

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYB09LDC	AOYS09LDC
ASYB12LDC	AOYS12LDC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM . . .	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM . . .	8
ERROR CONTENTS.....	10
PARTS (INDOOR UNIT).....	11
PARTS (OUTDOOR UNIT).....	15
ACCESSORIES.....	17

SPECIFICATIONS

ELECTRICAL DATA

TYPE		COOL & HEAT INVERTER	
INDOOR UNIT		ASYB09LDC	ASYB12LDC
OUTDOOR UNIT		AOYS09LDC	AOYS12LDC
COOLING CAPACITY		2.60 kW	3.50 kW
HEATING CAPACITY		3.60 kW	4.80 kW
POWER SOURCE		230 V	230 V
FREQUENCY		50 Hz	50 Hz
RUNNING CURRENT	Cooling	2.9 A	4.3 A
	Heating	3.9 A	5.5 A
INPUT WATTS	Cooling	0.61 kW	0.91 kW
	Heating	0.81 kW	1.22 kW
E.E.R.	Cooling	4.26 kW/kW	3.85 kW/kW
COP	Heating	4.44 kW/kW	3.93 kW/kW
MOISTURE REMOVAL		1.3 L/hr	1.8 L/hr
AIR CIRCULATION -High	Cooling	560 m3/hr	595 m3/hr
	Heating	605 m3/hr	630 m3/hr

FAN MOTOR

POWER SOURCE		230 V	230 V
INDOOR UNIT Cooling	High 2	1,340 r.p.m.	1,400 r.p.m.
	High	1,300 r.p.m.	1,370 r.p.m.
	Medium	1,120 r.p.m.	1,150 r.p.m.
	Low	950 r.p.m.	950 r.p.m.
	Quiet	700 r.p.m.	700 r.p.m.
INDOOR UNIT Heating	High 2	1,430 r.p.m.	1,470 r.p.m.
	High	1,390 r.p.m.	1,440 r.p.m.
	Medium	1,200 r.p.m.	1,200 r.p.m.
	Low	1,000 r.p.m.	1,000 r.p.m.
	Quiet	760 r.p.m.	760 r.p.m.
OUTDOOR UNIT Cooling	High 2	820 r.p.m.	820 r.p.m.
	High	760 r.p.m.	760 r.p.m.
OUTDOOR UNIT Heating	High 2	760 r.p.m.	820 r.p.m.
	High	680 r.p.m.	680 r.p.m.

" HIGH2 " means when ability measurement.

NOISE LEVEL

INDOOR UNIT Cooling	High 2	40 dB	42 dB
	High 1	39 dB	41 dB
	Medium	34 dB	35 dB
	Low	29 dB	29 dB
	Quiet	20 dB	20 dB
INDOOR UNIT Heating	High 2	41 dB	42 dB
	High 1	40 dB	41 dB
	Medium	35 dB	35 dB
	Low	28 dB	28 dB
	Quiet	21 dB	21 dB
OUTDOOR UNIT Cooling	High 2	48 dB	49 dB
	High 1	47 dB	47 dB
OUTDOOR UNIT Heating	High 2	50 dB	51 dB
	High 1	48 dB	49 dB

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION		DA89X1C-20FZ	DA89X1C-20FZ2
WEIGHT (with oil)		9.9 kg	9.2 kg
REFRIGERANT TYPE		R410A	R410A
PRECHARGED REFRIGERANT		950 g	1,050 g
FULL CHARGE	Pipe length 15 m	950 g	1,050 g
	20 m	1,050 g	1,150 g
ADDITIONAL CHARGE		20 g/m	
MAXIMUM PIPING HEIGHT		15m	

DIMENSIONS

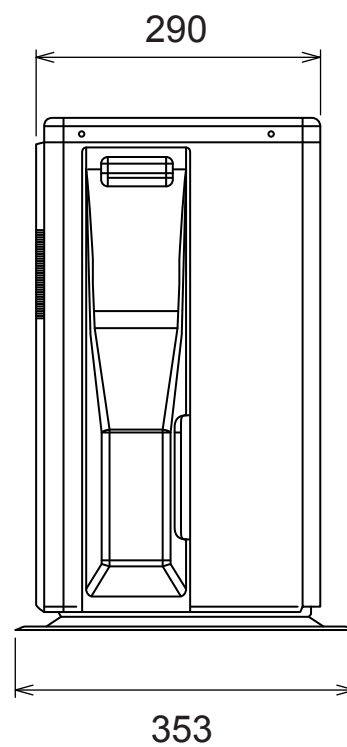
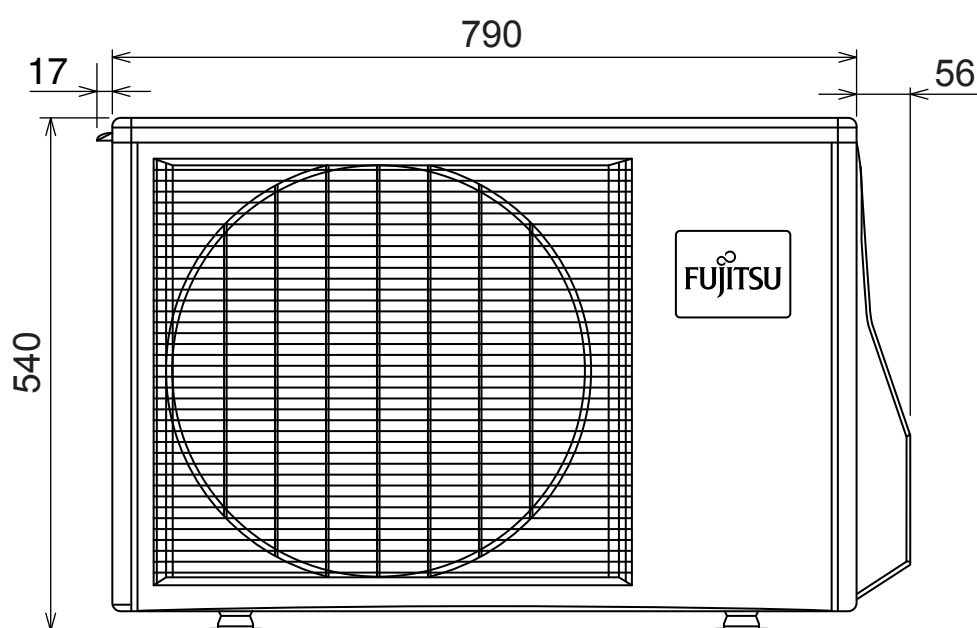
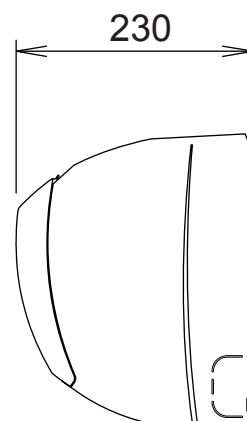
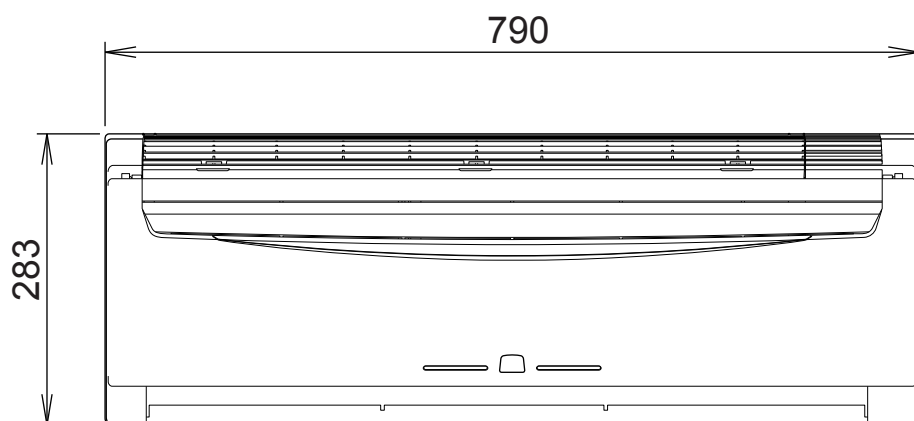
INDOOR UNIT	H x W x D	283 x 790 x 230 mm
OUTDOOR UNIT	H x W x D	540 x 790 x 290 mm

WEIGHT

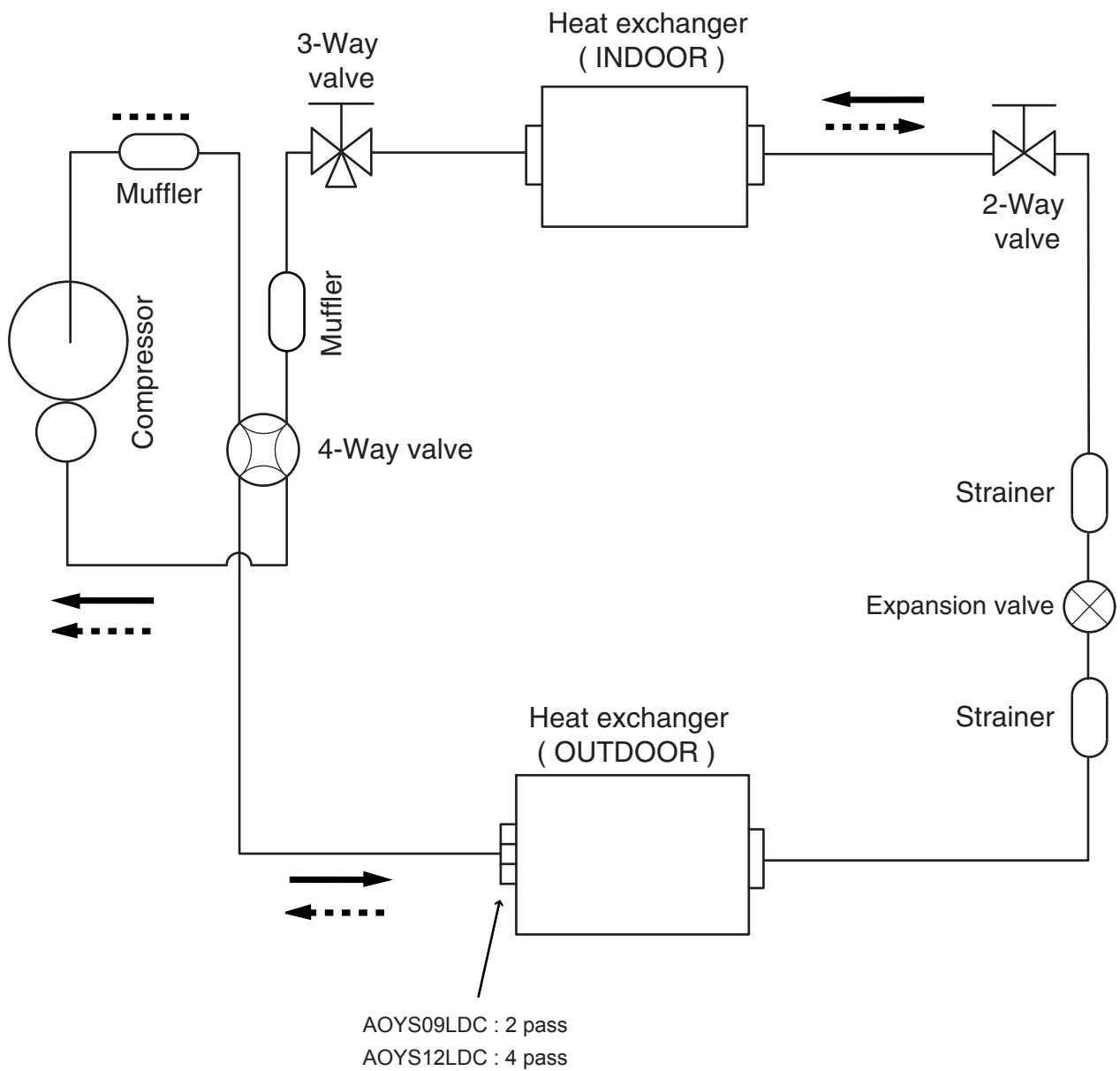
INDOOR UNIT	Gross / Net	12 kg / 9.5 kg
OUTDOOR UNIT	Gross / Net	38 kg / 34 kg 40 kg / 36 kg

DIMENSIONS

(unit : mm)

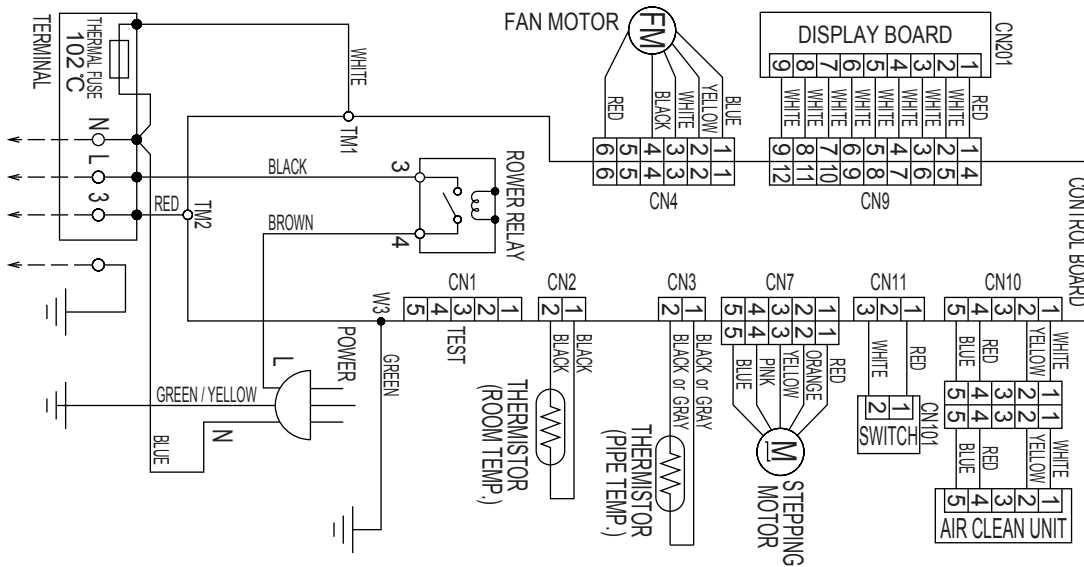


REFRIGERANT SYSTEM DIAGRAM

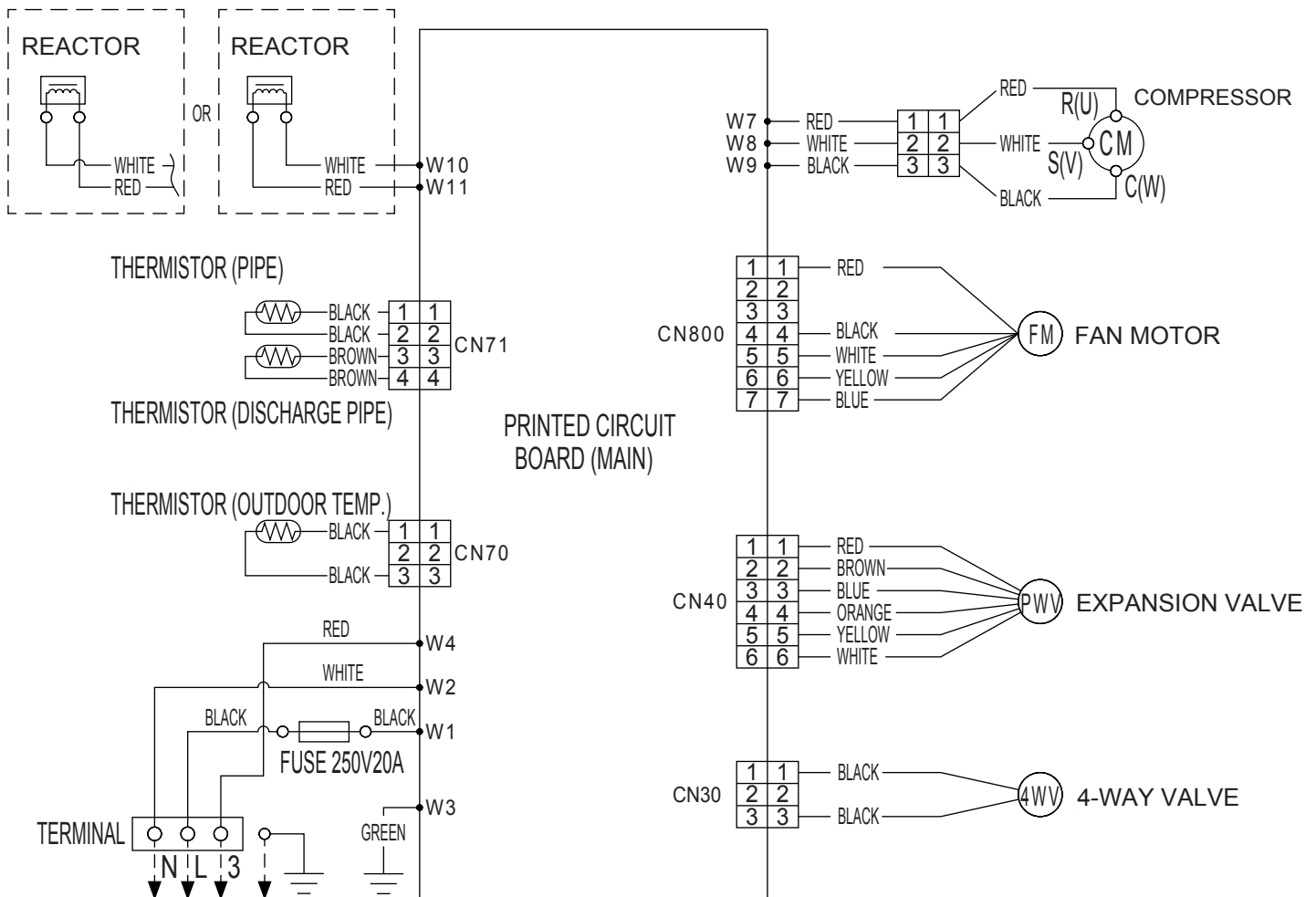


CIRCUIT DIAGRAM

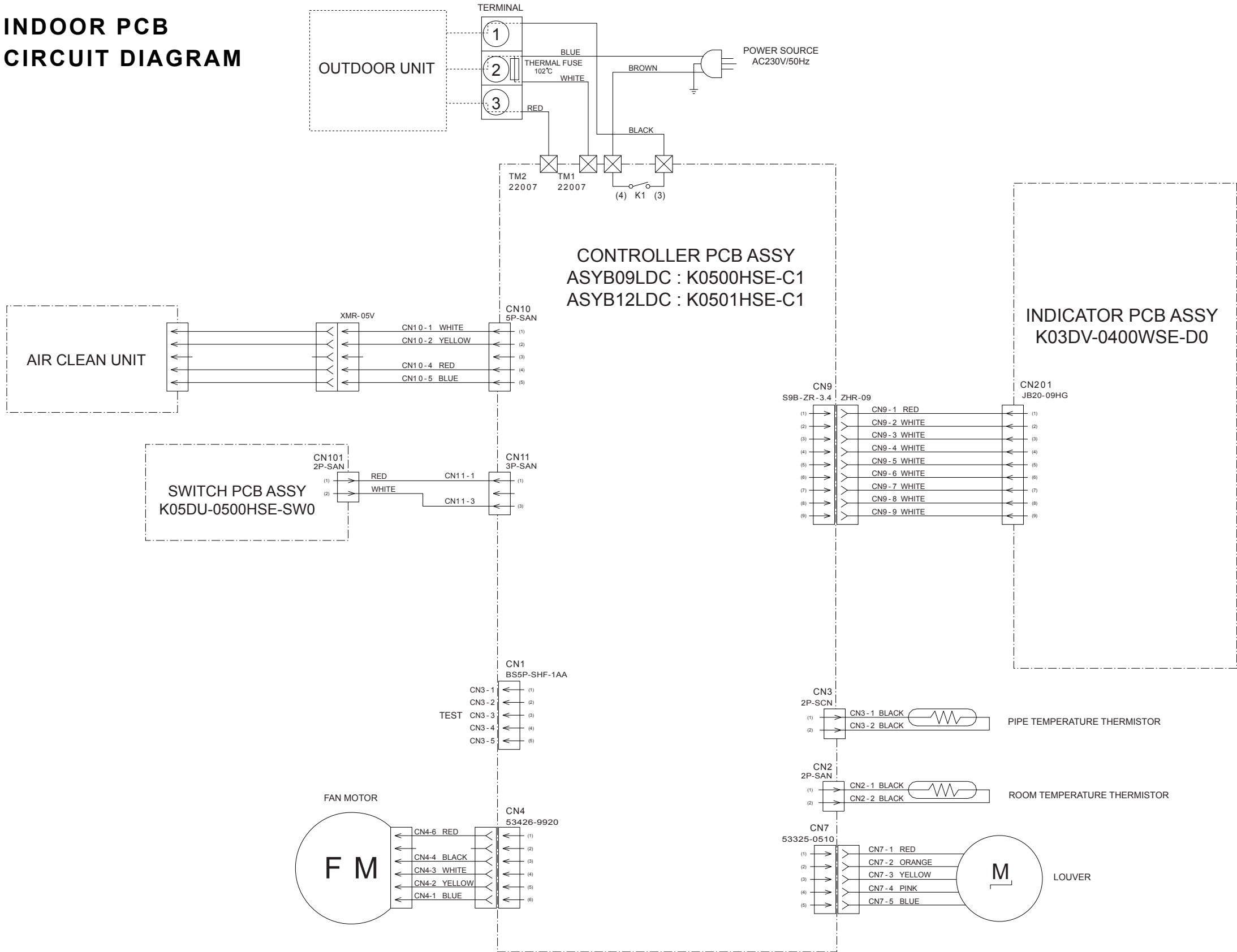
INDOOR UNIT



OUTDOOR UNIT

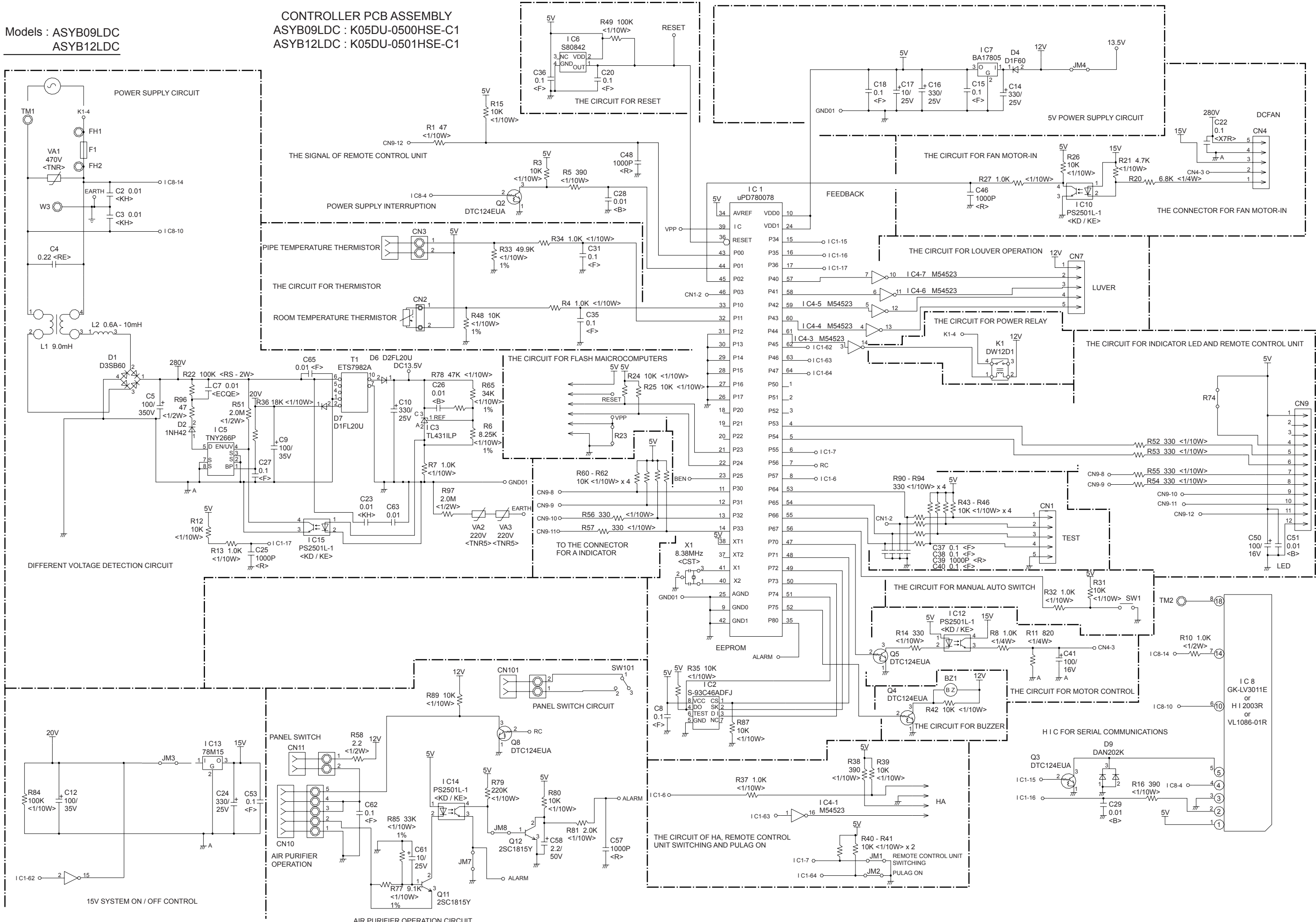


INDOOR PCB
CIRCUIT DIAGRAM



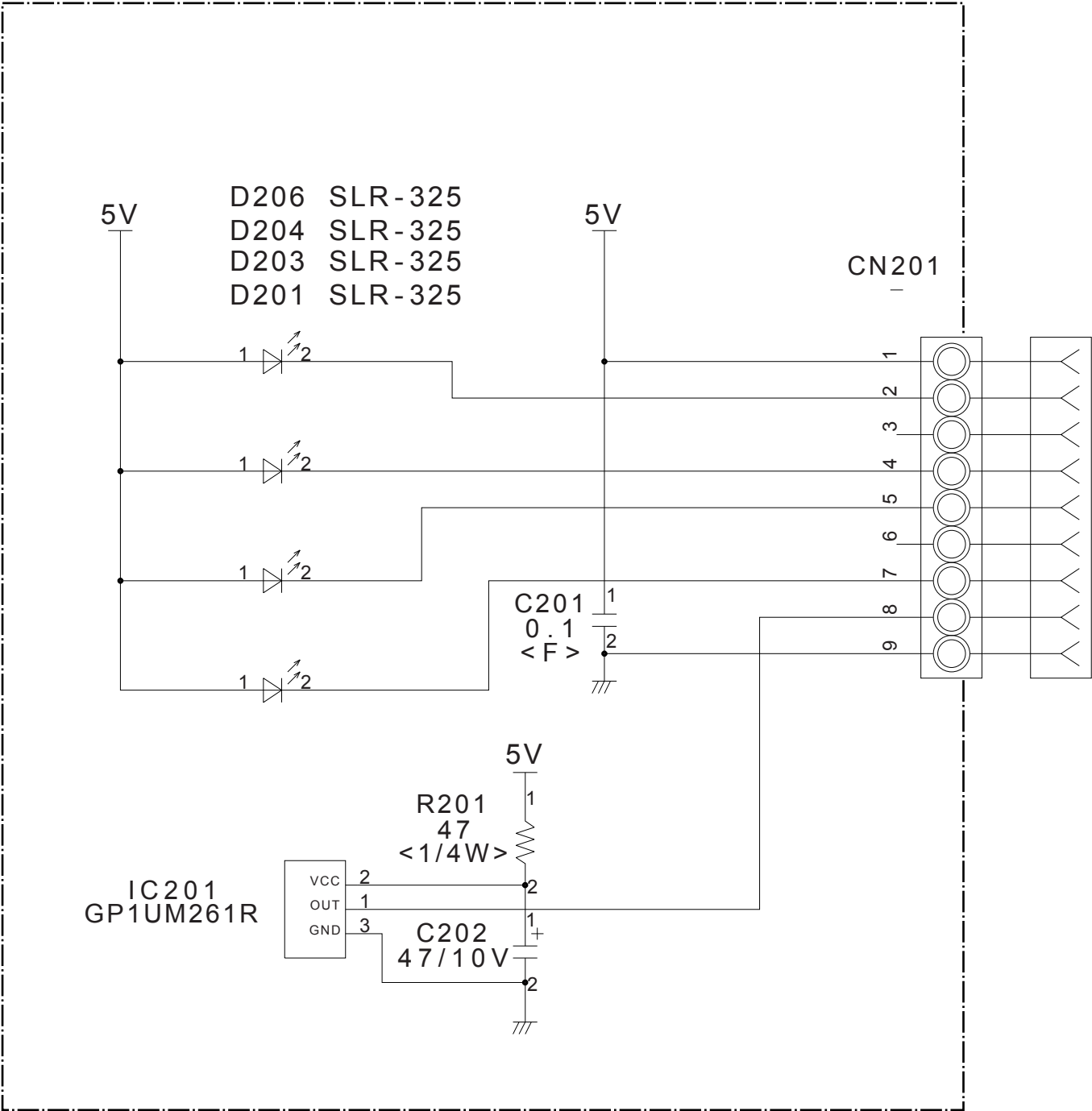
Models : ASYB09LDC
ASYB12LDC

CONTROLLER PCB ASSEMBLY
ASYB09LDC : K05DU-0500HSE-C1
ASYB12LDC : K05DU-0501HSE-C1



Models : ASYB09LDC
ASYB12LDC

INDICATOR PCB
K03DV-0400WSE-D0

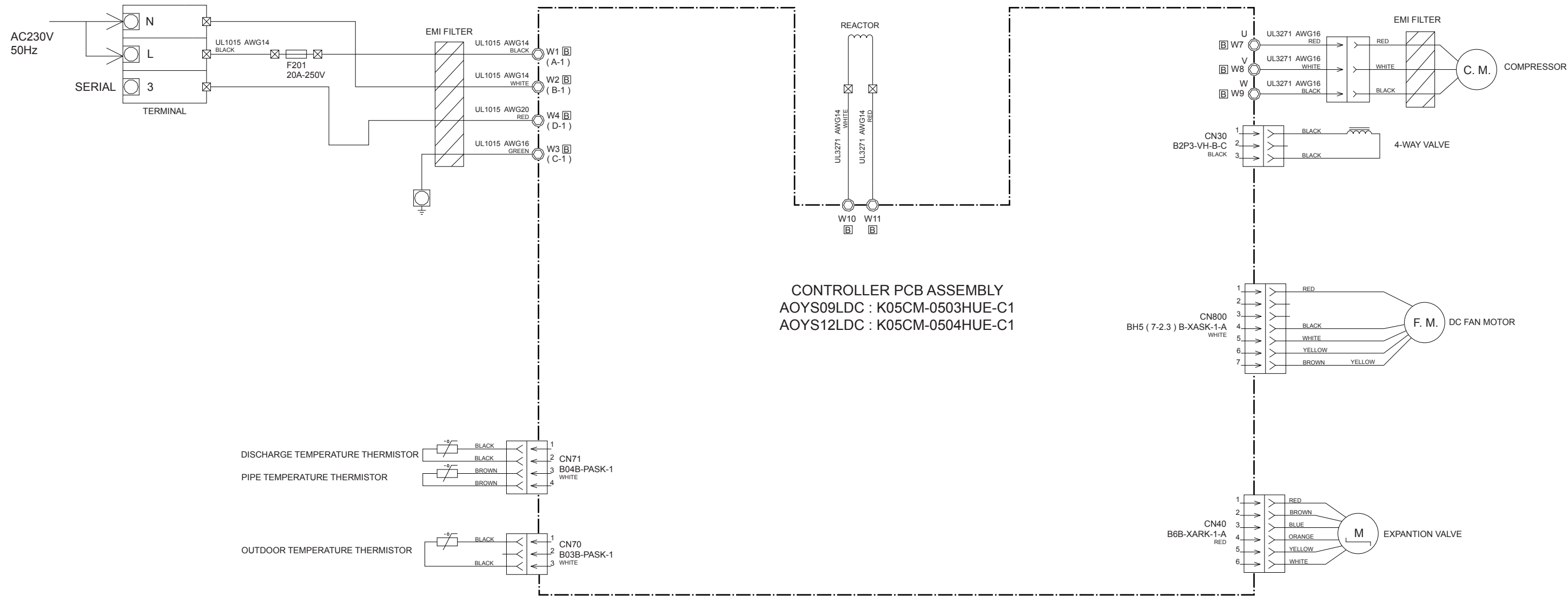


OUTDOOR PCB CIRCUIT DIAGRAM

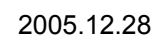
Models : AOYS09LDC
AOYS12LDC

INVERTER ASSEMBLY
AOYS09LDC : EZ-005AHUE
AOYS12LDC : EZ-005BHUE

CONTROLLER PCB ASSEMBLY
AOYS09LDC : K05CM-0503HUE-C1
AOYS12LDC : K05CM-0504HUE-C1



CONTROLLER PCB ASSEMBLY
AOYS09LDC : K05CM-0503HUE-C1
AOYS12LDC : K05CM-0504HUE-C1

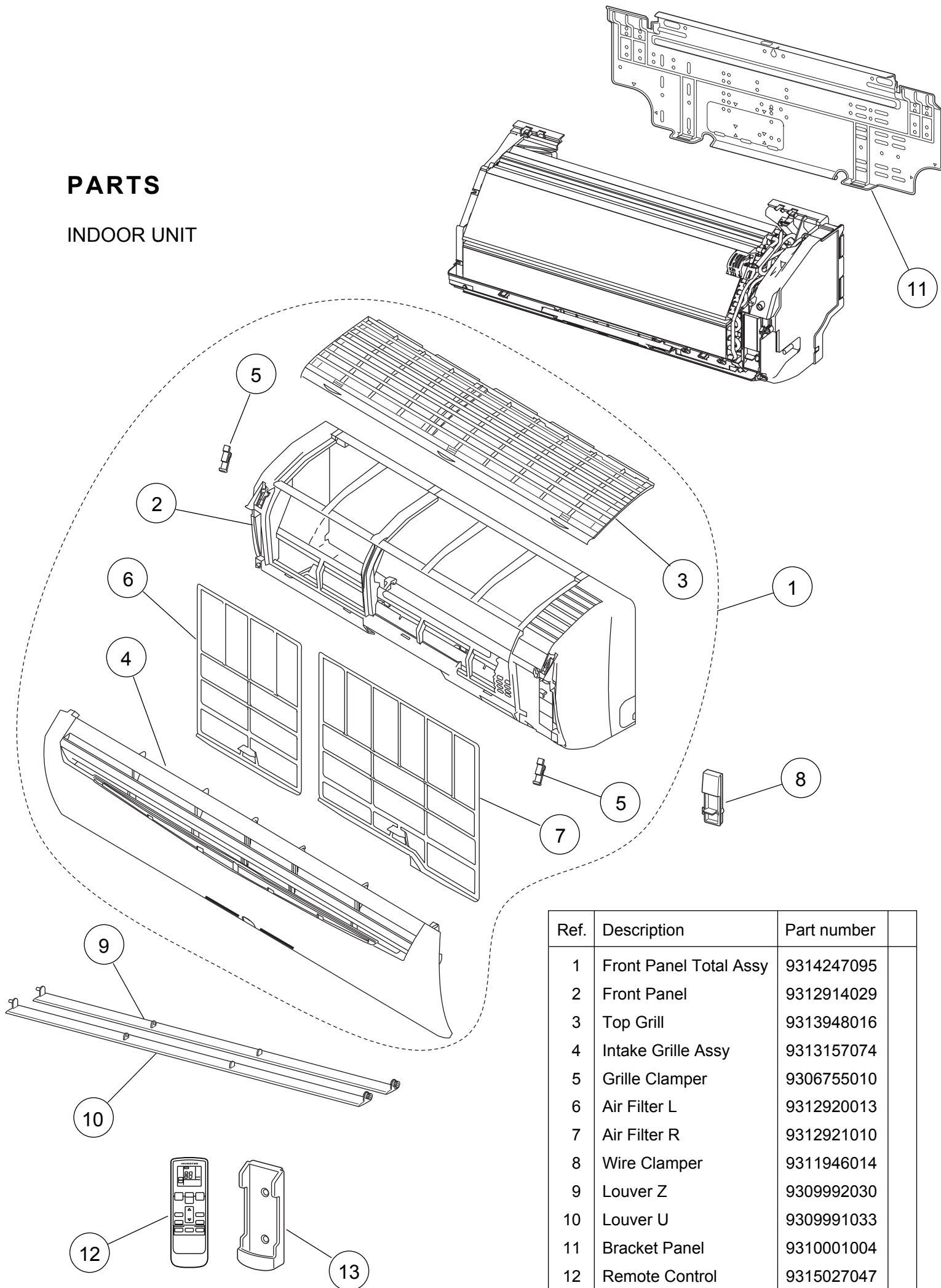


ERROR CONTENTS

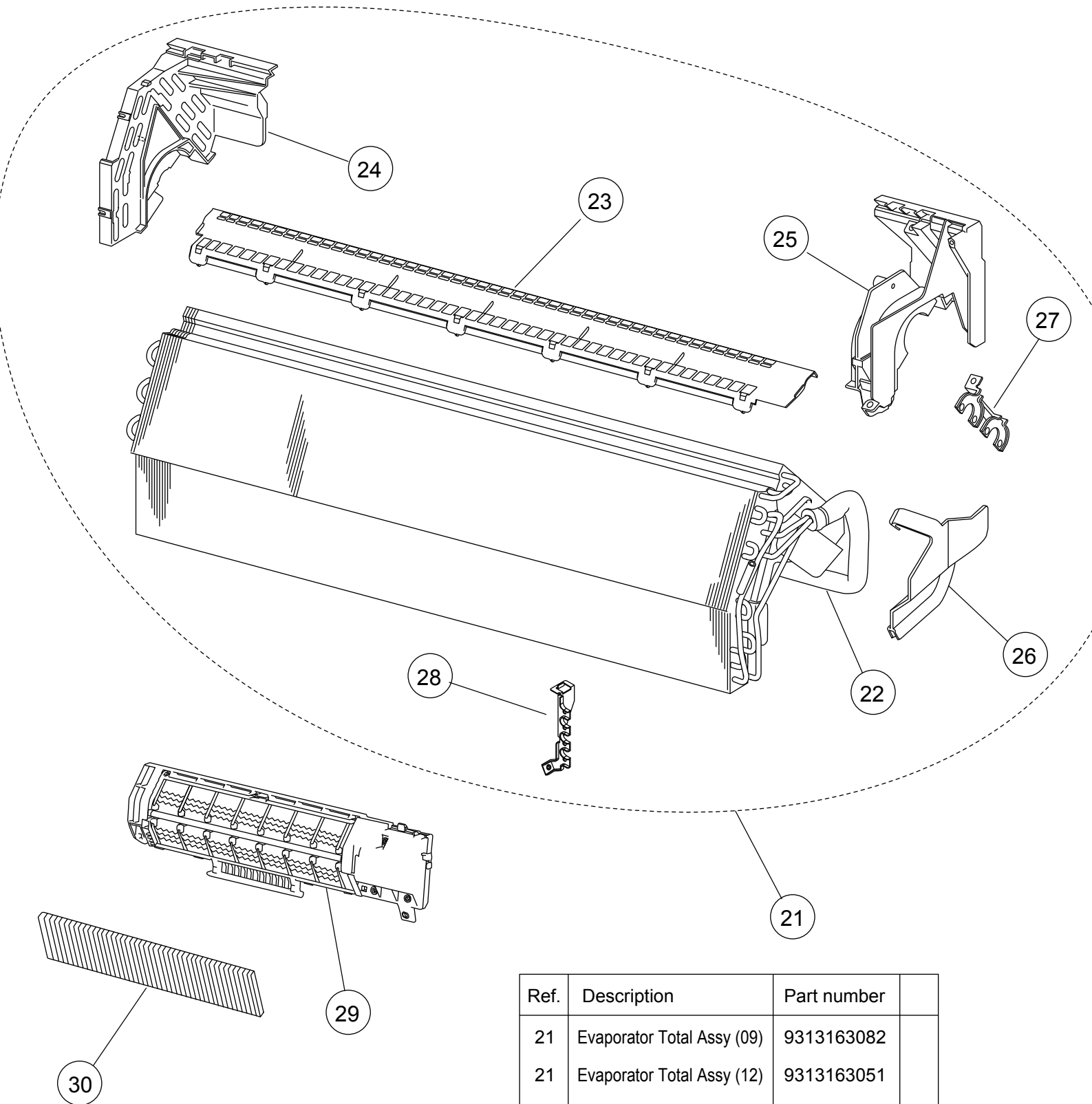
Error	Display		Error
	Operation LED	Timer LED	
Serial signal error	Off	2 flash	Serial signal (reverse) error, at operation start up
		3 flash	Serial signal (reverse) error, during operation
		4 flash	Serial signal (forward) error, at operation start up
		5 flash	Serial signal (forward) error, during operation
Indoor unit thermistor error	2 flash	2 flash	Indoor temperature thermistor open / short
		3 flash	Heat exchanger middle thermistor open / short
Outdoor unit thermistor error	3 flash	2 flash	Discharge thermistor open / short
		3 flash	Heat exchanger thermistor open
		4 flash	Outdoor temperature thermistor open / short
Indoor unit control error	4 flash	2 flash	Forced automatic SW welded
		3 flash	Main relay welded
		4 flash	Power interruption error
		7 flash	VDD permanent stop protection
		8 flash	reverse VDD permanent stop protection
Outdoor unit control error	5 flash	2 flash	Current trip error
		3 flash	CT abnormal
		5 flash	Compressor location detection error
		6 flash	Outdoor unit fan drive system abnormal
Indoor fan motor error	6 flash	2 flash	Abnormal lock
		3 flash	Abnormal rotation
Refrigerant cycle error	7 flash	2 flash	Discharge Temperature abnormal
		3 flash	Cooling high pressure abnormal rise
Optional function error	8 flash	4 flash	PFC circuit error
Model error	Blinking	Blinking	Model error

PARTS

INDOOR UNIT

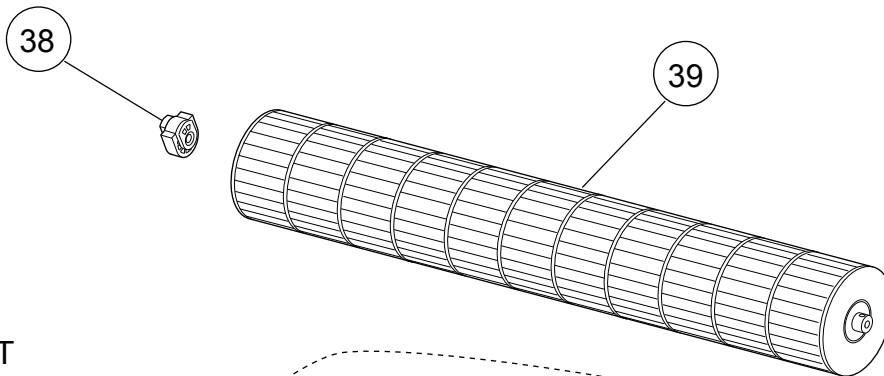


Ref.	Description	Part number
1	Front Panel Total Assy	9314247095
2	Front Panel	9312914029
3	Top Grill	9313948016
4	Intake Grille Assy	9313157074
5	Grille Clamper	9306755010
6	Air Filter L	9312920013
7	Air Filter R	9312921010
8	Wire Clamper	9311946014
9	Louver Z	9309992030
10	Louver U	9309991033
11	Bracket Panel	9310001004
12	Remote Control	9315027047
13	Remote Control Holder	9305642045

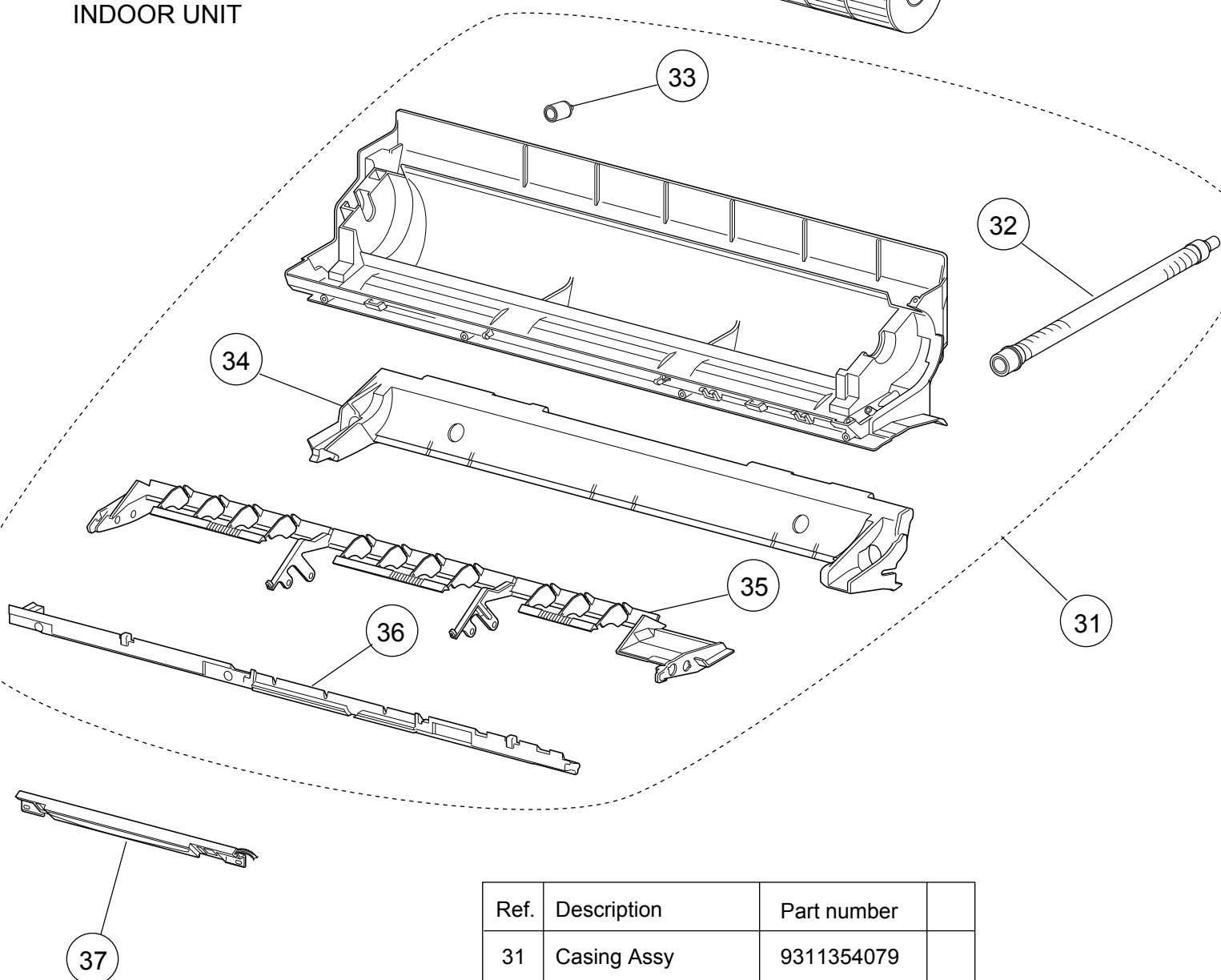


INDOOR UNIT

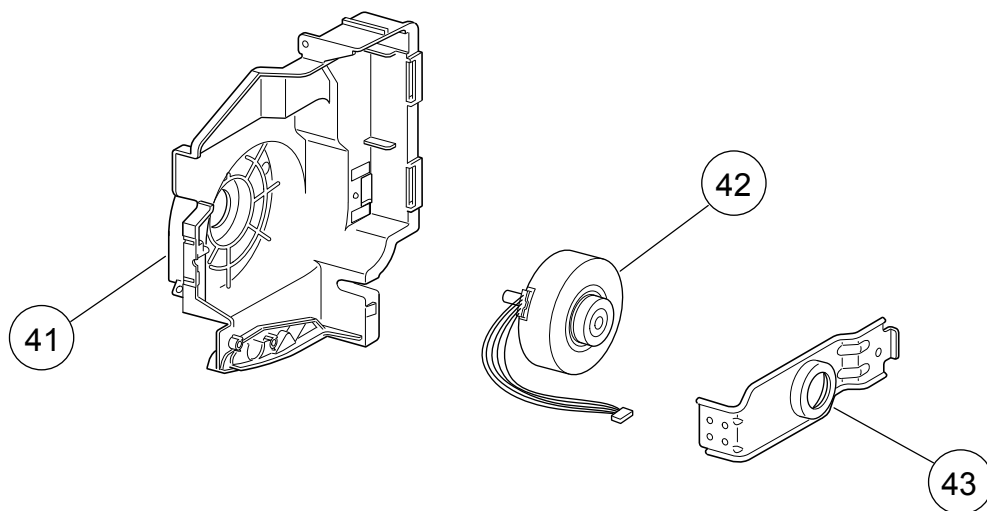
Ref.	Description	Part number	
21	Evaporator Total Assy (09)	9313163082	
21	Evaporator Total Assy (12)	9313163051	
22	Joint Pipe Assy	9331471015	
23	Filter Guide	9313920012	
24	Evaporator Holder L	9309982017	
25	Evaporator Holder R	9309983014	
26	Water Seal	9312912018	
27	Bracket (Eva.)	9310464007	
28	Air Cleaner Holder	9313147013	
29	Air Cleaner Assy	9313148041	
30	Air Clean Filter	9313275013	



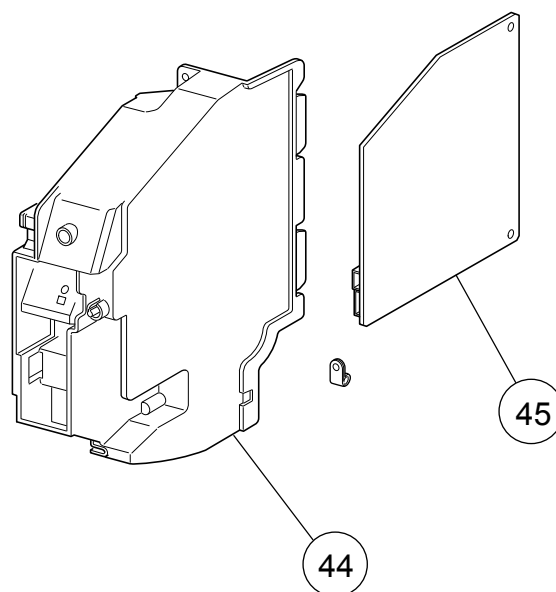
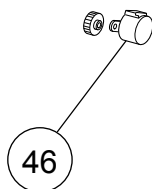
INDOOR UNIT



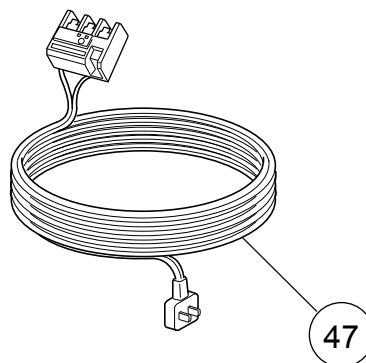
Ref.	Description	Part number	
31	Casing Assy	9311354079	
32	Drain Hose Assy	9314147029	
33	Drain Cap	9316177017	
34	Casing Cover B	9314160011	
35	Louver Holder	9309993013	
36	Casing Cover F	9309987005	
37	Indicator PCB Assy	9705375024	
38	Bearing C Assy	9306628017	
39	Crossflow Fan Assy	9307836015	



INDOOR UNIT

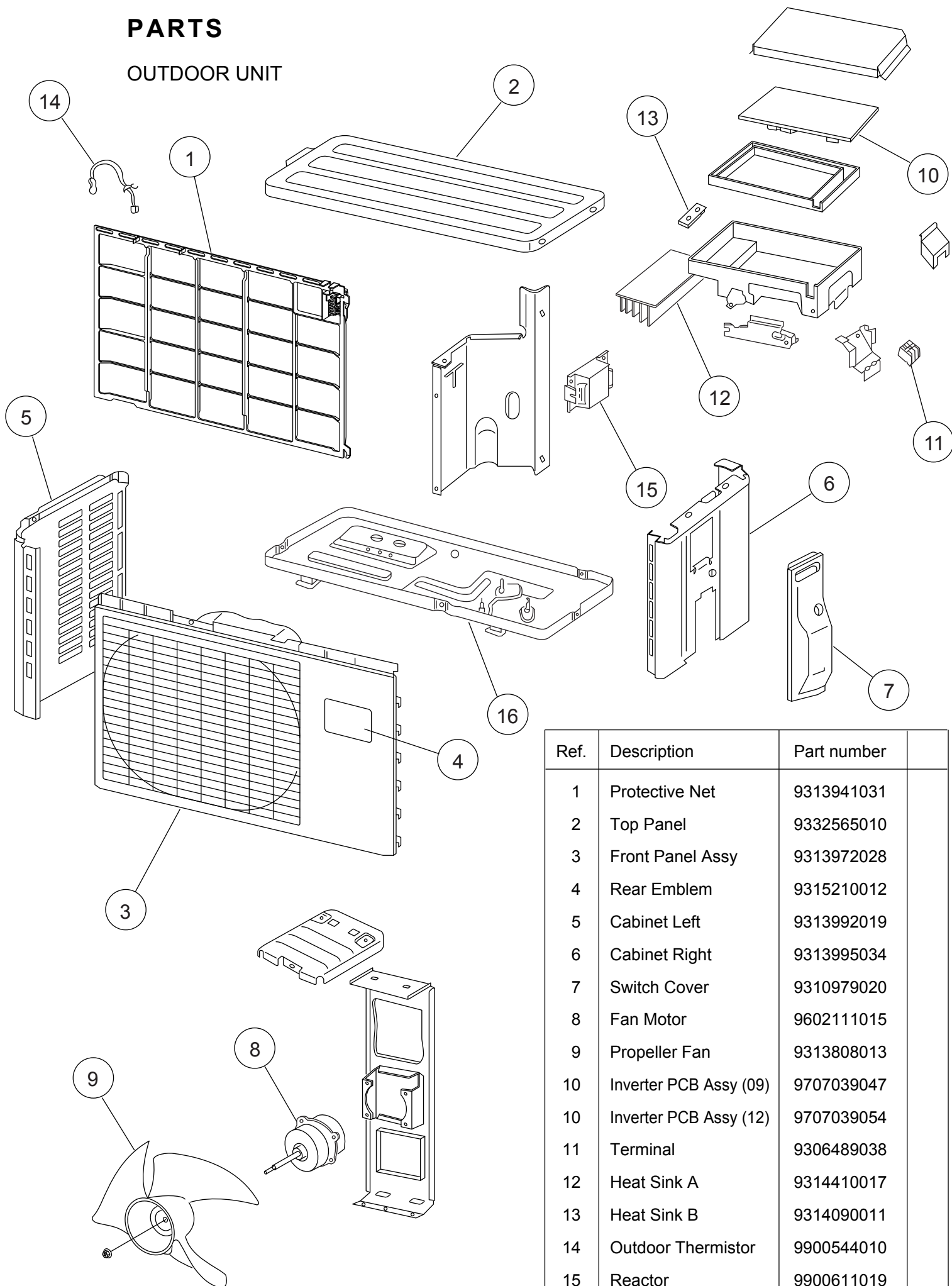


Ref.	Description	Part number	
41	Switch Box	9312908011	
42	Motor, Brushless DC	9602783014	
43	Motor Clamper	9310102008	
44	Switch Cover	9312909018	
45	PCB Assy (09)	9707103052	
45	PCB Assy (12)	9707103069	
46	Motor, Step	9900139025	
47	Power Cord Assy (09)	9900339036	
47	Power Cord Assy (12)	9900339012	



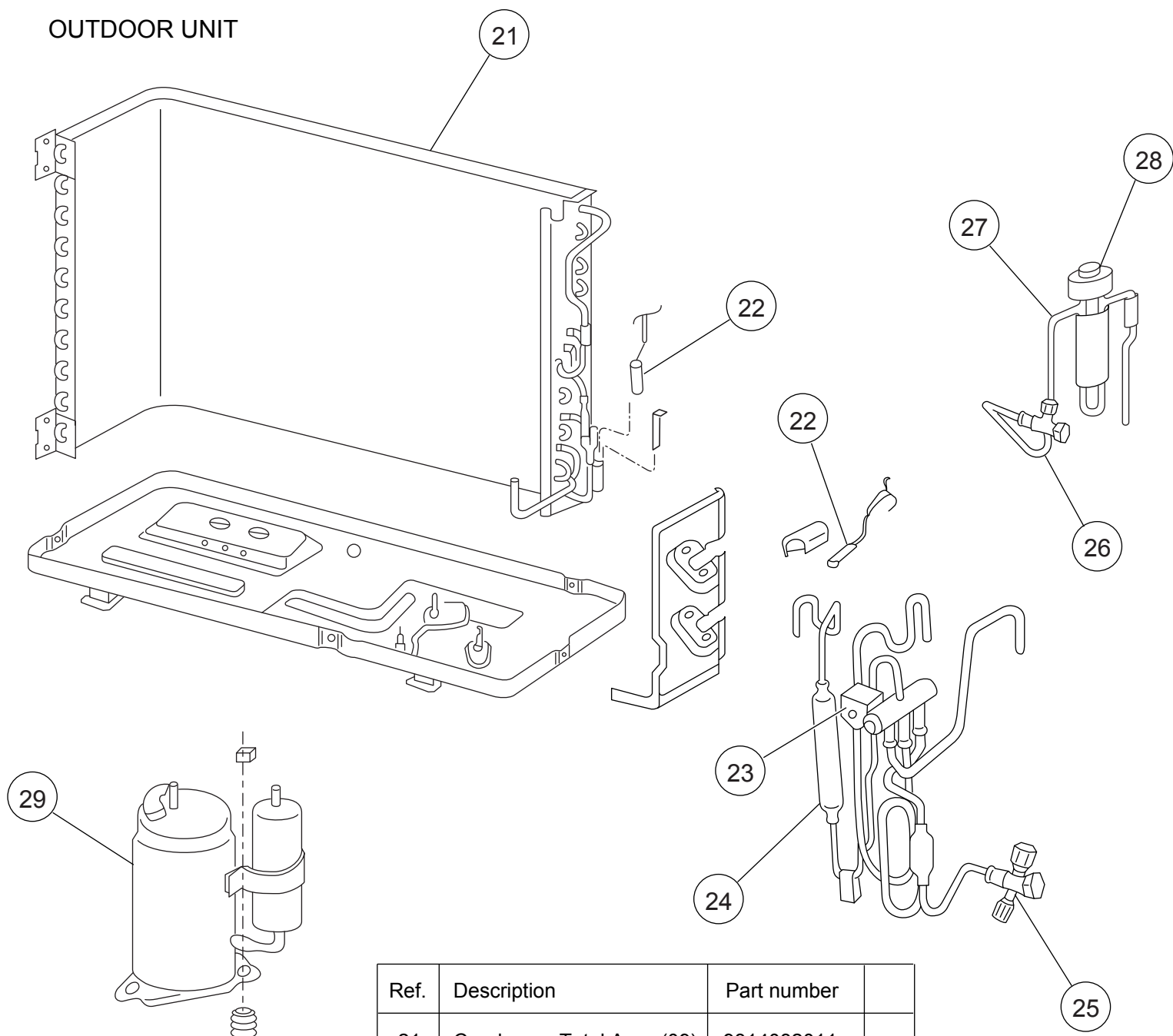
PARTS

OUTDOOR UNIT



Ref.	Description	Part number	
1	Protective Net	9313941031	
2	Top Panel	9332565010	
3	Front Panel Assy	9313972028	
4	Rear Emblem	9315210012	
5	Cabinet Left	9313992019	
6	Cabinet Right	9313995034	
7	Switch Cover	9310979020	
8	Fan Motor	9602111015	
9	Propeller Fan	9313808013	
10	Inverter PCB Assy (09)	9707039047	
10	Inverter PCB Assy (12)	9707039054	
11	Terminal	9306489038	
12	Heat Sink A	9314410017	
13	Heat Sink B	9314090011	
14	Outdoor Thermistor	9900544010	
15	Reactor	9900611019	
16	Base Assy	9316885004	
--	Drain Pipe Assy	9303029022	

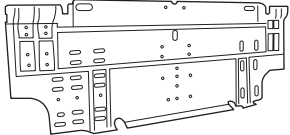
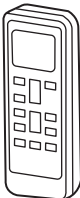
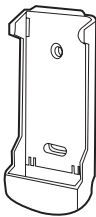
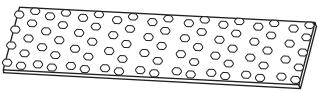
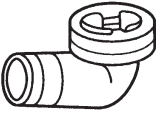
OUTDOOR UNIT



Ref.	Description	Part number	
21	Condenser Total Assy (09)	9314032011	
21	Condenser Total Assy (12)	9314107016	
22	Thermistor Assy	9900473013	
23	Solenoid	9970033018	
24	4-way Valve Assy	9314093012	
25	3-way Valve Assy	9314022012	
26	2-way Valve Assy	9314554018	
27	Pulse Motor Valve Assy (09)	9314557019	
27	Pulse Motor Valve Assy (12)	9317620000	
28	Expansion Valve Coil	9900057039	
29	Compressor Assy (09)	9315206015	
29	Compressor Assy (12)	9317619004	

ACCESSORIES

The following installation accessories are supplied.
Use them as required.

Name and Shape	Q'ty	Name and Shape	Q'ty
Wall hook bracket 	1	Cloth tape 	1
Remote control unit 	1	Tapping screw (big) 	8
Battery 	2	Tapping screw (small) 	2
Remote control unit holder 	1	Air-cleaning and Deodorizing filter 	1
Drain pipe 	1		

