

INVERTER MULTI
AIR CONDITIONER
WALL MOUNTED TYPE

**SERVICE
MANUAL**



Indoor unit		Outdoor unit
ASY7LMACW	}	AOYA18LAT3
ASY9LMACW		
ASY12LMACW		
ASY7LMACW	}	AOYA24LAT3
ASY9LMACW		
ASY12LMACW		

CONTENTS

SPECIFICATIONS.....	1
OUTLINE AND DIMENSIONS.....	3
REFRIGERANT SYSTEM DIAGRAM...	5
CIRCUIT DIAGRAM.....	6
INDOOR PCB CIRCUIT DIAGRAM.....	8
OUTDOOR PCB CIRCUIT DIAGRAM...	9
ERROR CONTENTS.....	12
PARTS (INDOOR UNIT).....	14
PARTS (OUTDOOR UNIT).....	18
ACCESSORIES.....	21

SPECIFICATIONS

INDOOR UNIT

TYPE	COOL & HEAT		
MODEL NAME	ASY7LMACW	ASY9LMACW	ASY12LMACW

ELECTRICAL DATA

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 m³/h	480 m³/h	530 m³/h

FAN MOTOR

POWER SOURCE		230 - 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.

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

NOISE LEVEL

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

OUTDOOR UNIT

TYPE	Colling & Heating	
MODEL NAME	AOYA18LAT3	AOYA24LAT3
COOLING CAPACITY	5.4 kW	6.8 kW
HEATING CAPACITY	6.8 kW	8.0 kW

ELECTRICAL SPECIFICATIONS

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

COMPRESSOR

TYPE	Hermetic type, Inverter, 4 poles, 3-phase, DC motor, Twin Rotary		
DISCRIMINATION	DA150A1F-20NA		
REFRIGERANT	R410A	2,200 g	

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.

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

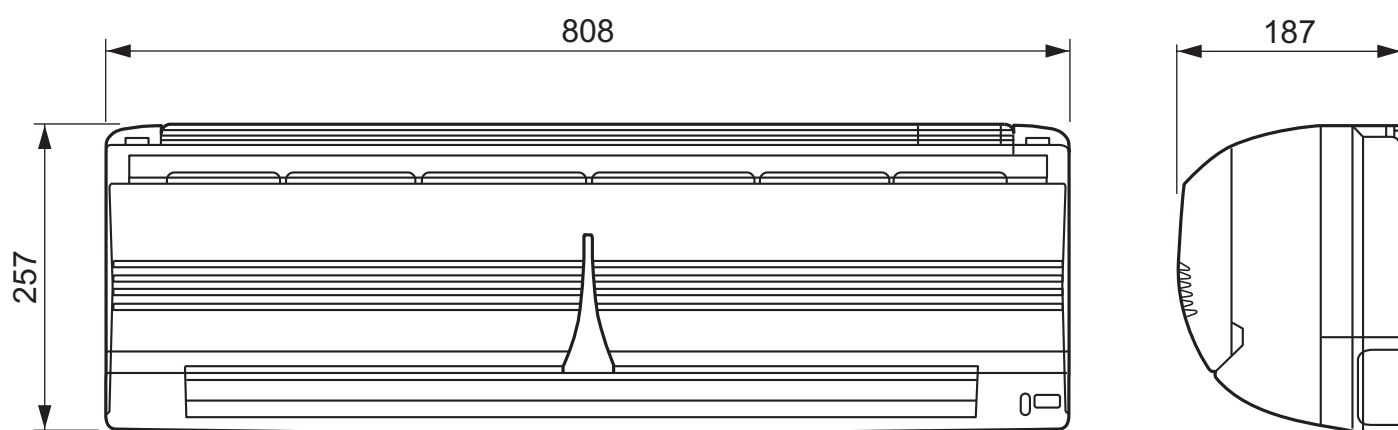
REFRIGERANT CHARGE (R410A)

FULL CHARGE AMOUNT	Total Pipe Length 30.0 m	2,200 g
	40.0 m	2,400 g
	50.0 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

OUTLINE AND DIMENSIONS

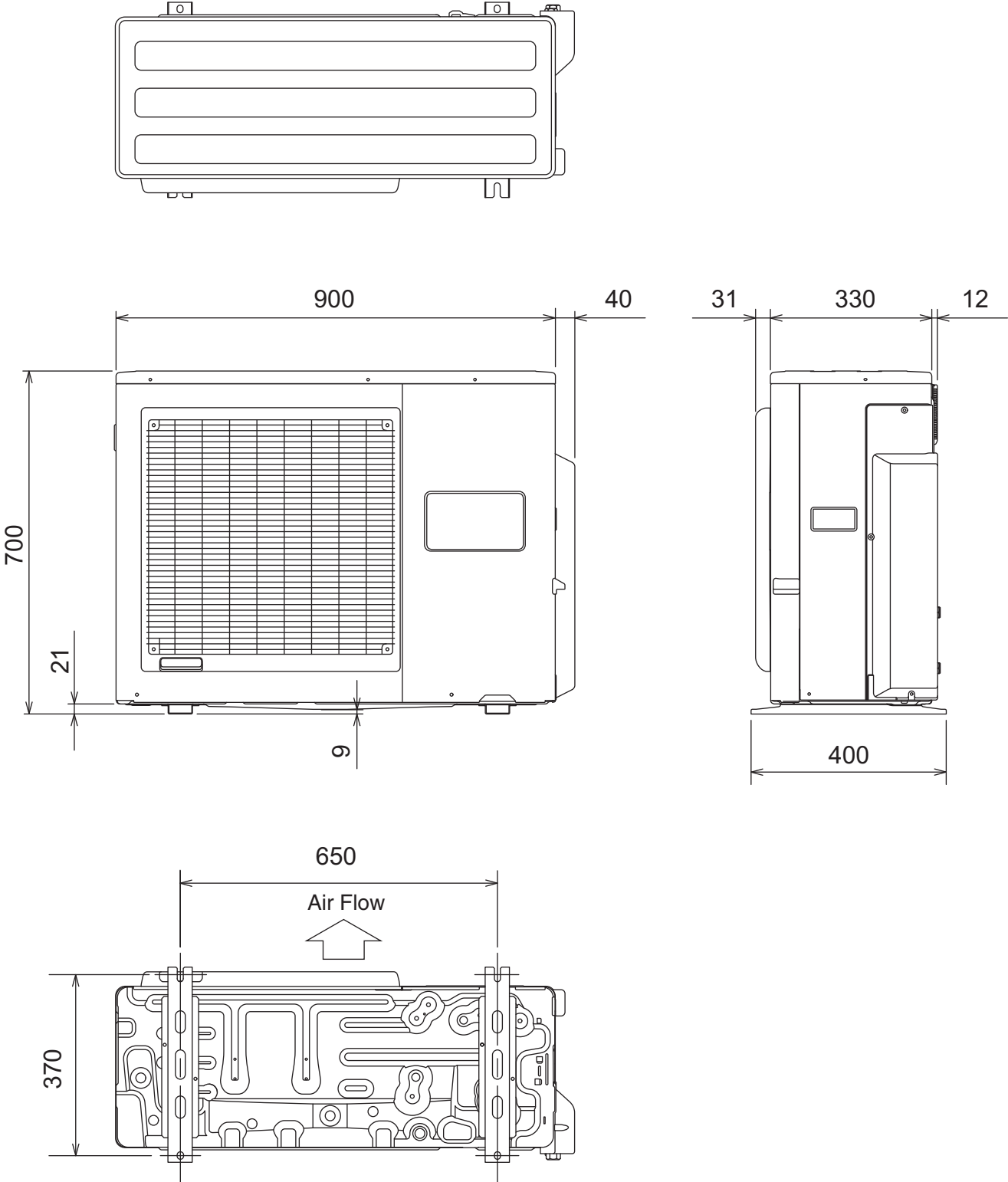
INDOOR UNIT

Unit : mm



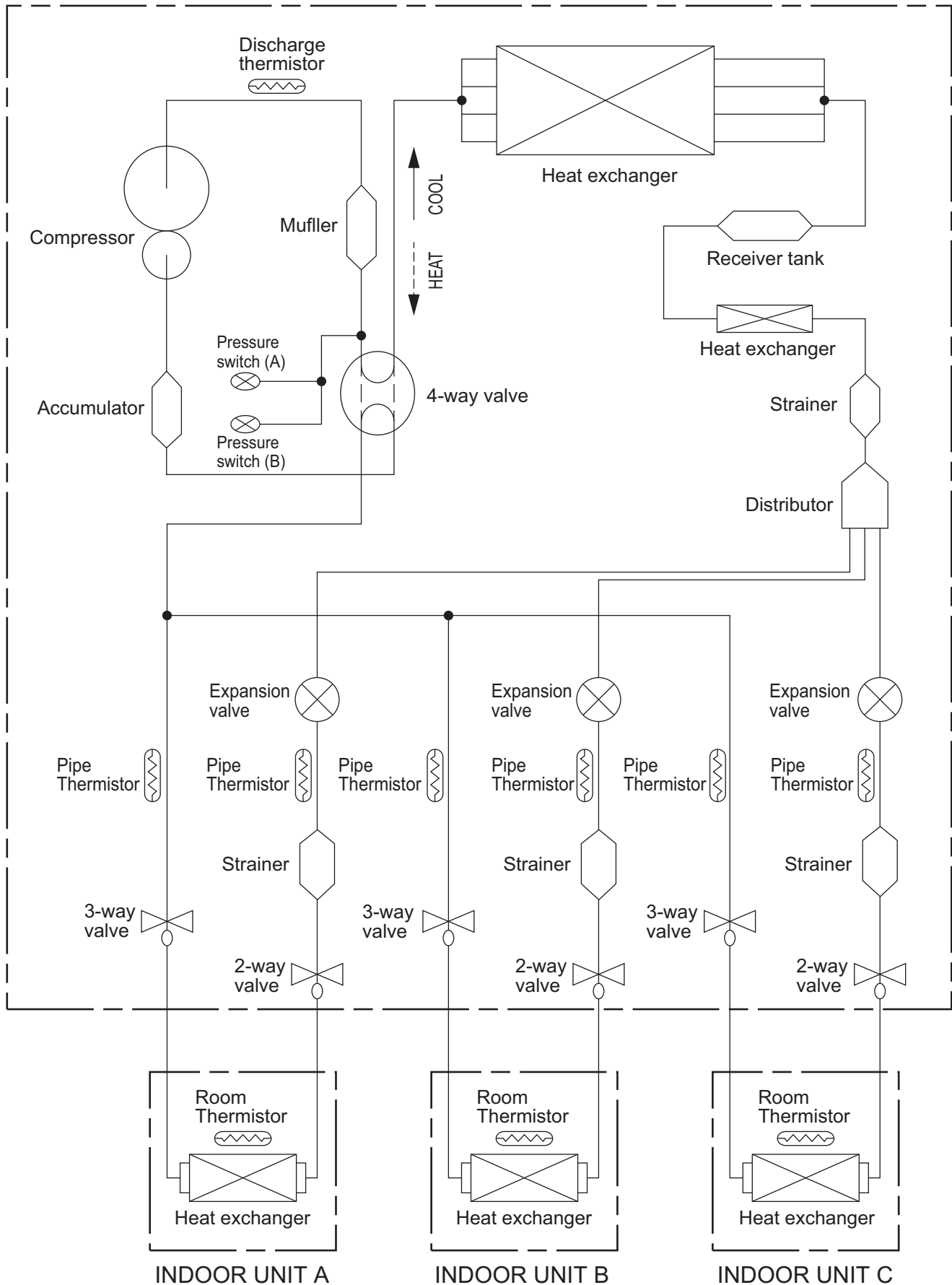
OUTDOOR UNIT

(Unit : mm)



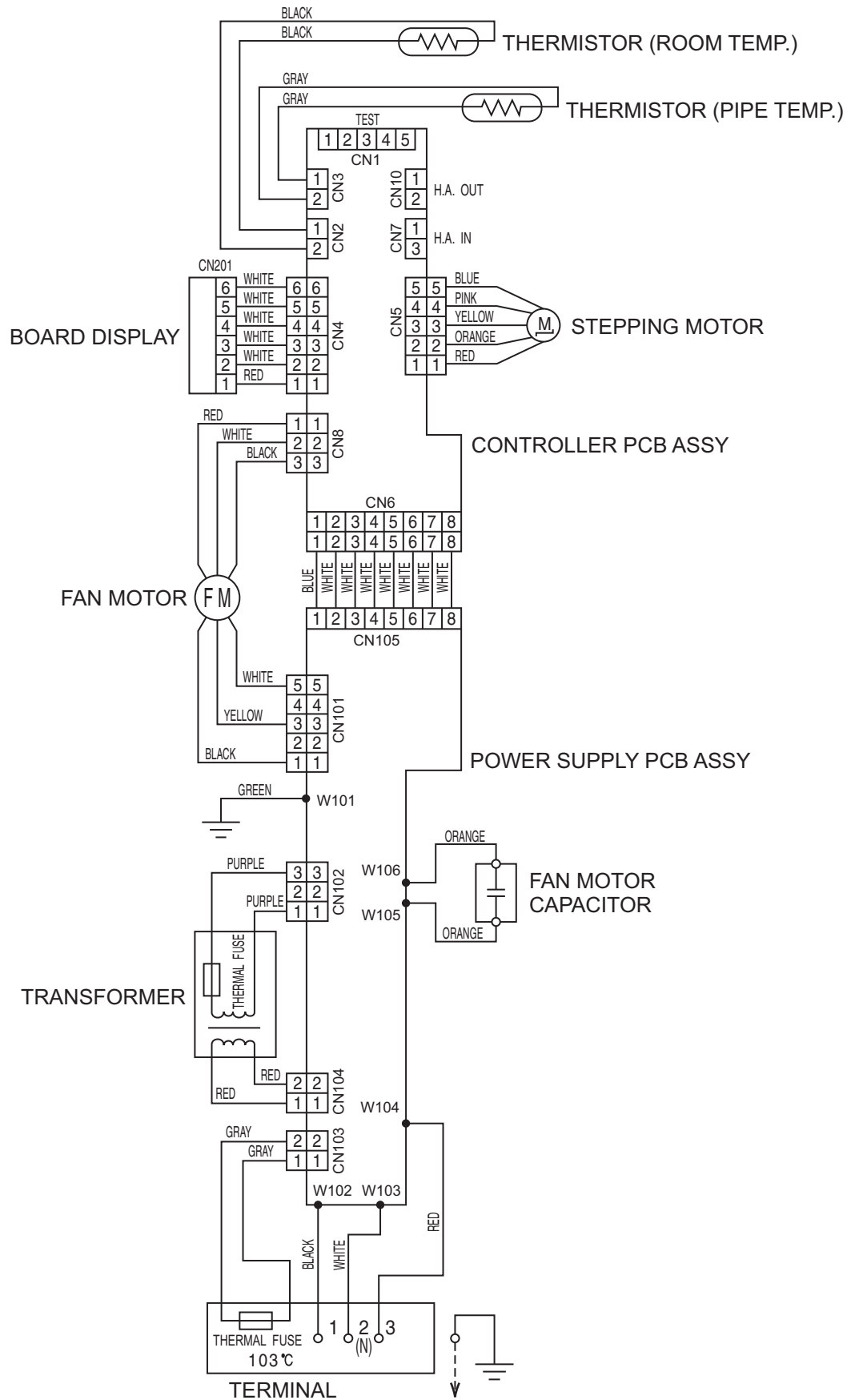
REFRIGERANT SYSTEM DIAGRAM

OUTDOOR UNIT

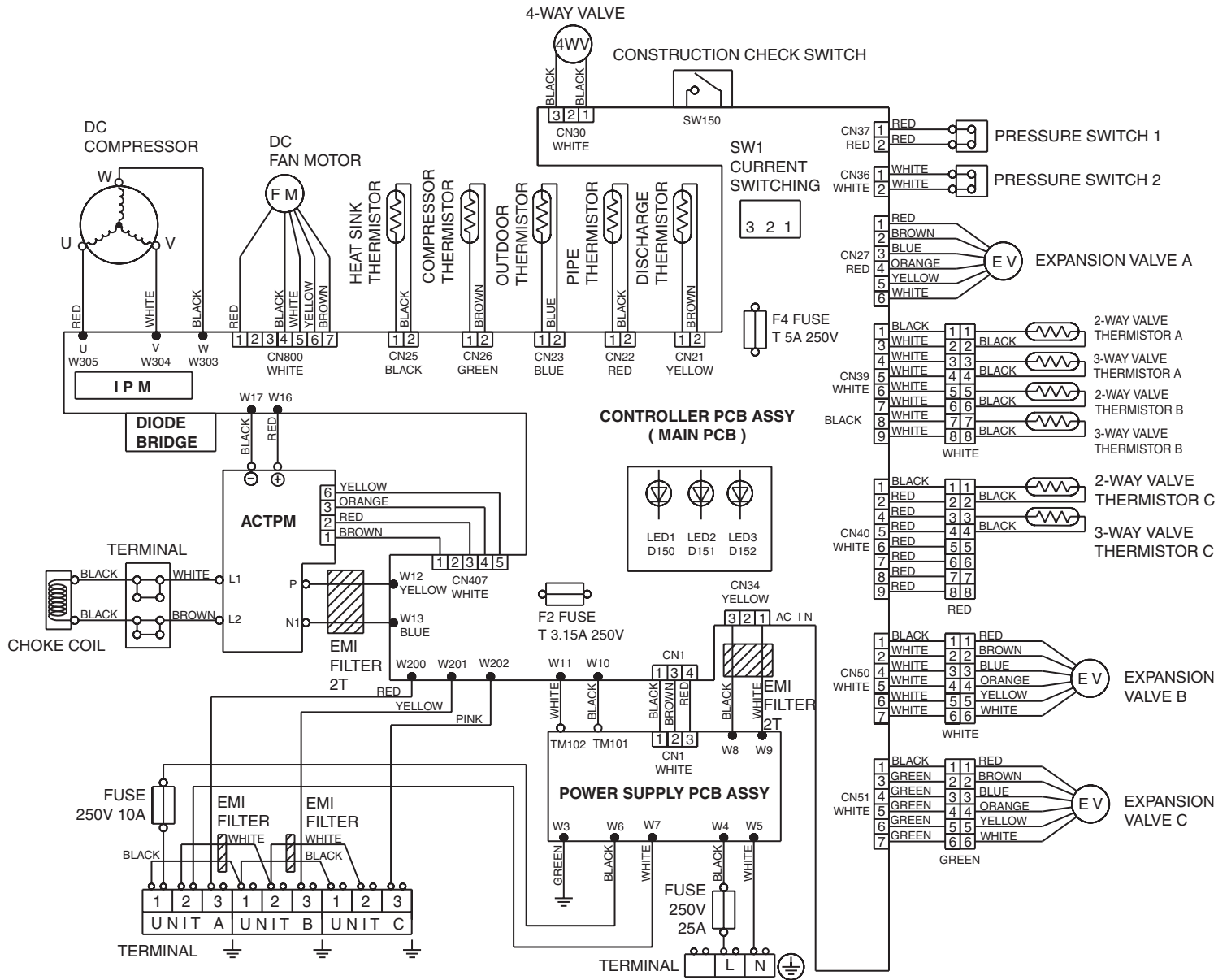


CIRCUIT DIAGRAM

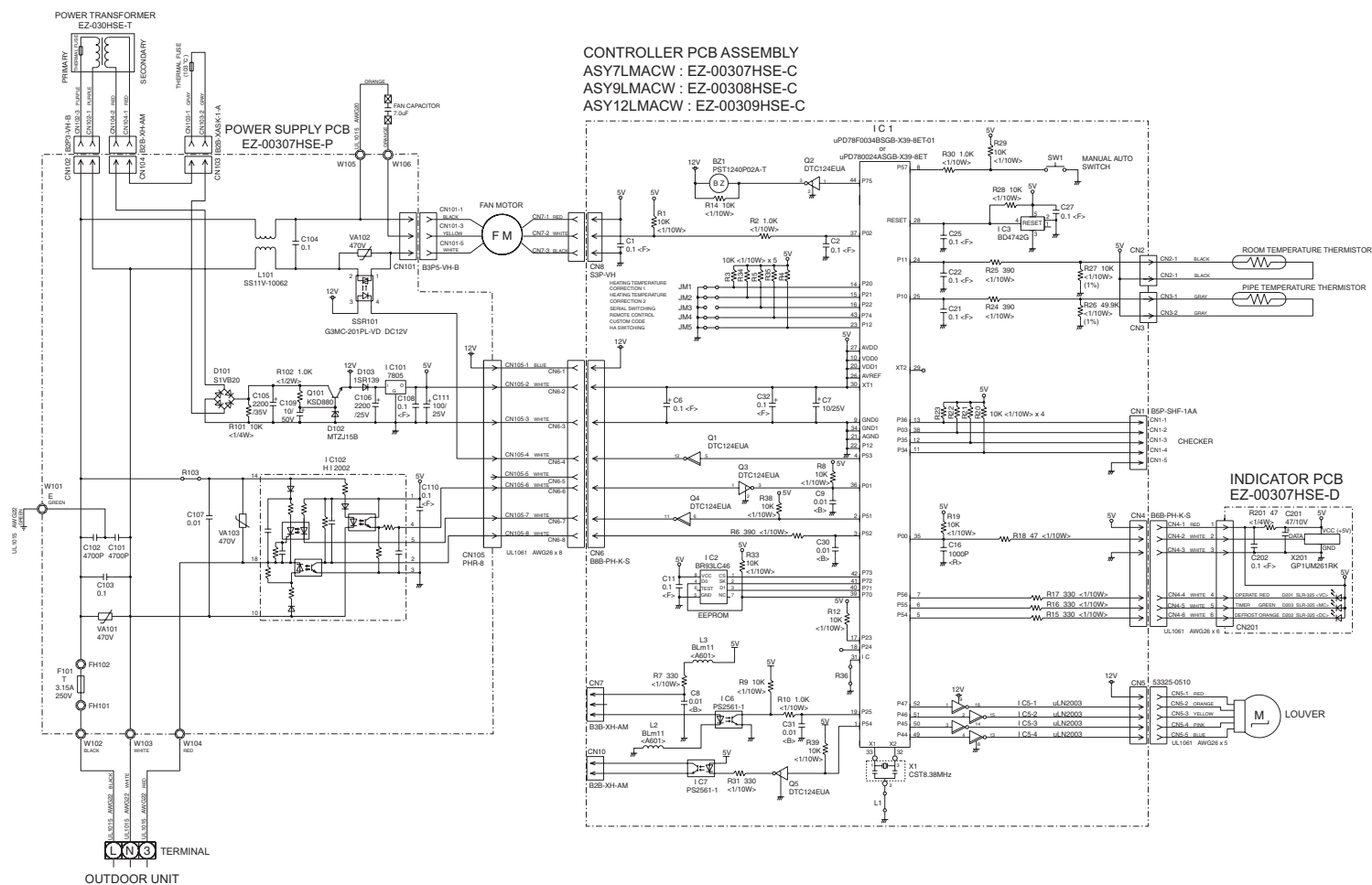
INDOOR UNIT



OUTDOOR UNIT

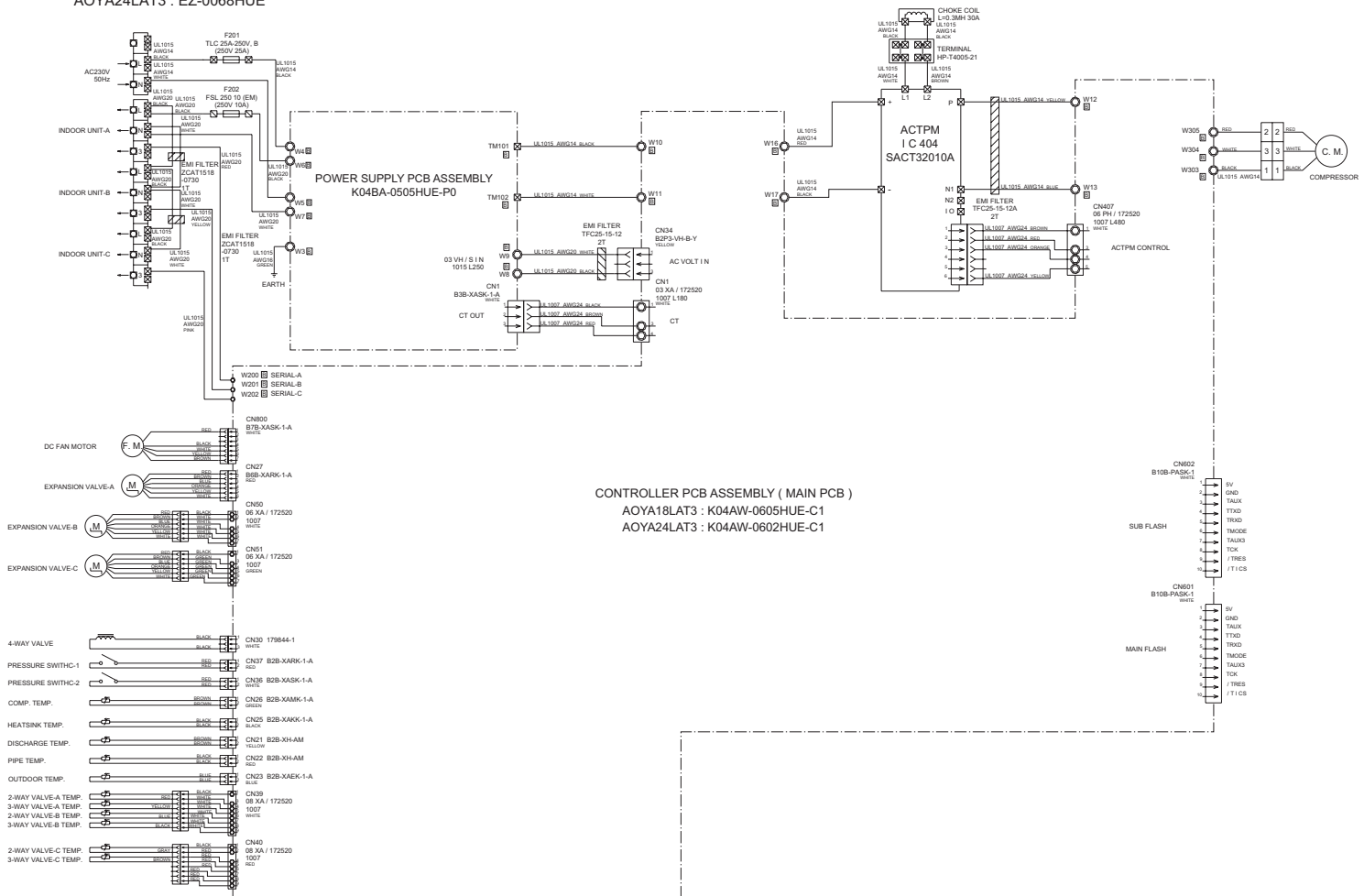


INDOOR PCB CIRCUIT DIAGRAM

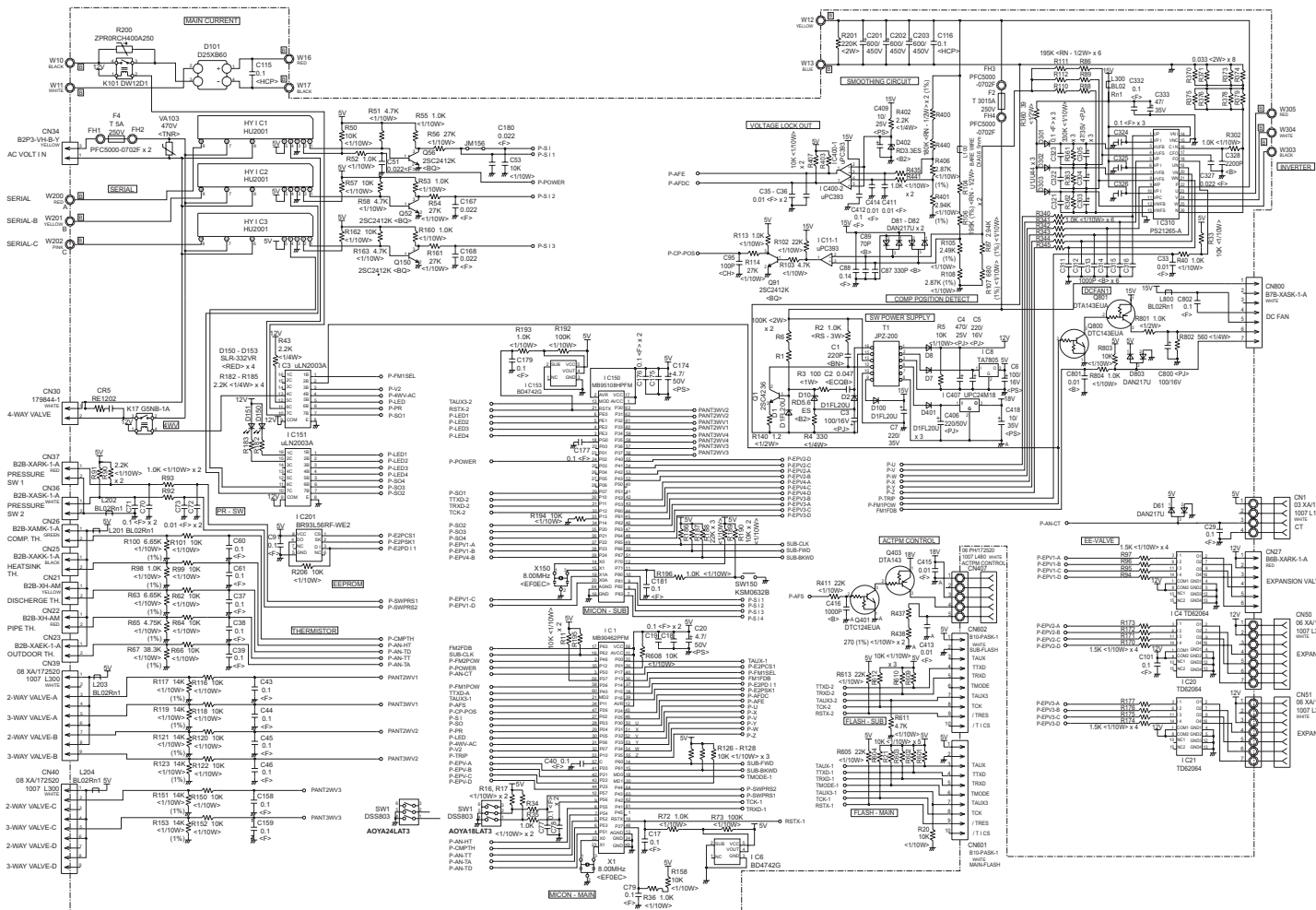


OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
AOYA18LAT3 : EZ-006KHUE
AOYA24LAT3 : EZ-0068HUE

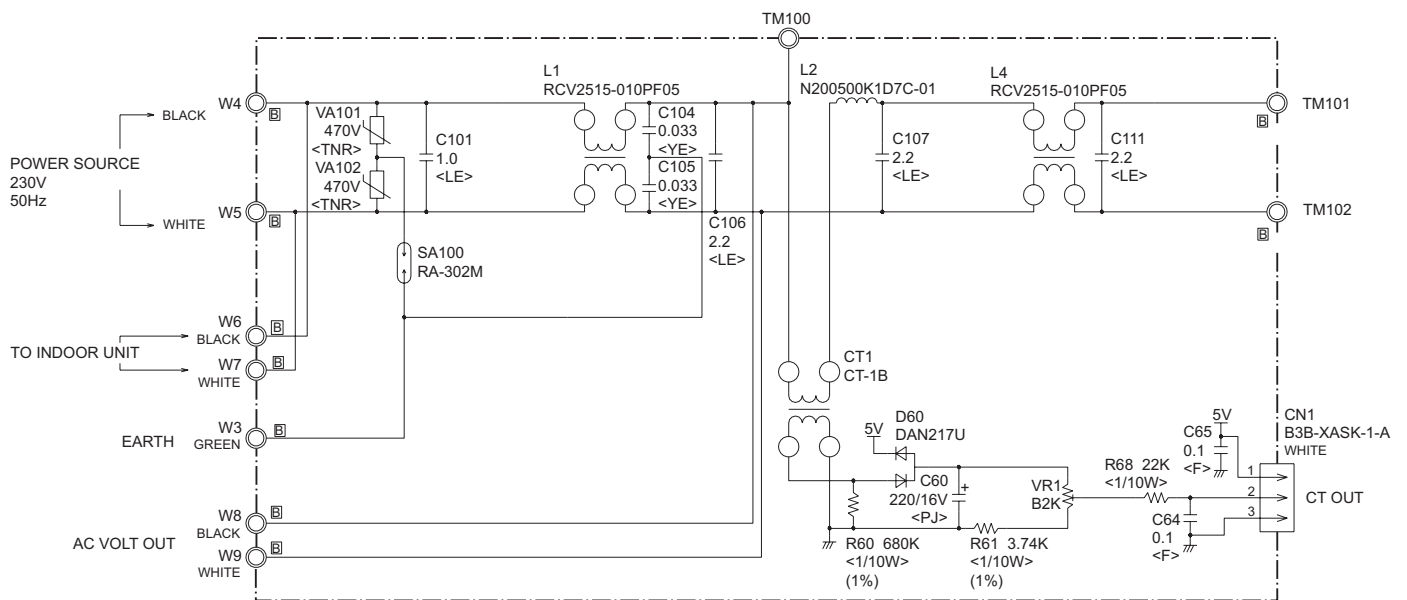


CONTROLLER PCB ASSEMBLY
AOYA18LAT3 : K04AW-0605HUE-C1
AOYA24LAT3 : K04AW-0602HUE-C1



OUTDOOR UNIT

POWER SUPPLY PCB ASSEMBLY K04BA-0505HUE-P0



ERROR CONTENTS

INDOOR UNIT

○ : Fast flashing ● : Slow flashing

Operation lamp : Red lamp

Timer lamp : Green lamp

Large division indication			Small division indication		
Error contents	LED indication		Error contents	LED indication	
Thermistor error (indoor unit)	Red lamp Green lamp	● (2 times) ○	Thermistor error (room temp.)	Red lamp	○
			Thermistor error (heat exchanger)	Green lamp	● (2 times)
Control unit error (indoor unit)	Red lamp Green lamp	● (4 times) ○	MANUAL AUTO button error	Red lamp	○
			Power source Hz decision error	Green lamp	● (2 times)
Serial error	Red lamp Green lamp	● (5 times) ○	Serial reverse transmission error	Red lamp	○
			Serial order transmission error	Green lamp	● (3 times)
Fan motor error (indoor unit)	Red lamp Green lamp	● (6 times) ○	Lock error	Red lamp	○
			r.p.m error	Green lamp	● (2 times)
Thermistor error (outdoor unit)	Red lamp Green lamp	○ ● (2 times)	Discharge thermistor error	Red lamp	○
			Heat exchanger thermistor error	Green lamp	● (2 times)
			Outdoor temperature thermistor error	Red lamp	○
			Compressor thermistor error	Green lamp	● (4 times)
			2 way valve thermistor error	Red lamp	○
			3 way valve thermistor error	Green lamp	● (6 times)
Pressure switch error	Red lamp Green lamp	○ ● (3 times)	Pressure switch error	Red lamp	○
Control unit error (outdoor unit)	Red lamp Green lamp	○ ● (4 times)	Capacity error of connecting indoor unit	Green lamp	● (2 times)
Inverter error	Red lamp Green lamp	○ ● (5 times)	Outdoor unit IPM error	Red lamp	○
			Compressor loter location error	Green lamp	● (2 times)

When an error occurs, "Large division indication" is indicated first.

Secondly, "Small division indication" is indicated by pushing "Test run" button of remote controller.

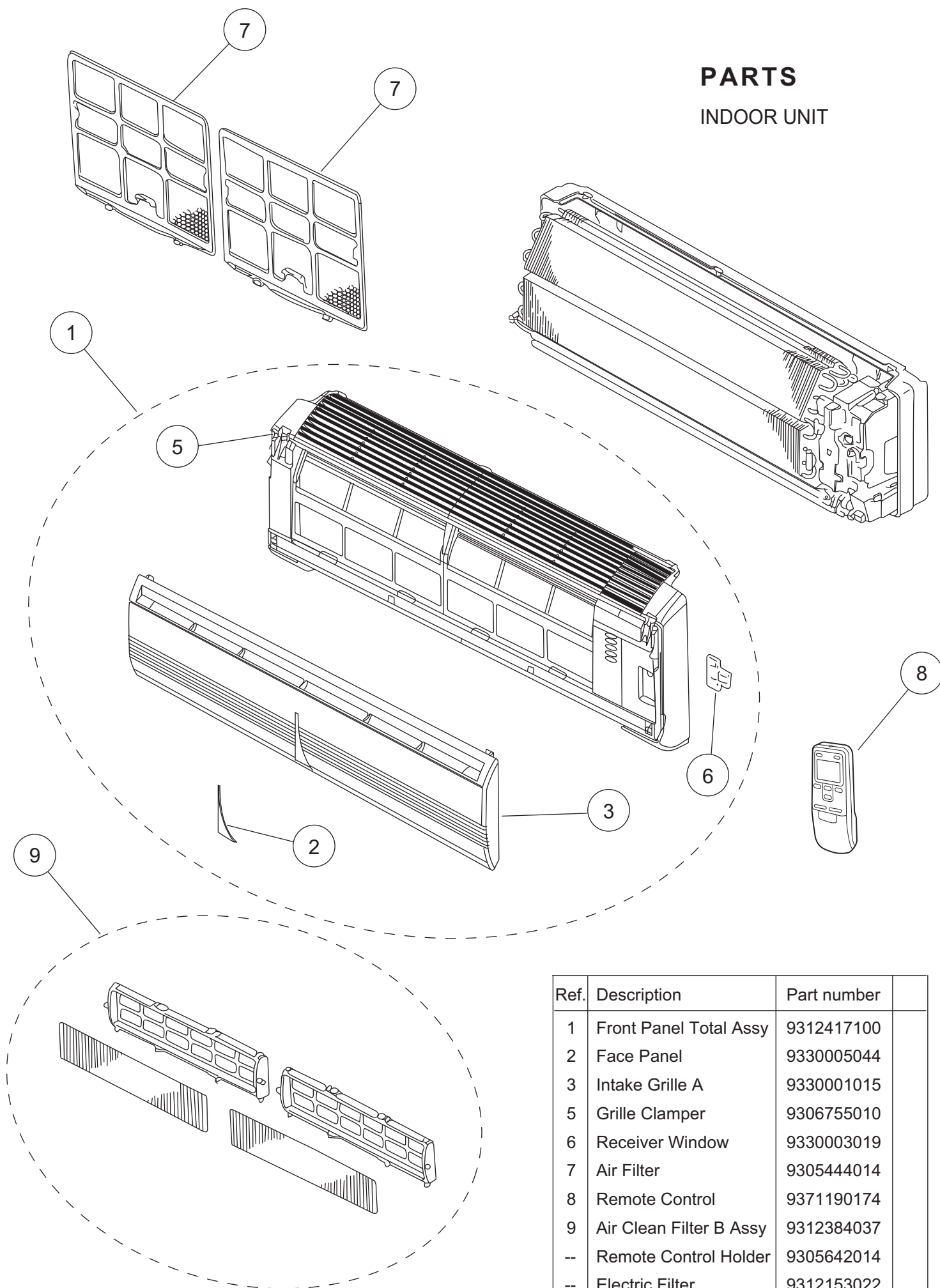
OUTDOOR UNIT LEDS

	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

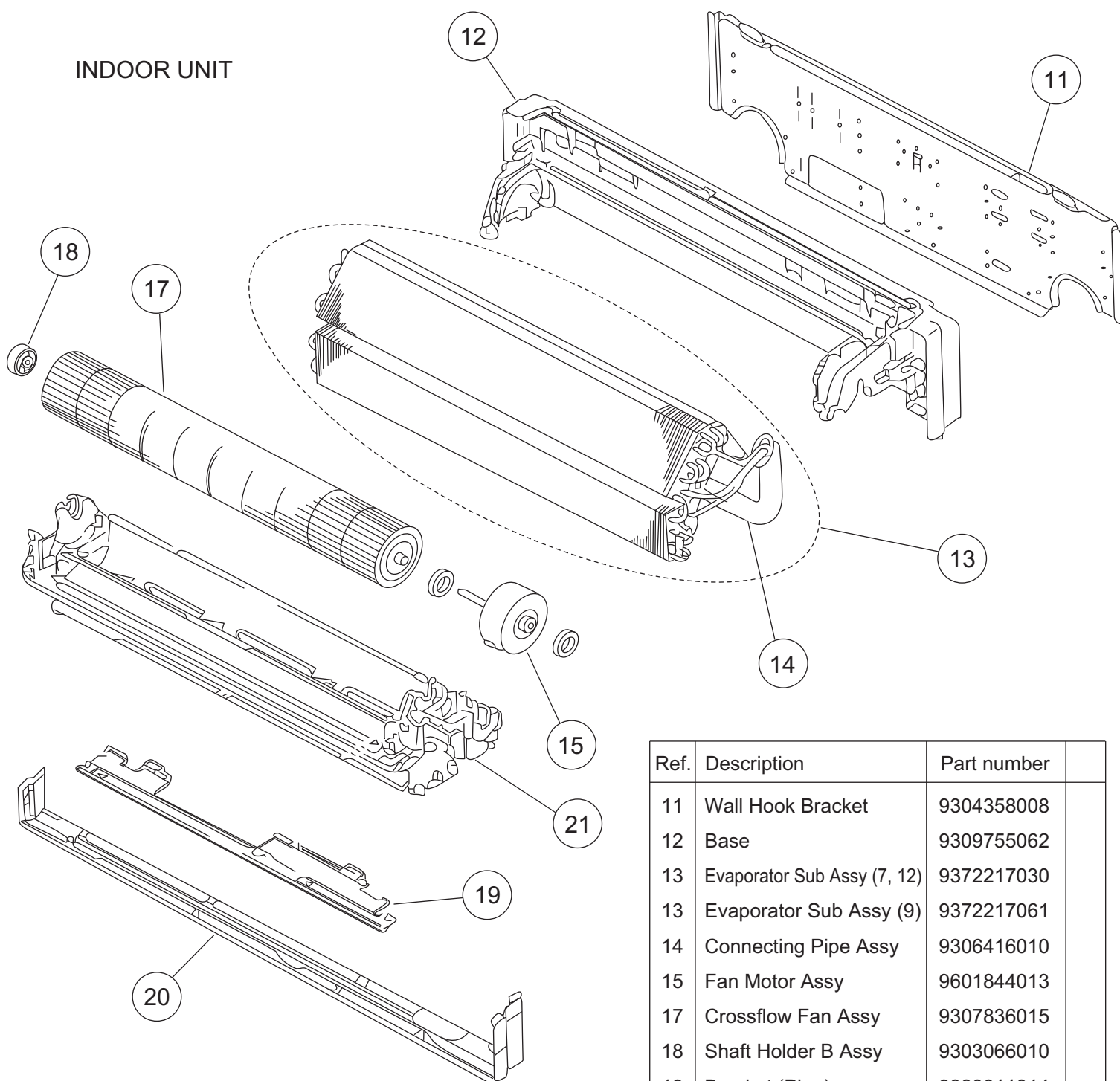
PARTS

INDOOR UNIT



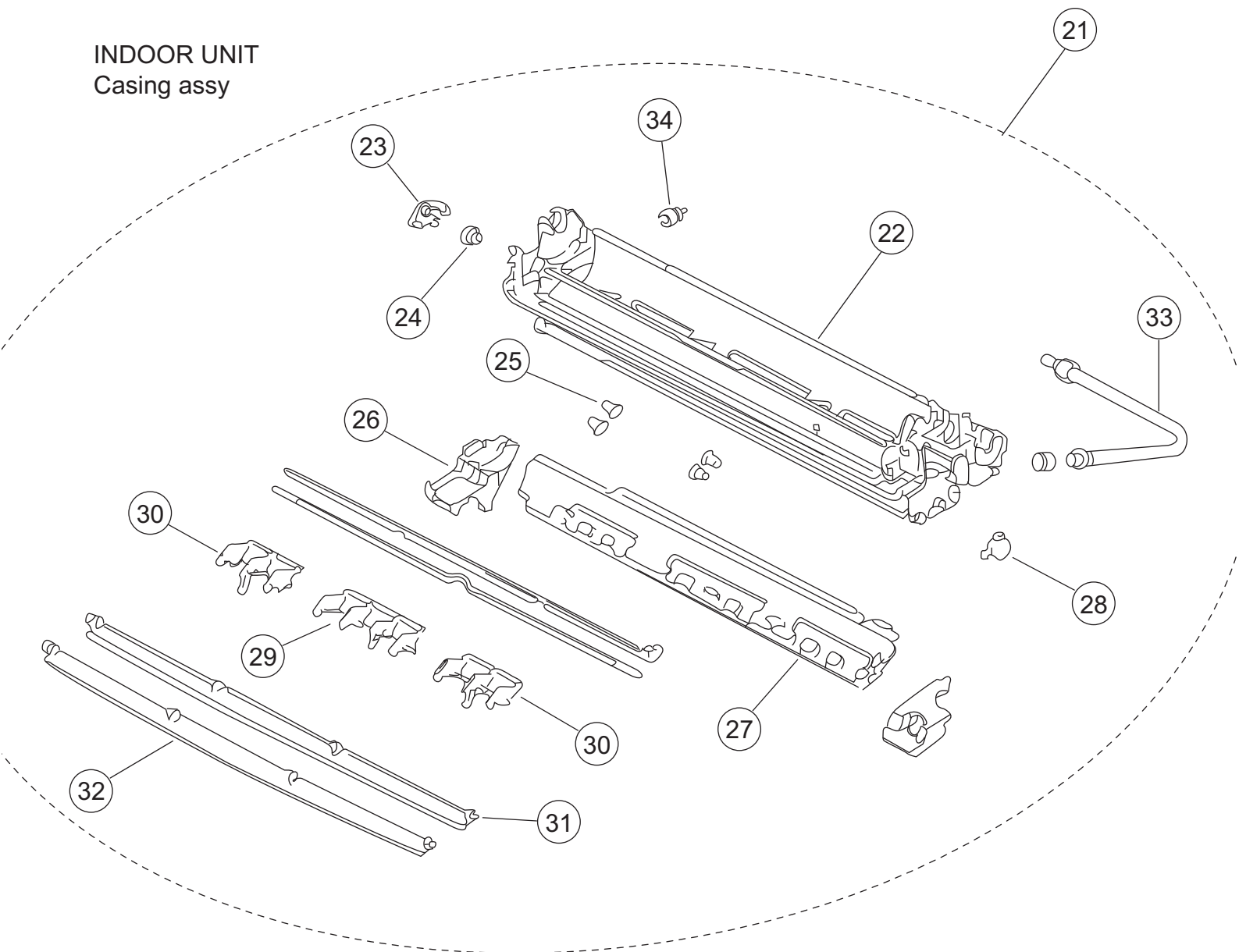
Ref.	Description	Part number
1	Front Panel Total Assy	9312417100
2	Face Panel	9330005044
3	Intake Grille A	9330001015
5	Grille Clamer	9306755010
6	Receiver Window	9330003019
7	Air Filter	9305444014
8	Remote Control	9371190174
9	Air Clean Filter B Assy	9312384037
--	Remote Control Holder	9305642014
--	Electric Filter	9312153022
--	Air Clean Filter Frame	9305445011

INDOOR UNIT



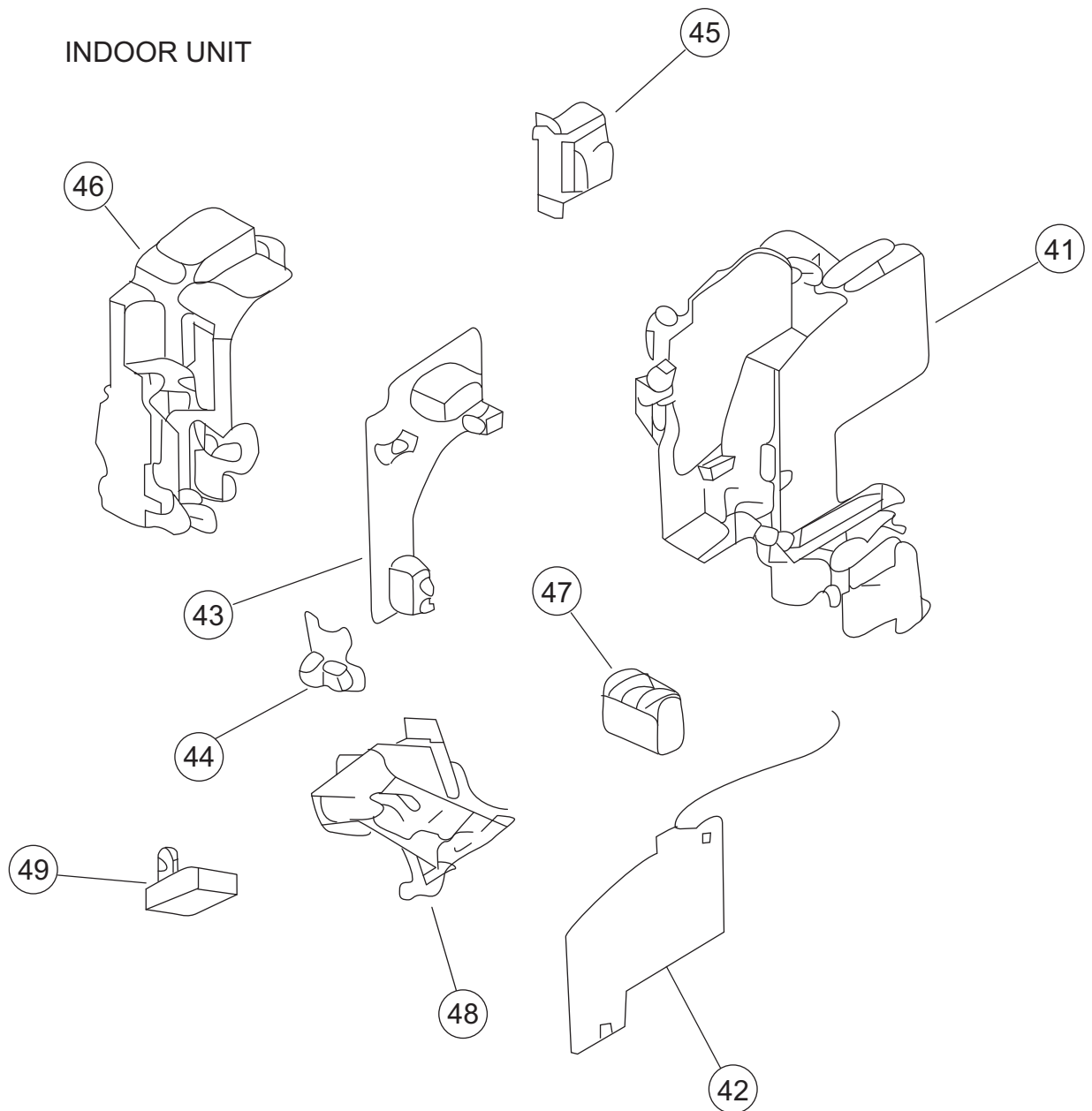
Ref.	Description	Part number	
11	Wall Hook Bracket	9304358008	
12	Base	9309755062	
13	Evaporator Sub Assy (7, 12)	9372217030	
13	Evaporator Sub Assy (9)	9372217061	
14	Connecting Pipe Assy	9306416010	
15	Fan Motor Assy	9601844013	
17	Crossflow Fan Assy	9307836015	
18	Shaft Holder B Assy	9303066010	
19	Bracket (Pipe)	9330011014	
20	Lower Cover	9330004016	
21	Casing Assy	9312173037	

INDOOR UNIT
Casing assy



Ref.	Description	Part number	
21	Casing Assy	9312173037	
22	Casing	9306052027	
23	Gear Bracet	9306407001	
24	Gear A	9306062002	
25	Bushing A	9303529010	
26	Casing Cover LR	9306064006	
27	Casing Cover B	9306121006	
28	Step Motor	9900139018	
29	Louver A	9306055028	
30	Louver B	9306056025	
31	Louver Z	9306058043	
32	Louver U	9306057046	
33	Drain Hose Assy	9310357026	
34	Drain Cap	9304150008	
--	Casing Cover F	9306066000	

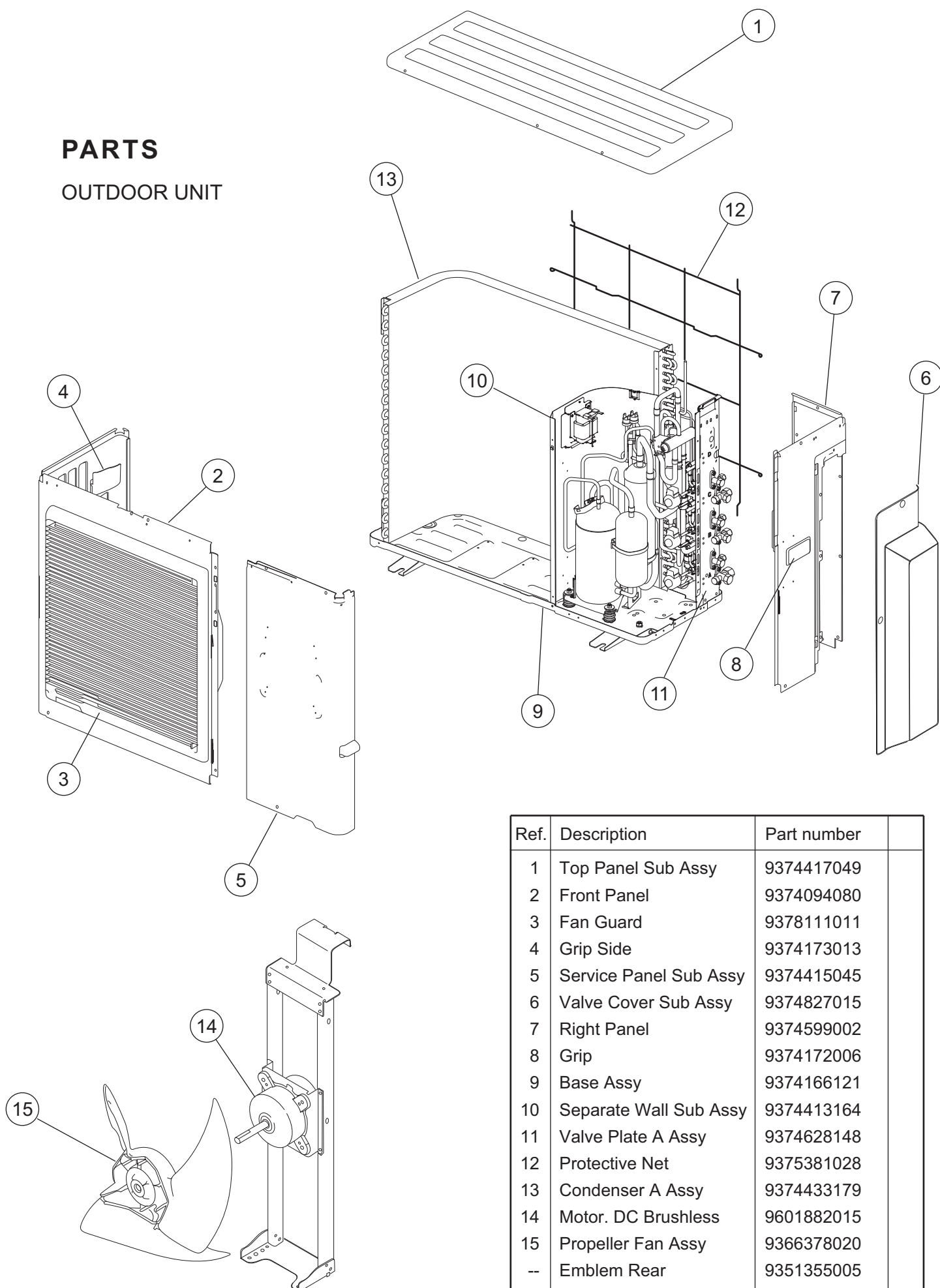
INDOOR UNIT



Ref.	Description	Part number	
41	Switch Box	9330007017	
42	Controller PCB Assy (7)	9705289017	
42	Controller PCB Assy (9)	9705289024	
42	Controller PCB Assy (12)	9705289031	
43	PCB Assy (Power & Indicator)	9705293014	
44	Lamp Cover	9330014015	
45	Power Transformer	9900028015	
46	Control Box Cover	9330008014	
47	Terminal	9900040055	
48	Indicator Case	9330009011	
49	Fan Capacitor	9900089061	

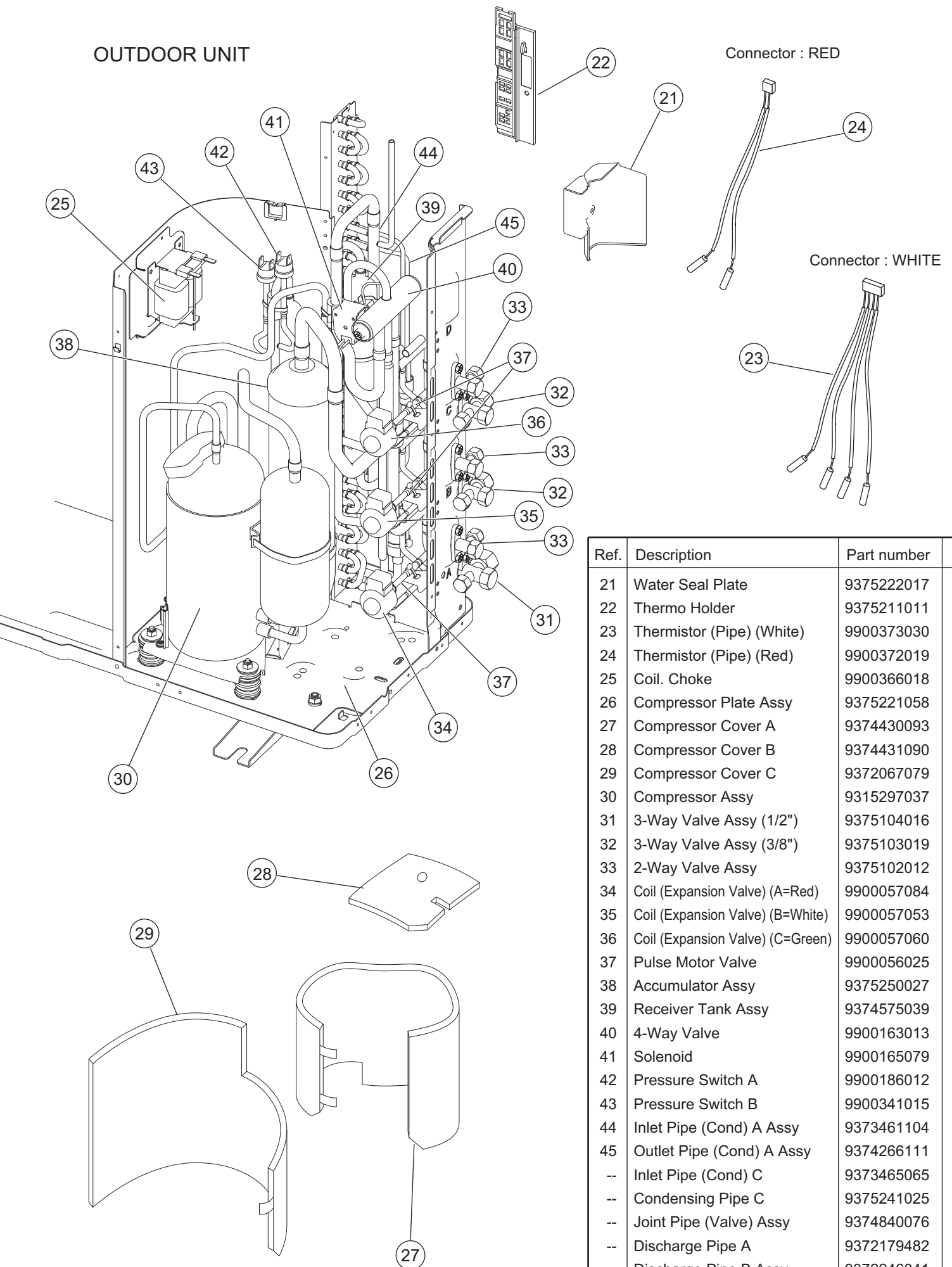
PARTS

OUTDOOR UNIT

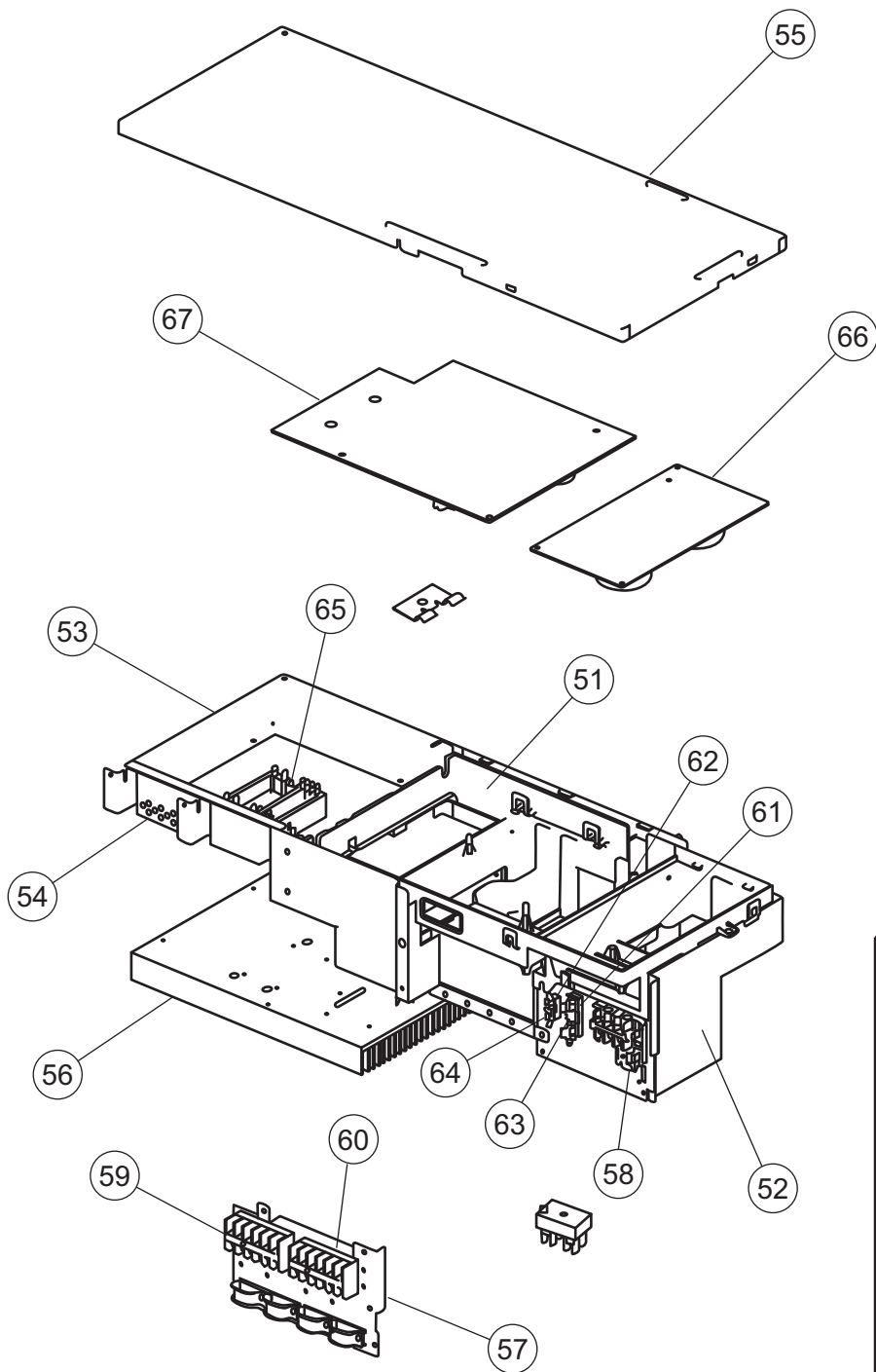


Ref.	Description	Part number	
1	Top Panel Sub Assy	9374417049	
2	Front Panel	9374094080	
3	Fan Guard	9378111011	
4	Grip Side	9374173013	
5	Service Panel Sub Assy	9374415045	
6	Valve Cover Sub Assy	9374827015	
7	Right Panel	9374599002	
8	Grip	9374172006	
9	Base Assy	9374166121	
10	Separate Wall Sub Assy	9374413164	
11	Valve Plate A Assy	9374628148	
12	Protective Net	9375381028	
13	Condenser A Assy	9374433179	
14	Motor. DC Brushless	9601882015	
15	Propeller Fan Assy	9366378020	
--	Emblem Rear	9351355005	
--	Drain Assy	9303029015	
--	Drain Cap	313166024302	

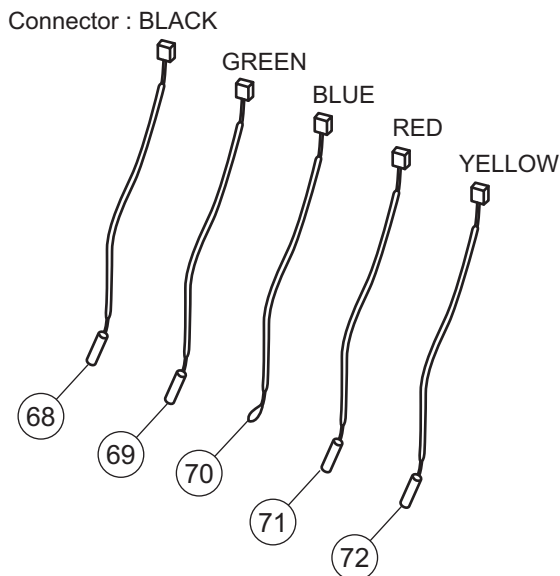
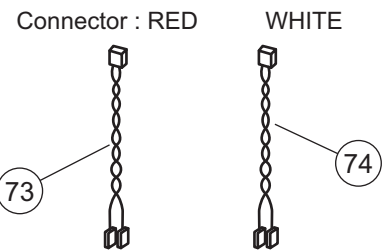
OUTDOOR UNIT



Ref.	Description	Part number
21	Water Seal Plate	9375222017
22	Thermo Holder	9375211011
23	Thermistor (Pipe) (White)	9900373030
24	Thermistor (Pipe) (Red)	9900372019
25	Coil. Choke	9900366018
26	Compressor Plate Assy	9375221058
27	Compressor Cover A	9374430093
28	Compressor Cover B	9374431090
29	Compressor Cover C	9372067079
30	Compressor Assy	9315297037
31	3-Way Valve Assy (1/2")	9375104016
32	3-Way Valve Assy (3/8")	9375103019
33	2-Way Valve Assy	9375102012
34	Coil (Expansion Valve) (A=Red)	9900057084
35	Coil (Expansion Valve) (B=White)	9900057053
36	Coil (Expansion Valve) (C=Green)	9900057060
37	Pulse Motor Valve	9900056025
38	Accumulator Assy	9375250027
39	Receiver Tank Assy	9374575039
40	4-Way Valve	9900163013
41	Solenoid	9900165079
42	Pressure Switch A	9900186012
43	Pressure Switch B	9900341015
44	Inlet Pipe (Cond) A Assy	9373461104
45	Outlet Pipe (Cond) A Assy	9374266111
--	Inlet Pipe (Cond) C	9373465065
--	Condensing Pipe C	9375241025
--	Joint Pipe (Valve) Assy	9374840076
--	Discharge Pipe A	9372179482
--	Discharge Pipe B Assy	9372246041
--	Suction Pipe B	9371275338
--	Strainer Assy	9372524015



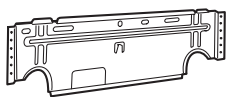
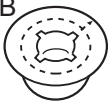
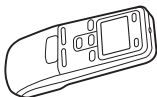
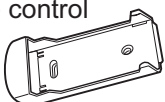
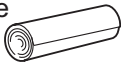
OUTDOOR UNIT INVERTER ASSY

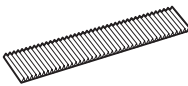
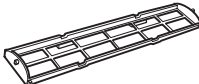


Ref.	Description	Part number
51	Inverter Box A	9374603015
52	Inverter Box B Assy	9374625024
53	Inverter Box C	9375140014
54	Inverter Box Duct	9374609017
55	Inverter Box Cover	9375139018
56	Heat Sink A	9375138011
57	Inverter Box D	9374606023
58	Terminal (3P)	9900203016
59	Terminal (6P)	9900016036
60	Terminal (3P)	9306489045
61	Fuse Holder (Big)	0501454012
62	Fuse Holder (Small)	0501456016
63	Fuse (Big)	0600086039
64	Fuse (Small)	0600376116
65	ACTPM	9703457012
66	Power Supply PCB Assy	9705647091
67	Controller PCB Assy (18L)	9705642225
67	Controller PCB Assy (24L)	9705642195
68	Heat Sink Thermistor	9900311018
69	Compressor Thermistor	9900156053
70	Thermistor (Outdoor)	9900477011
71	Heat Exchanger Thermistor	9900374020
72	Discharge Thermistor	9704219039
73	Wire (Pressure Sw) (Red)	9377823014
74	Wire (Pressure Sw) (White)	9377823021
--	Terminal (3P)	9306489045

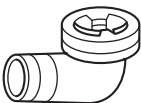
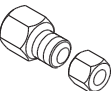
ACCESSORIES

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) ($\phi 4 \times 20$) 	301141164200
Tapping screw (small) ($\phi 3 \times 12$) 	0700019036
Air cleaning filter 	DEODORANT FILTER 9310441015 ELECTRIC FILTER 9310442012
Air cleaning filter frame 	9305445011

OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Drain pipe 	1	For outdoor unit 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

