

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYA09LKC	AOYR09LKC
ASYA12LKC	AOYR12LKC

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASYA09LKC	ASYA12LKC
OUTDOOR UNIT		AOYR09LKC	AOYR12LKC
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	4.2 A	4.9 A
	Heating	4.8 A	5.2 A
INPUT WATTS	Cooling	0.780 kW	1.060 kW
	Heating	0.885 kW	1.105 kW
E.E.R.	Cooling	3.21 kW/kW	3.21 kW/kW
COP	Heating	3.62 kW/kW	3.62 kW/kW
MOISTURE REMOVAL		1.3 L/h	1.8 L/h
AIR CIRCULATION HIGH	Cooling	710 m ³ /h	710 m ³ /h
	Heating	730 m ³ /h	730 m ³ /h
MAXIMUM CURRENT	Cooling	5.5 A	6.5 A
	Heating	5.5 A	9.0 A

FAN MOTOR

POWER SOURCE		230 V	230 V
INDOOR UNIT Cooling	High speed	1,400 r.p.m.	1,400 r.p.m.
	Middle speed	1,200 r.p.m.	1,200 r.p.m.
	Low speed	920 r.p.m.	920 r.p.m.
	Quiet	620 r.p.m.	620 r.p.m.
INDOOR UNIT Heating	High speed	1,440 r.p.m.	1,440 r.p.m.
	Middle speed	1,200 r.p.m.	1,200 r.p.m.
	Low speed	980 r.p.m.	980 r.p.m.
	Quiet	670 r.p.m.	670 r.p.m.
OUTDOOR UNIT Cooling		730 r.p.m.	860 r.p.m.
OUTDOOR UNIT Heating		650 r.p.m.	760 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High speed	43 dB	43 dB
	Middle speed	38 dB	38 dB
	Low speed	33 dB	33 dB
	Quiet	21 dB	21 dB
INDOOR UNIT Heating	High speed	43 dB	43 dB
	Middle speed	38 dB	38 dB
	Low speed	33 dB	33 dB
	Quiet	21 dB	21 dB
OUTDOOR UNIT Cooling		45 dB	50 dB
OUTDOOR UNIT Heating		45 dB	50 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION		5SS072XAA	DA89X1C-20FZ2
WEIGHT (with oil)		5.9 kg	9.2 kg
PRECHARGED REFRIGERANT		650 g	800 g
REFRIGERANT TYPE		R410A	R410A
FULL CHARGE	Pipe length 15 m	650 g	800 g
	20 m	750 g	900 g
ADDITIONAL REFRIGERANT		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 660 x 290 mm

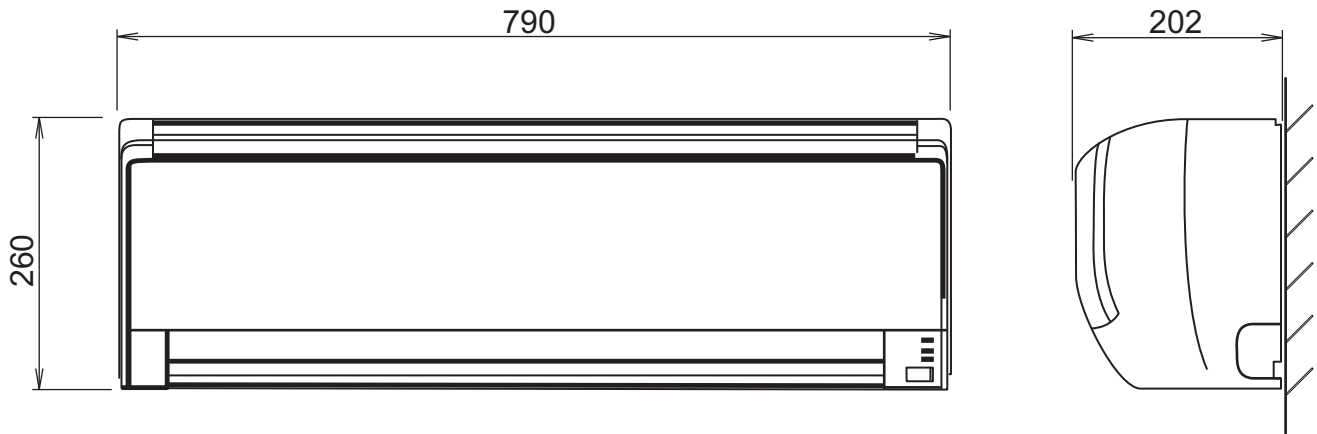
WEIGHT

INDOOR UNIT	Shipping / Net	9.5 kg / 7.5 kg
OUTDOOR UNIT	Shipping / Net	25 kg / 22 kg / 32 kg / 29 kg

DIMENSIONS

unit : mm

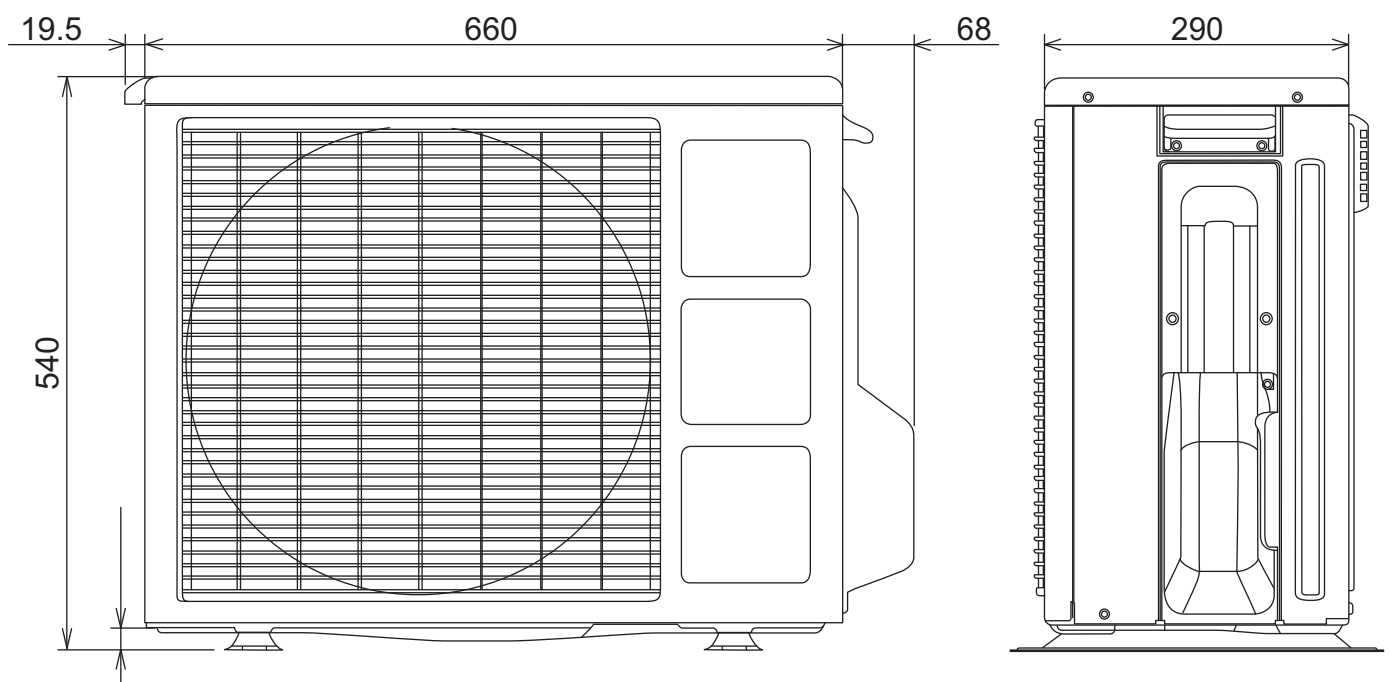
INDOOR UNIT



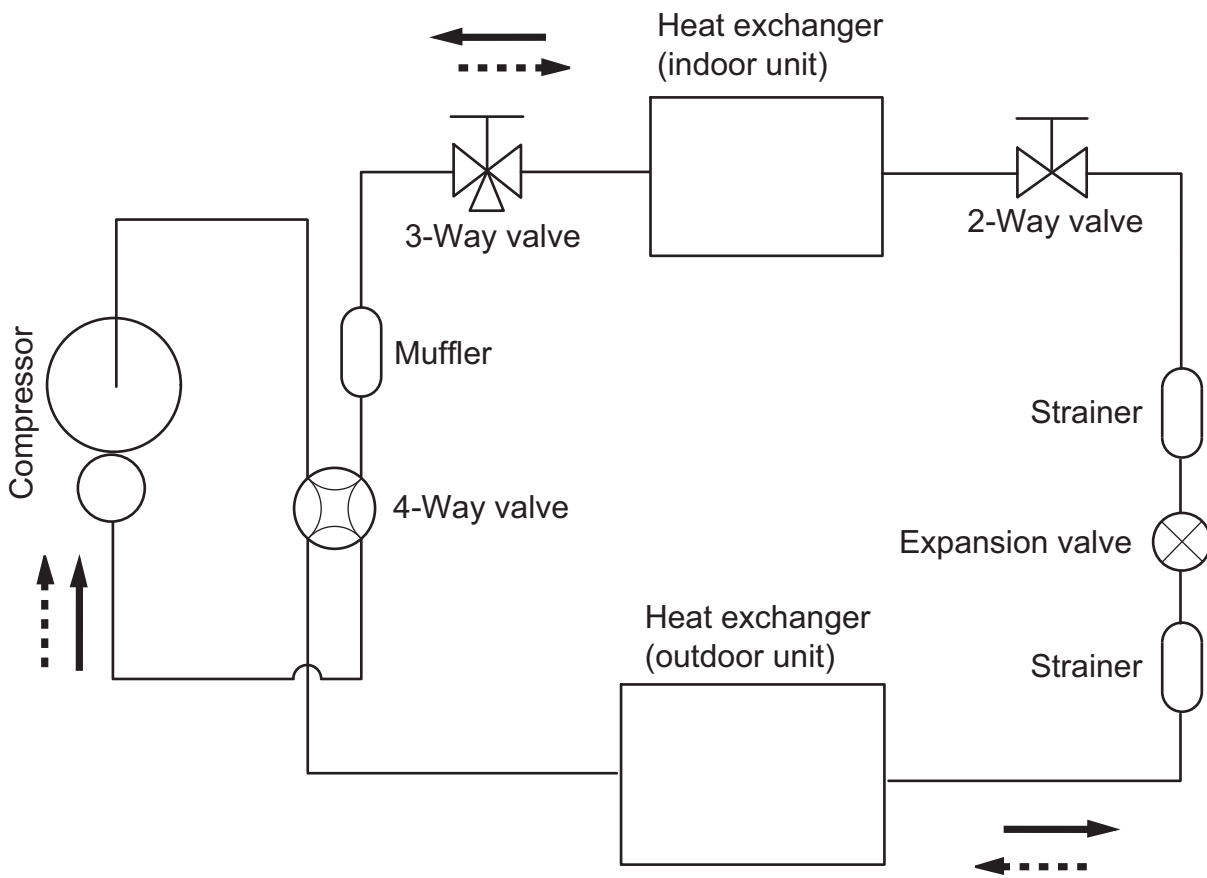
Drain pipe diameter
16.2 mm

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

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

- Cooling
- - - - → Heating

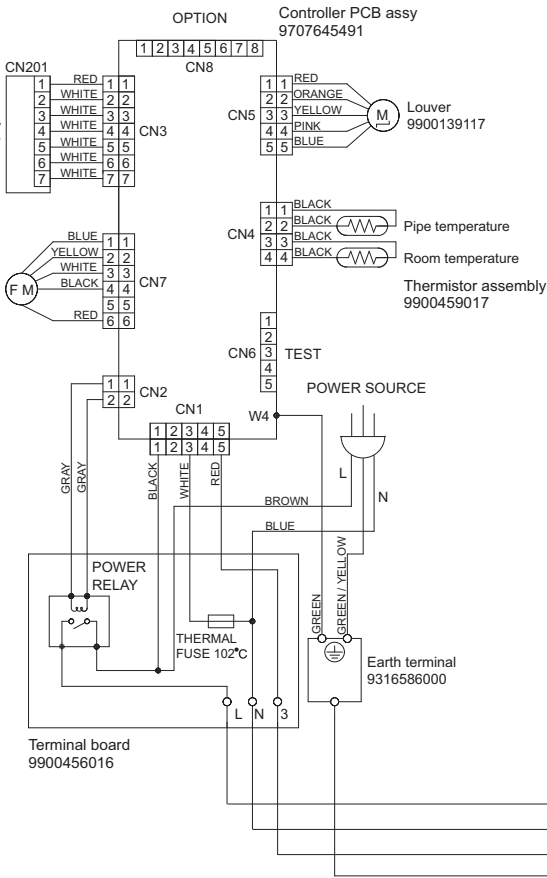
Refrigerant pipe diameter

- Liquid : 1/4" (6.35 mm)
- Gas : 3/8" (9.52 mm)

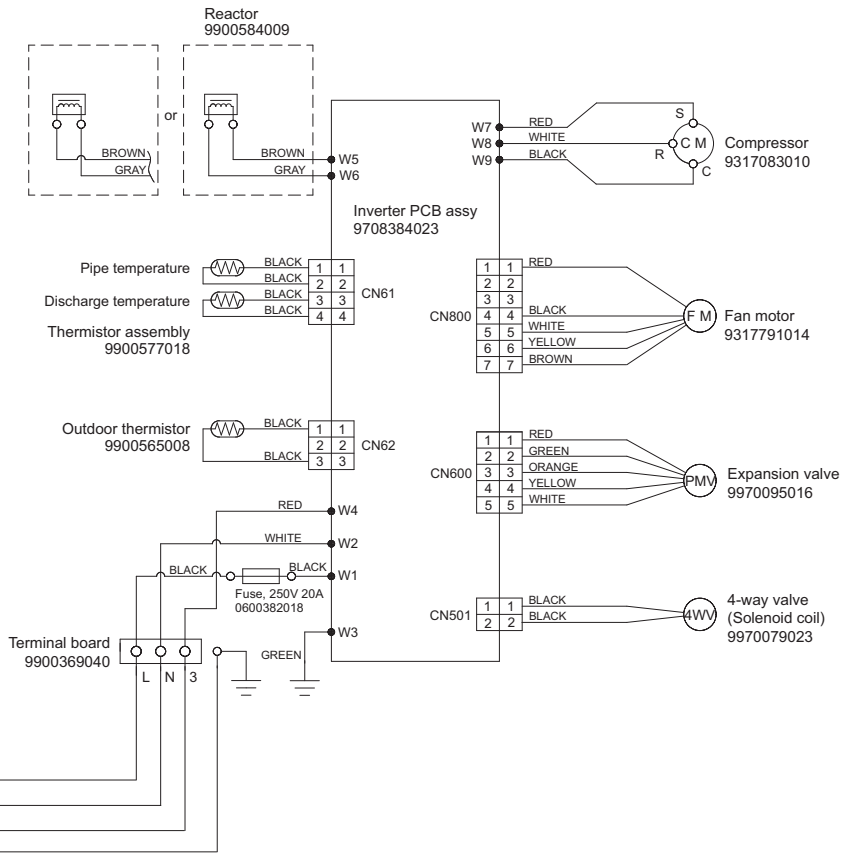
CIRCUIT DIAGRAM

ASYA09LKC / AOYR09LKC

INDOOR UNIT

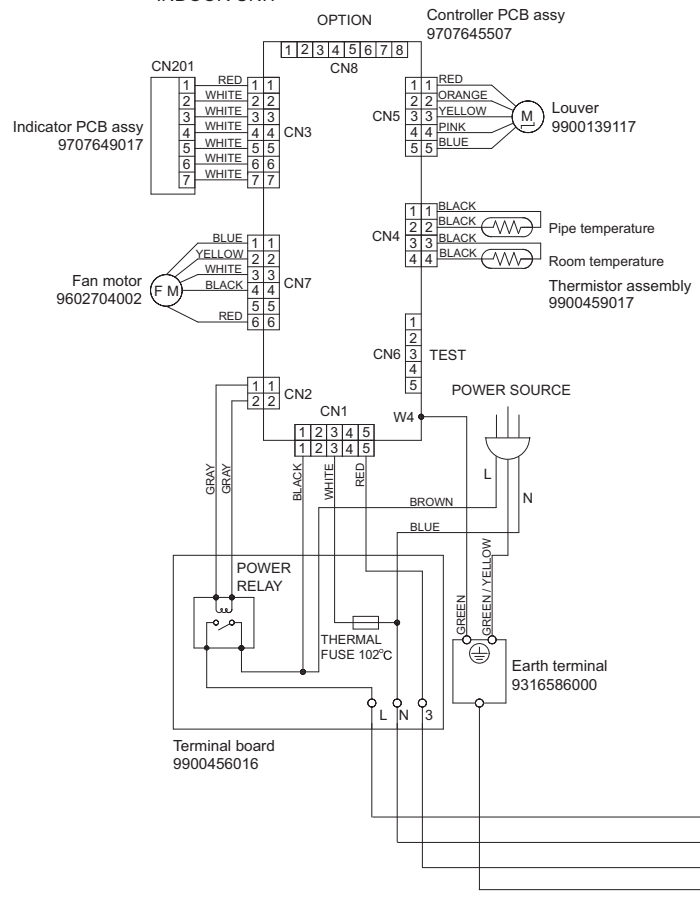


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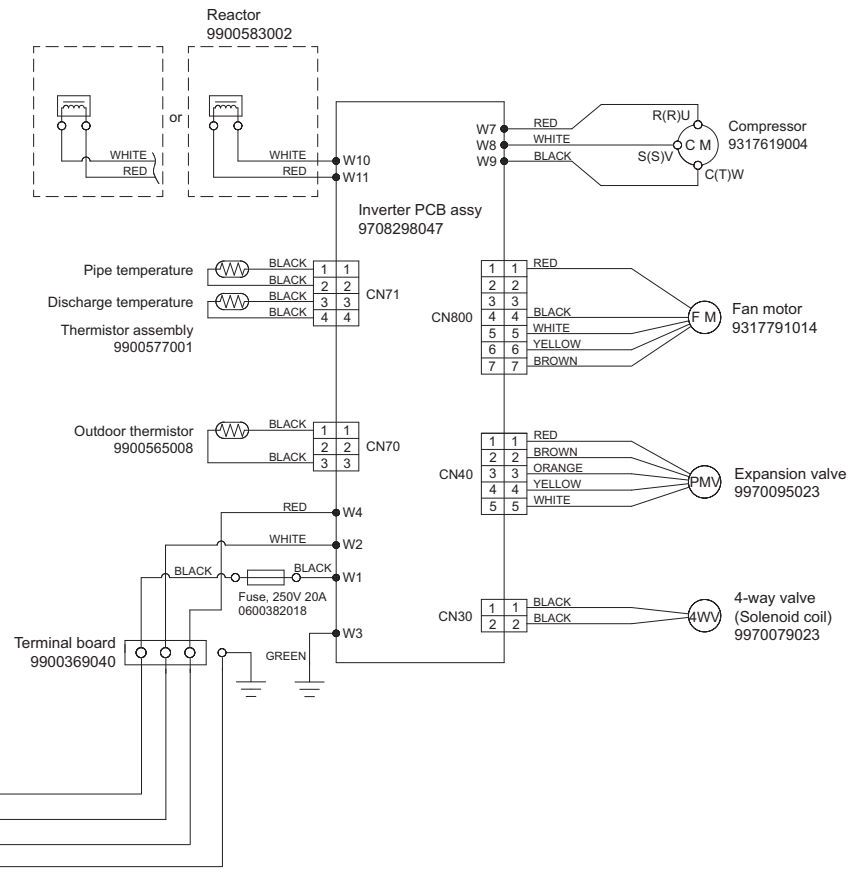


ASYA12LKC / AOYR12LKC

INDOOR UNIT



OUTDOOR UNIT

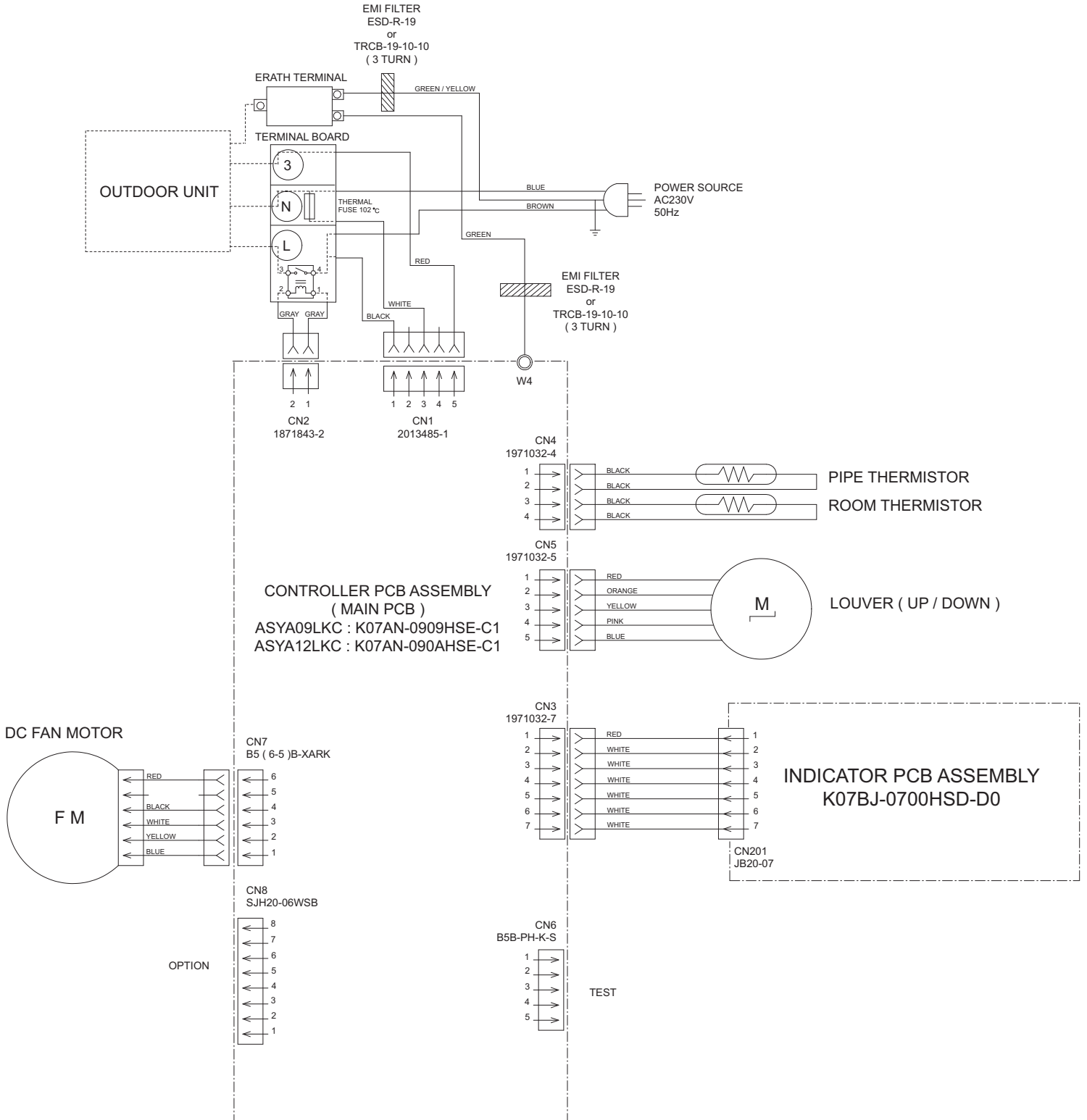


INDOOR PCB CIRCUIT DIAGRAM

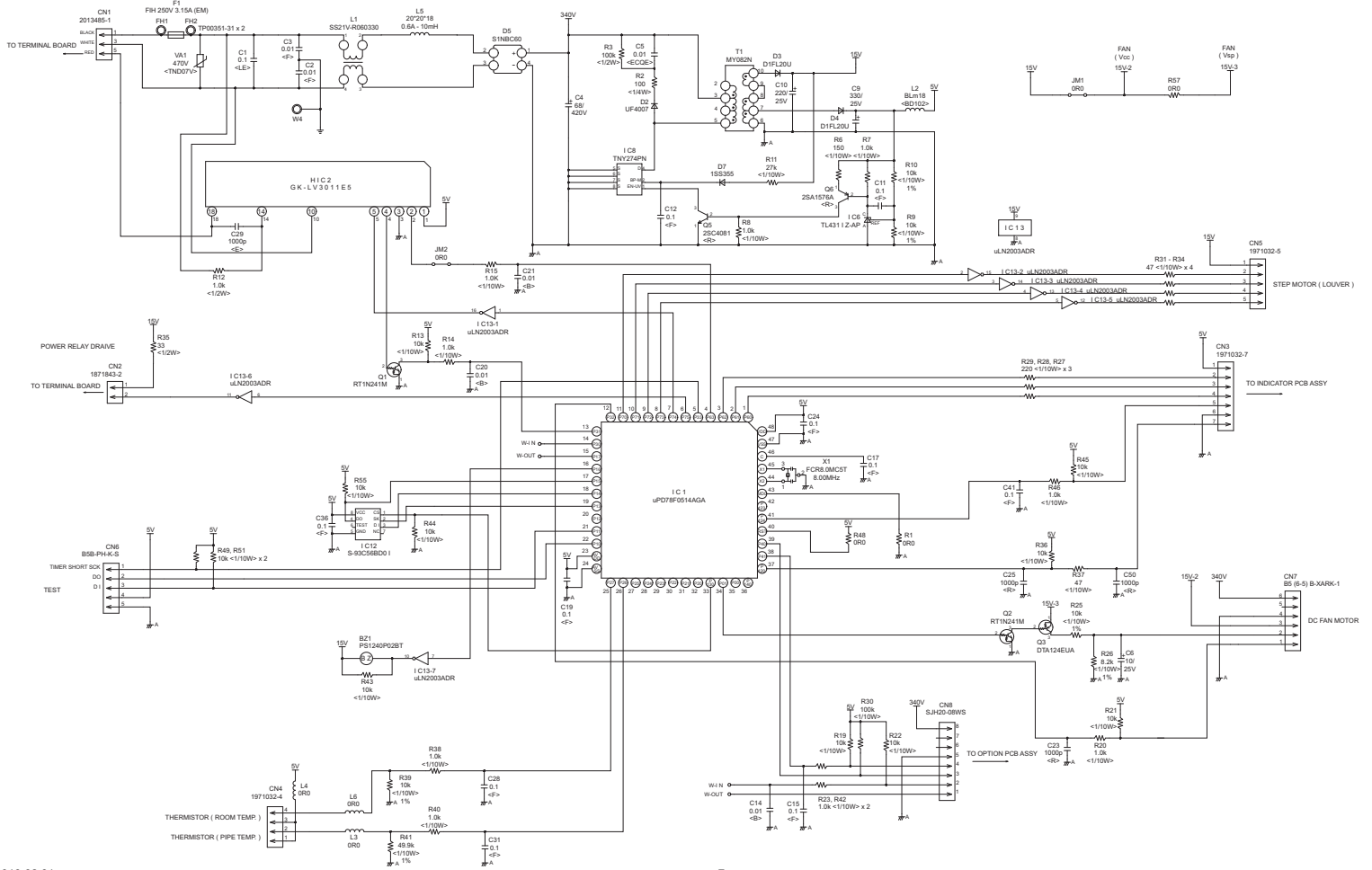
CONTROL UNIT

ASYA09LKC : EZ-0090MHSE

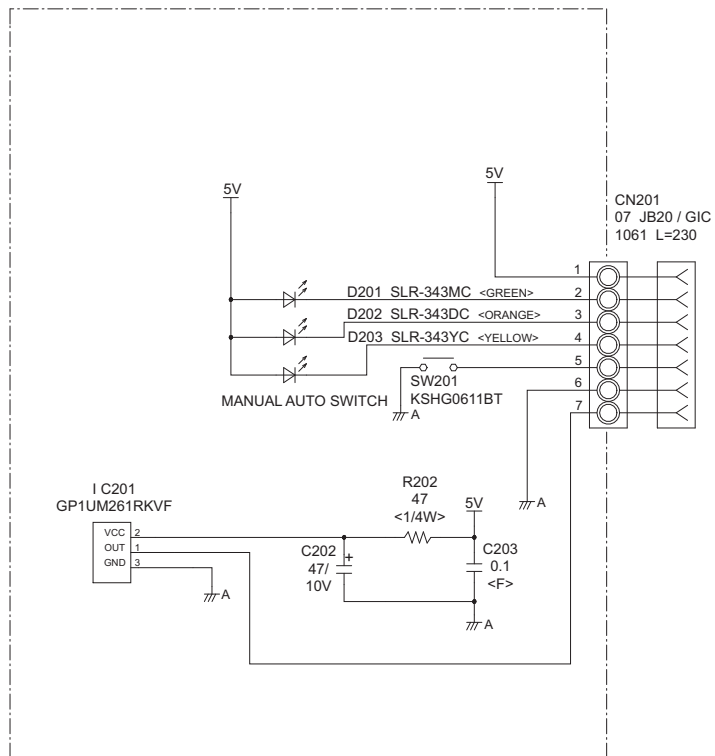
ASYA12LKC : EZ-0090PHSE



INDOOR UNIT
 CONTROLLER PCB ASSEMBLY (MAIN PCB)
 ASYA09LKC : K07AN-0909HSE-C1
 ASYA12LKC : K07AN-090AHSE-C1

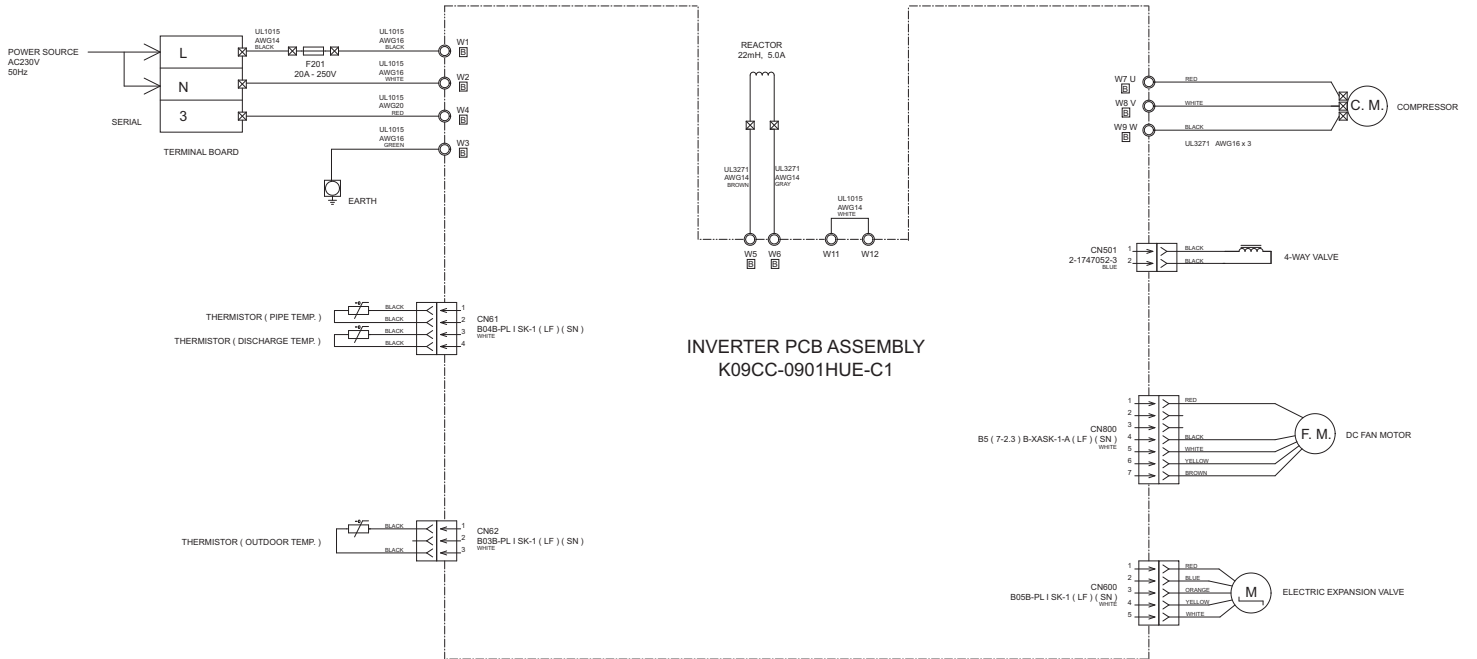


INDOOR UNIT
 INDICATOR PCB ASSEMBLY
 K07BJ-0700HSD-D0



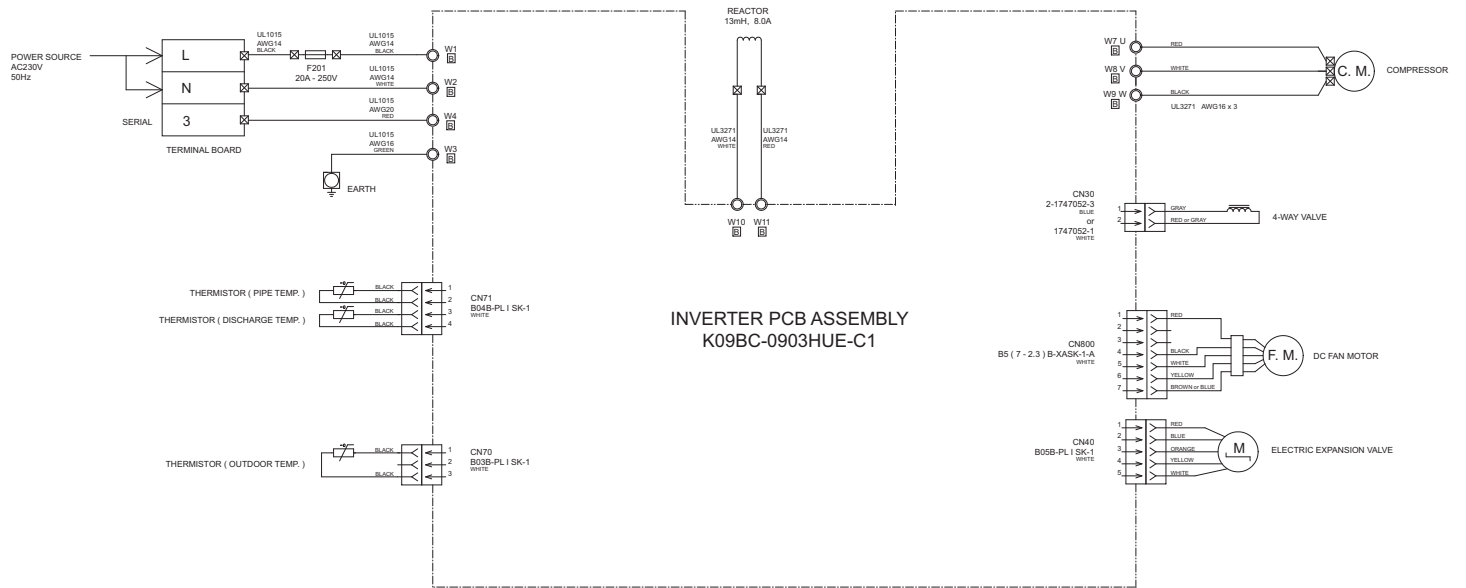
OUTDOOR PCB CIRCUIT DIAGRAM

AOYR09LKC
INVERTER ASSEMBLY
EZ-009YHUE



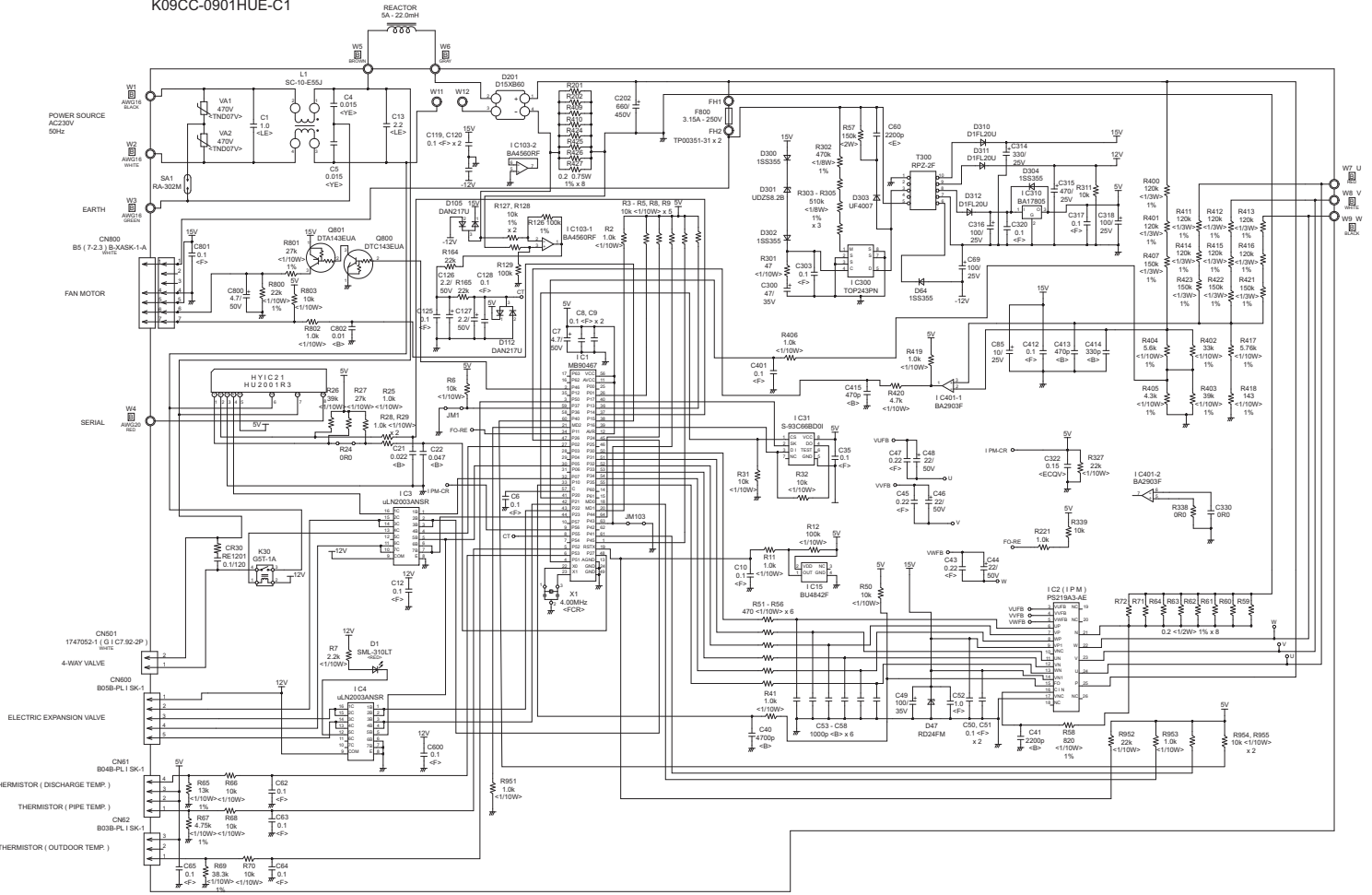
OUTDOOR UNIT
AOYR12LKC

INVERTER ASSEMBLY
EZ-00901HUE

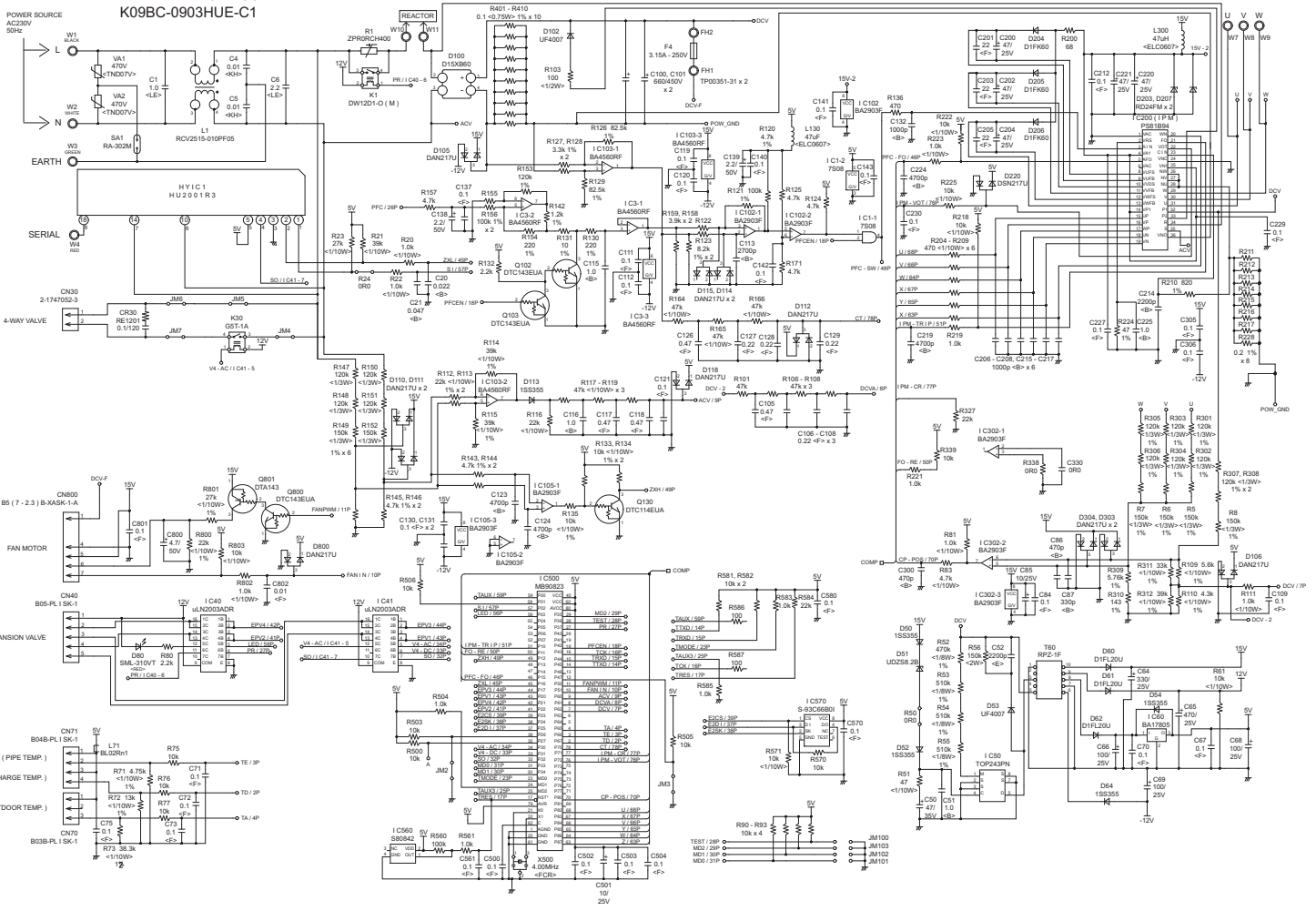


INVERTER PCB ASSEMBLY
K09BC-0903HUE-C1

OUTDOOR UNIT
 AOYR09LKC
 INVERTER PCB ASSEMBLY
 K09CC-0901HUE-C1



**OUTDOOR UNIT
AOYR12LKC
INVERTER PCB ASSEMBLY
K09BC-0903HUE-C1**

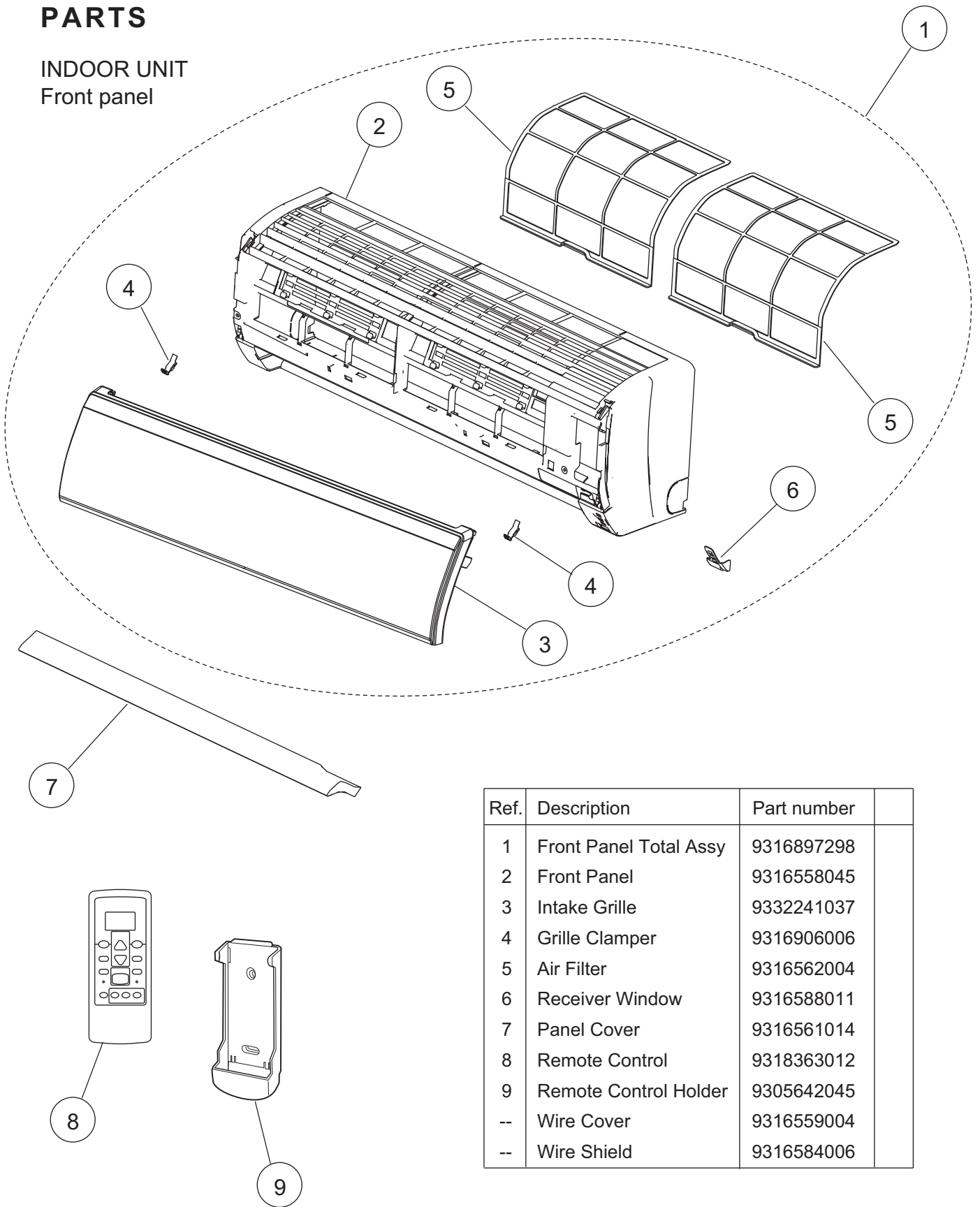


ERROR DETECTION

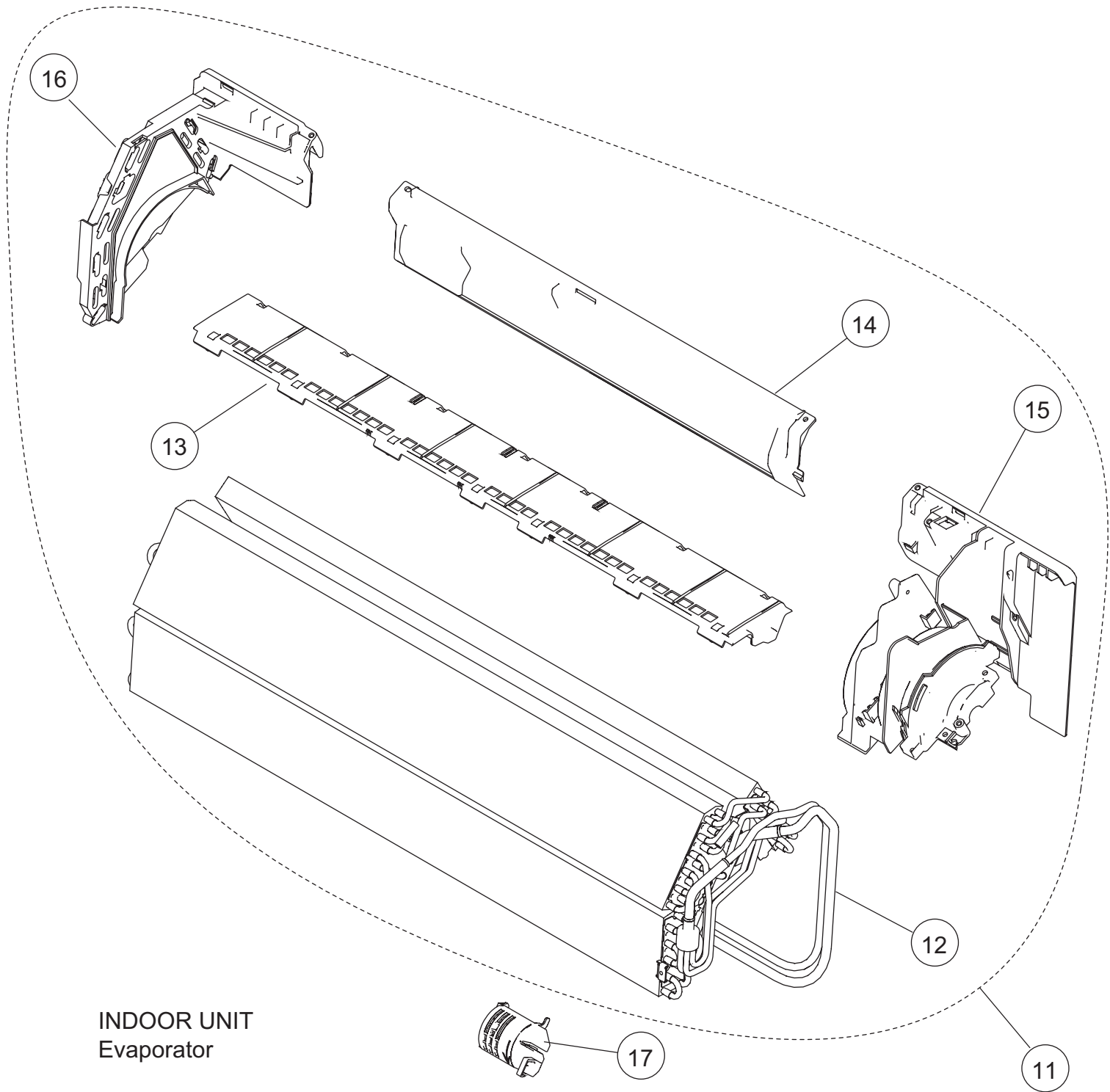
Error	Indoor unit LED			Wired remote control	Error
	Operation LED	Timer LED	Economy LED		
Serial signal error	Off	2 flash	off	01	Serial signal (reverse) error, at operation start up
		3 flash	off	01	Serial signal (reverse) error, during operation
		4 flash	off	13	Serial signal (forward) error, at operation 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	-	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	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

PARTS

INDOOR UNIT
Front panel

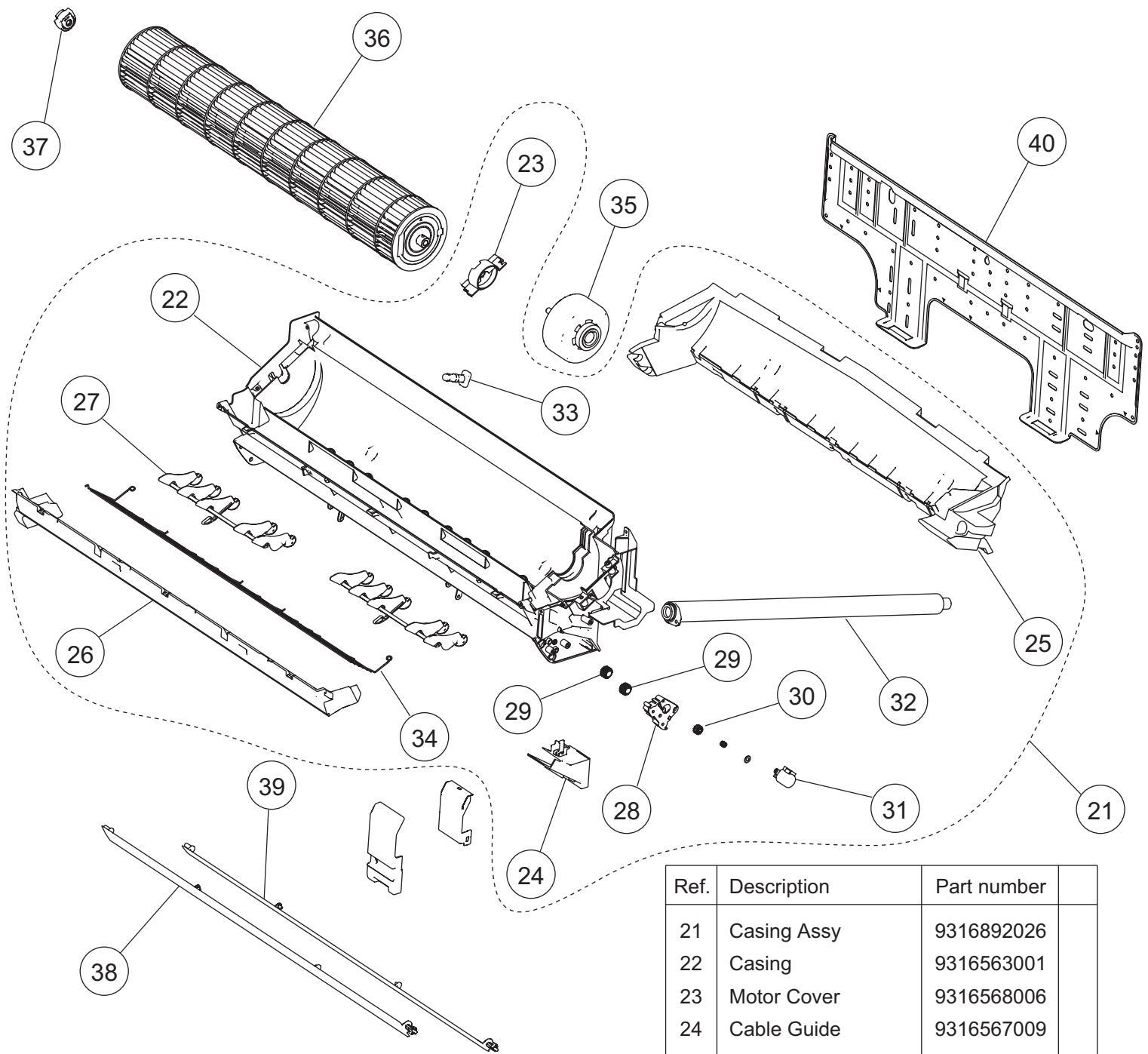


Ref.	Description	Part number	
1	Front Panel Total Assy	9316897298	
2	Front Panel	9316558045	
3	Intake Grille	9332241037	
4	Grille Clamper	9316906006	
5	Air Filter	9316562004	
6	Receiver Window	9316588011	
7	Panel Cover	9316561014	
8	Remote Control	9318363012	
9	Remote Control Holder	9305642045	
--	Wire Cover	9316559004	
--	Wire Shield	9316584006	



INDOOR UNIT
Evaporator

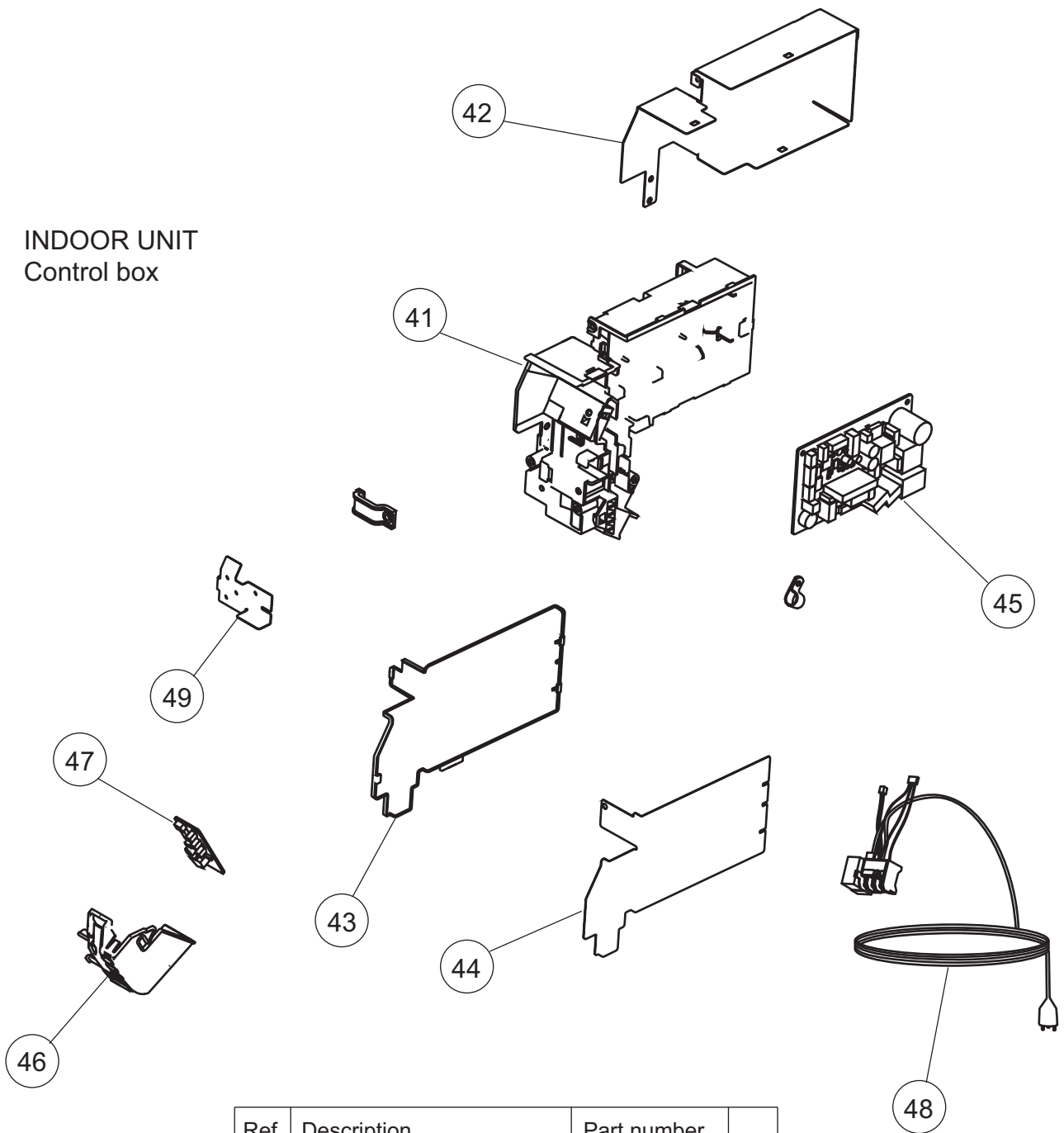
Ref.	Description	Part number
11	Evaporator Total Assy (09)	9316893009
11	Evaporator Total Assy (12)	9316893016
12	Joint Pipe Assy (09)	9316923010
12	Joint Pipe Assy (12)	9317190015
13	Filter Guide	9316578005
14	Rear Bracket	9316566019
15	Evaporator Holder R	9316565005
16	Evaporator Holder L	9316564008
17	Room Thermistor Holder	9316895003



INDOOR UNIT
Casing assy

Ref.	Description	Part number
21	Casing Assy	9316892026
22	Casing	9316563001
23	Motor Cover	9316568006
24	Cable Guide	9316567009
25	Casing Cover B	9316569003
26	Casing Cover F	9316570009
27	R and L Louver B	9316961005
28	Louver Gear Holder	9316575004
29	Louver Gear	9316574007
30	Gear A	9309994003
31	Motor Step	9900139117
32	Drain Hose Assy	9316904002
33	Drain Cap	9316177017
34	Fan Guard	9317182003
35	Fan Motor	9602704002
36	Crossflow Fan Assy	9316830004
37	Shaft Holder C	9306628017
38	Louver U	9316572003
39	Louver Z	9316573000
40	Bracket Panel	9316590007

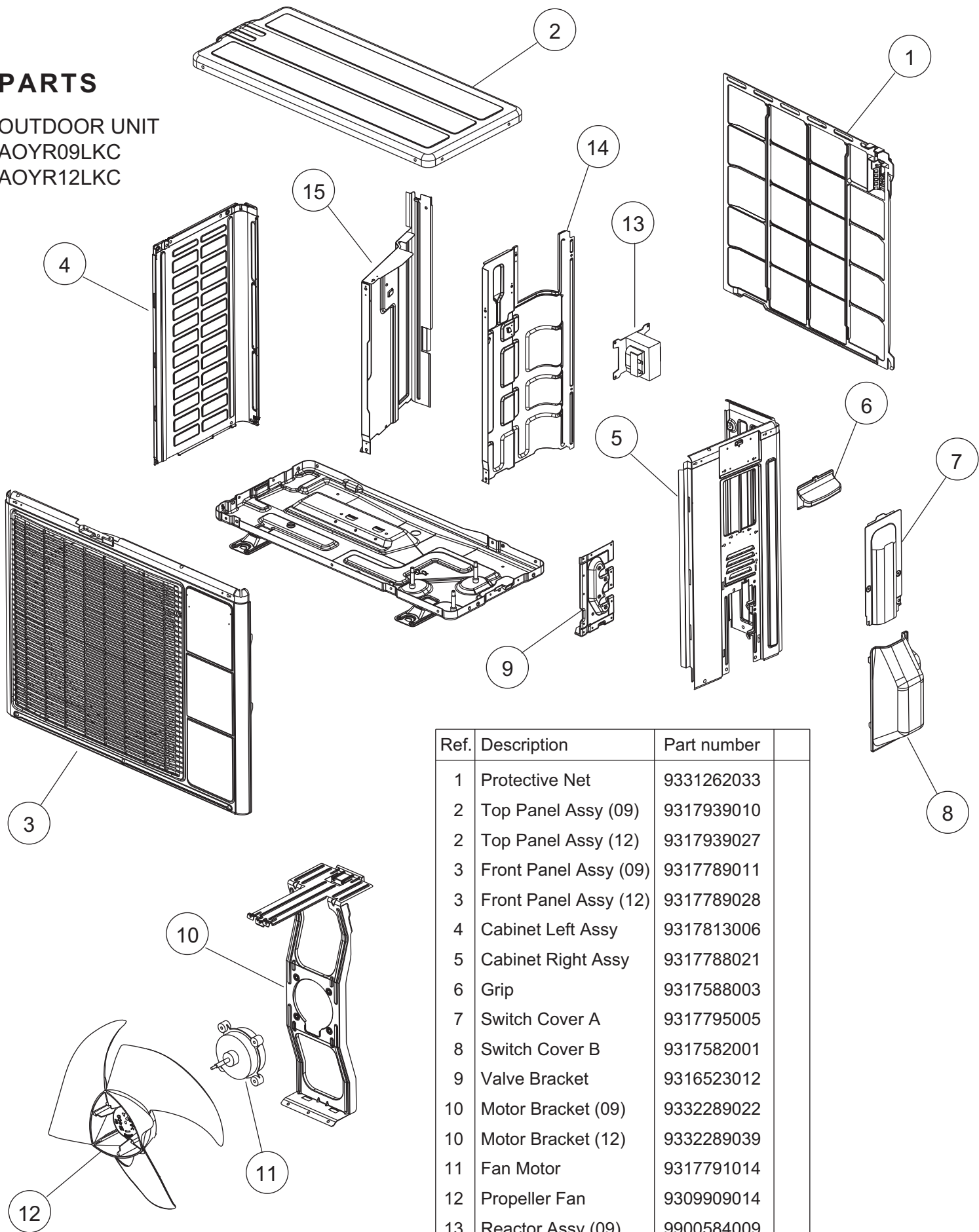
INDOOR UNIT
Control box



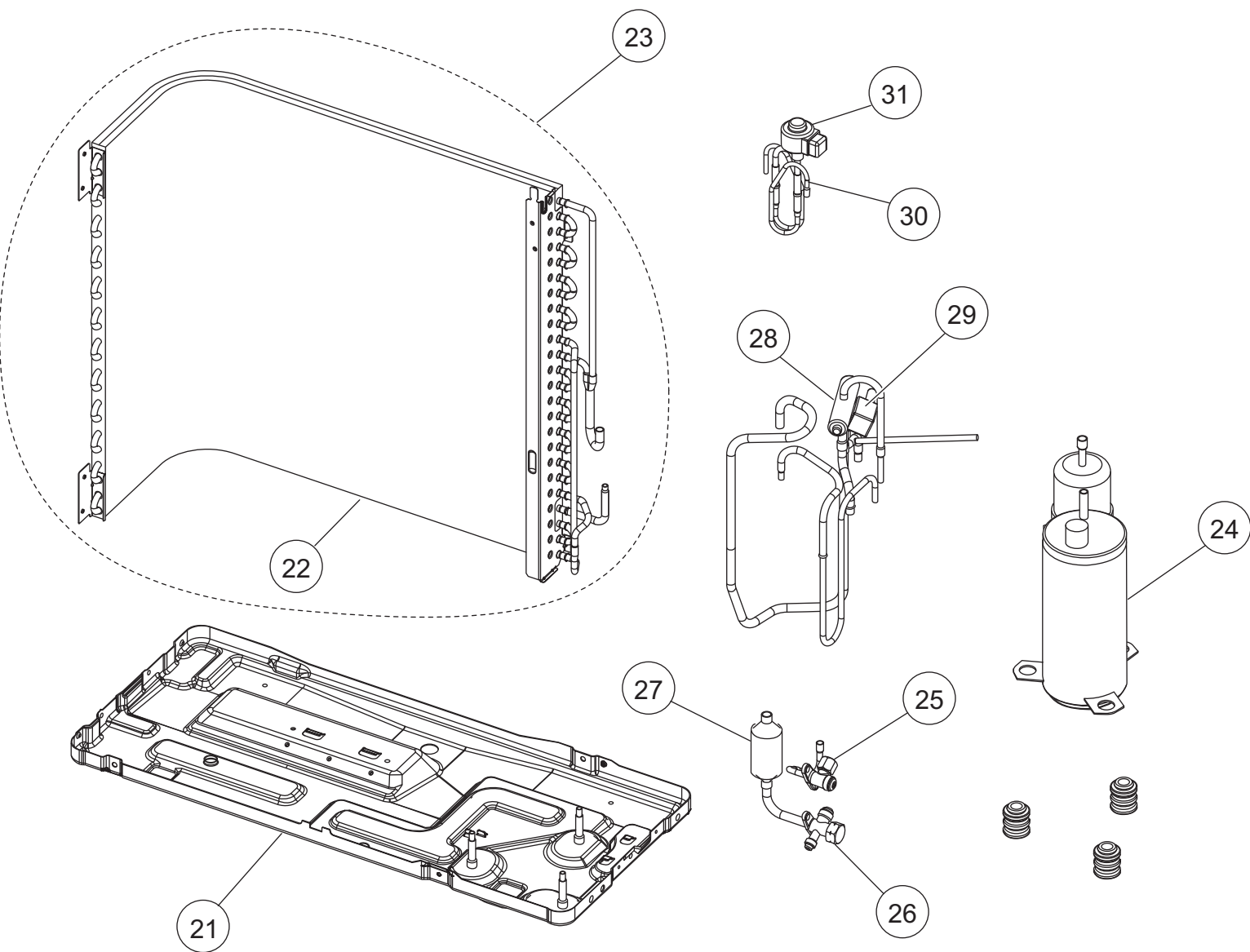
Ref.	Description	Part number
41	Control Box	9316582002
42	Box Shield	9316580008
43	Control Cover	9316583009
44	Cover Shield	9316581005
45	Controller PCB Assy (09)	9707645491
45	Controller PCB Assy (12)	9707645507
46	Display Case	9316587007
47	Display PCB Assy	9707649017
48	Power Cord with Terminal	9900456016
49	Earth Terminal	9316586000
--	Thermistor Assy	9900459017

PARTS

OUTDOOR UNIT
AOYR09LKC
AOYR12LKC

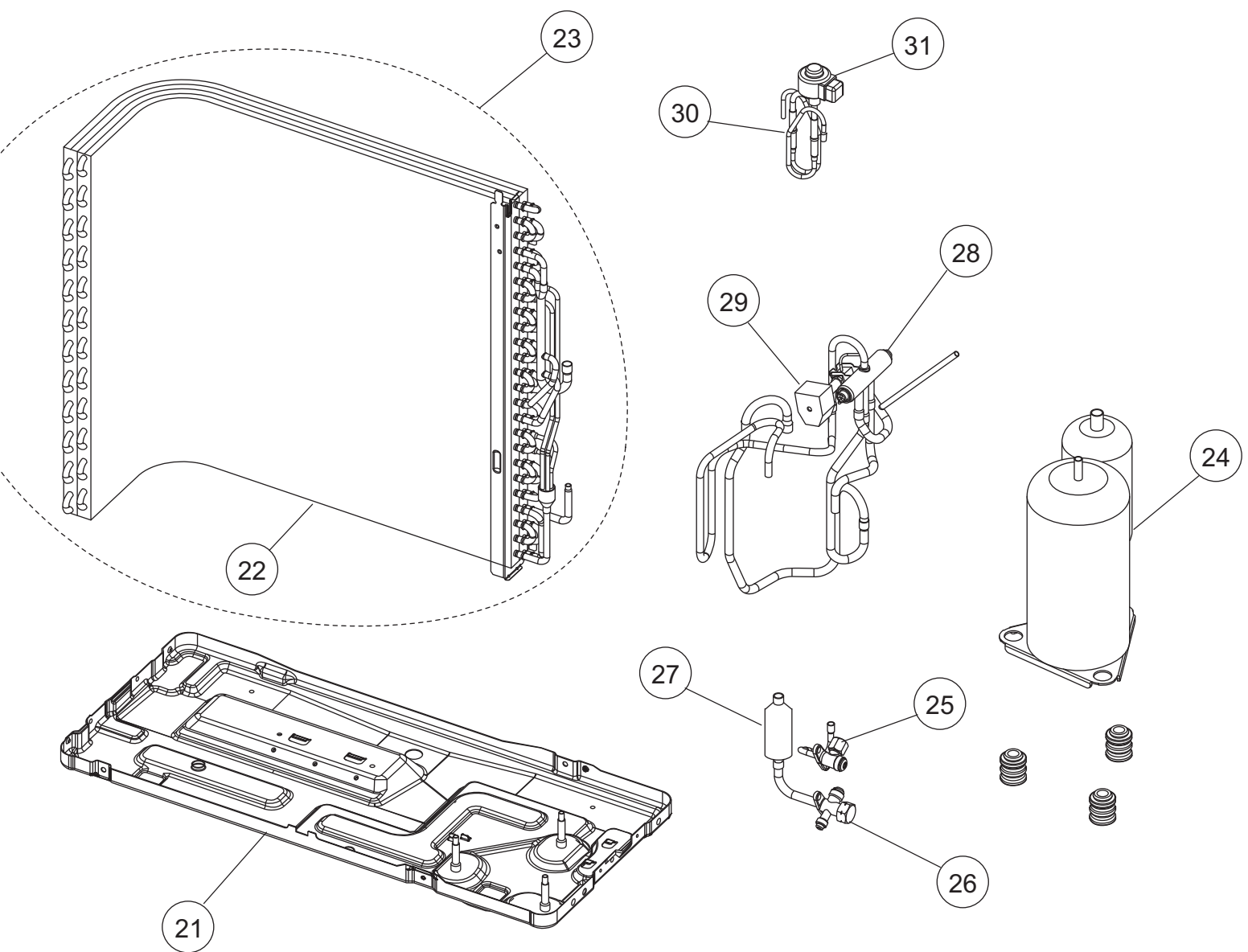


Ref.	Description	Part number
1	Protective Net	9331262033
2	Top Panel Assy (09)	9317939010
2	Top Panel Assy (12)	9317939027
3	Front Panel Assy (09)	9317789011
3	Front Panel Assy (12)	9317789028
4	Cabinet Left Assy	9317813006
5	Cabinet Right Assy	9317788021
6	Grip	9317588003
7	Switch Cover A	9317795005
8	Switch Cover B	9317582001
9	Valve Bracket	9316523012
10	Motor Bracket (09)	9332289022
10	Motor Bracket (12)	9332289039
11	Fan Motor	9317791014
12	Propeller Fan	9309909014
13	Reactor Assy (09)	9900584009
13	Reactor Assy (12)	9900583002
14	Separator Assy (09)	9317618007
15	Separator Assy (12)	9317786010
--	Emblem	9317378000



OUTDOOR UNIT
AOYR09LKC

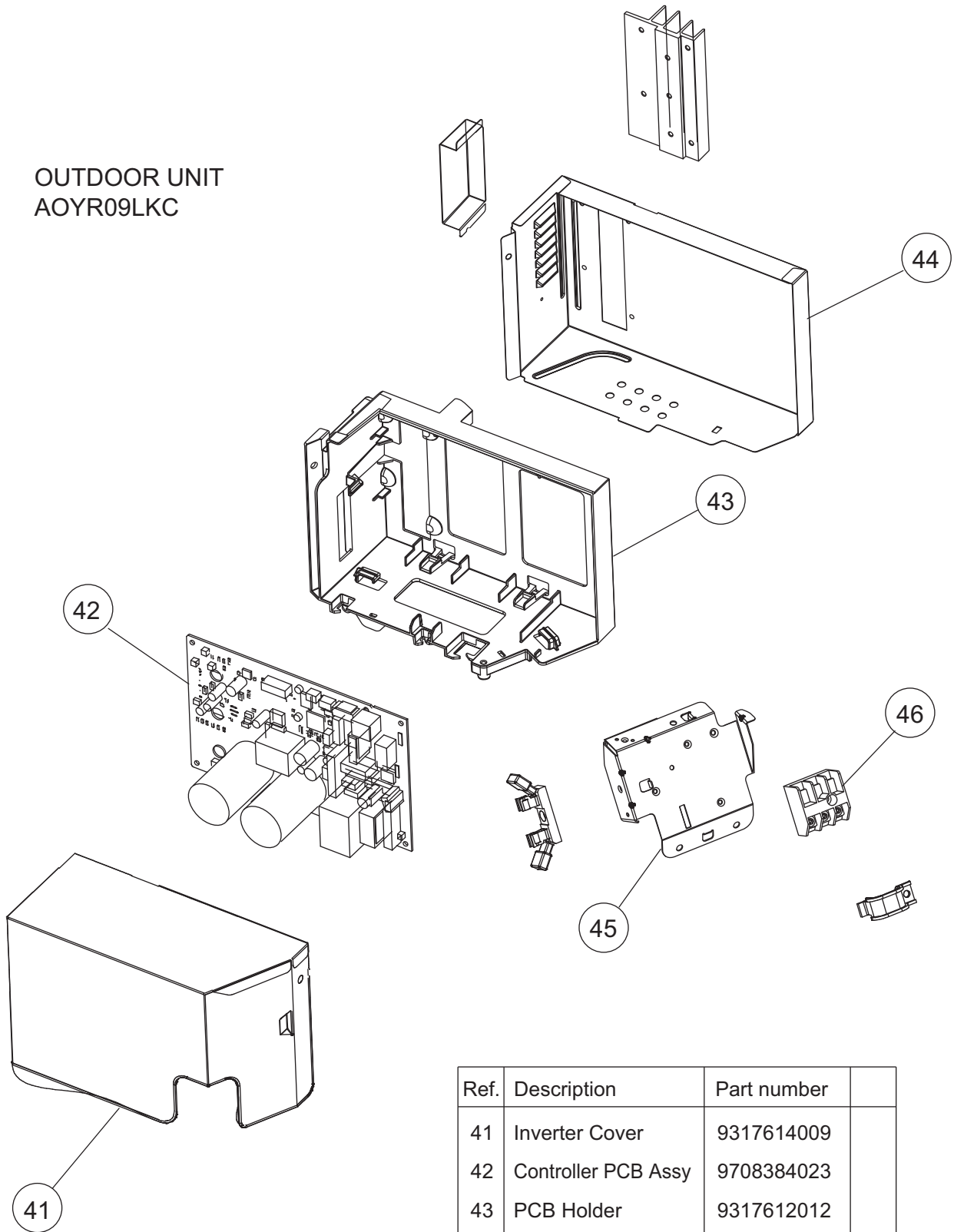
Ref.	Description	Part number
21	Base Assy	9316916029
22	Condenser Assy	9317286015
23	Condenser Total Assy	9317367127
24	Compressor Assy	9317083010
25	2 way Valve Assy	9317171014
26	3 way Valve Assy	9317174015
27	Muffler	9317394000
28	4 way Valve	9970078019
29	Solenoid	9970079023
30	Pulse Motor Valve Assy	9317216029
31	Expansion Valve Coil	9970095016



OUTDOOR UNIT
AOYR12LKC

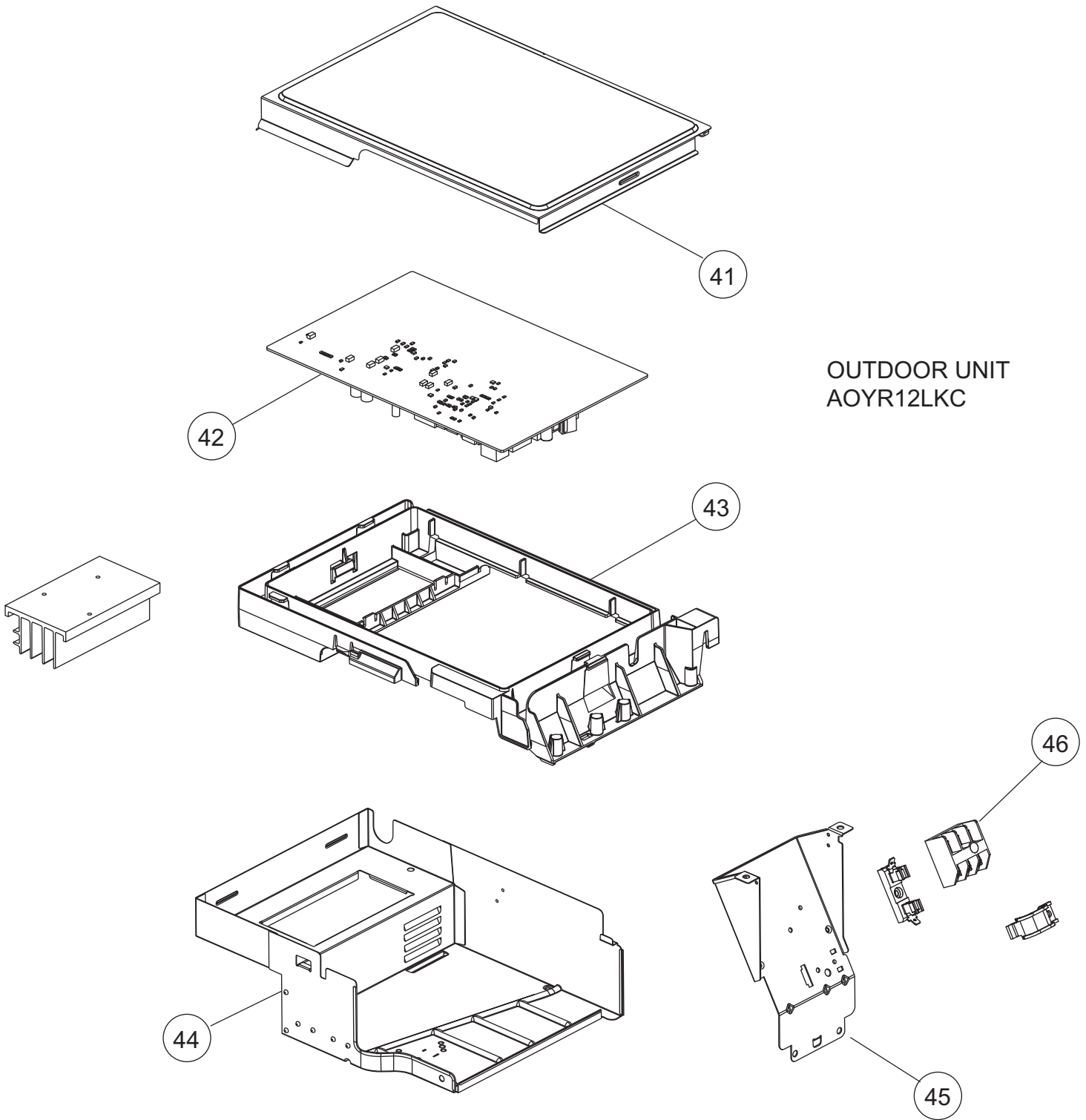
Ref.	Description	Part number
21	Base Assy	9316980013
22	Condenser Assy	9332288001
23	Condenser Total Assy	9317192088
24	Compressor Assy	9317619004
25	2 way Valve Assy	9317171014
26	3 way Valve Assy	9317174015
27	Muffler	9317398008
28	4 way Valve	9970078019
29	Solenoid	9970079023
30	Pulse Motor Valve Assy	9317216029
31	Expansion Valve Coil	9970095023

OUTDOOR UNIT
AOYR09LKC



Ref.	Description	Part number
41	Inverter Cover	9317614009
42	Controller PCB Assy	9708384023
43	PCB Holder	9317612012
44	Inverter Case Assy	9317617000
45	Terminal Bracket	9332242010
46	Terminal	9900369040
--	Outdoor Thermistor	9900565008
--	Thermistor Assy	9900577018

OUTDOOR UNIT
AOYR12LKC

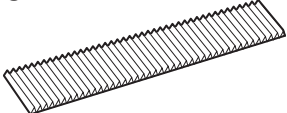


Ref.	Description	Part number
41	Sealed Panel	9318181012
42	Controller PCB Assy	9708298047
43	PCB Holder	9318182002
44	Inverter Case Assy	9332247008
45	Terminal Bracket	9317816021
46	Terminal	9900369040
--	Outdoor Thermistor	9900565008
--	Thermistor Assy	9900577001

ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9316590007
Remote control 	9318363012
Remote control holder 	9305642045
Battery (penlight) 	0600185541
Cloth tape 	9310519004
Tapping screw (big) (ϕ 4 x 25) 	0700076046
Tapping screw (small) (ϕ 3 x 12) 	0700019036

OPTION

Name and Shape	Part number
Air cleaning filter 	UTR-FA16 UTR-FA16-2

1003G3768