



Single Package Air Conditioner **SVC MANUAL(Exploded View)**

MODEL : AK-H1208C00

CAUTION

Before Servicing the unit, read the safety precautions in General SVC manual.
Only for authorized service personnel.

1. Specification

Nominal Capacity		(Ton)	10	
Models			AK-H1208C00	
Capacity	Gross Cooling Capacity	kW	34.6	
		Btu/h	118,000	
	Net Cooling Capacity	kW	32.8	
		Btu/h	112,000	
	Net Heating Capacity	kW	32.8	
Btu/h		112,000		
Electrical Data	Power Supply		Ø / V / Hz	3/380-415/50
	M.C.A (with Standard Motor)	Cooling	A	38.2
		Heating	A	38.2
	Power Input	Cooling	W	14,400
		Heating	W	11,600
Performance	Air Circulation(Nominal)		CFM	3,700
	EER		Btu/h.W	7.78
	SEER		Btu/h.W	-
	COP		W/W	2.83
	Sound Rating		bell	9.20
Indoor Coil	Type			High efficiency
	Tube Size(O.D)		mm(inch)	9.52(3/8)
	Rows / Column / FPI			3R / 44C / 16FPI
	Length		mm(inch)	900(35 7/16)
	Face Area		m ² (sq.ft)	1.01(10.8)
Indoor Fan	Type * No. Used			Centrifugal Blower
	Diameter		mm(inch)	380(14 31/32)
	Width		mm(inch)	280(11 1/32)
	Drive Type / Motor Step			Belt / 1
	No. Motors			1
	Motor Output(Standard / Oversized)		Hp	3.0 / 5.0
	Motor RPM(Standard / Oversized)			1,400 / 1,430
No. of Outdoor Units				-
Compressor	Type * Quantity			SCROLL * 2((Non Tropical)
	Model			ARA073YAA
	Maker			LG
	Capacity		Btu/h	62,000
	Motor Type			Three Phase
	Motor Input		W	6,020
	Oil Type			FVC68D(PVE)
	Oil Charge		cc	1,800±10
Outdoor Coil	Type			High efficiency
	Tube Size(O.D)		mm(inch)	9.52(3/8)
	Rows / Column / FPI			2R / 32C / 17FPI
	Length		mm(inch)	1,100(43 5/16)
	Face Area		m ² (sq.ft)	0.89(9.58)
Outdoor Fan	Type * No. Used			Propeller * 2
	Diameter		inch	23.6
	Drive Type			Direct
	Air Circulation		CFM	3,125
	No. Motor / Motor Output(Hp)		Hp	2EA / 0.5
	Motor RPM			910
Service Valve	Liquid	mm(inch)	-	
	Gas	mm(inch)	-	
Connecting Tube	Liquid	mm(inch)	-	
	Gas	mm(inch)	-	
	Length(Standard)	mm(inch)	-	
Dehumidification Rate		l/h	8.10	
Drain Connection Size(inch)			1	
Refrigerant	Refrigerant Charge	kg	4.1/Circuit	
		lbs	9.04/Circuit	
		Type	R-410A	
	Refrigerant Control			Capillary Tube
Dimensions	Indoor Unit (W * H * D)	mm	-	
		inch	-	
	Outdoor Unit or S/Package (W * H * D)	mm	2170 * 1244 * 1460	
		inch	85 7/16 * 49 * 57 8/16	
Net Weight	Indoor Unit	kg(lbs)	-	
	Outdoor Unit or S/Package	kg(lbs)	450(992)	
Filter	Size * No. Used		925*418 * 1EA	
	Filter Rack Thickness		inch	1, 2

Notes:

1. Capacities are based on the following conditions:

- Cooling: - Indoor Temperature 27.0°C(80.6°F) DB/19.0°C(66.2°F) WB
- Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB
- Heating: - Indoor Temperature 20.0°C(68°F) DB/15.0°C(59°F) WB
- Outdoor Temperature 7.0°C(44.6°F) DB/6.0°C(42.8°F) WB
- Level Difference of Zero

2. Nominal CFM : Fan operation mode with clean filter, dry coil.

3. The specification may be subject to change without prior notice for purpose of improvement.

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2. Function Table

Category	Function	AK-H1208C00
Air flow	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
	Auto swing(up & down)	-
	Airflow steps(fan/cool/heat)	-
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
Air purifying	Swirl wind	-
	Deodorizing filter	-
	Plasma air purifier	-
Installation	Prefilter(washable / anti-fungus)	○
	Drain pump	-
	E.S.P. control	-
	Electric heater(operation)	Accessory
Reliability	High ceiling operation	-
	Hot start	-
	Self diagnosis	○
	Soft dry operation	○
	Defrost / Deicing	○
	High pressure switch	○
	Low pressure switch	○
	Phase protection	○
	Restart delay (3-minutes)	○
	Soft start	-
Convenience	Test function	○
	Auto changeover	-
	Auto cleaning	-
	Auto operation(artificial intelligence)	-
	Auto restart operation	○
	Child lock	○
	Forced operation	-
	Group control	○
	Sleep mode	-
	Timer(on/off)	○
	Timer(weekly)	○
Individual control	Two thermistor control	Accessory
	Standard wired remote controller	○
	Deluxe wired remote controller	-
	Simple wired remote controller	-
	Wired remote controller(for hotel use)	-
	Wireless remote controller(simple)	Accessory (AUWRHS)
CAC network function	Wireless LCD remote control	-
	General central controller (Non LGAP)	Accessory
	Dry contact	-
	Network Solution(LGAP)	-
Special function kit	PDI(power distribution indicator)	-
	Zone control	-
	CTIE	Accessory
Others	Electro thermostat	-
	Low ambient operation	-
	-	-

Note:

○ : Applied, X : Not applied, - : No relation

* Option : Model name & price are different according to options, and assembled in factory with main unit.

* Accessory : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

3. Fan Performance Data

CFM	External Static Pressure(inches of water)																								
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1		1.1		1.2		
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM
2960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	756	1.22	777	1.27	799	1.33	822	1.39	
3330	-	-	-	-	-	-	-	-	-	-	746	1.37	763	1.42	782	1.47	802	1.53	823	1.59	845	1.66	868	1.73	
3700	-	-	747	1.56	757	1.59	770	1.63	785	1.68	801	1.73	818	1.79	837	1.86	856	1.93	877	2.01	900	2.09	923	2.19	
4070	802	1.96	810	2.00	821	2.04	834	2.09	848	2.15	864	2.21	882	2.29	900	2.37	920	2.46	941	2.56	963	2.67	986	2.80	
4440	875	2.54	883	2.58	894	2.63	907	2.70	921	2.77	937	2.86	954	2.96	973	3.06	993	3.18	1014	3.31	1036	3.46	1059	3.61	

CFM	External Static Pressure(inches of water)															
	1.3		1.4		1.5		1.6		1.7		1.8		1.9		2	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2960	846	1.45	871	1.53	897	1.60	924	1.69	951	1.78	980	1.88	1009	1.99	1039	2.11
3330	892	1.81	917	1.90	943	2.00	970	2.11	997	2.22	1026	2.34	1055	2.48	1085	2.63
3700	947	2.29	972	2.40	998	2.53	1024	2.66	1052	2.80	1081	2.96	1110	3.13	1140	3.32
4070	1010	2.93	1035	3.07	1061	3.23	1088	3.40	1116	3.58	1144	3.78	1173	4.00	1204	4.24
4440	1083	3.78	1108	3.97	1134	4.17	1161	4.39	1188	4.63	1217	4.89	1246	5.17	-	-

3Hp STANDARD MOTOR & DRIVE
 5Hp OVER SIZED MOTOR & DRIVE

- Fan motor heat(MBH)= 3.1 x Fan BHP
- Test Condition: ⚡ Voltage : 415V
 - ⌚ Operating Mode: Fan operation mode with clean filter, dry coil, without electric heater.
- Do not operat the unit at a coling airflow that is less then 350CFM/1.2MBH.

l/s	External Static Pressure(mmaq)																								
	2.5		5.1		7.6		10.2		12.7		15.2		17.8		20.3		22.9		25.4		27.9		30.5		
	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM
1397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	756	0.91	777	0.95	799	0.99	822	1.04		
1572	-	-	-	-	-	-	-	-	-	-	746	1.02	763	1.06	782	1.10	802	1.14	823	1.19	845	1.24	868	1.29	
1746	-	-	747	1.17	757	1.19	770	1.22	785	1.25	801	1.29	818	1.34	837	1.38	856	1.44	877	1.50	900	1.56	923	1.63	
1921	802	1.47	810	1.49	821	1.52	834	1.56	848	1.60	864	1.65	882	1.71	900	1.77	920	1.84	941	1.91	963	2.00	986	2.09	
2096	875	1.89	883	1.92	894	1.96	907	2.01	921	2.07	937	2.13	954	2.21	973	2.29	993	2.38	1014	2.47	1036	2.58	1059	2.70	

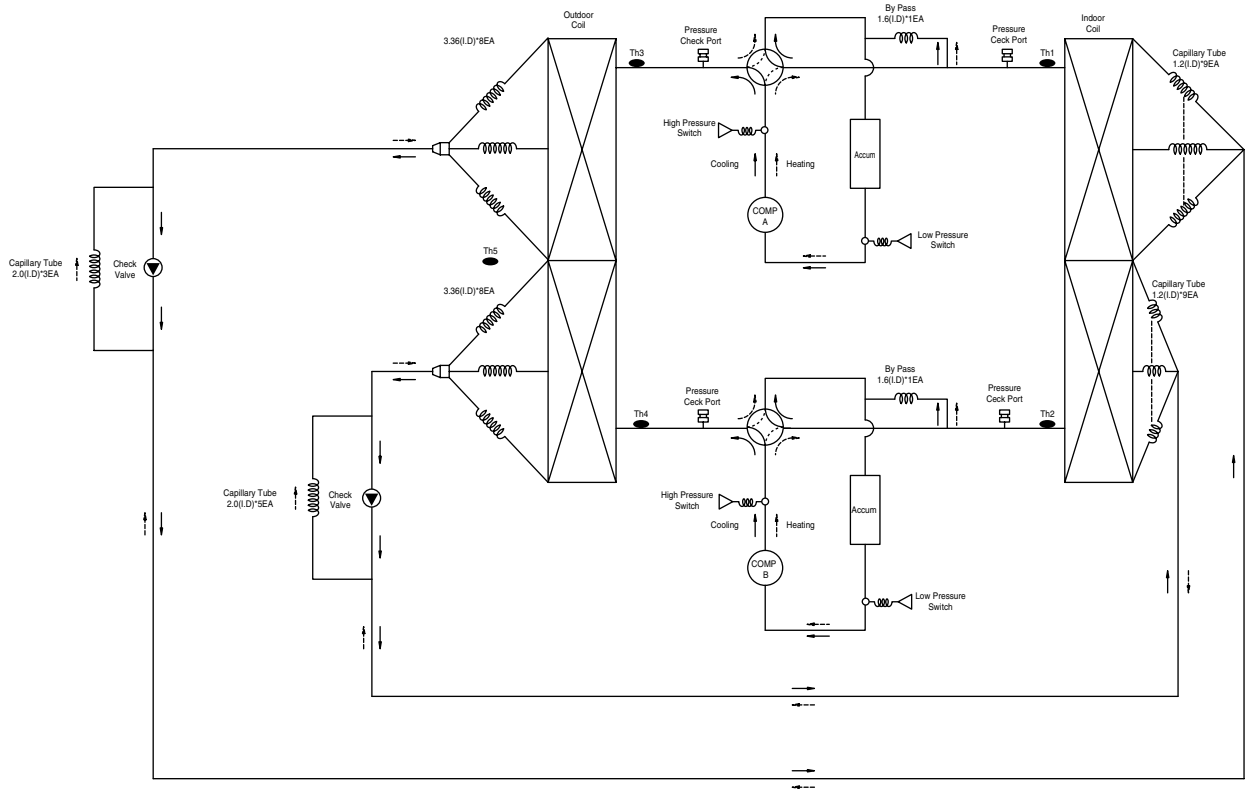
l/s	External Static Pressure(mmaq)															
	33.0		35.6		38.1		40.6		43.2		45.7		48.3		50.8	
	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW	RPM	BkW
1397	846	1.09	871	1.14	897	1.20	924	1.26	951	1.33	980	1.40	1009	1.48	1039	1.57
1572	892	1.35	917	1.42	943	1.49	970	1.57	997	1.66	1026	1.75	1055	1.85	1085	1.96
1746	947	1.71	972	1.79	998	1.88	1024	1.98	1052	2.09	1081	2.21	1110	2.34	1140	2.47
1921	1010	2.18	1035	2.29	1061	2.41	1088	2.53	1116	2.67	1144	2.82	1173	2.99	1204	3.16
2096	1083	2.82	1108	2.96	1134	3.11	1161	3.28	1188	3.45	1217	3.65	1246	3.86	-	-

3Hp STANDARD MOTOR & DRIVE
 5Hp OVERSIZED MOTOR & DRIVE

- Fan motor heat(kW)= 1.22 x Fan Bkw
- Test Condition: Voltage : 415V
 - ⌚ Operating Mode: Fan operation mode with clean filter, dry coil, without electric heater.
- Do not operat the unit at a coling airflow that is less then 165 l/s / 0.35KW

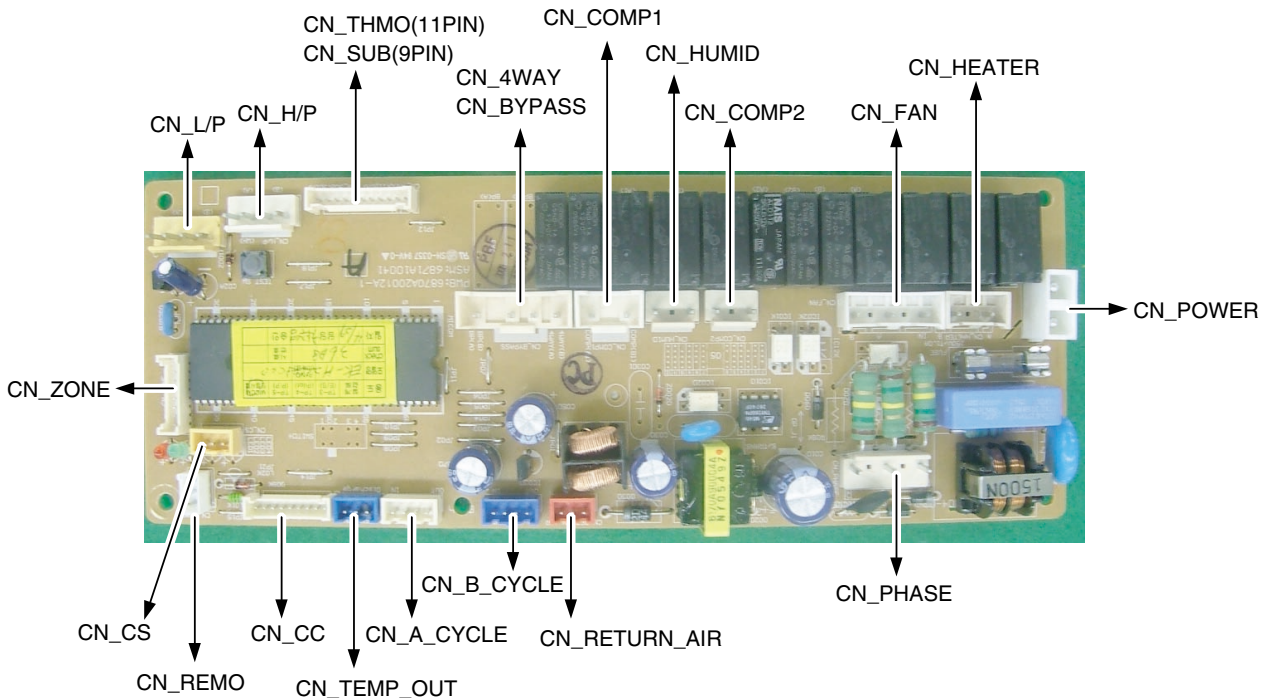
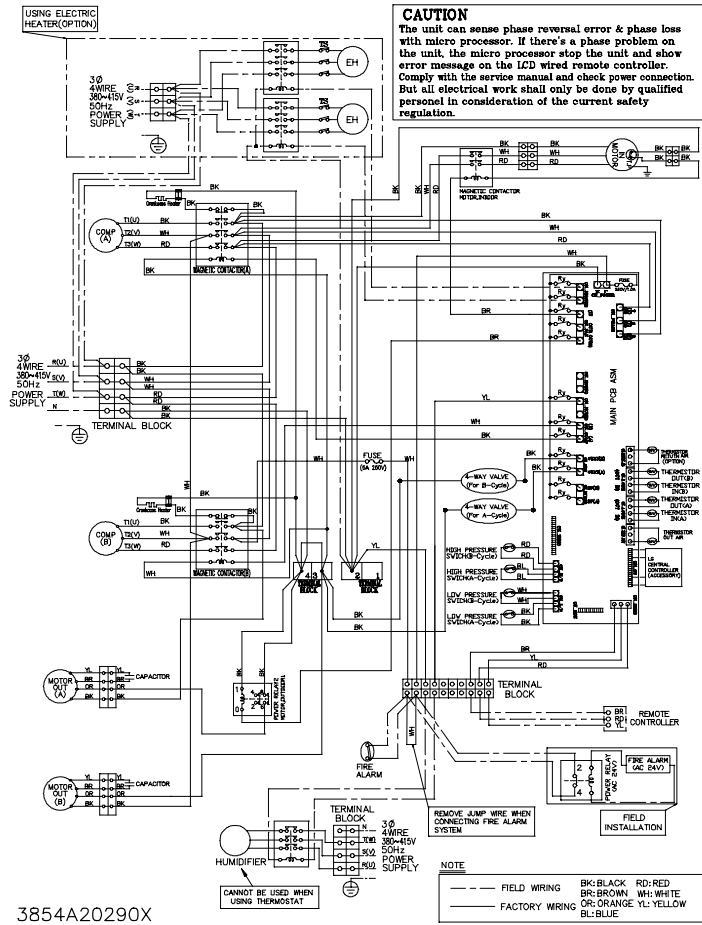
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4. Piping Diagrams



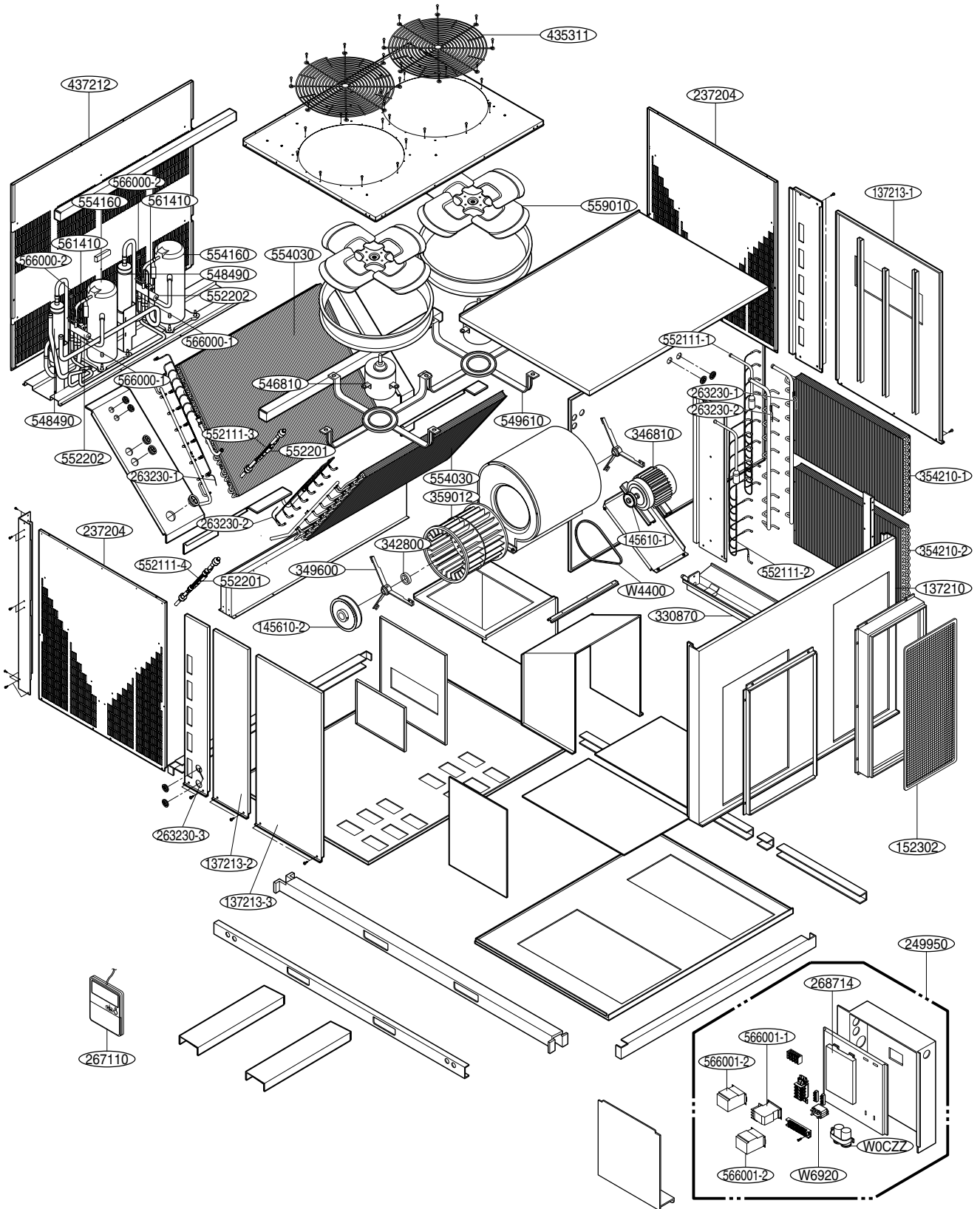
LOC.	Description	PCB Connector
Th	Thermistor	
Th1	Thermistor Eva. For A Cycle	CN_A_CYCLE
Th2	Thermistor Eva. For B Cycle	CN_B_CYCLE
Th3	Thermistor Cond. For A Cycle	CN_A_CYCLE
Th4	Thermistor Cond. For B Cycle	CN_B_CYCLE
Th5	Outdoor Temp. Thermistor	CN_TEMP_OUT

5. Wiring Diagrams



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6. Exploded View



Note) * Please ensure GCSC since the replacement parts may be changed depending upon the buyer's request.
 Please check the correct parts in View RPL(Replacement Part List) on GCSC.
 (GCSC Website <http://biz.Lgservice.com>.)



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