

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASU18RLF	AOU18RLXFW
ASU24RLF	AOU24RLXFW

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASU18RLF	ASU24RLF
OUTDOOR UNIT		AOU18RLXFW	AOU24RLXFW
COOLING CAPACITY		18,000 BTU/h 5.28 kW	22,000 BTU/h 6.50 kW
HEATING CAPACITY		21,600 BTU/h 6.30 kW	27,600 BTU/h 8.10 kW
POWER SOURCE		208 V / 230 V	208 V / 230 V
FREQUENCY		60 Hz	60 Hz
RUNNING CURRENT	Cooling	6.2 A	7.9 A
	Heating	8.0 A	10.5 A
INPUT WATTS	Cooling	1.35 kW	1.76 kW
	Heating	1.80 kW	2.38 kW
E.E.R.	Cooling	13.3 BTU/kW 3.90 kW/kW	12.5 BTU/kW 3.69 kW/kW
COP	Heating	12.0 BTU/kW 3.50 kW/kW	11.6 BTU/kW 3.40 kW/kW
MOISTURE REMOVAL		5.9 Pt/h 2.8 L/hr	6.3 Pt/h 3.0 L/hr
AIR CIRCULATION HIGH		541 cfm 920 m ³ /hr	659 cfm 1,120 m ³ /hr
MAXIMUM CURRENT		14.5 A	15.5 A

FAN MOTOR

POWER SOURCE		230 V	230 V
INDOOR UNIT	High speed	1,260 r.p.m.	1,480 r.p.m.
	Middle speed	1,020 r.p.m.	1,220 r.p.m.
	Low speed	900 r.p.m.	1,020 r.p.m.
	Quiet	770 r.p.m.	900 r.p.m.
OUTDOOR UNIT	Cool	620 r.p.m.	800 r.p.m.
	Heat	620 r.p.m.	850 r.p.m.

NOISE LEVEL

INDOOR UNIT	Cool 43 dB / Heat 44 dB	Cool 49 dB / Heat 49 dB
OUTDOOR UNIT	Cool 47 dB / Heat 50 dB	Cool 54 dB / Heat 55 dB

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 6 pole, DC inverter motor, Rotary	
DISCRIMINATION		N-TF30ND1A	
WEIGHT WITH OIL		34.2 lb	15.5 kg
PRECHARGED REFRIGERANT		4 lb 10 oz	2,100 g
REFRIGERANT TYPE		R410A	
FULL CHARGE	Pipe length 66 ft 20 m	4 lb 10 oz	2,100 g
	164 ft 50 m	7 lb 4 oz	3,300 g
ADDITIONAL CHARGE		0.43 oz/ft	40 g/m

DIMENSIONS

INDOOR UNIT	H x W x D	12-5/8 x 39-1/4 x 9 inch	320 x 998 x 228 mm
OUTDOOR UNIT	H x W x D	32-3/4 x 35-3/8 x 13 inch	830 x 900 x 330 mm

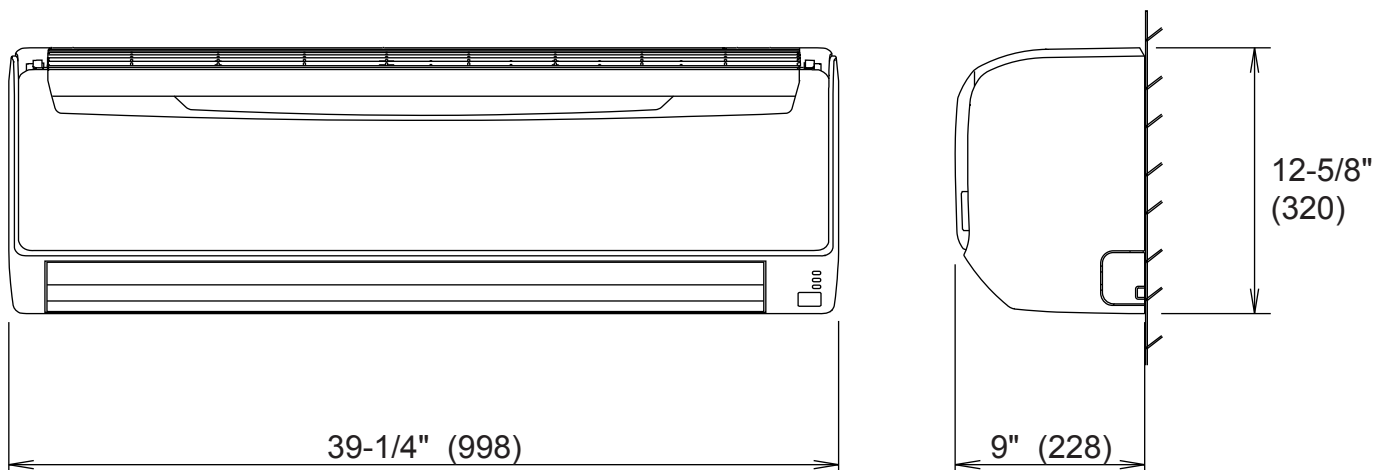
WEIGHT

INDOOR UNIT	Shipping / Net	40 lbs / 31 lbs	18 kg / 14 kg
OUTDOOR UNIT	Shipping / Net	150 lbs / 135 lbs	68 kg / 61 kg

DIMENSIONS

INDOOR UNIT

Unit : inch (mm)



Drain pipe diameter

Inside : 5/8 inch (16 mm)

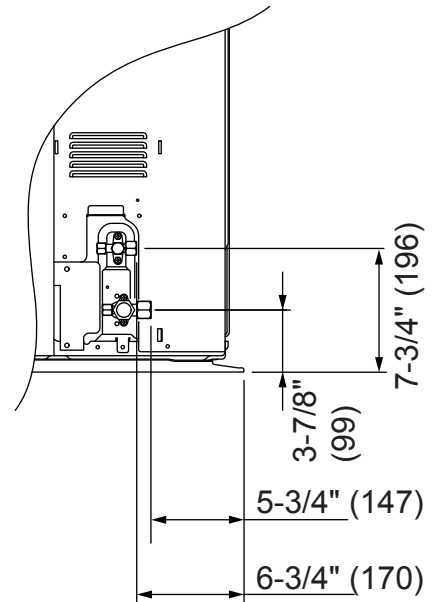
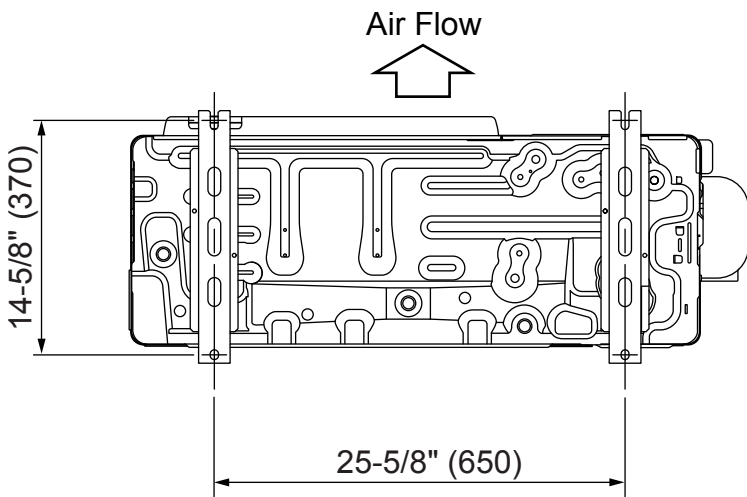
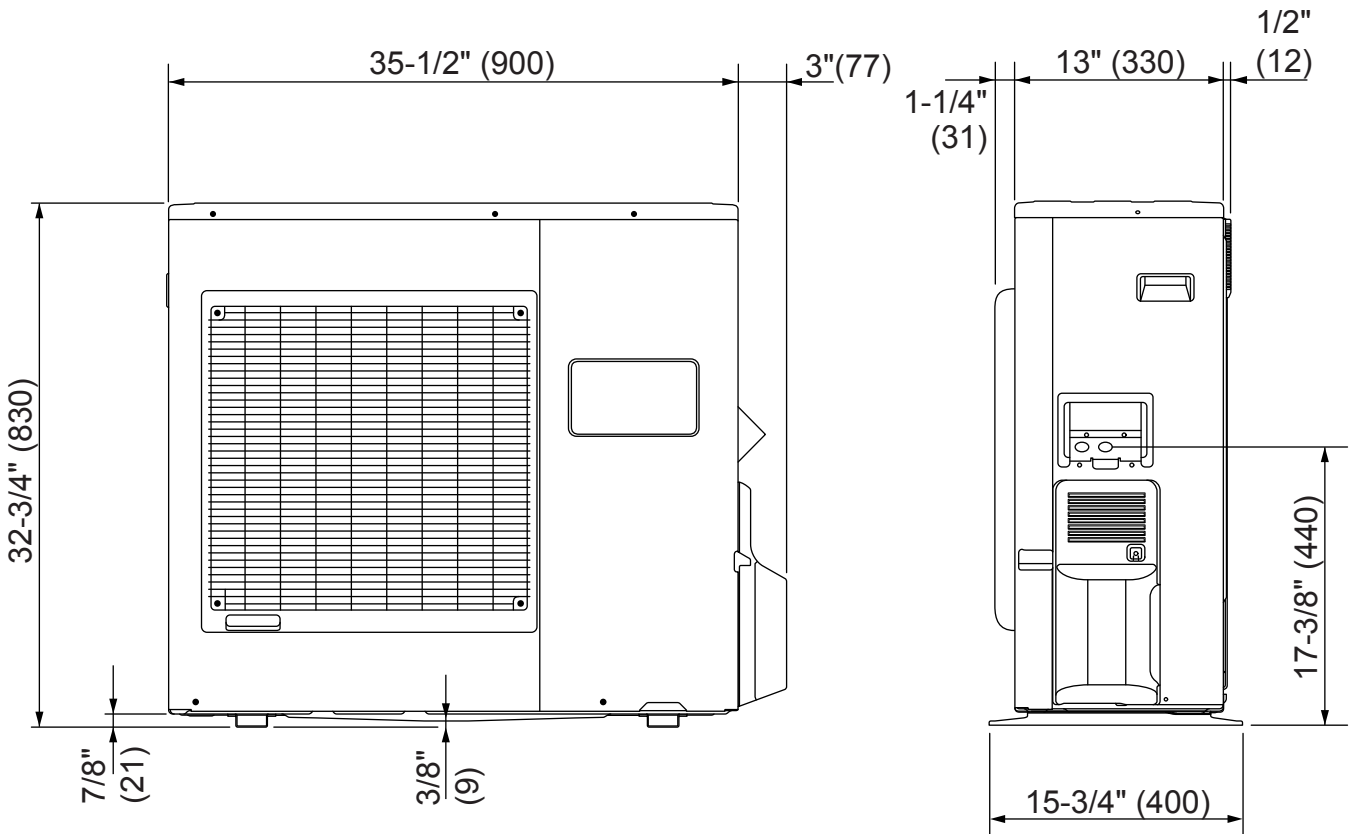
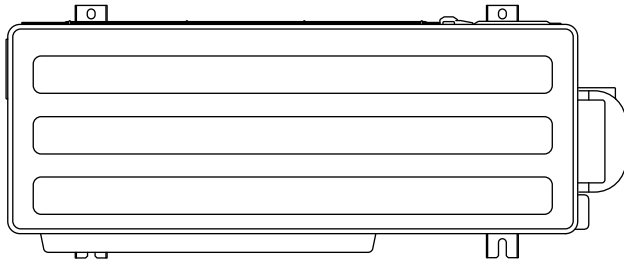
Outside : 1-3/32 inch (28 mm)

Liquid pipe diameter : 3/8 inch (9.52 mm)

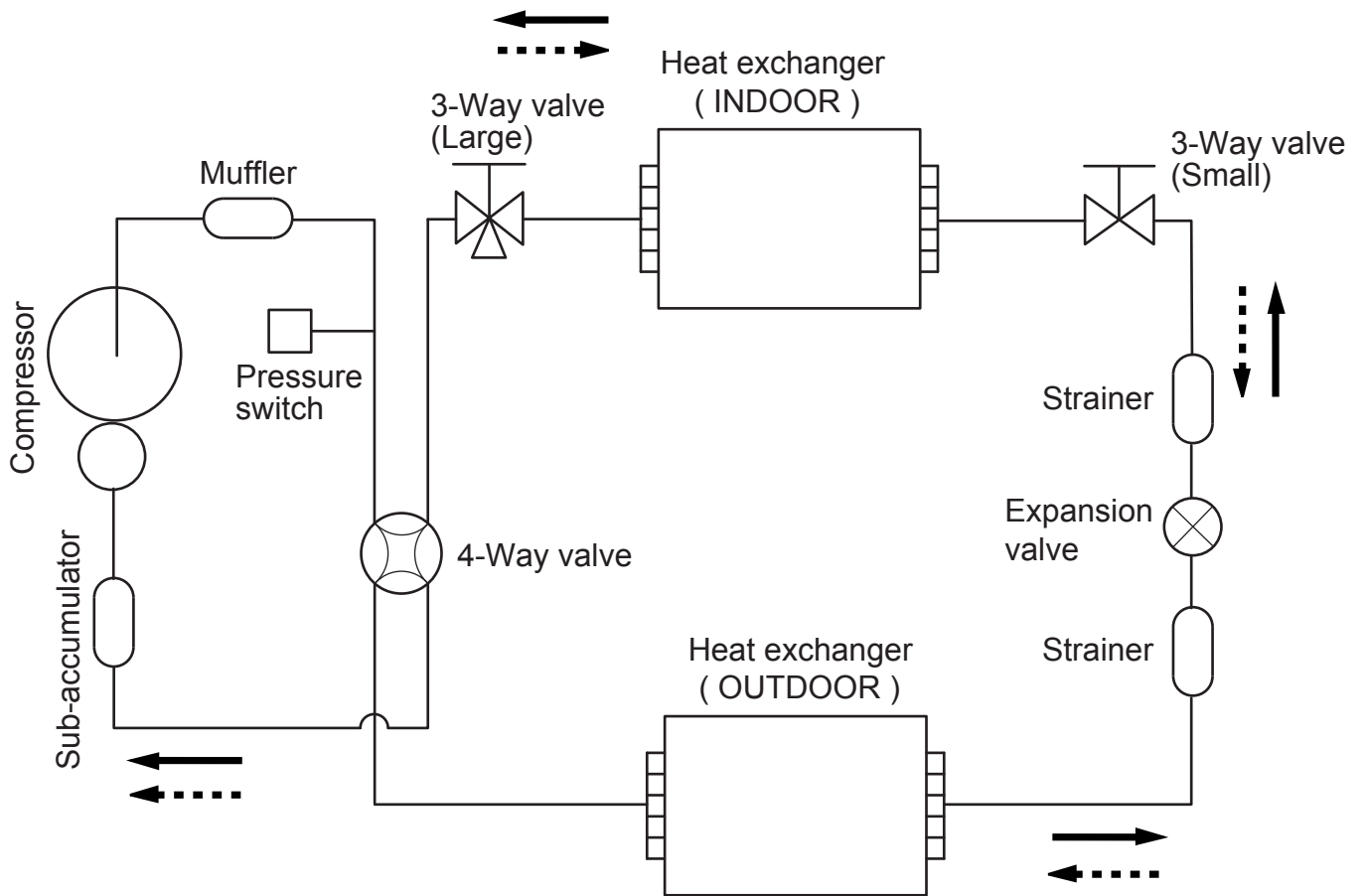
Gas pipe diameter : 5/8 inch (15.88 mm)



OUTDOOR UNIT

Unit : inch (mm)



REFRIGERANT SYSTEM DIAGRAM



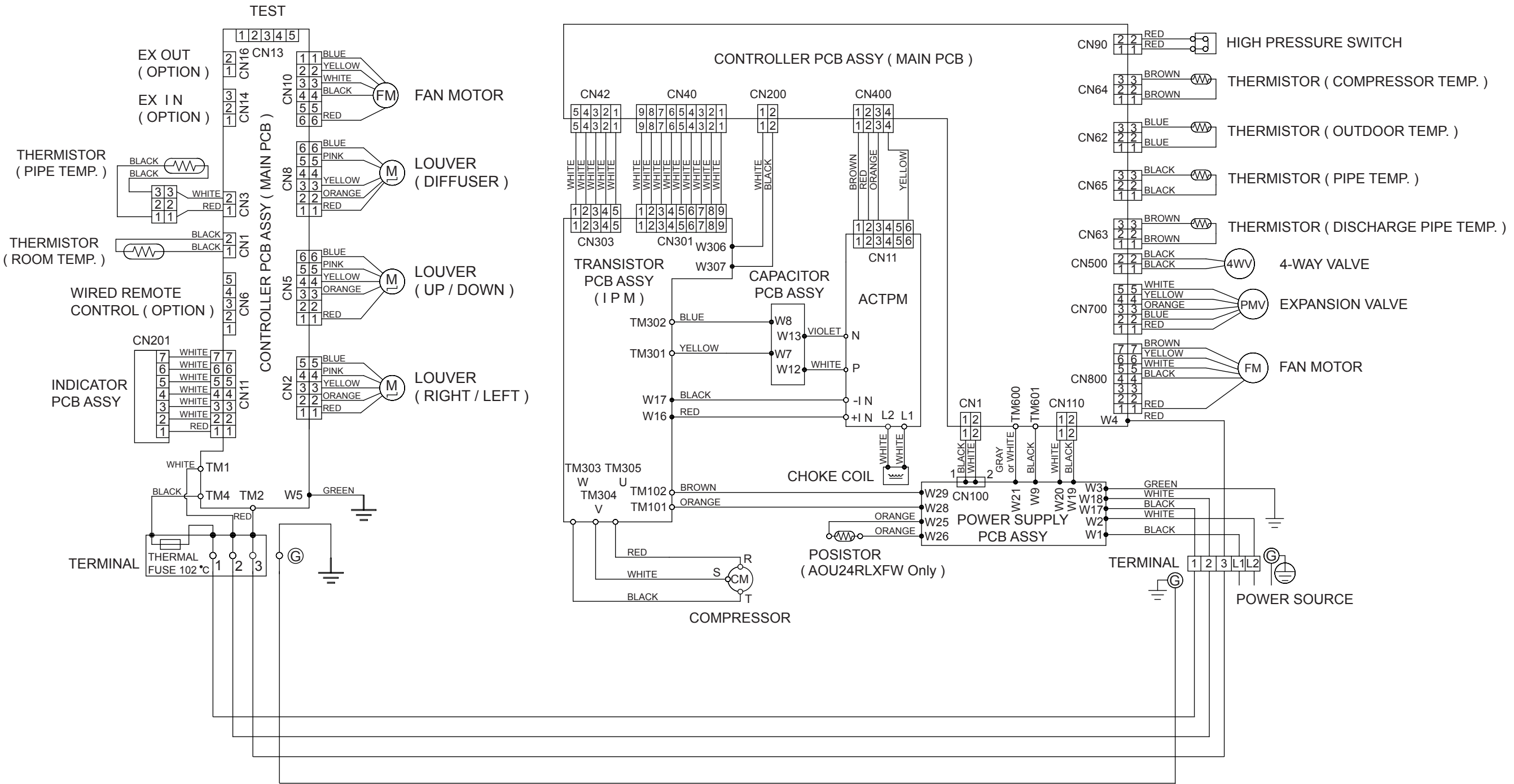
 Cooling flow
 Heating flow

Refrigerant pipe diameter
 Liquid : 3/8" (9.52 mm)
 Gas : 5/8" (15.88 mm)

CIRCUIT DIAGRAM

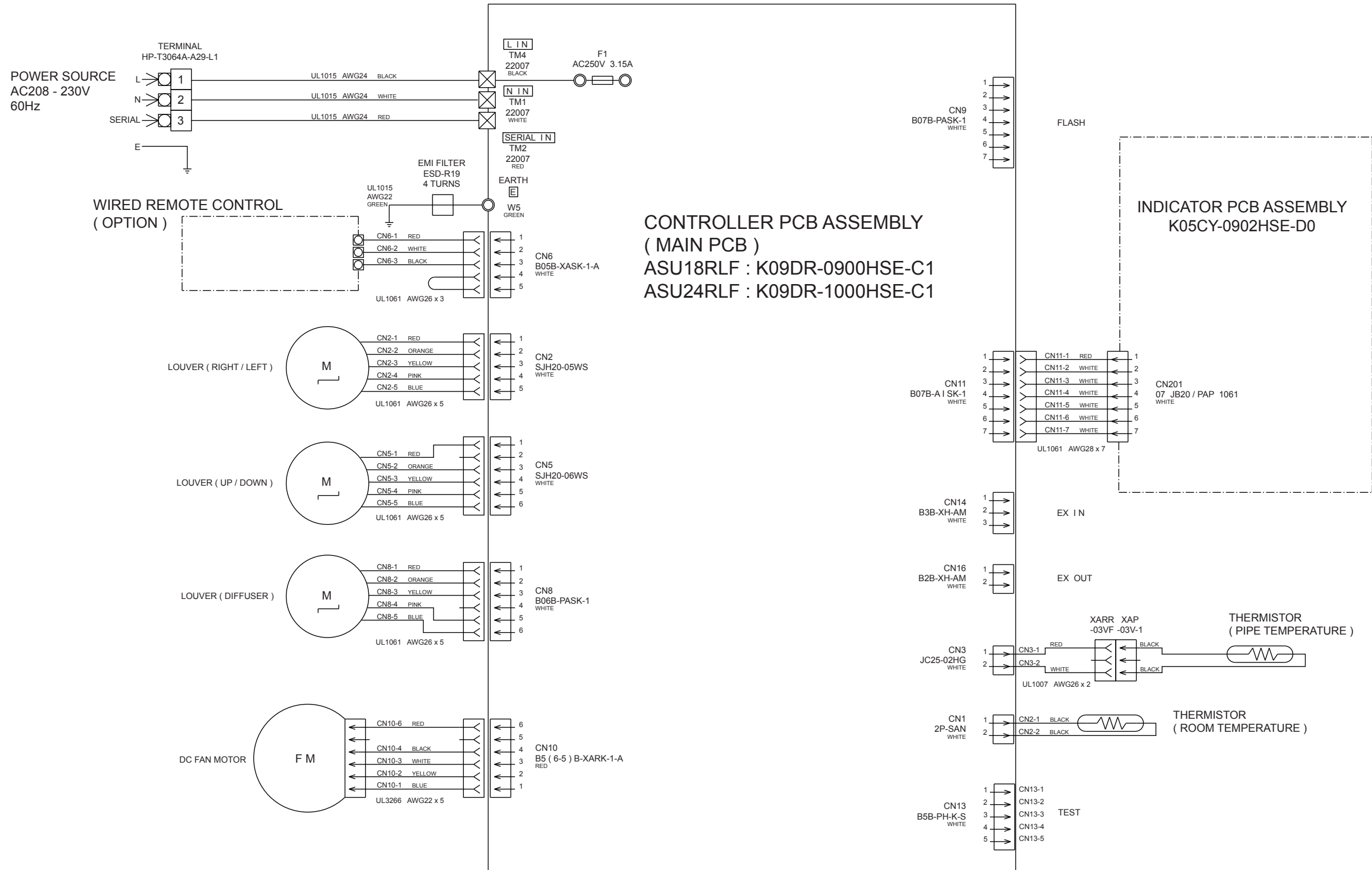
INDOOR UNIT

OUTDOOR UNIT

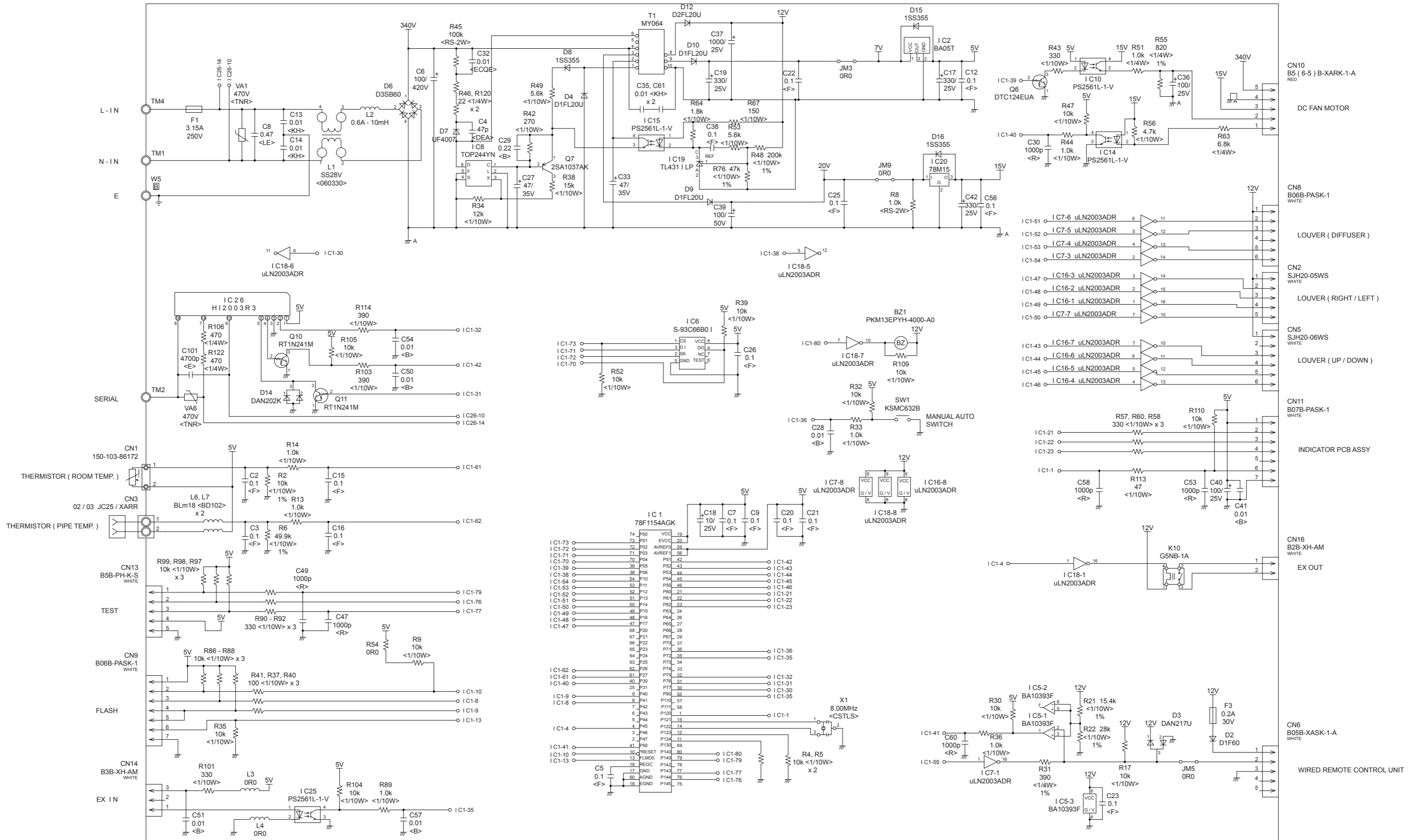


INDOOR PCB CIRCUIT DIAGRAM

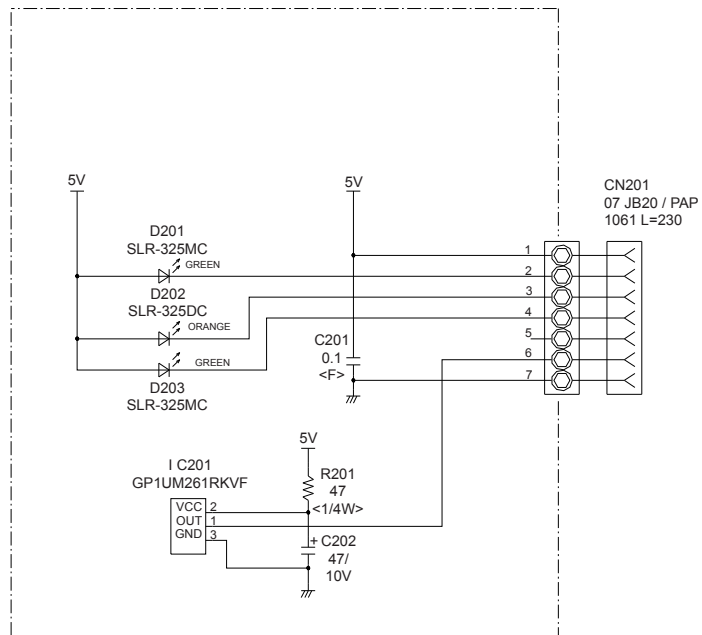
CONTROL UNIT
 ASU18RLF : EZ-0090DHSE
 ASU24RLF : EZ-0104HSE



INDOOR UNIT
 CONTROLLER PCB ASSEMBLY (MAIN PCB)
 ASU18RLF : K09DR-0900HSE-C1
 ASU24RLF : K09DR-1000HSE-C1

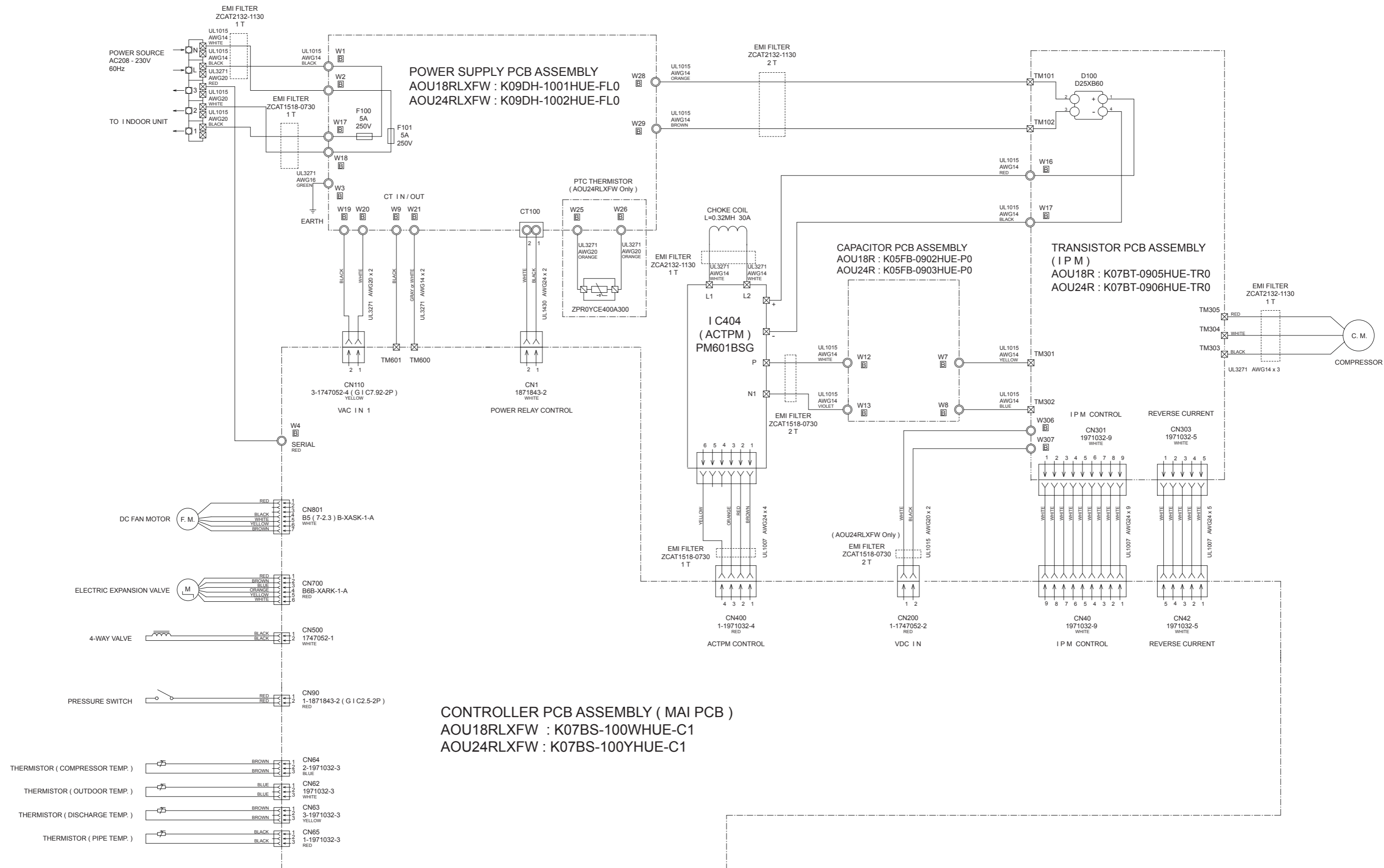


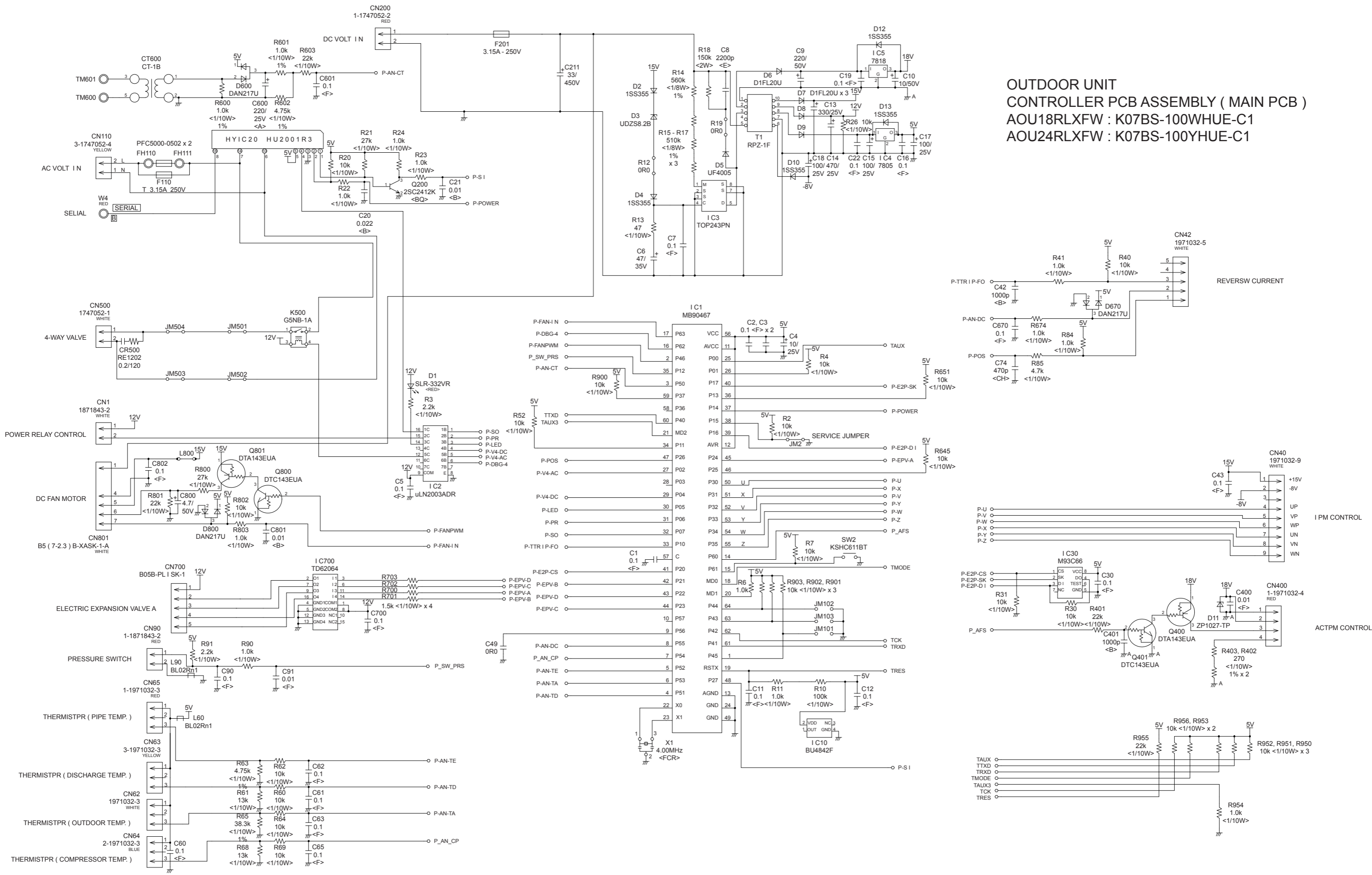
INDOOR UNIT
 INDICATOR PCB ASSEMBLY
 K05CY-0902HSE-D0



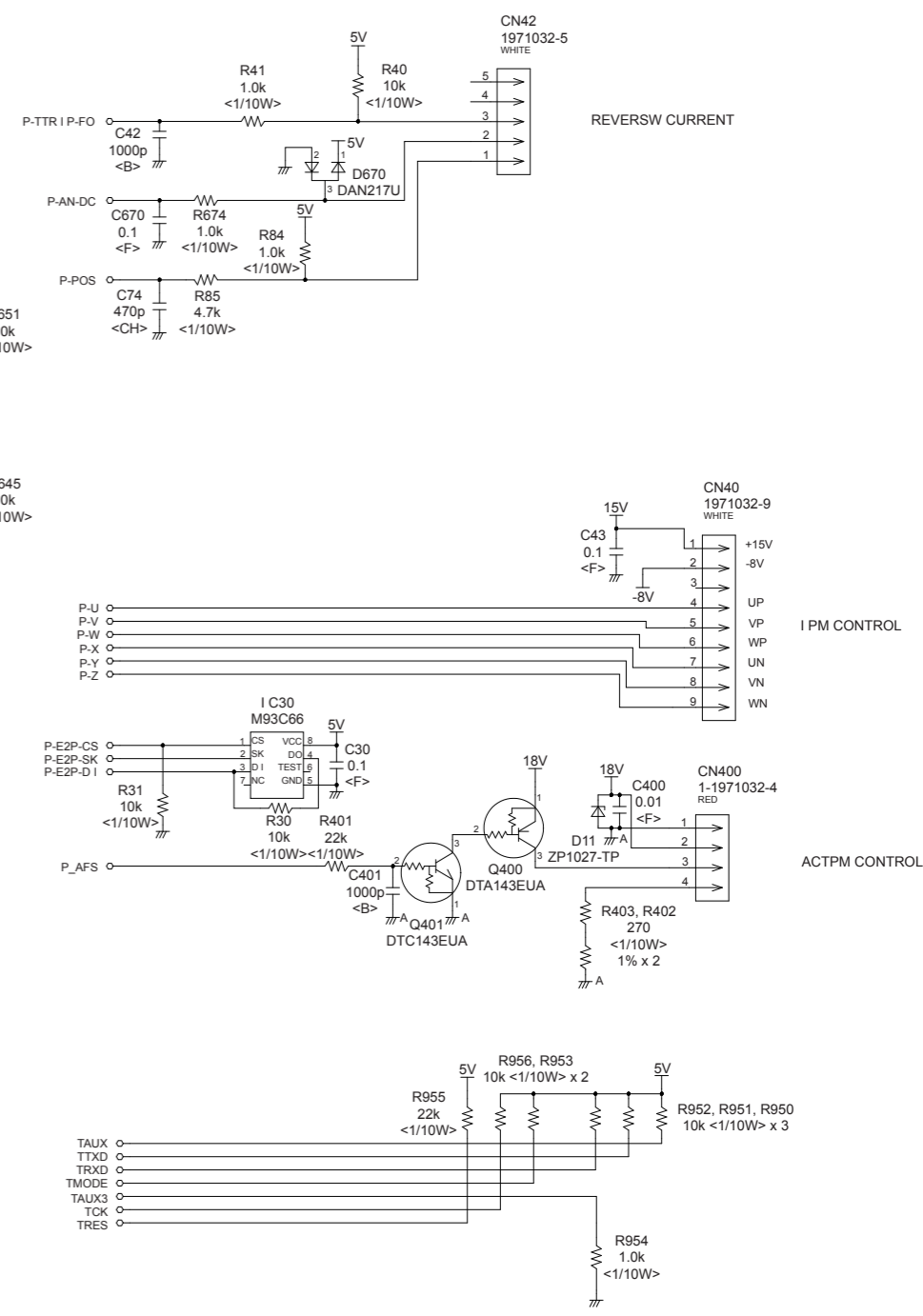
OUTDOOR PCB CIRCUIT DIAGRAM

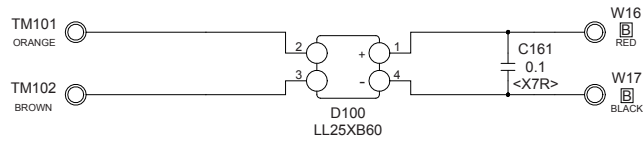
INVERTER ASSEMBLY
 AOU18RLXFW : EZ-01019HUE
 AOU24RLXFW : EZ-0101AHUE



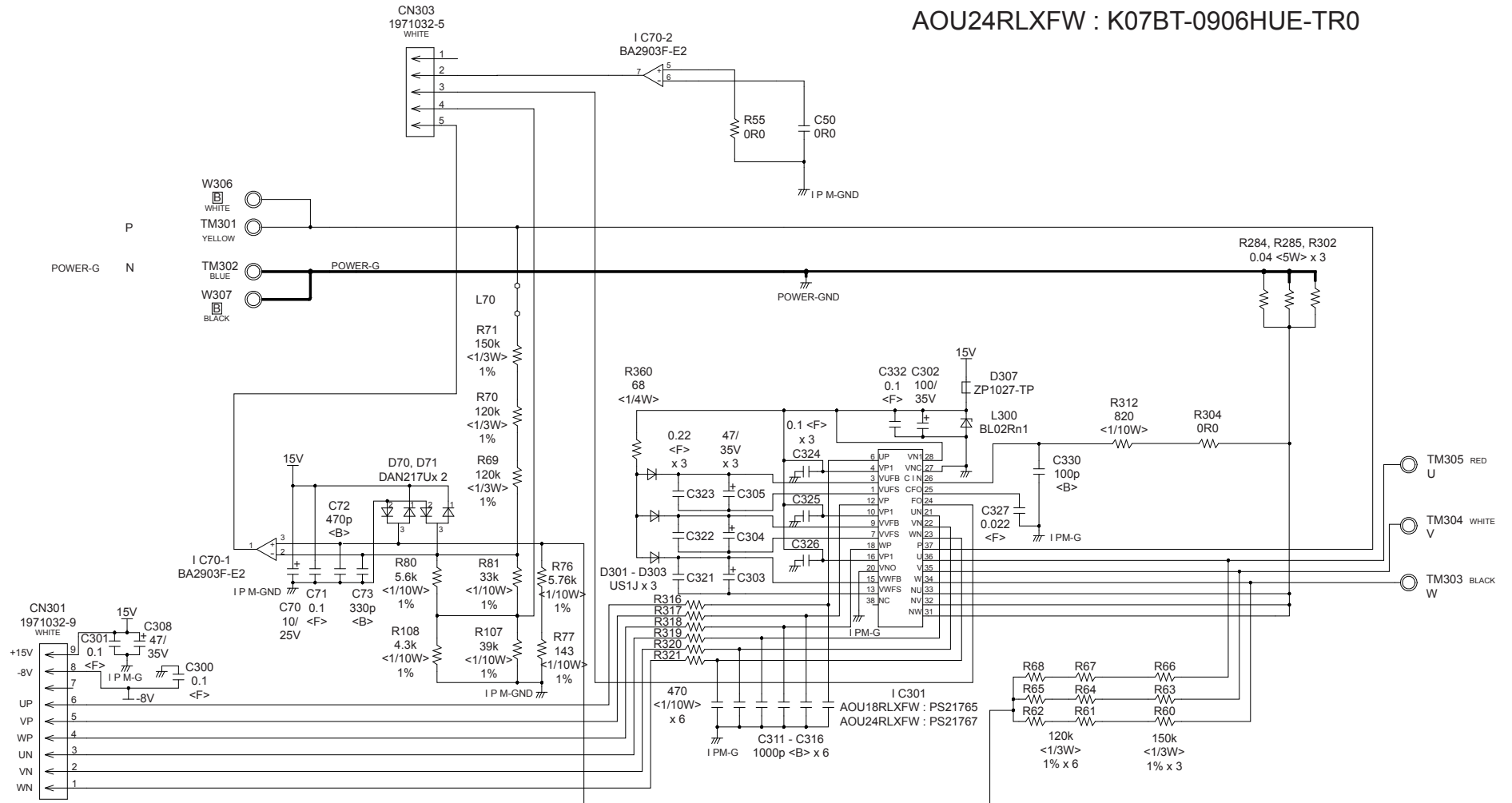


**OUTDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
AOU18RLXFW : K07BS-100WHUE-C1
AOU24RLXFW : K07BS-100YHUE-C1**

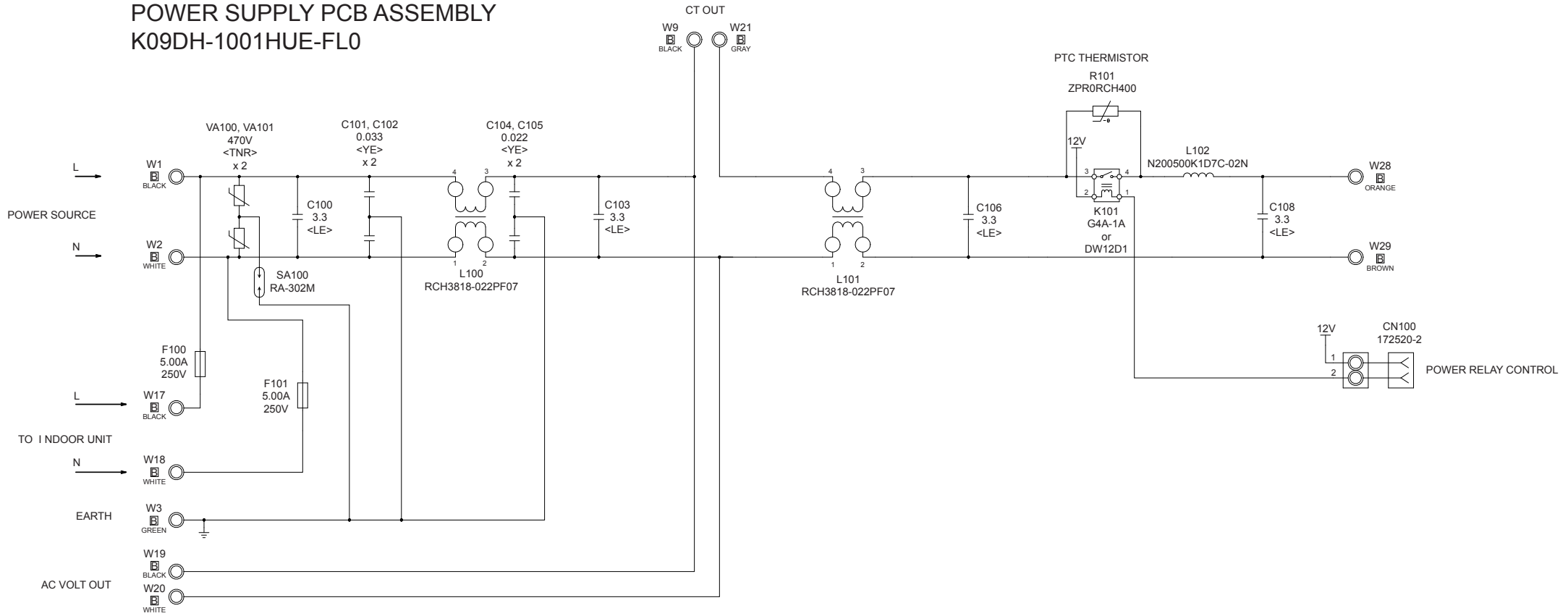




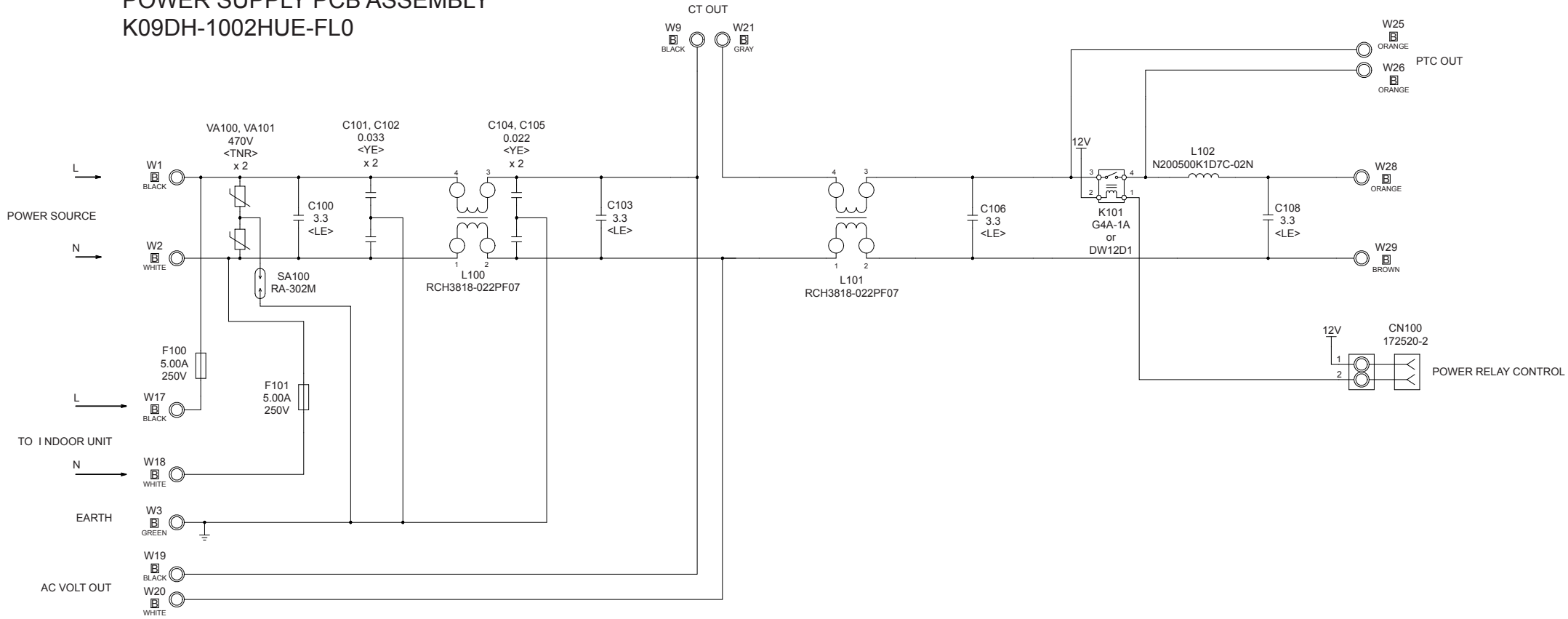
**OUTDOOR UNIT
TRANSISTOR PCB ASSEMBLY (I P M PCB)
AOU18RLXFW : K07BT-0905HUE-TR0
AOU24RLXFW : K07BT-0906HUE-TR0**



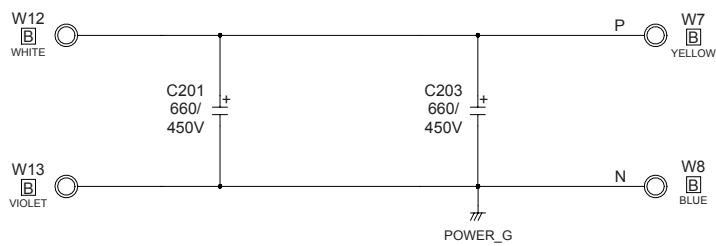
OUTDOOR UNIT
AOU18RLXFW
POWER SUPPLY PCB ASSEMBLY
K09DH-1001HUE-FL0



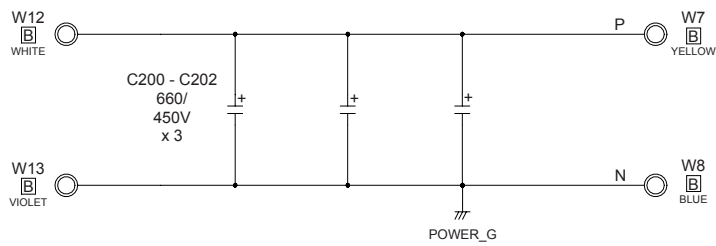
OUTDOOR UNIT
AOU24RLXFW
POWER SUPPLY PCB ASSEMBLY
K09DH-1002HUE-FL0



OUTDOOR UNIT
AOU18RLXFW
CAPACITOR PCB ASSEMBLY
K05FB-0902HUE-P0



AOU24RLXFW
CAPACITOR PCB ASSEMBLY
K05FB-0903HUE-P0



ERROR DETECTION

● : 0.5s ON / 0.5s OFF

() : Number of flashing

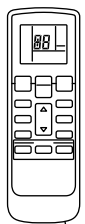
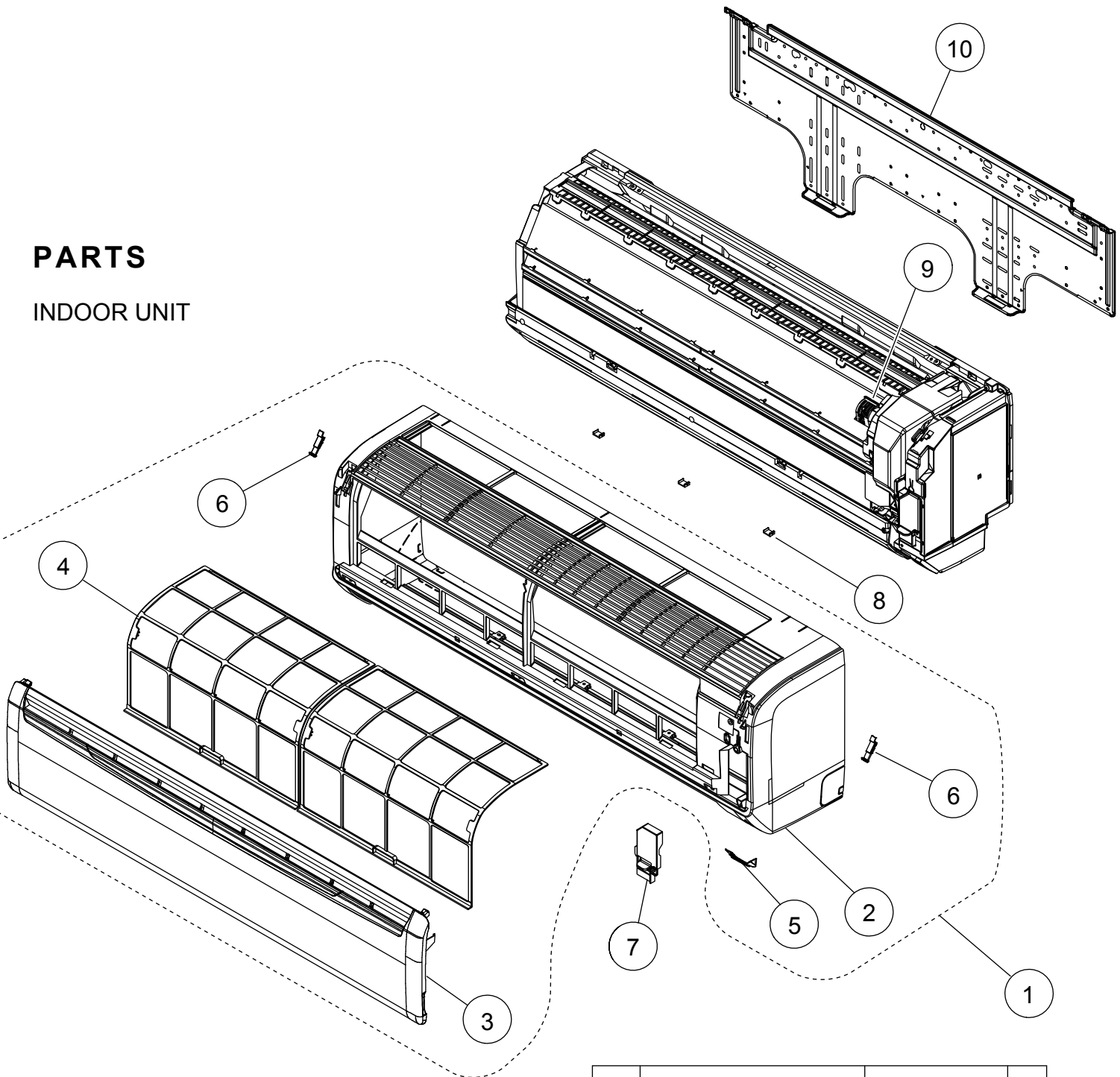
◇ : 0.1s ON / 0.1s OFF

INDOOR UNIT

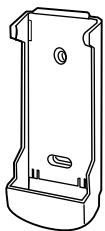
General section	Detail section	LED			Wired remote control error code
		OPERATION (Green)	TIMER (Orange)	ECONOMY (Green)	
Communication error System error	Serial communication error	● (1)	● (1)	◇	11
	Remote controller communication error	● (1)	● (2)	◇	12
	Scan error	● (1)	● (5)	◇	15
Field setting error	Initial setting error (for simultaneous multi)	● (2)	● (1)	◇	21
	Indoor unit capacity error	● (2)	● (2)	◇	22
	Connection disabled (series error)	● (2)	● (3)	◇	23
	Connection unit number error	● (2)	● (4)	◇	24
	Master unit and slave unit setting error	● (2)	● (7)	◇	27
Indoor unit PCB, switch error	Indoor unit main PCB error	● (3)	● (2)	◇	32
	Manual auto switch error	● (3)	● (5)	◇	35
Indoor unit sensor error	Indoor room thermistor error	● (4)	● (1)	◇	41
	Indoor heat Ex. thermistor error	● (4)	● (2)	◇	42
Indoor unit actuator error	Indoor unit fan motor error	● (5)	● (1)	◇	51
	Water drain error	● (5)	● (3)	◇	53
	Damper error	● (5)	● (7)	◇	57
	Indoor unit error	—	—	—	5U
Outdoor unit PCB error Circuit parts error Switch error	Outdoor unit main PCB error	● (6)	● (2)	◇	62
	Inverter PCB error	● (6)	● (3)	◇	63
	Active filter error, PFC circuit error	● (6)	● (4)	◇	64
	IPM error	● (6)	● (5)	◇	65
	Display panel error	● (6)	● (10)	◇	6A
Outdoor unit sensor error	Discharge thermistor error	● (7)	● (1)	◇	71
	Compressor thermistor error	● (7)	● (2)	◇	72
	Outdoor unit heat Ex. thermistor error	● (7)	● (3)	◇	73
	Outdoor thermistor error	● (7)	● (4)	◇	74
	Suction gas thermistor error	● (7)	● (5)	◇	75
	Operation valve thermistor error	● (7)	● (6)	◇	76
	Heat sink thermistor error	● (7)	● (7)	◇	77
Outdoor unit sensor 2 error	Sub-cool heat Ex.gas thermistor error	● (8)	● (2)	◇	82
	Liquid pipe thermistor error	● (8)	● (3)	◇	83
	Current sensor error	● (8)	● (4)	◇	84
	Pressure sensor error (Pressure sensor or switch error)	● (8)	● (6)	◇	86
Outdoor unit actuator error	Trip detection	● (9)	● (4)	◇	94
	Compressor motor control error	● (9)	● (5)	◇	95
	Outdoor unit fan motor 1 error	● (9)	● (7)	◇	97
	4-way valve error	● (9)	● (9)	◇	99
Refrigerant circuit error	Discharge temperature error	● (10)	● (1)	◇	A1
	Compressor temperature error	● (10)	● (3)	◇	A3
	Pressure error 1	● (10)	● (4)	◇	A4
	Pressure error 2	● (10)	● (5)	◇	A5

PARTS

INDOOR UNIT



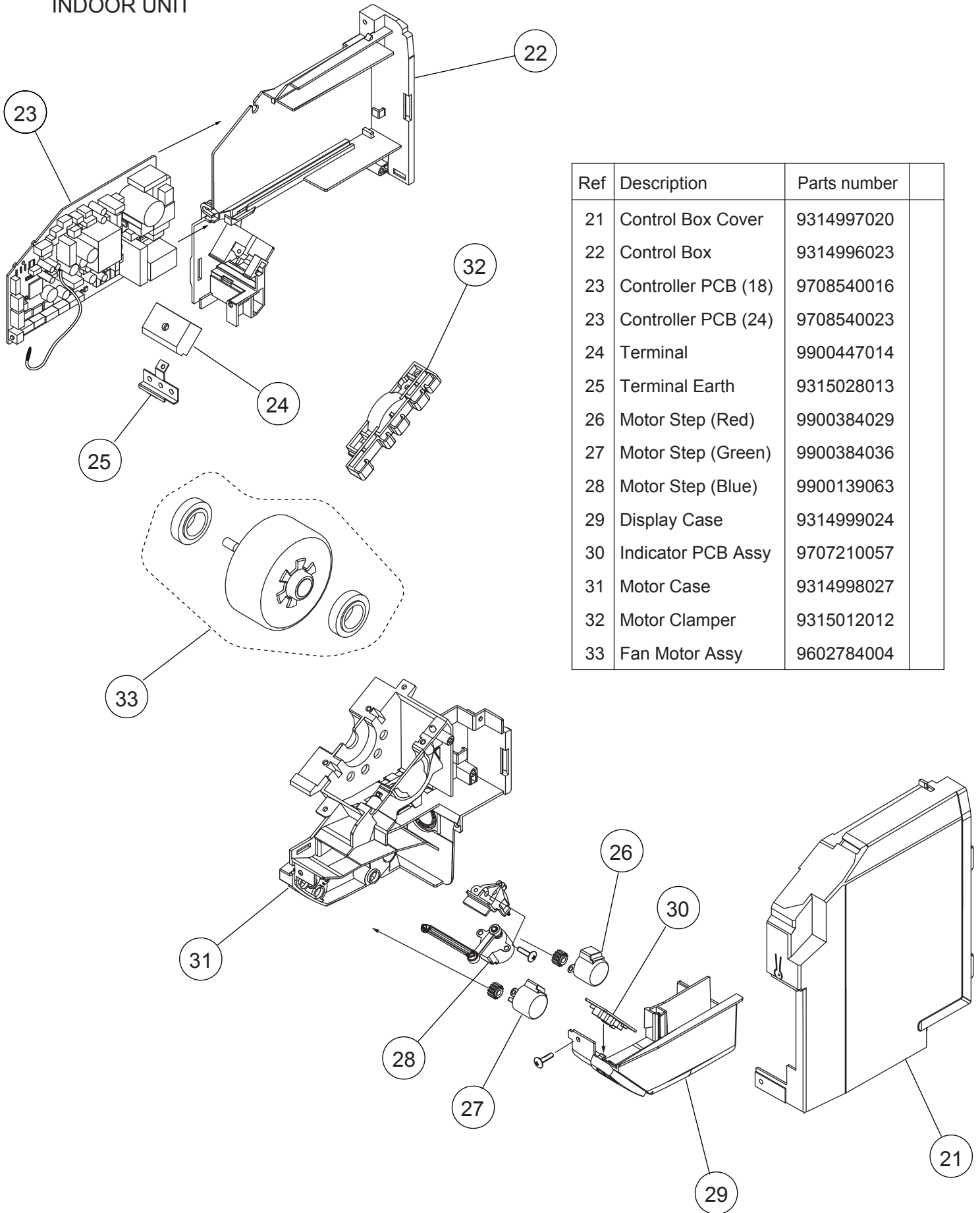
11



12

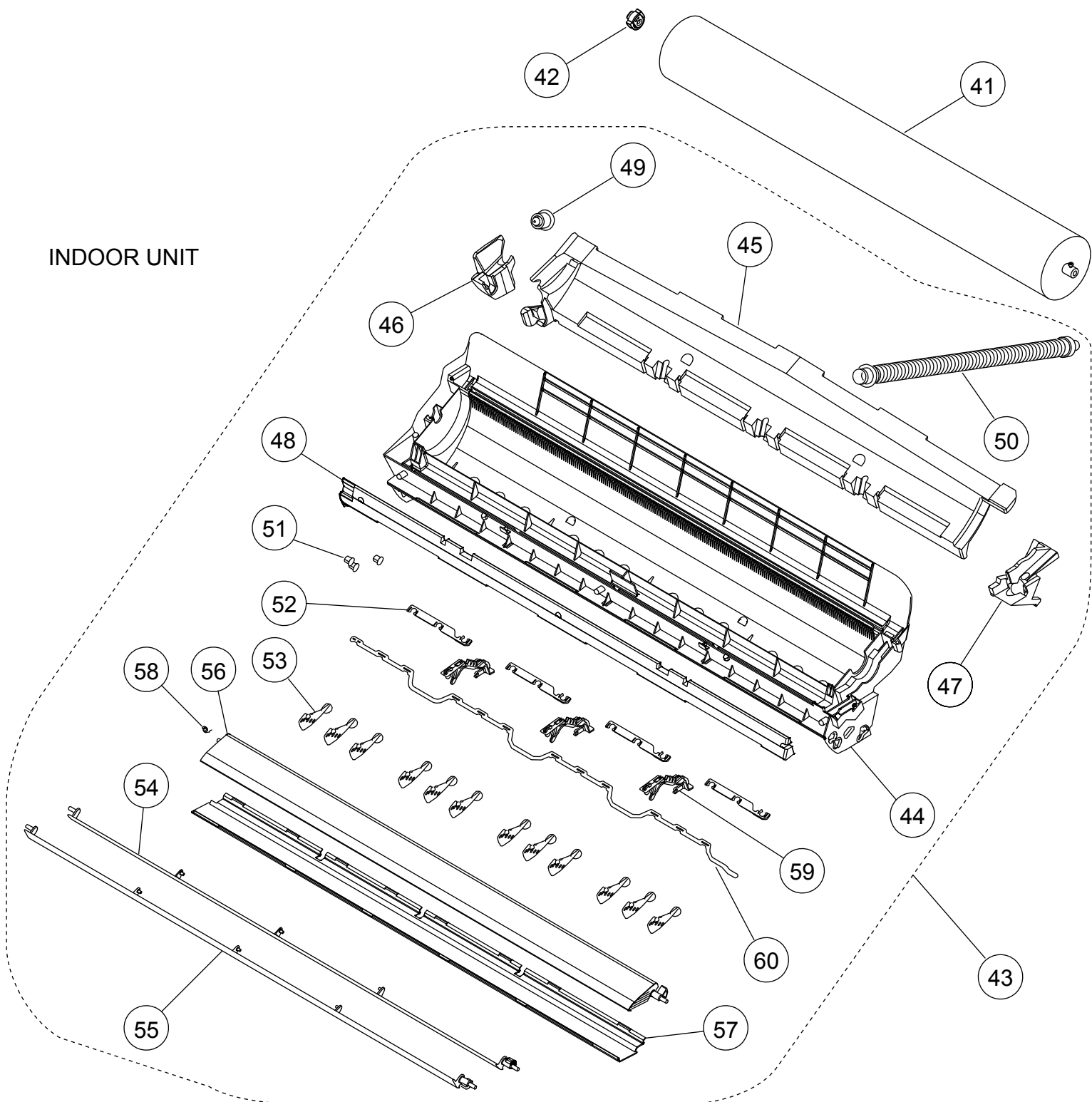
Ref	Description	Parts number
1	Front Panel Total Assy	9315335272
2	Front Panel	9314991080
3	Intake Grille Assy	9315336163
4	Air Filter	9315014016
5	Receiver Window	9315010018
6	Clamber Grille	9306755010
7	Wire Clamber	9315015013
8	Screw Cap	9309002050
9	Room Thermistor Holder	9315252012
10	Bracket Panel	9315023018
11	Remote Control	9379219013
12	Remote Control Holder	9305642045
--	Air Clean Filter Assy	9315212016

INDOOR UNIT



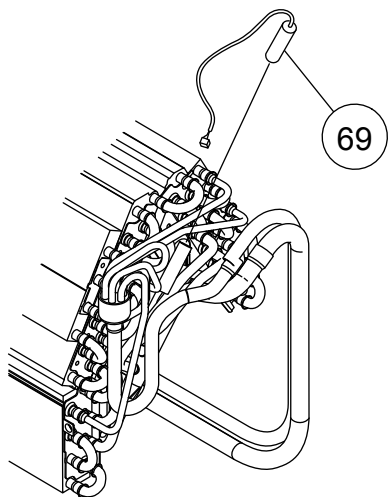
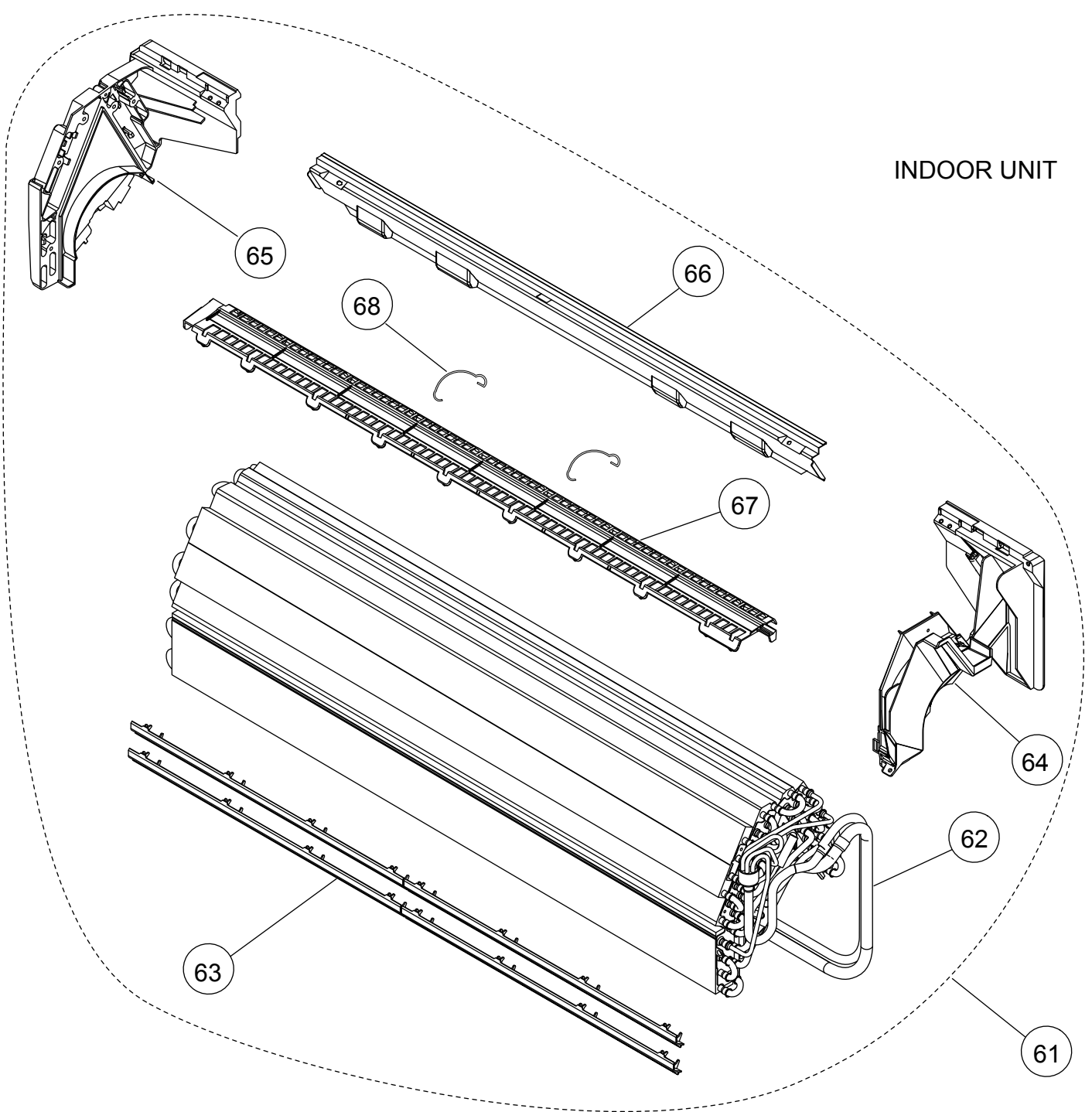
Ref	Description	Parts number
21	Control Box Cover	9314997020
22	Control Box	9314996023
23	Controller PCB (18)	9708540016
23	Controller PCB (24)	9708540023
24	Terminal	9900447014
25	Terminal Earth	9315028013
26	Motor Step (Red)	9900384029
27	Motor Step (Green)	9900384036
28	Motor Step (Blue)	9900139063
29	Display Case	9314999024
30	Indicator PCB Assy	9707210057
31	Motor Case	9314998027
32	Motor Clamber	9315012012
33	Fan Motor Assy	9602784004

INDOOR UNIT



Ref	Description	Parts number	Ref	Description	Parts number
41	Crossflow Fan Assy	9315024015	53	R and L Louver	9311997016
42	Bearing C Assy	9306628017	54	Louver U	9315000019
43	Casing Assy	9315331045	55	Louver Z	9315001016
44	Casing	9314993015	56	Diffuser U	9315002013
45	Casing Cover B	9315016010	57	Diffuser Z	9315003010
46	Casing Cover L	9315017017	58	Spring C	9314142017
47	Casing Cover R	9315018014	59	Piller A	9315009012
48	Casing Cover F	9315019011	60	Joint B	9315006011
49	Drain Cap	9367677009	-	Fan Guard	9305751051
50	Drain Hose Assy	9315769015	-	Fan Guard Holder Right	9315814012
51	Bush B	9312156016	-	Fan Guard Holder Left	9315815019
52	Spacer B	9312441013			

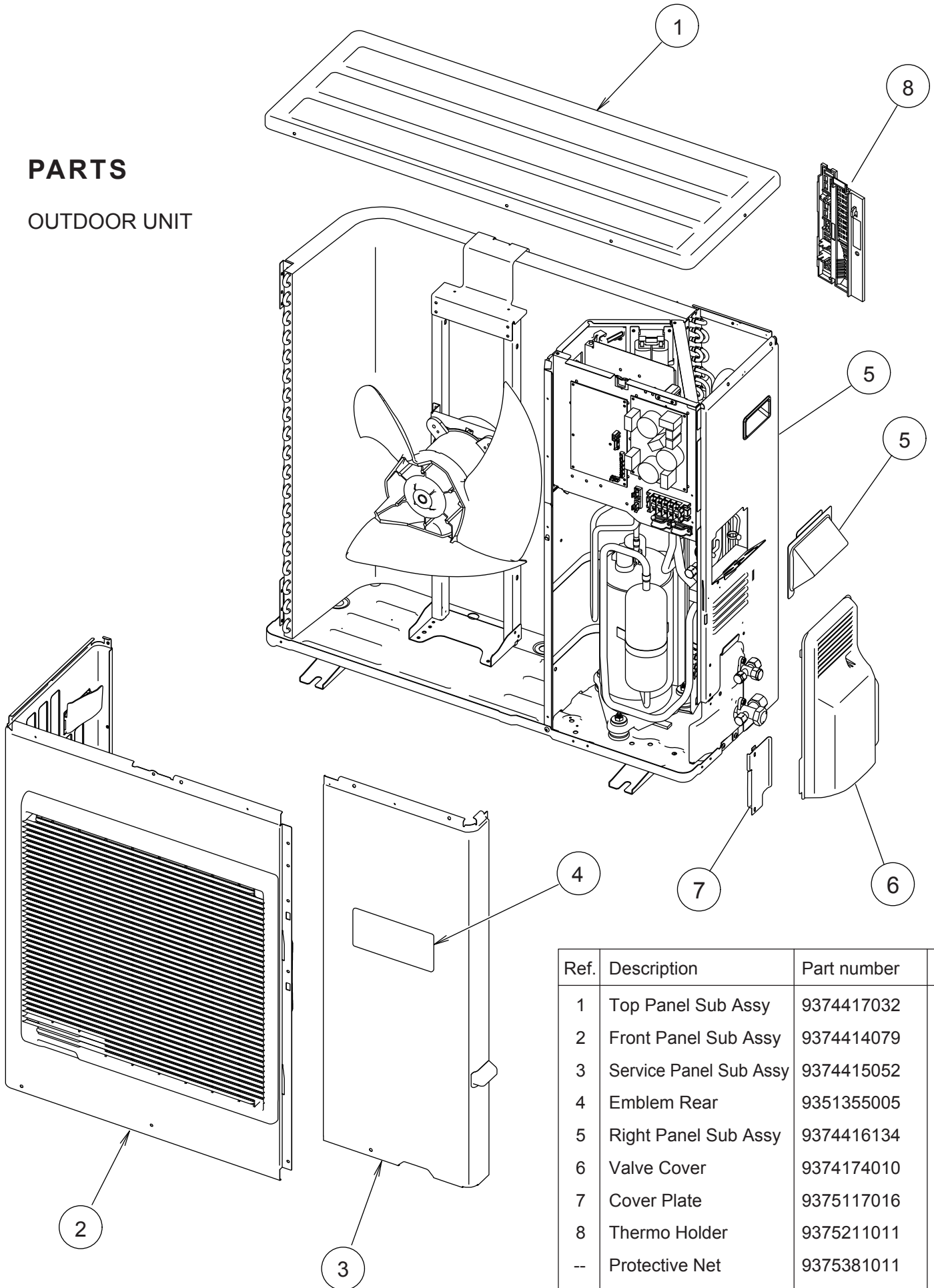
INDOOR UNIT



Ref	Description	Parts number	
61	Evaporator Total Assy (18)	9315338129	
61	Evaporator Total Assy (24)	9315338112	
62	Connection Pipe Assy (18)	9315355041	
62	Connection Pipe Assy (24)	9315355058	
63	Water Seal	9315251015	
64	Evaporator Holder R	9314994012	
65	Evaporator Holder L	9314995019	
66	Rear Bracket	9315022011	
67	Filter Guide	9315013019	
68	Filter Guard	9315411013	
69	Pipe Thermistor	9900551018	

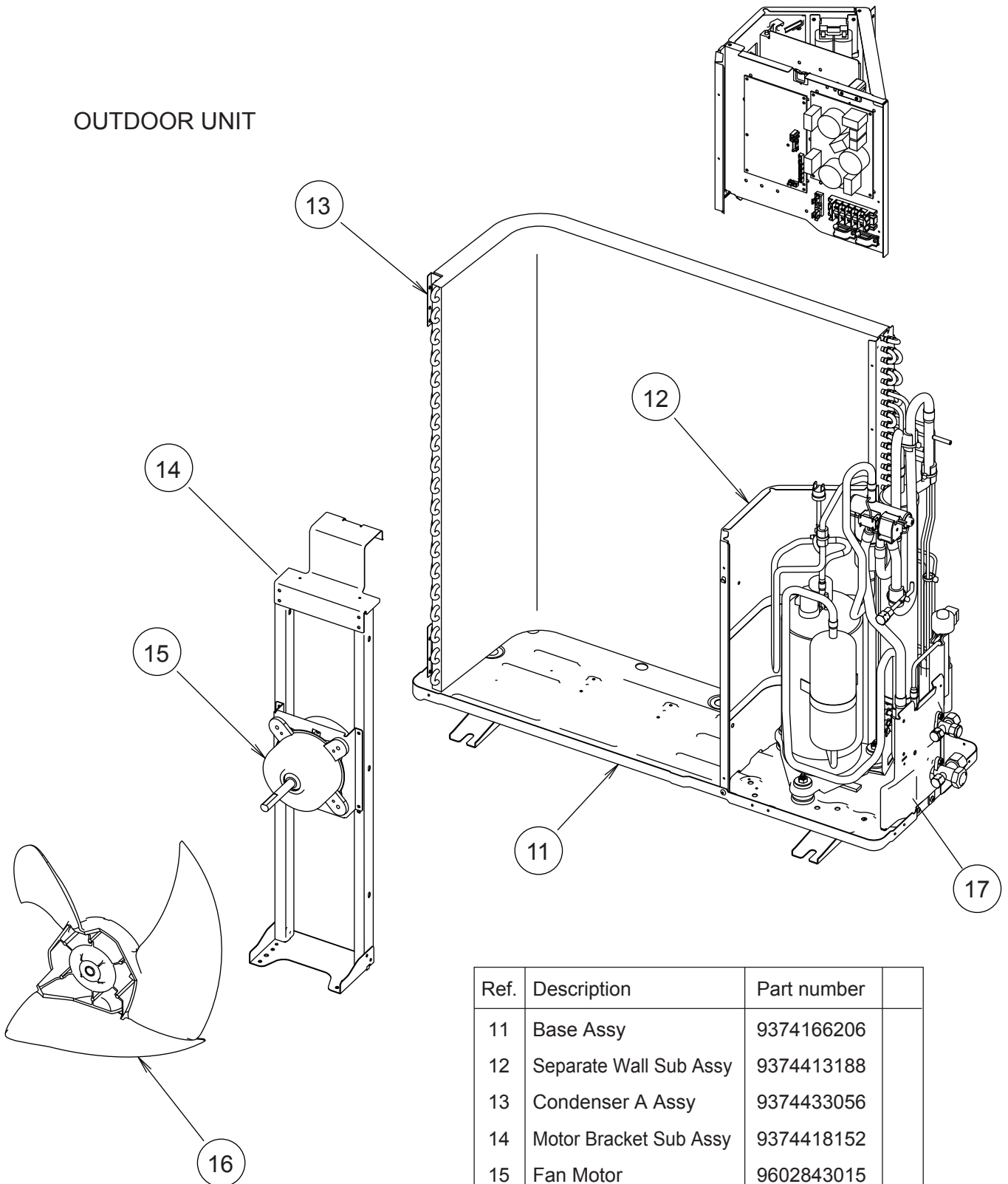
PARTS

OUTDOOR UNIT



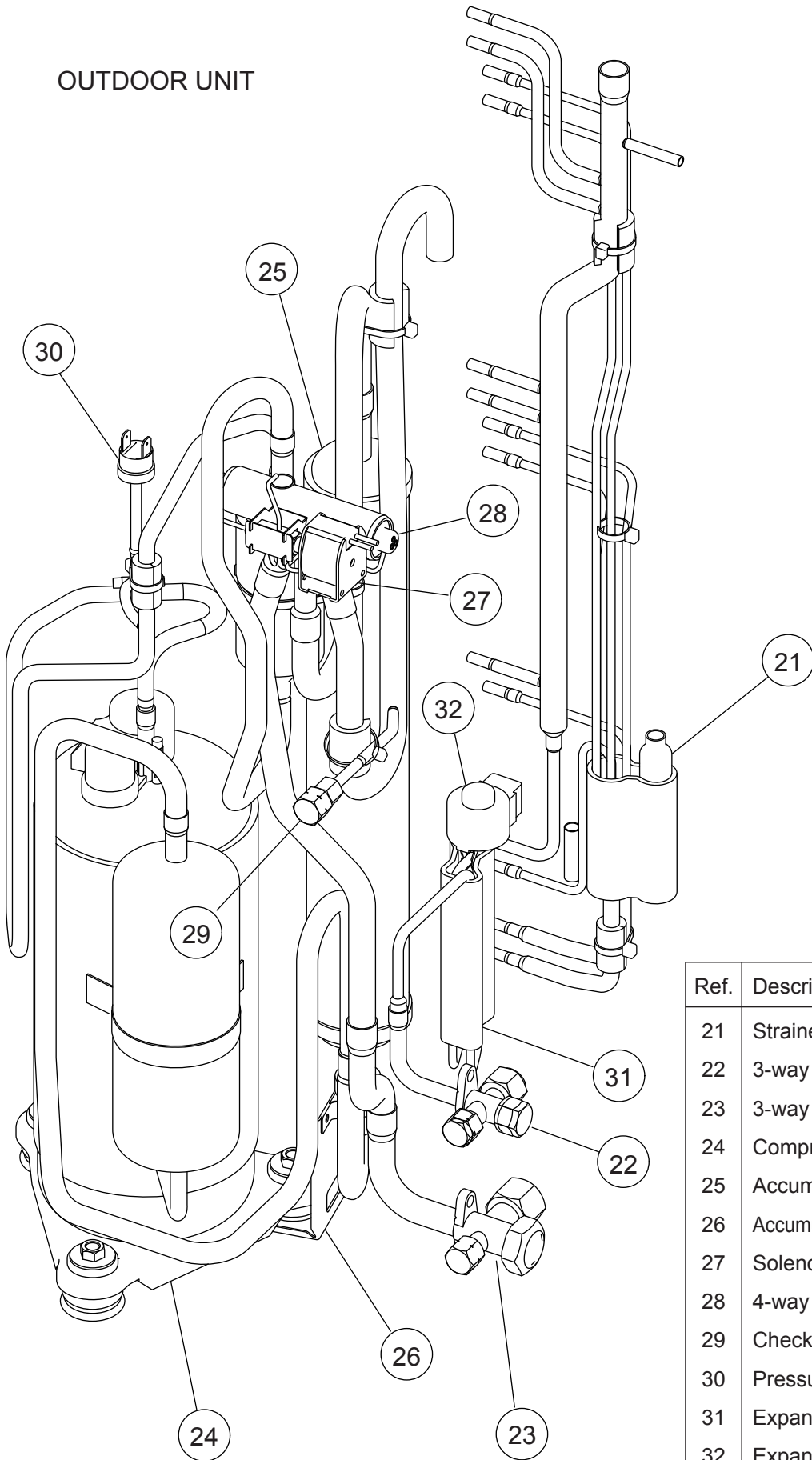
Ref.	Description	Part number
1	Top Panel Sub Assy	9374417032
2	Front Panel Sub Assy	9374414079
3	Service Panel Sub Assy	9374415052
4	Emblem Rear	9351355005
5	Right Panel Sub Assy	9374416134
6	Valve Cover	9374174010
7	Cover Plate	9375117016
8	Thermo Holder	9375211011
--	Protective Net	9375381011
--	Drain Assy	9303029015
--	Drain Cap	313166024302

OUTDOOR UNIT

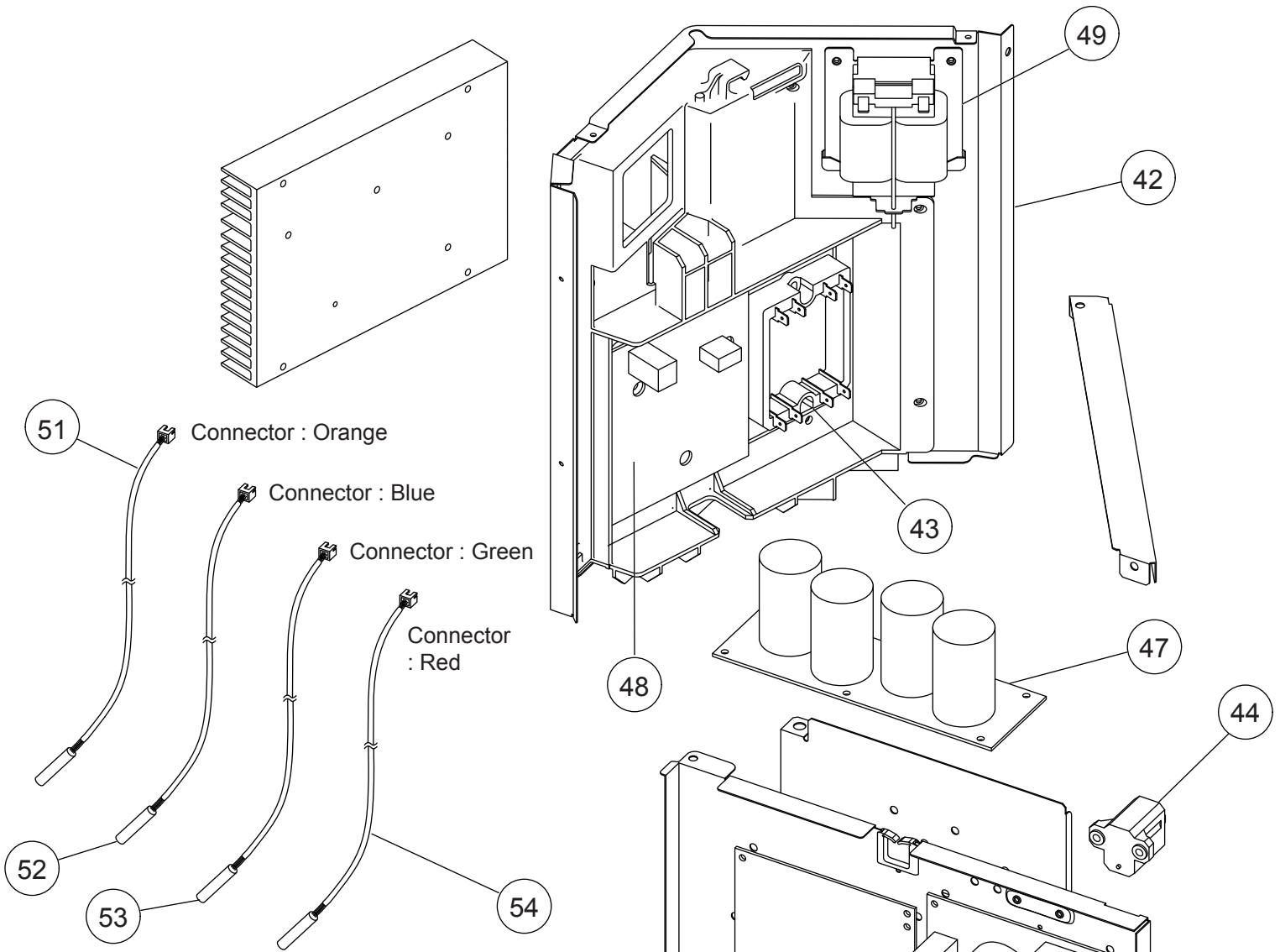


Ref.	Description	Part number
11	Base Assy	9374166206
12	Separate Wall Sub Assy	9374413188
13	Condenser A Assy	9374433056
14	Motor Bracket Sub Assy	9374418152
15	Fan Motor	9602843015
16	Propeller Fan Assy	9366378020
17	Valve Plate	9374099030

OUTDOOR UNIT



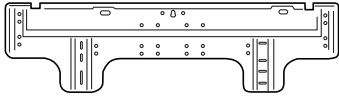

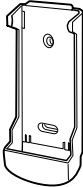

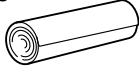


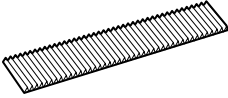
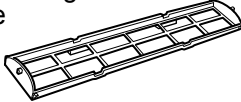
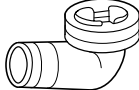
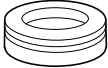
Ref.	Description	Part number
21	Strainer Assy	9372524015
22	3-way Valve Sub Assy	9377958013
23	3-way Valve Assy	9377959010
24	Compressor Sub Assy	9810135001
25	Accumulator	9385005006
26	Accumulator Support Assy	9355351003
27	Solenoid	9970055034
28	4-way Valve Assy	9374425198
29	Check Joint Assy	9372802038
30	Pressure Switch	9900186012
31	Expansion Valve Assy	9370947144
32	Expansion Valve Coil	9970095030
--	Muffler	9372369050



Ref.	Description	Part number
41	PCB Case Assy	9375316020
42	Inverter Case	9375314019
43	ACTPM	9707592016
44	PTC Thermistor (24)	9704265012
45	Inverter PCB Assy (18)	9707667561
45	Inverter PCB Assy (24)	9707667578
46	Power Supply PCB Assy (18)	9708510071
46	Power Supply PCB Assy (24)	9708510088
47	Capacitor PCB Assy (18)	9707257069
47	Capacitor PCB Assy (24)	9707257076
48	Transistor PCB Assy (18)	9707669114
48	Transistor PCB Assy (24)	9707669121
49	Choke Coil	9900223014
50	Terminal	9900203023
51	Discharge Thermistor	9900461003
52	Outdoor Thermistor	9900463007
53	Compressor Thermistor	9900466015
54	Heat Exchanger Thermistor	9900514013

OUTDOOR UNIT

ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9315023018
Remote control 	9379219013
Remote control holder 	9305642045
Battery (penlight) 	0600185541
Cloth tape 	9310519004
Tapping screw (big) 	0700076046
Tapping screw (small) 	0700019036
Air cleaning filter 	UTR-FA13-1 9312153060 UTR-FA13-2 9311925071
Air cleaning filter frame 	9368568009
Drain pipe (Outdoor unit) 	9301102000
Drain cap (Outdoor unit) 	313166024302

1011G3847