

SPLIT TYPE
ROOM AIR CONDITIONER
FLOOR TYPE

SERVICE MANUAL

Indoor unit	Outdoor unit
AGU9RLF	AOU9RLFF
AGU12RLF	AOU12RLFF



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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		AGU9RLF	AGU12RLF
OUTDOOR UNIT		AOU9RLFF	AOU12RLFF
COOLING CAPACITY		9,000 Btu/h	12,000 Btu/h
HEATING CAPACITY		12,000 Btu/h	16,000 Btu/h
POWER SOURCE		208/230 V	
FREQUENCY		60 Hz	
RUNNING CURRENT	Cooling	2.9 A	4.2 A
	Heating	4.1 A	6.7 A
INPUT WATTS	Cooling	0.560 kW	0.910 kW
	Heating	0.880 kW	1.440 kW
E.E.R.	Cooling	16.0 Btu/Wh	13.1 Btu/Wh
COP	Heating	13.6 Btu/Wh	11.1 Btu/Wh
MOISTURE REMOVAL		2.7 Pts/h, 1.3 L/h	3.8 Pts/h, 1.8 L/h
AIR CIRCULATION HIGH	Cooling	335 CFM, 570 m ³ /h	
	Heating	353 CFM, 600 m ³ /h	
MAXIMUM CURRENT	Cooling	9.3 A	
	Heating	10.8 A	

FAN MOTOR

POWER SOURCE		208/230 V	
INDOOR UNIT Cooling (upper fan / lower fan)	High	1,190 r.p.m. / 1,000 r.p.m.	
	Medium	1,000 r.p.m. / 850 r.p.m.	
	Low	820 r.p.m. / 690 r.p.m.	
	Quiet	660 r.p.m. / 560 r.p.m.	
INDOOR UNIT Heating (upper fan / lower fan)	High	1,240 r.p.m. / 1,040 r.p.m.	
	Medium	1,040 r.p.m. / 880 r.p.m.	
	Low	840 r.p.m. / 700 r.p.m.	
	Quiet	660 r.p.m. / 560 r.p.m.	
OUTDOOR UNIT Cooling		870 r.p.m.	
OUTDOOR UNIT Heating		780 r.p.m.	

NOISE LEVEL

INDOOR UNIT Cooling	High	40 dB	
	Medium	35 dB	
	Low	29 dB	
	Quiet	23 dB	
INDOOR UNIT Heating	High	40 dB	
	Medium	35 dB	
	Low	29 dB	
	Quiet	23 dB	
OUTDOOR UNIT Cooling		49 dB	53 dB
OUTDOOR UNIT Heating		50 dB	52 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION	808-884-80	
WEIGHT (with oil)	20 lbs. 8 oz., 9.3 kg	
PRECHARGED REFRIGERANT	2 lbs. 10 oz., 1,200 g	
FULL CHARGE	Pipe length 49 ft., 15 m	2 lbs. 10 oz., 1,200 g
	66 ft., 20 m	2 lbs. 14 oz., 1,300 g
ADDITIONAL CHARGE	0.215 oz./ft., 20 g/m	
MAXIMUM PIPING HEIGHT	49 ft., 15 m	
REFRIGERANT TYPE	R410A	

DIMENSIONS

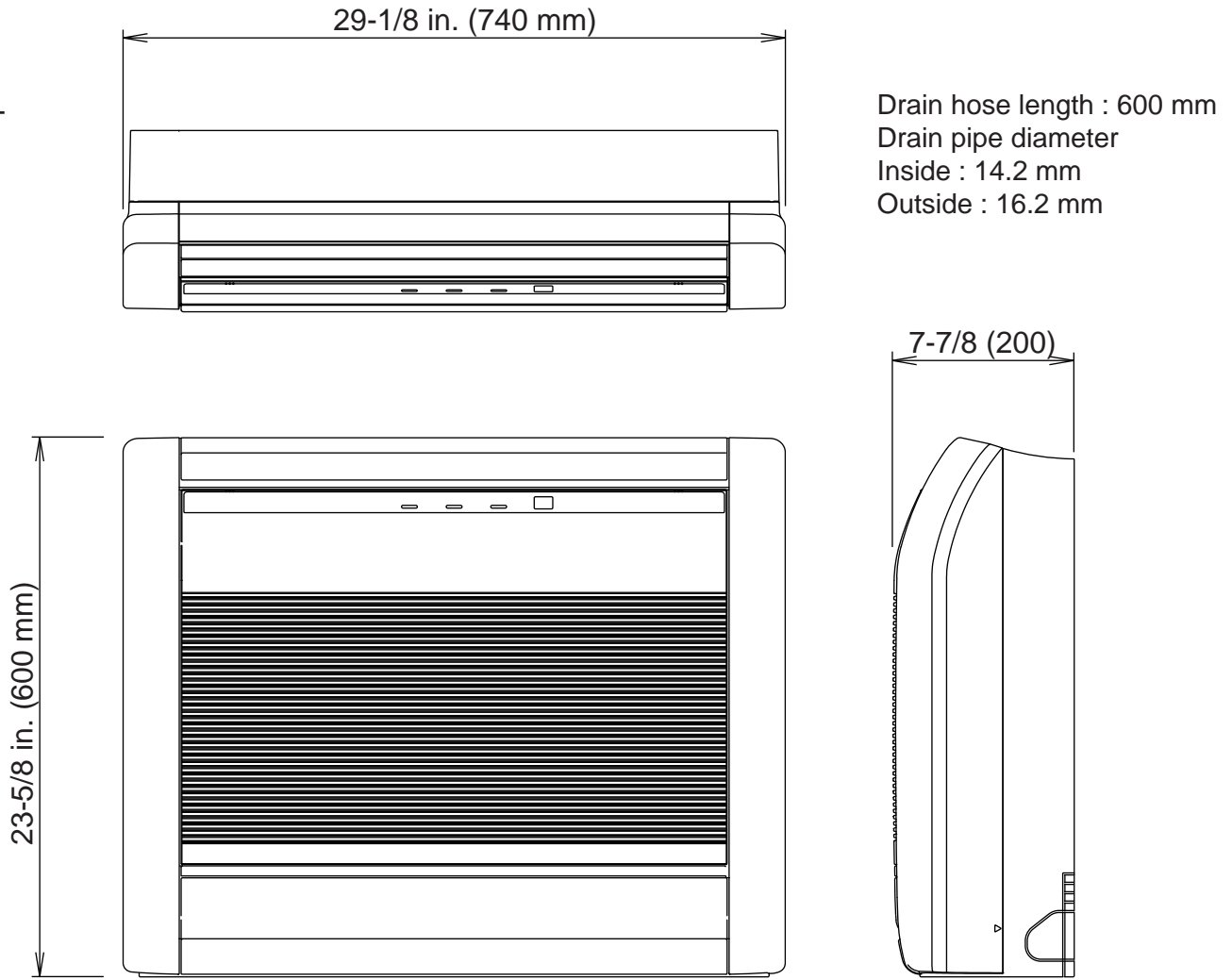
INDOOR UNIT	H x W x D	23-5/8 x 29-1/8 x 7-7/8 in. 600 x 740 x 200 mm
OUTDOOR UNIT	H x W x D	24-7/16 x 31-1/8 x 11-7/16 in. 620 x 790 x 290 mm

WEIGHT

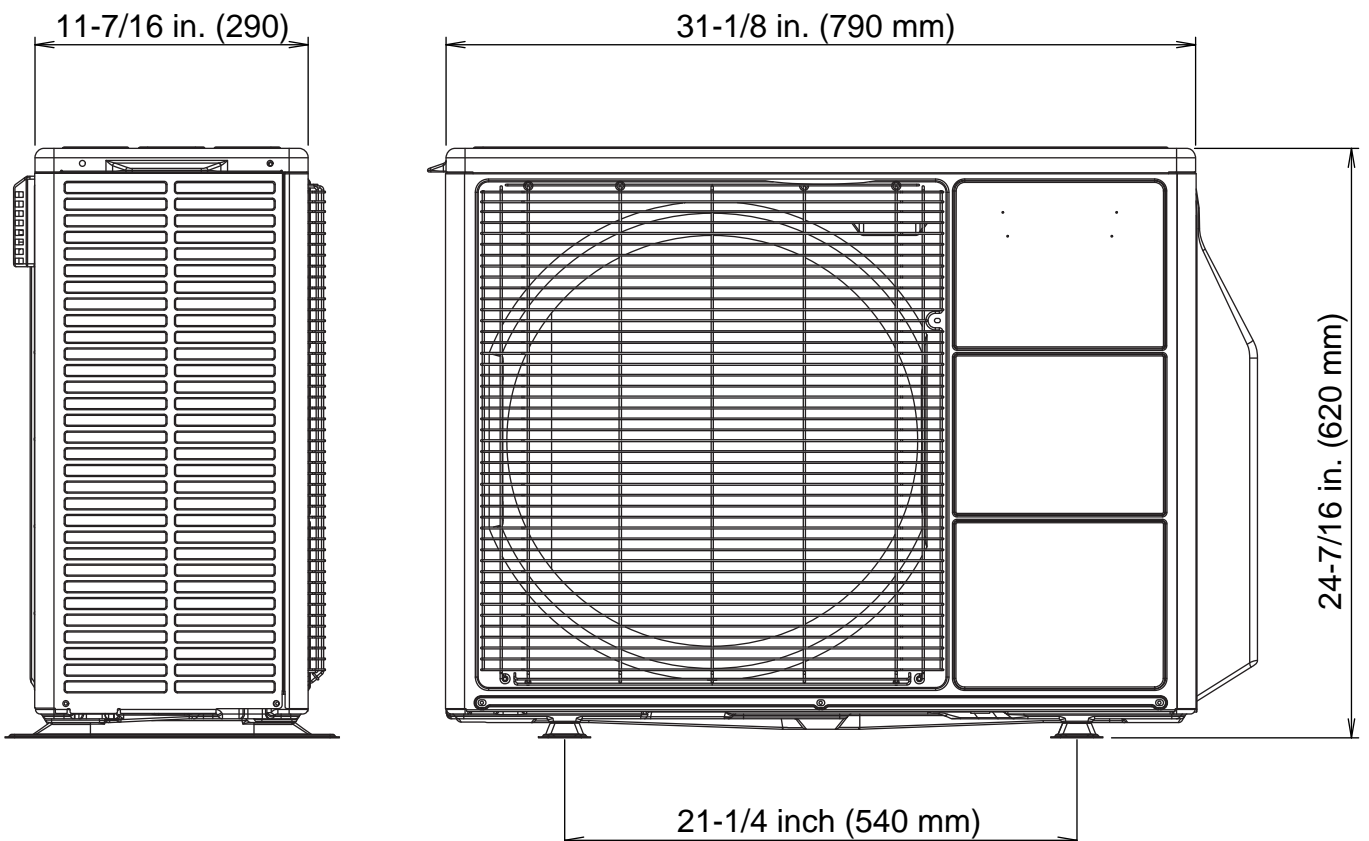
INDOOR UNIT	Net / Shipping	31 lbs. / 37 lbs. 14 kg / 17 kg
OUTDOOR UNIT	Net / Shipping	84 lbs. / 93 lbs. 38 kg / 42 kg

DIMENSIONS

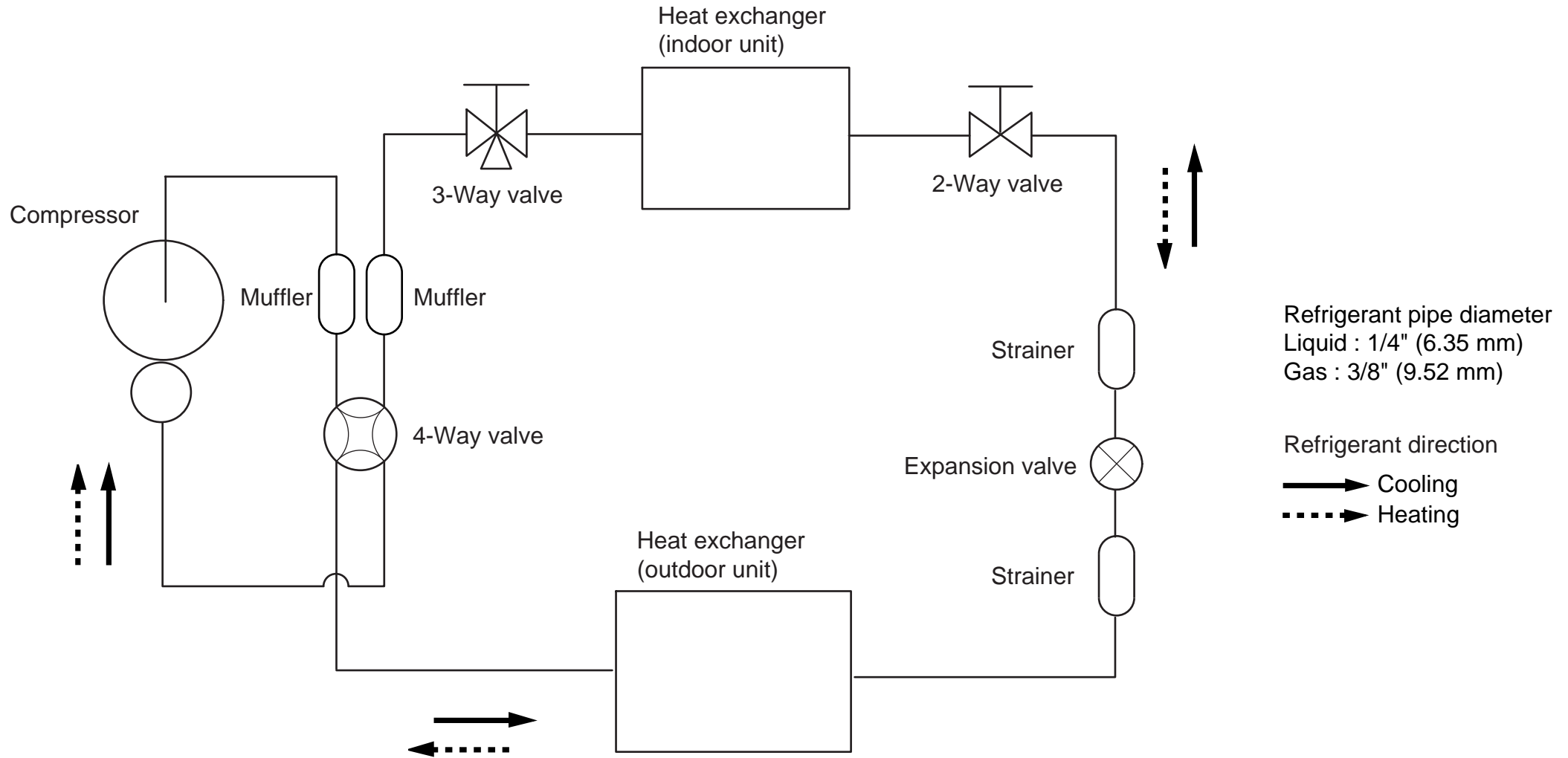
INDOOR UNIT

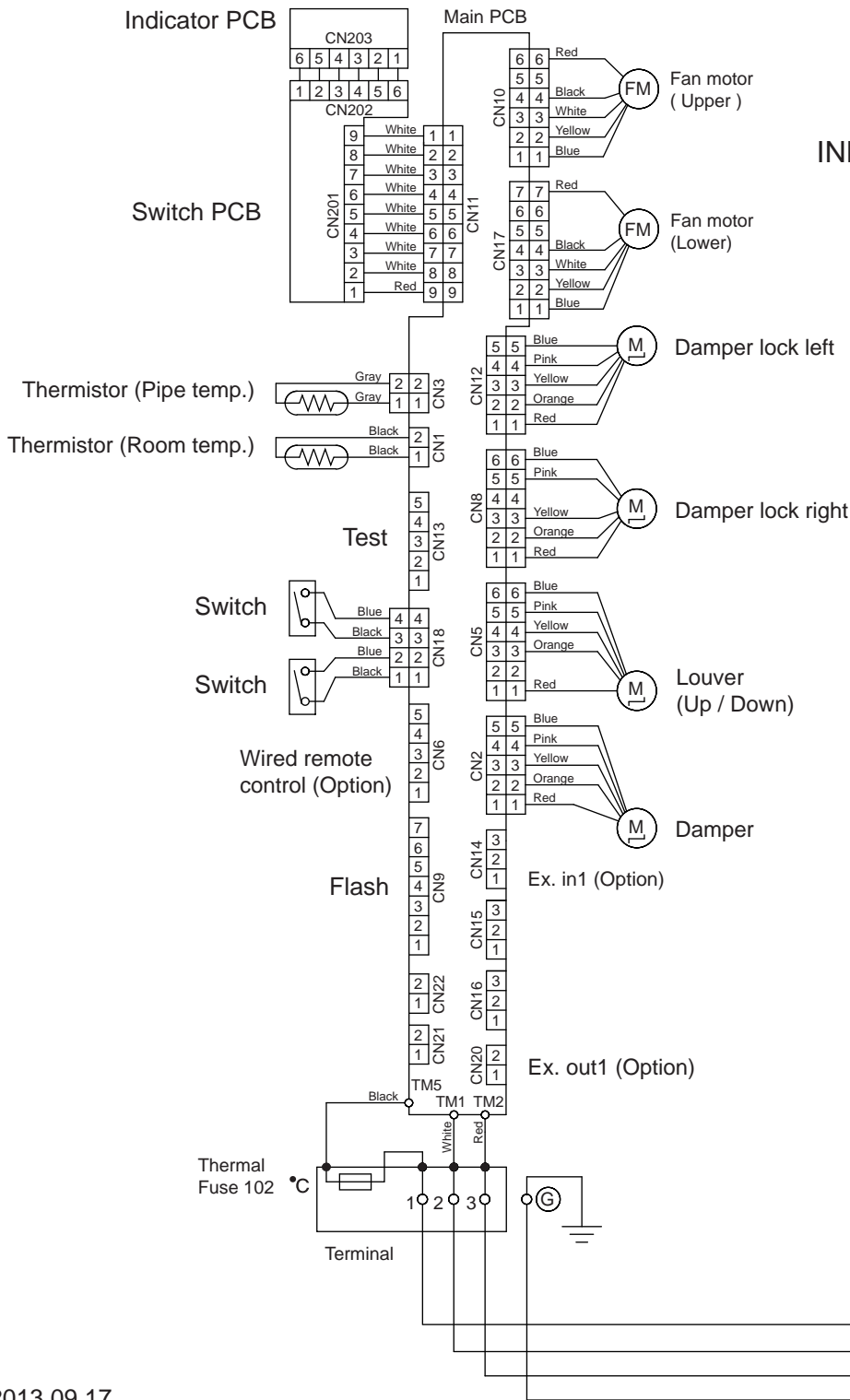


OUTDOOR UNIT



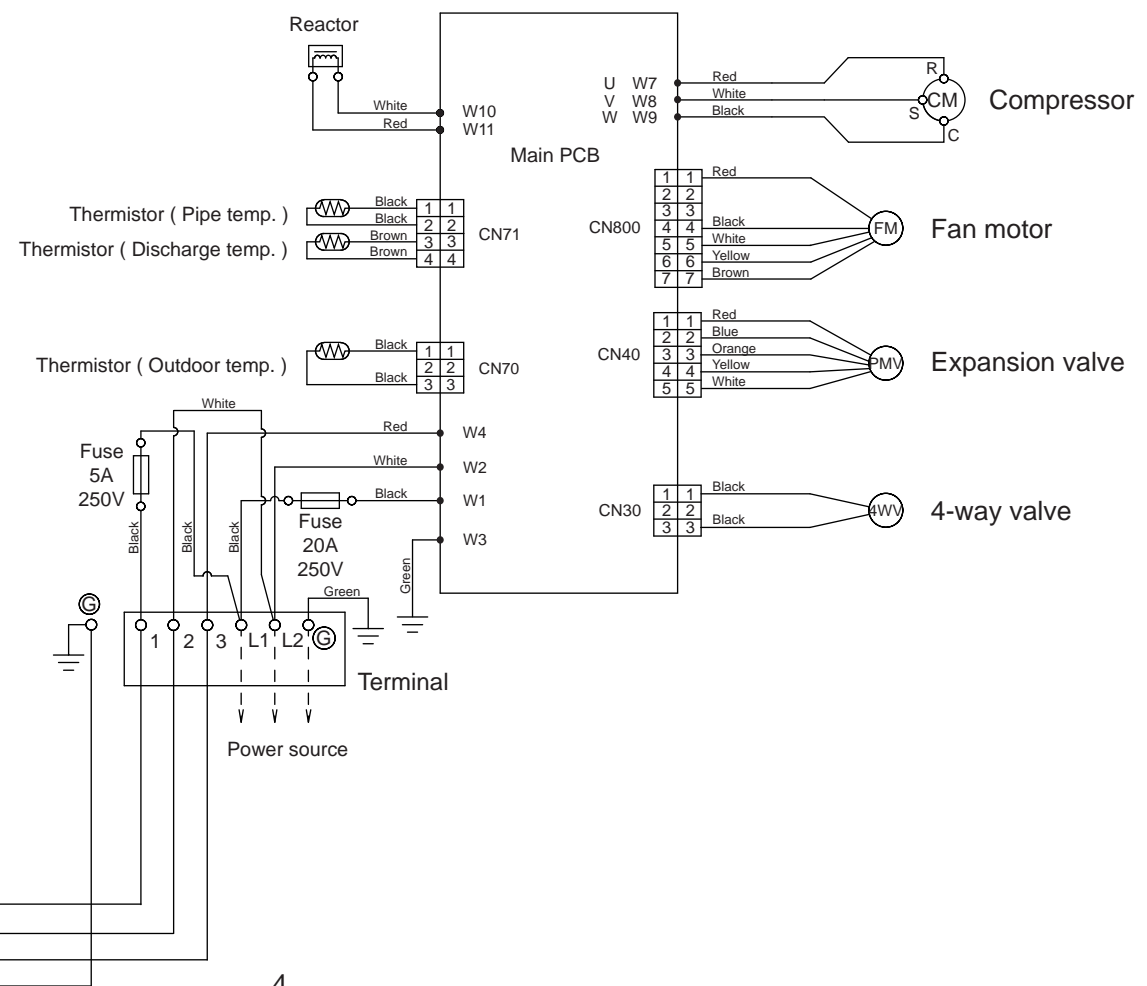
REFRIGERANT SYSTEM DIAGRAM





CIRCUIT DIAGRAM

OUTDOOR UNIT



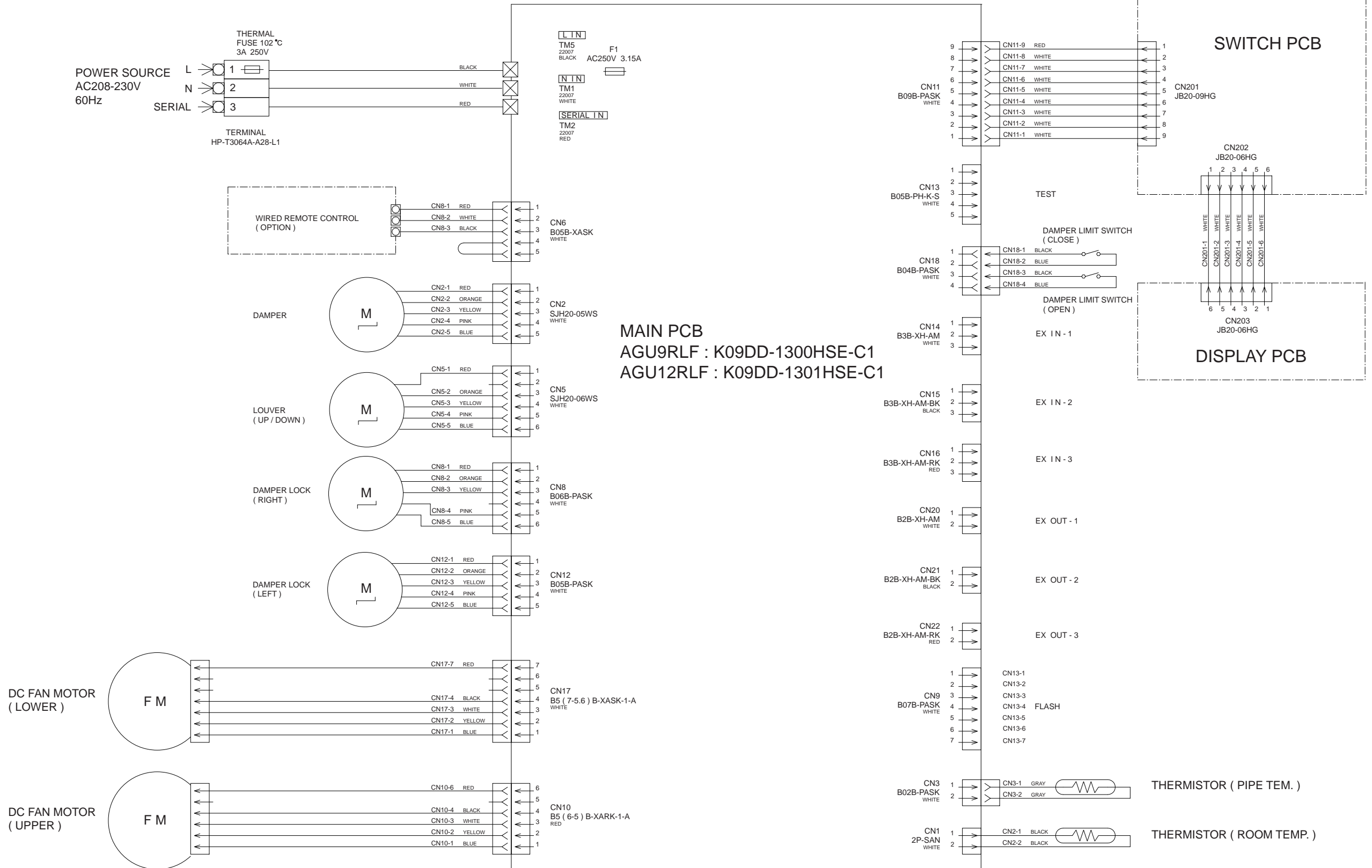
INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT

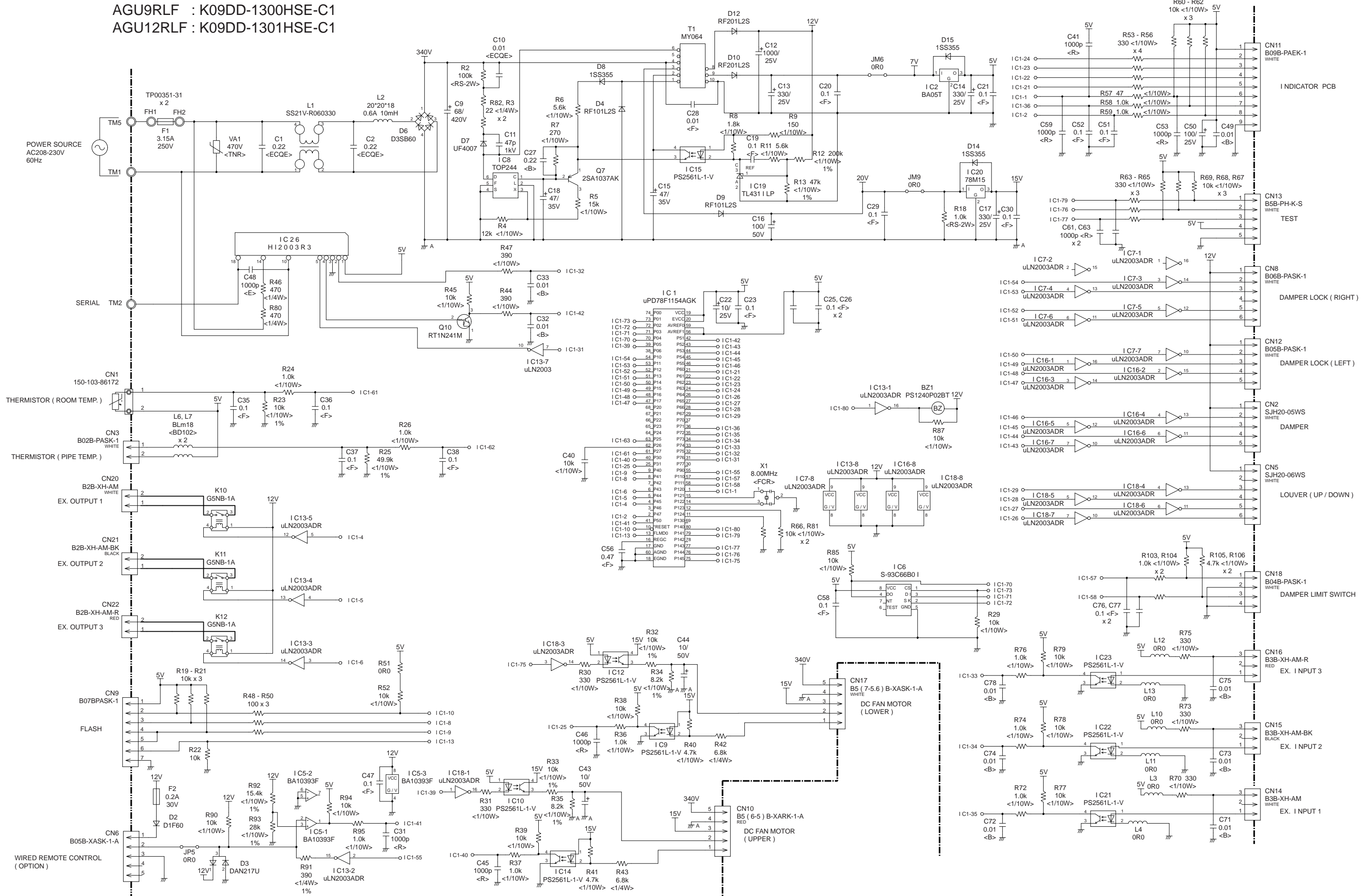
AGU9RLF : EZ-01302HSE

AGU12RLF : EZ-01303HSE

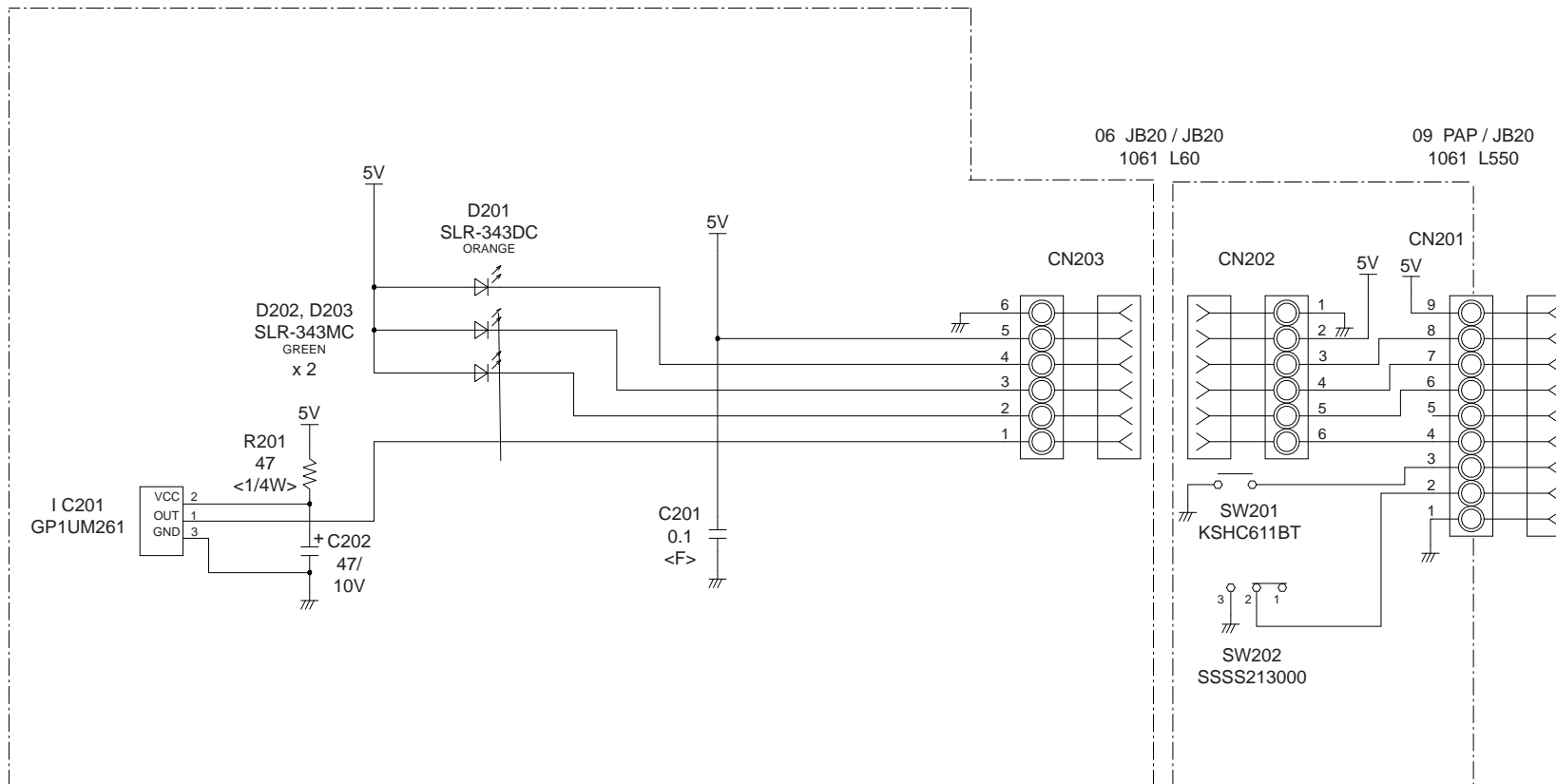
INDICATOR PCB (SWITCH + DISPLAY) K06DD-0801HSE-F0



INDOOR UNIT
 MAIN PCB
 AGU9RLF : K09DD-1300HSE-C1
 AGU12RLF : K09DD-1301HSE-C1

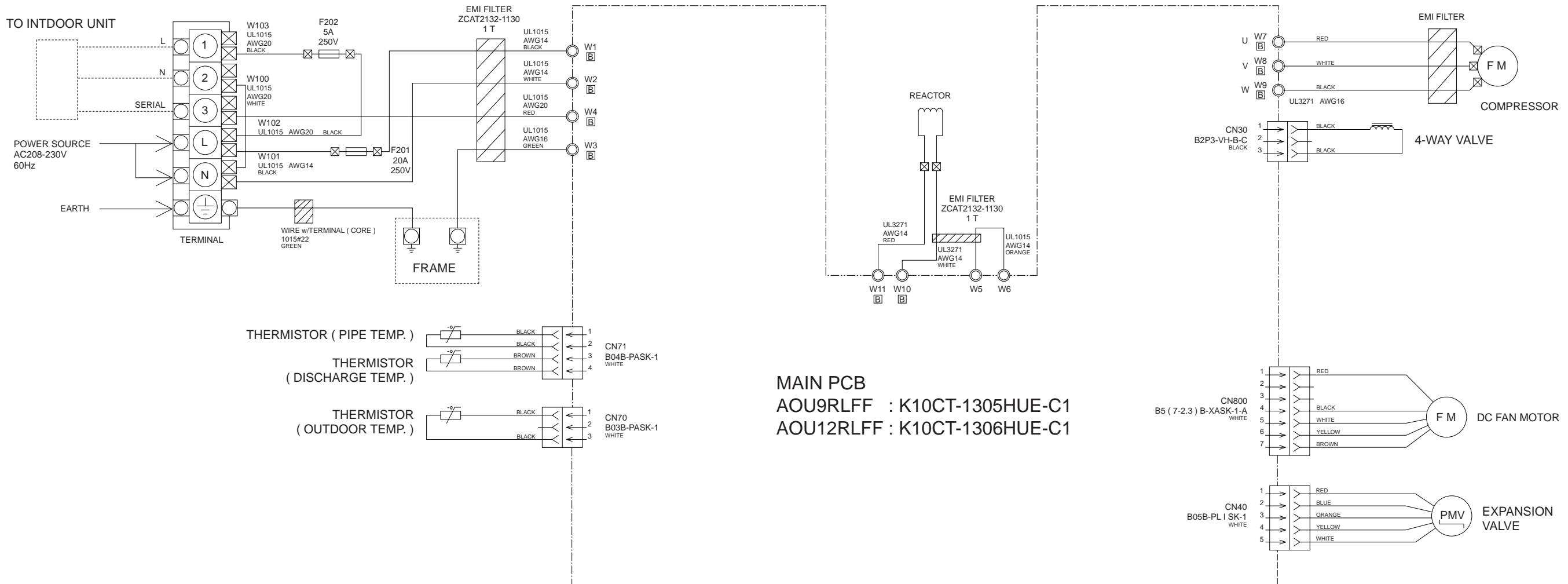


INDOOR UNIT
 INDICATOR PCB
 K06DD-0801HSE-F0

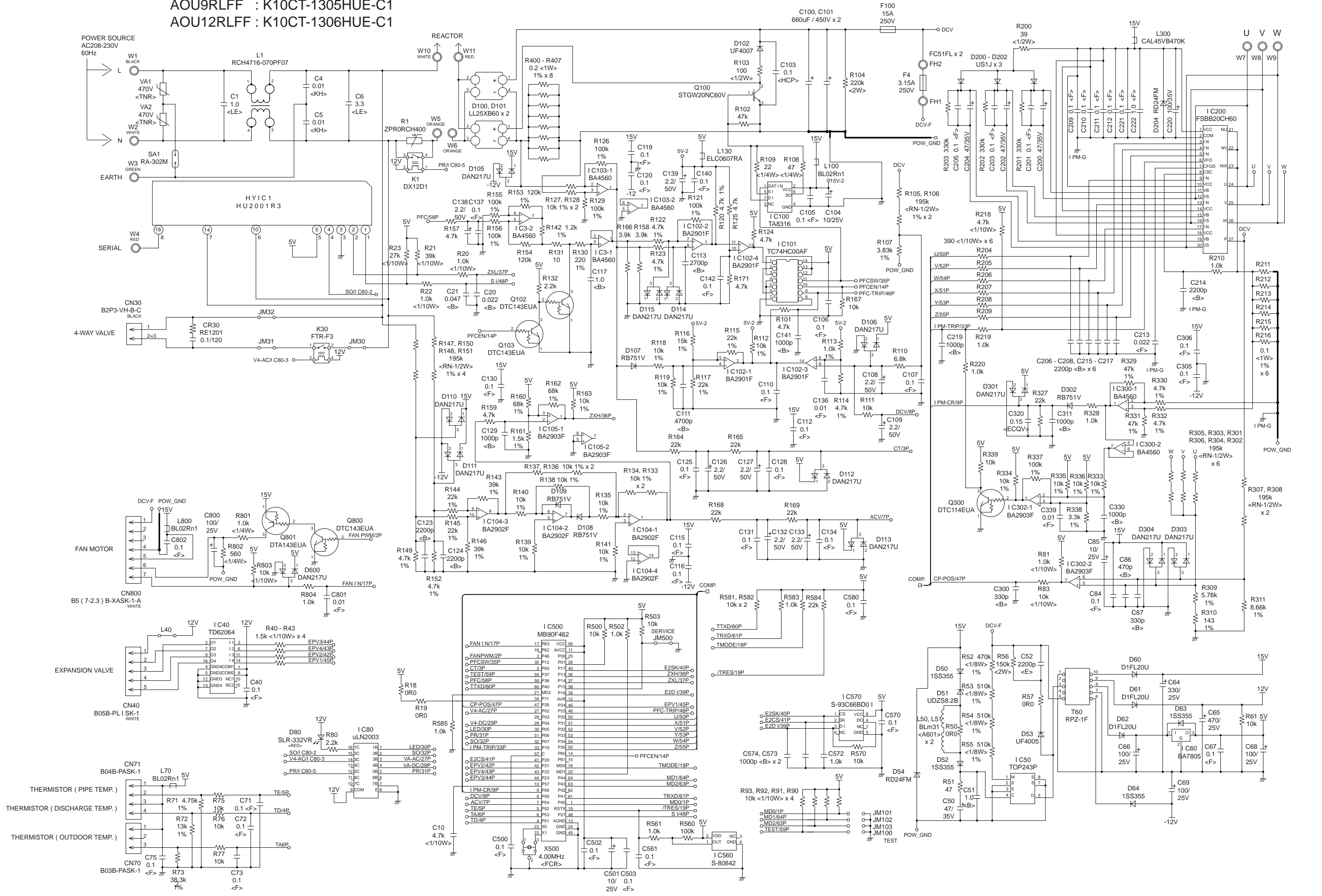


OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
 AOU9RLFF : EZ-01309HUE
 AOU12RLFF : EZ-0130AHUE



OUTDOOR UNIT
 MAIN PCB
 AO9RLFF : K10CT-1305HUE-C1
 AO12RLFF : K10CT-1306HUE-C1



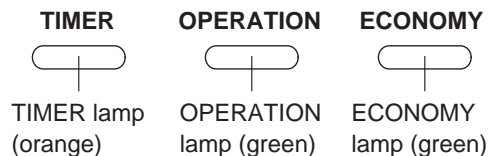
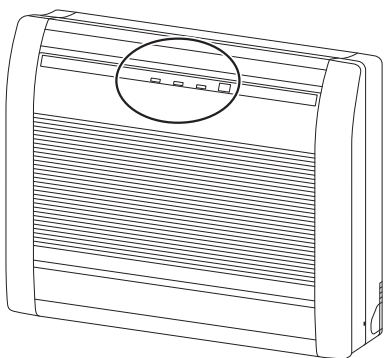
ERROR DETECTION

INDOOR UNIT 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 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 operation.



Wired remote control display (Option)

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



Error code

● : 0.5s on / 0.5s off

◇ : 0.1s on / 0.1s off

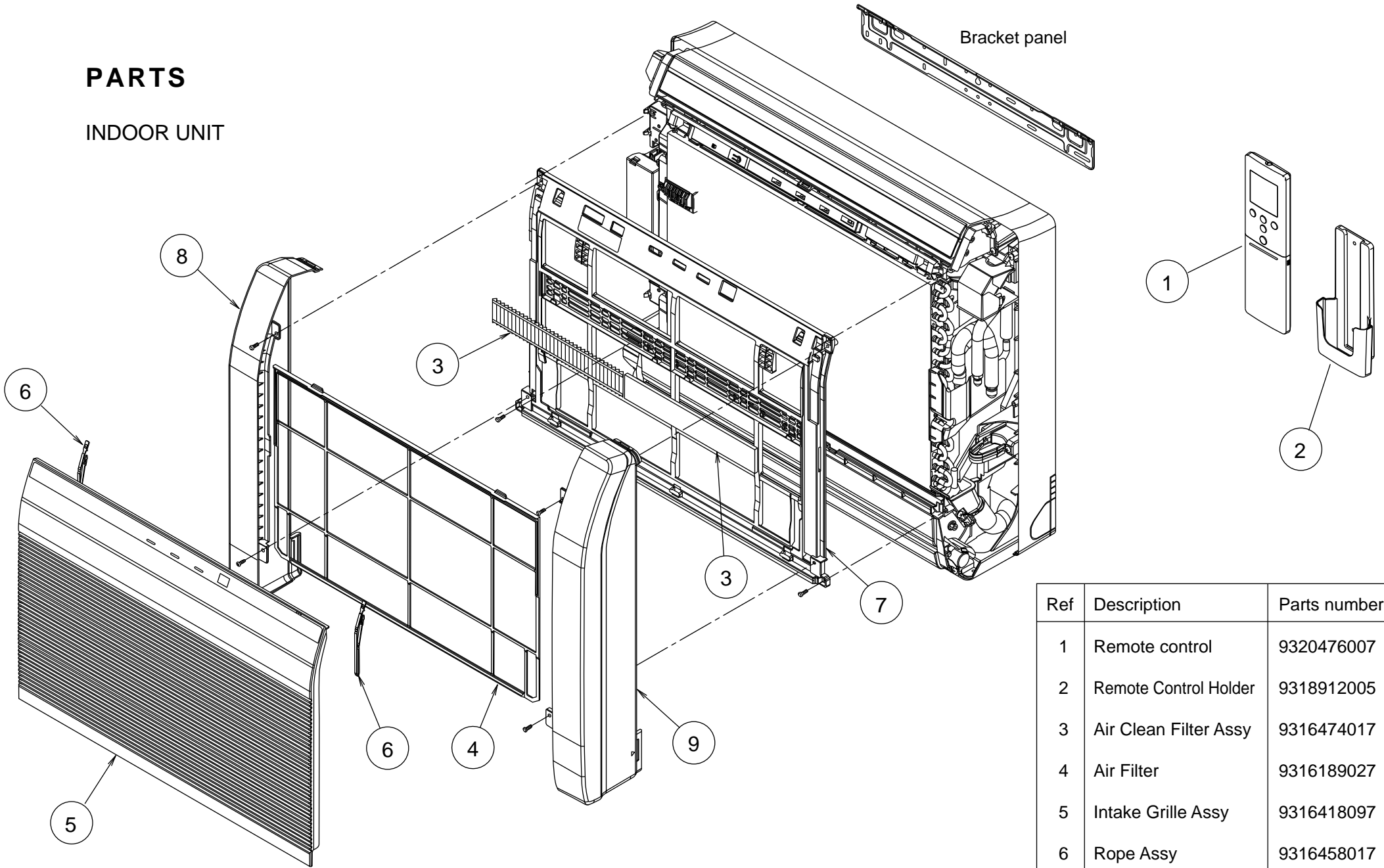
() : Number of flashing

OPERATION	Lamps		Wired remote control	Description
	TIMER	ECONOMY		
● (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	<ul style="list-style-type: none"> • 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	Room 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

OPERATION	Lamps		Wired remote control	Description
	TIMER	ECONOMY		
● (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	<ul style="list-style-type: none"> • 2-way valve temp. sensor error • 3-way valve temp. sensor error
● (7)	● (7)	◇	77	Heat sink temp. sensor error
● (8)	● (2)	◇	82	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
● (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]

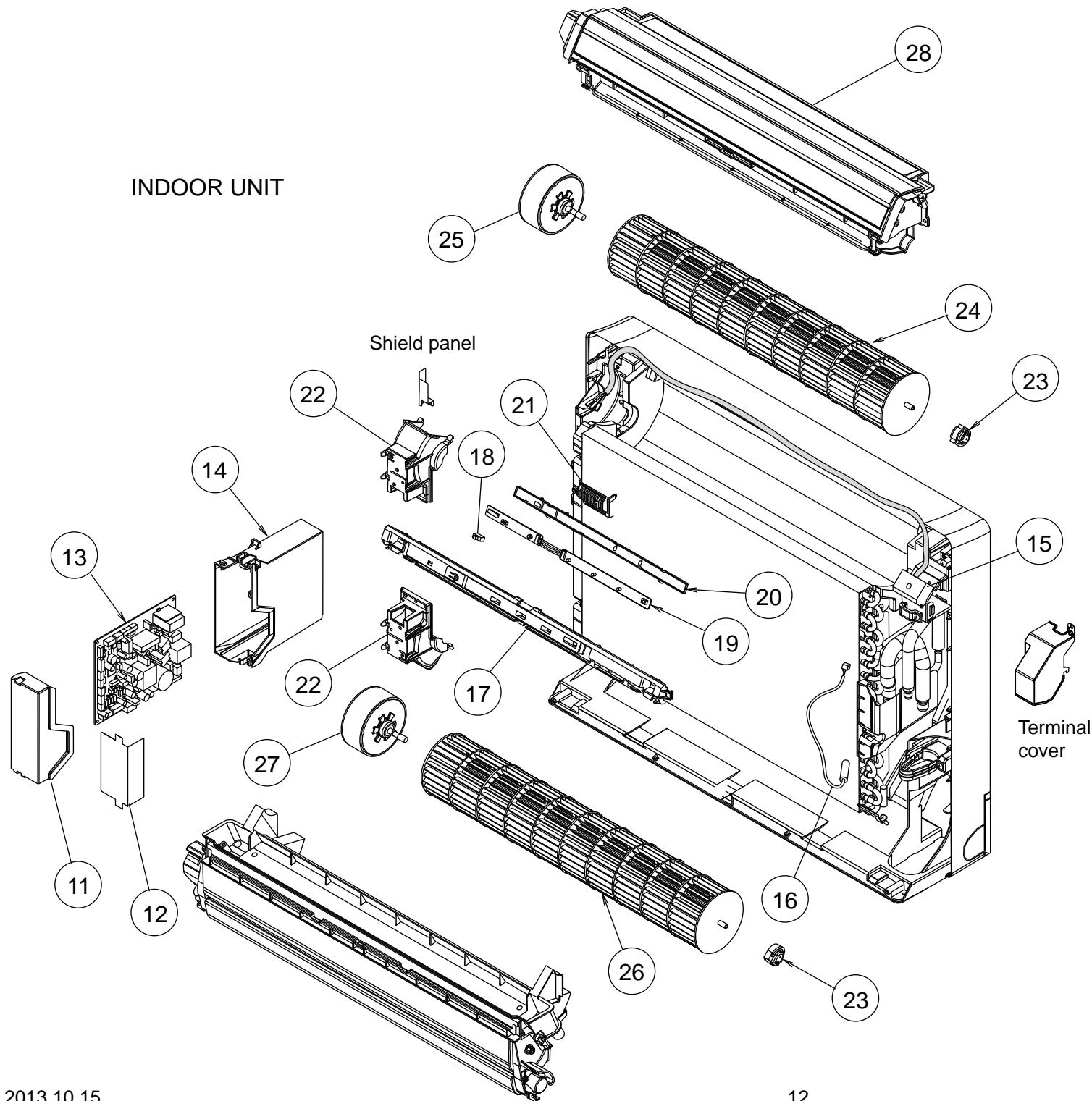
PARTS

INDOOR UNIT



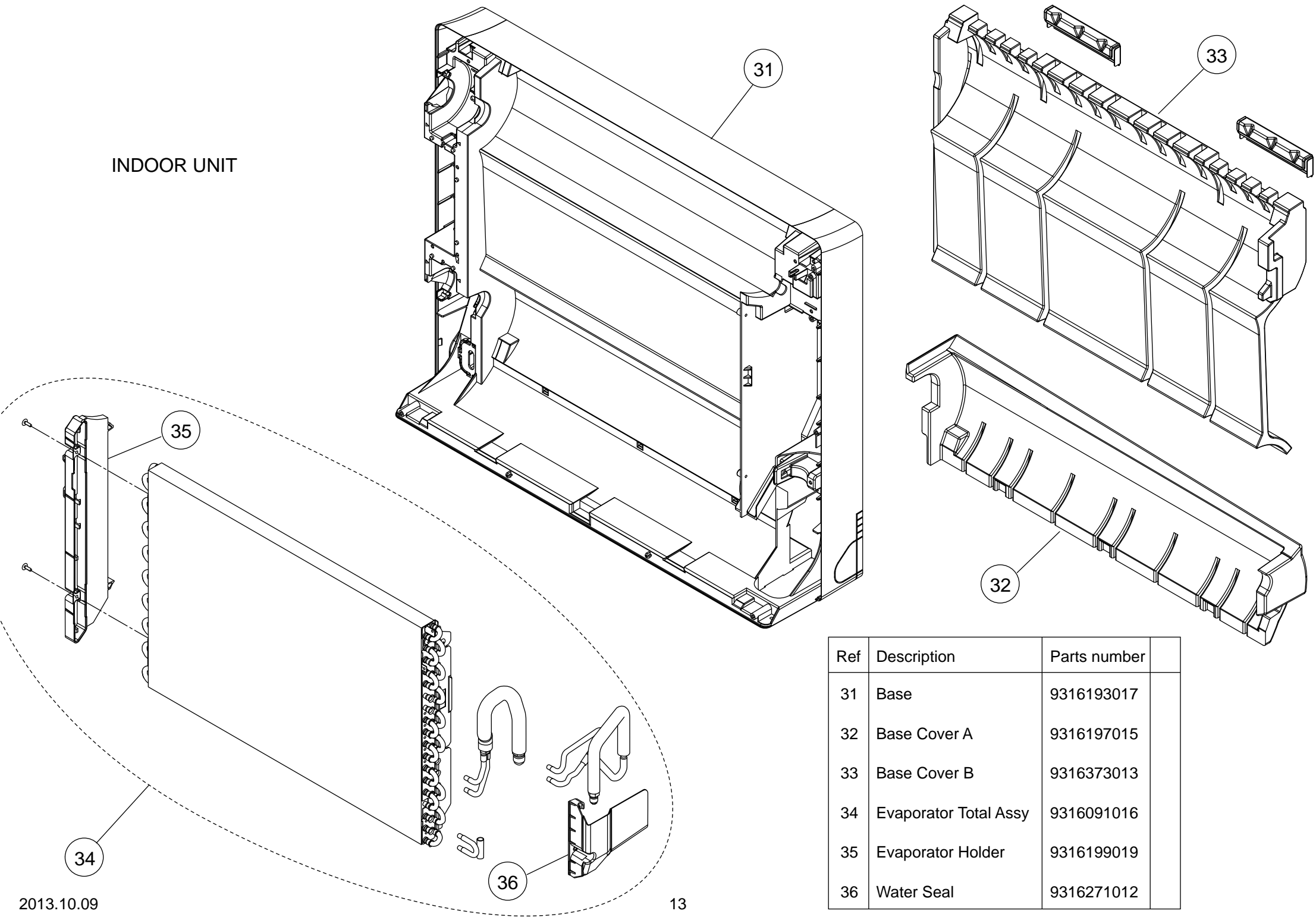
Ref	Description	Parts number
1	Remote control	9320476007
2	Remote Control Holder	9318912005
3	Air Clean Filter Assy	9316474017
4	Air Filter	9316189027
5	Intake Grille Assy	9316418097
6	Rope Assy	9316458017
7	Front Panel	9316185012
8	Front Panel L	9316187016
9	Front Panel R	9316186019

INDOOR UNIT



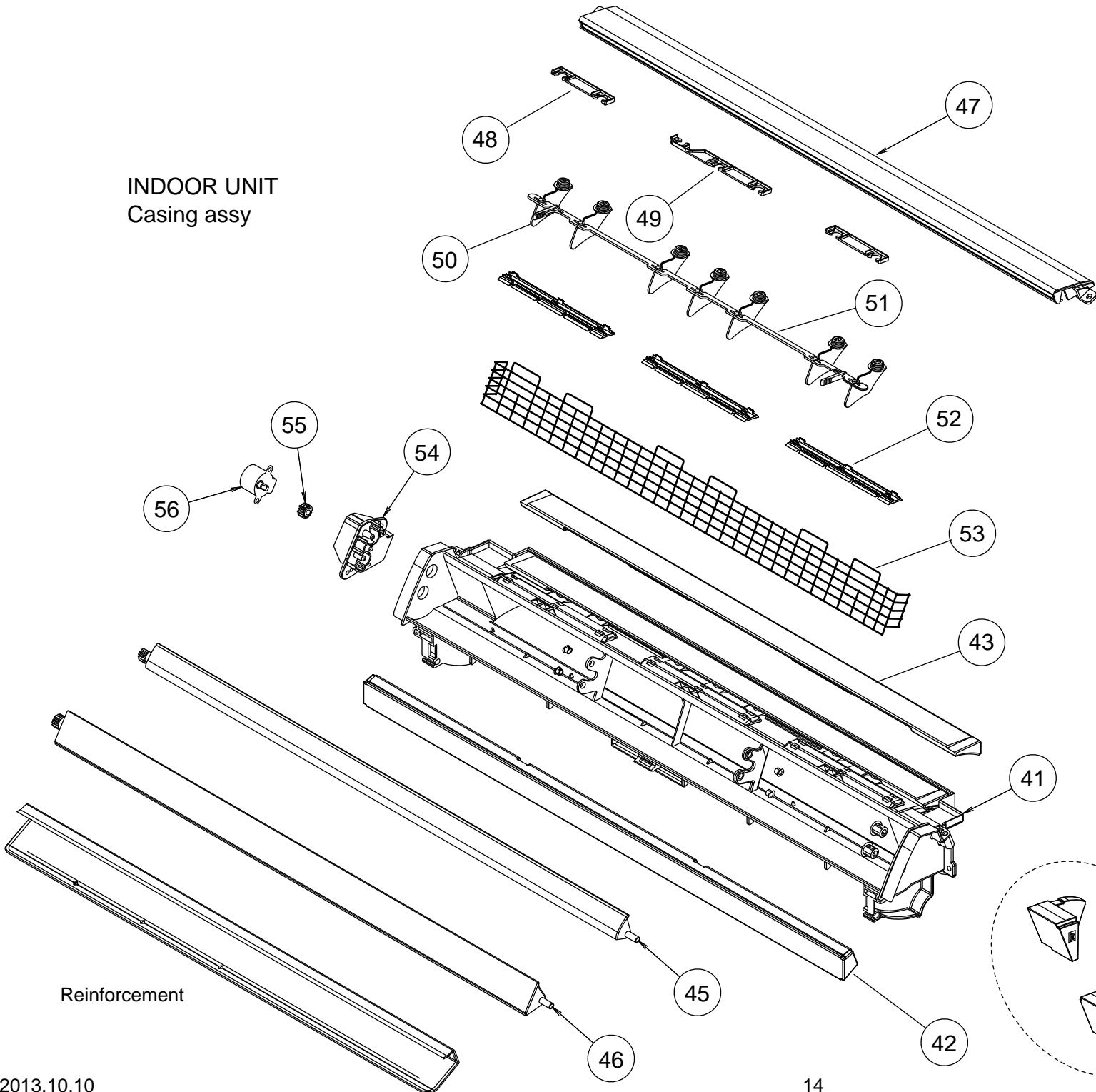
Ref	Description	Parts number
11	Control Cover	9316201026
12	Control Inner Cover	9316487017
13	Main PCB (AGU9RLF)	9708532134
13	Main PCB (AGU12RLF)	9708532141
14	Control Box	9316200029
15	Terminal	9900385026
16	Pipe Thermistor	9900425012
17	Display Case	9316194014
18	Slide Switch Cover	9316267015
19	Display PCB	9707571042
20	Display Cover	9316191013
21	Thermistor Holder	9316192010
22	Motor Holder	9316195011
23	Bearing C Assy	9306628017
24	Crossflow Fan Assy	9312004034
25	Fan Motor, MFD-14TXAN	9602850013
26	Crossflow Fan B Assy	9316309012
27	Fan Motor, MFD-14SXAN	9602851010
28	Casing Assy	9316411012

INDOOR UNIT

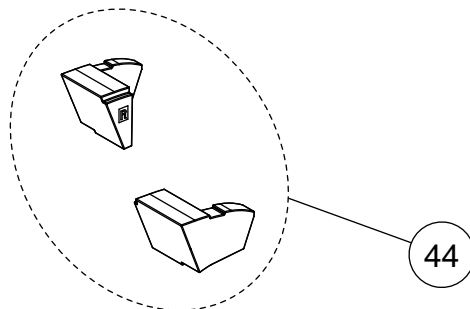


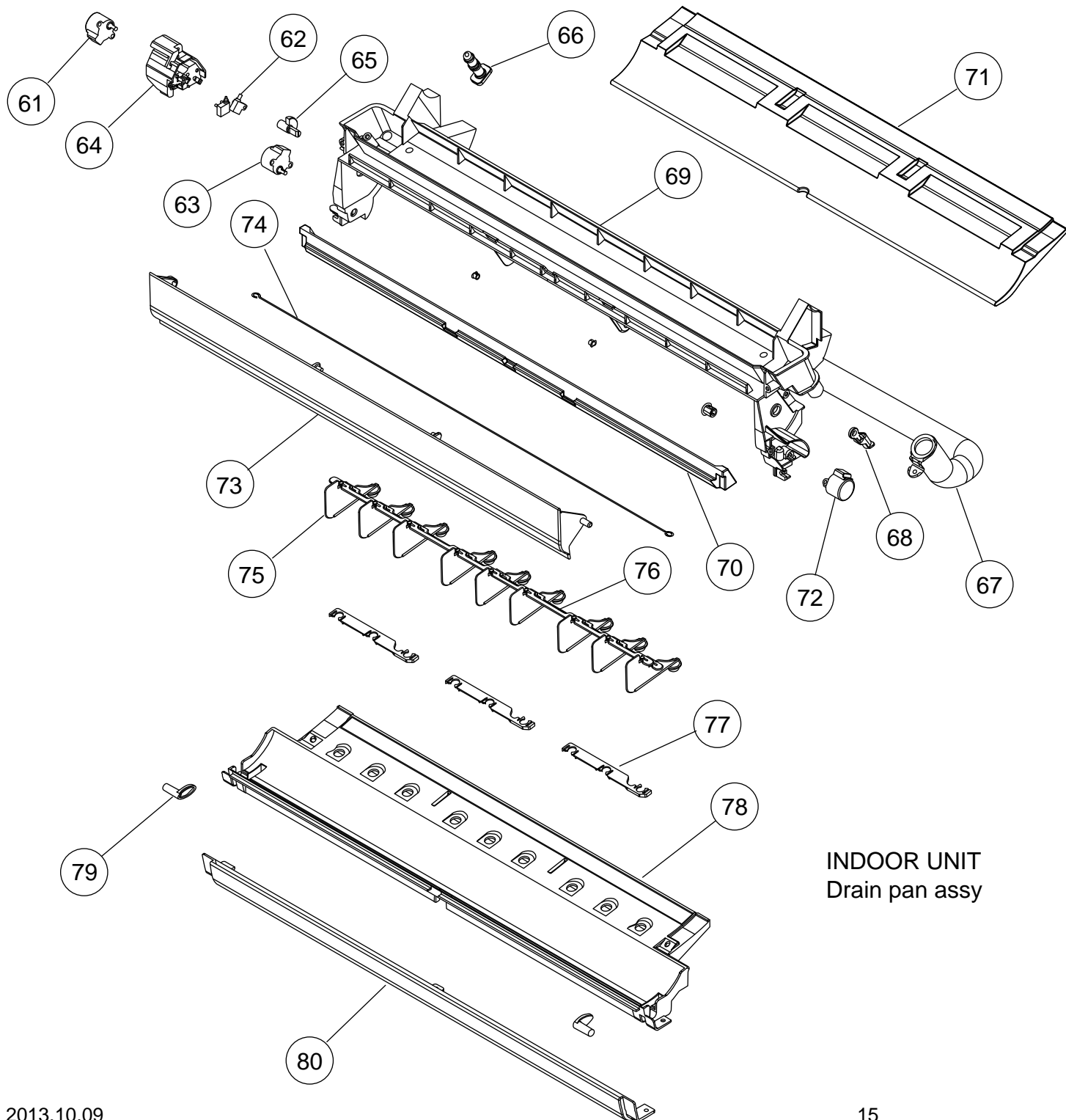
Ref	Description	Parts number
31	Base	9316193017
32	Base Cover A	9316197015
33	Base Cover B	9316373013
34	Evaporator Total Assy	9316091016
35	Evaporator Holder	9316199019
36	Water Seal	9316271012

INDOOR UNIT
Casing assy



Ref	Description	Parts number
41	Casing	9316204010
42	Casing Cover F	9316308015
43	Casing Cover B	9316273016
44	Casing Cover LR	9316310018
45	Louver U (upper)	9316205017
46	Louver Z (lower)	9316206014
47	Top Cover	9316207011
48	Spacer C	9315281012
49	Spacer D	9315282019
50	R and L Louver U	9316208018
51	Joint U	9316209015
52	Guard Holder	9316210011
53	Fan Guard	9316211018
54	Gear Case	9316213012
55	Gear A	9309994003
56	Step Motor (up / down)	9900384043



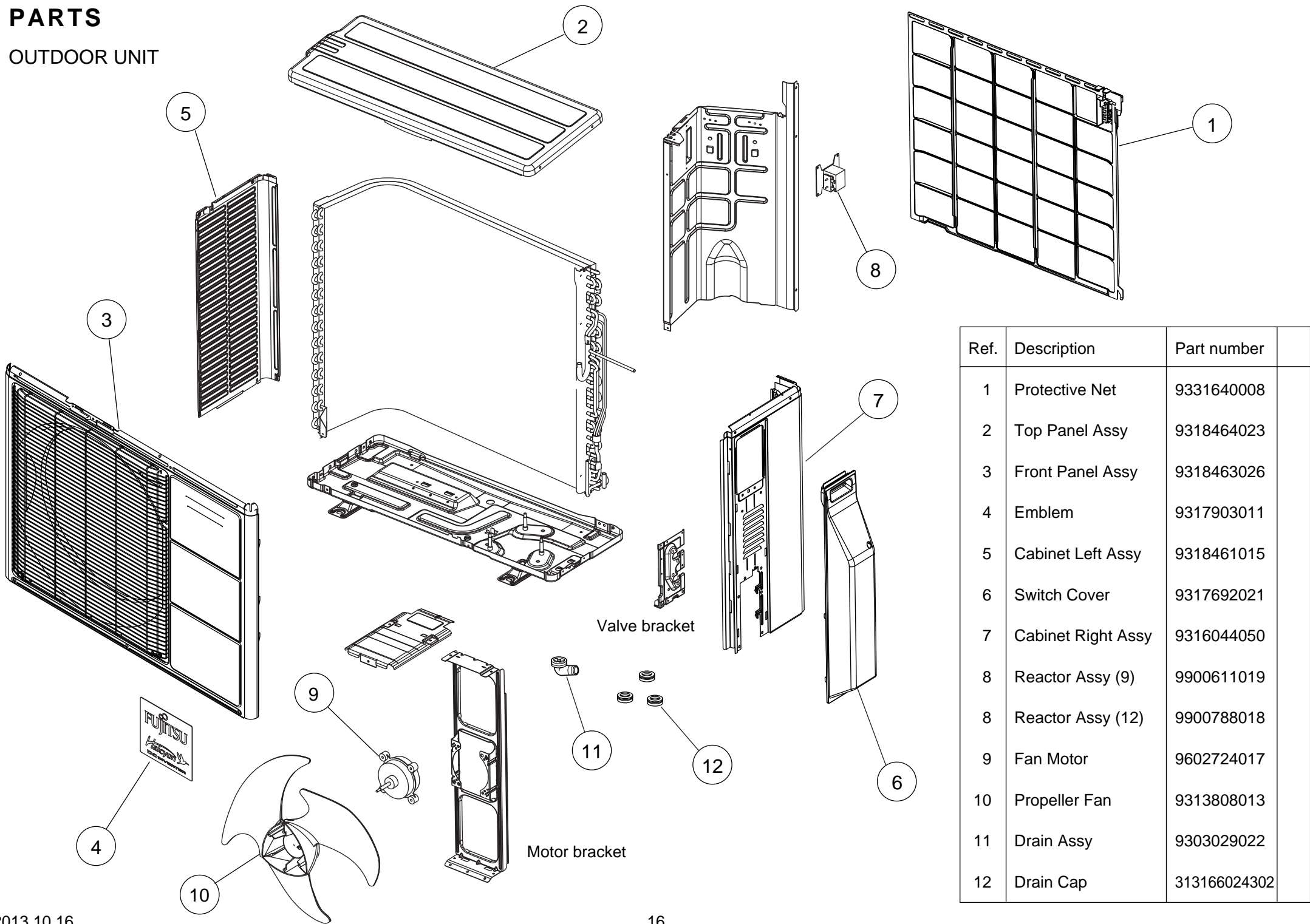


INDOOR UNIT
Drain pan assy

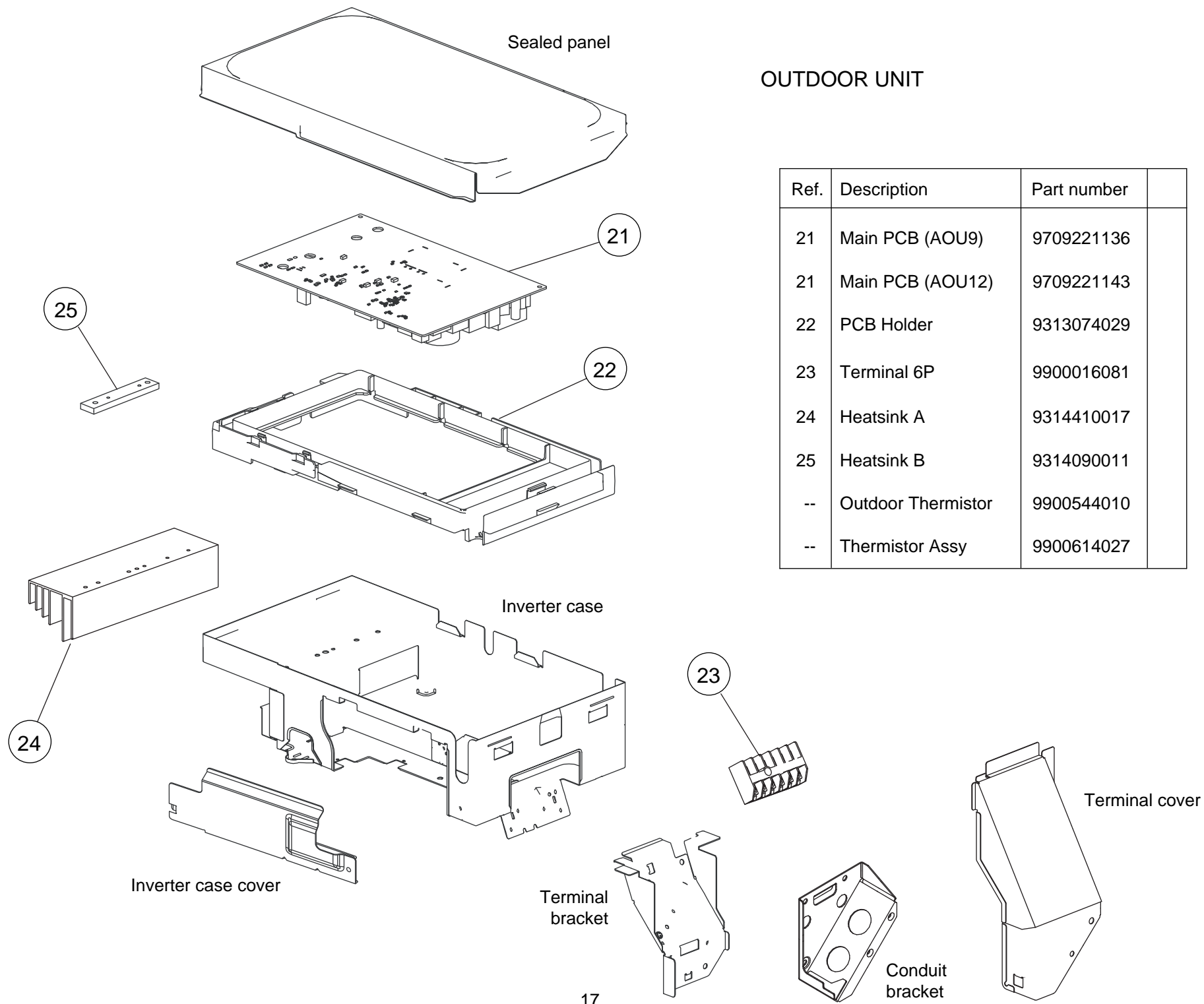
Ref	Description	Parts number
61	Motor Step (Damper)	9900384050
62	Micro Switch (Limit Switch)	9900424015
63	Motor Step (Damper Lock Left)	9900384067
64	Limit Switch Cover	9316217010
65	Key Top	9316218017
66	Drain Cap	9316177017
67	Drain Hose Assy	9314147029
68	Drain Holder	9316384019
69	Drain Pan U	9316214019
70	Drain Cover F	9316274013
71	Drain Cover B	9316386013
72	Step Motor (Damper Lock Right)	9900384074
73	Damper	9316216013
74	Fan Guard Z	9316918009
75	R and L Louver Z	9316334014
76	Joint Z	9316335011
77	Spacer D	9315282019
78	Drain Pan Z	9316215016
79	Stopper	9316219014
80	Under Cover	9316374010

PARTS

OUTDOOR UNIT

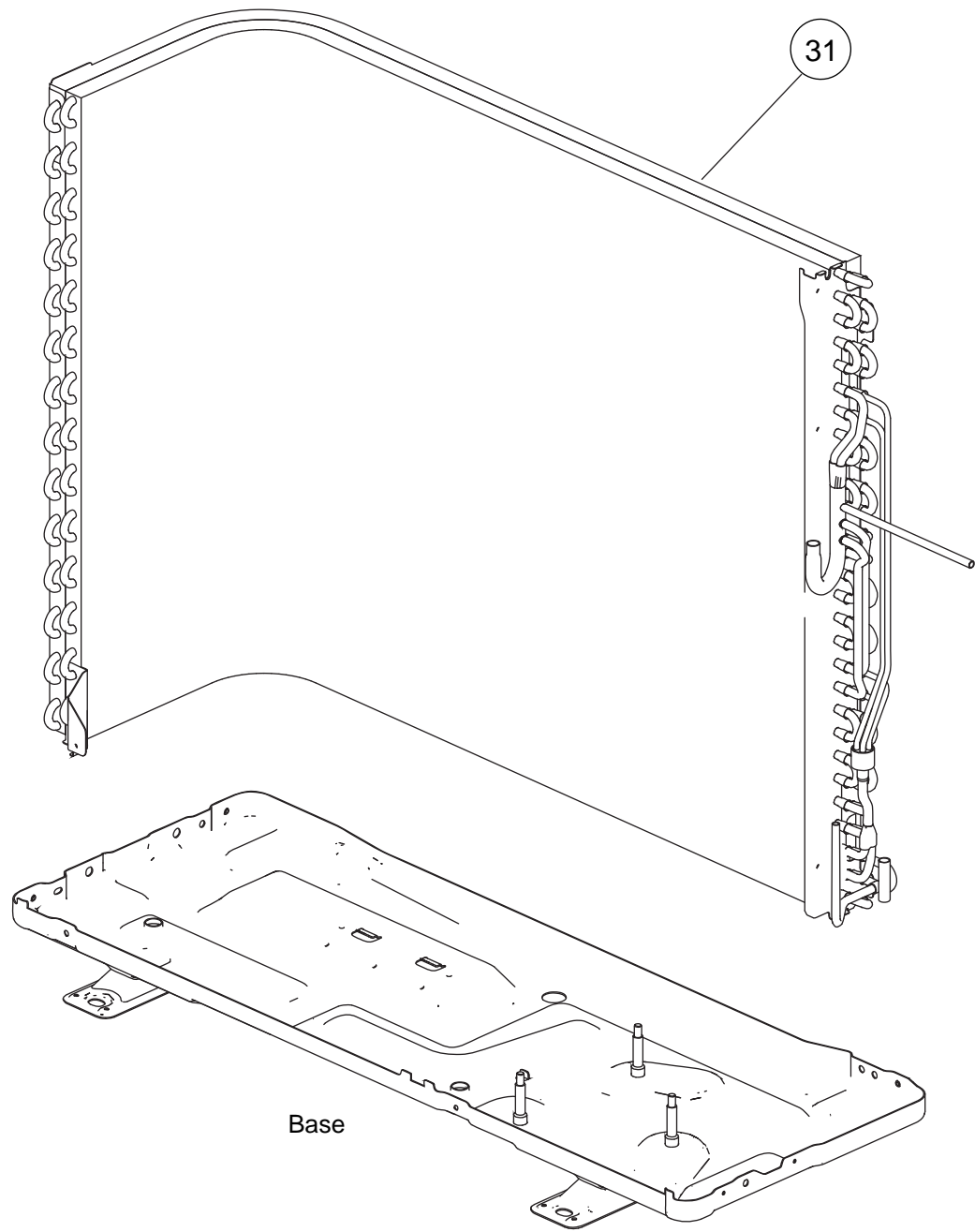


Ref.	Description	Part number
1	Protective Net	9331640008
2	Top Panel Assy	9318464023
3	Front Panel Assy	9318463026
4	Emblem	9317903011
5	Cabinet Left Assy	9318461015
6	Switch Cover	9317692021
7	Cabinet Right Assy	9316044050
8	Reactor Assy (9)	9900611019
8	Reactor Assy (12)	9900788018
9	Fan Motor	9602724017
10	Propeller Fan	9313808013
11	Drain Assy	9303029022
12	Drain Cap	313166024302

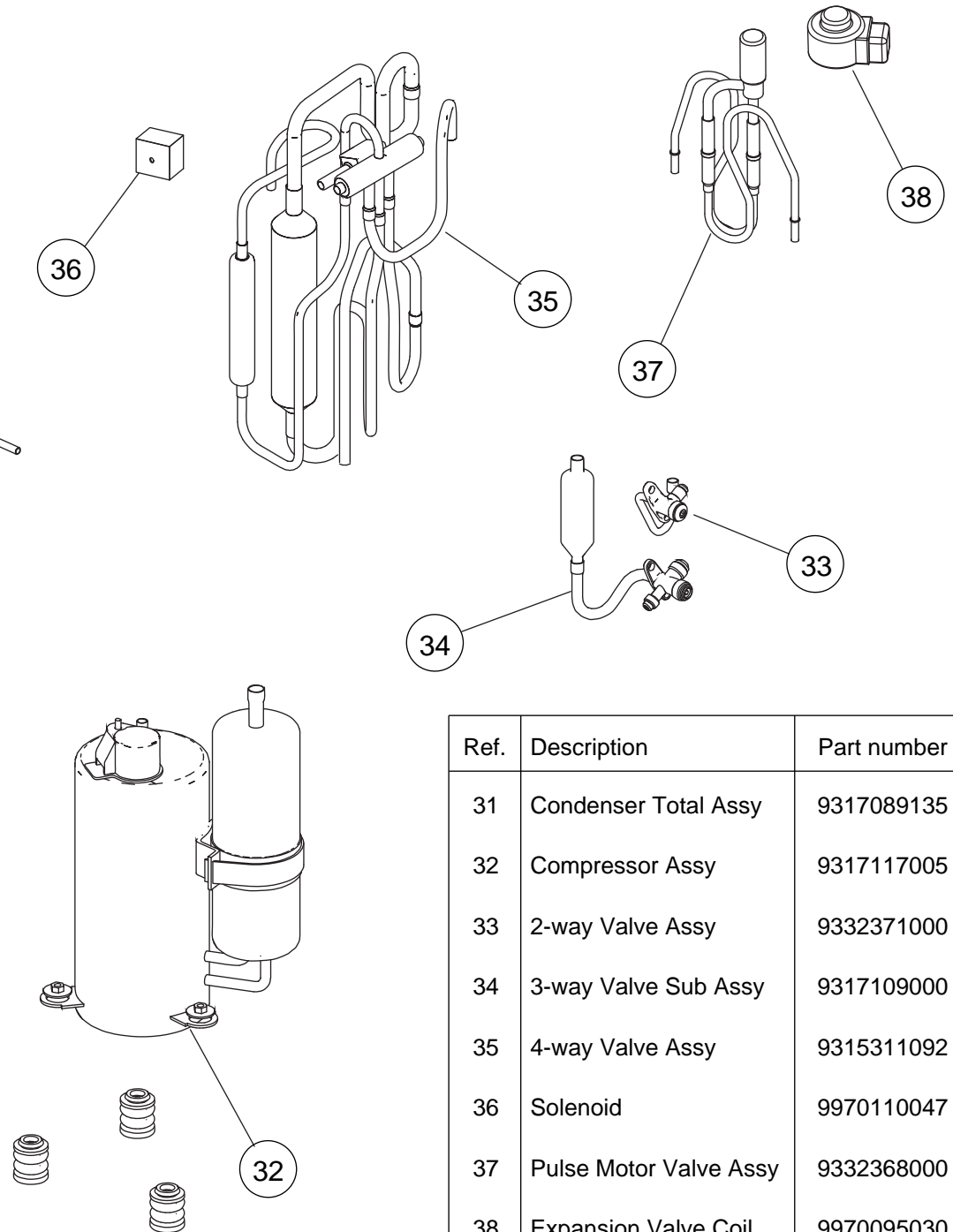


OUTDOOR UNIT

Ref.	Description	Part number
21	Main PCB (AOU9)	9709221136
21	Main PCB (AOU12)	9709221143
22	PCB Holder	9313074029
23	Terminal 6P	9900016081
24	Heatsink A	9314410017
25	Heatsink B	9314090011
--	Outdoor Thermistor	9900544010
--	Thermistor Assy	9900614027



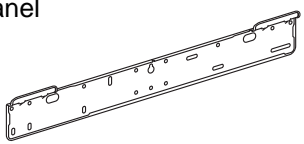

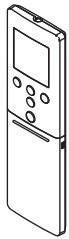
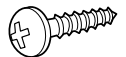

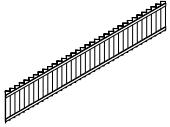

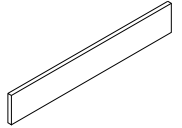
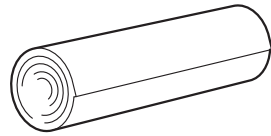

OUTDOOR UNIT



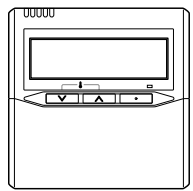
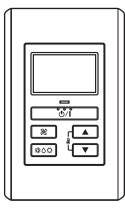
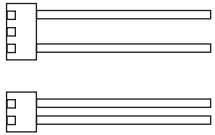
Ref.	Description	Part number
31	Condenser Total Assy	9317089135
32	Compressor Assy	9317117005
33	2-way Valve Assy	9332371000
34	3-way Valve Sub Assy	9317109000
35	4-way Valve Assy	9315311092
36	Solenoid	9970110047
37	Pulse Motor Valve Assy	9332368000
38	Expansion Valve Coil	9970095030

ACCESSORIES

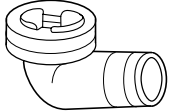
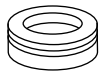
INDOOR UNIT

Name and part number	Q'ty	Name and part number	Q'ty
Bracket panel  9316272019	1	Tapping screw (big) (φ 4 x 25)  0700076046	9
Remote control  9320476007	1	Tapping screw (small) (φ 3 x 12)  0700019036	2
Battery (penlight)  0600185541	2	Electric filter  9312153015	1
Remote control holder  9318912005	1	Ion deodorant filter  9311925033	1
Cloth tape  9310519004	1	Cable tie  312300787605	1

OPTIONAL PARTS

Name and part model name	
Wired remote control UTY-RNNUM 	
Simple remote control UTY-RSNUM 	
External connect kit UTY-XWZXZ5 	

OUTDOOR UNIT

Name and part number	Q'ty
Drain assy  9303029022	1
Drain cap  313166024302	3

1310G4265