



CONFIDENTIAL

Air Conditioner

SERVICE MANUAL

(Exploded View)

**MODEL : ZU UW48GA1 [UUD1 U30]
ZU UW48LA1 [UUD3 U30]**

CAUTION

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

1. Specification

Model				ZUUW48GA1.EWGBEEU UUD1.U30	ZUUW48LA1.EWGBEEU UUD3.U30
				U3(1Phase)	U3(3Phase)
Power Supply		V, Ø, Hz		220-240, 1, 50	380-415, 3, 50
		V, Ø, Hz		220, 1, 60	380, 1, 60
Power Factor	Rate	-		0.98	0.98
Running Current	Max.	A		28.0	16.1
ELCB Capacity		A(↑)		40	20
Power Supply Cable (included Earth)	ODU	CV(H07RN-F)	mm ³ x Cores	6.0 x 3 (10.0 x 3)	2.5 x 5 (4.0 x 5)
Power and Communication Cable (included Earth)	IDU ↔ ODU	VCTF-SB	mm ³ x Cores	0.75 x 4	0.75 x 4
Casing Color		-		Warm Gray	Warm Gray
Dimensions	Net	W x H x D	mm	950 x 1,380 x 330	950 x 1,380 x 330
	Shipping	W x H x D	mm	1,140 x 1,549 x 461(Wood)	1,140 x 1,549 x 461(Wood)
				1,140 x 1,462 x 461(EPS)	1,140 x 1,462 x 461(EPS)
Weight	Net		kg	85	85
	Shipping		kg	100	100
Compressor	Type		-	Inverter Scroll	Inverter Scroll
	Model		Model x No.	RJB036MAB × 1	RJB036MAB × 1
	Motor type		-	BLDC	BLDC
	Motor Output		W x No.	3200 x 1	3200 x 1
Refrigerant	Type		-	R32	R32
	GWP (Global Warming Potential)		-	675	675
	Precharged Amount		kg	3.0	3.0
	t-CO ₂ eq.		-	2.025	2.025
	Control		-	EEV	EEV
	Chargeless-Pipe Length		m	7.5	7.5
	Additional Charging Volume		g/m	40	40
Refrigerant Oil	Type		-	FW68D	FW68D
	Charged volume		cc x No.	1,100 x 1	1,100 x 1
Heat Exchanger	(Row x Column x FPI) x No.		-	(2 x 32 x 14) x 2	(2 x 32 x 14) x 2
Fan	Type		-	Propeller	Propeller
	Air Flow Rate	Rated	m ³ /min x No.	55 x 2	55 x 2
	RPM	Max.	Rev./Min	670	670
Fan Motor	Type		-	BLDC	BLDC
	Drive		-	External	External
	Output		W x No.	124 x 2	124 x 2
Piping Connections	Liquid	Outer Dia.	mm	Ø 9.52(3/8)	Ø 9.52(3/8)
	Gas	Outer Dia.	mm	Ø 15.88 (5/8)	Ø 15.88 (5/8)
	Connections Method		-	Flared	Flared
Maximum Height Difference (ODU ~ IDU)	Max.		m	30	30
max allowable pressure	High / Low Pressue Parts		Mpa	4.32 / 2.4	4.32 / 2.4

Note:

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 = 7.5 m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.

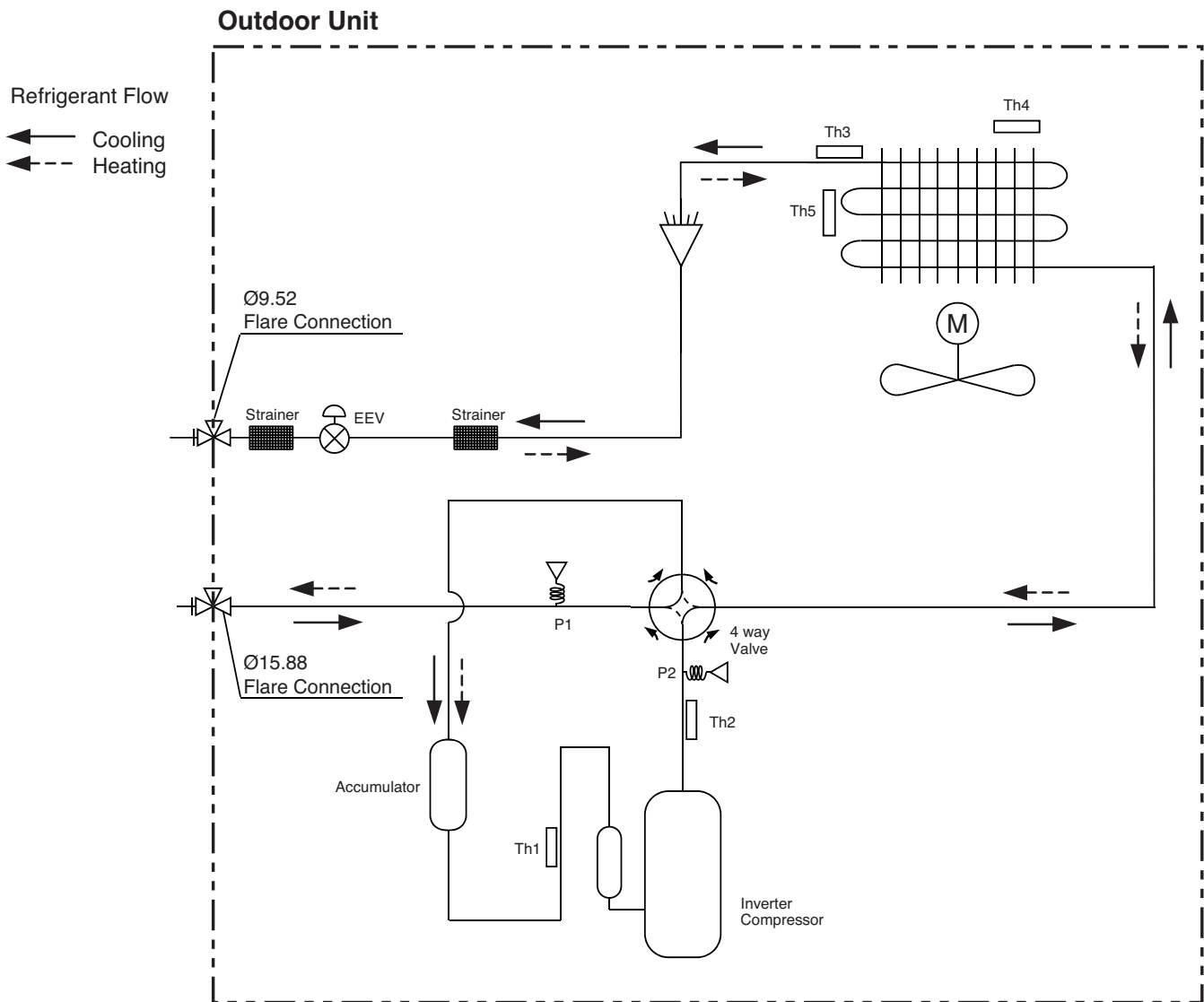
2. Wiring cable size must comply with the applicable local and national code.

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 3 dB(A)) owing to ambient conditions during operation.

2. Piping Diagrams

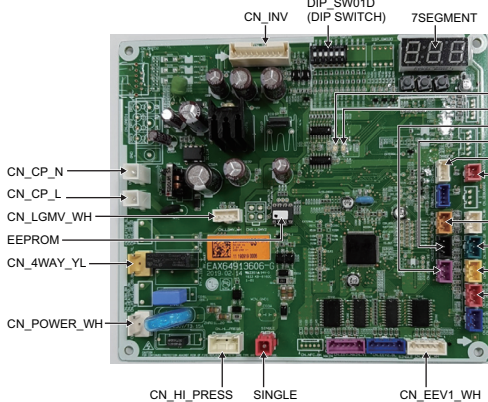
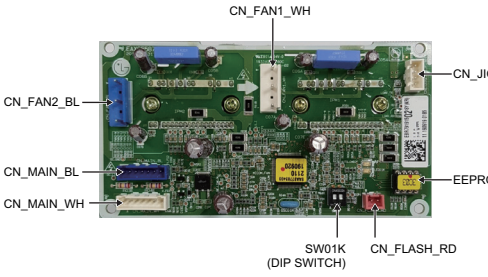
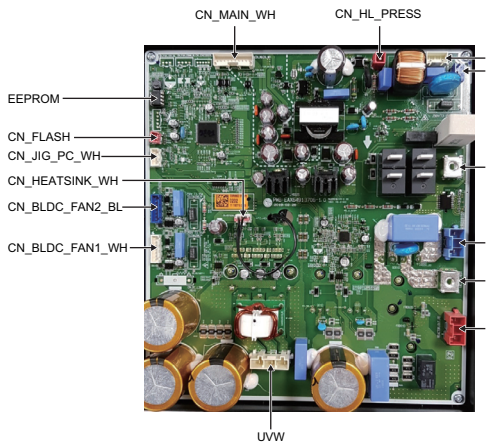
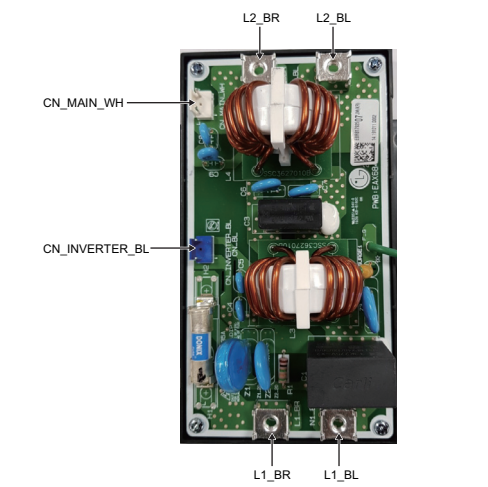
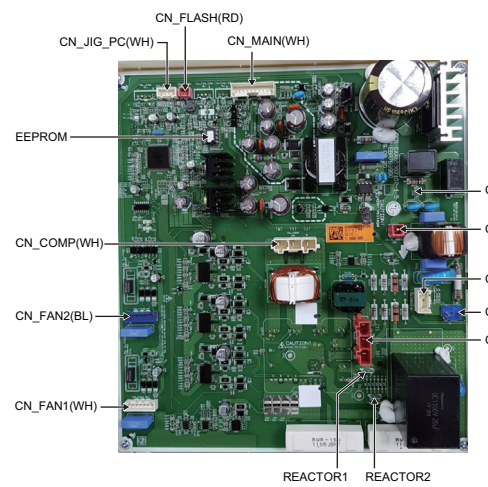
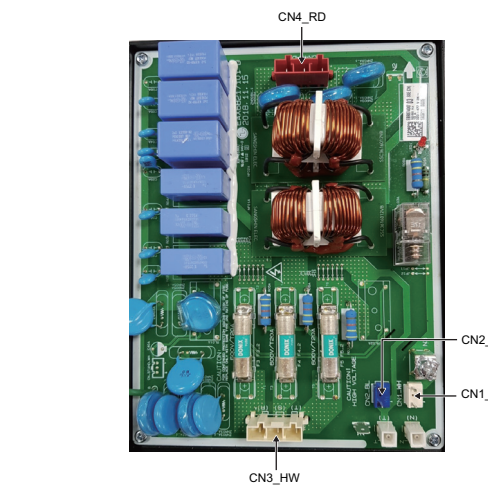


LOC.	Description	PCB Connector
EEV	Electronic Expansion Valve	CN_EEV1_WH
Th1	Thermistor for suction pipe temperature	CN_SUCTION(GR)
Th2	Thermistor for discharge pipe temperature	CN_DISCHA(BK)
Th3	Thermistor for condenser pipe temperature	CN_C_PIPE(VI)
Th4	Thermistor for outdoor air temperature	CN_AIR(YL)
Th5	Thermistor for condenser middle pipe temperature	CN_MID(BR)
P1	Pressure sensor	CN_H_PRESS_RD
P2	Pressure switch	CN__PRESS(WH)

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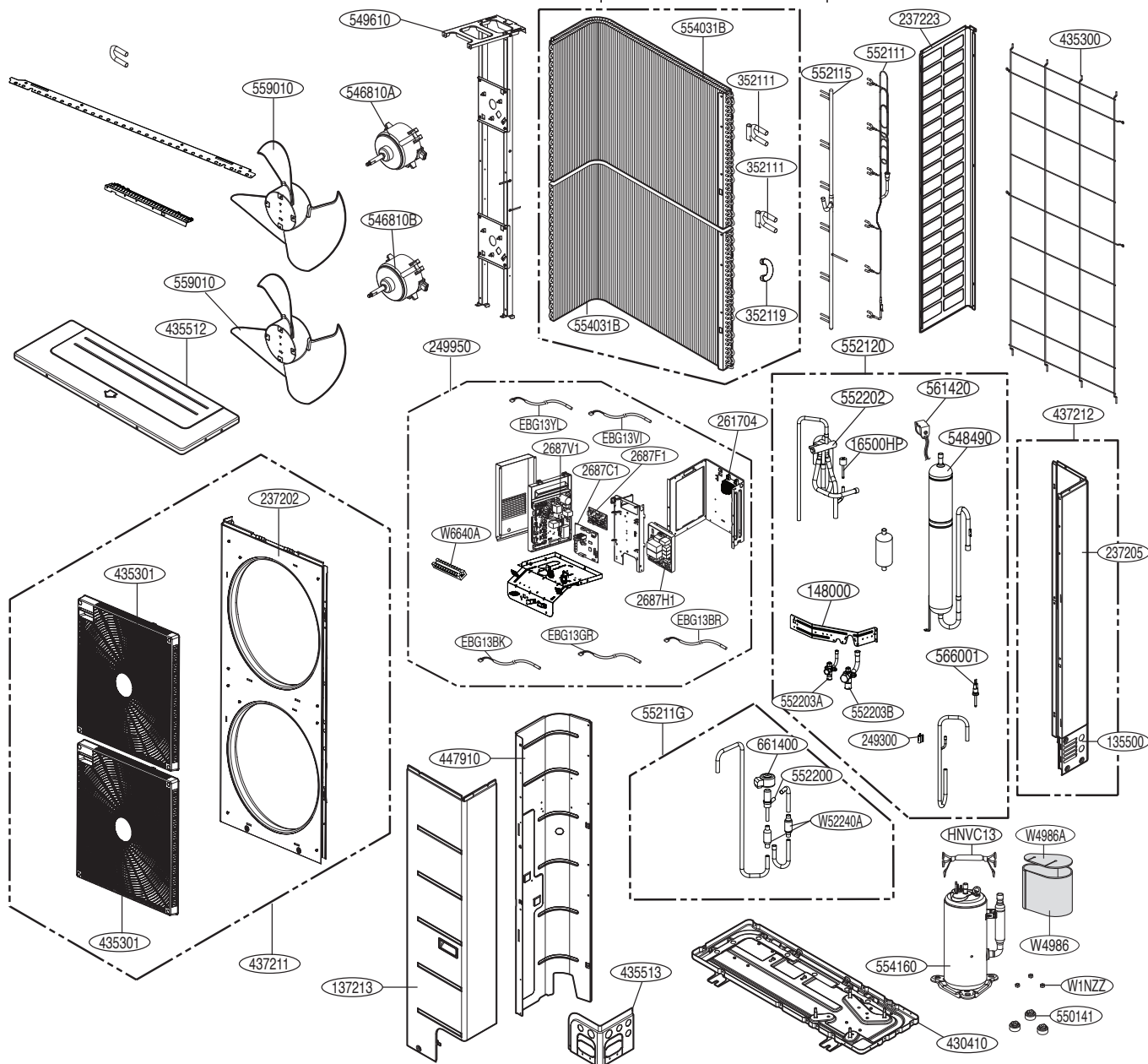
4. PCB

	Cycle	Fan
UUD1 / UUD3	 Labels for UUD1/UUD3 Cycle PCB: - CN_CP_N - CN_CP_L - CN_LGMV_WH - EEPROM - CN_4WAY_YL - CN_POWER_WH - CN_HI_PRESS - SINGLE - CN_EEV1_WH - DIP_SW01D (DIP SWITCH) 7SEGMENT - LED(RED) - LED(GREEN) - CN_C_PIPE_VI - CN_DISCHA_BK - CEN1_WH_H - CN_CNVS - CN_MID_BR - CN_SUCTION_GR - CN_AIR_YL - CN_H_PRESS_RD	 Labels for Fan PCB: - CN_FAN1_WH - CN_FAN2_BL - CN_MAIN_BL - CN_MAIN_WH - SW01K (DIP SWITCH) - CN_FLASH_RD - EEPROM - CN_JIG_PC_F_WH
UUD1	 Labels for UUD1 Cycle PCB: - EEPROM - CN_FLASH - CN_JIG_PC_WH - CN_HEATSINK_WH - CN_BLDC_FAN2_BL - CN_BLDC_FAN1_WH - CN_MAIN_WH - CN_HI_PRESS - CN_PRESS - CN_POWER_BL - AC_L_BROWN - REACTOR_IN_BL - AC_N_BLUE - REACTOR_OUT_RD - UVW	 Labels for Filter PCB: - CN_MAIN_WH - CN_INVERTER_BL - L2_BR - L2_BL - L1_BR - L1_BL
UUD3	 Labels for UUD3 Cycle PCB: - CN_FLASH(RD) - CN_JIG_PC(WH) - CN_MAIN(WH) - EEPROM - CN_COMP(WH) - CN_FAN2(BL) - CN_FAN1(WH) - REACTOR1 - REACTOR2 - CN3 - CN_HI_PRESS(RD) - CN_PRESS(WH) - CN_INPUT(BL) - CN_POWER(RD)	 Labels for UUD3 Filter PCB: - CN4_RD - CN2_BL - CN1_WH - CN3_HW

5. Exploded View

ZU UW48GA1[UUD1.U30]

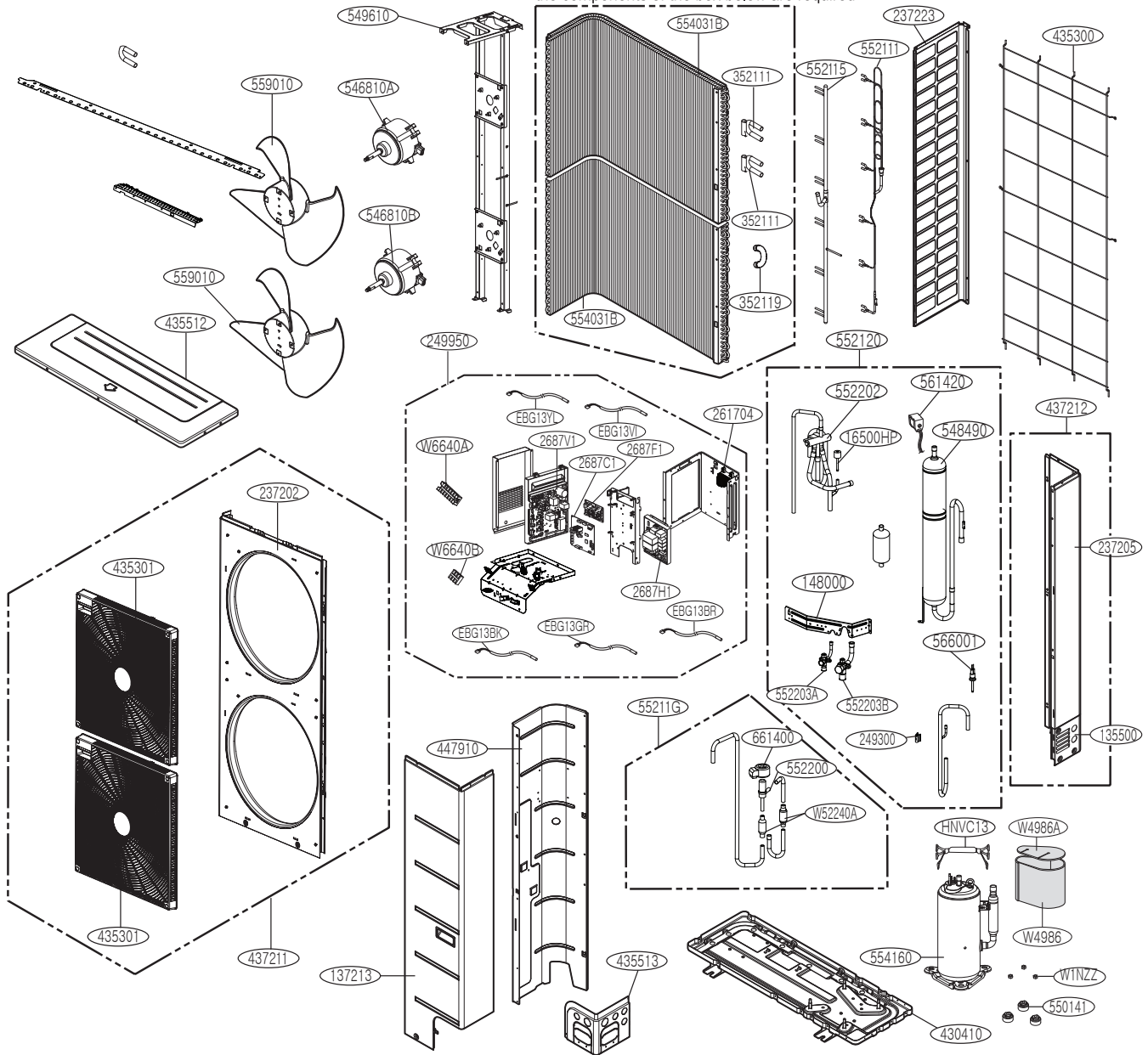
To replace the heat exchanger, the components of the box below are required.



Location No.	Description	Sensor Information	Housing Color
EBG13GR	CN_SUCTION_GR	Suction pipe	Green
EBG13BK	CN_DISCHA_BK	Discharg pipe	Black
EBG13YL	CN_AIR_YL	Air	Yellow
EBG13BR	CN_MID_BR	Condensor Mid	Brown
EBG13VI	CN_C_PIPE_VI	Condensor Out	Violet
165000	CN_H_PRESS_RD	Pressure Sensor	Red

ZU UW48LA1 [UUD3.U30]

To replace the heat exchanger,
the components of the box below are required.



Location No.	Description	Sensor Information	Housing Color
EBG13GR	CN_SUCTION_GR	Suction pipe	Green
EBG13BK	CN_DISCHA_BK	Discharg pipe	Black
EBG13YL	CN_AIR_YL	Air	Yellow
EBG13BR	CN_MID_BR	Condensor Mid	Brown
EBG13VI	CN_C_PIPE_VI	Condensor Out	Violet
165000	CN_H_PRESS_RD	Pressure Sensor	Red



P/NO : MFL71683701