

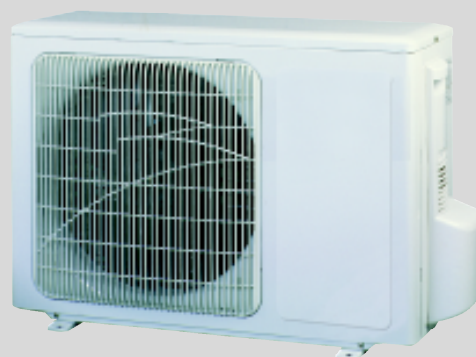
1 Summary and features



09K Outdoor unit:



12K Outdoor unit:



Model	Remarks
GWCN09CANK1A1A GWHN09CANK1A1A GWCN12CBNK1A1A GWHN12CBNK1A1A	1Ph 220~240V 50Hz R22



18 Outdoor unit:



24Outdoor unit:



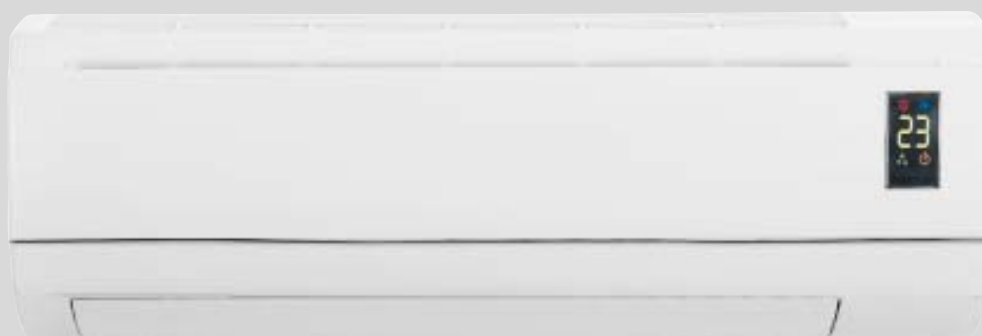
Model	Remarks
GWCN18CCNK1A1A(GWCN18DCNK1A1A) GWHN18CCNK1A1A(GWHN18DCNK1A1A) GWCN24CCNK1A1A(GWCN24DCNK1A1A) GWHN24CCNK1A1A(GWHN24DCNK1A1A)	1Ph 220~240V 50Hz R22



Model	Remarks
GWCN09CANK1A2A GWHN09CANK1A2A	1Ph 220~240V 50Hz R22



Model	Remarks
<p>GWCN12CBNK1A2A GWHN12CBNK1A2A</p>	<p>1Ph 220~240V 50Hz R22</p>



Model	Remarks
GWCN18(09X2)CANK1A1A GWHN18(09X2)CANK1A1A GWCN21(09+12)CBNK1A1A GWCN24(12X2)CBNK1A1A GWHN24(12X2)CBNK1A1A	1Ph 220~240V 50Hz R22

09K Indoor unit:

12K Indoor unit:



Model	Remarks
GWCN18(09X2)CANK1A2A GWHN18(09X2)CANK1A2A GWCN24(12X2)CBNK1A2A GWHN24(12X2)CBNK1A2A	1Ph 220~240V 50Hz R22

2 Technical specifications

Model		GWCN09CANK1A1A	GWHN09CANK1A1A	
Function		COOLING	COOLING	HEATING
Rated Voltage		220-240V	220-240V	
Rated Frequency		50Hz	50Hz	
Total Capacity (W/Btu/h)		2600 /9000	2600/9000	2750/9217
Power Input (W)		1000	980	920
Rated Input (W)		1360	1200	1200
Rated Current (A)		6.5	5.2	5.2
Air Flow Volume (m ³ /h) (H/ML)**		500	500	
Dehumidifying Volume (l/h)		1	1	
EER / C.O.P (W/W)		2.60/-	2.60/3.2	
Energy Class		/	/	
Indoor unit	Model of Indoor Unit	GWCN09CANK1A1A/I	GWHN09CANK1A1A/I	
	Fan Motor Speed (r/min) (H/ML)	1160/1065/959/861	1160/1060/960/860	
	Output of Fan Motor (w)		20	
	Input of Heater (w)	/	/	
	Fan Motor Capacitor (uF)	1	1	
	Fan Motor RLA(A)	0.263	0.222	
	Fan Type-Piece	Cross flow fan - 1	Cross flow fan - 1	
	Diameter-Length (mm)	97	97	
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube	
	Pipe Diameter (mm)	7	7	
	Row-Fin Gap(mm)	2-1.6	2-1.6	
	Coil length (l) x height (H) x coil width (L)	650X153X144	576X142X145	
	Swing Motor Model	MP28EC	MP28EC	
	Output of Swing Motor (W)	2	2	
	Fuse (A)	3.15	3.15	
	Sound Pressure Level dB (A) (H/ML)	40/38/36/34	40/38/36/34	
	Sound Power Level dB (A) (H/ML)***	50/48/46/44	50/48/46/44	
	Dimension (W/H/D) (mm)	740X250X202	740X250X202	
	Dimension of Package (W/H/D) (mm)	790X325X275	790X325X275	
	Net Weight /Gross Weight (kg)	8/10	8/10	

Outdoor unit	Model of Outdoor Unit		GWCN09DANK1A1A/O	GWHN09DANK1A1A/O
	Compressor Manufacturer/trademark		LANDA	LANDA
	Compressor Model		QX-B172C030	QX-B172C030
	Compressor Type		Rotary	Rotary
	L.R.A. (A)		24	24
	Compressor RLA(A)		4.6	4.6
	Compressor Power Input(W)		960	960
	Overload Protector		Inner	/
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5~46	-5~46
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		7	9.52
	Rows-Fin Gap(mm)		1-1.4	1-1.4
	Coil length (l) x height (H) x coil width (L)		508X400X210	508X400X210
	Fan Motor Speed (rpm)		950	950
	Output of Fan Motor (W)		20	20
	Fan Motor RLA(A)		0.465	0.35
	Fan Motor Capacitor (uF)		1~1.5	1.5
	Air Flow Volume of Outdoor Unit(m³/h)		/	/
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		324	324
	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	3.8
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1	1.2
	Sound Pressure Level dB (A) (H/ML)		52	52
	Sound Power Level dB (A) (H/ML)		62	62
	Dimension (W/H/D) (mm)		720X430X320	720X430X320
	Dimension of Package (W/H/D)(mm)		765X490X350	765X490X350
	Net Weight /Gross Weight (kg)		25/29	25/29
	Refrigerant Charge (kg)		R22/0.53	R22 /0.66
Connec tion Pipe	Length (m)		5	5
	Gas additional charge(g/m)		25	20
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")	Φ6(1/4")
		Gas Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")
	Max Distance	Height (m)	5	5
Length (m)		10	10	
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model	GWCN09DANK1A2A	GWHN09CANK1A2A	
Function	COOLING	COOLING	HEATING
Rated Voltage	220-240V	220-240V	
Rated Frequency	50Hz	50Hz	
Total Capacity (W/Btu/h)	2600 /9000	2600/9000	2750/9217
Power Input (W)	1000	980	920
Rated Input (W)	1360	1200	1200
Rated Current (A)	6.5	5.2	5.2
Air Flow Volume (m ³ /h) (H/ML)**	500	500	
Dehumidifying Volume (l/h)	1	1	
EER / C.O.P (W/W)	2.60/-	2.60/3.2	
Energy Class	/	/	
Indoor unit	Model of Indoor Unit	GWCN09CANK1A2A/I	GWHN09CANK1A2A/I
	Fan Motor Speed (r/min) (H/ML)	1160/1065/959/861	1160/1060/960/860
	Output of Fan Motor (w)	20	
	Input of Heater(W)	/	
	Fan Motor Capacitor (uF)	1	
	Fan Motor RLA(A)	0.263	
	Fan Type-Piece	Cross flow fan - 1	
	Diameter-Length (mm)	97	
	Evaporator	Aluminum fin-copper tube	
	Pipe Diameter (mm)	7	
	Row-Fin Gap(mm)	2-1.6	
	Coil length (l) x height (H) x coil width (L)	650X153X144	
	Swing Motor Model	MP28EC	
	Output of Swing Motor (W)	2	
	Fuse (A)	3.15	
	Sound Pressure Level dB (A) (H/ML)	40/38/36/34	
	Sound Power Level dB (A) (H/ML)***	50/48/46/44	
	Dimension (W/H/D) (mm)	740X250X202	
	Dimension of Package (W/H/D) (mm)	790X325X275	
	Net Weight /Gross Weight (kg)	8/10	

Outdoor unit	Model of Outdoor Unit		GWCN09DANK1A1A/O	GWHN09DANK1A1A/O
	Compressor Manufacturer/trademark		LANDA	LANDA
	Compressor Model		QX-B172C030	QX-B172C030
	Compressor Type		Rotary	Rotary
	L.R.A. (A)		24	24
	Compressor RLA(A)		4.6	4.6
	Compressor Power Input(W)		960	960
	Overload Protector		Inner	/
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5~46	-5~46
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		7	9.52
	Rows-Fin Gap(mm)		1-1.4	1-1.4
	Coil length (l) x height (H) x coil width (L)		508X400X210	508X400X210
	Fan Motor Speed (rpm)		950	950
	Output of Fan Motor (W)		20	20
	Fan Motor RLA(A)		0.465	0.35
	Fan Motor Capacitor (uF)		1~1.5	1.5
	Air Flow Volume of Outdoor Unit(m³/h)		/	/
	Fan Type-Piece		Axial fan –1	Axial fan –1
	Fan Diameter (mm)		324	324
	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	3.8
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1	1.2
	Sound Pressure Level dB (A) (H/ML)		52	52
	Sound Power Level dB (A) (H/ML)		62	62
	Dimension (W/H/D) (mm)		720X430X320	720X430X320
	Dimension of Package (W/H/D)(mm)		765X490X350	765X490X350
	Net Weight /Gross Weight (kg)		25/29	25/29
	Refrigerant Charge (kg)		R22/0.53	R22 /0.66
Connec tion Pipe	Length (m)		5	5
	Gas additional charge(g/m)		25	20
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")	Φ6(1/4")
		Gas Pipe (mm)	Φ9.52(3/8")	Φ9.52(3/8")
	Max Distance	Height (m)	5	5
Length (m)		10	10	
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model		GWCN12CBNK1A1A GWCN12CBNK1A2A	GWHN12CBNK1A1A GWHN12CBNK1A2A
Function		COOLING	COOLING HEATING
Rated Voltage		220-240V	220-240V
Rated Frequency		50Hz	50Hz
Total Capacity (W/Btu/h)		3500(12000)	3500(12000) 3900(13300)
Power Input (W)		1290	1290 1220
Rated Input (W)		1650	1650 1650
Rated Current (A)		8.9	8.9 8.9
Air Flow Volume (m ³ /h) (H/ML)**		580	580
Dehumidifying Volume (l/h)		1	1
EER / C.O.P (W/W)		2.71	2.71/3.20
Energy Class		/	/
Indoor unit	Model of Indoor Unit	GWCN12CBNK1A1A/I GWCN12CBNK1A2A/I	GWHN12CBNK1A1A/I GWHN12CBNK1A2A/I
	Fan Motor Speed (r/min) (H/ML)	1120/1010/890/760	1120/1010/890/760
	Output of Fan Motor (w)	9	9
	Input of Heater(W)	/	/
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.28	0.28
	Fan Type-Piece	Cross flow fan - 1	Cross flow fan - 1
	Diameter-Length (mm)	φ99X644	φ99X644
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	7	7
	Row-Fin Gap(mm)	2-1.5	2-1.5
	Coil length (l) x height (H) x coil width (L)	656X25.4X304.8	656X25.4X304.8
	Swing Motor Model	MP24AA	MP24AA
	Output of Swing Motor (W)	1.5	1.5
	Fuse (A)	PCB 3.15A	PCB 3.15A
	Sound Pressure Level dB (A) (H/ML)	41/39/36/32	41/39/36/32
	Sound Power Level dB (A) (H/ML)***	51/49/46/42	51/49/46/42
	Dimension (W/H/D) (mm)	805X280X215	805X280X215
	Dimension of Package (W/H/D) (mm)	860X355X280	860X355X280
	Net Weight /Gross Weight (kg)	9/12	9/12

Outdoor unit	Model of Outdoor Unit		GWCN12DBNK1A1A/O	GWHN12DBNK1A1A/O
	Compressor Manufacturer/trademark		Sanyo	Sanyo
	Compressor Model		C-RV233H2NB	C-RV233H2NB
	Compressor Type		Rotory	Rotory
	L.R.A. (A)		29	29
	Compressor RLA(A)		5.8	5.8
	Compressor Power Input(W)		1260	1260
	Overload Protector		IN	IN
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-15~46	-15~46
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		7.94	7.94
	Rows-Fin Gap(mm)		1-1	1-1
	Coil length (l) x height (H) x coil width (L)		743X506X19.05	743X506X19.05
	Fan Motor Speed (rpm)		850	850
	Output of Fan Motor (W)		30	30
	Fan Motor RLA(A)		0.35	0.35
	Fan Motor Capacitor (uF)		2	2
	Air Flow Volume of Outdoor Unit(m³/h)		1700	1700
	Fan Type-Piece		Axial fan -1	Axial fan -1
	Fan Diameter (mm)		400	400
	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/ML)		52	52
	Sound Power Level dB (A) (H/ML)		62	62
	Dimension (W/H/D) (mm)		848X540X320	848X540X320
	Dimension of Package (W/H/D)(mm)		878X590X360	878X590X360
	Net Weight /Gross Weight (kg)		35/40	35/40
	Refrigerant Charge (kg)		R22/0.78	R22/0.98
Connec tion Pipe	Length (m)		5	5
	Gas additional charge(g/m)		25	25
	Outer Diameter	Liquid Pipe (mm)	Φ6(1/4")	Φ6(1/4")
		Gas Pipe (mm)	Φ12(1/2")	Φ12(1/2")
	Max Distance	Height (m)	5	5
Length (m)		10	10	
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model		GWCN18CCNK1A1A (GWCN18DCNK1A1A)	GWHN18CCNK1A1A (GWHN18DCNK1A1A)
Function		COOLING	COOLING HEATING
Rated Voltage		220-240V~	220-240V~
Rated Frequency		50Hz	50Hz
Total Capacity (Btu/h)		18000	18000 19500
Power Input (W)		1940	1940 1850
Rated Input (W)		2500	2700 2600
Rated Current (A)		10.9	13.6 13.2
Air Flow Volume (m ³ /h) (H/ML)**		830/670/600	830/670/600
Dehumidifying Volume (l/h)		3	3
EER / C.O.P (W/W)		2.72	2.72/3.10
Energy Class		C	C
Indoor unit	Model of Indoor Unit	GWCN18CCNK1A1A/I (GWCN18DCNK1A1A/I)	GWHN18CCNK1A1A/I (GWHN18DCNK1A1A/I)
	Fan Motor Speed (r/min) (H/ML)	1200/1050/900	1200/1050/900
	Output of Fan Motor (w)	20	20
	Input of Heater(W)	/	/
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.4	0.4
	Fan Type-Piece	Cross flow fan - 1	Cross flow fan - 1
	Diameter-Length (mm)	φ96 X 797	φ96 X 797
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	Φ7	Φ7
	Row-Fin Gap(mm)	2-1.6	2-1.6
	Coil length (l) x height (H) x coil width (L)	785X340.51X25.4	785X340.51X25.4
	Swing Motor Model	MP35XX	MP35XX
	Output of Swing Motor (W)	2.5	2.5
	Fuse (A)	PCB 3.15A Transformer 0.2A	PCB 3.15A Transformer 0.2A
	Sound Pressure Level dB (A) (H/ML)	48/45/42/38	48/45/42/38
	Sound Power Level dB (A) (H/ML)***	58/55/52/48	58/55/52/48
	Dimension (W/H/D) (mm)	1020X310X228	1020X310X228
	Dimension of Package (W/H/D) (mm)	1078X325X390	1078X325X390
	Net Weight /Gross Weight (kg)	14/19	14/19

Outdoor unit	Model of Outdoor Unit		GWCN18CCNK1A1A/O (GWCN18DCNK1A1A/O)	GWHN18CCNK1A1A/O (GWHN18DCNK1A1A/O)
	Compressor Manufacturer/trademark		ZHUHAI LANDA COMPRESSOR CO.,LTD	Shanghai Hitachi Electrical Appliances Co.,Ltd./Highly
	Compressor Model		QX-34G050g(GREE)	SHX33SC4-S
	Compressor Type		rotary compressor	rotary compressor
	L.R.A. (A)		46.3	40
	Compressor RLA(A)		8.7	8.35
	Compressor Power Input(W)		1850	1815
	Overload Protector		IN	IN
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-7~43	-7~43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		8	8
	Rows-Fin Gap(mm)		1-1.6	1-1.6
	Coil length (l) x height (H) x coil width (L)		806X660X19.05	806X660X19.05
	Fan Motor Speed (rpm)		860	860
	Output of Fan Motor (W)		48	48
	Fan Motor RLA(A)		0.62	0.62
	Fan Motor Capacitor (uF)		3.5	3.5
	Air Flow Volume of Outdoor Unit(m³/h)		2790	2790
	Fan Type-Piece		Axial fan -1	Axial fan -1
	Fan Diameter (mm)		Φ473	Φ473
	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/ML)		56	56
	Sound Power Level dB (A) (H/ML)		66	66
	Dimension (W/H/D) (mm)		913X680X378	913X680X378
	Dimension of Package (W/H/D)(mm)		994X720X428	994X720X428
	Net Weight /Gross Weight (kg)		46/50	46/50
	Refrigerant Charge (kg)		R22/1.1	R22/1.35
Connec tion Pipe	Length (m)		4	4
	Gas additional charge(g/m)		50	50
	Outer Diameter	Liquid Pipe (mm)	Φ6	Φ6
		Gas Pipe (mm)	Φ12	Φ12
	Max Distance	Height (m)	5	5
		Length (m)	10	10
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model		GWCN24CCNK1A1A (GWCN24DCNK1A1A)	GWHN24CCNK1A1A (GWHN24DCNK1A1A)
Function		COOLING	COOLING HEATING
Rated Voltage		220-240V~	220-240V~
Rated Frequency		50Hz	50Hz
Total Capacity (Btu/h)		22000	22000 23200
Power Input (W)		2300	2250 2260
Rated Input (W)		3200	3200 3150
Rated Current (A)		16.2	16.2 15.9
Air Flow Volume (m ³ /h) (H/ML)**		830/670/600	830/670/600
Dehumidifying Volume (l/h)		3	3
EER / C.O.P (W/W)		2.78	2.78/2.92
Energy Class		/	/
Indoor unit	Model of Indoor Unit	GWCN24CCNK1A1A/I (GWCN24DCNK1A1A/I)	GWHN24CCNK1A1A/I (GWHN24DCNK1A1A/I)
	Fan Motor Speed (r/min) (H/ML)	1200/1050/950	1200/1050/950 1250/1150/1050
	Output of Fan Motor (w)	20	20
	Input of Heater(W)	/	/
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.4	0.4
	Fan Type-Piece	Cross flow fan - 1	Cross flow fan - 1
	Diameter-Length (mm)	φ96 X 797	φ96 X 797
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	Φ7	Φ7
	Row-Fin Gap(mm)	2-1.6	2.5-1.6
	Coil length (l) x height (H) x coil width (L)	785X340.51X25.4	785X340.51X25.4
	Swing Motor Model	MP35XX	MP35XX
	Output of Swing Motor (W)	2.5	2.5
	Fuse (A)	PCB 3.15A Transformer 0.2A	PCB 3.15A Transformer 0.2A
	Sound Pressure Level dB (A) (H/ML)	45/42/39	45/42/39
	Sound Power Level dB (A) (H/ML)***	/	/
	Dimension (W/H/D) (mm)	1020X310X228	1020X310X228
	Dimension of Package (W/H/D) (mm)	1078X325X390	1078X325X390
	Net Weight /Gross Weight (kg)	15/20	15/20

Outdoor unit	Model of Outdoor Unit		GWCN24CCNK1A1A/O (GWCN24DCNK1A1A/O)	GWHN24CCNK1A1A/O (GWHN24DCNK1A1A/O)
	Compressor Manufacturer/trademark		Shanghai Hitachi	Shanghai Hitachi
	Compressor Model		SHV33ZC1-S	SHV33ZC1-S
	Compressor Type		rotary compressor	rotary compressor
	L.R.A. (A)		60	60
	Compressor RLA(A)		9.46	9.46
	Compressor Power Input(W)		2175	2175
	Overload Protector		IN	IN
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-7~43	-7~43
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		9.52	8
	Rows-Fin Gap(mm)		1-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		765X660X22	778X660X38.1
	Fan Motor Speed (rpm)		840±20	840±20
	Output of Fan Motor (W)		68	68
	Fan Motor RLA(A)		1.2	1.2
	Fan Motor Capacitor (uF)		3.5	3.5
	Air Flow Volume of Outdoor Unit(m³/h)		3400	3400
	Fan Type-Piece		Axial fan -1	Axial fan -1
	Fan Diameter (mm)		Φ472	Φ472
	Defrosting Method		/	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/ML)		57	57
	Sound Power Level dB (A) (H/ML)		/	/
	Dimension (W/H/D) (mm)		950X700X412	950X700X412
	Dimension of Package (W/H/D)(mm)		1100X755X450	1100X755X450
	Net Weight /Gross Weight (kg)		59/63	59/63
	Refrigerant Charge (kg)		R22/1.4	R22/1.85
Connec tion Pipe	Length (m)		4	4
	Gas additional charge(g/m)		50	50
	Outer Diameter	Liquid Pipe (mm)	Φ9.52	Φ9.52
		Gas Pipe (mm)	Φ16	Φ16
	Max Distance	Height (m)	5	5
		Length (m)	10	10
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model		GWCN18(09X2)CANK1A1A GWCN18(09X2)CANK1A2A	GWHN18(09X2)CANK1A1A GWHN18(09X2)CANK1A2A
Function		COOLING	COOLING HEATING
Rated Voltage		220-240	220-240
Rated Frequency		50	50
Total Capacity (Btu/h)		2650	2600X2 2900X2
Power Input (W)		2000	2000 2000
Rated Input (W)		2450	2460 2260
Rated Current (A)		10.65	10.47 9.64
Air Flow Volume (m ³ /h) (H/M/L)**		550/500/450/400	550/500/450/400
Dehumidifying Volume (l/h)		1	1
EER / C.O.P (W/W)		2.6	2.6/2.8
Energy Class		/	/
Indoor unit	Model of Indoor Unit	GWCN18(09)CANK1A1A/I GWCN18(09)CANK1A2A/I	GWHN18(09)CANK1A1A/I GWHN18(09)CANK1A2A/I
	Fan Motor Speed (r/min) (H/M/L)	1160/1060/960/860	1160/1060/960/860
	Output of Fan Motor (w)	20	20
	Input of Heater(W)	/	/
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.263	0.143
	Fan Type-Piece	Cross flow fan -1	Cross flow fan -1
	Diameter-Length (mm)	φ97X583	φ97X583
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	φ7	φ7
	Row-Fin Gap(mm)	2-1.6	2-1.6
	Coil length (l) x height (H) x coil width (L)	576X283X279	645X150X144
	Swing Motor Model	MP28EC	MP28EC
	Output of Swing Motor (W)	2	2
	Fuse (A)	PCB 3.15A	PCB 3.15A
	Sound Pressure Level dB (A) (H/M/L)	40/38/36/34	40/38/36/34
	Sound Power Level dB (A) (H/M/L)***	50/48/46/44	50/48/46/44
	Dimension (W/H/D) (mm)	740X250X202	740X250X202
	Dimension of Package (W/H/D) (mm)	790X325X275	790X325X275
	Net Weight /Gross Weight (kg)	8/10	8/10

Outdoor unit	Model of Outdoor Unit		GWCN18(09X2)DANK1A1A/O	GWHN18(09X2)DANK1A1A/O
	Compressor Manufacturer/trademark		LANDA	LANDA
	Compressor Model		QX-18A030	QX-18A030
	Compressor Type		rotory	rotory
	L.R.A. (A)		26	26
	Compressor RLA(A)		4.7	3.9
	Compressor Power Input(W)		990	850
	Overload Protector		B250-145-241H	B250-145-241H
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		-5℃ - 43℃	-5℃ - 43℃
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		φ7	φ7
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		664X178X650	664X178X660
	Fan Motor Speed (rpm)		815	815
	Output of Fan Motor (W)		60	60
	Fan Motor RLA(A)		0.272	0.56
	Fan Motor Capacitor (μF)		3	3.5
	Air Flow Volume of Outdoor Unit(m³/h)		/	/
	Fan Type-Piece		Axial fan -1	Axial fan -1
	Fan Diameter (mm)		472	472
	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	3
	Permissible Excessive Operating Pressure for the Suction Side(MPa)		1	1
	Sound Pressure Level dB (A) (H/ML)		57	59
	Sound Power Level dB (A) (H/ML)		67	69
	Dimension (W/H/D) (mm)		1018X700X412	1018X700X412
	Dimension of Package (W/H/D)(mm)		1100X755X450	1100X755X450
	Net Weight /Gross Weight (kg)		65/70	65/70
	Refrigerant Charge (kg)		R22 0.9 /0.9	R22 0.9X2
Connec tion Pipe	Length (m)		5	5
	Gas additional charge(g/m)		30	30
	Outer Diameter	Liquid Pipe (mm)	φ6	φ6
		Gas Pipe (mm)	φ9.52	φ9.52
	Max Distance	Height (m)	5	5
		Length (m)	10	10
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

Model		GWCN21(09+12)CBNK1A1A	
Function		COOLING	
Rated Voltage		220-240V~	
Rated Frequency		50	
Total Capacity (Btu/h)		2600	3500
Power Input (W)		2400	
Rated Input (W)		3000	
Rated Current (A)		13.6	
Air Flow Volume (m ³ /h) (H/M/L)**		550	580
Dehumidifying Volume (l/h)		1	1.5
EER / C.O.P (W/W)		2.5/-	
Energy Class		/	
Indoor unit	Model of Indoor Unit	GWCN21(09)CANK1A1A/I	GWCN21(12)CBNK1A1A/I
	Fan Motor Speed (r/min) (H/M/L)	1160/1060/960/860	1120/1010/890/760
	Output of Fan Motor (w)	20	9
	Input of Heater(W)	/	
	Fan Motor Capacitor (uF)	1	
	Fan Motor RLA(A)	0.143	0.16
	Fan Type-Piece	Cross flow fan -1	
	Diameter-Length (mm)	φ97X583	φ99X644
	Evaporator	Aluminum fin-copper tube	
	Pipe Diameter (mm)	φ7	
	Row-Fin Gap(mm)	2-1.6	2-1.5
	Coil length (l) x height (H) x coil width (L)	576X283X279	656 X 25.4 X 304.8
	Swing Motor Model	MP28EC	MP24AA
	Output of Swing Motor (W)	2	1.5
	Fuse (A)	PCB 3.15A	
	Sound Pressure Level dB (A) (H/M/L)	40/38/36/34	41/39/36/32
	Sound Power Level dB (A) (H/M/L)***	50/48/46/44	51/49/46/42
	Dimension (W/H/D) (mm)	740 x 250 x 202	805x280x215
	Dimension of Package (W/H/D) (mm)	790 x 325 x 275	860 x 355 x 280
	Net Weight /Gross Weight (kg)	8/10	9/12

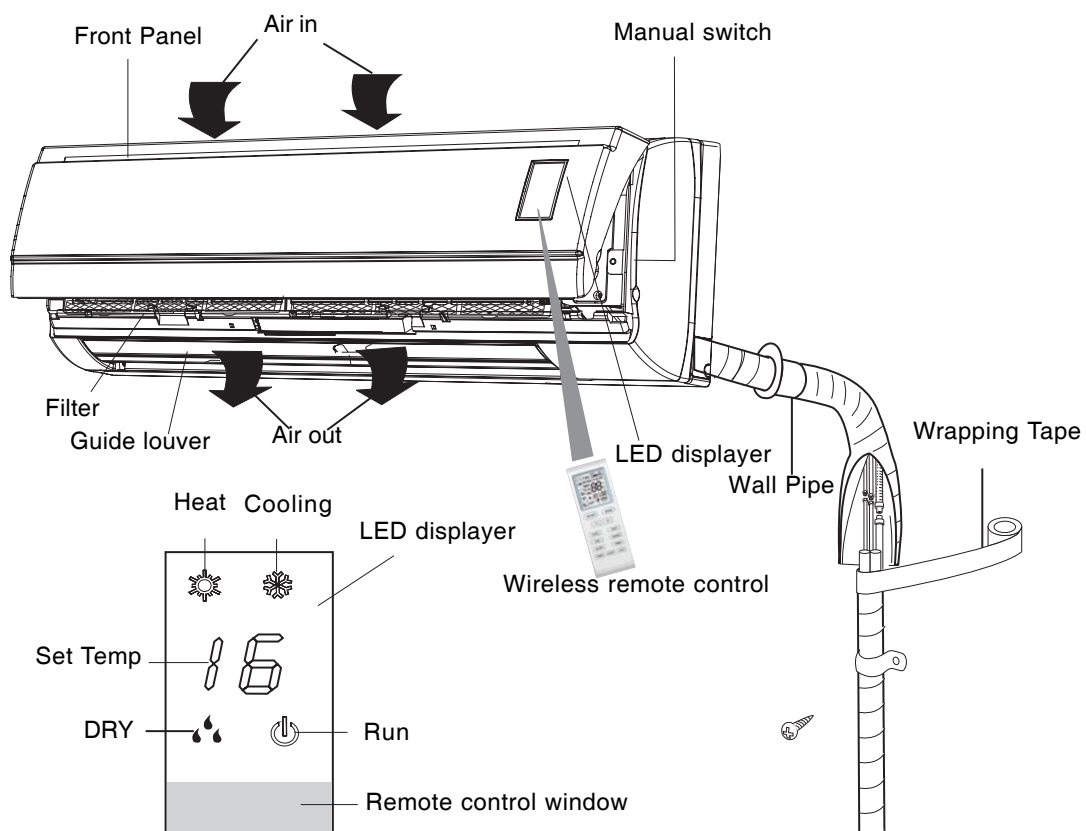
Outdoor unit	Model of Outdoor Unit		GWCN21(09+12)DBNK1A1A/O
	Compressor Manufacturer/trademark		LANDA
	Compressor Model		QX-23E030gA QX-18A030
	Compressor Type		rotary
	L.R.A. (A)		32/24
	Compressor RLA(A)		6.4/3.9
	Compressor Power Input(W)		1100/850
	Overload Protector		-/ B250-145-241H
	Throttling Method		Capillary
	Starting Method		Capacitor
	Working Temp Range (℃)		- 43℃
	Condenser		Aluminum fin-copper tube
	Pipe Diameter (mm)		φ8
	Rows-Fin Gap(mm)		2-1.4
	Coil length (l) x height (H) x coil width (L)		660X660X216
	Fan Motor Speed (rpm)		850
	Output of Fan Motor (W)		70
	Fan Motor RLA(A)		0.7
	Fan Motor Capacitor (μF)		3.5
	Air Flow Volume of Outdoor Unit(m³/h)		/
	Fan Type-Piece		Axial fan -1
	Fan Diameter (mm)		472
	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/ML)		57
	Sound Power Level dB (A) (H/ML)		67
	Dimension (W/H/D) (mm)		1018/700/412
	Dimension of Package (W/H/D)(mm)		1100/450/755
	Net Weight /Gross Weight (kg)		65/70
	Refrigerant Charge (kg)		R22 / 0.8+1.2
Conne- ction Pipe	Length (m)		5
	Gas additional charge(g/m)		30
	Outer Diameter	Liquid Pipe (mm)	φ6
		Gas Pipe (mm)	φ12
	Max Distance	Height (m)	5
		Length (m)	10
The above data is subject to change without notice. Please refer to the nameplate of the unit.			

Model		GWCN24(12X2)CBNK1A1A GWCN24(12X2)CBNK1A2A	GWHN24(12X2)CBNK1A1A GWHN24(12X2)CBNK1A2A
Function		COOLING	COOLING HEATING
Rated Voltage		220-240V~	220-240V~
Rated Frequency		50HZ	50HZ
Total Capacity (Btu/h)		3500X2	3500X2 3750X2
Power Input (W)		2900	2900 2800
Rated Input (W)		3600	3700 3500
Rated Current (A)		16.4	16.8 15.9
Air Flow Volume (m ³ /h) (H/ML)**		580X2	580X2
Dehumidifying Volume (l/h)		2	2
EER / C.O.P (W/W)		2.41	2.41 2.68
Energy Class		E	E D
Indoor unit	Model of Indoor Unit	GWCN24(12)CBNK1A1A/I GWCN24(12)CBNK1A2A/I	GWHN24(12)CBNK1A1A/I GWHN24(12)CBNK1A2A/I
	Fan Motor Speed (r/min) (H/ML)	1120/1010/890/760	1120/1010/890/760 1120/1010/900/780
	Output of Fan Motor (w)	9	9
	Input of Heater(W)	/	/
	Fan Motor Capacitor (uF)	1	1
	Fan Motor RLA(A)	0.254	0.254
	Fan Type-Piece	Cross flow fan - 1	Cross flow fan - 1
	Diameter-Length (mm)	φ99X644	φ99X644
	Evaporator	Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)	7	7
	Row-Fin Gap(mm)	2-1.5	2-1.5
	Coil length (l) x height (H) x coil width (L)	656X25.4X304.8	656X25.4X304.8
	Swing Motor Model	MP24AA	MP24AA
	Output of Swing Motor (W)	1.5	1.5
	Fuse (A)	PCB 3.15A	PCB 3.15A
	Sound Pressure Level dB (A) (H/ML)	41/39/36/32	41/39/36/32
	Sound Power Level dB (A) (H/ML)***	51/49/46/42	51/49/46/42
	Dimension (W/H/D) (mm)	805x280x215	805x280x215
	Dimension of Package (W/H/D) (mm)	860X355X280	860X355X280
	Net Weight /Gross Weight (kg)	9/12	9/12

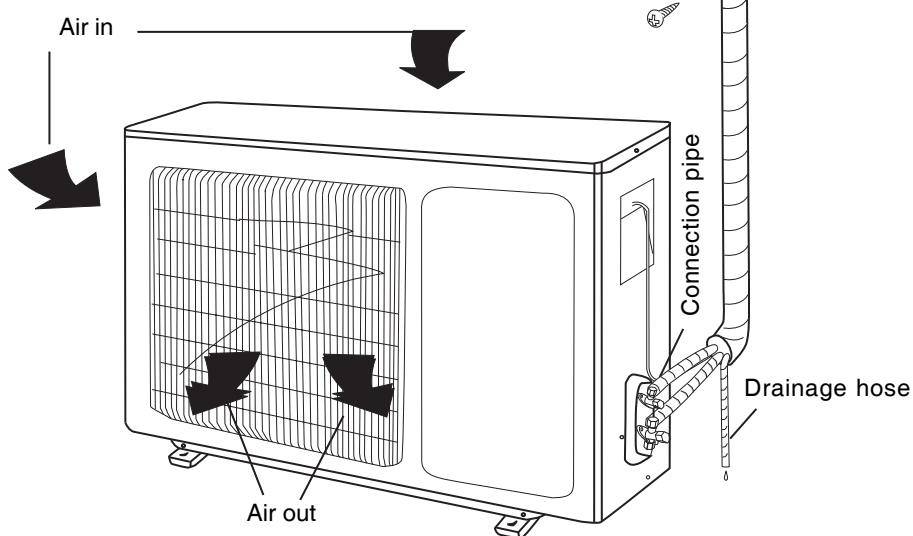
Outdoor unit	Model of Outdoor Unit		GWCN24(12X2)DBNK1A1A/O	GWHN24(12X2)DBNK1A1A/O
	Compressor Manufacturer/trademark		LANDA	LANDA
	Compressor Model		QX-23E030gA	QX-23E030gA
	Compressor Type		rotory	rotory
	L.R.A. (A)		32	32
	Compressor RLA(A)		6.4	6.4
	Compressor Power Input(W)		1100	1100
	Overload Protector		/	/
	Throttling Method		Capillary	Capillary
	Starting Method		Capacitor	Capacitor
	Working Temp Range (℃)		- 43℃	- 43℃
	Condenser		Aluminum fin-copper tube	Aluminum fin-copper tube
	Pipe Diameter (mm)		φ8	φ8
	Rows-Fin Gap(mm)		2-1.4	2-1.4
	Coil length (l) x height (H) x coil width (L)		660X660X216	660X660X216
	Fan Motor Speed (rpm)		850	850
	Output of Fan Motor (W)		70	70
	Fan Motor RLA(A)		0.56	0.56
	Fan Motor Capacitor (μF)		3.5	3.5
	Air Flow Volume of Outdoor Unit(m³/h)		/	/
	Fan Type-Piece		Axial fan -1	Axial fan -1
	Fan Diameter (mm)		472	472
	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/ML)		58	58
	Sound Power Level dB (A) (H/ML)		68	68
	Dimension (W/H/D) (mm)		1018/700/412	1018/700/412
	Dimension of Package (W/H/D)(mm)		1100/450/755	1100/450/755
	Net Weight /Gross Weight (kg)		65/70	65/70
	Refrigerant Charge (kg)		R22 / 1.2X2	R22 / 1.2X2
Conne- ction Pipe	Length (m)		5	5
	Gas additional charge(g/m)		30	30
	Outer Diameter	Liquid Pipe (mm)	φ 6	φ 6
		Gas Pipe (mm)	φ 12	φ 12
	Max Distance	Height (m)	5	5
Length (m)		10	10	
The above data is subject to change without notice. Please refer to the nameplate of the unit.				

3 Part name

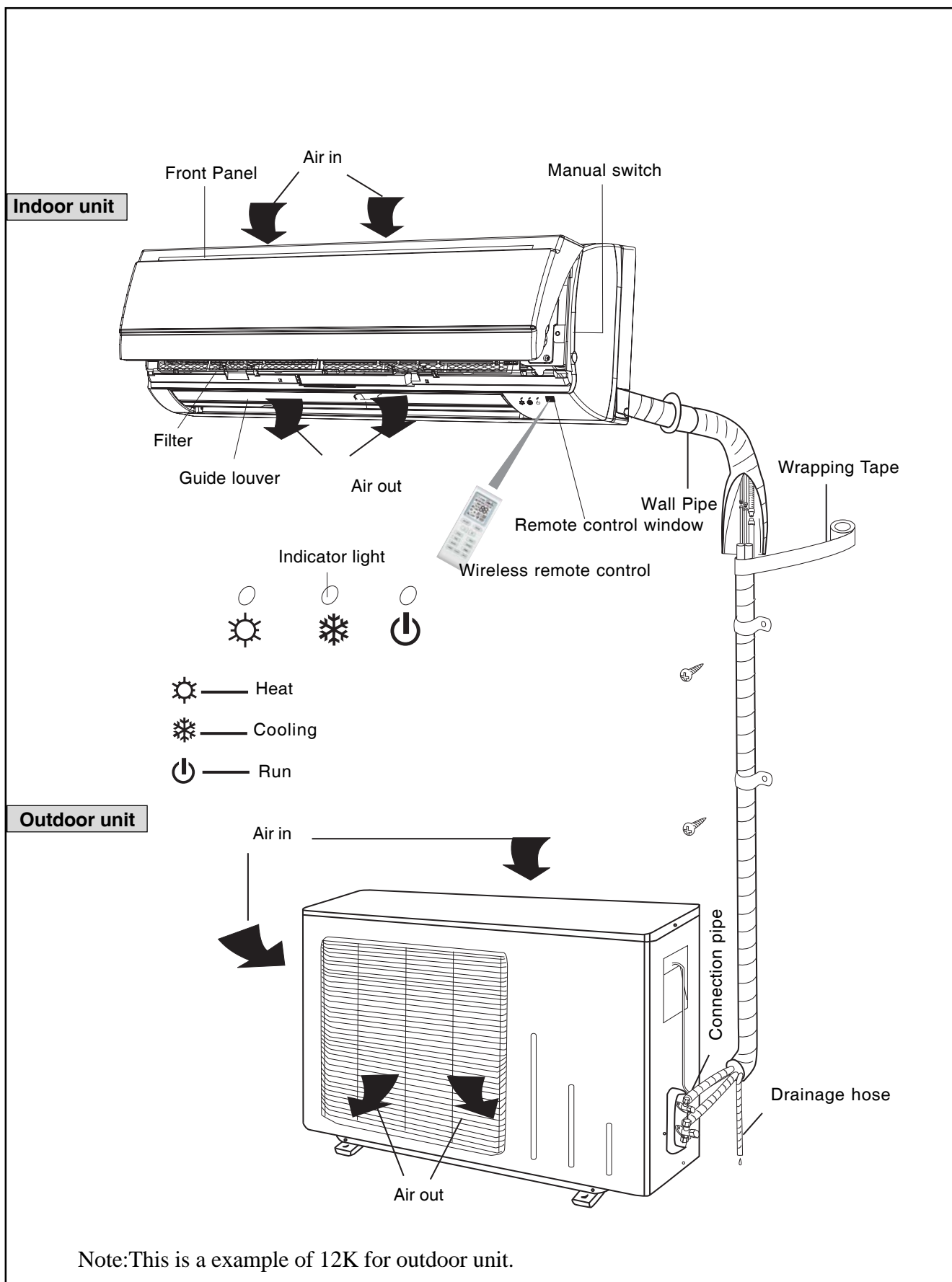
Indoor unit



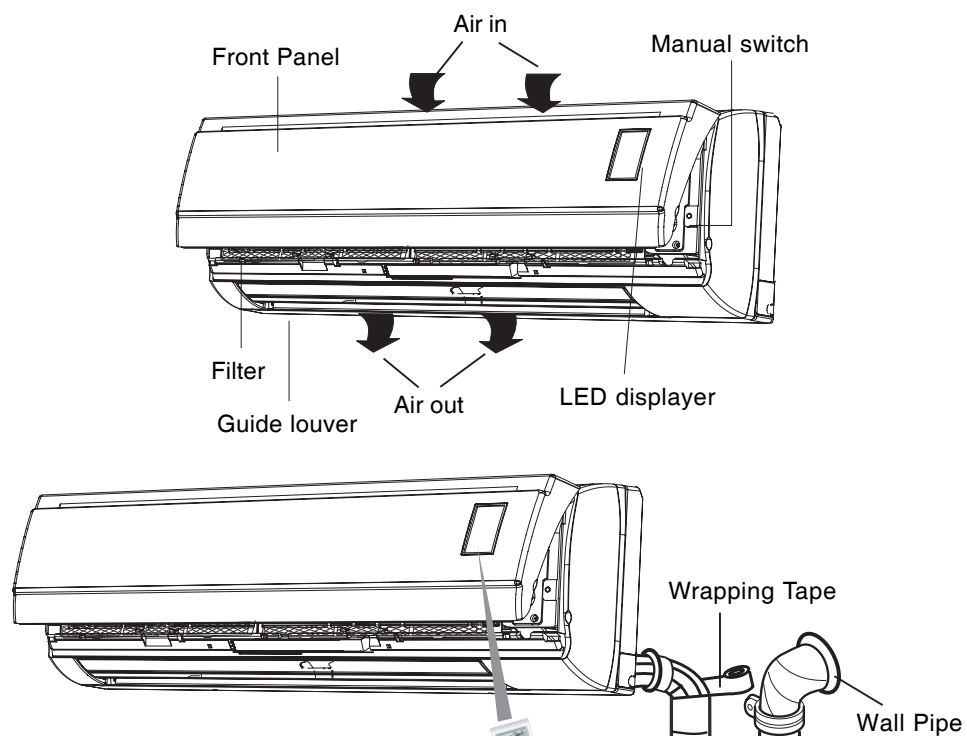
Outdoor unit



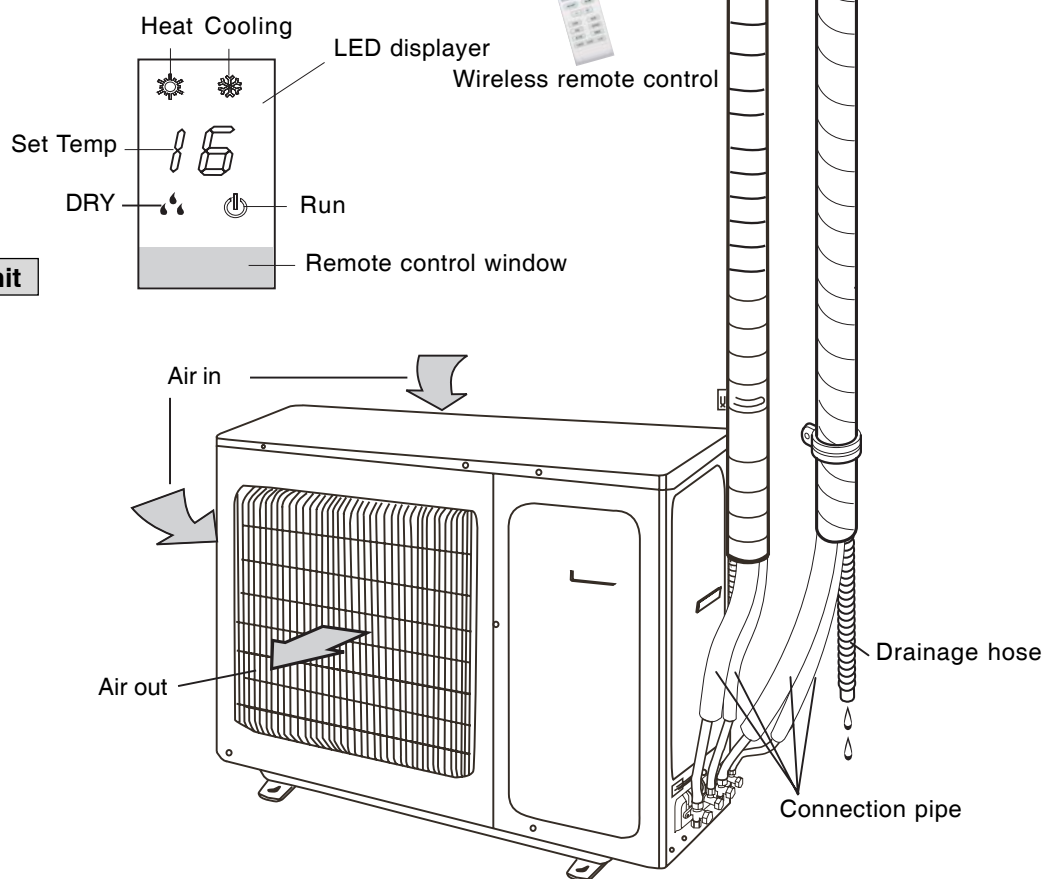
Note: This is an example of 12K for outdoor unit.



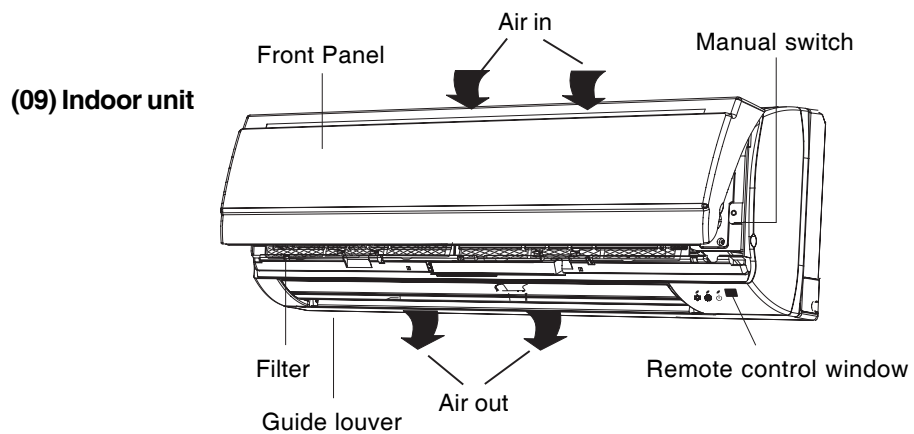
Indoor unit



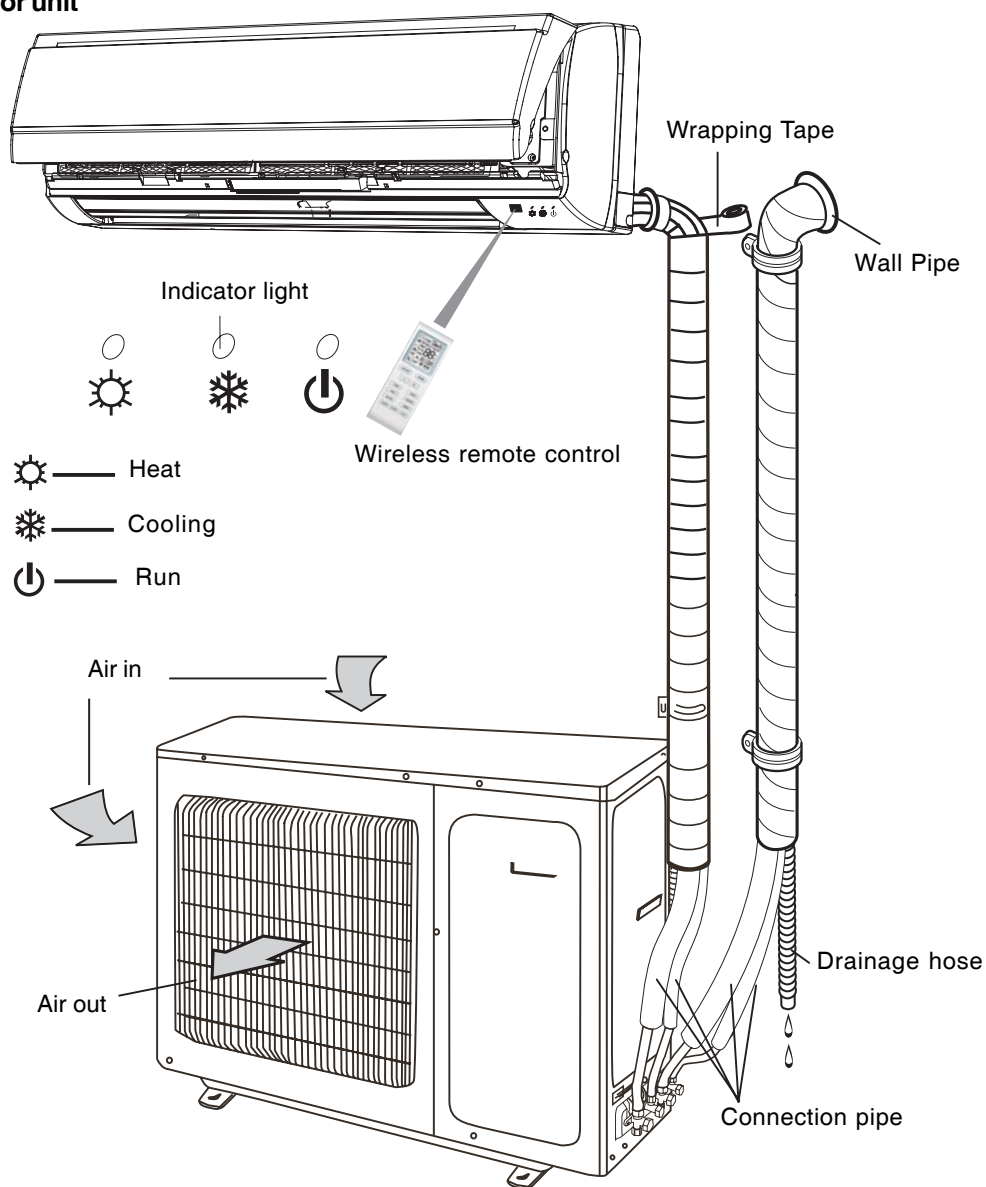
Outdoor unit



Indoor unit



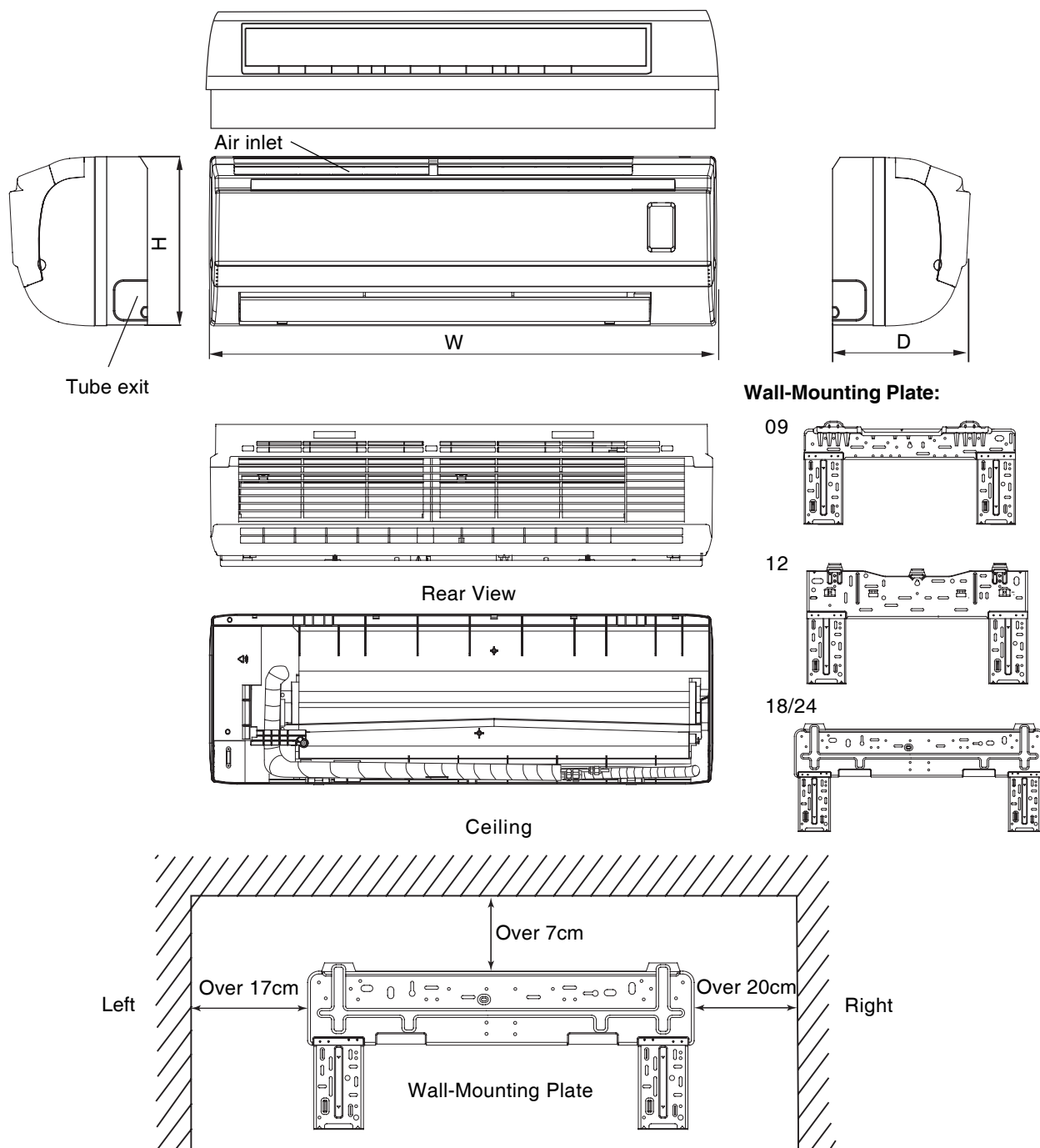
(12) Indoor unit



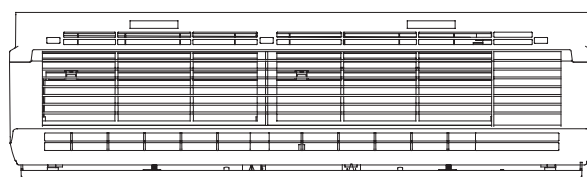
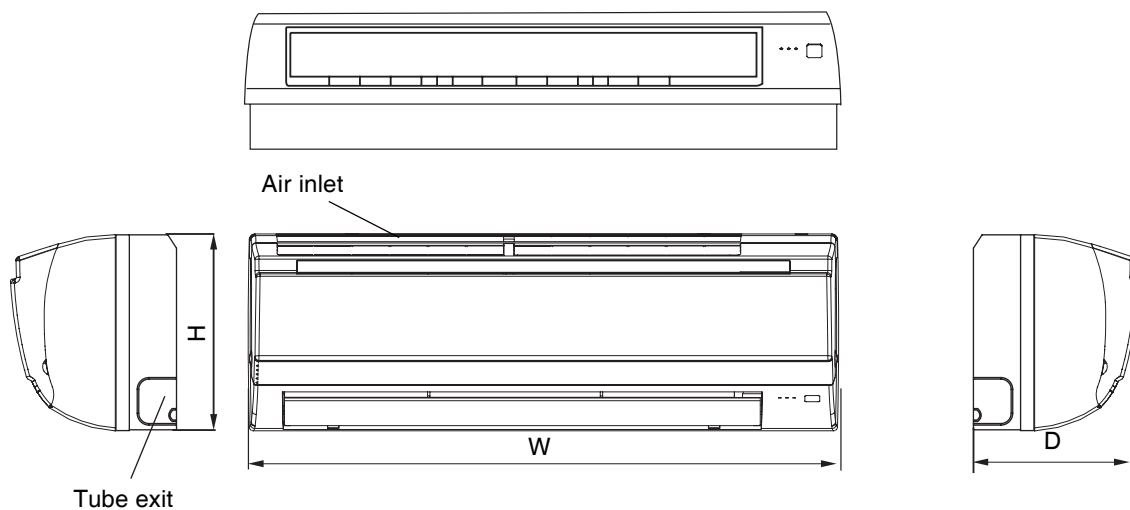
Outdoor unit

4 Outline and installation dimension

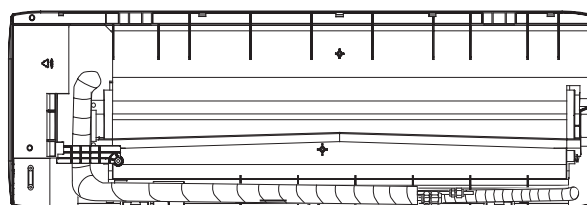
4.1 Outline and installation dimensions of indoor unit



Model	W(mm)	H(mm)	D(mm)
09K	740	250	202
12K	805	280	215
18/24K	1020	310	228

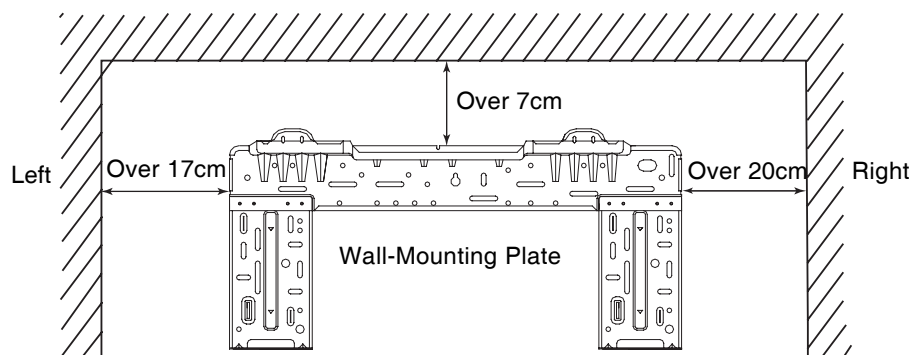
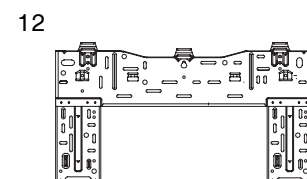
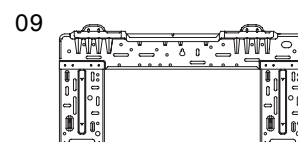


Rear View



Ceiling

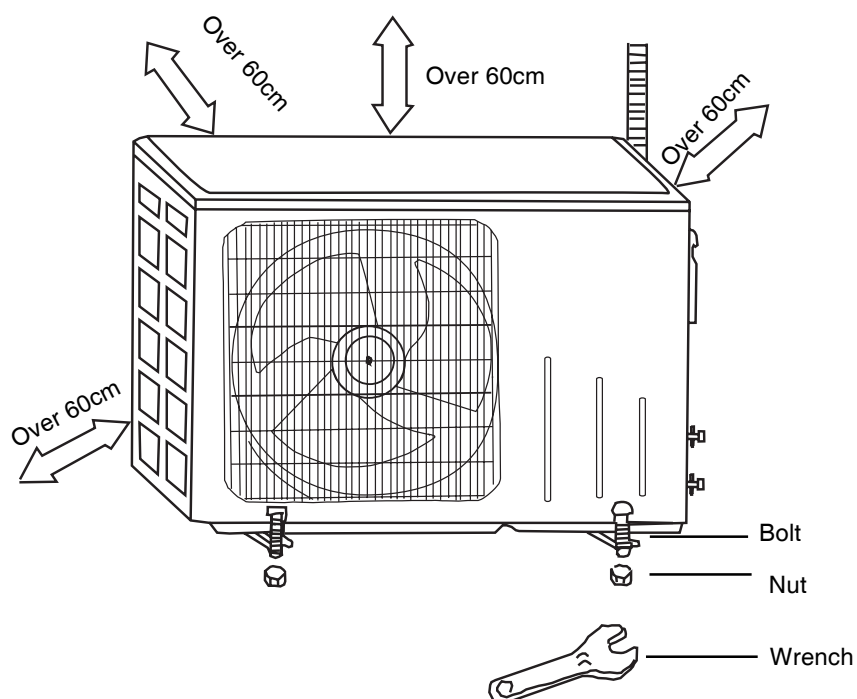
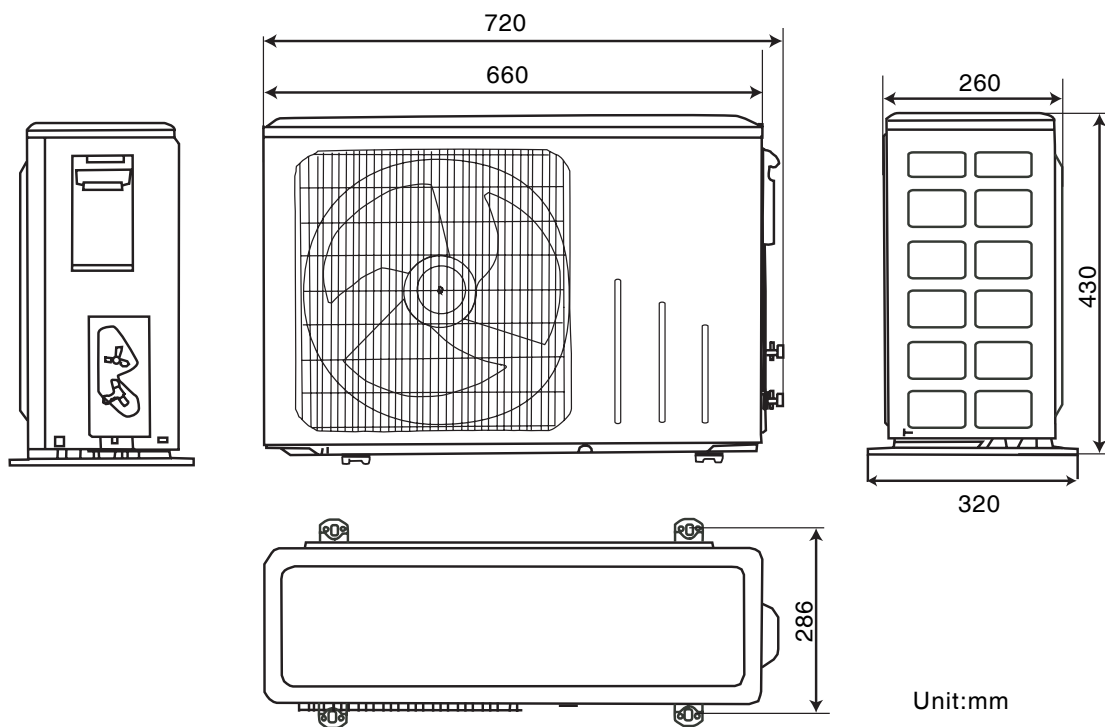
Wall-Mounting Plate:



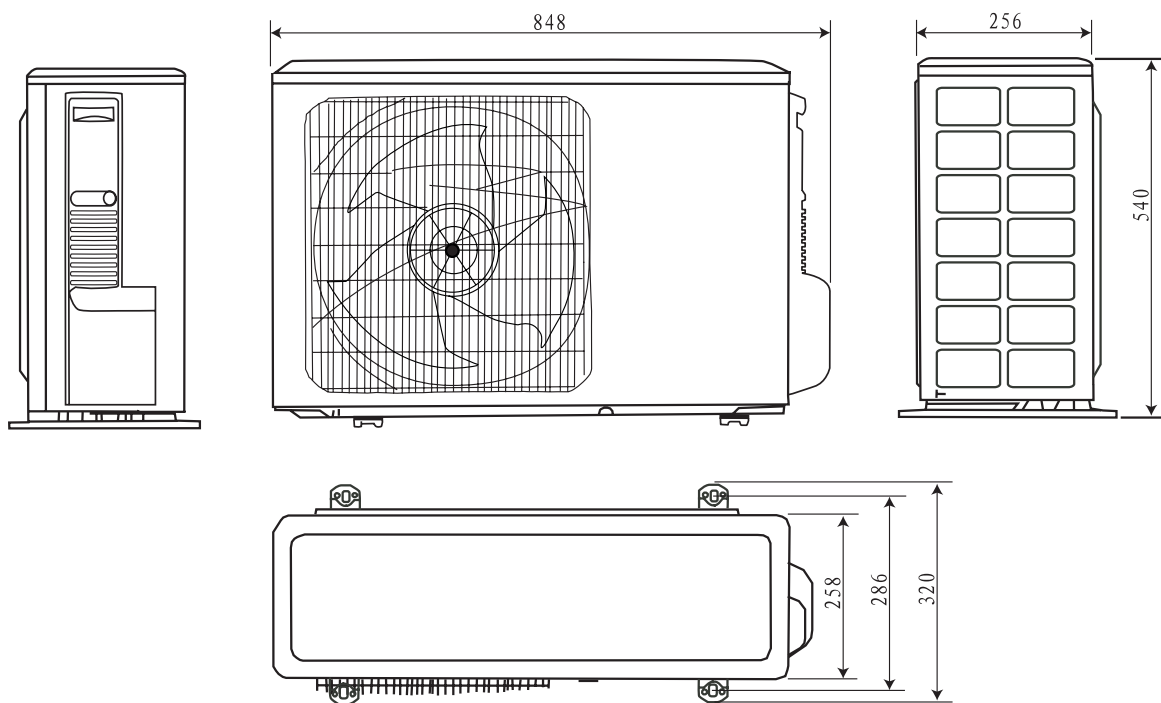
Model	W(mm)	H(mm)	D(mm)
09K	740	250	202
12K	805	280	215

4. 2 Outline and installation dimensions of outdoor unit

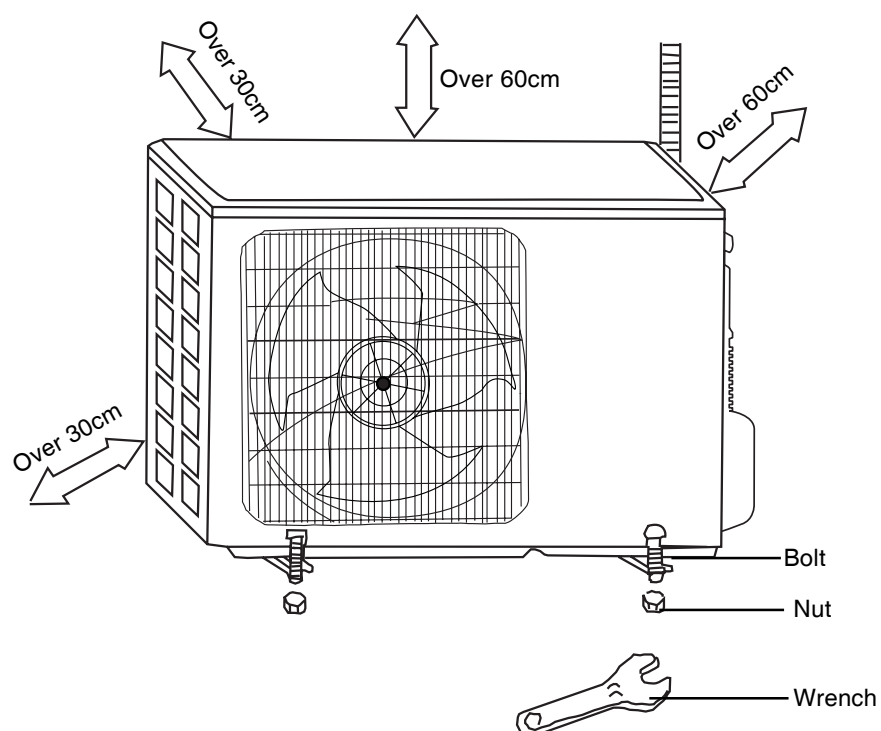
09K Outdoor unit



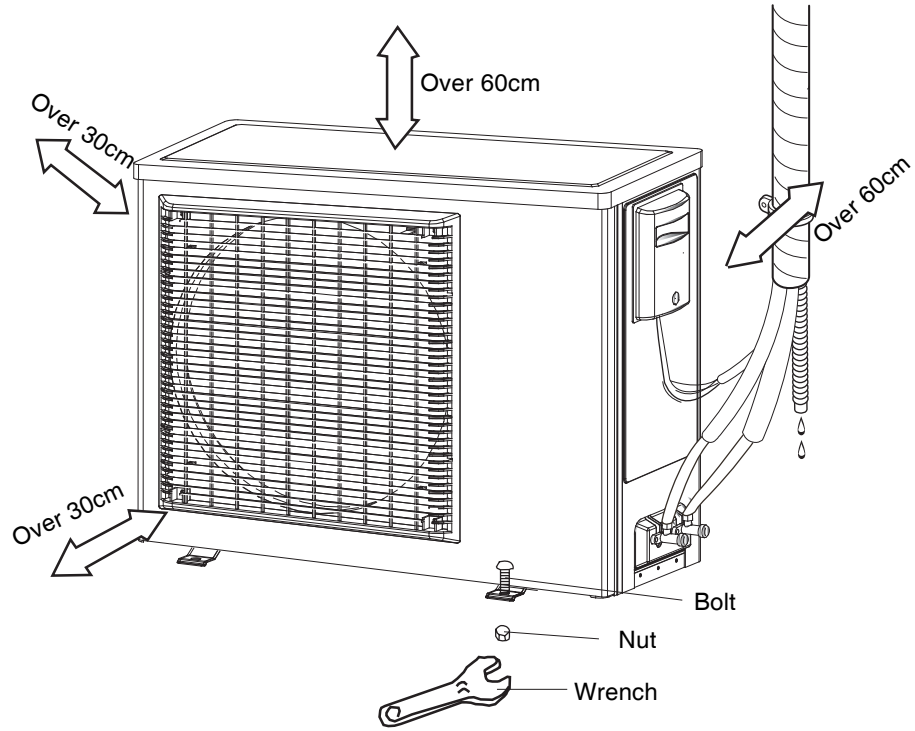
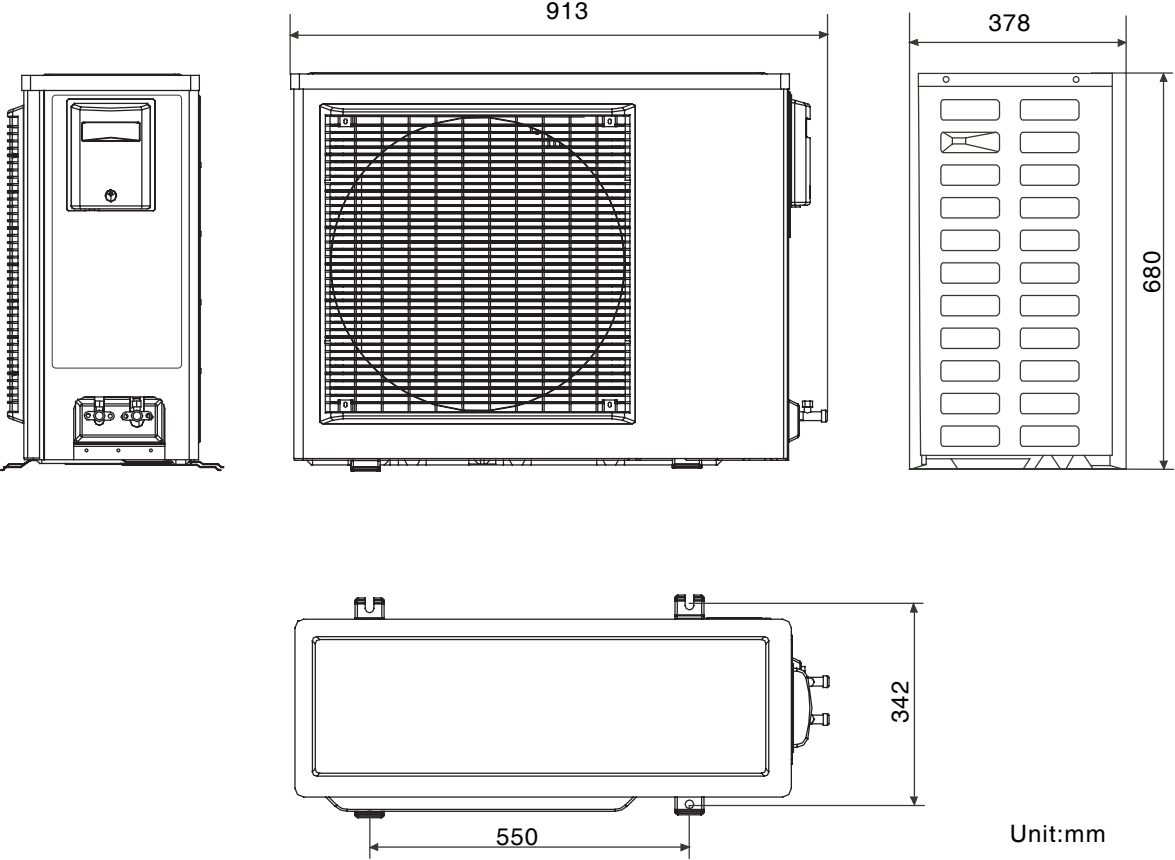
12K Outdoor unit



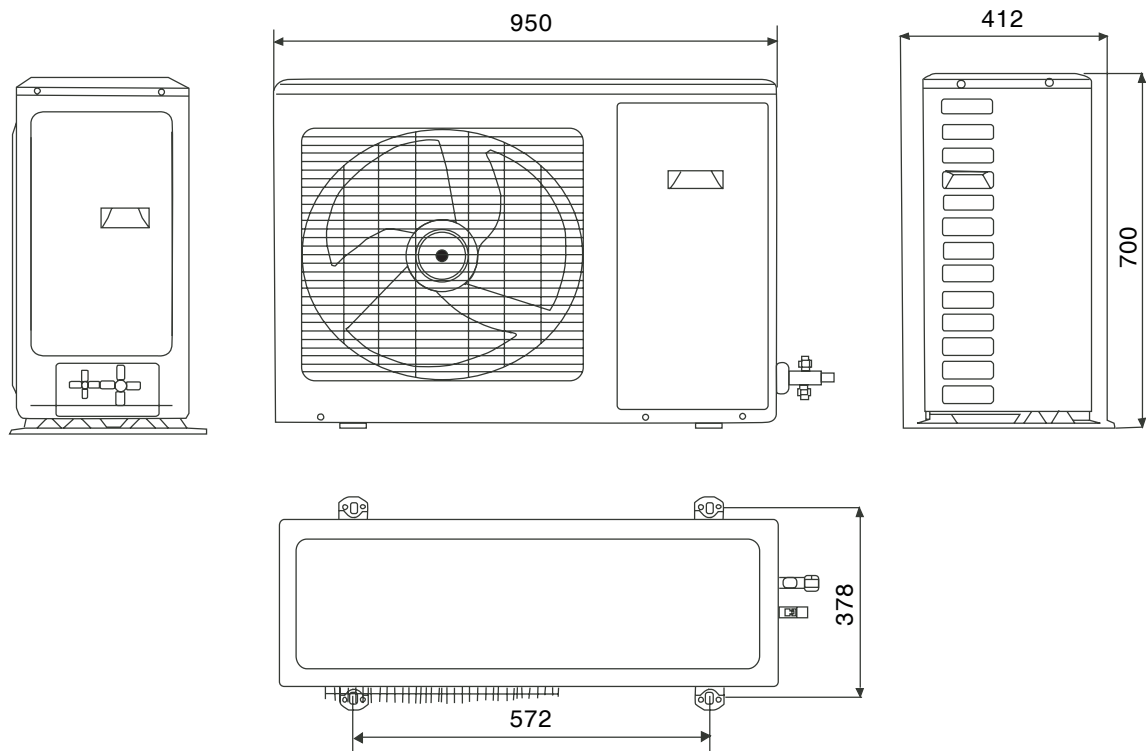
Unit:mm



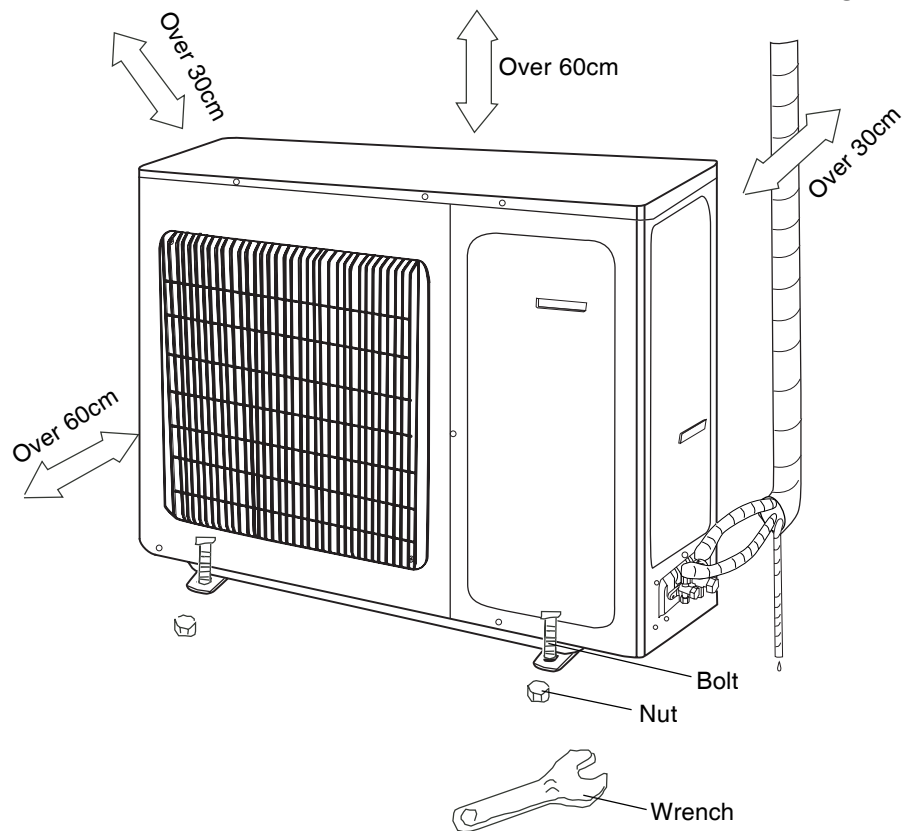
18K Outdoor unit



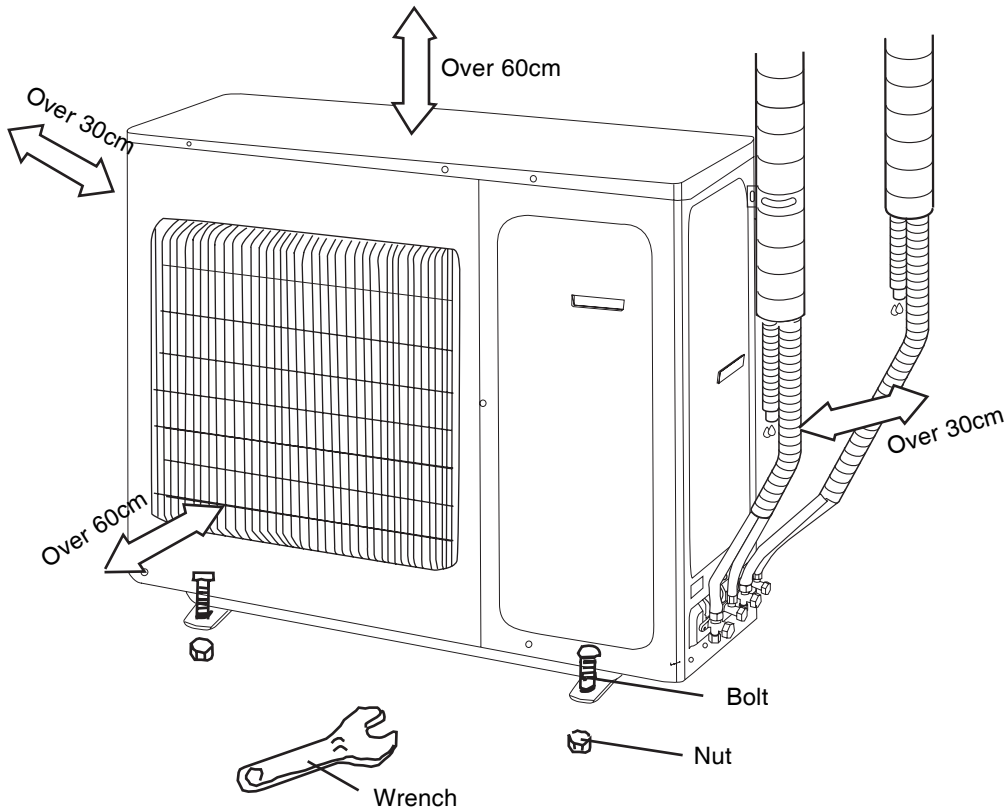
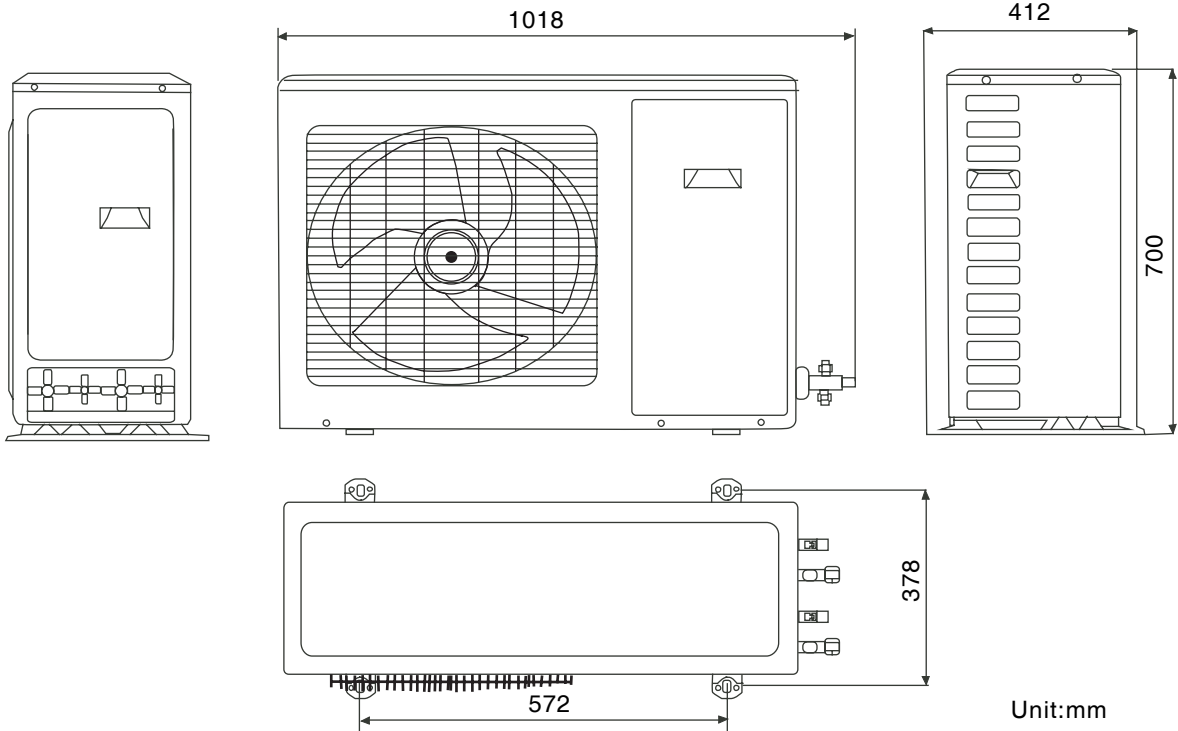
24K Outdoor unit



Unit:mm

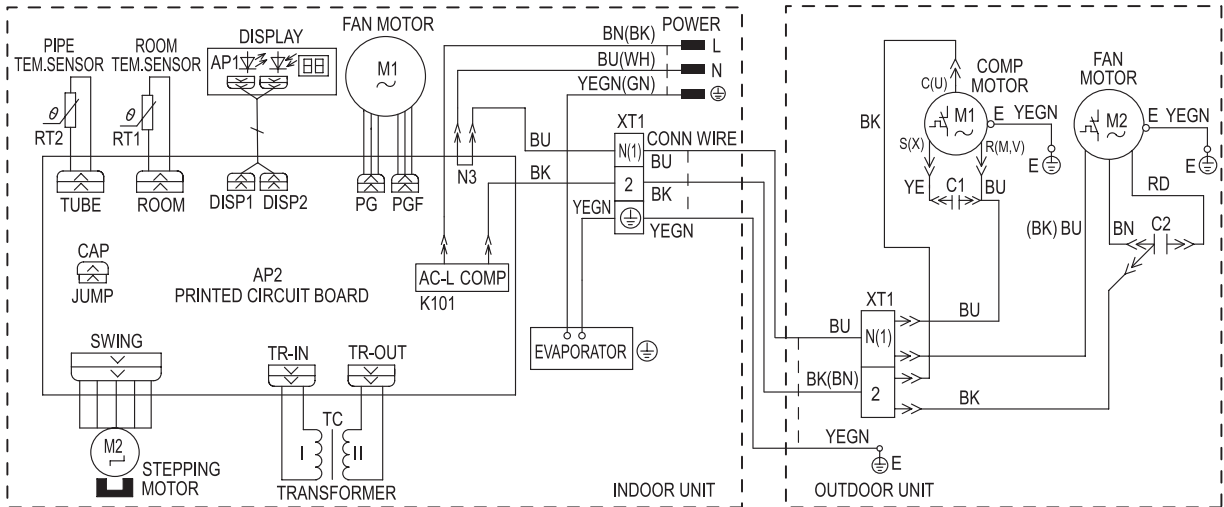


Dual split type Outdoor unit

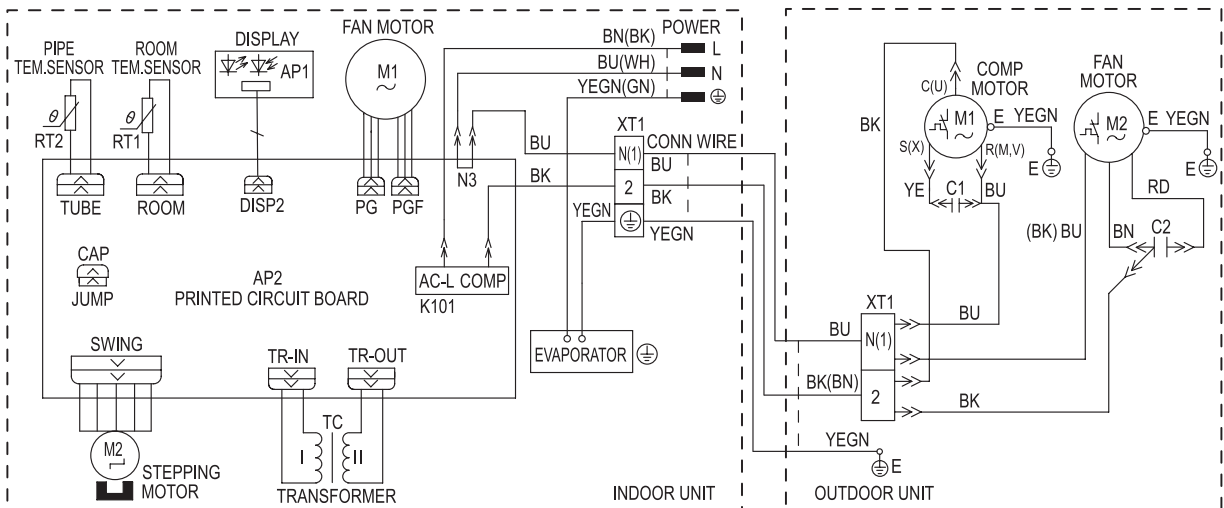


5 Electrical circuit diagram

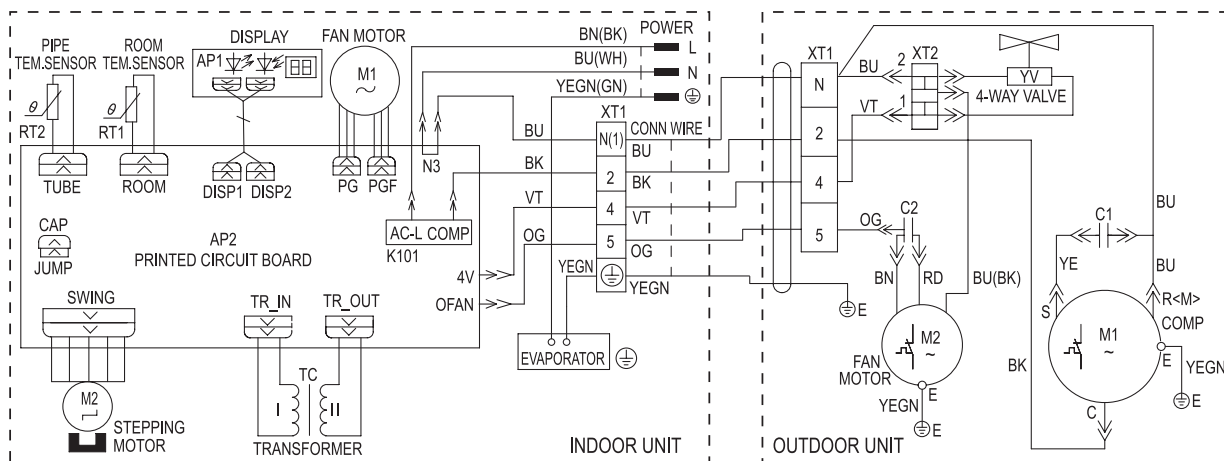
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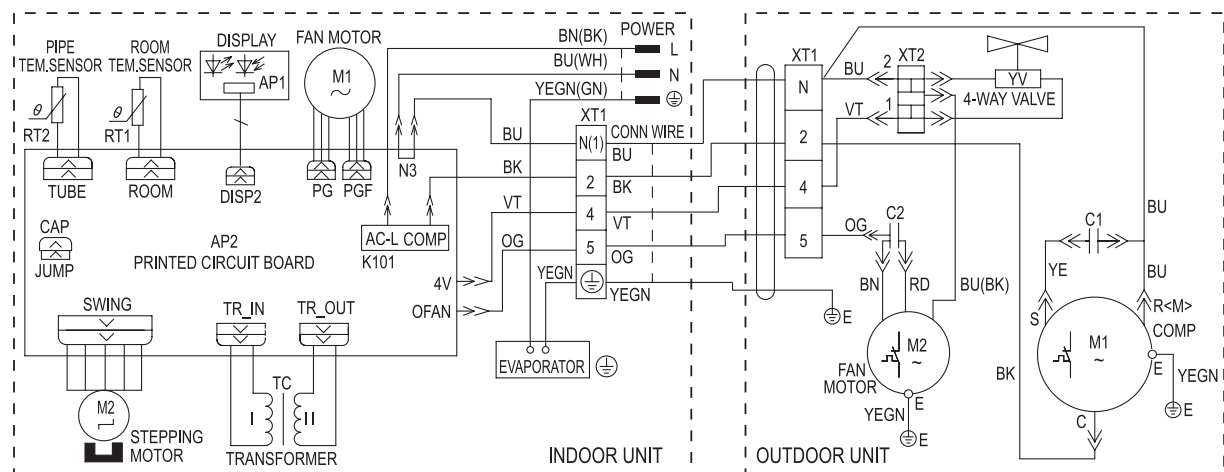
GWCN09CANK1A2A



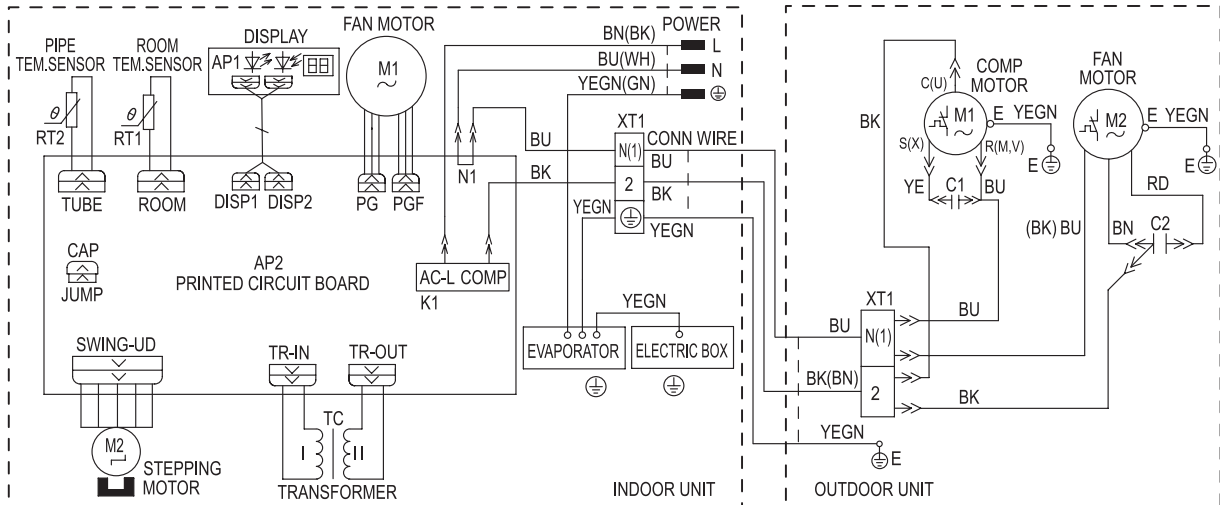
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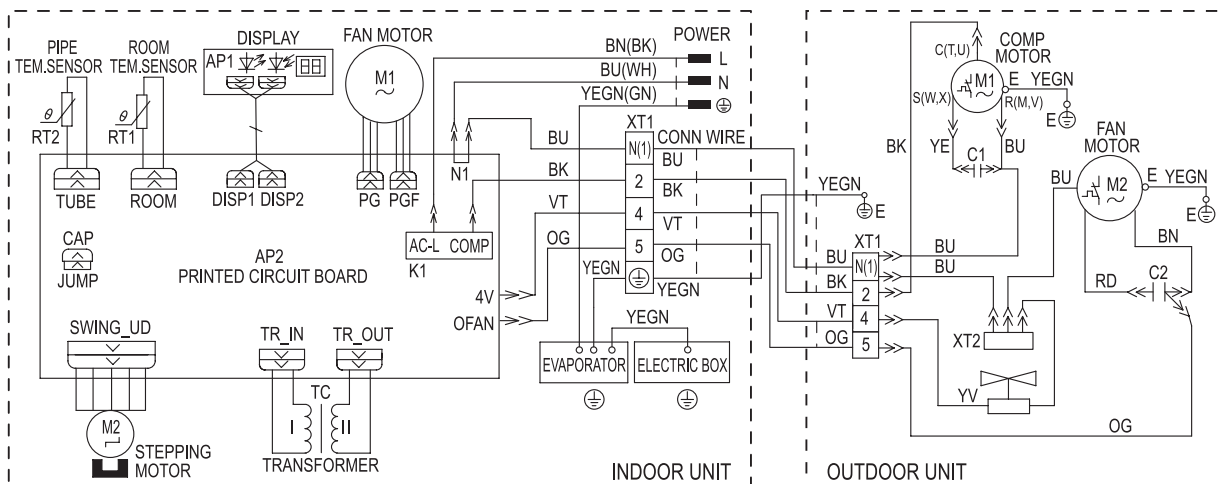
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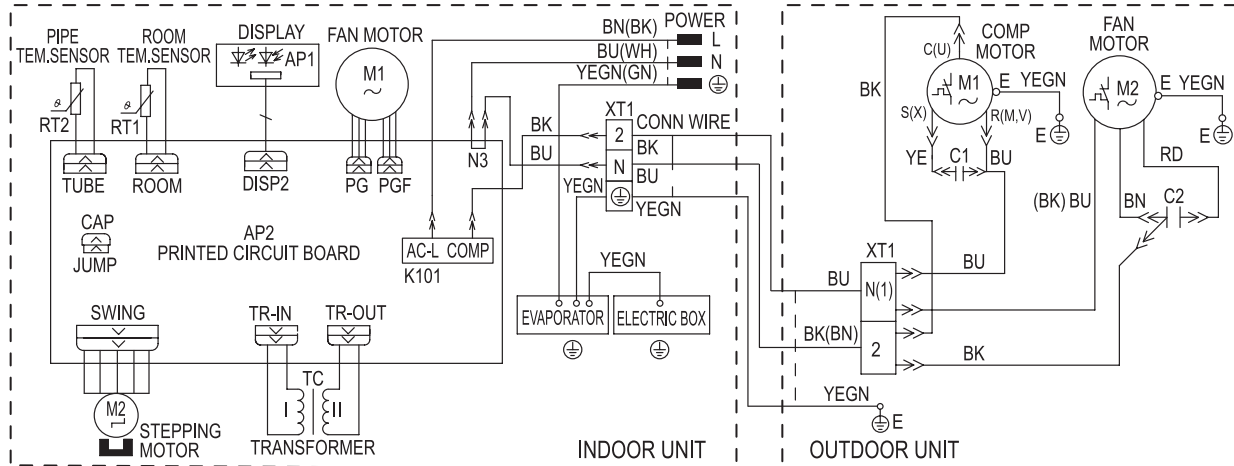
GWCN12CBNK1A1A



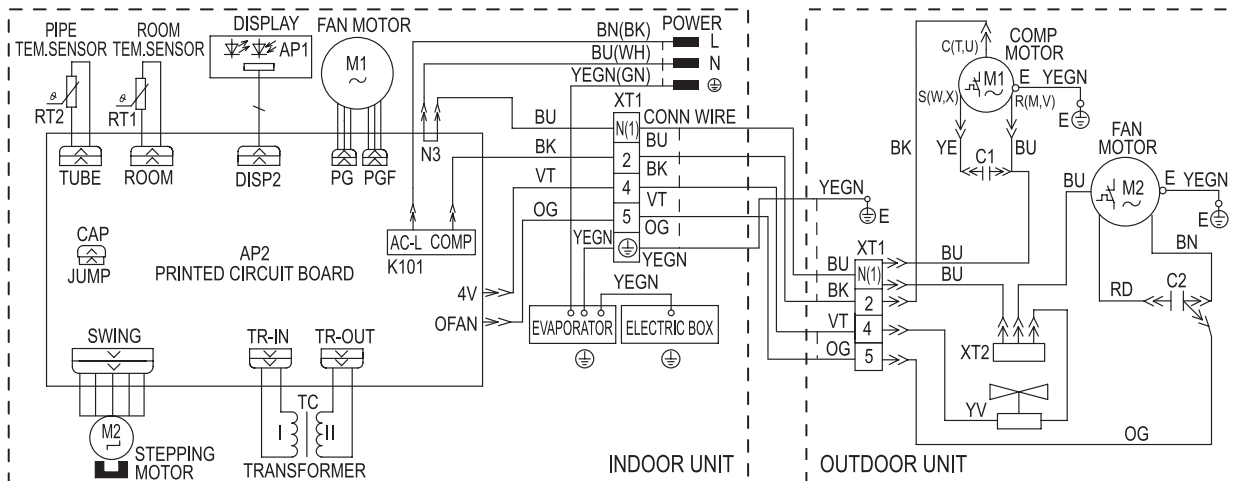
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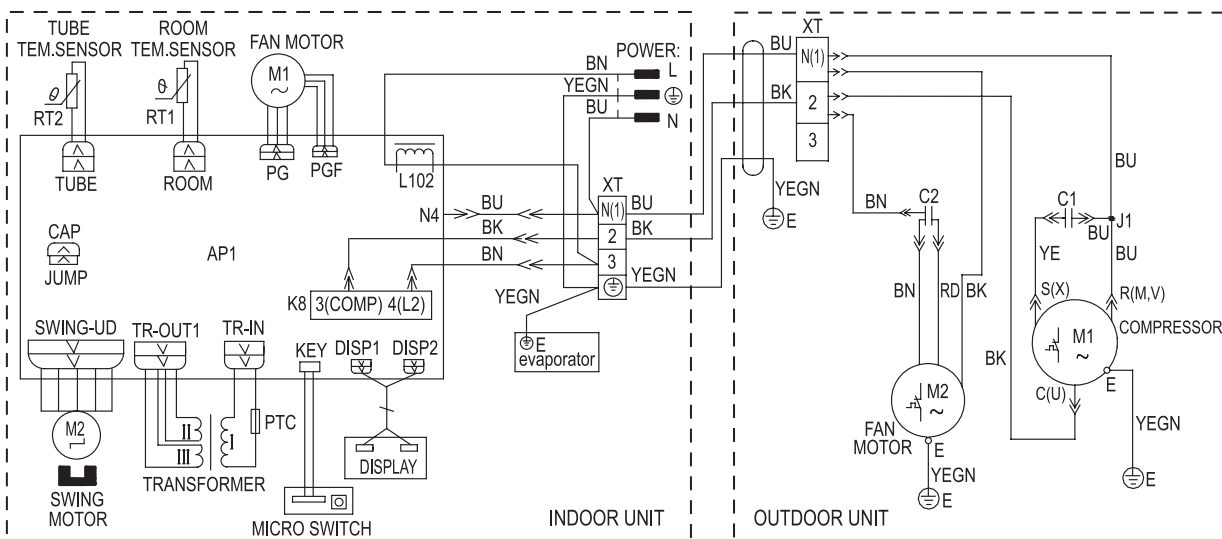
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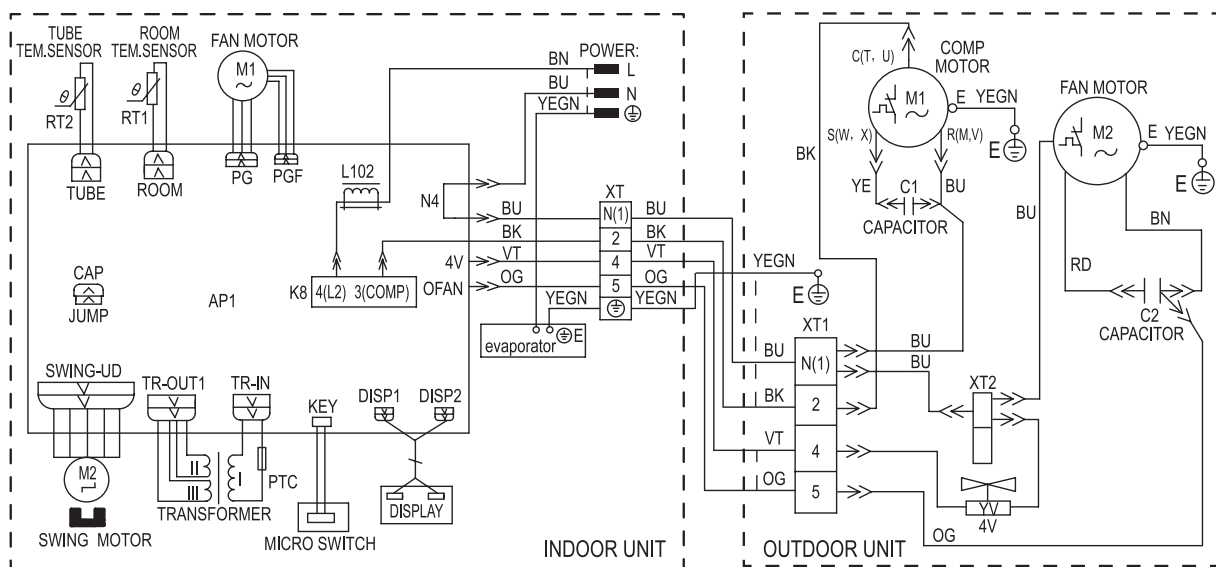
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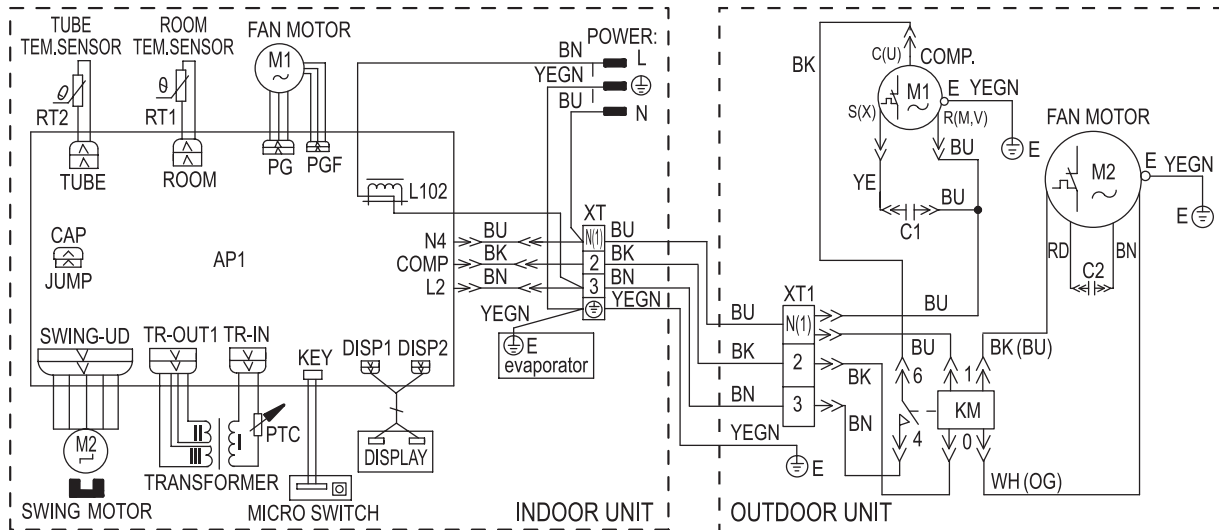
GWCN18CCNK1A1A (GWCN18DCNK1A1A)



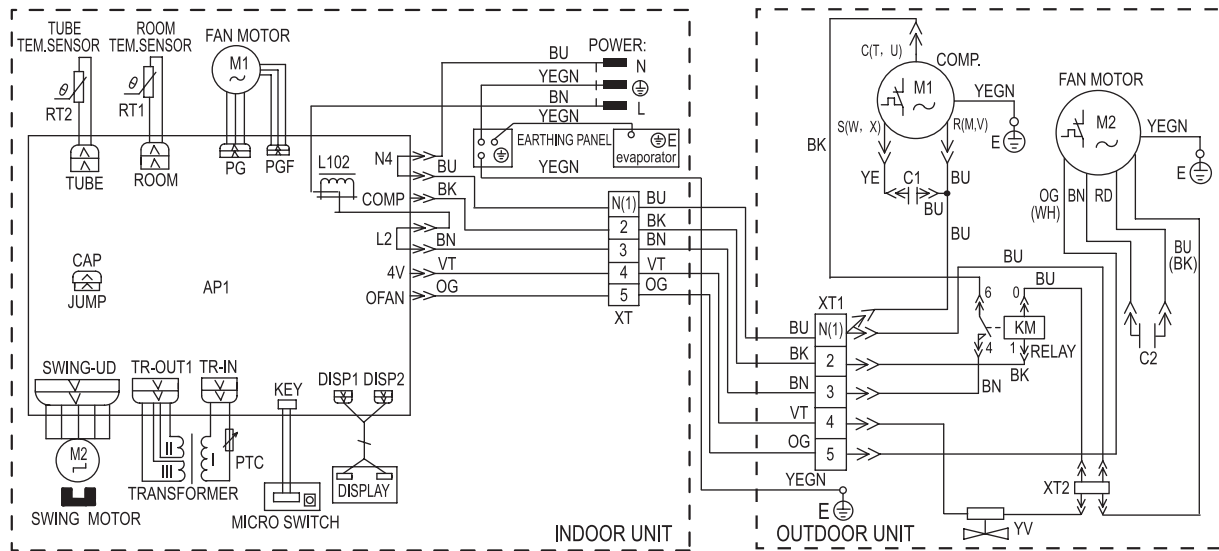
GWHN18CCNK1A1A (GWHN18DCNK1A1A)



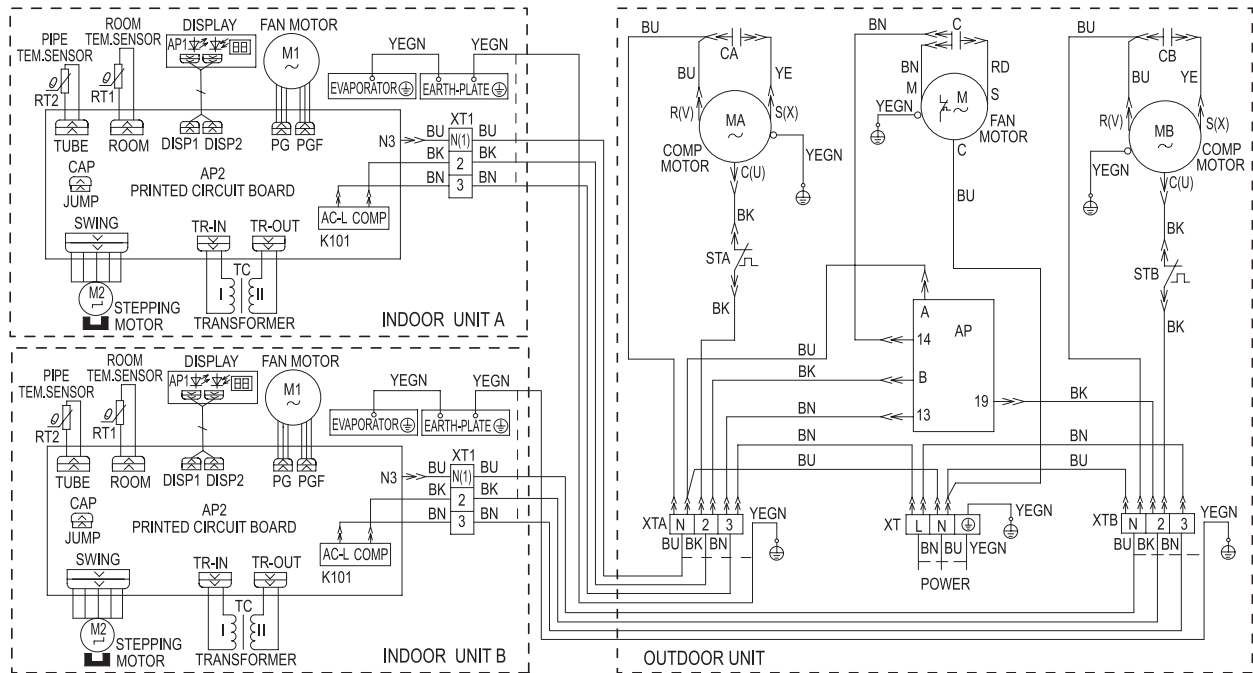
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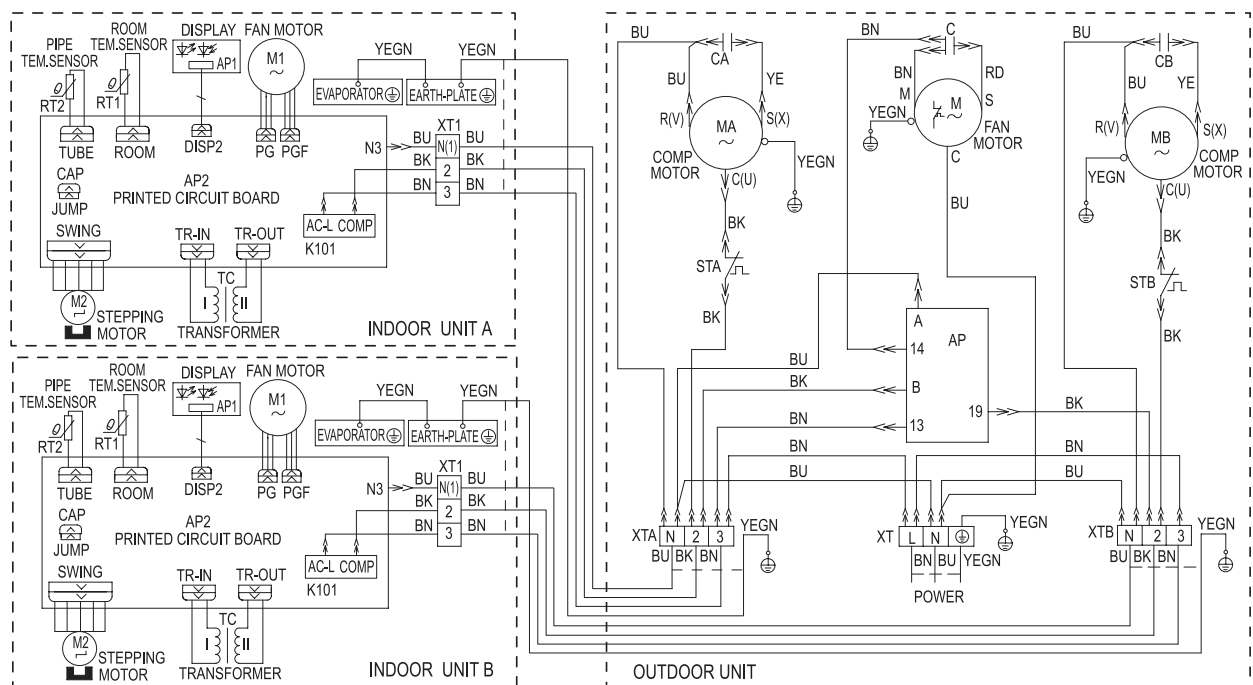
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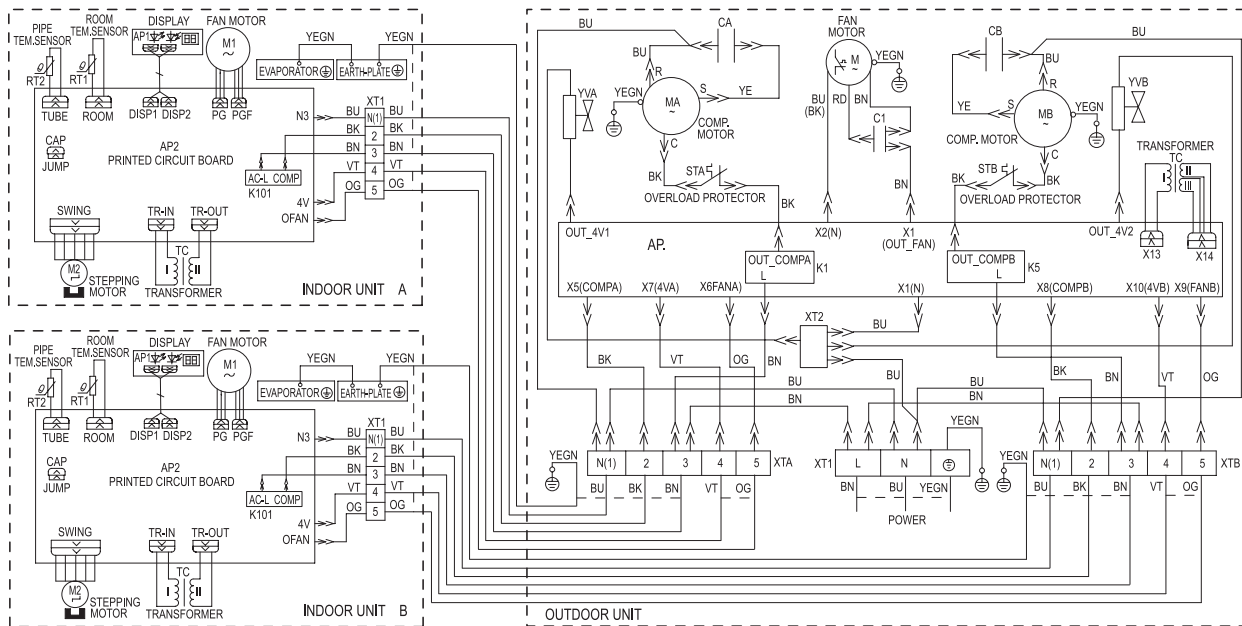
GWCN18 (09X2) CANK1A1A



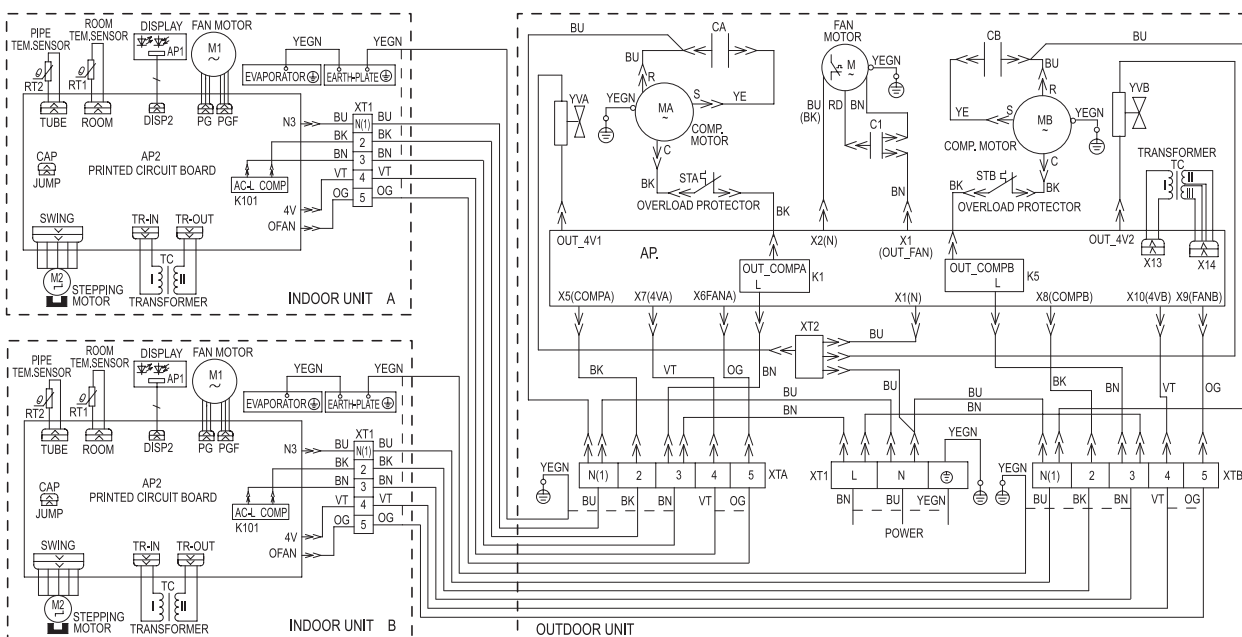
GWCN18 (09X2) CANK1A2A



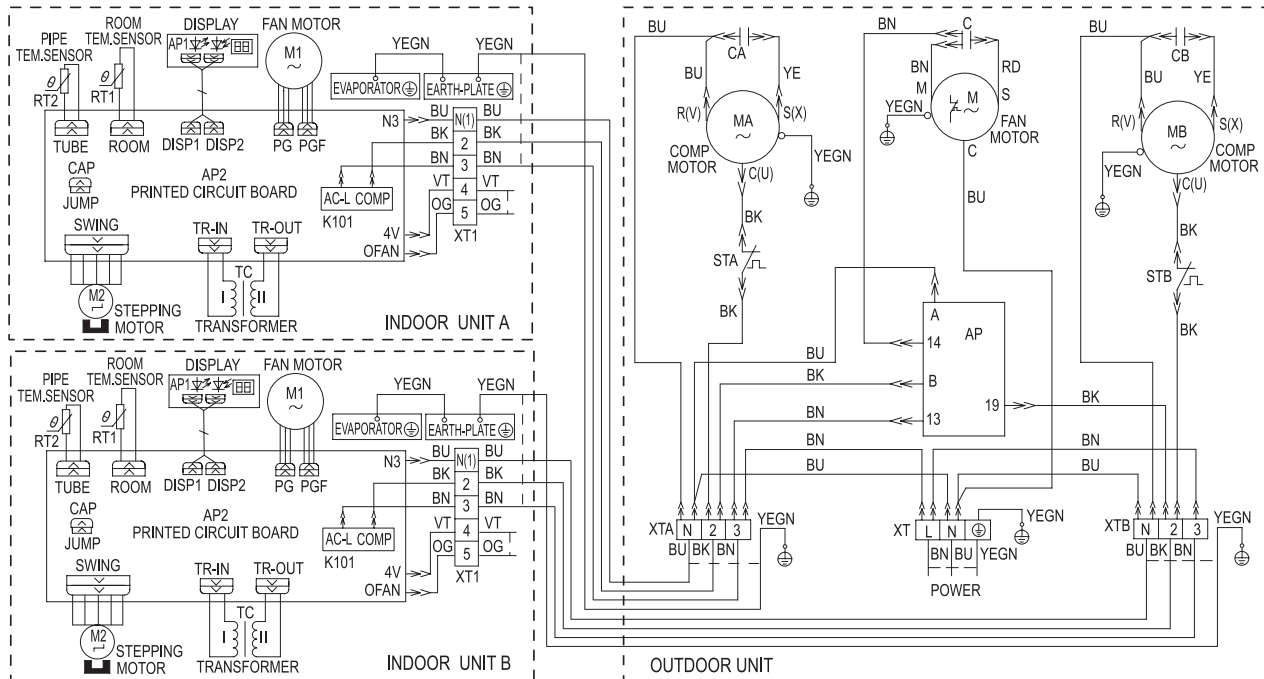
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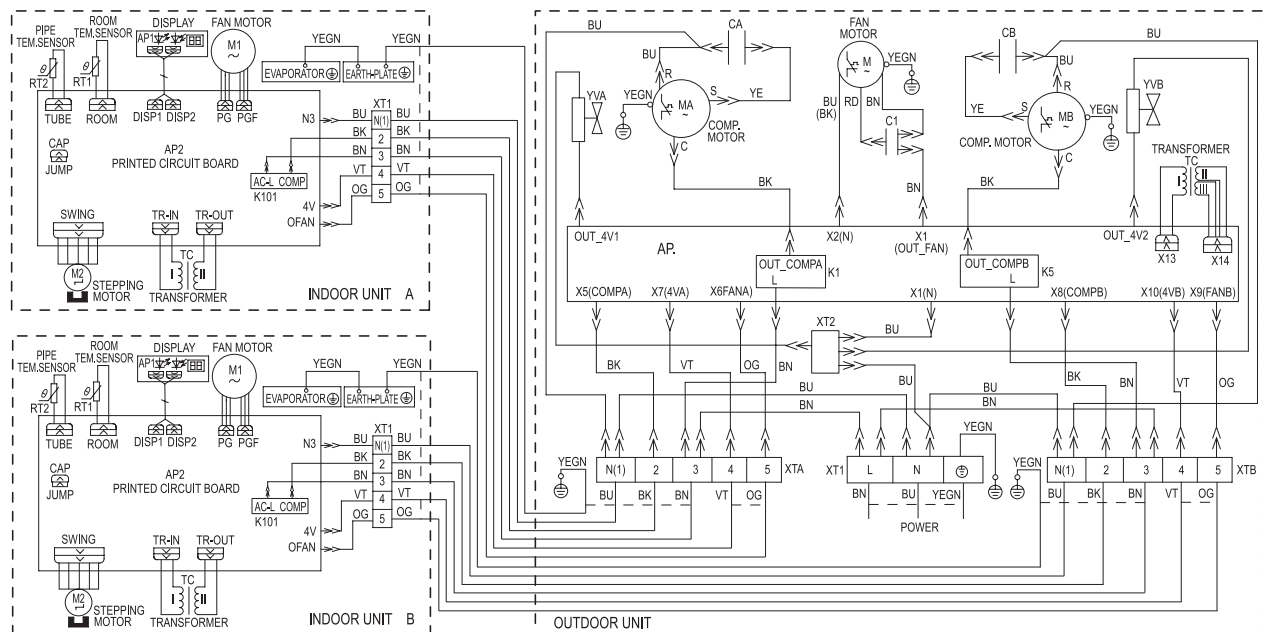
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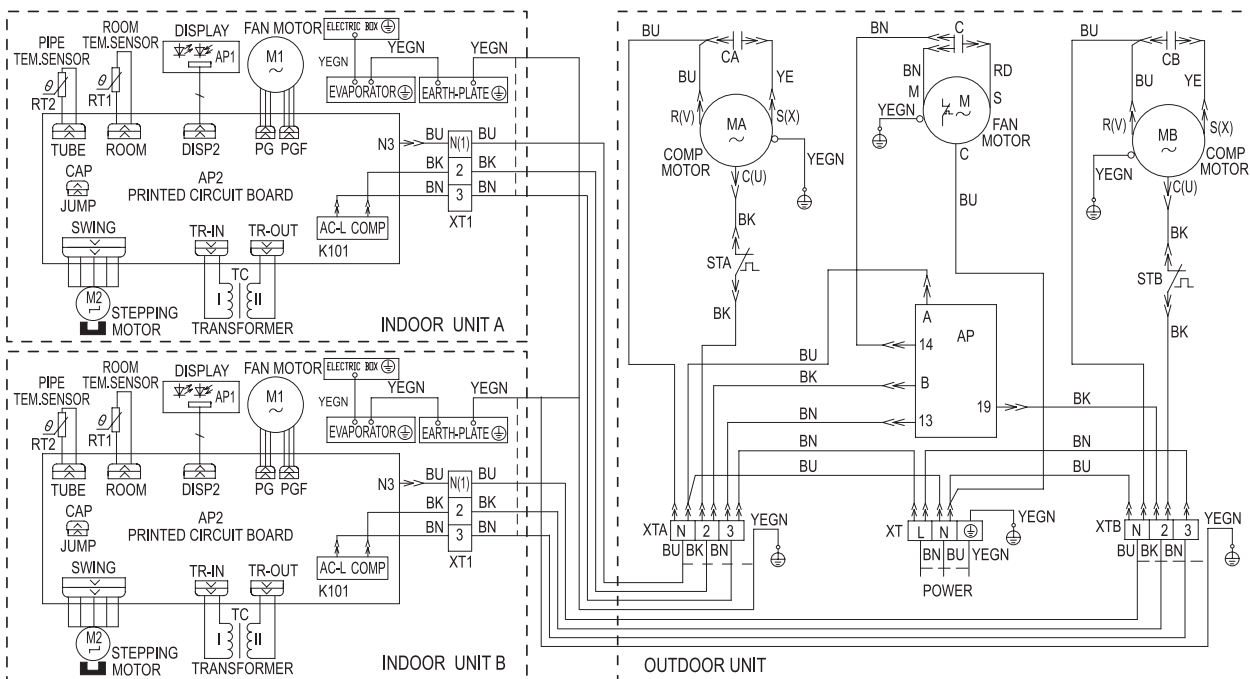
GWCN24 (12X2) CBNK1A1A



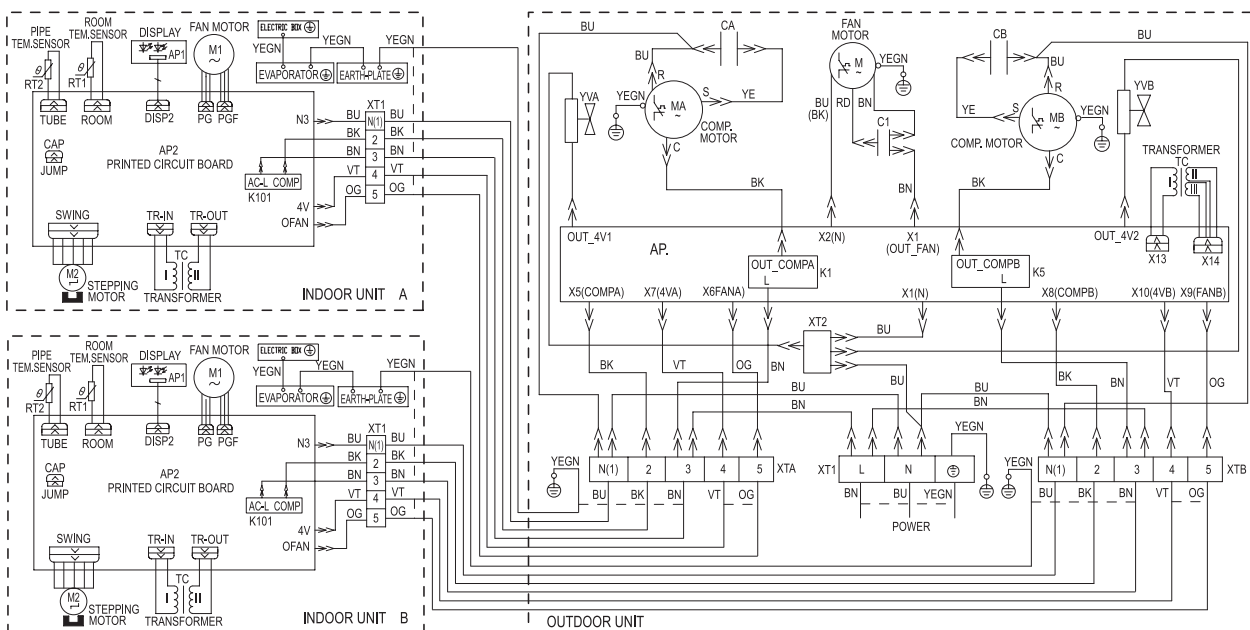
GWHN24 (12X2) CBNK1A1A



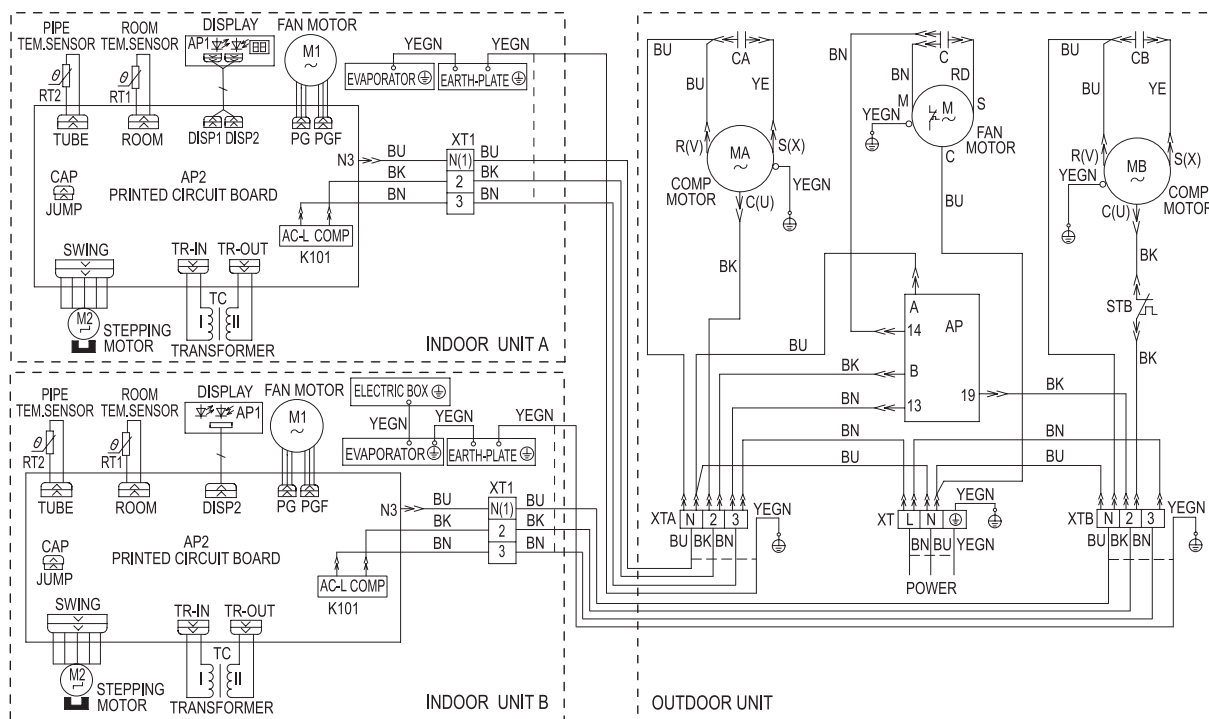
GWCN24 (12X2) CBNK1A1A



GWHN24 (12X2) CBNK1A1A



GWCN21 (09+12) CBNK1A1A



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

6 PCB function manual and operation method

6.1 Manual 1 of functions of remote controller

This manual is applicable to 09K, 12K models, the centigrade is used for the following function manual, if there will be the Fahrenheit degree, that will be $TF = TC \times 1.8 + 32$.

6.1.1 Temperature parameter

◆ The room setting temperature (T_{preset})

◆ The room ambient temperature (T_{amb})

6.1.2 Basic Functions

Once energized, the compressor should in no way be restarted unless after 3-minute time interval at least. For the first energization, the compressor will be started without 3-minute lag. The compressor, once started, will not be stopped within 6 minutes with the change of room temperature.

6.1.2.1 Cooling Mode

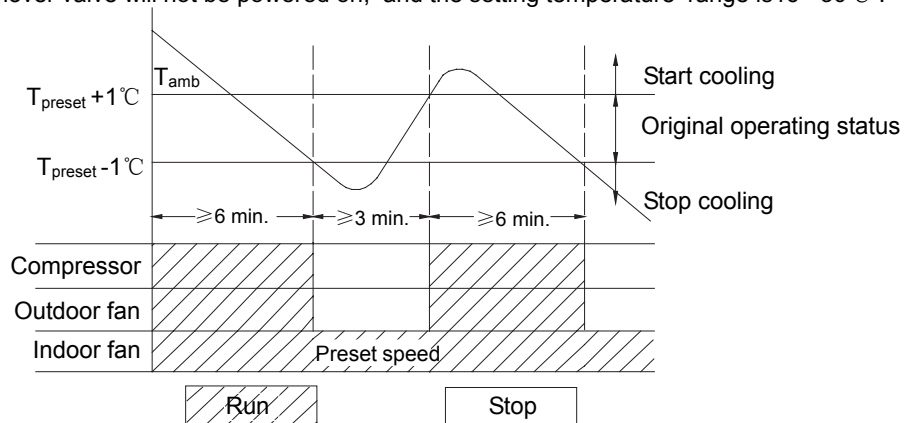
6.1.2.1.1 Cooling Conditions and Process

When $T_{\text{amb}} \geq T_{\text{preset}} + 1^\circ\text{C}$, the unit will run under cooling mode, in which case the compressor and outdoor fan will start and the indoor fan will run at setting speed.

When $T_{\text{amb}} \leq T_{\text{preset}} - 1^\circ\text{C}$, the compressor and the outdoor fan will stop, the indoor fan will run at setting speed.

When $T_{\text{preset}} - 1^\circ\text{C} < T_{\text{amb}} < T_{\text{preset}} + 1^\circ\text{C}$, the unit will maintain its original operating status.

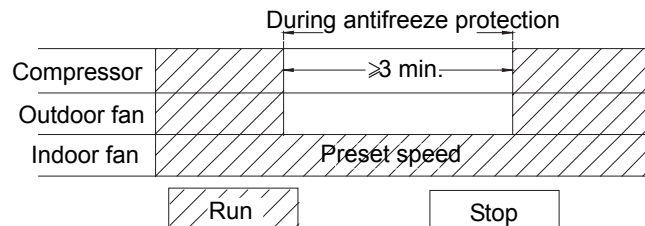
➤ Under this mode, the switchover valve will not be powered on, and the setting temperature range is $16 \sim 30^\circ\text{C}$.



6.1.2.1.3 Protection

◆ Antifreeze Protection

If it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at setting speed. When antifreeze protection is released and the compressor has stopped for 3 minutes, the unit will resume its original operating status.



6.1.2.2 DRY Modes

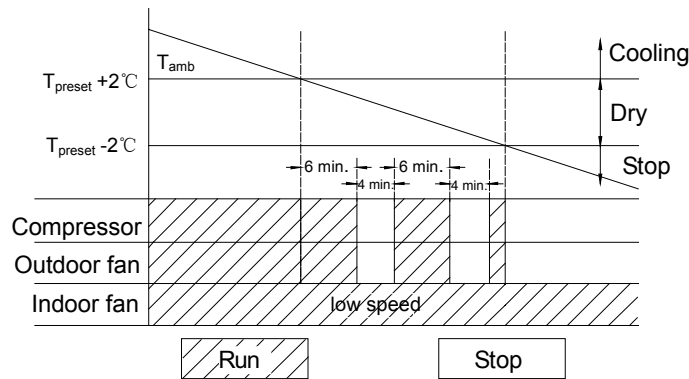
6.1.2.2.1 The conditions and process of DRY

When $T_{\text{amb}} > T_{\text{preset}} + 2^\circ\text{C}$, the unit will run under DRY cooling mode, in which case the compressor and outdoor fan will be started and the indoor fan will run at low speed.

When $T_{\text{preset}} - 2^\circ\text{C} \leq T_{\text{amb}} \leq T_{\text{preset}} + 2^\circ\text{C}$, the unit will run under DRY mode, in which case the indoor fan will keep run at low speed, the compressor and the outdoor fan will be stopped after 6 minutes. After 4 minutes, the compressor and the outdoor fan will be restarted. The dehumidifying process is so repeated in cycle.

When $T_{\text{amb}} < T_{\text{preset}} - 2^\circ\text{C}$, the compressor and outdoor fan will be stopped, the indoor fan will run at low speed.

➤ Under this mode, the switchover valve will not be powered on, and the setting temperature range is $16 \sim 30^\circ\text{C}$.



6.1.2.2.3 Protection

◆ Antifreeze Protection

Upon meeting the cooling condition, if it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at low speed. When antifreeze protection is released and the compressor has stopped for 3 minutes, the complete unit will resume its original operating status.

Upon meeting the dehumidify condition, if it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at low speed. When antifreeze protection is released and the compressor has stopped for 4 minutes, the complete unit will resume its original operating status.

6.1.2.3 HEAT Mode (there is no this mode for cooling only unit)

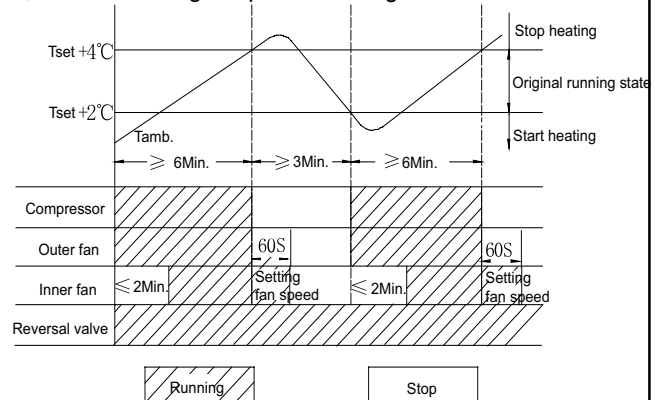
6.1.2.3.1 The conditions and process of heating

When $T_{amb} \leq T_{set} + 2^\circ\text{C}$, the system enters heating running, in this case, the reversal valve, compressor, outdoor fan enter simultaneously running. The indoor fan will delay at most for 2min to run.

When $T_{amb} \geq T_{set} + 4^\circ\text{C}$, the compressor and outdoor fan will stop, but the reversal valve is still with power on, the indoor unit will run at setting fan speed for 60s then will stop.

When $T_{set} + 2^\circ\text{C} < T_{amb} < T_{set} + 4^\circ\text{C}$, the unit will maintain its original operating status.

➤ Under this mode, the switchover valve will be powered on, and the setting temperature range is $16 \sim 30^\circ\text{C}$.



6.1.2.3.3 Conditions and processes of defrost

This unit adopts intelligent defrosting, it can defrost according to the frosting conditions, dual 8 display H1

6.1.2.3.4 Protection

◆ High Temp. Protection

If it is detected that the evaporator tube temperature is too high, the outdoor fan will be stopped. When the tube temperature resumes to normal, the outdoor fan will be restarted.

◆ **Noise Silencing Protection:** If the unit is stopped by pressing ON/OFF, the reversal valve will be stopped after 2-minute lag; or 2 minutes will be delayed upon mode switching.

6.1.2.4 Fan mode

Under FAN mode, only the indoor fan runs at setting speed. The RUN indicator will be bright. Double 8 module indicator will display the setting temperature. When stand by, the power indicator is bright but the unit does not run.

6.1.2.5 Auto Mode

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

3. Other controls

1. Memory function

Memory contents: Mode, up and down swing, Light, Setting temp., Setting fan speed, Ordinary setting Fahrenheit/Centigrade, after powered off, and powered on, it will run at the memory contents.

If no timer setting function in last remote control order, the system will memorize the last remote control order, the system will memorize the last remote control order and work with last remote control setting.

In the last remote control order, there is ordinary timer function, if power off happen beffore the timer arrived, the system will memorize the last remote control timer function, and will recalculate.

If there is timer function in last remote control order, but timer has arrive, system will run at timer on or timer off and power off, after repowered on, the system will run at the mode before power off.

(2) Timer function

1. Ordinary Timer setting:

Timer on: Under unit off, the timer on function could be set up, if timer on has arrived, controller will run at setting mode, the timer interval is 0.5hr, setting range is 0.5-24hrs.

Timer off: Under unit off, the timer off function could be set up, if timer off has arrived, controller will run at setting mode, the timer interval is 0.5hr, setting range is 0.5-24hrs.

② Timer setting for hour:

Timer on: if system is running, to set timer on, the system will continue to run, if unit is off to set up timer on, when timer on has arrived, the system will run at pressetting mode.

Timer off: If system is off to set up the timer off, when to set up timer off, the unit will stand by, when unit is on, to set up timer off, when the timer off arrived, the system will stop to work.

Timer setting change:

When system is in Timer status, can set up timer on and timer off by wireless remote control, to reset up Timer also, the system will run at last setting status.

When system is running, at the same time to set up Timer on and Timer off, the system will keep the present setting status, when time arrived, system will stop to work.

When system stop, at the same time to set up Timer on and Timer off, the system will stop, untile the timer arrived, the system will start to work.

Hereafter, when timer of timer on in every day arrived, it will run the presetting modes, after timer off arrived, the system will stop.

(3) Auto button

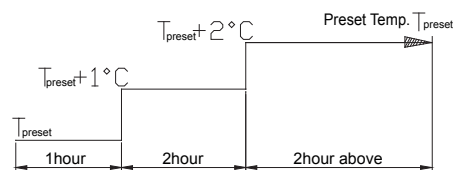
After powered on, press this button, it will run at Auto mode, when repressed, the unit will turns off.

(4) Buzzer

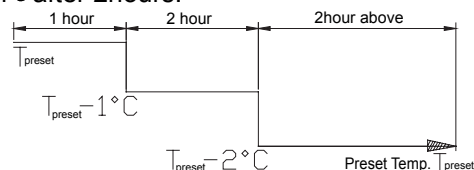
The controller is powered on and detect the signal received, the buzzer will beep.

(5) Sleep function

Under cooling or dehumidifying mode, the preset temperature will automatically rise by 1°C , ine hour after setting of sleep program and rise by 1°C after 2hours.



Under heating mode, the preset temperature will automatically decrease by 1°C one hour after setting of sleep program and decrease by another 1°C after 2hours.



(6) Turbo function

The turbo function is available in Cool and Heat modes.

(7) Dry function

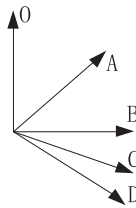
Dry function is available in Cool and Dehumidifying modes.

(8) Auto fan speed control

In this mode, indoor fan can run with Hig, Mid, Low speeds.

(9) Up and down swing control

After powered on, the lower swing motor will firstly rotate the guide louver to position 0, close up the air outlet vent; After unit turned on, if to set up swing function, when indoor fan stop running, the guide louver will stop at current position, inner fan motor is running, guide louver will resume to swing. From Cool, Dry, Fan modes to Heat mode, the guide louver will be opened at D position, when turn on swing will run at (A-D); from Heat mode to Cool, Dry, Fan mode, the fan louver will turn to B position, if turn on the swing, it will run at (A-C).



(10) Displayer

① Running figure and mode figure display

After powered on, the figure will be displayed, then only Power/running indicator turn on. When using remote controller to open the unit, it will turn on, at the same time to display current setting running modes.

② Dual 8 display

When the unit is turned on, after powered on, the nixie tube will display the setting temp. (setting range is 16-30°C). Under Auto mode, cooling and fan will display 25°C, heating will display 20°C, cooling only control display 25°C.

(11) PG motor lock protection

When turn on the fan motor, if motor continuously run for a while and the running speed is very slow, in order to prevent motor automatically self-protection, it will stop running and display lock; If currently turns unit on, that dual 8 will display lock error code H6; If current is unit off, will not display the block error information.

6. 2 Manual 2 of functions of remote controller

This manual is applicable to 18K, 24K models, the centigrade is used for the following function manual, if there will be the Fahrenheit degree, that will be $TF = TC \times 1.8 + 32$.

1. Temperature parameter

◆ The room setting temperature (T_{preset})

◆ The room ambient temperature (T_{amb})

2 Basic Functions

Once energized, the compressor should in no way be restarted unless after 3-minute time interval at least for the first energization, the compressor will be started without 3-minute lag. The compressor, once started, will not be stopped within 6 minutes with the charge of room temperature.

(1) Cooling Mode

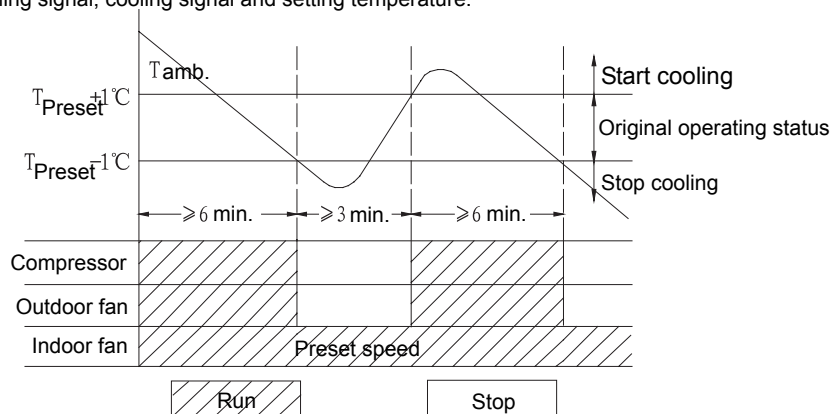
① Cooling Conditions and Process

When $T_{\text{amb}} \geq T_{\text{preset}} + 1^\circ\text{C}$, the unit will run under cooling mode, in which case the compressor and outdoor fan will start and the indoor fan will run at setting speed.

When $T_{\text{amb}} \leq T_{\text{preset}} - 1^\circ\text{C}$, the compressor and the outdoor fan will stop, the indoor fan will run at setting speed.

When $T_{\text{preset}} - 1^\circ\text{C} < T_{\text{amb}} < T_{\text{preset}} + 1^\circ\text{C}$, the unit will maintain its original operating status.

➤ Under this mode, the four-way valve will not be powered on and the setting temperature range is $16-30^\circ\text{C}$.
The display displays running signal, cooling signal and setting temperature.



② Protection

◆ Antifreeze Protection

If it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at setting speed. When antifreeze protection is released and the compressor has stopped for 3 minutes, the unit will resume its original operating status.



③ Over current protection

If it is detected that the system amperage exceeds the specified value (about 22 A), the main unit will enter into the status that only the fan is running. After 3 minutes and overcurrent protection is released, the main unit will resume its original operating status. If it is 6 times continuously detected overcurrent protection (if the compressor has run over 6 mins continuously, the times of protection will be cleared), the main unit will be stopped on standby, the nixietube will display error code "E5", power indicator will blink and it is need to restart the unit by the wireless remote control.

(2) DRY Modes

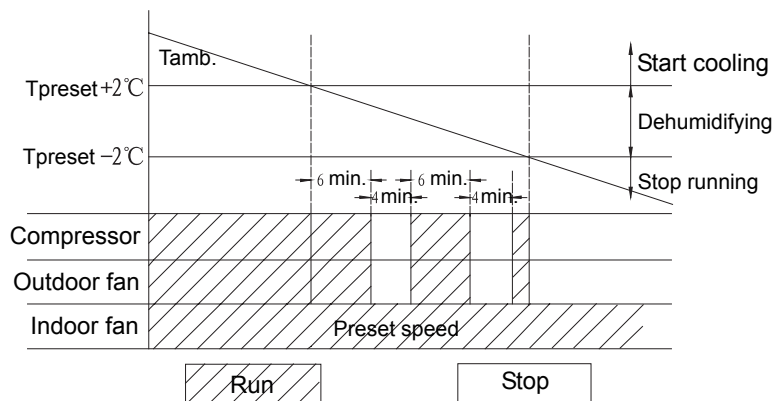
① DRY Modes

When $T_{amb} > T_{preset} + 2^{\circ}\text{C}$, the unit will run under DRY cooling mode, in which case the compressor and outdoor fan will be started and the indoor fan will run at low speed.

When $T_{preset} - 2^{\circ}\text{C} \leq T_{amb} \leq T_{preset} + 2^{\circ}\text{C}$, the unit will run under Dry mode, in which case the indoor fan will keep run at low speed, the compressor and outdoor fan will be stopped after 6mins. After 4 minutes, the compressor and outdoor fan will be restarted. The dehumidifying process is so repeated in cycle.

When $T_{amb} < T_{preset} - 2^{\circ}\text{C}$, the compressor and outdoor fan will be stopped, the indoor fan will run at low speed.

➤ Under this mode, the switchover valve will not be powered on and the setting temperature range is $16\text{--}30^{\circ}\text{C}$.



② Protection

◆ Antifreeze Protection

Under dehumidifying and cooling mode, if it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at low speed. When antifreeze protection is released and the compressor has stopped for 3 minutes, the complete unit will resume its original operating status.

Upon meeting "run 6 mins and stop 4 mins" dehumidify condition, if it is detected that the system is under antifreeze protection, the compressor and outdoor fan will be stopped, and the indoor fan will run at low speed. When antifreeze protection is released and the compressor has stopped for 4 minutes, the complete unit will resume its original operating status.

③ Other protection The other protections are the same with that under Cool mode.

(3) HEAT Mode (there is no this mode for cooling only unit)

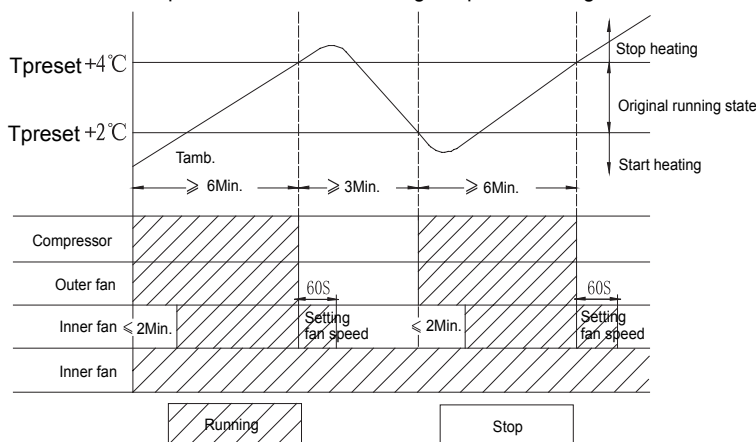
① The conditions and process of heating

When $T_{amb} \leq T_{set} + 2^{\circ}\text{C}$, the system enters heating running, in this case, the reversal valve, compressor, outer fan enter simultaneously running. The indoor fan will delay at most for 2min to run.

When $T_{amb} \geq T_{set} + 4^{\circ}\text{C}$, the compressor and outdoor fan will stop, but the reversal valve is still with power on, the indoor unit will run at setting fan speed for 60s then will stop.

When $T_{set} + 2^{\circ}\text{C} < T_{amb} < T_{set} + 4^{\circ}\text{C}$, the unit will maintain its original operating status.

➤ Under this mode, the switchover valve will be powered on and the setting temperature range is $16\text{--}30^{\circ}\text{C}$.



② Conditions and processes of defrost

This unit adopt intelligent defrosting, it can defrost according to the frosting conditions, dual 8 display H1

③ Protection

◆ Anti-high temperature protection

If it is detected that the evaporator tube temperature is too high, the outdoor fan will be stopped. When the tube temperature resumes to normal, the outdoor fan will be restarted.

◆ **Noise Silencing Protection**

If the unit is stopped by pressing ON/OFF, the reversal valve will be stopped after 2-minute lag; or 2 minutes will be delayed upon mode switching.

④ **Over current product**

The overcurrent protection is the same with the the over current protection under cool mode.

(4) **Fan mode**

Under FAN mode, only the indoor fan runs at setting speed. The RUN indicator will be bright. Double 8 module indicator will display the setting temperature. When stand by, the power indicator is bright but the unit does not run.

(5) **Auto Mode**

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

3 Other controls

(1) **Timer function**

① **Ordinary Timer setting:**

timer on: Under unit off, the timer on function could be set up, if timer on has arrived, controller will run at setting mode, the timer interval is 0.5hr, setting range is 0.5-24hrs.

Timer off: Under unit off, the timer off function could be set up, if timer off has arrived, controller will run at setting mode, the timer interval is 0.5hr, setting range is 0.5-24hrs.

② **Timer setting for hour:**

Timer on: if system is running, to set timer on, the system will continue to run, if unit is off to set up timer on, When timer on has arrived, the system will run at pressetting mode.

Timer off: If system is off to set up the timer off, when to set up timer off, the unit will stand by, when unit is on, to set up timer off, when the timer off arrived, the system will stop to work.

Timer setting change:

When system is in Timer status, can set up timer on and timer off by wireless remote control, to reset up Timer also, the system will run at last setting status.

When system is running, at the same time to set up Timer on and Timer off, the system will keep the present setting status, when time arrived, system will stop to work.

When system stop, at the same time to set up Timer on and Timer off, the system will stop, until the timer arrived, the system will start to work.

Hereafter, when timer of timer on in every day arrived, it will run the presetting modes, after timer off arrived, the system will stop.

(2) **Auto button**

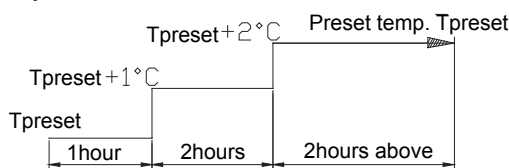
After powered on, press this button, it will run at Auto mode, when repressed, the unit will turns off.

(3) **Buzzer**

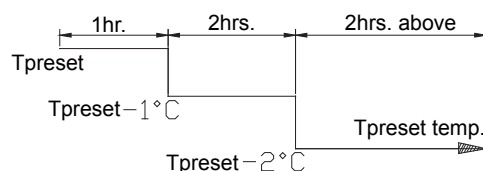
The controller is powered on and detect the signal received, the buzzer will beep.

(4) **Sleep function**

Under cooling or dehumidifying mode, the preset temperature will automatically rise by 1°C, in one hour after setting of sleep program and rise by 1°C after 2 hours.



Under heating mode, the preset temperature will automatically decrease by 1°C one hour after setting of sleep program and decrease by another 1°C after 2 hours.



(5) Turbo function

The turbo function is available in Cool and Heat modes.

(6) Dry function

Dry function is available in Cool and Dehumidifying modes.

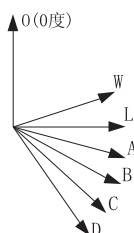
(7) Auto fan speed control

In this mode, indoor fan can run with Hig, Mid, Low speeds.

(8) Up and down swing control

After powered on, the lower swing motor will firstly rotate the guide louver to position 0, close up the air outlet vent; After unit turned on, if to set up swing function, when indoor fan stop running, the guide louver will stop at current position, inner fan motor is running, guide louver will resume to swing. From Cool, Dry, Fan modes to Heat mode, the guide louver will be opened at D position, when turn on swing will run at (A-D); from Heat mode to Cool, Dry, Fan mode, the fan louver will turn to B position, if turn on the swing, it will run at (A-C). When unit is turned off, the guide louver will turn to position 0, the swing is only available after preset the swing function, and indoor unit is running.

Note: When to set up at position L to B, A to C, B to D, the guide louver will swing between position W to D.



(9) Displayer

① Running figure and mode figure display

After powered on, the figure will be displayed, then only Power/running indicator turn on. When using remote controller to open the unit, it will turn on, at the same time to display current setting running modes.

② Dual 8 display

When the unit is turned on, after powered on, the nixie tube will display the setting temp. (setting range is 16-30 °C). When the preset temperature display signal has been received, the nixie tube will display the preset temperature; If the display ambient temperature signal has been received, the nixie tube will display the current indoor ambient temperature, if to set up others by remote controller that the display will maintain its status. At displaying ambient temperature, the unit received the remote control signal, it will display 5s preset temperature then turn to ambient temperature display. The ambient temperature sensor malfunction will display F1; Indoor tube sensor will display F2, wire jumper cap protection displays C5.

(10) PG motor lock protection

When turn on the fan motor, if motor continuously run for a while and the running speed is very slow, in order to prevent motor automatically self-protection, it will stop running and display lock; If currently turns unit on, that dual 8 will display lock error code H6; If current is unit off, will not display the block error information.

(11) Power-off Memory

Memory contents: Mode, UP/DOWN Swing, light, Set temp, Set fan speed.

After de-energized, and re-energized, the unit will start to run with the memory function automatically. The system, if the last remote control signal do not set timer function, will memorize the last remote control signal and run according to it. If the last remote control signal has set timer function, the system is de-energized before the set time, when re-energized, the system will memorize the timer function, the set time will recalculate. If the last remote control signal has set timer function and the system is de-energized after the set time, when re-energized, the system will memorize the running status before de-energized.

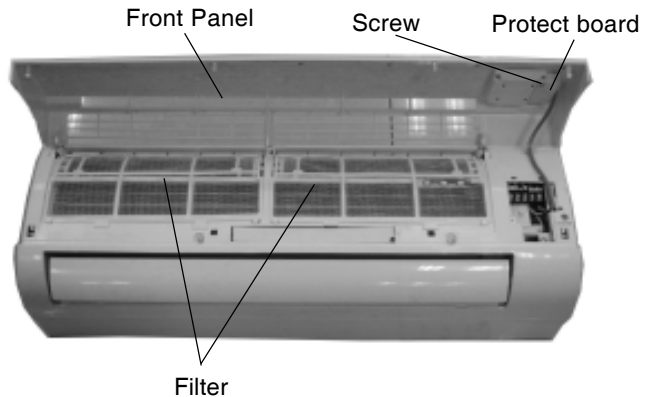
7 **Dissassembly Procedures**

7.1 (09 with LED display) Disassembly procedures for indoor unit

Operating Procedures / Photos

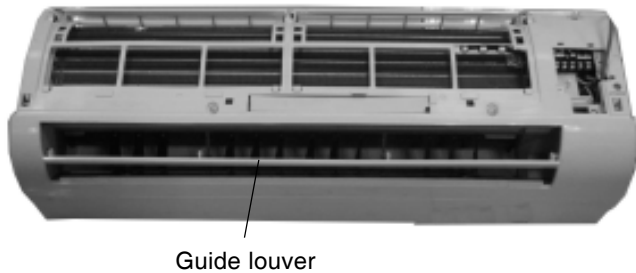
1. Disassemble the front panel, filter

Open the front panel ,Push the filter upwards to unloose the clasp, and then pull out the two filters. Push the rotating shaft of front panel out sidely to put out it from the groove, screw off one screw on the display guard board, then take down the displayer connection wire, can take down the front panel.



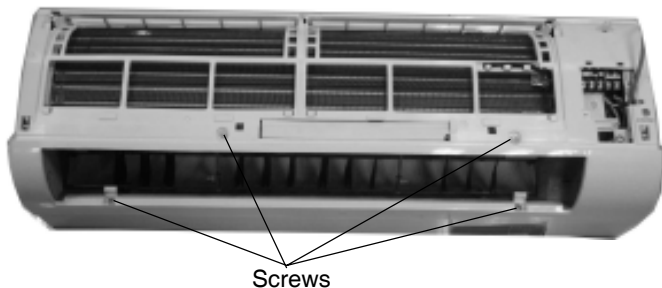
2. Disassemble the guide louver

Bend the guide louver so that the movable lock of guide louver is released to remove the guide louver.



3. Disassemble the front case

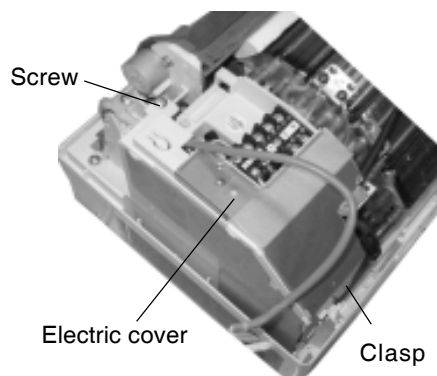
Open the 2 screw covers at the front case and screw off 4 screws. Pull out the movable latch at the front case with hand, disassemble the front case.



Operating Procedures / Photos

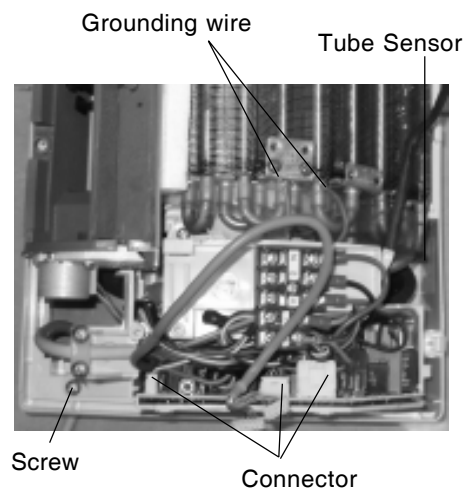
4. Disassemble the electric cover

Screw off the screw, then press the clasps in by till they loose, then lift up wards the electric cover.



5. Disassemble the electric box

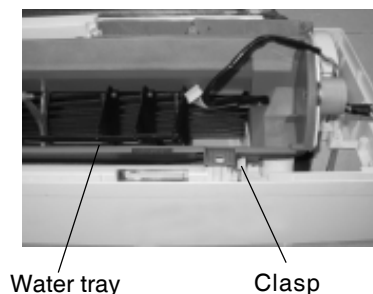
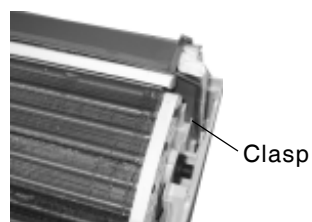
Loosen the grounding wire of the evaporator, remove the temperature sensor for the pipe, put out the connection lines for the step motor and the indoor motor. Screw off the screw fixing the electric box. Remove the electric box.



6. Disassemble water tray

Loosen the clasps at both sides of water tray sub-assy then lift them up, can take out of the water tray sub-assy.

Note: Because the water tray is connected with the water drainage pipe, so when take it out should pay more attention, avoid to hurt the fin of evaporator.



Operating Procedures / Photos

7. Disassembling the evaporator

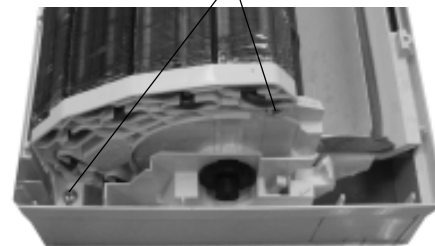
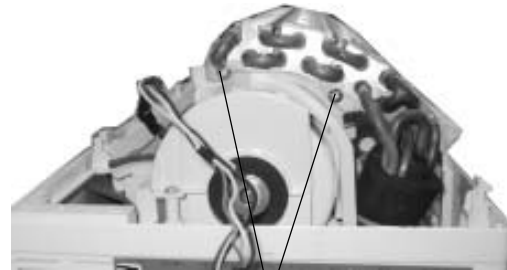
Screw off one screw which fix the connection pipe clamp. Take off the connection pipe clamp.

Screw off 4 screws fixing the left and right side of the evaporator, then elevate left side the evaporator to remove it backward.



CAUTION:

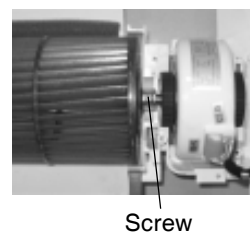
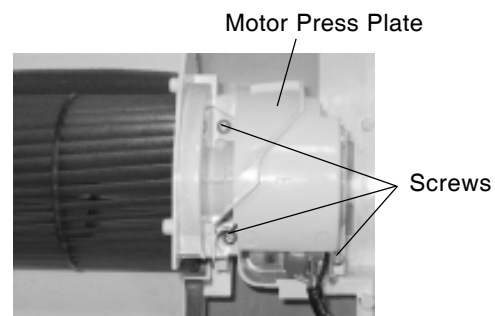
When repair, Carefully take out the evaporator and pay attention to protect the connecting pipe.



8. Disassembling motor and cross flow fan

Screw off 4 screws fixing the motor cover and then take the motor cover out.

Screw off the holding screw at the left shaft sleeve of the cross flow fan, pull out the motor, and remove the cross flow fan.

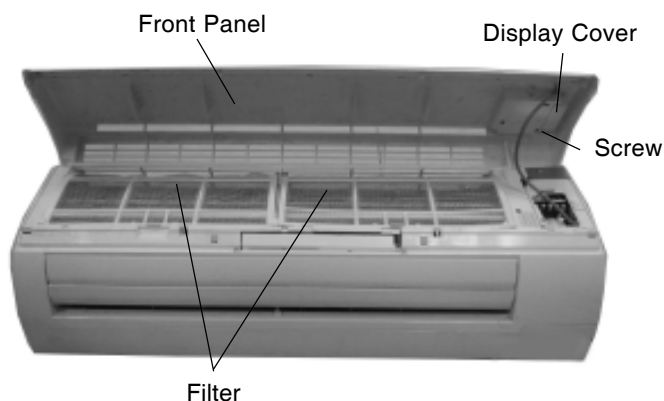


7.2 (12 with LED display) Disassembly procedures for indoor unit

Operating Procedures / Photos

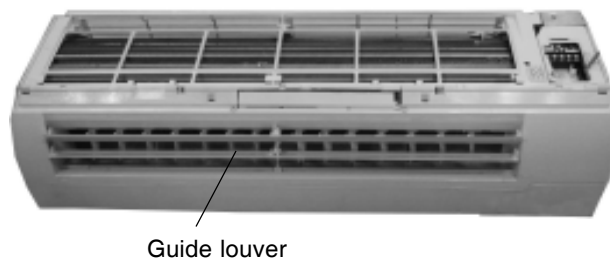
1. Disassemble the front panel, filter

Open the front panel, Push the filter upwards to unloose the clasp, and then pull out the two filters. Slightly push and pull out the rotating shaft of front panel from the groove. Screw off one screw on the displayer box, take down the guard board then disconnect the displayer connection wire, can take down the front panel.



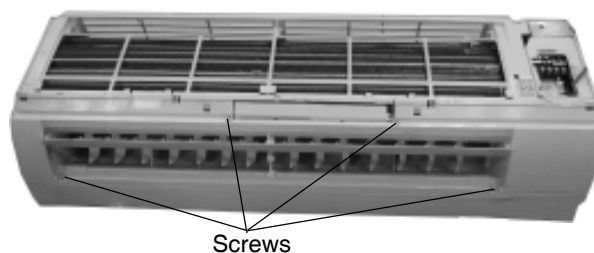
2. Disassemble the guide louver

Bend the guide louver so that the movable lock of guide louver is released to remove the guide louver.



3. Disassemble the front case

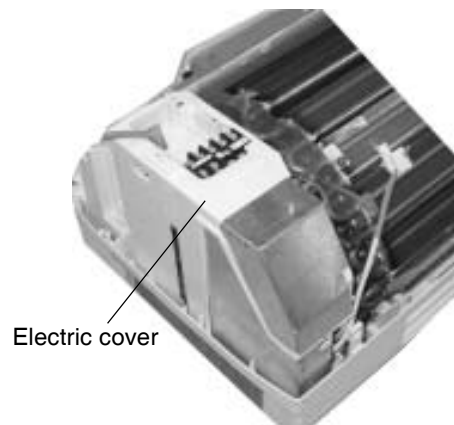
Open the 2 screw covers at the front case and screw off 4 screws. Pull out the movable latch at the front case with hand and then pull it backwards to disassemble the front case.



Operating Procedures / Photos

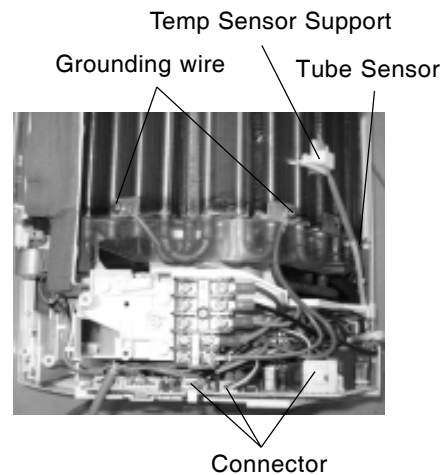
4. Disassemble the electric cover

Press the clasps in by till they loose, then lift up wards the electric cover.



5. Disassemble the electric box

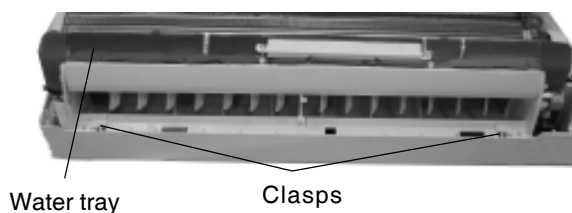
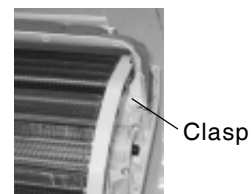
Lossen the grounding wire of the evaporator, remove the tube sensor and temp sensor support, put out the connection lines for the step motor and the indoor motor. Screw off the screws fixing the electric box. Remove the electric box.



6. Disassemble water tray

Loosen up the clasp at the front of and the rear of water tray sub-assy and lift them up, can take out the water tray sub-assy.

Note: Due to the water tray is connected with the water drainage pipe, please pay more attention do not to damage the fin on evaporator.



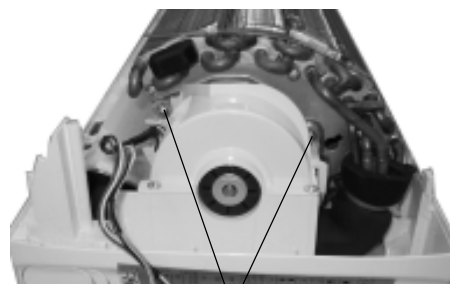
Operating Procedures / Photos

7. Disassembling the evaporator

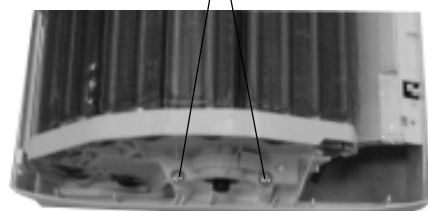
Screw off 4 screws fixing the left and right side of the evaporator, then elevate left side the evaporator to remove it backward.

CAUTION:

When repair, Carefully take out the evaporator and pay attention to protect the connecting pipe.



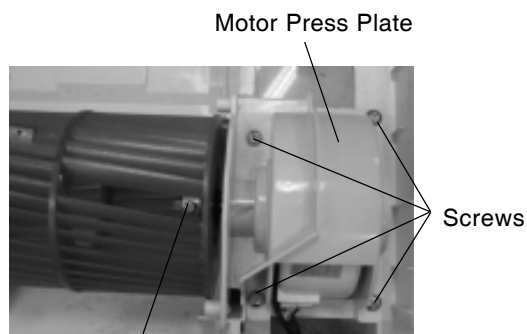
Screws



8. Disassembling motor and cross flow fan

Screw off 4 screws fixing the motor cover and then take the motor cover out.

Screw off the holding screw at the left shaft sleeve of the cross flow fan, pull out the motor, and remove the cross flow fan.



Motor Press Plate

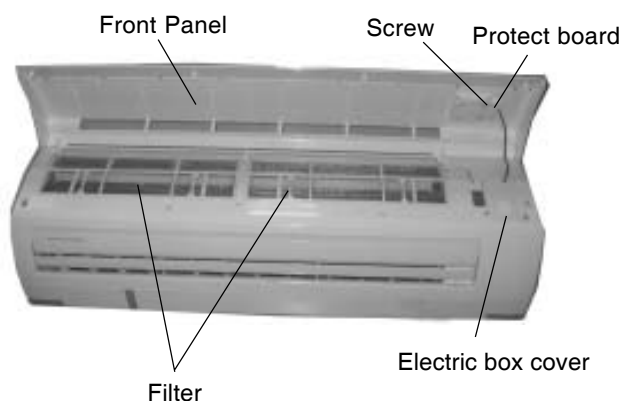
Screws

Screw

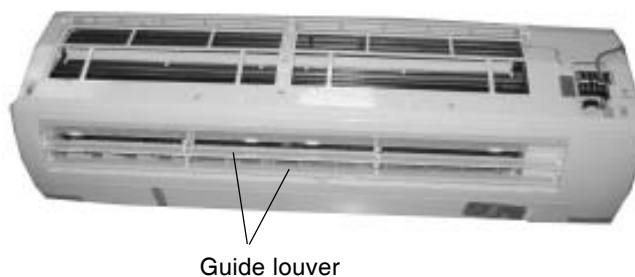
7. 3 (18/24) Disassembly procedures for indoor unit**Operating Procedures / Photos****1. Disassemble the front panel, Filter, Electric box cover**

Open the front panel ,Push the filter upwards to unloose the clasp, and then pull out the two filters. Screw off the screws fixing the electric box cover remove the cover out.

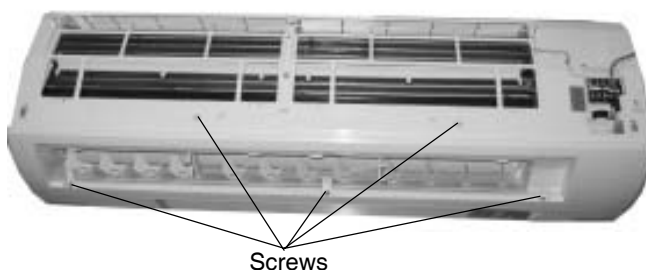
Push the rotating shaft of front panel out sidely to put out it from the groove, screw off one screw on the display guard board, then take down the displayer connection wire, can take down the front panel.

**2. Disassemble the guide louver**

Bend the guide louver so that the movable lock of guide louver is released to remove the guide louver.

**3. Disassemble the front case**

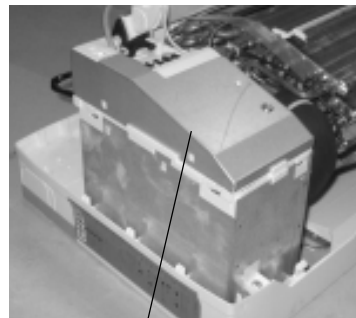
Open the 3 screw covers at the front case and screw off 5 screws. Pull out the movable latch at the front case with hand and then pull it backwards to disassemble the front case.



Operating Procedures / Photos

4. Disassemble the electric box cover

Screw off the screws fixing the electric box cover and then open the cover, next unscrew the screws fixing the toggle switch on the cover, at last remove the cover out.

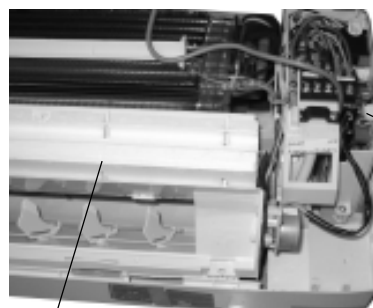


Electric box cover

5. Disassemble water tray

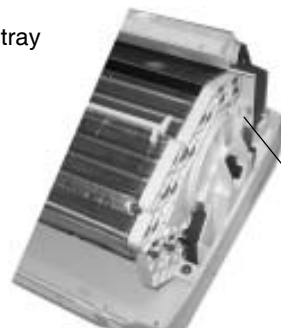
Loosen the clasp of the front and rear of water tray sub-assy and lift them up, pullout of the connection wire of swing motor, then can take out the water tray sub-assy.

Note: Due to water tray is connected with the water drainage pipe, please pay more attention do not hurt the fin on evaporator.



Water tray

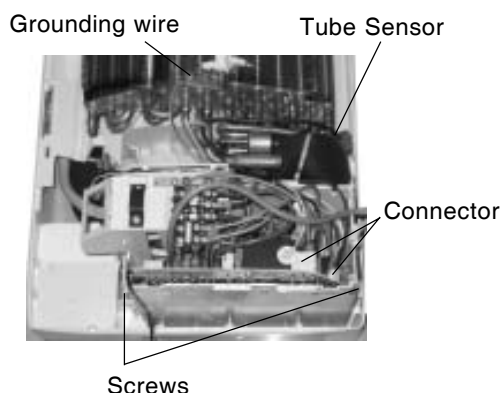
Connector



Clasp

6. Disassemble the electric box

Screw off the grounding wire of the evaporator, remove the temperature sensor for the pipe, put out the connection lines for the indoor motor. Screw off the screws fixing the electric box. Remove the electric box.



Grounding wire

Tube Sensor

Connector

Screws

Operating Procedures / Photos

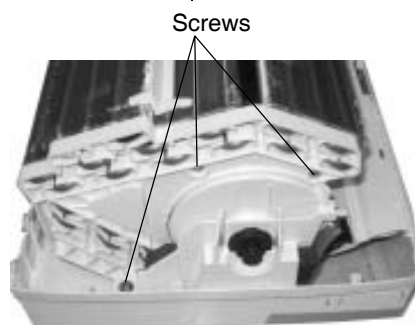
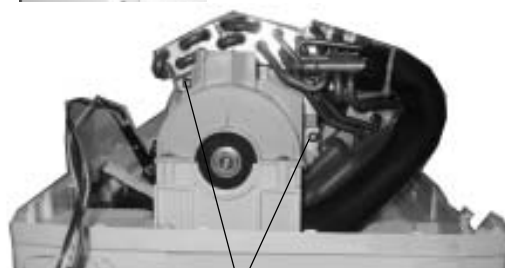
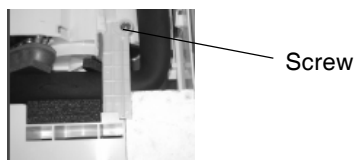
7. Disassembling the evaporator

Screw off one screw which fix the connection board clamp. Take down the connection board clamp.

Screw off 5 screws fixing the left and right side of the evaporator, then elevate left side the evaporator to remove it backward.

CAUTION:

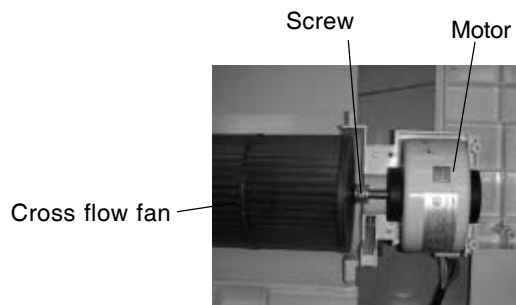
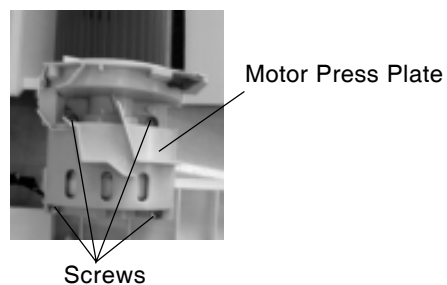
When repair, Carefully take out the evaporator and pay attention to protect the connecting pipe.



8. Disassembling motor and cross flow fan

Screw off 4 screws fixing the motor cover and then take the motor cover out.

Screw off the screw connecting the cross flow fan and motor, then pull out the motor and remove the cross flow fan.



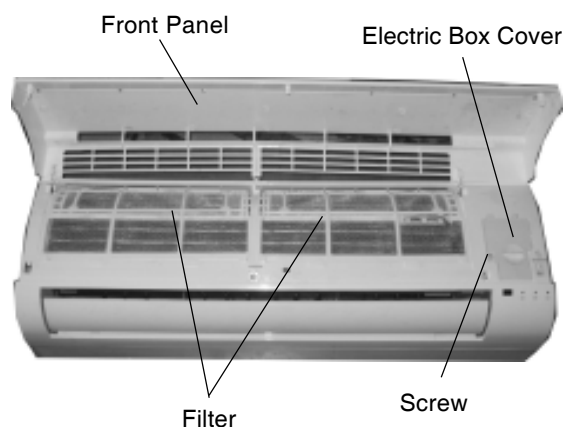
7. 4 (Conventional 09) Disassembly procedures for indoor unit

Operating Procedures / Photos

1. Disassemble the front panel, filter

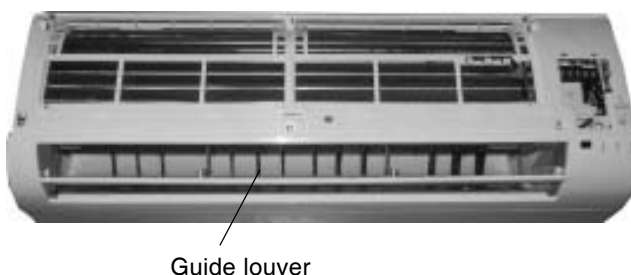
Open the front panel ,Push the filter upwards to unloose the clasp, and then pull out the two filters. Push the rotating shaft of front panel outwards to unloose the clasp, and then pull out the front panel.

Screw off the screws of the electric box cover, and take down the electric box cover.



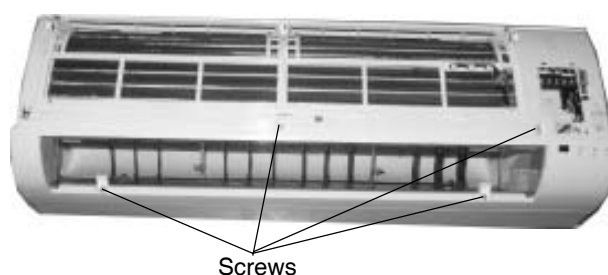
2. Disassemble the guide louver

Bend the guide louver so that the movable lock of guide louver is released to remove the guide louver.



3. Disassemble the front case

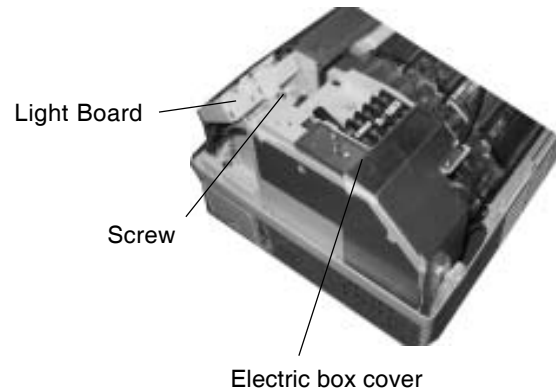
Open the 2 screw covers at the front case and screw off 4 screws. Pull out the movable latch at the front case with hand and then pull it backwards to disassemble the front case.



Operating Procedures / Photos

4. Disassemble the electric box cover

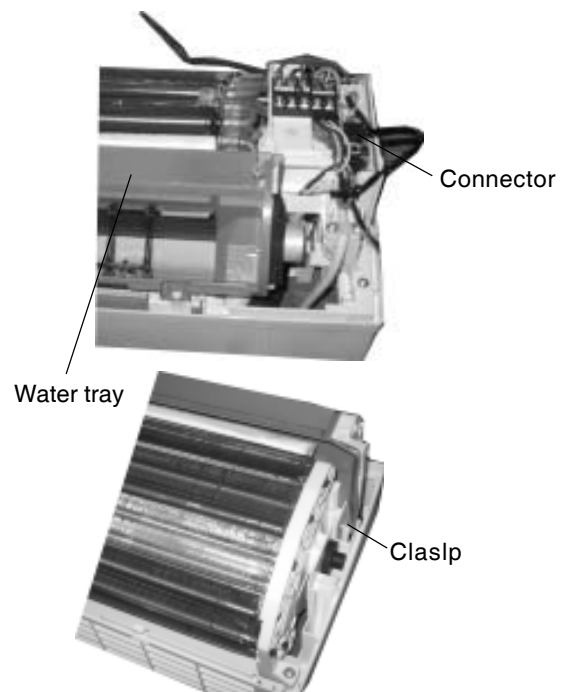
Screw off the screw, then press the clasps in by till they loose, then lift up wards the electric cover and the light board.



5. Disassemble water tray

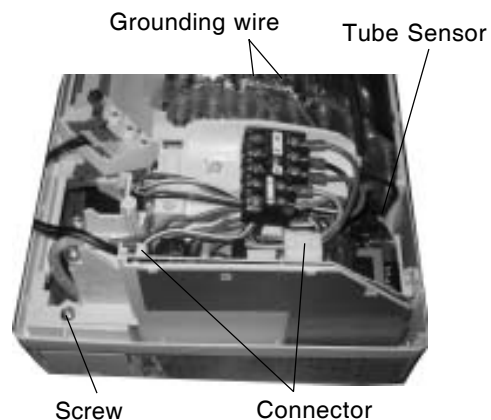
Loosen up the clasp at the front of and the rear of water tray sub-assy and lift them up, can take out the water tray sub-assy.

Note: Due to the water tray is connected with the water drainage pipe, please pay more attention do not to damage the fin on evaporator.



6. Disassemble the electric box

Loosen the grounding wire of the evaporator, remove the temperature sensor for the pipe, put out the connection lines for the indoor motor. Screw off the screws fixing the electric box. Remove the electric box.

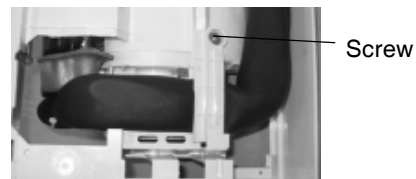


Operating Procedures / Photos

7. Disassembling the evaporator

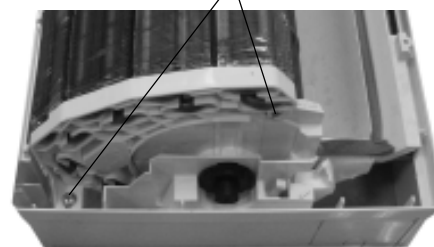
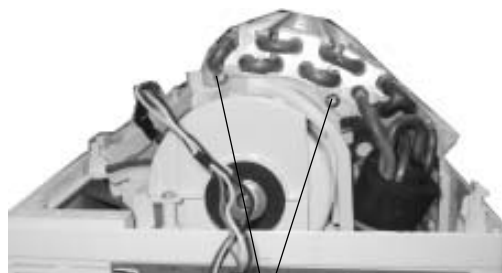
Screw off 1pc screw fixing the connecting pipe clamp, take down the connecting pipe clamp.

Screw off 4 screws fixing the left and right side of the evaporator, then elevate left side the evaporator to remove it backward.



CAUTION:

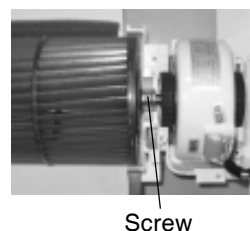
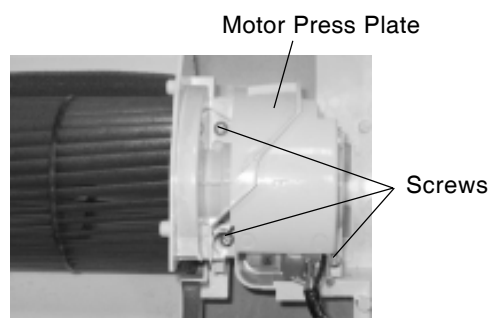
When repair, Carefully take out the evaporator and pay attention to protect the connecting pipe.



8. Disassembling motor and cross flow fan

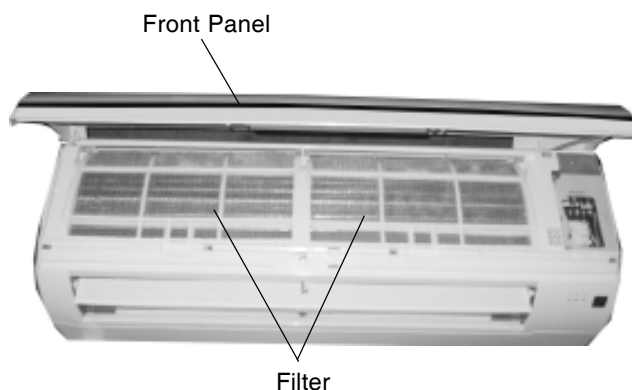
Screw off 4 screws fixing the motor cover and then take the motor cover out.

Screw off the holding screw at the left shaft sleeve of the cross flow fan, pull out the motor, and remove the cross flow fan.

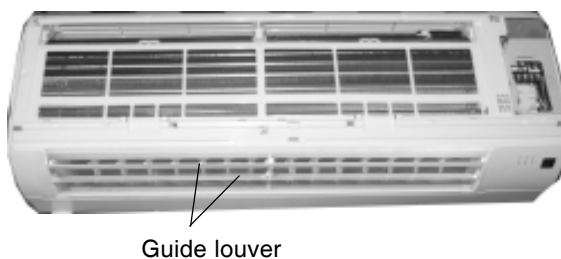


7. 4 (Conventional 12) Disassembly procedures for indoor unit**Operating Procedures / Photos****1. Disassemble the front panel, filter**

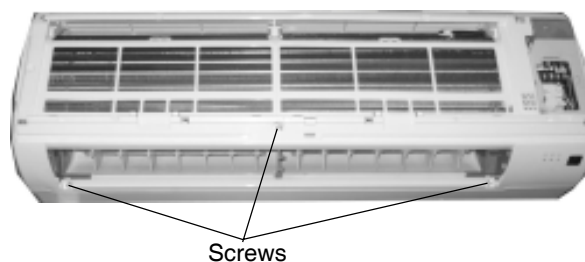
Open the front panel ,Push the filter upwards to unloose the clasp, and then pull out the two filters. Push the rotating shaft of front panel outwards to unloose the clasp, and then pull out the front panel.

**2. Disassemble the guide louver**

Bend the guide louver so that the movable lock of guide louver is released to remove the guide louver.

**3. Disassemble the front case**

Open the 2 screw covers at the front case and screw off 3 screws. Pull out the movable latch at the front case with hand and then pull it backwards to disassemble the front case.

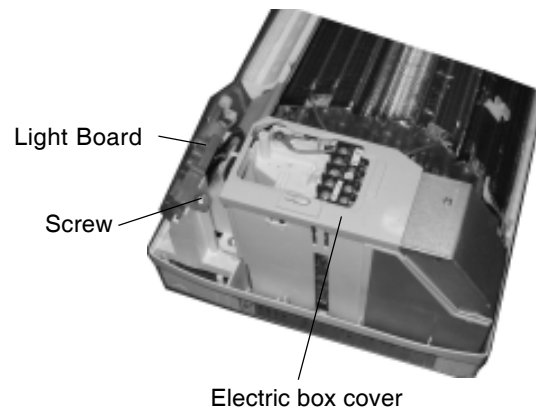


Operating Procedures / Photos

4. Disassemble the electric box cover

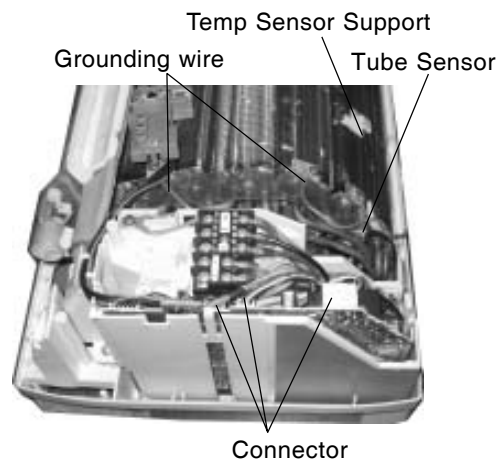
Screw off 1pc screw of light board, then can take down the light board.

Press the clasps in by till they loose, then lift up wards the electric cover.



5. Disassemble the electric box

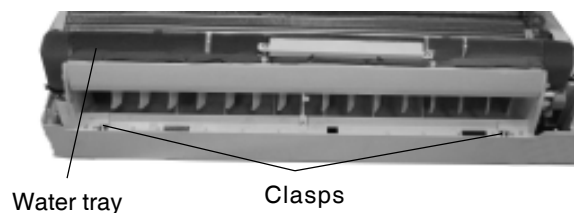
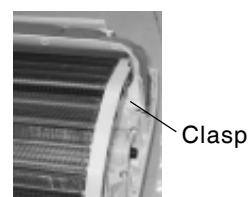
Loosen the grounding wire of the evaporator, remove the tube sensor and temp sensor support, put out the connection lines for the step motor and the indoor motor. Screw off the screws fixing the electric box. Remove the electric box.



6. Disassemble water tray

Loosen up the clasp at the front of and the rear of water tray sub-assy and lift them up, can take out the water tray sub-assy.

Note: Due to the water tray is connected with the water drainage pipe, please pay more attention do not to damage the fin on evaporator.



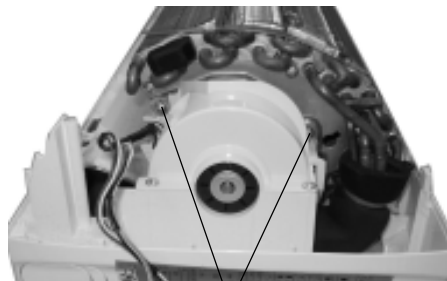
Operating Procedures / Photos

7. Disassembling the evaporator

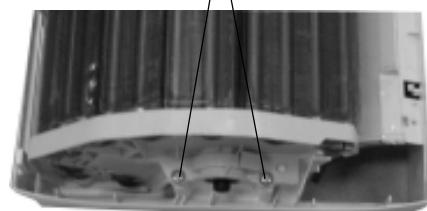
Screw off 4 screws fixing the left and right side of the evaporator, then elevate left side the evaporator to remove it backward.

CAUTION:

When repair, Carefully take out the evaporator and pay attention to protect the connecting pipe.



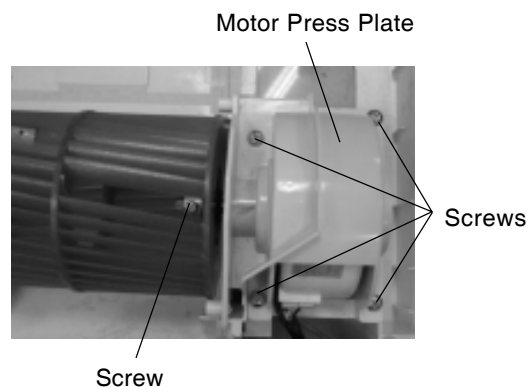
Screws



8. Disassembling motor and cross flow fan

Screw off 4 screws fixing the motor cover and then take the motor cover out.

Screw off the holding screw at the left shaft sleeve of the cross flow fan, pull out the motor, and remove the cross flow fan.



7. 4 (09K) Disassembly Procedures for Outdoor Unit

Operating Procedures / Photos

1. Disassemble Handle, Top Cover

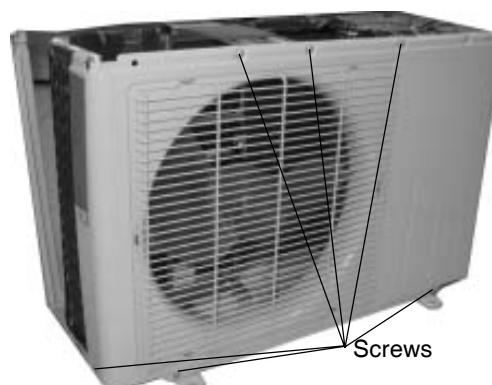
Unscrew the screw fixing the handle, and then remove it upwards to take it out.

Unscrew the 2 screws fixing left side of top cover and the 1 screw fixing the right side to remove the top cover.



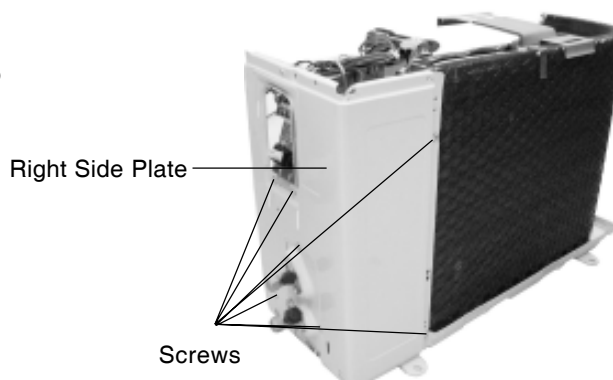
2. Disassemble Front Panel

Unscrew the screws fixing the panel and turn right the front panel to remove it.



3. Disassemble Right Side Plate

Unscrew the 2 screws fixing electric box, and then unscrew the 5 screws fixing the right side plate to remove it.

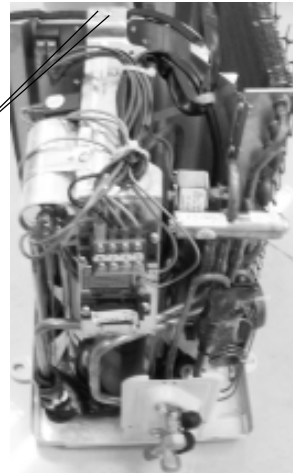


Operating Procedures / Photos

4. Disassemble Electric Box

Unscrew the screws fixing the electric box, and then pull out the inset block of lead-out wire of compressor and fan motor to take out the electric box.

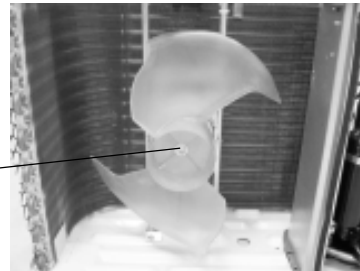
Screws



5. Disassemble Axial Flow Fan

Loosen the fastening nut fixing the axial flow fan with a spanner, and then take out the nut, spring gasket and flap gasket in turn.

Nut



6. Disassemble Motor and Motor Support

Unscrew the 4 screws fixing the motor to take out the motor, and then unscrew the 2 screws fixing the motor support to take it out.

Motor

Motor Support



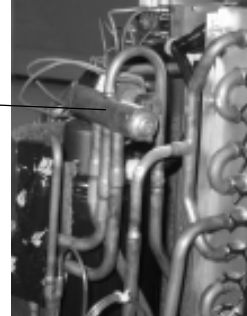
Operating Procedures / Photos

7. Disassemble Four-way Valve

Unscrew the fastening nut of the four-way valve coil and remove the coil. Wrap the four-way valve with wet cotton and unsolder the 4 weld spots connecting the four-way valve to take it out. (Note: Refrigerant should be discharged firstly.)

Welding process should be as quick as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.

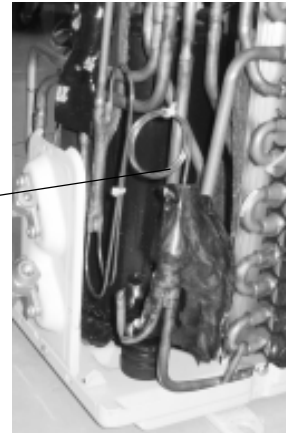
Four-way Valve



8. Disassemble Capillary

Respectively unsolder the weld spots of main capillary and auxiliary capillary to take off the capillary.

Capillary



9. Disassemble Compressor

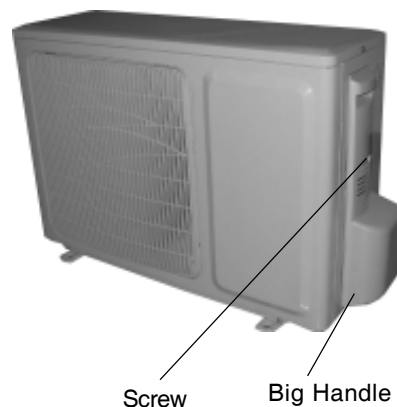
Unscrew the three foot-nuts at the foot of the compressor. Unsolder the suction and the discharge pipes of the compressor, and then carefully remove the pipes to take out the compressor.

Nut

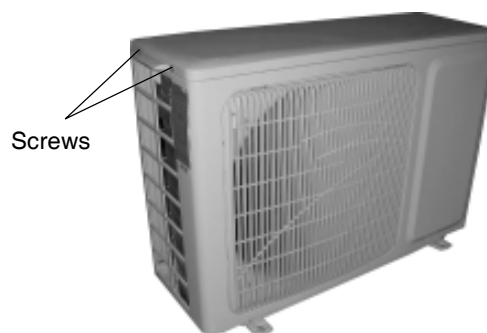


7.5 (12K) Disassembly Procedures for Outdoor Unit**Operating Procedures / Photos****1. Disassemble Big Handle**

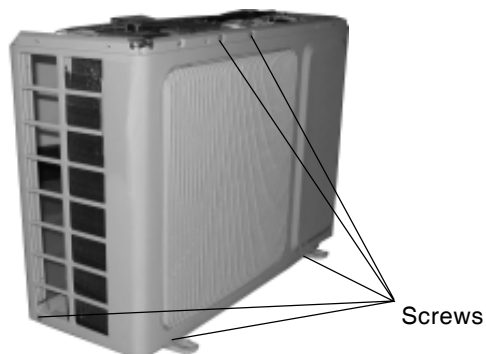
Unscrew the screw fixing the big handle, and then remove it downwards to take it out.

**2. Disassemble Top Cover**

Unscrew the 2 screws fixing left side of top cover and the 1 screw fixing the right side to remove the top cover.

**3. Disassemble Front Panel**

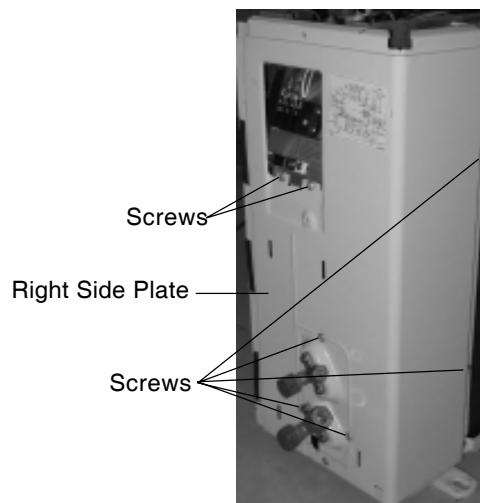
Unscrew the 5 screws fixing the panel and dextrorotate the front panel to pull it out from groove.



Operating Procedures / Photos

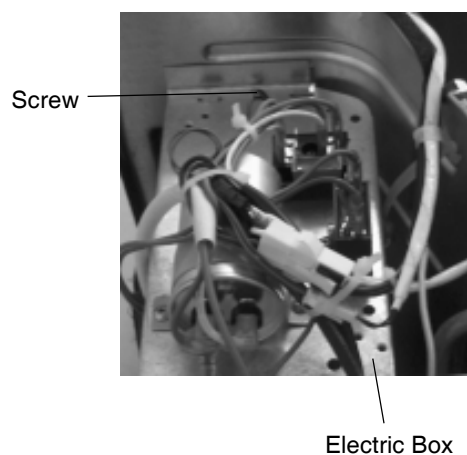
4. Disassemble Right Side Plate

Unscrew the 2 screws fixing electric box ,and then unscrew the 5 screws fixing the right side plate to remove it.



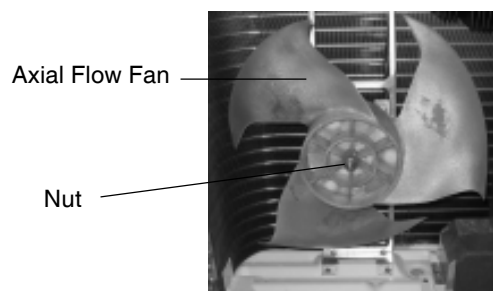
5. Disassemble Electric Box

Unscrew the screws fixing the electric box, and then pull out the inset block of lead-out wire of compressor and fan motor to take out the electric box.



6. Disassemble Axial Flow Fan

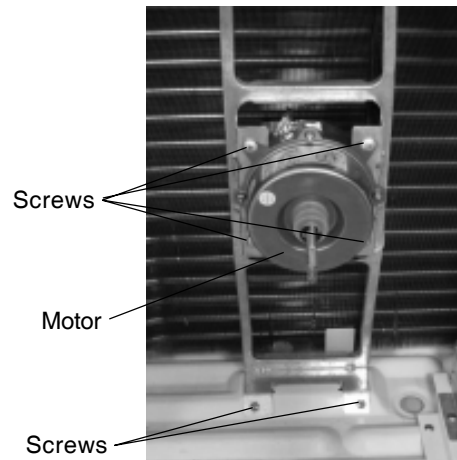
Loosen the fastening nut fixing the axial flow fan with a spanner, and then take out the nut, spring gasket and flap gasket in turn.



Operating Procedures / Photos

7. Disassemble Motor and Motor Support

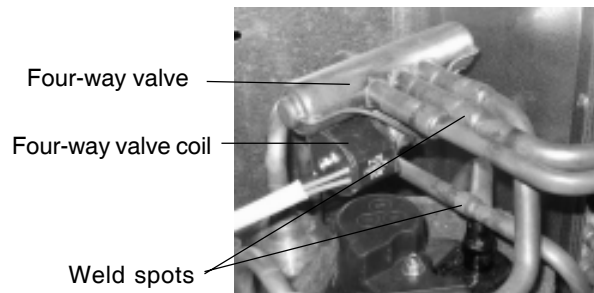
Unscrew the 4 screws fixing the motor to take out the motor, and then unscrew the 2 screws fixing the motor support to take it out.



8. Disassemble Four-way Valve

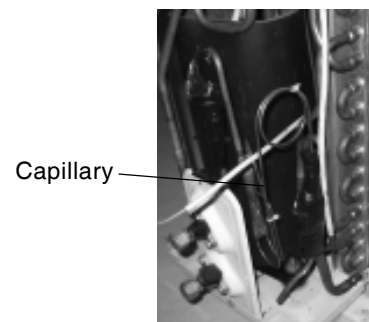
Unscrew the fastening nut of the four-way valve coil and remove the coil. Wrap the four-way valve with wet cotton and unsolder the 4 weld spots connecting the four-way valve to take it out. (Note: Refrigerant should be discharged firstly.)

Welding process should be as quick as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.



9. Disassemble Capillary

Respectively unsolder the weld spots of main capillary and auxiliary capillary to take off the capillary.



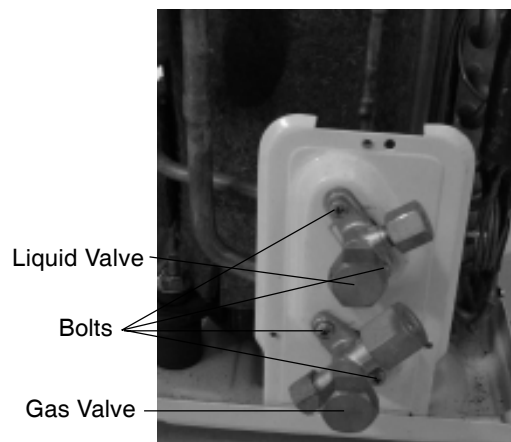
Operating Procedures / Photos

10. Disassemble Gas and Liquid Valves

Unscrew the two bolts fixing gas valve and liquid valve. Unsolder weld spots between gas valve and air-return pipe to remove the gas valve.

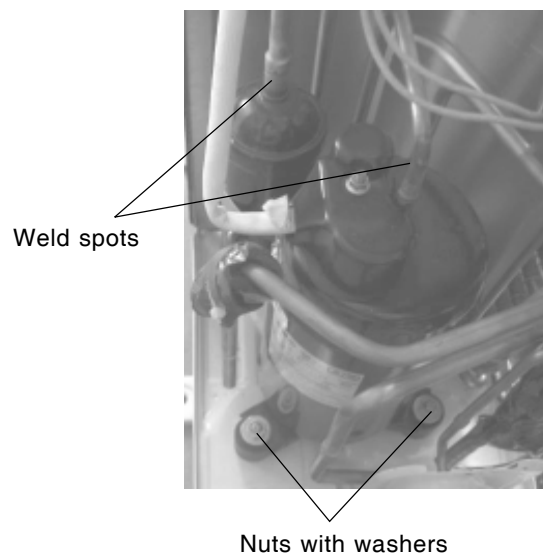
Unscrew the two bolts fixing liquid valve. Unsolder weld spots between liquid valve and capillary to remove the liquid valve.

(Note: During unsoldering, wrap the valves with wet cloth to avoid damage for high temperature.)



11. Disassemble Compressor

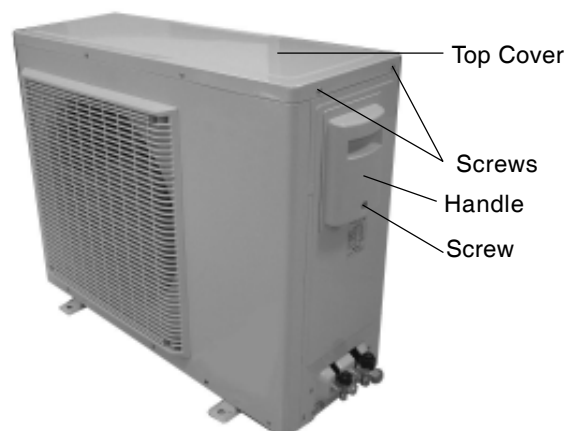
Unscrew the three foot-nuts at the foot of the compressor, take out the compressor.



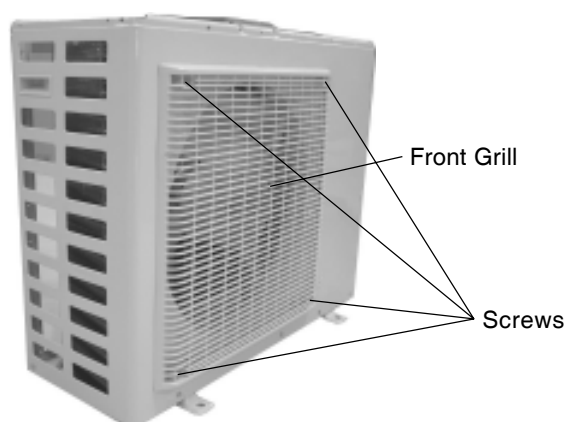
7. 6 (18K) Disassembly Procedures for Outdoor Unit**Operating Procedures / Photos****1. Disassemble Handle and Top Cover**

Unscrew the screw fixing the handle, then push it downwards to take it out.

Unscrew the screws fixing the top cover, and then lift the top cover to remove it.

**2. Disassemble Front grill**

Unscrew the screws fixing the front grill, and then lift it upwards to remove it.

**3. Disassemble Front plate**

Unscrew the screws fixing the cabinet to remove it.



Operating Procedures / Photos

4. Disassemble Right side plate

Unscrew the 9 screws of the right side plate, then take down the right side plate.

Right side plate

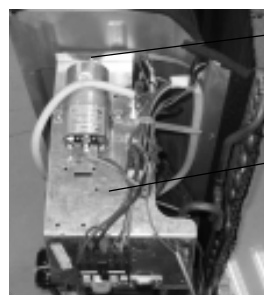


5. Disassemble Electric Box Sub-assy

unscrew the screw of electric box, pull out the lead out insert of compressor, four-way valve and motor, then take down the electric box.

Screw

Electric box cover



6. Disassemble Gas and Liquid Valves

Unsolder the pipeline connecting with valves (to prevent soldering gun from burning out the chassis).Unscrew 2 bolts fixing gas valve ,and then unsolder the weld spot between pipeline and gas valve to remove gas valve. Unscrew the 2 bolts fixing liquid valve, and then unsolder the weld spots between pipeline and liquid valve to remove liquid valve.

(Note:During unsoldering ,wrap the valves with wet cloth to avoid damage for high temperature.)



Liquid Valve

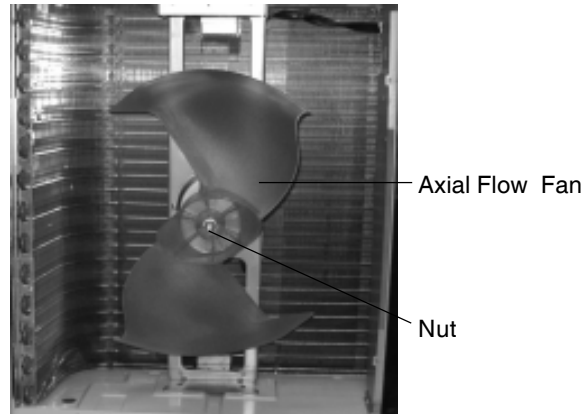
Bolts

Gas Valve

Operating Procedures / Photos

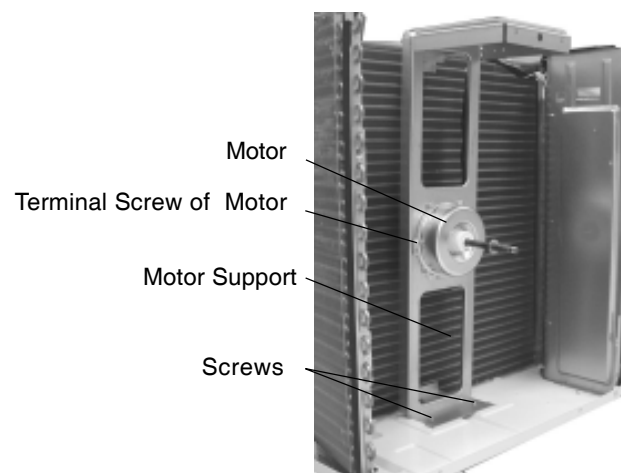
7. Disassemble Axial Flow Fan

Unscrew the nut fixing the fan with a spanner to take out the fan.



8. Disassemble Outdoor Motor

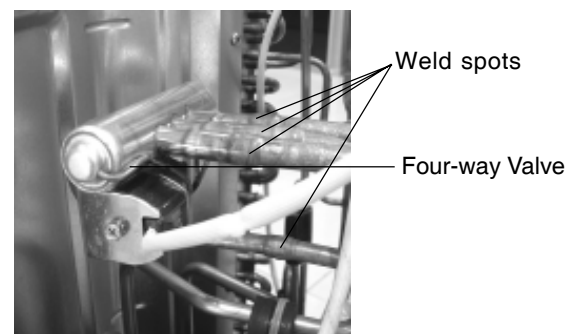
Unscrew the screws fixing the motor support, and then lift it upwards to remove it. Unscrew the screws fixing the motor and pull out the connection line between it and electric box to remove it.



9. Disassemble Four-way Valve

Only for cooling and heating unit

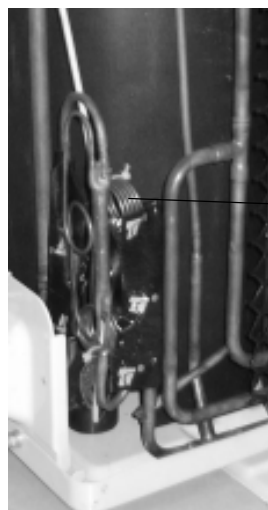
Unscrew the fixing nut of the four-way valve coil and remove the coil. Wrap the four-way valve with wet cotton and unsolder the 4 weld spots connecting the four-way valve to take it out. Welding process should be as quick as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.



Operating Procedures / Photos

10. Disassemble Capillary

Unsolder the weld spots of capillary, valve and outlet pipe of condenser to remove the capillary. Prevent welding slag from blocking the capillary.



Capillary

11. Disassemble Compressor

Unsolder the pipeline connecting the compressor, and then unscrew the 3 foot-nuts fixing compressor to remove it.

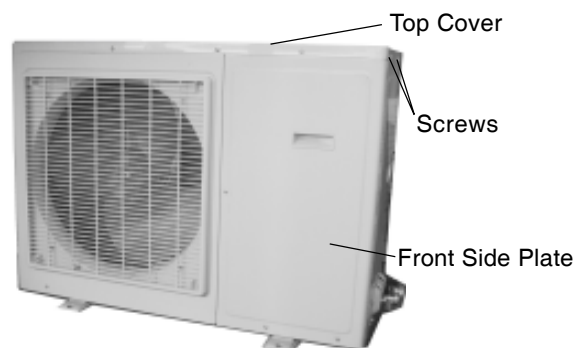


Foot-nut

7.7 (24K) Disassembly Procedures for Outdoor Unit**Operating Procedures / Photos****1. Disassemble Top Cover and Front Side Plate**

Unscrew the screws fixing the top cover, and then lift the top cover to remove it.

Unscrew the 3 screws fixing the front side plate to remove it.

**2. Disassemble Rear Grill**

Unscrew the 4 screws fixing the rear grill to remove it.

**3. Disassemble Cabinet**

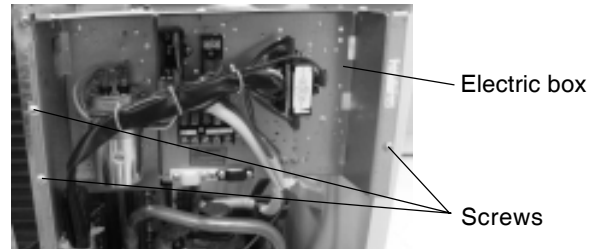
Unscrew the screws fixing the cabinet to remove it.



Operating Procedures / Photos

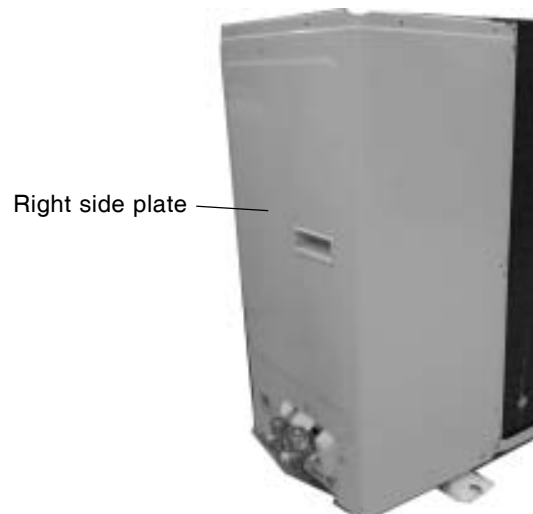
4. Disassemble Electric Box Sub-assy

Unscrew the 2 screws fixing electric box to pull out the connection line between fan motor, compressor, four-way valve, and then lift the electric box to take it out.



5. Disassemble Right side plate

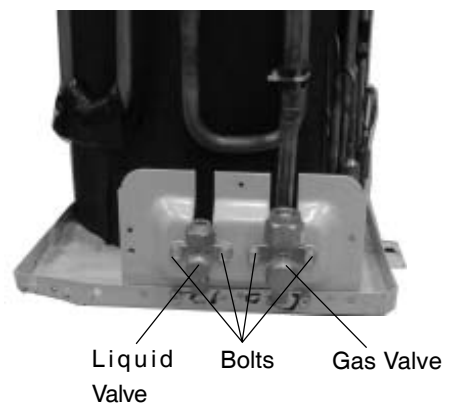
Unscrew the screw of the right side plate, then take down the right side plate.



6. Disassemble Gas and Liquid Valves

Unsolder the pipeline connecting with valves (to prevent soldering gun from burning out the chassis). Unscrew 2 bolts fixing gas valve ,and then unsolder the weld spot between pipeline and gas valve to remove gas valve. Unscrew the 2 bolts fixing liquid valve, and then unsolder the soldering spot between pipeline and liquid valve to remove liquid valve.

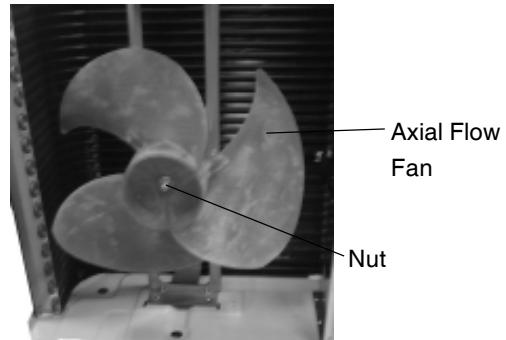
(Note:During unsoldering ,wrap the valves with wet cloth avoid damage for high temperature.)



Operating Procedures / Photos

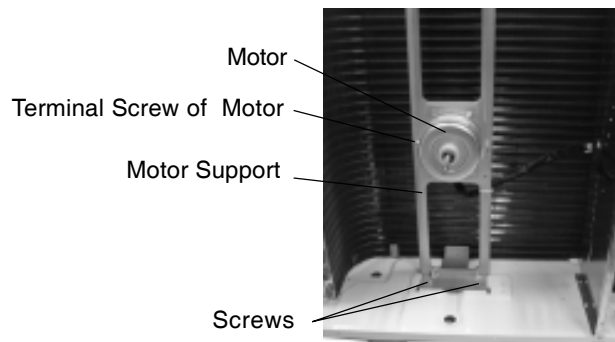
7. Disassemble Axial Flow Fan

Unscrew the nut fixing the fan with a spanner to take out the fan.



8. Disassemble Outdoor Motor

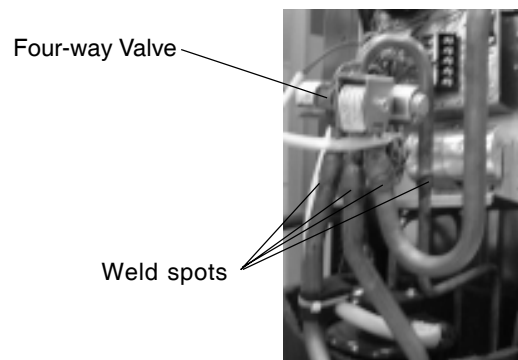
Unscrew the screws fixing the motor support, and then lift it upwards to remove it. Unscrew the screws fixing the motor and pull out the connection line between it and electric box to remove it.



9. Disassemble Four-way Valve

Only for cooling and heating unit

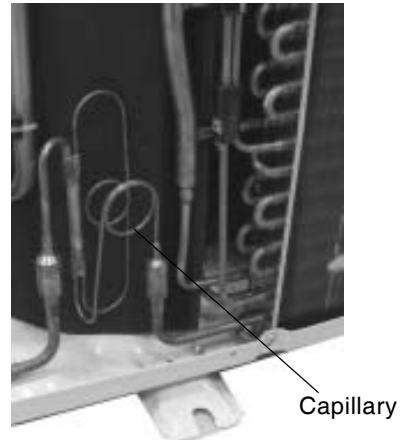
Unscrew the fixing nut of the four-way valve coil and remove the coil. Wrap the four-way valve with wet cotton and unsolder the 4 weld spots connecting the four-way valve to take it out. Welding process should be as quick as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.



Operating Procedures / Photos

10. Disassemble Capillary

Unsolder the weld spots of capillary, valve and outlet tube of condenser to remove the capillary. Prevent welding slag from blocking the capillary.



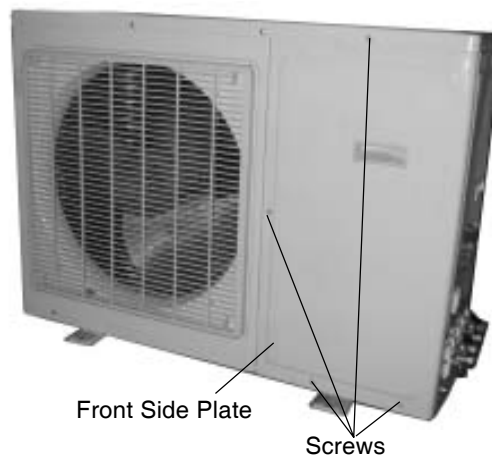
11. Disassemble Compressor

Unsolder the pipeline connecting the compressor, and then unscrew the 3 foot-nuts fixing compressor to remove it.

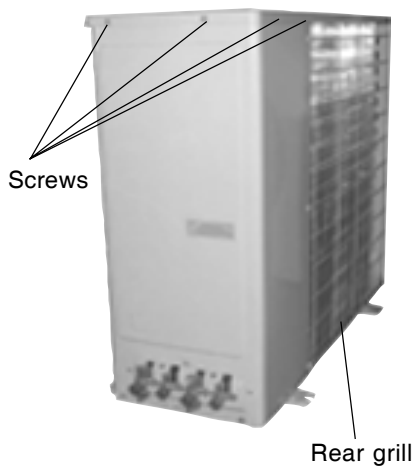


7.8 (Dual Split Type Series) Disassembly Procedures for Outdoor Unit**Operating Procedures / Photos****1. Disassemble Front Side Plate**

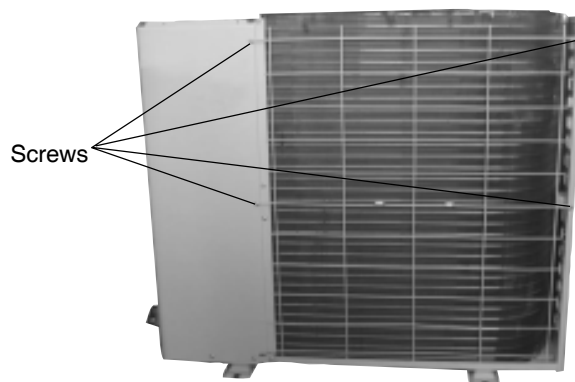
Unscrew the screw fixed the front side plate, slide it down, disassemble the front side plate.

**2. Disassemble Top Cover**

Unscrew the screws fixing the top cover, then lift the top cover to remove it.

**3. Disassemble Rear Grill**

screw off 4pcs screws which fix the rear grill, remove the rear grill.



Operating Procedures / Photos

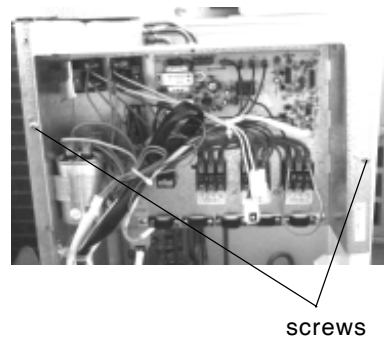
4. Disassemble Cabinet

Unscrew the screws fixing the cabinet to remove it.



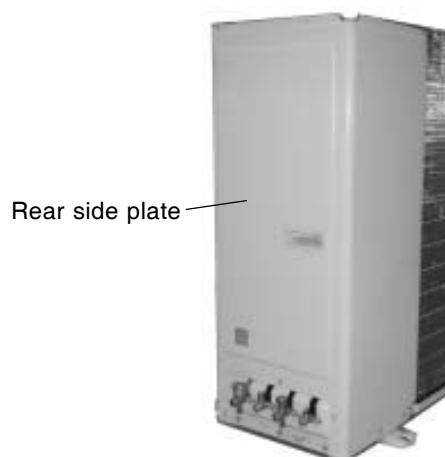
5. Disassemble Electric Box Sub-assy

Unscrew the 2 screws fixing electric box to pull out the connection line between Compressor, fan motor and electric box ,and then lift the electric box to take it out.



6. Disassemble rear side plate

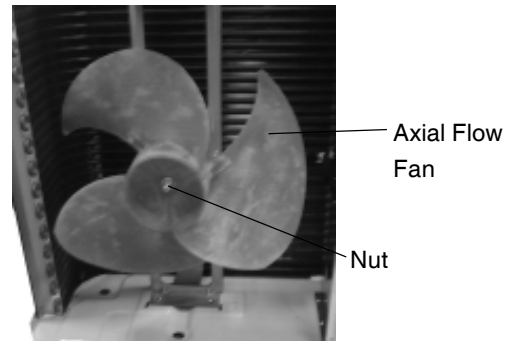
Loosen off the screw fixing of the rear side plate, disassemble the rear side plate.



Operating Procedures / Photos

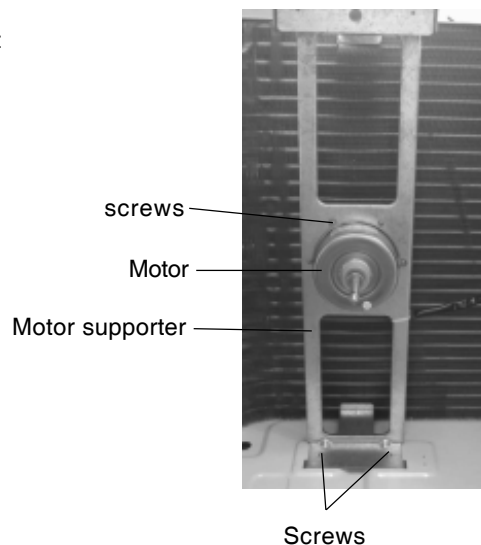
7. Disassemble Axial Flow Fan

Unscrew the nut fixing the fan with a spanner to take out the fan .



8. Disassemble Outdoor Motor

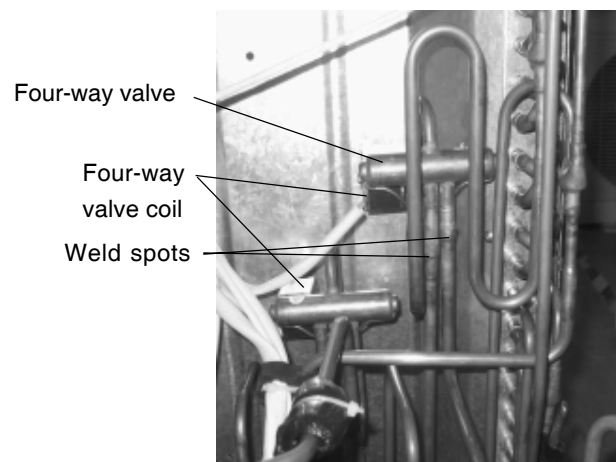
Unscrew the 4 screws fixing the motor to take out the motor, and then unscrew the 2 screws fixing the motor supporter to take it out.



9. Disassemble Four-way Valve

Unscrew the fastening nut of the four-way valve coil and remove the coil. Wrap the four-way valve with wet cotton and unsolder the spots connecting the four-way valve to take it out. (4pcs for each 4-way valve)

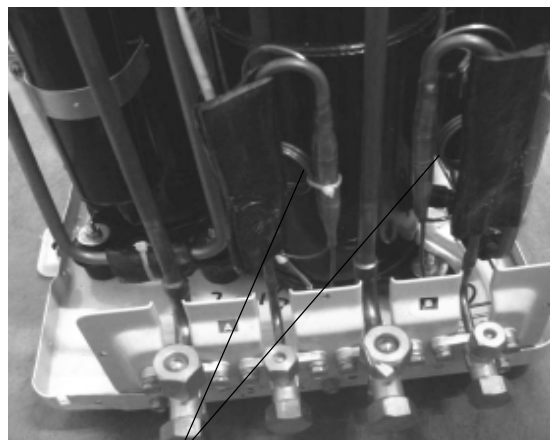
Note: Refrigerant should be discharged firstly. Welding process should be as quick as possible and keep wrapping cotton wet all the time. Be sure not to burn out the lead-out wire of compressor.



Operating Procedures / Photos

10. Disassemble Capillary

Unsolder 2pcs capillary assy and 4pcs soldered point which connected liquid valve and condenser outlet pipe, take off the capillary sub-assy.



Capillary

11. Disassemble Gas and Liquid Valves

Unscrew 4pcs bolts fixing gas valve and liquid valve. Unsolder weld spots between gas valve and air-return pipe to remove the gas valve.

Unscrew 4pcs bolts fixing liquid valve. take off liquid valve.

Note: During unsoldering, wrap the valves with wet cloth to avoid damage for high temperature.



Bolts

Gas valves

Liquid valves

12. Disassemble Compressor

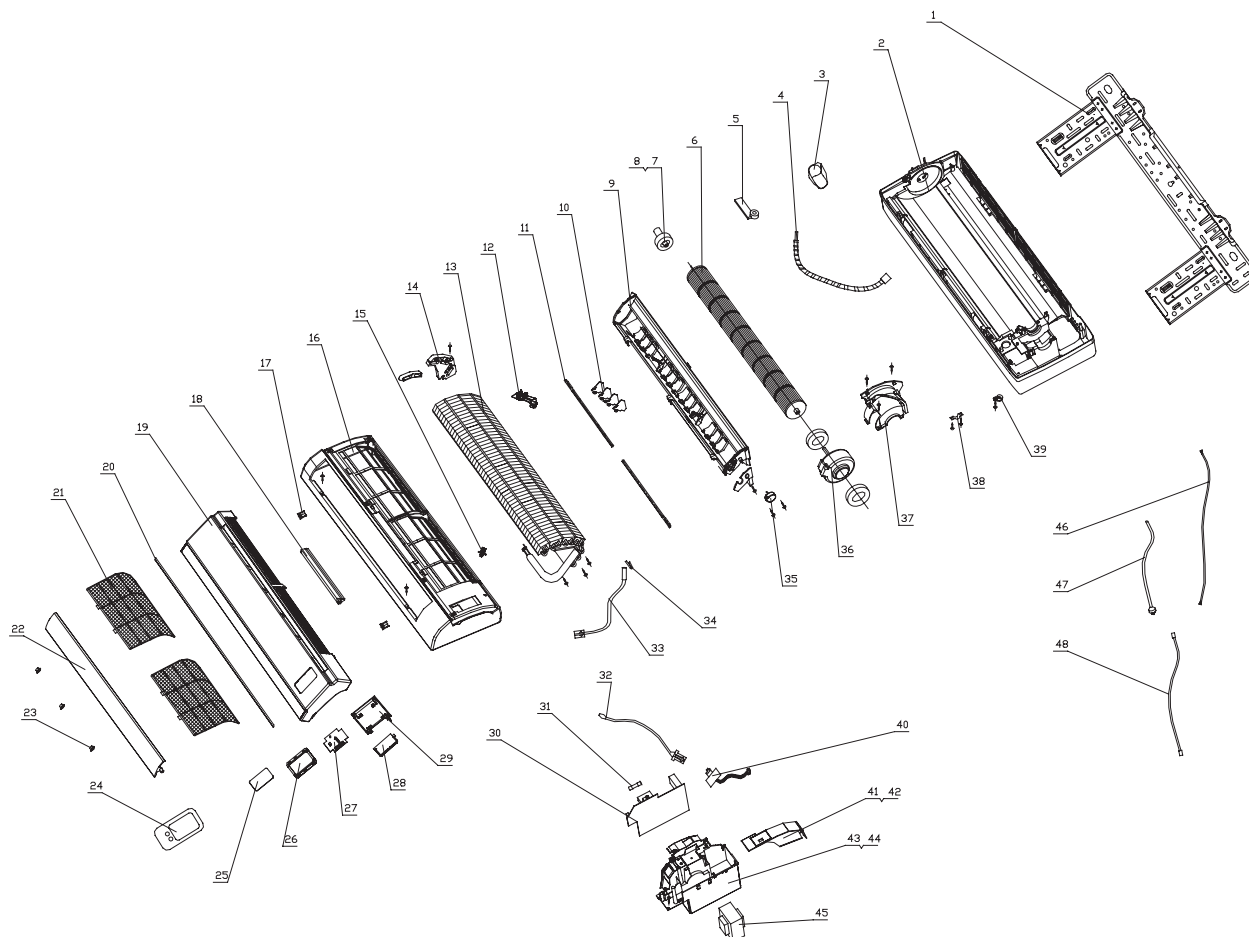
Loosen 6pcs nut with washer at bottom of two compressor: (Note: The refrigerant should be discharged at first.) Unsolder the air in, air out pipes of the compressor, be carefully to remove the pipelines, take out the compressor.



Nut

8 Explosive view and spare parts list

8.1 Exploded View of Components and Parts of Indoor unit 1



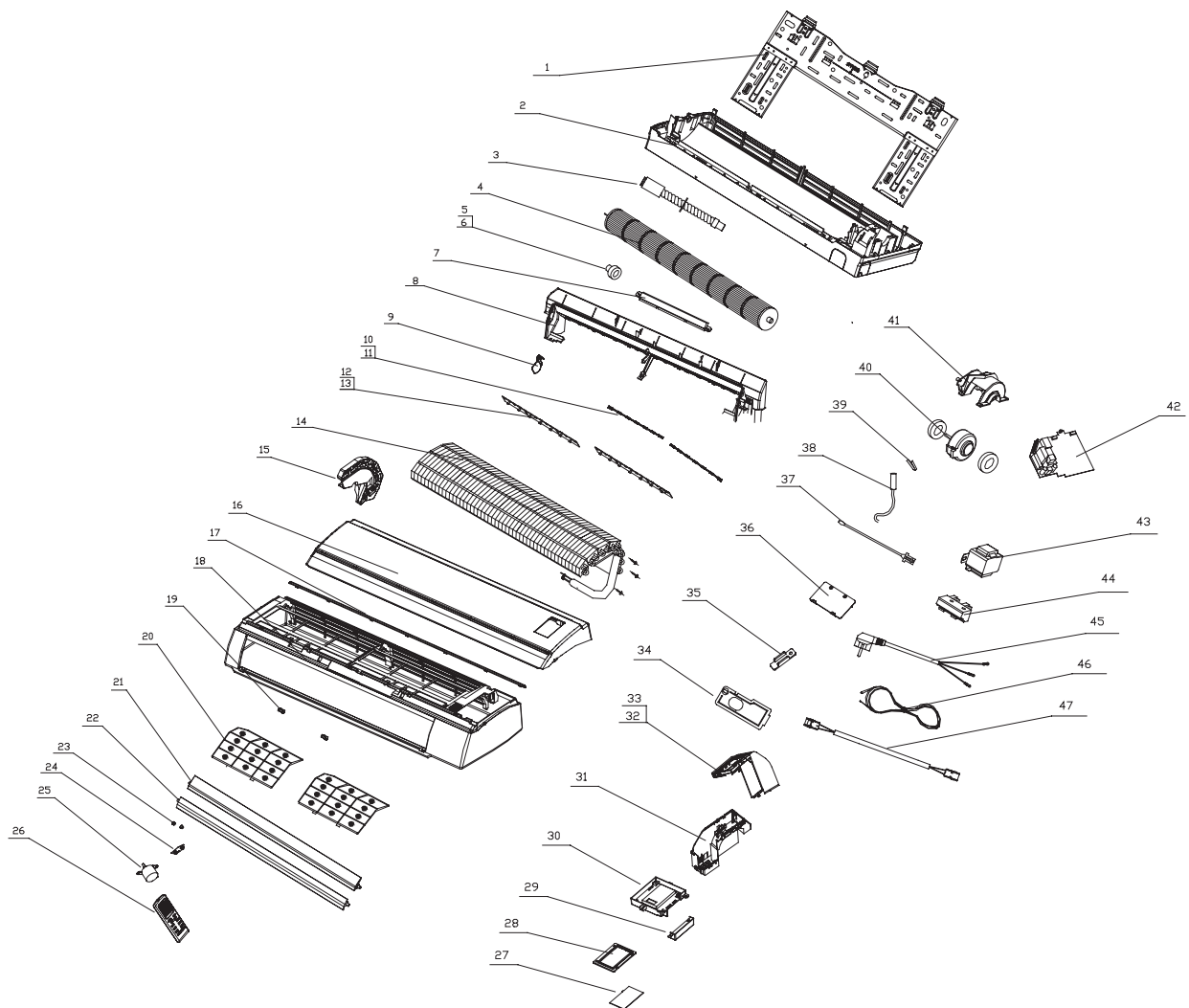
No	Description	Part Code		Qty
		GWCN09CANK1A1A/I	GWHN09CANK1A1A/I	
1	Wall-Mounting Frame	01252220	01252220	1
2	Rear Case	222020572	222020572	1
3	Evaporator Pipe Cover	06122001	06122001	1
4	Drainage Pipe	05230014	05230014	1
5	Pipe Clamp	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	1
7	Fan Bearing	/	/	0
8	Ring of Bearing	76512203	76512203	1
9	Water Tray	2018205201	2018205201	1
10	Swing Louver	10512079	10512079	12
11	Swing link	10582052	10582052	1
12	Manual Lever	10582027	10582027	2
13	Evaporator Assy	010021271	010021271	1
14	Evaporator Support	24212058	24212058	1
15	Cable clamp	71010002	71010002	1
16	Front Case	2000298601S	2000298601S	1
17	Screw Cover	242520042	242520042	2
18	Decorating board	20192041	20192041	1
19	Front Panel	200025781	200025781	1
20	Border of front lid	20192042	20192042	1
21	Filter Assy	11122002	11122002	2
22	Guide Louver	105120782	105120782	1
23	Guide Louver Bearing	10542011	10542011	3
24	Remote Controller	30510041	30510041	1
25	Magic mirror	68014004	68014004	1
26	Decorating ring	20192028	20192028	1
27	Display board MBF523B	30540016	30540016	1
28	Protect board	26112102	26112102	1
29	Cover plate	22242056	22242056	1
30	Main PCB	30135069	30135070	1
31	Fuse 3.15A 250VAC	46010014	46010014	1
32	Room Sensor (15K)	390001912	390001912	1
33	Tube Sensor (20K)	390000591	390000591	1
34	Sensor insert	42020063	42020063	1
35	Stepping Motor MP28EC	15212002	15212002	1
36	Motor FN20E-PG	150120761	150120761	1
37	Motor Clamp	26112080	26112080	1
38	Wire Clip	42012415	42012415	1
39	Wire Clamp	26112121	26112121	1
40	Receiver Board (3 bit)	42010266	/	1
41	Electric Box Cover	20112052S	20112052S	1
42	Cover of shielding case	01592054	01592054	1
43	Electric Box	20112051	20112051	1
44	Shielding case	01592008	01592008	1
45	Transformer 41X26.5E	43110231	43110231	1
46	Connecting Cable (A type/3 core)	40020540	40020540	1
47	Power Cord	4002048710	4002048710	1
48	Connecting Cable (13 core)	400300355	400300355	1
The above data are subject to be changed without notice.				

No	Description	Part Code		Qty
		GWCN18(09)CANK1A1A/I	GWHN18(09)CANK1A1A/I	
1	Wall-Mounting Frame	01252220	01252220	1
2	Rear Case	222020572	222020572	1
3	Evaporator Pipe Cover	06122001	06122001	1
4	Drainage Pipe	05230014	05230014	1
5	Pipe Clamp	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	1
7	Fan Bearing	/	/	0
8	Ring of Bearing	76512203	76512203	1
9	Water Tray	2018205201	2018205201	1
10	Swing Louver	10512079	10512079	12
11	Swing link	10582052	10582052	1
12	Manual Lever	10582027	10582027	2
13	Evaporator Assy	010021271	010021271	1
14	Evaporator Support	24212058	24212058	1
15	Cable clamp	71010002	71010002	1
16	Front Case	2000298601S	2000298601S	1
17	Screw Cover	242520042	242520042	2
18	Decorating board	20192041	20192041	1
19	Front Panel	200025781	200025781	1
20	Border of front lid	20192042	20192042	1
21	Filter Assy	11122002	11122002	2
22	Guide Louver	105120782	105120782	1
23	Guide Louver Bearing	10542011	10542011	3
24	Remote Controller	30510041	30510041	1
25	Magic mirror	68014004	68014004	1
26	Decorating ring	20192028	20192028	1
27	Display board MBF523B	30540016	30540016	1
28	Protect board	26112102	26112102	1
29	Cover plate	22242056	22242056	1
30	Main PCB	30055069	30055051	1
31	Fuse 3.15A 250VAC	46010014	46010014	1
32	Room Sensor (15K)	390001912	390001912	1
33	Tube Sensor (20K)	390000591	390000591	1
34	Sensor insert	42020063	42020063	1
35	Stepping Motor MP28EC	15212002	15212002	1
36	Motor FN20E-PG	150120761	150120761	1
37	Motor Clamp	26112080	26112080	1
38	Wire Clip	/	/	0
39	Wire Clamp	71010003	71010003	2
40	Receiver Board (3bit)	4201026601	4201026201	1
41	Electric Box Cover	20112052S	20112052	1
42	Cover of shielding case	01592054	01592054	1
43	Electric Box	20112051	20112051	1
44	Shielding case	01592008	01592008	1
45	Transformer 41X26.5E	43110231	43110231	1
46	Connecting Cable(13 core)	400300355	40020536	1
47	Power Cord	/	/	0
48	Connecting Cable(A type/4 core)	400205235	400205235	1

The above data are subject to be changed without notice.

No	Description	Part Code	Qty
		GWCN21(09)CANK1A1A/I	
1	Wall-Mounting Frame	01252220	1
2	Rear Case	222020572	1
3	Evaporator Pipe Cover	06122001	1
4	Drainage Pipe	05230014	1
5	Pipe Clamp	24242004	1
6	Cross Flow Fan	10352001	1
7	Fan Bearing	/	0
8	Ring of Bearing	76512203	1
9	Water Tray	2018205201	1
10	Swing Louver	10512079	12
11	Swing link	10582052	1
12	Manual Lever	10582027	2
13	Evaporator Assy	010021271	1
14	Evaporator Support	24212058	1
15	Cable clamp	71010002	1
16	Front Case	2000298601S	1
17	Screw Cover	242520042	2
18	Decorating board	20192041	1
19	Front Panel	200025781	1
20	Border of front lid	20192042	1
21	Filter Assy	11122002	2
22	Guide Louver	105120782	1
23	Guide Louver Bearing	10542011	3
24	Remote Controller	30510041	1
25	Magic mirror	68014004	1
26	Decorating ring	20192028	1
27	Display board MBF523B	30540016	1
28	Protect board	26112102	1
29	Cover plate	22242056	1
30	Main PCB M504F1J	30135069	1
31	Fuse 3.15A 250VAC	46010014	1
32	Room Sensor (15K)	390001912	1
33	Tube Sensor (20K)	390000591	1
34	Sensor insert	42020063	1
35	Stepping Motor MP28EC	15212002	1
36	Motor FN20E-PG	150120761	1
37	Motor Clamp	26112080	1
38	Wire Clip	/	0
39	Wire Clamp	71012051	1
40	Receiver Board (3bit)	4201026601	1
41	Electric Box Cover	20112052S	1
42	Cover of shielding case	1592054	1
43	Electric Box	20112051	1
44	Shielding case	1592008	1
45	Transformer 41X26.5E	43110231	1
46	Connecting Cable (13 core)	400300355	1
47	Power Cord	/	0
48	Connecting Cable (A type/4 core)	400205235	1
The above data are subject to be changed without notice.			

8.2 Exploded View of Components and Parts of Indoor unit 2



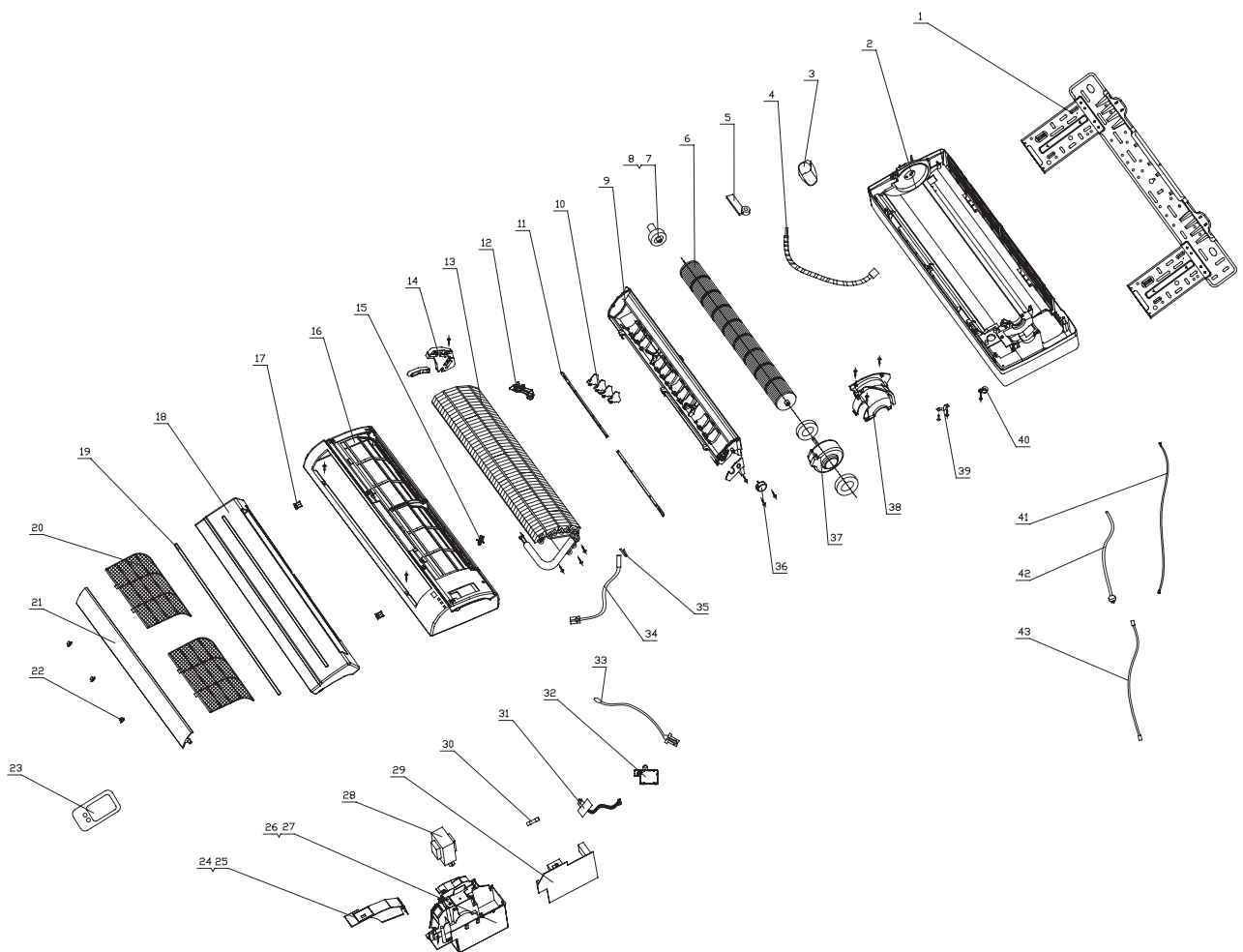
No	Description	Part Code		Qty
		GWCN12CBNK1A1A/I	GWHN12CBNK1A1A/I	
1	Wall-Mounting Frame	0125221701	0125221701	1
2	Rear Case	22202451	22202451	1
3	Drainage Pipe	05230014	05230014	1
4	Cross Flow Fan	10352012	10352012	1
5	Fan Bearing	76512210	76512210	1
6	Ring of Bearing	76512206	76512206	1
7	Decoration Plate	20192023	20192023	1
8	Water Tray	201824263	201824263	1
9	Swing Louver	10512110	10512110	14
10	Left Linkage Lever	10582045	10582045	1
11	Right Linkage Lever	10582017	10582017	1
12	Left Louver Support	/	/	/
13	Right Louver Support	/	/	/
14	Evaporator Assy	010021577	010021577	1
15	Left Evaporator Support	24212023	24212023	1
16	Front Panel	20002580	20002580	1
17	Border of front lid	20192044	20192044	1
18	Front Case	20012022	20012022	1
19	Screw Cover	242520053	242520053	2
20	Filter Assy	11120019	11120019	2
21	Guide Louver	261120393	261120393	1
22	Lower Guide Louver	261120403	261120403	1
23	Mid Bearing	10542001	10542001	2
24	Left Bearing	10542002	10542002	1
25	Motor MP24AA	15212108	15212108	1
26	Remote Controller YB1FA	30510041	30510041	1
27	Magic mirror	68012046	68012046	1
28	Decoration Frame	20192031	20192031	1
29	Display Cover	22244060	22244060	1
30	Display	30540010	30540010	1
31	Electric Box	20102378	20102378	1
32	Electric Box Cover	2010237901S	2010237901S	1
33	Shielding Box Sub-assy	01592053	01592053	1
34	Covering Plate	22242072	22242073	1
35	Wire Clamp	71010002	71010002	1
36	Rear Pipe Cover	26112035	26112035	1
37	Room Sensor	390000451	390000451	1
38	Tube Sensor	390000591	390000591	1
39	Sensor Insert	42020063	42020063	1
40	Motor FN9D-PG	15012072	15012072	1
41	Right Support of Evaporator	24212024	24212024	1
42	Main PCB	30135053	30135054	1
43	Transformer	43110236	43110236	1
44	Terminal board (5bit)	42010266	42010262	1
45	Power Cord	4002048712	400220112	1
46	Connecting Cable	400205401	400205401	1
47	Signal Cable	/	40020536	1
The above data are subject to be changed without notice.				

No	Description	Part Code	Qty
		GWCN21(12)CBNK1A1A/I	
1	Wall-Mounting Frame	0125221701	1
2	Rear Case	22202451	1
3	Drainage Pipe	0523001401	1
4	Cross Flow Fan	10352012	1
5	Fan Bearing	/	/
6	Ring of Bearing	76512206	1
7	Decoration Plate	20192023	1
8	Water Tray	201824263	1
9	Swing Louver	10512110	14
10	Left Linkage Lever	10582045	1
11	Right Linkage Lever	10582017	1
12	Left Louver Support	/	/
13	Right Louver Support	/	/
14	Evaporator Assy	010021577	1
15	Left Evaporator Support	24212023	1
16	Front Panel	20002580	1
17	Border of front lid	20192044	1
18	Front Case	20012022	1
19	Screw Cover	242520053	2
20	Filter Assy	11120019	2
21	Guide Louver	261120393	1
22	Lower Guide Louver	261120403	1
23	Mid Bearing	10542001	2
24	Left Bearing	10542002	1
25	Motor MP24AA	15212108	1
26	Remote Controller YB1FA	30510041	1
27	Magic mirror	68012046	1
28	Decoration Frame	20192031	1
29	Display Cover	22244060	1
30	Display MBF513	30540010	1
31	Electric Box	20102378	1
32	Electric Box Cover	20102379S	1
33	Shielding Box Sub-assy	01592052	1
34	Covering Plate	22242072	1
35	Wire Clamp	71010002	1
36	Rear Pipe Cover	26112035	1
37	Room Sensor	390000451	1
38	Tube Sensor	390000591	1
39	Sensor Insert	42020063	1
40	Motor FN9D-PG	15012072	1
41	Right Support of Evaporator	24212024	1
42	Main PCB M505F1J	30135053	1
43	Transformer 41X26.5G	43110236	1
44	Terminal board (3bit)	4201026601	1
45	Power Cord	/	/
46	Connecting Cable	40020538	1
47	Signal Cable	/	1

The above data are subject to be changed without notice.

No	Description	Part Code		Qty
		GWCN24(12)CBNK1A1A/I	GWHN24(12)CBNK1A1A/I	
1	Wall-Mounting Frame	0125221701	0125221701	1
2	Rear Case	22202451	22202451	1
3	Drainage Pipe	0523001401	0523001401	1
4	Cross Flow Fan	10352012	10352012	1
5	Fan Bearing	/	/	/
6	Ring of Bearing	76512206	76512206	1
7	Decoration Plate	20192023	20192023	1
8	Water Tray	201824263	201824263	1
9	Swing Louver	10512110	10512110	14
10	Left Linkage Lever	10582045	10582045	1
11	Right Linkage Lever	10582017	10582017	1
12	Left Louver Support	/	/	/
13	Right Louver Support	/	/	/
14	Evaporator Assy	010021577	010021577	1
15	Left Evaporator Support	24212023	24212023	1
16	Front Panel	20002580	20002580	1
17	Border of front lid	20192044	20192044	1
18	Front Case	20012022	20012022	1
19	Screw Cover	242520053	242520053	2
20	Filter Assy	11120019	11120019	2
21	Guide Louver	261120393	261120393	1
22	Lower Guide Louver	261120403	261120403	1
23	Mid Bearing	10542001	10542001	2
24	Left Bearing	10542002	10542002	1
25	Motor MP24AA	15212108	15212108	1
26	Remote Controller YB1FA	30510041	30510041	1
27	Magic mirror	68012046	68012046	1
28	Decoration Frame	20192031	20192031	1
29	Display Cover	22244060	22244060	1
30	Display	30540010	30540010	1
31	Electric Box	20102378	20102378	1
32	Electric Box Cover	20102379S	20102379S	1
33	Shielding Box Sub-assy	01592052	01592052	1
34	Covering Plate	22242072	22242072	1
35	Wire Clamp	71010002	71010002	1
36	Rear Pipe Cover	26112035	26112035	1
37	Room Sensor	390000451	390000451	1
38	Tube Sensor	390000591	390000591	1
39	Sensor Insert	42020063	42020063	1
40	Motor FN9D-PG	15012072	15012072	1
41	Right Support of Evaporator	24212024	24212024	1
42	Main PCB	30135053	30055047	1
43	Transformer	43110236	43110236	1
44	Terminal board (5bit)	4201026201	4201026201	1
45	Power Cord	/	/	/
46	Connecting Cable	40020538	40020538	1
47	Signal Cable	40020536	40020536	1
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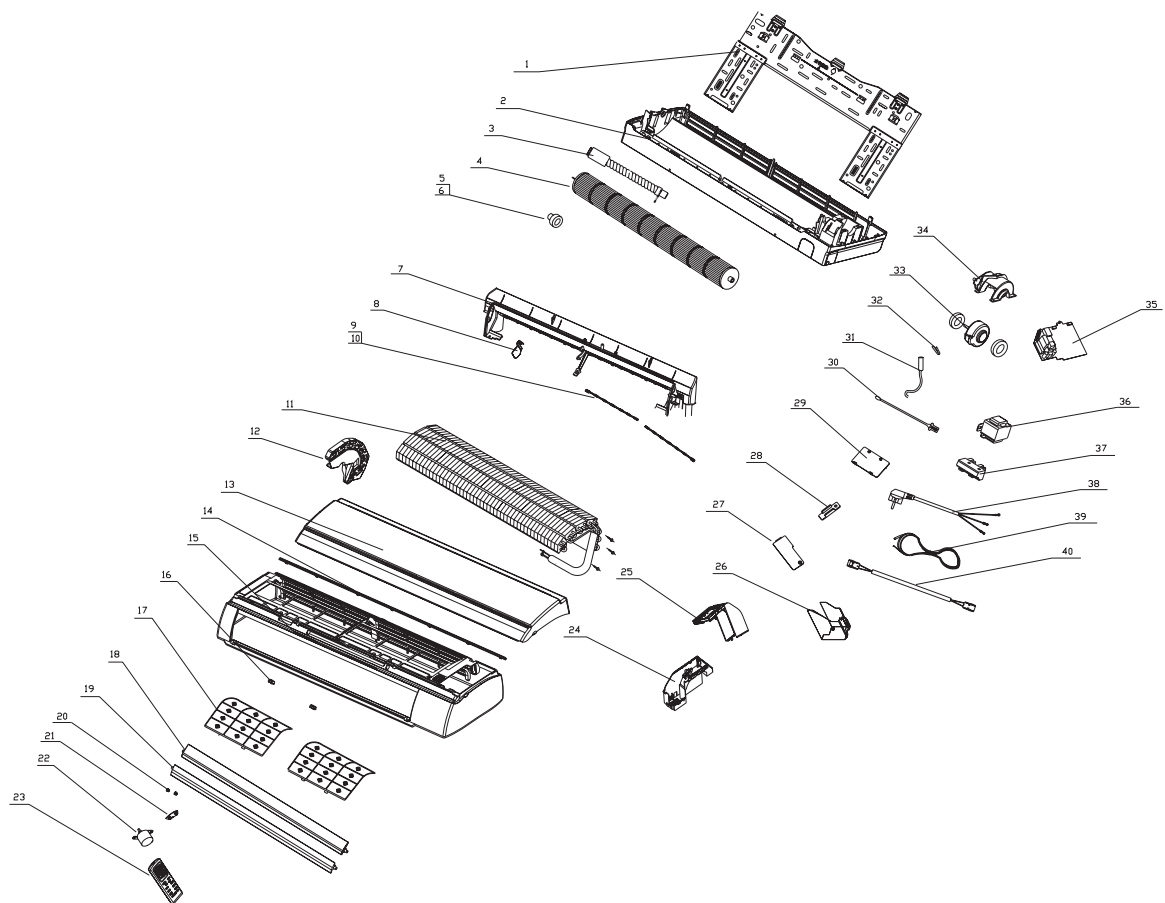
8.3 Exploded View of Components and Parts of Indoor unit 3



No	Description	Part Code		Qty
		GWCN18(09)CANK1A2A/I	GWHN18(09)CANK1A2A/I	
1	Wall-Mounting Frame	01252220	01252220	1
2	Rear Case	222020572	222020572	1
3	Evaporator Pipe Cover	06122001	06122001	1
4	Drainage Pipe	05230014	05230014	1
5	Pipe Clamp	24242004	24242004	1
6	Cross Flow Fan	10352001	10352001	1
7	Fan Bearing	\	\	0
8	Ring of Bearing	76512203	76512203	1
9	Water Tray	20182049	20182049	1
10	Swing Louver	10512079	10512079	12
11	Swing link	10582052	10582052	1
12	Manual Lever	10582051	10582051	2
13	Evaporator Assy	010021271	01002052	1
14	Evaporator Support	24212058	\	1
15	Cable clamp	71010002	71010002	1
16	Front Case	2001205501S	2001205501S	1
17	Screw Cover	242520042	242520042	2
18	Front Panel	20002692	20002692	1
19	Border of front lid	20192042	20192042	1
20	Filter Assy	11122002	11122002	2
21	Guide Louver	105120782	105120782	1
22	Guide Louver Bearing	10542011	10542011	3
23	Remote Controller YB1FA	30510041	30510041	1
24	Electric Box Cover	20112052S	20112052	1
25	Cover of shielding case	01592054	01592054	1
26	Electric Box	20112051	20112051	1
27	Shielding case	01592008	01592008	1
28	Transformer 41X26.5E	43110231	43110231	1
29	Main PCB	30135071	30055052	1
30	Fuse 5A 250VAC	46010014	46010014	1
31	Receiver Board JD	30046112	30046112	1
32	Rear Board of Light Support	22222002	22222002	1
33	Room Sensor (15K)	390001912	390001912	1
34	Tube Sensor (20K)	390000591	390000591	1
35	Sensor insert	42020063	42020063	1
36	Stepping Motor MP28EC	15212002	15212002	1
37	Motor FN20E-PG	150120761	150120761	1
38	Motor Clamp	26112080	26112080	1
39	Wire Clip	\	\	0
40	Wire Clamp	71012051	71012051	1
41	Connecting Cable(6 core)	40030012	40030012	1
42	Connecting Cable(A type/2 core)	40020536	40020536	0
43	Connecting Cable (A type/4 core)	400205235	400205235	1

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8. 4 Exploded View of Components and Parts of Indoor unit 4

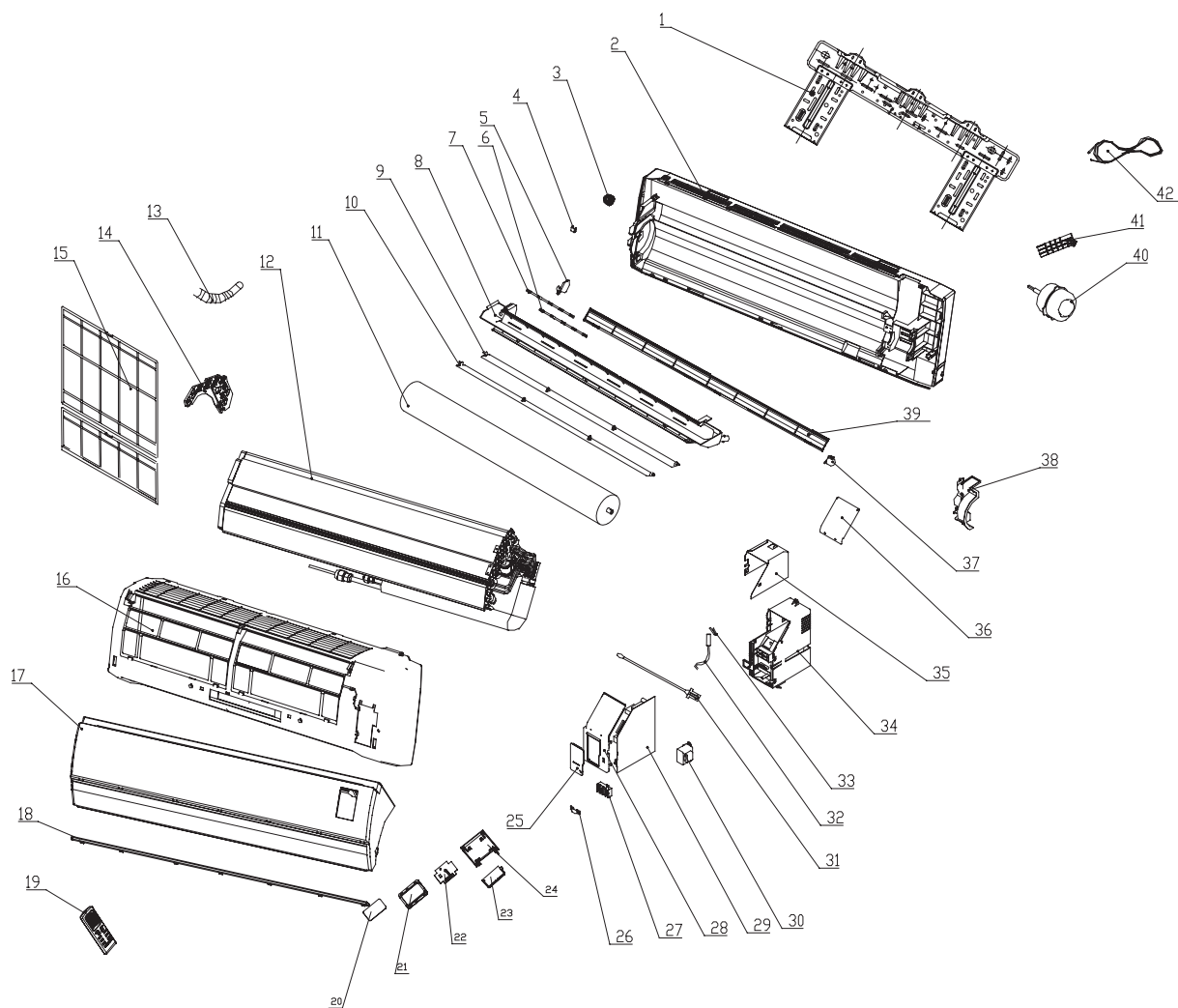


No	Description	Part Code		Qty
		GWCN12CBNK1A2A/I	GWHN12CBNK1A2A/I	
1	Wall-Mounting Frame	0125221701	0125221701	1
2	Rear Case	22202451	22202451	1
3	Drainage Pipe	0523001401	0523001401	1
4	Cross Flow Fan	10352012	10352012	1
5	Fan Bearing	76512210	76512210	1
6	Ring of Bearing	76512206	76512206	1
7	Water Tray	20182056	20182056	1
8	Swing Louver	10512110	10512110	14
9	Left Linkage Lever	10582045	10582045	1
10	Right Linkage Lever	10582017	10582017	1
11	Evaporator Assy	010021577	010021577	1
12	Left Evaporator Support	24212023	24212023	1
13	Front Panel	200026911	200026911	1
14	Border of front lid	20192044	20192044	1
15	Front Case	200022483	200022483	1
16	Screw Cover	242520053	242520053	2
17	Filter Assy	11120019	11120019	2
18	Guide Louver	261120393	261120393	1
19	Lower Guide Louver	261120403	261120403	1
20	Mid Bearing	10542016	10542016	2
21	Left Bearing	10542002	10542002	1
22	Motor MP24AA	15212108	15212108	1
23	Remote Controller YB1FA	30510041	30510041	1
24	Electric Box	20102378	20102378	1
25	Electric Box Cover	2010237901S	2010237901S	1
26	Shielding Box Sub-assy	01592052	01592052	1
27	Covering Plate	22242072	22242072	1
28	Wire Clamp	71010103	71010103	1
29	Rear Pipe Cover	26112035	26112035	1
30	Room Sensor	390001912	390001912	1
31	Tube Sensor	390000595	390000595	1
32	Sensor Insert	42020063	42020063	1
33	Motor FN9D-PG	15012072	15012072	1
34	Right Support of Evaporator	24212024	24212024	1
35	Main PCB M505F1AJ	30135055	30135056	1
36	Transformer	43110236	43110236	1
37	Terminal board (4bit)	42010248	42010262	1
38	Power Cord	4002048712	4002048712	1
39	Connecting Cable	400205401	400205401	1
40	Signal Cable	/	40020536	1

The above data are subject to be changed without notice.

No	Description	Part Code		Qty
		GWCN24(12)CBNK1A2A/I	GWHN24(12)CBNK1A2A/I	
1	Wall-Mounting Frame	0125221701	0125221701	1
2	Rear Case	22202451	22202451	1
3	Drainage Pipe	0523001401	0523001401	1
4	Cross Flow Fan	10352012	10352012	1
5	Fan Bearing	/	/	/
6	Ring of Bearing	76512206	76512206	1
7	Water Tray	20182056	20182056	1
8	Swing Louver	10512110	10512110	14
9	Left Linkage Lever	10582045	10582045	1
10	Right Linkage Lever	10582017	10582017	1
11	Evaporator Assy	010021577	010021577	1
12	Left Evaporator Support	24212023	24212023	1
13	Front Panel	200026911	200026911	1
14	Border of front lid	20192044	20192044	1
15	Front Case	200022491	200022491	1
16	Screw Cover	242520053	242520053	2
17	Filter Assy	11120019	11120019	2
18	Guide Louver	261120393	261120393	1
19	Lower Guide Louver	261120403	261120403	1
20	Mid Bearing	10542001	10542001	2
21	Left Bearing	10542002	10542002	1
22	Motor MP24AA	15212108	15212108	1
23	Remote Controller YB1FA	30510041	30510041	1
24	Electric Box	20102378	20102378	1
25	Electric Box Cover	20102379S	2010237901S	1
26	Shielding Box Sub-assy	01592052	1592052	1
27	Covering Plate	22242072	22242072	1
28	Wire Clamp	71010003	71010003	1
29	Rear Pipe Cover	26112035	26112035	1
30	Room Sensor 15K	390000451	390000451	1
31	Tube Sensor 20K	390000591	390000591	1
32	Sensor Insert	42020063	42020063	1
33	Motor FN9D-PG	15012072	15012072	1
34	Right Support of Evaporator	24212024	24212024	1
35	Main PCB M505F1AJ	30135055	30055048	1
36	Transformer 41X26.5G	43110236	43110236	1
37	Terminal board (3bit)	4201026601	42010262	1
38	Power Cord	/	/	/
39	Connecting Cable	40020538	40020538	1
40	Signal Cable	40020536	40020536	1
The above data are subject to be changed without notice.				

8.5 Exploded View of Components and Parts of Indoor unit 5

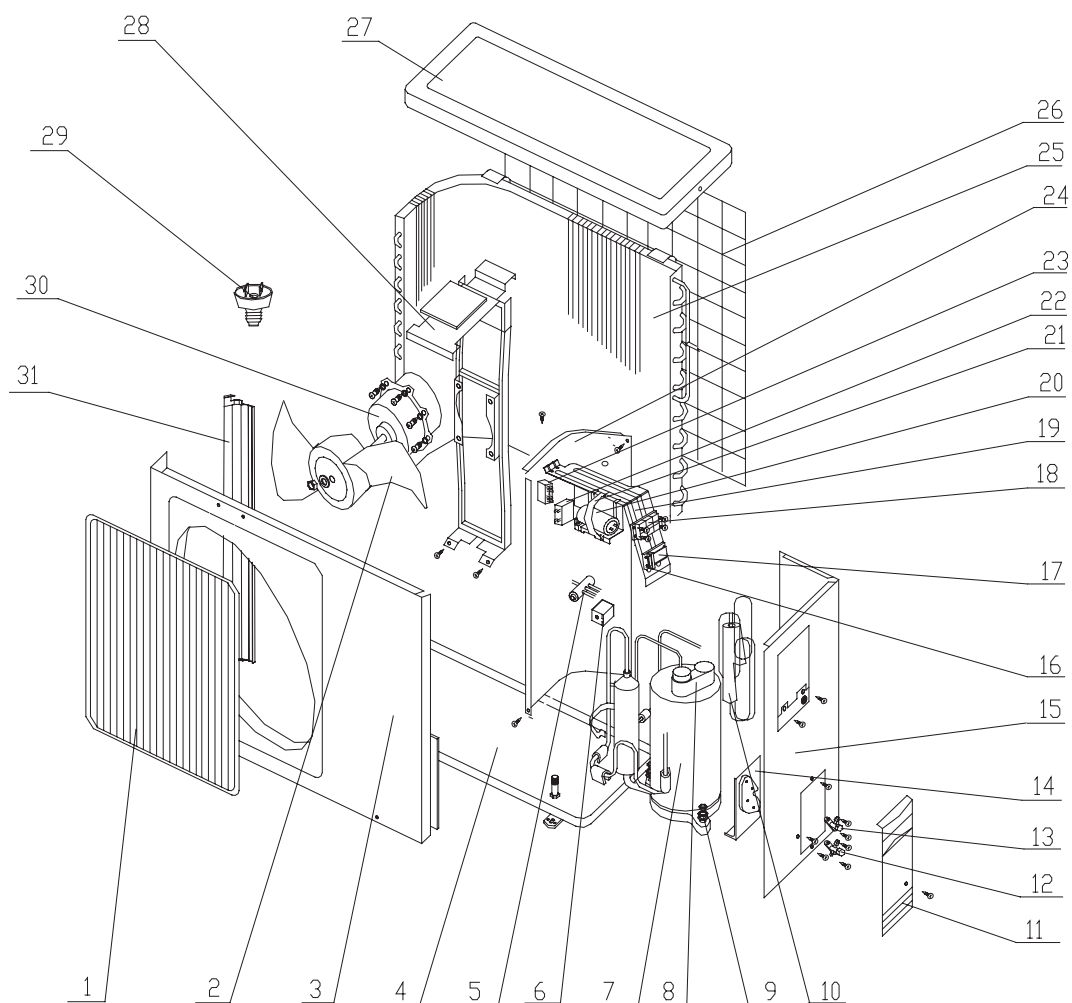


No	Description	Part Code		Qty
		GWCN18CCNK1A1A/I (GWCN18DCNK1A1A/I)	GWHN18CCNK1A1A/I (GWHN18DCNK1A1A/I)	
1	Wall-Mounting Frame	01252004	01252004	1
2	Rear Case	22202329	22202329	1
3	Fan Bearing	76512203	76512203	1
4	Screw Cover	24252015	24252015	3
5	Swing Louver	10512429	10512429	11
6	Swing Link 1	10582057	10582057	1
7	Swing Link 2	10582058	10582058	1
8	Water Tray	20182057	20182057	1
9	Guide Louver (up)	10512085	10512085	1
10	Guide Louver (down)	10512086	10512086	1
11	Cross Flow Fan	10352022	10352022	1
12	Evaporator Assy	0100224501	0100224501	1
13	Drainage Pipe	05230014	05230014	1
14	Evaporator Support	24212067	24212067	1
15	Filter	111220481	11122048	2
16	Front Case	200026524	200026524	1
17	Front Panel	20002837	20002837	1
18	Border of front lid	20192093	20192093	1
19	Remote Controller	30510041	30510041	1
20	Magic mirror	68014004	68014004	1
21	Decoration Frame	20194221	20194221	1
22	Protect board	26112102	26112102	1
23	Display	30545017	30545017	1
24	Cover Plate	22242056	22242056	1
25	Electric Box Cover 1	20112019	20112019	1
26	Wire Clamp	71010103	71010103	1
27	Terminal Board T4A3A	42011240	42010262	1
28	Electric Box Cover	20112020	20112020	1
29	Main PCB	30135095	30135096	1
30	Transformer	43110237	43110237	1
31	Room Sensor 15k	390000451	390000451	1
32	Tube Sensor 20k	390000591	390000591	1
33	Sensor Insert	42020063	42020063	1
34	Electric Box	20112018	20112018	1
35	Lower Shield of Electric Box	01592037	01592037	1
36	Upper Shield of Electric Box	01592038	01592038	1
37	Stepping Motor MP35XX	15213001	15213001	1
38	Motor Clamp	26112095	26112095	1
39	Helicoid tongue	26252009	26252009	1
40	Motor FN20C-PG	15012077	15012077	1
41	Pipe Clamp	26112096	26112096	1
42	Connecting Cable	400205402	400205382	1
The above data are subject to be changed without notice.				

No	Description	Part Code		Qty
		GWCN24CCNK1A1A/I (GWCN24DCNK1A1A/I)	GWHN24CCNK1A1A/I (GWHN24DCNK1A1A/I)	
1	Wall-Mounting Frame	01252004	01252004	1
2	Rear Case	22202329	22202329	1
3	Fan Bearing	76512203	76512203	1
4	Screw Cover	24252015	24252015	3
5	Swing Louver	10512429	10512429	11
6	Swing Link 1	10582057	10582057	1
7	Swing Link 2	10582058	10582058	1
8	Water Tray	20182057	20182057	1
9	Guide Louver (up)	10512085	10512085	1
10	Guide Louver (down)	10512086	10512086	1
11	Cross Flow Fan	10352022	10352022	1
12	Evaporator Assy	010022364	010022364	1
13	Drainage Pipe	05230014	05230014	1
14	Evaporator Support	24212067	24212067	1
15	Filter	11122048	11122048	2
16	Front Case	200026524	200026524	1
17	Front Panel	20002837	20002837	1
18	Border of front lid	20192093	20192093	1
19	Remote Controller	30510041	30510041	1
20	Magic mirror	68014004	68014004	1
21	Decoration Frame	20194221	20194221	1
22	Protect board	26112102	26112102	1
23	Display	30545017	30545017	1
24	Cover Plate	22242056	22242056	1
25	Electric Box Cover 1	20112019	20112019	1
26	Wire Clamp	71010103	71010103	1
27	Terminal Board	42011233	4201026201	1
28	Electric Box Cover	20112020	20112020	1
29	Main PCB	30135162	30135163	1
30	Transformer	43110237	43110237	1
31	Room Sensor 15k	390000451	390000451	1
32	Tube Sensor 20k	390000591	390000591	1
33	Sensor Insert	42020063	42020063	1
34	Electric Box	20112018	20112018	1
35	Lower Shield of Electric Box	01592037	01592037	1
36	Upper Shield of Electric Box	01592038	01592038	1
37	Stepping Motor MP35XX	15213001	15213001	1
38	Motor Clamp	26112095	26112095	1
39	Helicoid tongue	26252009	26252009	1
40	Motor FN20C-PG	15012077	15012077	1
41	Pipe Clamp	26112096	26112096	1
42	Connecting Cable	400205382	400205382	1

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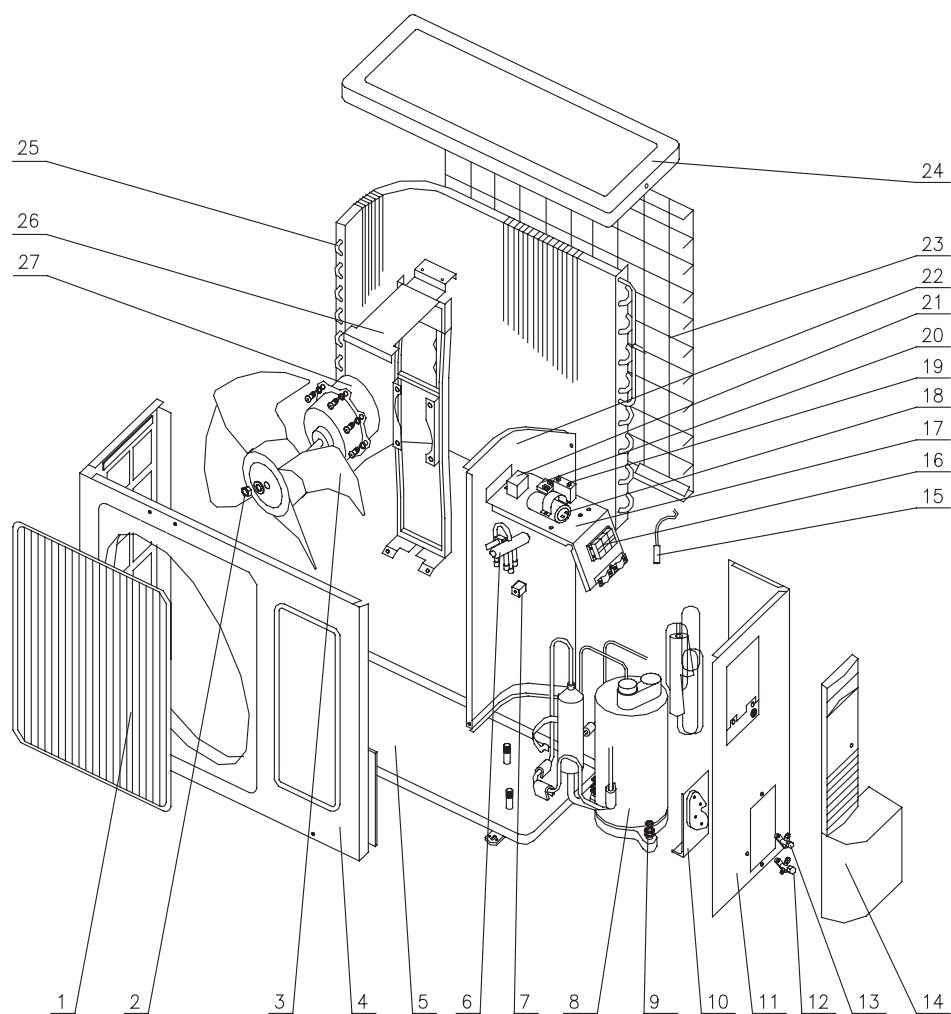
8.6 (09) Exploded View of Components and Parts of outdoor unit



No	Description	Part Code		Qty
		GWCN09DANK1A1A/O	GWHN09DANK1A1A/O	
1	Front Grill	01473004	01473004	1
2	Axial Flow Fan	10333005	10333005	1
3	Front Plate	1533024	01533024	1
4	Metal Base	01203627P	012035481	1
5	4-way valve	/	43000402	1
6	4-way valve coil	/	43000400	1
7	Compressor QX-B172C030(GREE)	00103037	00103037	1
8	Overload Protector	/	/	1
9	Compressor Gasket	Itself	Itself	3
10	Capillary Assy	03103504	03003972	1
11	Handle	26233101	26233101	1
12	Gas Valve 3/8	07100145	07100145	1
13	Liquid Valve 1/4	07100024	07100024	1
14	Valve Support	01713424	01713424	1
15	Right Side Plate	01303151	01303151	1
16	Wiring clamp plate	24253001	24253001	1
17	Wiring clamp cover	24253002	24253002	1
18	Terminal Board	42011241	42010256	1
19	Electric Plate	01403012	01403012	1
20	Comp Capacitor	33000018	33000018	1
21	Capacitor Clamp	02143014	02143014	1
22	Fan Capacitor	33010020	33010020	1
23	Terminal Board	/	42011103	1
24	Isolation Sheet Assy	01233101	01233101	1
25	Condenser Assy	0113308201	01133396	1
26	Rear Grill	11123204	11123204	1
27	Top Cover	012532632	012530271	1
28	Motor Support	01703029	01703029	1
29	Drainage Connector	/	06123401	1
30	Motor FW20F	15013156	15013156	1
31	Backstop	01793005	01793005	1

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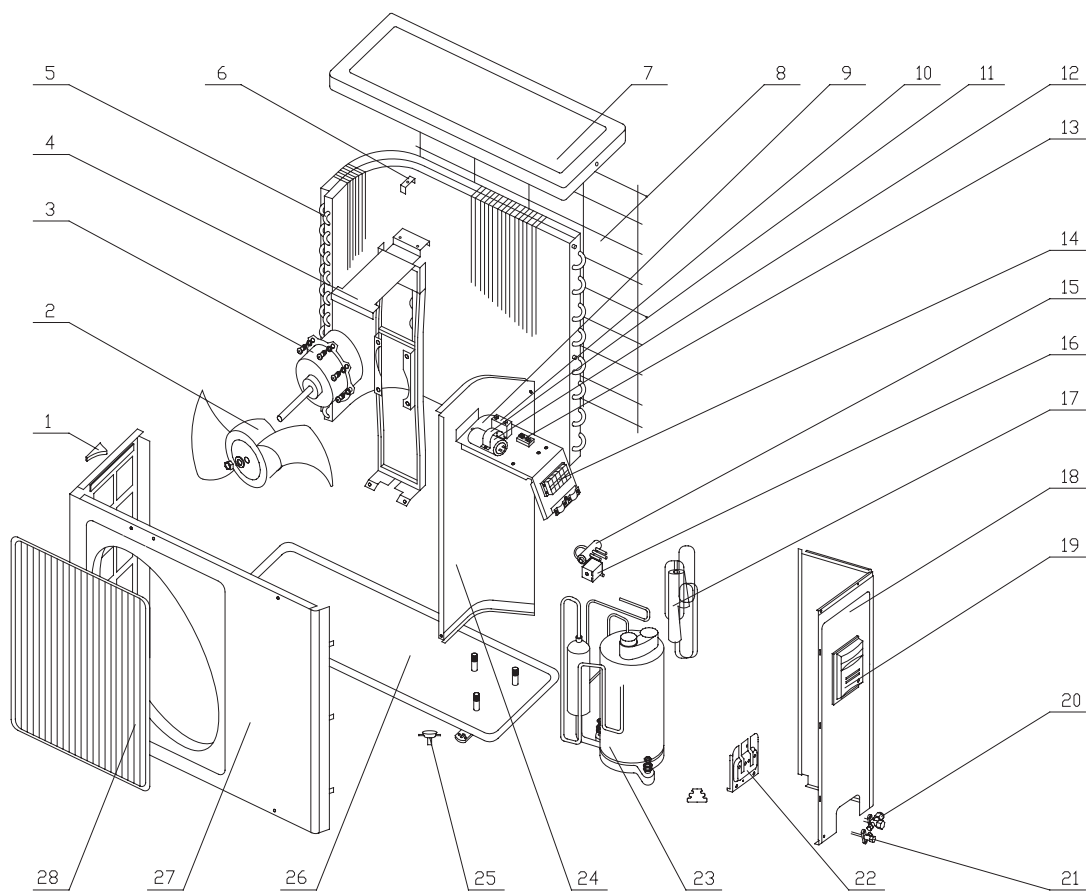
8.7 (12) Exploded View of Components and Parts of outdoor unit



No	Description	Part Code		Qty
		GWCN12DBNK1A1A/O	GWHN12DBNK1A1A/O	
1	Front Grill	22413431	22413431	1
2	Nut M6	70310131	70310131	1
3	Axial Flow Fan	10333415	10333415	1
4	Front Plate	01533012	01533012	1
5	Metal Base	12033398	1203339	1
6	4-way Valve	/	43000403	1
7	4-way Valve Coil	/	3023826	1
8	Compressor QXA-133uB030	00103079	00103079	1
	Overload Protector	IN	IN	1
	Compressor Gasket	Itself	Itself	3
9	Nut with Washer	70310014	70310011	3
10	Valve Support	01713041	01713041	1
11	Right Side Plate	01303048	01303048	1
12	Valve 1/4"	07100024	07100024	1
13	Valve 1/2"	07100147	07100147	1
14	Handle	26233433	26233433	1
15	Tube Sensor	None	None	/
16	Terminal Board	/	42011147	1
17	Electric Plate Assy	01403117	01403117	1
18	Capacitor	33010743	33010743	1
19	Capacitor	33010026	33010026	1
20	Terminal Board(1)	42011154	42010265	1
21	AC Contactor	None	None	/
22	Isolation Sheet	01233417	01233417	1
23	Rear Grill	11123205	11123205	1
24	Top cover plate	01253443	01253443	1
25	Condenser Assy	0110398504	1113001	1
26	Motor Support	01703020	01703020	1
27	Motor FW25K	150130671	150130671	1

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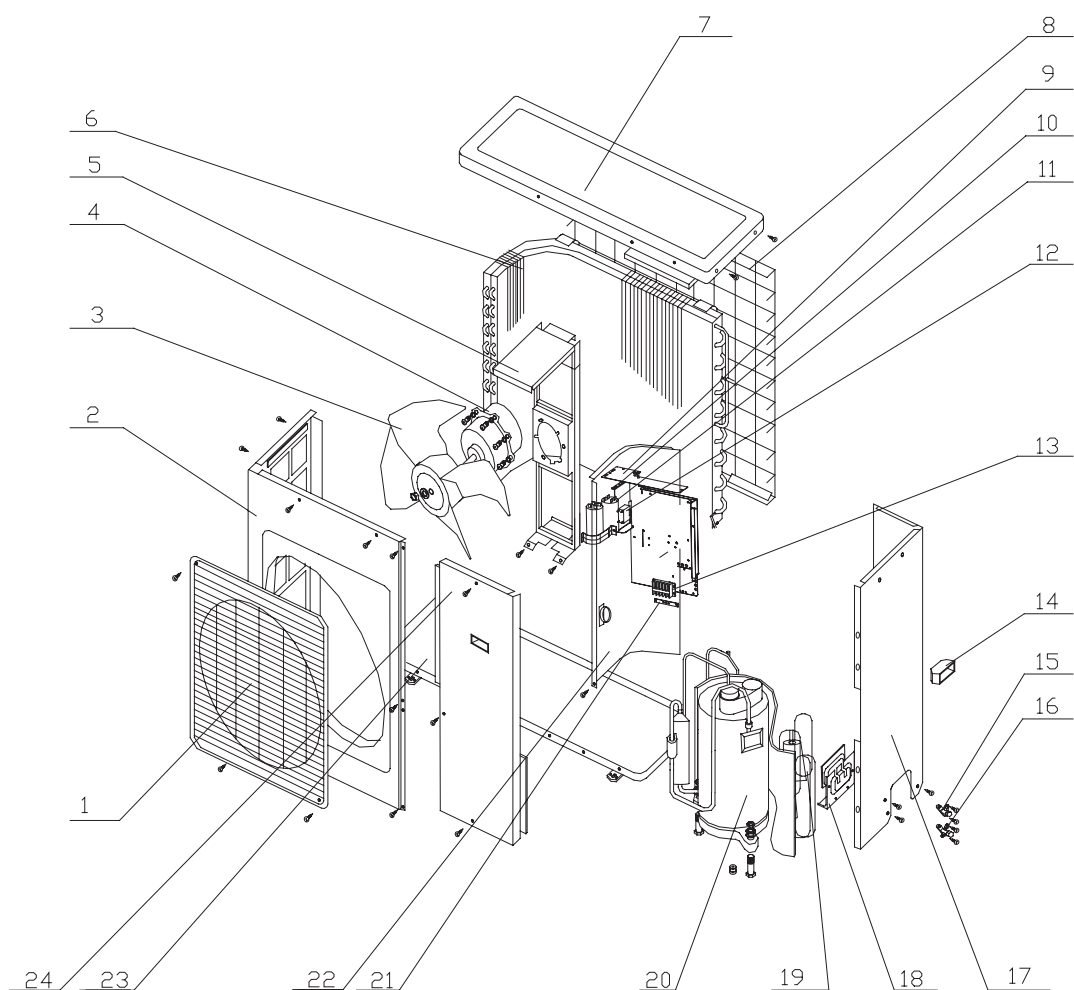
8.8 (18) Exploded View of Components and Parts of outdoor unit



No	Description	Part Code		Qty
		GWCN18CCNK1A1A/O (GWCN18DCNK1A1A/O)	GWHN18CCNK1A1A/O (GWHN18DCNK1A1A/O)	
1	Handle	26235401	26235401	1
2	Axial Flow Fan	10333426	10333426	1
3	Motor LW48B	15013070	15013070	1
4	Motor Support	01703098	01705003	1
5	Condenser Assy	01103964	01113005	1
6	Condenser Clamp	01173078	01173078	1
7	Top Cover	01255001	01255001	1
8	Rear grill	014730371	014730371	1
9	Electrical Box	01403818	01405039	1
10	Capacitor CBB61 3.5uF/450V	33010010	33010010	1
11	Capacitor Clamp	02143401	02141375	1
12	Capacitor CBB65	33000001	33000039	1
13	Terminal Board 2-8	/	42011103	1
14	Terminal Board	42011241	42010265	1
15	4-way Valve Assy	/	43000403	1
16	4-way valve coil	/	430004002	1
17	Capillary Assy	03103502	03003795	1
18	Rear Side Plate	01305013	01305013	1
19	Handle	26235254	26235254	1
20	Valve Assy 1/2	07100105	07100105	1
21	Valve Assy 1/4	071302111	071302111	1
22	Valve support	01715007	01715007	1
23	Compressor	00103074	00120051	1
	Overload Protector	built in	built in	
	Compressor Gasket	76710270	76710202	3
24	Mid Clapboard	01233035	01233035	1
25	Drainage Connector	/	06123401	1
26	Chassis	01203626P	0120362602P	1
27	Front Side Plate	01305015	01305015	1
28	Front Grill	22415001	22415001	1

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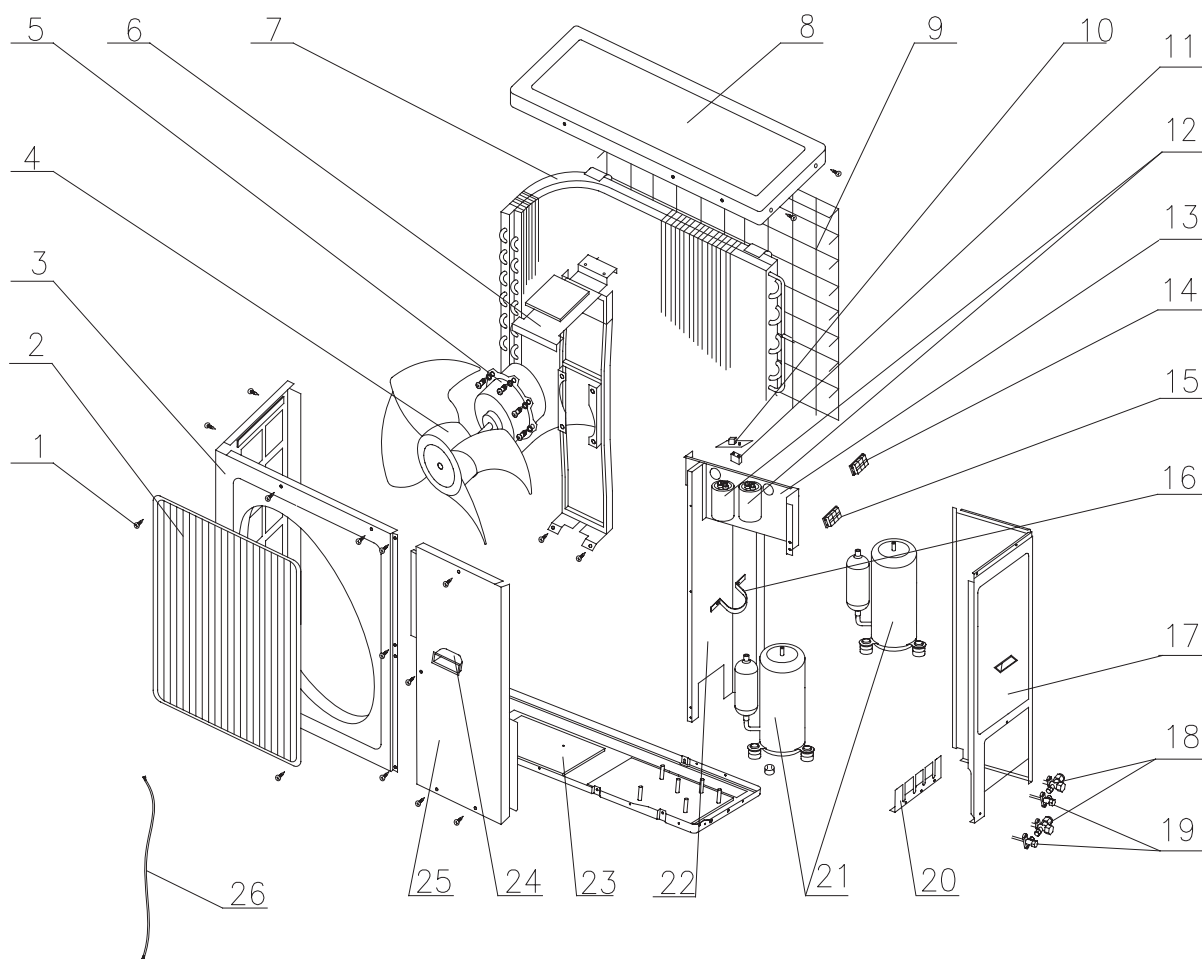
8.9 (24) Exploded View of Components and Parts of outdoor unit



No	Description	Part Code		Qty
		GWCN24CCNK1A1A/O (GWCN24DCNK1A1A/O)	GWHN24CCNK1A1A/O (GWHN24DCNK1A1A/O)	
1	Front Grill	22414102	22414102	1
2	Front Plate	01433017P	01433017	1
3	Axial Flow Fan	10338731	10338731	1
4	Motor LW68A	15015421	15015421	1
5	Motor Support	01703027	01703027	1
6	Condenser Assy	01113015	0111302901	1
7	Top Cover	01255262	01255262	1
8	Rear Grill	01473028	01473028	1
9	Electric Box Cover	01413047	01413047	1
10	Electric Plate	01403016	01403248	1
11	Capacitor CBB65 60uF/450V	33000039	33000039	1
12	Capacitor CBB61 3.5uF/450V	33010010	33010010	1
13	Terminal Board	42011113	42010194	1
14	4-way Valve Case	/	03023842	1
15	Terminal Board 2-8	/	42011103	1
16	4-way Valve Coil	/	430004002	1
17	4-way Valve	/	43000404	1
18	Handle	26235253	26235253	1
19	Gas Valve Assy	07105252	07105252	1
20	Liquid Valve Assy	07105256	07105256	1
21	Rear Side Plate	01305001	01305036	1
22	Valve Support	01715002	01715001	1
23	Capillary Assy	03003800	0300393801	1
24	Compressor SHV33ZC1-S	00103031	00103031	1
	Overload Protector	built in	built in	
	Compressor Gasket	76710202	76710202	3
25	Isolation Washer C	70410525	70410523	1
26	Clapboard	01233024	01233024	1
27	Metal Base	01205073	012052022	1
28	Front Side Plate	01303023	01303023	1

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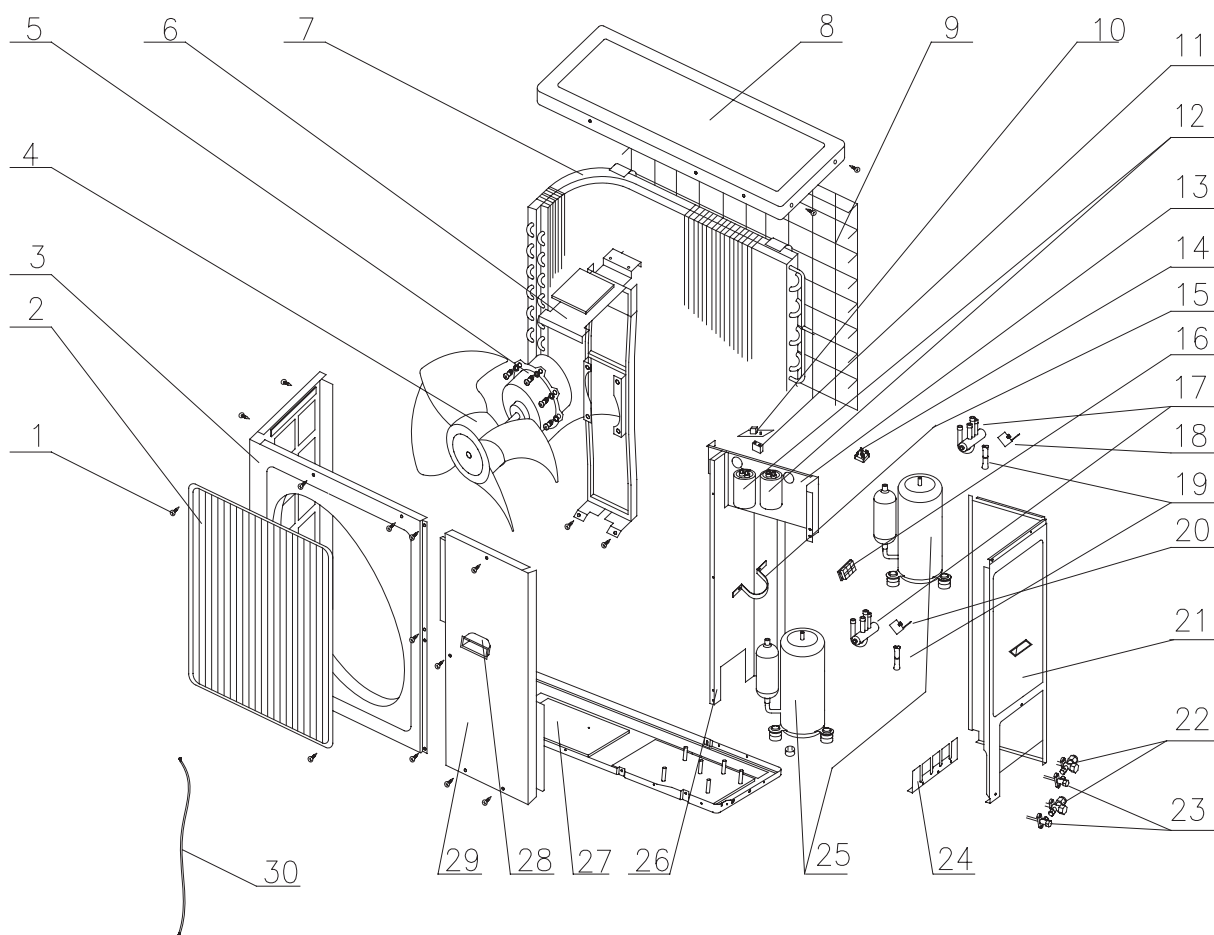
8. 10 (09X2) Exploded View of Components and Parts of outdoor unit 1



No	Description	Part Code	Qty
		GWCN18(09X2)DANK1A1A/O	
1	Self-tapping Screw	70140376	2
2	Front Grill	22265251	1
3	Front Plate	01433028	1
4	Axial Flow Fan	10335253	1
5	Motor LW80C	15013106	1
6	Motor Support	01703027	1
7	Condenser Assy	0113349001	1
8	Top Cover	01255262	1
9	Rear Grill	01473028	1
10	Defrosting PCB 82AHS	\	0
11	Capacitor CBB611A 3uF/450V	33010010	1
12	Capacitor CBB65 30uF/450V(440V)	33000018	2
13	Electric Box	01413003	1
14	Terminal Board RS9413	420101941	2
15	Terminal Board RS9413G	42010178	1
16	Capacitor Clamp B	02143013	1
17	Rear Side Plate	01303044	1
18	Valve 3/8	07100018	2
19	Valve Assy 1/4	071302201	2
20	Valve Support	01713028	1
21	Compressor QX-18A030	00120210	2
22	Mid Clapboard	01233023	1
23	Metal Base	01215251	1
24	Handle	26235253	3
25	Front Side Plate	01303023	1
26	Connecting Cable (A type/3 core)	40020318	1

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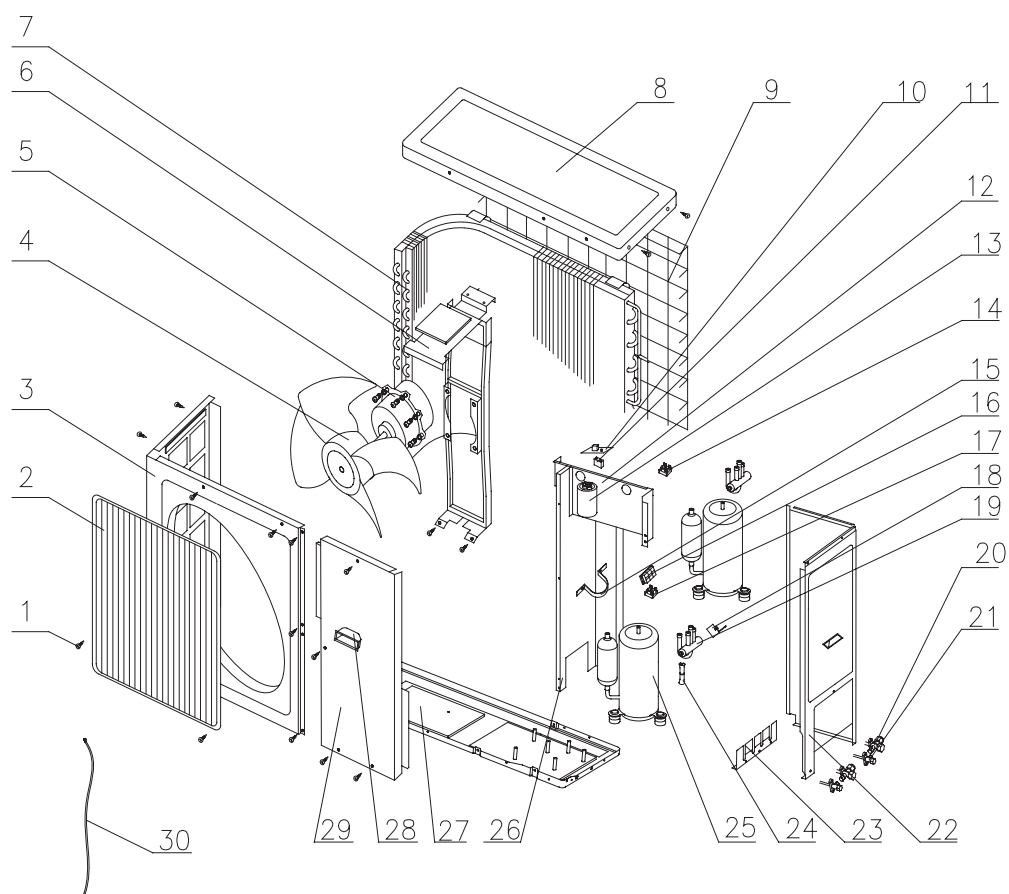
8. 11 (09X2) Exploded View of Components and Parts of outdoor unit 2



No	Description	Part Code	Qty
		GWHN18(09X2)DANK1A1A/O	
1	Self-tapping Screw	70140393	17
2	Front Grill	22265251	1
3	Front Plate	01433028	1
4	Axial Flow Fan	10335253	1
5	Motor LW80C	15013106	1
6	Motor Support	01703027	1
7	Condenser Assy	01133490	1
8	Top Cover	01255262	1
9	Rear Grill	01473028	1
10	Defrosting PCB 82AHS	30038001	1
11	Capacitor CBB611A 3uF/450V	33010027	1
12	Capacitor CBB65 30uF/450V(440V)	33000018	2
13	Electric Box	01413003	1
14	Terminal Board	420101941	2
15	Capacitor Clamp	02143013	2
16	Terminal Board RS9413G	42010178	1
17	4-Way Valve	43000402	2
18	4-way Valve Coil	430004002	1
19	On Way Valve	07130102	2
20	4-way Valve Coil	430004002	1
21	Rear Side Plate	01303044	1
22	Valve 3/8	07100018	2
23	Valve 1/4	071302111	2
24	Valve Support	01713028	1
25	Compressor QX-18A030	00120210	2
26	Mid Clapboard	01233023	1
27	Metal Base Assy	01203730 p	1
28	Handle	26235253	3
29	Front Side Plate	01303023	1
30	Connecting Cable (A type/3 core)	40020318	1

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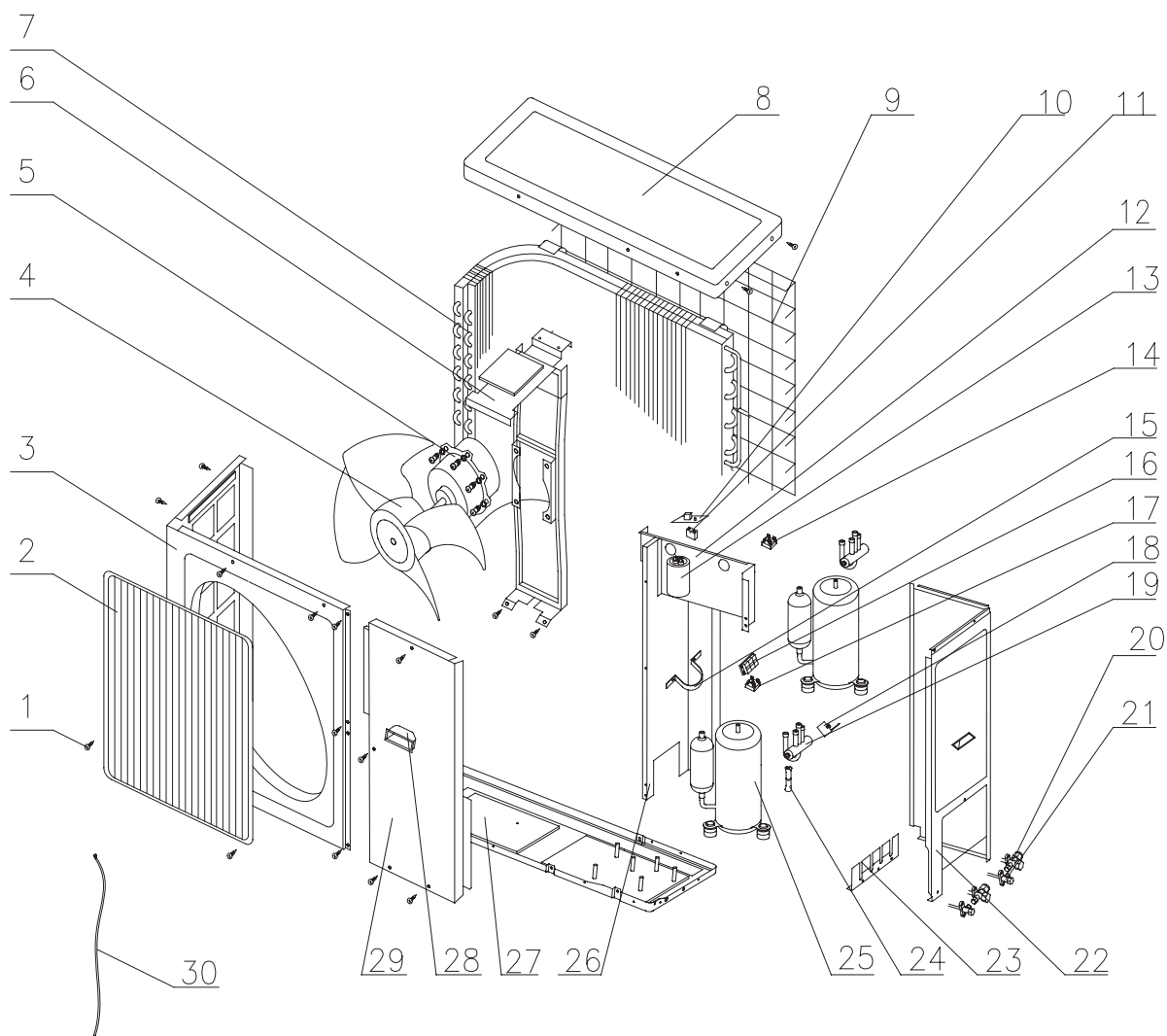
8. 12 (09+12) Exploded View of Components and Parts of outdoor unit



No	Description	Part Code	Qty
		GWCN21(09+12)DBNK1A1A/O	
1	Self-tapping Screw	70140393	16
2	Front Grill	22414102	1
3	Front Plate	01433017P	1
4	Axial Flow Fan	10338731	1
5	Motor LW70A	15015210	1
6	Motor Support	01703027	1
7	Condenser Assy	0113349201	1
8	Top Cover	01255262	1
9	Rear Grill	01473028	1
10	Defrosting PCB 82AHS	/	/
11	Capacitor (3.5uF/450V)	33010010	1
12	Electric Box	01413003	1
13	Capacitor (30uF/450V)	33000018	1
	Capacitor (35uF/450V)	33010743	1
14	Terminal Board RS9413	420111041	2
15	Capacitor Clamp B	02143013	1
16	Terminal Board RS9413G	42010178	1
17	Terminal Board	/	/
18	4-way Valve Coil	/	/
19	4-Way Valve	/	/
20	Valve 1/2(R407C)	07100130	1
	Valve 3/8"	07100018	1
21	Valve 1/4"	07100131	2
22	Rear Side Plate	01303021	1
23	Valve Support	01713028	1
24	On Way Valve	/	/
25	compressor QX-23E030gA	00102002	1
	compressor QX-18A030	00120210	1
26	Mid Clapboard	01233023	1
27	Metal Base	01203648	1
28	Handle	26235253	2
29	Front Side Plate	01303023	1
30	Connecting Cable	40020318	1

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8. 10 (12X2) Exploded View of Components and Parts of outdoor unit



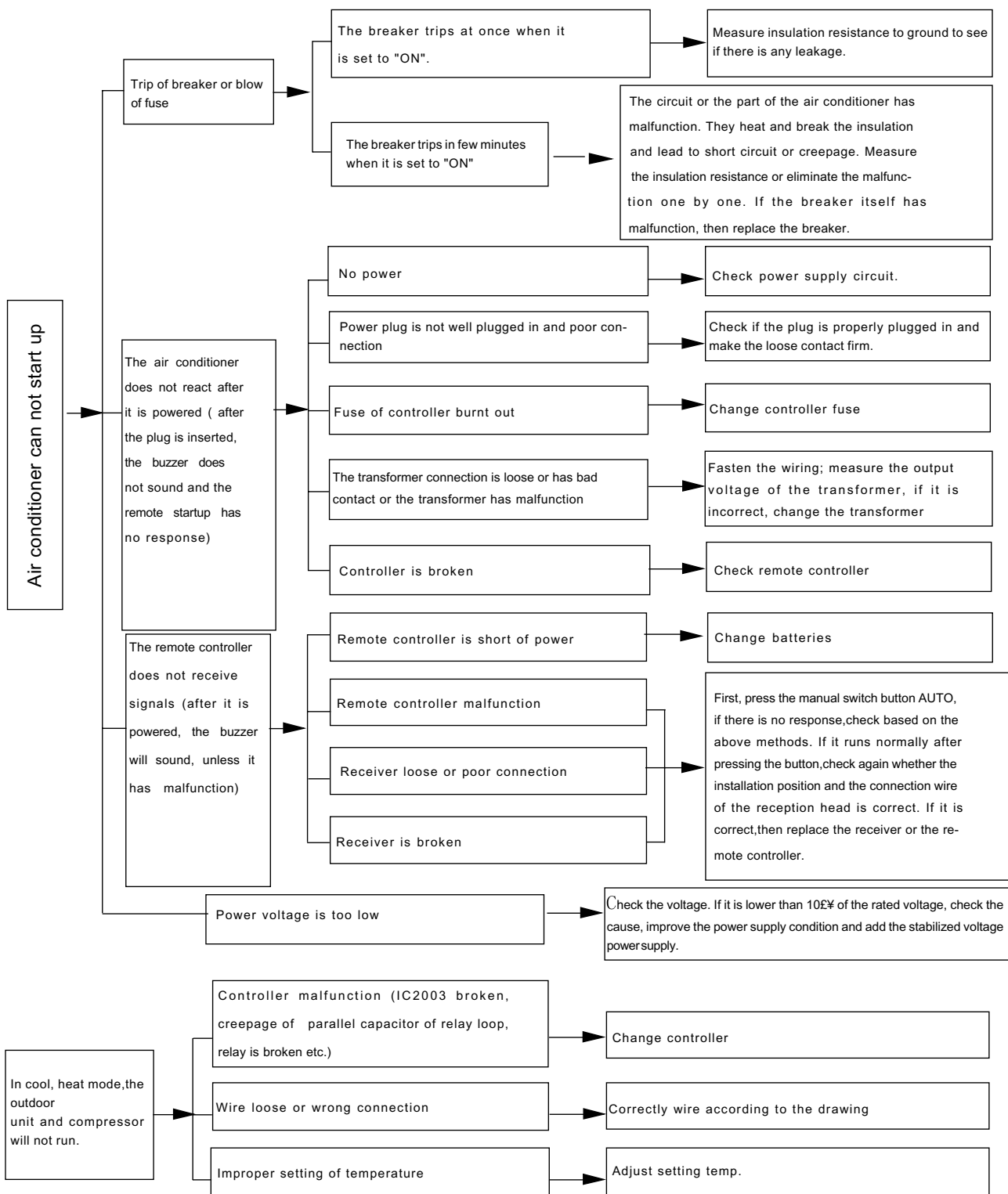
No	Description	Part Code		Qty
		GWCN24(12X2)DBNK1A1A/O	GWHN24(12X2)DBNK1A1A/O	
1	Self-tapping Screw	70140393	70140393	16
2	Front Grill	22414102	22414102	1
3	Front Plate	01433017P	01433017P	1
4	Axial Flow Fan	10338731	10338731	1
5	Motor LW70A	15015210	15015210	1
6	Motor Support	01703027	01703027	1
7	Condenser Assy	0113349201	01133492	1
8	Top Cover	01255262	01255262	1
9	Rear Grill	01473028	01473028	1
10	Defrosting PCB 82AHS	/	30038001	1
11	Capacitor (3.5uF/450V)	33010010	33010010	1
12	Electric Box	01413003	01413003	1
13	Capacitor (35uF/450V)	33010743	33010743	2
14	Terminal Board RS9413	420111041	42011147	1
15	Capacitor Clamp B	02143013	02143013	1
16	Terminal Board RS9413G	42010178	42010178	1
17	Terminal Board	/	420101941	2
18	4-way Valve Coil	/	430004002	2
19	4-Way Valve	/	43000402	2
20	Valve 1/2(R407C)	07100130	07100130	2
21	Valve 1/4"	07100131	07100131	2
22	Rear Side Plate	01303021	01303021	1
23	Valve Support	01713028	01713028	1
24	On Way Valve	/	07130102	2
25	compressor QX-23E030gA	00102002	00102002	2
26	Mid Clapboard	01233023	01233023	1
27	Metal Base	01203648	01203648	1
28	Handle	26235253	26235253	2
29	Front Side Plate	01303023	01303023	1
30	Connecting Cable	40020318	40020318	1

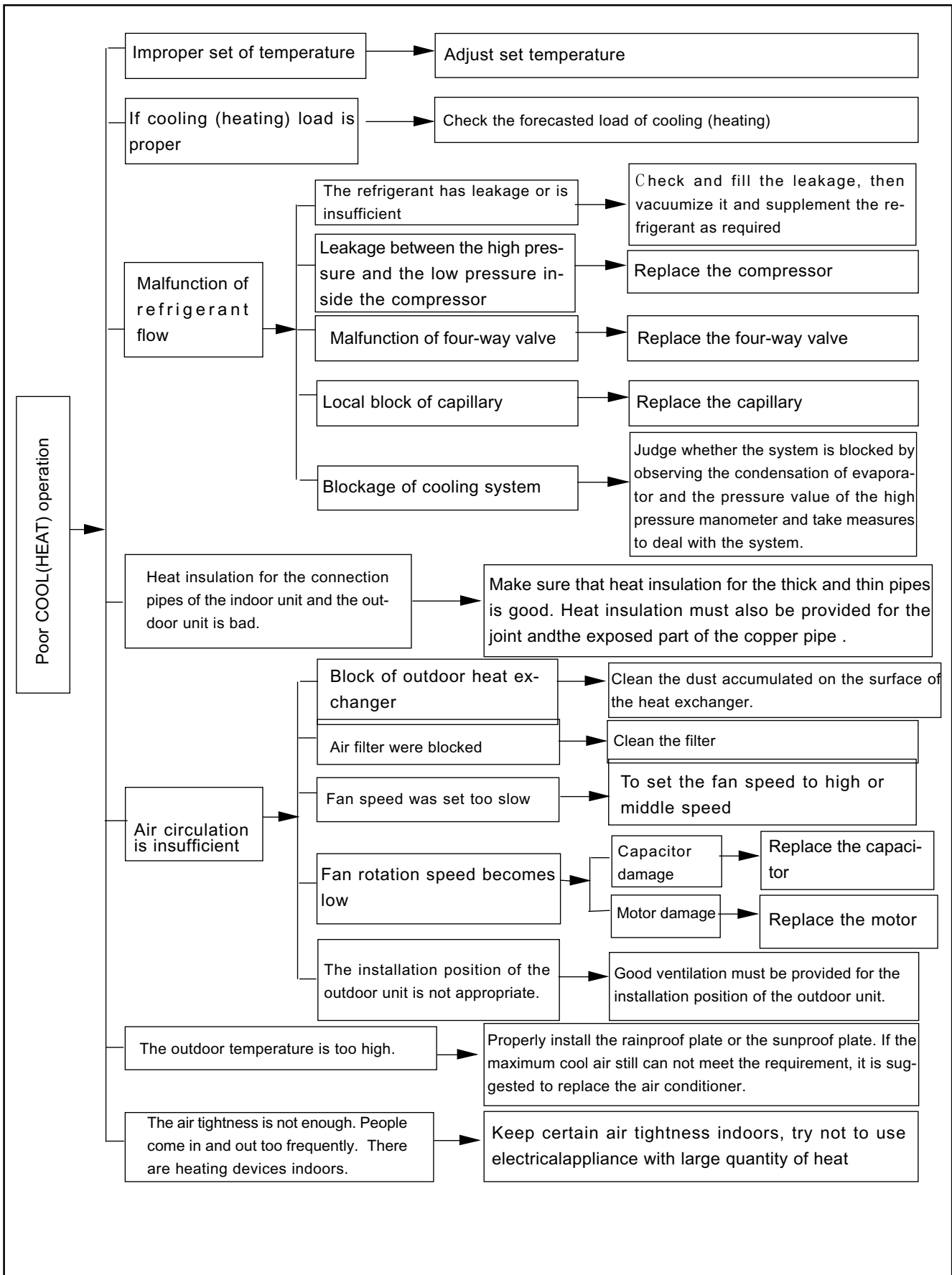
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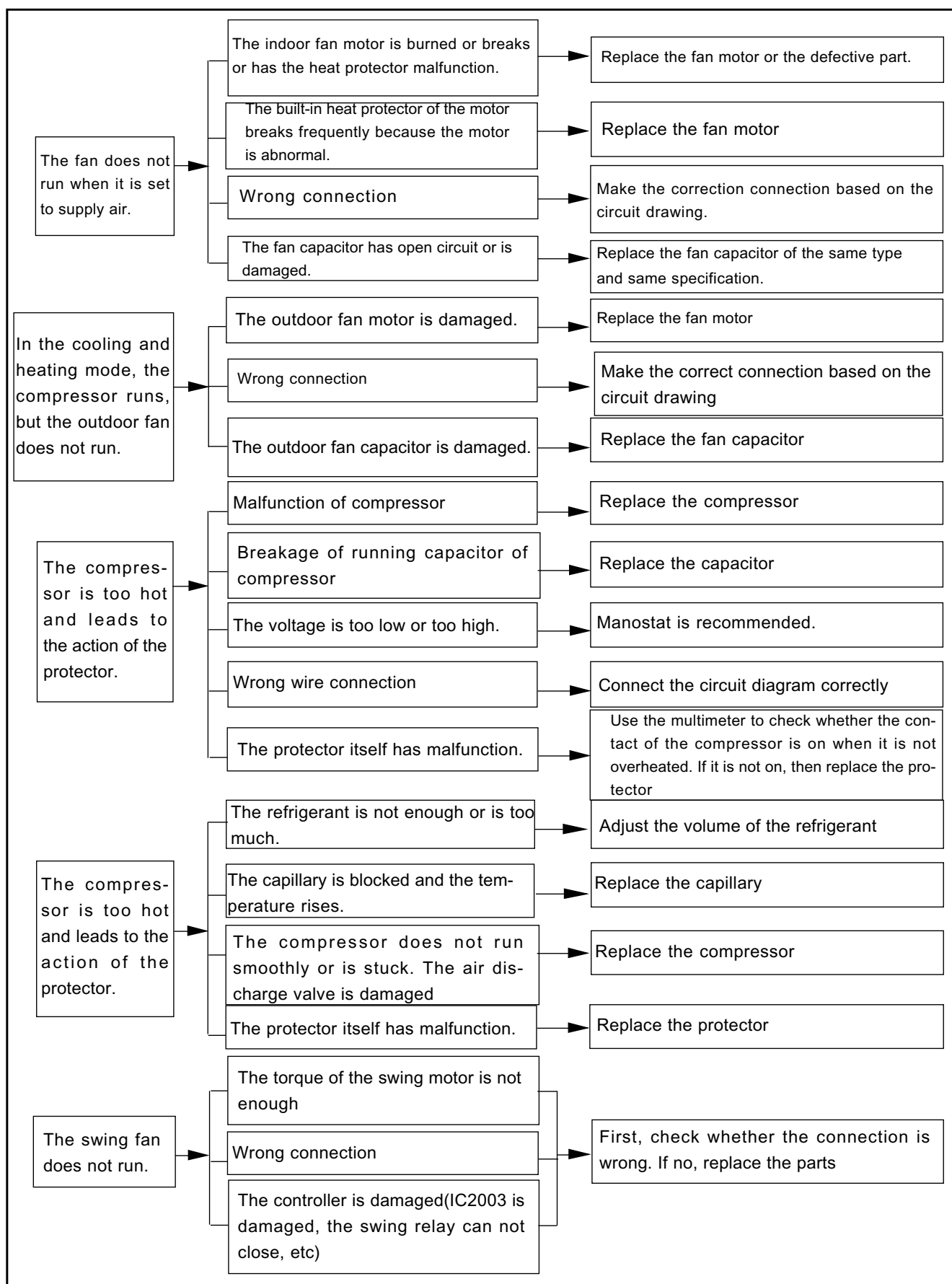
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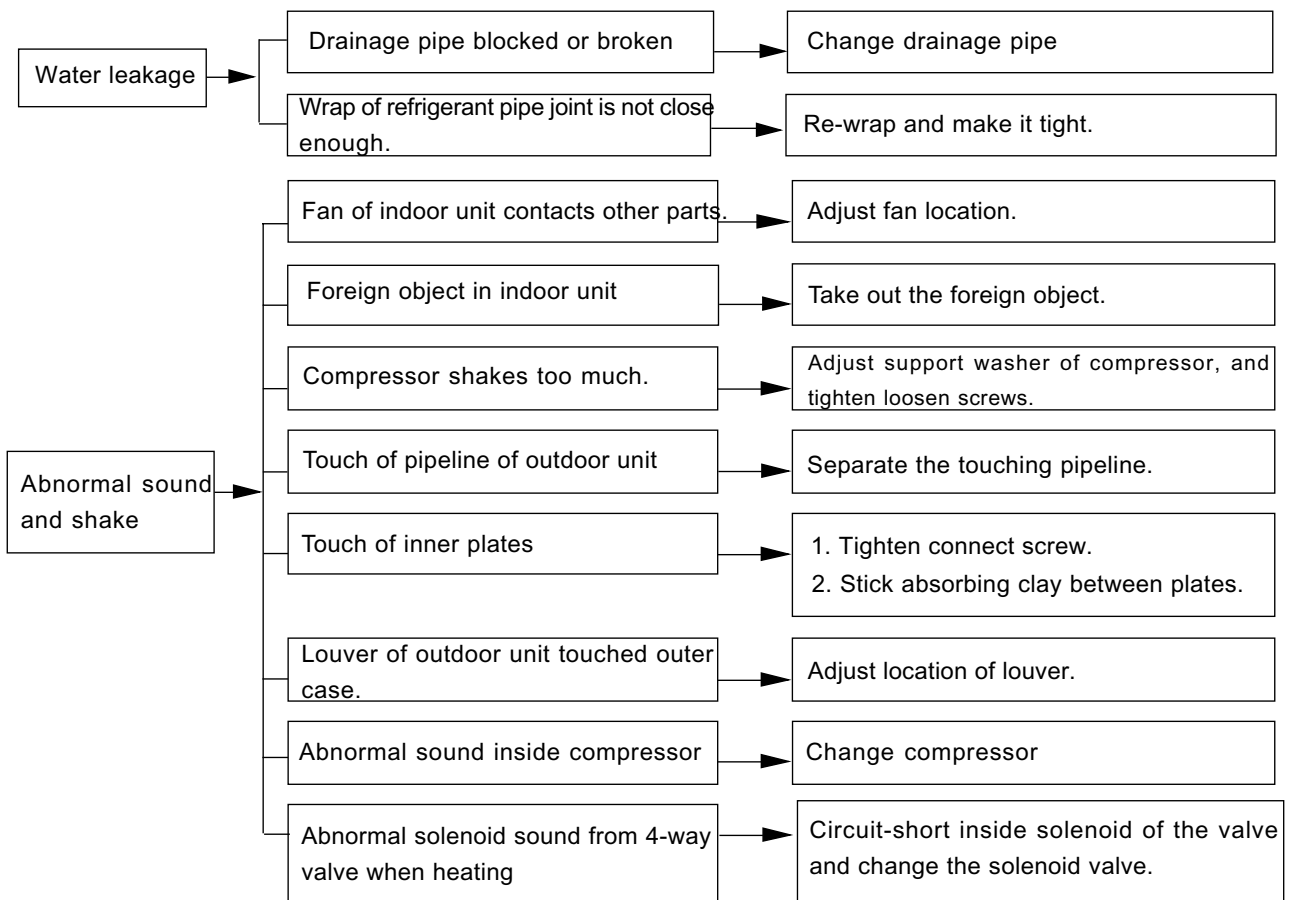
Trouble-Shooting

Note: When replacing the controller, make sure insert the wire jumper into the new controller, otherwise the running indicator will turn off 3s, and blink 15 times, (the dual eight will display C5) but the unit cannot turn on.









There are no heating malfunctions in the above for the cooling only unit.

PG motor locked protection H6:

Probable reasons:

1. Air vents were blocked which may cause the fan speed is too slow;
2. Fan blade locked;
3. Motor locked;
4. Fan motor capacitor damaged;
5. Motor damaged (ordors, winding, open circuit or shortcircuit are not normal, when testing the winding, pls distinguish whether the motor body cause temperature is too high so that bring on the thermal protector starts up)
6. IC board damaged (during normally running, there are voltage at both capacity input and output)
7. Mainboard damaged.
8. Motor thermal protection.

Disposal methods:

1. Remove the obstruction;
2. Reassembling;
3. Replace motor;
4. Replace capacitor;
5. Replace motor;
6. Replace circuit board;
7. Replace mainboard;

8. Under the normal circumstances, the motor will not act, but in other circumstances, such as evaporator is very dirty, too much dust attached on the fan blade that will cause the motor overload running, so that during the operation, frequent thermal protection will happen, so it is need to be cleaned or replaced.