

SERVICE MANUAL



Indoor unit		Outdoor unit
RSM-7LA	}	ROA18LAT3
RSM-9LA		
RSM-12LA		
RSM-7LA	}	ROA24LAT3
RSM-9LA		
RSM-12LA		

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SPECIFICATIONS

INDOOR UNIT

ELECTRICAL DATA

TYPE	COOL & HEAT		
MODEL NAME	RSM-7LA	RSM-9LA	RSM-12LA
COOLING CAPACITY	2.2 kW	2.7 kW	3.5 kW
HEATING CAPACITY	2.6 kW	3.2 kW	4.0 kW
MOISTURE REMOVAL	1.0 L/hr	1.2 L/hr	1.6 L/hr
AIR CIRCULATION HIGH	430 m ³ /h	480 m ³ /h	530 m ³ /h

FAN MOTOR

POWER SOURCE		230 V - 240 V		
DISCRIMINATION		MFA-40GR		
FAN SPEED	High	1,000 r.p.m.	1,200 r.p.m.	1,310 r.p.m.
	Med	900 r.p.m.	1,100 r.p.m.	1,260 r.p.m.
	Low	850 r.p.m.	1,000 r.p.m.	1,190 r.p.m.
	Quiet	800 r.p.m.	940 r.p.m.	1,100 r.p.m.

NOISE LEVEL

HIGH	34 dB	36 dB	38 dB
LOW	29 dB	29 dB	33 dB

MEASUREMENT

DIMENSIONS	H x W x D	257 x 808 x 187 mm
WEIGHT	Gross / Net	10 kg / 8 kg

OUTDOOR UNIT

ELECTRICAL SPECIFICATIONS

TYPE		Colling & Heating	
MODEL NAME		ROA18LAT3	ROA24LAT3
COOLING CAPACITY		5.4 kW	6.8 kW
HEATING CAPACITY		6.8 kW	8.0 kW
POWER SUPPLY		(220V) - 230V - (240V)	
FREQUENCY		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 m³/hr	3,300 m³/hr

FAN MOTOR

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

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, Inverter, 4 poles, 3 phase, DC motor, Twin Rotary
DISCRIMINATION		DA150A1F-20NA
PRECHARGED 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

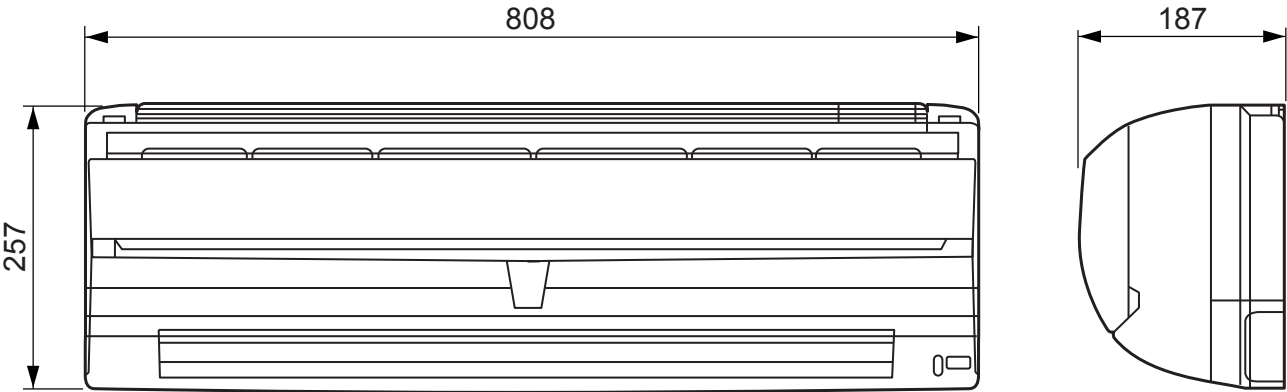
MEASUREMENT

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

OUTLINE AND DIMENSIONS

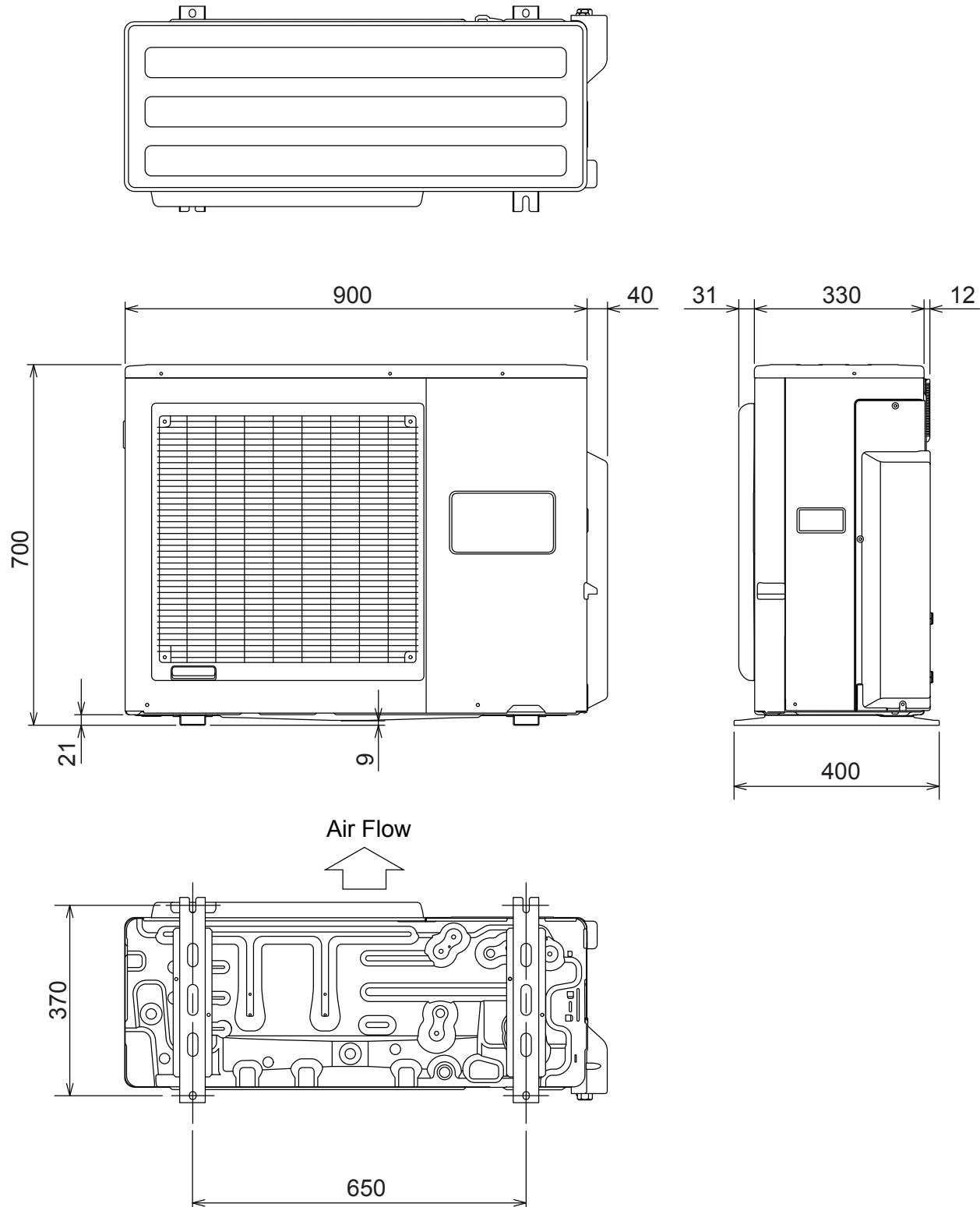
INDOOR UNIT

Unit : mm



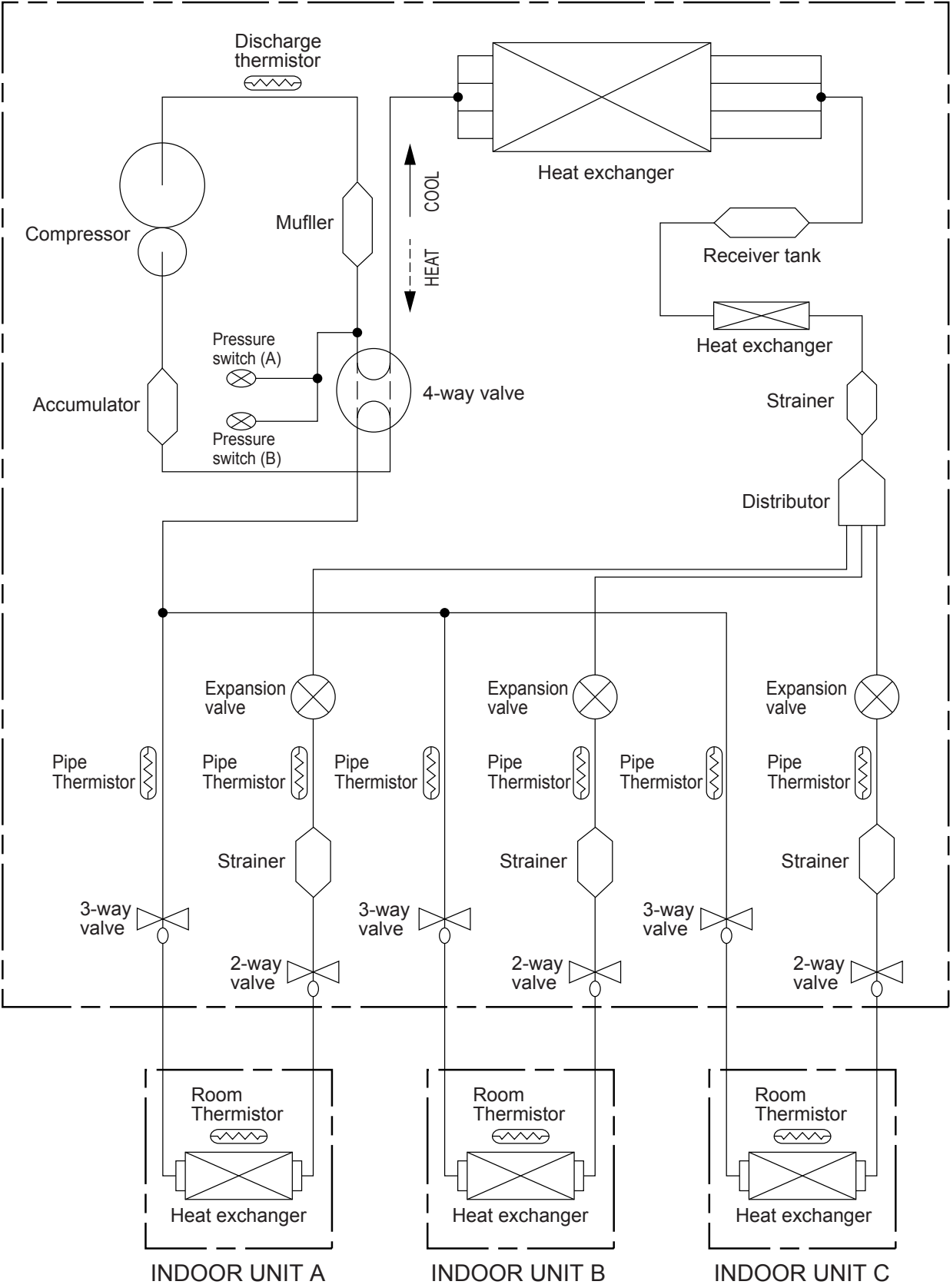
OUTDOOR UNIT

Unit : mm



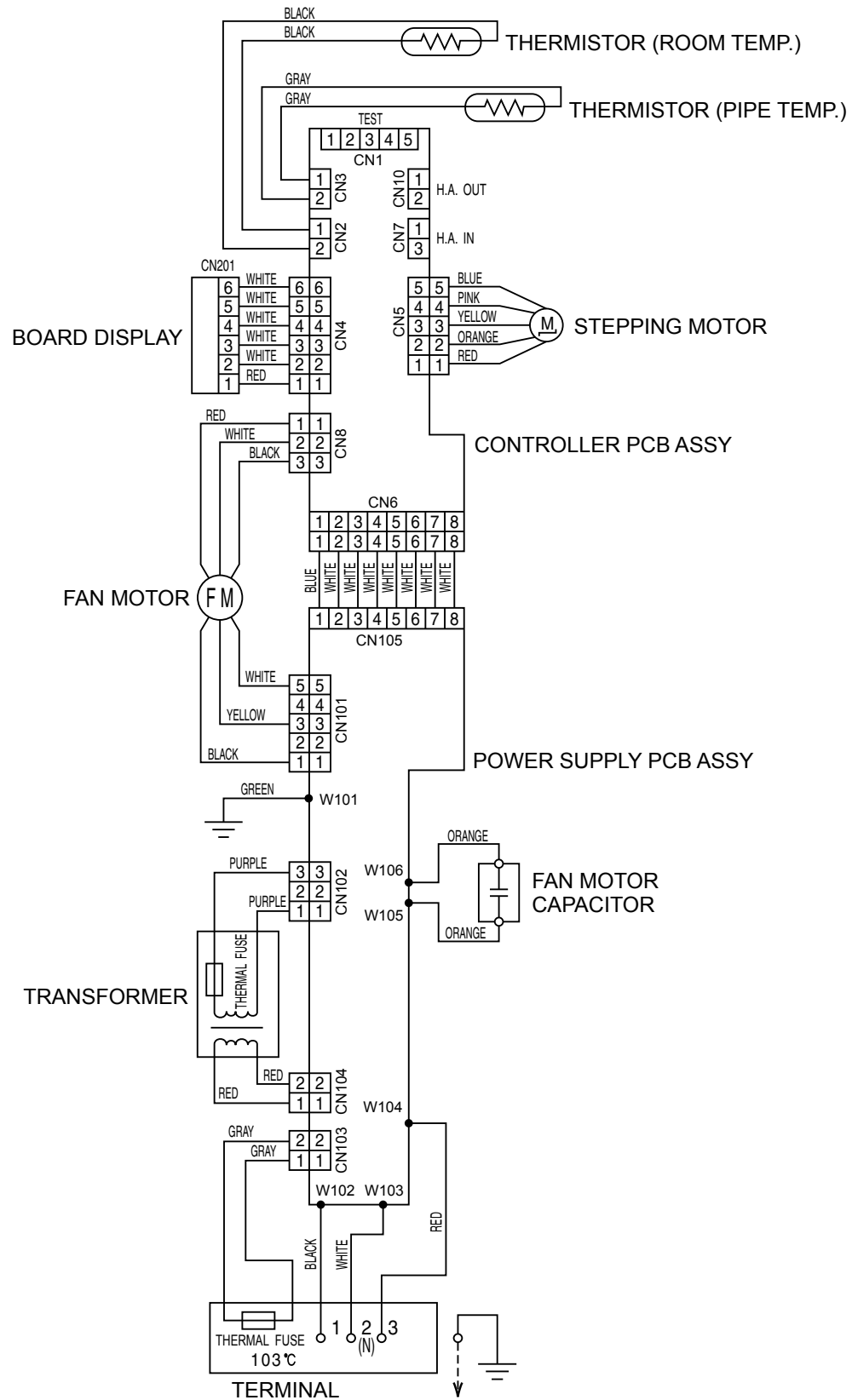
REFRIGERANT SYSTEM DIAGRAM

OUTDOOR UNIT

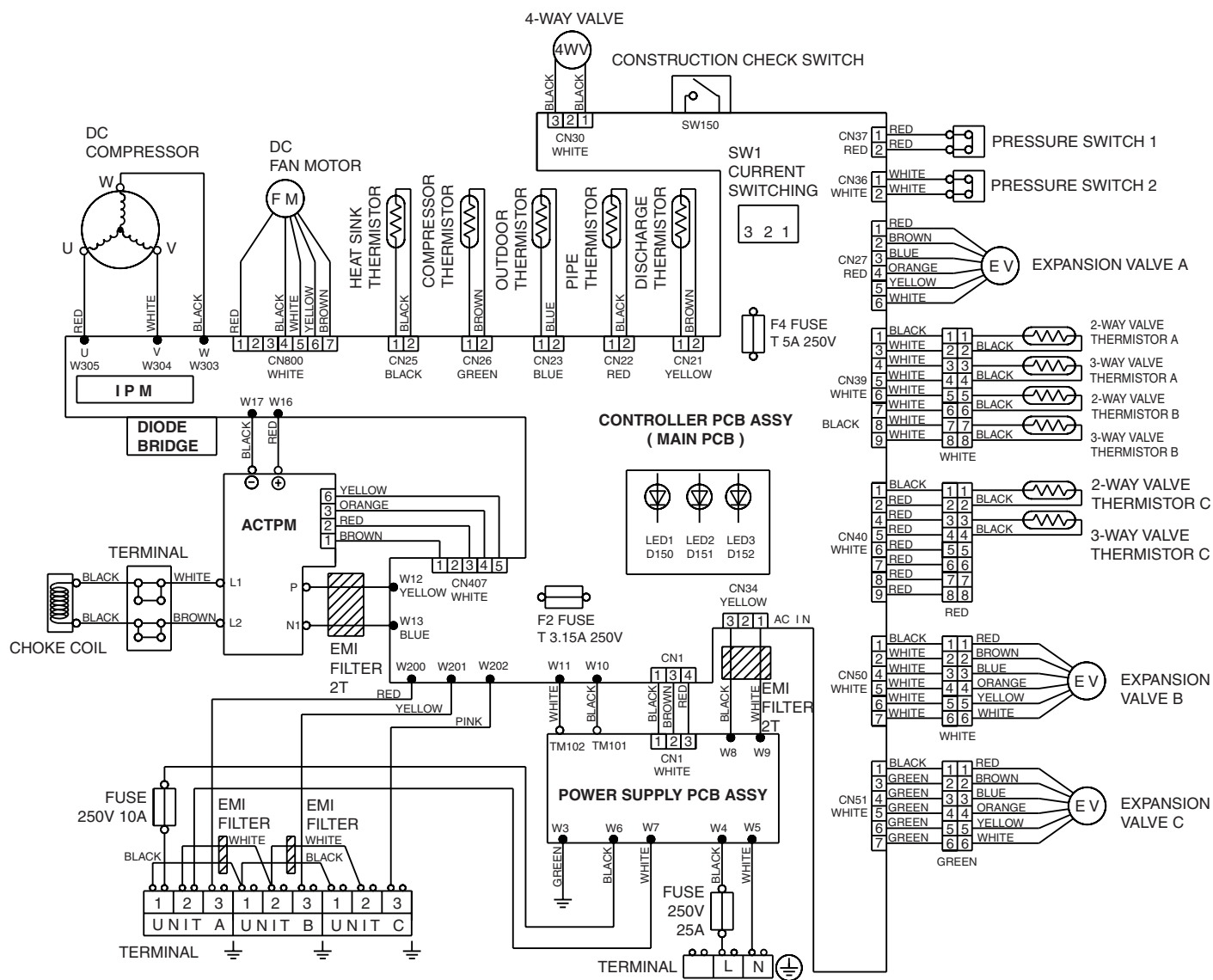


CIRCUIT DIAGRAM

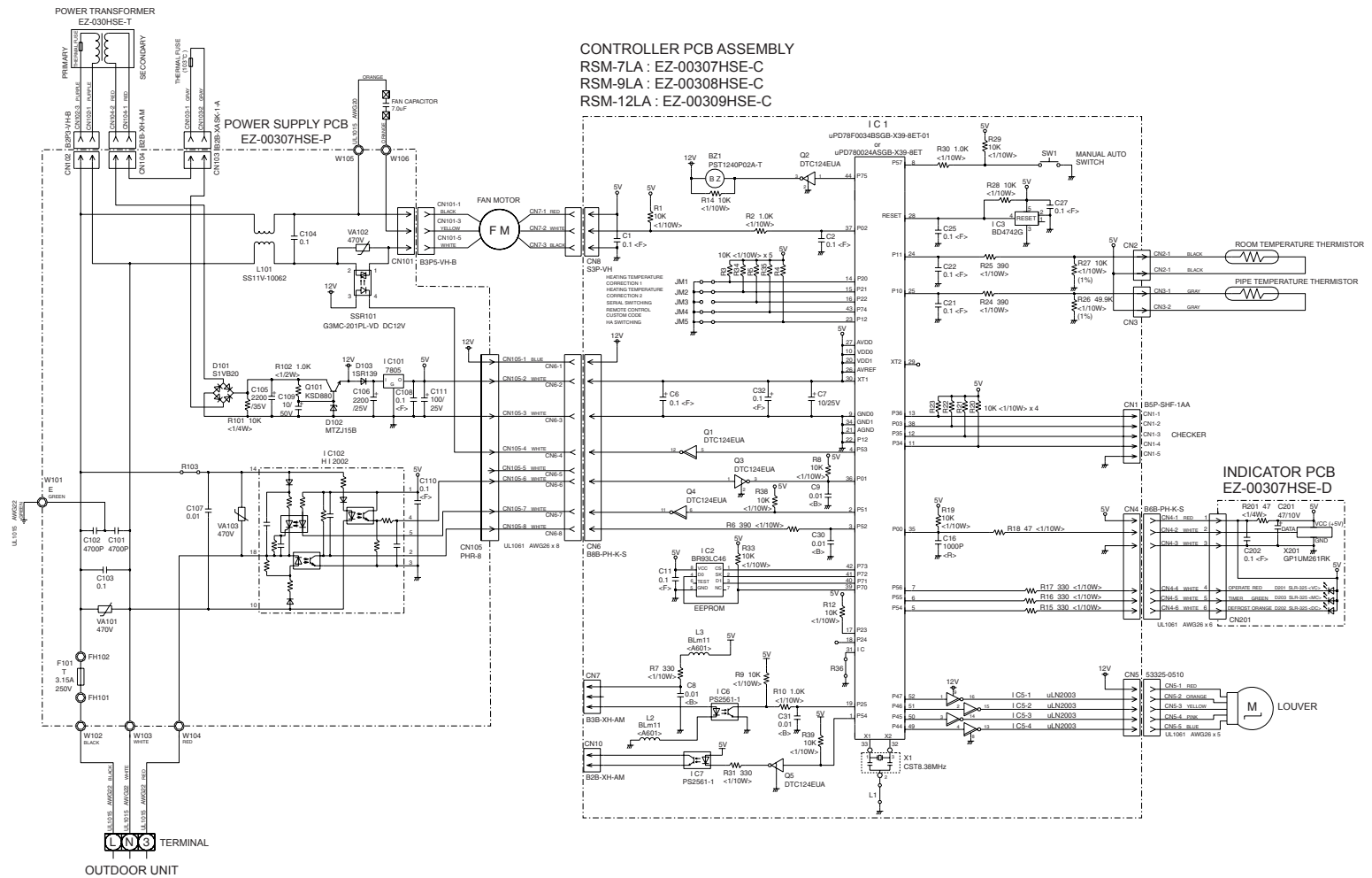
INDOOR UNIT



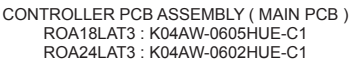
OUTDOOR UNIT



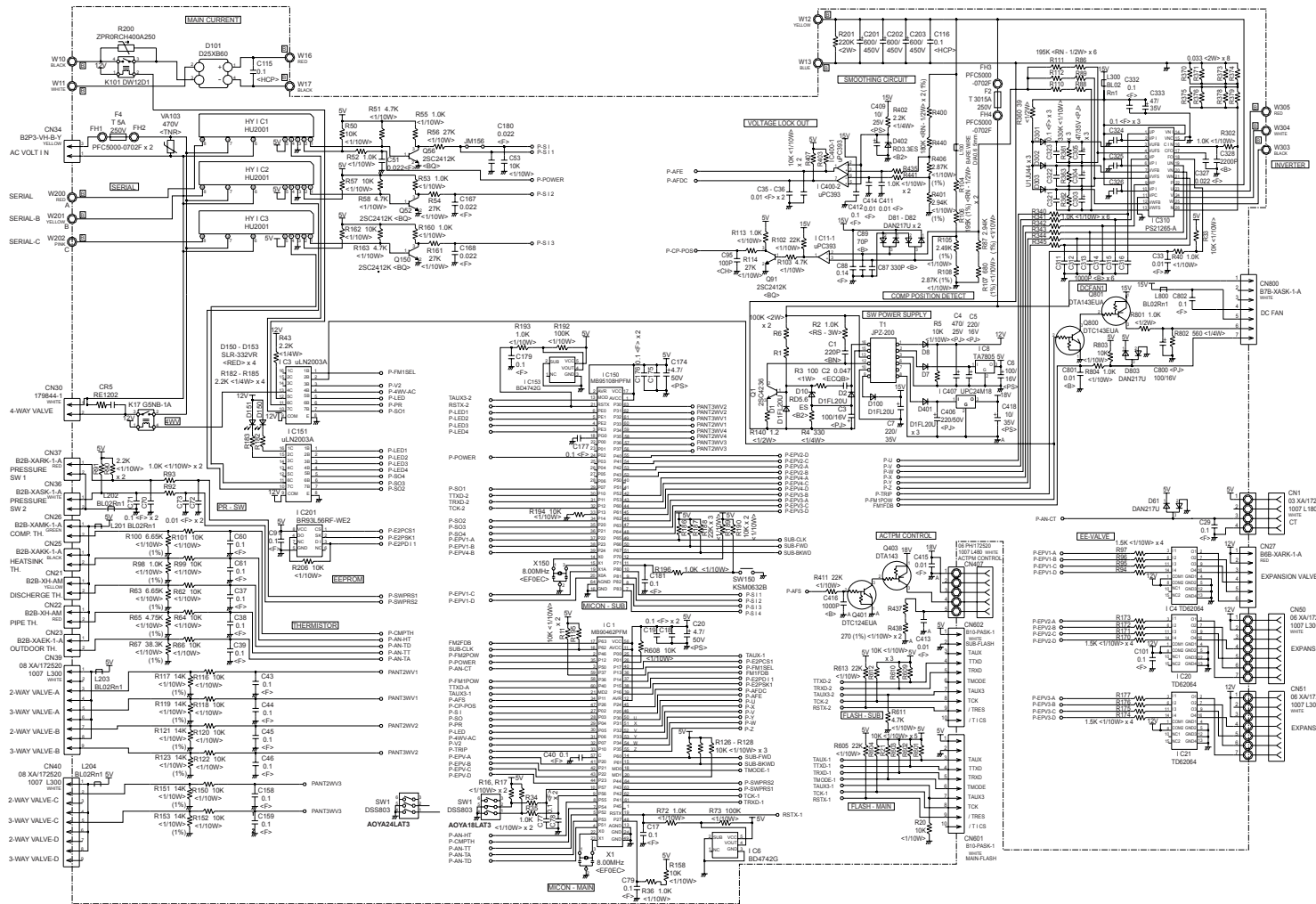
INDOOR PCB CIRCUIT DIAGRAM



INVERTER ASSEMBLY
ROA18LAT3 : EZ-006KHUE
ROA24LAT3 : EZ-0068HUE

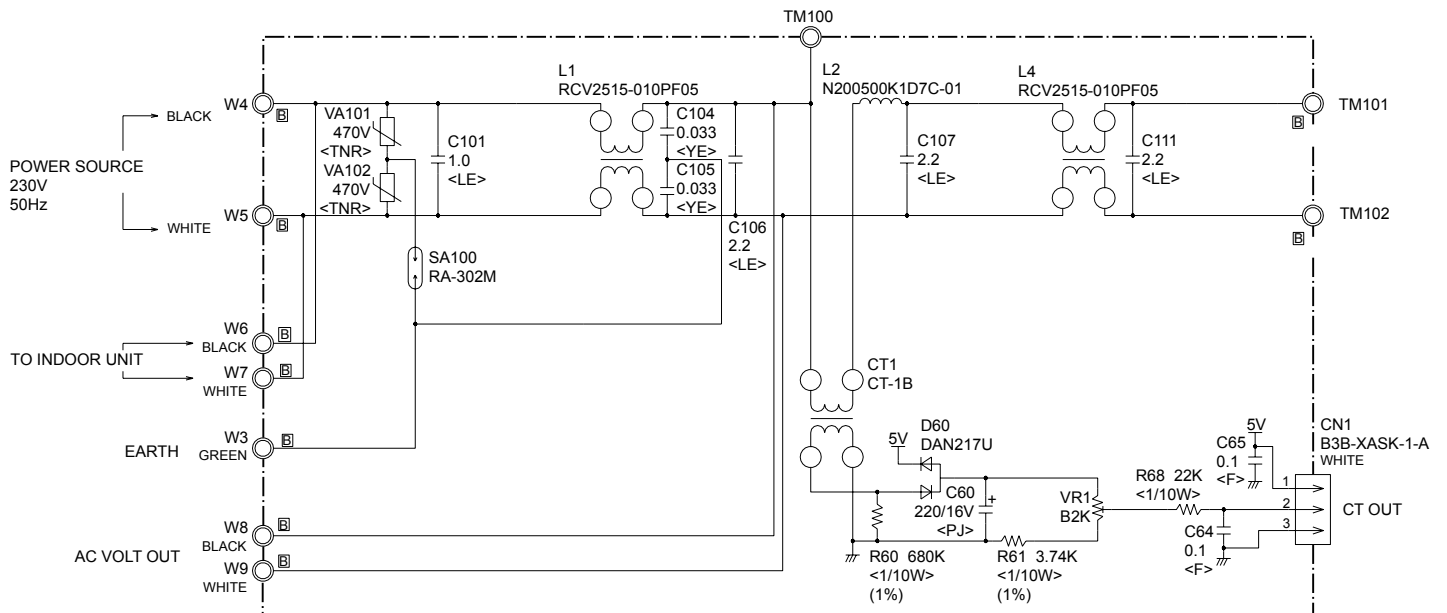


CONTROLLER PCB ASSEMBLY
ROA18LAT3 : K04AW-0605HUE-C1
ROA24LAT3 : K04AW-0602HUE-C1



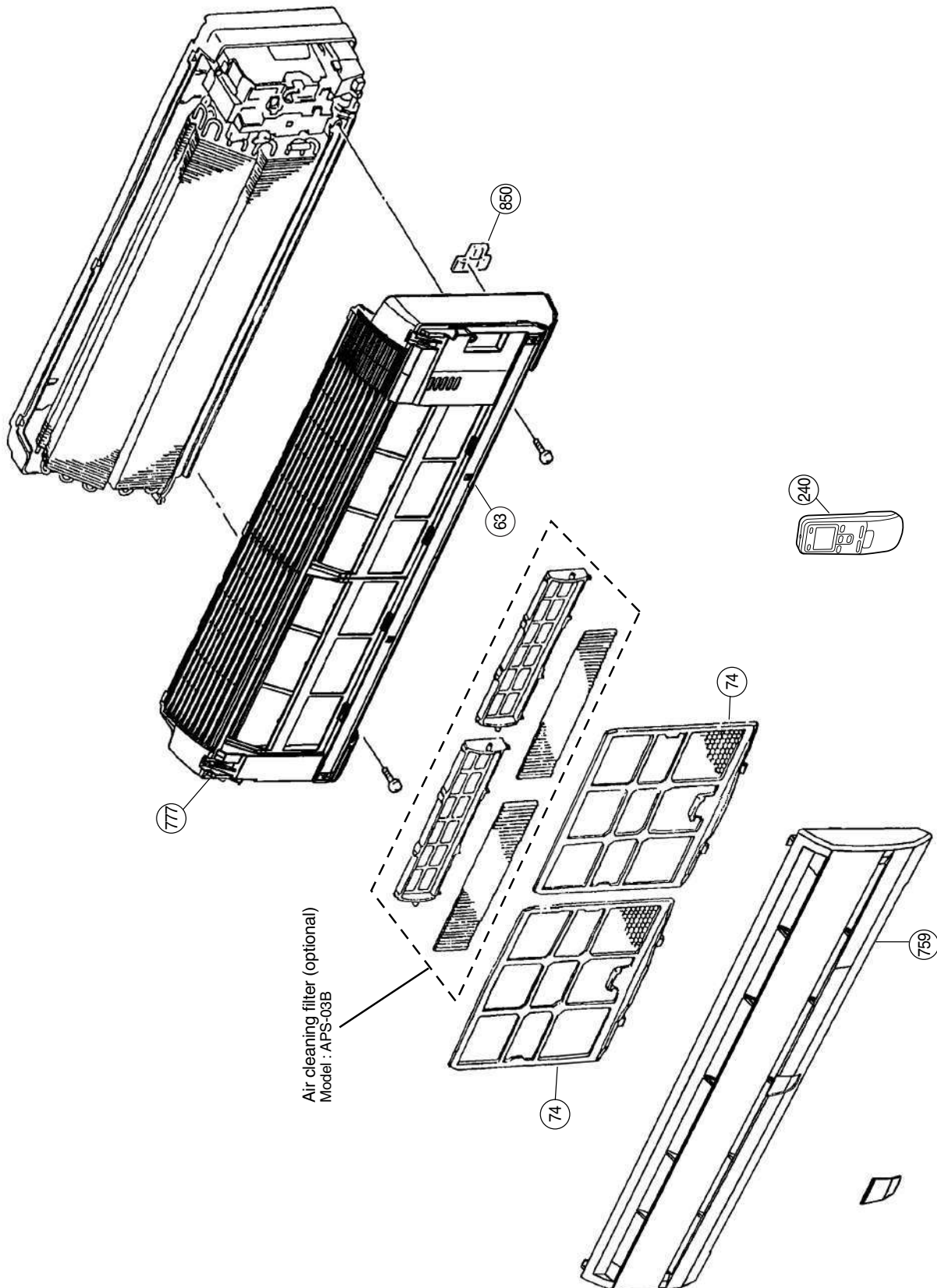
OUTDOOR UNIT

POWER SUPPLY PCB ASSEMBLY K04BA-0505HUE-P0

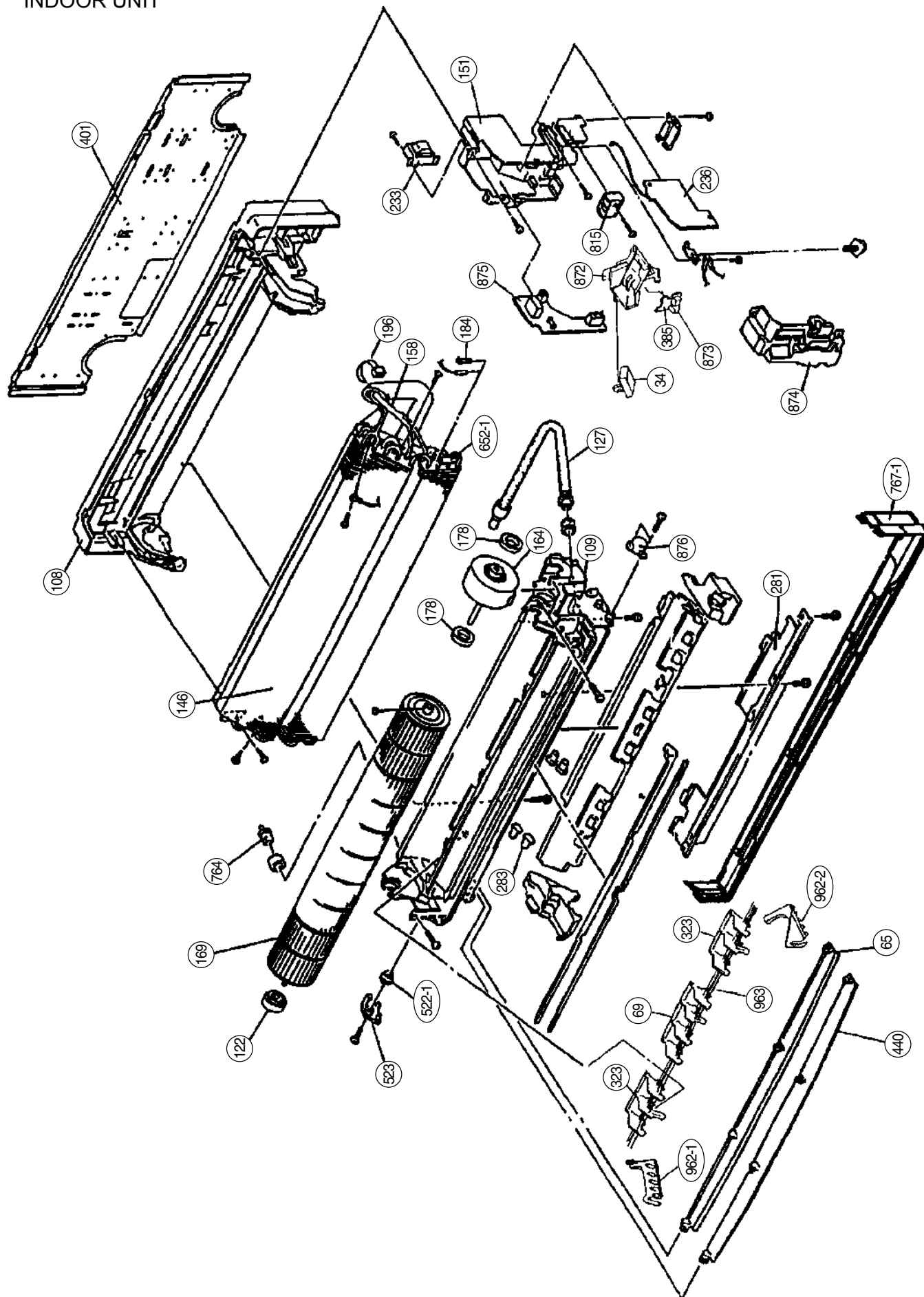


DISASSEMBLY ILLUSTRATION

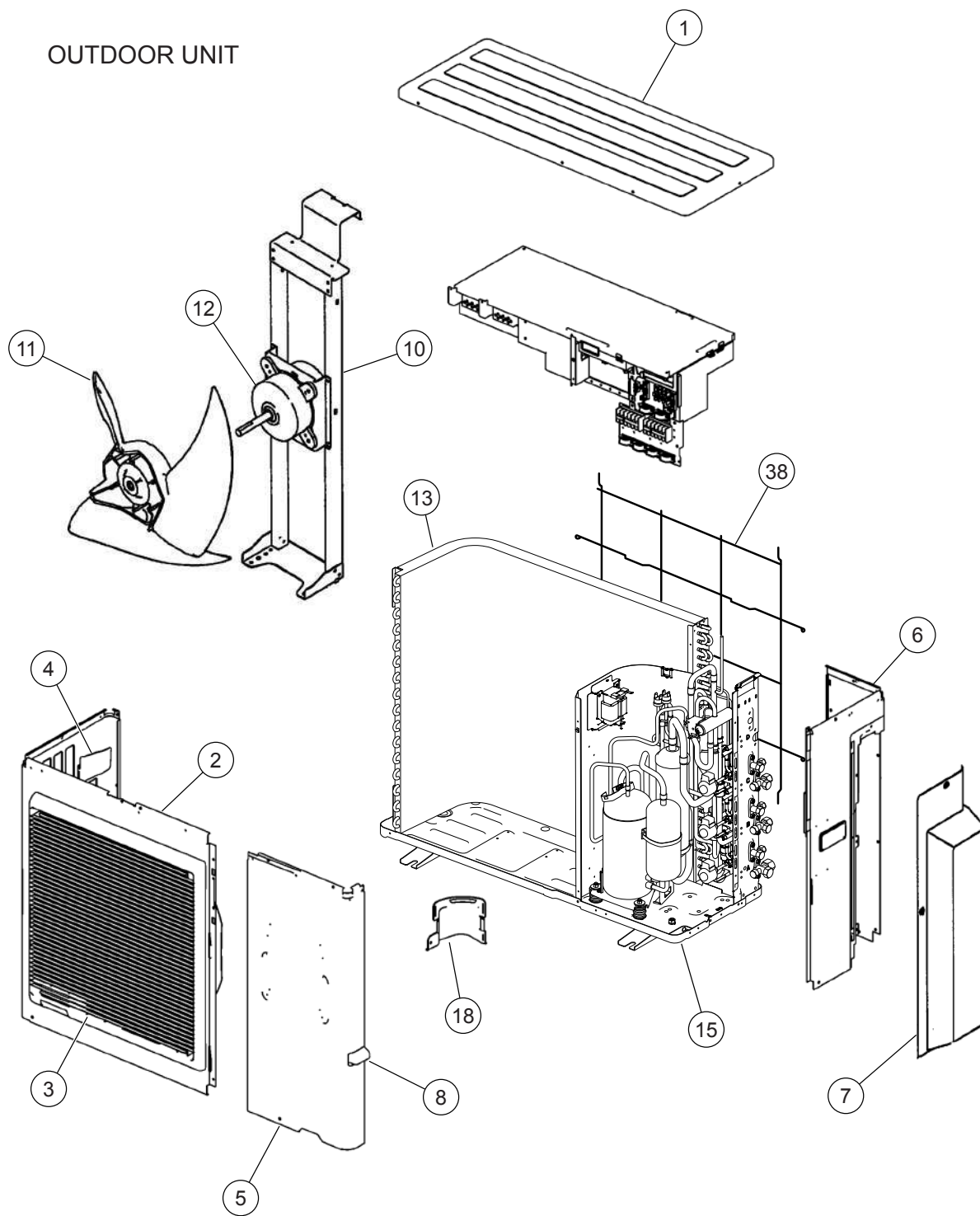
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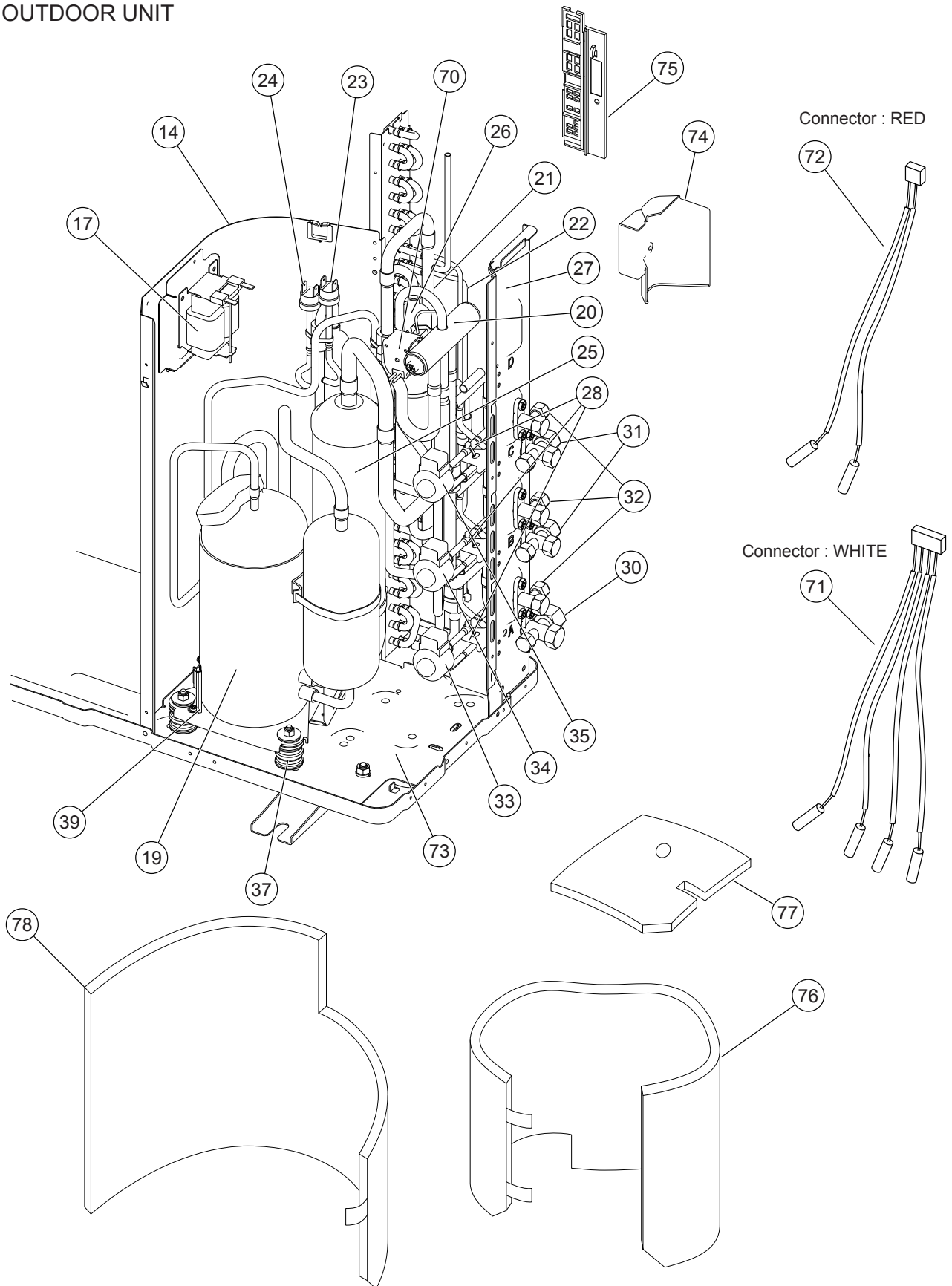
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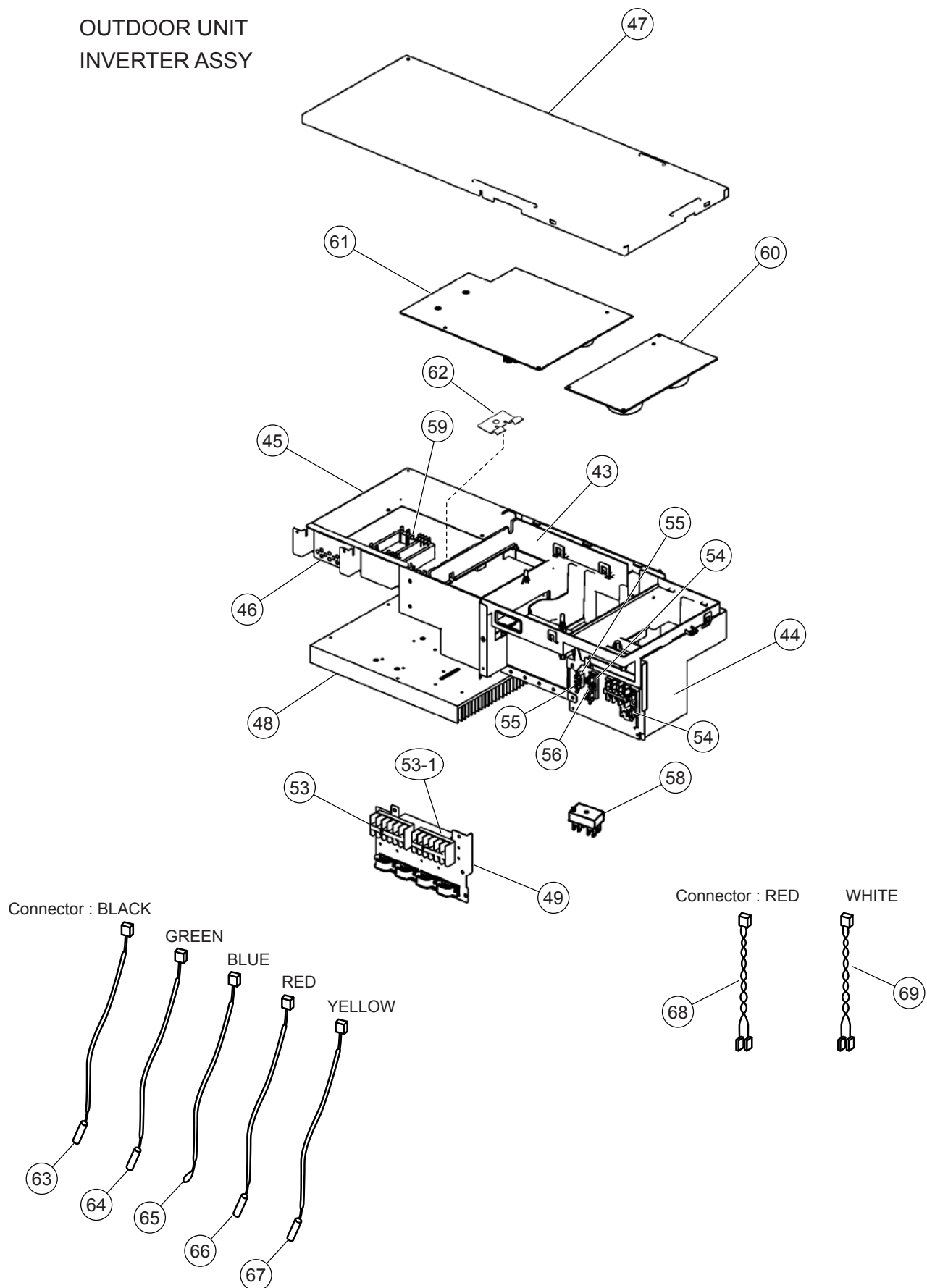
OUTDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT INVERTER ASSY



PARTS LIST

INDOOR UNIT

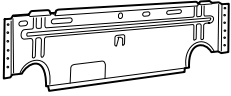
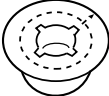
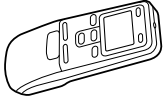
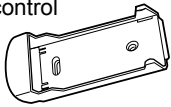
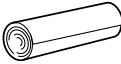
Ref.	Description	Part number	
34	Capacitor (Fan motor)	9900089061	
63	Front Panel Assy	9312172221	
65	Flow Control Panel-Z	9306058043	
69	Louver-A	9306055028	
74	Filter	9305444014	
108	Base	9309755062	
109	Casing Assy	9312173037	
122	Shaft Holder-B	9303066010	
127	Drain Hose Assy	9305550029	
146	Evaporator Assy	9373044017	
151	Control Box	9330007017	
158	Connecting Pipe Assy	9306416010	
164	Fan Motor Assy	9601171010	
169	Cross-Flow Fan Assy	9307836015	
178	Motor Cushion-M	9601302018	
184	Thermistor Spring	313728262708	
196	Clamp SKB-150	313035356905	
233	Power Transformer	9900028015	
236	Controller PCB Assy (7LA)	9705289017	
236	Controller PCB Assy (9LA)	9705289024	
236	Controller PCB Assy (12LA)	9705289031	
240	Remote Control	9371190174	
281	Bracket (Pipe)	9330011014	
283	Bushing-A	9303529010	
323	Louver-B	9306056025	
385	Indicator PCB Assy	9705296015	
401	Wall Hook Bracket	9304358008	
440	Flow Control Panel-U	9306057046	
522-1	Gear-A	9306062002	
523	Gear Bracket	9306407001	
652-1	Thermistor Holder Pipe	313714262805	
759	Intake Grille-B	9330002067	
764	Drain Cap Assy	9304150008	
767-1	Bottom Cover	9330004016	
777	Clamper (Grill)	9306755010	
815	Terminal	9900040055	
850	Window (Receiver)	9330003019	
872	Indicator Case	9330009011	
873	Lamp Cover	9330014015	
874	Control Box Cover	9330008014	
875	Power Supply PCB Assy	9705294011	
876	Step Motor	9900139018	
962-1	Guard Holder-L	9306678012	
962-2	Guard Holder-R	9306677015	
963	Fan Guard	9305751013	
xx	Thermistor pipe	9702039059	
xx	Thermistor room	9700801115	

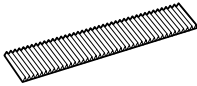
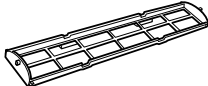
OUTDOOR UNIT

Ref.	Description	Part number		Ref.	Description	Part number	
1	Top Panel Sub Assy	9374417049		45	Inverter Box C	9375140014	
2	Front Panel Sub Assy	9374414048		46	Inverter Box Duct	9374609017	
5	Service Panel Sub Assy	9374415045		47	Inverter Box Cover	9375139018	
6	Right Panel Sub Assy	9374416103		48	Heat Sink A	9375138011	
7	Valve Cover Sub Assy	9374827015		49	Inverter Box D	9374606023	
10	Motor Bracket Sub Assy	9374418060		52	Terminal (3P)	9900203016	
11	Propeller Fan Assy	9366378020		53	Terminal (6P)	9900016036	
12	Motor. DC Brushless	9601882015		53-1	Terminal (3P)	9306489045	
13	Condenser A Assy	9374433179		54	Fuse Holder (Big)	0501454012	
14	Separate Wall Assy SS	9375226022		55	Fuse Holder (Small)	0501456016	
15	Base Assy	9374166121		56	Fuse (Big)	0600086039	
17	Coil. Choke	9900366018		57	Fuse (Small)	0600376116	
18	Cap Foot	9374345014		58	Terminal (2P)	9701971015	
19	Compressor Assy	9315297037		59	ACTPM	9703457012	
20	4-Way Valve Assy	9374425136		60	Power Supply PCB Assy	9705647091	
21	Inlet Pipe (Cond) A Assy	9373461104		61	Controller PCB Assy (ROA18L)	9705642225	
22	Outlet Pipe (Cond) A Assy	9374266111		61	Controller PCB Assy (ROA24L)	9705642195	
23	Pressure Switch A	9900186012		62	Holder (Thermo)	9372797013	
24	Pressure Switch B	9900341015		63	Heat Sink Thermistor	9900311018	
25	Accumulator Assy	9375250027		64	Compressor Temp Thermistor	9900156053	
26	Receiver Tank Assy	9374575039		65	Thermistor (Outdoor Temp)	9900378028	
27	Valve Plate A Assy	9374628148		66	Heat Exchanger Thermistor	9900374020	
28	Pulse Motor Valve	9900056025		67	Discharge Temp Thermistor	9704219039	
30	3-Way Valve Assy (1/2")	9375104016		68	Wire (Pressure Sw) (Red)	9377823014	
31	3-Way Valve Assy (3/8")	9375103019		69	Wire (Pressure Sw) (White)	9377823021	
32	2-Way Valve Assy	9375102012		70	Solenoid	9900165079	
33	Coil (Expansion Valve) (A=Red)	9900057084		71	Thermistor (Pipe)(White)	9900373030	
34	Coil (Expansion Valve) (B=White)	9900057053		72	Thermistor (Pipe)(Red)	9900372019	
35	Coil (Expansion Valve) (C=Green)	9900057060		73	Compressor Plate Assy	9375221058	
37	Rubber Cushion (For Comp)	9312680016		74	Water Seal Plate	9375222017	
38	Net S Protective	9375381028		75	Thermo Holder	9375211011	
39	Thermistor Holder	9377911018		76	Compressor Cover A	9374430093	
43	Inverter Box A	9374603015		77	Compressor Cover B	9374431090	
44	Inverter Box B Assy	9374625024		78	Compressor Cover C	9372067079	

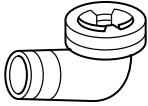
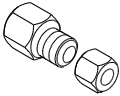
STANDARD ACCESSORIES

INDOOR UNIT

Name and Shape	Part number
Wall hook bracket 	9304358008
Wall cap-B 	313714296205
Remote control 	9371190174 (AR-JW17)
Battery (penlight) 	0600185534
Remote control holder 	9305642014
Cloth tape 	9308117007

Name and Shape	Part number
Tapping screw (big) (ϕ 4 x 20) 	301141164200
Tapping screw (small) (ϕ 3 x 12) 	0700019036
Air cleaning filter 	DEODORANT FILTER 9310441015 ELECTRIC FILTER 9310442012
Air cleaning filter frame 	9305445011

OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part number
Drain pipe 	1	For drain piping work	9303029015
Drain cap 	2		313166024302
Adapter assy 12.7 mm $\rightarrow$ 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