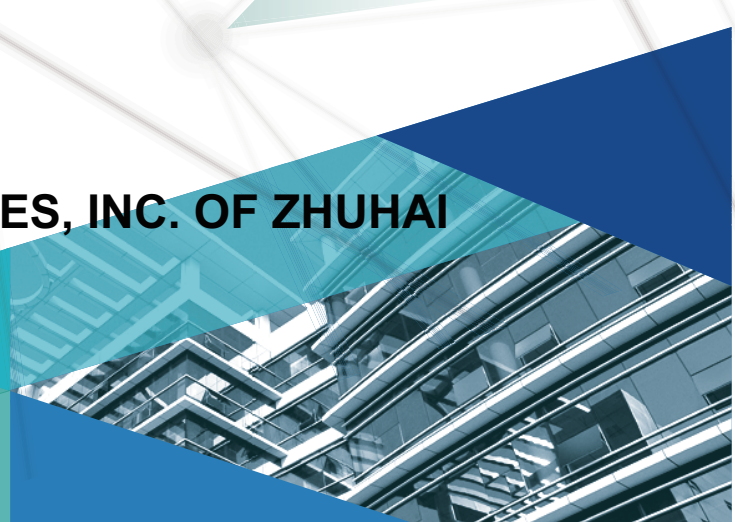
GREE
Change for life

Service Manual



GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI

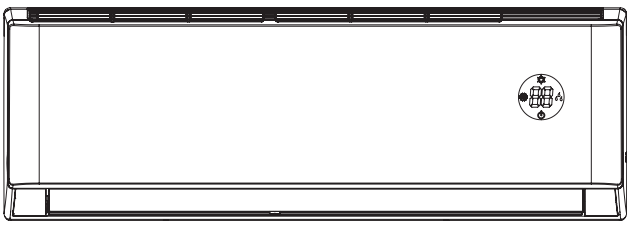
Table of Contents

Part Ⅰ : Technical Information

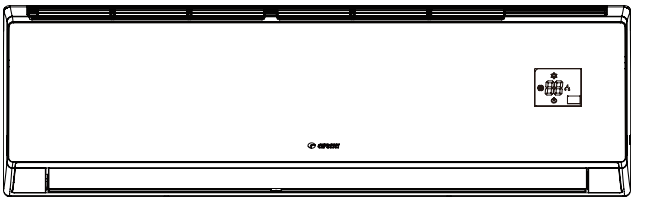
1. Summary

Indoor Unit

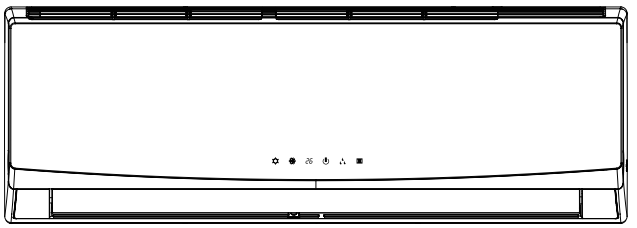
B2



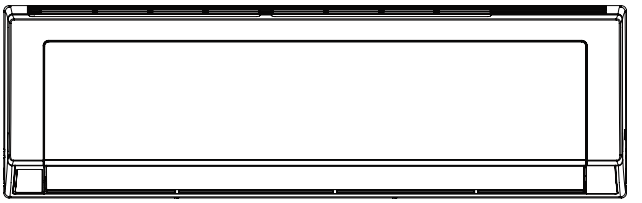
C6



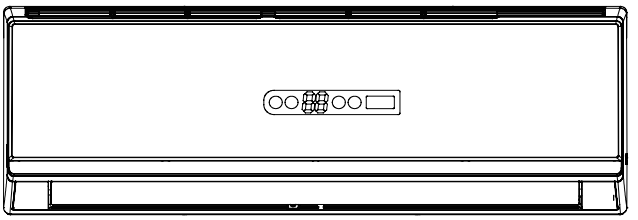
C2



D4

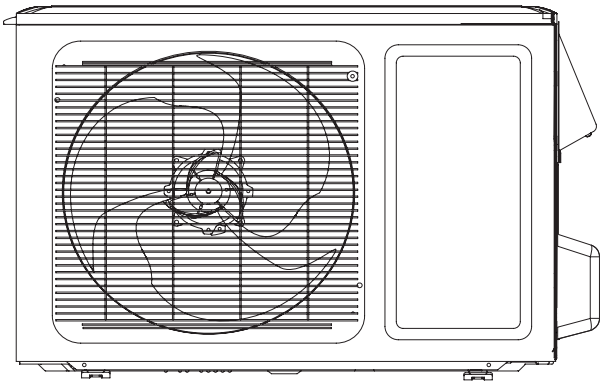


D8

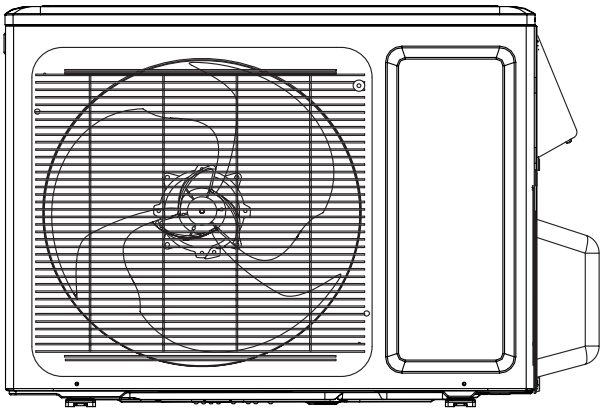


Outdoor Unit

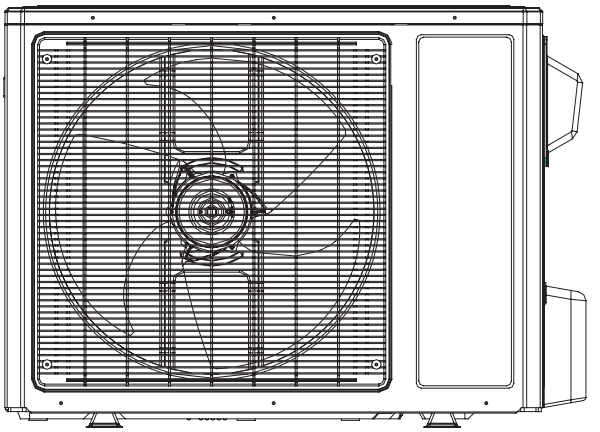
GWH07QC-D3DNA1D/O
GWC12AFC-D3DNA1A/O
GWH12AFC-D3DNA1A/O



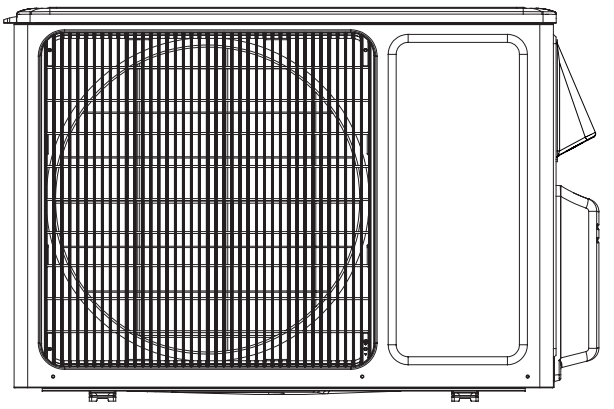
GWH09QB-D3DNC6L/O
GWH12QC-D3DNC6L/O
GWC09AFC-D3DNA1A/O
GWH09AFC-D3DNA1A/O
GWC12QC-D3DNB2M/O
GWH12QC-D3DNB2M/O
GWC09QB-D3DNB2J/O
GWH09QB-D3DNB2J/O



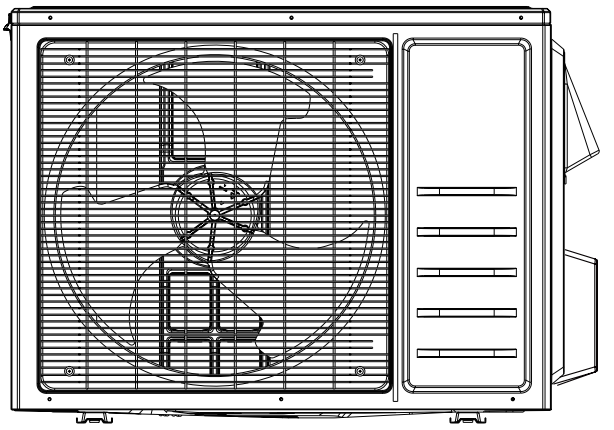
GWH18QD-D3DNC6L/O
GWH24QE-D3DNC6O/O
GWC24AFE-D3DNA1A/O
GWH24AFE-D3DNA1A/O



GWC18AFD-D3DNA1A/O



GWC24QE-D3DNB2R/O
GWH24QE-D3DNB2R/O



Remote Controller

YAN1F6F(WiFi)

YV1FB9F(WiFi)

YAN1F10F(WiFi)

Model List:

No	Model	Product code	Indoor model	Indoor product code	Outdoor model	Outdoor product code	Remote Controller
1	GWH07QC-D3DNB2D	CB432020800	GWH07QC-D3DNB2D/I	CB432N20800	GWH07QC-D3DNA1D/O	CB432W20800	YV1FB9F (WiFi)
2	GWH09QB-D3DNC6L	CB443004600	GWH09QB-D3DNC6L/I	CB443N04600	GWH09QB-D3DNC6L/O	CB443W04600	YAN1F6F (WiFi)
3	GWH12QC-D3DNC6L	CB443004700	GWH12QC-D3DNC6L/I	CB443N04700	GWH12QC-D3DNC6L/O	CB443W04700	
4	GWH18QD-D3DNC6L	CB443004800	GWH18QD-D3DNC6L/I	CB443N04800	GWH18QD-D3DNC6L/O	CB443W04800	
5	GWH24QE-D3DNC6O	CB443005000	GWH24QE-D3DNC6O/I	CB443N05000	GWH24QE-D3DNC6O/O	CB443W05000	
6	GWC09QC-D3DND8C	CB459006600	GWC09QC-D3DND8C/I	CB459N06600	GWC09AFC-D3DNA1A/O	CB348W03300	YAN1F10F (WiFi)
7	GWC09QC-D3DNB2C	CB432023400	GWC09QC-D3DNB2C/I	CB432N23400			
8	GWC09QC-D3DNC2C	CB439015300	GWC09QC-D3DNC2C/I	CB439N15300			
9	GWC09QC-D3DND4C	CB464003200	GWC09QC-D3DND4C/I	CB464N03200			
10	GWH09QC-D3DND8A	CB459006900	GWH09QC-D3DND8A/I	CB459N06900	GWH09AFC-D3DNA1A/O	CB348W03400	
11	GWC09QB-D3DNB2J	CB432021900	GWC09QB-D3DNB2J/I	CB432N21900	GWC09QB-D3DNB2J/O	CB432W21900	
12	GWh09QB-D3DNB2J	CB432021800	GWH09QB-D3DNB2J/I	CB432N21800	GWH09QB-D3DNB2J/O	CB432W21800	
13	GWC12QC-D3DND8C	CB459006700	GWC12QC-D3DND8C/I	CB459N06700	GWC12AFC-D3DNA1A/O	CB348W03500	
14	GWC12QC-D3DNB2C	CB432023200	GWC12QC-D3DNB2C/I	CB432N23200			
15	GWC12QC-D3DNC2C	CB439015400	GWC12QC-D3DNC2C/I	CB439N15400			
16	GWC12QC-D3DND4C	CB464003100	GWC12QC-D3DND4C/I	CB464N03100			
17	GWH12QC-D3DND8A	CB459007000	GWH12QC-D3DND8A/I	CB459N07000	GWH12AFC-D3DNA1A/O	CB348W03600	
18	GWC12QC-D3DNB2M	CB432022700	GWC12QC-D3DNB2M/I	CB432N22700	GWC12QC-D3DNB2M/O	CB432W22700	
19	GWH12QC-D3DNB2M	CB432022600	GWH12QC-D3DNB2M/I	CB432N22600	GWH12QC-D3DNB2M/O	CB432W22600	
20	GWC18QD-D3DNB2C	CB432023300	GWC18QD-D3DNB2C/I	CB432N23300	GWC18AFD-D3DNA1A/O	CB348W04700	
21	GWC18QD-D3DNC2A	CB439015500	GWC18QD-D3DNC2A/I	CB439N15500			
22	GWC18QD-D3DND4A	CB464003300	GWC18QD-D3DND4A/I	CB464N03300			
23	GWC18QD-D3DND8A	CB459007200	GWC18QD-D3DND8A/I	CB459N07200			
24	GWC24QE-D3DND8C	CB459006800	GWC24QE-D3DND8C/I	CB459N06800	GWC24AFE-D3DNA1A/O	CB348W03200	
25	GWC24QE-D3DNB2C	CB432023500	GWC24QE-D3DNB2C/I	CB432N23500			
26	GWC24QE-D3DNC2C	CB439015100	GWC24QE-D3DNC2C/I	CB439N15100			
27	GWC24QE-D3DND4C	CB464003000	GWC24QE-D3DND4C/I	CB464N03000			
28	GWH24QE-D3DND8A	CB459007100	GWH24QE-D3DND8A/I	CB459N07100	GWH24AFE-D3DNA1A/O	CB348W03100	
29	GWC24QE-D3DNB2R	CB432021600	GWC24QE-D3DNB2R/I	CB432N21600	GWC24QE-D3DNB2R/O	CB432W21600	
30	GWH24QE-D3DNB2R	CB432021500	GWH24QE-D3DNB2R/I	CB432N21500	GWH24QE-D3DNB2R/O	CB432W21500	

2. Specifications

2.1 Specification Sheet

Model			GWH09QB-D3DNC6L	GWH12QC-D3DNC6L
Product Code			CB443004600	CB443004700
Power Supply	Rated Voltage	V~	208/230	208/230
	Rated Frequency	Hz	60	60
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity(Min~Max)		Btu/h	9200(909~9600)	12100(3753~12500)
Heating Capacity(Min~Max)		Btu/h	10000(3100~12000)	12900(3924~14000)
Cooling Power Input(Min~Max)		W	867(375~1300)	1150(410~1350)
Heating Power Input(Min~Max)		W	894(300~1350)	1250(380~1500)
Cooling Power Current		A	4.0	5.1
Heating Power Current		A	3.8	5.55
Rated Input		W	1350	1500
Rated Current		A	5.8	6.88
Air Flow Volume(SH/H/M/L)		CFM	318/288/241/171	400/318/253/194
Dehumidifying Volume		Pint/h	1.69	2.96
EER		(Btu/h)/W	10.59	10.43
COP		(Btu/h)/W	11.18	10.4
SEER			18.50	18.50
HSPF			10.20	9.20
Application Area		yd^2	19.14-28.70	19.14-28.70
Indoor Unit	Model of indoor unit		GWH09QB-D3DNC6L/I	GWH12QC-D3DNC6L/I
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X22 5/6	Φ3 7/8X25
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1350/1200/1050/750	1350/1200/1000/800
	Fan Motor Heating Speed(SH/H/M/L)	r/min	1350/1200/1050/850	1350/1200/1000/900
	Output of Fan Motor	W	20	20
	Fan Motor RLA	A	0.22	0.31
	Fan Motor Capacitor	μF	1	1.5
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ13/64	Φ3/16
	Row-fin Gap	inch	2-1/16	2-1/16
	Coil Length (LXDXW)	inch	23X7/8X10 8/16	25X7/8X12 1/16
	Swing Motor Model		MP24AA	MP24BA
	Output of Swing Motor	W	1.5	1.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SH/H/M/L)	dB (A)	43/38/34/28/-	43/39/35/29
	Sound Power Level(SH/H/M/L)	dB (A)	53/49/45/39/-	53/49/45/39
	Dimension (WXHXD)	inch	31 7/64X10 5/6X7 7/8	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	34X10 35/64X13 55/64	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	34X10 21/32X14 29/64	36 1/4X11X15
	Net Weight	lb	20.9	23.15
	Gross Weight	lb	25.4	27.56

Outdoor Unit	Model of Outdoor Unit		GWH09QB-D3DNC6L/O	GWH12QC-D3DNC6L/O
	Outdoor Unit Product Code		CB443W04600	CB443W04700
	Compressor Manufacturer/Trademark		ZHUHAI GREE DAIKIN DEVICE CO.,LTD	ZHUHAI LANDA COMPRESSOR CO,LTD.
	Compressor Model		QXA-B102zE190	QXA-B102zE190
	Compressor Oil		RB68EP	RB68EP
	Compressor Type		Rotary	Rotary
	Compressor Locked Rotor Amp (L.R.A)	A	/	/
	Compressor RLA	A	6.6	6.6
	Compressor Power Input	W	1020	1020
	Overload Protector		1NT11L-6233 or HPC115/95U1 or KSD115℃	1NT11L-6233 or HPC115/95U1 or KSD115℃
	Throttling Method		Electric Expansion Valve Sub-Assy	Electron expansion valve
	Operation temp	ºF	60.8~86	60.8~86
	Ambient temp (cooling)	ºF	0~115	0~115
	Ambient temp (heating)	ºF	-13~75	-4~75
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ9/32	Φ5/16
	Rows-fin Gap	inch	1-1/18	2-1/16
	Coil Length (LXDXW)	inch	28X3/4X20	28X1 1/2X20
	Fan Motor Speed	rpm	900	900
	Output of Fan Motor	W	30	30
	Fan Motor RLA	A	0.36	0.37
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	CFM	942	1600
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	inch	Φ15 3/4	Φ15 3/4
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	PSIG	550	550
	Permissible Excessive Operating Pressure for the Suction Side	PSIG	240	240
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-	53/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-	63/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64	32 13/32X14 3/32X23 27/64
	Net Weight	lb	63.9	69.45
	Gross Weight	lb	69.5	74.96
	Refrigerant		R410A	R410A
	Refrigerant Charge	oz	24.7	31.8
Connection Pipe	Length	ft	24.6	24.6
	Gas Additional Charge	oz/ft	0.2	0.2
	Outer Diameter Liquid Pipe	inch	Φ1/4	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ3/8	Φ3/8
	Max Distance Height	ft	60	60
	Max Distance Length	ft	100	100
	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.GWC09QC-D3DND8C 2.GWC09QC-D3DNB2C 3.GWC09QC-D3DNC2C 4.GWC09QC-D3DND4C
Product Code			1.CB459006600 2.CB432023400 3.CB439015300 4.CB464003200
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	9000
Heating Capacity		Btu/h	/
Cooling Power Input		W	700
Heating Power Input		W	/
Cooling Power Current		A	3.25
Heating Power Current		A	/
Rated Input		W	1300
Rated Current		A	5.95
Air Flow Volume(SH/H/M/L)		CFM	371/341/294/235
Dehumidifying Volume		Pint/h	2.96
EER		(Btu/h)/W	12.8
COP		(Btu/h)/W	/
SEER			21
HSPF			/
Application Area		yd^2	14.4-21.5
Indoor Unit	Model of indoor unit		1.GWC09QC-D3DND8C/I 2.GWC09QC-D3DNB2C/I 3.GWC09QC-D3DNC2C/I 4.GWC09QC-D3DND4C/I
	Indoor Unit Product Code		1.CB459N06600 2.CB432N23400 3.CB439N15300 4.CB464N03200
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1050/850/-
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	/
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X2 3/64
	Swing Motor Model		MP24HF
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	42/39/34/29/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	52/49/44/39/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	23.2
	Gross Weight	lb	27.6

Outdoor Unit	Model of Outdoor Unit		GWC09AFC-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03300
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A079zE190A
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		4.6
	Compressor Power Input	W	790
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	28X3/4X20
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.36
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 3/4
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	49/-/-
	Sound Power Level (H/M/L)	dB (A)	59/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	63.9
	Gross Weight	lb	69.5
	Refrigerant		R410A
	Refrigerant Charge	oz	28.2
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	40
	Max Distance Length	ft	65.6
	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			GWH09QC-D3DND8A
Product Code			CB459006900
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	9000
Heating Capacity		Btu/h	10000
Cooling Power Input		W	700
Heating Power Input		W	780
Cooling Power Current		A	3.25
Heating Power Current		A	3.75
Rated Input		W	1450
Rated Current		A	5.95
Air Flow Volume(SH/H/M/L)		CFM	371/341/294/235
Dehumidifying Volume		Pint/h	2.96
EER		(Btu/h)/W	12.8
COP		(Btu/h)/W	12.8
SEER			21
HSPF			9
Application Area		yd^2	14.4-21.5
Indoor Unit	Model of indoor unit		GWH09QC-D3DND8A/I
	Indoor Unit Product Code		CB459N06900
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1050/850/-
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	1300/1150/1000/900/-
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X12 3/64
	Swing Motor Model		MP24BA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	Cooling:42/39/34/29/- Heating:42/39/34/31/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	Cooling:52/49/44/39/- Heating:52/49/44/41/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	23.2
	Gross Weight	lb	27.6

Outdoor Unit	Model of Outdoor Unit		GWH09AFC-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03400
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A079zE190A
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		4.6
	Compressor Power Input	W	790
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	-13~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	28X3/4X20
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.36
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 3/4
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	66.2
	Gross Weight	lb	71.7
	Refrigerant		R410A
	Refrigerant Charge	oz	28.9
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	40
	Max Distance Length	ft	65.6
	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			GWC12QC-D3DNB2M
Product Code			CB432022700
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	12000
Heating Capacity		Btu/h	/
Cooling Power Input		W	1256
Heating Power Input		W	/
Cooling Power Current		A	5.5
Heating Power Current		A	/
Rated Input		W	1450
Rated Current		A	6.3
Air Flow Volume(SH/H/M/L)		CFM	371/294/235/182
Dehumidifying Volume		Pint/h	1.4
EER		(Btu/h)/W	9.55
COP		(Btu/h)/W	/
SEER			17
HSPF			/
Application Area		yd^2	19.14-28.7
Indoor Unit	Model of indoor unit		GWC12QC-D3DNB2M/I
	Indoor Unit Product Code		CB432N22700
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1000/800/-
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	/
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X12 3/64
	Swing Motor Model		MP24BA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	42/39/34/28/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	52/49/44/38/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	22.1
	Gross Weight	lb	26.5

Outdoor Unit	Model of Outdoor Unit		GWC12QC-D3DNB2M/O
	Outdoor Unit Product Code		CB432W22700
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A102zE190B
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		6.6
	Compressor Power Input	W	1023
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Capillary
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	0~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ1/16
	Rows-fin Gap	inch	1-1/16
	Coil Length (LXDXW)	inch	28 5/16X1/2X19 1/2
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	2.5
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 33/64
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	60.6
	Gross Weight	lb	66.2
	Refrigerant		R410A
	Refrigerant Charge	oz	25.0
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	32.8
	Max Distance Length	ft	65.6
	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			GWH12QC-D3DNB2M
Product Code			CB432022600
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	12000
Heating Capacity		Btu/h	13000
Cooling Power Input		W	1297
Heating Power Input		W	1172
Cooling Power Current		A	5.6
Heating Power Current		A	5.1
Rated Input		W	1500
Rated Current		A	6.5
Air Flow Volume(SH/H/M/L)		CFM	371/294/235/182
Dehumidifying Volume		Pint/h	1.4
EER		(Btu/h)/W	9.25
COP		(Btu/h)/W	11.09
SEER			17
HSPF			9
Application Area		yd^2	19.14-28.7
Indoor Unit	Model of indoor unit		GWH12QC-D3DNB2M/I
	Indoor Unit Product Code		CB432N22600
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1000/800/-
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	1350/1200/1000/900/-
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X12 3/64
	Swing Motor Model		MP24BA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	Cooling:42/39/34/28/- Heating:43/39/34/30/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	Cooling:52/49/44/38/- Heating:53/49/44/40/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	22.1
	Gross Weight	lb	26.5

Outdoor Unit	Model of Outdoor Unit		GWH12QC-D3DNB2M/O
	Outdoor Unit Product Code		CB432W22600
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A102zE190B
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		6.6
	Compressor Power Input	W	1023
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Capillary
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	0~115
	Ambient temp (heating)	ºF	-4~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ5/16
	Rows-fin Gap	inch	1-1/16
	Coil Length (LXDXW)	inch	36 21/32X3/4X21 21/32
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	2.5
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 33/64
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	62.8
	Gross Weight	lb	68.4
	Refrigerant		R410A
	Refrigerant Charge	oz	28.2
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	32.8
	Max Distance Length	ft	65.6
	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.GWC12QC-D3DND8C 2.GWC12QC-D3DNB2C 3.GWC12QC-D3DNC2C 4.GWC12QC-D3DND4C
Product Code			1.CB459006700 2. CB432023200 3.CB439015400 4.CB464003100
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	12000
Heating Capacity		Btu/h	/
Cooling Power Input		W	1089
Heating Power Input		W	/
Cooling Power Current		A	4.73
Heating Power Current		A	/
Rated Input		W	1518
Rated Current		A	6.6
Air Flow Volume(SH/H/M/L/SL)		CFM	371/294/235/182/-
Dehumidifying Volume		Pint/h	2.96
EER		(Btu/h)/W	11.02
COP		(Btu/h)/W	/
SEER			20
HSPF			/
Application Area		yd^2	19.1-28.7
Indoor Unit	Model of indoor unit		1.GWC12QC-D3DND8C/I 2.GWC12QC-D3DNB2C/I 3.GWC12QC-D3DNC2C/I 4.GWC12QC-D3DND4C/I
	Indoor Unit Product Code		1.CB459N06700 2.CB432N23200 3.CB439N15400 4.CB464N03100
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1050/850
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	/
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X12 3/64
	Swing Motor Model		MP24HF
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	42/39/34/28/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	52/49/44/38/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	23.2
	Gross Weight	lb	27.6

Outdoor Unit	Model of Outdoor Unit		GWC12AFC-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03500
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A102zE190B
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		6.6
	Compressor Power Input	W	1023
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	29 7/32 X1 1/2X21 21/32
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1295
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ17 1/4
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-
	Dimension (WXHXD)	inch	33 25/64X23 15/32X12 19/32
	Dimension of Carton Box (LXWXH)	inch	34 9/16X14 11/64X24 51/64
	Dimension of Package (LXWXH)	inch	34 11/16X14 19/64X25 25/64
	Net Weight	lb	70.6
	Gross Weight	lb	77.2
	Refrigerant		R410A
	Refrigerant Charge	oz	34.2
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	40
	Max Distance Length	ft	65.6
	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			GWH12QC-D3DND8A
Product Code			CB459007000
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	12000
Heating Capacity		Btu/h	13000
Cooling Power Input		W	1089
Heating Power Input		W	1126
Cooling Power Current		A	4.73
Heating Power Current		A	4.90
Rated Input		W	1600
Rated Current		A	6.6
Air Flow Volume(SH/H/M/L/SL)		CFM	371/294/235/182/-
Dehumidifying Volume		Pint/h	2.96
EER		(Btu/h)/W	11.0
COP		(Btu/h)/W	11.55
SEER			20
HSPF			9.1
Application Area		yd^2	19.1-28.7
Indoor Unit	Model of indoor unit		GWH12QC-D3DND8A/I
	Indoor Unit Product Code		CB459N07000
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed (SH/H/M/L/SL)	r/min	1350/1200/1050/850
	Fan Motor Heating Speed (SH/H/M/L/SL)	r/min	1300/1150/1000/900
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.31
	Fan Motor Capacitor	μF	1.5
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	25X57/64X12 3/64
	Swing Motor Model		MP24BA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L/SL)	dB (A)	42/39/35/39/-
	Sound Power Level (SH/H/M/L/SL)	dB (A)	52/49/45/39/-
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	23.2
	Gross Weight	lb	27.6

Outdoor Unit	Model of Outdoor Unit		GWH12AFC-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03600
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXF-A102zE190B
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	/
	Compressor RLA		6.6
	Compressor Power Input	W	1023
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	-13~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	29 13/32X1 3/4X22
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1295
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ17 1/4
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	53/-/-
	Sound Power Level (H/M/L)	dB (A)	63/-/-
	Dimension (WXHXD)	inch	33 25/64X23 15/32X12 19/32
	Dimension of Carton Box (LXWXH)	inch	34 9/16X14 11/64X24 51/64
	Dimension of Package (LXWXH)	inch	34 11/16X14 19/64X25 25/64
	Net Weight	lb	72.8
	Gross Weight	lb	79.4
	Refrigerant		R410A
	Refrigerant Charge	oz	35.3
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	3/8
	Max Distance Height	ft	40
	Max Distance Length	ft	65.6
	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.GWC24QE-D3DND8C 2.GWC24QE-D3DNB2C 3.GWC24QE-D3DNC2C 4.GWC24QE-D3DND4C
Product Code			1.CB459006800 2.CB432023500 3. CB439015100 4.CB464003000
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	22000
Heating Capacity		Btu/h	/
Cooling Power Input		W	1870
Heating Power Input		W	/
Cooling Power Current		A	8.1
Heating Power Current		A	/
Rated Input		W	2860
Rated Current		A	12.5
Air Flow Volume(SH/H/M/L/SL)		CFM	765/677/588/500/-
Dehumidifying Volume		Pint/h	4.23
EER		(Btu/h)/W	11.76
COP		(Btu/h)/W	/
SEER			19
HSPF			/
Application Area		yd^2	27.5-40.7
Indoor Unit	Model of indoor unit		1.GWC24QE-D3DND8C/I 2.GWC24QE-D3DNB2C/I 3.GWC24QE-D3DNC2C/I 4.GWC24QE-D3DND4C/I
	Indoor Unit Product Code		1.CB459N06800 2.CB432N23500 3.CB439N15100 4.CB464N03000
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ4 16/64×32 43/64
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1300/1150/1000/850/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	/
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.32
	Fan Motor Capacitor	μF	3
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ5/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	33 30/64×1×13 30/64
	Swing Motor Model		MP35CJ
	Output of Swing Motor	W	2.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	Cooling:49/45/41/37
	Sound Power Level (SH/H/M/L/SL)	dB (A)	Cooling:59/55/51/47
	Dimension (WXHXD)	inch	42 7/16X12 13/16X9 11/16
	Dimension of Carton Box (LXWXH)	inch	45X16 1/8X13 3/16
	Dimension of Package (LXWXH)	inch	45 3/16X16 1/4X13 3/4
	Net Weight	lb	36.4
	Gross Weight	lb	44.1

Outdoor Unit	Model of Outdoor Unit		GWC24AFE-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03200
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXFS-D25zX090H
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	24
	Compressor RLA		13
	Compressor Power Input	W	2420
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	36 52/64×1 32/64×25 63/64
	Fan Motor Speed	rpm	800
	Output of Fan Motor	W	60
	Fan Motor RLA	A	0.4
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1883
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ20 1/2
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	57/-/-
	Sound Power Level (H/M/L)	dB (A)	67/-/-
	Dimension (WXHXD)	inch	38X27 9/16X15 5/8
	Dimension of Carton Box (LXWXH)	inch	40 3/8X17 7/8X29
	Dimension of Package (LXWXH)	inch	40 1/2X18X29 1/2
	Net Weight	lb	119.1
	Gross Weight	lb	129
	Refrigerant		R410A
	Refrigerant Charge	oz	63.5
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	5/8
	Max Distance Height	ft	65.6
	Max Distance Length	ft	100.1
	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			GWH24QE-D3DND8A
Product Code			CB459007100
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	22000
Heating Capacity		Btu/h	24000
Cooling Power Input		W	1870
Heating Power Input		W	2020
Cooling Power Current		A	8
Heating Power Current		A	8.78
Rated Input		W	2860
Rated Current		A	12.5
Air Flow Volume(SH/H/M/L/SL)		CFM	765/677/589/500/-
Dehumidifying Volume		Pint/h	4.23
EER		(Btu/h)/W	11.76
COP		(Btu/h)/W	11.88
SEER			19
HSPF			10
Application Area		yd^2	27.5-40.7
Indoor Unit	Model of indoor unit		GWH24QE-D3DND8A/I
	Indoor Unit Product Code		CB459N07100
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ4 16/64×32 43/64
	Fan Motor Cooling Speed(SH/H/M/L/SL)	r/min	1300/1150/1000/850/-
	Fan Motor Heating Speed(SH/H/M/L/SL)	r/min	1300/1150/1000/850/-
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.32
	Fan Motor Capacitor	μF	3
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ5/16
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	33 30/64×1×13 30/64
	Swing Motor Model		MP35CJ
	Output of Swing Motor	W	2.5
	Fuse	A	3.15
	Sound Pressure Level (SH/H/M/L/SL)	dB (A)	Cooling:49/45/41/37 Heating:48/44/39/37
	Sound Power Level (SH/H/M/L/SL)	dB (A)	Cooling:59/55/51/47 Heating:58/54/49/37
	Dimension (WXHXD)	inch	42 7/16X12 13/16X9 11/16
	Dimension of Carton Box (LXWXH)	inch	45X16 1/8X13 3/16
	Dimension of Package (LXWXH)	inch	45 3/16X16 1/4X13 3/4
	Net Weight	lb	36.4
	Gross Weight	lb	44.1

Outdoor Unit	Model of Outdoor Unit		GWH24AFE-D3DNA1A/O
	Outdoor Unit Product Code		CB348W03100
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		QXFS-D25zX090H
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	Compressor L.R.A.	A	24
	Compressor RLA		13
	Compressor Power Input	W	2420
	Overload Protector		HPC115/95U1/KSD115ºC
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	-13~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	36 52/64×1 32/64×25 63/64
	Fan Motor Speed	rpm	800
	Output of Fan Motor	W	60
	Fan Motor RLA	A	0.4
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1883
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ20 1/2
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	57/-/-
	Sound Power Level (H/M/L)	dB (A)	67/-/-
	Dimension (WXHXD)	inch	38X27 9/16X15 5/8
	Dimension of Carton Box (LXWXH)	inch	40 3/8X17 7/8X29
	Dimension of Package (LXWXH)	inch	40 1/2X18X29 1/2
	Net Weight	lb	121.3
	Gross Weight	lb	131.2
	Refrigerant		R410A
	Refrigerant Charge	oz	63.5
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.5
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	5/8
	Max Distance Height	ft	65.6
	Max Distance Length	ft	100.1
	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			GWH18QD-D3DNC6L	GWH24QE-D3DNC6O
Product Code			CB443004800	CB443005000
Power Supply	Rated Voltage	V~	208/230	208/230
	Rated Frequency	Hz	60	60
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity(Min~Max)		Btu/h	17800(3412~20472)	22800(8630~23200)
Heating Capacity(Min~Max)		Btu/h	19800(3412~21837)	25000(8650~26000)
Cooling Power Input(Min~Max)		W	1820(80~2350)	2260(600~27000)
Heating Power Input(Min~Max)		W	2090(220~2350)	2300(610~2750)
Cooling Power Current		A	8.1	10.03
Heating Power Current		A	8.5	10.20
Rated Input		W	2350	2750
Rated Current		A	12	11.98
Air Flow Volume(SH/H/M/L)		CFM	500/441/383/294	1200/1050/900/750
Dehumidifying Volume		Pint/h	3.80	2.5
EER		(Btu/h)/W	9.90	11.00
COP		(Btu/h)/W	9.47	10.40
SEER			18.00	18.40
HSPF			9.20	10.50
Application Area		yd^2	27.50-40.66	32.29-50.23
Indoor Unit	Model of indoor unit		GWH18QD-D3DNC6L/I	GWH24QE-D3DNC6O/I
	Indoor Unit Product Code		CB443N04800	CB443N05000
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	inch	Φ4 3/16X27 13/16	Φ4 1/4X32 11/16
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1350/1200/1050/900	1300/1150/1000/850
	Fan Motor Heating Speed(SH/H/M/L)	r/min	1300/1200/1100/900	1300/1150/1000/850
	Output of Fan Motor	W	35	30
	Fan Motor RLA	A	0.37	0.32
	Fan Motor Capacitor	μF	2.5	3
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ5/16	Φ5/16
	Row-fin Gap	inch	2-1/16	2-1/16
	Coil Length (LXDXW)	inch	28 1/8X1X12	33 1/4X1X13 1/2
	Swing Motor Model		MP35CJ	MP35CJ
	Output of Swing Motor	W	2.5	2.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SH/H//M/L)	dB (A)	47/44/40/35	49/46/42/36
	Sound Power Level(SH/H//M/L)	dB (A)	57/54/50/45	59/56/52/46
	Dimension (WXHXD)	inch	38 3/16X11 13/16X8 13/16	42 7/16X12 13/16X9 11/16
	Dimension of Carton Box (LXWXH)	inch	40 7/8X15X12	45X16 1/8X13 3/16
	Dimension of Package (LXWXH)	inch	41X15X12 5/8	45 3/16X16 1/4X13 3/4
	Net Weight	lb	30.9	38.58
	Gross Weight	lb	37.5	45.19

Outdoor Unit	Model of Outdoor Unit		GWH18QD-D3DNC6L/O	GWH24QE-D3DNC6O/O
	Outdoor Unit Product Code		CB443W04800	CB443W05000
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO.,LTD	ZHUHAI LANDA COMPRESSOR CO.,LTD
	Compressor Model		QXA-B141zF030A	QXA-B141zF030A
	Compressor Oil		RB68EP	RB68EP
	Compressor Type		Rotary	Rotary
	Compressor Locked Rotor Amp (L.R.A)	A	25	25
	Compressor RLA	A	12.08	12.18
	Compressor Power Input	W	1440	1440
	Overload Protector		1NT11L-6233 or KSD115°C or HPC115/95U1	NT11L-6233 or KSD115℃ or HPC115/95U1
	Throttling Method		Electron expansion valve	Electron expansion valve
	Operation temp	ºF	60.8~86	60.8~86
	Ambient temp (cooling)	ºF	0~115	0~115
	Ambient temp (heating)	ºF	-4~75	-4~75
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8	Φ3/8
	Rows-fin Gap	inch	1-1/16	2-1/16
	Coil Length (LXDXW)	inch	33 5/8X26X7/8	33 5/16X1 3/4X26
	Fan Motor Speed	rpm	800	800
	Output of Fan Motor	W	60	60
	Fan Motor RLA	A	0.52	0.4
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	CFM	1883	3200
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	inch	Φ20 1/2	Φ20 1/2
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	ISPG	550	550
	Permissible Excessive Operating Pressure for the Suction Side	ISPG	240	240
	Sound Pressure Level (H/M/L)	dB (A)	57/-/-	58/-/-
	Sound Power Level (H/M/L)	dB (A)	67/-/-	68/-/-
	Dimension (WXHXD)	inch	38X27 9/16X15 5/8	38X27 9/16X15 5/8
	Dimension of Carton Box (LXWXH)	inch	40 3/8X17 7/8X29	40 3/8X17 7/8X29
	Dimension of Package (LXWXH)	inch	40 1/2X18X29 1/2	40 1/2X18X29 1/2
	Net Weight	lb	97	103.62
	Gross Weight	lb	106.9	113.54
	Refrigerant		R410A	R410A
	Refrigerant Charge	oz	45.86	56.4
Connection Pipe	Length	ft	24.6	24.6
	Gas Additional Charge	oz/ft	0.2	0.2
	Outer Diameter Liquid Pipe	inch	Φ1/4	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ1/2	Φ5/8
	Max Distance Height	ft	65	32.8
	Max Distance Length	ft	100	82
	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			GWH07QC-D3DNB2D
Product Code			CB432020800
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity(Min~Max)		Btu/h	9000(3100~9600)
Heating Capacity(Min~Max)		Btu/h	11000(1911~12000)
Cooling Power Input(Min~Max)		W	630(160~1300)
Heating Power Input(Min~Max)		W	1020(160~1350)
Cooling Power Current		A	2.80
Heating Power Current		A	3.50
Rated Input		W	1350
Rated Current		A	6.0
Air Flow Volume(SH/H/M/L)		CFM	377/288/241/171
Dehumidifying Volume		Pint/h	1.69
EER		(Btu/h)/W	14.29
COP		(Btu/h)/W	10.78
SEER			23.00
HSPF			10.50
Application Area		yd^2	14.35-21.53
Indoor Unit	Model of indoor unit		GWH07QC-D3DNB2D/I
	Indoor Unit Product Code		CB432N20800
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ3 55/64X25
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1350/1200/1050/750
	Fan Motor Heating Speed(SH/H//M/L)	r/min	1300/1150/1000/900
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.09
	Fan Motor Capacitor	μF	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ 2/7
	Row-fin Gap	inch	2-1/18
	Coil Length (LXDXW)	inch	25X7/8X12 1/16
	Swing Motor Model		MP24BA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L)	dB (A)	43/39/35/29
	Sound Power Level(SH/H/M/L)	dB (A)	53/49/45/39
	Dimension (WXHXD)	inch	33 1/4X11 3/8X8 1/4
	Dimension of Carton Box (LXWXH)	inch	36 1/8X11X14 5/16
	Dimension of Package (LXWXH)	inch	36 1/4X11X15
	Net Weight	lb	22.05
	Gross Weight	lb	26.46

Outdoor Unit	Model of Outdoor Unit		GWH07QC-D3DNA1D/O
	Outdoor Unit Product Code		CB432W20800
	Compressor Manufacturer/Trademark		ZHUHAI GREE DAIKIN DEVICE CO.,LTD
	Compressor Model		1GDY23AXD
	Compressor Oil		DAPHNE FVC50K
	Compressor Type		Swing
	Compressor Locked Rotor Amp (L.R.A)	A	/
	Compressor RLA	A	6.6
	Compressor Power Input	W	845
	Overload Protector		KSD115^{O}C or HPC115/95
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	0~115
	Ambient temp (heating)	ºF	-4~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ3/8
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	29 13/32 X1 3/4X20
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	/
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1059
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 3/4
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	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)	53/-/-
	Sound Power Level (H/M/L)	dB (A)	63/-/-
	Dimension (WXHXD)	inch	33 13/32X21 1/4X12 19/32
	Dimension of Carton Box (LXWXH)	inch	34 37/64X14 3/16X22 13/16
	Dimension of Package (LXWXH)	inch	34 43/64X14 9/32X23 27/64
	Net Weight	lb	78.26
	Gross Weight	lb	83.78
	Refrigerant		R410A
	Refrigerant Charge	oz	45.86
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ3/8
	Max Distance Height	ft	32.8
	Max Distance Length	ft	49.2
	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.GWC18QD-D3DND8A 2.GWC18QD-D3DNB2C 3.GWC18QD-D3DNC2A 4.GWC18QD-D3DND4A
Product Code			1.CB459007200 2.CB432023300 3.CB439015500 4.CB464003300
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity		Btu/h	17400
Heating Capacity		Btu/h	/
Cooling Power Input		W	1730
Heating Power Input		W	/
Cooling Power Current		A	7.1
Heating Power Current		A	/
Rated Input		W	2000
Rated Current		A	10.5
Air Flow Volume(SH/H/M/ML/L)		CFM	530/441/412/335/-
Dehumidifying Volume		Pint/h	3.8
EER		(Btu/h)/W	10.1
COP		(Btu/h)/W	/
SEER			20
HSPF			/
Application Area		yd^2	27.5-40.7
Indoor Unit	Model of indoor unit		1.GWC18QD-D3DND8A/I 2.GWC18QD-D3DNB2C/I 3.GWC18QD-D3DNC2A/I 4.GWC18QD-D3DND4A/I
	Indoor Unit Product Code		1.CB459N07200 2.CB432N23300 3.CB439N15500 4.CB464N03300
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ4 3/16X27 13/16
	Fan Motor Cooling Speed (SH/H/M/ML/L)	r/min	1400/1200/1050/800/-
	Fan Motor Heating Speed (SH/H/M/ML/L)	r/min	/
	Output of Fan Motor	W	60
	Fan Motor RLA	A	0.3
	Fan Motor Capacitor	μF	/
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ 9/32
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	28 1/6X1X12
	Swing Motor Model		MP35CJ
	Output of Swing Motor	W	2.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/ML/L)	dB (A)	47/42/38/31/-
	Sound Power Level (SH/H/M/ML/L)	dB (A)	57/52/48/41/-
	Dimension (WXHXD)	inch	38 3/16X11 13/16X8 13/16
	Dimension of Carton Box (LXWXH)	inch	40 7/8X15X12
	Dimension of Package (LXWXH)	inch	41X15X12 5/8
	Net Weight	lb	29.8
	Gross Weight	lb	36.4

Outdoor Unit	Model of Outdoor Unit		GWC18AFD-D3DNA1A/O
	Outdoor Unit Product Code		CB348W04700
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO. LTD.
	Compressor Model		QXF-A102zE190C
	Compressor Oil		FW68DA or equivalent
	Compressor Type		Rotary
	Compressor L.R.A.	A	25
	Compressor RLA		8.5
	Compressor Power Input	W	1023
	Overload Protector		1NT11L-6233/KSD115ºC/HPC 115/95
	Throttling Method		Electron expansion valve
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	-4~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ9/32
	Rows-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	28 9/10X1 1/2X21 7/10
	Fan Motor Speed	rpm	880
	Output of Fan Motor	W	40
	Fan Motor RLA	A	0.62
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	1412
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ17 33/64
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Design Pressure(High)	PSIG	550
	Design Pressure(Low)	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-
	Dimension (WXHXD)	inch	35 3/8X23 1/2X14 7/8
	Dimension of Carton Box (LXWXH)	inch	37 3/16X16 7/16X24 13/16
	Dimension of Package (LXWXH)	inch	37 5/16X16 9/16X25 3/8
	Net Weight	Ib	80.5
	Gross Weight	Ib	87.1
	Refrigerant		R410A
	Refrigerant Charge	oz	37
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	1/2
	Max Distance Height	ft	50
	Max Distance Length	ft	100
	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			GWC24QE-D3DNB2R	GWH24QE-D3DNB2R
Product Code			CB432021600	CB432021500
Power Supply	Rated Voltage	V~	208/230	208/230
	Rated Frequency	Hz	60	60
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity(Min~Max)		Btu/h	22000	22000
Heating Capacity(Min~Max)		Btu/h	/	24000
Cooling Power Input(Min~Max)		W	2010	1950
Heating Power Input(Min~Max)		W	/	2070
Cooling Power Current		A	8.50	8.50
Heating Power Current		A	/	8.50
Rated Input		W	2500	2900
Rated Current		A	11.00	11.00
Air Flow Volume(SH/H/M/L)		CFM	677/588/471/412	677/588/471/412
Dehumidifying Volume		Pint/h	2	2
EER		(Btu/h)/W	10.95	11.25
COP		(Btu/h)/W	/	11.75
SEER			19.00	19.00
HSPF			/	10
Application Area		yd^2	27.50-40.66	27.50-40.66
Indoor Unit	Model of indoor unit		GWC24QE-D3DNB2R/I	GWH24QE-D3DNB2R/I
	Indoor Unit Product Code		CB432N21600	CB432N21500
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	inch	Φ4 1/4X32 43/64	Φ4 1/4X32 43/64
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1300/1150/1000/850	1300/1150/1000/850
	Fan Motor Heating Speed(SH/H/M/L)	r/min	/	1300/1150/1000/850
	Output of Fan Motor	W	30	30
	Fan Motor RLA	A	0.55	0.55
	Fan Motor Capacitor	μF	3	3
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ17/64	Φ17/64
	Row-fin Gap	inch	2-1/16	2-1/16
	Coil Length (LXDXW)	inch	33 1/4×1×13 1/2	33 1/4×1×13 1/2
	Swing Motor Model		MP35CJ	MP35CJ
	Output of Swing Motor	W	2.5	2.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SH/H//M/L)	dB (A)	49/45/41/37	49/45/41/37
	Sound Power Level(SH/H//M/L)	dB (A)	59/55/51/47	59/55/51/47
	Dimension (WXHXD)	inch	42 7/16X12 13/16X9 11/16	42 7/16X12 13/16X9 11/16
	Dimension of Carton Box (LXWXH)	inch	45X16 1/8X13 3/16	45X16 1/8X13 3/16
	Dimension of Package (LXWXH)	inch	45 3/16X16 1/4X13 3/4	45 3/16X16 1/4X13 3/4
	Net Weight	lb	37.5	37.5
	Gross Weight	lb	45.2	45.2

Outdoor Unit	Model of Outdoor Unit		GWC24QE-D3DNB2R/O	GWH24QE-D3DNB2R/O
	Outdoor Unit Product Code		CB432W21600	CB432W21500
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO.,LTD	ZHUHAI LANDA COMPRESSOR CO.,LTD
	Compressor Model		QXFS-B181zX030AA	QXFS-B181zX030AA
	Compressor Oil		FW68DA or equivalent	FW68DA or equivalent
	Compressor Type		Twin Rotary	Twin Rotary
	Compressor Locked Rotor Amp (L.R.A)	A	25.00	25.00
	Compressor RLA	A	13.00	13.00
	Compressor Power Input	W	1635	1635
	Overload Protector		1NT11L-6233 KSD115℃ HPC 115/95	1NT11L-6233 KSD115℃ HPC 115/95
	Throttling Method		Electron expansion valve	Electron expansion valve
	Operation temp	ºF	61~86	61~86
	Ambient temp (cooling)	ºF	0~115	0~115
	Ambient temp (heating)	ºF	/	-4~75
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ17/64	Φ17/64
	Rows-fin Gap	inch	2-1/16	2-1/16
	Coil Length (LXDXW)	inch	31 21/32X1 1/2X24 1/4	31 21/32X1 1/2X24 1/4
	Fan Motor Speed	rpm	800	800
	Output of Fan Motor	W	60	60
	Fan Motor RLA	A	0.65	0.65
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	CFM	1883	1883
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	inch	Φ20 15/32	Φ20 15/32
	Defrosting Method		/	/
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	PSIG	550	550
	Permissible Excessive Operating Pressure for the Suction Side	PSIG	240	240
	Sound Pressure Level (H/M/L)	dB (A)	59/-/-	59/-/-
	Sound Power Level (H/M/L)	dB (A)	69/-/-	69/-/-
	Dimension (WXHXD)	inch	35 29/32X25 7/16X14 11/16	35 29/32X25 7/16X14 11/16
	Dimension of Carton Box (LXWXH)	inch	37 51/64×16 5/8×26 49/64	37 51/64×16 5/8×26 49/64
	Dimension of Package (LXWXH)	inch	37 29/32×16 3/16×27 9/16	37 29/32×16 3/16×27 9/16
	Net Weight	lb	94.8	97.0
	Gross Weight	lb	101.4	103.6
	Refrigerant		R410A	R410A
	Refrigerant Charge	oz	52.9	52.9
Connection Pipe	Length	ft	24.6	24.6
	Gas Additional Charge	oz/ft	0.2	0.5
	Outer Diameter Liquid Pipe	inch	Φ1/4	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ5/8	Φ5/8
	Max Distance Height	ft	32.8	32.8
	Max Distance Length	ft	82	82
	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			GWC09QB-D3DNB2J
Product Code			CB432021900
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity(Min~Max)		Btu/h	9100(2457~9600)
Heating Capacity(Min~Max)		Btu/h	/
Cooling Power Input(Min~Max)		W	833(185~1020)
Heating Power Input(Min~Max)		W	/
Cooling Power Current		A	4
Heating Power Current		A	/
Rated Input		W	1020
Rated Current		A	5.8
Air Flow Volume(SH/H/M/L)		CFM	294/271/235/182
Dehumidifying Volume		Pint/h	1.69
EER		(Btu/h)/W	10.9
COP		(Btu/h)/W	/
SEER			17
HSPF			/
Application Area		yd^2	14.35-21.53
Indoor Unit	Model of indoor unit		GWC09QB-D3DNB2J/I
	Indoor Unit Product Code		CB432N21900
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ5/16X22 53/64
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1300/1200/1050/800
	Fan Motor Heating Speed(SH/H/M/L)	r/min	/
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.20
	Fan Motor Capacitor	μF	1
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ13/64
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	22 63/64X57/64X10 15/32
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L)	dB (A)	39/37/33/26
	Sound Power Level(SH/H/M/L)	dB (A)	49/47/43/36
	Dimension (WXHXD)	inch	31 1/8X10 7/8X7 7/8
	Dimension of Carton Box (LXWXH)	inch	34X13 7/8X10 9/16
	Dimension of Package (LXWXH)	inch	34X14 7/16X10 11/16
	Net Weight	lb	19.8
	Gross Weight	lb	24.3

Outdoor Unit	Model of Outdoor Unit		GWC09QB-D3DNB2J/O
	Outdoor Unit Product Code		CB432W21900
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXF-A079zE190A
	Compressor Oil		FW68DA or equivalent
	Compressor Type		Rotary
	Compressor Locked Rotor Amp (L.R.A)	A	18
	Compressor RLA	A	6.6
	Compressor Power Input	W	790
	Overload Protector		HPC115/95U1 KSD115℃
	Throttling Method		Capillary
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	0~115
	Ambient temp (heating)	ºF	/
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ13/64
	Rows-fin Gap	inch	1-3/64
	Coil Length (LXDXW)	inch	28 11/32X29/64X19 31/64
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 3/4
	Defrosting Method		/
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	PSIG	550
	Permissible Excessive Operating Pressure for the Suction Side	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	55.1
	Gross Weight	lb	60.6
	Refrigerant		R410A
	Refrigerant Charge	oz	19.1
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ3/8
	Max Distance Height	ft	32.8
	Max Distance Length	ft	49.2
	Note:The connection pipe applies metric diameter.		

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

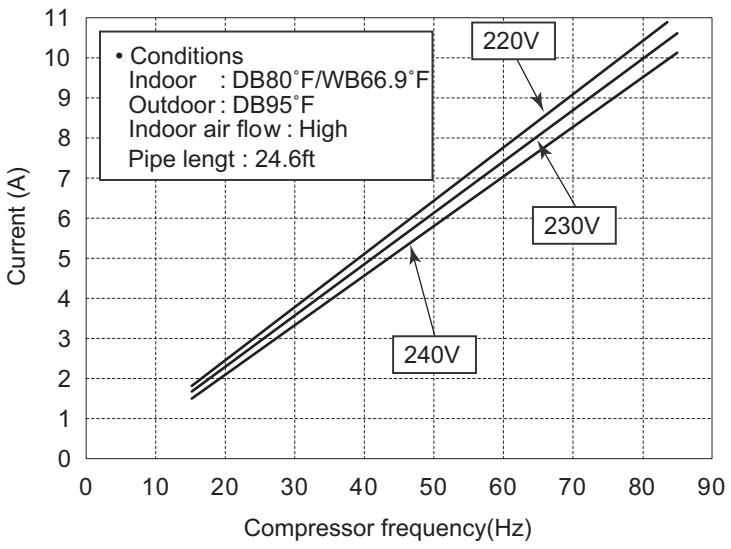
Model			GWH09QB-D3DNB2J
Product Code			CB432021800
Power Supply	Rated Voltage	V~	208/230
	Rated Frequency	Hz	60
	Phases		1
Power Supply Mode			Outdoor
Cooling Capacity(Min~Max)		Btu/h	9100(2457~9600)
Heating Capacity(Min~Max)		Btu/h	9500 (2457~11500)
Cooling Power Input(Min~Max)		W	889(185~1100)
Heating Power Input(Min~Max)		W	774(170~1350)
Cooling Power Current		A	4.3
Heating Power Current		A	3.8
Rated Input		W	1350
Rated Current		A	6.3
Air Flow Volume(SH/H/M/L)		CFM	294/271/235/182
Dehumidifying Volume		Pint/h	1.69
EER		(Btu/h)/W	10.25
COP		(Btu/h)/W	12.27
SEER			17
HSPF			9
Application Area		yd^2	14.35-21.53
Indoor Unit	Model of indoor unit		GWH09QB-D3DNB2J/I
	Indoor Unit Product Code		CB432N21800
	Fan Type		Cross-flow
	Diameter Length(DXL)	inch	Φ5/16X22 53/64
	Fan Motor Cooling Speed(SH/H/M/L)	r/min	1300/1200/1050/800
	Fan Motor Heating Speed(SH/H/M/L)	r/min	1300/1200/1050/900
	Output of Fan Motor	W	20
	Fan Motor RLA	A	0.20
	Fan Motor Capacitor	μF	1
	Evaporator Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ13/64
	Row-fin Gap	inch	2-1/16
	Coil Length (LXDXW)	inch	22 63/64X57/64X10 15/32
	Swing Motor Model		MP24AA
	Output of Swing Motor	W	1.5
	Fuse	A	3.15
	Sound Pressure Level(SH/H/M/L)	dB (A)	39/37/33/26
	Sound Power Level(SH/H/M/L)	dB (A)	49/47/43/36
	Dimension (WXHXD)	inch	31 1/8X10 7/8X7 7/8
	Dimension of Carton Box (LXWXH)	inch	34X13 7/8X10 9/16
	Dimension of Package (LXWXH)	inch	34X14 7/16X10 11/16
	Net Weight	lb	19.8
	Gross Weight	lb	24.3

Outdoor Unit	Model of Outdoor Unit		GWH09QB-D3DNB2J/O
	Outdoor Unit Product Code		CB432W21800
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD.
	Compressor Model		QXF-A079zE190A
	Compressor Oil		FW68DA or equivalent
	Compressor Type		Rotary
	Compressor Locked Rotor Amp (L.R.A)	A	18
	Compressor RLA	A	6.6
	Compressor Power Input	W	790
	Overload Protector		HPC115/95U1 KSD115℃
	Throttling Method		Capillary
	Operation temp	ºF	61~86
	Ambient temp (cooling)	ºF	0~115
	Ambient temp (heating)	ºF	-4~75
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	inch	Φ9/32
	Rows-fin Gap	inch	1-1/16
	Coil Length (LXDXW)	inch	27 61/64X3/4X20
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.37
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	CFM	942
	Fan Type		Axial-flow
	Fan Diameter	inch	Φ15 3/4
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	PSIG	550
	Permissible Excessive Operating Pressure for the Suction Side	PSIG	240
	Sound Pressure Level (H/M/L)	dB (A)	50/-/-
	Sound Power Level (H/M/L)	dB (A)	60/-/-
	Dimension (WXHXD)	inch	30 9/16X21 1/4X12 5/8
	Dimension of Carton Box (LXWXH)	inch	32 9/32X13 63/64X22 27/32
	Dimension of Package (LXWXH)	inch	32 13/32X14 3/32X23 27/64
	Net Weight	lb	58.4
	Gross Weight	lb	63.9
	Refrigerant		R410A
	Refrigerant Charge	oz	24
Connection Pipe	Length	ft	24.6
	Gas Additional Charge	oz/ft	0.2
	Outer Diameter Liquid Pipe	inch	Φ1/4
	Outer Diameter Gas Pipe	inch	Φ3/8
	Max Distance Height	ft	32.8
	Max Distance Length	ft	49.2
	Note:The connection pipe applies metric diameter.		

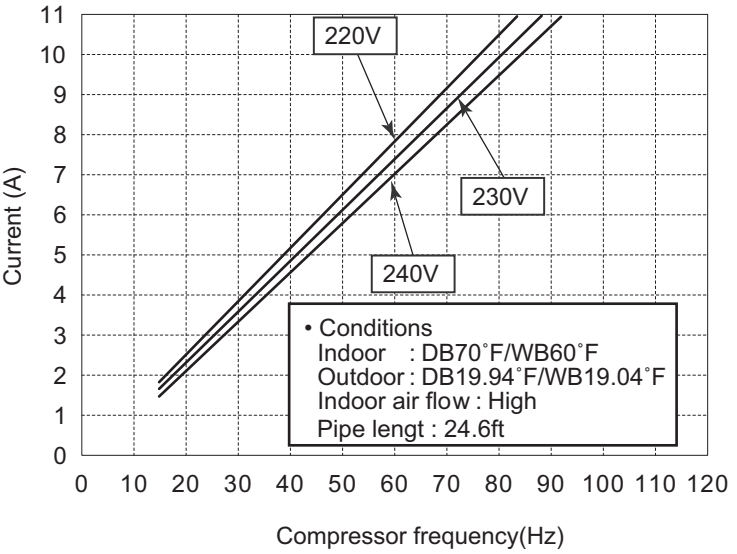
The above data is subject to change without notice. Please refer to the nameplate of the unit.

2.2 Operation Characteristic Curve

Cooling



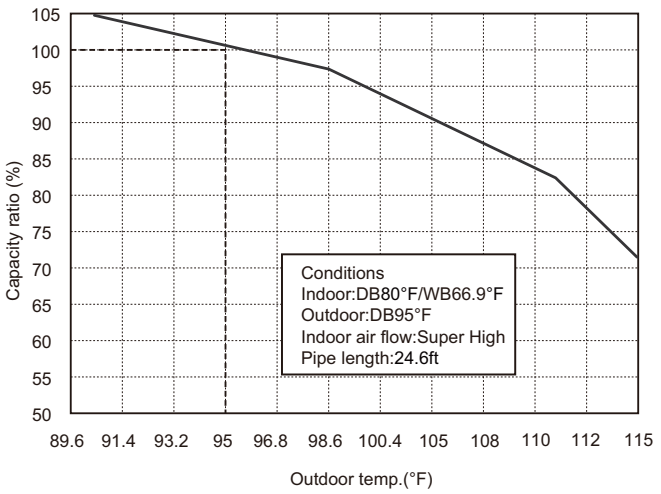
Heating



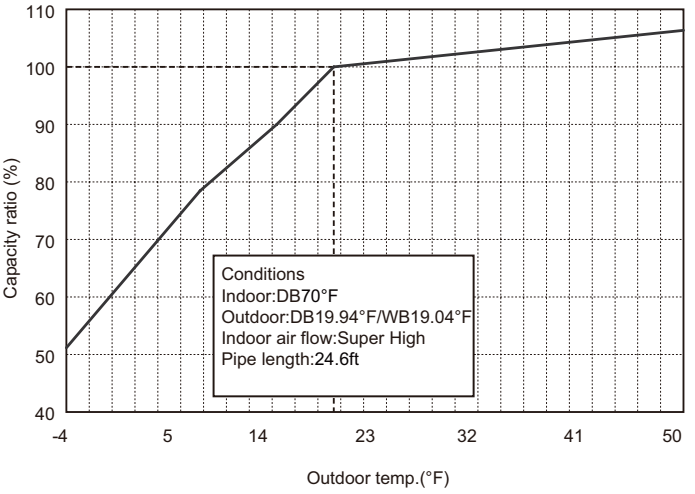
2.3 Capacity Variation Ratio According to Temperature

Heating operation ambient temperature range is -4°F~75°F

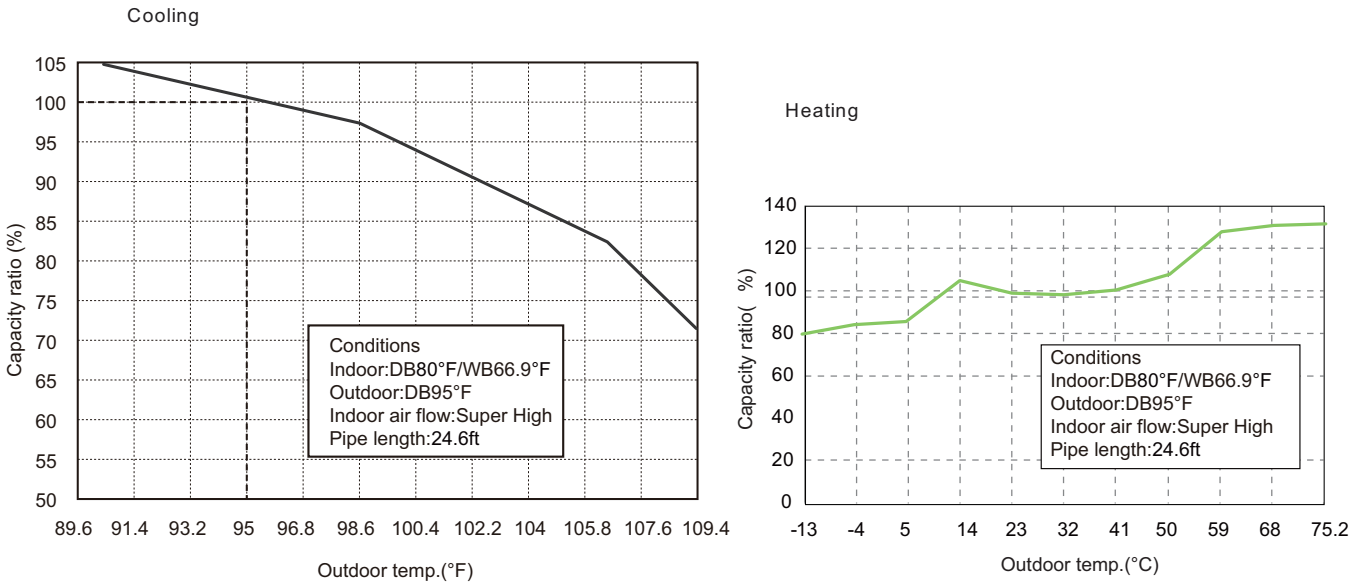
Cooling



Heating



Heating operation ambient temperature range is -13°F~75°F



2.4 Cooling and Heating Data Sheet in Rated Frequency

Cooling:

Rated cooling condition(°F) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit	Compressor revolution (rps)
Indoor	Outdoor		P (PSIG)	T1 (°F)	T2 (°F)			
80/66.9	95/-	07/09K	130~142	in:46.4~51.8 out:51.8~57.2	in:167~181.4 out:98.6~118.4	Super High	High	52
80/66.9	95/-	12K	130~142	in:46.4~51.8 out:51.8~57.2	in:167~181.4 out:98.6~118.4	Super High	High	72
81/66	95/75	09/12K (for some model)	123.2~145	in:46~52 out:52~57	in:122~176 out:99~109	Suprt High	High	58
80/66.9	95/-	18K	130~142	in:46.4~51.8 out:51.8~57.2	in:167~181.4 out:98.6~118.4	Super High	High	73
80/66.9	95/-	24K	130~142	in:46.4~51.8 out:51.8~57.2	in:167~181.4 out:98.6~118.4	Super High	High	75

Heating:

Rated heating condition(°F) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit	Compressor revolution (rps)
Indoor	Outdoor		P (PSIG)	T1 (°F)	T2 (°F)			
70/60	19.94/19.04	07/09K	362~406	in:167~181.4 out:98.6~113	in:33.8~37.4 out:35.6~42.8	Super High	High	65
70/60	19.94/19.04	12K	362~406	in:167~181.4 out:98.6~113	in:33.8~37.4 out:35.6~42.8	Super High	High	77
70/60	19.94/19.04	09/12K (for some model)	362.3~435	in:122~176 out:99~109	in:34~37 out:36~41	Super High	High	56
70/60	19.94/19.04	18K	507~550	in:167~181.4 out:98.6~113	in:33.8~37.4 out:35.6~42.8	Super High	High	75
70/60	19.94/19.04	24K	507~550	in:167~181.4 out:98.6~113	in:33.8~37.4 out:35.6~42.8	Super High	High	80

Instruction:

T1: Inlet and outlet pipe temperature of evaporator

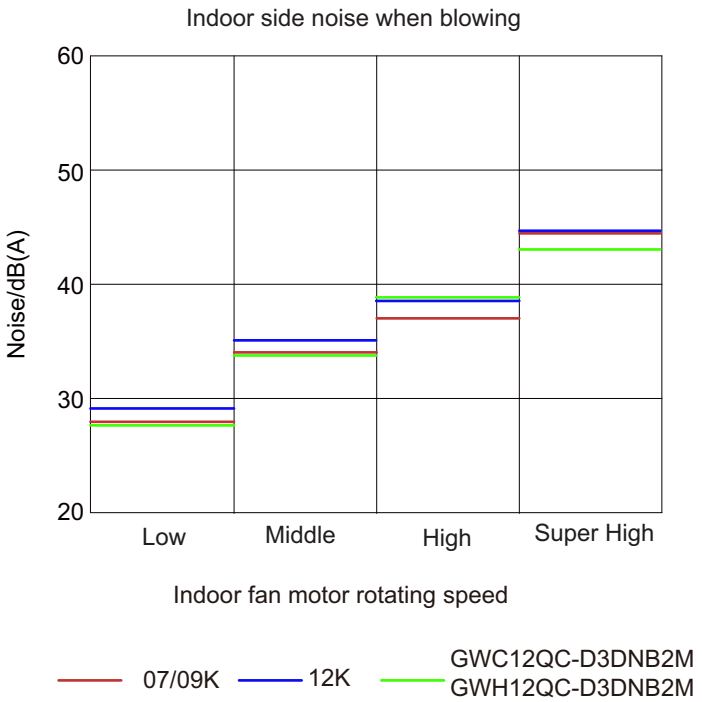
T2: Inlet and outlet pipe temperature of condenser

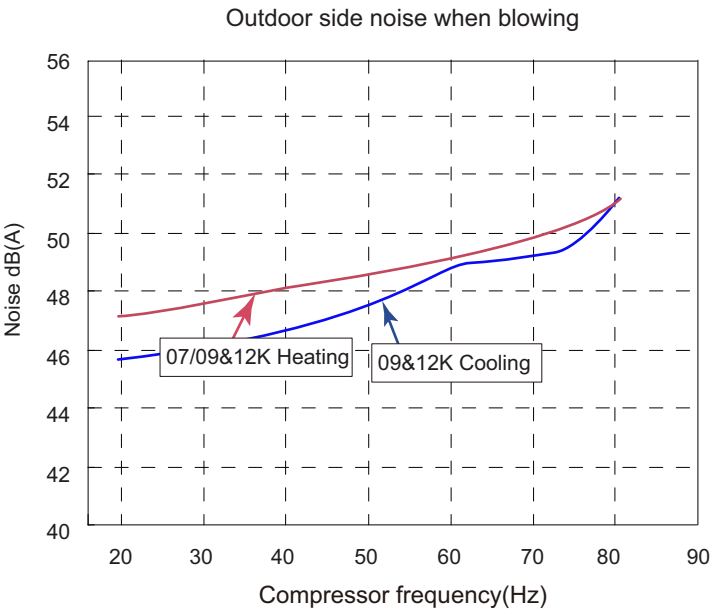
P: Pressure at the side of big valve

Connection pipe length: 24.6ft.

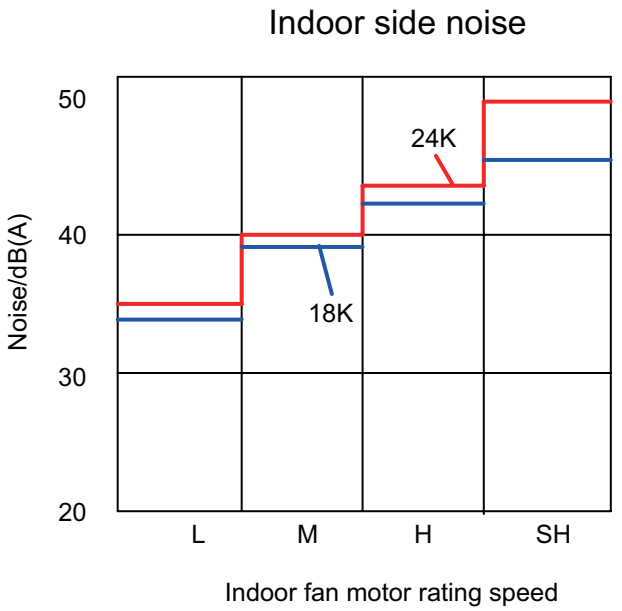
2.5 Noise Curve

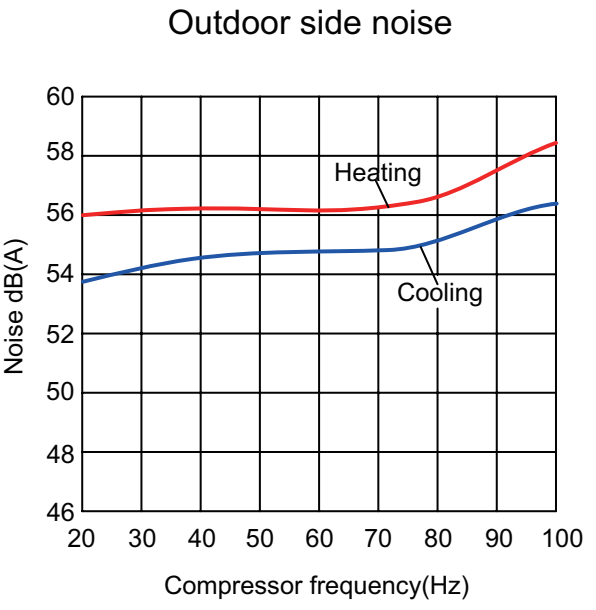
GWH07QC-D3DNB2D GWH09QB-D3DNC6L GWH12QC-D3DNC6L GWC12QC-D3DNB2M GWH12QC-D3DNB2M





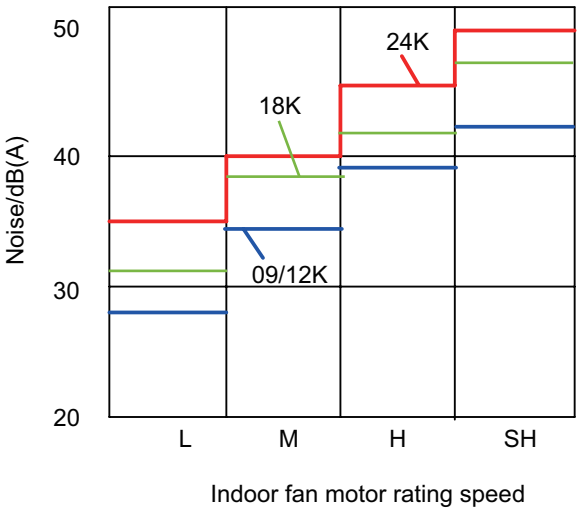
GWH18QD-D3DNC6L GWH24QE-D3DNC6O GWC24QE-D3DNB2R GWH24QE-D3DNB2R



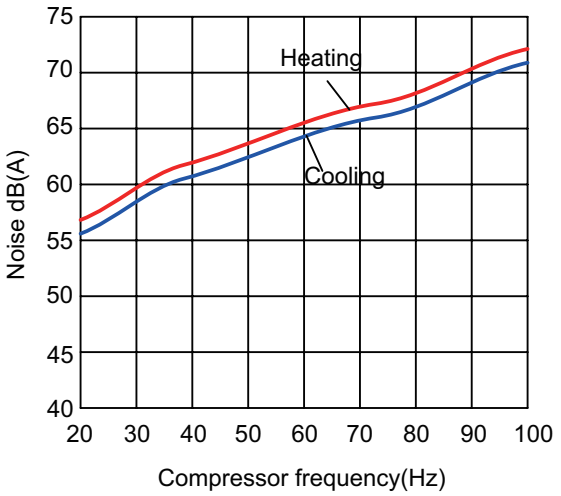


GWC09QC-D3DND8C GWH09QC-D3DND8A GWC12QC-D3DND8C GWC12QC-D3DNB2C GWC12QC-D3DNC2C GWC12QC-D3DND4C GWH12QC-D3DND8A GWC24QE-D3DND8C GWH24QE-D3DND8A GWC18QD-D3DNB2C GWC18QD-D3DNC2A GWC18QD-D3DND4A GWC18QD-D3DND8A GWC24QE-D3DNB2C GWC24QE-D3DNC2C GWC24QE-D3DND4C

Indoor side noise

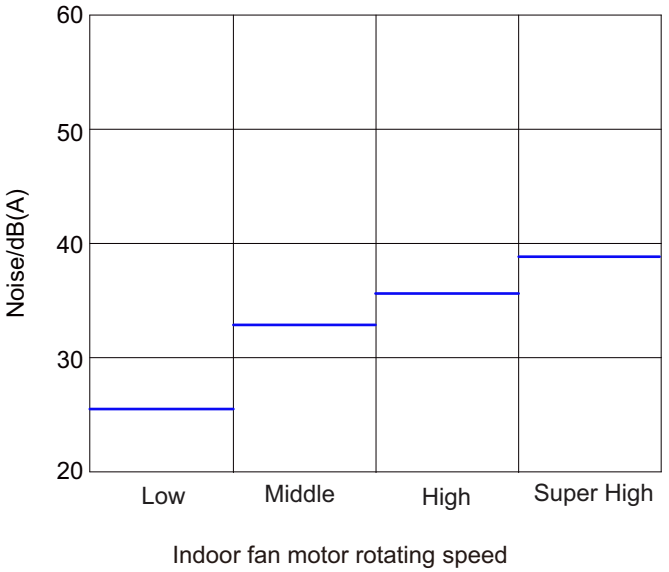


Outdoor side noise

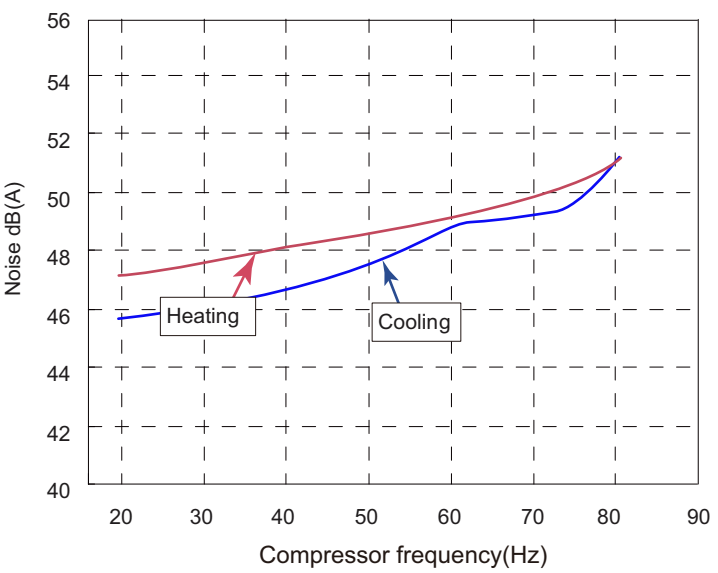


GWC09QB-D3DNB2J GWH09QB-D3DNB2J

Indoor side noise when blowing

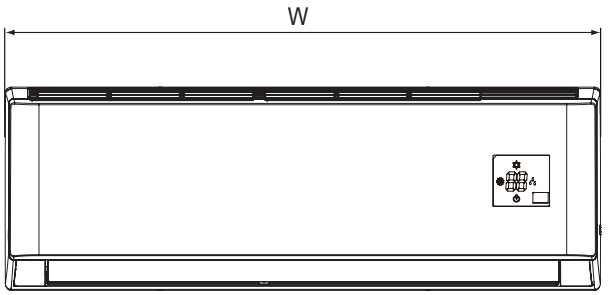


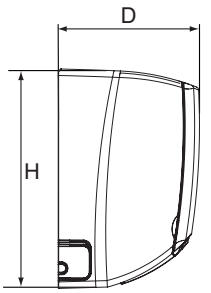
Outdoor side noise when blowing



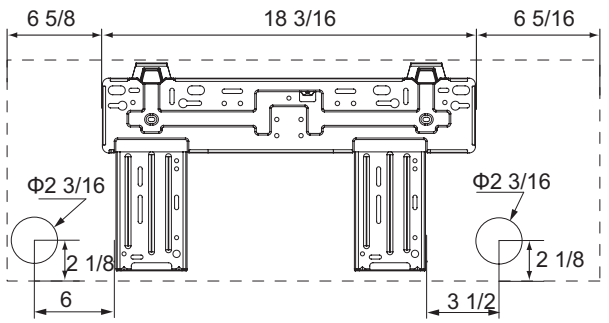
3. Outline Dimension Diagram

3.1 Indoor Unit

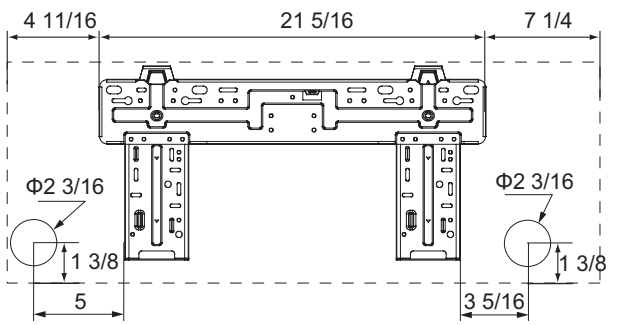




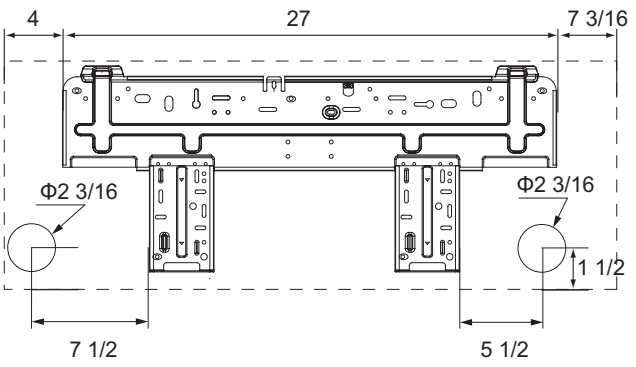
QB



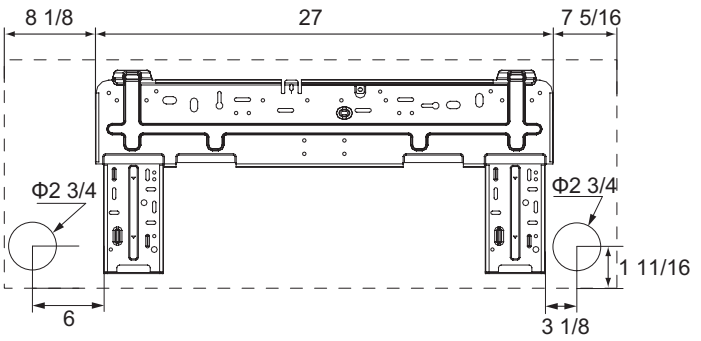
QC



QD



QE

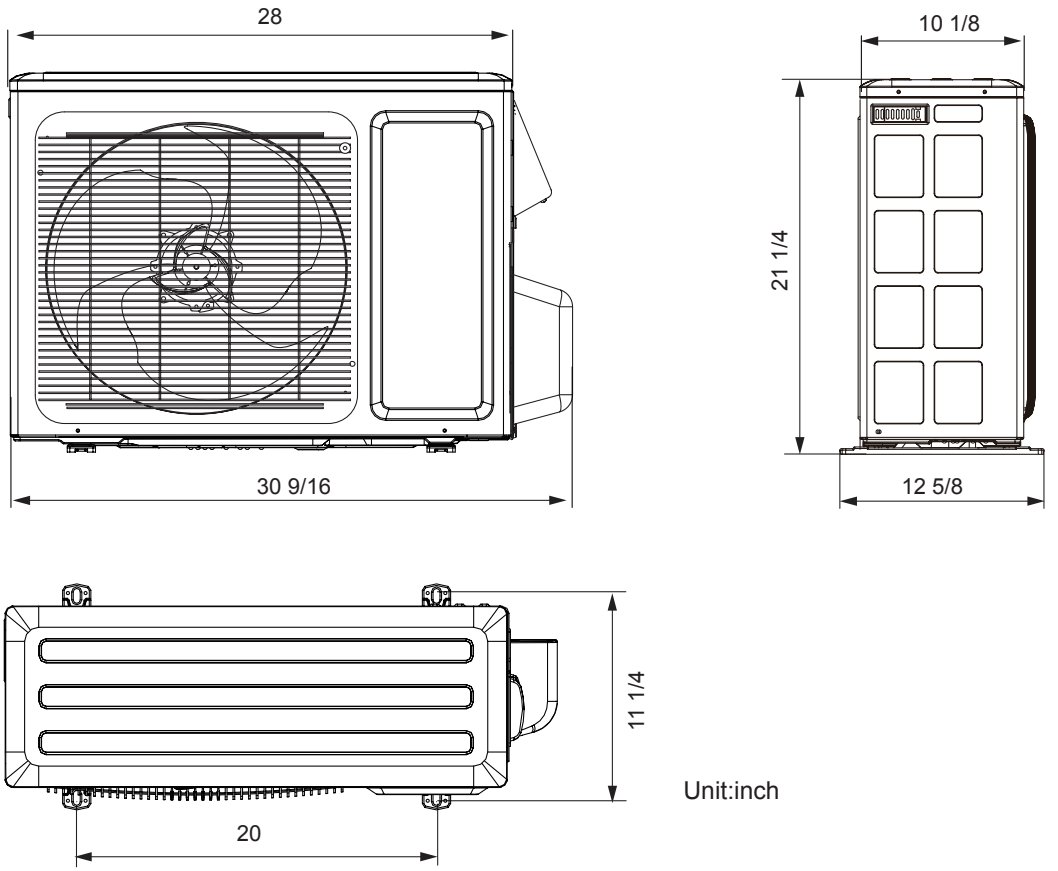


Unit:inch

MODEL	W	H	D
QB	31 1/8	10 7/8	7 7/8
QC	33 1/4	11 3/8	8 1/4
QD	38 3/16	11 13/16	8 13/16
QE	42 7/16	12 13/16	9 11/16

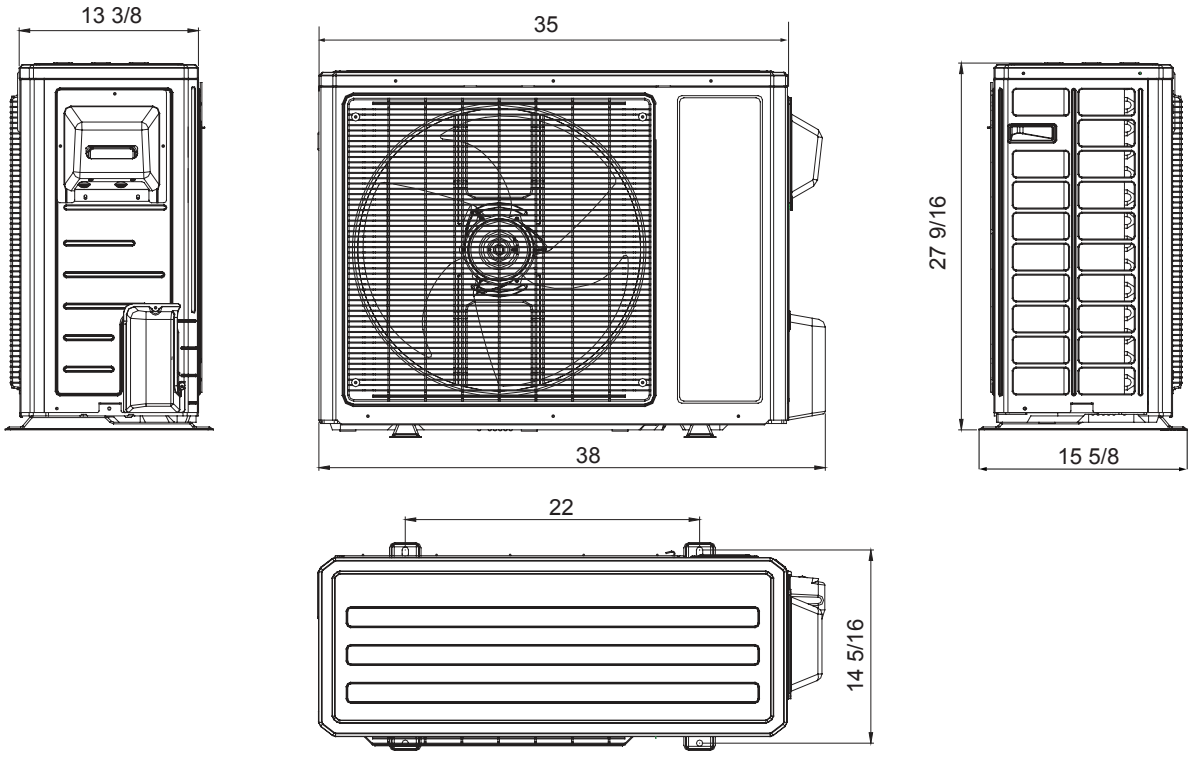
3.2 Outdoor Unit

GWH09QB-D3DNC6L/O GWH12QC-D3DNC6L/O GWC09AFC-D3DNA1A/O GWH09AFC-D3DNA1A/O
GWC12QC-D3DNB2M/O GWH12QC-D3DNB2M/O GWC09QB-D3DNB2J/O GWH09QB-D3DNB2J/O



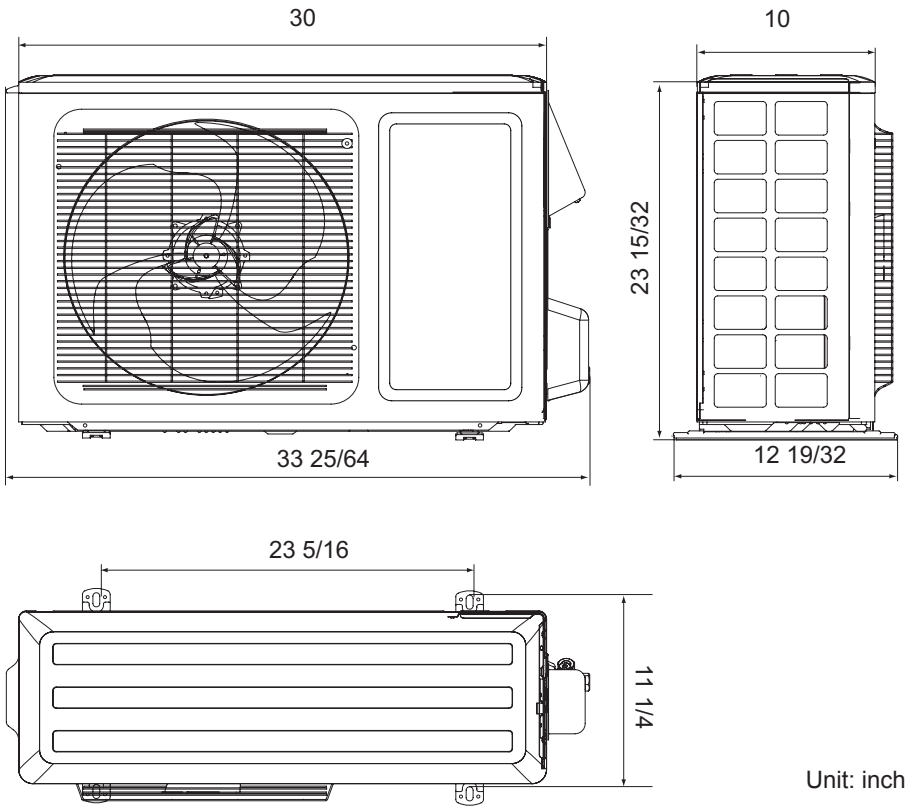
Unit:inch

GWH18QD-D3DNC6L/O GWH24QE-D3DNC6O/O GWC24AFE-D3DNA1A/O GWH24AFE-D3DNA1A/O



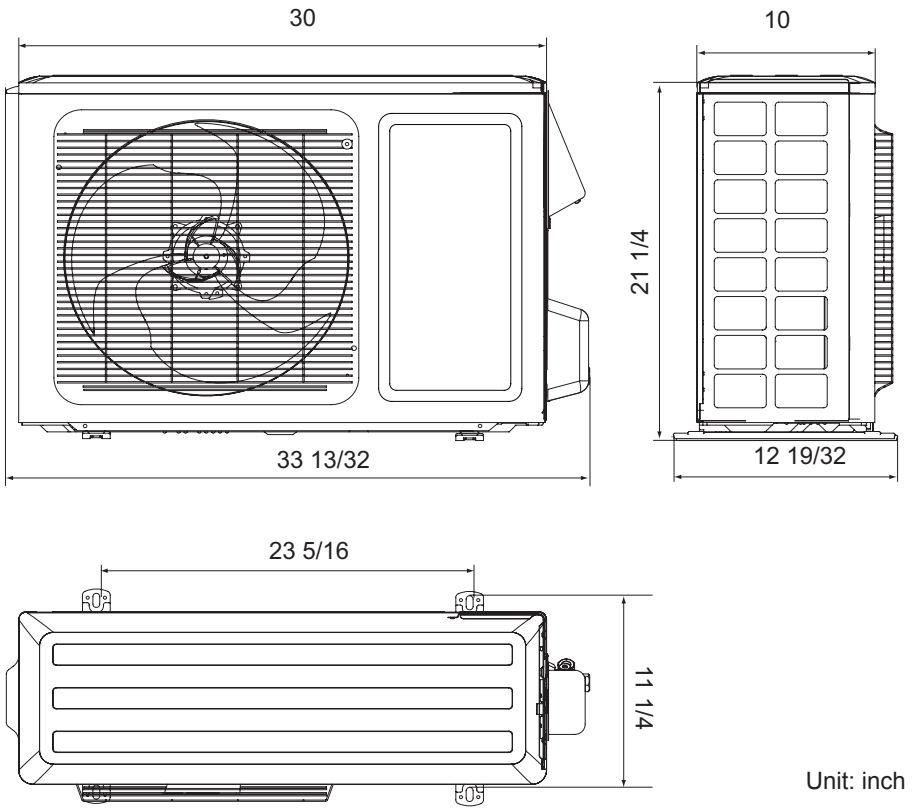
Unit: inch

GWC12AFC-D3DNA1A/O GWH12AFC-D3DNA1A/O



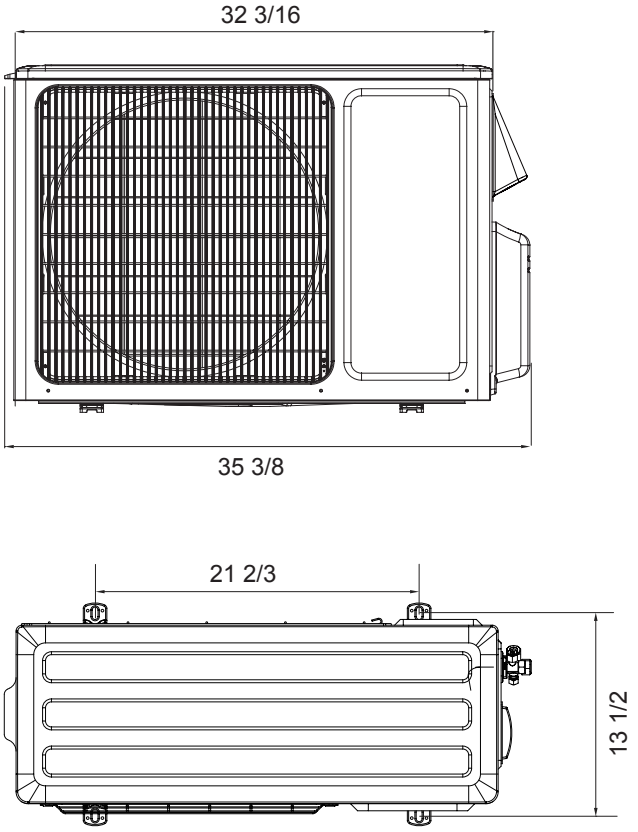
Unit: inch

GWH07QC-D3DNA1D/O



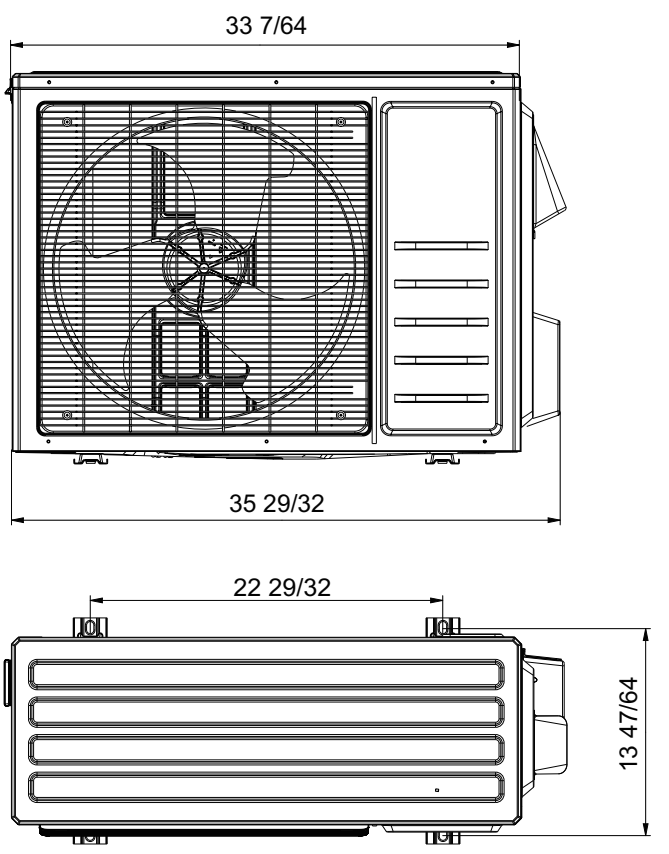
Unit: inch

GWC18AFD-D3DNA1A/O



Unit:inch

GWC24QE-D3DNB2R/O GWH24QE-D3DNB2R/O

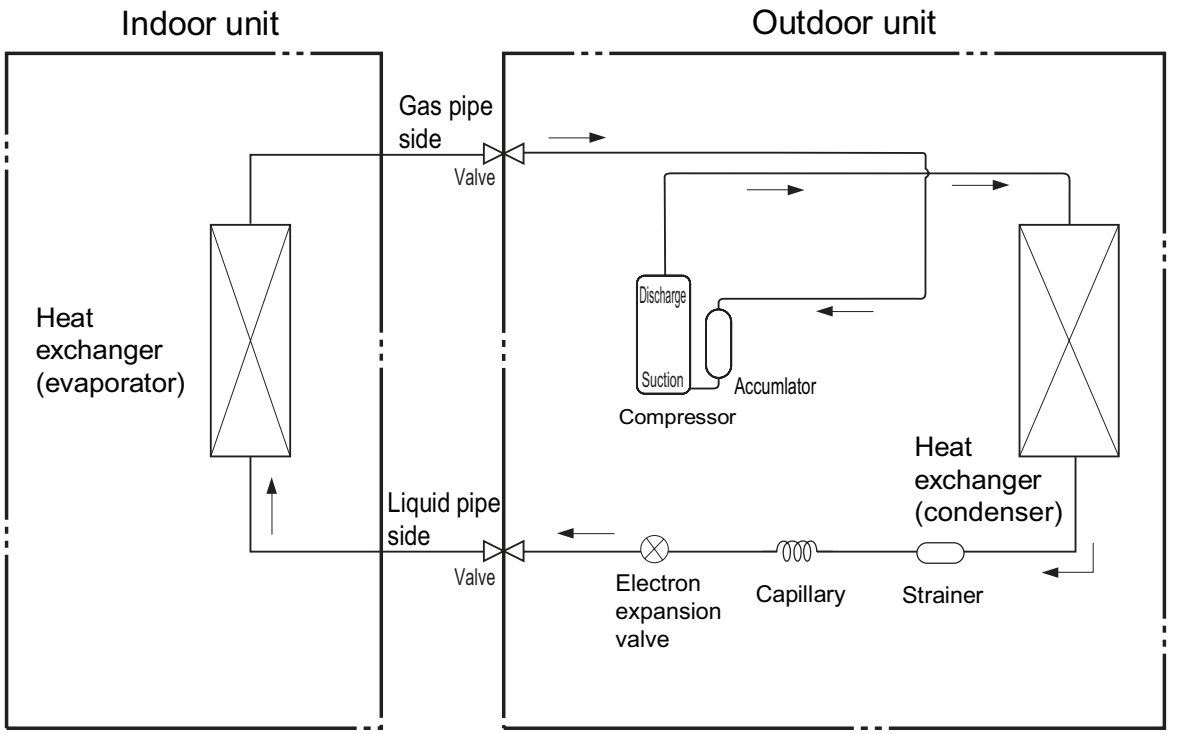


Unit:inch

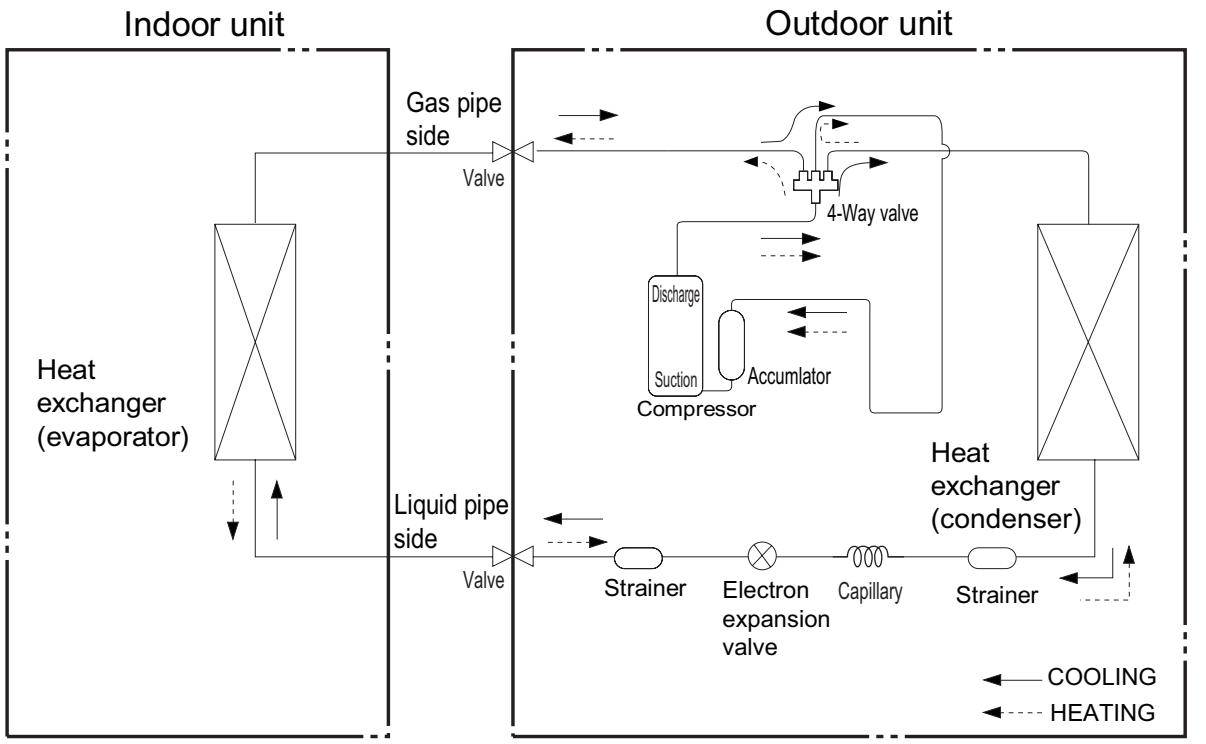
4. Refrigerant System Diagram

All model except: GWC12QC-D3DNB2M GWH12QC-D3DNB2M GWC09QB-D3DNB2J GWH09QB-D3DNB2J

Cooling model



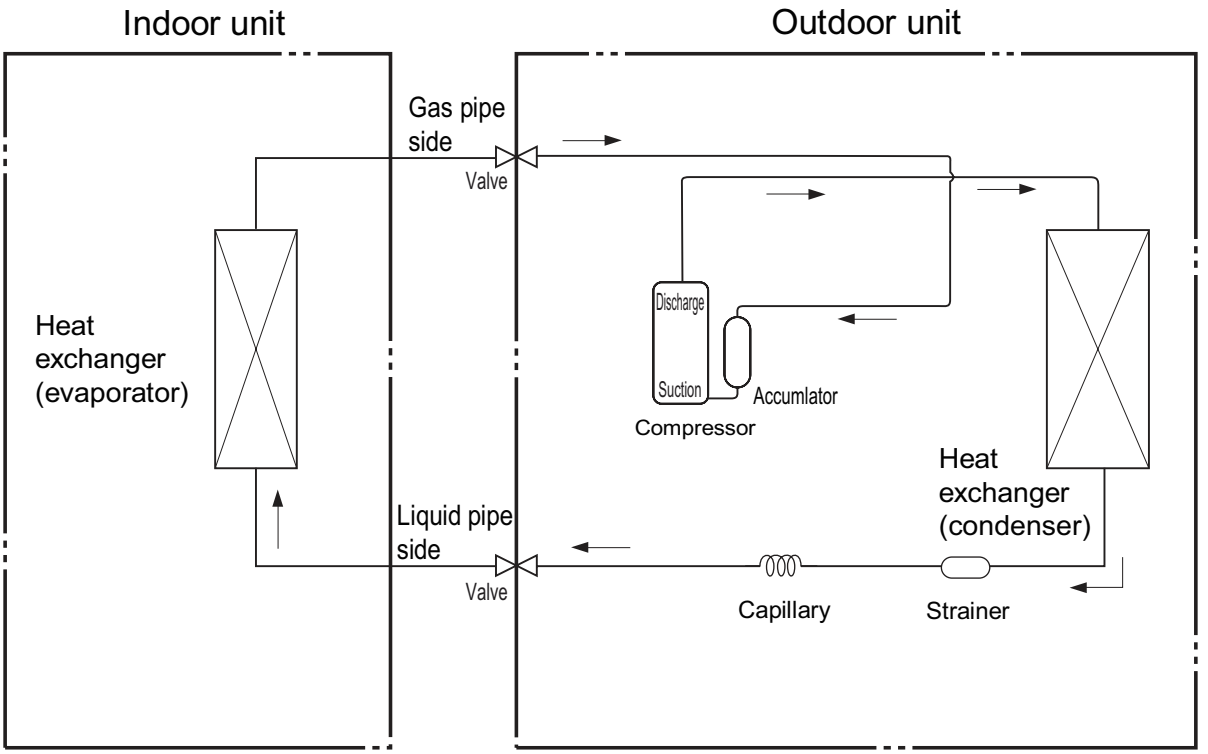
Heating model



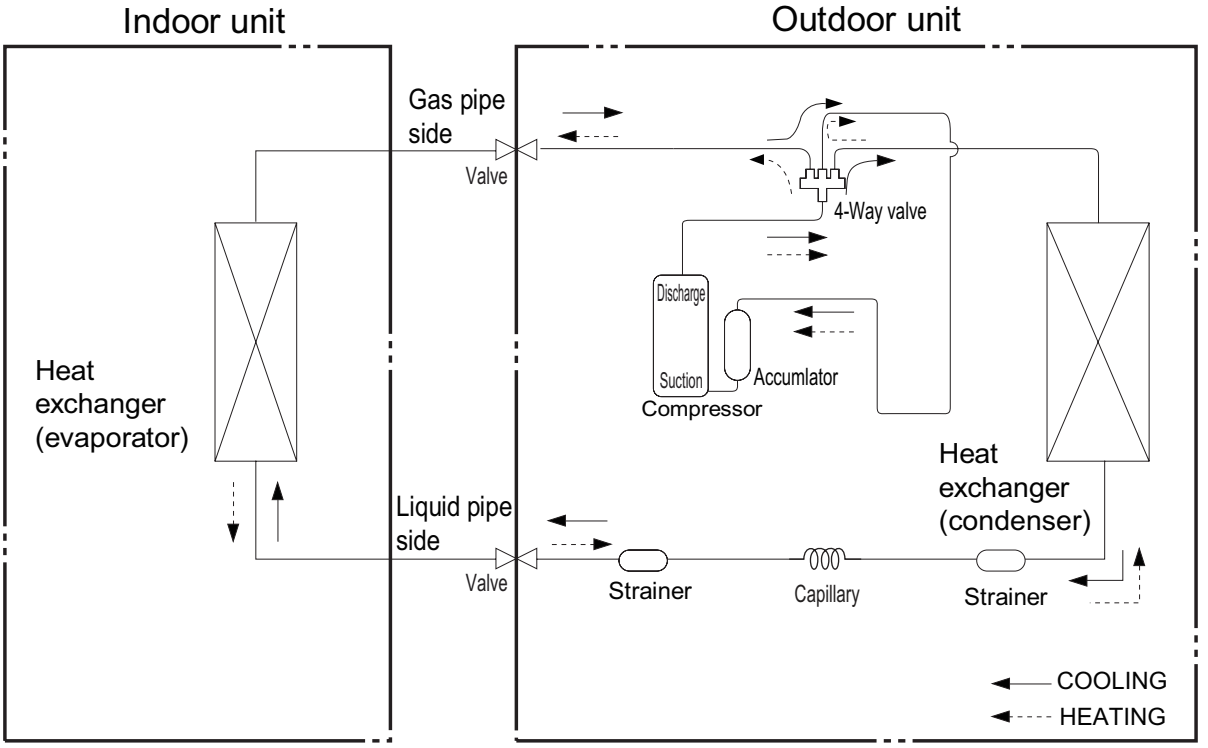
Connection pipe specification:
Liquid pipe:1/4"
Gas pipe:3/8" for 07/09/12K
Gas pipe:1/2" for 18K
Gas pipe:5/8" for 24K

GWC12QC-D3DNB2M、GWH12QC-D3DNB2M GWC09QB-D3DNB2J GWH09QB-D3DNB2J

Cooling only models



Cooling and heating models



Connection pipe specification:
Liquid pipe:1/4"
Gas pipe:3/8"

5. Electrical Part

5.1 Wiring Diagram

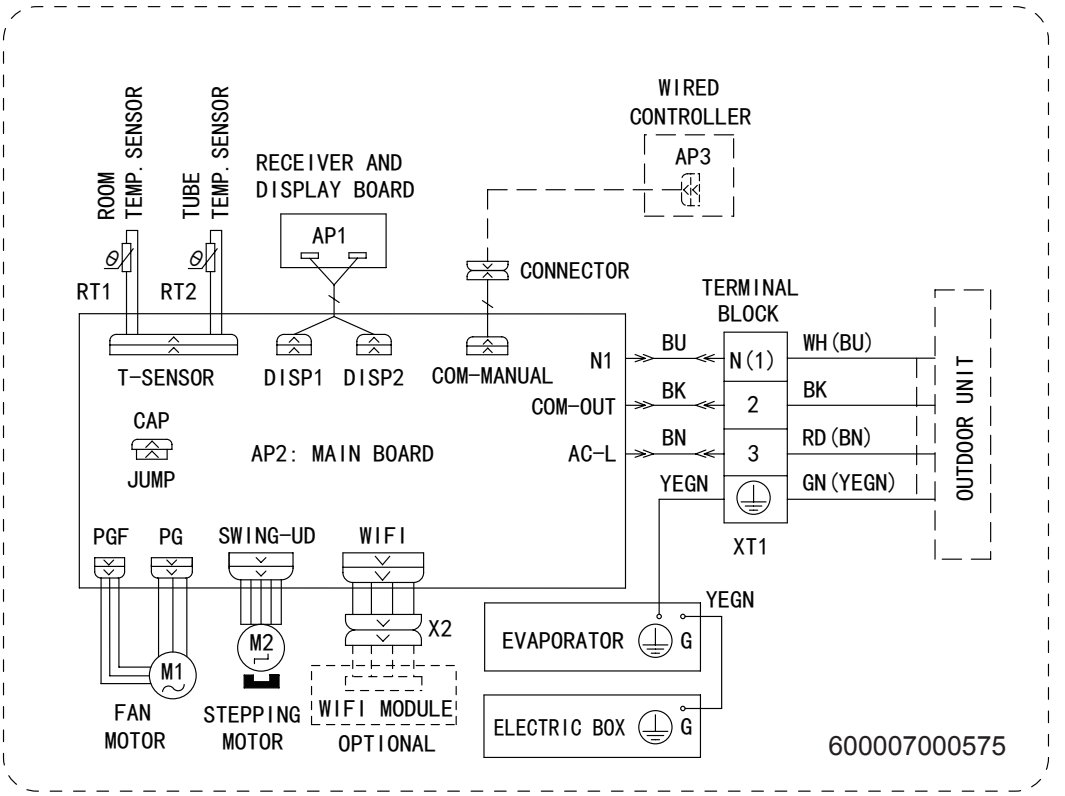
● Instruction

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	/	/

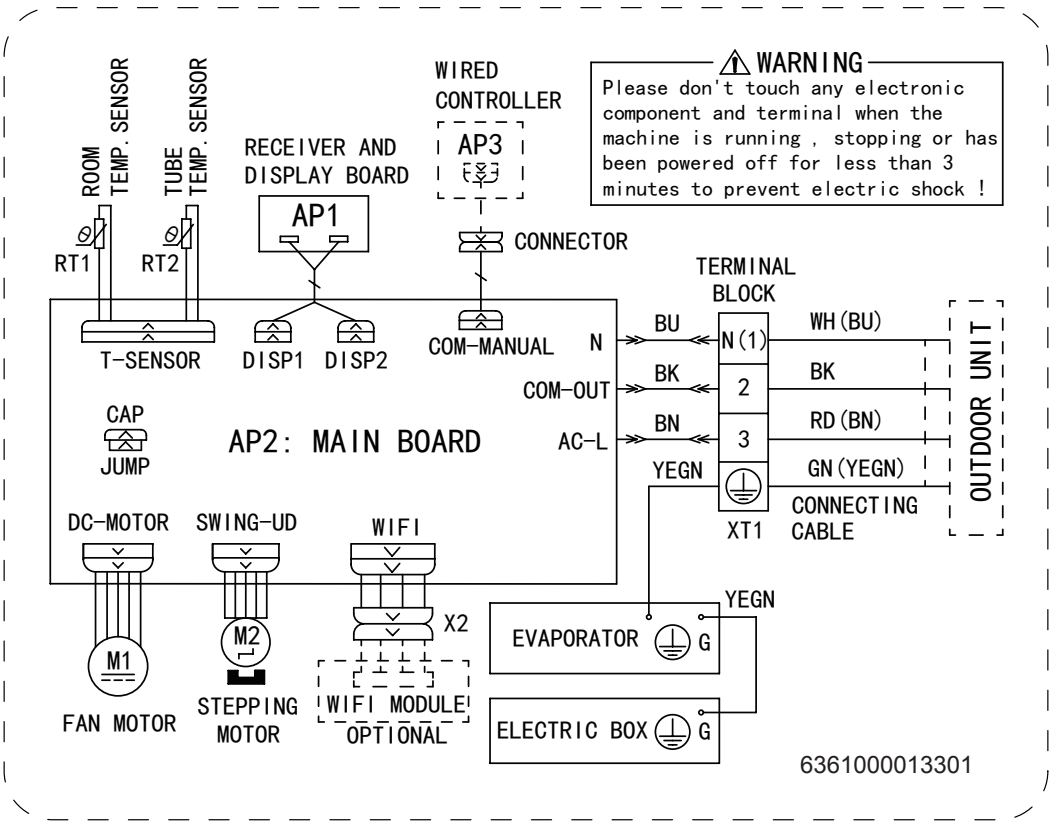
Note: Jumper cap is used to determine fan speed and the swing angle of horizontal lover for this model.

● Indoor Unit

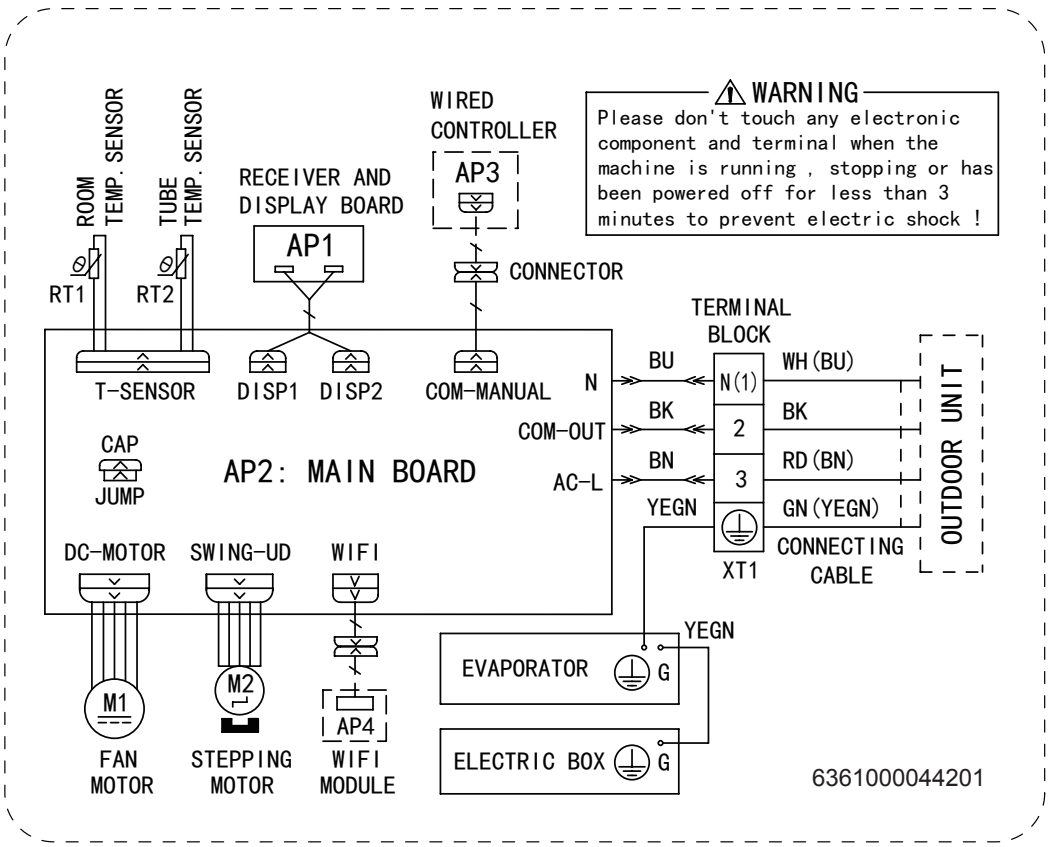
GWH09QB-D3DNC6L/I GWH12QC-D3DNC6L/I GWH18QD-D3DNC6L/I GWH24QE-D3DNC6O/I
GWC09QC-D3DND8C/I GWH09QC-D3DND8A/I GWC12QC-D3DND8C/I GWH12QC-D3DND8A/I
GWC24QE-D3DND8C/I GWH24QE-D3DND8A/I GWC09QC-D3DNB2C/I GWC09QC-D3DNC2C/I
GWC09QC-D3DND4C/I GWC12QC-D3DNB2M/I GWH12QC-D3DNB2M/I GWC12QC-D3DNB2C/I
GWC12QC-D3DNC2C/I GWC12QC-D3DND4C/I GWC24QE-D3DNB2R/I GWH24QE-D3DNB2R/I
GWC24QE-D3DNB2C/I GWC24QE-D3DNC2C/I GWC24QE-D3DND4C/I GWC09QB-D3DNB2J/I
GWH09QB-D3DNB2J/I



GWH07QC-D3DNB2D/I

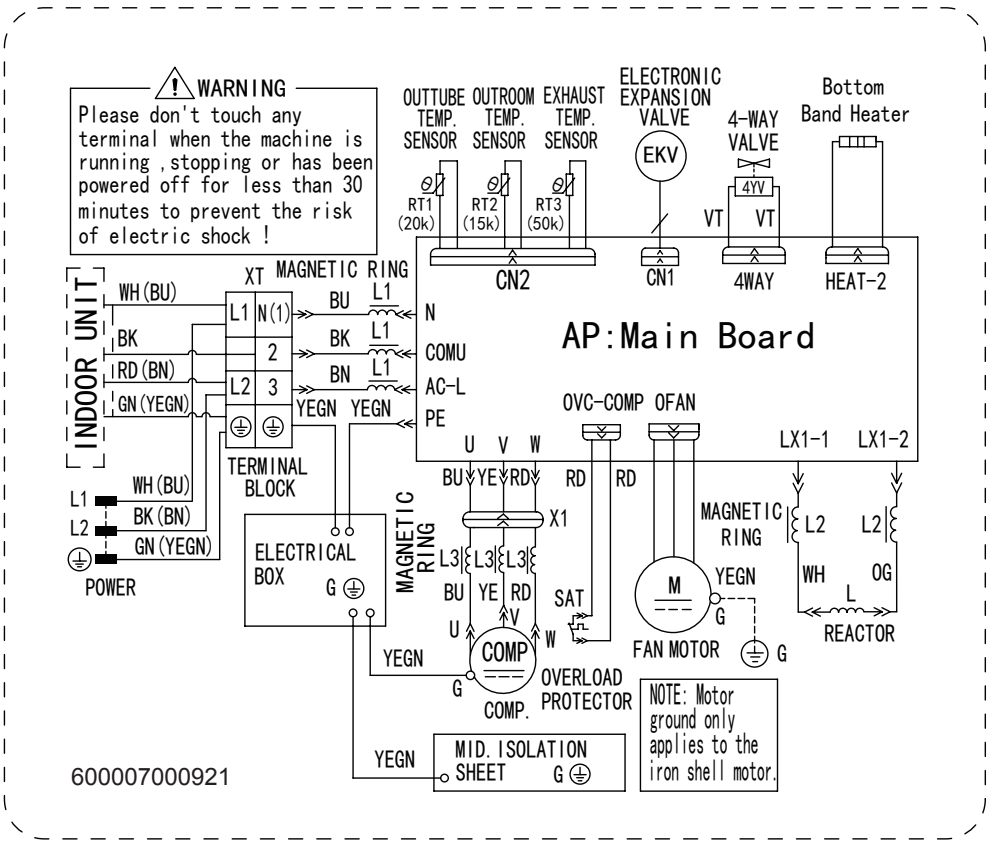


GWC18QD-D3DNB2C/I GWC18QD-D3DNC2A/I GWC18QD-D3DND4A/I GWC18QD-D3DND8A/I

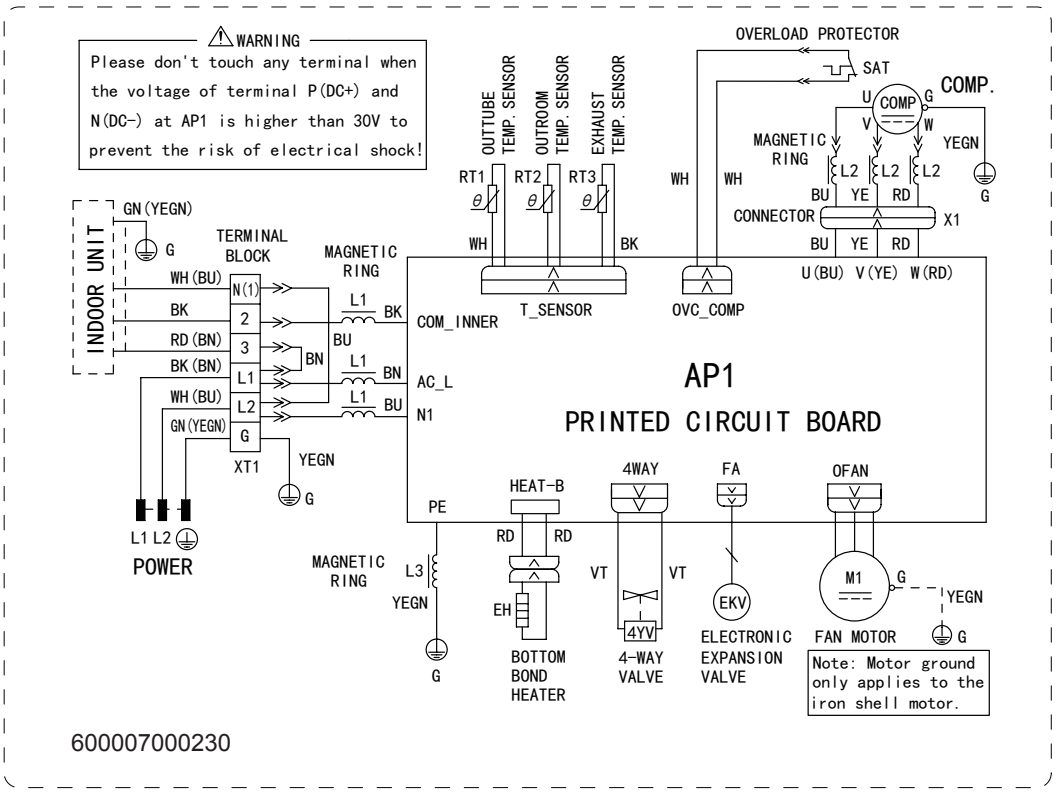


● Outdoor Unit

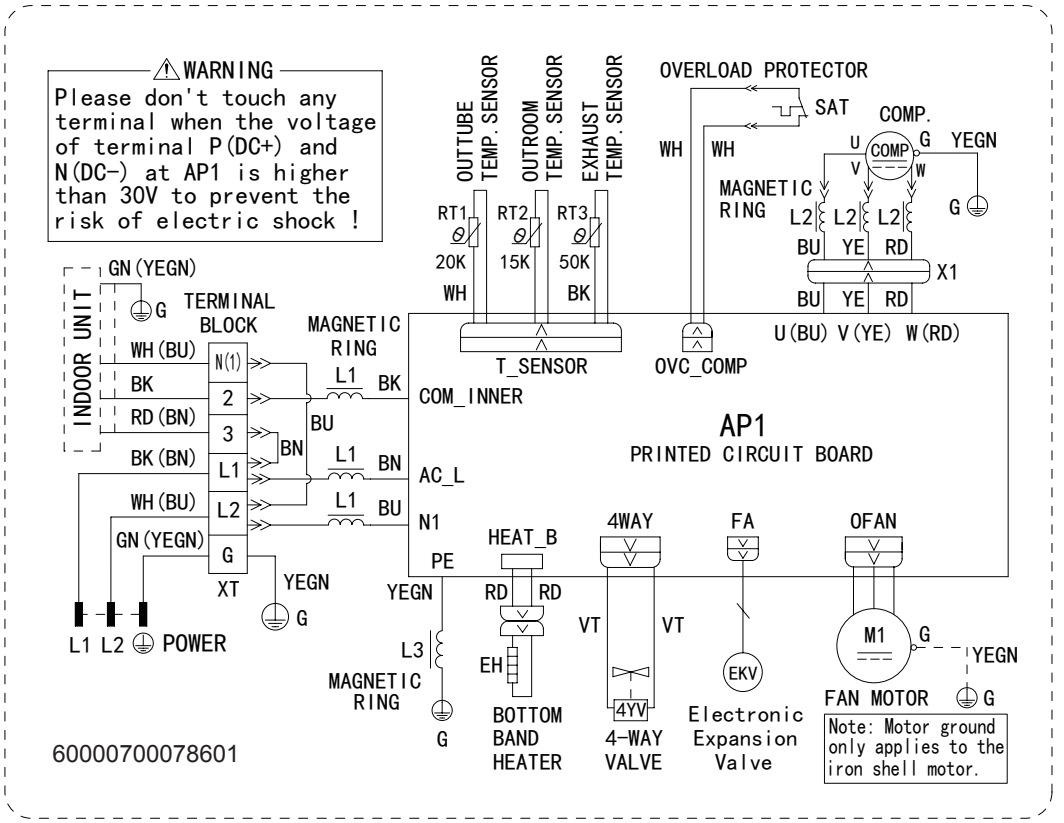
GWH09QB-D3DNC6L/O GWH12QC-D3DNC6L/O



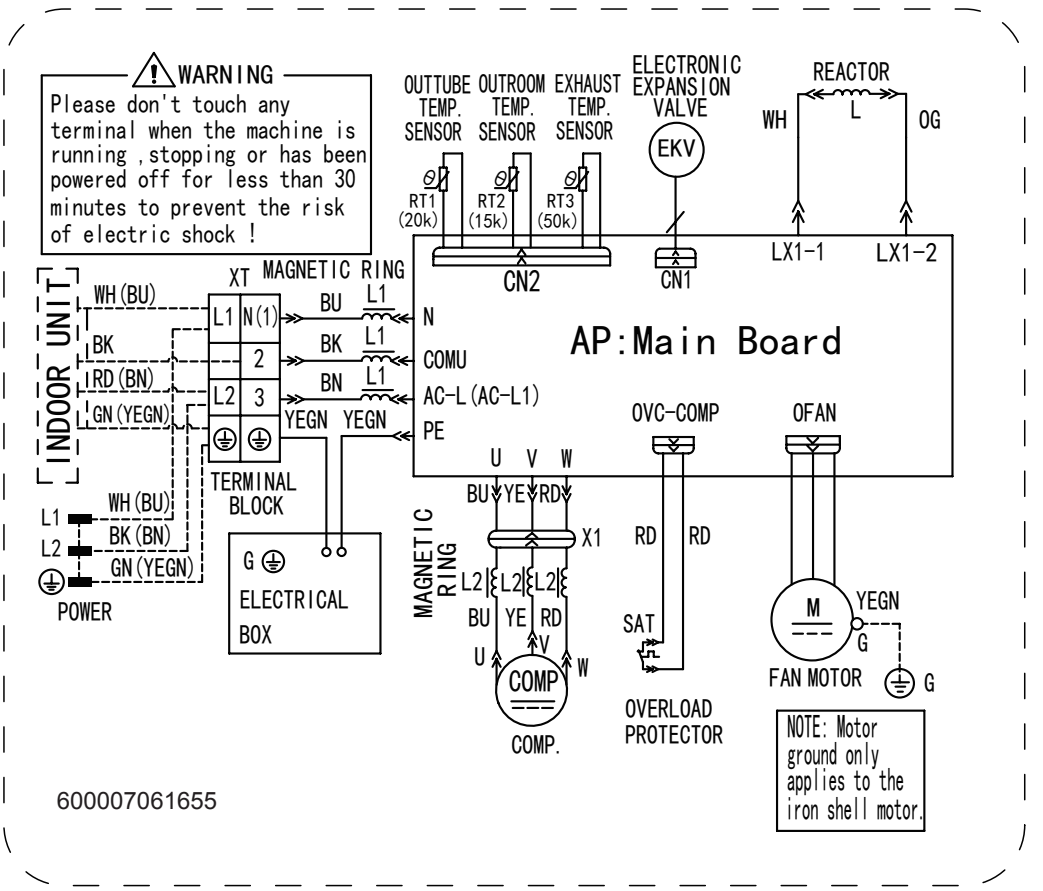
GWH18QD-D3DNC6L/O



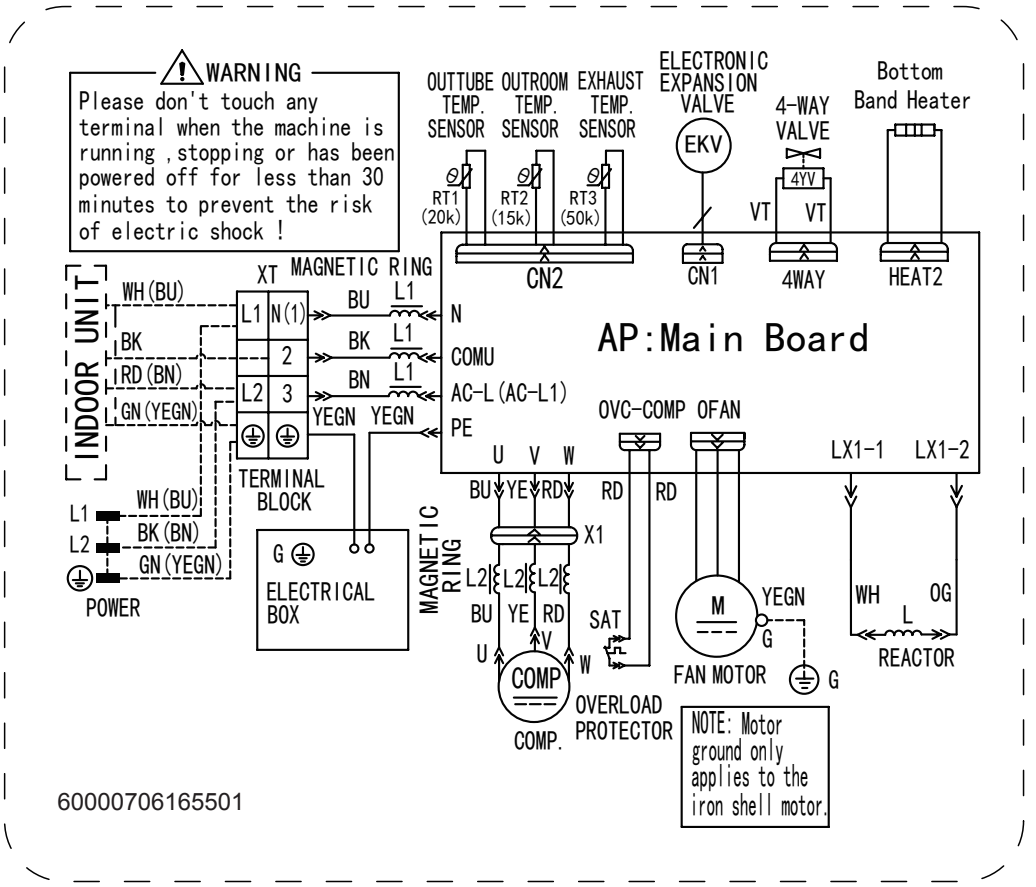
GWH24QE-D3DNC6O/O



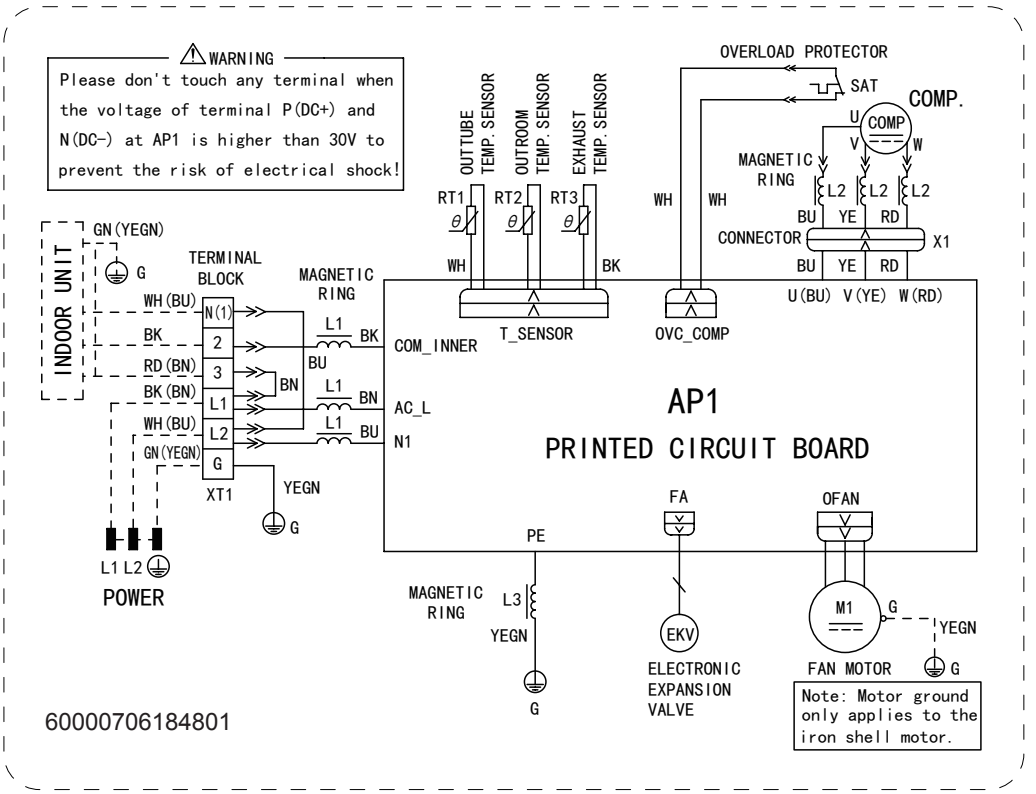
GWC12AFC-D3DNA1A/O GWC09AFC-D3DNA1A/O



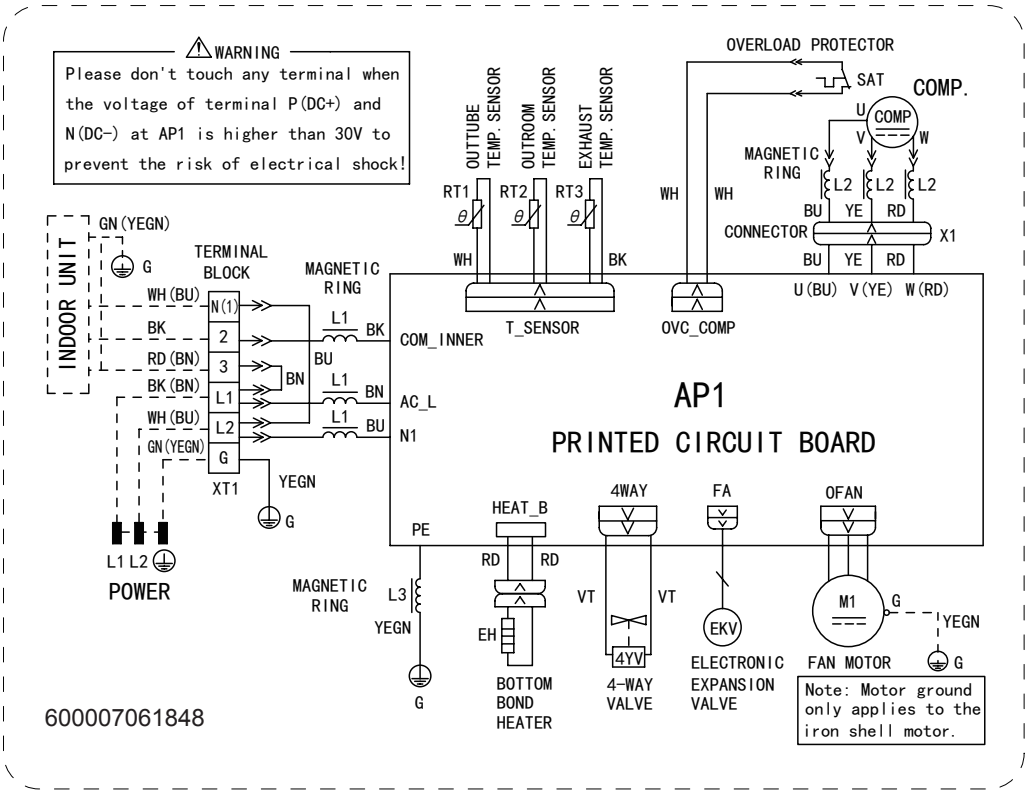
GWH12AFC-D3DNA1A/O GWH09AFC-D3DNA1A/O



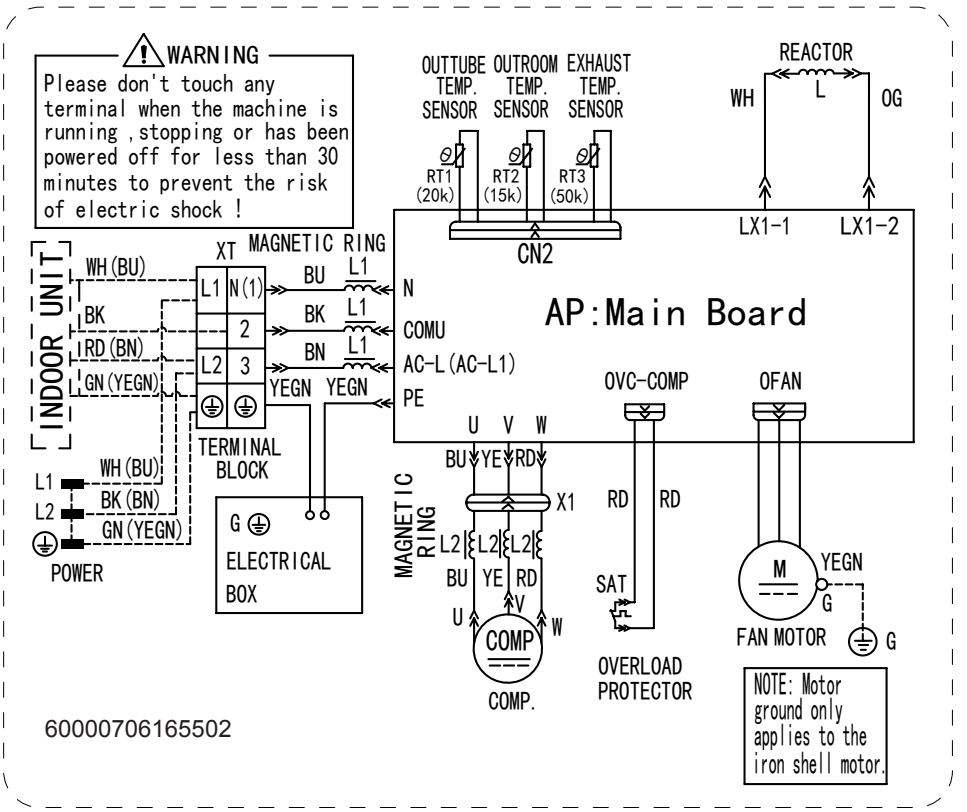
GWC24AFE-D3DNA1A/O GWC18AFD-D3DNA1A/O



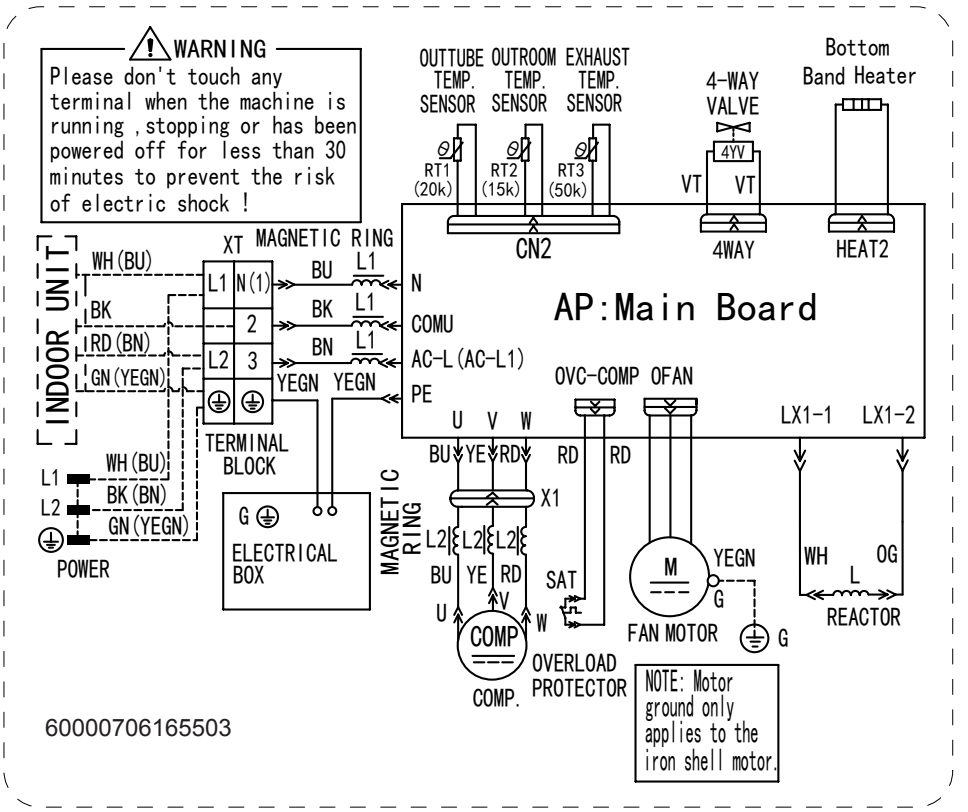
GWH24AFE-D3DNA1A/O



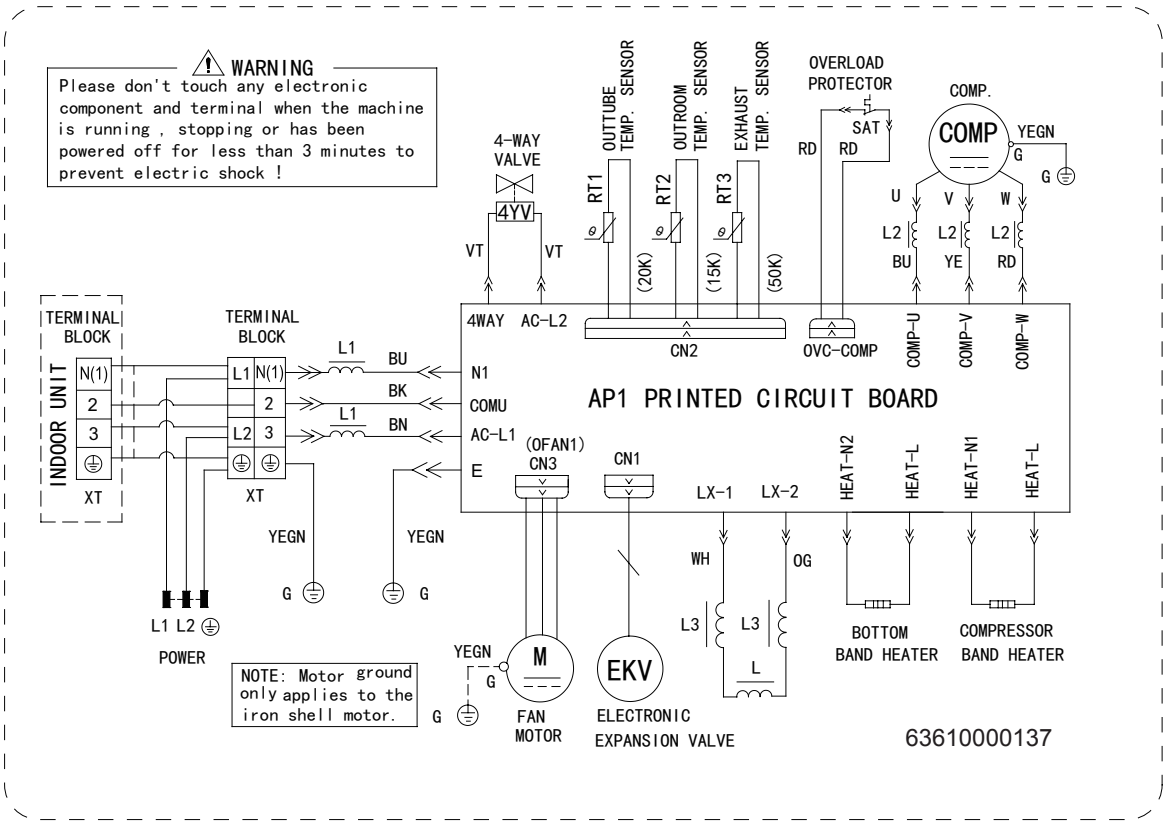
GWC12QC-D3DNB2M/O



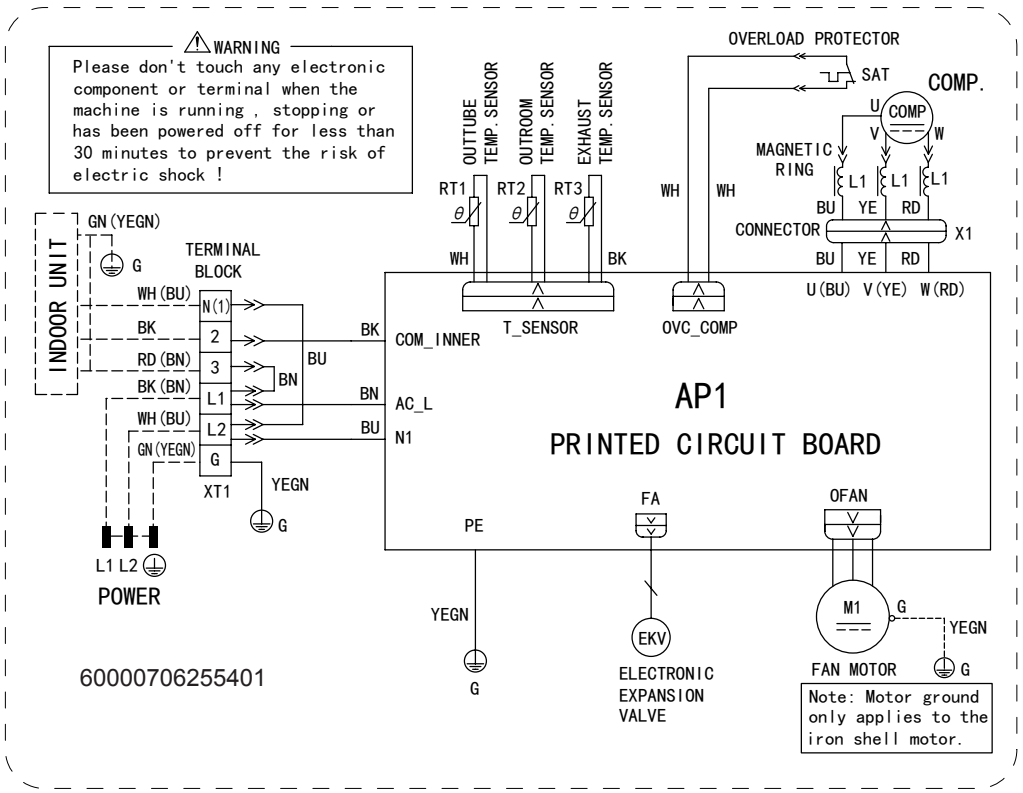
GWH12QC-D3DNB2M/O



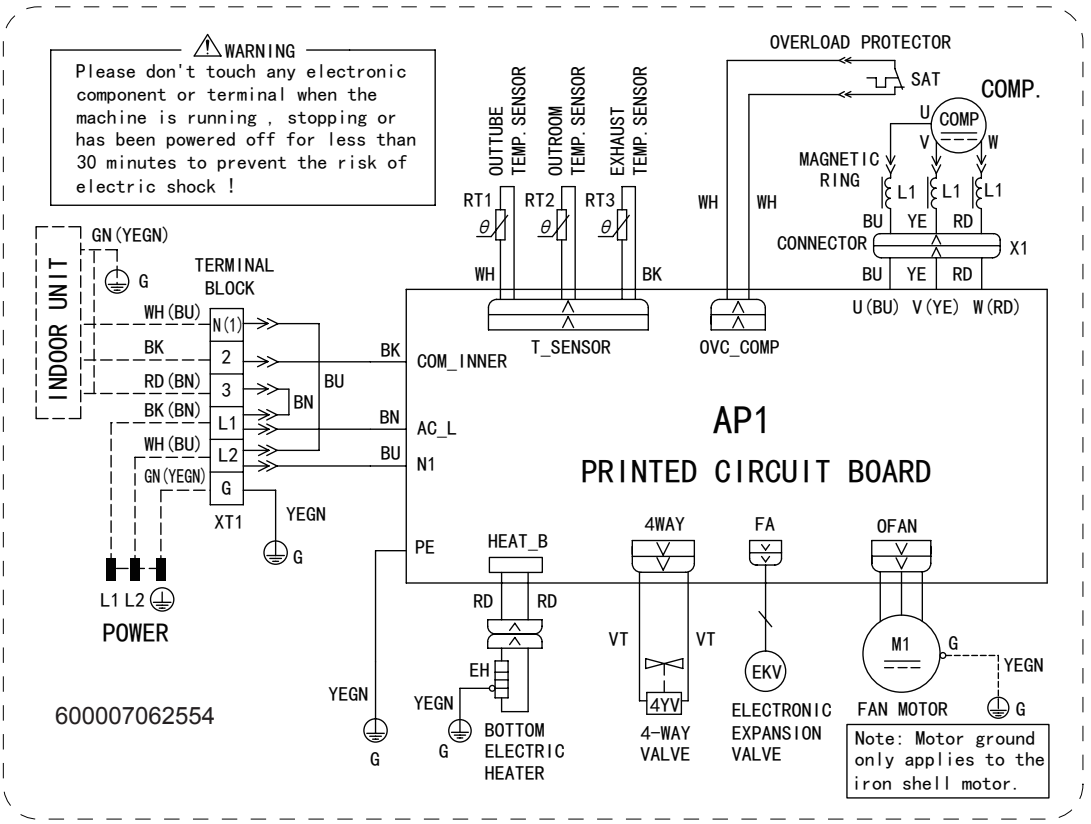
GWH07QC-D3DNA1D/O



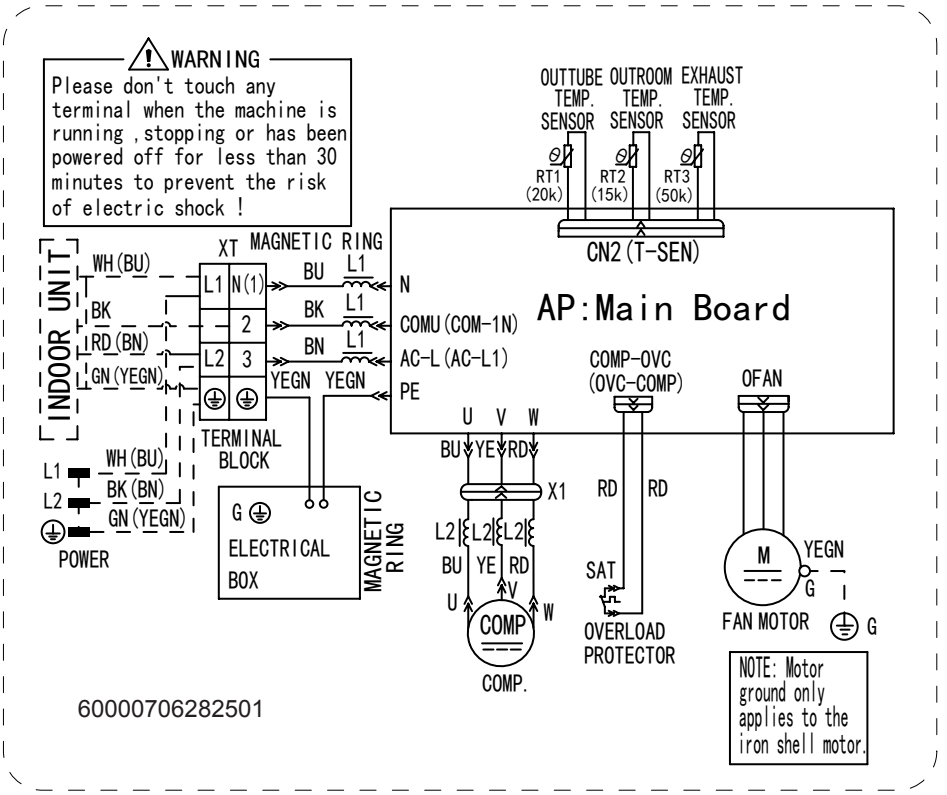
GWC24QE-D3DNB2R/O



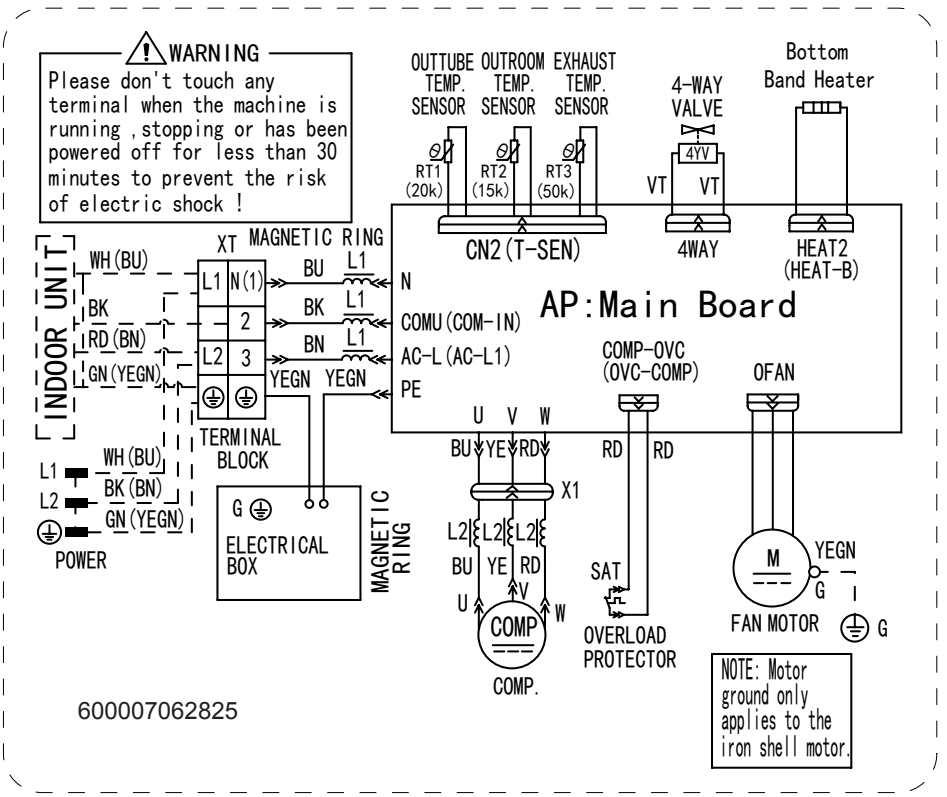
GWH24QE-D3DNB2R/O



GWC09QB-D3DNB2J/O



GWH09QB-D3DNB2J/O



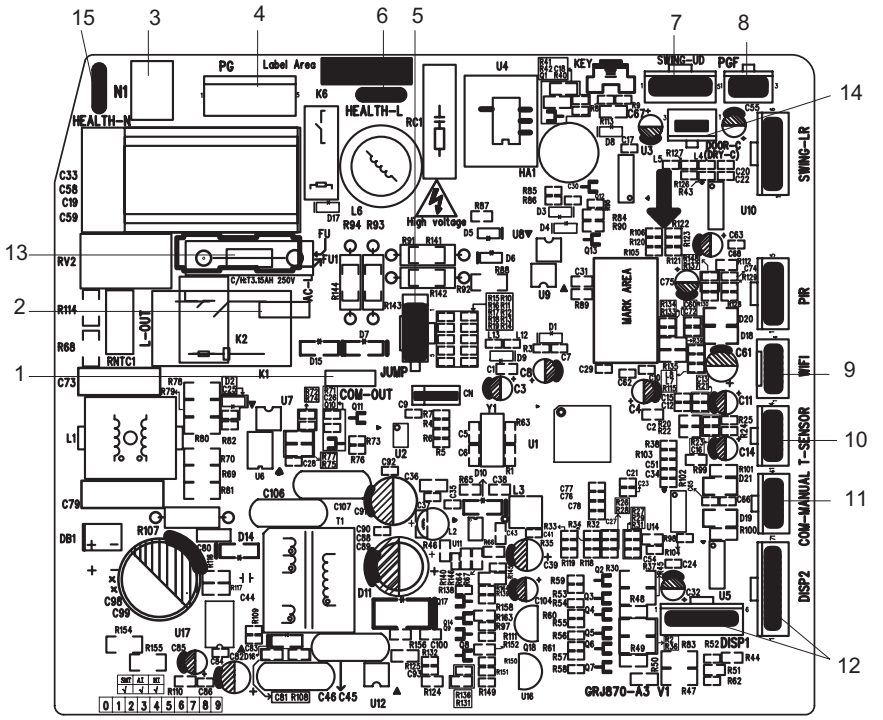
The above data is subject to change without notice. Please refer to the nameplate of the unit.

5.2 PCB Printed Diagram

Indoor Unit

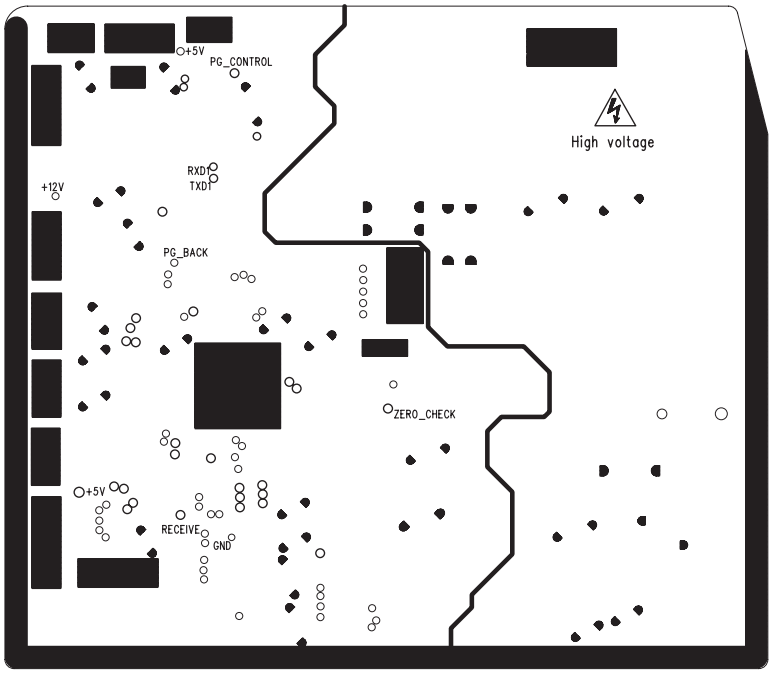
GWH09QB-D3DNC6L GWH12QC-D3DNC6L GWH18QD-D3DNC6L GWH24QE-D3DNC6O

● **Top view**



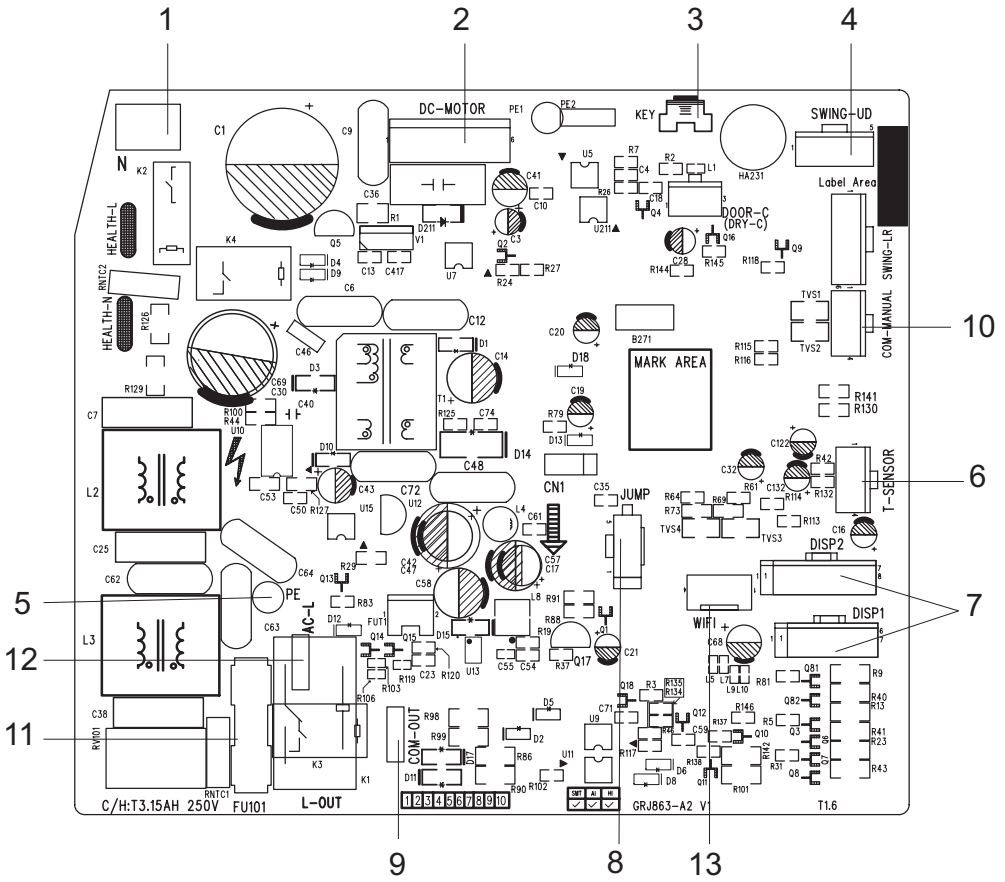
No	Name
1	Interface of communication wire for indoor unit and outdoor unit
2	Interface of live wire
3	Interface of neutral wire
4	Interface of fan
5	Jumper cap
6	Interface of health function live wire (only for the mode with this function)
7	Up&down swing interface
8	Feedback interface of indoor unit
9	Interface of wifi
10	Interface of tube temperature sensor
11	Wired controller (only for the mode with this function)
12	Display interface
13	Fuse
14	Interface of gate control (only for the mode with this function)
15	Interface of health function neutral wire (only for the mode with this function)

● **Bottom view**



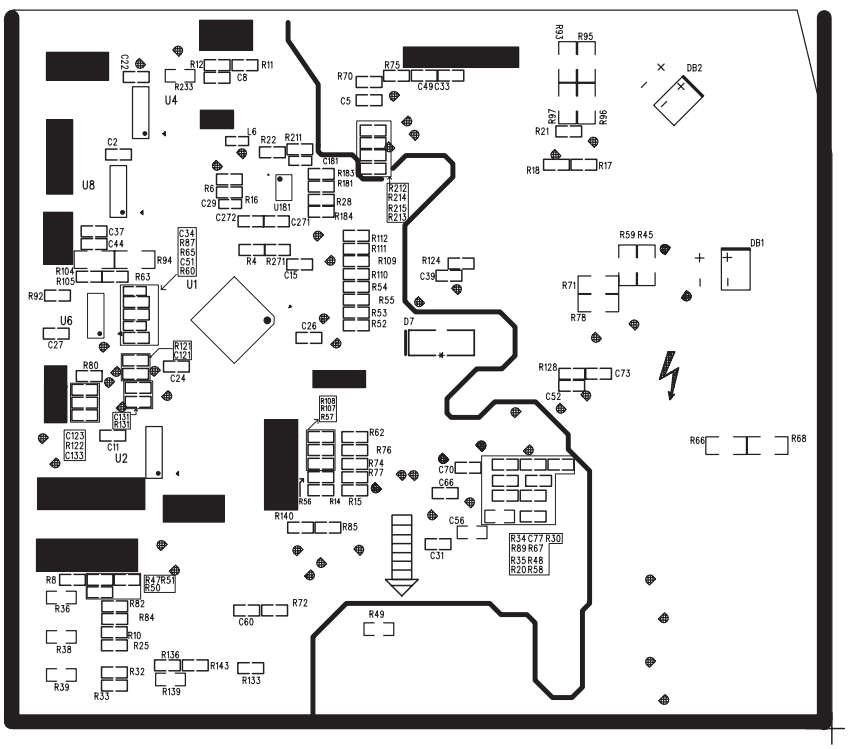
GWH07QC-D3DNB2D/I GWC18QD-D3DNB2C/I GWC18QD-D3DNC2A/I GWC18QD-D3DND4A/I GWC18QD-D3DND8A/I

• Top view



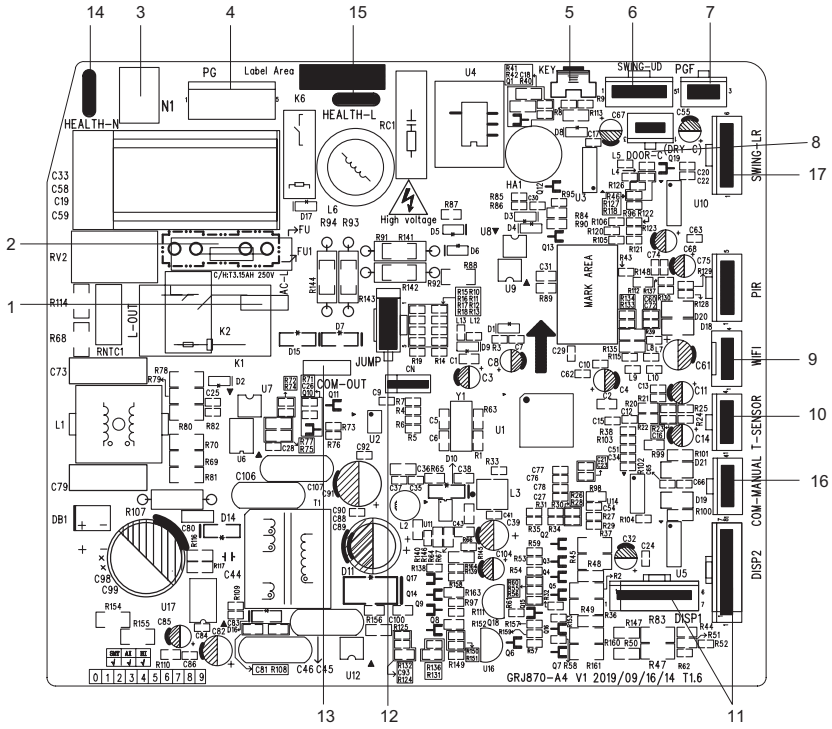
No.	Name
1	Neutral wire
2	Needle stand for indoor fan
3	Auto button
4	Up&down swing motor
5	Grounding wire
6	Interface of temperature sensor
7	Terminal for display board connection
8	Terminal of jumper cap
9	Communication wire
10	Terminal of wired controlle
11	Fuse
12	Live wire interface
13	Detecting plate(WIFI)

• Bottom view



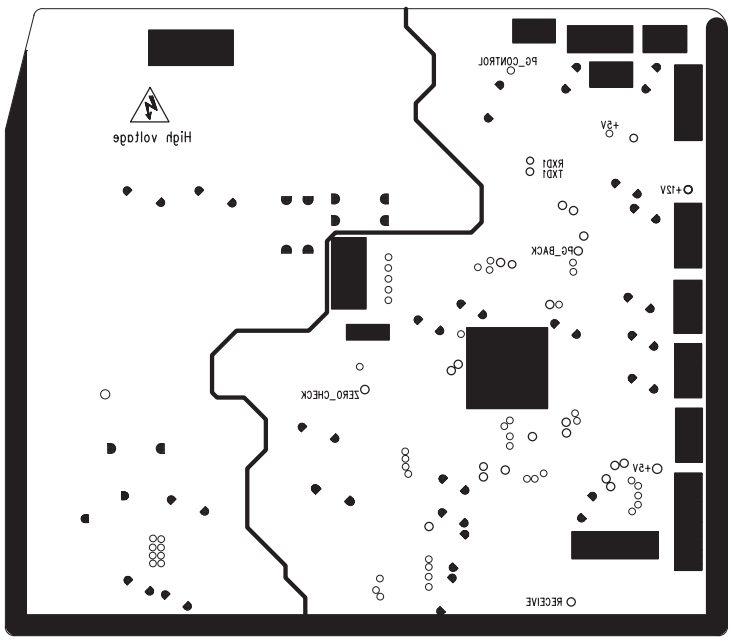
GWC09QC-D3DND8C/I GWH09QC-D3DND8A/I GWC12QC-D3DND8C/I GWH12QC-D3DND8A/I GWC24QE-D3DND8C/I GWH24QE-D3DND8A/I GWC09QC-D3DNB2C/I GWC09QC-D3DNC2C/I GWC09QC-D3DND4C/I GWC12QC-D3DNB2C/I GWC12QC-D3DNC2C/I GWC12QC-D3DND4C/I GWC24QE-D3DNB2C/I GWC24QE-D3DNC2C/I GWC24QE-D3DND4C/I

● Top view



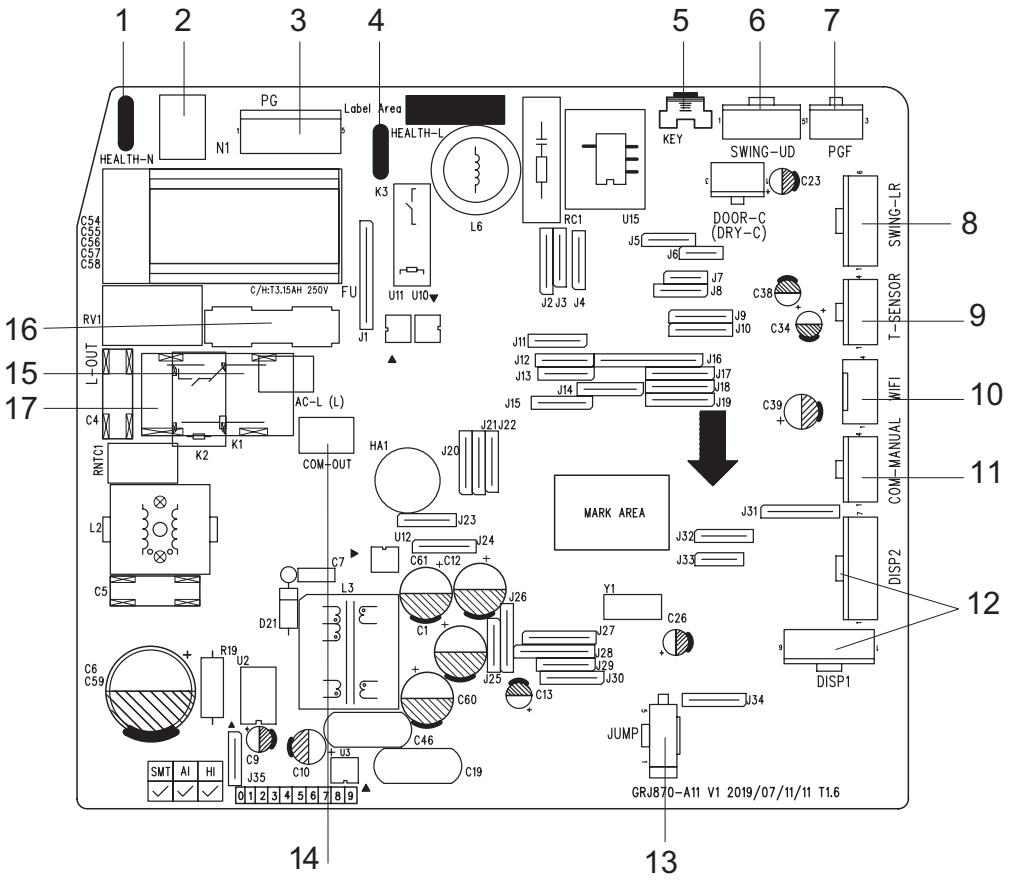
No	Name
1	Interface of live wire
2	Fuse
3	Interface of neutral wire
4	Interface of fan
5	Auto button
6	Up&down swing interface
7	Interface of PG feedback
8	Interface of gate-control
9	Interface of wifi
10	Needle stand for tube temperature sensor
11	Display interface
12	Jump
13	Terminal with indoor unit communication wire
14	Interface of health function neutral wire
15	Interface of health function live wire
16	Wired controller (only for the mode with this function)
17	Left&right swing interface

● Bottom view



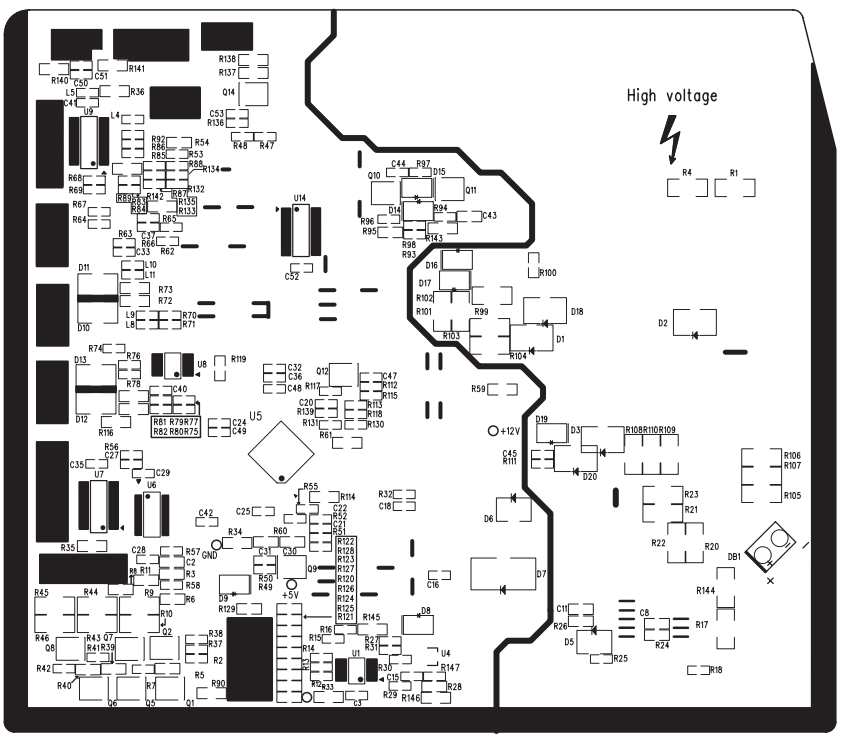
GWC12QC-D3DNB2M/I GWH12QC-D3DNB2M/I GWC24QE-D3DNB2R/I GWH24QE-D3DNB2R/I
GWC09QB-D3DNB2J/I GWH09QB-D3DNB2J/I

• Top view



No.	Name
1	Interface of health function neutral wire
2	Neutral wire terminal
3	Motor terminal
4	Live wire terminal
5	Auto button
6	Up&down swing terminal
7	Interface of Motor feedback
8	Left&right swing terminal
9	Terminal of temperature sensor
10	WIFI terminal
11	Wired controller terminal
12	Interface of display board
13	Jumper cap
14	Communication terminal for indoor unit and outdoor unit
15	Live wire terminal
16	Fuse
17	Terminal of live wire used for supplying power for outdoor unit

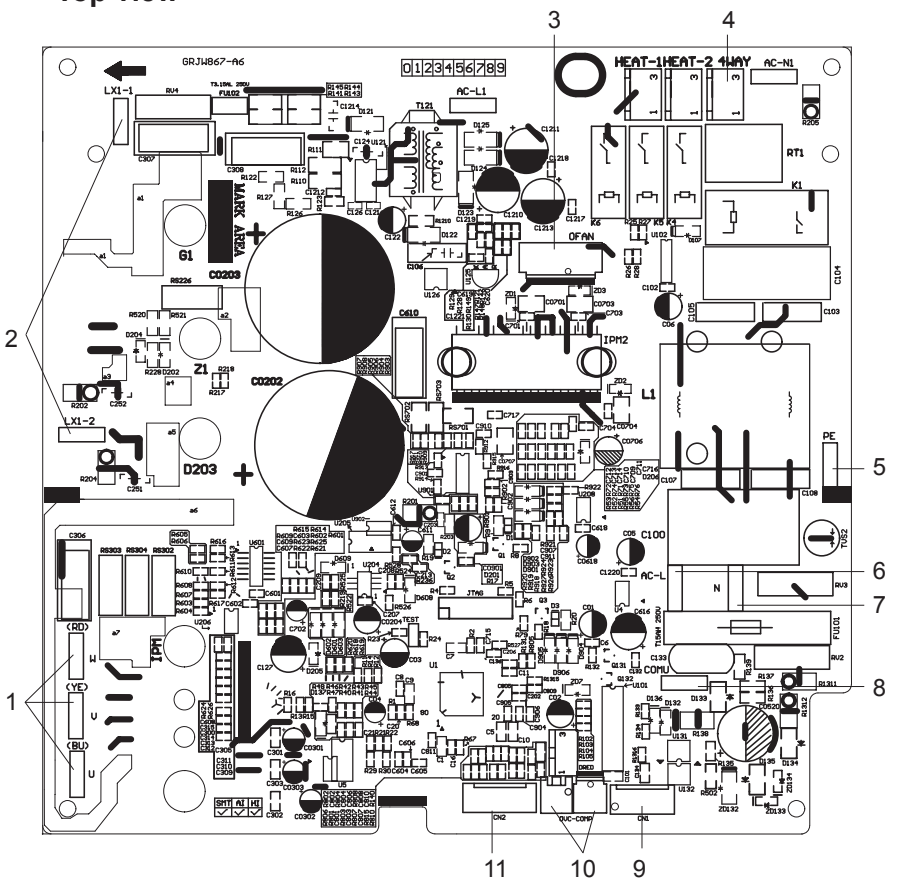
• Bottom view



Outdoor Unit

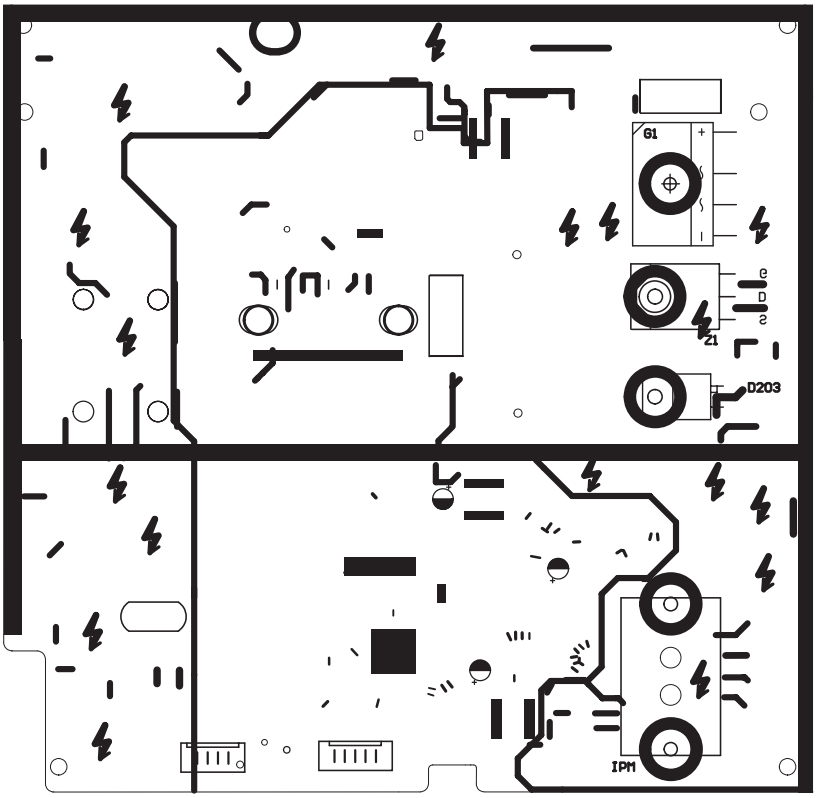
GWH09QB-D3DNC6L/O GWH12QC-D3DNC6L/O

• Top view



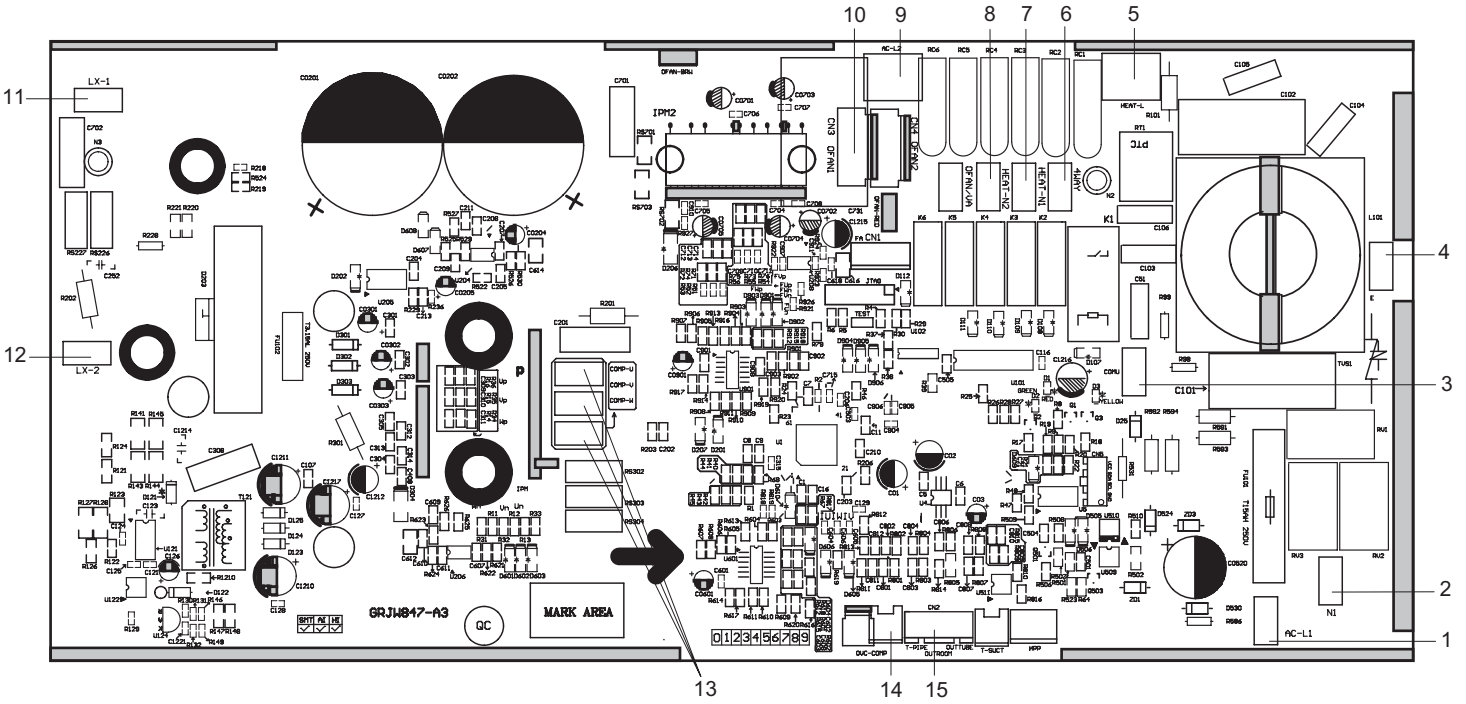
1	Compressor UVW three phase input interface
2	Interface of reactor
3	Interface of fan
4	4-way valve
5	Interface of earthing wire
6	Interface of live wire
7	Interface of netural wire
8	Interface of communication
9	Interface of electronic expansion valve
10	Overload interface of compressor
11	Interface of temperature sensor

• Bottom view



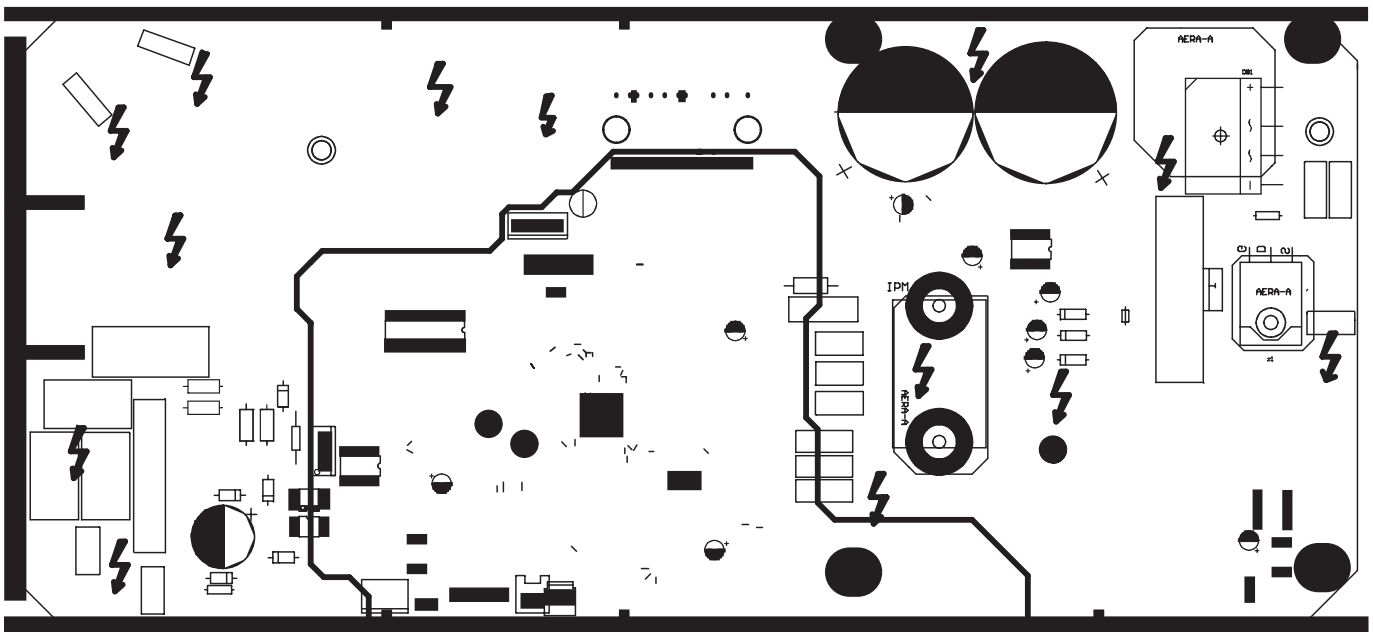
GWH07QC-D3DNA1D/O

• Top view



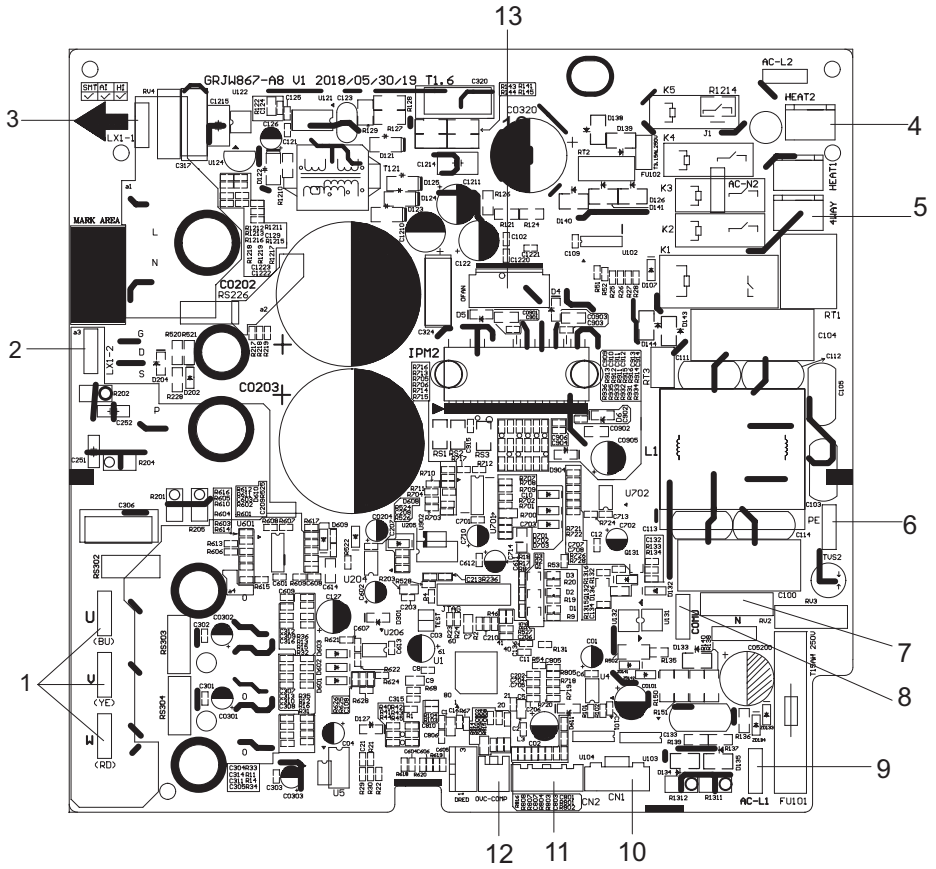
1	Input of live wire of power	4	Input of ground wire of power	7	Neutral wire of electric heater of compressor	10	Interface of fan	13	U,V,W three phases of compressor
2	Input of neutral wire of power	5	Live wire of electric heater	8	Neutral wire of electric heater of chassis	11	Interface 1 of electric reactor	14	Input of overload
3	Communication interface	6	Neutral wire of 4-way valve	9	Live wire of 4-way valve	12	Interface 2 of electric reactor	15	Temp. sensor

• Bottom view



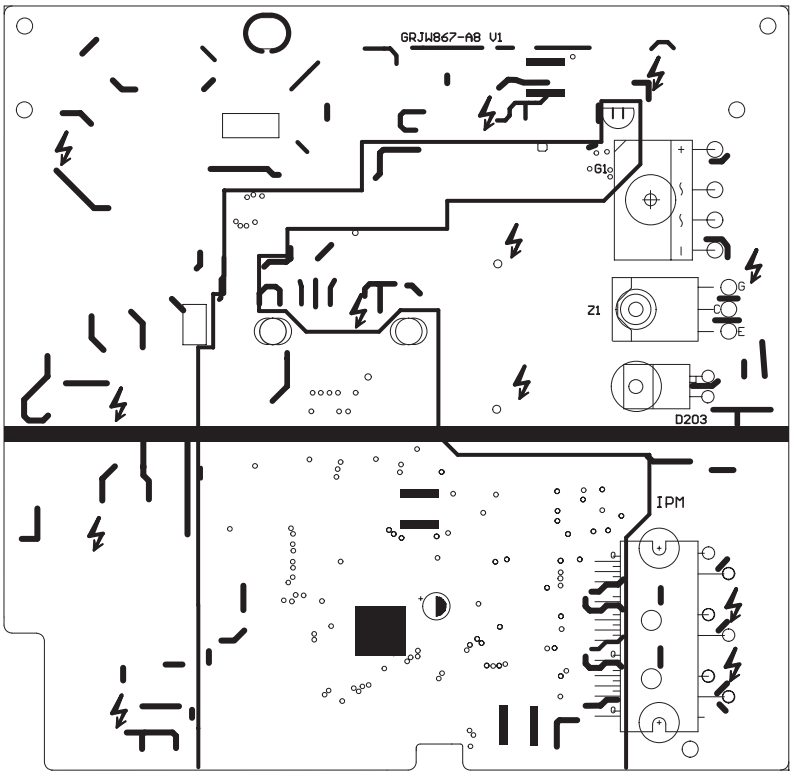
GWC12AFC-D3DNA1A/O GWC09AFC-D3DNA1A/O GWC12QC-D3DNB2M/O GWH12QC-D3DNB2M/O
GWH12AFC-D3DNA1A/O GWH09AFC-D3DNA1A/O

• Top view



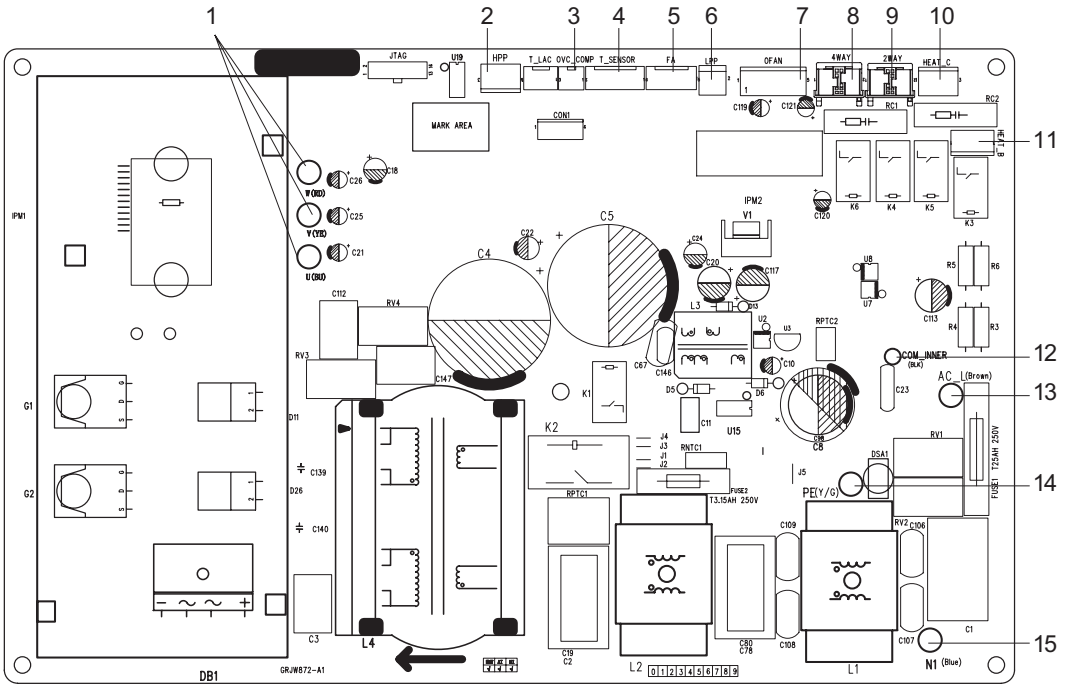
No.	Name
1	Interface of compressor wire
2	Reactor wiring terminal 2
3	Reactor wiring terminal 1
4	Terminal of chassis electric heater
5	4-way valve terminal
6	Grounding wire
7	Neutral wire
8	Communication wire
9	Live wire
10	Terminal of electronic expansion valve
11	Interface of temperature sensor
12	Overload interface of compressor
13	Terminal of outdoor fan

• Bottom view



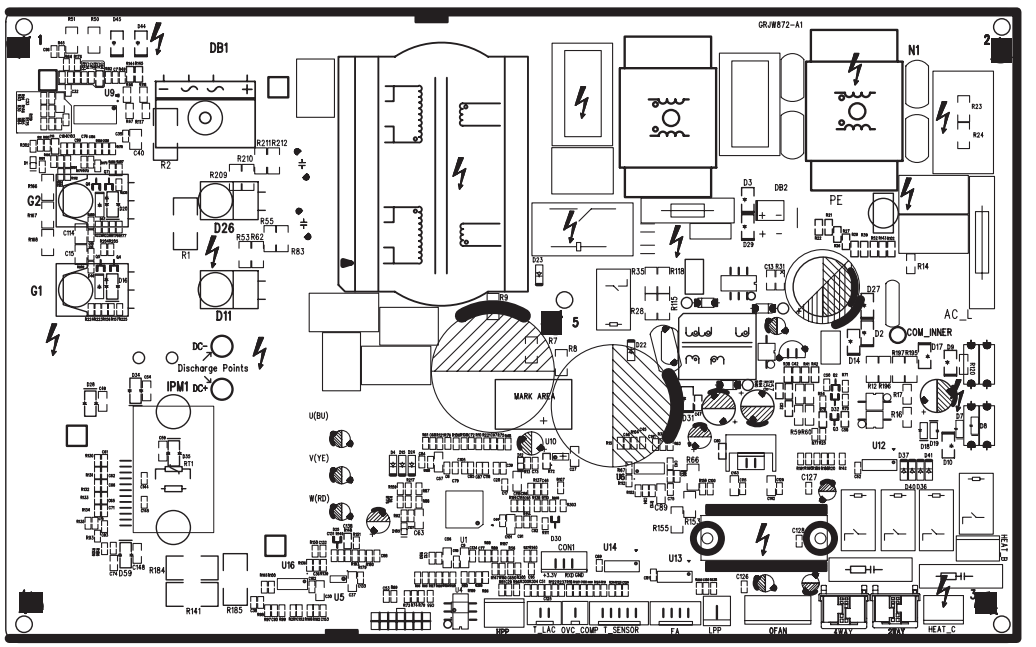
GWC24AFE-D3DNA1A/O GWH24AFE-D3DNA1A/O GWC18AFD-D3DNA1A/O GWH18QD-D3DNC6L/O GWH24QE-D3DNC6O/O

• Top view



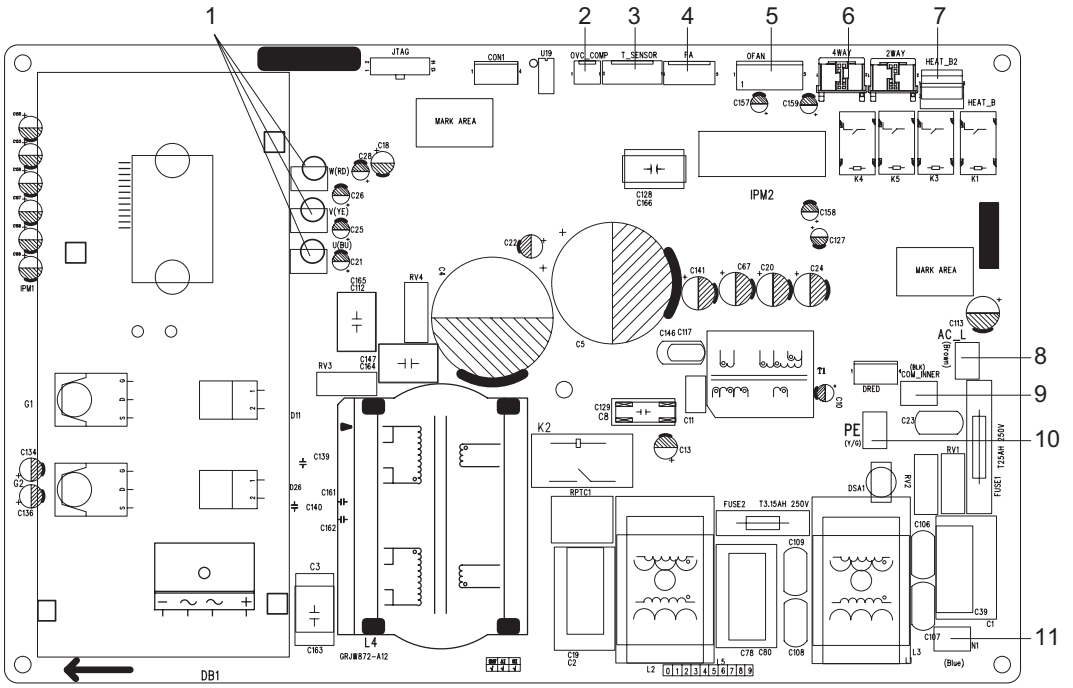
No.	Name
1	Compressor three phase input interface
2	Interface of system high pressure protection
3	Compressor overload protection interface
4	Interface of temperature sensor
5	Interface of electronic expansion valve
6	Interface of system low pressure protection
7	Interface of fan
8	4-way valve interface
9	2-way valve interface
10	Interface of electric heating for compressor
11	Interface of electric heating for chassis
12	Communication interface
13	Interface of live wire
14	Interface of earthing wire
15	Interface of netural wire

• Bottom view



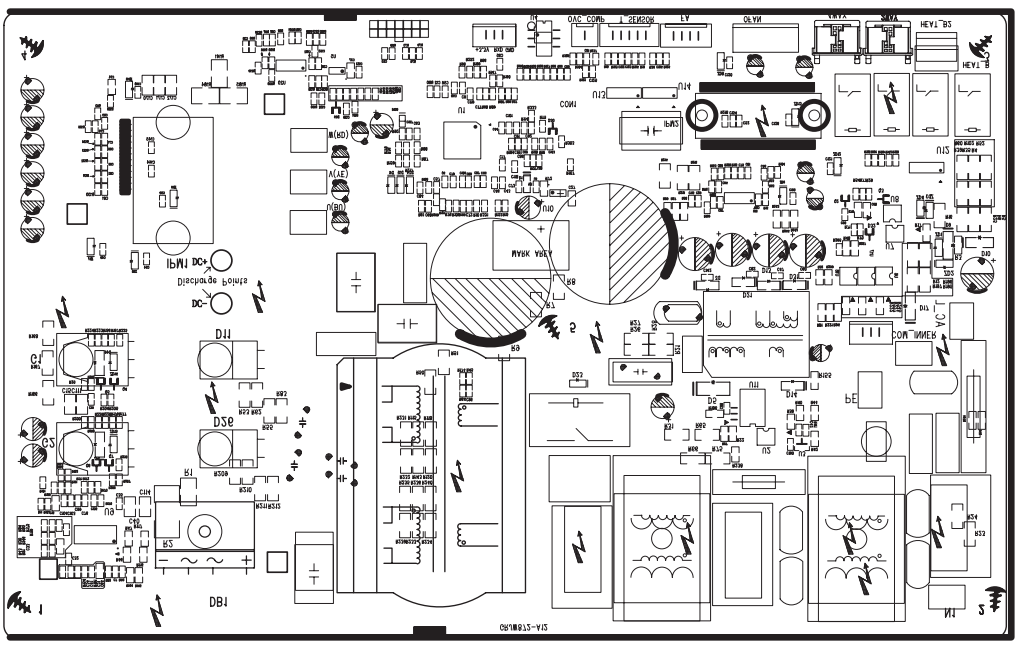
GWC24QE-D3DNB2R/O GWH24QE-D3DNB2R/O

• Top view



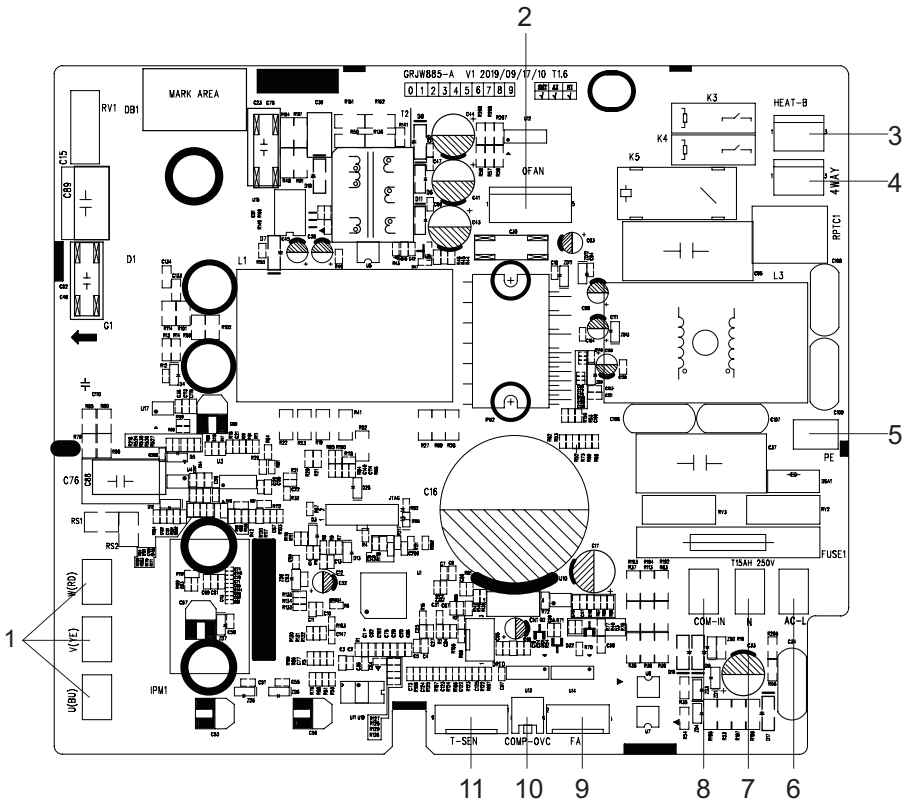
No.	Name
1	Compressor three phase input interface
2	Compressor overload protection interface
3	Interface of temperature sensor
4	Interface of electronic expansion valve
5	Interface of fan
6	4-way valve interface
7	Interface of electric heating for compressor
8	Interface of live wire
9	Interface of netural wire
10	Interface of earthing wire
11	Interface of netural wire

• Bottom view



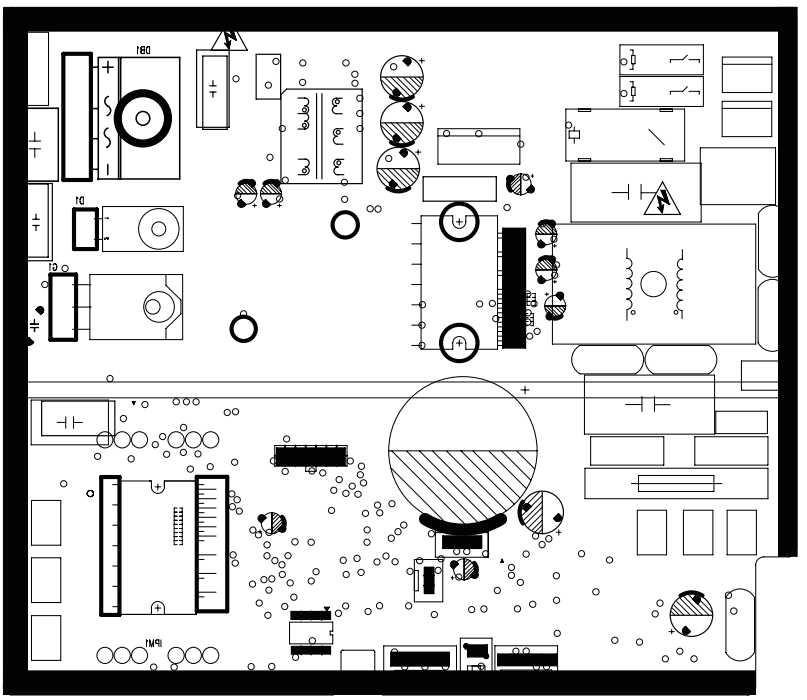
GWC09QB-D3DNB2J/O GWH09QB-D3DNB2J/O

● Top view



No.	Name
1	Compressor three phase input interface
2	Interface of fan
3	Interface of electric heating for chassis
4	4-way valve interface
5	Interface of earthing wire
6	Interface of live wire
7	Neutral wire
8	Communication interface
9	Needle stand of electronic expansion valve
10	Compressor overload protection interface
11	Interface of temperature sensor

● Bottom view

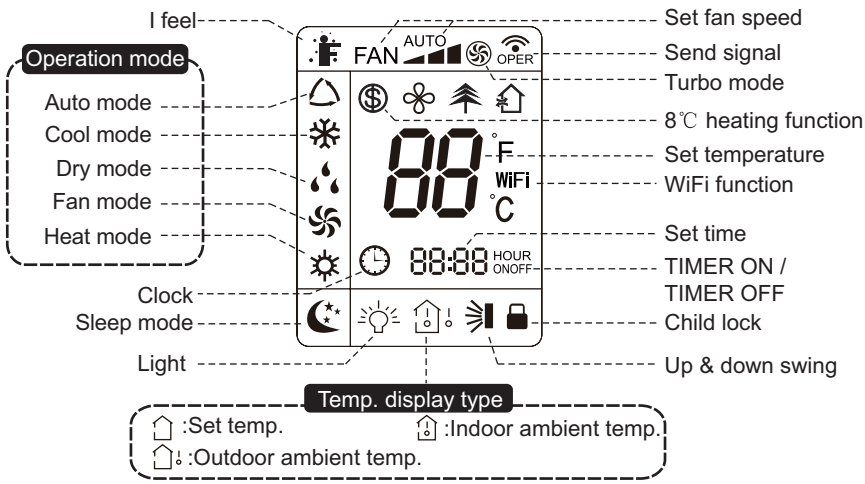


6. Function and Control

6.1 Remote Controller Introduction of YAN1F6F(WiFi)

1. ON/OFF button
2. MODE button
3. FAN button
4. SWING button
5. TURBO button
6. ▲/ ▼button
7. SLEEP button
8. TEMP button
9. WIFI button
10. LIGHT button
11. CLOCK button
12. TIMER ON / TIMER OFF button

Introduction for icons on display screen



Introduction for buttons on remote controller

Note:

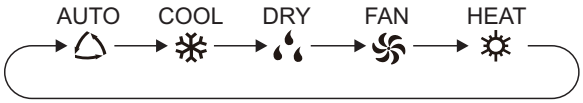
- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- After putting through the power, the air conditioner will give out a sound. Operation indicator "⏻" is ON (red indicator, the colour is different for different models). 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. MODE button

Press this button to select your required operation mode.



● When selecting auto mode, air conditioner will operate automatically according to ex-factory setting. Set temperature can't be adjusted and will not be displayed as well. Press "FAN" button can adjust fan speed. Press "SWING" button can adjust fan blowing angle.
● After selecting cool mode, air conditioner will operate under cool mode. Cool indicator on indoor unit is ON(This indicator is not available for some models). Press "▲" or " " button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle.
● When selecting dry mode, the air conditioner operates at low speed under dry mode. Dry indicator on indoor unit is ON(This indicator is not available for some models). Under dry mode, fan speed can't be adjusted. Press "SWING" button to adjust fan blowing angle.
● When selecting fan mode, the air conditioner will only blow fan, no cooling and no heating. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle.
● When selecting heating mode, the air conditioner operates under heat mode. Heat indicator on indoor unit is ON(This indicator is not available for some models).Press "▲" or " " button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle. (Cooling only unit won't receive heating mode signal. If setting heat mode with remote controller, press ON/OFF button can't start up the unit).

Note:

● For preventing cold air, after starting up heating mode, indoor unit will delay 1~5 minutes to blow air (actual delay time is depend on indoor ambient temperature).
● Set temperature range from remote controller: 16~30℃ ; Fan speed: auto, low speed, medium speed, high speed.

3. FAN button

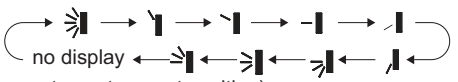
Pressing this button can set fan speed circularly as: auto (AUTO), low( ) ,medium( ), high( ).

Note:

● Under AUTO speed, air conditioner will select proper fan speed automatically according to ex-factory setting.
● Fan speed under dry mode is low speed.
● X-FAN function:Hold fan speed button for 2s in COOL or DRY mode, the icon " " is displayed and the indoor fan will continue operation for a few minutes in order to dry the indoor unit even though you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.
This function indicates that moisture on evaporator of indoor unit will be blowed after the unit is stopped to avoid mould.
●Having set X-FAN function on:After turning off the unit by pressing ON/OFF button indoor fan will continue running for a few minutes.at low speed.In this period,Hold fan speed button for 2s to stop indoor fan directly.
●Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

4. SWING button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:



(horizontal louvers stops at current position)

● When selecting " ", air conditioner is blowing fan automatically. Horizontal louver will automatically swing up & down at maximum angle.
● When selecting " ", air conditioner is blowing fan at fixed position. Horizontal louver will stop at the fixed position.
● When selecting " " , air conditioner is blowing fan at fixed angle. Horizontal louver will send air at the fixed angle.
● Hold " "button above 2s to set your required swing angle. When reaching your required angle, release the button.

Note:

● " " may not be available. When air conditioner receives this signal, the air conditioner will blow fan automatically.

5. TURBO button

Under COOL or HEAT mode, press this button to turn to quick COOL or quick HEAT mode. " " icon is displayed on remote controller. Press this button again to exit turbo function and " " icon will disappear.

6. ▲/▼ button

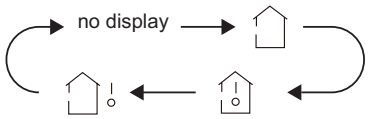
- Press "▲" or "▼" button once increase or decrease set temperature 1℃(1°F). . Holding "▲" or " ▼" button, 2s later, set temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indica- tor on indoor unit will change accordingly. (Temperature can't be adjusted under auto mode)
- When setting TIMER ON, TIMER OFF or CLOCK, press "▲" or "▼" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons)

7. SLEEP button

Under COOL, HEAT mode, press this button to start up sleep function. " " icon is displayed on remote controller. Press this button again to cancel sleep function and " " icon will disappear.

8. TEMP button

By pressing this button, you can see indoor set temperature, indoor ambient temperature or outdoor ambient temperature on indoor units display. The setting on remote controlleris selected circularly as below:



- When selecting " " or no display with remote controller, temperature indicator on indoor unit displays set temperature.
- When selecting " " with remote controller, temperature indicator on indoor unit displays indoor ambient temperature.
- When selecting " " with remote controller, temperature indicator on indoor unit displays outdoor ambient temperature.

Note:

- Outdoor temperature display is not available for some models. At that time, indoor unit receives " "signal, while it displays indoor set temperature.
- Its defaulted to display set temperature when turning on the unit.There is no display in the remote controller.
- Only for the models whose indoor unit has dual-8 display.
- When selecting displaying of indoor or outdoor ambient temperature, indoor temperature indicator displays corresponding temperature and automatically turn to display set temperature after three or five seconds.

9. WIFI button

Press " **WiFi** " button to turn on or turn off WiFi function. When WiFi function is turned on, the " **WiFi** " icon will be displayed on remote controller; Under status of remote controller off, press "**MODE**" and " **WiFi** " buttons simultaneously for 1s,WiFi modulewill restore to factory default setting.

10. LIGHT button

Press this button to turn off display light on indoor unit. " " icon on remote controller disappears. Press this button again to turn on display light. " " icon is displayed.

11. CLOCK button

Press this button to set clock time. " " icon on remote controller will blink. Press "▲" or "▼" button within 5s to set clock time. Each pressing of "▲" or "▼" button, clock time will increase or decrease 1 minute. If hold "▲" or "▼" button, 2s later, time will change quickly. Release this button when reaching your required time. Press "CLOCK" button to confirm the time. " " icon stops blinking.

Note:

- Clock time adopts 24-hour mode.
- The interval between two operation cant exceeds 5s. Otherwise, remote controller will quit setting status. Operation for TIMER ON/TIMER OFF is the same.

12. TIMER ON / TIMER OFF button

- TIMER ON button

  "TIMER ON" button can set the time for timer on. After pressing this button, " " icon disappears and the word "ON" on remote controller blinks. Press "▲" or "▼"button to adjust TIMER ON setting. After each pressing "▲" or "▼" button, TIMER ON setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER ON" to confirm it. The word "ON" will stop blinking. " " icon resumes displaying. Cancel TIMER ON: Under the condition that TIMER ON is started up, press "TIMER ON" button to cancel it.
- TIMER OFF button

  "TIMER OFF" button can set the time for timer off. After pressing this button," " icon disappears and the word "OFF" on remote controller blinks. Press "▲" or "▼" button to adjust TIMER OFF setting. After each pressing "▲" or "▼" button,
  TIMER OFF setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER OFF" word "OFF" will stop blinking. " " icon resumes displaying. Cancel TIMER OFF. Under the condition that TIMER OFF is started up, press "TIMER OFF" button to cancel it.

Note:

- Under on and off status, you can set TIMER OFF or TIMER ON simultaneously.
- Before setting TIMER ON or TIMER OFF, please adjust the clock time.
- After starting up TIMER ON or TIMER OFF, set the constant circulating valid. After that, air conditioner will be turned on or turned off according to setting time. ON/OFF button has no effect on setting. If you dont need this function, please use remote controller to cancel it.

If “H1” is displayed on the remote controller while it’s not operated by the professional person/after-sales person, it belongs to the misoperation.

Please operate it as below to cancel it.Under the OFF status of remote controller, hold the Mode button for 5s to cancel “H1” display.

Note:

- If remote controller displays “H1”, it belongs to the normal function reminder. If the unit is defrosting under heating mode, it operates according to H1 defrosting mode. “H1” won’t be displayed on the panel of indoor unit;
- Once you set H1 mode, if you turn off unit by remote controller, H1 will display 3 times on the remote controller and then disappear;
- Also, when you set H1 mode, when you change to heating mode, H1 will display 3 times on the remote controller and then disappear.

Function introduction for combination buttons

1. Energy-saving function

Under cooling mode, press "TEMP" and " CLOCK" buttons simultaneously to start up or turn off energy-saving function. When energy-saving function is started up, "SE" will be shown on remote controller, and air conditioner will adjust the set temperature automatically according to ex-factory setting to reach to the best energy-saving effect. Press "TEMP" and "CLOCK"buttons simultaneously again to exit energy-saving function.

Note:

- Under energy-saving function, fan speed is defaulted at auto speed and it cant be adjusted.
- Under energy-saving function, set temperature cant be adjusted. Press "TURBO" button and the remote controller wont send signal.
- Sleep function and energy-saving function cant operate at the same time. If energy-saving function has been set under cooling mode, press sleep button will cancel energy-saving function. If sleep function has been set under cooling mode, start up the energy-saving function will cancel sleep function.

2. 8 ℃ heating function

Under heating mode, press "TEMP" and "CLOCK" buttons simultaneously to start up or turn off 8℃ heating function. When this function is started up, " ⓢ " and "8℃ " will be shown on remote controller, and the air conditioner keep the heating status at 8℃ . Press "TEMP" and "CLOCK" buttons simultaneously again to exit 8℃ heating function.

Note:

- Under 8℃ heating function, fan speed is defaulted at auto speed and it cant be adjusted.
- Under 8℃ heating function, set temperature cant be adjusted. Press "TURBO" button and the remote controller wont send signal.
- Sleep function and 8℃ heating function cant operate at the same time. If 8℃ heating function has been set under cooling mode, press sleep button will cancel 8℃ heating function. If sleep function has been set under cooling mode, start up the 8℃ heating function will cancel sleep function.
- Under ℉ temperature display, the remote controller will display 46 ℉ heating.

3. Child lock function

Press "▲" and "▼" simultaneously to turn on or turn off child lock function. When child lock function is on, " 🔒 " icon is displayed on remote controller. If you operate the remote controller, the " 🔒 " icon will blink three times without sending signal to the unit.

4. Temperature display switchover function

Under OFF status, press "▼" and "MODE" buttons simultaneously to switch temperature display between ℃ and ℉ .

5. I FELL Function

Press "▲" and "MODE" buttons simultaneously to start I FEEL function and " " will be displayed on the remote controller. After this function is set, the remote controller will send the detected ambient temperature to the controller and the unitwill automatically adjust the indoor temperature according to the detected tempera-ture. Press this two buttons simultaneously again to close I FEEL function and " " will disappear.

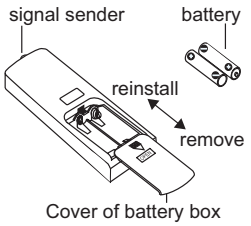
- Please put the remote controller near user when this function is set. Do not put the remote controller near the object of high temperature or low temperature in order to avoid detecting inaccurate ambient temperature.When I FEEL function is turned on, the remote controller should be put within the area where indoor unit can receive the signal sent by the remote controller.

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 cant 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 " 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.



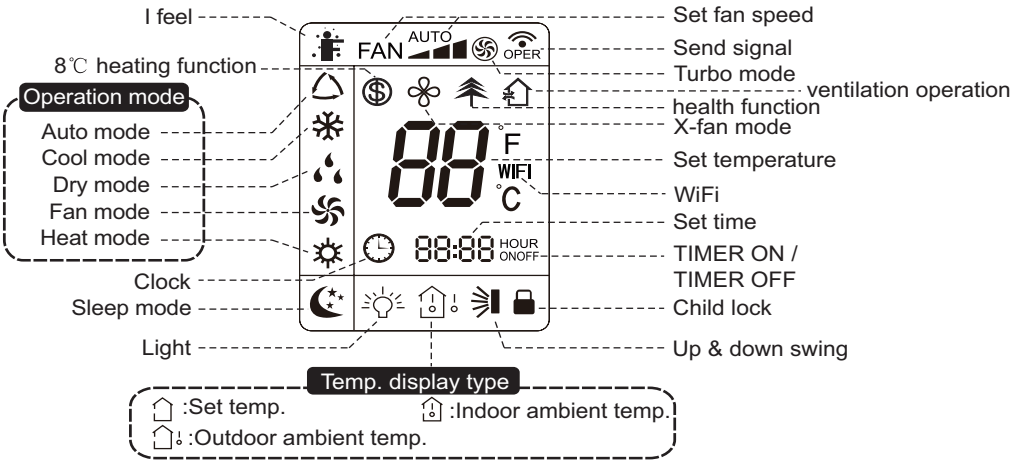
Note:

- 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 dont use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or theres no display, please replace batteries.

6.2 Remote Controller Introduction of YV1FB9F(WiFi)

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. WiFi button
15. / button

Introduction for icons on display screen



Introduction for buttons on remote controller

Note:

- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- After putting through the power, the air conditioner will give out a sound.Operation indicator " " is ON (red indicator,the colout is different for different models). 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:

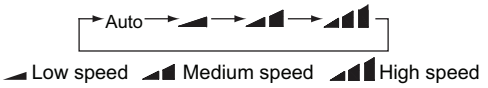
This remote controller is universal . If any command , or is sent out,the unit will carry out the command as indicates the guide louver swings as:

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.



Note:

- Under AUTO speed, air conditioner will select proper fan speed automatically according to ex-factory setting.
- It's Low fan speed under Dry mode.
- X-FAN function: Hold fan speed button for 2s in COOL or DRY mode, the icon " " is displayed and the indoor fan will continue operation for a few minutes in order to dry the indoor unit even though you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.

  This function indicates that moisture on evaporator of indoor unit will be blowed after the unit is stopped to avoid mould.
- Having set X-FAN function on: After turning off the unit by pressing ON/OFF button indoor fan will continue running for a few minutes. at low speed. In this period, Hold fan speed button for 2s to stop indoor fan directly.
- Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

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

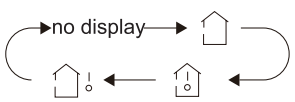
Press this button to initiate the auto-ON timer. To cancel the auto-timer program, simply press this button again.After press of this button, disappears and "ON "blinks. 0 0:00 is displayed for ON timesetting. Within 5 seconds, press ▲ or ▼ button to adjust the time value. Every press of either button 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. WiFi button

Press "**WiFi**" button to turn on or turn off WiFi function. When WiFi function is turned on, the "**WiFi**" icon will be displayed on remote controller; Under status of unit off, press "MODE" and "**WiFi** " buttons simultaneously for 1s, WiFi module will restore to factory default setting.

● This function is only available for some models.

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.

I FEEL Function

Press "▲" and "MODE" buttons simultaneously to start I FEEL function and " " will be displayed on the remote controller. After this function is set, the remote controller will send the detected ambient temperature to the controller and the unit will automatically adjust the indoor tempe rature according to the detected temperature. Press this two buttons simultaneously again to close I FEEL function and " " will disappear.

- Please put the remote controller near user when this function is set. Do not put the remote controller near the object of high temperature or low temperature in order to avoid detecting inaccurate ambient temperature. When I FEEL function is turned on, the remote controller should be put within the area where indoor unit can receive the signal sent by the remote controller.

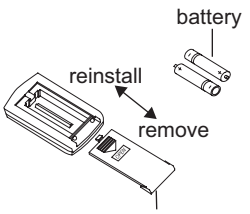
If “H1” is displayed on the remote controller while it’s not operated by the professional person/after-sales person, it belongs to the misoperation.
Please operate it as below to cancel it.Under the OFF status of remote controller, hold the “MODE” button and “X-FAN” buttons simultaneously for 5s to cancel “H1” display.
Note:
● If remote controller displays “H1”, it belongs to the normal function reminder. If the unit is defrosting under heating mode, it operates according to H1 defrosting mode. “H1” won’t be displayed on the panel of indoor unit;
● Once you set H1 mode, if you turn off unit by remote controller, H1 will display 3 times on the remote controller and then disappear;
● Also, when you set H1 mode, when you change to heating mode, H1 will display 3 times on the remote controller and then disappear.

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

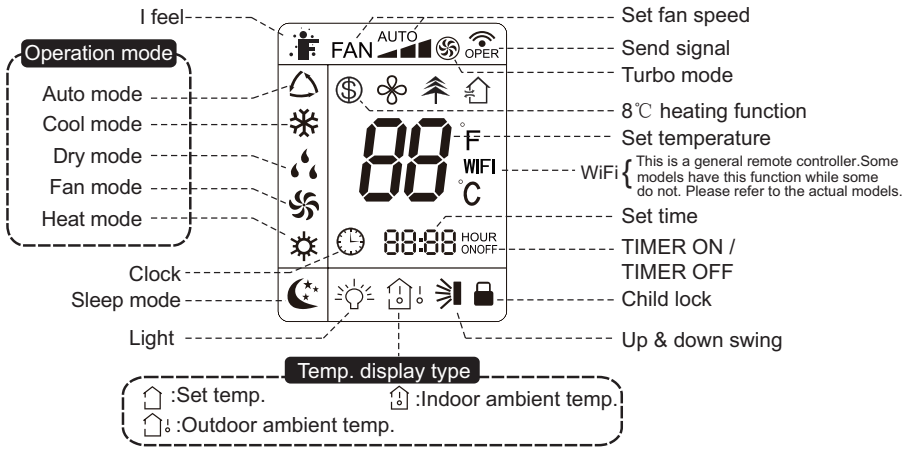
1. Press the back side of remote controller marked with"OPEN", as show in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "▲" polar and "▼" polar are correct.
3. Reinstall the cover of battery box.



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 YAN1F10F(WiFi)

1. ON/OFF button
2. MODE button
3. FAN button
4. SWING button
5. TURBO button
6. ▲/ ▼ button
7. SLEEP button
8. TEMP button
9. WiFi button
10. LIGHT button
11. CLOCK button
12. TIMER ON / TIMER OFF button



Note:

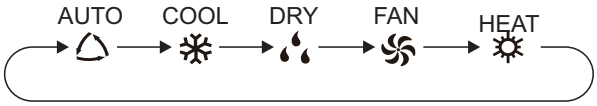
- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- After putting through the power, the air conditioner will give out a sound.Operation indicator is ON (red indicator, the colour is different for different models).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 “di” sound, which means the signal has been sent to the air conditioner.
- Under off status, set temperature and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corresponding icons will be displayed on the display of remote controller at the same time); Under on status, the display will show the corresponding set function icons.
- As for the models with functions of WiFi or wired controller, the indoor unit must has been controlled by standard remote controller under auto mo de first, and then the function of adjustable temperature under auto mode can be realized by APP or the wired controller.
- This remote controller can adjust the temperature under auto mode. When matching with the unit which is without the function of adjustable tempe rature under auto mode,the set temperature under auto mode may be invalid, or the disp layed set temperature on the unit is not same as that on the remote controller under auto mode.

1. ON/OFF button

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

2. MODE button

Press this button to select your required operation mode.



● When selecting auto mode, air conditioner will operate automatically according to ex-factory setting. Under auto mode, temperature can be displayed. Under auto mode, set temperature can be adjusted.Press "FAN" button can adjust fan speed. Press "SWING" button can adjust fan blowing angle.

● After selecting cool mode, air conditioner will operate under cool mode. Cool indicator on indoor unit is ON(This indicator is not available for some models). Press "▲" or "▼" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle.

● When selecting dry mode, the air conditioner operates at low speed under dry mode. Dry indicator on indoor unit is ON(This indicator is not available for some models). Under dry mode, fan speed cant be adjusted. Press "SWING" button to adjust fan blowing angle.

● When selecting fan mode, the air conditioner will only blow fan, no cooling and no heating. All indicators are OFF. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle.

● When selecting heating mode, the air conditioner operates under heat mode. Heat indicator on indoor unit is ON(This indicator is not available for some models). Press "▲" or "▼"button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "SWING" button to adjust fan blowing angle. (Cooling only unit wont receive heating mode signal. If setting heat mode with remote controller, press ON/OFF button cant start up the unit).

Note:

● For preventing cold air, after starting up heating mode, indoor unit will delay 1~5 minutes to blow air (actual delay time is depend on indoor ambient temperature).

● Set temperature range from remote controller: 16~30℃ (61~86°F); Fan speed: auto, low speed, medium speed, high speed.

● Under auto mode, temperature can be displayed;Under auto mode,set temperature can be adjusted.

3. FAN button

Pressing this button can set fan speed circularly as: auto (AUTO), low(◢) ,medium(◢◢), high(◢◢▮).

Caution:

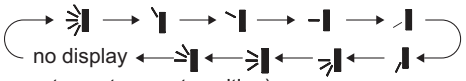
● Under AUTO speed, air conditioner will select proper fan speed automatically according to ex-factory setting.

● Fan speed under dry mode is low speed.

● X-FAN function Hold fan speed button for 2s in COOL or DRY mode, the icon "" is displayed and the indoor fan will continue operation for a few minutes in order to dry the indoor unit even though you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.
This function indicates that moisture on evaporator of indoor unit will be blowed after the unit is stopped to avoid mould.
• Having set X-FAN function on: After turning off the unit by pressing ON/OFF button indoor fan will continue running for a few minutes. at low speed. In this period, Hold fan speed button for 2s to stop indoor fan directly.
• Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

4. SWING button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:



(horizontal louvers stops at current position)

● When selecting " ", air conditioner is blowing fan automatically. Horizontal louver will automatically swing up & down at maximum angle.

● When selecting " 、 、 、 、 ", air conditioner is blowing fan at fixed position. Horizontal louver will stop at the fixed position.

● When selecting " 、 、 " , air conditioner is blowing fan at fixed angle. Horizontal louver will send air at the fixed angle.

● Hold " "button above 2s to set your required swing angle. When reaching your required angle, release the button.

Note:

● " 、 、 " may not be available. When air conditioner receives this signal, the air conditioner will blow fan automatically.

5. TURBO button

Under COOL or HEAT mode, press this button to turn to quick COOL or quick HEAT mode. " " icon is displayed on remote controller. Press this button again to exit turbo function and " " icon will disappear.

6. ▲/▼ button

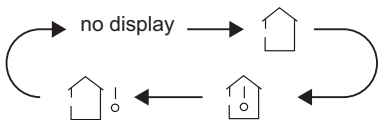
- ● Press "▲" or "▼" button once increase or decrease set temperature 1℃(1°F). Holding "▲" or "▼" button, 2s later, set temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indicator on indoor unit will change accordingly.
- When setting TIMER ON, TIMER OFF or CLOCK, press "▲" or "▼" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons)

7. SLEEP button

Under COOL, HEAT mode, press this button to start up sleep function. " " icon is displayed on remote controller. Press this button again to cancel sleep function and " " icon will disappear.

8. TEMP button

By pressing this button, you can see indoor set temperature, indoor ambient temperature or outdoor ambient temperature on indoor units display. The setting on remote controlleris selected circularly as below:



- When selecting " " or no display with remote controller, temperature indicator on indoor unit displays set temperature.
- When selecting " " with remote controller, temperature indicator on indoor unit displays indoor ambient temperature.
- When selecting " " with remote controller, temperature indicator on indoor unit displays outdoor ambient temperature.

Note:

- Outdoor temperature display is not available for some models. At that time, indoor unit receives " "signal, while it displays indoor set temperature.
- Its defaulted to display set temperature when turning on the unit.There is no display in the remote controller.
- Only for the models whose indoor unit has dual-8 display.
- When selecting displaying of indoor or outdoor ambient temperature, indoor temperature indicator displays corresponding temperature and automatically turn to display set temperature after three or five seconds.

9. WiFi button

Press " WiFi " button to turn on or turn off WiFi function. When WiFi function is turned on, the " **WiFi** " icon will be displayed on remote controller; Under status of remote controller off, press "**MODE**" and " **WiFi** " buttons simultaneously for 1s,WiFi modulewill restore to factory default setting.

- This function is only available for some models.

10. LIGHT button

Press this button to turn off display light on indoor unit. " " icon on remote controller disappears. Press this button again to turn on display light. " " icon is displayed.

11. CLOCK button

Press this button to set clock time. " " icon on remote controller will blink. Press "▲" or "▼" button within 5s to set clock time. Each pressing of "▲" or "▼" button, clock time will increase or decrease 1 minute. If hold "▲" or "▼" button, 2s later, time will change quickly. Release this button when reaching your required time. Press "CLOCK" button to confirm the time. " " icon stops blinking.

Note:

- Clock time adopts 24-hour mode.
- The interval between two operation cant exceeds 5s. Otherwise, remote controller will quit setting status. Operation for TIMER ON/TIMER OFF is the same.

12. TIMER ON / TIMER OFF button

- TIMER ON button

  "TIMER ON" button can set the time for timer on. After pressing this button, " " icon disappears and the word "ON" on remote controller blinks. Press "▲" or "▼"button to adjust TIMER ON setting. After each pressing "▲" or "▼" button, TIMER ON setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER ON" to confirm it. The word "ON" will stop blinking. " " icon resumes displaying. Cancel TIMER ON: Under the condition that TIMER ON is started up, press "TIMER ON" button to cancel it.
- TIMER OFF button

  "TIMER OFF" button can set the time for timer off. After pressing this button," " icon disappears and the word "OFF" on remote controller blinks. Press "▲" or "▼" button to adjust TIMER OFF setting. After each pressing "▲" or "▼" button,
  TIMER OFF setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "TIMER OFF" word "OFF" will stop blinking. " " icon resumes displaying. Cancel TIMER OFF. Under the condition that TIMER OFF is started up, press "TIMER OFF" button to cancel it.

Note:

- Under on and off status, you can set TIMER OFF or TIMER ON simultaneously.
- Before setting TIMER ON or TIMER OFF, please adjust the clock time.
- After starting up TIMER ON or TIMER OFF, set the constant circulating valid. After that, air conditioner will be turned on or turned off according to setting time. ON/OFF button has no effect on setting. If you dont need this function, please use remote controller to cancel it.

Function introduction for combination buttons

1. Energy-saving function

Under cooling mode, press "TEMP" and " CLOCK" buttons simultaneously to start up or turn off energy-saving function. When energy-saving function is started up, "SE" will be shown on remote controller, and air conditioner will adjust the set temperature automatically according to ex-factory setting to reach to the best energy-saving effect. Press "TEMP" and "CLOCK"buttons simultaneously again to exit energy-saving function.

Note:

- Under energy-saving function, fan speed is defaulted at auto speed and it cant be adjusted.
- Under energy-saving function, set temperature cant be adjusted. Press "TURBO" button and the remote controller wont send signal.
- Sleep function and energy-saving function cant operate at the same time. If energy-saving function has been set under cooling mode, press sleep button will cancel energy-saving function. If sleep function has been set under cooling mode, start up the energy-saving function will cancel sleep function.

2. Auto clean function

Under unit off status, hold "MODE" and "FAN" buttons simultaneously for 5s to turn on or turn off the internal clean function. When the internal clean function is turned on, indoor unit displays “CL”. (This function is applicable for some models)

3. 8 ℃ heating function

Under heating mode, press "TEMP" and "CLOCK" buttons simultaneously to start up or turn off 8℃ heating function. When this function is started up, " ⓢ " and "8℃ " will be shown on remote controller, and the air conditioner keep the heating status at 8℃ . Press "TEMP" and "CLOCK" buttons simultaneously again to exit 8℃ heating function.

Note:

- Under 8℃ heating function, fan speed is defaulted at auto speed and it cant be adjusted.
- Under 8℃ heating function, set temperature cant be adjusted. Press "TURBO" button and the remote controller wont send signal.
- Sleep function and 8℃ heating function cant operate at the same time. If 8℃ heating function has been set under heating mode, press sleep button will cancel 8℃ heating function. If sleep function has been set under heating mode, start up the 8℃ heating function will cancel sleep function.
- Under ℉ temperature display, the remote controller will display 46 ℉ heating.

4. Child lock function

Press "▲" and " ▼" simultaneously to turn on or turn off child lock function. When child lock function is on, " 🔒 " icon is displayed on remote controller. If you operate the remote controller, the " 🔒 " icon will blink three times without sending signal to the unit.

5. Temperature display switchover function

Under OFF status, press " ▼" and "MODE" buttons simultaneously to switch temperature display between ℃ and ℉ .

6. I FEEL function

Press "▲" and "MODE" buttons simultaneously to start I FEEL function and " " will be displayed on the remote controller. After this function is set, the remote controller will send the detected ambient temperature to the controller and the unit will automatically adjust the indoor temperature according to the detected temperature. Press this two buttons simultaneously again to close I FEEL function and " " will disappear.

- Please put the remote controller near user when this function is set. Do not put the remote controller near the object of high temperature or low temperature in order to avoid detecting inaccurate ambient temperature.When I FEEL function is turned on, the remote controller should be put within the area where indoor unit can receive the signal sent by the remote controller.

If “H1” is displayed on the remote controller while it’s not operated by the professional person/after-sales person, it belongs to the misoperation. Please operate it as below to cancel it.Under the OFF status of remote controller, hold the Mode button for 5s to cancel “H1” display.

Note:

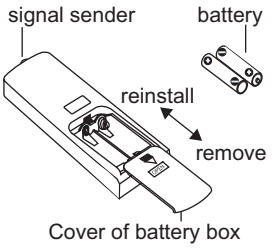
- If remote controller displays “H1”, it belongs to the normal function reminder. If the unit is defrosting under heating mode, it operates according to H1 defrosting mode. “H1” won’t be displayed on the panel of indoor unit;
- Once you set H1 mode, if you turn off unit by remote controller, H1 will display 3 times on the remote controller and then disappear;
- Also, when you set H1 mode, when you change to heating mode, H1 will display 3 times on the remote controller and then disappear.

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 cant 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 " 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.

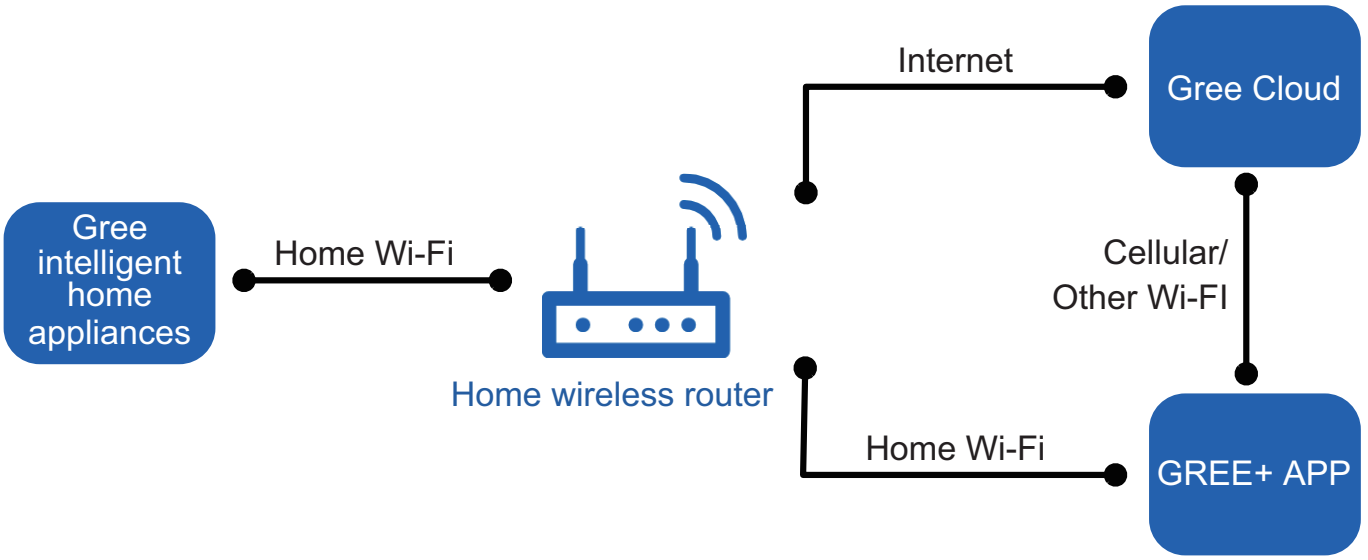


Note:

- 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 dont use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or theres no display, please replace batteries.

6.4 GREE+ App Operation Manual

Control Flow Chart



Operating Systems

Requirement for User's smart phone:

iOS system
Support iOS7.0 and above version

Android system
Support Android 4.4 and above version

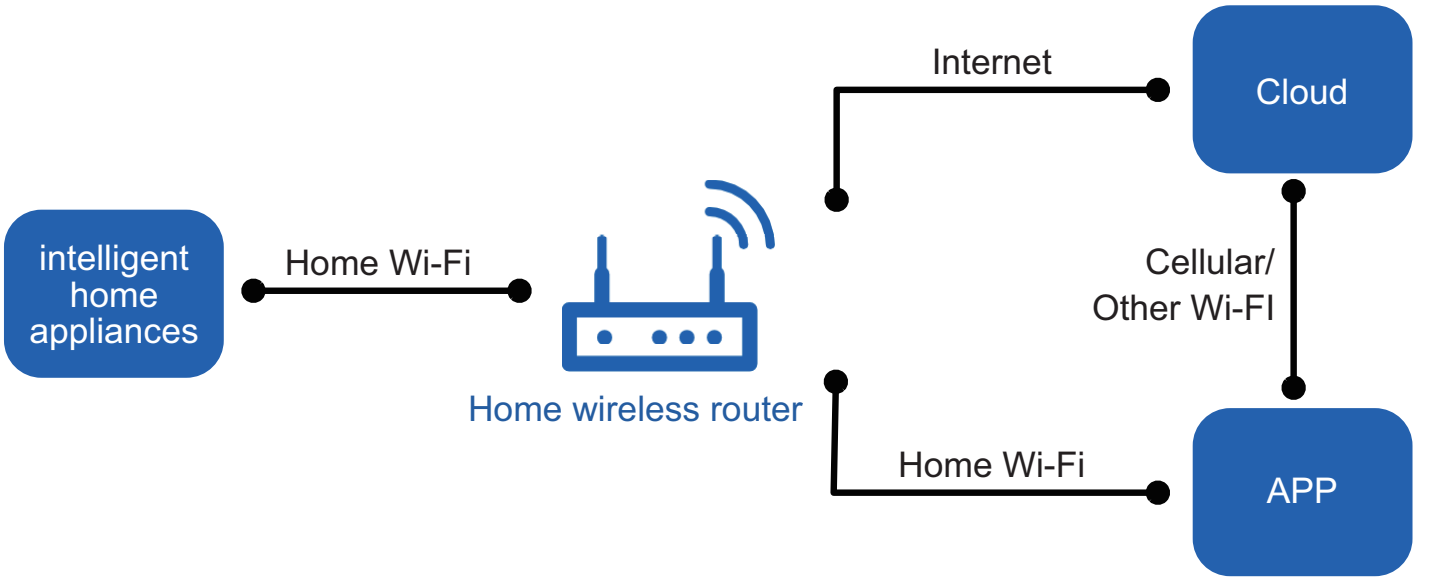
Download and installation

GREE+ App Download Linkage

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

6.5 Ewpe Smart App Operation Manual

Control Flow Chart



Operating Systems

Requirement for User's smart phone:

iOS system
Support iOS7.0 and above version

Android system
Support Android 4.4 and above version

Download and installation

App Download Linkage

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

6.6 Brief Description of Modes and Functions

All model except:GWC18QD-D3DNB2C GWC18QD-D3DNC2A GWC18QD-D3DND4A GWC18QD-D3DND8A

● Indoor Unit

1.Basic function of system

(1)Cooling mode

(1) Under this mode, fan and swing operates at setting status. Temperature setting range is 60.8~86.0^{O}F.

(2) During malfunction of outdoor unit or the unit is stopped because of protection, indoor unit keeps original operation status.

(2)Drying mode

(1) Under this mode, fan operates at low speed and swing operates at setting status. Temperature setting range is 60.8~86.0^{O}F.

(2) During malfunction of outdoor unit or the unit is stopped because of protection, indoor unit keeps original operation status.

(3) Protection status is same as that under cooling mode.

(4) Sleep function is not available for drying mode.

(3)Heating mode

(1) Under this mode, Temperature setting range is 60.8~86.0^{O}F.

(2) Working condition and process for heating mode:

When turn on the unit under heating mode, indoor unit enters into cold air prevention status. When the unit is stopped or at OFF status, and indoor unit has been started up just now, the unit enters into residual heat-blowing status.

(4)Working method for AUTO mode:

1.Working condition and process for AUTO mode:

a.Under AUTO mode, standard heating Tpreset=68.0^{O}F and standard cooling Tpreset=77.0^{O}F. The unit will switch mode automatically according to ambient temperature.

2.Protection function

a. During cooling operation, protection function is same as that under cooling mode.

b. During heating operation, protection function is same as that under heating mode.

3. Display: Set temperature is the set value under each condition. Ambient temperature is (Tamb.-Tcompensation) for heat pump unit and Tamb. for cooling only unit.

4. If theres I feel function, Tcompensation is 0. Others are same as above.

(5)Fan mode

Under this mode, indoor fan operates at set fan speed. Compressor, outdoor fan, 4-way valve and electric heating tube stop operation. Indoor fan can select to operate at high, medium, low or auto fan speed. Temperature setting range is 60.8~86.0^{O}F.

2. Other control

(1) Buzzer

Upon energization or availably operating the unit or remote controller, the buzzer will give out a beep.

(2) Auto button

If press this auto button when turning off the unit, the complete unit will operate at auto mode. Indoor fan operates at auto fan speed and swing function is turned on. Press this auto button at ON status to turn off the unit.

(3) Auto fan

Heating mode: During auto heating mode or normal heating ode, auto fan speed will adjust the fan speed automatically according to ambient temperature and set temperature.

(4) Sleep

After setting sleep function for a period of time, system will adjust set temperature automatically.

(5) Timer function:

General timer and clock timer functions are compatible by equipping remote controller with different functions.

(6) Memory function

memorize compensation temperature, off-peak energization value.

Memory content: mode, up&down swing, light, set temperature, set fan speed, general timer (clock timer cant be memorized).

After power recovery, the unit will be turned on automatically according to memory content.

(7) Health function

During operation of indoor fan, set health function by remote controller. Turn off the unit will also turn off health function.

Turn on the unit by pressing auto button, and the health is defaulted ON.

(8)I feel control mode

After controller received I feel control signal and ambient temperature sent by remote controller, controller will work according to the ambient temperature sent by remote controller.

(9)Compulsory defrosting function

(1) Start up compulsory defrosting function

Under ON status, set heating mode with remote controller and adjust the temperature to 60.8^{O}F. Press "+, -, +, -, +,-" button successively within 5s and the complete unit will enter into compulsory defrosting status. Meanwhile, heating indicator on indoor unit will ON 10s and OFF 0.5s successively. (Note: If complete unit has malfunction or stops operation due to protection, compulsory defrosting function can be started up after malfunction or protection is resumed.

(2) Exit compulsory defrosting mode

After compulsory defrosting is started up, the complete unit will exit defrosting operation according to the actual defrosting result, and the complete unit will resume normal heating operation.

(10)Refrigerant recovery function:

(1) Enter refrigerant recycling function

Within 5min after energizing (unit ON or OFF status is ok), continuously press LIGHT button for 3 times within 3s to enter refrigerant recycling mode; Fo is displayed and refrigerant recycling function is started. At this moment, the maintenance people closes liquid valve. After 5min, stick the thimble of maintenance valve with a tool. If there is no refrigerant spraying out, close the gas valve immediately and then turn off the unit to remove the connection pipe.

(2) Exit refrigerant recycling function

After entering refrigerant recycling mode, when receive any remote control signal or enter refrigerant recycling mode for 25min, the unit will exit refrigerant recycling mode automatically If the unit is in standby mode before refrigerant recycling, it will be still in standby mode after finishing refrigerant recycling; if the unit is in ON status before refrigerant recycling, it will still run in original operation mode.

(11)Ambient temperature display control mode

1. When user set the remote controller to display set temperature (corresponding remote control code: 01), current set temperature will be displayed.

2. Only when remote control signal is switched to indoor ambient temperature display status (corresponding remote control code: 10) from other display status (corresponding remote control code: 00, 01,11),controller will display indoor ambient temperature for 3s and then turn back to display set temperature.

Under this mode, indoor fan operates at set fan speed. Compressor, outdoor fan, 4-way valve and electric heating tube stop operation. Indoor fan can select to operate at high, medium, low or auto fan speed. Temperature setting range is 60.8~86.0^{O}F.

(12)Off-peak energization function:

Adjust compressors minimum stop time. The original minimum stop time is 180s and then we change to:

The time interval between two start-ups of compressor cant be less than 180+T s(0≤T≤15). T is the variable of controller. Thats to say the minimum stop time of compressor is 180s~195s. Read-in T into memory chip when refurbish the memory chip each time. After power recovery, compressor can only be started up after 180+T s at least.

(13) SE control mode

The unit operates at SE status.

(14) X-fan mode

When X-fan function is turned on, after turn off the unit, indoor fan will still operate at low speed for 2min and then the complete unit will be turned off. When x-fan function is turned off, after turn off the unit, the complete unit will be turned off directly.

(15) 8º heating function

Under heating mode, you can set 8º heating function by remote controller. The system will operate at 8ºset temperature.

(16) Turbo fan control function

Set turbo function under cooling or heating mode to enter into turbo fan speed. Press fan speed button to cancel turbo wind.

No turbo function under auto, dry or fan mode.

(17)Auto cleaning function(only available on some models)

The automatic cleaning function of the indoor heat exchanger can be dedusted and sterilized by the condensation, frosting, defrosting and high temperature stages of the evaporator.

1.Under the power off，press and hold the "Internal Clean" button for 3 seconds while holding down the "MODE" and "FAN" buttons for 5 seconds to turn on the Auto Clean function. After the function is turned on, the air conditioner displays "CL".

2. The evaporator will be rapidly cooled or heated during the automatic cleaning process. There may be noise or even noise. The noise

generated by the plastic parts due to thermal expansion and contraction is normal. During the cleaning and disinfection process, the room temperature may increase slightly, please keep the room well ventilated.

Tips:

The automatic cleaning function can only be started under normal environmental conditions. If the indoor environment is easy to dust, it is recommended to clean it once a month. If the indoor environment is not so dusty, it is recommended to clean it once every three months. After turning on the automatic cleaning mode, the user can leave the room. When cleaning is complete, the unit will automatically enter standby mode.

Outdoor Units

1. Input Parameter Compensation and Calibration

(1) Check the ambient temperature compensation function Indoor ambient temperature compensation function.

a. In cooling mode, the indoor ambient temperature participating in computing control = ($T_{\text{indoor ambient temperature}} - \Delta T_{\text{cooling indoor ambient temperature compensation}}$)

b. In heating mode, the indoor ambient temperature participating in computing control= ($T_{\text{indoor ambient temperature}} - \Delta T_{\text{heating indoor ambient temperature compensation}}$)

(2) Check effective judgment controls of parameters

Effective judgment function of the outdoor exhaust temperature thermo-bulb When conditions a and b are satisfied, the outdoor exhaust temperature thermo-bulb is judged not to be connected into place, the mainboard of outer units will display failure of the outdoor exhaust temperature thermo-bulb (not connected into place), stop the machine for repairing, and resume the machine by remote controls of ON/OFF.

a. Judgment of exhaust detection temperature change:

After the compressor starts up and runs for 10 minutes, if the compressor frequency f ≥ 40Hz, and the rising value Texhaust ($T_{\text{exhaust (after start-up for 10 minutes)}} - T_{\text{exhaust (before start-up)}}$) <35.6ºF , the outdoor exhaust temperature thermo-bulb can be judged not to be connected into place (judging once when the power is on the first time).

b. Comparative judgment of exhaust detection temperature and condenser detection temperature ($T_{\text{pipe temperature}} = T_{\text{outdoor pipe temperature in cooling mode}}$, $T_{\text{pipe temperature}} = T_{\text{indoor pipe temperature in heating mode}}$): After the compressor starts up and runs for 10 minutes, if the compressor frequency f ≥ 40Hz, and $T_{\text{pipe temperature}} \geq (T_{\text{exhaust}+37.4})$, the outdoor exhaust temperature thermobulb can be judged not to be connected into place (judging once when power is on the first time).

2. Basic Functions

(1) Cooling Mode

1. Conditions and processes of cooling operation:

(1) If the compressor is shut down, and [Tsetup – ($T_{\text{indoor ambient temperature}} - \Delta T_{\text{cooling indoor ambient temperature compensation}}$)] ≤ 32.9ºF , start up the machine for cooling, the cooling operation will start;

(2) During operations of cooling, if 32ºF ≤ [Tsetup – ($T_{\text{indoor ambient temperature}} - \Delta T_{\text{cooling indoor ambient temperature compensation}}$)] < 35.6ºF , the cooling operation will be still running;

(3) During operations of cooling, if 35.6ºF ≤ [Tsetup – ($T_{\text{indoor ambient temperature}} - \Delta T_{\text{cooling indoor ambient temperature compensation}}$)], the cooling operation will stop after reaching the temperature point.

2. Temperature setting range

(1) If $T_{\text{outdoor ambient temperature}} \geq [T_{\text{low-temperature cooling temperature}}]$, the temperature can be set at: 60.8~86ºF (Cooling at room temperature);

(2) If $T_{\text{outdoor ambient temperature}} < [T_{\text{low-temperature cooling temperature}}]$, the temperature can be set at: 77~86ºF (Cooling at low temperature), that is, the minimum setting temperature for outer units judgment is 77ºF .

(2) Dehumidifying Mode

1. Conditions and processes of dehumidifying operations: Same as the cooling mode;
2. The temperature setting range is: 60.8~86ºF;

(3) Air-supplying Mode

1. The compressor, outdoor fans and four-way valves are switched off;
2. The temperature setting range is: 60.8~86ºF.

(4) Heating Mode

1. Conditions and processes of heating operations: (Tindoor ambient temperature is the actual detection temperature of indoor environment thermo-bulb, Theating indoor ambient temperature compensation is the indoor ambient temperature compensation during heating operations)

(1) If the compressor is shut down, and [($T_{\text{indoor ambient temperature}} - \Delta T_{\text{heating indoor ambient temperature compensation}}$) –$T_{\text{setup}}$] ≤ 32.9ºF , start the machine to enter into heating operations for heating;

(2) During operations of heating, if 32ºF ≤ [($T_{\text{indoor ambient temperature}} - \Delta T_{\text{heating indoor ambient temperature compensation}}$) –$T_{\text{setup}}$] < 35.6ºF , the heating operation will be still running;

(3) During operations of heating, if 35.6ºF ≤ [($T_{\text{indoor ambient temperature}} - \Delta T_{\text{heating indoor ambient temperature compensation}}$) –$T_{\text{setup}}$], the heating operation will stop after reaching the temperature point.

2. The temperature setting range in this mode is: 60.8~86ºF .

3. Special Functions

Defrosting Control

① Conditions for starting defrosting

After the time for defrosting is judged to be satisfied, if the temperature for defrosting is satisfied after detections for continuous 3minutes, the defrosting operation will start.

② Conditions of finishing defrosting

The defrosting operation can exit when any of the conditions below is satisfied:

③ $T_{outdoor\ pipe\ temperature} \geq (T_{outdoor\ ambient\ temperature} - [T_{temperature\ 1\ of\ finishing\ defrosting}]$;

④ The continuous running time of defrosting reaches [tmax. defrosting time].

4. Control Logic

(1) Compressor Control

Start the compressor after starting cooling, heating, dehumidifying operations, and the outer fans start for 5s; When the machine is shutdown, in safety stops and when switching to air-supplying mode, the compressor will stop immediately. In all modes: once the compressor starts up, it will not be allowed to stop until having run for the [tmin. compressor running time] (Note: including cases of shutdown when the temperature point is reached; except the cases requiring stopping the compressor such as fault protection, remote shutdown, mode switching etc.); In all modes: once the compressor stops, it will be allowed be restart after 3-minute delay (Note: The indoor units have a function of power memory, the machine can be restarted after remote shutdown and powering up again without delay).

1. Cooling mode

Start the machine to enter into cooling operation for cooling, the compressor is switched on.

2. Dehumidifying mode

Same as the cooling mode.

3. Air-supplying mode

The compressor is switched off.

4. Heating mode

(1) Start the machine to enter into heating operation for heating, the compressor is switched on.

(2) Defrosting:

a. Defrosting starts: the compressor is shut down, and restarts it after 55-second delay.

b. Defrosting ends: the compressor stops, then starts it after 55-second delay.

(2) Outer Fans Control

Notes:

Only the outer fans run for at least 80s in each air flow speed can the air flow be switched;

After the outer fans run compulsively in high speed for 80s when the machine starts up, control the air flow according to the logic.

After remote shutdown, safety stops, and when the machine stops after reaching the temperature point, as well as after the compressor stops, extend 1 minute, the outer fans will stop (During the period in the 1 minute, the air flow of outer fans can be changed according to the outdoor ambient temperature changes); When running with force, the outdoor fans shall run in the highest air flow.

(3) 4-way valve control

1. The 4-way valve control under the modes of Cooling, dehumidification and supplying air: closing;

2. The status of 4-way valve control under the heating mode: getting power;

(1) 4-way valve power control under heating mode

a. Starts the machine under heating mode, the 4-way valve will get power immediately.

(2) 4-way valve power turn-off control under heating mode

a. When you should turn off the power or switch to other mode under heating mode, the power of 4-way valve will be cut after 2 minutes of the compressor stopped.

b. When all kinds of protection stops, the power of 4-way valve will be cut after delaying 4 minutes.

(3) Defrosting control under heating mode:

a. Defrosting begins: The power of 4-way valve will be cut after 50s of entering into the defrosting compressor.

b. Defrosting stops: The 4-way valve will get power after 50s of exiting the defrosting compressor.

(4) Evaporator frozen-preventing protection function

At the mode of Cooling, dehumidifying:

Evaporator frozen-preventing protection function is allowed to begin after 6 min of starting the compressor.

1. Starting estimation:

After the compressor stopped working for 180s, if $T_{inner\ pipe} > [T_{frozen\text{-}preventing\ frequency\text{-}limited\ temperature}$ (the temperature of hysteresis is 35.6ºF)], the machine is only allowed to start for operating, otherwise it should not be started, and should be stopped to treat according to the frozen-preventing protection: Clear the trouble under the mode of power turn-off / heating, and the protection times are not counted.

2. Frequency limited

$[T_{frozen\text{-}preventing\ normal\ speed\ frequency\text{-}reducing\ temperature}] \leq [T_{inner\ pipe\ T\ frozen\text{-}preventing\ frequency\text{-}limited\ temperature}]$, you should limit the frequency raising of compressor.

3. Reducing frequency at normal speed:

If $[T_{frozen\text{-}preventing\ high\ speed\ frequency\text{-}reducing\ temperature}] \leq [T_{inner\ pipe\ T\ frozen\text{-}preventing\ normal\ speed\ frequency\text{-}reducing\ temperature}]$, you should adjust the compressor frequency by reducing 8Hz/90s till the lower limit;

4. Reducing frequency at high speed:

If $[T_{frozen\text{-}preventing\ power\ turn\text{-}off\ temperature}] \leq T_{inner\ pipe}$ $[T_{frozen\text{-}preventing\ high\ speed\ frequency\text{-}reducing\ temperature}]$ you should adjust the compressor frequency by reducing 30Hz/90s till the lower limit;

5. Power turn-off:

If the $T_{inner\ pipe} < [T_{frozen\text{-}preventing\ power\ turn\text{-}off\ temperature}]$, then frozen-preventing protect to stop the machine; If $T[_{frozen\text{-}preventing\ frequency\text{-}limited\ temperature}] < T_{inner\ pipe}$, and the compressor has stopped working for 3 minutes, the whole machine should be allowed to operate.

6. If the frozen-preventing protection power turn-off continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume if the fault keeps on. During the process of running, if the running time of compressor exceeds the t evaporator frozen-preventing protection times zero clearing time , the times of frozen-preventing power turn-off should be cleared to recount. The mode of stopping the machine or transferring to supply air will clear the trouble times immediately (if the trouble can not be resumed, mode transferring will not clear it).

(5) Overload protection function

Overload protection function at the mode of Cooling and dehumidifying

1. Starting estimation:

After the compressor stopped working for 180s, if $T_{outer\ pipe} < [T_{Cooling\ overload\ frequency\text{-}limited\ temperature}]$ (the temperature of hysteresis is 35.6ºF), the machine is allowed to start, otherwise it should not be started, and should be stopped to treat according to the overload protection: Clear the trouble at the mode of power turn-off / heating, and the protection times are not counted.

2. Frequency limited

If $[T_{Cooling\ overload\ frequency\text{-}limited\ temperature}] \leq [T_{outer\ pipe\ T\ Cooling\ overload\ frequency\ reducing\ temperature\ at\ normal\ speed}]$, you should limit the frequency raising of compressor.

3. Reducing frequency at normal speed and power turn-off:

If $[T_{Cooling\ overload\ frequency\ reducing\ temperature\ at\ high\ speed}] \leq T_{outer\ pipe} < [T_{Cooling\ overload\ power\ turn\text{-}off\ temperature}]$, you should adjust the compressor frequency by reducing 8Hz/90s till the lower limit; After it was running 90s at the lower limit, if $[T_{Cooling\ overload\ frequency\ reducing\ temperature\ at\ normal\ speed}] \leq T_{outer\ pipe}$, then Cooling overload protects machine stopping;

4. Reducing frequency at high speed and stop machine:

If $[T_{Cooling\ overload\ frequency\ reducing\ temperature\ at\ high\ speed}] \leq T_{outer\ pipe}$ $[T_{Cooling\ overload\ power\ turn\text{-}off\ temperature}]$, you should adjust the compressor frequency by reducing 30Hz/90s till the lower limit; After it was running 90s at the lower limit, if $[T_{Cooling\ overload\ frequency\ reducing\ temperature\ at\ normal\ speed}] \leq [T_{outer\ pipe}]$, then Cooling overload protects machine stopping;

5. Power turn-off:

If the $[T_{Cooling\ overload\ power\ turn\text{-}off\ temperature}] \leq T_{outer\ pipe}$, then Cooling overload protects machine stopping; If $[T_{outer\ pipe}] < [T_{Cooling\ overload\ frequency\text{-}limited\ temperature}]$and the compressor has been stopped working for 3 minutes, the machine should be allowed to operate.

6. If the Cooling overload protection power turn-off continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume if the fault keeps on. During the process of running, if the running time of compressor exceeds the t overload protection times zero clearing time , the times of overload protection power turn-off should be cleared to recount. The mode of stopping the machine or transferring to supply air will clear the trouble times immediately (if the trouble can not be resumed, transferring mode will not clear it).

Overload protection function at the mode of heating

Starting estimation :

After the compressor stopped working for 180s, if T inner pipe T heating overload frequency-limited temperature (the temperature of hysteresis is 35.6ºF), the machine is allowed to start, otherwise it should not be started, and should be stopped to treat according to the overload protection:

Clear the trouble at the mode of power turn-off / heating, and the protection times are not counted.

1. Frequency limited

If [$T_{\text{heating overload frequency-limited temperature}}$]≤$T_{\text{inner pipe}}$ <[$T_{\text{heating overload frequency reducing temperature at normal speed}}$] , you should limit the frequency raising of compressor.

2. Reducing frequency at normal speed and stopping machine:

If T[$_{\text{heating overload frequency reducing temperature at normal speed}}$]≤$T_{\text{inner pipe}}$<[$T_{\text{heating overload frequency reducing temperature at high speed}}$], you should adjust the compressor frequency by reducing 8Hz/90s till the lower limit; After it was running 90s at the lower limit, if T heating overload frequency reducing temperature at normal speed ≤T inner pipe, then overload protects machine stopping;

3. Reducing frequency at high speed and power turn-off:

If [$T_{\text{heating overload frequency reducing temperature at high speed}}$]≤$T_{\text{inner pipe}}$<[$T_{\text{heating overload power turn-off temperature}}$], you should adjust the compressor frequency by reducing 30Hz/90s till the lower limit; After it was running 90s at the lower limit, if T heating overload frequency reducing temperature at normal speed ≤T outer pipe, then Cooling overload protects machine stopping;

4. Power turn-off:

If the [$T_{\text{heating overload power turn-off temperature}}$] ≤$T_{\text{inner pipe}}$, then overload protects machine stopping; If T inner pipe T heating overload frequency-limited temperature and the compressor has been stopped working for 3 minutes, the machine should be allowed to operate.

5. If the overload protection power turn-off continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume if the fault keeps on. During the process of running, if the running time of compressor exceeds the t overload protection times zero clearing time , the times of overload protection power turn-off should be cleared to recount. The mode of stopping the machine or transferring to supply air will clear the trouble times immediately (if the trouble can not be resumed, transferring mode will not clear it). Protective function for discharge temperature of compressor

1. Starting estimation:

After the compressor stopped working for 180s, if $T_{\text{Discharge}}$ <$T_{\text{Discharge limited temperature}}$ (the temperature of hysteresis is 35.6ºF), the machine is allowed to start, otherwise it should not be started, and should be stopped to treat according to the discharge temperature:

The machine should be stopped or transferred to supply air, the trouble should be cleared immediately, and the protection times are not counted.

2. Frequency limited

If [$T_{\text{Limited frequency temperature during discharging}}$] ≤$T_{\text{Discharge}}$<[$T_{\text{frequency reducing temperature at normal speed during discharging}}$] , you should limit the frequency raising of compressor.

3. Reducing frequency at normal speed and stopping machine:

If [$T_{\text{frequency reducing temperature at normal speed during discharging}}$] ≤$T_{\text{Discharge}}$<[$T_{\text{frequency reducing temperature at high speed during discharging}}$], you should adjust the compressor frequency by reducing 8Hz/90s till the lower limit; After it was running 90s at the lower limit, if [$T_{\text{frequency reducing temperature at normal speed during discharging}}$] ≤$T_{\text{Discharge}}$, you should discharge to protect machine stopping;

4. Reducing frequency at high speed and power turn-off:

If [$T_{\text{frequency reducing temperature at high speed during discharging}}$] ≤$T_{\text{Discharge}}$ <[$T_{\text{Stop temperature during discharging}}$], you should adjust

the compressor frequency by reducing 30Hz/90s till the lower limit; After it was running 90s at the lower limit, if [$T_{\text{frequency reducing temperature at normal speed during discharging}}$] ≤$T_{\text{Discharge}}$, you should discharge to protect machine stopping;

5. Power turn-off:

If the [$T_{\text{Power turn-off temperature during discharging}}$] ≤$T_{\text{Discharge}}$, you should discharge to protect machine stopping; If [$T_{\text{Discharge}}$]<[$T_{\text{Limited frequency temperature during discharging}}$] and the compressor has been stopped for 3 minutes, the machine should be allowed to operate.

6. If the discharging temperature protection of compressor continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume. During the process of running, if the running time of compressor exceeds the t Protection times clearing of discharge , the discharge protection is cleared to recount. Stopped or transferred to supply air mode will clear the trouble times immediately (if the trouble can not be resumed, mode transferring also will not clear it).

7. Frequency limited

If [$I_{\text{Limited frequency when overcurrent}}$] ≤$I_{\text{AC Electric current}}$ <[$I_{\text{frequency reducing when overcurrent}}$], you should limit the frequency raising of compressor.

8. Reducing frequency:

If [$I_{\text{Frequency reducing when overcurrent}}$] ≤[$I_{\text{AC Electric current I Power turn-off when overcurrent}}$] , you should reduce the compressor frequency till the lower limit or exit the frequency reducing condition;

9. Power turn-off:

If [$I_{\text{Power turn-off machine when overcurrent}}$] ≤[$I_{\text{AC Electric current}}$] , you should carry out the overcurrent stopping protection; If $I_{\text{AC Electric current}}$<[$T_{\text{Limited frequency when overcurrent}}$] and the compressor has been stopped for 3 minutes, the machine should be allowed to operate.

10. If the overcurrent protection continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume. During the process of running, if the running time of compressor exceeds the [$t_{\text{Protection times clearing of over current}}$] , the discharge protection is cleared to recount.

(6)Voltage sag protection

After start the compressor, if the time of DC link Voltage sag [$U_{\text{Sagging protection voltage}}$] is measured to be less than t Voltage sag protection time , the machine should be stop at once, hand on the voltage sag trouble, reboot automatically after 30 minutes.

(7)Communication fault

When you have not received any correct signal from the inner machine in three minutes, the machine will stop for communication fault. When you have not received any correct signal from driver IC (aim to the controller for the separating of main control IC and driver IC), and the machine will stop for communication fault. If the communication is resumed, the machine will be allowed to operate.

(8)Module protection

Testing the module protective signal immediately after started, once the module protective signal is measured, stop the machine with module protection immediately. If the module protection is resumed, the machine will be allowed to operate. If the module protection continuously occurs for three times, it should not be resumed automatically, and you should press the ON/OFF button to resume. If the running time of compressor exceeds the [$t_{\text{Protection times clearing of module}}$] , the module protection is cleared to recount.

(9)Module overheating protection

1. Starting estimation:

After the compressor stopped working for 180s, if T_{Module}<[$T_{\text{Module frequency limited temperature}}$](the temperature of hysteresis is 35.6ºF), the machine is allowed to start, otherwise it should not be started, and should be stopped to treat according to the module overheating protection: The machine should be stopped or transferred to supply air, the trouble should be cleared immediately, and the protection times are not counted.

2. Frequency limited

If [$T_{\text{Limited frequency temperature of module}}$] ≤$T_{\text{Module}}$ <[$T_{\text{frequency reducing temperature at normal speed of module}}$] , you should limit the frequency raising of compressor.

3. Reducing frequency at normal speed and power turn-off:

If [$T_{\text{frequency reducing temperature at normal speed of module}}$] ≤$T_{\text{Module}}$<[$T_{\text{frequency reducing temperature at high speed of module}}$], you should adjust the compressor frequency by reducing 8Hz/90s till the lower limit; After it was running 90s at the lower limit, if [$T_{\text{frequency reducing temperature at normal speed of module}}$] ≤T Module, you should stop the machine for module overheating protection;

4. Reducing frequency at high speed and power turn-off:

If [$T_{\text{frequency reducing temperature at high speed of module}}$]≤$T_{\text{Module}}$ <[$T_{\text{Power turn-off temperature of module}}$] you should adjust the compressor frequency by reducing 30Hz/90s till the lower limit; After it was running 90s at the lower limit, if [$T_{\text{frequency reducing temperature at normal speed of module}}$] ≤$T_{\text{Module}}$, you should stop the machine for module overheating protection;

5. Power turn-off:

If the [$T_{\text{Power turn-off temperature of module}}$] ≤$T_{\text{Module}}$, you should stop the machine for module overheating protection; If T_{Module} <[$T_{\text{Limited frequency temperature of module}}$] and the compressor has been stopped for 3 minutes, the machine should be allowed to operate.

6. If protection continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume. During the process of running, if the running time of compressor exceeds the [$t_{\text{Protection times clearing of module}}$] , the discharge protection is cleared to recount. Stopped or transferred to supply air mode will clear the trouble times immediately (if the trouble can not be resumed, mode transferring also will not clear it).

(10)Compressor overloads protection

If you measure the compressor overload switch action in 3s, the compressor should be stopped for overloading. The machine should be allowed to operate after overload protection was measured to resume. If the overloading protection continuously occurs for three times, it should not be resumed automatically, and you should press the ON/OFF button to resume. The protection times of compressor is allowed to clear after the compressor run [$t_{\text{Protection times clearing of compressor overloading}}$] 30 minutes.

(11)Phase current overcurrent protection of compressor

During the running process of compressor, you could measure the phase current of the compressor, and control it according to the following steps:

1. Frequency limited

If [$I_{\text{Limited frequency phase current}}$] ≤[$I_{\text{Phase current T frequency reducing phase current}}$] , you should limit the frequency raising of compressor.

2. Reducing Frequency

If [$I_{\text{Frequency Reducing Phase Current}}$]≤I Phase Current<[$I_{\text{Power Turn-Off Phase Current}}$], the compressor shall continue to reduce frequency till the lowest frequency limit or out of the condition of reducing frequency;

3. Power turn-off

If [$I_{\text{Phase Current}}$]≥[$I_{\text{Power Turn-Off Phase Current}}$], the compressor phase current shall stop working for overcurrent protection; if [$I_{\text{Phase Current}}$]≤[$I_{\text{Frequency Reducing Phase Current}}$], and the compressor have stopped working for 3 min, the machine shall be allowed to operate;

4. If the overcurrent protection of compressor phase current continuously occurs for six times, it should not be resumed automatically, and you should press the ON/OFF button to resume. During the process of running, if the running time of compressor exceeds the [$t_{\text{Clearing Time of Compressor Phase Current Times}}$] , the overcurrent protection is cleared to recount.

(12) Starting-up Failure Protection for Compressor

Stop the compressor after its starting-up fails, restart it after 20s if the fault doesnt shows, and if they are all failing for the successive start 3 times, it shall be reported as Starting-up Failure, and then restart up it after 3 min. When it still not be able to operate through carry out the above process for 5 times, it is available if press ON/OFF. And the compressor should be cleared the times after it run 2 min.

(13) Out-of-Step Protection for Compressor

The out-of-step protection signal should be detected immediately after starting-up compressor, and once find the out-of-step protection signal, the out-of-step protection shall be stopped; if it can run for lasting power turn-off 3 min, the machine shall be allowed to operate. If it still cant run automatically when the out-of-step protection for compressor happens to stop working for 6 times in succession, it needs to press ON/OFF to operate. And if the running time is more than 10 min, the power turn-off times for out-of-step protection shall be cleared and recounted.

(14) Voltage Abnormity Protection for DC Bus

To detect voltage abnormity protection for dc bus after completing the pre-charge:

1.Over-High Voltage Protection for DC Bus:

If it found the DCbus voltage U_{DC} >[UDC $_{Jiekuangchun\ Protection}$], turn off PFC and stop the compressor at once, and it shall show the DC over-high voltage failure; it should clear out the failure when the voltage dropped to U_{DC} <[UDC $_{Jiekuangchun\ Recovery}$] and the compressor stopped for 3 min.

2.Over-Low Voltage Protection for DC Bus:

If it found the DC bus voltage U_{DC} <[$U_{DC\ Wantuochun\ Protection}$], turn off PFC and stop the compressor at once, and it shall show the DC over-low voltage; and it should clear out the failure when the voltage raised to U_{DC} >[$U_{DC\ Wantuochun\ Recovery}$] and the compressor stopped for 3 min.

3.To detect voltage abnormity protect for DC bus when getting electricity:

If it found the DC bus voltage U_{DC} >[$U_{DC——Over\text{-}High\ Voltage}$], turn off the relay at once, and shows voltage abnormity failure for DC Bus. And the failure cant recover except to break off and get the electricity.

(15)Abnormity Protection for Four-way Valve

Under the model of heating operation in good condition: the compressor is detected [$T_{Inner\ Tube}$ <($T_{Inner\ Ring}$-$T_{Abnormity\ Temperature\ Difference\ For\ Four\text{-}Way\ Valve\ Reversion}$)], during the running, it should be regarded as four-way valve reversion abnormity. And then it can run if stop the reversion abnormity protection for four-way valve 3 min; and if it still cant run when the reversion abnormity protection for four-way valve happens to stop working for 3 times in succession, it is available if presses ON/OFF.

Attention: the protection shall be shielded during the testing mode and defrosting process, and it shall be cleared out the failure and its times immediately when turning off or delivering wind / cooling / dehumidifying mode conversed (the inverted mode dont clear out the failure when it cant recover to operate).

(16) PFC Protection

1. After start up the PFC, it should detect the protection signal of PFC immediately; under the condition of PFC protection, it should turn off the PFC and compressor at one time;
2. It shows the failure is cleared out if PFC Protection stopped working 3 min and recovers to run automatically;
3. If it still cant run when it occurs PFC protection for 3 times in succession, it is available if presses ON/OFF; and clear the PFC Protection times when start up PFC for 10min.

(17) Failure Detection for Sensor

1. Outdoor Ambient Sensor: detect the failure of sensor at all times.
2. Outdoor Tube Sensor: You should not detect the failure of outdoor tube sensor within 10 minutes heating operation compressor except the defrosting, and you could detect it at other time.
3. Outdoor Exhaust Sensor:

(a) The compressor only detect the sensor failure after it start up 3 min in normal mode;

(b) It should detect the exhaust sensor failure immediately in the testing mode.

4. Module Temperature Sensor:

(a) Short-Circuit Detection: the compressor should be detected immediately when the module temperature sensor occurs short-circuits;

(b) Open-Circuit Detection: the compressor should be detected on open-circuit when it runs 3min (it neednt 30s avoiding the module over-heated).

(c) Detect the sensor failure at all times in the testing mode.

5. Disposal for Sensor Protection

(1) When the short-circuit of sensor is detected within 30s, It is regarded as the temperature of sensor over-high (or infinitely high), and now according to the over-high sensor, the machine should carry out the corresponding protection to stop working, and show the corresponding temperature shutdown protection and sensor failure at the same time (for example: the compressor stops immediately when the outdoor tube sensor short-circuit, and the machine shall show the overload protection and outdoor tube sensor failure).

(2) When the open-circuit of sensor is detected within 30s, The protection shall be stopped and it shall show the corresponding sensor failure.

6. Electric Heating Function of Chassis

(1) When Toutdoor amb.≤32ºF , the electric heating of chassis will operate;

(2) When Toutdoor amb.>35.6ºF , the electric heating of chassis will stop operation;

(3)When 32ºF <Toutdoor amb.≤35.6ºF, the electric heating of chassis will keep original status.

7. Electric Heating Function of Compressor

(1) When Toutdoor amb.≤≤23ºF , compressor stops operation, while the electric heating of compressor starts operation;

(2) When Toutdoor amb.>28.4ºF , the electric heating of compressor stops operation;

(3) When 23ºF <Toutdoor amb.≤28.4ºF , the electric heating of compressor will keep original status.

GWC18QD-D3DNB2C GWC18QD-D3DNC2A GWC18QD-D3DND4A GWC18QD-D3DND8A

1. Temperature Parameters

◆ Indoor preset temperature (T_{preset})

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

2. Basic Functions

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

(1)Cooling Mode

① The condition and process of cooling

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

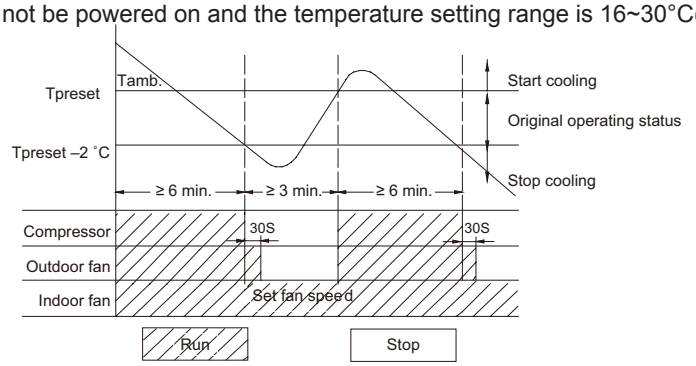
If $T_{amb.} \leq T_{preset}$-2°C(3.6°F), the compressor will stop, the outdoor fan will delay 30 seconds to stop, and the indoor fan will run at the set speed.

If T_{preset}-2°C(3.6°F)<$T_{amb.}$<T_{preset} , the unit will keep running in the previous mode.

When 0≤ T_{preset}-$T_{amb.}$ ＜ 2°C(3.6°F), if indoor fan speed is high, it will turn to medium fan speed; if indoor fan speed is medium or low, it will keep the same;(this condition will be valid only when the compressor is operating); if indoor fan speed is super high, it will keep the same;

When $T_{amb.}$-T_{preset}≥1°C(1.8°F), the fan speed will return to set fan speed;

In this mode, the reversal valve will not be powered on and the temperature setting range is 16~30°C(60.8~86°F).



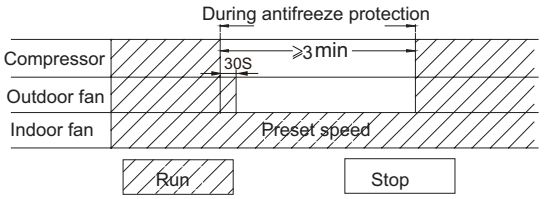
② Protection function

◆ Overcurrent protection

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

◆ Antifreezing protection

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



(2) Dehumidifying Mode

① Working conditions and process of dehumidifying

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

If T_{preset}-2°C(3.6°F)≤$T_{amb.}$≤T_{preset}, the compressor remains at its original operation state.

If $T_{amb.}$< T_{preset}-2°C(3.6°F), the compressor will stop, the outdoor fan will stop with a time lag of 30s, and the indoor fan will operate at low speed.

② Protection function

Protection is the same as that under the cooling mode.

(3) Heating Mode

① The condition and process of heating

If $T_{amb.} \leq T_{preset}$+2°C(3.6°F), heating mode will act, the compressor, outdoor fan and reversal valve will run, the indoor fan will delay 3min to stop at the latest

If T_{preset} +2°C(3.6°F)<$T_{amb.}$<T_{preset} +5°C(9°F),the unit will keep running in the original mode.

If $T_{amb.} \geq T_{preset}$+5°C(9°F), the compressor will stop, the outdoor fan will delay 30s to stop and indoor fan will blow 60s at low speed, the fan speed cannot be shifted within blow residual heat.

◆ In this mode, the temperature setting range is 16 ~30°C(60.8~86°F).

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

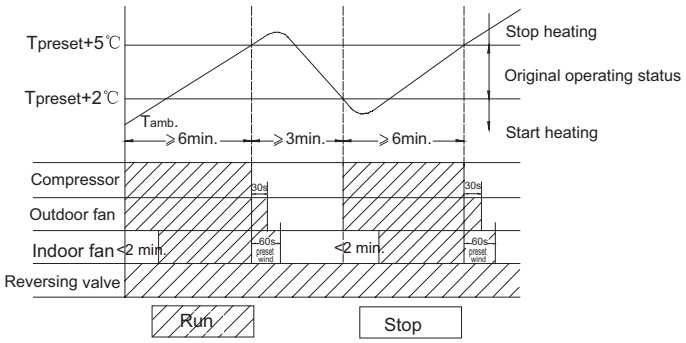
◆ When the unit is turned off in heating mode, or switched to other mode from heating mode, the four-way valve will be powered off after the compressor stops.

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

a.When outdoor ambient temperature≥20°C(68°F) and indoor fan speed is low or medium, the fan speed will turn to high; if indoor fan speed is high or super high, it will keep the same.

b.When outdoor ambient temperature≤18°C(64.4°F), the fan speed will resume set fan speed.

c. When 18°C(64.4°F)<outdoor ambient temperature<20°C(68°F), it will run at present fan speed (set fan speed or high fan speed); but when first exiting cold air prevention after entering heating mode, it will run in set fan speed.



② Condition and process of defrost

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

(1). T outdoor ambient ＞ 5°C(41°F), T outdoor tube≤-2°C(28.4°F);

(2) -2°C(28.4°F)≤T outdoor ambient ＜ 5°C(41°F), T outdoor tube≤-6°C(21.2°F);

(3) -5°C(23°F)≤T outdoor ambient ＜ -2°C(28.4°F), T outdoor tube≤-8°C(17.6°F);

(4)-10°C(14°F)≤T outdoor ambient ＜ -5°C(23°F), T outdoor tube-T compensatory ≤ (T outdoor ambient-3°C(5.4°F))

(5)T outdoor ambient ＜ -10°C(14°F), T outdoor tube-T compensatory ≤ (T outdoor ambient-3°C(5.4°F))

(after energizing, T compensatory=0°C during the first defrosting; if it is not the first defrosting, T compensatory is confirmed by T outdoor tube of quitting last defrosting: a. when T outdoor tube ＞ 2°C(35.6°F), T compensatory=0°C(32°F); b. when T outdoor tube ≤ 2°C(35.6°F), Tcompensatory=3°C(37.4°F))

At that time, the indoor fan stops and the compressor stops, and after 30 seconds the outer fan will stop, and then after 30 seconds,the four-way valve will stop. After 30 seconds, the compressor is initiated for raising the frequency to defrost frequency.When the compressor has operated under defrost mode for 7.5 minutes, or T outdoor ambient ≥ 10°C(50°F), the compressor will be converted to 46Hz operation. After 30 seconds, the compressor will stop. And after another 30 seconds, the four-way valve will be opened, and after 60 seconds, the compressor and the outer fan will be started, the indoor fan will run under preset cold air prevention conditions, and H1 will be displayed at temperature display area on the display panel. Defrost frequency is 85Hz.

③ Protection

◆ Cold air prevention

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

① In the case of T indoor amb. <24°C(75.2°F): if T tube≤40°C(104°F) and the indoor fan is at stop state, the indoor fan will begin to run at low speed with a time lag of 2 minutes. Within 2 minutes, if T tube>40°C(104°F), the indoor fan also will run at low speed; and after 1-minute operation at low speed, the indoor fan will be converted to operation at preset speed. Within 1-minute low speed operation or 2-minute nonoperation,if T tube>42°C(107.6°F), the fan will run at present speed.

② In the case of T indoor amb. ≥24°C(75.2°F): if T tube≤42°C(107.6°F), the indoor fan will run at low speed, and after one minute, the indoor fan will be converted to preset speed. Within one-minute low speed operation, if T tube>42°C(107.6°F), the indoor fan will be converted to preset speed.

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

◆ Total current up and frequency down protection

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

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

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

(5) Fan Mode

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

Under the mode, temperature can be set within a range of 16~30°C(60.8~86°F).

(6)AUTO Mode

① Operation way of AUTO mode

a.When Tambient≥26°C(78.8°F), it will run in cooling mode. The implied set temperature is 25°C(77°F) (note: the set temperature sending to outdoor

unit is 25°C(77°F)).

b.For heating and cooling unit, when Tambient≤22°C(71.6°F), it will run in heating mode. The implied set temperature is 20°C(68°F); for cooling only unit, when Tambient≤22°C(71.6°F), it will run in fan mode and the displayed set temperature is 25°C(77°F).

c.For heating and cooling unit, when 22°C(71.6°F)<Tindoor ambient<26°C(78.8°F) (for cooling only unit, 22°C(71.6°F)<Tindoor ambient<26°C)(78.8°F), it will keep the original running mode. If the unit is energized for the first time, it will run in fan mode.

② Protection

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

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

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

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

① Overload protection

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

1) Cooling overload

a.If T tube≤52°C(125.6°F), the unit will return to its original operation state.

b.If T tube≥55°C(131°F), frequency rise is not allowed.

c.If T tube≥58°C(136.4°F), the compressor will run at reduced frequency.

d.If T tube≥62°C(143.6°F), the compressor will stop and the indoor fan will run at preset speed.

2) Heating overload

a.If T tube≤50°C(122°F), the unit will return to its original operation state.

b.If T tube≥53°C(127.4°F), frequency rise is not allowed.

c.If T tube≥56°C(132.8°F), the compressor will run at reduced frequency.

d.If T tube≥60°C(140°F), the compressor will stop and the indoor fan will blow residue heat and then stop.

② Exhaust temperature protection of compressor

If exhaust temperature≥98°C(208.4°F), frequency is not allowed to rise.

If exhaust temperature≥103°C(217.4°F),, the compressor will run at reduced frequency.

If exhaust temperature≥110°C(230°F),, the compressor will stop.

If exhaust temperature≤90°C(194°F), and the compressor has stayed at stop for at least 3 minutes, the compressor will resume its operation.

③ Communication fault

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

④ Module protection

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

⑤ Overload protection

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

⑥ DC bus voltage protection

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

⑦ Faults of temperature sensors

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

3. Other Controls

(1) ON/OFF

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

(2) Mode Selection:

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

(3) Temperature Setting Option Button

Each time you press the remote button TEMP+ or TEMP-, the setting temperature will be up or down by 1°C(1.8°F). Regulating Range: 16~30°C(60.8~86°F), the button is useless under the AUTO mode.

(4) Time Switch

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

(5) SLEEP State Control

1. In cooling mode:
1.1 When the initial set temperature is16-23°C(60.8~73.4°F),the temperature will rise 1°C(1.8°F) by every hour after sleep function is set;the temperature will not change after rising 3°C(5.4°F) ;after running for 7hours,the temperature will decrease1°C(1.8°F) and it will not change after that.
1.2 When the initial set temperature is 24-27°C(75.2~80.6°F),the temperature will rise 1°C(1.8°F) by every hour after sleep function is set; the temperature will not change after rising 2°C(3.6°F);after running for 7 hours, the temperature will decrease 1°C(1.8°F) and it will not change after that.
1.3 When the initial set temperature is 28-29°C(82.4~84.2°F),the temperature will rise 1°C(1.8°F) by every hour after sleep function is set; the temperature will not change after rising 1°C(1.8°F); after running for 7 hours, the temperature will decrease 1°C(1.8°F) and it will not change after that.
1.4 When the initial set temperature is 30°C(86°F), the unit will keep on running at this temperature; after running for 7 hours, the temperature will decrease 1°C(1.8°F) and it will not change after that.
Relationship between set temperature and running time:

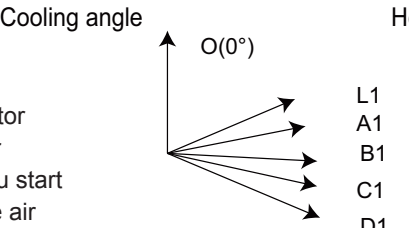
Initial Temp.	Running time(T)							
0(start)	1	2	3	4	5	6	7	8
16	17	18	19	19	19	19	18	18
17	18	19	20	20	20	20	19	19
18	19	20	21	21	21	21	20	20
19	20	21	22	22	22	22	21	21
20	21	22	23	23	23	23	22	22
21	22	23	24	24	24	24	23	23
22	23	24	25	25	25	25	24	24
23	24	25	26	26	26	26	25	25
24	25	26	26	26	26	26	25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

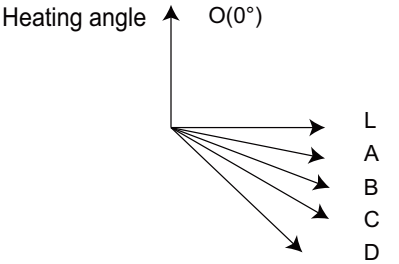
2. In heating mode:
2.1 When the initial set temperature is 16°C(60.8°F), the unit will keep on running at this temperature;
2.2 When the initial set temperature is 17-20°C(62.6~68°F), the temperature will decrease 1°C(1.8°F) by every hour after sleep function is set; the temperature will not change after decreasing 1°C(1.8°F);
2.3 When the initial set temperature is 21-27°C(69.8~80.6°F), the temperature will decrease 1°C(1.8°F) by every hour after sleep function is set; the temperature will not change after decreasing 2°C(3.6°F);
2.4 When the initial set temperature is 28-30°C(82.4~86°F), the temperature will decrease 1°C(1.8°F) by every hour after sleep function is set; the temperature will not change after decreasing 3°C(5.4°F);
Relationship between set temperature and running time:

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

(6) Indoor Fan Control
Indoor fan could be set at ultra-high, high, medium, low speed by wireless remote controller and operated as that speed.
Auto fan speed could be set as well, indoor fan will operate under auto fan speed as following:

1. Under heating mode: auto speed under heating or auto heating mode:
a. When $T_{amb.} \leq T_{preset}+1°C(1.8°F)$, indoor fan will operate at high speed;
b. When $T_{preset}+1°C(1.8°F)<T_{amb.}<T_{preset}+3°C(5.4°F)$, indoor fan will operate at medium speed;
c. When $T_{amb.} \geq T_{preset}+3°C(5.4°F)$, indoor fan will operate at low speed;
There should be at least 180s operation time during switchover of each speed.
2. Under cooling mode: auto speed under cooling or auto cooling mode:
a. When $T_{amb.} \geq T_{preset}+2°C(3.6°F)$, indoor fan will operate at high speed;
b. When $T_{preset}<T_{amb.}<T_{preset}+2°C(3.6°F)$, indoor fan will operate at medium speed;
c. When $T_{amb.} \leq T_{preset}$, indoor fan will operate at low speed
There should be at least 210s operation time during switchover of each speed.
(7) Buzzer Control
The buzzer will send a “Di” sound when the air conditioner is powered up or received the information sent by the remote control or there is a button input, the single tube cooler doesn’t receive the remote control ON signal under the mode of heating mode.
(8) Auto button
If the controller is on, it will stop by pressing the button, and if the controller is off, it will be automatic running state by pressing the button, swing on and light on, and the main unit will run based on the remote control if there is remote control order.
(9) Up-and-Down Swinging Control
When power on, the up-and-down motor will firstly move the air deflector to o counter-clockwise, close the air outlet.
After starting the machine, if you don’t set the swinging functi on, heating mode and auto-heating mode, the up-and-down air deflector will move to D clockwise; under other modes, the up-and-down air deflector will move to L1. If you set the swinging function when you start the machine, then the wind blade will swing between L and D. The air deflector has 7 swinging states: Location L, Location A, Location B, Location C, Location D, Location L to Location D, stop at any location between L-D (the included angle between L~D is the same).





The air deflector will be closed at 0 Location, and the swinging is effectual only on condition that setting the swinging order and the inner fan is running. The indoor fan and compressor may get the power when air deflector is on the default location.
(10) Display
① Operation pattern and mode pattern display
All the display patterns will display for a time when the power on, the operation indication pattern will display in red under standby status. When the machine is start by remote control, the indication pattern will light and display the current operation mode (the mode light includes: Cooling, heating and dehumidify). If you close the light key, all the display patterns will close.
② Double-8 display
According to the different setting of remote control, the nixie light may display the current temperature (the temperature scope is from 16°C(60.8°F) to 30°C(86°F)) and indoor ambient temperature. The set temperature displayed in auto cooling and fan mode is 25°C(77°F) and the set temperature displayed in auto heating mode is 20°C(68°F). Under heating mode, nixie tube displays H1 or heating indicator is off 0.5s and blinks 10s in defrosting.(If you set the fahrenheit temperature display, the nixie light will display according to fahrenheit temperature)(11) Protection function and failure display
E2: Freeze-proofing protection E4: Exhausting protecti on E5: Overcurrent protection E6: Communication failure
F1: Indoor ambient sensor start and short circuit (continuously measured failure in 5s)
F2: Indoor evaporator sensor start and short circuit (continuously measured failure in 5s)
F3: Outdoor ambient sensor start and short circuit (continuously measured failure in 30s)
F4: Outdoor condenser sensor start and short circuit (continuously measured failure in 30s, and don’t measure within 10 minutes after defrosted)
F5: Outdoor exhausting sensor start and short circuit (continuously measured failure in 30s after the compressor operated 3 minutes)
H3: Overload protection of compressor H5: Module protection PH: High-voltage protection PL: Low-voltage protection
P1: Nominal cooling and heating test P2: Maximum cooling and heating test
P3: Medium cooling and heating test P0: Minimum cooling and heating test
(12) Drying Function
You may start or stop the drying function under the modes of cooling and dehumidify at the starting status (The modes of automatism, heating and air supply do not have drying function). When you start the drying function, after stop the machine by pressing the switch button, you should keep running the inner fans for 2 minutes under low air damper (The swing will operate as the D1 status within 2 minutes, and other load is stopped), then stop the entire machine; When you stop the drying function, press the switch button will stop the machine directly.When you start the drying function, operating the drying button will stop the inner fans and close the guide louver.
(13) Memory Function
When interrupting the power supply memory content: mode, swing function, light, set temperature and wind speed.
After interrupted the power supply, the machine will start when recovering the power according to the memory content automatically.

(14)Auto cleaning function(only available on some models)
The automatic cleaning function of the indoor heat exchanger can be dedusted and sterilized by the condensation, frosting, defrosting and high temperature stages of the evaporator.
1.Under the power off, press and hold the “Internal Clean” button for 3 seconds while holding down the “MODE” and “FAN” buttons for 5 seconds to turn on the Auto Clean function. After the function is turned on, the air conditioner displays “CL”.
2. The evaporator will be rapidly cooled or heated during the automatic cleaning process. There may be noise or even noise. The noise generated by the plastic parts due to thermal expansion and contraction is normal. During the cleaning and disinfection process, the room temperature may increase slightly, please keep the room well ventilated.
Tips:
The automatic cleaning function can only be started under normal environmental conditions. If the indoor environment is easy to dust, it is recommended to clean it once a month. If the indoor environment is not so dusty, it is recommended to clean it once every three months. After turning on the automatic cleaning mode, the user can leave the room. When cleaning is complete, the unit will automatically enter standby mode.

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 cant 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 cant 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 1/8 inch.
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; dont 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 44.09lb.
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 78 3/4 inch.
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.

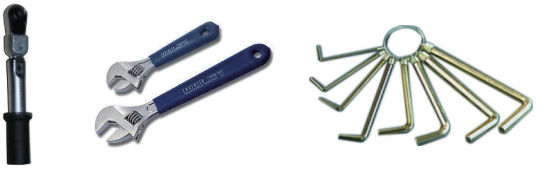
Safety Precautions for Installing and Relocating the Unit:

To ensure safety, please be mindful of the following precautions.

Warnings

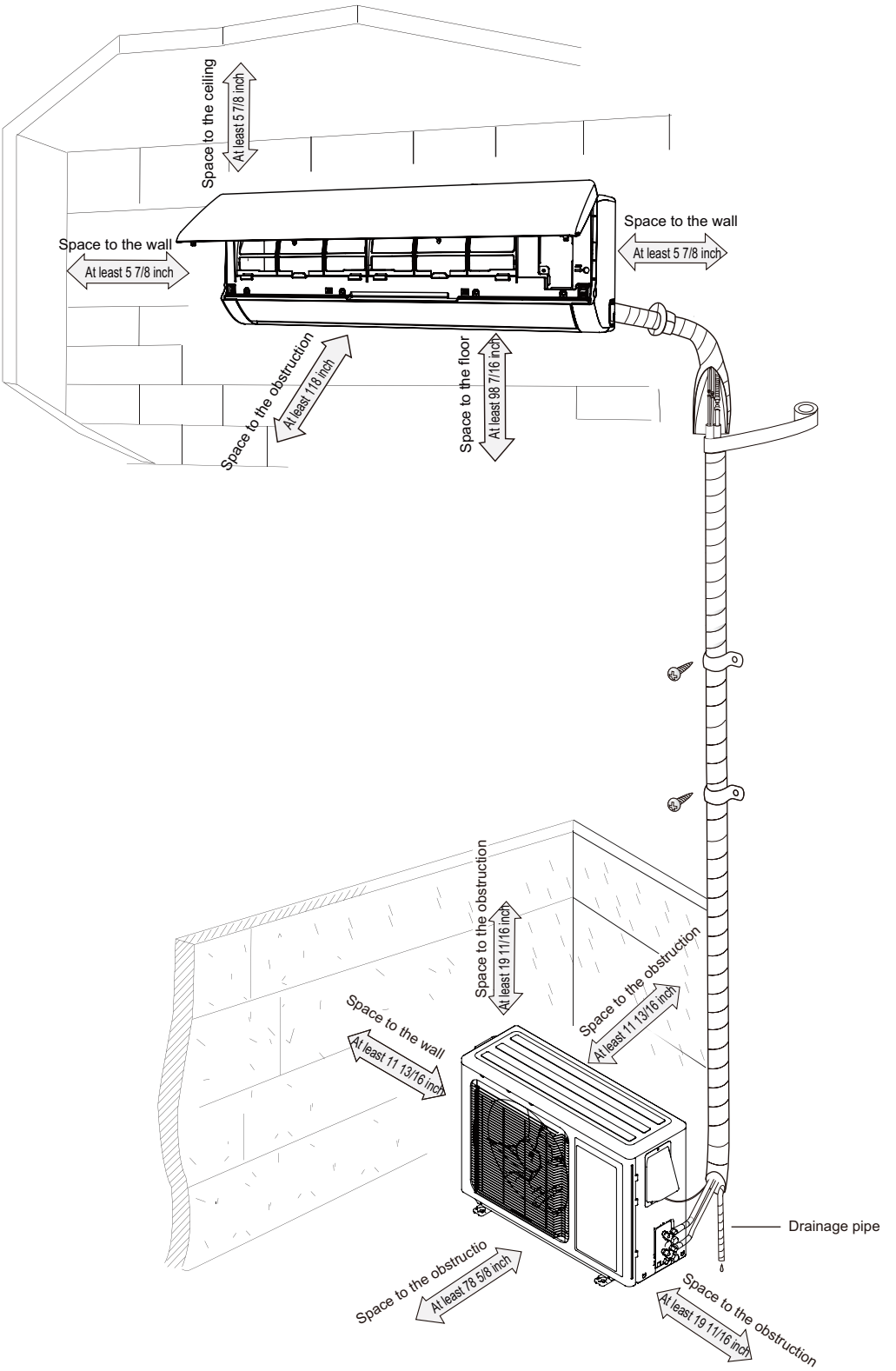
1. When installing or relocating the unit, be sure to keep the refrigerant circuit free from air or substances other than the specified refrigerant.
Any presence of air or other foreign substance in the refrigerant circuit will cause system pressure rise or compressor rupture, resulting in injury.
2.When installing or moving this unit, do not charge the refrigerant which is not comply with that on the nameplate or unqualified refrigerant.
Otherwise, it may cause abnormal operation, wrong action, mechanical malfunction or even series safety accident.
3.When refrigerant needs to be recovered during relocating or repairing the unit, be sure that the unit is running in cooling mode.Then, fully close the valve at high pressure side (liquid valve).About 30-40 seconds later, fully close the valve at low pressure side (gas valve), immediately stop the unit and disconnect power. Please note that the time for refrigerant recovery should not exceed 1 minute.
If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.
4.During refrigerant recovery, make sure that liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe.
If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.
5.When installing the unit, make sure that connection pipe is securely connected before the compressor starts running.
If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.
6.Prohibit installing the unit at the place where there may be leaked corrosive gas or flammable gas.
If there leaked gas around the unit, it may cause explosion and other accidents.
7.Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire.
Poor connections may lead to electric shock or fire.
8.Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses.
Electric wires with insufficient capacity, wrong wire connections and insecure wire terminals may cause electric shock or fire.

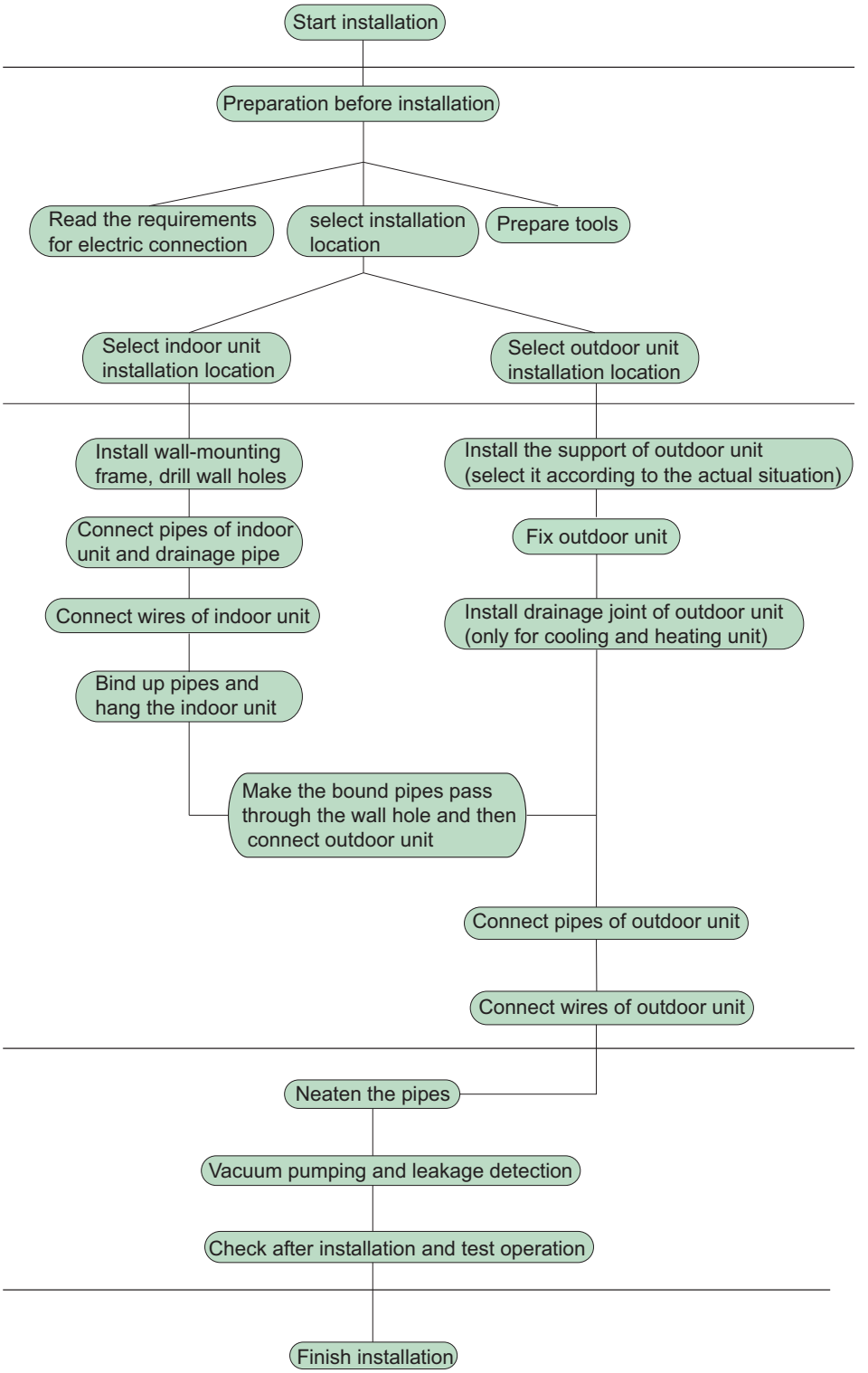
Main Tools for Installation and Maintenance

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





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	Owners manual, remote controller
7	Wall pipe		

⚠ **Note:**

1.Please contact the local agent for installation.

2.Dont 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.

(5) The place with sulfureted gas.

(6) Other places with special circumstances.

(7) Do not use the unit in the immediate surroundings of a laundry a bath a shower or a swimming pool.

(8) It's not allowed to be installed on the unstable or motive base structure(such as truck) or in the corrosive environment (such as chemical factory).

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 wont 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 wont increase noise and vibration.

(6) The appliance must be installed 72inch above floor.

(7) Dont install the indoor unit right above the electric appliance.

(8) Please try your best to keep way from fluorescent lamp.

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 away from 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 Requirements for Electric Connection

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.

(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) 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.

(9) The appliance shall be installed in accordance with national wiring regulations.

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 cant 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 1/8 inch 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)

Air-conditioner	Air switch capacity
07/09/12K	15A
18K for some model	20A
18/24K for some model	25A
GWH24QE-D3DNB2R GWC24QE-D3DNB2R	30A

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

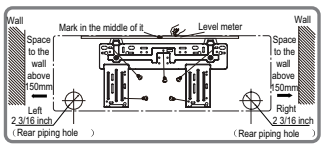
in the holes.
(3) Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

3. Install Wall-mounting Frame

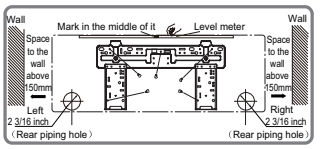
(1) Choose the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame.(As show in Fig.1)

Fig.1

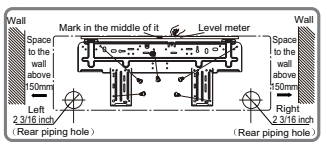
QB:



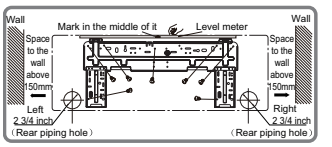
QC:



QD:



QE:



(2) Open a piping hole with the diameter of 2 3/16(2 3/4)inch 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)

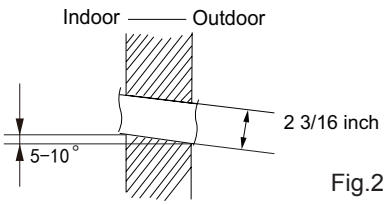


Fig.2

⚠ **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)

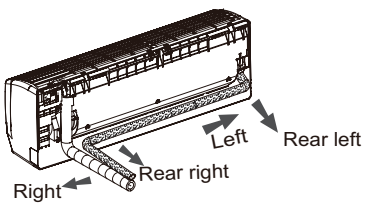


Fig.3

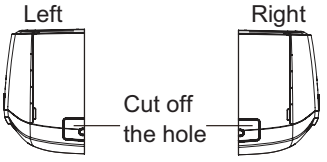


Fig.4

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)

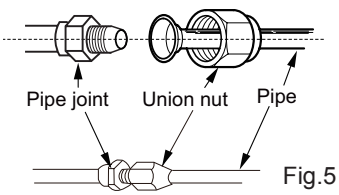


Fig.5

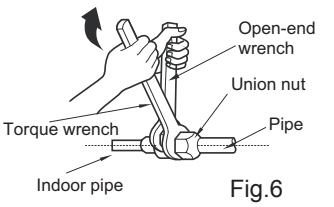


Fig.6

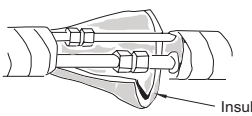


Fig.7

Refer to the following table for wrench moment of force:

Hex nut diameter(inch)	Tightening torque(ft·lbf)
Φ1/4	11.10~14.75
Φ3/8	22.12~29.50
Φ1/2	33.19~40.56
Φ5/8	44.24~47.94
Φ3/4	51.32~55.31

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)

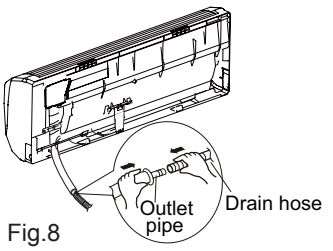


Fig.8

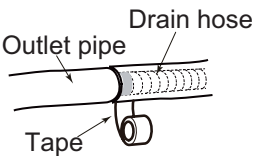


Fig.9

⚠ **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)

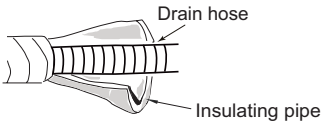


Fig.10

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)

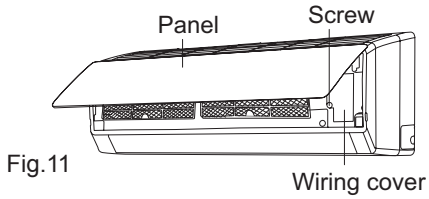


Fig.11

(2) Fix the wire crossing board on connection wire sleeve at the bottom case; let the connection wire sleeve go through the wire crossing hole at the back of indoor unit, and then pull it out from the front.(As show in Fig.12)

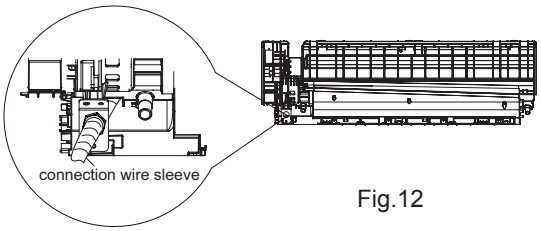
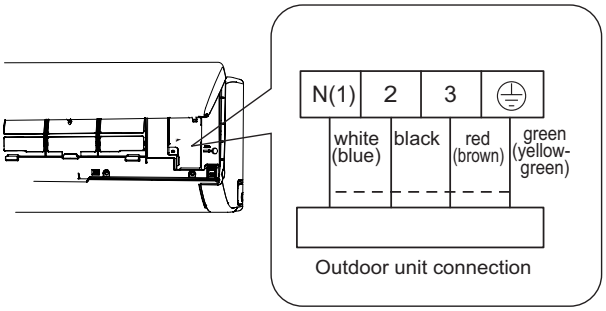


Fig.12

(3) Remove the wire clip; connect the power connection wire to the wiring terminal; tighten the screw and then fix the power connection wire with wire clip.(As show in Fig.13)



Note: the wiring board 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.

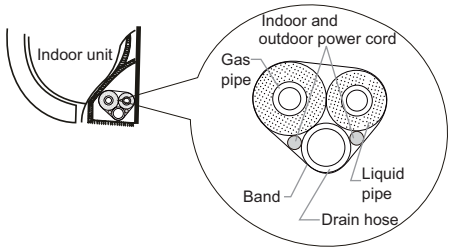


Fig.14

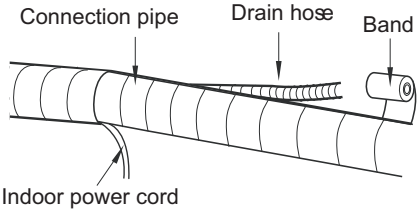


Fig.15

⚠ **Note:**

(1) The power cord and control wire cant 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)

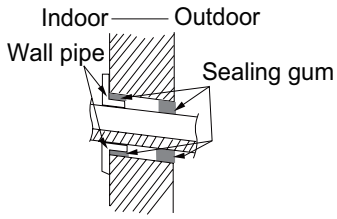
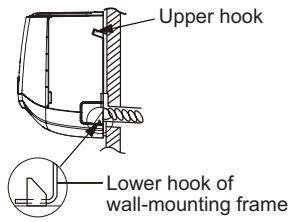


Fig.16

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 1 3/16 inch 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.

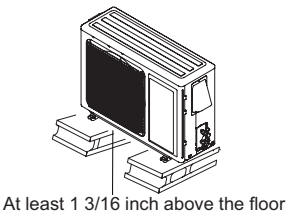


Fig.18

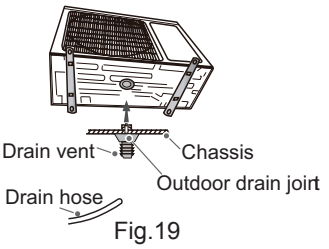


Fig.19

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)

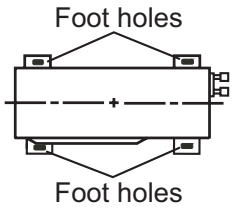


Fig.20

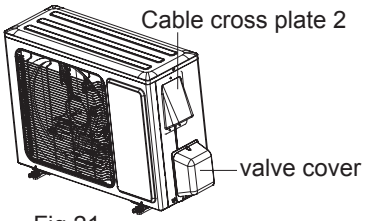


Fig.21

4. Connect Indoor and Outdoor Pipes

(1) Remove the screw on the cable cross plate 2 and valve cover of outdoor unit and then remove the cable cross plate 2 and valve cover.(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)

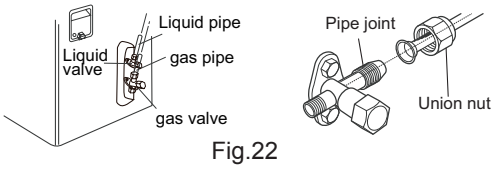


Fig.22

(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(inch)	Tightening torque(ft·lbf)
Φ1/4	11.10~14.75
Φ3/8	22.12~29.50
Φ1/2	33.19~40.56
Φ5/8	44.24~47.94
Φ3/4	51.32~55.31

5. Connect Outdoor Electric Wire

(1) Let the connection wire sleeve go through the two holes of baffle; tighten the connection joint of sleeve and baffle; remove the wire clip; connect the power connection wire and power cord to the wiring terminal according to the color; fix them with screws.(As show in Fig.23)

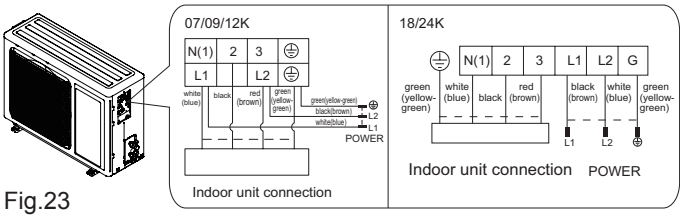


Fig.23

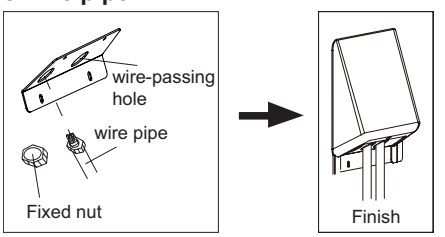
Note: the wiring board is for reference only,please refer to the actual one.

(2) Fix the power connection wire and power cord with wire clip.
(3) Fix the stopper on handle with screw.

⚠ **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.
(3)The connecting wire and connection pipe cannnot touch each other,
(4)Top cover of outdoor unit and electric box assembly should be fixec by the screw.Otherwise,it can cause a fire,or short circuit caused by water or dust.

Install the over line pipe



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 3 15/16inch.
(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)

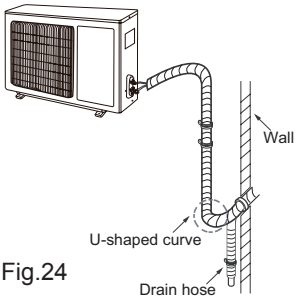


Fig.24

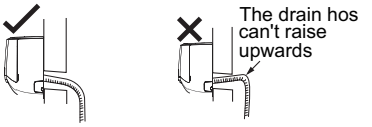


Fig.25

⚠ **Note:**

(1) The through-wall height of drain hose shouldnt 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 cant be curved, raised and fluctuant, etc.(As show in Fig.26)

(3) The water outlet cant be placed in water in order to drain smoothly.(As show in Fig.27)

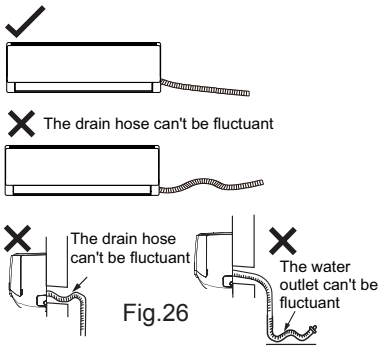


Fig.26

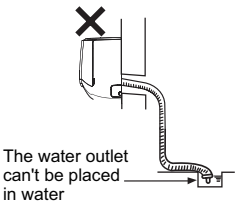


Fig.27

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 -14.5ISP.

(4) Close the vacuum pump and maintain this status for 1-2min to check if the pressure of piezometer remains in -14.5ISP. 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)

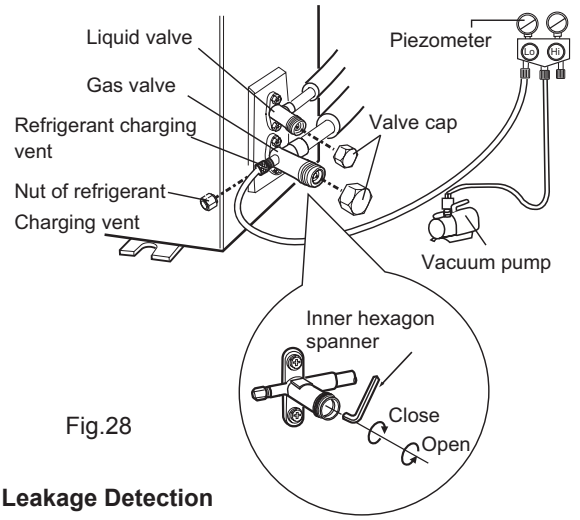


Fig.28

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, theres 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) capacity.
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.
12	Is the inlet and outlet of piping hole been covered?	It may cause insufficient cooling (heating) capacity or waster eletricity.

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 cant start cooling.

9. Maintenance

9.1 Error Code List

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
1	High pressure protection of system	E1				During cooling and drying operation, except indoor fan operates, all loads stop operation. During heating operation, the complete unit stops.	Possible reasons: 1. Refrigerant was superabundant; 2. Poor heat exchange (including filth blockage of heat exchanger and bad radiating environment); Ambient temperature is too high.
2	Antifreezing protection	E2				During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates.	1. Poor air-return in indoor unit; 2. Fan speed is abnormal; 3. Evaporator is dirty.
3	Refrigerant leakage protection	F0				The Dual-8 Code Display will show F0 and the complete unit stops.	1.Refrigerant leakage; 2.Indoor evaporator temperature sensor works abnormally; 3.The unit has been plugged up somewhere.
4	High discharge temperature protection of compressor	E4				During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.	Please refer to the malfunction analysis (discharge protection, overload).
5	Overcurrent protection	E5				During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.	1. Supply voltage is unstable; 2. Supply voltage is too low and load is too high; 3. Evaporator is dirty.
6	Communi-cation Malfunction	E6				During cooling operation, compressor stops while indoor fan motor operates. During heating operation, the complete unit stops.	Refer to the corresponding malfunction analysis.
7	High temperature resistant protection	E8				During cooling operation: compressor will stop while indoor fan will operate. During heating operation, the complete unit stops.	Refer to the malfunction analysis (overload, high temperature resistant).
8	EEPROM malfunction	EE				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
9	Limit/ decrease frequency due to high temperature of module	EU				All loads operate normally, while operation frequency for compressor is decreased	Discharging after the complete unit is de-energized for 20mins, check whether the thermal grease on IPM Module of outdoor control panel AP1 is sufficient and whether the radiator is inserted tightly. If its no use, please replace control panel AP1.
10	Malfunction protection of jumper cap	C5				Wireless remote receiver and button are effective, but can not dispose the related command	1. No jumper cap insert on mainboard. 2. Incorrect insert of jumper cap. 3. Jumper cap damaged. 4. Abnormal detecting circuit of mainboard.

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
11	Refrigerant recovery mode	Fo				Refrigerant recovery. The Serviceman operates it for maintenance.	Nominal cooling mode
12	Indoor ambient temperature sensor is open/short circuited	F1				During cooling and drying operation, indoor unit operates while other loads will stop; during heating operation, the complete unit will stop operation.	1. Loosening or bad contact of indoor ambient temp. sensor and mainboard terminal. 2. Components in mainboard fell down leads short circuit. 3. Indoor ambient temp. sensor damaged.(check with sensor resistance value chart) 4. Mainboard damaged.
13	Indoor evaporator temperature sensor is open/short circuited	F2				AC stops operation once reaches the setting temperature. Cooling, drying: internal fan motor stops operation while other loads stop operation; heating: AC stop operation	1. Loosening or bad contact of Indoor evaporator temp. sensor and mainboard terminal. 2. Components on the mainboard fall down leads short circuit. 3. Indoor evaporator temp. sensor damaged.(check temp. sensor value chart for testing) 4. Mainboard damaged.
14	Outdoor ambient temperature sensor is open/short circuited	F3				During cooling and drying operating, compressor stops while indoor fan operates; During heating operation, the complete unit will stop operation	Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)
15	Outdoor condenser temperature sensor is open/short circuited	F4				During cooling and drying operation, compressor stops while indoor fan will operate; During heating operation, the complete unit will stop operation.	Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)
16	Outdoor discharge temperature sensor is open/short circuited	F5				During cooling and drying operation, compressor will sop after operating for about 3 mins, while indoor fan will operate; During heating operation, the complete unit will stop after operating for about 3 mins.	1.Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor) 2.The head of temperature sensor hasnt been inserted into the copper tube
17	Limit/ decrease frequency due to overload	F6				All loads operate normally, while operation frequency for compressor is decreased	Refer to the malfunction analysis (overload, high temperature resistant)
18	Decrease frequency due to overcurrent	F8				All loads operate normally, while operation frequency for compressor is decreased	The input supply voltage is too low; System pressure is too high and overload

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
19	Decrease frequency due to high air discharge	F9				All loads operate normally, while operation frequency for compressor is decreased	Overload or temperature is too high; Refrigerant is insufficient; Malfunction of electric expansion valve (EKV)
20	Limit/ decrease frequency due to antifreezing	FH				All loads operate normally, while operation frequency for compressor is decreased	Poor air-return in indoor unit or fan speed is too low
21	Voltage for DC bus-bar is too high	PH				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 265VAC, turn on the unit after the supply voltage is increased to the normal range. 2.If the AC input is normal, measure the voltage of electrolytic capacitor C on control panel (AP1), if its normal, theres malfunction for the circuit, please replace the control panel (AP1)
22	Voltage of DC bus-bar is too low	PL				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 150VAC, turn on the unit after the supply voltage is increased to the normal range. 2.If the AC input is normal, measure the voltage of electrolytic capacitor C on control panel (AP1), if its normal, theres malfunction for the circuit, please replace the control panel (AP1)
23	Compressor Min frequence in test state	P0					Showing during min. cooling or min. heating test
24	Compressor rated frequence in test state	P1					Showing during nominal cooling or nominal heating test
25	Compressor maximum frequence in test state	P2					Showing during max. cooling or max. heating test

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
26	Compressor intermediate frequence in test state	P3					Showing during middle cooling or middle heating test
27	Overcurrent protection of phase current for compressor	P5				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
28	Charging malfunction of capacitor	PU				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Refer to the part three—charging malfunction analysis of capacitor
29	Malfunction of module temperature sensor circuit	P7				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
30	Module high temperature protection	P8				During cooling operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	After the complete unit is de-energized for 20mins, check whether the thermal grease on IPM Module of outdoor control panel AP1 is sufficient and whether the radiator is inserted tightly. If its no use, please replace control panel AP1.
31	Decrease frequency due to high temperature resistant during heating operation	H0				All loads operate normally, while operation frequency for compressor is decreased	Refer to the malfunction analysis (overload, high temperature resistant)
32	Cold air prevention protection	E9				Not the error code. It's the status code for the operation.	
33	Overload protection for compressor	H3				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	1. Wiring terminal OVC-COMP is loosened. In normal state, the resistance for this terminal should be less than 1ohm. 2.Refer to the malfunction analysis (discharge protection, overload)

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
34	System is abnormal	H4				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (overload, high temperature resistant)
35	IPM protection	H5				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
36	Anti-freezing protection for evaporator	E2				Not the error code. It's the status code for the operation.	
37	Internal motor (fan motor) do not operate	H6				Internal fan motor, external fan motor, compressor and electric heater stop operation,guide louver stops at present location.	1. Bad contact of DC motor feedback terminal. 2. Bad contact of DC motor control end. 3. Fan motor is stalling. 4. Motor malfunction. 5. Malfunction of mainboard rev detecting circuit.
38	Desynchro-nizing of compressor	H7				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
39	PFC protection	HC				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Replace outdoor control panel AP1 or Reactor
40	Outdoor DC fan motor malfunction	L3				Outdoor DC fan motor malfunction lead to compressor stop operation,	DC fan motor malfunction or system blocked or the connector loosed
41	power protection	L9				compressor stop operation and Outdoor fan motor will stop 30s latter , 3 minutes latter fan motor and compressor will restart	To protect the electronical components when detect high power
42	Indoor unit and outdoor unit doesn't match	LP				compressor and Outdoor fan motor can't work	Indoor unit and outdoor unit doesn't match
43	Failure start-up	LC				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis

NO.	Malfunction Name	Display Method of Indoor Unit				A/C status	Possible Causes
		Dual-8 Code Display	Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
			Operation Indicator	Cool Indicator	Heating Indicator		
44	Malfunction of phase current detection circuit for compressor	U1				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
45	Malfunction of voltage dropping for DC bus-bar	U3				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Supply voltage is unstable
46	Malfunction of complete units current detection	U5				During cooling and drying operation, the compressor will stop while indoor fan will operate; During heating operating, the complete unit will stop operation.	Theres circuit malfunction on outdoor units control panel AP1, please replace the outdoor units control panel AP1.
47	The four-way valve is abnormal	U7				If this malfunction occurs during heating operation, the complete unit will stop operation.	1.Supply voltage is lower than AC175V; 2.Wiring terminal 4V is loosened or broken; 3.4V is damaged, please replace 4V.
48	Zero-crossing malfunction of outdoor unit	U9				During cooling operation, compressor will stop while indoor fan will operate; during heating,the complete unit will stop operation.	Replace outdoor control panel AP1
49	Defrosting	OFF 3S and blink once (during blinking, ON 10s and OFF 0.5s)				Not the error code. It's the status code for the operation.	Its the normal state
50	Malfunction of detecting plate(WIFI)	JF				Loads operate normally, while the unit can't be normally controlled by APP.	1.Main board of indoor unit is damaged; 2.Detection board is damaged; 3.The connection between indoor unit and detection board is not good;

51	Undefined outdoor unit error	oE				Cool: compressor and outdoor fan stops operation, while indoor fan operates; Heat: compressor, outdoor fan and indoor fan stop operation.	1. Outdoor ambient temperature exceeds the operation range of unit (eg: less than-20oC or more than 60oC for cooling; more than 30oC for heating); 2. Failure startup of compressor? 3. Are wires of compressor not connected tightly? 4. Is compressor damaged? 5. Is main board damaged?

9.2 Troubleshooting for Main Malfunction

●Indoor unit:

1. Malfunction of Temperature Sensor F1, F2

Main detection points:

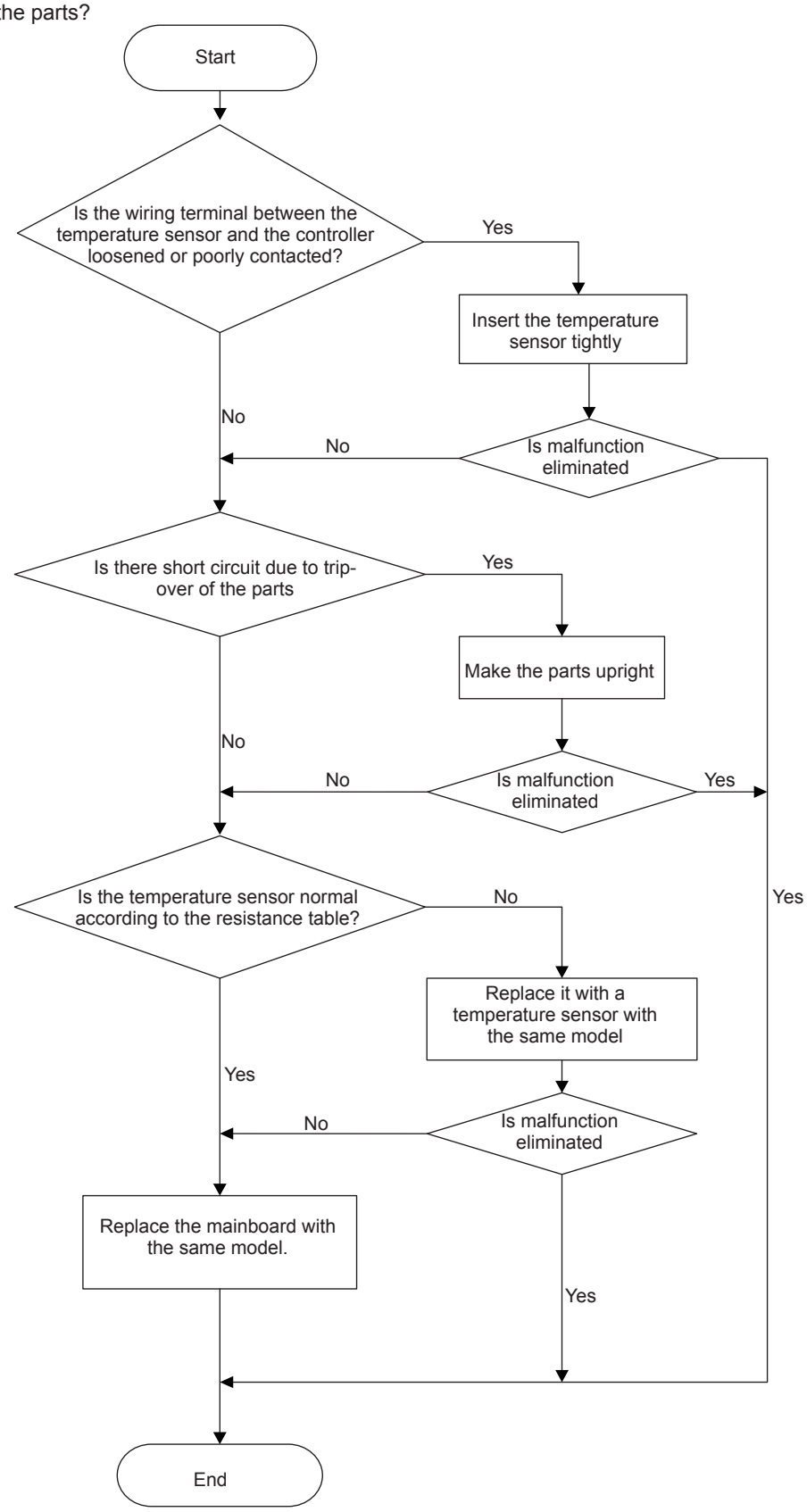
● Is the wiring terminal between the temperature sensor and the controller loosened or poorly contacted?

● Is there short circuit due to trip-over of the parts?

● Is the temperature sensor broken?

● Is mainboard broken?

Malfunction diagnosis process:

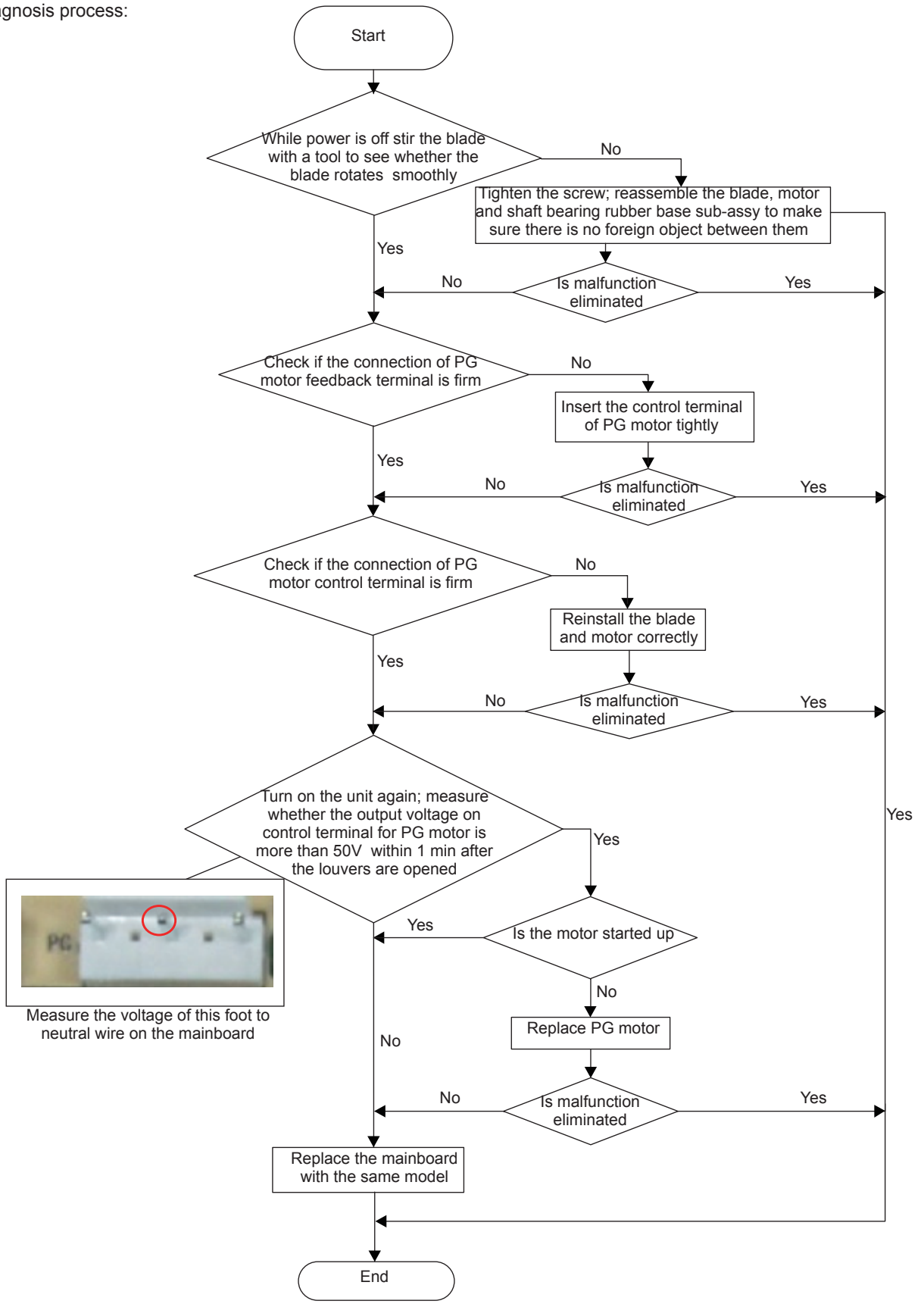


2. Malfunction of Blocked Protection of IDU Fan Motor H6

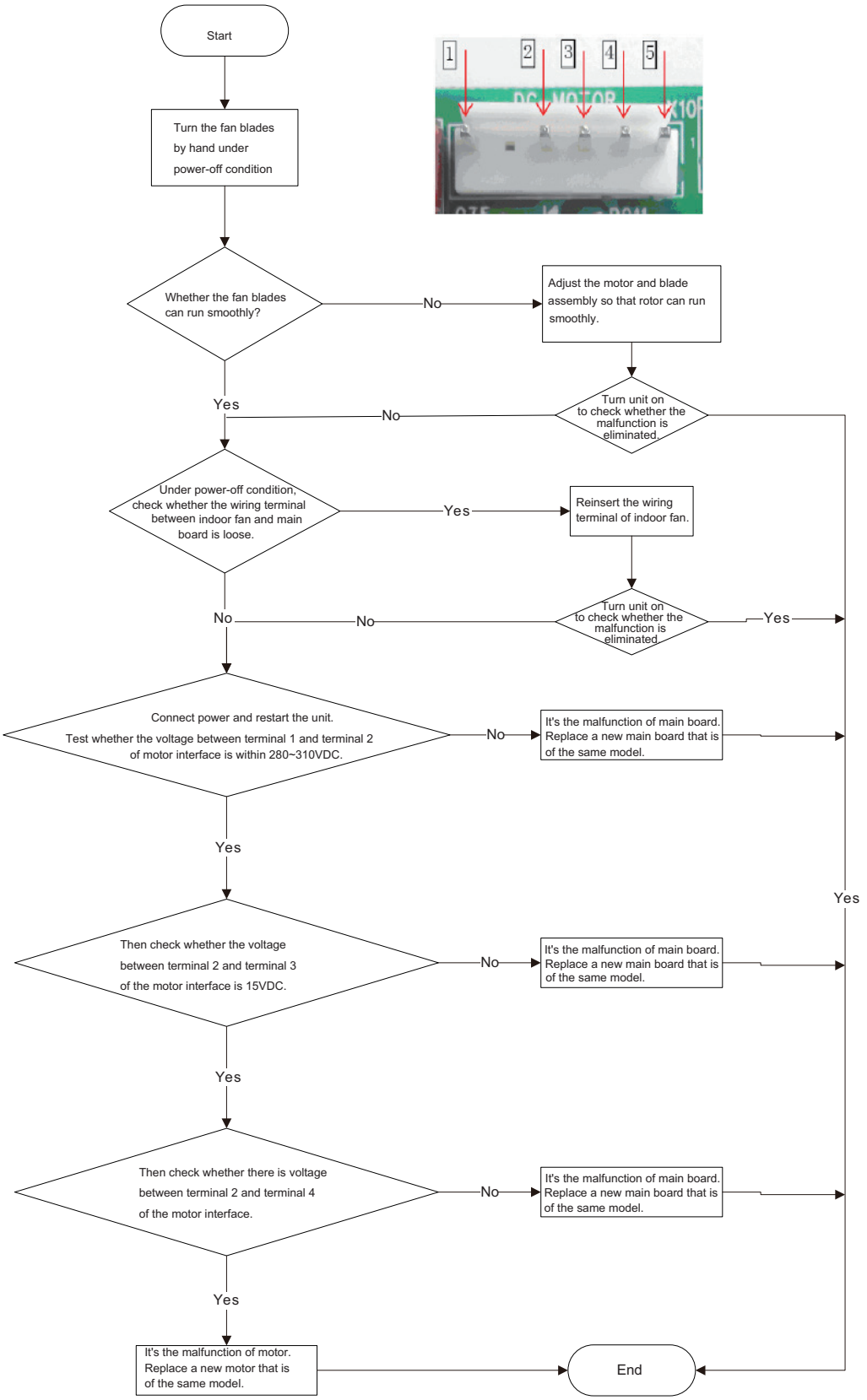
Main detection points:

- Smoothlyls the control terminal of PG motor connected tightly?
- Smoothlyls the feedback interface of PG motor connected tightly?
- The fan motor cant operate?
- The motor is broken?
- Detectioncircuit of the mainboard is defined abnormal?

Malfunction diagnosis process:



1
2
3
4
5

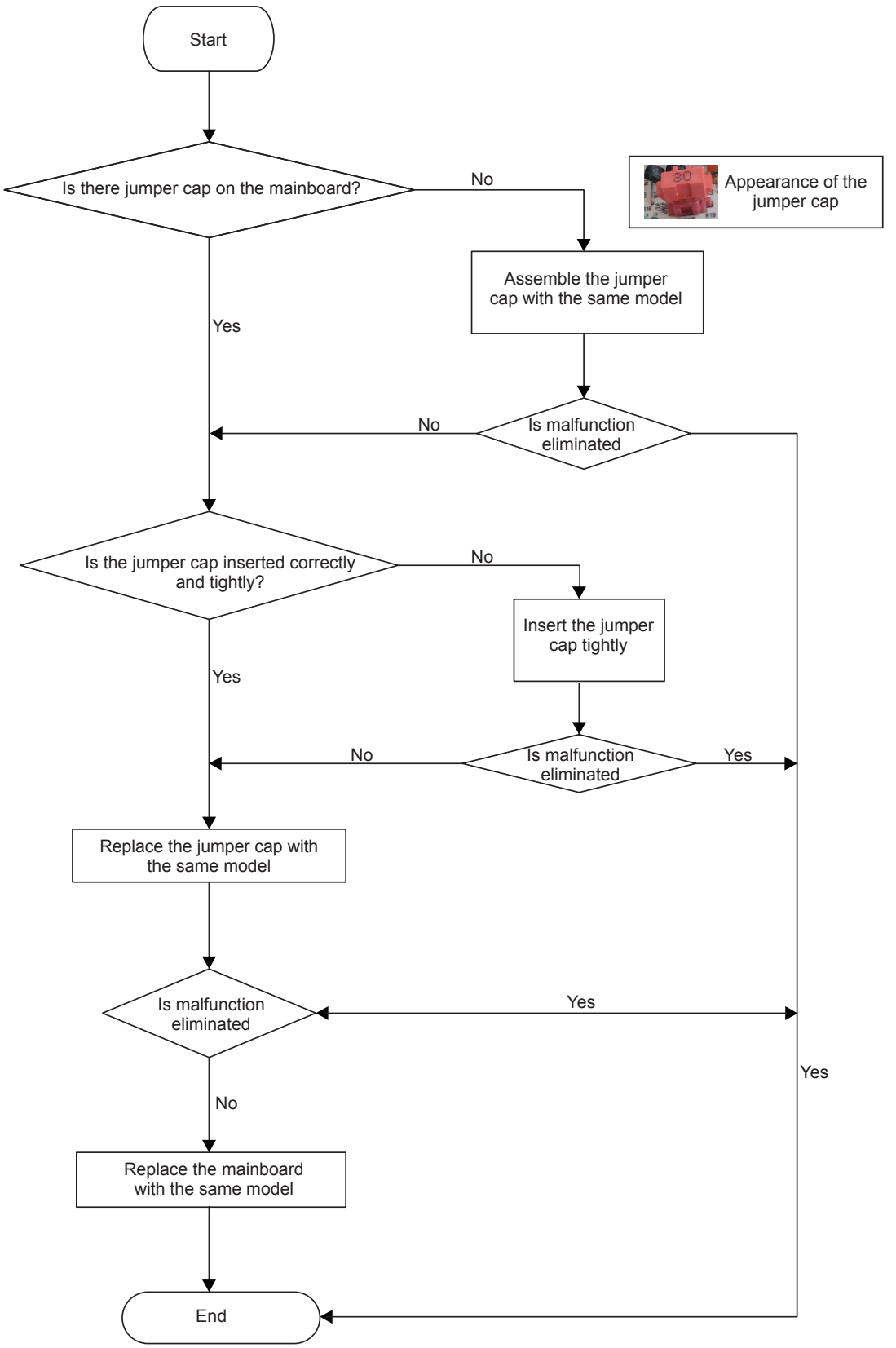

Start
Turn the fan blades by hand under power-off condition
Whether the fan blades can run smoothly?
No
Adjust the motor and blade assembly so that rotor can run smoothly.
Yes
No
Turn unit on to check whether the malfunction is eliminated.
Under power-off condition, check whether the wiring terminal between indoor fan and main board is loose.
Yes
Reinsert the wiring terminal of indoor fan.
No
No
Turn unit on to check whether the malfunction is eliminated
Yes
Connect power and restart the unit.
Test whether the voltage between terminal 1 and terminal 2 of motor interface is within 280~310VDC.
No
It's the malfunction of main board. Replace a new main board that is of the same model.
Yes
Yes
Then check whether the voltage between terminal 2 and terminal 3 of the motor interface is 15VDC.
No
It's the malfunction of main board. Replace a new main board that is of the same model.
Yes
Then check whether there is voltage between terminal 2 and terminal 4 of the motor interface.
No
It's the malfunction of main board. Replace a new main board that is of the same model.
Yes
It's the malfunction of motor. Replace a new motor that is of the same model.
End

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:



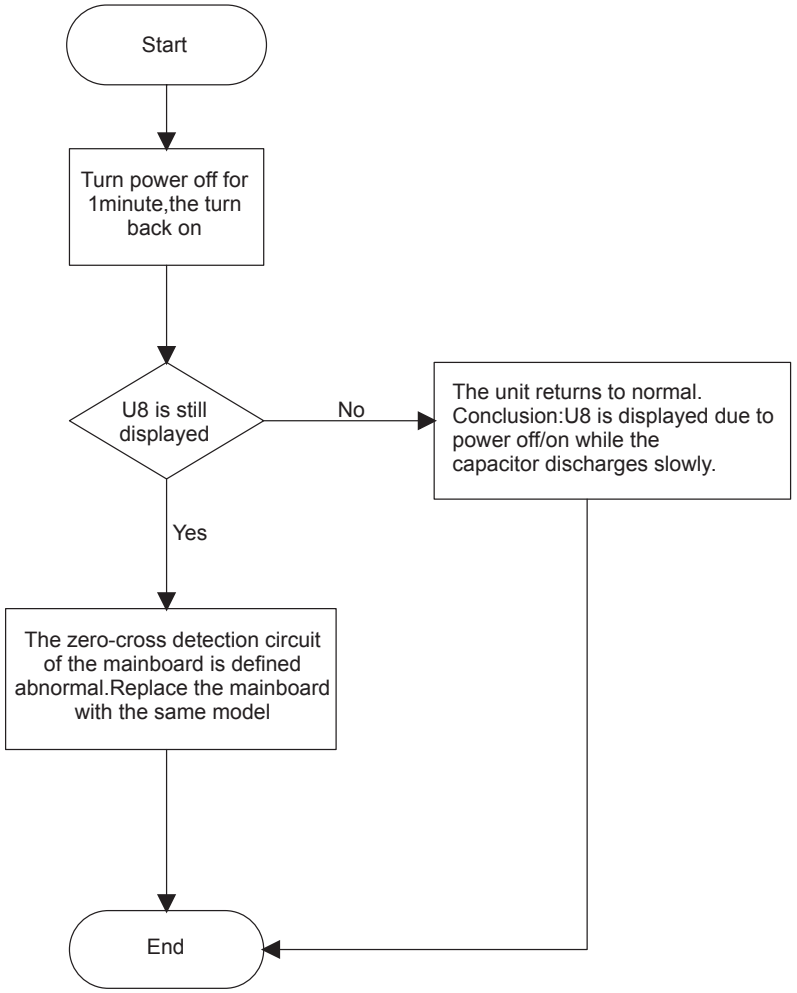
4. Malfunction of Zero-crossing Inspection Circuit Malfunction of the IDU Fan Motor U8

Main detection points:

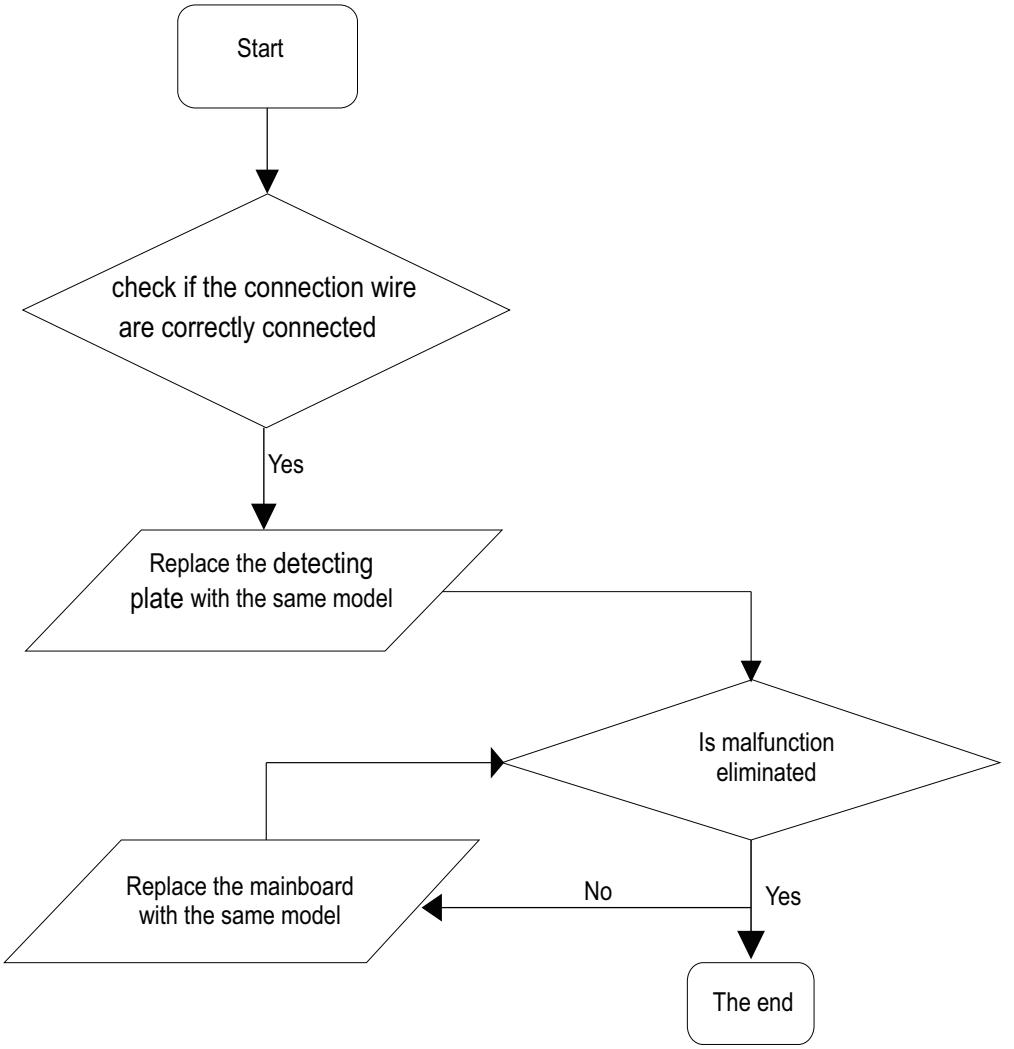
● Instant energization afte de-energization while the capacitordischarges slowly?

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

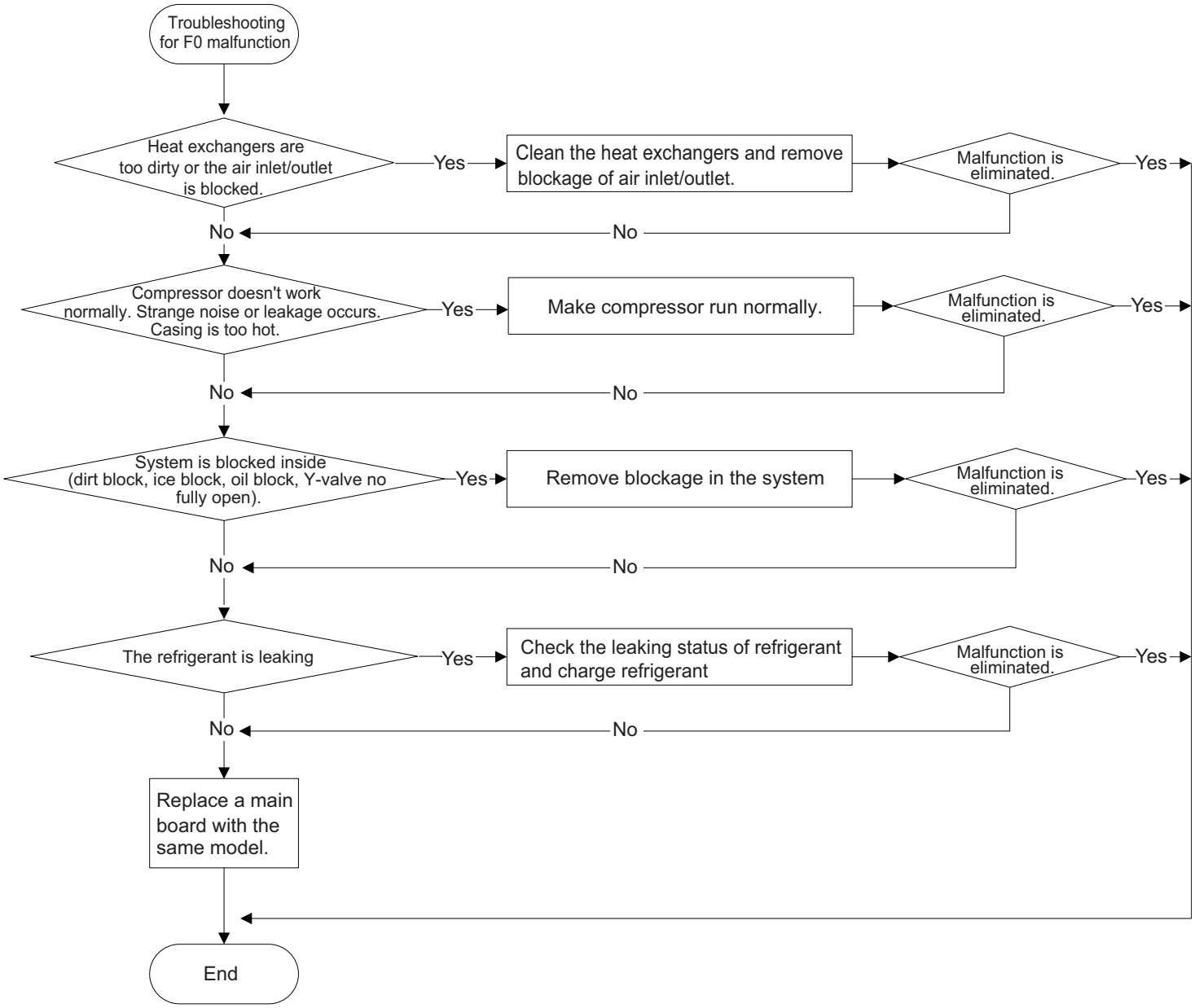
Malfunction diagnosis process:



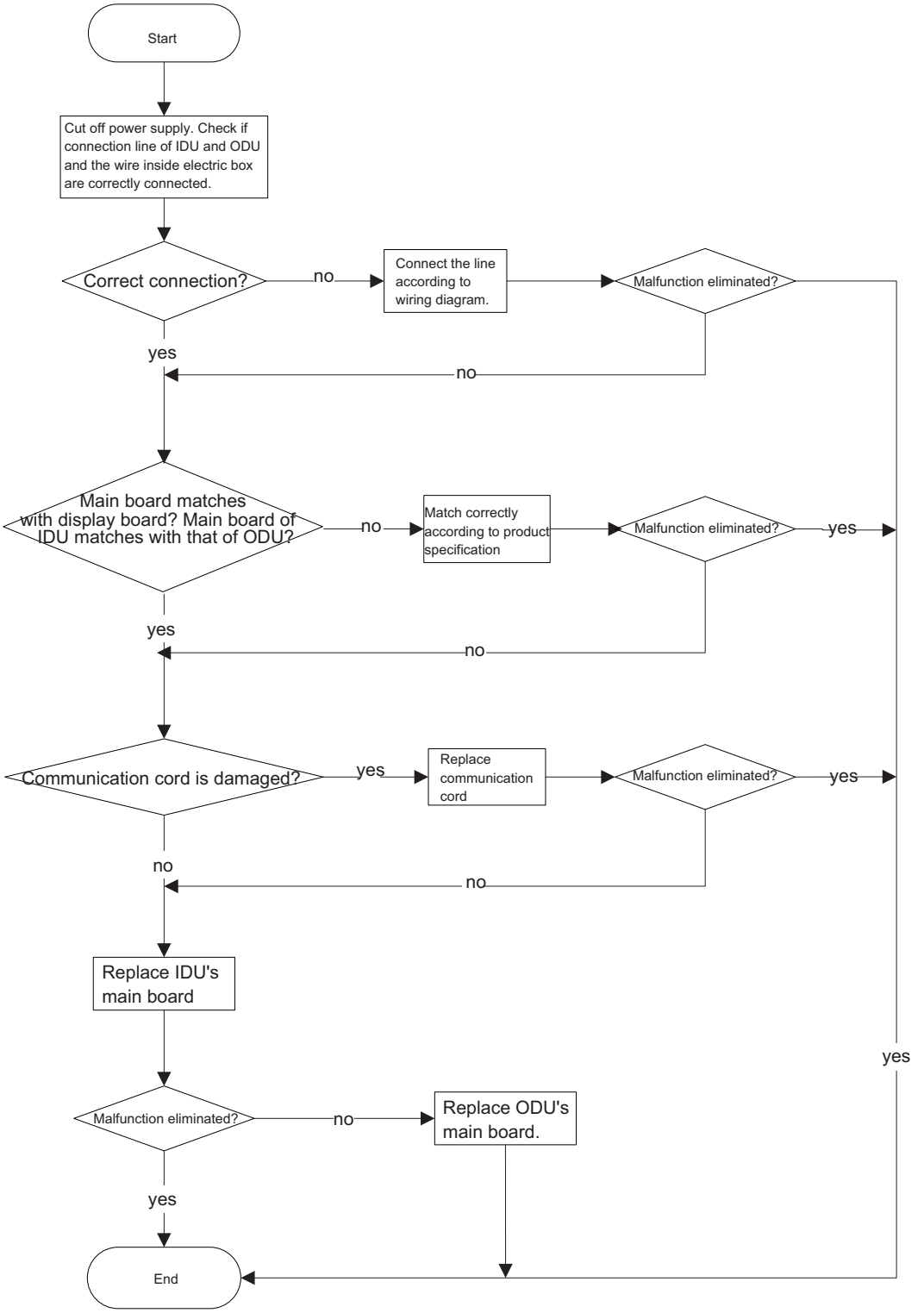
5. Malfunction of detecting plate(WIFI) JF



6. Malfunction of Insufficient fluorine protection F0



7. Communication malfunction E6

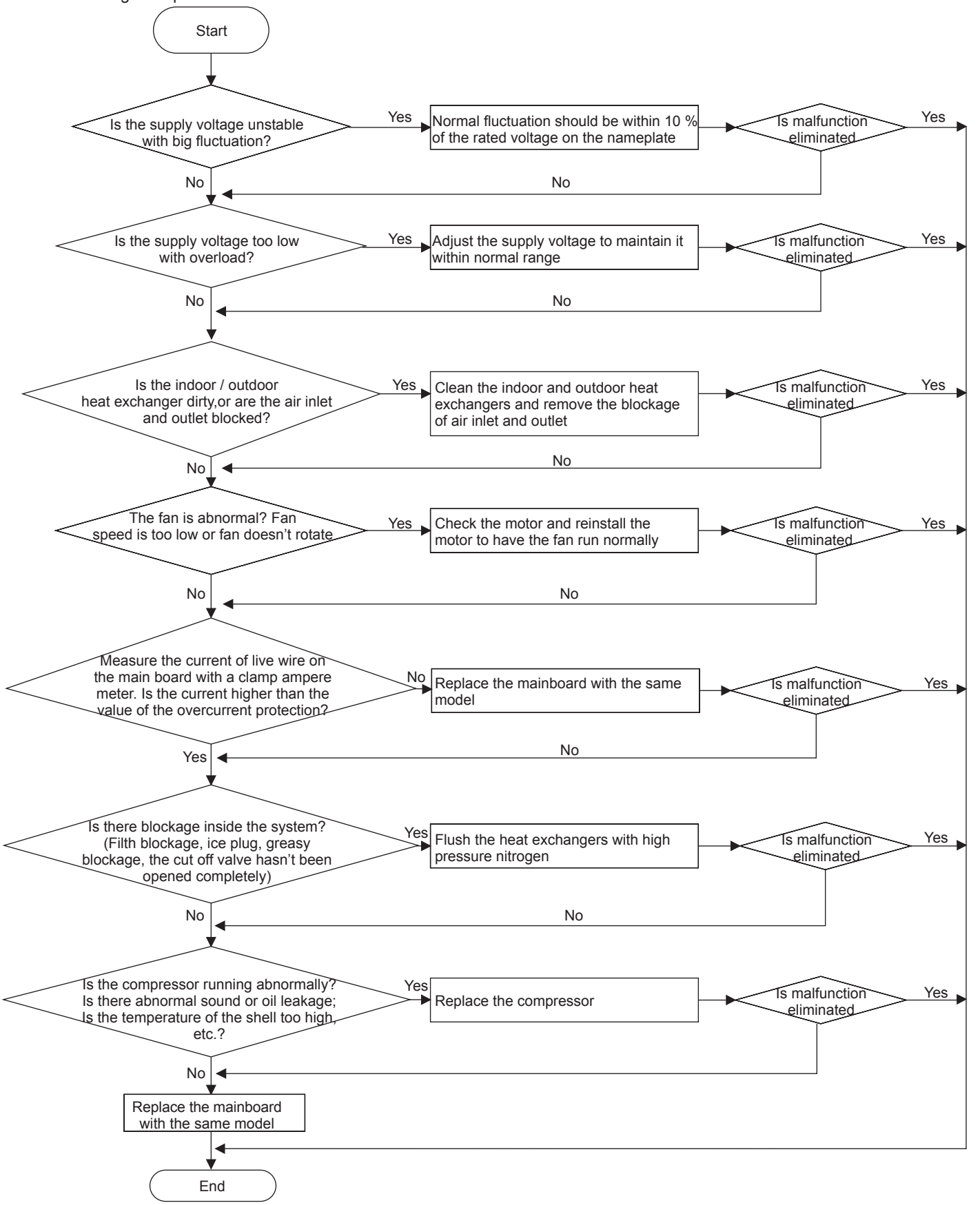


8. Malfunction of Overcurrent Protection E5

Main detection points:

- Is the supply voltage unstable with big fluctuation?
- Is the supply voltage too low with overload?
- Hardware trouble?

Malfunction diagnosis process:



●Outdoor unit:

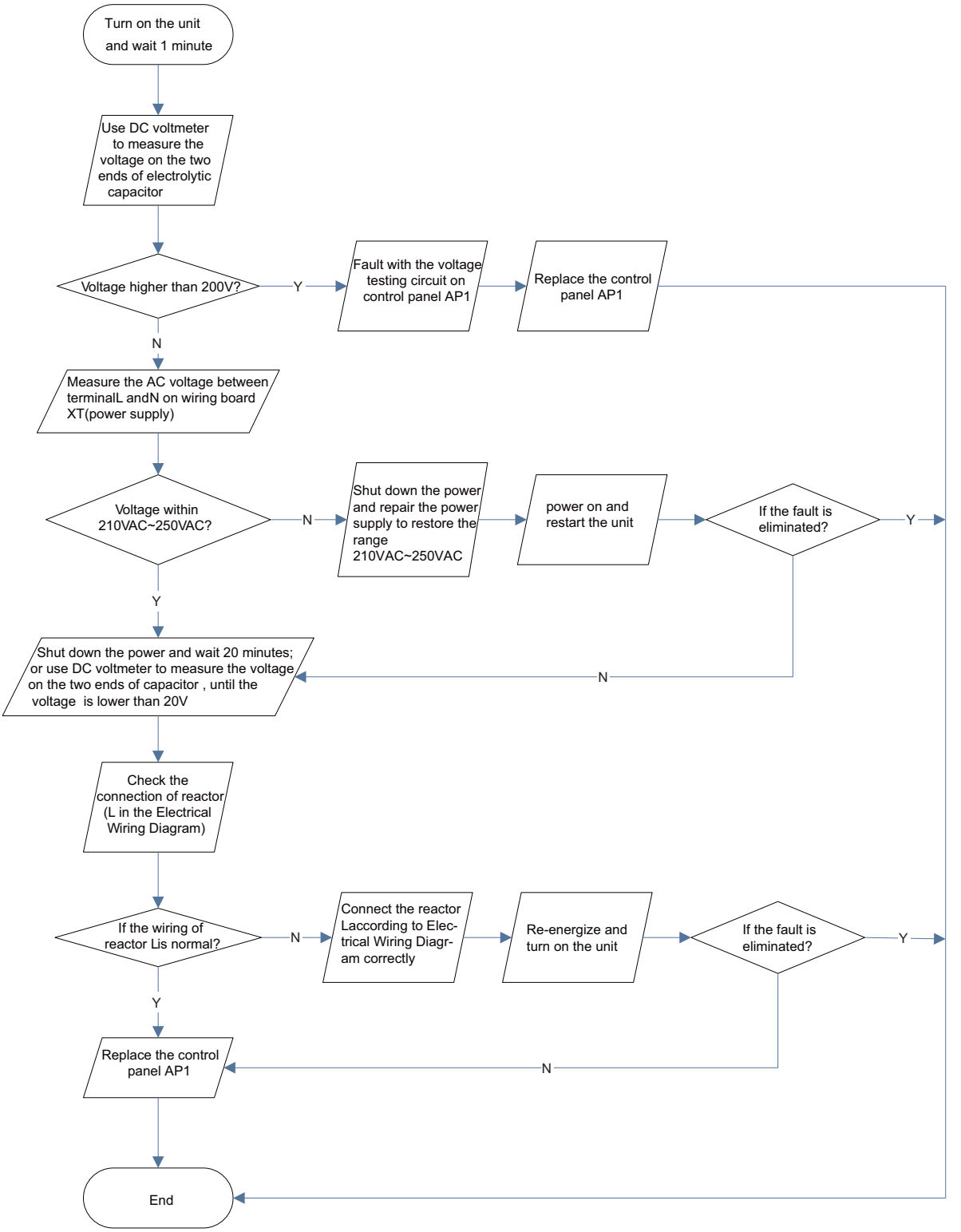
(1) Capacitor charge fault (Fault with outdoor unit) (AP1 below refers to the outdoor control panel)

Main Check Points:

●Use AC voltmeter to check if the voltage between terminal L and N on the wiring board is within 210VAC~240VAC.

●Is the reactor (L) correctly connected? Is the connection loose or fallen? Is the reactor (L) damaged?

Fault diagnosis process:

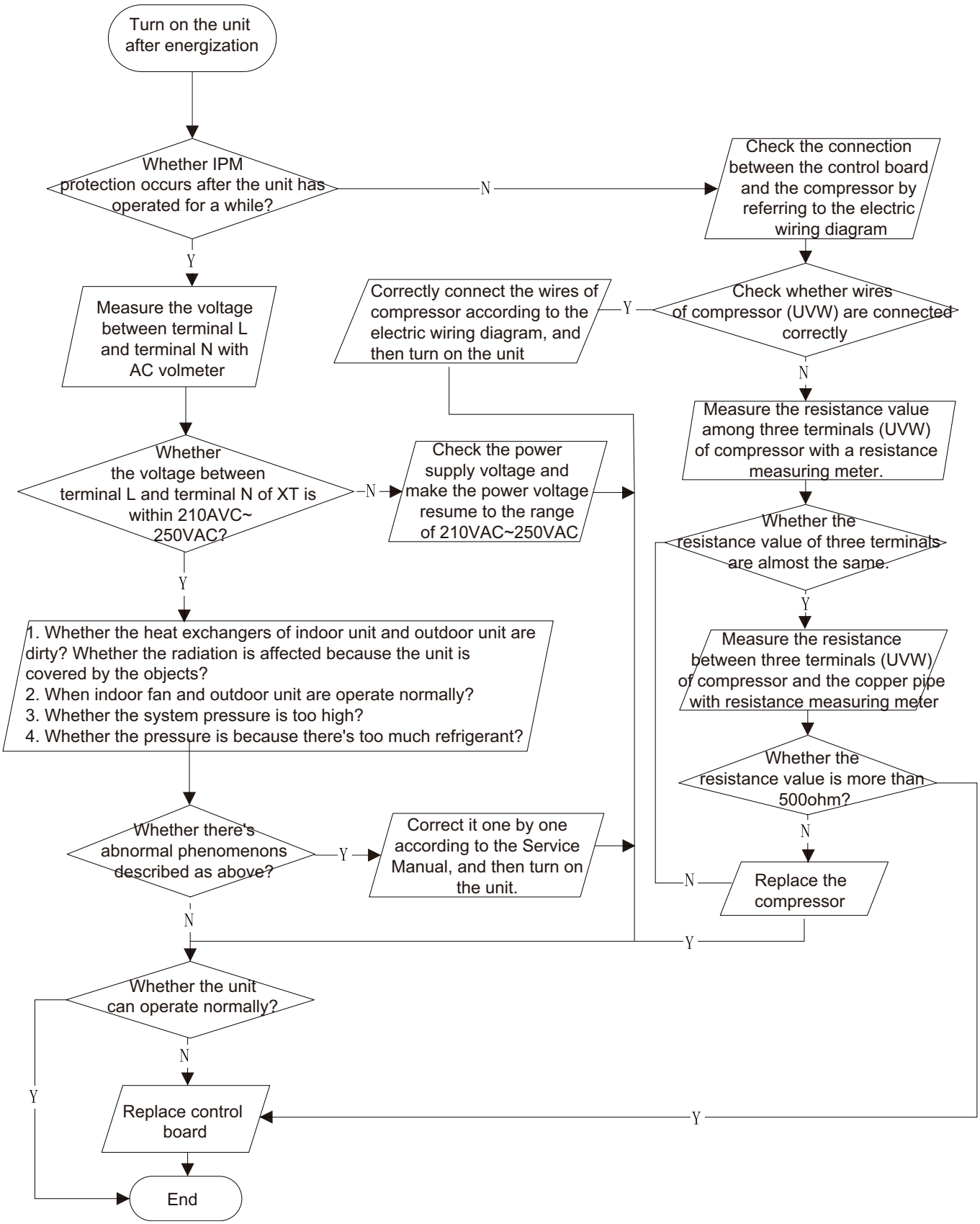


(2) IPM protection, phase current overcurrent (the control board as below indicates the control board of outdoor unit) H5/P5

Mainly detect:

(1) Compressor COMP terminal (2) voltage of power supply (3) compressor
(4) Refrigerant-charging volume (5) air outlet and air inlet of outdoor/indoor unit

Troubleshooting:



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

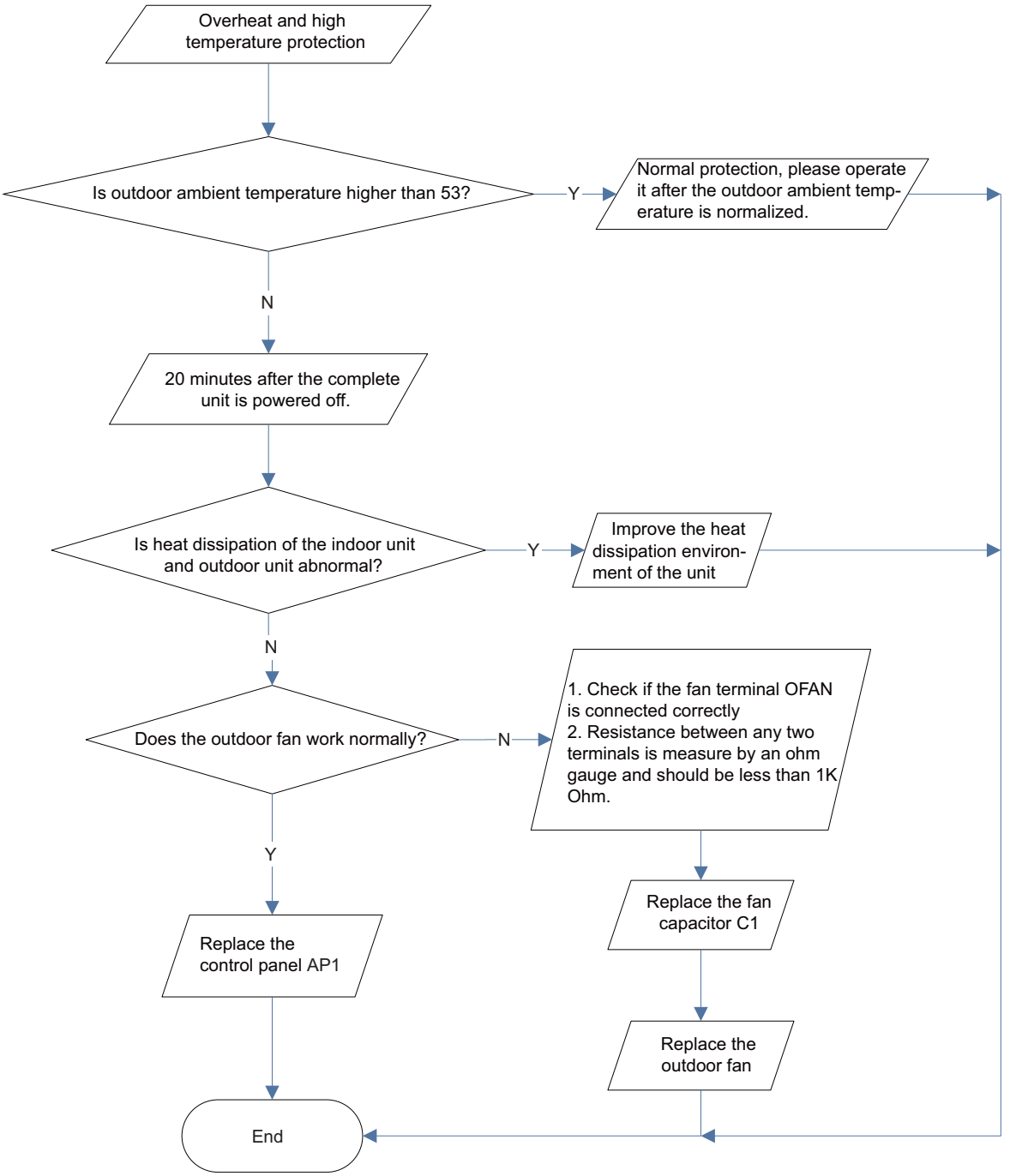
Mainly detect:

●Is outdoor ambient temperature in normal range?

●Are the outdoor and indoor fans operating normally?

●Is the heat dissipation environment inside and outside the unit good?

Fault diagnosis process:



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

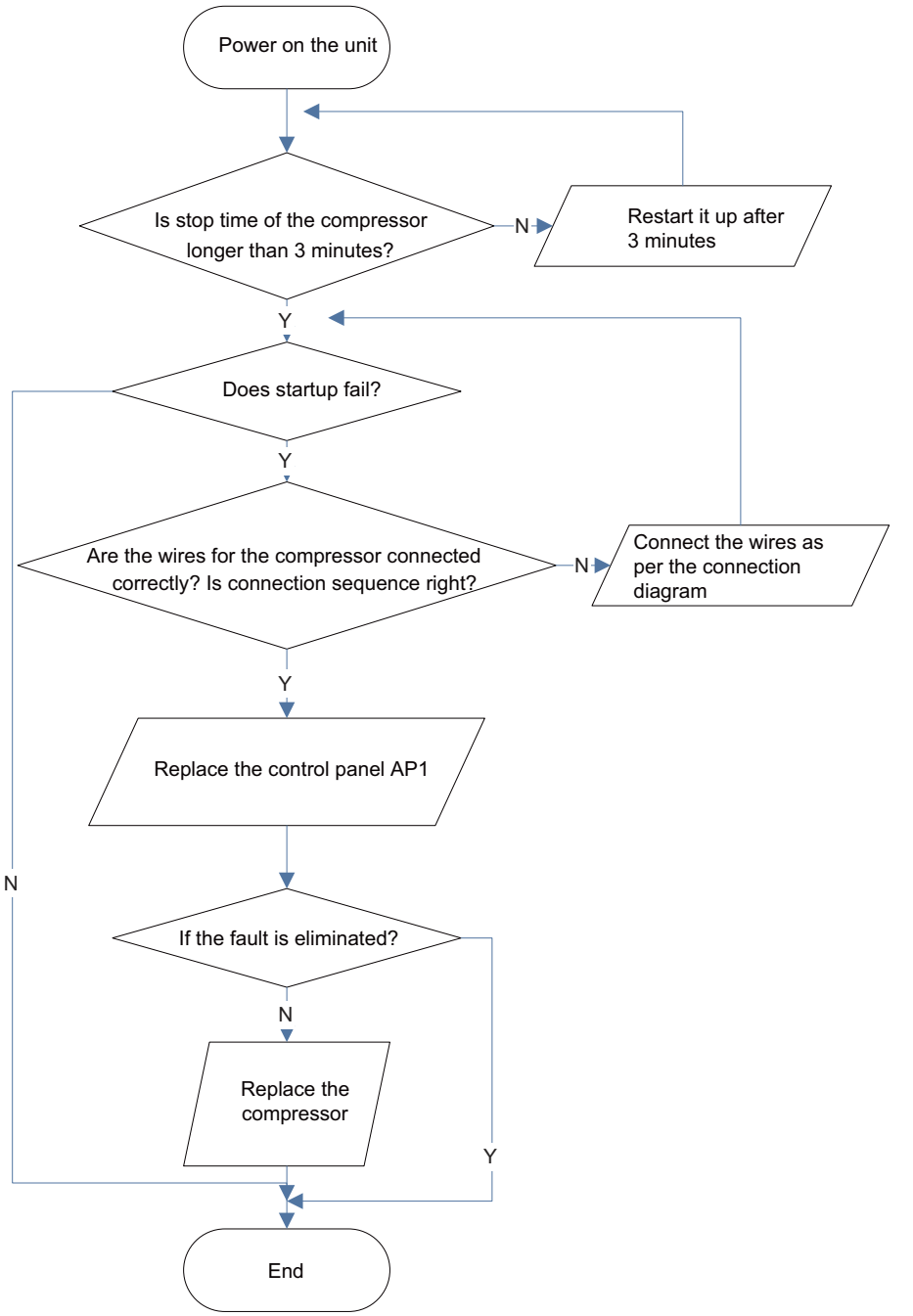
Mainly detect:

●Whether the compressor wiring is connected correct?

●Is compressor broken?

●Is time for compressor stopping enough?

Fault diagnosis process:



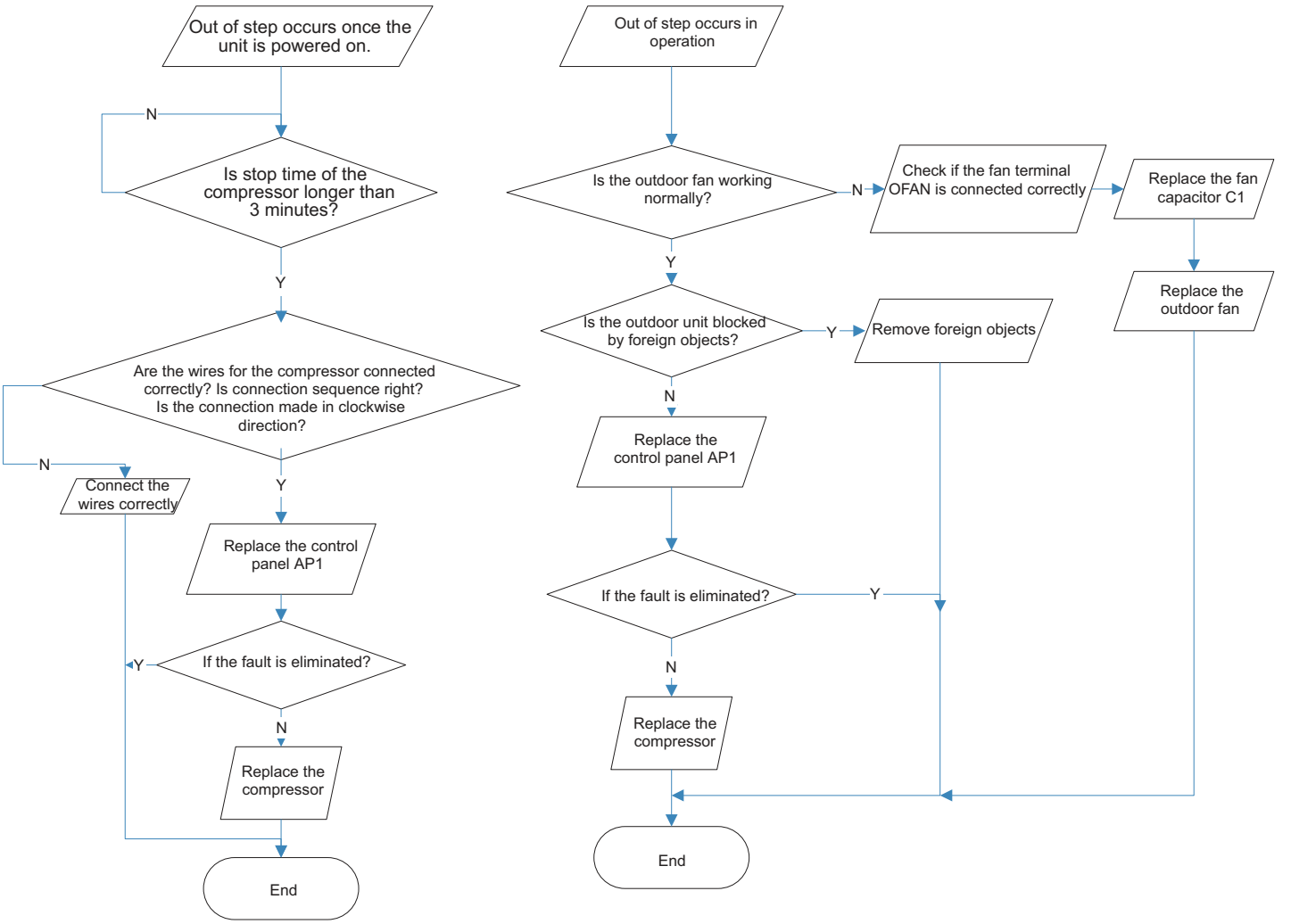
(5) Out of step diagnosis for the compressor (AP1 hereinafter refers to the control board of the outdoor unit)

Mainly detect:

●Is the system pressure too high?

●Is the input voltage too low?

Fault diagnosis process:



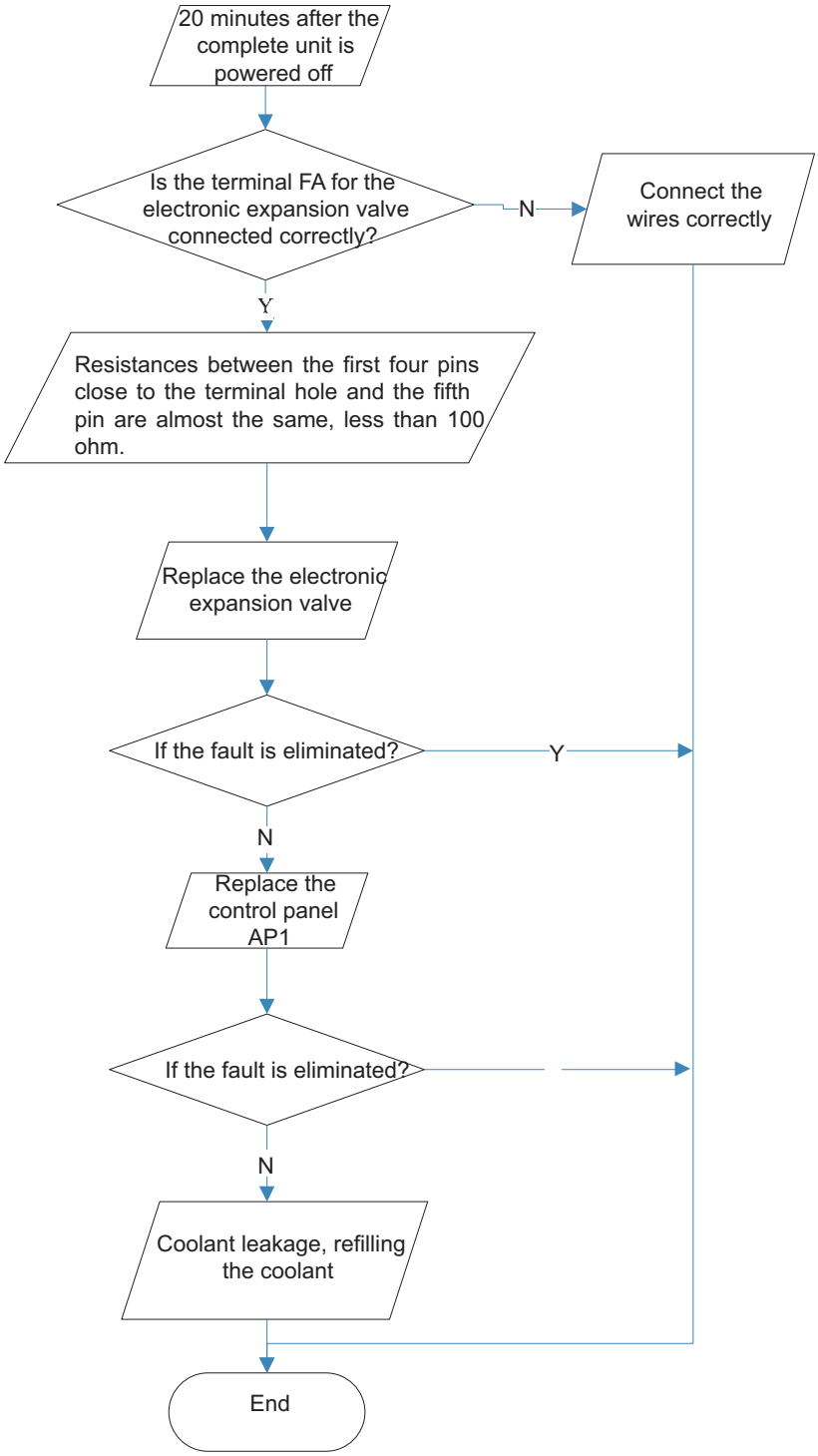
(6) Overload and air exhaust malfunction diagnosis (following AP1 for outdoor unit control board)

Mainly detect:

●Is the PMV connected well or not? Is PMV damaged?

●Is refrigerant leaked?

Fault diagnosis process:



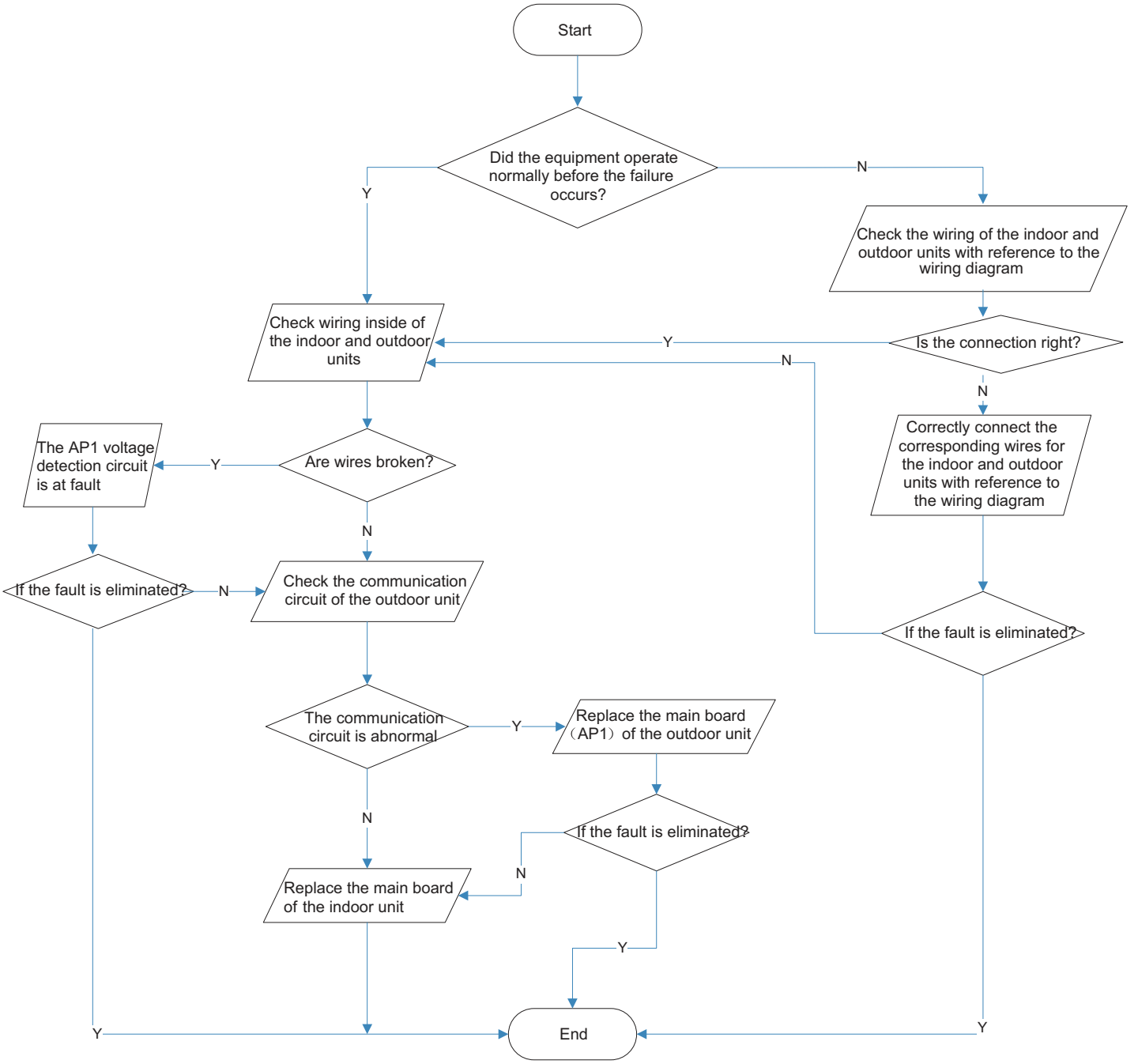
(7) Communication malfunction: (following AP1 for outdoor unit control board)

Mainly detect:

●Is there any damage for the indoor unit mainboard communication circuit? Is communication circuit damaged?

●Detect the indoor and outdoor units connection wire and indoor and outdoor units inside wiring is connect well or not, if is there any damage?

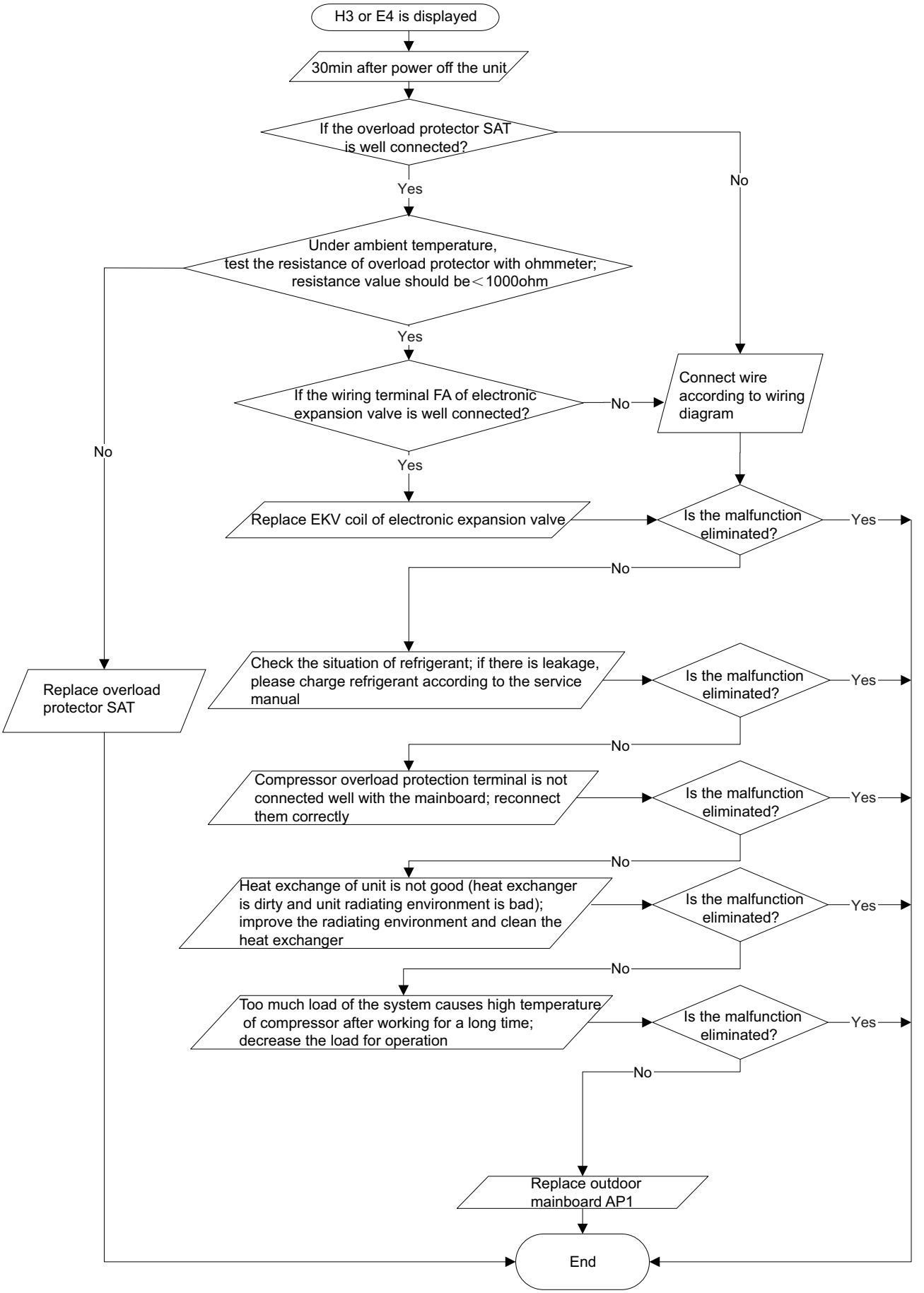
Fault diagnosis process:



(8) Overload and high discharge temperature malfunction

Main detection points:

- If the electronic expansion valve is connected well? Is the electronic expansion valve damaged?
- If the refrigerant is leaked?
- The compressor overload protection terminal is not connected well with the mainboard?
- If the overload protector is damaged?
- Heat exchange of unit is not good? (heat exchanger is dirty and unit radiating environment is bad)
- Too much load of the system causes high temperature of compressor after working for a long time?
- Malfunction of discharge temperature sensor?


H3 or E4 is displayed
30min after power off the unit
If the overload protector SAT is well connected?
No
Yes
Under ambient temperature, test the resistance of overload protector with ohmmeter; resistance value should be＜1000ohm
No
Yes
If the wiring terminal FA of electronic expansion valve is well connected?
No
Connect wire according to wiring diagram
Yes
Replace EKV coil of electronic expansion valve
Is the malfunction eliminated?
Yes
No
Replace overload protector SAT
Check the situation of refrigerant; if there is leakage, please charge refrigerant according to the service manual
Is the malfunction eliminated?
Yes
No
Compressor overload protection terminal is not connected well with the mainboard; reconnect them correctly
Is the malfunction eliminated?
Yes
No
Heat exchange of unit is not good (heat exchanger is dirty and unit radiating environment is bad); improve the radiating environment and clean the heat exchanger
Is the malfunction eliminated?
Yes
No
Too much load of the system causes high temperature of compressor after working for a long time; decrease the load for operation
Is the malfunction eliminated?
Yes
No
Replace outdoor mainboard AP1
End

9.3 Troubleshooting for Normal Malfunction

1. Air Conditioner Cant be Started Up

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
No power supply, or poor connection for power plug	After energization, operation indicator isnt bright and the buzzer cant give out sound	Confirm whether its 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 isnt 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 its 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; Units 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; Unitt pressure is much lower than regulated range. If refrigerant isnt 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 cant swing	Refer to point 3 of maintenance method for details
Malfunction of the IDU fan motor	The IDU fan motor cant operate	Refer to troubleshooting for H6 for maintenance method in details
Malfunction of the ODU fan motor	The ODU fan motor cant operate	Refer to point 4 of maintenance method for details
Malfunction of compressor	Compressor cant operate	Refer to point 5 of maintenance method for details

3. Horizontal Louver Cant 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 cant operate	Repair or replace stepping motor
Main board is damaged	Others are all normal, while horizontal louver cant operate	Replace the main board with the same model

4. ODU Fan Motor Cant 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 Cant 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 its 0	Repair or replace compressor
Cylinder of compressor is blocked	Compressor cant 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

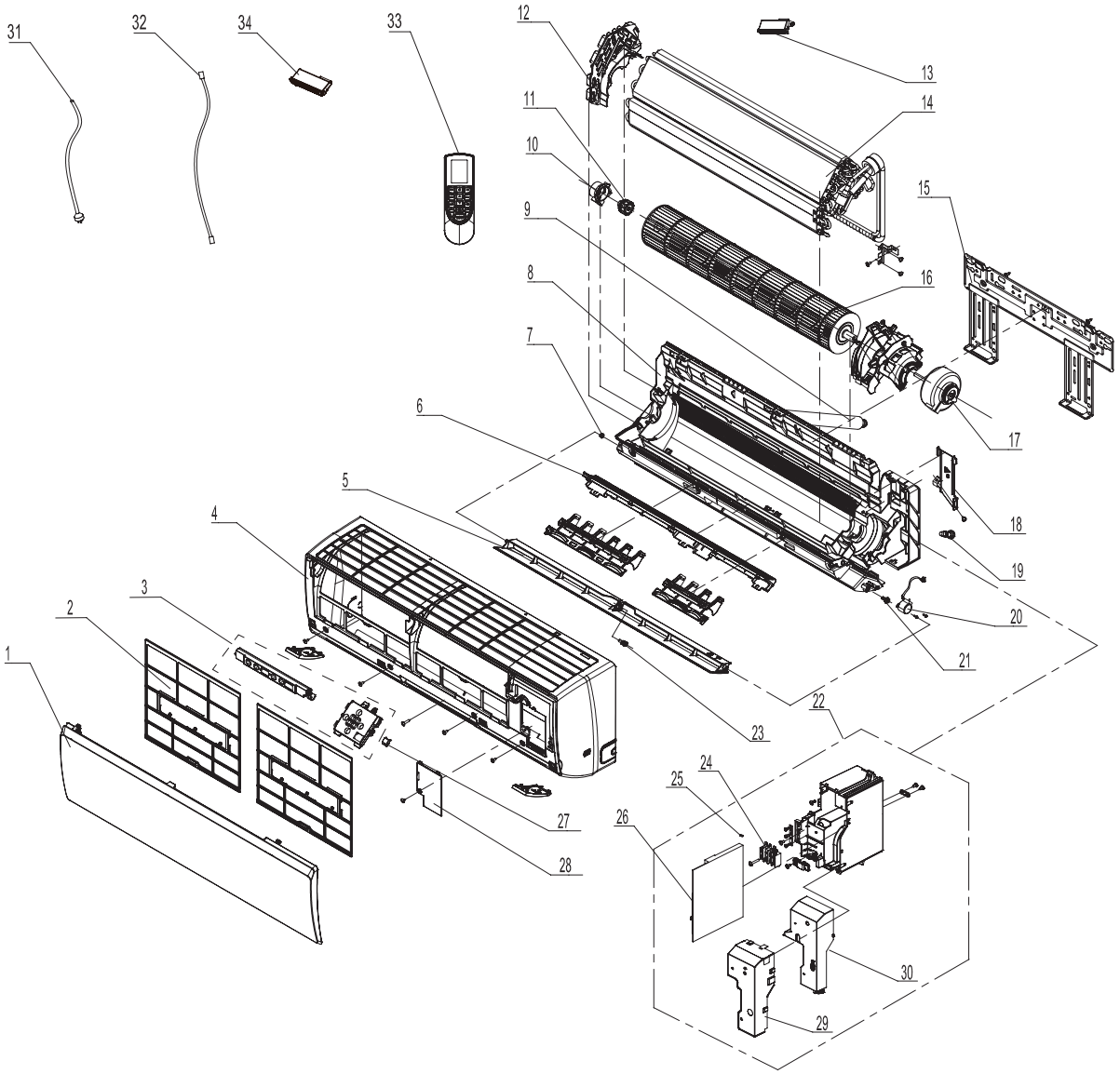
7. Abnormal Sound and Vibration

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
When turn on or turn off the unit, the panel and other parts will expand and theres abnormal sound	Theres the sound of "PAPA"	Normal phenomenon. Abnormal sound will disappear after a few minutes.
When turn on or turn off the unit, theres 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 therere parts touching together inside the indoor unit	Theres 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 therere parts touching together inside the outdoor unit	Theres 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

QB、QC



The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code			Qty
		GWH09QB-D3DNC6L/I	GWH12QC-D3DNC6L/I	GWH07QC-D3DNB2D/I	
	Product Code	CB443N04600	CB443N04700	CB432N20800	
1	Front Panel	20000300101T	20000300102T	20000300018	1
2	Filter Sub-Assy	11122219	11122468	1112246803	2
3	Display Board	30565260	30565260	30565260	1
4	Front Case Assy	00000200040	00000200045	00000200045	1
5	Guide Louver	1051276301	1051293101	1051293101	1
6	Helicoid Tongue	26112508	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	10512037	1
8	Rear Case assy	00000100066	00000100093	00000100093	1
9	Drainage Hose	0523001408	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	7651205102	7651205102	76512051	1
12	Evaporator Supper	24212180	24212179	24212174	1
13	Cold Plasma Generator	/	/	/	/
14	Evaporator Assy	0100200004407	0100297601	01002000030	1
15	Wall Mounting Frame	01252043	01252484	01252484	1
16	Cross Flow Fan	10352059	10352056	10352056	1
17	Fan Motor	1501208905	1501214604	1501246601	1
18	Connecting pipe clamp	2611216401	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
20	Stepping Motor	1521212901	1521210710	1521210710	1
21	Crank	73012005	73012005	73012005	1
22	Electric Box Assy	10000203822	10000204740	100002002094	1
23	Axile Bush	10542036	10542036	10542036	1
24	Terminal Board	42011233	42011233	42011233	1
25	Jumper	4202021911	4202021917	4202021909	1
26	Main Board	300002000309	300002000315	30138001018	1
27	Screw Cover	2425203001	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	2011220701	1
31	Power Cord	/	/	/	/
32	Connecting Cable	/	/	/	/
33	Remote Controller	305001000085	305001000085	305001000092	1
34	Detecting plate(WIFI)	30070079	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC09QC-D3DND8C/I	GWH09QC-D3DND8A/I	
	Product Code	CB459N06600	CB459N06900	
1	Front Panel	200003000003S	200003000003S	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	300001000035	300001000035	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060399	011001060399	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002067685	100002067684	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021914	4202021914	1
26	Main Board	300002061140	300002061141	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC12QC-D3DND8C/I	GWH12QC-D3DND8A/I	
	Product Code	CB459N06700	CB459N07000	
1	Front Panel	200003000003S	200003000003S	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	300001000035	300001000035	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060162	011001060162	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002067685	100002067684	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021914	4202021914	1
26	Main Board	300002061140	300002061141	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC09QC-D3DNB2C/I	GWC09QC-D3DNC2C/I	
	Product Code	CB432N23400	CB439N15300	
1	Front Panel	20000300018	20000300069S	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	30565260	30565281	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060399	011001060399	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002068031	100002068028	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021914	4202021914	1
26	Main Board	300002061140	300002061140	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC09QC-D3DND4C/I	GWC12QC-D3DNB2C/I	
	Product Code	CB464N03200	CB432N23200	
1	Front Panel	200003000069T	20000300018S	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	300001000081	30565260	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060399	011001060162	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002068067	100002068031	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021914	4202021914	1
26	Main Board	300002061140	300002061140	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC12QC-D3DNB2M/I	GWH12QC-D3DNB2M/I	
	Product Code	CB432N22700	CB432N22600	
1	Front Panel	20000300018S	20000300018S	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	30565260	30565260	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060162	011001060162	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002067858	100002067859	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021917	4202021917	1
26	Main Board	300002061161	300002061159	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

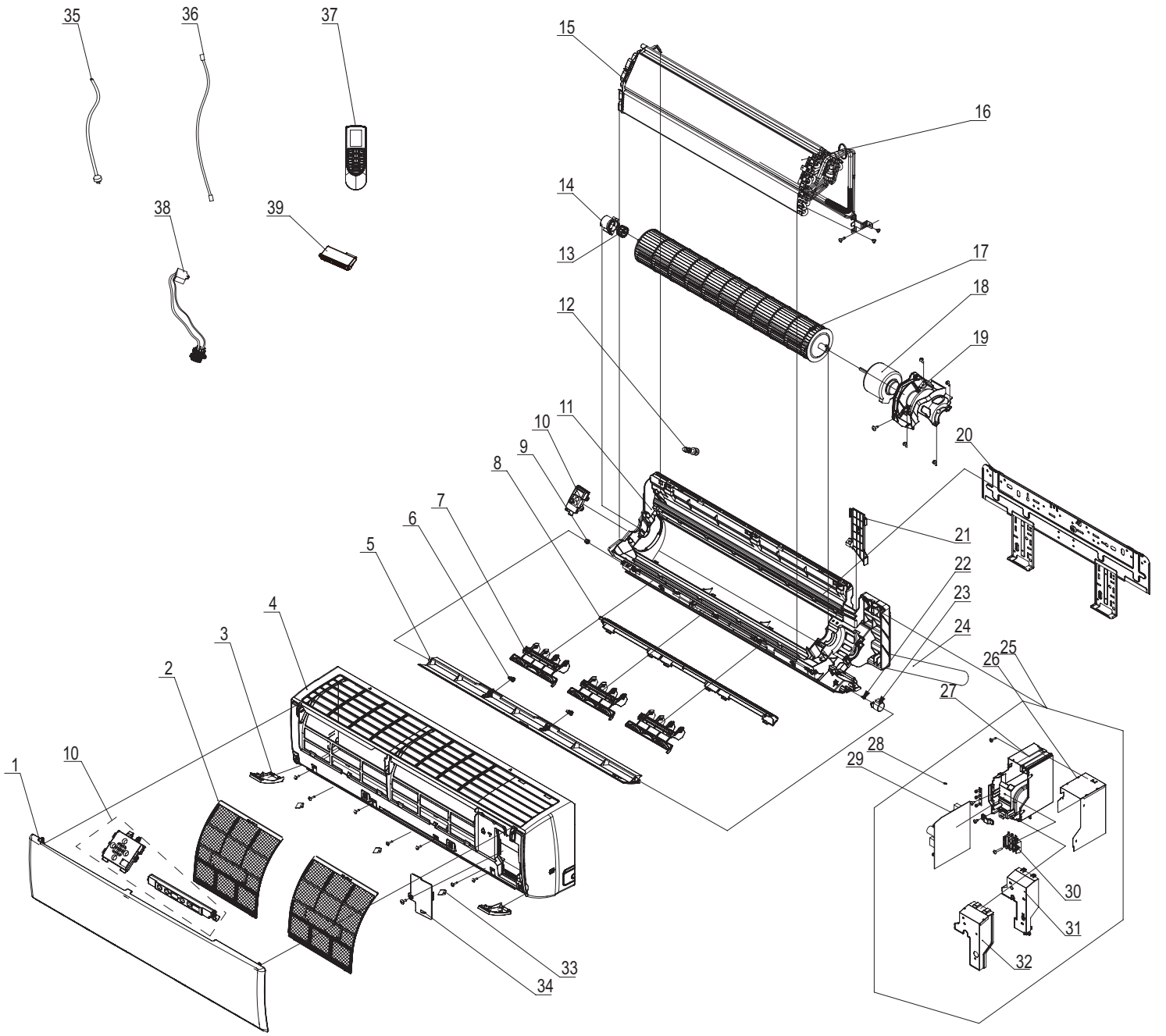
NO.	Description	Part Code		Qty
		GWC12QC-D3DNC2C/I	GWC12QC-D3DND4C/I	
	Product Code	CB439N15400	CB464N03100	
1	Front Panel	20000300069S	200003000069T	1
2	Filter Sub-Assy	1112246803	1112246803	2
3	Display Board	30565281	300001000081	1
4	Front Case Assy	00000200045	00000200045	1
5	Guide Louver	1051293101	1051293101	1
6	Helicoid Tongue	26112436	26112436	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100093	00000100093	1
9	Drainage Hose	05230014	05230014	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212179	24212179	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	011001060162	011001060162	1
15	Wall Mounting Frame	01252484	01252484	1
16	Cross Flow Fan	10352056	10352056	1
17	Fan Motor	1501214607	1501214607	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521210710	1521210710	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002068028	100002068067	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021914	4202021914	1
26	Main Board	300002061140	300002061140	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC09QB-D3DNB2J/I	GWH09QB-D3DNB2J/I	
	Product Code	CB432N21900	CB432N21800	
1	Front Panel	20000300019S	20000300019S	1
2	Filter Sub-Assy	1112221905	1112221905	2
3	Display Board	30565260	30565260	1
4	Front Case Assy	00000200040	00000200040	1
5	Guide Louver	1051276301	1051276301	1
6	Helicoid Tongue	26112508	26112508	1
7	Left Axile Bush	10512037	10512037	1
8	Rear Case assy	00000100066	00000100066	1
9	Drainage Hose	0523001408	0523001408	1
10	Ring of Bearing	26152022	26152022	1
11	O-Gasket sub-assy of Bearing	76512051	76512051	1
12	Evaporator Supper	24212180	24212180	1
13	Cold Plasma Generator	/	/	/
14	Evaporator Assy	01100100095	01100100095	1
15	Wall Mounting Frame	01252043	01252043	1
16	Cross Flow Fan	10352059	10352059	1
17	Fan Motor	1501208905	1501208905	1
18	Connecting pipe clamp	2611216401	2611216401	1
19	Rubber Plug (Water Tray)	76712012	76712012	1
20	Stepping Motor	1521212901	1521212901	1
21	Crank	73012005	73012005	1
22	Electric Box Assy	100002067731	100002067733	1
23	Axile Bush	10542036	10542036	1
24	Terminal Board	42011233	42011233	1
25	Jumper	4202021904	4202021904	1
26	Main Board	300002061158	300002061160	1
27	Screw Cover	2425203001	2425203001	1
28	Electric Box Cover Sub-Assy	0140206501	0140206501	1
29	Shield Cover of Electric Box Cover	01592150	01592150	1
30	Electric Box Cover	2011220701	2011220701	1
31	Power Cord	/	/	/
32	Connecting Cable	/	/	/
33	Remote Controller	305001060022	305001060022	1
34	Detecting plate(WIFI)	30070079	30070079	1

Above data is subject to change without notice.

QD



The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWH18QD-D3DNC6L/I	
	Product Code	CB443N04800	
1	Front Panel	20000300103T	1
2	Filter Sub-Assy	1112208906	2
3	Decoration board(left and right)	20192662	1
4	Front Case	2002248401	1
5	Guide Louver	1051276501	1
6	Axile Bush	10542036	2
7	Air Louver(Manual)	10512732	3
8	Helicoid Tongue	26112512	1
9	Left Axile Bush	10512037	1
10	Display Board	30565260	1
11	Rear Case assy	22202571	1
12	Rubber Plug (Water Tray)	76712012	1
13	O-Gasket sub-assy of Bearing	7651205102	1
14	O-Gasket of Cross Fan Bearing	76512203	1
15	Evaporator Support	24212177	1
16	Evaporator Assy	011001000207	1
17	Cross Flow Fan	10352060	1
18	Fan Motor	1501214503	1
19	Motor Press Plate	26112511	1
20	Wall Mounting Frame	01362026	1
21	Connecting pipe clamp	2611218801	1
22	Crank	73012005	1
23	Stepping Motor	1521240212	1
24	Drainage Hose	05230014	1
25	Electric Box Assy	10000204786	1
26	Lower Shield of Electric Box	01592139	1
27	Electric Box	2011221102	1
28	Jumper	4202021919	1
29	Main Board	300002000312	1
30	Terminal Board	42011233	1
31	Electric Box Cover	2011220901	1
32	Shield Cover of Electric Box	01592176	1
33	Screw Cover	2425201726	3
34	Electric Box Cover2	2011221001	1
35	Power Cord	/	/
36	Connecting Cable	/	/
37	Remote Controller	305001000085	1
38	Cold Plasma Generator	/	/
39	Detecting plate(WIFI)	30070077	1

Above data is subject to change without notice.

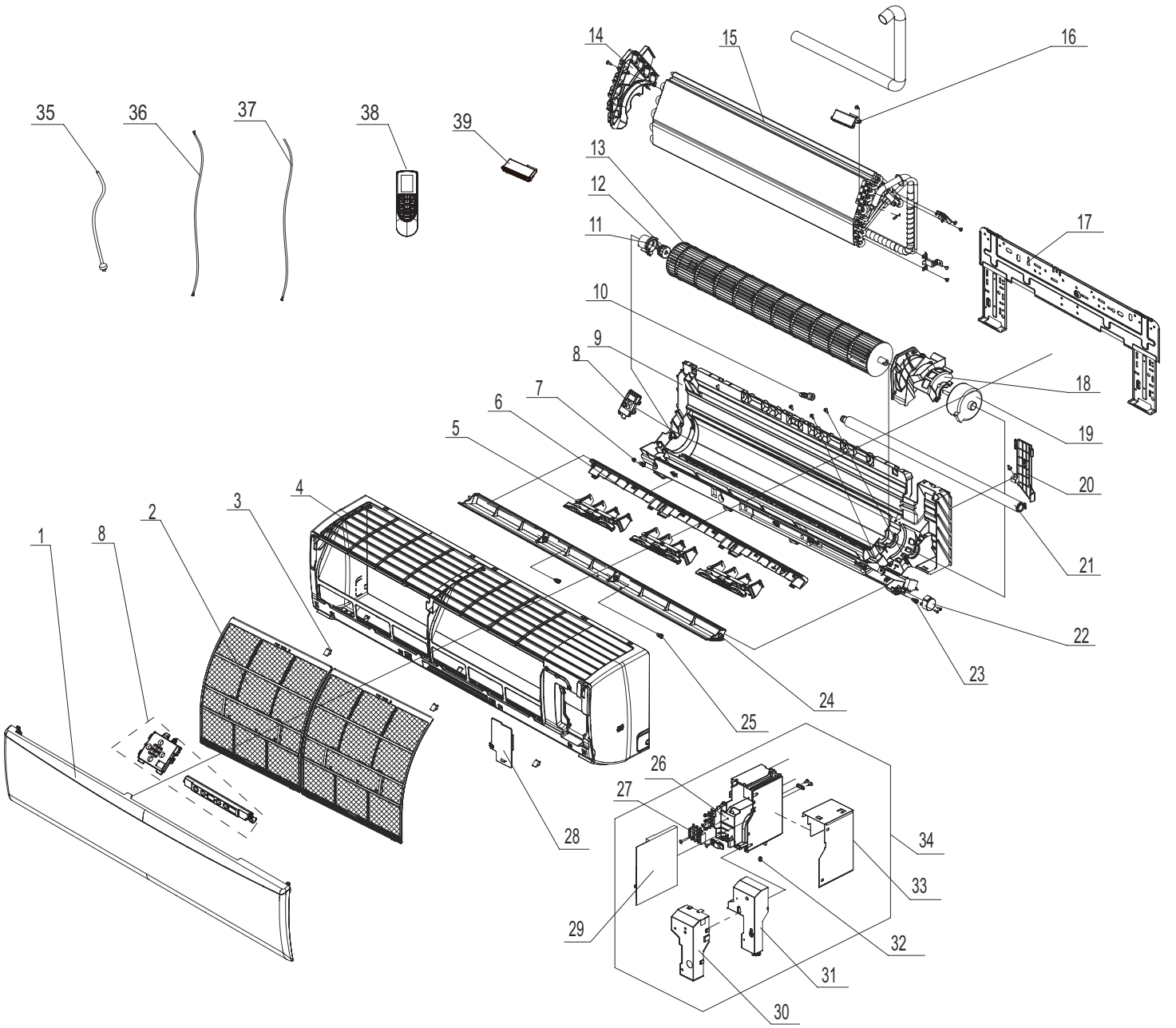
NO.	Description	Part Code		Qty
		GWC18QD-D3DNB2C/I	GWC18QD-D3DNC2A/I	
	Product Code	CB432N23300	CB439N15500	
1	Front Panel	20000300023S	20000300070S	1
2	Filter Sub-Assy	1112208906	1112208906	2
3	Decoration board(left and right)	20192662	20192662	1
4	Front Case	2002248401	2002248401	1
5	Guide Louver	1051276501	1051276501	1
6	Axile Bush	10542036	10542036	2
7	Air Louver(Manual)	10512732	10512732	3
8	Helicoid Tongue	26112512	26112512	1
9	Left Axile Bush	10512037	10512037	1
10	Display Board	30565260	30565278	1
11	Rear Case assy	22202571	22202571	1
12	Rubber Plug (Water Tray)	76712012	76712012	1
13	O-Gasket sub-assy of Bearing	76512051	76512051	1
14	O-Gasket of Cross Fan Bearing	76512203	76512203	1
15	Evaporator Support	24212177	24212177	1
16	Evaporator Assy	011001000207	011001000207	1
17	Cross Flow Fan	10352060	10352060	1
18	Fan Motor	15012136	15012136	1
19	Motor Press Plate	26112511	26112511	1
20	Wall Mounting Frame	01362026	01362026	1
21	Connecting pipe clamp	2611218801	2611218801	1
22	Crank	73012005	73012005	1
23	Stepping Motor	1521240212	1521240212	1
24	Drainage Hose	05230014	05230014	1
25	Electric Box Assy	100002062264	100002063656	1
26	Lower Shield of Electric Box	01592139	01592139	1
27	Electric Box	2011221105	2011221105	1
28	Jumper	4202021924	4202021924	1
29	Main Board	30138001021	30138001021	1
30	Terminal Board	42011233	42011233	1
31	Electric Box Cover	2011220901	2011220901	1
32	Shield Cover of Electric Box	01592176	01592176	1
33	Screw Cover	2425201726	2425201726	3
34	Electric Box Cover2	2011221001	2011221001	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Remote Controller	305001060022	305001060022	1
38	Cold Plasma Generator	/	/	/
39	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

NO.	Description	Part Code		Qty
		GWC18QD-D3DND4A/I	GWC18QD-D3DND8A/I	
	Product Code	CB464N03300	CB459N07200	
1	Front Panel	200003000068T	200003000015S	1
2	Filter Sub-Assy	1112208906	1112208906	2
3	Decoration board(left and right)	20192662	20192662	1
4	Front Case	2002248401	2002248401	1
5	Guide Louver	1051276501	1051276501	1
6	Axile Bush	10542036	10542036	2
7	Air Louver(Manual)	10512732	10512732	3
8	Helicoid Tongue	26112512	26112512	1
9	Left Axile Bush	10512037	10512037	1
10	Display Board	300001000081	300001000036	1
11	Rear Case assy	22202571	22202571	1
12	Rubber Plug (Water Tray)	76712012	76712012	1
13	O-Gasket sub-assy of Bearing	76512051	76512051	1
14	O-Gasket of Cross Fan Bearing	76512203	76512203	1
15	Evaporator Support	24212177	24212177	1
16	Evaporator Assy	011001000207	011001000207	1
17	Cross Flow Fan	10352060	10352060	1
18	Fan Motor	15012136	15012136	1
19	Motor Press Plate	26112511	26112511	1
20	Wall Mounting Frame	01362026	01362026	1
21	Connecting pipe clamp	2611218801	2611218801	1
22	Crank	73012005	73012005	1
23	Stepping Motor	1521240212	1521240212	1
24	Drainage Hose	05230014	05230014	1
25	Electric Box Assy	100002068030	100002067760	1
26	Lower Shield of Electric Box	01592139	01592139	1
27	Electric Box	2011221105	2011221105	1
28	Jumper	4202021924	4202021924	1
29	Main Board	30138001021	30138001021	1
30	Terminal Board	42011233	42011233	1
31	Electric Box Cover	2011220901	2011220901	1
32	Shield Cover of Electric Box	01592176	01592176	1
33	Screw Cover	2425201726	2425201726	3
34	Electric Box Cover2	2011221001	2011221001	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Remote Controller	305001060022	305001060022	1
38	Cold Plasma Generator	/	/	/
39	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

QE



The component picture is only for reference; please refer to the actual product.

No.	Description	Part Code		Qty
		GWH24QE-D3DNC6O/I	GWC24QE-D3DNB2C/I	
	Product Code	CB443N05000	CB432N23500	
1	Front Panel	20000300104T	20000300016S	1
2	Filter Sub-Assy	11012007	1101200703	2
3	Screw Cover	2425245301	2425245301	3
4	Front Case	2002248603	2002248603	1
5	Air Louver(Manual)	10512737	10512737	3
6	Helicoid Tongue	26112513	26112513	1
7	Left Axile Bush	10512037	10512037	1
8	Display Board	30565260	30565260	1
9	Rear Case assy	22202570	22202570	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	Ring of Bearing	26152025	26152025	1
12	O-Gasket sub-assy of Bearing	7651205102	76512051	1
13	Cross Flow Fan	10352057	10352057	1
14	Evaporator Support	24212178	24212178	1
15	Evaporator Assy	011001000095	01100100007304	1
16	Cold Plasma Generator	/	/	/
17	Wall Mounting Frame	01252229	01252229	1
18	Motor Press Plate	26112515	26112515	1
19	Fan Motor	1501214501	1501214501	1
20	Connecting pipe clamp	26112514	26112514	1
21	Drainage Hose	0523001405	0523001405	1
22	Stepping Motor	1521240212	1521240212	1
23	Crank	73012005	73012005	1
24	Guide Louver	1051232001	1051232001	1
25	Axile Bush	10542036	10542036	2
26	Electric Box	2011221102	2011221105	1
27	Terminal Board	42011233	42011233	1
28	Electric Box Cover2	2011221001	2011221001	1
29	Main Board	300002000316	300002061144	1
30	Shield Cover of Electric Box	01592176	01592176	1
31	Electric Box Cover	2011220901	2011220901	1
32	Jumper	4202021924	4202021924	1
33	Lower Shield of Electric Box	01592139	01592139	1
34	Electric Box Assy	100002001787	100002068029	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Temperature Sensor	3900031302	3900031302	1
38	Remote Controller	305001000085	305001060022	1
39	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWC24QE-D3DND8C/I	GWH24QE-D3DND8A/I	
	Product Code	CB459N06800	CB459N07100	
1	Front Panel	200003000014	200003000014	1
2	Filter Sub-Assy	1101200703	1101200703	2
3	Screw Cover	2425245301	2425245301	3
4	Front Case	2002248603	2002248603	1
5	Air Louver(Manual)	10512737	10512737	3
6	Helicoid Tongue	26112513	26112513	1
7	Left Axile Bush	10512037	10512037	1
8	Display Board	300001000036	300001000036	1
9	Rear Case assy	22202570	22202570	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	Ring of Bearing	26152025	26152025	1
12	O-Gasket sub-assy of Bearing	76512051	76512051	1
13	Cross Flow Fan	10352057	10352057	1
14	Evaporator Support	24212178	24212178	1
15	Evaporator Assy	01100100007304	01100100007304	1
16	Cold Plasma Generator	/	/	/
17	Wall Mounting Frame	01252229	01252229	1
18	Motor Press Plate	26112515	26112515	1
19	Fan Motor	1501214501	1501214501	1
20	Connecting pipe clamp	26112514	26112514	1
21	Drainage Hose	0523001405	0523001405	1
22	Stepping Motor	1521240212	1521240212	1
23	Crank	73012005	73012005	1
24	Guide Louver	1051232001	1051232001	1
25	Axile Bush	10542036	10542036	2
26	Electric Box	2011221105	2011221105	1
27	Terminal Board	42011233	42011233	1
28	Electric Box Cover2	2011221001	2011221001	1
29	Main Board	300002061144	300002061143	1
30	Shield Cover of Electric Box	01592176	01592176	1
31	Electric Box Cover	2011220901	2011220901	1
32	Jumper	4202021924	4202021924	1
33	Lower Shield of Electric Box	01592139	01592139	1
34	Electric Box Assy	100002067688	100002067687	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Temperature Sensor	3900031302	3900031302	1
38	Remote Controller	305001060022	305001060022	1
39	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWC24QE-D3DNC2C/I	GWC24QE-D3DND4C/I	
	Product Code	CB439N15100	CB464N03000	
1	Front Panel	20000300071S	200003000076T	1
2	Filter Sub-Assy	1101200703	1101200703	2
3	Screw Cover	2425245301	2425245301	3
4	Front Case	2002248603	2002248603	1
5	Air Louver(Manual)	10512737	10512737	3
6	Helicoid Tongue	26112513	26112513	1
7	Left Axile Bush	10512037	10512037	1
8	Display Board	30565278	300001000081	1
9	Rear Case assy	22202570	22202570	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	Ring of Bearing	26152025	26152025	1
12	O-Gasket sub-assy of Bearing	76512051	76512051	1
13	Cross Flow Fan	10352057	10352057	1
14	Evaporator Support	24212178	24212178	1
15	Evaporator Assy	01100100007304	01100100007304	1
16	Cold Plasma Generator	/	/	/
17	Wall Mounting Frame	01252229	01252229	1
18	Motor Press Plate	26112515	26112515	1
19	Fan Motor	1501214501	1501214501	1
20	Connecting pipe clamp	26112514	26112514	1
21	Drainage Hose	0523001405	0523001405	1
22	Stepping Motor	1521240212	1521240212	1
23	Crank	73012005	73012005	1
24	Guide Louver	1051232001	1051232001	1
25	Axile Bush	10542036	10542036	2
26	Electric Box	2011221105	2011221105	1
27	Terminal Board	42011233	42011233	1
28	Electric Box Cover2	2011221001	2011221001	1
29	Main Board	300002061144	300002061144	1
30	Shield Cover of Electric Box	01592176	01592176	1
31	Electric Box Cover	2011220901	2011220901	1
32	Jumper	4202021924	4202021924	1
33	Lower Shield of Electric Box	01592139	01592139	1
34	Electric Box Assy	100002068027	100002068033	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Temperature Sensor	3900031302	3900031302	1
38	Remote Controller	305001060022	305001060022	1
39	Detecting plate(WIFI)	30070077	30070077	1

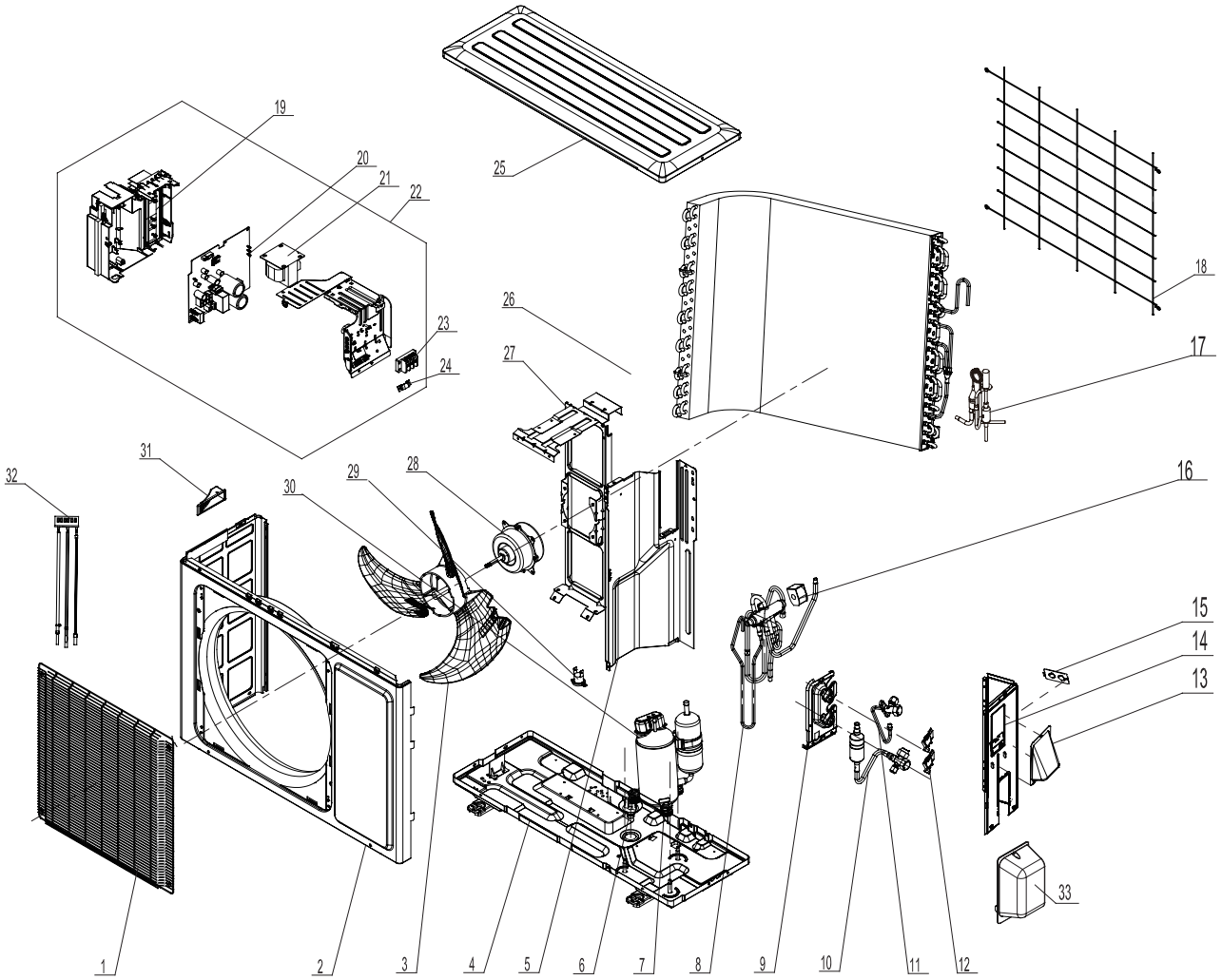
Above data is subject to change without notice.

No.	Description	Part Code		Qty
		GWC24QE-D3DNB2R/I	GWH24QE-D3DNB2R/I	
	Product Code	CB432N21600	CB432N21500	
1	Front Panel	20000300016S	20000300016S	1
2	Filter Sub-Assy	11012007	11012007	2
3	Screw Cover	2425245301	2425245301	3
4	Front Case	2002248603	2002248603	1
5	Air Louver(Manual)	10512737	10512737	3
6	Helicoid Tongue	26112513	26112513	1
7	Left Axile Bush	10512037	10512037	1
8	Display Board	30565260	30565260	1
9	Rear Case assy	22202570	22202570	1
10	Rubber Plug (Water Tray)	76712012	76712012	1
11	Ring of Bearing	26152025	26152025	1
12	O-Gasket sub-assy of Bearing	76512051	76512051	1
13	Cross Flow Fan	10352057	10352057	1
14	Evaporator Support	24212178	24212178	1
15	Evaporator Assy	01100100007306	01100100007306	1
16	Cold Plasma Generator	/	/	/
17	Wall Mounting Frame	01252229	01252229	1
18	Motor Press Plate	26112515	26112515	1
19	Fan Motor	1501214501	1501214501	1
20	Connecting pipe clamp	26112514	26112514	1
21	Drainage Hose	0523001405	0523001405	1
22	Stepping Motor	1521240212	1521240212	1
23	Crank	73012005	73012005	1
24	Guide Louver	1051232001	1051232001	1
25	Axile Bush	10542036	10542036	2
26	Electric Box	2011221105	2011221105	1
27	Terminal Board	42011233	42011233	1
28	Electric Box Cover2	2011221001	2011221001	1
29	Main Board	300002061154	300002061155	1
30	Shield Cover of Electric Box	01592176	01592176	1
31	Electric Box Cover	2011220901	2011220901	1
32	Jumper	4202021924	4202021924	1
33	Lower Shield of Electric Box	01592139	01592139	1
34	Electric Box Assy	100002067799	100002067802	1
35	Power Cord	/	/	/
36	Connecting Cable	/	/	/
37	Temperature Sensor	3900031302	3900031302	1
38	Remote Controller	305001060022	305001060022	1
39	Detecting plate(WIFI)	30070077	30070077	1

Above data is subject to change without notice.

10.2 Outdoor Unit

GWH09QB-D3DNC6L/O GWH12QC-D3DNC6L/O GWH09AFC-D3DNA1A/O



The component picture is only for reference; please refer to the actual product.

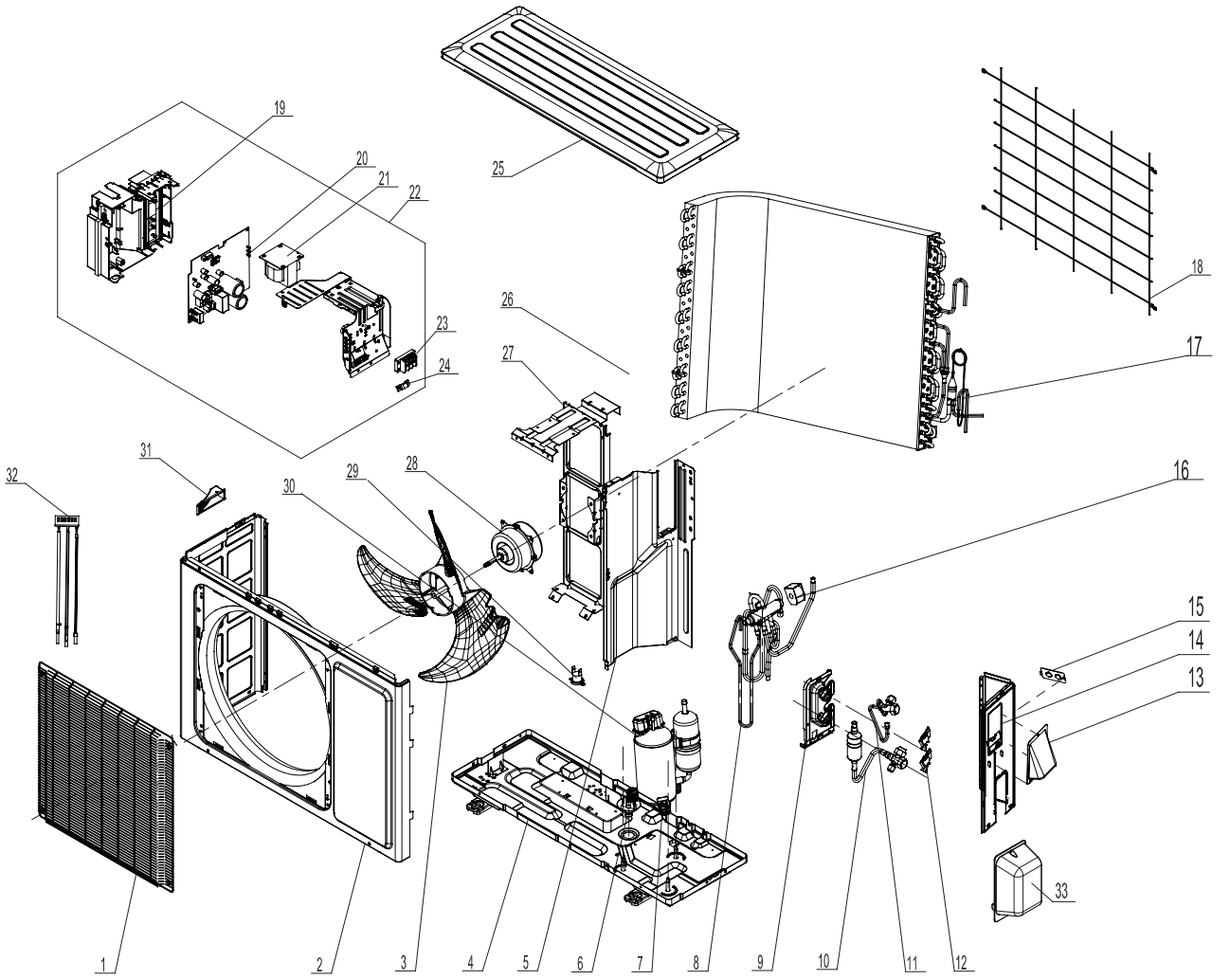
NO.	Description	Part Code		Qty
		GWH09QB-D3DNC6L/O	GWH12QC-D3DNC6L/O	
	Product Code	CB443W04600	CB443W04700	
1	Front Grill	01473012	01473012	1
2	Front Panel Assy	0153304804	0153304804	1
3	Axial Flow Fan	10333004	10333004	1
4	Chassis Sub-assy	017000000133P	017000000126P	1
5	Clapboard Sub-Assy	0123338502	0123338502	1
6	Drainage Connecter	06123401	06123401	1
7	Compressor Gasket	76710287	76710287	3
8	4-Way Valve Assy	030152000171	030152000094	1
9	Valve Support	0171314201P	0171314201P	1
10	Cut off Valve Assy	07133474	07133474	1
11	Valve	07100003	07130239	1
12	Valve Support Block	26113017	26113017	2
13	Cover of Pass Wire	01413069	01413069	1
14	Right Side Plate Assy	013030713	013030713	1
15	Cable Cross Plate 2	02123014P	02123014P	1
16	Magnet Coil	4300040050	4300040050	1
17	Electric Expansion Valve Sub-Assy	030026000197	030026000192	1
18	Rear Grill	01473009	01473009	1
19	Electric Box	20113034	20113034	1
20	Main Board	300027000355	300027000359	1
21	Reactor	43130184	43130184	1
22	Electric Box Assy	100002001956	100002001959	1
23	Terminal Board	42010313	42010313	1
24	Wire Clamp	71010003	71010003	1
25	Top Cover Sub-Assy	000051060006	000051060006	1
26	Condenser Assy	011002000508	011002000492	1
27	Motor Support	01703104	0170310401	1
28	Fan Motor	1501308507	1501308507	1
29	Compressor Overload Protector(External)	00183032	00180030	1
30	Compressor and Fittings	009001000181	009001000181	1
31	Small Handle	26233100	26233100	1
32	Temperature Sensor	3900030805	3900030805	1
33	valve cover	2012300101	2012300101	1

Above data is subject to change without notice.

NO.	Description	Part Code	Qty
		GWH09AFC-D3DNA1A/O	
	Product Code	CB348W03400	
1	Front Grill	01473012	1
2	Front Panel Assy	0153304804	1
3	Axial Flow Fan	10333004	1
4	Chassis Sub-assy	017000060337P	1
5	Clapboard Sub-Assy	0123338502	1
6	Drainage Connecter	06123401	1
7	Compressor Gasket	009012000027	3
8	4-Way Valve Assy	030152060316	1
9	Valve Support	0171314201P	1
10	Cut off Valve Assy	07133474	1
11	Valve	07100003	1
12	Valve Support Block	26113017	2
13	Cover of Pass Wire	01413069	1
14	Right Side Plate Assy	013030713	1
15	Cable Cross Plate 2	02123014P	1
16	Magnet Coil	4300040050	1
17	Electric Expansion Valve Sub-Assy	030026060292	1
18	Rear Grill	01473009	1
19	Electric Box	2011303401	1
20	Main Board	300027060725	1
21	Reactor	43130184	1
22	Electric Box Assy	100002064985	1
23	Terminal Board	422000060016	1
24	Wire Clamp	71010003	1
25	Top Cover Sub-Assy	01253108P	1
26	Condenser Assy	011002060611	1
27	Motor Support	0170310403	1
28	Fan Motor	1501308511	1
29	Compressor Overload Protector(External)	00180030	1
30	Compressor and Fittings	009001060050	1
31	Small Handle	26233100	1
32	Temperature Sensor	3900030805	1
33	valve cover	2012300101	1

Above data is subject to change without notice.

GWH09QB-D3DNB2J/O GWH12QC-D3DNB2M/O

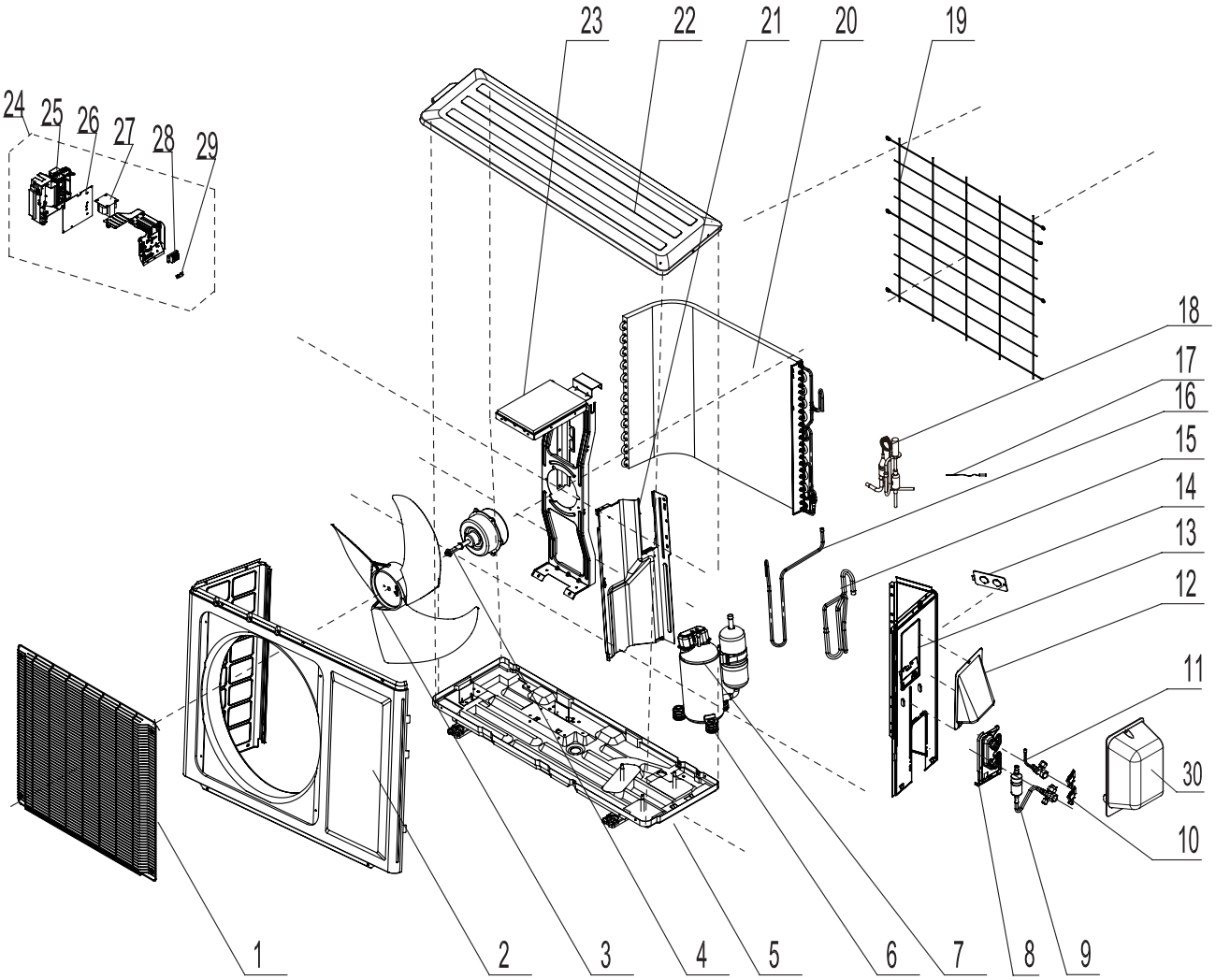


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code		Qty
		GWH09QB-D3DNB2J/O	GWH12QC-D3DNB2M/O	
	Product Code	CB432W21800	CB432W22600	
1	Front Grill	01473012	01473012	1
2	Front Panel Assy	0153304804	0153304804	1
3	Axial Flow Fan	10333004	10333004	1
4	Chassis Sub-assy	01700006009601P	01700006009601P	1
5	Clapboard Sub-Assy	0123338502	0123338502	1
6	Drainage Connecter	06123401	06123401	1
7	Compressor Gasket	009012000027	009012000027	3
8	4-Way Valve Assy	030152060087	030152060393	1
9	Valve Support	0171314201P	0171314201P	1
10	Cut off Valve Assy	07133691	07133474	1
11	Valve	07100003	07133082	1
12	Valve Support Block	26113017	26113017	2
13	Cover of Pass Wire	01413069	01413069	1
14	Right Side Plate Assy	0130307003	0130307003	1
15	Cable Cross Plate 2	02123014P	02123014P	1
16	Magnet Coil	4300040050	4300040050	1
17	Capillary Sub-assy	030006060692	030006060709	1
18	Rear Grill	01473009	01473009	1
19	Electric Box	20113033	2011303401	1
20	Main Board	300027060985	300027060987	1
21	Reactor	/	43130184	/
22	Electric Box Assy	100002067452	100002067860	1
23	Terminal Board	422000060016	422000060016	1
24	Wire Clamp	71010003	71010003	1
25	Top Cover Sub-Assy	01253108P	01253108P	1
26	Condenser Assy	011002060964	011002060992	1
27	Motor Support	01703104	01703104	1
28	Fan Motor	1501308511	1501308511	1
29	Compressor Overload Protector(External)	00183031	00183031	1
30	Compressor and Fittings	009001060050	009001060066	1
31	Small Handle	26233100	26233100	1
32	Temperature Sensor	3900030805	3900030805	1
33	valve cover	2012300101	2012300101	1

Above data is subject to change without notice.

GWC09AFC-D3DNA1A/O

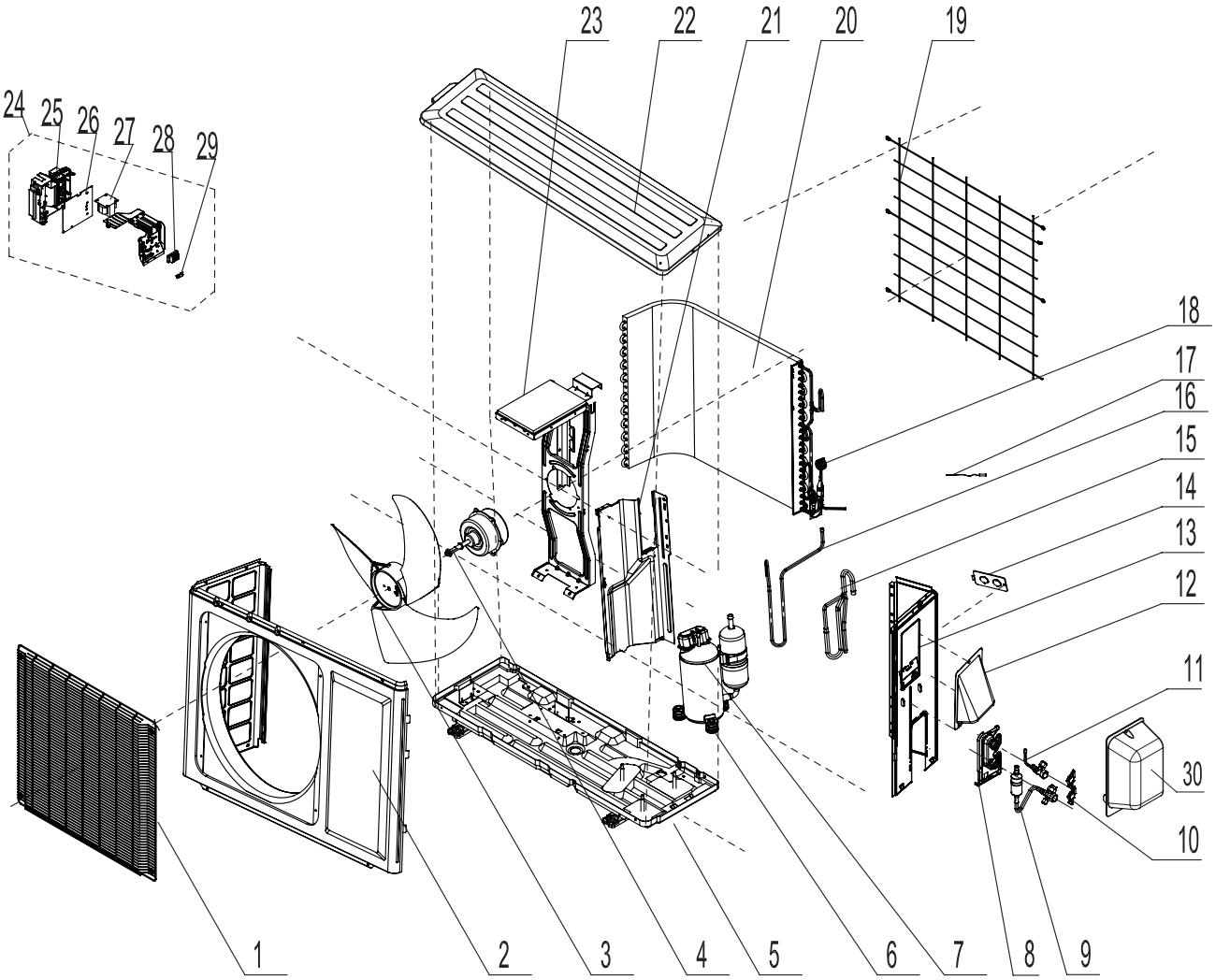


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWC09AFC-D3DNA1A/O	
	Product Code	CB348W03300	
1	Front Grill	01473012	1
2	Front Panel Assy	0153304804	1
3	Axial Flow Fan	10333004	1
4	Fan Motor	1501308511	1
5	Chassis Sub-assy	017000060086P	1
6	Compressor Gasket	009012000027	3
7	Compressor and fittings	009001060050	1
8	Valve Support	0171314201P	1
9	Cut off Valve Assy	07133474	1
10	Valve Support Block	26113017	2
11	Valve	07100003	1
12	Cable Cross Plate 2	02123014P	1
13	Right Side Plate Assy	013030713	1
14	Cover of pass wire	01413069	1
15	Inhalation Tube	035006060992	1
16	Discharge Tube	035008061277	1
17	Temperature Sensor	3900030805	1
18	Electric Expansion Valve Sub-Assy	030026060292	1
19	Rear Grill	01473009	1
20	Condenser Assy	011002060610	1
21	Clapboard Sub-Assy	0123338502	1
22	Top Cover Sub-Assy	01253108P	1
23	Motor Support	0170310401	1
24	Electric Box Assy	100002064988	1
25	Reactor	43130184	1
26	Electric Box Cover Sub-Assy	017007060994	1
27	Main Board	300027060726	1
28	Terminal Board	422000060016	1
29	Wire Clamp	71010003	1
30	valve cover	2012300101	1

Above data is subject to change without notice.

GWC12QC-D3DNB2M/O GWC09QB-D3DNB2J/O

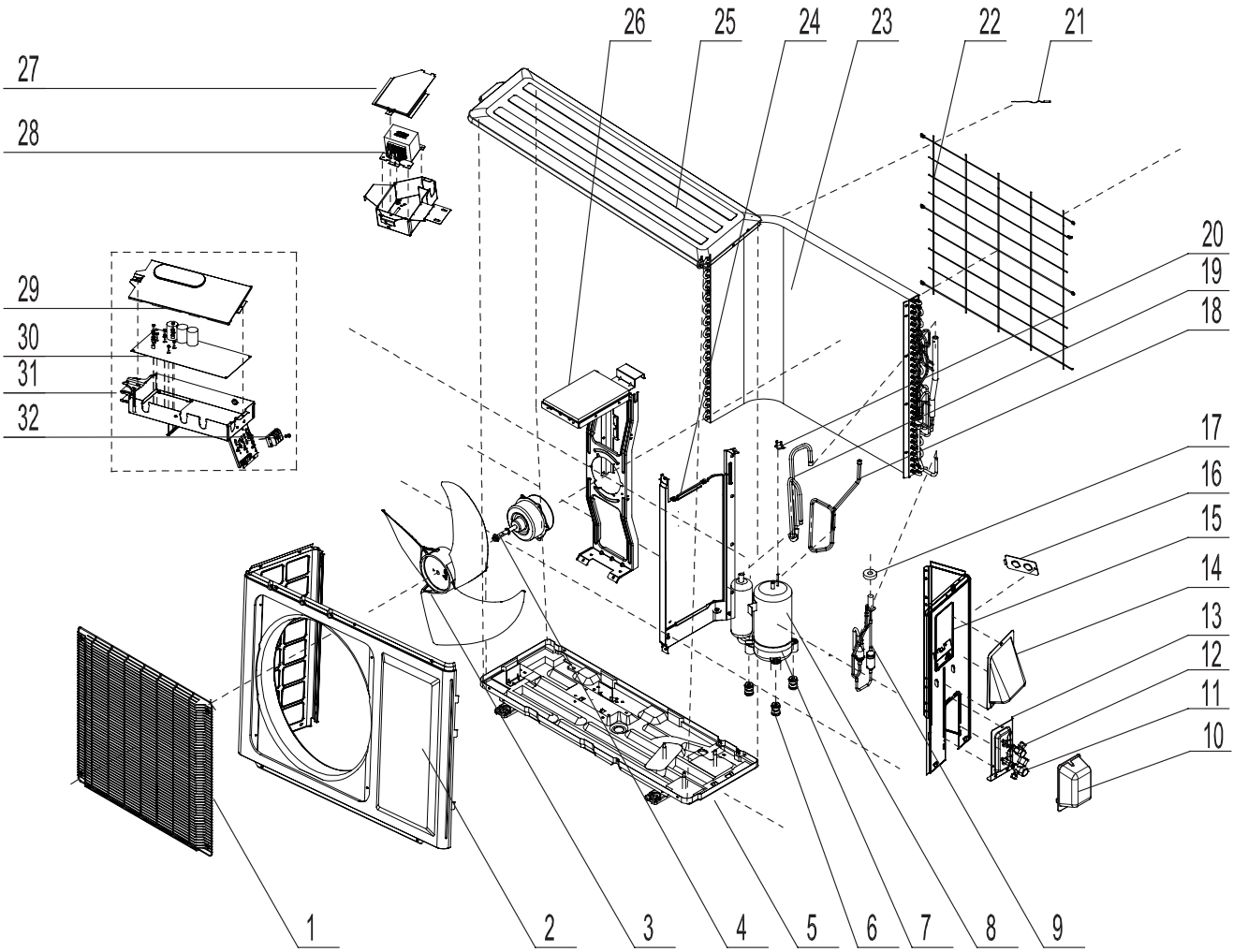


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code		Qty
		GWC12QC-D3DNB2M/O	GWC09QB-D3DNB2J/O	
	Product Code	CB432W22700	CB432W21900	
1	Front Grill	01473012	01473012	1
2	Front Panel Assy	0153304804	0153304804	1
3	Axial Flow Fan	10333004	10333004	1
4	Fan Motor	1501308511	1501308511	1
5	Chassis Sub-assy	01700006039402P	01700006009301P	1
6	Compressor Gasket	009012000027	009012000027	3
7	Compressor and Fittings	009001060066	009001060050	1
8	Valve Support	0171314201P	0171314201P	1
9	Cut off Valve Assy	07133474	07133691	1
10	Valve Support Block	26113017	26113017	2
11	Valve	07133082	07133082	1
12	Cable Cross Plate 2	02123014P	02123014P	1
13	Right Side Plate Assy	00013006002002	00013006002002	1
14	Cover of Pass Wire	01413069	01413069	1
15	Inhalation Tube Sub-assy	07133474	07133691	1
16	Discharge Tube	035008060119	035008061211	1
17	Temperature Sensor	3900030805	3900030805	1
18	Capillary Sub-assy	030006060710	030006060691	1
19	Rear Grill	01473009	01473009	1
20	Condenser Assy	011002060991	011002060963	1
21	Clapboard Sub-Assy	0123338502	0123338502	1
22	Top Cover Sub-Assy	000051060086	000051060086	1
23	Motor Support	01703103	01703103	1
24	Electric Box Assy	100002067861	100002067451	1
25	Reactor	43130184	/	1
26	Electric Box Cover Sub-Assy	017007061655	017007061536	1
27	Main Board	300027060989	300027060986	1
28	Terminal Board	422000060016	422000060016	1
29	Wire Clamp	71010003	71010003	1
30	valve cover	2012300101	2012300101	1

Above data is subject to change without notice.

GWC12AFC-D3DNA1A/O

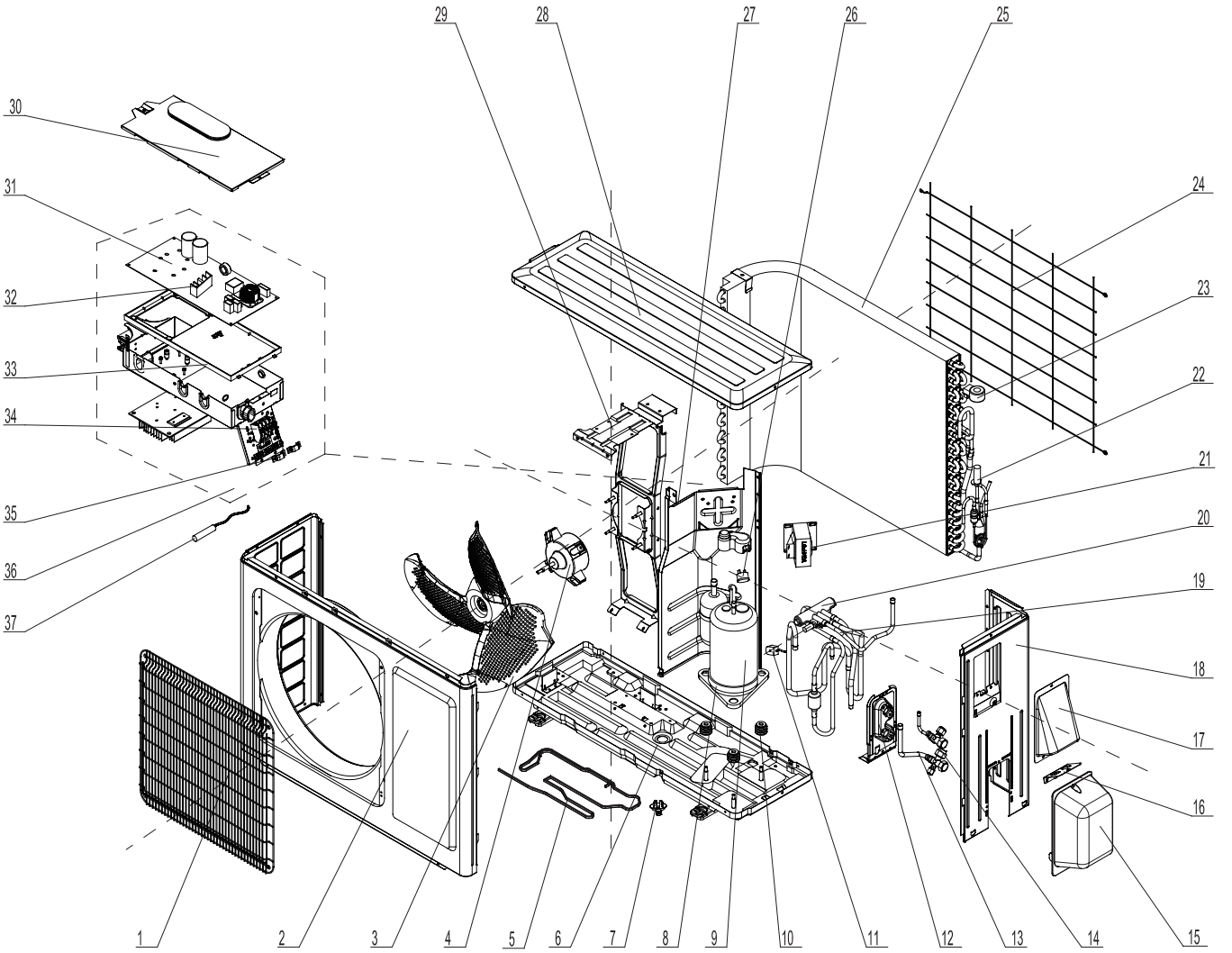


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWC12AFC-D3DNA1A/O	
	Product Code	CB348W03500	
1	Front Grill	016004060007	1
2	Cabinet	01433033P	1
3	Axial Flow Fan	10333011	1
4	Fan Motor	1501308511	1
5	Chassis Sub-assy	017000060083P	1
6	Compressor Gasket	009012000027	3
7	Electrical Heater(Compressor)	/	/
8	Compressor and fittings	009001060066	1
9	Electric Expansion Valve Sub-Assy	030026060313	1
10	Valve cover	22243006	1
11	Valve	071302391	1
12	Valve	07130239	1
13	Valve Support	0171314201P	1
14	Cable Cross Plate sub-assy	02123015	1
15	Right Side Plate Assy	0130325503P	1
16	Cover of pass wire	02123013P	1
17	Magnet Coil	072002000012	1
18	Discharge Tube	035008060508	1
19	Inhalation Tube	035006060531	1
20	Compressor Overload Proctector(External)	00183031	1
21	Temperature Sensor	3900030805	1
22	Rear Grill	01475014	1
23	Condenser Assy	011002060650	1
24	Clapboard Sub-Assy	01233180	1
25	Top Cover Plate	01253107P	1
26	Motor suport spot welding sub-assy	01703136	1
27	Cover of Reactor box	/	/
28	Reactor	43130184	1
29	Electric Box Cover Sub-Assy	/	/
30	Main Board	300027060671	1
31	Electric Box Assy	100002065352	1
32	Terminal Board	422000060016	1

Above data is subject to change without notice.

GWH12AFC-D3DNA1A/O

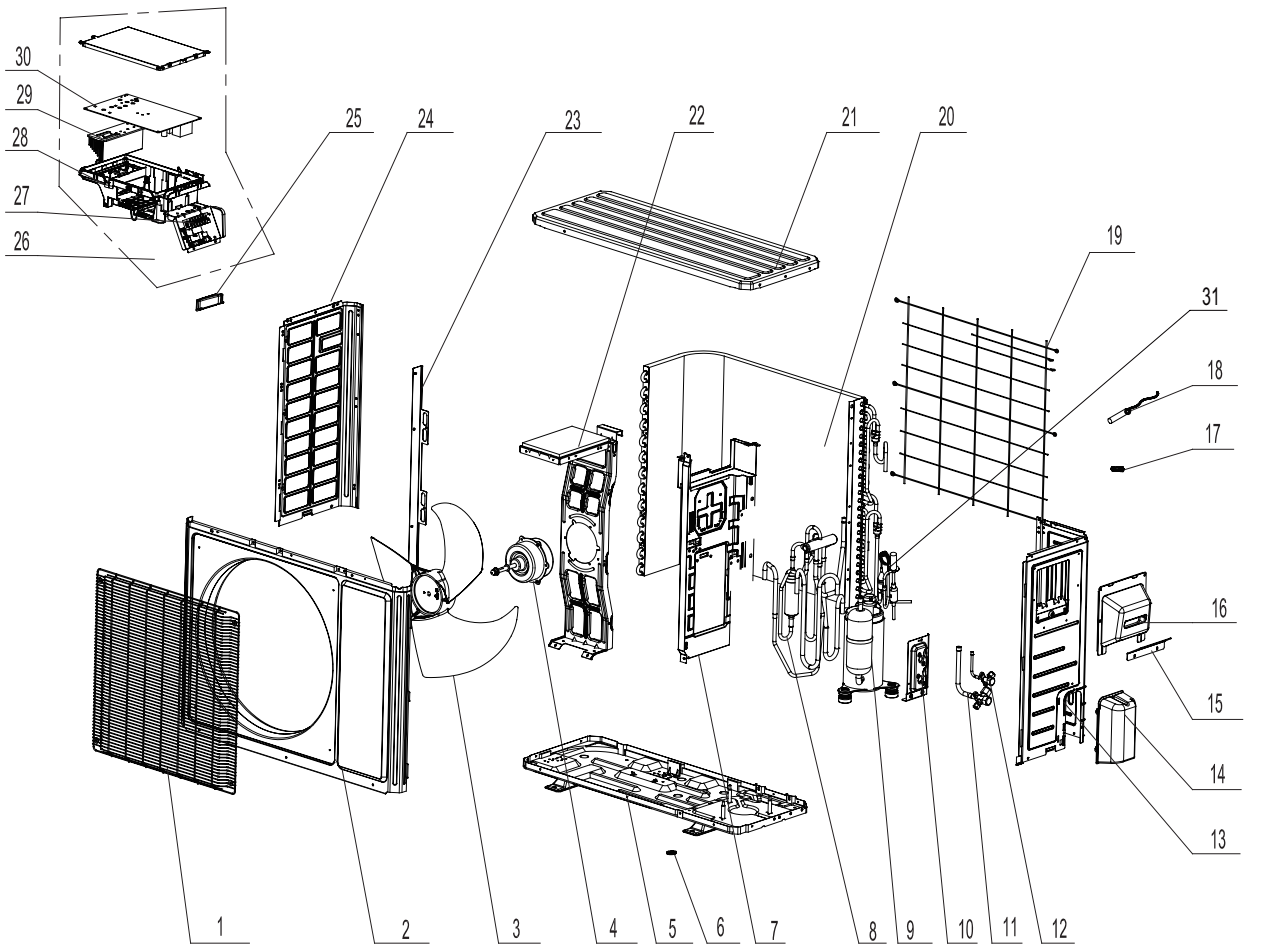


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWH12AFC-D3DNA1A/O	
	Product Code	CB348W03600	
1	Front Grill	016004060007	1
2	Cabinet	01433033P	1
3	Axial Flow Fan	10333011	1
4	Fan Motor	1501308511	1
5	Electrical Heater	7651000414	1
6	Chassis Sub-assy	017000060080P	1
7	Drainage Connecter	26113009	1
8	Electrical Heater(Compressor)	7651000414	1
9	Compressor and Fittings	009001060066	1
10	Compressor Gasket	009012000027	3
11	Magnet Coil	4300040050	1
12	Valve Support	0171314201P	1
13	Valve	071302391	1
14	Valve	07130239	1
15	Valve Cover	22243006	1
16	Cable Cross Plate 1	02123013P	1
17	Cable Cross Plate 2	02123014P	1
18	Right Side Plate	0130325503P	1
19	4-Way Valve Assy	030152060090	1
20	4-Way Valve	430004022	1
21	Reactor	43130184	1
22	Electric Expansion Valve Sub-Assy	030026060122	1
23	Electric Expand Valve Fitting	072002000012	1
24	Rear Grill	01475014	1
25	Condenser Assy	011002060209	1
26	Compressor Overload Protector(External)	00183031	1
27	Clapboard Sub-Assy	01233180	1
28	Top Cover Plate	01253107P	1
29	Motor Support	01703136	1
30	Electric Box Cover Sub-Assy	/	/
31	Main Board	300027060670	1
32	Radiator	49013057	1
33	Electric Box 1	2011303401	1
34	Terminal Board	422000060016	1
35	Wire Clamp	71010003	1
36	Electric Box Assy	100002065351	1
37	Temperature Sensor	3900030805	1

Above data is subject to change without notice.

GWH18QD-D3DNC6L/O GWH24QE-D3DNC6O/O GWH24AFE-D3DNA1A/O



The component picture is only for reference; please refer to the actual product.

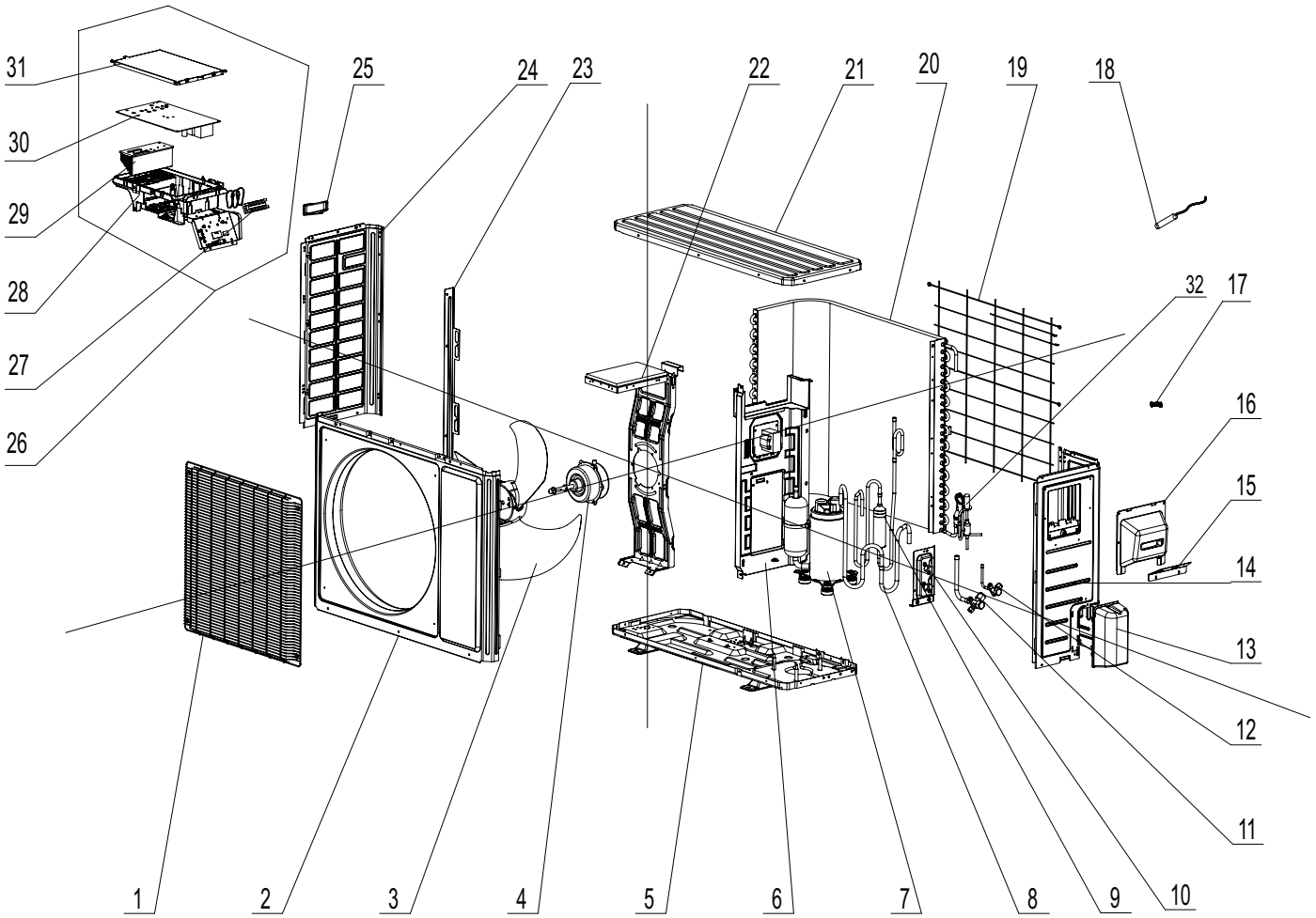
No.	Description	Part Code		Qty
		GWH18QD-D3DNC6L/O	GWH24QE-D3DNC6O/O	
	Product Code	CB443W04800	CB443W05000	
1	Front Grill	01473049	01473049	1
2	Cabinet	01433047P	01433047P	1
3	Axial Flow Fan	10335008	10335008	1
4	Fan Motor	1501506402	1501506402	1
5	Chassis Sub-assy	01700000093P	01700000161P	1
6	Drainage hole Cap	06813401	06813401	3
7	Clapboard Assy	01233153	01235081	1
8	4-Way Valve Assy	030152000291	030152000073	1
9	Compressor and Fittings	00105249G	00105249G	1
10	Valve Support Assy	01715010P	01705046	1
11	Cut off Valve	07130239	07133844	1
12	Cut off Valve Sub-Assy	07133204	07133843	1
13	Right Side Plate	0130509403P	0130509002P	1
14	Valve Cover	22245002	22245002	1
15	Retaining Plate	02115006P	02115006P	1
16	Handle Assy	02113109	02113109	1
17	Valve Support Block	/	26115007	1
18	Temperature Sensor	3900030901	3900030902	1
19	Rear Grill	01473043	01475020	1
20	Condenser Assy	011002000513	011002000244	1
21	Coping	012049000007P	012049000007P	1
22	Motor Support Sub-Assy	01703154	01705067	1
23	Condenser Support Plate	01173127	01795031	1
24	Left Side Plate	01305093P	01305093P	1
25	Handle	26233053	26233053	1
26	Electric Box Assy	100002001525	100002001406	1
27	Terminal Board	42010255	42010255	1
28	Electric Box	20113027	20113027	1
29	Main Board	300027000297	300027000301	1
30	Radiator	49013076/49013060	49013076/49013060	1
31	Electronic Expansion Valve assy	030026000208	030174000041	1

Above data is subject to change without notice.

No.	Description	Part Code	Qty
		GWH24AFE-D3DNA1A/O	
	Product Code	CB348W03100	
1	Front Grill	016004000006	1
2	Cabinet	01433047P	1
3	Axial Flow Fan	10335008	1
4	Fan Motor	1501506402	1
5	Chassis Sub-assy	017000060297P	1
6	Drainage hole Cap	06813401	1
7	Clapboard Assy	01233153	1
8	4-Way Valve Assy	030152060325	1
9	Compressor and Fittings	00900100019501	1
10	Valve Support Assy	01705046P	1
11	Cut off Valve	07130239	1
12	Cut off Valve Sub-Assy	07133843	1
13	Right Side Plate	0130509403P	1
14	Valve Cover	22245002	1
15	Retaining Plate	02115006P	1
16	Handle Assy	02113109	1
17	Valve Support Block	26113017	1
18	Temperature Sensor	3900030901	1
19	Rear Grill	01473043	1
20	Condenser Assy	011002060552	1
21	Coping	012049000007P	1
22	Motor Support Sub-Assy	01705067	1
23	Condenser Support Plate	01795010	1
24	Left Side Plate	01305093P	1
25	Handle	26233053	1
26	Electric Box Assy	100002064488	1
27	Terminal Board	42200006001401	1
28	Electric Box	2011302701	1
29	Main Board	300027060610	1
30	Radiator	49010252/49013060	1/1
31	Electronic Expansion Valve assy	030174060060	1

Above data is subject to change without notice.

GWC24AFE-D3DNA1A/O

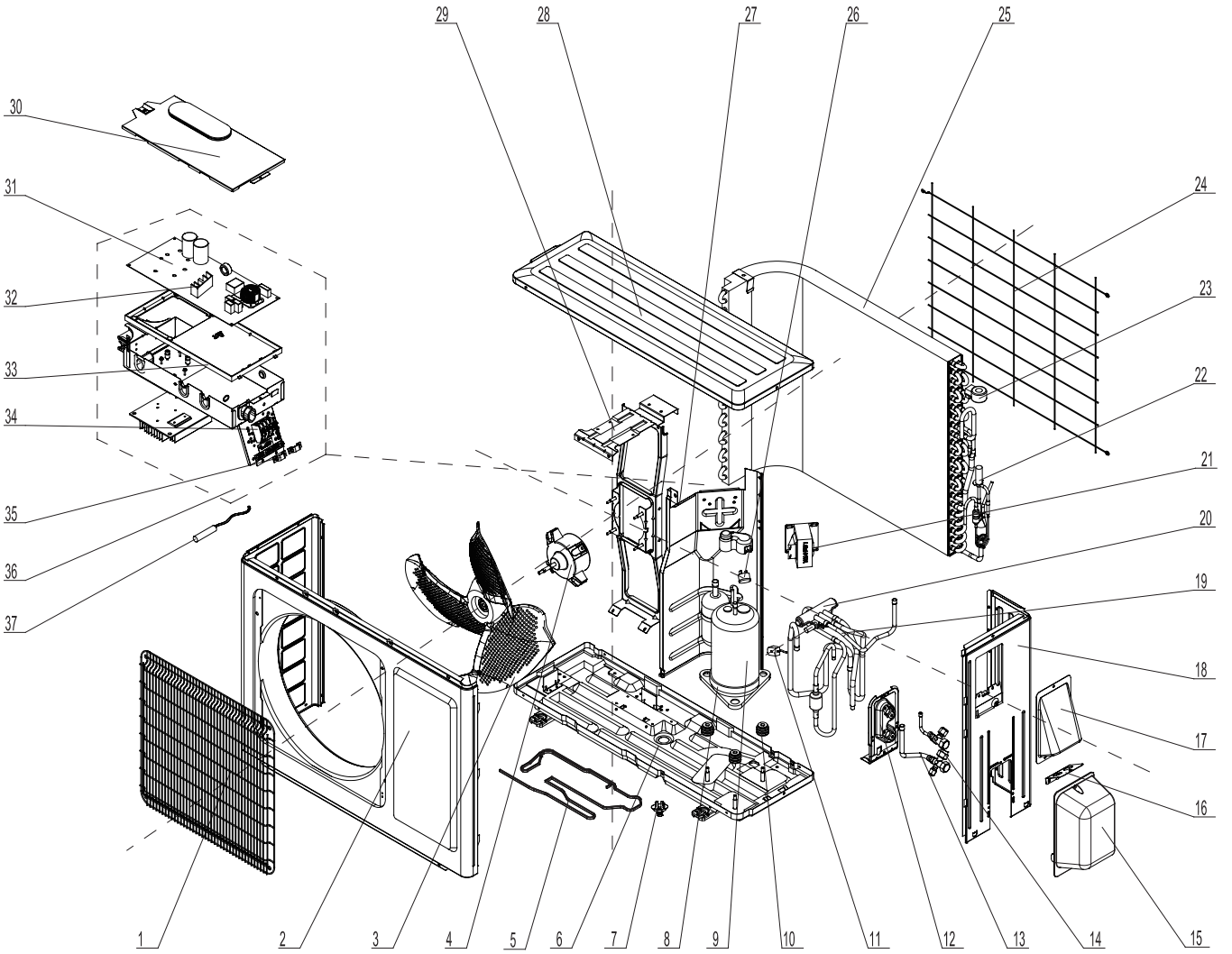


The component picture is only for reference; please refer to the actual product.

No.	Description	Part Code	Qty
		GWC24AFE-D3DNA1A/O	
	Product Code	CB348W03200	
1	Front Grill	016004000006	1
2	Cabinet	01433047P	1
3	Axial Flow Fan	10335008	1
4	Fan Motor	1501506402	1
5	Chassis Sub-assy	01700000181P	1
6	Clapboard Assy	01233153	1
7	Compressor and Fittings	00900100019501	1
8	Inhalation Tube Sub-assy	030010060041	1
9	Discharge Tube Sub-assy	030013060621	1
10	Valve Support	01705047	1
11	Cut off Valve	07133844	1
12	Cut off Valve Sub-Assy	07133843	1
13	Valve Cover	22245002	1
14	Right Side Plate	0130509403P	1
15	Retaining Plate	02115006P	1
16	Handle Assy	02113032P	1
17	Wire Clamp	71010003	1
18	Temperature Sensor	3900030901	1
19	Rear Grill	01473043	1
20	Condenser Assy	011002060552	1
21	Coping	012049000007	1
22	Motor Support Sub-Assy	01705067	1
23	Supporting Board(Condenser)	01795010	1
24	Left Side Plate	01305093	1
25	Handle	26233053	1
26	Electric Box Assy	100002064487	1
27	Terminal Board	42200006001401	1
28	Electric Box	20113027	1
29	Main Board	300027060611	1
30	Radiator	49013060	1
31	Insulated Board (Cover of Electric Box)	20113003	1
32	Electronic Expansion Valve	43005016	1

Above data is subject to change without notice.

GWH07QC-D3DNA1D/O

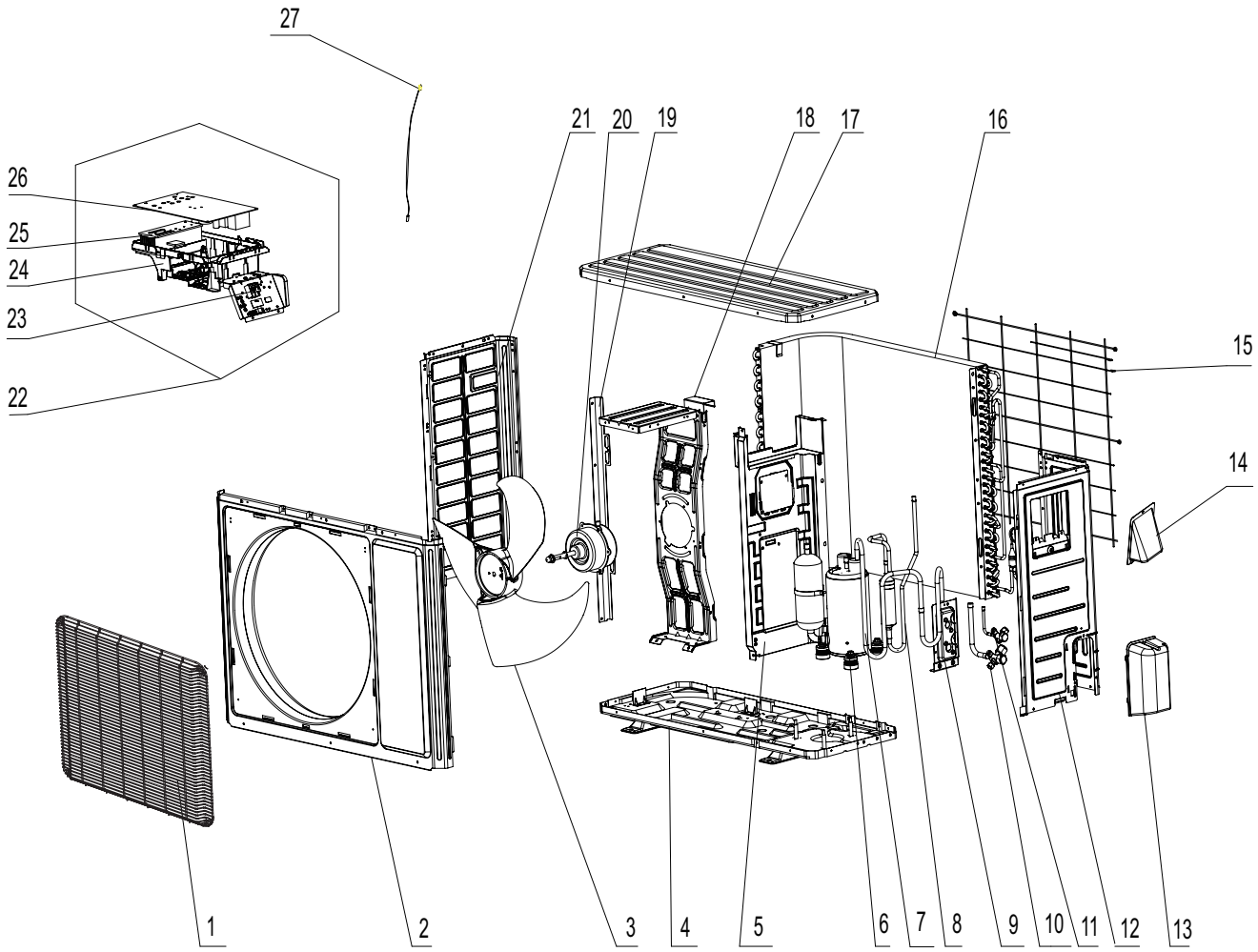


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWH07QC-D3DNA1D/O	
	Product Code	CB432W20800	
1	Front Grill	01473012	1
2	Cabinet	0143305801P	1
3	Axial Flow Fan	10333004	1
4	Fan Motor	1501308507	1
5	Electrical Heater	76510004	1
6	Chassis Sub-assy	01700000053P	1
7	Drainage Connecter	06123401	1
8	Electrical Heater(Compressor)	76513004	1
9	Compressor and Fittings	00103892	1
10	Compressor Gasket	76713027	3
11	Magnet Coil	4300040047	1
12	Valve Support	01713041	1
13	Valve	07100003	1
14	Valve	07100005	1
15	Valve Cover	2012300101	1
16	Cable Cross Plate 1	02123013P	1
17	Cable Cross Plate 2	02123014P	1
18	Right Side Plate	0130306903	1
19	4-Way Valve Assy	03073083	1
20	4-Way Valve	430004032	1
21	Reactor	43130185	1
22	Electric Expansion Valve Sub-Assy	07133769	1
23	Electric Expand Valve Fitting	07200200001204	1
24	Rear Grill	01473057	1
25	Condenser Assy	01163565	1
26	Compressor Overload Protector(External)	00183111	1
27	Clapboard Sub-Assy	01233034	1
28	Top Cover Plate	0125310703P	1
29	Motor Support	0170310201	1
30	Electric Box Cover Sub-Assy	0260309601	1
31	Main Board	30138000521	1
32	Radiator	49013026	1
33	Electric Box 1	20113005	1
34	Terminal Board	422000060016	1
35	Wire Clamp	71010003	1
36	Electric Box Assy	10000100188	1
37	Temperature Sensor	3900030903	1

Above data is subject to change without notice.

GWC18AFD-D3DNA1A/O

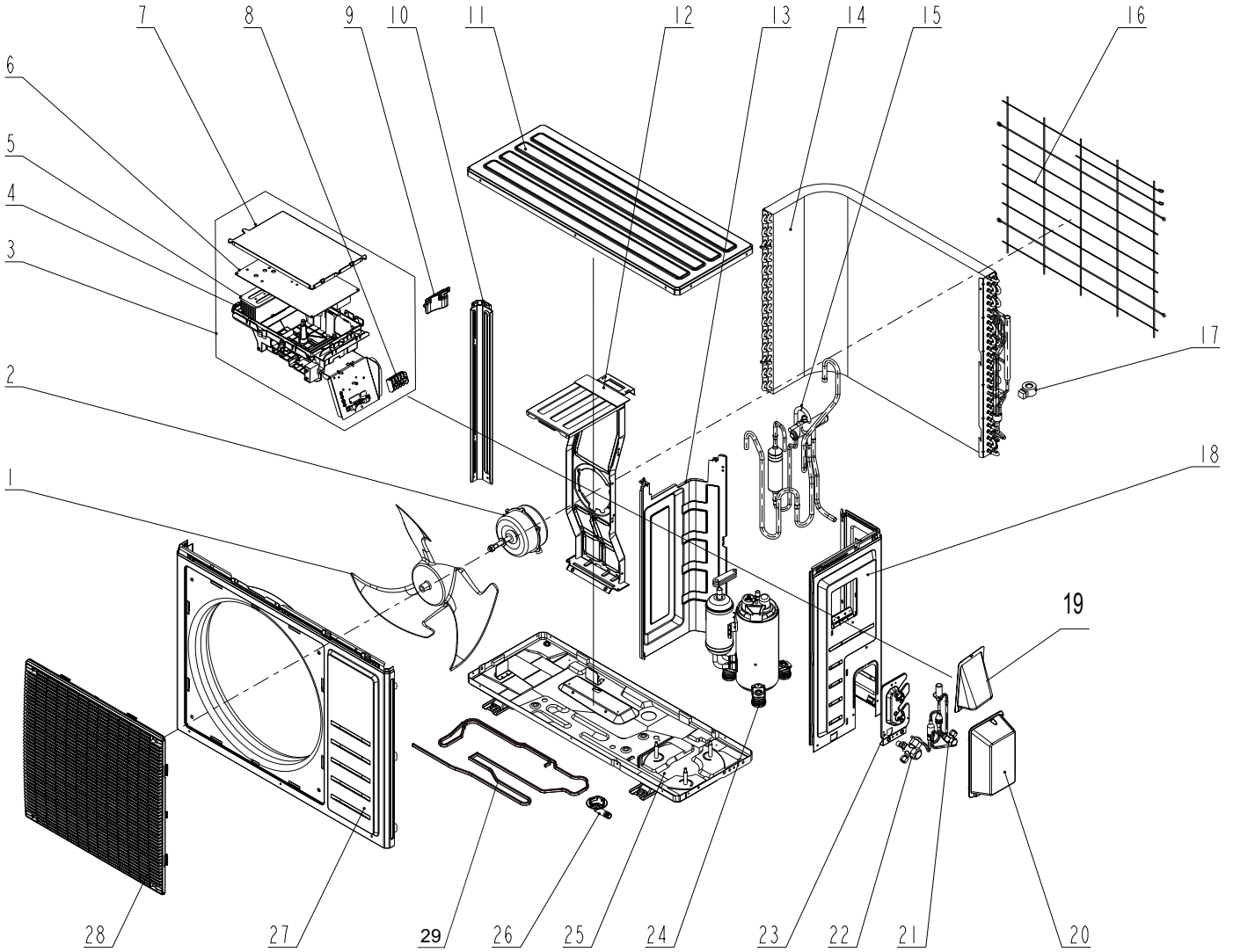


The component picture is only for reference; please refer to the actual product.

NO.	Description	Part Code	Qty
		GWC18AFD-D3DNA1A/O	
	Product Code	CB348W04700	
1	Front Grill	016004060004	1
2	Front Panel	000003060115	1
3	Axial Flow Fan	10333014	1
4	Chassis Sub-assy	209058060167P	1
5	Clapboard Assy	01233168	1
6	Compressor and Fittings	009001060066	1
7	Inhalation Tube Sub-assy	030010060613	1
8	Discharge Tube Sub-assy	035008061392	1
9	Valve Support Assy	01713115P	1
10	Cut off Valve Assy 1/2	07133774	1
11	Cut off Valve Sub-Assy	07335708	1
12	Right Side Plate	01303244P	1
13	Valve Cover	22243005	1
14	Cable Cross Plate Sub-assy	02123015	1
15	Rear Grill	01473060	1
16	Condenser Assy	011002060859	1
17	Coping	000051060084	1
18	Motor Support Sub-Assy	0170339802	1
19	Supporting Board(Condenser)	01795028	1
20	Fan Motor	1501506402	1
21	Left Side Plate	01303169P	1
22	Electric Box Assy	100002066688	1
23	Terminal Board	42200006001401	1
24	Electric Box	100002066688	1
25	Radiator	49013060	1
26	Main Board	300027060829	1
27	Temperature Sensor	3900030902	1

Above data is subject to change without notice.

GWH24QE-D3DNB2R/O

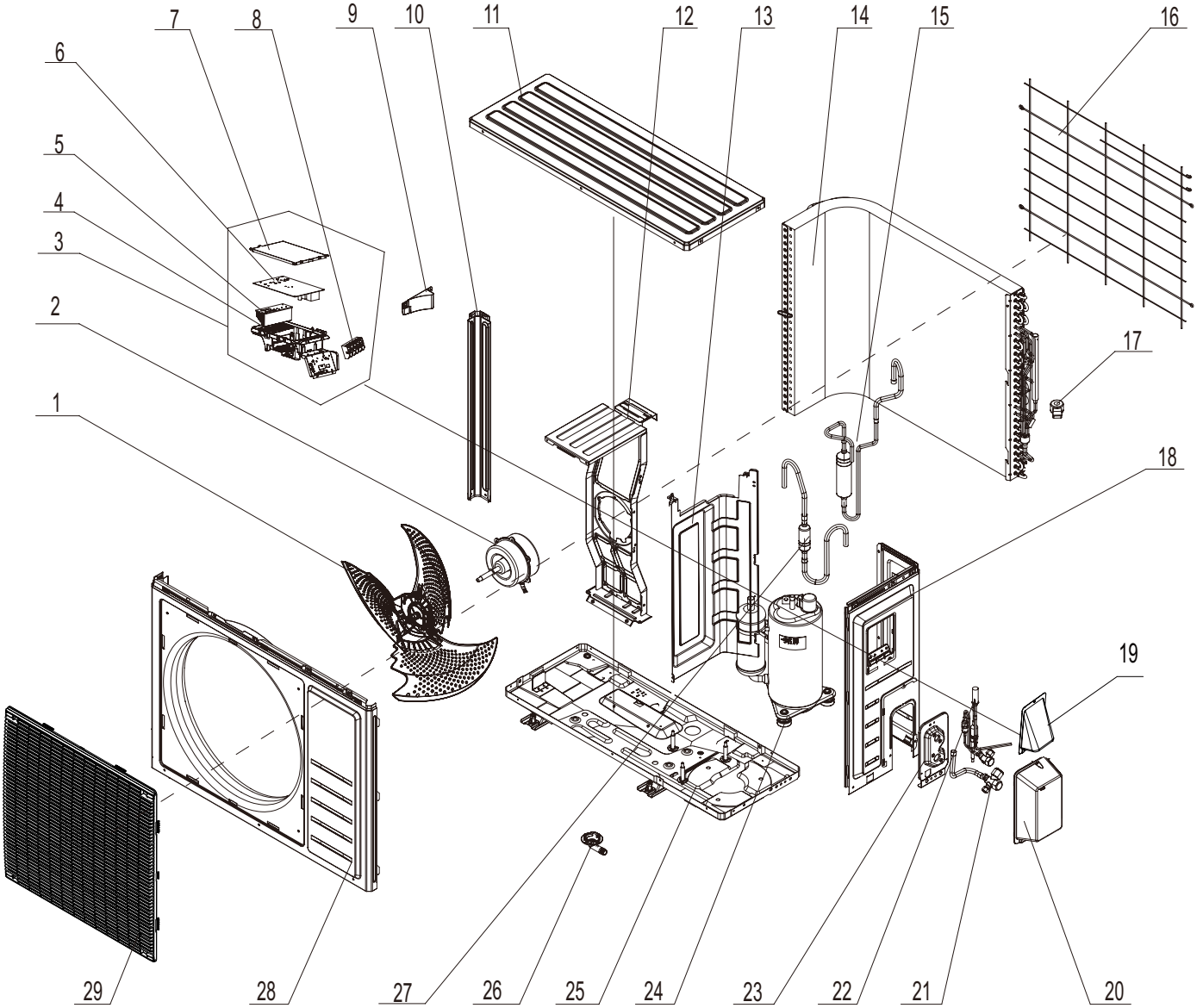


The component picture is only for reference; please refer to the actual product.

No.	Description	Part Code	Qty
		GWH24QE-D3DNB2R/O	
	Product Code	CB432W21500	
1	Axial Flow Fan	10333023	1
2	Fan Motor	1501506406	1
3	Electric Box Assy	100002067147	1
4	Electric Box	20113027	1
5	Radiator	49013060	1
6	Main Board	300027060877	1
7	Electric Box Cover	20123028	1
8	Terminal Board	42200006001401	1
9	Handle	26233014	1
10	Left Side Plate	01303025	1
11	Coping	01253105	1
12	Motor Support	01703245	1
13	Clapboard Sub-Assy	017021000063	1
14	Condenser Assy	01100206086201	1
15	4-Way Valve Assy	030152060381	1
16	Rear Grill	016001000023	1
17	Electric Expand Valve Fitting	4300034419	1
18	Right Side Plate-Assy	00008100002101	1
19	Handle	26233014	1
20	Valve Cover	22243015	1
21	Cut-off valve 5/8(N)	07133844	1
22	Electronic Expansion Valve assy	43005016	1
23	Valve Support Block	26113017	1
24	Compressor and Fittings	009001060387	1
25	Chassis	012008060074	1
26	Drainage Joint	26113009	1
27	Cabinet	0143307201	1
28	Front Grill	01473008	1
29	Electric Heater	320004060086	1

Above data is subject to change without notice.

GWC24QE-D3DNB2R/O



The component picture is only for reference; please refer to the actual product.

No.	Description	Part Code	Qty
		GWC24QE-D3DNB2R/O	
	Product Code	CB432W21600	
1	Axial Flow Fan	10333023	1
2	Fan Motor	1501506406	1
3	Electric Box Assy	100002067145	1
4	Electric Box	20113027	1
5	Radiator	49013060	1
6	Main Board	300027060878	1
7	Electric Box Cover	20123028	1
8	Terminal Board	42200006001401	1
9	Handle	26233014	1
10	Left Side Plate	01303025	1
11	Coping	01253105	1
12	Motor Support Sub-Assy	01701200009	1
13	Clapboard Sub-Assy	017021000063	1
14	Condenser Assy	011002061015	1
15	Discharge Tube-Assy	035008061748	1
16	Rear Grill	016001000023	1
17	Electronic Expansion Valve Rope	4300034419	1
18	Right Side Plate-Assy	00008100002101	1
19	Handle	26233014	1
20	Valve Cover	22243015	1
21	Cut off Valve Sub-Assy 5/8	030057060124	1
22	Electronic Expansion Valve assy	030174060086	1
23	Valve Support Sub-Assy	017104060025P	1
24	Compressor and Fittings	009001060387	1
25	Chassis	01213080	1
26	Drainage Joint	/	/
27	Suction Tube-Assy	030010060798	1
28	Cabinet	0143307201P	1
29	Front Grill	01473008	1

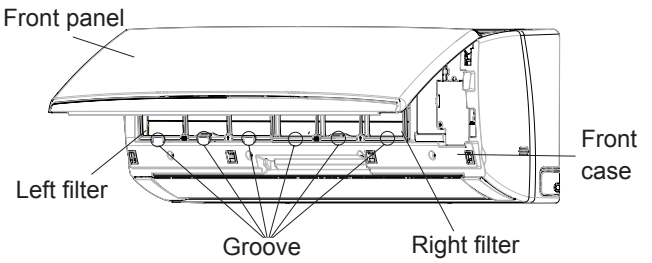
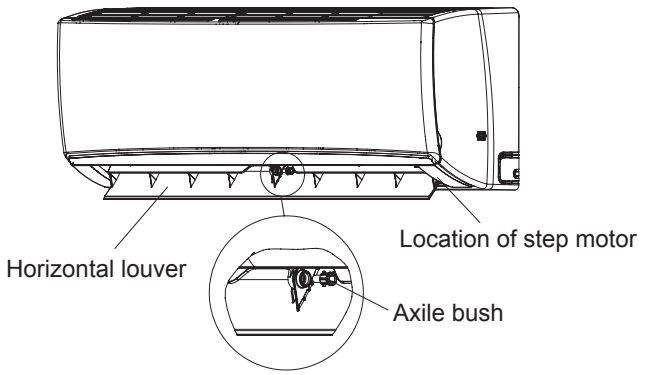
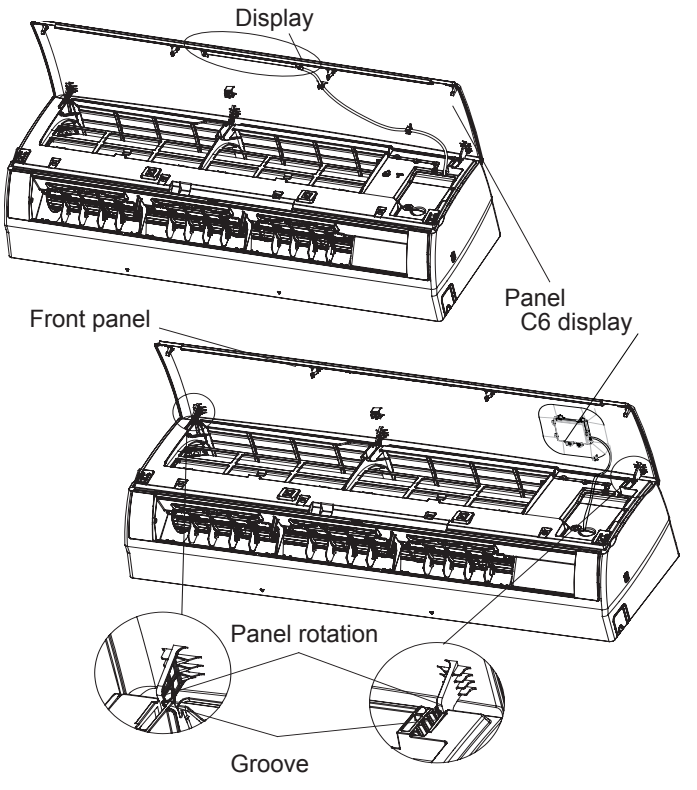
Above data is subject to change without notice.

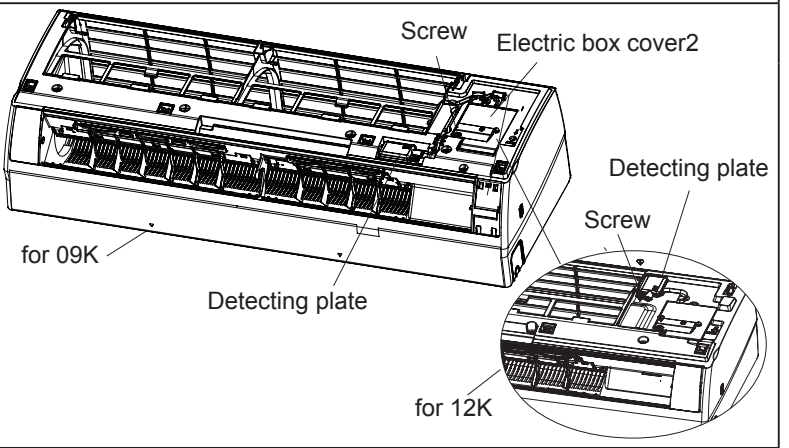
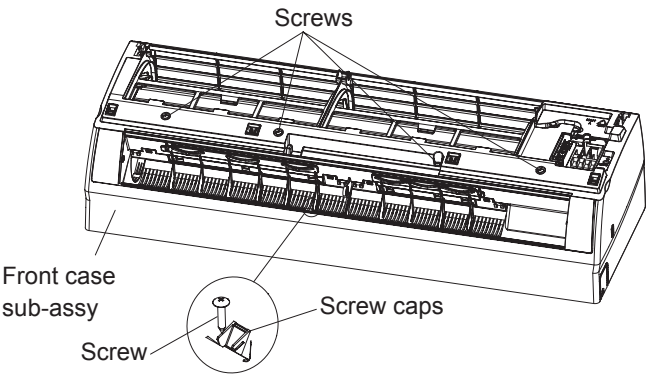
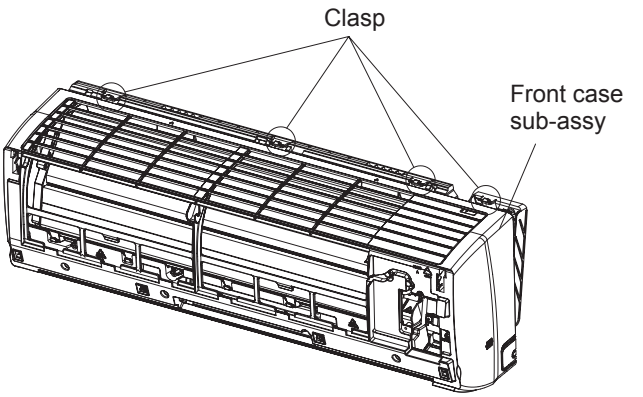
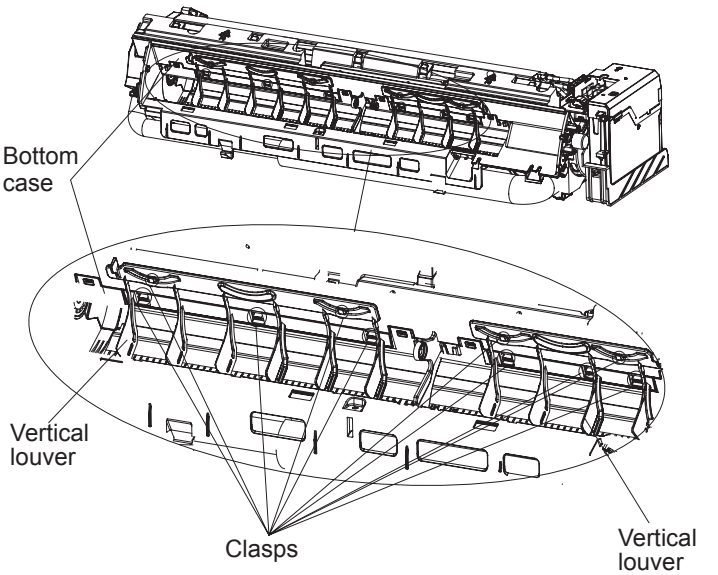
11. Removal Procedure

⚠ **Warning: Be sure to wait for a minimum of 20 minutes after turning off all power supplies and discharge the refrigerant completely before removal.**

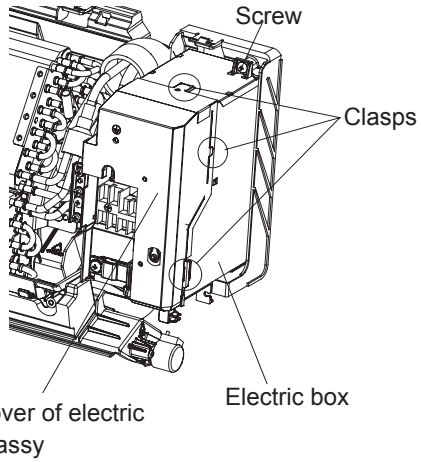
11.1 Removal Procedure of Indoor Unit

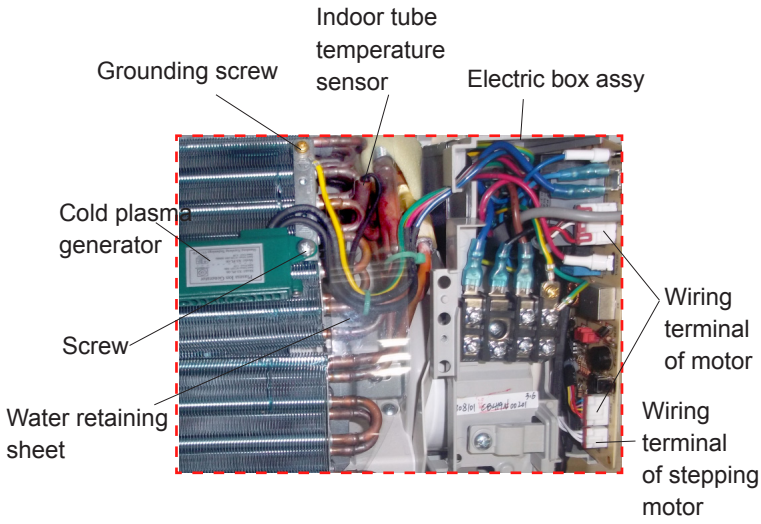
07/09/12K

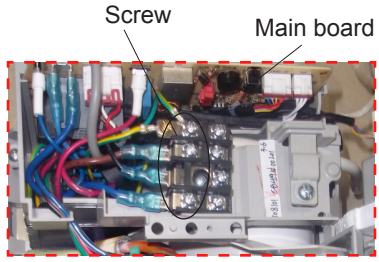
Step	Procedure	
1. Remove filter assembly		
	Open the front panel. Push the left filter and right filter until they are separate from the groove on the front panel. Remove the left filter and right filter respectively.	
2. Remove horizontal louver		
	Push out the axile bush on horizontal louver. Bend the horizontal louver with hand and then separate the horizontal louver from the crankshaft of step motor to remove it.	
3. Remove panel and display		
a	C6 panel display: Screw off the 2 screws that are locking the display board.	
b	Separate the panel rotation shaft from the groove fixing the front panel and then removes the front panel.	

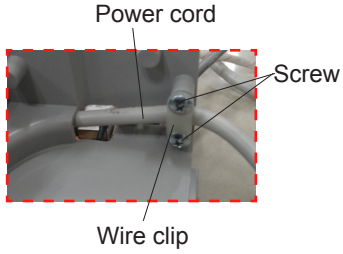
Step	Procedure
4. Remove detecting plate and electric box cover 2	
Remove the screw fixing detecting plate and then remove the detecting plate. Note:The position of detection board(WIFI) may be different for -different models. Remove the screw fixing electric box cover 2 and then remove the electric box cover 2.	
5. Remove front case sub-assy	 
a Remove the screws fixing front case. Note: 1.Open the screw caps before removing the screws around the air outlet. 2.The quantity of screws fixing the front case sub-assy is different for different models. b Loosen the connection clasps between front case sub-assy and bottom case. Lift up the front case sub-assy and take it out.	
6. Remove vertical louver	
Loosen the connection clasps between vertical louver and bottom case to remove vertical louver.	

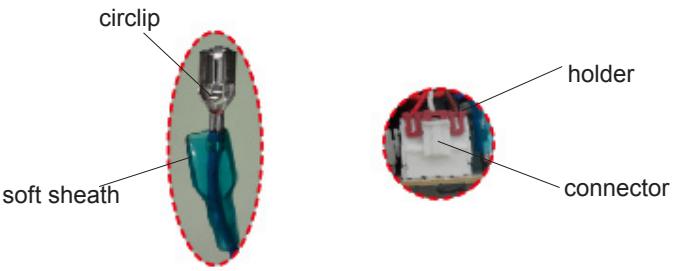
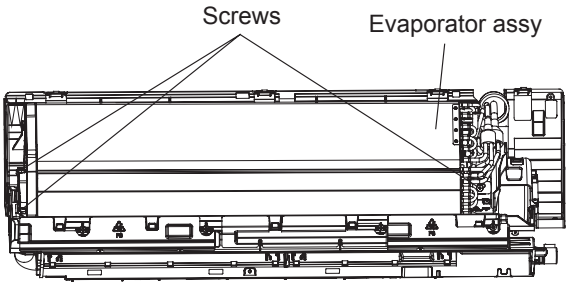
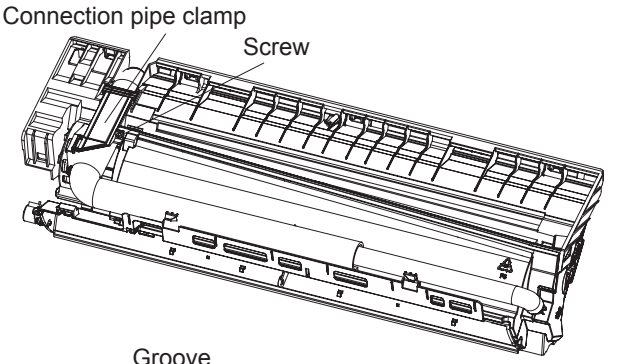
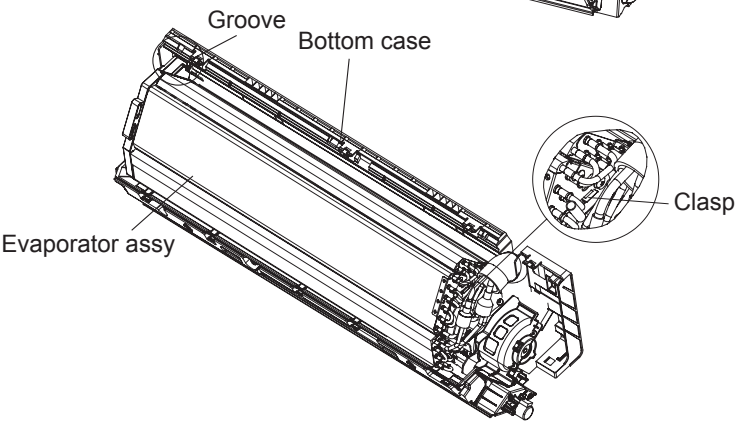
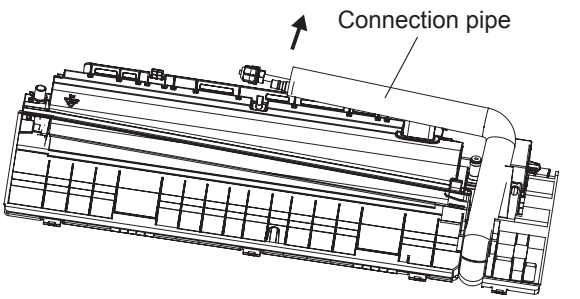
Step	Procedure
7. Remove electric box assy	
a	Loosen the connection clasps between shield cover of electric box sub-assy and electric box, and then remove the shield cover of electric box sub-assy. Remove the screw fixing electric box assy .
b	① Take off the water retaining sheet. Remove the cold plasma generator by screwing off the locking screw on the generator. ② Take off the indoor tube temperature sensor. ③ Screw off 1 grounding screw. ④ Remove the wiring terminals of motor and stepping motor. ⑤ Remove the electric box assy.
c	Twist off the screws that are locking each lead wire and rotate the electric box assy. Twist off the screws that are locking the wire clip. Loosen the power cord and remove its wiring terminal. Lift up the main board and take it off.

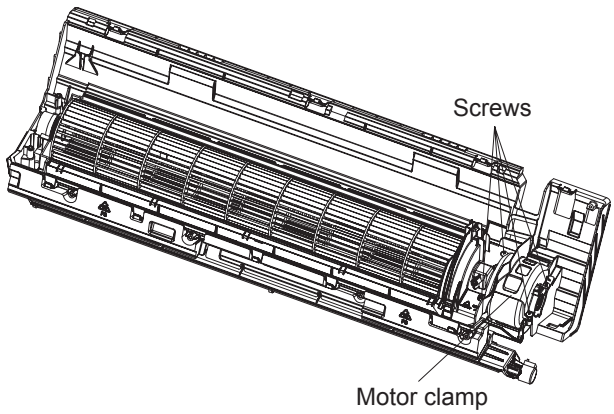
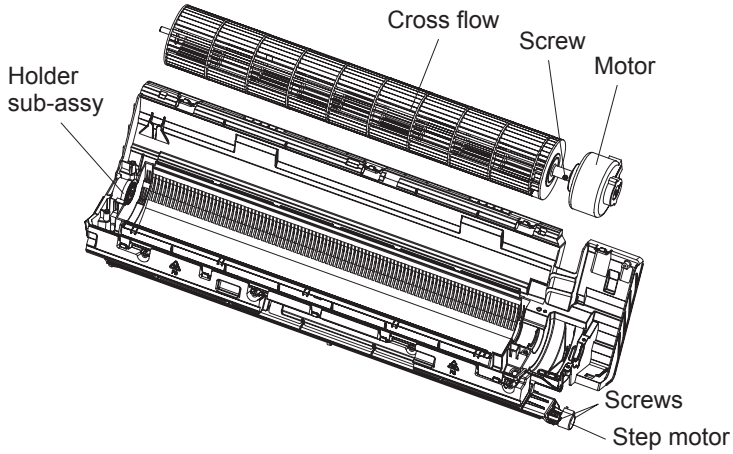




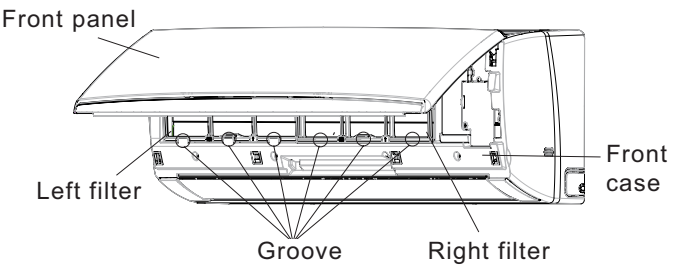
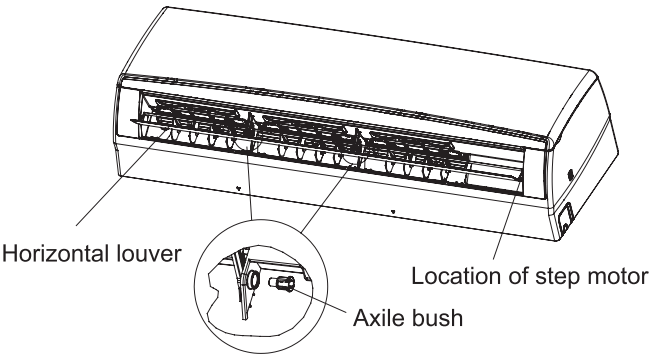
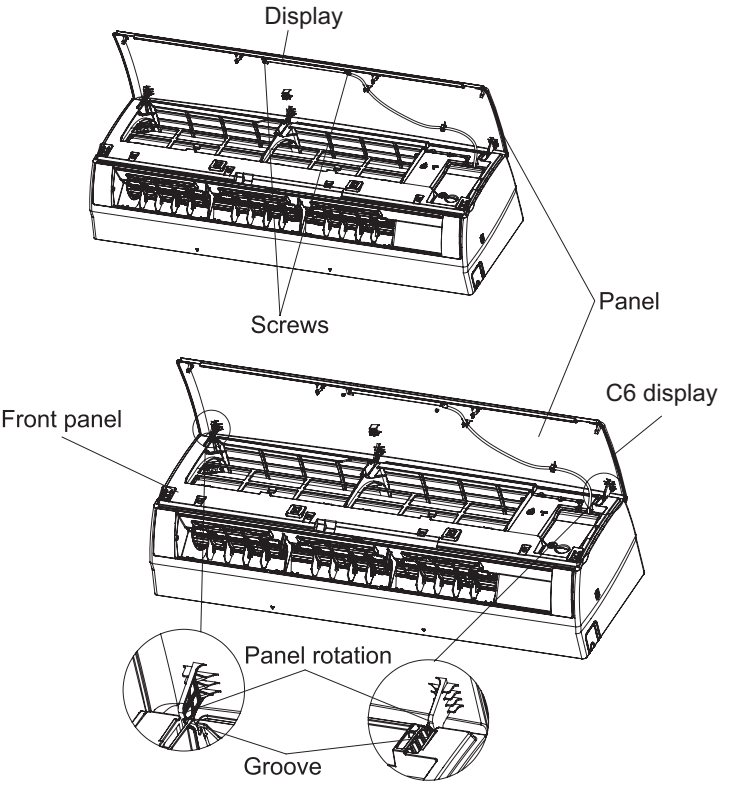


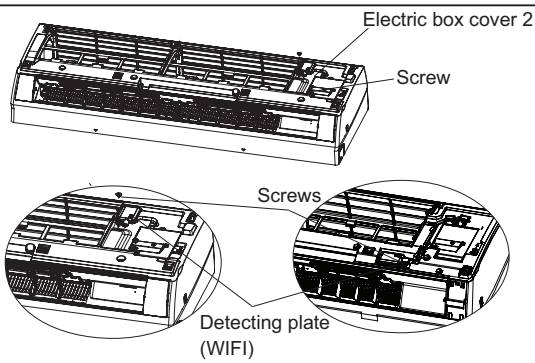
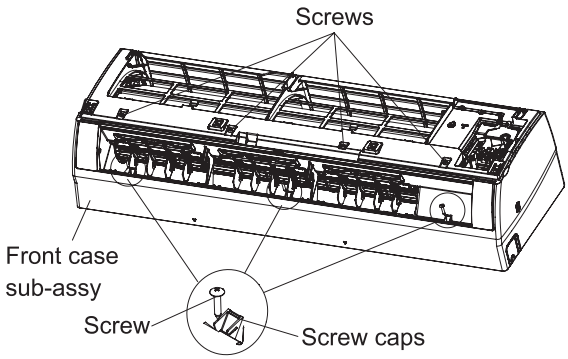
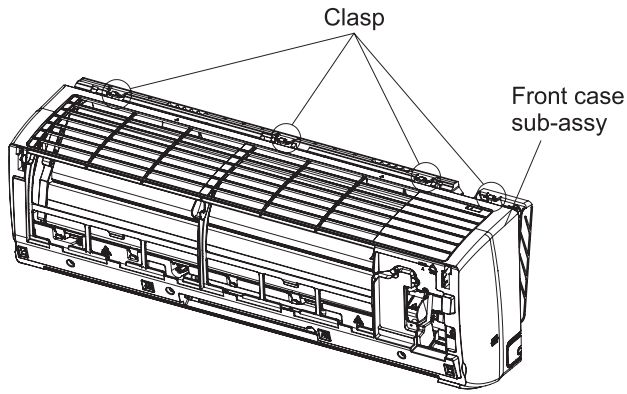
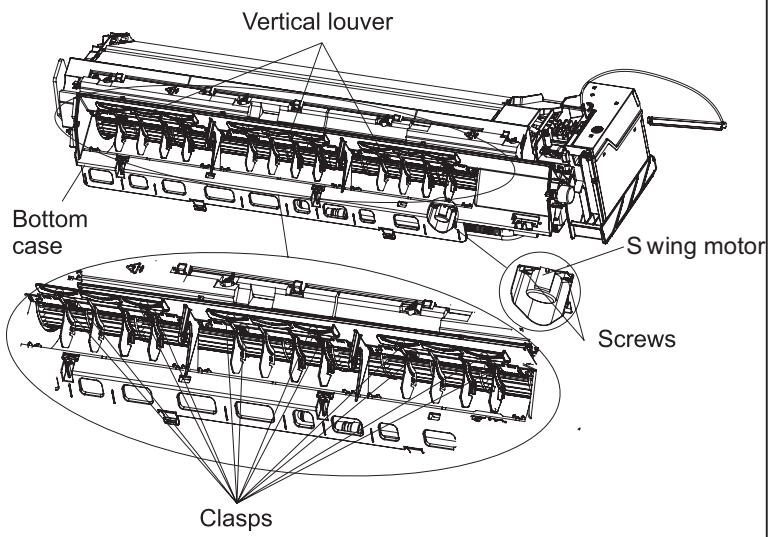


Step	Procedure	
	Instruction: Some wiring terminal of this product is with lock catch and other devices. The pulling method is as below: 1.Remove the soft sheath for some terminals at first, hold the circlip and then pull out the terminals. 2.Pull out the holder for some terminals at first (holder is not available for some wiring terminal), hold the connector and then pull the terminal.	
8. Remove evaporator assy		
a	Remove 3 screws fixing evaporator assy.	
b	At the back of the unit, remove the screw fixing connection pipe clamp and then remove the connection pipe clamp.	
c	First remove the left side of the evaporator from the groove of bottom case and then remove the right side from the clasp on the bottom case.	
d	Adjust the position of connection pipe on evaporator slightly and then lift the evaporator upwards to remove it.	

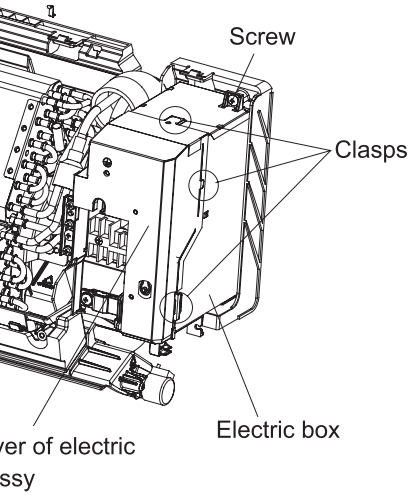
Step	Procedure
9. Remove motor and cross flow blade	
a	Remove the screws fixing motor clamp and then remove the motor clamp.
b	Remove the screws at the connection place of cross flow blade and motor; lift the motor and cross flow blade upwards to remove them. Remove the bearing holder sub-assy. Remove the screw fixing step motor and then remove the step motor.
	

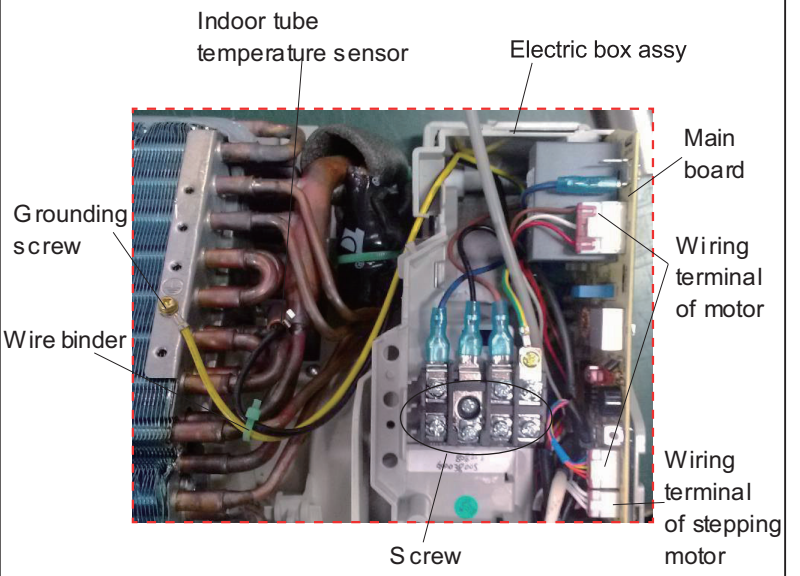
18/24K

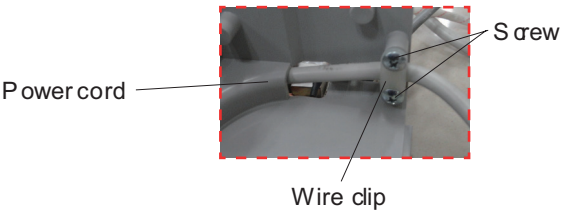
Step	Procedure
1. Remove filter assy	
Open the front panel. Push the left and right filters to make them break away from the groove on the front case. Then remove the left and right filters one by one.	
2. Remove horizontal louver	
Push out the axile bush on horizontal louver. Bend the horizontal louver with hand and then separate the horizontal louver from the crankshaft of step motor to remove it.	
3. Remove panel	
a C6 panel display: Screw off the 2 screws that are locking the display board.	
b Separate the panel rotation shaft from the groove fixing the front panel and then removes the front panel.	

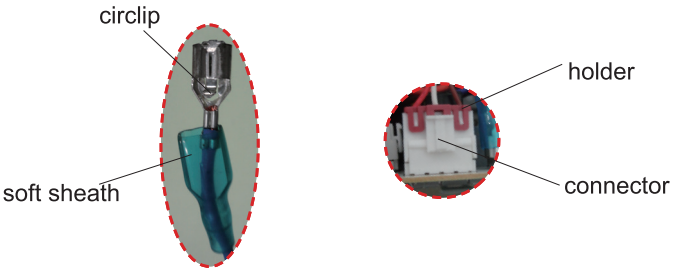
Step	Procedure
4. Remove electric box cover 2 and detecting plate(WIFI)	
Remove the screws on the electric box cover 2 and detecting plate(WIFI), then remove the electric box cover 2 and detecting plate(WIFI).	
5. Remove front case sub-assy	
a Remove the screws fixing front case. Note: 1.Open the screw caps before removing the screws around the air outlet. 2.The quantity of screws fixing the front case sub-assy is different for different models.	
b Loosen the connection clasps between front case sub-assy and bottom case. Lift up the front case sub-assy and take it out.	
6. Remove vertical louver	
Loosen the connection clasps between vertical louver and bottom case to remove vertical louver. Screw off the screws that are locking the swing motor and take the motor off.	

Step	Procedure
7. Remove electric box assy	
a	Loosen the connection clasps between shield cover of electric box sub-assy and electric box, and then remove the shield cover of electric box sub-assy. Remove the screw fixing electric box assy .
b	① Cut off the wire binder and pull out the indoor tube temperature sensor. ② Screw off one grounding screw. ③ Remove the wiring terminals of motor and stepping motor. ④ Remove the electric box assy. ⑤ Screw off the screws that are locking each lead wire.
c	Rotate the electric box assy. Twist off the screws that are locking the wire clip and loosen the power cord. Remove the wiring terminal of power cord. Lift up the main board and take it off.
	Instruction: Some wiring terminal of this product is with lock catch and other devices. The pulling method is as below: 1.Remove the soft sheath for some terminals at first, hold the circlip and then pull out the terminals. 2.Pull out the holder for some terminals at first (holder is not available for some wiring terminal), hold the connector and then pull the terminal.

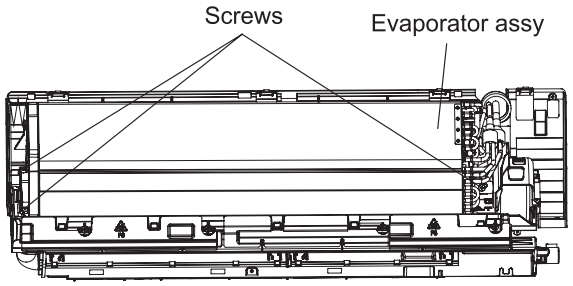


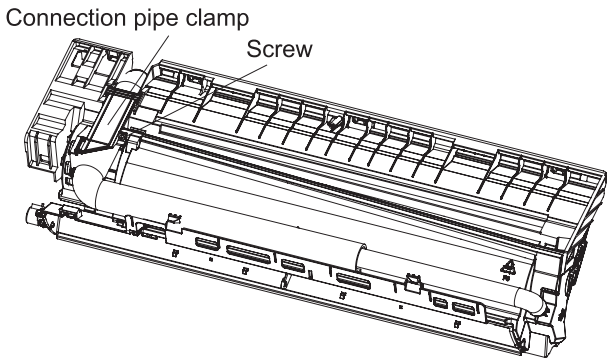


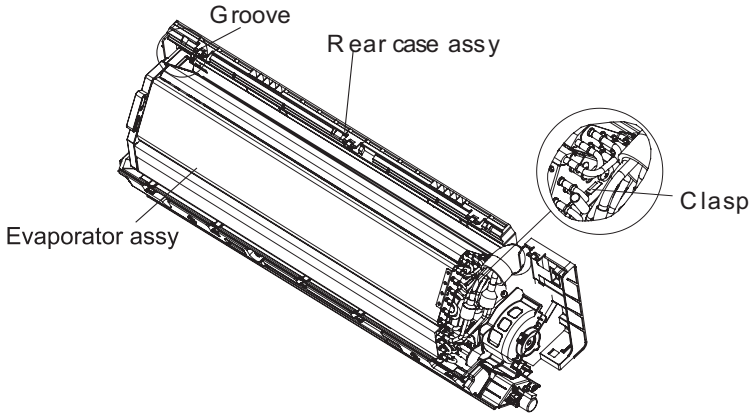


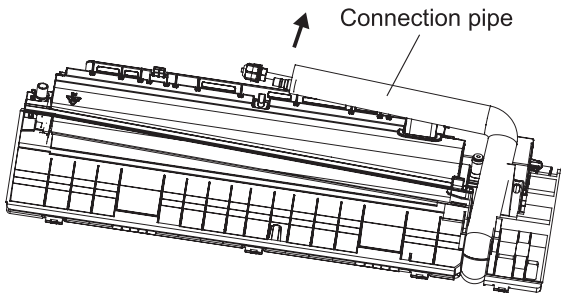


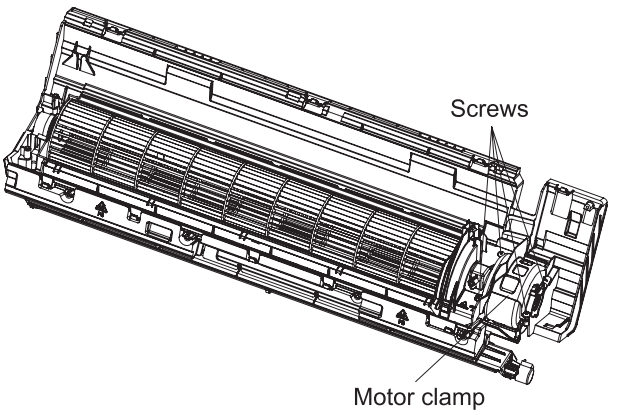
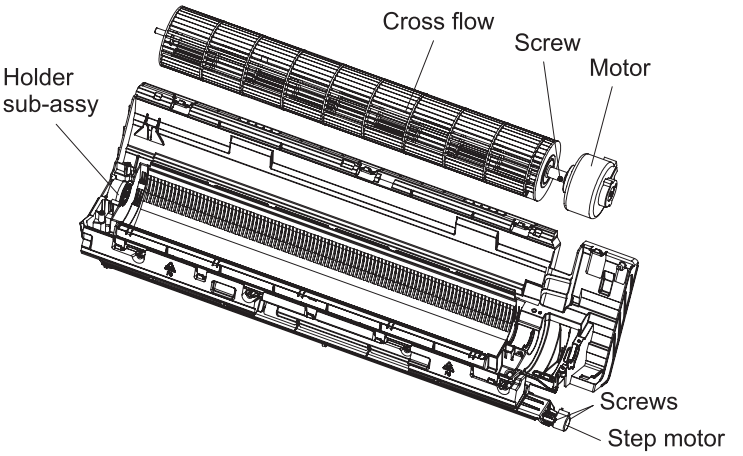
Step	Procedure
8. Remove evaporator assy	
a	Remove 3 screws fixing evaporator assy.
b	At the back of the unit, remove the screw fixing connection pipe clamp and then remove the connection pipe clamp.
c	First remove the left side of evaporator from the groove on the rear case assy. Then remove the right side from the clasp on the rear case assy.
d	Adjust the position of connection pipe on evaporator slightly and then lift the evaporator upwards to remove it.







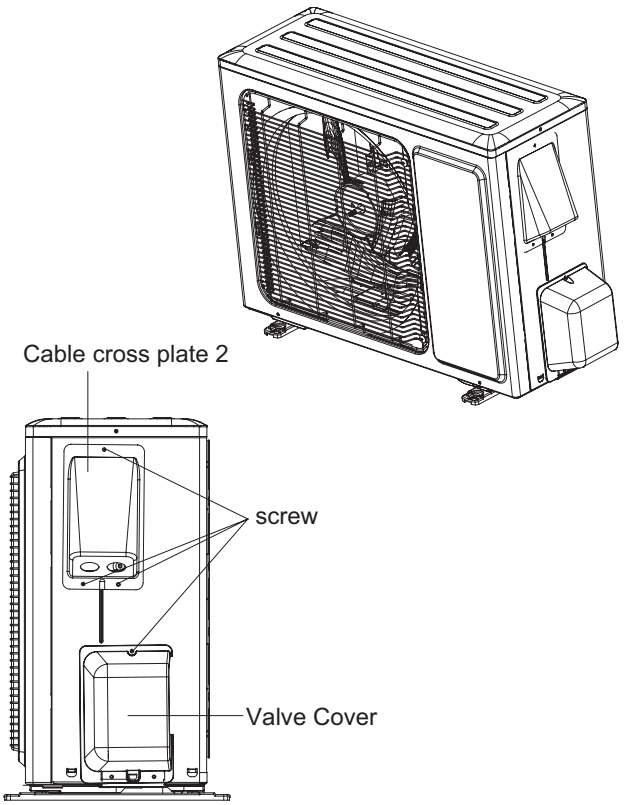
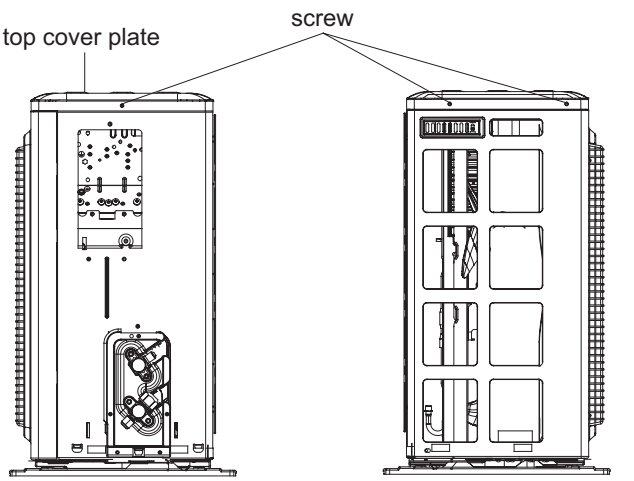


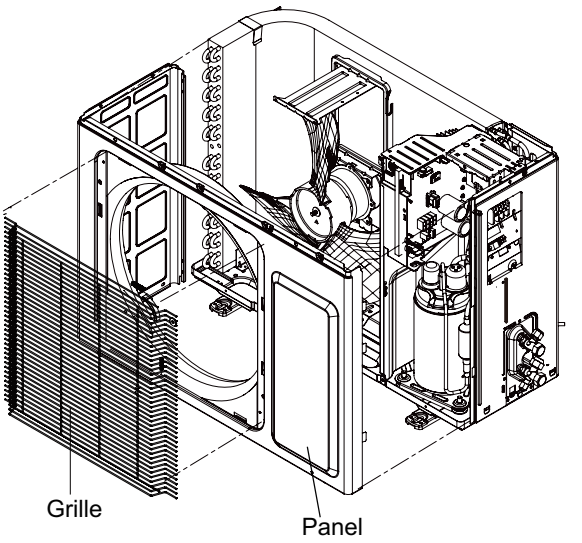
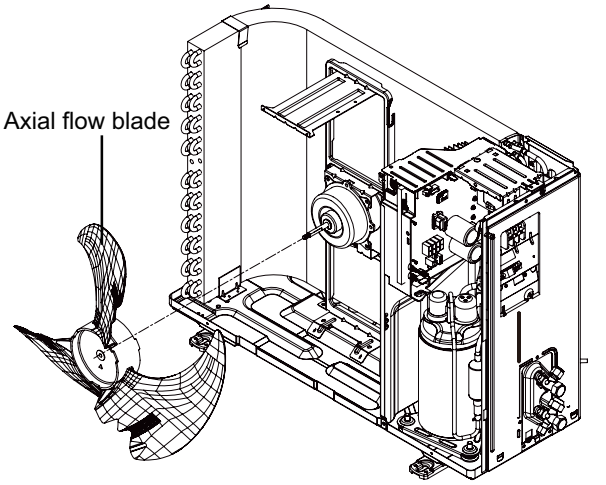
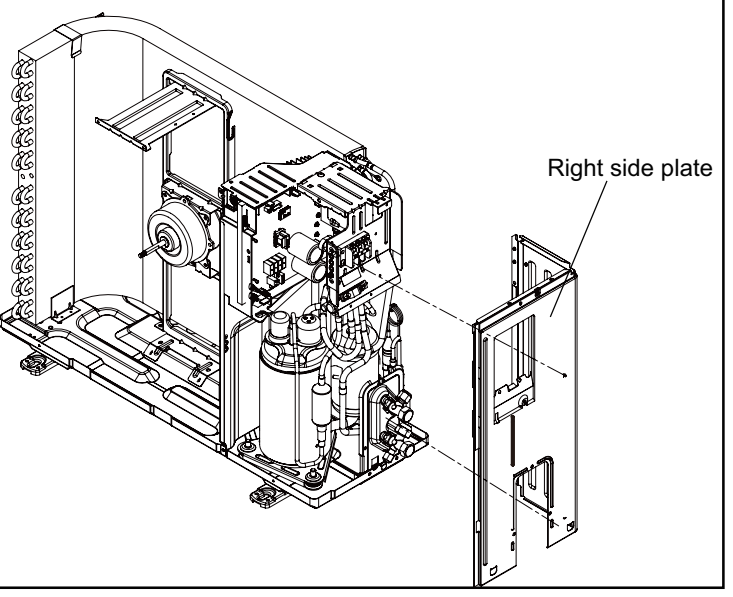
Step	Procedure	
9. Remove motor and cross flow blade		
a	Remove the screws fixing motor clamp and then remove the motor clamp.	
b	Remove the screws at the connection place of cross flow blade and motor; lift the motor and cross flow blade upwards to remove them. Remove the bearing holder sub-assy. Remove the screw fixing step motor and then remove the step motor.	

11.2 Removal Procedure of Outdoor Unit

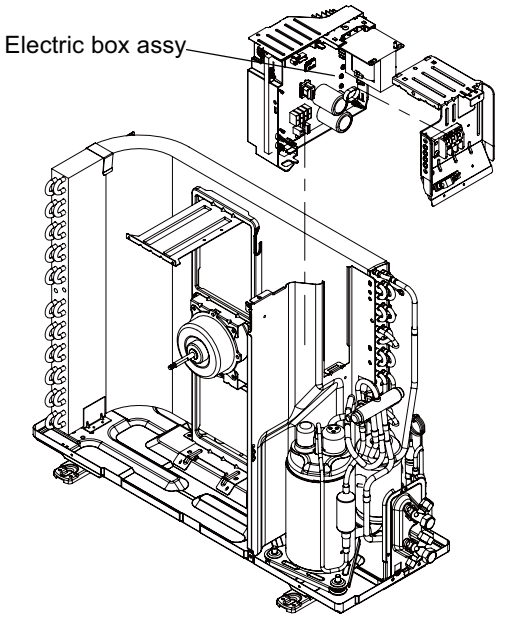
⚠ **Warning: Be sure to wait for a minimum of 20 minutes after turning off all power supplies and discharge the refrigerant completely before removal.**

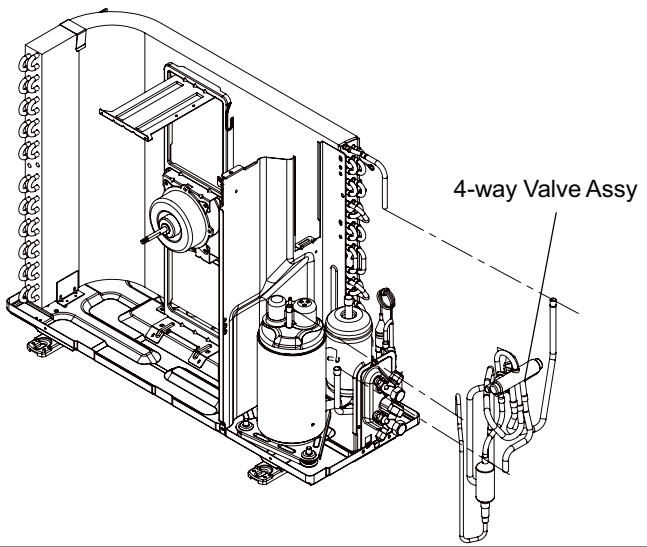
09K、GWH12QC-D3DNC6L/O GWC12QC-D3DNB2M/O GWH12QC-D3DNB2M/O GWC09QB-D3DNB2J/O GWH09QB-D3DNB2J/O
Take heat pump for example.

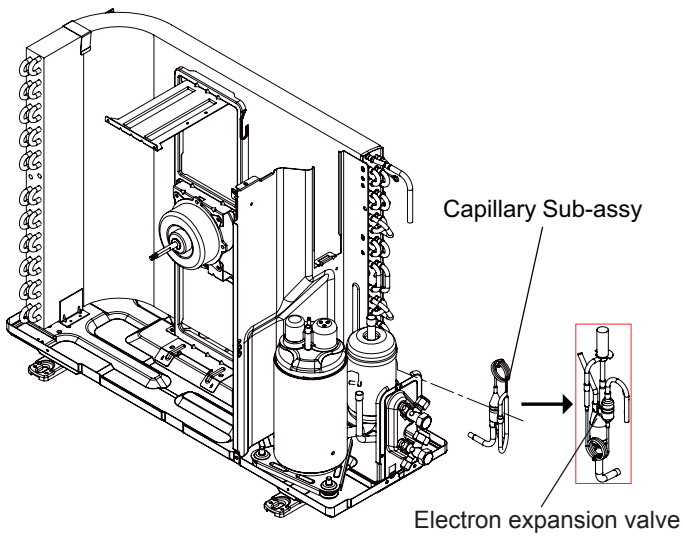
Steps	Procedure
1.Remove cable cross plate 2 and valve cover	
Before disassamble. Remove 3 connection screw fixing cable cross plate 2 and then remove the Cable cross plate 2. Remove 1 connection screw fixing valve cover and then remove the valve cover.	
2.Remove top cover	
Remove 3 connection screws among top cover plate, front panel and right side plate. Then remove top cover plate.	

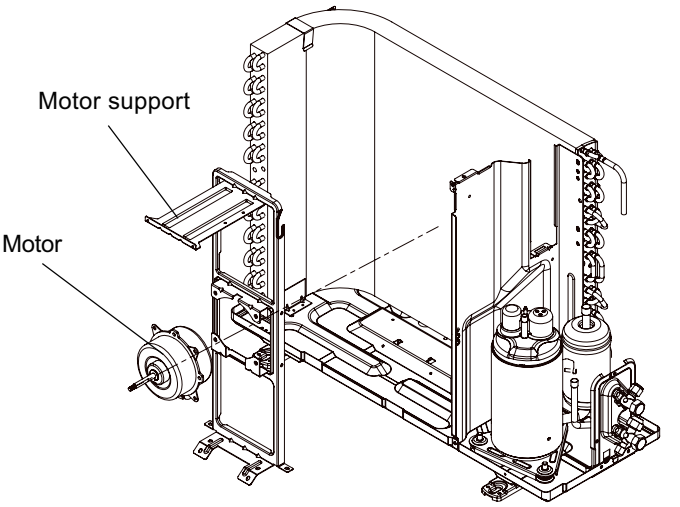
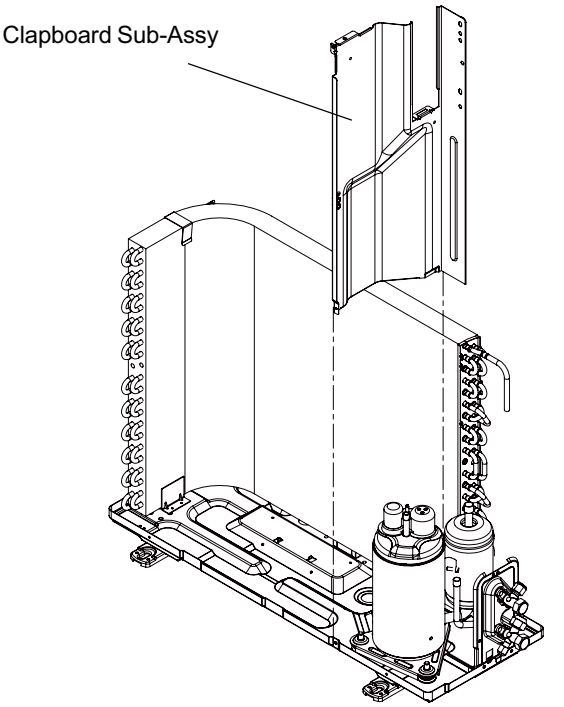
Steps	Procedure
3.Remove grille and front panel	
Remove connection screws between the front grille and the front panel. Then remove the front grille. Remove connection screws connecting the front panel with the chassis and the motor support, and then remove the front panel.	
4.Remove axial flow blade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

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

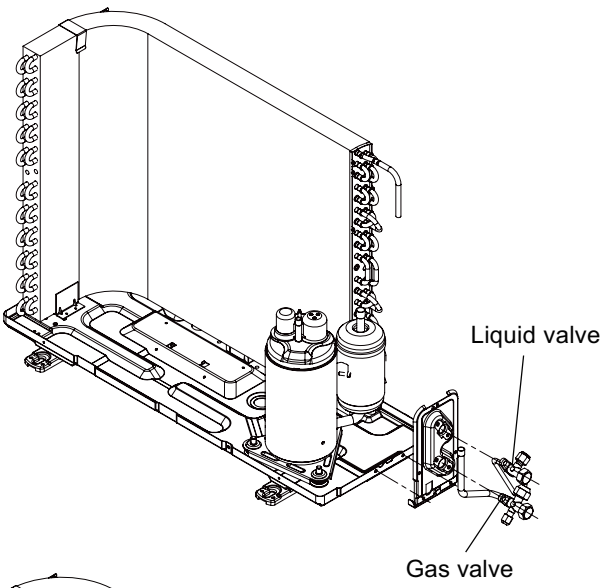


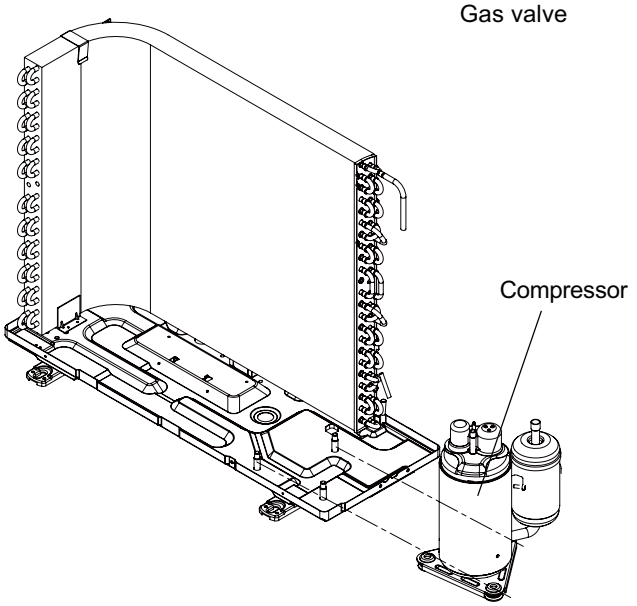




Steps	Procedure
9.Remove motor and motor support	
	Remove the 4 tapping screws fixing the motor. Pull out the lead-out wire and remove the motor. Remove the 2 tapping screws fixing the motor support. Lift motor support to remove it.
	
10.Remove clapboard sub-assy	
	Loosen the screws of the Clapboard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

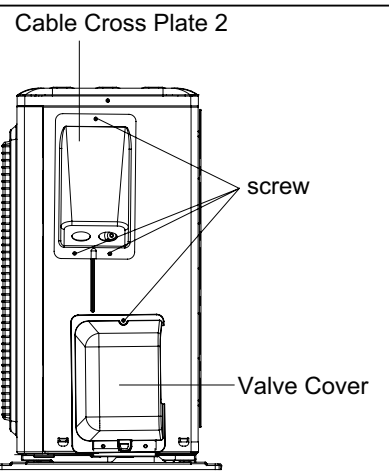
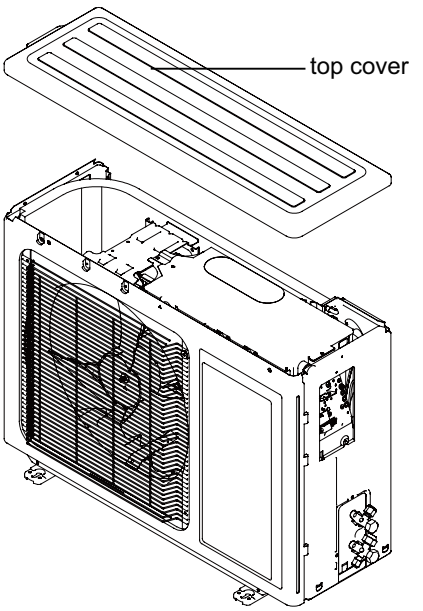
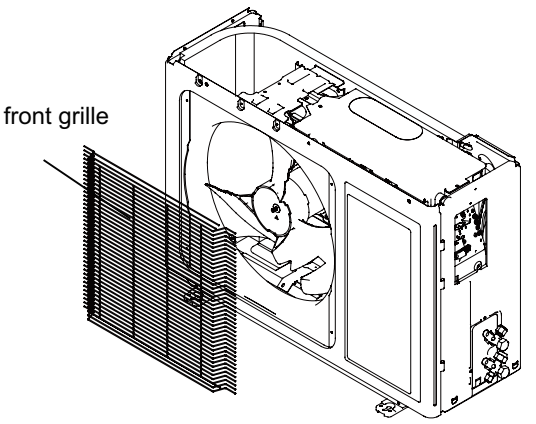
Steps	Procedure
11.Remove Compressor	
a	Remove the 2 screws fixing the gas valve. Unsolder the welding spot connecting gas valve and air return pipe and remove the gas valve. (Note: it is necessary to warp the gas valve when unsoldering the welding spot.) Remove the 2 screws fixing liquid valve. Unsolder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

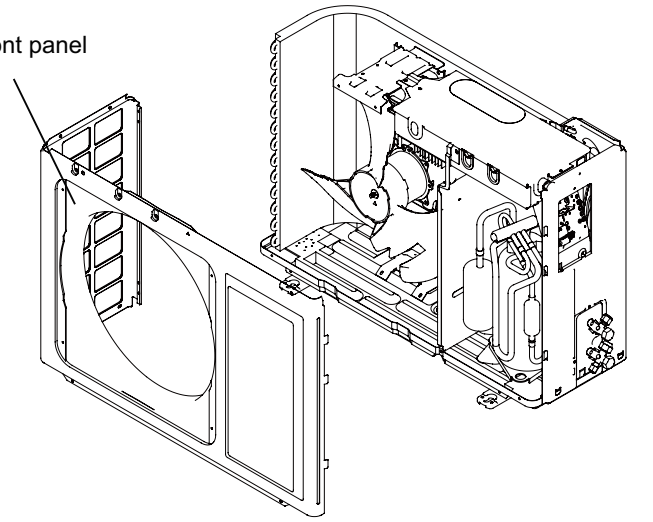
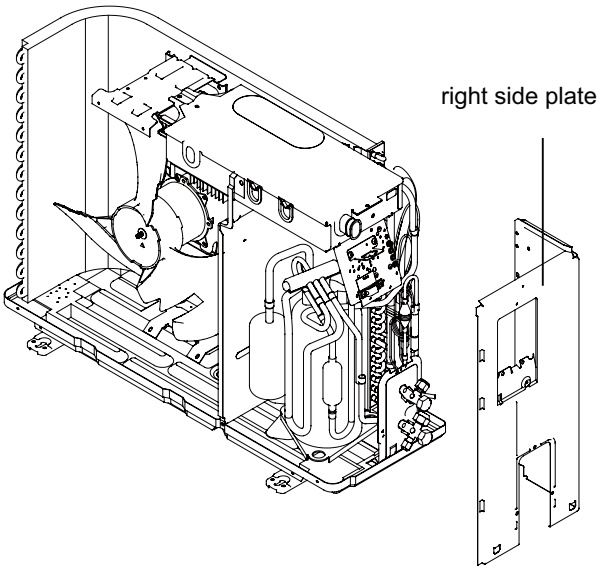
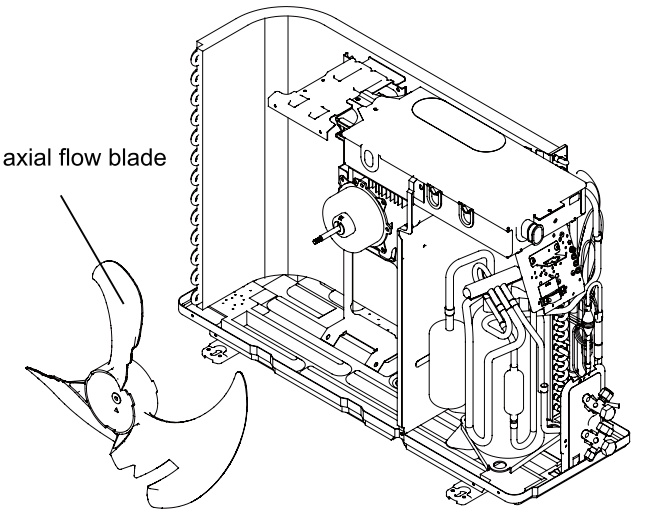


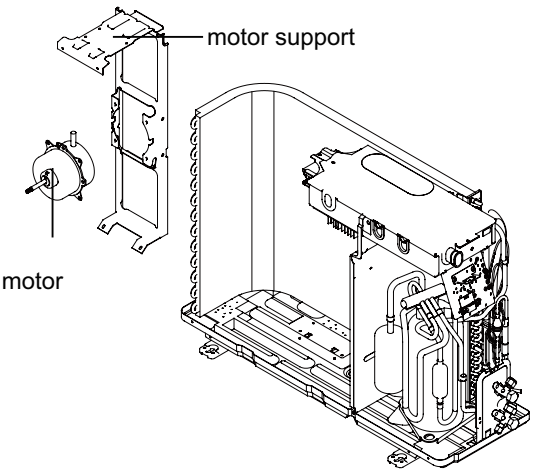
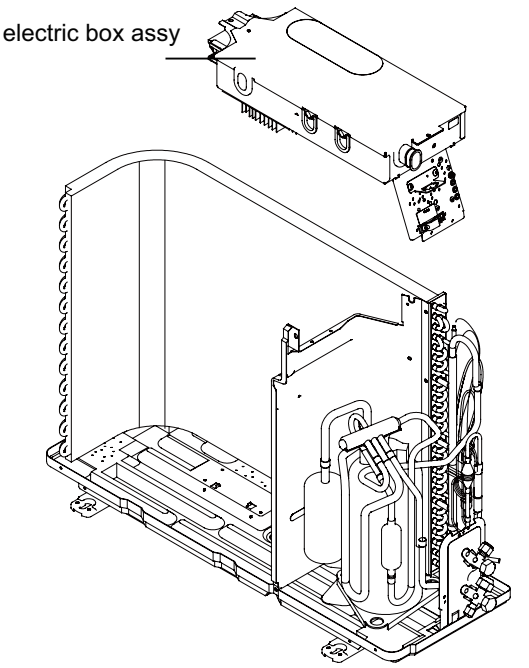
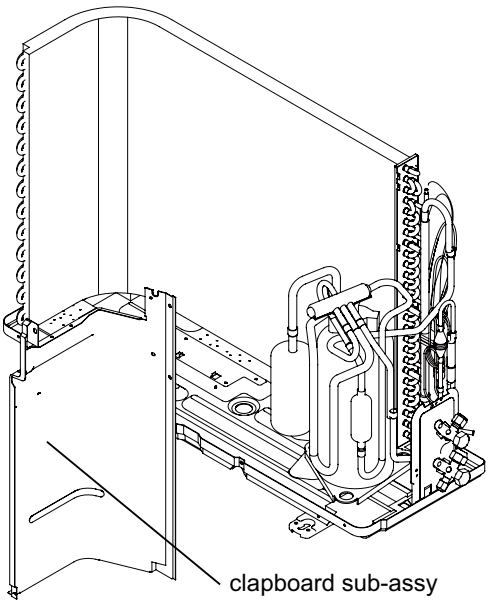


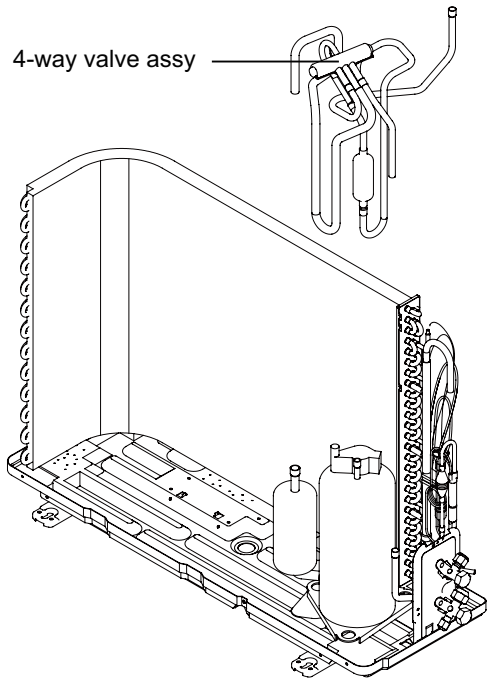
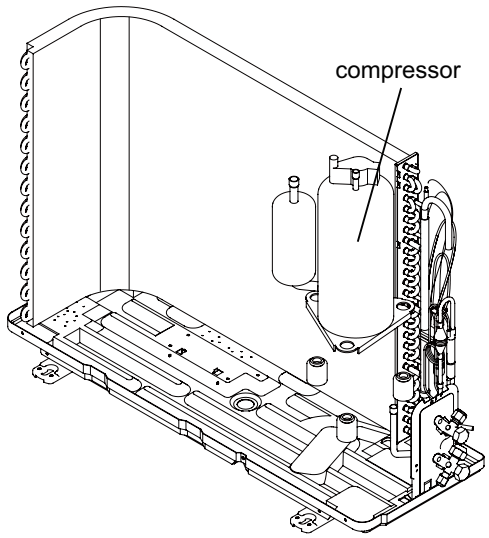
GWC12AFC-D3DNA1A/O GWH12AFC-D3DNA1A/O

Take heat pump for example.

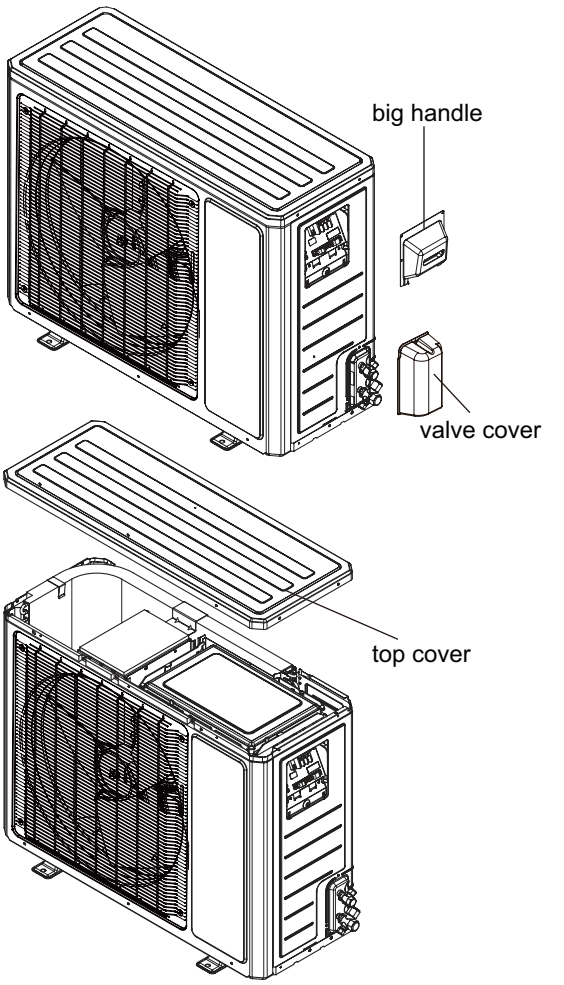
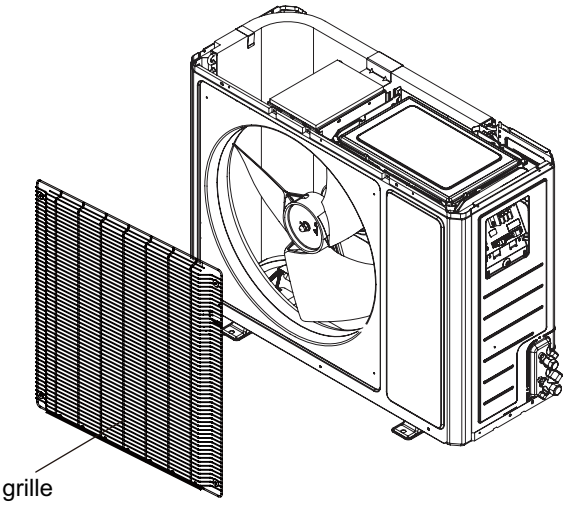
Steps	Procedure
1.Remove cable cross plate 2 and valve cover	
Remove 3 connection screw fixing small cable cross plate 2 and then remove the cable cross plate 2. Remove 1 connection screw fixing valve cover and then remove the valve cover.	
2.Remove top cover	
Remove connection screws connecting the top cover plate with the front panel and the right side plate,and then remove the top cover.	
3.Remove front grille	
Remove connection screws between the front grille and the front panel. Then remove the front grille.	

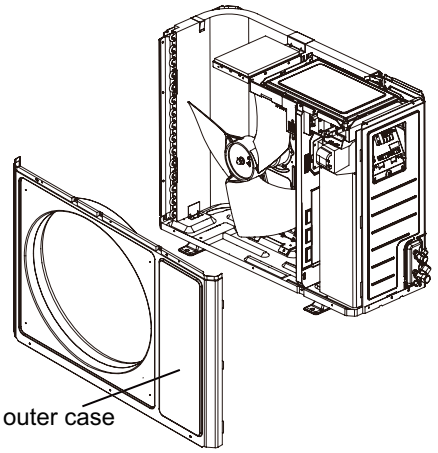
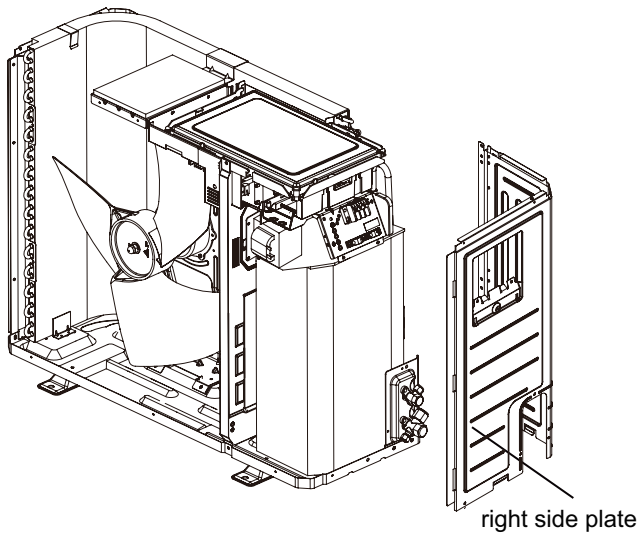
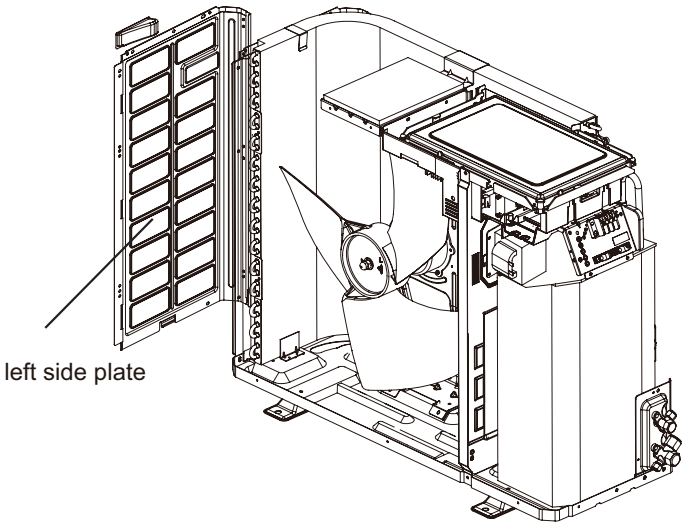
Steps	Procedure
4.Remove front panel	front panel 
Remove connection screws connecting the front panel with the chassis and the motor support, and then remove the front panel.	
5.Remove right side plate	right side plate 
Remove connection screws connecting the right side plate with the valve support and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

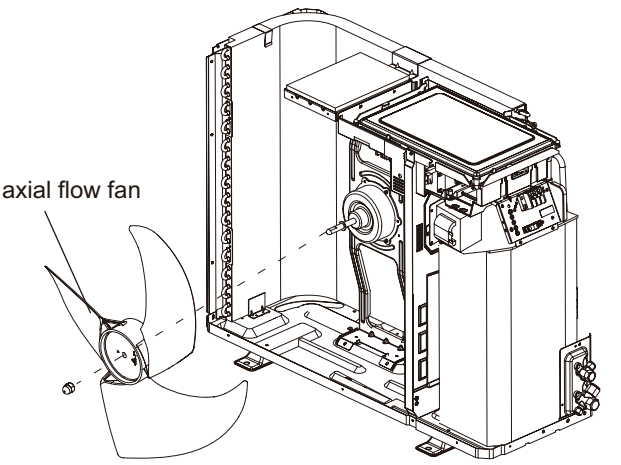
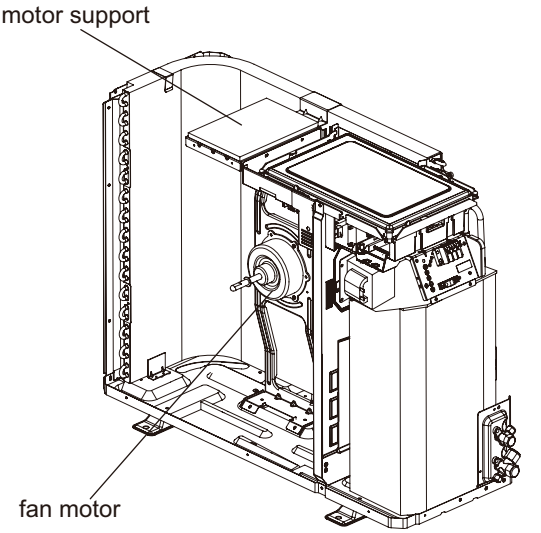
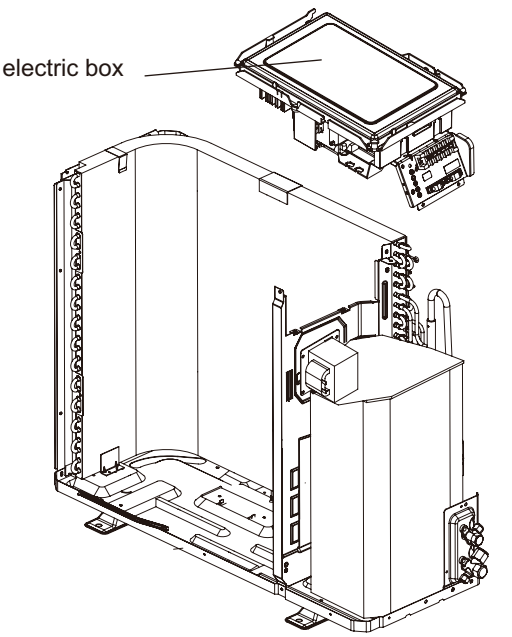
Steps	Procedure
7.Remove motor and motor support	
Remove the 4 tapping screws fixing the motor Pull out the lead-out wire and remove themotor. Remove the 2 tapping screws fixingthe motor support. Lift motor support to re-move it.	
8.Remove electric box assy	
Remove the 2 screws fixing the cover of elec-tric box. Lift to remove the cover. Loosen thewire and disconnect the terminal. Lift to re-move the electric box assy.	
9.Remove clapboard sub-assy	
Loosen the screws of the clapboard sub-assy .The clapboard sub-assy has a hook on thelower side. Lift and pull the clapboard sub-assy to remove.	

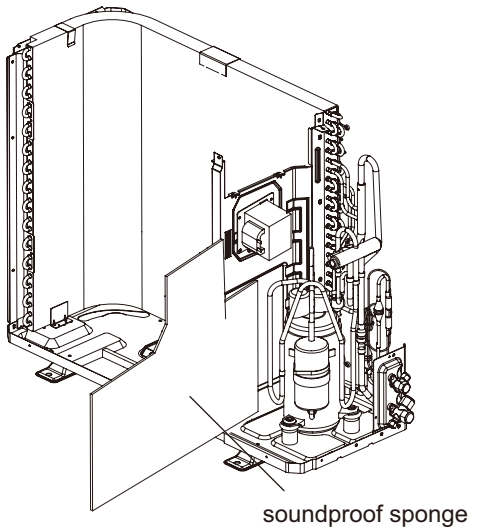
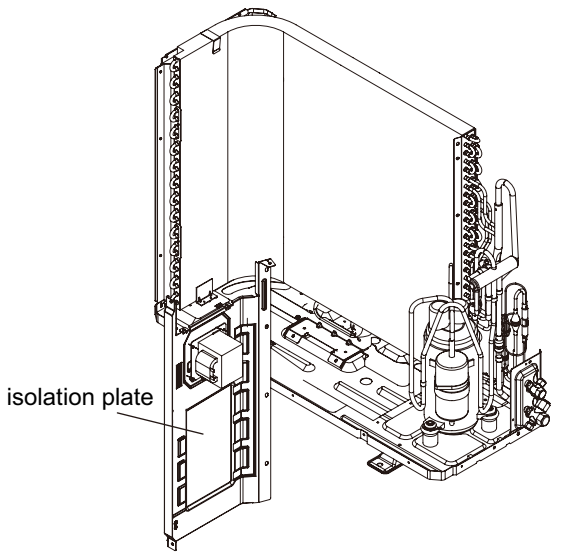
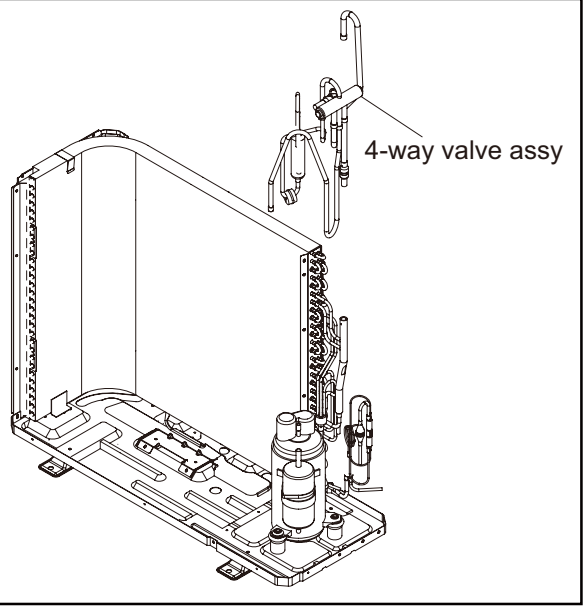
Steps	Procedure
10.Remove 4-way valve assy	
Unscrew the fastening nut of the 4-way Valve Assy coil and remove the coil. Wrap the 4-way Valve Assy with wet cotton and unsolderthe 4 weld spots connecting the 4-way Valve Assy to take it out(Note: Refrigerant shouldbe discharged firstly.) Welding processshould be as quickly as possible and keepwrapping cotton wet all the time. Be sure notto burn out the lead-out wire of compressor.	
11.Remove compressor	
Remove the 3 footing screws of the compressorand remove the compressor.	

GWH18QD-D3DNC6L/O GWH24QE-D3DNC6O/O GWC24AFE-D3DNA1A/O GWH24AFE-D3DNA1A/O

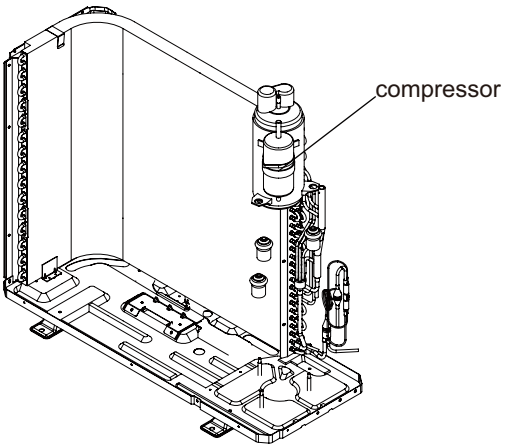
Steps	Procedure	
1. Remove big handle,valve cover and top cover		
a	Remove the screw connecting the big handle and right side plate, and then remove the big handle. Remove the screw connecting the valve cover and right side plate, and then remove the valve cover.	
b	Remove the screws connecting the top cover with outer case, right side plate and left side plate; lift the top cover upwards to remove it.	
2. Remove grille and outer case		
	Remove the 4 screws connecting the grille and outer case, and then remove the panel grille.	

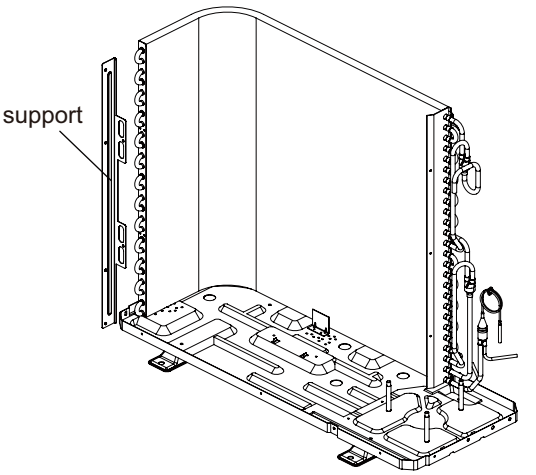
Steps	Procedure	
	Remove the screws connecting the outer case with motor support, isolation plate and chassis; lift the outer case upwards; loosen the clasps of outer case with right side plate and left side plate, and then remove the outer case.	
3. Remove right&left side plate		
a	Remove the screws connecting the right side plate with electric box assy, valve support, chassis and condenser side plate, and then remove the right side plate.	
b	Remove the screws connecting the left side plate with chassis, and then remove the left side plate.	

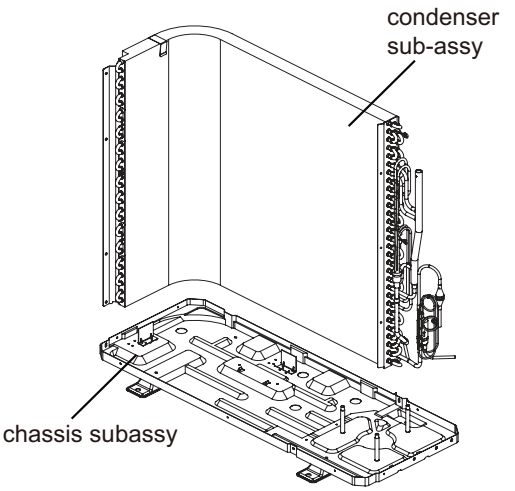
Steps	Procedure
4. Remove axial flow blade	
a	Remove the nut fixing axial flow blade and then remove the blade.
b	Remove the 6 screws fixing the motor and then remove the motor. Remove the 2 screws connecting the motor support and chassis, and then loosen the stopper to remove the motor support.
	
5. Remove electric box	
	Remove the screws fixing the electric box sub-assy; loosen the wire bundle; pull out the wiring terminals and then pull the electric box upwards to remove it.

Steps	Procedure	
6. Remove the soundproof sponge		
	Tear off the sticking stripe and then remove the soundproof sponge.	
7. Remove isolation plate		
	Remove the 2 screws connecting the isolation plate and condenser side plate; remove the 3 screws connecting the isolation plate and chassis, and then remove the isolation plate.	
8. Remove 4-way valve assy		
	Unsolder the welding joints connecting the 4-way valve assy with capillary sub-assy, compressor and condenser; remove the 4-way valve. Note: Before unsoldering the welding joint, wrap the 4-way valve with a wet cloth completely to avoid damage to the valve caused by high temperature.	

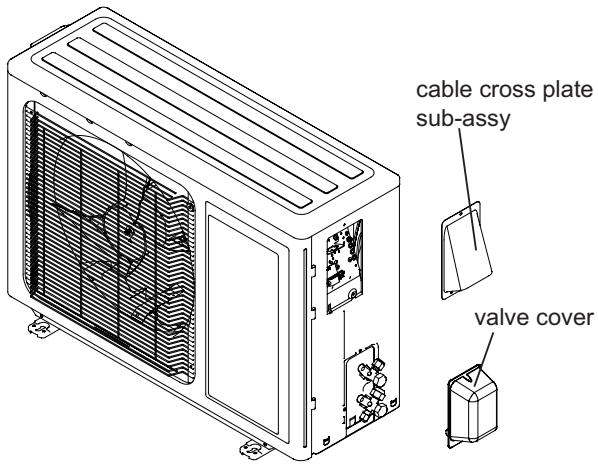
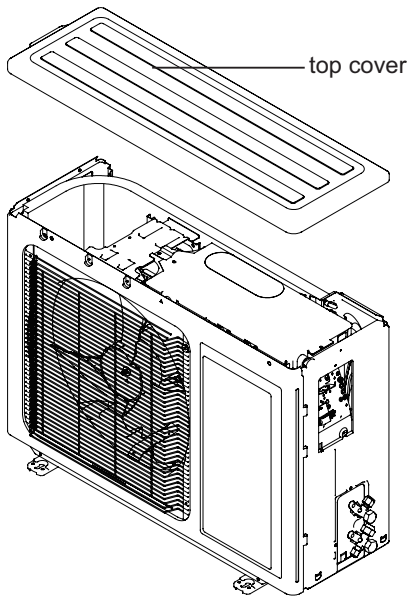
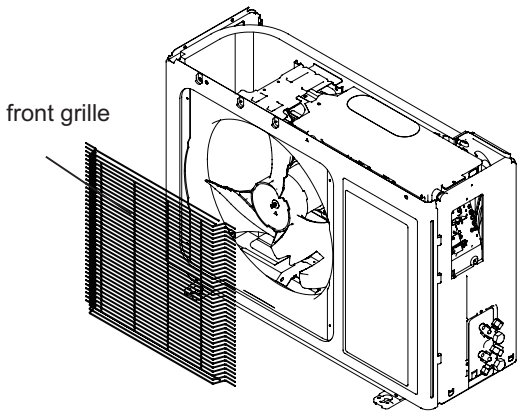
Steps	Procedure
9. Remove compressor	
	Remove the 3 foot nuts fixing compressor and then lift the compressor upwards to remove the compressor and damping cushion. Note: Keep the ports of discharge pipe and suction pipe from foreign objects.
10. Remove condenser sub-assy	
a	Remove the screws connecting the support (condenser) and condenser assy,and then remove the support(condenser).
b	Remove the 2 screws fixing the condenser and chassis, and then lift the condenser upwards to remove it.

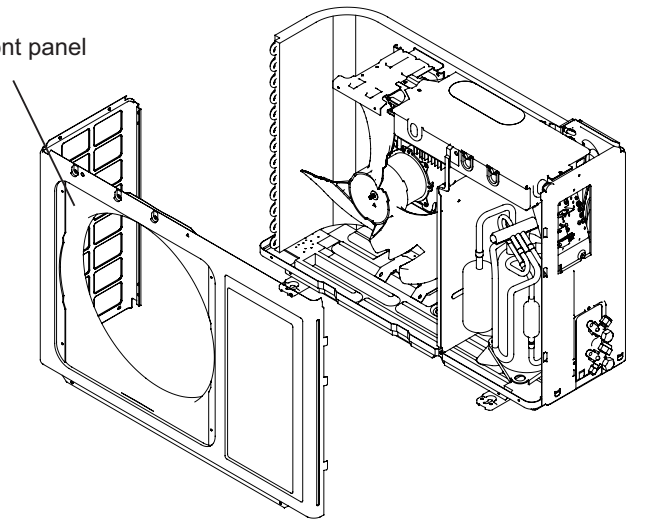
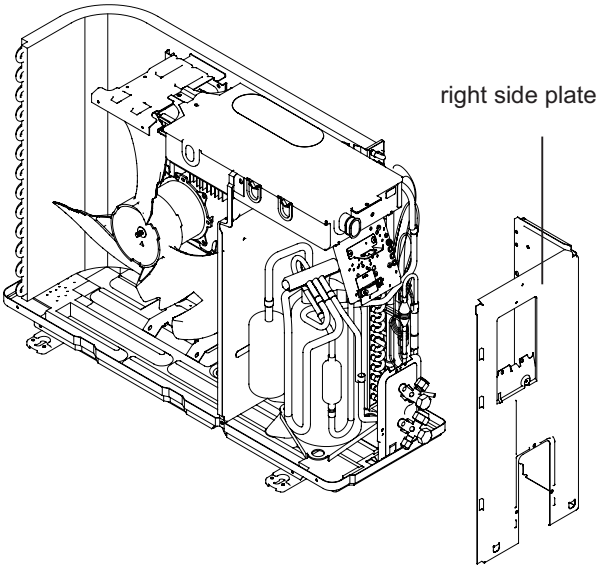
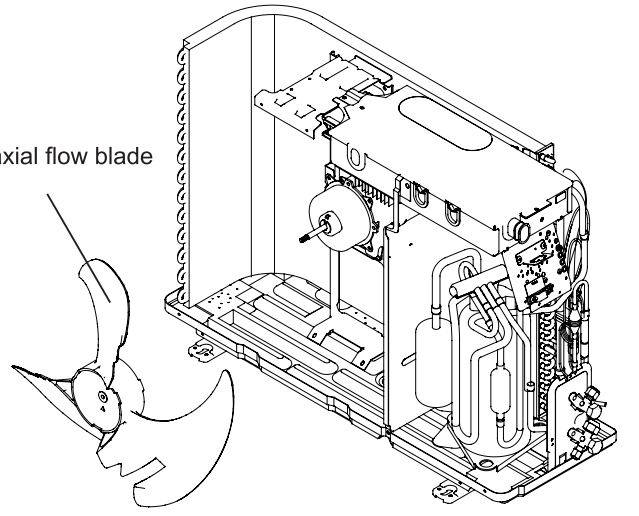


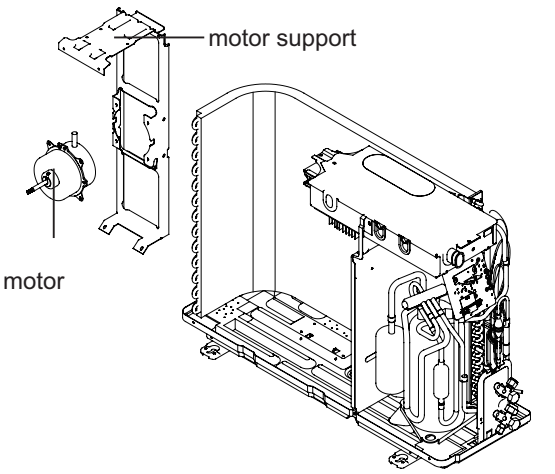
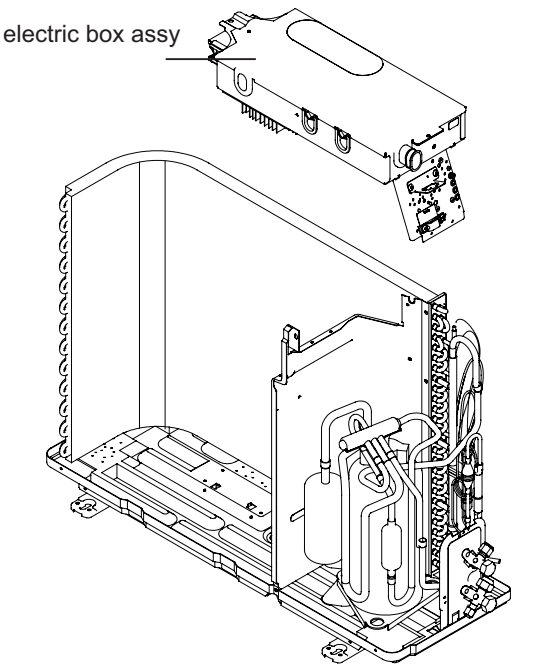
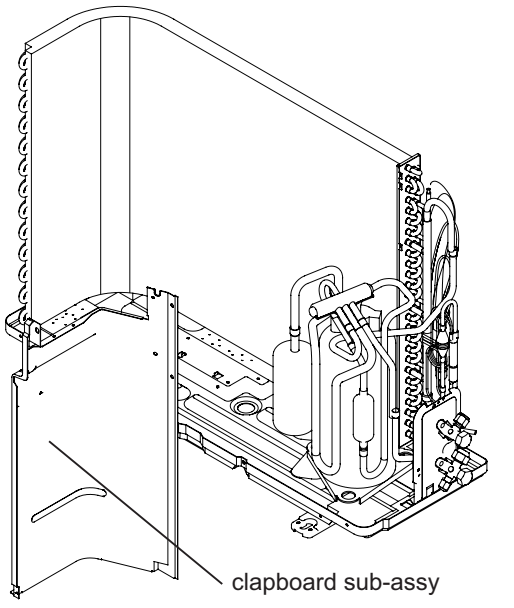


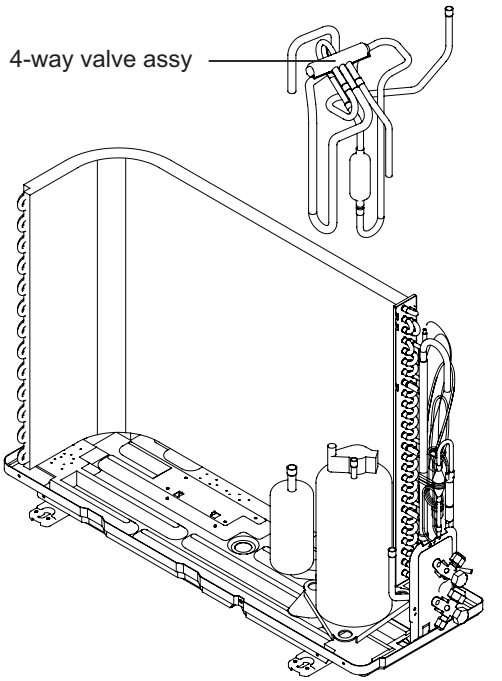
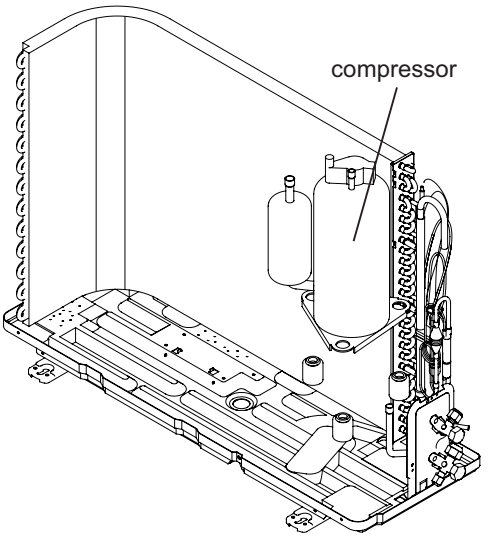


GWH07QC-D3DNA1D/O

Steps	Procedure
1.Remove cable cross plate sub-assy and valve cover Remove the screws fixing cable cross plate sub-assy and then remove the cable cross plate sub-assy. Remove the screws fixing valve cover and then remove the valve cover.	
2.Remove top cover Remove connection screws connecting the top cover plate with the front panel and the right side plate,and then remove the top cover.	
3.Remove front grille Remove connection screws between the front grille and the front panel. Then remove the front grille.	

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

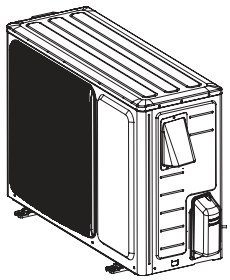
Steps	Procedure
7.Remove motor and motor support	
Remove the 4 tapping screws fixing the motor Pull out the lead-out wire and remove themotor. Remove the 2 tapping screws fixingthe motor support. Lift motor support to re-move it.	
8.Remove electric box assy	
Remove the 2 screws fixing the cover of elec-tric box. Lift to remove the cover. Loosen thewire and disconnect the terminal. Lift to re-move the electric box assy.	
9.Remove clapboard sub-assy	
Loosen the screws of the clapboard sub-assy .The clapboard sub-assy has a hook on thelower side. Lift and pull the clapboard sub-assy to remove.	

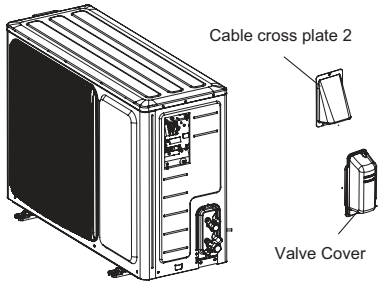
Steps	Procedure
10.Remove 4-way valve assy	
	Unscrew the fastening nut of the 4-way Valve Assy coil and remove the coil. Wrap the 4-way Valve Assy with wet cotton and unsolderthe 4 weld spots connecting the 4-way Valve Assy to take it out(Note: Refrigerant shouldbe discharged firstly.) Welding processshould be as quickly as possible and keepwrapping cotton wet all the time. Be sure notto burn out the lead-out wire of compressor.
	
11.Remove compressor	
	Remove the 3 footing screws of the compressorand remove the compressor.
	

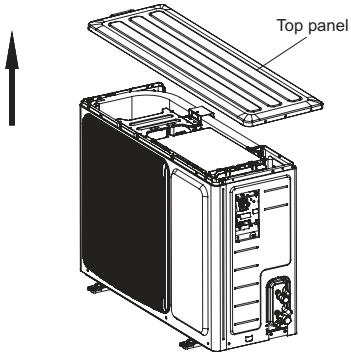
GWC18AFD-D3DNA1A/O

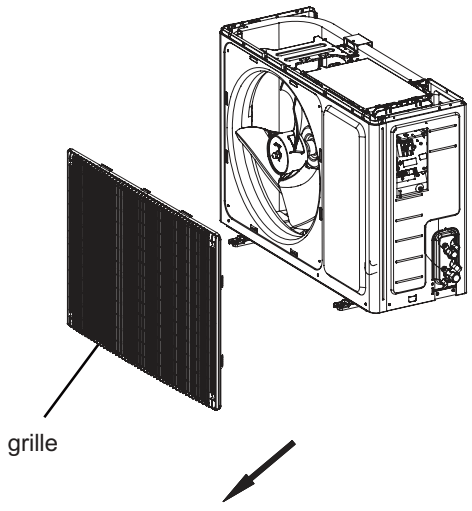
NOTE: This models haven't 4-way valve assy.

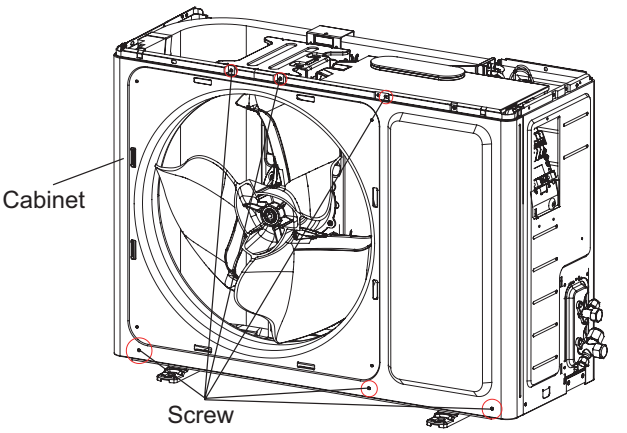
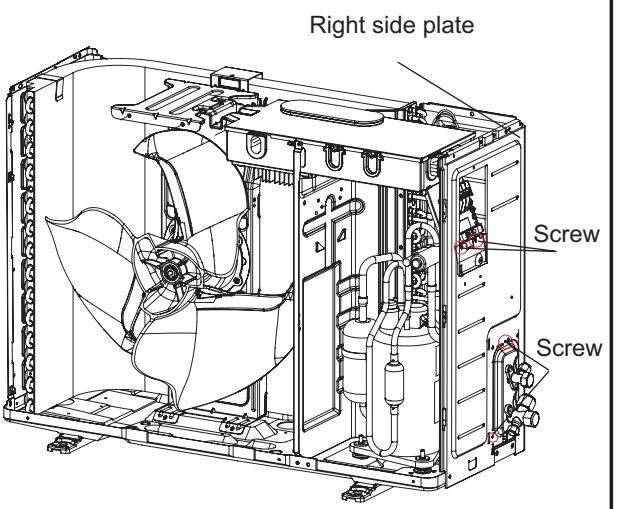
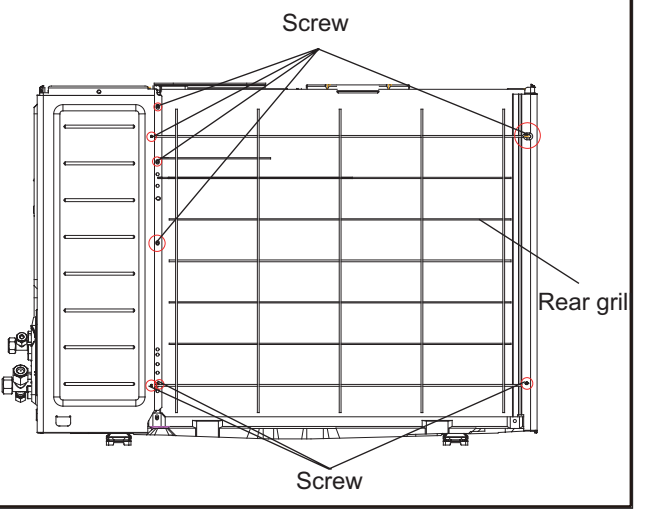
Steps	Before disassamble.	Procedure
1.Remove cable cross plate 2 and valve cover and top panel		
a	Before disassamble.	
b	Remove 3 connection screw fixing cable cross plate 2 and then remove the Cable cross plate 2. Remove 1 connection screw fixing valve cover and then remove the valve cover.	
c	Remove the 3 screws connecting the top panel with the front panel and the right side plate, and then remove the top panel.	
2. Remove grille and panel		
a	Remove the 2 screws connecting the grille and the panel, and then remove the grille.	

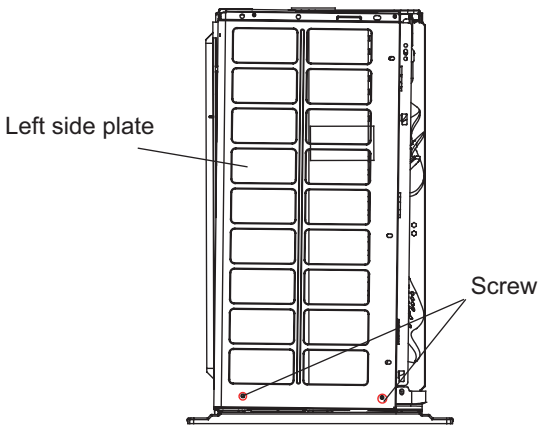
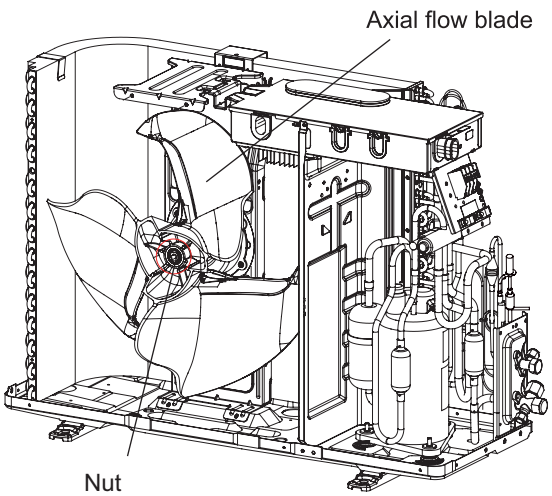
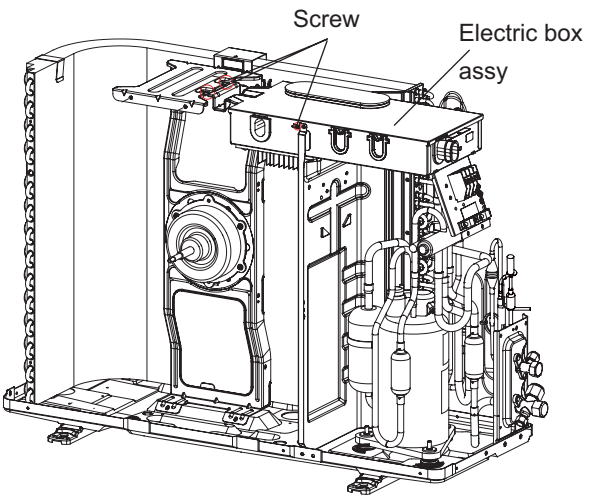


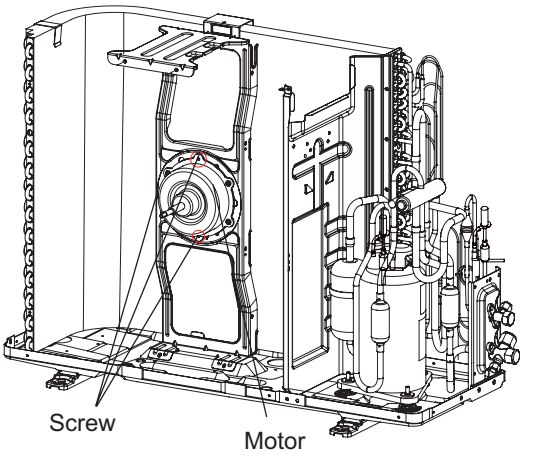
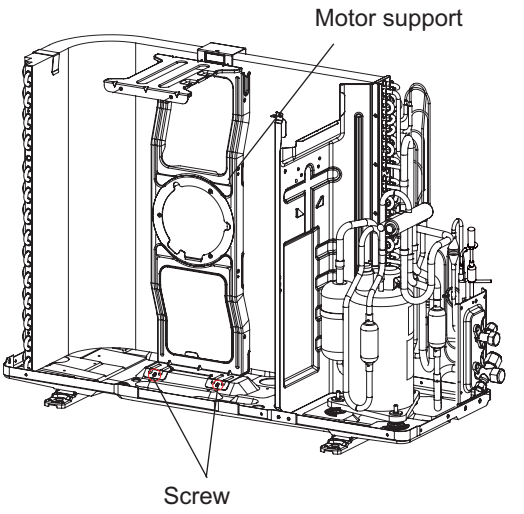
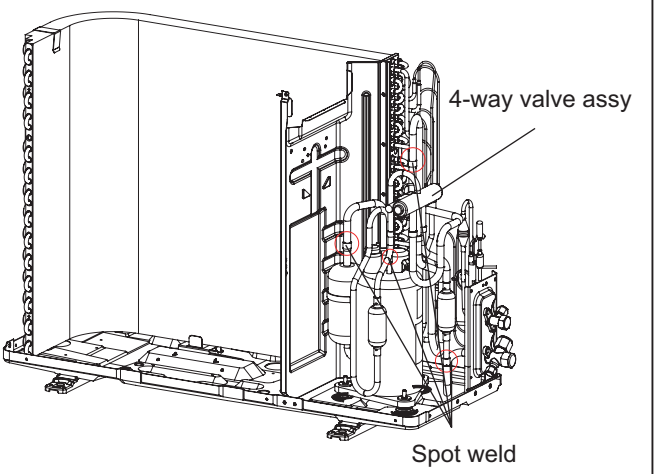


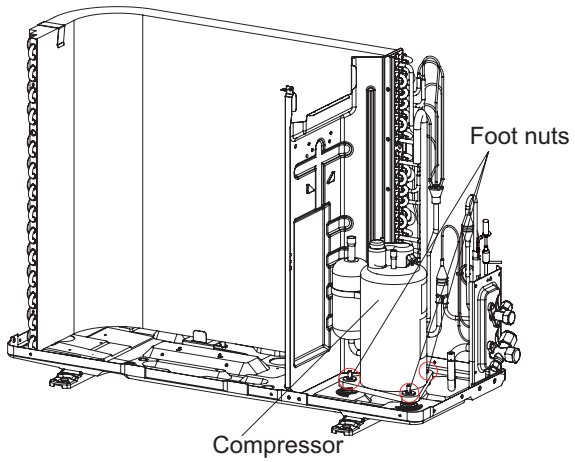
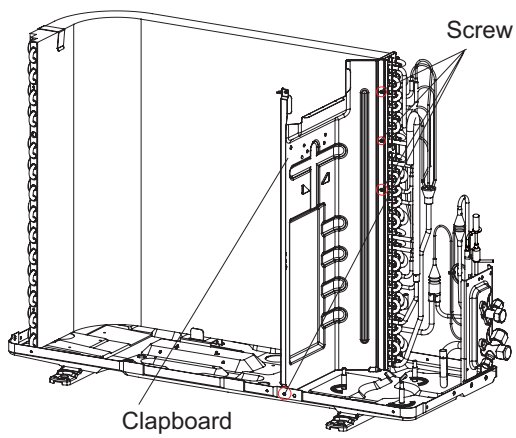
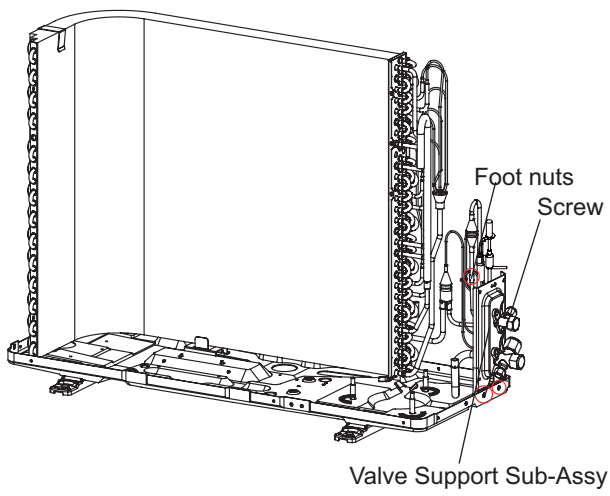




Step	Procedure	
b	Remove the screws fixing cabinet and then remove the cabinet.	
3. Remove right side plate and rear grill		
	Remove the screws fixing right side plate and then remove the right side plate.	
	Remove the screws and then remove the grille.	

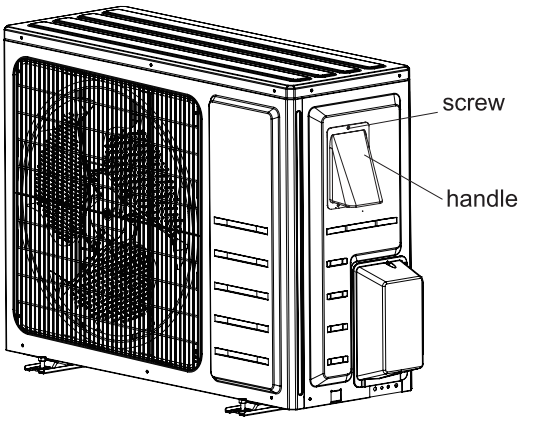
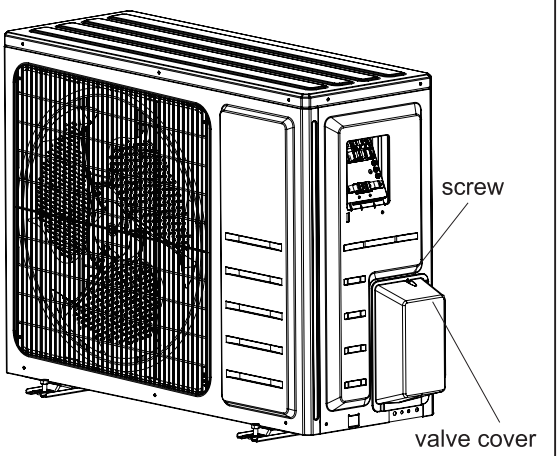
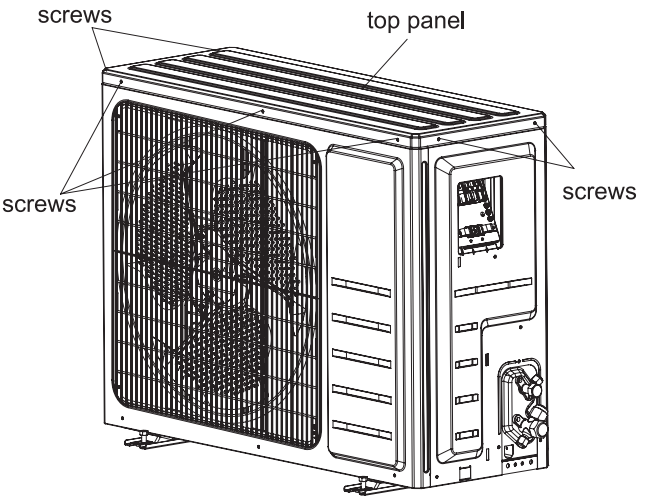
Step	Procedure
4. Remove lef side plate Remove the screws fixing left side plate and then remove the letf side plate.	
5. Remove axial flow blade Remove the nut fixing axial flow blade and then remove the axial flow blade.	
6.Remove electric box assy Remove the screws fixing electric box assy ; pull out each wiring terminal; lift the electric box assy upwards to remove it. Note: When pulling out the wiring terminal, pay attention to loose the clasp and dont pull it so hard.	

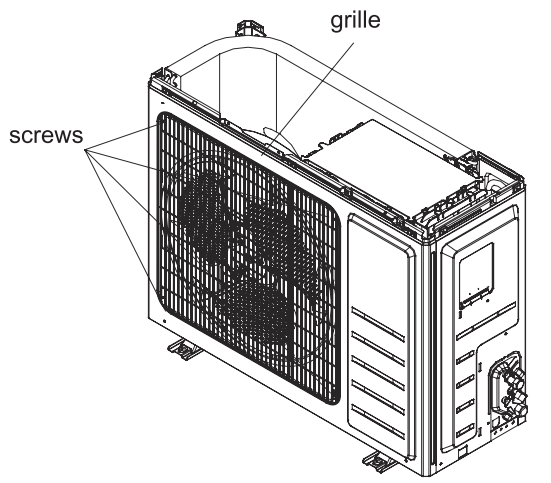
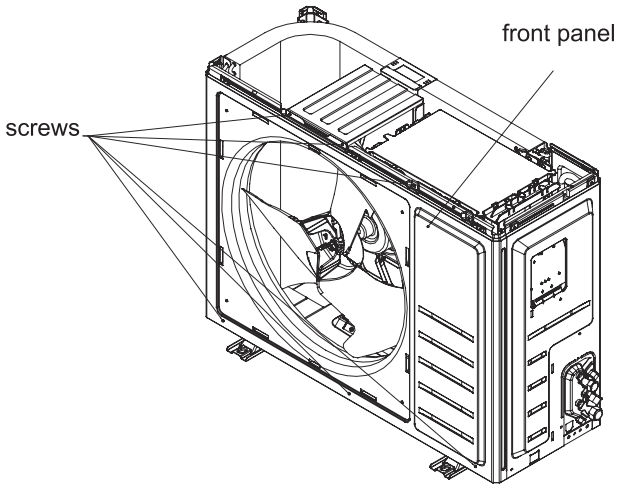
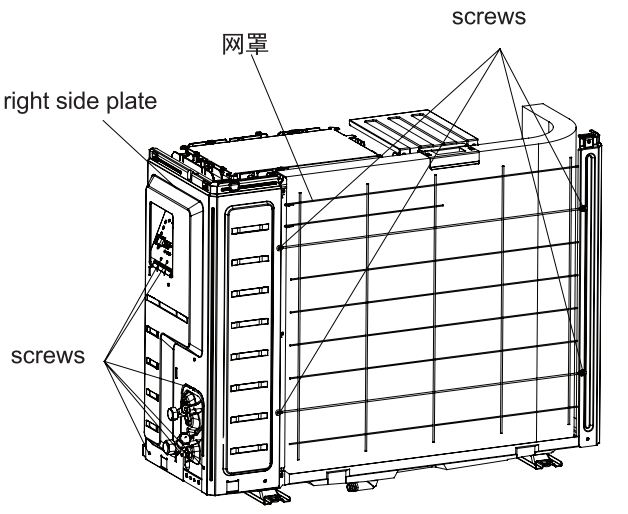
Step	Procedure
7.Remove motor Remove the screws fixing motor and then remove the motor.	
8.Remove motor support Remove the screws fixing motor support and then remove the motor support.	
9.Remove 4-way valve assy Unsolder the spot weld of 4-way valve assy, compressor and condenser, and then remove the 4-way valve 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.	

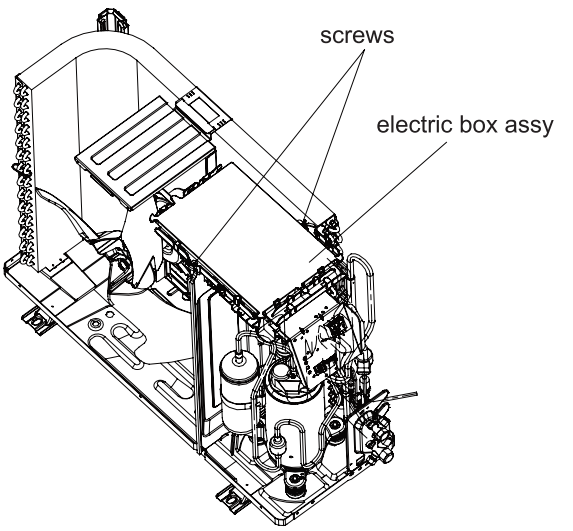
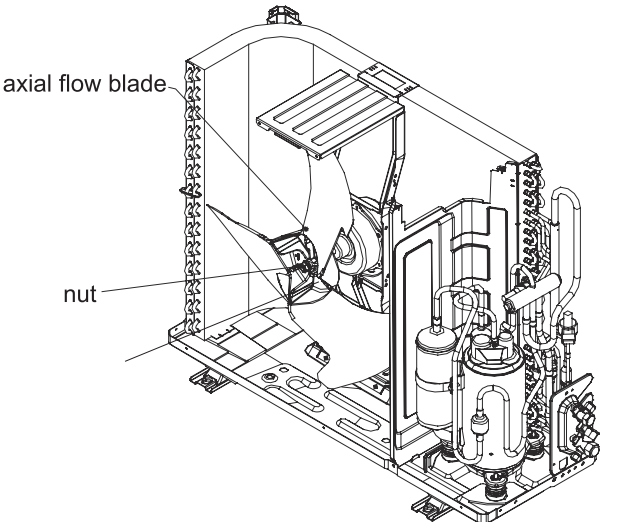
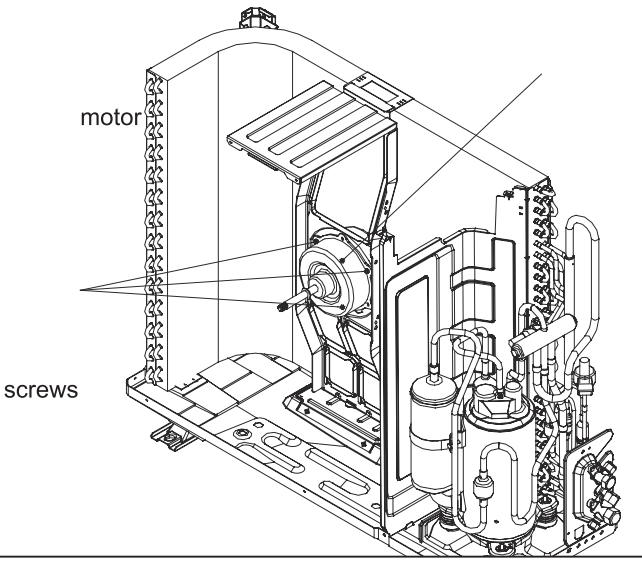
Step	Procedure
10.Remove compressor Remove 3 foot nuts on compressor, and then remove the compressor. Note: Protect the ports of discharge pipe and suction pipe to avoid foreign objects to enter it.	
11.Remove clapboard Remove the screws fixing clapboard and then remove the clapboard.	
12. Remove Valve support sub-assy Screw off the screws that are locking the valve support sub-assy. Then remove it.	

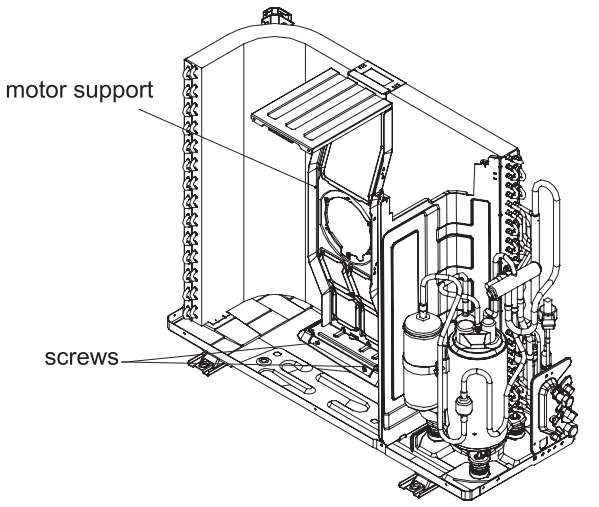
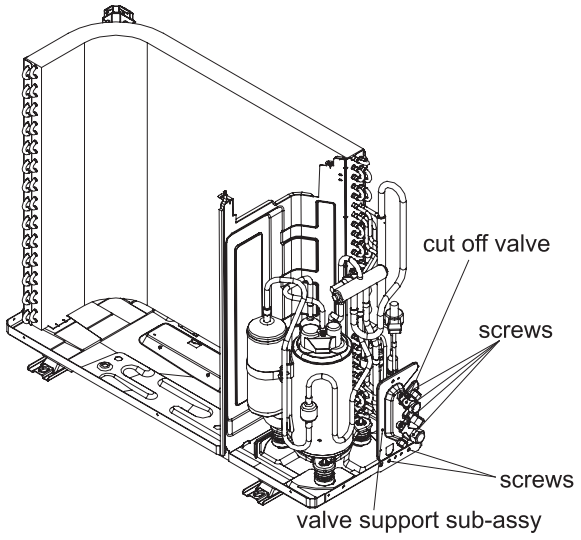
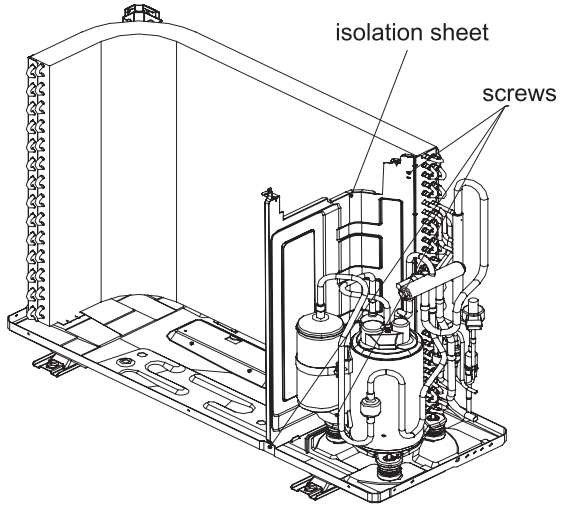
GWC24QE-D3DNB2R/O GWH24QE-D3DNB2R/O

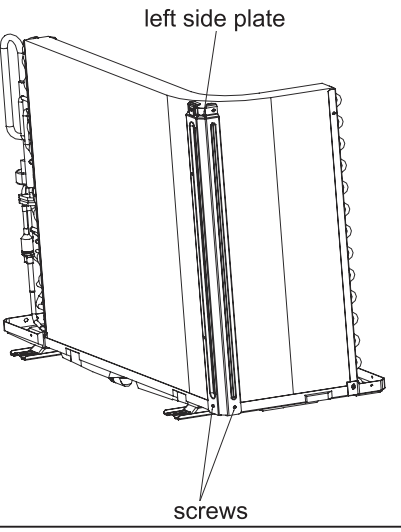
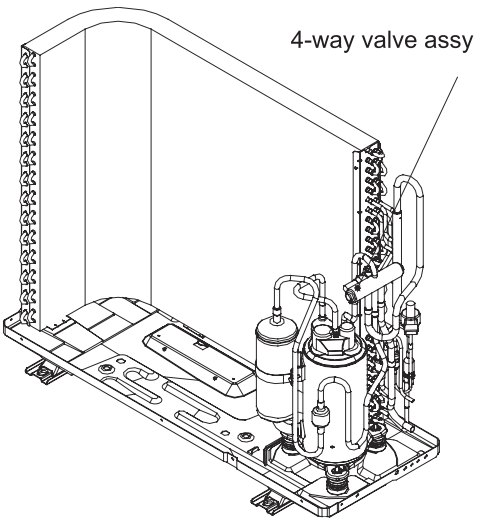
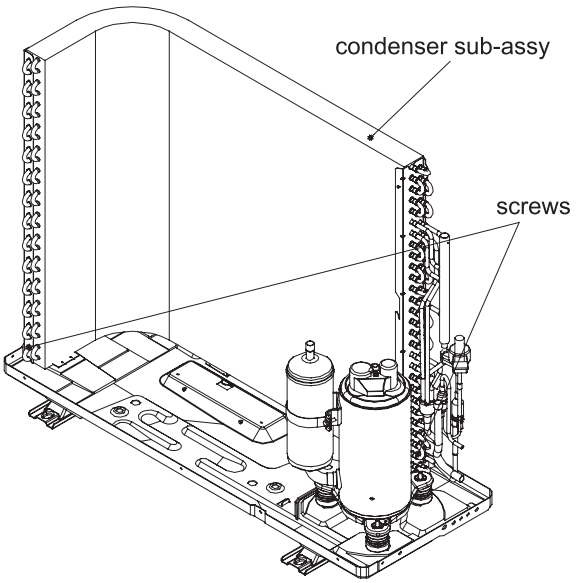
Note: Take heat pump for example.

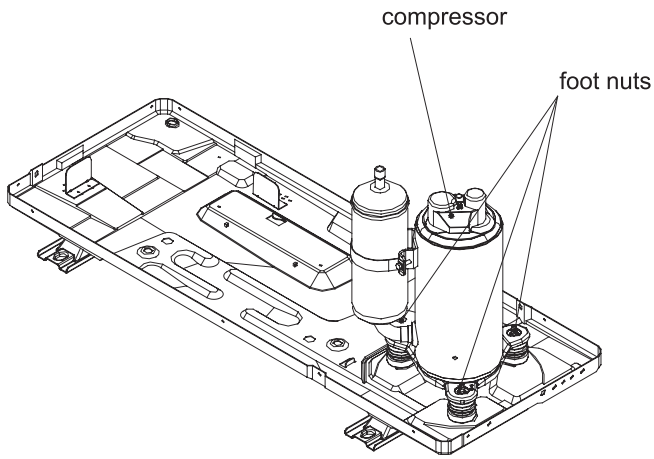
Steps	Procedure
1. Remove handle Remove the screw fixing the handle and then remove the handle.	
2. Remove valve cover Remove the screw fixing the valve cover and then remove the valve cover.	
3. Remove top panel Remove the screws fixing the top panel and then remove the top panel.	

Steps	Procedure
4. Remove grille	
Remove the screws fixing the grille and then remove the panel grille.	
5. Remove front panel	
Remove screws fixing the front panel and then remove the front panel.	
6. Remove right side plate	
Remove screws fixing connecting the front panel with the chassis and the motor support, and then remove the right side plate.	

Steps	Procedure
7. Remove electric box assy	
Remove the screws fixing the electricbox; loosen the wire bundle; pull out the wiring terminals and then pull electric boxupwards to remove it.	
8. Remove axial flow blade	
Remove nut fixing the blade and then remove the blade.	
9. Remove motor	
Remove screws fixing the motor and then remove the motor.	

Steps	Procedure
10. Remove motor support	
Remove screws fixing the motor support and then remove the motor support.	
11. Remove cut off valve and valve support sub-assy	
Remove screws fixing the cut off valve and then remove the cut off valve; Remove screws fixing the valve support sub-assy and then remove the valve support sub-assy. Note: When pulling out the wiring terminal, pay attention to loose the clasp and don't pull it so hard.	
12. Remove isolation sheet	
Remove the screws fixing the isolation sheet and then remove the isolation sheet.	

Steps	Procedure
13. Remove left side plate	
Remove the screws fixing the left side plate and the chassis, and then remove the left side plate.	
14. Remove 4-way valve assy	
Discharge the refrigerant completely; unsolder the pipelines connecting the compressor and the condenser assy, and then remove the 4-way valve assy. (Recover the refrigerant before unsoldering)	
15. Remove condenser sub-assy	
Remove the screws fixing the condenser and chassis, and then lift the condenser upwards to remove it.	

Steps	Procedure
16. Remove compressor	
Remove the 3 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 (℉)	Fahrenheit (℉)	Celsius (℃)	Fahrenheit display temperature (℉)	Fahrenheit (℉)	Celsius (℃)	Fahrenheit display temperature (℉)	Fahrenheit (℉)	Celsius (℃)
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 (℉)	Fahrenheit (℉)	Celsius (℃)	Fahrenheit display temperature (℉)	Fahrenheit (℉)	Celsius (℃)	Fahrenheit display temperature (℉)	Fahrenheit (℉)	Celsius (℃)
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.(More details please refer to the specifications)

2.Min. length of connection pipe is 9.84ft.

3.Max. length of connection pipe and max. high difference.(More details please refer to the specifications)

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

● After the length of connection pipe is prolonged for 32.81ft at the basis of standard length, you should add 0.0013gal of refrigerant oil for each additional 16.40ft of connection pipe.

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

● Basing on the length of standard pipe, add refrigerant according to the requirement as shown in the table. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.

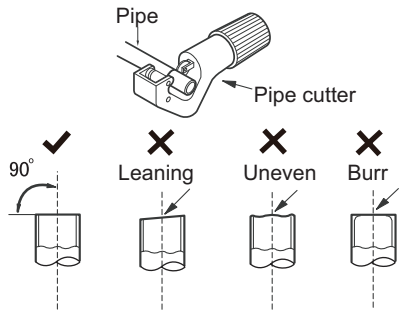
● Additional refrigerant charging amount = prolonged length of liquid pipe X additional refrigerant charging amount per meter

Additional refrigerant charging amount for R22, R407C, R410A and R134a			
Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe(inch)	Gas pipe(inch)	Cooling only(oz/ft.)	Cooling and heating(oz/ft.)
Φ1/4	Φ3/8or Φ1/2	0.2	0.2
Φ1/4 or Φ3/8	Φ5/8 or Φ3/4	0.2	0.6
Φ1/2	Φ3/4 or Φ7/8	0.3	1.3
Φ5/8	Φ1 or Φ1 1/4	0.7	1.3
Φ3/4	/	2.7	2.7
Φ7/8	/	3.8	3.8

Appendix 3: Pipe Expanding Method

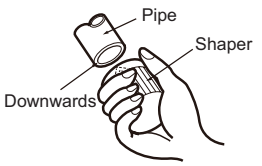
⚠ **Note:**

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



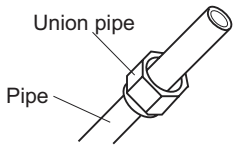
A:Cut the pip
- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with pipe cutter.

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.

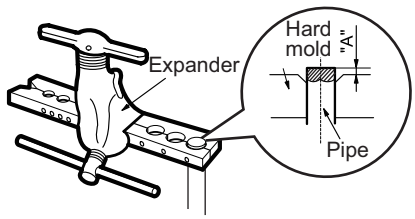


E:Expand the port
- Expand the port with expander.

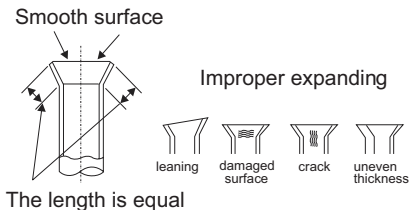
⚠ **Note:**

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

Outer diameter(inch)	A(inch)	
	Max	Min
Φ0.24 - 0.25 (1/4")	0.05	0.03
Φ0.37 (3/8")	0.06	0.04
Φ0.47 - 0.50 (1/2")	0.07	0.04
Φ0.63 - 0.625 (5/8")	0.09	0.09



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.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)
-2.2	138.1		68	18.75		138.2	3.848		208.4	1.071
-0.4	128.6		69.8	17.93		140	3.711		210.2	1.039
1.4	121.6		71.6	17.14		141.8	3.579		212	1.009
3.2	115		73.4	16.39		143.6	3.454		213.8	0.98
5	108.7		75.2	15.68		145.4	3.333		215.6	0.952
6.8	102.9		77	15		147.2	3.217		217.4	0.925
8.6	97.4		78.8	14.36		149	3.105		219.2	0.898
10.4	92.22		80.6	13.74		150.8	2.998		221	0.873
12.2	87.35		82.4	13.16		152.6	2.896		222.8	0.848
14	82.75		84.2	12.6		154.4	2.797		224.6	0.825
15.8	78.43		86	12.07		156.2	2.702		226.4	0.802
17.6	74.35		87.8	11.57		158	2.611		228.2	0.779
19.4	70.5		89.6	11.09		159.8	2.523		230	0.758
21.2	66.88		91.4	10.63		161.6	2.439		231.8	0.737
23	63.46		93.2	10.2		163.4	2.358		233.6	0.717
24.8	60.23		95	9.779		165.2	2.28		235.4	0.697
26.6	57.18		96.8	9.382		167	2.206		237.2	0.678
28.4	54.31		98.6	9.003		168.8	2.133		239	0.66
30.2	51.59		100.4	8.642		170.6	2.064		240.8	0.642
32	49.02		102.2	8.297		172.4	1.997		242.6	0.625
33.8	46.6		104	7.967		174.2	1.933		244.4	0.608
35.6	44.31		105.8	7.653		176	1.871		246.2	0.592
37.4	42.14		107.6	7.352		177.8	1.811		248	0.577
39.2	40.09		109.4	7.065		179.6	1.754		249.8	0.561
41	38.15		111.2	6.791		181.4	1.699		251.6	0.547
42.8	36.32		113	6.529		183.2	1.645		253.4	0.532
44.6	34.58		114.8	6.278		185	1.594		255.2	0.519
46.4	32.94		116.6	6.038		186.8	1.544		257	0.505
48.2	31.38		118.4	5.809		188.6	1.497		258.8	0.492
50	29.9		120.2	5.589		190.4	1.451		260.6	0.48
51.8	28.51		122	5.379		192.2	1.408		262.4	0.467
53.6	27.18		123.8	5.197		194	1.363		264.2	0.456
55.4	25.92		125.6	4.986		195.8	1.322		266	0.444
57.2	24.73		127.4	4.802		197.6	1.282		267.8	0.433
59	23.6		129.2	4.625		199.4	1.244		269.6	0.422
60.8	22.53		131	4.456		201.2	1.207		271.4	0.412
62.6	21.51		132.8	4.294		203	1.171		273.2	0.401
64.4	20.54		134.6	4.139		204.8	1.136		275	0.391
66.2	19.63		136.4	3.99		206.6	1.103		276.8	0.382

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

Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)
-2.2	181.4		68	25.01		138.2	5.13		208.4	1.427
-0.4	171.4		69.8	23.9		140	4.948		210.2	1.386
1.4	162.1		71.6	22.85		141.8	4.773		212	1.346
3.2	153.3		73.4	21.85		143.6	4.605		213.8	1.307
5	145		75.2	20.9		145.4	4.443		215.6	1.269
6.8	137.2		77	20		147.2	4.289		217.4	1.233
8.6	129.9		78.8	19.14		149	4.14		219.2	1.198
10.4	123		80.6	18.13		150.8	3.998		221	1.164
12.2	116.5		82.4	17.55		152.6	3.861		222.8	1.131
14	110.3		84.2	16.8		154.4	3.729		224.6	1.099
15.8	104.6		86	16.1		156.2	3.603		226.4	1.069
17.6	99.13		87.8	15.43		158	3.481		228.2	1.039
19.4	94		89.6	14.79		159.8	3.364		230	1.01
21.2	89.17		91.4	14.18		161.6	3.252		231.8	0.983
23	84.61		93.2	13.59		163.4	3.144		233.6	0.956
24.8	80.31		95	13.04		165.2	3.04		235.4	0.93
26.6	76.24		96.8	12.51		167	2.94		237.2	0.904
28.4	72.41		98.6	12		168.8	2.844		239	0.88
30.2	68.79		100.4	11.52		170.6	2.752		240.8	0.856
32	65.37		102.2	11.06		172.4	2.663		242.6	0.833
33.8	62.13		104	10.62		174.2	2.577		244.4	0.811
35.6	59.08		105.8	10.2		176	2.495		246.2	0.77
37.4	56.19		107.6	9.803		177.8	2.415		248	0.769
39.2	53.46		109.4	9.42		179.6	2.339		249.8	0.746
41	50.87		111.2	9.054		181.4	2.265		251.6	0.729
42.8	48.42		113	8.705		183.2	2.194		253.4	0.71
44.6	46.11		114.8	8.37		185	2.125		255.2	0.692
46.4	43.92		116.6	8.051		186.8	2.059		257	0.674
48.2	41.84		118.4	7.745		188.6	1.996		258.8	0.658
50	39.87		120.2	7.453		190.4	1.934		260.6	0.64
51.8	38.01		122	7.173		192.2	1.875		262.4	0.623
53.6	36.24		123.8	6.905		194	1.818		264.2	0.607
55.4	34.57		125.6	6.648		195.8	1.736		266	0.592
57.2	32.98		127.4	6.403		197.6	1.71		267.8	0.577
59	31.47		129.2	6.167		199.4	1.658		269.6	0.563
60.8	30.04		131	5.942		201.2	1.609		271.4	0.549
62.6	28.68		132.8	5.726		203	1.561		273.2	0.535
64.4	27.39		134.6	5.519		204.8	1.515		275	0.521
66.2	26.17		136.4	5.32		206.6	1.47		276.8	0.509

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

Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)		Temp.(°F)	Resistance(kΩ)
-20.2	853.5		50	98		120.2	18.34		190.4	4.754
-18.4	799.8		51.8	93.42		122	17.65		192.2	4.609
-16.6	750		53.6	89.07		123.8	16.99		194	4.469
-14.8	703.8		55.4	84.95		125.6	16.36		195.8	4.334
-13	660.8		57.2	81.05		127.4	15.75		197.6	4.204
-11.2	620.8		59	77.35		129.2	15.17		199.4	4.079
-9.4	580.6		60.8	73.83		131	14.62		201.2	3.958
-7.6	548.9		62.6	70.5		132.8	14.09		203	3.841
-5.8	516.6		64.4	67.34		134.6	13.58		204.8	3.728
-4	486.5		66.2	64.33		136.4	13.09		206.6	3.619
-2.2	458.3		68	61.48		138.2	12.62		208.4	3.514
-0.4	432		69.8	58.77		140	12.17		210.2	3.413
1.4	407.4		71.6	56.19		141.8	11.74		212	3.315
3.2	384.5		73.4	53.74		143.6	11.32		213.8	3.22
5	362.9		75.2	51.41		145.4	10.93		215.6	3.129
6.8	342.8		77	49.19		147.2	10.54		217.4	3.04
8.6	323.9		78.8	47.08		149	10.18		219.2	2.955
10.4	306.2		80.6	45.07		150.8	9.827		221	2.872
12.2	289.6		82.4	43.16		152.6	9.489		222.8	2.792
14	274		84.2	41.34		154.4	9.165		224.6	2.715
15.8	259.3		86	39.61		156.2	8.854		226.4	2.64
17.6	245.6		87.8	37.96		158	8.555		228.2	2.568
19.4	232.6		89.6	36.38		159.8	8.268		230	2.498
21.2	220.5		91.4	34.88		161.6	7.991		231.8	2.431
23	209		93.2	33.45		163.4	7.726		233.6	2.365
24.8	198.3		95	32.09		165.2	7.47		235.4	2.302
26.6	199.1		96.8	30.79		167	7.224		237.2	2.241
28.4	178.5		98.6	29.54		168.8	6.998		239	2.182
30.2	169.5		100.4	28.36		170.6	6.761		240.8	2.124
32	161		102.2	27.23		172.4	6.542		242.6	2.069
33.8	153		104	26.15		174.2	6.331		244.4	2.015
35.6	145.4		105.8	25.11		176	6.129		246.2	1.963
37.4	138.3		107.6	24.13		177.8	5.933		248	1.912
39.2	131.5		109.4	23.19		179.6	5.746		249.8	1.863
41	125.1		111.2	22.29		181.4	5.565		251.6	1.816
42.8	119.1		113	21.43		183.2	5.39		253.4	1.77
44.6	113.4		114.8	20.6		185	5.222		255.2	1.725
46.4	108		116.6	19.81		186.8	5.06		257	1.682
48.2	102.8		118.4	19.06		188.6	4.904		258.8	1.64

JF00303615

GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI

Add: West Jinji Rd, Qianshan, Zhuhai,Guangdong, China, 519070
Tel: (+86-756) 8522218
Fax: (+86-756) 8669426
E-mail: gree@gree.com.cn www.gree.com

HONG KONG GREE ELECTRIC APPLIANCES SALES LIMITED

Add: Unit 2612,26/F.,Miramar Tower 132 Nathan Road,TST,Kowloon,HK
Tel: (852) 31658898 Fax: (852) 31651029