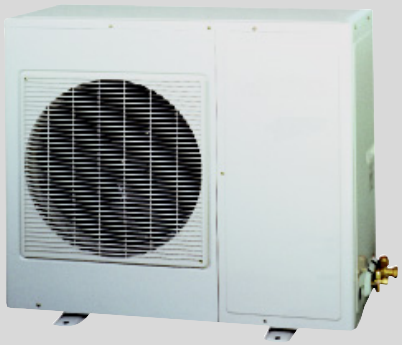
1 Introduction and Features



Model	Remarks
GWHN24C1NK3AB GWHN24C1NK3AA GWCN24C1NK3AA	1PH 220 — 240V~ 50Hz R410A
GWCN24C1NK1AA GWHN24C1NK1AA GWCN28C1TK1AA	1PH 220V — 240~ 50Hz R22
GWCN28C1NK3AA GWHN28C1NK3AA	1PH 230V 50Hz R410A
GWCN24C1ND1AA GWHN24C1ND1AA GWCN28C1TD1AA GWHN28C1TD1AA GWHN28C1ND1AA GWCN28C1ND1AA	1PH 220V 60Hz R22
KFR-80W/A22-C	1PH 220V — 230~ 50Hz R22

Model	Remarks
GWCN24C1ND1BA	1PH 208－230V 60Hz R22
GWHN24C1NK1BA GWCN24C1NK1BA	1PH 220V－240~ 50Hz R22

2 Specifications and Technical Parameters

Model		GWCN24C1ND1BA	GWCN24C1NK1BA	GWCN28C1TK1AA
Function		COOLING	COOLING	COOLING
Rated Voltage		208－230V	220-240V~	220-240V~
Rated Frequency		60Hz	50HZ	50Hz
Total Capacity (W/Btu/h)		6450/22000	6850	8000W/28000Btu/h
Power Input (W)		2000	2200	3200
Rated Input (W)		2810	3030	4300
Rated Current (A)		14.4	10.6	22.99
Air Flow Volume (m^3/h) (H/M/L)		1150/1100/1050	1150	1200/1100/1000
Dehumidifying Volume (l/h)		3	3	3
SEER / C.O.P (Btu/W)		11/-	3.1	2.5
Energy Class		/	/	/
Indoor unit	Model of Indoor Unit	GWCN24C1ND1BA/I	GWCN24C1NK1BA/I	GWCN28C1TK1AA/I
	Fan Motor Speed (r/min) (H/M/L)	1400/1300/1200	1410/1310/1260	1410/1310/1260
	Output of Fan Motor (w)	40	35	45
	Input of Heater (w)	/	/	/
	Fan Motor Capacitor (uF)	3	3	3
	Fan Motor RLA(A)	0.18	0.19	0.4
	Fan Type-Piece	Cross flow fan – 1		
	Diameter-Length (mm)	φ106 X 980	φ106 X 890	φ106 X 890
	Evaporator	Aluminum fin-copper tube		
	Pipe Diameter (mm)	Φ7	Φ7	Φ7
	Row-Fin Gap(mm)	2-1.4	2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381	901.6X25.4X381	901.6X25.4X381
	Swing Motor Model	MP24GA	MP24GA	MP24GA
	Output of Swing Motor (W)	2	2	2
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		
	Sound Pressure Level dB (A) (H/M/L)	49/47/45	50/47/45	50/48/46
	Sound Power Level dB (A) (H/M/L)	59/57/55	60/57/55	60/58/56
	Dimension (W/H/D) (mm)	1178 X326X227	1178 X326X227	1178 X326X227
	Dimension of Package (L/W/H) (mm)	1265X417X328	1265X417X328	1265X417X333
	Net Weight /Gross Weight (kg)	17.5/24	17.5/24	17.5/24

Outdoor unit	Model of Outdoor Unit		GWCN24C1ND1BA/O	GWCN24C1NK1BA/O	GWCN28C1TK1AA/O
	Compressor Manufacturer/trademark		Shanghai Hitachi	HIGHLY	TECUMSEH PRODUCTS INDIA PVT.
	Compressor Model		SHY73MC4-U	SHV33YE6UU	AWR5538EXC
	Compressor Type		ROTARY	ROTATORY	Hermetic motor compressor
	L.R.A. (A)		56	60	92
	Compressor RLA(A)		9.7	10.9	15.2
	Compressor Power Input(W)		2085	2335	3200
	Overload Protector		PUT-IN	Internal Inherent Protector	
	Throttling Method		Capillary	Capillary	Capillary
	Starting Method		Capacitor	Capacitor	Capacitor
	Working Temp Range (℃)		-7≤T≤46	-5≤T≤43	-5℃≤T≤52℃
	Condenser		Aluminum fin-copper tube		
	Pipe Diameter (mm)		Φ9.52	Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		730.5X673X44	730.5X813X44	1017.5X813X44
	Fan Motor Speed (rpm)		815	815	920
	Output of Fan Motor (W)		60	60	92
	Fan Motor RLA(A)		0.27	1	0.9
	Fan Motor Capacitor (uF)		3.5	3.5	3.5
	Air Flow Volume of Outdoor Unit		/	/	/
	Fan Type-Piece		Axial fan –1		
	Fan Diameter (mm)		Φ460	Φ460	Φ482
	Defrosting Method		/	/	/
	Climate Type		T1	T1	T3
	Isolation		I	I	I
	Moisture Protection		IP24	IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge		2.4	2.4	2.5
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		0.6	0.6	0.6
	Sound Pressure Level dB (A) (H/M/L)		58	60	62
	Sound Power Level dB (A) (H/M/L)		68	70	72
	Dimension (W/H/D) (mm)		950X700X412	950X840X412	950X840X412
	Dimension of Package (L/W/H)(mm)		1100X755X450	1100X880X450	1100X880X450
	Net Weight /Gross Weight (kg)		65/77	72/77	90/105
	Refrigerant Charge (kg)		R22 1.9	R22 / 2.2kg	R22/2.9
Connection Pipe	Length (m)		/	/	/
	Gas additional charge(g/m)		/	/	/
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")	Φ16(5/8")	Φ16(5/8")
	Max Distance	Height (m)	15	15	15
		Length (m)	30	30	30

Model		GWCN28C1NK3AA		GWHN28C1NK3AA	
Function		COOLING	HEATING	COOLING	HEATING
Rated Voltage		220-240V~		230V~	
Rated Frequency		50HZ		50HZ	
Total Capacity (W/Btu/h)		8000	/	8000	8800
Power Input (W)		2800	/	2800	2800
Rated Input (W)		4000	/	4000	3600
Rated Current (A)		17.4	/	17.4	15.7
Air Flow Volume (m^3/h) (H/M/L)		1200		1200	
Dehumidifying Volume (l/h)		3		3	
SEER / C.O.P (Btu/W)		2.85/3.15		2.85/3.15	
Energy Class		4		4	
Indoor unit	Model of Indoor Unit	GWCN28C1NK3AA/I		GWHN28C1NK3AA/I	
	Fan Motor Speed (r/min) (H/M/L)	1410/1310/1260		1410/1310/1260	
	Output of Fan Motor (w)	35		35	
	Input of Heater (w)	-		-	
	Fan Motor Capacitor (uF)	3		3	
	Fan Motor RLA(A)	0.19		0.19	
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)	φ106 X 890		φ106 X 890	
	Evaporator	Aluminum fin-copper tube		Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7		Φ7	
	Row-Fin Gap(mm)	2-1.4		2-1.4	
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381		901.6X25.4X381	
	Swing Motor Model	MP24GA		MP24GA	
	Output of Swing Motor (W)	2		2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	49/48/47		49/48/47	
	Sound Power Level dB (A) (H/M/L)	59/57/56		59/57/56	
	Dimension (W/H/D) (mm)	1178 X326X227		1178 X326X227	
	Dimension of Package (L/W/H) (mm)	1265X417X328		1265X417X328	
	Net Weight /Gross Weight (kg)	17.5/24		17.5/24	

Outdoor unit	Model of Outdoor Unit		GWCN28C1NK3AA/O	GWHN28C1NK3AA/O
	Compressor		DAIKIN	DAIKIN
	Compressor Model		JT90G-P8V1N	JT90G-P8V1N
	Compressor Type		Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)		75.5	75.5
	Compressor RLA(A)		13.2	13.2
	Compressor Power Input(W)		2950	2950
	Overload Protector		Internal Inherent Protector	Internal Inherent Protector
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5≤T≤43	-5≤T≤43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		1017.5X813X44	1017.5X813X44
	Fan Motor Speed (rpm)		920	920
	Output of Fan Motor (W)		92	92
	Fan Motor RLA(A)		0.9	0.9
	Fan Motor Capacitor (uF)		3.5	3.5
	Air Flow Volume of Outdoor		/	/
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ482	Φ482
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the		2.5	2.5
	Permissible Excessive		0.6	0.6
	Sound Pressure Level dB (A) (H/M/L)		60	60
	Sound Power Level dB (A) (H/M/L)		70	70
	Dimension (W/H/D) (mm)		950X412X840	950X412X840
	Dimension of Package		1100X450X880	1100X450X880
	Net Weight /Gross Weight (kg)		90/105	90/105
	Refrigerant Charge (kg)		R410A/2.6	R410A/2.6
Connection Pipe	Length (m)		5	5
	Gas additional charge(g/m)		30	30
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")	Φ16(5/8")
	Max Distance	Height (m)	10	10
		Length (m)	15	15

Model		GWHN24C1NK1BA		GWCN24C1ND1AA
Function		COOLING	HEATING	COOLING
Rated Voltage		220-240V~		220V~
Rated Frequency		50HZ		60HZ
Total Capacity (W/Btu/h)		6800	7300	7000
Power Input (W)		2200	2250	2450
Rated Input (W)		2810	2920	3300
Rated Current (A)		10.6	10.7	23.5
Air Flow Volume (m^3/h) (H/M/L)		1200		1100
Dehumidifying Volume (l/h)		3		3
EER / C.O.P (W/W)		2.95/3.2		2.86
Energy Class				
Indoor unit	Model of Indoor Unit	GWHN24C1NK1BA/I		GWCN24C1ND1AA/I
	Fan Motor Speed (r/min) (H/M/L)	1410/1310/1260		1260/1170/1080
	Output of Fan Motor (w)	35		25
	Input of Heater (w)	-		——
	Fan Motor Capacitor (uF)	3.5		3.5
	Fan Motor RLA(A)	0.19		0.4
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1
	Diameter-Length (mm)	ϕ106 X 890		φ106 X 890
	Evaporator	Aluminum fin-copper tube		Aluminum fin-copper tube
	Pipe Diameter (mm)	Φ7		Φ7
	Row-Fin Gap(mm)	1.5		2-1.4
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381		901.6X25.4X381
	Swing Motor Model	MP24GA		MP24GA
	Output of Swing Motor (W)	2		2
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A
	Sound Pressure Level dB (A) (H/M/L)	50/47/45		46/44/41
	Sound Power Level dB (A) (H/M/L)	60/57/55		56/54/51
	Dimension (L/W/H) (mm)	1178 X326X227		1178 X326X227
	Dimension of Package (L/W/H) (mm)	1265X417X328		1265X417X333
	Net Weight /Gross Weight (kg)	17.5/24		17.5/24

Outdoor unit	Model of Outdoor Unit	GWHN24C1NK1BA/O	GWCN24C1ND1AA/O
	Compressor Manufacturer/trademark	HIGHLY	
	Compressor Model	SHV33YE6UU	C-2R170H6S
	Compressor Type	ROTATORY	Hermetic motor compressor
	L.R.A. (A)	60	66
	Compressor RLA(A)	10.9	12.2
	Compressor Power Input(W)	2335	1700
	Overload Protector	Internal Inherent Protector	Internal Inherent Protector
	Throttling Method	Capillary	Capillary
	Starting Method	Capacitor	Capacitor
	Working Temp Range (℃)	-5≤T≤43	-5≤T≤43
	Condenser	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	Φ9.52	Φ9.52
	Rows-Fin Gap(mm)	2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)	730.5X813X44	730.5X813X44
	Fan Motor Speed (rpm)	815	815
	Output of Fan Motor (W)	60	60
	Fan Motor RLA(A)	1	1
	Fan Motor Capacitor (uF)	3.5	3.5
	Air Flow Volume of Outdoor Unit	-	----
	Fan Type-Piece	Axial fan –1	Axial fan –1
	Fan Diameter (mm)	Φ460	Φ460
	Defrosting Method	Auto defrost	Auto defrost
	Climate Type	T1	T1
	Isolation	I	I
	Moisture Protection	IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)	2.4	2.5
	Permissible Excessive Operating	0.6	0.6
	Sound Pressure Level dB (A) (H/M/L)	60	58
	Sound Power Level dB (A) (H/M/L)	70	68
	Dimension (L/W/H) (mm)	1006X420X847	1006X340X847
	Dimension of Package (L/W/H)(mm)	1100X450X905	1100X450X905
	Net Weight /Gross Weight (kg)	72/77	72/77
	Refrigerant Charge (kg)	R22 /2.4	R22 / 2.5kg
Connection Pipe	Length (m)	/	/
	Gas additional charge(g/m)	/	7.5
	Outer Diameter	Liquid Pipe	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")
	Max Distance	Height (m)	15
		Length (m)	30

Model		GWCN28C1TD1AA	GWHN28C1TD1AA	
Function		COOLING	COOLING	HEATING
Rated Voltage		220V~	220V~	
Rated Frequency		60Hz	60Hz	
Total Capacity (W/Btu/h)		8000W/28000Btu/h	8000W/28000Btu/h	8800W/30000Btu/h
Power Input (W)		3400	3400	3300
Rated Input (W)		4050	4050	4050/3800
Rated Current (A)		21.66	21.66	21.66/20.32
Air Flow Volume (m^3/h) (H/M/L)**		1200/1100/1000	1200/1100/1000	
Dehumidifying Volume (l/h)		3	3	
EER / C.O.P (W/W)		2.35	2.35/2.67	
Energy Class		/	/	
Indoor unit	Model of Indoor Unit	GWCN28C1TD1AA/I	GWHN28C1TD1AA/I	
	Fan Motor Speed (r/min) (H/M/L)	1400/1300/1200	1400/1300/1200	
	Output of Fan Motor (w)	35	35	
	Input of Heater (w)	/	/	
	Fan Motor Capacitor (uF)	3	3	
	Fan Motor RLA(A)	0.4	0.4	
	Fan Type-Piece	Cross flow fan – 1	Cross flow fan – 1	
	Diameter-Length (mm)	φ106 X 890	φ106 X 890	
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7	Φ7	
	Row-Fin Gap(mm)	2-1.4	2-1.4	
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381	901.6X25.4X381	
	Swing Motor Model	MP24GA	MP24GA	
	Output of Swing Motor (W)	2	2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A	PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	50/48/46	50/48/46	
	Sound Power Level dB (A) (H/M/L)***	60/58/56	60/58/56	
	Dimension (L/W/H) (mm)	1178 X326X227	1178 X326X227	
	Dimension of Package (L/W/H) (mm)	1265X417X333	1265X417X333	
	Net Weight /Gross Weight (kg)	17.5/24	17.5/24	

Outdoor Unit	Model of Outdoor Unit	GWCN28C1TD1AA/O	GWHN28C1TD1AA/O
	Compressor Manufacturer/trademark	TECUMSEH PRODUCTS INDIA	TECUMSEH PRODUCTS INDIA
	Compressor Model	AWZ5532EXN	AWZ5532EXN
	Compressor Type	Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)	90	90
	Compressor RLA(A)	14.5	14.5
	Compressor Power Input(W)	3200	3200
	Overload Protector	Internal Inherent Protector	Internal Inherent Protector
	Throttling Method	Capillary	Capillary
	Starting Method	Capacitor	Capacitor
	Working Temp Range (℃)	-5℃≤T≤52℃	-5℃≤T≤52℃
	Condenser	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	Φ9.52	Φ9.52
	Rows-Fin Gap(mm)	2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)	1017.5X813X44	1017.5X813X44
	Fan Motor Speed (rpm)	940	940
	Output of Fan Motor (W)	92	92
	Fan Motor RLA(A)	0.9	0.9
	Fan Motor Capacitor (uF)	4	4
	Air Flow Volume of Outdoor Unit	/	/
	Fan Type-Piece	Axial fan –1	Axial fan –1
	Fan Diameter (mm)	Φ460	Φ460
	Defrosting Method	Auto defrost	Auto defrost
	Climate Type	T3	T3
	Isolation	I	I
	Moisture Protection	IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)	2.5	2.5
	Permissible Excessive Operating Pressure for the Suction Side(MPa)	0.6	0.6
	Sound Pressure Level dB (A) (H/M/L)	62	62
	Sound Power Level dB (A) (H/M/L)	72	72
	Dimension (L/W/H) (mm)	950X412X840	950X412X840
	Dimension of Package (L/W/H)(mm)	1100X450X995	1100X450X995
	Net Weight /Gross Weight (kg)	90/105	90/105
	Refrigerant Charge (kg)	R22/2.8	R22/2.8

Connection Pipe	Length (m)		5
	Gas additional charge(g/m)		30
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")
	Max Distance	Height (m)	10
		Length (m)	15
Loading Quantity	20' Container	Interior Dimensions L*W*H：5898*2352*2393, Door Opening W*H：2343*2280	43 SET
	40' Container	Interior Dimensions L*W*H：12032*2350*2390, Door Opening W*H：2343*2280	90 SET
	40' High Cube Container	Interior Dimensions L*W*H：12032*2350*2697, Door Opening W*H：2338*2585	104 SET

Model		GWHN24C1NK3AB		GWHN28C1ND1AA	
Function		COOLING	HEATING	COOLING	HEATING
Rated Voltage		220-240V~		220V~	
Rated Frequency		50HZ		60HZ	
Total Capacity (W/Btu/h)		7000	8000	8800	9500
Power Input (W)		2600	2600	3380	3350
Rated Input (W)		3650	3500	4600	4550
Rated Current (A)		13.8	13.2	21	21
Air Flow Volume (m^3/h) (H/M/L)**		1200		1200	
Dehumidifying Volume (l/h)		3		3	
EER / C.O.P (W/W)		2.69/3.08		2.6/2.84	
Energy Class		4		/	
Indoor unit	Model of Indoor Unit	GWHN24C1NK3AA/I		GWHN28C1ND1AA/I	
	Fan Motor Speed (r/min) (H/M/L)	1410/1310/1260		1410/1310/1260	
	Output of Fan Motor (w)	35		35	
	Input of Heater (w)	-		——	
	Fan Motor Capacitor (uF)	3		3.5	
	Fan Motor RLA(A)	0.19		0.4	
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)	φ106 X 890		φ106 X 890	
	Evaporator	Aluminum fin-copper tube		Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7		Φ7	
	Row-Fin Gap(mm)	2-1.4		2-1.4	
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381		901.6X25.4X381	
	Swing Motor Model	MP24GA		MP24GA	
	Output of Swing Motor (W)	2		2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	49/48/47		49/47/44	
	Sound Power Level dB (A) (H/M/L)***	59/58/57		59/57/54	
	Dimension (L/W/H) (mm)	1178 X326X227		1178 X326X227	
	Dimension of Package (L/W/H) (mm)	1265X417X328		1265X417X333	
	Net Weight /Gross Weight (kg)	17.5/24		17.5/24	

Outdoor Unit	Model of Outdoor Unit		GWHN24C1NK3AB/O	GWHN28C1ND1AA/O
	Compressor Manufacturer/trademark		SANYO	/
	Compressor Model		C-3RV322H1AAF	SQ034KBA
	Compressor Type		Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)		74	76
	Compressor RLA(A)		13.2	14
	Compressor Power Input(W)		2686	3170
	Overload Protector		Internal Inherent Protector	Internal Inherent Protector
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5≤T≤43	-5≤T≤43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		730.5X813X44	1017.5X813X44
	Fan Motor Speed (rpm)		815	920
	Output of Fan Motor (W)		60	92
	Fan Motor RLA(A)		1	2.26
	Fan Motor Capacitor (uF)		3.5	1.5
	Air Flow Volume of Outdoor Unit		-	----
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ460	Φ482
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		3.8	3.8
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1.2	1.2
	Sound Pressure Level dB (A) (H/M/L)		58	60
	Sound Power Level dB (A) (H/M/L)		68	70
	Dimension (L/W/H) (mm)		1006X412X840	950x412x840
	Dimension of Package (L/W/H)(mm)		1100X450X905	1100X450X995
	Net Weight /Gross Weight (kg)		72/77	90/100
	Refrigerant Charge (kg)		R410a / 2.45kg	R22X3.0kg
Connection Pipe	Length (m)			5 / 7.5
	Gas additional charge(g/m)			40 / /
	Outer Diameter	Liquid Pipe (mm)		Φ9.52(3/8") / Φ9.52(3/8")
		Gas Pipe (mm)		Φ16(5/8") / Φ16(5/8")
	Max Distance	Height (m)		15 / 10
		Length (m)		30 / 20

Model			GWHN24C1ND1AA		GWCN24C1NK1AA	
Function			COOLING	HEATING	COOLING	HEATING
Rated Voltage			220V~		220V~	
Rated Frequency			60HZ		60HZ	
Total Capacity		(W)	7000	7600	7100	/
Power Input		(W)	2450	2400	2700	/
Rated Input		(W)	3500	2750	4000	/
Rated Current		(A)	20	15	23.5	/
Air Flow Volume		(m^3/h)	1100		1100	
Dehumidifying Volume		(L/h)	3		3	
C.O.P / EER		(W/W)	2.86/3.17		2.63	
Indoor unit	Model of Indoor Unit		GWHN24C1ND1AA/I		GWCN24C1NK1AA/I	
	Fan Motor Speed (r/min) (H/M/L)		1260/1170/1080		1260/1170/1080	
	Output of Fan Motor (w)		26		26	
	Input of Heater (w)		——		——	
	Fan Motor Capacitor (uF)		3.5		3	
	Fan Motor RLA(A)		0.4		0.4	
	Fan Type-Piece		Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)		φ106 X 890		φ106 X 890	
	Evaporator		Aluminum fin-copper tube		Aluminum fin-copper tube	
	Pipe Diameter (mm)		Φ7		Φ7	
	Row-Fin Gap(mm)		2-1.4		2-1.4	
	Coil length (l) x height (H) x coil width (L)		901.6X25.4X381		901.6X25.4X381	
	Swing Motor Model		MP24GA		MP24GA	
	Output of Swing Motor (W)		2		2	
	Fuse (A)		PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)		46/44/41		46/44/41	
	Sound Power Level dB (A) (H/M/L)***		56/54/51		56/54/51	
	Dimension (W/D/H)(mm)		1178 X326X227		1178 X326X227	
	Dimension of Package (W/D/H)(mm)		1265X417X333		1265X417X333	
	Net Weight /Gross Weight (kg)		17.5/24		17.5/24	

Outdoor unit	Model of Outdoor Unit		GWHN24C1ND1AA/O	GWCN24C1NK1AA/O
	Compressor Model		C-2R170H6S	LH48VBAC
	Compressor Type		Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)		66	63
	Compressor RLA(A)		12.2	12.3
	Compressor Power Input(W)		1700	2660
	Overload Protector		Internal Inherent Protector	Internal Inherent Protector
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-7≤T≤46.1	-5≤T≤46.1
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		730.5X813X44	730.5X813X44
	Fan Motor Speed (rpm) (H/M/L)**		815	815
	Output of Fan Motor (W)		60	60
	Fan Motor RLA(A)		1	1
	Fan Motor Capacitor (uF)		3.5	3.5
	Air Flow Volume of Outdoor Unit		----	----
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ460	Φ460
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		2.5	2.5
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		0.6	0.6
	Sound Pressure Level dB (A) (H/M/L)		58	58
	Sound Power Level dB (A) (H/M/L)		68	68
	Dimension (W/D/H)(mm)		1006X412X847	1006X412X847
	Dimension of Package (W/D/H)(mm)		1100X450X905	1100X450X905
	Net Weight /Gross Weight (kg)		72/77	72/77
	Refrigerant Charge (kg)		R22 / 2.4kg	R22 / 2.55kg
Connection Pipe	Length (m)		7.5	5
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8”)	Φ9.52(3/8”)
		Gas Pipe (mm)	Φ16(5/8”)	Φ16(5/8”)
	Max Distance	Height (m)	15	15
		Length (m)	30	30

Model		GWCN28C1ND1AA		GWHN24C1NK3AA	
Function		COOLING	HEATING	COOLING	HEATING
Rated Voltage		220V~		220-240V~	
Rated Frequency		60HZ		50HZ	
Total Capacity (W)		8800(30000btu)		7000	8000
Power Input (W) (High/Normal)		3380		2600	2400
Rated Input (W) (High/Normal)		4600		3400	3100
Rated Current (A) (High/Normal)		21		14.8	13.5
Air Flow Volume (m^3/h) (H/M/L)		1200		1200	
Dehumidifying Volume (l/h)		3		3	
C.O.P / EER (W/W) (High/Normal*)		2.6		2.69/3.33	
Indoor unit	Model of Indoor Unit	GWCN28C1ND1AA/I		GWHN24C1NK3AA/I	
	Fan Motor Speed (r/min) (H/M/L)	1400/1300/1200		1410/1310/1260	
	Output of Fan Motor (w)	35		35	
	Input of Heater (w)	——		-	
	Fan Motor Capacitor (uF)	3.5		3	
	Fan Motor RLA(A)	0.4		0.19	
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)	φ106 X 890		φ106 X 890	
	Evaporator	Aluminum fin-copper tube		Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7		Φ7	
	Row-Fin Gap(mm)	2-1.3		2-1.4	
	Coil length (l) x height (H) x coil width (L)	901x25.4x381		901.6X25.4X381	
	Swing Motor Model	MP24GA		MP24GA	
	Output of Swing Motor (W)	2		2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	45		49/48/47	
	Sound Power Level dB (A) (H/M/L)	55		59/57/56	
	Dimension (W/D/H)(mm)	1178 X326X227		1178 X326X227	
	Dimension of Package (W/D/H)(mm)	1265X417X333		1265X417X328	
	Net Weight /Gross Weight (kg)	17.5/24		17.5/24	

Outdoor unit	Model of Outdoor Unit		GWCN28C1ND1AA/O	GWHN24C1NK3AA/O
	Compressor Model		SQ034KBA	C-3RV322H1AAF
	Compressor Type		Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)		76	74
	Compressor RLA(A)		14	13.2
	Compressor Power Input(W)		3170	2686
	Overload Protector		Internal Inherent Protector	Internal Inherent Protector
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		18≤T≤46	-5≤T≤43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		1017.5X813X44	730.5X813X44
	Fan Motor Speed (rpm) (H/M/L)		920	815
	Output of Fan Motor (W)		92	60
	Fan Motor RLA(A)		2.26	1
	Fan Motor Capacitor (uF)		1.5	3.5
	Air Flow Volume of Outdoor Unit		----	-
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ482	Φ460
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		2.5	3.8
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		0.6	1.2
	Sound Pressure Level dB (A) (H/M/L)		60	58
	Sound Power Level dB (A) (H/M/L)		70	68
	Dimension (W/D/H)(mm)		950x412x840	1006X412X840
	Dimension of Package (W/D/H)(mm)		1100X450X995	1100X450X905
	Net Weight /Gross Weight (kg)		90/100	72/77
	Refrigerant Charge (kg)		R22X3.0kg	R410a / 2.45kg
Connection Pipe	Length (m)		7.5	5
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")	Φ16(5/8")
	Max Distance	Height (m)	10	15
		Length (m)	20	30

Model		GWCN24C1NK3AA		GWHN24C1NK1AA	
Function		COOLING	HEATING	COOLING	HEATING
Rated Voltage		220-240V~		220-230V~	
Rated Frequency		50HZ		50HZ	
Total Capacity (W)		7000	-	7100	8000
Power Input (W) (High/Normal)		2600	-	2700	2700
Rated Input (W) (High/Normal)		3400	-	4000	3000
Rated Current (A) (High/Normal)		14.8	-	23.5	16
Air Flow Volume (m^3/h) (H/M/L)		1200		1100	
Dehumidifying Volume (l/h)		3		3	
C.O.P / EER (W/W) (High/Normal*)		2.69/3.33		2.63/2.96	
Indoor unit	Model of Indoor Unit	GWCN24C1NK3AA/I		GWHN24C1NK1AA/I	
	Fan Motor Speed (r/min) (H/M/L)	1410/1310/1260		1260/1170/1080	
	Output of Fan Motor (w)	35		26	
	Input of Heater (w)	-		——	
	Fan Motor Capacitor (uF)	3		3	
	Fan Motor RLA(A)	0.19		0.4	
	Fan Type-Piece	Cross flow fan – 1		Cross flow fan – 1	
	Diameter-Length (mm)	ϕ106 X 890		ϕ106 X 890	
	Evaporator	Aluminum fin-copper tube		Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7		Φ7	
	Row-Fin Gap(mm)	2-1.4		2-1.4	
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381		901.6X25.4X381	
	Swing Motor Model	MP24GA		MP24GA	
	Output of Swing Motor (W)	2		2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A		PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	49/48/47		46/44/41	
	Sound Power Level dB (A) (H/M/L)	59/57/56		56/54/51	
	Dimension (W/D/H)(mm)	1178 X326X227		1178 X326X227	
	Dimension of Package (W/D/H)(mm)	1265X417X~~333~~328②		1265X417X333	
	Net Weight /Gross Weight (kg)	17.5/24		17.5/24	

Outdoor unit	Model of Outdoor Unit		GWCN24C1NK3AA/O	GWHN24C1NK1AA/O
	Compressor Model		C-3RV322H1AAF	LH48VBAC
	Compressor Type		Hermetic motor compressor	Hermetic motor compressor
	L.R.A. (A)		74	63
	Compressor RLA(A)		13.2	12.3
	Compressor Power Input(W)		2686	2660
	Overload Protector		Internal Inherent Protector	Internal Inherent Protector
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5≤T≤43	-5≤T≤43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		Φ9.52	Φ9.52
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		730.5X813X44	730.5X813X44
	Fan Motor Speed (rpm) (H/M/L)		815	815
	Output of Fan Motor (W)		60	60
	Fan Motor RLA(A)		1	1
	Fan Motor Capacitor (uF)		3.5	3.5
	Air Flow Volume of Outdoor Unit		-	----
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		Φ460	Φ460
	Defrosting Method		Auto defrost	Auto defrost
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IP24	IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		3.8	2.5
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1.2	0.6
	Sound Pressure Level dB (A) (H/M/L)		58	58
	Sound Power Level dB (A) (H/M/L)		68	68
	Dimension (W/D/H)(mm)		~~1006X420X847~~ 1006x412X840②	1006X340X847
	Dimension of Package (W/D/H)(mm)		1100X450X905	1100X450X905
	Net Weight /Gross Weight (kg)		72/77	72/77
	Refrigerant Charge (kg)		R410a / 2.45kg	R22 / 2.55kg
Connection Pipe	Length (m)		5	5
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")
		Gas Pipe (mm)	Φ16(5/8")	Φ16(5/8")
	Max Distance	Height (m)	15	15
		Length (m)	30	30

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

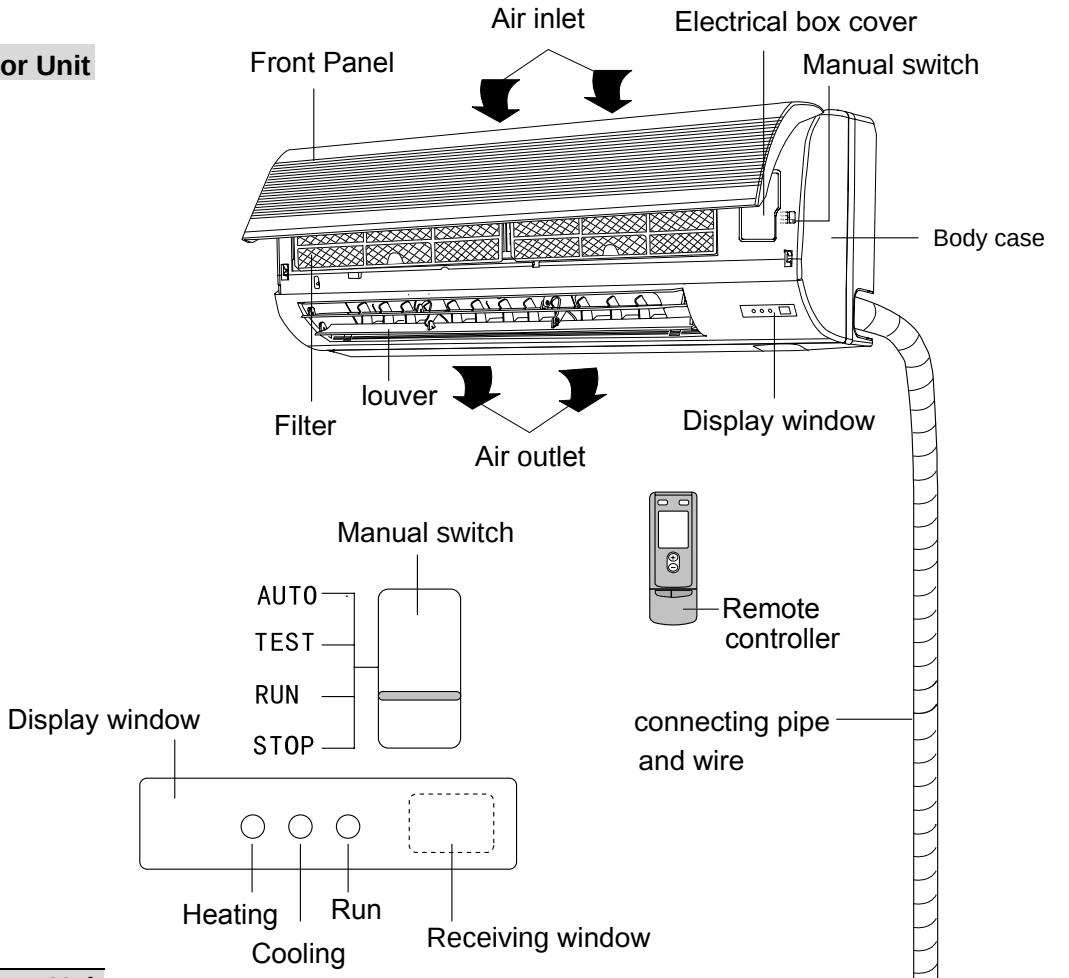
Model		KFR-80GW/A22-C	
Function		COOLING	HEATING
Rated Voltage		220-230V~	
Rated Frequency		50HZ	
Total Capacity (W)		8000	8800
Power Input (W) (High/Normal)		2800	2750
Rated Input (W) (High/Normal)		4010	3600
Rated Current (A) (High/Normal)		20.5	19.5
Air Flow Volume (m^3/h) (H/M/L)		1250	
Dehumidifying Volume (l/h)		3	
C.O.P / EER (W/W) (High/Normal*)		2.86	
Indoor unit	Model of Indoor Unit	KFR-80G/A22-C	
	Fan Motor Speed (r/min) (H/M/L)	1410/1310/1260	
	Output of Fan Motor (w)	35	
	Input of Heater (w)	——	
	Fan Motor Capacitor (uF)	3.5	
	Fan Motor RLA(A)	0.4	
	Fan Type-Piece	Cross flow fan – 1	
	Diameter-Length (mm)	ϕ 106 X 890	
	Evaporator	Aluminum fin-copper tube	
	Pipe Diameter (mm)	Φ7	
	Row-Fin Gap(mm)	2-1.4	
	Coil length (l) x height (H) x coil width (L)	901.6X25.4X381	
	Swing Motor Model	MP24GA	
	Output of Swing Motor (W)	2	
	Fuse (A)	PCB 3.15A Transformer 0.4/0.1A	
	Sound Pressure Level dB (A) (H/M/L)	49/47/44	
	Sound Power Level dB (A) (H/M/L)	59/57/54	
	Dimension (W/D/H)(mm)	1178 X326X227	
	Dimension of Package (W/D/H)(mm)	1265X417X333	
	Net Weight /Gross Weight (kg)	17.5/24	

Outdoor unit	Model of Outdoor Unit		KFR-80W/A22-C
	Compressor Model		ZR36KH-PFJ-522
	Compressor Type		Hermetic motor compressor
	L.R.A. (A)		100
	Compressor RLA(A)		17.1
	Compressor Power Input(W)		2730
	Overload Protector		Internal Inherent Protector
	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)		2-1.4
	Coil length (l) x height (H) x coil width (L)		1017.5X813X44
	Fan Motor Speed (rpm) (H/M/L)		920
	Output of Fan Motor (W)		92
	Fan Motor RLA(A)		2.26
	Fan Motor Capacitor (uF)		3.5
	Air Flow Volume of Outdoor Unit		----
	Fan Type-Piece		Axial fan –1
	Fan Diameter (mm)		Φ482
	Defrosting Method		Auto defrost
	Climate Type		T1
	Isolation		I
	Moisture Protection		IP24
	Permissible Excessive Operating Pressure for the Discharge Side(MPa)		2.5
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		0.6
	Sound Pressure Level dB (A) (H/M/L)		60
	Sound Power Level dB (A) (H/M/L)		70
	Dimension (W/D/H)(mm)		950X412X840
	Dimension of Package (W/D/H)(mm)		1100X450X995
	Net Weight /Gross Weight (kg)		90/100
	Refrigerant Charge (kg)		R22 / 2.75kg
Connection Pipe	Length (m)		5
	Outer Diameter	Liquid Pipe (mm)	Φ9.52(3/8”)
		Gas Pipe (mm)	Φ16(5/8”)
	Max Distance	Height (m)	15
		Length (m)	30

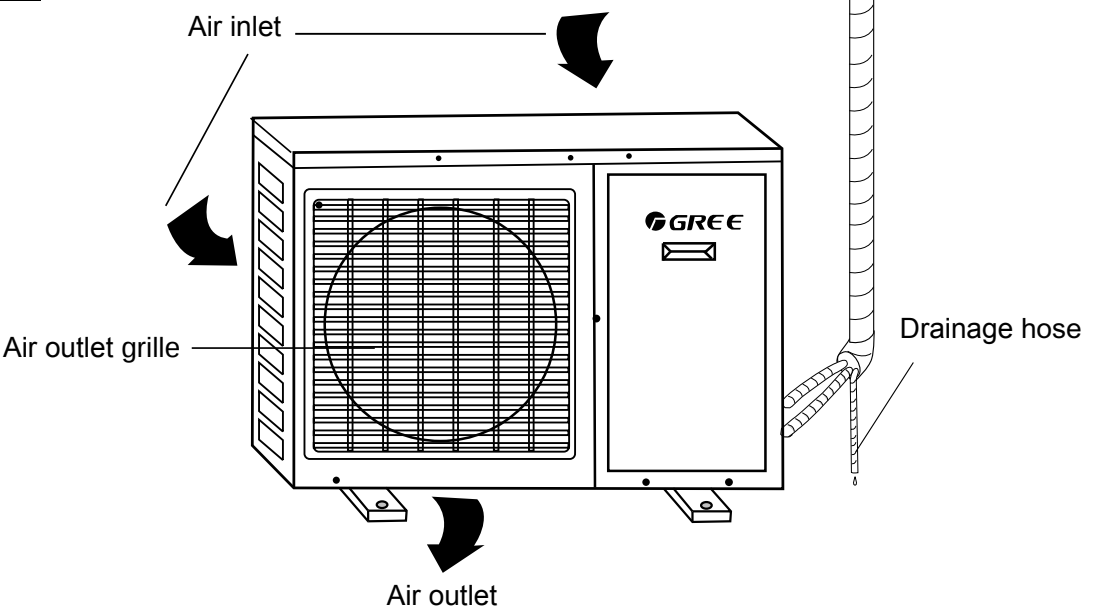
The above data are subject to change without notice. Please refer to the nameplate of the unit.

3 Component Name

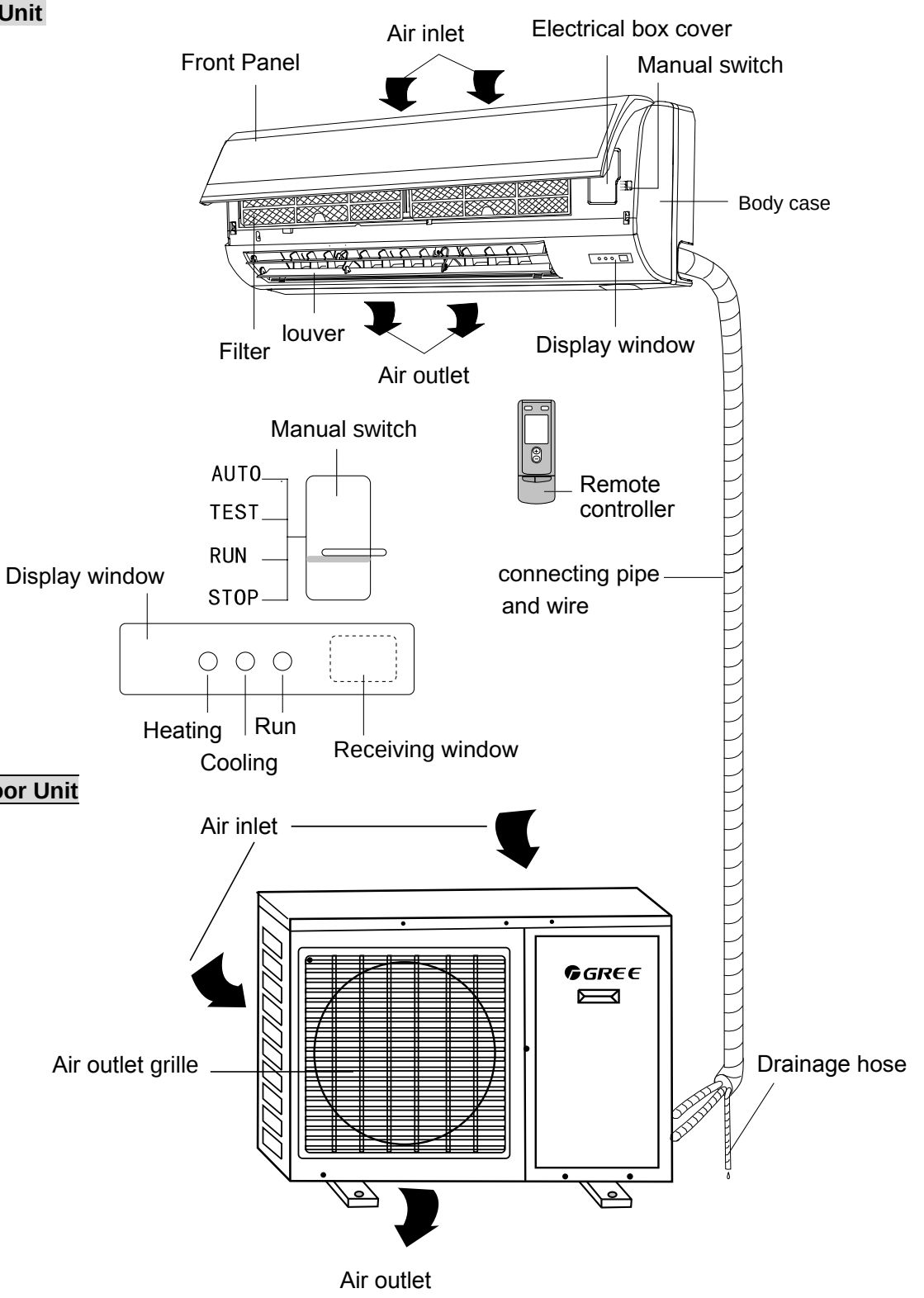
Indoor Unit



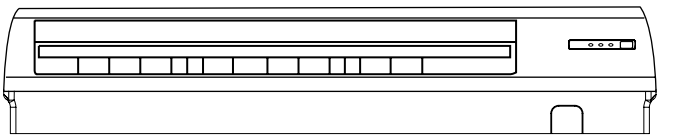
Outdoor Unit

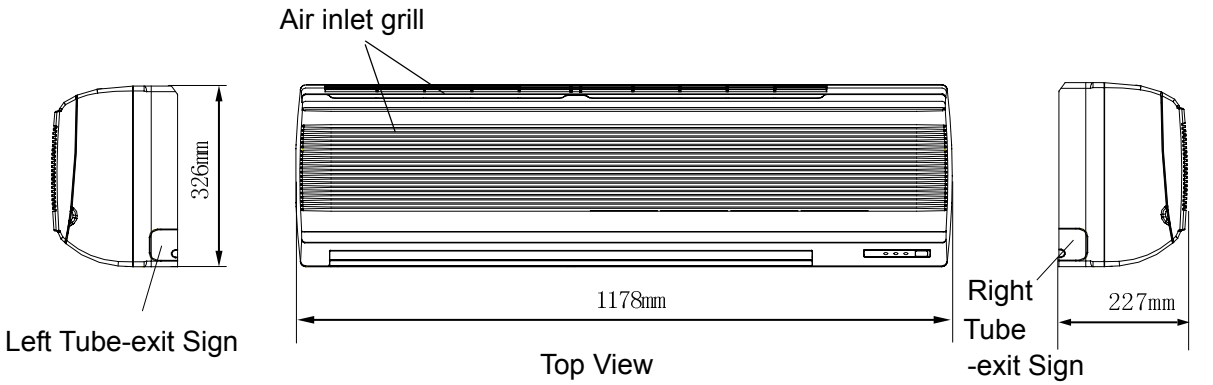


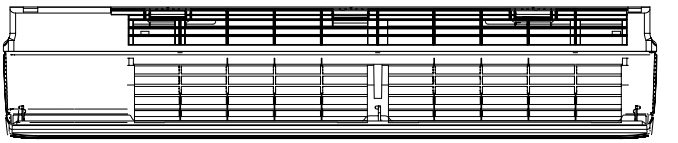
Indoor Unit


Air inlet
Electrical box cover
Front Panel
Manual switch
Body case
Filter
louver
Air outlet
Display window
Manual switch
AUTO
TEST
RUN
STOP
Remote controller
Display window
connecting pipe and wire
Heating
Cooling
Run
Receiving window
Outdoor Unit
Air inlet
GREE
Air outlet grille
Drainage hose
Air outlet

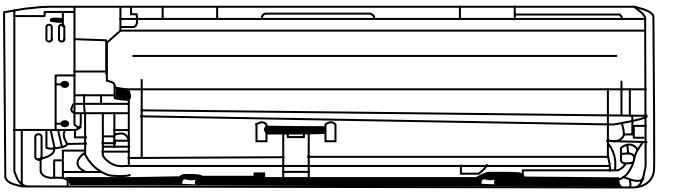
4 Overall and Installing Dimension



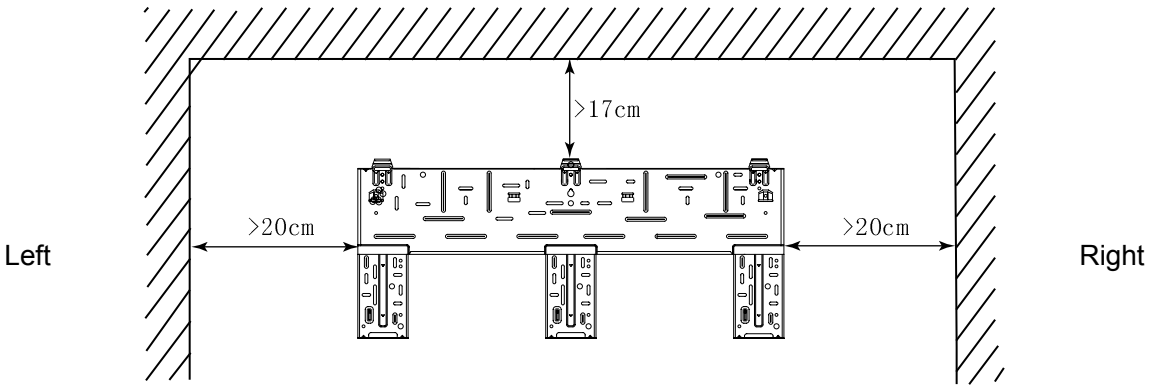


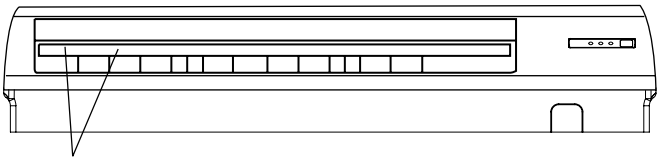


Rear View

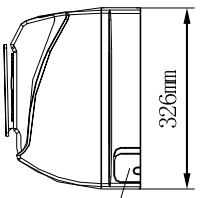


Ceiling

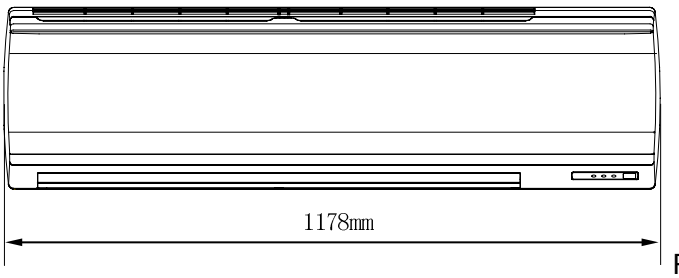




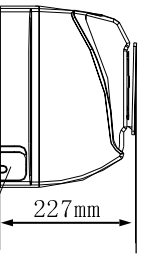
Air inlet grill



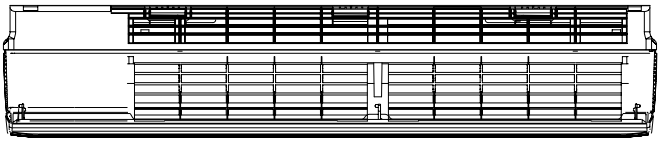
Left Tube-exit Sign



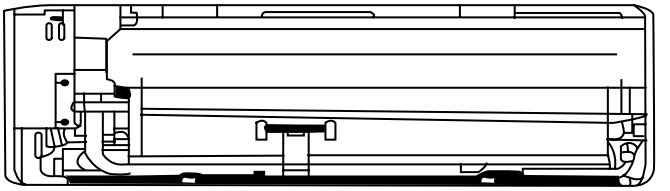
Top View



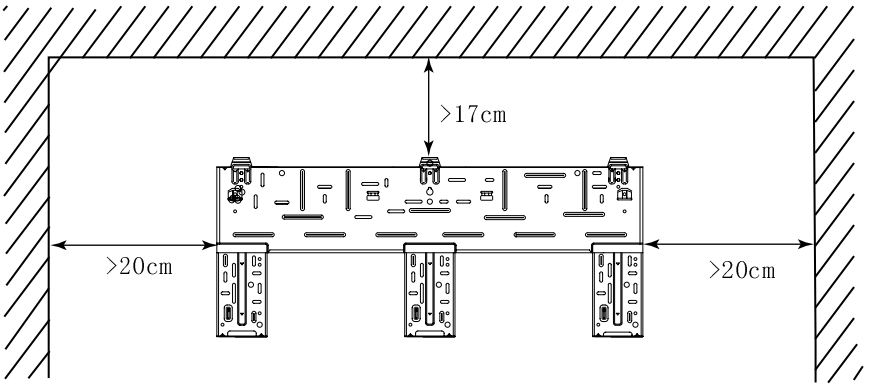
Right Tube -exit Sign



Rear View

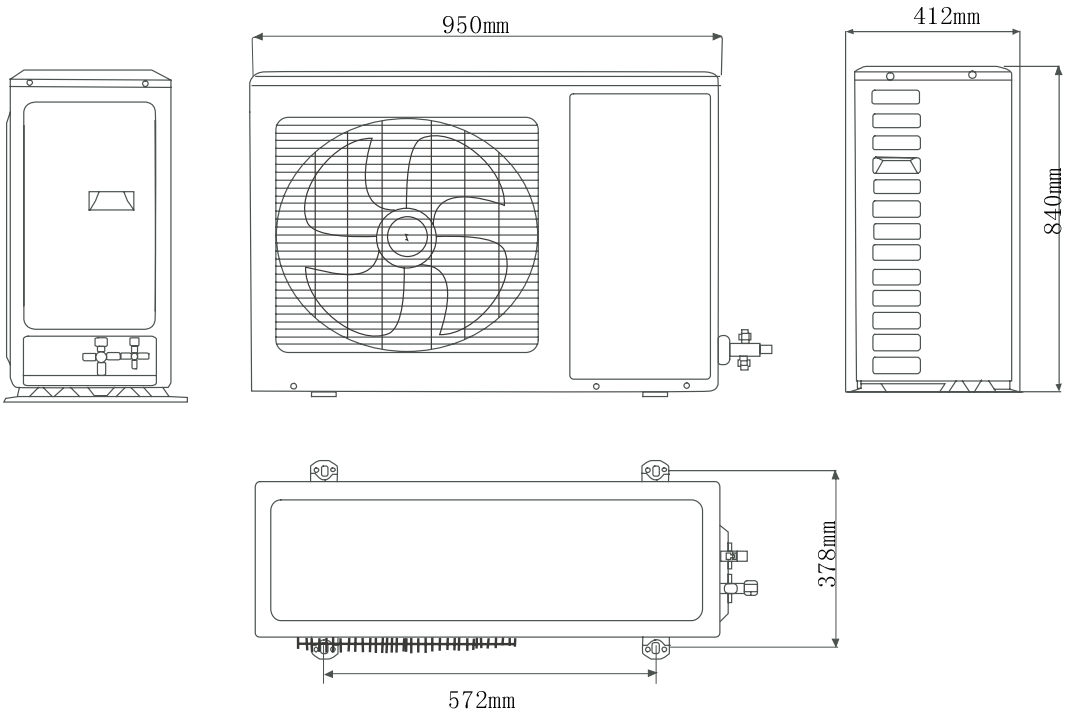


Ceiling

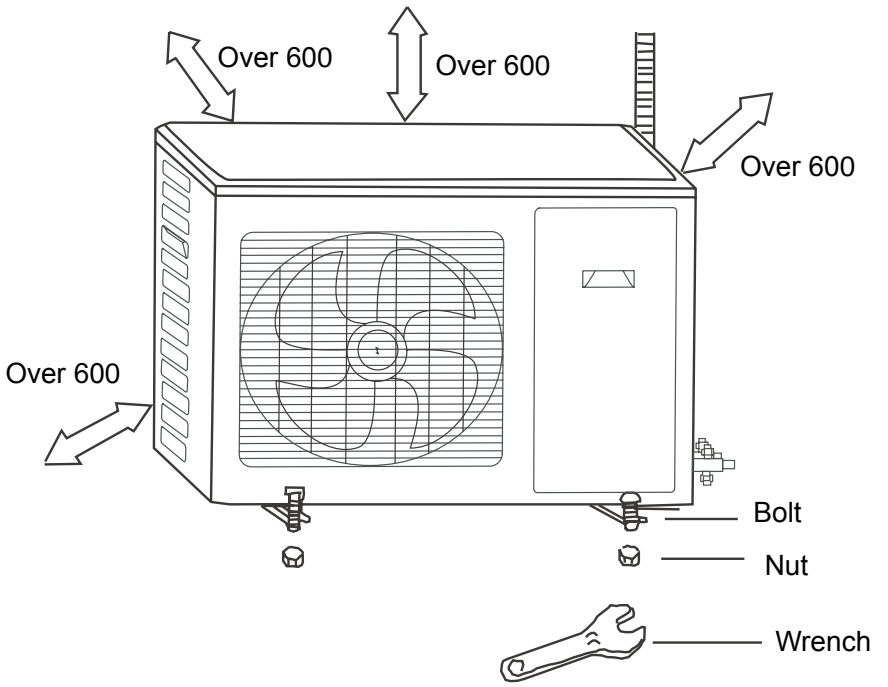


Left

Right

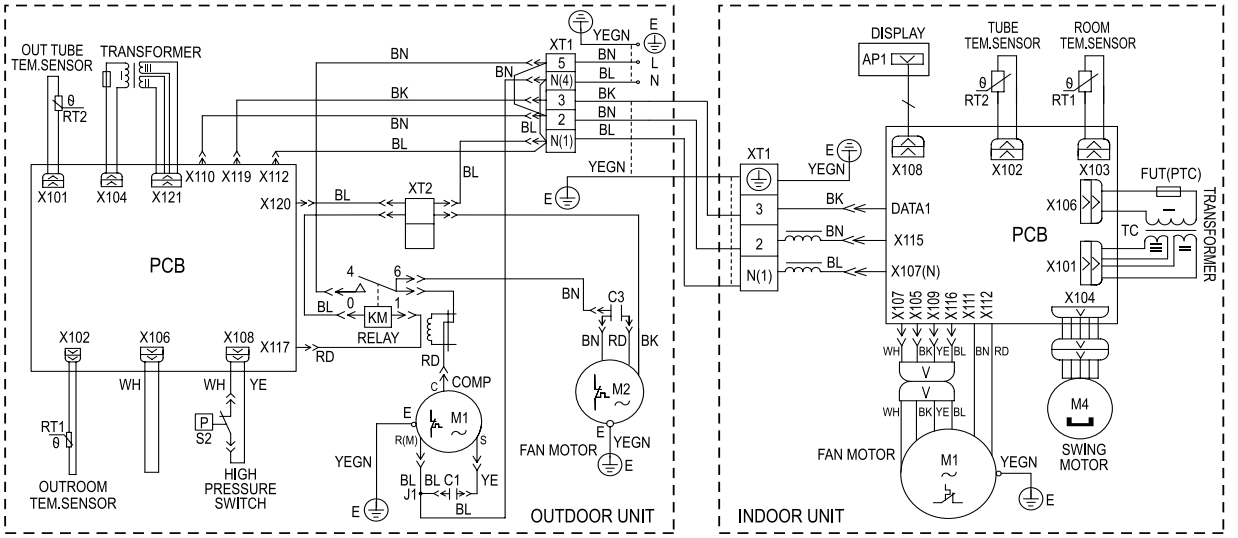

950mm
412mm
840mm
378mm
572mm

UNIT:mm


Over 600
Over 600
Over 600
Over 600
Bolt
Nut
Wrench

5 Electrical Diagram

GWCN24C1ND1BA GWCN24C1NK1BA GWCN24C1ND1AA GWCN24C1NK1AA GWCN24C1NK3AA



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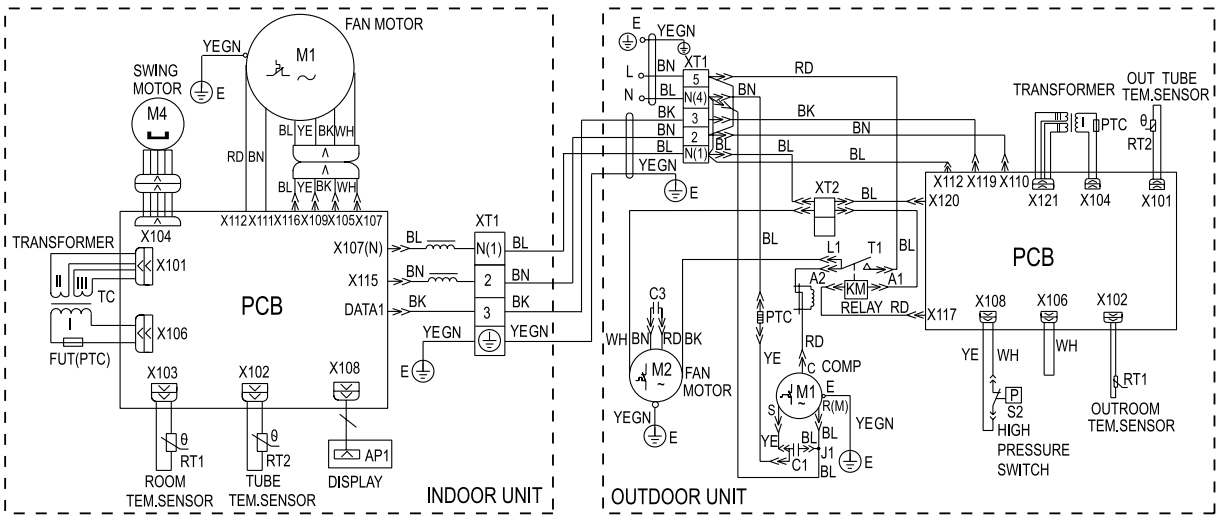

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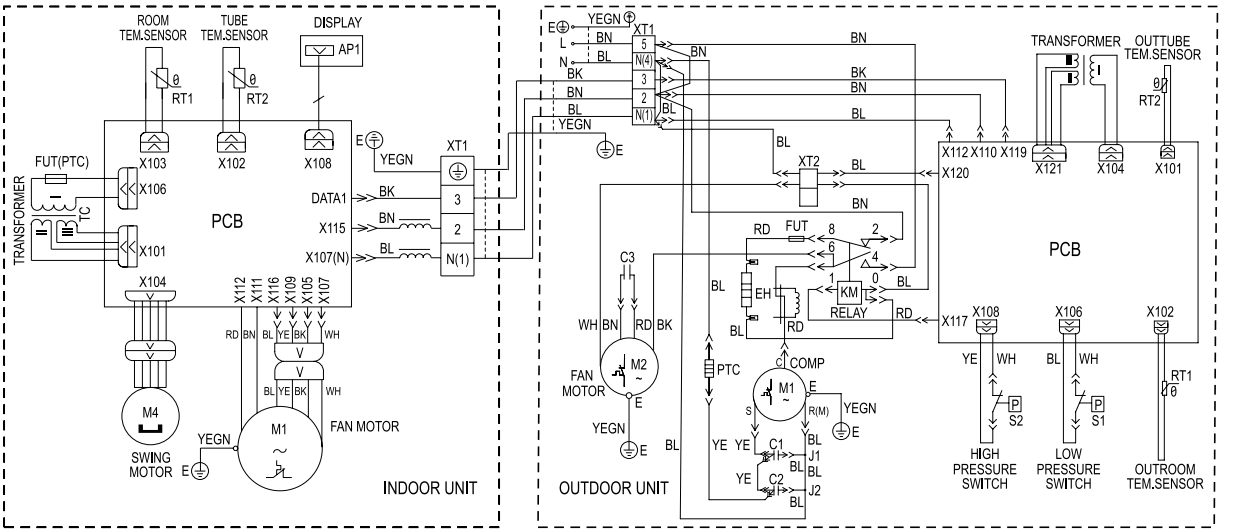

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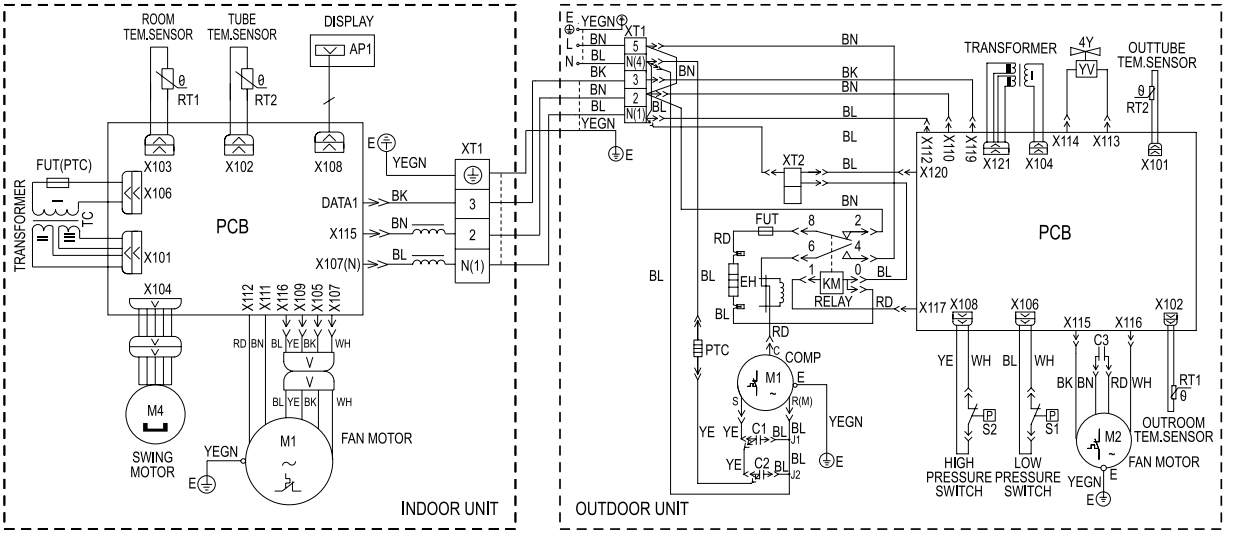

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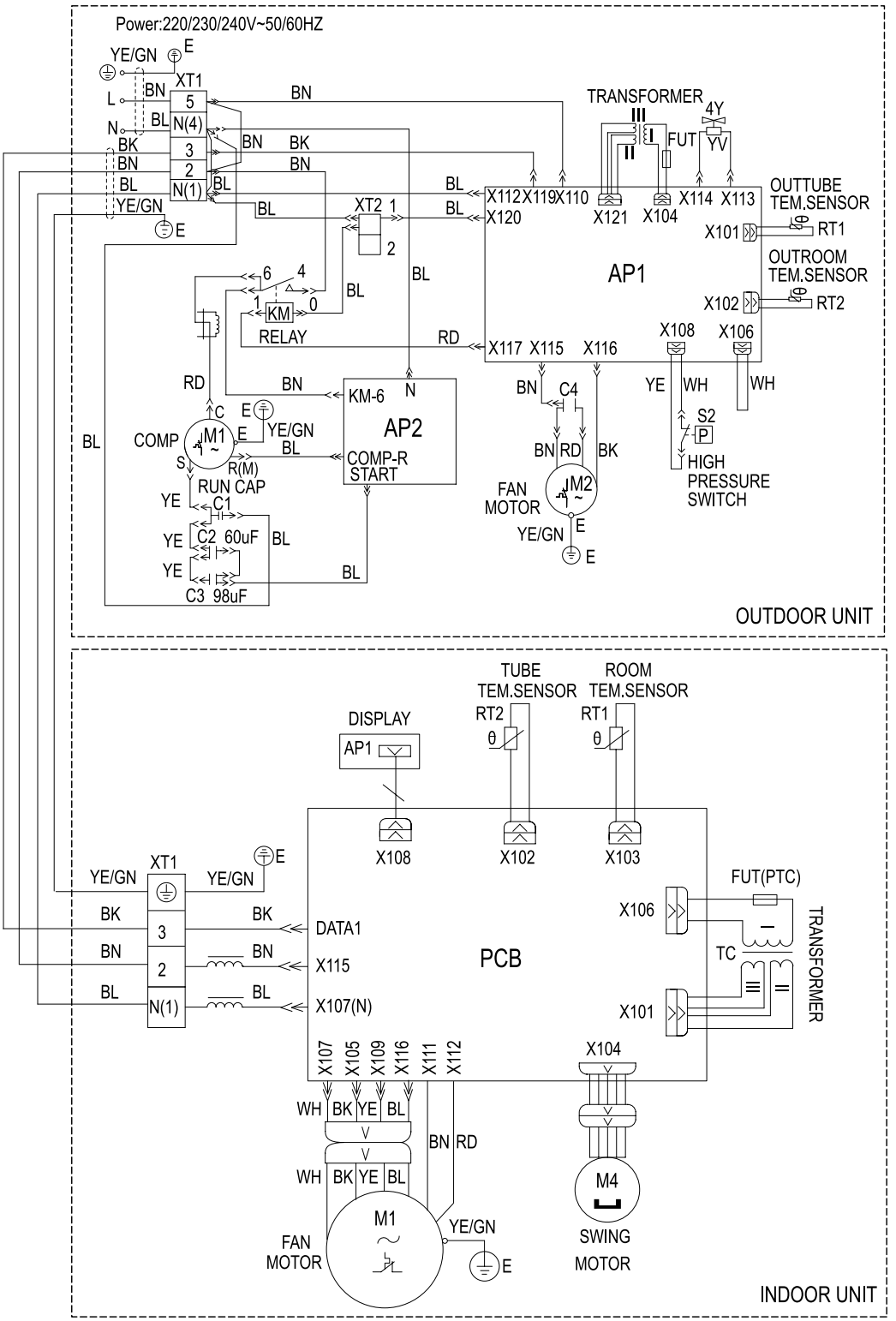

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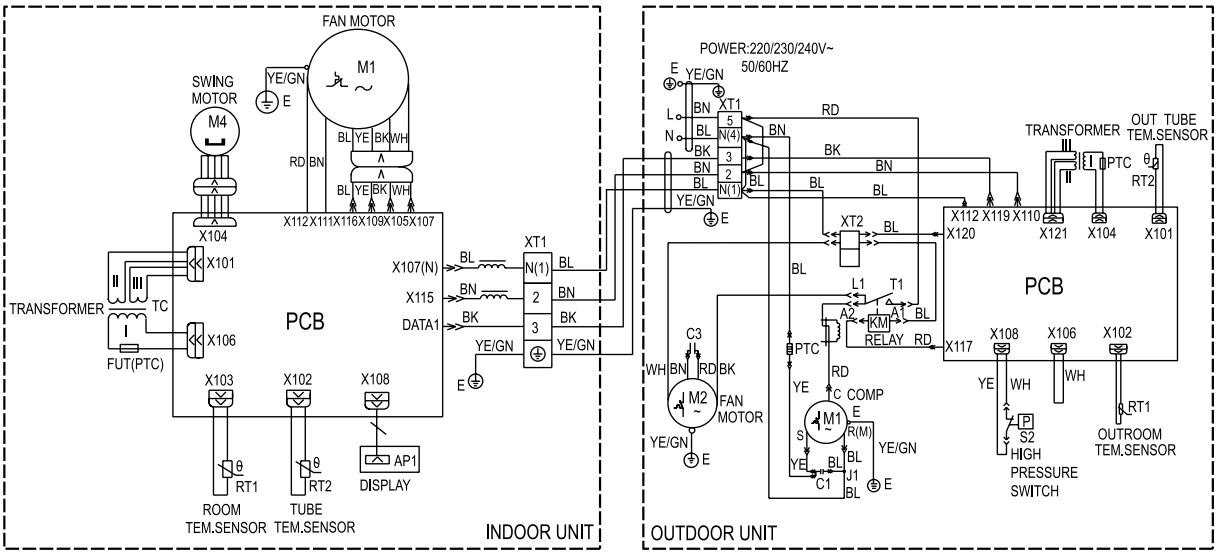
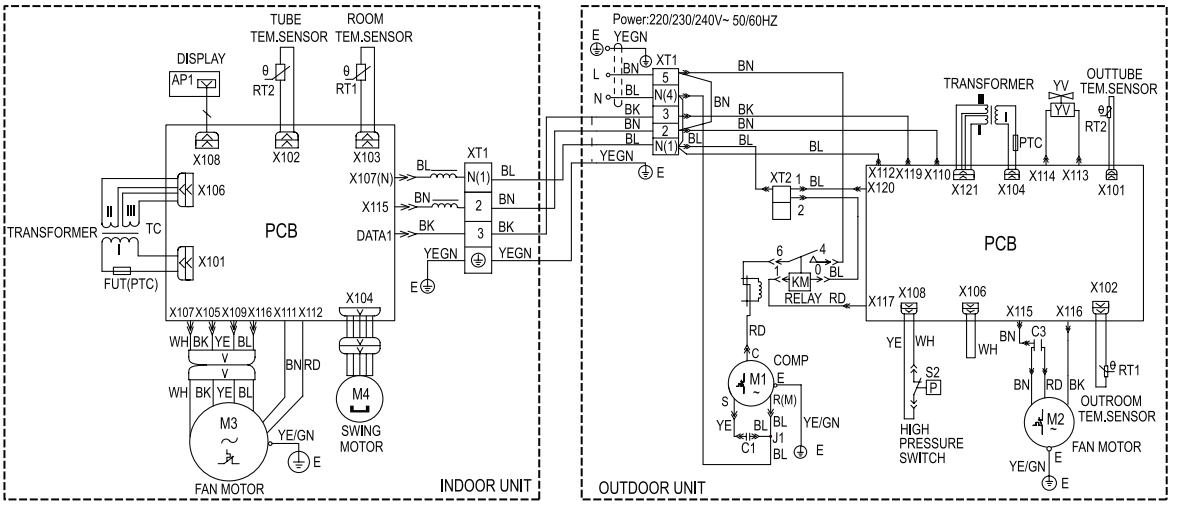


GWHN28C1TD1AA GWHN24C1NK3AA



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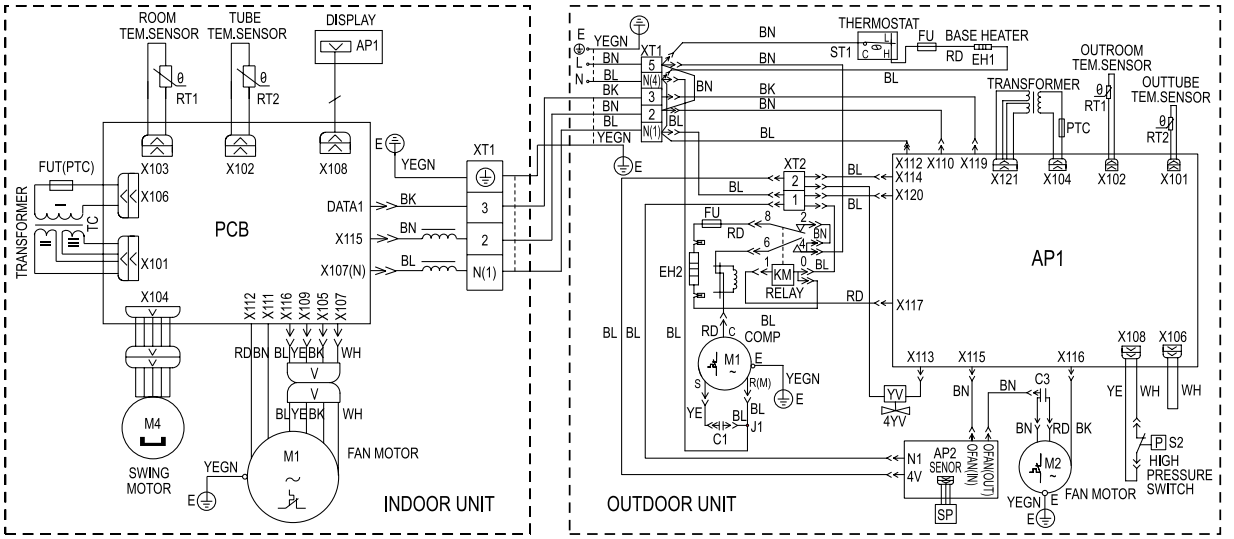

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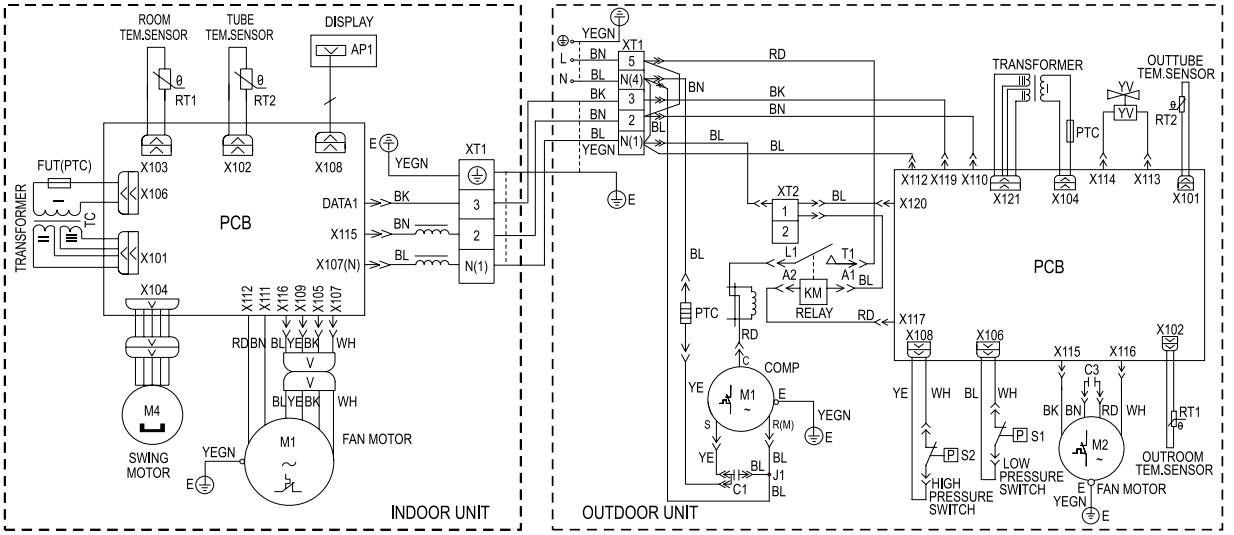

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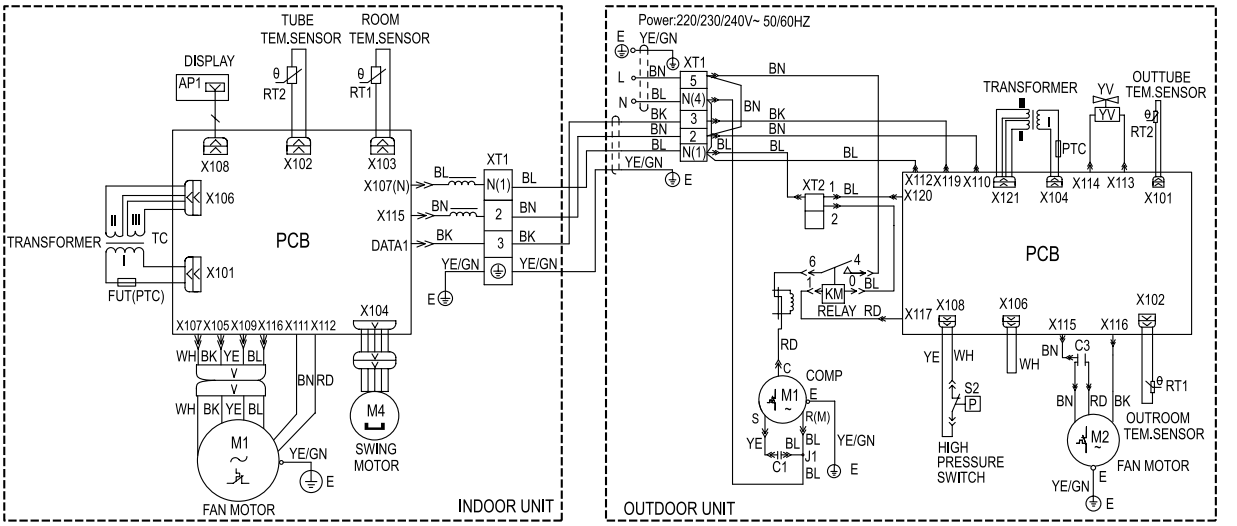

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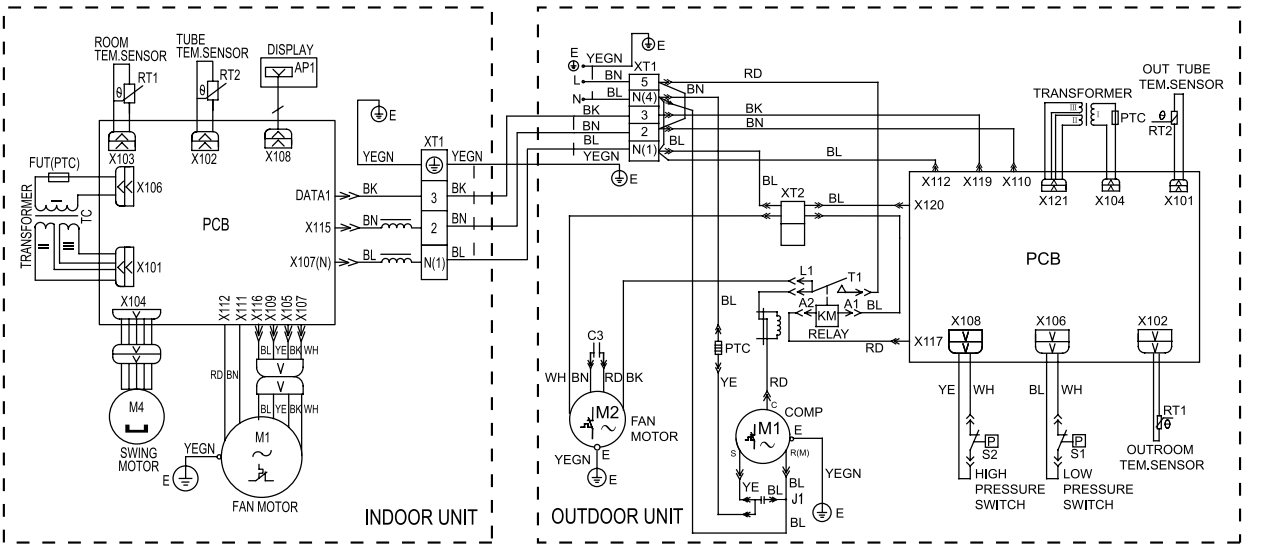
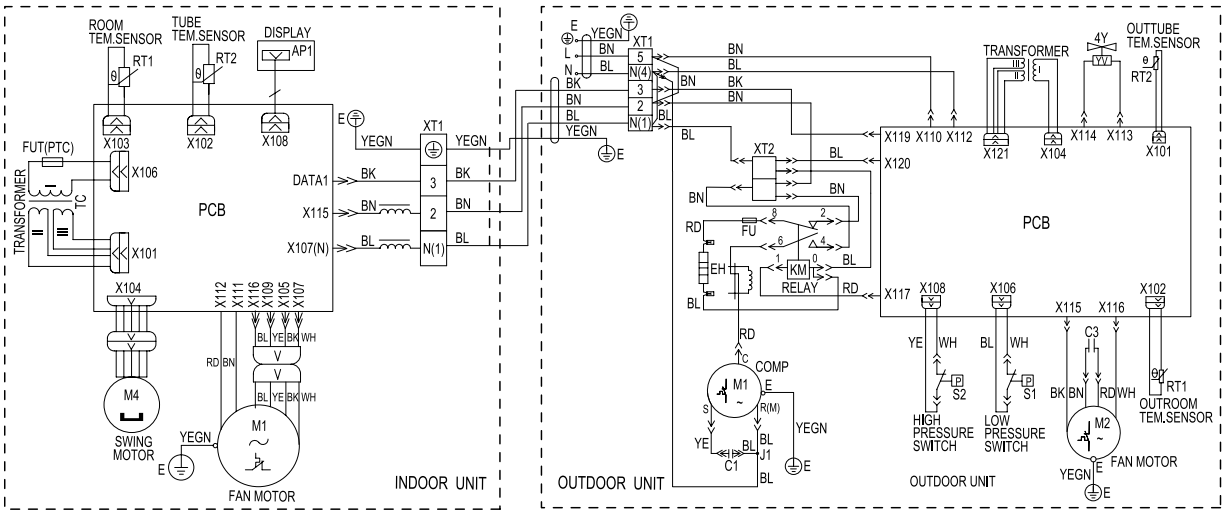


In case of any change in the Electrical Diagram shown above, please follow the drawing on cabinet.

KFR-80GW/A22-C



6 Controller Function Manual and Operating Instructions

6.1 Remote Controller Function Manual

GWCN24C1NK1AA

6.1.1 Temperature Parameters

- Indoor preset temperature (T_{preset})
- Indoor ambient temperature ($T_{amb.}$)

6.1.2 Basic Functions

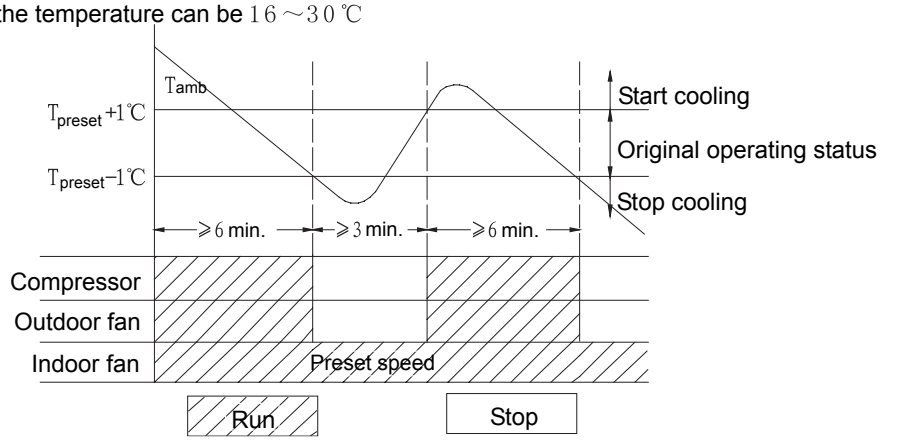
Under each mode, once the compressor start up, it will not be stopped within 6 minutes and will be restart after 3mins later.

6.1.2.1 Cooling Mode

6.1.2.1.1 Cooling Conditions and Process

When Tamb ≥Tpreset +1℃, the unit will run under cooling mode, in which case the compressor and outdoor fan will start and the indoor fan will run at preset speed.
When Tamb≤Tpreset −1℃, the unit will be stopped, in which the compressor and outdoor fan will be stopped, the indoor fan will be run at setting fan speed.
When Tpreset − 1℃<Tamb<Tpreset+1℃ , the unit will keep the original running state.

➢ Under this mode, and the temperature can be 16～30℃

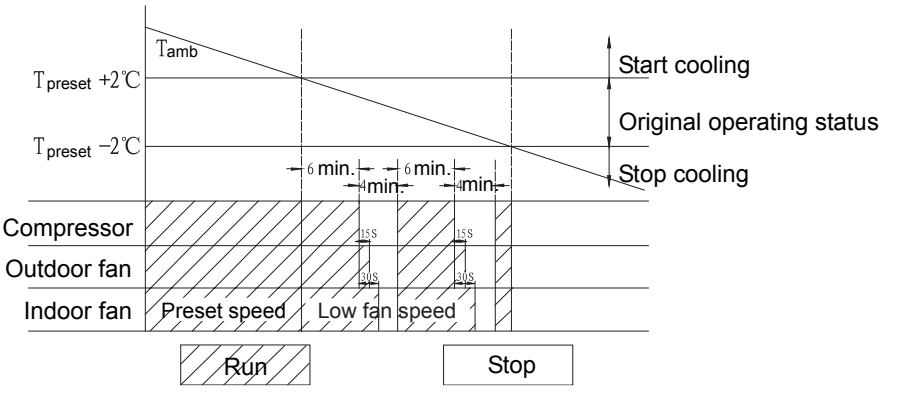


6.1.2.2 Dehumidifying mode

6.1.2.2.1 Dehumidifying conditions and process

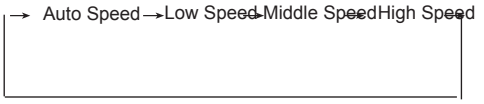
When Tamb. > Tpreset +2℃, the unit will run under dehumidify cooling mode, in which case the compressor and outdoor fan will be started and the indoor fan will run at preset speed;
When Tpreset− 2℃≤Tamb.≤Tpreset+ 2℃, the unit will run under dehumidifying mode, in which case the indoor fan will keep run at low speed, the compressor will be stopped after 6 minutes and the outdoor fan will be stopped after 30-second lag. After 4 minutes, the compressor and the outdoor fan will be restarted. The humidifying process is so repeated in cycle.
When Tamb. < Tpreset − 2℃, the compressor, outdoor fan and indoor fan will be stopped.

➢ Under this mode, and the temperature can be 16～30℃



6．1．2．3 Fan mode

Under Fan mode,
the indoor fan runs at preset speed.



➢The temperature can be set within a range from 16 to 30℃. The initial value is 25℃.

6．1．2．4 Auto mode

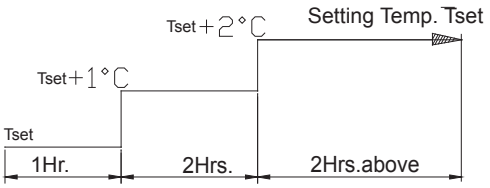
Under this mode, the system will automatically select its run mode (cooling, fan, heating) with the change of ambient temperature. For protection function, same as under cooling or heating mode.

➢ Under Auto mode, if the unit is switched from heating mode to another mode, when operate in heat mode, the OFF order only be received.

6．1．3 Other control

6．1．3．1 Sleep function

Setting Sleep function under COOL or DEHUMIDIFY mode, the preset temperature will automatically rise by 1℃ after 1 hour and rise by another 1℃after 2 hours. Preset temperature will rise by 2℃ in total within 2 hours. After that, the unit will run at this preset temperature.



No sleep function under FAN or AUTO mode.

6．1．3．2 Timer on

Timer on function can be set when the unit is at off mode. Upon the time as set, the controller will run under preset mode. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

6．1．3．3 Timer off

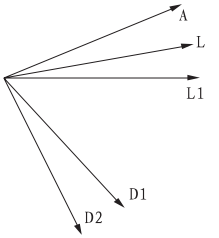
Timer Off function can be set when the unit is at on mode. Upon the time as set, the system will be stopped. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

6．1．3．4 Swing Motor Control

1．Once energization, the swing motor will rotate the guide louver anticlockwise to position A to close the air outlet;

2．After the unit is started, the guide louver will rotate to D1 then return to Li position. If under swing status, the louver will swing between L1 and D1;

3．Upon stop of the unit, it will rotate anticlockwise to position A to close the air outlet.



6．1．3．5 Buzzer

When the controller is energized, pressed, or receives a signal from remote controller, the buzzer will give out a beep.

6．1．3．6 Automatic Control of Fan Speed

Under this mode, the indoor fan will automatically select high, medium or low speed with the change of ambient temperature.

6．1．3．7 Indicator

RUN Indicator (Red): When the controller is energized, it will give out a blink. Running status indication: bright upon start of the unit; black upon stop of the unit and blink during trouble.

COOLING, Dehumidifying Indicator (Green): Bright under cooling or dehumidifying mode; auto cooling or auto dehumidifying mode, otherwise, it is black.

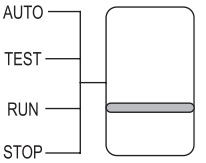
6．1．3．8 Code Switch (AUTO, TEST, RUN, STOP)

a It will run under auto mode when the code switch is put to AUTO position. If any remote control signal received, the main unit will run according to the remote control signal.

b．It will run under COOLING mode when the swing switch is put to TESTposition, and the indoor fan will run at high speed. If any remote control signal received, it will run according to the remote control signal. At this time, the low pressure switch is shielded, the temperature sensor’s malfunction will be checked, but don’t measure any temperatures.

c. When putting the swing switch to RUN position, the main unit will run as instructed by remote control signal.

d. When putting the swing switch to STOP position, the complete unit will be stopped and will not accept remote control signal.



6.1.3.9 Memory Function

Memory contents: Mode, Swing, Set temp., Set fan speed.

After powered off and re-power on, the unit will start to run with the memory function automatically.

6.1.4 Protection

6.1.4.1 Antifreeze Protection

Under heating mode, if it is detected that the pipe temp. of evaporator is too high, the outdoor fan will be stopped; When the pipe temperature resumes normal, the outdoor fan will resume running.

6.1.4.2 System high-pressure protection

If high-pressure protection is detected all loads will be turned off,all key press and remote control signals will be shielded, and the Run Indicator will blink. When compressor is detected free of high-pressure protection, the shield function will be released, the Run Indicator will keep blinking. To restore the operation, it is required to press ON/OFF key to switch off the unit and indicator before pressing ON/OFF key again.

6.1.4.3 Overcurrent protection

When the compressor is turned on, if it has detected that the current exceed the stated value, the unit will stop as the indoor ambient temp. has arrived at the setting temp., after the compressor has stopped for 3mins, it will resume to run in the original running state, if the protections is more than 6 times (If compressor has continuously work more than 6mins, the protection times will reset), the running indicator will blink, it can not resume to run automatically, it is need to press ON/OFF button to turn off the unit, then repress ON/OF button to resume to work.

6.1.4.4 Communication malfunction

When it is detected that the indoor and outdoor units have communication malfunction , the running indicator will blink, the unit will be stopped as the indoor ambient temperature has arrived the setting temperature .

6.1.4.5 Indication display

State	Indicator display	Remark:
High-pressure protection	Outdoor malfunction indicator 1 turns on, indoor run indicator blinks	Indoor Run indicator turn off 3s and blinks once
Over current protection	Outdoor malfunction indicator 2 turns on, indoor run indicator blinks	Indoor indicator turn off 3s and blinks five times
Communication malfunction	Outdoor malfunction indicators 1, 2, 3 turn on, indoor run indicator blinks	Indoor indicator turn off 3s and blinks six times
Normal communication	Outdoor indicator 4, 5 blink in turn	

When there are several malfunctions existed at the same time, it will display the high level malfunction in priority by a sequence as: communication air exhaust protection over current protection high pressure protection low protection

6.2 Remote Controller Function Manual

6.1.1 Temperature Parameters

- Indoor preset temperature (T_{preset})
- Indoor ambient temperature ($T_{amb.}$)

6.1.2 Basic Functions

Under any mode, the compressor, once started, will not be stopped within 6 minutes .
Once Stopped, the compressor should in no way be restarted unless 3-minute lag.

6.1.2.1 Cooling Mode

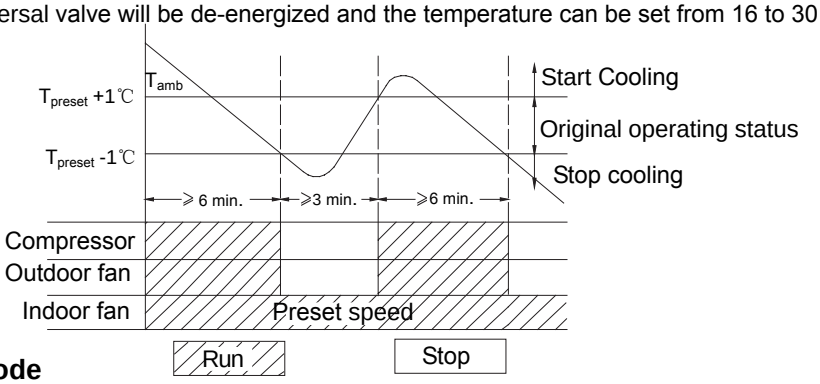
6.1.2.1.1 Cooling Conditions and Process

When $T_{amb.} \geqslant T_{preset}+1℃$, the unit will run under cooling mode, in which case the compressor and outdoor fan will be started, the indoor fan will run at preset speed.

When $T_{amb} \leq T_{preset} -1℃$, the unit will be stopped under cooling mode, in which case the compressor and outdoor fan will be stopped and the indoor fan will run at preset speed.

When $T_{preset} -1℃ < T_{amb.} < T_{preset} +1℃$, the unit will maintain its original operating status.

- Under this mode, the reversal valve will be de-energized and the temperature can be set from 16 to 30℃.



6.1.2.2 Dehumidifying Mode

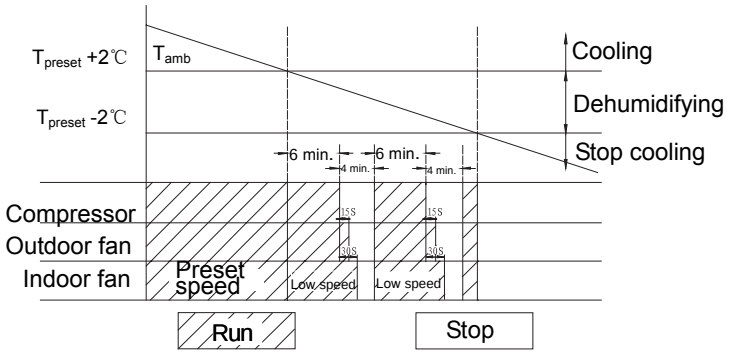
6.1.2.2.1 Dehumidifying Cooling Conditions and Process

When $T_{amb.} > T_{preset} +2℃$, the unit will run under dehumidify cooling mode, in which case the compressor and outdoor fan will be started and the indoor fan will run at preset speed.

When $T_{preset} -2℃ \leqslant T_{amb.} \leqslant T_{preset} +2℃$, the unit will run under dehumidifying mode, in which case the indoor fan will run at low speed. After the compressor and outdoor fan has run 6 minutes, the compressor will be stopped, the outdoor fan will be stopped after 15-second lag and the indoor fan will be stopped after 30 seconds. After 3.5 minutes, the compressor and outdoor fan will be started, and the indoor fan will run at low speed. The dehumidifying process is so repeated in cycle.

When $T_{amb.} < T_{preset}-2℃$, the compressor, outdoor fan and indoor fan will be stopped.

- Under this mode, the reversal valve will be de-energized and the temperature can be set from 16 to 30℃.



6.1.2.3 Heating Mode

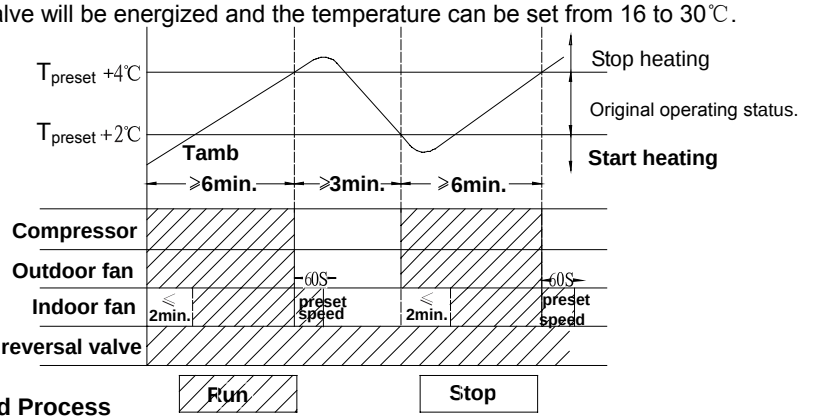
6.1.2.3.1 Heating Conditions and Process

When $T_{amb.} \leq T_{preset} +2℃$, the unit will run under heating mode,in which case the reversal valve, compressor and outdoor fan will be started simultaneously, while the indoor fan will run after 2minutes (max) delay .

If $T_{amb.} \geq T_{preset} +4℃$, the compressor and outdoor fan will be stopped, the reversal valve will remain energized and the indoor fan will run at preset speed for 60s and then will stop.

When $T_{preset} +2℃ < T_{amb.} < T_{preset} +4℃$, the unit will maintain its original operating status.

- Under this mode, the reversal valve will be energized and the temperature can be set from 16 to 30℃.



6.1.2.3.2 Defrosting Conditions and Process

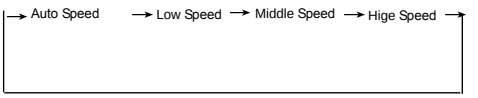
When the condenser is detected to have frost, the system will enter into defrosting status, in which case the outdoor fan, 4-way valve and indoor fan will be stopped and the heating indicator will blink. When it is detected that the frost in condenser is completely eliminated, the outdoor fan and 4-way valve will be started, the indoor fan will be started at most

6.1.2.3.3 The preventive liquid splash protection for the 4-way valve

If the unit is switched off under heating mode or switched from heating mode to another mode, the 4-way valve will be de-energized 2 minutes after the compressor is stopped.

6.1.2.4 Fan Mode

Under FAN mode, the indoor fan runs at preset speed.



- The temperature can be set within a range from 16 to 30℃.The initial value is 25 ℃.

6.1.2.5 Auto Mode

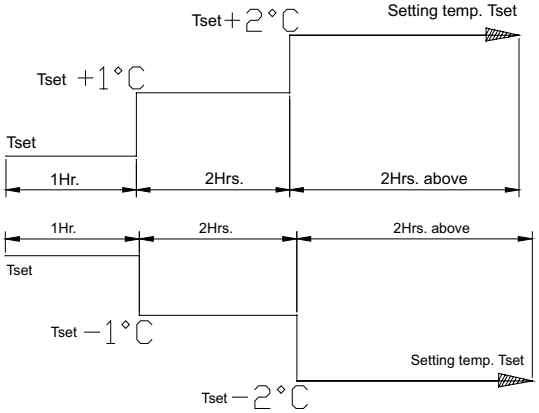
Under this mode, the system will automatically select its run mode (cooling, fan, heating) with the change of ambient temperature. For protection function, same as under cooling or heating mode.

- Under Auto mode, if the unit is switched from heating mode to another mode, the reversal valve will be de-energized after 2 mins delay.(cooling only unit has not heating mode)

6.1.3 Other Control

6.1.3.1 Sleep Function

Setting SLEEP function under COOL or DEHUMIDIFY mode, the preset temperature will automatically rise by 1℃ after 1 hour and rise by another 1℃ after 2 hours. Preset temperature will rise by 2℃ in total within 2 hours. After that, the unit will run at this preset temperature.



Setting SLEEP function under HEAT mode, the preset temperature will automatically decrease by 1℃ after 1 hour and decrease by another 1℃ after 2 hours.Preset **temperature will decrease by 2 ℃ in total within 2 hours. After that, the unit will run at this preset temperature.**

No sleep function under FAN or AUTO mode.

6.1.3.2 AUTO ON

AUTO ON function can be set when the unit is at off mode. Upon the time as set , the controller will run under preset mode. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

6.1.3.3 AUTO OFF

AUTO OFF function can be set when the unit is at on mode. Upon the time as set , the system will be stopped. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

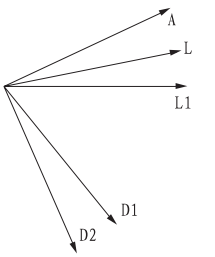
6.1.3.4 Swing Motor Control

1.Once energization, the swing motor will rotate the guide louver anticlockwise to position A to close the air outlet.

2.After the unit is started, the guide louver will rotate to D2 air outlet under heating mode and to D1 air outlet and then return to L1 position. If under swing status, the louver will swing between L1 and D1 under cooling mode and between L and D2 under heating.

3.Under heating mode, if swing is on, the louver must be stopped at L position when the unit is at preventive cold air; blowing the residual heat and defrosting status, the louver will swing under normal heating status. If swing is off, the louver will be stopped at preset position.

4.Upon stop of the unit, it will rotate anticlockwise to position A to close the air outlet.



6.1.3.5 Buzzer

When the controller is energized, pressed, or receives a signal from remote controller, the buzzer will give out a beep.

6.1.3.6 Automatic Control of Fan Speed

Under this mode, the indoor fan will automatically select high,medium or low speed with the change of ambient temperature.

6.1.3.7 Indicator

RUN Indicator (Red): when the controller is energized, it will give out a blink. Running status indication: bright upon start of the unit; black upon stop of the unit and blink during trouble.

COOLING,Dehumidifying Indicator (Green): Bright under cooling or dehumidifying mode; auto cooling or auto dehumidifying mode, otherwise, it is black.

HEATING Indicator (Yellow): Bright under heating or auto heating mode, blink during defrosting, black under other modes.

The RUN Indicator is bright under FAN mode,

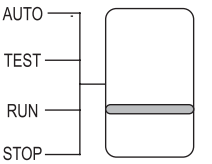
6.1.3.8 Swing Switch(AUTO, TEST, RUN, STOP)

a. It will run under auto mode when the swing switch is put to AUTO position. If any remote control signal received, the main unit will run according to the remote control signal.

b. It will run under COOLING mode when the swing switch is put to TEST position, and the indoor fan will run at high speed . If any remote control signal received,it will run according to the remote control signal. At this time, the low pressure switch is shielded, the tem. sensor`s malfunction will be checked,but don`t measure any temperatures.

c. When putting the swing switch to RUN position, the main unit will run as instructed by remote control signal.

d. When putting the swing switch to STOP position, the complete unit will be stopped and will not accept remote control signal



6.1.3.9 Memory function

Memory contents: Mode, Swing, Set temp, Set fan speed.

After powered off, and re-power on, the unit will start to run with the memory function automatically.

6.1.4 Protection

6.1.4.1 Antifreeze Protection

If it is detected that the system is under antifreeze protection under cooling mode, the compressor and outdoor fan will be stopped, the indoor fan and the swing motor will maintain its original operating status.. When antifreeze protection is released and the compressor has stopped for 3 minutes, the controller will run at the preset mode. It don't shielded the key signal during antifreeze protection.

6.1.4.2 Anti High-temp Protection

Undre heating mode, if it is detected that the pipe temp. of evaporator is too high, the outdoor fan will be stopped; when the pipe temp. resumes normal, the outdoor fan will resume running.

6.1.4.3 System high-pressure protection

If high-pressure protection is detected ,all loads will be turned off,all key-press and remote control signals will be shielded, and the Run Indicator will blink. When compressor is detected free of high-pressure protection, the shield function will be released, the Run Indicator will keep blinking.To restore the operation, it is required to press ON/OFF key to switch off the unit and indicator before pressing ON/OFF key again.

6.1.4.4 System low-pressure protection

1. After compressor has started for several minutes and started to check the low-pressure switch signal, if it has detected that the low-pressure switch opened, that the whole unit will stop, the running indicator will blink,after 3mins and low pressure resumed, the unit will back to run; if there are twice low-pressure protection continuously act, that the running indicator blink and will not resume automatically, in order to remind the user there is air leakage; Only if the low pressure resumed, then press ON/OFF button to turn off the unit, then repress ON/OFF button to resume to run;(if cooling only unit has no low-pressure switch, connect the circuit directly.)
2. When turn to the manual switch to TEST position, it will carry out the test running, and shield the low-pressure protection;
3. When compressor stops, if it detected for 30s continuously that the low-pressure switch is opened, the whole unit will stop,the running indicator will blink,and it can not resume automatically, it need to press ON/OFF button to turn off the unit, then repress ON/OFF button to resume to run.

6.1.4.5 Overcurrent protection

When the compressor is turned on, if it has detected that the current exceed the stated value, the unit will stop as the indoor ambient temp. has arrived at the setting temp., after the compressor has stopped for 3mins, it will resume to run in the original running state, if the protections is more than 6 times (If compressor has continuously work more than 6mins, the protection times will reset), the running indicator will blink, it can not resume to run automatically, it is need to press ON/OFF button to turn off the unit, then repress ON/OF button to resume to work.

6.1.4.6 Communication malfunction

When it is detected that the indoor and outdoor units have communication malfunction , the running indicator will blink, the unit will be stopped as the indoor ambient temperature has arrived the setting temperature .

6.1.4.7 Indicator display

State	Indicator display	Remark:
High-pressure protection	Outdoor malfunction indicator 1 turns on, indoor run indicator blinks	Indoor Run indicator turn off 3s and blinks once
Low-pressure protection	Outdoor malfunction indicator 3 turns on, indoor run indicator blinks	indoor Run indicator turn off 3s and blinks 3 times
Over current protection	Outdoor malfunction indicator 2 turns on, indoor run indicator blinks	Indoor indicator turn off 3s and blinks five times
Communication malfunction	Outdoor malfunction indicators 1,2,3 turn on, indoor run indicator blinks	Indoor indicator turn off 3s and blinks six times
Normal communication	Outdoor indicator 4,5 blink in turn	

When there are several malfunctions existed at the same time, it will display the high level malfunction in priority by a sequence as: communication malfunction→air exhaust protection→over current protection→high pressure protection →low pressure protection.

7 Disassembly and Assembly Procedures

7.1 Disassembly Procedures of Indoor Unit

Operating Procedures / Photos

7.1.1 Disassemble Filter

Push the filter inward and then pull it upward to remove it. Twist off screws to remove the cover plate of electric box.

（refer to Figure 7-1）

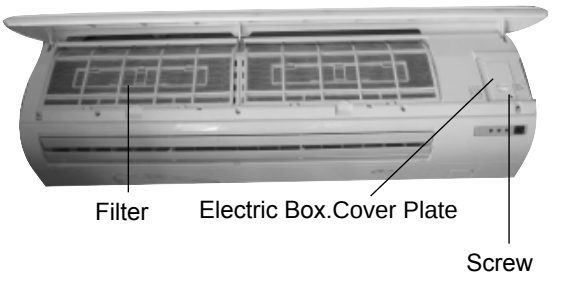


Figure 7-1

7.1.2 Disassemble Front Panel

Pull open the front panel. Push the front panel along the front case groove fixing the front panel to remove it.

（refer to Figure 7-2）

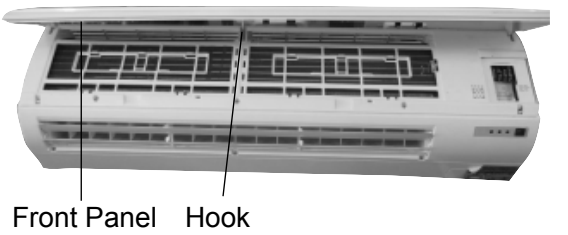


Figure 7-2

7.1.3 Disassemble Guide Louver

Manually bend the guide louver to loose the clasp at the guide louver. Remove the guide louver.

（refer to Figure 7-3）

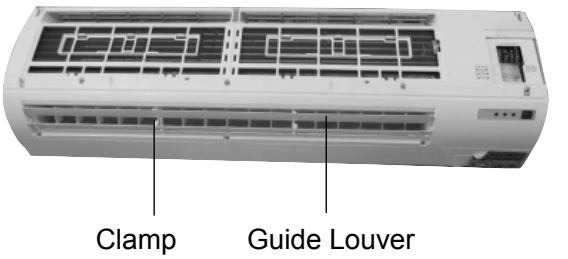


Figure 7-3

Operating Procedures / Photos

7.1.4 Disassemble Front Case

Unscrew the three screw cover at the front case, unscrew the six screws, and pull backward the front case to remove it.

（refer to Figure 7-4）

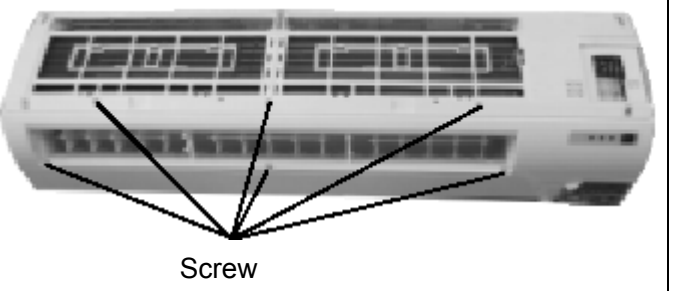


Figure 7-4

7.1.5 Disassemble Electric Box Cover

Unscrew the screw fixing the light plate to remove the light plate. Hold the electric box cover to press it inward so that the clasps at both sides are loose. Lift the electric box cover to remove it.

（refer to Figure 7-5）

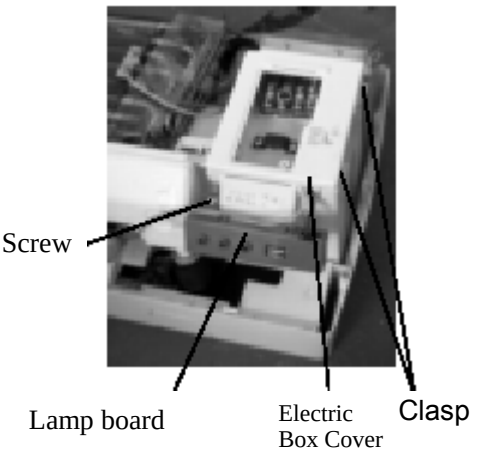


Figure 7-5

7.1.6 Disassemble Electric Box

Remove the grounding wire of evaporator. Take apart the tube sensor. Unplug the socket connecters of indoor motor and swing motor at the electric box. Use screwdriver to screw off the fixing screw of electric box. Take out the electric box.

（refer to Figure 7-6）

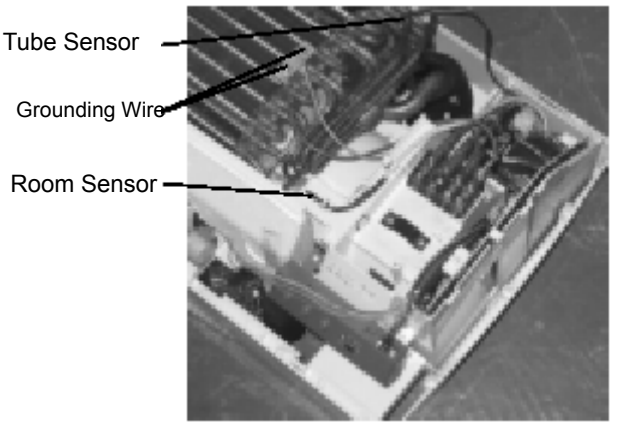


Figure 7-6

7.1.7 Disassemble Water Tray

Push open the clasp fixing the water tray, and pull the water tray upward to remove the water tray.

（refer to Figure 7-7）

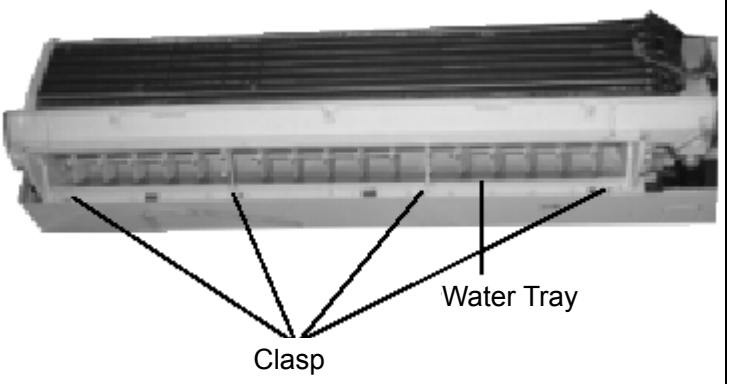


Figure 7-7

7.1.8 Disassemble Evaporator

Use screwdriver to screw off the two screws at the rear pipe clamp to remove the rear pipe clamp. Screw off the screws at the left and right sides of the evaporator, and take the evaporator out, so that the side plate clasp of the evaporator is released from the groove.

（refer to Figure7-8, 7-9 and 7-10）

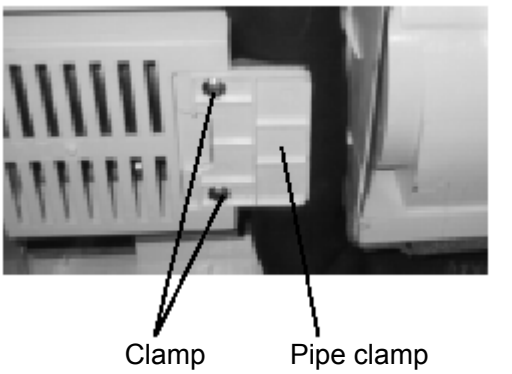


Figure 7-8

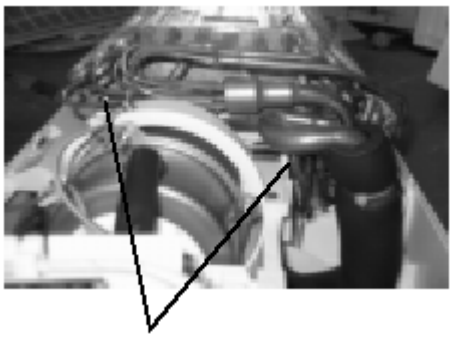


Figure7-9

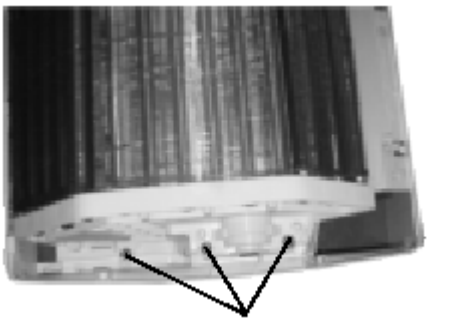


Figure 7-10

Operation Process / Photoes

7.1.9 Disassemble Motor

Use a screwdriver to unscrew the two screws fixing the motor clamp and then remove the motor clamp. Unscrew the 3 holding screws on the bearing cover and remove the motor.
(refer to Figure 7-11,7-12)

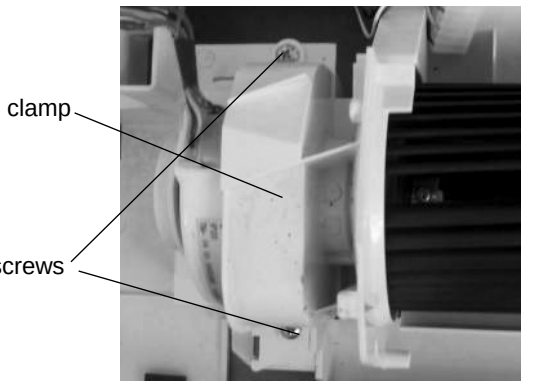


Figure 7-11

7.1.10 Disassemble Cross Flow Fan

Take out the bearing holder at the left, and remove the cross flow fan.

(refer to Figure 7-13)

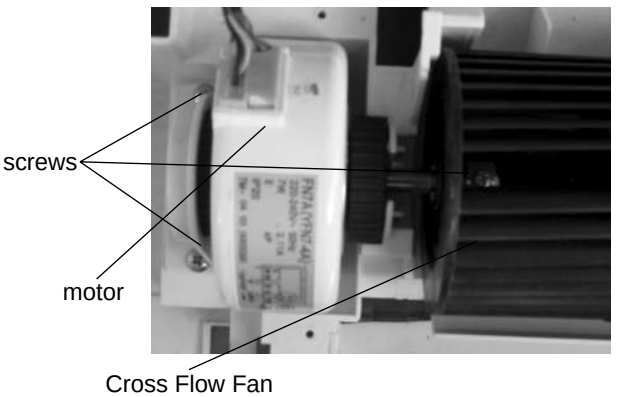


Figure 7-12

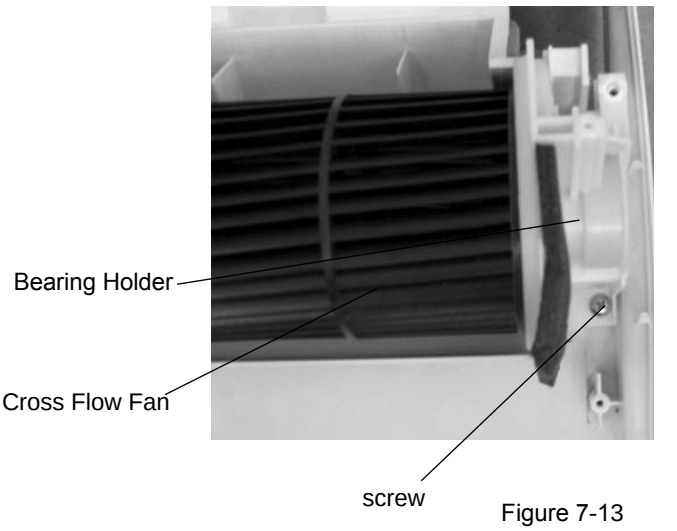


Figure 7-13

7.2 Disassembly Procedures of Outdoor Unit

Operating Procedures / Photos

7.2.1 Disassemble Front Side Plate

Screw off the four screws around the front side plate to remove the front side plate.
（refer to Figure 7-14）

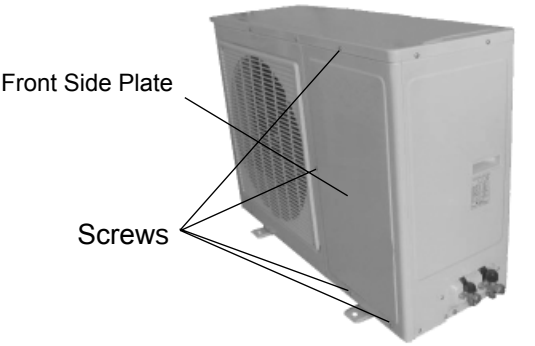


Figure 7-14

7.2.2 Disassemble Top Cover

Screw off the tapping screws around the top cover, and then pull the top cover upward to remove it.
（refer to Figure 7-15）

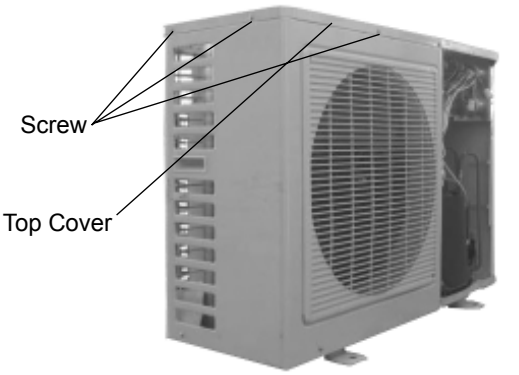


Figure 7-15

7.2.3 Remove the rear grill

Screw off the four screws around the rear grill to remove the rear grill.
（refer to Figure 7-16）

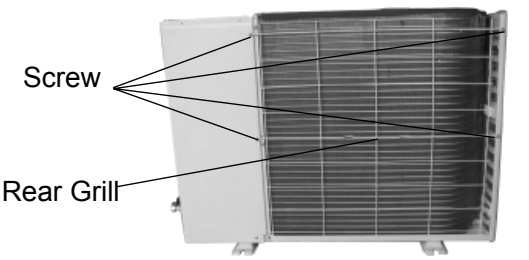


Figure 7-16

Operating Procedures / Photos

7.2.4 Disassemble Cabinet

Use screwdriver to screw off the screws around the cabinet to remove the cabinet. （refer to Figure 7-17）

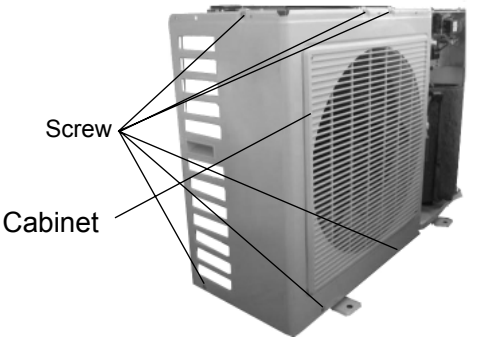


Figure 7-17

7.2.5 Disassemble Electric Box

Use screwdriver to screw off the two screws fixing the electric box, and pull the electric box to remove it.

（refer to Figure 8-18）

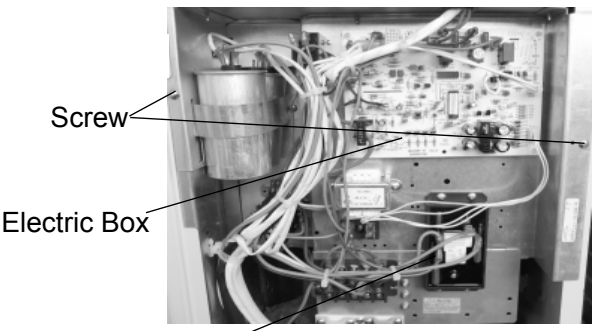


Figure 7-18

7.2.6 Disassemble Right Side Plate

Use screwdriver to screw off the 7 screws at the right side plate, condenser side plate and valve suport, and then pull the right side plate sub-assy upward to remove it.

（refer to Figure 7-19）

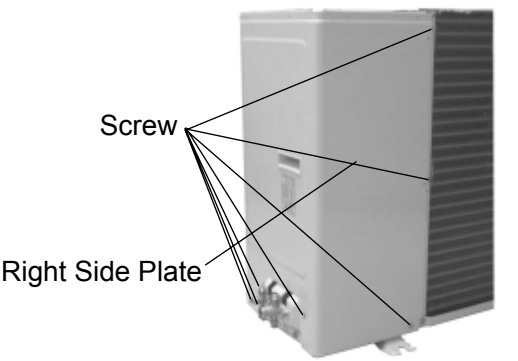


Figure 7-19

7.2.7 Disassemble Axial Flow Fan

Use spanner to remove the nut at the fan to remove the axial flow fan.
（refer to Figure 7-20）

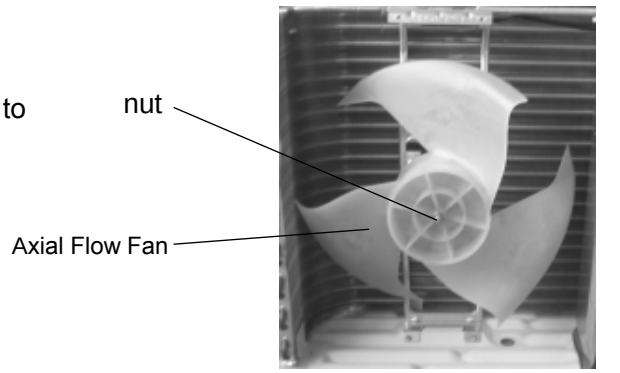


Figure 7-20

7.2.8 Disassemble Outdoor Motor

Screw off the four tapping screws fixing the motor, pull out the motor lead-out cable plug, and remove the motor. Screw off the two tapping screws fixing the motor support, and pull the motor support upward to remove it.
（refer to Figure 7-21）

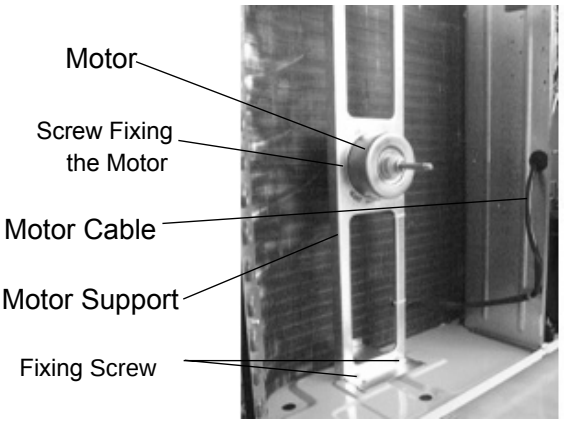


Figure 7-21

7.2.9 Disassemble 4-Way Valve
(cooling only unit has not 4-way valve)

Screw off the holding nut of the 4-way valve coil and remove the coil. Use wet cotton cloth to wrap the 4-way valve, unsold the four soldering points connecting the 4-way valve, and remove the 4-way valve. Be quick during the unsoldering process, pay attention to keep the wrapping cloth wet and do not allow the soldering flame to burn the compressor lead-out cable.
（refer to Figure 7-22）

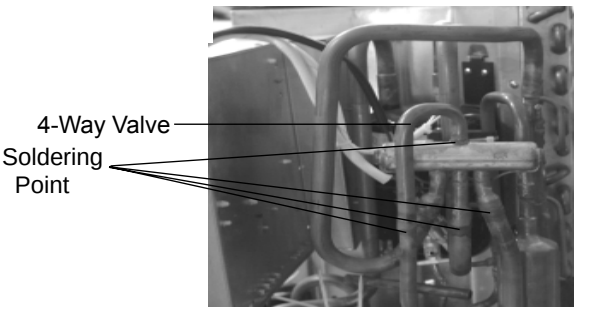


Figure 7-22

Operating Procedures / Photos

7.2.10 Disassemble Capillary

Unsold the soldering points at the capillary, the valve and the condenser to remove the capillary. Pay attention not to allow the soldering slag to block the capillary.

（refer to Figure 7-23）

Figure 7-23

7.2.11 Disassemble Valves

Screw out the 2 bolts that fixing big valve, unsolder the soldered dot connecting big valve with gas return pipe to take off big valve.
(Note: When soldering the soldered dot, wrap big valve completely by moist cloth to prevent valve from damaging by high temperature.)
Screw out the 2 bolts that fixing small valve, unsolder the soldered dot that connected small valve and Y-shape pipe to take off small valve.

（refer to Figure 7-24）

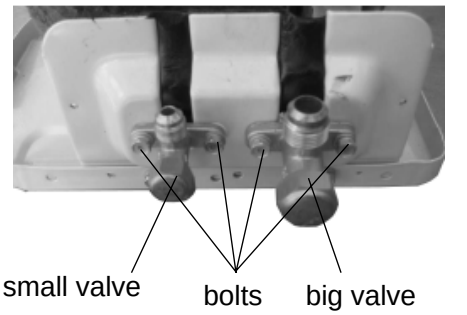


Figure 7-24

7.2.12 Disassemble Compressor

Unsolder the pipeline that connected with compressor first,then take off the 3 nuts on feet of compressor to take offcompressor.

（refer to Figure 7-25）

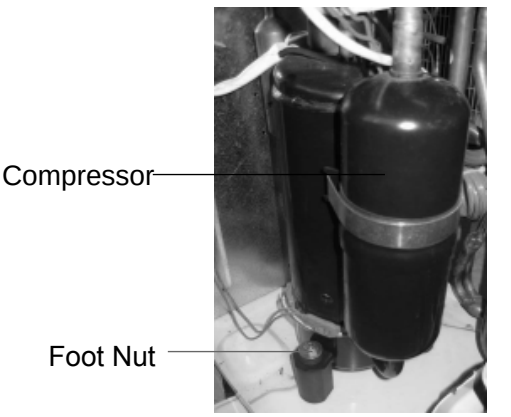
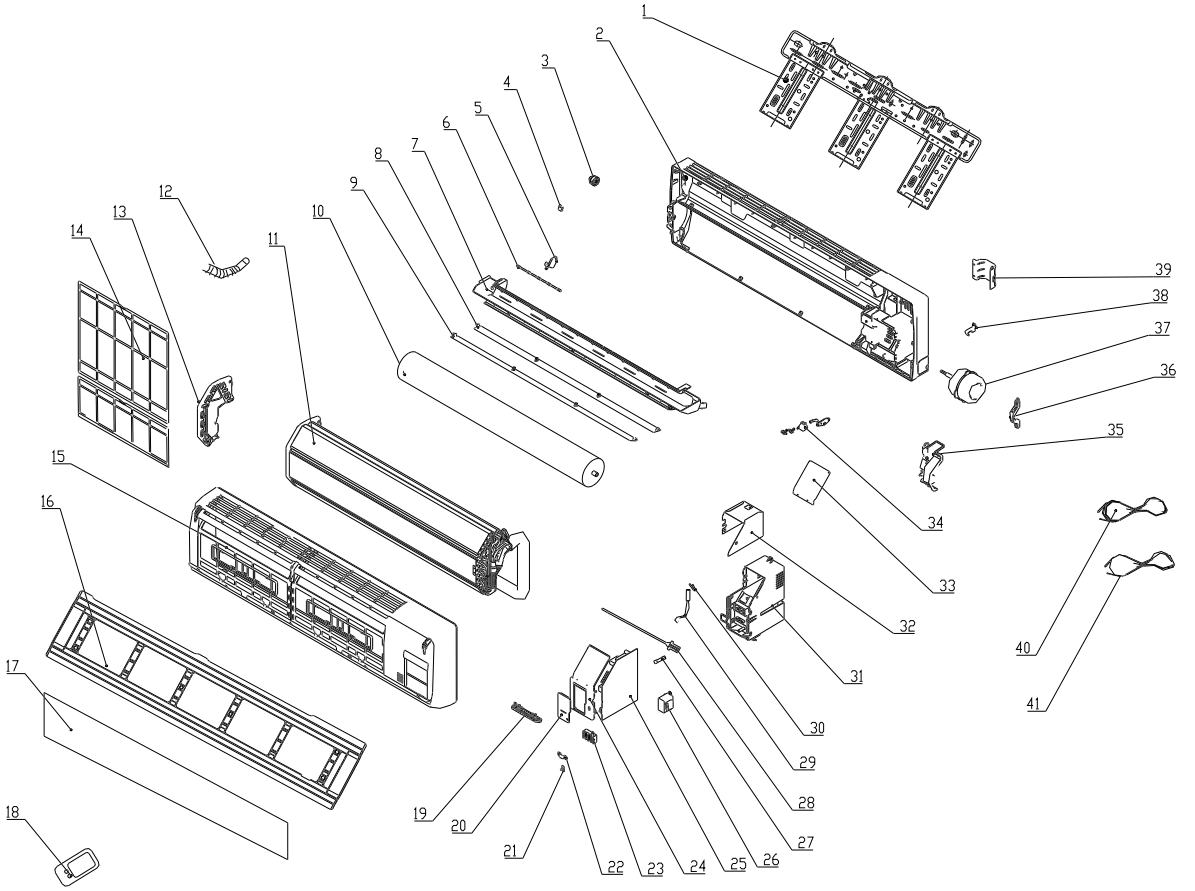


Figure 7-25

8 Exploded View and Components and Parts List

8.1 Exploded View of Components and Parts of Indoor Unit

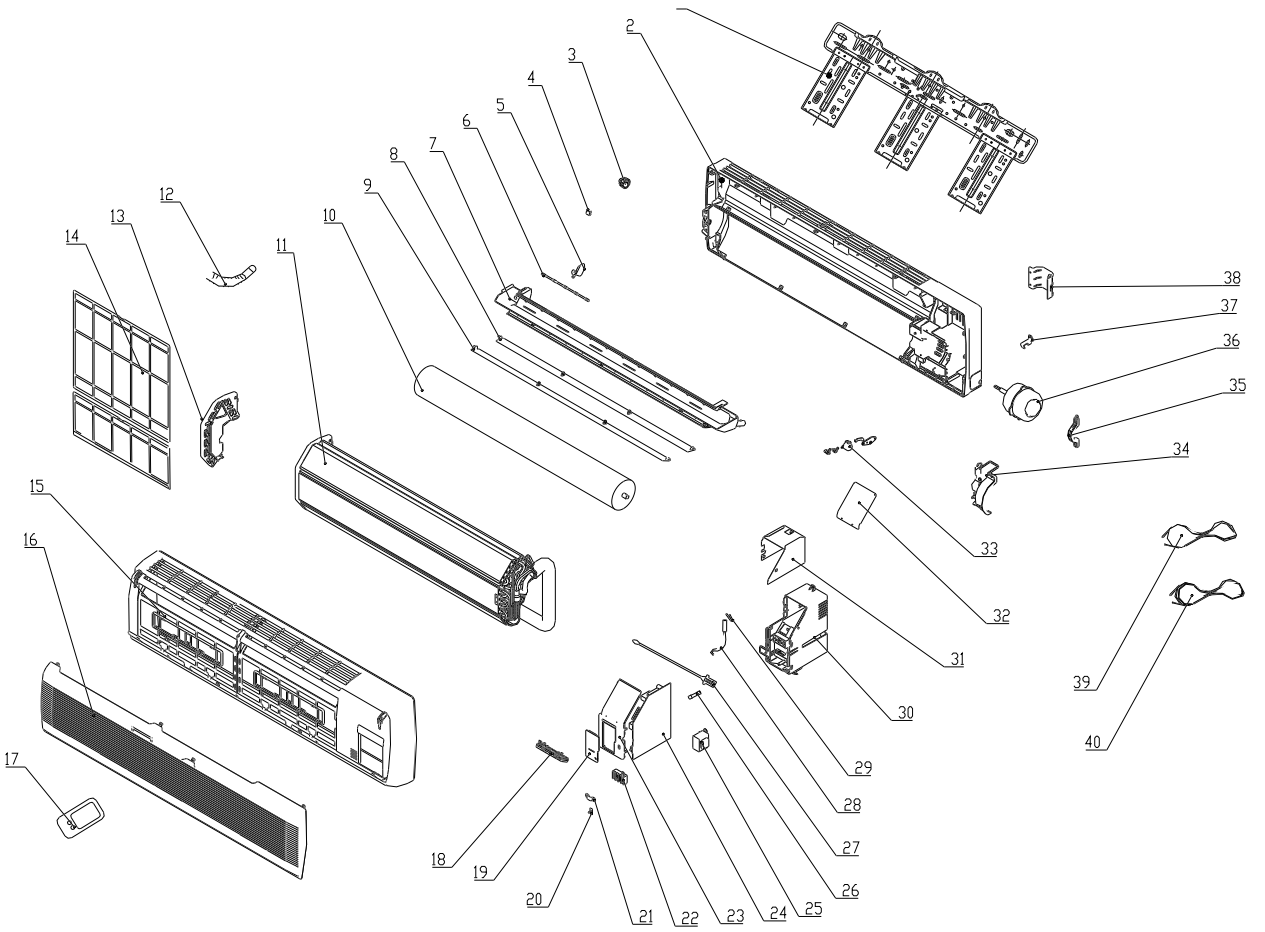


8.2 Components and Parts List of Indoor Unit

No	Description	Part Code		Qty
		GWCN24C1ND1BA/I	GWCN24C1NK1BA/I	
1	Wall-Mounting Frame	01252398	01252398	1
2	Rear Case	22202040	22202040	1
3	Fan Bearing	76512203	76512203	1
4	Screw Cover	242520053	242520053	3
5	Swing Louver	10512030	10512030	15
6	Swing Link	10582040	10582040	3
7	Water Tray	20182043	20182043	1
8	Guide Louver(up)	10512062	10512062	1
9	Guide Louver(down)	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	1
11	Evaporator Assy	010041291	010041291	1
12	Drainage Pipe	05232411	05232411	1
13	Evaporator Support(left)	24212041	24212041	1
14	Filter	11122051	11122051	2
15	Front Case	20002572	20002572	1
16	Front Panel	20002698	20002698	1
17	Front Panel A	22432258	22432258	1
18	Remote Controller Y512	305125063	305125063	1
19	Receiver Board JD	30046093	30046093	1
20	Electric Box Cover	20102252	20102252	1
21	Switch Lever	10582007	10582007	1
22	Wire Clamp	71010103	71010103	1
23	Terminal Board T4B3A	42011233	42011233	1
24	Electric Box Cover	20102251	20102251	1
25	Main PCB	30055016	30035302	1
26	Transformer 48X26G	43110233	43110233	1
27	Fuse 3.15A 250VAC	46010014	46010014	1
28	Room Sensor	390000451	390000451	1
29	Tube Sensor	3900012128	390000591	1
30	Sensor Insert	42020063	42020063	1
31	Electric Box	20102250	20102250	1
32	Lower Shield of Electric Box	01592034	01592034	1
33	Upper Shield of Electric Box	01592033	01592033	1
34	Stepping Motor MP24GA	15212102	15212102	1
35	Evaporator Support(rihgt)	24212042	24212042	1
36	Motor Clamp	26112069	26112069	1
37	Motor FN25D	15012107	15012105	1
38	Fixer(evaporator)	02112009	02112009	1
39	Pipe Clamp	26112071	26112071	1
40	Connecting Cable	/	400205235	1
41	Connecting Cable	400205405	400205405	1

No	Description	Part Code		Qty
		GWHN24C1NK1BA/I	GWCN28C1TK1AA/I	
1	Wall-Mounting Frame	01252398	01252398	1
2	Rear Case	22202040	22202040	1
3	Fan Bearing	76512203	76512203	1
4	Screw Cover	242520053	242520053	3
5	Swing Louver	10512030	10512030	15
6	Swing Link	10582040	10582040	3
7	Water Tray	20182043	20182043	1
8	Guide Louver（up）	10512062	10512062	1
9	Guide Louver（down）	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	1
11	Evaporator Assy	010041291	010041291	1
12	Drainage Pipe	05232411	05232411	1
13	Evaporator Support（left）	24212041	24212041	1
14	Filter	11122051	11122051	2
15	Front Case	20002572	20002572	1
16	Front Panel	20002698	20002698	1
17	Front Panel A	22432258	22432258	1
18	Remote Controller Y512	305125063	305125063	1
19	Receiver Board JD	30046093	30046093	1
20	Electric Box Cover	20102252	20102252	1
21	Switch Lever	10582007	10582007	1
22	Wire Clamp	71010103	71010103	1
23	Terminal Board T4B3A	42011233	42011233	1
24	Electric Box Cover	20102251	20102251	1
25	Main PCB	30055015	30035302	1
26	Transformer SC28B5	43110204	43110233	1
27	Fuse 3.15A 250VAC	46010014	46010014	1
28	Room Sensor	390000451	390000451	1
29	Tube Sensor	390000591	390000591	1
30	Sensor Insert	42020063	42020063	1
31	Electric Box	20102250	20102250	1
32	Lower Shield of Electric Box	01592034	01592034	1
33	Upper Shield of Electric Box	01592033	01592033	1
34	Stepping Motor MP24GA	15212102	15212102	1
35	Evaporator Support（rihgt）	24212042	24212042	1
36	Motor Clamp	26112069	26112069	1
37	Motor FN25D	15012105	15012105	1
38	Fixer(evaporator)	02112009	02112009	1
39	Pipe Clamp	26112071	26112071	1
40	Connecting Cable	400205237	400205235	1
41	Connecting Cable	400205405	400205405	1

8. 3 Exploded View of Components and Parts of Indoor Unit



8.4 Components and Parts List of Indoor Unit

No	Description	Part Code			Qty
		GWHN28C1NK3AA/I	GWCN28C1NK3AA/I	GWHN24C1NK3AA/I	
1	Wall-Mounting Frame	01252398	01252398	01252398	1
2	Rear Case	22202040	22202040	22202040	1
3	Fan Bearing	76512203	76512203	76512203	1
4	Screw Cover	242520053	242520053	242520053	3
5	Swing Louver	10512030	10512030	10512030	15
6	Swing Link	10582040	10582040	10582040	3
7	Water Tray	20182043	20182043	20182043	1
8	Guide Louver（up）	10512062	10512062	10512062	1
9	Guide Louver（down）	10512063	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	10352420	1
11	Evaporator Assy	010041291	010041291	010041299	1
12	Drainage Pipe	05232411	05232411	0523001401	1
13	Evaporator Support（left）	24212041	24212041	24212041	1
14	Filter	11122051	11122051	11122051	2
15	Front Case	20002572	20002572	20002923	1
16	Front Panel	20002375	20002375	20002375	1
17	Remote Controller Y512	305125063	305125063	305125063	1
18	Receiver Board JD	30046093	30046093	30046093	1
19	Electric Box Cover	20102252	20102252	20102252	1
20	Switch Lever	10582007	10582007	10582007	1
21	Wire Clamp	71010103	71010103	71010103	1
22	Terminal Board T4B3A	42011233	42011233	42011233	1
23	Electric Box Cover	20102251	20102251	20102251	1
24	Main PCB	30030303	30035302	30030303	1
25	Transformer 48X26G	43110233	43110233	43110233	1
26	Fuse 3.15A 250VAC	46010014	46010014	46010014	1
27	Room Sensor	390000451	390000451	390000451	1
28	Tube Sensor	390000591	390000591	390000591	1
29	Sensor Insert	42020063	42020063	42020063	1
30	Electric Box	20102250	20102250	20102250	1
31	Lower Shield of Electric Box	01592034	01592034	01592034	1
32	Upper Shield of Electric Box	01592033	01592033	01592033	1
33	Stepping Motor MP24GA	15212102	15212102	15212102	1
34	Evaporator Support（rihgt）	24212042	24212042	24212042	1
35	Motor Clamp	26112069	26112069	26112069	1
36	Motor FN25D	15012105	15012105	15012105	1
37	Fixer(evaporator)	02112009	02112009	02112009	1
38	Pipe Clamp	26112071	26112071	26112071	1
39	Connecting Cable	400205235	400205235	400205235	1
40	Connecting Cable	400205405	400205405	40020318	1

No	Description	Part Code			Qty
		GWCN28C1TD1AA/I	GWHN28C1TD1AA/I	GWHN24C1NK3AB/I	
1	Wall-Mounting Frame	01252398	01252398	01252398	1
2	Rear Case	22202040	22202040	22202040	1
3	Fan Bearing	76512203	76512203	76512203	1
4	Screw Cover	242520053	242520053	242520053	3
5	Swing Louver	10512030	10512030	10512030	15
6	Swing Link	10582040	10582040	10582040	3
7	Water Tray	20182043	20182043	20182043	1
8	Guide Louver(up)	10512062	10512062	10512062	1
9	Guide Louver(down)	10512063	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	10352420	1
11	Evaporator Assy	010041291	010041291	0100412910	1
12	Drainage Pipe	05232411	05232411	05232411	1
13	Evaporator Support(left)	24212041	24212041	24212041	1
14	Filter	11122051	11122051	11122051	2
15	Front Case	20002572	20002572	20002572	1
16	Front Panel	20002375	20002375	20002375	1
17	Remote Controller Y512	305125063	305125063	305125063	1
18	Receiver Board JD	30046093	30046093	30046093	1
19	Electric Box Cover	20102252	20102252	20102252	1
20	Switch Lever	10582007	10582007	10582007	1
21	Wire Clamp	71010103	71010103	71010103	1
22	Terminal Board T4B3A	42011233	42011233	42011233	1
23	Electric Box Cover	20102251	20102251	20102251	1
24	Main PCB	30035302	30030303	30030303	1
25	Transformer 48X26G	43110233	43110233	43110233	1
26	Fuse 3.15A 250VAC	46010014	46010014	46010014	1
27	Room Sensor	390000451	390000451	390000451	1
28	Tube Sensor	390000591	390000591	390000591	1
29	Sensor Insert	42020063	42020063	42020063	1
30	Electric Box	20102250	20102250	20102250	1
31	Lower Shield of Electric Box	01592034	01592034	01592034	1
32	Upper Shield of Electric Box	01592033	01592033	01592033	1
33	Stepping Motor MP24GA	15212102	15212102	15212102	1
34	Evaporator Support(rihgt)	24212042	24212042	24212042	1
35	Motor Clamp	26112069	26112069	26112069	1
36	Motor FN25C	15012107	15012107	15012105	1
37	Fixer(evaporator)	02112009	02112009	02112009	1
38	Pipe Clamp	26112071	26112071	26112071	1
39	Connecting Cable	400205235	400205235	400205235	1
40	Connecting Cable	400205405	400205405	40020318	1

上述数据若有变更，恕不另行通知。

No	Description	Part Code	Qty
		GWCN24C1NK3AA/I	
1	Wall-Mounting Frame	01252398	1
2	Rear Case	22202040	1
3	Fan Bearing	76512203	1
4	Screw Cover	242520053	3
5	Swing Louver	10512030	15
6	Swing Link	10582040	3
7	Water Tray	20182043	1
8	Guide Louver(up)	10512062	1
9	Guide Louver(down)	10512063	1
10	Cross Flow Fan	10352420	1
11	Evaporator Assy	010041299	1
12	Drainage Pipe	0523001401	1
13	Evaporator Support(left)	24212041	1
14	Filter	11122051	2
15	Front Case	20002923	1
16	Front Panel	20002375	1
17	Remote Controller Y512	305125063	1
18	Receiver Board JD	30046093	1
19	Electric Box Cover	20102252	1
20	Switch Lever	10582007	1
21	Wire Clamp	71010103	1
22	Terminal Board T4B3A	42011233	1
23	Electric Box Cover	20102251	1
24	Main PCB	30035302	1
25	Transformer 48X26G	43110233	1
26	Fuse 3.15A 250VAC	46010014	1
27	Room Sensor	390000451	1
28	Tube Sensor	390000591	1
29	Sensor Insert	42020063	1
30	Electric Box	20102250	1
31	Lower Shield of Electric Box	01592034	1
32	Upper Shield of Electric Box	01592033	1
33	Stepping Motor MP24GA	15212102	1
34	Evaporator Support(rihgt)	24212042	1
35	Motor Clamp	26112069	1
36	Motor FN25C	15012105	1
37	Fixer(evaporator)	02112009	1
38	Pipe Clamp	26112071	1
39	Connecting Cable	400205235	1
40	Connecting Cable	40020318	1

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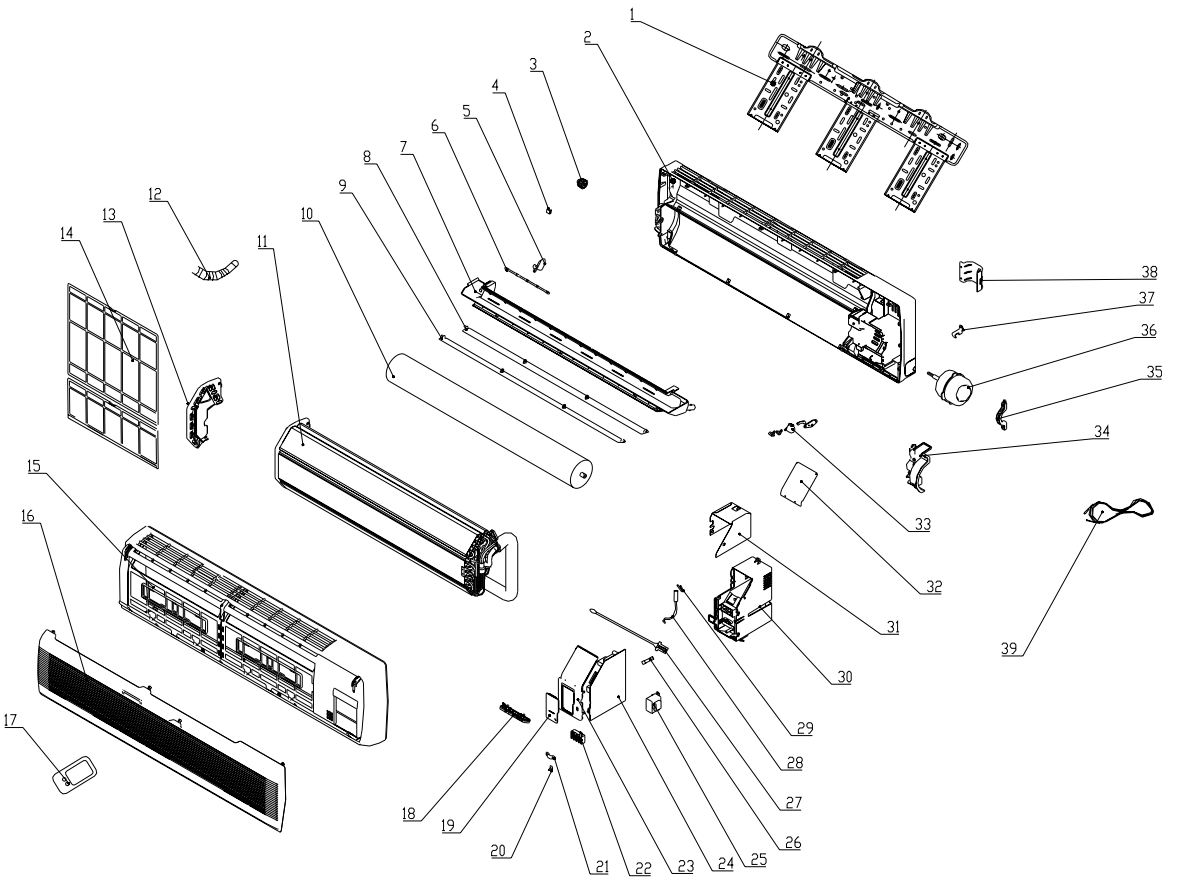
8.5 Exploded View of Components and Parts of Indoor Unit



8.6 Components and Parts List of Indoor Unit

No	Description	Part Code			Qty
		GWCN24C1ND1AA/I	GWHN24C1ND1AA/I	GWCN24C1NK1AA/I	
1	Wall-Mounting Frame	01252398	01252398	01252398	1
2	Rear Case	22202040	22202040	22202040	1
3	Fan Bearing	76512203	76512203	76512203	1
4	Screw Cover	242520053	242520053	242520053	3
5	Swing Louver	10512030	10512030	10512030	15
6	Swing Link	10582040	10582040	10582040	3
7	Water Tray	20182043	20182043	20182043	1
8	Guide Louver（up）	10512062	10512062	10512062	1
9	Guide Louver（down）	10512063	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	10352420	1
11	Evaporator Assy	010041291	010041291	010041291	1
12	Drainage Pipe	05232411	05232411	05232411	1
13	Evaporator Support（left）	24212041	24212041	24212041	1
14	Filter	11122051	11122051	11122051	2
15	Front Case	20002572	20002572	20002923	1
16	Front Panel	20002375	20002375	20002375	1
17	Remote Controller Y512	30512506	30512506	30512506	1
18	Receiver Board JD	30046093	30046093	30046093	1
19	Electric Box Cover	20102252	20102252	20102252	1
20	Switch Lever	10582007	10582007	10582007	1
21	Wire Clamp	71010103	71010103	71010103	1
22	Terminal Board T4B3A	42011233	42011233	42011233	1
23	Electric Box Cover	20102357	20102357	20102357	1
24	Main PCB	30035302	30030302	30035302	1
25	Transformer 48X26G	43110233	43110233	43110233	1
26	Fuse T5AL 250V	46010013	6010014	46010014	1
27	Room Sensor	390000451	390000451	390000451	1
28	Tube Sensor	390000591	390000591	390000591	1
29	Sensor Insert	42020063	42020063	42020063	1
30	Electric Box	20102250	20102250	20102250	1
31	Lower Shield of Electric Box	01592034	01592034	01592034	1
32	Upper Shield of Electric Box	01592033	01592033	01592033	1
33	Stepping Motor MP24GA	15212102	15212102	15212102	1
34	Evaporator Support（rihgt）	24212042	24212042	24212042	1
35	Motor Clamp	26112069	26112069	26112069	1
36	Motor FN26C	150121072	150121072	150121053	1
37	Fixer(evaporator)	02112009	02112009	02112009	1
38	Pipe Clamp	26112071	26112071	26112071	1
39	Connecting Cable	400205237	400205237	400205235	1

No	Description	Part Code			Qty
		GWCN28C1ND1AA/I	GWHN28C1ND1AA/I	GWHN24C1NK1AA/I	
1	Wall-Mounting Frame	01252398	01252398	01252398	1
2	Rear Case	22202040	22202040	22202040	1
3	Fan Bearing	76512203	76512203	76512203	1
4	Screw Cover	242520053	242520053	242520053	3
5	Swing Louver	10512030	10512030	10512030	15
6	Swing Link	10582040	10582040	10582040	3
7	Water Tray	20182043	20182043	20182043	1
8	Guide Louver（up）	10512062	10512062	10512062	1
9	Guide Louver（down）	10512063	10512063	10512063	1
10	Cross Flow Fan	10352420	10352420	10352420	1
10	Cross Flow Fan	10352420	10352420	10352420	1
11	Evaporator Assy	010041293	010041293	010027302	1
12	Drainage Pipe	05232411	05232411	0523001401	1
13	Evaporator Support（left）	24212041	24212041	24212041	1
14	Filter	11122051	11122051	11122051	2
15	Front Case	20002923	20002923	20002923	1
16	Front Panel	20002375	20002370	20002375	1
17	Remote Controller Y512	30512506	30512506	30512506	1
18	Receiver Board JD	30046093	30046093	30046093	1
19	Electric Box Cover	20102252	20102252	20102252	1
20	Switch Lever	10582007	10582007	10582007	1
21	Wire Clamp	71010103	71010103	71010103	1
22	Terminal Board T4B3A	42011233	42011233	42011233	1
23	Electric Box Cover	20102357	20102357	20102357	1
24	Main PCB	30035302	30055015	30030303	1
24	Main PCB	30055016			1
25	Transformer 48X26G	43110233	43110233	43110233	1
26	Fuse T5AL 250V	46010013	46010014	46010014	1
27	Room Sensor	390000451	390000451	390000451	
28	Tube Sensor	390000591	390000591	390000591	1
29	Sensor Insert	42020063	42020063	42020063	1
30	Electric Box	20102250	20102250	20102250	1
31	Lower Shield of Electric Box	01592034	01592034	01592034	1
32	Upper Shield of Electric Box	01592033	01592033	01592033	1
33	Stepping Motor MP24GA	15212102	15212102	15212102	1
34	Evaporator Support	24212042	24212042	24212042	1
35	Motor Clamp	26112069	26112069	26112069	1
36	Motor FN25C	15012107	15012107	150121053	1
37	Fixer(evaporator)	02112009	02112009	02112009	1
38	Pipe Clamp	26112071	26112071	26112071	1
39	Connecting Cable	400205237	400205237	400205235	1

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No	Description	Part Code	Qty
		KFR-80G/A22-C	
1	Wall-Mounting Frame	01252398	1
2	Rear Case	22202040	1
3	Fan Bearing	76512203	1
4	Screw Cover	242520053	3
5	Swing Louver	10512030	15
6	Swing Link	10582040	3
7	Water Tray	20182043	1
8	Guide Louver（up）	10512062	1
9	Guide Louver（down）	10512063	1
10	Cross Flow Fan	10352420	1
10	Cross Flow Fan	10352420	1
11	Evaporator Assy	010041291	1
12	Drainage Pipe	0523001401	1
13	Evaporator Support（left）	24212041	1
14	Filter	11122051	2
15	Front Case	20002923	1
16	Front Panel	20002375	1
17	Remote Controller Y512	30512506	1
18	Receiver Board JD	30046093	1
19	Electric Box Cover	20102252	1
20	Switch Lever	10582007	1
21	Wire Clamp	71010103	1
22	Terminal Board T4B3A	42011233	1
23	Electric Box Cover	20102357	1
24	Main PCB	30035224	1
24	Main PCB	30055015	1
25	Transformer 48X26G	43110233	1
26	Fuse T5AL 250V	46010014	1
27	Room Sensor	390000451	
28	Tube Sensor	390000591	1
29	Sensor Insert	42020063	1
30	Electric Box	20102250	1
31	Lower Shield of Electric Box	01592034	1
32	Upper Shield of Electric Box	01592033	1
33	Stepping Motor MP24GA	15212102	1
34	Evaporator Support	24212042	1
35	Motor Clamp	26112069	1
36	Motor FN25C	15012105	1
37	Fixer(evaporator)	02112009	1
38	Pipe Clamp	26112071	1
39	Connecting Cable	400205237	1

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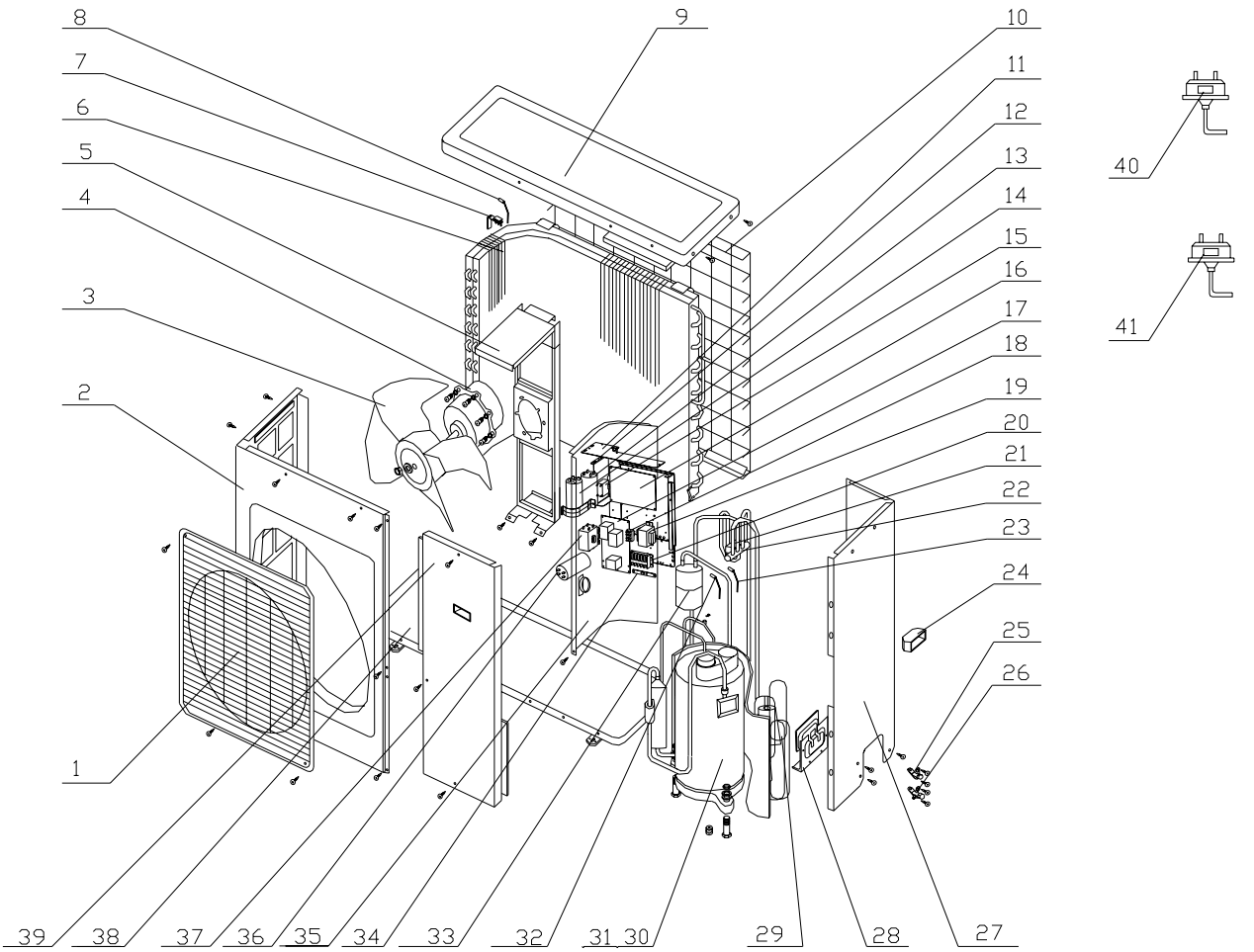
8. 7 Exploded View of Components and Parts of Outdoor Unit



8.8 Components and Parts List of Oudoor Unit

No	Description	Part Code			Qty
		GWCN24C1ND1BA/O	GWCN24C1NK1BA/O	GWHN24C1NK1BA/I	
1	Front Grill	22415001	22265251	22265251	1
2	Front Plate	01433031	01435254	01435254	1
3	Axial Flow Fan	10335257	10335253	10335253	1
4	Motor LW80C	15013062	15013106	15013106	1
5	Motor Support	01703027	01705253	01705253	1
6	Condenser Assy	01103811	01103792	01103904	1
7	Temp Sensor Support	24215101	24215101	24215101	1
8	Ambient Sensor	390002065	390002065	390002065	1
9	Top Cover	01255262	01255262	01255262	1
10	Rear Grill	01473028	01475252	01475252	1
11	upper Electric box cover	01413076	01413076	01413076	1
12	Electric Plate	0140337610	0140337610	0140337612	1
13	Capacitor CBB65 50uF/450V	33000001	33000001	33000001	1
14	Capacitor CBB65 60uF/450V			33000039	1
15	Capacitor CBB61 3.5uF/450V	33010010	33010010	33010010	1
16	Main PCB	30035303	30035303	30030302	1
17	Soft Start Device			30116036	1
18	Terminal Board 2-8	42011103	42011103	42011103	1
19	Transformer 57X30G	43110232	43110232	43110204	1
20	Terminal Board	42010258	42010258	42010258	1
21	4-way Valve Coil	/	/	430004002	1
22	4-way Valve	/	/	43000404	1
23	Temp Sensor	3900012128	390001921	390001921	1
24	Handle	26235253	26235253	26235253	1
25	Gas Valve Assy 5/8"	071052521	07105252	07105252	1
26	Liquid Valve Assy 3/8"	07105256	07105256	07105256	1
27	Rear Side Plate	01305026	01305260	01305260	1
28	Valve Support	01715256	01715256	01715256	1
29	Capillary Assy	03103317	03103300	03103334	1
30	Compressor SHV33YE6UU	00100150	00100144	00100144	1
31	Overload Protector	/	/	/	1
32	Temp Sensor	/	/	/	1
33	Gas-liquid Separator			07255251	1
34	Isolation Washer C	70410523	70410523	70410523	1
35	Clapboard	01233024	01233019	01233019	1
36	Capacitor			33010603	1
37	AC Contactor CJX9B-25S/D	44010245	44010245	44010245	1
38	Metal Base	01203558	01205105	01205105	1
39	Front Side Plate	01303092	01305247	01305247	1
40	Low Pressure Switch	/	/	/	1
41	Pressure Switch	46020003	46020011	46020011	1

No	Description	Part Code			Qty
		GWCN24C1ND1AA/O	GWHN24C1ND1AA/O	GWCN24C1NK1AA/O	
1	Front Grill	22265251	22265251	22265251	1
2	Front Plate	01435401	01435251	01435254	1
3	Axial Flow Fan	10335254	10335254	10335253	1
4	Motor FW60L	15013063	15013063	15013106	1
5	Motor Support	01705253	01705253	01705253	1
6	Condenser Assy	011036793	011036792	011036795	1
7	Temp Sensor Support	24215101	24215101	24215101	1
8	Ambient Sensor	390002065	390002065	390002064	1
9	Top Cover	01255262	01255262	01255262	1
10	Rear Grill	01475252	01475252	01475252	1
11	upper Electric box cover	01413076	01413076	01413076	1
12	Electric Plate	014033763	014033762	01403377	1
13	Capacitor CBB65 40uF/450V	33000022	33000022	33000039	1
14	Capacitor CBB65 50uF/450V	/	/	33000039	1
15	Capacitor CBB61 3.5uF/450V	33010010	33010010	33010010	1
16	Main PCB	30035303	30035303	30035303	1
17	Soft Start Device	/	/	30116036	1
18	Terminal Board 2-8	42011103	42011103	42011103	1
19	Transformer 57X30G	43110232	43110232	43110232	1
20	Terminal Board	42010258	42010258	42010258	1
21	4-way Valve Coil	/	430004002	/	1
22	4-way Valve	/	43000404	/	1
23	Temp Sensor	390001921	390001921	390001921	1
24	Handle	26235253	26235253	26235253	1
25	Gas Valve Assy 5/8"	07105252	07105252	07105252	1
26	Liquid Valve Assy 3/8"	07105256	07105256	07105256	1
27	Rear Side Plate	01305260	01305260	01305260	1
28	Valve Support	01715256	01715256	01715256	1
29	Capillary Assy	03103220	03103219	031032021	1
30	Compressor C-2R170H6S	00103001	00103001	00100417	1
31	Overload Protector	/	/	/	1
32	Temp Sensor	/	/	/	1
33	Gas-liquid Separator	07255251	07255251	07255251	1
34	Isolation Washer C	70410523	70410523	70410523	1
35	Clapboard	01235254	01235254	01235254	1
36	Capacitor 88-108uF/98uF/330VAC	/	/	33010603	1
37	AC Contactor CJX9B-25S/D	44010245	44010245	44010245	1
38	Metal Base	01203059	01203059	01205203	1
39	Front Side Plate	01305247	01305247	01305247	1
40	Low Pressure Switch	/	/	/	1
41	Pressure Switch	46020011	46020011	46020011	1

No	Description	Part Code			Qty
		GWHN28C1ND1AA/O	GWCN28C1ND1AA/O	GWHN24C1NK1AA/O	
1	Front Grill	22265401	22265401	22265251	1
2	Front Plate	01435401	01435402	01435251	1
3	Axial Flow Fan	10335401	10335401	10335254	1
4	Motor LW92F	150154012	150154012	15013106	1
5	Motor Support	01705401	01705403	01705253	1
6	Condenser Assy	011032345	01103830	011036794	1
7	Temp Sensor Support	24215101	24215101	24215101	1
8	Ambient Sensor	390002064	390002064	390002064	1
9	Top Cover	01255402	01255402	01255262	1
10	Rear Grill	01475401	01475401	01475252	1
11	upper Electric box cover	01413075	01413075	01413076	1
12	Electric Plate	014033593	01403360	014033764	1
13	Capacitor CBB65 55uF/450V	/	/	33000039	1
14	Capacitor CBB65 50uF/450V	33000001	33000001	33000039	1
15	Capacitor CBB61 3.5uF/450V	3301010	33010010	33010010	1
16	Main PCB	30055017	30055018	30030302	1
17	Soft Start Device	/	/	/	1
18	Terminal Board 2-8	42011103	42011103	42011103	1
19	Transformer 57X30G	43110232	43110232	43110232	1
20	Terminal Board	42010258	42010258	42010258	1
21	4-way Valve Coil	430004002	/	430004002	1
22	4-way Valve	43000404	/	43000404	1
23	Temp Sensor	390001921	390001921	390001921	1
24	Handle	26235253	26235253	26235253	1
25	Gas Valve Assy 5/8"	07105252	07105252	07105251	1
26	Liquid Valve Assy 3/8"	071302232	071302232	07105255	1
27	Rear Side Plate	01305401	01305401	01305260	1
28	Valve Support	01715256	01715256	01715256	1
29	Capillary Assy	03103188	03103354	03103198	1
30	Compressor SQ034KBA	00108140	00202102	00100417	1
31	Overload Protector	/	/	/	1
32	Temp Sensor	/	/	/	1
33	Gas-liquid Separator	07255251	07255251	07255251	1
34	Isolation Washer C	70410523	70410523	70410523	1
35	Clapboard	01235404	01235404	01235254	1
36	Capacitor 88-108uF/98uF/330VAC	/	/	33010603	1
37	AC Contactor GC6-45S/01C3A	44010265	44010265	44010245	1
38	Metal Base	012054012	01203583P	01205203	1
39	Front Side Plate	01305403	01305403	01305247	1
40	Low Pressure Switch	46020007	46020007	/	1
41	Pressure Switch	46020011	46020011	46020011	1

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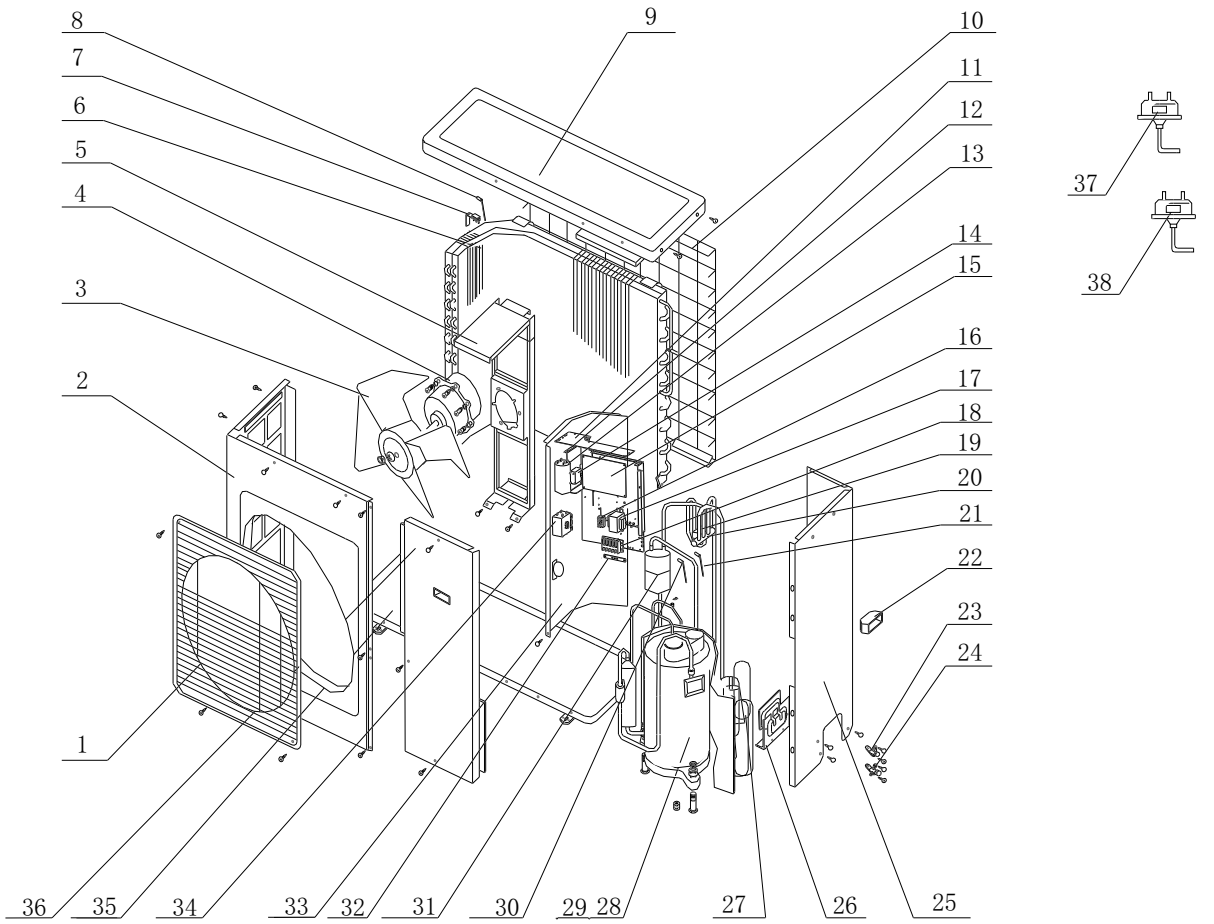
No	Description	Part Code	Qty
		KFR-80W/A22-C	
1	Front Grill	22265401	1
2	Front Plate	01435401	1
3	Axial Flow Fan	10335401	1
4	Motor LW92B	15015401	1
5	Motor Support	01705401	1
6	Condenser Assy	011032341	1
7	Temp Sensor Support	24215101	1
8	Ambient Sensor	390002064	1
9	Top Cover	01255402	1
10	Rear Grill	01475401	1
11	upper Electric box cover	01413075	1
12	Electric Plate	014033591	1
13	Capacitor CBB65 55uF/450V	33000038	1
14			
15	Capacitor CBB61 3.5uF/450V	33010010	1
16	Main PCB	30035222	1
17	Soft Start Device	/	1
18	Terminal Board 2-8	42011103	1
19	Transformer 57X30G	43110232	1
20	Terminal Board	42010258	1
21	4-way Valve Coil	430004002	1
22	4-way Valve	43000404	1
23	Temp Sensor	390001921	1
24	Handle	26235253	1
24	Handle	26235253	2
25	Gas Valve Assy 5/8"	07105252	1
26	Liquid Valve Assy 3/8"	071302232	1
27	Rear Side Plate	01305401	1
28	Valve Support	01715256	1
29	Capillary Assy	03103141	1
30	Compressor ZR36KH-PFJ-522	00100066	1
31	Overload Protector	/	1
32	Temp Sensor	/	1
33	Gas-liquid Separator	07255251	1
34	Isolation Washer C	70410523	1
35	Clapboard	01235404	1
36	Capacitor 88-	/	1
37	AC Contactor CJX9B-25S/01#	44010222	1
37	AC Contactor CJX9B-25S/DL	44010263	1
37	AC Contactor CJX9B-25S/01#	44010222	1
38	Metal Base	012054012	1
39	Front Side Plate	01305403	1
40	Low Pressure Switch	46020007	1
41	Pressure Switch	46020003	1
41	Pressure Switch	46020011	1

8.9 Exploded View of Components and Parts of Outdoor Unit



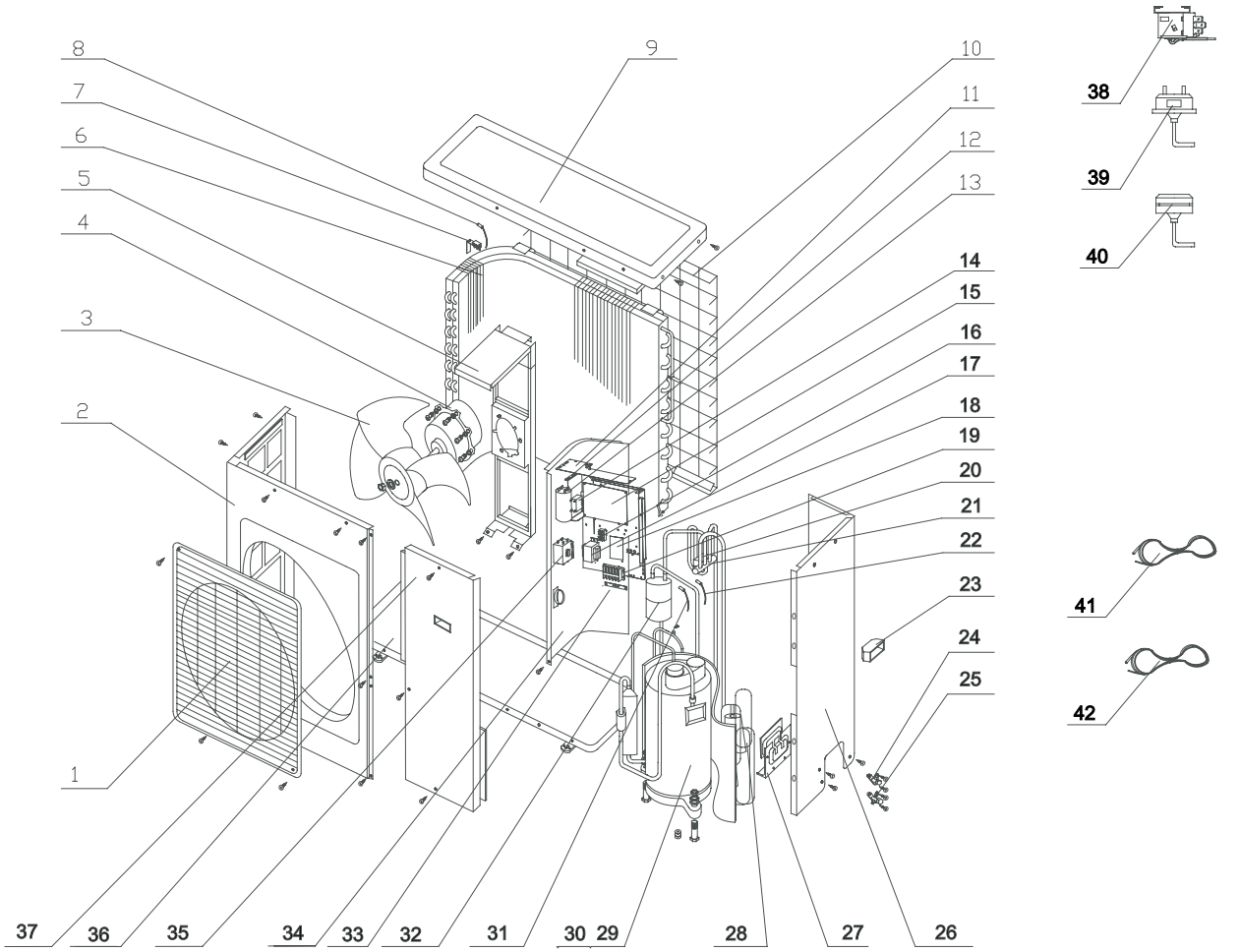
8. 10 Components and Parts List of Oudoor Unit

No	Description	Part Code			Qty
		GWCN28C1TK1AA/O	GWCN28C1NK3AA/O	GWHN28C1NK3AA/O	
1	Front Grill	22265401	22265401	22265401	1
2	Front Plate	01435402	01435402	01435402	1
3	Axial Flow Fan	10335253	10335401	10335401	1
4	Motor LW80C	15015401	15015401	15015401	1
5	Motor Support	01705401	01705401	01705401	1
6	Condenser Assy	011032341	011032344	011032344	1
7	Temp Sensor Support	24215101	24215101	24215101	1
8	Ambient Sensor	390002064	390002064	390002064	1
9	Top Cover	01255402	01255402	01255402	1
10	Rear Grill	01475401	01475401	01475401	1
11	upper Electric box cover	01413075	01413075	01413075	1
12	Electric Plate	01413074	01413074	01413074	1
13	Capacitor CBB65 50uF/450V	33000001	33010743	33010743	1
14	Capacitor CBB61 3.5uF/450V	33010010	33010010	33010010	1
15	Main PCB	30055018	30035303	30030302	1
16	Terminal Board 2-8	42011103	42011103	42011103	1
17	Transformer 57X30G	43110232	43110232	43110232	1
18	Terminal Board	42010258	42010258	42010258	1
19	4-way Valve Coil	/	/	430004002	1
20	4-way Valve	/	/	43000411	1
21	Temp Sensor	390001921	390001921	390001921	1
22	Handle	26235253	26235253	26235253	1
23	Gas Valve Assy 5/8"	07105252	07103030	07103030	1
24	Liquid Valve Assy 3/8"	071302232	07130209	07130209	1
25	Rear Side Plate	01305401	01308748	01308748	1
26	Valve Support	01715256	01715256	01715256	1
27	Capillary Assy	03103141	03103305	03103305	1
28	Compressor AWR5538EXC	00103011	00100399	00103010	1
29	Overload Protector	in set	in set	in set	1
30	Temp Sensor	/	/	/	1
31	Gas-liquid Separator	07255251	07255251	07255251	1
32	Isolation Washer C	70410523	70410523	70410523	1
33	Clapboard	01235403	01235403	01235403	1
34	AC Contactor GC6-45S/01C3A	44010265	44010263	44010263	1
35	Metal Base	01215401	01215401	01215401	1
36	Front Side Plate	01305403	01305403	01305403	1
37	Pressure Switch	/	46020007	46020007	1
38	High Pressure Switch	46025201	460200061	460200061	1

No	Description	Part Code		Qty
		GWCN28C1TD1AA/O	GWHN28C1TD1AA/O	
1	Front Grill	22265401	22265401	1
2	Front Plate	01435402	01435402	1
3	Axial Flow Fan	10335253	10335253	1
4	Motor LW92P	15015452	15015452	1
5	Motor Support	01705401	01705401	1
6	Condenser Assy	011032341	011032341	1
7	Temp Sensor Support	24215101	24215101	1
8	Ambient Sensor	390002064	390002064	1
9	Top Cover	01255402	01255402	1
10	Rear Grill	01475401	01475401	1
11	upper Electric box cover	01413075	01413075	1
12	Electric Plate	01413074	01413074	1
13	Capacitor CBB65 45uF/440V(450V)	33000012	33000012	1
14	Capacitor CBB61 4uF/500V	33010013	33010013	1
15	Main PCB	30055018	30055017	1
16	Terminal Board 2-8	42011103	42011103	1
17	Transformer 57X30G	43110232	43110232	1
18	Terminal Board	42010258	42010258	1
19	4-way Valve Coil	/	430004002	1
20	4-way Valve	/	43000404	1
21	Temp Sensor	390001921	390001921	1
22	Handle	26235253	26235253	1
23	Gas Valve Assy 5/8"	07105252	07105252	1
24	Liquid Valve Assy 3/8"	071302232	071302232	1
25	Rear Side Plate	01305401	01305401	1
26	Valve Support	01715256	01715256	1
27	Capillary Assy	03103141	03103141	1
28	Compressor AWZ5532EXN	00103010	00103010	1
29	Overload Protector	in set	in set	1
30	Temp Sensor	/	/	1
31	Gas-liquid Separator	07255251	07255251	1
32	Isolation Washer C	70410523	70410523	1
33	Clapboard	01235403	01235403	1
34	AC Contactor GC6-	44010265	44010265	1
35	Metal Base	01215401	01215401	1
36	Front Side Plate	01305403	01305403	1
37	Pressure Switch	/	/	1
38	High Pressure Switch	46025201	46025201	1

上述数据若有变更，恕不另行通知。

8. 11 Exploded View of Components and Parts of Outdoor Unit

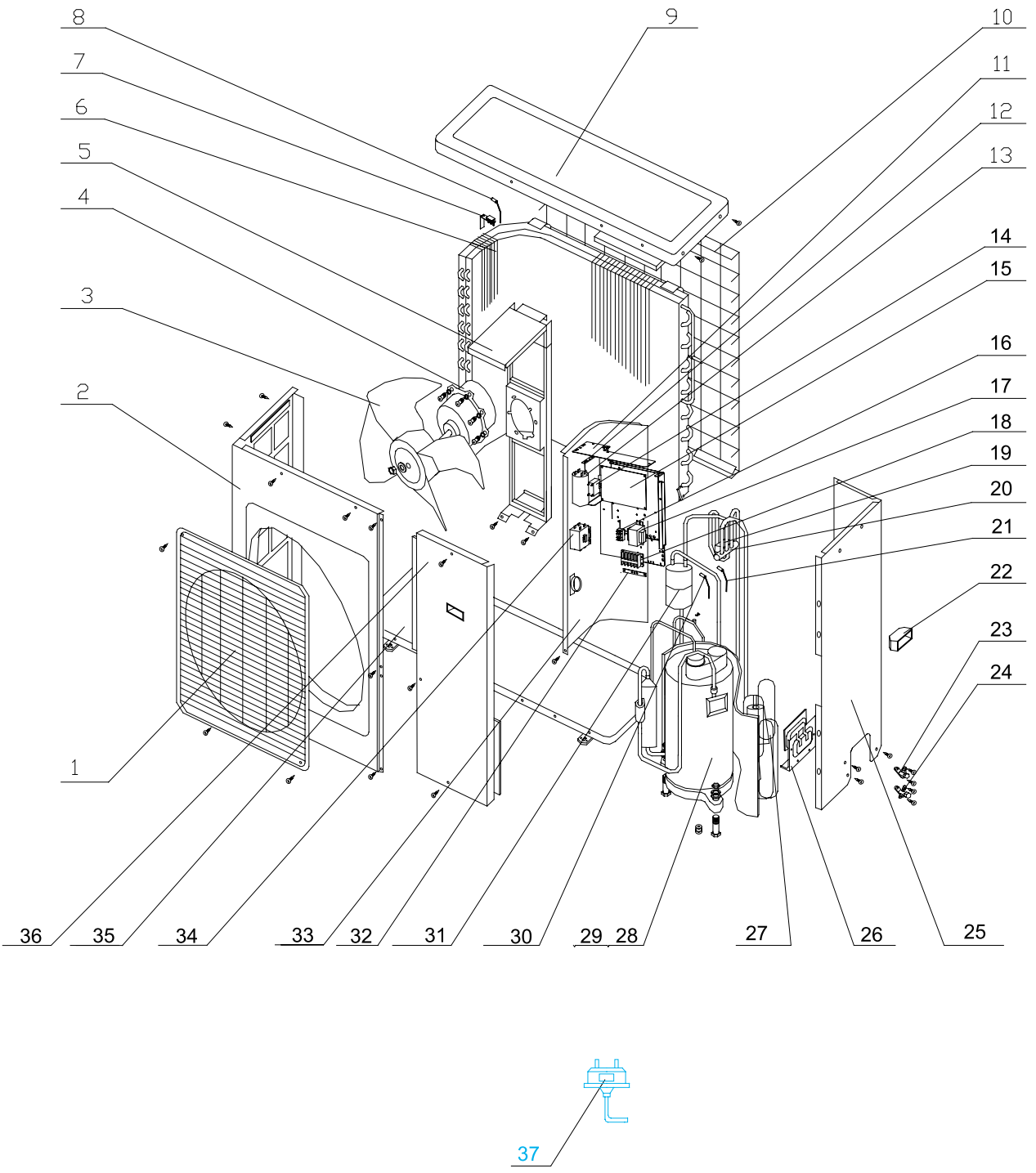


8. 12 Components and Parts List of Oudoor Unit

No	Description	Part Code	Qty
		GWHN24C1NK3AB/O	
1	Front Grill	01473001	1
2	Front Plate	01433011	1
3	Axial Flow Fan	10335253	1
4	Motor LW80C	15013106	1
5	Motor Support	01705253	1
6	Condenser Assy	011036796	1
7	Temp Sensor Support	24215101	1
8	Ambient Sensor	390002065	1
9	Top Cover	01255262	1
10	Rear Grill	01475252	1
11	upper Electric box cover	01413076	1
12	Electric Plate	01403391	1
13	Capacitor CBB65 40uF/450V	33000022	1
14	Capacitor CBB61 3.5uF/450V	33010010	1
15	Main PCB	30030302	1
16	Terminal Board 2-8	42011103	1
17	Transformer 57X30G	43110232	1
18	low temperature Start Device	30116041	1
19	Terminal Board	42010258	1
20	4-way Valve Coil	430004002	1
21	4-way Valve	43000411	1
22	Temp Sensor	390001921	1
23	Handle	26235253	1
24	Gas Valve Assy 5/8"	07103030	1
25	Liquid Valve Assy 3/8"	07130209	1
26	Rear Side Plate	01303709	1
27	Valve Support	01715256	1
28	Capillary Assy	03103281	1
29	Compressor C-3RV322H1AAF	00103703	1
30	Overload Protector	in set	1
31	Temp Sensor	/	1
32	Gas-liquid Separator	07255251	1
33	Isolation Washer C	70410523	1
34	Clapboard	01235254	1
35	AC Contactor CJX9B-25S/DL	44010263	1
36	Metal Base	01205117	1
37	Front Side Plate	01305247	1
38	Temperature control	45040026	1
39	Pressure Switch	460200061	1
40	Pressure sensor	32210034	1
41	electrical heater for base	765100041	1
42	electrical heater for	76518731	1

上述数据若有变更，恕不另行通知。

8. 13 Exploded View of Components and Parts of Outdoor Unit

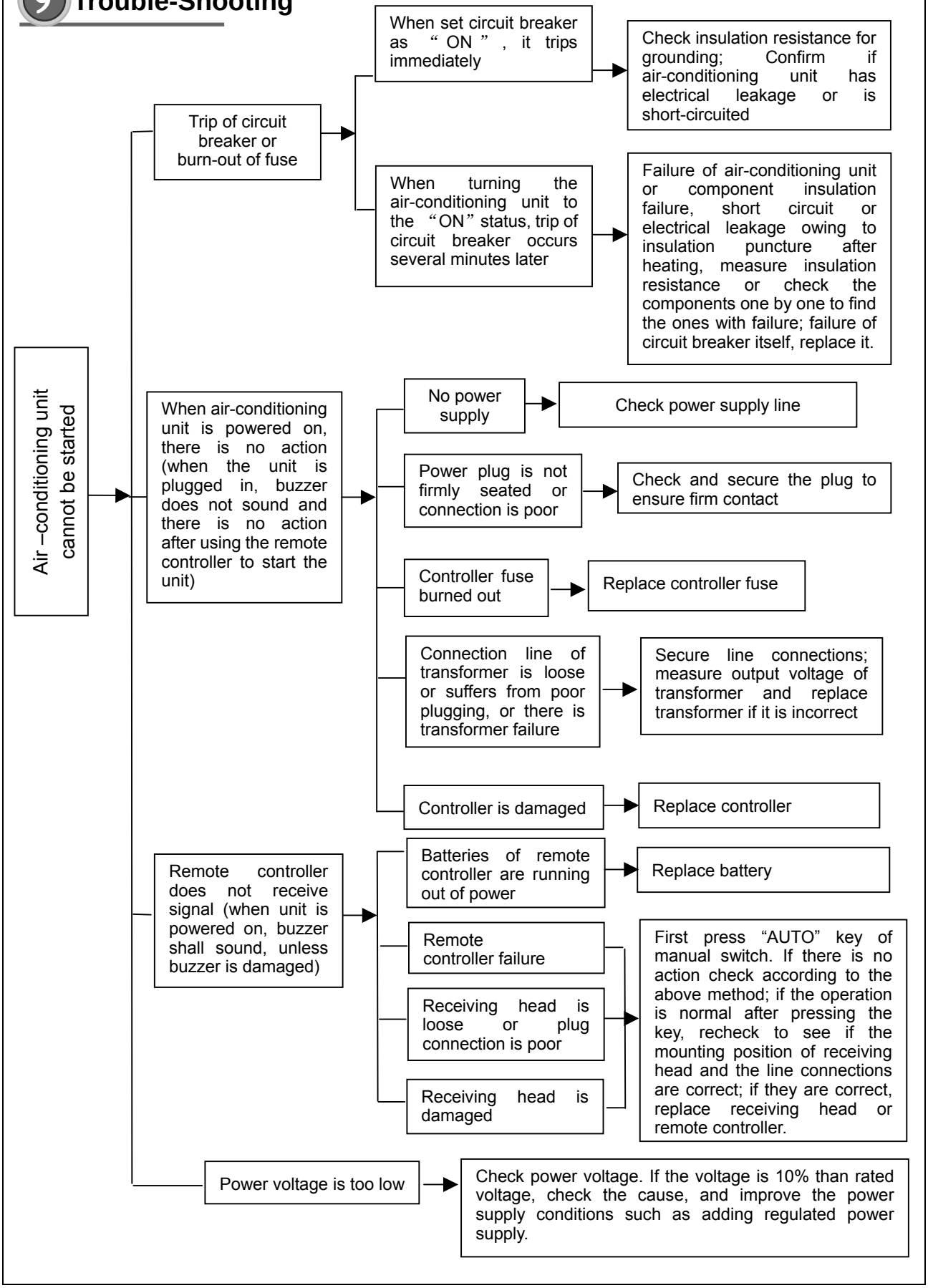


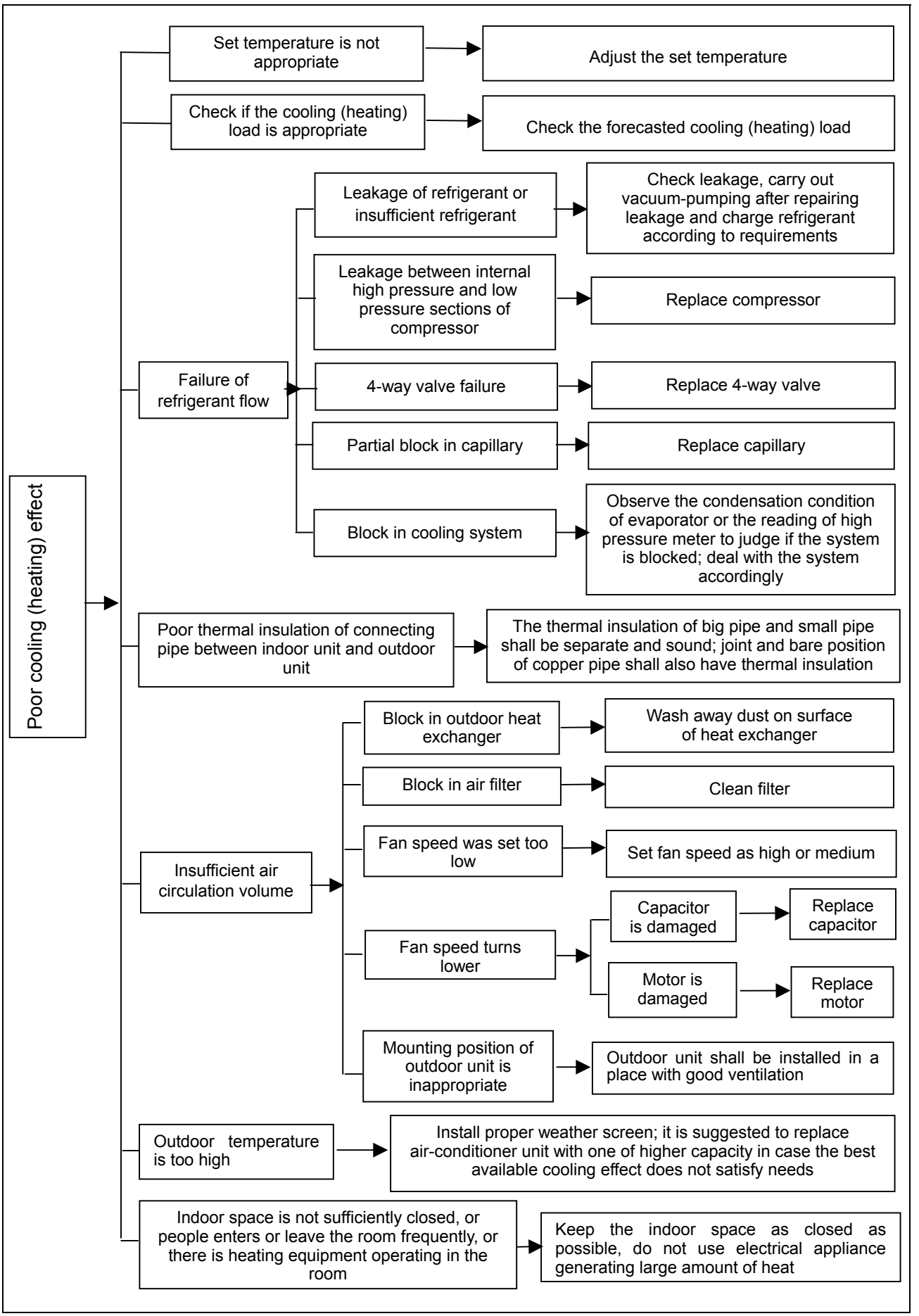
8. 14 Components and Parts List of Oudoor Unit

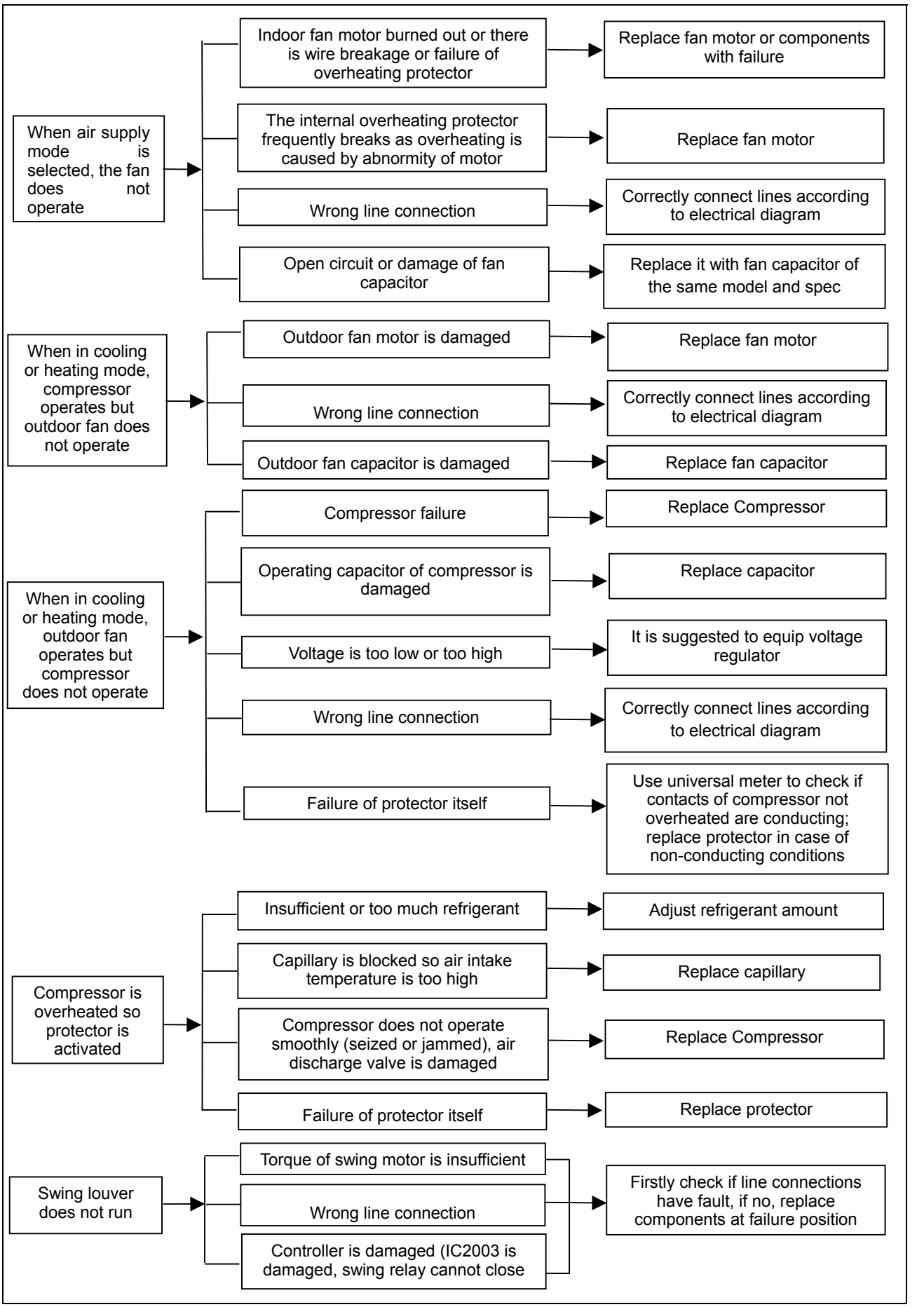
No	Description	Part Code		Qty
		GWHN24C1NK3AA/O	GWCN24C1NK3AA/O	
1	Front Grill	22265251	22265251	1
2	Front Plate	01433011	01433011	1
3	Axial Flow Fan	10335253	10335253	1
4	Motor LW80C	15013106	15013106	1
5	Motor Support	01705253	01705253	1
6	Condenser Assy	011036796	011036797	1
7	Temp Sensor Support	24215101	24215101	1
8	Ambient Sensor	390002064	390002064	1
9	Top Cover	01255262	01255262	1
10	Rear Grill	01475252	01475252	1
11	upper Electric box cover	01413076	01413076	1
12	Electric Plate	01403377	01403377	1
13	Capacitor CBB65 40uF/450V	33000022	33000022	1
14	Capacitor CBB61 3.5uF/450V	33010010	33010010	1
15	Main PCB	30030302	30035303	1
16	Terminal Board 2-8	42011103	42011103	1
17	Transformer 57X30G	43110232	43110232	1
18	Terminal Board	42010258	42010258	1
19	4-way Valve Coil	430004002	/	1
20	4-way Valve	43000411	/	1
21	Temp Sensor	390001921	390001921	1
21	Temp Sensor	390001921		1
22	Handle	26235253	26235253	1
23	Gas Valve Assy 5/8"	07103030	07103030	1
24	Liquid Valve Assy 3/8"	07130209	07130209	1
25	Rear Side Plate	01305260	01303709	1
26	Valve Support	01715256	01715256	1
27	Capillary Assy	03103281	03103281	1
28	Compressor C-3RV322H1AAF	00103703	00103703	1
29	Overload Protector	in set	in set	1
30	Temp Sensor	390002064	/	1
31	Gas-liquid Separator	07255251	07255251	1
32	Isolation Washer C	70410523	70410523	1
33	Clapboard	01235254	01235254	1
34	AC Contactor CJX9B-25S/D	44010245	44010245	1
35	Metal Base	01203568	01203568	1
36	Front Side Plate	01305247	01305247	1
37	Pressure Switch	460200061	460200061	1

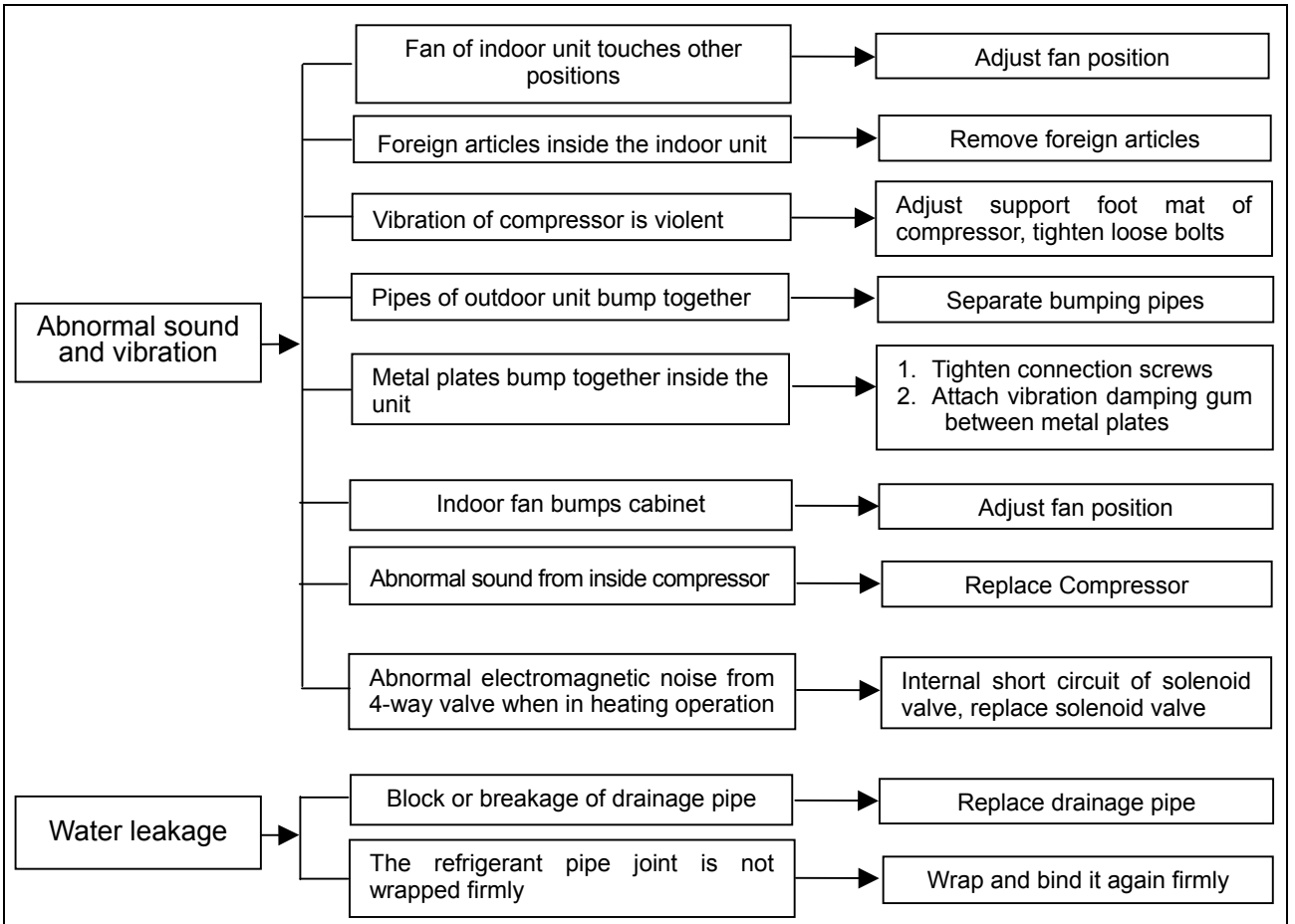
上述数据若有变更，恕不另行通知。

9 Trouble-Shooting




Poor cooling (heating) effect
Set temperature is not appropriate
Adjust the set temperature
Check if the cooling (heating) load is appropriate
Check the forecasted cooling (heating) load
Failure of refrigerant flow
Leakage of refrigerant or insufficient refrigerant
Check leakage, carry out vacuum-pumping after repairing leakage and charge refrigerant according to requirements
Leakage between internal high pressure and low pressure sections of compressor
Replace compressor
4-way valve failure
Replace 4-way valve
Partial block in capillary
Replace capillary
Block in cooling system
Observe the condensation condition of evaporator or the reading of high pressure meter to judge if the system is blocked; deal with the system accordingly
Poor thermal insulation of connecting pipe between indoor unit and outdoor unit
The thermal insulation of big pipe and small pipe shall be separate and sound; joint and bare position of copper pipe shall also have thermal insulation
Insufficient air circulation volume
Block in outdoor heat exchanger
Wash away dust on surface of heat exchanger
Block in air filter
Clean filter
Fan speed was set too low
Set fan speed as high or medium
Fan speed turns lower
Capacitor is damaged
Replace capacitor
Motor is damaged
Replace motor
Mounting position of outdoor unit is inappropriate
Outdoor unit shall be installed in a place with good ventilation
Outdoor temperature is too high
Install proper weather screen; it is suggested to replace air-conditioner unit with one of higher capacity in case the best available cooling effect does not satisfy needs
Indoor space is not sufficiently closed, or people enters or leave the room frequently, or there is heating equipment operating in the room
Keep the indoor space as closed as possible, do not use electrical appliance generating large amount of heat


When air supply mode is selected, the fan does not operate
Indoor fan motor burned out or there is wire breakage or failure of overheating protector
Replace fan motor or components with failure
The internal overheating protector frequently breaks as overheating is caused by abnormity of motor
Replace fan motor
Wrong line connection
Correctly connect lines according to electrical diagram
Open circuit or damage of fan capacitor
Replace it with fan capacitor of the same model and spec
When in cooling or heating mode, compressor operates but outdoor fan does not operate
Outdoor fan motor is damaged
Replace fan motor
Wrong line connection
Correctly connect lines according to electrical diagram
Outdoor fan capacitor is damaged
Replace fan capacitor
When in cooling or heating mode, outdoor fan operates but compressor does not operate
Compressor failure
Replace Compressor
Operating capacitor of compressor is damaged
Replace capacitor
Voltage is too low or too high
It is suggested to equip voltage regulator
Wrong line connection
Correctly connect lines according to electrical diagram
Failure of protector itself
Use universal meter to check if contacts of compressor not overheated are conducting; replace protector in case of non-conducting conditions
Compressor is overheated so protector is activated
Insufficient or too much refrigerant
Adjust refrigerant amount
Capillary is blocked so air intake temperature is too high
Replace capillary
Compressor does not operate smoothly (seized or jammed), air discharge valve is damaged
Replace Compressor
Failure of protector itself
Replace protector
Swing louver does not run
Torque of swing motor is insufficient
Wrong line connection
Controller is damaged (IC2003 is damaged, swing relay cannot close
Firstly check if line connections have fault, if no, replace components at failure position


Abnormal sound and vibration
Fan of indoor unit touches other positions
Adjust fan position
Foreign articles inside the indoor unit
Remove foreign articles
Vibration of compressor is violent
Adjust support foot mat of compressor, tighten loose bolts
Pipes of outdoor unit bump together
Separate bumping pipes
Metal plates bump together inside the unit
1. Tighten connection screws
2. Attach vibration damping gum between metal plates
Indoor fan bumps cabinet
Adjust fan position
Abnormal sound from inside compressor
Replace Compressor
Abnormal electromagnetic noise from 4-way valve when in heating operation
Internal short circuit of solenoid valve, replace solenoid valve
Water leakage
Block or breakage of drainage pipe
Replace drainage pipe
The refrigerant pipe joint is not wrapped firmly
Wrap and bind it again firmly