

SPLIT TYPE
ROOM AIR CONDITIONER
CASSETTE TYPE

SERVICE MANUAL

Indoor unit	Outdoor unit
AUU18RLF	AOU18RLFC



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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		AUU18RLF
OUTDOOR UNIT		AOU18RLFC
COOLING CAPACITY		18,000 Btu/h
HEATING CAPACITY		21,600 Btu/h
POWER SOURCE		208/230 V
FREQUENCY		60 Hz
RUNNING CURRENT	Cooling	7.1 A
	Heating	7.7 A
INPUT WATTS	Cooling	1.61 kW
	Heating	1.76 kW
E.E.R.	Cooling	11.2 Btu/Wh
COP	Heating	12.3 Btu/Wh
MOISTURE REMOVAL		4.6 Pts/h, 2.2 L/h
AIR CIRCULATION HIGH		400 CFM, 680 m ³ /h
MAXIMUM CURRENT	Cooling	10.0 A
	Heating	14.0 A

FAN MOTOR

POWER SOURCE		208/230 V
INDOOR UNIT Cooling	High	730 r.p.m.
	Medium	630 r.p.m.
	Low	540 r.p.m.
	Quiet	460 r.p.m.
INDOOR UNIT Heating	High	830 r.p.m.
	Medium	730 r.p.m.
	Low	630 r.p.m.
	Quiet	500 r.p.m.
OUTDOOR UNIT Cooling		1,050 r.p.m.
OUTDOOR UNIT Heating		1,000 r.p.m.

PANEL

MEASUREMENTS

MODEL NAME		UTG-CCGF
DIMENSIONS	H x W x D	1-15/16 x 27-9/16 x 27-9/16 inch (49 x 700 x 700 mm)
WEIGHT	Net / Shipping	5.7 lb. / 10 lb. (2.6 kg / 4.5 kg)

NOISE LEVEL

INDOOR UNIT Cooling	High	40 dB
	Medium	36 dB
	Low	32 dB
	Quiet	28 dB
INDOOR UNIT Heating	High	44 dB
	Medium	40 dB
	Low	36 dB
	Quiet	30 dB
OUTDOOR UNIT Cooling		54 dB
OUTDOOR UNIT Heating		55 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION	808-213-80	
WEIGHT (with oil)	21 lb. 6 oz., 9.7 kg	
PRECHARGED REFRIGERANT	2 lb. 13 oz., 1,300 g	
FULL CHARGE	Pipe length 49 ft., 15 m	2 lb. 13 oz., 1,300 g
	66 ft., 20 m	3 lb. 1 oz., 1,400 g
ADDITIONAL CHARGE	0.22 oz/ft, 20 g/m	
MAXIMUM PIPING HEIGHT	49 ft., 15 m	
REFRIGERANT TYPE	R410A	

DIMENSIONS

INDOOR UNIT	H x W x D	9-21/32 x 22-7/16 x 22-7/16 in. 245 x 570 x 570 mm
OUTDOOR UNIT	H x W x D	24-1/2 x 31-3/32 x 11-13/32 in. 620 x 790 x 290 mm

WEIGHT

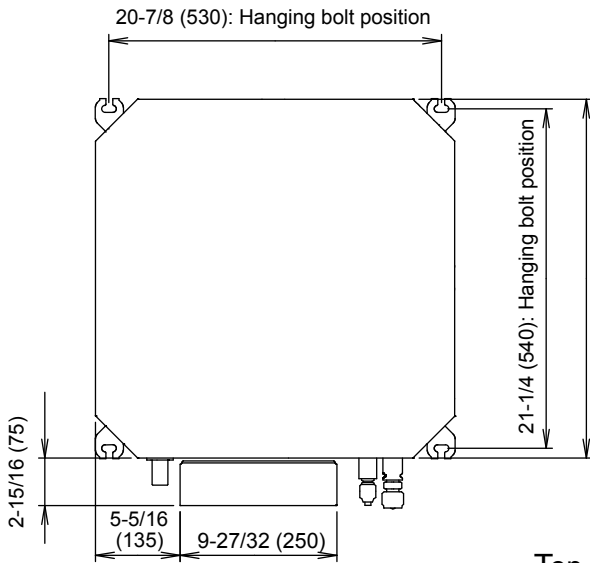
INDOOR UNIT	Net / Shipping	33 lb. / 40 lb. 15 kg / 18 kg
OUTDOOR UNIT	Net / Shipping	86 lb. / 95 lb. 39 kg / 43 kg

DIMENSIONS

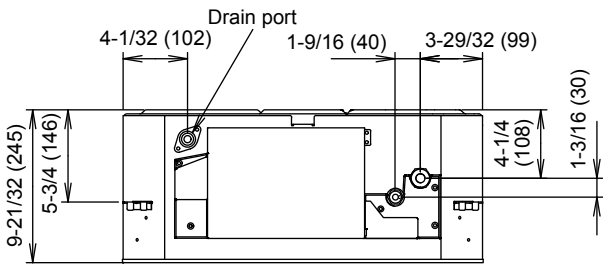
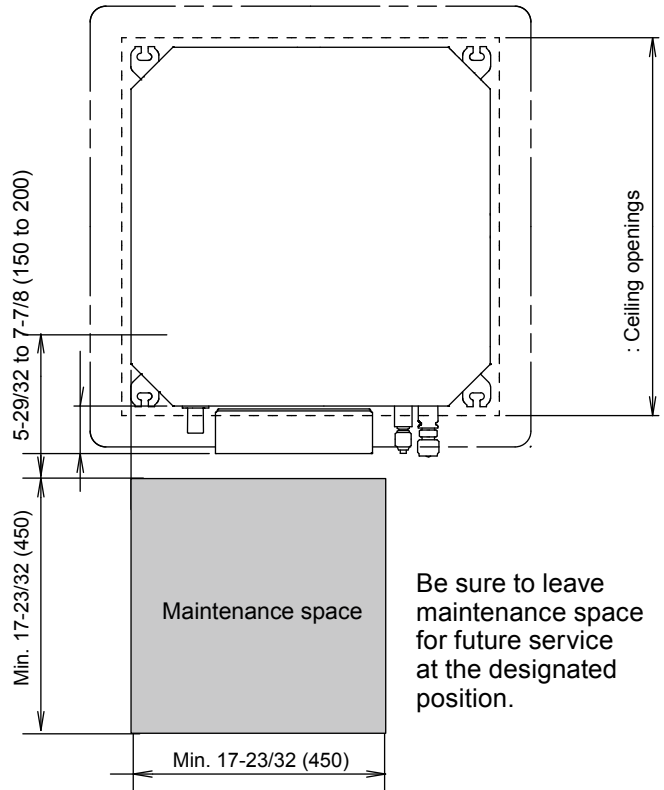
INDOOR UNIT

Unit : inch (mm)

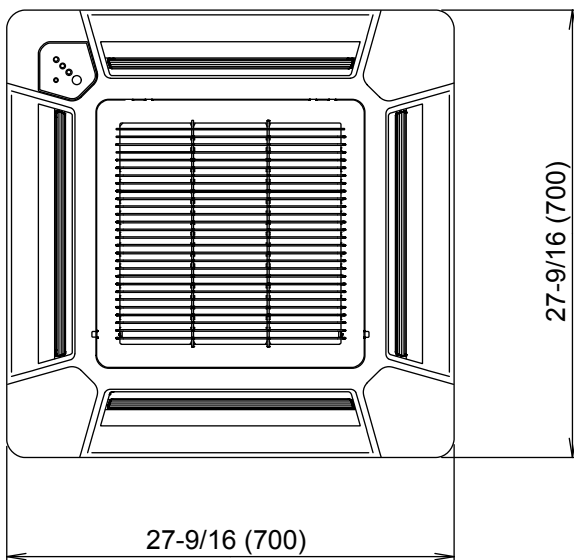
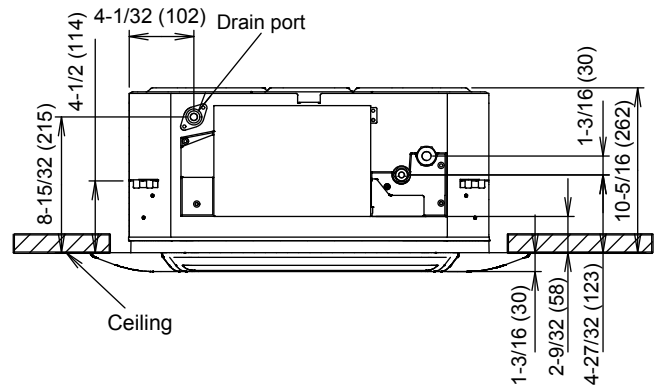
• Decoration panel mounting state



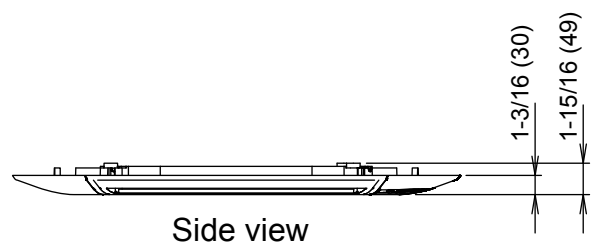
Top view



Side view



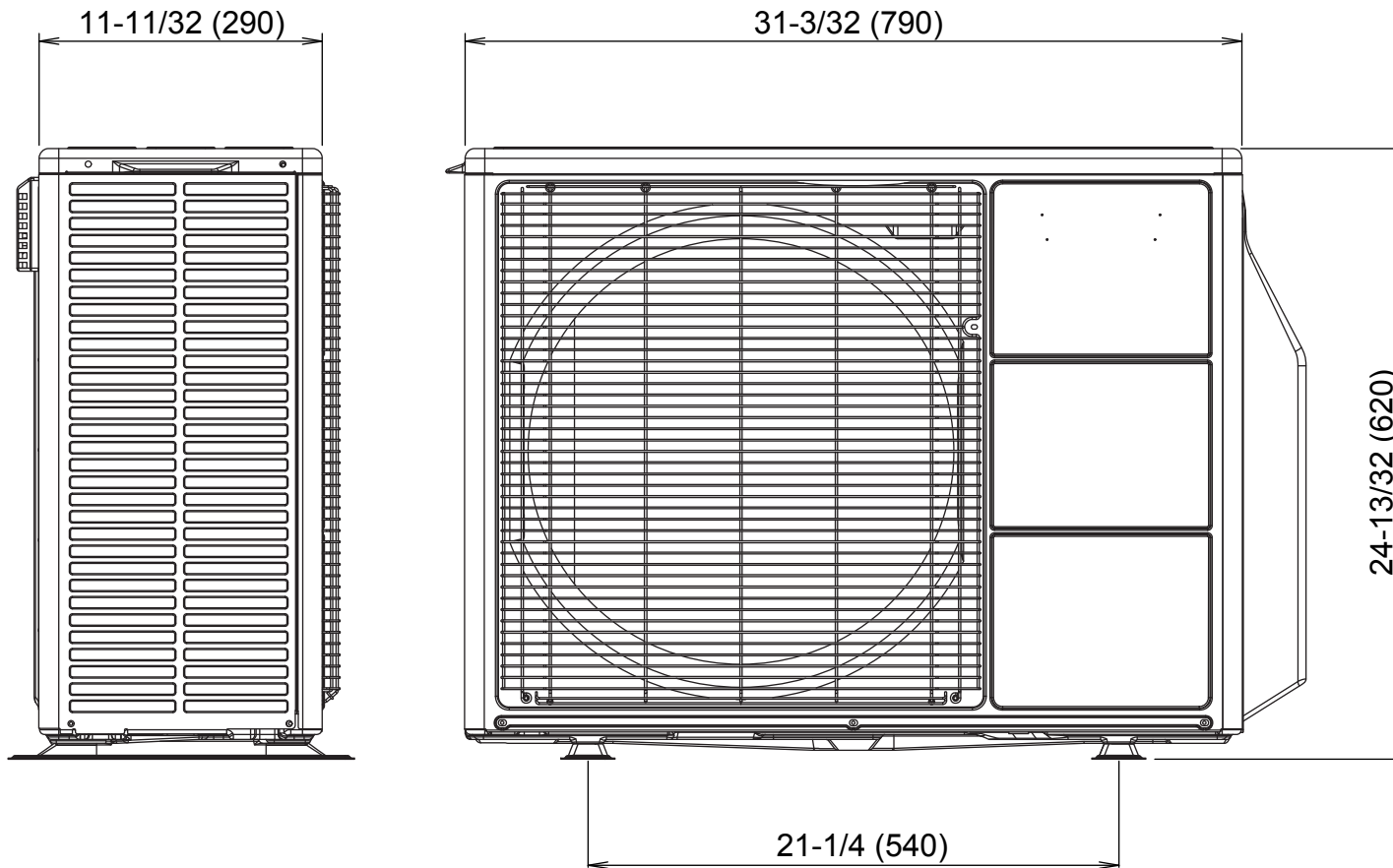
Bottom view



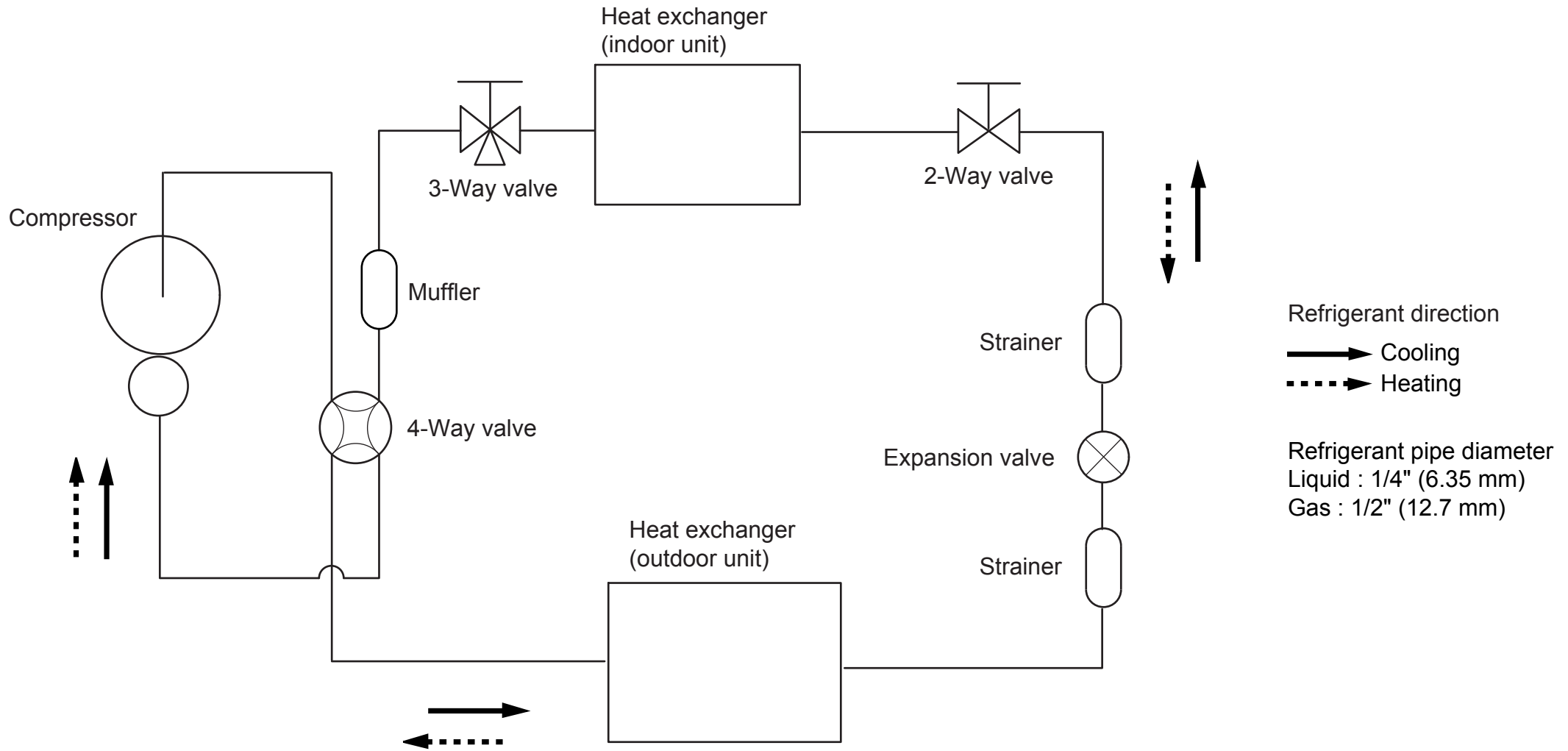
Side view

OUTDOOR UNIT

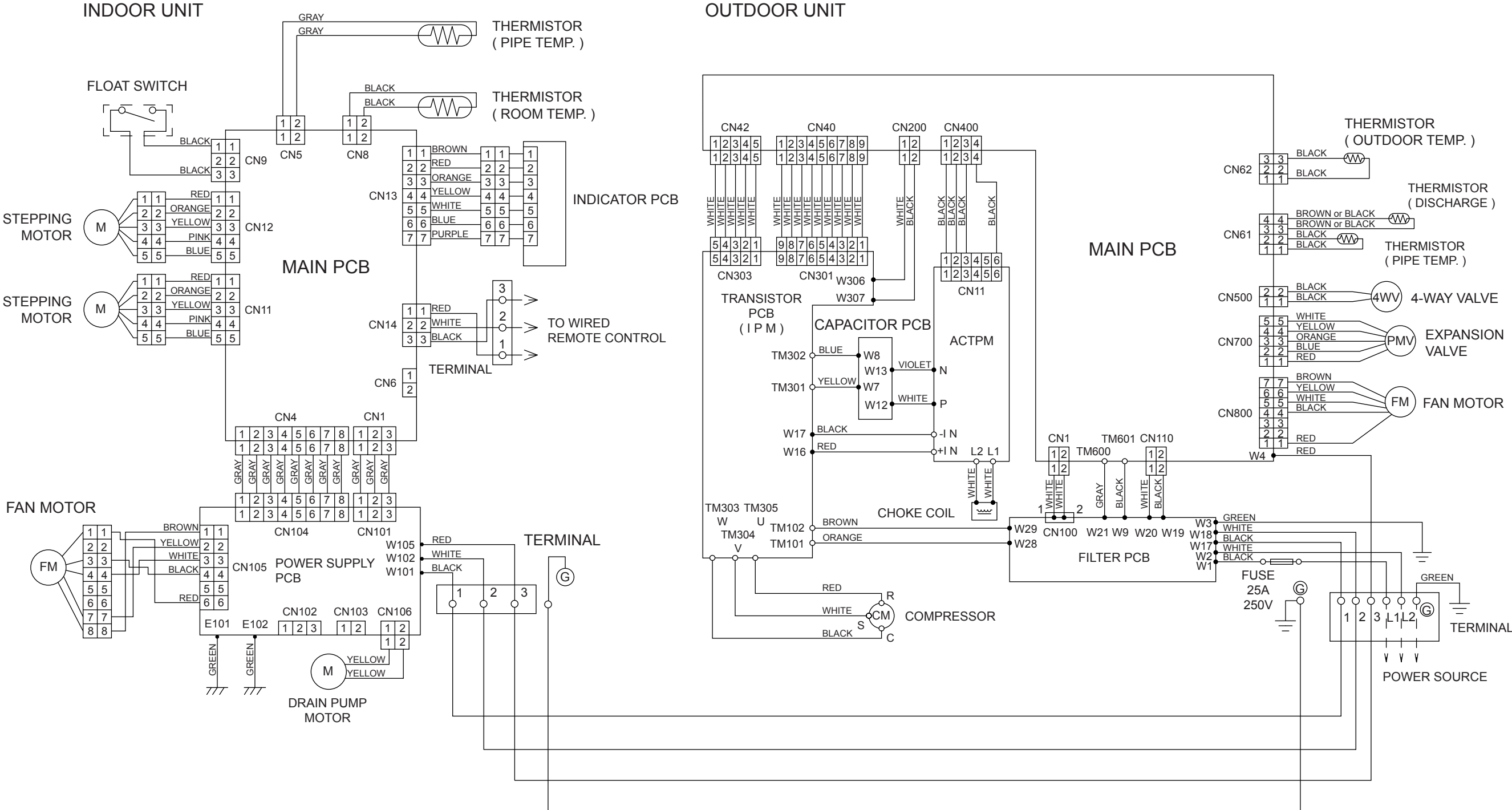
unit : inch (mm)



REFRIGERANT SYSTEM DIAGRAM

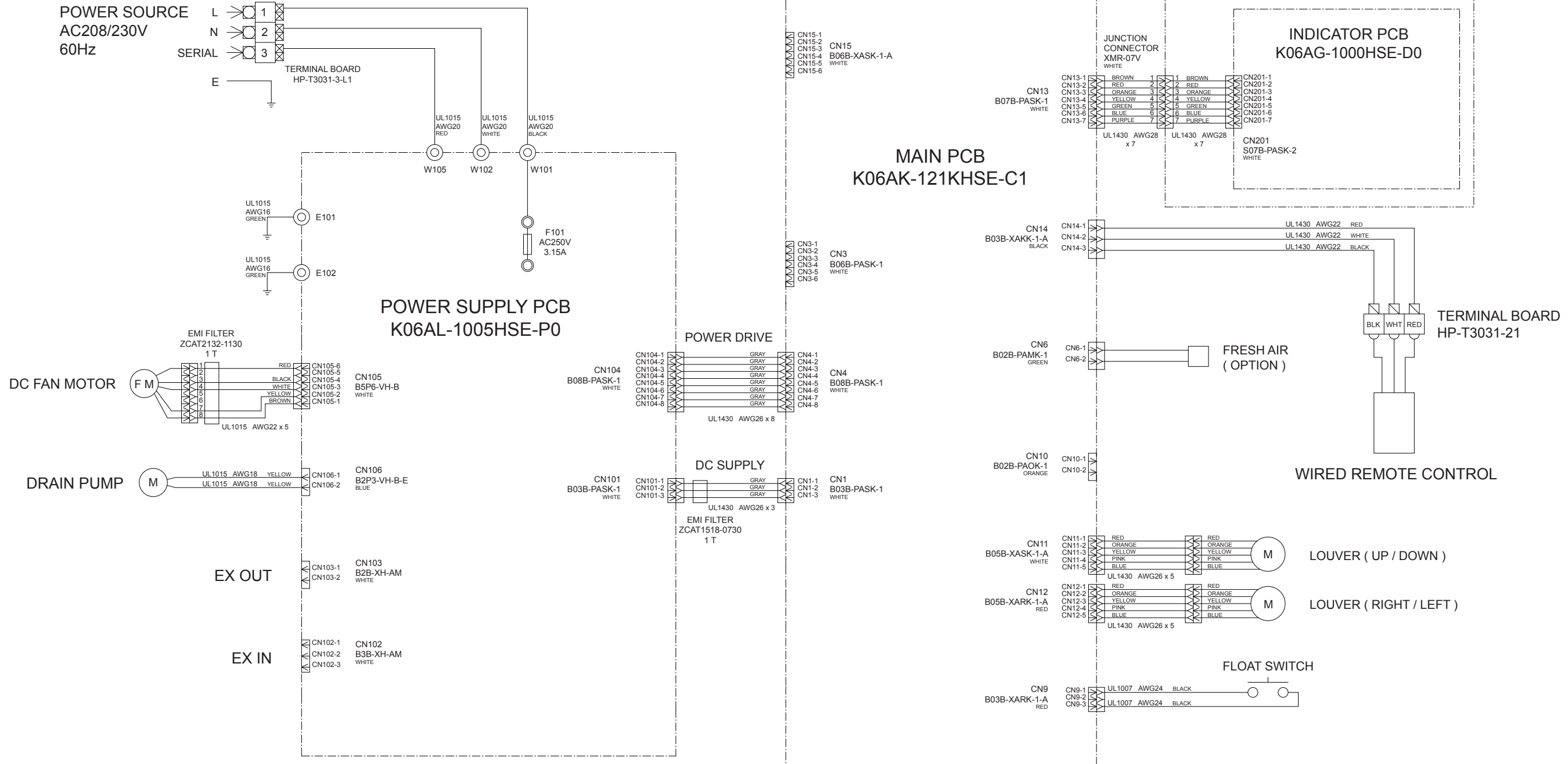


CIRCUIT DIAGRAM

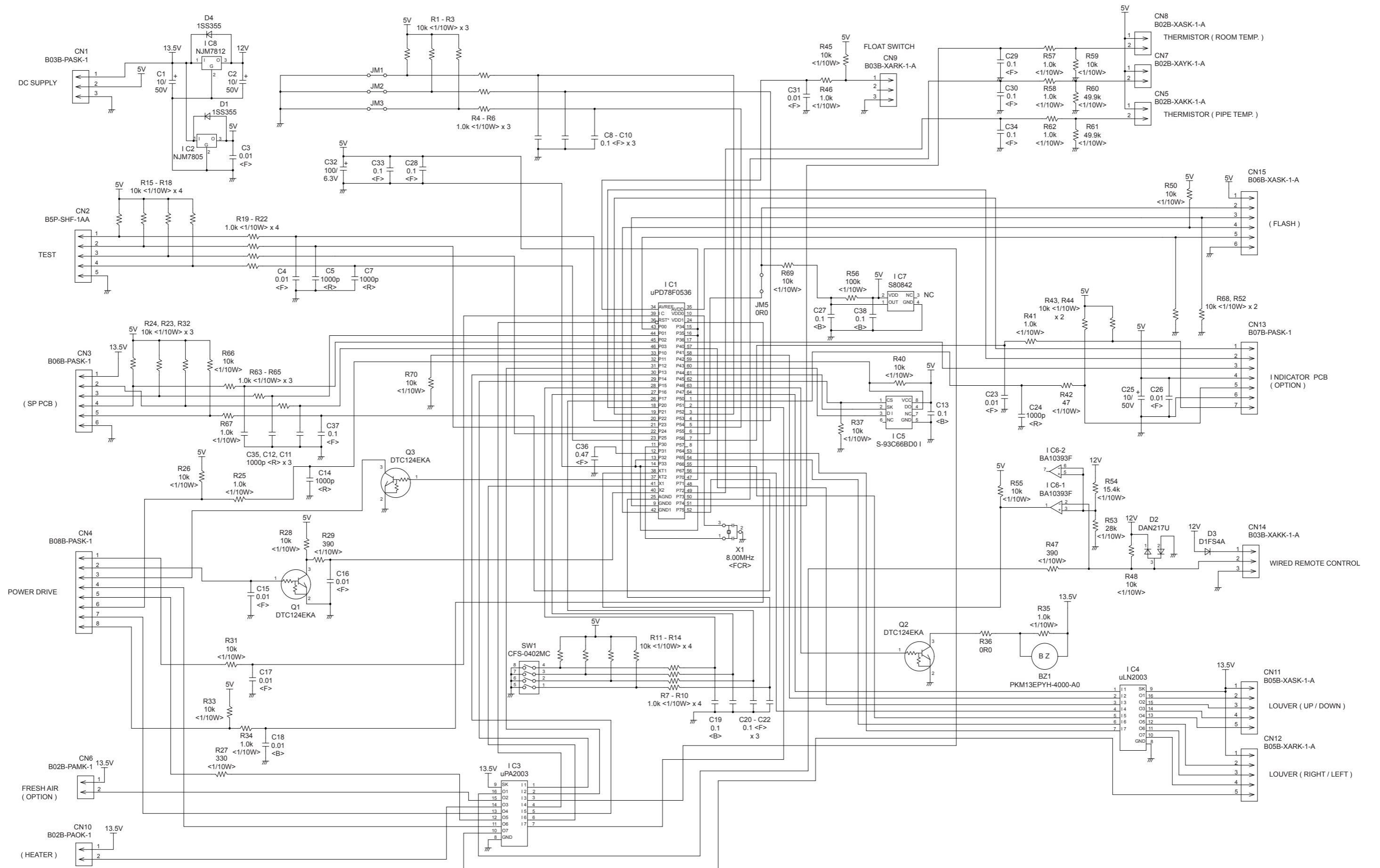


INDOOR PCB CIRCUIT DIAGRAM

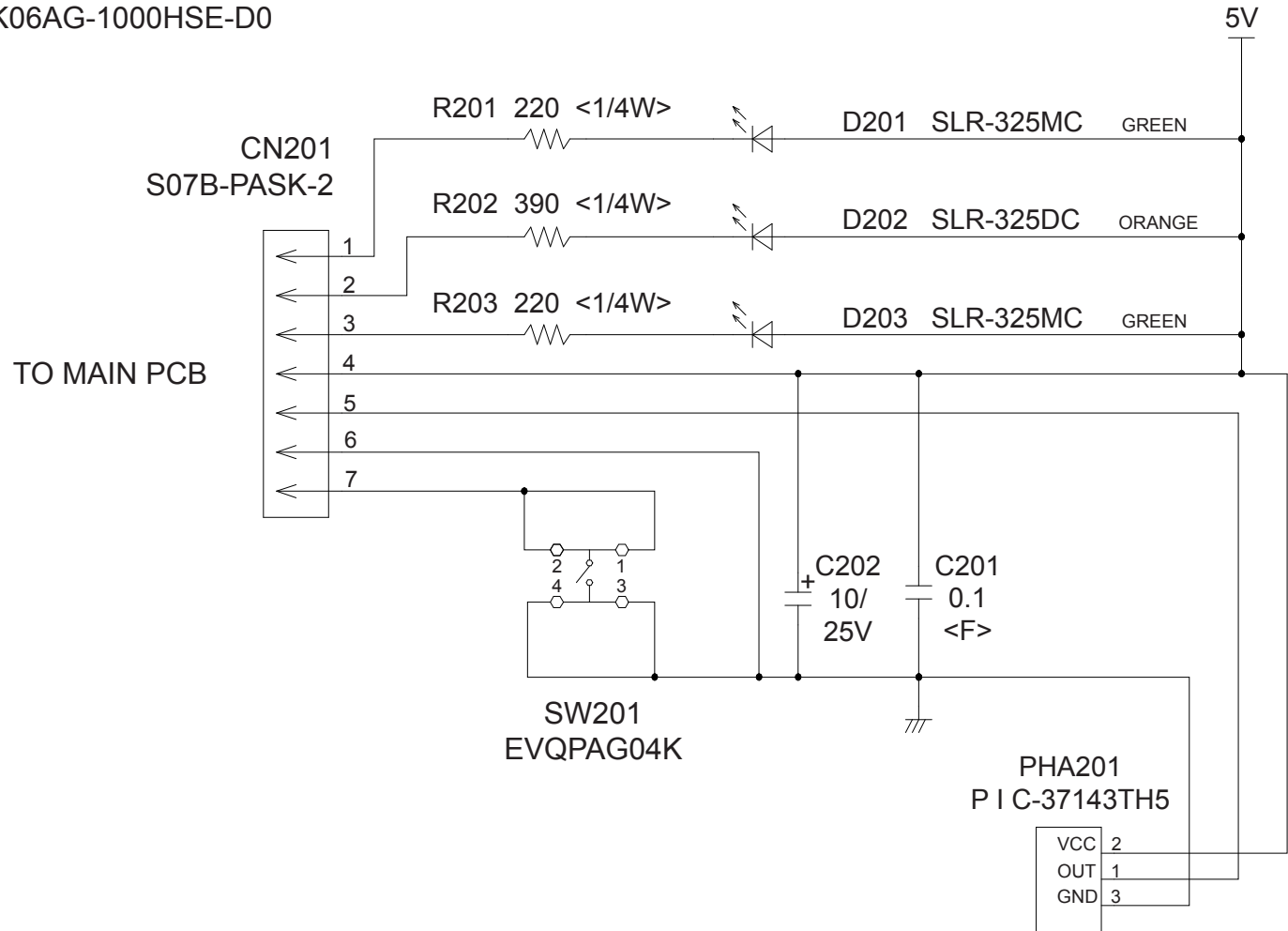
CONTROL UNIT
EZ-0106HSE



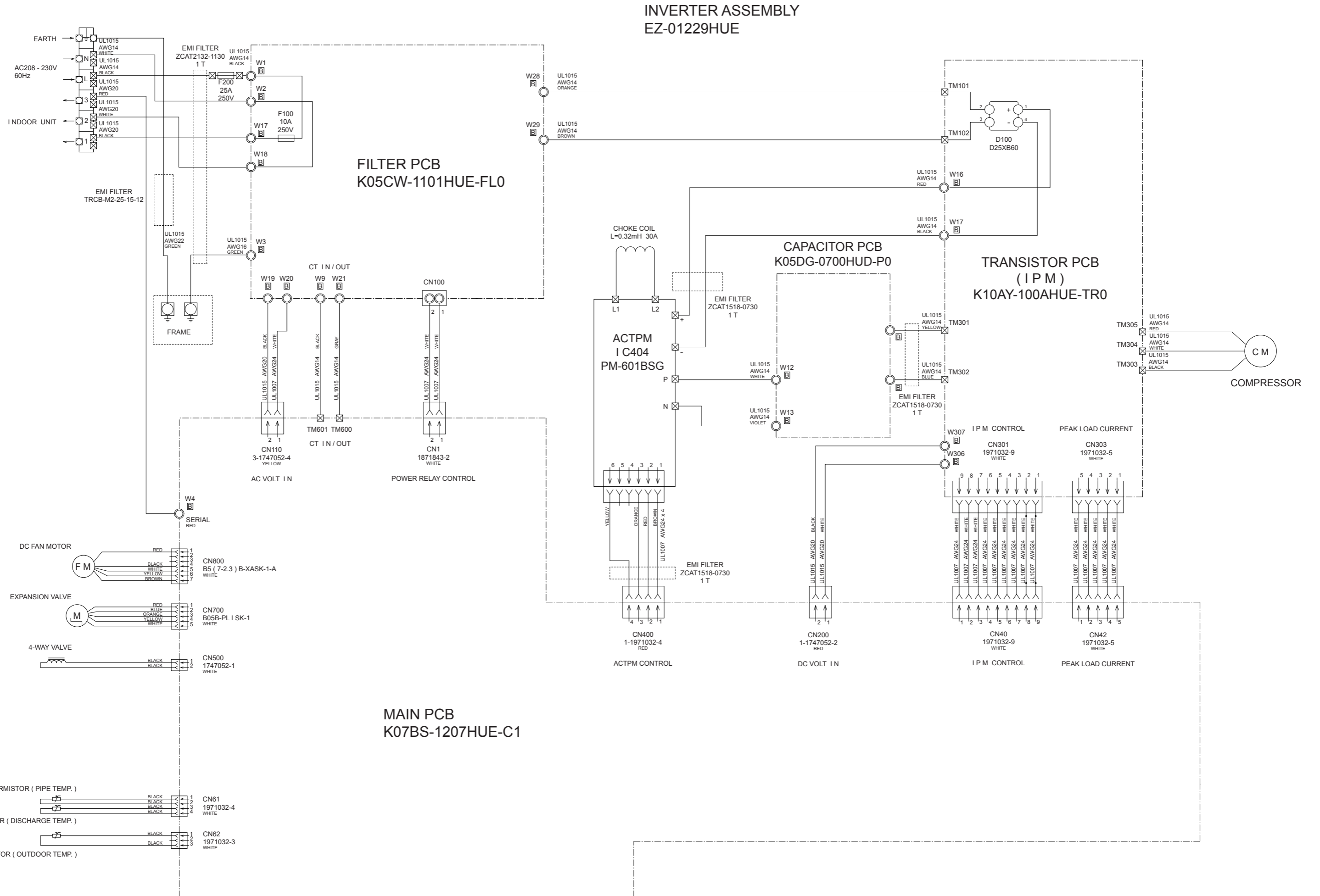
INDOOR UNIT
 MAIN PCB
 K06AK-121KHSE-C1



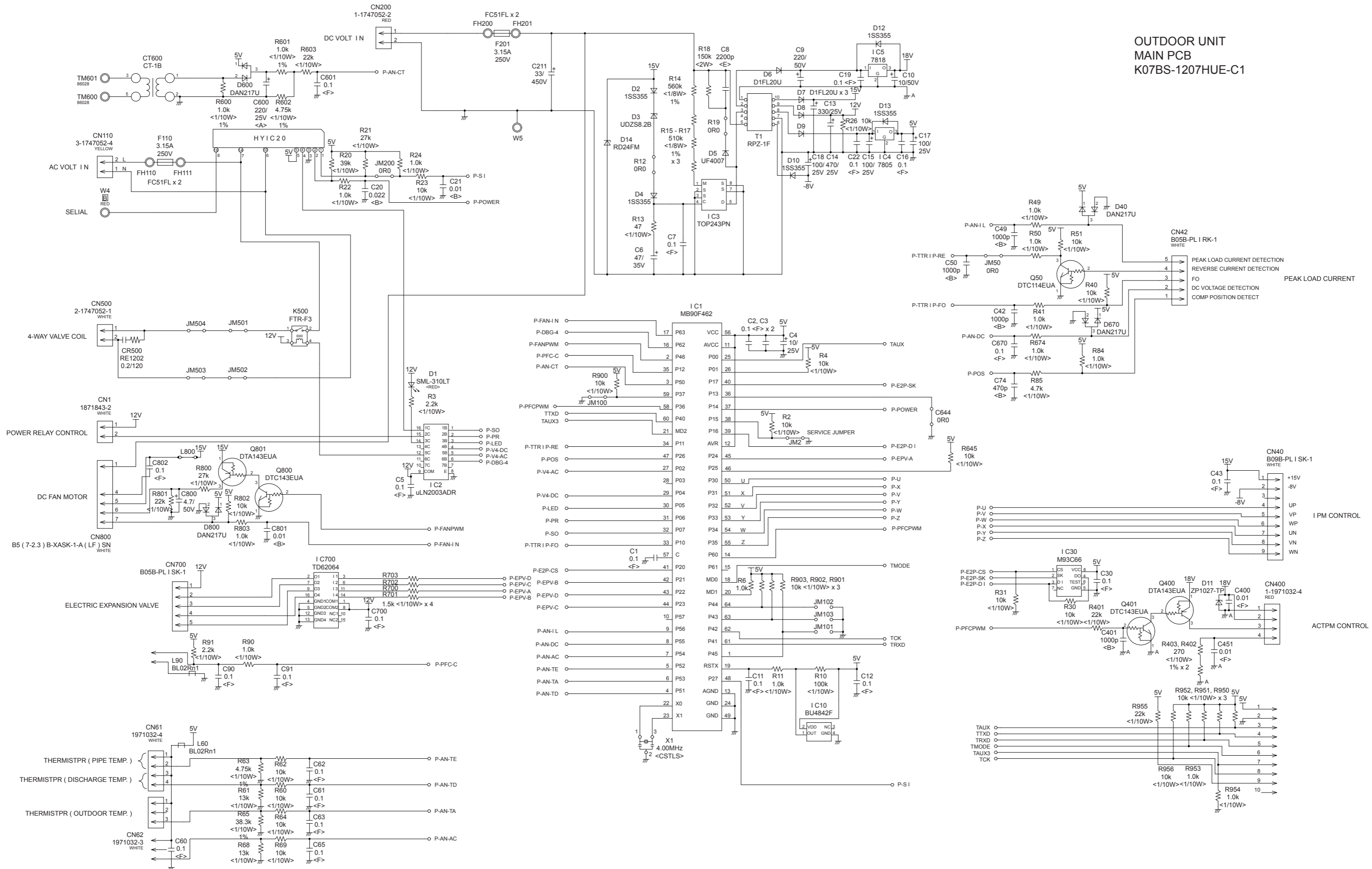
INDOOR UNIT
 INDICATOR PCB
 K06AG-1000HSE-D0



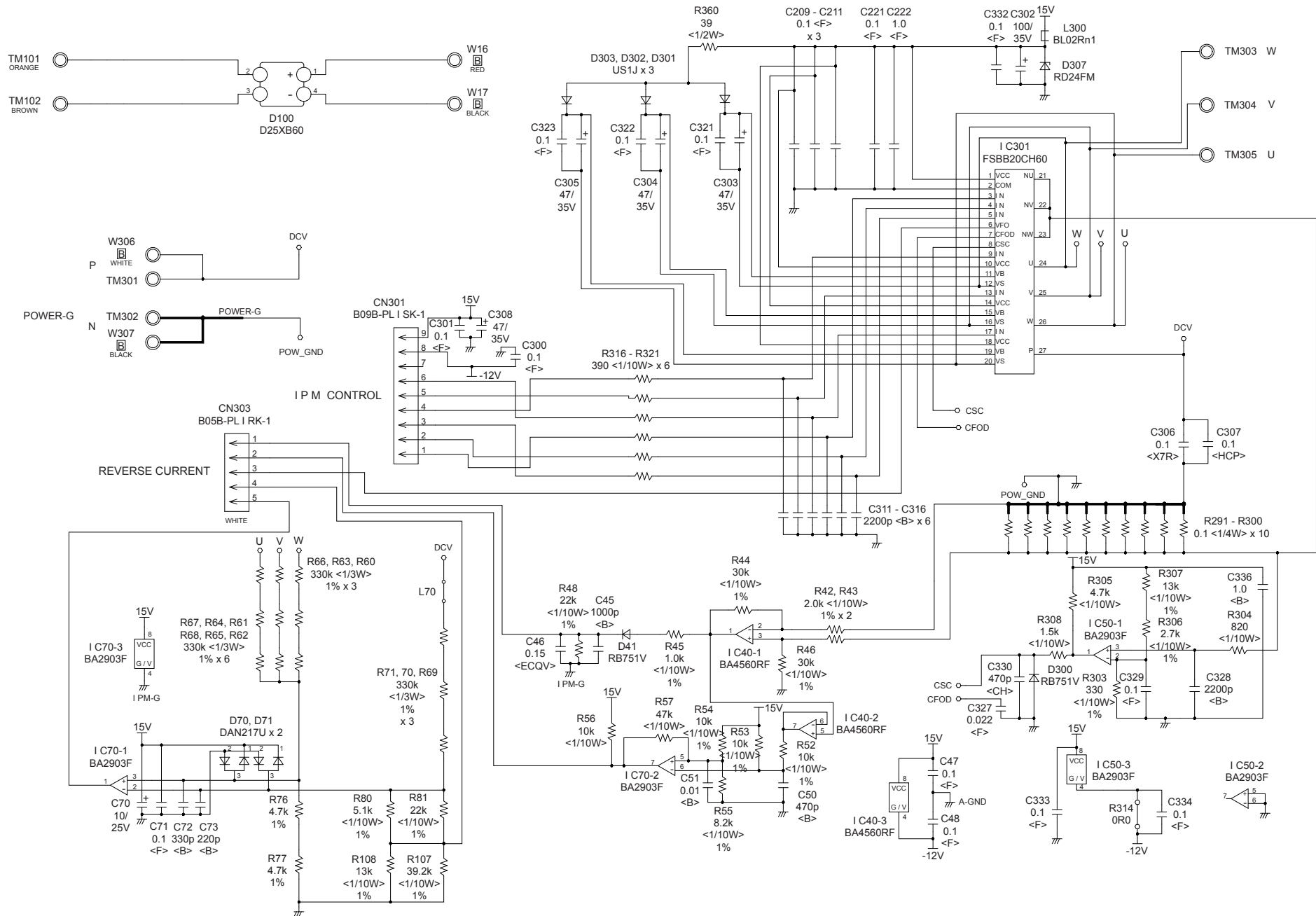
OUTDOOR PCB CIRCUIT DIAGRAM



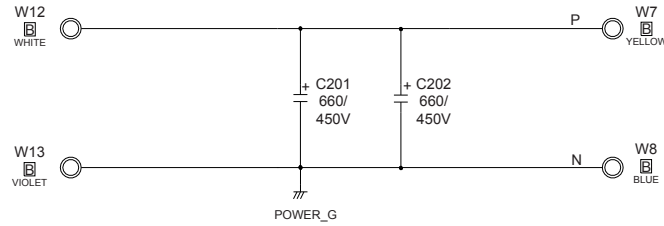
OUTDOOR UNIT
MAIN PCB
K07BS-1207HUE-C1



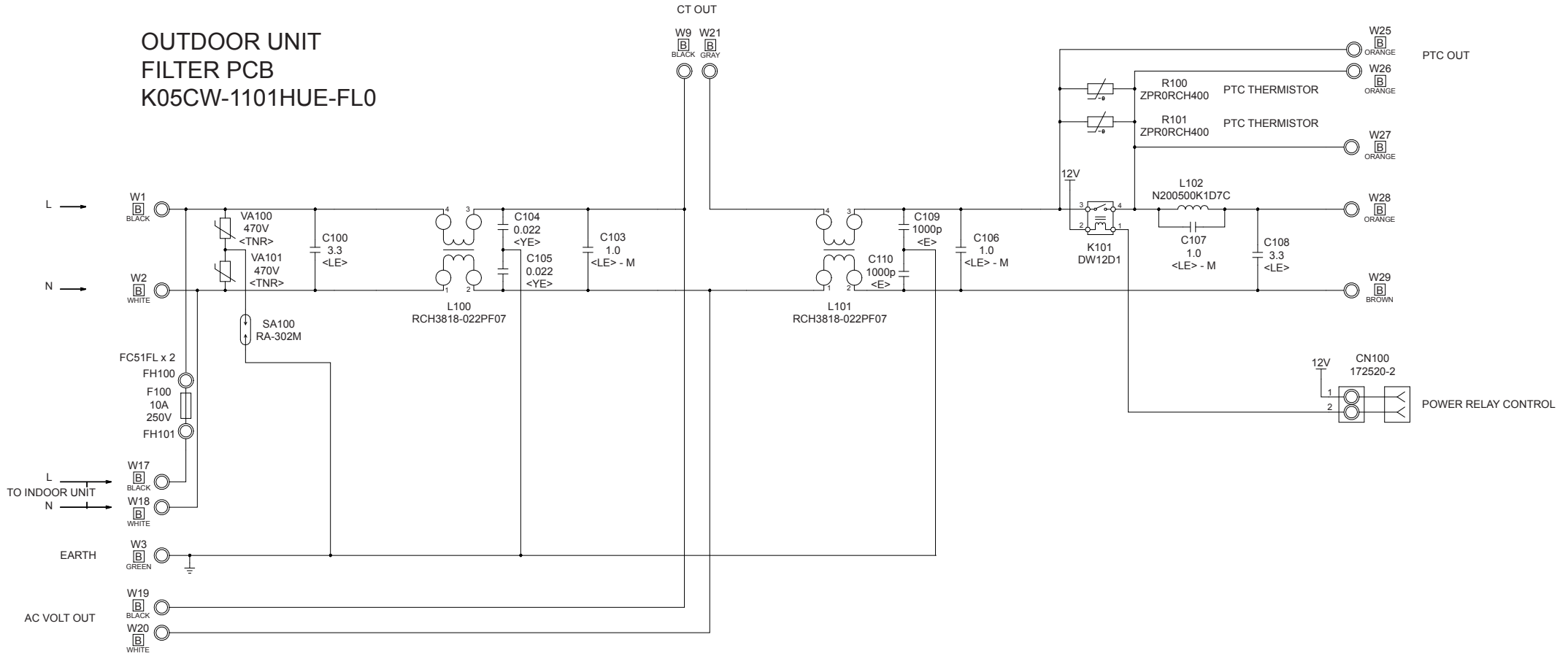
OUTDOOR UNIT TRANSISTOR PCB (I P M) K10AY-100AHUE-TR0



OUTDOOR UNIT CAPACITOR PCB K05DG-0700HUD-P0



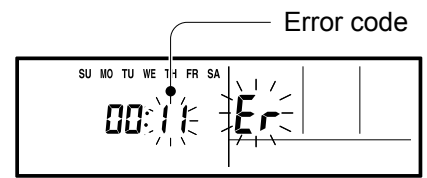
OUTDOOR UNIT FILTER PCB K05CW-1101HUE-FL0



ERROR DETECTION

If you use a wired type remote control, error codes will appear on the remote control display.
If you use a wireless remote control, the lamps on the IR receiver unit will output error codes by way of blinking patterns.

See the lamp blinking patterns and error codes in the table below.
An error display is displayed only during operation.



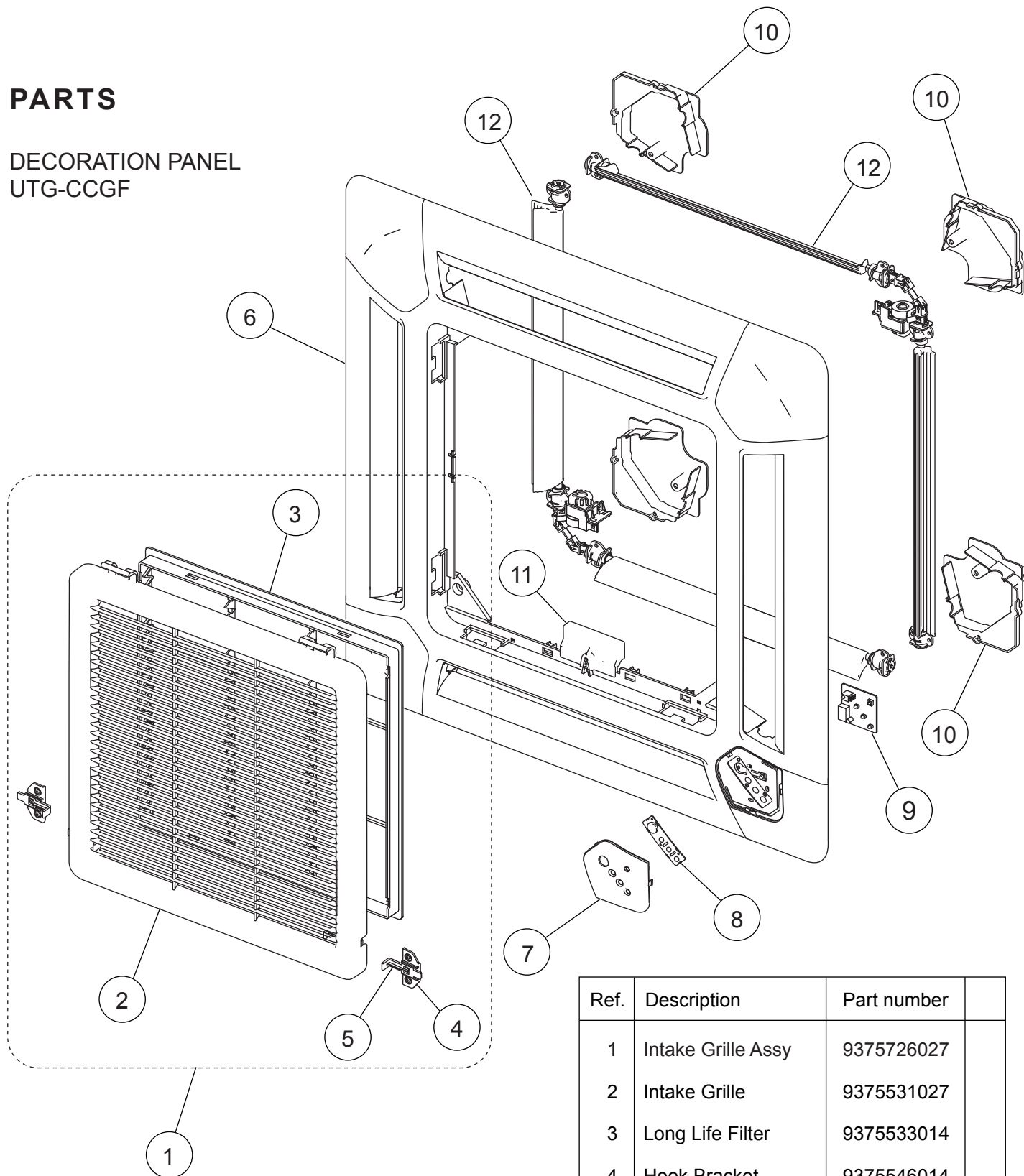
Wired remote control

Indoor unit lamps			Wired remote control	Mode	Description	Remark
OPERATION (green)	TIMER (orange)	ECONOMY (green)				
● (1)	● (1)	◇	11	Communication	Serial communication error	•When the indoor unit cannot receive the signal from the branch unit •When the branch unit cannot receive the signal from the indoor unit
● (1)	● (2)	◇	12	Communication	Remote control communication error	•Wired remote control communication error
● (1)	● (5)	◇	15	Communication	Scan error	•Check operation incompleteness error (normally, operation disabled)
● (2)	● (1)	◇	21	Function setting	Initial setting error	•Wiring mistake
● (2)	● (2)	◇	22	Function setting	Indoor unit capacity error	•Indoor unit capacity error
● (2)	● (3)	◇	23	Function setting	Connection disabled (series error)	•Combination error
● (2)	● (4)	◇	24	Function setting	Connection unit number error	•Connection unit number error (indoor unit) •Connection unit number error (branch unit)
● (3)	● (2)	◇	32	Indoor unit	Indoor unit main PCB error	•Indoor unit PCB Model information error
● (3)	● (5)	◇	35	Indoor unit	Manual auto switch error	•Manual auto switch error
● (4)	● (1)	◇	41	Indoor unit	Room error	•Inlet thermistor error
● (4)	● (2)	◇	42	Indoor unit	Indoor unit Heat Ex. sensor error	•Indoor unit Heat Ex. Middle thermistor error
● (5)	● (1)	◇	51	Indoor unit	Indoor unit fan motor error	•Main fan motor lock error •Main fan motor revolution speed error
● (5)	● (3)	◇	53	Indoor unit	Water Drain error	•Drain pump error
● (5)	● (15)	◇	50	Indoor unit	Indoor unit error	•Indoor unit error
● (6)	● (2)	◇	62	Outdoor unit	Outdoor unit main PCB error	•Outdoor unit PCB Model information error •Outdoor unit PCB microcomputer communication error
● (6)	● (3)	◇	63	Outdoor unit	Inverter PCB error	•Inverter error
● (6)	● (4)	◇	64	Outdoor unit	Active filter error, PFC circuit error	•Voltage error stoppage permanently •Voltage error (can restore) •Over current protected operation stoppage permanently •PFC hardware error
● (6)	● (5)	◇	65	Outdoor unit	IPM error	•Trip terminal L error
● (6)	● (10)	◇	6A	Outdoor unit	Display panel error	•Microcomputers communication error
● (7)	● (1)	◇	71	Outdoor unit	Discharge thermistor error	•Discharge thermistor 1 error
● (7)	● (2)	◇	72	Outdoor unit	Compressor thermistor error	•Compressor thermistor 1 error
● (7)	● (3)	◇	73	Outdoor unit	Outdoor unit Heat Ex. Sensor error	•Outdoor unit Heat Ex. liquid thermistor error
● (7)	● (4)	◇	74	Outdoor unit	Outdoor thermistor error	•Outdoor thermistor error
● (7)	● (5)	◇	75	Outdoor unit	Suction Gas thermistor error	•Suction Gas thermistor error
● (7)	● (7)	◇	77	Outdoor unit	Heat sink thermistor error	•Heat sink thermistor error
● (8)	● (2)	◇	82	Outdoor unit	Sub-cool Heat Ex. gas thermistor error	•Sub-cool Heat Ex. gas inlet thermistor error •Sub-cool Heat Ex. gas outlet thermistor error
● (8)	● (3)	◇	83	Outdoor unit	Liquid pipe thermistor error	•Liquid pipe thermistor 1 error
● (8)	● (4)	◇	84	Outdoor unit	Current sensor error	•Current sensor 1 error (stoppage permanently)
● (8)	● (6)	◇	86	Outdoor unit	Pressure sensor error	•Discharge pressure sensor error •Suction pressure sensor error •High pressure switch 1 error
● (9)	● (4)	◇	94	Outdoor unit	Trip detection	•Trip detection
● (9)	● (5)	◇	95	Outdoor unit	Compressor motor control error	•Rotor position detection error (stoppage permanently)
● (9)	● (7)	◇	97	Outdoor unit	Outdoor unit fan motor 1 error	•Duty error
● (9)	● (9)	◇	99	Outdoor unit	4-way valve error	•4-way valve error
● (10)	● (1)	◇	A1	Refrigerant system	Discharge temperature 1 error	•Discharge temperature 1 error
● (10)	● (3)	◇	A3	Refrigerant system	Compressor temperature error	•Compressor 1 temperature error
● (10)	● (5)	◇	A5	Refrigerant system	Pressure error 2	•Low pressure error
● (13)	● (2)	◇	J2	Branch box	Unit flow divider error	•EEPROM access error •Equipment type information error •Serial communication error to outdoor unit •Branch units serial communication error •Serial communication error to indoor unit •Liquid pipe thermistor error •Gas pipe thermistor error •Expansion valve full closure operation error •Remote control communication error •Branch unit error

•Display mode ● : 0.5s ON / 0.5s OFF, () : Number of flashing, ◇ : 0.1s ON / 0.1s OFF

PARTS

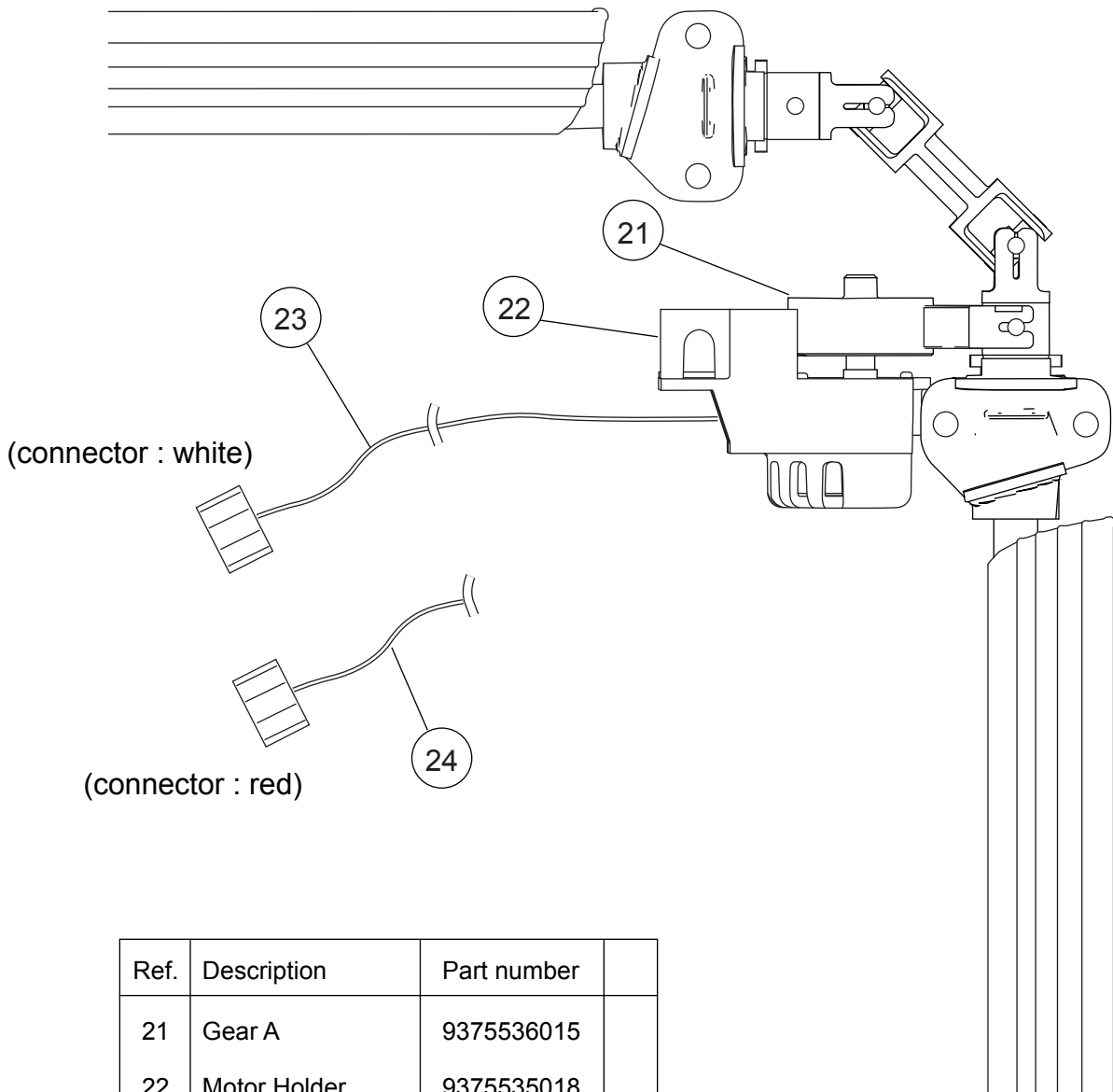
DECORATION PANEL
UTG-CCGF



Ref.	Description	Part number
1	Intake Grille Assy	9375726027
2	Intake Grille	9375531027
3	Long Life Filter	9375533014
4	Hook Bracket	9375546014
5	Grille Hook	9375532024
6	Decoration Panel without Insulations	9375525033
7	Display Panel	9375529123
8	Receiver Window	9375547011
9	Indicator PCB	9707371031
10	Panel Cover without Insulations	9375530013
11	Connector Cover	9375549015
12	Flap Total Assy	9377760029

DECORATION PANEL
UTG-CCGF

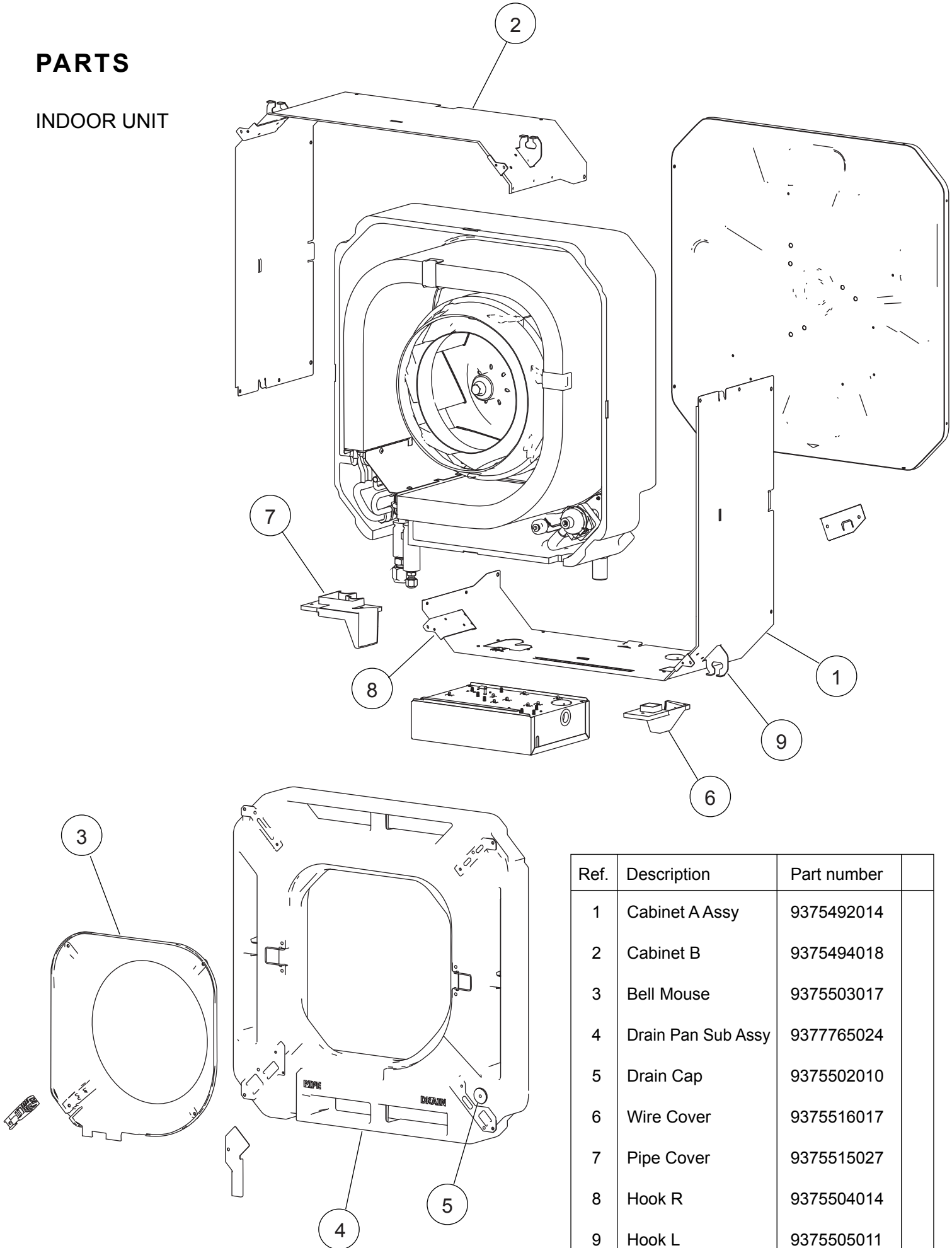
Flap total assy
Motor holder assy



Ref.	Description	Part number	
21	Gear A	9375536015	
22	Motor Holder	9375535018	
23	Step Motor (white connector)	9900139070	
24	Step Motor (red connector)	9900139087	

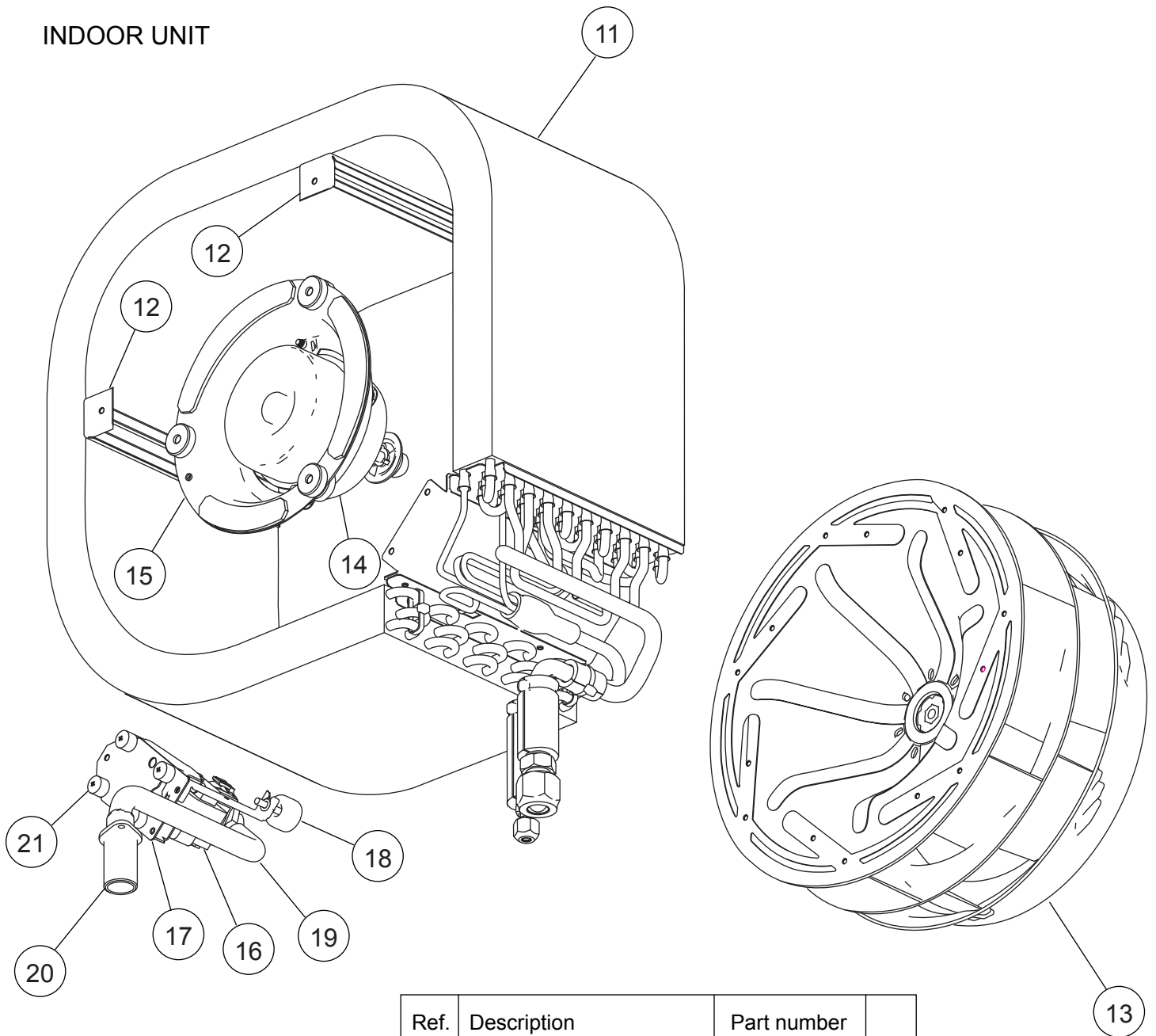
PARTS

INDOOR UNIT



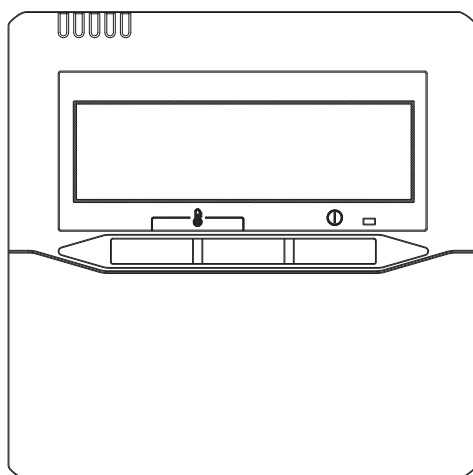
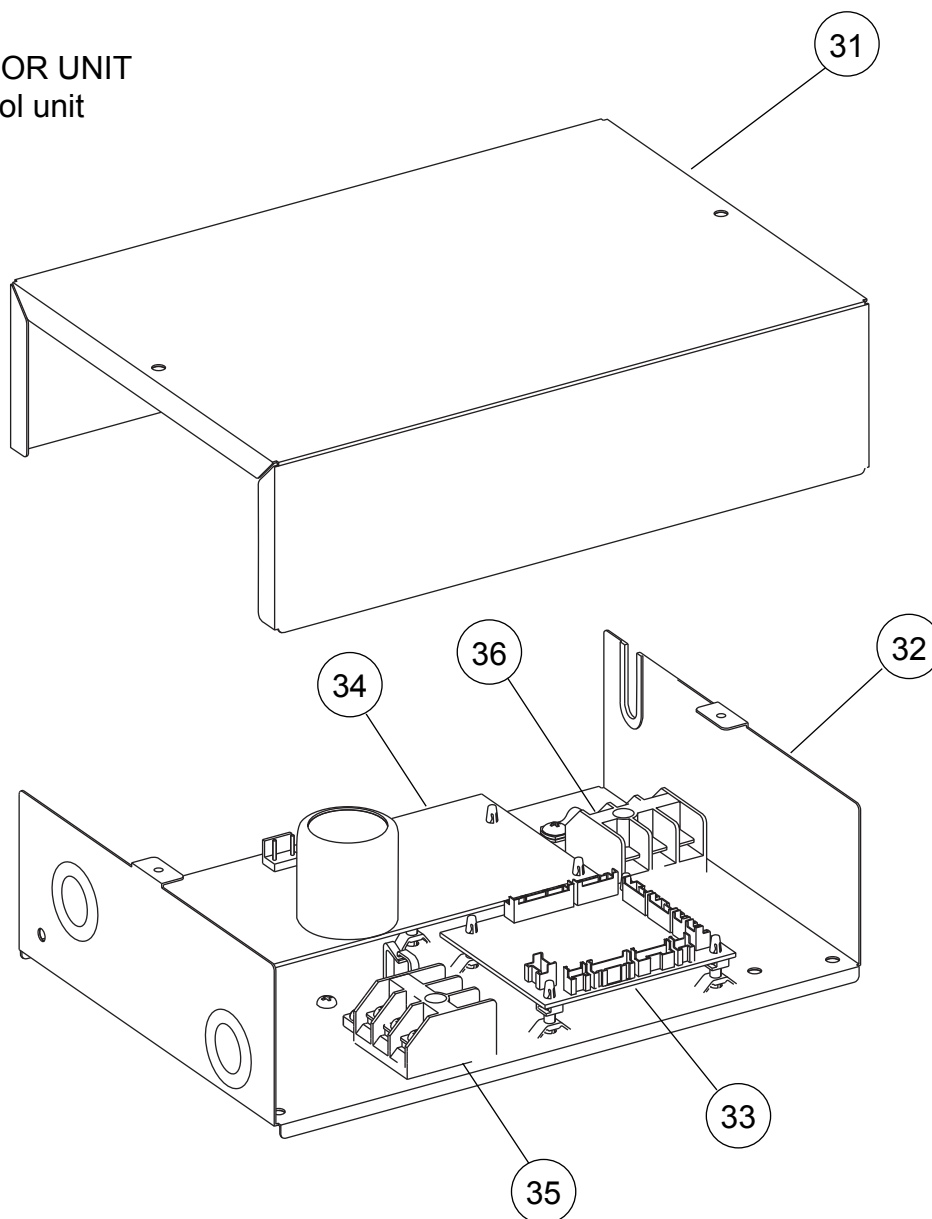
Ref.	Description	Part number
1	Cabinet A Assy	9375492014
2	Cabinet B	9375494018
3	Bell Mouse	9375503017
4	Drain Pan Sub Assy	9377765024
5	Drain Cap	9375502010
6	Wire Cover	9375516017
7	Pipe Cover	9375515027
8	Hook R	9375504014
9	Hook L	9375505011

INDOOR UNIT



Ref.	Description	Part number	
11	Evaporator Total Assy	9377914026	
12	Evaporator Holder	9375508012	
13	2 Stage Turbo Fan Assy	9375480011	
14	Fan Motor	9602870004	
15	Fan Motor Holder	9375552015	
16	Pump Assy	9900472030	
17	Drain Pump Holder B	9375518011	
18	Float Switch	9900361037	
19	Drain Hose B	9375519025	
20	Drain Port	9375520014	
21	Rubber (Pump)	9378426016	

INDOOR UNIT
Control unit

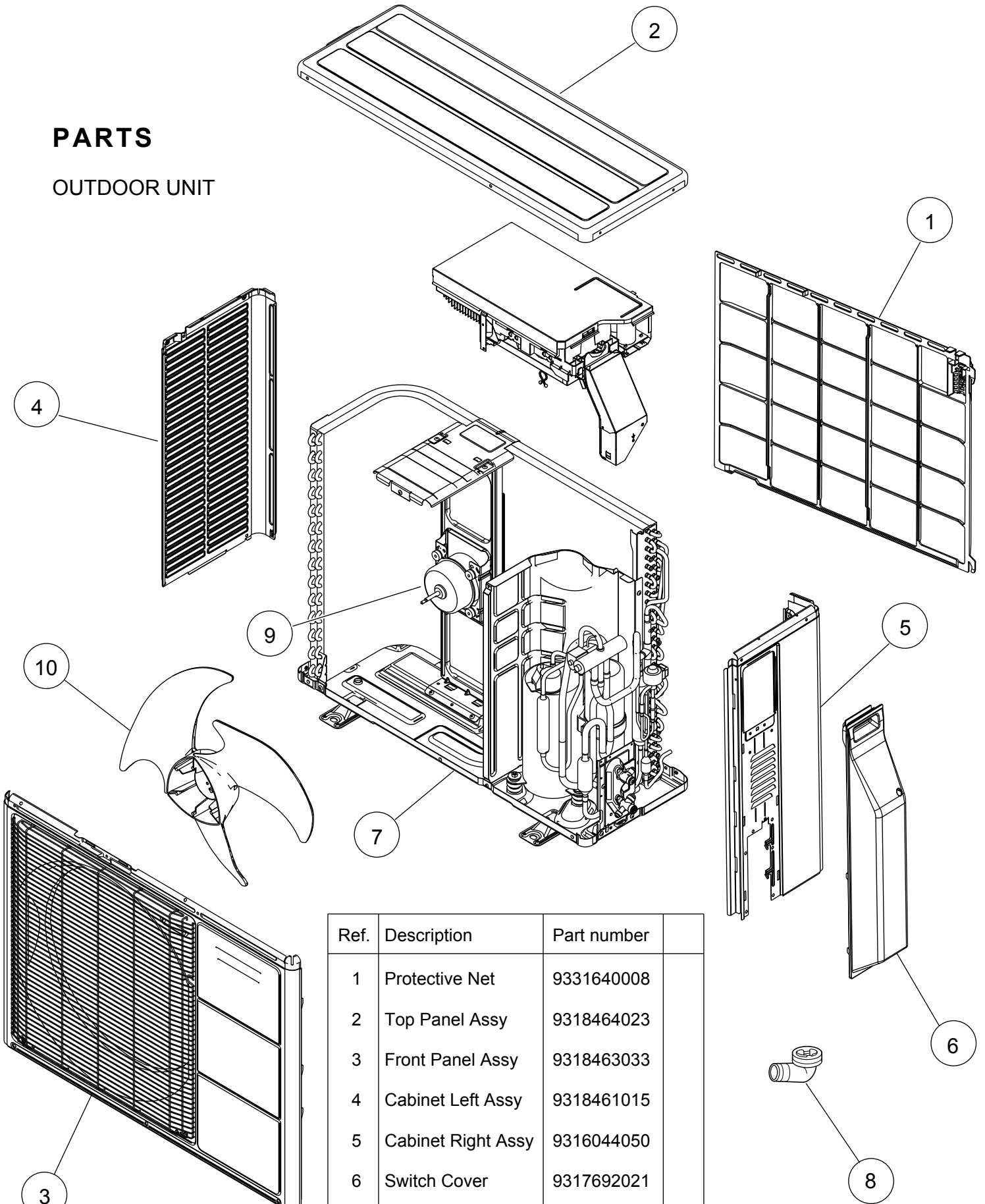


37

Ref.	Description	Part number	
31	Control Box Cover	9375512019	
32	Control Box A Assy	9379250016	
33	Main PCB	9709245552	
34	Power Supply PCB	9707398236	
35	Terminal	9306489045	
36	Terminal	9703345012	
37	Remote Control	9318593006	
--	Pipe Thermistor	9703297014	
--	Room Thermistor	9900502003	

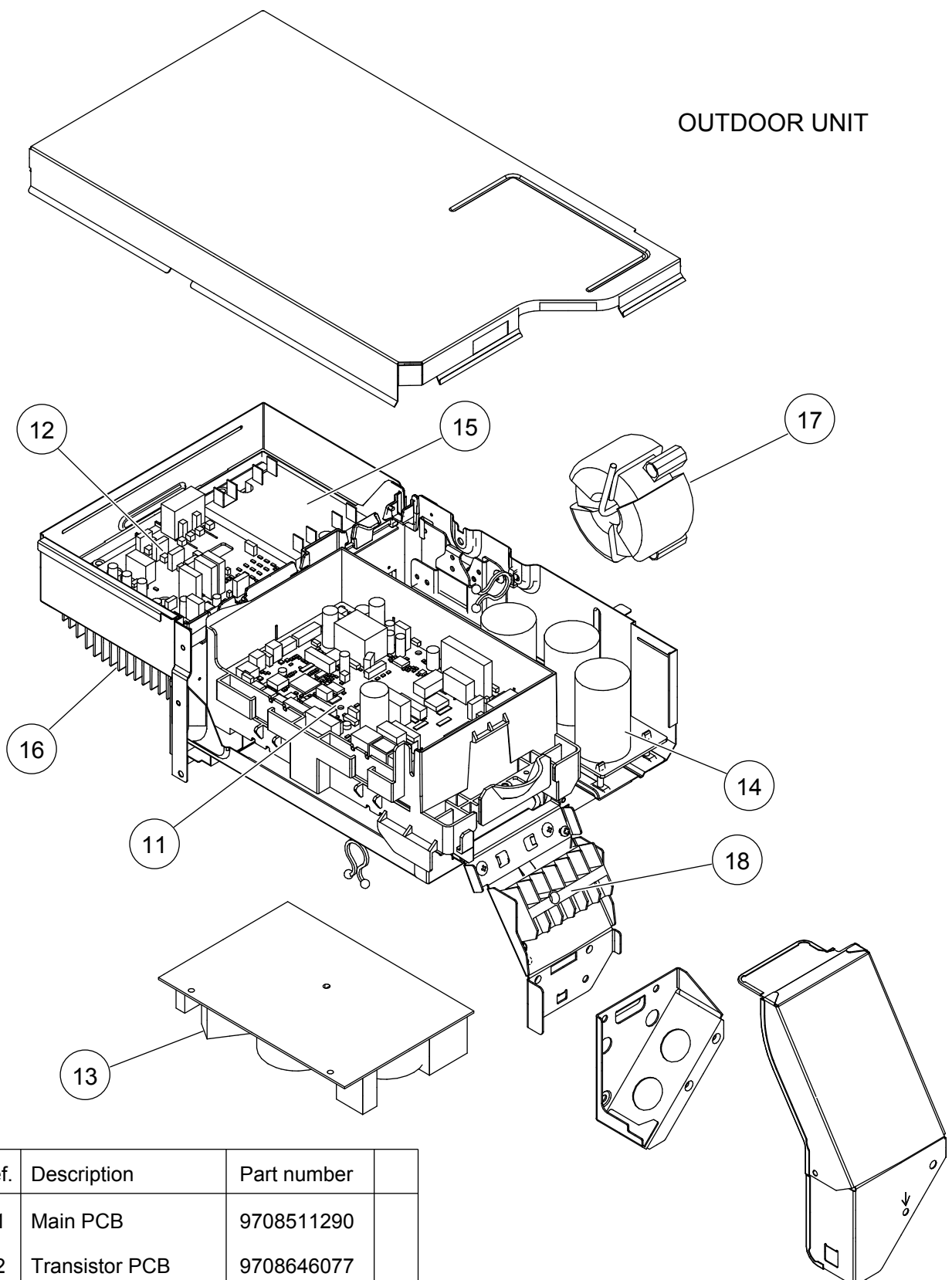
PARTS

OUTDOOR UNIT



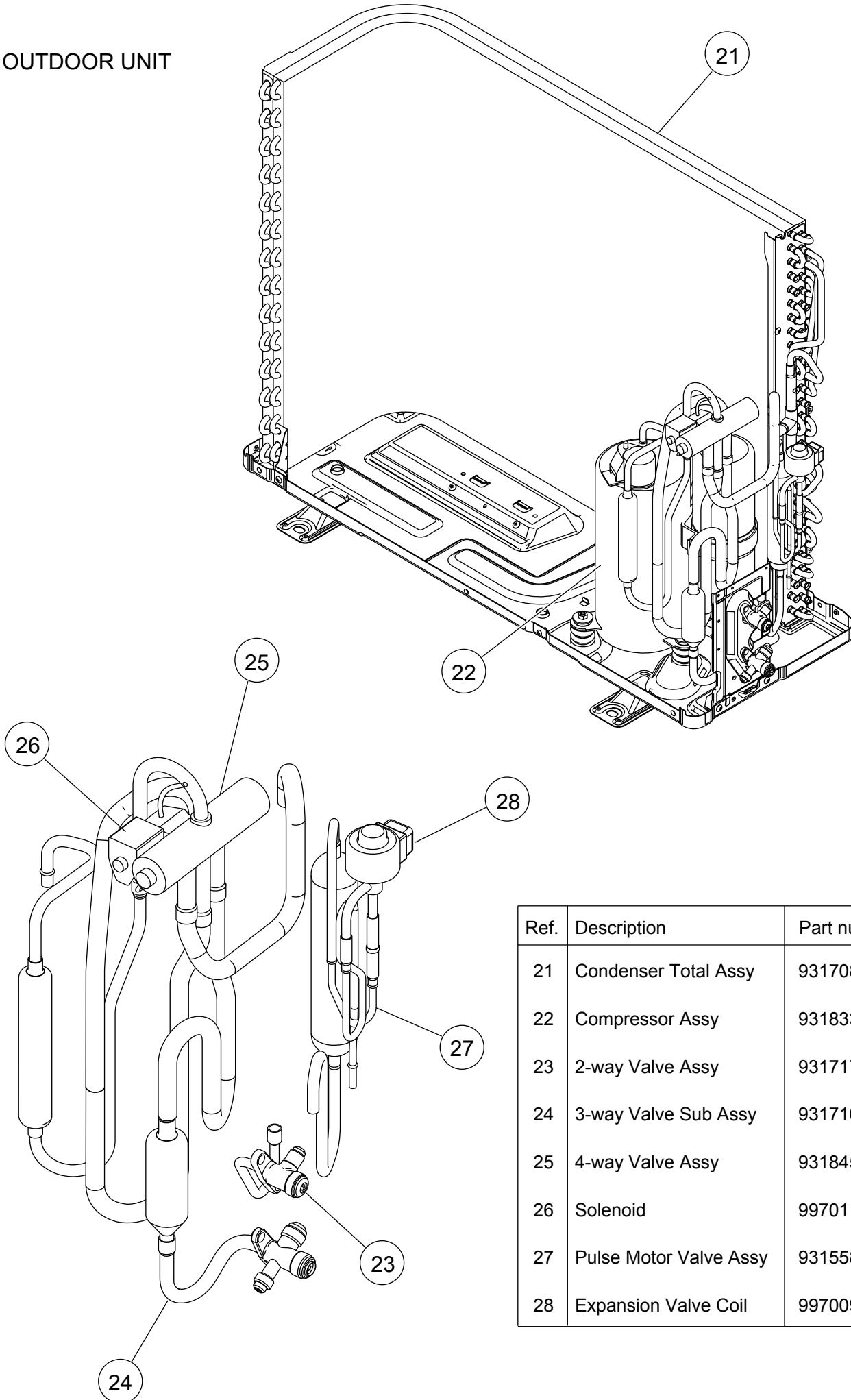
Ref.	Description	Part number
1	Protective Net	9331640008
2	Top Panel Assy	9318464023
3	Front Panel Assy	9318463033
4	Cabinet Left Assy	9318461015
5	Cabinet Right Assy	9316044050
6	Switch Cover	9317692021
7	Base Assy	9316885066
8	Drain Assy	9303029022
9	Fan Motor	9602724000
10	Propeller Fan	9313808013
--	Emblem	9317903011

OUTDOOR UNIT



Ref.	Description	Part number
11	Main PCB	9708511290
12	Transistor PCB	9708646077
13	Filter PCB	9709217023
14	Capacitor PCB	9708514017
15	ACTPM	9707592016
16	Heatsink	9318614015
17	Choke Coil	9900223014
18	Terminal 6P	9900016081
--	Outdoor Thermistor	9900544041
--	Thermistor Assy	9900648008





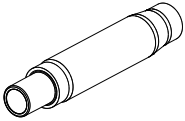

OUTDOOR UNIT

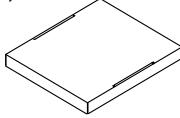

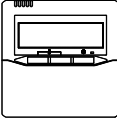
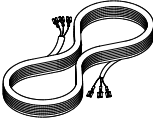



Ref.	Description	Part number
21	Condenser Total Assy	9317089128
22	Compressor Assy	9318334005
23	2-way Valve Assy	9317171014
24	3-way Valve Sub Assy	9317109062
25	4-way Valve Assy	9318457018
26	Solenoid	9970110023
27	Pulse Motor Valve Assy	9315587022
28	Expansion Valve Coil	9970095030

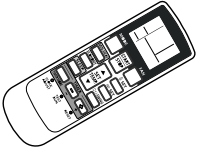
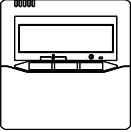

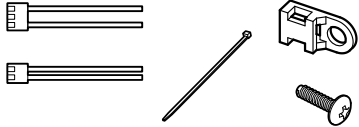
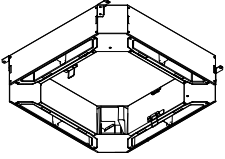
ACCESSORIES

INDOOR UNIT

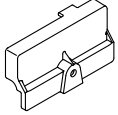



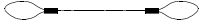


Name and Shape	Q'ty	Application
Coupler heat insulation (small) 	1	For indoor side pipe joint (liquid pipe)
Coupler heat insulation (large) 	1	For indoor side pipe joint (gas pipe)
Special nut A (large flange) 	4	For installing indoor unit
Special nut B (small flange) 	4	For installing indoor unit
Drain hose assy 	1	For installing drain pipe 19 mm (3/4 in.) [O.D. 27 mm (1-1/16 in.)]
Hose band assy 	1	For installing drain pipe (3/4 in.)

Name and Shape	Q'ty	Application
Template (carton top) 	1	For ceiling openings cutting, also used as packing
Drain hose insulation 	1	For installing drain hose
Wired remote control 	1	
Remote control cable 	1	For connecting a remote control
Tapping screw (M4 × 16 mm) 	2	For installing a wired remote control

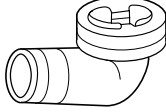

OPTIONAL PARTS

Name and Shape	
Wireless remote control UTY-LNHUM 	
Wired remote control UTY-RNNUM 	
Simple remote control UTY-RSNUM 	
External connect kit UTY-XWZX for control input/output port 	
Fresh air intake kit UTZ-VXAA to take fresh air 	

DECORATION PANEL

Name and Shape	Q'ty	Application
Connector cover 	1	For covering connector
Tapping screw (M5 × 12 mm) 	4	For mounting decoration panel
Tapping screw (M4 × 12 mm) 	1	For mounting connector cover
L angle 	2	For mounting a hook wire to a decoration panel
Hook wire 	2	For suspending a decoration panel
Screw [pitch small] (M4 × 10 mm) 	2	For mounting a hook wire (onto metals)
Screw [pitch large] (M4 × 10 mm) 	4	For mounting an L angle and hook wire (onto resins)

OUTDOOR UNIT

Name and Shape	Q'ty	Application
Drain pipe 	1	
Drain cap 	1	

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