

HEAT CONTROLLER, INC.

**Wall Mounted  
Mini-Split System  
Inverter Single-Zone  
Air Conditioning**

*Service Manual*

**Model: AS-Q093E7Y0 [VMC09SB-1]  
AS-Q123E7Y0 [VMC12SB-1]**

**CAUTION**

Before servicing the unit, read the  
“safety precautions” in this manual.

Only for authorized service personnel.

# 1. Specification

Models		AS-Q093E7Y0 [VMC09SB-1]	AS-Q123E7Y0 [VMC12SB-1]
Cooling Capacity (Min~Rating~Max)		kW 0.90~2.70~3.70	0.90~3.52~4.04
Heating Capacity (Min~Rating~Max)		Btu/h 3,070~9,200~12,620	3,070~12,000~13,800
Power Input	Cooling/Heating	kW -	-
Running Current	Cooling/Heating	W 690/-	1120/-
Starting Current	Cooling/Heating	A 3.2/-	5.0/-
EER		A 3.2/-	5.0/-
COP		W/W 3.91	3.14
Power Supply		Btu/h.W 13.3	10.7
Power Factor		W/W -	-
Air Flow Rate	Indoor,Max	Ø / V / Hz 1/208-230/60	1/208-230/60
	Outdoor,Max	% 94	97
Moisture Removal		m <sup>3</sup> /min(cfm) 8.5(300)	9.5(335)
Sound Level	Indoor,H/M/L	m <sup>3</sup> /min(cfm) 29(1,024)	29(1,024)
	Outdoor,Max	l/h 0.6	1.3
Refrigerant & Charge(at 7.5m)		dB(A)+3 36/33/30	39/33/30
Additional Refrigerant Charge		dB(A)+3 48	48
Compressor		g(oz) R410A, 1,000(35.3)	R410A,1,000(35.3)
	Type	g/m(oz/ft) 20(0.22)	20(0.22)
	Model	Rotary 5RS102XAA21	Rotary 5RS102XAA21
	Motor Type	BLDC	BLDC
	Oil Type	FV50S	FV50S
	Oil Charge	cc 320	320
	O.L.P Name	-	-
Fan(Indoor)	Type	Cross Flow Fan	Cross Flow Fan
	Motor Output	W 20	20
Fan(outdoor)	Type	Propeller	Propeller
	Motor Type	BLDC	BLDC
	Motor Output	W 43	43
Circuit Breaker*		A 15	15
Power Supply Cable		AWG 14	14
Power and Transmission Cable		AWG 18	18
Piping Connections	Liquid Side	mm(in) 6.35(1/4)	6.35(1/4)
	Gas Side	mm(in) 9.52(3/8)	9.52(3/8)
Drain Hose	O.D. , I.D	mm(in) 21.5,16.0(0.85,0.63)	21.5,16.0(0.85,0.63)
Dimension	Indoor(W*H*D)	mm 895*282*165	895*282*165
		inch 35.2*11.1*6.5	35.2*11.1*6.5
	Outdoor(W*H*D)	mm 770*545*245	770*545*245
		inch 30.3*21.5*9.6	30.3*21.5*9.6
Net Weight	Indoor	kg(lbs) 8(17.6)	8(17.6)
	Outdoor	kg(lbs) 35(77.2)	35(77.2)
Operation Range	Cooling(Outdoor)	°C(°F) -10 ~ 46 (14.0~114.8)(Low Ambient)	-10 ~ 46 (14.0~114.8)(Low Ambient)
	Heating(Outdoor)	°C(°F) -	-
Max. Piping Length		m(ft) 15(49)	15(49)
Max. Elevation Difference		m(ft) 7(23)	7(23)
Tool Code(Chassis)	Indoor + Outdoor	SE + UL	SE + UL
Functions	Temperature Control	Thermistor	Thermistor
	Plasma Filter	-	-
	Prefilter(washable/anti-fungus)	O	O
	Auto Clean	O	O
	CHAOS Wind(Auto Wind)	O	O
	Steps, Fan/Cool/Heat	-/4/-	-/4/-
	Airflow Direction Control(up&down)	Auto	Auto
	Airflow Direction Control(left&right)	Manual	Manual
	Remoon Type	Wireless LCD	Wireless LCD
	Setting Temperature Range	Cooling [°C(°F)] 18 ~ 30 (64~86)	18 ~ 30 (64~86)
		Heating [°C(°F)]	-
	Auto Operation (Micom Control)	-	-
	Auto Changeover (Micom Control)	-	-
	Self Diagnosis	O	O
	Timer	24h On/Off	24h On/Off
	Sleep Operation	O	O
	Soft Dry Operation	O	O
	Restart Delay(minute)	2	2
	Deice Control(Defrost)	-	-
	Hot Start	-	-
	Jet Cool / Heat	O / -	O / -
	Low Ambient Operation	O	O
	Special Function	-	-
Network Functions	Dry Contact	-	-
	Network Solution(LGAP)	-	-
	PI485	-	-

## Note:

O : Applied, - : No relation

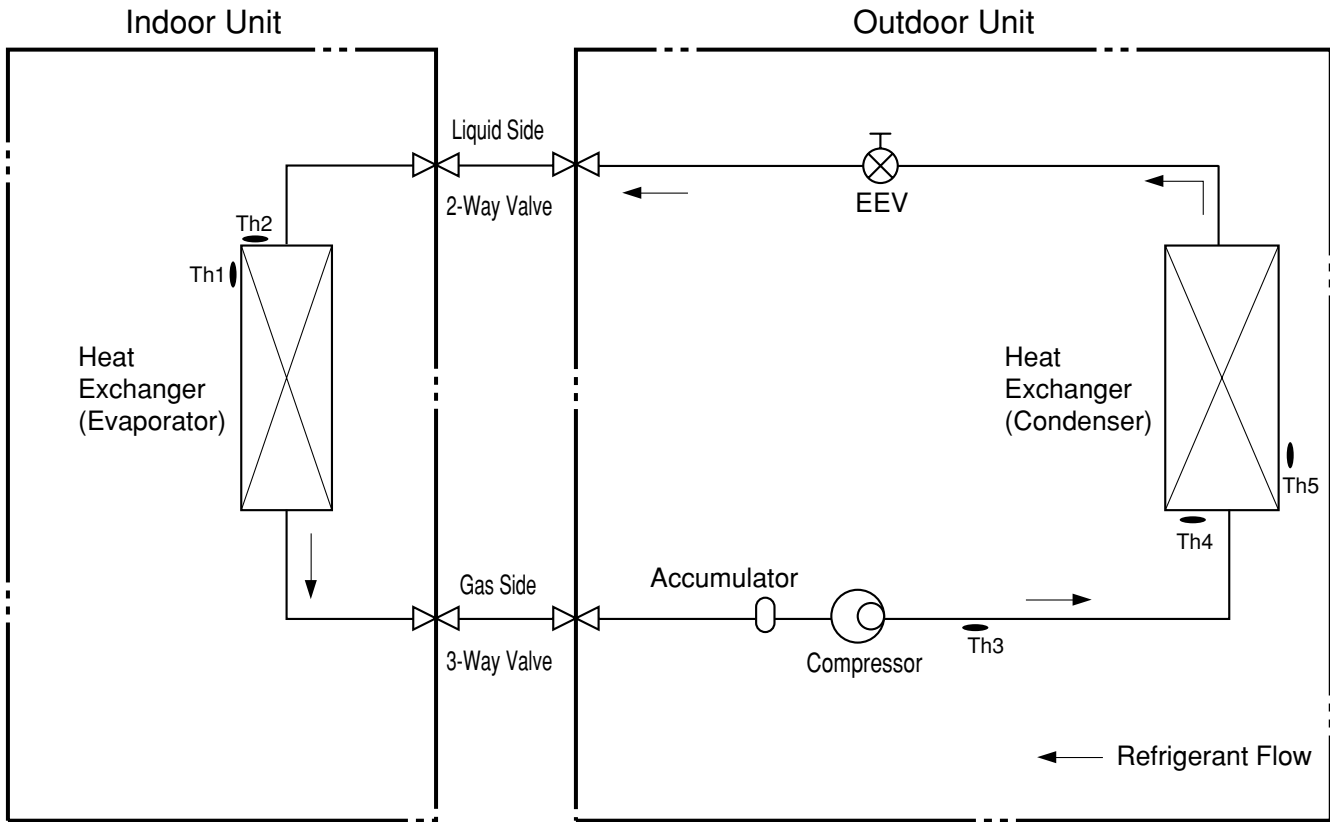
\* For circuit breaker rating, please conform to local standards wherever necessary.

※ Some of functions are slightly different depending upon models.

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

※ Capacity : based on 203V

## 2. Piping Diagrams

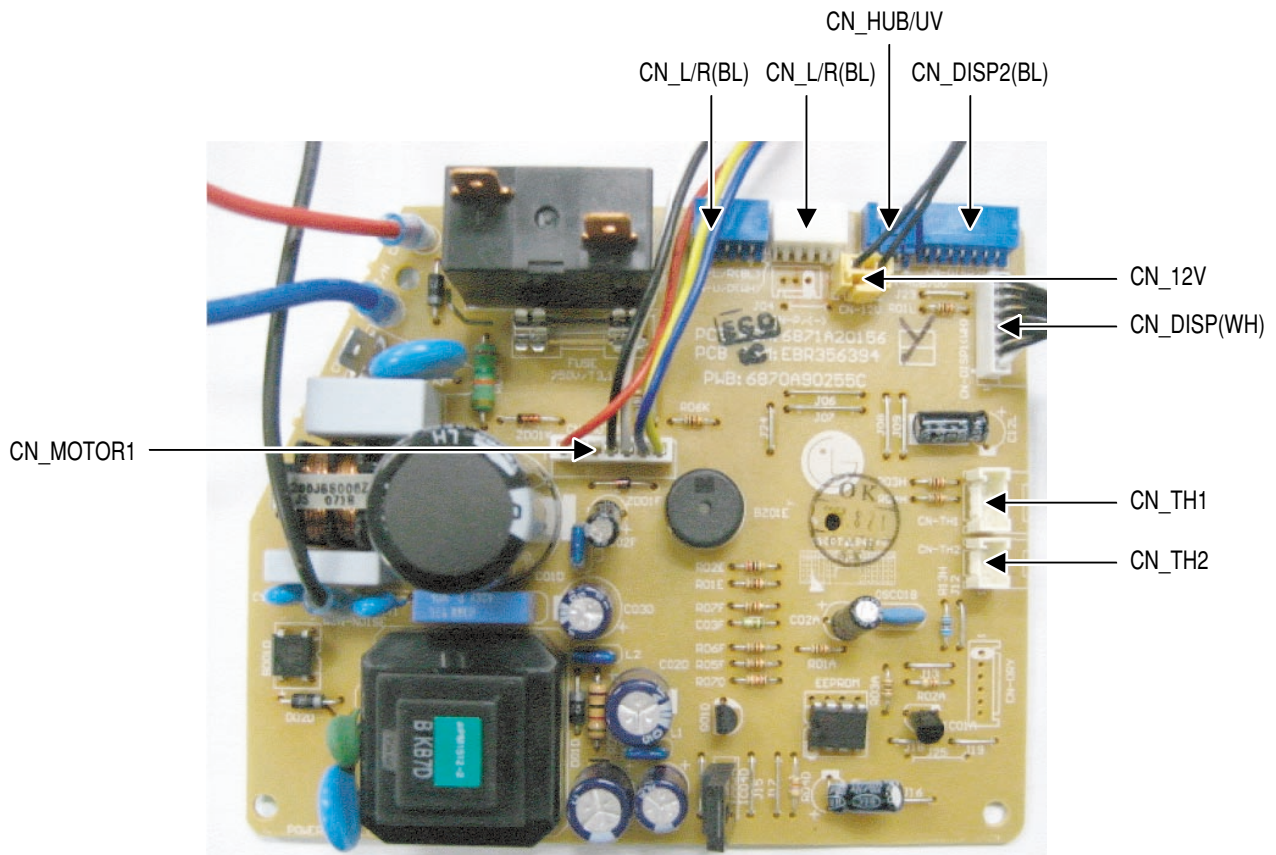
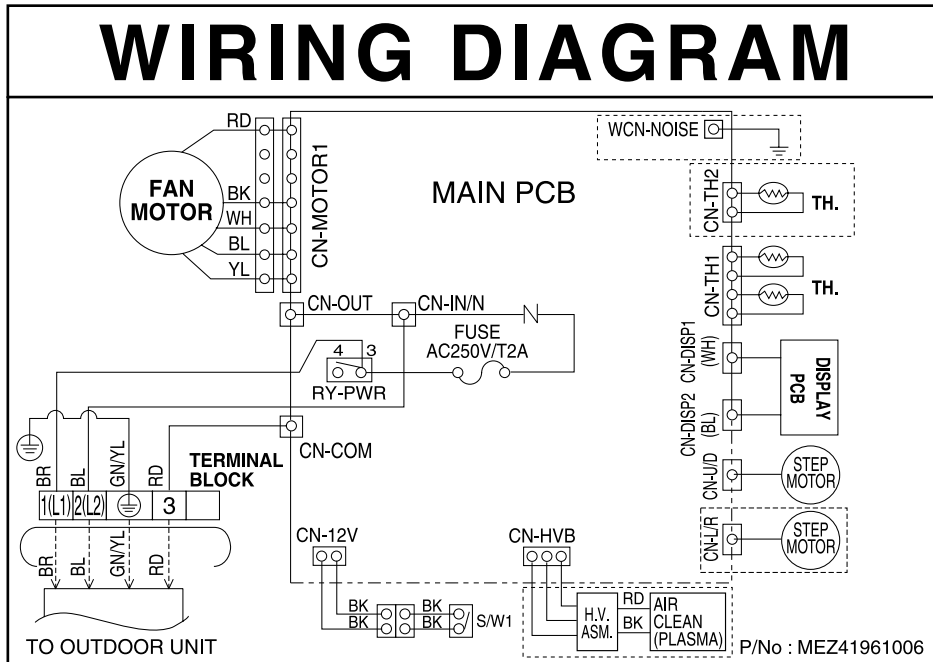


LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN_TH1(INDOOR)
Th2	Thermistor for evaporating temperature	
Th3	Thermistor for discharge pipe temperature	CN_D_PIPE(Outdoor)
Th4	Thermistor for condensing temperature	CN_TH1(OUTDOOR)
Th5	Thermistor for outdoor air temperature	

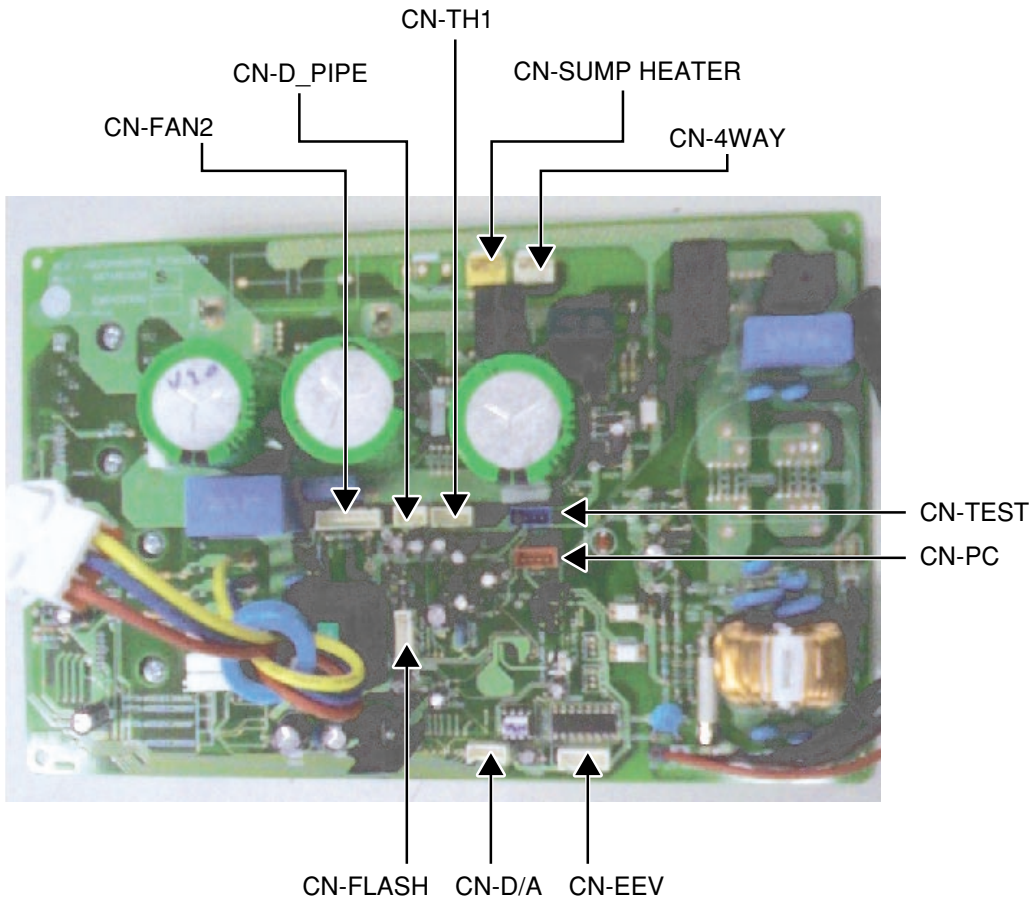
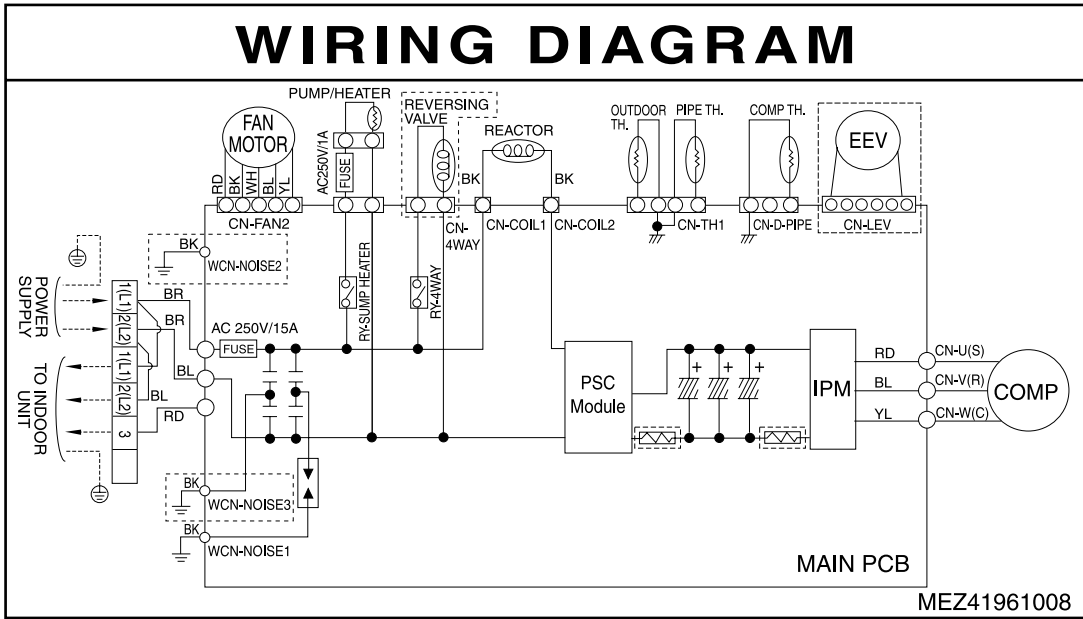
\* EEV : Electronic Expansion Valve.

### 3. Wiring Diagrams

#### Indoor Unit

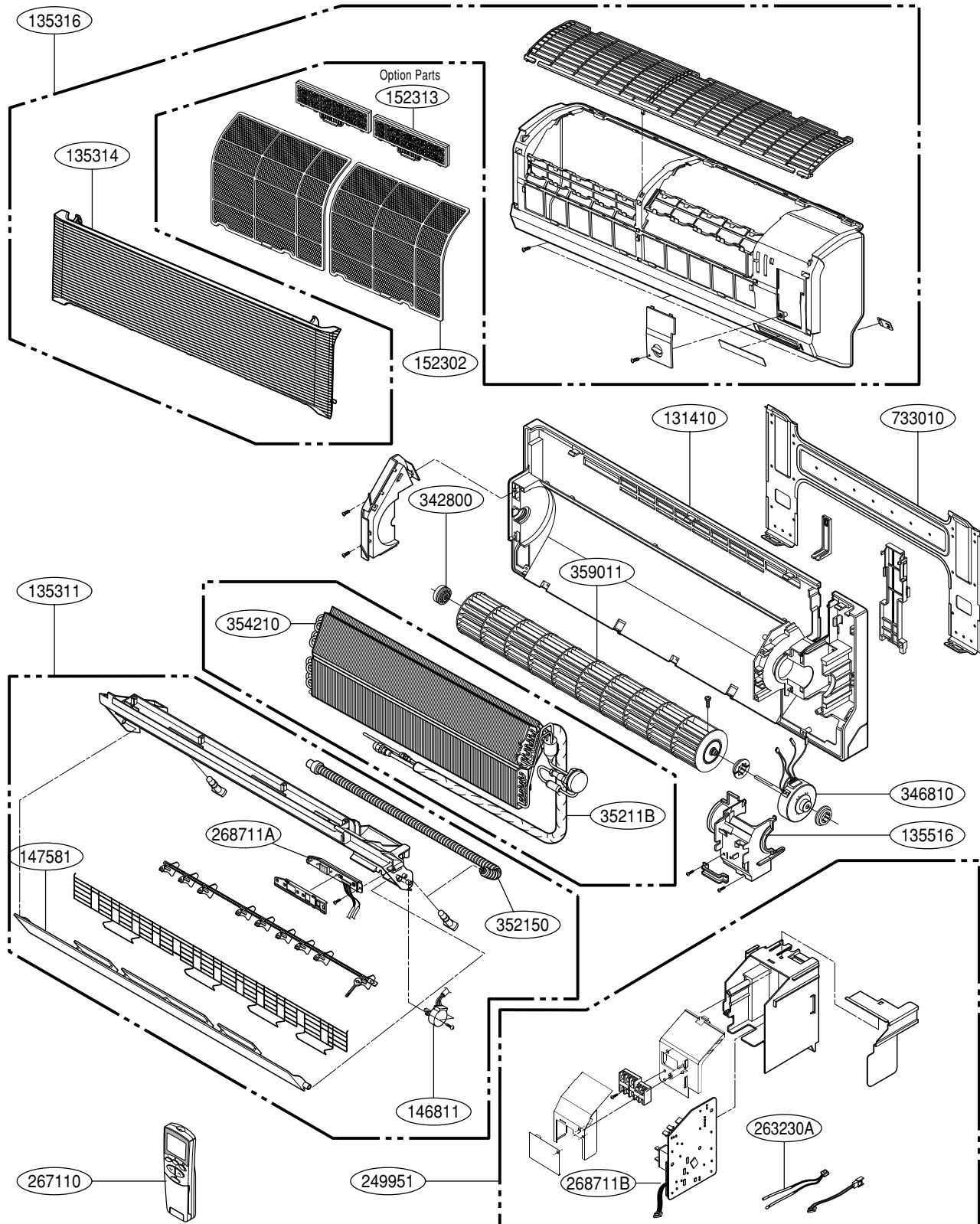


# Outdoor Unit



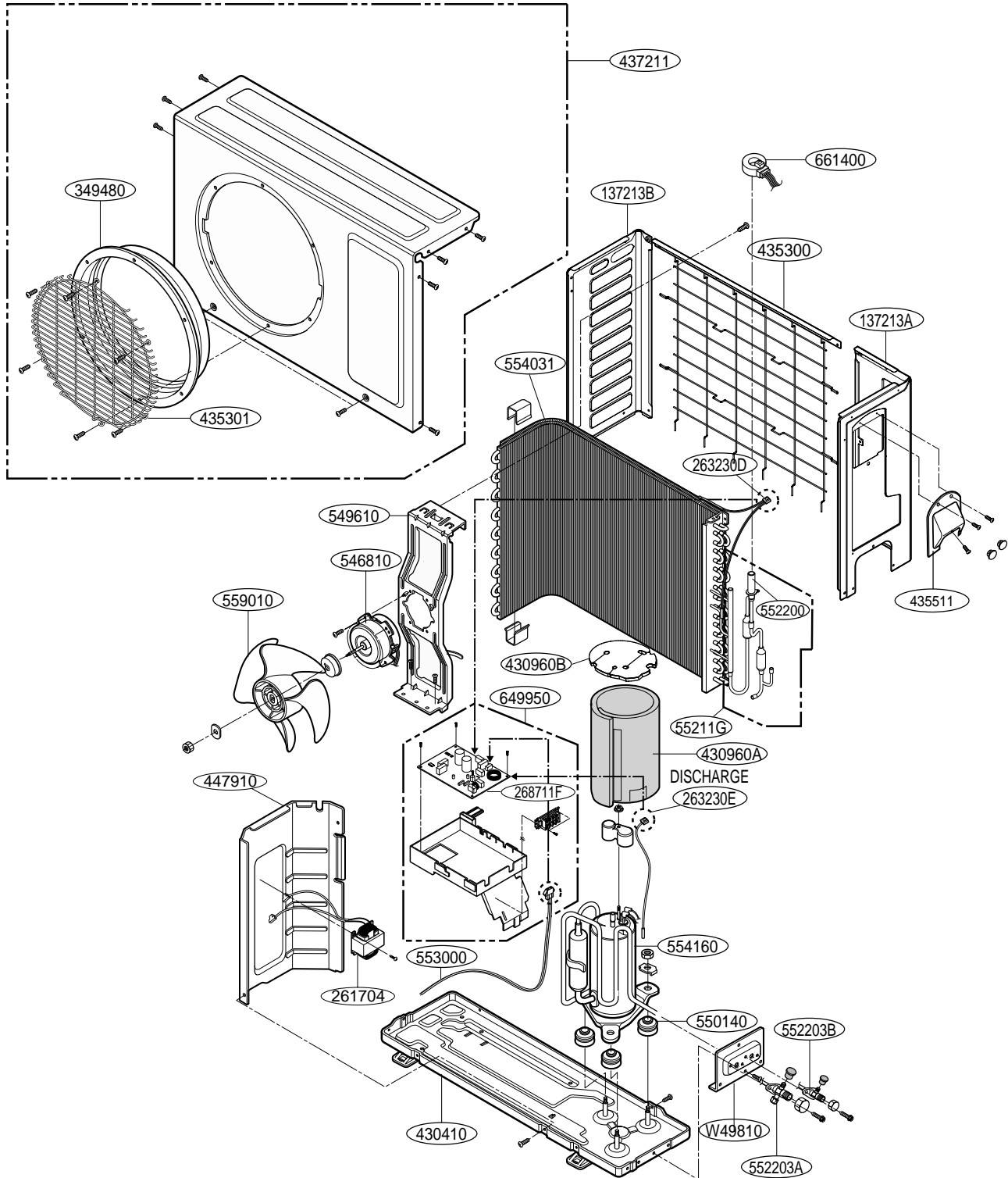
## 4. Exploded View

### Indoor Unit



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>.)

# Outdoor Unit



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 (GCSC Website <http://biz.Lgservice.com>.)

**Specifications and performance data subject to change without notice.**

## **HEAT CONTROLLER, INC.**

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*THE QUALITY LEADER IN CONDITIONING AIR*

MFL42286412