

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG18LFCA	AOYG18LFC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS	2
REFRIGERANT SYSTEM DIAGRAM...	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM...	8
ERROR DETECTION.....	10
PARTS (INDOOR UNIT)	11
PARTS (OUTDOOR UNIT).....	15
ACCESSORIES.....	18

SPECIFICATIONS

ELECTRICAL DATA

INDOOR UNIT	ASYG18LFCA
OUTDOOR UNIT	AOYG18LFC
POWER SOURCE	230 V
FREQUENCY	50 Hz
COOLING CAPACITY	5.20 kW
HEATING CAPACITY	6.30 kW
RUNNING CURRENT (Cool)	6.8 A
RUNNING CURRENT (Heat)	7.6 A
INPUT WATTS (Cooling)	1.52 kW
INPUT WATTS (Heating)	1.71 kW
E.E.R. (Cooling)	3.42 kW/kW
C.O.P. (Heating)	3.68 kW/kW
MAXIMUM CURRENT (Cool)	9.0 A
MAXIMUM CURRENT (Heat)	12.5 A
MOISTURE REMOVAL	2.6 L/hr
AIR CIRCULATION HIGH	900 m ³ /hr

FAN MOTOR

POWER SOURCE		230 V
INDOOR UNIT	High	1,220 r.p.m.
	Medium	1,020 r.p.m.
	Low	900 r.p.m.
	Quiet	710 r.p.m.
OUTDOOR UNIT	Cool	920 r.p.m.
	Heat	870 r.p.m.

NOISE LEVEL

INDOOR UNIT (Cooling)	High	43 dB
	Medium	37 dB
	Low	33 dB
	Quiet	26 dB
INDOOR UNIT (Heating)	High	42 dB
	Medium	37 dB
	Low	33 dB
	Quiet	25 dB
OUTDOOR UNIT (Cool)		50 dB
OUTDOOR UNIT (Heat)		51 dB

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 4 pole, Rotary, DC inverter motor
DISCRIMINATION		808 903 80
WEIGHT (with oil)		9.0 kg
REFRIGERANT TYPE		R410A
PRECHARGED REFRIGERANT		1,200 g
FULL CHARGE	Pipe Length 15 m	1,200 g
	20 m	1,300 g
	25 m	1,400 g
ADDITIONAL CHARGE		20 g/m
MAX HEIGHT		20 m

DIMENSIONS

INDOOR UNIT	H x W x D	320 x 998 x 238 mm
OUTDOOR UNIT	H x W x D	620 x 790 x 290 mm

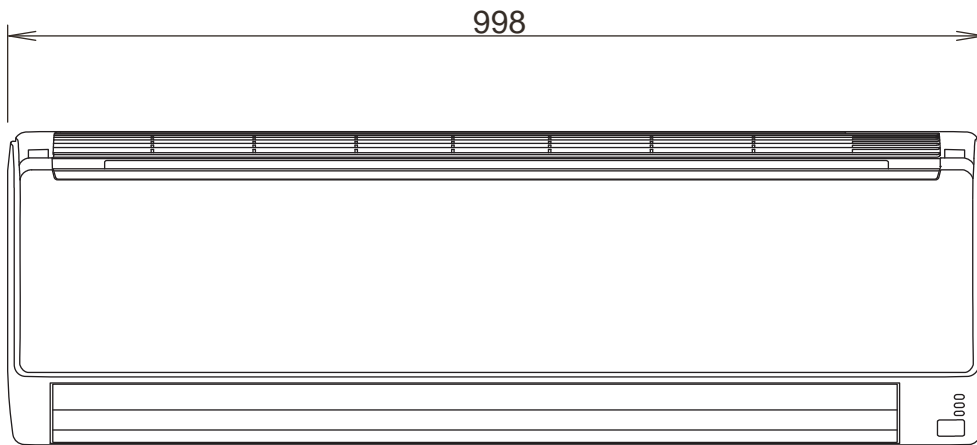
WEIGHT

INDOOR UNIT	Shipping / Net	18 kg / 14 kg
OUTDOOR UNIT	Shipping / Net	45 kg / 41 kg

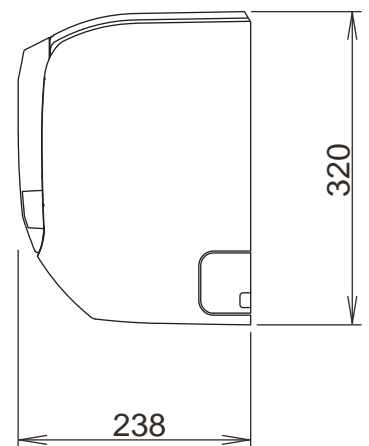
DIMENSIONS

Unit : mm

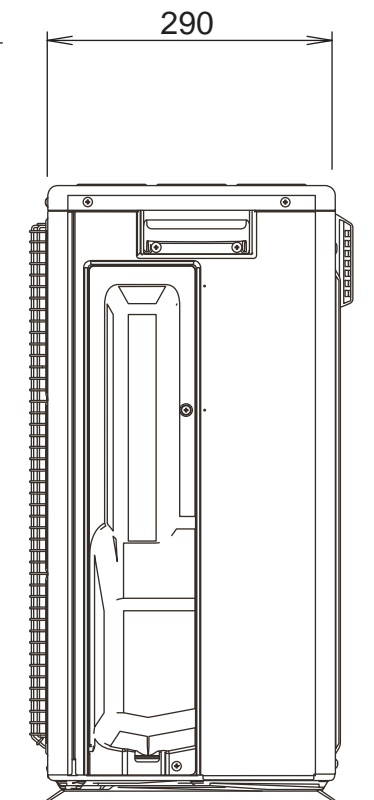
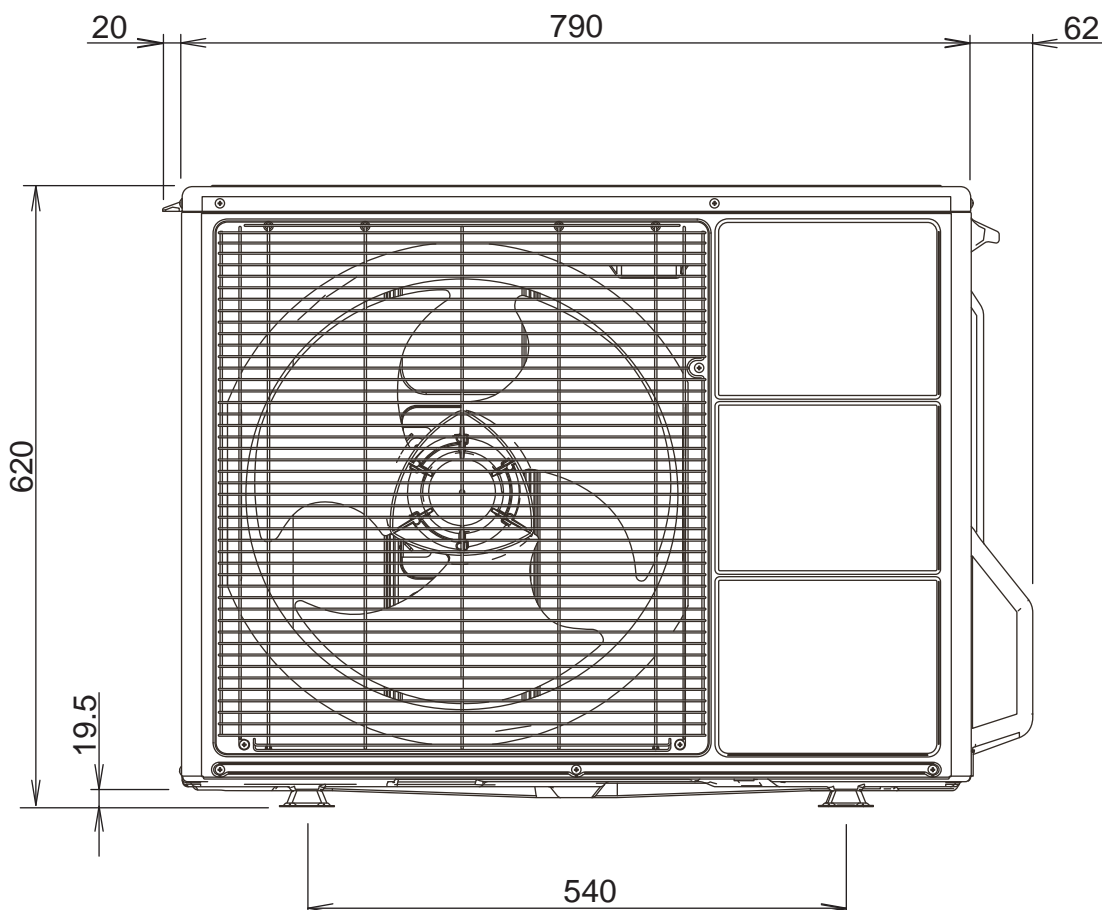
INDOOR UNIT



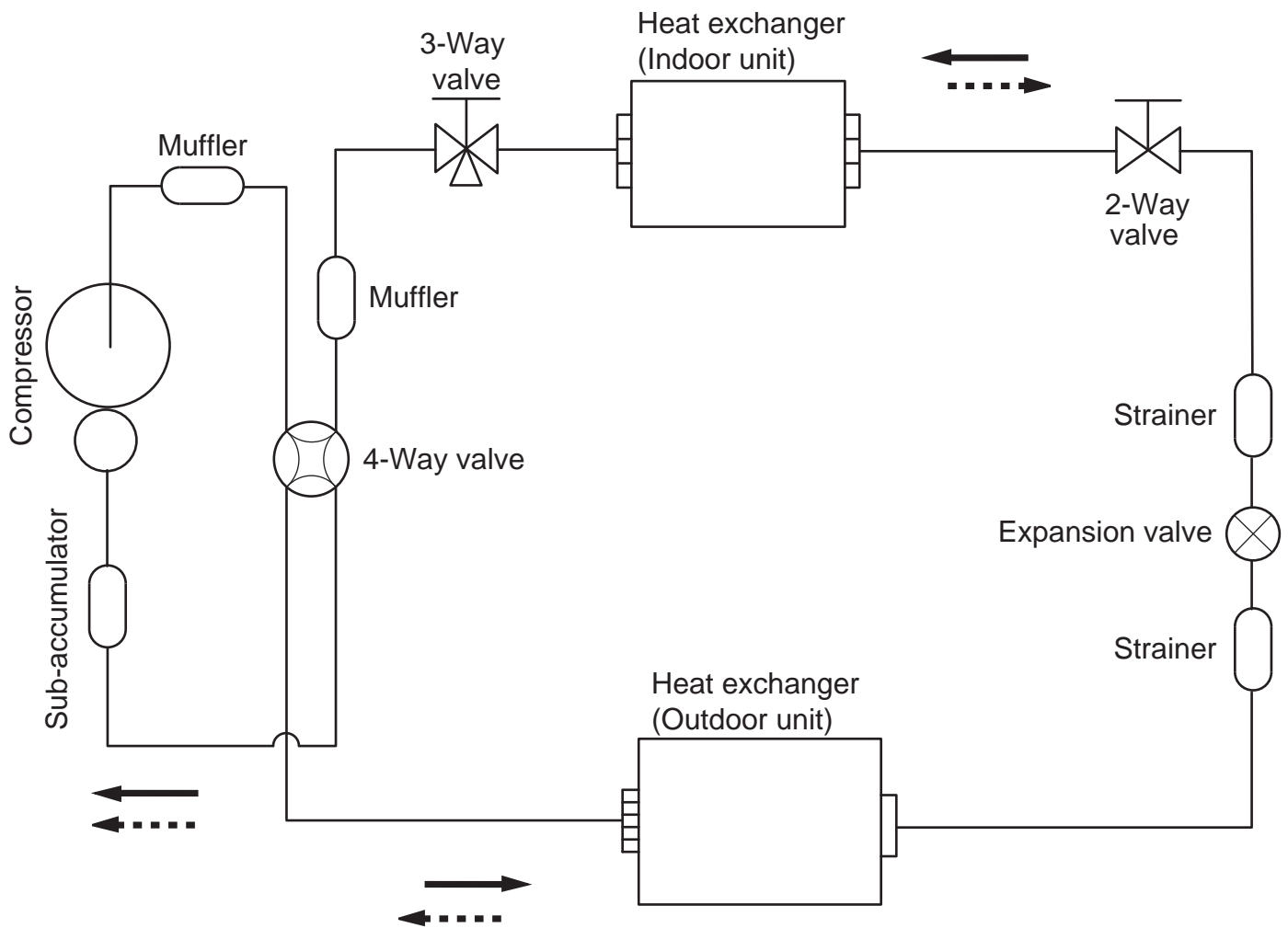
Drain hose length : 670 mm



OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

—————> Cooling
> Heating

Refrigerant pipe diameter

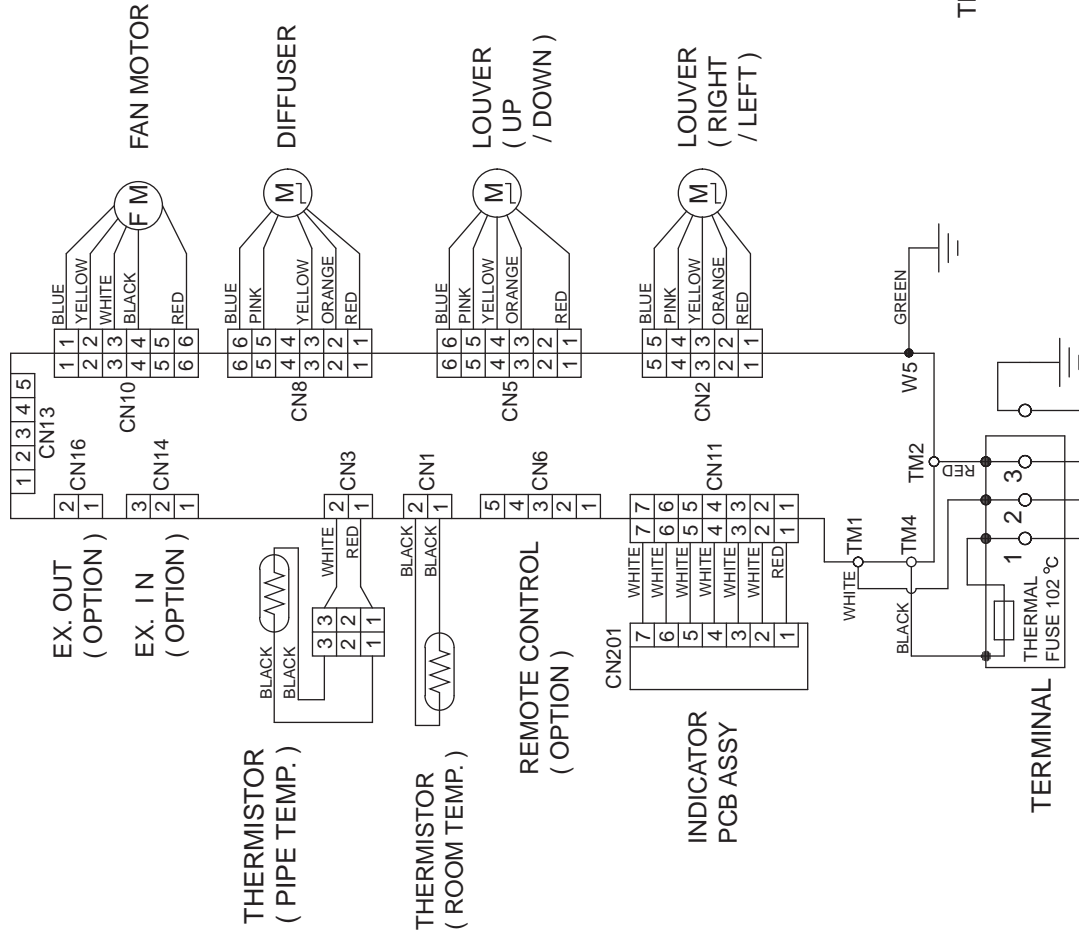
Liquid : 1/4" (6.35 mm)

Gas : 1/2" (12.7 mm)

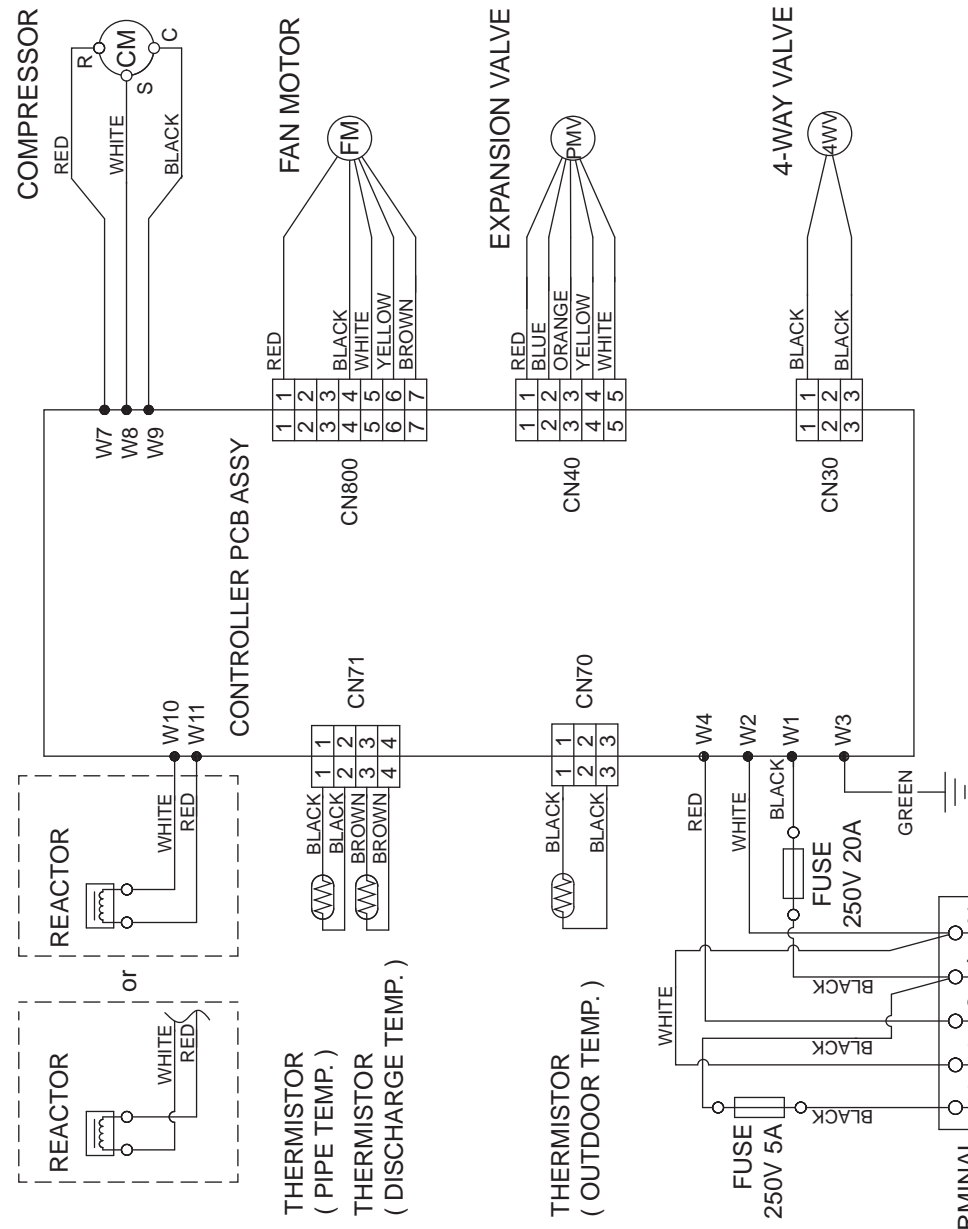
INDOOR UNIT

CONTROLLER PCB ASSY (MAIN PCB)

TEST



OUTDOOR UNIT



CIRCUIT DIAGRAM

CONTROL UNIT
EZ-01212HSE

POWER SOURCE
AC230V
50Hz

TERMINAL
HP-T3064A-A2S-L1

L
N
SERIAL

UL1015 AWG24 BLACK
UL1015 AWG24 WHITE
UL1015 AWG24 RED

F1
AC250V 3.15A

TM4 22007 BLACK
N1N1 22007 WHITE
TM1 22007 WHITE

E

EMI FILTER
ESD-R19
4 TURNS

UL1015
AWG22
GREEN

W5
GREEN

EARTH

TM2 22007 RED

SERIAL IN

UL1061 AWG26 x 3

CN6-1 RED
CN6-2 WHITE
CN6-3 BLACK
CN6-4 WHITE
CN6-5 WHITE

CN6
B05B-XASK-1-A
WHITE

UL1061 AWG26 x 5

CN2-1 RED
CN2-2 ORANGE
CN2-3 YELLOW
CN2-4 PINK
CN2-5 BLUE

CN2
SJH20-05WS
WHITE

UL1061 AWG26 x 5

CN5-1 RED
CN5-2 ORANGE
CN5-3 YELLOW
CN5-4 PINK
CN5-5 BLUE

CN5
SJH20-06WS
WHITE

UL1061 AWG26 x 5

CN8-1 RED
CN8-2 ORANGE
CN8-3 YELLOW
CN8-4 PINK
CN8-5 BLUE

CN8
B06B-PASK-1
WHITE

UL1061 AWG26 x 5

CN10-6 RED
CN10-4 BLACK
CN10-3 WHITE
CN10-2 YELLOW
CN10-1 BLUE

CN10
B5 (6-5) B-XARK-1-A
RED

UL3266 AWG22 x 5

WIRED REMOTE CONTROL
(OPTION)

CONTROLLER PCB ASSEMBLY
(MAIN PCB)
K09DR-1206HSE-C1

CN9
B07B-PASK-1
WHITE

1
2
3
4
5
6
7

FLASH

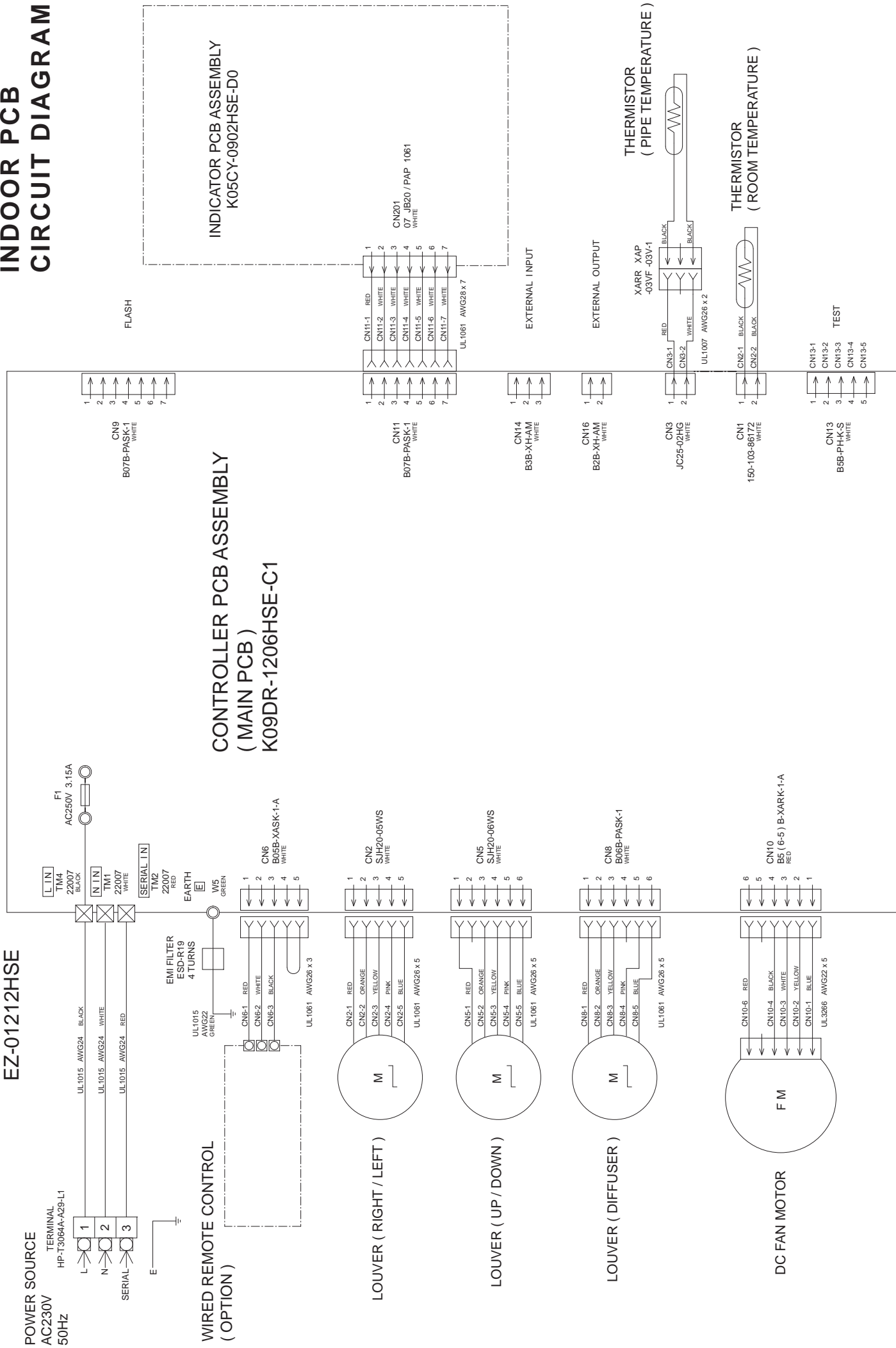
INDICATOR PCB ASSEMBLY
K05CY-0902HSE-D0

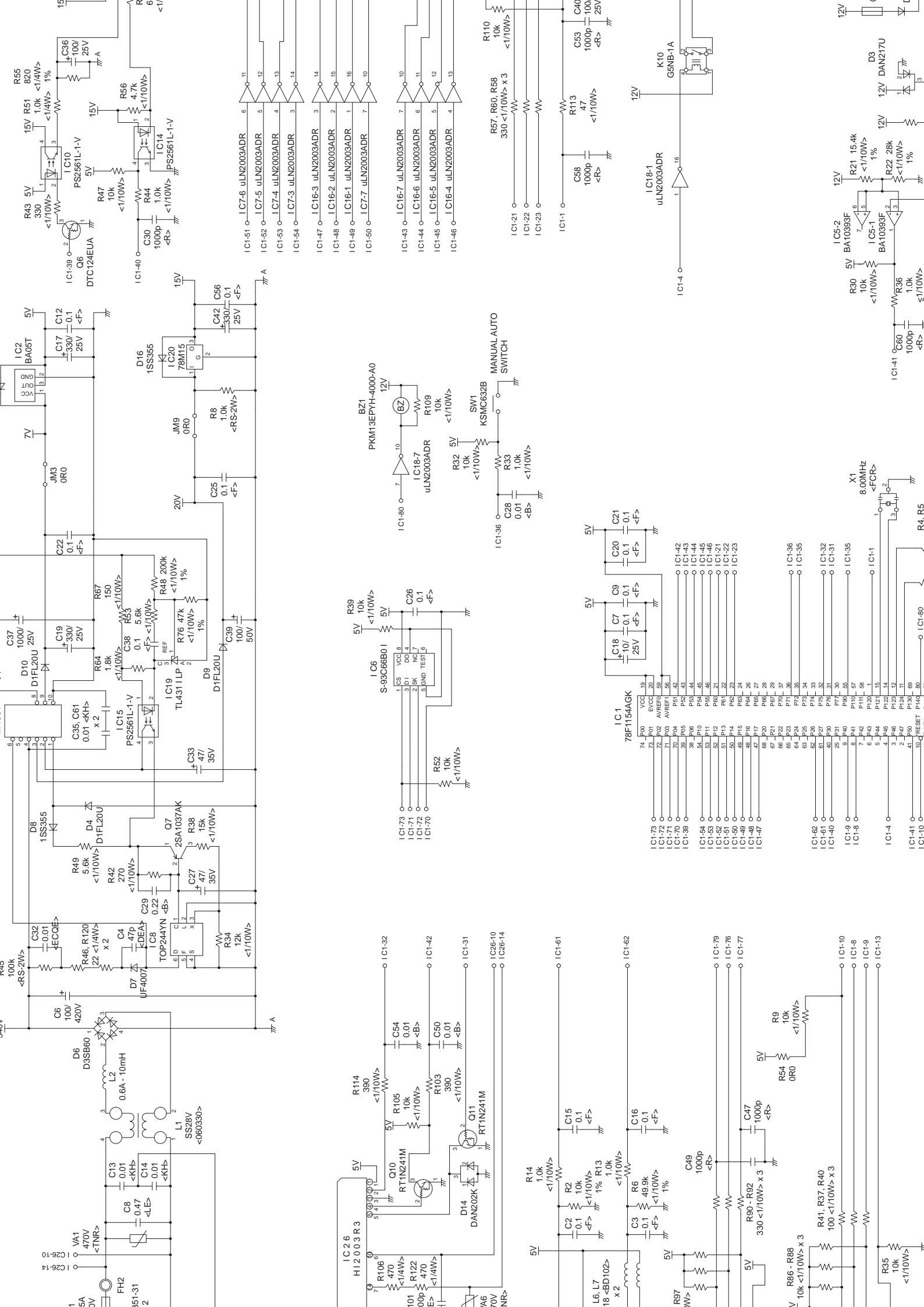
LOUVER (RIGHT / LEFT)

LOUVER (UP / DOWN)

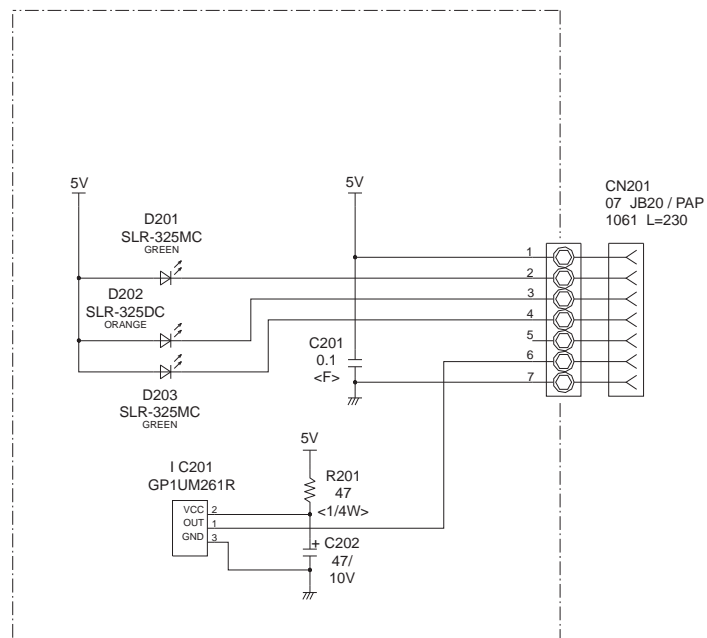
LOUVER (DIFFUSER)

DC FAN MOTOR



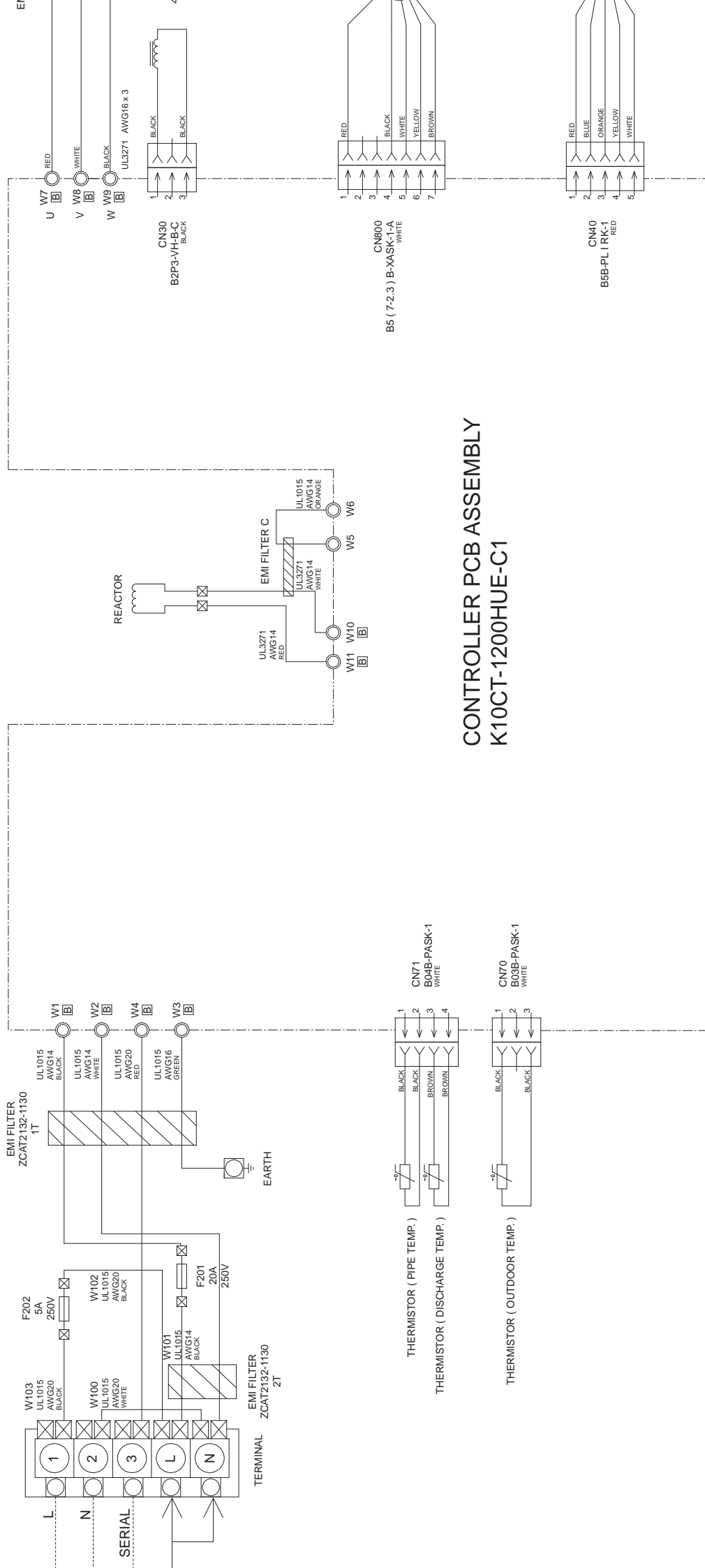


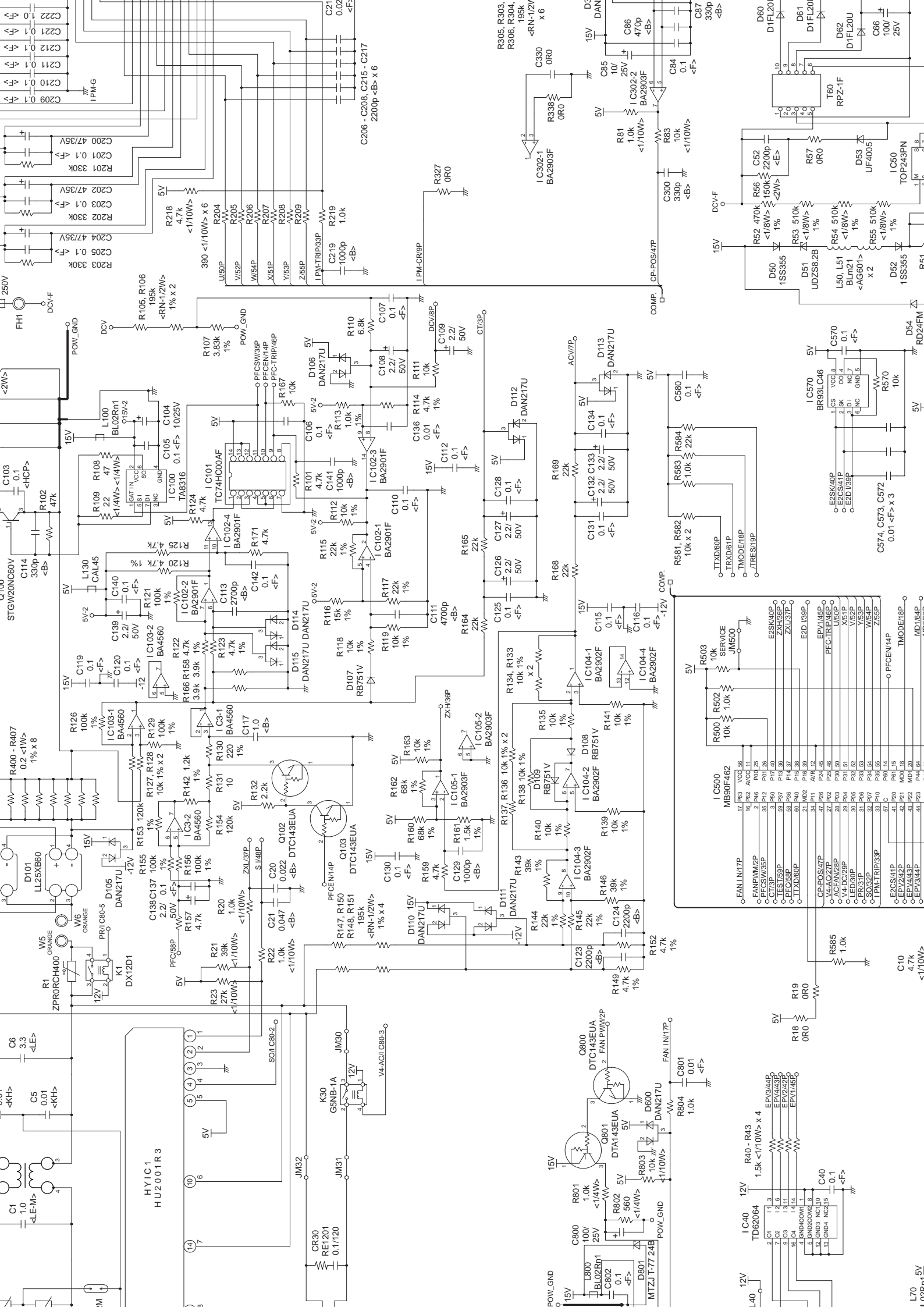
INDOOR UNIT
INDICATOR PCB ASSEMBLY
K05CY-0902HSE-D0



OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY EZ-0101MHUE





◇ : 0.1s on / 0.1s off

() : Number of flashing

ERROR DETECTION

INDOOR UNIT

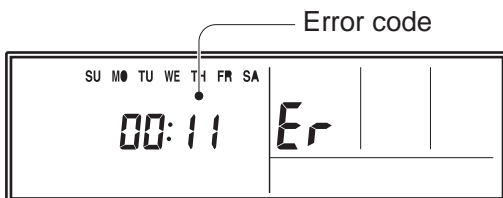
WIRED REMOTE CONTROL

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

If you use a wired type remote control, error codes will appear on the remote control display. Refer to the lamp blinking patterns and error codes in the table. An error display is displayed only while running.

When troubleshooting with the wired remote control.

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

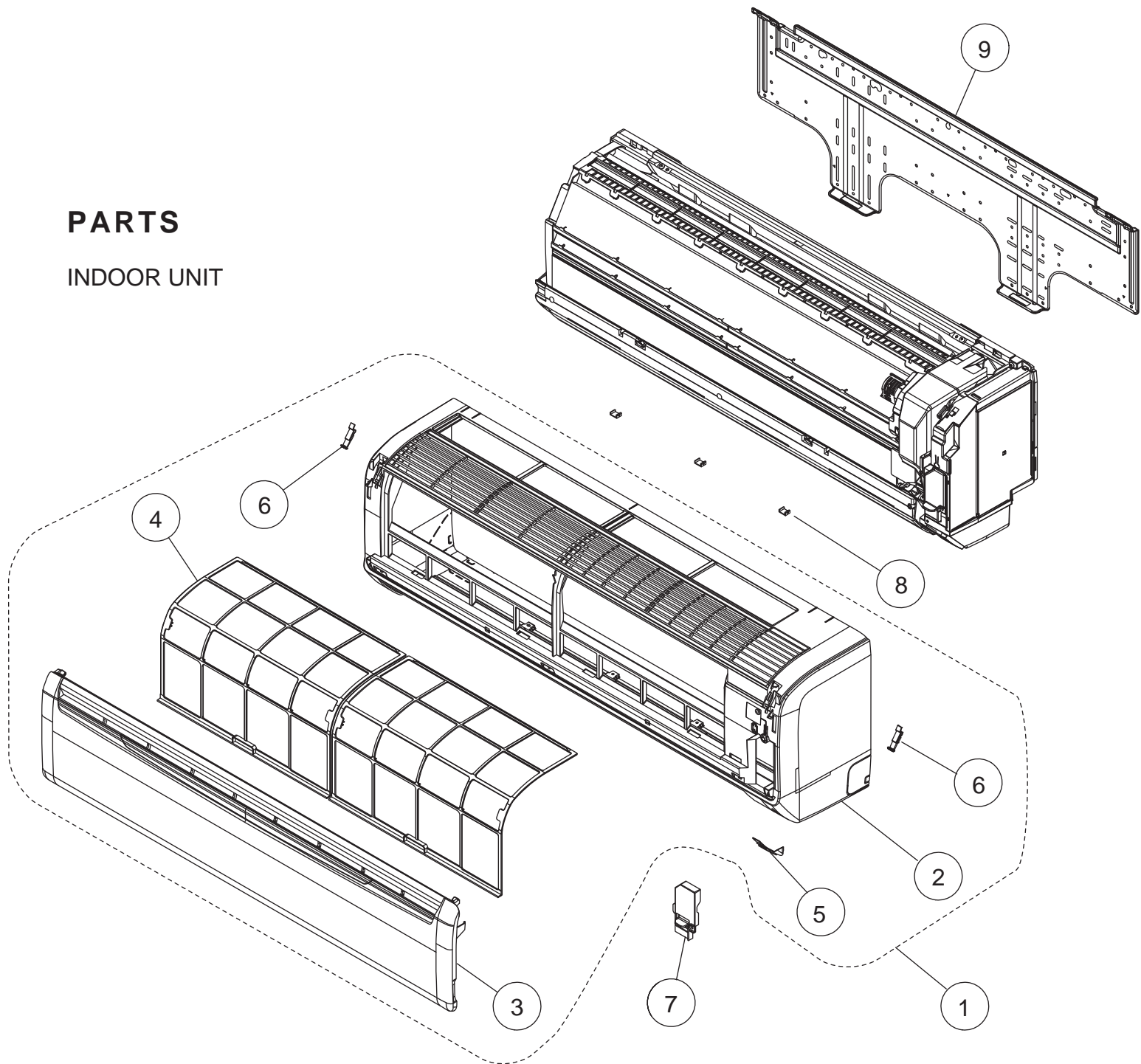


EX. Self-diagnosis

● (1)	● (2)	◇	12	Wired remote control communication error
● (1)	● (5)	◇	15	Check run unfinished
● (2)	● (1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
● (2)	● (2)	◇	22	Indoor unit capacity error
● (2)	● (3)	◇	23	Combination error
● (2)	● (4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
● (2)	● (7)	◇	27	Master unit, slave unit set-up error [Simultaneous Multi]
● (3)	● (2)	◇	32	Indoor unit PCB model information error
● (3)	● (5)	◇	35	Manual auto switch error
● (4)	● (1)	◇	41	Inlet air 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
● (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

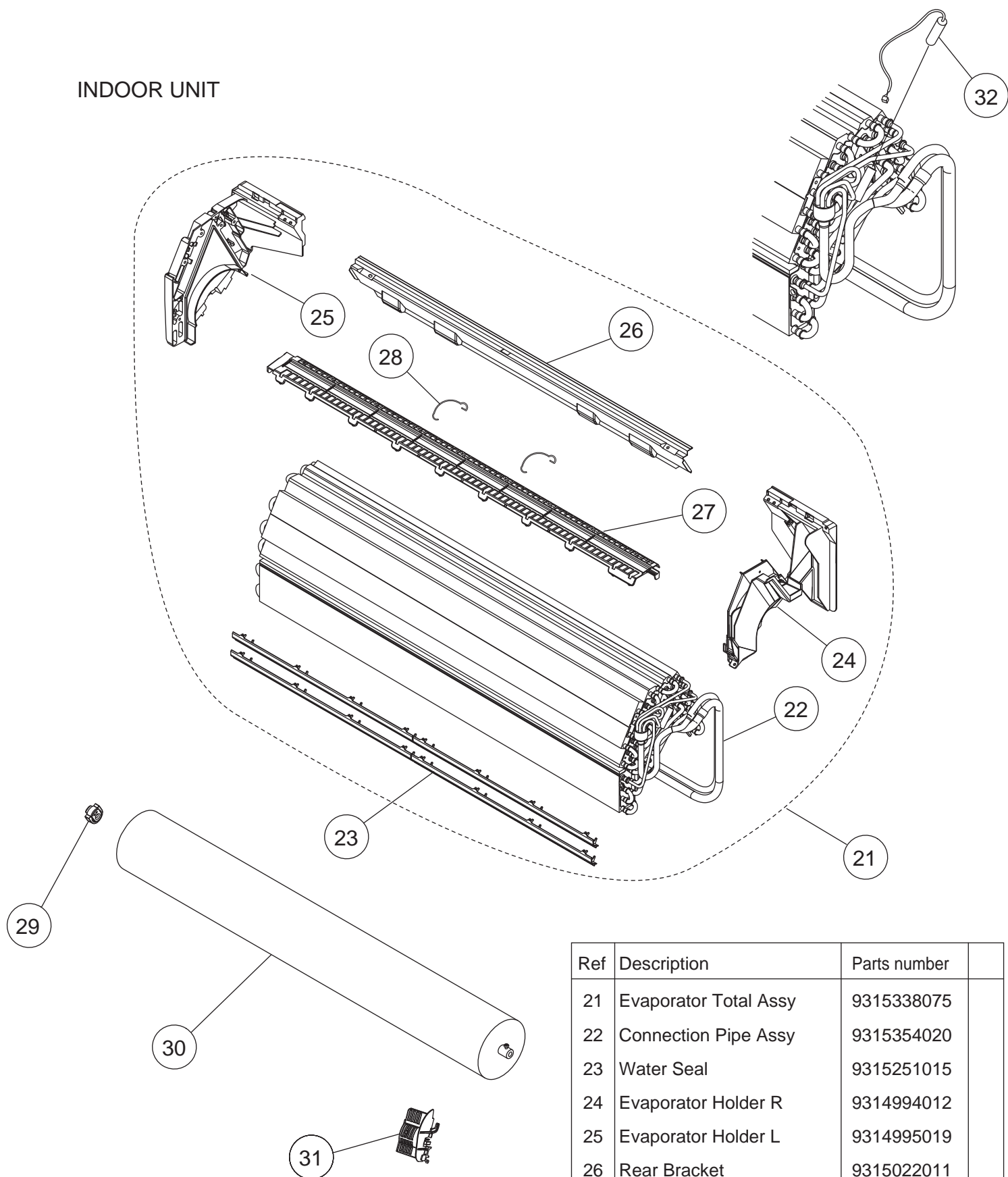
PARTS

INDOOR UNIT



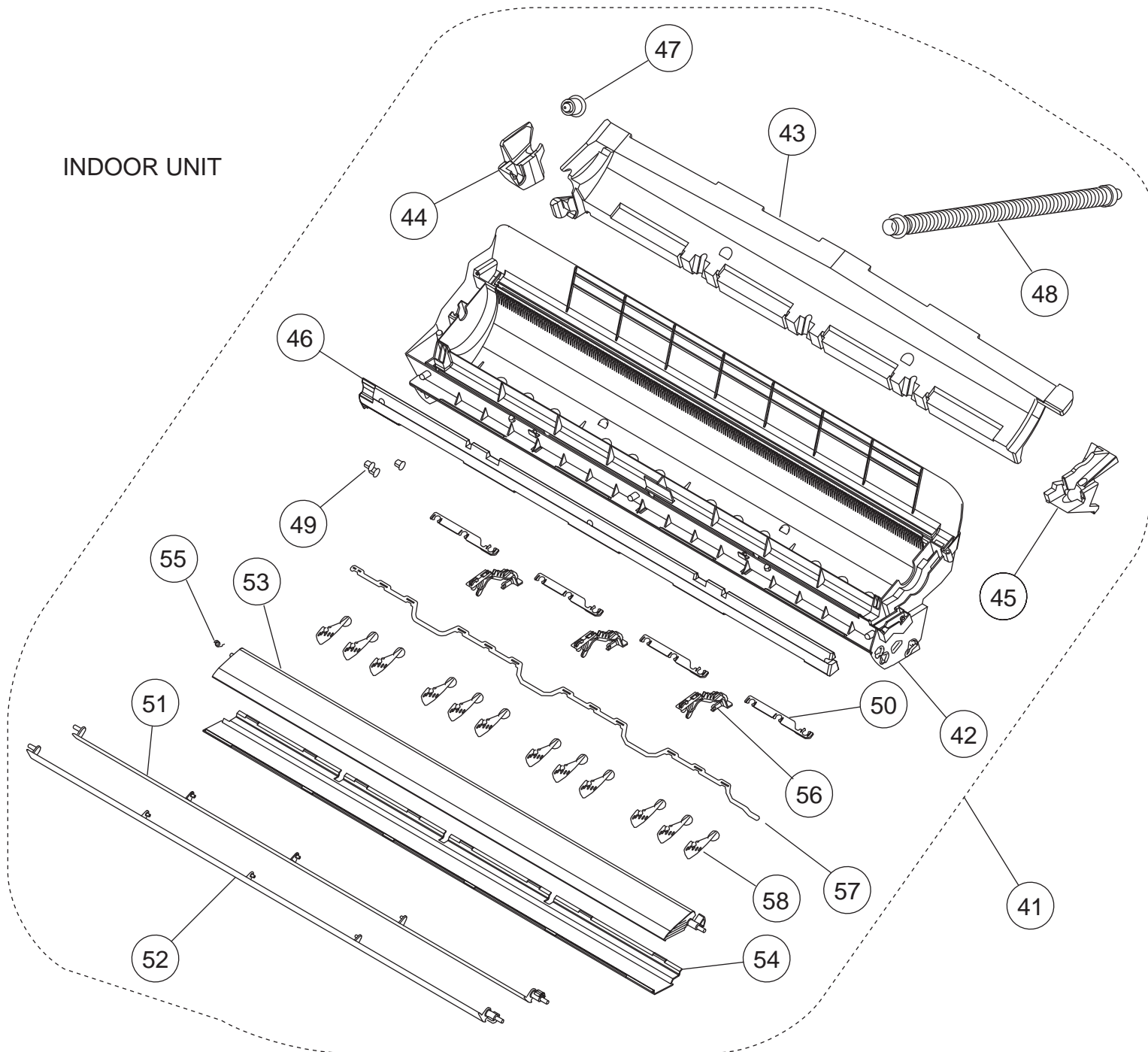
Ref	Description	Parts number	
1	Front Panel Total Assy	9318738001	
2	Front Panel	9314991080	
3	Intake Grille Assy	9385985049	
4	Air Filter	9315014016	
5	Receiver Window	9315010018	
6	Clamper Grille	9306755010	
7	Wire Clamper	9315015013	
8	Cap (Screw)	9309002050	
9	Bracket Panel	9315023018	
10	Remote Control	9379219037	
11	Remote Control Holder	9305642045	
--	Air Clean Filter Assy	9315212016	

INDOOR UNIT



Ref	Description	Parts number	
21	Evaporator Total Assy	9315338075	
22	Connection Pipe Assy	9315354020	
23	Water Seal	9315251015	
24	Evaporator Holder R	9314994012	
25	Evaporator Holder L	9314995019	
26	Rear Bracket	9315022011	
27	Filter Guide	9315013019	
28	Filter Guard	9315411013	
29	Bearing C Assy	9306628017	
30	Crossflow Fan Assy	9315024015	
31	Holder (Room Thermistor)	9315252012	
32	Pipe Thermistor	9900551018	

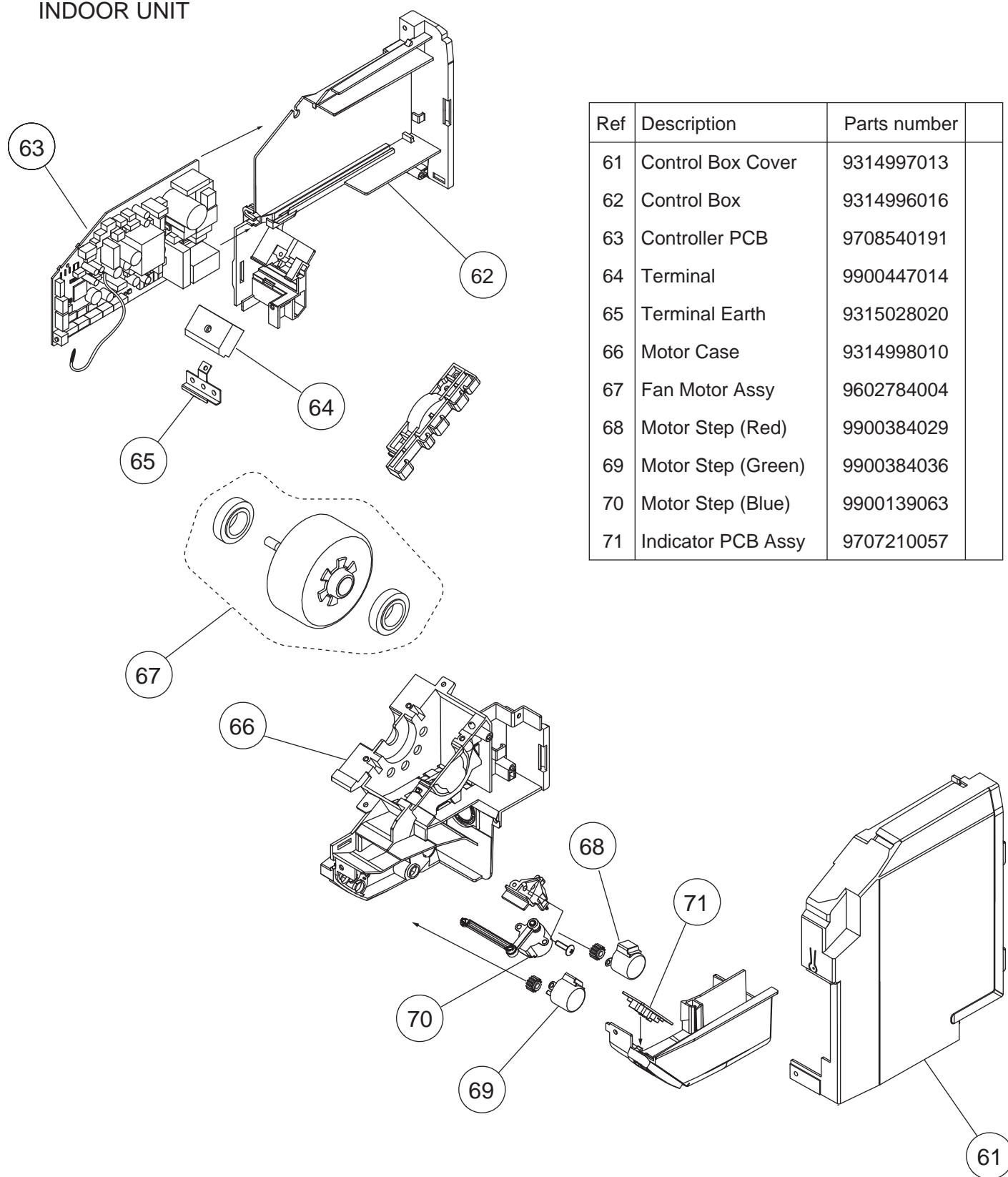
INDOOR UNIT



Ref	Description	Parts number	
41	Casing Assy	9315331038	
42	Casing	9314993015	
43	Casing Cover B	9315016010	
44	Casing Cover L	9315017017	
45	Casing Cover R	9315018014	
46	Casing Cover F	9315019011	
47	Drain Cap	9367677009	
48	Drain Hose Assy	9315769015	
49	Bush B	9312156016	
50	Spacer B	9312441013	

Ref	Description	Parts number	
51	Louver U	9315000019	
52	Louver Z	9315001016	
53	Diffuser U	9315002013	
54	Diffuser Z	9315003010	
55	Spring C	9314142017	
56	Piller A	9315009012	
57	Joint B	9315006011	
58	R and L Louver	9311997016	
-	Fan Guard	9305751051	
-	Fan Guard Holder Right	9315814012	
-	Fan Guard Holder Left	9315815019	

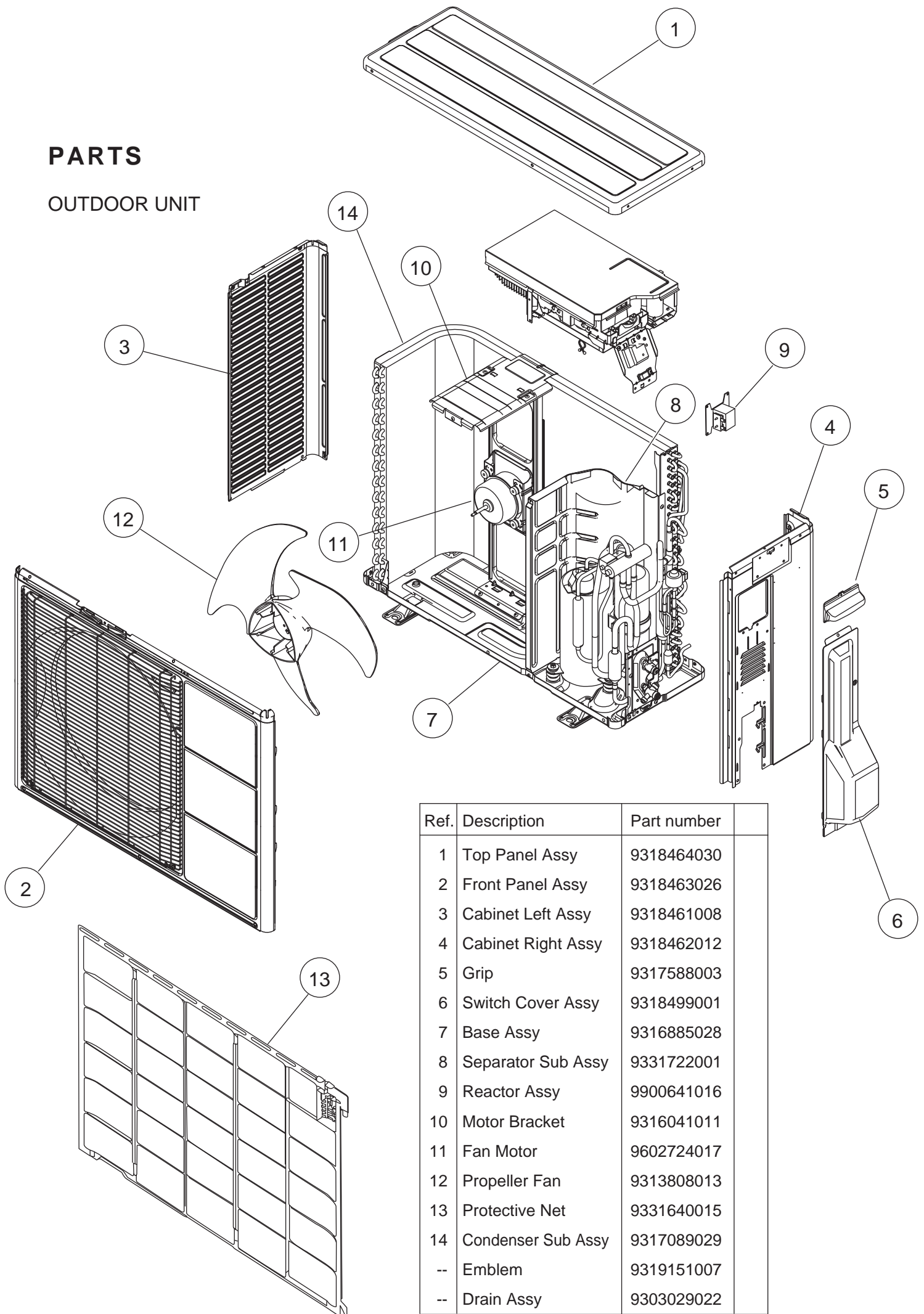
INDOOR UNIT



Ref	Description	Parts number	
61	Control Box Cover	9314997013	
62	Control Box	9314996016	
63	Controller PCB	9708540191	
64	Terminal	9900447014	
65	Terminal Earth	9315028020	
66	Motor Case	9314998010	
67	Fan Motor Assy	9602784004	
68	Motor Step (Red)	9900384029	
69	Motor Step (Green)	9900384036	
70	Motor Step (Blue)	9900139063	
71	Indicator PCB Assy	9707210057	

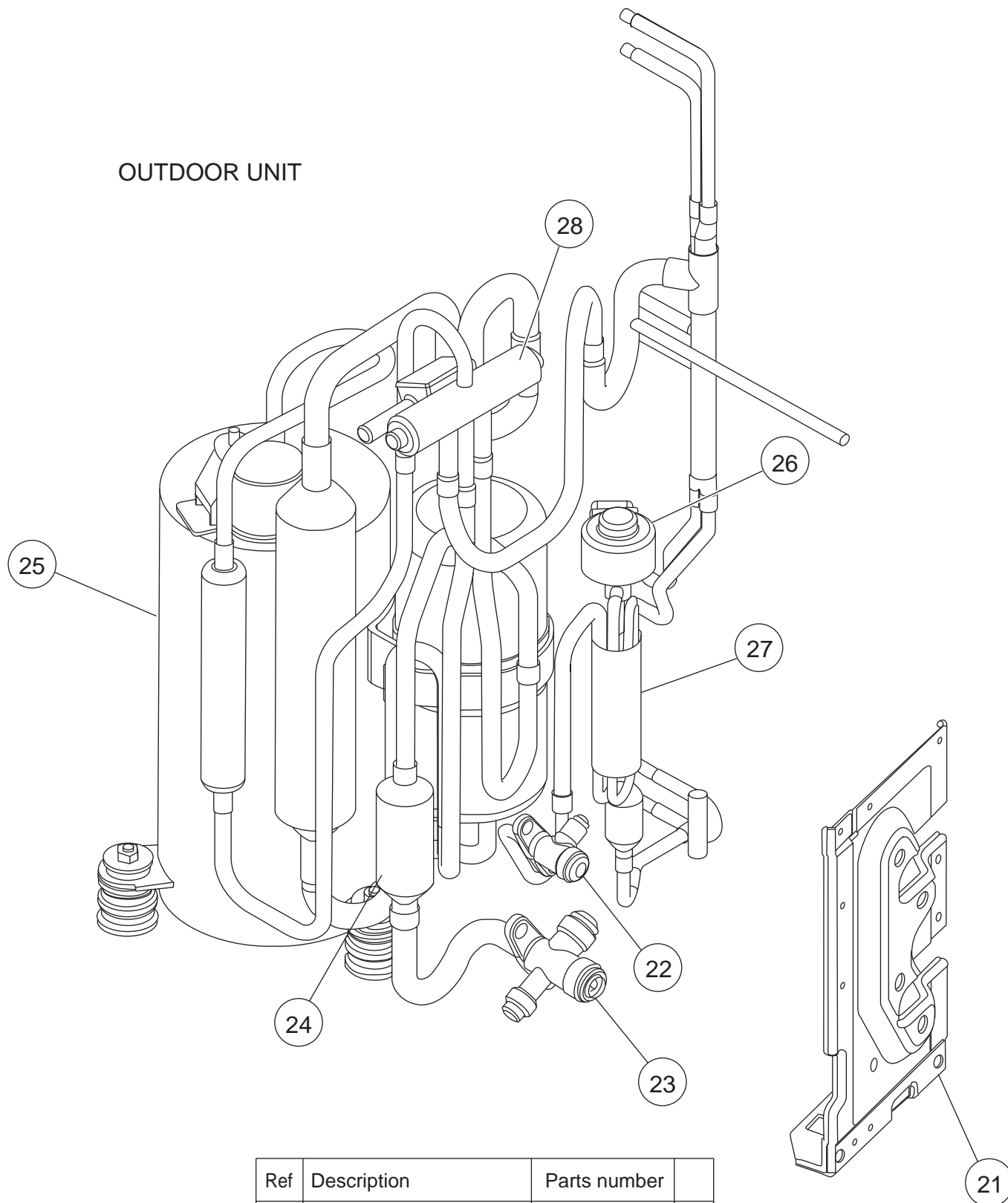
PARTS

OUTDOOR UNIT



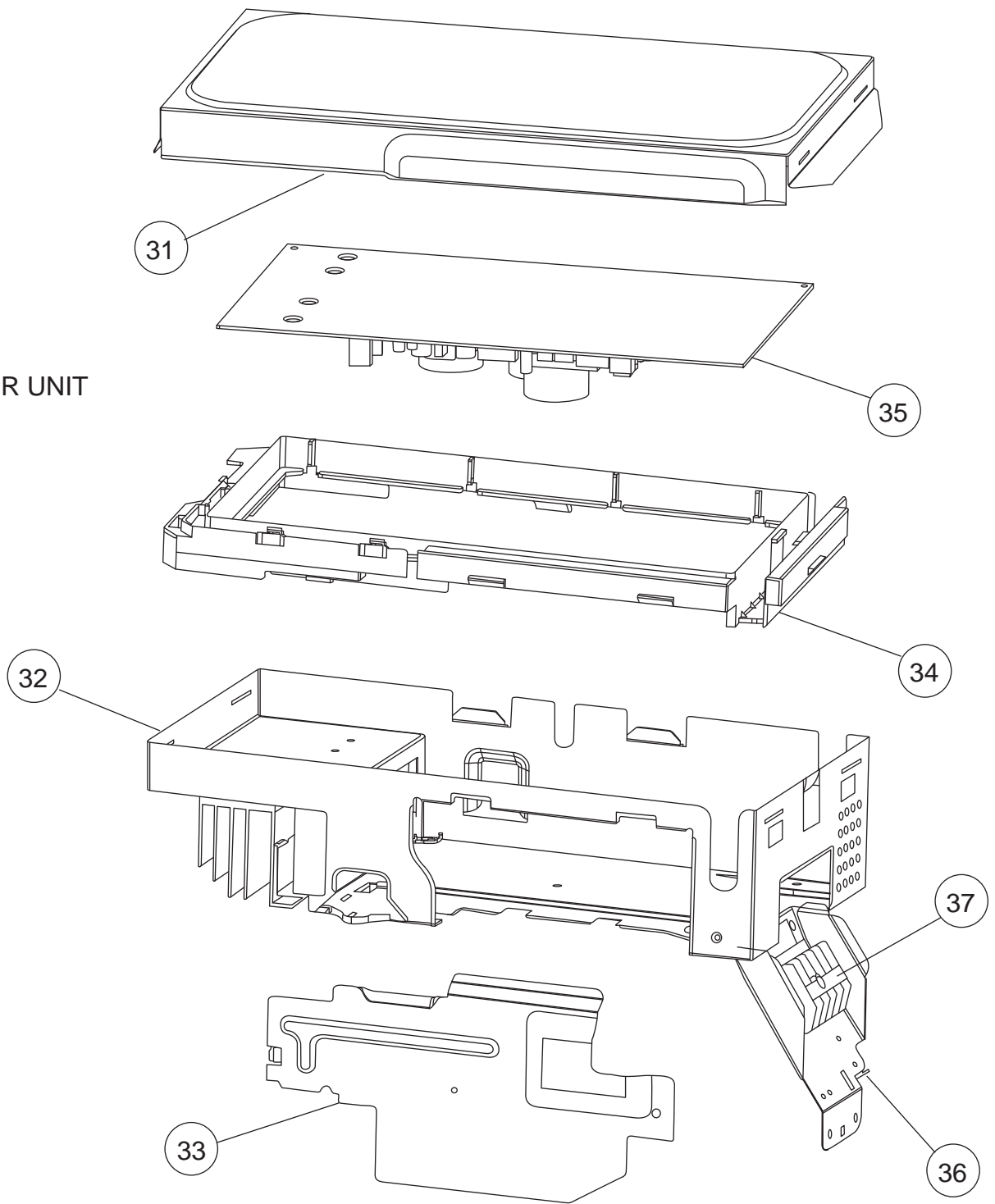
Ref.	Description	Part number
1	Top Panel Assy	9318464030
2	Front Panel Assy	9318463026
3	Cabinet Left Assy	9318461008
4	Cabinet Right Assy	9318462012
5	Grip	9317588003
6	Switch Cover Assy	9318499001
7	Base Assy	9316885028
8	Separator Sub Assy	9331722001
9	Reactor Assy	9900641016
10	Motor Bracket	9316041011
11	Fan Motor	9602724017
12	Propeller Fan	9313808013
13	Protective Net	9331640015
14	Condenser Sub Assy	9317089029
--	Emblem	9319151007
--	Drain Assy	9303029022

OUTDOOR UNIT



Ref	Description	Parts number
21	Bracket Valve	9331649001
22	2-way Valve Assy	9314554018
23	3-way Valve Assy	9316388017
24	Muffler	9316276017
25	Compressor Assy	9313279011
26	Expansion Valve Coil	9970095030
27	Pulse Motor Valve Assy	9314557019
28	4-way Valve Assy	9315311047
--	Solenoid	9970055010

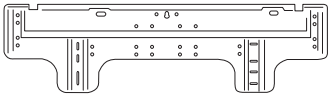




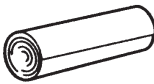

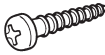

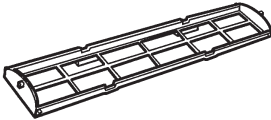
OUTDOOR UNIT



Ref	Description	Parts number	
31	Sealed Panel	9309913011	
32	Inverter Case Assy	9315690029	
33	Inverter Case Cover	9314507038	
34	PCB Holder	9313074029	
35	PCB Assy	9708753225	
36	Bracket Terminal	9315233080	
37	Terminal	9900421038	
--	Thermistor Assy	9900148041	
--	Outdoor Thermistor	9900544010	

ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty
Wall hook bracket 	1
Remote control 	1
Battery 	2
Remote control holder 	1
Drain hose insulation 	1
Cloth tape 	1
Tapping screw (big) 	8
Tapping screw (small) 	2
Air cleaning filter 	2
Air cleaning filter frame 	2

1101G3874