

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG24LFCA	AOYG24LFL

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG24LFCA
OUTDOOR UNIT		AOYG24LFL
COOLING CAPACITY		7.10 kW
HEATING CAPACITY		8.00 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	COOLING	9.7 A
	HEATING	9.7 A
INPUT WATTS	COOLING	2.20 kW
	HEATING	2.21 kW
E.E.R.	COOLING	3.23 kW/kW
COP	HEATING	3.61 kW/kW
MOISTURE REMOVAL		2.7 L/hr
AIR CIRCULATION HIGH		1,100 m ³ /hr
MAXIMUM CURRENT	COOLING	13.5 A
	HEATING	18.5 A

FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT (Cool)	High	1,430 r.p.m.
	Medium	1,220 r.p.m.
	Low	1,020 r.p.m.
	Quiet	860 r.p.m.
INDOOR UNIT (Heat)	High	1,480 r.p.m.
	Medium	1,220 r.p.m.
	Low	1,020 r.p.m.
	Quiet	860 r.p.m.
OUTDOOR UNIT (Cool)		1,050 r.p.m.
OUTDOOR UNIT (Heat)		1,100 r.p.m.

NOISE LEVEL

INDOOR UNIT (Cool)	High	47 dB
	Medium	42 dB
	Low	37 dB
	Quiet	32 dB
INDOOR UNIT (Heat)	High	48 dB
	Medium	42 dB
	Low	37 dB
	Quiet	32 dB
OUTDOOR UNIT (Cool)		53 dB
OUTDOOR UNIT (Heat)		56 dB

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 4 pole, Rotary, DC inverter motor
DISCRIMINATION		808-217-80(B)
WEIGHT WITH OIL		10.2 kg
PRECHARGED REFRIGERANT		1,650 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe length 15 m	1,650 g
	30 m	1,950 g
ADDITIONAL CHARGE		20 g/m
MAXIMUM HEIGHT DIFFERENCE		20 m

DIMENSIONS

INDOOR UNIT	H x W x D	320 x 998 x 238 mm
OUTDOOR UNIT	H x W x D	578 x 790 x 315 mm

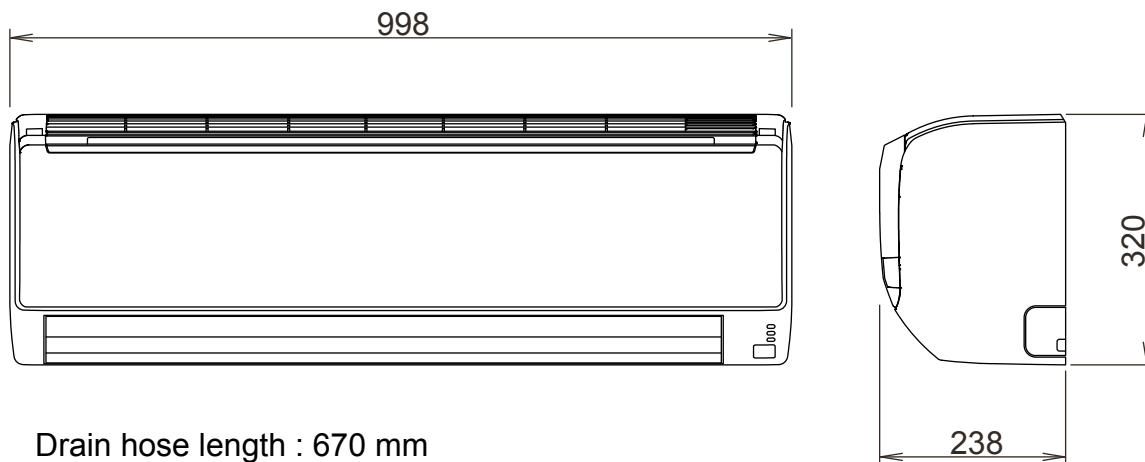
WEIGHT

INDOOR UNIT	Shipping / Net	18 kg / 14 kg
OUTDOOR UNIT	Shipping / Net	47 kg / 43 kg

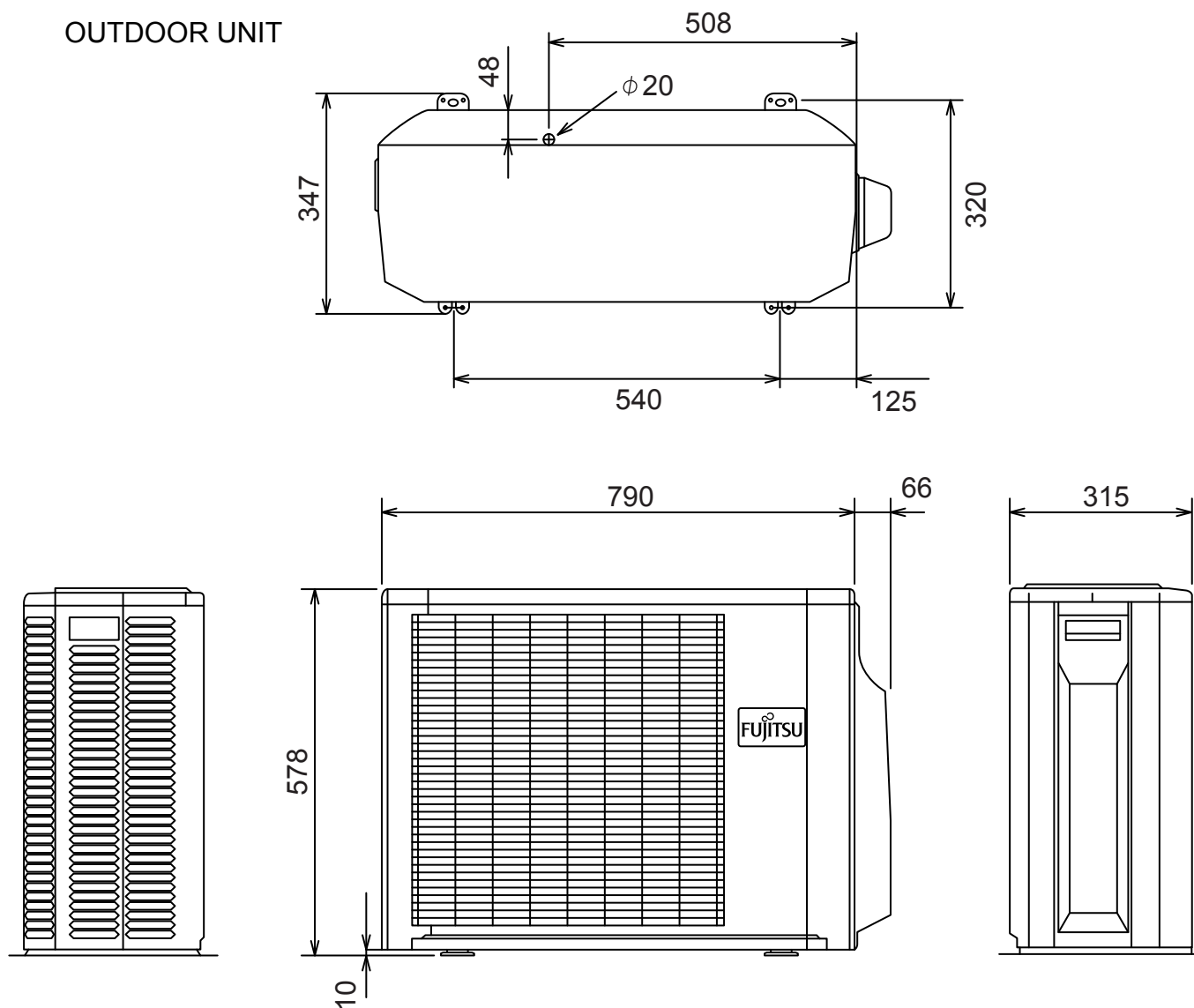
DIMENSIONS

Unit : mm

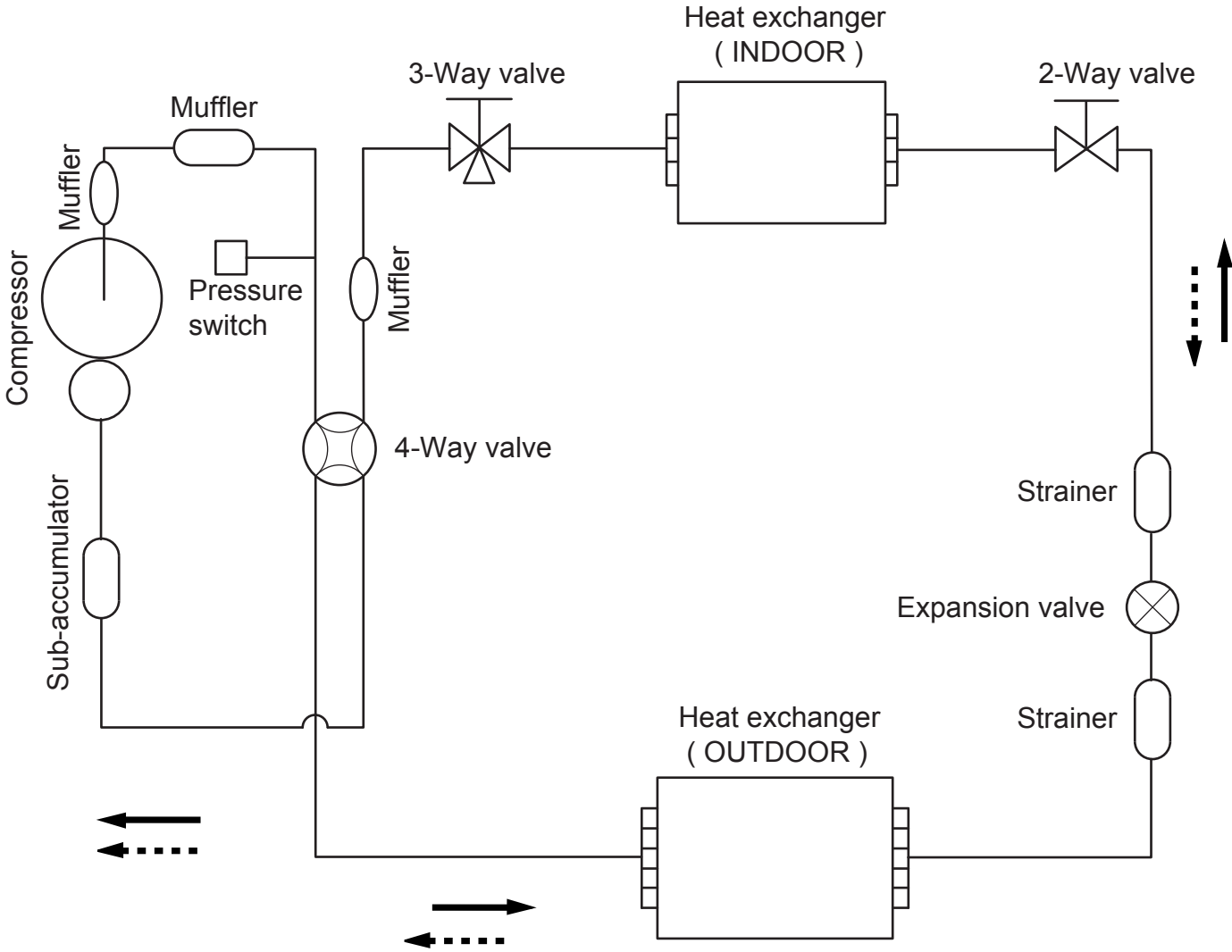
INDOOR UNIT



OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM

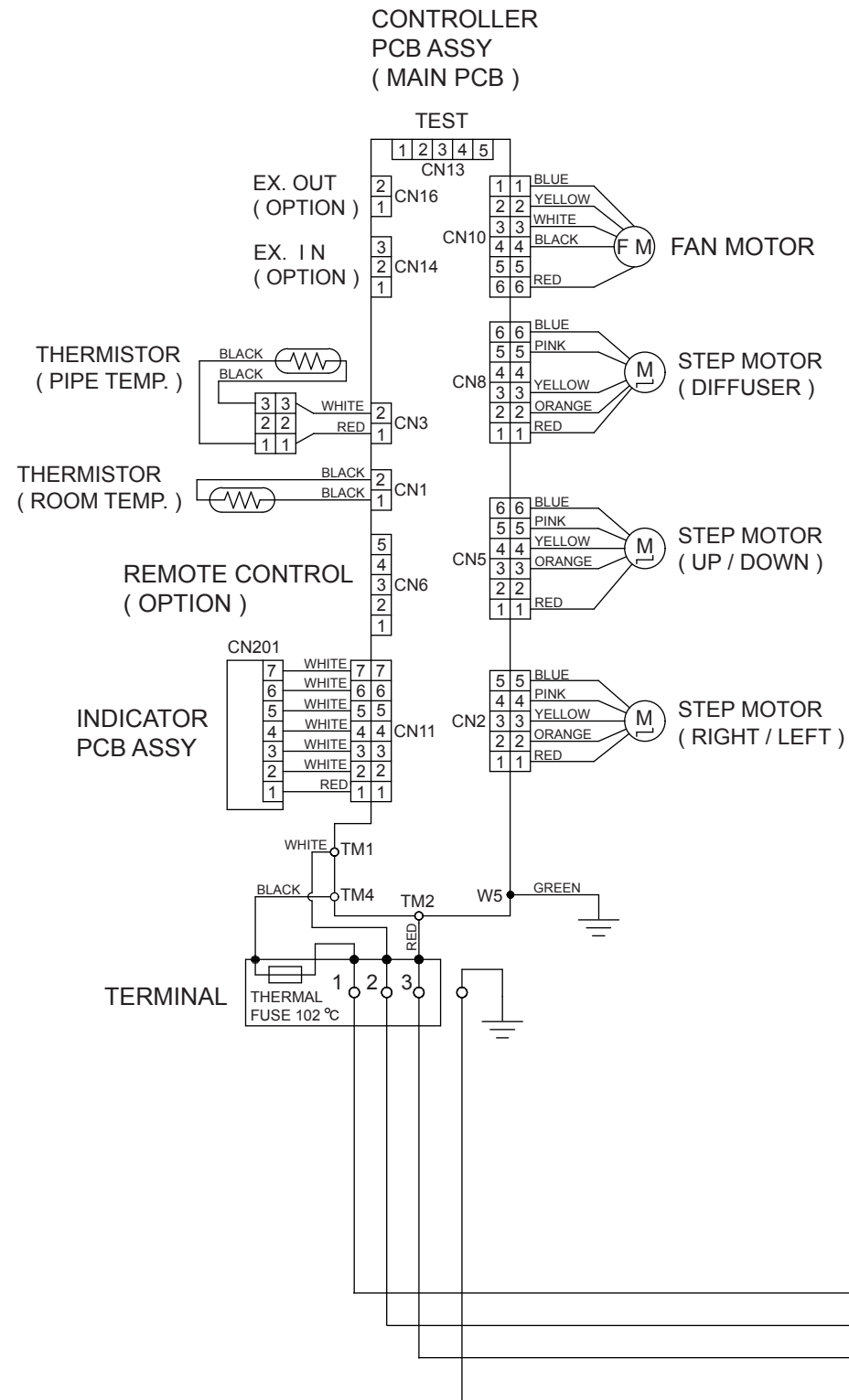


———→ Cooling flow
 - - - -> Heating flow

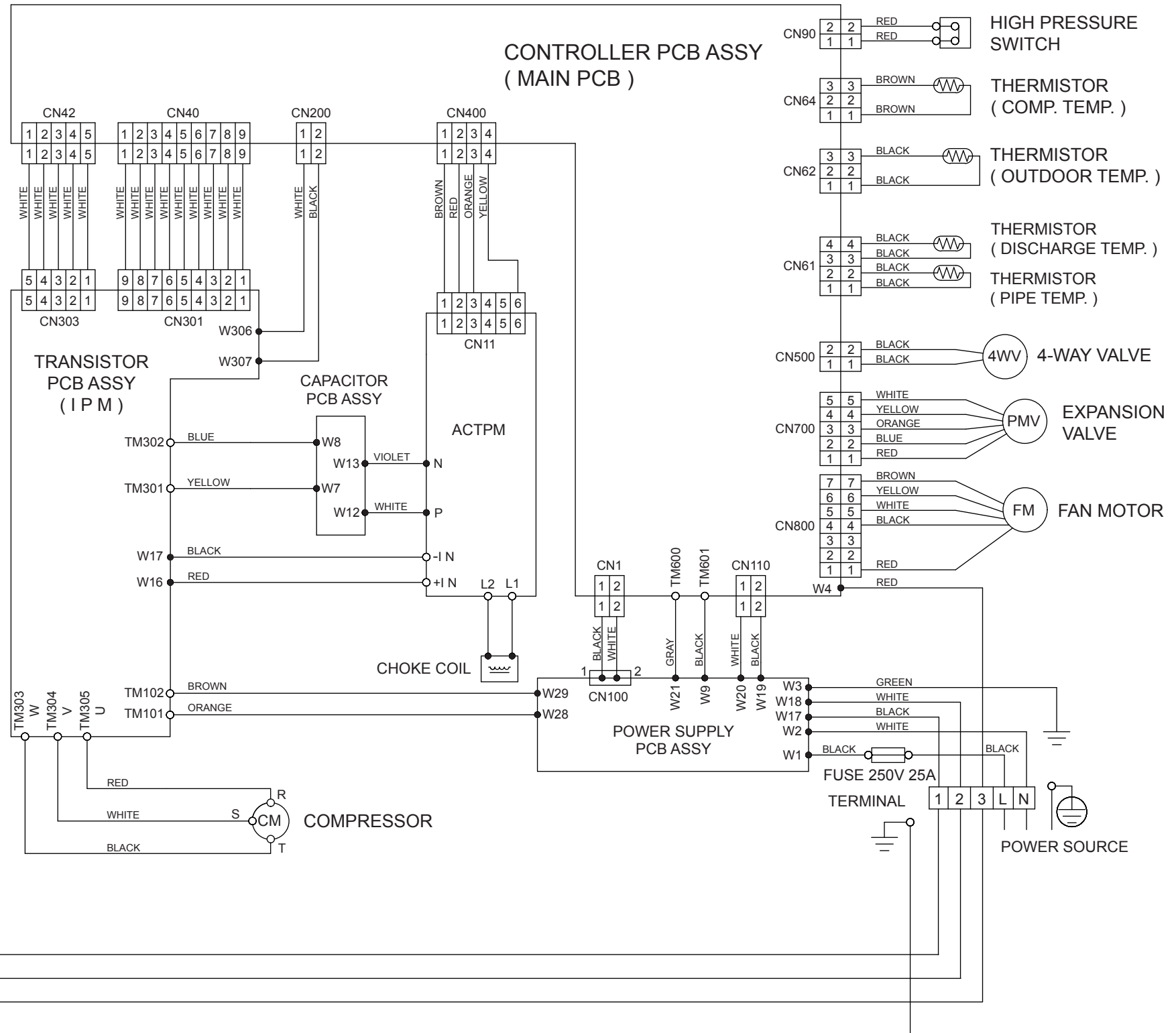
Refrigerant pipe diameter
 Liquid : 1/4" (6.35 mm)
 Gas : 5/8" (15.88 mm)

CIRCUIT DIAGRAM

INDOOR UNIT

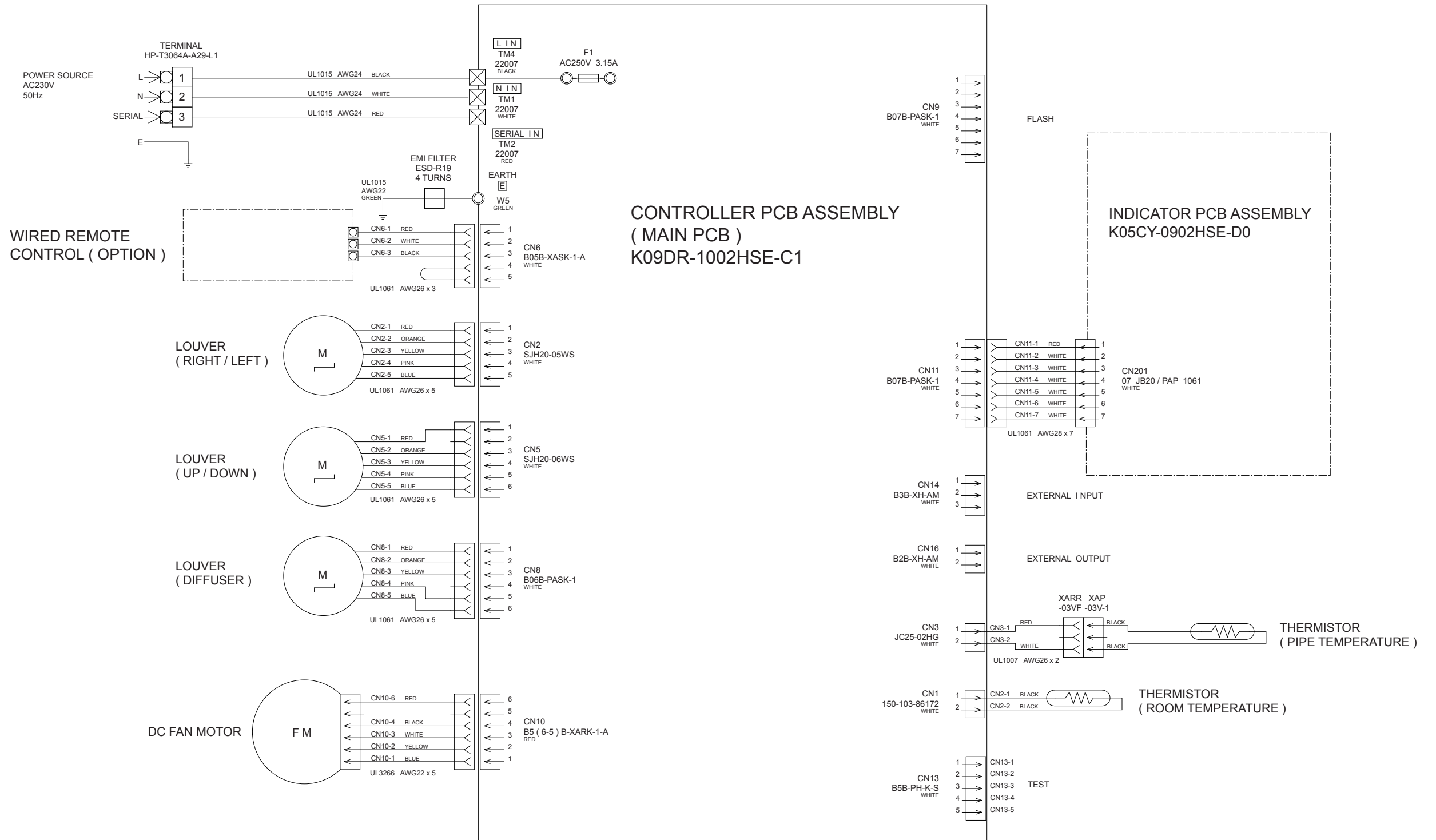


OUTDOOR UNIT

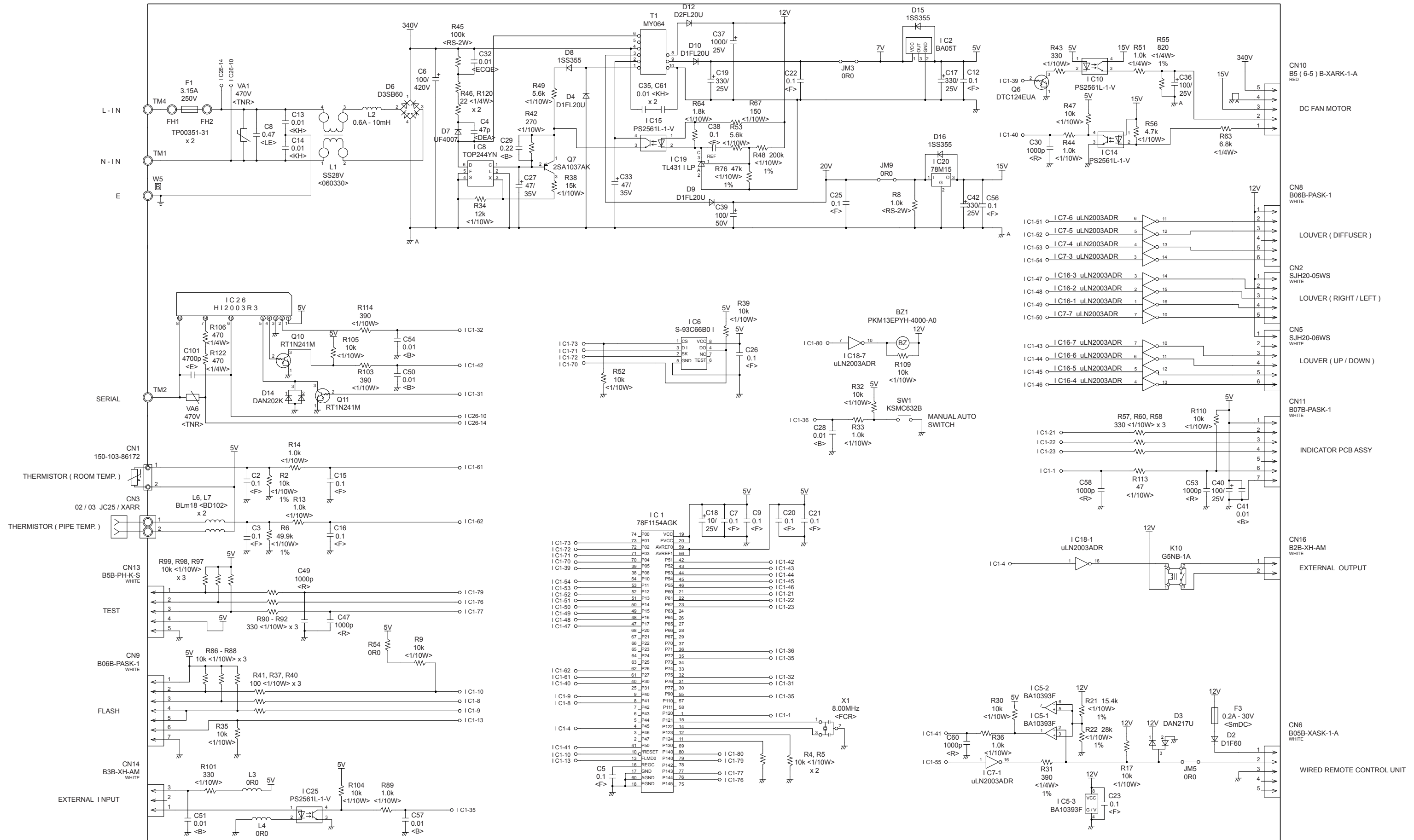


INDOOR PCB CIRCUIT DIAGRAM

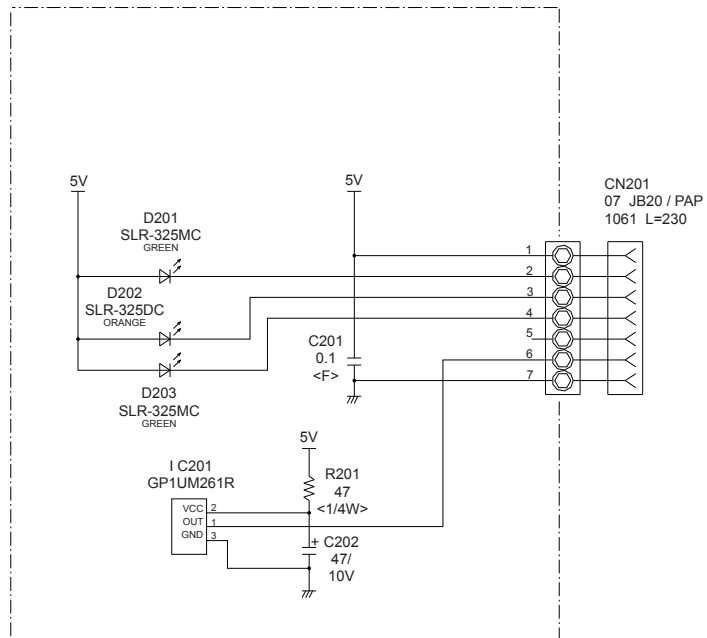
CONTROL UNIT
EZ-01001HSE



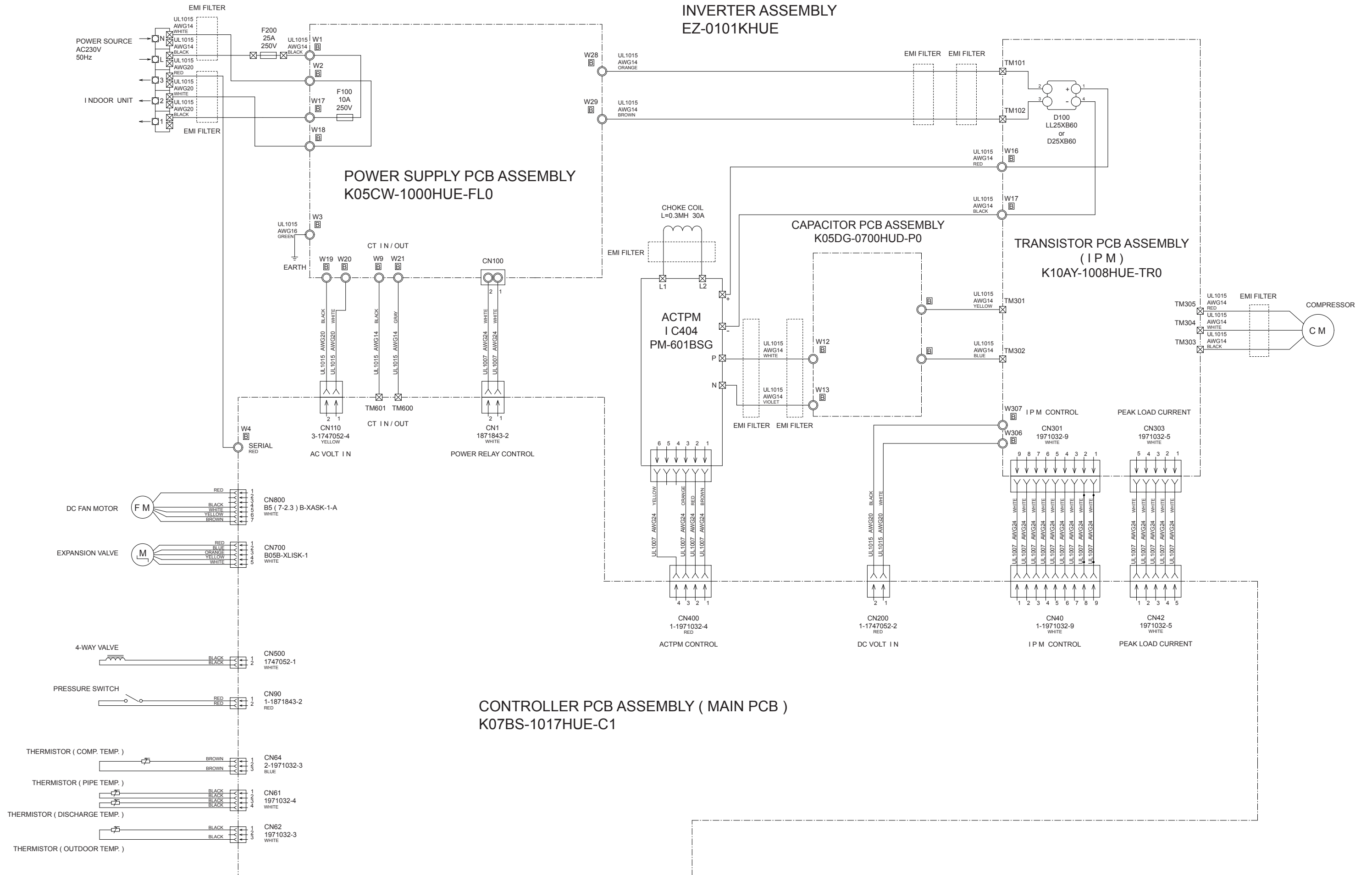
INDOOR UNIT
 CONTROLLER PCB ASSEMBLY (MAIN PCB)
 K09DR-1002HSE-C1



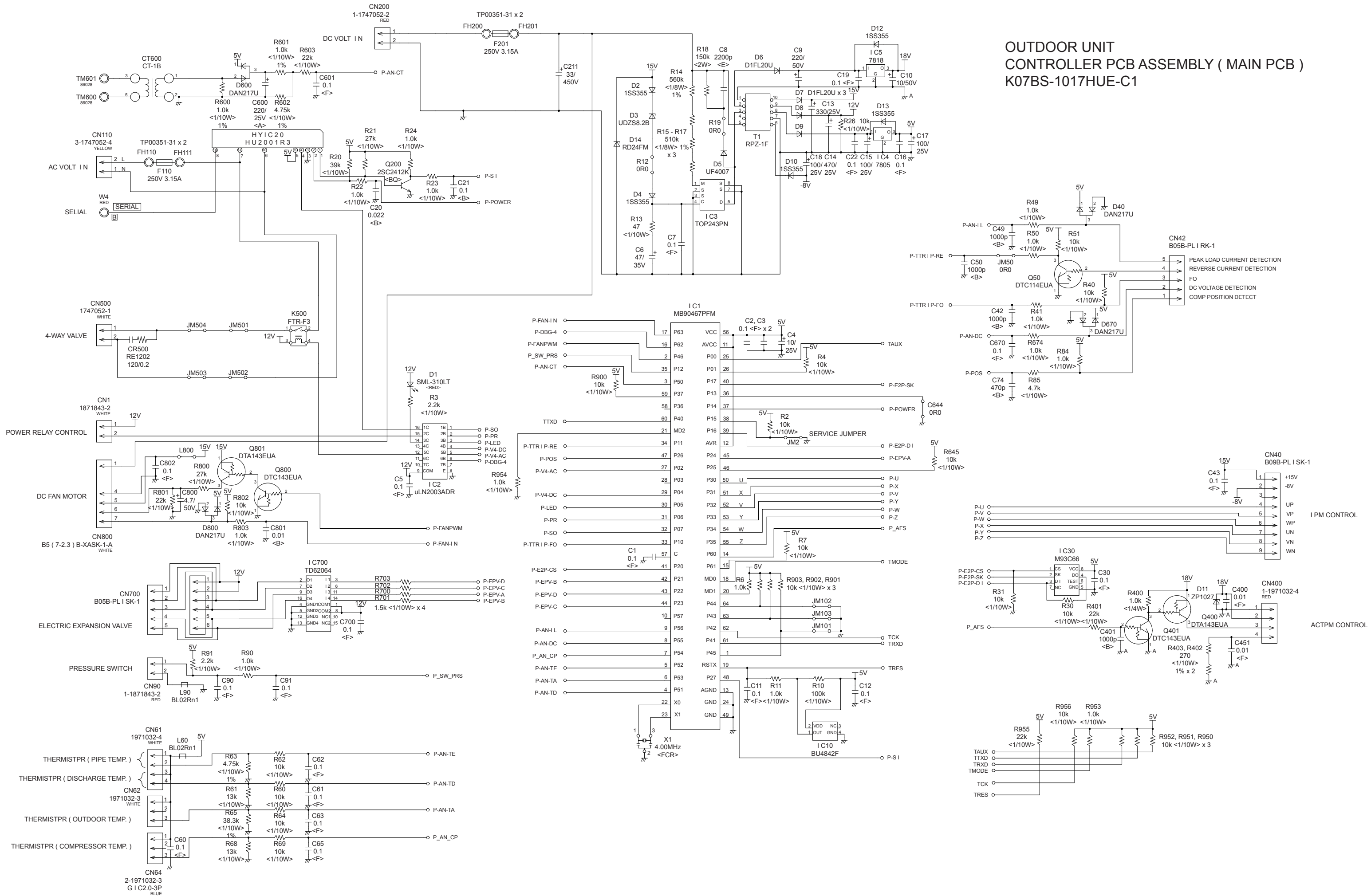
INDOOR UNIT
 INDICATOR PCB ASSEMBLY
 K05CY-0902HSE-D0



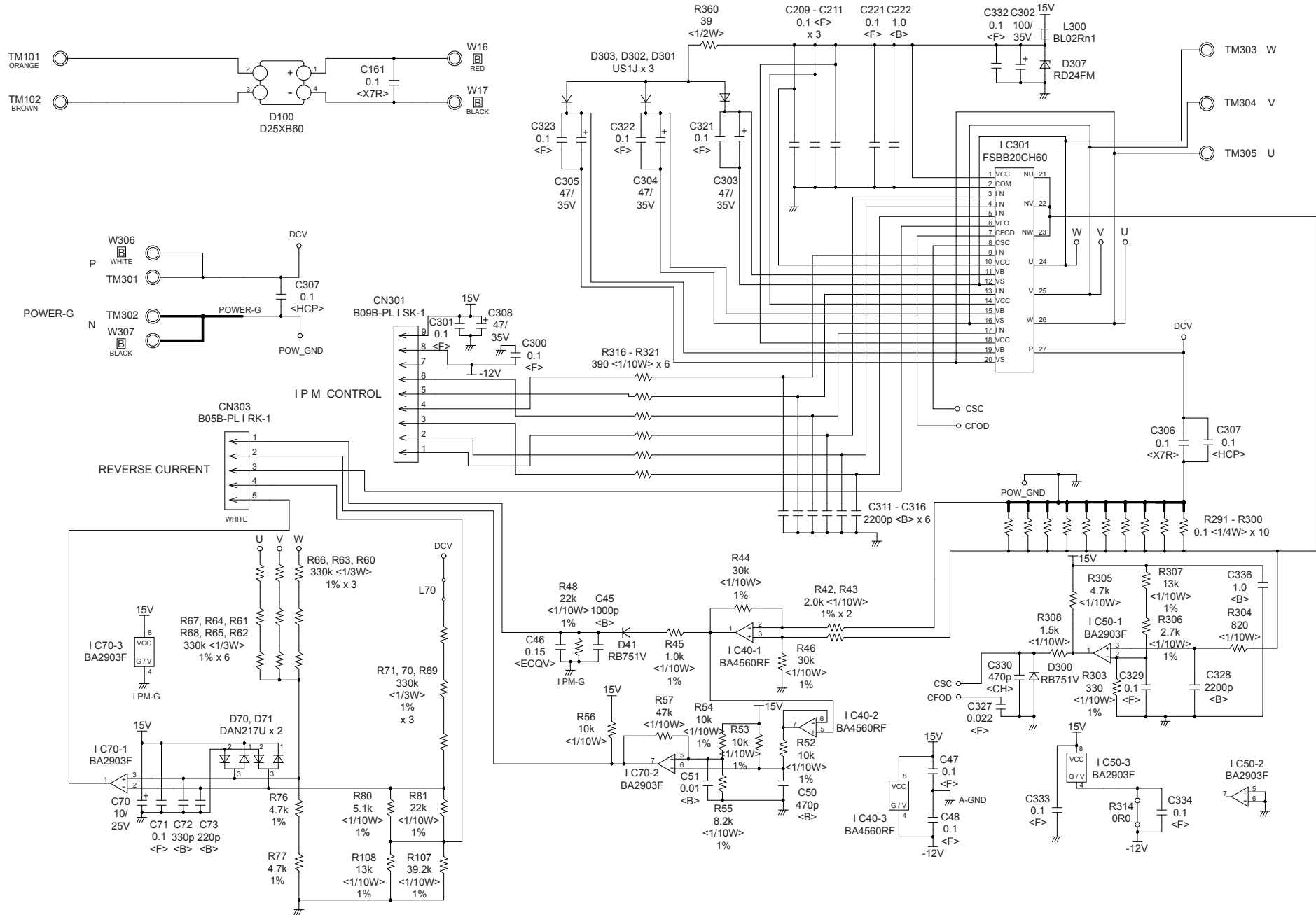
OUTDOOR PCB CIRCUIT DIAGRAM



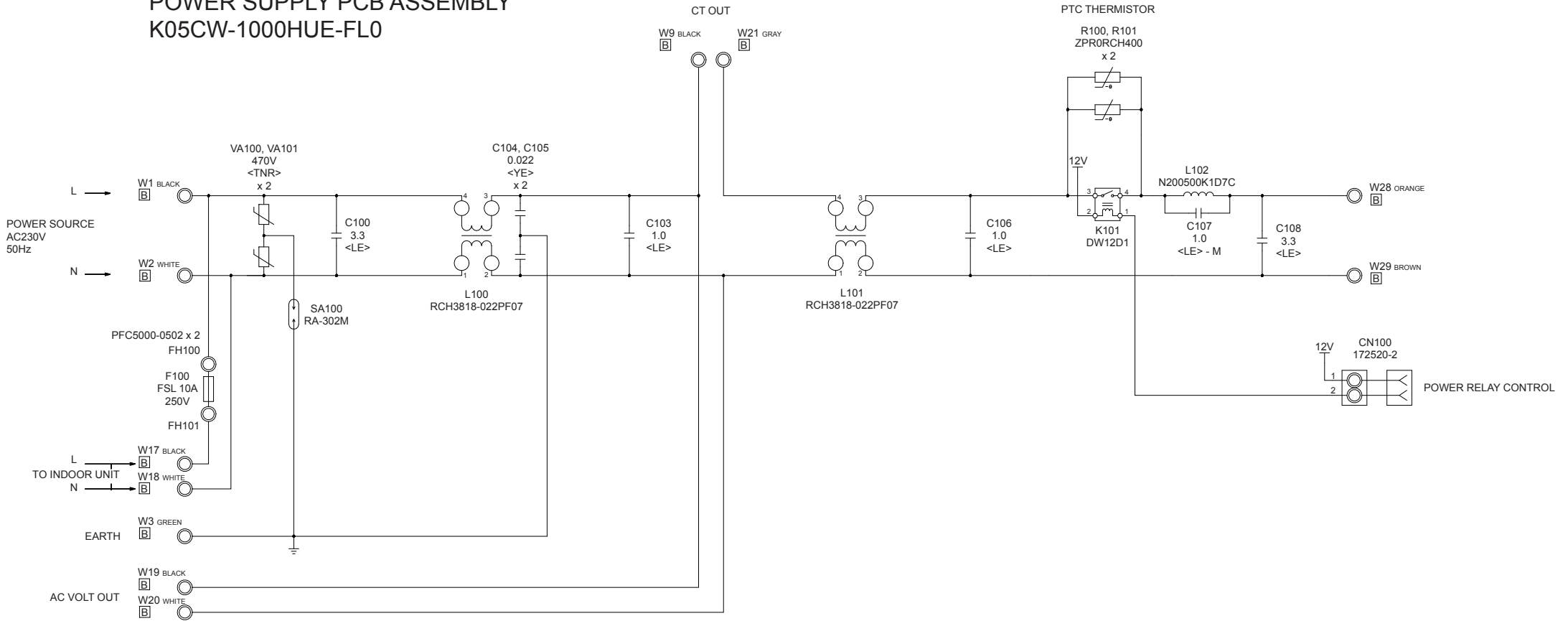
OUTDOOR UNIT CONTROLLER PCB ASSEMBLY (MAIN PCB) K07BS-1017HUE-C1



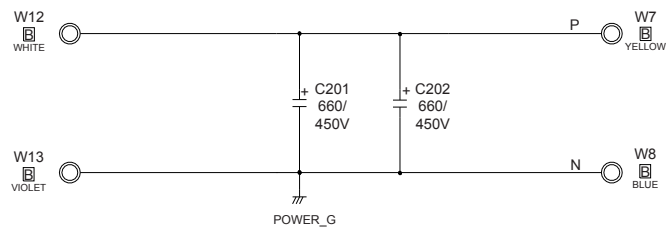
OUTDOOR UNIT TRANSISTOR PCB ASSEMBLY (I P M) K10AY-1008HUE-TR0



OUTDOOR UNIT POWER SUPPLY PCB ASSEMBLY K05CW-1000HUE-FL0



OUTDOOR UNIT
CAPACITOR PCB ASSY
K05DG-0700HUD-P0



- : 0.5s on / 0.5s off
- ◇ : 0.1s on / 0.1s off
- () : Number of flashing

ERROR DETECTION

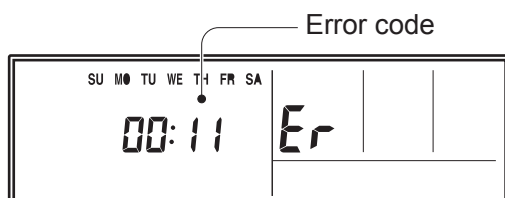
INDOOR UNIT and WIRED REMOTE CONTROL

If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.

If you use a wired type remote control, error codes will appear on the remote control display. See the lamp blinking patterns and error codes in the table. An error display is displayed only during running.

Troubleshooting with the wired remote control.

If an error occurs, the following display will be shown. ("Er" will appear in the set room temperature display.)

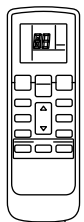
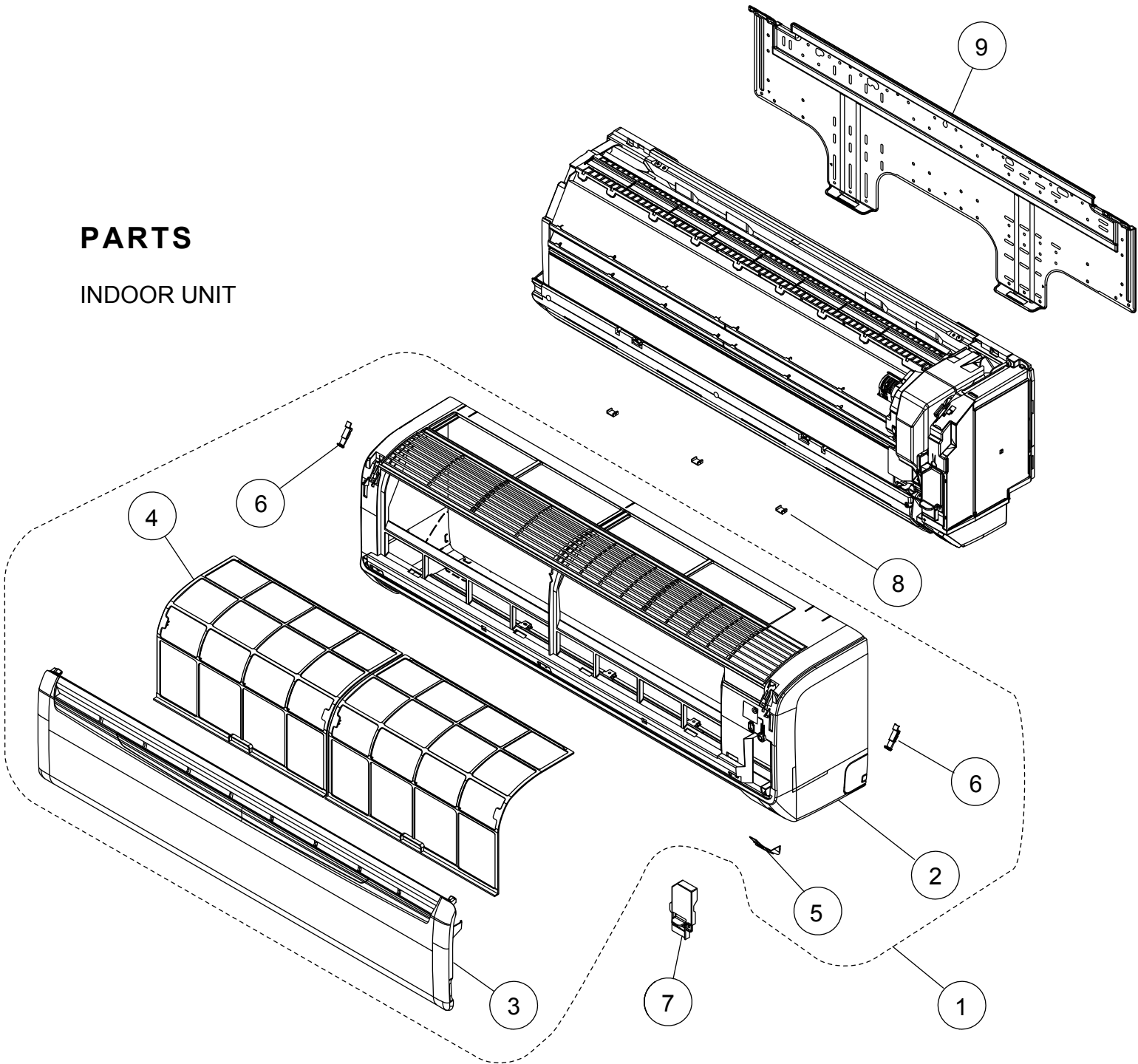


EX. Self-diagnosis

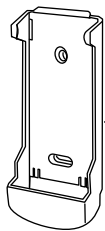
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	Wired remote control communication error
●(1)	●(5)	◇	15	Check run unfinished
●(2)	●(1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
●(2)	●(2)	◇	22	Indoor unit capacity error
●(2)	●(3)	◇	23	Combination error
●(2)	●(4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(7)	◇	27	Master unit, slave unit set-up error [Simultaneous Multi]
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(5)	◇	35	Manual auto switch error
●(4)	●(1)	◇	41	Inlet air temp. sensor error
●(4)	●(2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(7)	◇	57	Damper error
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error
●(6)	●(10)	◇	6A	Display PCB microcomputers communication error
●(7)	●(1)	◇	71	Discharge temp. sensor error
●(7)	●(2)	◇	72	Compressor temp. sensor error
●(7)	●(3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(7)	●(5)	◇	75	Suction Gas temp. sensor error
●(7)	●(6)	◇	76	• 2-way valve temp. sensor error • 3-way valve temp. sensor error
●(7)	●(7)	◇	77	Heat sink temp. sensor error
●(8)	●(2)	◇	82	• Sub-cool Heat Ex. gas inlet temp. sensor error • Sub-cool Heat Ex. gas outlet temp. sensor error
●(8)	●(3)	◇	83	Liquid pipe temp. sensor error
●(8)	●(4)	◇	84	Current sensor error
●(8)	●(6)	◇	86	• Discharge pressure sensor error • Suction pressure sensor error • High pressure switch error
●(9)	●(4)	◇	94	Trip detection
●(9)	●(5)	◇	95	Compressor rotor position detection error (permanent stop)
●(9)	●(7)	◇	97	Outdoor unit fan motor error
●(9)	●(9)	◇	99	4-way valve error
●(10)	●(1)	◇	A1	Discharge temp. error
●(10)	●(3)	◇	A3	Compressor temp. error
●(10)	●(4)	◇	A4	High pressure error
●(10)	●(5)	◇	A5	Low pressure error
●(13)	●(2)	◇	J2	Branch boxes error [Flexible Multi]

PARTS

INDOOR UNIT



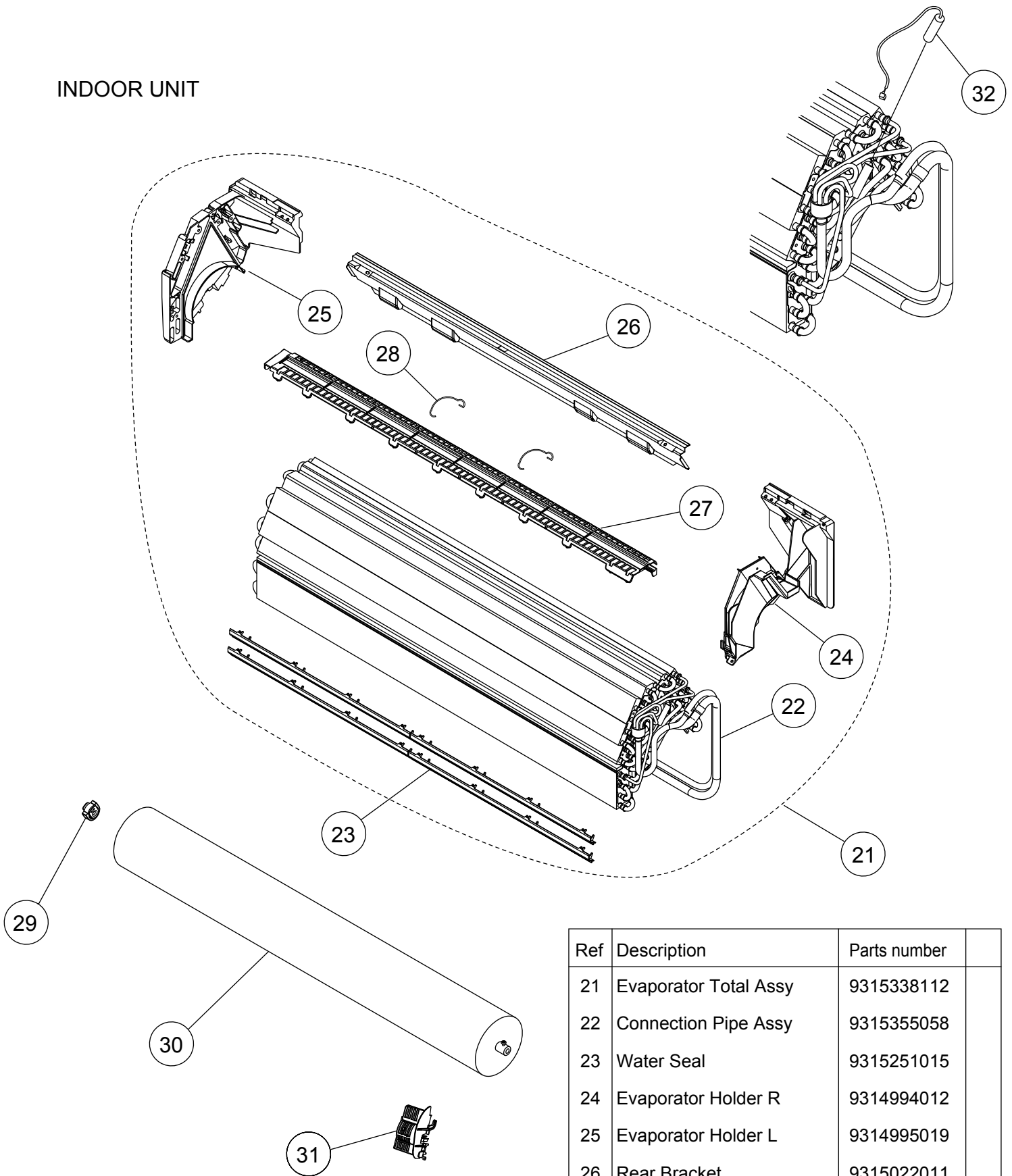
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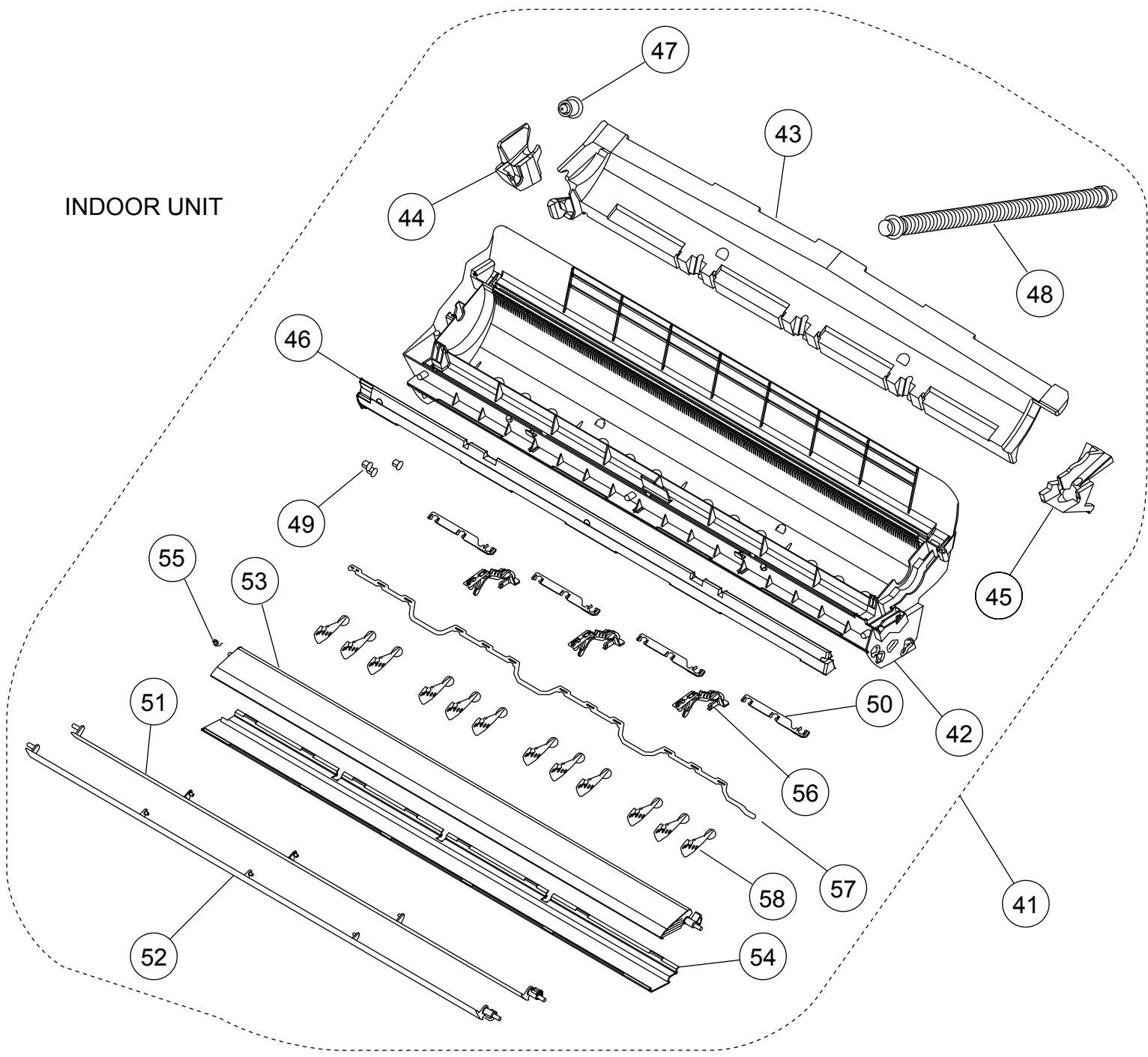
Ref	Description	Parts number
1	Front Panel Total Assy	9318738001
2	Front Panel	9314991080
3	Intake Grille Assy	9385985049
4	Air Filter	9315014016
5	Receiver Window	9315010018
6	Clamber Grille	9306755010
7	Wire Clamber	9315015013
8	Cap (Screw)	9309002050
9	Bracket Panel	9315023018
10	Remote Control	9379219037
11	Remote Control Holder	9305642045
--	Air Clean Filter Assy	9315212016

INDOOR UNIT



Ref	Description	Parts number
21	Evaporator Total Assy	9315338112
22	Connection Pipe Assy	9315355058
23	Water Seal	9315251015
24	Evaporator Holder R	9314994012
25	Evaporator Holder L	9314995019
26	Rear Bracket	9315022011
27	Filter Guide	9315013019
28	Filter Guard	9315411013
29	Bearing C Assy	9306628017
30	Crossflow Fan Assy	9315024015
31	Holder (Room Thermistor)	9315252012
32	Pipe Thermistor	9900551018

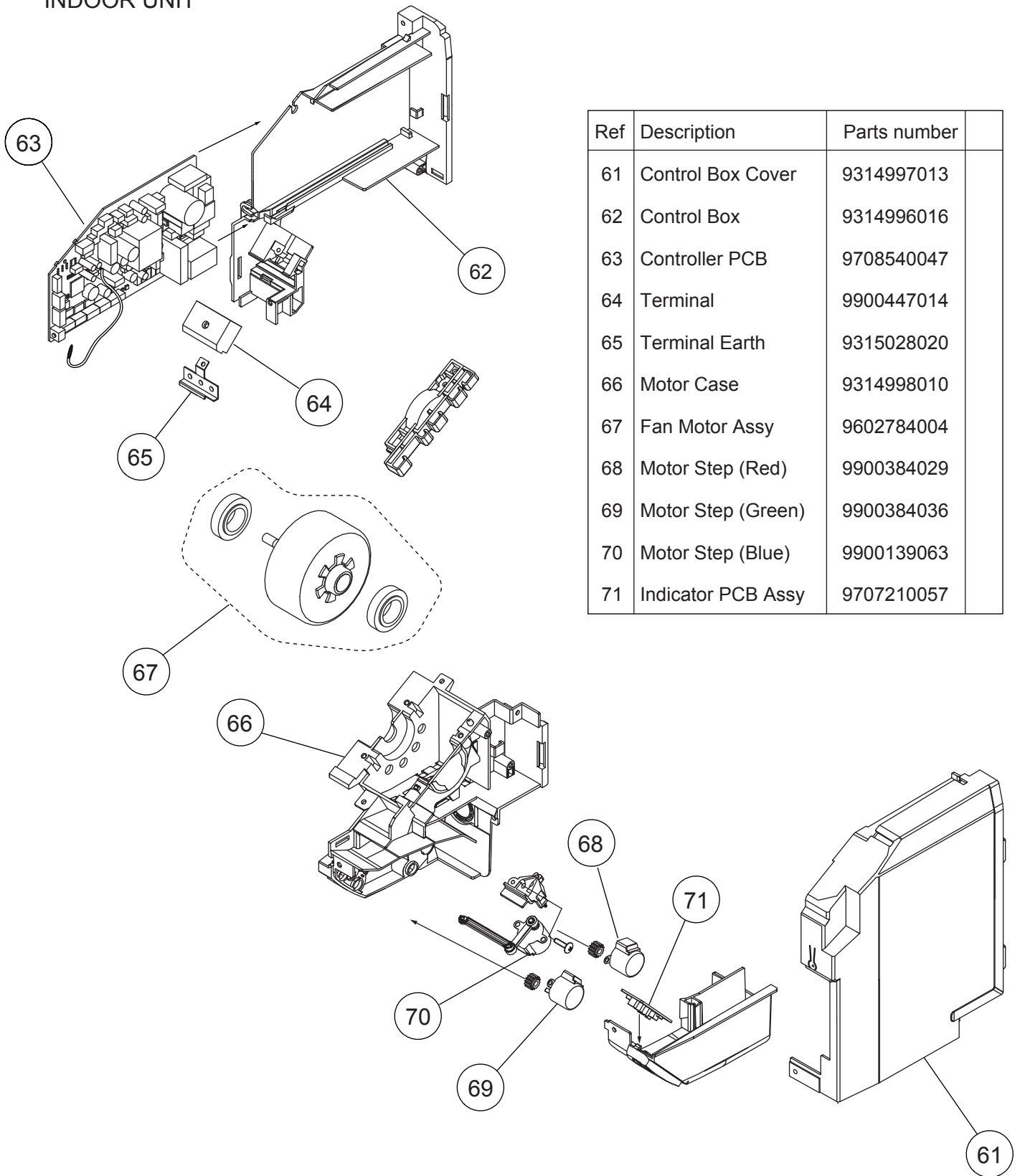
INDOOR UNIT



Ref	Description	Parts number
41	Casing Assy	9315331045
42	Casing	9314993015
43	Casing Cover B	9315016010
44	Casing Cover L	9315017017
45	Casing Cover R	9315018014
46	Casing Cover F	9315019011
47	Drain Cap	9367677009
48	Drain Hose Assy	9315769015
49	Bush B	9312156016
50	Spacer B	9312441013

Ref	Description	Parts number
51	Louver U	9315000019
52	Louver Z	9315001016
53	Diffuser U	9315002013
54	Diffuser Z	9315003010
55	Spring C	9314142017
56	Pillar A	9315009012
57	Joint B	9315006011
58	R and L Louver	9311997016
-	Fan Guard	9305751051
-	Fan Guard Holder Right	9315814012
-	Fan Guard Holder Left	9315815019

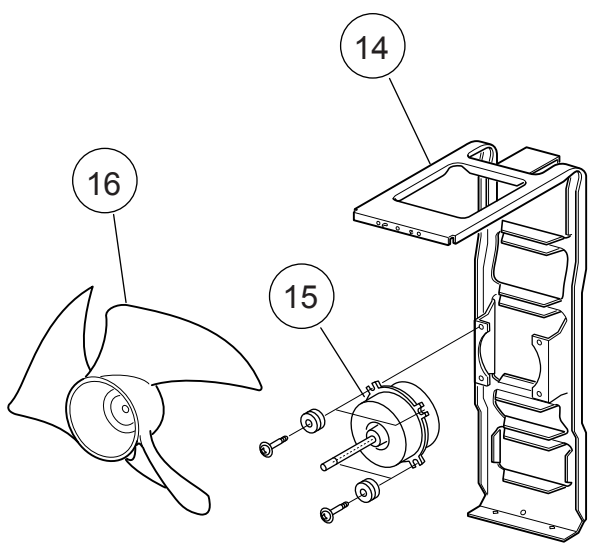
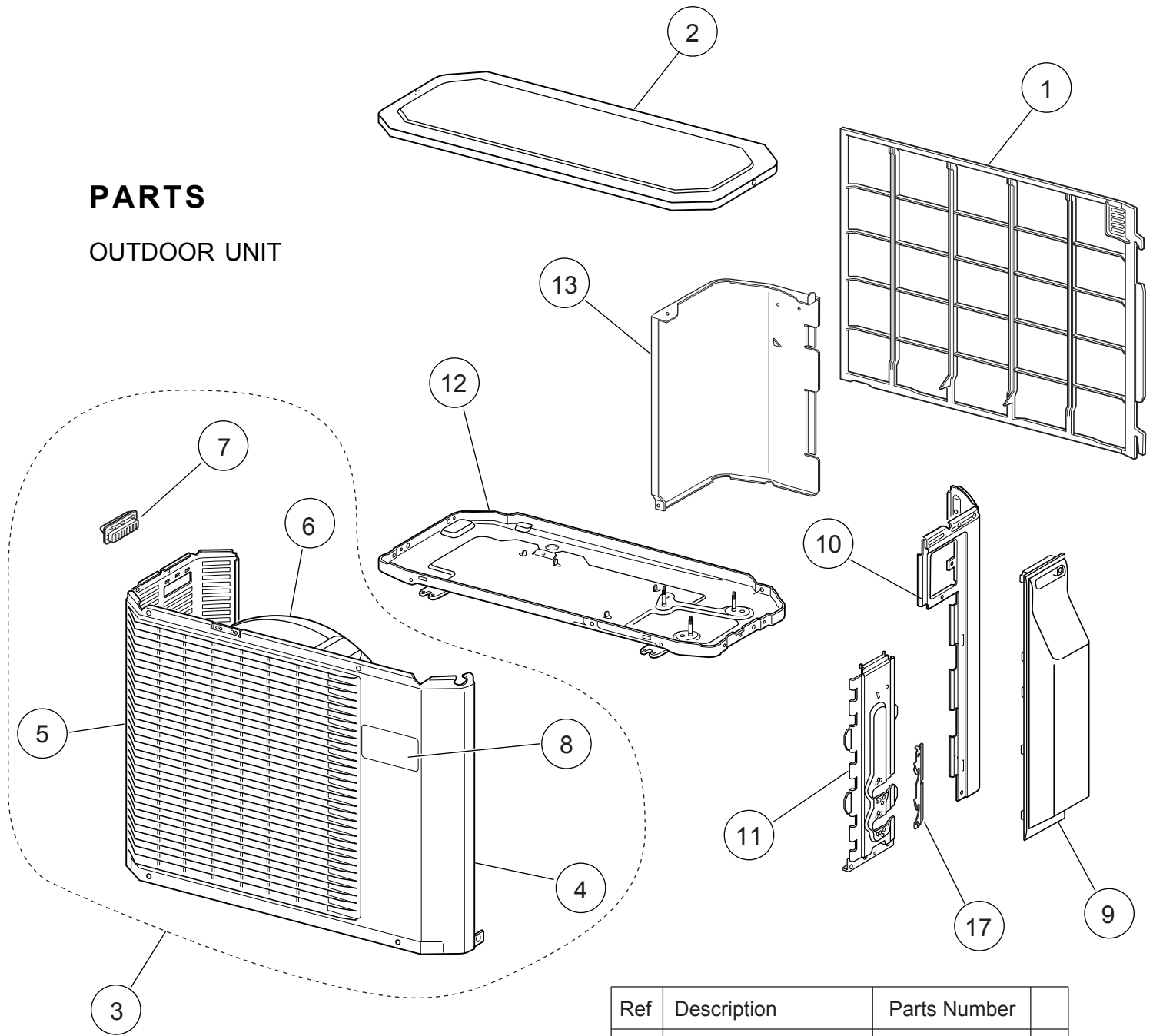
INDOOR UNIT



Ref	Description	Parts number
61	Control Box Cover	9314997013
62	Control Box	9314996016
63	Controller PCB	9708540047
64	Terminal	9900447014
65	Terminal Earth	9315028020
66	Motor Case	9314998010
67	Fan Motor Assy	9602784004
68	Motor Step (Red)	9900384029
69	Motor Step (Green)	9900384036
70	Motor Step (Blue)	9900139063
71	Indicator PCB Assy	9707210057

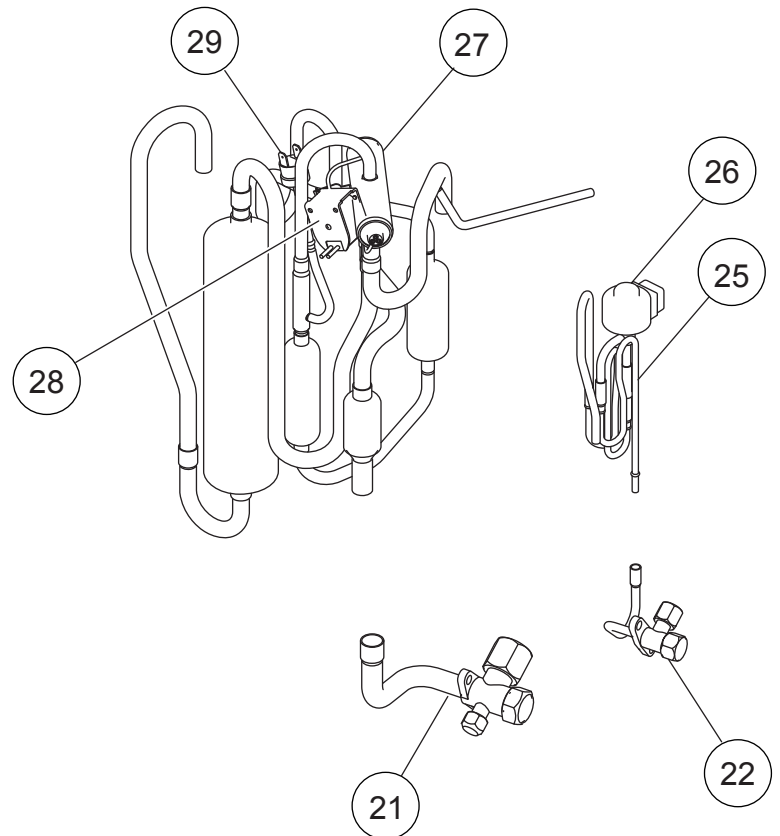
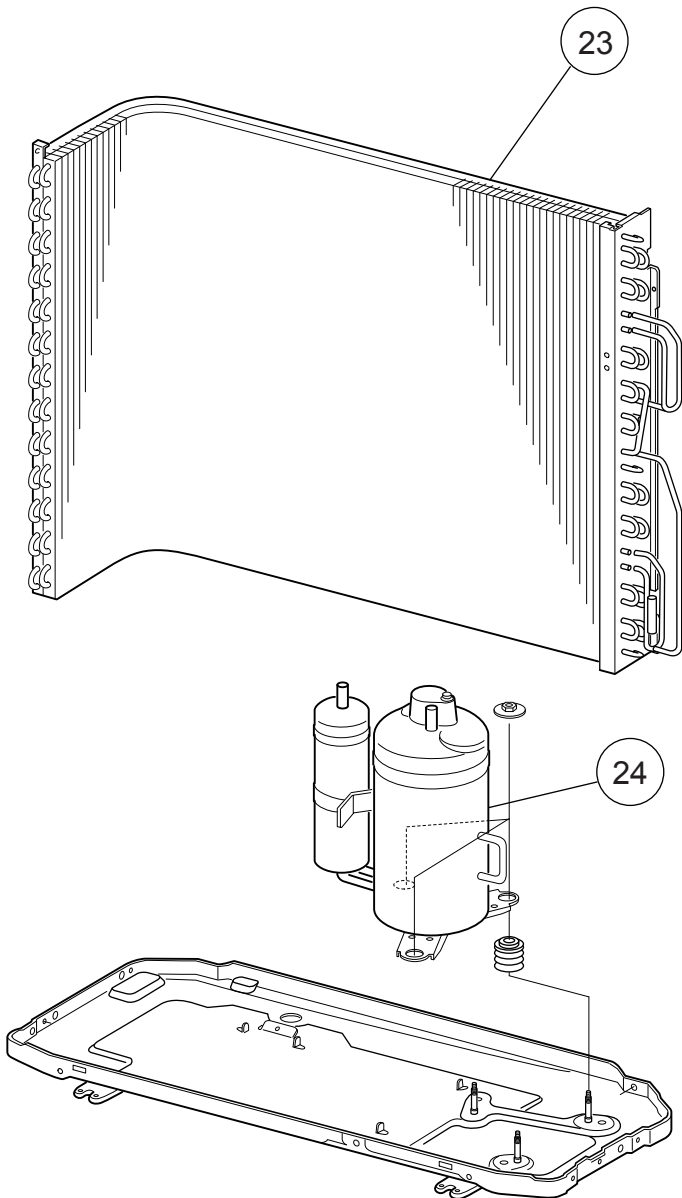
PARTS

OUTDOOR UNIT

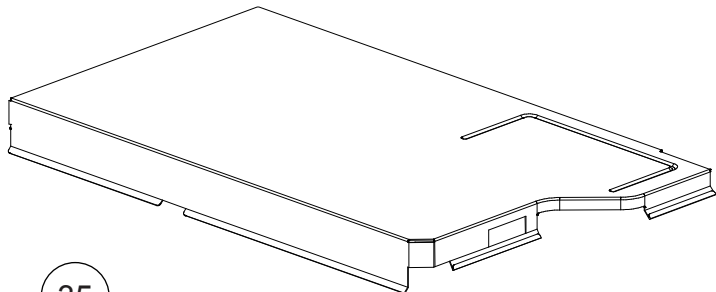


Ref	Description	Parts Number
1	Protective Net	9315033017
2	Top Panel Assy	9309230064
3	Cabinet Assy	9312799398
4	Cabinet Sub Assy	9314809019
5	Blow Grill	9308884015
6	Fan Ring	9308885012
7	Grip	9308880017
8	Emblem Rear	9319151007
9	Switch Cover Assy	9309237032
10	Cabinet Right Assy	9309236028
11	Valve Bracket	9308870070
12	Base Assy	9315296054
13	Separator	9315213013
14	Motor Bracket Assy	9313432027
15	DC Brushless Motor	9603019006
16	Propeller Fan	9309909014
17	Valve Cover	9316884007

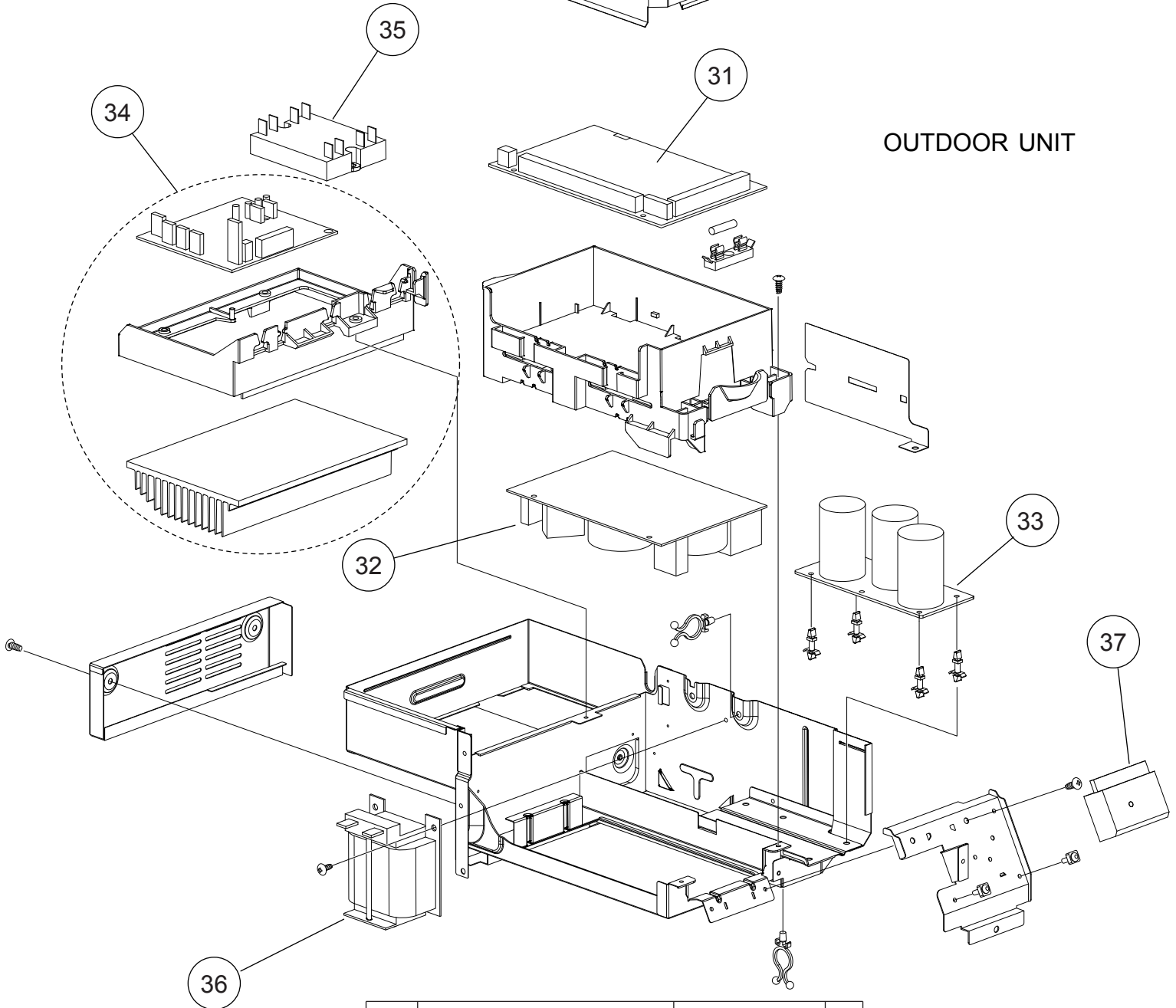
OUTDOOR UNIT



Ref	Description	Parts number
21	3-way Valve Assy	9315414014
22	2-way Valve Assy	9313062019
23	Condenser Sub Assy	9312069163
24	Compressor Assy	9315297068
25	Pulse Motor Valve Assy	9314494048
26	Expansion Valve Coil	9970095030
27	4-way Valve Assy	9315311061
28	Solenoid	9970055065
29	Pressure Switch	9900186012

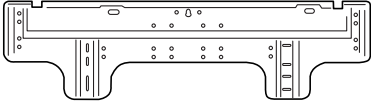



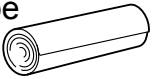
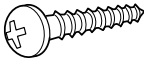

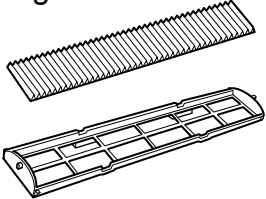
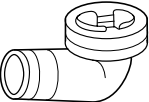


OUTDOOR UNIT



Ref	Description	Parts number
31	Controller PCB Assy	9707667608
32	Power Supply PCB Assy	9707128222
33	Capacitor PCB Assy	9707129113
34	TR PCB Assy	9708647098
35	ACTPM	9707592016
36	Chock Coil	9900223014
37	Terminal	9703874031
--	Thermistor Assy	9900594008
--	Outdoor Thermistor	9900544027
--	Compressor Thermistor	9900516024
--	Wire (Pressure Switch)	9708584010

ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9315023018
Remote control 	9379219037
Remote control holder 	9305642045
Battery (penlight) 	0600185541
Cloth tape 	9310519004
Tapping screw (big) 	0700076046
Tapping screw (small) 	0700019036
Air cleaning filter 	UTR-FA13-1 UTR-FA13-2
Drain assy 	9303029015

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