

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG12LTCB	AOYG12LTCN

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG12LTCB
OUTDOOR UNIT		AOYG12LTCN
COOLING CAPACITY		3.50 kW
HEATING CAPACITY		4.00 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	4.0 A
	Heating	4.3 A
INPUT WATTS	Cooling	0.850 kW
	Heating	0.910 kW
E.E.R.	Cooling	4.12 kW/kW
COP	Heating	4.40 kW/kW
MOISTURE REMOVAL		1.8 L/h
AIR CIRCULATION HIGH	Cooling	850 m ³ /h
	Heating	850 m ³ /h
MAXIMUM CURRENT	Cooling	9.0 A
	Heating	10.5 A

FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT Cooling	High speed	1,370 r.p.m.
	Medium speed	1,120 r.p.m.
	Low speed	960 r.p.m.
	Quiet	650 r.p.m.
INDOOR UNIT Heating	High speed	1,370 r.p.m.
	Medium speed	1,120 r.p.m.
	Low speed	960 r.p.m.
	Quiet	650 r.p.m.
OUTDOOR UNIT Cooling		870 r.p.m.
OUTDOOR UNIT Heating		780 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High speed	43 dB
	Medium speed	37 dB
	Low speed	32 dB
	Quiet	21 dB
INDOOR UNIT Heating	High speed	43 dB
	Medium speed	38 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		808-884-80
WEIGHT (with oil)		9.3 kg
PRECHARGED REFRIGERANT		1,200 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe length 15 m	1,200 g
	20 m	1,300 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	620 x 790 x 290 mm

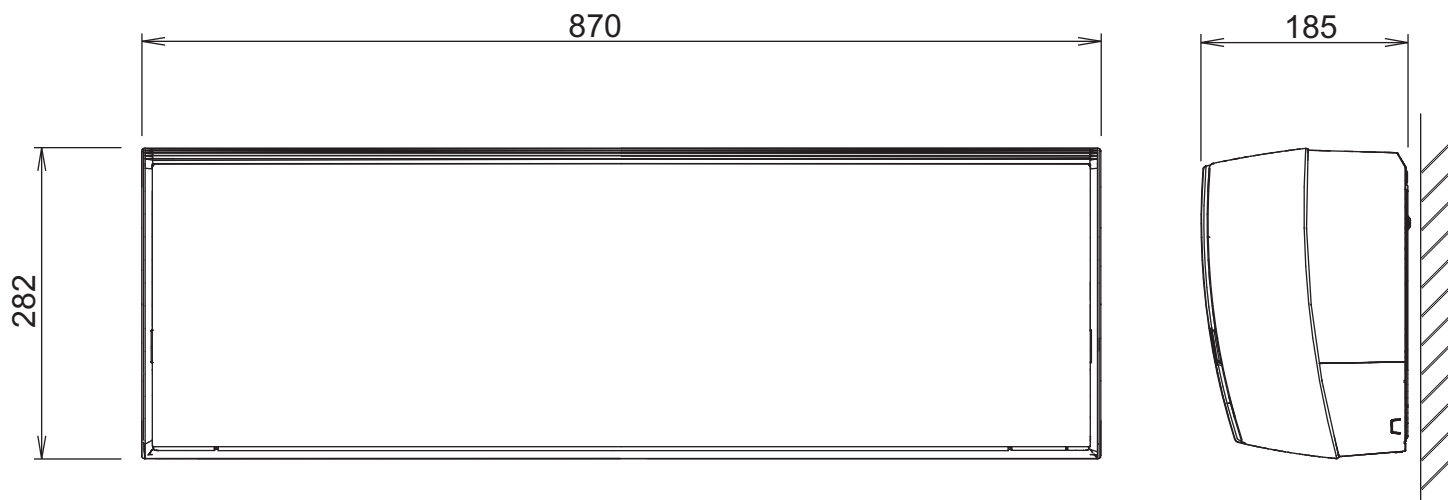
WEIGHT

INDOOR UNIT	Shipping / Net	12 kg / 9.5 kg
OUTDOOR UNIT	Shipping / Net	43 kg / 40 kg

DIMENSIONS

unit : mm

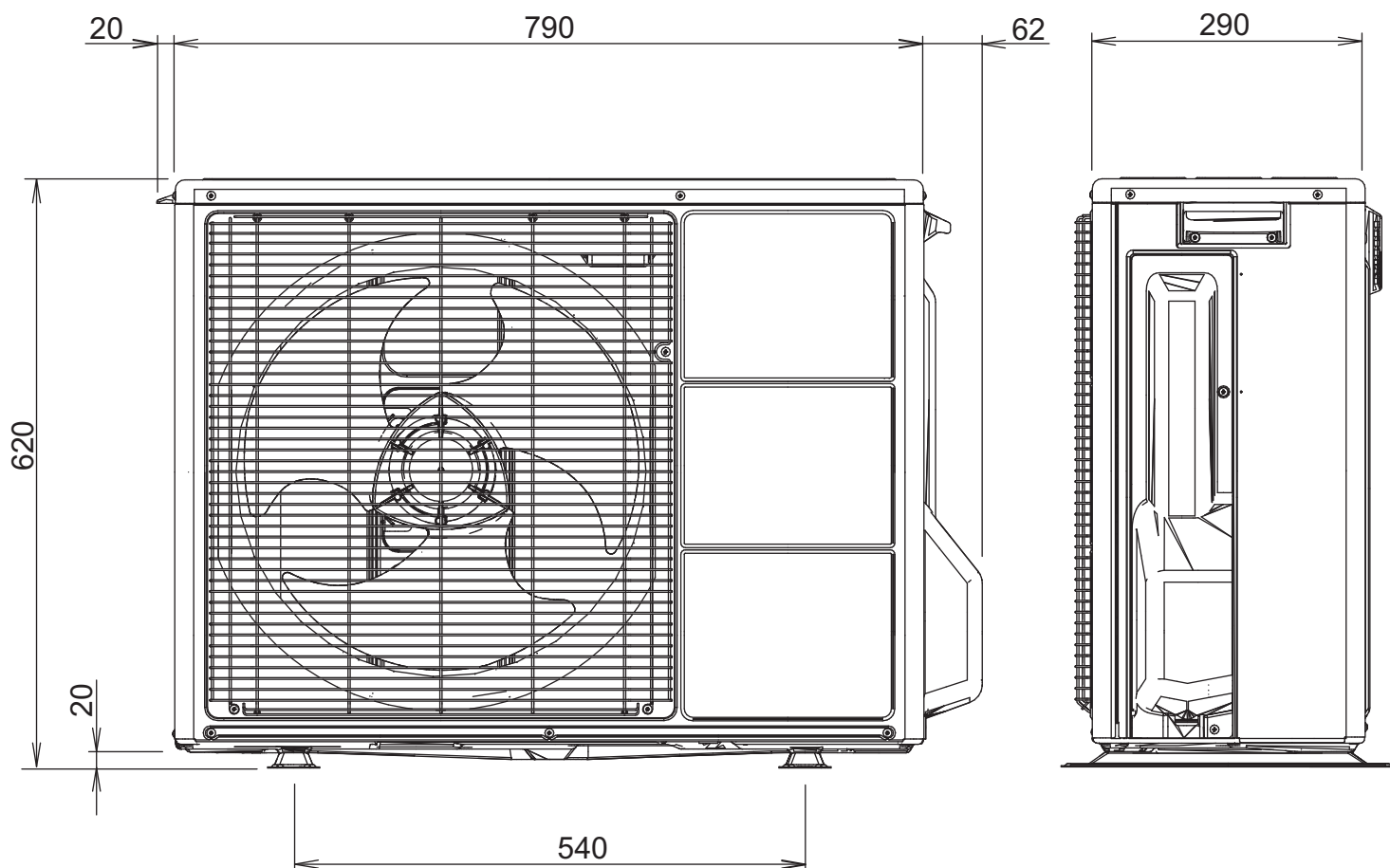
INDOOR UNIT



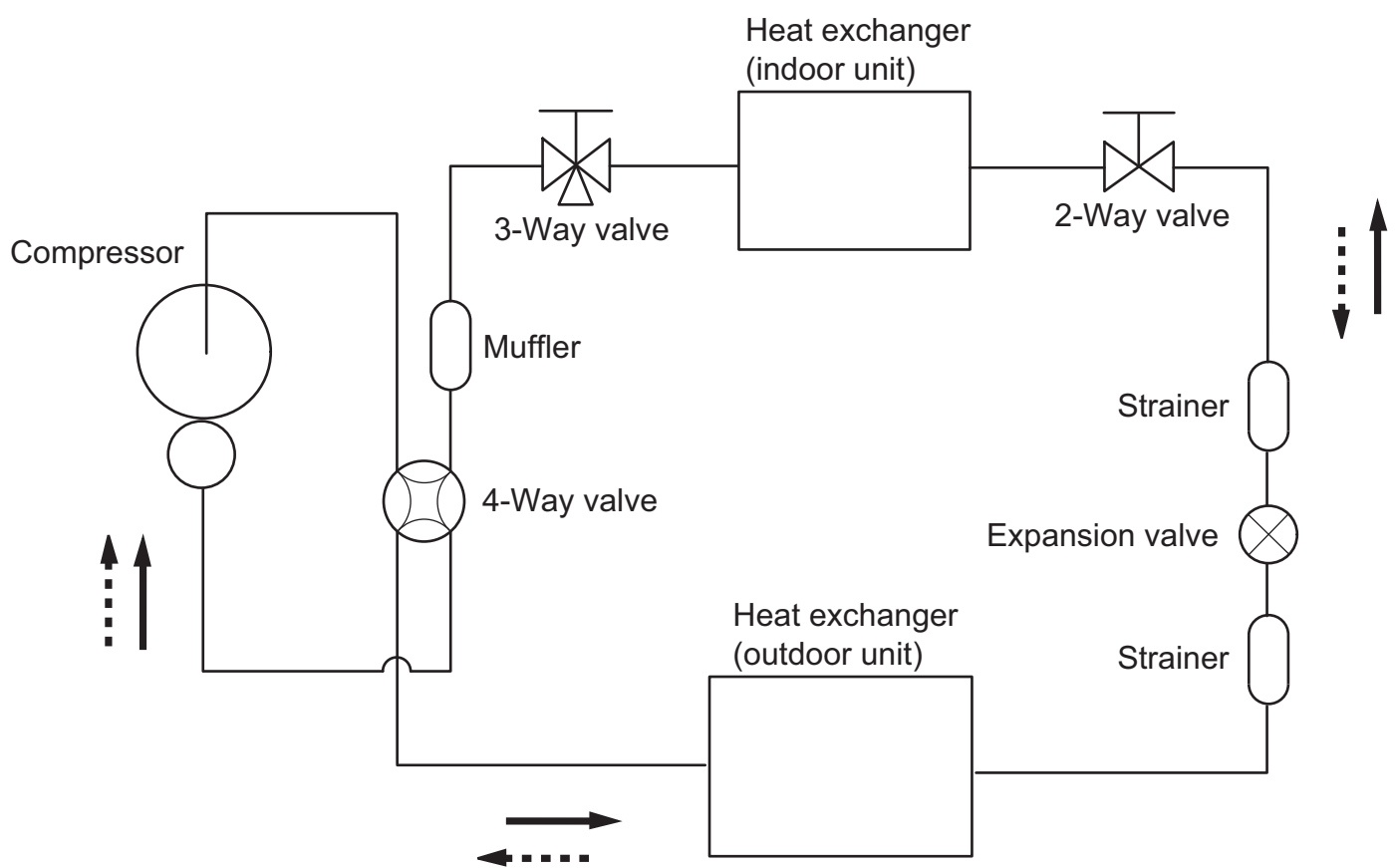
Drain hose length :
600 mm

Drain pipe diameter
Inside : 14.2 mm
Outside : 16.2 mm

OUTDOOR UNIT



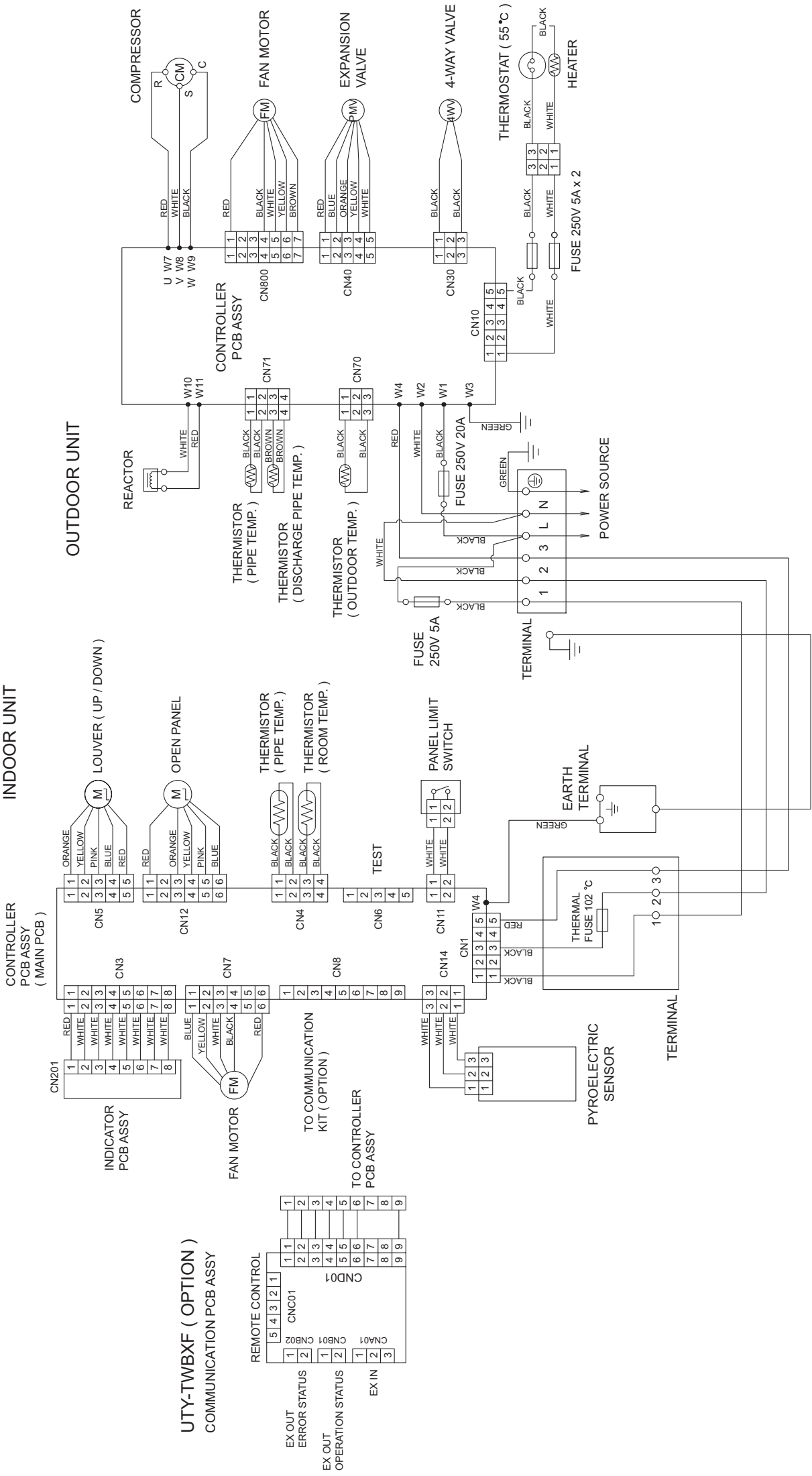
REFRIGERANT SYSTEM DIAGRAM



Refrigerant pipe diameter
 Liquid : 1/4" (6.35 mm)
 Gas : 3/8" (9.52 mm)

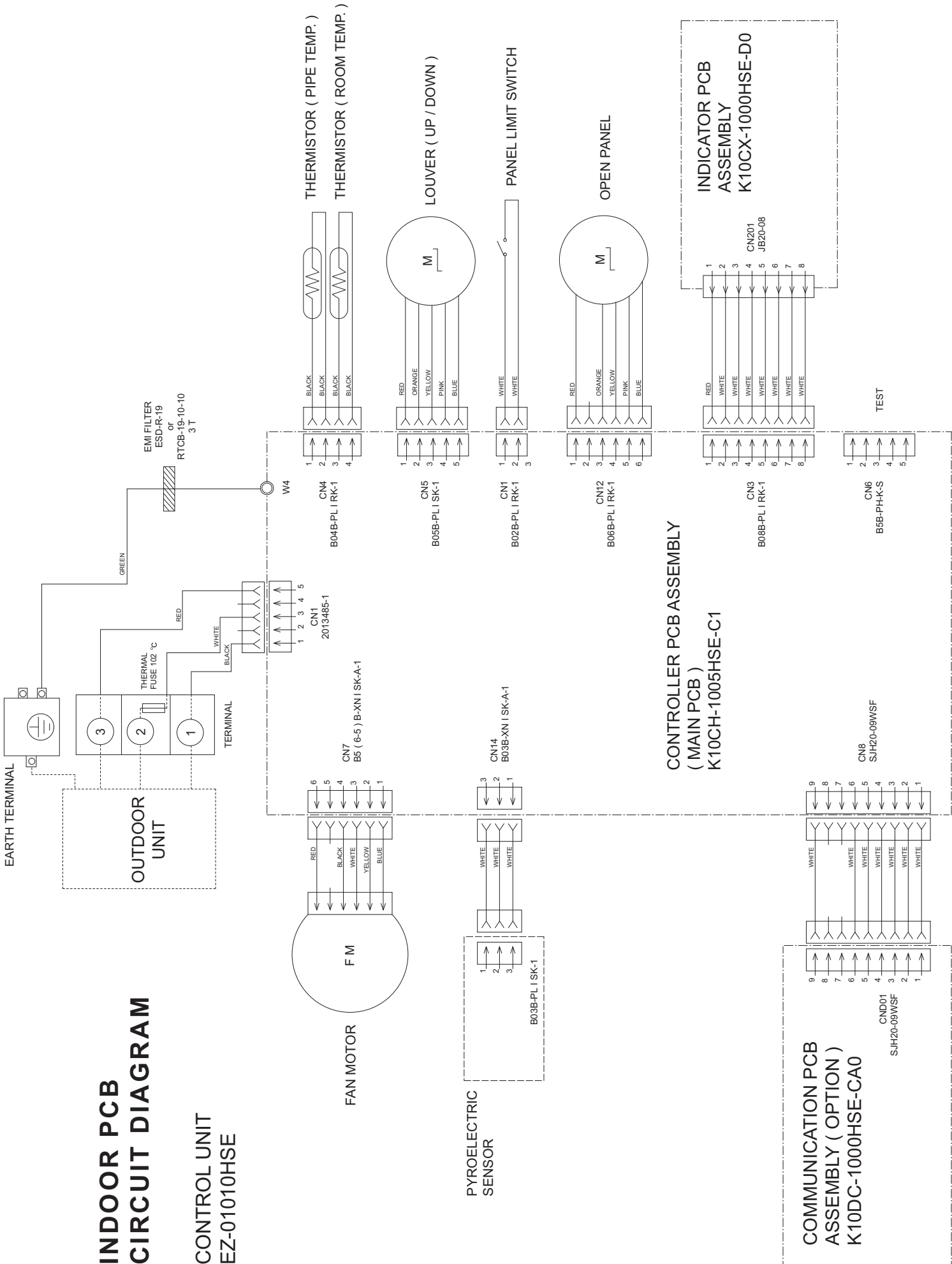
Refrigerant direction
 —————> Cooling
> Heating

CIRCUIT DIAGRAM

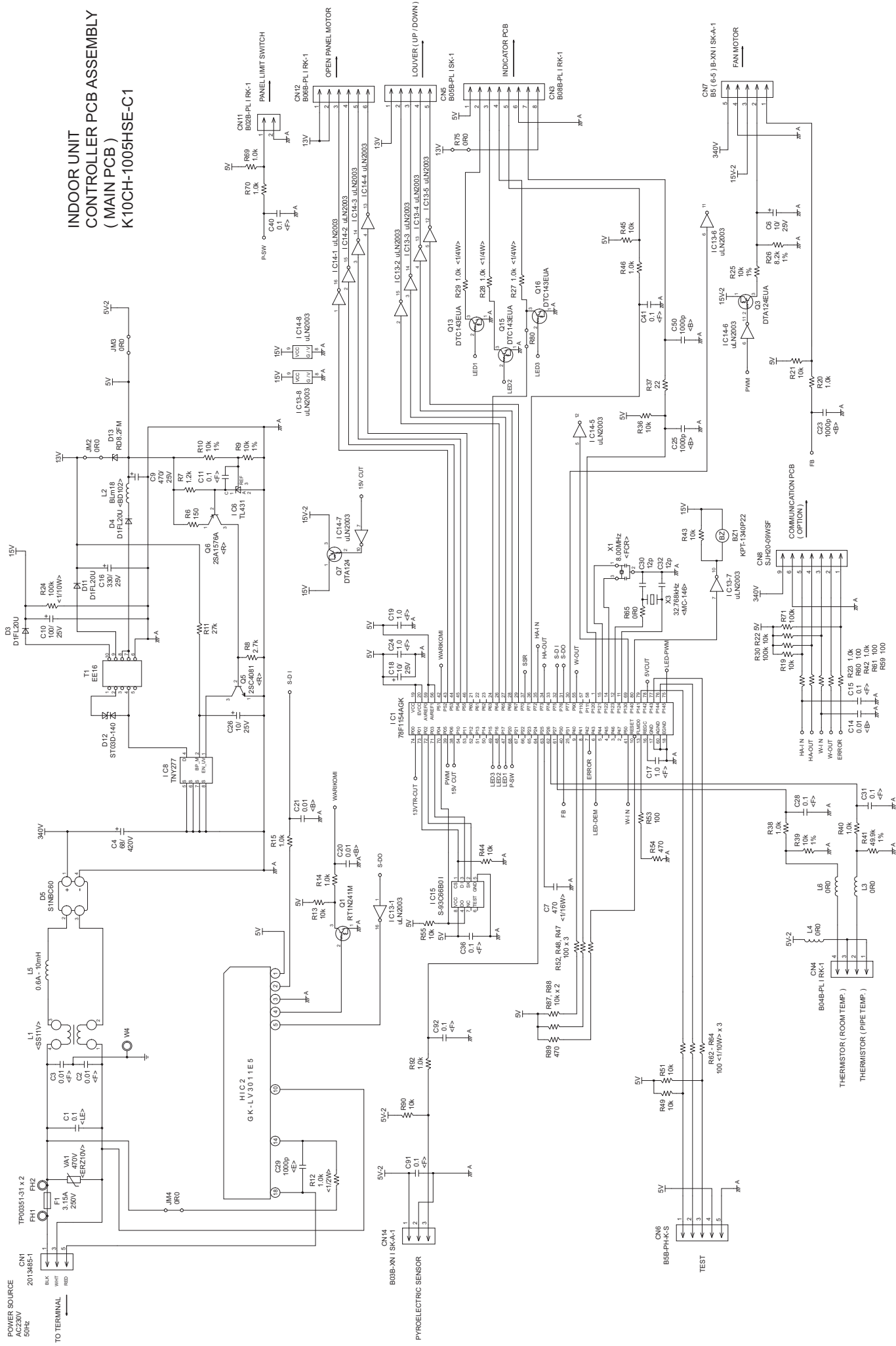


INDOOR PCB CIRCUIT DIAGRAM

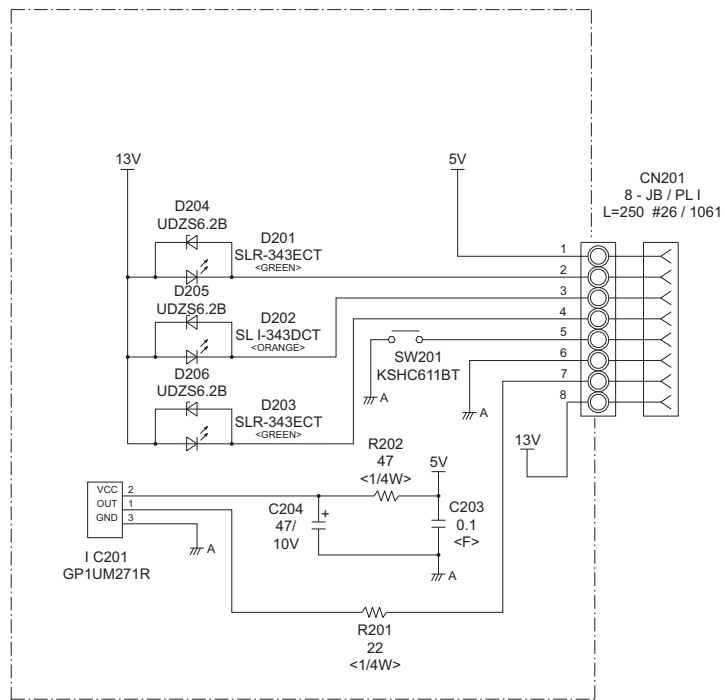
CONTROL UNIT
EZ-01010HSE

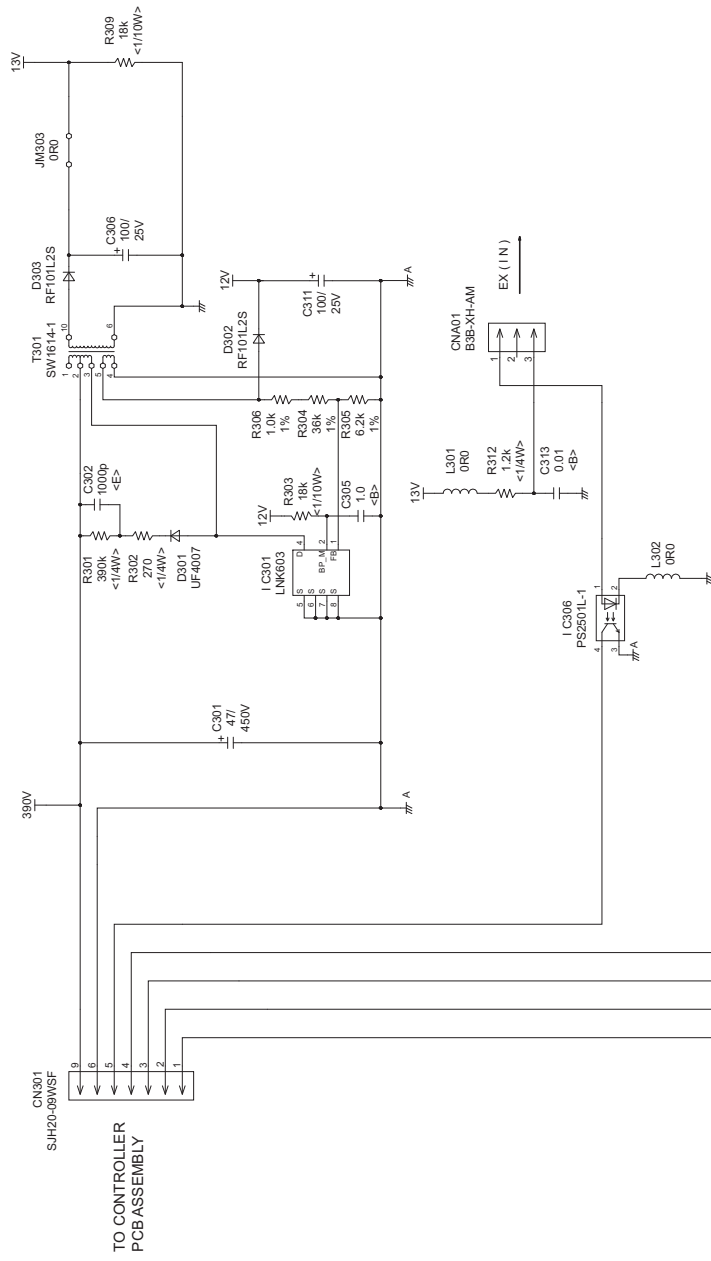


INDOOR UNIT
CONTROLLER PCB ASSEMBLY
(MAIN PCB)
K10CH-1005HSE-C1

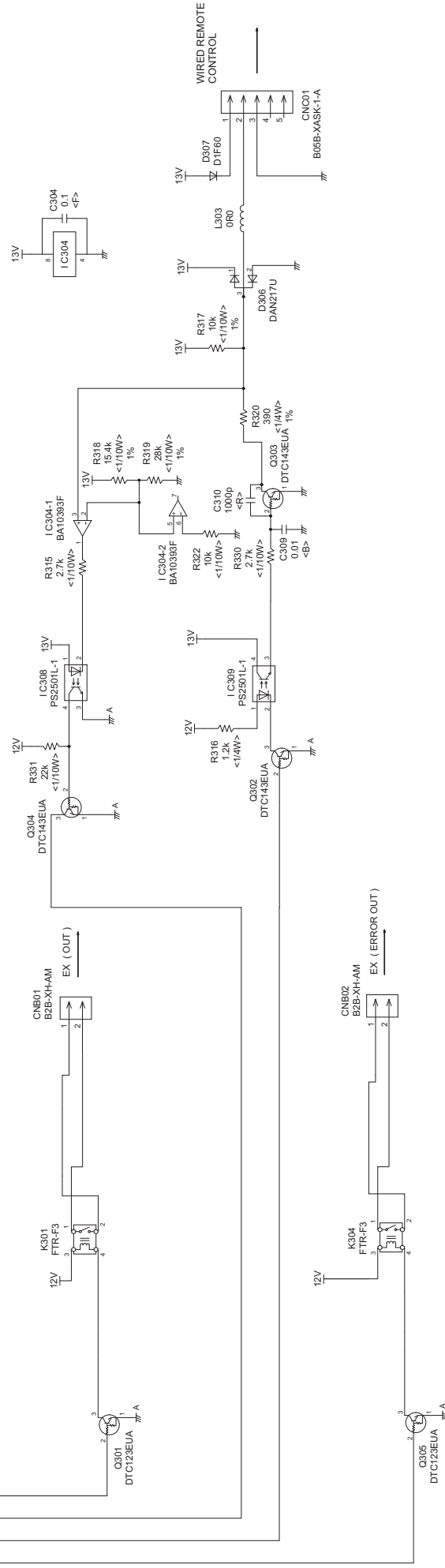


INDOOR UNIT
INDICATOR PCB ASSEMBLY
K10CX-1000HSE-D0



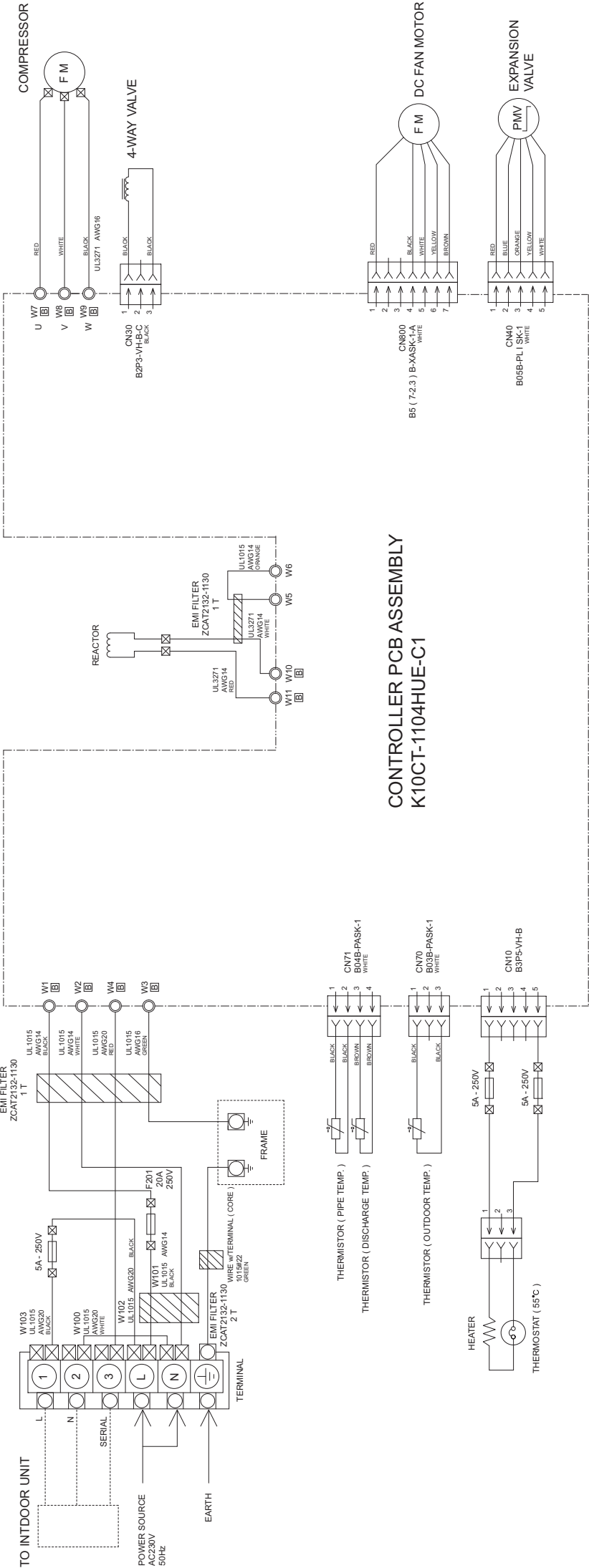


UTY-TWBXF
COMMUNICATION PCB ASSEMBLY
(OPTION)
K10DC-1000HSE-CA0

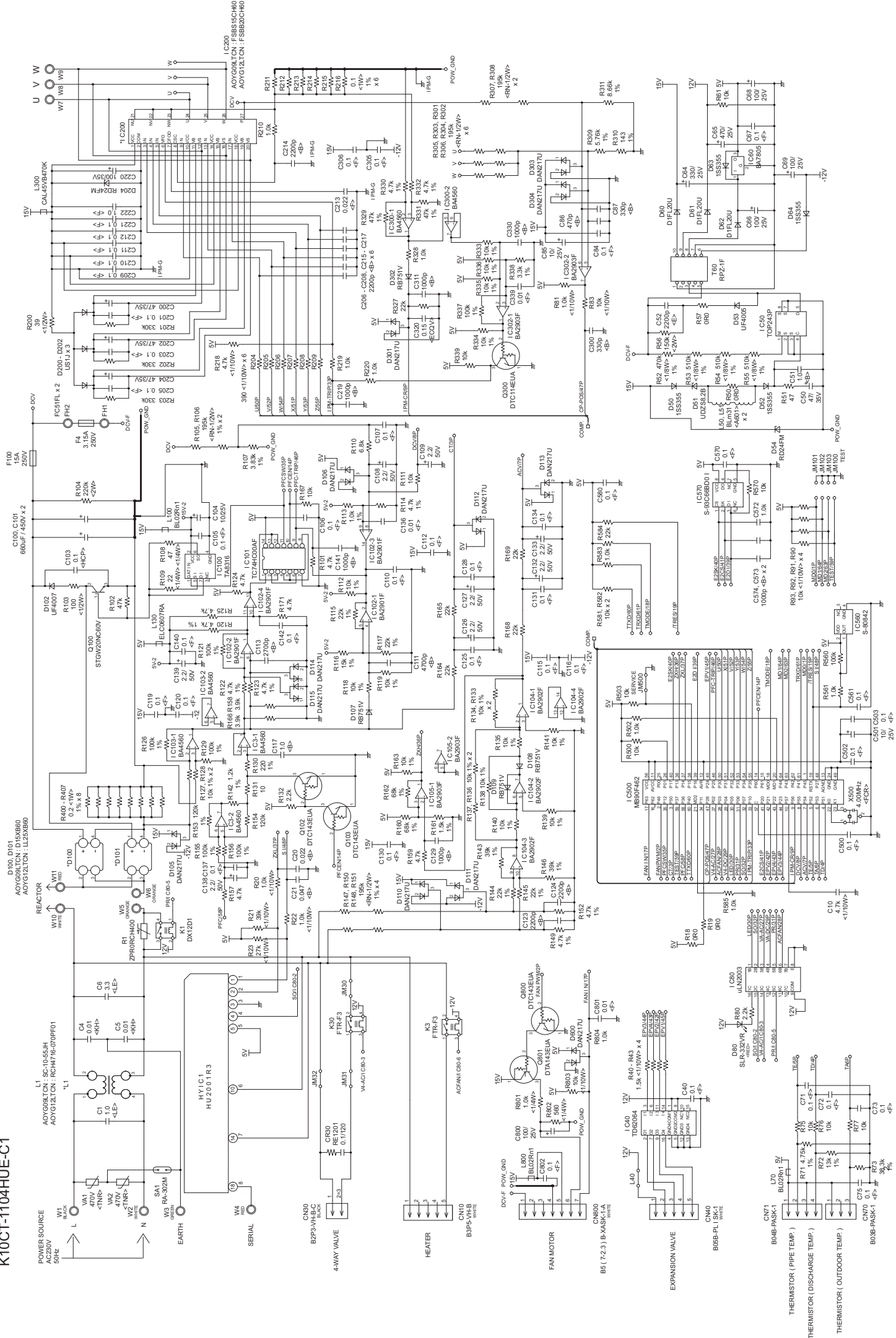


OUTDOOR PCB CIRCUIT DIAGRAM

INVERTERASSEMBLY EZ-011SHUE



OUTDOOR UNIT



ERROR DETECTION

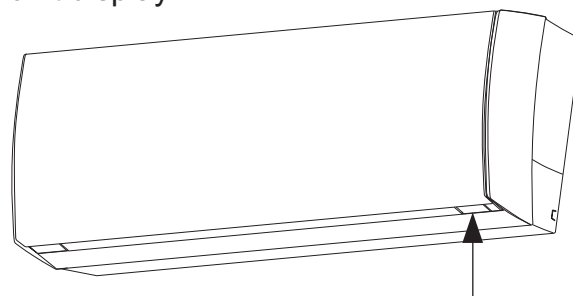
INDOOR UNIT REMOTE CONTROL

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.



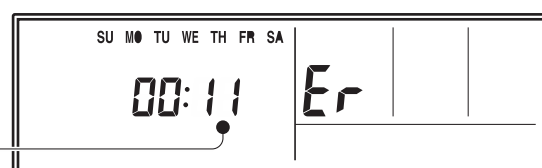
OPERATION indicator lamp (green)

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)	◇	50	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

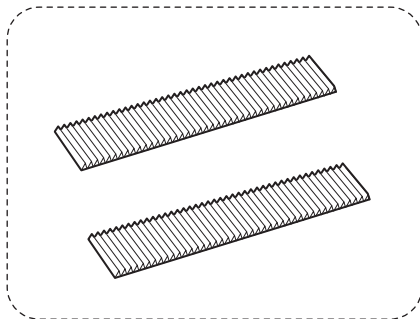
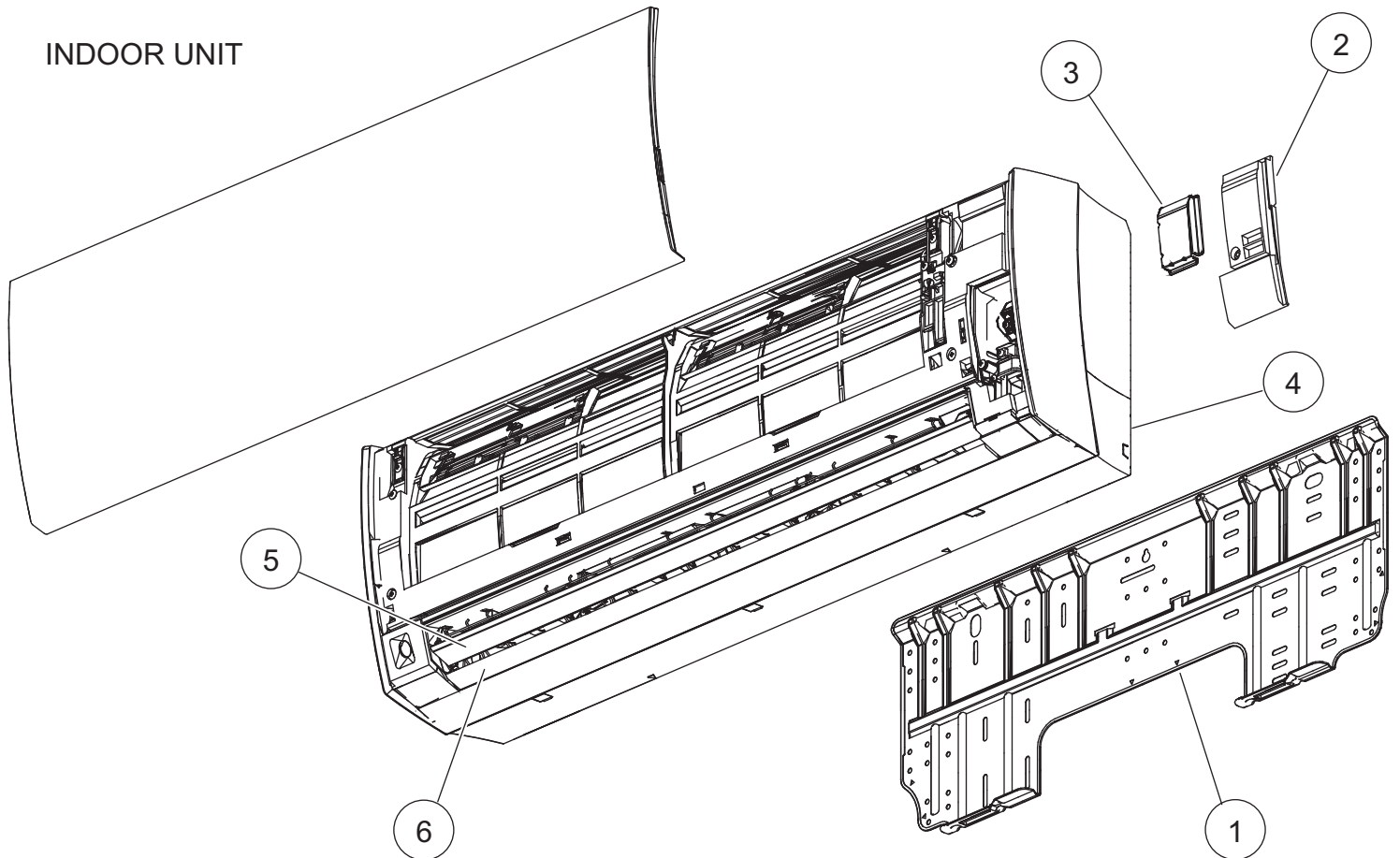
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp. sensor error
● (7)	● (6)	◇	76	• 2-way valve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

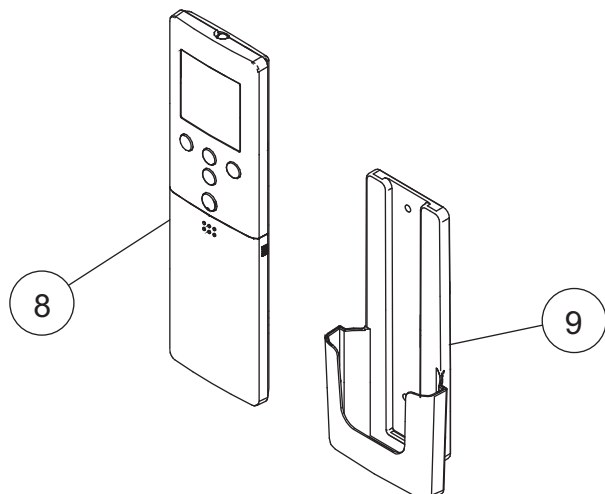
LED	ERROR
on	Discharge temperature abnormal
0.5 second on / 0.5 second off	IPM overcurrent protection
0.1 second on / 0.1 second off	Thermistor abnormal
2.0 second on / 2.0 second off	CT abnormal
0.1 second on / 2.0 second off	Compressor location abnormal
5.0 second on / 5.0 second off	Fan abnormal

PARTS

INDOOR UNIT

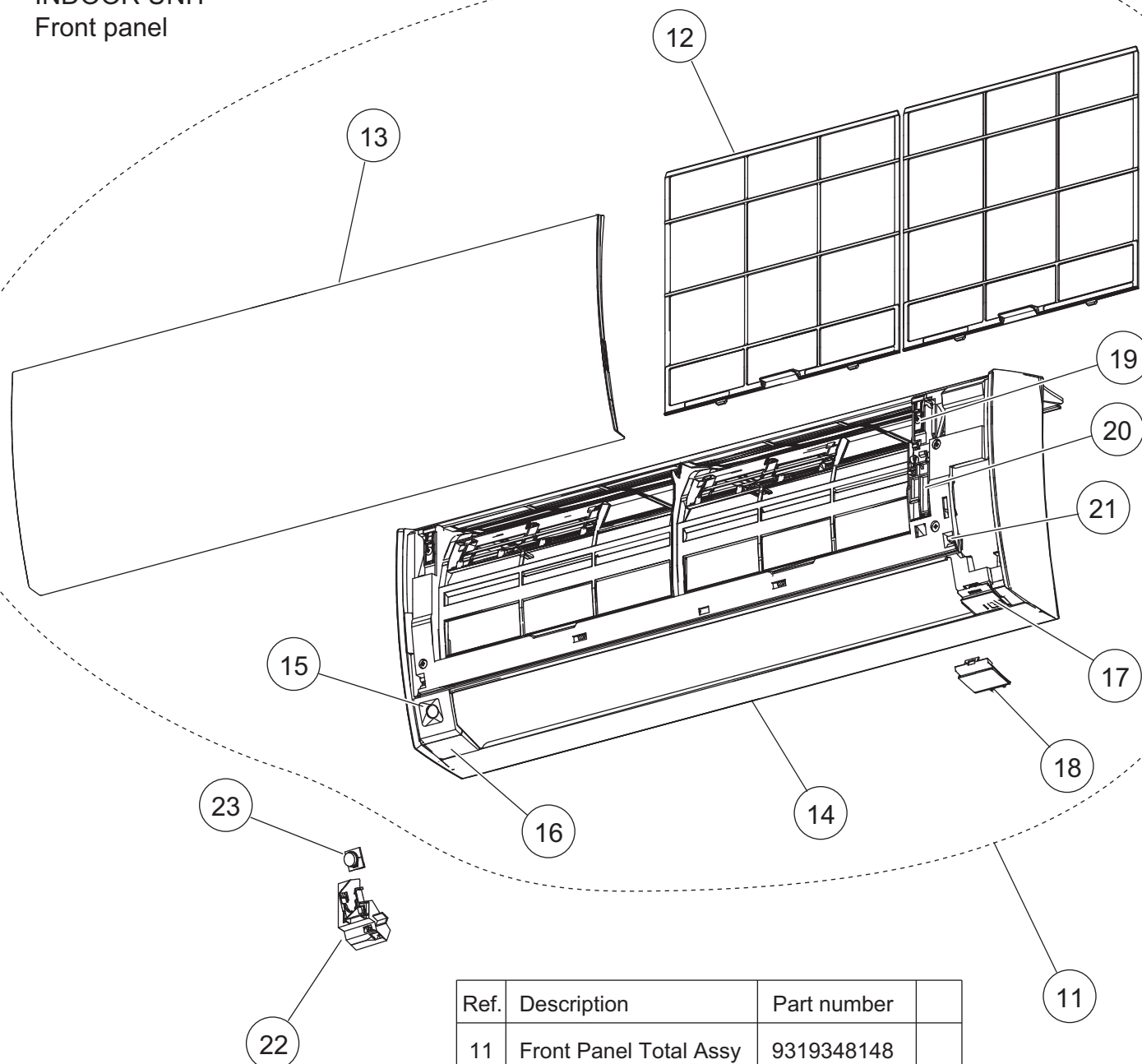


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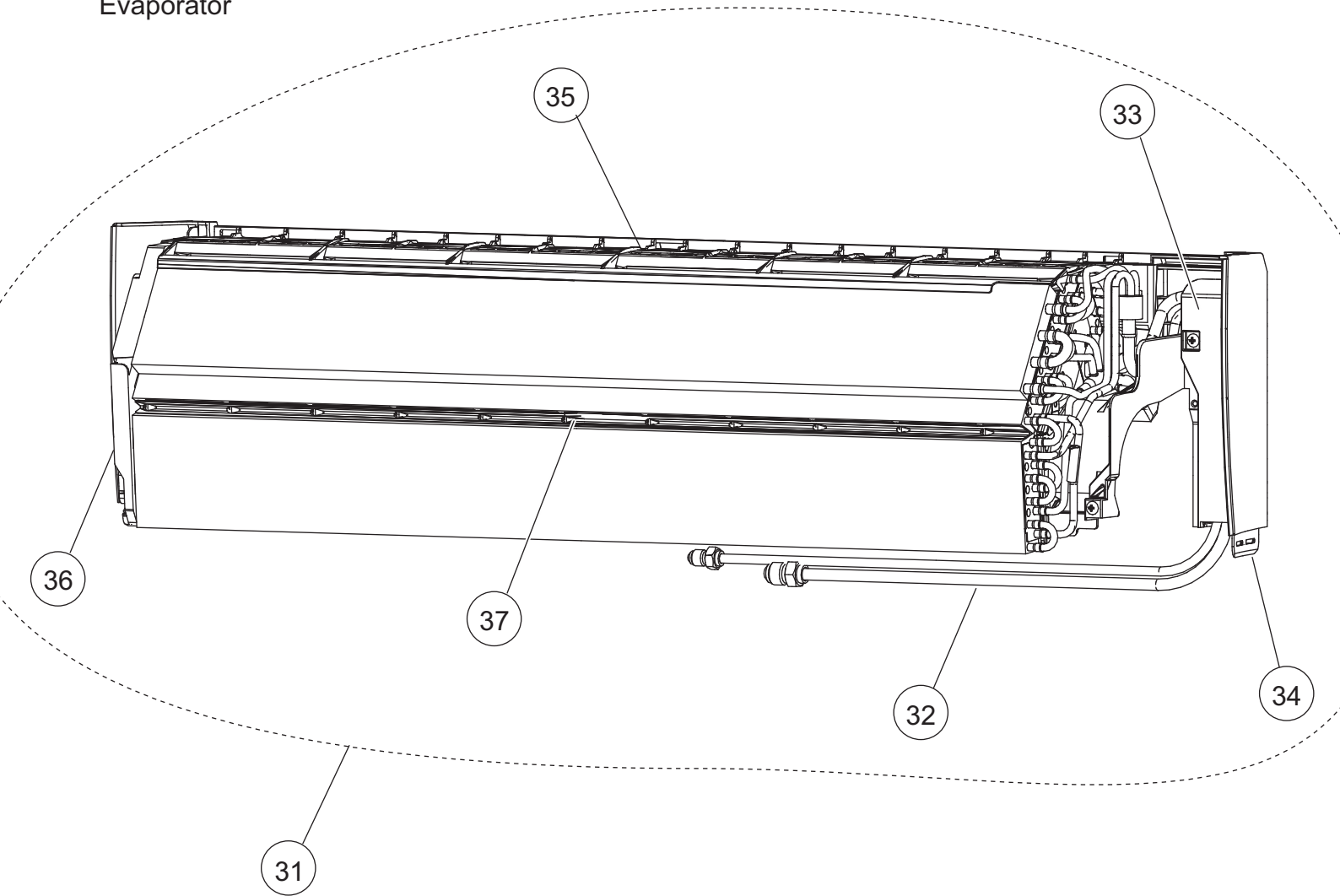
Ref.	Description	Part number	
1	Bracket Panel	9318913002	
2	Wire Cover	9318911008	
3	Wire Shield	9318919004	
4	Under Cover	9318879001	
5	Louver (Upper)	9318880007	
6	Louver (Lower)	9318881004	
7	Air Clean Filter Assy	9317250009	
8	Remote Control	9319207001	
9	Remote Control Holder	9318912005	

INDOOR UNIT
Front panel

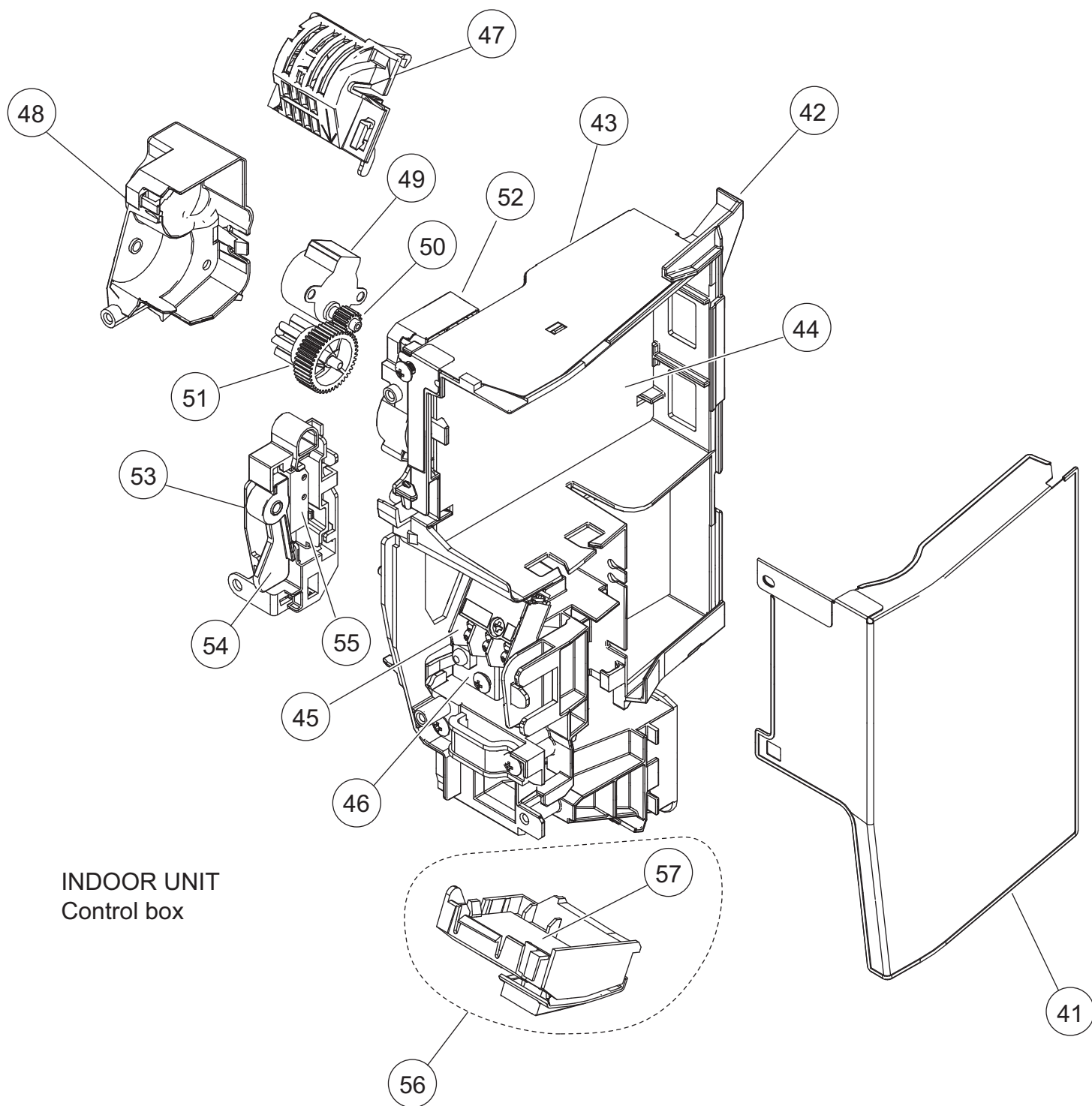


Ref.	Description	Part number	
11	Front Panel Total Assy	9319348148	
12	Air Filter	9318883008	
13	Intake Grille Assy	9319351155	
14	Front Panel	9318876000	
15	Front Panel Cover T	9318909005	
16	Display Plate Holder L	9318894004	
17	Display Plate Holder R	9318895001	
18	Display Plate R	9318893007	
19	Arm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

INDOOR UNIT
Evaporator



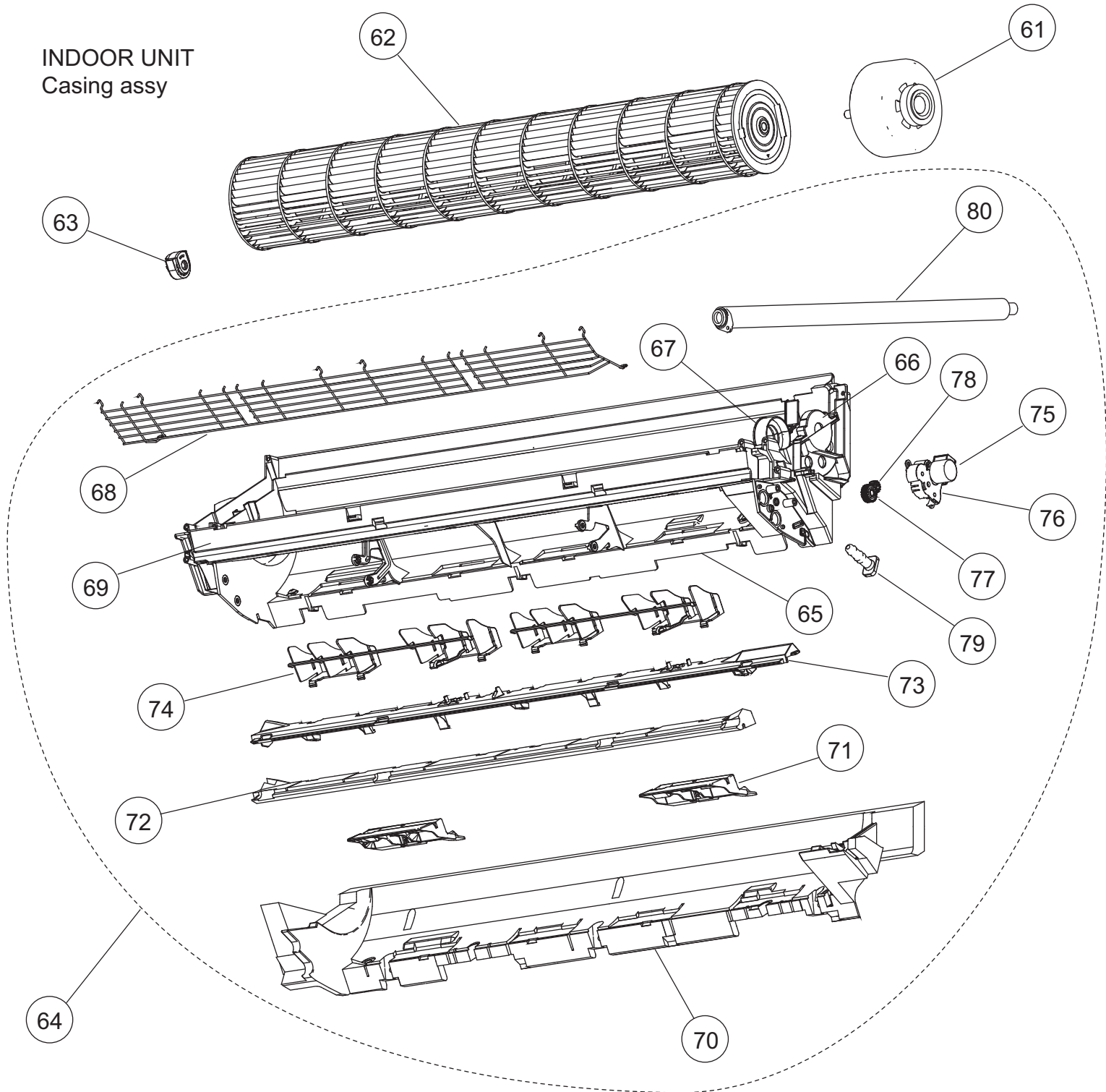
Ref.	Description	Part number	
31	Evaporator Total Assy	9319327006	
32	Joint Pipe Assy	9319322001	
33	Joint Pipe Holder	9318901009	
34	Base	9318874006	
35	Filter Guide	9318887006	
36	Evaporator Holder L	9318875003	
37	Air Seal	9319295008	



Ref.	Description	Part number	
41	Cover Shield A	9318916003	
42	Control Box	9318882001	
43	Box Shield Assy	9319344003	
44	Controller PCB Assy	9708713069	
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

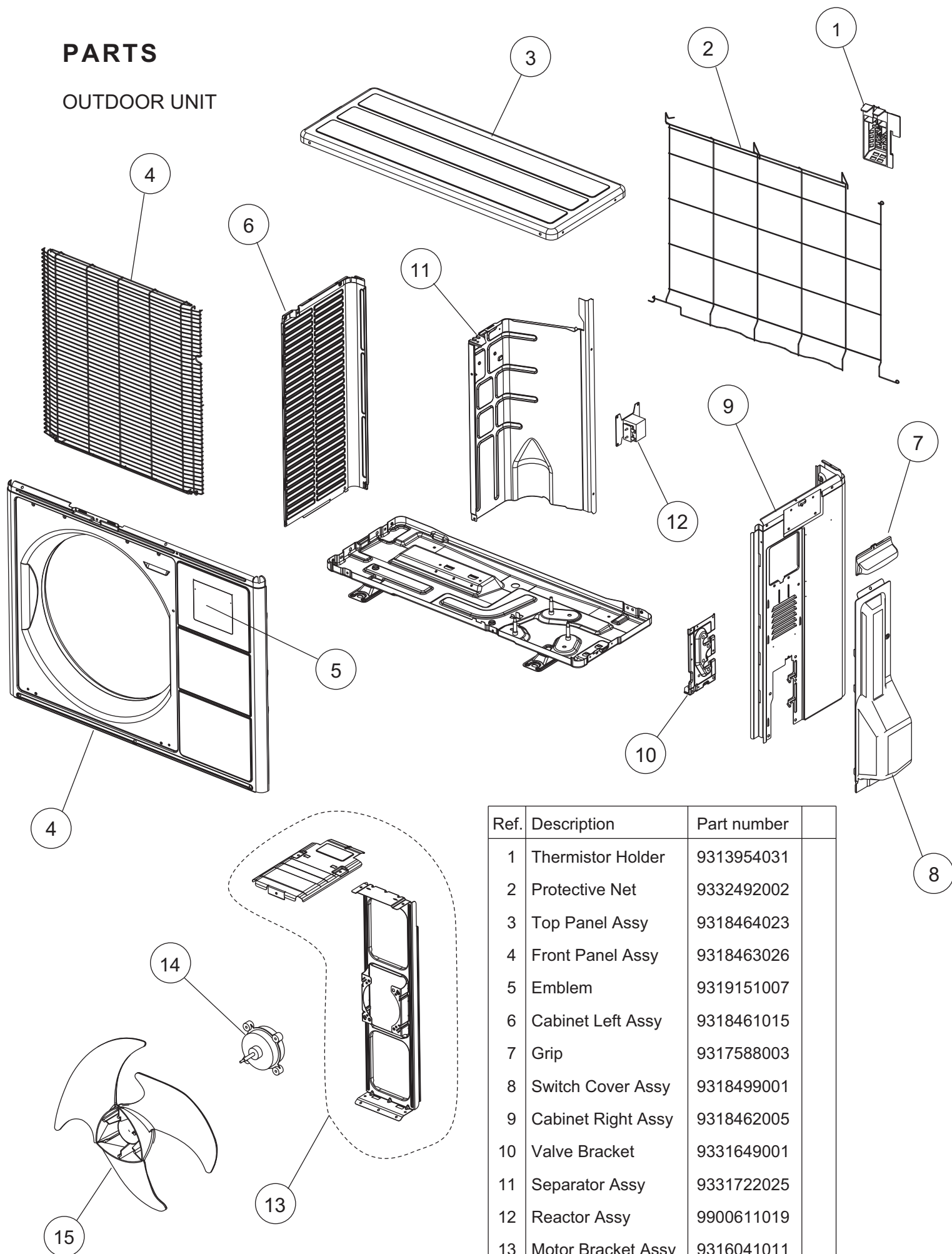


Ref.	Description	Part number
61	Fan Motor	9602947003
62	Crossflow Fan Assy	9319361000
63	Bearing C Assy	9306628017
64	Casing Assy	9319342009
65	Casing	9318873009
66	Motor Cover	9316601000
67	Motor Cover	9318888003
68	Fan Guard	9318924008
69	Casing Cover F	9318923001
70	Casing Cover B	9318920000

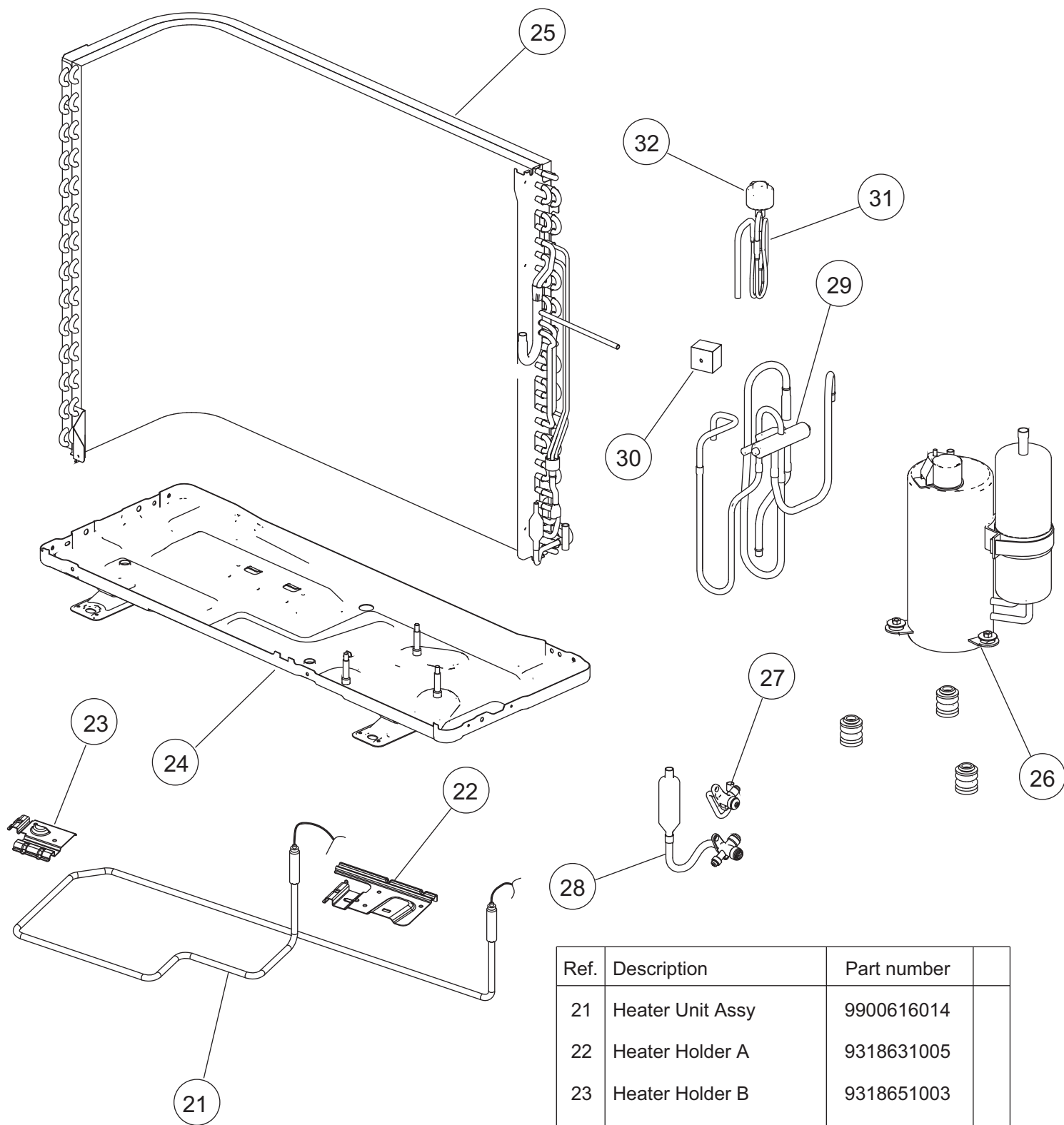
Ref.	Description	Part number
71	Pipe Bracket	9318889000
72	Panel Cover	9319296005
73	Louver Holder	9318886009
74	R and L Louver	9318885002
75	Motor Step	9900384128
76	Louver Gear Holder	9318905007
77	Louver Gear	9318904000
78	Gear A	9309994003
79	Drain Cap	9316177017
80	Drain Hose Assy	9316904002

PARTS

OUTDOOR UNIT



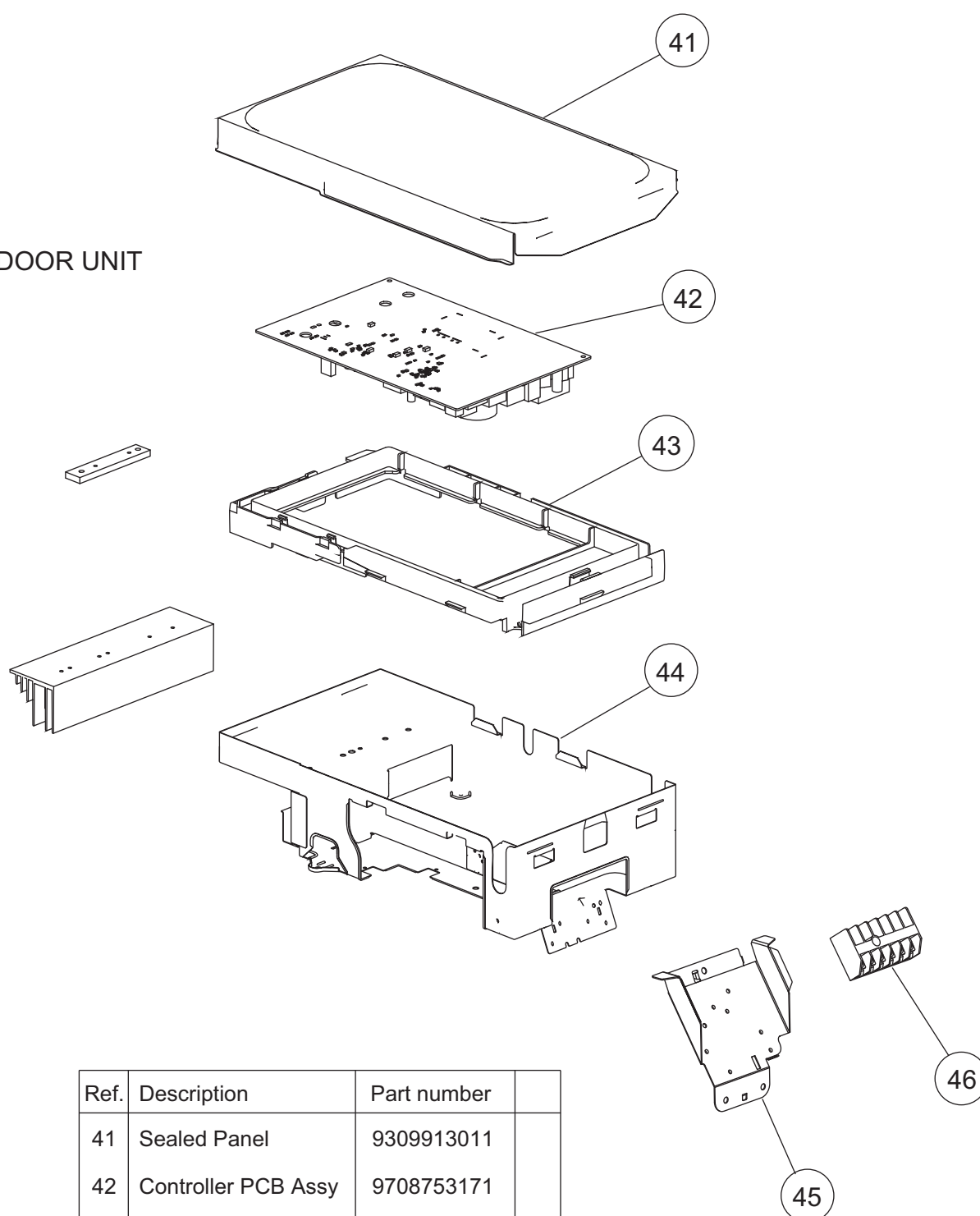
Ref.	Description	Part number	
1	Thermistor Holder	9313954031	
2	Protective Net	9332492002	
3	Top Panel Assy	9318464023	
4	Front Panel Assy	9318463026	
5	Emblem	9319151007	
6	Cabinet Left Assy	9318461015	
7	Grip	9317588003	
8	Switch Cover Assy	9318499001	
9	Cabinet Right Assy	9318462005	
10	Valve Bracket	9331649001	
11	Separator Assy	9331722025	
12	Reactor Assy	9900611019	
13	Motor Bracket Assy	9316041011	
14	Fan Motor	9602724017	
15	Propeller Fan	9313808013	



OUTDOOR UNIT

Ref.	Description	Part number	
21	Heater Unit Assy	9900616014	
22	Heater Holder A	9318631005	
23	Heater Holder B	9318651003	
24	Base Assy	9316885059	
25	Condenser Total Assy	9317089098	
26	Compressor Assy	9317117005	
27	2-way Valve Assy	9332371000	
28	3-way Valve Sub Assy	9317109000	
29	4-way Valve Assy	9317110020	
30	Solenoid	9970110047	
31	Pulse Motor Valve Assy	9332368000	
32	Expansion Valve Coil	9970095030	

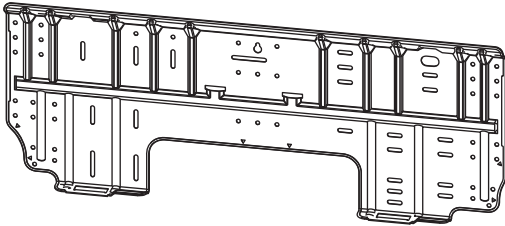
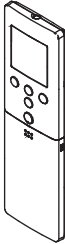
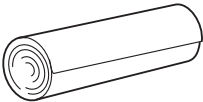
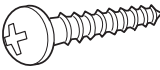
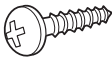
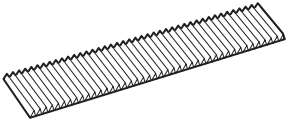
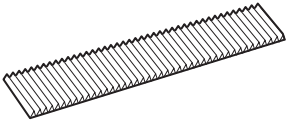
OUTDOOR UNIT



Ref.	Description	Part number	
41	Sealed Panel	9309913011	
42	Controller PCB Assy	9708753171	
43	PCB Holder	9313074029	
44	Inverter Case Assy	9315690074	
45	Terminal Bracket	9315233073	
46	Terminal	9900435028	
--	Outdoor Thermistor	9900544010	
--	Thermistor Assy	9900614027	

ACCESSORIES

INDOOR UNIT

Name and Shape	Part number
Bracket panel 	9318913002
Remote control 	9319207001
Remote control holder 	9318912005
Battery (penlight) 	0600185046
Cloth tape 	9308117007
Tapping screw (big) (φ 4 x 25) 	0700076046
Tapping screw (small) (φ 3 x 12) 	0700019036
Air cleaning filter (ion deodorant) 	9311925088
Air cleaning filter (electric) 	9312153077

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