





Internal Use Only

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# Room Air Conditioner

## **SVC MANUAL(Exploded View)**

**MODEL : AS-W093WSA7(LS090HEV)  
AS-W123BSA7(LS120HEV)**

### **CAUTION**

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

# 1. Specification

Model		Set	LS090HEV	LS120HEV	
		Indoor Unit	LSN090HEV	LSN120HEV	
		Outdoor Unit	LSU090HEV	LSU120HEV	
Cooling Capacity		kW	0.90~2.5~2.79	0.9~3.5~3.8	
		Btu/h	3070~8500~9500	3070~12000~13000	
Heating Capacity		kW	0.90~2.7~3.15	0.9~3.8~4.2	
		Btu/h	3070~9000~10500	3070~12000~14300	
Power Input	Cooling/Heating	W	780/780	1,170/980	
Running Current	Cooling/Heating	A	3.6/3.6	5.2/4.4	
Starting Current	Cooling/Heating	A	3.6/3.6	5.2/4.4	
EER/COP		W/W	3.19/3.38	3.00/3.59	
		Btu/h.W	10.90/11.54	10.26/12.24	
SEER			16.3	16.3	
HSPF			8.3	8.5	
Power Supply		Ø / V / Hz	1, 208~230, 60	1, 208~230, 60	
Power Factor		%	97.1%	98.3%	
Air Flow Rate	Inddor, Max	m³/min(CFM)	8(283)	10(353)	
	Outdoor,Max	m³/min(CFM)	27(953)	27(953)	
Moisture Removal		l/h (pts/hr)	0.83(1.76)	1.01(2.14)	
Sound Level	Indoor,H/M/L/S-Low	dB(A)+3	39/33/25/19	39/33/25/19	
	Outdoor,Max	dB(A)+3	47	47	
Refrigerant & Charge(at 7.5m)		g	R410A, 750	R410A, 750	
Additional Refrigerant Charge		g/m(oz/ft)	20(0.22)	20(0.22)	
Compressor	Type		1P Rotary	1P Rotary	
	Model		GA092MMA	GA092MAB	
	Motor Type		Brushless DC Motor	Brushless DC Motor	
	Oil Type		PVE(FVD68D)	PVE(FVD68D)	
	Oil Charge	cc	310	310	
	O.L.P Name		-	-	
Fan(Indoor)	Type		Cross Flow Fan	Cross Flow Fan	
	Motor Type		BLDC	BLDC	
	Motor Output	W	20	20	
Fan(outdoor)	Type		Propeller, Fan	Propeller, Fan	
	Motor Type		AC	AC	
	Motor Output	W	75	75	
Circuit Breaker		A	15	15	
Power Supply Cable		No.*mm²	3*1.0	3*1.0	
Power and Transmission Cable		No.*mm² + No.*mm²	4*0.75	4*0.75	
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	756*265*184	885*285*210	
		inch	29.8*10.4*7.2	35.2*11.2*8.3	
	Outdoor(W*H*D)	mm	717*483*230	717*483*230	
		inch	28.2*19.0*9.1	28.2*19.0*9.1	
Net Weight	Indoor	kg(lbs)	7.2(15.9)	9(19.8)	
	Outdoor	kg(lbs)	23.2(51.1)	22.0(48.5)	
Gross Weight	Indoor	kg(lbs)	8.6(19.0)	11(24.2)	
	Outdoor	kg(lbs)	24.8(54.7)	23.6(52.1)	
Operation Range	Cooling(Outdoor)	°C(°F)	18 ~ 48 (64.4 ~ 118.4)	18 ~ 48 (64.4 ~ 118.4)	
	Heating(Outdoor)	°C(°F)	-5 ~ 24 (23 ~ 75.2)	-5 ~ 24 (23 ~ 75.2)	
Max. Piping Length		m(ft)	15(49.2)	15(49.2)	
Chargeless		m(ft)	-	-	
Max. Elevation Difference		m(ft)	7(23)	7(23)	
Tool Code(Chassis)	Indoor + Outdoor		SW + UA3 Plus	SB + UA3 Plus	
Fuctions	Temperature Control		O	O	
	Allergy Free Filter		-	-	
	Plasma Filter		-	-	
	Prefilter(washable/anti-fungus)		O	O	
	Auto Clean		O	O	
	CHAOS Wind(Auto Wind)		O	O	
	Steps, Fan/Cool/Heat		3/4/3	3/4/3	
	Airflow Direction Control(up& Down)		O	O	
	Airflow Direction Control(left & right)		-	-	
	Remote Controller Type		Wireless LCD(Better-Remocon)	Wireless LCD(Better-Remocon)	
	Setting Temperature	Cooling		18-30	18-30
		Heating		16-30	16-30
	Auto Operation (Micom Control)		-	-	
	Auto Changeover (Micom Control)		O	O	
	Self Diagnosis		O	O	
	Timer		O	O	
	Sleep Operation		O	O	
	Soft Dry Operation		O	O	
	Restart Delay(minute)		3	3	
	Deice Control(Defrost)		O	O	
	Hot Start		O	O	
	Jet Cool, Jet Heat		O	O	
	Low Ambient Operation		-	-	
	Special Function		-	-	

**Note:**

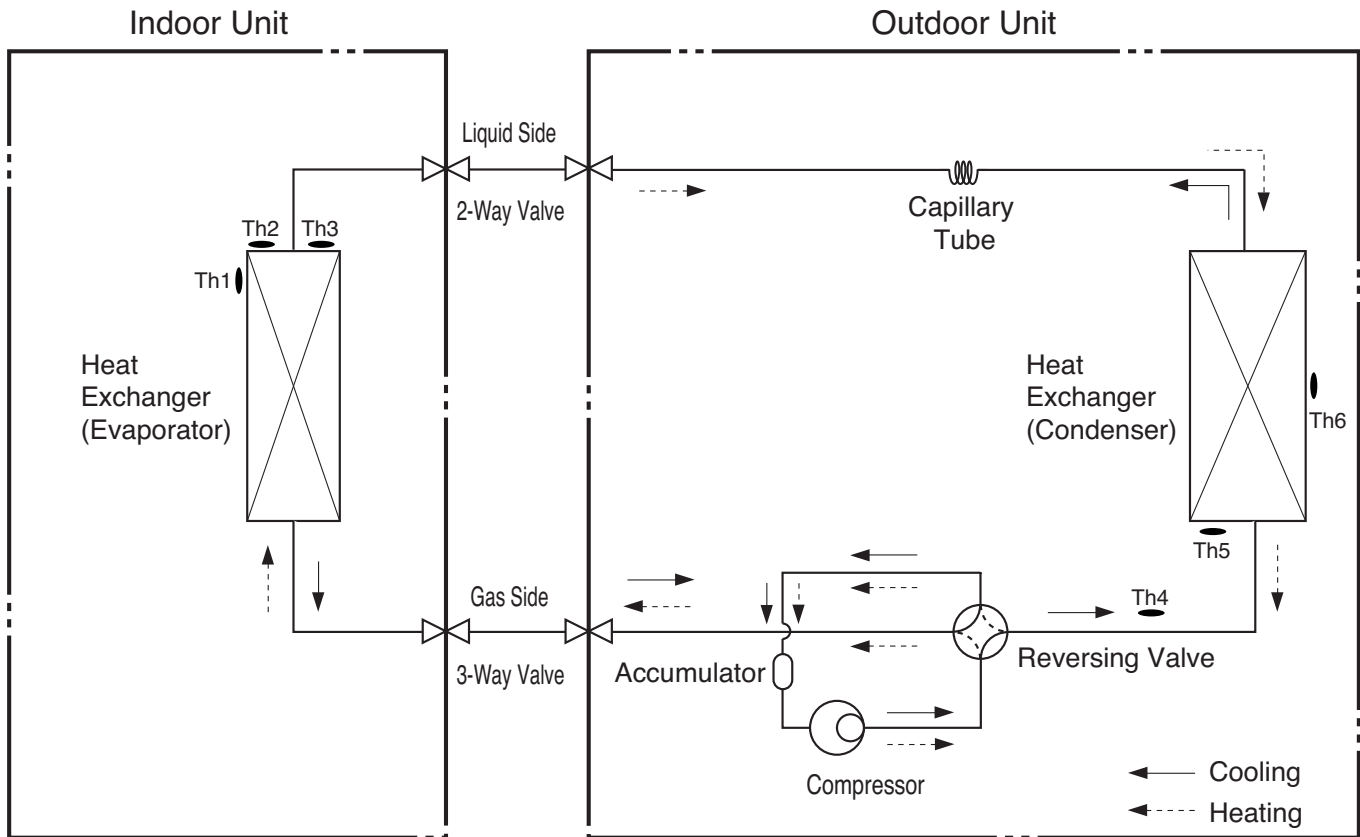
O : Applied, - : No relation

\* 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 notice for purpose of improvement.

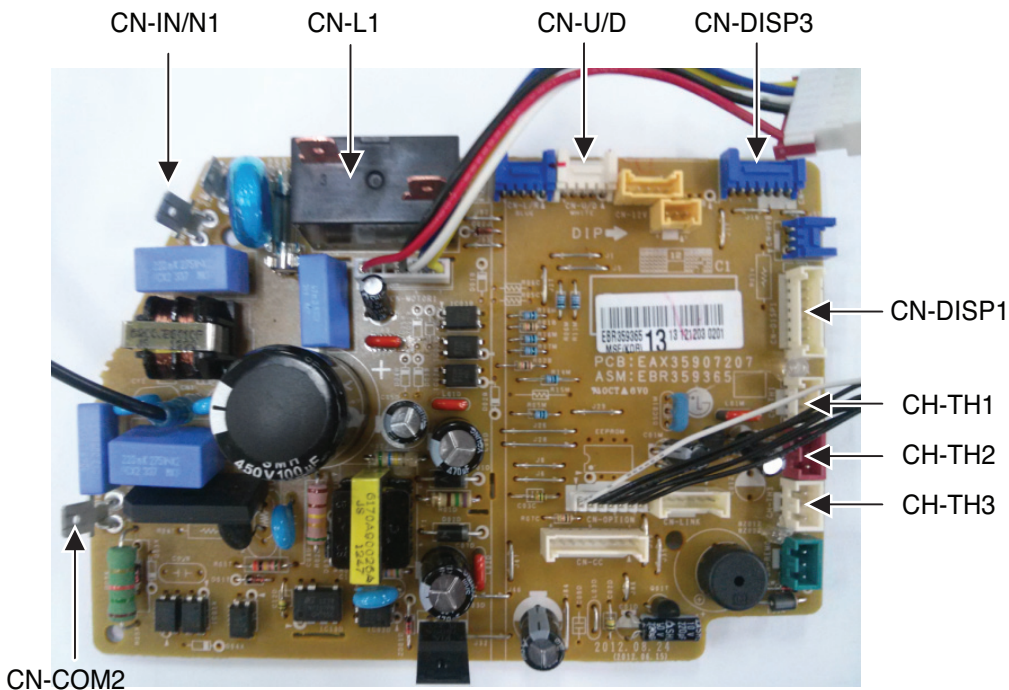
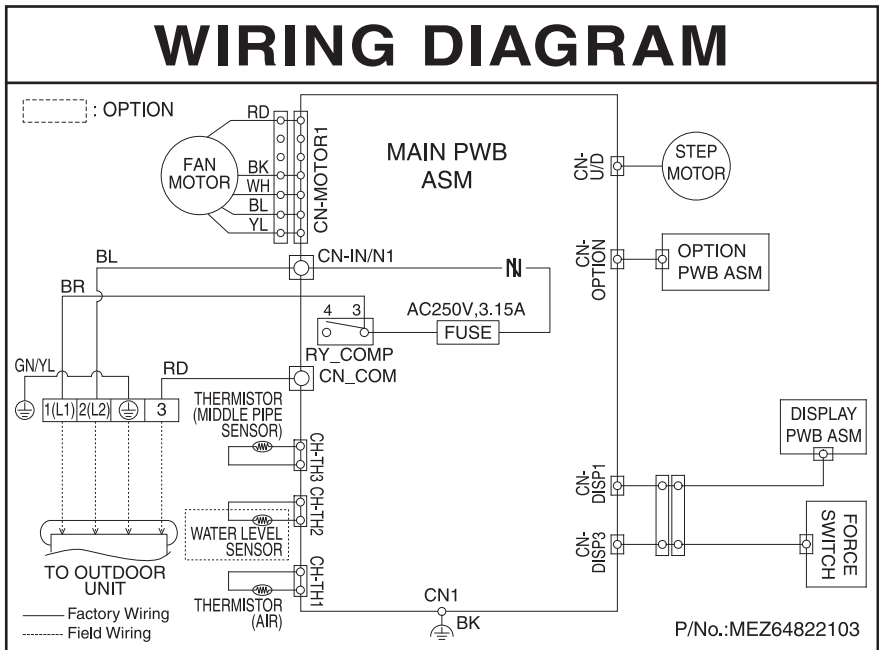
## 2. Piping Diagrams



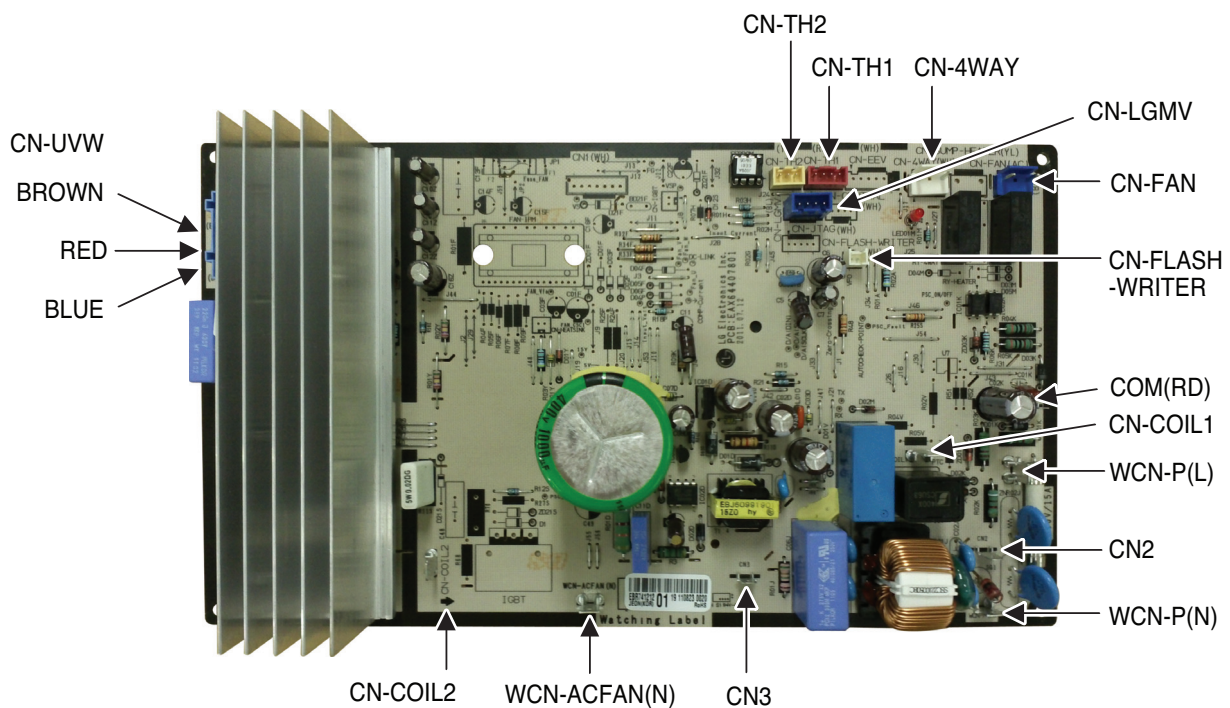
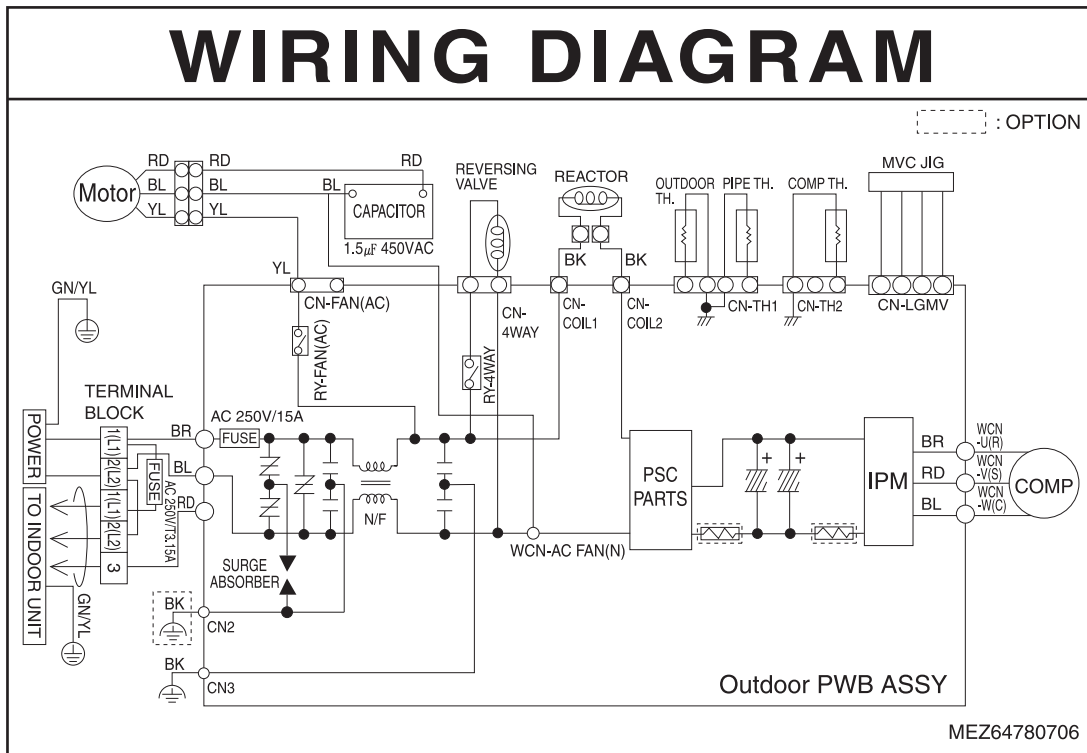
LOC	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CH-TH1(Indoor)
Th2	Water level sensor (Option)	CH-TH2(Indoor)
Th3	Thermistor for evaporating temperature	CH-TH3(INDOOR)
Th4	Thermistor for discharge pipe temperature	CN-TH2(OUTDOOR)
Th5	Thermistor for condensing temperature	CN-TH1(OUTDOOR)
Th6	Thermistor for outdoor air temperature	CN-TH1(OUTDOOR)

# 3. Wiring Diagrams

## Indoor Unit

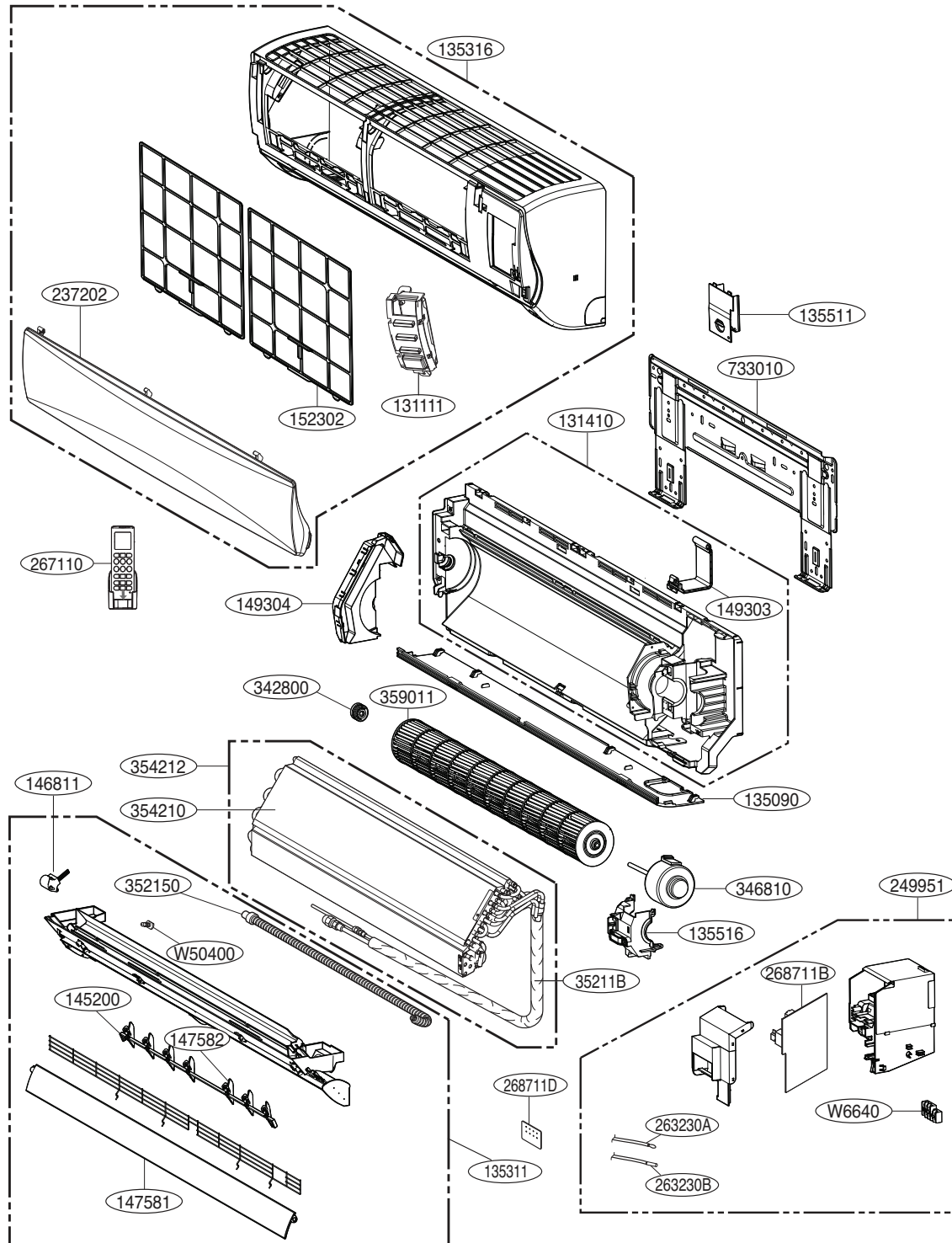


## Outdoor Unit



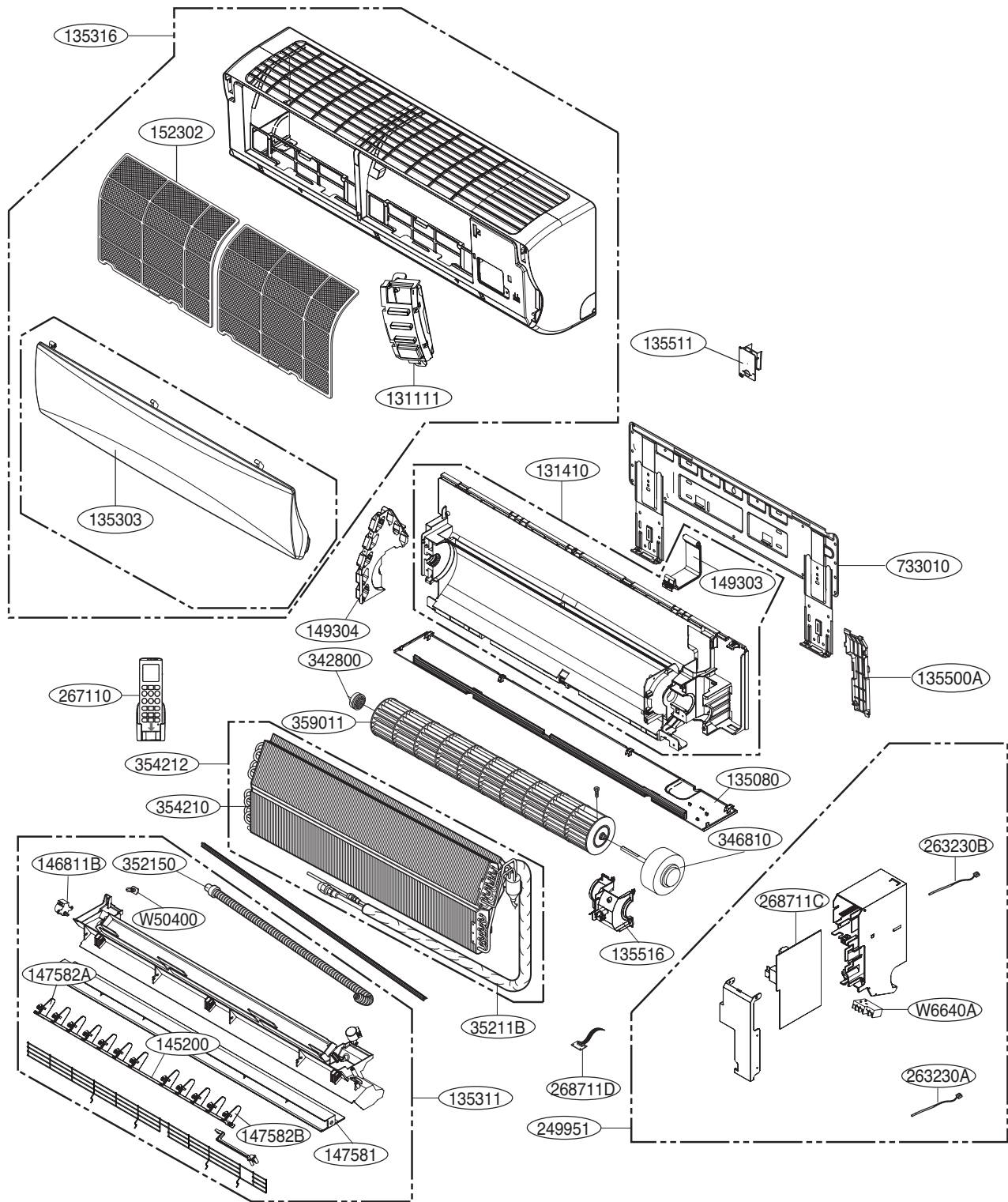
## 4. Exploded View

### Indoor Unit ASNW093WSA7



LOC.	Description	PCB Connector
263230A	Thermistor for indoor air temperature	CN-TH1(Indoor)
263230B	Thermistor for evaporating temperature	CN-TH3(Indoor)

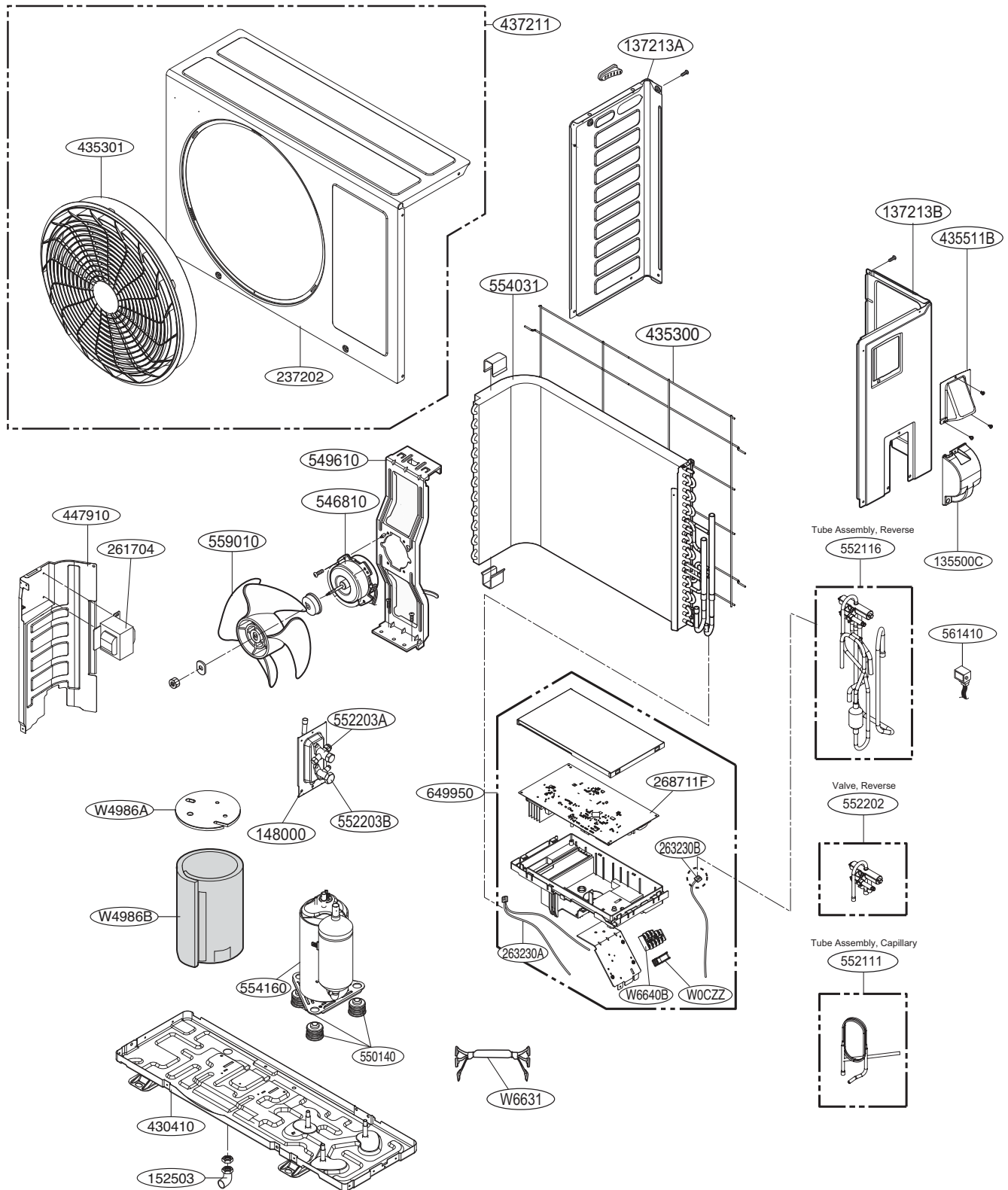
# ASNW123BSA7



LOC.	Description	PCB Connector
263230A	Thermistor for indoor air temperature	CN-TH1(Indoor)
263230B	Thermistor for evaporating temperature	CN-TH3(Indoor)

# Outdoor Unit

## ASUW093WSA7/ASUW123BSA7



LOC.	Description	PCB Connector
263230A	Thermistor for condensing temperature	CN-TH1(Outdoor)
263230B	Thermistor for discharge pipe temperature	CN-TH2(Outdoor)



P/NO : MFL67499915

February, 2015