)	mm	793X258X343
	Net Weight	kg	8
	Gross Weight	kg	9.5

Outdoor Unit	Model of Outdoor Unit		GWH07NA-K3NNE4E/O
	Product Code of Outdoor Unit		CA403W01400
	Compressor Manufacturer/Trademark		Xi'an Qing'an Refrigeration Equipment Co.,Ltd
	Compressor Model		YZG-A082Y2T3
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	17
	Compressor RLA	A	3.35
	Compressor Power Input	W	705
	Overload Protector		B135-140-241E
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	658.3X19.05X396
	Fan Motor Speed	rpm	950
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.25
	Fan Motor Capacitor	μF	1.5
	Air Flow Volume of Outdoor Unit	m^3/h	1200
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ320
	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)	48/-/-
	Sound Power Level (H/M/L)	dB (A)	58/-/-
	Dimension (WXHXD)	mm	720X428X310
	Dimension of Carton Box (LXWXH)	mm	765X350X475
	Dimension of Package (LXWXH)	mm	768X353X490
	Net Weight	kg	22.5
	Gross Weight	kg	24.5
	Refrigerant		R410A
	Refrigerant Charge	kg	0.6
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	5
	Max Distance Length	m	15
	Note: The connection pipe applies metric diameter.		

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

Model			1.GWH07PA-K3NNA7F 2.GWH07PA-K3NNA1F 3.GWH07PA-K3NNA5F
Product Code			1.CA428000600 CA428000601 2. CA414002200 CA414002201 3.CA417001900
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	2200
Heating Capacity		W	2200
Cooling Power Input		W	783
Heating Power Input		W	650
Cooling Power Current		A	4.88
Heating Power Current		A	2.83
Rated Input		W	1050
Rated Current		A	5.75
Air Flow Volume(SH/H/M/L/SL)		m^3/h	400/360/320/290/-
Dehumidifying Volume		L/h	0.6
EER		W/W	2.81
COP		W/W	3.39
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH07PA-K3NNA7F/I 2.GWH07PA-K3NNA1F/I 3.GWH07PA-K3NNA5F/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ85X532
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1390/1280/1180/1080/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1350/1250/1140/1040/-
	Output of Fan Motor	W	10
	Fan Motor RLA	A	0.13
	Fan Motor Capacitor	μF	/
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	526X25.4X228.6
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	37/34/31/29/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	47/44/41/39/-
	Dimension (WXHXD)	mm	733X254X184
	Dimension of Carton Box (LXWXH)	mm	790X255X328
	Dimension of Package (LXWXH)	mm	793X258X343
	Net Weight	kg	8
	Gross Weight	kg	9.5

Outdoor Unit	Model of Outdoor Unit		GWH07NA-K3NNC7F/O
	Product Code of Outdoor Unit		CA195W06200
	Compressor Manufacturer/Trademark		Xi'an Qing'an Refrigeration Equipment Co.,Ltd
	Compressor Model		YZG-A082Y2T3
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	17
	Compressor RLA	A	3.35
	Compressor Power Input	W	705
	Overload Protector		B135-140-241E
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	474X12.7X400
	Fan Motor Speed	rpm	950
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.25
	Fan Motor Capacitor	μF	1.5
	Air Flow Volume of Outdoor Unit	m^3/h	1200
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ320
	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	720X428X310
	Dimension of Carton Box (LXWXH)	mm	765X350X475
	Dimension of Package (LXWXH)	mm	768X353X490
	Net Weight	kg	22
	Gross Weight	kg	24
	Refrigerant		R410A
	Refrigerant Charge	kg	0.5
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	5
	Max Distance Length	m	15
	Note: The connection pipe applies metric diameter.		

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

Model			1.GWH09PB-K3NNA6E 2.GWH09PB-K3NNA5E 3.GWH09PB-K3NNA2E 4.GWH09PB-K3NNA9E 5.GWH09PB-K3NNA3E
Product Code			1.CA430000700 CA430000701 2.CA417001700 CA417001701 3.CA415001700 CA415001701 4.CA429000800 CA429000801 5.CA416001700
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	2638
Heating Capacity		W	2820
Cooling Power Input		W	822
Heating Power Input		W	781
Cooling Power Current		A	4.45
Heating Power Current		A	4.32
Rated Input		W	1200
Rated Current		A	6.43
Air Flow Volume(SH/H/M/L/SL)		m^3/h	450/400/320/250/-
Dehumidifying Volume		L/h	1.2
EER		W/W	3.21
COP		W/W	3.61
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH09PB-K3NNA6E/I 2.GWH09PB-K3NNA5E/I 3.GWH09PB-K3NNA2E/I 4.GWH09PB-K3NNA9E/I 5.GWH09PB-K3NNA3E/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ85X596
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1350/1250/1100/950/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1350/1250/1100/1000/-
	Output of Fan Motor	W	10
	Fan Motor RLA	A	0.15
	Fan Motor Capacitor	μF	1
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	589X25.4X266.7
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	38/35/31/28/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	48/45/41/38/-
	Dimension (WXHXD)	mm	790X265X179
	Dimension of Carton Box (LXWXH)	mm	870X255X350
	Dimension of Package (LXWXH)	mm	873X258X365
	Net Weight	kg	8
	Gross Weight	kg	10

Outdoor Unit	Model of Outdoor Unit		GWH09MA-K3NNE4E/O
	Product Code of Outdoor Unit		CA403W01500
	Compressor Manufacturer/Trademark		ZHUHAI LINDA COMPRESSOR CO.,LTD
	Compressor Model		QXA-B102C130
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	17
	Compressor RLA	A	3.9
	Compressor Power Input	W	850
	Overload Protector		INTERNAL
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	658.3X19.05X396
	Fan Motor Speed	rpm	950
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.25
	Fan Motor Capacitor	μF	1.5
	Air Flow Volume of Outdoor Unit	m^3/h	1200
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ320
	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)	49/-/-
	Sound Power Level (H/M/L)	dB (A)	59/-/-
	Dimension (WXHXD)	mm	720X428X310
	Dimension of Carton Box (LXWXH)	mm	765X350X475
	Dimension of Package (LXWXH)	mm	768X353X490
	Net Weight	kg	26
	Gross Weight	kg	28
	Refrigerant		R410A
	Refrigerant Charge	kg	0.63
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	5
	Max Distance Length	m	15
	Note: The connection pipe applies metric diameter.		

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

Model			1.GWH09PA-K3NNA7F 2.GWH09PA-K3NNA2F 3.GWH09PA-K3NNA1F 4.GWH09PA-K3NNA5F
Product Code			1.CA428000700 CA428000701 2.CA415003100 3.CA414002301 CA414002300 4.CA417002000
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	2638
Heating Capacity		W	2814
Cooling Power Input		W	939
Heating Power Input		W	853
Cooling Power Current		A	3.64
Heating Power Current		A	3.46
Rated Input		W	1350
Rated Current		A	4.97
Air Flow Volume(SH/H/M/L/SL)		m^3/h	450/400/320/250/-
Dehumidifying Volume		L/h	0.8
EER		W/W	2.81
COP		W/W	3.39
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH09PA-K3NNA7F/I 2.GWH09PA-K3NNA2F/I 3.GWH09PA-K3NNA1F/I 4.GWH09PA-K3NNA5F/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ85X596
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1390/1280/1180/1080/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1350/1250/1140/1040/-
	Output of Fan Motor	W	10
	Fan Motor RLA	A	0.15
	Fan Motor Capacitor	μF	1
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	589X25.4X266.7
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	37/34/31/29/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	47/44/41/39/-
	Dimension (WXHXD)	mm	733X254X184
	Dimension of Carton Box (LXWXH)	mm	790X255X328
	Dimension of Package (LXWXH)	mm	793X258X343
	Net Weight	kg	8
	Gross Weight	kg	9.5

Outdoor Unit	Model of Outdoor Unit		GWH09NA-K3NNC7F/O
	Product Code of Outdoor Unit		CA195W06300
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO.,LTD
	Compressor Model		QXA-B106C130A
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	17
	Compressor RLA	A	4.1
	Compressor Power Input	W	875
	Overload Protector		UP3-20
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7.94
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	658X19.05X396
	Fan Motor Speed	rpm	950
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.25
	Fan Motor Capacitor	μF	1.5
	Air Flow Volume of Outdoor Unit	m^3/h	1200
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ320
	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	720X428X310
	Dimension of Carton Box (LXWXH)	mm	765X350X475
	Dimension of Package (LXWXH)	mm	768X353X490
	Net Weight	kg	25.5
	Gross Weight	kg	27.5
	Refrigerant		R410A
	Refrigerant Charge	kg	0.68
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ9.52
	Max Distance Height	m	5
	Max Distance Length	m	15
	Note: The connection pipe applies metric diameter.		

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

Model			1.GWH12PC-K3NNA6E 2.GWH12PC-K3NNA5E 3.GWH12PC-K3NNA2E 4.GWH12PC-K3NNA9E 5.GWH12PC-K3NNA3E
Product Code			1.CA430000800 CA430000801 2.CA417001800 CA417001801 3.CA415001800 CA415001801 4.CA429000900 CA429000901 5.CA416001800 CA416001801
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	3223
Heating Capacity		W	3516
Cooling Power Input		W	1004
Heating Power Input		W	973
Cooling Power Current		A	5.0
Heating Power Current		A	4.5
Rated Input		W	1500
Rated Current		A	6.43
Air Flow Volume(SH/H/M/L/SL)		m^3/h	650/550/450/330/-
Dehumidifying Volume		L/h	1.2
EER		W/W	3.0
COP		W/W	4.0
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH12PC-K3NNA6E/I 2.GWH12PC-K3NNA5E/I 3.GWH12PC-K3NNA2E/I 4.GWH12PC-K3NNA9E/I 5.GWH12PC-K3NNA3E/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ92X645
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1350/1250/1100/950/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1190/1150/1050/920/-
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.2
	Fan Motor Capacitor	μF	1
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	645X25.4X266.7
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	42/39/36/33/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	52/49/46/43/-
	Dimension (WXHXD)	mm	845X275X180
	Dimension of Carton Box (LXWXH)	mm	923X264X356
	Dimension of Package (LXWXH)	mm	926X267X371
	Net Weight	kg	9.5
	Gross Weight	kg	11.5

Outdoor Unit	Model of Outdoor Unit		GWH12NC-K3NNE4E/O
	Product Code of Outdoor Unit		CA403W01600
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXA-B120C150
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	22
	Compressor RLA	A	4.7
	Compressor Power Input	W	1020
	Overload Protector		INTERNAL
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7.94
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	697X19.05X506
	Fan Motor Speed	rpm	850
	Output of Fan Motor	W	35
	Fan Motor RLA	A	0.33
	Fan Motor Capacitor	μF	2.5
	Air Flow Volume of Outdoor Unit	m^3/h	1600
	Fan Type		Axial-flo
	Fan Diameter	mm	Φ395
	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	820X355X580
	Dimension of Package (LXWXH)	mm	823X358X595
	Net Weight	kg	29
	Gross Weight	kg	31.5
	Refrigerant		R410A
	Refrigerant Charge	kg	0.83
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	20
	Outer Diameter Liquid Pipe	mm	Φ6
	Outer Diameter Gas Pipe	mm	Φ12
	Max Distance Height	m	10
	Max Distance Length	m	20
	Note: The connection pipe applies metric diameter.		

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

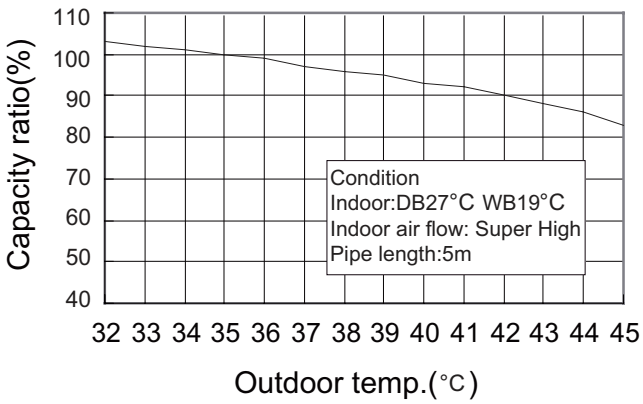
Model			1.GWH12PC-K3NNA7F 2.GWH12PC-K3NNA1F 3.GWH12PC-K3NNA5F
Product Code			1.CA428000800 CA428000801 2.CA414002400 CA414002401 3.CA417002100
Power Supply	Rated Voltage	V~	220-240
	Rated Frequency	Hz	50
	Phases		1
Power Supply Mode			Indoor
Cooling Capacity		W	3223
Heating Capacity		W	3370
Cooling Power Input		W	1146
Heating Power Input		W	1049
Cooling Power Current		A	5.1
Heating Power Current		A	4.39
Rated Input		W	1450
Rated Current		A	7.39
Air Flow Volume(SH/H/M/L/SL)		m^3/h	650/550/450/330/-
Dehumidifying Volume		L/h	1.2
EER		W/W	3.0
COP		W/W	3.0
SEER		W/W	/
HSPF		W/W	/
Application Area		m^2	12-18
Indoor Unit	Model of Indoor Unit		1.GWH12PC-K3NNA7F/I 2.GWH12PC-K3NNA1F/I 3.GWH12PC-K3NNA5F/I
	Fan Type		Cross-flow
	Diameter Length(DXL)	mm	Φ92X645
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1350/1250/1100/950/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1190/1150/1050/920/-
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.2
	Fan Motor Capacitor	μF	1
	Input of Heater	W	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Row-fin Gap	mm	2-1.5
	Coil Length (LXDXW)	mm	645X25.4X266.7
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	45/39/36/33/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	55/49/46/43/-
	Dimension (WXHXD)	mm	845X275X180
	Dimension of Carton Box (LXWXH)	mm	923X264X356
	Dimension of Package (LXWXH)	mm	926X267X371
	Net Weight	kg	9
	Gross Weight	kg	11

Outdoor Unit	Model of Outdoor Unit		GWH12NC-K3NNC7F/O
	Product Code of Outdoor Unit		CA195W06400
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXA-B120C150
	Compressor Oil		RB68EP
	Compressor Type		Rotary
	L.R.A.	A	22
	Compressor RLA	A	4.7
	Compressor Power Input	W	1020
	Overload Protector		INTERNAL
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	18~43
	Ambient Temp (Heating)	°C	-7~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	1-1.4
	Coil Length (LXDXW)	mm	721.5X12.7X495
	Fan Motor Speed	rpm	850
	Output of Fan Motor	W	35
	Fan Motor RLA	A	0.33
	Fan Motor Capacitor	μF	2.5
	Air Flow Volume of Outdoor Unit	m^3/h	1600
	Fan Type		Axial-flo
	Fan Diameter	mm	Φ395
	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	820X355X580
	Dimension of Package (LXWXH)	mm	823X358X595
	Net Weight	kg	29
	Gross Weight	kg	31.5
	Refrigerant		R410A
	Refrigerant Charge	kg	0.8
Connection Pipe	Length	m	5
	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
	Note: The connection pipe applies metric diameter.		

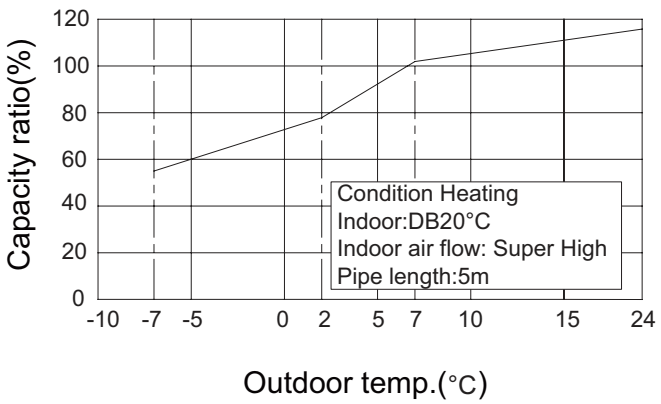
The above data is subject to change without notice; please refer to the nameplate of the unit.

2.2 Capacity Curve in Different Outdoor Temperature

Cooling



Heating



2.3 Cooling and Heating Data Sheet in Rated Frequency

Cooling

Rated cooling condition(°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit
Indoor	Outdoor		P (MPa)	T1 (°C)	T2 (°C)		
27/19	35/24	07/09K	0.85~1.0	in:8~11 out:11~14	in:75~85 out:37~43	Super High	High
27/19	35/24	12K	0.9~1.1	in:8~11 out:11~14	in:75~85 out:37~43	Super High	High

Heating

Rated heatling condition(°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit
Indoor	Outdoor		P (MPa)	T1 (°C)	T2 (°C)		
20/-	7/6	07/09K	3.5~3.8	in:75~85 out:37~43	in:1~3 out:2~5	Super High	High
20/-	7/6	12K	2.3~2.5	in:75~85 out:37~43	in:1~3 out:2~5	Super High	High

Instruction:

T1: Inlet and outlet pipe temperature of evaporator

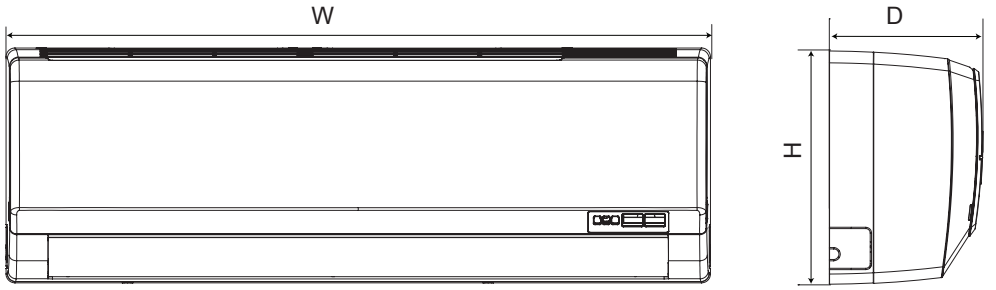
T2: Inlet and outlet pipe temperature of condenser

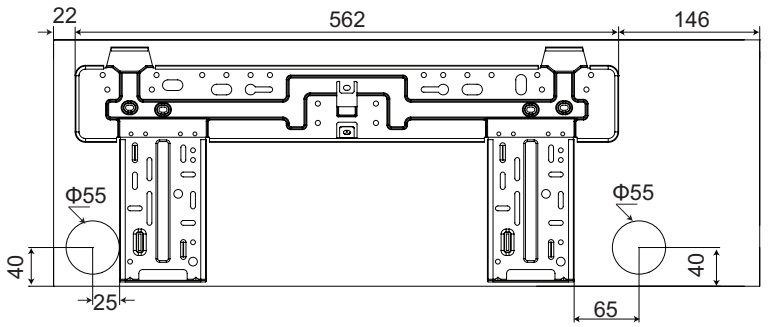
P: Pressure at the side of big valve

Connection pipe length: 5 m.

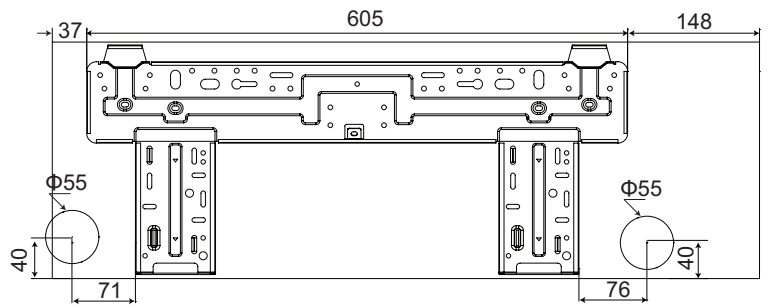
3. Outline Dimension Diagram

3.1 Indoor Unit

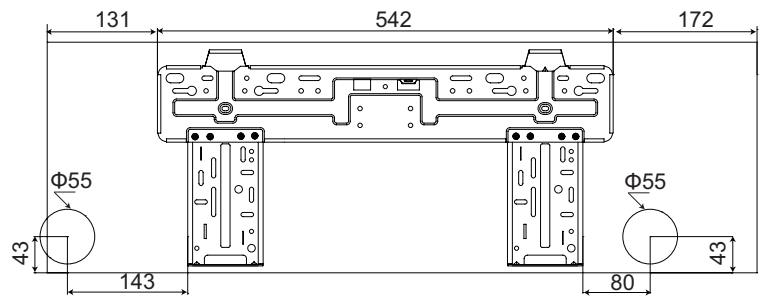




07K/09K(PA)



09K(PB)



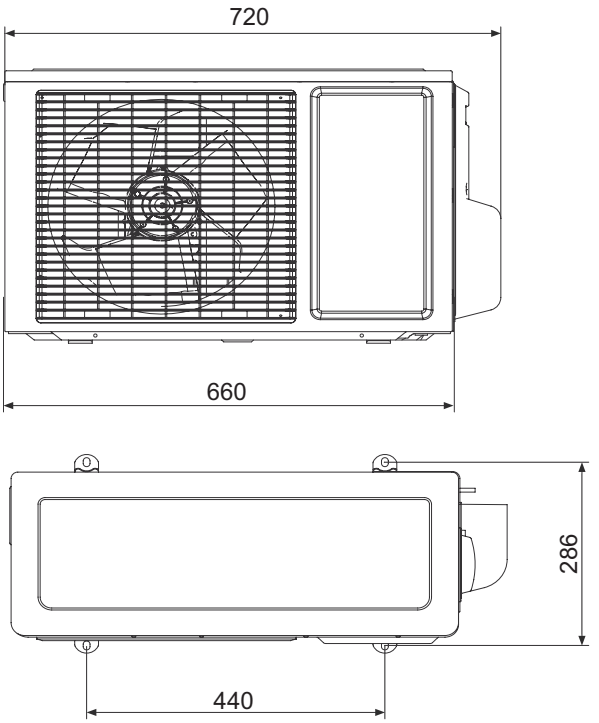
12K

Unit:mm

Model	W	H	D
07K/09K(PA)	733	254	184
09K(PB)	790	265	179
12K	845	275	180

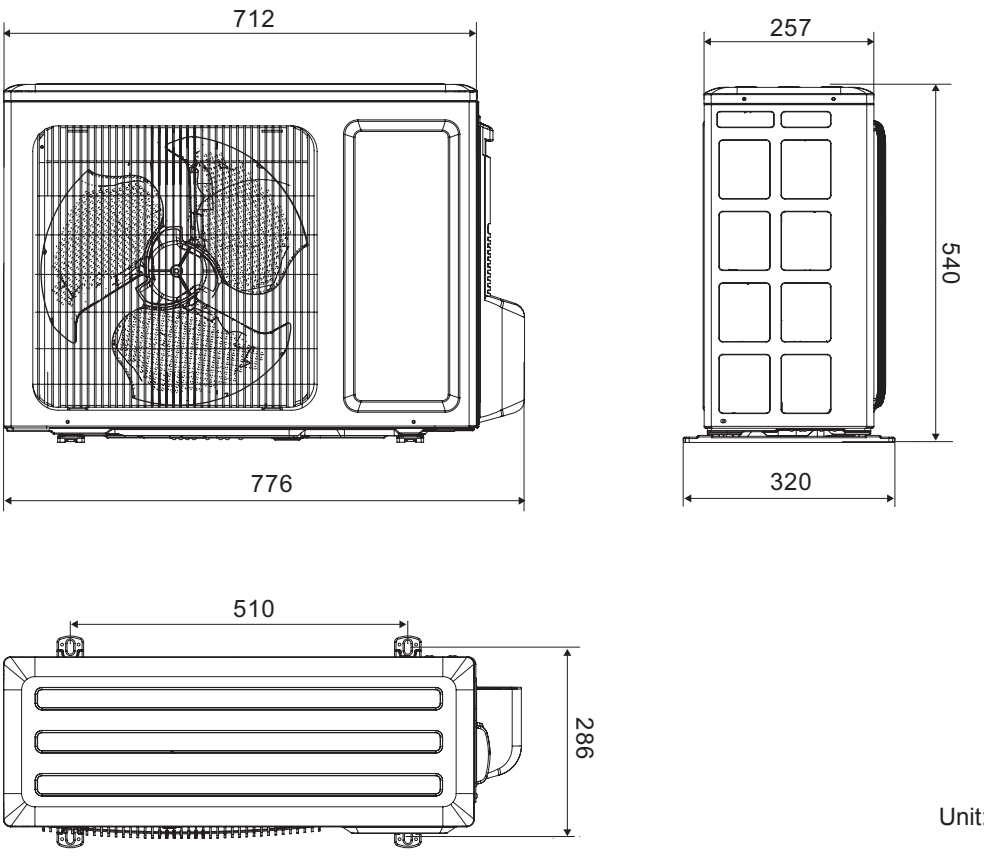
3.2 Outdoor Unit

07K/09K



Unit:mm

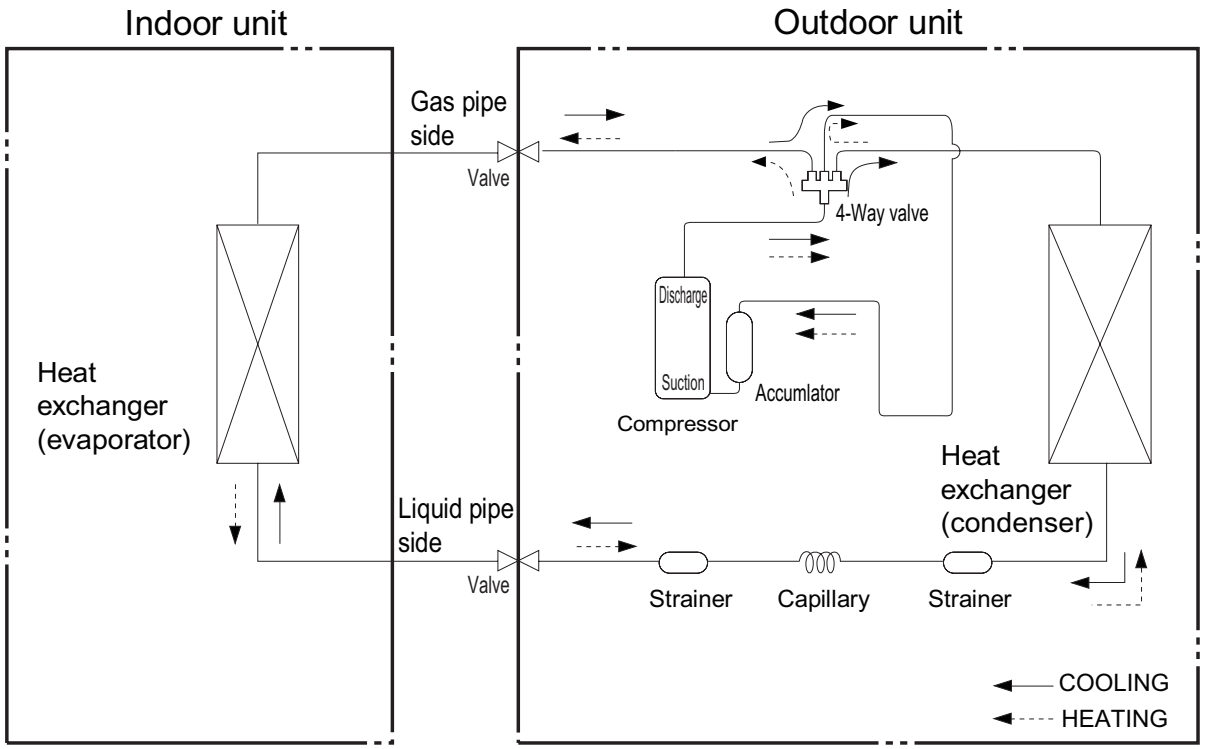
12K



Unit:mm

4. Refrigerant System Diagram

Cooling and heating model



Connection pipe specification:
Liquid pipe:1/4" (6mm)
Gas pipe:3/8" (9.52mm)All models except:12K(A2/A3/A5/A6/A9 panel)
Gas pipe:1/2" (12mm)12K(A2/A3/A5/A6/A9 panel)

5. Electrical Part

5.1 Wiring Diagram

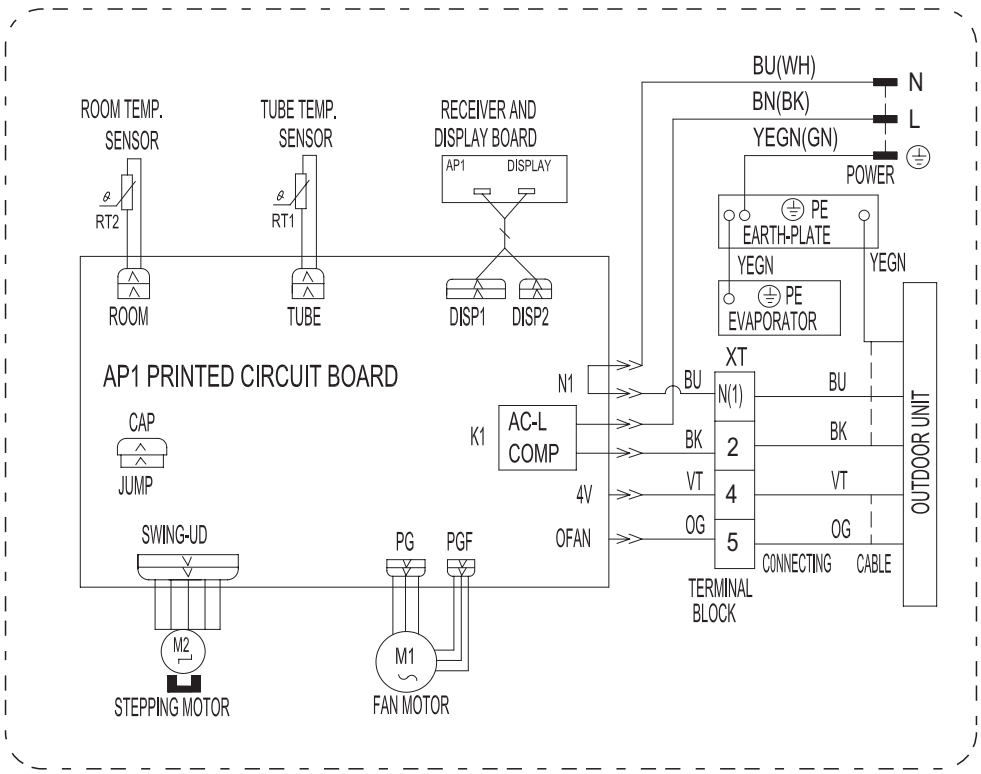
●Instruction

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

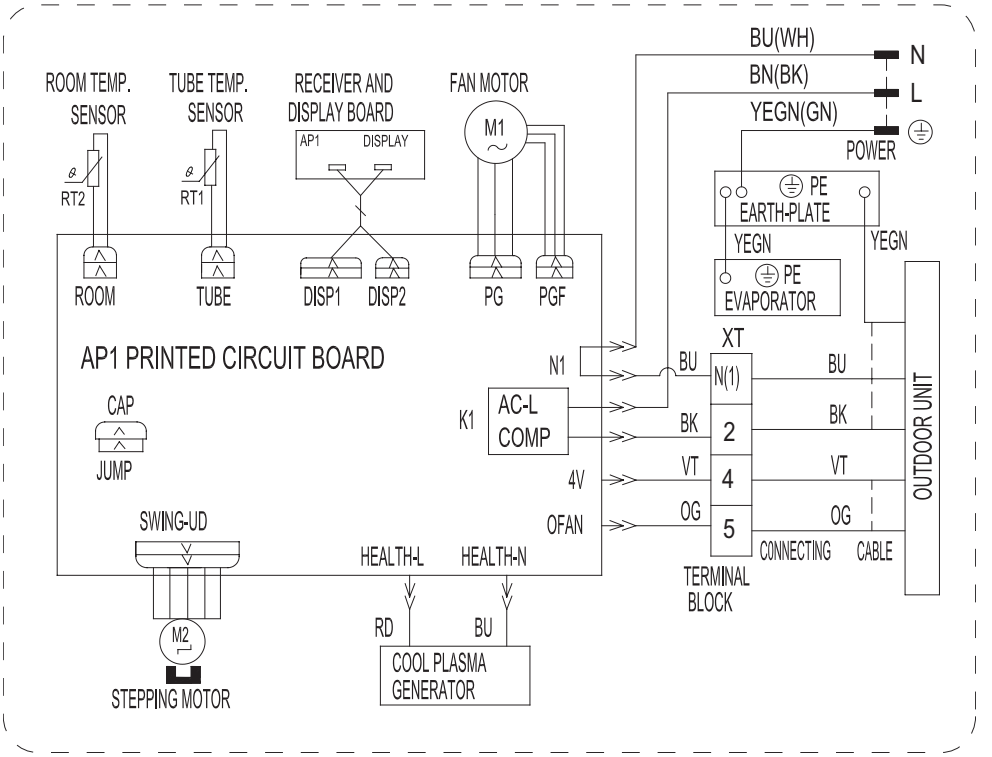
Note: Jumper cap is used to determine fan speed and the swing angle of horizontal lover for this model.

● Indoor Unit

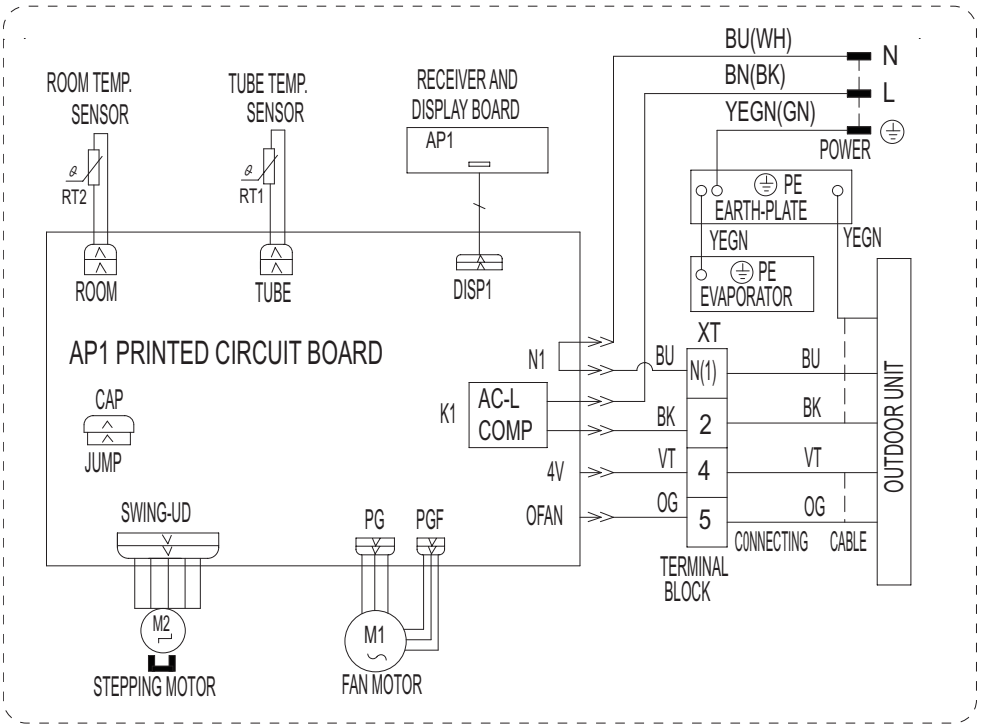
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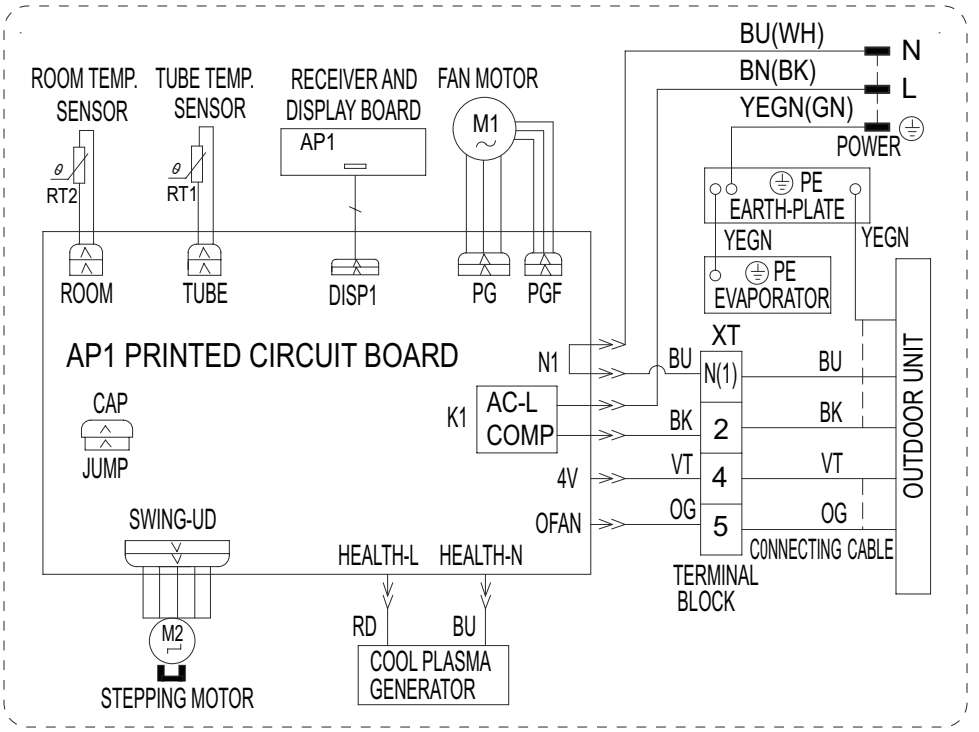
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GWH07PA-K3NNA2E/I(CA415N01601) GWH09PB-K3NNA2E/I(CA415N01701) GWH12PC-K3NNA2E/I(CA415N01801)
GWH07PA-K3NNA7F/I(CA428N00601) GWH09PA-K3NNA7F/I(CA428N00701) GWH07PA-K3NNA5E/I(CA417N01601)
GWH12PC-K3NNA5E/I(CA417N01801) GWH07PA-K3NNA9E/I(CA429N00701) GWH09PB-K3NNA9E/I(CA429N00801)
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GWH12PC-K3NNA1F/I(CA414N02401) GWH12PC-K3NNA7F/I(CA428N00801) GWH09PB-K3NNA5E/I(CA417N01701)



GWH07PA-K3NNA3E/I(CA416N01600) GWH09PB-K3NNA3E/I(CA416N01700) GWH12PC-K3NNA3E/I(CA416N01800)

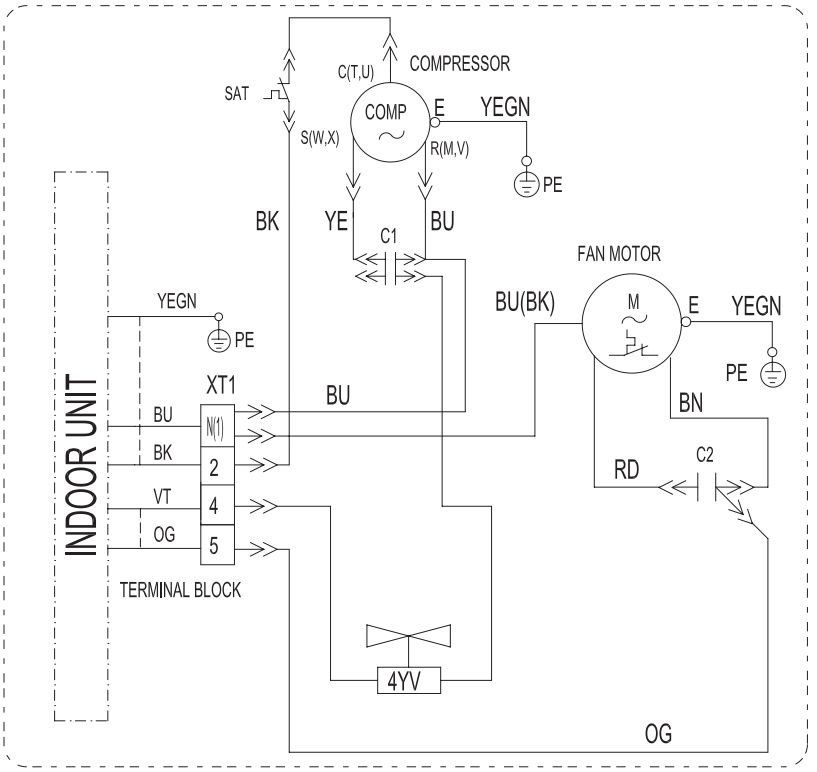


GWH07PA-K3NNA3E/I(CA416N01601) GWH12PC-K3NNA3E/I(CA416N01801)

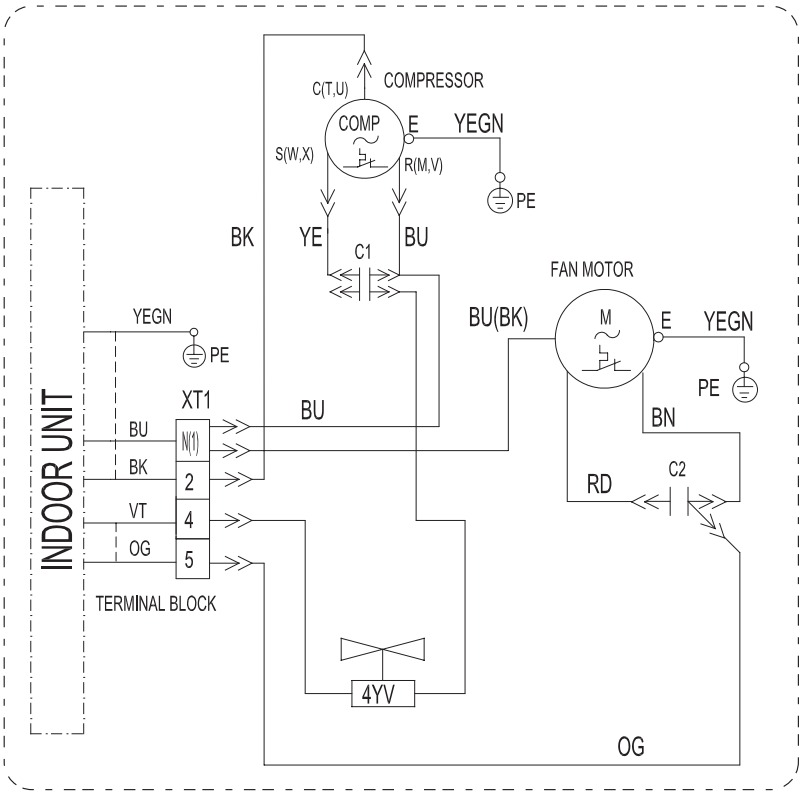


● Outdoor Unit

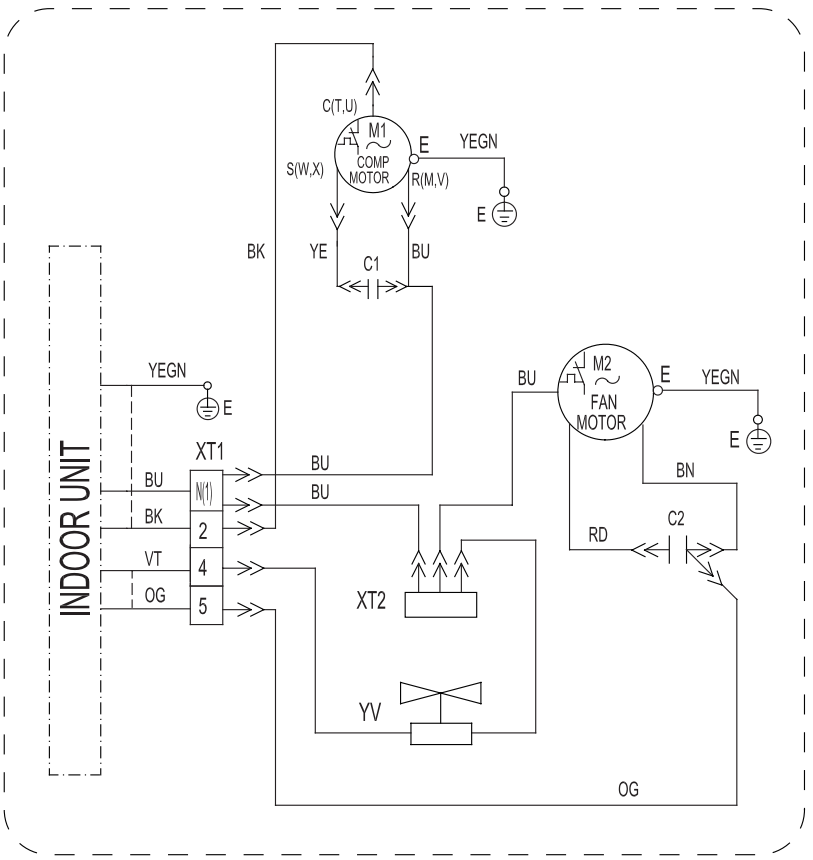
GWH07NA-K3NNE4E/O(CA403W01400) GWH07NA-K3NNC7F/O (CA195W06200)



GWH09MA-K3NNE4E/O(CA403W01500) GWH09NA-K3NNC7F/O(CA195W06300)



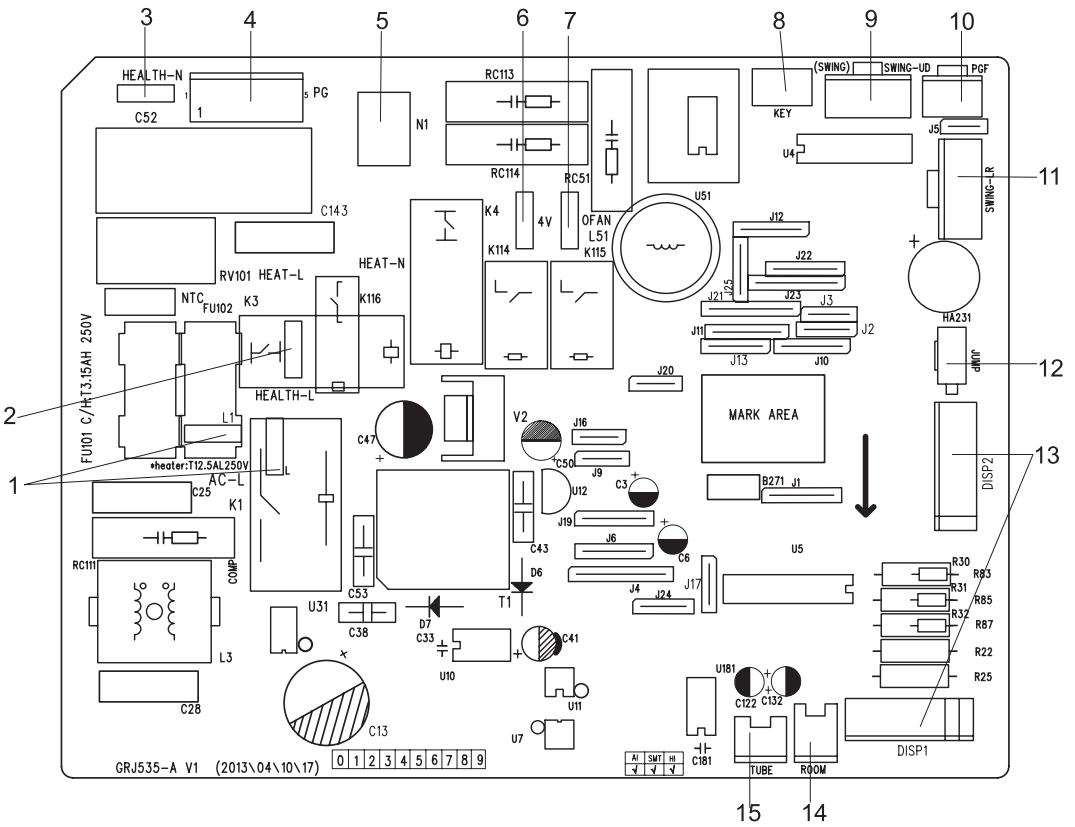
GWH12NC-K3NNE4E/O(CA403W01600) GWH12NC-K3NNC7F/O(CA195W06400)



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

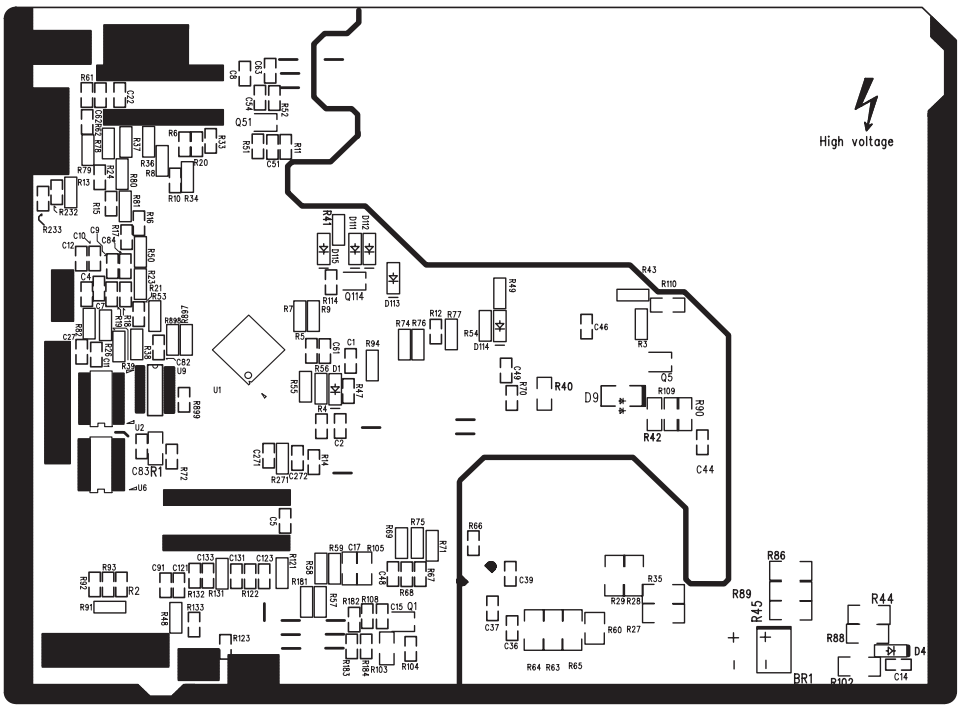
5.2 PCB Printed Diagram

● Top view



NO.	Name
1	Interface of live wire
2	Interface of live wire for health function
3	Interface of neutral wire for health function
4	Control interface of PG motor
5	Interface of neutral wire
6	Interface of 4-way valve
7	Interface of outdoor fan
8	Tact Switch
9	Up & down swing
10	PG Motor Feedback Interface
11	Left & Right Air Swing Interface
12	Jumper Cap Interface
13	Display Interface
14	Ambient Temperature Sensor
15	Tube Temperature Sensor

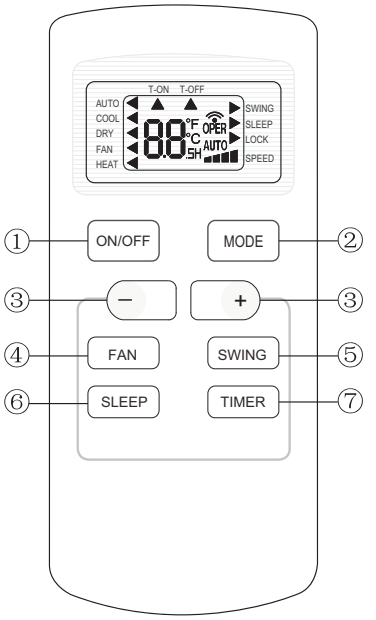
● Bottom view



6. Function and Control

6.1 Remote Controller Introduction of YX1F

Buttons on Remote Controller



①: **ON/OFF button**

②: **MODE button**

③: **+/- botton**

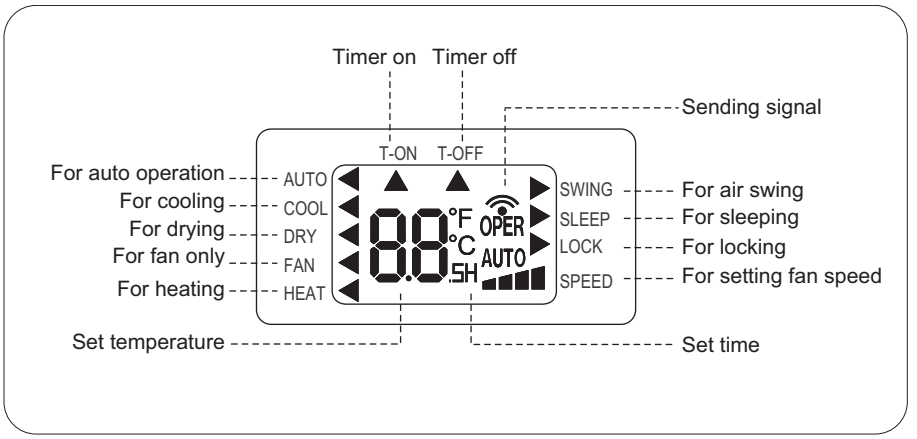
④: **FAN button**

⑤: **SWING button**

⑥: **SLEEP button**

⑦: **TIMER button**

Icon Display on Remote Controller



Operation introduction of remote controller

Note:

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

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

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

1. ON/OFF Button

Press this button to turn unit on/off.

2. MODE Button

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

AUTO ▶ COOL ▶ DRY ▶ FAN ▶ HEAT

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

3. +/- button

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

4. FAN Button

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



SPEED 1 (equals to low fan speed) SPEED 2 (equals to medium fan speed)

SPEED 3 (equals to high fan speed) SPEED 4

Note:

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

5. SWING Button

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

6. SLEEP Button

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

7. TIMER Button

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

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

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

Note:

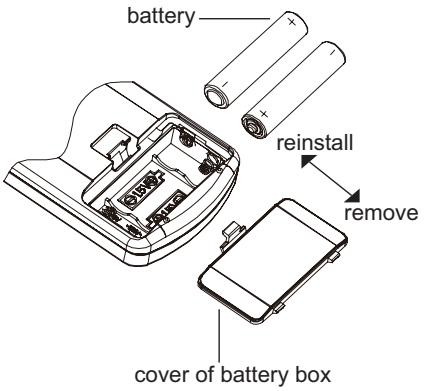
◆ Range of time setting is: 0.5~24h.
◆ The interval between two motions can't exceed 5s, otherwise the remote controller will exit setting status.

Simple operationfirst

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

Replacement of Batteries in Remote Controller

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



Note:

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

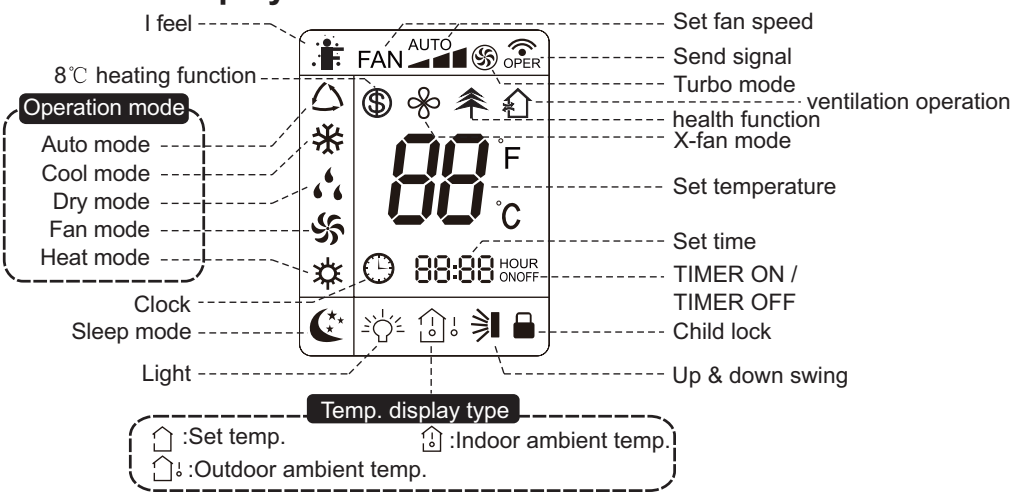
6.2 Remote Controller Introduction of YV1F7

Buttons on remote controller



1. ON/OFF button
2. ▲ button
3. MODE button
4. SWING button
5. ▼ button
6. FAN button
7. TIMER OFF button
8. CLOCK button
9. TIMER ON button
10. SLEEP button
11. TEMP button
12. TURBO button
13. X-FAN | button
14. I FEEL button
15. / button

Introduction for icons on display screen



Introduction for buttons on remote controller

Note:

- After putting through the power, the air conditioner will give out a sound. Operation indictor "⏻" is ON (red indicator). After that, you can operate the air conditioner by using remote controller.
- Under on status, pressing the button on the remote controller, the signal icon "((•))" on the display of remote controller will blink once and the air conditioner will give out a “de” sound, which means the signal has been sent to the air conditioner.
- Under off status, set temperature and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corre-sponding icons will be displayed on the display of remote controller at the same time); Under on status, the display will show the corresponding set function icons.

1. ON/OFF button

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

2. ▲ button

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

3. MODE button

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:

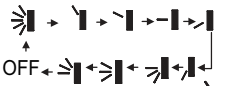
AUTO ▶ COOL ▶ DRY ▶ FAN ▶HEAT*

* 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.

4. SWING button

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



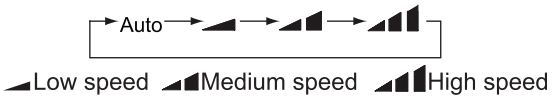
This remote controller is universal . If any command , or is sent out,the unit will carry out the command as indicates the guide louver swings as:

5. ▼button

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

6. FAN button

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



7. TIMER OFF button

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.

8. CLOCK button

Press CLOCK button, blinking. 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.

9. TIMER ON button

Press this button to initiate the auto-ON timer. To cancel the auto-timer program, simply press this button again.After press of this button, disappears and "ON "blinks. 0 0:00 is displayed for ON timesetting. 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.

10. SLEEP button

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) to maintain the most comfortable temperature for you.

11. TEMP button

Press this button, you can see indoor set temperature, indoor ambient temperature on indoor unit's display. The setting on remote controller is selected circularly as below:



When selecting " " with remote controller or no display, temperature indicator on indoor unit displays set temperature; When selecting "" with remote controller, temperatureindicator on indoor unit displays indoor ambient temperature; 3s later or within 3s itreceives other remote controller signal that will return to display the setting temperature.

Caution:

• This model hasn't outdoor ambient temperature display function. While remote controllercan operate "" and indoor unit displays set temperature.

• It's defaulted to display set temperature when turning on the unit.

• Only for the models with temperature indicator on indoor unit.

12. TURBO button

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. X-FAN | button

X-FAN function: In COOL or DRY mode, the icon is displayed and the indoor fan willcontinue operation for 2 minutes in order to dry the indoor unit even though you haveturned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.

function: 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.

14. I FEEL button

Press this button to turn on I FEEL function. The unit automatically adjust temperature according to the sensed temperature. Press this button again to cancel I FEEL function.

15. / button

Press this button to achieve the on and off of healthy and scavenging functions inoperation status. Press this button for the first time to start scavenging function; LCD displays " ". Press the button for the second time to start healthy and scavengingfunctions simultaneously; LCD displays " " and " ". Press this button for the third time to quit healthy and scavenging functions simultaneously. Press the button for the fourth time to start healthy function; LCD display " ". Press this button again to repeat the operation above. (This function is applicable to partial of models)

Function introduction for combination buttons

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.

Combination of "MODE" and "▼" buttons:

About switch between Fahrenheit and centigrade

At unit OFF, press "MODE" and "▼" buttons simultaneously to switch between ℃ and ℉ .

Combination of "TEMP" and "CLOCK" buttons:

About Energy-saving Function

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

Combination of "TEMP" and "CLOCK" buttons:

About 8℃ Heating Function

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

About Back-lighting Function

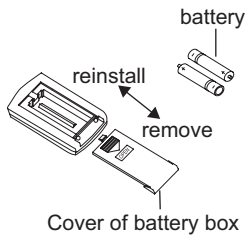
The unit lights for 4s when energizing for the first time, and 3s for later press.

Operation guide

1. After putting through the power, press "ON/OFF" button on remote controller to turn on the air conditioner.
2. Press "MODE" button to select your required mode: AUTO, COOL, DRY, FAN,HEAT.
3. Press "▲" or "▼" button to set your required temperature. (Temperature can't be adjusted under auto mode).
4. Press "FAN" button to set your required fan speed: auto, low, medium and high speed.
5. Press "SWING" button to select fan blowing angle.

Replacement of batteries in remote controller

1. Press the back side of remote controller marked with" ", as show in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "▲" polar and "▼" polar are correct.
3. Reinstall the cover of battery box.



Note:

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

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

● Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.

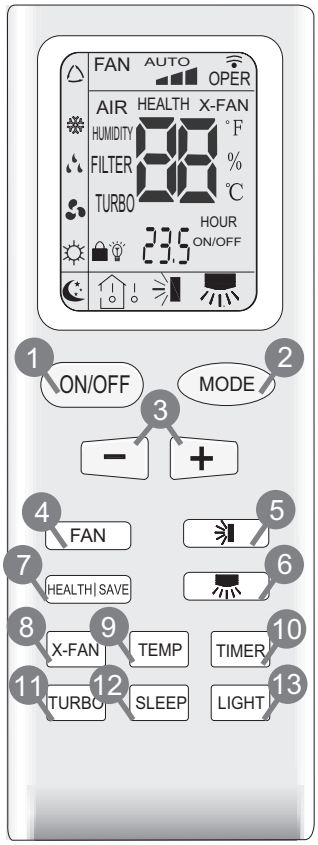
● Replace new batteries of the same model when replacement is required.

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

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

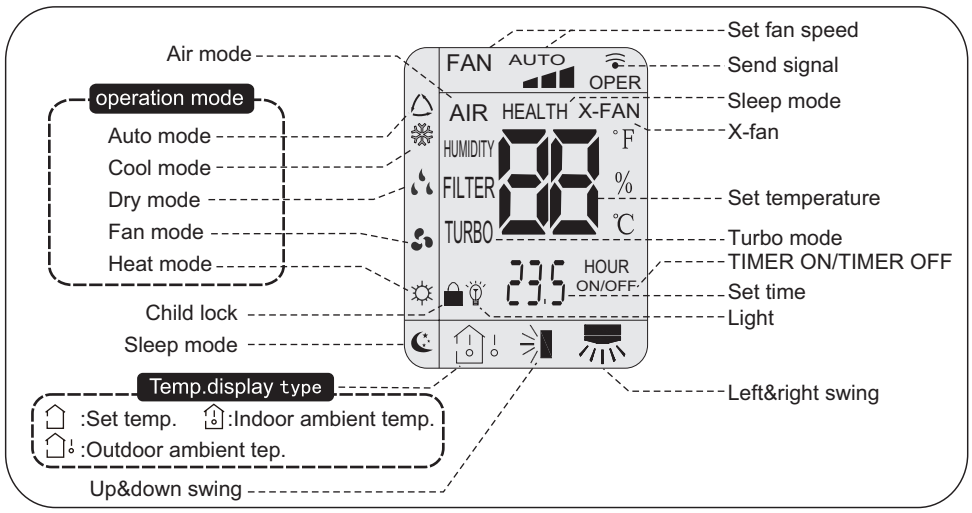
6.3 Remote Controller Introduction of YB1F2(XFAN)

Buttons on Remote Controller



1. ON/OFF Button
2. MODE Button
3. +/- Button
4. FAN Button
5. Button
6. Button
7. HEALTH | SAVE Button
8. X-FAN Button
9. TEMP Button
10. TIMER Button
11. TURBO Button
12. SLEEP Button
13. LIGHT Button

Introduction for Icons on Display Screen



Introduction for Buttons on Remote Controller

Note:

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

• At ON status, after each pressing button on remote controller, the signal icon“ ”on remote controller will flash once. Air conditioner will give out a sound, which indicates the signal has been sent to air conditioner.

• At OFF status, display screen on remote controller displays set temperature.

At on status, display screen on remote controller displays the corresponding startup function’s icon.

1. ON/OFF Button

Press this button can turn on or turn off the air conditioner. After turning on the unit, operation indicator " ⏻ "on indoor unit is ON (green indicator. Color may be different for different models) and indoor unit gives out a sound.

2. MODE Button

Press this button to select your required operation mode.



• After selecting auto mode, air conditioner will operate automatically according to ambient temperature. Set temperature can't be adjusted and also can't be displayed. Press "FAN" button can adjust fan speed. Press" "button and" "button can adjust swing angle

• After selecting cool mode, air conditioner operates under cool mode. Cool indicator" "on indoor unit is ON. You can press "+" or "-" button to adjust set temperature. Press "FAN" button can adjust fan speed. Press" "button and" "button can adjust swing angle.

• After selecting dry mode, air conditioner operates under dry mode at low speed. Dry indicator" "on indoor unit is ON. Under dry mode, fan speed can't be adjusted. Press" "button and" "button to adjust swing angle.

• After selecting fan mode, air conditioner operates only under fan mode, All mode indicators on indoor unit is OFF. Press "FAN" button can adjust fan speed. Press" "button and" "button to adjust swing angle.

• After selecting heat mode, air conditioner operates under heat mode. Heat indicator" "on indoor unit is ON. You can press "+"or "-" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press" "button and" "button to adjust swing angle. (Cooling only unit can't receive the signal for heating mode.)

Note: For preventing cold wind, after starting up heating mode, indoor fan will blow fan after delaying 1-5min. (Details time is decided by indoor ambient temperature)

Temperature setting range on remote controller: 16℃ -30℃ . Fan speed setting range: auto, low speed, medium speed and high speed.

3. "+"or "-" button

• After each pressing of "+"or "-" button, it can increase or decrease set temperature 1℃ . Hold "+"or "-" button, 2s later, set temperature on remote controller will change quickly. After reaching to your required time, loosen the button. Temperature indicator on indoor unit will also change accordingly. (Temperature can't be adjusted under auto mode)

• Under TIMER ON, TIMER OFF or Clock setting, you can press "+"or "-" button to adjust time. (Refer to TIMER button for details)

4. FAN button

Press this button you can select the fan speed in sequence: auto (AUTO),low speed( ), medium speed,)high speed( ).



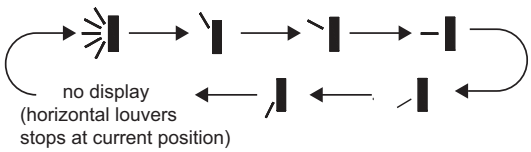
Note:

• Under auto mode, air conditioner will select proper fan speed according to ex-factory setting automatically. Air conditioner will select proper fan speed according to ex-factory setting automatically.

• Low speed under dry mode.

5. **button**

Press this button can select up&down swing. Swing angle can be selected in sequence as below:

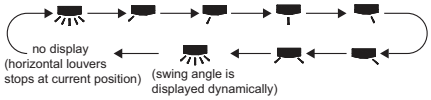


When selecting" "with remote controller, it's auto swing. Horizontal louver of air conditioner will swing up&down automatically at the maximum angle.

When selecting" 、 、 、 、 "with remote controller, it's the fixed position swing. Horizontal louver of air conditioner will stop at that position as shown by the icon to swing.

6. button

Press this button can select left&right swing. Swing angle can be selected circularly in sequence as below:



When selecting“ ”with remote controller, it’s auto swing. Horizontal louver of air conditioner will swing left&right automatically at the maximum angle.

When selecting“ ”with remote controller, it’s the fixed position swing. Horizontal louver of air conditioner will stop at that position as shown by the icon to swing.

When selecting“ (swing angle is displayed dynamically) ”it’s the circulating swing. Horizontal louver of air conditioner will swing circularly according to the angle as shown by the icon.

7. HEALTH/SAVE button

HEALTH FUNCTION:

After pressing HEALTH button, remote controller will switch circularly as below:

“HEALTH”→ “AIR” → “AIR HEALTH” → “no display”

When selecting “HEALTH” by remote controller, HEALTH function will be started up.

When selecting “AIR” by remote controller, AIR function will be started up.

When selecting “AIT HEALTH”, AIR and HEALTH function will be started up.

When there’s no display on remote controller, AIR and HEALTH function will be turned off.

SAVE function:

Under cool mode, press SAVE button and the unit will operate under SAVE mode. Dual-8 nixie tube on remote controller displays “SE”. Air conditioner will operate at auto speed. Set temperature can’t be adjusted. Press SAVE button again to exit SAVE mode. Air conditioner turn back to original set speed and set temperature.

8. X-FAN button

After pressing this button under cooling or dry mode, remote controller displays the character of “X-FAN” and X-FAN function is started up. Press this button again to cancel X-FAN function. The character of “X-FAN” will disappear.

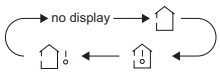
Note:

• After starting up X-FAN function, when turning off the unit, indoor fan will continue to operate for a while at low speed to dry the residual water inside the indoor unit.

• When the unit operates under X-FAN mode, press “X-FAN” button can turn off X-FAN function. Indoor fan stops operation immediately.

9. TEMP button

Press this button can see indoor set temperature, indoor ambient temperature or outdoor ambient temperature on indoor unit’s display. Temperature is set circularly by remote controller as below:



When selecting“ ”by remote controller or no display, temperature indicator on indoor unit displays set temperature;

When selecting“ ”by remote controller, temperature indicator on indoor unit displays indoor ambient temperature;

When selecting“ ”by remote controller, temperature indicator on indoor unit displays outdoor ambient temperature.

Note:

• Outdoor ambient temperature display may can’t be selected for some models. When indoor unit receives“ ”signal, it displays indoor set temperature.

• Only for the model whose indoor unit has dual-8 display.

10. TIMER button

• At ON status, press this button once can set TIMER OFF. The character of HOUR and OFF will flash. Press “+” or “-” button within 5s can adjust the time of TIMER ON. After each pressing of “+” or “-” button, time will increase or decrease half an hour. When holding “+” or “-” button, 2s later, the time will change quickly until to reach to your required time. After that, press “TIMER” button to confirm it. The character of HOUR and OFF won’t flash again.

Cancel TIMER OFF: Press “TIMER” button again under TIMER OFF status.

• At OFF status, press this button once can set TIMER ON. Please refer to TIMER off for detailed operation.
Cancel TIMER ON: Press “TIMER” button again under TIMER ON status.

Note:

• Time setting range: 0.5-24 hours.

• Time interval between two operations can’t exceed 5s. Otherwise, remote controller will exit the setting status automatically.

11. TURBO button

When pressing this button under cooling or heating mode, air conditioner will enter into quick cooling or quick heating mode. The character of “TURBO” is displayed on remote controller. Press this button again to exit turbo function and the character of “TURBO” will be disappeared on remote controller.

12. SLEEP button

Press this button under cooling, heating or drying mode can start up sleep function“ ”icon will be displayed on remote controller. Press this button again to cancel sleep function“ ”icon on remote controller will be displayed.

13. LIGHT button

Press this button can turn off the light for indoor unit’s display“ ”icon on remote controller will disappear. Press this button again to turn on the light for indoor unit’s display“ ”icon on remote controller will be displayed.

Function Introduction for Combination Buttons

Child lock function:

Press “+” and “-” buttons simultaneously can turn on or turn off child lock function. When child lock function is started up“ ”icon will be displayed on remote controller. If operate remote controller“ ”icon will flash three times, while remote controller won’t send signal.

Switchover function for temperature display:

After turning off the unit by remote controller, press “-” button and “MODE” button simultaneously to switch between ℃ and ℉ .

Operation Guide

1. After putting through the power, press “ON/OFF” button on remote controller to turn on the air conditioner.
2. Press "MODE" button to select your required mode:AUTO,COOL,DRY,FAN,HEAT.
3. Press “+” or “-“ button to set your required temperature. (Temperature can’t be adjusted under auto mode).
4. Press ‘FAN” button to set your required fan speed: auto, low, medium and high speed.
5. Press “ ”button and“ ”button to select fan blowing angle.

Replacement of Batteries in Remote Controller

1. Press the back side of remote controller marked with“ OPEN ”as shown in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of “+” polar and “-“ polar are correct.
3. Reinstall the cover of battery box.

Note:

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

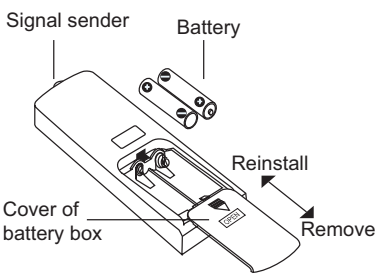
● The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.

● Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.

● Replace new batteries of the same model when replacement is required.

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

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



6.4 Brief Description of Modes and Functions

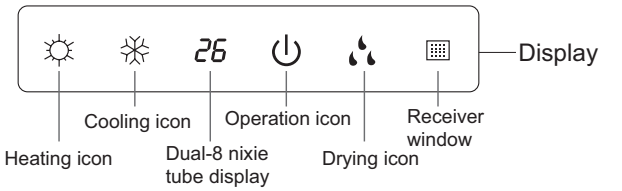
1. Summary

(1) Buzzer

When the controller is energized or receives signal from button (emergency operation switch on air conditioner) or remote controller, the buzzer will give out a beep.

(2) Display

After energization, all icons will be displayed once. Operation icon is in red under standby status. After turning on the unit by remote controller, operation icon is bright and corresponding set operation mode icon will be displayed (Mode icon include: cooling, heating, drying).



(Display content or position may be different from above graphics, please refer to actual products)

(3) Temperature parameter

◆ Indoor set temperature (Tpreset)
◆ Indoor ambient temperature (Tamb.)
◆ Inner tube temperature of indoor evaporator (Ttube)

2. Introduction of Basic Mode Function

◆ Once the compressor is energized, there should be a minimum interval of 3 mins between two start-ups.
◆ If the unit is with memory function and is off before power failure, the compressor can be restarted without an interval of 3 mins; if the
◆ unit is on before power failure, the compressor will be restarted with an interval of 3 mins.

Once compressor is started, it won't stop within 6 mins according to the change of room temp.

(1) Auto mode

① Operation condition and process for auto mode

Under auto mode, the system will automatically select operation mode (cooling, heating, and fan) according to indoor ambient temperature. There swill be 30s delayed for protection between mode switchover.

◆ When Tamb. ≥26℃ , the system operates under cooling mode; Ex-factory set temperature is 25℃ .
◆ Heat pump unit: when Tamb. ≤22℃ , the system operates under heating mode; Ex-factory set temperature is 20℃ .
◆ Cooling unit: when Tamb.≤22℃ , the system operates under fan mode; Ex-factory set temperature is 25℃ .
◆ 22℃ <Tamb.<26℃ : The system operates under fan mode if turn on the unit to enter into auto mode for the first time; If switch to auto mode from cooling, heating or fan mode, the system keeps previous operation mode; If switch to auto mode from drying mode, the system operates under fan mode.

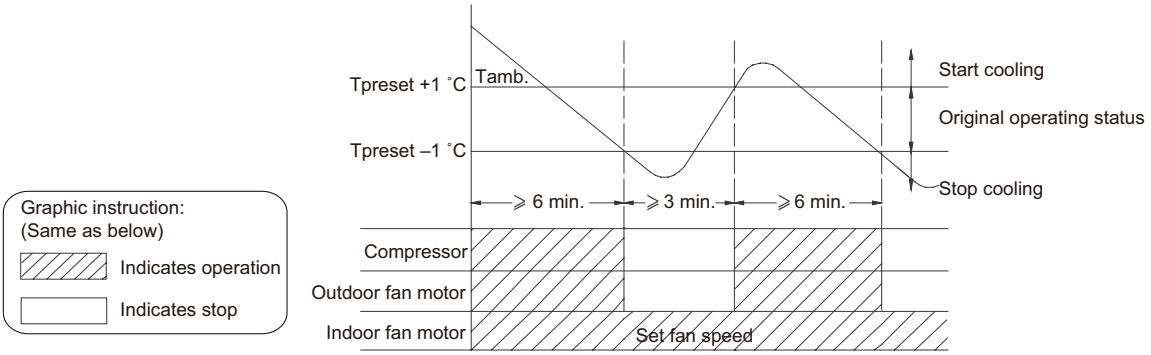
② Display: Operation icon, actual operation mode icon, set temperature (that's the display content of dual-8 nixie tube)
③ Protection function is same as that under each mode.

(2) Cooling mode

① Operation condition and process for cooling mode

◆ When Tamb. ≥Tset+1℃ , the system operates under cooling mode. In this case, the compressor, the ODU fan motor and the IDU fan motor operates at set speed.
◆ When Tamb. ≤Tset-1℃ , the compressor and the ODU fan motor stop, while the IDU fan motor operates at set speed.
◆ When Tset-1℃ <Tamb. <Tset+1℃ , the system will maintain its previous operation status.

In cooling mode, the 4-way valve is de-energized (4-way valve is not available for cooling only unit). Temperature setting range is



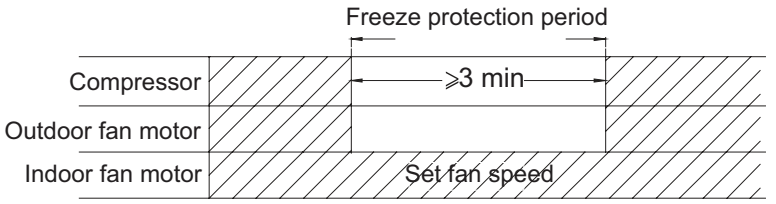
16~30℃ .

② Display: Operation icon, cooling icon, set temperature.
③ Protection function

◆ Freeze protection

During operation, when controller detected that Ttube≤0℃ for a consecutive period of time, the system enters into freeze protection. In

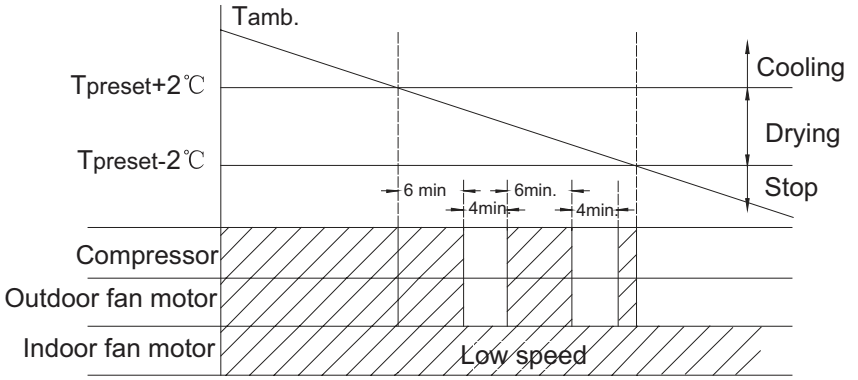
that case, the compressor and the ODU fan stop operation, while the IDU operates at set fan speed. If freeze protection is released and the compressor has been out of operation for 3 mins, the unit will resume its previous operation status.



◆ Overcurrent protection (this protection function is not available for those models whose cooling capacity ≤12000Btu/h)
During operation process, if controller detected that system current exceeds the limit value for 3s consecutively (overcurrent), only the fan operates. About 3 mins later, if overcurrent is released, the system will resume original operation.
If overcurrent protection occurs for 6 times consecutively, and resume operation time won't exceed 6min every time, overcurrent protection information will be displayed. After turning off the unit, display won't be displayed.
If turn on the unit again, the system will be restated up again. Overcurrent protection information will be eliminated.
Please refer to maintenance part for display information and disposal method for details.

◆ Locked protection to IDU fan motor
During operation of IDU fan motor, if controller detected that the rotation speed of IDU fan motor less than 300/min or stop rotation, the motor operates abnormally. In order to prevent damage to motor, controller will protect automatically, the system stops operation and blocked information of IDU fan motor will be displayed. After turning off the unit, display won't be displayed.
If turn on the unit again, the system will be restated up again. Blocked information of IDU fan motor will be eliminated. (For some models, they can only be restated up after re-energized)
Please refer to maintenance part for display information and disposal method for details.

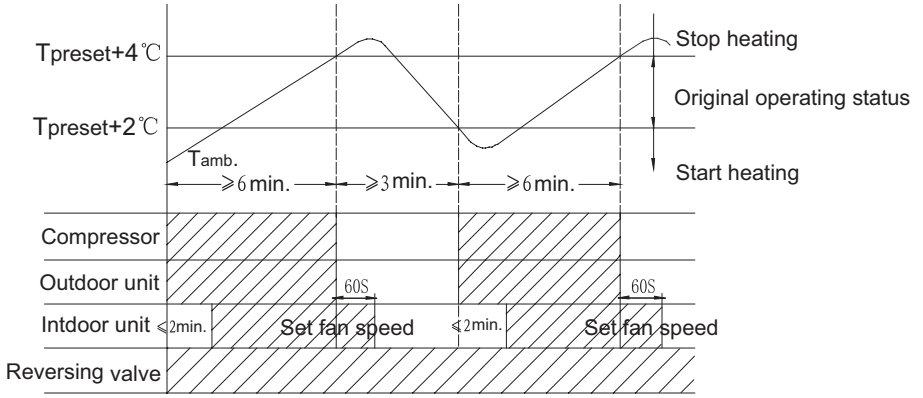
(3) Drying mode
① Operation condition and process for drying mode
◆ When Tamb. >Tset+2℃ , the system starts drying and cooling. In this case, the compressor and the ODU fan motor operate, and the IDU fan motor operates at low speed.
◆ When Tset-2℃ ≤Tamb. ≤Tset+2℃ , the system will start drying. In this case, the IDU fan motor operates at low speed; the compressor and the ODU fan motor operate for 6 minutes and stop for 4 minutes in cycle.
◆ When Tamb.<Tset-2℃ , the compressor and the ODU fan motor stop, while the IDU fan motor runs at low speed.
In drying mode, the 4-way valve is de-energized (4-way valve is not available for cooling only unit); Temperature setting range is 16~30℃ . Fan speed can't be adjusted.



② Display: Operation icon, drying icon, set temperature.
③ Protection function
◆ Freeze protection
During dying and cooling operation, when the controller detected that Ttube≤0℃ for a period of time consecutively, the system will enter into freeze protection. In that case, the compressor and the ODU fan motor stops operation, while the IDU fan motor operates at low speed. When freeze protection is release and the compressor has stopped for 3min, the system will resume original operation.
During drying operation, when the controller detected that Ttube≤0℃ for a period of time consecutively, the system enters into freeze protection. In that case, the compressor, the ODU fan motor stops operation, while the IDU fan motor operates at low speed. When freeze protection is release and the compressor has stopped for 4min, the system will resume original operation.
◆ Other protection is same as that under cooling mode.
(4) Fan mode

① Operation condition and process for fan mode
In fan mode, the IDU fan motor operates at set speed, while the compressor and the ODU fan motor stop. 4-way valve is de-energized (4-way valve is not available for cooling only unit). Temperature setting range is 16~30℃ .
② Display: Operation icon, set temperature.
③ Protection function
In fan mode, there are overcurrent protection and blocked protection of IDU fan motor. Please refer to corresponding protection function under cooling mode for details.

(5) Heating mode(no heating mode is not available for cooling only unit)
① Operation conditioner and process for heating mode
◆ When Tamb. ≤Tset+2℃ , the system starts heating operation. In this case, the 4-way valve is energized. The compressor and the ODU fan motor operates simultaneously; The IDU fan motor will be started up after delayed for a period of time to make sure the air conditioner won't blow out cold wind.
◆ When Tamb.≥Tpreset+4℃ , the compressor and the ODU motor stop. The 4-way valve is energized all the time. The IDU fan motor will blow residual heat after operating at set speed for a period of time consecutively to make sure the inner temperature of air conditioner won't be too high.
◆ When Tpreset<Tamb.<Tpreset+4℃ , the system will maintain its previous operation status.
In heating mode, 4-way valve is energized. Temperature setting range is 16~30℃ .



② Display: Operation icon, heating icon, set temperature.
③ Defrosting condition and process
For ensusing heating effect, air conditioner will defrost automatically according to defrosting status on outdoor unit. Dual-8 nixie tube displays H1 during defrosting. (Heating icon is bright for a period time and then OFF for some models)
④ Protection function
◆ Overheating prevention protection
During operation, when controller is detected that Ttube>55℃ , the ODU fan motor stops operation; When Ttube is resumed normally, the ODU fan motor resumes operation.
◆ Noise silencing protection
When turning off the unit or during mode switchover, the 4-way valve is closed. In order to decrease noise, the 4-way valve will delay 2mins to be closed.
◆ Overcurrent protection (this protection function is not available for those models whose cooling capacity ≤12000Btu/h)
During operation process, if controller detected that system current exceeds the limit value for 3s consecutively(overcurrent), the system stops operation. About 3mins later, if overcurrent is released, the system will resume original operation. If overcurrent protection occurs for 6 times consecutively, and resume operation time won't exceed 6min every time, overcurrent protection information will be displayed. After turning off the unit, display won't be displayed.
If turn on the unit again, the system will be restated up again. Overcurrent protection information will be eliminated.
Please refer to maintenance part for display information and disposal method for details.
◆ Locked protection to IDU fan motor
During operation of IDU fan motor, if controller detected that the rotation speed of IDU fan motor less than 300/min or stop rotation, the motor operates abnormally. In order to prevent damage to motor, controller will protect automatically, the system stops operation and blocked information of IDU fan motor will be displayed. After turning off the unit, display won't be displayed.
If turn on the unit again, the system will be restated up again. Blocked information of IDU fan motor will be eliminated. (For some models, they can only be restated up after re-energized)
Please refer to maintenance part for display information and disposal method for details.

3. Other Control Function Introduction

(1)Timer function

Controller has general timer function and clock timer function. When you select the remote controller with general timer function, only the general timer function of controller can be activated; when you select the remote controller with clock timer, only the clock timer function of controller can be activated.

① General timer: The precision of general timer is 0.5hour. 24hours circulated timer can't be set.

◆ Timer ON: Timer ON can be set at unit OFF. If selected ON time is reached, the unit will start to operate according to previous setting status. Time setting range is 0.5~24hr in 30-minute increments.

◆ Timer OFF: Timer OFF can be set at unit ON. If selected OFF time is reached, the unit will stop. Time setting range is 0.5~24hour in 30-minute increments.

② Clock timer: The precision of clock timer is 1 minute. 24hours circulated timer can be set.

◆ Timer ON: If timer ON is set during operation of the unit, the unit will continue to operate. If timer ON is set at unit OFF, upon ON time reaches, the unit will start to run according to previous setting status.

◆ Timer OFF: If timer OFF is set at unit OFF, the system will keep standby status. If timer OFF is set at unit ON, upon OFF time reaches, the unit will stop operation.

◆ Timer change:

Although timer has been set, the unit still can be turned on/off by pressing ON/OFF button on the remote controller. You can also reset the timer.

If timer ON and timer OFF are set at the same time during operation of the unit, the unit will keep running at current status till OFF time reaches. Upon ON time reached, the system will be turned on automatically. The unit will operate circularly like that ever 24hours.

If timer ON and timer OFF are set at unit OFF status, the system keep OFF status till ON time reaches. Upon OFF time reaches, the system will be turned OFF automatically. The unit will operate circularly like that every 24hours.

(2) Emergency operation switch

After pressing this button, the system will operate according under auto mode and the IDU fan motor operates at auto speed. Swing motor operates when the IDU fan motor operates. Press this button again to turn off the unit.



(3) Sleep function

In this mode, the system will select proper sleep curve to operate according to different set temperature.

① If start up sleep function under cooling or drying mode, the system will increase set temperature automatically within a certain range to operate.

② If start up sleep function under heating mode, the system will decrease set temperature automatically within a certain range to operate.

(4) Turbo function

Turbo function can be set under cooling and heating modes. During operation of turbo function, the system operates at the maximum fan speed.

(5) Dry function

Dry function can be set under cooling and drying modes. During operation of drying function, the fan will stop operation after operating for a period of time when turning off the unit.

(6) Auto fan speed control

Auto fan speed control can be set under cooling, heating and fan mode. During operation of auto fan speed control, the IDU fan motor will adjust the fan speed (high, medium or low speed) according to ambient temperature.

(7) Up&down swing control

① After energization, up & down swing motor will firstly have the horizontal louver rotate anticlockwise to position O to close air outlet. If swing function has not been set after start-up of the unit, horizontal louver will turn clockwise to position D in heating mode, or turn clockwise to level position L in other modes.

② If swing function is set when turning on the unit, the horizontal louver will swing between L and D. Horizontal louver has 7 swing statuses:

◆ Stay at position L: control by remote controller:

◆ Stay at position A: control by remote controller:

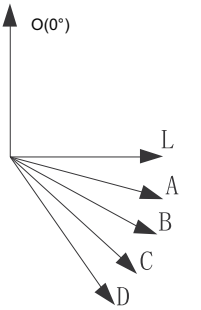
◆ Stay at position B: control by remote controller:

◆ Stay at position C: control by remote controller:

◆ Stay at position D: control by remote controller:

◆ Swing between L and D: control by remote controller:

◆ Stop at any postion between L and D (angles between L and D are equiangular) and no display on remote controller.



③ When turning off the unit, horizontal louver will close at position O.
④ Swing action is valid only when set swing command and the IDU fan motor is operating.

(8) Dual-8 nixie tube display

◆ When the air conditioner is turned on for the first time, dual-8 nixie tube defaulted to display current set temperature.
◆ When controller receives signal of display set temperature, dual-8 nixie tube displays set temperature. When received remote control signal is switched to indoor ambient temperature display status signal from other display status, dual-8 nixie tube will display indoor ambient temperature for 3-5s, and then turn back to display set temperature. If remote control to set other status, the display keeps the same.
◆ When air conditioner has a malfunction,dual-8 nixie tube will show relevant error code.

F1	Indoor ambient temperature sensor is open/ short-circuited
F2	Indoor evaporator temperature sensor is open/short-circuited
H6	Blocked protection of IDU fan motor
C5	Malfunction protection of jumper cap
U8	Zero-crossing inspection circuit malfunction of the IDU fan motor

◆ When air conditioner defrosts automatically, dual-8 nixie tube displays “H1”. (Heating icon is bright for a period time and then OFF for some models)
◆ If turn off light button, all display will be turned off.

(9) Memory function

① Power failure when turning on the unit
◆ Memory content: ON status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Celsius
◆ General timer can be memorized. Time of timer is calculated again from energization.
◆ Clock timer can’t be memorized.
② Power failure when turning off the unit
◆ Memory content: OFF status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Celsius
◆ General timer can be memorized. Time of timer is calculated again from energization.
◆ Clock timer can’t be memorized.

4. Special Function

(1) Health function (for the model with health function)

During operation of the IDU fan motor, press health button on the remote controller to start health function (If there is not health button on the remote controller, the unit defaults health function ON).

(2) I Feel function (for all models, but it needs the remote controller which can set this function)

When I FEEL command is received, the controller will operate according to the ambient temperature sent by the remote controller (For defrosting and cold air prevention, the unit operates according to the ambient temperature sensed by the air conditioner). The remote controller will regularly send ambient temperature data to the controller. When the data has not been received for a long time, the unit will operate according to the temperature sensed by the air conditioner. If I FEEL function is not set, the ambient temperature will be that sensed by the air conditioner.

Part Ⅱ : Installation and Maintenance

7. Notes for Installation and Maintenance

Safety Precautions: Important!

Please read the safety precautions carefully before installation and maintenance.
The following contents are very important for installation and maintenance.

Please follow the instructions below.

●The installation or maintenance must accord with the instructions.
●Comply with all national electrical codes and local electrical codes.
●Pay attention to the warnings and cautions in this manual.
●All installation and maintenance shall be performed by distributor or qualified person.
●All electric work must be performed by a licensed technician according to local regulations and the instructions given in this manual.
●Be caution during installation and maintenance. Prohibit incorrect operation to prevent electric shock, casualty and other accidents.

Warnings

Electrical Safety Precautions:

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

Installation Safety Precautions:

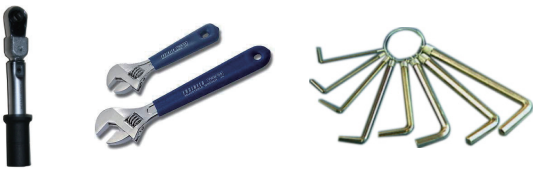
1. Select the installation location according to the requirement of this manual.(See the requirements in installation part)
2. Handle unit transportation with care; the unit should not be carried by only one person if it is more than 20kg.
3. When installing the indoor unit and outdoor unit, a sufficient fixing bolt must be installed; make sure the installation support is firm.
4. Ware safety belt if the height of working is above 2m.
5. Use equipped components or appointed components during installation.
6. Make sure no foreign objects are left in the unit after finishing installation.

Refrigerant Safety Precautions:

1. Avoid contact between refrigerant and fire as it generates poisonous gas; Prohibit prolong the connection pipe by welding.
2. Apply specified refrigerant only. Never have it mixed with any other refrigerant. Never have air remain in the refrigerant line as it may lead to rupture or other hazards.
3. Make sure no refrigerant gas is leaking out when installation is completed.
4. If there is refrigerant leakage, please take sufficient measure to minimize the density of refrigerant.
5. Never touch the refrigerant piping or compressor without wearing glove to avoid scald or frostbite.

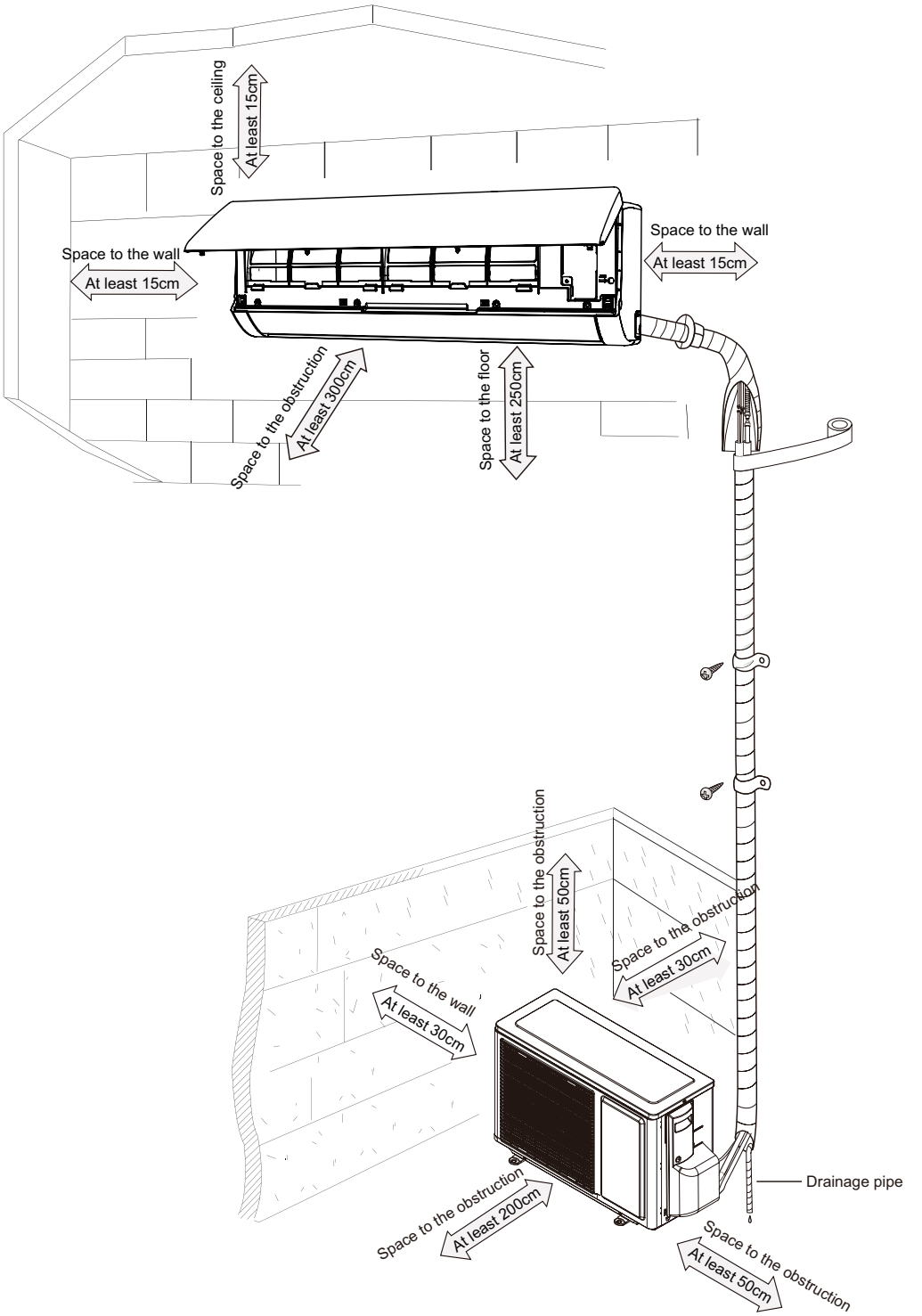
Improper installation may lead to fire hazard, explosion, electric shock or injury.

Main Tools for Installation and Maintenance

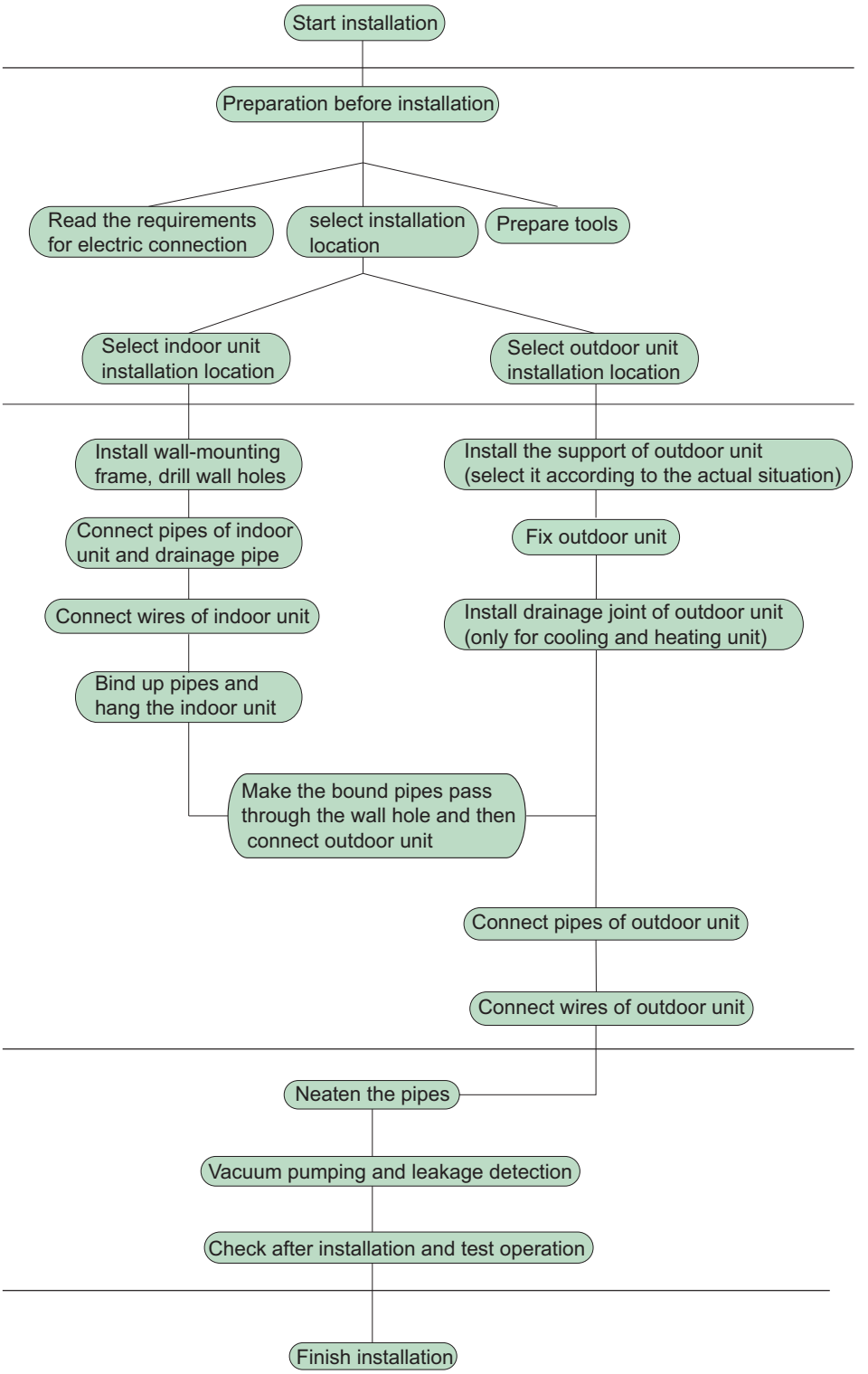
1. Level meter, measuring tape 	**2. Screw driver** 	**3. Impact drill, drill head, electric drill** 
4. Electroprobe 	**5. Universal meter** 	**6. Torque wrench, open-end wrench, inner hexagon spanner** 
7. Electronic leakage detector 	**8. Vacuum pump** 	**9. Pressure meter** 
10. Pipe pliers, pipe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

8. Installation

8.1 Installation Dimension Diagram



Installation procedures



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

8.2 Installation Parts-checking

No.	Name	No.	Name
1	Indoor unit	8	Sealing gum
2	Outdoor unit	9	Wrapping tape
3	Connection pipe	10	Support of outdoor unit
4	Drainage pipe	11	Fixing screw
5	Wall-mounting frame	12	Drainage plug(cooling and heating unit)
6	Connecting cable(power cord)	13	Owner's manual, remote controller
7	Wall pipe		

⚠ **Note:**
1.Please contact the local agent for installation.
2.Don't use unqualified power cord.

8.3 Selection of Installation Location

1. Basic Requirement:
Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult the local dealer:
(1) The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
(2) The place with high-frequency devices (such as welding machine, medical equipment).
(3) The place near coast area.
(4) The place with oil or fumes in the air. in the air.
(5) The place with sulfureted gas.
(6) Other places with special circumstances.

2. Indoor Unit:
(1) There should be no obstruction near air inlet and air outlet.
(2) Select a location where the condensation water can be dispersed easily and won't affect other people.
(3) Select a location which is convenient to connect the outdoor unit and near the power socket.
(4) Select a location which is out of reach for children.
(5) The location should be able to withstand the weight of indoor unit and won't increase noise and vibration.
(6) The appliance must be installed 2.5m above floor.
(7) Don't install the indoor unit right above the electric appliance.
8.The appliance shall not be installed in the laundry

3. Outdoor Unit:
(1) Select a location where the noise and outflow air emitted by the outdoor unit will not affect neighborhood.
(2) The location should be well ventilated and dry, in which the outdoor unit won't be exposed directly to sunlight or strong wind.
(3) The location should be able to withstand the weight of outdoor unit.
(4) Make sure that the installation follows the requirement of installation dimension diagram.
(5) Select a location which is out of reach for children and far away from animals or plants.If it is unavoidable, please add fence for safety purpose.

8.4 Electric Connection Requirement

1. Safety Precaution
(1) Must follow the electric safety regulations when installing the unit.
(2) According to the local safety regulations, use qualified power supply circuit and air switch.
(3) Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring may result in electric shock,fire hazard or malfunction. Please install proper power supply cables before using the air conditioner.

Air-conditioner	Air switch capacity
07/09K	10A
12K	16A

(4) Properly connect the live wire, neutral wire and grounding wire of power socket.
(5) Be sure to cut off the power supply before proceeding any work related to electricity and safety.
(6) Do not put through the power before finishing installation.
(7) For appliances with type Y attachment,the instructions shall contain the substance of thefollowing.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.
(8) The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.

2. Grounding Requirement:
(1) The air conditioner is first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
(2) The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
(3) The grounding resistance should comply with national electric safety regulations.
(4) The appliance must be positioned so that the plug is accessible.
(5) An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
(6) Including an air switch with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protect the circuit)

8.5 Installation of Indoor Unit

1. Choosing Installation location
Recommend the installation location to the client and then confirm it with the client.

2. Install Wall-mounting Frame
(1) Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
(2) Drill the screw fixing holes on the wall with impact drill (the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles

in the holes.
(3) Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

3. Install Wall-mounting Frame

(1) Choose the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame.(As show in Fig.1)

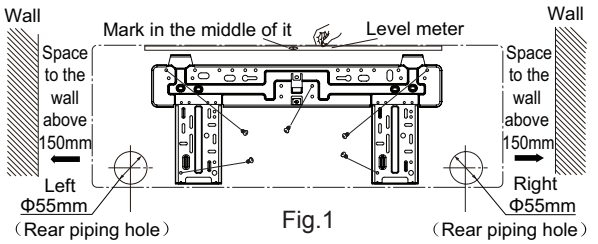


Fig.1

(2) Open a piping hole with the diameter of Φ55mm on the selected outlet pipe position.In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of 5-10°.(As show in Fig.2)

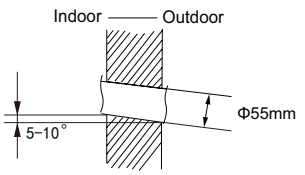


Fig.2

⚠ **Note:**

(1) Pay attention to dust prevention and take relevant safety measures when opening the hole.
(2) The plastic expansion particles are not provided and should be bought locally.

4. Outlet Pipe

(1) The pipe can be led out in the direction of right, rear right, left or rear left.(As show in Fig.3)
(2) When selecting leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.(As show in Fig.4)

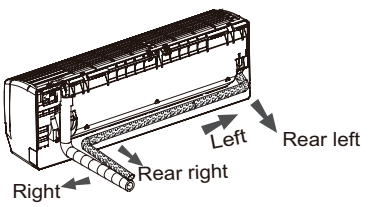


Fig.3

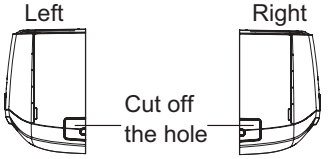


Fig.4

5. Connect the Pipe of Indoor Unit

(1) Aim the pipe joint at the corresponding bellmouth.(As show in Fig.5)
(2) Pretightening the union nut with hand.
(3) Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.(As show in Fig.6)
(4) Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape.(As show in Fig.7)

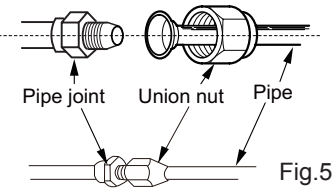


Fig.5

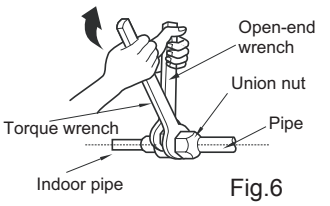


Fig.6

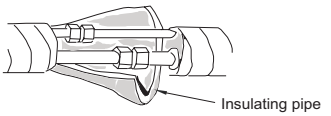


Fig.7

Refer to the following table for wrench moment of force:

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

6. Install Drain Hose

(1) Connect the drain hose to the outlet pipe of indoor unit.(As show in Fig.8)
(2) Bind the joint with tape.(As show in Fig.9)

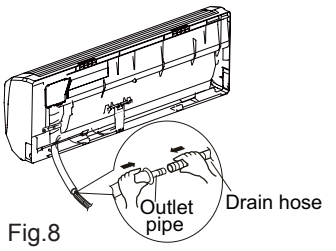


Fig.8

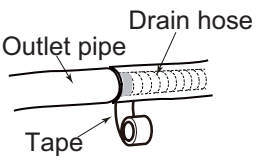


Fig.9

⚠ **Note:**

(1) Add insulating pipe in the indoor drain hose in order to prevent condensation.
(2) The plastic expansion particles are not provided.
(As show in Fig.10)

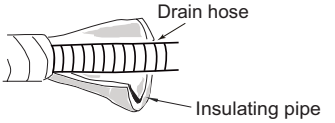


Fig.10

7. Connect Wire of Indoor Unit

(1) Open the panel, remove the screw on the wiring cover and then take down the cover.(As show in Fig.11)

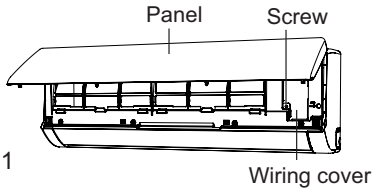


Fig.11

(2) Make the power connection wire go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.(As show in Fig.12)

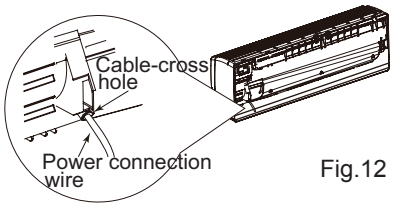
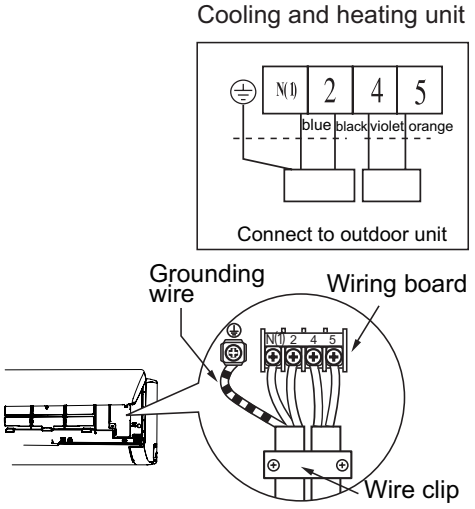


Fig.12

(3) Remove the wire clip; connect the power connection wiresignal control wire (only for cooling and heating unit) to the wiring terminal according to the color; tighten the screw and then fix the power connection wire with wire clip.(As show in Fig.13)



Note: The wiring connect is for reference only, please refer to the actual one.

Fig.13

(4) Put wiring cover back and then tighten the screw.

(5) Close the panel.

⚠ **Note:**

(1) All wires of indoor unit and outdoor unit should be connected by a professional.

(2) If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.

(3) For the air conditioner with plug, the plug should be reachable after finishing installation.

(4) For the air conditioner without plug, an air switch must be installed in the line. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

8. Bind up Pipe

(1) Bind up the connection pipe, power cord and drain hose with the band.(As show in Fig.14)

(2) Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.(As show in Fig.15)

(3) Bind them evenly.

(4) The liquid pipe and gas pipe should be bound separately at the end.

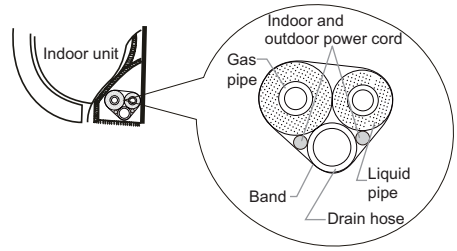


Fig.14

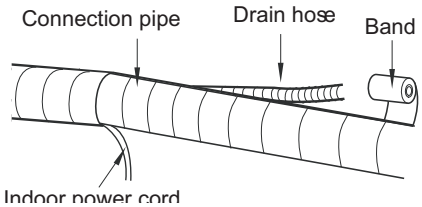


Fig.15

⚠ **Note:**

(1) The power cord and control wire can't be crossed or winding.

(2) The drain hose should be bound at the bottom.

9. Hang the Indoor Unit

(1) Put the bound pipes in the wall pipe and then make them pass through the wall hole.

(2) Hang the indoor unit on the wall-mounting frame.

(3) Stuff the gap between pipes and wall hole with sealing gum.

(4) Fix the wall pipe.(As show in Fig.16)

(5) Check if the indoor unit is installed firmly and closed to the wall.(As show in Fig.17)

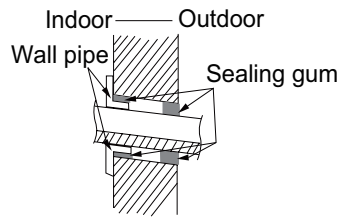
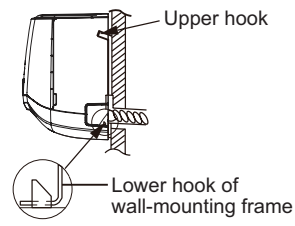


Fig.16

Fig.17



⚠ **Note:**

Do not bend the drain hose too excessively in order to prevent blocking.

8.6 Installation of Outdoor unit

1. Fix the Support of Outdoor Unit(Select it according to the actual installation situation)

(1) Select installation location according to the house structure.
(2) Fix the support of outdoor unit on the selected location with expansion screws.

⚠ **Note:**

(1) Take sufficient protective measures when installing the outdoor unit.
(2) Make sure the support can withstand at least four times the unit weight.
(3) The outdoor unit should be installed at least 3cm above the floor in order to install drain joint.(As show in Fig.18)
(4) For the unit with cooling capacity of 2300W~5000W, 6 expansion screws are needed; for the unit with cooling capacity of 6000W~8000W, 8 expansion screws are needed; for the unit with cooling capacity of 10000W~16000W, 10 expansion screws are needed.

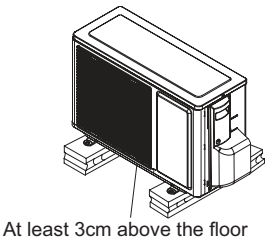


Fig.18

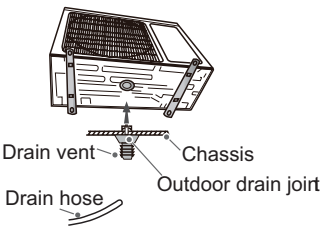


Fig.19

2. Install Drain Joint(Only for cooling and heating unit)

(1) Connect the outdoor drain joint into the hole on the chassis.
(2) Connect the drain hose into the drain vent.
(As show in Fig.19)

3. Fix Outdoor Unit

(1) Place the outdoor unit on the support.
(2) Fix the foot holes of outdoor unit with bolts.
(As show in Fig.20)

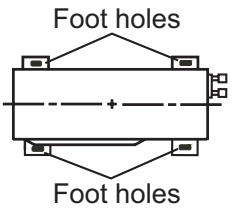


Fig.20

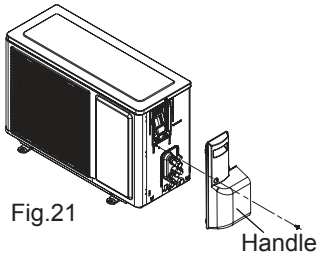


Fig.21

4. Connect Indoor and Outdoor Pipes

(1) Remove the screw on the right handle of outdoor unit and then remove the handle.(As show in Fig.21)
(2) Remove the screw cap of valve and aim the pipe joint at the bellmouth of pipe.(As show in Fig.22)

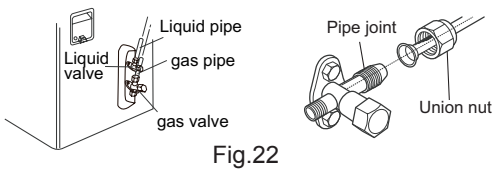


Fig.22

(3) Pretightening the union nut with hand.
(4) Tighten the union nut with torque wrench .

Refer to the following table for wrench moment of force:

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

5. Connect Outdoor Electric Wire

(1) Remove the wire clip; connect the power connection wire and signal control wire (only for cooling and heating unit) to the wiring terminal according to the color; fix them with screws.(As show in Fig.23)

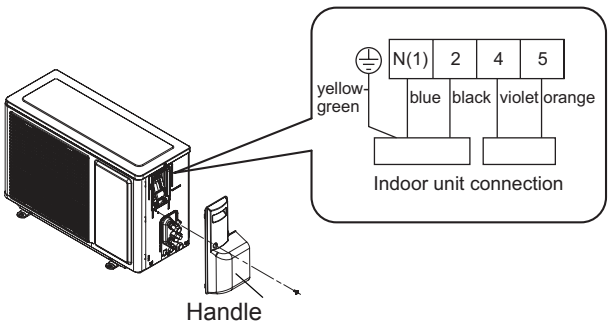


Fig.23

(2) Fix the power connection wire and signal control wire with wire clip (only for cooling and heating unit).

⚠ **Note:**

(1) After tightening the screw, pull the power cord slightly to check if it is firm.
(2) Never cut the power connection wire to prolong or shorten the distance.

6. Neaten the Pipes

(1) The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.
(2) If the outdoor unit is higher than the wall hole, you must set a U-shaped curve in the pipe before pipe goes into the room, in order to prevent rain from getting into the room.(As show in Fig.24)

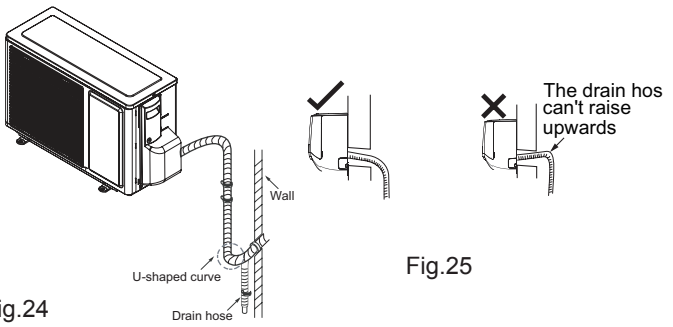


Fig.24

Fig.25

⚠ **Note:**

(1) The through-wall height of drain hose shouldn't be higher than the outlet pipe hole of indoor unit.(As show in Fig.25)
(2) Slant the drain hose slightly downwards. The drain hose can't be curved, raised and fluctuant, etc.(As show in Fig.26)

(3) The water outlet can't be placed in water in order to drain smoothly.(As show in Fig.27)

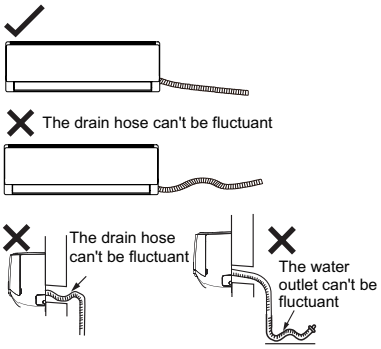


Fig.26

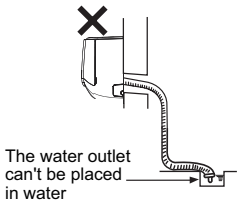


Fig.27

8.7 Vacuum Pumping and Leak Detection

1. Use Vacuum Pump

(1) Remove the valve caps on the liquid valve and gas valve and the nut of refrigerant charging vent.

(2) Connect the charging hose of piezometer to the refrigerant charging vent of gas valve and then connect the other charging hose to the vacuum pump.

(3) Open the piezometer completely and operate for 10-15min to check if the pressure of piezometer remains in -0.1MPa.

(4) Close the vacuum pump and maintain this status for 1-2min to check if the pressure of piezometer remains in -0.1MPa. If the pressure decreases, there may be leakage.

(5) Remove the piezometer, open the valve core of liquid valve and gas valve completely with inner hexagon spanner.

(6) Tighten the screw caps of valves and refrigerant charging vent.(As show in Fig.28)

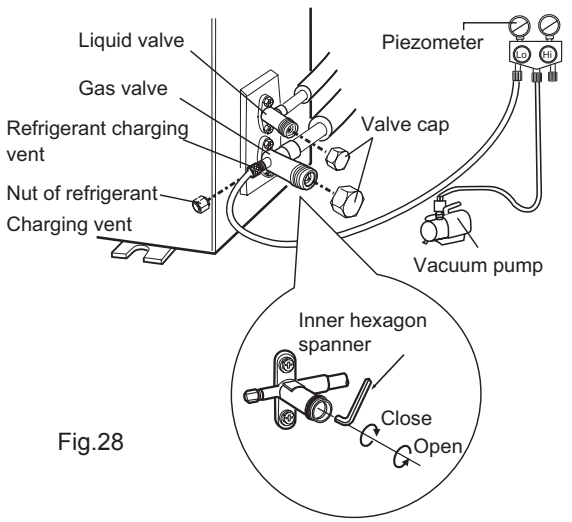


Fig.28

2. Leakage Detection

(1) With leakage detector:

Check if there is leakage with leakage detector.

(2) With soap water:

If leakage detector is not available, please use soap water for leakage detection. Apply soap water at the suspected position and keep the soap water for more than 3min. If there are air bubbles coming out of this position, there's a leakage.

8.8 Check after Installation and Test operation

1. Check after Installation

Check according to the following requirement after finishing installation.

NO.	Items to be checked	Possible malfunction
1	Has the unit been installed firmly?	The unit may drop, shake or emit noise.
2	Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
3	Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
4	Is water drained well?	It may cause condensation and water dripping.
5	Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damage the parts.
6	Is electric wiring and pipeline installed correctly?	It may cause malfunction or damage the parts.
7	Is the unit grounded securely?	It may cause electric leakage.
8	Does the power cord follow the specification?	It may cause malfunction or damage the parts.
9	Is there any obstruction in air inlet and air outlet?	It may cause insufficient cooling (heating).
10	The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
11	The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.

2. Test Operation

(1) Preparation of test operation

● The client approves the air conditioner installation.

● Specify the important notes for air conditioner to the client.

(2) Method of test operation

● Put through the power, press ON/OFF button on the remote controller to start operation.

● Press MODE button to select AUTO, COOL, DRY, FAN and HEAT to check whether the operation is normal or not.

● If the ambient temperature is lower than 16℃ , the air conditioner can’t start cooling.

9. Maintenance

9.1 Error code

No.	Malfunction Name	Display Method of Indoor Unit				A/C Status	Possible Causes(For specific maintenance method, please refer to the following procedure of troubleshooting)
		Error Code	Indicator lamp (Only for the unit with indictor; during blinking, ON for 0.5S and OFF for 0.5S)				
			Operation Lamp	COOL Lamp	HEAT Lamp		
1	Indoor ambient temperature sensor is open/short-circuited	F1		Blinks once every 3s		The unit will stop operation as it reaches the temperature point. During cooling and drying operation, except IDU fan motor operates, other loads stop operation; During heating operation, the system stops operation.	1. The wiring terminal between indoor ambient temperature sensor and main board is loosened or poorly contacted; 2. There's short circuit due to trip-over of the parts on controller; 3.Indoor ambient temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor) 4. Main board is broken.
2	Indoor evaporator temperature sensor is open/short-circuited	F2		Blinks twice every 3s		The unit will stop operation as it reaches the temperature point. During cooling and drying operation, except IDU fan operates, other loads stop operation; During heating operation, the complete unit stops operation.	1. The wiring terminal between indoor evaporator temperature sensor and main board is loosened or poorly contacted; 2. There's short circuit due to the trip-over of the parts on controller; 3. Indoor evaporator temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor) 4. Main board is broken.
3	Blocked protection of IDU fan motor	H6	Blinks 11 times every 3s			IDU fan, ODU fan, compressor and electric heat tube stop operation. Horizontal louver stops at the current position.	1. The feedback terminal of PG motor is not connected tightly. 2. The control terminal of PG motor is not connected tightly. 3. Fan blade rotates unsmoothly. 4. Malfunction of motor 5. Main board is broken.
4	Malfunction protection of jumper cap	C5	Blinks 15 times every 3s			Operation of remote controller or control panel is available, but the unit won't act.	1. There's not jumper cap on the main board. 2. Jumper cap is not inserted properly and tightly. 3. Jumper cap is damaged. 4. Controller is damaged.
5	Zero-crossing inspection circuit malfunction of the IDU fan motor	U8	Blinks 17 times every 3s			Operation of remote controller or control panel is available, but the unit won't act.	1. Quick de-energization and energization. Wrong judgement by the controller because the electric-discharging of capacitor is slow. 2. Zero-crossing inspection circuit of main board for controller is abnormal.

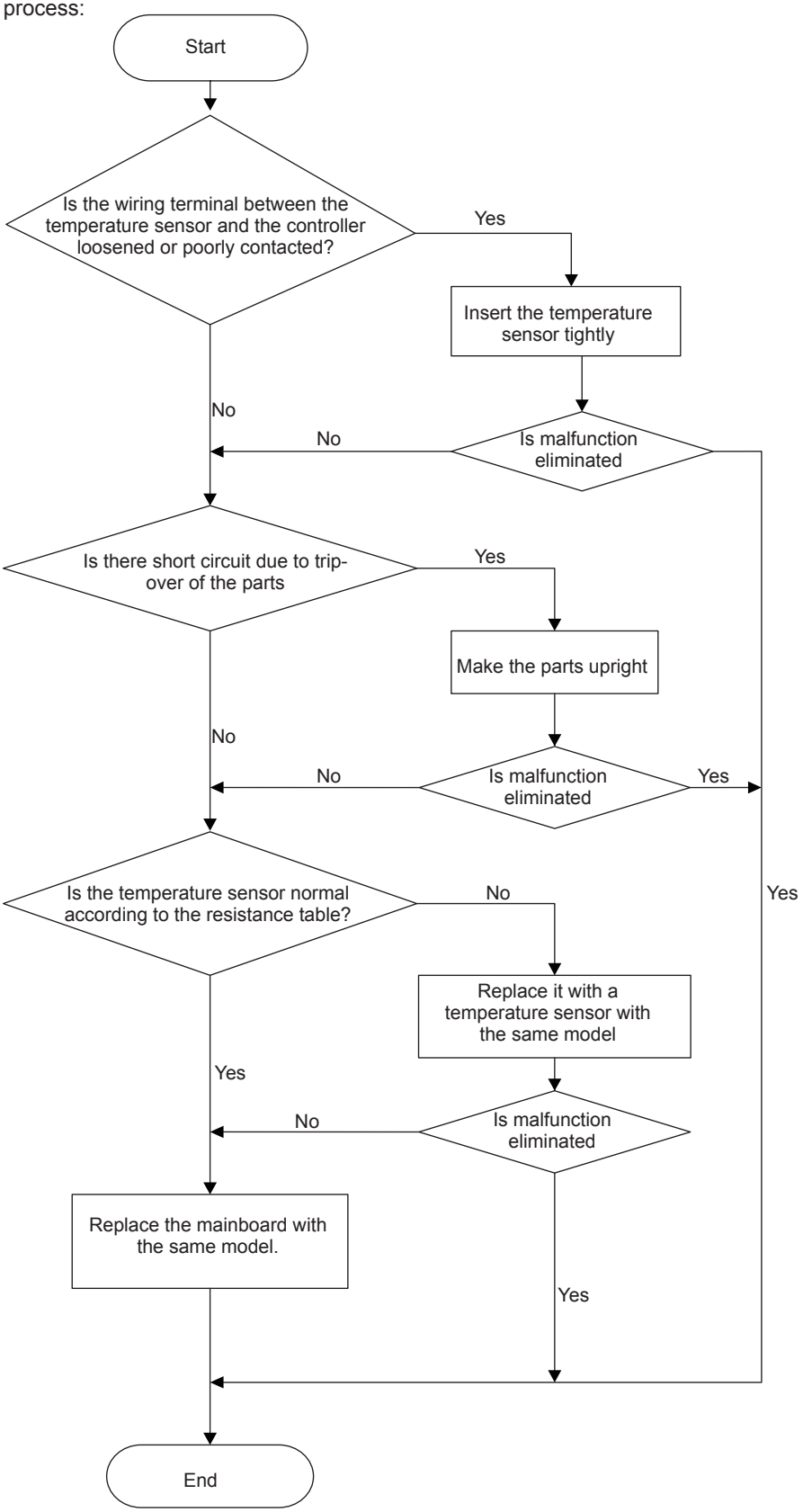
9.2 Procedure of Troubleshooting

1. Malfunction of Temperature Sensor F1, F2

Main detection points:

- Is the wiring terminal between the temperature sensor and the controller loosened or poorly contacted?
- Is there short circuit due to trip-over of the parts?
- Is the temperature sensor broken?
- Is mainboard broken?

Malfunction diagnosis process:

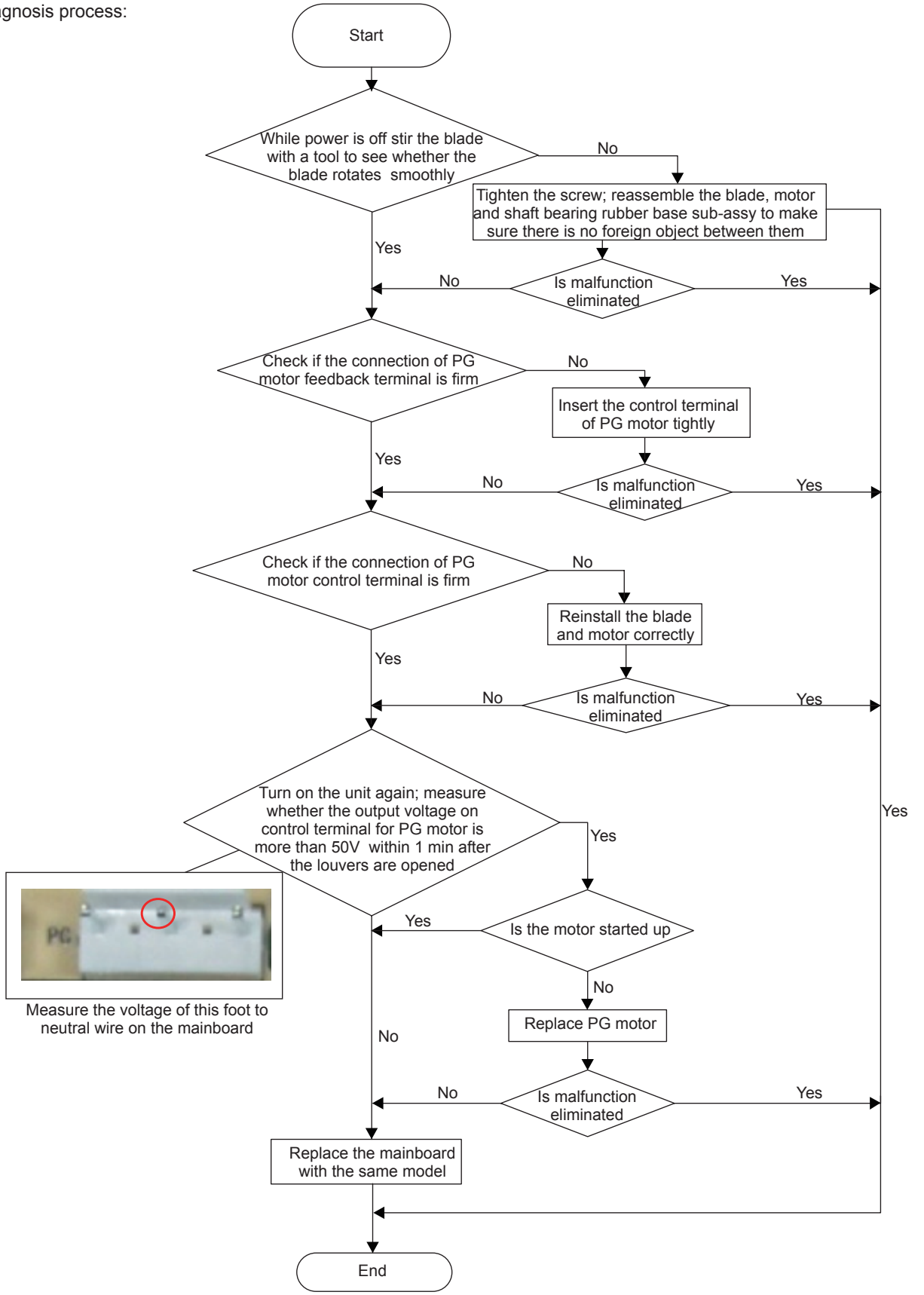


2. Malfunction of Blocked Protection of IDU Fan Motor H6

Main detection points:

- SmoothlyIs the control terminal of PG motor connected tightly?
- SmoothlyIs the feedback interface of PG motor connected tightly?
- The fan motor can't operate?
- The motor is broken?
- Detectioncircuit of the mainboard is defined abnormal?

Malfunction diagnosis process:

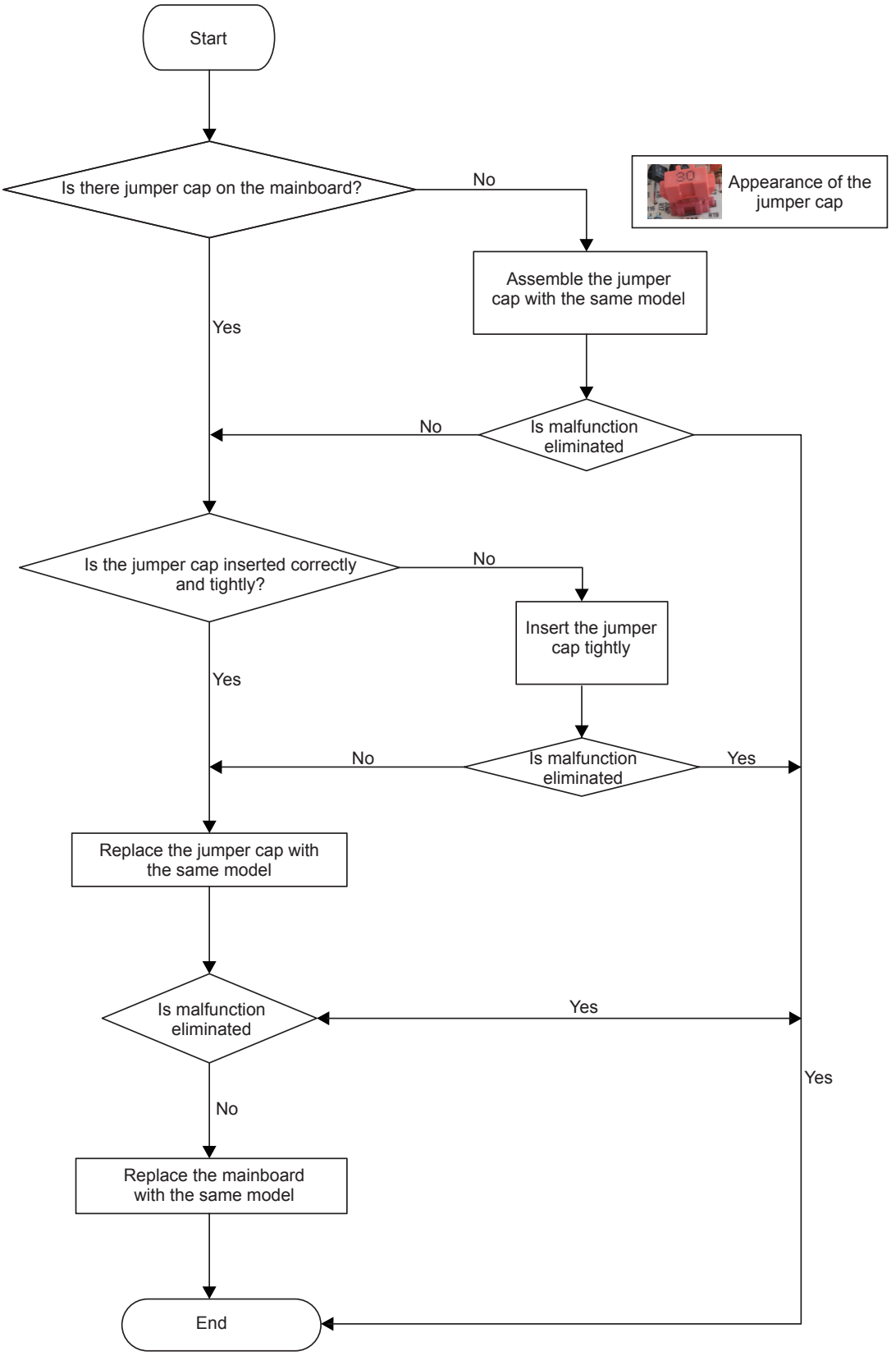


3. Malfunction of Protection of Jumper Cap C5

Main detection points:

- Is there jumper cap on the mainboard?
- Is the jumper cap inserted correctly and tightly?
- The jumper is broken?
- The motor is broken?
- Detection circuit of the mainboard is defined abnormal?

Malfunction diagnosis process:



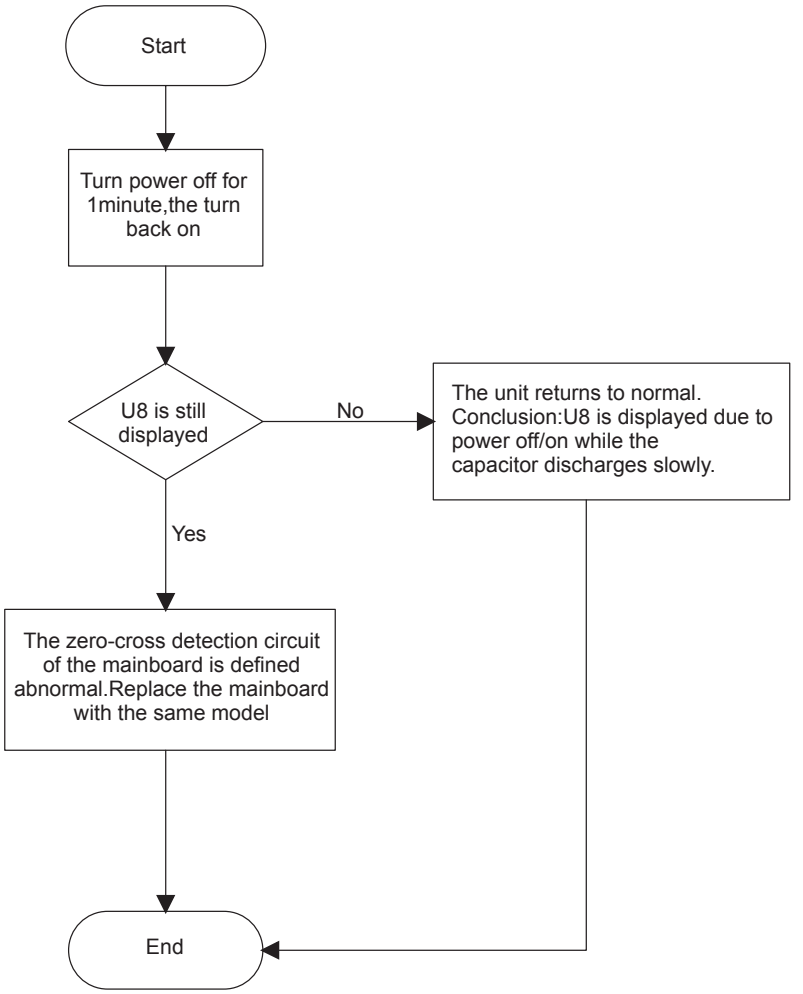
4. Malfunction of Zero-crossing Inspection Circuit Malfunction of the IDU Fan Motor U8

Main detection points:

● Instant energization afte de-energization while the capacitordischarges slowly?

● The zero-cross detectioncircuit of the mainboard is defined abnormal?

Malfunction diagnosis process:



9.3 Maintenance method for normal malfunction

1. Air Conditioner Can't be Started Up

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
No power supply, or poor connection for power plug	After energization, operation indicator isn't bright and the buzzer can't give out sound	Confirm whether it's due to power failure. If yes, wait for power recovery. If not, check power supply circuit and make sure the power plug is connected well.
Wrong wire connection between indoor unit and outdoor unit, or poor connection for wiring terminals	Under normal power supply circumstances, operation indicator isn't bright after energization	Check the circuit according to circuit diagram and connect wires correctly. Make sure all wiring terminals are connected firmly
Electric leakage for air conditioner	After energization, room circuit breaker trips off at once	Make sure the air conditioner is grounded reliably Make sure wires of air conditioner is connected correctly Check the wiring inside air conditioner. Check whether the insulation layer of power cord is damaged; if yes, place the power cord.
Model selection for air switch is improper	After energization, air switch trips off	Select proper air switch
Malfunction of remote controller	After energization, operation indicator is bright, while no display on remote controller or buttons have no action.	Replace batteries for remote controller Repair or replace remote controller

2. Poor Cooling (Heating) for Air Conditioner

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Set temperature is improper	Observe the set temperature on remote controller	Adjust the set temperature
Rotation speed of the IDU fan motor is set too low	Small wind blow	Set the fan speed at high or medium
Filter of indoor unit is blocked	Check the filter to see it's blocked	Clean the filter
Installation position for indoor unit and outdoor unit is improper	Check whether the installation postion is proper according to installation requirement for air conditioner	Adjust the installation position, and install the rainproof and sunproof for outdoor unit
Refrigerant is leaking	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit's pressure is much lower than regulated range	Find out the leakage causes and deal with it. Add refrigerant.
Malfunction of 4-way valve	Blow cold wind during heating	Replace the 4-way valve
Malfunction of capillary	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit't pressure is much lower than regulated range. If refrigerant isn't leaking, part of capillary is blocked	Replace the capillary
Flow volume of valve is insufficient	The pressure of valves is much lower than that stated in the specification	Open the valve completely
Malfunction of horizontal louver	Horizontal louver can't swing	Refer to point 3 of maintenance method for details
Malfunction of the IDU fan motor	The IDU fan motor can't operate	Refer to troubleshooting for H6 for maintenance method in details
Malfunction of the ODU fan motor	The ODU fan motor can't operate	Refer to point 4 of maintenance method for details
Malfunction of compressor	Compressor can't operate	Refer to point 5 of maintenance method for details

3. Horizontal Louver Can't Swing

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly
Stepping motor is damaged	Stepping motor can't operate	Repair or replace stepping motor
Main board is damaged	Others are all normal, while horizontal louver can't operate	Replace the main board with the same model

4. ODU Fan Motor Can't Operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly
Capacity of the ODU fan motor is damaged	Measure the capacity of fan capacitor with an universal meter and find that the capacity is out of the deviation range indicated on the nameplate of fan capacitor.	Replace the capacity of fan
Power voltage is a little low or high	Use universal meter to measure the power supply voltage. The voltage is a little high or low	Suggest to equip with voltage regulator
Motor of outdoor unit is damaged	When unit is on, cooling/heating performance is bad and ODU compressor generates a lot of noise and heat.	Change compressor oil and refrigerant. If no better, replace the compressor with a new one

5. Compressor Can't Operate

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

6. Air Conditioner is Leaking

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Drain pipe is blocked	Water leaking from indoor unit	Eliminate the foreign objects inside the drain pipe
Drain pipe is broken	Water leaking from drain pipe	Replace drain pipe
Wrapping is not tight	Water leaking from the pipe connection place of indoor unit	Wrap it again and bundle it tightly

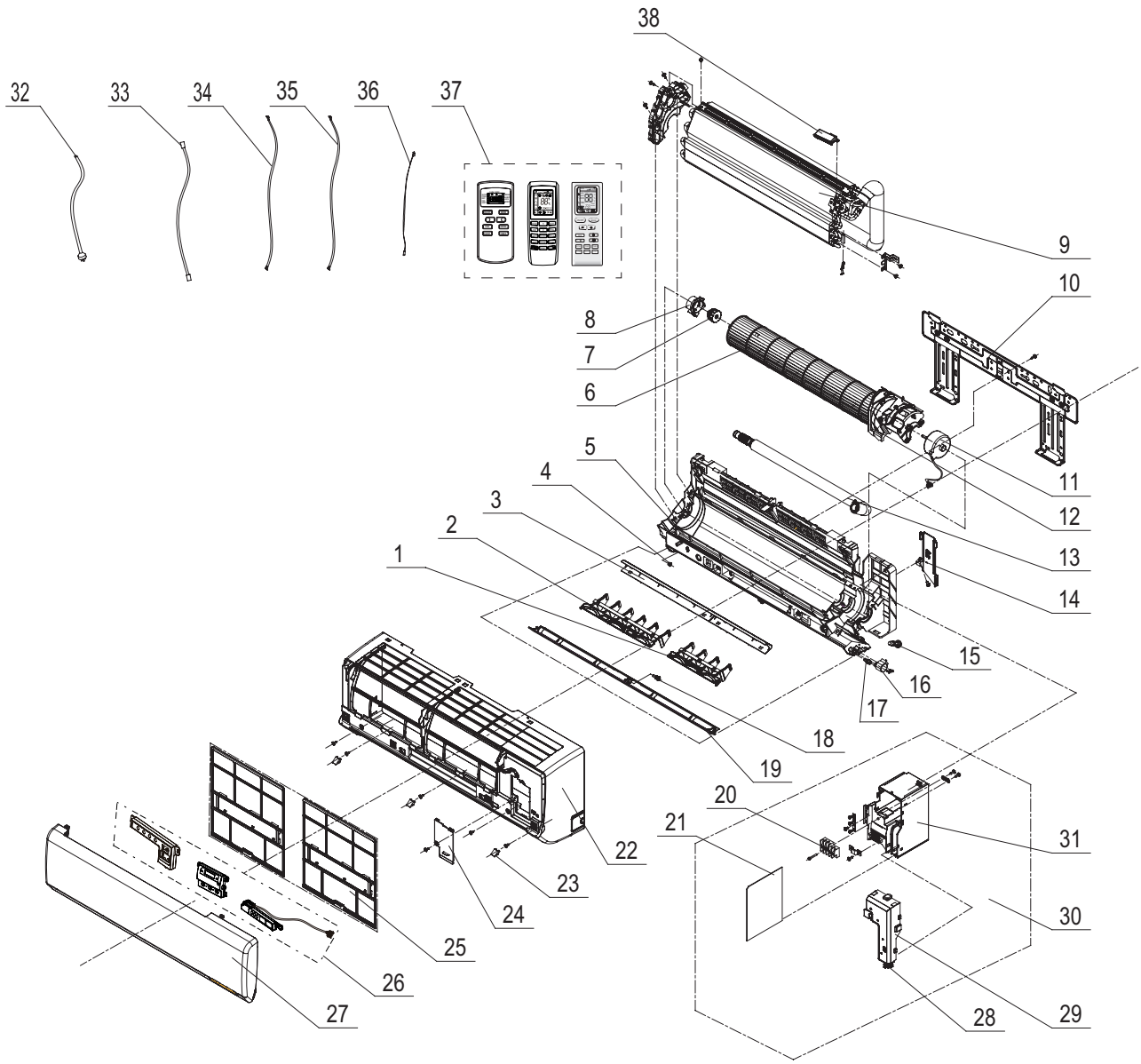
7. Abnormal Sound and Vibration

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
When turn on or turn off the unit, the panel and other parts will expand and there's abnormal sound	There's the sound of "PAPA"	Normal phenomenon. Abnormal sound will disappear after a few minutes.
When turn on or turn off the unit, there's abnormal sound due to flow of refrigerant inside air conditioner	Water-running sound can be heard	Normal phenomenon. Abnormal sound will disappear after a few minutes.
Foreign objects inside the indoor unit or there're parts touching together inside the indoor unit	There's abnormal sound fro indoor unit	Remove foreign objects. Adjust all parts' position of indoor unit, tighten screws and stick damping plaster between connected parts
Foreign objects inside the outdoor unit or there're parts touching together inside the outdoor unit	There's abnormal sound fro outdoor unit	Remove foreign objects. Adjust all parts' position of outdoor unit, tighten screws and stick damping plaster between connected parts
Short circuit inside the magnetic coil	During heating, the way valve has abnormal electromagnetic sound	Replace magnetic coil
Abnormal shake of compressor	Outdoor unit gives out abnormal sound	Adjust the support foot mat of compressor, tighten the bolts
Abnormal sound inside the compressor	Abnormal sound inside the compressor	If add too much refrigerant during maintenance, please reduce refrigerant properly. Replace compressor for other circumstances.

10. Exploded View and Parts List

10.1 Indoor Unit

07K/09K(PA)



No.	Description	Part Code		Qty
		GWH07PA-K3NNA6E/I		
	Product Code	CA430N00600	CA430000601	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	1051226802	1051226802	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	2002224102	2002224102	1
23	Screw Cover	2425201726	2425201726	3
24	Electric Box Cover2	20122168	20122168	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565120	30565120	1
27	Front Panel Assy	2002275501	2002275501	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202516	10000202626	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510468	1
38	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH07PA-K3NNA5E/I		
	Product Code	CA417N01600	CA417N01601	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565038	30565038	1
27	Front Panel Assy	20022373	20022373	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202555	10000202666	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510468	1
38	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH07PA-K3NNA2E/I		
	Product Code	CA415N01600	CA415N01601	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565211	30565211	1
27	Front Panel Assy	20022325	20022325	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202503	10000202627	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510468	1
38	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH07PA-K3NNA7F/I		
	Product Code	CA428N00600	CA428N00601	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002752	01002752	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	1051226801	1051226801	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	2002224101	2002224101	1
23	Screw Cover	242520179	242520179	3
24	Electric Box Cover2	20122168	20122168	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565110	30565110	1
27	Front Panel Assy	20022784	20022784	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202669	10000200200	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	305100611	1
38	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH07PA-K3NNA9E/I		
	Product Code	CA429N00700	CA429N00701	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	1051226802	1051226802	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	2002224102	2002224102	1
23	Screw Cover	2425201726	2425201726	3
24	Electric Box Cover2	20122168	20122168	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565275	30565275	1
27	Front Panel Assy	2002274601	2002274601	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202533	10000202595	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510468	1
38	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH07PA-K3NNA3E/I		
	Product Code	CA416N01600	CA416N01601	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135574	30135576	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565212	30565212	1
27	Front Panel Assy	20022309	20022309	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202569	10000202655	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510468	1
38	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH07PA-K3NNA1F/I		
	Product Code	CA414N02200	CA414N02201	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002752	01002752	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565200	30565200	1
27	Front Panel Assy	20022247	20022247	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202837	20102000441	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	305100611	1
38	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH07PA-K3NNA5F/I	GWH09PA-K3NNA5F/I	
	Product Code	CA417N01900	CA417N02000	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002752	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135550	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565038	30565038	1
27	Front Panel Assy	20022373	20022373	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202841	10000202841	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	30510065	1
38	Cold Plasma Generator	/	/	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH09PA-K3NNA7F/I		
	Product Code	CA428N00700	CA428N00701	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	1051226801	1051226801	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	2002224101	2002224101	1
23	Screw Cover	242520179	242520179	3
24	Electric Box Cover2	20122168	20122168	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565110	30565110	1
27	Front Panel Assy	20022784	20022784	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202669	10000200200	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	305100611	1
38	Cold Plasma Generator	/	1114001602	1

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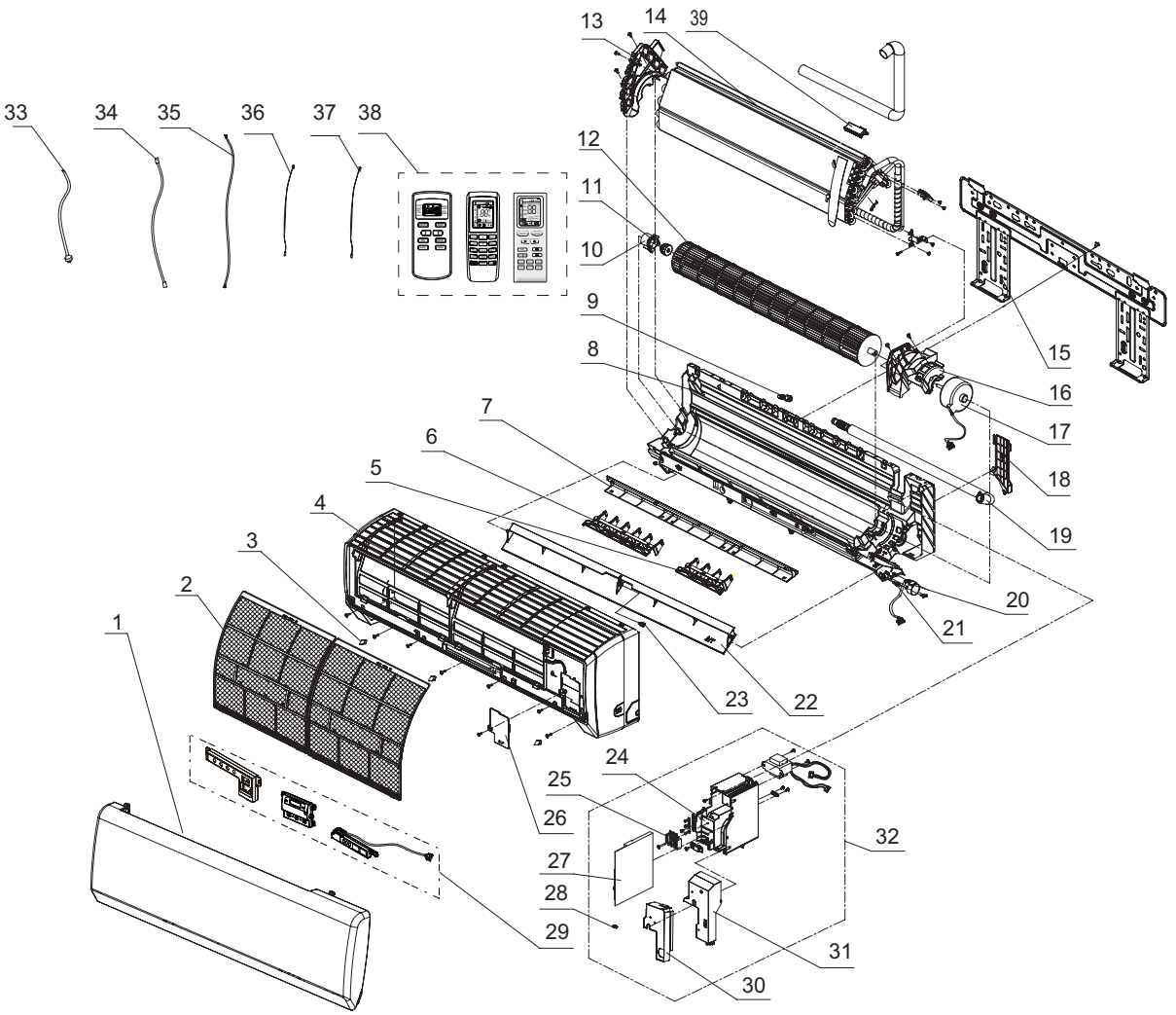
No.	Description	Part Code		Qty
		GWH09PA-K3NNA1F/I		
	Product Code	CA414N02300	CA414N02301	
1	Air Louver 1	1051211302	1051211302	1
2	Air Louver 2	1051211402	1051211402	1
3	Helicoid Tongue	2611220202	2611220202	1
4	Left Axile Bush	10512037	10512037	1
5	Rear Case assy	22202254	22202254	1
6	Cross Flow Fan	10352034	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	76512203	1
8	Ring of Bearing	26152022	26152022	1
9	Evaporator Assy	01002577	01002577	1
10	Wall Mounting Frame	01252231	01252231	1
11	Fan Motor	15012115	15012115	1
12	Motor Press Plate	26112201	26112201	1
13	Drainage Hose	0523001408	0523001408	1
14	Connecting pipe clamp	26112199	26112199	1
15	Rubber Plug (Water Tray)	76712012	76712012	1
16	Stepping Motor	1521212901	1521212901	1
17	Crank	10582070	10582070	1
18	Axile Bush	10542036	10542036	1
19	Guide Louver	10512268	10512268	1
20	Terminal Board	42010268	42010268	1
21	Main Board	30135550	30135578	1
22	Front Case	20022241	20022241	1
23	Screw Cover	24252016	24252016	3
24	Electric Box Cover2	2012216801	2012216801	1
25	Filter Sub-Assy	11122095	11122095	2
26	Display Board	30565200	30565200	1
27	Front Panel Assy	20022247	20022247	1
28	Electric Box Cover	22242112	22242112	1
29	Shield Box (Electric Box)	01592116	01592116	1
30	Electric Box Assy	10000202837	20102000441	1
31	Electric Box	20112091	20112091	1
32	Power Cord	4002046417	4002046417	1
33	Connecting Cable	40020536	40020536	0
34	Connecting Cable	40020540	40020540	0
35	Ambient Temperature Sensor	390000599	390000599	1
36	Temperature Sensor	390000453	390000453	1
37	Remote Controller	30510065	305100611	1
38	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code	Qty
		GWH09PA-K3NNA2F/I	
	Product Code	CA415N03100	
1	Air Louver 1	1051211302	1
2	Air Louver 2	1051211402	1
3	Helicoid Tongue	2611220202	1
4	Left Axile Bush	10512037	1
5	Rear Case assy	22202254	1
6	Cross Flow Fan	10352034	1
7	O-Gasket of Cross Fan Bearing	76512203	1
8	Ring of Bearing	26152022	1
9	Evaporator Assy	01002577	1
10	Wall Mounting Frame	01252231	1
11	Fan Motor	15012115	1
12	Motor Press Plate	26112201	1
13	Drainage Hose	0523001408	1
14	Connecting pipe clamp	26112199	1
15	Rubber Plug (Water Tray)	76712012	1
16	Stepping Motor	1521212901	1
17	Crank	10582070	1
18	Axile Bush	10542036	1
19	Guide Louver	10512268	1
20	Terminal Board	42010268	1
21	Main Board	30135550	1
22	Front Case	20022241	1
23	Screw Cover	24252016	3
24	Electric Box Cover2	2012216801	1
25	Filter Sub-Assy	11122095	2
26	Display Board	30565211	1
27	Front Panel Assy	20022325	1
28	Electric Box Cover	22242112	1
29	Shield Box (Electric Box)	01592116	1
30	Electric Box Assy	10000202898	1
31	Electric Box	20112091	1
32	Power Cord	4002046417	1
33	Connecting Cable	40020536	0
34	Connecting Cable	40020540	0
35	Ambient Temperature Sensor	390000599	1
36	Temperature Sensor	390000453	1
37	Remote Controller	30510065	1
38	Cold Plasma Generator	/	/

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No.	Description	Part Code		Qty
		GWH09PB-K3NNA6E/I		
	Product Code	CA430N00700	CA430N00701	
1	Front Panel Assy	2002275601	2002275601	1
2	Filter Sub-Assy	11122081	11122081	2
3	Screw Cover	2425201726	2425201726	3
4	Front Case Assy	2002223202	2002223202	1
5	Air Louver 1	1051211302	1051211302	1
6	Air Louver 2	1051211402	1051211402	1
7	Helicoid Tongue	2611216202	2611216202	1
8	Rear Case assy	22202186	22202186	1
9	Rubber Plug (Water Tray)	76712012	76712012	1
10	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Cross Flow Fan	10352018	10352018	1
13	Evaporator Support	24212090	24212090	1
14	Evaporator Assy	01002000037	01002000037	1
15	Wall Mounting Frame	01252015	01252015	1
16	Motor Press Plate	26112160	26112160	1
17	Fan Motor	15012115	15012115	1
18	Pipe Clamp	2611216401	2611216401	1
19	Drainage Hose	0523001406	0523001406	1
20	Step Motor	1521212901	1521212901	1
21	Crank	10582070	10582070	1
22	Guide Louver	1051220403	1051220403	1
23	Axile Bush	10542036	10542036	1
24	Electric Box	2011216701	2011216701	1
25	Terminal Board	42010268	42010268	1
26	Electric Box Cover2	2012207507	2012207507	1
27	Main Board	30135550	30135578	1
28	Jumper	4202300123	4202300123	1
29	Display Board	30565120	30565120	1
30	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
31	Electric Box Cover1	22242135	22242135	1
32	Electric Box Assy	10000202517	10000202628	1
33	Power Cord	4002046417	4002046417	1
34	Connecting Cable	40020536	40020536	0
35	Connecting Cable	40020540	40020540	0
36	Ambient Temperature Sensor	390000599	390000599	1
37	Temperature Sensor	390000453	390000453	1
38	Remote Controller	30510065	30510468	1
39	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH09PB-K3NNA5E/I		
	Product Code	CA417N01700	CA417N01701	
1	Front Panel Assy	20022382	20022382	1
2	Filter Sub-Assy	11122081	11122081	1
3	Screw Cover	24252016	24252016	2
4	Front Case Assy	2002223201	2002223201	3
5	Air Louver 1	1051211302	1051211302	1
6	Air Louver 2	1051211402	1051211402	1
7	Helicoid Tongue	2611216202	2611216202	1
8	Rear Case assy	22202186	22202186	1
9	Rubber Plug (Water Tray)	76712012	76712012	1
10	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Cross Flow Fan	10352018	10352018	1
13	Evaporator Support	24212090	24212090	1
14	Evaporator Assy	01002000037	01002000037	1
15	Wall Mounting Frame	01252015	01252015	1
16	Motor Press Plate	26112160	26112160	1
17	Fan Motor	15012115	15012115	1
18	Pipe Clamp	2611216401	2611216401	1
19	Drainage Hose	0523001406	0523001406	1
20	Step Motor	1521212901	1521212901	1
21	Crank	10582070	10582070	1
22	Guide Louver	10512204	10512204	1
23	Axile Bush	10542036	10542036	1
24	Electric Box	2011216701	2011216701	1
25	Terminal Board	42010268	42010268	1
26	Electric Box Cover2	20122075	20122075	1
27	Main Board	30135550	30135578	1
28	Jumper	4202300123	4202300123	1
29	Display Board	30565038	30565038	1
30	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
31	Electric Box Cover1	22242135	22242135	1
32	Electric Box Assy	10000202556	10000202667	1
33	Power Cord	4002046417	4002046417	1
34	Connecting Cable	40020536	40020536	0
35	Connecting Cable	40020540	40020540	0
36	Ambient Temperature Sensor	390000599	390000599	1
37	Temperature Sensor	390000453	390000453	1
38	Remote Controller	30510065	30510468	1
39	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH09PB-K3NNA2E/I		
	Product Code	CA415N01700	CA415N01701	
1	Front Panel Assy	20022292	20022292	1
2	Filter Sub-Assy	11122081	11122081	1
3	Screw Cover	24252016	24252016	2
4	Front Case Assy	2002223201	2002223201	3
5	Air Louver 1	1051211302	1051211302	1
6	Air Louver 2	1051211402	1051211402	1
7	Helicoid Tongue	2611216202	2611216202	1
8	Rear Case assy	22202186	22202186	1
9	Rubber Plug (Water Tray)	76712012	76712012	1
10	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Cross Flow Fan	10352018	10352018	1
13	Evaporator Support	24212090	24212090	1
14	Evaporator Assy	01002000037	01002000037	1
15	Wall Mounting Frame	01252015	01252015	1
16	Motor Press Plate	26112160	26112160	1
17	Fan Motor	15012115	15012115	1
18	Pipe Clamp	2611216401	2611216401	1
19	Drainage Hose	0523001406	0523001406	1
20	Step Motor	1521212901	1521212901	1
21	Crank	10582070	10582070	1
22	Guide Louver	10512204	10512204	1
23	Axile Bush	10542036	10542036	1
24	Electric Box	2011216701	2011216701	1
25	Terminal Board	42010268	42010268	1
26	Electric Box Cover2	20122075	20122075	1
27	Main Board	30135550	30135578	1
28	Jumper	4202300123	4202300123	1
29	Display Board	30565211	30565211	1
30	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
31	Electric Box Cover1	22242135	22242135	1
32	Electric Box Assy	10000202504	10000202630	1
33	Power Cord	4002046417	4002046417	1
34	Connecting Cable	40020536	40020536	0
35	Connecting Cable	40020540	40020540	0
36	Ambient Temperature Sensor	390000599	390000599	1
37	Temperature Sensor	390000453	390000453	1
38	Remote Controller	30510065	30510468	1
39	Cold Plasma Generator	/	1114001602	1

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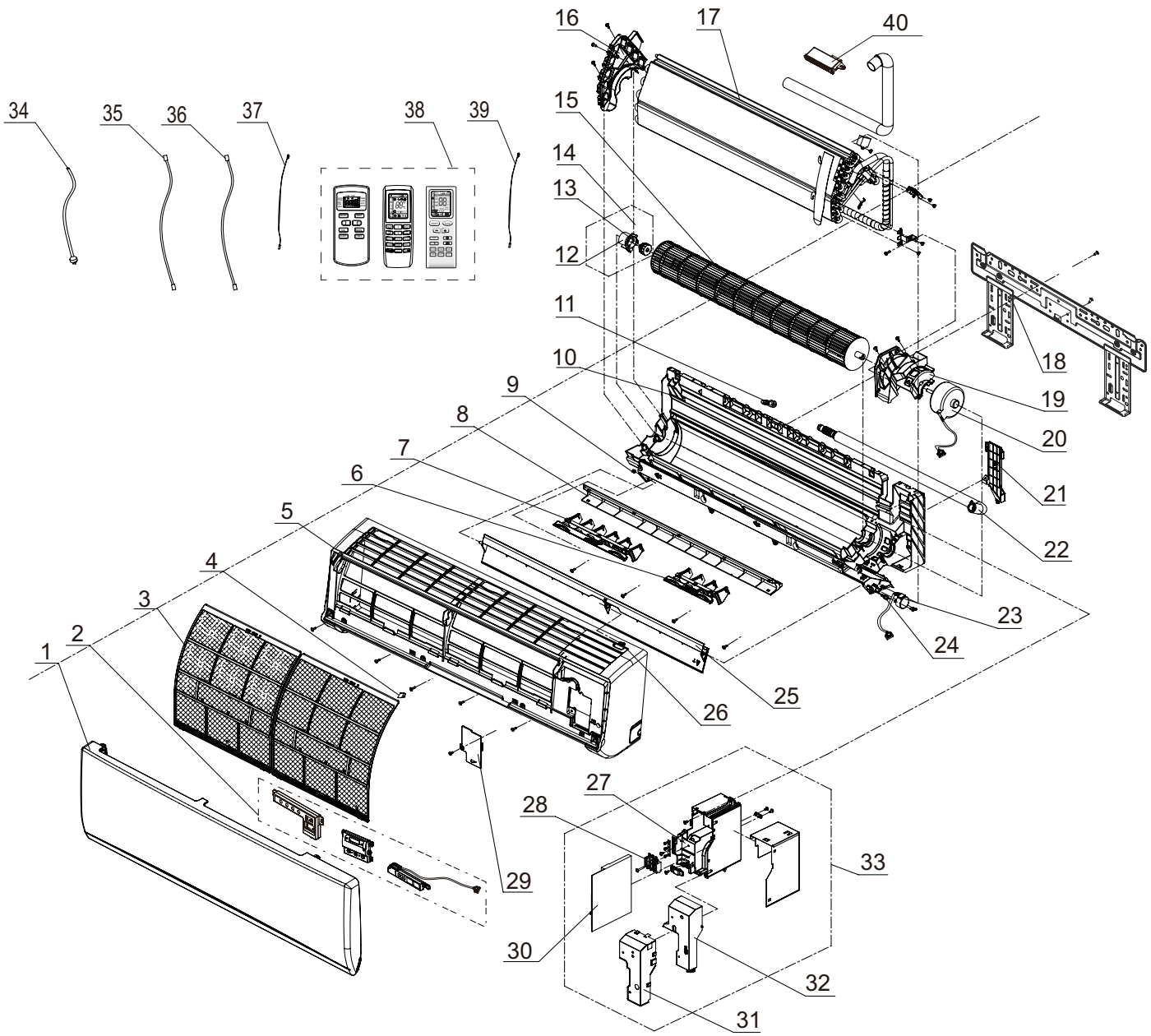
No.	Description	Part Code		Qty
		GWH09PB-K3NNA9E/I		
	Product Code	CA429N00800	CA429N00801	
1	Front Panel Assy	20022745	20022745	1
2	Filter Sub-Assy	11122081	11122081	1
3	Screw Cover	2425201726	2425201726	2
4	Front Case Assy	2002223202	2002223202	3
5	Air Louver 1	1051211302	1051211302	1
6	Air Louver 2	1051211402	1051211402	1
7	Helicoid Tongue	2611216202	2611216202	1
8	Rear Case assy	22202186	22202186	1
9	Rubber Plug (Water Tray)	76712012	76712012	1
10	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
11	O-Gasket of Cross Fan Bearing	76512203	76512203	1
12	Cross Flow Fan	10352018	10352018	1
13	Evaporator Support	24212090	24212090	1
14	Evaporator Assy	01002000037	01002000037	1
15	Wall Mounting Frame	01252015	01252015	1
16	Motor Press Plate	26112160	26112160	1
17	Fan Motor	15012115	15012115	1
18	Pipe Clamp	2611216401	2611216401	1
19	Drainage Hose	0523001406	0523001406	1
20	Step Motor	1521212901	1521212901	1
21	Crank	10582070	10582070	1
22	Guide Louver	1051220403	1051220403	1
23	Axile Bush	10542036	10542036	1
24	Electric Box	2011216701	2011216701	1
25	Terminal Board	42010268	42010268	1
26	Electric Box Cover2	2012207507	2012207507	1
27	Main Board	30135550	30135578	1
28	Jumper	4202300123	4202300123	1
29	Display Board	30565275	30565275	1
30	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
31	Electric Box Cover1	22242135	22242135	1
32	Electric Box Assy	10000202534	10000202597	1
33	Power Cord	4002046417	4002046417	1
34	Connecting Cable	40020536	40020536	0
35	Connecting Cable	40020540	40020540	0
36	Ambient Temperature Sensor	390000599	390000599	1
37	Temperature Sensor	390000453	390000453	1
38	Remote Controller	30510065	30510468	1
39	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code	Qty
		GWH09PB-K3NNA3E/I	
	Product Code	CA416N01700	
1	Front Panel Assy	20022328	1
2	Filter Sub-Assy	11122081	1
3	Screw Cover	24252016	2
4	Front Case Assy	2002223201	3
5	Air Louver 1	1051211302	1
6	Air Louver 2	1051211402	1
7	Helicoid Tongue	2611216202	1
8	Rear Case assy	22202186	1
9	Rubber Plug (Water Tray)	76712012	1
10	O-Gasket sub-assy of Bearing	7651205102	1
11	O-Gasket of Cross Fan Bearing	76512203	1
12	Cross Flow Fan	10352018	1
13	Evaporator Support	24212090	1
14	Evaporator Assy	01002000037	1
15	Wall Mounting Frame	01252015	1
16	Motor Press Plate	26112160	1
17	Fan Motor	15012115	1
18	Pipe Clamp	2611216401	1
19	Drainage Hose	0523001406	1
20	Step Motor	1521212901	1
21	Crank	10582070	1
22	Guide Louver	10512204	1
23	Axile Bush	10542036	1
24	Electric Box	2011216701	1
25	Terminal Board	42010268	1
26	Electric Box Cover2	20122075	1
27	Main Board	30135574	1
28	Jumper	4202300123	1
29	Display Board	30565212	1
30	Shield Cover of Electric Box Sub-assy	0159207301	1
31	Electric Box Cover1	22242135	1
32	Electric Box Assy	10000202570	1
33	Power Cord	4002046417	1
34	Connecting Cable	40020536	0
35	Connecting Cable	40020540	0
36	Ambient Temperature Sensor	390000599	1
37	Temperature Sensor	390000453	1
38	Remote Controller	30510065	1
39	Cold Plasma Generator	/	/

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No.	Description	Part Code		Qty
		GWH12PC-K3NNA6E/I		
	Product Code	CA430N00800	CA430N00801	
1	Front Panel Assy	2002275701	2002275701	1
2	Display Board	30565120	30565120	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	2425201726	2425201726	3
5	Front Case Sub-assy	2002236101	2002236101	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	01002565	01002565	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	1051220303	1051220303	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	2012207512	2012207512	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	10000202518	10000202629	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	30510468	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH12PC-K3NNA5E/I		
	Product Code	CA417N01800	CA417N01801	
1	Front Panel Assy	20022360	20022360	1
2	Display Board	30565038	30565038	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	24252016	24252016	3
5	Front Case Sub-assy	20022361	20022361	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	01002565	01002565	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	10512203	10512203	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	20122075	20122075	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	20402910	10000200061	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	30510468	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH12PC-K3NNA2E/I		
	Product Code	CA415N01800	CA415N01801	
1	Front Panel Assy	20022281	20022281	1
2	Display Board	30565211	30565211	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	24252016	24252016	3
5	Front Case Sub-assy	20022361	20022361	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	01002565	01002565	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	10512203	10512203	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	20122075	20122075	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	10000202505	10000202505	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	30510468	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH12PC-K3NNA9E/I		
	Product Code	CA429N00900	CA415N01801	
1	Front Panel Assy	2002274401	2002274401	1
2	Display Board	30565275	30565275	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	2425201726	2425201726	3
5	Front Case Sub-assy	2002236101	2002236101	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	01002565	01002565	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	1051220303	1051220303	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	2012207512	2012207512	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	10000202535	10000200789	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	30510468	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH12PC-K3NNA3E/I		
	Product Code	CA416N01800	CA416N01801	
1	Front Panel Assy	20022267	20022267	1
2	Display Board	30565212	30565212	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	24252016	24252016	3
5	Front Case Sub-assy	20022361	20022361	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	01002565	01002565	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	10512203	10512203	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	20122075	20122075	1
30	Main Board	30135574	30135932	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	10000202571	10000202656	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	30510468	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWH12PC-K3NNA1F/I		
	Product Code	CA414N02400	CA414N02401	
1	Front Panel Assy	20022275	20022275	1
2	Display Board	30565200	30565200	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	24252016	24252016	3
5	Front Case Sub-assy	20022361	20022361	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	0100274401	0100274401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	10512203	10512203	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	20122075	20122075	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	20102000407	20102000467	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020540	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	305100611	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

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No.	Description	Part Code		Qty
		GWH12PC-K3NNA7F/I		
	Product Code	CA428N00800	CA428N00801	
1	Front Panel Assy	20022514	20022514	1
2	Display Board	30565110	30565110	1
3	Filter Sub-Assy	1112220403	1112220403	2
4	Screw Cover	242520179	242520179	3
5	Front Case Sub-assy	2001279001	2001279001	1
6	Air Louver 1	1051215603	1051215603	1
7	Air Louver 2	1051215503	1051215503	1
8	Helicoid Tongue	2611216302	2611216302	1
9	Left Axile Bush	10512037	10512037	1
10	Rear Case assy	22202467	22202467	1
11	Rubber Plug (Water Tray)	76712012	76712012	1
12	Ring of Bearing	26152022	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	1
15	Cross Flow Fan	10352017	10352017	1
16	Evaporator Support	24212091	24212091	1
17	Evaporator Assy	0100274401	0100274401	1
18	Wall Mounting Frame	01252021	01252021	1
19	Motor Press Plate	26112161	26112161	1
20	Fan Motor	150120874	150120874	1
21	Pipe Clamp	2611216401	2611216401	1
22	Drainage Hose	0523001401	0523001401	1
23	Step Motor	1521212901	1521212901	1
24	Crank	10582070	10582070	1
25	Guide Louver	1051220301	1051220301	1
26	Axile Bush	10542036	10542036	1
27	Electric Box	2011216701	2011216701	1
28	Terminal Board	42010268	42010268	1
29	Electric Box Cover2	2012207512	2012207512	1
30	Main Board	30135550	30135578	1
31	Shield Cover of Electric Box Sub-assy	0159207301	0159207301	1
32	Electric Box Cover1	22242135	22242135	1
33	Electric Box Assy	10000200532	10000200532	1
34	Power Cord	4002046417	4002046417	1
35	Connecting Cable	40020536	40020536	0
36	Connecting Cable	40020540	40020536	0
37	Ambient Temperature Sensor	390000599	390000599	1
38	Remote Controller	30510065	305100611	1
39	Temperature Sensor	390000453	390000453	1
40	Cold Plasma Generator	/	1114001602	1

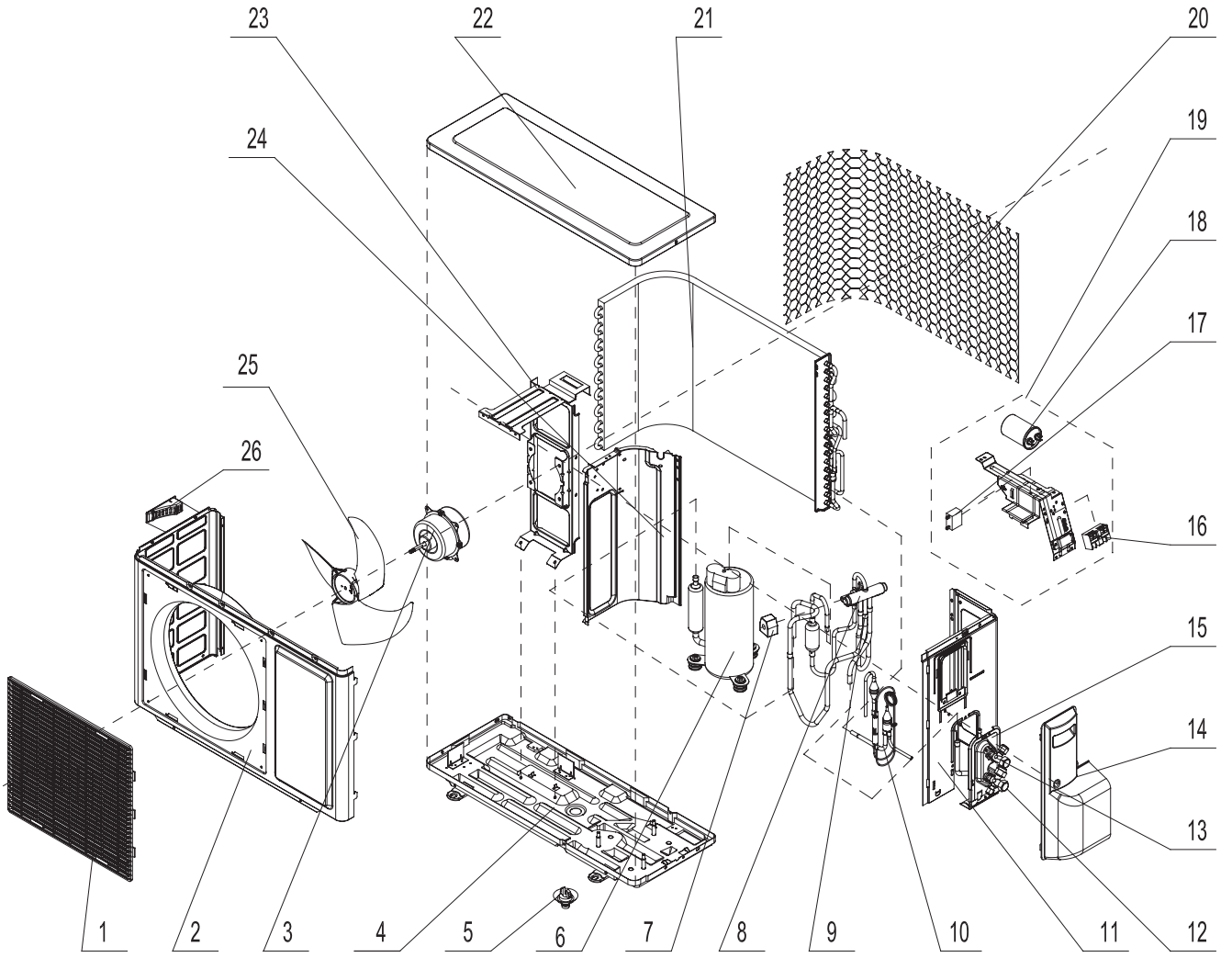
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No.	Description	Part Code	Qty
		GWH12PC-K3NNA5F/I	
	Product Code	CA417N02100	
1	Front Panel Assy	20022360	1
2	Display Board	30565038	1
3	Filter Sub-Assy	1112220403	2
4	Screw Cover	24252016	3
5	Front Case Sub-assy	20022361	1
6	Air Louver 1	1051215603	1
7	Air Louver 2	1051215503	1
8	Helicoid Tongue	2611216302	1
9	Left Axile Bush	10512037	1
10	Rear Case assy	22202467	1
11	Rubber Plug (Water Tray)	76712012	1
12	Ring of Bearing	26152022	1
13	O-Gasket of Cross Fan Bearing	76512203	1
14	O-Gasket sub-assy of Bearing	7651205102	1
15	Cross Flow Fan	10352017	1
16	Evaporator Support	24212091	1
17	Evaporator Assy	0100274401	1
18	Wall Mounting Frame	01252021	1
19	Motor Press Plate	26112161	1
20	Fan Motor	150120874	1
21	Pipe Clamp	2611216401	1
22	Drainage Hose	0523001401	1
23	Step Motor	1521212901	1
24	Crank	10582070	1
25	Guide Louver	10512203	1
26	Axile Bush	10542036	1
27	Electric Box	2011216701	1
28	Terminal Board	42010268	1
29	Electric Box Cover2	20122075	1
30	Main Board	30135550	1
31	Shield Cover of Electric Box Sub-assy	0159207301	1
32	Electric Box Cover1	22242135	1
33	Electric Box Assy	20402910	1
34	Power Cord	4002046417	1
35	Connecting Cable	40020536	0
36	Connecting Cable	40020540	0
37	Ambient Temperature Sensor	390000599	1
38	Remote Controller	30510065	1
39	Temperature Sensor	390000453	1
40	Cold Plasma Generator	/	/

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10.2 Outdoor Unit

GWH07NA-K3NNC7F/O GWH07NA-K3NNE4E/O GWH09NA-K3NNC7F/O GWH09MA-K3NNE4E/O



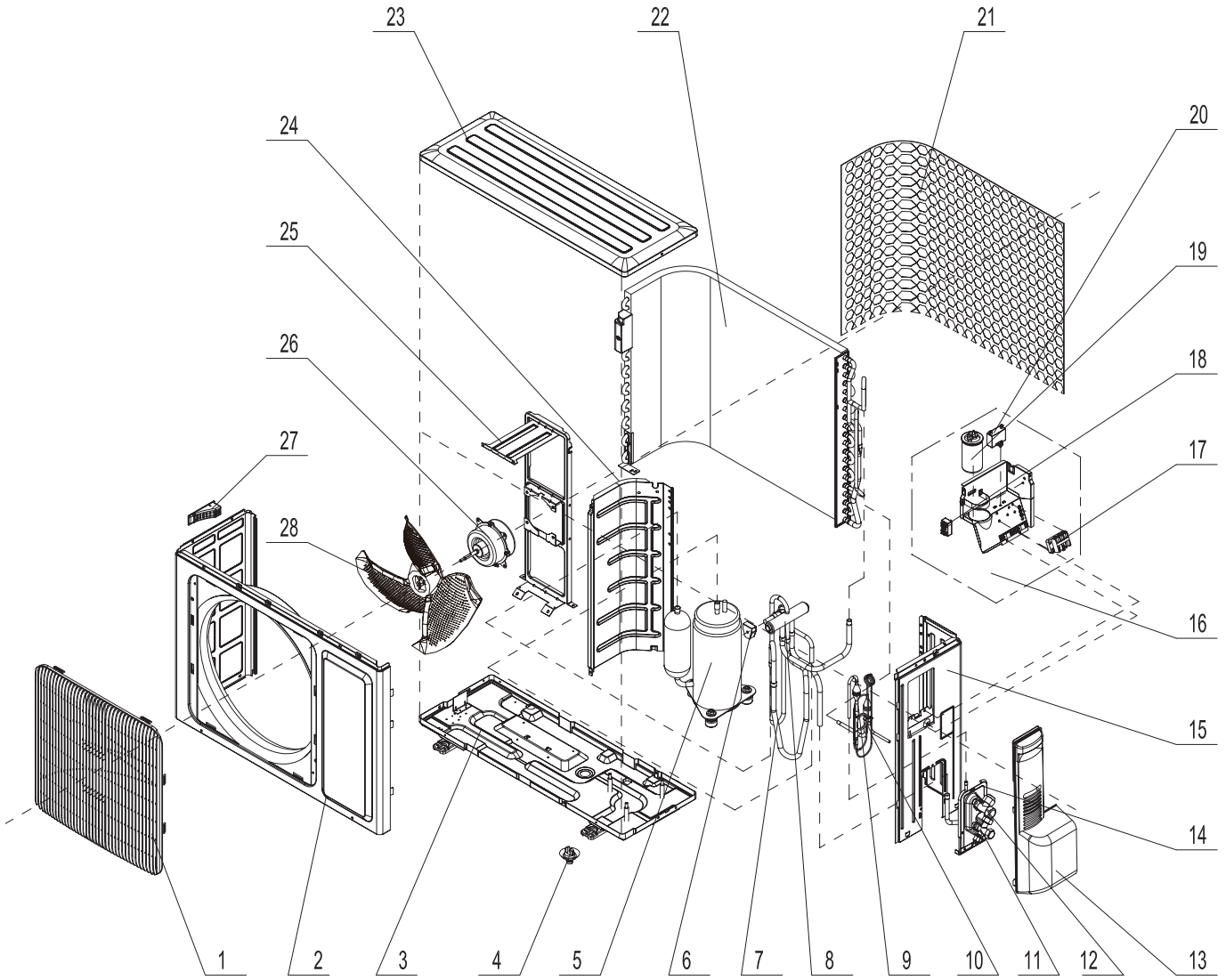
NO.	Description	Part Code		Qty
		GWH07NA-K3NNC7F/O	GWH07NA-K3NNE4E/O	
	Product Code	CA195W06200	CA403W01400	
1	Front Grill	22263002	22263002	1
2	Cabinet	01433035P	01533255P	1
3	Fan Motor	1501315604	1501315604	1
4	Chassis Sub-assy	0280322902P	02803229P	1
5	Drainage Connecter	06123401	06123401	1
6	Compressor and Fittings	00106071	00106071	1
7	Magnet Coil	4300040047	4300040047	1
8	4-Way Valve	430004022	430004022	1
9	4-Way Valve Assy	03073391	03073392	1
10	Capillary Sub-assy	03000600422	03000600420	1
11	Right Side Plate Sub-Assy	01303243	01303243	1
12	Valve	07130239	07130239	1
13	Valve	07100005	07100005	1
14	Big Handle	26233101	26233101	1
15	Valve Support	01713424	01713424	1
16	Terminal Board	42010265	42010265	1
17	Capacitor CBB61S	3301074701	3301074701	1
18	Capacitor CBB65	33000081	33000081	1
19	Electric Box Assy	10000201377	10000201377	1
20	Rear Grill	/	/	/
21	Condenser Assy	01100200439	01100200437	1
22	Top Cover Plate	01253045P	01253045P	1
23	Motor Support Sub-Assy	01703019	01703204	1
24	Clapboard Sub-Assy	01233107	01233179	1
25	Axial flow fan	10333002	10333002	1
26	Small Handle	26233100	26233100	1

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NO.	Description	Part Code		Qty
		GWH09NA-K3NNC7F/O	GWH09MA-K3NNE4E/O	
	Product Code	CA195W06300	CA403W01500	
1	Front Grill	22263002	22263002	1
2	Front Panel	01533255P	01533255P	1
3	Fan Motor	1501315604	1501315604	1
4	Chassis Sub-assy	01700000127P	0280312301P	1
5	Drainage Connecter	06123401	06123401	1
6	Compressor and Fittings	00101260	00103841	1
7	Magnet Coil	4300040047	4300040047	1
8	4-Way Valve	430004022	430004022	1
9	4-Way Valve Assy	03073393	03073375	1
10	Capillary Sub-assy	03000600420	03000600421	1
11	Right Side Plate Sub-Assy	01303243	01303243	1
12	Valve	07130239	07130239	1
13	Valve	07100005	07100005	1
14	Big Handle	26233101	26233101	1
15	Valve Support	01713424	01713424	1
16	Terminal Board	42010265	42010265	1
17	Capacitor CBB61S	3301074701	3301074701	1
18	Capacitor CBB65	3300008101	33000081	1
19	Electric Box Assy	10000202118	10000202116	1
20	Rear Grill	/	/	/
21	Condenser Assy	01100200437	01100200438	1
22	Top Cover Plate	01253045P	01253045P	1
23	Motor Support Sub-Assy	01703204	01703204	1
24	Clapboard Sub-Assy	01233107	01233107	1
25	Axial flow fan	10333002	10333002	1
26	Small Handle	26233100	26233100	1

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GWH12NC-K3NNE4E/O GWH12NC-K3NNC7F/O



NO.	Description			Qty
		GWH12NC-K3NNE4E/O	GWH12NC-K3NNC7F/O	
	Product Code	CA403W01600	CA195W06400	
1	Front Grill	22413008	22413008	1
2	Front Panel	01533034P	01533034P	1
3	Chassis Sub-assy	0280325701P	02803253P	1
4	Drainage Connecter	06123401	06123401	1
5	Compressor and Fittings	00103937	00103937	1
6	Magnet Coil	4300040047	4300040047	1
7	4-way Valve Assy	03073310	03073140	1
8	4-way Valve	430004022	430004022	1
9	Strainer A	07210022	07210022	1
10	Capillary Sub-Assy	03163582	03163292	1
11	Valve	07100003	07100003	1
12	Valve	07100006	07100005	1
13	Big Handle	2623343106	2623343106	1
14	Valve Support	01703089P	01703089P	1
15	Right Side Plate Sub-Assy	01303172	01303172	1
16	Electric Box Assy	10000202153	10000201908	1
17	Terminal Board	42010265	42010265	1
18	Terminal Board	42011147	42011147	1
19	Capacitor CBB65	3300008102	3300008102	1
20	Capacitor CBB61	3301074710	3301074710	1
21	Rear Grill	/	/	/
22	Condenser Assy	01103000293	01163910	1
23	Top Cover Sub-Assy	01253087	0125308701	1
24	Clapboard Sub-Assy	01233066	01233066	1
25	Motor Support	01703104	01703103	1
26	Fan Motor	150130676	150130676	1
27	Small Handle	26233100	26233100	1
28	Axial Flow Fan	10333427	10333427	1

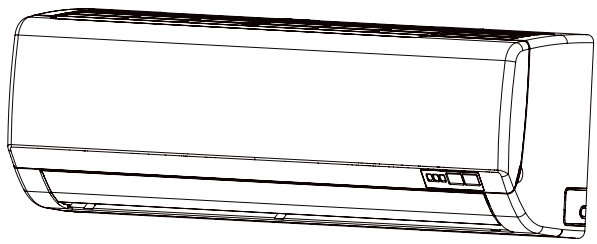
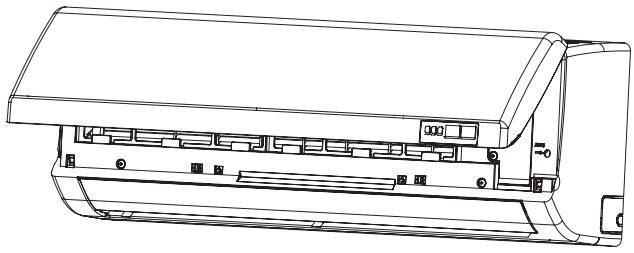
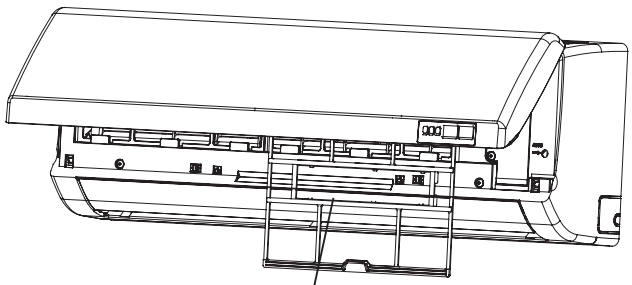
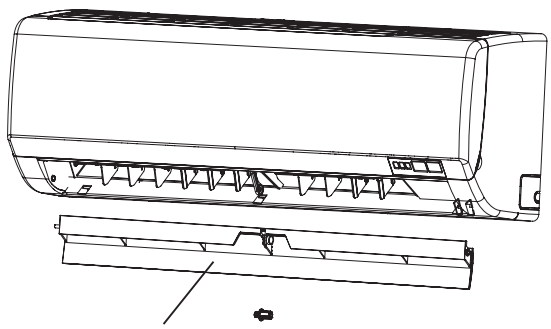
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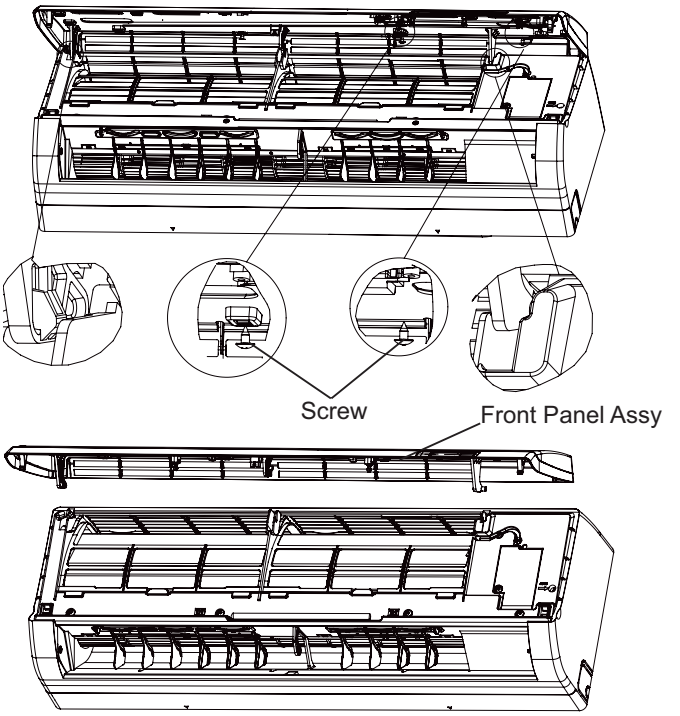
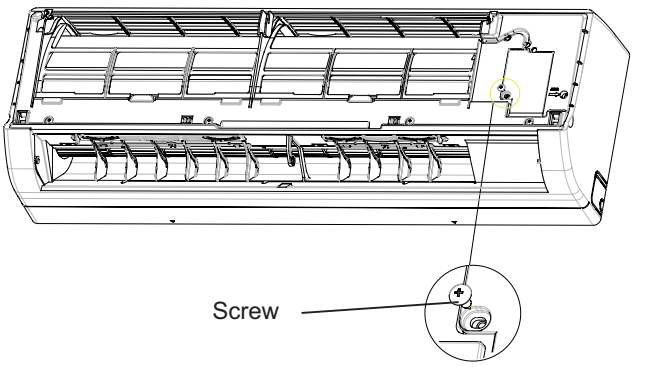
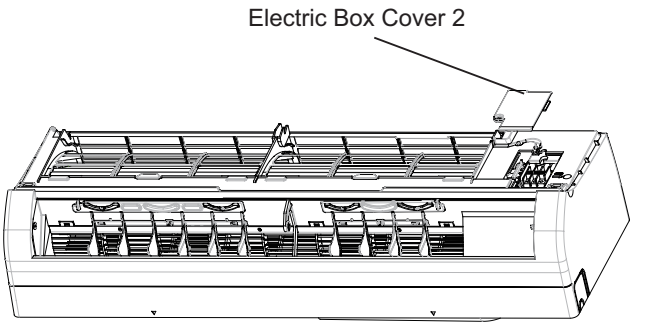
11. Removal Procedure

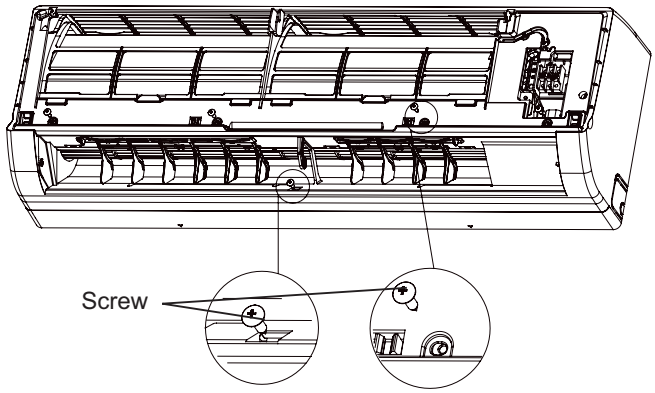
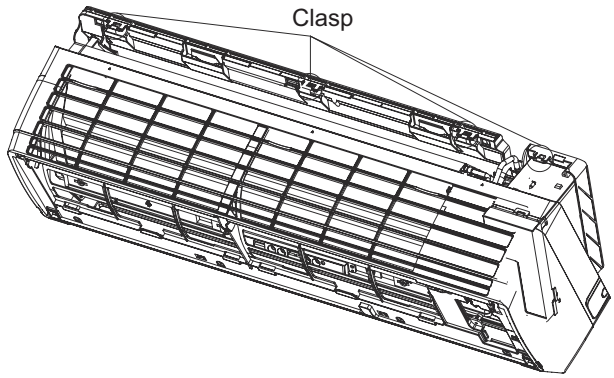
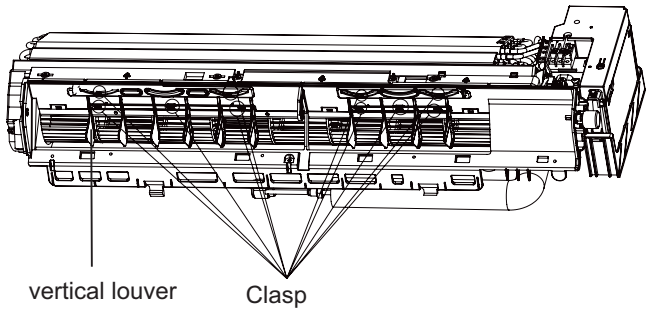
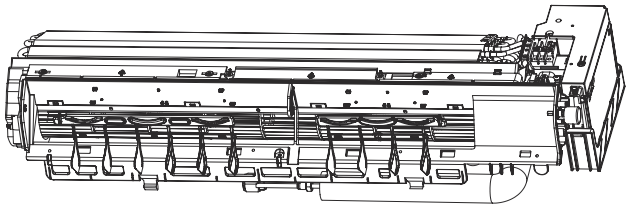
Caution: discharge the refrigerant completely before removal.

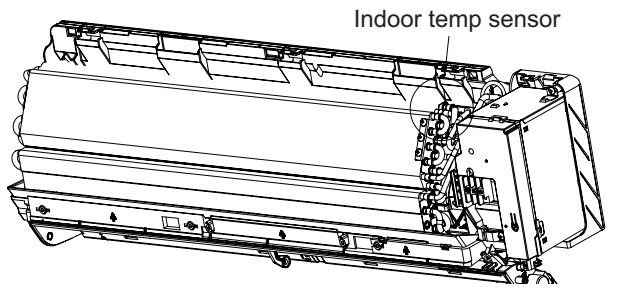
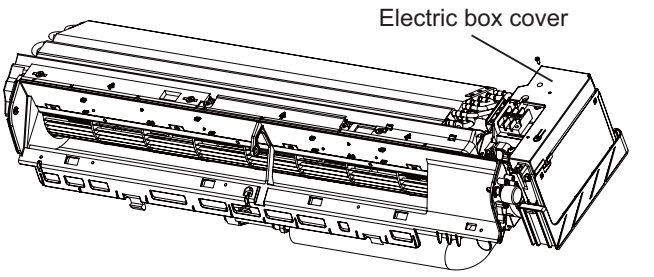
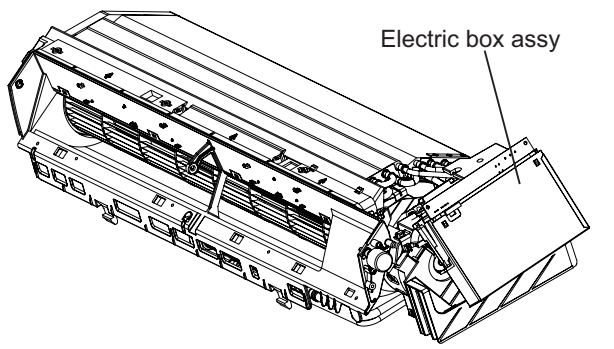
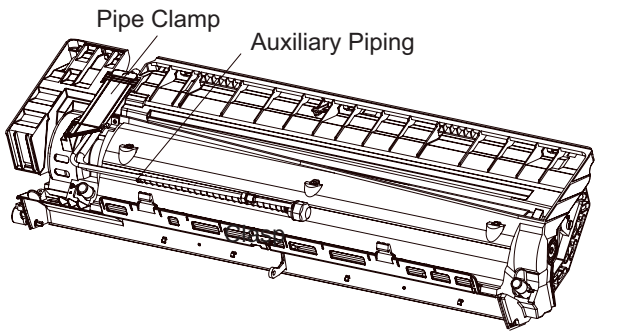
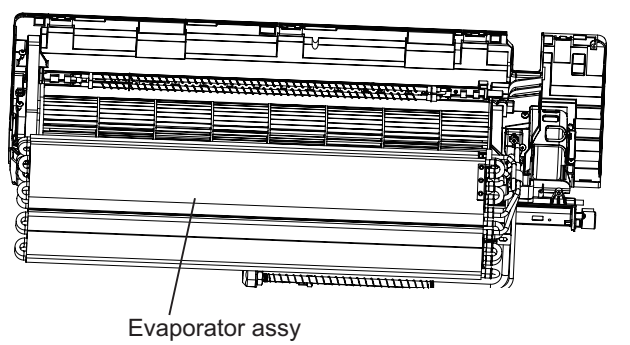
11.1 Removal Procedure of Indoor Unit

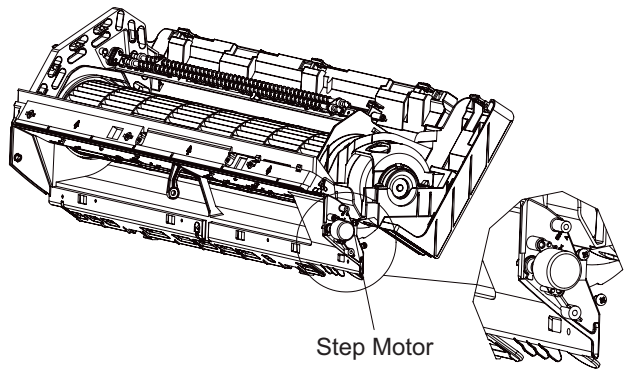
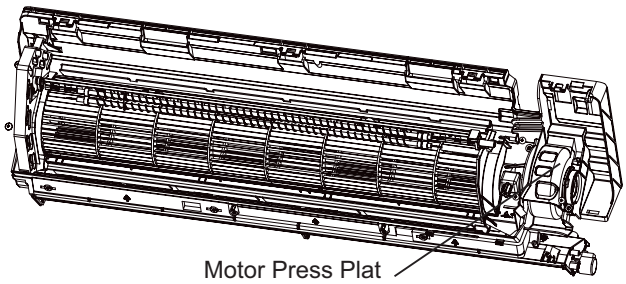
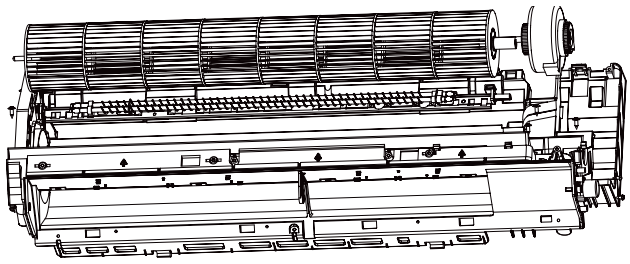
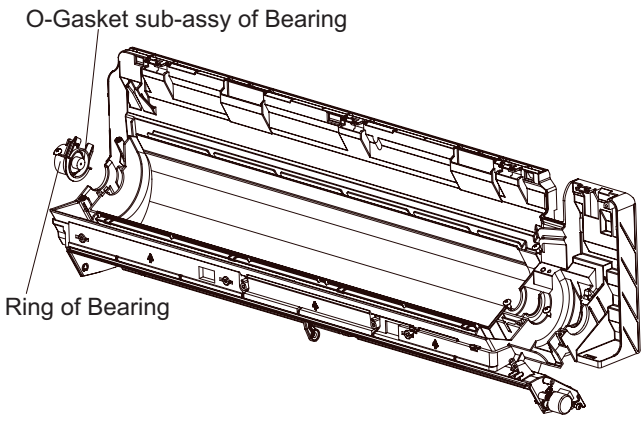
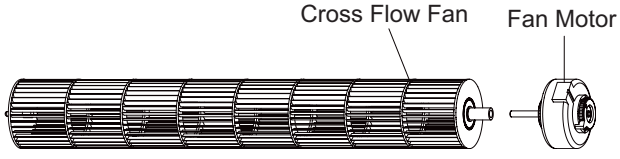
Note:Take A1 plane for example.

Steps	Procedure	
1.Before disassembly		
2.Removal of filter and horizontal louver		
a	Open the front panel .	
b	Push the filter inward and then draw itupward to remove it.	 Filter
c	Remove axial sleeve of horizontal louver and bend the louver slightly. Then remove the louver.	 Horizontal louver

Steps	Procedure
3.Removal of indicator and front panel	
a	Remove connection screw of indicator and then remove the indicator.
b	Remove rotating shaft of front panel and then remove the front panel.
4.Removal of electric box cover 2	
	Remove connection screws between electric box cover 2 and front case. Then remove the electric box cover 2.
	

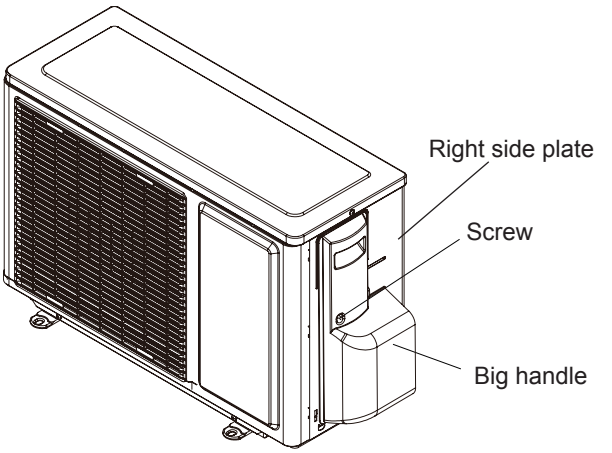
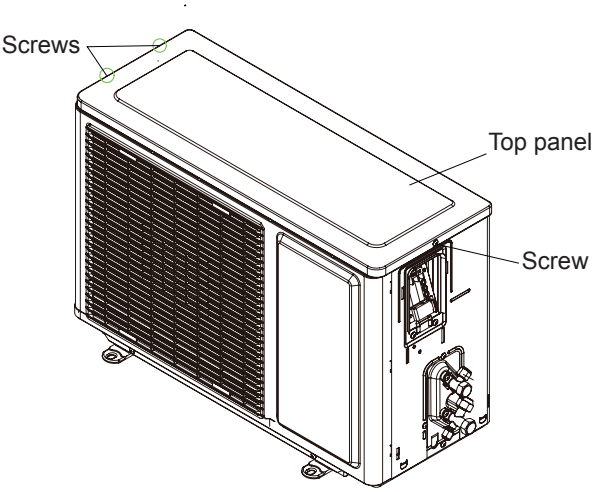
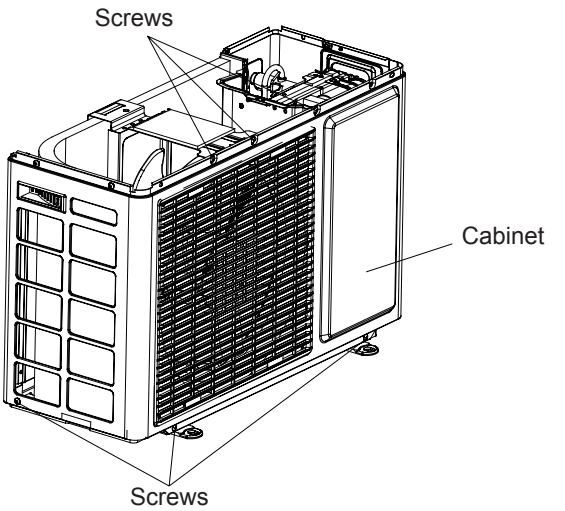
Steps	Procedure	
5. Removal of front case		
a	Remove connection screws between front case and rear case.	
b	Release clasp connecting front case and rear case and then remove the front case.	
6. Removal of vertical louver		
a	Remove 10 clasps of vertical louver and rear case assy.	
b	Remove vertical louver.	

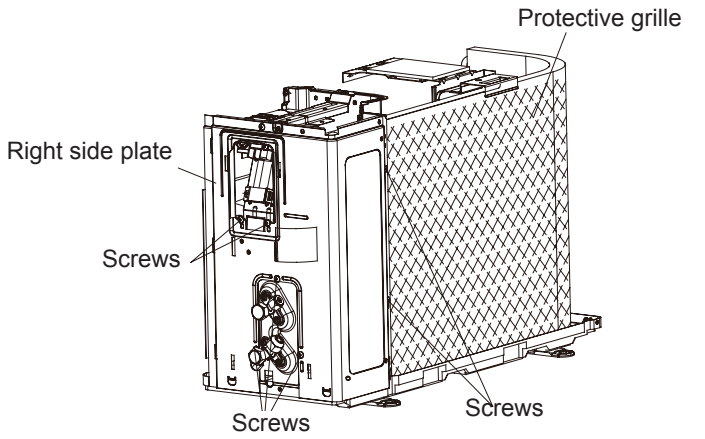
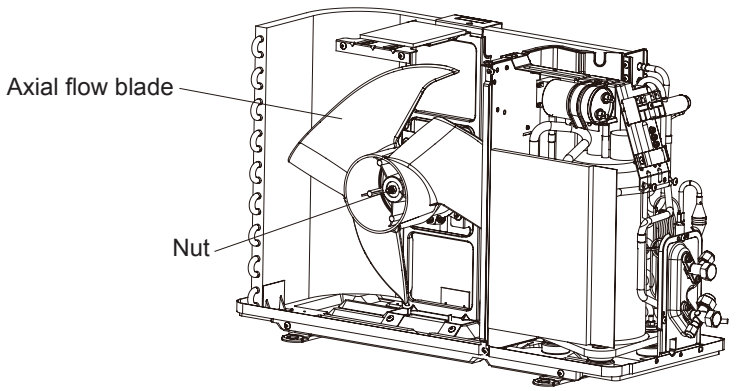
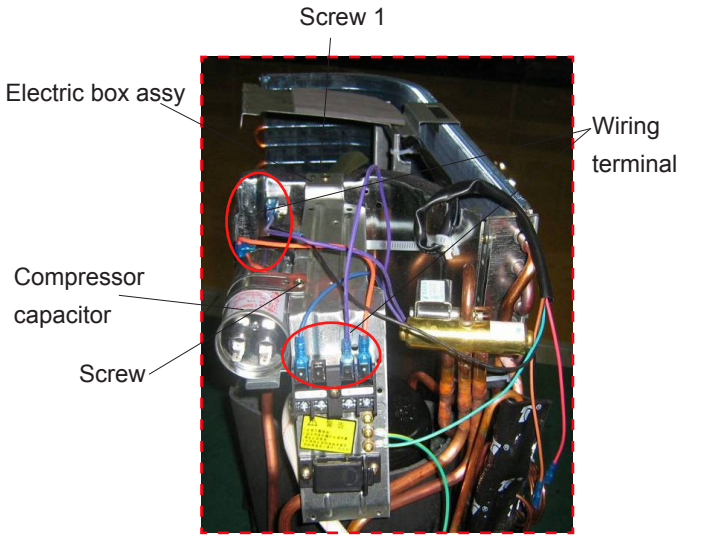
Steps	Procedure
7. Removal of electric box assy	  
a Unplug indoor temp sensor.	
b Remove connection screws of electric box assy and rear case. Release clasps and remove connection screws of earthing wire and evaporator assy. Then remove electric box assy.	
8.Removal of evaporator	 
a Turn over the rear case assy and remove connecting pipe clamp. Release clasps between connecting pipe clamp and rear case assy. Then remove connecting pipe clamp.	
b Remove connection screws of evaporator assy and motor clamp. Release clasps connecting evaporator assy to rear case. Then remove evaporator assy.	

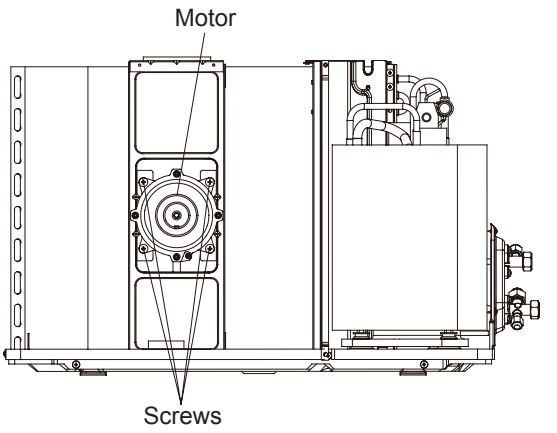
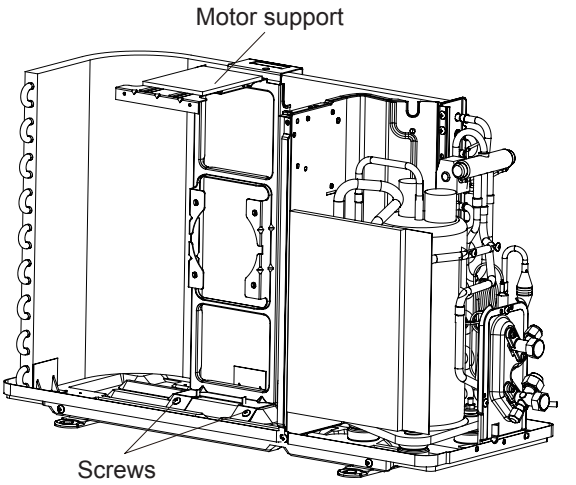
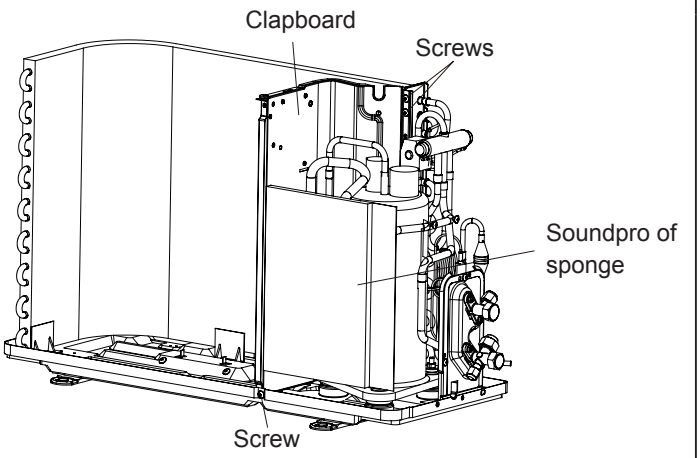
Steps	Procedure	
9.Removal of cross flow fan and motor		
a	Remove screws of step motor and then remove the motor.	
b	Remove 4 connection screws of motor clamp and rear case. Then remove motor clamp.	
c	Remove cross flow fan and motor.	
d	Removal of ring of bearing sub-assy.	
e	Removal of connection screws connecting cross flow fan to motor shaft. Then remove the motor.	

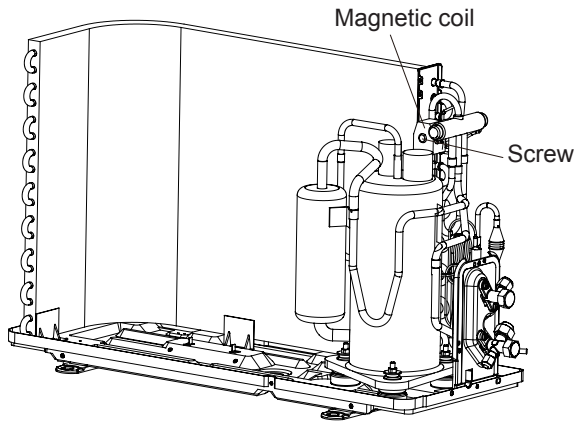
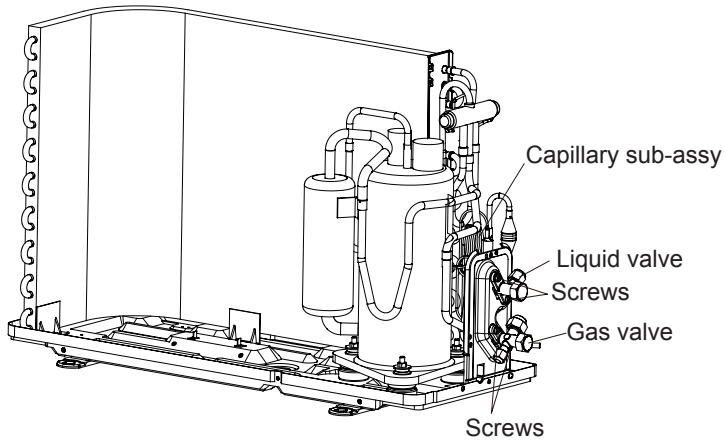
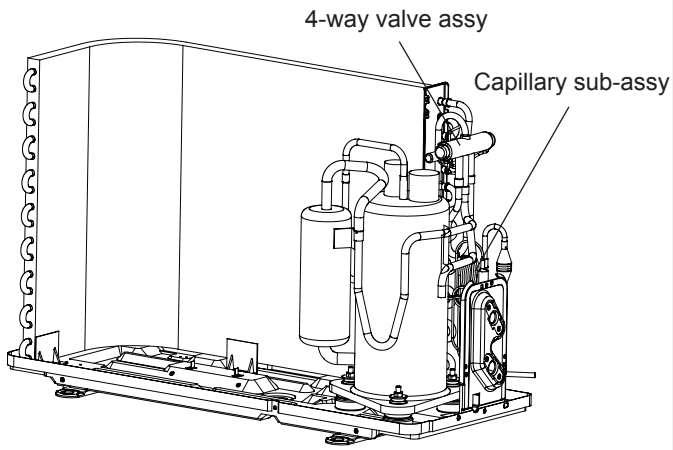
11.2 Removal Procedure of Outdoor Unit

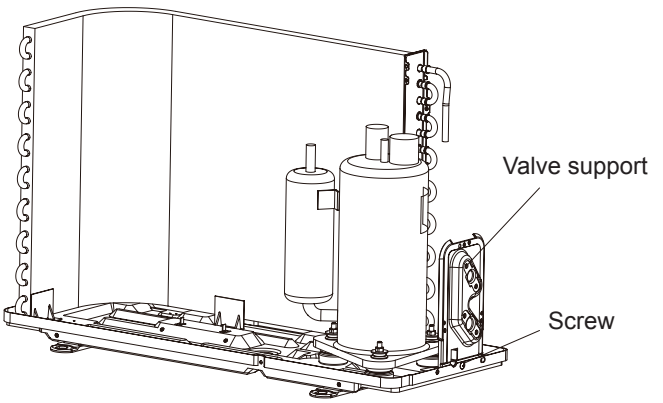
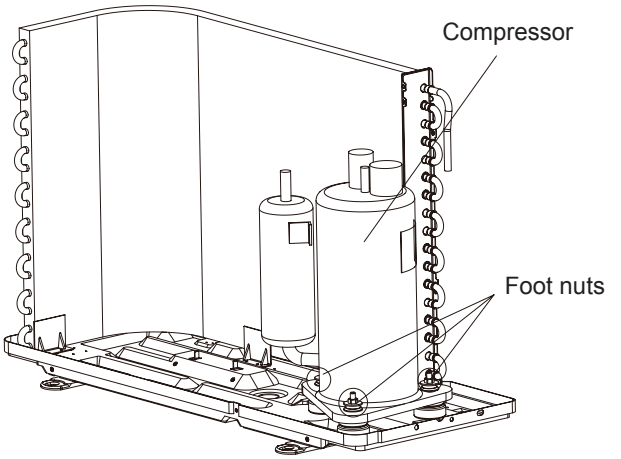
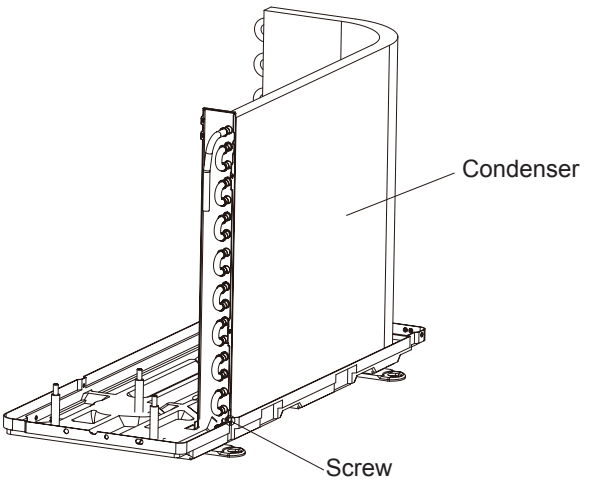
07/09K

Step	Procedure
1. Remove big handle	
Remove the screw fixing big handle; slide out the big handle upwards to make the clasp of big handle separate from the groove of right side plate, and then remove the big handle.	
2. Remove top panel	
Remove the screws fixing top panel and then remove the top panel.	
3. Remove cabinet	
Remove the cabinet by screwing off the locking screws on cabinet.	

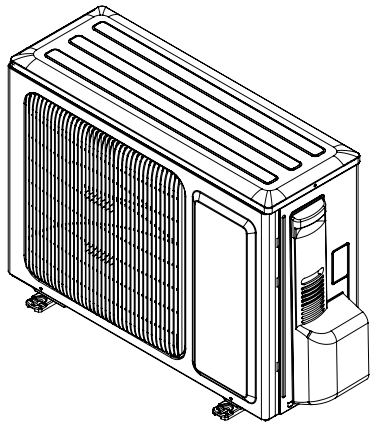
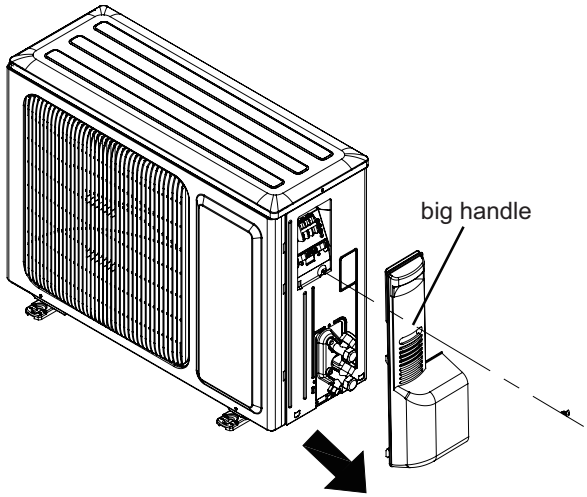
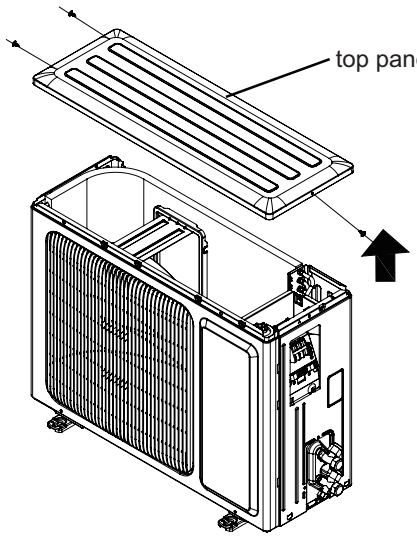
Step	Procedure
4. Remove right side plate	
Remove the screws fixing right side plate and then remove the right side plate. Cut off the wire binder fixing the protective grille and then remove the protective grille.	
5. Remove axial flow blade	
Remove the nut fixing axial flow blade and then remove the axial flow blade.	
6. Remove electric box assy	
Remove the wiring terminals on electric box. Screw off screw 1 fixing the electric box assy and then remove the electric box assy. Screw off the screws fixing compressor capacitor. Then remove the compressor capacitor.	

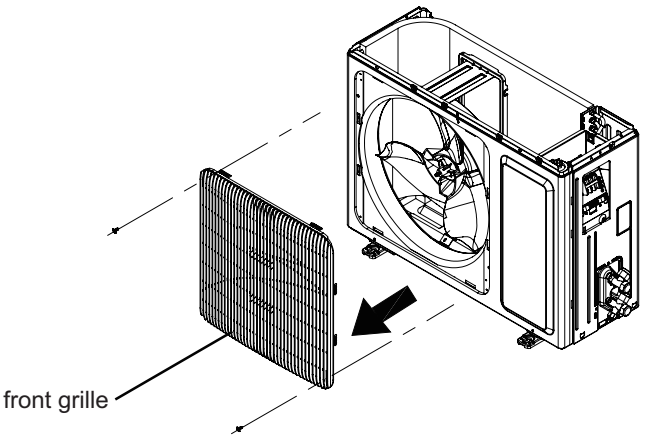
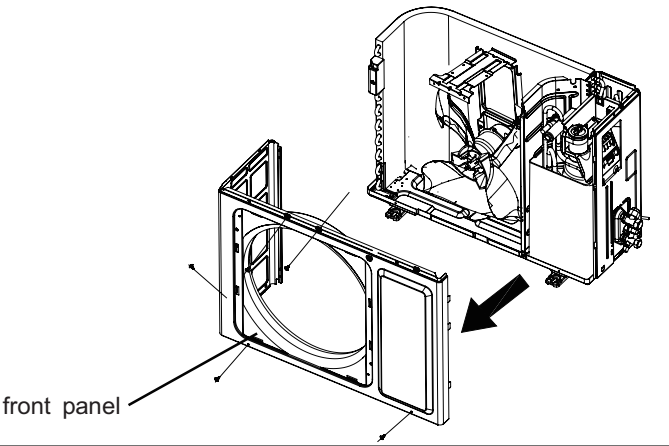
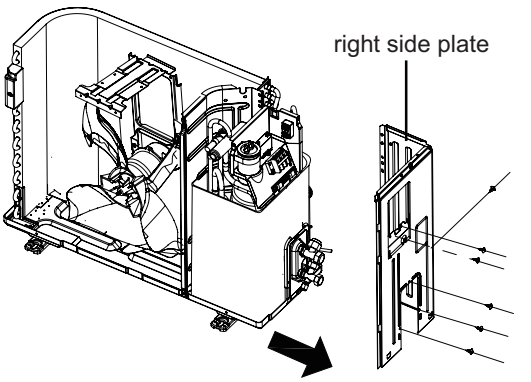
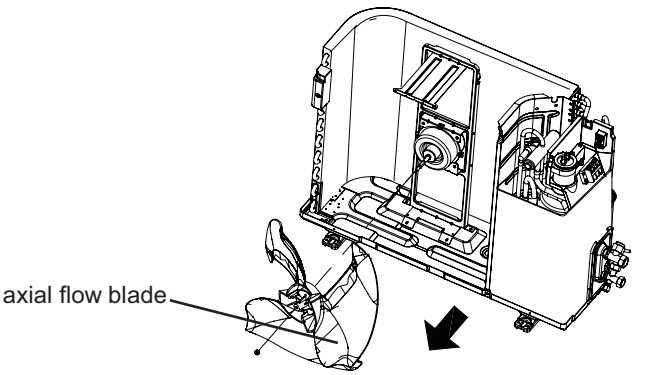
Step	Procedure
7. Remove motor	
Remove the screws fixing motor and then remove the motor.	
8. Remove motor support	
Remove the screws fixing motor support and then remove the motor support.	
9. Remove clapboard and soundproof sponge	
Remove the screws fixing clapboard and then remove the clapboard. Remove the soundproof sponge wrapping the compressor.(Some models are without soundproof sponge)	

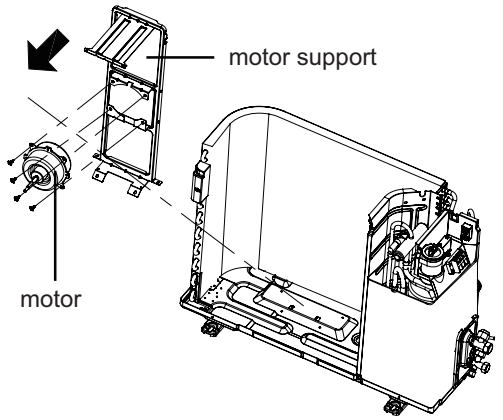
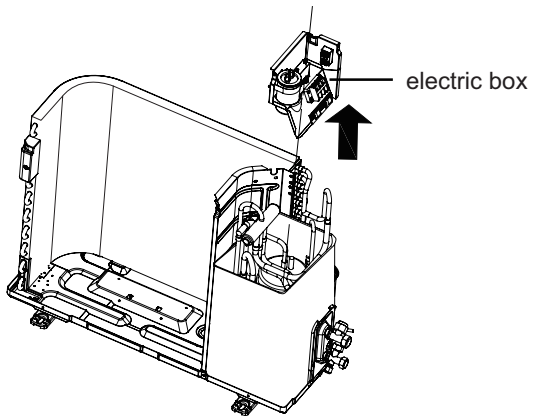
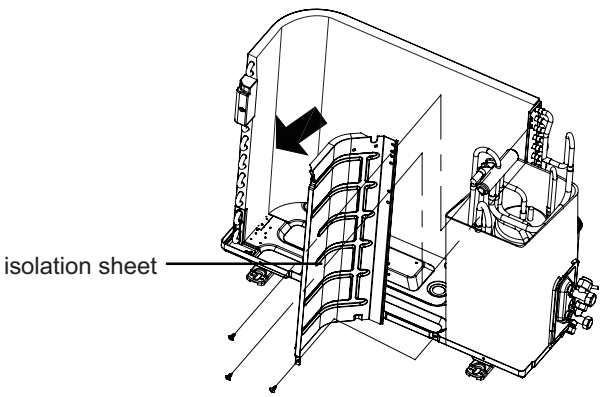
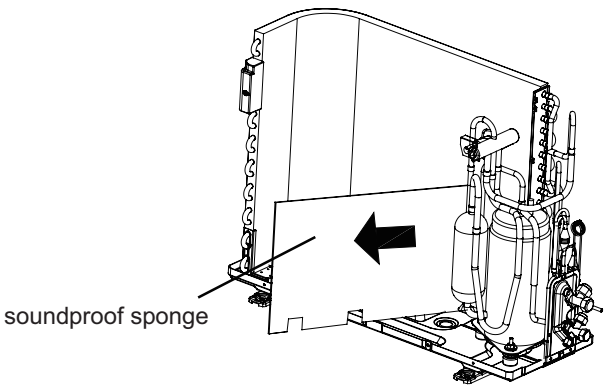
Step	Procedure
10. Remove magnetic coil	
Remove one screw on magnetic coil, and then remove the magnetic coil.	
11. Remove gas valve and liquid valve	
Unsolder the spot weld between capillary with valve and condenser; remove two screws fixing the gas valve; unsolder the spot weld connecting gas valve and air-return pipe, and then remove the gas valve. Remove two screws fixing the liquid valve; unsolder the spot weld connecting liquid valve and Y-type pipe, and then remove the liquid valve. Note: When unsoldering the spot weld, wrap the gas valve with wet cloth completely to avoid damaging the valve due to high temperature.	
12. Remove 4-way valve assy and capillary sub-assy	
Unsolder the spot weld of 4-way valve assy, capillary, compressor and condenser, and then remove the 4-way valve assy and capillary sub-assy. Note: When unsoldering the spot weld, wrap the 4-way valve with wet cloth completely to avoid damaging the valve due to high temperature.	

Step	Procedure
13. Remove valve support	
Screw off the screw fixing the valve support and then remove the valve support.	
14.Remove compressor	
Remove 3 foot nuts on compressor, and then remove the compressor. Note: Protect the ports of discharge pipe and suction pipe to avoid foreign objects to enter it.	
15. Remove condenser	
Remove one screw fixing the condenser, then remove the condenser.	

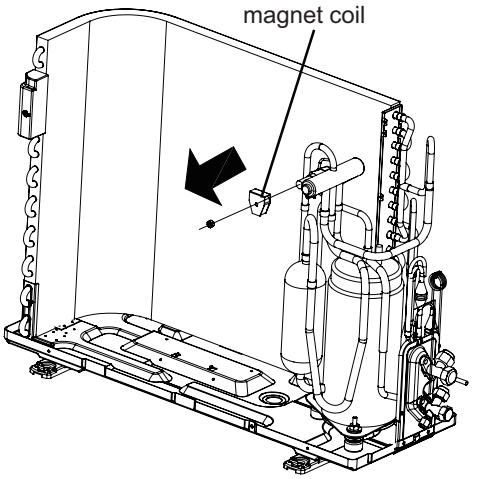
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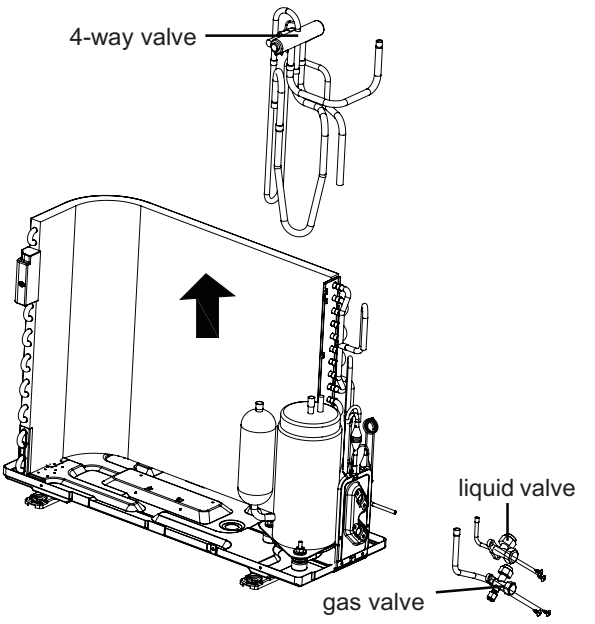
Steps	Procedure
1. Before disassembly	
2. Remove big handle Remove the connection screw fixing the big handle and then remove the handle.	
3. Remove top panel Remove connection screws connecting the top panel with the front panel and the right side plate, and then remove the top panel.	

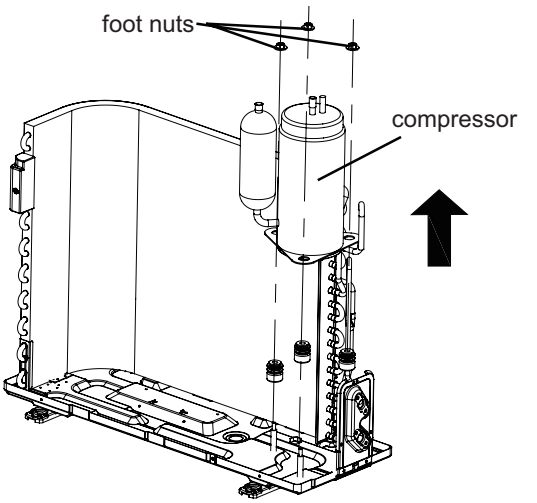
Steps	Procedure
4. Remove front grille	
	Remove connection screws between the front grille and the front panel. Then remove the front grille.
	
5. Remove front panel	
	Remove connection screws connecting the front panel with the chassis and the motor support, and then remove the front panel.
	
6. Remove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

Steps	Procedure
8. Remove motor and motor support	
Remove the 4 tapping screws fixing the motor and disconnect the leading wire insert of the motor. Then remove the motor. Remove the 2 tapping screws fixing the motor support and lift the motor support to remove it.	
9. Remove electric box	
Remove screws fixing the electric box subassembly; loosen the wire bundle and unplug the wiring terminals. Then lift the electric box to remove it.	
10. Remove isolation sheet	
Remove the 3 screws fixing the isolation sheet and then remove the isolation sheet.	
11. Remove soundproof sponge	
Remove the soundproof sponge wrapping the compressor.	

Steps	Procedure
	12. Remove magnet coil
	Remove the screw fixing the magnet coil and then remove the coil.
	13. Remove valves and 4-way valve subassembly
	Unsolder welding joint connecting the capillary, the valve and the outlet pipe of condenser to remove the capillary. Do not block the capillary with welding slag during unsoldering. Remove the 2 screws fixing the gas valve and unsolder the welding point between the gas valve and the air-return pipe to remove the gas valve. (NOTE: Discharge the refrigerant completely before unsoldering; when unsoldering, wrap the gas valve with a wet cloth completely to avoid damage to the valve caused by high temperature). Remove the 2 screws fixing the liquid valve and unsolder the welding joint connecting the liquid valve to the Y-type pipe to remove the liquid valve. Unsolder the welding joint connecting the 4-way valve, the compressor and the condenser to remove the 4-way valve.
	14. Remove compressor
	Remove the foot nuts on the compressor and then remove the compressor.







Appendix:

Appendix 1: Reference Sheet of Celsius and Fahrenheit

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

Set temperature

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

Ambient temperature

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

Appendix 2: Configuration of Connection Pipe

1.Standard length of connection pipe

● 5m, 7.5m, 8m.

2.Min. length of connection pipe is 3m.

3.Max. length of connection pipe and max. high difference.

4.The additional refrigerant oil and refrigerant charging required after prolonging connection pipe

● After the length of connection pipe is prolonged for 10m at the basis of standard length, you should add 5ml of refrigerant oil for each additional 5m of connection pipe.

● The calculation method of additional refrigerant charging amount (on the basis of liquid pipe):

Cooling capacity	Max length of connection pipe	Max height difference
5000 Btu/h(1465 W)	15 m	5 m
7000 Btu/h(2051 W)	15 m	5 m
9000 Btu/h(2637 W)	15 m	10 m
12000 Btu/h(3516 W)	20 m	10 m
18000 Btu/h(5274 W)	25 m	10 m
24000 Btu/h(7032 W)	25 m	10 m
28000 Btu/h(8204 W)	30 m	10 m
36000 Btu/h(10548 W)	30 m	20 m
42000 Btu/h(12306 W)	30 m	20 m
48000 Btu/h(14064 W)	30 m	20 m

● When the length of connection pipe is above 5m, add refrigerant according to the prolonged length of liquid pipe. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.

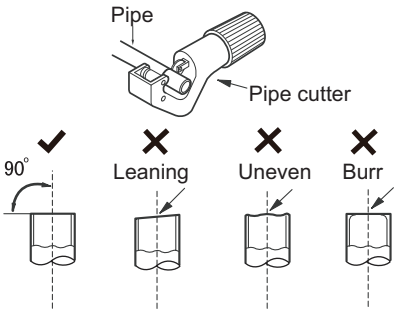
● Additional refrigerant charging amount = prolonged length of liquid pipe X additional refrigerant charging amount per meter

Additional refrigerant charging amount for R22, R407C, R410A and R134a			
Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe(mm)	Gas pipe(mm)	Cooling only(g/m)	Cooling and heating(g/m)
Φ6	Φ9.5 or Φ12	15	20
Φ6 or Φ9.5	Φ16 or Φ19	15	20
Φ12	Φ19 or Φ22.2	30	120
Φ16	Φ25.4 or Φ31.8	60	120
Φ19	/	250	250
Φ22.2	/	350	350

Appendix 2: Pipe Expanding Method

⚠ **Note:**

Improper pipe expanding is the main cause of refrigerant leakage.Please expand the pipe according to the following steps:

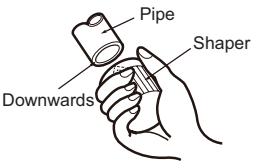


A:Cut the pip

- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with pipe cutter.

B:Remove the burrs

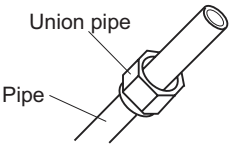
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.



C:Put on suitable insulating pipe

D:Put on the union nut

- Remove the union nut on the indoor connection pipe and outdoor valve; install the union nut on the pipe.



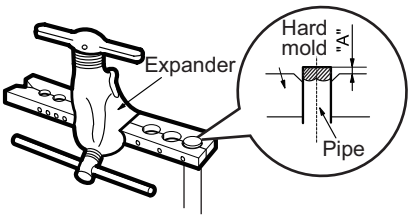
E:Expand the port

- Expand the port with expander.

⚠ **Note:**

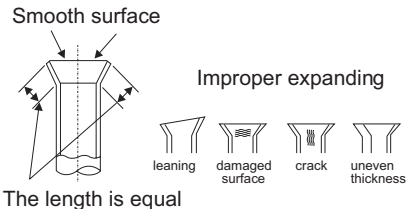
- "A" is different according to the diameter, please refer to the sheet below:

Outer diameter(mm)	A(mm)	
	Max	Min
Φ6 - 6.35 (1/4")	1.3	0.7
Φ9.52 (3/8”)	1.6	1.0
Φ12 - 12.70 (1/2”)	1.8	1.0
Φ16 - 15.88 (5/8”)	2.4	2.2



F:Inspection

- Check the quality of expanding port. If there is any blemish, expand the port again according to the steps above.



Appendix 4: List of Resistance for Temperature Sensor

Resistance Table of Ambient Temperature Sensor for Indoor and Outdoor (15K)

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

Resistance Table of Tube Temperature Sensors for Outdoor and Indoor (20K)

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

Resistance Table of Discharge Temperature Sensor for Outdoor (50K)

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

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