



CONFIDENTIAL

Multi Air Conditioner

SVC MANUAL(Exploded View)

**MODEL : Z2UW14GFA3 [MU2R15 U13]
Z2UW16GFA3 [MU2R17 U13]
Z3UW18GFA3 [MU3R19 U23]
Z3UW21GFA3 [MU3R21 U23]**

CAUTION

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

1. Specification

Outdoor unit				Z2UW14GFA3 [MU2R15 U13]	Z2UW16GFA3 [MU2R17 U13]
Compressor	Type			Twin Rotary	Twin Rotary
Capacity *	Cooling	Min/Norn/Max	kW	0.88 / 4.10 / 4.72	0.88 / 4.69 / 5.39
	Heating	Min/Norn/Max	kW	0.97 4.69 5.39	0.97 5.10 / 5.51
Low Temperature Capacity	Heating(-7 °C)	Max	kW	3.70	3.70
Power Input *	Cooling	Min/Norn/Max	kW	0.23 / 1.00 / 1.39	0.23 / 1.22 / 1.81
	Heating	Min/Norn/Max	kW	0.24 / 1.07 / 1.46	0.24 / 1.20 / 1.51
Running Current	Cooling	Min/Norn/Max	A	1.0 / 4.4 / 6.2	1.0 / 5.5 / 8.0
	Heating	Min/Norn/Max	A	1.0 / 4.7 / 6.5	1.0 / 5.3 / 6.7
EER				4.10	3.84
COP				4.40	4.25
SEER				8.60	8.50
SCOP				4.61	4.61
Pdesign(@-10 °C)			kW	3.60	3.60
Seasonal Energy Label	Cooling/Heating		-	A+++ A++	A+++ A++
Annual Energy Consumption	Cooling/Heating		kWh	167 / 1,095	193 / 1,095
Airflow Rate	Norn		m³/min	35	35
Sound Pressure	Cooling	Norn	dBA	45	46
	Heating	Norn	dBA	48	49
Sound Power	Cooling	Max	dBA	60	61
Dimensions	W x H x D		mm	770 x 545 x 288	770 x 545 x 288
NetWeight			kg	32.5	32.5
Refrigerant	Type / Charge kg-TCO			R32	R32
	Charge		kg	1.04	1.04
	Additional charge		g/m	20	20
	GWP			675	675
	T-C02 eq			0.702	0.702
Operation Range(Outdoor)	Cooling	Min - Max	°C DB	-10 ~ 48	-10 ~ 48
	Heating	Min - Max	°C DB	-15 ~ 18	-15 ~ 18
Power Supply			Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
Power Supply Cable			No. x mm²	3C x 2.5	3C x 2.5
Transmission Cable			No. x mm²	4C x 0.75	4C x 0.75
Circuit Breaker			A	13	13
Piping Length Total			m	30	30
Piping Length per Branch		Max	m	20	20
Piping Elevation Difference	IDU-ODU	Max	m	15	15
	IDU-IDU	Max	m	7.5	7.5
Piping Connection	Liquid		mm(inch) x No.	Ø 6.35(1/4) x 2	Ø 6.35(1/4) x 2
	Gas		mm(inch) x No.	Ø 9.52(3/8) x 2	Ø 9.52(3/8) x 2

Notes:

1. All data are based on the following conditions:

- Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB
Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB
- Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB
Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
- Piping Length : Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero

2. Wiring cable size must comply with the applicable local and national code.
3. Due to our policy of innovation some specifications may be changed without notification.
4. Sound Level Values are measured at Anechoic chamber.
Therefore, these values can be increased(maximum 3dB(A)) owing to ambient conditions during operation.

1. Specification

Outdoor Unit				Z3UW18GFA3 [MU3R19 U23]	Z3UW21GFA2 [MU3R21 U23]
Compressor	Type		-	Twin Rotary	Twin Rotary
Capacity	Cooling	Min / Nom / Max	kW	1.06 / 5.27 / 6.33	1.06 / 6.15 / 7.33
	Heating	Min / Nom / Max	kW	1.17 / 6.33 / 7.33	1.17 / 7.03 / 7.80
Capacity (@ -7°C) Low Temperature	Heating	Max	kW	5.20	5.50
Power Input*	Cooling	Min / Nom / Max	kW	0.23 / 1.19 / 1.70	0.29 / 1.48 / 2.41
	Heating	Min / Nom / Max	kW	0.24 / 1.32 / 1.93	0.28 / 1.56 / 2.20
Running Current*	Cooling	Min / Nom / Max	A	1.3 / 5.3 / 7.6	1.3 / 6.6 / 10.7
	Heating	Min / Nom / Max	A	1.3 / 5.9 / 8.6	1.3 / 6.9 / 9.8
EER				4.43	4.15
COP				4.80	4.51
SEER				8.60	8.50
SCOP				4.65	4.65
Pdesign(@-10°C)			kW	5.00	5.00
Seasonal Energy Label	Cooling / Heating		-	A+++ / A++	A+++ / A++
Annual Energy Consumption	Cooling / Heating		kWh	215 / 1,505	253 / 1,505
Air Flow Rate		Nom	m ³ /min x No.	50	50
Sound Pressure Level	Cooling	Nom	dB(A)	47	48
	Heating	Nom	dB(A)	50	51
Sound Power Level	Cooling	Max.	dB(A)	61	62
Dimensions	W x H x D		mm	1041 x 693 x 456	1041 x 693 x 456
Net Weight			kg	44.5	44.5
Refrigerant	Type		-	R32	R32
	Charge		kg	1.4	1.4
	Additional Charging Volume		g/m	20	20
	GWP (Global Warming Potential)		-	675	675
	t-CO2 eq.		-	0.945	0.945
Operation Range (Outdoor)	Cooling	Min. ~ Max.	°C DB	-10 ~ 48	-10 ~ 48
	Heating	Min. ~ Max.	°C WB	-15 ~ 18	-15 ~ 18
Power Supply			Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
Power Supply Cable			No. x mm ²	3C x 2.5	3C x 2.5
Transmission Cable			No. x mm ²	4C x 0.75	4C x 0.75
Circuit Breaker			A	16	16
Piping Length Total			m	50	50
Piping Length per Branch		Max	m	25	25
Maximum Height Difference	ODU~IDU	Max.	m	15	15
	IDU~IDU	Max.	m	7.5	7.5
Piping Connections	Liquid		mm(inch) x No.	Ø 6.35 (1/4) x 3	Ø 6.35 (1/4) x 3
	Gas		mm(inch) x No.	Ø 9.52 (3/8) x 3	Ø 9.52 (3/8) x 3

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2. List of Functions & Accessory

2.1 List of Functions

Category	Functions	Z2UW14GFA3 [MU2R15 U13] Z2UW16GFA3 [MU2R17 U13]	Z3UW18GFA3 [MU3R19 U23] Z3UW21GFA3 [MU3R21 U23]
Reliability	Defrost / Deicing	O	O
	High pressure switch	O	O
	Low pressure switch	X	X
	Phase protection	X	X
	Restart delay (3-minutes)	O	O
	Self diagnosis	O	O
	Soft start	O	O
Convenience	Test function	O	O
	Night Silent Operation	O	O
	Wiring Error Check	O	O
	Peak Control	O	O
	Mode Lock	O	O
	Forced Cooling Operation (Outdoor Unit)	O	O
	SLC (Smart Load Control)	X	X
Network function	Network solution(LGAP)	X	O
ODU Dry Contact (On/off control only)		X	X

Notes:

O : Applied, x : Not applied

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

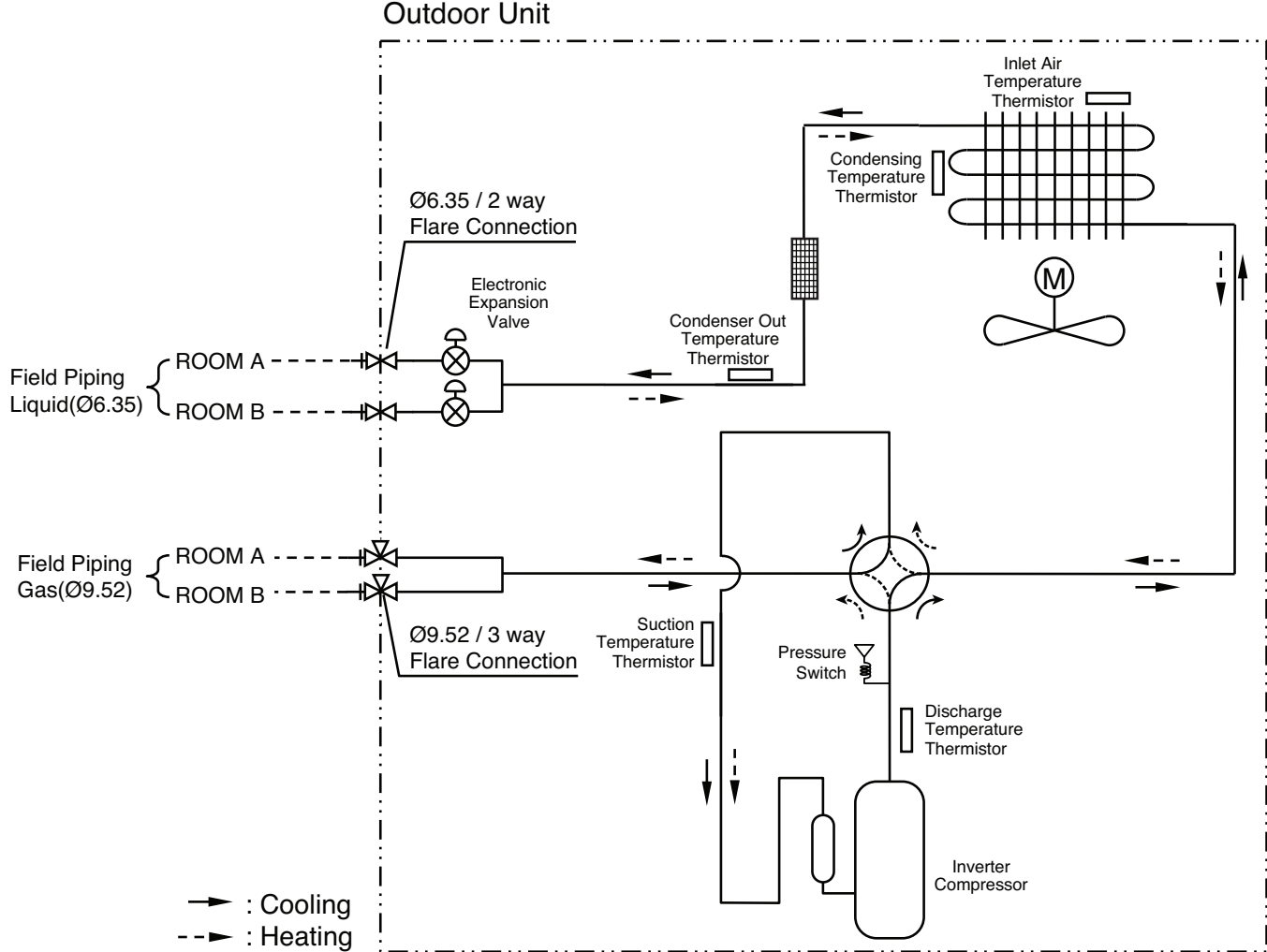
Accessory model name : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

2.2 List of Accessory

Category	Functions	Z2UW14GFA3 [MU2R15 U13] Z2UW16GFA3 [MU2R17 U13]	Z3UW18GFA3 [MU3R19 U23] Z3UW21GFA3 [MU3R21 U23]
Central Controller	AC EZ	X	PQCSZ250S0
	AC Ez Touch	X	PACEZA000
	AC Smart 5	X	PACS5A000
	ACP 5	X	PACP5A000
	AC Manager 5	X	PACM5A000
	PI 485 Gateway	X	PMNFP14A1
Installation	Y Brench	X	X
	Header Brench	X	X
BNU (Building Network Unit)	ACP BACnet	X	PQNFB17C0
	ACP Lonworks	X	PLNWKB000
	Lon Translator	X	X
PDI	PDI Standard	X	PPWRDB000
	PDI Premium	X	PQNUD1S40
Low Ambient Kit		X (Logical Operation)	X (Logical Operation)

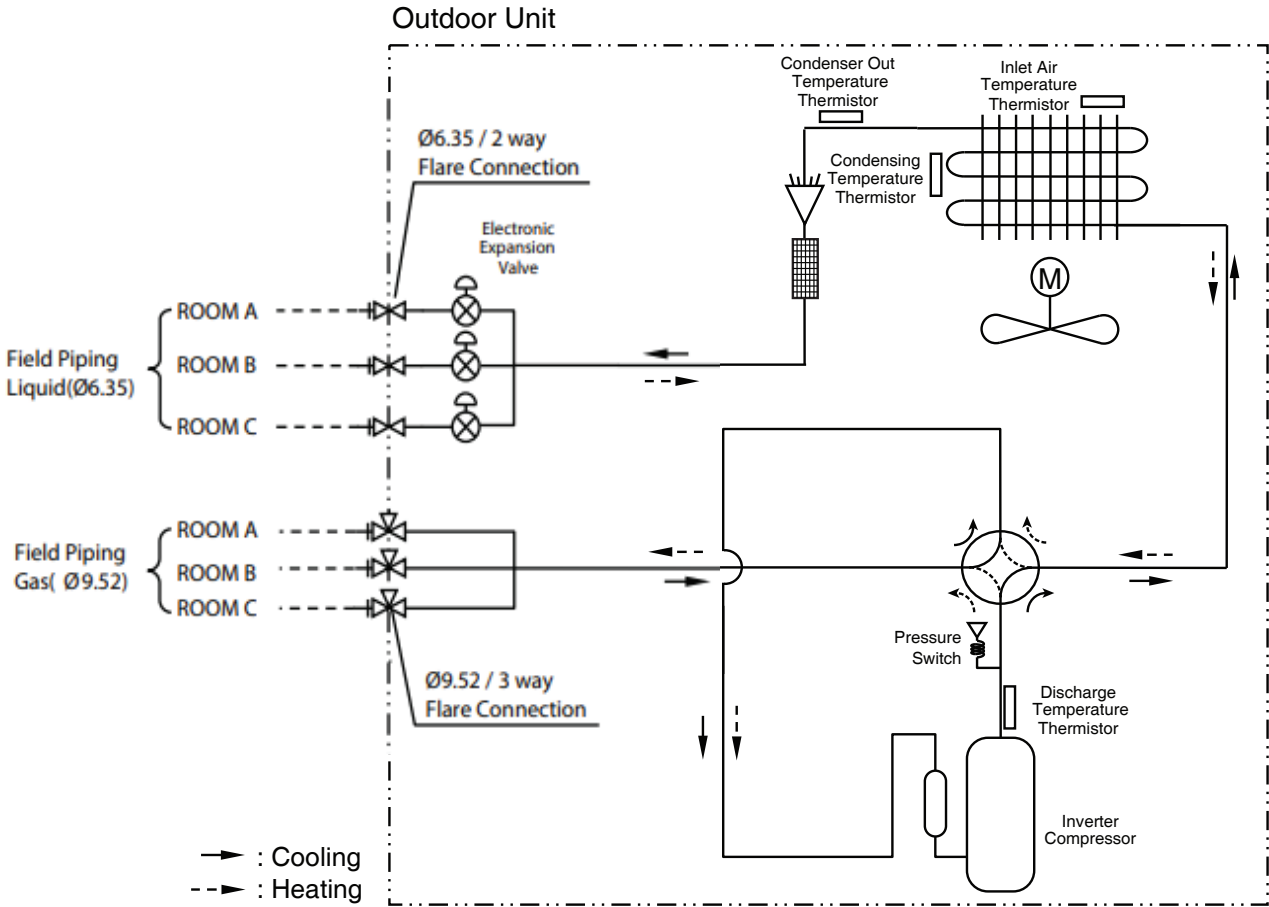
3. Piping Diagrams

3.1 14, 16K



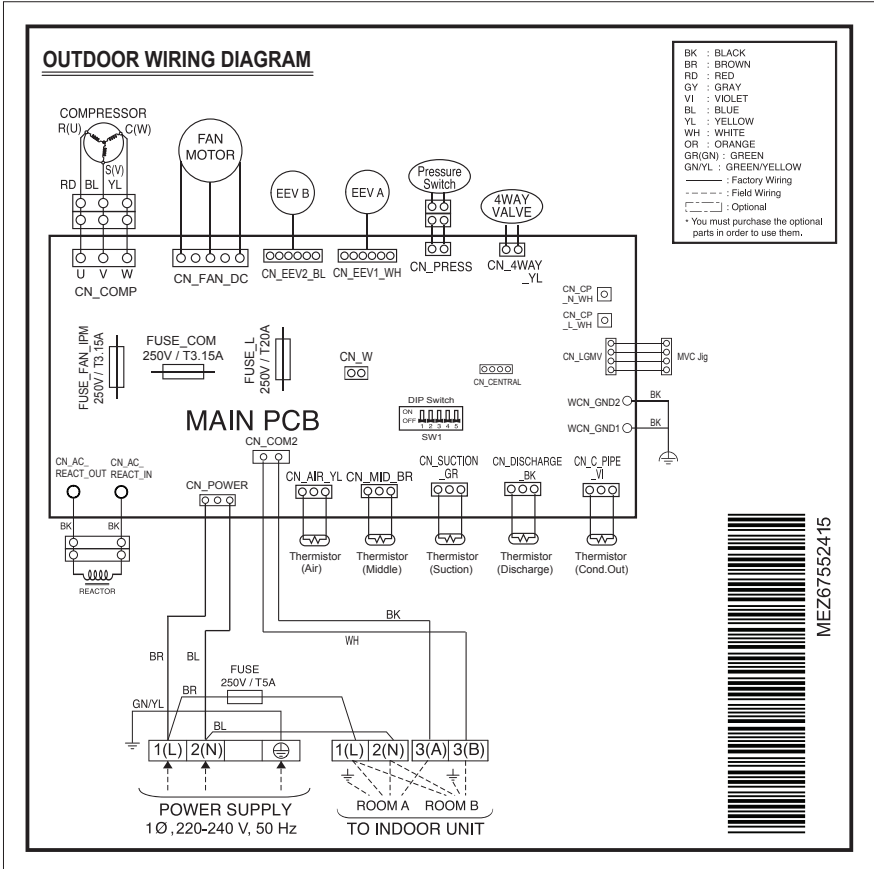
3. Piping Diagrams

3.2 18, 21K

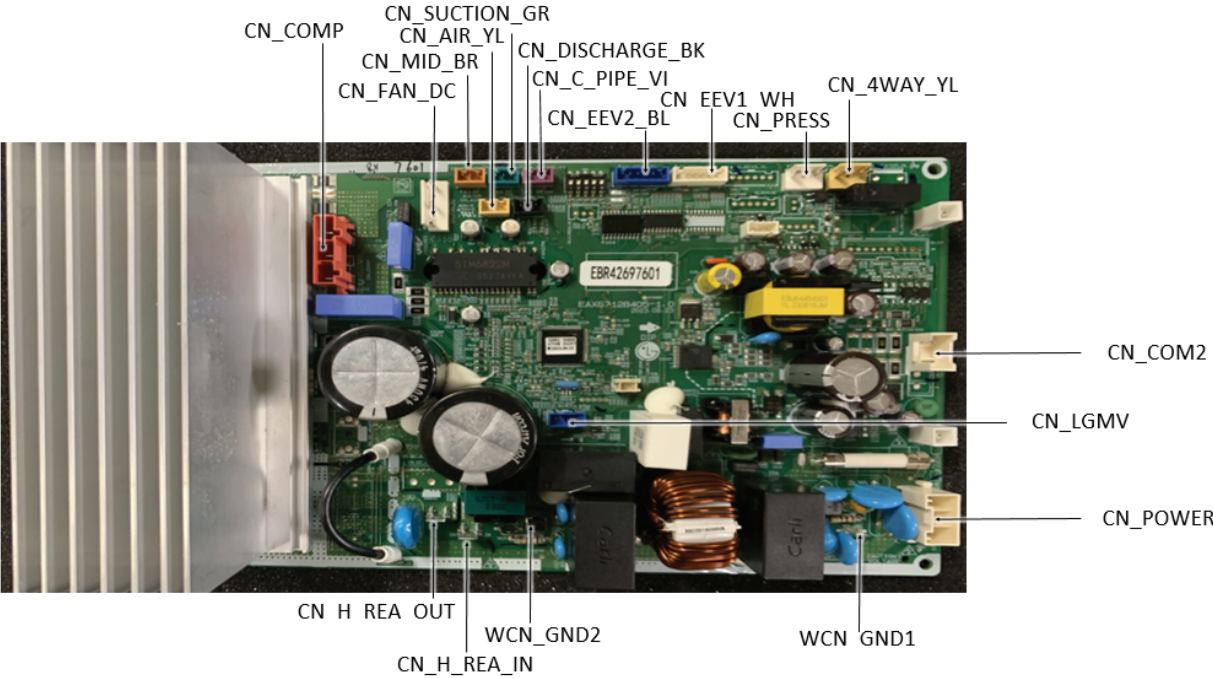


4. Wiring Diagrams

4.1 14, 16K

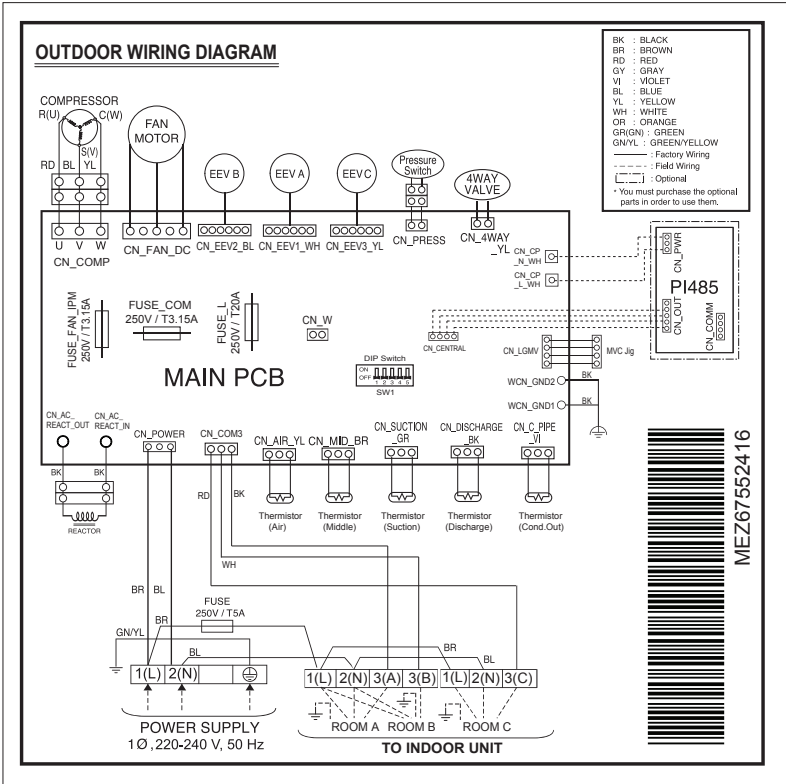


Main PCB

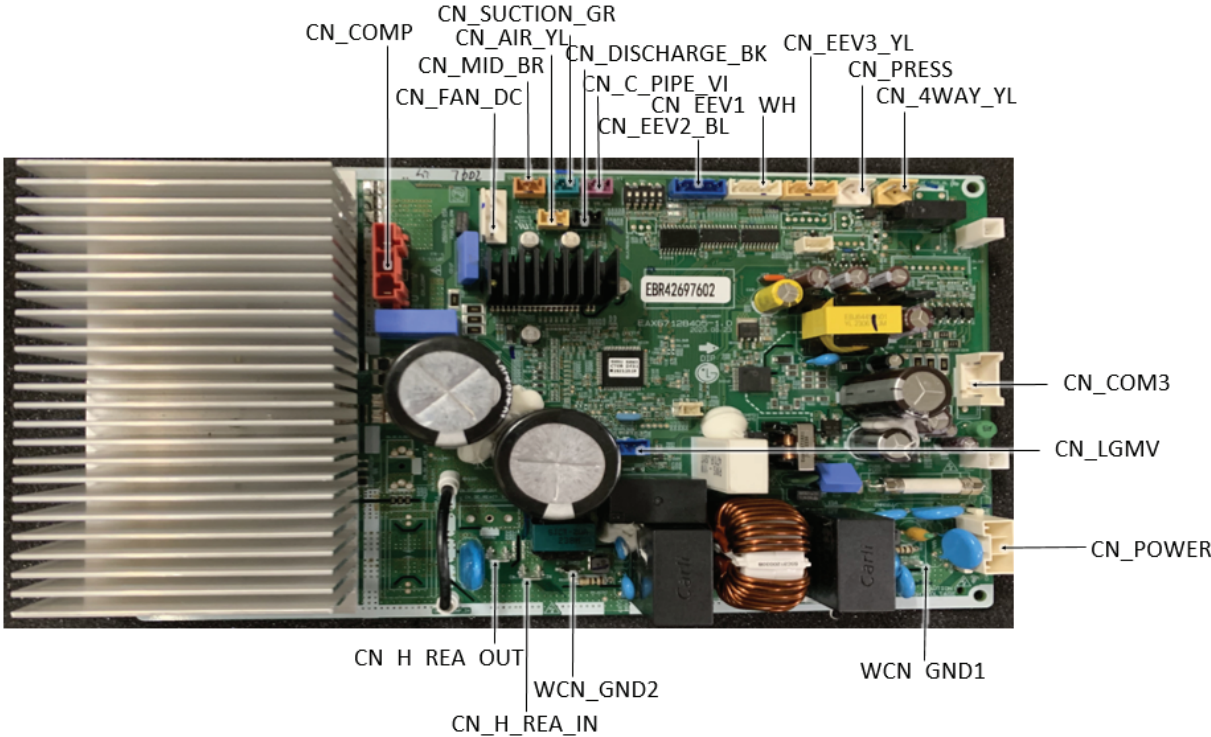


4. Wiring Diagrams

4.2 18, 21K



Main PCB



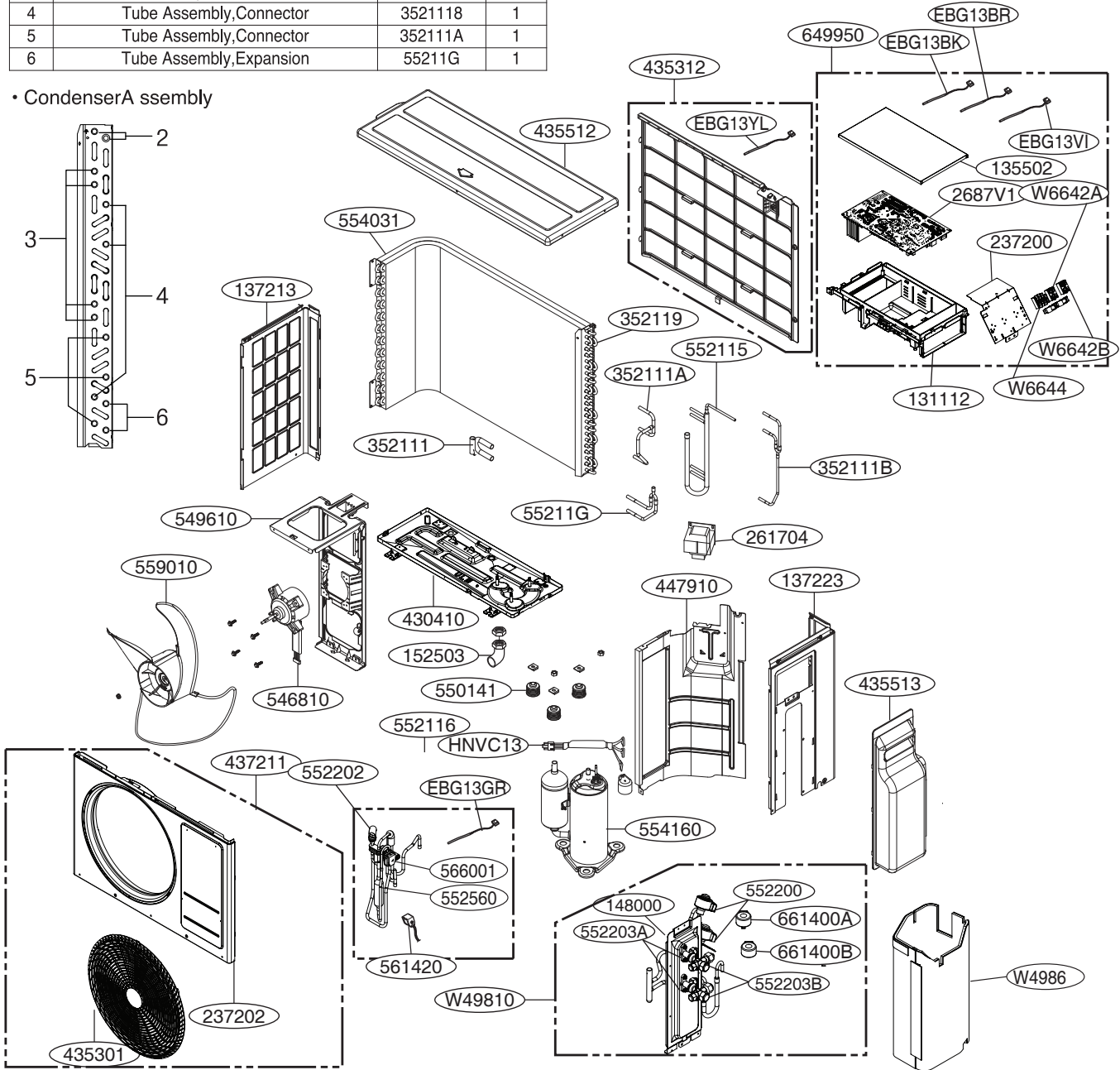
5. Exploded View

14, 16K

● Condenser List

No.	Description	SVC Loc	Q'ty
1	Condenser Assembly, Bending	554031	1
2	Tube Assembly, Connector	352111	1
3	Tube Assembly, Manifold (Outdoor)	552115	1
4	Tube Assembly, Connector	3521118	1
5	Tube Assembly, Connector	352111A	1
6	Tube Assembly, Expansion	55211G	1

• Condenser Assembly



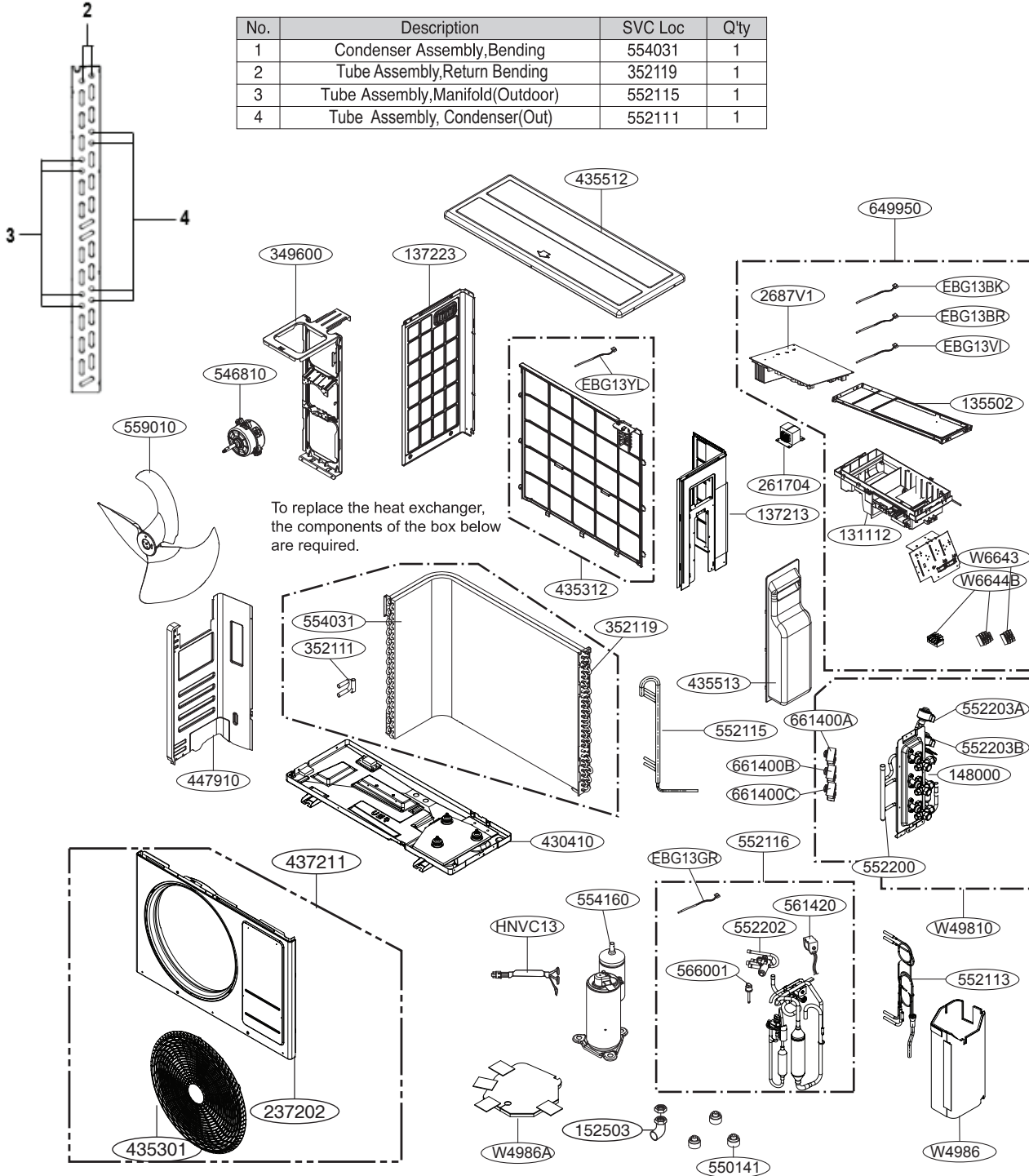
Location No.	Description	Sensor Information	Housing Color
EBG13BR	Thermisot1(C1_MID_BR)	Cond Middle Pipe	Brown
EBG13BK	Thermisotr2(CN_DISCHARGE_BK)	Discharge Pipe	Black
EBG13GR	Thermisotr3(CN_SUCTION_GR)	Suction Pipe	Green
EBG13VI	Thermistor4(CN_C_PIPE_VI)	Cond-Out Pipe	Violet
EBG13YL	Thermistor5(CN_AIR_YL)	Air	Yellow

5. Exploded View

18, 21K

• CondenserA ssembly

● Condenser List



No.	Description	SVC Loc	Q'ty
1	Condenser Assembly,Bending	554031	1
2	Tube Assembly,Return Bending	352119	1
3	Tube Assembly,Manifold(Outdoor)	552115	1
4	Tube Assembly, Condenser(Out)	552111	1

Location No.	Description	Sensor Information	Housing Color
EBG13BK	Thermistor1(CN_DISCHARGE_BK)	Discharge Pipe	Black
EBG13GR	Thermistor2(CN_SUCTION_GR)	Suction Pipe	Green
EBG13VI	Thermistor3(CN_C_PIPE_VI)	Cond-Out Pipe	Violet
EBG13BR	Thermistor4(C_MID_BR)	Cond Middle Pipe	Brown
EBG13YL	Thermistor5(CN_AIR_YL)	Air	Yellow



P/NO : MFL71922804