

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYA09LEC	AOYR09LECN
ASYA12LEC	AOYR12LECN

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASYA09LEC	ASYA12LEC
OUTDOOR UNIT		AOYR09LECN	AOYR12LECN
COOLING CAPACITY		2.50 kW	3.40 kW
HEATING CAPACITY		3.20 kW	4.00 kW
POWER SOURCE		230 V	230 V
FREQUENCY		50 Hz	50 Hz
RUNNING CURRENT	Cooling	3.2 A	4.3 A
	Heating	3.7 A	4.6 A
INPUT WATTS	Cooling	0.630 kW	0.895 kW
	Heating	0.750 kW	0.970 kW
E.E.R.	Cooling	3.97 kW/kW	3.80 kW/kW
COP	Heating	4.27 kW/kW	4.12 kW/kW
MOISTURE REMOVAL		1.3 L/h	1.8 L/h
AIR CIRCULATION		735 m ³ /h	735 m ³ /h
MAXIMUM CURRENT	Cooling	6.0 A	7.0 A
	Heating	9.5 A	11.0 A

FAN MOTOR

POWER SOURCE		230 V	230 V
INDOOR UNIT Cooling	High	1,440 r.p.m.	1,440 r.p.m.
	Medium	1,200 r.p.m.	1,200 r.p.m.
	Low	920 r.p.m.	920 r.p.m.
	Quiet	680 r.p.m.	680 r.p.m.
INDOOR UNIT Heating	High	1,440 r.p.m.	1,440 r.p.m.
	Medium	1,200 r.p.m.	1,200 r.p.m.
	Low	980 r.p.m.	980 r.p.m.
	Quiet	700 r.p.m.	700 r.p.m.
OUTDOOR UNIT Cooling		850 r.p.m.	850 r.p.m.
OUTDOOR UNIT Heating		750 r.p.m.	750 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High	43 dB	43 dB
	Medium	38 dB	38 dB
	Low	33 dB	33 dB
	Quiet	21 dB	21 dB
INDOOR UNIT Heating	High	43 dB	43 dB
	Medium	38 dB	38 dB
	Low	33 dB	33 dB
	Quiet	21 dB	21 dB
OUTDOOR UNIT Cooling		48 dB	49 dB
OUTDOOR UNIT Heating		47 dB	48 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION		DA89X1C-20FZ2	
WEIGHT (with oil)		9.2 kg	
PRECHARGED REFRIGERANT		950 g	1,000 g
REFRIGERANT TYPE		R410A	R410A
FULL CHARGE	Pipe length 15 m	950 g	1,000 g
	20 m	1,050 g	1,100 g
ADDITIONAL CHARGE		20 g/m	
MAXIMUM PIPING HEIGHT		15m	

DIMENSIONS

INDOOR UNIT H x W x D	260 x 790 x 202 mm
OUTDOOR UNIT H x W x D	540 x 790 x 290 mm

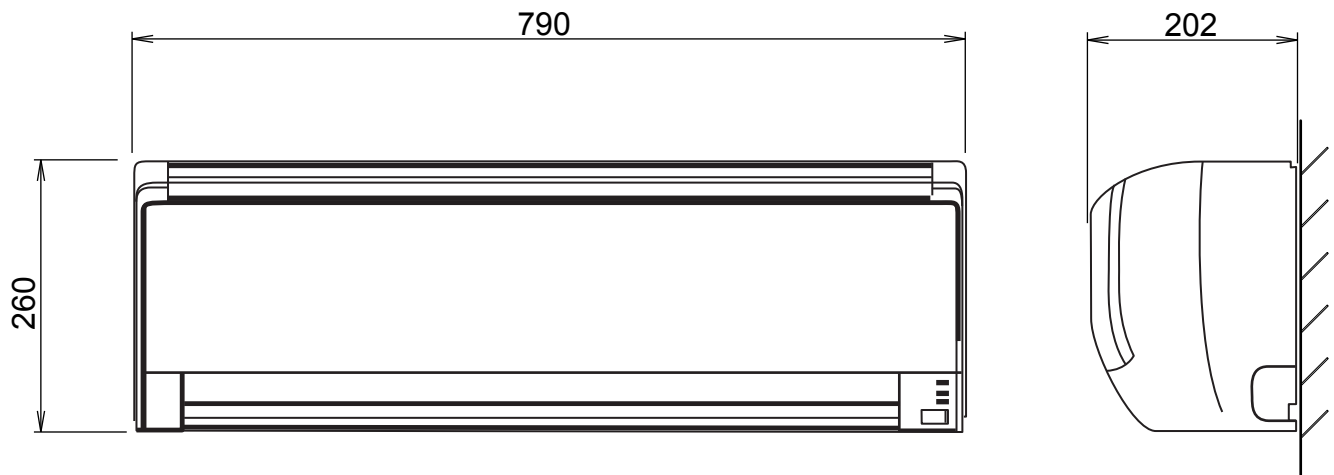
WEIGHT

INDOOR UNIT Shipping / Net	9.5 kg / 7.5 kg	
OUTDOOR UNIT Shipping / Net	36 kg / 33 kg	39 kg / 36 kg

DIMENSIONS

unit : mm

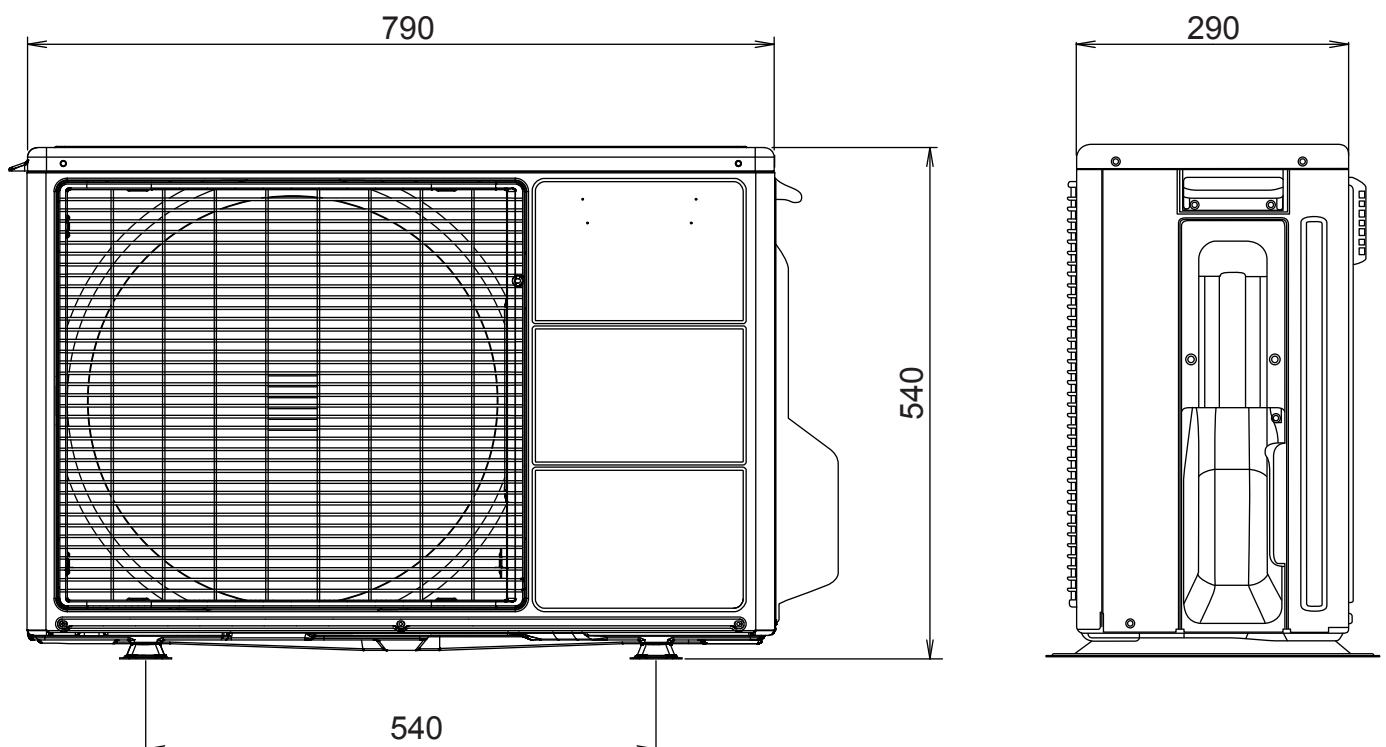
INDOOR UNIT



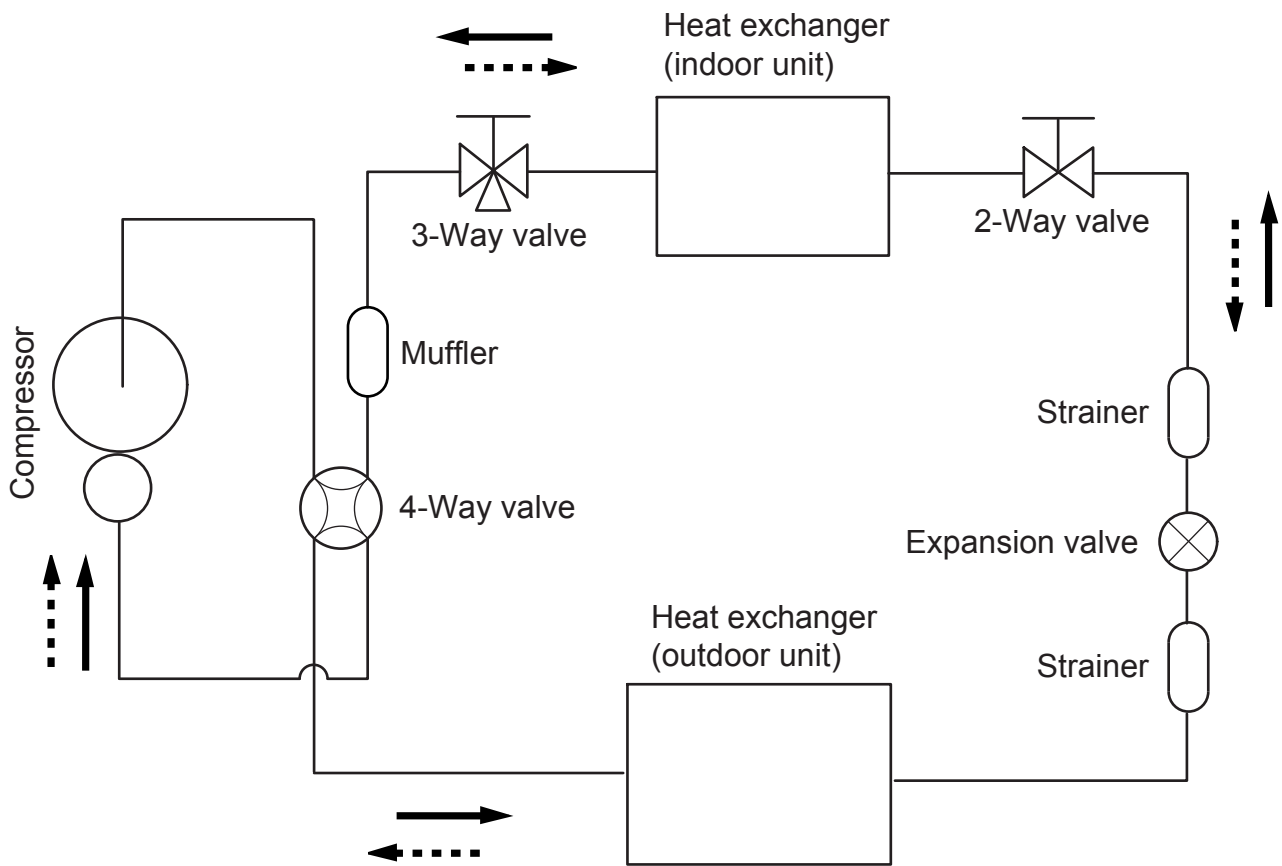
Drain pipe diameter
16.2 mm

Liquid pipe diameter : 6.35 mm
Gas pipe diameter : 9.52 mm

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

————> Cooling

-----> Heating

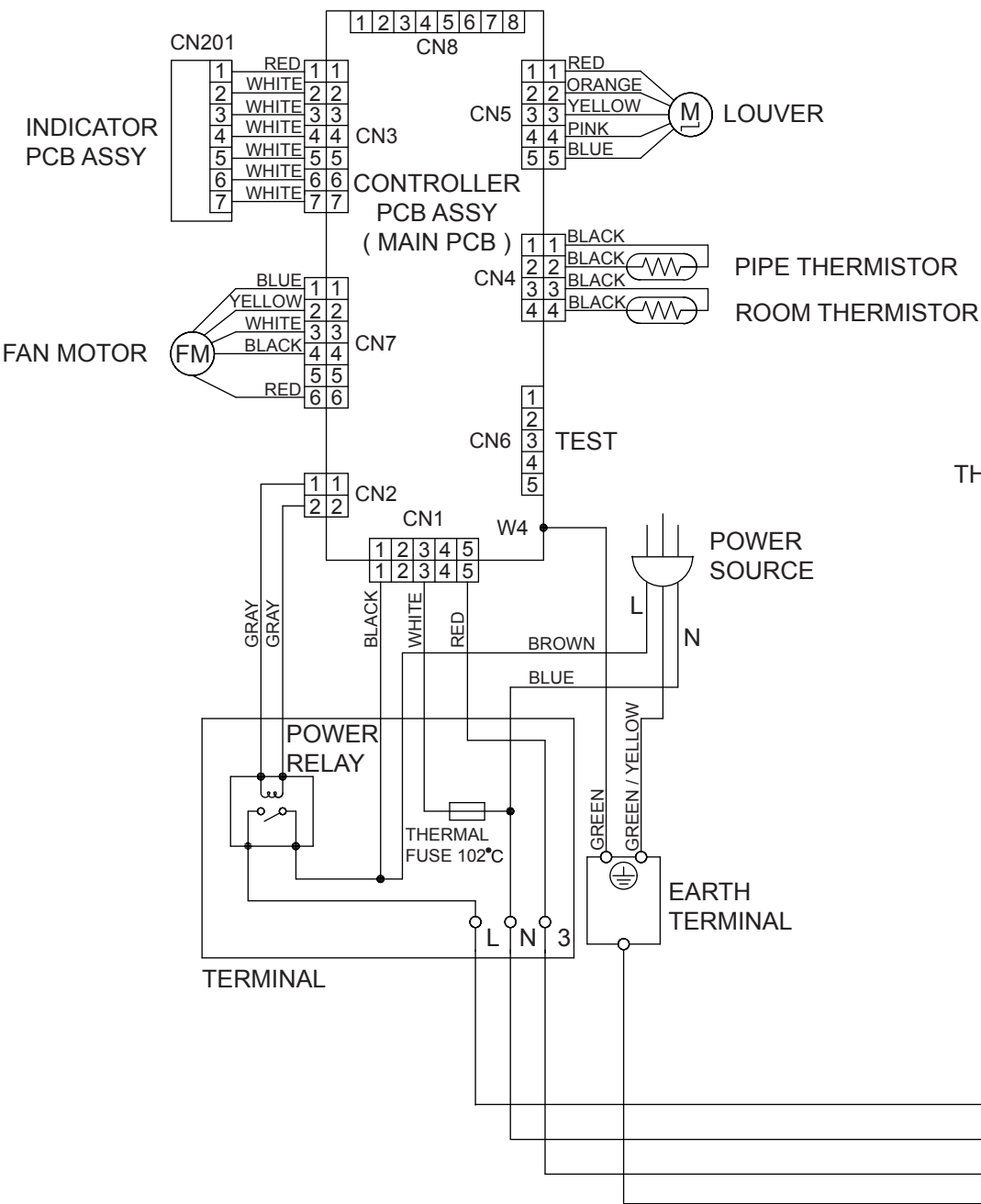
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

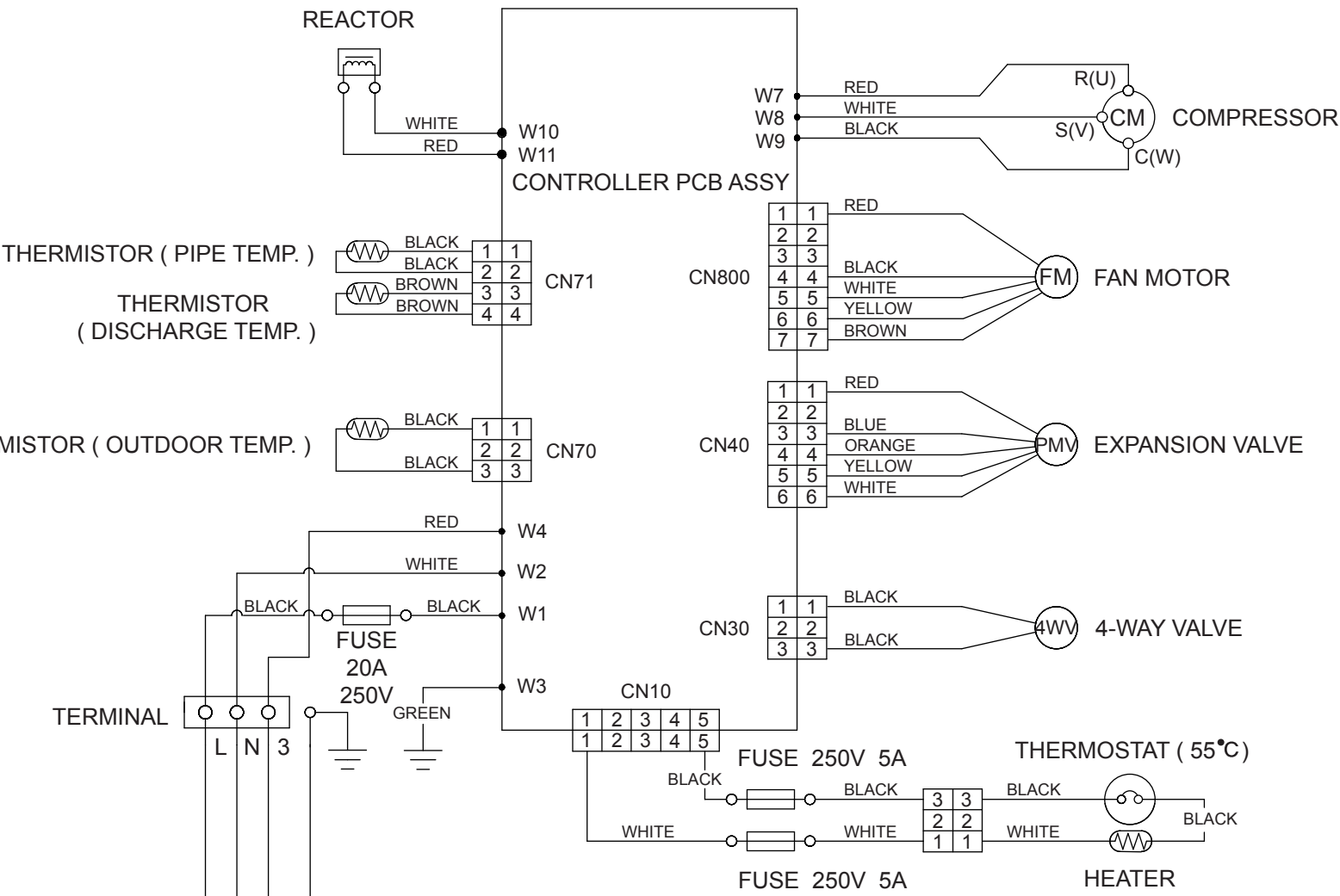
Gas : 3/8" (9.52 mm)

CIRCUIT DIAGRAM

INDOOR UNIT



OUTDOOR UNIT

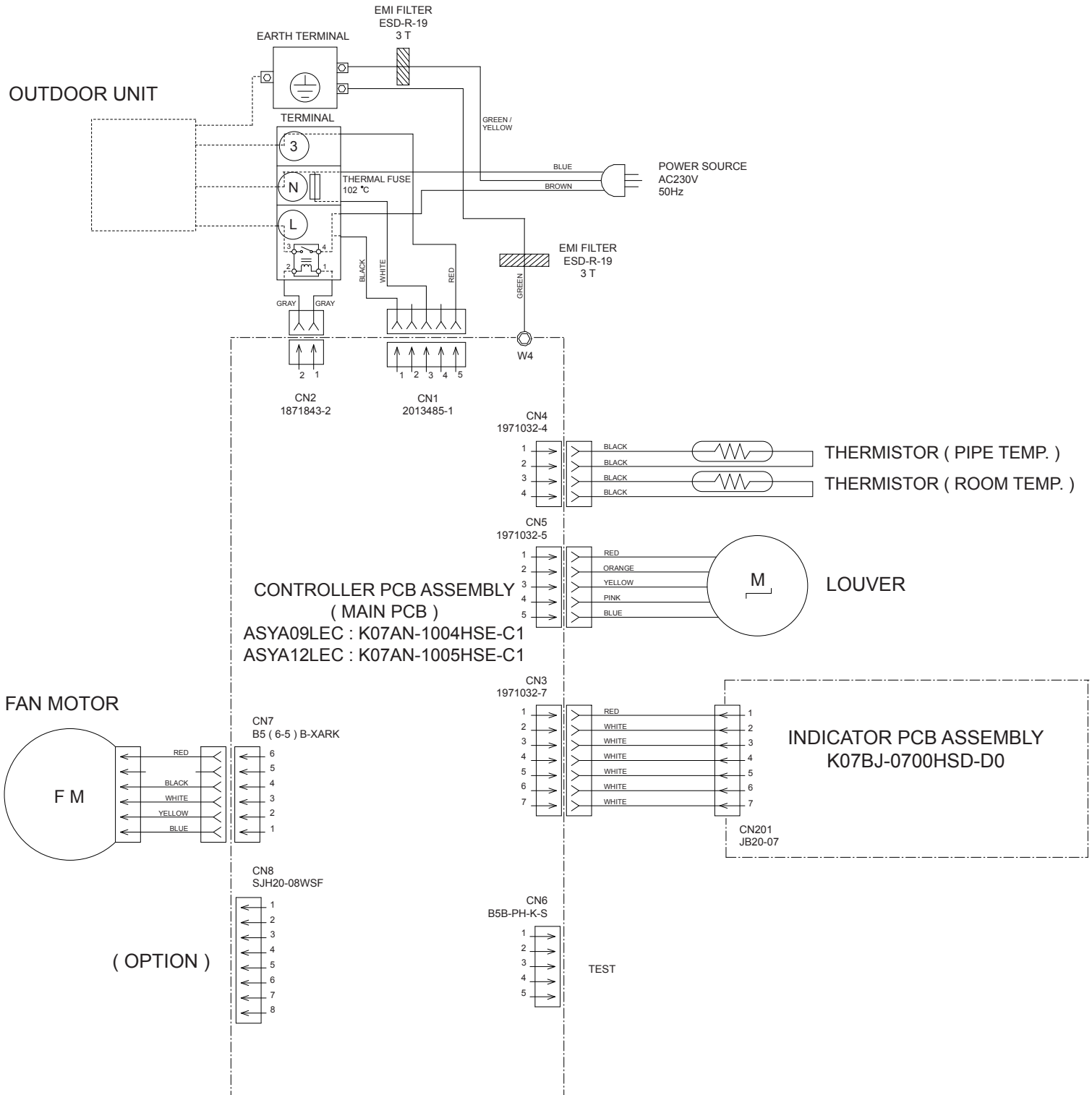


INDOOR PCB CIRCUIT DIAGRAM

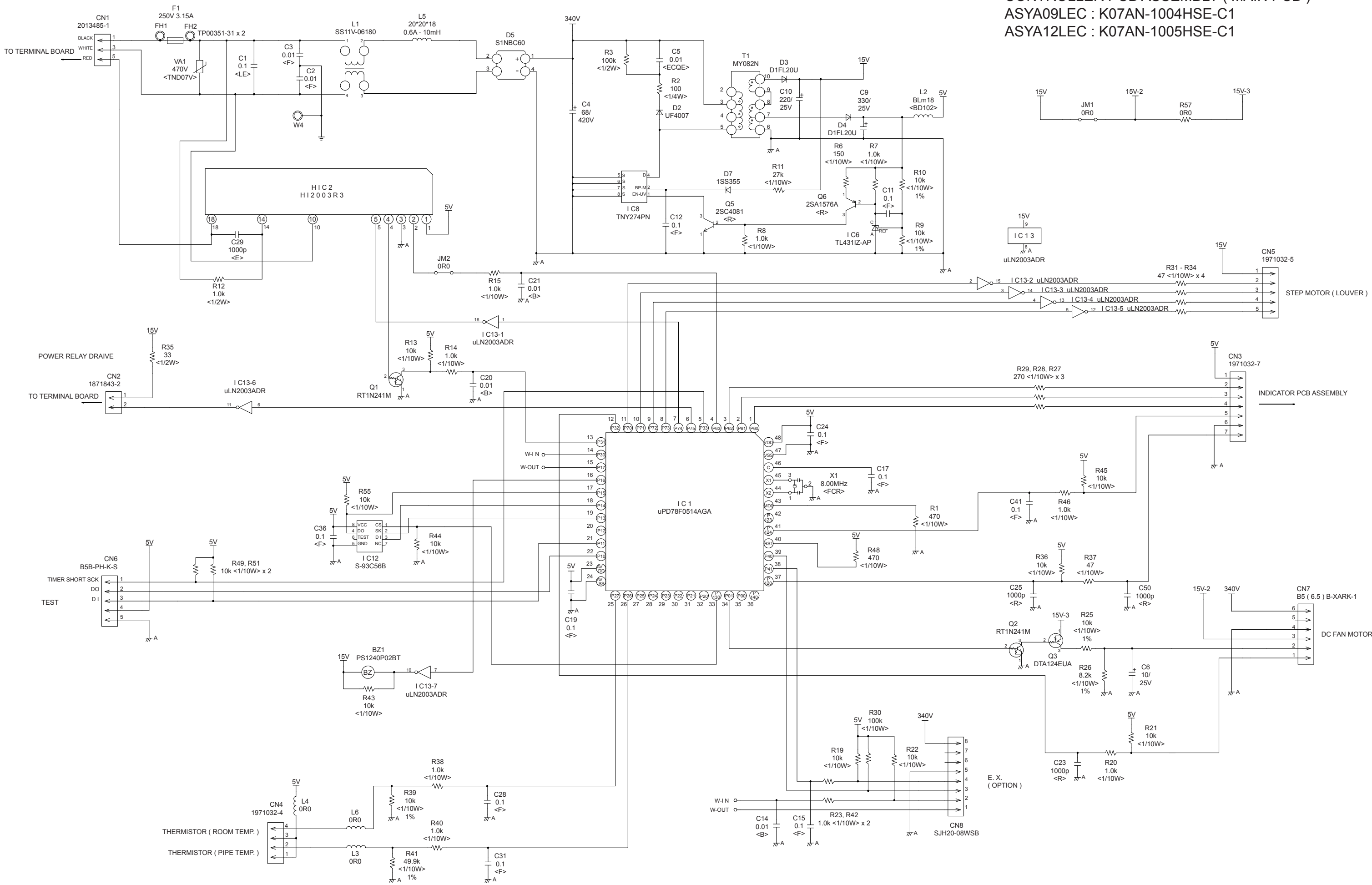
CONTROL UNIT

ASYA09LEC : EZ-0100KHSE

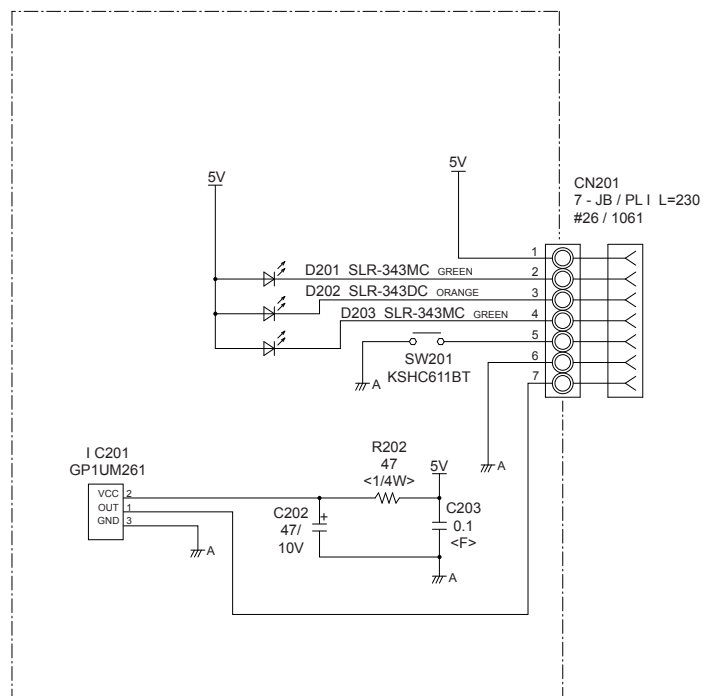
ASYA12LEC : EZ-0100LHSE



INDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
ASYA09LEC : K07AN-1004HSE-C1
ASYA12LEC : K07AN-1005HSE-C1

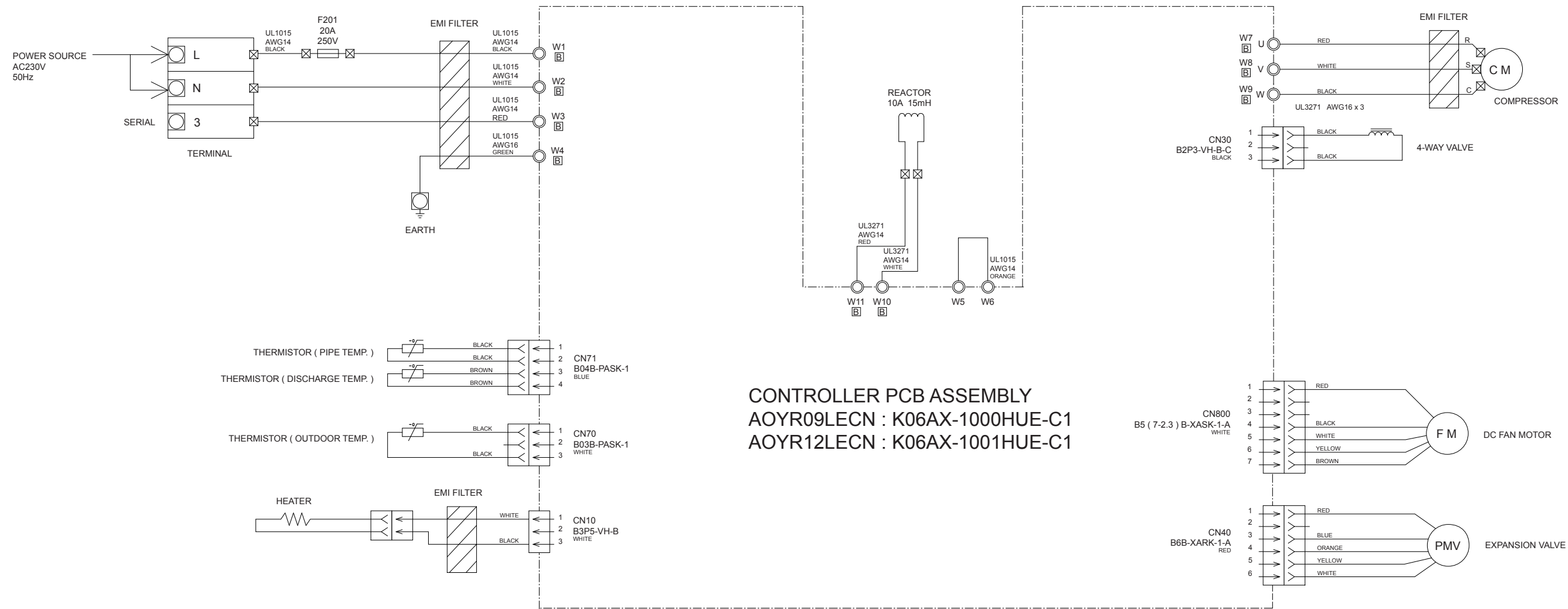


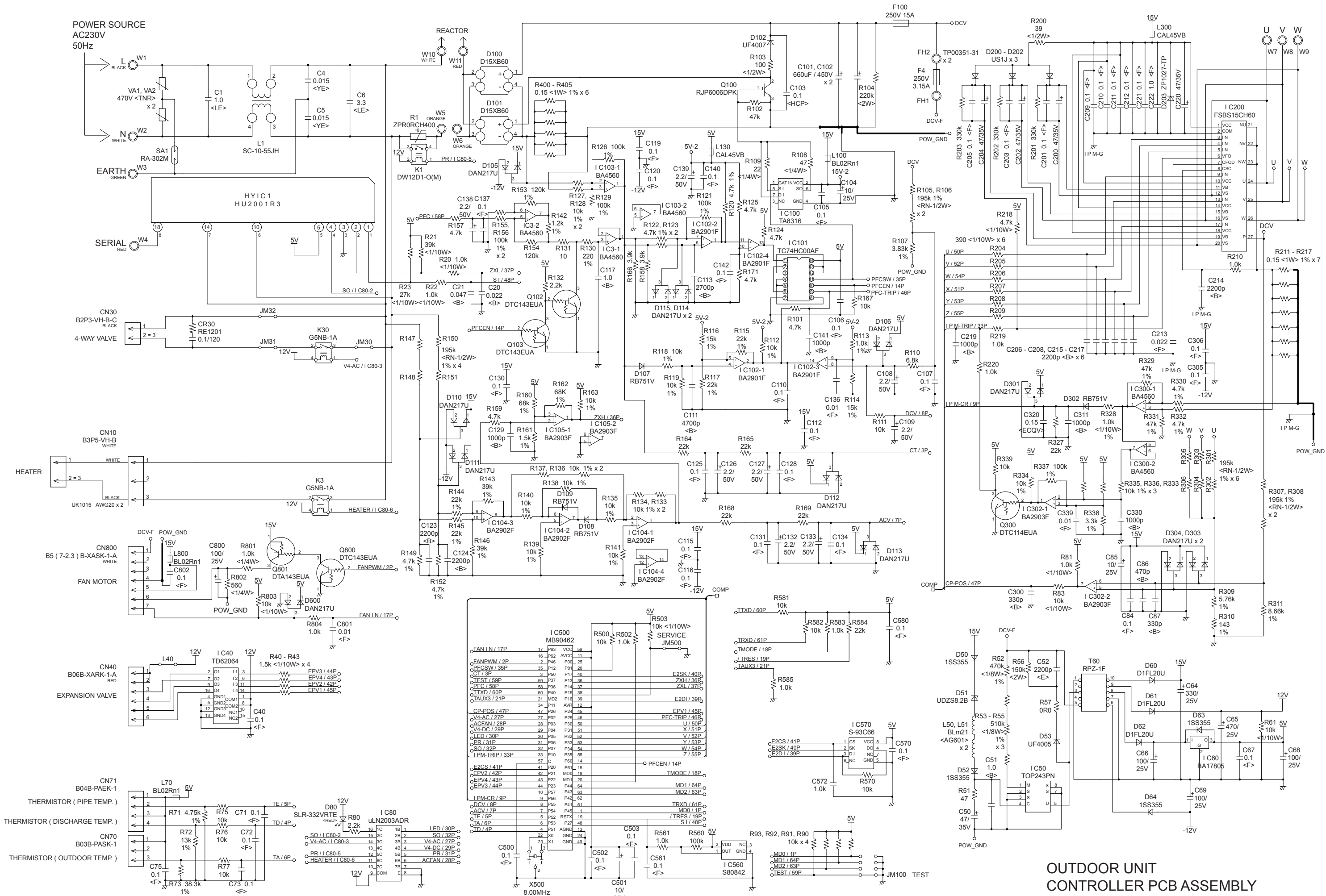
INDOOR UNIT
INDICATOR PCB ASSEMBLY
K07BJ-0700HSD-D0



OUTDOOR PCB
CIRCUIT DIAGRAM

INVERTER ASSEMBLY
AOYR09LECN : EZ-010EHUE
AOYR12LECN : EZ-010FHUE





ERROR CONTENTS

INDOOR UNIT

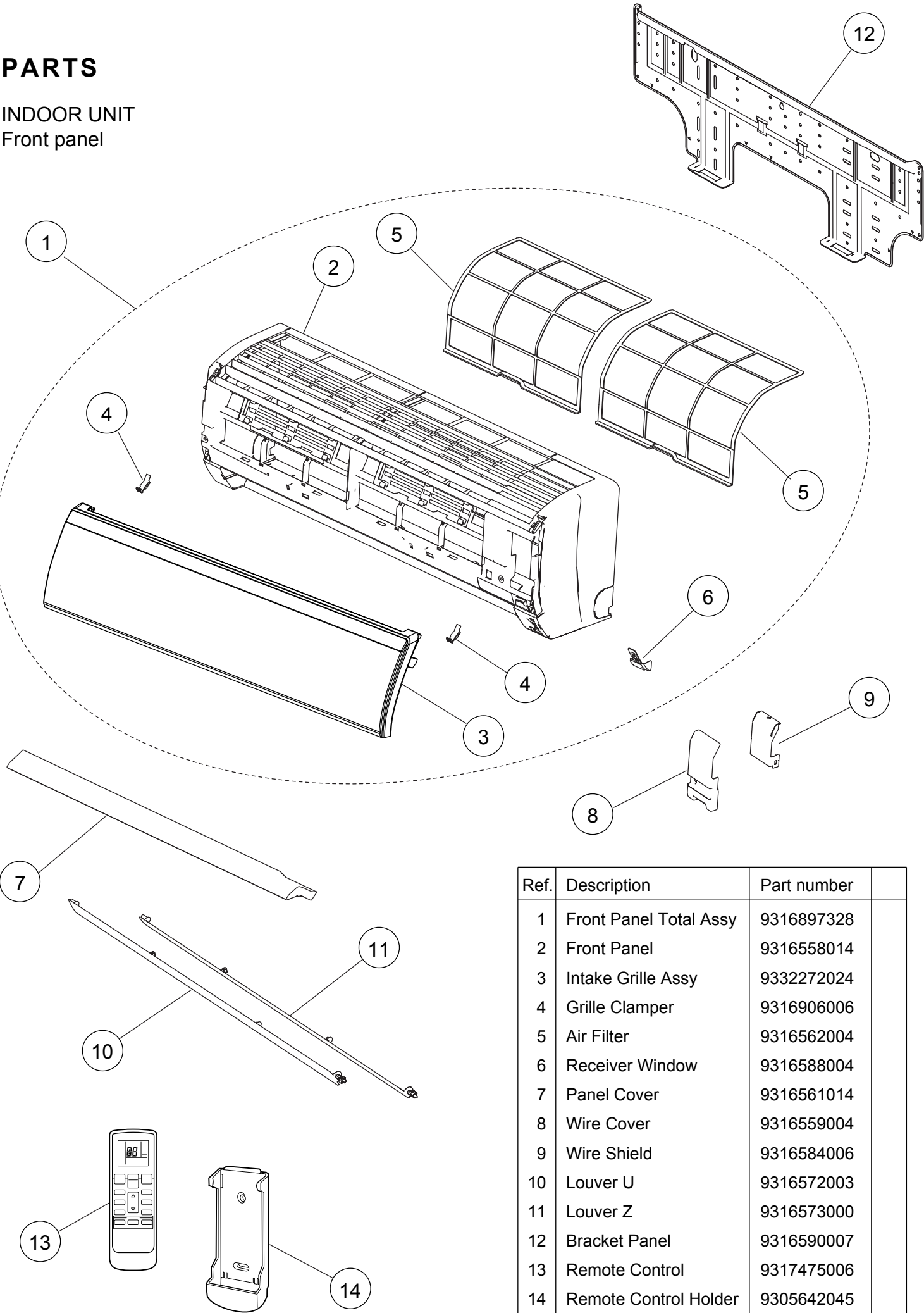
Error	Indoor unit LED			Wired remote control	Error
	Operation LED	Timer LED	Coil dry LED		
Serial signal error	Off	2 flash	off	01	Serial signal (reverse) error, at operation start up
		3 flash	off	01	Serial signal (reverse) error, during operation
		4 flash	off	13	Serial signal (forward) error, at operation start up
		5 flash	off	13	Serial signal (forward) error, during operation
		8 flash	off	00	Wired remote control error
Indoor unit thermistor error	2 flash	2 flash	off	02	Indoor air thermistor error
		3 flash	off	04	Heat exchanger middle thermistor error
Outdoor unit thermistor error	3 flash	2 flash	off	0C	Discharge pipe thermistor error
		3 flash	off	06	Heat exchanger thermistor error
		4 flash	off	0A	Outdoor air thermistor error
Indoor unit control error	4 flash	2 flash	off	20	Manual auto button welded
		3 flash	off	-	Main relay welded
		4 flash	off	2A	Not distinguishing 50Hz or 60Hz
Outdoor unit control error	5 flash	2 flash	off	17	Current trip error
		3 flash	off	18	CT abnormal
		5 flash	off	1A	Compressor location detection error
		6 flash	off	1B	Outdoor unit fan drive system abnormal
Indoor fan motor error	6 flash	2 flash	off	12	Abnormal lock (upper fan motor)
		3 flash	off	12	Abnormal rotation (upper fan motor)
Refrigerant cycle error	7 flash	2 flash	off	0F	Discharge temperature abnormal
		3 flash	off	24	Cooling high pressure abnormal rise
		4 flash	off	2C	DC 4-way valve and expansion valve abnormal
Optional function error	8 flash	2 flash	off	19	Active filter abnormal (first time)
		3 flash	off	19	Active filter abnormal (second time)
		4 flash	off	25	PFC circuit error
Model information error	0.1 sec on/off	0.1 sec on/off	0.1 sec on/off	11	Model information error

OUTDOOR UNIT

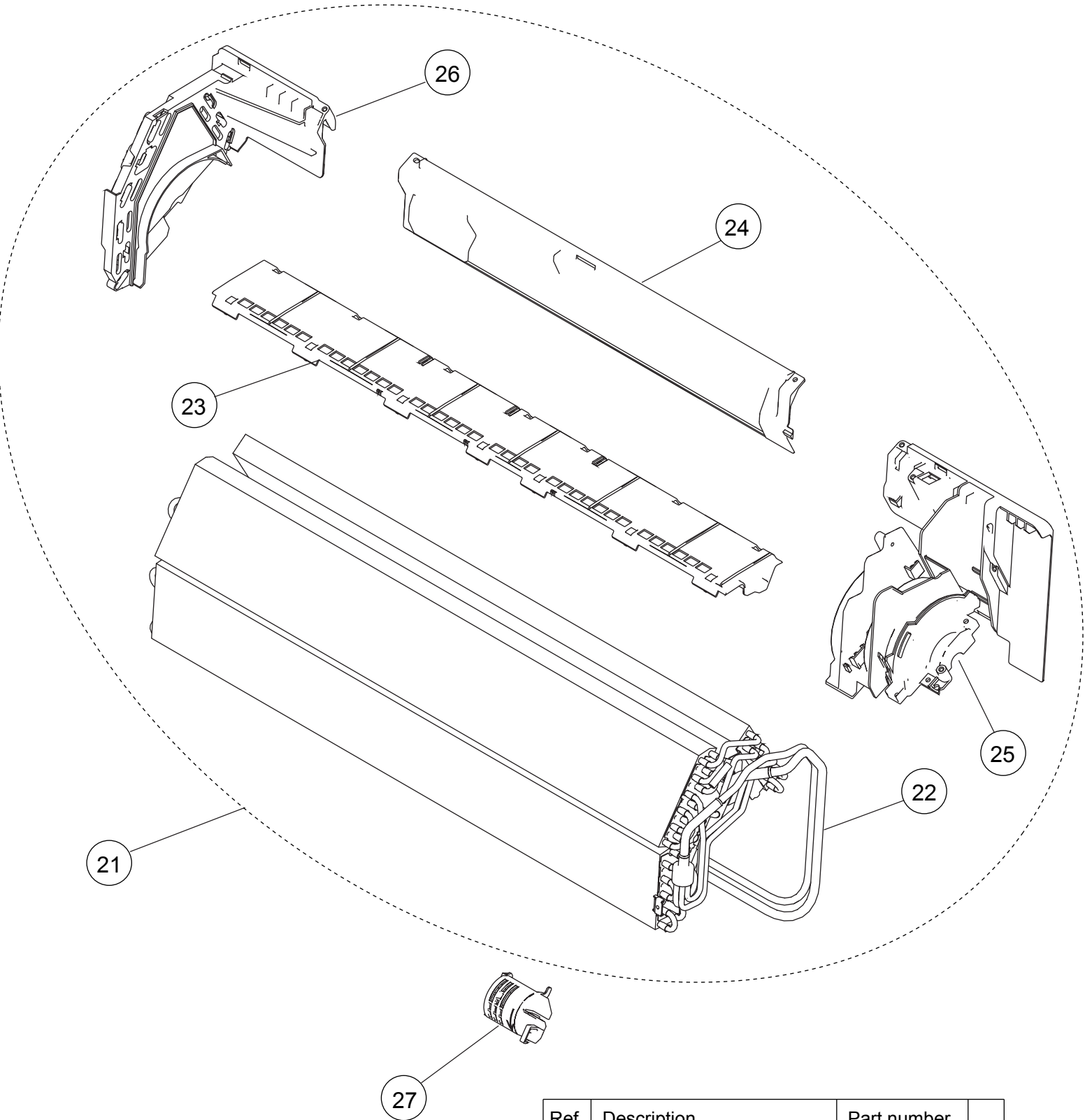
LED	ERROR
on	Discharge temperature abnormal
5.0 second on / 5.0 second off	DC fan abnormal
2.0 second on / 2.0 second off	CT abnormal
0.5 second on / 0.5 second off	IPM overcurrent protection
0.1 second on / 0.1 second off	Thermistor abnormal
0.1 second on / 2.0 second off	Compressor location abnormal

PARTS

INDOOR UNIT
Front panel

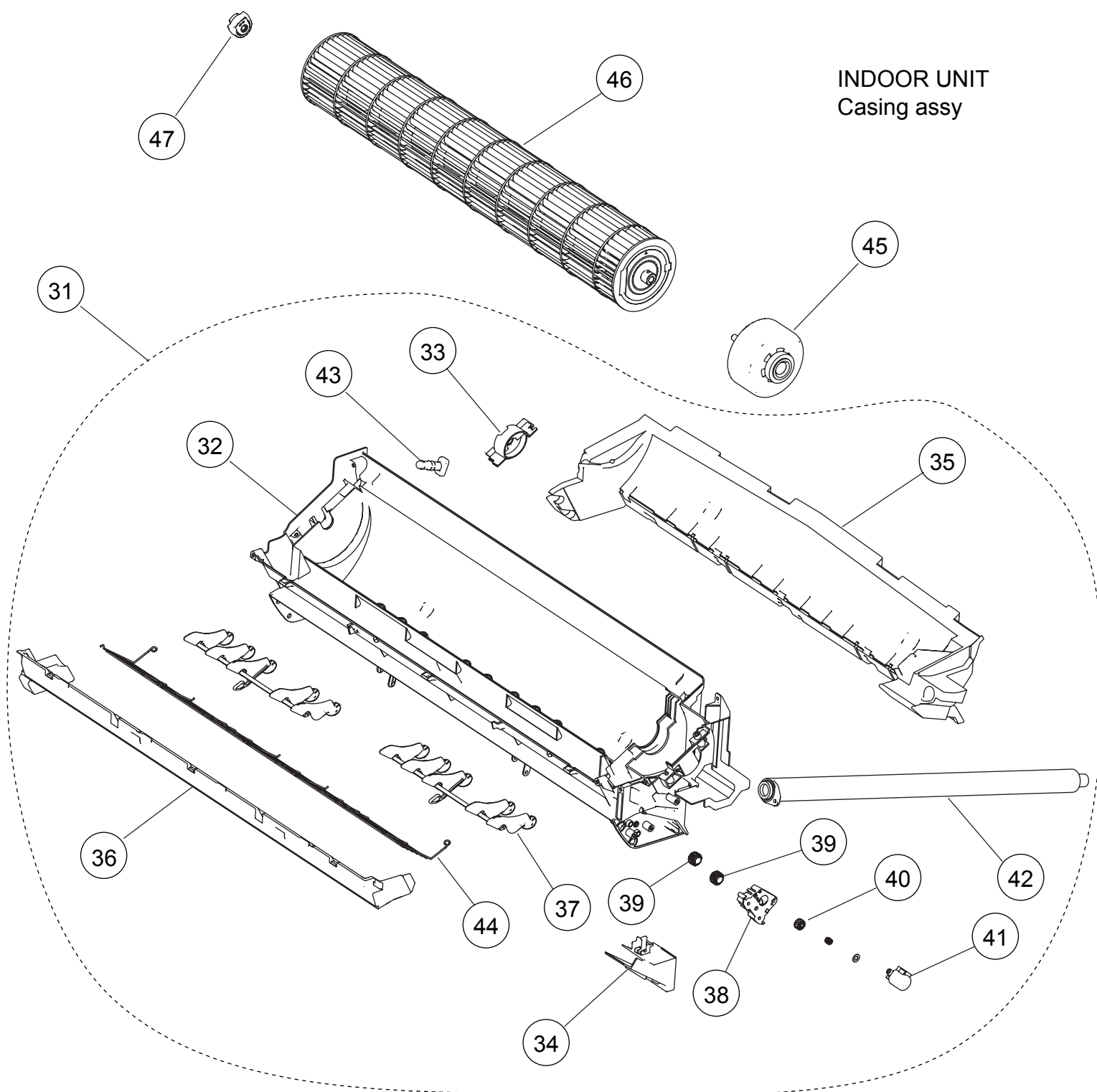


Ref.	Description	Part number	
1	Front Panel Total Assy	9316897328	
2	Front Panel	9316558014	
3	Intake Grille Assy	9332272024	
4	Grille Clamper	9316906006	
5	Air Filter	9316562004	
6	Receiver Window	9316588004	
7	Panel Cover	9316561014	
8	Wire Cover	9316559004	
9	Wire Shield	9316584006	
10	Louver U	9316572003	
11	Louver Z	9316573000	
12	Bracket Panel	9316590007	
13	Remote Control	9317475006	
14	Remote Control Holder	9305642045	
--	Air Clean Filter Assy	9317250009	



INDOOR UNIT Evaporator

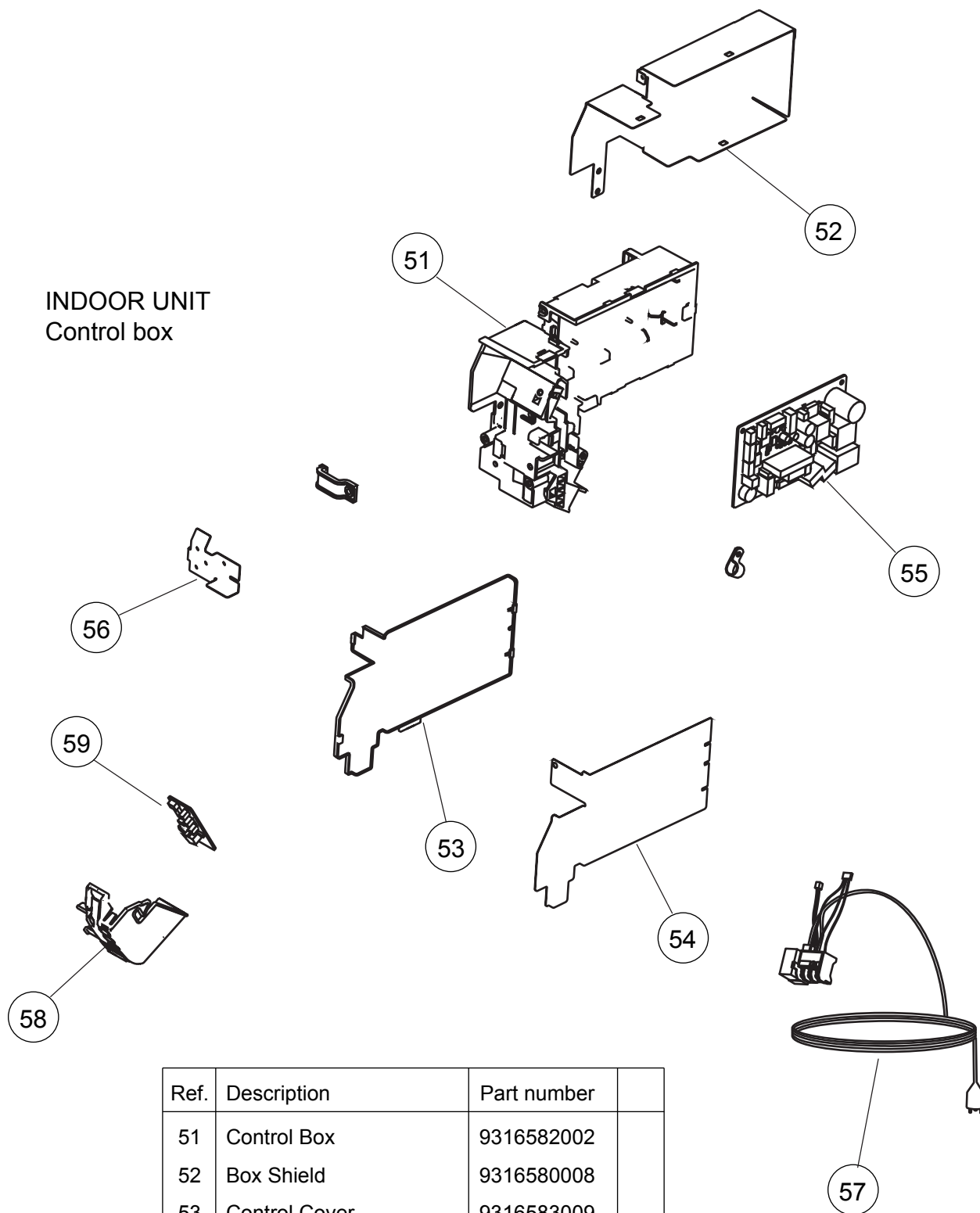
Ref.	Description	Part number	
21	Evaporator Total Assy (09)	9316893009	
21	Evaporator Total Assy (12)	9316893016	
22	Joint Pipe Assy (09)	9316923010	
22	Joint Pipe Assy (12)	9317190015	
23	Filter Guide	9316578005	
24	Rear Bracket	9316566019	
25	Evaporator Holder R	9316565005	
26	Evaporator Holder L	9316564008	
27	Room thermistor Holder	9316895003	



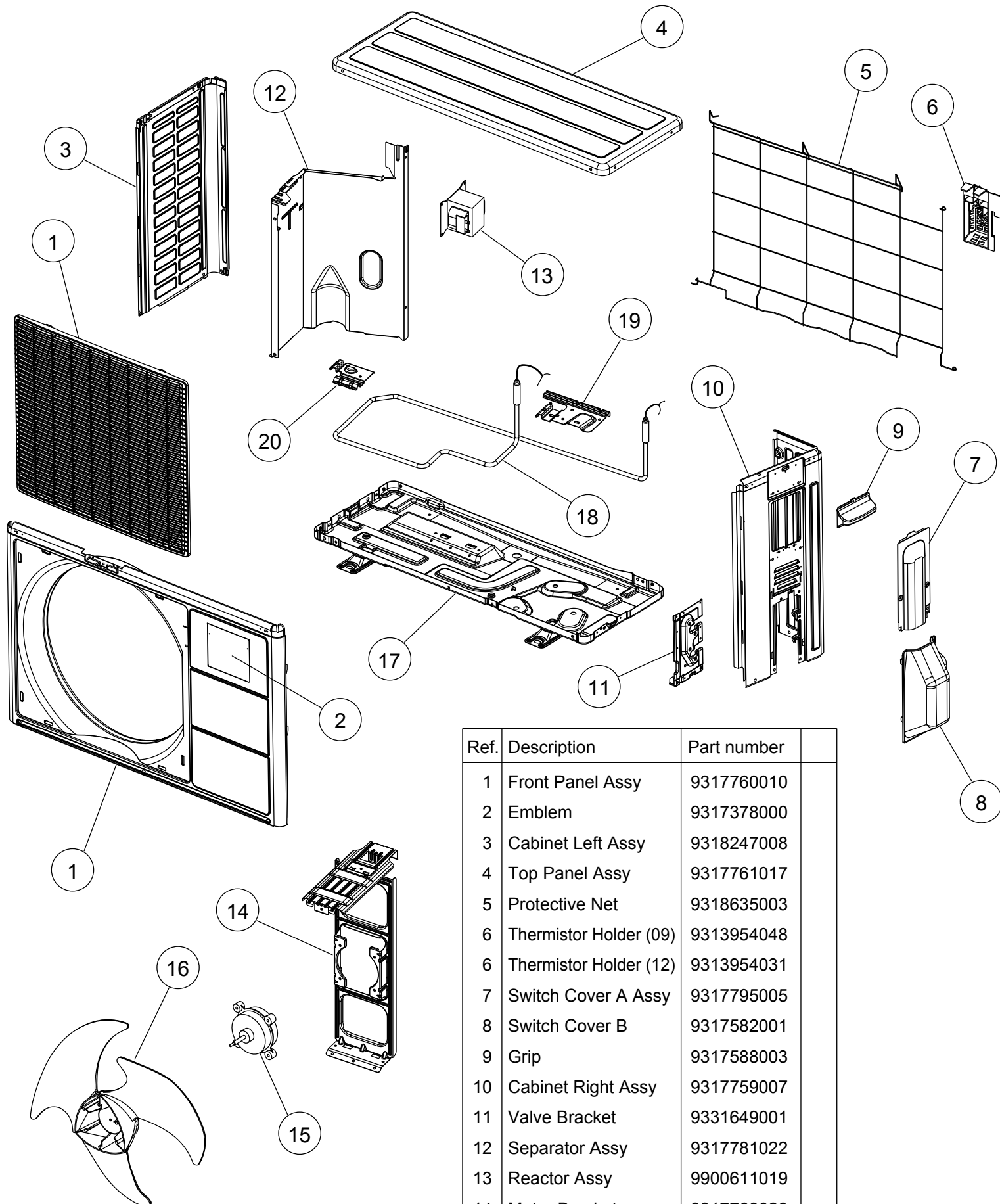
INDOOR UNIT
Casing assy

Ref.	Description	Part number	Ref.	Description	Part number
31	Casing Assy	9316892026	40	Gear A	9309994003
32	Casing	9316563001	41	Motor Step	9900139117
33	Motor Cover	9316568006	42	Drain Hose Assy	9316904002
34	Cable Guide	9316567009	43	Drain Cap	9316177017
35	Casing Cover B	9316569003	44	Fan Guard	9317182003
36	Casing Cover F	9316570009	45	Fan Motor	9602704002
37	R and L Louver B	9316961005	46	Crossflow Fan Assy	9316830004
38	Louver Gear Holder	9316575004	47	Shaft Holder C	9306628017
39	Louver Gear	9316574007			

INDOOR UNIT
Control box



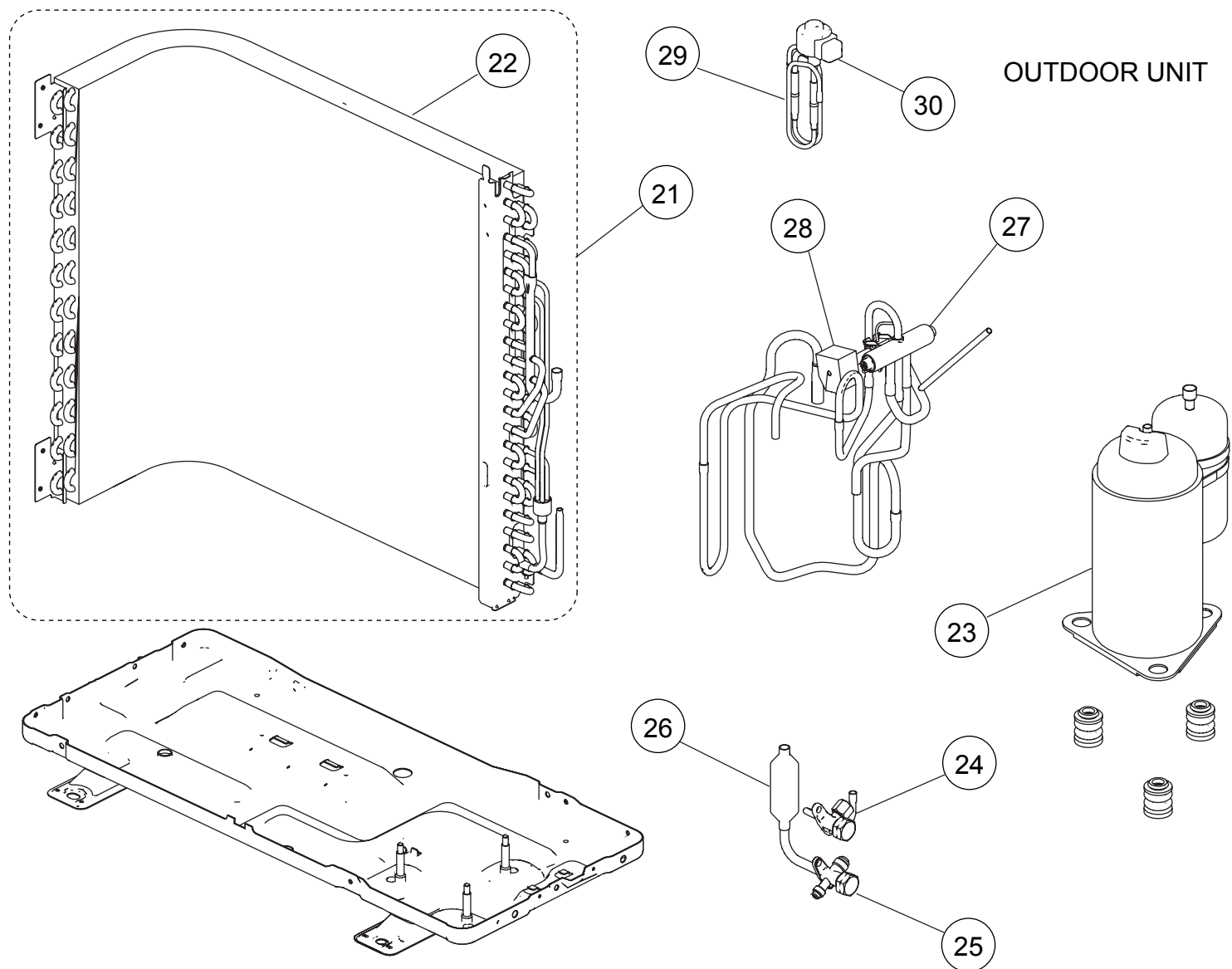
Ref.	Description	Part number	
51	Control Box	9316582002	
52	Box Shield	9316580008	
53	Control Cover	9316583009	
54	Cover Shield	9316581005	
55	Controller PCB Assy (09)	9707645552	
55	Controller PCB Assy (12)	9707645569	
56	Earth Terminal	9316586000	
57	Power Cord Assy	9900456016	
58	Display Case	9316587007	
59	Display PCB Assy	9707649017	
--	Thermistor Assy	9900459017	



PARTS

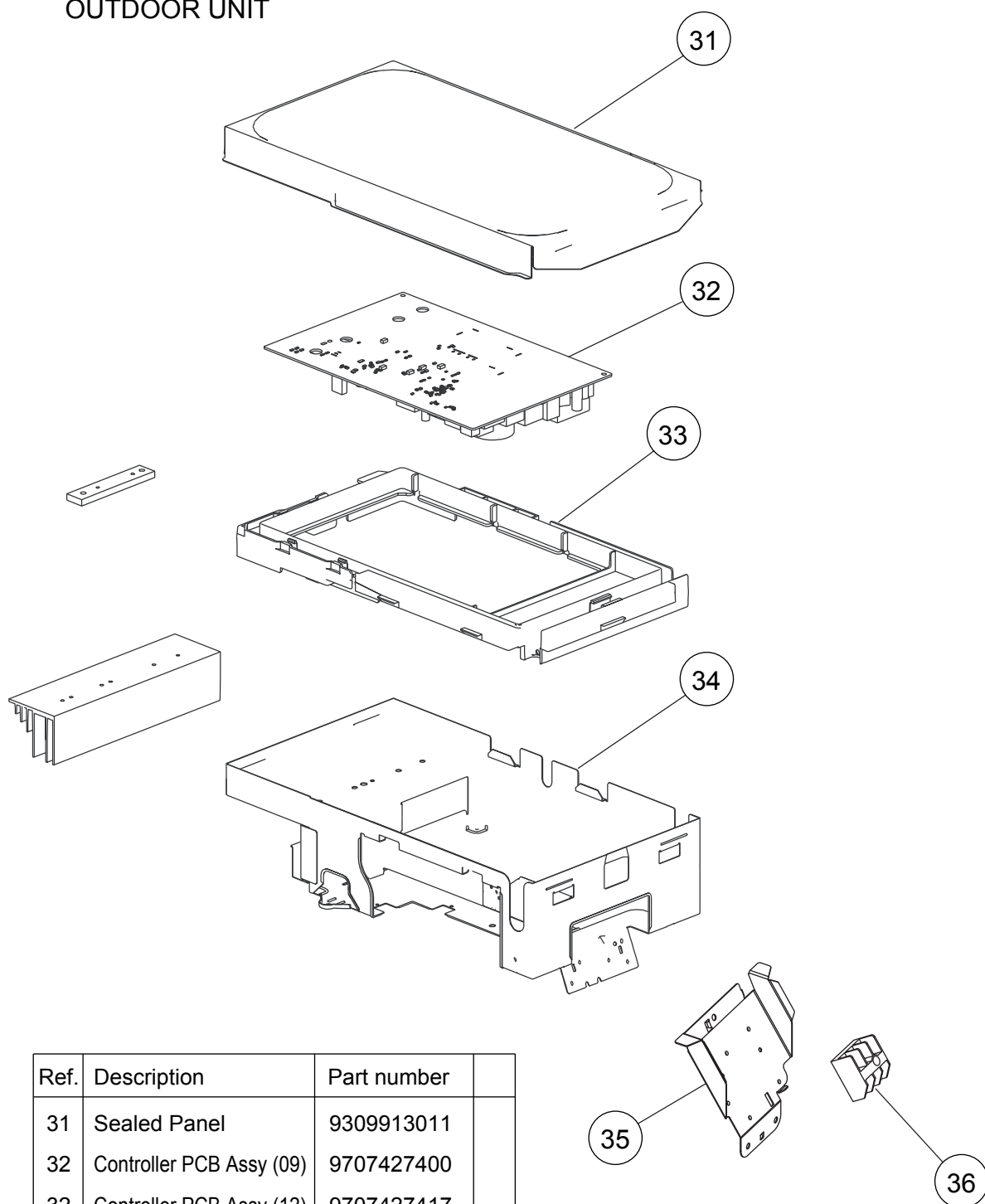
OUTDOOR UNIT

Ref.	Description	Part number
1	Front Panel Assy	9317760010
2	Emblem	9317378000
3	Cabinet Left Assy	9318247008
4	Top Panel Assy	9317761017
5	Protective Net	9318635003
6	Thermistor Holder (09)	9313954048
6	Thermistor Holder (12)	9313954031
7	Switch Cover A Assy	9317795005
8	Switch Cover B	9317582001
9	Grip	9317588003
10	Cabinet Right Assy	9317759007
11	Valve Bracket	9331649001
12	Separator Assy	9317781022
13	Reactor Assy	9900611019
14	Motor Bracket	9317763028
15	Fan Motor	9602864003
16	Propeller Fan	9313808013
17	Base Assy	9316885059
18	Heater Unit Assy	9900616007
19	Heater Holder A	9318631005
20	Heater Holder B	9318651003



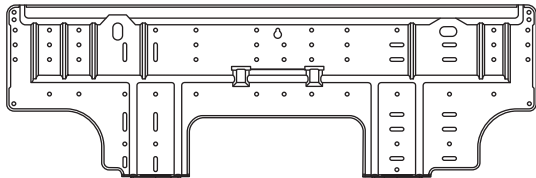
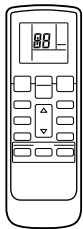
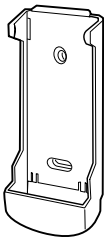
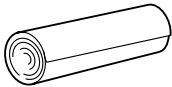
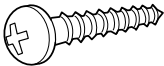
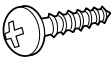
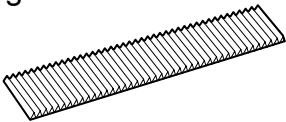
Ref.	Description	Part number	
21	Condenser Total Assy (09)	9318711004	
21	Condenser Total Assy (12)	9332359008	
22	Condenser Assy (09)	9318712001	
22	Condenser Assy (12)	9332360004	
23	Compressor Assy	9317619004	
24	2 way Valve Assy (09)	9314554018	
24	2 way Valve Assy (12)	9332371000	
25	3 way Valve Assy (09)	9314022012	
25	3 way Valve Assy (12)	9315574015	
26	Muffler (12)	9308625007	
27	4 way Valve Assy (09)	9314093050	
27	4 way Valve Assy (12)	9333982007	
28	Solenoid	9970055010	
29	Pulse Motor Valve Assy (09)	9314557019	
29	Pulse Motor Valve Assy (12)	9317215046	
30	Expansion Valve Coil	9970096013	

OUTDOOR UNIT



Ref.	Description	Part number	
31	Sealed Panel	9309913011	
32	Controller PCB Assy (09)	9707427400	
32	Controller PCB Assy (12)	9707427417	
33	PCB Holder	9313074029	
34	Inverter Case Assy	9315690067	
35	Terminal Bracket	9315233097	
36	Terminal 3P	9900369040	
--	Outdoor Thermistor	9900544010	
--	Thermistor Assy	9900614003	

ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9316590007
Remote control 	9317475006
Remote control holder 	9305642045
Battery (penlight) 	0600185527
Cloth tape 	9310519004
Tapping screw (big) (ϕ 4 x 25) 	0700076046
Tapping screw (small) (ϕ 3 x 12) 	0700019036
Air cleaning filter 	9311925088 9312153077

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