

SPLIT TYPE  
ROOM AIR CONDITIONER  
WALL MOUNTED TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG09LTCB	AOYG09LTCN

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG09LTCB
OUTDOOR UNIT		AOYG09LTCN
COOLING CAPACITY		2.50 kW
HEATING CAPACITY		3.20 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	2.6 A
	Heating	3.3 A
INPUT WATTS	Cooling	0.505 kW
	Heating	0.66 kW
E.E.R.	Cooling	4.95 kW/kW
COP	Heating	4.85 kW/kW
MOISTURE REMOVAL		1.3 L/h
AIR CIRCULATION HIGH	Cooling	800 m <sup>3</sup> /h
	Heating	800 m <sup>3</sup> /h
MAXIMUM CURRENT	Cooling	6.5 A
	Heating	10.0 A

## FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT Cooling	High speed	1,300 r.p.m.
	Medium speed	1,080 r.p.m.
	Low speed	960 r.p.m.
	Quiet	650 r.p.m.
INDOOR UNIT Heating	High speed	1,300 r.p.m.
	Medium speed	1,120 r.p.m.
	Low speed	960 r.p.m.
	Quiet	650 r.p.m.
OUTDOOR UNIT Cooling		750 r.p.m.
OUTDOOR UNIT Heating		750 r.p.m.

## NOISE LEVEL

INDOOR UNIT Cooling	High speed	42 dB
	Medium speed	36 dB
	Low speed	32 dB
	Quiet	21 dB
INDOOR UNIT Heating	High speed	42 dB
	Medium speed	37 dB
	Low speed	32 dB
	Quiet	21 dB
OUTDOOR UNIT Cooling		48 dB
OUTDOOR UNIT Heating		49 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	1,050 g	
REFRIGERANT TYPE	R410A	
FULL CHARGE	Pipe length 15 m	1,050 g
	20 m	1,150 g
ADDITIONAL CHARGE	20 g/m	
MAXIMUM PIPING HEIGHT	15m	

## DIMENSIONS

INDOOR UNIT	H x W x D	282 x 870 x 185 mm
OUTDOOR UNIT	H x W x D	540 x 790 x 290 mm

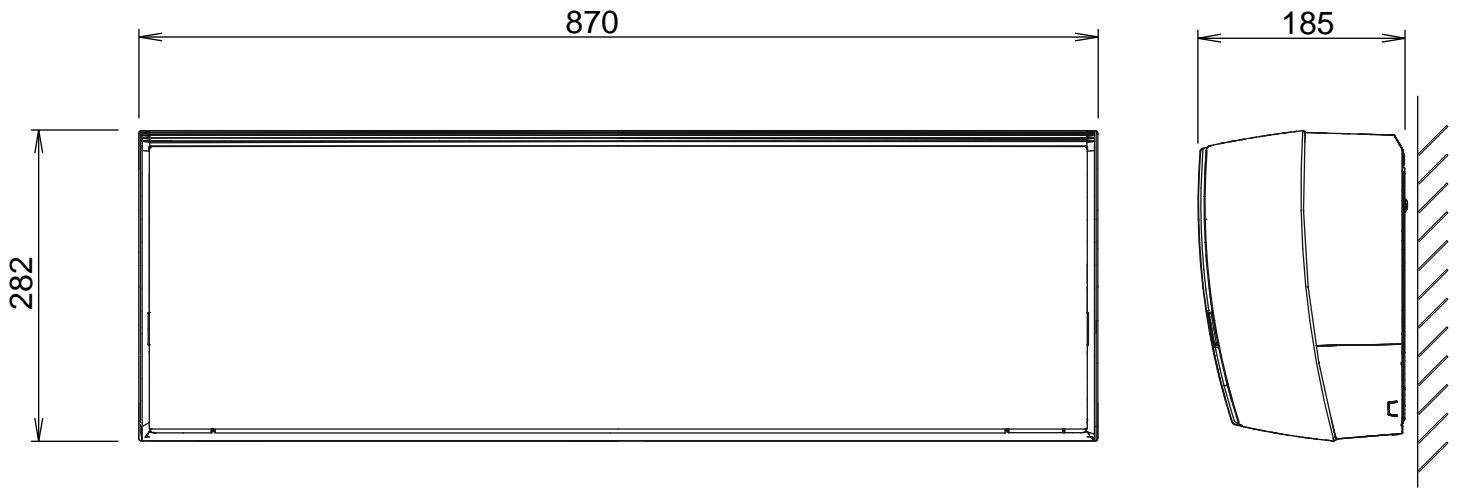
## WEIGHT

INDOOR UNIT	Shipping / Net	12 kg / 9.5 kg
OUTDOOR UNIT	Shipping / Net	40 kg / 36 kg

# DIMENSIONS

unit : mm

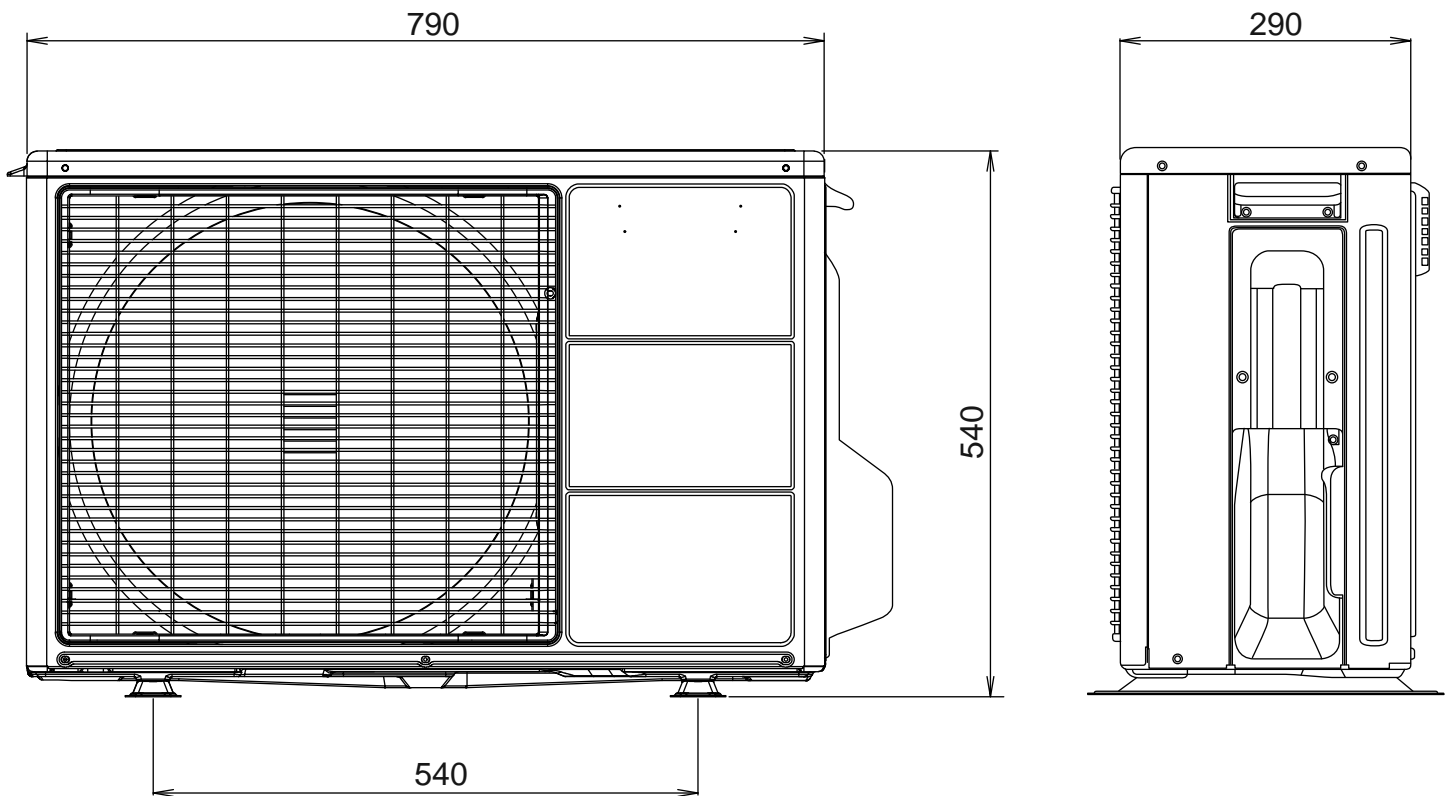
## INDOOR UNIT



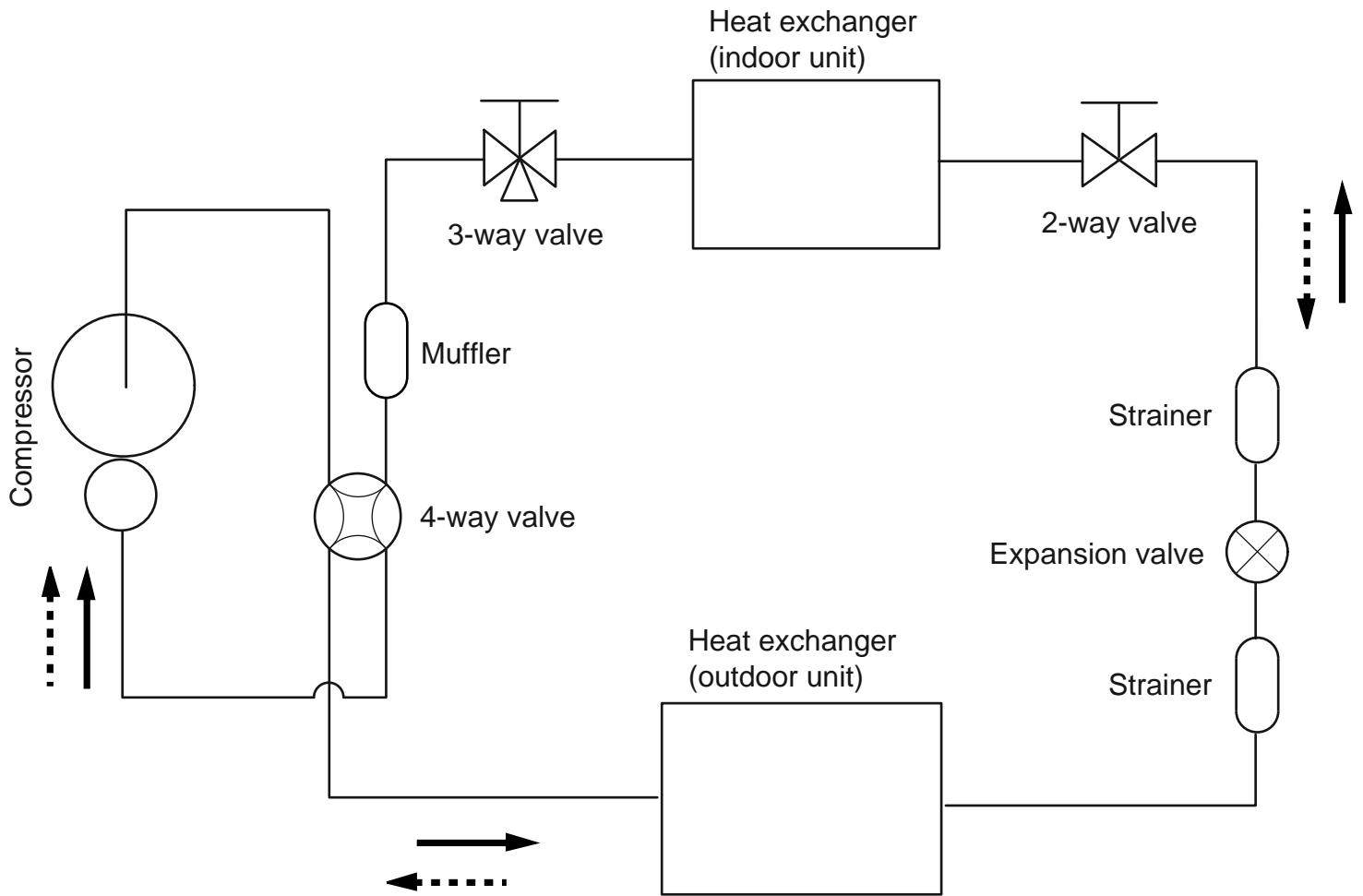
Drain hose length  
600 mm

Drain pipe diameter  
Inside : 14.2 mm  
Outside : 16.2 mm

## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

→ Cooling

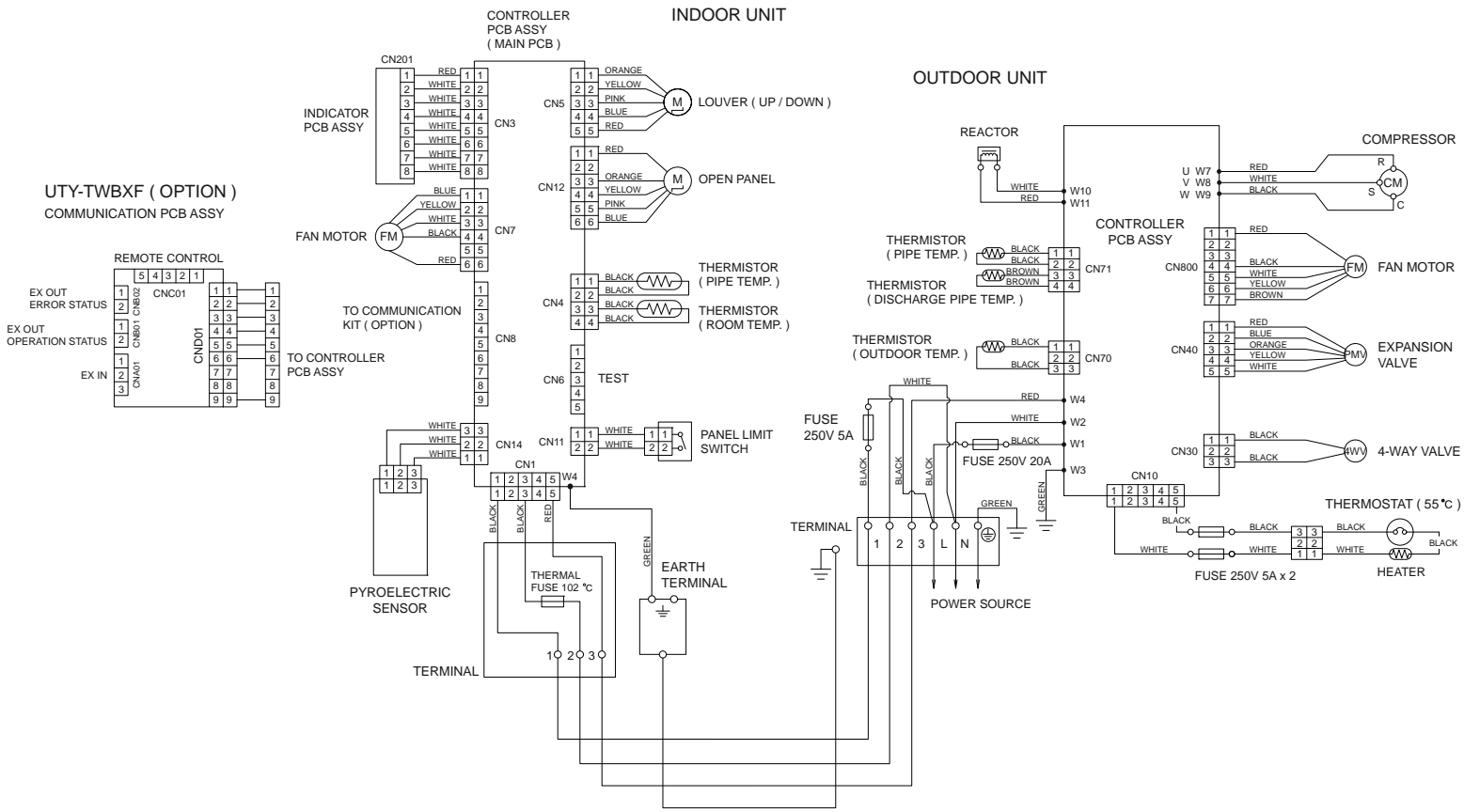
--- Heating

Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

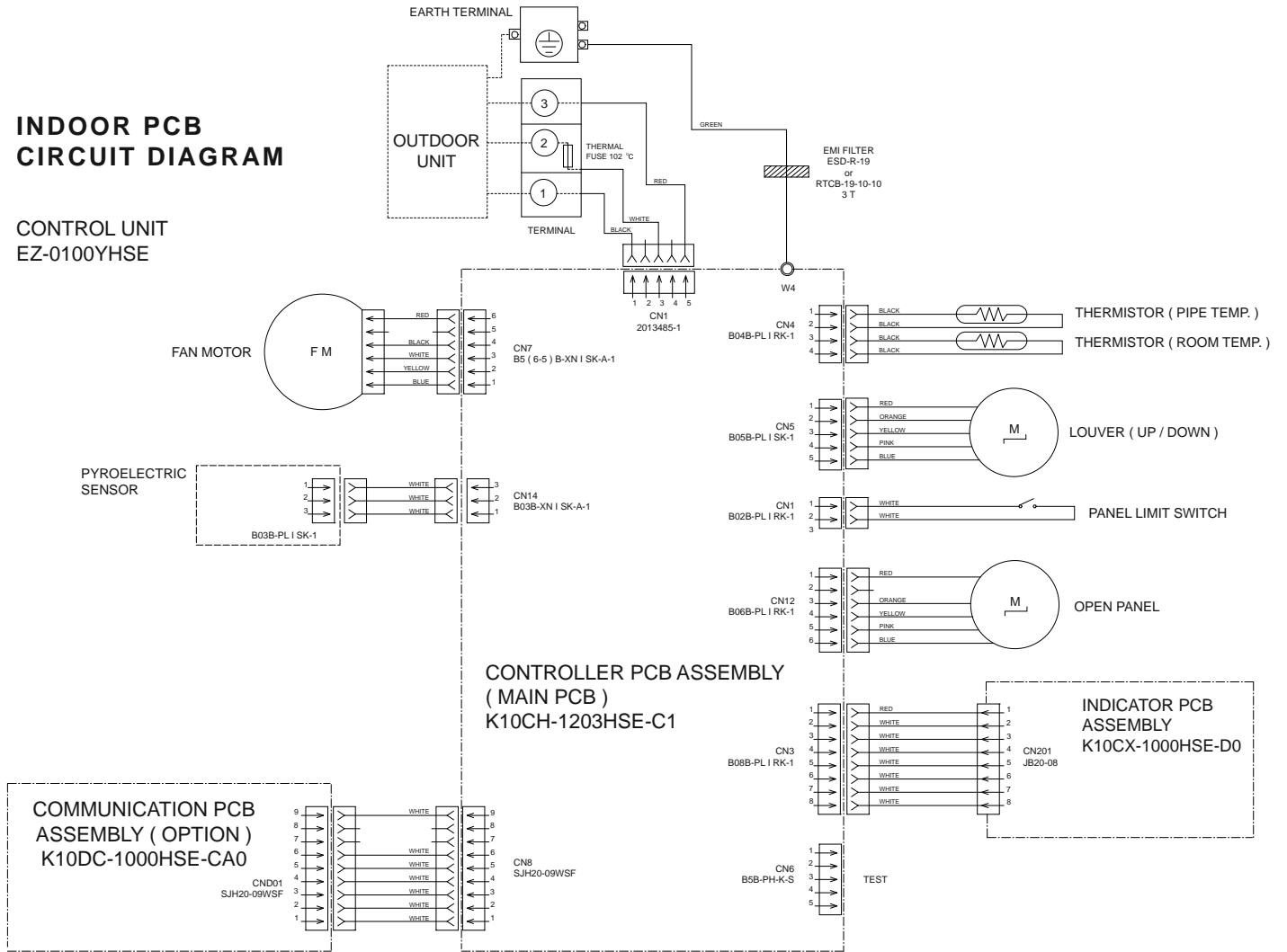
Gas : 3/8" (9.52 mm)

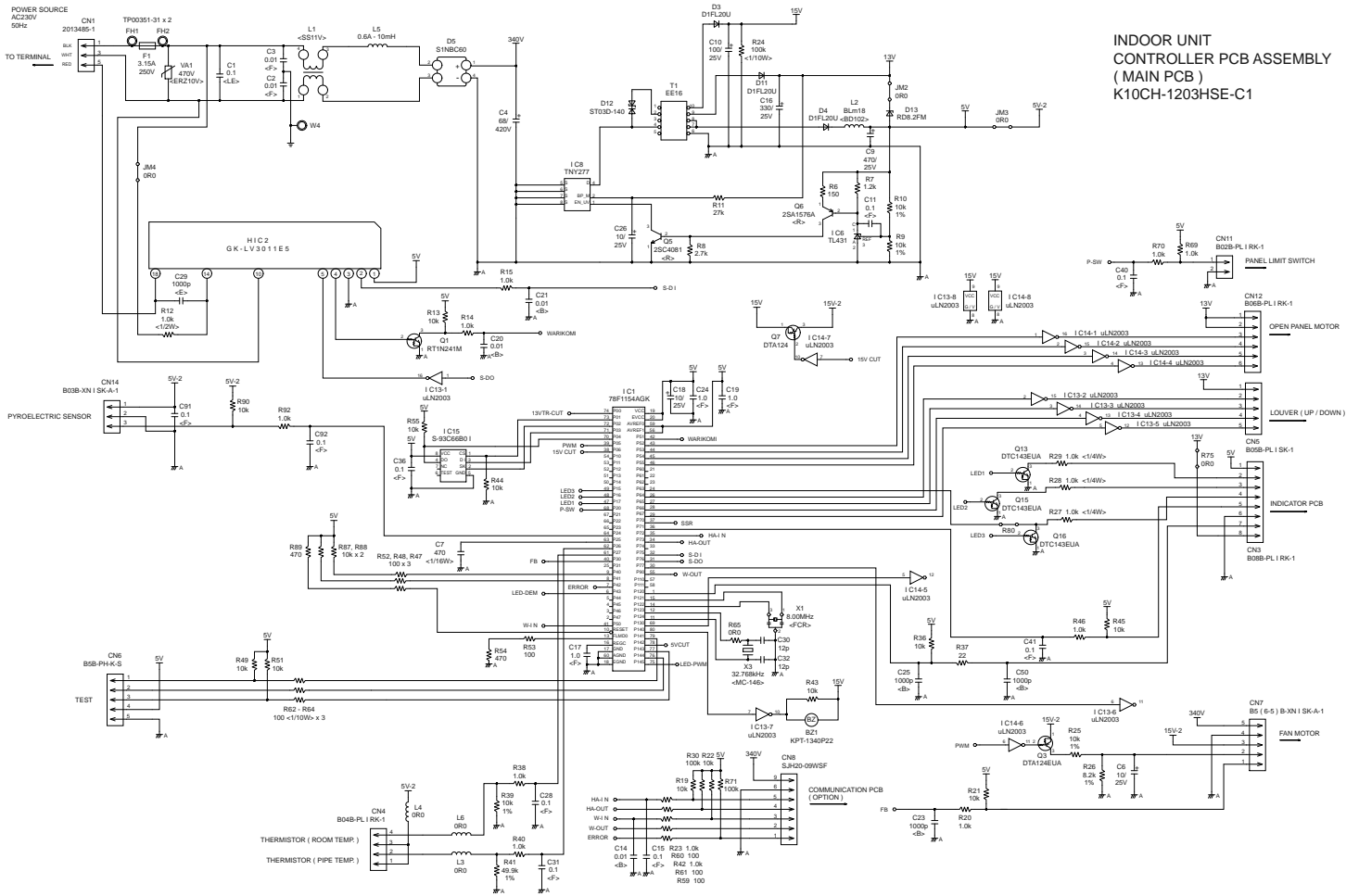
# CIRCUIT DIAGRAM



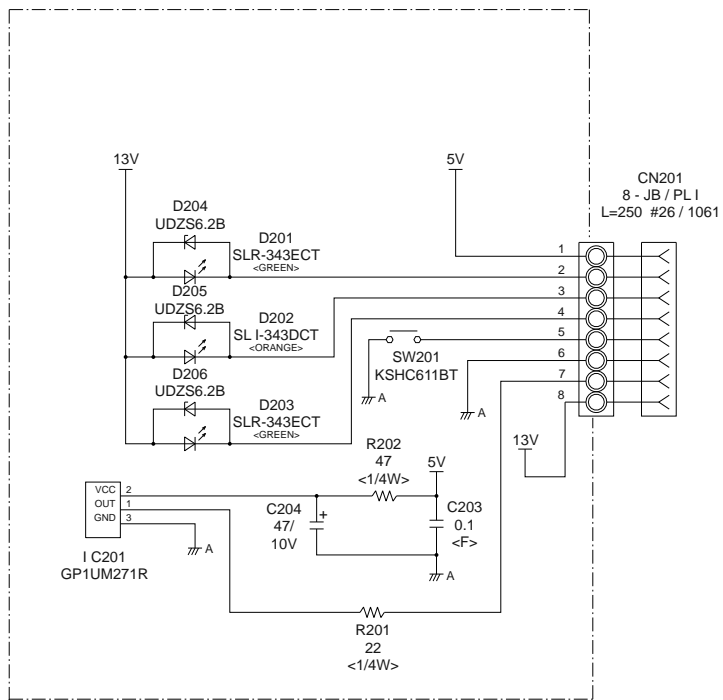
# INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT  
EZ-0100YHSE

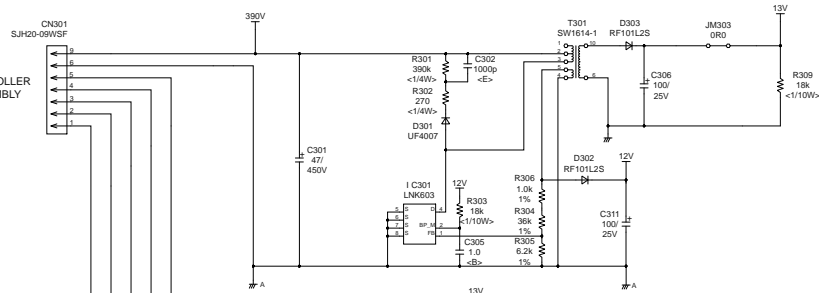




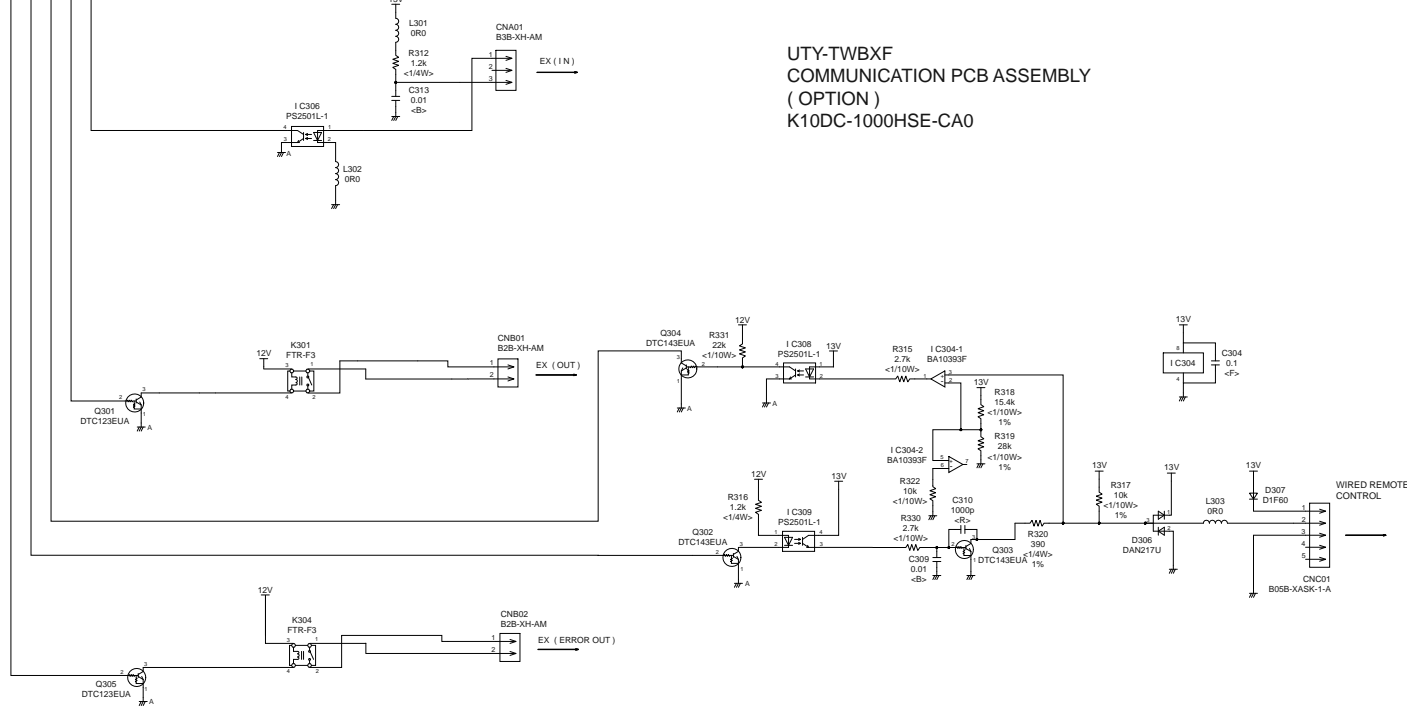
INDOOR UNIT  
 INDICATOR PCB ASSEMBLY  
 K10CX-1000HSE-D0



TO CONTROLLER  
PCB ASSEMBLY

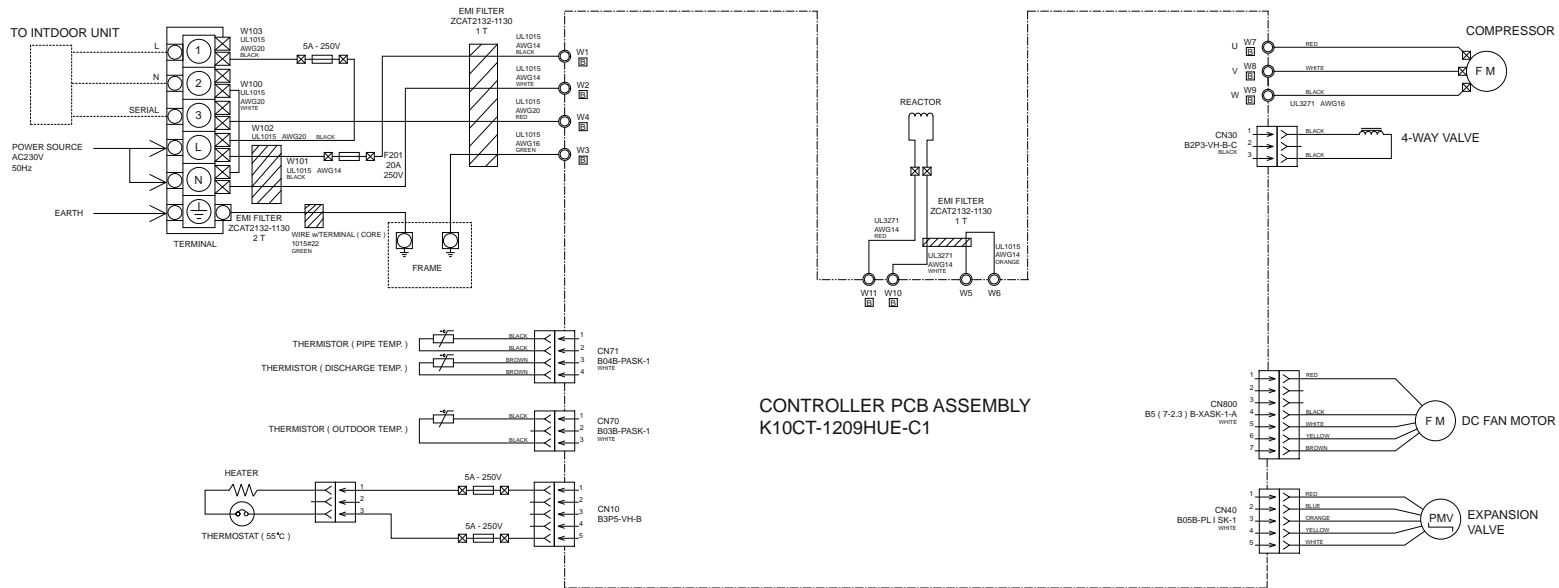


UTY-TWBXF  
COMMUNICATION PCB ASSEMBLY  
(OPTION)  
K10DC-1000HSE-CA0

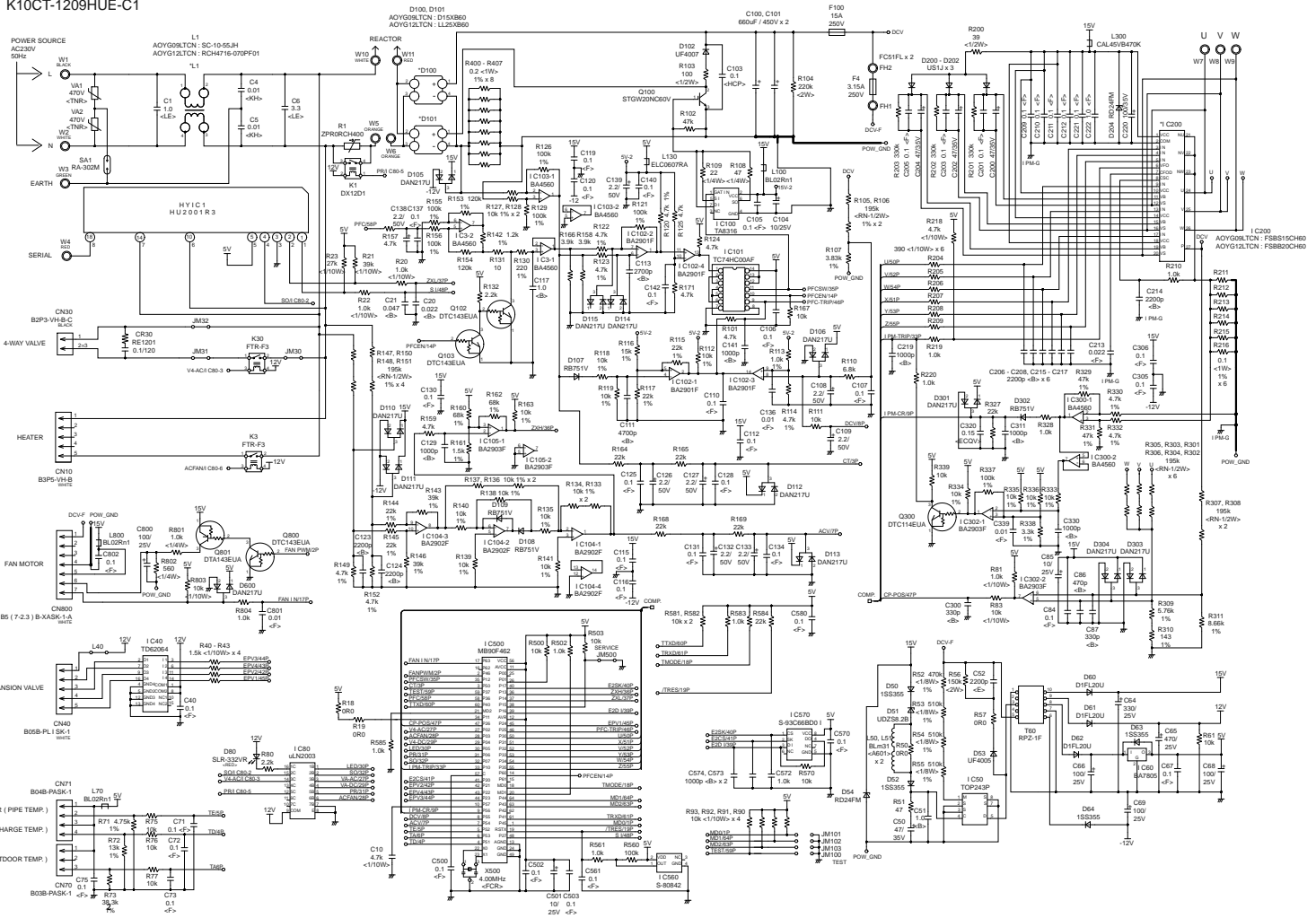


# OUTDOOR PCB CIRCUIT DIAGRAM

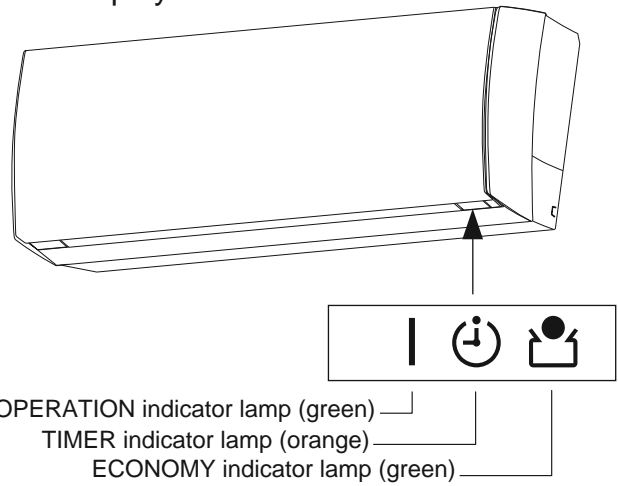
INVERTER ASSEMBLY  
EZ-011RHUE



OUTDOOR UNIT  
CONTROLLER PCB ASSEMBLY  
K10CT-1209HUE-C1

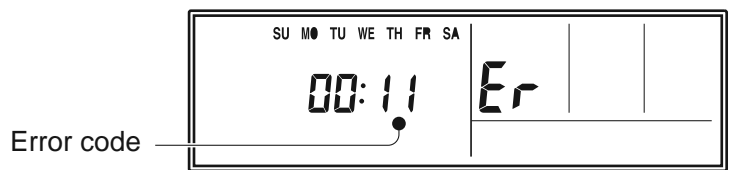


## Indoor unit display



### 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 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.

● : 0.5s ON / 0.5s OFF

( ) : Number of flashing

◇ : Constantly flashing

Indoor unit lamp			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (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)	● (8)	◇	58	Intake grille 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

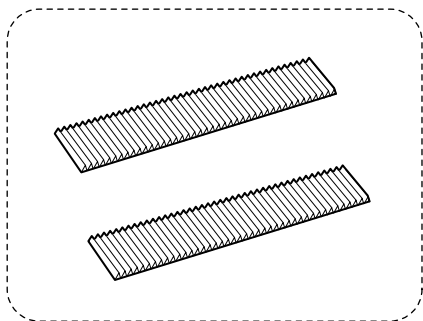
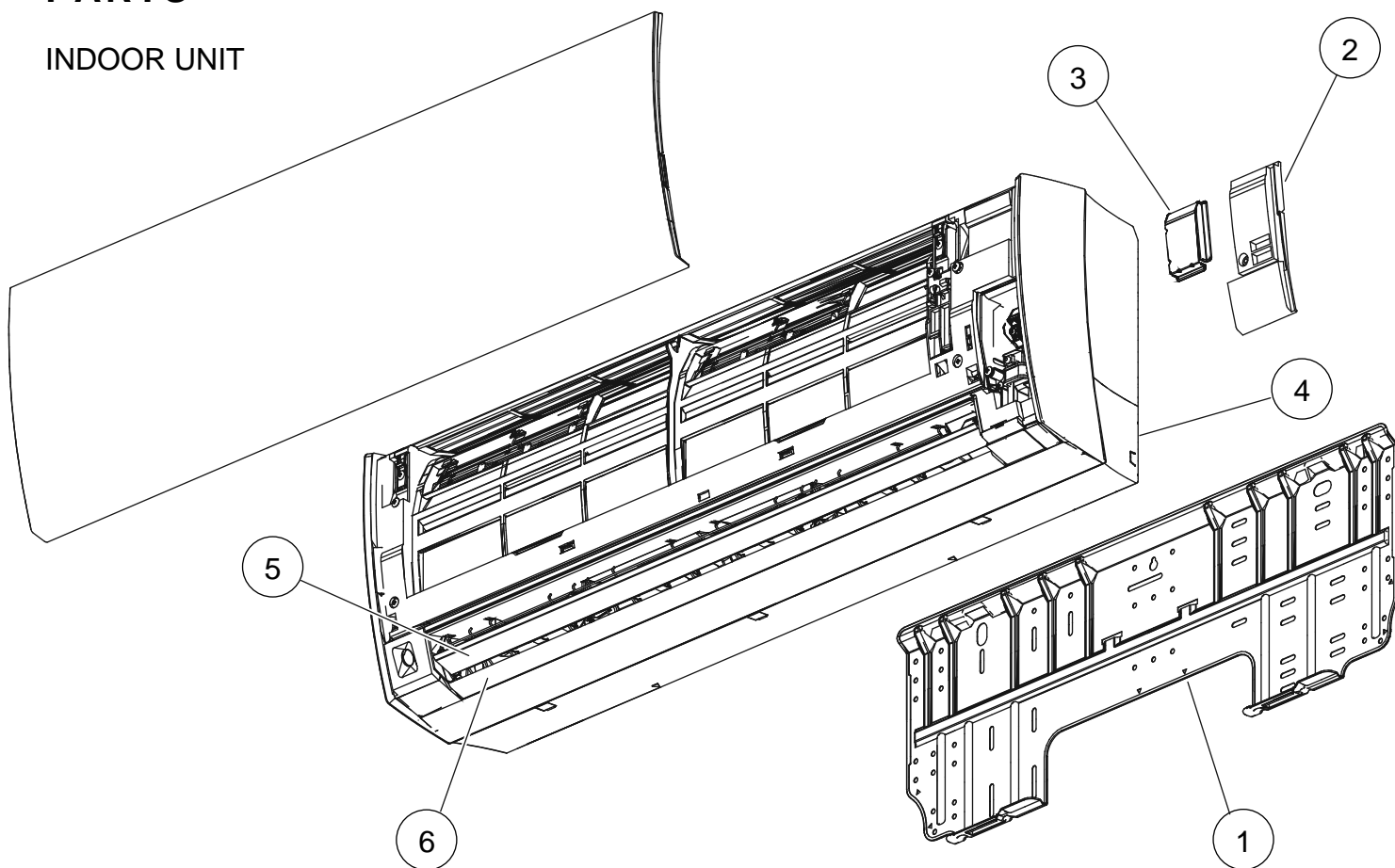
Indoor unit lamp			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (green)		
● (7)	● (2)	◇	72	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp. sensor 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

## OUTDOOR UNIT

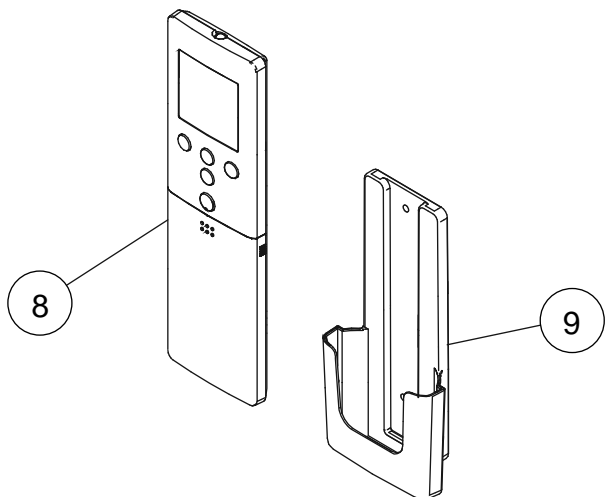
LED	ERROR
on	Discharge temperature abnormal
5.0 second on / 5.0 second off	DC fan abnormal
2.0 second on / 2.0 second off	CT abnormal
0.5 second on / 0.5 second off	IPM overcurrent protection
0.1 second on / 0.1 second off	Thermistor abnormal
0.1 second on / 2.0 second off	Compressor location abnormal

# PARTS

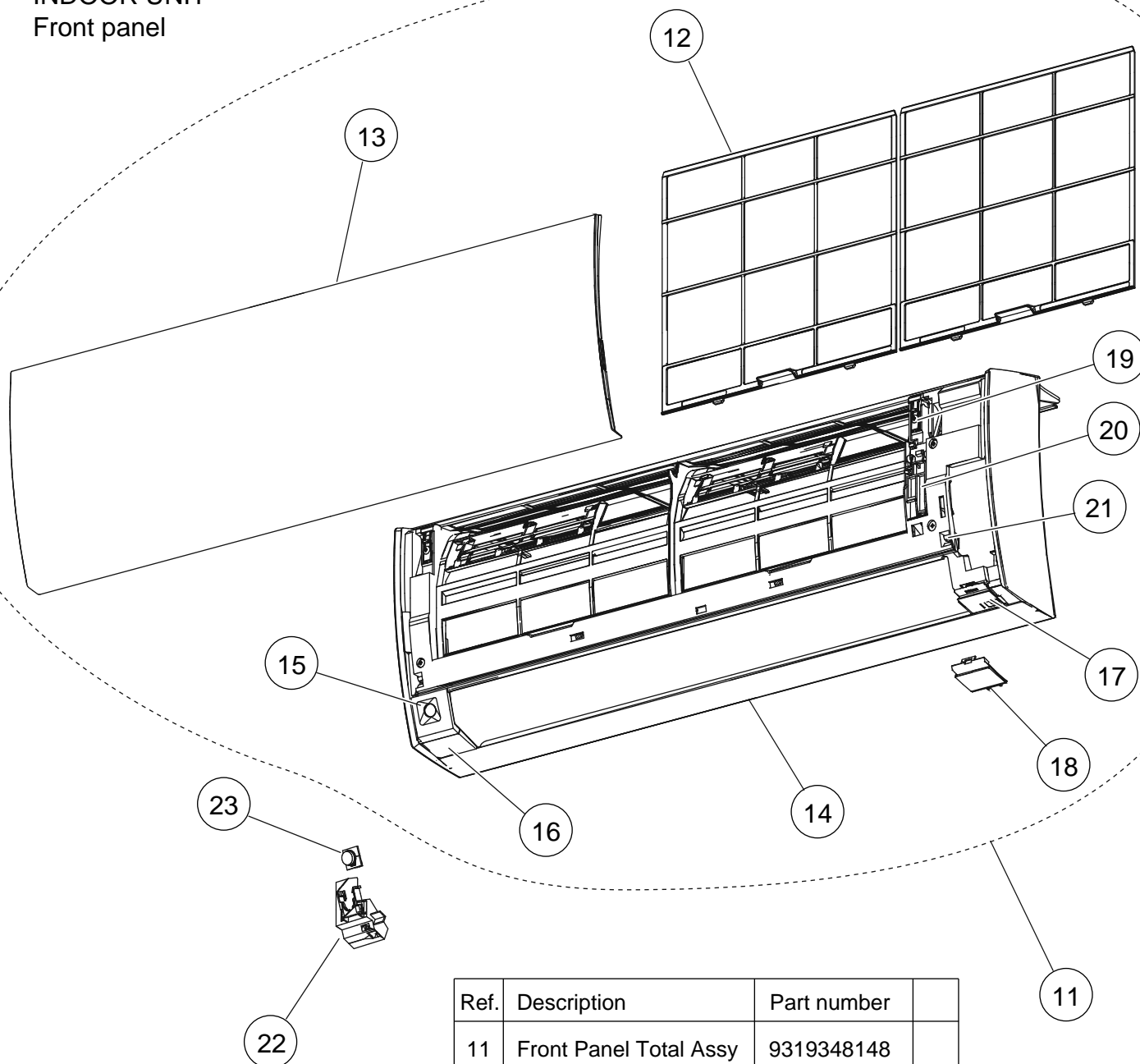
## INDOOR UNIT



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

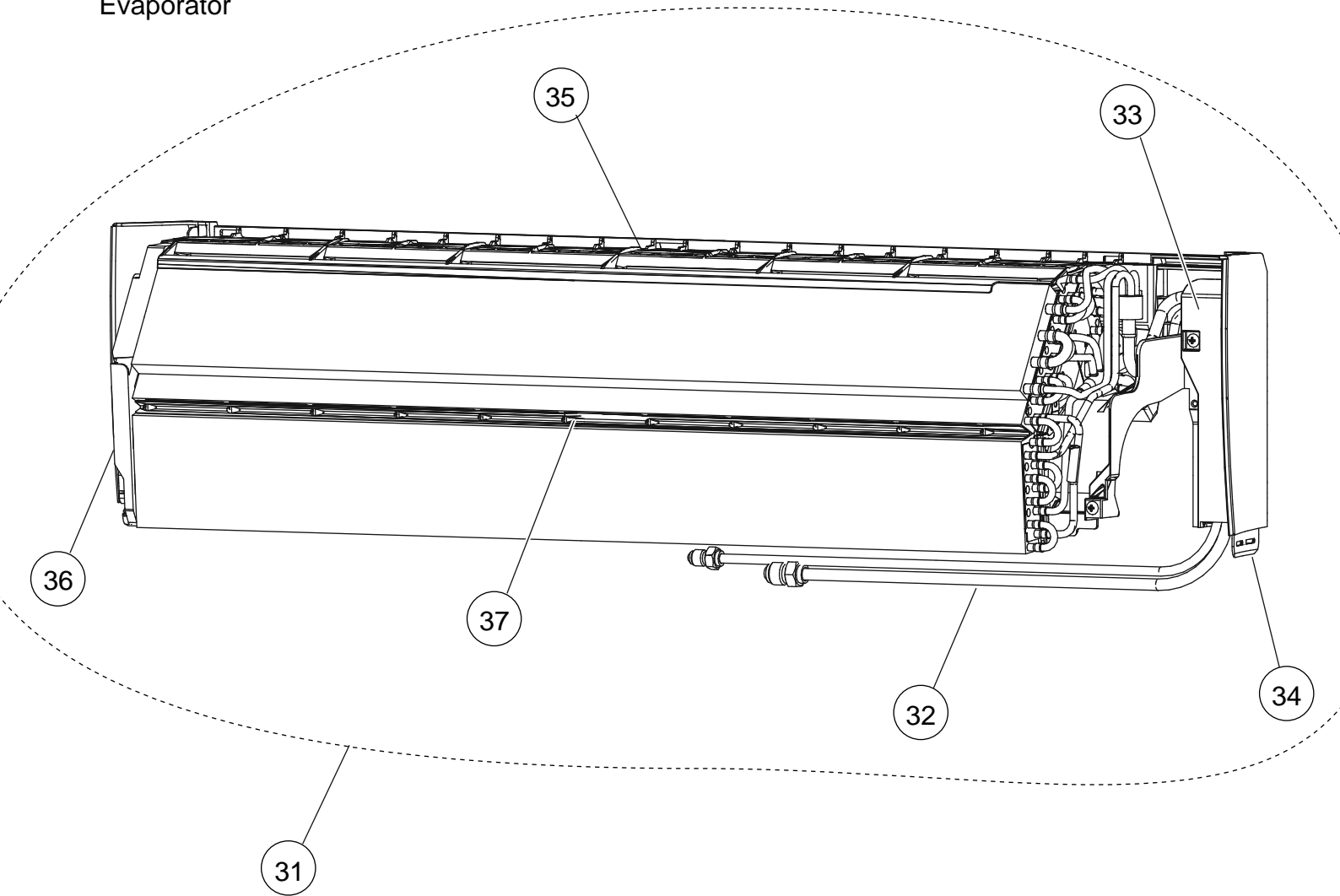


INDOOR UNIT  
Front panel

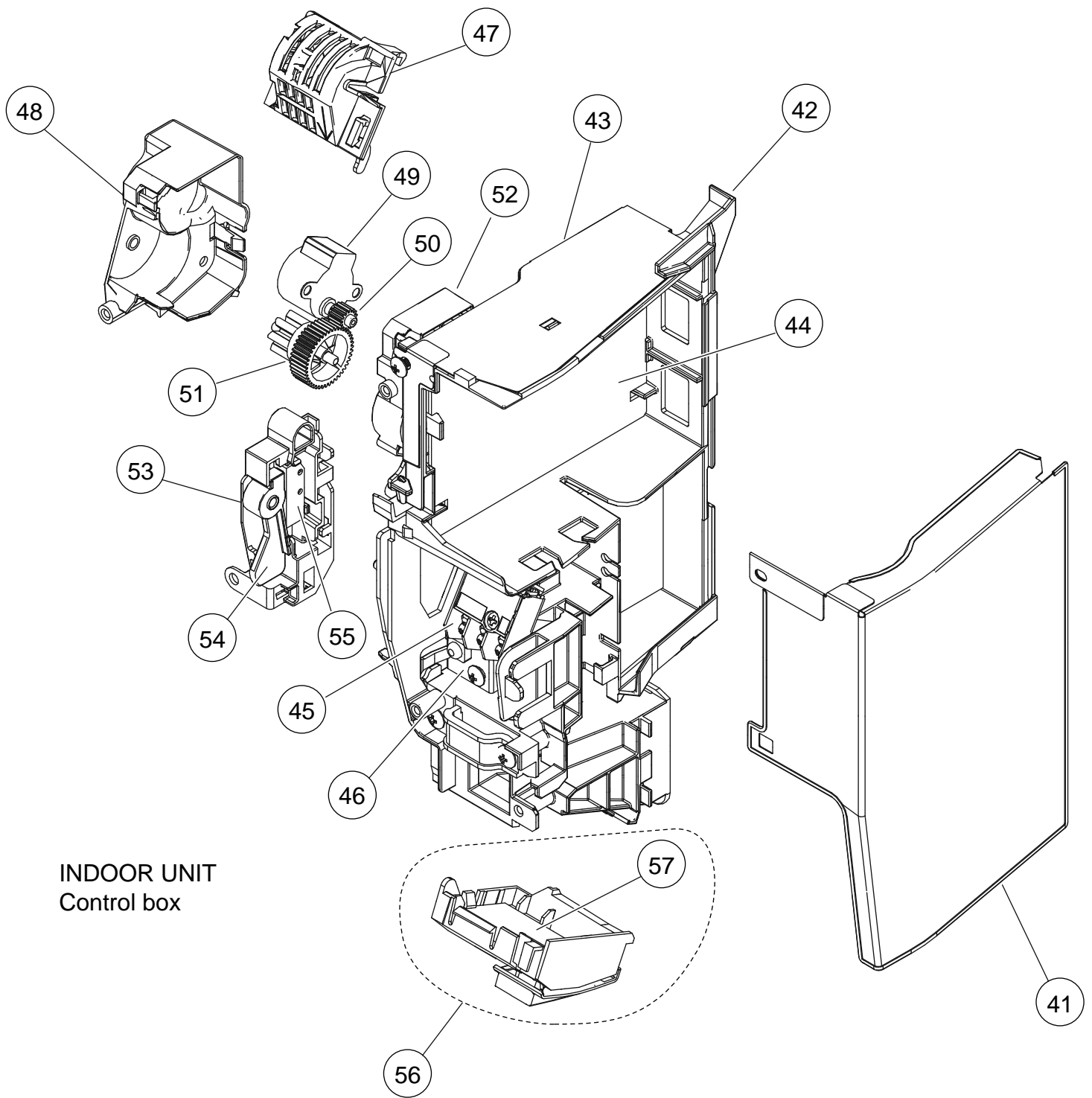


Ref.	Description	Part number
11	Front Panel Total Assy	9319348148
12	Air Filter	9318883008
13	Intake Grille Assy	9319351155
14	Front Panel	9318876000
15	Front Panel Cover T	9318909005
16	Display Plate Holder L	9318894004
17	Display Plate Holder R	9318895001
18	Display Plate R	9318893007
19	Arm Cover	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	9319327006
32	Joint Pipe Assy	9319322001
33	Joint Pipe Holder	9318901009
34	Base	9318874006
35	Filter Guide	9318887006
36	Evaporator Holder L	9318875003
37	Air Seal	9319295008

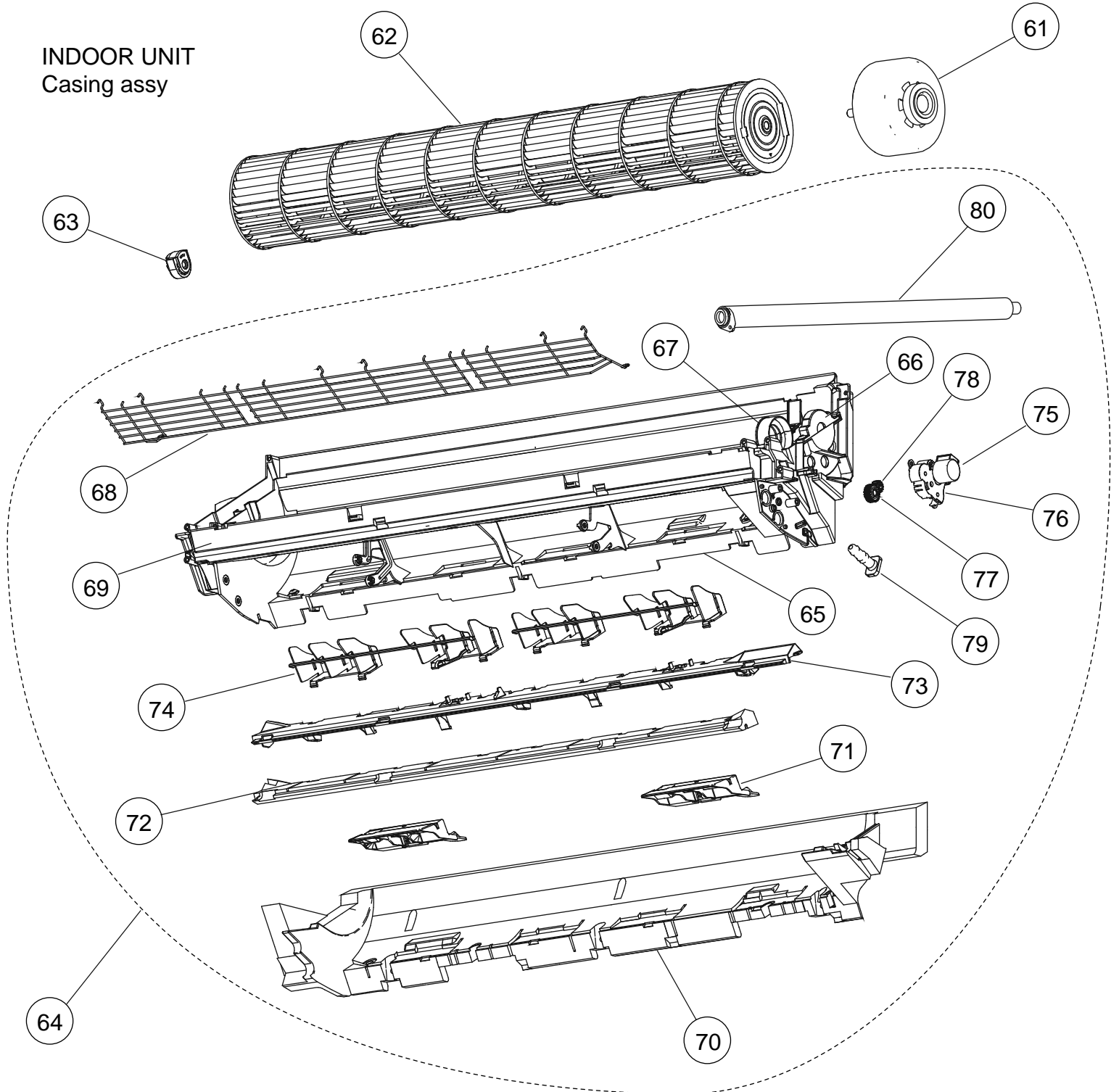


**INDOOR UNIT**  
Control box

Ref.	Description	Part number
41	Cover Shield A	9318916003
42	Control Box	9318882001
43	Box Shield Assy	9319344003
44	Controller PCB Assy	9708713267
45	Terminal	9900638009
46	Earth Terminal	9318918007
47	Room Thermistor Holder	9319068008
48	Gear Cover	9318902006
49	Step Motor	9900384166

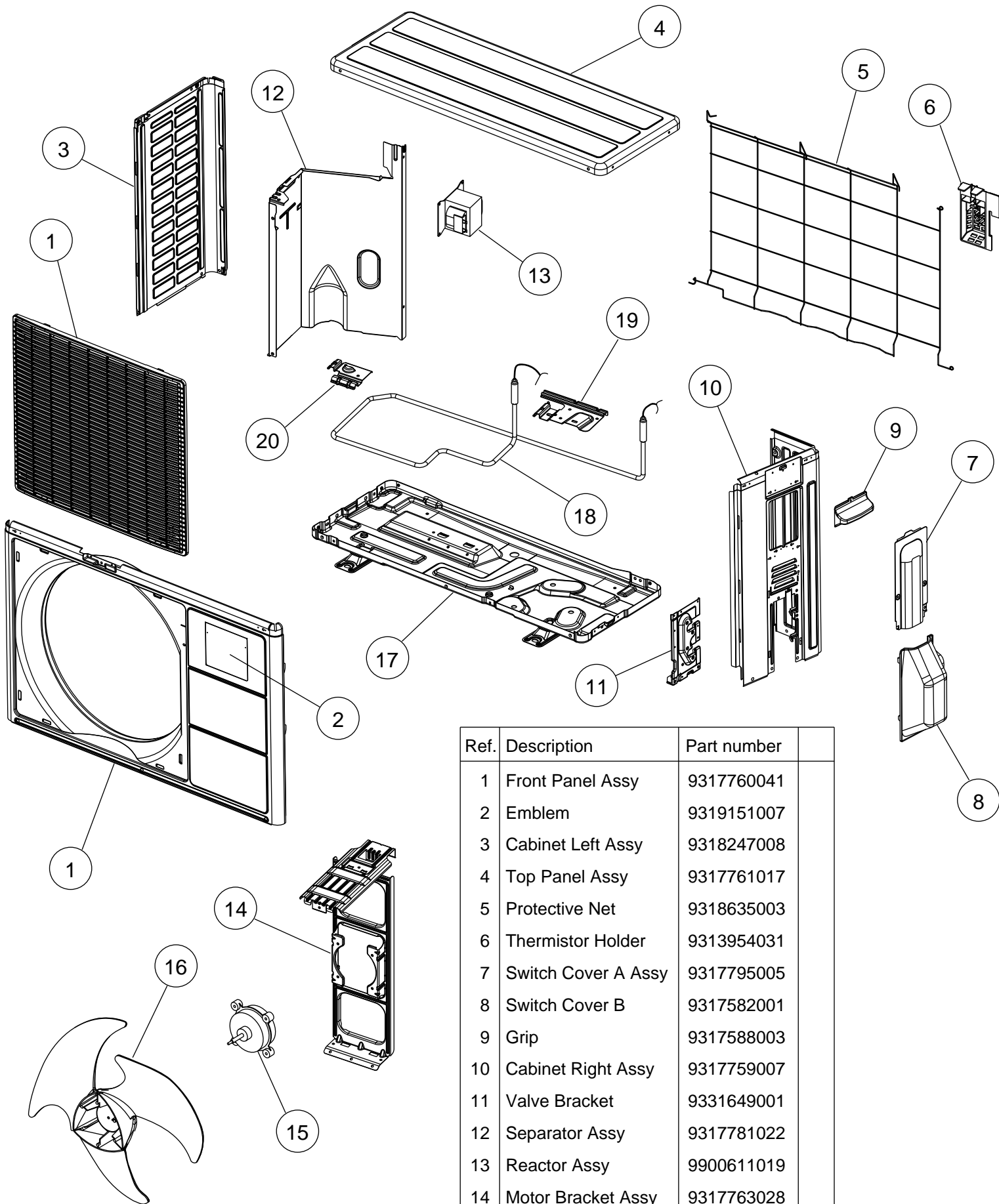
Ref.	Description	Part number
50	Gear B	9319294001
51	Panel Gear	9319293004
52	Gear Case	9318903003
53	Switch Case	9319332000
54	Grille Key Top	9319334004
55	Micro Switch	9900625009
56	Display Assy	9708823010
57	Display PCB Assy	9708824017
--	Thermistor Assy	9900627003

INDOOR UNIT  
Casing assy



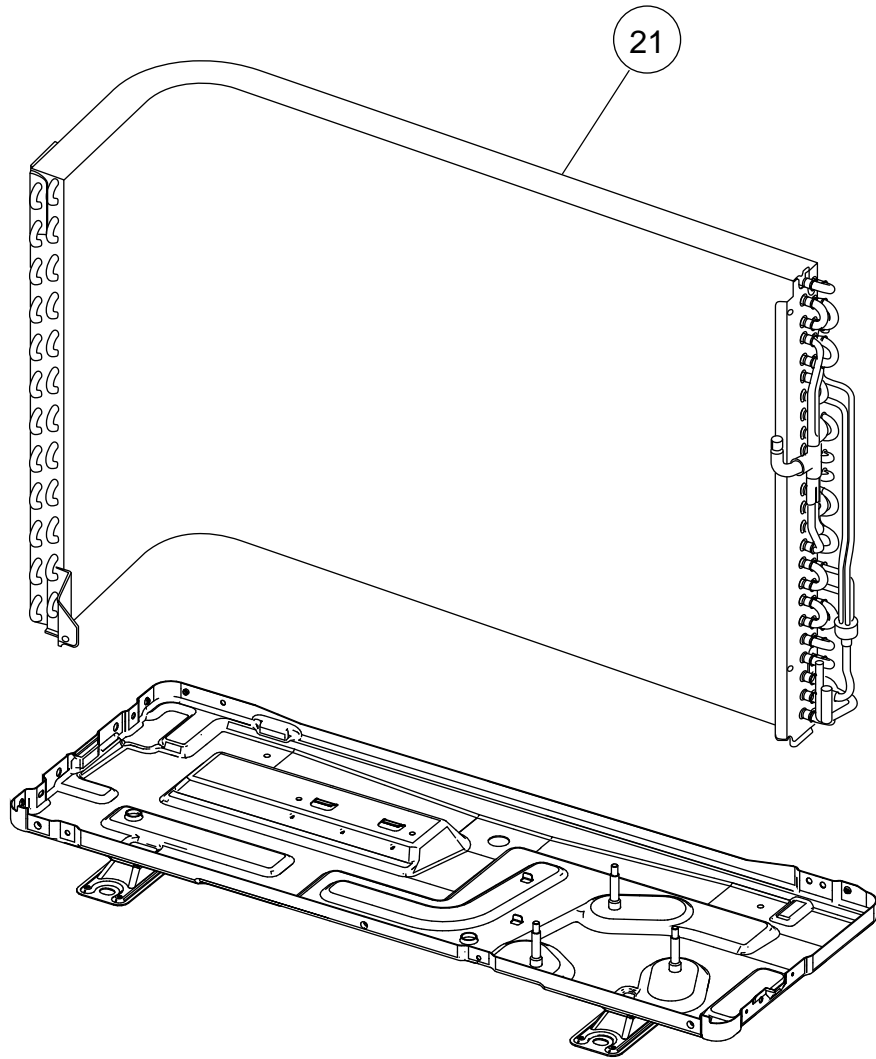
Ref.	Description	Part number
61	Fan Motor	9602947003
62	Crossflow Fan Assy	9319361000
63	Bearing C Assy	9306628017
64	Casing Assy	9319342009
65	Casing	9318873009
66	Motor Cover	9316601000
67	Motor Cover	9318888003
68	Fan Guard	9318924008
69	Casing Cover F	9318923001
70	Casing Cover B	9318920000

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

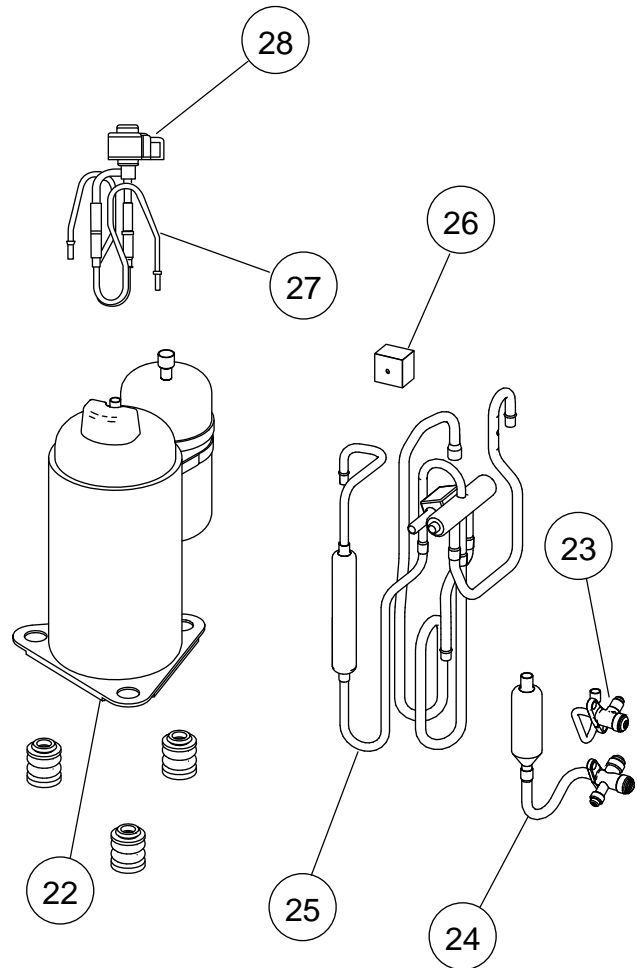


**PARTS**  
OUTDOOR UNIT

Ref.	Description	Part number
1	Front Panel Assy	9317760041
2	Emblem	9319151007
3	Cabinet Left Assy	9318247008
4	Top Panel Assy	9317761017
5	Protective Net	9318635003
6	Thermistor Holder	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 Assy	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

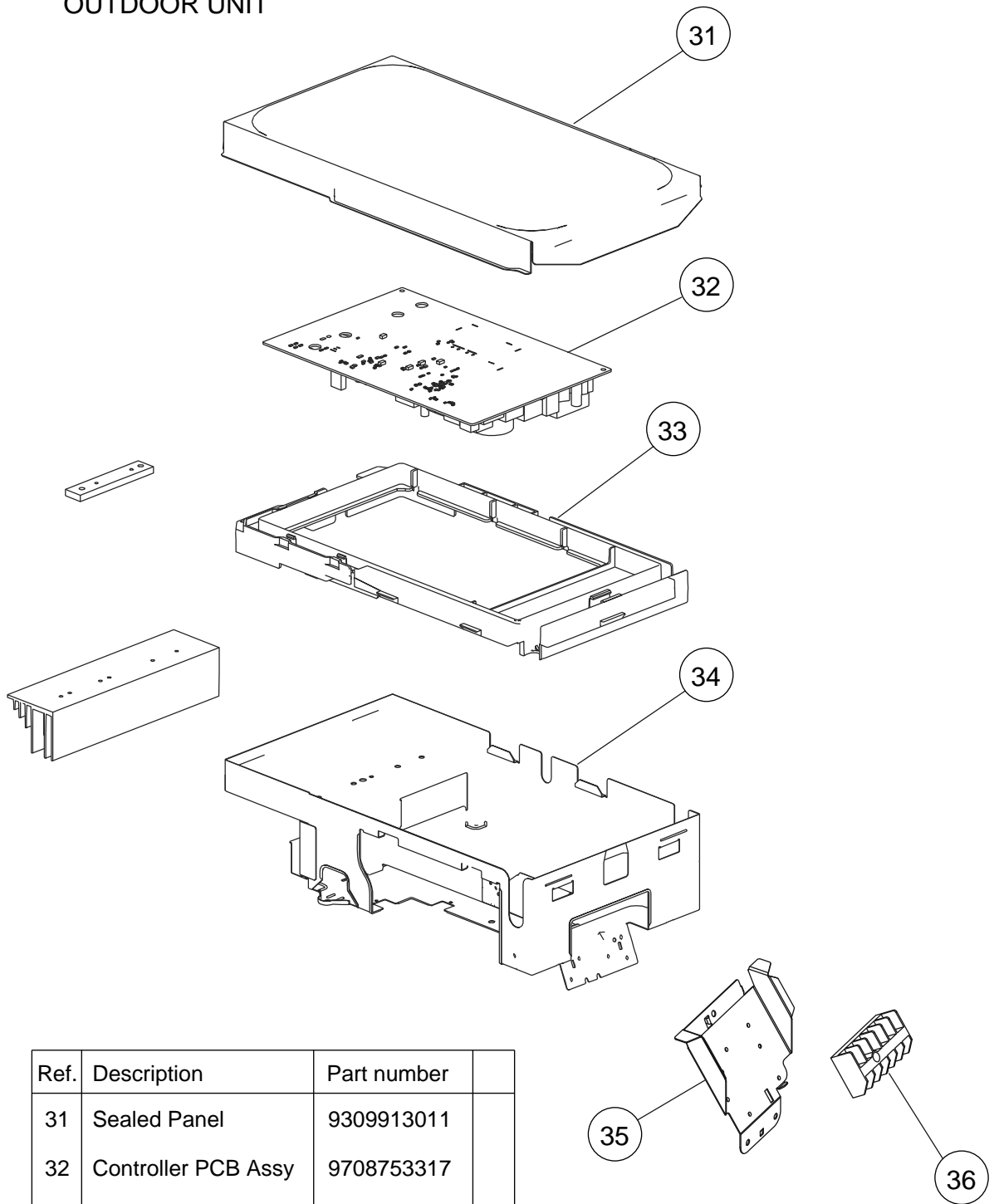


## OUTDOOR UNIT



Ref.	Description	Part number
21	Condenser Total Assy	9332359005
22	Compressor Assy	9317619004
23	2 way Valve Assy	9332371000
24	3 way Valve Sub Assy	9317109000
25	4 way Valve Assy	9332365009
26	Solenoid	9970110047
27	Pulse Motor Valve Assy	9332368000
28	Expansion Valve Coil	9970095030

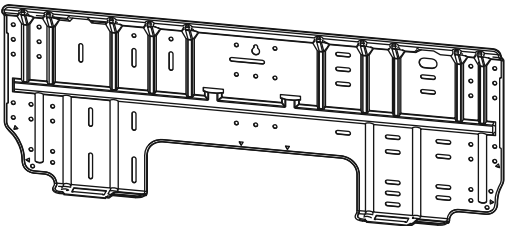
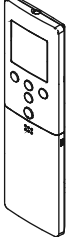
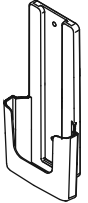
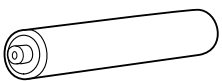
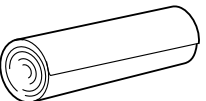
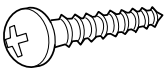
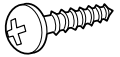
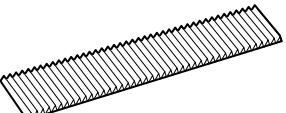
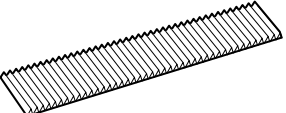
# OUTDOOR UNIT



Ref.	Description	Part number
31	Sealed Panel	9309913011
32	Controller PCB Assy	9708753317
33	PCB Holder	9313074029
34	Inverter Case Assy	9315690081
35	Terminal Bracket	9315233073
36	Terminal 6P	9900435028
--	Outdoor Thermistor	9900544010
--	Thermistor Assy	9900614003

# 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>

1109G3963