



Room Air Conditioner

SVC MANUAL(Exploded View)

MODEL : ZMNW09GSJR1
ZMNW12GSJR1
ZMNW18GSKR1
ZMNW24GSKR1
ZMNQ09GSJR1
ZMNQ12GSJR1
ZMNQ18GSKR1
ZMNQ24GSKR1

CAUTION

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

2. Specification

Model Name				ZMNW09GSJR1	ZMNQ09GSJR1	ZMNW12GSJR1	ZMNQ12GSJR1
Power Supply		V / Ø / Hz		220-240, 1, 50	220-240, 1, 50	220-240, 1, 50	220-240, 1, 50
Capacity	Cooling	kW		2.5	2.5	3.5	3.5
	Heating	kW		3.2	-	3.8	-
Power Input		W		11 / 18 / 30	11 / 18 / 30	11 / 19 / 30	11 / 19 / 30
Running Current		A		0.10 / 0.16 / 0.20	0.10 / 0.16 / 0.20	0.10 / 0.17 / 0.20	0.10 / 0.17 / 0.20
Exterior Color code		-		Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)
Dimension s	Body	W × H × D	mm	837 × 308 × 192	837 × 308 × 192	837 × 308 × 192	837 × 308 × 192
		W × H × D	inch	32-15/16 × 12-1/8 × 7-9/16	32-15/16 × 12-1/8 × 7-9/16	32-15/16 × 12-1/8 × 7-9/16	32-15/16 × 12-1/8 × 7-9/16
	Shipping	W × H × D	mm	909 × 383 × 256	909 × 383 × 256	909 × 383 × 256	909 × 383 × 256
		W × H × D	inch	35-25/32 × 15-3/32 × 10-3/32	35-25/32 × 15-3/32 × 10-3/32	35-25/32 × 15-3/32 × 10-3/32	35-25/32 × 15-3/32 × 10-3/32
Net Weight	Body	kg (lbs)		9.4 (20.7)	9.4 (20.7)	9.4 (20.7)	9.4 (20.7)
	Shipping	kg (lbs)		10.0 (22.0)	10.7 (23.6)	10.0 (23.6)	10.0 (23.6)
Heat Exchanger		(Row x Column x Fins)	-	(2 × 15 × 21) × 1	(2 × 15 × 21) × 1	(2 × 15 × 21) × 1	(2 × 15 × 21) × 1
Face Area		m² (ft²)		0.19 (2.05)	0.19 (2.05)	0.19 (2.05)	0.19 (2.05)
Fan	Type	-		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Air Flow	H / M / L	m³/min	9.2 / 7.4 / 5.6	9.2 / 7.4 / 5.6	9.6 / 8.1 / 5.6	9.6 / 8.1 / 5.6
	Rate	H / M / L	ft³/min	325 / 261 / 198	325 / 261 / 198	339 / 286 / 198	339 / 286 / 198
Fan Motor	Type	-		BLDC	BLDC	BLDC	BLDC
	Output	W × No.		30 × 1	30 × 1	30 × 1	30 × 1
Sound Pressure Level		H / M / L	dB(A)	36 / 33 / 27	36 / 33 / 27	40 / 35 / 27	40 / 35 / 27
Sound Power Level		Cooling	dB(A)	57	57	57	57
Piping Conn	Liquid	mm(inch)		Ø 6.35 (1/4)	Ø 6.35 (1/4)	Ø 6.35 (1/4)	Ø 6.35 (1/4)
	Gas	mm(inch)		Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
	Drain (O.D. / I.D.)	mm		Ø 21.5 / 16.0	Ø 21.5 / 16.0	Ø 21.5 / 16.0	Ø 21.5 / 16.0
Safety Devices		-		Fuse	Fuse	Fuse	Fuse
Thermal Protector for Fan Motor		-		Thermal Protector for Fan Motor	Thermal Protector for Fan Motor	Thermal Protector for Fan Motor	Thermal Protector for Fan Motor
Connection Method		-		Flared	Flared	Flared	Flared
Power and Communication Cable (inc)		No. × mm² (AWG)		4C × 1.0 (18)	4C × 1.0 (18)	4C × 1.0 (18)	4C × 1.0 (18)

Model Name				ZMNW18GSKR1	ZMNQ18GSKR1	ZMNW24GSKR1	ZMNQ24GSKR1
Power Supply		V / Ø / Hz		220-240, 1, 50	220-240, 1, 50	220-240, 1, 50	220-240, 1, 50
Capacity	Cooling	kW		5.0	5.0	6.6	6.6
	Heating	kW		5.8	-	7.5	-
Power Input		W		26 / 39 / 60	26 / 39 / 60	27 / 45 / 60	27 / 45 / 60
Running Current		A		0.22 / 0.28 / 0.40	0.22 / 0.28 / 0.40	0.24 / 0.33 / 0.40	0.24 / 0.33 / 0.40
Exterior Color code		-		Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)	Munsell 7.5PB 0.2/20 (RAL 9005)
Dimension s	Body	W × H × D	mm	998 × 345 × 212	998 × 345 × 212	998 × 345 × 212	998 × 345 × 212
		W × H × D	inch	39-9/32 × 13-19/32 × 8-11/32	39-9/32 × 13-19/32 × 8-11/32	39-9/32 × 13-19/32 × 8-11/32	39-9/32 × 13-19/32 × 8-11/32
	Shipping	W × H × D	mm	1,080 × 422 × 286	1,080 × 422 × 286	1,080 × 422 × 286	1,080 × 422 × 286
		W × H × D	inch	42-17/32 × 16-5/8 × 11-1/16	42-17/32 × 16-5/8 × 11-1/16	42-17/32 × 16-5/8 × 11-1/16	42-17/32 × 16-5/8 × 11-1/16
Net Weight	Body	kg (lbs)		12.6 (27.8)	12.6 (27.8)	13.3 (29.3)	13.3 (29.3)
	Shipping	kg (lbs)		14.0 (30.1)	14.0 (30.1)	14.9 (32.9)	14.9 (32.9)
Heat Exchanger		(Row x Column x Fins per inch) x No.	-	(2 × 16 × 20) × 1 + (1 × 8 × 22) × 1	(2 × 16 × 20) × 1 + (1 × 8 × 22) × 1	(2 × 16 × 20) × 1 + (1 × 8 × 22) × 1	(2 × 16 × 20) × 1 + (1 × 8 × 22) × 1
Face Area		m² (ft²)		0.28 (3.01)	0.28 (3.01)	0.28 (3.01)	0.28 (3.01)
Fan	Type	-		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Air Flow	H / M / L	m³/min	14.2 / 11.3 / 9.9	14.2 / 11.3 / 9.9	15.2 / 12.7 / 10.2	15.2 / 12.7 / 10.2
	Rate	H / M / L	ft³/min	501 / 399 / 350	501 / 399 / 350	537 / 449 / 360	537 / 449 / 360
Fan Motor	Type	-		BLDC	BLDC	BLDC	BLDC
	Output	W × No.		60 × 1	60 × 1	60 × 1	60 × 1
Sound Pressure Level		H / M / L	dB(A)	44 / 38 / 35	44 / 38 / 35	46 / 41 / 36	46 / 41 / 36
Sound Power Level		Cooling	dB(A)	59	59	65	65
Piping Conn	Liquid	mm(inch)		Ø 6.35 (1/4)	Ø 6.35 (1/4)	Ø 6.35 (1/4)	Ø 6.35 (1/4)
	Gas	mm(inch)		Ø 12.7 (1/2)	Ø 12.7 (1/2)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
	Drain (O.D. / I.D.)	mm		Ø 21.5 / 16.0	Ø 21.5 / 16.0	Ø 21.5 / 16.0	Ø 21.5 / 16.0
Safety Devices		-		Fuse	Fuse	Fuse	Fuse
Thermal Protector for Fan Motor		-		Thermal Protector for Fan Motor	Thermal Protector for Fan Motor	Thermal Protector for Fan Motor	Thermal Protector for Fan Motor
Connection Method		-		Flared	Flared	Flared	Flared
Power and Communication Cable (inc)		No. × mm² (AWG)		4C × 1.0 (18)	4C × 1.0 (18)	4C × 1.0 (18)	4C × 1.0 (18)

Note:

1. Capacities are based on the following conditions:

Cooling: - Indoor Temperature 27 °C (80.6 °F) DB / 19 °C (66.2 °F) WB

- Outdoor Temperature 35 °C (95 °F) DB / 24 °C (75.2 °F) WB

Heating: - Indoor Temperature 20 °C (68 °F) DB / 15 °C (59 °F) WB

- Outdoor Temperature 7 °C (44.6 °F) DB / 6 °C (42.8 °F) WB

Piping Length - Interconnecting Piping Length 7.5 m

- Level Difference of Zero

2. Wiring cable size must comply with the applicable local and national code.

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

Conversion Formula	
kW	= Btu/h x 0.0002931
cfm	= CMM x 35.3

3. Function

◆ List of functions

Category	Functions	ZMNV09GSJR1, ZMNV12GSJR1, ZMNV18GSKR1, ZMNV24GSKR1	ZMNV09GSJR1, ZMNV12GSJR1, ZMNV18GSKR1, ZMNV24GSKR1
Air flow	Air supply outlet	1	1
	Airflow direction control (left & right)	O (5 Steps)	O (5 Steps)
	Airflow direction control (up & down)	O (6 Steps)	O (6 Steps)
	Auto swing (left & right)	O	O
	Auto swing (up & down)	O	O
	Airflow steps (fan/cool/heat)	6 / 6 / 6	6 / 6 / -
	Chaos wind (auto wind)	O	O
	Jet cool / heat	O / O	O / X
Air purifying	Comfort Air	O	O
	Triple filter	X	X
	Plasma air purifier (ionizer)	O	O
	Allergy Safe filter	X	X
Installation	Long-life prefilter (washable / anti-fungus)	O	O
	Drain pump	X	X
	E.S.P. control*	X	X
	Electric heater	X	X
	High ceiling operation*	X	X
Reliability	Auto Elevation Grille	X	X
	Hot start	O	X
	Self diagnosis	O	O
	De-ice Control (Defrost)	O	X
Convenience	Dry Operation	O	O
	Auto changeover	X	X
	Auto cleaning (Coil Dry)	O	O
	Auto operation (artificial intelligence)	O	O
	Auto Restart	O	O
	Child lock*	O	O
	Forced operation	O	O
	Group control*	X	X
	Sleep mode	O (7hr)	O (7hr)
	Timer (on/off)	O	O
	Timer (weekly)*	O	O
	Two thermistor control*	O	O
	Low Ambient Operation	O	O
	Overheating Protection	O	O
Individual Controller Supply	Wi-Fi	O	O
	Wireless Remote Controller	O**	O**
	Standard Wired Remote Controller	X	X
Network Solution	Simple Wired Remote Controller	X	X
	General central controller (Non LGAP)	X	X
	Network Solution (LGAP)	O	O

Note

1. O : Applied, X : Not applied

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

2. Some functions can be limited by remote controller.

3. In case of ducted type indoor units using the wireless remote controller, it needs to connect the wired remote controller for received the signal of that.

4. In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.

5. * : These functions need to connect the wired remote controller.

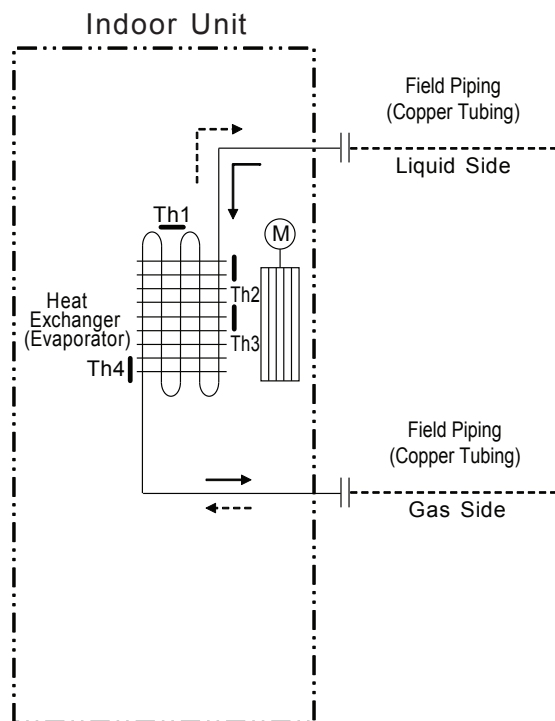
6. ** : It is included by default when the product is manufactured.

3. Fuction

◆ Accessory Compatibility List

Category		Product	Remark	Compatibility
				ZMNW09GSJR1 ZMNW12GSJR1 ZMNW18GSKR1 ZMNW24GSKR1 ZMNQ09GSJR1 ZMNQ12GSJR1 ZMNQ18GSKR1 ZMNQ24GSKR1
Wired Remote Controller	Simple	PQRCVCL0Q(W)	Simple	X
		PQRCHCA0Q(W)	for Hotel	X
	Standard	PREMTB001	Standard (White)	O
		PREMTBB01	Standard (Black)	O
		PREMTB100**	New Standard (White)	O
Premium	PREMTA000(A/B)	Premium	X	
Dry contact	Simple Contact	PDRYCB000	Simple Dry Contact	O
	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	O
		PDRYCB300	-	O
		PDRYCB500	Dry Contact For Modbus	X
Gateway	IDU P485	PHNFP14A0	Connected with the Indoor Units	X
		PSNFP14A0	Connected with the Indoor Units	X
ETC	Remote temperature sensor	PQRSTA0	-	X
	Zone controller	ABZCA	-	X
	Electronic thermostat	AQETC	-	X
	CTI (Communication Transfer Interface)	PKFC0	-	X
	CO ₂ Sensor	PES-C0RV0	-	X
	Group control wire	PZCWRCG3	0.25m	X
	2-Remo Control Wire	PZCWRC2	0.25m	X
	Extension Wire	PZCWRC1	10m	X
	Wi-Fi Controller*	LG-IR-WF-1	-	X
	Telecom shelter controller	PQCSA001T0	-	X
Note 1. O: Possible, X: Impossible, - : Not applicable 2. * : Some advanced functions controlled by individual controller cannot be operated. 3. ** : It could not be operated some functions. 4. If you need more detail, please refer to the BECON PDB or the manual of product. (http://partner.lge.com/global : Home> Download> Manuals)				

4. Refrigerant Cycle Diagram



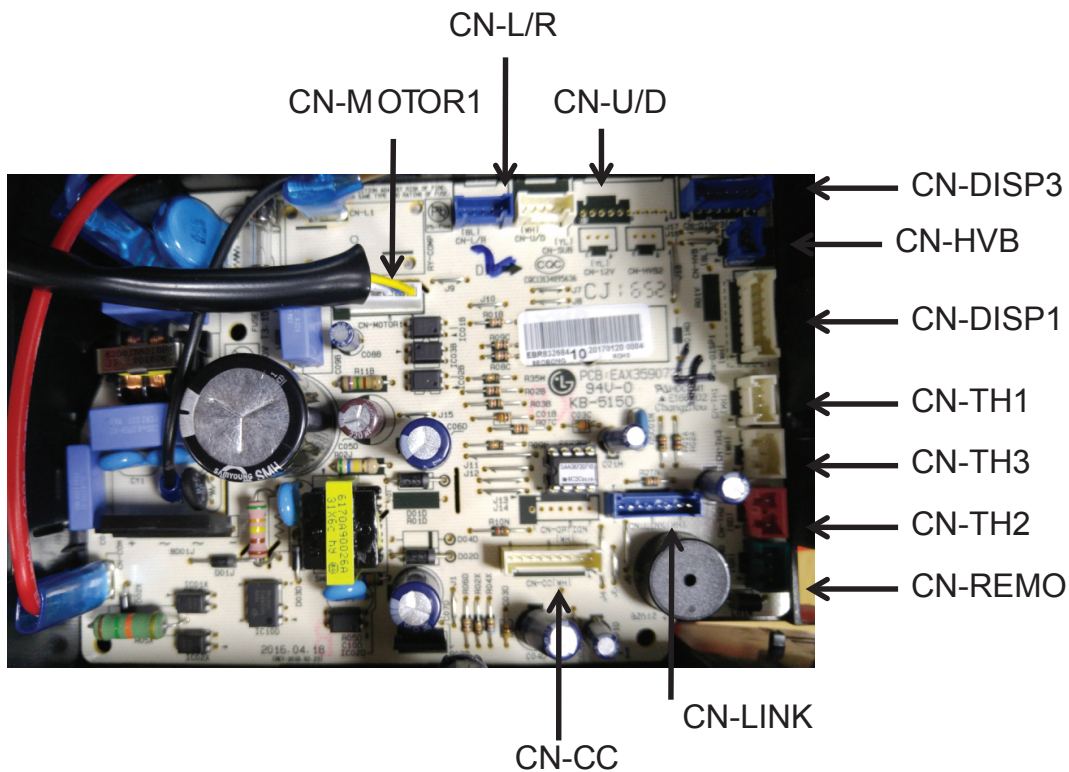
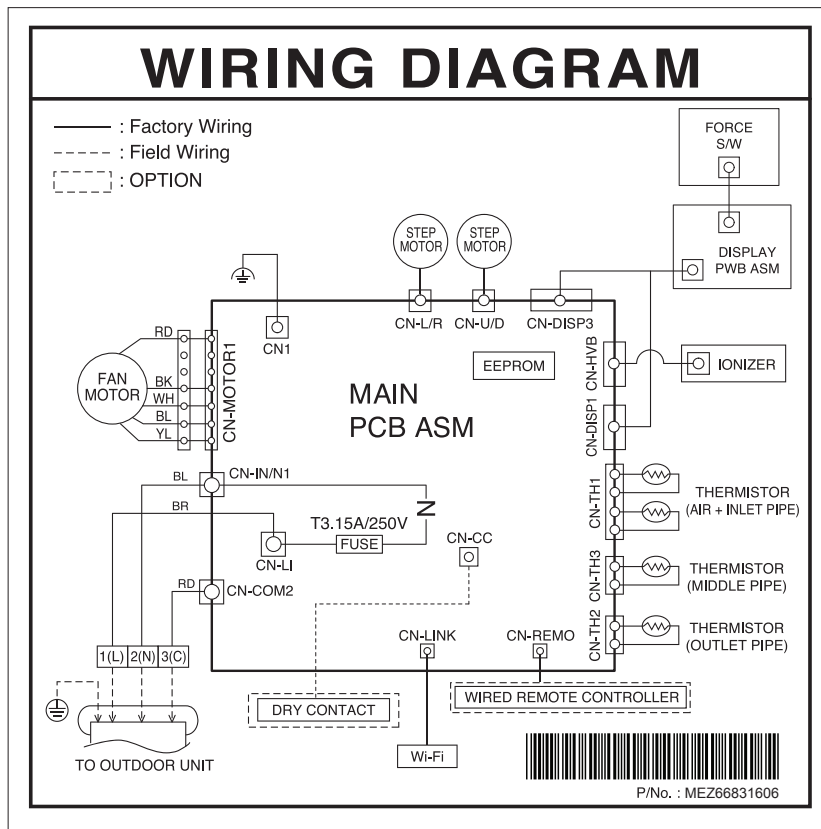
LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-TH1 (Indoor)
Th2	Thermistor for evaporator inlet temperature	
Th3 ¹	Thermistor for evaporator middle temperature	CN-TH3 (Indoor)
Th4	Thermistor for evaporator outlet temperature	CN-TH2 (Indoor)

■ Refrigerant Pipe Connection Port Diameters

Model	Gas		Liquid	
	mm	inch	mm	inch
ZMNW09GSJR1 / ZMNW12GSJR1 / ZMNQ09GSJR1 / ZMNQ12GSJR1	Ø 9.52	Ø 3/8	Ø 6.35	Ø 1/4
ZMNW18GSKR1 / ZMNQ18GSKR1	Ø 12.7	Ø 1/2	Ø 6.35	Ø 1/4
ZMNW24GSKR1/ ZMNQ24GSKR1	Ø 15.88	Ø 5/8	Ø 6.35	Ø 1/4

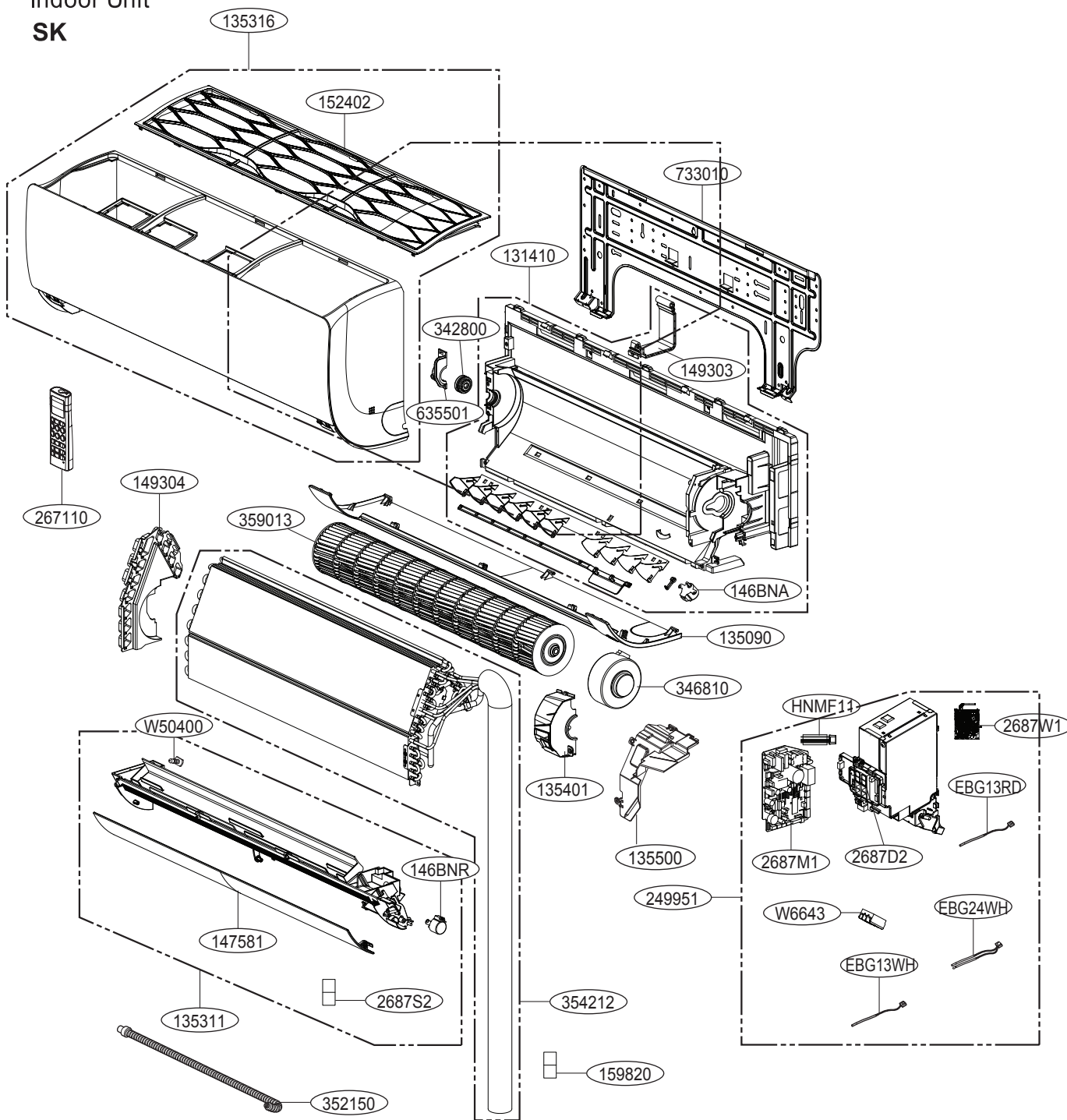
5. Wiring Diagrams

Indoor Unit



6. Exploded View

Indoor Unit SK



LOC.	Description	PCB Connector
EBG24WH	Thermistor for indoor air temperature	CN-TH1 (INDOOR)
EBG24WH	Thermistor for evaporator inlet temperature	CN-TH1 (INDOOR)
EBG13WH	Thermistor for evaporator middle temperature	CN-TH3 (INDOOR)
EBG13RD	Thermistor for evaporator outlet temperature	CN-TH2 (INDOOR)

Indoor Unit
SJ