

SERVICE MANUAL

# AIR CONDITIONER

Please read this manual carefully before operating your set and retain it for future reference.

E-View

Multi Air Conditioner

A4UW30GFH0 [LMU300HHV] / A3UW24GFH0 [LMU240HHV]

A2UW18GFH0 [LMU180HHV]

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P/NO : MFL67452453

# 1. Specification

Model Name				A2UW18GFH0 [LMU180HHV]	A3UW24GFH0 [LMU240HHV]	A4UW30GFH0 [LMU300HHV]	
Capacity	Nominal		Btu/h Class	18,000	24,000	30,000	
	Cooling	Min~Rated~Max	Btu/h	8400~18000~19980	8400~24000~30000	8400~28400~34080	
	Heating	Min~Rated~Max	Btu/h	10248~22000~24000	10248~26000~31200	10248~28600~41600	
Power Input	Cooling	Min~Rated~Max	kW	0.87~1.33~1.92	0.93~1.78~2.63	0.94~2.27~3.47	
	Heating	Min~Rated~Max	kW	1.24~2.20~3.29	1.25~2.12~3.47	1.29~2.32~3.55	
EER/COP	Non Ducted		-	13.5/2.9	13.5/3.6	12.5/3.6	
SEER/HSPF	Non Ducted		-	21.0/10.0	21.0/10.7	20.0 / 11.0	
	Mixed		-	19.25/9.5	19.0/9.85	18.75/10.25	
	Ducted		-	17.5/9.0	17.0/9.0	17.5/9.5	
Power Supply			V, Ø, Hz	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	
Running Current	Cooling	Min~Rated~Max	A	4.1~6.1~8.7	4.2~7.8~11.9	4.0~10.2~16.7	
	Heating	Min~Rated~Max	A	5.6~9.8~14.9	4.8~9.9~14.9	4.2~10.9~15.9	
Starting Current	Cooling	Max	A	-	-	-	
	Heating	Max	A	-	-	-	
Wiring Connections	Power Supply Cable (Included Earth)		No. x AWG	3C x 12	3C x 12	3C x 12	
	Power and Communication Cable (Included Earth)		Outdoor ~ BD Unit	No. x AWG	-	-	-
Combination	Sum of Indoor Units Capacity		Max	kBth/h	24	33	40
	Number of Indoor Units		Max	EA	2	3	4
	Number of BD Units		Max	EA	-	-	-
Casing Color			-	Warm Gray	Warm Gray	Warm Gray	
Dimensions	W x H x D		mm	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330	
	W x H x D		inch	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	
New Weight			kg(lbs)	67 (147.7)	69 (152.1)	69 (152.1)	
Compressor	Type			-	Twin Rotary	Twin Rotary	Twin Rotary
	Model			Model x No.	GJT325M X 1	GJT325M X 1	GJT325M X 1
	Motor Type			-	BLDC	BLDC	BLDC
	Motor Output			W x No.	-	-	-
Refrigerant	Type			-	R410A	R410A	R410A
	Precharged Amount			g (oz)	2,800 (98.8)	3,200 (112.8)	3,200 (112.8)
	Chargeless-Pipe Length			m (ft)	15 (49.2)	22.5 (73.8)	30 (98.4)
	Additional Charging Volume			g/m (oz/ft)	20 (0.22)	20 (0.22)	20 (0.22)
	contorl		-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
Refrigerant Oil	Type			-	FVC68D	FVC68D	FVC68D
	Charged volume			cc x No.	950 x 1	950 x 1	950 x 1
Heat Exchanger	(Row x Column x Fins per inch) x No.		-	(3 x 38 x 16) x 1	(3 x 38 x 16) x 1	(3 x 38 x 16) x 1	
Fan	Type			-	Propeller	Propeller	Propeller
	Air Flow Rate			m³/min(ft³/min) x No.	65 (2,295)	65 (2,295)	65 (2,295)
Fan Motor	Type			-	BLDC	BLDC	BLDC
	Output			W x No.	124.2 x 1	124.2 x 1	124.2 x 1
Sound Pressure Level	Cooling	Rated	dB(A)	50	52	52	
	Heating	Rated	dB(A)	54	55	55	
Sound Power Level	Cooling	Rated	dB(A)	-	-	-	
Piping Connections	Liquid	Outer Dia.	mm(inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	
	Gas	Outer Dia.	mm(inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	
Piping Length	Total Piping	Max.	m (ft)	50 (164)	75 (246.1)	75 (246.1)	
	Main Piping	Max.	m (ft)	-	-	-	
	Total Branch Piping	Max.	m (ft)	-	-	-	
	Each Branch Piping	Max.	m (ft)	25 (82.0)	25 (82.0)	25 (82.0)	
Maximum Height Difference	Outdoor Unit ~ Indoor Unit	Max.	m (ft)	15 (49.2)	15 (49.2)	15 (49.2)	
	Indoor Unit ~ Indoor Unit	Max.	m (ft)	7.5 (24.6)	7.5 (24.6)	7.5 (24.6)	
	BD Unit ~ Indoor Unit	Max.	m (ft)	-	-	-	
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB(°F DB)	-20(-4)** ~ 48(118)	-20(-4)** ~ 48(118)	-20(-4)** ~ 48(118)	
	Heating	Min. ~ Max.	°C DB(°F DB)	-25 (-13) ~ 24 (75)	-25 (-13) ~ 24 (75)	-25 (-13) ~ 24 (75)	

## Note:

- All data are based on the following conditions:
  - Cooling Temperature : Indoor 26.7°C(80°F) DB / 19.4°C(66.9°F) WB  
Outdoor 35°C(95°F) DB / 23.9°C(75°F) WB
  - Heating Temperature : Indoor 21.1°C(70°F) DB / 15.6°C(60.1°F) WB  
Outdoor 8.3°C(46.9°F) DB / 6.1°C(43°F) WB
  - Piping Length : Interconnected Pipe Length = 5 m (16.4 ft)
  - Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- 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 opration.

\*\* : The unit could be operated on the followig temperature range only when Low Ambient Kit installed.

- Cooling : Outdoor Temperature -20°C(-4°F) ~ -10°C(14°F) DB

## 2. List of Functions & Accessory

### 2.1 List of Functions

Category	Functions	A4UW30GFH0[LMU300HHV] A3UW24GFH0[LMU240HHV] A2UW18GFH0[LMU180HHV]
Reliability	Defrost/Deicing	O
	High pressure switch	X
	Low pressure switch	X
	Phase protection	X
	Restart delay (3-minutes)	O
	Self diagnosis	O
	Soft start	O
	Test function	X
Convenience	Night Silent Operation	O
	Wiring Error Check	O
	Peak Control	O
	Mode Lock	O
	Forced Cooling Operation (Outdoor Unit)	O
Network function	Network solution(LGAP)	O

**Note :**

O : Applied, x : Not applied

### 2.2 List of Accessory

Device		A4UW30GFH0[LMU300HHV] A3UW24GFH0[LMU240HHV] A2UW18GFH0[LMU180HHV]
Central Controller	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	ACP IV	PACP4B000
	AC Manager IV	PACM4B000
	PI485	PMNFP14A0/PMNFP14A1
BNU (Building Network Unit)	LONWORKS Gateway	PLNWK000
	BACnet Gateway	PQNFB17C0
Installation	Y branch	X
	Header branch	X
	Air Guide	X
PDI (power distribution indicator)		PQNUD1S00
ODU Dry Contact		X
Low Ambient Kit		O (Logical operation)

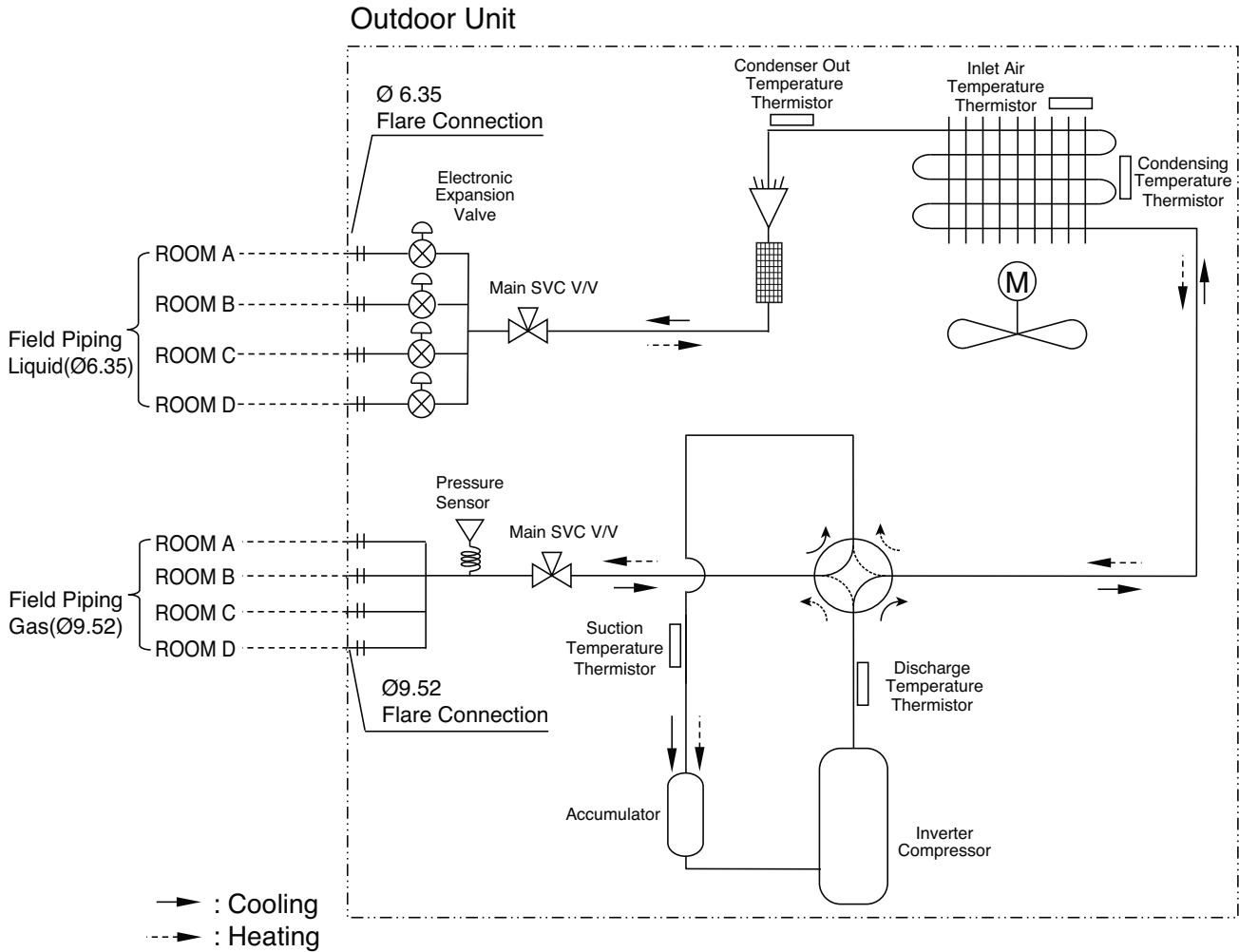
**Note :**

O : Applied, x : Not applied

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

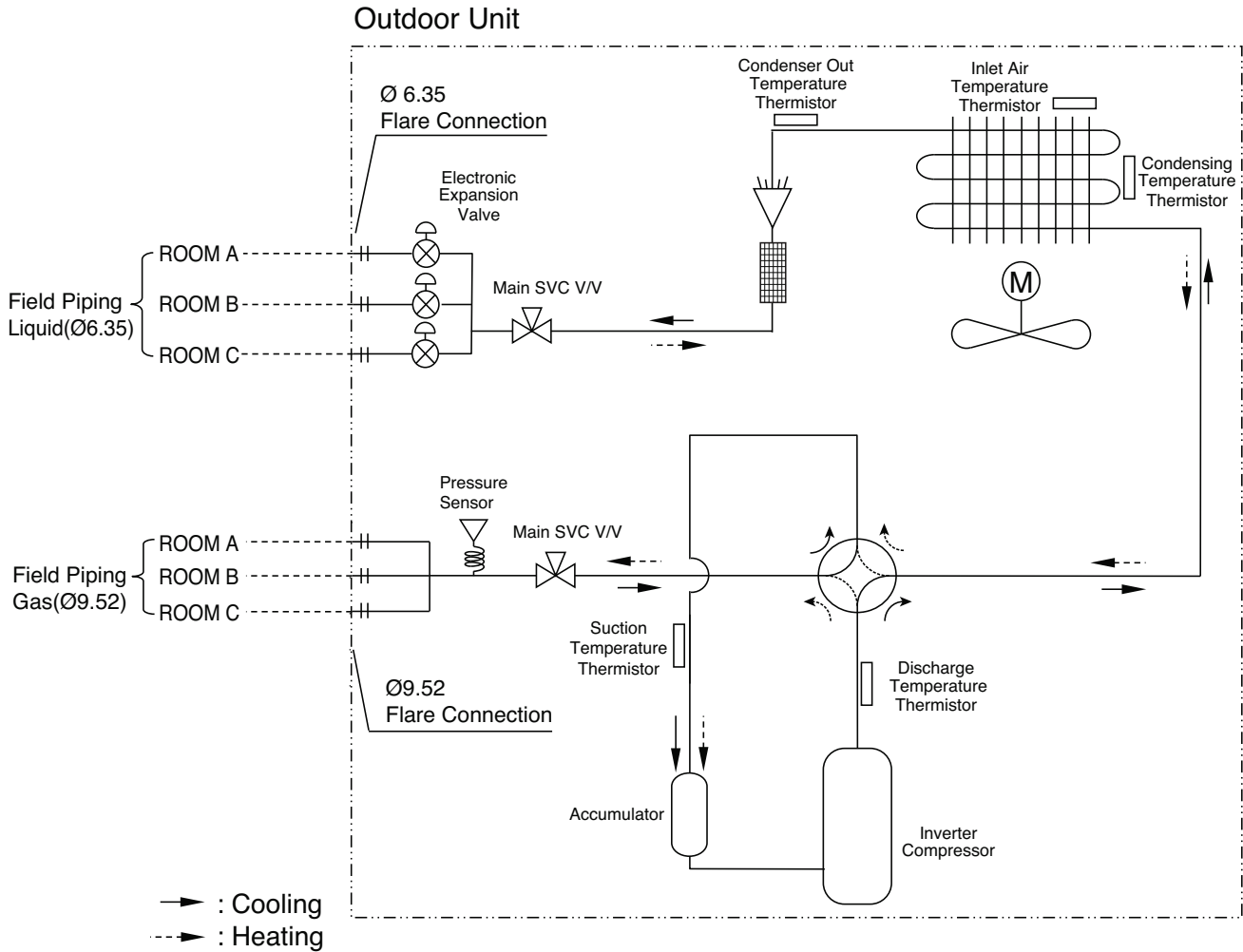
## 3. Piping Diagrams

### 3.1 30k



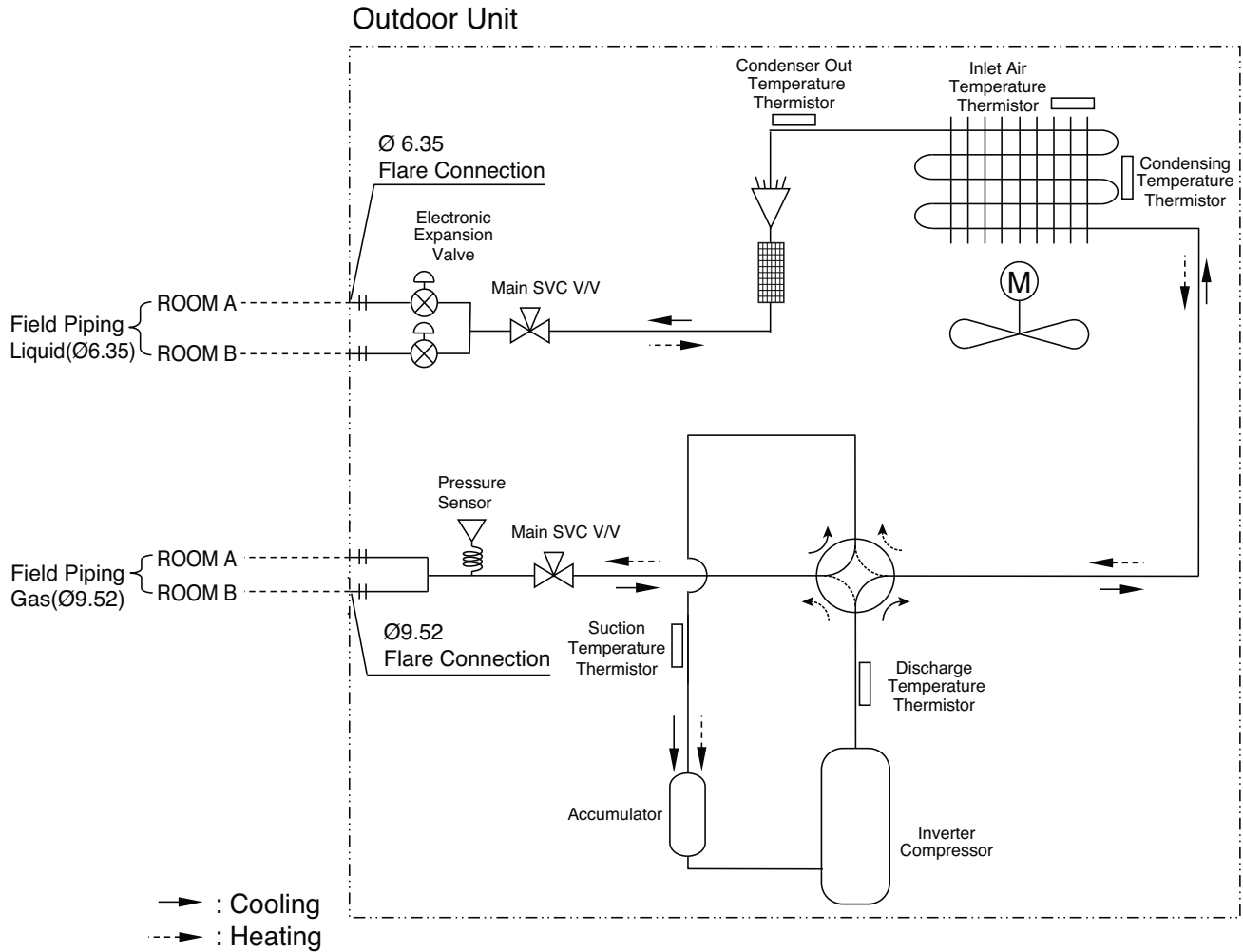
PCB Connector	Description
CN_MID_BR	Cond Middle Pipe
CN_DISCHARGE_BK	Discharge Pipe
CN_C_PIPE_VI	Cond Out Pipe
CN_SUCTION_GR	Suction Pipe
CN_AIR_YL	Air
CN_H_PRESS_RD	Pressure Sensor
CN_H_GAS_BK	Hot Gas Valve
CN_4WAY_YL	4WAY valve
CN_HEATER_BL	Base pan heater

### 3.2 24k



PCB Connector	Description
CN_MID_BR	Cond Middle Pipe
CN_DISCHARGE_BK	Discharge Pipe
CN_C_PIPE_VI	Cond Out Pipe
CN_SUCTION_GR	Suction Pipe
CN_AIR_YL	Air
CN_H_PRESS_RD	Pressure Sensor
CN_H_GAS_BK	Hot Gas Valve
CN_4WAY_YL	4WAY valve
CN_HEATER_BL	Base pan heater

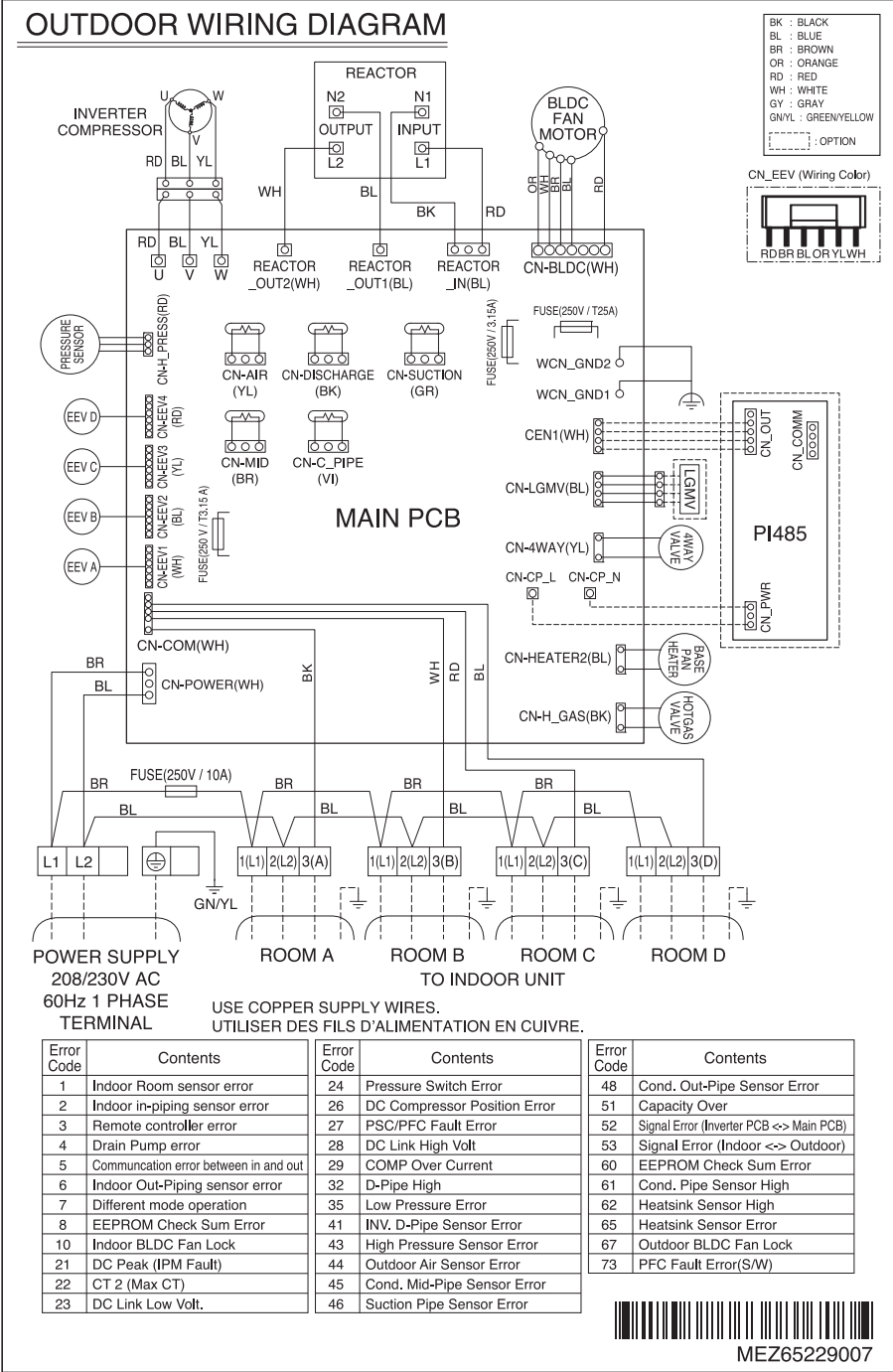
3.3 18k



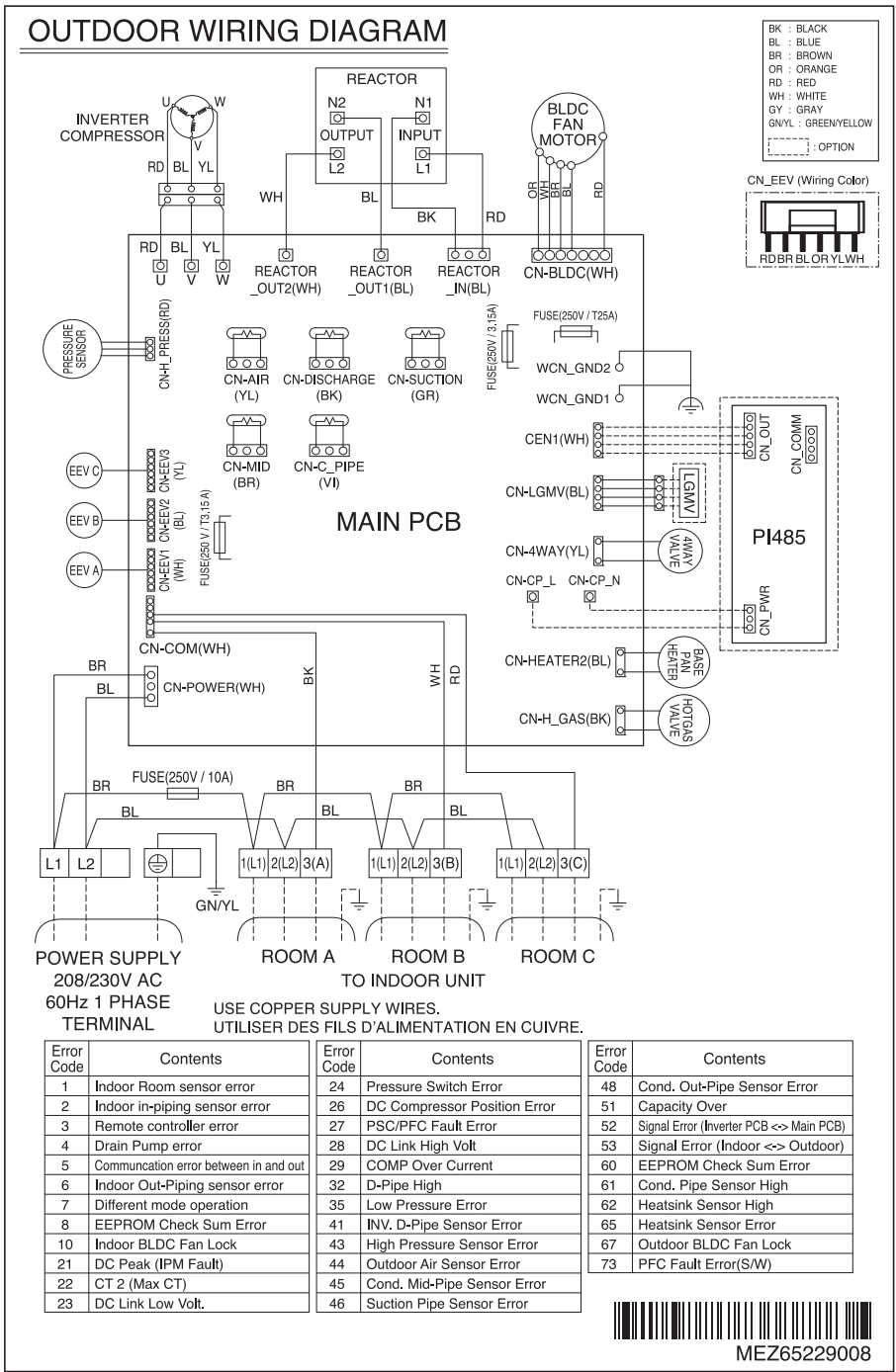
PCB Connector	Description
CN_MID_BR	Cond Middle Pipe
CN_DISCHARGE_BK	Discharge Pipe
CN_C_PIPE_VI	Cond Out Pipe
CN_SUCTION_GR	Suction Pipe
CN_AIR_YL	Air
CN_H_PRESS_RD	Pressure Sensor
CN_H_GAS_BK	Hot Gas Valve
CN_4WAY_YL	4WAY valve
CN_HEATER_BL	Base pan heater

# 4. Wiring Diagrams

## 4.1 30k

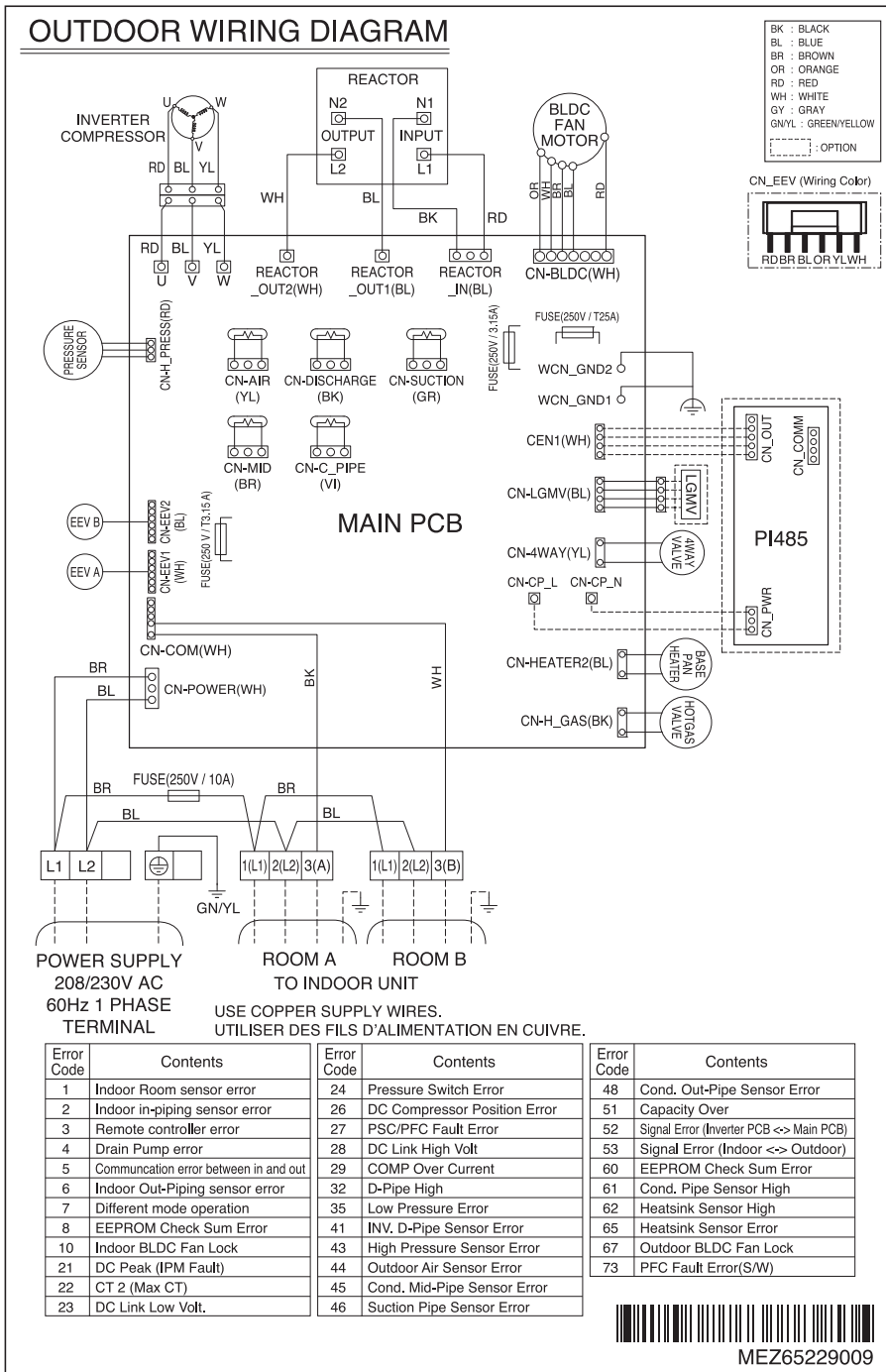


4.2 24k

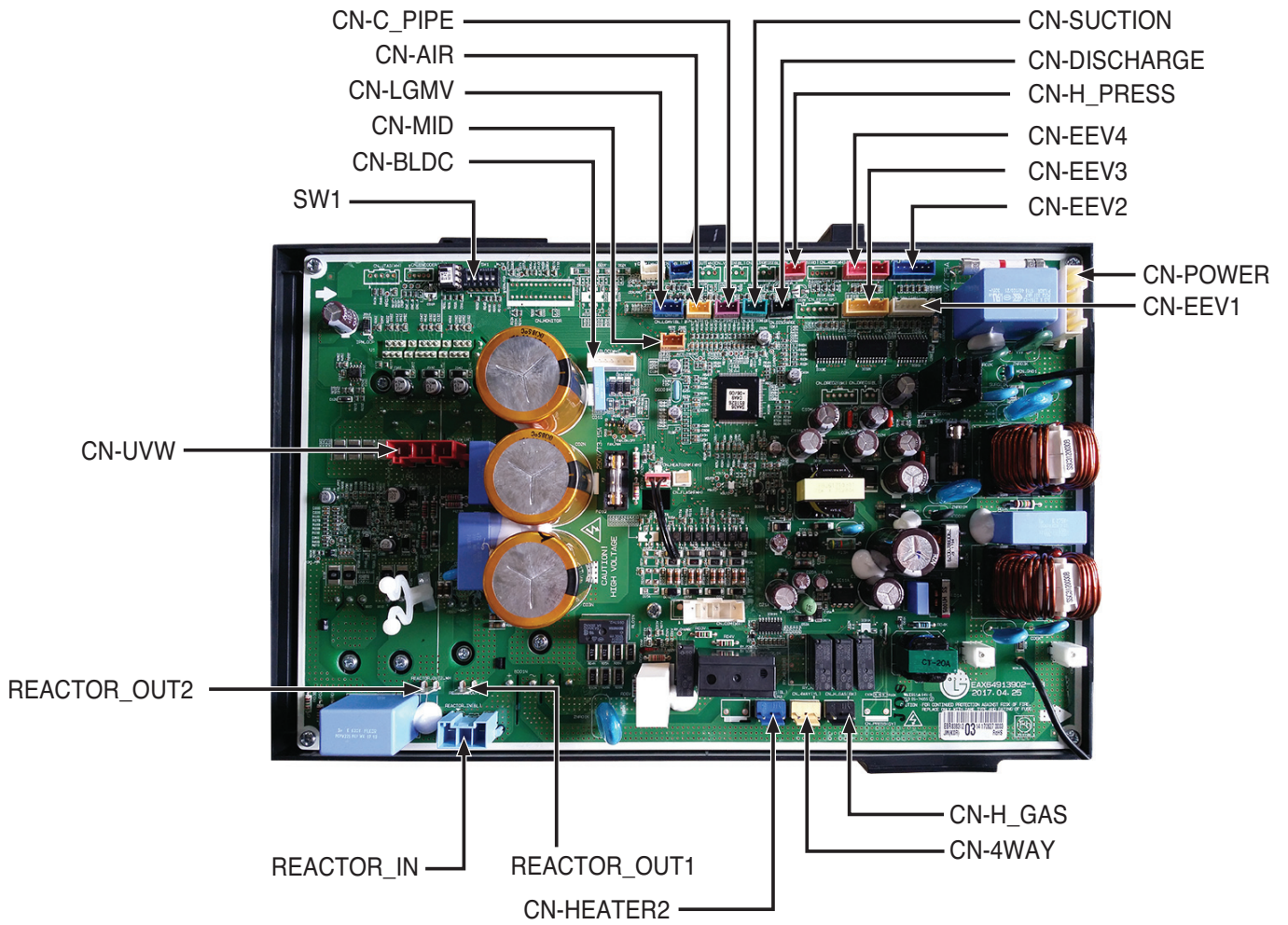




4.3 18k

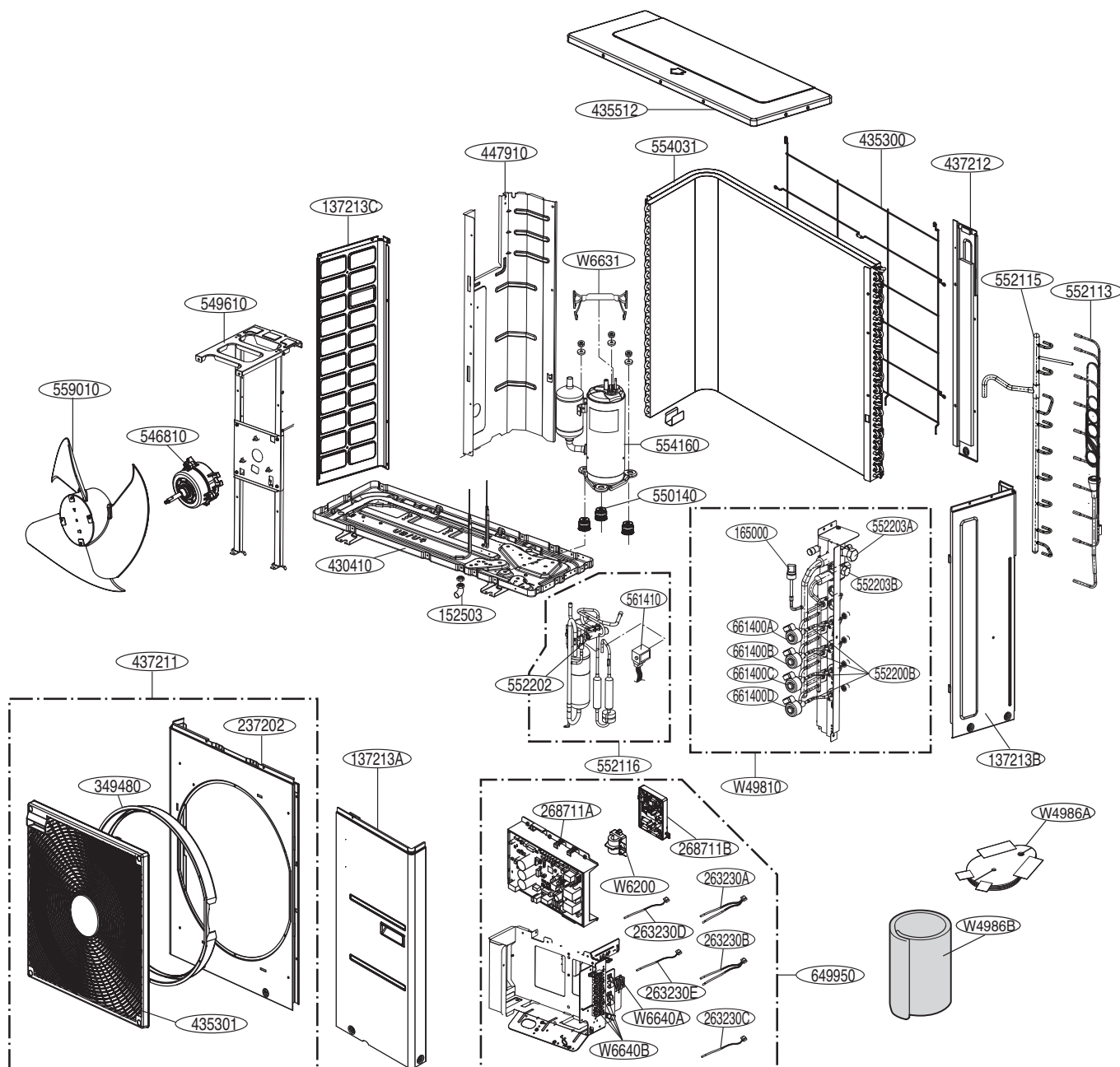


# INV PCB



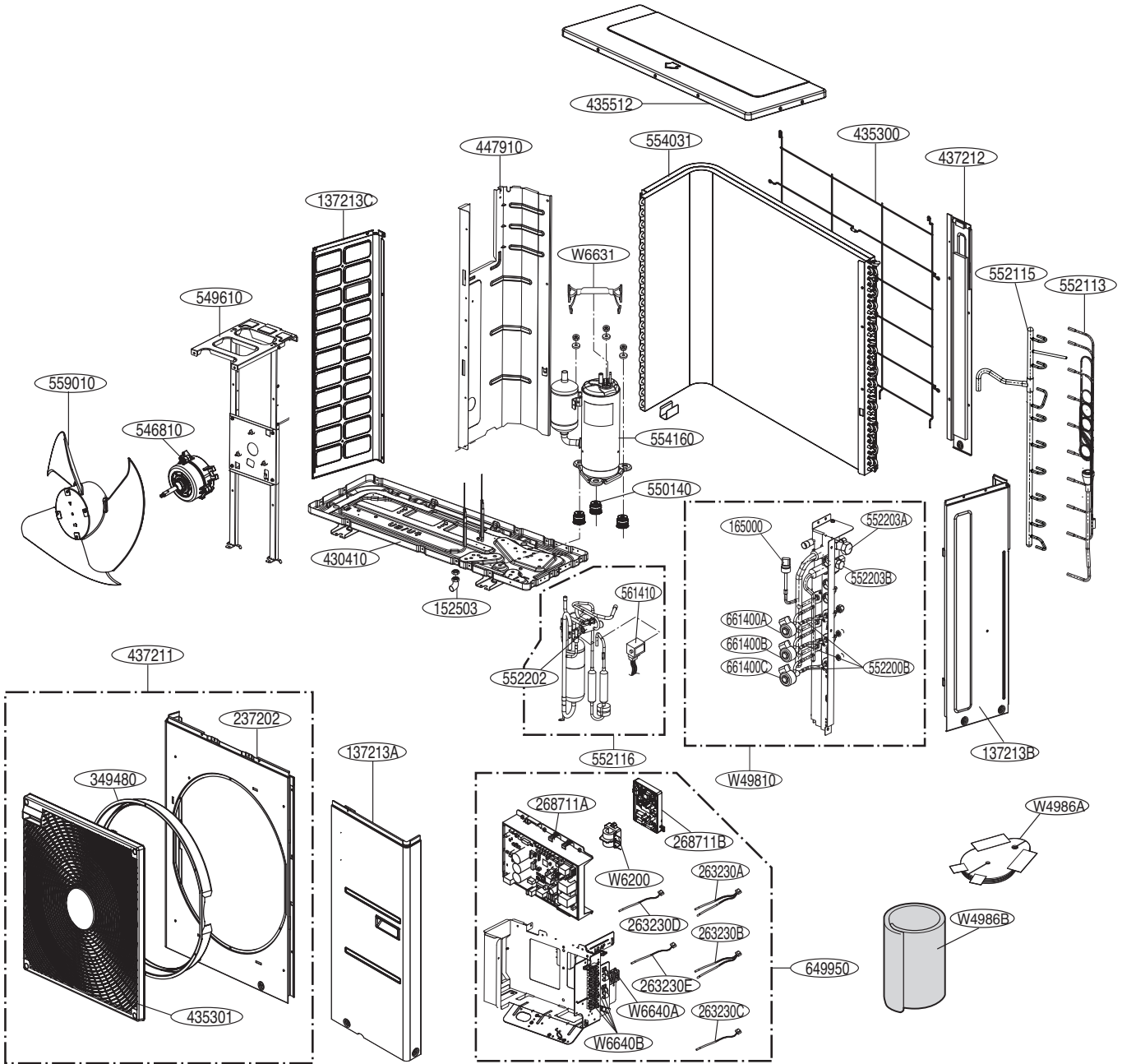
## 5. Exploded View

### 5.1 30k



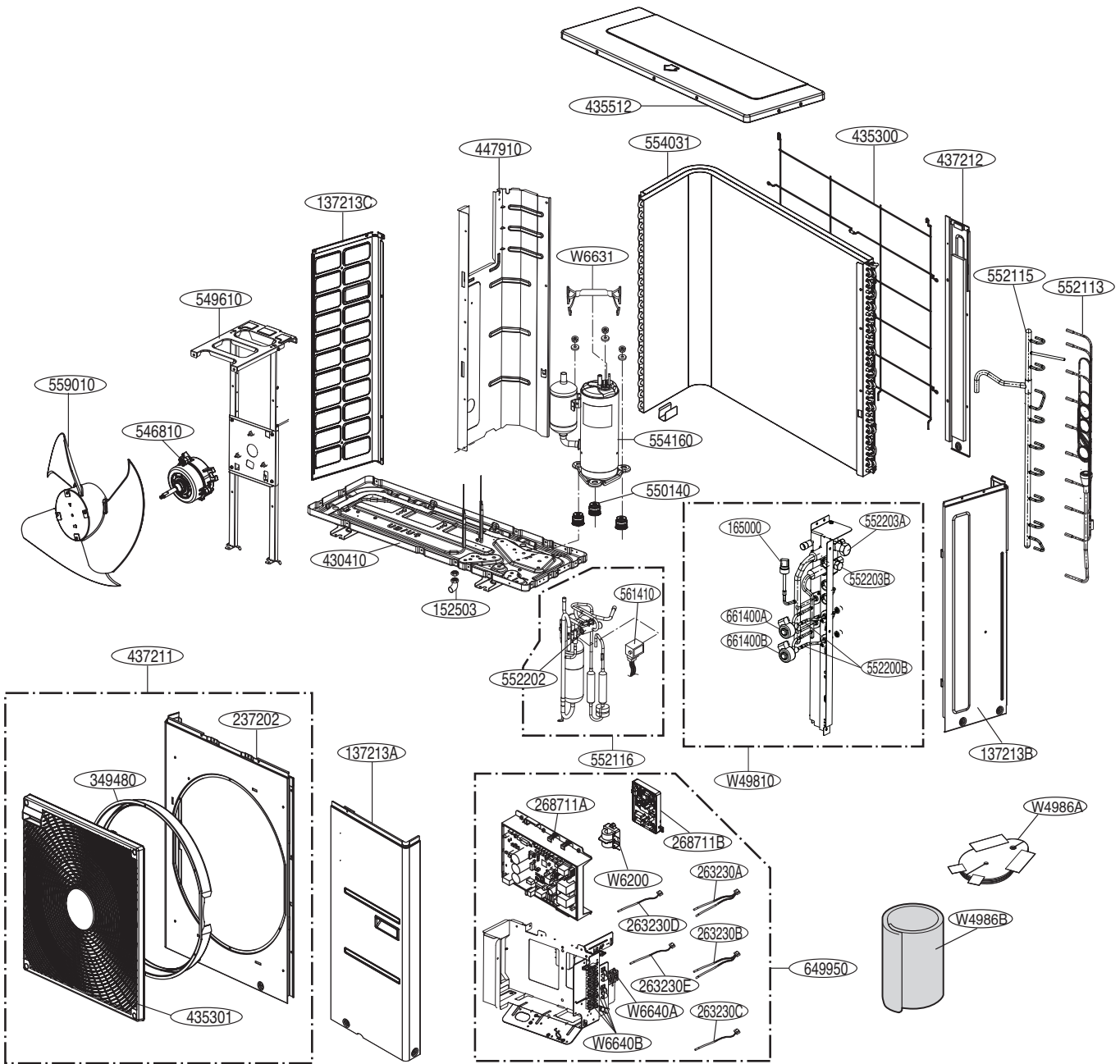
Location No.	Description	Sensor Information	Housing Color
263230A	Thermistor(CN_DISCHA_BK)	Discharge Pipe	Black
263230B	Thermistor(CN_SUCTION_GR)	Suction Pipe	Green
263230C	Thermistor(CN_C_PIPE_VI)	Cond Out Pipe	Violet
263230D	Thermistor(CN_MID_BR)	Cond Middle Pipe	Brown
263230E	Thermistor(CN_AIR_YL)	Air	Yellow
165000	CN_H_PRESS_RD	Pressure Sensor	Red

## 5.2 24k



Location No.	Description	Sensor Information	Housing Color
263230A	Thermistor(CN_DISCHA_BK)	Discharge Pipe	Black
263230B	Thermistor(CN_SUCTION_GR)	Suction Pipe	Green
263230C	Thermistor(CN_C_PIPE_VI)	Cond Out Pipe	Violet
263230D	Thermistor(CN_MID_BR)	Cond Middle Pipe	Brown
263230E	Thermistor(CN_AIR_YL)	Air	Yellow
165000	CN_H_PRESS_RD	Pressure Sensor	Red

### 5.3 18k



Location No.	Description	Sensor Information	Housing Color
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263230C	Thermistor(CN_C_PIPE_VI)	Cond Out Pipe	Violet
263230D	Thermistor(CN_MID_BR)	Cond Middle Pipe	Brown
263230E	Thermistor(CN_AIR_YL)	Air	Yellow
165000	CN_H_PRESS_RD	Pressure Sensor	Red

