

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG07LECA	AOYG07LEC
ASYG09LECA	AOYG09LEC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM....	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM....	9
ERROR DETECTION.....	11
PARTS (INDOOR UNIT).....	13
PARTS (OUTDOOR UNIT).....	17
ACCESSORIES.....	20

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 ³ /h	
	Heating	710 m ³ /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	31 dB
	Quiet	21 dB
INDOOR UNIT Heating	High speed	43 dB
	Middle speed	38 dB
	Low speed	31 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

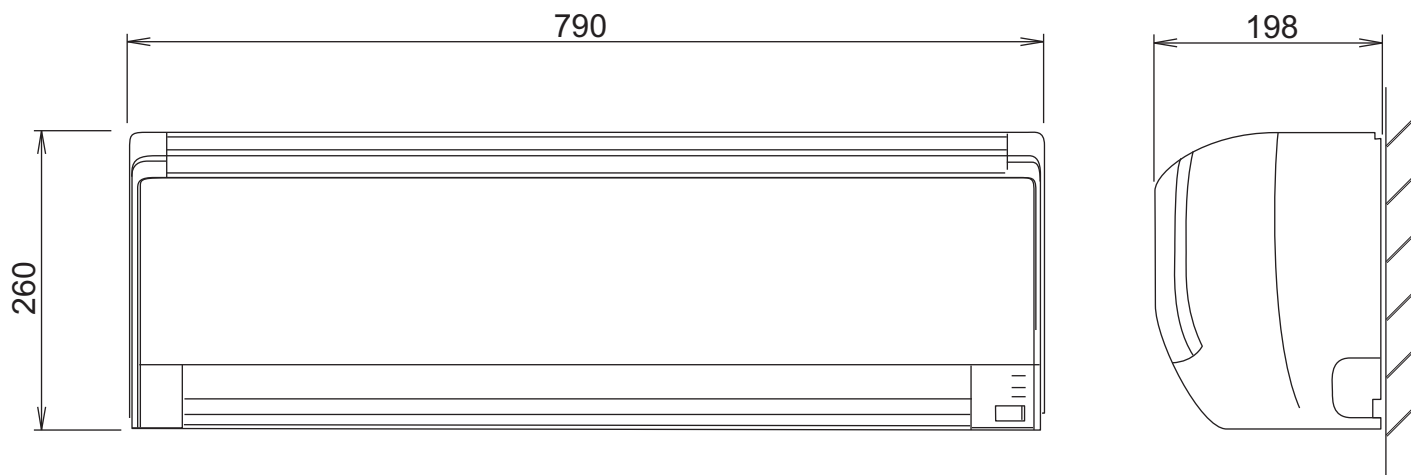
WEIGHT

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

DIMENSIONS

unit : mm

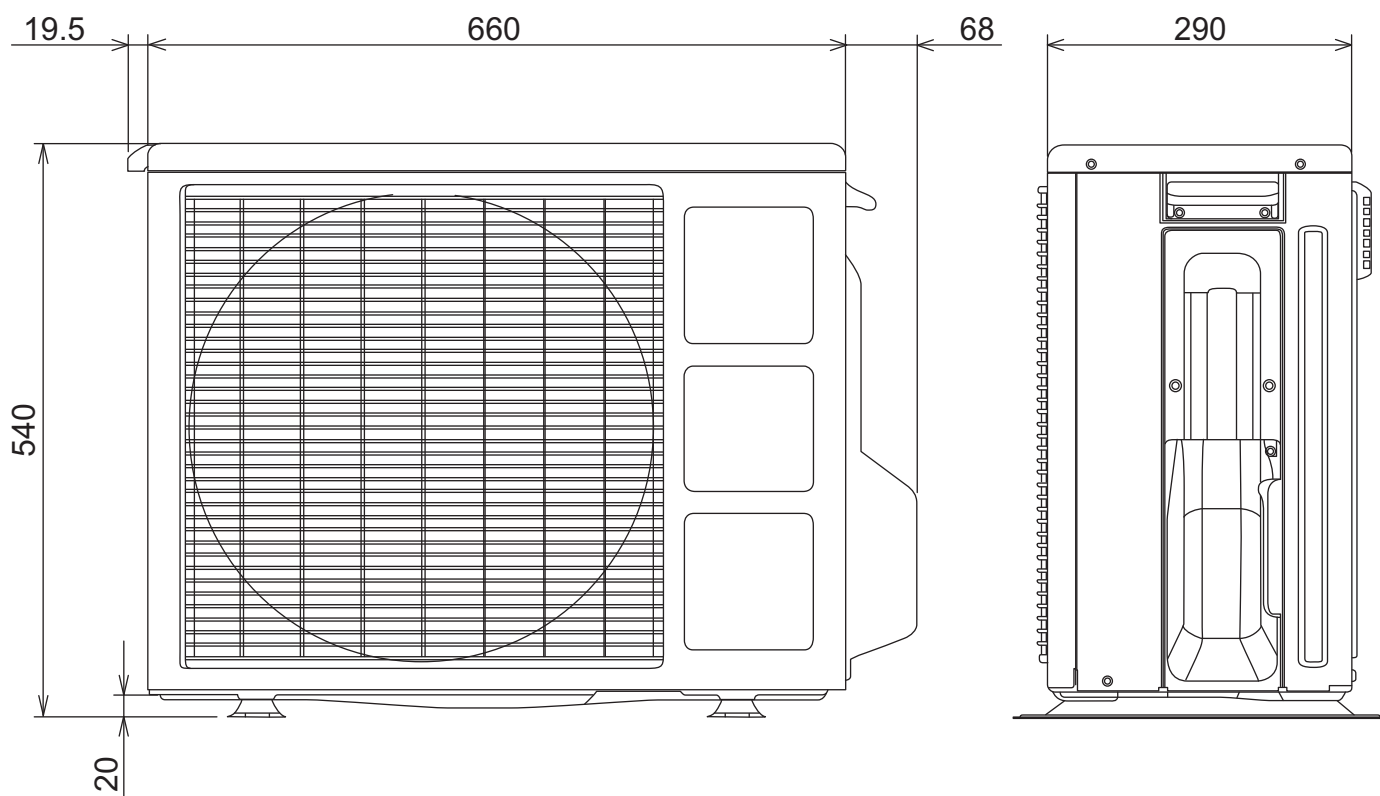
INDOOR UNIT



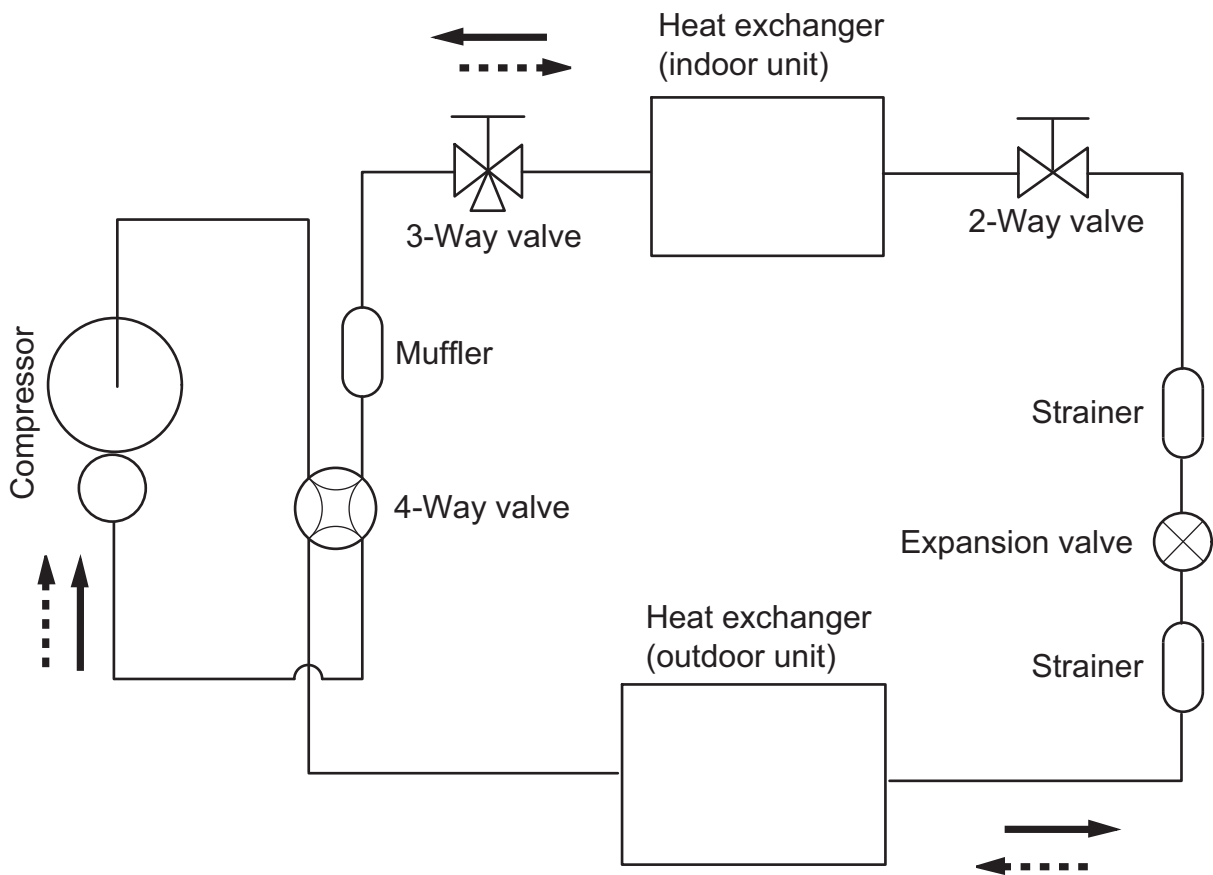
Drain pipe diameter
16.2 mm

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

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

————→ Cooling

-----→ Heating

Refrigerant pipe diameter

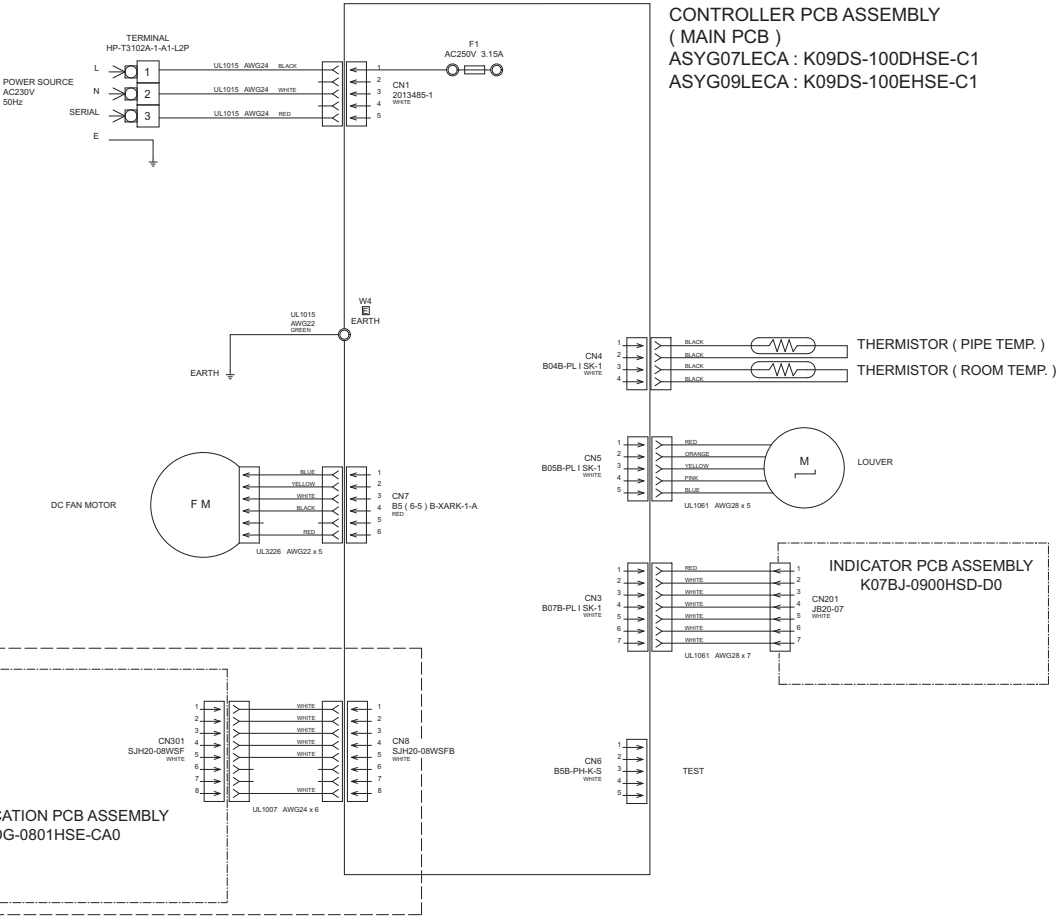
Liquid : 1/4" (6.35 mm)

Gas : 3/8" (9.52 mm)

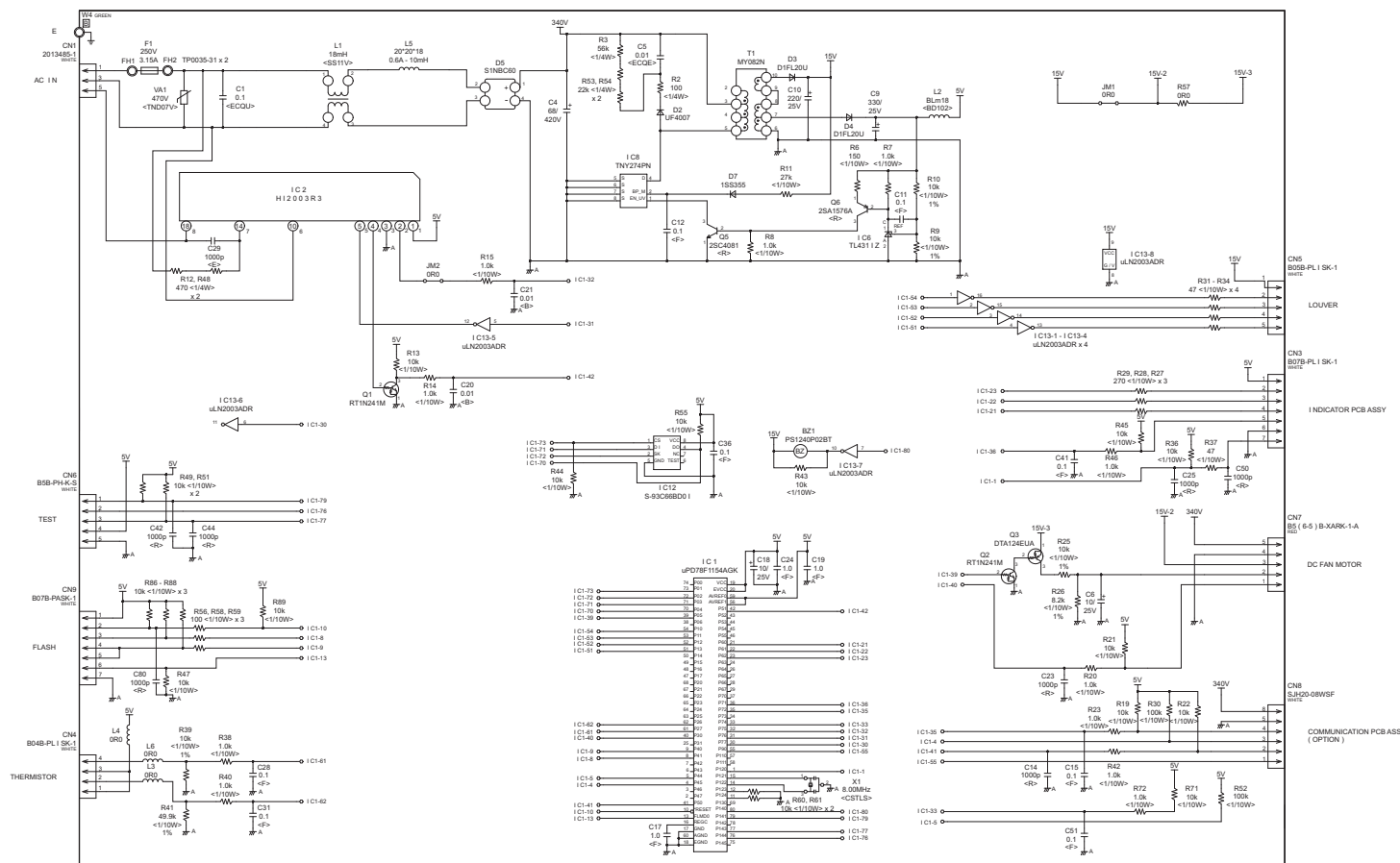


INDOOR PCB CIRCUIT DIAGRAM

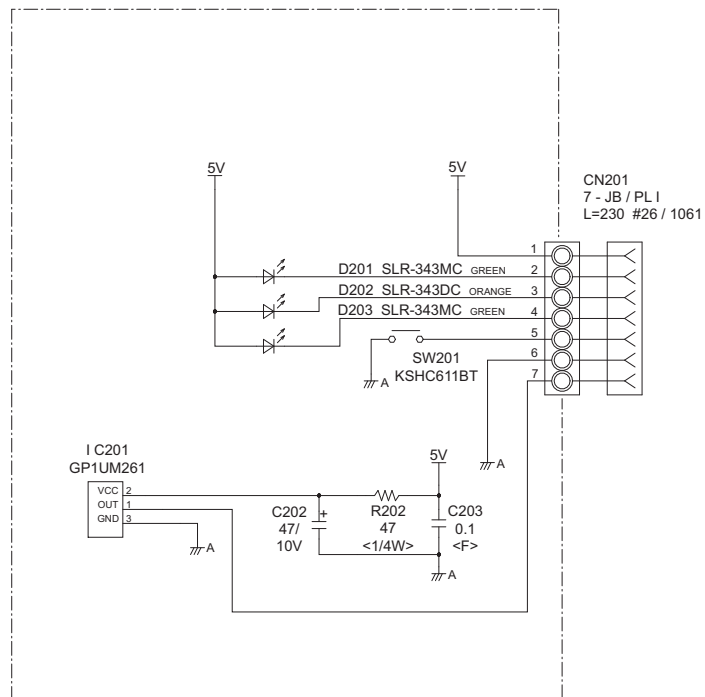
CONTROL UNIT
ASYG07LECA : EZ-0101SHSE
ASYG09LECA : EZ-0101THSE



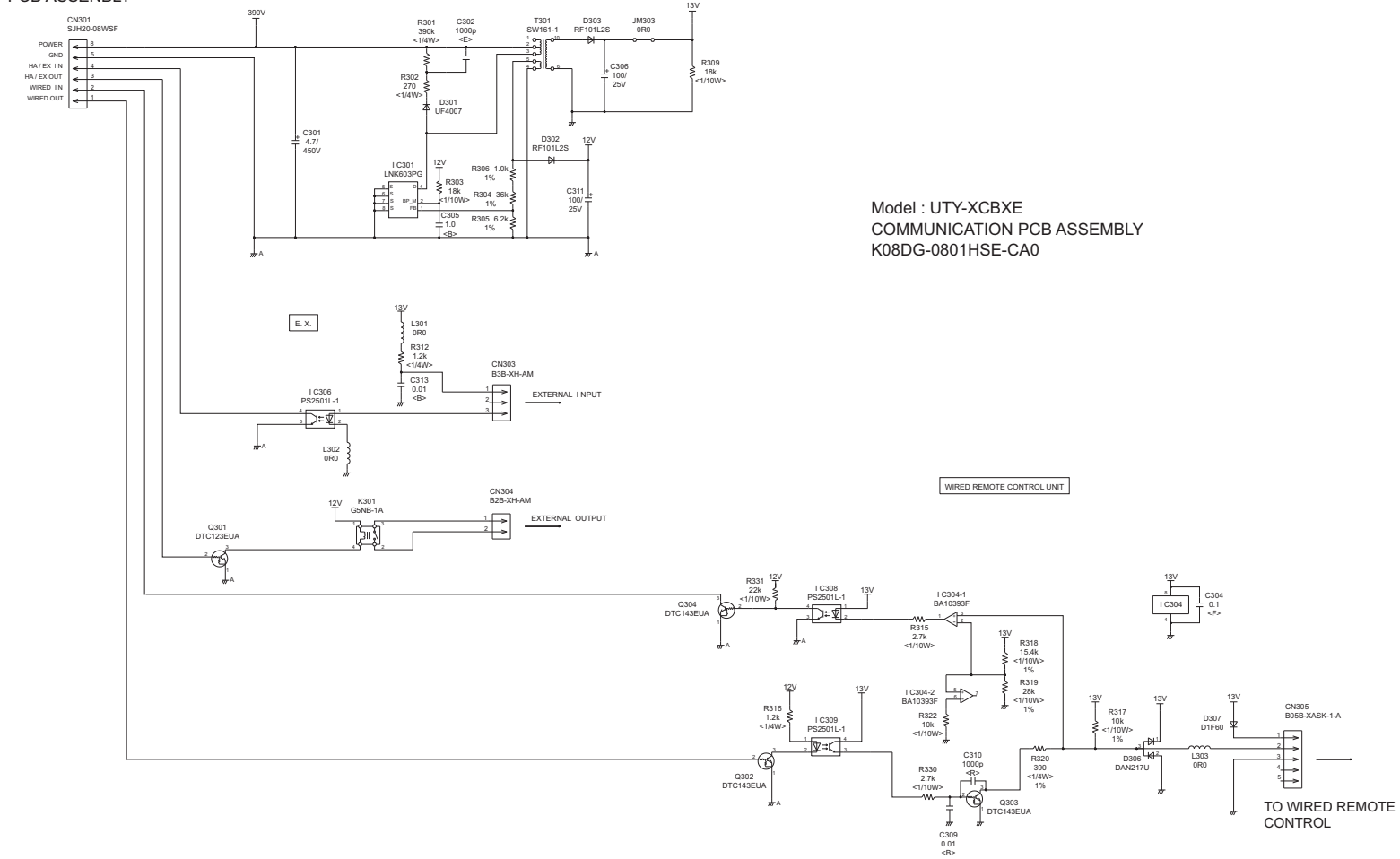
INDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
ASYG07LECA : K09DS-100DHSE-C1
ASYG09LECA : K09DS-100EHSE-C1



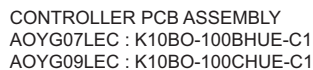
INDOOR UNIT
INDICATOR PCB ASSEMBLY
K07BJ-0900HSD-D0



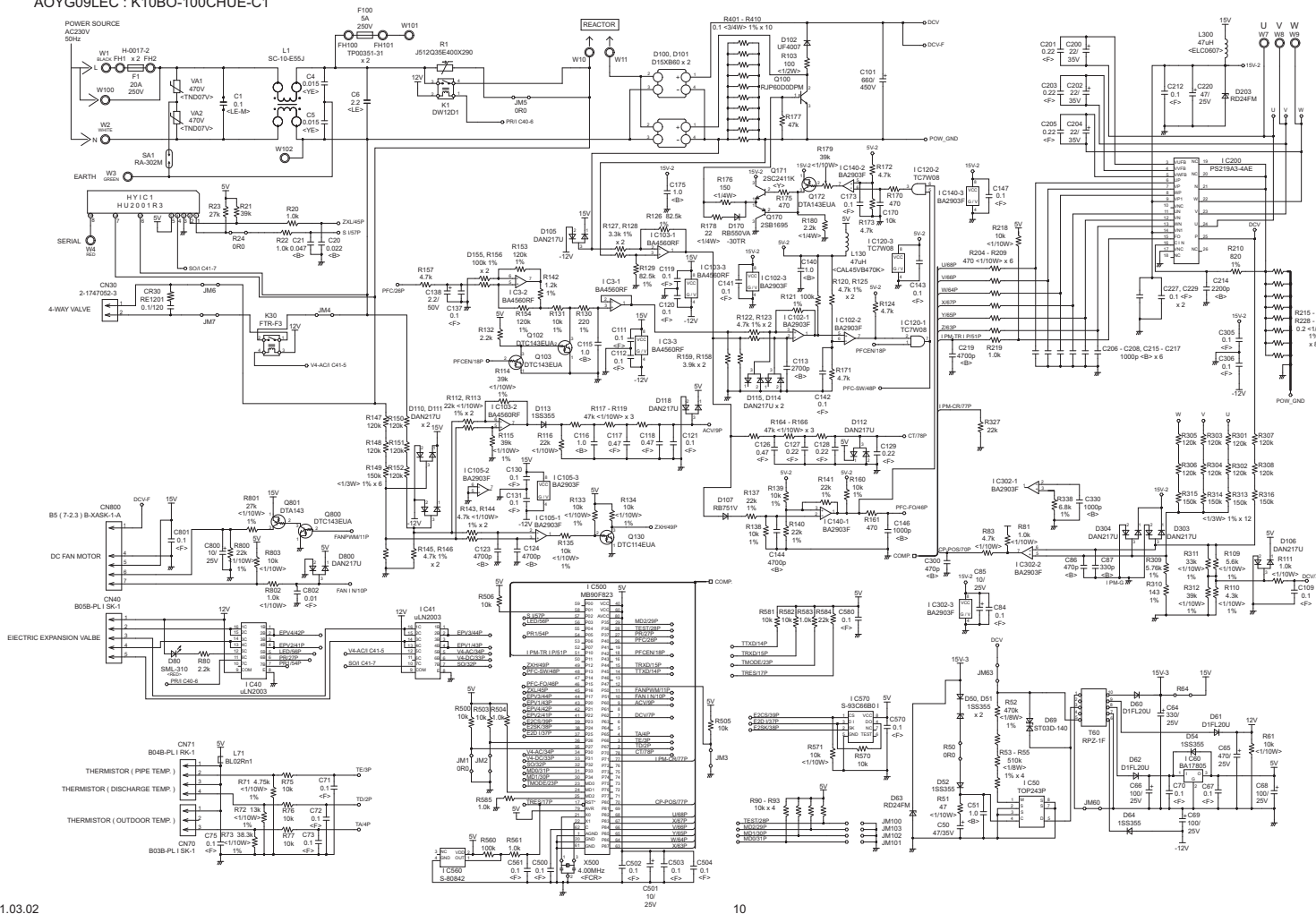
TO CONTROLLER
PCB ASSEMBLY



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



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



ERROR DETECTION

INDOOR UNIT REMOTE CONTROL

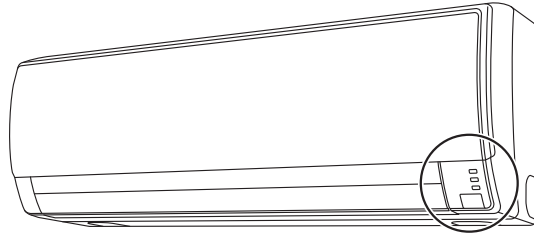
If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.

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.

Indoor unit display

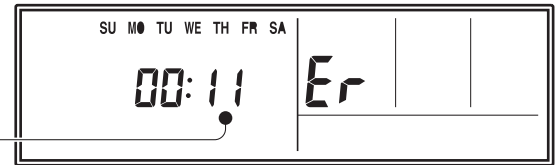


OPERATION OPERATION lamp (green)
TIMER TIMER lamp (orange)
ECONOMY ECONOMY lamp (green)

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)	● (3)	◇	53	Drain pump error
● (5)	● (7)	◇	57	Damper 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

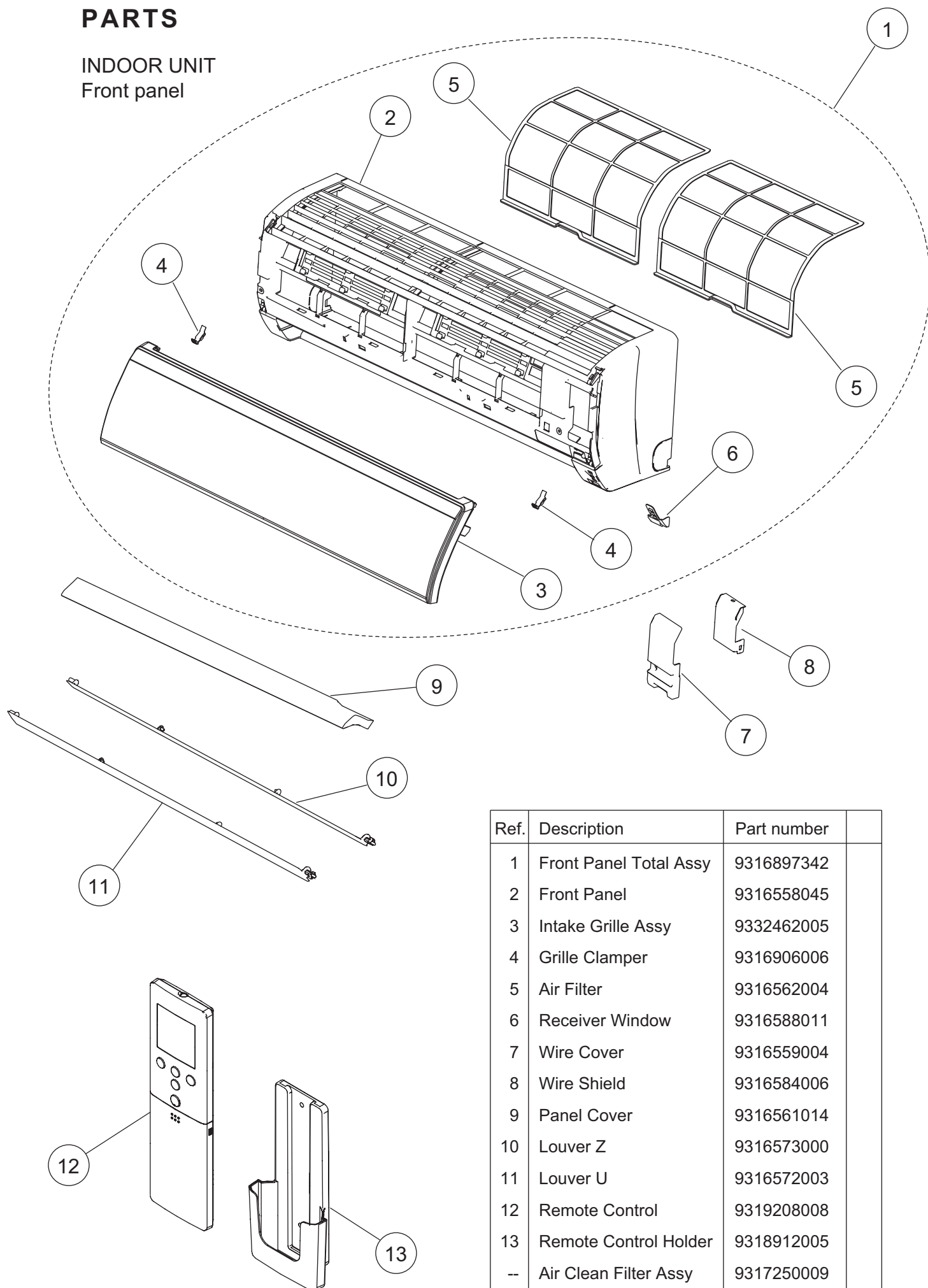
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (7)	● (2)	◇	72	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp.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

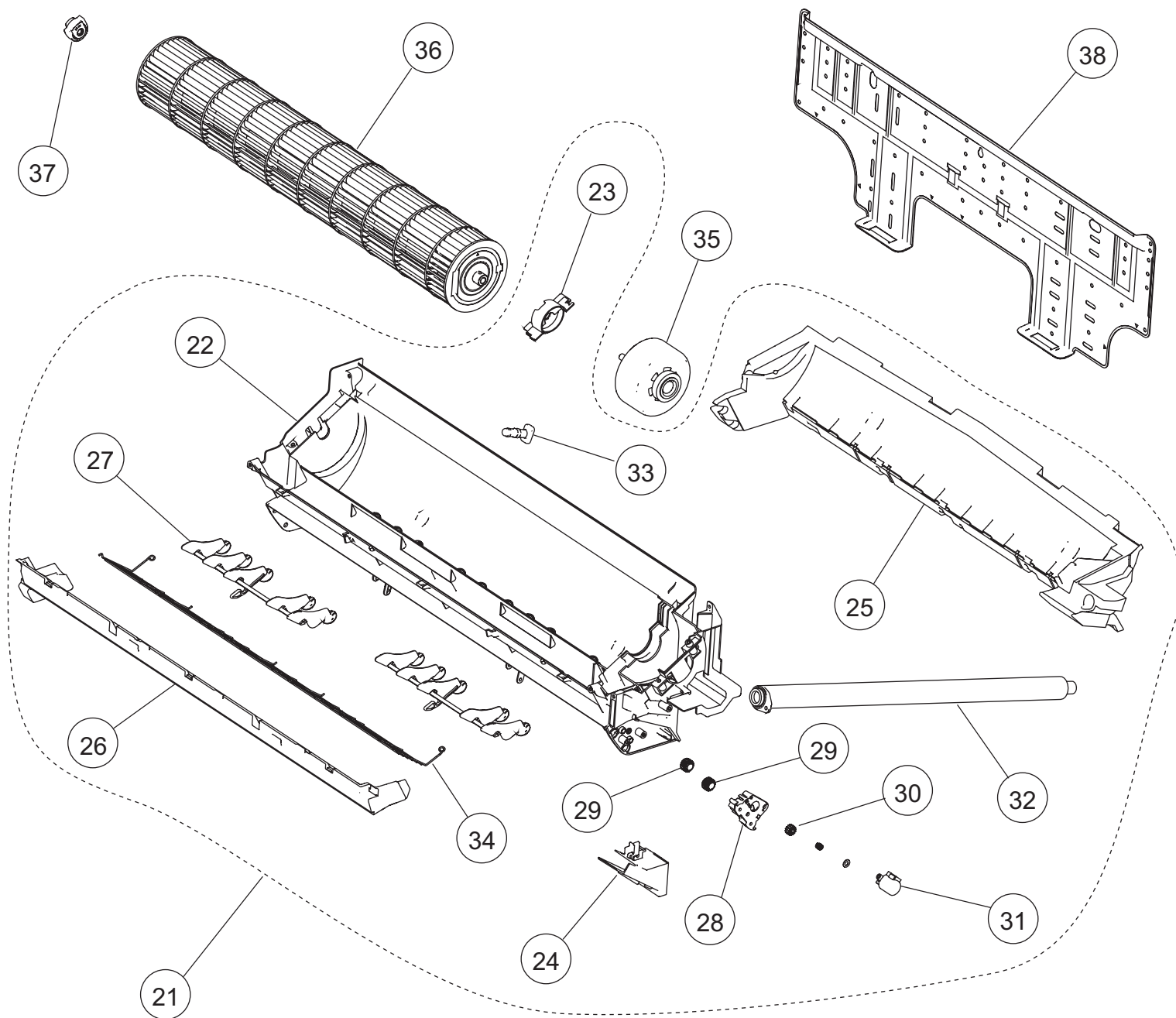
PARTS

INDOOR UNIT Front panel



Ref.	Description	Part number	
1	Front Panel Total Assy	9316897342	
2	Front Panel	9316558045	
3	Intake Grille Assy	9332462005	
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	

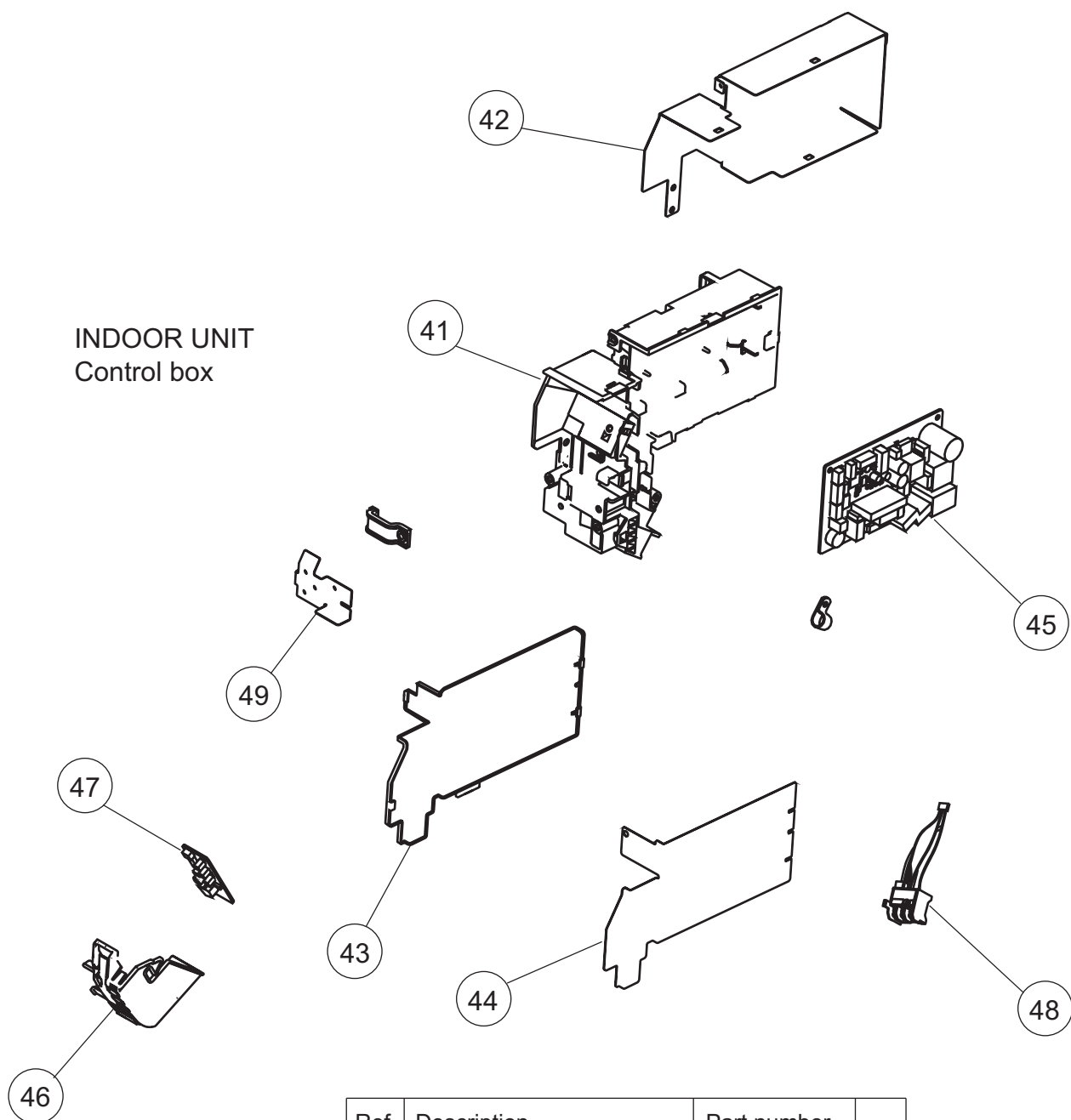
INDOOR UNIT
Casing assy



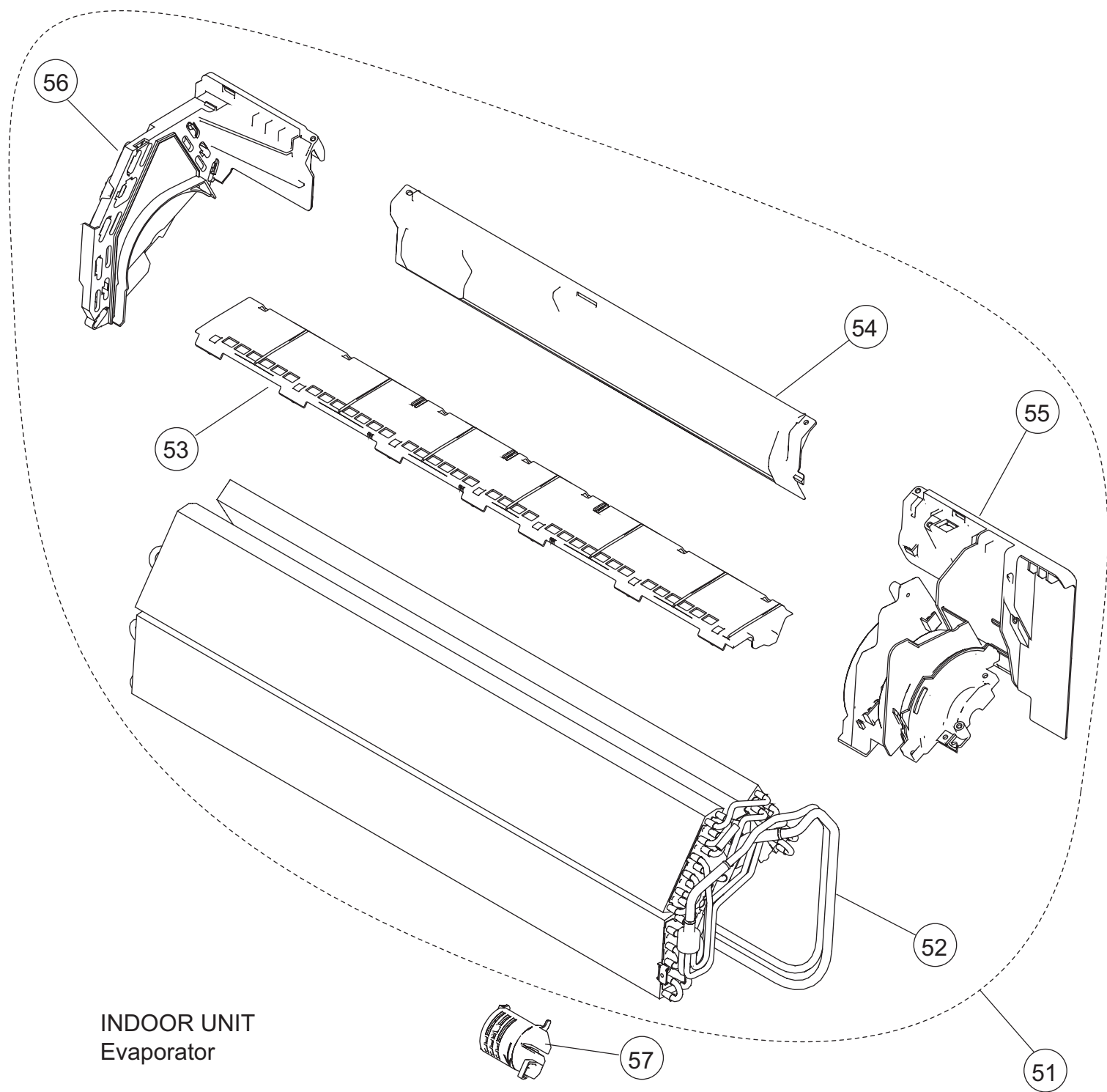
Ref.	Description	Part number
21	Casing Assy	9316892095
22	Casing	9316563001
23	Motor Cover	9316568006
24	Cable Guide	9316567009
25	Casing Cover B	9316569003
26	Casing Cover F	9316570009
27	R and L Louver B	9316961005
28	Louver Gear Holder	9316575004
29	Louver Gear	9316574007

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



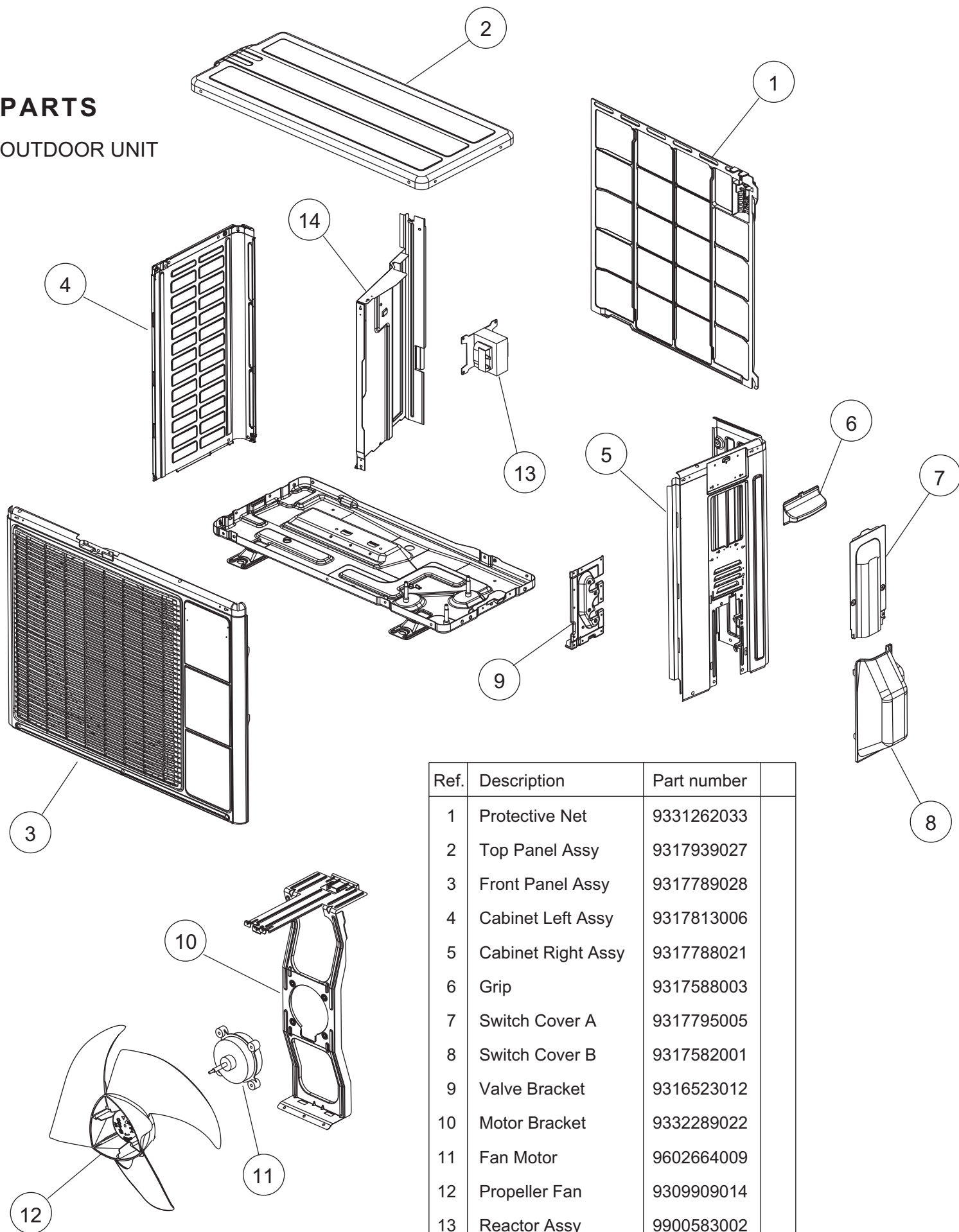
Ref.	Description	Part number	
41	Control Box	9316582002	
42	Box Shield	9316580008	
43	Control Cover	9316583009	
44	Cover Shield	9316581005	
45	Controller PCB Assy (07)	9708536156	
45	Controller PCB Assy (09)	9708536163	
46	Display Case	9316587007	
47	Display PCB Assy	9707649024	
48	Terminal	9900638009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



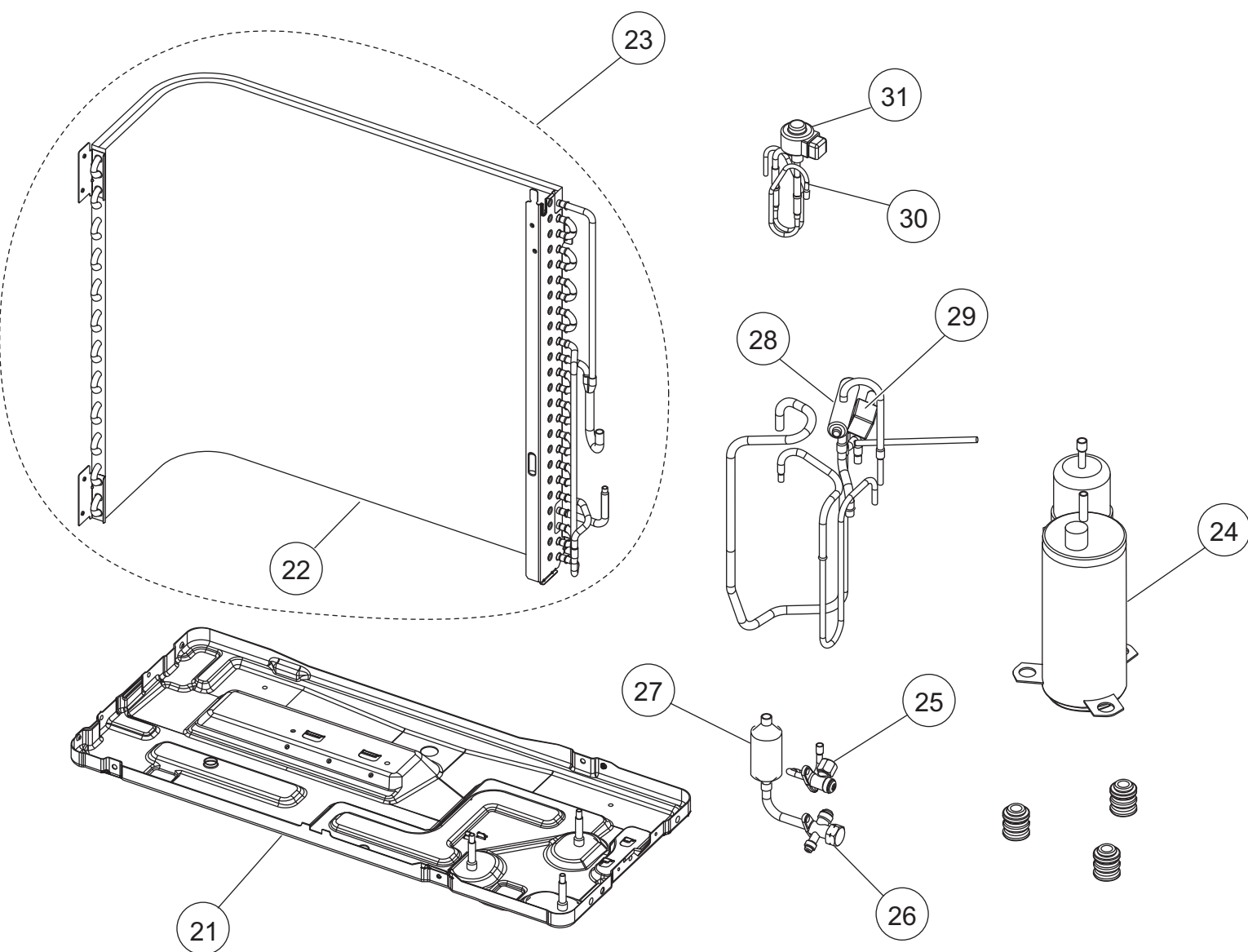
Ref.	Description	Part number	
51	Evaporator Total Assy	9316893009	
52	Joint Pipe Assy	9316923010	
53	Filter Guide	9316578005	
54	Rear Bracket	9316566019	
55	Evaporator Holder R	9316565005	
56	Evaporator Holder L	9316564008	
57	Room Thermistor Holder	9316895003	

PARTS

OUTDOOR UNIT

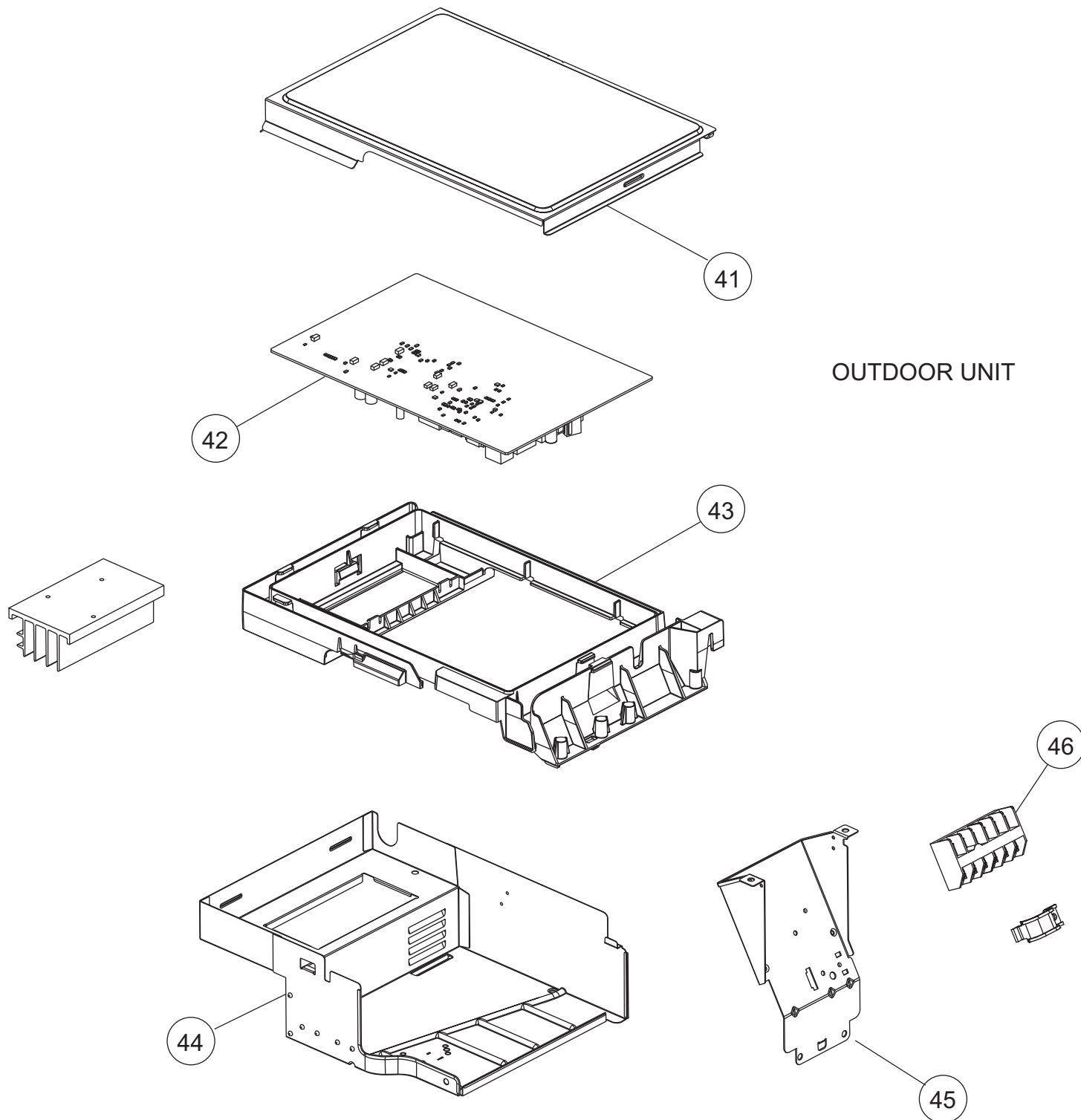


Ref.	Description	Part number
1	Protective Net	9331262033
2	Top Panel Assy	9317939027
3	Front Panel Assy	9317789028
4	Cabinet Left Assy	9317813006
5	Cabinet Right Assy	9317788021
6	Grip	9317588003
7	Switch Cover A	9317795005
8	Switch Cover B	9317582001
9	Valve Bracket	9316523012
10	Motor Bracket	9332289022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



OUTDOOR UNIT

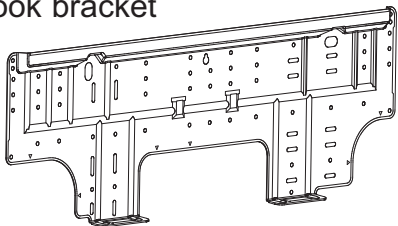
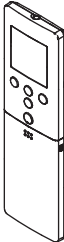
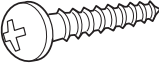
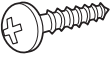
Ref.	Description	Part number	
21	Base Assy	9316916029	
22	Condenser Assy	9317286008	
23	Condenser Total Assy	9317287012	
24	Compressor Assy	9317083010	
25	2 way Valve Assy	9318252002	
26	3 way Valve Assy	9318254006	
27	Muffler	9317394000	
28	4 way Valve Assy	9317890021	
29	Solenoid	9970079023	
30	Pulse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



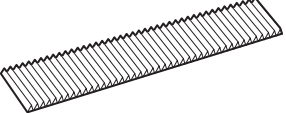
OUTDOOR UNIT

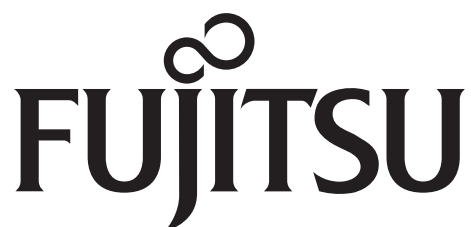
Ref.	Description	Part number	
41	Sealed Panel	9318181012	
42	Controller PCB Assy (07)	9708683096	
42	Controller PCB Assy (09)	9708683102	
43	PCB Holder	9318182002	
44	Inverter Case Assy	9332247008	
45	Terminal Bracket	9317816038	
46	Terminal	9900435028	
--	Outdoor Thermistor	9900565008	
--	Thermistor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



SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG12LECA	AOYG12LEC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM....	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM....	9
ERROR DETECTION.....	11
PARTS (INDOOR UNIT).....	13
PARTS (OUTDOOR UNIT).....	17
ACCESSORIES.....	20

SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG12LECA
OUTDOOR UNIT		AOYG12LEC
COOLING CAPACITY		3.40 kW
HEATING CAPACITY		4.00 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	4.4 A
	Heating	4.7 A
INPUT WATTS	Cooling	0.920 kW
	Heating	0.990 kW
E.E.R.		Cooling 3.70 kW/kW
COP		Heating 4.04 kW/kW
MOISTURE REMOVAL		1.8 L/h
AIR CIRCULATION HIGH	Cooling	690 m ³ /h
	Heating	710 m ³ /h
MAXIMUM CURRENT	Cooling	6.5 A
	Heating	9.0 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		860 r.p.m.
OUTDOOR UNIT Heating		760 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High speed	43 dB
	Middle speed	38 dB
	Low speed	31 dB
	Quiet	21 dB
INDOOR UNIT Heating	High speed	43 dB
	Middle speed	38 dB
	Low speed	31 dB
	Quiet	21 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		DA89X1C-20FZ2
WEIGHT (with oil)		9.2 kg
PRECHARGED REFRIGERANT		800 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe length 15 m	800 g
	20 m	900 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

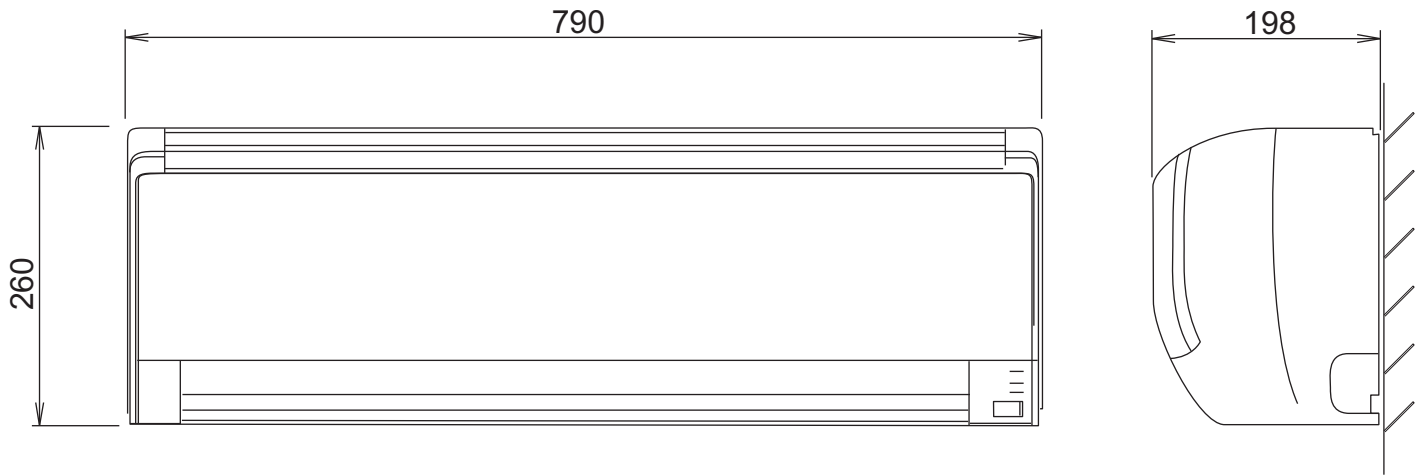
WEIGHT

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

DIMENSIONS

unit : mm

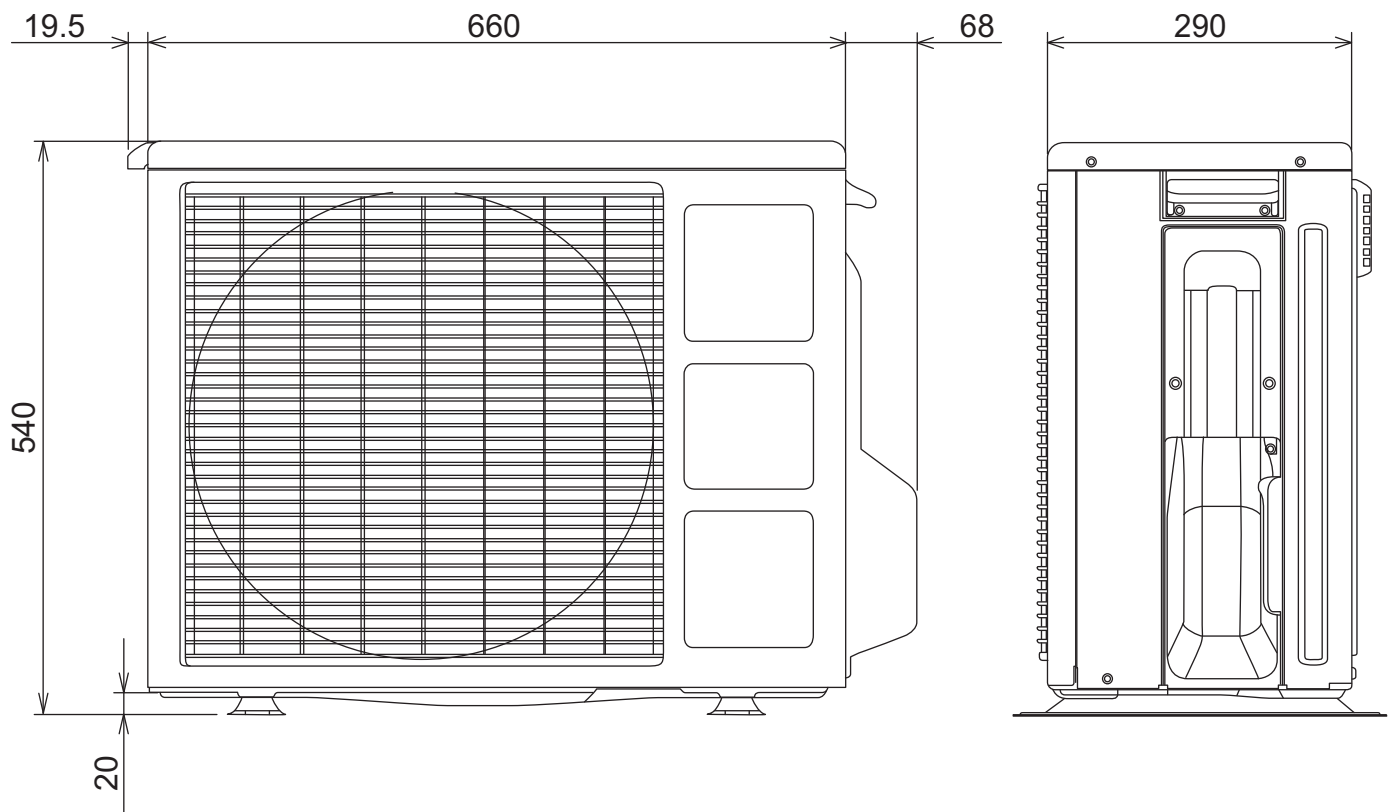
INDOOR UNIT



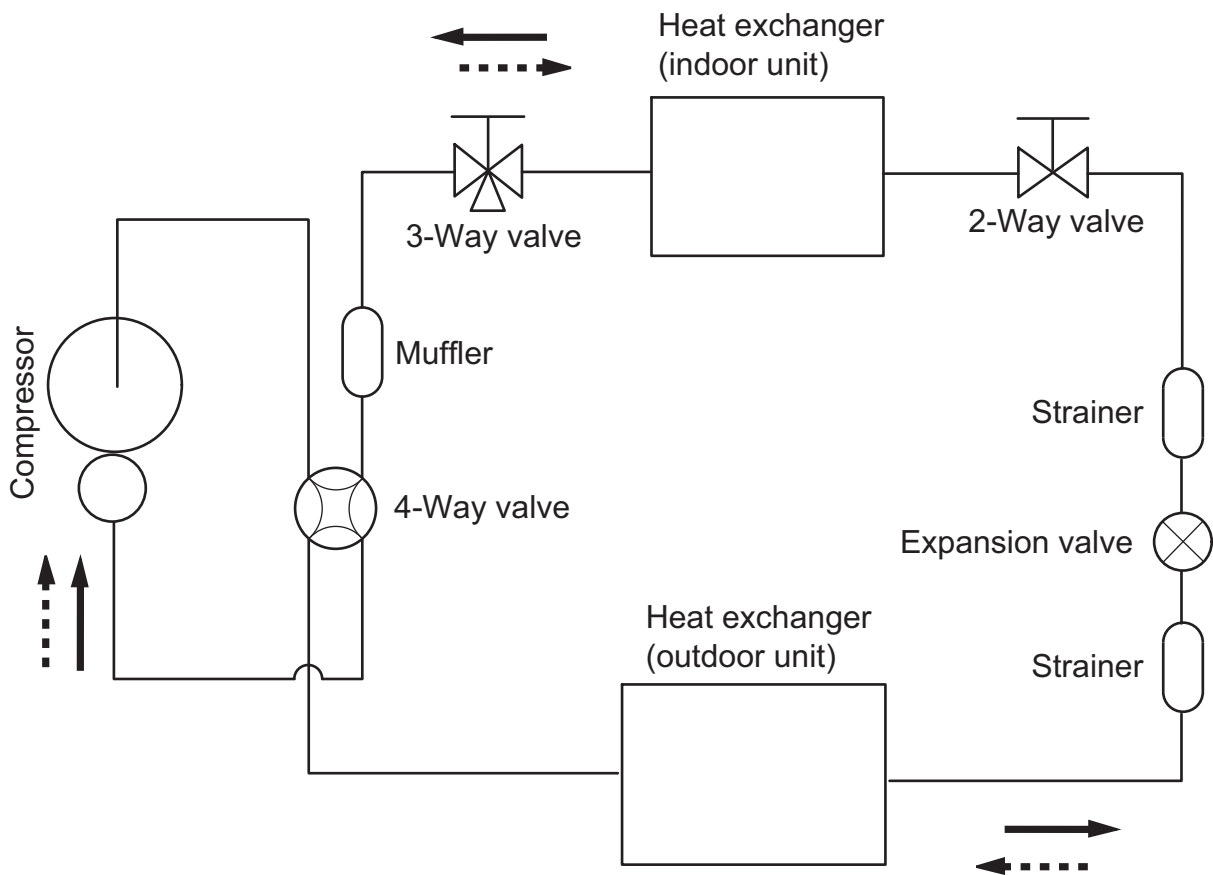
Drain pipe diameter
16.2 mm

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

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

→ Cooling

---→ Heating

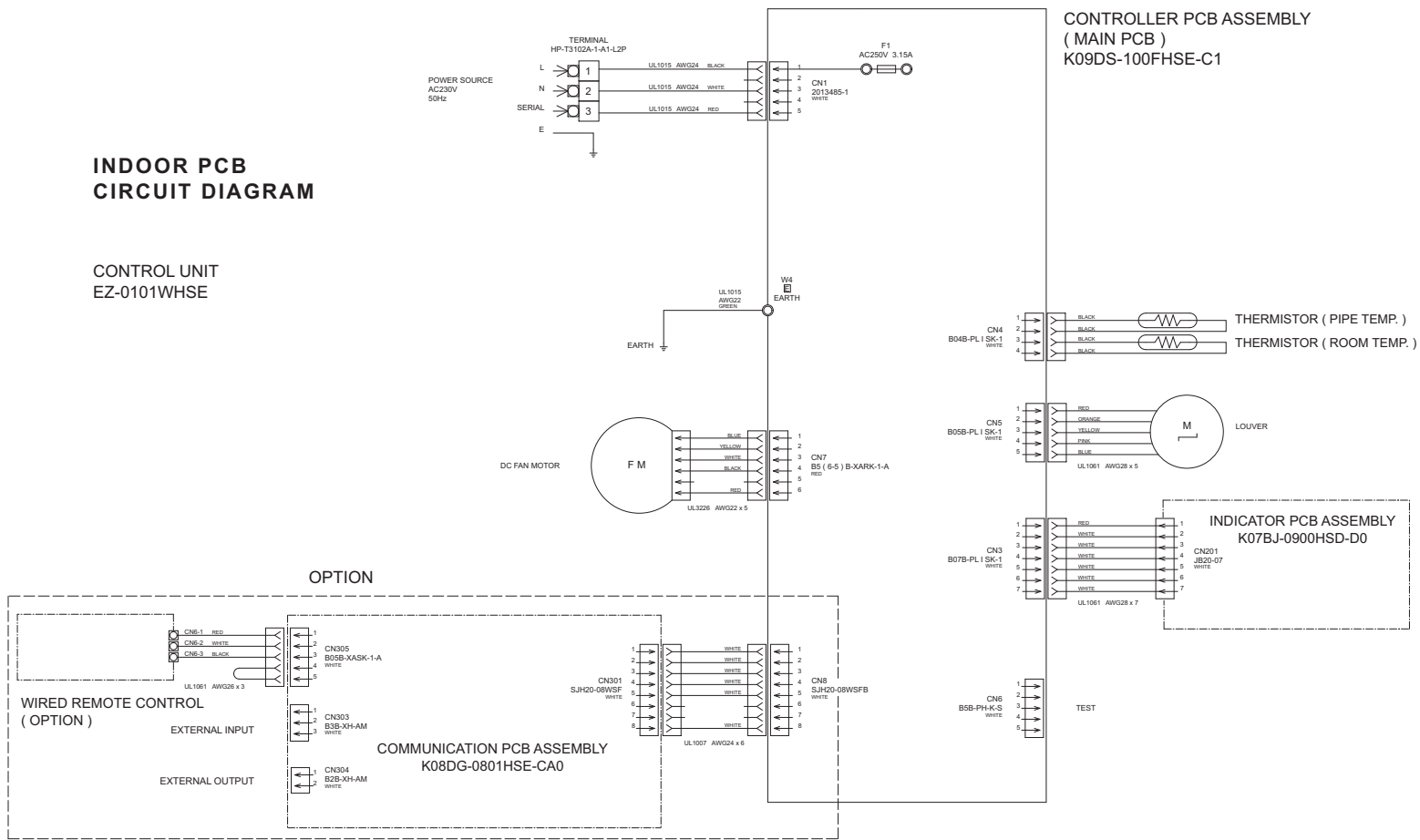
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

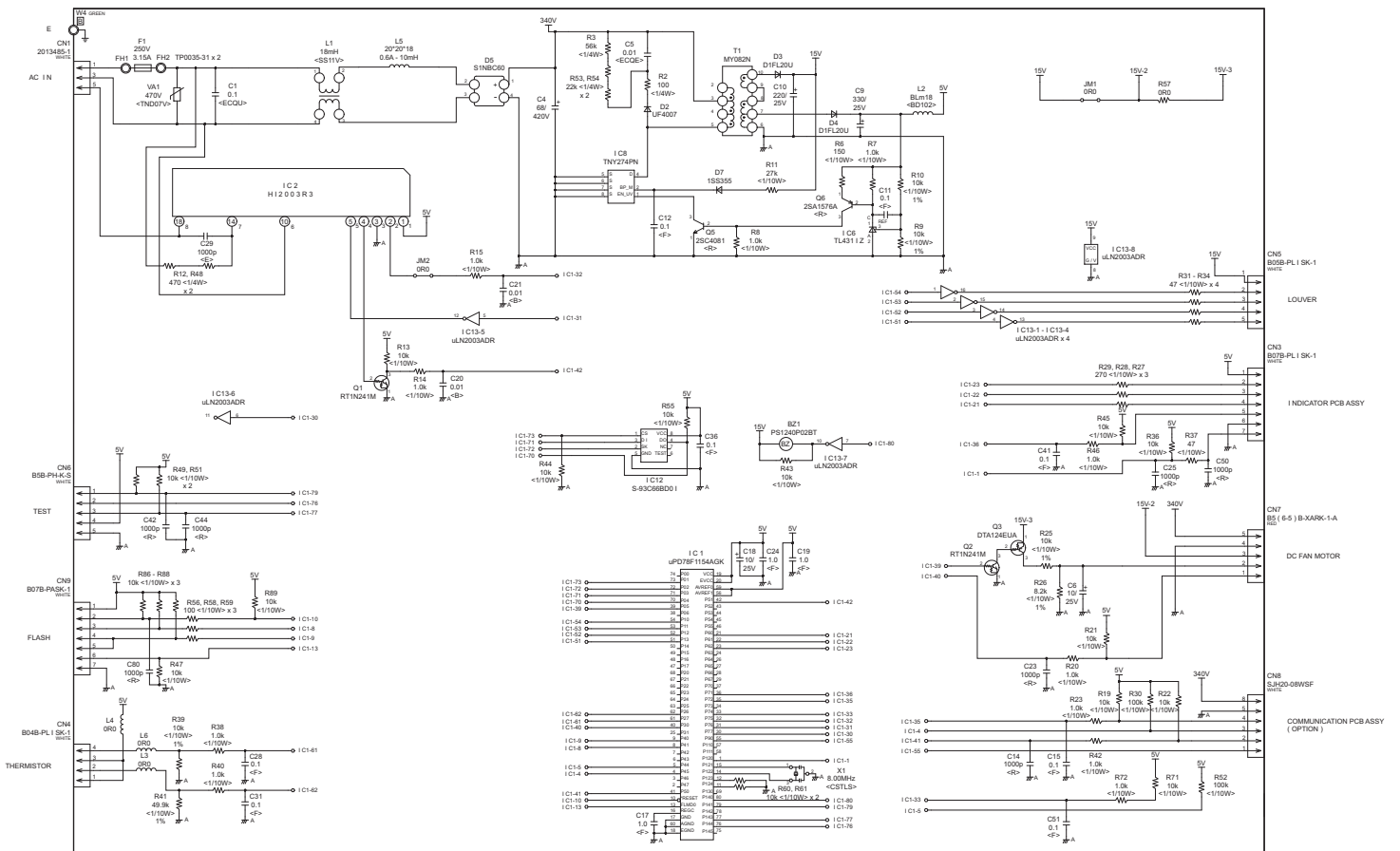
Gas : 3/8" (9.52 mm)

INDOOR PCB
CIRCUIT DIAGRAM

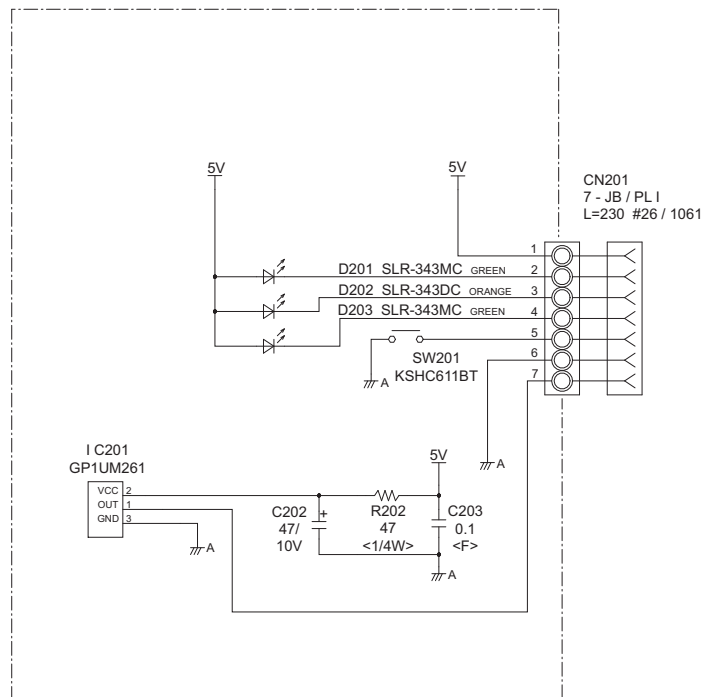
CONTROL UNIT
EZ-0101WHSE



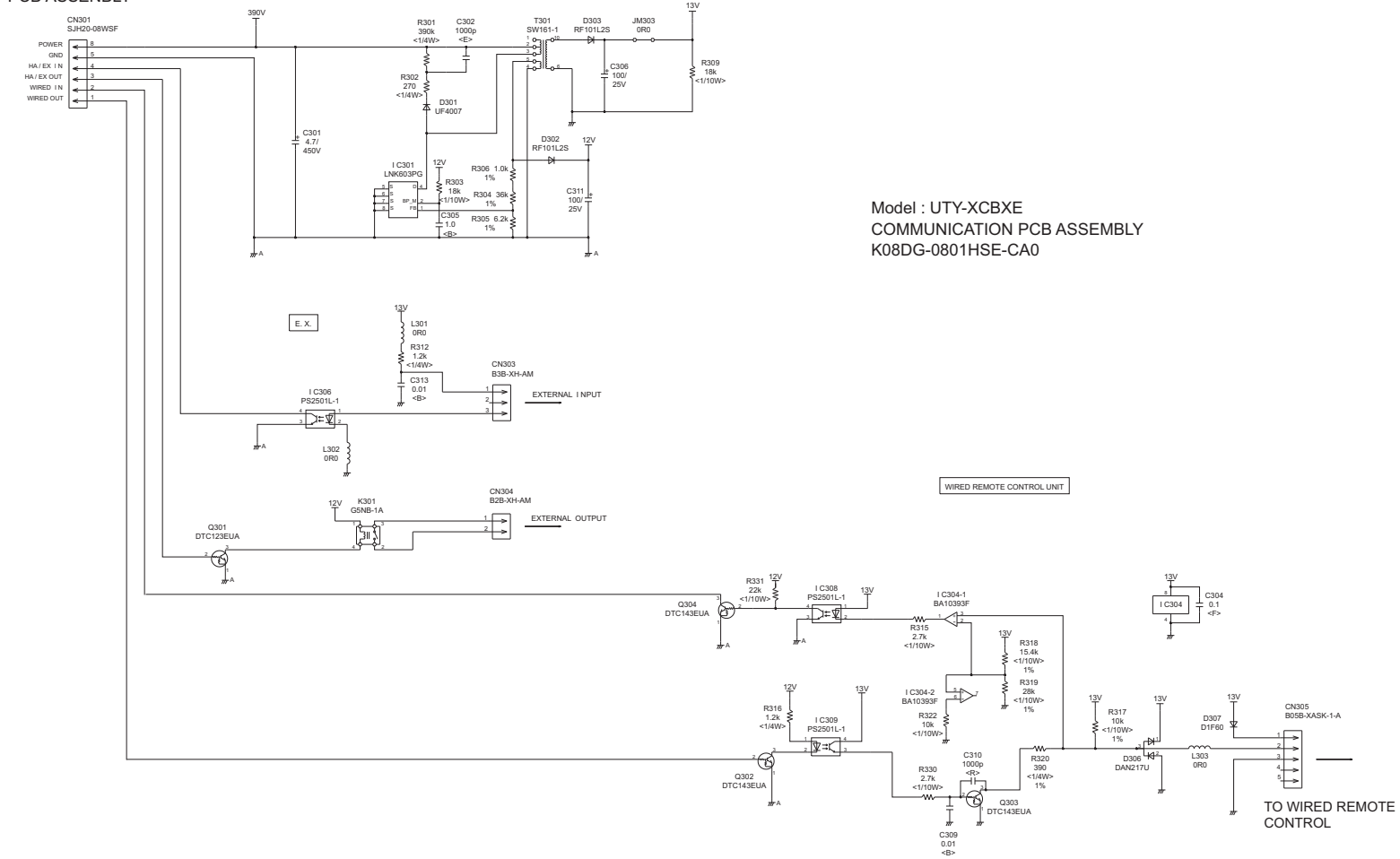
INDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
K09DS-100FHSE-C1



INDOOR UNIT
INDICATOR PCB ASSEMBLY
K07BJ-0900HSD-D0

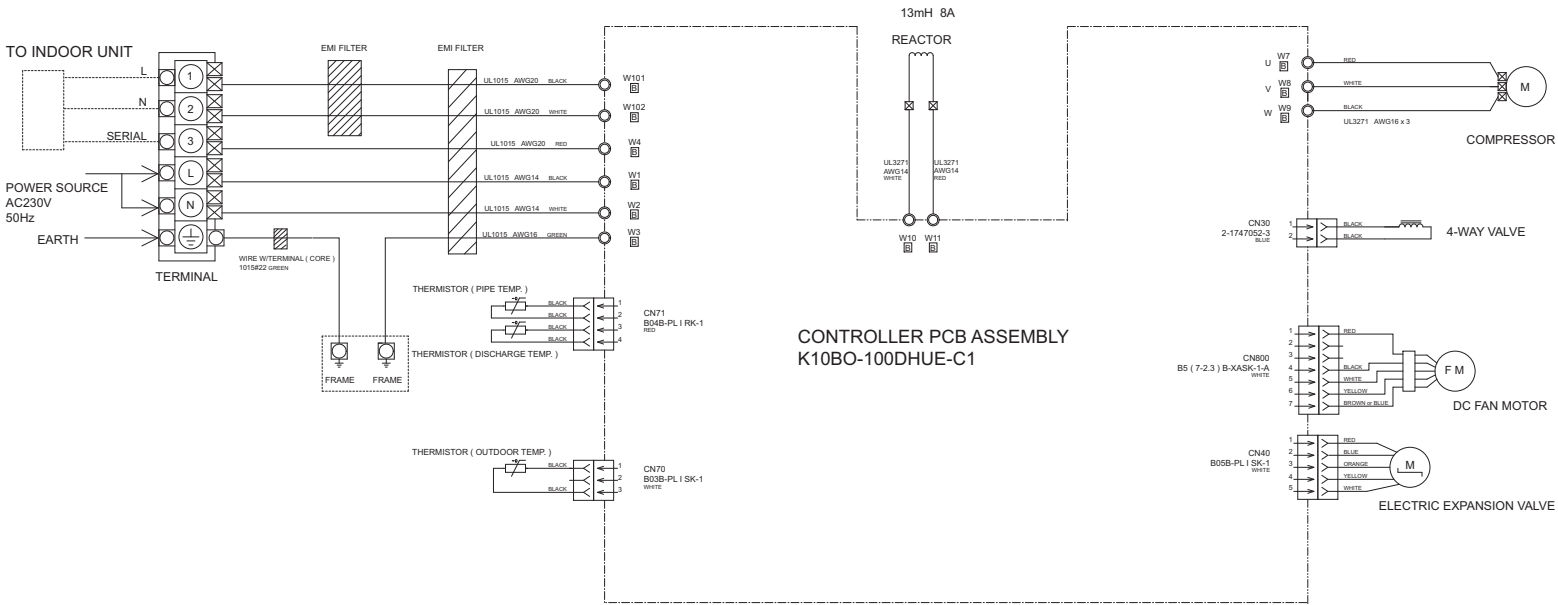


TO CONTROLLER
PCB ASSEMBLY

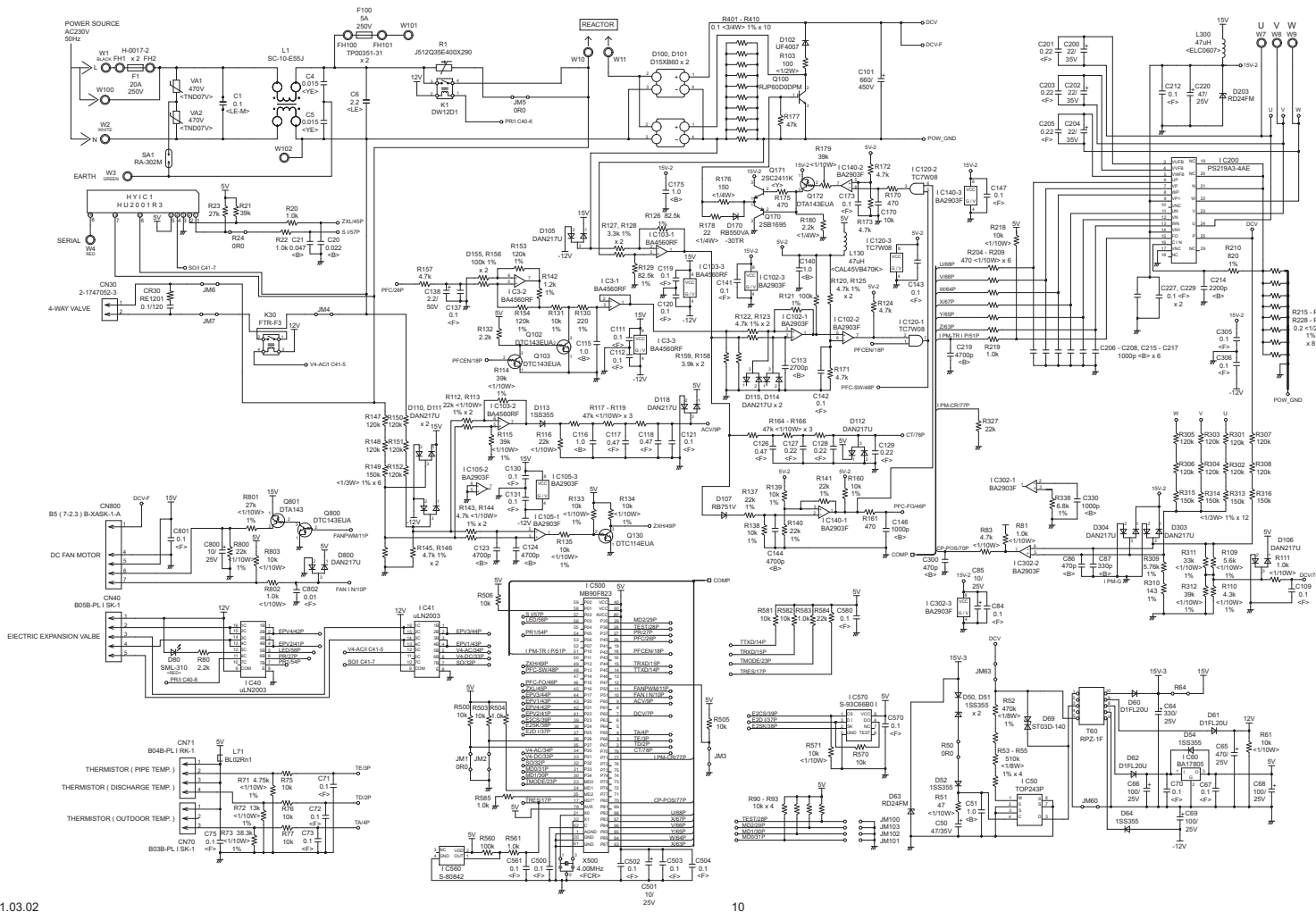


**OUTDOOR PCB
CIRCUIT DIAGRAM**

INVERTER ASSEMBLY
EZ-0100LHUE



OUTDOOR UNIT
CONTROLLER PCB ASSEMBLY
K10BO-100DHUE-C1



ERROR DETECTION

INDOOR UNIT REMOTE CONTROL

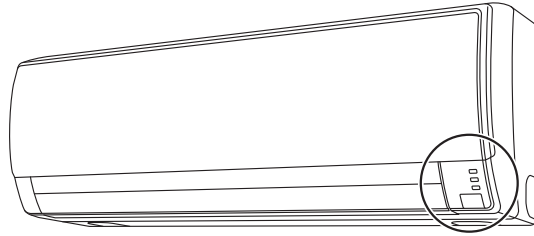
If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.

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.

Indoor unit display

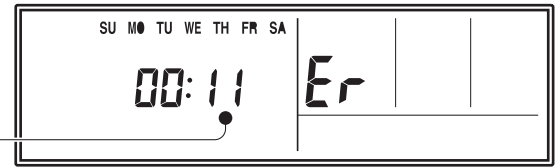


OPERATION OPERATION lamp (green)
TIMER TIMER lamp (orange)
ECONOMY ECONOMY lamp (green)

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)	● (3)	◇	53	Drain pump error
● (5)	● (7)	◇	57	Damper 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

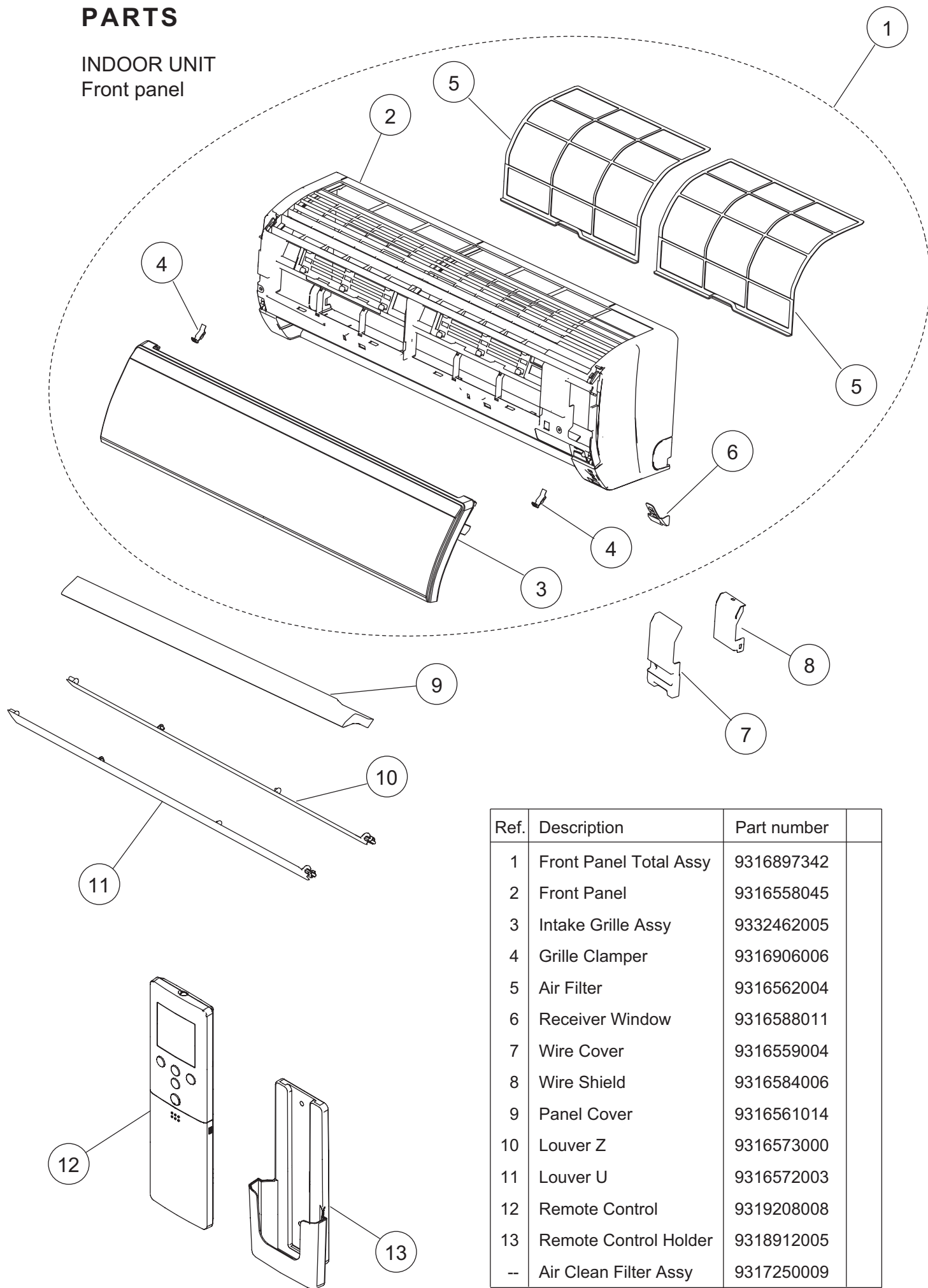
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (7)	● (2)	◇	72	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp.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

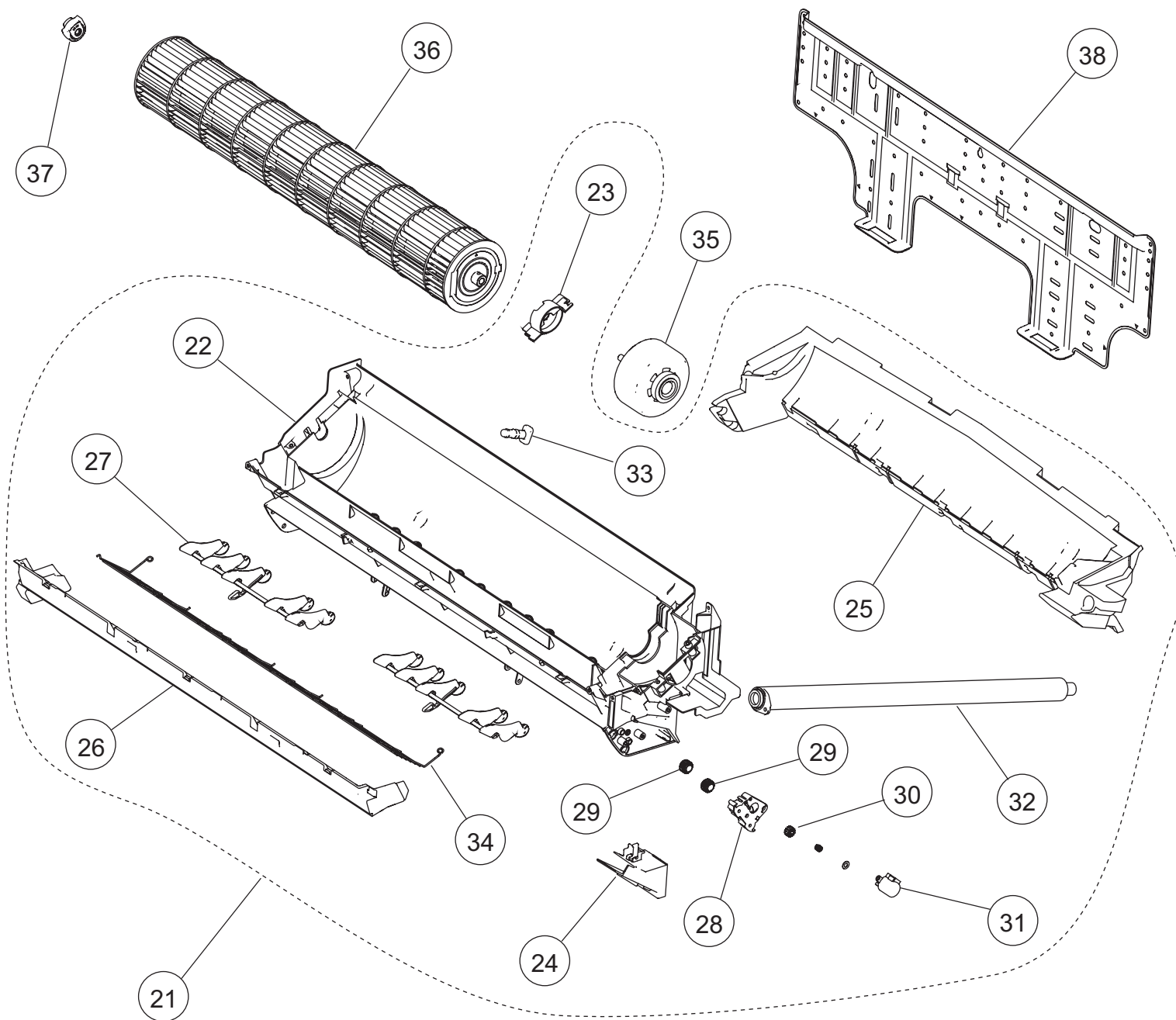
PARTS

INDOOR UNIT Front panel



Ref.	Description	Part number	
1	Front Panel Total Assy	9316897342	
2	Front Panel	9316558045	
3	Intake Grille Assy	9332462005	
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	

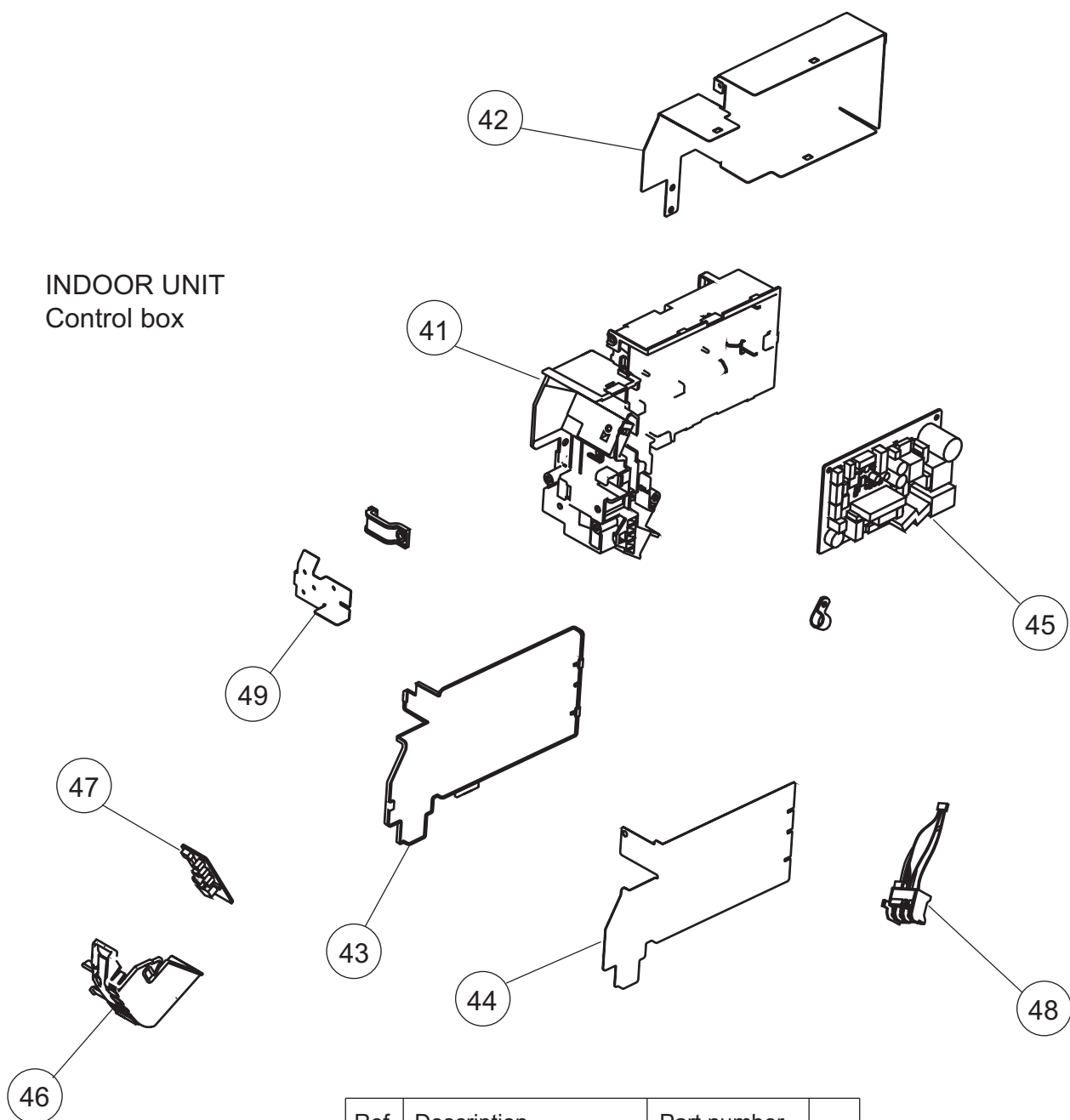
INDOOR UNIT
Casing assy



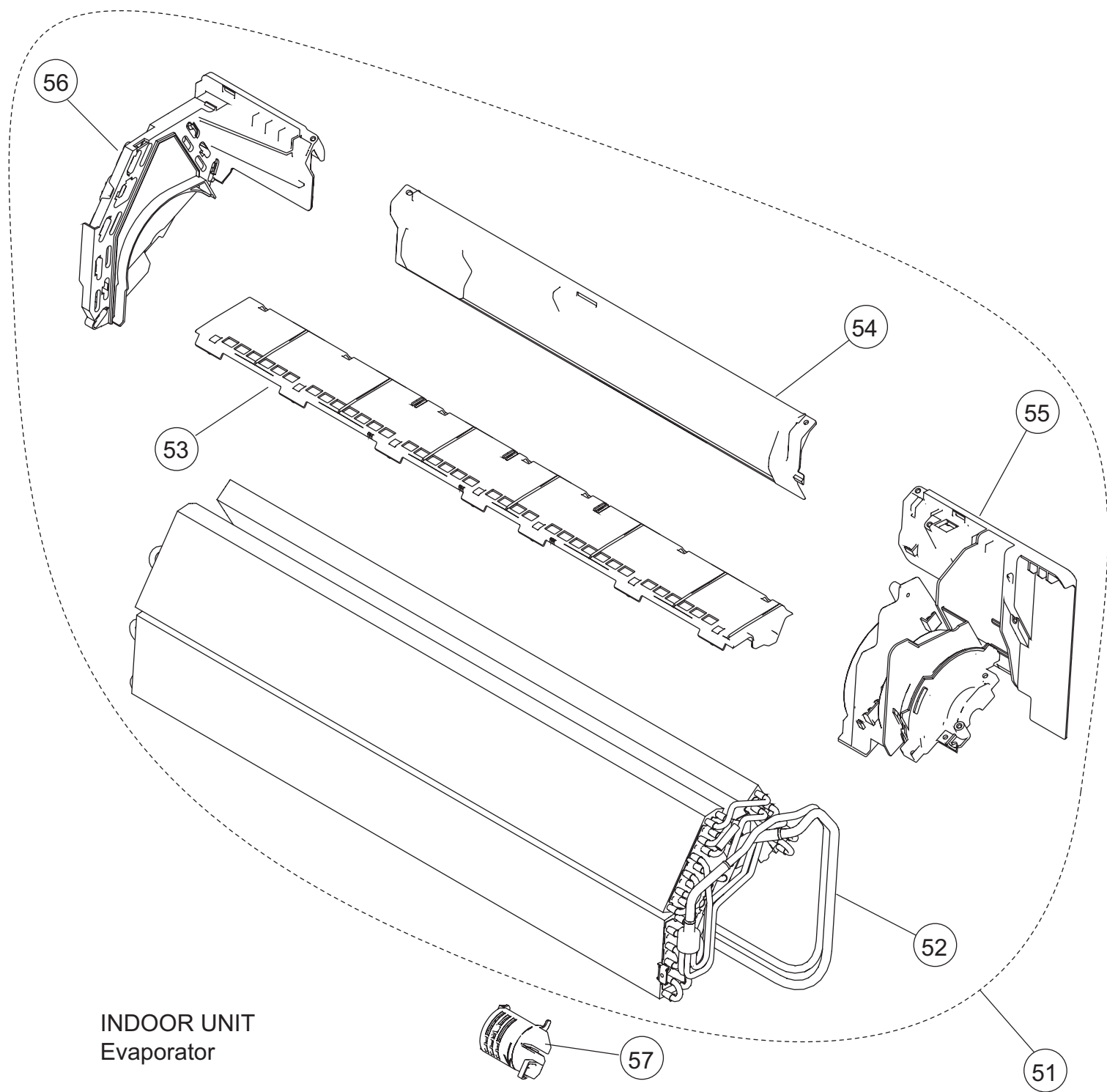
Ref.	Description	Part number
21	Casing Assy	9316892095
22	Casing	9316563001
23	Motor Cover	9316568006
24	Cable Guide	9316567009
25	Casing Cover B	9316569003
26	Casing Cover F	9316570009
27	R and L Louver B	9316961005
28	Louver Gear Holder	9316575004
29	Louver Gear	9316574007

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



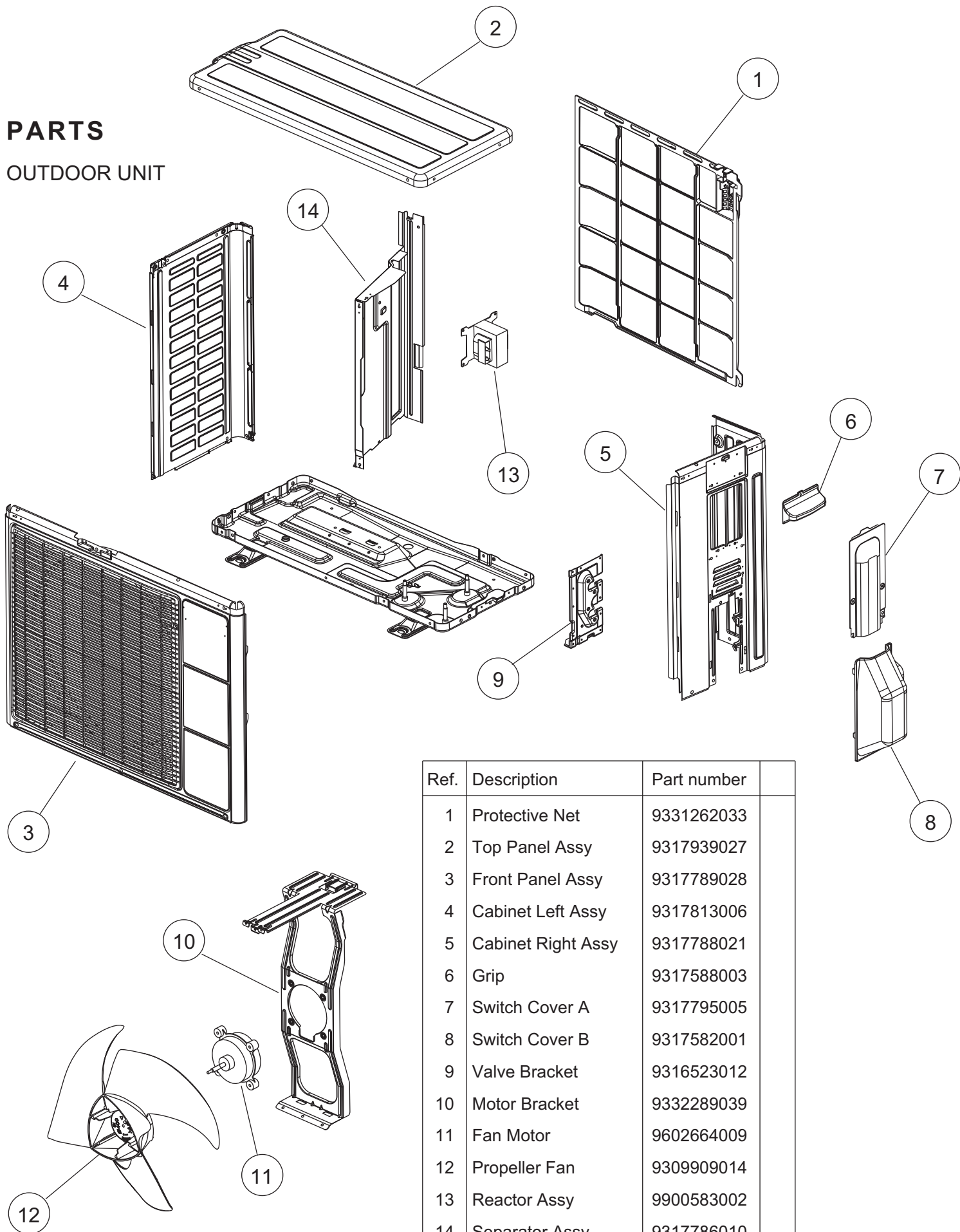
Ref.	Description	Part number	
41	Control Box	9316582002	
42	Box Shield	9316580008	
43	Control Cover	9316583009	
44	Cover Shield	9316581005	
45	Controller PCB Assy	9708536170	
46	Display Case	9316587007	
47	Display PCB Assy	9707649024	
48	Terminal	9900638009	
49	Earth Terminal	9316586000	
--	Thermistor Assy	9900563004	



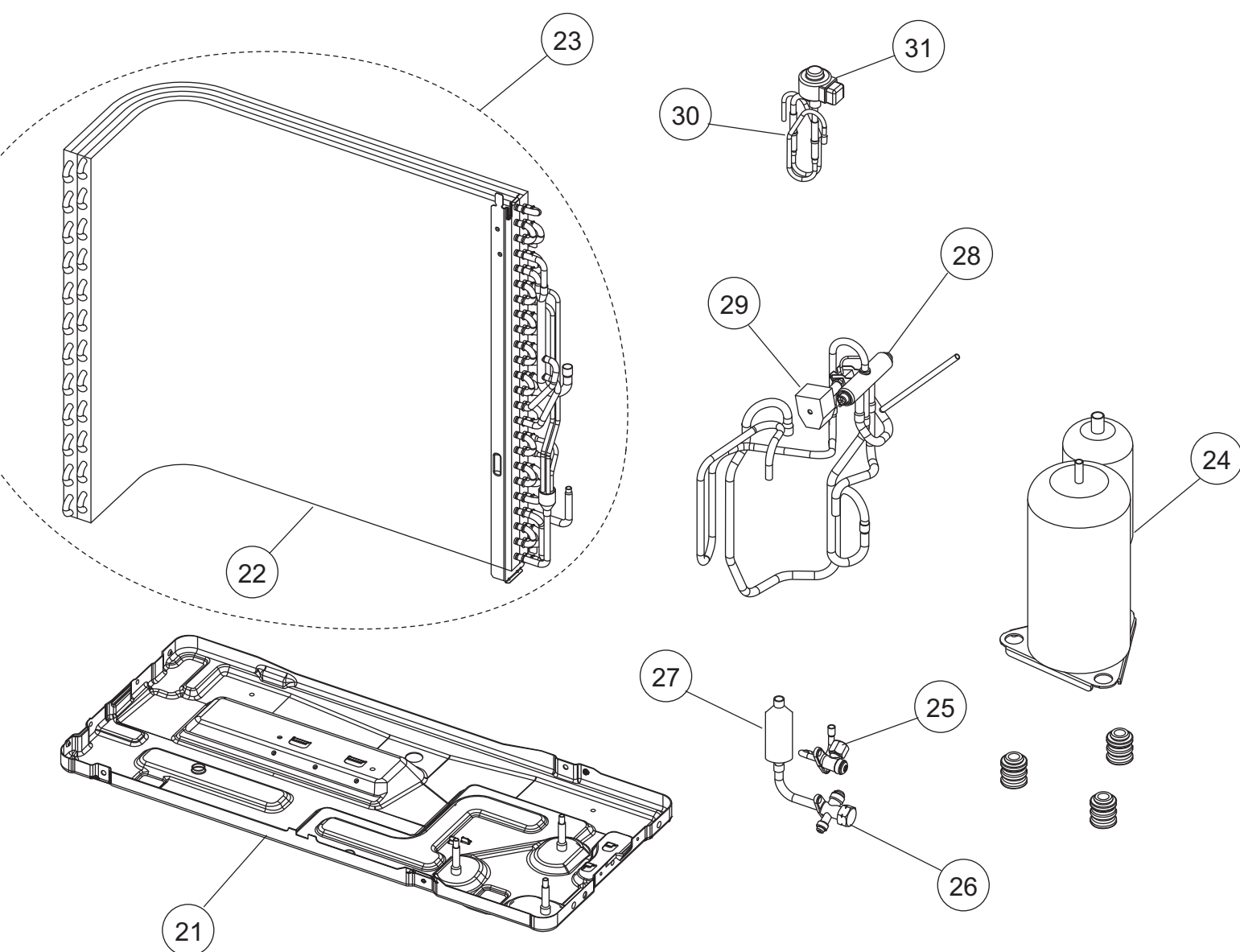
Ref.	Description	Part number	
51	Evaporator Total Assy	9316893078	
52	Joint Pipe Assy	9317190015	
53	Filter Guide	9316578005	
54	Rear Bracket	9316566019	
55	Evaporator Holder R	9316565005	
56	Evaporator Holder L	9316564008	
57	Room Thermistor Holder	9316895003	

PARTS

OUTDOOR UNIT

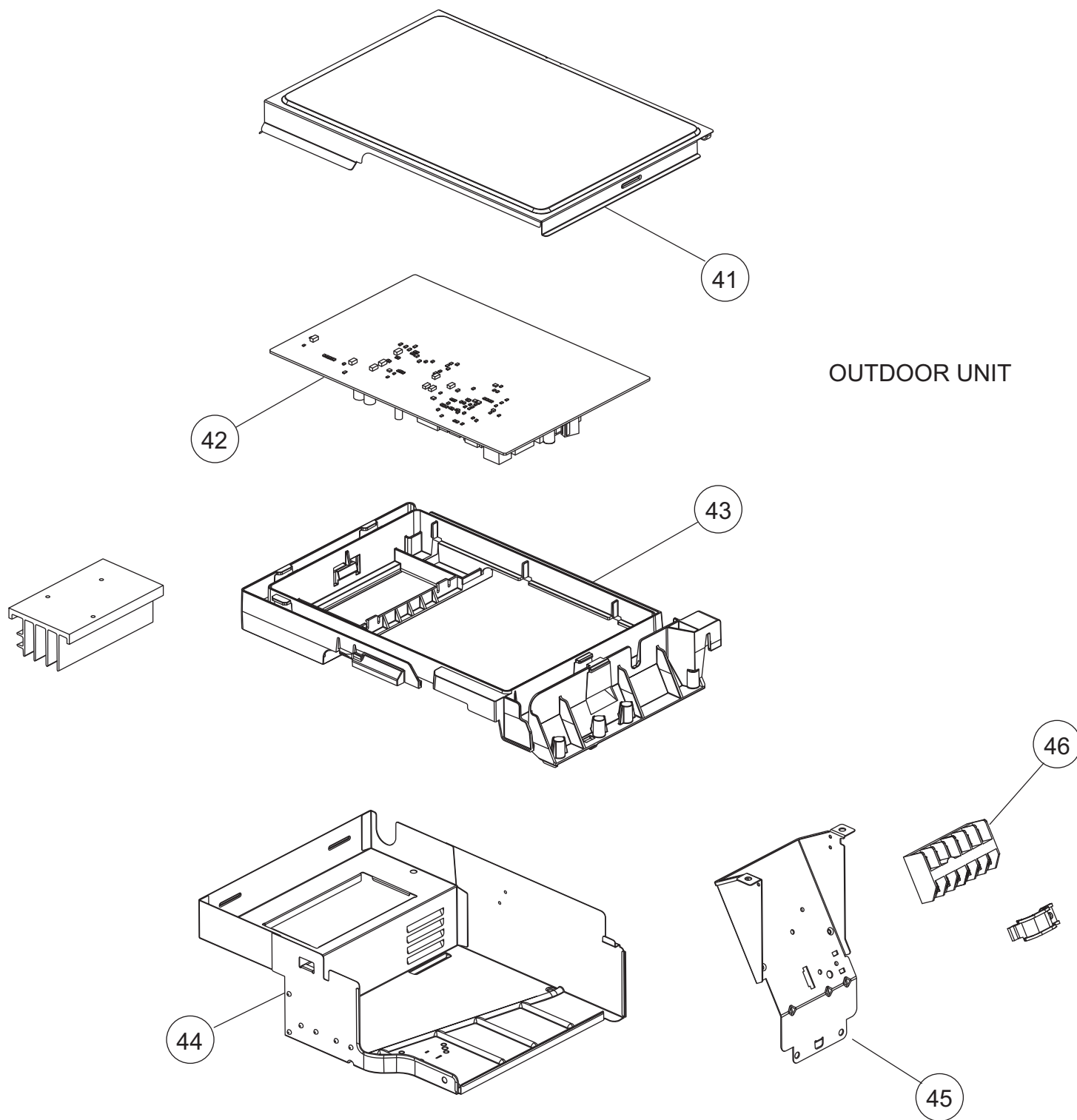


Ref.	Description	Part number
1	Protective Net	9331262033
2	Top Panel Assy	9317939027
3	Front Panel Assy	9317789028
4	Cabinet Left Assy	9317813006
5	Cabinet Right Assy	9317788021
6	Grip	9317588003
7	Switch Cover A	9317795005
8	Switch Cover B	9317582001
9	Valve Bracket	9316523012
10	Motor Bracket	9332289039
11	Fan Motor	9602664009
12	Propeller Fan	9309909014
13	Reactor Assy	9900583002
14	Separator Assy	9317786010
--	Emblem	9319151007
--	Drain Assy	9303029022



OUTDOOR UNIT

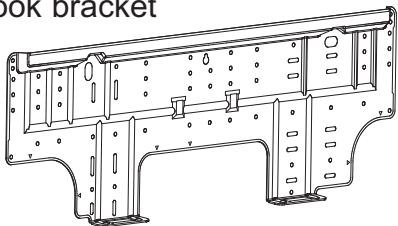
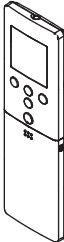
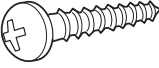
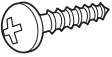
Ref.	Description	Part number	
21	Base Assy	9316980013	
22	Condenser Assy	9317193016	
23	Condenser Total Assy	9317192125	
24	Compressor Assy	9317619004	
25	2 way Valve Assy	9318252002	
26	3 way Valve Assy	9318254006	
27	Muffler	9317398008	
28	4 way Valve Assy	9317278034	
29	Solenoid	9970079023	
30	Pulse Motor Valve Assy	9317216036	
31	Expansion Valve Coil	9970103025	



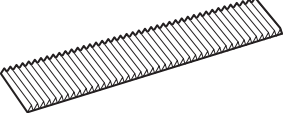
OUTDOOR UNIT

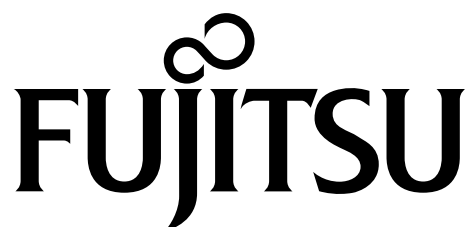
Ref.	Description	Part number	
41	Sealed Panel	9318181012	
42	Controller PCB Assy	9708683119	
43	PCB Holder	9318182002	
44	Inverter Case Assy	9332247008	
45	Terminal Bracket	9317816038	
46	Terminal	9900435028	
--	Outdoor Thermistor	9900565008	
--	Thermistor Assy	9900628000	

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) (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



SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG14LECA	AOYG14LEC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM....	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM....	9
ERROR DETECTION.....	11
PARTS (INDOOR UNIT).....	13
PARTS (OUTDOOR UNIT).....	17
ACCESSORIES.....	20

SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASYG14LECA
OUTDOOR UNIT		AOYG14LEC
COOLING CAPACITY		4.00 kW
HEATING CAPACITY		5.00 kW
POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	5.3 A
	Heating	6.0 A
INPUT WATTS	Cooling	1.105 kW
	Heating	1.305 kW
E.E.R.		Cooling 3.62 kW/kW
COP		Heating 3.83 kW/kW
MOISTURE REMOVAL		2.1 L/h
AIR CIRCULATION HIGH	Cooling	770 m ³ /h
	Heating	770 m ³ /h
MAXIMUM CURRENT	Cooling	9.0 A
	Heating	10.5 A

FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT Cooling	High speed	1,400 r.p.m.
	Medium speed	1,230 r.p.m.
	Low speed	1,000 r.p.m.
	Quiet	750 r.p.m.
INDOOR UNIT Heating	High speed	1,400 r.p.m.
	Medium speed	1,230 r.p.m.
	Low speed	1,050 r.p.m.
	Quiet	770 r.p.m.
OUTDOOR UNIT Cooling		800 r.p.m.
OUTDOOR UNIT Heating		750 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High speed	44 dB
	Medium speed	40 dB
	Low speed	33 dB
	Quiet	25 dB
INDOOR UNIT Heating	High speed	44 dB
	Medium speed	40 dB
	Low speed	35 dB
	Quiet	27 dB
OUTDOOR UNIT Cooling		49 dB
OUTDOOR UNIT Heating		50 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 REFRIGERANT		20 g/m
MAXIMUM PIPING HEIGHT		15m

DIMENSIONS

INDOOR UNIT	H x W x D	280 x 790 x 203 mm
OUTDOOR UNIT	H x W x D	540 x 790 x 290 mm

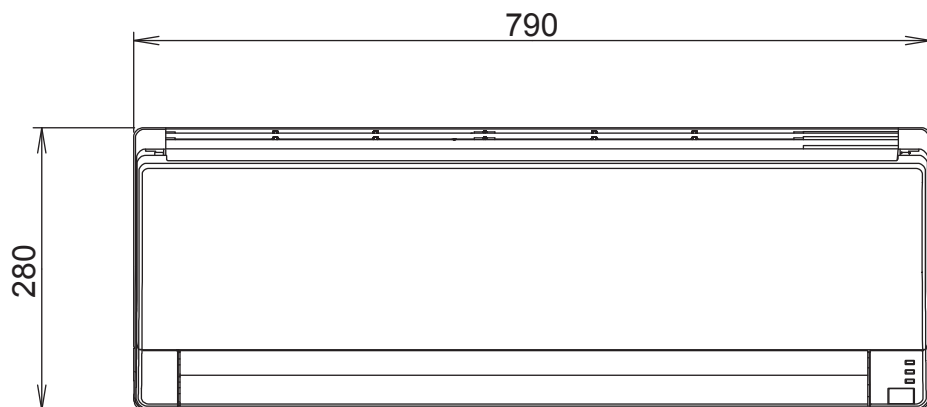
WEIGHT

INDOOR UNIT	Shipping / Net	10.5 kg / 8 kg
OUTDOOR UNIT	Shipping / Net	38 kg / 34 kg

DIMENSIONS

unit : mm

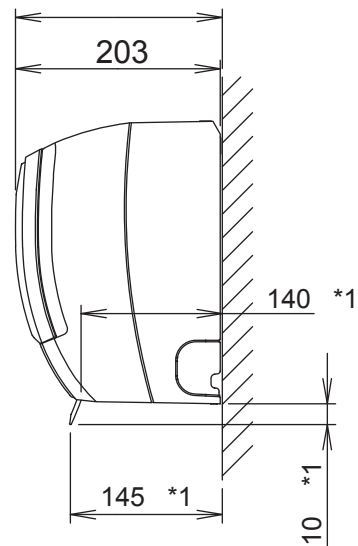
INDOOR UNIT



Drain pipe diameter
16.2 mm

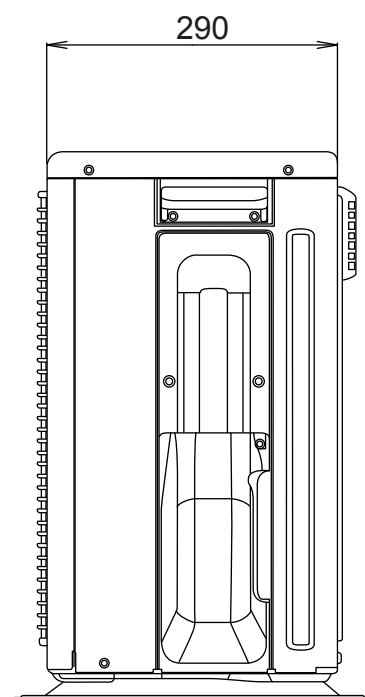
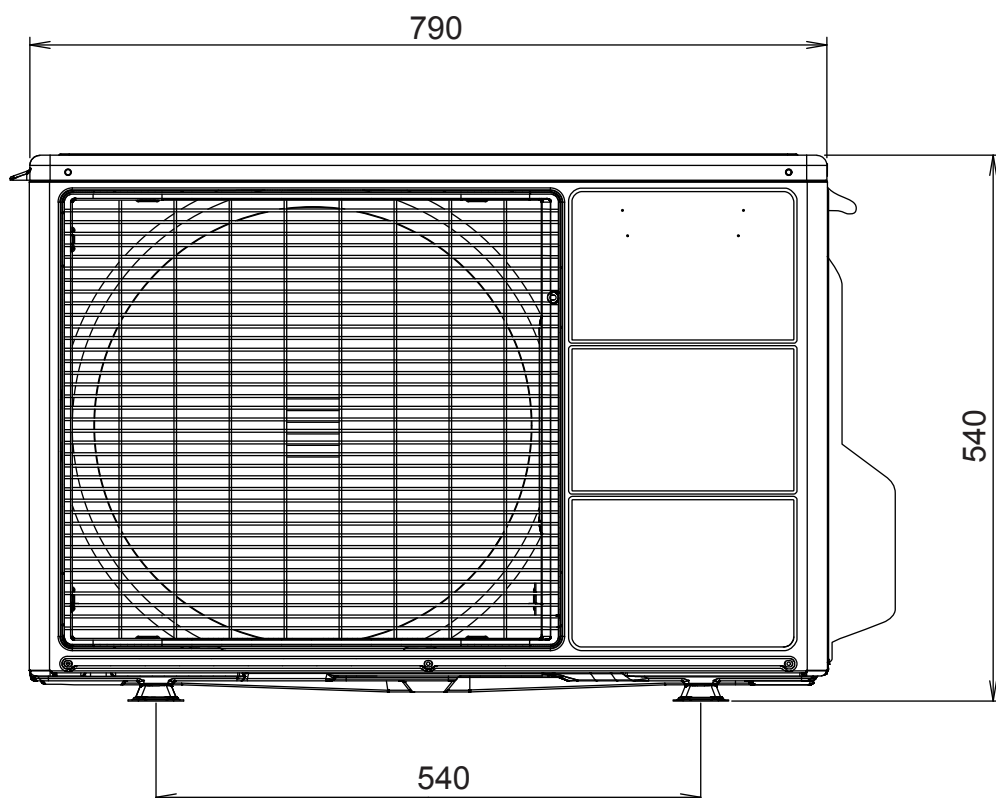
Liquid pipe diameter : 6.35 mm
Gas pipe diameter : 12.7 mm

205 : Installed state

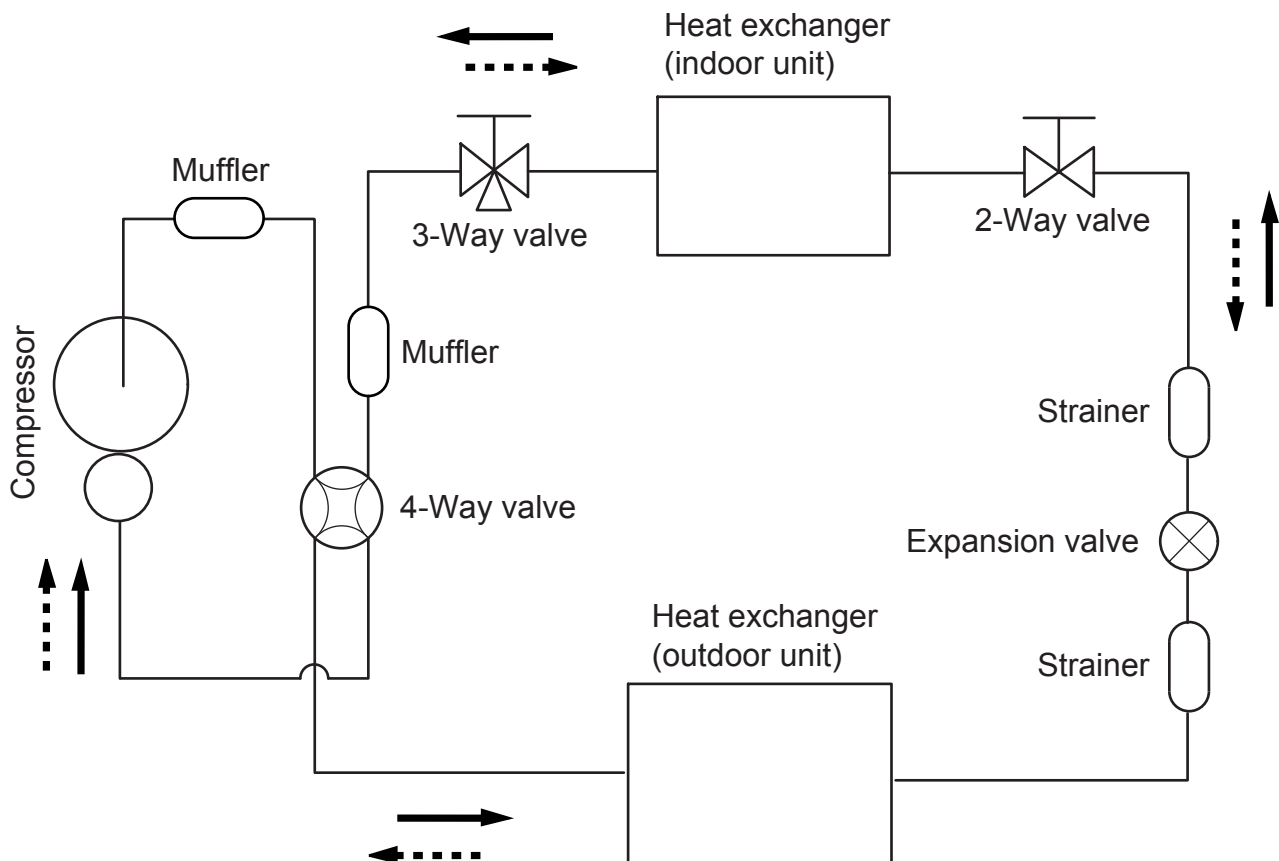


*1: Vertical flap is downward

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

————→ Cooling

-----→ Heating

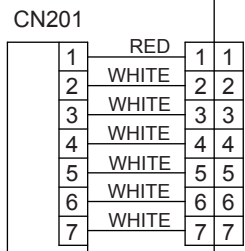
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

Gas : 1/2" (12.7 mm)

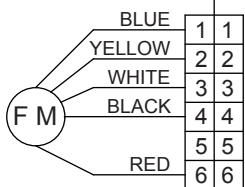
TO COMMUNICATION BOARD
(OPTION)

INDICATOR
PCB ASSY



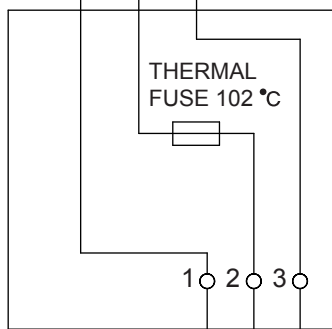
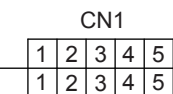
CN3

CONTROLLER
PCB ASSY
(MAIN PCB)



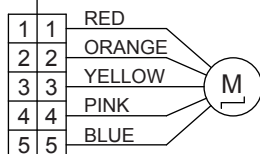
CN7

FAN MOTOR



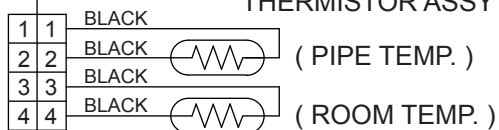
TERMINAL

CN5



LOUVER

CN4



THERMISTOR ASSY

CN6

TEST

W4

GREEN

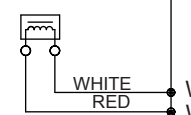
EARTH
TERMINAL

INDOOR UNIT

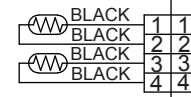
CIRCUIT DIAGRAM

OUTDOOR UNIT

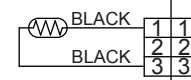
REACTOR



THERMISTOR
(PIPE TEMP.)



THERMISTOR
(DISCHARGE TEMP.)



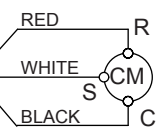
THERMISTOR
(OUTDOOR TEMP.)

CONTROLLER
PCB ASSY

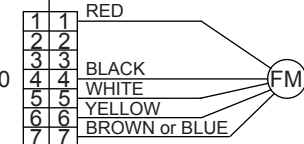
CN71

W7
W8
W9

COMPRESSOR



CN800



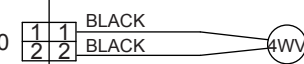
FAN MOTOR

CN40



EXPANSION
VALVE

CN30

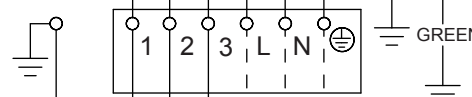


4-WAY VALVE

BLACK WHITE RED BLACK WHITE GREEN

W101 W102 W4 W1 W2 W3

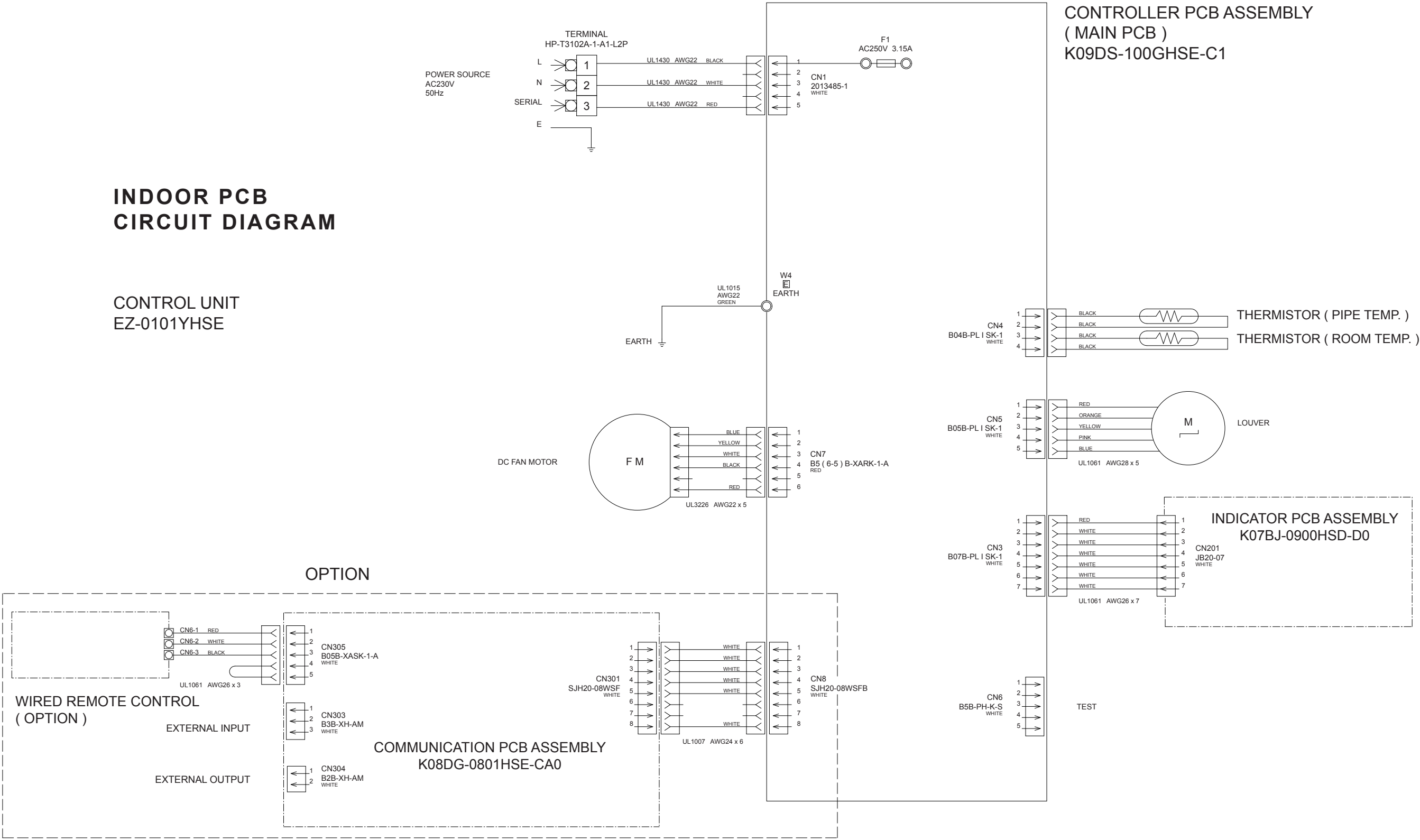
TERMINAL



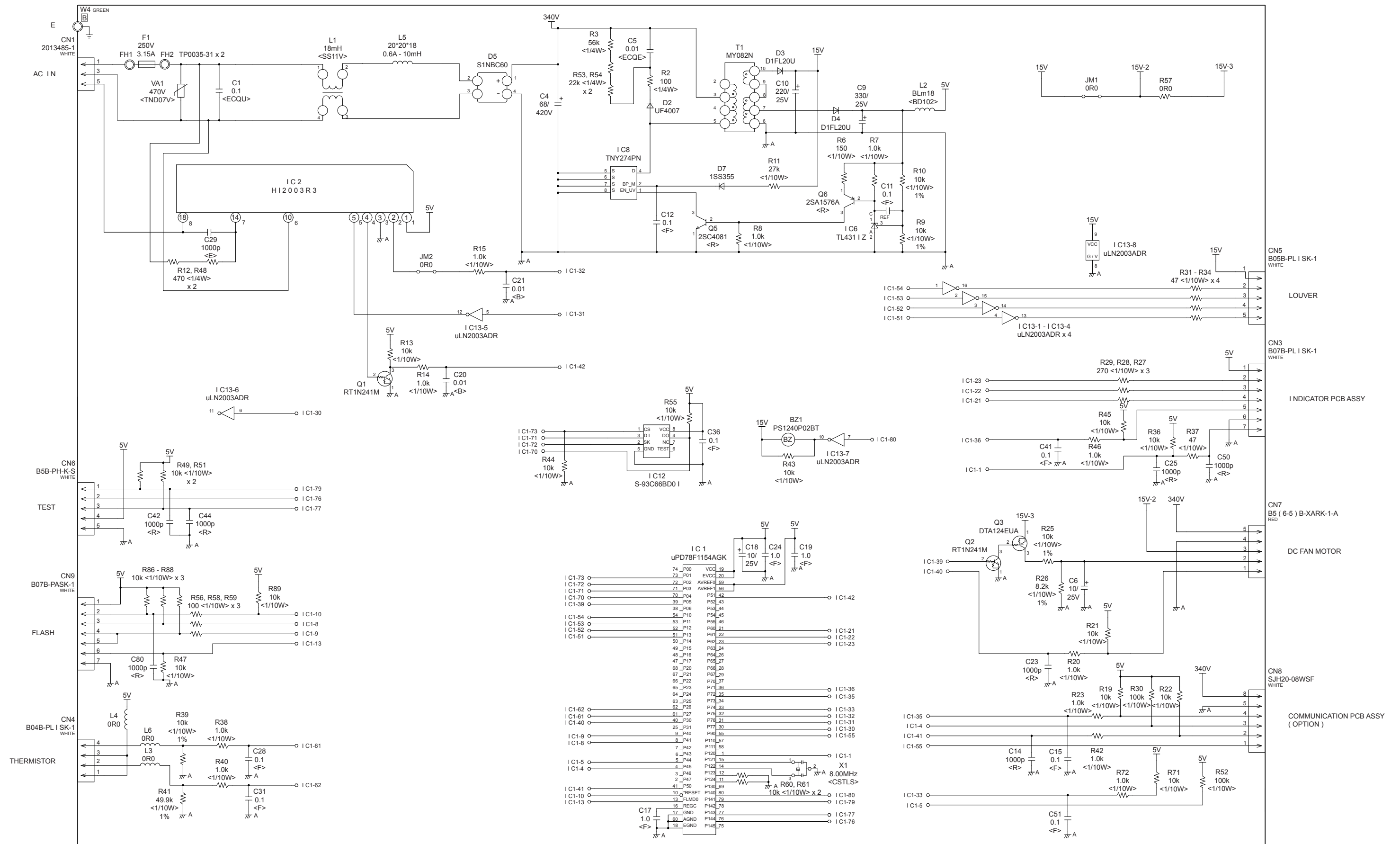
POWER SOURCE

INDOOR PCB
CIRCUIT DIAGRAM

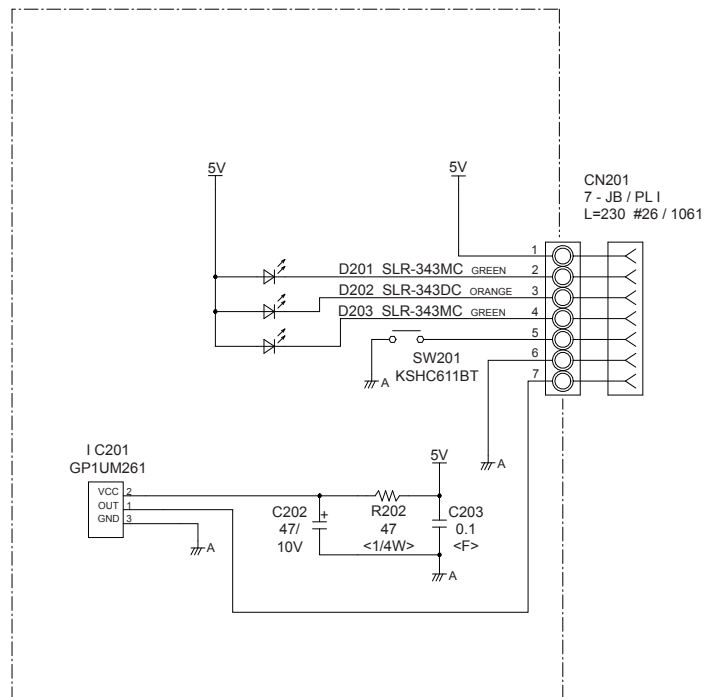
CONTROL UNIT
EZ-0101YHSE



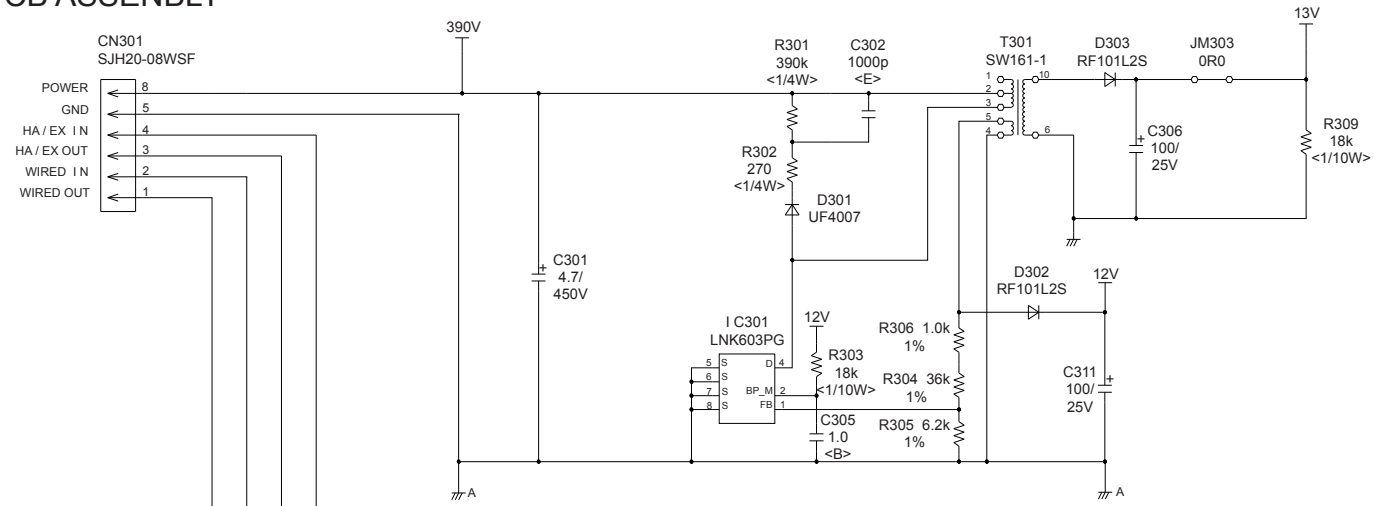
INDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
K09DS-100GHSE-C1



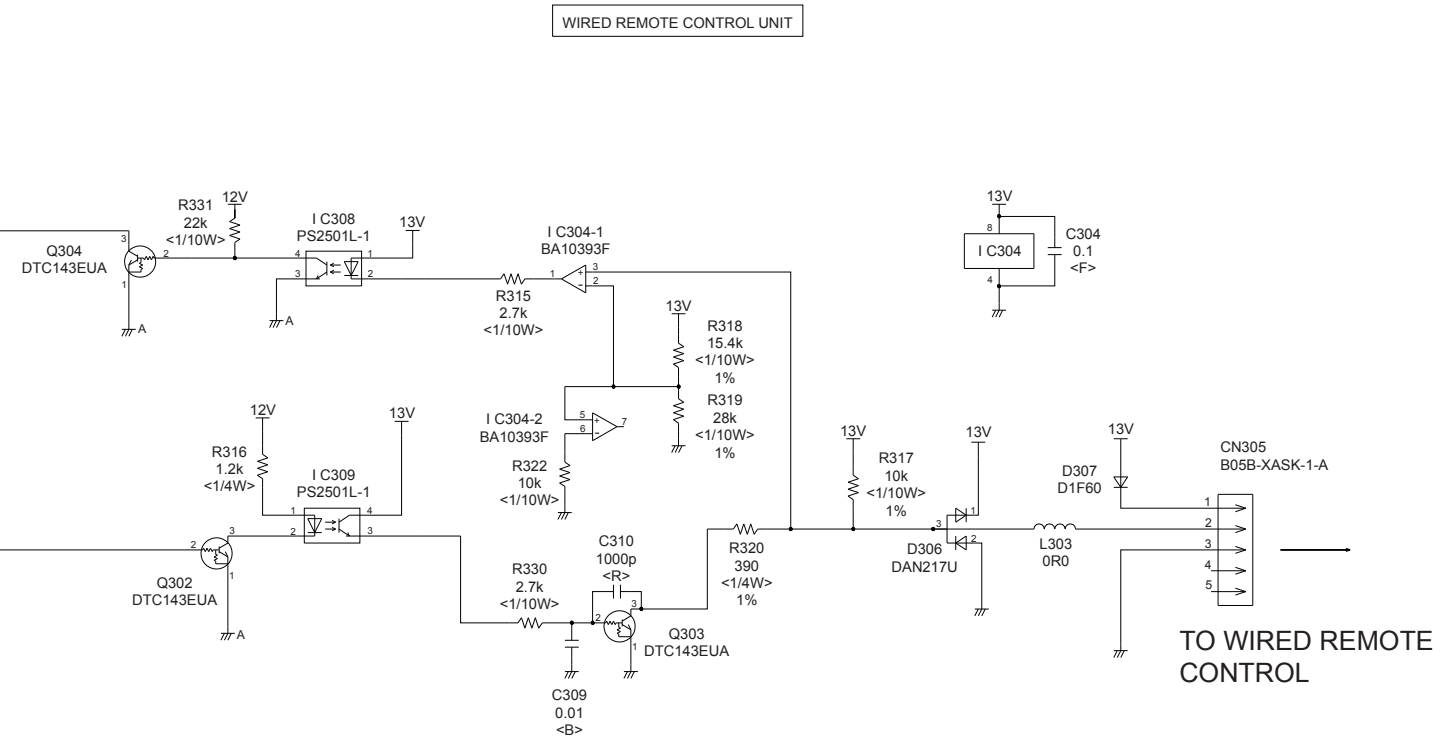
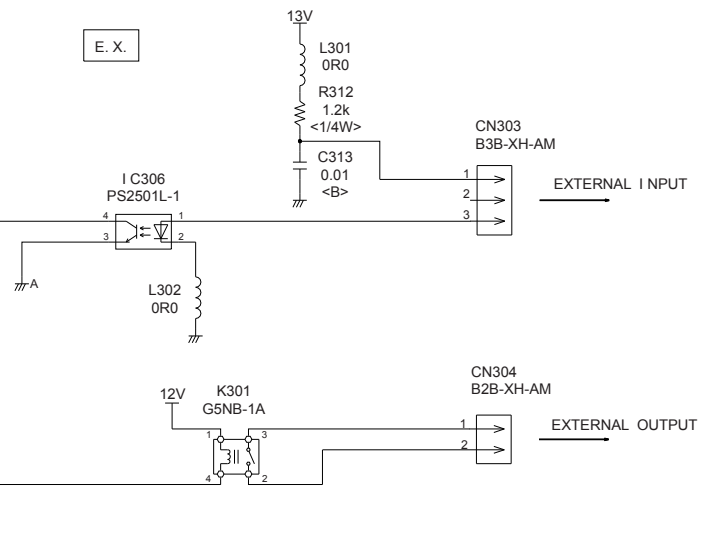
INDOOR UNIT
INDICATOR PCB ASSEMBLY
K07BJ-0900HSD-D0



TO CONTROLLER
PCB ASSEMBLY

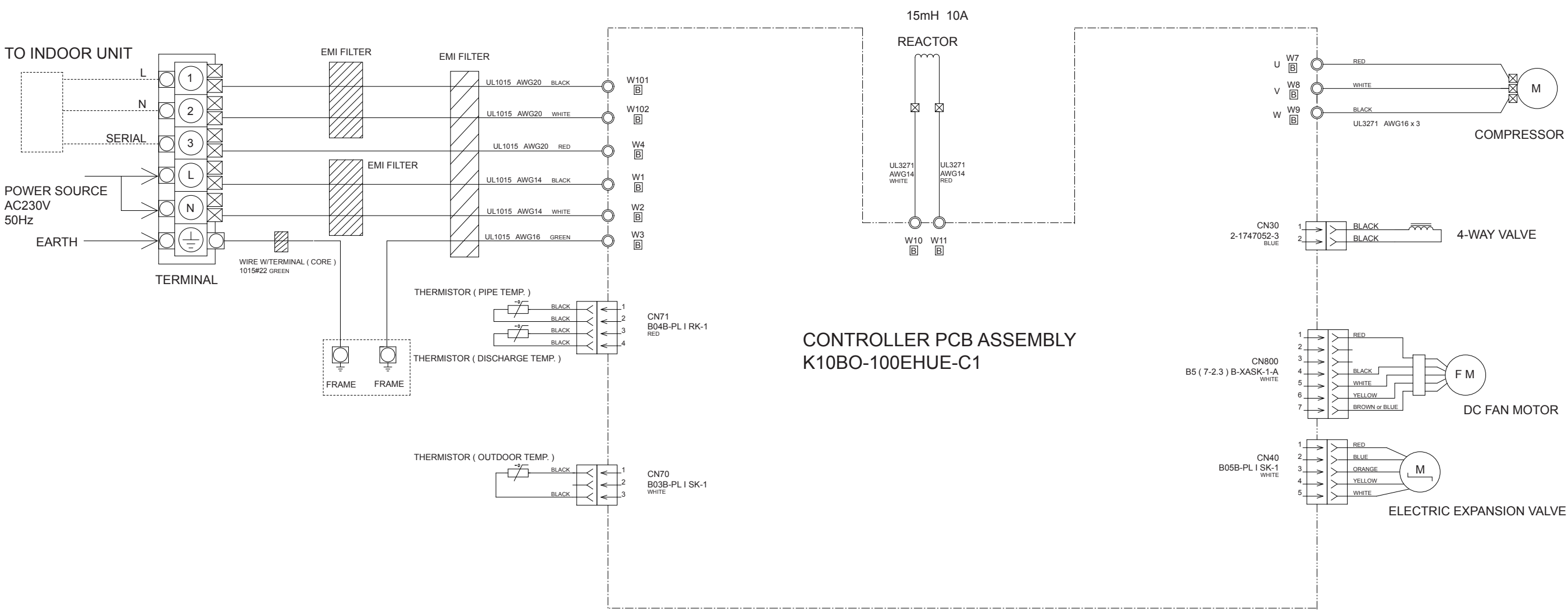


Model : UTY-XCBXZ1
COMMUNICATION PCB ASSEMBLY
K08DG-0801HSE-CA0

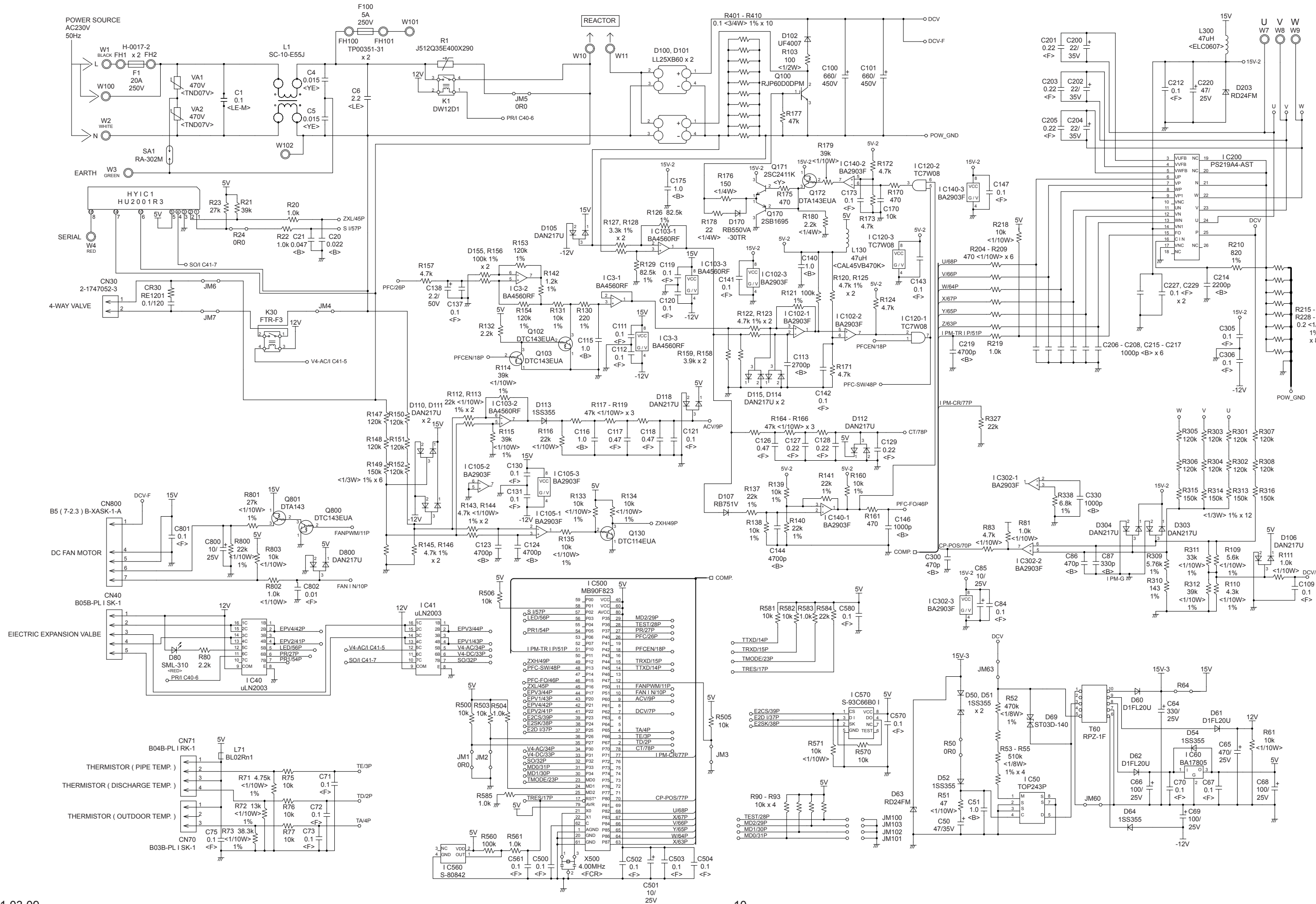


OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
EZ-0100MHUE



OUTDOOR UNIT
CONTROLLER PCB ASSEMBLY
K10BO-100EHUE-C1



ERROR DETECTION

INDOOR UNIT REMOTE CONTROL

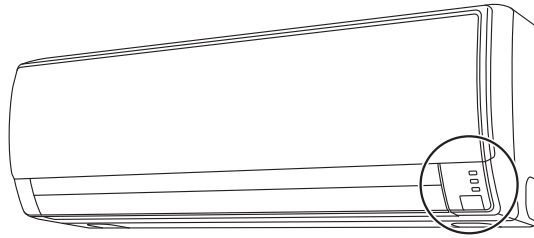
If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.

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.

Indoor unit display

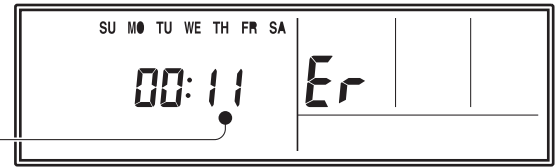


OPERATION OPERATION lamp (green)
TIMER TIMER lamp (orange)
ECONOMY ECONOMY lamp (green)

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)	● (3)	◇	53	Drain pump error
● (5)	● (7)	◇	57	Damper 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

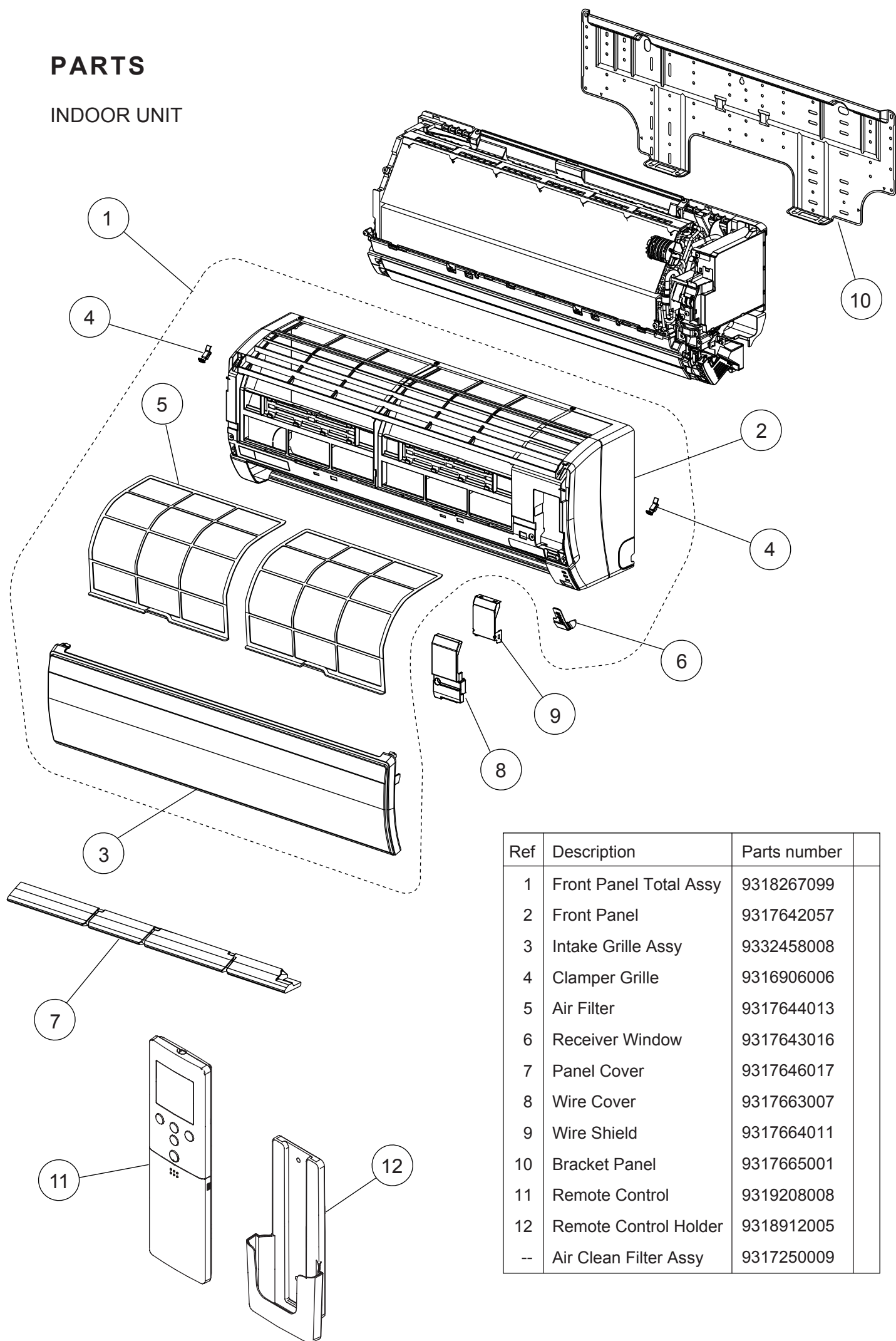
Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
● (7)	● (2)	◇	72	Compressor temp. sensor error
● (7)	● (3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
● (7)	● (4)	◇	74	Outdoor temp. sensor error
● (7)	● (5)	◇	75	Suction Gas temp.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

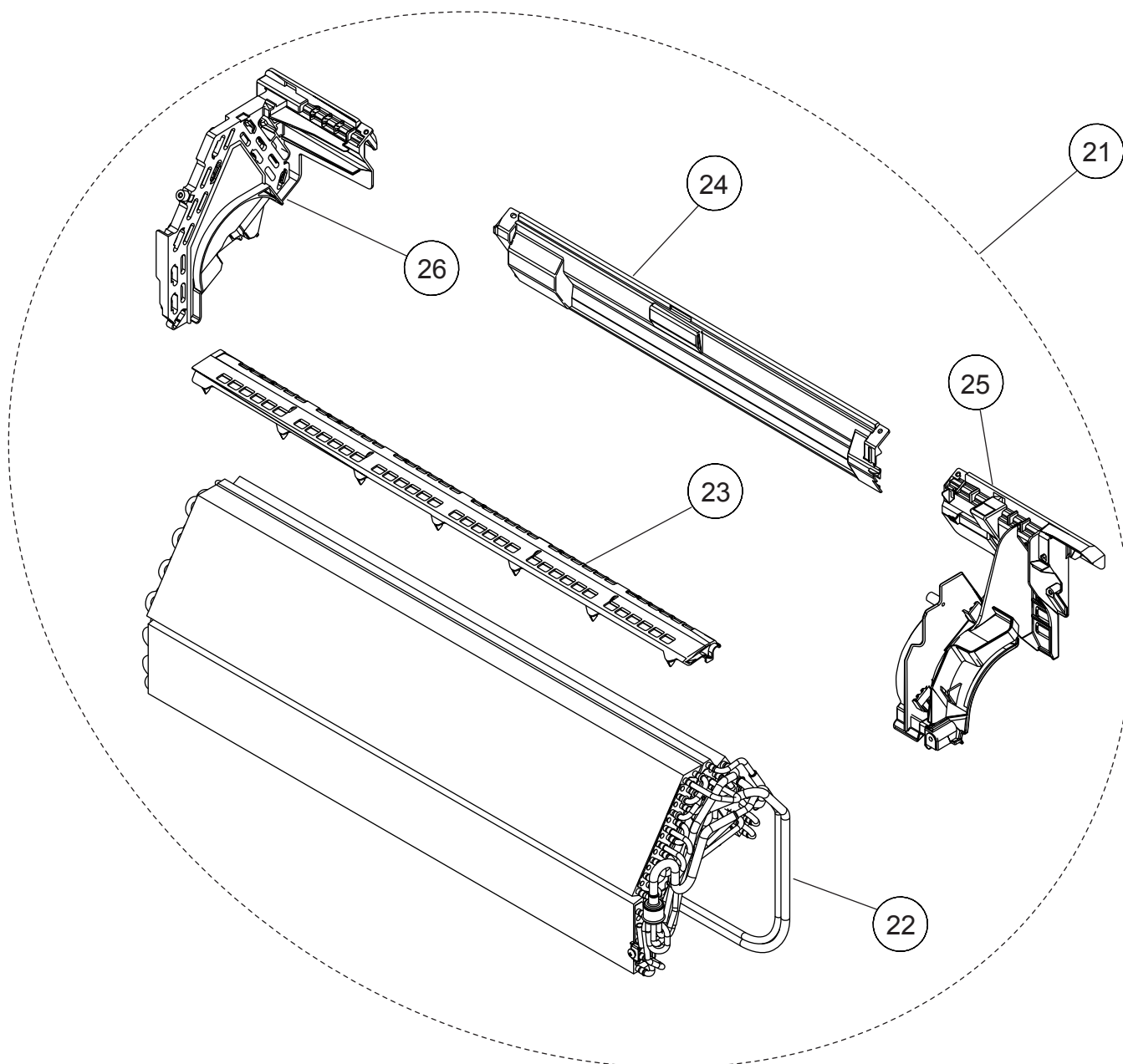
PARTS

INDOOR UNIT

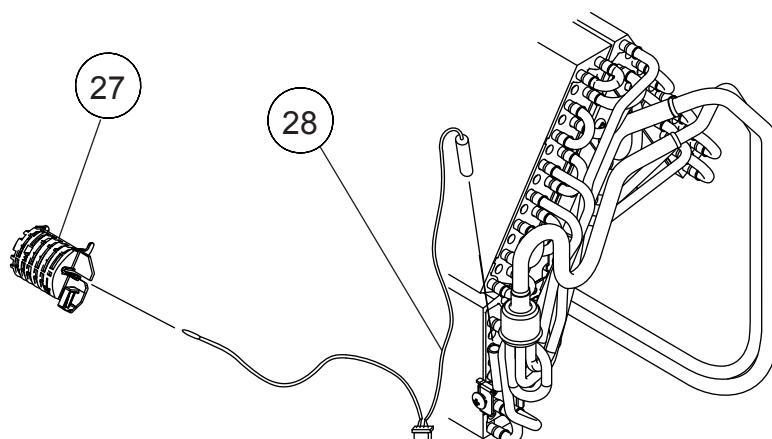


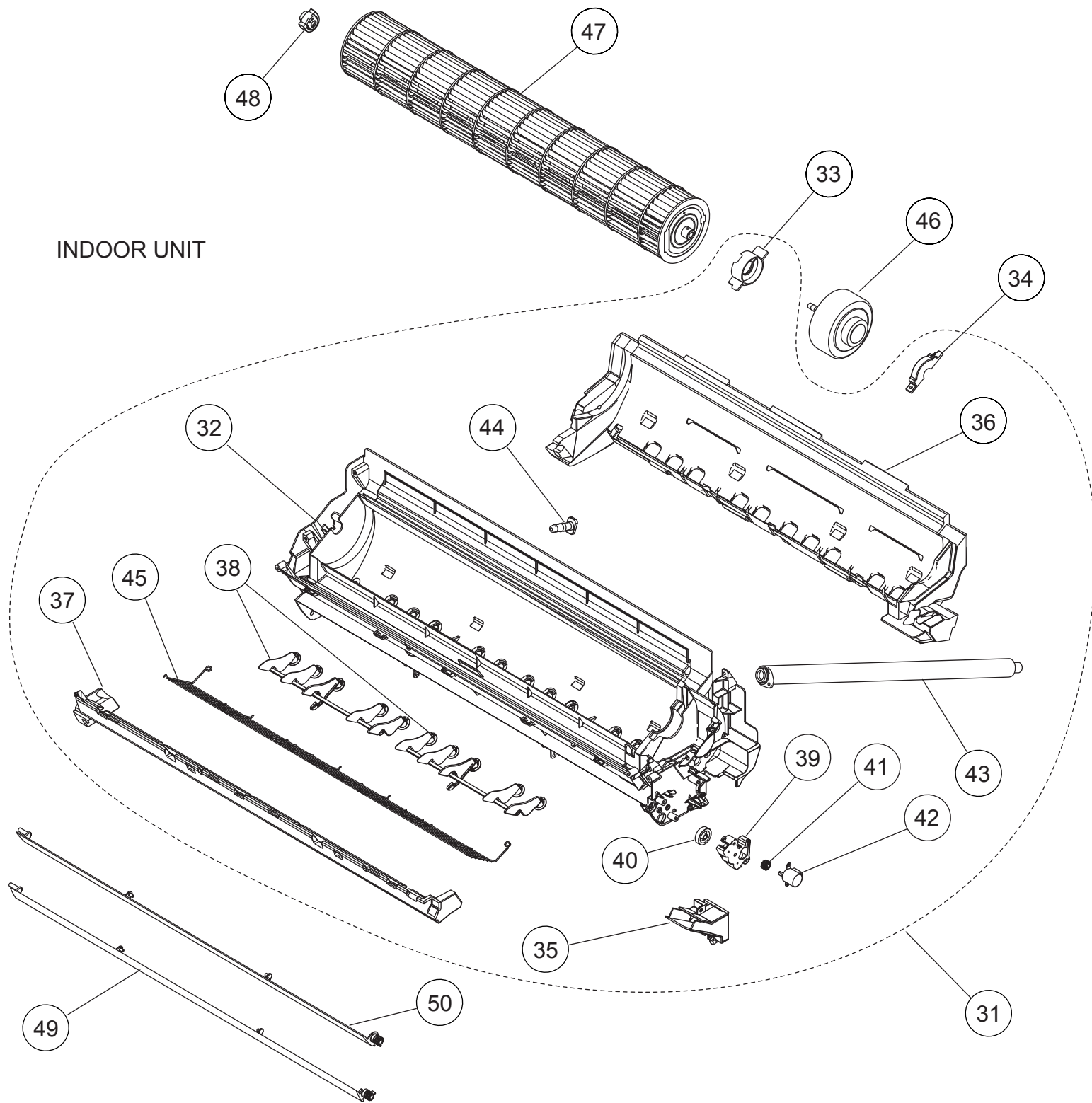
Ref	Description	Parts number
1	Front Panel Total Assy	9318267099
2	Front Panel	9317642057
3	Intake Grille Assy	9332458008
4	Clamper Grille	9316906006
5	Air Filter	9317644013
6	Receiver Window	9317643016
7	Panel Cover	9317646017
8	Wire Cover	9317663007
9	Wire Shield	9317664011
10	Bracket Panel	9317665001
11	Remote Control	9319208008
12	Remote Control Holder	9318912005
--	Air Clean Filter Assy	9317250009

INDOOR UNIT



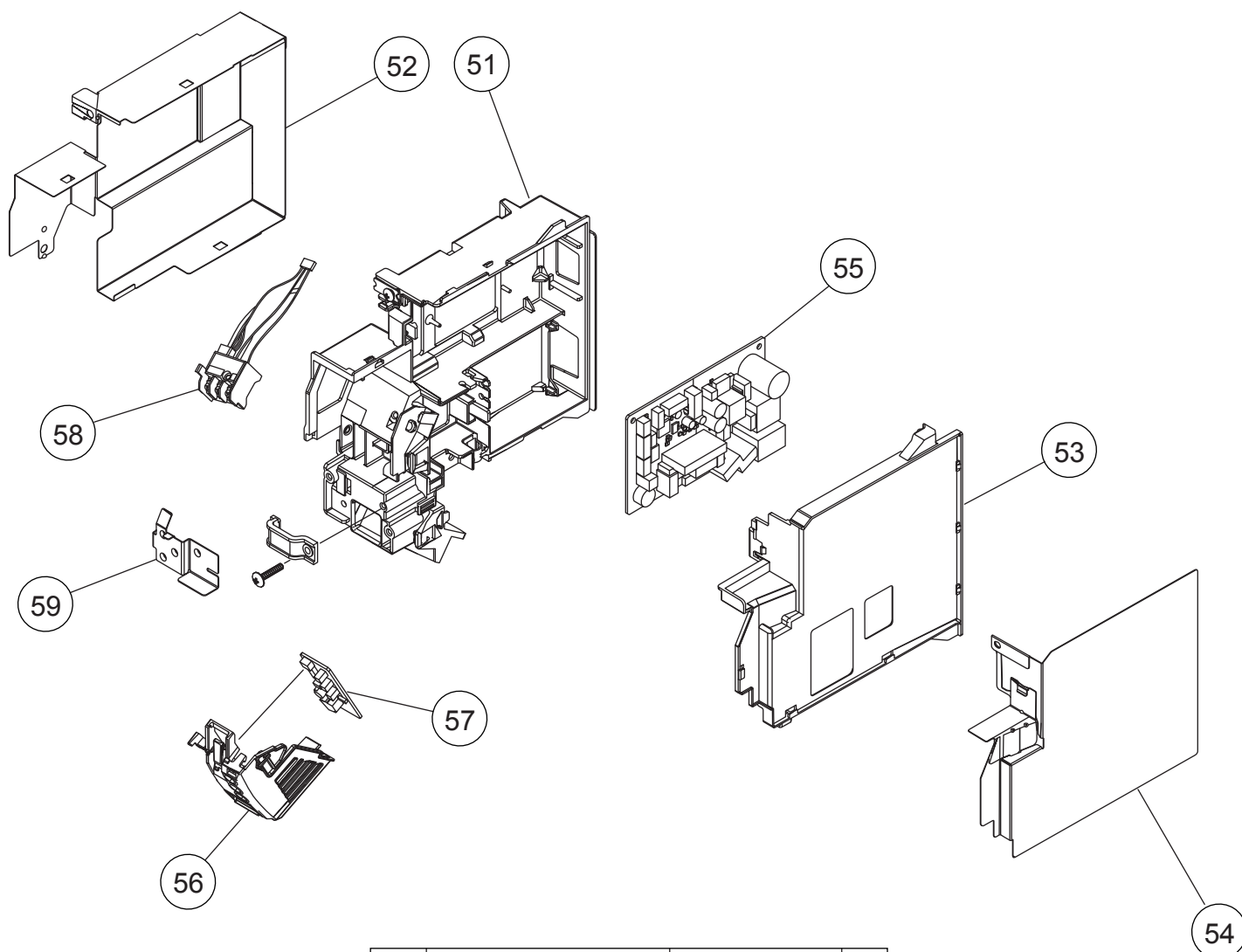
Ref	Description	Parts number	
21	Evaporator Total Assy	9317820028	
22	Joint Pipe Assy	9317838016	
23	Filter Guide	9317652001	
24	Rear Bracket	9317651004	
25	Evaporator Holder R	9317650007	
26	Evaporator Holder L	9317649001	
27	Holder (Room Thermistor)	9316895003	
28	Thermistor Assy	9900563004	





Ref	Description	Parts number	Ref	Description	Parts number
31	Casing Assy	9318264050	41	Gear A	9309994003
32	Casing	9317647014	42	Motor Step	9900384128
33	Motor Cover	9316568006	43	Drain Hose Assy	9316904002
34	Motor Cover	9316601000	44	Drain Cap	9316177017
35	Cable Guide	9316567009	45	Fan Guard	9332277005
36	Casing Cover B	9317653015	46	Fan Motor	9603100001
37	Casing Cover F	9317654005	47	Crossflow Fan Assy	9316830004
38	R AND L Louver B	9316961012	48	Bearing C Assy	9306628017
39	Louver Gear Holder	9317669016	49	Louver U	9317656016
40	Louver Gear	9317648004	50	Louver Z	9317657006

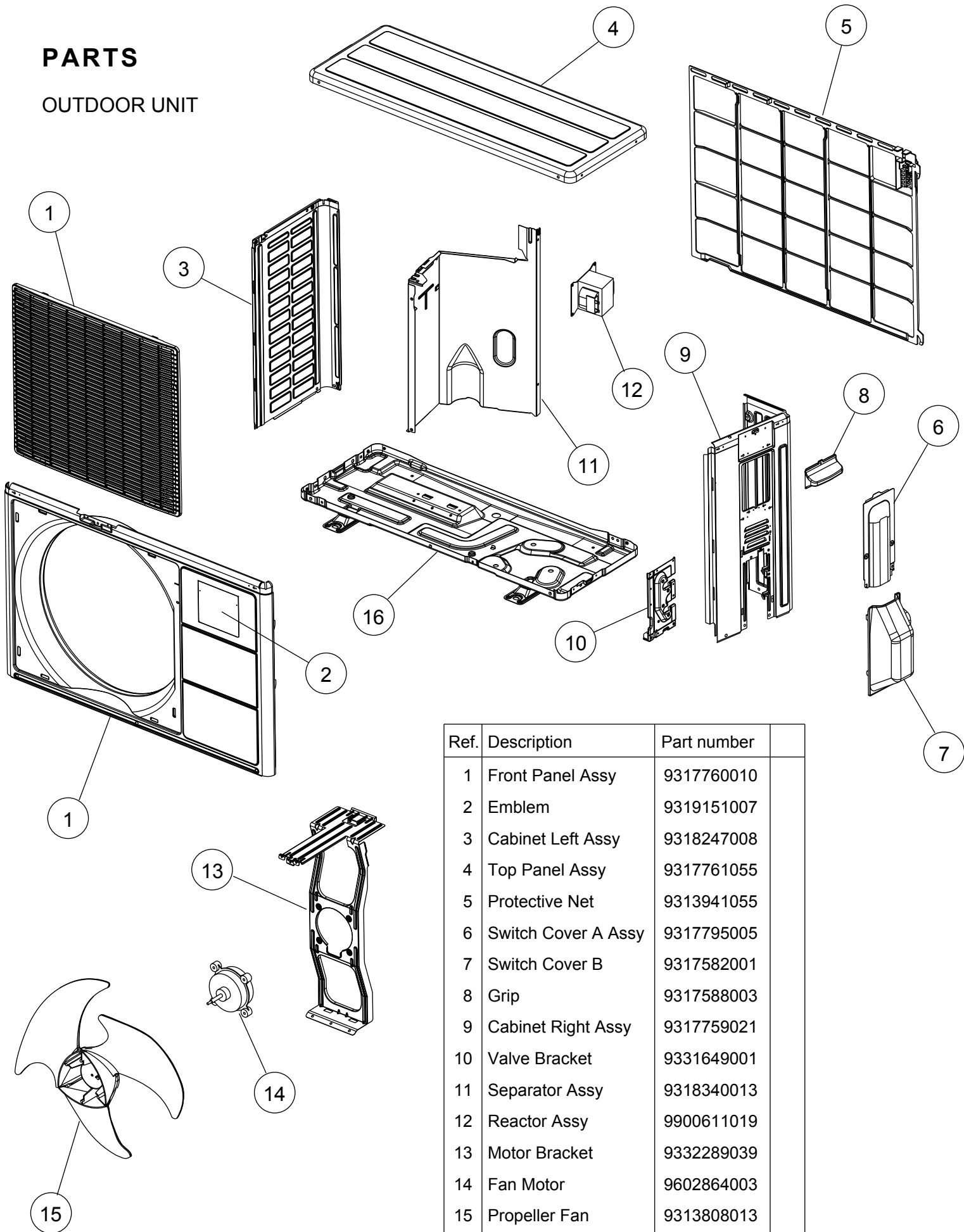
INDOOR UNIT



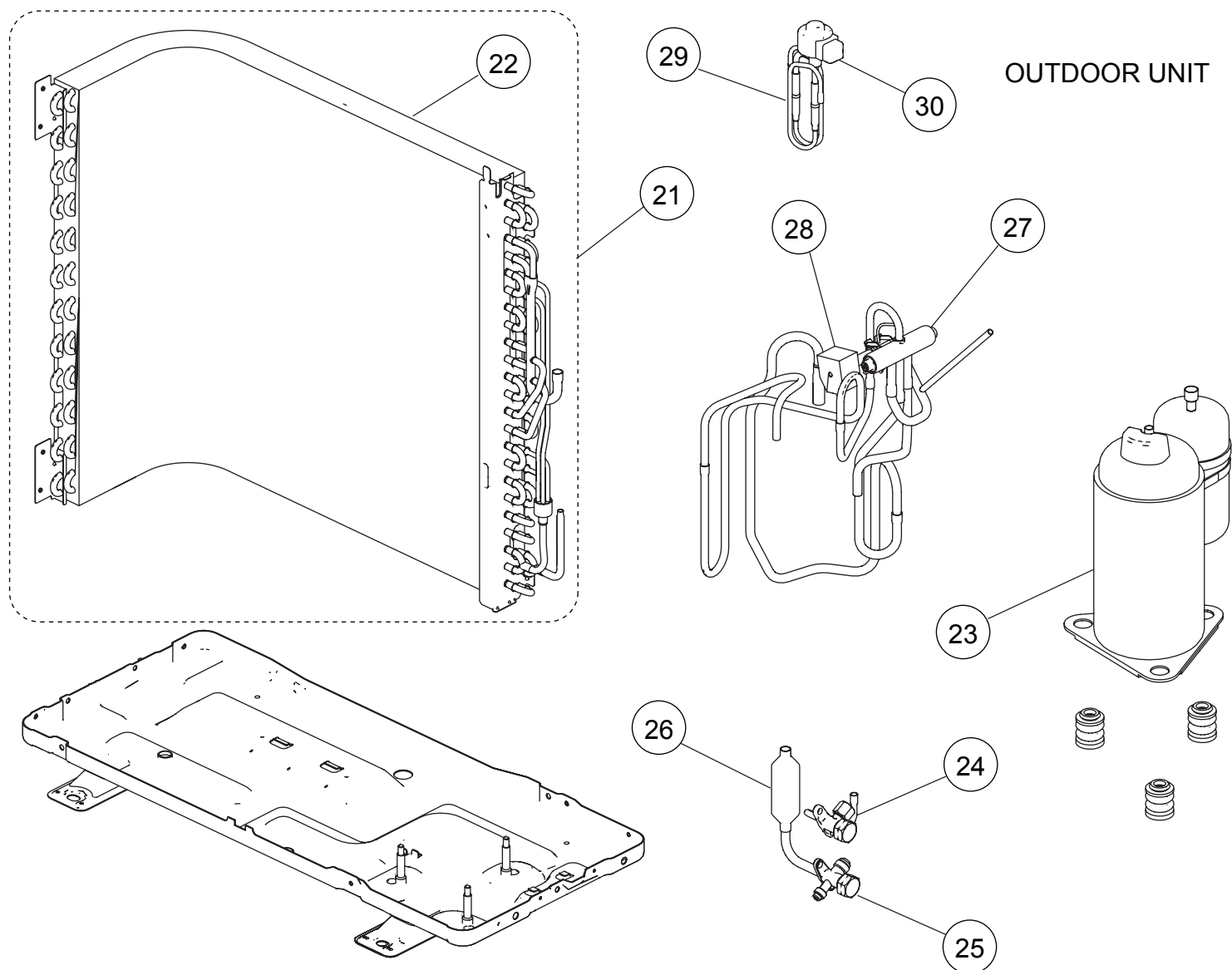
Ref	Description	Parts number	
51	Control Box	9318187007	
52	Box Shield	9317575010	
53	Control Cover	9317659017	
54	Cover Shield	9317923002	
55	Controller PCB Assy	9708536187	
56	Display Case	9317662000	
57	Display PCB Assy	9707649024	
58	Terminal	9900638009	
59	Earth Terminal	9316586000	

PARTS

OUTDOOR UNIT

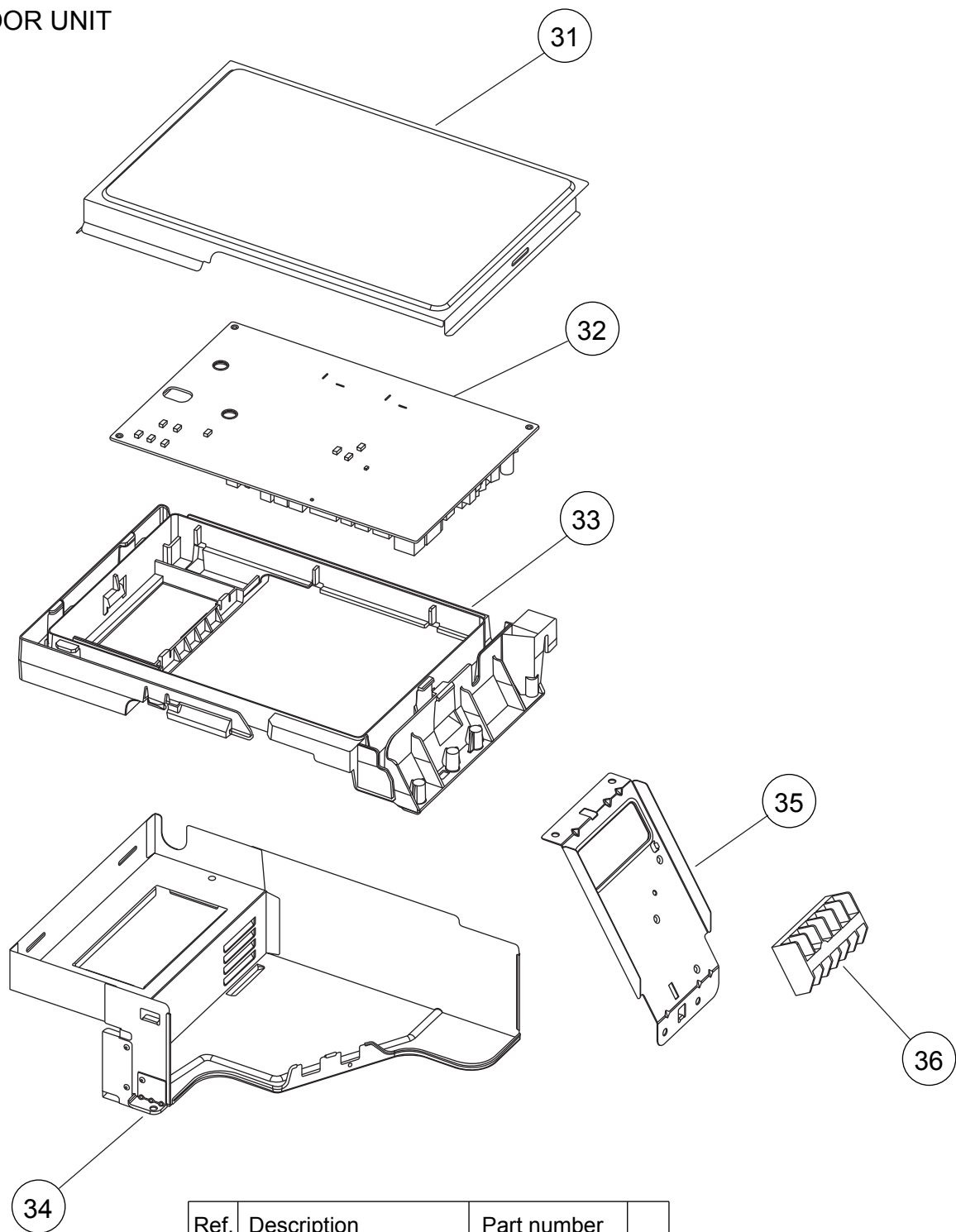


Ref.	Description	Part number
1	Front Panel Assy	9317760010
2	Emblem	9319151007
3	Cabinet Left Assy	9318247008
4	Top Panel Assy	9317761055
5	Protective Net	9313941055
6	Switch Cover A Assy	9317795005
7	Switch Cover B	9317582001
8	Grip	9317588003
9	Cabinet Right Assy	9317759021
10	Valve Bracket	9331649001
11	Separator Assy	9318340013
12	Reactor Assy	9900611019
13	Motor Bracket	9332289039
14	Fan Motor	9602864003
15	Propeller Fan	9313808013
16	Base Assy	9316885028
--	Drain Assy	9303029022



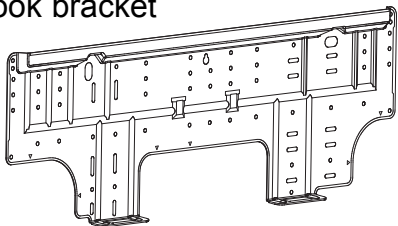
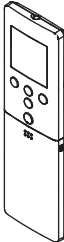
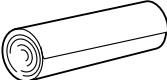
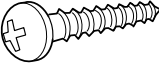
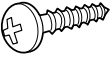
Ref.	Description	Part number	
21	Condenser Total Assy	9332359008	
22	Condenser Assy	9332360004	
23	Compressor Assy	9317619004	
24	2 way Valve Assy	9332371000	
25	3 way Valve Assy	9332455007	
26	Muffler	9316276017	
27	4 way Valve Assy	9332365009	
28	Solenoid	9970110023	
29	Pulse Motor Valve Assy	9332368000	
30	Expansion Valve Coil	9970095030	

OUTDOOR UNIT

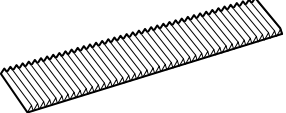


Ref.	Description	Part number	
31	Sealed Panel	9318181005	
32	Controller PCB Assy	9708683126	
33	PCB Holder	9318182002	
34	Inverter Case Assy	9318242003	
35	Terminal Bracket	9317603010	
36	Terminal	9900435028	
--	Outdoor Thermistor	9900565008	
--	Thermistor Assy	9900628000	

ACCESSORIES

Name and Shape	Part number
Wall hook bracket 	9317665001
Remote control 	9319208008
Remote control holder 	9318912005
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