

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASU18RLB	AOU18RLB
ASU24RLB	AOU24RLB

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASU18RLB	ASU24RLB
OUTDOOR UNIT		AOU18RLB	AOU24RLB
COOLING CAPACITY		18,000 Btu/h	24,000 Btu/h
HEATING CAPACITY		18,000 Btu/h	24,000 Btu/h
POWER SOURCE		208/230 V	208/230 V
FREQUENCY		60 Hz	60 Hz
RUNNING CURRENT	Cooling	6.4 A	10.5 A
	Heating	5.8 A	8.5 A
INPUT WATTS	Cooling	1.44 kW	2.40 kW
	Heating	1.285 kW	1.925 kW
EER	Cooling	12.5 Btu/Wh	10.0 Btu/Wh
COP	Heating	14.0 Btu/Wh	12.5 Btu/Wh
MOISTURE REMOVAL		4.0 Pts/h 1.9 L/h	6.3 Pts/h 3.0 L/h
AIR CIRCULATION HIGH	Cooling	541 CFM 920 m ³ /h	659 CFM 1,120 m ³ /h
	Heating	541 CFM 920 m ³ /h	647 CFM 1,100 m ³ /h
MAXIMUM CURRENT	Cooling	8.3 A	11.8 A
	Heating	11.8 A	13.8 A

FAN MOTOR

INDOOR UNIT Cooling	High	1,260 r.p.m.	1,480 r.p.m.
	Medium	1,020 r.p.m.	1,220 r.p.m.
	Low	900 r.p.m.	1,020 r.p.m.
	Quiet	770 r.p.m.	900 r.p.m.
INDOOR UNIT Heating	High	1,260 r.p.m.	1,430 r.p.m.
	Medium	1,020 r.p.m.	1,220 r.p.m.
	Low	900 r.p.m.	1,020 r.p.m.
	Quiet	790 r.p.m.	900 r.p.m.
OUTDOOR UNIT Cooling		870 r.p.m.	1,050 r.p.m.
OUTDOOR UNIT Heating		780 r.p.m.	1,000 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High	42 dB	47 dB
	Medium	35 dB	41 dB
	Low	31 dB	35 dB
	Quiet	26 dB	31 dB
INDOOR UNIT Heating	High	43 dB	47 dB
	Medium	36 dB	42 dB
	Low	33 dB	36 dB
	Quiet	28 dB	33 dB
OUTDOOR UNIT Cooling		51 dB	54 dB
OUTDOOR UNIT Heating		50 dB	55 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION		808-213-80	
WEIGHT (with oil)		21 lb. 6 oz.	9.7 kg
PRECHARGED REFRIGERANT		3 lb. 1 oz.	1,400 g
FULL CHARGE	Pipe length 49 ft. 15 m	3 lb. 1 oz.	1,400 g
	66 ft. 20 m	3 lb. 5 oz.	1,500 g
ADDITIONAL CHARGE		0.22 oz/ft	20 g/m
MAXIMUM PIPING HEIGHT		49 feet	15 m
REFRIGERANT TYPE		R410A	

DIMENSIONS

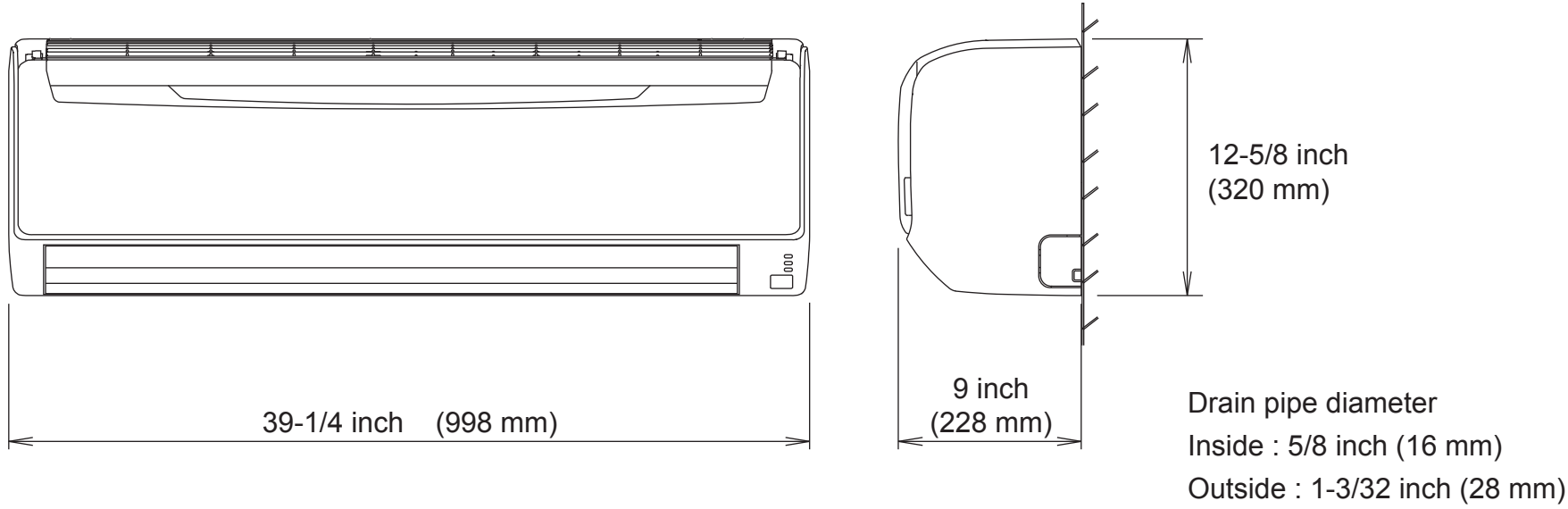
INDOOR UNIT	H x W x D	12-5/8 x 39-1/4 x 9 inch 320 x 998 x 228 mm
OUTDOOR UNIT	H x W x D	24-1/2 x 31-3/32 x 11-13/32 in. 620 x 790 x 290 mm

WEIGHT

INDOOR UNIT	Net / Shipping	31 lbs / 40 lbs	14 kg / 18 kg
OUTDOOR UNIT	Net / Shipping	86 lb. / 92 lb.	39 kg / 42 kg

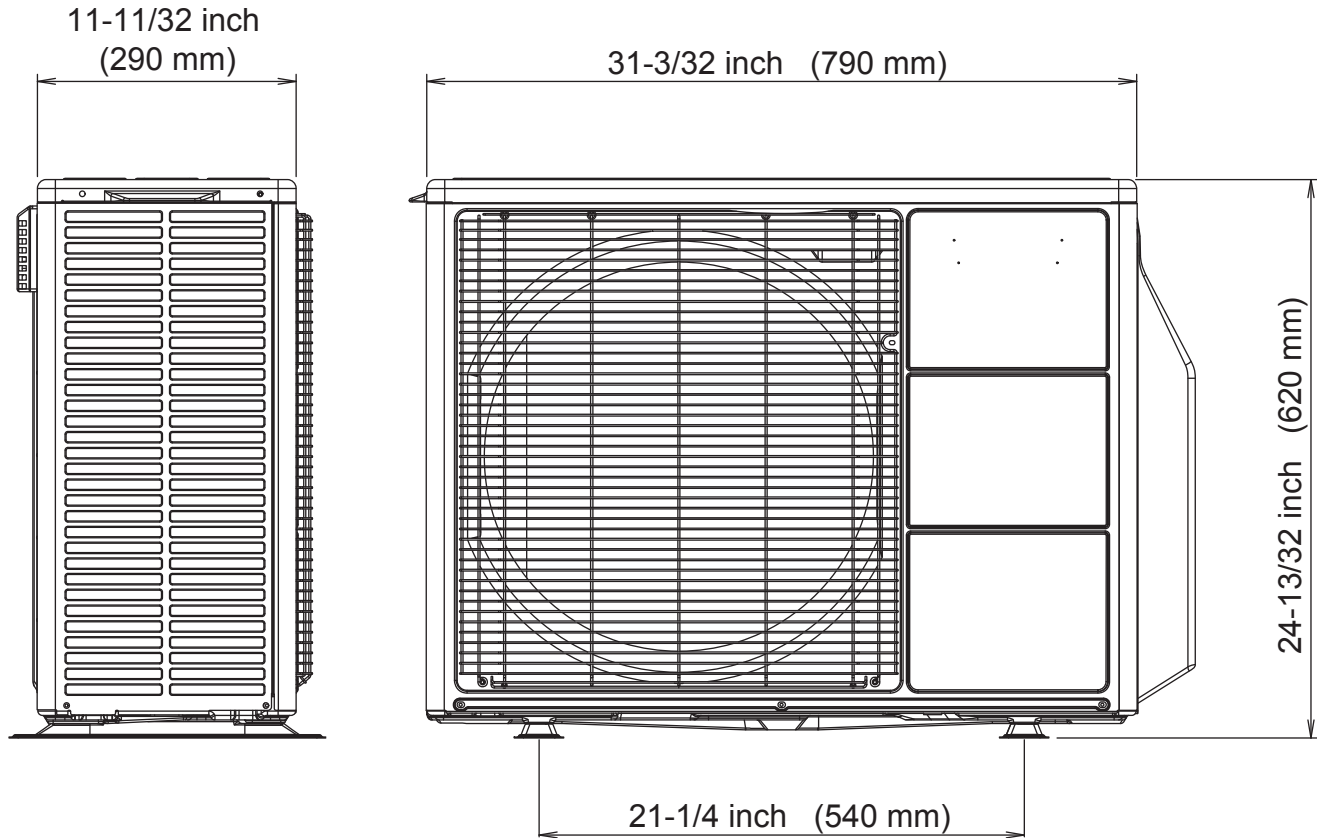
DIMENSIONS

INDOOR UNIT

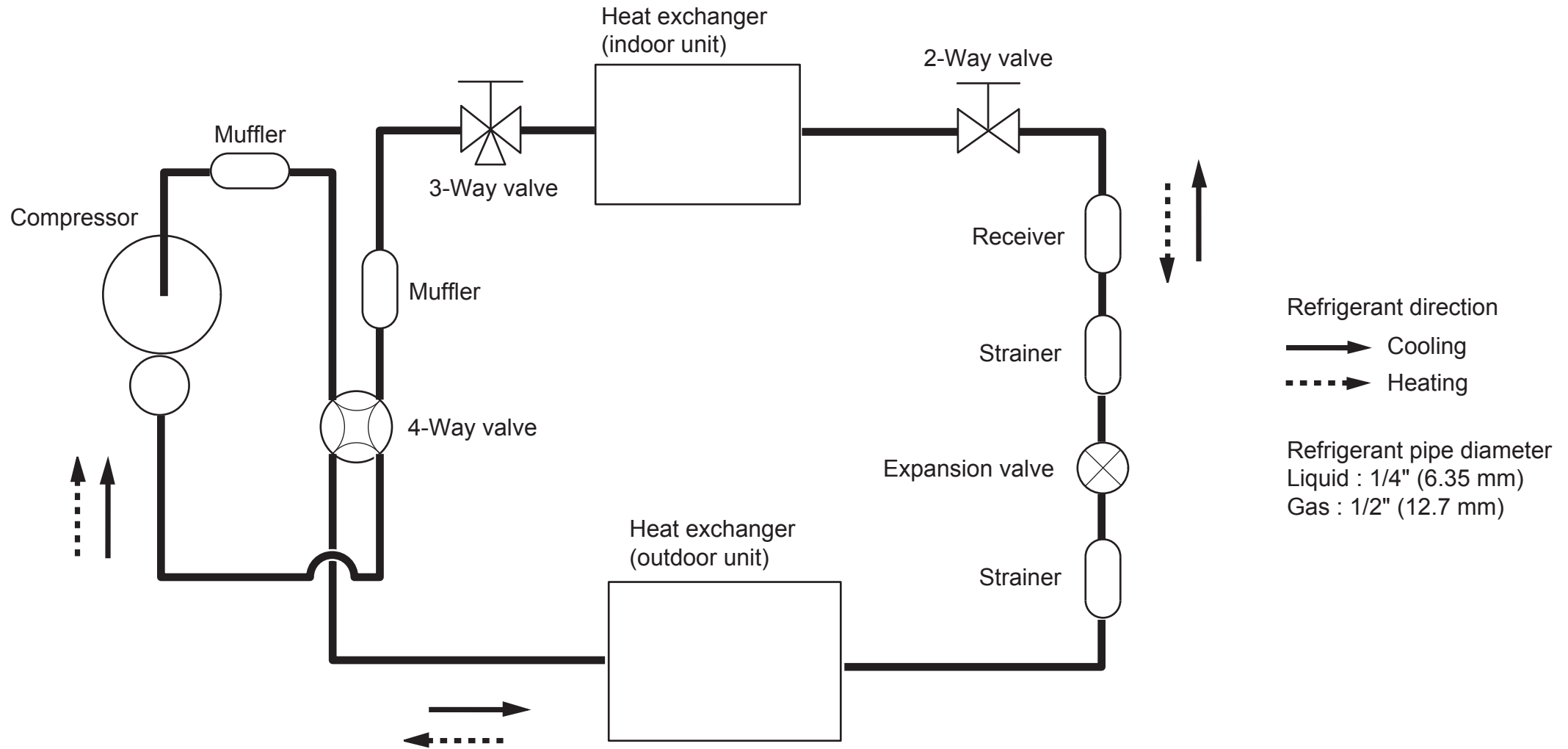


OUTDOOR UNIT

Liquid pipe diameter : 1/4 inch (6.35 mm)
Gas pipe diameter : 1/2 inch (12.70 mm)

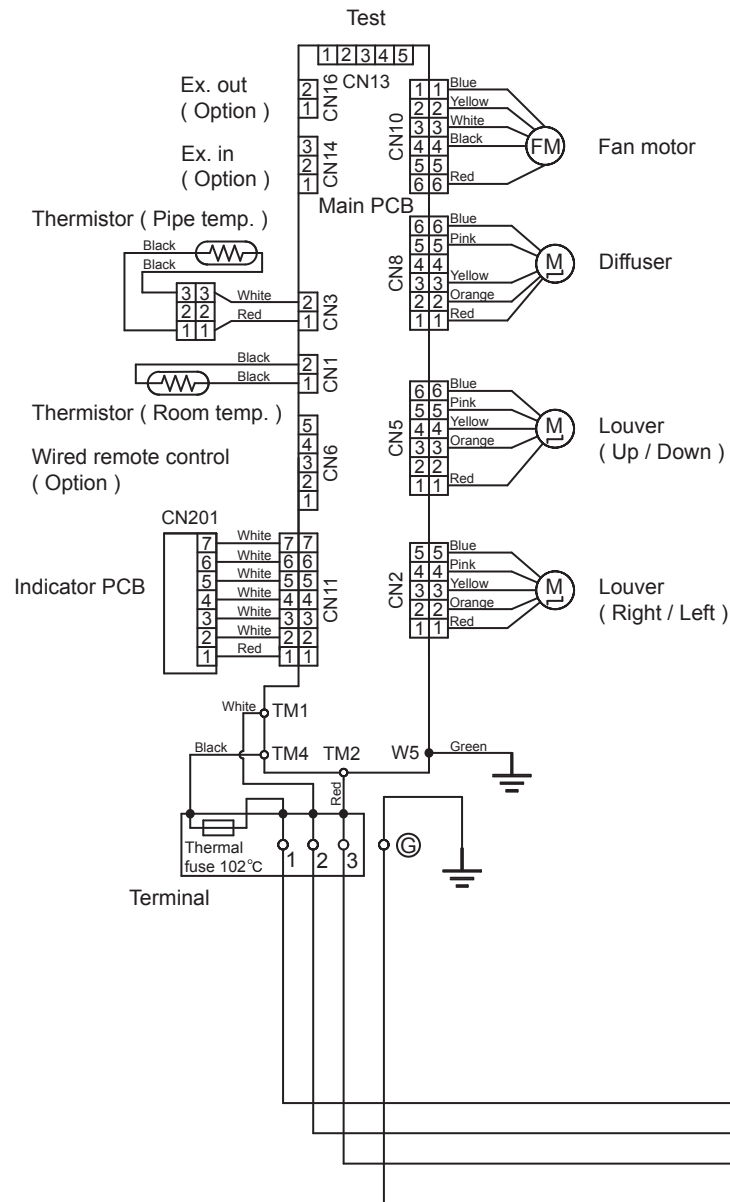


REFRIGERANT SYSTEM DIAGRAM

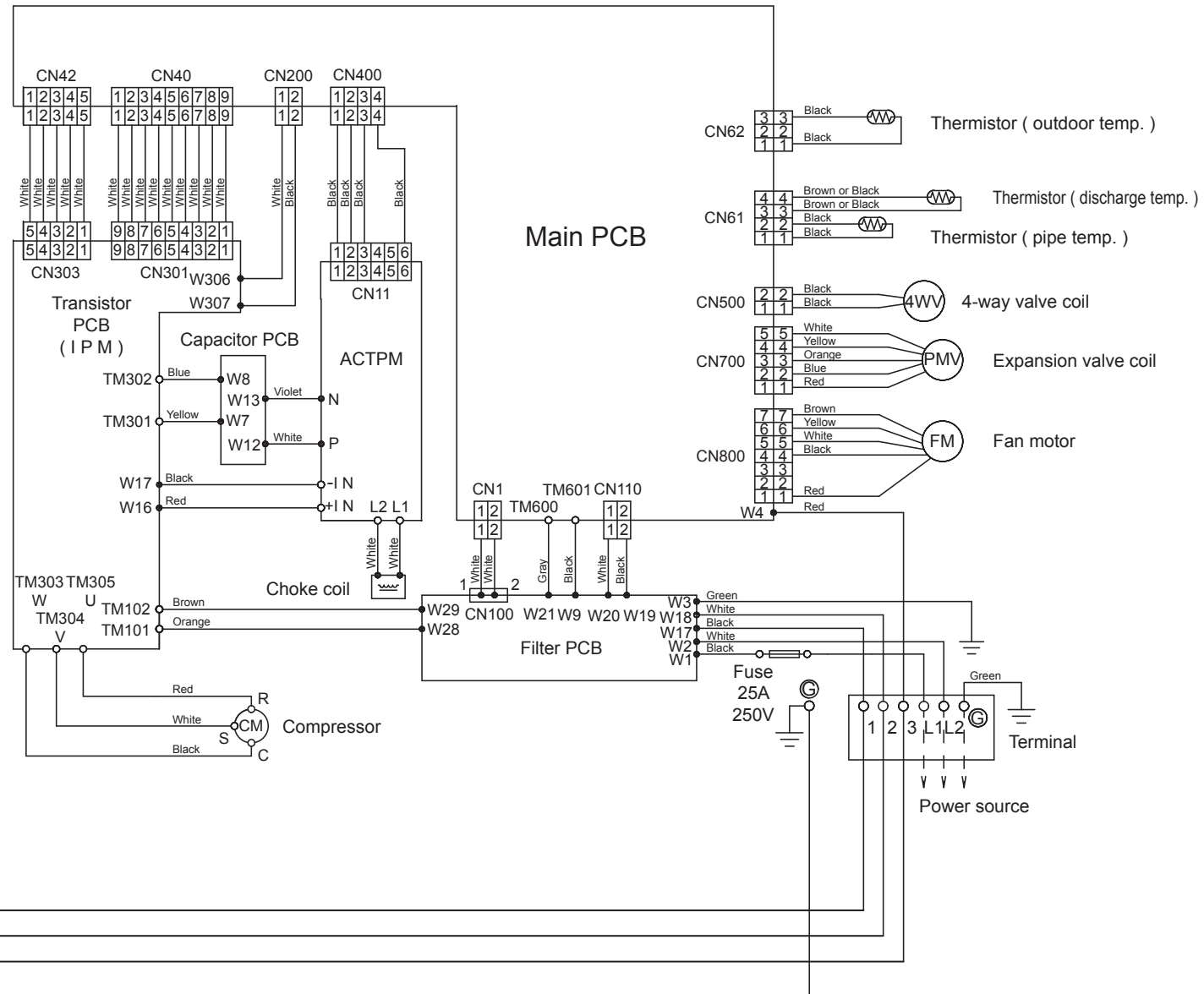


CIRCUIT DIAGRAM

INDOOR UNIT

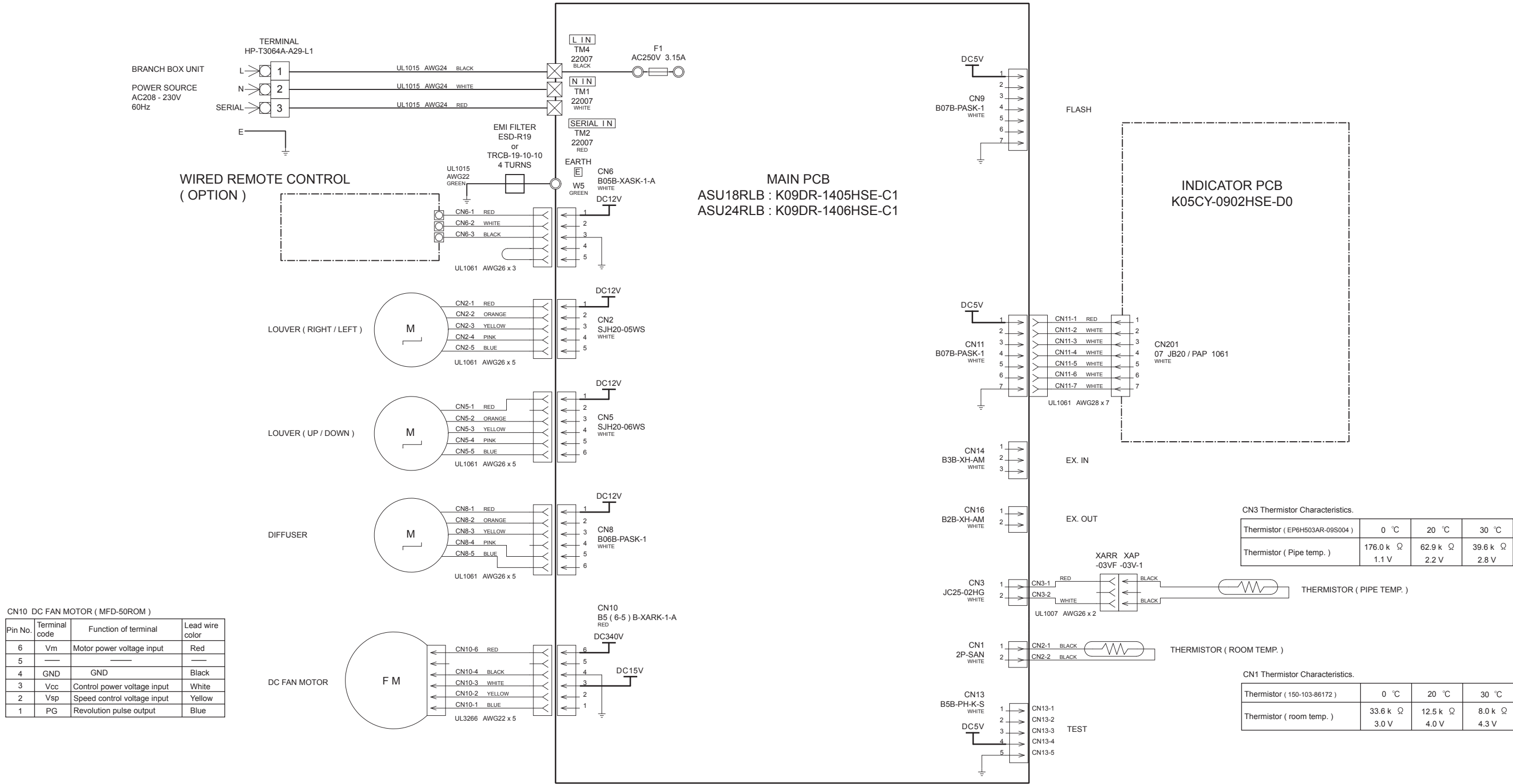


OUTDOOR UNIT



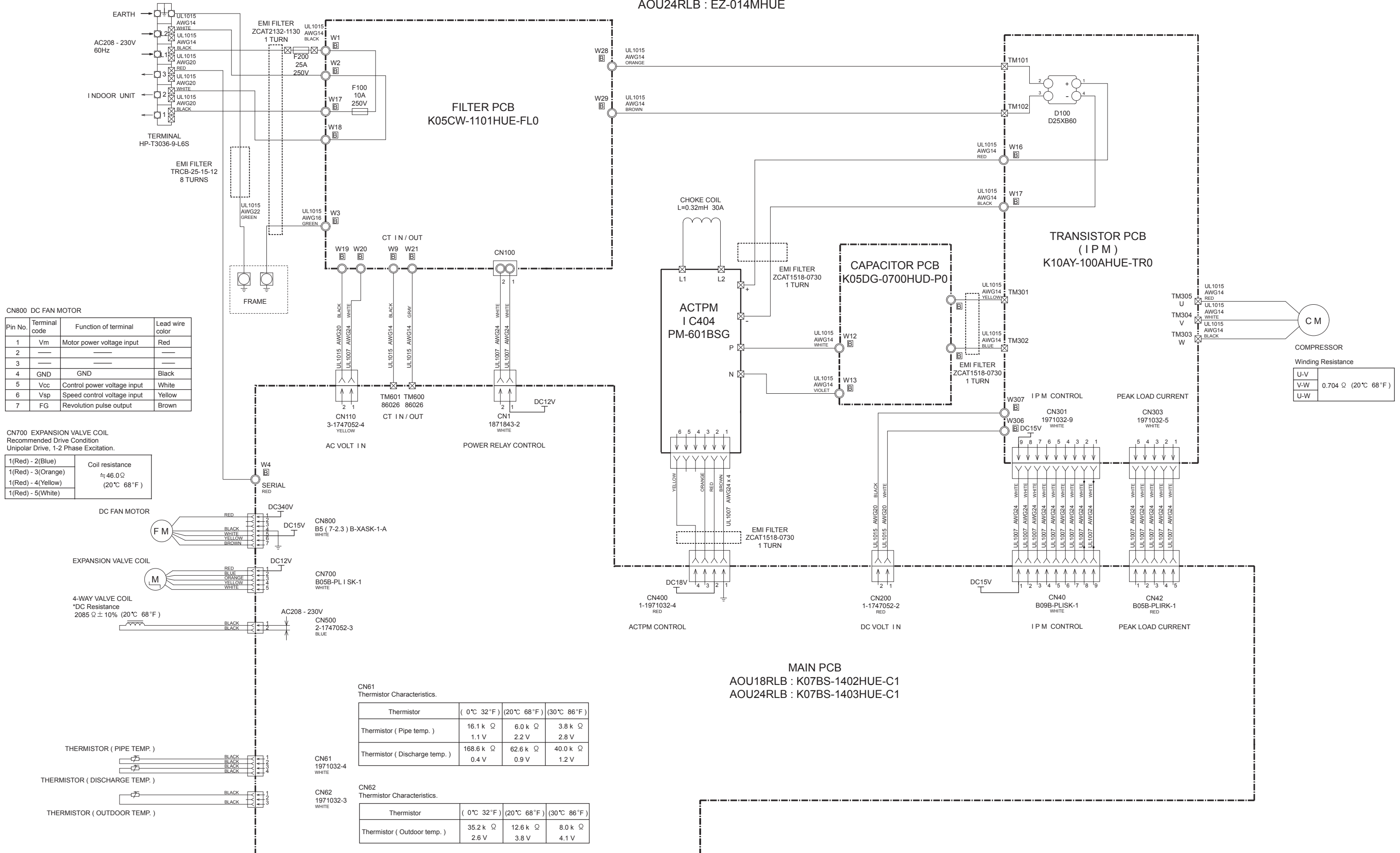
INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
ASU18RLB : EZ-01402HSE
ASU24RLB : EZ-01403HSE



OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
AOU18RLB : EZ-014LHUE
AOU24RLB : EZ-014MHUE



ERROR DETECTION

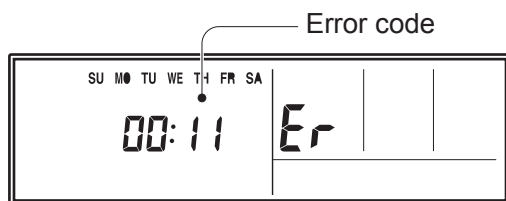
INDOOR UNIT and WIRED REMOTE CONTROL

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 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.

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.)



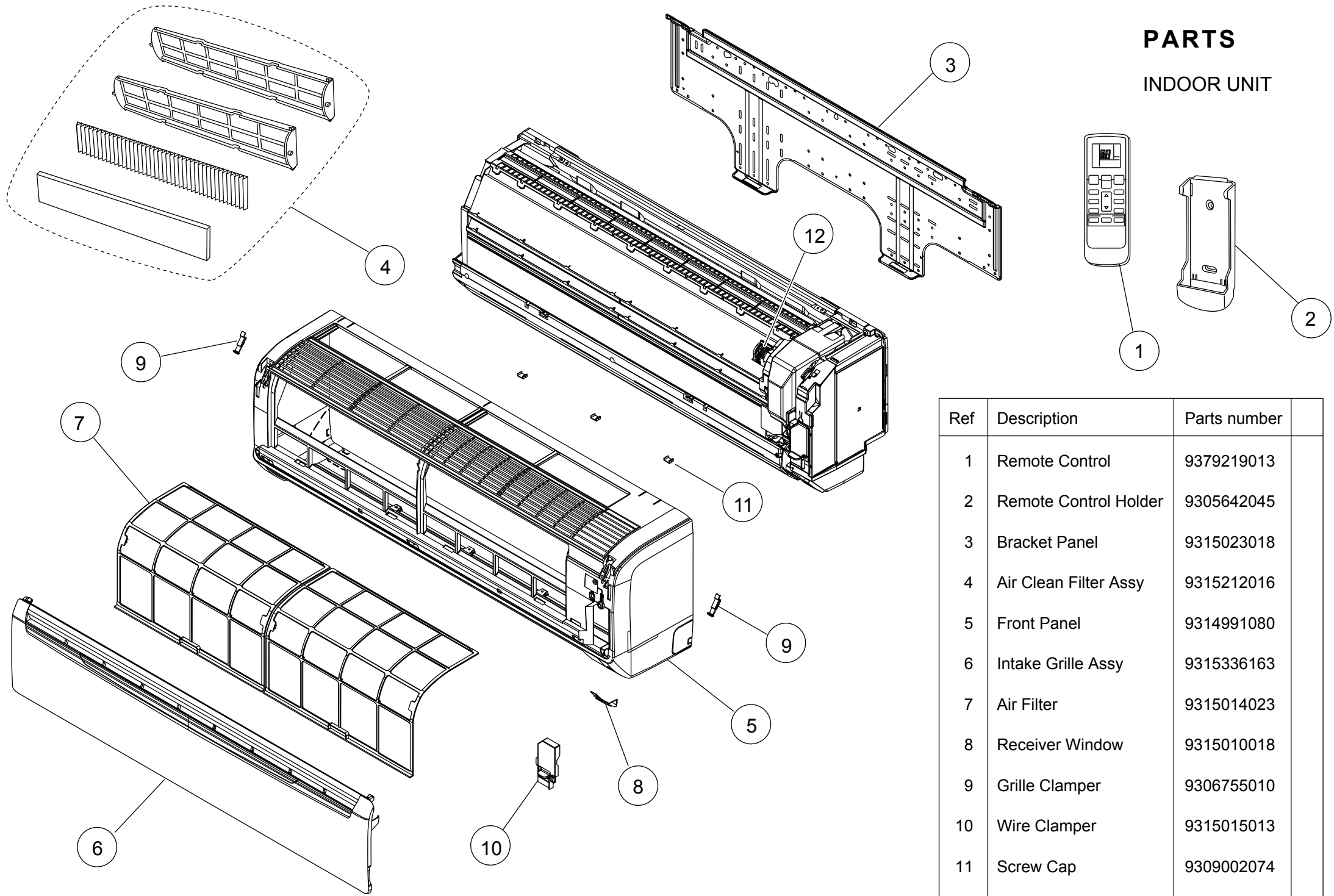
EX. Self-diagnosis

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

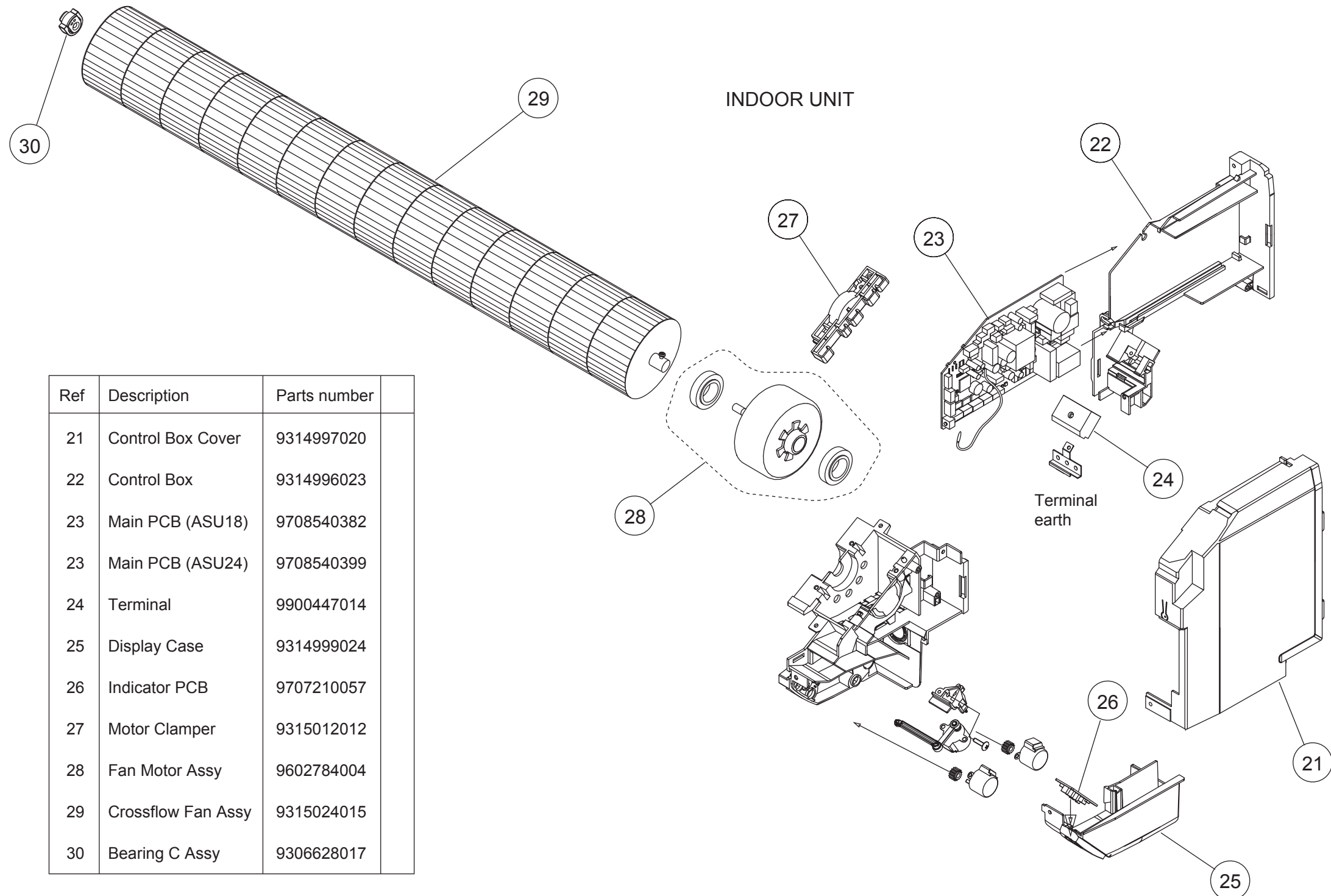
Indoor unit lamps			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (green)		
● (1)	● (1)	◇	11	Serial communication error
● (1)	● (2)	◇	12	Wired remote control communication error
● (1)	● (5)	◇	15	Check run unfinished
● (2)	● (1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
● (2)	● (2)	◇	22	Indoor unit capacity error
● (2)	● (3)	◇	23	Combination error
● (2)	● (4)	◇	24	• Connection unit number error (indoor secondary unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
● (2)	● (7)	◇	27	Primary unit, secondary 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)	◇	50	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

Indoor unit lamps			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (green)		
● (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

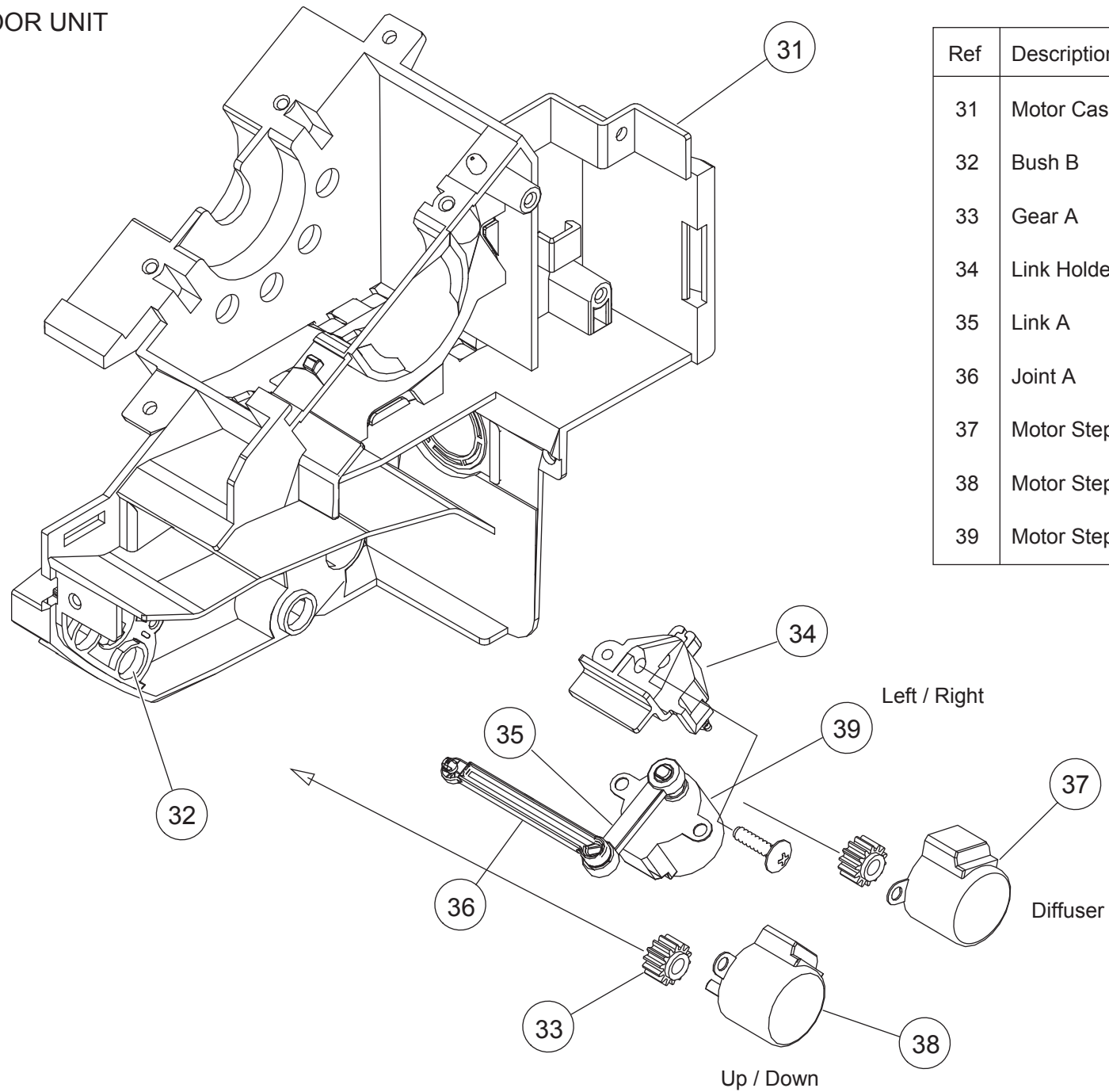


Ref	Description	Parts number	
1	Remote Control	9379219013	
2	Remote Control Holder	9305642045	
3	Bracket Panel	9315023018	
4	Air Clean Filter Assy	9315212016	
5	Front Panel	9314991080	
6	Intake Grille Assy	9315336163	
7	Air Filter	9315014023	
8	Receiver Window	9315010018	
9	Grille Clamper	9306755010	
10	Wire Clamper	9315015013	
11	Screw Cap	9309002074	
12	Room Thermistor Holder	9315252012	



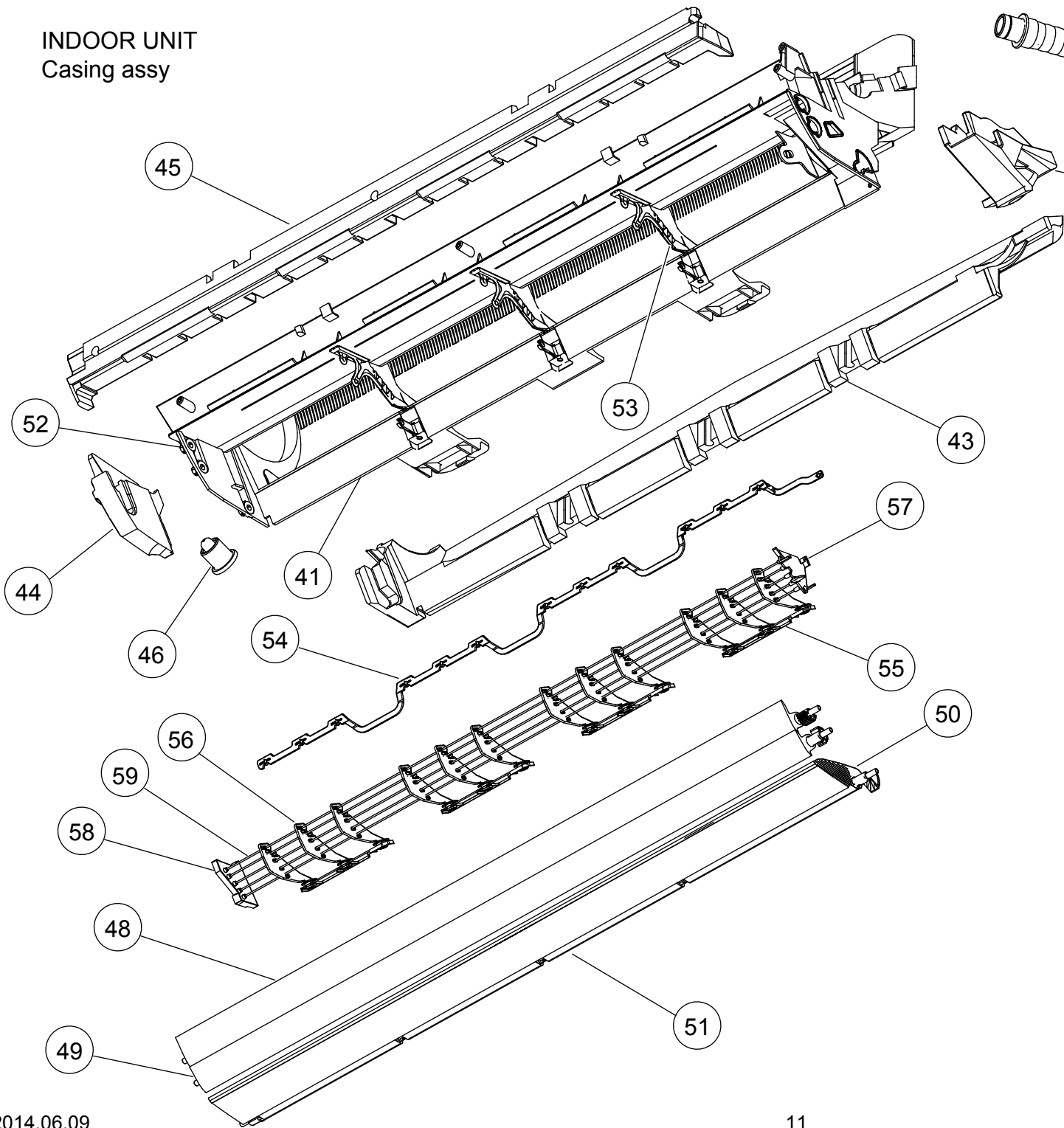
Ref	Description	Parts number
21	Control Box Cover	9314997020
22	Control Box	9314996023
23	Main PCB (ASU18)	9708540382
23	Main PCB (ASU24)	9708540399
24	Terminal	9900447014
25	Display Case	9314999024
26	Indicator PCB	9707210057
27	Motor Clamper	9315012012
28	Fan Motor Assy	9602784004
29	Crossflow Fan Assy	9315024015
30	Bearing C Assy	9306628017

INDOOR UNIT



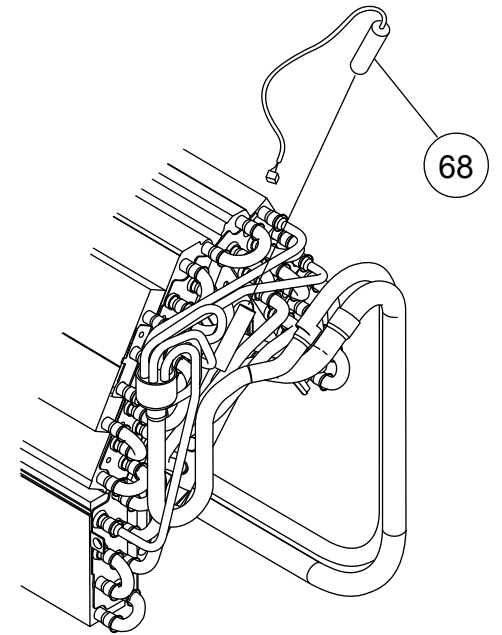
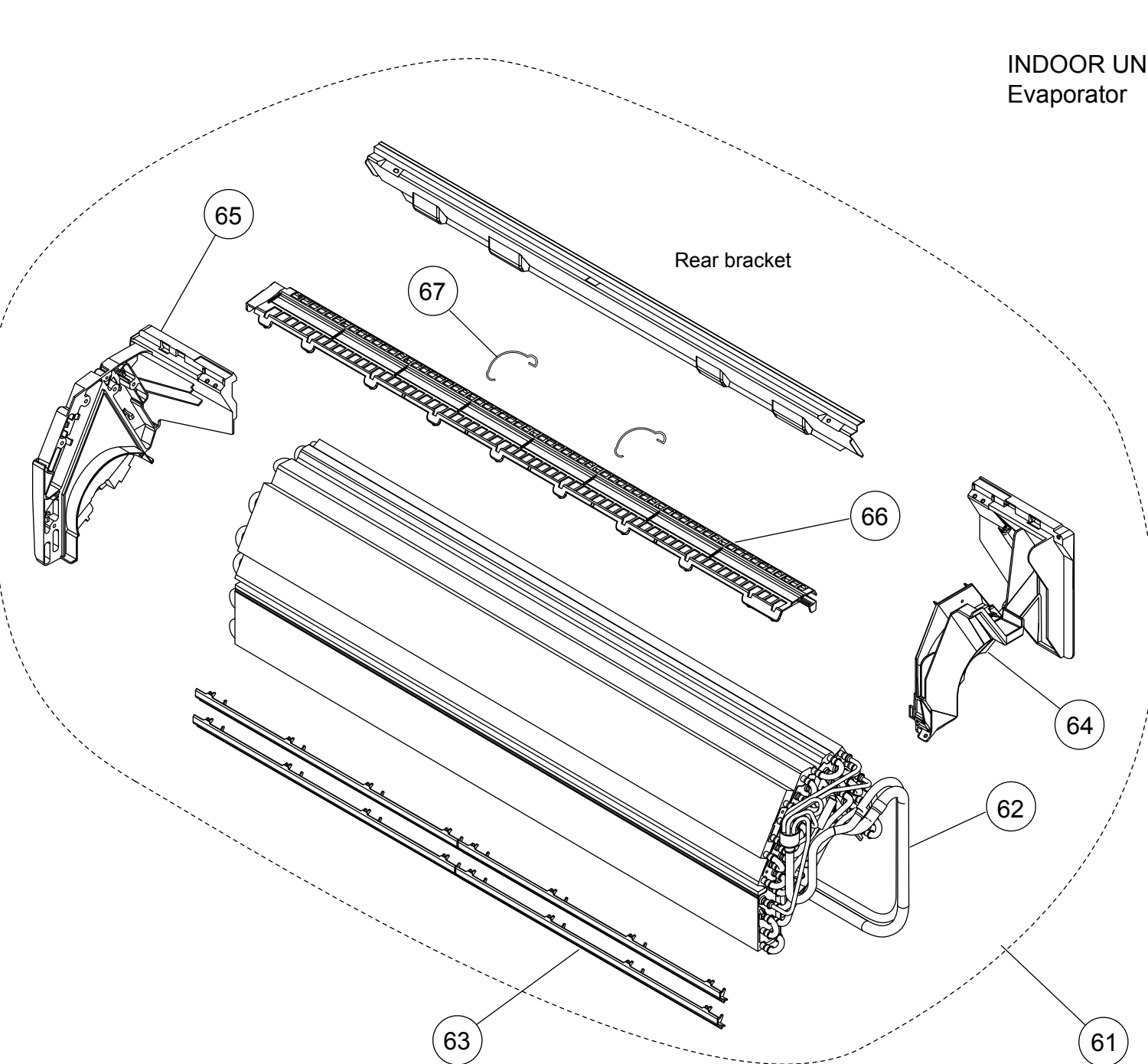
Ref	Description	Parts number	
31	Motor Case	9314998027	
32	Bush B	9312156016	
33	Gear A	9309994003	
34	Link Holder	9315007018	
35	Link A	9315008015	
36	Joint A	9315005014	
37	Motor Step (Red)	9900384029	
38	Motor Step (Green)	9900384036	
39	Motor Step (Blue)	9900139063	

INDOOR UNIT
Casing assy



Ref	Description	Parts number	
41	Casing	9314993015	
42	Casing Cover R	9315018014	
43	Casing Cover B	9315016010	
44	Casing Cover L	9315017017	
45	Casing Cover F	9315019011	
46	Drain Cap	9367677009	
47	Drain Hose Assy	9315769015	
48	Louver U (Upper)	9315000026	
49	Louver Z (Lower)	9315001023	
50	Diffuser U	9315002020	
51	Diffuser Z	9315003027	
52	Bush B	9312156016	
53	Pillar A	9315009012	
55	Spacer D	9315282019	
54	Joint B	9315006011	
56	R and L Louver	9311997016	
57	Fan Guard Holder Right	9315814012	
58	Fan Guard Holder Left	9315815019	
59	Fan Guard	9305751051	
-	Casing Assy	9315331045	

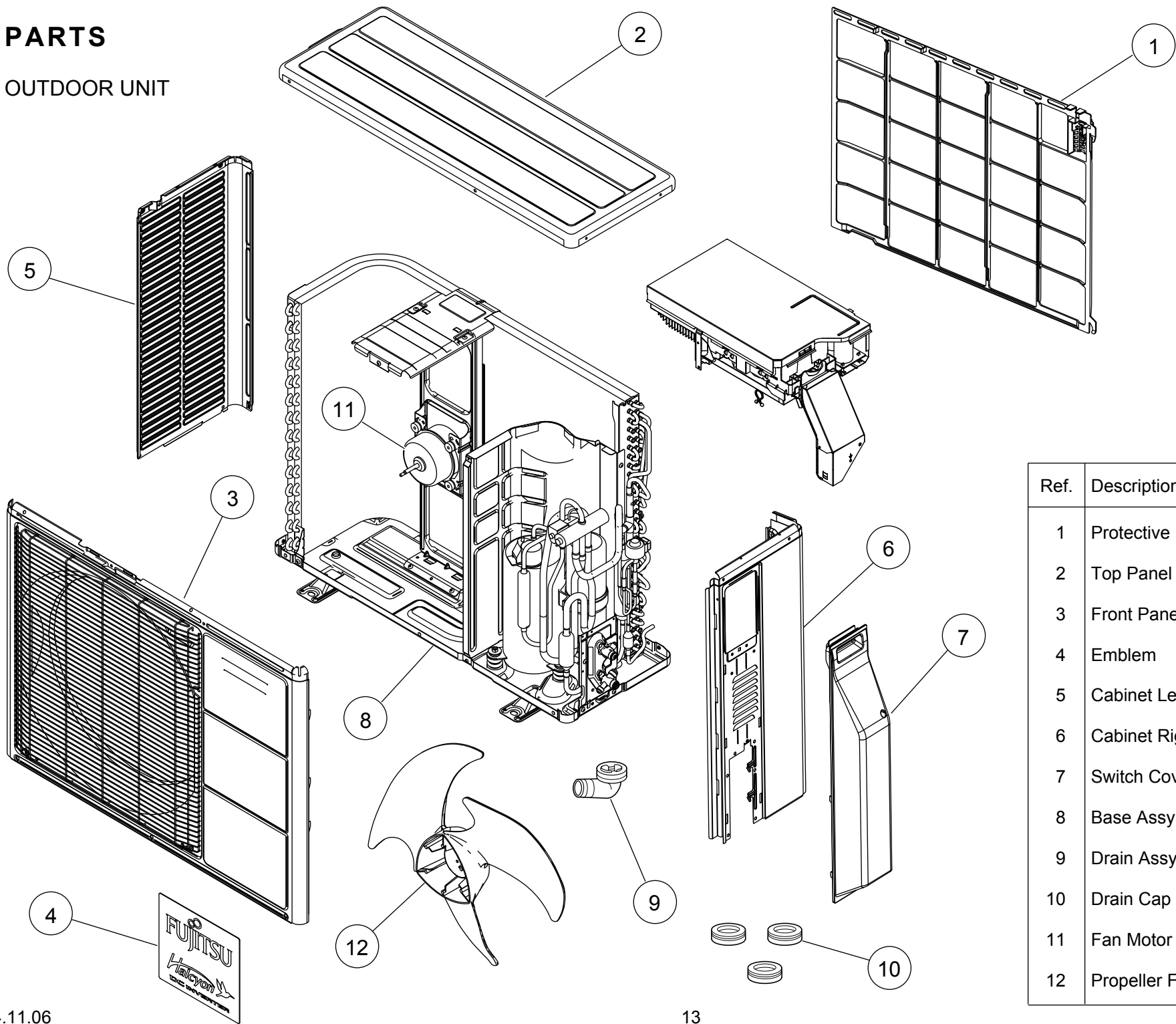
INDOOR UNIT Evaporator



Ref	Description	Parts number	
61	Evaporator Total Assy	9315338181	
62	Connection Pipe Assy	9315355041	
63	Water Seal	9315251015	
64	Evaporator Holder R	9314994012	
65	Evaporator Holder L	9314995019	
66	Filter Guide	9315013019	
67	Filter Guard	9315411013	
68	Pipe Thermistor	9900551018	

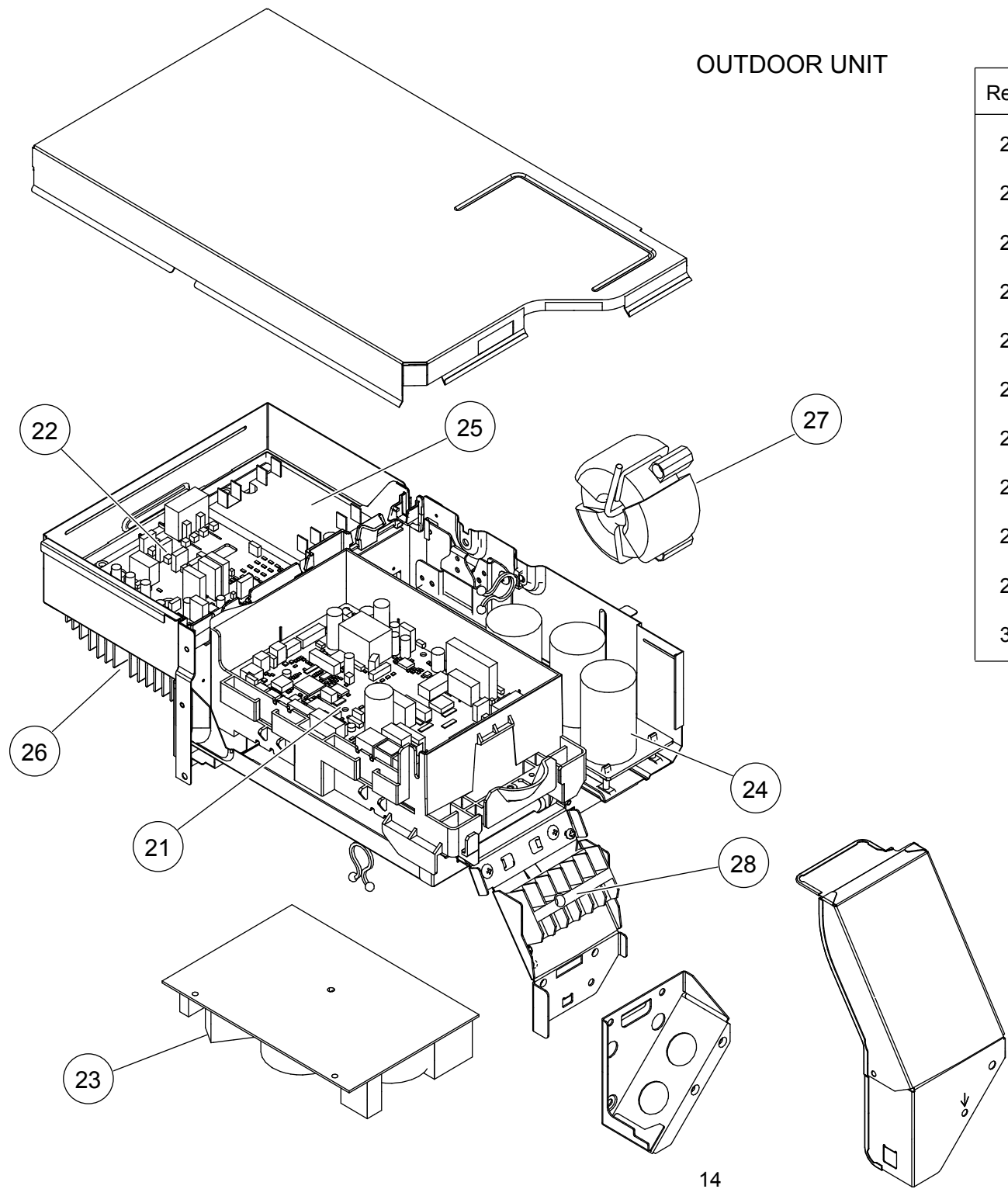
PARTS

OUTDOOR UNIT

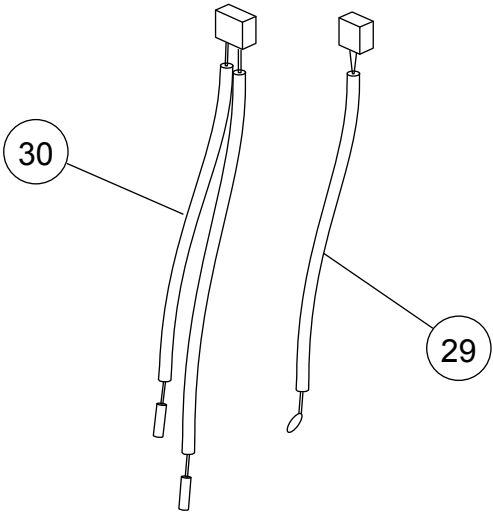


Ref.	Description	Part number	
1	Protective Net	9331640008	
2	Top Panel Assy	9318464023	
3	Front Panel Assy	9318463033	
4	Emblem	9317903011	
5	Cabinet Left Assy	9318461015	
6	Cabinet Right Assy	9316044050	
7	Switch Cover	9317692021	
8	Base Assy	9316885066	
9	Drain Assy	9303029022	
10	Drain Cap	31316624302	
11	Fan Motor	9602724000	
12	Propeller Fan	9313808013	

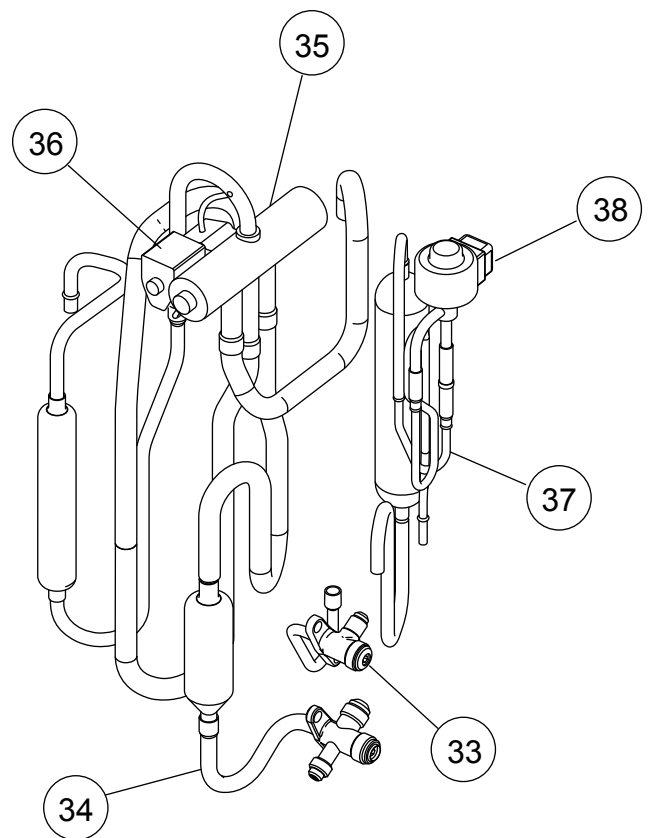
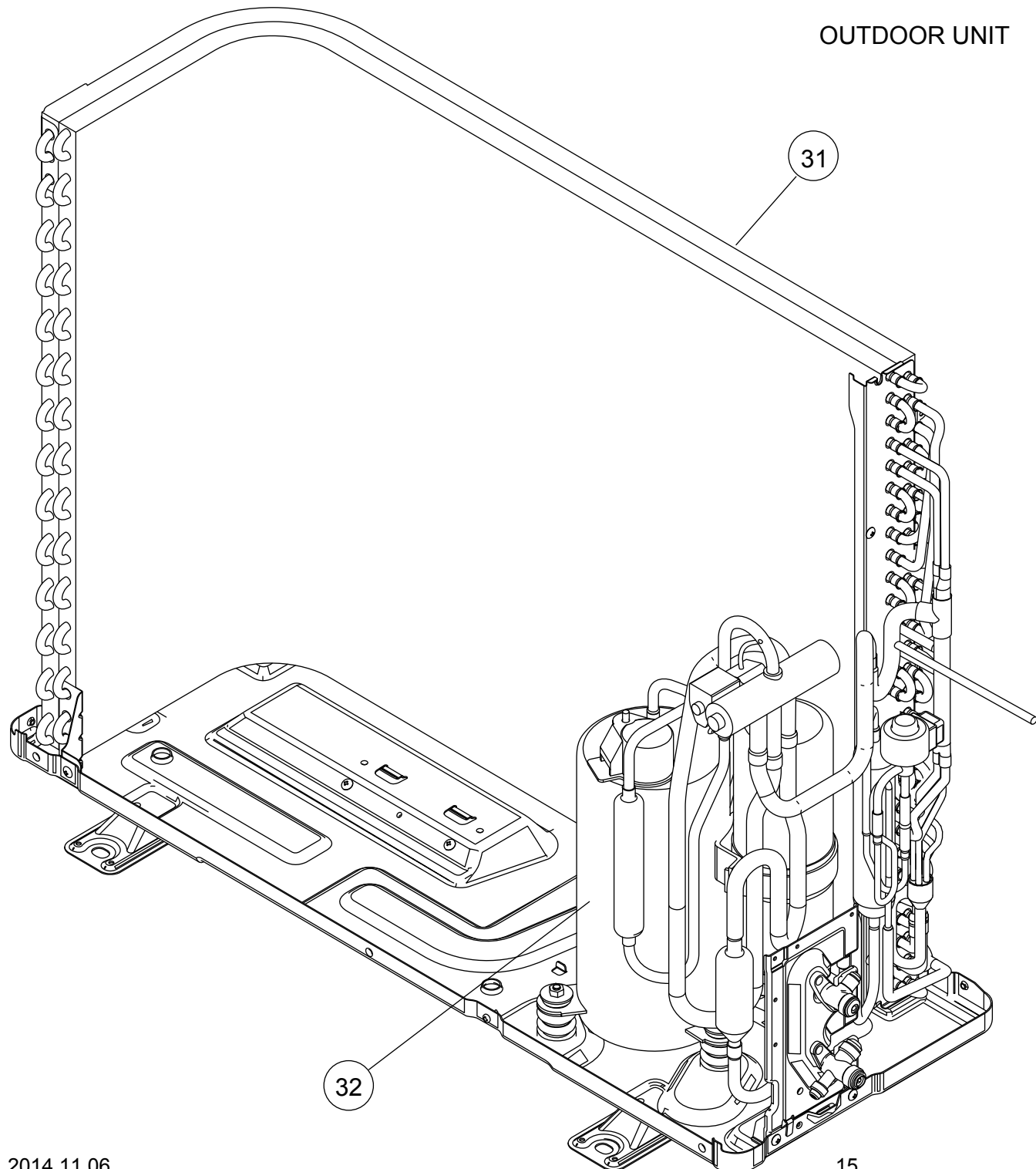
OUTDOOR UNIT



Ref.	Description	Part number	
21	Main PCB (AOU18)	9708511689	
21	Main PCB (AOU24)	9708511696	
22	Transistor PCB	9708646077	
23	Filter PCB	9709217122	
24	Capacitor PCB	9708514017	
25	ACTPM	9707592016	
26	Heatsink	9318614015	
27	Choke Coil	9900223014	
28	Terminal 6P	9900016081	
29	Outdoor Thermistor	9900544041	
30	Thermistor Assy	9900648008	



OUTDOOR UNIT

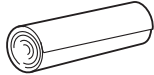


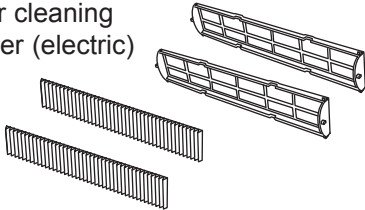
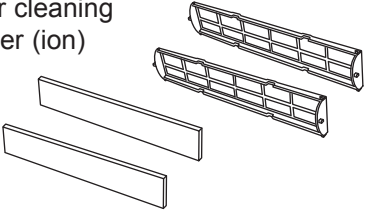


Ref.	Description	Part number	
31	Condenser Total Assy	9317089128	
32	Compressor Assy	9318334005	
33	2-way Valve Sub Assy	9317345019	
34	3-way Valve Sub Assy	9317109062	
35	4-way Valve Assy	9318457018	
36	Solenoid	9970110023	
37	Pulse Motor Valve Assy	9315587046	
38	Expansion Valve Coil	9970095030	

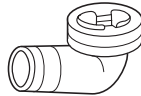
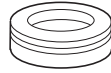
ACCESSORIES

INDOOR UNIT

Name and Shape	Part number
Wall hook bracket 	9315023018
Remote control 	9314990212
Remote control holder 	9305642045
Battery (penlight) 	0600185541
Insulation (Drain hose) 	9361756007

Name and Shape	Part number
Cloth tape 	9310519004
Tapping screw (big) 	0700076046
Tapping screw (small) 	0700019036
Air cleaning filter (electric) 	UTR-FA13-1
Air cleaning filter (ion) 	UTR-FA13-2

OUTDOOR UNIT

Name and Shape	Part number
Drain assy 	9303029022
Drain cap 	313166024302

1410G4387