



**INVERTER MULTI  
AIR CONDITIONER**

**WALL MOUNTED** type

# SERVICE MANUAL



## Models

Indoor unit

Outdoor unit

ASHA07LACM

ASHA09LACM

ASHA12LACM

AOHA18LAT3

ASHA07LACM

ASHA09LACM

ASHA12LACM

AOHA24LAT3

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## SPECIFICATIONS

### INDOOR UNIT

#### ELECTRICAL DATA

TYPE	COOL & HEAT		
INDOOR UNIT	ASHA07LACM	ASHA09LACM	ASHA12LACM
COOLING CAPACITY	2.3 kW	2.7 kW	3.5 kW
HEATING CAPACITY	2.7 kW	3.3 kW	4.0 kW
MOISTURE REMOVAL	0.8 L/hr	1.0 L/hr	1.2 L/hr
AIR CIRCULATION HIGH	500 m3/hr	550 m3/hr	580 m3/hr

#### FAN MOTOR

POWER SOURCE		230 V		
FAN SPEED ( cool / heat )	Discrimination	MFD-34ROM		
	High	1,140 / 1,140 r.p.m.	1,220 / 1,220 r.p.m.	1,280 / 1,320 r.p.m.
	Meddle	1,000 / 1,050 r.p.m.	1,060 / 1,110 r.p.m.	1,100 / 1,180 r.p.m.
	Low	880 / 980 r.p.m.	900 / 1,040 r.p.m.	900 / 1,080 r.p.m.
	Quiet	700 / 800 r.p.m.	720 / 830 r.p.m.	750 / 860 r.p.m.

#### NOISE LEVEL

HIGH	35 dB	38 dB	39 dB
QUIET	21 dB	22 dB	23 dB

#### MEASUREMENT

DIMENSIONS	H x W x D	275 x 790 x 215 mm
WEIGHT	Gross / Net	12 kg / 9 kg

## OUTDOOR UNIT

### ELECTRICAL SPECIFICATIONS

TYPE		Colling & heating multi	Colling & heating multi
MODEL NAME		AOHA18LAT3	AOHA24LAT3
COOLING CAPACITY		5.4 kW	6.8 kW
HEATING CAPACITY		6.8 kW	8.0 kW
POWER SUPPLY		(220V) - 230V - (240V)	(220V) - 230V - (240V)
FREQUENCY		50 Hz	50 Hz
RUNNING CURRENT	Cooling	5.9 A	8.5 A
	Heating	7.1 A	8.8 A
INPUT	Cooling	1.35 kW	1.94 kW
	Heating	1.62 kW	2.00 kW
EER	Cooling	4.00 kW/kW	3.50 kW/kW
	Heating	4.20 kW/kW	4.00 kW/kW
AIR CIRCULATION HIGH		3,050 m <sup>3</sup> /hr	3,300 m <sup>3</sup> /hr

### FAN MOTOR

DISCRIMINATION	MFE-60PO	MFE-60PO
HIGH SPEED (COOL)	730 r.p.m.	780 r.p.m.
HIGH SPEED (HEAT)	660 r.p.m.	780 r.p.m.

### NOISE LEVEL

COOL	48 dB	50 dB
HEAT	49 dB	51 dB

### MEASUREMENT

DIMENSIONS	H x W x D	700 x 900 x 330 mm
WEIGHT	Net / Gross	55 kg / 63 kg

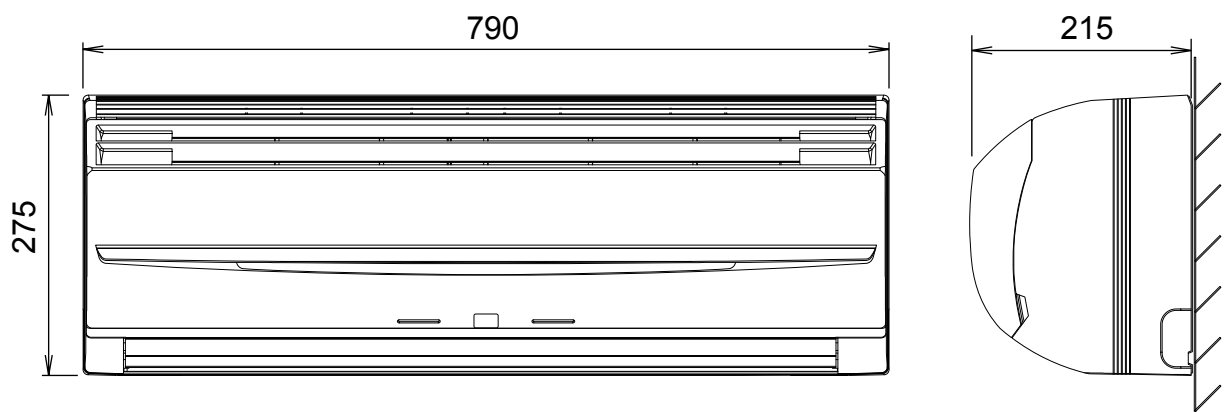
### COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, Inverter, 4 poles, 3-phase, DC motor, Twin Rotary
DISCRIMINATION		DA150A1F-20NA
WEIGHT (with oil)		10.0 kg
REFRIGERANT		2,200 g
REFRIGERANT TYPE		R410A
FULL CHARGE AMOUNT	Total Pipe Length 30 m	2,200 g
	40 m	2,400 g
	50 m	2,600 g
ADDITIONAL CHARGE		20 g/m
CHARGELESS		30 m
MAX PIPE LENGTH (each unit)		25 m
MAX PIPE LENGTH (total)		50 m
MAX ELEVATION (between indoor units)		10 m
MAX ELEVATION (between indoor and outdoor)		15 m
MIN. PIPE LENGTH (each unit)		5 m

## DIMENSIONS

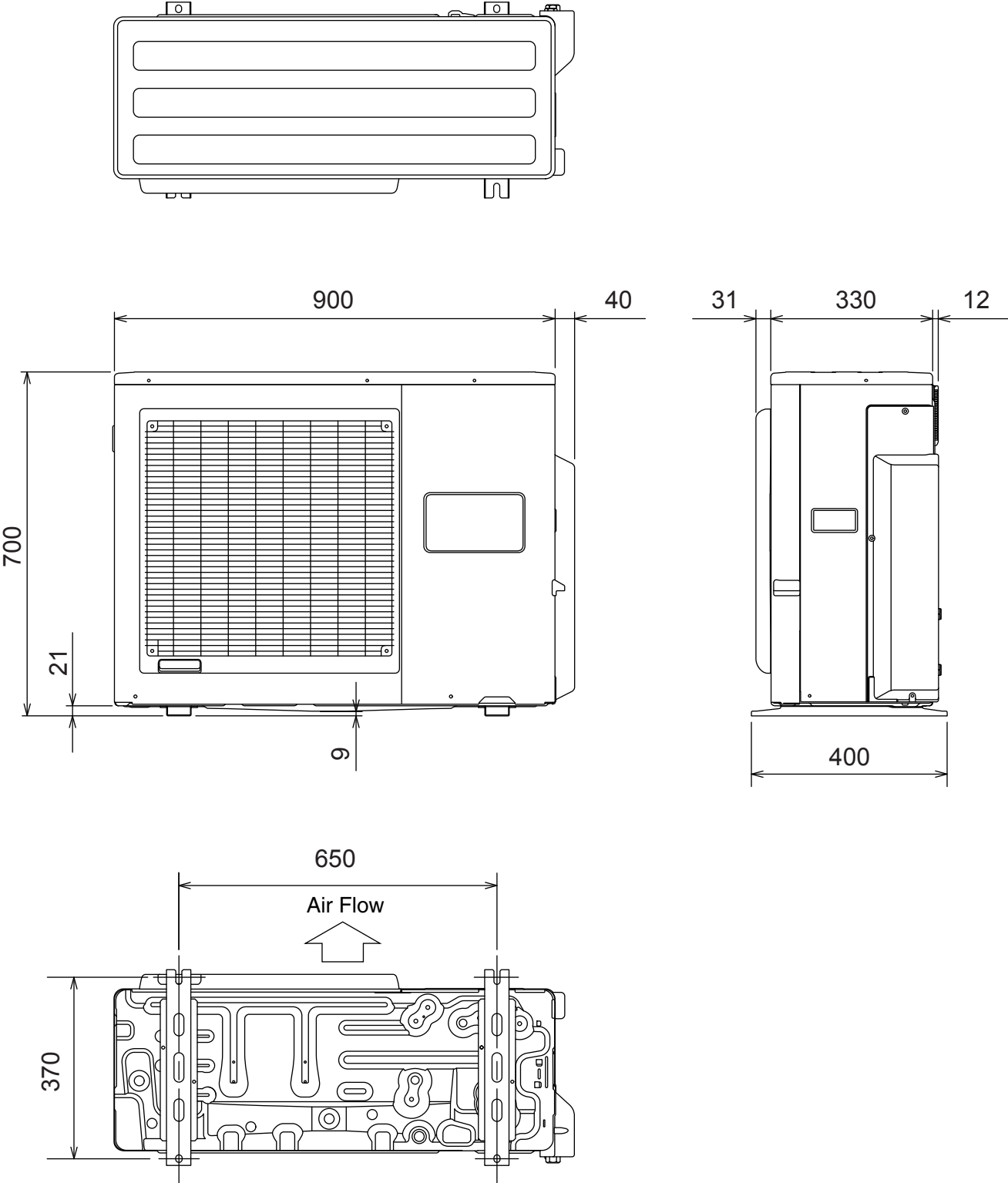
INDOOR UNIT

(unit : mm)



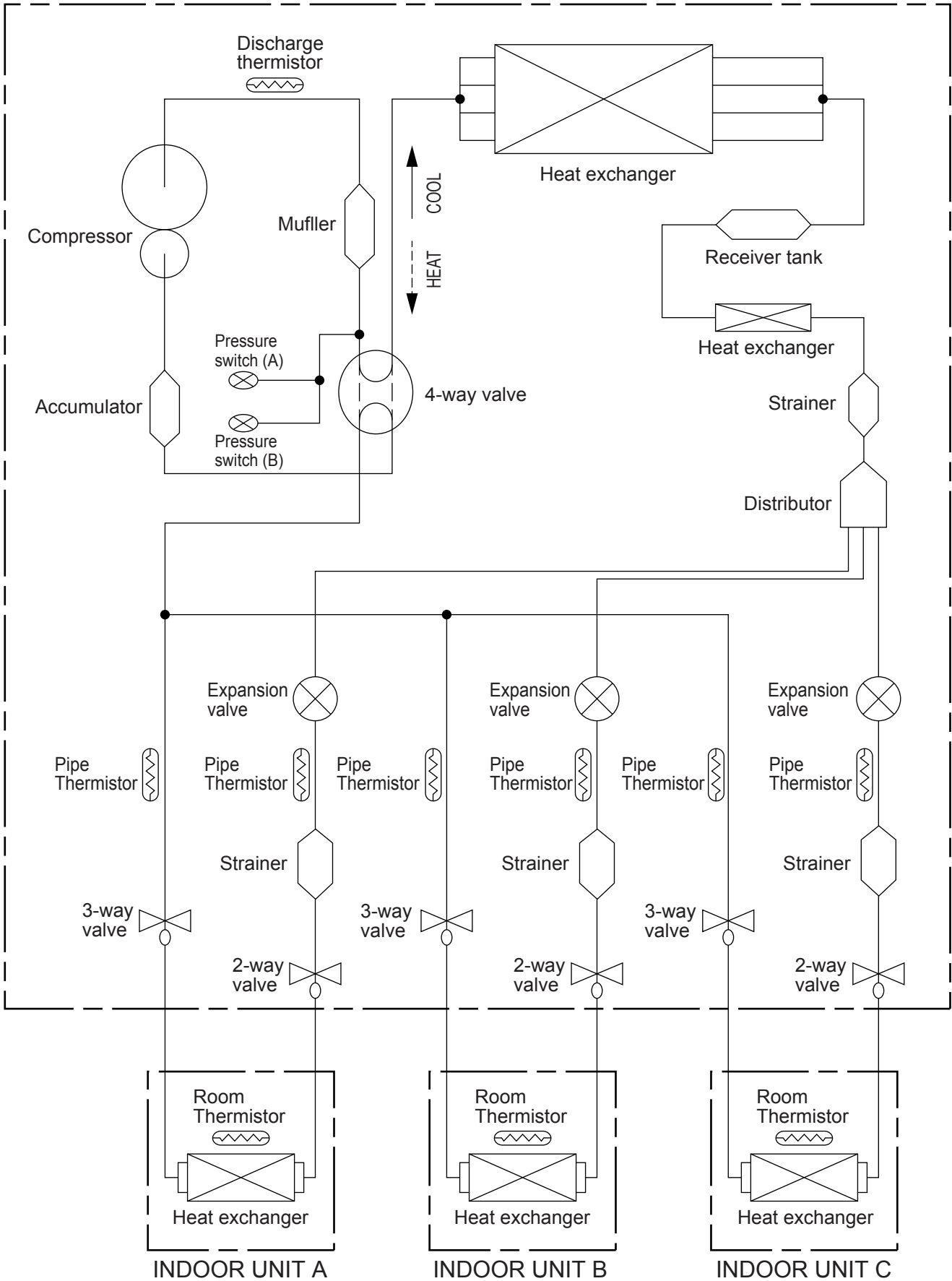
OUTDOOR UNIT

(Unit : mm)



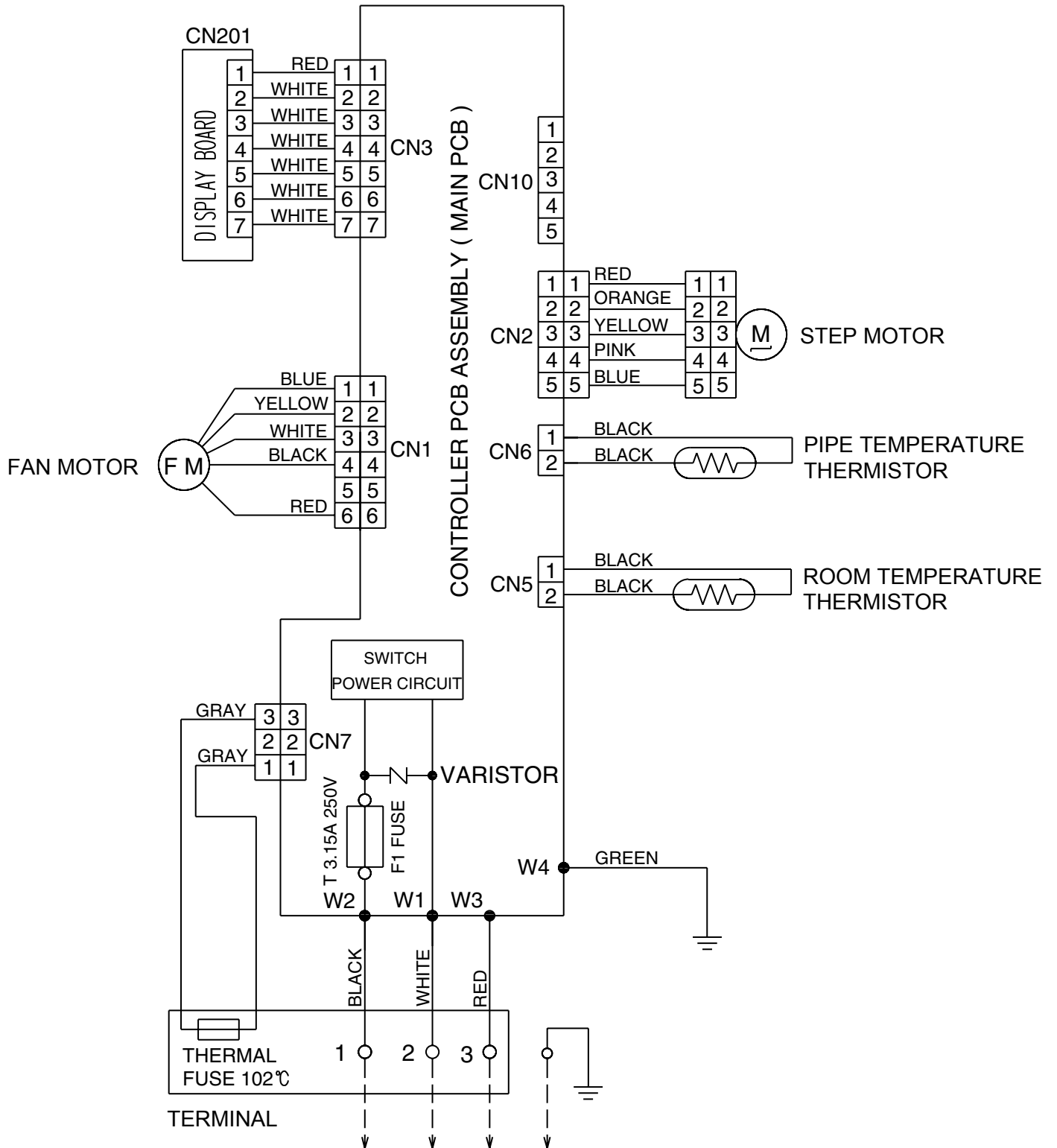
# REFRIGERANT SYSTEM DIAGRAM

## OUTDOOR UNIT

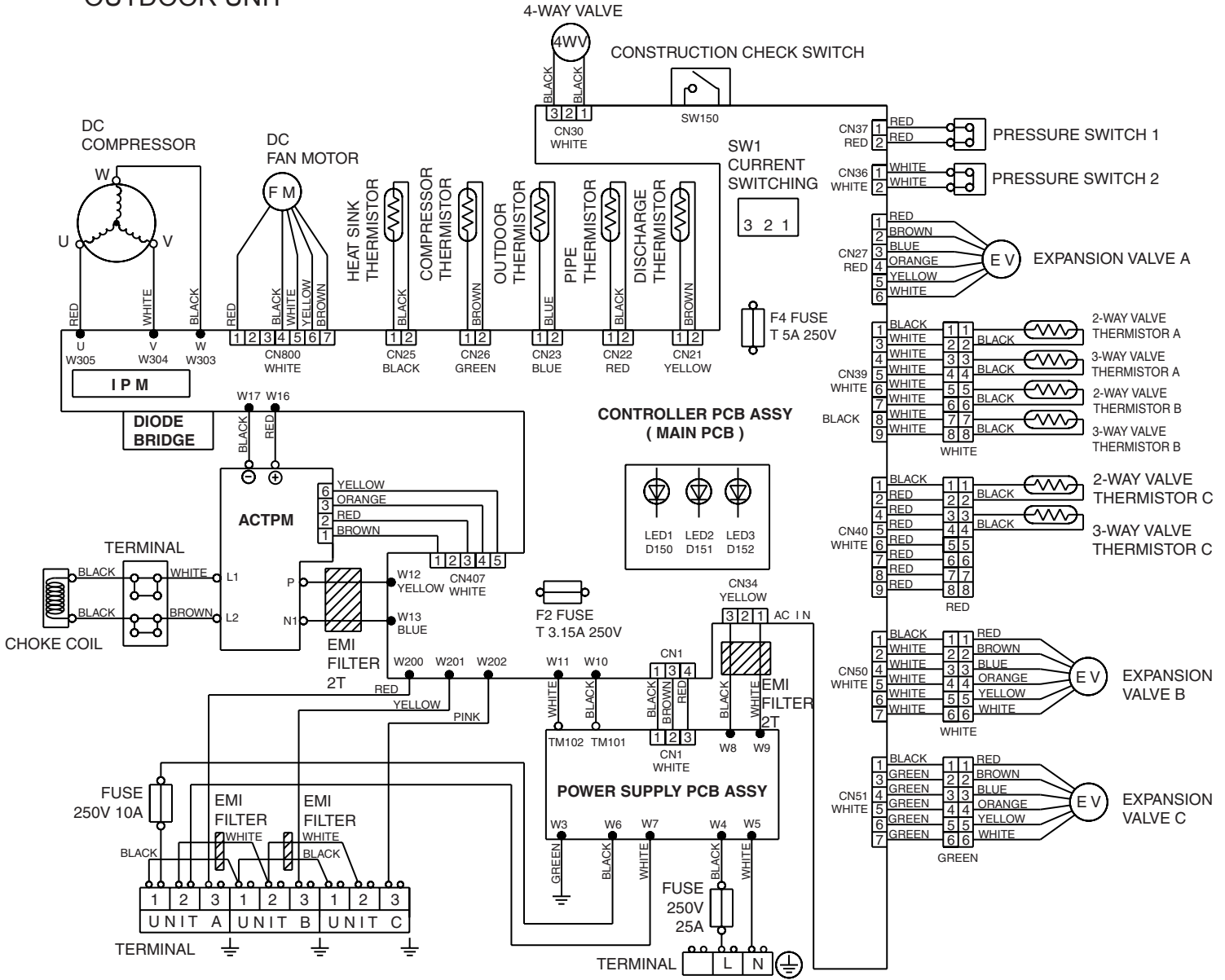


# CIRCUIT DIAGRAM

## INDOOR UNIT



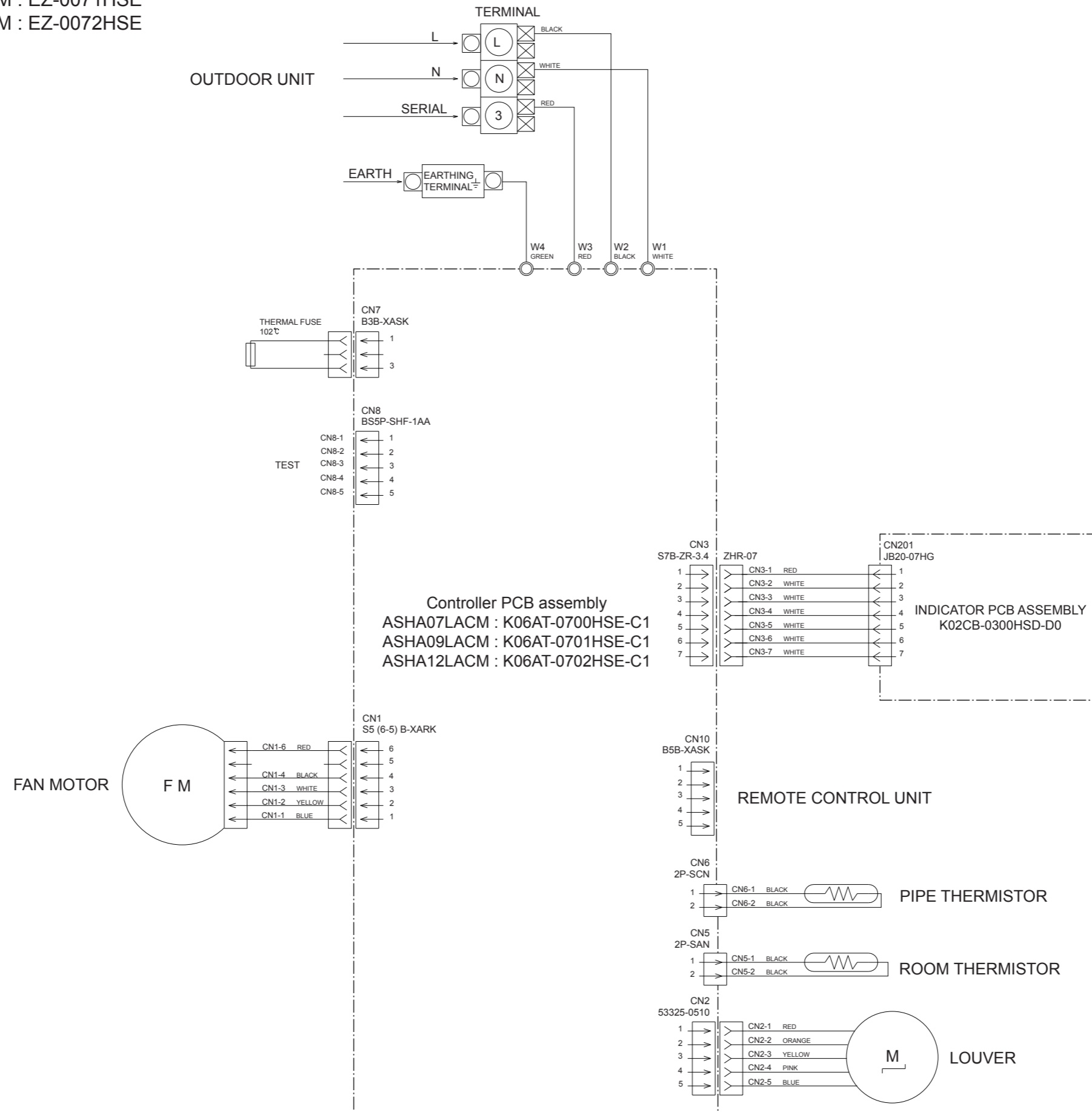
# OUTDOOR UNIT



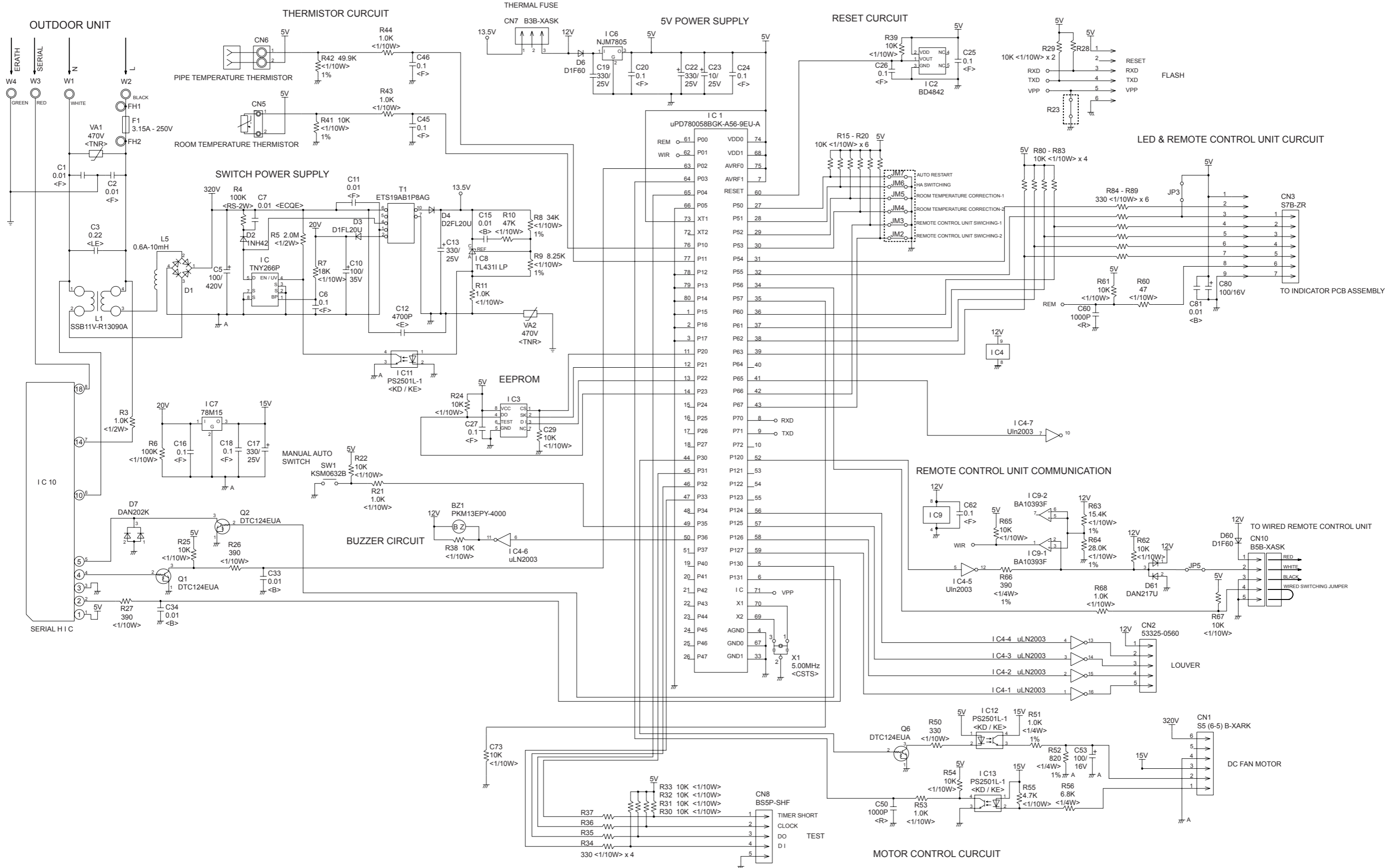


# INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT  
 ASHA07LACM : EZ-0070HSE  
 ASHA09LACM : EZ-0071HSE  
 ASHA12LACM : EZ-0072HSE

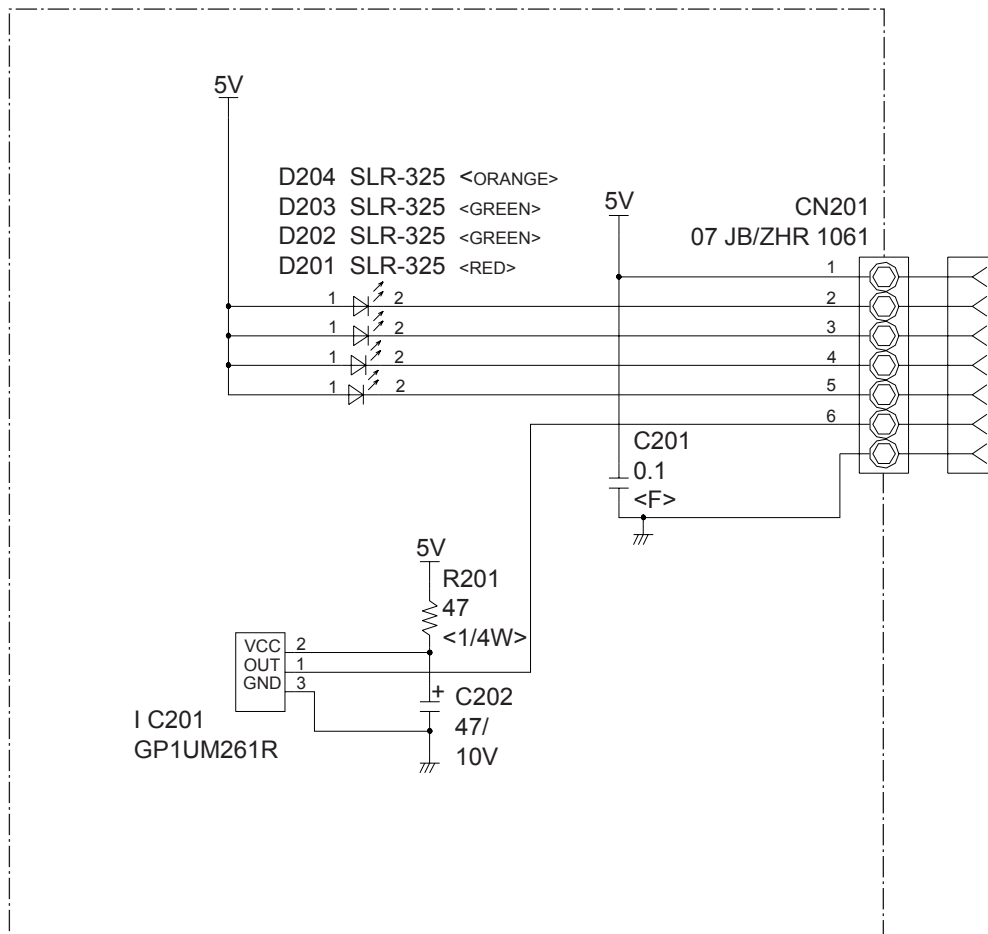


INDOOR UNIT  
 CONTROLLER PCB ASSEMBLY  
 ASHA07LACM : K06AT-0700HSE-C1  
 ASHA09LACM : K06AT-0701HSE-C1  
 ASHA12LACM : K06AT-0702HSE-C1



# INDOOR UNIT

## INDICATOR PCB ASSY K02CB-0300HSD-D0

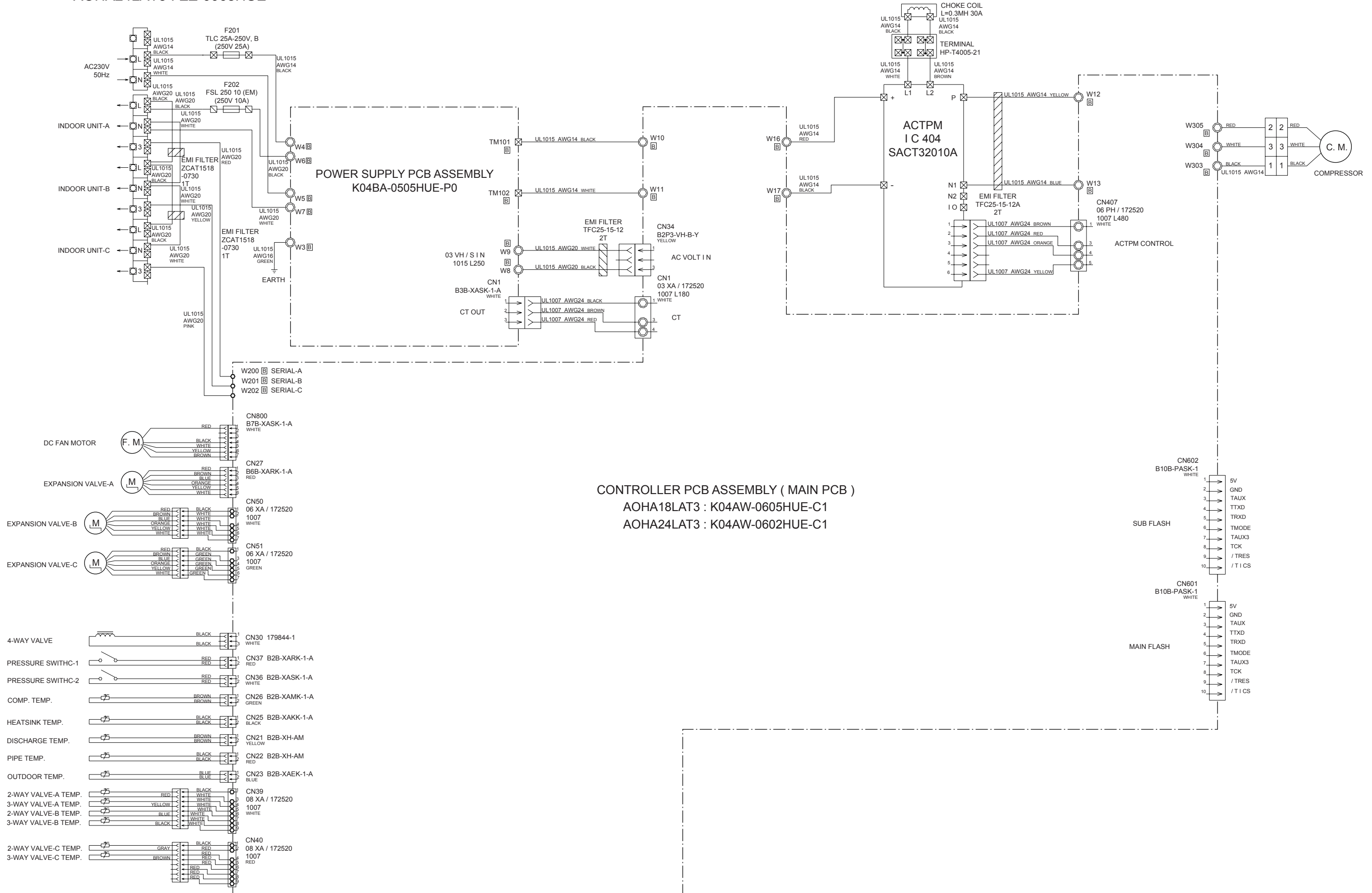


# OUTDOOR PCB CIRCUIT DIAGRAM

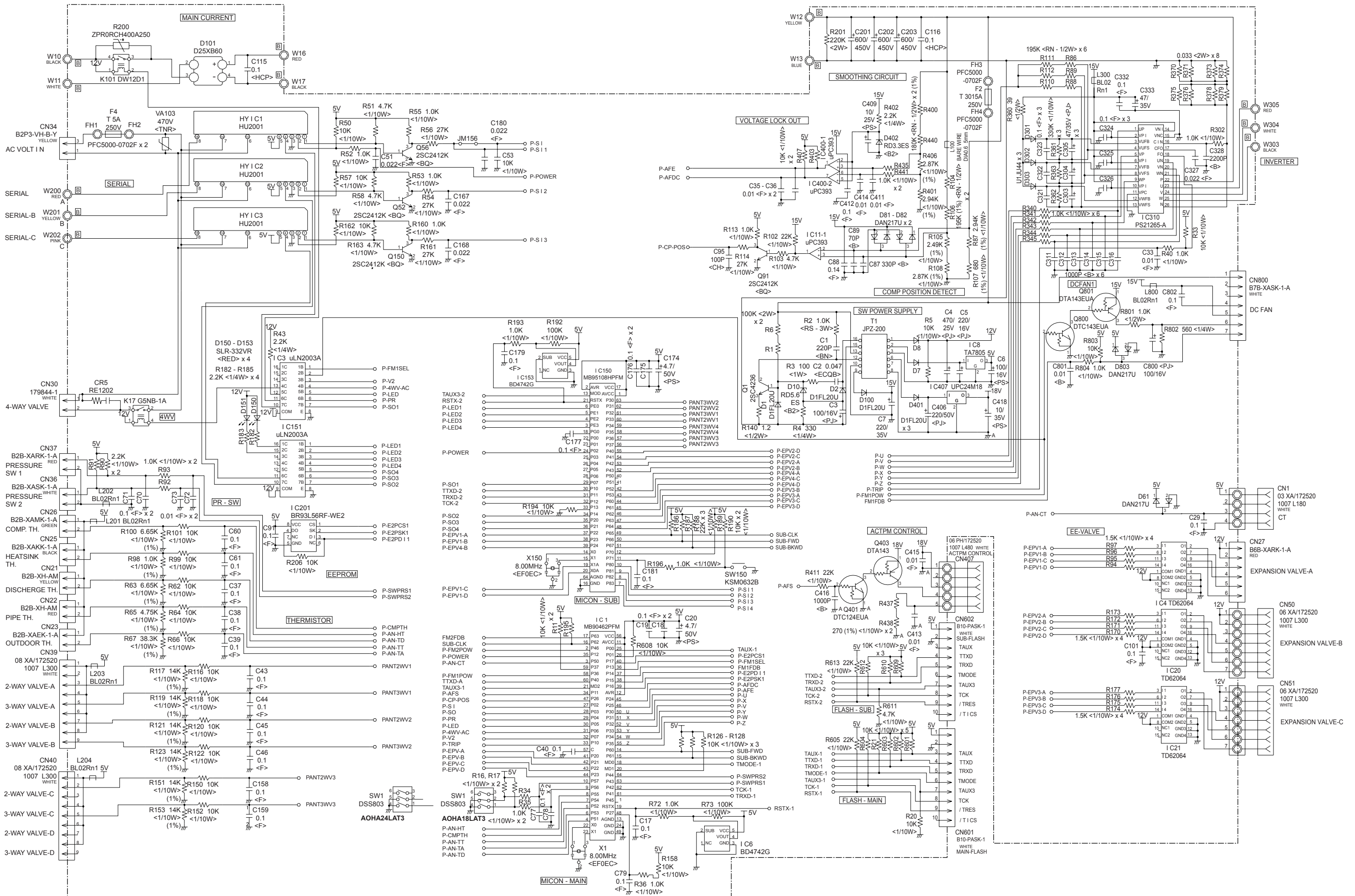
## INVERTER ASSEMBLY

AOHA18LAT3 : EZ-006KHUE

AOHA24LAT3 : EZ-0068HUE

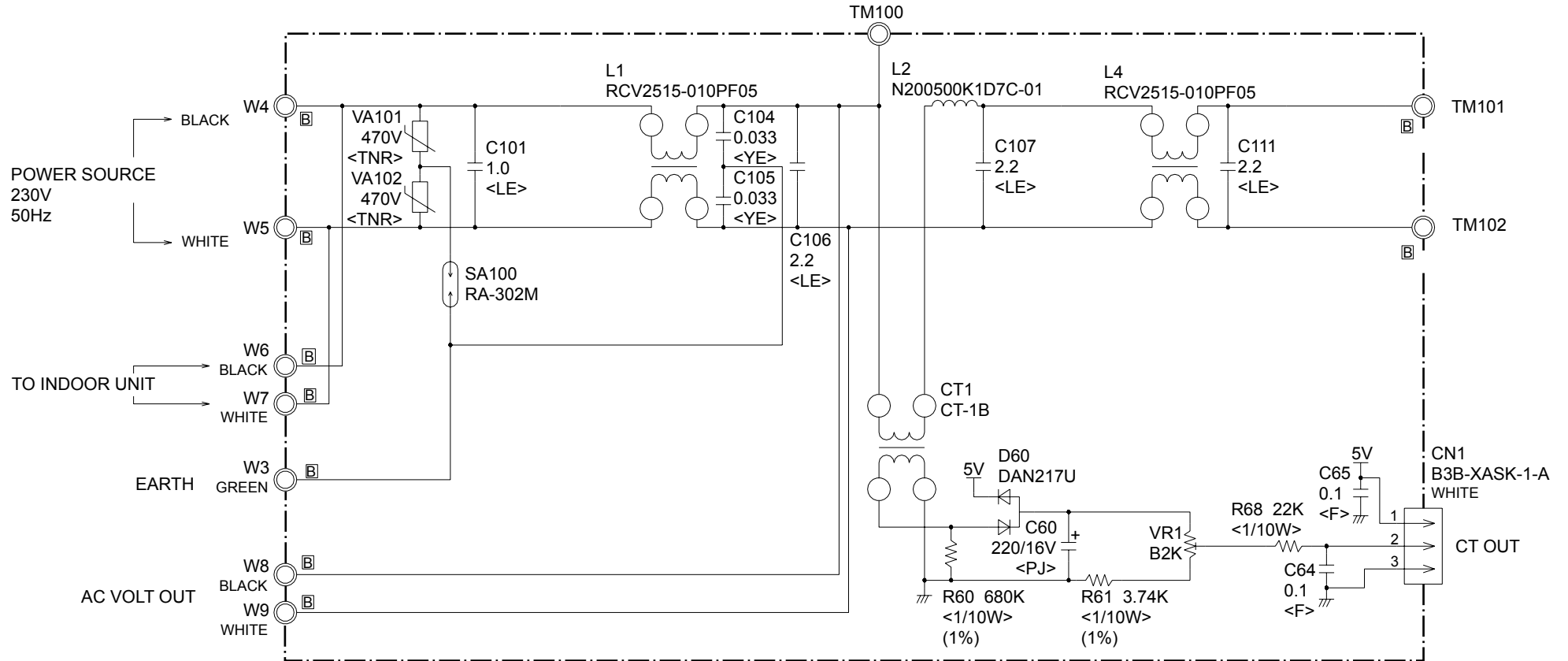


CONTROLLER PCB ASSEMBLY  
 AOHA18LAT3 : K04AW-0605HUE-C1  
 AOHA24LAT3 : K04AW-0602HUE-C1



# OUTDOOR UNIT

## POWER SUPPLY PCB ASSEMBLY K04BA-0505HUE-P0



# ERROR CONTENTS

## INDOOR UNIT

Error contents		Error display Indoor unit LED			
		OPERATION (Red)	TIMER (Green)	AIR CLEAN or QUIET (Green)	COIL DRY (Orange)
Communication error	Indoor unit - Outdoor unit	off	2 - 5 flashes	off	off
Indoor unit temperature error	Room temp. sensor error	2 flashes	2 flashes	off	off
	Heat exchanger temp. sensor error	2 flashes	3 flashes	off	off
Outdoor unit temperature error	Discharge pipe temp. sensor error	3 flashes	2 flashes	off	off
	Heat exchanger temp. sensor error	3 flashes	3 flashes	off	off
	Outdoor temp. sensor error	3 flashes	4 flashes	off	off
	2 way valve temp. sensor error	3 flashes	off	2 flashes	off
	3 way valve temp. sensor error	3 flashes	off	3 flashes	off
	Heat sink temp. sensor error	3 flashes	7 flashes	off	off
Indoor unit control system error	Compressor temp. sensor error	3 flashes	8 flashes	off	off
	MANUAL AUTO button error	4 flashes	2 flashes	off	off
	50Hz / 60Hz distinguish error	4 flashes	4 flashes	off	off
	Electronic Air clean filter error	4 flashes	7 flashes	off	off
Outdoor unit control system error	Electronic Air clean filter error	4 flashes	8 flashes	off	off
	Current trip error	5 flashes	2 flashes	off	off
	CT error	5 flashes	3 flashes	off	off
	Compressor position error	5 flashes	5 flashes	off	off
	Fan motor error	5 flashes	6 flashes	off	off
	Connected indoor unit error	5 flashes	7 flashes	off	off
Indoor unit fan motor error	Main CPU - sub CPU communication error	5 flashes	8 flashes	off	off
	Fan motor error	6 flashes	2 flashes	off	off
Refrigerant system error	Fan motor error	6 flashes	3 flashes	off	off
	Discharge pipe temp. error	7 flashes	2 flashes	off	off
	High pressure error	7 flashes	3 flashes	off	off
Added function error	High pressure switch error	7 flashes	6 flashes	off	off
	Active filter error	8 flashes	2 - 3 flashes	off	off
Indoor unit connect error	Indoor unit model error	blinking	blinking	blinking	blinking

## OUTDOOR UNIT LEDS

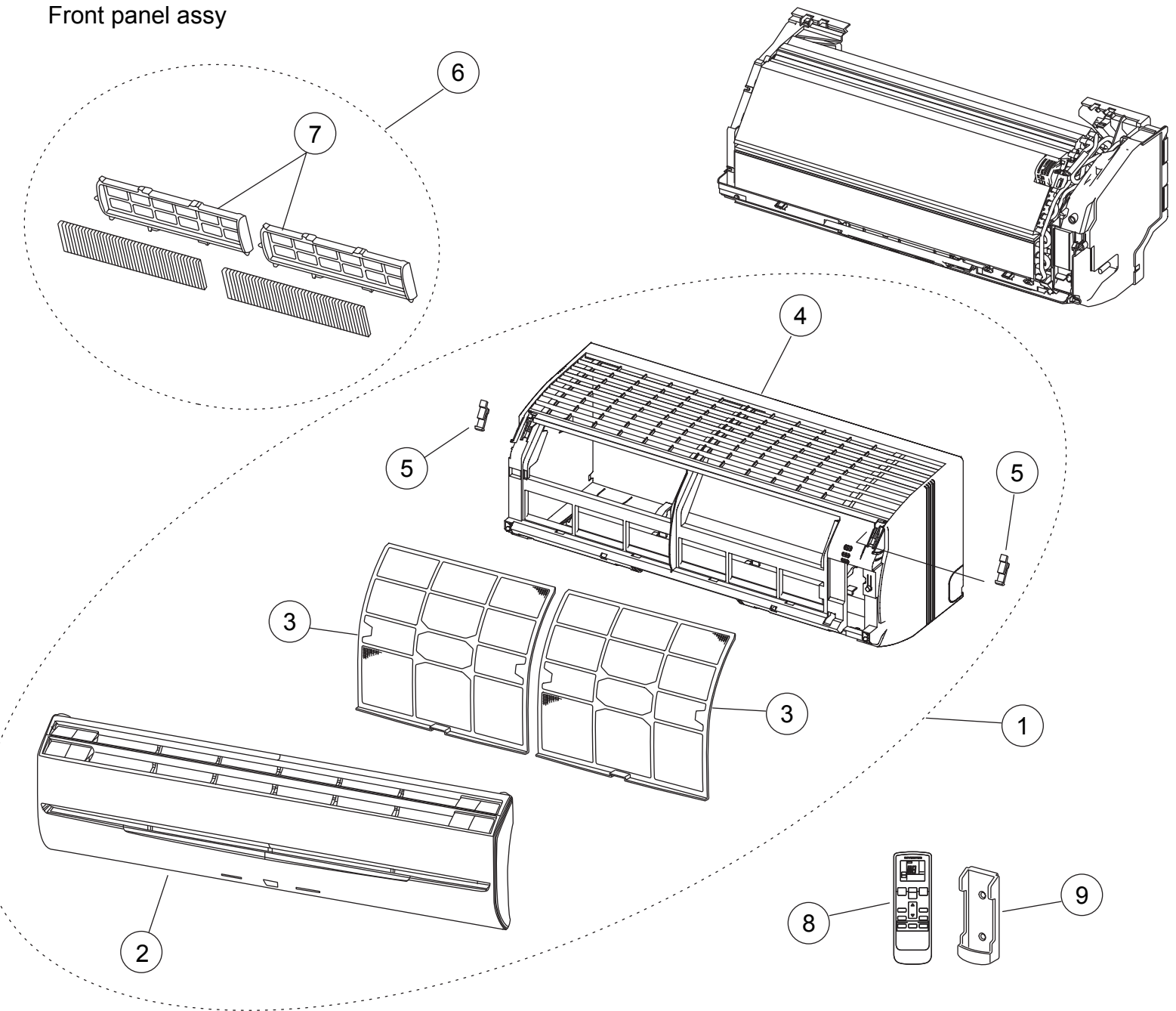
	LED A	LED B	LED C
Communication error (indoor unit A to outdoor unit)	● 1 time	—	—
Communication error (indoor unit B to outdoor unit)	—	● 1 time	—
Communication error (indoor unit C to outdoor unit)	—		● 1 time
Discharge pipe temperature sensor	● 2 times	—	—
Outdoor heat exchanger temperature sensor	● 3 times	—	—
Outdoor temperature sensor	● 4 times	—	—
Outdoor 2way valve(A) temperature sensor	● 5 times	—	—
Outdoor 2way valve(B) temperature sensor	—	● 5 times	—
Outdoor 2way valve(C) temperature sensor	—	—	● 5 times
Outdoor 3way valve(A) temperature sensor	● 6 times	—	—
Outdoor 3way valve(B) temperature sensor	—	● 6 times	—
Outdoor 3way valve(C) temperature sensor	—	—	● 6 times
Compressor temperature sensor	● 7 times	—	—
Heatsink temperature sensor	● 8 times	—	—
Pressure switch A abnormal	● 9 times	—	—
Pressure switch B abnormal	● 10 times	—	—
Indoor unit connection capacity error	● 11 times	—	—
IPM error	● 12 times	—	—
Compressor loter location error	● 13 times	—	—
Compressor can not start to operate	● 14 times	—	—
Outdoor fan (upper) motor error	● 15 times	—	—
Outdoor fan (lower) motor error	● 16 times	—	—
Microcomputer error	● 17 times	—	—
4way valve (Solenoid) abnormal	● 18 times	—	—

● : Slow flashing - : Off



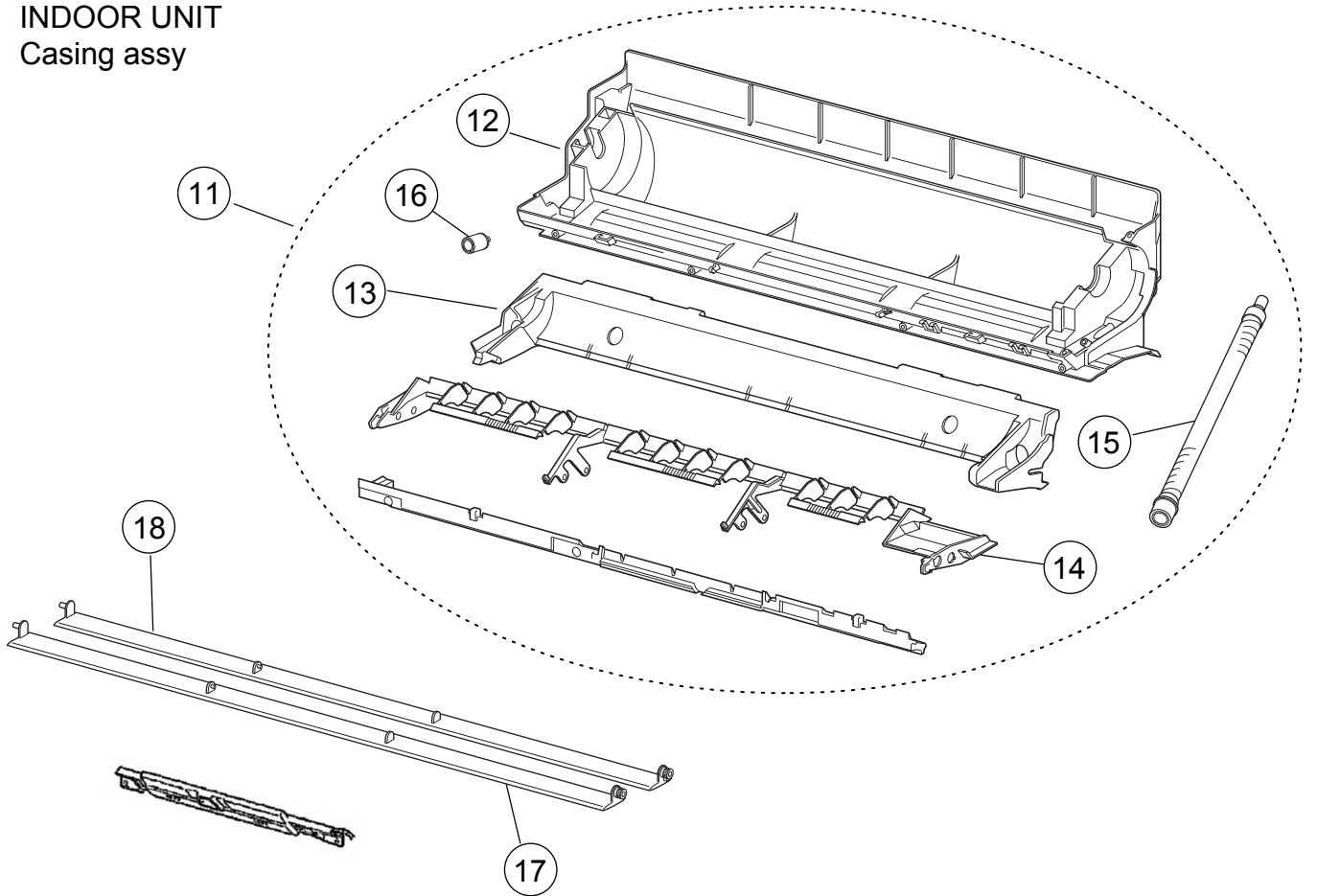
# PARTS

## INDOOR UNIT Front panel assy



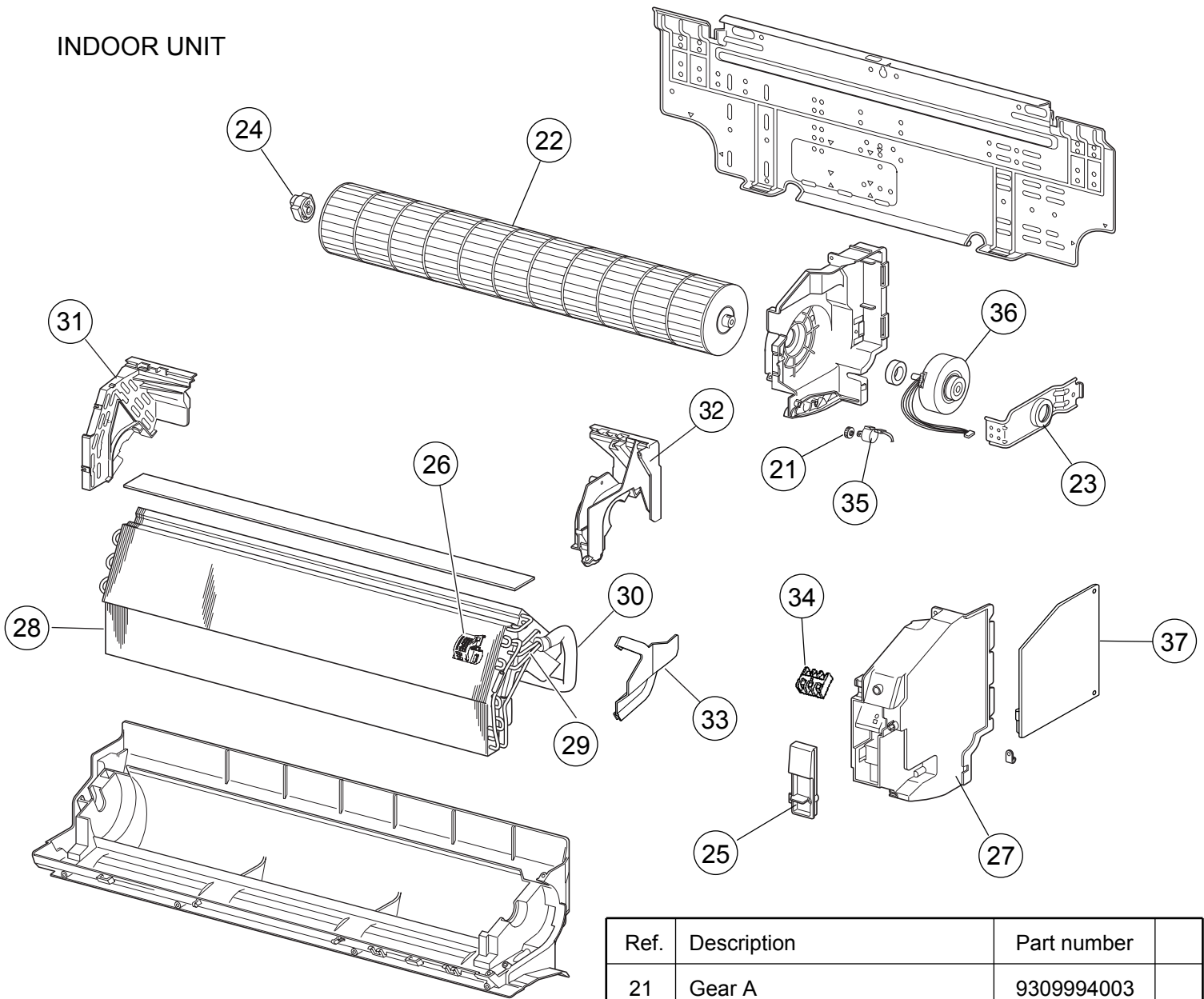
Ref.	Description	Part number	
1	Front Panel Assy	9313130169	
2	Intake Grille Assy	9313131142	
3	Air Filter	9309997011	
4	Front Panel	9309999053	
5	Clamper (Grille)	9306755010	
6	Air Clean Filter Assy	9312152018	
7	Electric Filter Holder	9306602017	
8	Remote Control Unit	9315027030	
9	Remote Control Holder	9305642045	

INDOOR UNIT  
Casing assy



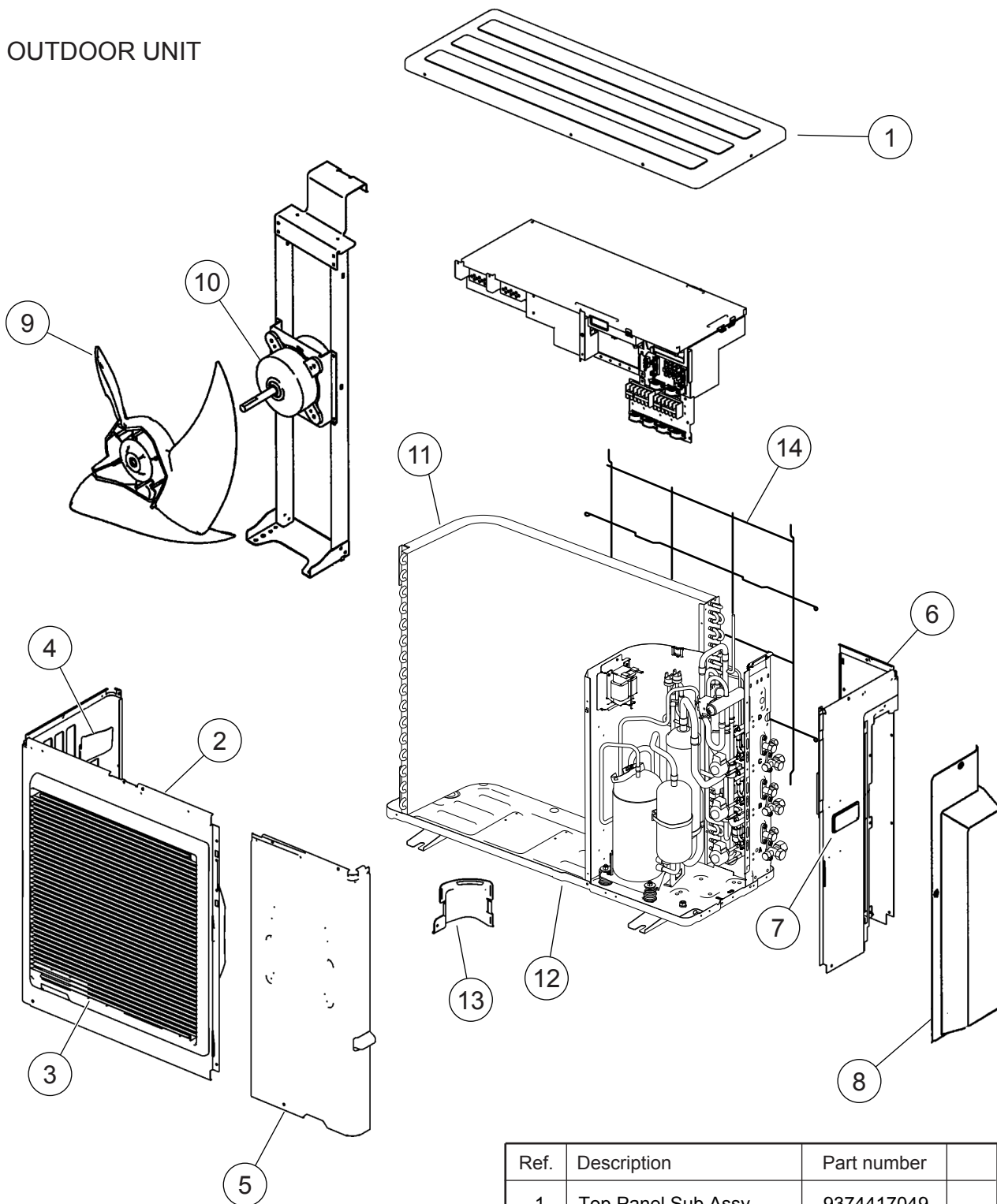
Ref.	Description	Part number	
11	Casing Assy	9311354116	
12	Casing Cover B	9314160011	
13	Casing Cover F	9309987005	
14	Louver Holder	9309993013	
15	Drain Hose Assy	9314147029	
16	Drain Cap Assy	9316177017	
17	Louver U	9309991033	
18	Louver Z	9309992030	

# INDOOR UNIT



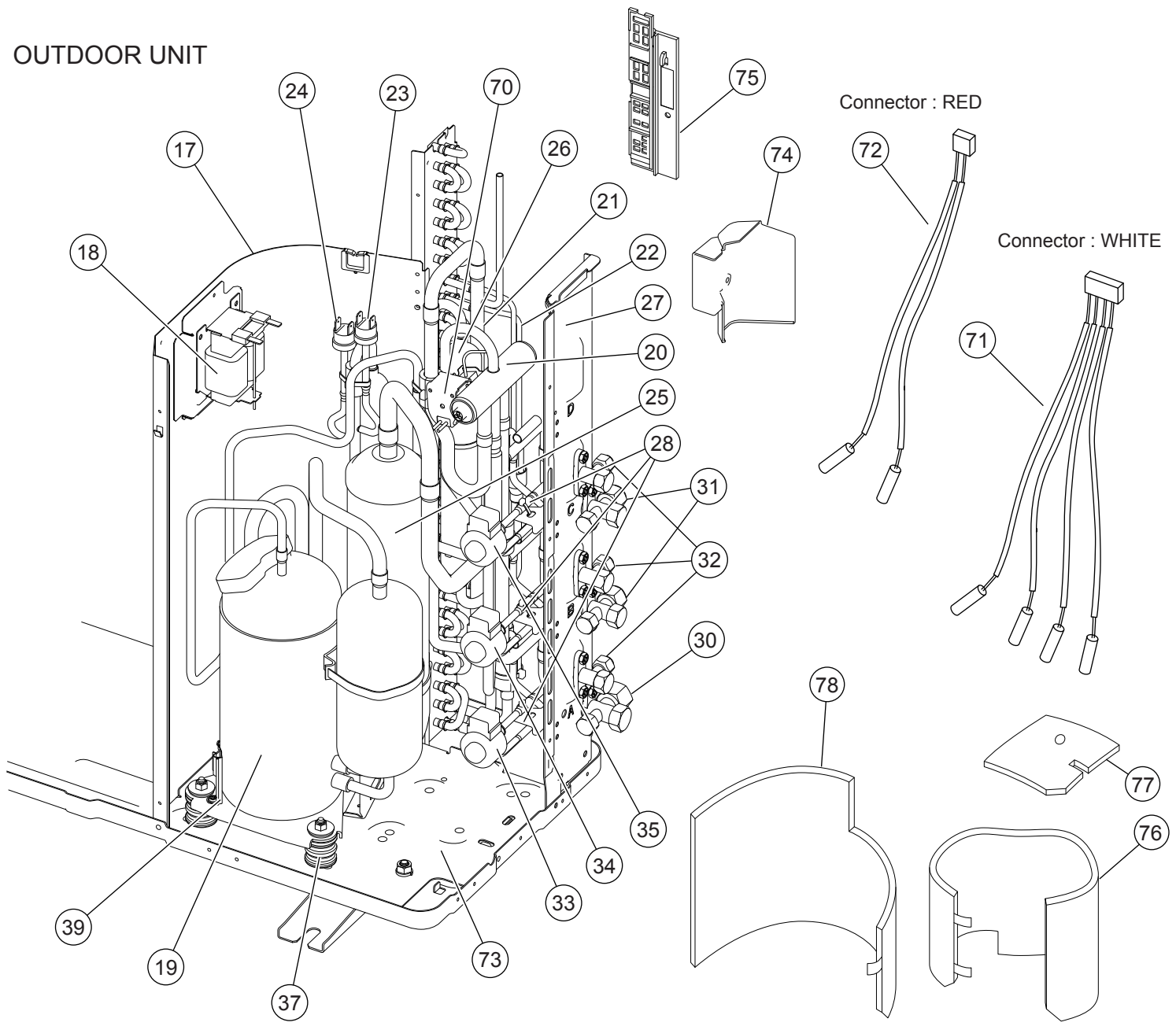
Ref.	Description	Part number
21	Gear A	9309994003
22	Crossflow Fan Assy	9307836015
23	Clamp (Motor)	9310102008
24	Shaft Holder C Assy	9306628017
25	Wire Clamper	9313944018
26	Holder (Room Thermistor)	9311948018
27	Cover (Switch)	9313943011
28	Evaporator Total Assy	9313099039
29	Joint Pipe Assy	9313104016
30	Insulation (Pipe) E	9304607007
31	Holder (Evaporator) L	9309982017
32	Holder (Evaporator) R	9309983014
33	Water Seal	9312912018
34	Terminal	9701955114
35	Step Motor	9900139025
36	Fan Motor Assy	9602109012
37	Controller PCB Assy (07LACM)	9707404067
37	Controller PCB Assy (09LACM)	9707404074
37	Controller PCB Assy (12LACM)	9707404081
---	Pipe Thermistor	9702039042
---	Room Thermistor	9700801108
---	Indicator PCB Assy	9705039032

# OUTDOOR UNIT



Ref.	Description	Part number
1	Top Panel Sub Assy	9374417049
2	Front Panel	9374094080
3	Fan Guard	9374330010
4	Grip Side	9374173013
5	Service Panel Sub Assy	9374415045
6	Right Panel	9374599042
7	Grip	9374172016
8	Valve Cover Sub Assy	9374827015
9	Propeller Fan Assy	9366378020
10	Fan Motor	9601882015
11	Condenser A Assy	9374433179
12	Base Assy	9374166121
13	Cap Foot	9374345014
14	Protective Net	9375381028
---	Emblem Rear	9372171011

# OUTDOOR UNIT

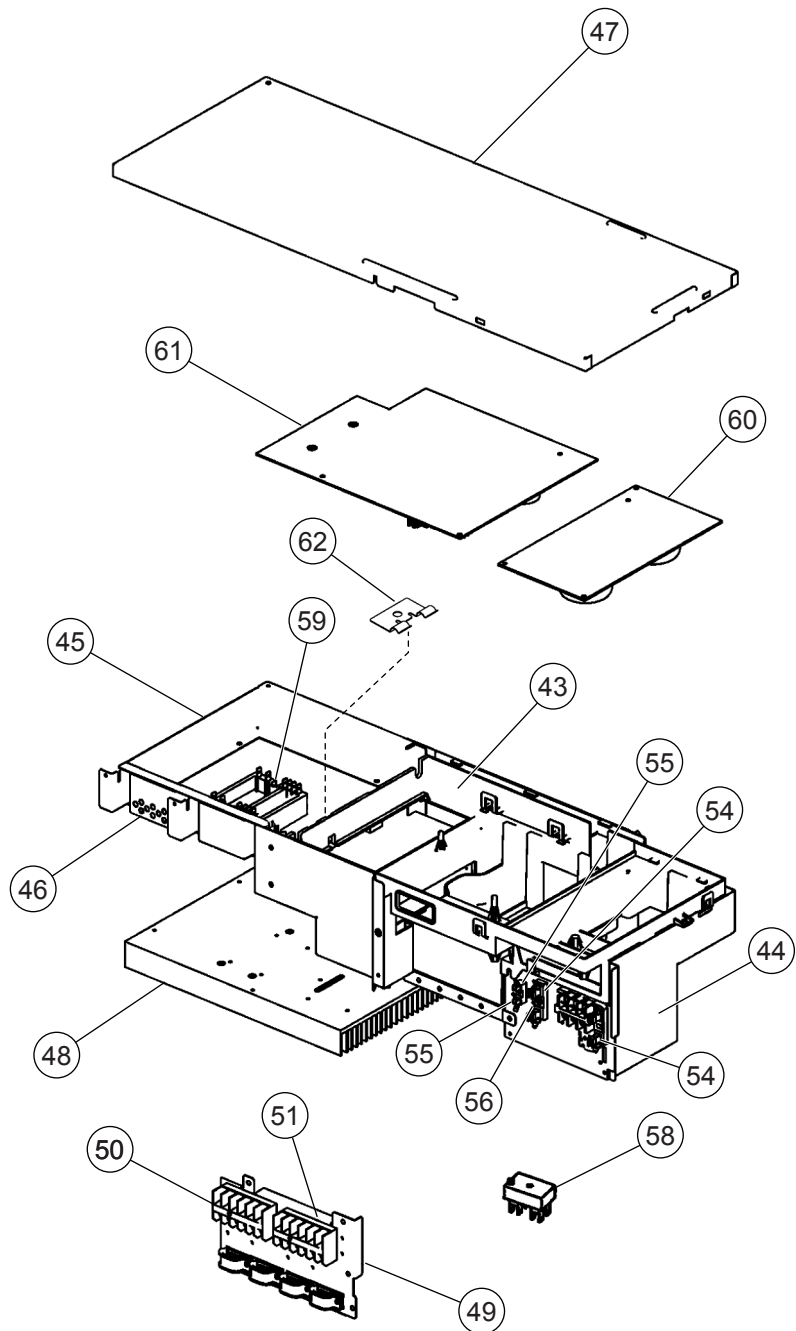


Ref.	Description	Part number
17	Separate Wall Assy	9375226022
18	Coil. Choke	9900366018
19	Compressor Assy	9315297037
20	4-Way Valve Assy	9374425136
21	Inlet Pipe (Cond) A Assy	9373461104
22	Outlet Pipe (Cond) A Assy	9374266111
23	Pressure Switch A	9900186012
24	Pressure Switch B	9900341015
25	Accumulator Assy	9375250027
26	Receiver Tank Assy	9374575039
27	Valve Plate A Assy	9374628148
28	Pulse Motor Valve	9900056025
30	3-Way Valve Assy (1/2")	9375104016
31	3-Way Valve Assy (3/8")	9375103019
32	2-Way Valve Assy	9375102012

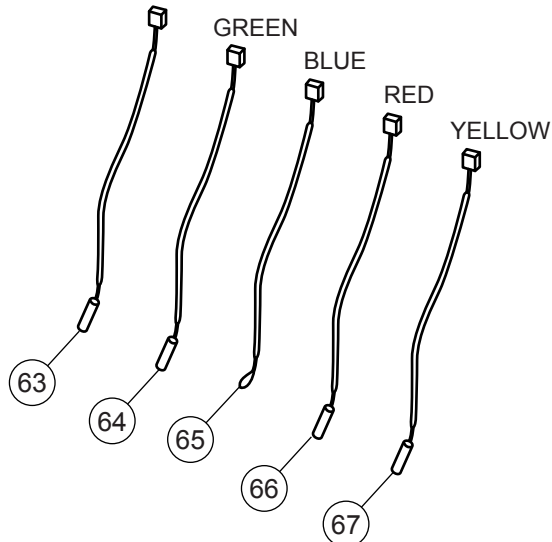
Ref.	Description	Part number
33	Coil (Expansion Valve) (A=Red)	9900057084
34	Coil (Expansion Valve) (B=White)	9900057053
35	Coil (Expansion Valve) (C=Green)	9900057060
37	Rubber Cushion (For Comp)	9312680016
39	Thermistor Holder	9377911018
70	Solenoid	9900165079
71	Thermistor (Pipe)(White)	9900373030
72	Thermistor (Pipe)(Red)	9900372019
73	Compressor Plate Assy	9375221058
74	Water Seal Plate	9375222017
75	Thermo Holder	9375211011
76	Compressor Cover A	9374430093
77	Compressor Cover B	9374431090
78	Compressor Cover C	9372067079

OUTDOOR UNIT  
Inverter assy

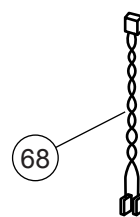
Ref.	Description	Part number
43	Inverter Box A	9374603015
44	Inverter Box B Assy	9374625024
45	Inverter Box C	9375140014
46	Inverter Box Duct	9374609017
47	Inverter Box Cover	9375139018
48	Heat Sink A	9375138011
49	Inverter Box D	9374606023
50	Terminal (6P)	9900016036
51	Terminal (3P)	9306489045
54	Fuse Holder (Big)	0501454012
55	Fuse Holder (Small)	0501456016
56	Fuse (Big)	0600086039
57	Fuse (Small)	0600376116
58	Terminal (2P)	9701971015
59	ACTPM	9703457012
60	Power Supply PCB Assy	9705647091
61	Controller PCB Assy (18LAT3)	9705642225
61	Controller PCB Assy (24LAT3)	9705642195
62	Holder (Thermo)	9372797013
63	Heat Sink Thermistor	9900311018
64	Compressor Temp Thermistor	9900156053
65	Thermistor (Outdoor Temp)	9900378028
66	Heat Exchanger Thermistor	9900374020
67	Discharge Temp Thermistor	9704219039
68	Wire (Pressure Sw) (Red)	9377823014
69	Wire (Pressure Sw) (White)	9377823021



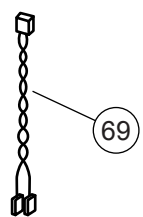
Connector : BLACK



Connector : RED

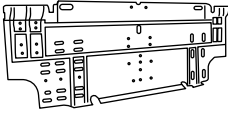
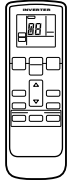

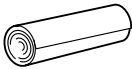
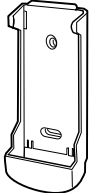
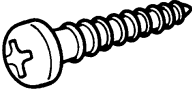



WHITE

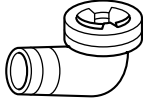
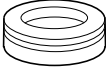
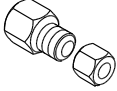



# STANDARD ACCESSORIES

## INDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Wall hook bracket 	1	For indoor unit installation	9310001004
Remote control unit 	1	Use for air conditioner operation	9315027030
Battery (penlight) 	2	For remote control unit	0600185527
Cloth tape 	1	For indoor unit installation	9310519004
Remote control unit holder 	1	Use as remote control unit holder	9305642045
Tapping screw (big) ( φ 4 x 25) 	8	For wall hook bracket installation	0700076046
Tapping screw (small) ( φ 3 x 12) 	2	For remote control unit holder installation	0700019036

## OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Drain pipe 	1	For outdoor unit drain piping work	9303029015
Drain cap 	2		313166024302
Adapter assy 12.7 mm → 9.52 mm (1/2 in.) (3/8 in.) 	1	For use when connecting models 9-12 to outdoor port A	9370244007
Putty 	1	For sealing	303020200114

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