1 Summary

Model	Remark
GWCN14(07X2)B8NK1BA GWCN18(09X2)B8NK1BA GWHN18(09X2)B8NK1BA	1Ph 230V 50Hz R22
GWCN18(09X2)B8NK3BA GWHN18(09X2)B8NK3BA GWCN21(09+12)B9NK3BA GWHN21(09+12)B9NK3BA GWCN14(07X2)B8NK3BA	1Ph 230V 50Hz R410A
GWCN24(12X2)B9NK3BA GWHN24(12X2)B9NK3BA GWHN14(07X2)B8NK3BA	1Ph 220-240V 50Hz R410A

2 Specifications and technical parameters

Model		GWCN14(07X2)B8NK1BA	GWCN18(09X2)B8NK1BA	GWHN18(09X2)B8NK1BA	
Function		COOLING	COOLING	COOLING	HEATING
Rated Voltage		230V~	230~	230~	
Rated Frequency		50Hz	50Hz	50Hz	
Total Capacity (W/Btu/h)		2200X2/7500X2	2500/8535	2500/8535	2850/9730
Power Input (W)		730X2	955X2	955X2	1050X2
Rated Input (W)		900X2	1200X2	1200X2	1200X2
Rated Current (A)		4.0X2	5.3X2	5.3X2	5.3X2
Air Flow Volume (m^3/h) (H/M/L)**		430	430	430	
Dehumidifying Volume (l/h)		0.8X2	1.2X2	1.2X2	
EER / C.O.P (W/W)		3	2.62/-	2.62/2.72	
Energy Class		B	D	D	
Indoor unit	Model of Indoor Unit	GWCN14(07)B8NK1BA/I	GWCN18(09)B8NK1BA/I	GWHN18(09)B8NK1BA/I	
	Fan Motor Speed (r/min) (H/M/L)	980/870/780	980/870/780	980/870/780	
	Output of Fan Motor (w)	13	13	13	
	Input of Heater (w)	/	/	/	
	Fan Motor Capacitor (uF)	1	1	1	
	Fan Motor RLA(A)	0.11	0.11	0.11	
	Fan Type-Piece	Cross flow fan – 1			
	Diameter-Length (mm)	φ97 X 583	φ97 X 583	φ97 X 583	
	Evaporator	Aluminum fin-copper tube			
	Pipe Diameter (mm)	Φ7	Φ7	Φ7	
	Row-Fin Gap(mm)	2-1.6	2-1.4	2-1.6	
	Coil length (l) x height (H) x coil width (L)	576X230X25.4	576X230X25.4	576X230X25.4	
	Swing Motor Model	MP24GA	MP24GA	MP24GA	
	Output of Swing Motor (W)	2	2	2	
	Fuse (A)	PCB 3.15A Transformer 0.2A			
	Sound Pressure Level dB (A) (H/M/L)	36/33/30	36/33/30	36/33/30	
	Sound Power Level dB (A) (H/M/L)***	46/43/40	46/43/40	46/43/40	
	Dimension (W/D/H)(mm)	740/180/250	740/180/250	740/180/250	
	Dimension of Package (W/D/H)(mm)	790X264X320	790X264X320	790X264X320	
	Net Weight /Gross Weight (kg)	8/10	8/10	8/10	

Outdoor unit	Model of Outdoor Unit		GWCN14(07X2)B8NK1BA/O	GWCN18(09X2)B8NK1BA/O	GWHN18(09X2)B8NK1BA/O
	Compressor Manufacturer/trademark		Shanghai senlin	Guangzhou Mitsubishi /Mitsubishi	Guangzhou Mitsubishi /Mitsubishi
	Compressor Model		SD134CV-H6AU	RH174VHAC	RH174VHAC
	Compressor Type		Hermetic motor compressor		
	L.R.A. (A)		15	23A	23A
	Compressor RLA(A)		3.5	4.4A	4.4A
	Compressor Power Input(W)		760	960W	960W
	Overload Protector		BF690-KB	UP3QF0501-T31	UP3QF0501-T31
	Throttling Method		Capillary		
	Starting Method		Capacitor		
	Working Temp Range (℃)		16≤T≤43	16≤T≤43	-5≤T≤43
	Condenser		Aluminum fin-copper tube		
	Pipe Diameter (mm)		Φ9.52	Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.8	2-1.8	2-1.8
	Coil length (l) x height (H) x coil		931X660X44	931X660X44	931X660X44
	Fan Motor Speed (rpm)		700	780	780
	Output of Fan Motor (W)		38	60	60
	Fan Motor RLA(A)		0.43	0.6	0.6
	Fan Motor Capacitor (uF)		3	3	3
	Air Flow Volume of Outdoor Unit		/	/	/
	Fan Type-Piece		Axial fan –1		
	Fan Diameter (mm)		Φ460	Φ460	Φ460
	Defrosting Method		Auto defrost		
	Climate Type		T1		
	Isolation		I		
	Moisture Protection		IP24		
	Permissible Excessive		2.5	3.8	3.8
	Permissible Excessive		0.6	1.2	1.2
	Sound Pressure Level dB (A)		58	58	58
	Sound Power Level dB (A)		68	68	68
	Dimension (W/D/H)(mm)		950X420X700	950X420X700	950X420X700
	Dimension of Package (W/D/H)(		1100X450X755	1100X450X755	1100X450X755
	Net Weight /Gross Weight (kg)		65/70	65/70	65/70
	Refrigerant Charge (kg)		R22/1.70	R410A/1.8	R410A/1.8
Connection Pipe	Length (m)		4	4	4
	Gas additional charge(g/m)		40g/m	40g/m	40g/m
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")X2	Φ6(1/4")X2	Φ6(1/4")X2
		Gas Pipe (mm)	Φ9.52(3/8")X2	Φ9.52(3/8")X2	Φ9.52(3/8")X2
	Max Distance	Height (m)	5	5	5
		Length (m)	10	10	10

Model		GWCN18(09X2)B8NK3BA	GWHN18(09X2)B8NK3BA		GWCN14(07X2)B8NK3BA
Function		COOLING	COOLING	HEATING	COOLING
Rated Voltage		230~	230~		230~
Rated Frequency		50Hz	50Hz		50Hz
Total Capacity (W/Btu)		2600/8876	2600/8876	2900/9900	2100X2/7170X2
Power Input (W)		920X2	995X2	1030X2	650X2
Rated Input (W)		1235X2	1250X2	1250X2	810X2
Rated Current (A)		5.4X2	5.5X2	5.5X2	3.6X2
Air Flow Volume (m^3/h) (H/M/L)**		500	500		430
Dehumidifying Volume (l/h)		1.2X2	1.2X2		0.8X2
EER / C.O.P (W/W)		2.83/-	2.61/2.82		3.23/-
Energy Class		C	D		A
Indoor unit	Model of Indoor Unit	GWCN18(09)B8NK3BA/I	GWHN18(09)B8NK3BA/I		GWCN14(07)B8NK3BA/I
	Fan Motor Speed (r/min) (H/M/L)	1170/1060/870	1170/1060/870		980/870/780
	Output of Fan Motor (w)	14	14		13
	Input of Heater (w)	/	/		/
	Fan Motor Capacitor (uF)	1	1		1
	Fan Motor RLA(A)	0.12	0.12		0.11
	Fan Type-Piece	Cross flow fan – 1			
	Diameter-Length (mm)	φ97 X 583	φ97 X 583		φ97 X 583
	Evaporator	Aluminum fin-copper tube			
	Pipe Diameter (mm)	Φ7	Φ7		Φ7
	Row-Fin Gap(mm)	2-1.4	2-1.4		2-1.6
	Coil length (l) x height (H) x coil width (L)	576X230X25.4	576X230X25.4		576X230X25.4
	Swing Motor Model	MP24GA	MP24GA		MP24GA
	Output of Swing Motor (W)	2	2		2
	Fuse (A)				PCB 3.15A
	Sound Pressure Level dB (A)	39/35/32	39/35/32		36/33/30
	Sound Power Level dB (A) (H/M/L)	49/45/42	49/45/42		46/43/40
	Dimension (W/D/H)(mm)	740/180/250	740/180/250		740/180/250
	Dimension of Package (W/D/H) (mm)	790X264X320	790X264X320		790X264X320
	Net Weight /Gross Weight (kg)	8/10	8/10		8/10

Outdoor unit	Model of Outdoor Unit		GWHN18(09X2)B8NK3BA/O	GWHN18(09X2)B8NK3BA/O	GWCN14(07X2)B8NK3BA/O
	Compressor Manufacturer/trademark		Xian Qingan/Qingan	Zhuhai landa/GREE	LG Electronics inc./LG
	Compressor Model		YZG-E27RY2	QXA-12uA030	GK080PAD
	Compressor Type		Hermetic motor compressor		
	L.R.A. (A)		23A	27	17
	Compressor RLA(A)		4.4A	4.5	3.2
	Compressor Power Input(W)		950W	1010	682
	Overload Protector		B180-145-141E or MAR12165-9201	B250-150B-241E	MRA12009-9201
	Throttling Method		Capillary		
	Starting Method		Capacitor		
	Working Temp Range (℃)		-5≤T≤43	-5≤T≤43	16≤T≤43
	Condenser		Aluminum fin-copper tube		
	Pipe Diameter (mm)		Φ9.52	Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.8	2-1.8	2-1.8
	Coil length (l) x height (H) x coil width (L)		931X660X44	931X660X44	931X660X44
	Fan Motor Speed (rpm)		815	815	700
	Output of Fan Motor (W)		60	60	38
	Fan Motor RLA(A)		0.6	0.6	0.43
	Fan Motor Capacitor (uF)		3	3	3
	Air Flow Volume of Outdoor Unit		/	/	/
	Fan Type-Piece		Axial fan –1		
	Fan Diameter (mm)		Φ460	Φ460	Φ460
	Defrosting Method		Auto defrost		
	Climate Type		T1		
	Isolation		I		
	Moisture Protection		IP24		
	Permissible Excessive Operating Pressure for the		3.8	3.8	3.8
	Permissible Excessive Operating Pressure for the		1.2	1.2	1.2
	Sound Pressure Level dB (A) (H/M/L)		58	59	56
	Sound Power Level dB (A) (H/M/L)		68	69	66
	Dimension (W/D/H)(mm)		950X420X700	950X420X700	950X420X700
	Dimension of Package (W/D/H)(mm)		1100X450X755	1100X450X755	1100X450X755
	Net Weight /Gross Weight (kg)		65/70	65/70	65/70
	Refrigerant Charge (kg)		R410A/1.5	R410A/1.8	R410A/1.76
Connection Pipe	Length (m)		4	4	4
	Gas additional charge(g/m)		40g/m	40g/m	40g/m
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")X2	Φ6(1/4")X2	Φ6(1/4")X2
		Gas Pipe (mm)	Φ9.52(3/8")X2	Φ9.52(3/8")X2	Φ9.52(3/8")X2
	Max Distance	Height (m)	5	5	5
		Length (m)	10	10	10

Model		GWHN24(12X2)B9NK3BA		GWHN14(07X2)B8NK3BA	
Function		COOLING	HEATING	COOLING	HEATING
Rated Voltage		220－240V~		230V	
Rated Frequency		50Hz		50HZ	
Total Capacity (W)		3500X2	3700X2	2100X2	2250X2
Power Input (W) (High/Normal*)		1250X2	1250X2	650X2	670X2
Rated Input (W) (High/Normal*)		1600X2	1450X2	810X2	830X2
Rated Current (A) (High/Normal *)		9X2	7.9X2	3.6X2	3.7X2
Air Flow Volume (m^3/h) (H/M/L)**		480X2		430X2	
Dehumidifying Volume (l/h)		/		0.7X2	
C.O.P / EER (W/W) (High/Normal*)		2.8	2.96	3.23	3.36
Indoor Unit	Model of Indoor Unit	GWHN24(12)B9NK3BA/I		GWHN14(07)B8NK3BA/I	
	Fan Motor Speed (r/min) (H/M/L)	1140±20 / 970±20 / 850±20		980/870/780	
	Output of Fan Motor (w)	9		13	
	Input of Heater (w)	/		/	
	Fan Motor Capacitor (uF)	1		1	
	Fan Motor RLA(A)	0.12		0.12	
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)	φ99X644		φ97 X 583	
	Evaporator	Aluminum fin-copper tube			
	Pipe Diameter (mm)	φ7		φ7	
	Row-Fin Gap(mm)	2-1.5		2-1.6	
	Coil length (l) x height (H) x coil width (L)	656X250X25.4		576X230X25.4	
	Swing Motor Model	MP24AA		MP24GA	
	Output of Swing Motor (W)	2		2	
	Fuse (A)	PCB 3.15A Transformer 0.2A			
	Sound Pressure Level dB (A)	39		37/34/32	
	Sound Power Level dB (A)	49		47/44/42	
	Dimension (mm)	805X180X250		740X180X250	
	Dimension of Package	860x264x360		790x264x320	
	Net Weight /Gross Weight (kg)	9/12		8/10	
Remote control		YB1A21			

Outdoor unit	Model of Outdoor Unit		GWHN24(12X2)B7NK3EA/O	GWHN14(07X2)B8NK3BA/O
	Compressor Model		C-RV146H1A	GK080PAD
	Compressor Type		ROTARY	Hermetic motor compressor
	L.R.A. (A)		39.8	17
	Compressor RLA(A)		5.6	3.2
	Compressor Power Input(W)		1000	682
	Overload Protector		MRA98596-9201/B210-145-241E	MRA12009-9201
	Throttling Method		Capillary	
	Starting Method		Capacitor	
	Working Temp Range (℃)		−7℃≤T≤43℃	−7℃≤T≤43℃
	Condenser		Aluminum fin-copper tube	
	Pipe Diameter (mm)		Φ9.52	
	Rows-Fin Gap(mm)		2-1.4	2-1.8
	Coil length (l) x height (H) x coil		665X813X228	715X660X44
	Fan Motor Speed (rpm) (H/M/L)		780±20	700
	Output of Fan Motor (W)		60	38
	Fan Motor RLA(A)		0.16	0.43
	Fan Motor Capacitor (uF)		3	3
	Air Flow Volume of Outdoor Unit		/	/
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ400	Φ450
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating		3.8	3.8
	Permissible Excessive Operating		1.2	1.2
	Sound Pressure Level dB (A)		59	57
	Sound Power Level dB (A)		69	67
	Dimension (W/D/H)(mm)		950X412X840	950X412X700
	Dimension of Package (W/D/H)(		1100X450X905	1100X450X755
	Net Weight /Gross Weight (kg)		72/77	65/70
	Refrigerant Charge (kg)		R22/1.3X2	R410A/0.9X2
Connection Pipe	Length (m)		3	4
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")	
		Gas Pipe (mm)	Φ9.52(3/8")	
	Max Distance	Height (m)	5	
		Length (m)	10	

Model		GWHN21(09+12)B9NK3BA	
Function		COOLING	HEATING
Rated Voltage		230V	
Rated Frequency		50Hz	
Total Capacity (W)		2500+3500	2700+3700
Power Input (W) (High/Normal*)		900+1300	900+1300
Rated Input (W) (High/Normal*)		1000+1600	1000+1600
Rated Current (A) (High/Normal *)		4.3+7	4.3+7
Air Flow Volume (m^3/h) (H/M/L)**		500/600	
Dehumidifying Volume (l/h)		1.0+1.2	
C.O.P / EER (W/W) (High/Normal*)		2.73	2.91
Indoor Unit	Model of Indoor Unit	GWHN21(09)B8NK3BA/I	GWHN21(12)B9NK3BA/I
	Fan Motor Speed (r/min) (H/M/L)	1160/1010/890	1310/1120/1000
	Output of Fan Motor (w)	14	15
	Input of Heater (w)	/	
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.12	0.12
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1
	Diameter-Length (mm)	φ97X583	φ97 X 583
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	φ7	φ7
	Row-Fin Gap(mm)	2-1.4	2-1.5
	Coil length (l) x height (H) x coil width (L)	576X230X25.4	656X250X25.4
	Swing Motor Model	MP24GA	MP24GA
	Output of Swing Motor (W)	2	2
	Fuse (A)	PCB 3.15A Transformer 0.2A	
	Sound Pressure Level dB (A)	39/35/31	42/38/35
	Sound Power Level dB (A)	49/45/41	52/48/45
	Dimension (mm)	770X180X250	770X180X250
	Dimension of Package	790x264x320	790x264x320
	Net Weight /Gross Weight (kg)	8/10	8/10
Remote control		YB1A21	

Outdoor unit	Model of Outdoor Unit		GWHN21(09+12)B9NK3BA/O	
	Compressor Model		5PS108EAA22	C-RV146H1A
	Compressor Type		Hermetic motor compressor	
	L.R.A. (A)		18	24
	Compressor RLA(A)		4.05	5.6
	Compressor Power Input(W)		880	1000
	Overload Protector		7100819（KA-122-LPD021A）	B210-145-241E
	Throttling Method		Capillary	
	Starting Method		Capacitor	
	Working Temp Range (℃)		-5℃≤T≤43℃	
	Condenser		Aluminum fin-copper tube	
	Pipe Diameter (mm)		Φ9.52	
	Rows-Fin Gap(mm)		2-1.8	
	Coil length (l) x height (H) x coil width (L)		750X508X44	
	Fan Motor Speed (rpm) (H/M/L)		700	
	Output of Fan Motor (W)		38	
	Fan Motor RLA(A)		0.16	
	Fan Motor Capacitor (uF)		3	
	Air Flow Volume of Outdoor Unit		2300	
	Fan Type-Piece		Axial fan –1	
	Fan Diameter (mm)		Φ400	
	Defrosting Method		Auto defrost	
	Climate Type		T1	
	Isolation		I	
	Moisture Protection		IP24	
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		3.8	
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1.2	
	Sound Pressure Level dB (A)		58	
	Sound Power Level dB (A)		68	
	Dimension (W/D/H)(mm)		950X410X700	
	Dimension of Package (W/D/H)(mm)		1100X450X755	
	Net Weight /Gross Weight (kg)		65/70	
	Refrigerant Charge (kg)		R410A/(1+1.25)	
Connection Pipe	Length (m)		4	
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")	
		Gas Pipe (mm)	Φ9.52(3/8")/Φ12(1/2")	
	Max Distance	Height (m)	5	
		Length (m)	10	

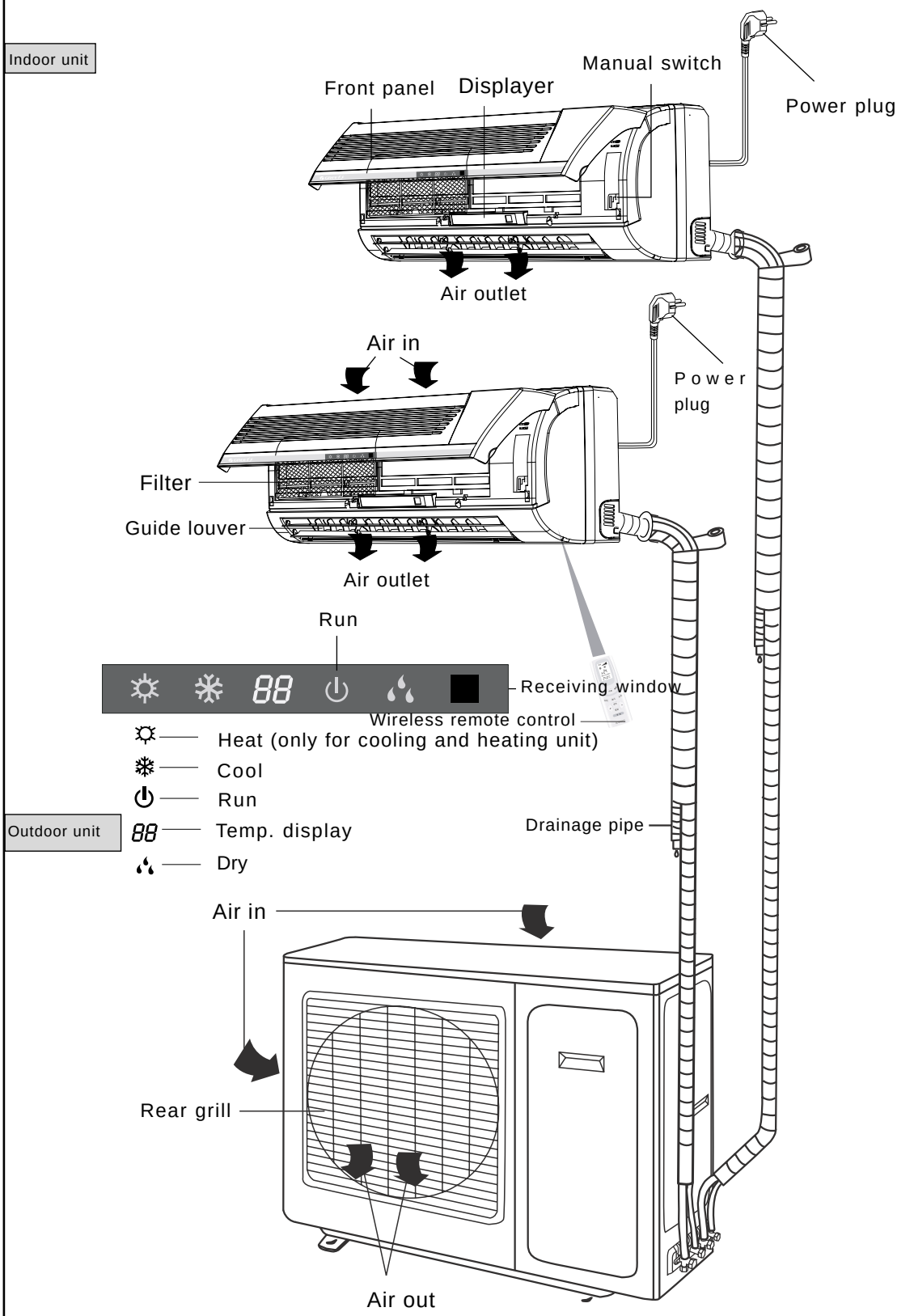
The technical data are subject to change without notice. Please refer to the nameplate of the unit.

Model		GWCN21(09+12)B9NK3BA		GWCN24(12X2)B9NK3BA
Function		COOLING		COOLING
Rated Voltage		230V～		220-240V~
Rated Frequency		50Hz		50Hz
Total Capacity (W)(High/Normal *):		2500+3500		3500X2
Power Input (W) (High/Normal*)		900+1300		1250X2
Rated Input (W) (High/Normal*)		1000+1600		1600X2
Rated Current (A) (High/Normal *)		4.3+7.0		9.0X2
Air Flow Volume (m^3**/h)** (H/M/L)**		460/600		560X2/480X2/380X2
Dehumidifying Volume (l/h)		1.0+1.2		/
C.O.P / EER (W/W) (High/Normal*)		2.73		2.5/-
Indoor unit	Model of Indoor Unit	GWCN21(09)B8 NK3BA/I	GWCN21(12)B9 NK3BA/I	GWCN24(12)B9NK3BA/I
	Fan Motor Speed (r/min) (H/M/L)	1160/1010/890	1310/1120/1000	1310±20/1120±30/1000±30
	Output of Fan Motor (w)	14	15	15
	Input of Heater (w)	/		
	Fan Motor Capacitor (uF)	1		
	Fan Motor RLA(A)	0.12	0.12	0.22
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	Cross flow fan – 1
	Diameter-Length (mm)	φ97X 583	φ99X644	φ99 X 644
	Evaporator	Aluminum fin-copper tube		
	Pipe Diameter (mm)	Φ7		
	Row-Fin Gap(mm)	2-1.4	2-1.5	2-1.5
	Coil length(l)×height(H)×coil width(L)	576X230X25.4	656X250X25.4	656X250X25.4
	Swing Motor Model	MP24GA	MP24GA	MP24AA
	Output of Swing Motor (W)	2		
	Fuse (A)	PCB 3.15A Transformer 0.2A		
	Sound Pressure Level dB (A) (H/M/L)	39/35/31	42/38/35	46/4036
	Sound Power Level dB (A) (H/M/L)***	49/45/41	52/48/45	56/50/46
	Dimension (W/D/H)(mm)	740/180/250	805X180X280	805/280/180
	Dimension of Package (W/D/H)(mm)	790X260X320	860X280X355	860/355/280
	Net Weight /Gross Weight (kg)	8/10	9/12	9/12

Outdoor unit	Model of Outdoor Unit			GWCN21(09+12)B9NK3BA/O		GWCN24(12X2)B7NK3EA/O
	Manufacturer/trademark			Shenyang Sanyo/SANYO		
	Compressor Model			C-1RV096H1A	C-RV146H1A	C-RV146H1A
	Compressor Type			Hermetic motor compressor		ROTARY
	L.R.A. (A)			17	24	39.8
	Compressor RLA(A)			3.8	5.6	5.6
	Compressor Power Input(W)			700	1000	1000
	Overload Protector			B150-145-241E	B210-145-241E	MRA98596-9201/B210-145-241E
	Throttling Method			Capillary		
	Starting Method			Capacitor		
	Working Temp Range (℃)			-5℃≤T≤43℃		18 ～ 43
	Condenser			Aluminum fin-copper tube		
	Pipe Diameter (mm)			Φ9.52		φ9.52
	Rows-Fin Gap(mm)			2-1.8		2-1.4
	Coil length(l)×height(H)×coil width(L)			725X660X44		665X813X218
	Fan Motor Speed (rpm) (H/M/L)**			700		780±20
	Output of Fan Motor (W)			38		60
	Fan Motor RLA(A)			0.16		0.55
	Fan Motor Capacitor (uF)			3		3
	Air Flow Volume of Outdoor Unit			2300		/
	Fan Type-Piece			Axial fan –1		
	Fan Diameter (mm)			Φ400		
	Defrosting Method			Auto defrost		
	Climate Type			T1		
	Isolation			I		
	Moisture Protection			IP24		
	Permissible Excessive Operating Pressure for the Discharge			3.8		
	Permissible Excessive Operating Pressure for the Suction Side(MPa)			1.2		
	Sound Pressure Level dB (A) (H/M/L)			58		60
	Sound Power Level dB (A) (H/M/L)			68		70
	Dimension (W/D/H)(mm)			950X410X700		950X412X840
	Dimension of Package (W/D/H)(mm)			1100X450X755		1100X450X905
	Net Weight /Gross Weight (kg)			65/70		72/77
	Refrigerant Charge (kg)			R410A/（1.0+1.17）Kg		R410A/1.2X2
Connection Pipe	Length (m)			4		3
	Gas additional charge(g/m)			25		
	Outer Diameter	Liquid Pipe	(mm)	Φ6(1/4")		φ6
		Gas Pipe	(mm)	Φ9.52（3/8"）	Φ12(1/2")	φ12
	Max Distance	Height	(m)	5		
		Length	(m)	10		

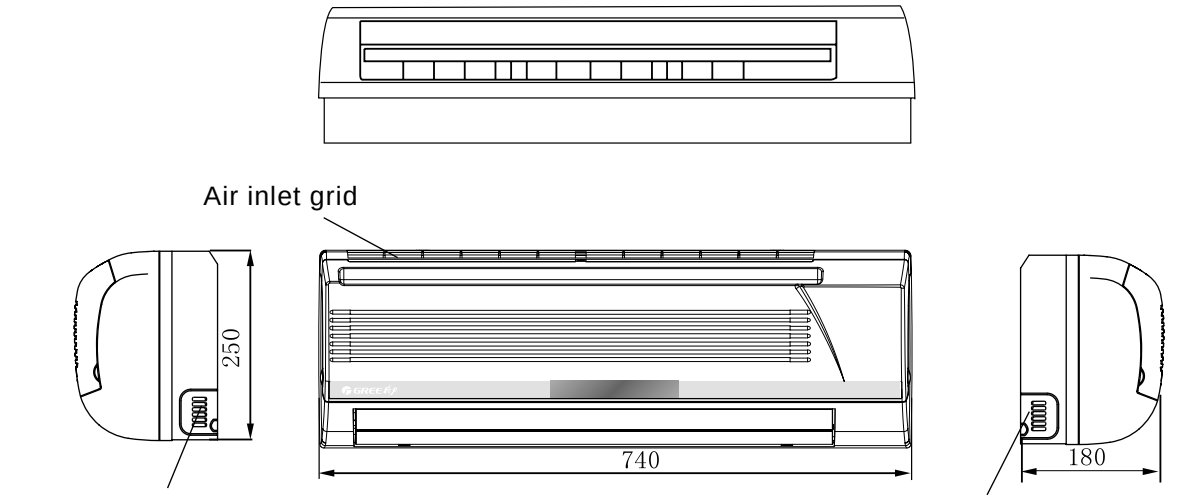
The technical data are subject to change without notice. Please refer to the nameplate of the unit.

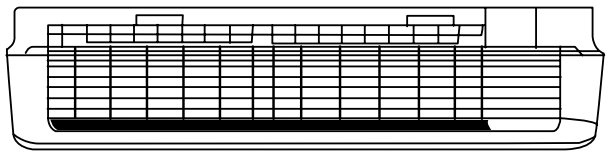
3 Parts name


Indoor unit
Front panel
Displayer
Manual switch
Power plug
Air outlet
Air in
Power plug
Filter
Guide louver
Air outlet
Run
Receiving window
Wireless remote control
Heat (only for cooling and heating unit)
Cool
Run
Temp. display
Dry
Outdoor unit
Drainage pipe
Air in
Rear grill
Air out

4 Outline and installation dimensions

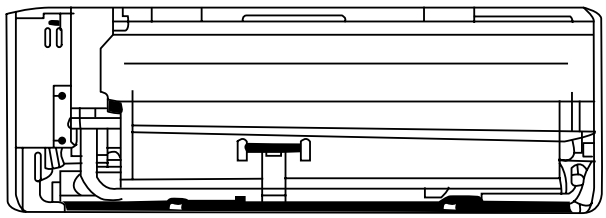
4.1 Outline and installation dimensions of indoor unit



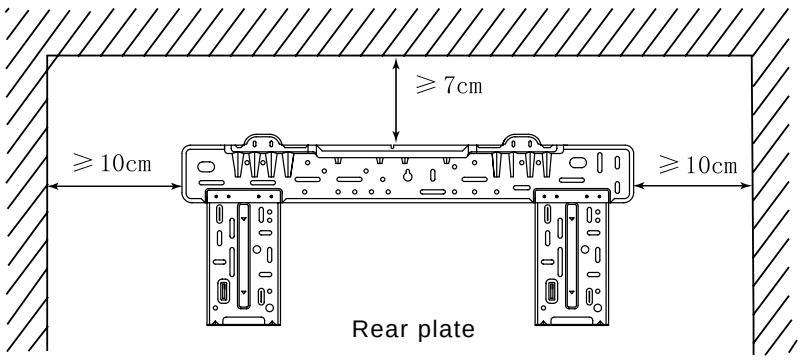


Back view

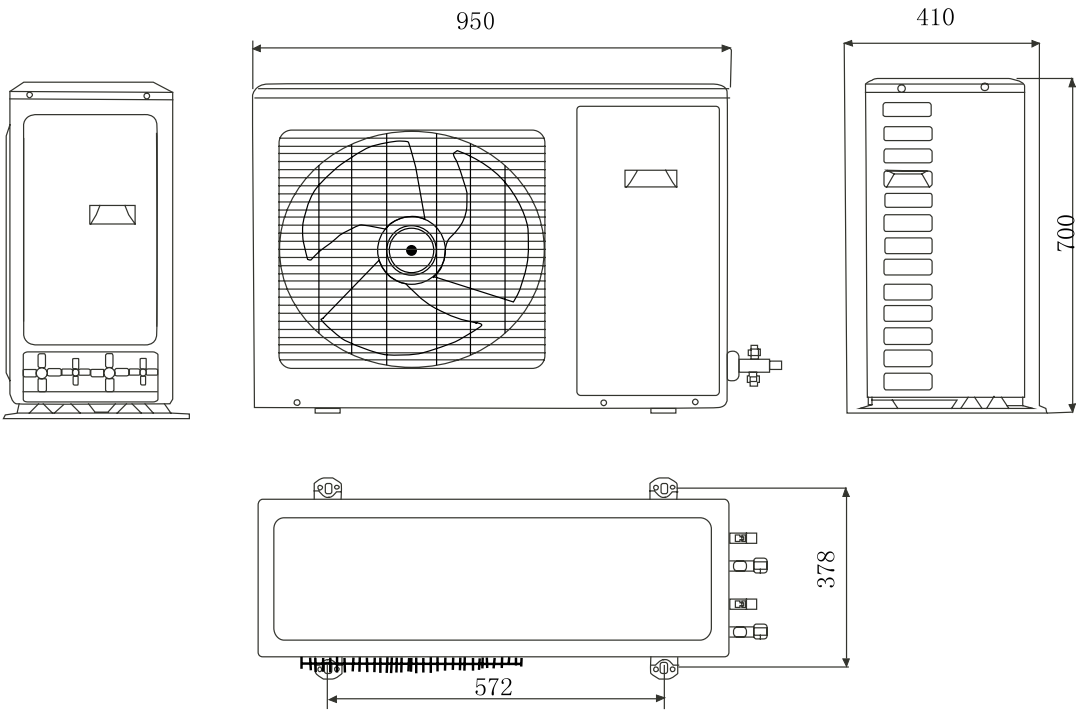
Unit: mm



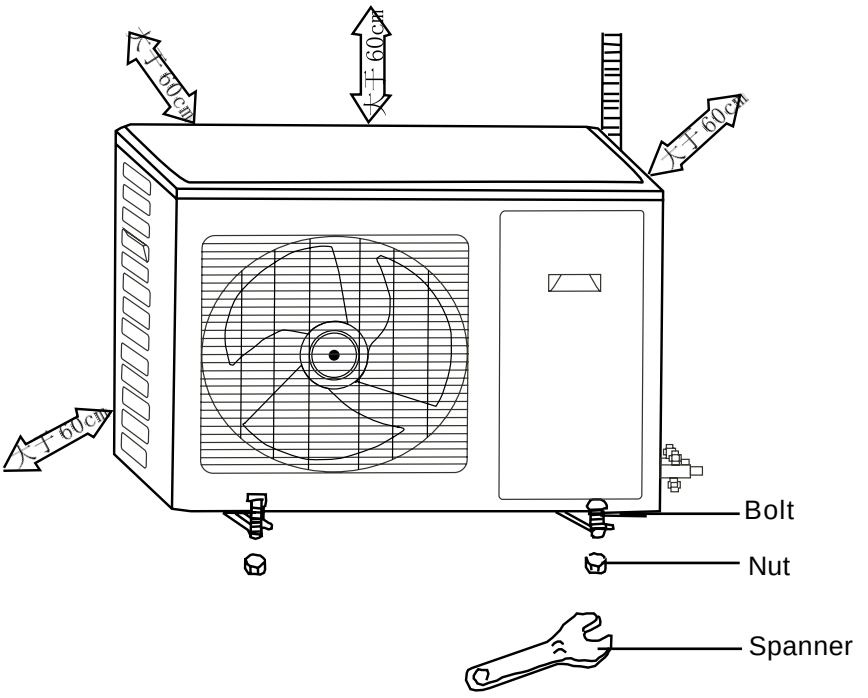
Ceiling



4. 2 Outline and installation dimensions of outdoor unit

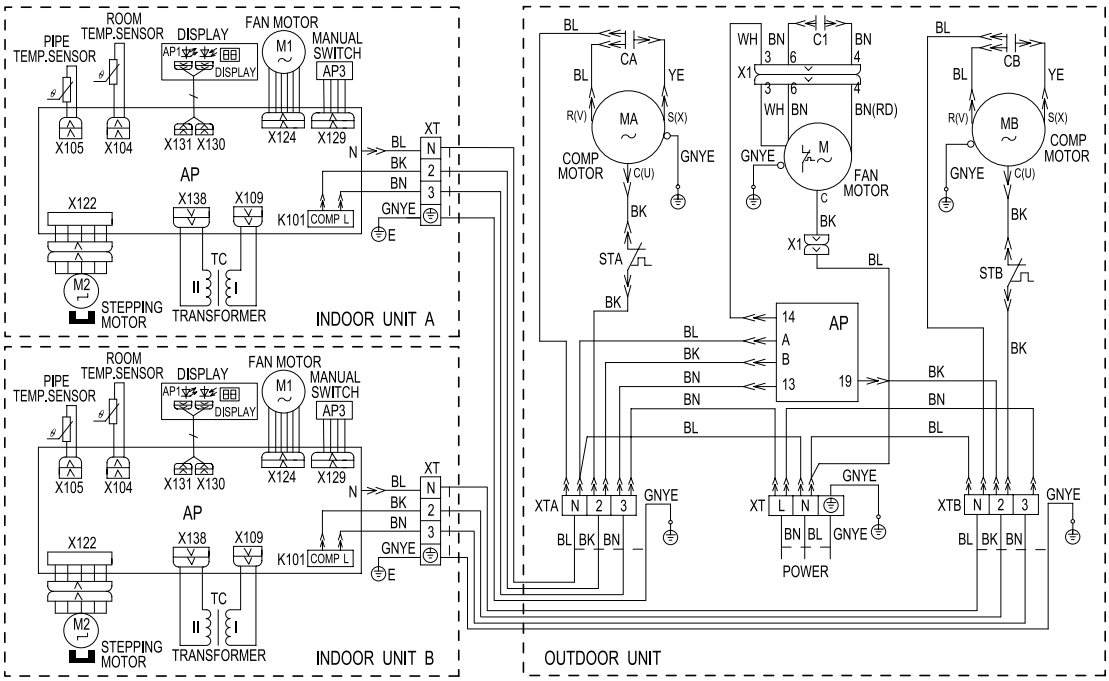


Unit: mm

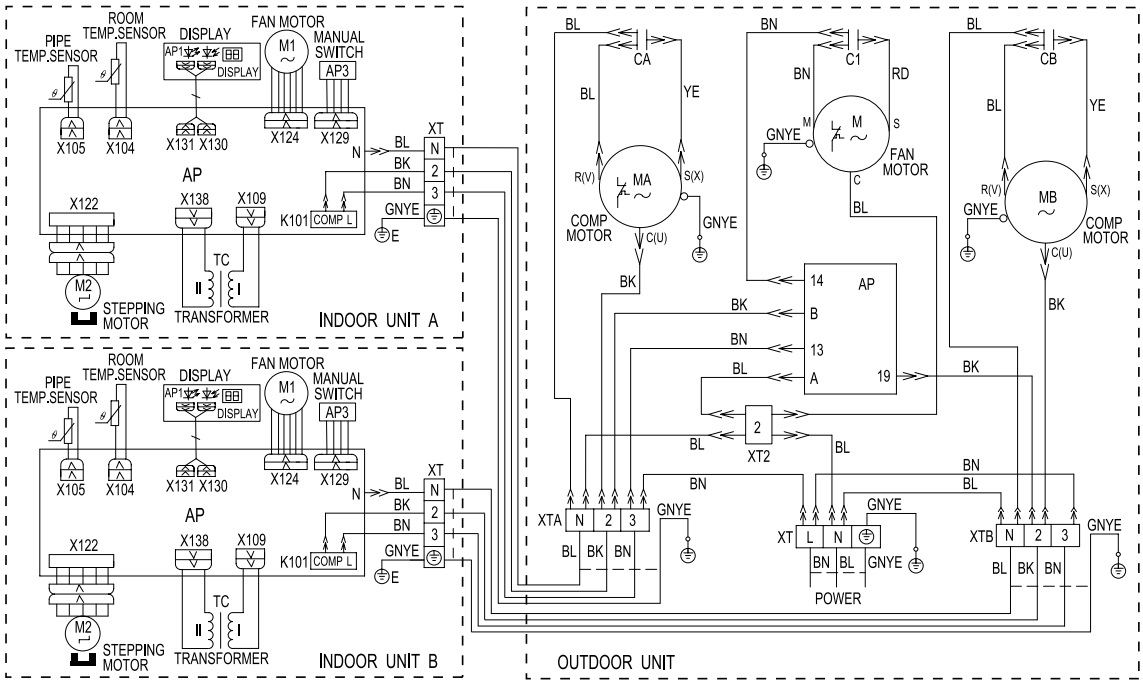


5 System diagram

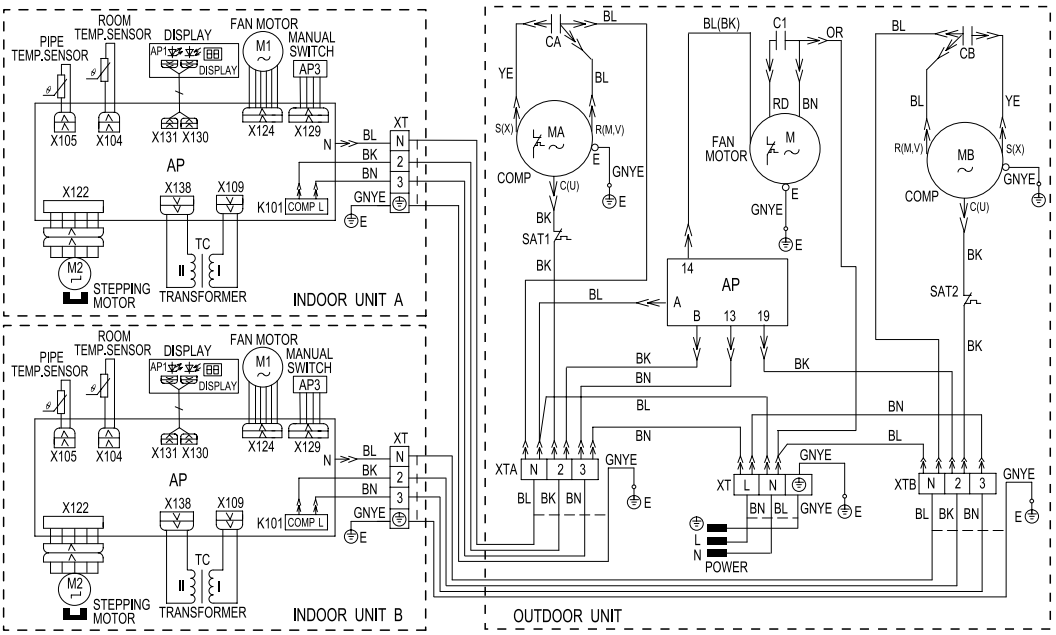
GWCN14(07X2)B8NK1BA GWCN14(07X2)B8NK3BA



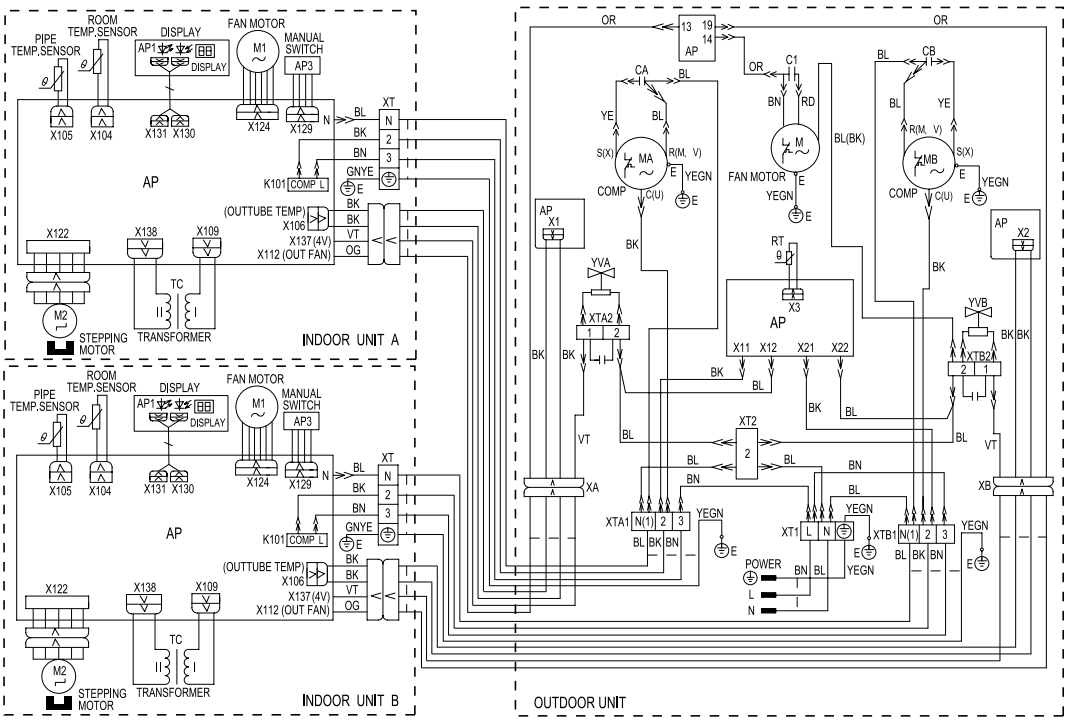
GWCN18(09X2)B8NK1BA



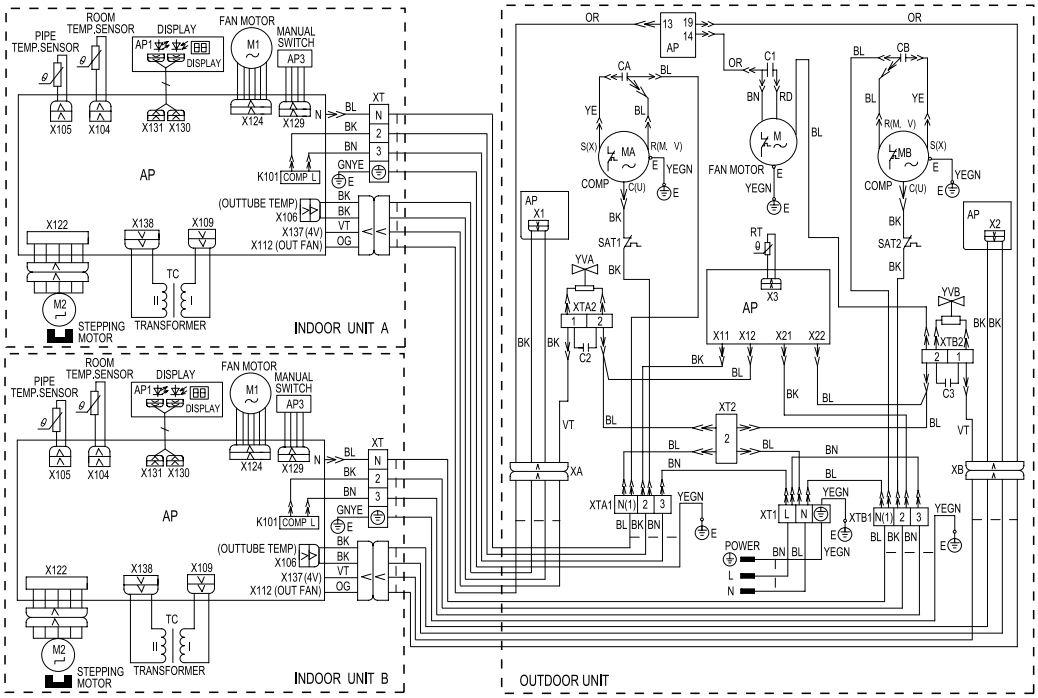
GWCN18(O9X2)B8NK3BA



GWHN18(O9X2)B8NK1BA



GWHN18(09X2)B8NK3BA



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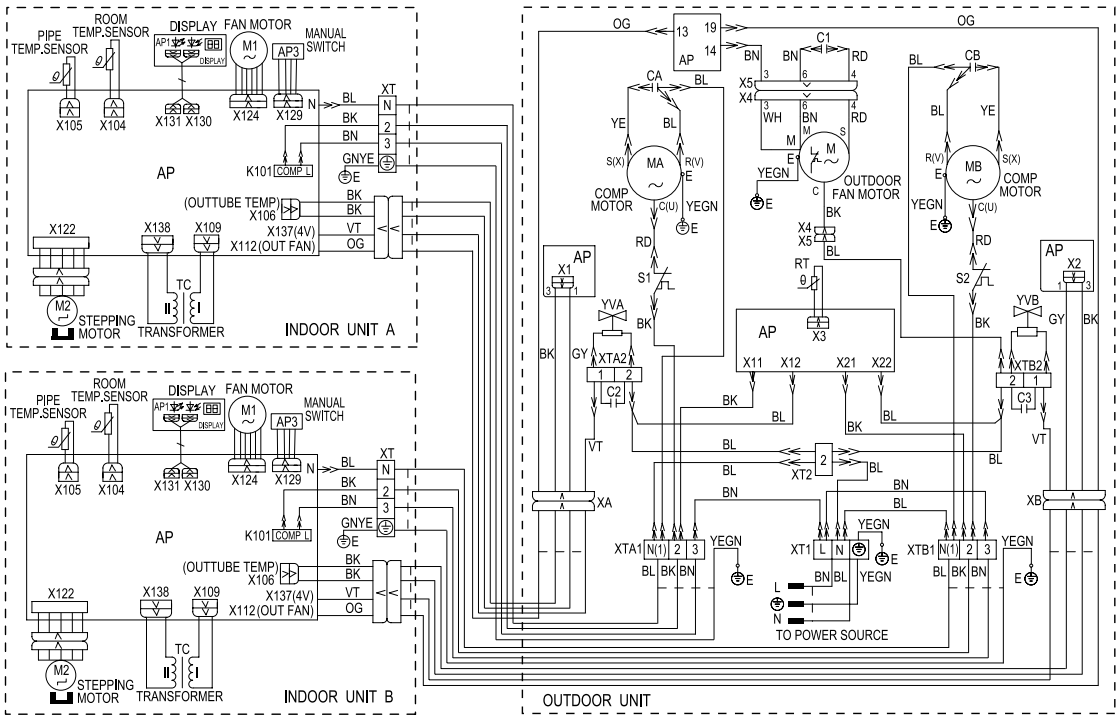
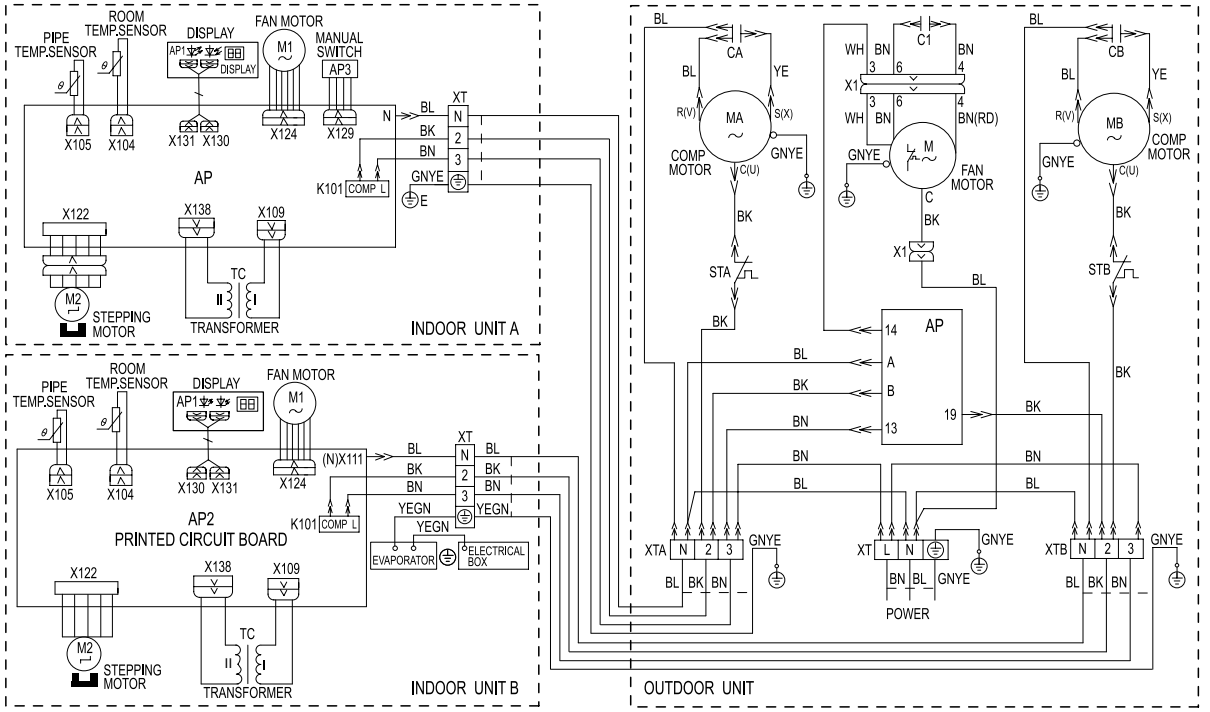


These circuit diagrams are subject to change without notice. Please refer to the ones stuck on the machines.

GWCN21(09+12)B9NK3BA



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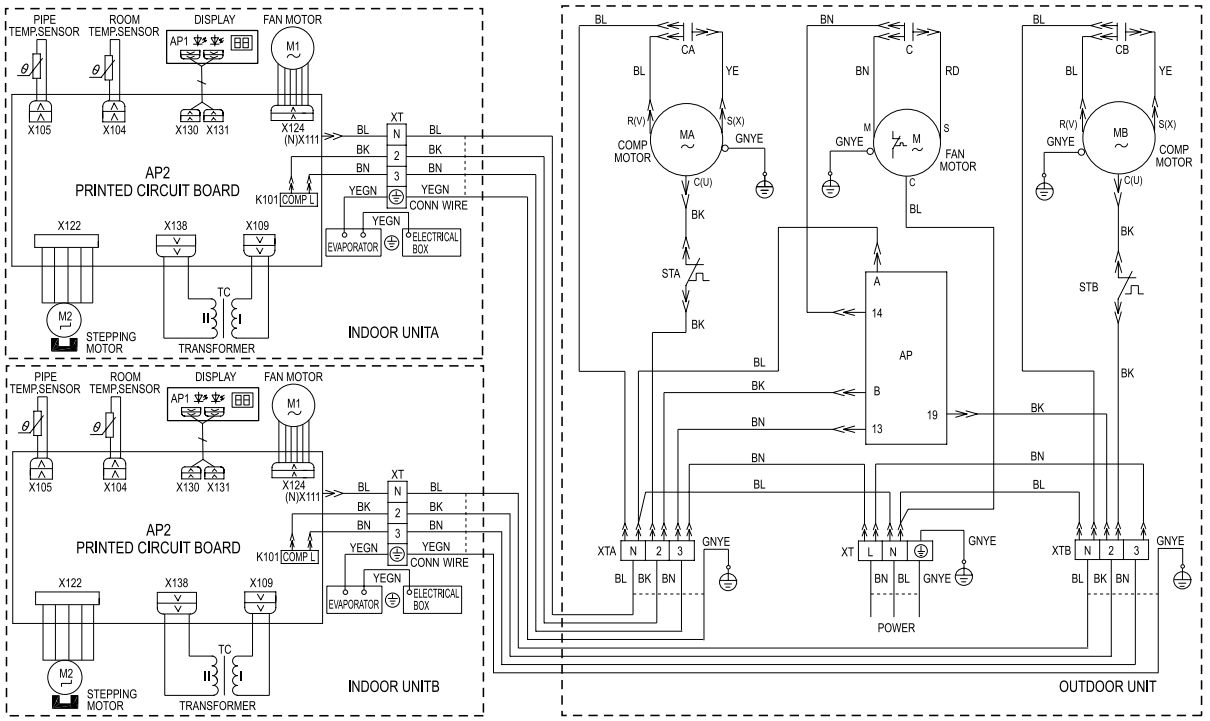
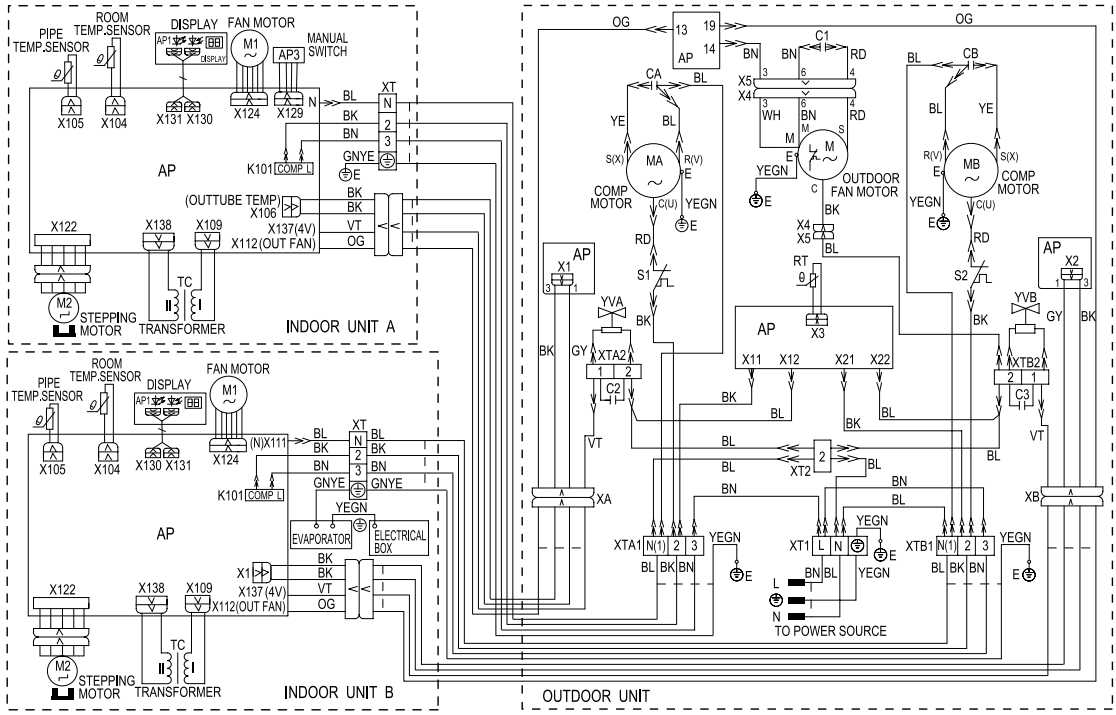
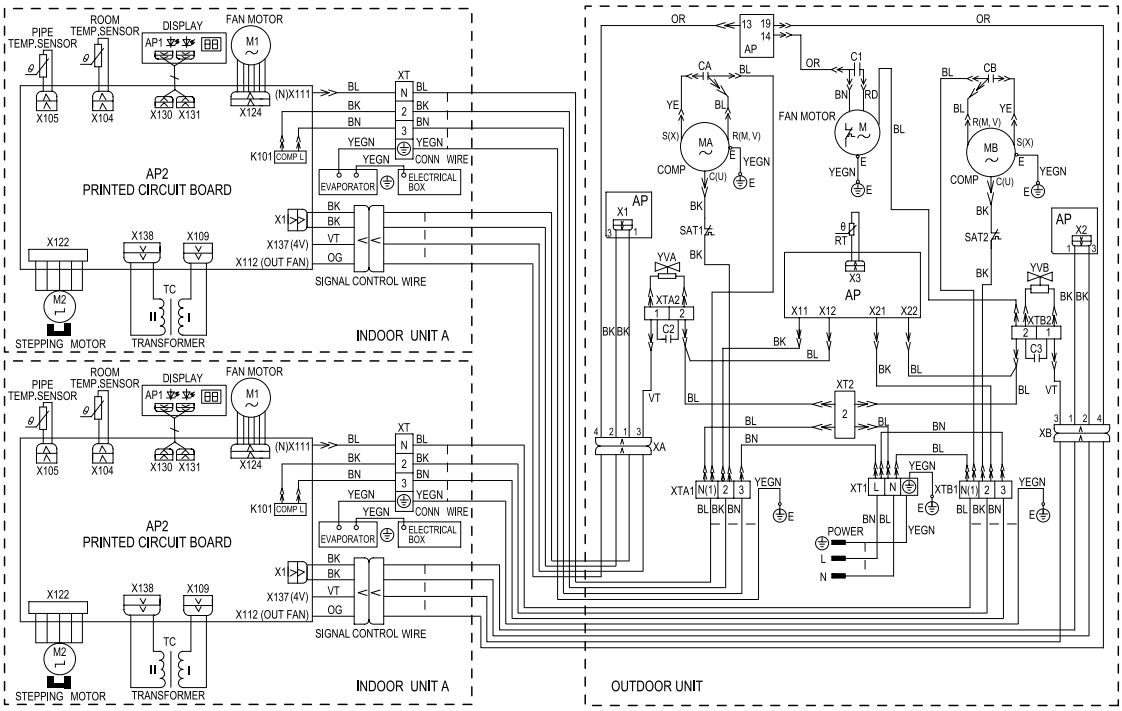


GWHN21(09+12)B9NK3BA



GWHN24(12X2)B9NK3BA



These circuit diagrams are subject to change without notice. Please refer to the ones stuck on the machines.

6 Manual of functions of remote controller and operation method

6.1 Manual of functions of remote controller 1

This manual is applicable to the 07, 09K indoor unit of export Green Harbor

6.1.1 Temperature parameter

- The room setting temperature(Tset)
- The room ambient temperature (Tamb)

6.1.2 Fundamental functions of the system

After the power is turned on, the separation time of two consecutive starting time of the compressor should not be less than 3min. Once the compressor is started, it will not stop in 6min as the variation of the indoor temperature.

6.1.2.1 COOL mode

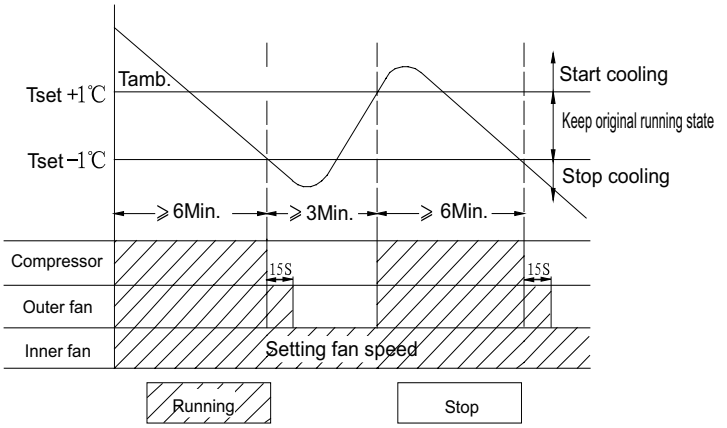
6.1.2.1.1 The conditions and processes of cooling

If Tamb ≥ Tset+1℃, COOL mode will act, compressor and outdoor fan will run, indoor fan will run at the setting speed.

In case Tamb ≤ Tset-1℃, the cool mode will act, compressor stops running, outer fan will stop after 15s delay and inner fan will be running in a setting speed;

➢If Tset-1℃＜ Tamb ＜ Tset+1℃, the unit will keep running in the original mode.

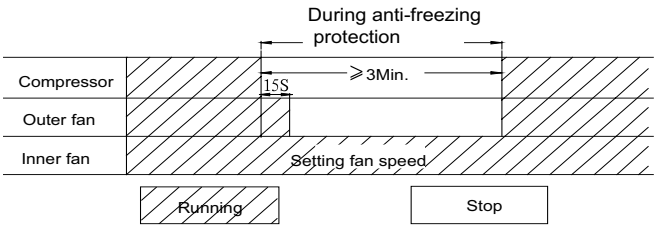
In this mode, the reversal valve will not be powered on, the setting temperature range is *16~30℃*



6.1.2.1.2 Protection Functions

- Anti-freezing protection

In case anti-freezing protection is detected by the system, the compressor and outer fan will stop running after 15s delay and the innerfan will run at a setting fan speed. When anti-freezing protection has been released and compressor has stopped for 3mins, it will resume to run at the original running state.



6.1.2.2 DRY Modes

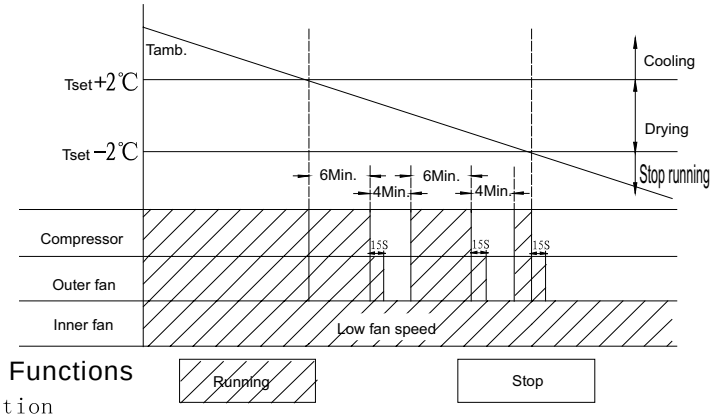
6.1.2.2.1 The conditions and dry process

If Tamb ＞ Tset+2℃, the cooling and drying modes will act, indoor fan will run at low fan speed;

If Tset-2℃≤ Tamb ≤ Tset+2℃, it enters dry mode. In this case, the inner fan will run at low fan speed, and the compressor will stop after 6mins running,and outer fan will stop running after 15s delayed; the compressor, outer fan will be turned on after 4mins. later compressor stopped. The dry process will be carried out as the circulation given above.

If Tamb ＜ Tset-2℃, the compressor will stop running, outer fan will stop after 15s delay, and the inner fan will keep in running at a low speed.

➢ In this mode, the reversal valve will not be powered on, the setting temperature range is *16~30℃.*



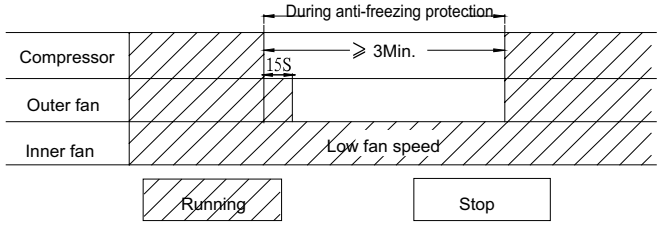
6.1.2.2.2 Protection Functions

◆Anti-freezing Protection

When the antifreezing protection of the system is tested, the compressor and the outdoor fan will stop, the indoor fan will run at the set speed.

When antifreezing protection is released and compressor has stopped for 3min, the system will restart to run.

In case anti-freezing protection is detected by the system, the compressor, outer fan and indoor fan will run at low fan speed;The system will recover running 10min. after compressor stops running and the anti-freezing protection is released.



6.1.2.3 HEAT Mode

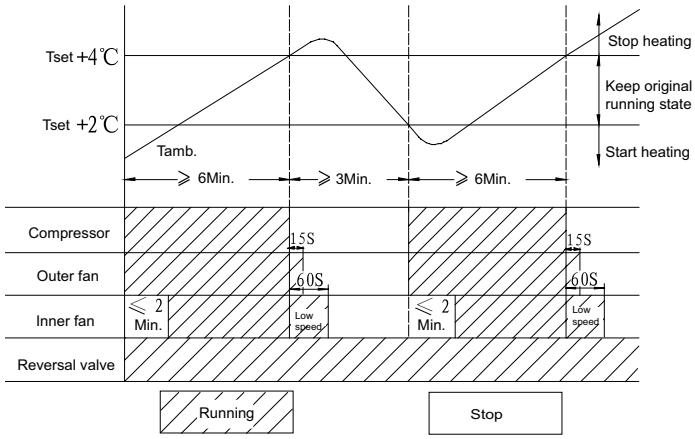
6.1.2.3.1 The conditions and process of heating

If Tamb ⩽ Tset+2℃, the system enters heating running, in this case, the reversal valve, compressor, outer fan enter simultaneously running.The indoor fan will delay at most for 2min.

If Tamb ⩾ Tset+4℃,compressor,stop running and outer fan will stop running after 15s delay, but the reversal valve is still with power on, the indoor unit will run at low fan speed for 60s then will stop running.

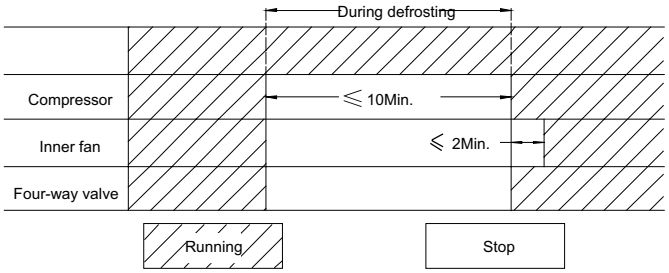
When Tset+2℃＜ Tamb ＜ Tset+4℃,the unit will keep running in the original mode.

➢ In this mode, the reversal valve is power on, setting temperature range is 16～30℃.



6.1.2.3.2 Conditions and processes of defrost

If frost is detected with the condenser, the system enters defrost mode. In this case, the compressor goes on running, outer fan, 4-way valve and inner fan stop running. After the condenser is detected with defrost completed, the outer fan and 4-way valve go into running at the same time, after delayed2mins the indoor fan will run, and the compressor keeps on running mode.When restart the heat circulation, will recalculate the compressor running time.



6.1.2.3.3 Protection function

◆ Anti-high temperature protection

If the evaporator is detected with a high temperature, the outer fan stops running and if the evaporator recovers to a normal temperature, the outer fan resumes running.

◆ Noise elimination protection

If the system is turned off or mode shift, the reversal valve will delay for 2min before it is turned off.

6.1.2.4 Fan mode

At this mode, compressor, outer fan and reversal valve will stop running, indoor fan will run at setting fan speed.

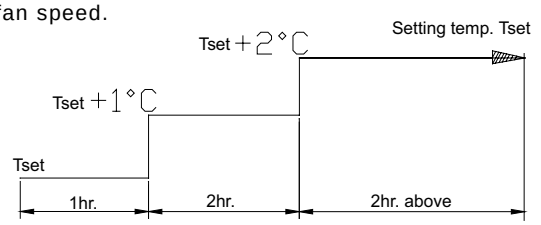
6.1.2.5 Auto mode

For this mode, the system will run automatically the modes according to the ambient temperature (cooling, dry, heating and air supply)

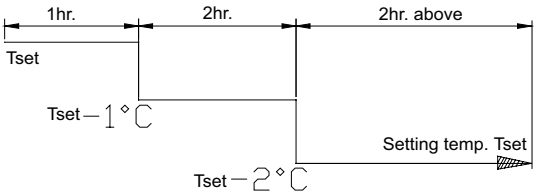
6.1.3 Other control

6.1.3.1 Sleep function

For cooling or dry running to set up sleep function, after the sleep setting for one hour, the setting temperature will be increased 1℃. 2hr later, the setting temperature will be raised for another 1℃. Within 2hr, the temp. increased 2℃. Indoor fan will run at the setting fan speed.



For heating running, after the sleep setting for one hour, the setting temperature will be decreased for1 ℃. 2hr later, the setting temperature will be decreased for another 1℃. Within 2hr, the temp. decreased 2℃.Indoor fan will run at the setting fan speed.

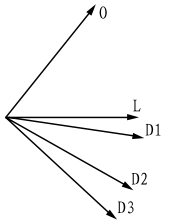


In FAN mode and AUTO mode, the setting temp. will not change.

6.1.3.2 Swing motor control

Could use the swing button on the wireless remote control to control the on and off, the swing is only available when the indoor fan is running.

After powered on, the step motor reset and turn to 0 position, to turn off the air outlet vent; After unit turned on, firstly turn to D3 position, if the unit turned on and cooling is started, then it will return to D1 and stand by, if the unit started and heating started it will stand by at D3 position; If the swing is started, when in cool mode it will swing between L and D2, when it is in the heat mode, it will swing between L-D3; After unit turned off, it will turn to 0 position.



6.1.3.3 Buzzer

The buzzer will deliver a pleasing sound when the controller is powered on or receives a signal from the remote controller.

6.1.3.4 Double 8 power and mode display

COOL: ❄ DRY : HEAT: ☼ RUN: ⏻

When the first time power on, all the figures and double 8 will ligtht on for 3s;
When unit turn on, power/running figure displays green, when the unit is off, the power/running figure displays red;
When the main unit is cooling in COOL mode or AUTO mode, that the cooling figure will light on;
When the main unit is in DRY mode, the drying figure will light on;
When the main unit is heating in HEAT mode or AUTO mode, the heating figure will light on;
Double 8 digital tube displays the setting temperature, except defrosting it will display H1.
If turn off the light button or to set SLEEP function, that all the figure except the power/running figure will be turned off.

6.1.3.5 Manual switch

There are 4 steps: AUTO、TEST、RUN、STO

After powered on, when turn the manual switch to Stop step, the unit will run in this step, the others will run with memory at power off. The Auto, Run, Stop have memory, the Test havn't memory. Furthermore, the controller without memory function, power on and turn on the unit, all of it will run at the step.

a.When turn the manual switch to Auto step, it will run at Auto mode, swing will be turned on; If there is remote control signal, that will run in the remote control signal.

b.When turn the manual switch to Test step, the main unit will compel to run in COOL mode, the compressor, outer fan, swing motor will compel to run, inner fan will run at high fan speed; If there is sensor open circuit or short circuit detected by sensor, the buzzer will alarm with 2Hz. If there is remote control signal, that the main unit will run at the remote control signal.

c. When turn the manaul switch to Run step, the main unit will firstly turn off, after that it will run in the received remote control signal.

d. When turn the manual switch to Stop step, the whole unit will stop running, and shield the remote controll.

6.1.3.6 Timing function

When the unit is on, to set the timer off by remote control, when the time arrived, the unit will turn off automatically; When the unit is off, use the wireless remote control to set the unit on timely, when the time arrived, the main unit will automatically turn on. The time interval of turn on and turn off is 0.5h, the time range is 0.5-24h.

6.1.3.7 Auto fan speed control

At this mode, inner fan motor will accord to the ambient temperature automatically to select Hi, Mi, Lo fan speed. There is at least 3.5min for each fan speed shift.

6.1.3.8 Memory function

Memory mode, Swing, Setting temperature, Setting fan speed, Timer (When the time haven't arrived but power off, when power on again, the time will recalculate; If the time have arrived but power off, when power on again, it will run at the mode after the time arrived), when the unit is on before power off, there are 3min protection for compressor when unit power on, the unit turn off before power off, there are no 3min protection for compressor.

6.2 Manual of functions of remote controller 2

This manual is applicable for the models of 12K indoor unit

6.2.1 Temperature parameter

- The room setting temperature(Tset)
- The room ambient temperature (Tamb)

6.2.2 Fundamental functions of the system

After power is on, no matter when compressor is started, the time span between the startups cannot be less than 3 minutes. When the first time power on, there is no 3mins delay for compressor; Once the compressor started, within 6mins, the unit can not stop according to the indoor temperature change within 6mins.

6.2.2.1 COOL mode

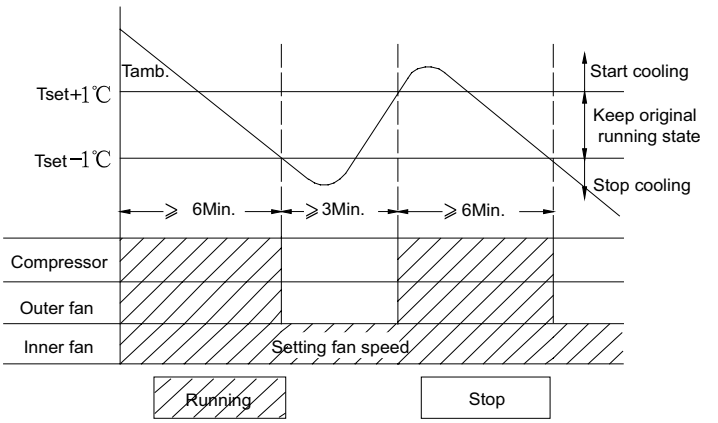
6.2.2.1.1 The conditions and processes of cooling

If Tamb≥Tset+1℃, COOL mode will act, compressor and outdoor fan will run, indoor fan will run at the set speed.

If Tamb≤Tset−1℃, compressor, outdoor fan will stop running,indoor fan will run at the set fan speed;

If Tset-1℃＜Tamb＜T set+1℃, the unit will keep running in the old mode.

➢ In this mode, the reversal valve will not power on, the setting temp. range16℃~30℃.



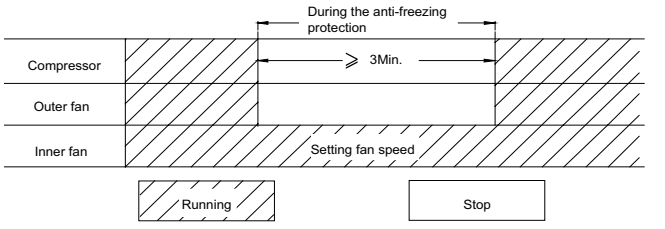
6.2.2.1.2 Display method

The running indicator and cooling indicator will light, the double “8” digital pipe will display the setting temperature.

6.2.2.1.3 Protection function

- Anti-freezing protection

When antifreezing protection has been detected by the system,compressor, outdoor fan will stop running, the indoor fan will run at the setting fan speed. When anti-freezing has been released, and compressor has stopped for 3mins, indoor fan will run at the original mode.



6.2.2.2 DRY Modes

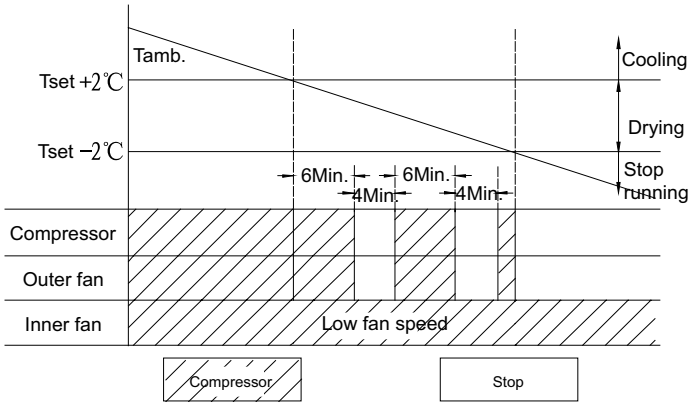
6.2.2.2.1 The conditions and dry process

If Tamb>Tset+2℃, the cooling mode will act, compressor,outdoor fan will run, and indoor fan will run at the low fan speed.

If Tset -2℃≤Tamb≤Tset+2℃,DRY mode will act, the inner fan will run at low fan speed, compressor and outdoor fan will stop running after 6mins,after stopped 4min., the compressor, outdoor fan will start to run.The processes of dehumidifying are shown as the above cycle.

If Tamb ＜ Tset-2℃, the compressor , the outdoor fan will stop running, indoor fan will run at low fan speed.

➢ At this mode, the reversal valve will not power on, the temperature setting range is 16-30℃.



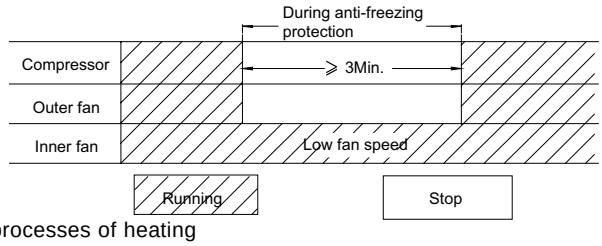
6．2．2．2．2 Display method

Running indicator and dry indicator will light on, the double “8” digital tube will display the setting temperature.

6．2．2．2．3 Protection function

◆ Anti-freezing protection

At DRY and COOL mode, when the anti-cooling protection is detected by the system, that the compressor, outer fan will stop, inner fan will run at the low fan speed; When anti-freezing has been released and the compressor has stopped for 3mins, that the whole unit will resume to the original running state. When it meet the start 6mins and stop 4mins of Drying procedures, when the anti-freezing protection has been detected by the system, that the compressor, outer fan will stop, inner fan will run at low fan speed. When anti-freezing has been released and compressor has stopped for 4mins, the whole unit will resume to run at the original state.



6．2．2．3 Heat mode

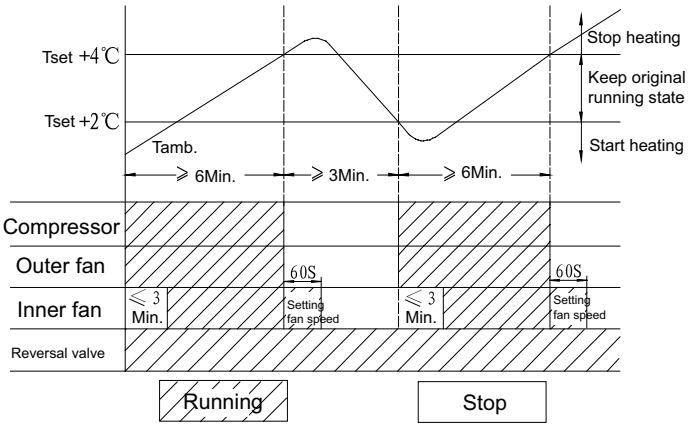
6．2．2．3．1 The conditions and processes of heating

If Tamb ≤Tset+2℃, HEAT mode will act, reversal valve, compressor, outdoor fan will start to run, but indoor fan will run after 3mins. delayed.

If Tamb≥Tset+4℃, Compressor , outdoor fan stop running,reversal valve is still powered on, indoor fan will run at the fan speed which is before unit stop running and then blow the air after 60secs it will stop.

If Tset+2℃＜T set＜T set +4℃,the unit will keep running in the old mode.

➢ In this mode,the reversing valve is still power on. The setting temp. range is 16～30℃.

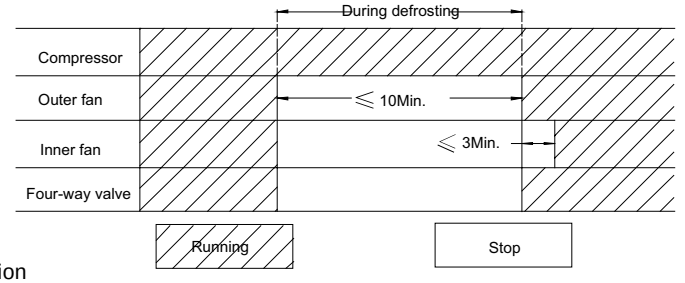


6．2．2．2．2 Display method

The running indicator and heating indicator will light, the double “8” digital tube displays the setting temperature.

6．2．2．3．2 Defrosting condition and procedures

When detecting there is frost on the condenser, system enter into defrosting state, at this time the compressor will continue to run, outdoor fan, four-way valve,indoor fan will stop running, the running indicator flashes; After the frosting on the condenser be removed, the outer fan, four-way valve will start to run at the same time, the inner fan will run at 3mins delay, compressor keeps running state , the running indicator stop flashing. When restarting the heating circulation, compressor running time will be accumulated.



6．2．2．3．3 Protection function

◆ Anti-high temperature protection

When detecting the tube temperature of evaporator is over high, the outer fan will stop running; When the tube temperature resumes to normal, the outer fan will resume to work. When the unit is running in the anti-high temperature protection, the defrosting is not available.

◆Noise attenuation protection

When pressing “Run/ Stop” button to turn off the unit, the reversal valve will delay 2mins and turn off the unit; Or when the modes shift it will delay 2mins.

6．2．2．4 Fan mode

Inner fan will ran at the setting fan speed, the running indicator and fan mode indicator will light, the double “8” digital tube will display the setting temperature.

6．2．2．5 Auto mode

In this mode, the system will accord to the ambient temperature to select COOL ,HEAT or FAN mode automatically. The protection function is the same with the COOL, HEAT modes.

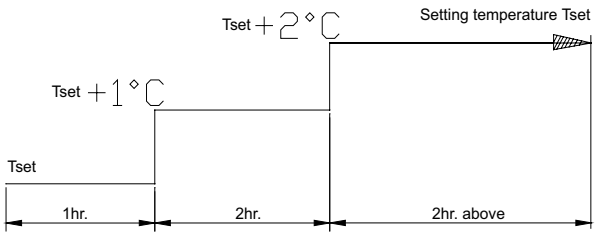
➢Display: the running indicator and auto mode indicator will light on, the double “8” digital tube will display the setting temperature.

6．2．3 Other control

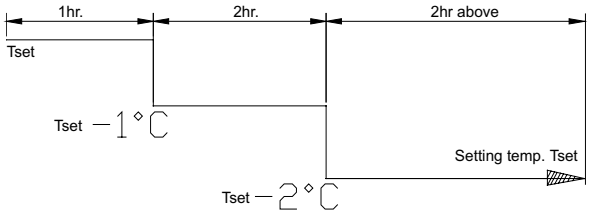
At stand by, the power indicator light on, unit will not work.

6．2．3．1 Sleep function

In COOL or DRY mode, when the set sleeping has run for 1 hour, Tset will rise 1℃; 2 hours later, Tset will rise 1℃. 2℃ has been risen up within 2hours totally, then the unit will run at this setting temperature.



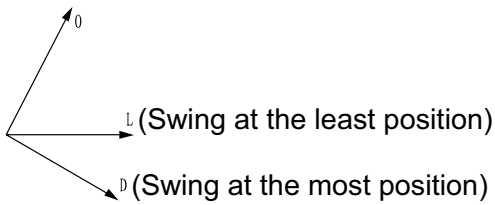
In the Heat mode, when the set sleeping has run for 1 hour, Tset will fall 1℃; 2 hours later, Tset will fall 1℃. 2℃ has been decreased within 2hours totally, then the unit will run at this setting temperature.



The setting temperature will not be changed in the sleep function of auto mode.

6．2．3．2 Up and down swing motor control

After powered on, the swing louver of the up and down swing motor will firstly rotate to the O position, then turn off the air outlet vent; After unit turned on, if there is no swing function setting , the guide louver will rotate to the least position L for air outlet. When turning on the unit and to set the swing function that the swing louver will swing between L and D. When turn off the unit, that the guide louver will turn off.



6．2．3．3 Buzzer

After the controller powered on or received the signal sent by the wireless remote control, the buzzer will beep.

6．2．3．4 Auto button (on the main board)

When pressing this button, it will run at auto mode, the inner fan will run at Auto fan speed, the swing will start after the guide louver opened,when repress it, the unit will turn off.

6．2．3．5 Display of displayer

6．2．3．5．1 Running figure and mode figure display

After powered on, all figures will be displayed, then only the power indicator turn on. By the wireless remote control to turn on the unit, the running indicator will turn on, at the same time to display the current setting running mode indicator, if the setting sleep function or after turn off the indicator, that will turn off all the display except the running indicator. When unit turned off, only the power indicator turn on. During the defrosting the running indicator will flash.

6．2．3．5．2 Double 8 power and mode display

After unit turned on, the digital tube displays the current setting temperature (setting range is 16-30℃).

6．2．3．6 Auto fan speed control

The indoor fan will accord to the ambient temperature automatically select Hi, Mid, Low speed. There are 30s at least for each mode shift.

6．2．3．7 Timer

According to the setting time of remote control, could turn on or turn off the unit timely.

6.2.3.8 Memory function

After powered on, the unit will run at the mode, fan speed and setting temperature before power off with the memory.
If the unit is power off when it is turned on and then if it is power on again, there is 3mins for delay for compressor.

7 Disassembly Procedures

7. 1 Disassembling process of indoor unit

Operation procedures/pictures

7. 1. 1 Disassemble the front panel

Pull the panel open, then remove the rotating shaft from the groove. As shown in Fig.7-1.

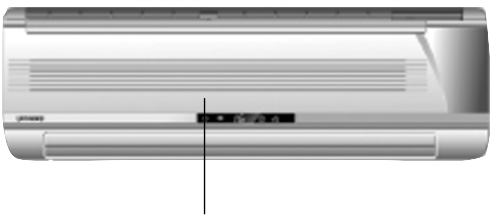


Fig. 7 — 1

7. 1. 2 Disassemble filter

Push the filter inward and then upward to remove the filter as shown in Fig.7-2;

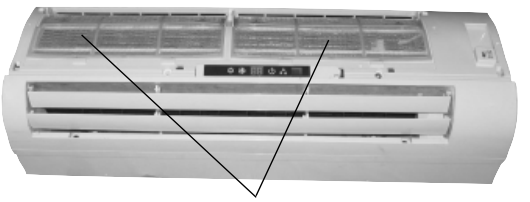


Fig. 7 — 2

7. 1. 3 Disassemble the guide louver

Bend the guide louver to remove it.

As shown in Fig.7-3

Fig. 7 — 3

Operation procedures/pictures

7.1.4 Disassemble the body case

To open the screw cap, and screw off 4pcs screw which fixing the front panel, then take down the front panel, then loosen the clasp of backside. Then can take down the body case. As shwon in Fig. 7-4

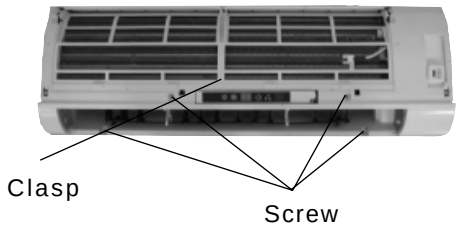


Fig.7－4

7.1.5 Disassemble the electric box cover

Loosen 1pc screw which fixes the electric box cover and indicator holder, loosen the clasp of backside, then can take down the electric box cover. As shown in Fig. 7-5

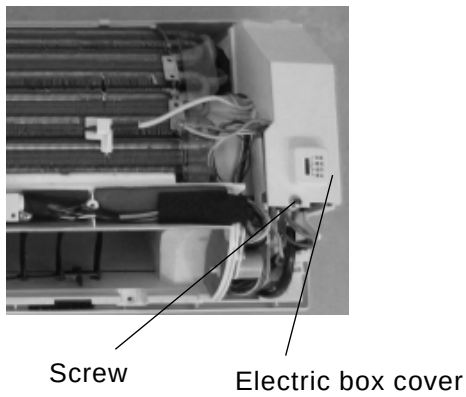


Fig.7－5

7.1.6 Disassemble the water tray sub-assy

Loosen the left and right side of clasps of the water tray sub-assy, then pull out the wiring terminal of stepping motor. Then can take out the water tray sub-assy. Due to there is drainage pipe all together, please be carefully. As shown in Fig. 7-6

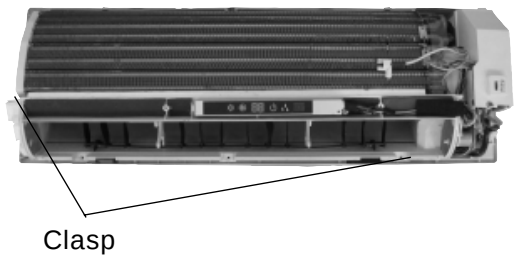


Fig.7－6

7.1.7 Disassemble electric box

Pull out motor wire terminal, screw off the earth screw and the screws which fixing the electric box by screw spanner, at last to open the clasp of electric box, then can take down the electric box. As shown in Fig. 7-7;

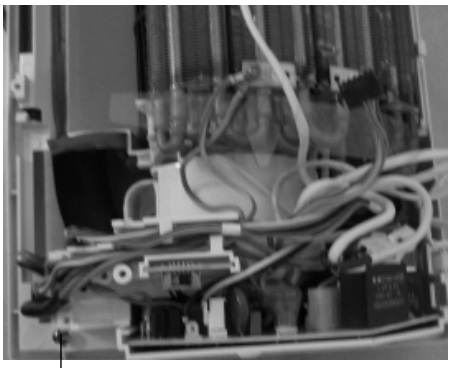


Fig.7 — 7

7.1.8 Disassemble evaporator

To rise up the left side of evaporator by hands, then push it backwardly, to make the clasp of evaporator out of the groove. Becarefully to take out the evaporator, and pay attention to protect the connection pipe.

Screw off the 2pcs screw of evaporator both end. As shown in Fig. 7-9, 7-10.

Screw off 1pc screw which fixing the connection pipe clamp. Take down the connection pipe clamp. As shown in Fig.7-8

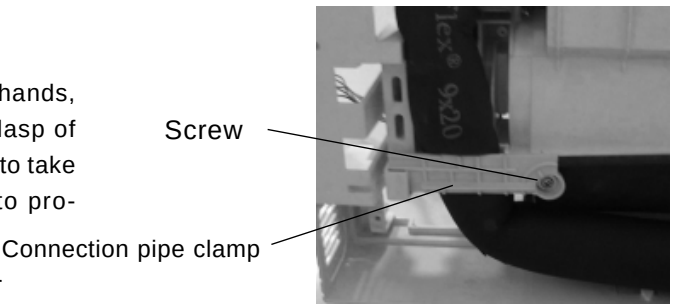


Fig.7 — 8

Fig.7 — 9

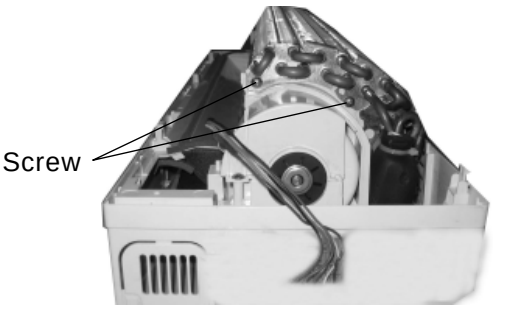


Fig.7 — 10

Operation procedures/pictures

7.1.9 Disassemble motor

Screw off the screws which fix the motor clamp, there are 3pcs screws in all. Taken down the motor clamp. As shown in Fig.7-11

Loosen the fixing nut which is on the right muff of cross flow fan, slightly lift up the motor, then can taken out the motor. As shown in Fig.7-12

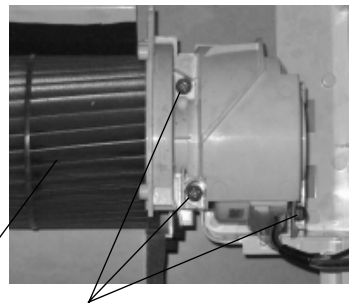


Fig. 7 — 11

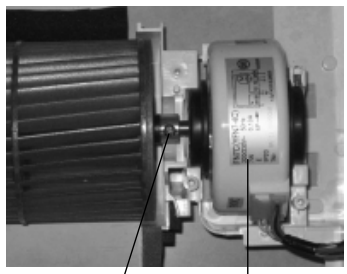


Fig. 7 — 12

7.1.10 Disassemble cross flow fan

According to the above procedure, after took out the motor then can take out the cross flow fan from the base.

7.2 Disassembly Procedures of the outdoor unit

Operation procedures/pictures

7.2.1 Disassemble the front side plate

Screw off the screws which fixed the front side plate, slide down then can disassemble the front side plate. As shown in Fig. 7-13

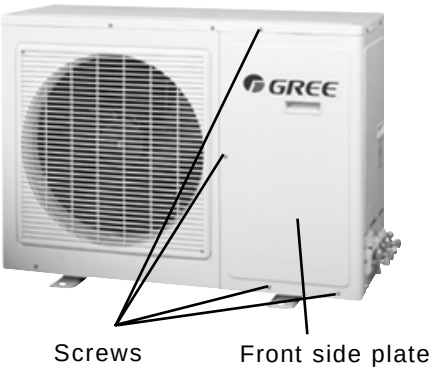


Fig.7 — 13

7.2.2 Disassemble the top cover

Screw off the fixing screws around the top cover, and remove the top cover. As shown in Fig.7-14

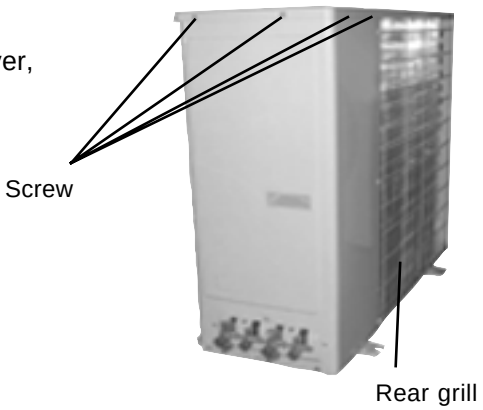


Fig. 7 — 14

7.2.3 Disassemble the rear grill

Screw off 4 screws at the rear side board and to remove the rear protection grill. As shown in Fig.7-15.

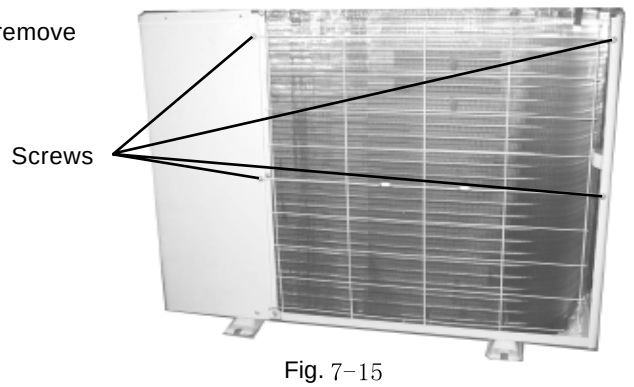


Fig. 7-15

Operation procedures/pictures

7.2.4 Disassemble the cabinet

Screw off 8pcs tapping screw of cabinet, then could disassemble the cabinet.As shown in Fig.7-16

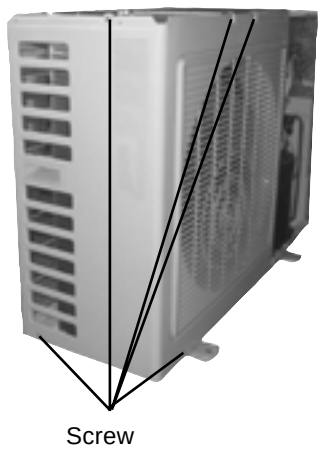


Fig. 7 — 16

7.2.5 Disassemble the electric box

To take out 2pcs bolt which is installed on electric mounting board, and pull out of the compressor and inserting slice which is led out by fan motor adn motor, take out of the electric mounting board.As shown in Fig. 7-17

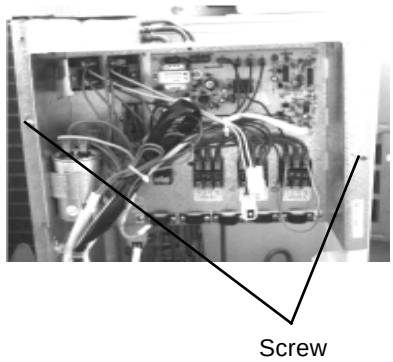


Fig. 7 — 17

7.2.6 Disassemble rear side plate

Screw off 8 screws which are fixing the rear side plate, then could disassemble the rear side plate. As shown in Fig. 7-18

Fig. 7-18

7.2.7 Disassemble axial flow fan

To screw off the orbicular bolt which fixes the axial flow fan by spanner, and take out the fixed washer, and pull out the axial flow fan. As shown in Fig.7-19

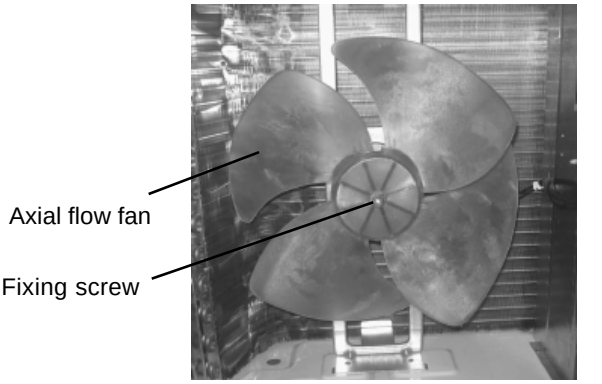


Fig. 7 — 19

7.2.8 Disassemble motor and motor support

To screw off the fixed screw which fixing the motor support, then to pull out the motor. To screw off 2 tappingscrew which fixing the motor support, lift it up, and take out the motor support. As shown in Fig.7-20

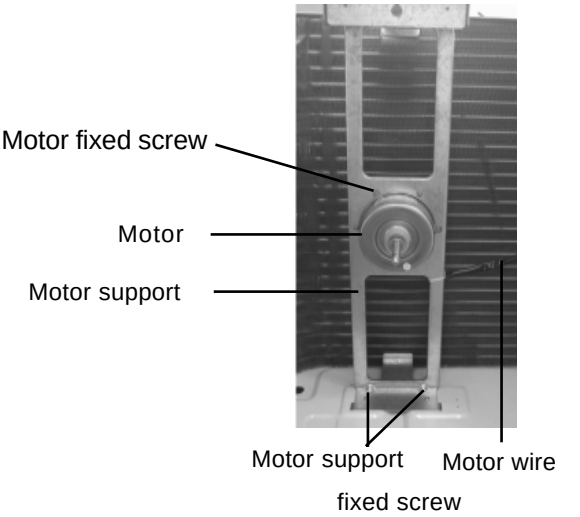


Fig. 7 — 20

7.2.9 Disassemble 4-way valve

Screw off the fixing nuts for the fixing the solenoids of 4-way valve and remove the solenoid. Wrap the 4-way valve with wet gauze and solder off the 4 soldering points of 4-way valve, remove the 4-way valve. It is recommended to solder as quickly as possible and the cotton gauze should always be wet. Make sure not to burn the leads of compressor as shown in Fig.7-21

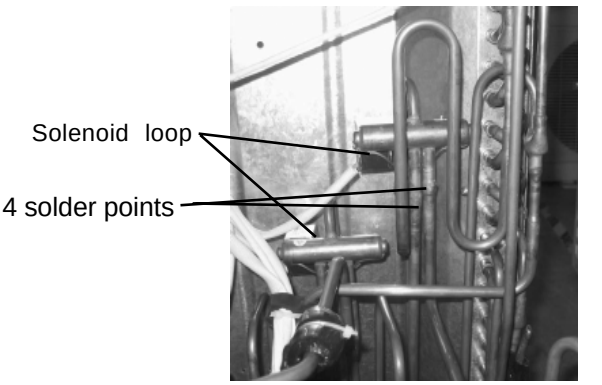


Fig. 7 — 21

Operation procedures/pictures

7. 2. 10 Disassemble the capillary

Solder off 4pcs soldered point of 2pcs capillary sub-assy and liquid vale and condenser oulet pipe, remove the capillary sub-assy. As shown in Fig.7-22

Fig. 7 — 22

7. 2. 11 Disassemble the gas valve and liquid valve

Screw off 4 screws fixing the two gas valves, unsolder the welding spots connecting the gas valve and the air return pipe to take off the gas valve. (Note: when unsoldering welding spots, wrap the gas valve with wet cloth completely to avoid high-temperature damage to the valve body) Screw off the 2 pieces of bolts that fix the liquid valve and unsolder the welding spots connecting the liquid valve and the connecting pipe to take off the liquid valve. (As shown in Fig.7-23)

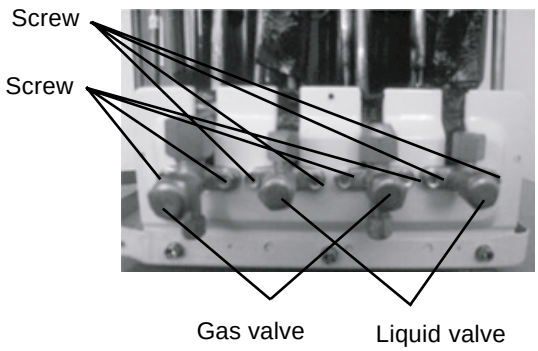


Fig. 7–23

7. 2. 12 Disassemble compressor

Loosen 6pcs nut with washer on the bottom of two compressors (note: refrigerant must be discharged completely first) and unsolder the welding spots of the compressor's suction and discharge pipe. Remove the pipeline carefully and take out the compressor. (As shown in Fig.7-24)

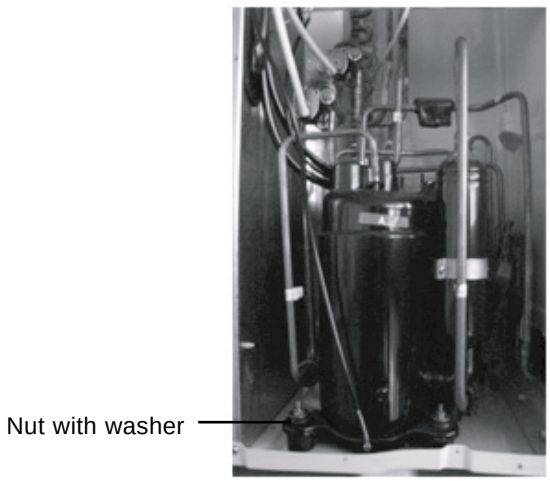
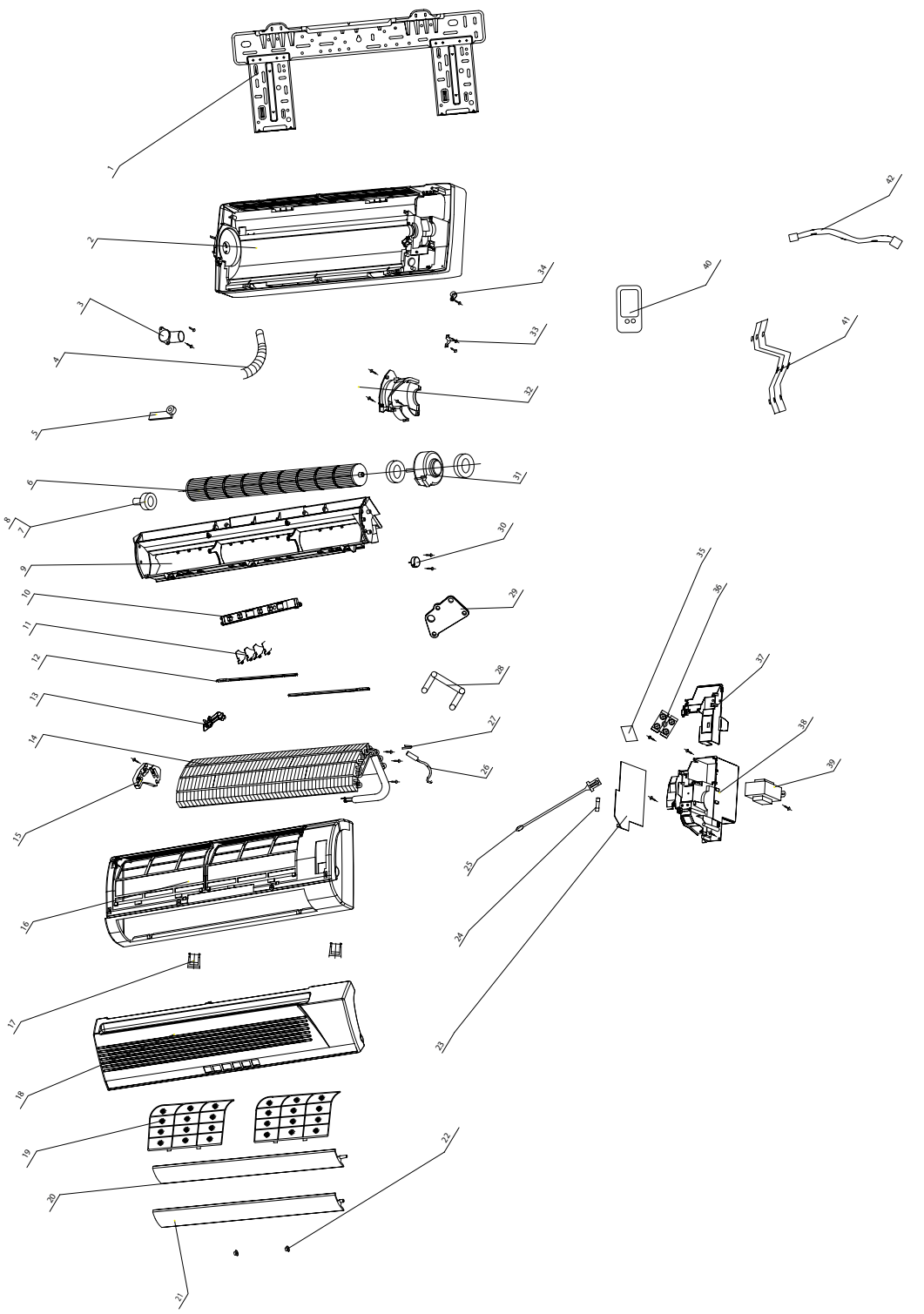


Fig. 7–24

8 Explosive view and list of parts for indoor unit

8. 1 Explosive view of parts for indoor unit



8.2 Parts list of indoor unit

NO	Description	Part Code			Qty
		GWCN14(07)B8NK1BA/I	GWCN14(07)B8NK3BA/I	GWHN18(09)B8NK3BA/I	
1	Wall-Mounting Frame	01252220	01252220	01252220	1
2	Rear Case	222020484	222020484	222020484	1
3	Evaporator Pipe Cover	06122001	06122001	06122001	1
4	Drainage Pipe	052324111	052324111	052324111	1
5	Pipe Clamp	24242004	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	10352001	1
7	Fan Bearing	/	/	/	/
8	Ring of Bearing	76512203	76512203	76512203	1
9	Water Tray	20182053	20182053	20182053	1
10	Display Board	30545016	30545016	30545016	1
11	Swing Louver	10512079	10512079	10512079	12
12	Swing link	10582052	10582052	10582052	1
13	Manual Lever	10582051	10582051	10582051	2
14	Evaporator Assy	010021271	010021276	010021278	1
15	Evaporator Support	24212058	24212058	24212058	1
16	Front Case	200026272	200026272	200026272	1
17	Screw Cover	242520042	242520042	242520042	2
18	Front Panel	200025461	200025461	200025461	1
19	Filter	11122002	11122002	11122002	2
20	Guide Louver one	105120392	105120392	105120392	1
21	Guide Louver two	105120402	105120402	105120402	1
22	Guide Louver Bearing	10542011	10542011	10542011	6
23	Main PCB JBJA13J	30030235	30030235	30030236	1
24	Fuse 3.15A 250VAC	46010014	46010014	46010014	1
25	Room Sensor 15K	390000451	390000451	390000451	1
26	Room Tube Sensor 20K	390000591	390000591	390000591	1
27	Sensor Insert B	42020063	42020063	42020063	1
28	Link Pole	10582013	10582013	10582013	1
29	Fix Plank	26152012	26152012	26152012	1
30	Motor MP24GA	15212102	15212102	15212102	1
31	Motor FN13B	15012038	15012038	15012108	1
32	Motor Clamp	26112080	26112080	26112080	1
33	Wire Clip	/	71010003	71010003	/
34	Wire Clamp	71010003	/	71010253	1
35	Receiver Board K	30042017	30042017	30042017	1
36	Terminal Board (4bits)	42010253	42010253	42010253	/
37	Electric Box Cover	20112015	20112015	20112015	1
38	Electric Box	20112017	20112017	20112017	1
39	Transformer 41X26.5E	43110231	43110231	43110231	1
40	Remote Controller YB1A21	30511009	30511009	30511009	1
41	Power connnecting Cord	40020551	40020551	40020551	1
42	Signal control wire	/	/	40030328	/

The above data are subject to change without notice.

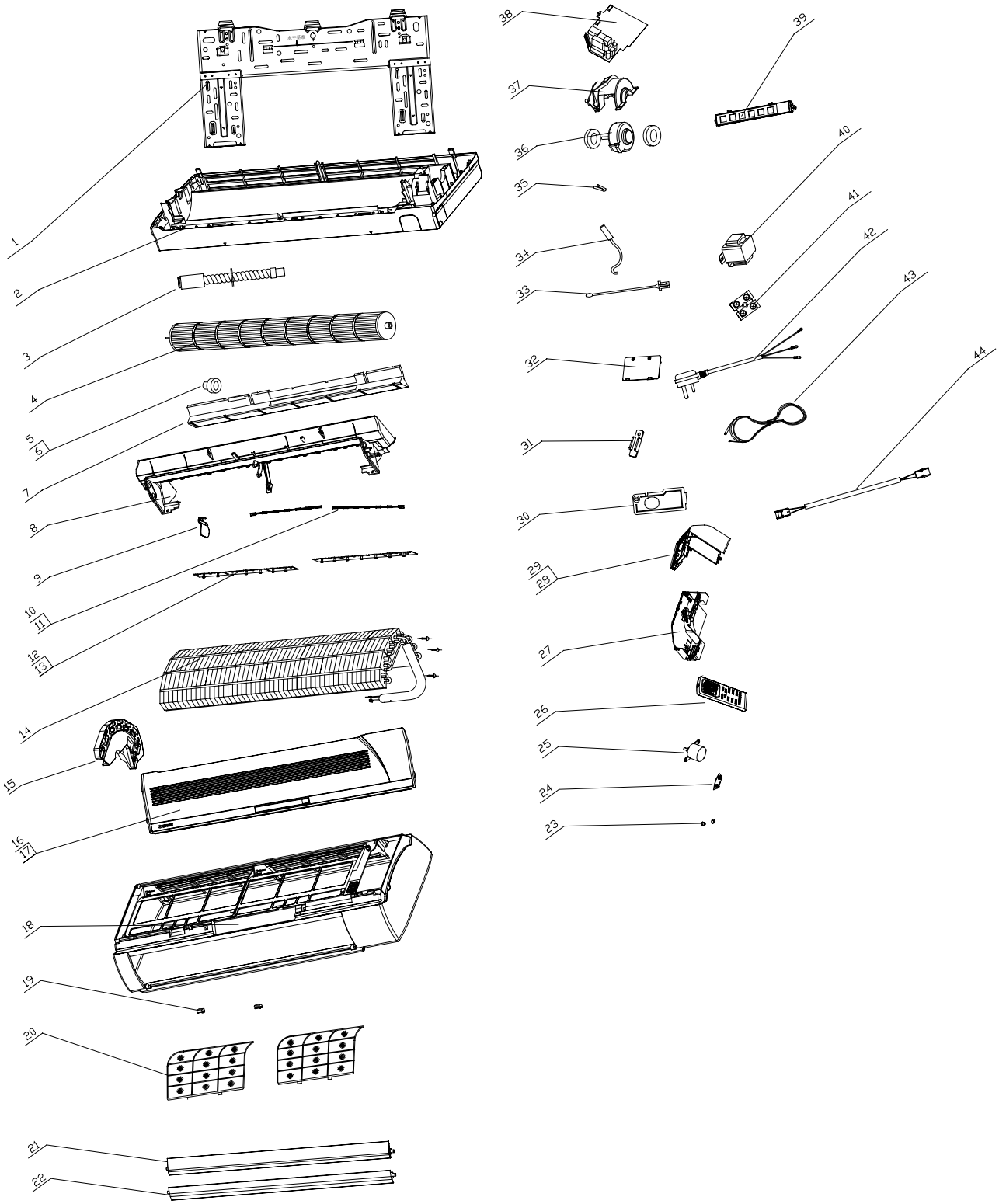
NO	Description	Part Code	Qty
		GWCN21(09)B8NK3BA/I	
1	Wall-Mounting Frame	01252220	1
2	Rear Case	222020484	1
3	Evaporator Pipe Cover	06122001	1
4	Drainage Pipe	052324111	1
5	Pipe Clamp	24242004	1
6	Cross Flow Fan	10352001	1
7	Fan Bearing	/	/
8	Ring of Bearing	76512203	1
9	Water Tray	20182053	1
10	Display Board	30545016	1
11	Swing Louver	10512079	12
12	Swing link	10582052	1
13	Manual Lever	10582051	2
14	Evaporator Assy	010021271	1
15	Evaporator Support	24212058	1
16	Front Case	200026272	1
17	Screw Cover	242520042	2
18	Front Panel	200025461	1
19	Filter	11122002	2
20	Guide Louver one	105120392	1
21	Guide Louver two	105120402	1
22	Guide Louver Bearing	10542011	6
23	Main PCB JBJA23J	30030235	1
24	Fuse 3.15A 250VAC	46010014	1
25	Room Sensor 15K	390000451	1
26	Room Tube Sensor20K	390000591	1
27	Sensor Insert B	42020063	1
28	Link Pole	10582013	1
29	Fix Plank	26152012	1
30	Motor MP24GA	15212102	1
31	Motor FN13B	15012038	1
32	Motor Clamp	26112080	1
33	Wire Clip	71010003	1
34	Wire Clamp	/	/
35	Receiver Board K	30042017	1
36	Terminal Board (4bits)	42010253	1
37	Electric Box Cover	20112015	1
38	Electric Box	20112017	1
39	Transformer 41X26.5E	43110231	1
40	Remote Controller YB1A21	30511009	1
41	power connecting cord	40020551	1
42	Signal control wire	/	/

NO	Description	Part Code		Qty
		GWHN18(09)B8NK3BA/I	GWHN07B8NK3BA/I	
1	Wall-Mounting Frame	01252220	01252220	1
2	Rear Case	222020484	222020484	1
3	Evaporator Pipe Cover	06122001	06122001	1
4	Drainage Pipe	052324111	052324111	1
5	Pipe Clamp	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	1
7	Fan Bearing	76512210	76512210	1
8	Ring of Bearing	76512203	76512203	1
9	Water Tray	20182053	20182053	1
10	Display Board	30545016	30545016	1
11	Swing Louver	10512079	10512079	12
12	Swing link	10582052	10582052	1
13	Manual Lever	10582051	10582051	2
14	Evaporator Assy	010021278	010021251	1
15	Evaporator Support	24212058	24212058	1
16	Front Case	200026272	200026272	1
17	Screw Cover	242520042	242520042	2
18	Front Panel	200025461	200025461	1
19	Filter	11122002	11122002	2
20	Guide Louver one	105120392	105120392	1
21	Guide Louver two	105120402	105120402	1
22	Guide Louver Bearing	10542011	10542011	6
23	Main PCB 5L513AJ	30030236	30030236	1
24	Fuse 3.15A 250VAC	46010014	46010014	1
25	Room Sensor 15K	390000451	390000451	1
26	Room Tube Sensor 20K	390000591	390000591	1
27	Sensor Insert B	42020063	42020063	1
28	Link Pole	10582013	10582013	1
29	Fix Plank	26152012	26152012	1
30	Motor MP24GA	15212102	15212102	1
31	Motor FN8G-PG	15012108	15012038	1
32	Motor Clamp	26112080	26112080	1
33	Wire Clip	/	/	1
34	Wire Clamp	/	/	/
35	Receiver Board K	30042017	30042017	1
36	Terminal Board (2bits)	42010253	42010253	/
37	Electric Box Cover	20112015	20112015	1
38	Electric Box	20112017	20112017	1
39	Transformer 41X26.5E	43110231	43110231	1
40	Remote Controller YB1A21	30511009	30511009	1
41	Power Cord	/	/	1
42	Signal control wire	40020551	40020551	1

NO	Description	Part Code			Qty
		GWCN18(09)B8NK1BA/I	GWHN18(09)B8NK1BA/I	GWCN18(09)B8NK3BA/I	
1	Wall-Mounting Frame	01252220	01252220	01252220	1
2	Rear Case	222020484	222020484	222020484	1
3	Evaporator Pipe Cover	06122001	06122001	06122001	1
4	Drainage Pipe	052324111	052324111	052324111	1
5	Pipe Clamp	24242004	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	10352001	1
7	Fan Bearing	/	/	/	/
8	Ring of Bearing	76512203	76512203	76512203	1
9	Water Tray	20182053	20182053	20182053	1
10	Display Board	30545016	30545016	30545016	1
11	Swing Louver	10512079	10512079	10512079	12
12	Swing link	10582052	10582052	10582052	1
13	Manual Lever	10582051	10582051	10582051	2
14	Evaporator Assy	010021271	010021271	010021278	1
15	Evaporator Support	24212058	24212058	24212058	1
16	Front Case	200026272	200026272	200026272	1
17	Screw Cover	242520042	242520042	242520042	2
18	Front Panel	200025461	200025461	200025461	1
19	Filter	11122002	11122002	11122002	2
20	Guide Louver one	105120392	105120392	105120392	1
21	Guide Louver two	105120402	105120402	105120402	1
22	Guide Louver Bearing	10542011	10542011	10542011	6
23	Main PCB JBJA23J	30030235	30030236	30030235	1
24	Fuse 3.15A 250VAC	46010014	46010014	46010014	1
25	Room Sensor 15K	390000451	390000451	390000451	1
26	Room Tube Sensor20K	390000591	390000591	390000591	1
27	Sensor Insert B	42020063	42020063	42020063	1
28	Link Pole	10582013	10582013	10582013	1
29	Fix Plank	26152012	26152012	26152012	1
30	Motor MP24GA	15212102	15212102	15212102	1
31	Motor FN13B	15012038	15012038	15012038	1
32	Motor Clamp	26112080	26112080	26112080	1
33	Wire Clip	71010003	71010003	71010003	1
34	Wire Clamp	/	71010253	/	/
35	Receiver Board K	30042017	30042017	30042017	1
36	Terminal Board (4bits)	42010253	42010253	42010253	1
37	Electric Box Cover	20112015	20112015	20112015	1
38	Electric Box	20112017	20112017	20112017	1
39	Transformer 41X26.5E	43110231	43110231	43110231	1
40	Remote Controller YB1A21	30511009	30511009	30511009	1
41	power connecting cord	40020551	40020551	40020551	1
42	Signal control wire	/	40030328	/	/

The above data are subject to change without notice.

8. 3 Explosive view of parts for indoor unit



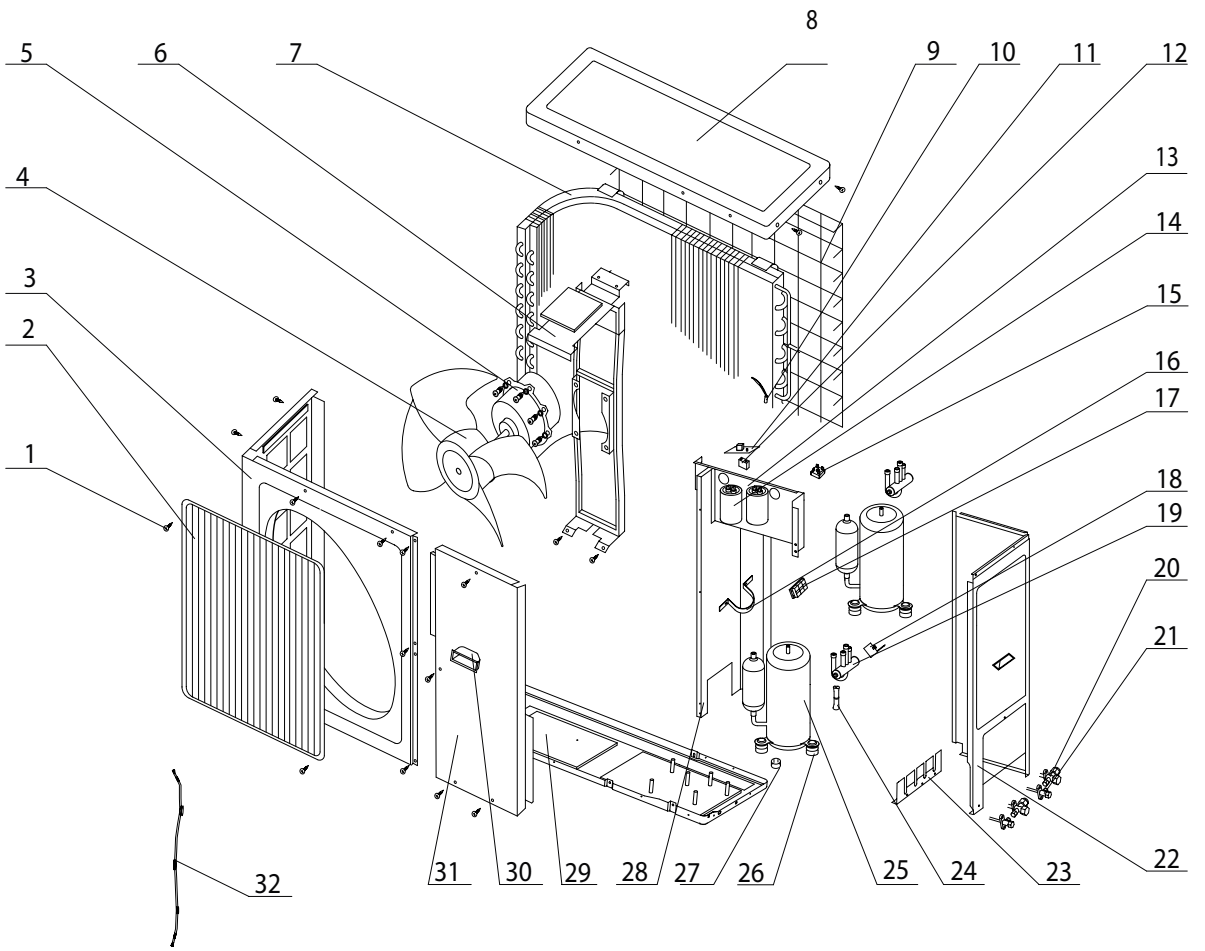
8.4 Parts list of indoor unit

No	Description	Part Code		Qty
		GWCN21(12)B9NK3BA/I	GWCN24(12)B9NK3BA/I	
1	Wall-Mounting Frame	01252217	01252217	1
2	Rear Case	222020343	222020343	1
3	Drainage Pipe	052324111	052324111	1
4	Cross Flow Fan	10352012	10352012	1
5	Fan Bearing	76512210	76512210	1
6	Ring of Bearing	76512206	76512206	1
7	Water Tray Foam	12412062	12412062	1
8	Water Tray	20182055	20182055	1
9	Swing Louver	10512030	10512030	14
10	Left Linkage Lever	10582016	10582016	1
11	Right Linkage Lever	10582017	10582017	1
12	Left Louver Support	26112037	26112037	1
13	Right Louver Support	26112038	26112038	1
14	Evaporator Assy	010021571	010021571	1
15	Left Evaporator Support	24212023	24212023	1
16	Front Panel	20002554	20002554	1
17	Border of front lid	201920372	201920372	1
18	Front Case	200025312	200025312	1
19	Screw Cover	242520053	242520053	2
20	Filter Assy	11122457	11122457	2
21	Guide Louver	261120393	261120393	1
22	Lower Guide Louver	261120403	261120403	1
23	Mid Bearing	10542016	10542016	2
24	Left Bearing	10542002	10542002	1
25	Motor MP24AA	15212108	15212108	1
26	Remote Controller YB1A21	30511009	30511009	1
27	Electric Box	20102140	20102140	1
28	Electric Box Cover	201021411	201021411	1
29	Shielding Box Sub-assy	01592013	01592013	1
30	Covering Plate	22242053	22242053	1
31	Wire Clamp	24242003	24242003	1
32	Rear Pipe Cover	26112035	26112035	1
33	Room Sensor 15K	390000451	390000451	1
34	Tube Sensor 20K	390000591	390000591	1
35	Sensor Insert	42020063	42020063	1
36	Motor FN22C	15012111	15012111	1
37	Right Support of Evaporator	24212024	24212024	1
38	Main PCB	30055655	30055655	1
39	Display board	30545217	30545217	1
40	Transformer	43110236	43110236	1
41	Terminal board (4bit)	42010253	42010253	1
42	Power Cord	/	/	/
43	Connecting Cable	400205511	400205511	1
44	Signal Cable	/	/	/

The above data are subject to change without notice.

NO	Description	Part Code	Qty
		GWHN24(12)B9NK3BA/I	
1	Wall-Mounting Frame	01252217	1
2	Rear Case	222020343	1
3	Drainage Pipe	052324111	1
4	Cross Flow Fan	10352012	1
5	Fan Bearing	76512210	1
6	Ring of Bearing	76512206	1
7	Water Tray Foam	12412062	1
8	Water Tray	20182055	1
9	Swing Louver	10512030	14
10	Left Linkage Lever	10582016	1
11	Right Linkage Lever	10582017	1
12	Left Louver Support	26112037	1
13	Right Louver Support	26112038	1
14	Evaporator Assy	010021571	1
15	Left Evaporator Support	24212023	1
16	Front Panel	20002554	1
17	Border of front lid	201920372	1
18	Front Case	200025312	1
19	Screw Cover	242520053	2
20	Filter Assy	11122457	2
21	Guide Louver	261120393	1
22	Lower Guide Louver	261120403	1
23	Mid Bearing	10542016	2
24	Left Bearing	10542002	1
25	Motor MP24AA	15212108	1
26	Remote Controller YB1A21	30511009	1
27	Electric Box	20102140	1
28	Electric Box Cover	201021411	1
29	Shielding Box Sub-assy	01592013	1
30	Covering Plate	22242053	1
31	Wire Clamp	24242003	1
32	Rear Pipe Cover	26112035	1
33	Room Sensor	390000451	1
34	Tube Sensor	390000591	1
35	Sensor Insert	42020063	1
36	Motor FN9D	1512069	1
36	Motor FN22C	15012111	1
37	Right Support of Evaporator	24212024	1
38	Main PCB	30030337	1
39	Display board	30545217	1
40	Transformer	43110236	1
41	Terminal board (4bit)	42010253	1
42	Power Cord	/	
43	Connecting Cable	400205511	1
44	Signal Cable	40030328	1

8.5 Explosive view of cooling outdoor unit



8.6 Parts list of indoor unit

NO	Description	Part Code		Qty
		GWCN14(07X2)B8NK1BA/O	GWCN14(07X2)B8NK3BA/0	
1	Self-tapping Screw	70140553	70140553	16
2	Front Grill	22265251	22265251	1
3	Front Plate	01433028	01433028	1
4	Axial Flow Fan	10335253	10335253	1
5	Motor LW68B	15013032	15013032	1
6	Motor Support	01703027	01703027	1
7	Condenser Assy	01103116	01103116	1
8	Top Cover	01255262	01255262	1
9	Rear Grill	01473028	01473028	1
10	Tube Sensor20K	/	/	1
11	Velometer TS60	30117001	30117001	1
12	Capacitor CBB61 3uF/450V (UL/VDE/TUV)	33010027	33010027	1
13	Electric Box	01413003	01413003	1
14	Capacitor CBB65 25uF/450V(440V)	33000017	33000017	2
15	Terminal Board	420111041	420111041	2
16	Capacitor Clamp B	02143010	02143013	1
17	Terminal Board RS9413G	42010178	42010178	1
18	4-way Valve Coil	/	/	2
19	4-Way Valve	/	/	2
20	Valve 3/8	071302291	07130209	2
21	Valve 1/4	071302201	07130208	2
22	Rear Side Plate	01303112	`01303110	1
23	Valve Support	01713027	01713027	1
24	On Way Valve	/	/	/
25	compressor RH174VHAC	00100095	00100086	2
26	Compressor Gasket CS01D211	76710204	76710229	6
27	Overload Protector	00180054	00180044	2
28	Mid Clapboard	012330241	01233023	1
29	Metal Base	01203278	01203227	1
30	Handle	26235253	26235252	2
31	Front Side Plate	01303023	01303023	1
32	Connecting Cable	40020318	40020318	1

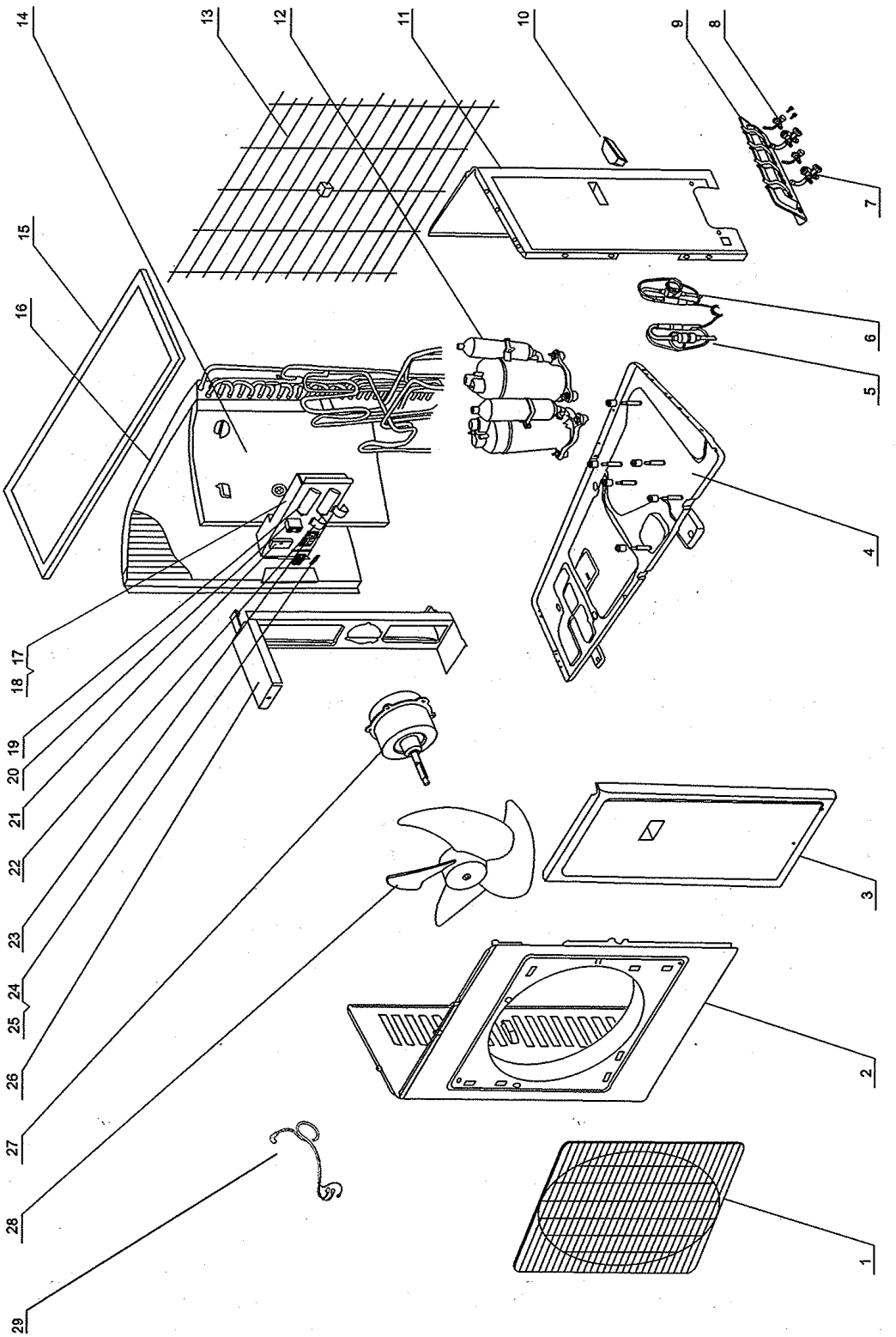
The above data are subject to change without notice.

NO	Description	Part Code				Qty
		GWCN18(09X2)B8 NK1BA/0	GWHN18(09X2)B8 NK1BA/0	GWCN18(09X2)B8 NK3BA/0	GWHN18(09X2)B8 NK3BA/0	
1	Self-tapping Screw	70140553	70140553	70140553	70140553	16
2	Front Grill	22265251	22265251	22265251	22265251	1
3	Front Plate	01433031	01433028	01433028	01433028	1
4	Axial Flow Fan	10335257	10335253	10335253	10335253	1
5	Motor LW68B	15015057	15013063	15013106	15013106	1
6	Motor Support	01703027	01703027	01703027	01703027	1
7	Condenser Assy	01103349	01103109	011030645	011030643	1
8	Top Cover	01255262	01255262	01255262	01255262	1
9	Rear Grill	01473028	01473028	01473028	01473028	1
10	Tube Sensor20K	/	390001921	/	390001921	1
11	Velometer TS60	30117001	30112006	30117001	30112006	1
12	Capacitor CBB61 3uF/450V (UL/VDE/TUV)	33010027	33010027	33010027	33010027	1
13	Electric Box	01413003	01413003	01413003	01413003	1
14	Capacitor CBB65 25uF/450V(440V)	33000017	33000017	33000017	33000018	2
15	Terminal Board	420111041	42011103	420111041	42011103	2
16	Capacitor Clamp B	02143013	02143013	02143013	02143013	1
17	Terminal Board RS9413G	42010178	420111041	42010178	420111041	1
18	4-way Valve Coil	/	430004002	/	430004002	2
19	4-Way Valve	/	430004022	/	430004022	2
20	Valve 3/8	071302291	071302291	07130209	07130209	2
21	Valve 1/4	071302201	071302201	07130208	07130208	2
22	Rear Side Plate	01303044	01303021	01303044	01303105	1
23	Valve Support	01713027	01713028	01713027	01713028	1
24	On Way Valve	/	07130102	/	07130103	/
25	compressor RH174VHAC	00120078	00120078	00120090	00120221	2
26	Compressor Gasket CS01D211	76710207	76710207	76710260	76710275	6
27	Overload Protector	/	/	00180071 or 00180072	00180085	2
28	Mid Clapboard	01233023	012330242	01233023	01233023	1
29	Metal Base	01203016	01203013	01203386	01203455	1
30	Handle	26235252	26235253	26235252	26235252	2
31	Front Side Plate	01303023	01303023	01303023	01303023	1
32	Connecting Cable	40020318	40020318	40020318	40020318	1

The above data are subject to change without notice.

NO	Name of Material	Code of Material	Amount
		GWHN18(09X2)B8NK3BA/0	
1	Self-tapping Screw	70140553	16
2	Front Grill	22265251	1
3	Front Plate	01433028	1
4	Axial Flow Fan	10335253	1
5	Motor LW80C	15013106	1
6	Motor Support	01703027	1
7	Condenser Assy	011030643	1
8	Top Cover	01255262	1
9	Rear Grill	01473028	1
10	Tube Sensor	390001921	1
10	Tube Sensor		1
11	Defrosting PCB 2F16HS	30112006	1
12	Capacitor CBB61 3uF/450V	33010027	1
13	Electric Box	01413003	1
14	Capacitor CBB65	33000018	2
15	Terminal Board 2-8	42011103	3
16	Capacitor Clamp B	02143013	2
17	Terminal Board RS9413	420111041	1
18	4-way Valve Coil	430004002	2
19	4-Way Valve	430004022	2
20	Valve 3/8	07130209	2
21	Valve 1/4	07130208	2
22	Rear Side Plate	01303105	1
23	Valve Support	01713028	1
24	On Way Valve	07130103	2
25	compressor QXA-12uA030(G	00120221	2
26	Compressor Gasket	76710275	6
27	Overload Protector	00180085	2
28	Mid Clapboard	01233023	1
29	Metal Base	01203455	1
30	Handle	26235252	3
31	Front Side Plate	01303023	1
32	Connecting Cable	40020318	1

8. 7 Explosive view of cooling outdoor unit

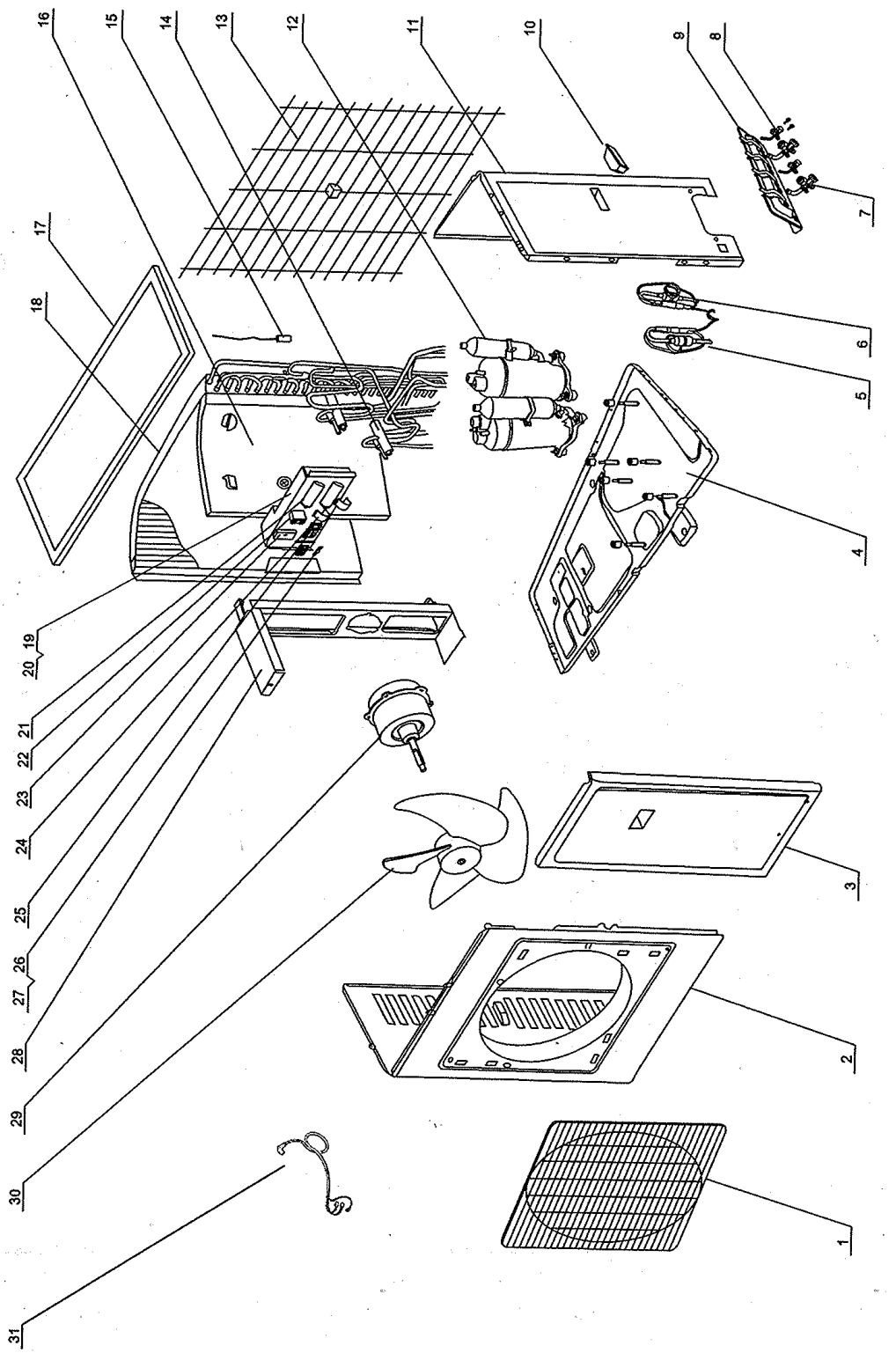


8.8 Spare part list of one to two outdoor unit

NO	Description	Part Code		Qty
		GWCN21(09+12)B9NK3BA/O	GWCN24(12X2)B7NK3EA/O	
1	Front Grill Sub-assy	22265251	22265251	1
2	Cabinet	01433028	01435254	1
3	Front Side Plate	01303018	01305247	1
4	Metal Base	01203369	01203013	1
5	Capillary Sub-Assy 1	031030281	/	1
	Capillary Sub-Assy A	/	03003663	1
6	Capillary Sub-Assy B	03003662	03003664	1
7	Valve 3/8″ / 1/2″	07130209	07130210	1
	Valve 1/2″	07130210	07130210	1
8	Valve 1/4″	07130208	07130208	2
9	Valve Support	01713027	01713028	1
10	Handle	/	26235253	1
11	Rear Side Plate Assy	01303110	01303117	1
12	Compressor C-1RV096H1A / C-RV146H1A	00100368	00100369	1
	Compressor C-RV146H1A	00100369	00100369	1
	Overload Protector	00180019	in set	1
		00180043	in set	1
13	Rear Grill	01473024	01475252	1
14	Isolation Sheet Assy	012330241	01235253	1
15	Tob Cover Assy	01255262	01255262	1
16	Condenser Assy	01103116	01133025	1
17	Electric Box	01413003	01413003	1
18	Cover Plate of Electric Box	01413049	01413049	1
19	Capacitor 25u F	33000017	33000017	2
20	Capacitor 3u F	33010027	33010027	1
21	Velometer	30117001	30117001	1
22	Capacitor Clamp	02143013	02143013	1
23	Terminal Board RS9413G	42010178	42010178	1
	Terminal Board RS9413	420111041	420111041	2
24	Insulation Gasket	70413432	70413432	1
25	Wire Clamp	71010102	71010103	1
26	Motor Support	01703027	01705253	1
27	Motor FW38A	15013032	15013063	1
28	Axial Flow Fan	10335253	10335253	1
29	Power cord	40020318	40020318	1

The above data are subject to change without notice.

8.9 Explosive view of outdoor unit

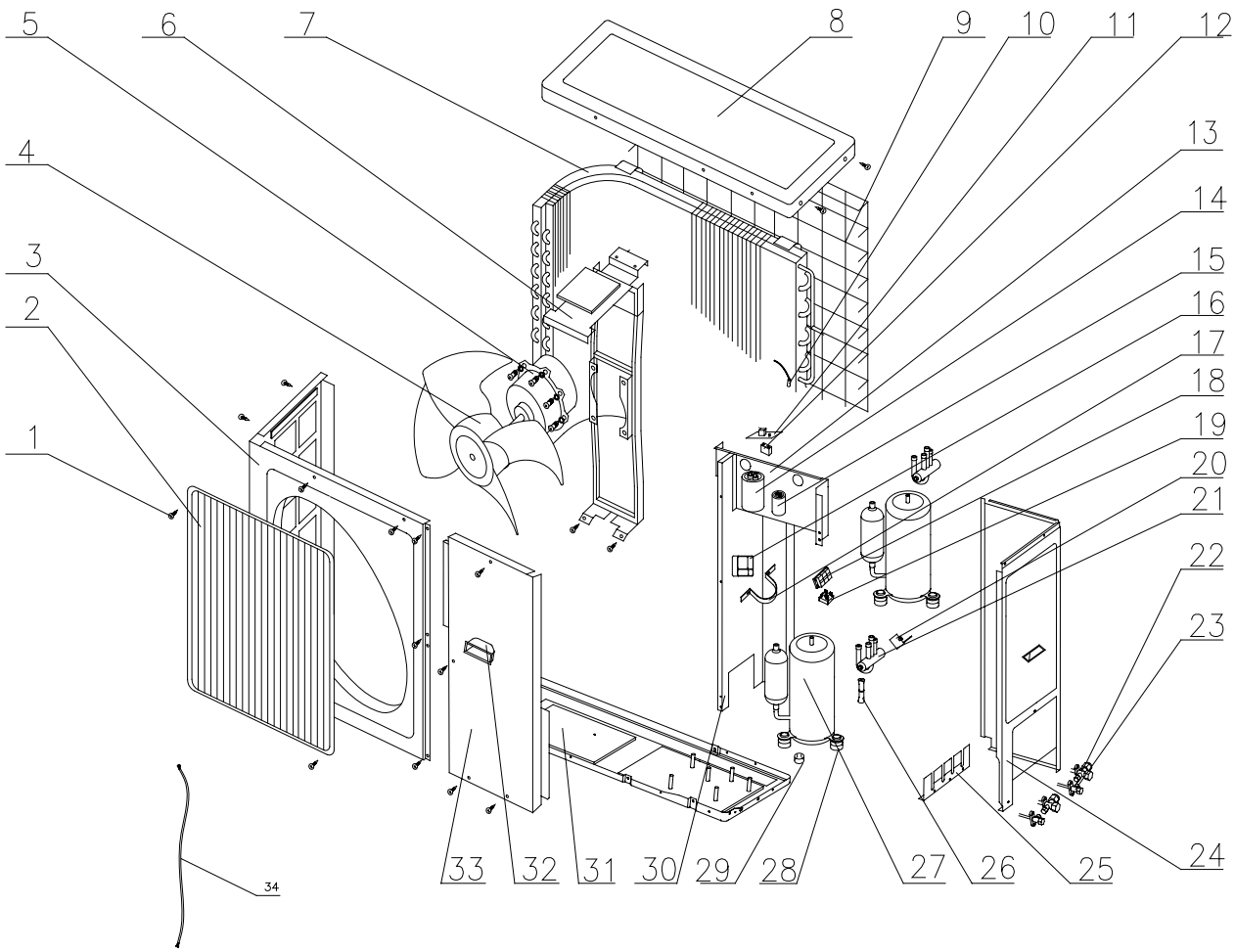


8. 10 Spare part list of one to two outdoor unit

NO	Name of Material	Code of Material	Amount
		GWHN24(12X2)B7NK3EA/O	
1	Front Grill Sub-assy	22265251	1
2	Cabinet	01435254	1
3	Front Side Plate	01305247	1
4	Metal Base	01203013	1
5	Capillary Sub-Assy A	03003601	1
6	Capillary Sub-Assy B	03003602	1
7	Valve 1/2″	07130210	2
8	Valve 1/4″	07130208	2
9	Valve Support	01713028	1
10	Handle	26235253	2
11	Rear Side Plate-assy	01303117	1
12	Compressor C-RV146H1A	00100369	2
13	Rear Grill	01475252	1
14	4-way Valve	430004022	2
	4-way Valve Fittings	430004002	2
15	Tube Sensor	390001921	1
16	Isolation Sheet Assy	01235254	1
17	Tob Cover -Assy	01255262	1
18	Condenser Assy	011330251	1
19	Electric Box	01413003	1
20	Cover Plate of Electric Box	01413049	1
21	Capacitor 25u F	33000017	2
22	Capacitor 3u F	33010027	1
23	Dual Defrost Board	30112006	1
24	Capacitor Clamp	02143013	1
25	Terminal Board RS9413G	42010178	1
	Terminal Board RS9413	420111041	2
26	Insulation Gasket	70413432	1
27	Wire Clamp	71010103	4
		71010102	1
28	Motor Support	01705253	1
29	Motor FW60L	15013063	1
30	Axial Flow Fan	10335253	1
31	Power cord	40020318	1

NO	Name of Material	Code of Material	Amount
		GWHN21(09+12)B9NK3BA/O	
1	Front Grill Sub-assy	22265251	1
2	Cabinet	01433028	1
3	Front Side Plate	01303023	1
4	Metal Base	012033691	1
5	Capillary Sub-Assy 1	03003535	1
6	Capillary Sub-Assy 2	03003536	1
7	Valve 3/8″	07130209	1
	Valve 1/2″	07130210	1
8	Valve 1/4″	07130208	2
9	Valve Support	01713028	1
10	Handle	26235253	2
11	Rear Side Plate-assy	01303021	1
12	Compressor 5PS108EAA22	00120084	1
	Compressor C-RV146H1A	00100369	1
	Overload Protector	00180061	1
		00180043	1
13	Rear Grill	01473028	1
14	4-way Valve	430004022	2
	4-way Valve Fittings	430004002	2
15	Outdoor Tube Sensor	390001921	1
16	Isolation Sheet Assy	012330241	1
17	Tob Cover -Assy	01255260	1
18	Condenser Assy	01133079	1
19	Electric Box	01413003	1
20	Cover Plate of Electric Box	01413049	1
21	Capacitor30 u F	33000018	1
	Capacitor 25u F	33000017	1
22	Capacitor 3u F	33010027	1
23	Dual Defrost Board	30112006	1
24	Capacitor Clamp	02143013	1
25	Terminal Board RS9413G	42010178	1
	Terminal Board RS9413	420111041	2
26	Insulation Gasket	70413432	1
27	Wire Clamp	71010102	1
		71010003	4
28	Motor Support	01703027	1
29	Motor FW38A	15013032	1
30	Axial Flow Fan	10335253	1
31	Power cord	40020318	1

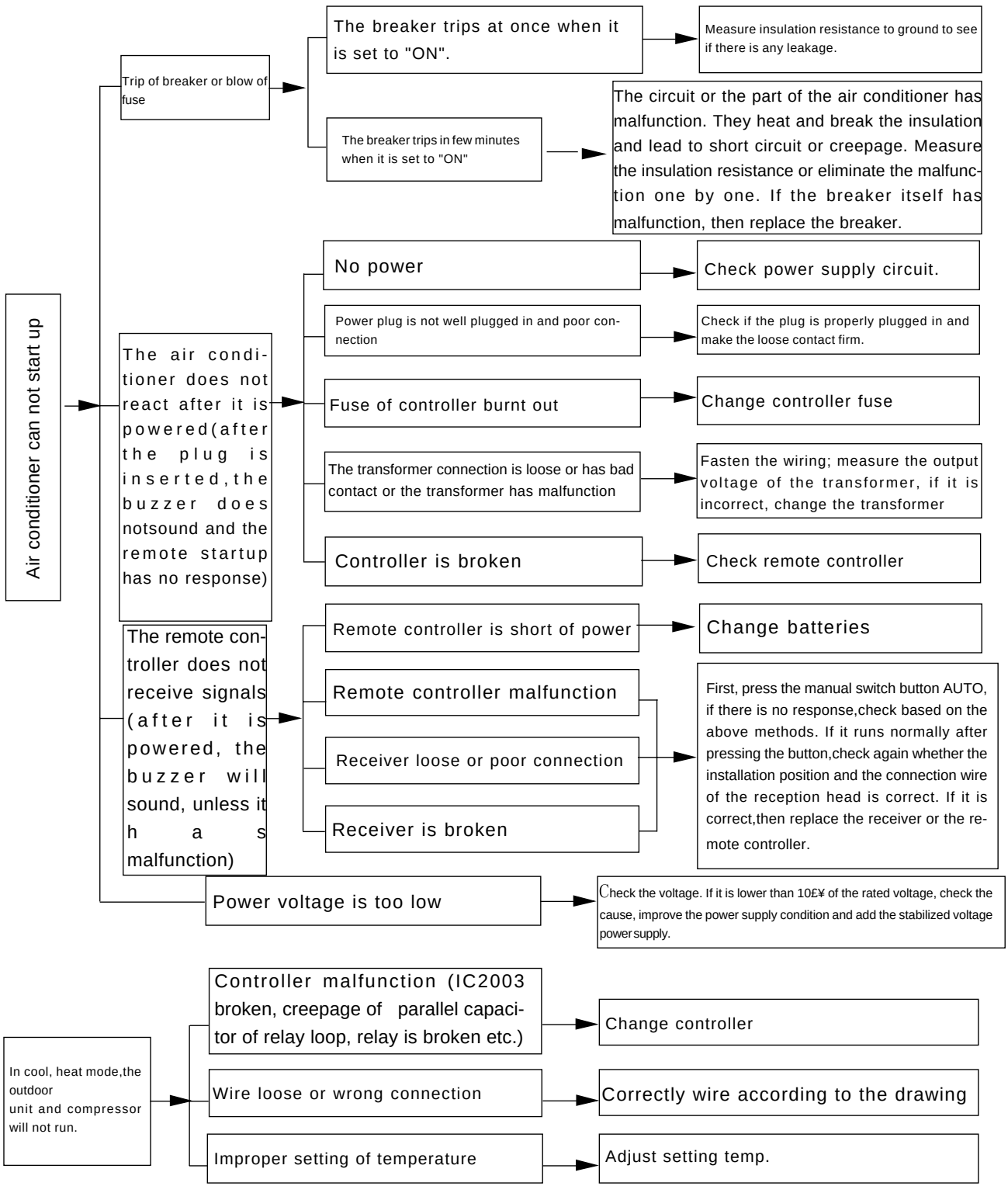
8. 11 Explosive view of outdoor unit

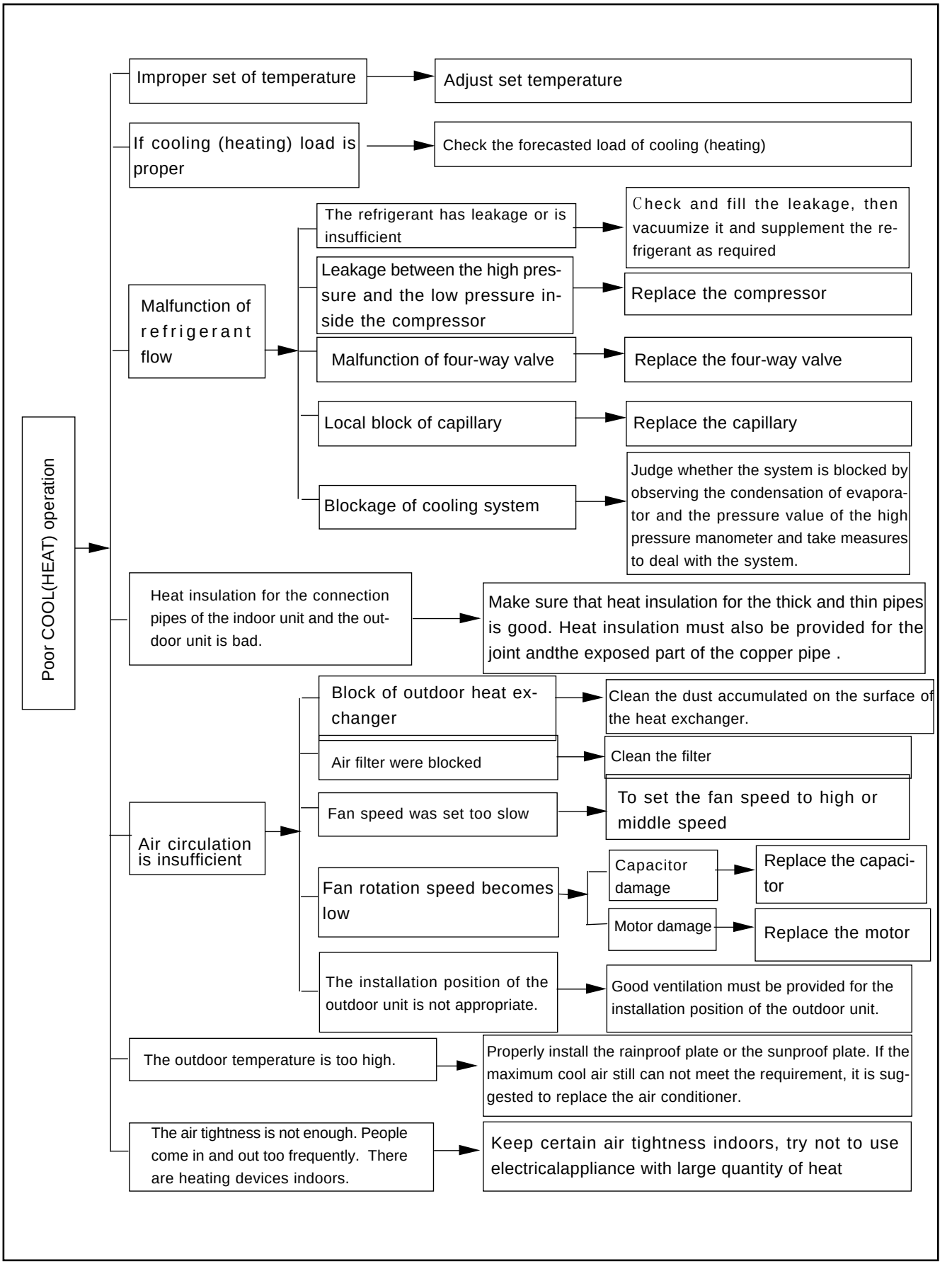


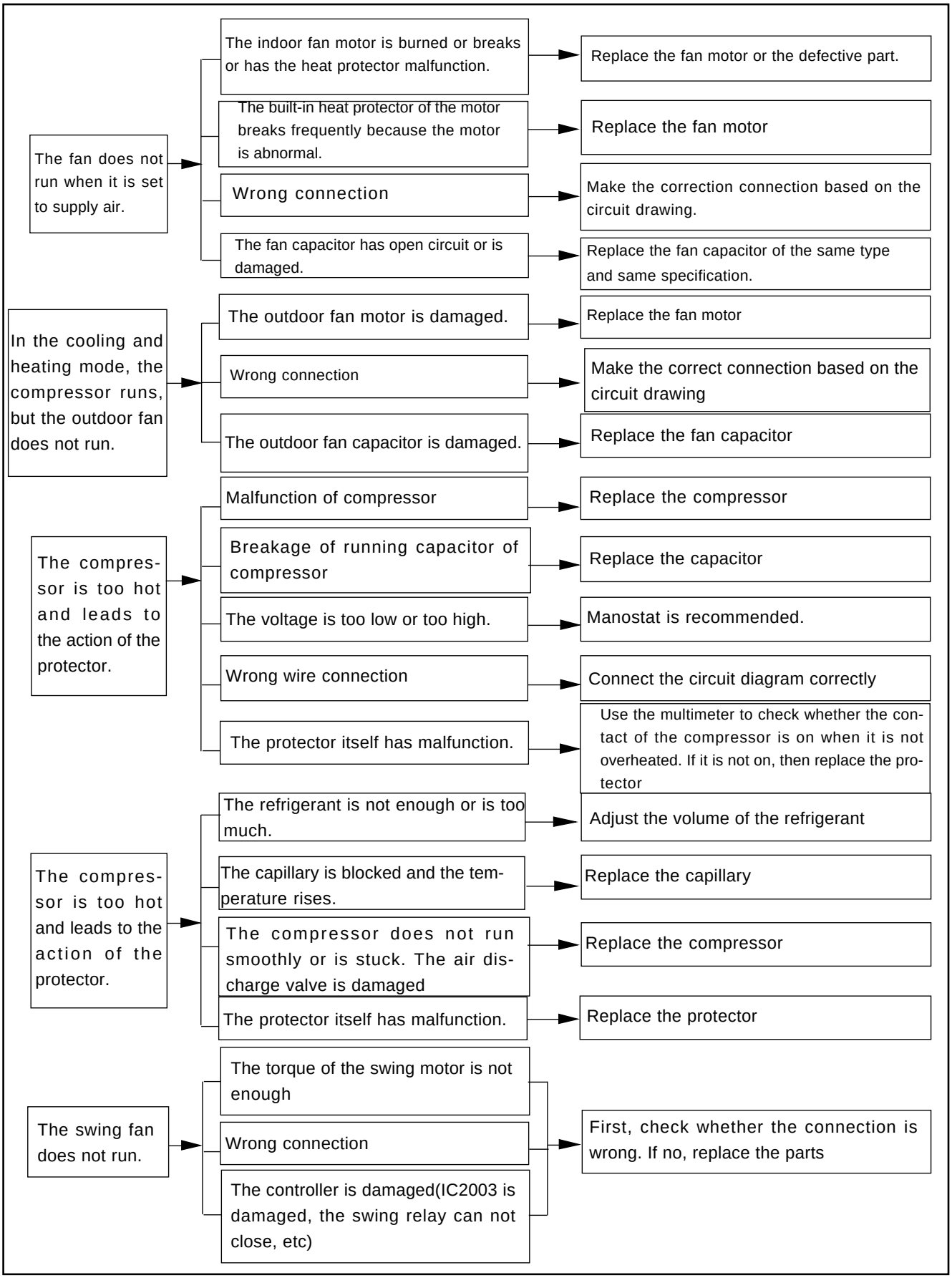
8. 12 Spare part list of one to two outdoor unit

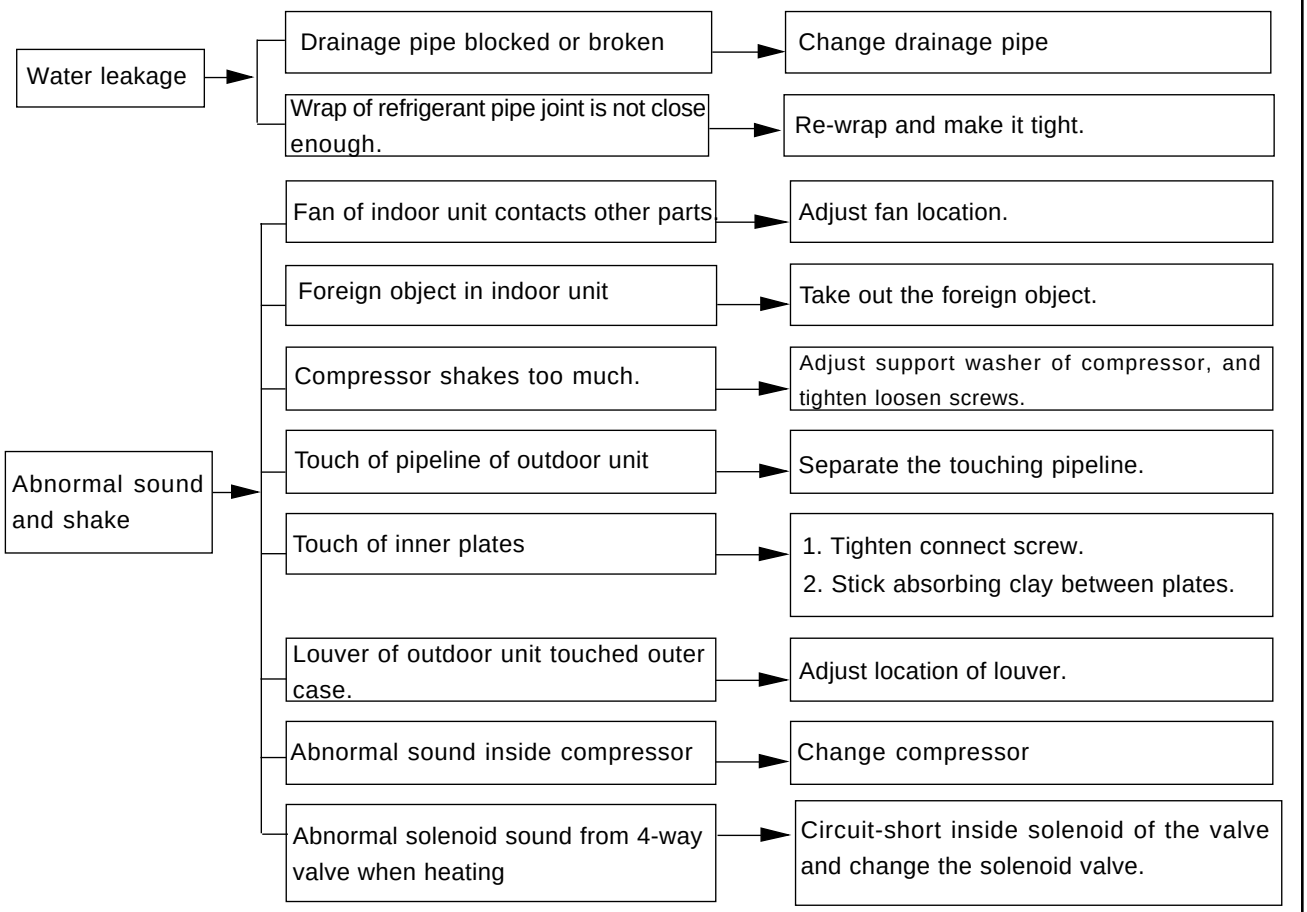
NO	Name of Material	Code of Material	Amount
		GWHN14(07X2)B8NK3BA/O	
1	Self-tapping Screw	70140553	41
2	Front Grill	22265251	1
3	Front Plate	01433028	1
4	Axial Flow Fan	10335253	1
5	Motor FW38A	15013032	1
6	Motor Support	01703027	1
7	Condenser Assy	011030643	1
8	Top Cover Assy	01255262	1
9	Rear Grill	01473024	1
10	Tube Sensor	390001921	1
10	Tube Sensor	390001921	1
11	Defrosting PCB 2F16HS	30112006	1
12	Capacitor (3uF/450VAC)	33010027	1
13	Electric Box	01413003	1
14	Capacitor (25uF/450VAC)	33000017	2
15	Capacitor 0.33uF/275V	33020201	2
16	Capacitor Clamp	42030005	2
17	Capacitor Clamp B	02143013	2
18	Terminal Board RS9413G	42010178	1
19	Terminal Board RS9413	420111041	2
20	4-way Valve Coil	430004002	2
21	4-Way Valve	430004022	2
22	Valve 3/8"	07130209	2
23	Valve 1/4"	07130208	2
24	Rear Side Plate	01303105	1
25	Valve Support	01713028	1
26	On Way Valve	07130103	2
27	compressor	00100086	2
28	Compressor Gasket	76710229	6
29	Overload Protector	00180044	2
30	Mid Clapboard	012330241	1
31	Metal Base	01203227	1
32	Handle	26235252	3
33	Front Side Plate	01303018	1
33	Front Side Plate	01303023	1
34	Connecting Cable	40020318	1

9 Failure and analysis




Poor COOL(HEAT) operation
Improper set of temperature
Adjust set temperature
If cooling (heating) load is proper
Check the forecasted load of cooling (heating)
Malfunction of refrigerant flow
The refrigerant has leakage or is insufficient
Check and fill the leakage, then vacuumize it and supplement the refrigerant as required
Leakage between the high pressure and the low pressure inside the compressor
Replace the compressor
Malfunction of four-way valve
Replace the four-way valve
Local block of capillary
Replace the capillary
Blockage of cooling system
Judge whether the system is blocked by observing the condensation of evaporator and the pressure value of the high pressure manometer and take measures to deal with the system.
Heat insulation for the connection pipes of the indoor unit and the outdoor unit is bad.
Make sure that heat insulation for the thick and thin pipes is good. Heat insulation must also be provided for the joint andthe exposed part of the copper pipe .
Air circulation is insufficient
Block of outdoor heat exchanger
Clean the dust accumulated on the surface of the heat exchanger.
Air filter were blocked
Clean the filter
Fan speed was set too slow
To set the fan speed to high or middle speed
Fan rotation speed becomes low
Capacitor damage
Replace the capacitor
Motor damage
Replace the motor
The installation position of the outdoor unit is not appropriate.
Good ventilation must be provided for the installation position of the outdoor unit.
The outdoor temperature is too high.
Properly install the rainproof plate or the sunproof plate. If the maximum cool air still can not meet the requirement, it is suggested to replace the air conditioner.
The air tightness is not enough. People come in and out too frequently. There are heating devices indoors.
Keep certain air tightness indoors, try not to use electricalappliance with large quantity of heat


The fan does not run when it is set to supply air.
The indoor fan motor is burned or breaks or has the heat protector malfunction.
Replace the fan motor or the defective part.
The built-in heat protector of the motor breaks frequently because the motor is abnormal.
Replace the fan motor
Wrong connection
Make the correction connection based on the circuit drawing.
The fan capacitor has open circuit or is damaged.
Replace the fan capacitor of the same type and same specification.
In the cooling and heating mode, the compressor runs, but the outdoor fan does not run.
The outdoor fan motor is damaged.
Replace the fan motor
Wrong connection
Make the correct connection based on the circuit drawing
The outdoor fan capacitor is damaged.
Replace the fan capacitor
The compressor is too hot and leads to the action of the protector.
Malfunction of compressor
Replace the compressor
Breakage of running capacitor of compressor
Replace the capacitor
The voltage is too low or too high.
Manostat is recommended.
Wrong wire connection
Connect the circuit diagram correctly
The protector itself has malfunction.
Use the multimeter to check whether the contact of the compressor is on when it is not overheated. If it is not on, then replace the protector
The compressor is too hot and leads to the action of the protector.
The refrigerant is not enough or is too much.
Adjust the volume of the refrigerant
The capillary is blocked and the temperature rises.
Replace the capillary
The compressor does not run smoothly or is stuck. The air discharge valve is damaged
Replace the compressor
The protector itself has malfunction.
Replace the protector
The swing fan does not run.
The torque of the swing motor is not enough
Wrong connection
The controller is damaged(IC2003 is damaged, the swing relay can not close, etc)
First, check whether the connection is wrong. If no, replace the parts


Water leakage
Drainage pipe blocked or broken
Change drainage pipe
Wrap of refrigerant pipe joint is not close enough.
Re-wrap and make it tight.
Abnormal sound and shake
Fan of indoor unit contacts other parts.
Adjust fan location.
Foreign object in indoor unit
Take out the foreign object.
Compressor shakes too much.
Adjust support washer of compressor, and tighten loosen screws.
Touch of pipeline of outdoor unit
Separate the touching pipeline.
Touch of inner plates
1. Tighten connect screw.
2. Stick absorbing clay between plates.
Louver of outdoor unit touched outer case.
Adjust location of louver.
Abnormal sound inside compressor
Change compressor
Abnormal solenoid sound from 4-way valve when heating
Circuit-short inside solenoid of the valve and change the solenoid valve.