

SPLIT TYPE  
ROOM AIR CONDITIONER  
WALL MOUNTED TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG07LECA	AOYG07LEC
ASYG09LECA	AOYG09LEC

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASYG07LECA	ASYG09LECA
OUTDOOR UNIT		AOYG07LEC	AOYG09LEC
COOLING CAPACITY		2.10 kW	2.50 kW
HEATING CAPACITY		3.00 kW	3.20 kW
POWER SOURCE		230 V	230 V
FREQUENCY		50 Hz	50 Hz
RUNNING CURRENT	Cooling	2.7 A	3.5 A
	Heating	3.5 A	3.8 A
INPUT WATTS	Cooling	0.470 kW	0.640 kW
	Heating	0.685 kW	0.750 kW
E.E.R.	Cooling	4.47 kW/kW	3.91 kW/kW
COP	Heating	4.38 kW/kW	4.27 kW/kW
MOISTURE REMOVAL		1.3 L/h	
AIR CIRCULATION HIGH	Cooling	690 m <sup>3</sup> /h	
	Heating	710 m <sup>3</sup> /h	
MAXIMUM CURRENT	Cooling	6.0 A	
	Heating	7.5 A	

## FAN MOTOR

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

## NOISE LEVEL

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

## COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION	5SS072XAA	
WEIGHT (with oil)	5.9 kg	
PRECHARGED REFRIGERANT	650 g	
REFRIGERANT TYPE	R410A	
FULL CHARGE	Pipe length 15 m	650 g
	20 m	750 g
ADDITIONAL REFRIGERANT	20 g/m	
MAXIMUM PIPING HEIGHT	15m	

## DIMENSIONS

INDOOR UNIT	H x W x D	260 x 790 x 198 mm
OUTDOOR UNIT	H x W x D	540 x 660 x 290 mm

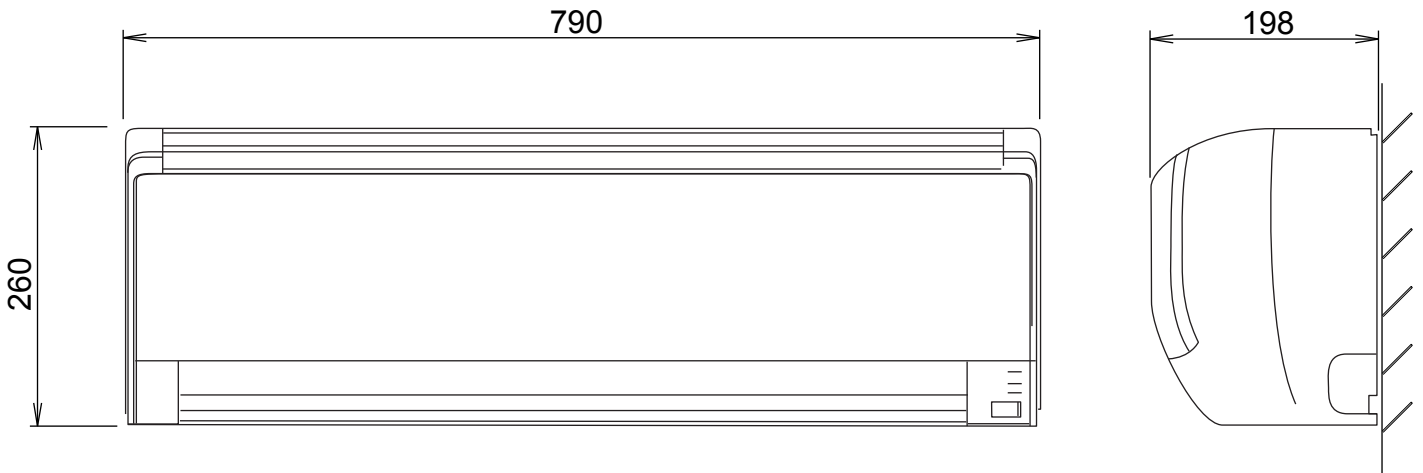
## WEIGHT

INDOOR UNIT	Shipping / Net	9.5 kg / 7.5 kg
OUTDOOR UNIT	Shipping / Net	26 kg / 23 kg

# DIMENSIONS

unit : mm

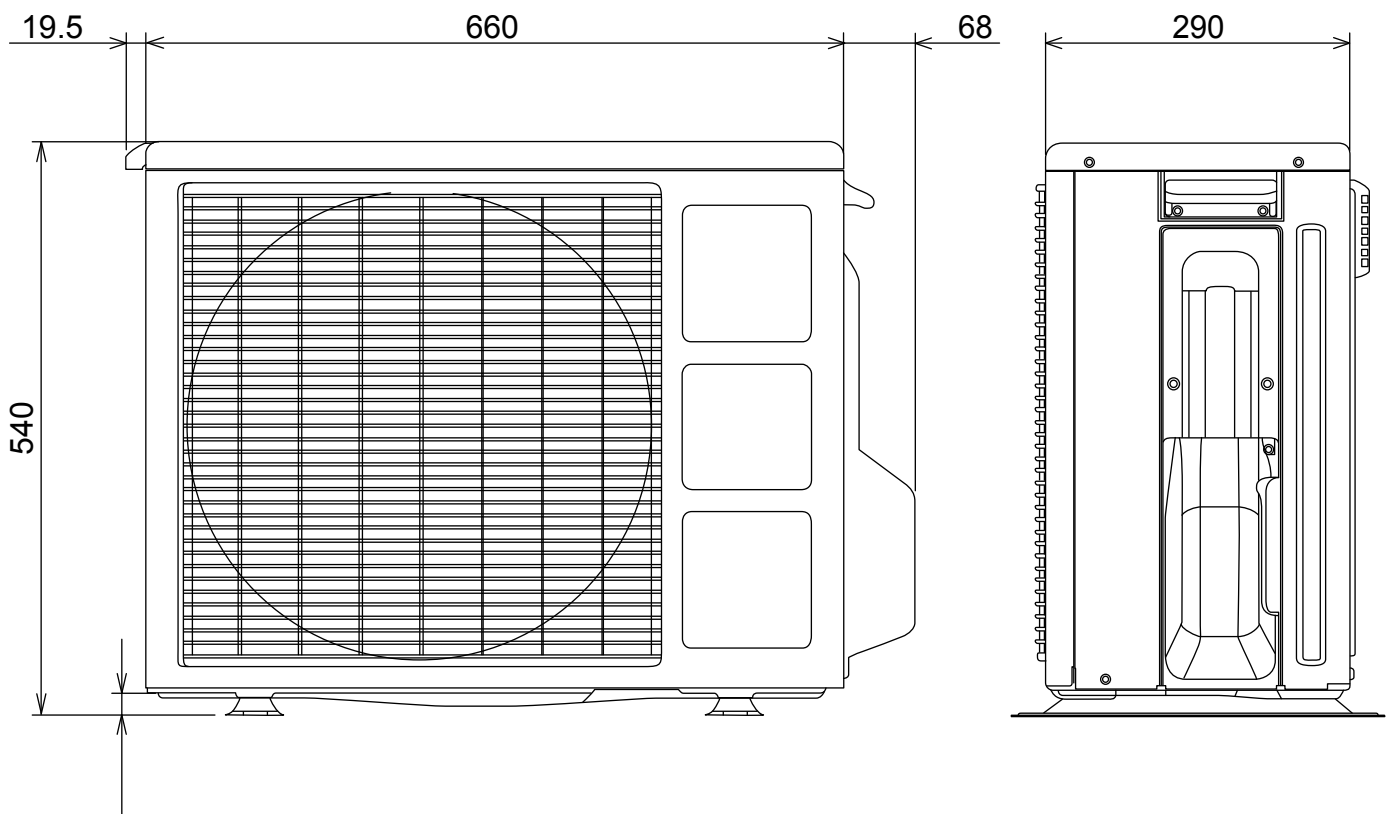
## INDOOR UNIT



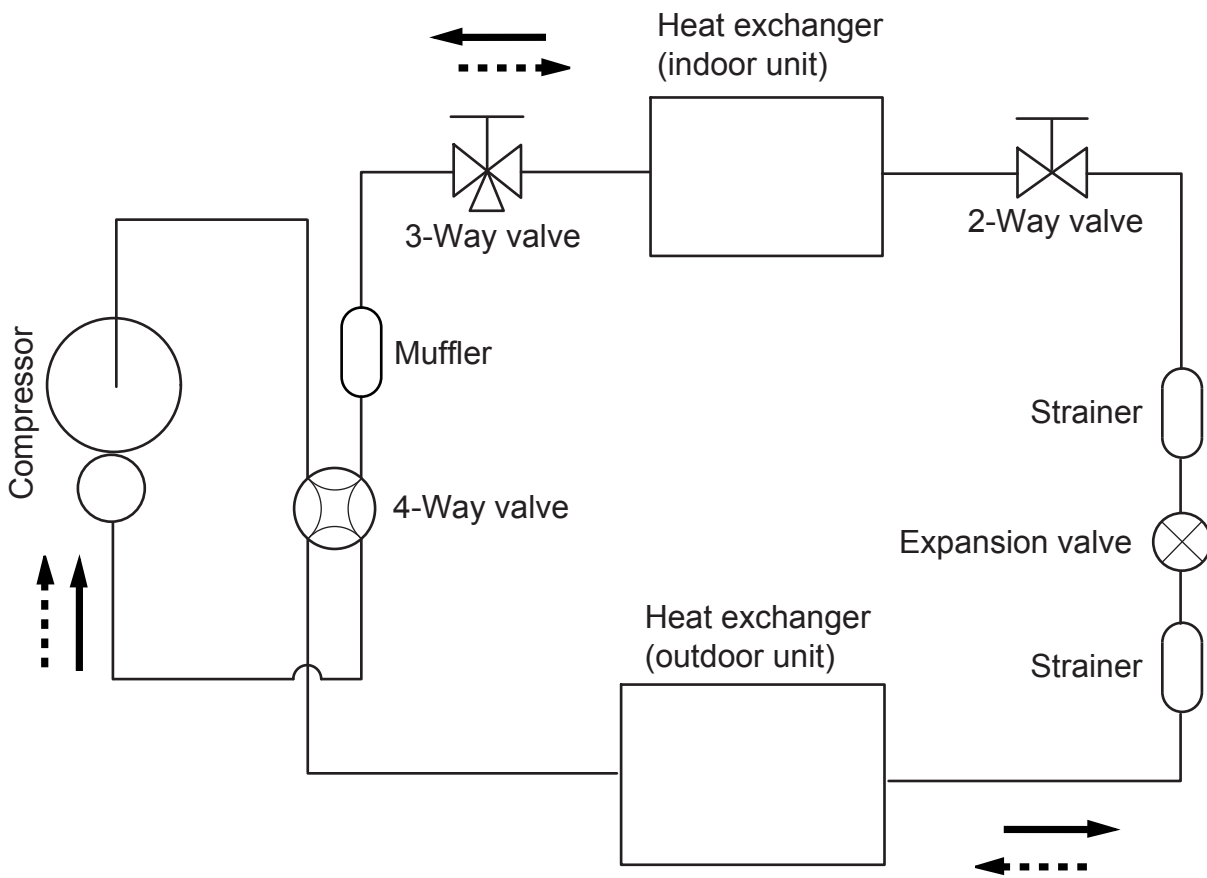
Drain pipe diameter  
16.2 mm

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

## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

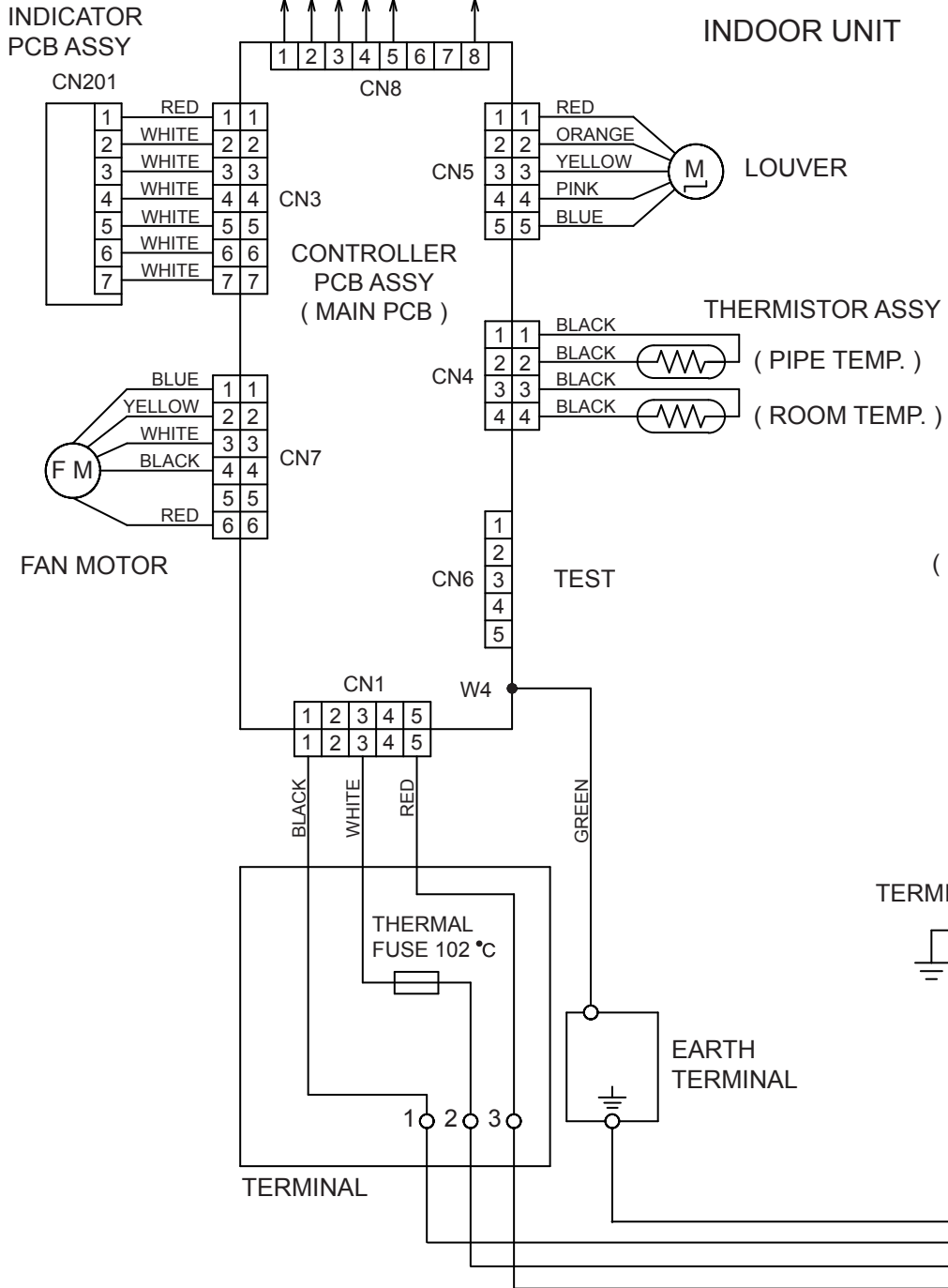
- Cooling
- - - - → Heating

Refrigerant pipe diameter

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

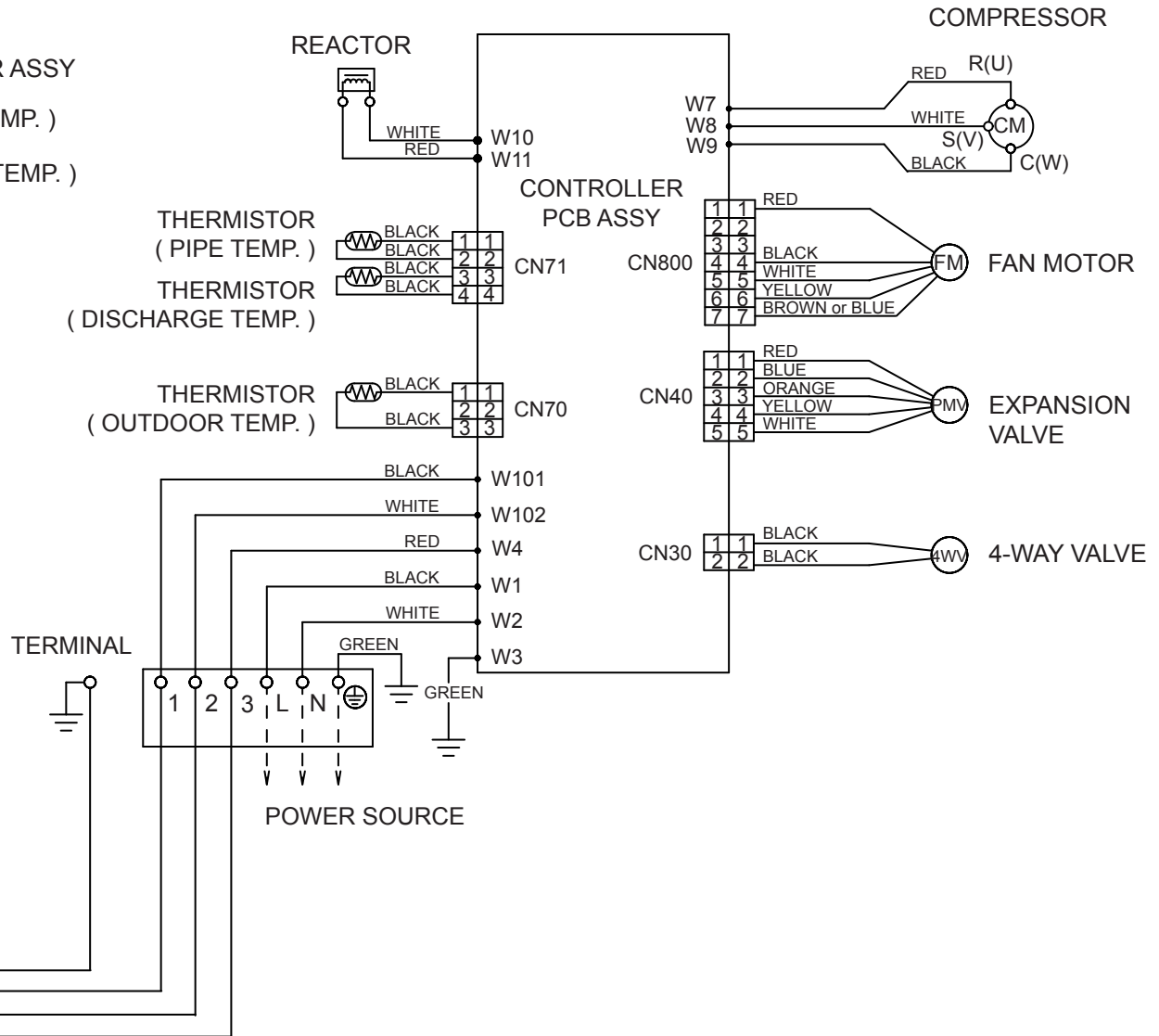
TO COMMUNICATION BOARD  
(OPTION)

INDOOR UNIT



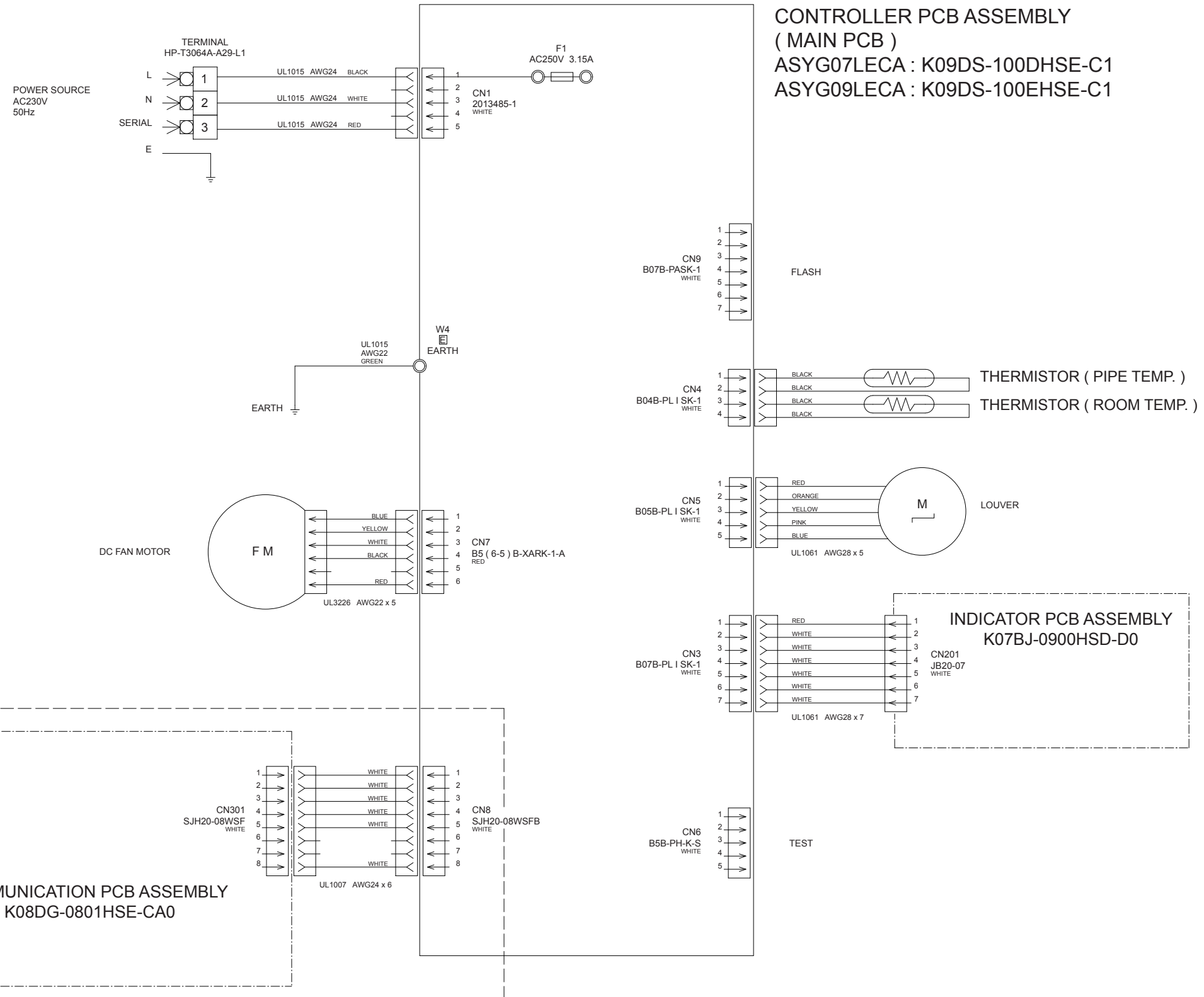
CIRCUIT DIAGRAM

OUTDOOR UNIT

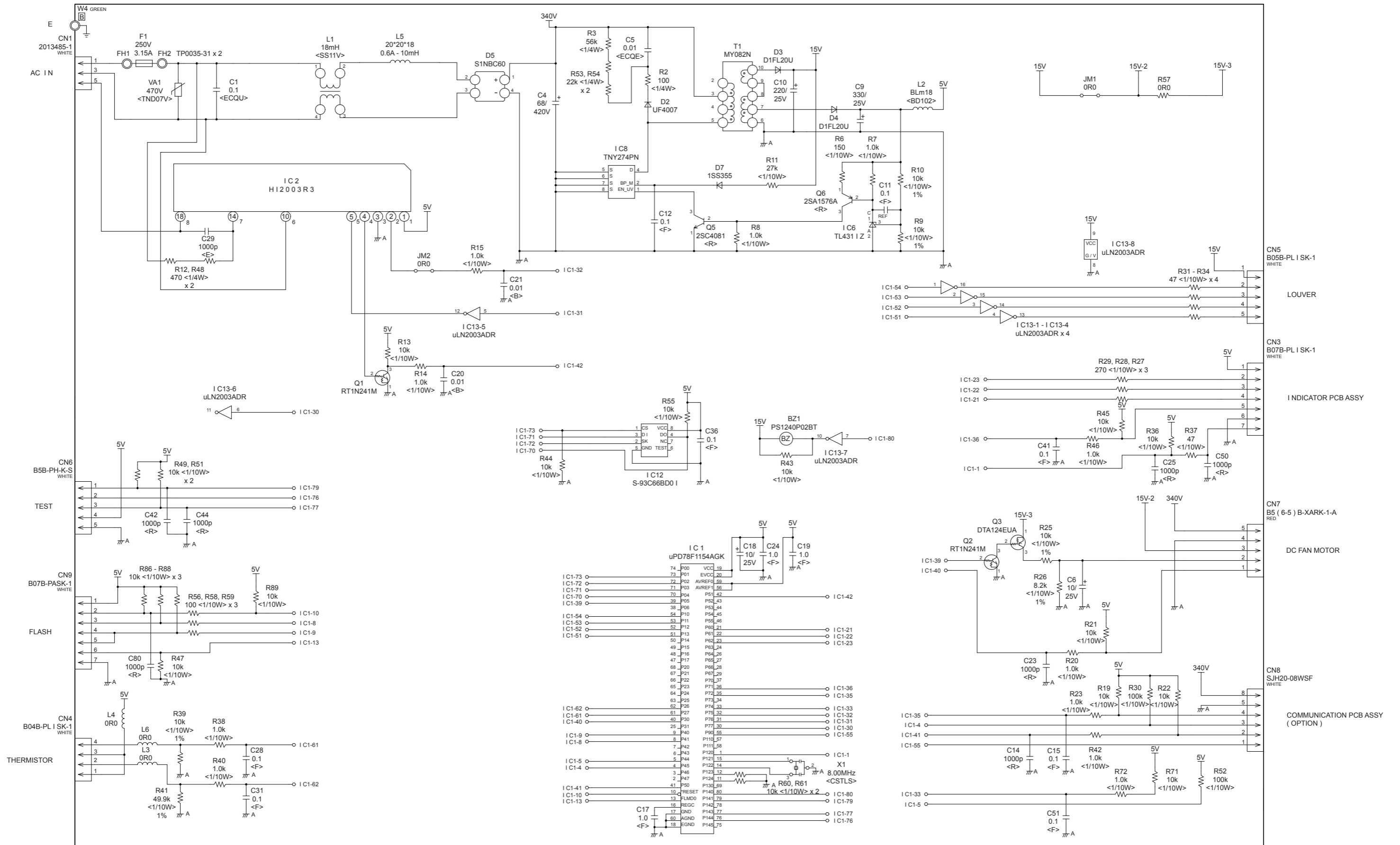


# INDOOR PCB CIRCUIT DIAGRAM

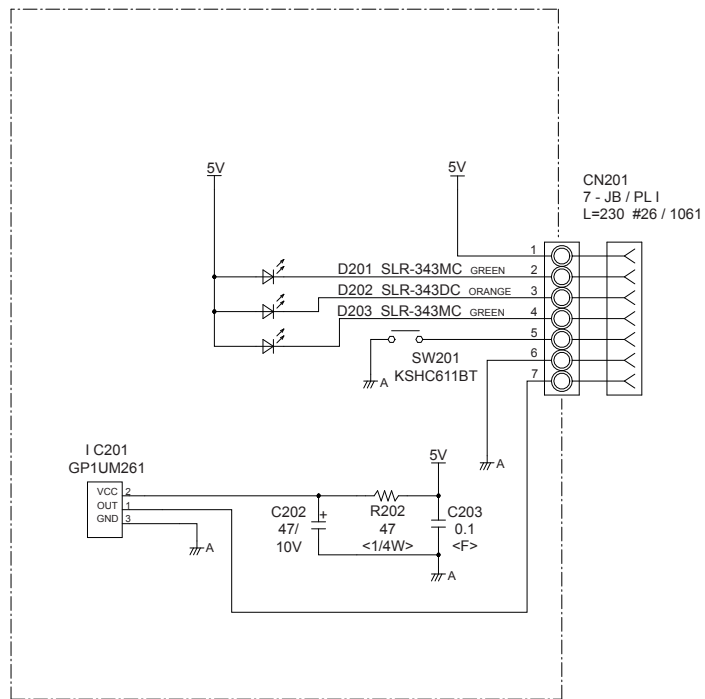
CONTROL UNIT  
 ASYG07LECA : EZ-0101SHSE  
 ASYG09LECA : EZ-0101THSE



INDOOR UNIT  
 CONTROLLER PCB ASSEMBLY ( MAIN PCB )  
 ASYG07LECA : K09DS-100DHSE-C1  
 ASYG09LECA : K09DS-100EHSE-C1

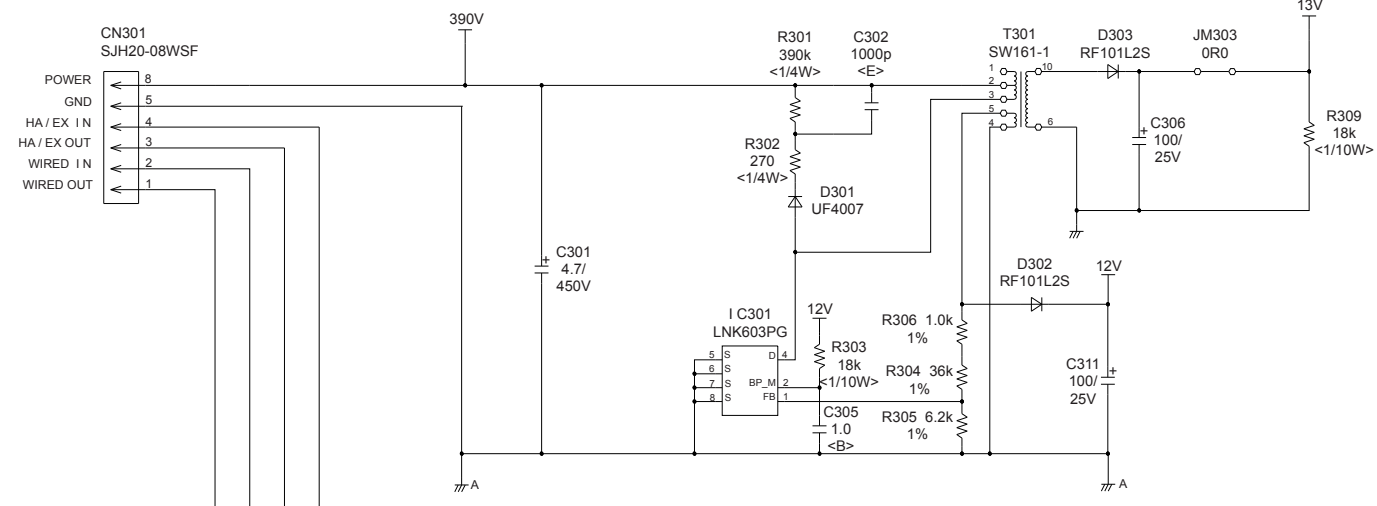


INDOOR UNIT  
 INDICATOR PCB ASSEMBLY  
 K07BJ-0900HSD-D0

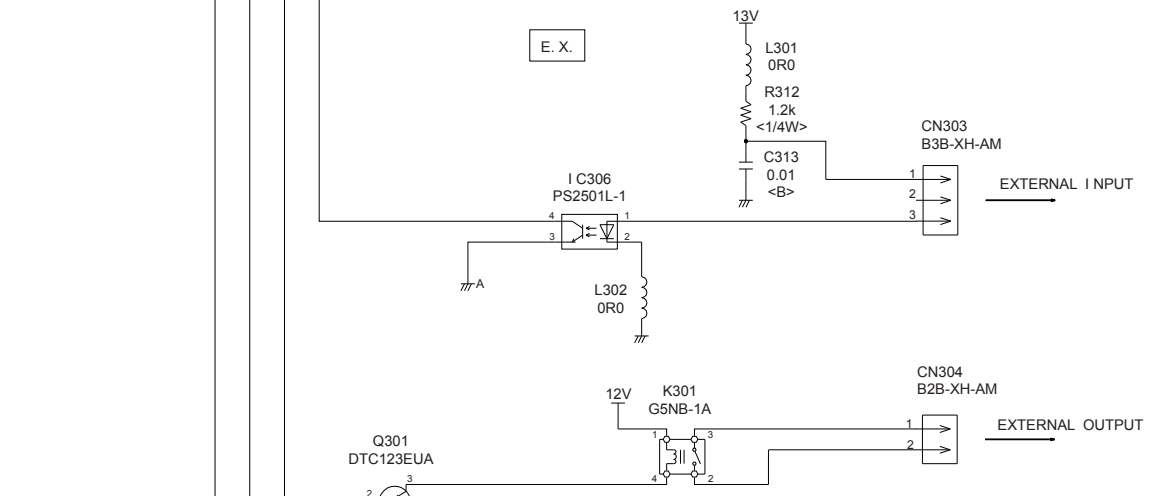




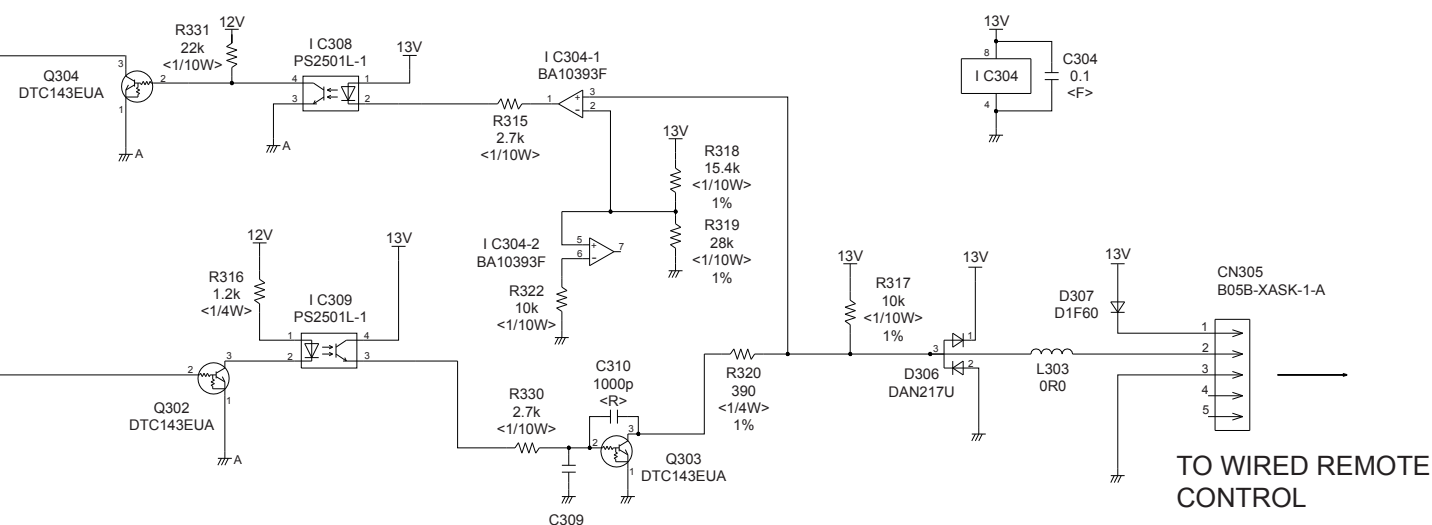
TO CONTROLLER  
PCB ASSEMBLY



Model : UTY-XCBXZ1  
COMMUNICATION PCB ASSEMBLY  
K08DG-0801HSE-CA0



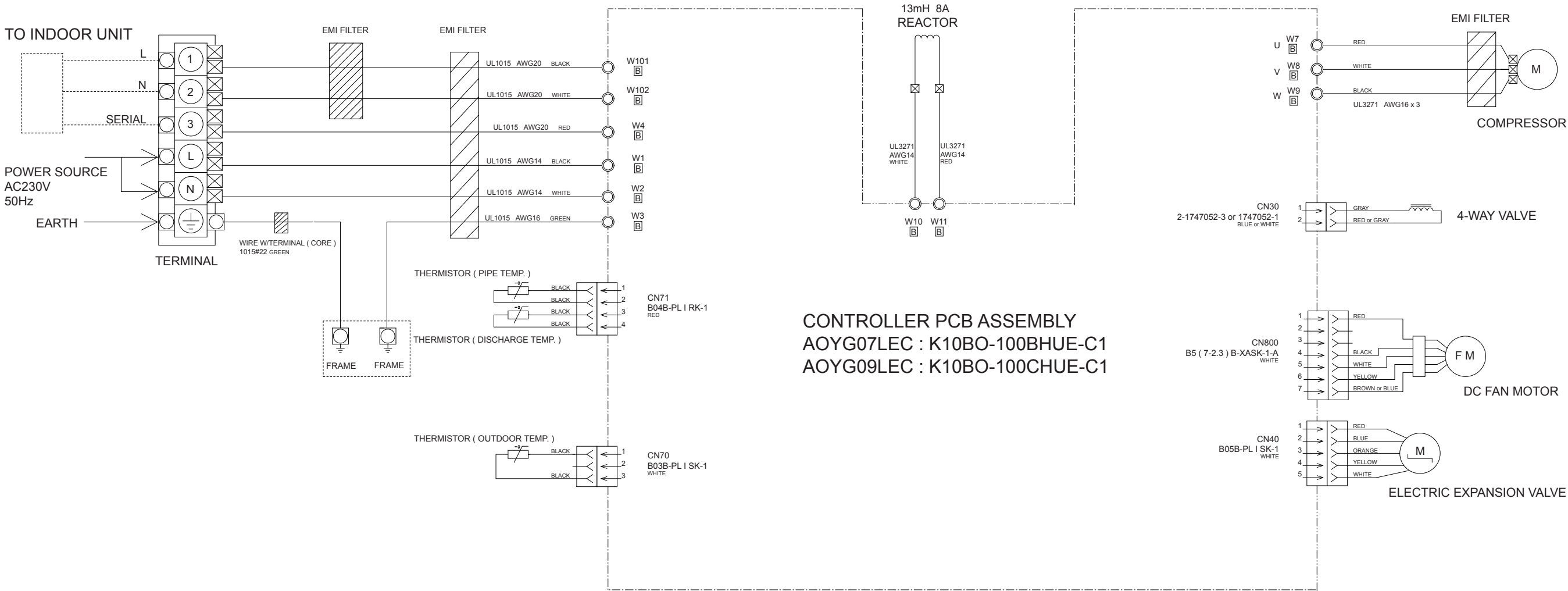
WIRED REMOTE CONTROL UNIT



TO WIRED REMOTE CONTROL

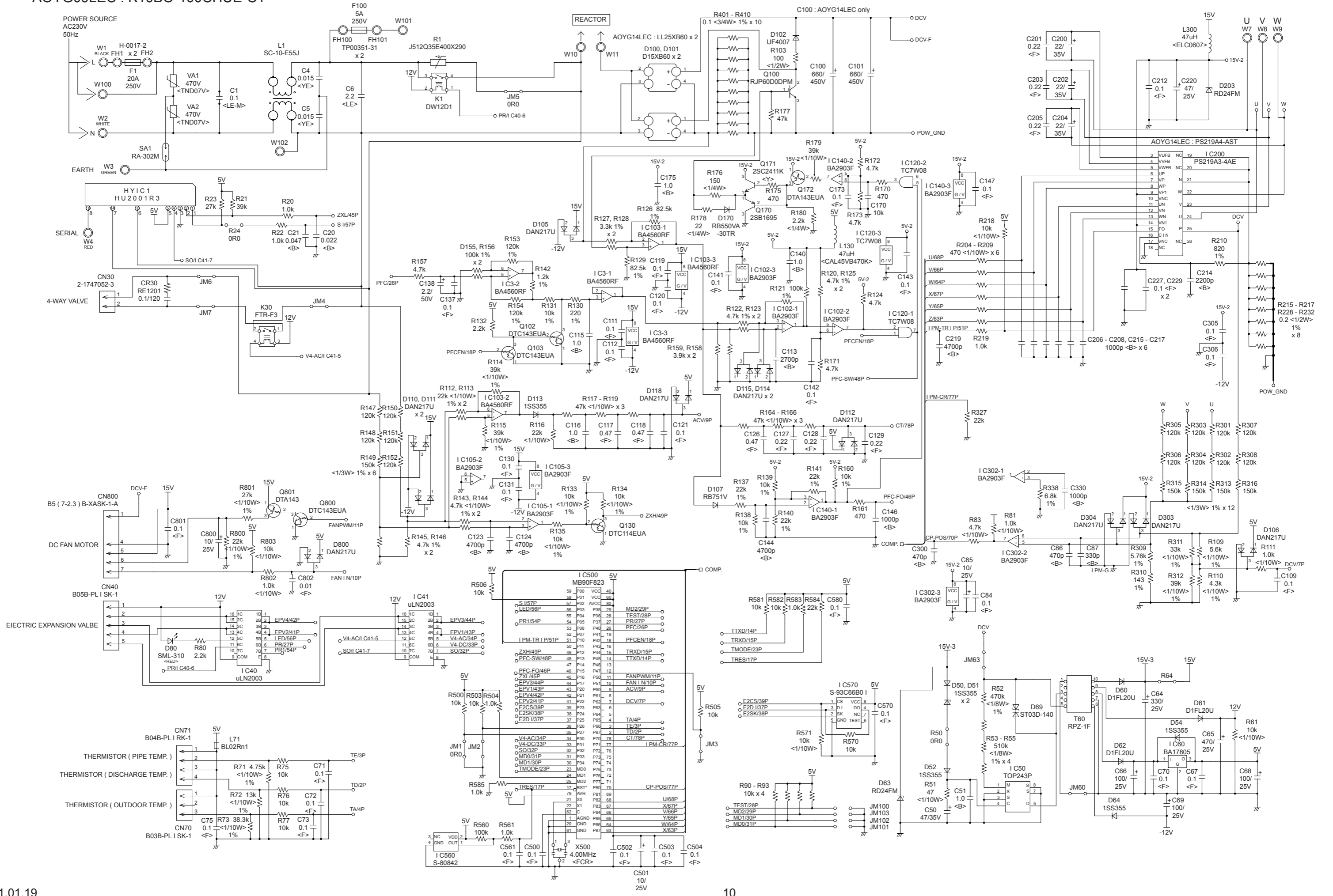
# OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY  
 AOYG07LEC : EZ-0100HHUE  
 AOYG09LEC : EZ-0100KHUE



CONTROLLER PCB ASSEMBLY  
 AOYG07LEC : K10BO-100BHUE-C1  
 AOYG09LEC : K10BO-100CHUE-C1

OUTDOOR UNIT  
 CONTROLLER PCB ASSEMBLY  
 AOYG07LEC : K10BO-100BHUE-C1  
 AOYG09LEC : K10BO-100CHUE-C1

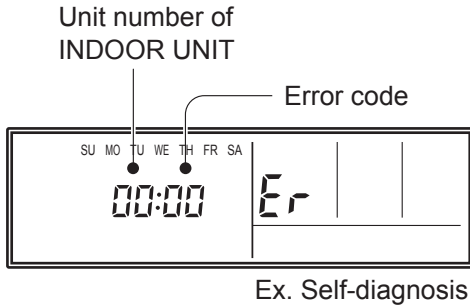


# ERROR DETECTION

## INDOOR UNIT and REMOTE CONTROL

If an error occurs, the following display will be shown.

("Er" will appear in the set room temperature display.)



- : 0.5s ON / 0.5s OFF
- ◇ : 0.1s ON / 0.1s OFF
- ( ) : Number of flashing

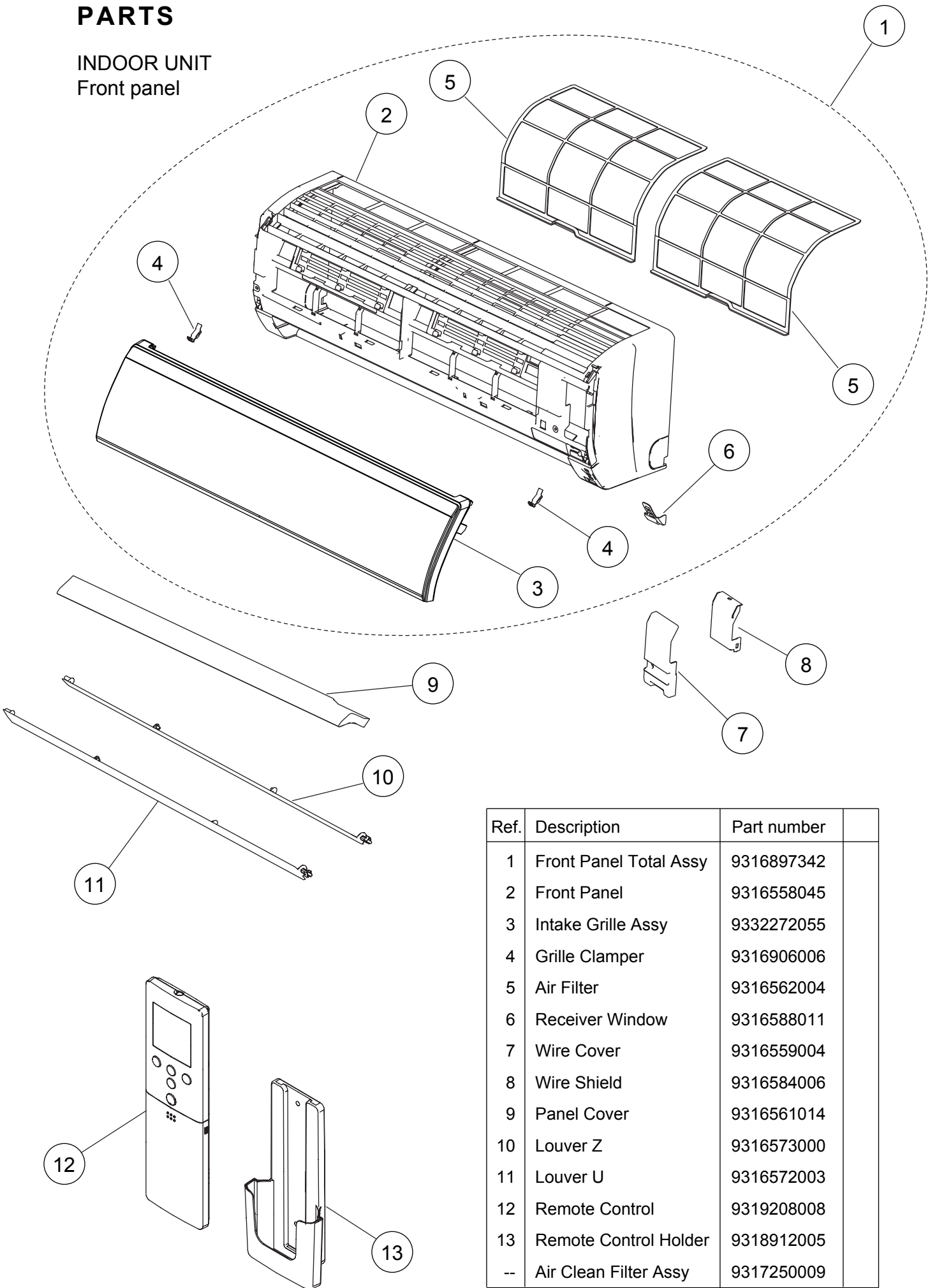
Indoor unit			Wired remote control	Mode	DESCRIPTION
OPERATION lamp (green)	TIMER lamp (orange)	ECO lamp (green)			
● (1)	● (1)	◇	11	Communication	Serial communication error
● (1)	● (2)	◇	12	Communication	Wired remote control communication error
● (2)	● (2)	◇	22	System	Indoor unit capacity error
● (3)	● (1)	◇	31	Indoor unit	Power supply interruption error
● (3)	● (5)	◇	35	Indoor unit	Manual auto switch error
● (3)	● (9)	◇	39	Indoor unit	fan motor driving circuit error
● (4)	● (1)	◇	41	Indoor unit	Inlet air temp. sensor error
● (4)	● (2)	◇	42	Indoor unit	Indoor Heat Ex. Middle Temp. Sensor error
● (5)	● (1)	◇	51	Indoor unit	Indoor unit fan motor1 error
● (5)	● (3)	◇	53	Indoor unit	Drainage error
● (5)	● (9)	◇	59	Indoor unit	Indoor unit fan motor2 error
● (5)	● (15)	◇	5U	Indoor unit	Indoor unit error
● (6)	● (2)	◇	62	Outdoor unit	Outdoor unit model information error
● (6)	● (3)	◇	63	Outdoor unit	Inverter error
● (6)	● (5)	◇	65	Outdoor unit	I.P.M. error
● (7)	● (1)	◇	71	Outdoor unit	Discharge temp. sensor error
● (7)	● (2)	◇	72	Outdoor unit	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit	Heat Ex. centre temp. sensor error Heat Ex. Liquid outlet temp. sensor error
● (7)	● (4)	◇	74	Outdoor unit	Outdoor temp. sensor error
● (7)	● (7)	◇	77	Outdoor unit	Heat sink temp. sensor error
● (8)	● (4)	◇	84	Outdoor unit	Current sensor error
● (8)	● (6)	◇	86	Outdoor unit	Pressure sensor error High pressure switch error
● (9)	● (4)	◇	94	Outdoor unit	Over current error
● (9)	● (5)	◇	95	Outdoor unit	Compressor control error
● (9)	● (7)	◇	97	Outdoor unit	Outdoor unit fan motor 1 error
● (9)	● (8)	◇	98	Outdoor unit	Outdoor unit fan motor 2 error
● (9)	● (9)	◇	99	Outdoor unit	4-way valve error
● (10)	● (1)	◇	A1	Refrigerant system	Discharge temp. error
● (10)	● (3)	◇	A3	Refrigerant system	Compressor temp. error
● (10)	● (5)	◇	A5	Refrigerant system	Low pressure error

#### OUTDOOR UNIT

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

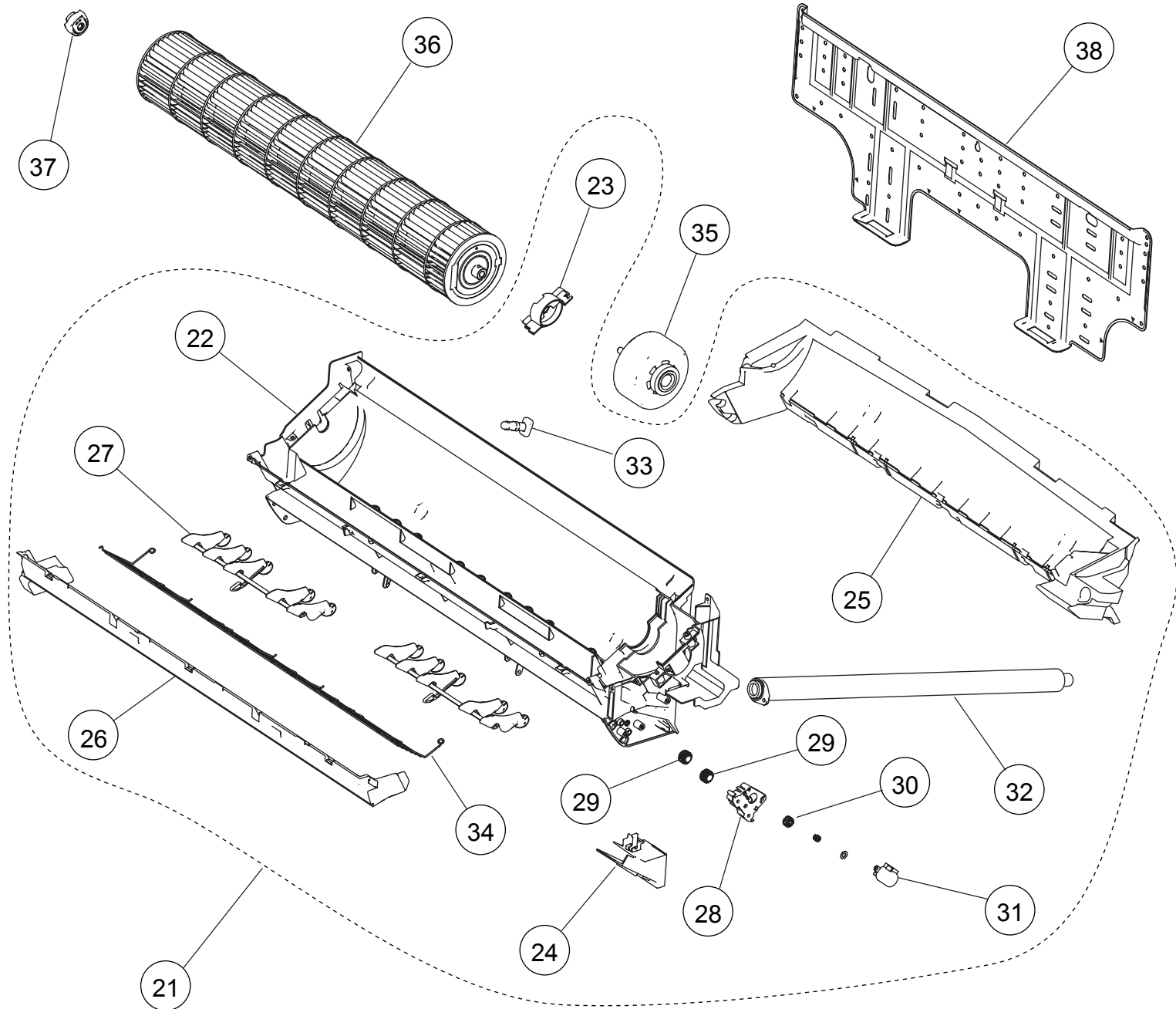
# PARTS

INDOOR UNIT  
Front panel



Ref.	Description	Part number
1	Front Panel Total Assy	9316897342
2	Front Panel	9316558045
3	Intake Grille Assy	9332272055
4	Grille Clamper	9316906006
5	Air Filter	9316562004
6	Receiver Window	9316588011
7	Wire Cover	9316559004
8	Wire Shield	9316584006
9	Panel Cover	9316561014
10	Louver Z	9316573000
11	Louver U	9316572003
12	Remote Control	9319208008
13	Remote Control Holder	9318912005
--	Air Clean Filter Assy	9317250009

INDOOR UNIT  
Casing assy

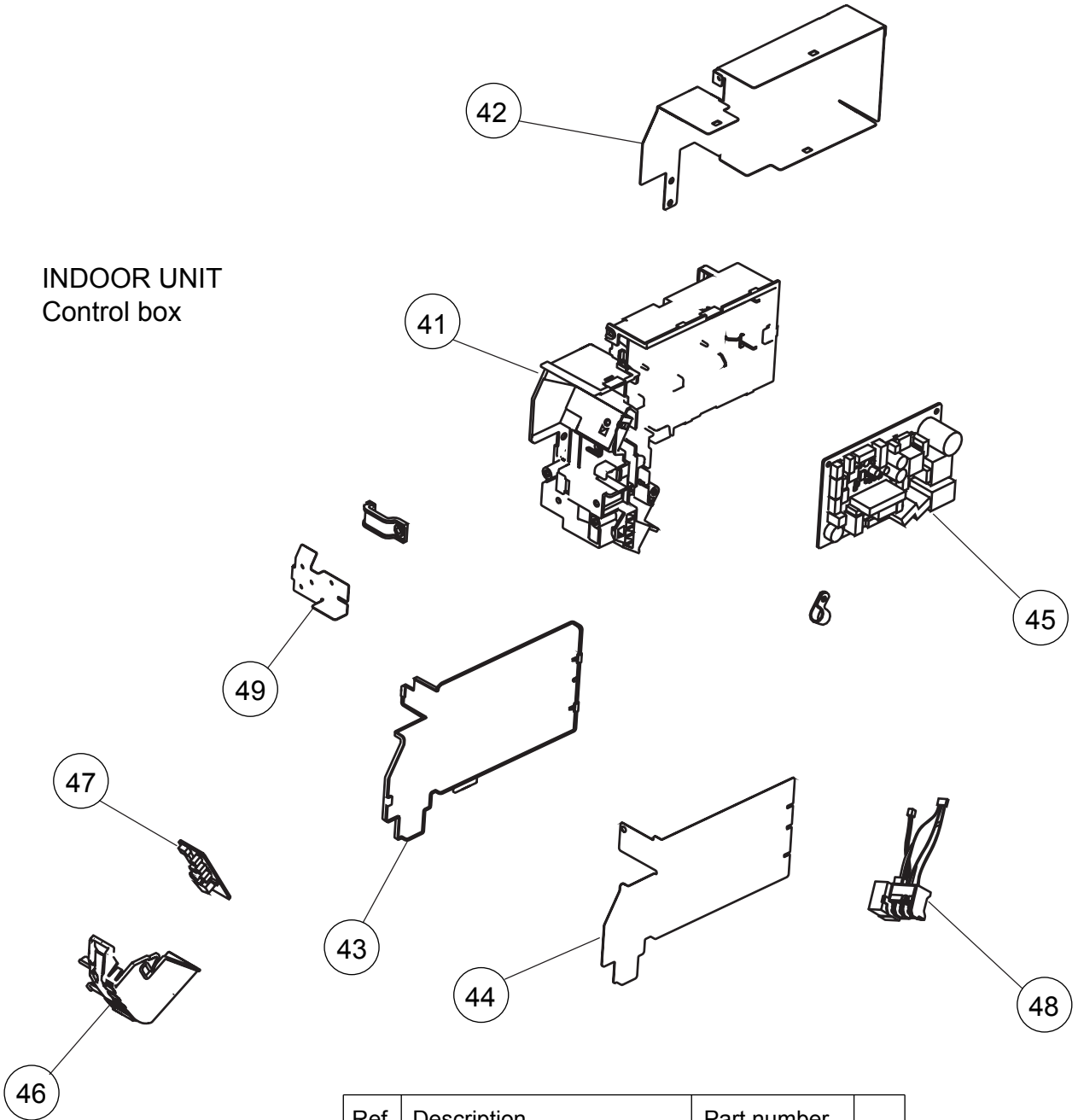


Ref.	Description	Part number
21	Casing Assy	9316892095
22	Casing	9316563001
23	Motor Cover	9316568006
24	Cable Guide	9316567009
25	Casing Cover B	9316569003
26	Casing Cover F	9316570009
27	R and L Louver B	9316961005
28	Louver Gear Holder	9316575004
29	Louver Gear	9316574007

Ref.	Description	Part number
30	Gear A	9309994003
31	Motor Step	9900139193
32	Drain Hose Assy	9316904002
33	Drain Cap	9316177017
34	Fan Guard	9317182003
35	Fan Motor	9603100001
36	Crossflow Fan Assy	9316830004
37	Shaft Holder C	9306628017
38	Bracket Panel	9316590007

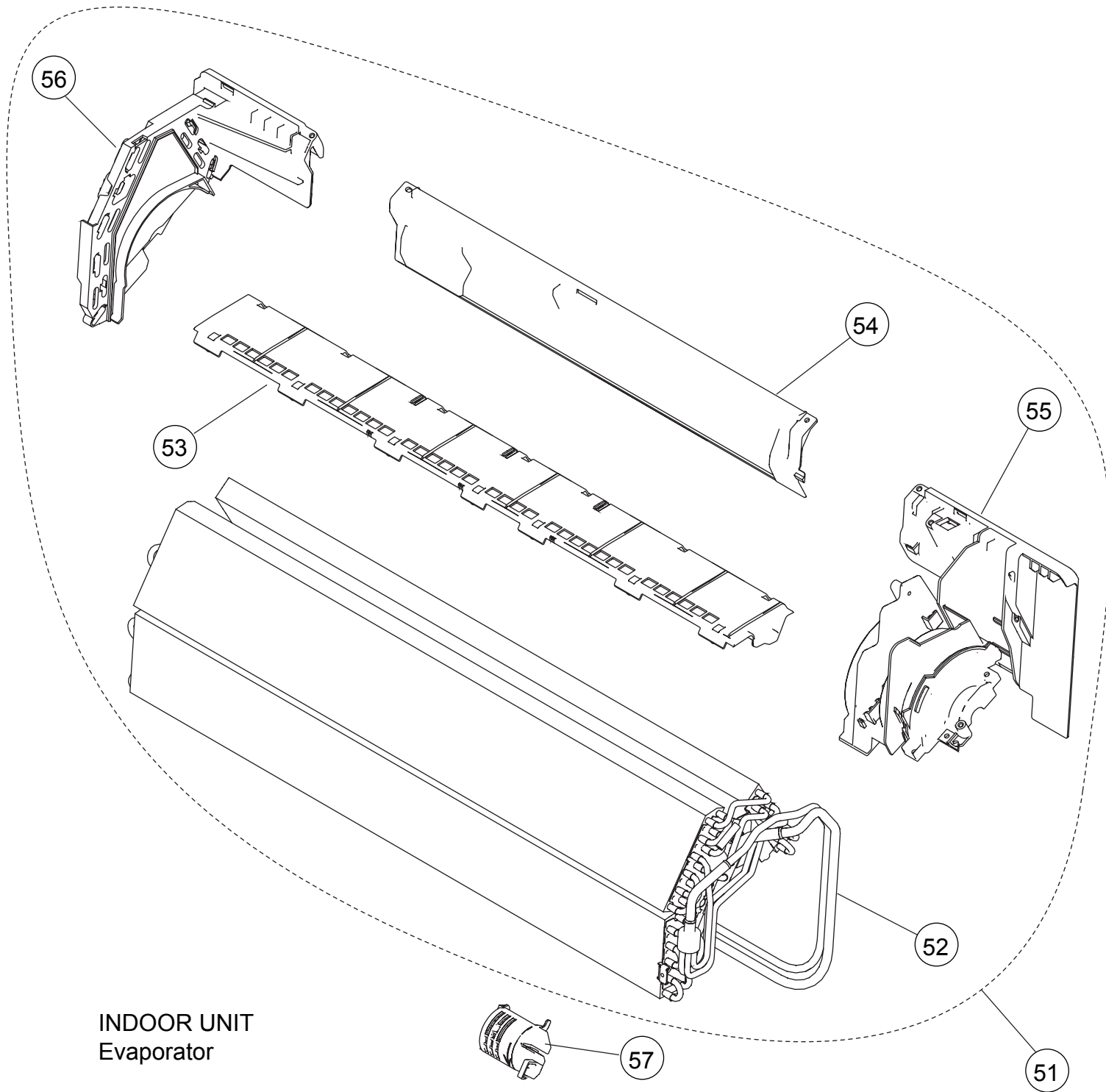


INDOOR UNIT  
Control box



Ref.	Description	Part number
41	Control Box	9316582002
42	Box Shield	9316580008
43	Control Cover	9316583009
44	Cover Shield	9316581005
45	Controller PCB Assy (07)	9708536156
45	Controller PCB Assy (09)	9708536163
46	Display Case	9316587007
47	Display PCB Assy	9707649024
48	Terminal	9900638009
49	Earth Terminal	9316586000
--	Thermistor Assy	9900563004



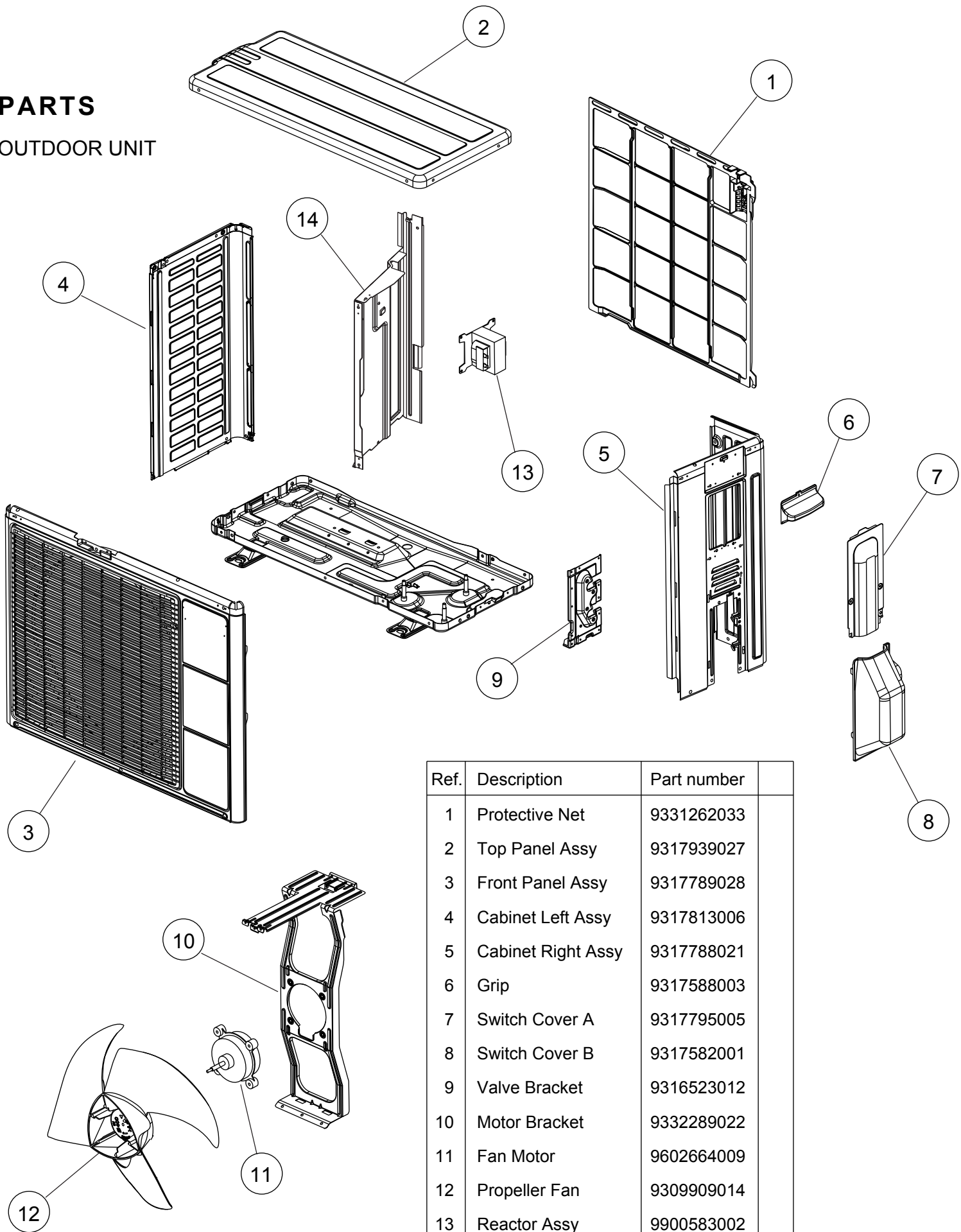


INDOOR UNIT  
Evaporator

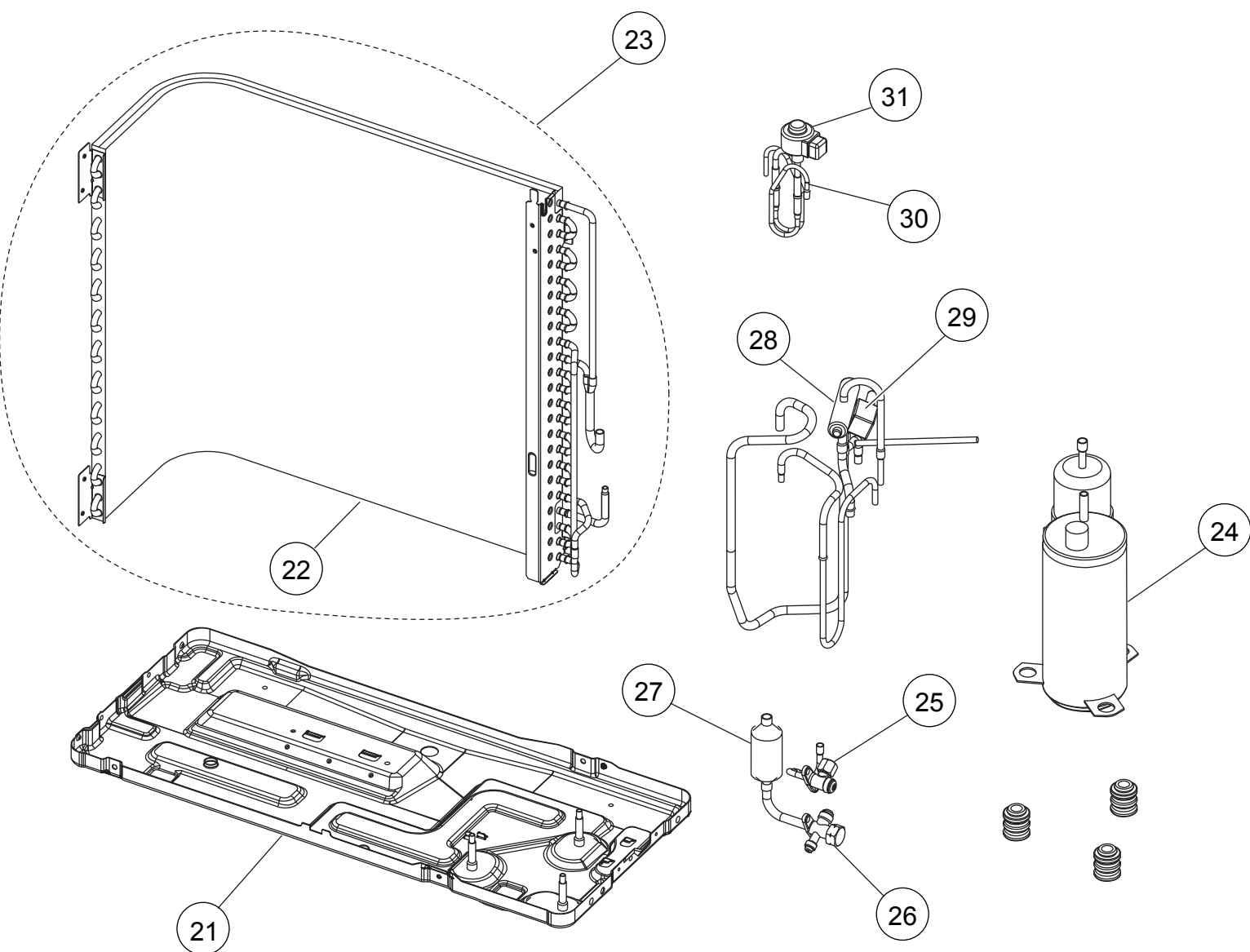
Ref.	Description	Part number
51	Evaporator Total Assy	9316893009
52	Joint Pipe Assy	9316923010
53	Filter Guide	9316578005
54	Rear Bracket	9316566019
55	Evaporator Holder R	9316565005
56	Evaporator Holder L	9316564008
57	Room Thermistor Holder	9316895003

# PARTS

## OUTDOOR UNIT



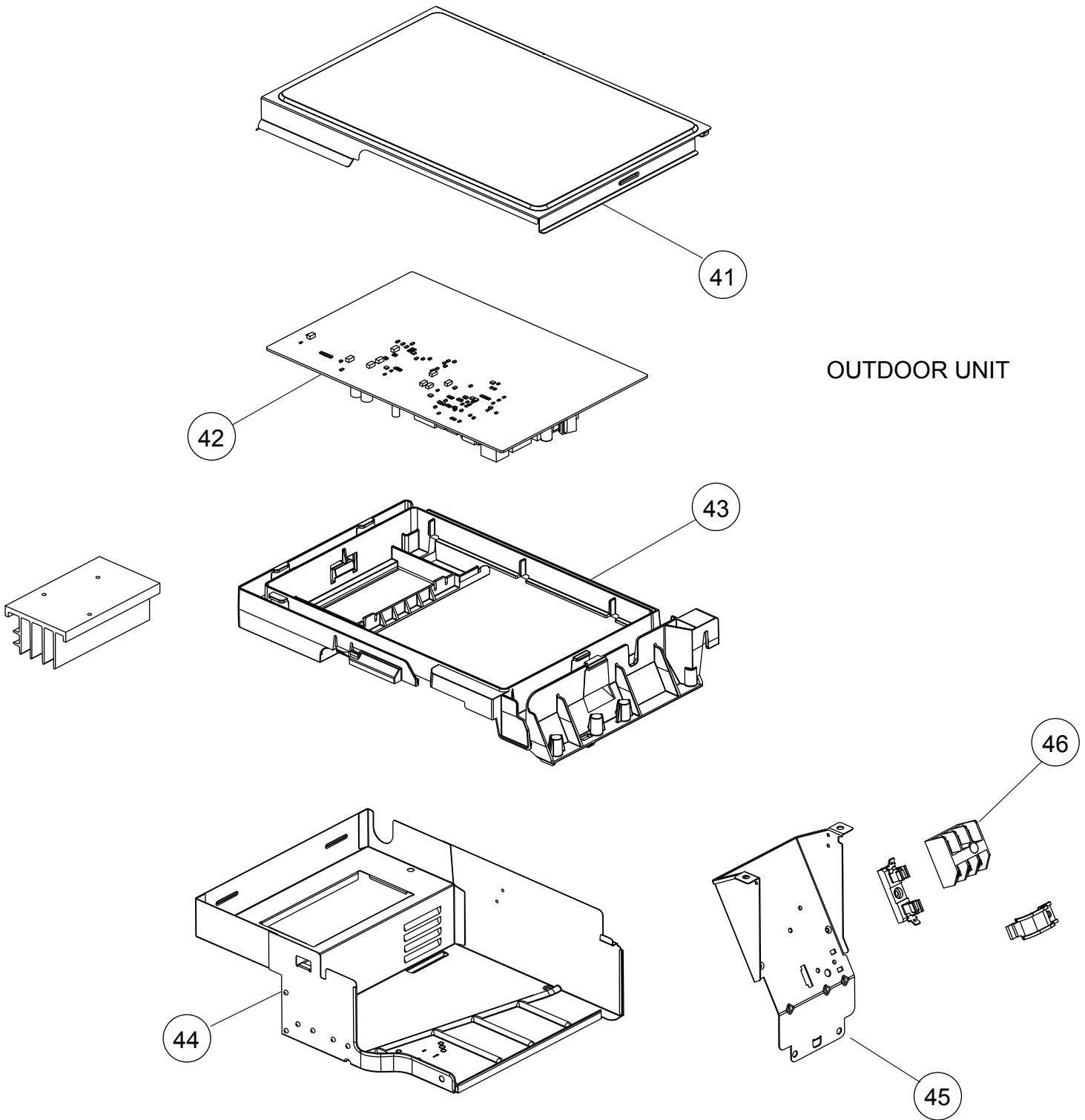
Ref.	Description	Part number
1	Protective Net	9331262033
2	Top Panel Assy	9317939027
3	Front Panel Assy	9317789028
4	Cabinet Left Assy	9317813006
5	Cabinet Right Assy	9317788021
6	Grip	9317588003
7	Switch Cover A	9317795005
8	Switch Cover B	9317582001
9	Valve Bracket	9316523012
10	Motor Bracket	9332289022
11	Fan Motor	9602664009
12	Propeller Fan	9309909014
13	Reactor Assy	9900583002
14	Separator Assy	9317786010
--	Emblem	9319151007
--	Drain Assy	9303029022



OUTDOOR UNIT

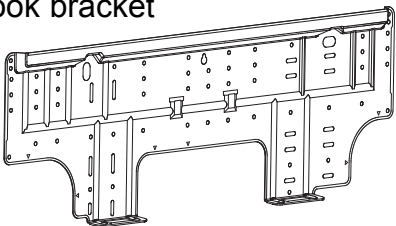
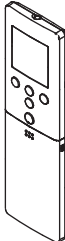


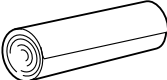
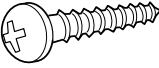
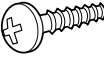
Ref.	Description	Part number
21	Base Assy	9316916029
22	Condenser Assy	9317286008
23	Condenser Total Assy	9317287012
24	Compressor Assy	9317083010
25	2 way Valve Assy	9318252002
26	3 way Valve Assy	9318254006
27	Muffler	9317394000
28	4 way Valve Assy	9317890021
29	Solenoid	9970079023
30	Pulse Motor Valve Assy	9317216036
31	Expansion Valve Coil	9970103025

## OUTDOOR UNIT

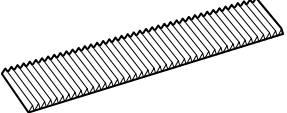


Ref.	Description	Part number
41	Sealed Panel	9318181012
42	Controller PCB Assy (07)	9708683096
42	Controller PCB Assy (09)	9708683102
43	PCB Holder	9318182002
44	Inverter Case Assy	9332247008
45	Terminal Bracket	9317816038
46	Terminal	9900435028
--	Outdoor Thermistor	9900565008
--	Thermistor Assy	9900628000

## ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9316590007
Remote control 	9319208008
Remote control holder 	9318912005
Battery (penlight) 	0600185541
Cloth tape 	9310519004
Tapping screw (big) ( $\phi$ 4 x 25) 	0700076046
Tapping screw (small) ( $\phi$ 3 x 12) 	0700019036

## OPTION

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

1101G3871