

SERVICE MANUAL



Indoor unit	Outdoor unit
RSG24LFCC	ROG24LFCC

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		RSG24LFCC
OUTDOOR UNIT		ROG24LFCC
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 m3/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, 6 pole, 3 phase, DC inverter motor, Rotary
DISCRIMINATION		N-SF17ND1A
WEIGHT WITH OIL		10.6 kg
PRECHARGED REFRIGERANT		1,800 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe length 15 m	1,800 g
	30 m	2,100 g
ADDITIONAL CHARGE		20 g/m
MAXIMUM HEIGHT DIFFERENCE		15 m

DIMENSIONS

INDOOR UNIT	H x W x D	320 x 998 x 238 mm
OUTDOOR UNIT	H x W x D	620 x 790 x 290 mm

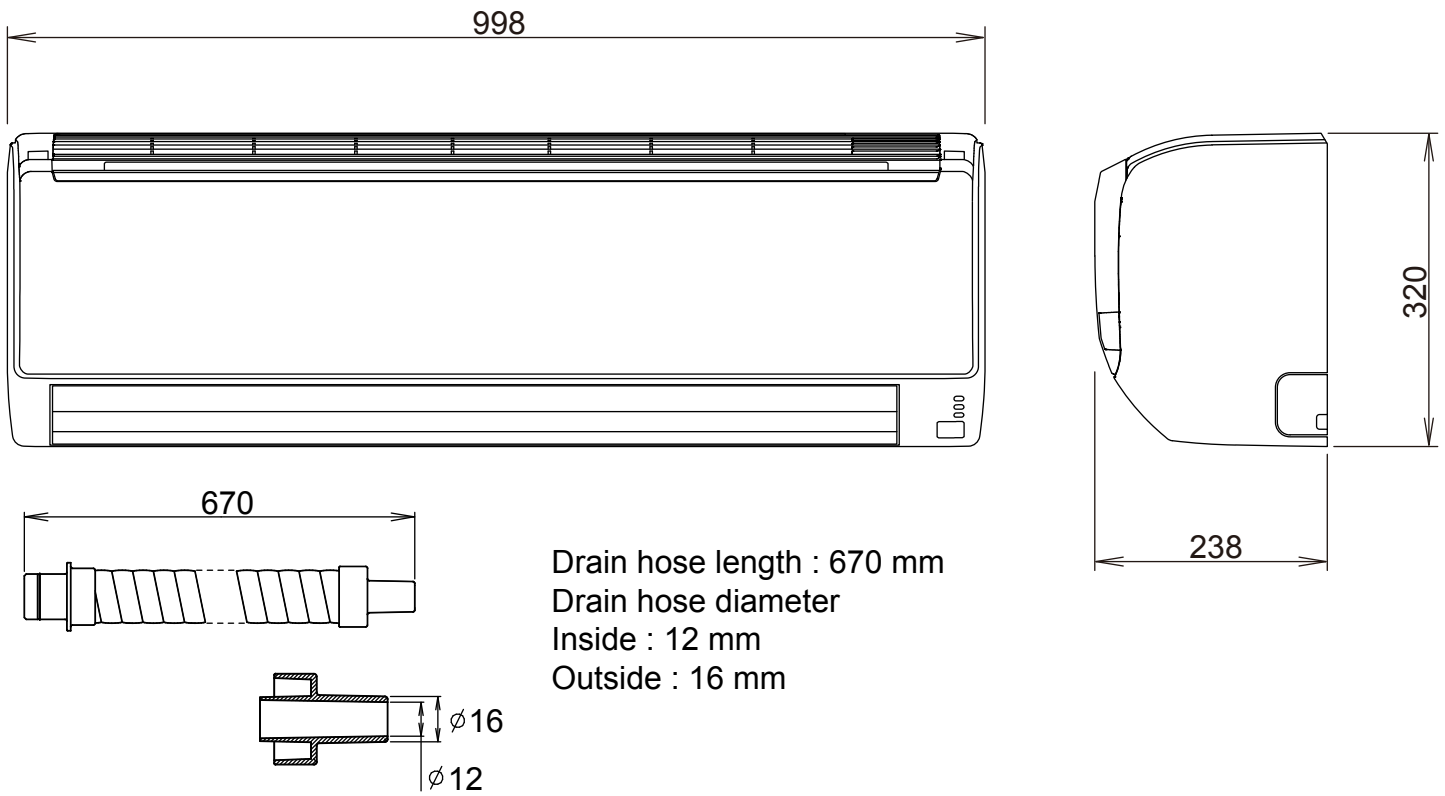
WEIGHT

INDOOR UNIT	Shipping / Net	18 kg / 14 kg
OUTDOOR UNIT	Shipping / Net	45 kg / 41 kg

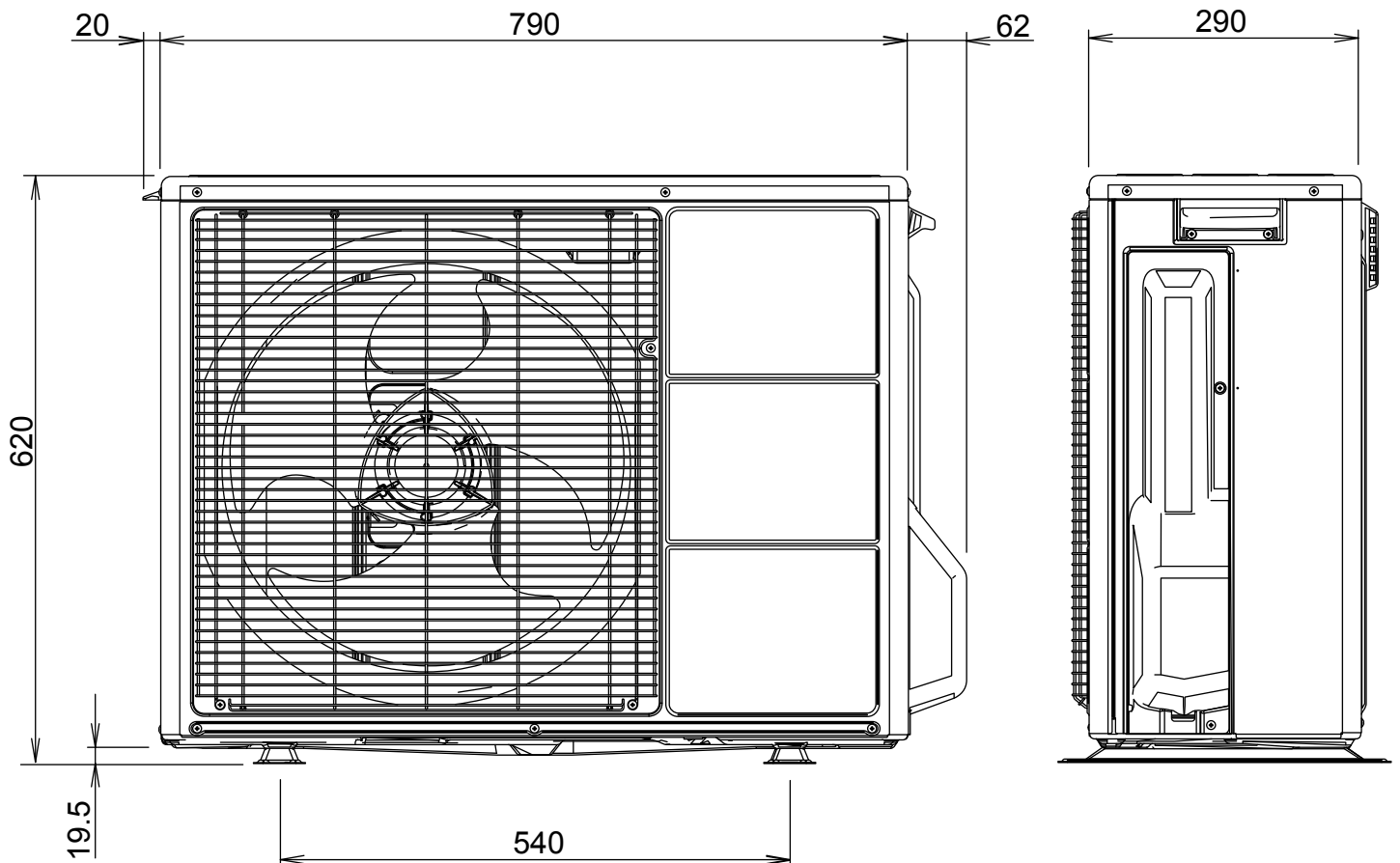
DIMENSIONS

Unit : mm

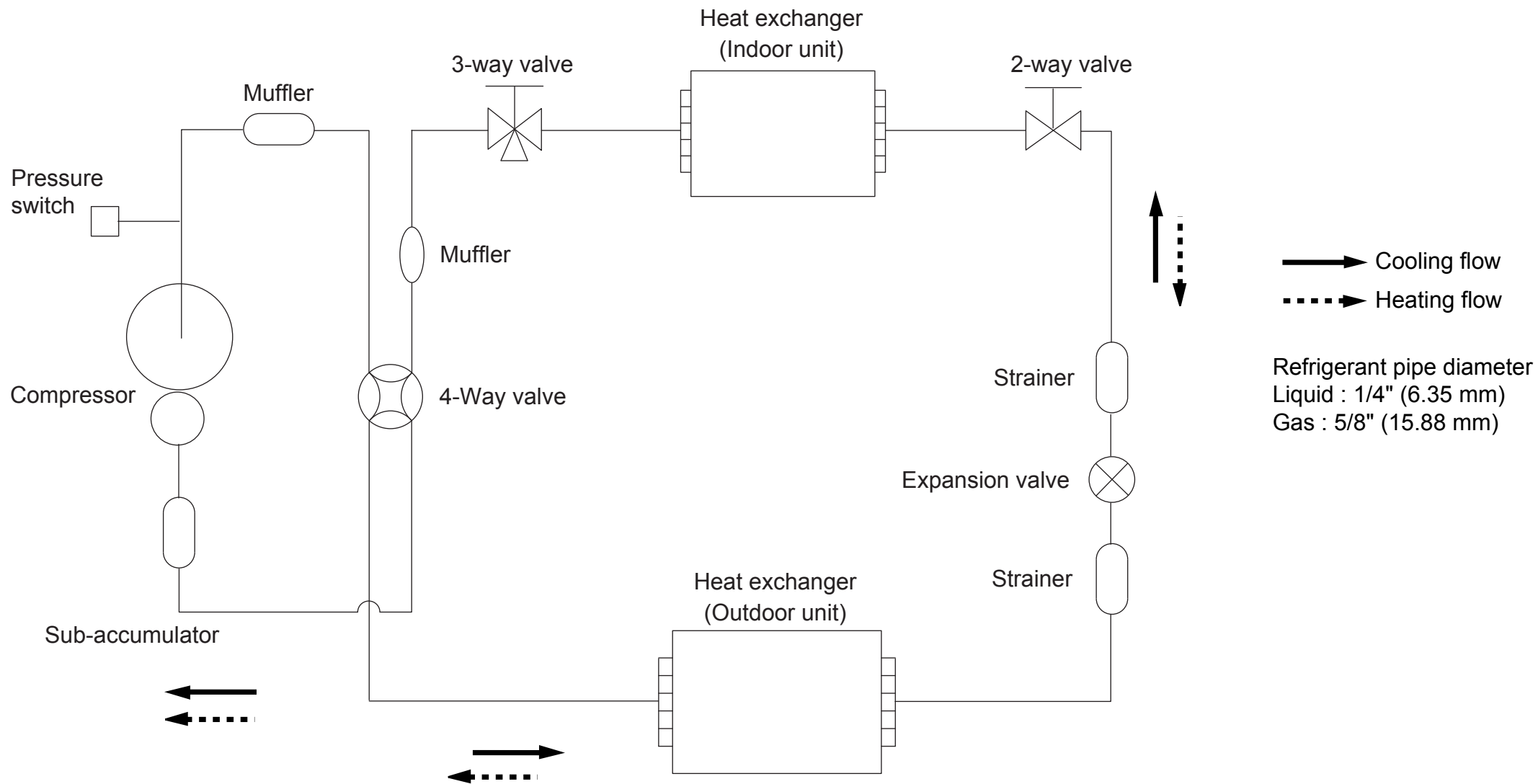
INDOOR UNIT



OUTDOOR UNIT

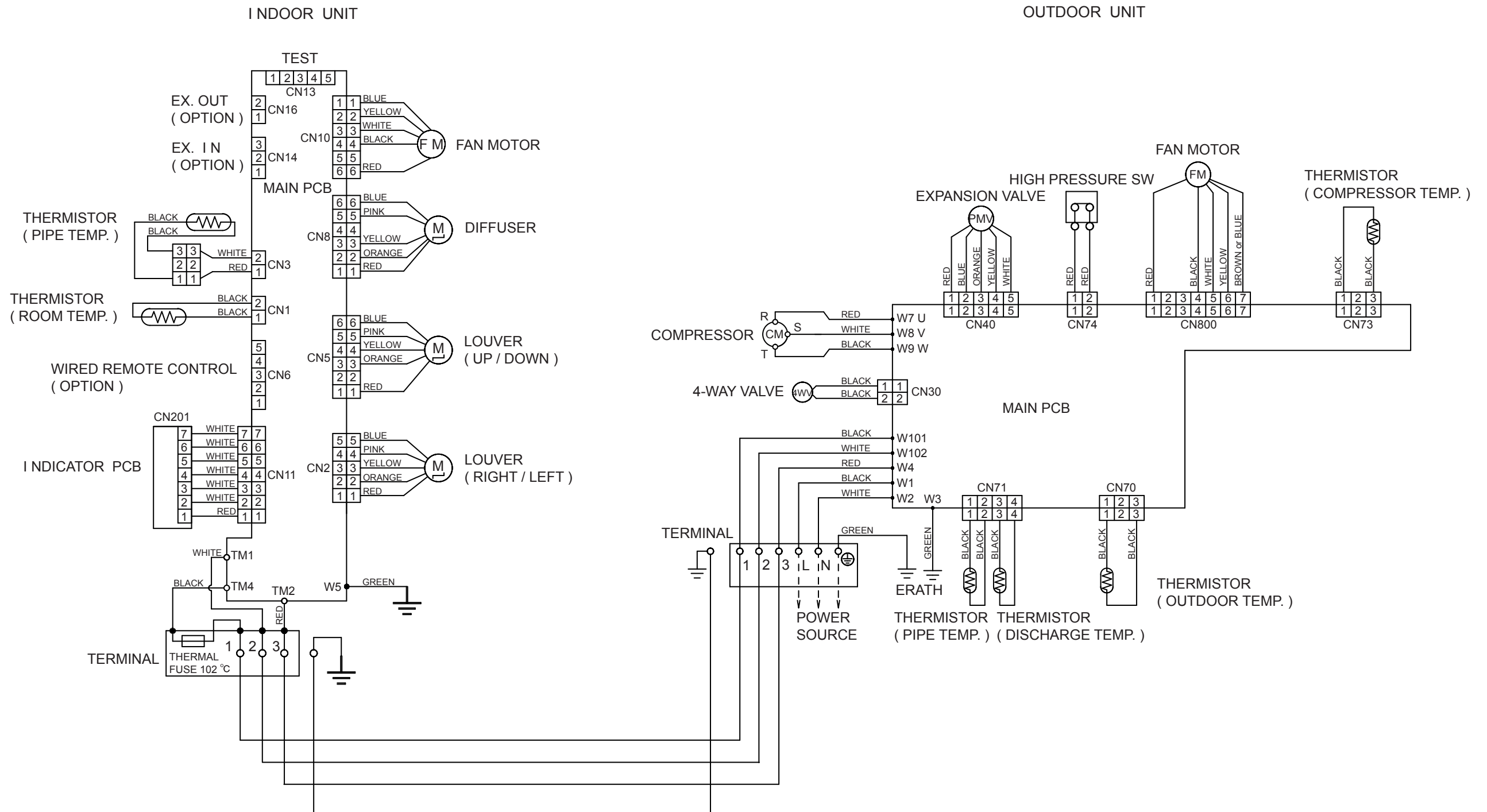


REFRIGERANT SYSTEM DIAGRAM



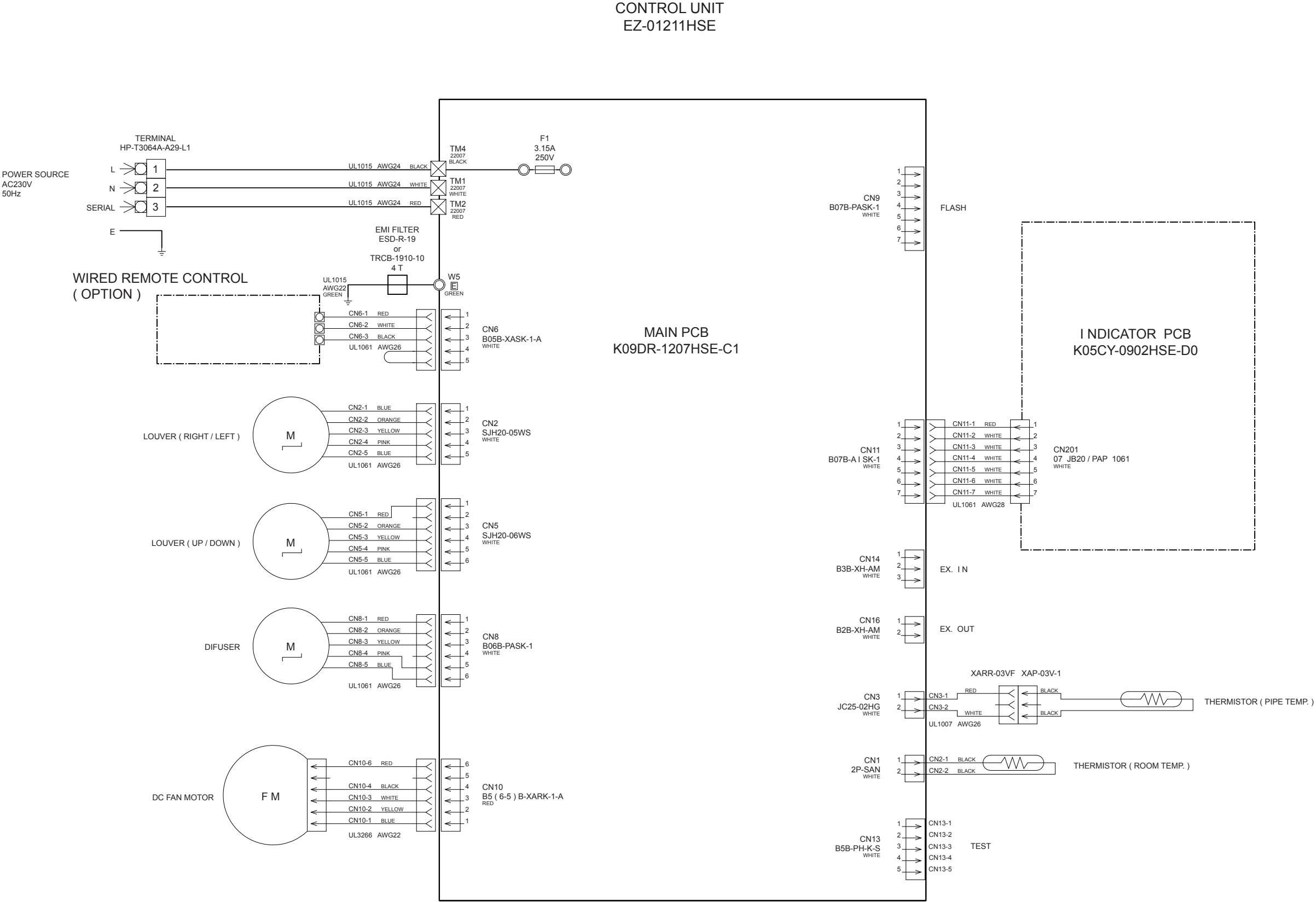
CIRCUIT DIAGRAM

Models : RSG24LFCC / ROG24LFCC

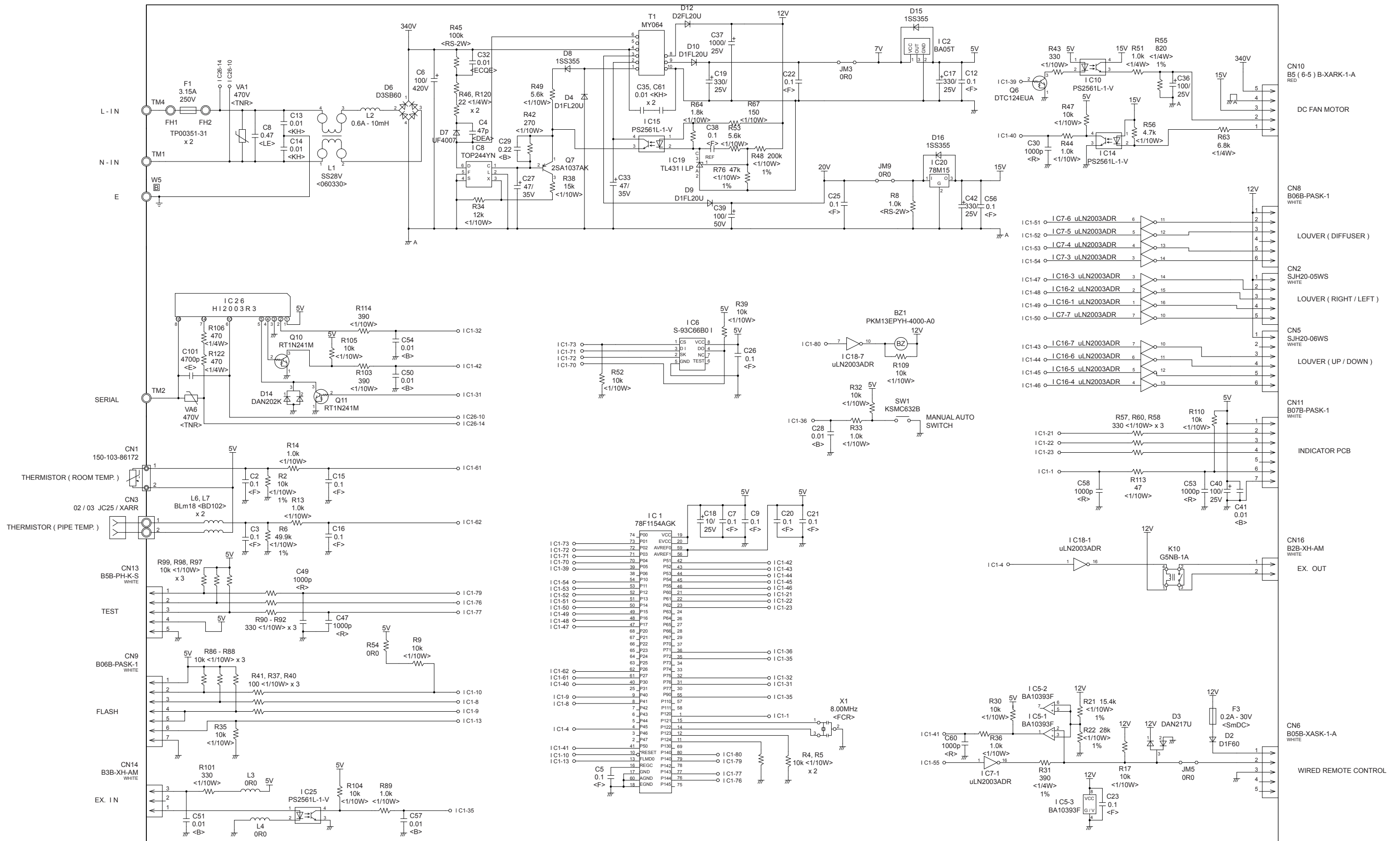


INDOOR PRINTED CIRCUIT BOARD
CIRCUIT DIAGRAM

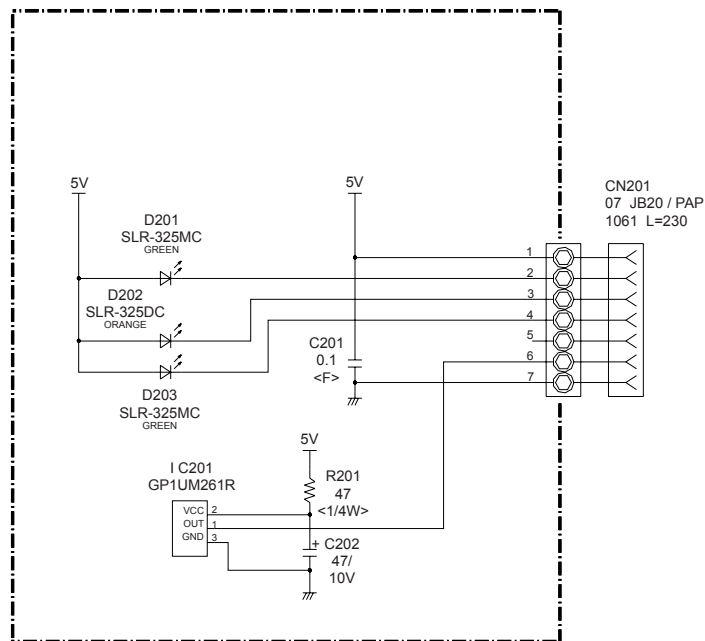
Model : RSG24LFCC



MAIN PCB
K09DR-1207HSE-C



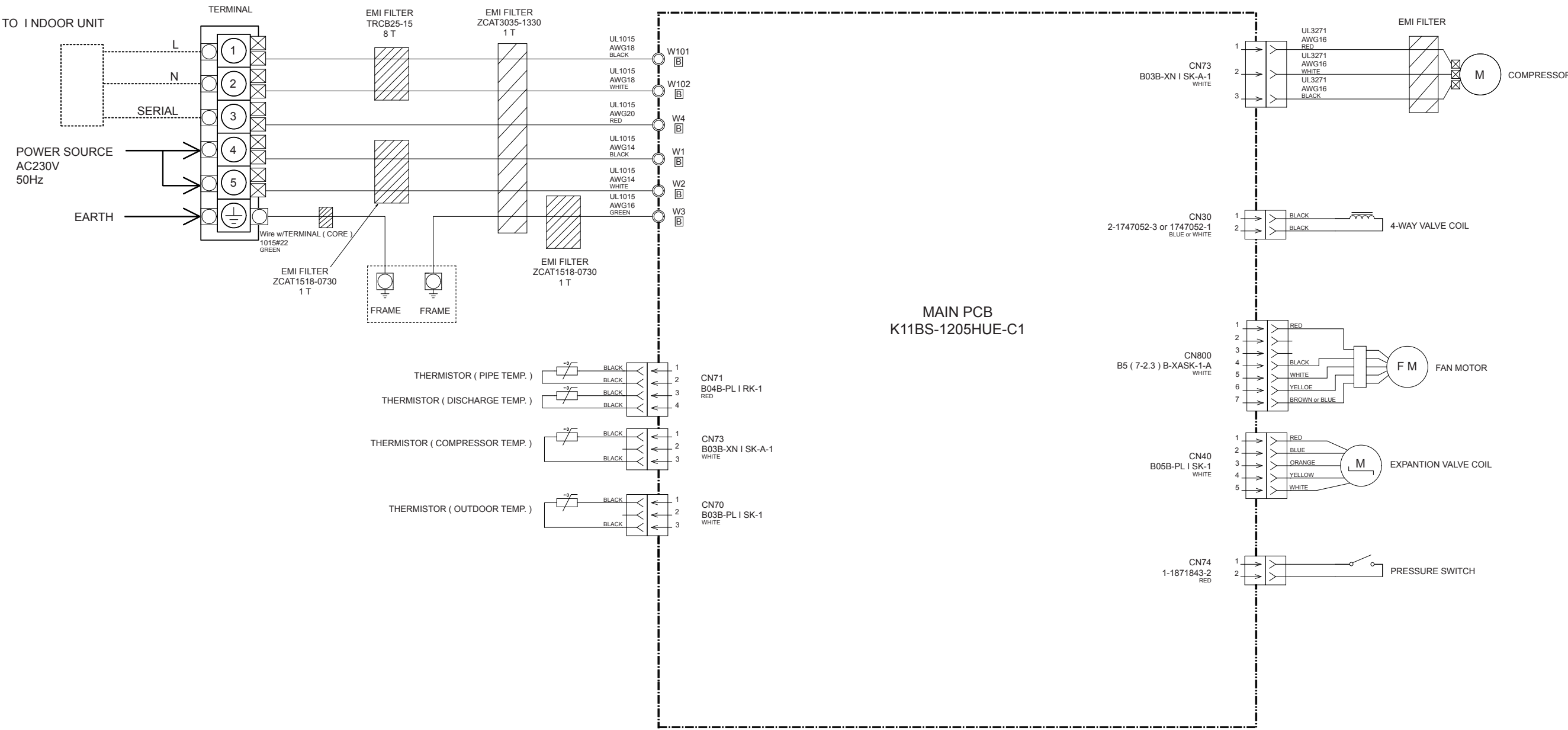
I NDICATOR PCB
K05CY-0902HSE-D0



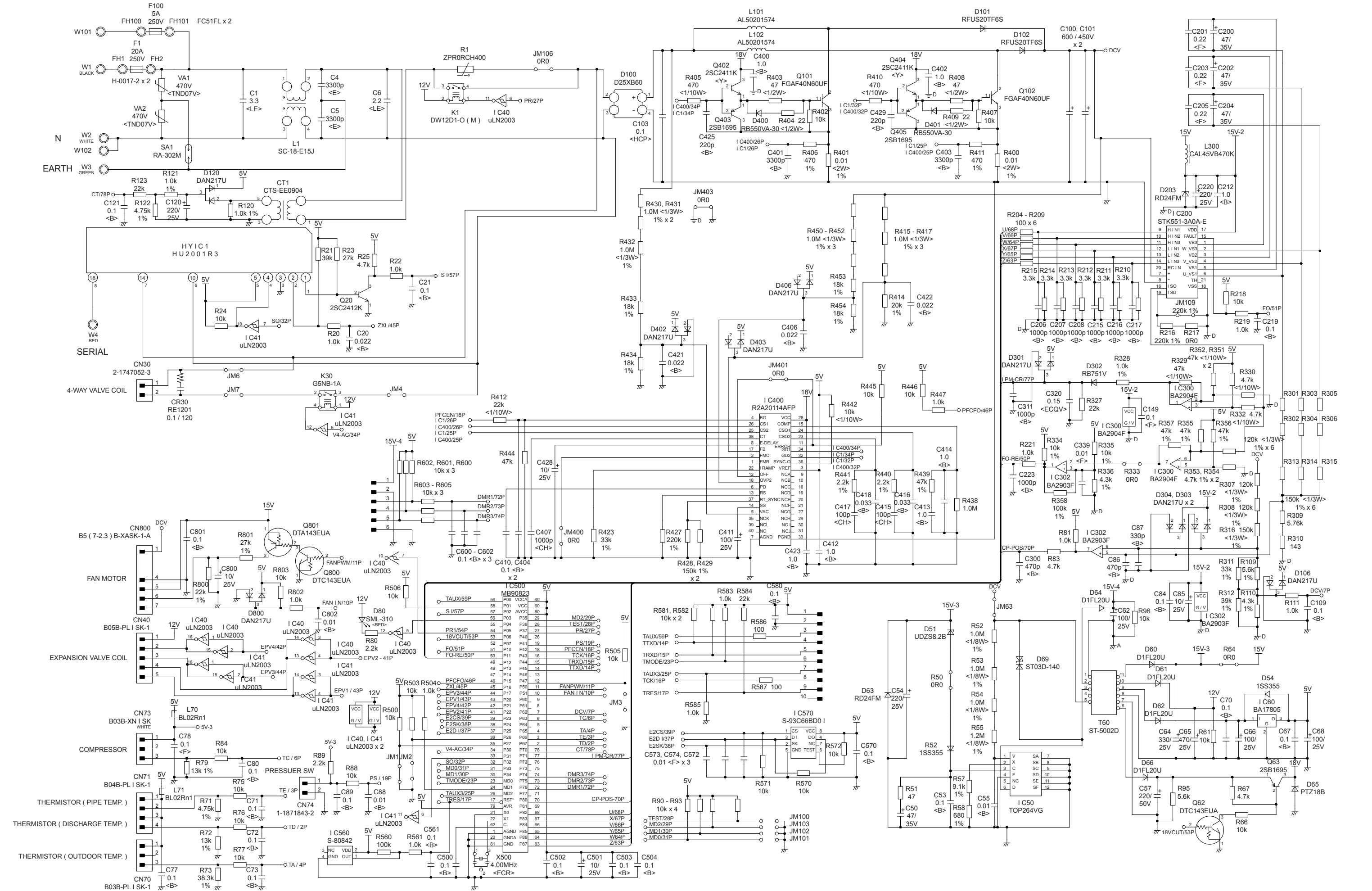
OUTDOOR PRINTED CIRCUIT BOARD
CIRCUIT DIAGRAM

Model : ROG24LFCC

INVERTER ASSEMBLY
EZ-012YHUE



MAIN PCB
K11BS-1205HUE-C1



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

ERROR DETECTION

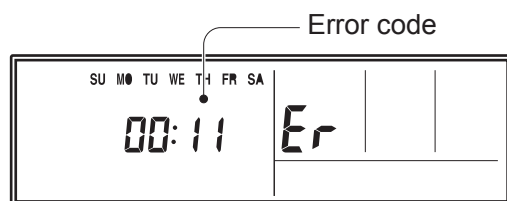
INDOOR UNIT and WIRED REMOTE CONTROL

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.

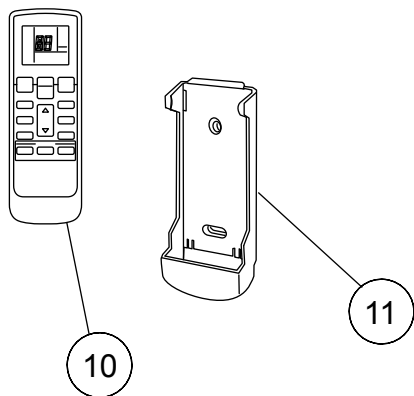
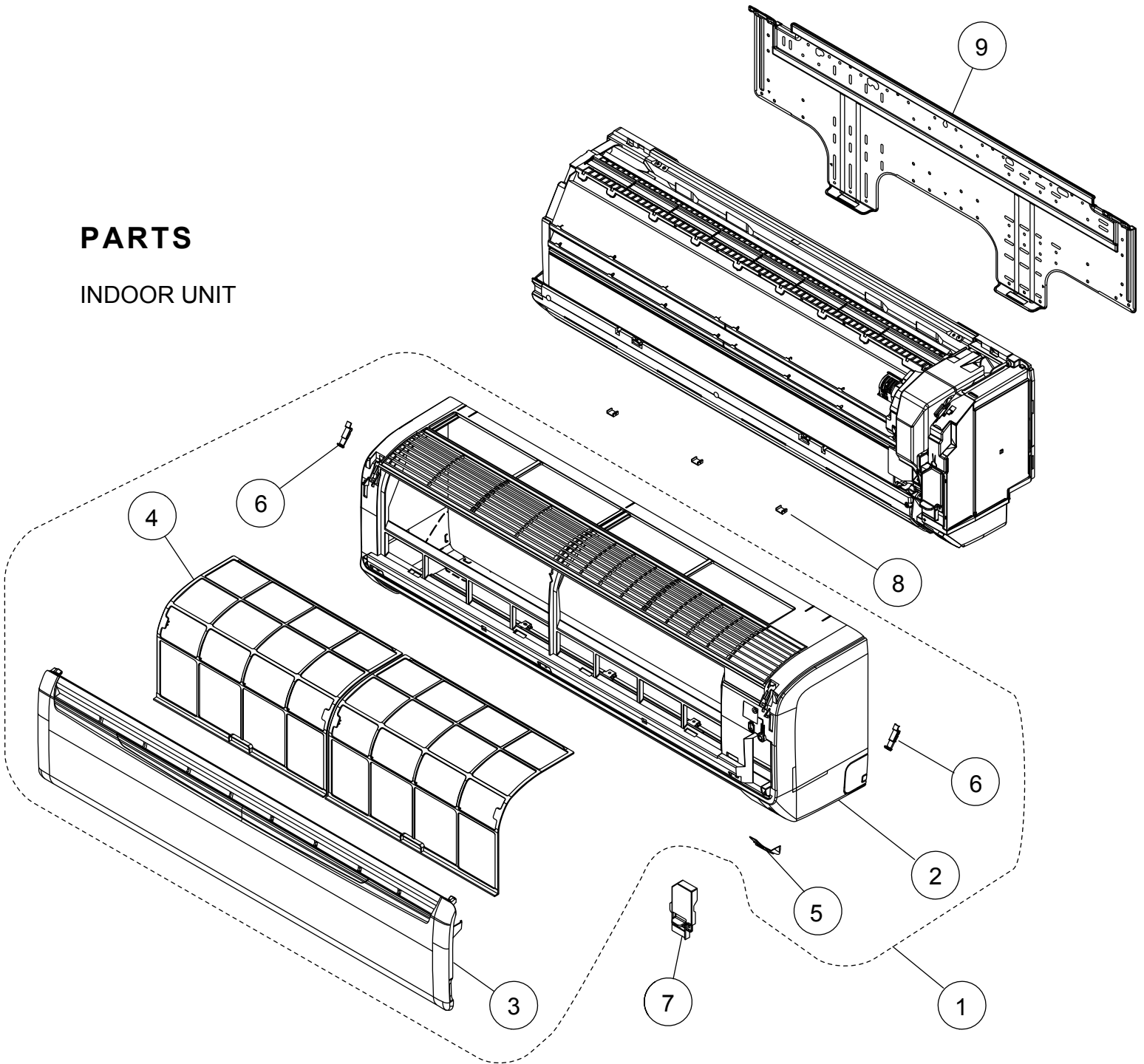
If an error occurs, the following display will be shown. ("Er" will appear in the set room temperature display.)



EX. Self-diagnosis

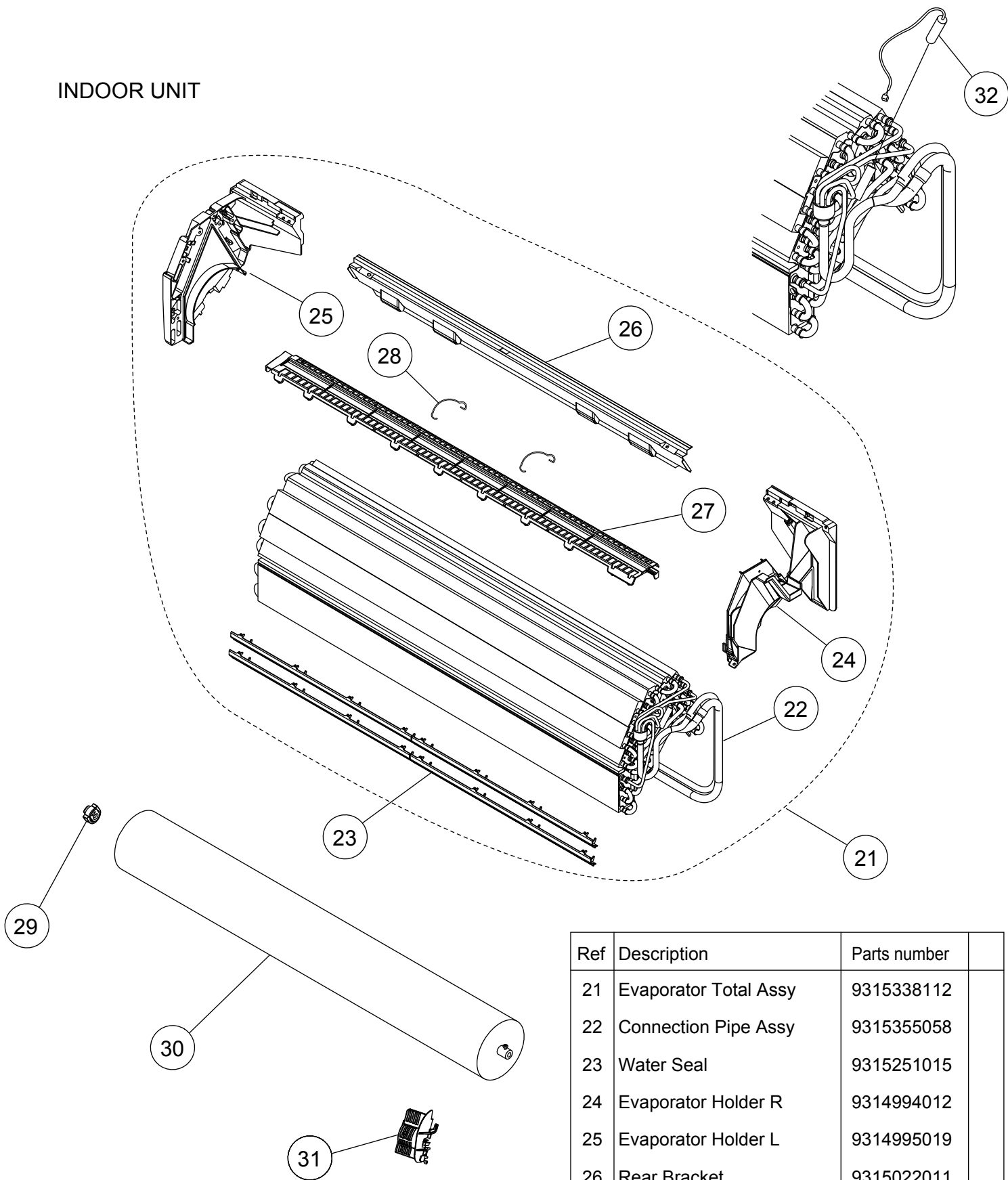
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (1)	● (1)	◇	11	Serial communication error
● (1)	● (2)	◇	12	Wired remote control communication error
● (1)	● (5)	◇	15	Check run unfinished
● (2)	● (1)	◇	21	Unit number or Refrigerant circuit 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



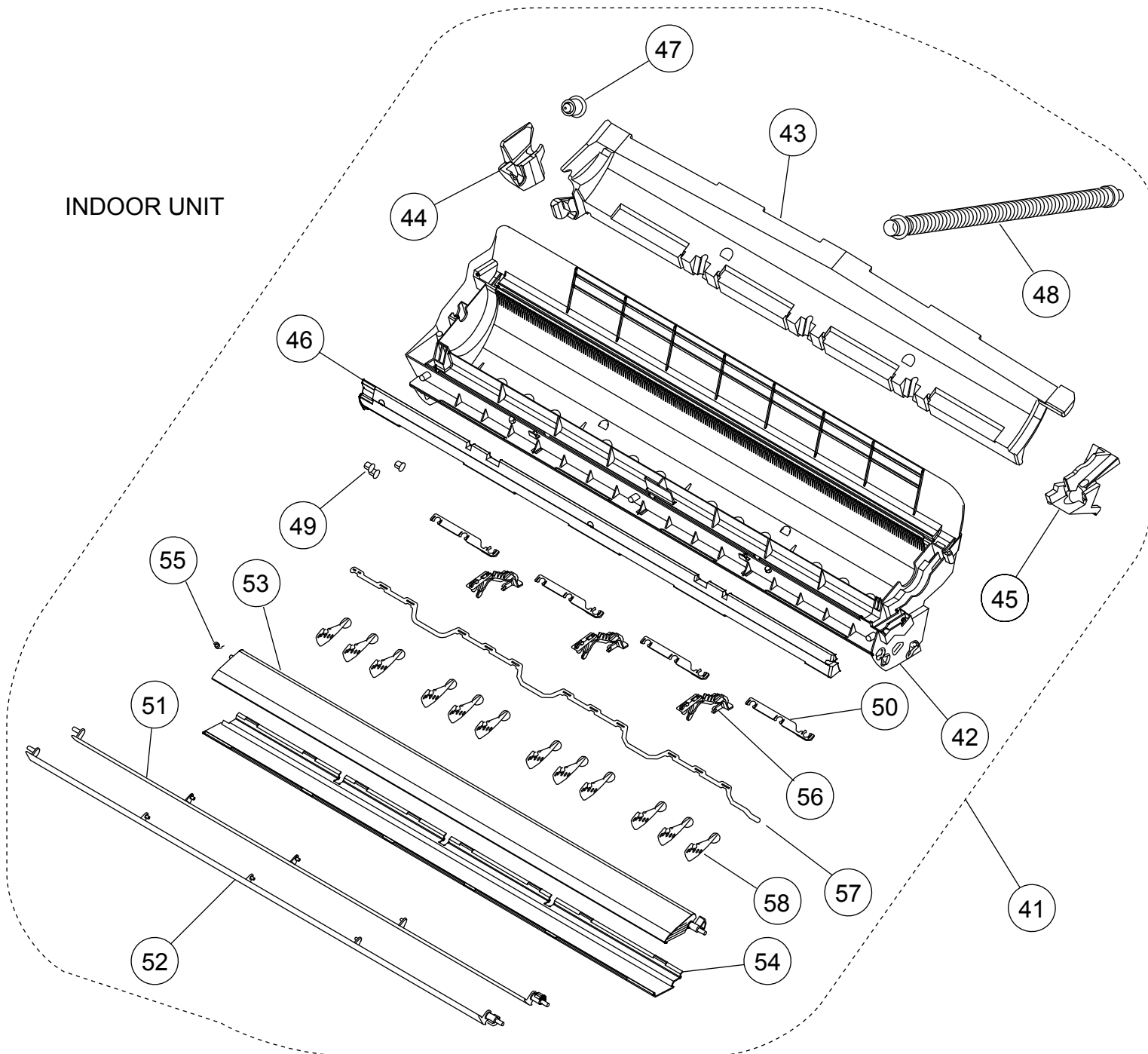
Ref	Description	Parts number	
1	Front Panel Total Assy	9318738025	
2	Front Panel	9314991080	
3	Intake Grille Assy	9385985063	
4	Air Filter	9315014016	
5	Receiver Window	9315010018	
6	Clamper Grille	9306755010	
7	Wire Clamper	9315015013	
8	Cap (Screw)	9309002050	
9	Bracket Panel	9315023018	
10	Remote 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

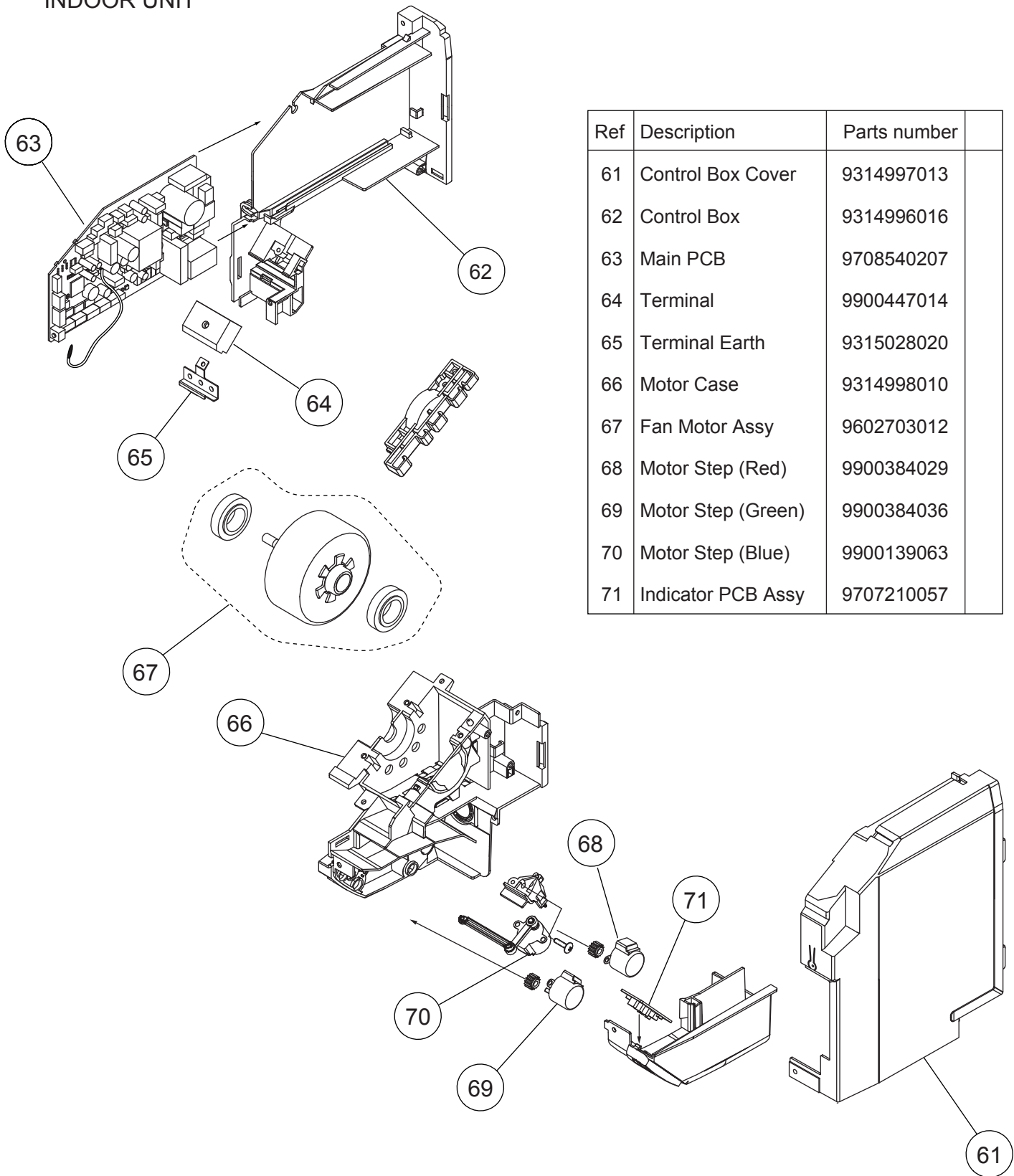
INDOOR UNIT



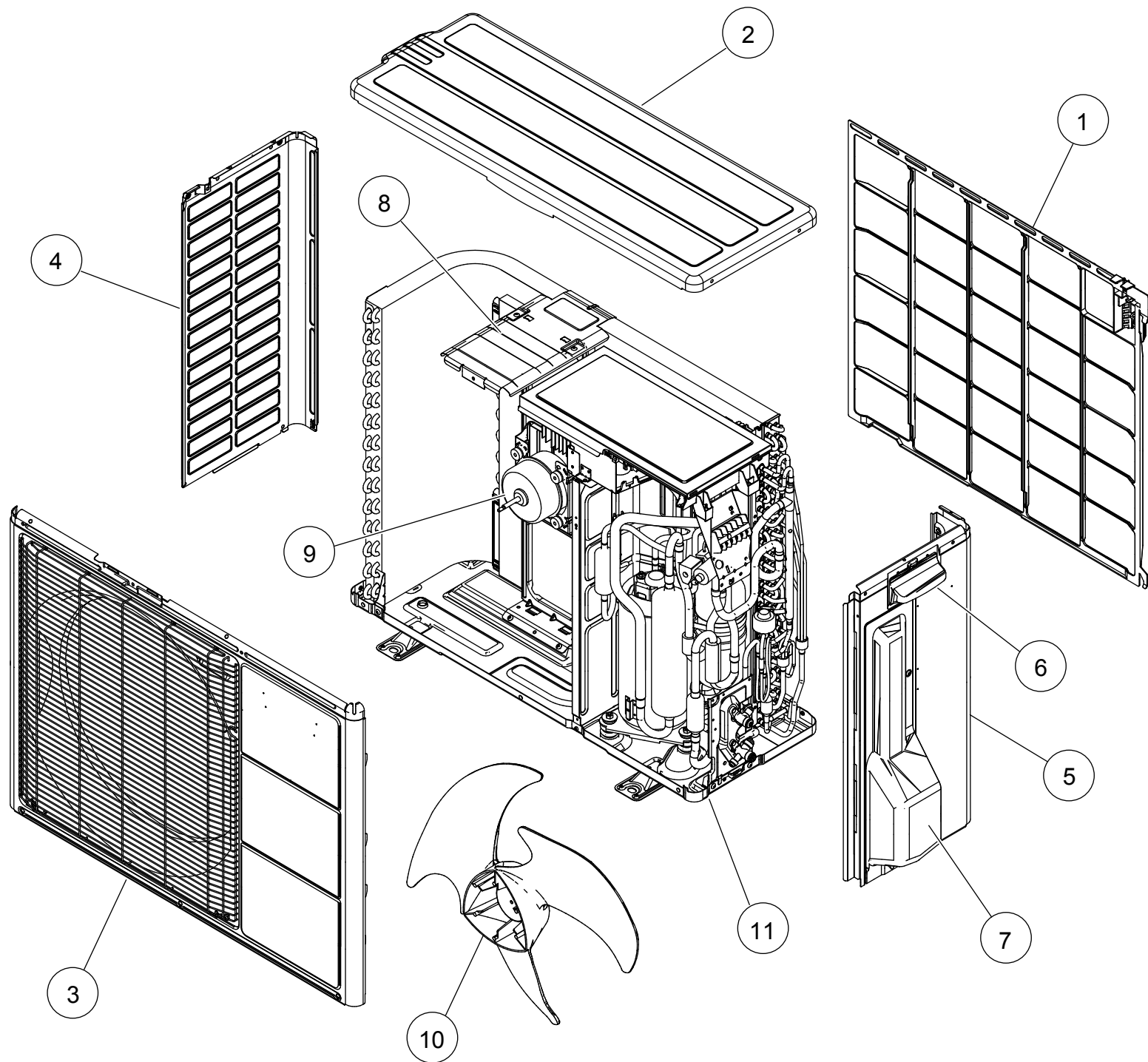
Ref	Description	Parts number	
41	Casing Assy	9315331045	
42	Casing	9314993015	
43	Casing Cover B	9315016010	
44	Casing Cover L	9315017017	
45	Casing Cover R	9315018014	
46	Casing Cover F	9315019011	
47	Drain Cap	9367677009	
48	Drain Hose Assy	9315769015	
49	Bush B	9312156016	
50	Spacer B	9312441013	

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



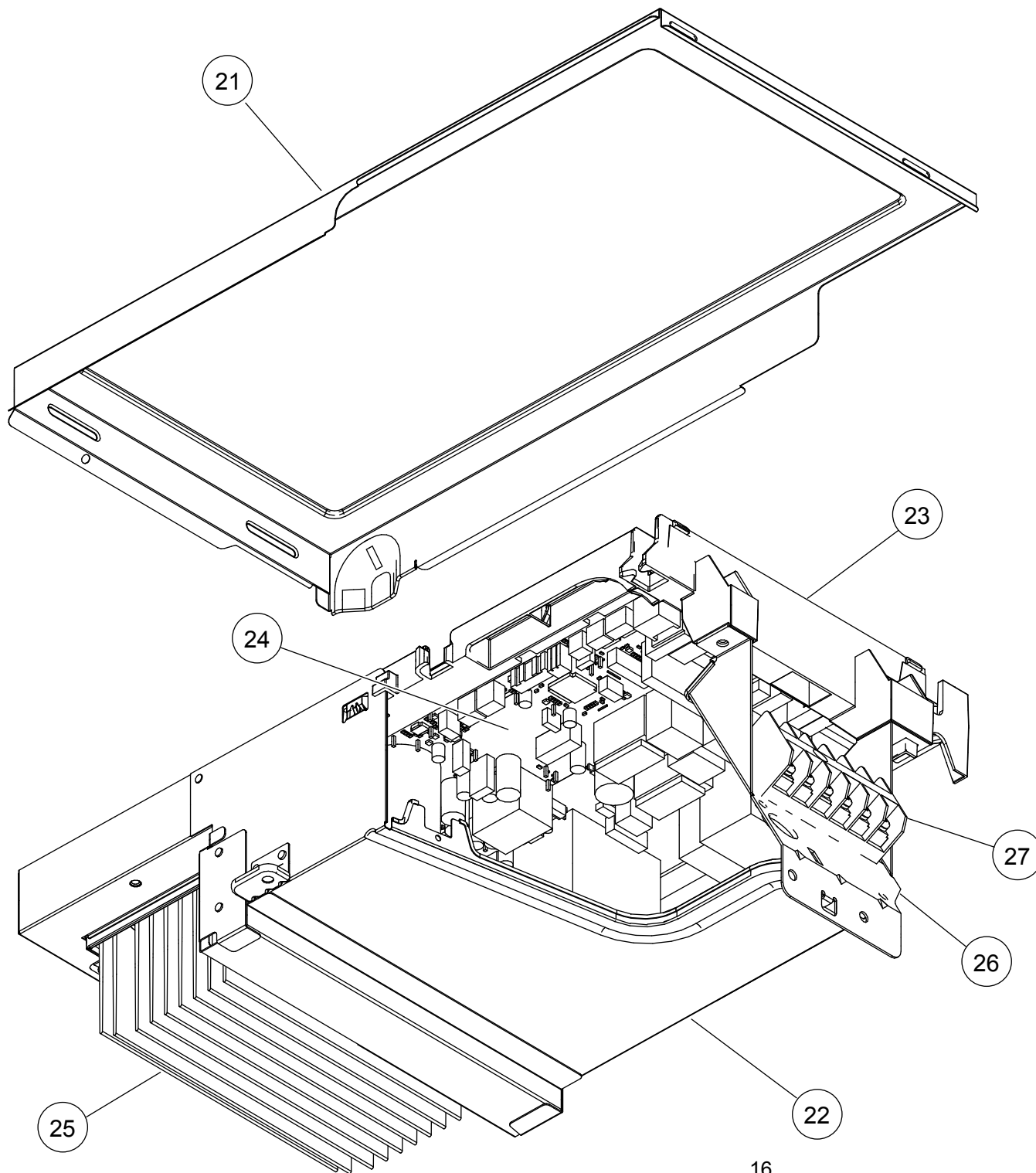
Ref	Description	Parts number	
61	Control Box Cover	9314997013	
62	Control Box	9314996016	
63	Main PCB	9708540207	
64	Terminal	9900447014	
65	Terminal Earth	9315028020	
66	Motor Case	9314998010	
67	Fan Motor Assy	9602703012	
68	Motor Step (Red)	9900384029	
69	Motor Step (Green)	9900384036	
70	Motor Step (Blue)	9900139063	
71	Indicator PCB Assy	9707210057	



PARTS

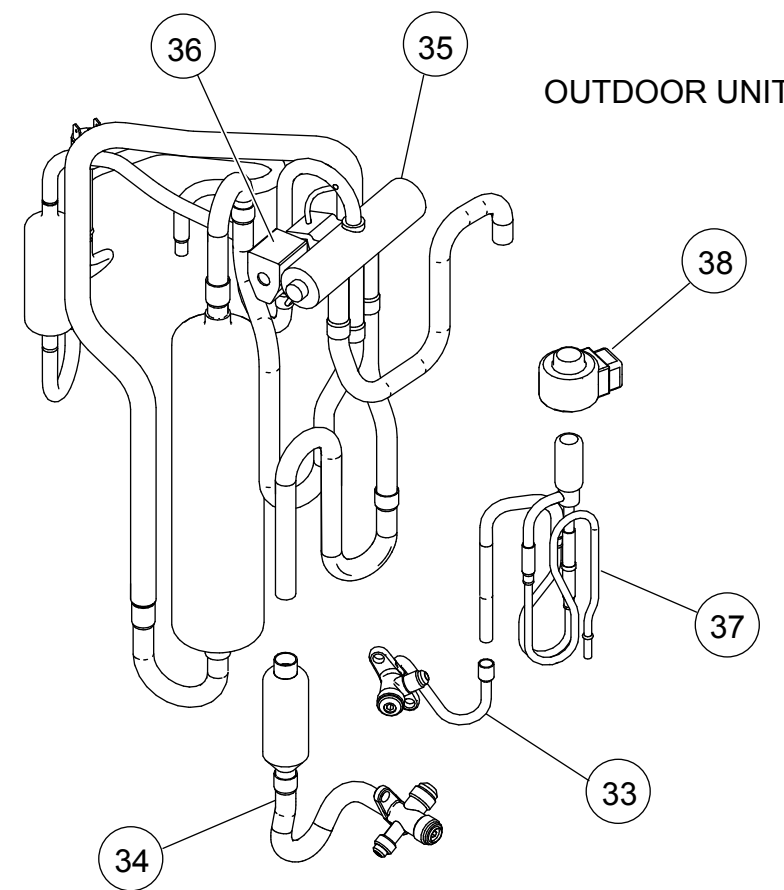
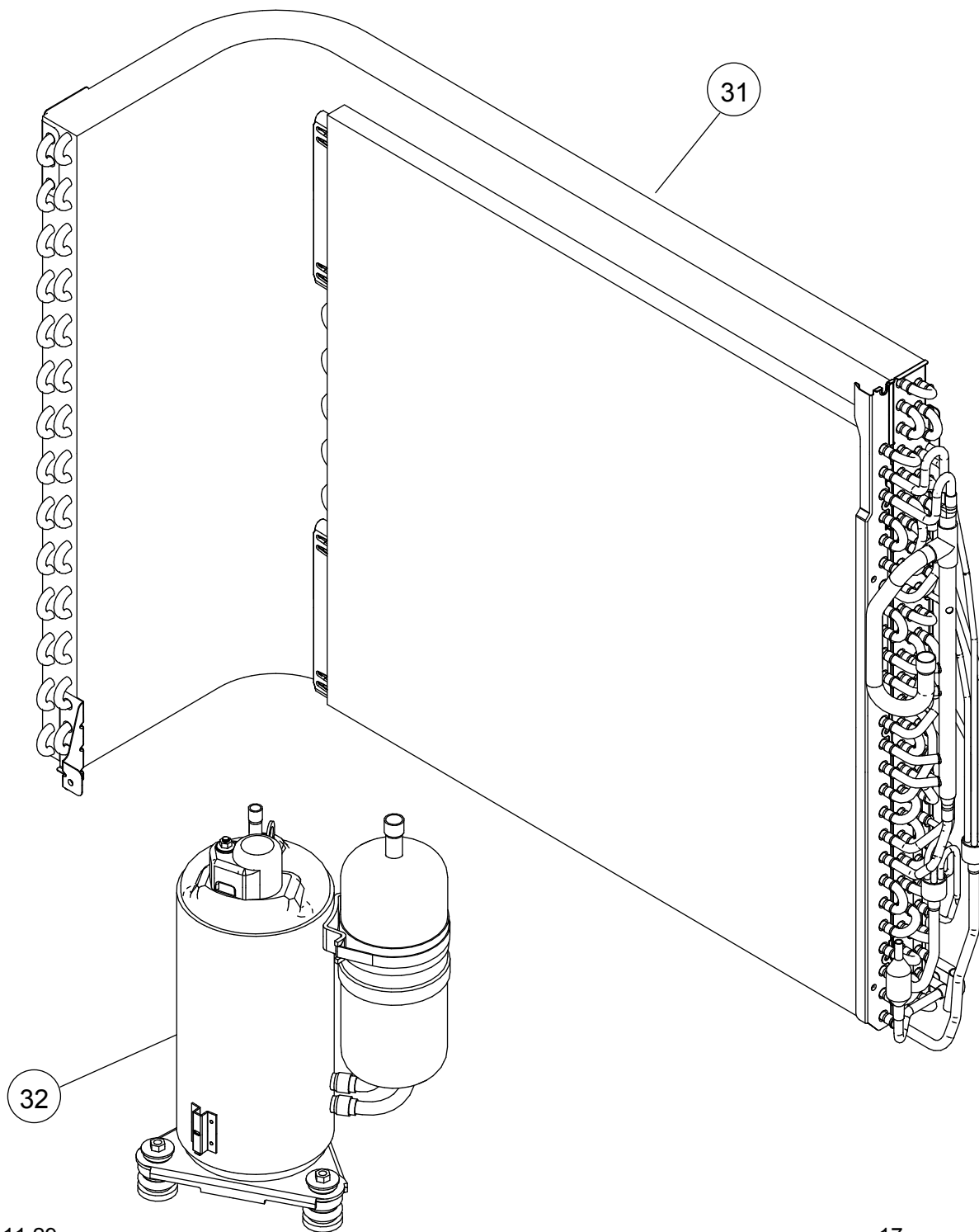
OUTDOOR UNIT

Ref.	Description	Part number	
1	Protective Net	9331640015	
2	Top Panel Assy	9318464139	
3	Front Panel Assy	9318463040	
4	Cabinet Left Assy	9318461015	
5	Cabinet Right Assy	9318462012	
6	Grip	9317588003	
7	Switch Cover Assy	9318499001	
8	Motor Bracket Assy	9319124001	
9	Fan Motor	9602724017	
10	Propeller Fan	9313808013	
11	Base Assy	9316885066	
--	Emblem	9319158006	
--	Drain Assy	9303029022	



OUTDOOR UNIT

Ref.	Description	Part number	
21	Shield Panel	9319542003	
22	Inverter Case Assy	9319548005	
23	PCB Holder	9319547015	
24	Main PCB	9708996165	
25	Heat Sink	9319540009	
26	Terminal Bracket	9319543017	
27	Terminal 6P	9900435028	
--	Outdoor Thermistor	9900565008	
--	Thermistor Assy	9900628024	
--	Compressor Thermistor	9900777012	

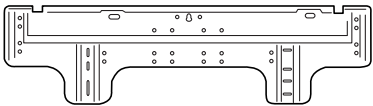
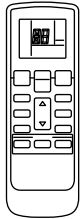
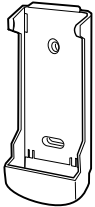
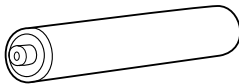
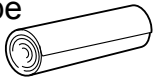
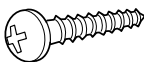
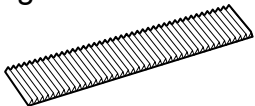
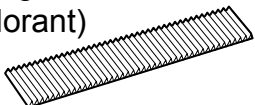
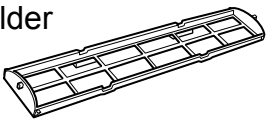


OUTDOOR UNIT

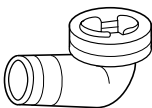
Ref.	Description	Part number	
31	Condenser Total Assy	9317089166	
32	Compressor	9810244000	
33	2-way Valve Assy	9314554018	
34	3-way Valve Sub Assy	9319098005	
35	4-way Valve Assy	9319874005	
36	Solenoid	9970110023	
37	Pulse Motor Valve Assy	9314557019	
38	Expansion Valve Coil	9970095030	

ACCESSORIES

INDOOR UNIT

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 (Apple katekin) 	9312153060
Air cleaning filter (Ion deodorant) 	9311925071
Filter holder 	9368568009

OUTDOOR UNIT

Name and Shape	Part number
Drain pipe 	9301102000
Drain cap 	313166024302

1211G4140