

SPLIT TYPE  
ROOM AIR CONDITIONER  
WALL MOUNTED TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG14LTCB	AOYG14LTCN

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG14LTCB
OUTDOOR UNIT		AOYG14LTCN
COOLING CAPACITY		4.2 kW
HEATING CAPACITY		5.4 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	5.1 A
	Heating	6.1 A
INPUT WATTS	Cooling	1.16 kW
	Heating	1.38 kW
E.E.R.	Cooling	3.62 kW/kW
COP	Heating	3.91 kW/kW
MOISTURE REMOVAL		2.1 L/h
AIR CIRCULATION HIGH	Cooling	900 m <sup>3</sup> /h
	Heating	950 m <sup>3</sup> /h
MAXIMUM CURRENT	Cooling	9.5 A
	Heating	14.5 A

## FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT Cooling	High	1,440 r.p.m.
	Medium	1,220 r.p.m.
	Low	980 r.p.m.
	Quiet	740 r.p.m.
INDOOR UNIT Heating	High	1,510 r.p.m.
	Medium	1,220 r.p.m.
	Low	1,030 r.p.m.
	Quiet	790 r.p.m.
OUTDOOR UNIT Cooling		870 r.p.m.
OUTDOOR UNIT Heating		780 r.p.m.

## NOISE LEVEL

INDOOR UNIT Cooling	High	45 dB
	Medium	40 dB
	Low	33 dB
	Quiet	25 dB
INDOOR UNIT Heating	High	45 dB
	Medium	40 dB
	Low	34 dB
	Quiet	27 dB
OUTDOOR UNIT Cooling		50 dB
OUTDOOR UNIT Heating		50 dB

## COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary
DISCRIMINATION		808-213-80
WEIGHT (with oil)		9.3 kg
PRECHARGED REFRIGERANT		1,250 g
FULL CHARGE	Pipe length 15 m	1,250 g
	20 m	1,350 g
ADDITIONAL CHARGE		20 g/m
MAXIMUM PIPING HEIGHT		15 m
REFRIGERANT TYPE		R410A

## DIMENSIONS

INDOOR UNIT	H x W x D	282 x 870 x 185 mm
OUTDOOR UNIT	H x W x D	620 x 790 x 290 mm

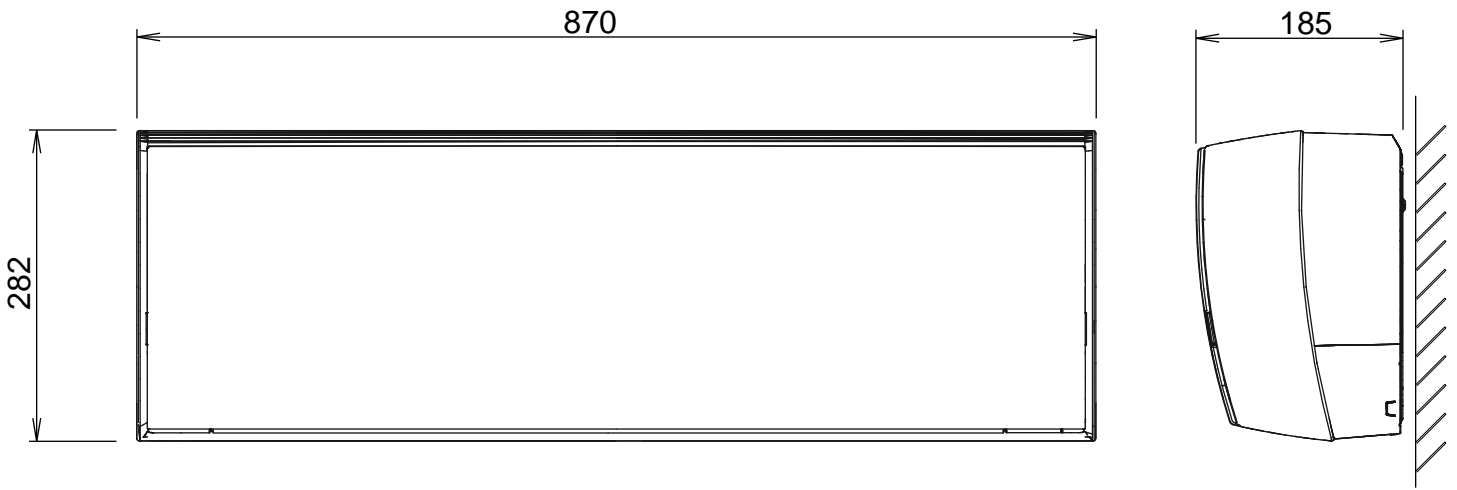
## WEIGHT

INDOOR UNIT	Net / Shipping	9.5 kg / 12.0 kg
OUTDOOR UNIT	Net / Shipping	40 kg / 43 kg

# DIMENSIONS

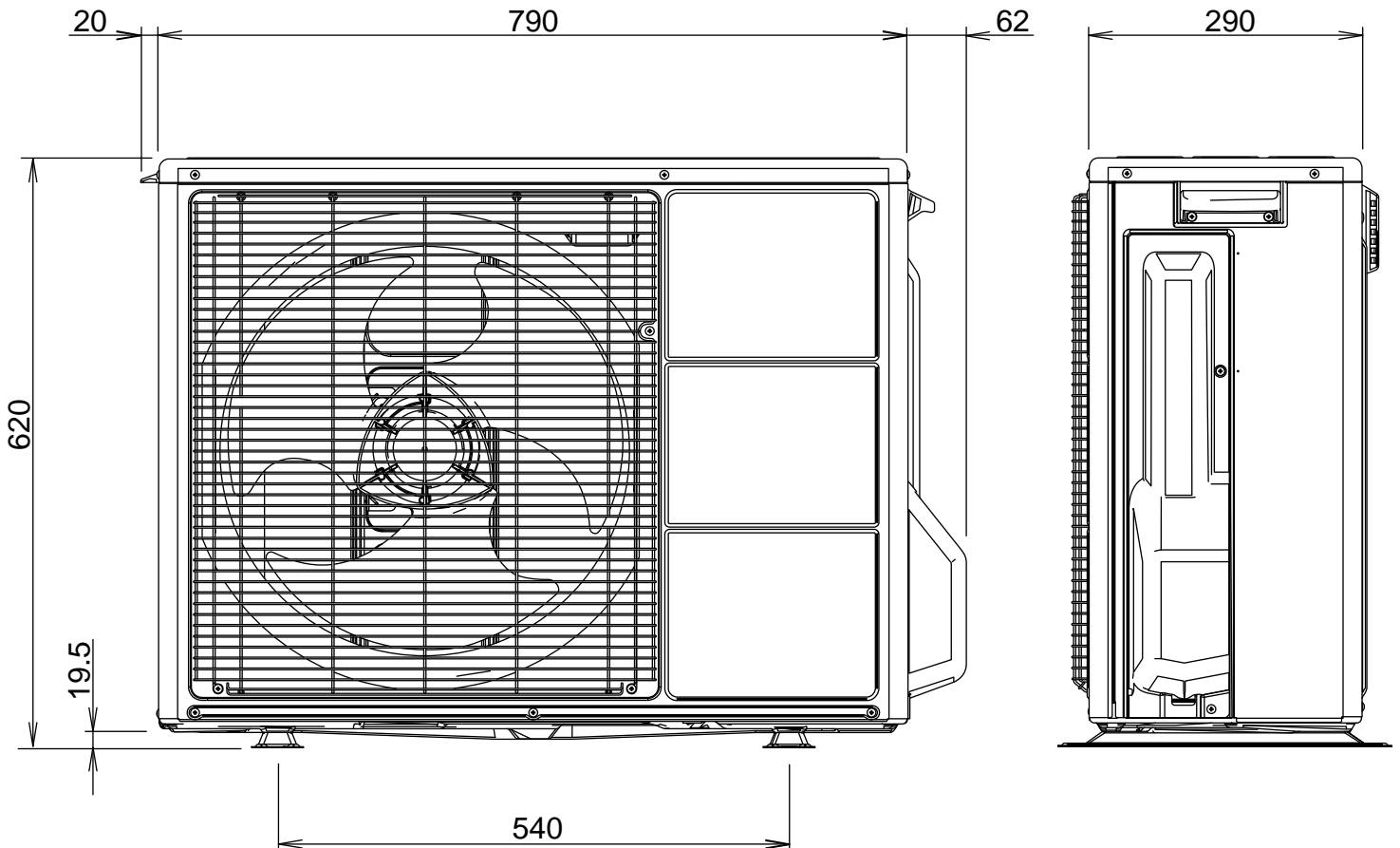
unit : mm

## INDOOR UNIT

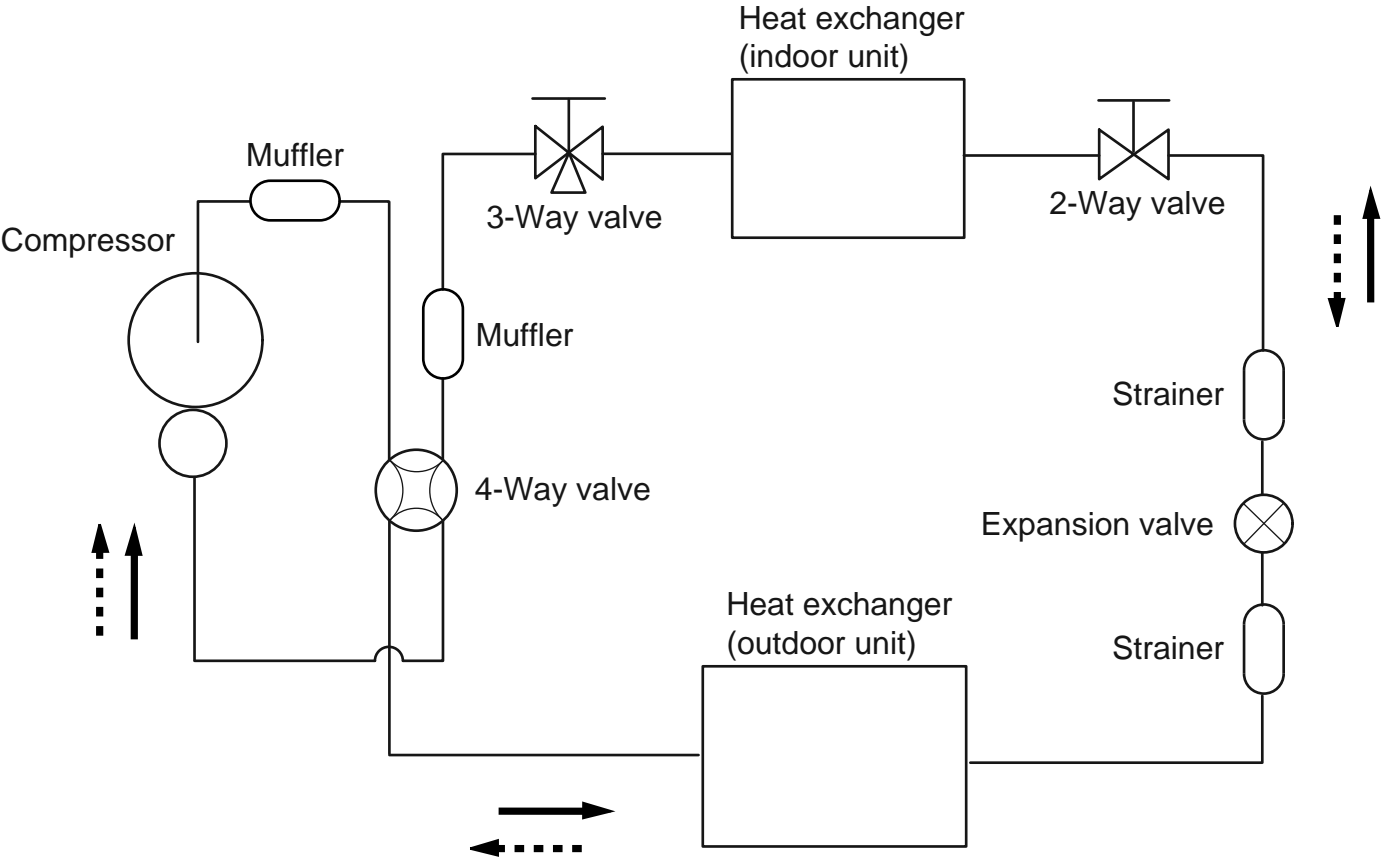


Drain hose length : 600 mm  
Drain pipe diameter  
Inside : 14.2 mm  
Outside : 16.2 mm

## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM



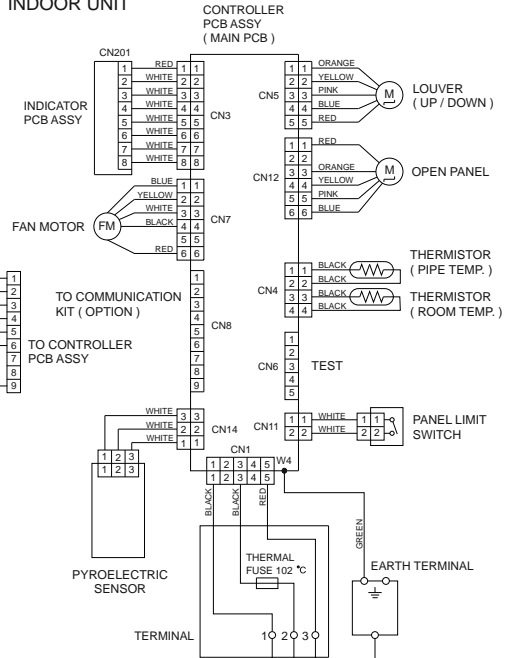
Refrigerant direction

- Cooling
- - - -→ Heating

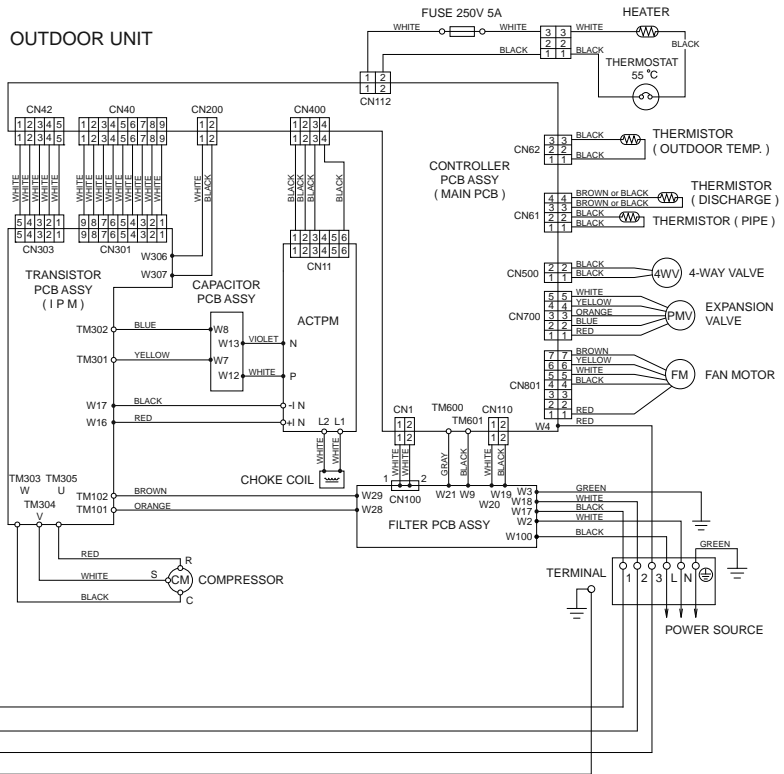
Refrigerant pipe diameter  
 Liquid : 1/4" (6.35 mm)  
 Gas : 1/2" (12.7 mm)

# CIRCUIT DIAGRAM

## INDOOR UNIT

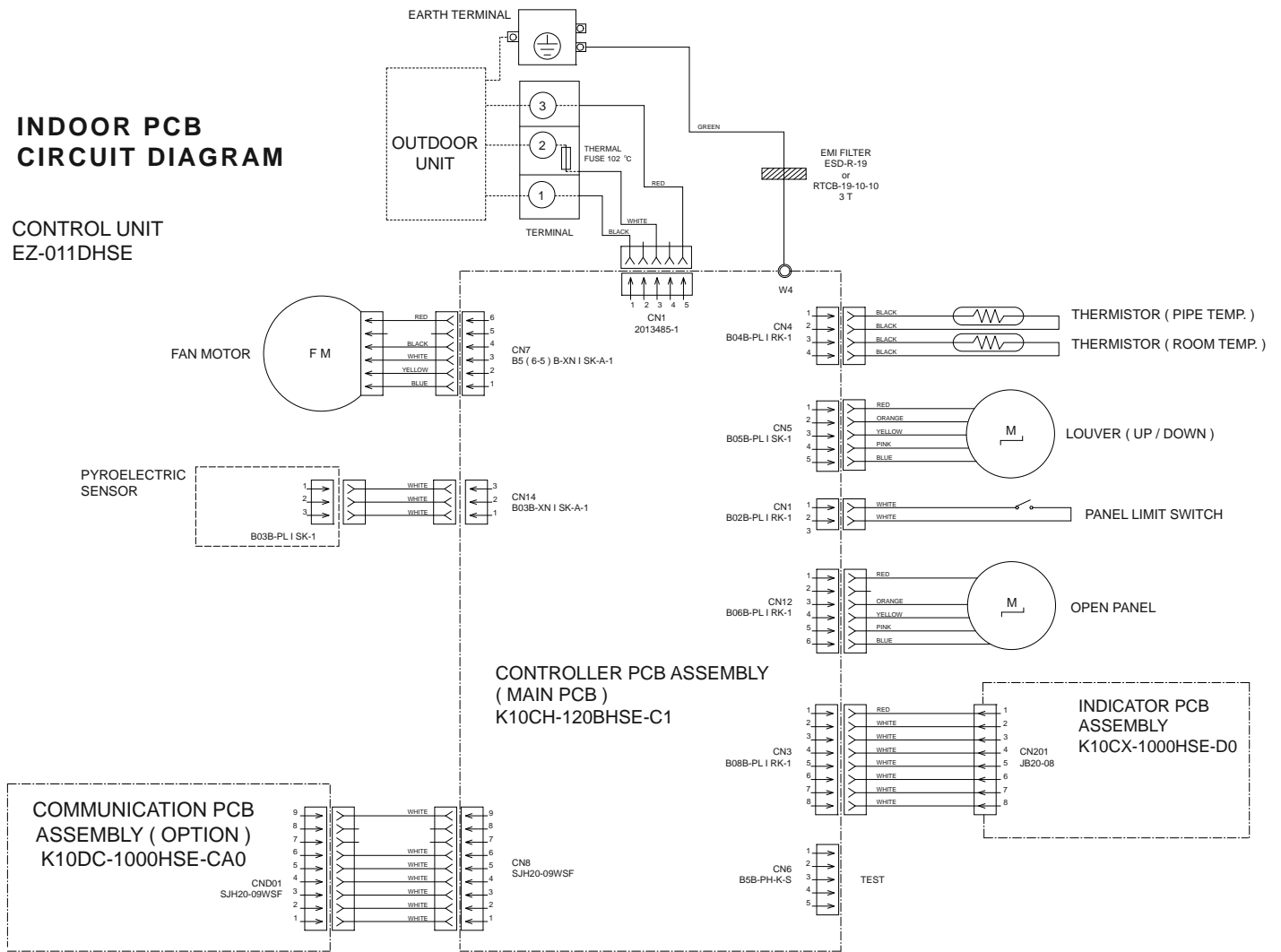


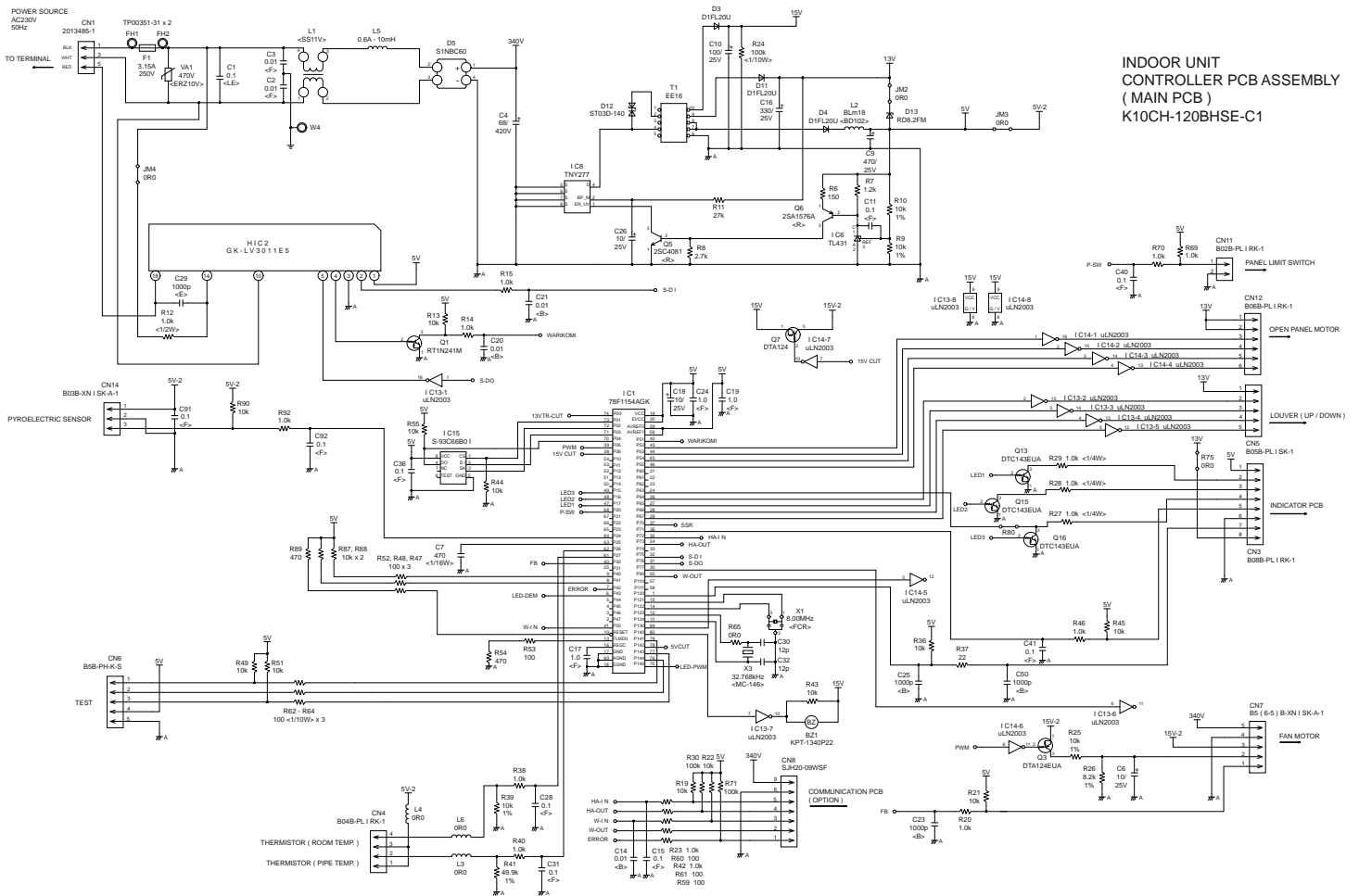
## OUTDOOR UNIT



# INDOOR PCB CIRCUIT DIAGRAM

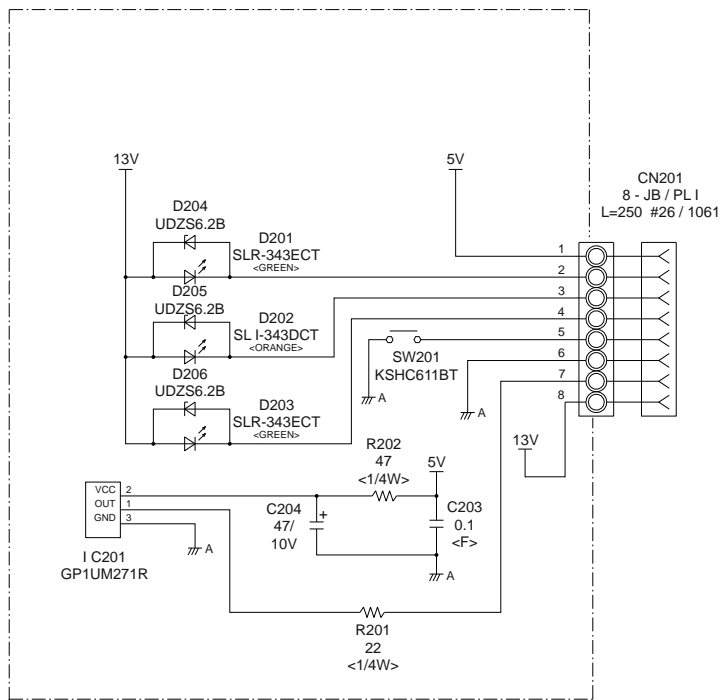
CONTROL UNIT  
EZ-011DHSE





**INDOOR UNIT  
CONTROLLER PCB ASSEMBLY  
( MAIN PCB )  
K10CH-120BHSE-C1**

INDOOR UNIT  
 INDICATOR PCB ASSEMBLY  
 K10CX-1000HSE-D0



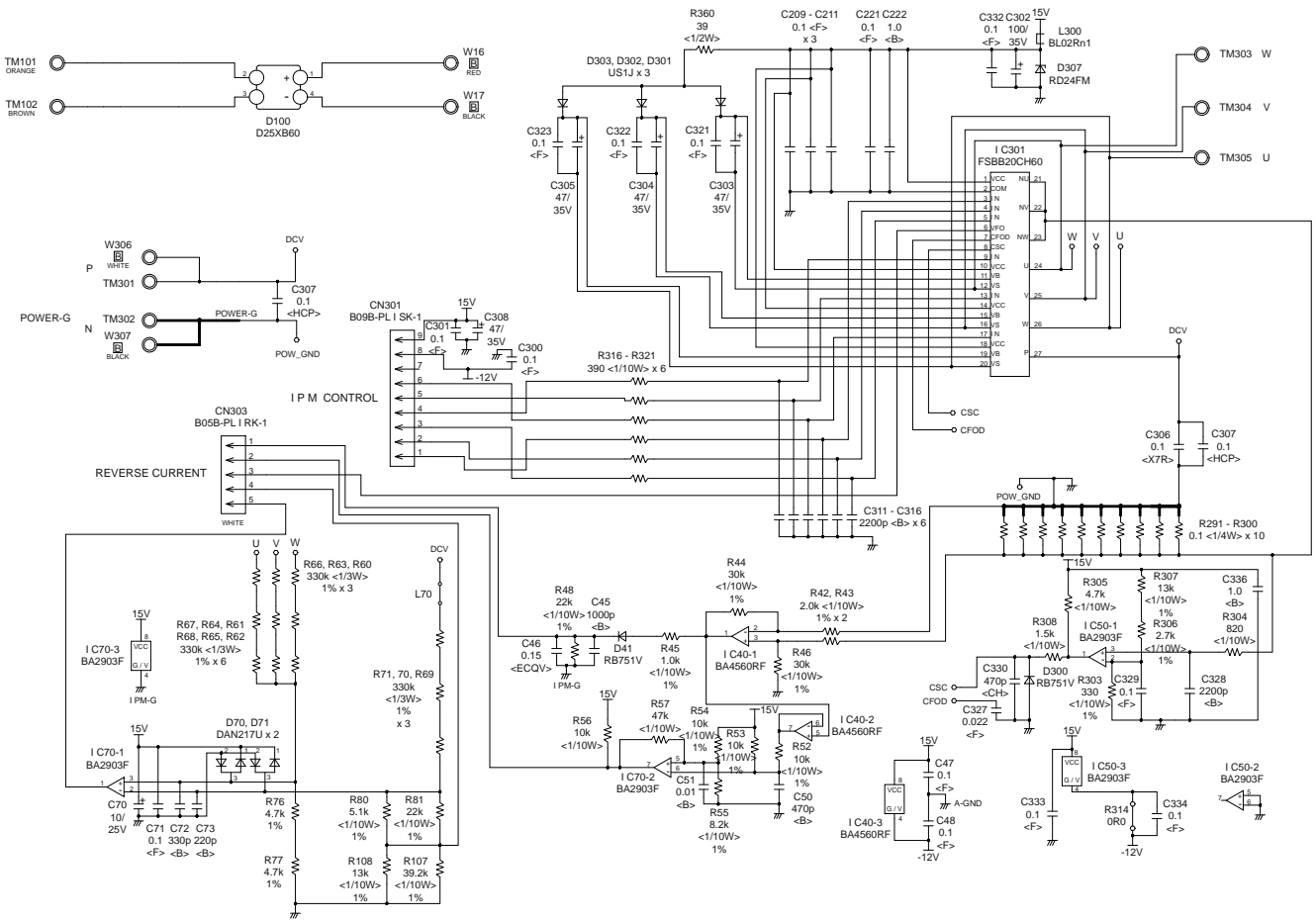




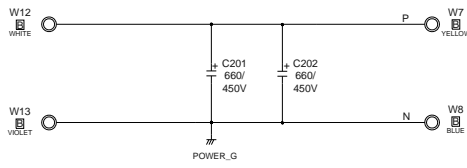




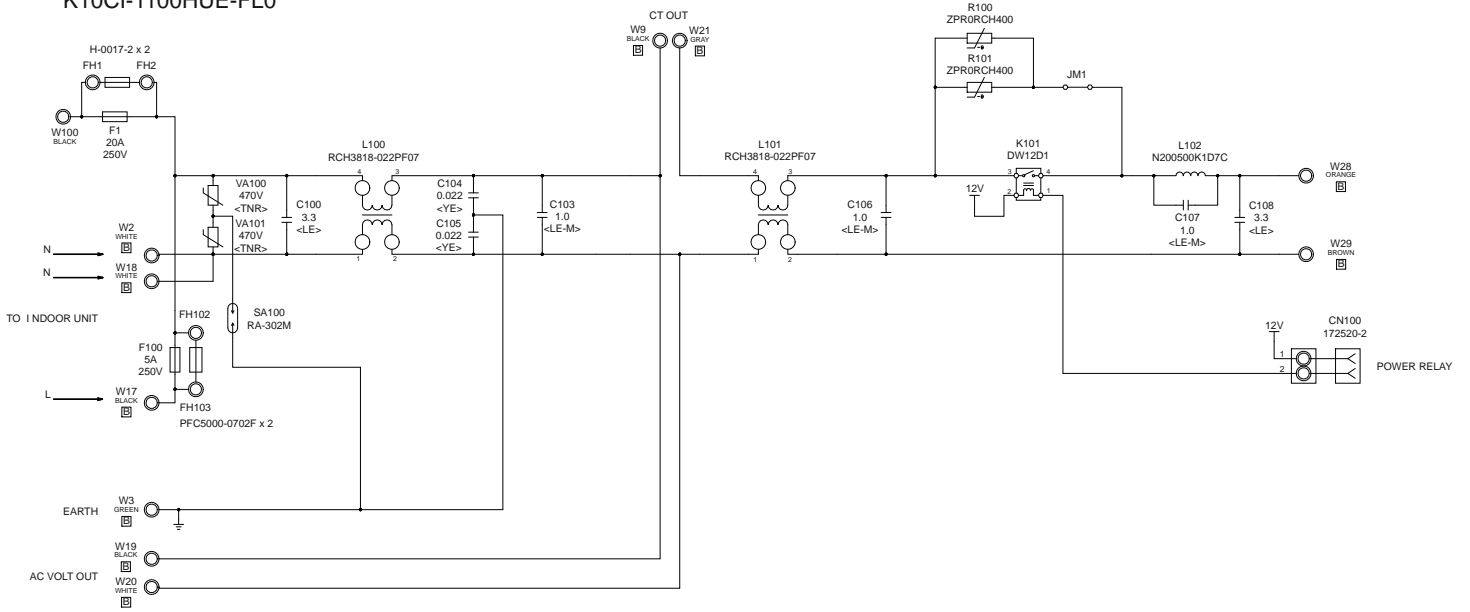
OUTDOOR UNIT  
 TRANSISTOR PCB ASSEMBLY ( I P M )  
 K10AY-100AHUE-TR0



OUTDOOR UNIT  
CAPACITOR PCB ASSY  
K05DG-0700HUD-P0



OUTDOOR UNIT  
FILTER PCB ASSEMBLY  
K10CI-1100HUE-FL0



## Indoor unit display

# ERROR DETECTION

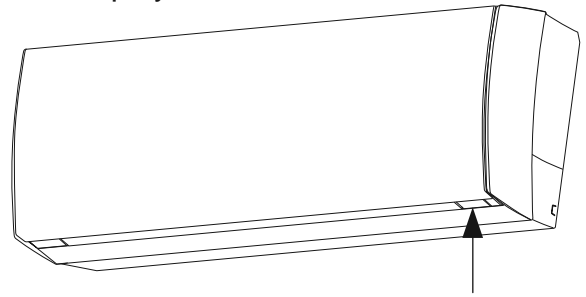
## INDOOR UNIT REMOTE CONTROL

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 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 operation.



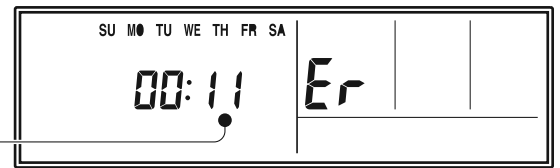
OPERATION indicator lamp (green)

TIMER indicator lamp (orange)

ECONOMY indicator lamp (green)

## Wired remote control display (Option)

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



Error code

● : 0.5s ON / 0.5s OFF

◇ : 0.1s ON / 0.1s OFF

( ) : Number of flashing

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)	● (2)	◇	22	Indoor unit capacity error
● (2)	● (3)	◇	23	Combination error
● (3)	● (2)	◇	32	Indoor unit PCB model information error
● (3)	● (5)	◇	35	Manual auto switch error
● (4)	● (1)	◇	41	Room temp. sensor error
● (4)	● (2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
● (5)	● (1)	◇	51	Indoor unit fan motor 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

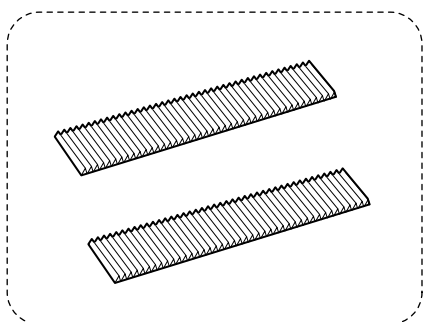
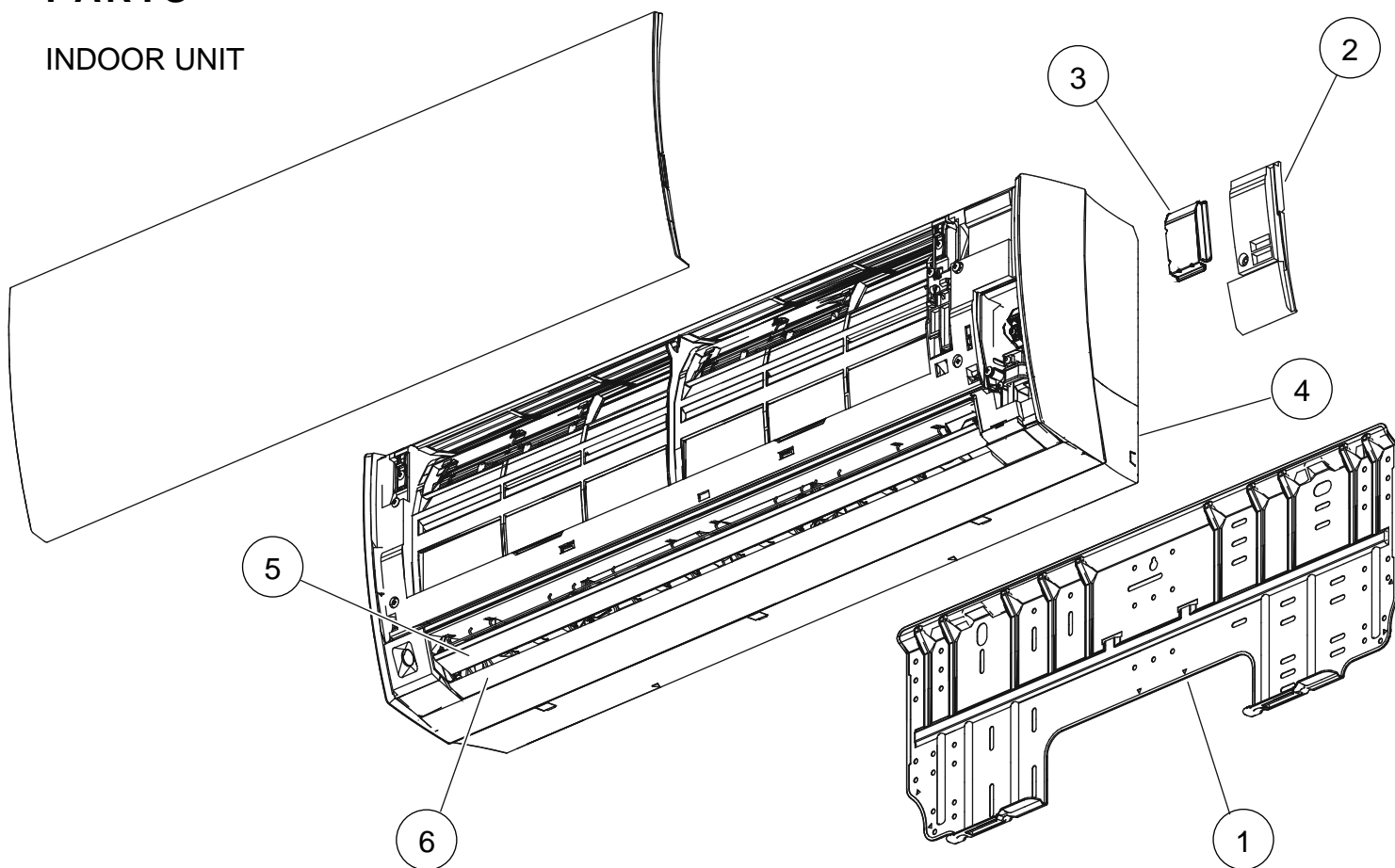
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp. sensor error
● (7)	● (6)	◇	76	• 2-way valve 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

#### OUTDOOR UNIT

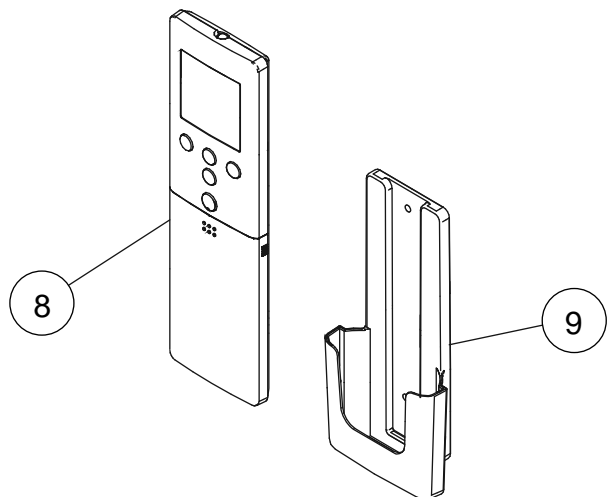
LED	ERROR
on	Discharge temperature abnormal
0.5 second on / 0.5 second off	IPM overcurrent protection
0.1 second on / 0.1 second off	Thermistor abnormal
2.0 second on / 2.0 second off	CT abnormal
0.1 second on / 2.0 second off	Compressor location abnormal
5.0 second on / 5.0 second off	Fan abnormal

# PARTS

## INDOOR UNIT

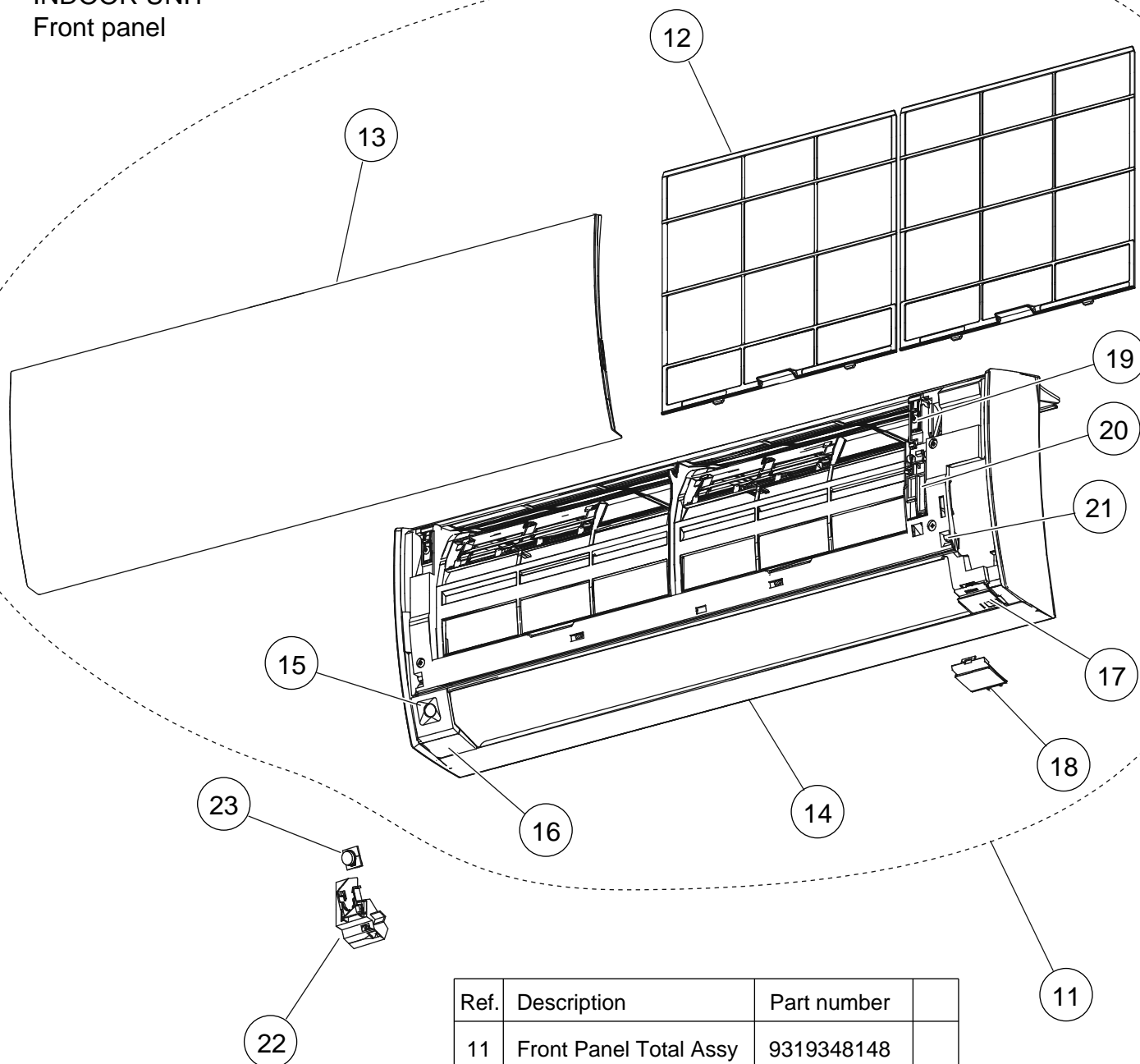


Ref.	Description	Part number
1	Bracket Panel	9318913002
2	Wire Cover	9318911008
3	Wire Shield	9318919004
4	Under Cover	9318879001
5	Louver (Upper)	9318880007
6	Louver (Lower)	9318881004
7	Air Clean Filter Assy	9317250009
8	Remote Control	9319207001
9	Remote Control Holder	9318912005



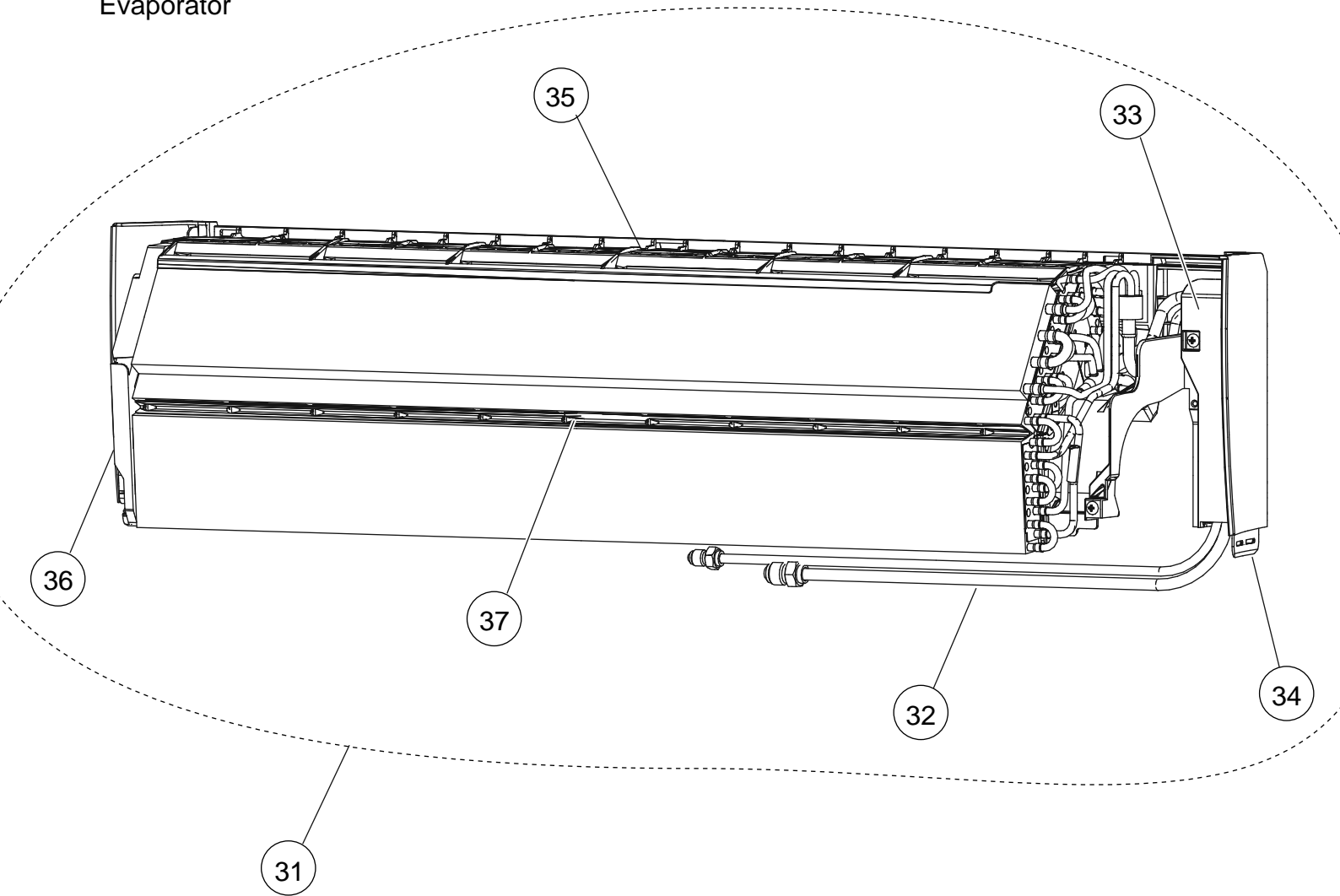


INDOOR UNIT  
Front panel

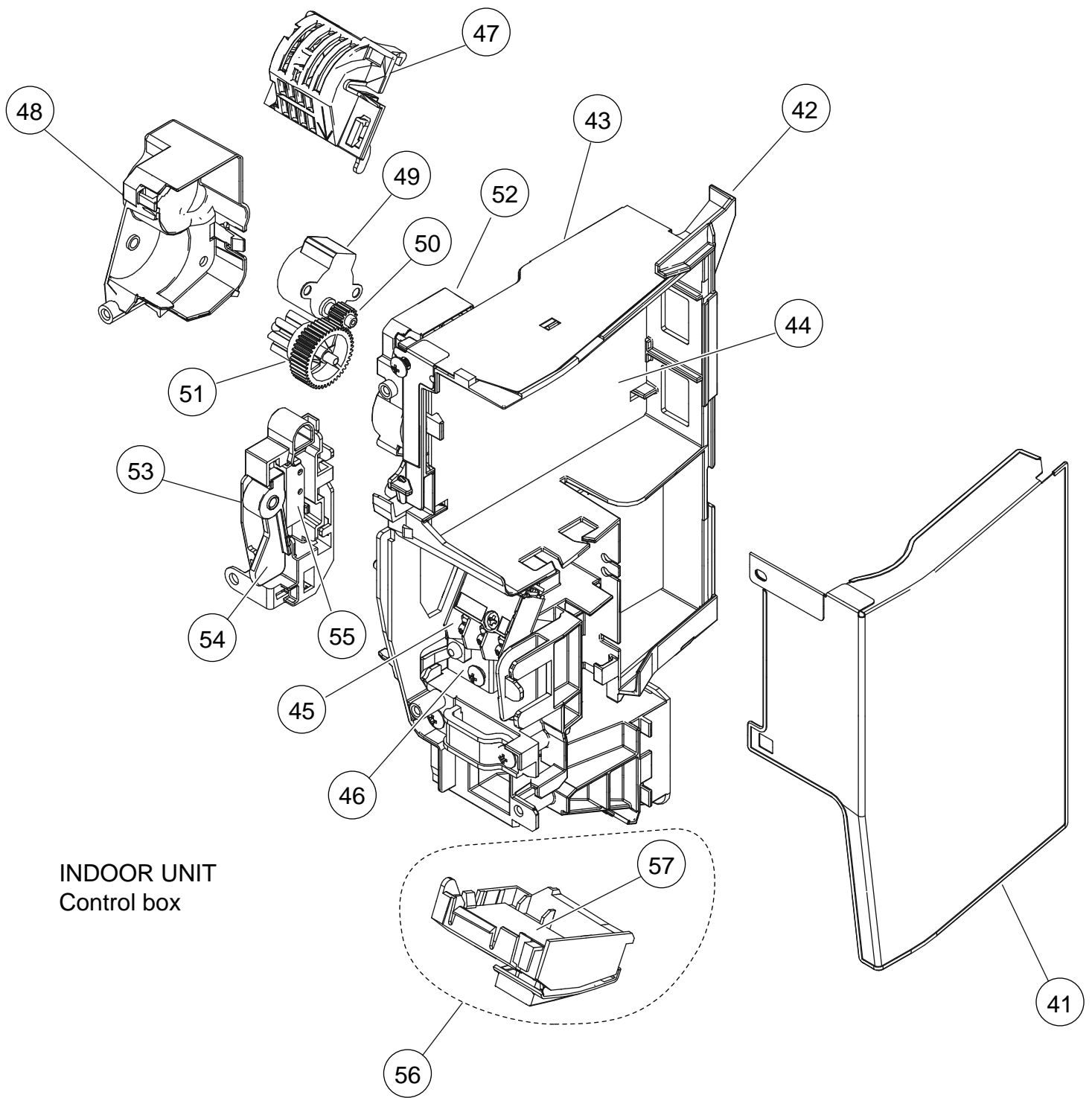


Ref.	Description	Part number
11	Front Panel Total Assy	9319348148
12	Air Filter	9318883008
13	Intake Grille Assy	9319351155
14	Front Panel	9318876000
15	Front Panel Cover T	9318909005
16	Display Plate Holder L	9318894004
17	Display Plate Holder R	9318895001
18	Display Plate R	9318893007
19	Arm Cover	9318900002
20	Grille Stay	9318899009
21	Grille Clamper B	9316951006
22	Motion LED Display Case	9318907001
23	Pyroelectric Sensor	9317755023

INDOOR UNIT  
Evaporator



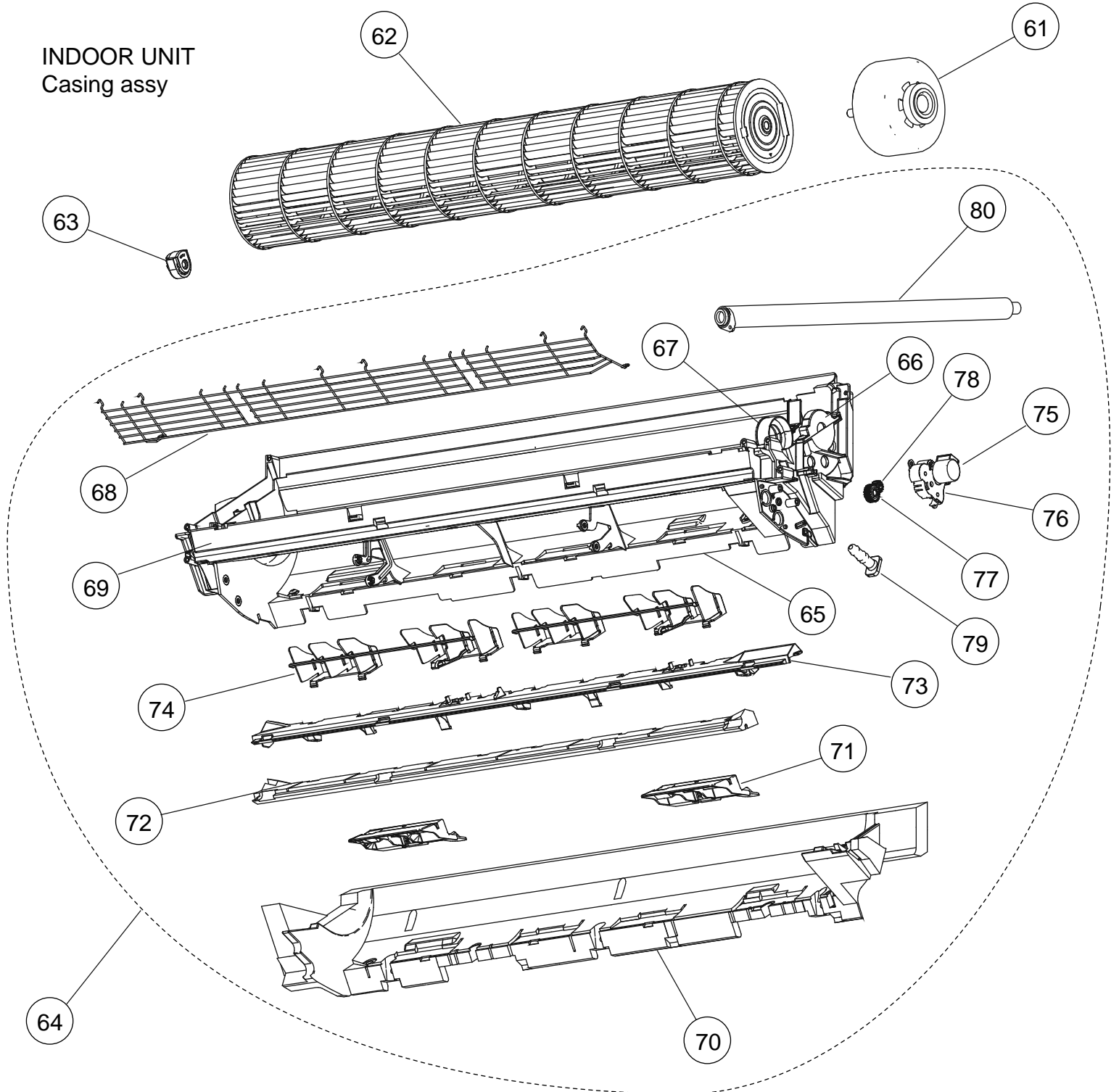
Ref.	Description	Part number
31	Evaporator Total Assy	9319327013
32	Joint Pipe Assy	9319322018
33	Joint Pipe Holder	9318901009
34	Base	9318874006
35	Filter Guide	9318887006
36	Evaporator Holder L	9318875003
37	Air Seal	9319295008



Ref.	Description	Part number
41	Cover Shield A	9318916003
42	Control Box	9318882001
43	Box Shield Assy	9319344003
44	Controller PCB Assy	9708713328
45	Terminal	9900638009
46	Earth Terminal	9318918007
47	Room Thermistor Holder	9319068008
48	Gear Cover	9318902006
49	Step Motor	9900384166

Ref.	Description	Part number
50	Gear B	9319294001
51	Panel Gear	9319293004
52	Gear Case	9318903003
53	Switch Case	9319332000
54	Grille Key Top	9319334004
55	Micro Switch	9900625009
56	Display Assy	9708823010
57	Display PCB Assy	9708824017
--	Thermistor Assy	9900627003

INDOOR UNIT  
Casing assy

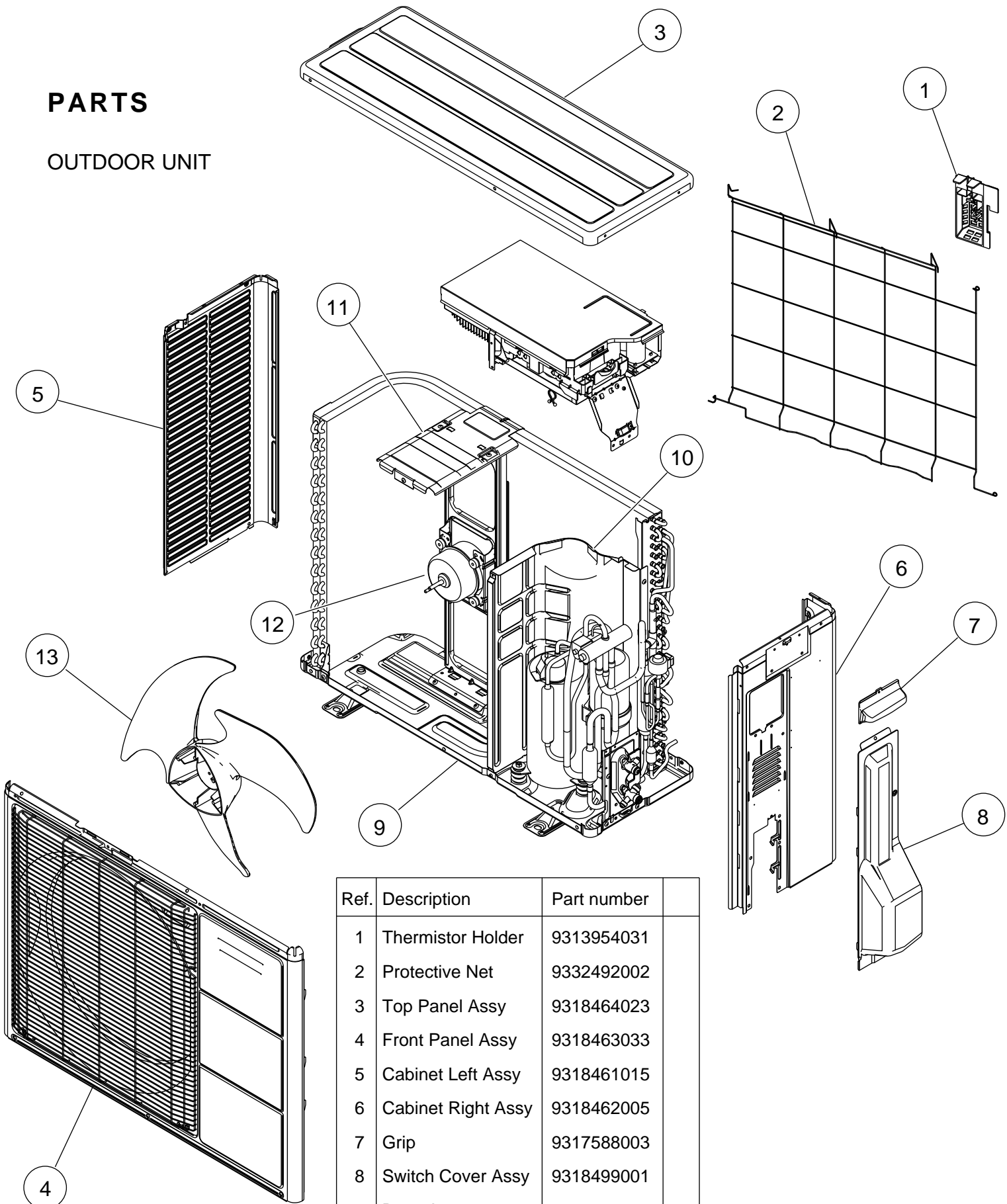


Ref.	Description	Part number
61	Fan Motor	9602947003
62	Crossflow Fan Assy	9319361000
63	Bearing C Assy	9306628017
64	Casing Assy	9319342009
65	Casing	9318873009
66	Motor Cover	9316601000
67	Motor Cover	9318888003
68	Fan Guard	9318924008
69	Casing Cover F	9318923001
70	Casing Cover B	9318920000

Ref.	Description	Part number
71	Pipe Bracket	9318889000
72	Panel Cover	9319296005
73	Louver Holder	9318886009
74	R and L Louver	9318885002
75	Motor Step	9900384128
76	Louver Gear Holder	9318905007
77	Louver Gear	9318904000
78	Gear A	9309994003
79	Drain Cap	9316177017
80	Drain Hose Assy	9316904002

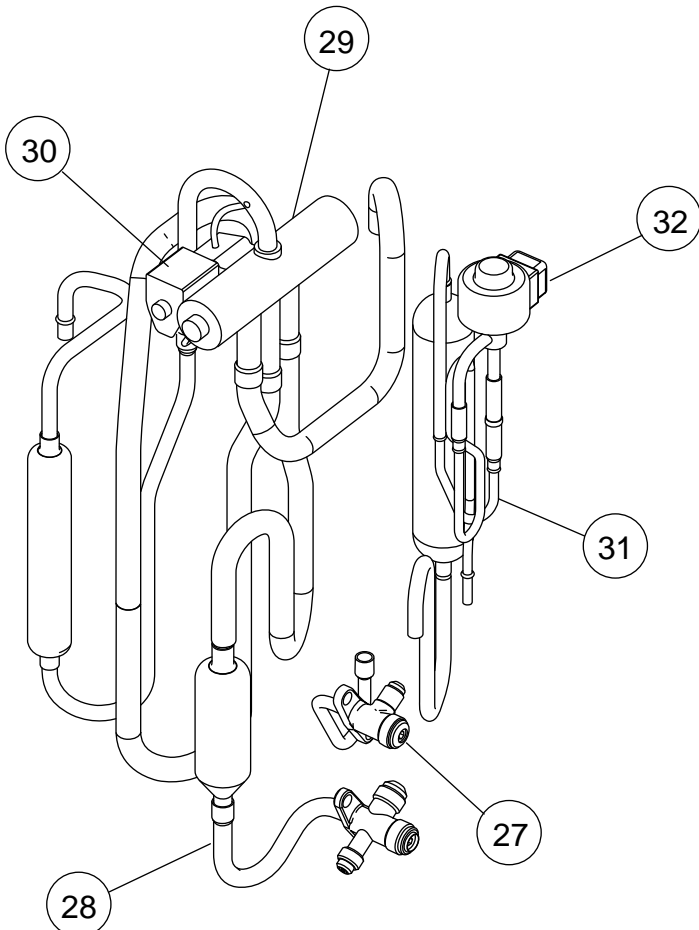
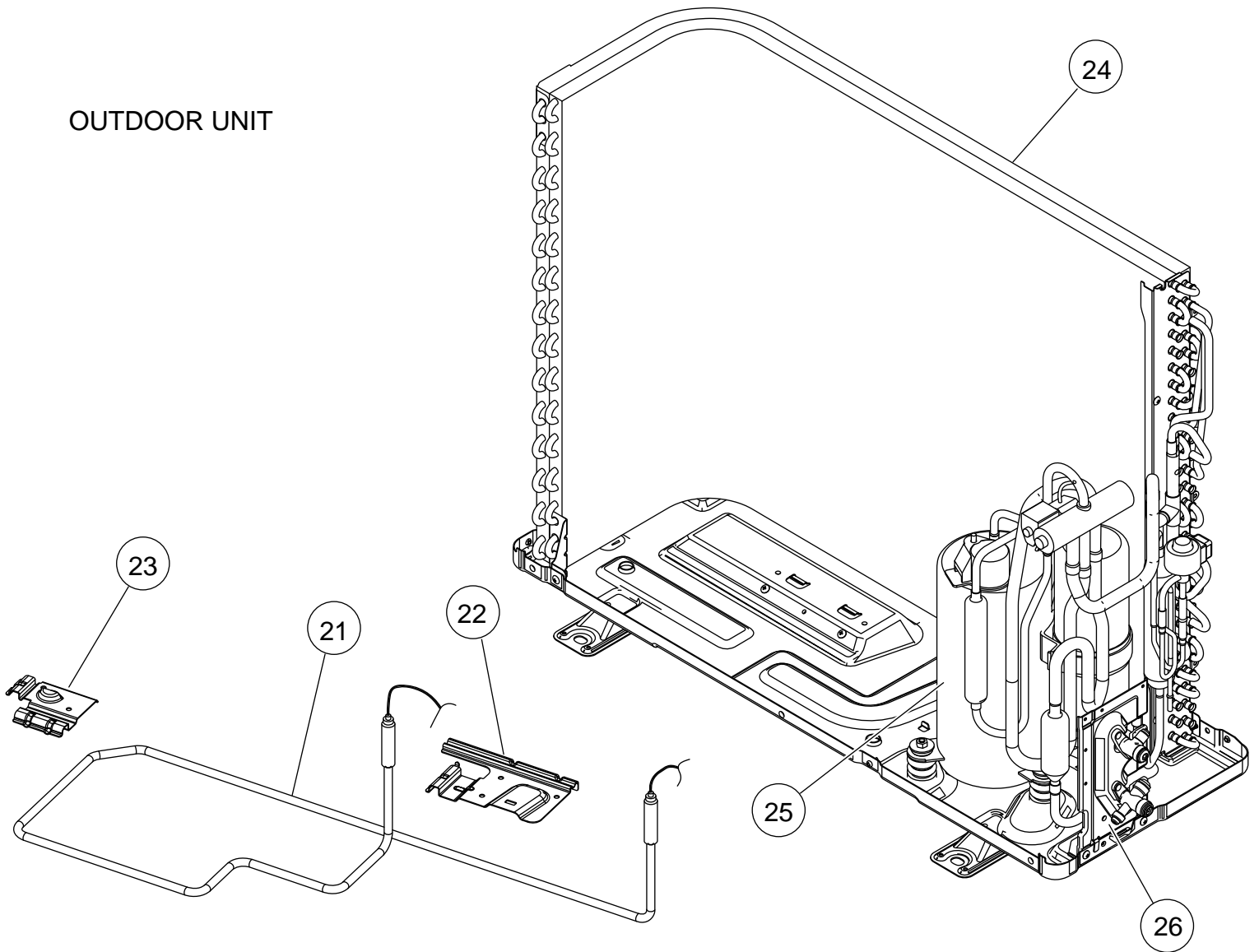
# PARTS

## OUTDOOR UNIT



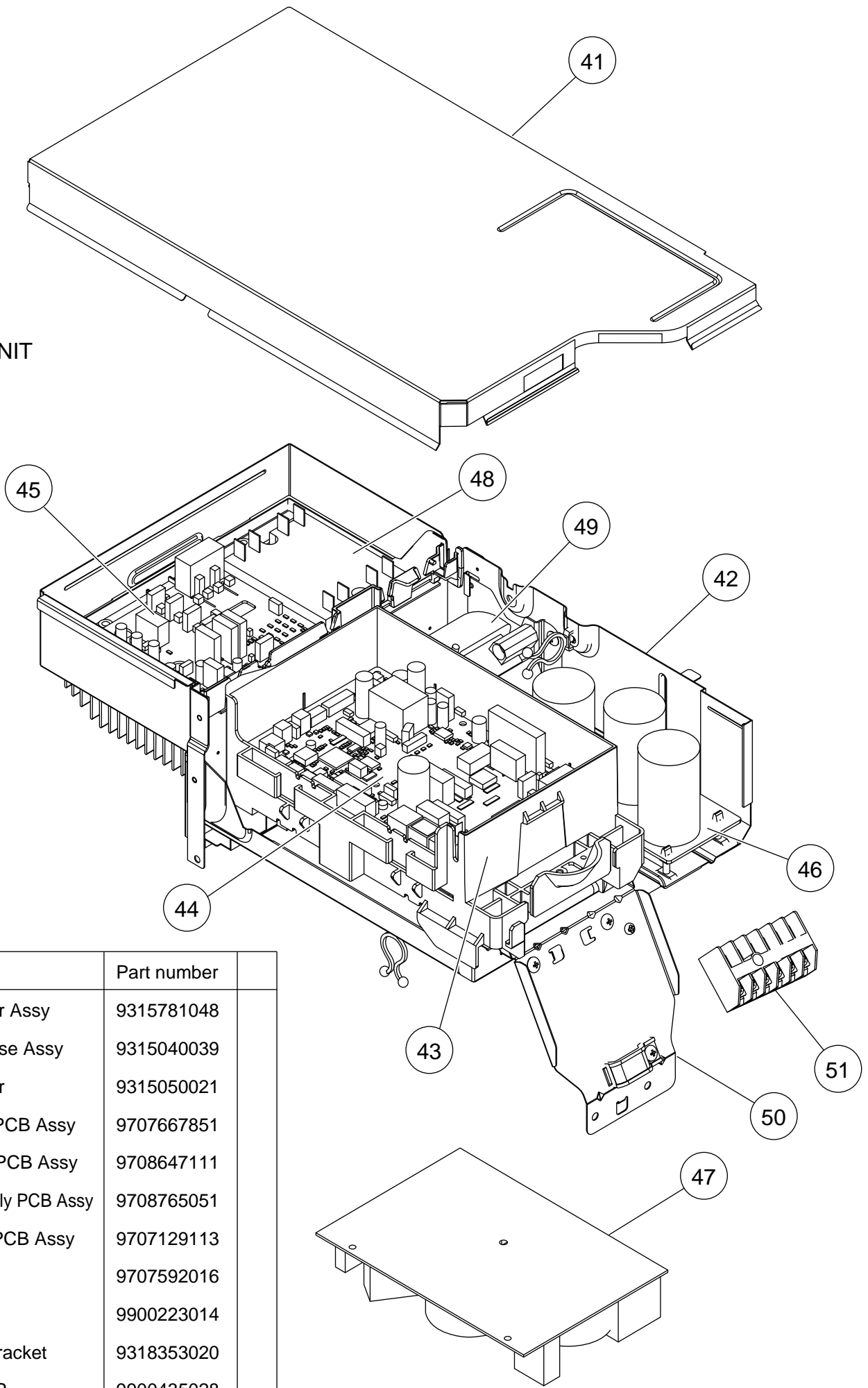
Ref.	Description	Part number
1	Thermistor Holder	9313954031
2	Protective Net	9332492002
3	Top Panel Assy	9318464023
4	Front Panel Assy	9318463033
5	Cabinet Left Assy	9318461015
6	Cabinet Right Assy	9318462005
7	Grip	9317588003
8	Switch Cover Assy	9318499001
9	Base Assy	9316885059
10	Separator	9315899033
11	Motor Bracket Assy	9316041011
12	Fan Motor	9602724000
13	Propeller Fan	9313808013
--	Emblem	9319151007

# OUTDOOR UNIT



Ref.	Description	Part number
21	Heater Unit Assy	9900616014
22	Heater Holder A	9318631005
23	Heater Holder B	9318651003
24	Condenser Total Assy	9317089104
25	Compressor Assy	9318334005
26	Valve Bracket	9331649001
27	2-way Valve Assy	9317171014
28	3-way Valve Sub Assy	9317109062
29	4-way Valve Assy	9318457018
30	Solenoid	9970110023
31	Pulse Motor Valve Assy	9315587022
32	Expansion Valve Coil	9970095030

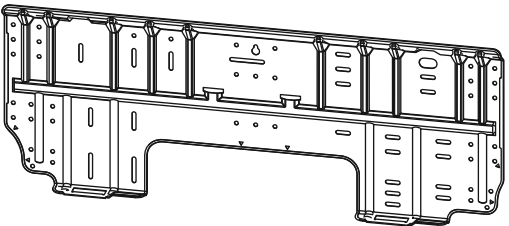
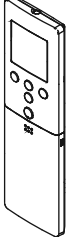
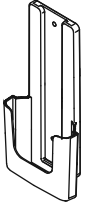
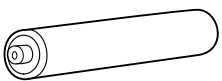
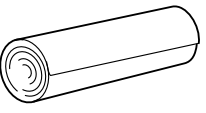
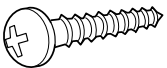
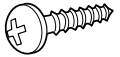
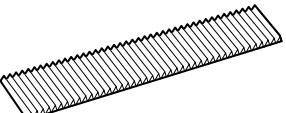
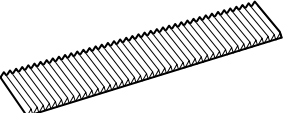
# OUTDOOR UNIT



Ref.	Description	Part number
41	Case Cover Assy	9315781048
42	Inverter Case Assy	9315040039
43	PCB Holder	9315050021
44	Controller PCB Assy	9707667851
45	Transistor PCB Assy	9708647111
46	Power Supply PCB Assy	9708765051
47	Capacitor PCB Assy	9707129113
48	ACTPM	9707592016
49	Choke Coil	9900223014
50	Terminal Bracket	9318353020
51	Terminal 6P	9900435028
--	Outdoor Thermistor	9900544041
--	Thermistor Assy	9900648008

# ACCESSORIES

## INDOOR UNIT

Name and Shape	Part number
<p>Bracket panel</p> 	<p>9318913002</p>
<p>Remote control</p> 	<p>9319207001</p>
<p>Remote control holder</p> 	<p>9318912005</p>
<p>Battery (penlight)</p> 	<p>0600185077</p>
<p>Cloth tape</p> 	<p>9308117007</p>
<p>Tapping screw (big) (<math>\phi</math> 4 x 25)</p> 	<p>0700076046</p>
<p>Tapping screw (small) (<math>\phi</math> 3 x 12)</p> 	<p>0700019036</p>
<p>Air cleaning filter (ion deodorant)</p> 	<p>9311925088</p>
<p>Air cleaning filter (electric)</p> 	<p>9312153077</p>



1109G3965