

SPLIT TYPE
ROOM AIR CONDITIONER
CASSETTE TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
AUU9RLF	AOU9RLFC
AUU12RLF	AOU12RLFC

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		AUU9RLF	AUU12RLF
OUTDOOR UNIT		AOU9RLFC	AOU12RLFC
COOLING CAPACITY		9,000 Btu/h	12,000 Btu/h
HEATING CAPACITY		12,000 Btu/h	16,000 Btu/h
POWER SOURCE		208/230 V	
FREQUENCY		60 Hz	
RUNNING CURRENT	Cooling	3.0 A	4.4 A
	Heating	4.1 A	6.7 A
INPUT WATTS	Cooling	0.62 kW	0.94 kW
	Heating	0.89 kW	1.44 kW
E.E.R.	Cooling	14.5 Btu/Wh	12.8 Btu/Wh
COP	Heating	13.5 Btu/Wh	11.1 Btu/Wh
MOISTURE REMOVAL		1.3 Pints/h 0.6 L/h	2.5 Pints/h 1.2 L/h
AIR CIRCULATION HIGH		320 CFM 540 m ³ /h	360 CFM 610 m ³ /h
MAXIMUM CURRENT	Cooling	9.3 A	9.4 A
	Heating	10.8 A	10.9 A

FAN MOTOR

POWER SOURCE		208/230 V	
INDOOR UNIT Cooling	High	590 r.p.m.	660 r.p.m.
	Medium	540 r.p.m.	580 r.p.m.
	Low	490 r.p.m.	520 r.p.m.
	Quiet	440 r.p.m.	460 r.p.m.
INDOOR UNIT Heating	High	590 r.p.m.	650 r.p.m.
	Medium	540 r.p.m.	580 r.p.m.
	Low	490 r.p.m.	520 r.p.m.
	Quiet	440 r.p.m.	460 r.p.m.
OUTDOOR UNIT Cooling		590 r.p.m.	870 r.p.m.
OUTDOOR UNIT Heating		720 r.p.m.	780 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High	33 dB	37 dB
	Medium	32 dB	33 dB
	Low	29 dB	31 dB
	Quiet	28 dB	28 dB
INDOOR UNIT Heating	High	34 dB	37 dB
	Medium	32 dB	33 dB
	Low	29 dB	31 dB
	Quiet	27 dB	28 dB
OUTDOOR UNIT Cooling		44 dB	49 dB
OUTDOOR UNIT Heating		49 dB	50 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION	808-884-80	
WEIGHT (with oil)	20 lb. 8 oz., 9.3 kg	
PRECHARGED REFRIGERANT	2 lb. 10-5/16 oz., 1,200 g	
REFRIGERANT TYPE	R410A	
FULL CHARGE	Pipe length 49 ft.	2 lb. 10-5/16 oz., 1,200 g
	66 ft.	3 lb. 27/32 oz., 1,300 g
ADDITIONAL CHARGE	0.22 oz./ft, 20 g/m	
MAXIMUM PIPING HEIGHT	49 ft., 15m	

DIMENSIONS

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

WEIGHT

INDOOR UNIT Net / Shipping	33 lb. / 40 lb. 15 kg / 18 kg
OUTDOOR UNIT Net / Shipping	84 lb. / 93 lb. 38 kg / 42 kg

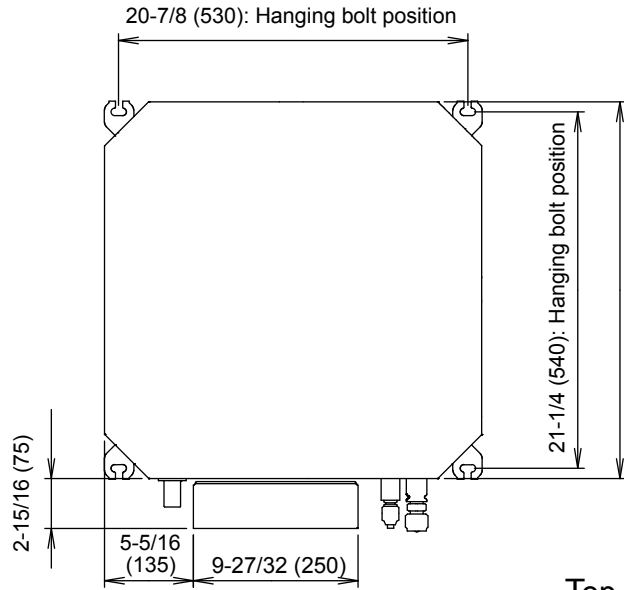
PANEL

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)	

DIMENSIONS

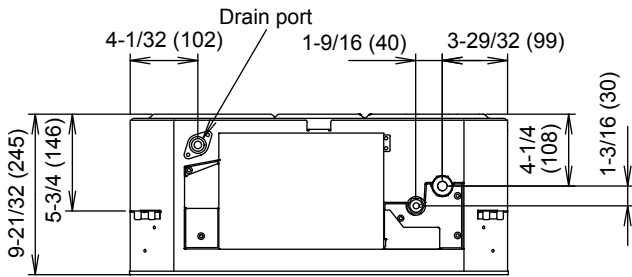
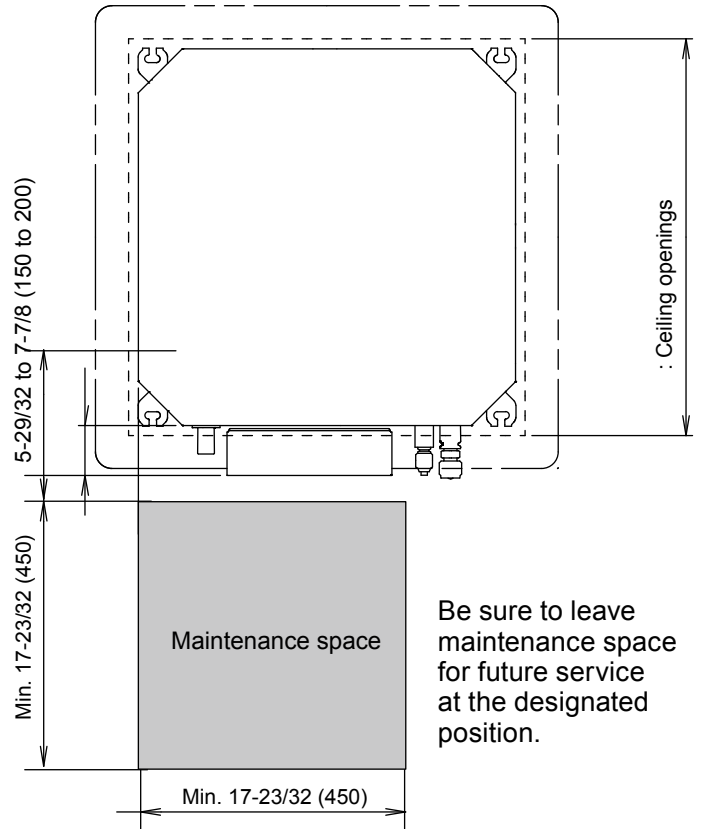
INDOOR UNIT

Unit : inch (mm)

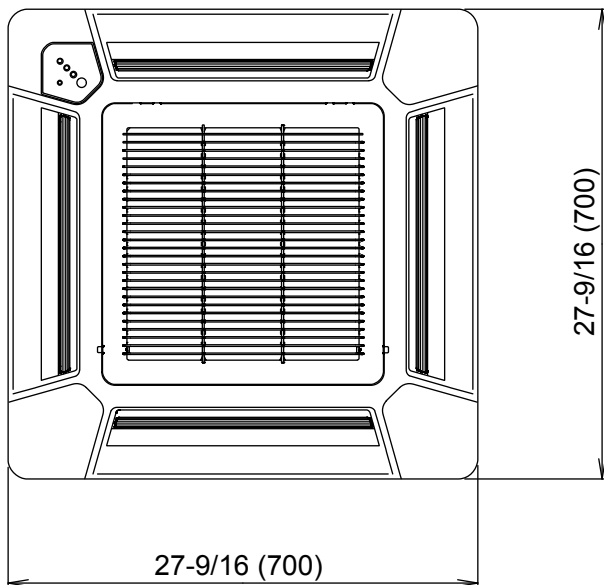
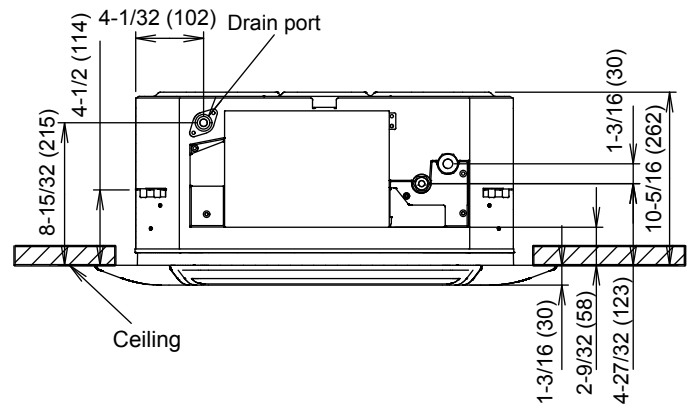


Top view

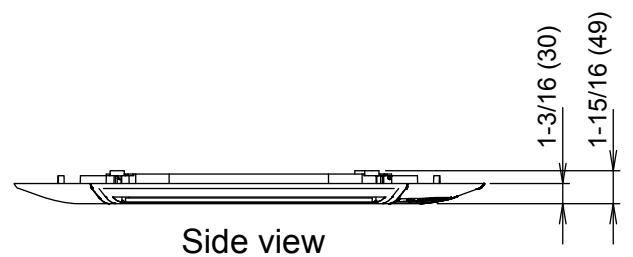
• Decoration panel mounting state



Side view



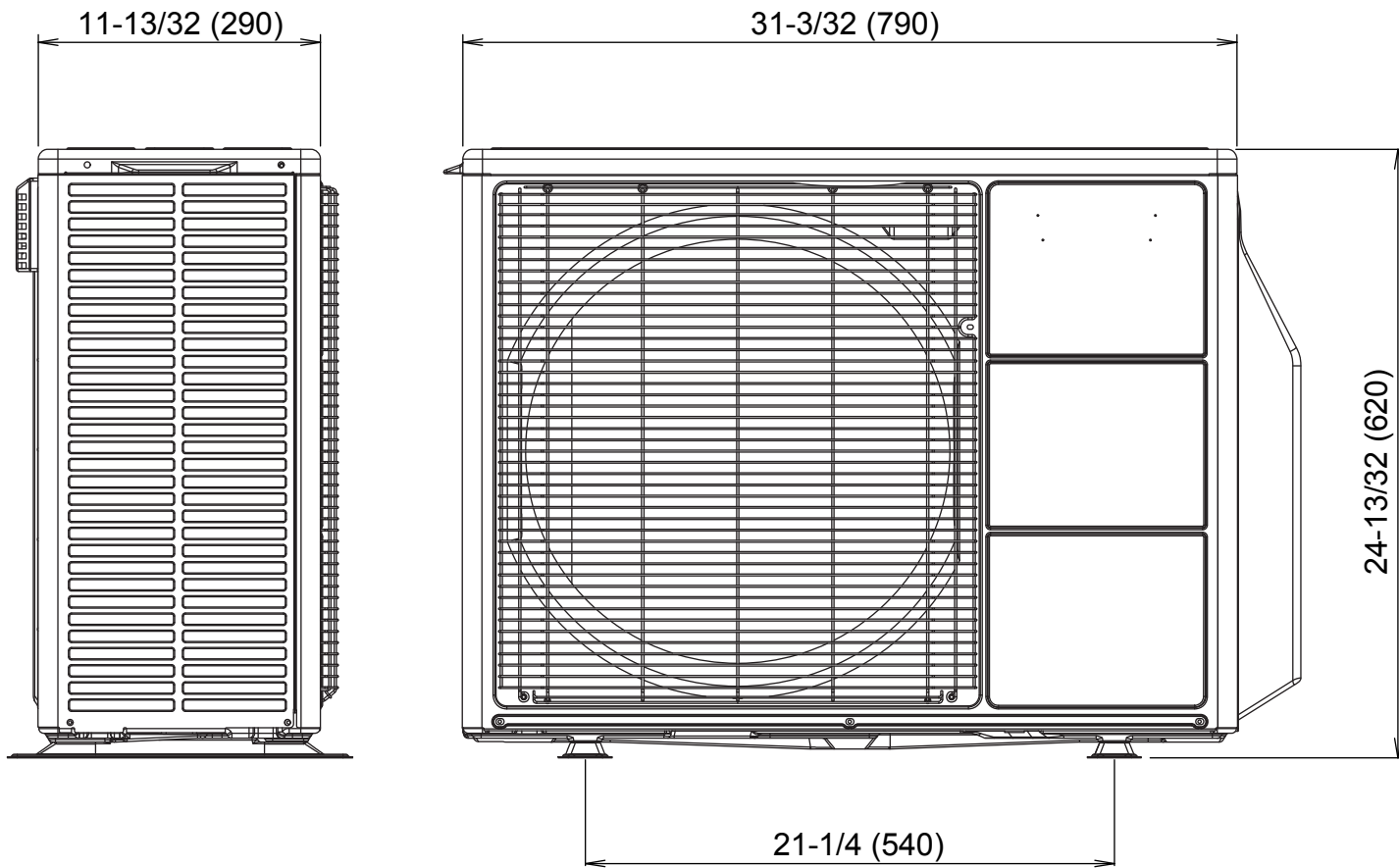
Bottom view



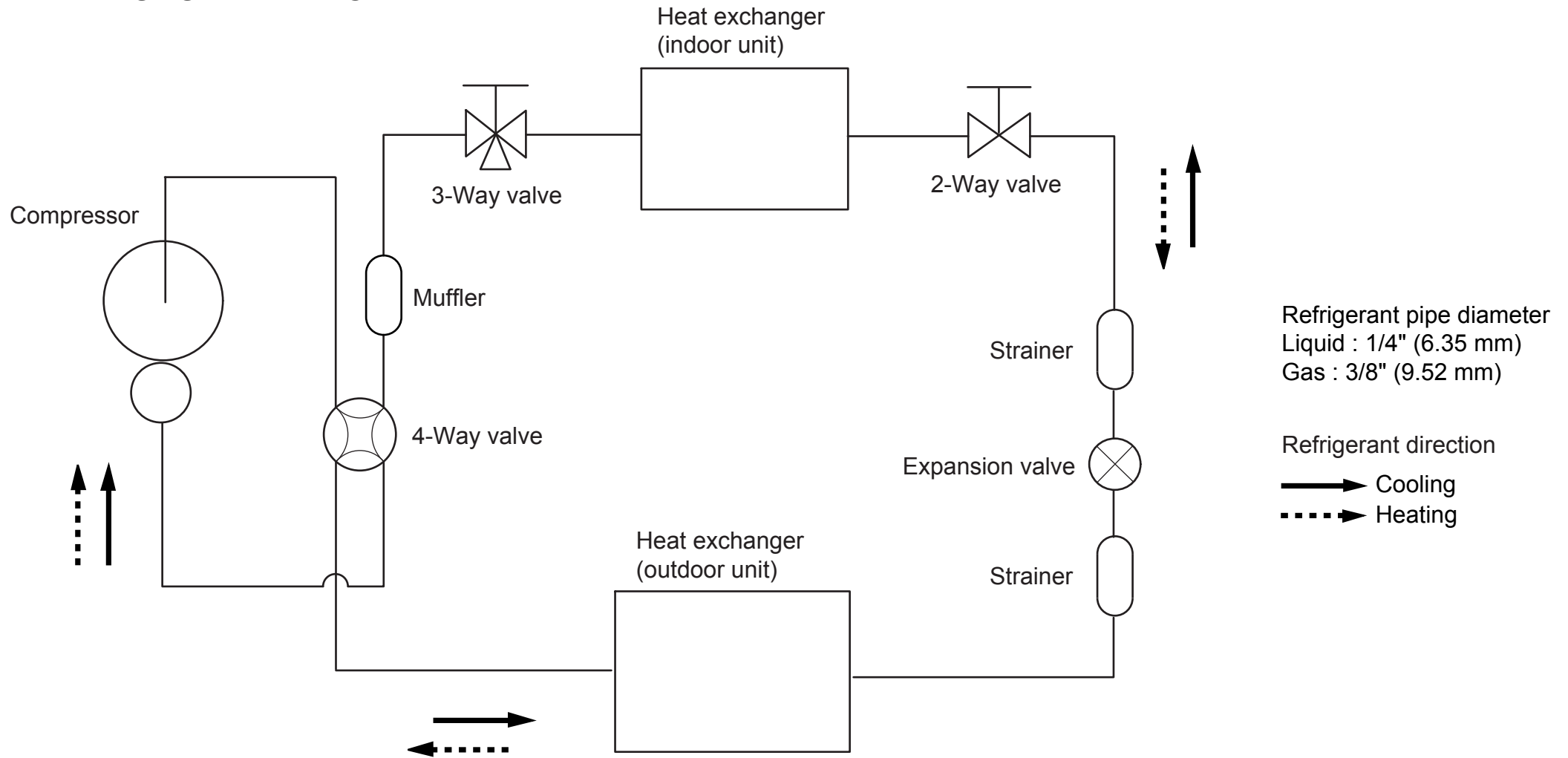
Side view

unit : inch (mm)

OUTDOOR UNIT

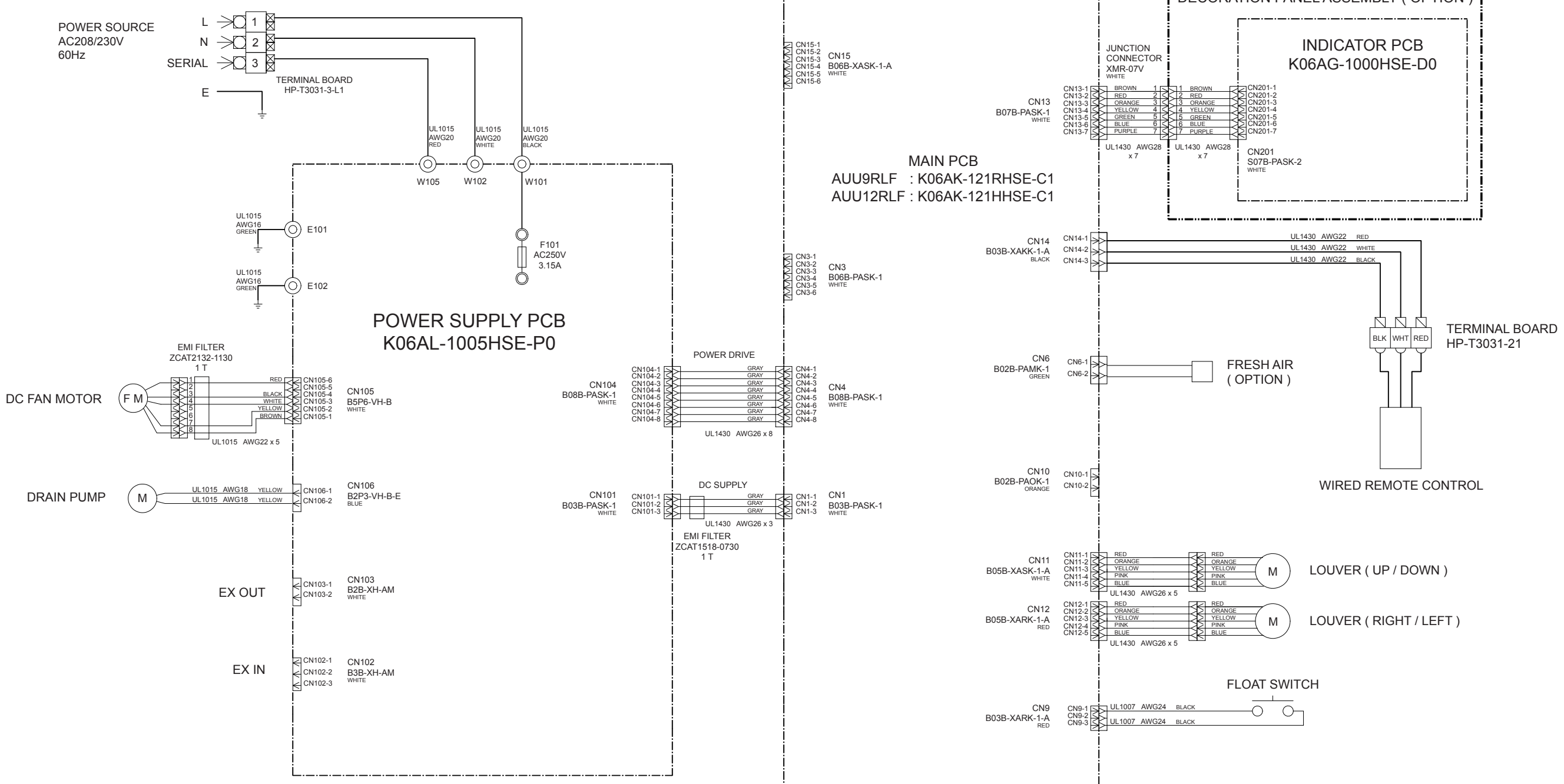


REFRIGERANT SYSTEM DIAGRAM

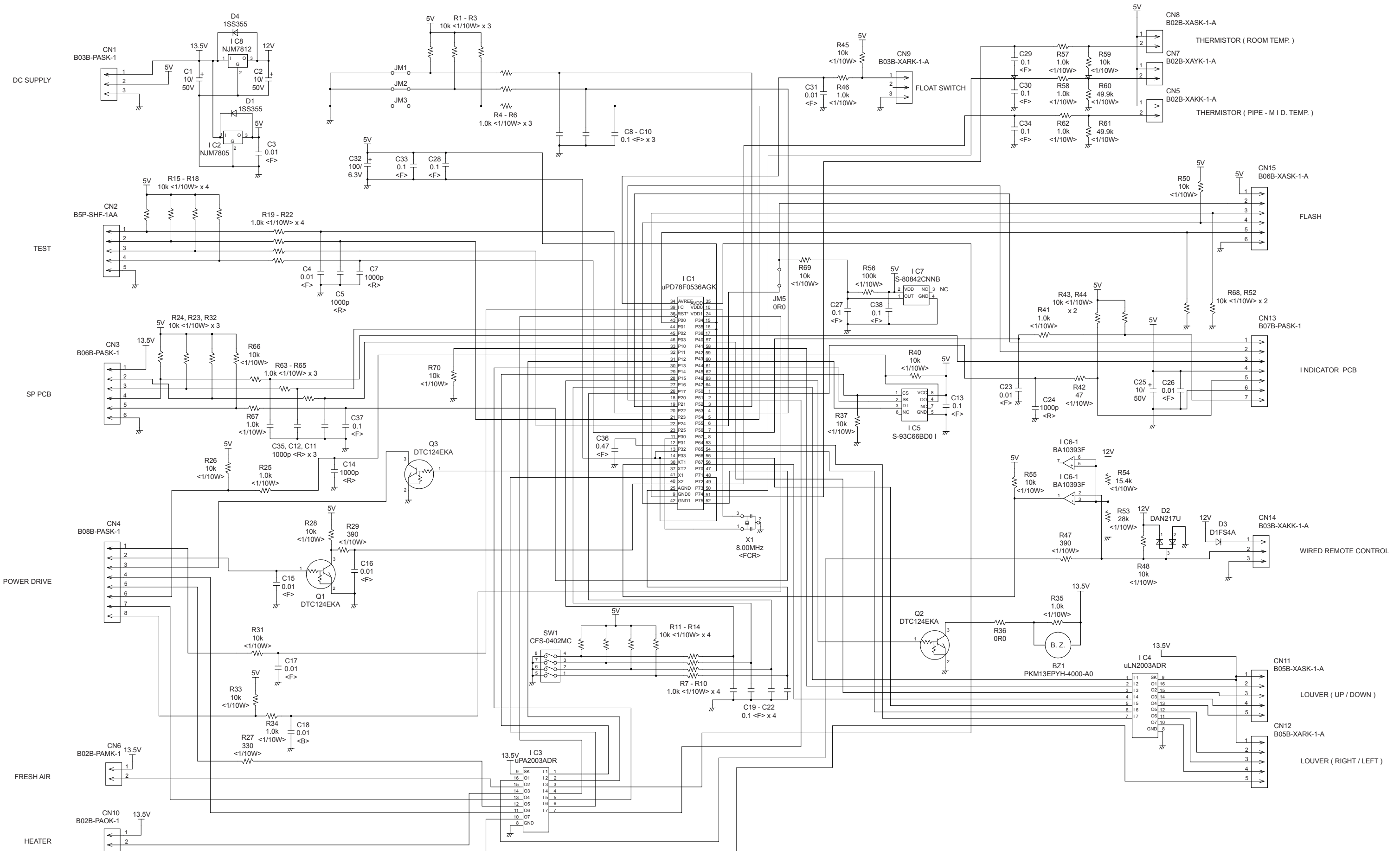


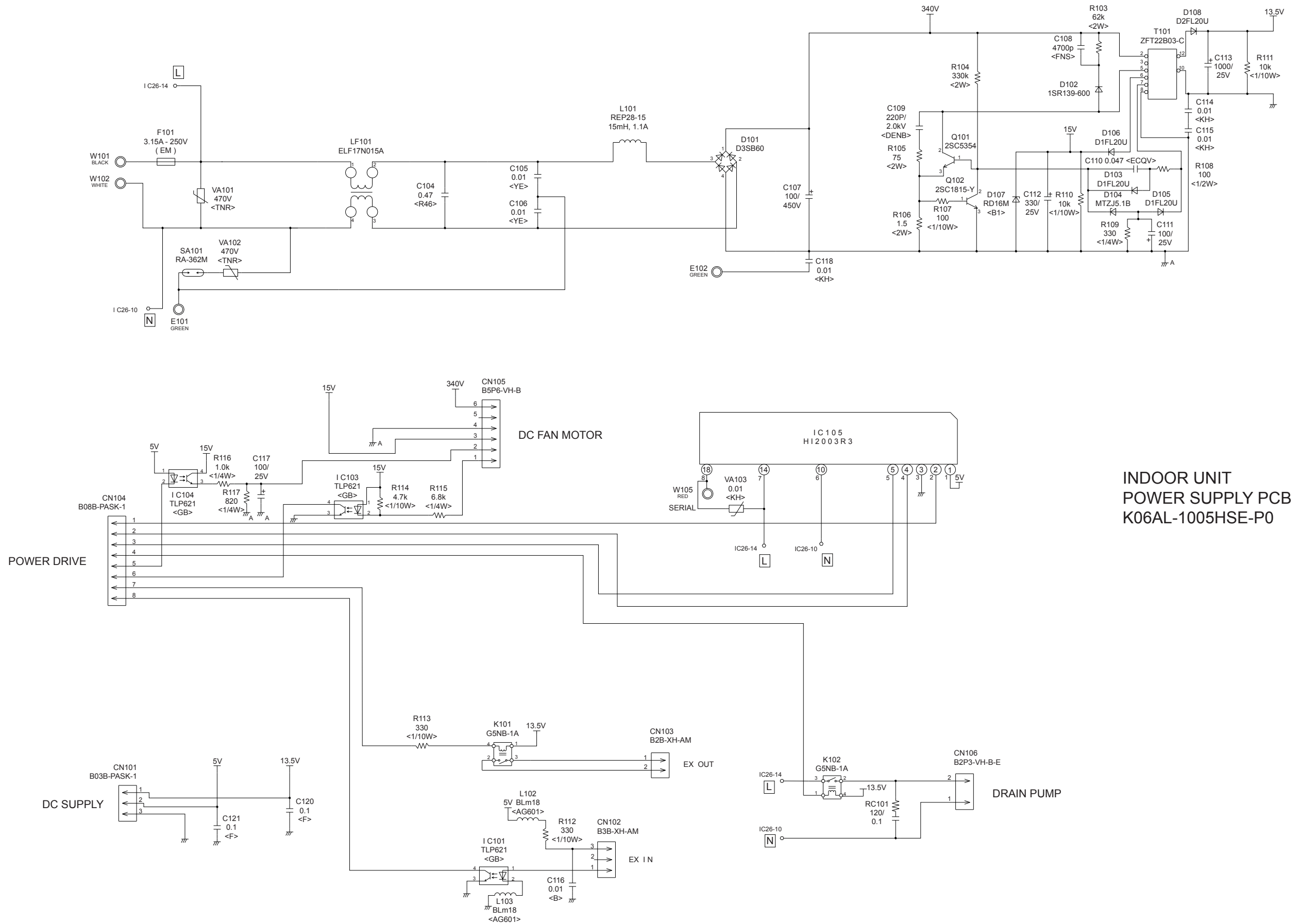
INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
 AUU9RLF : EZ-0100HSE
 AUU12RLF : EZ-0105HSE



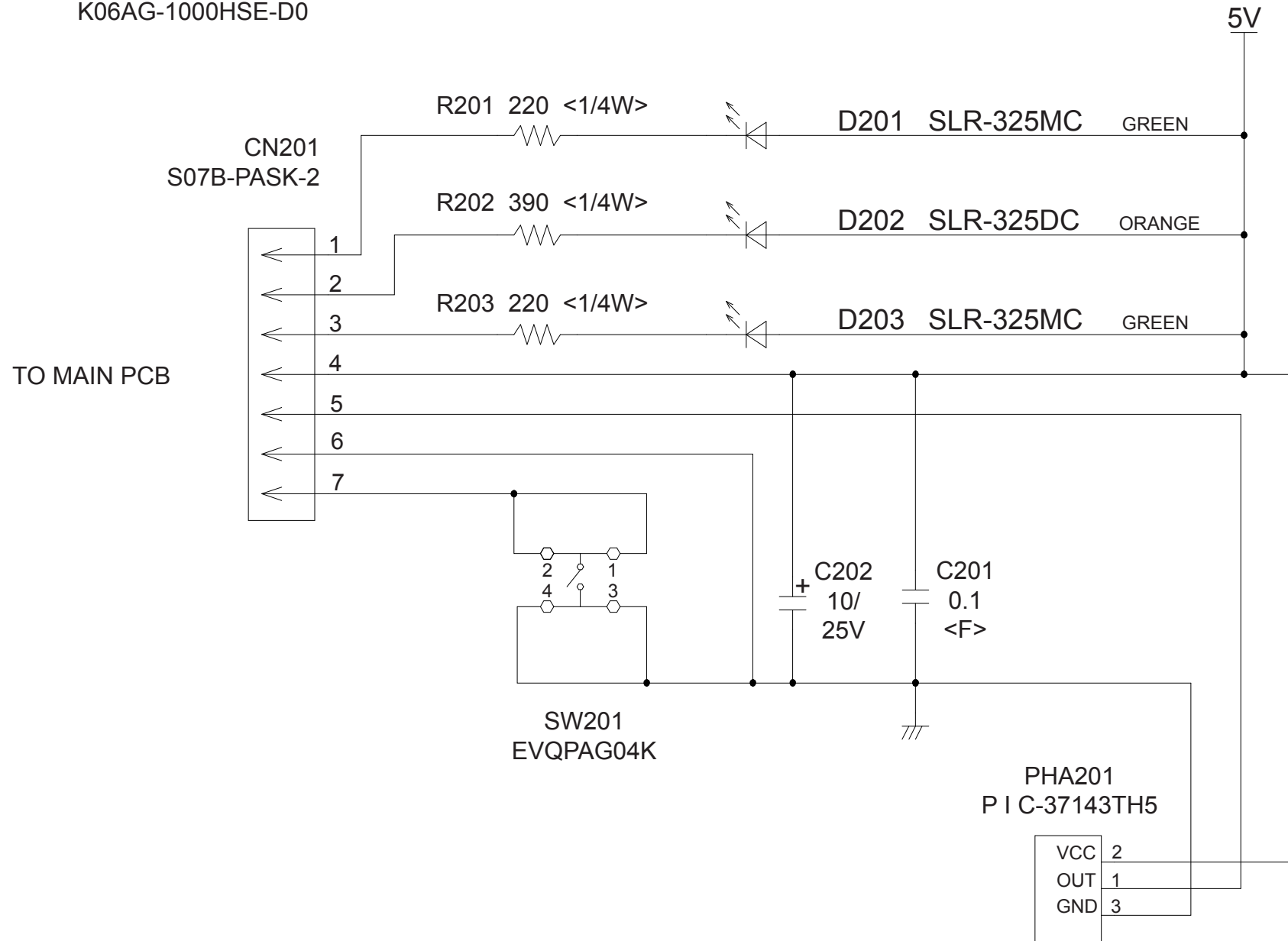
INDOOR UNIT
 MAIN PCB
 AUU9RLF : K06AK-121RHSE-C1
 AUU12RLF : K06AK-121HHSE-C1





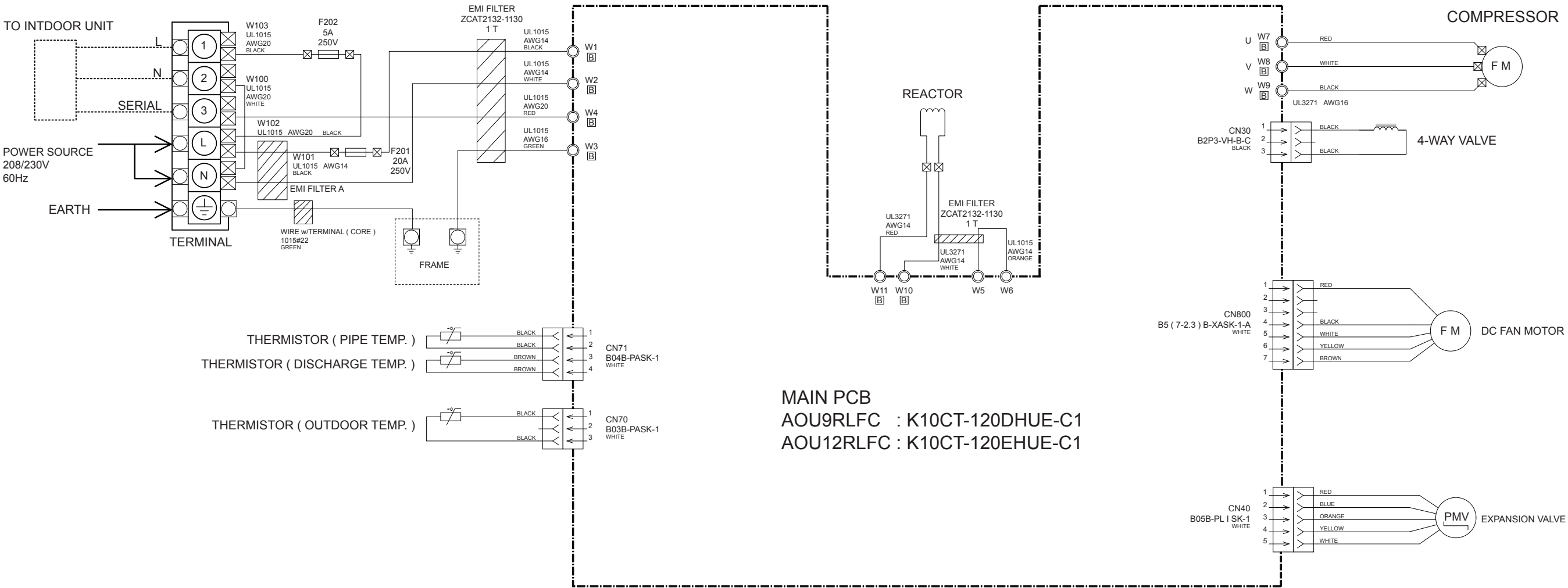
**INDOOR UNIT
POWER SUPPLY PCB
K06AL-1005HSE-P0**

INDOOR UNIT
 INDICATOR PCB (OPTION)
 K06AG-1000HSE-D0



OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
 AOU9RLFC : EZ-01223HUE
 AOU12RLFC : EZ-01224HUE



MAIN PCB
 AOU9RLFC : K10CT-120DHUE-C1
 AOU12RLFC : K10CT-120EHUE-C1

ERROR DETECTION

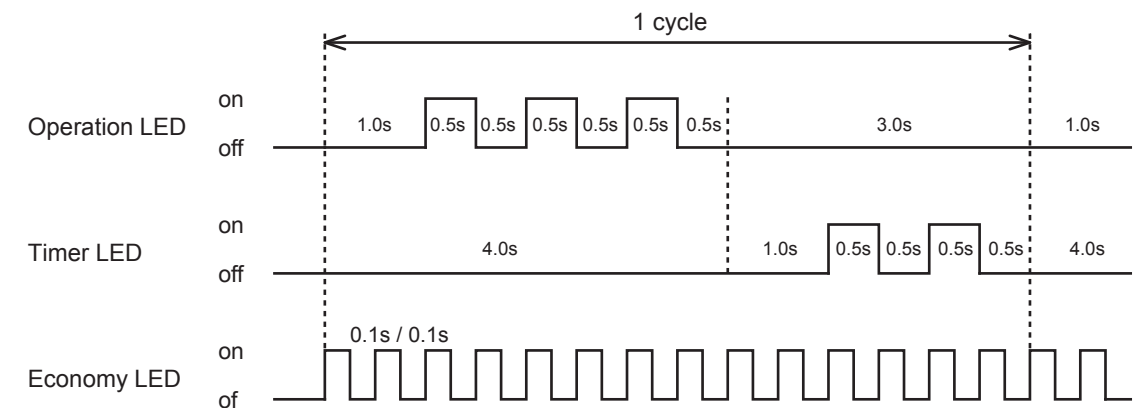
INDOOR UNIT

Error Contents	Operation LED	Timer LED	Economy LED
Serial Communication Error	1 times flash	1 times flash	Continuous flash
Wired Remote Controller Communication Error	1 times flash	2 times flash	Continuous flash
Check Run Unfinished	1 times flash	5 times flash	Continuous flash
Number of Wires and Pipes Error	2 times flash	1 times flash	Continuous flash
Indoor Unit Capacity Error	2 times flash	2 times flash	Continuous flash
Connected Combination Error	2 times flash	3 times flash	Continuous flash
Number of Indoor Units Error Number of Branch boxes Error	2 times flash	4 times flash	Continuous flash
Indoor Unit Model Information Error EEPROM Access Abnormal	3 times flash	2 times flash	Continuous flash
Manual Auto Switch Error	3 times flash	5 times flash	Continuous flash
Indoor Room Thermistor Error	4 times flash	1 times flash	Continuous flash
Indoor Heat Ex. Thermistor Error	4 times flash	2 times flash	Continuous flash
Indoor Unit Fan Motor Error	5 times flash	1 times flash	Continuous flash
Drainage Error	5 times flash	3 times flash	Continuous flash
Outdoor Unit Model Information Error	6 times flash	2 times flash	Continuous flash
Inverter Error	6 times flash	3 times flash	Continuous flash
A. F. Voltage Error	6 times flash	4 times flash	Continuous flash
I.P.M. Error	6 times flash	5 times flash	Continuous flash
Display P.C.B. Communication Error	6 times flash	10 times flash	Continuous flash
Discharge Thermistor Error	7 times flash	1 times flash	Continuous flash
Compressor Thermistor Error	7 times flash	2 times flash	Continuous flash
Heat Ex. Liquid Outlet Thermistor Error	7 times flash	3 times flash	Continuous flash
Outdoor Thermistor Error	7 times flash	4 times flash	Continuous flash
Suction Gas Thermistor Error	7 times flash	5 times flash	Continuous flash
Heat Sink Thermistor Error	7 times flash	7 times flash	Continuous flash

Error Contents	Operation LED	Timer LED	Economy LED
Sub-Cool Heat Ex. Gas Inlet Thermistor Error Sub-Cool Heat Ex. Gas Outlet Thermistor Error	8 times flash	2 times flash	Continuous flash
Liquid Pipe Thermistor Error	8 times flash	3 times flash	Continuous flash
Current Sensor Error	8 times flash	4 times flash	Continuous flash
Discharge Pressure Sensor Error Suction Pressure Sensor Error High Pressure Switch Error	8 times flash	6 times flash	Continuous flash
Over Current Error	9 times flash	4 times flash	Continuous flash
Compressor Control Error	9 times flash	5 times flash	Continuous flash
Outdoor Unit Fan Motor Error	9 times flash	7 times flash	Continuous flash
4 Way Valve Error	9 times flash	9 times flash	Continuous flash
Discharge Temp. Error	10 times flash	1 times flash	Continuous flash
Compressor Temp. Error	10 times flash	3 times flash	Continuous flash
Low Pressure Error	10 times flash	5 times flash	Continuous flash
Branch Boxes Error	13 times flash	2 times flash	Continuous flash

Flashing pattern example

Indoor unit main PCB error
(Operation LED : 3 times, Timer LED : 2 times)

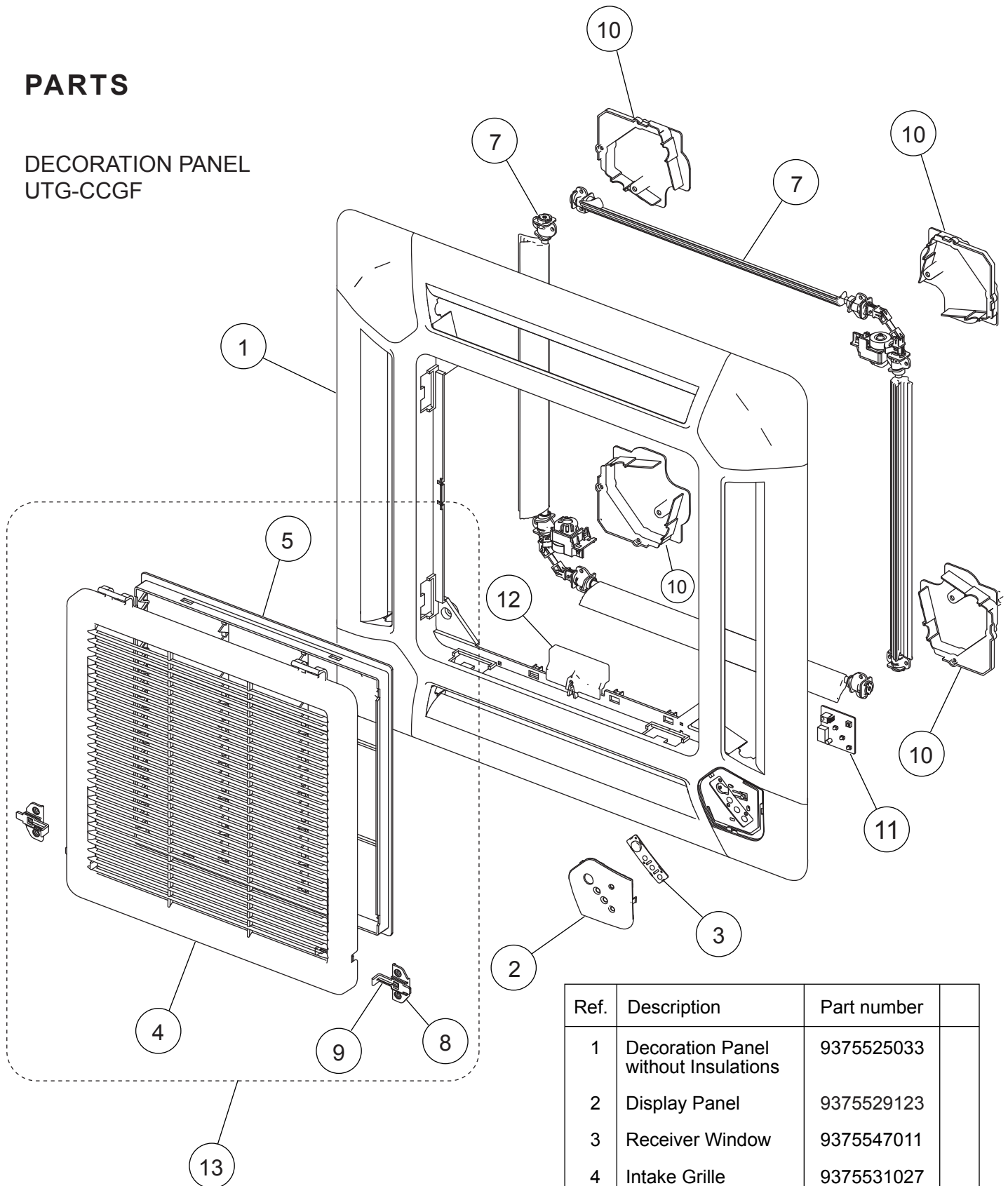


OUTDOOR UNIT

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

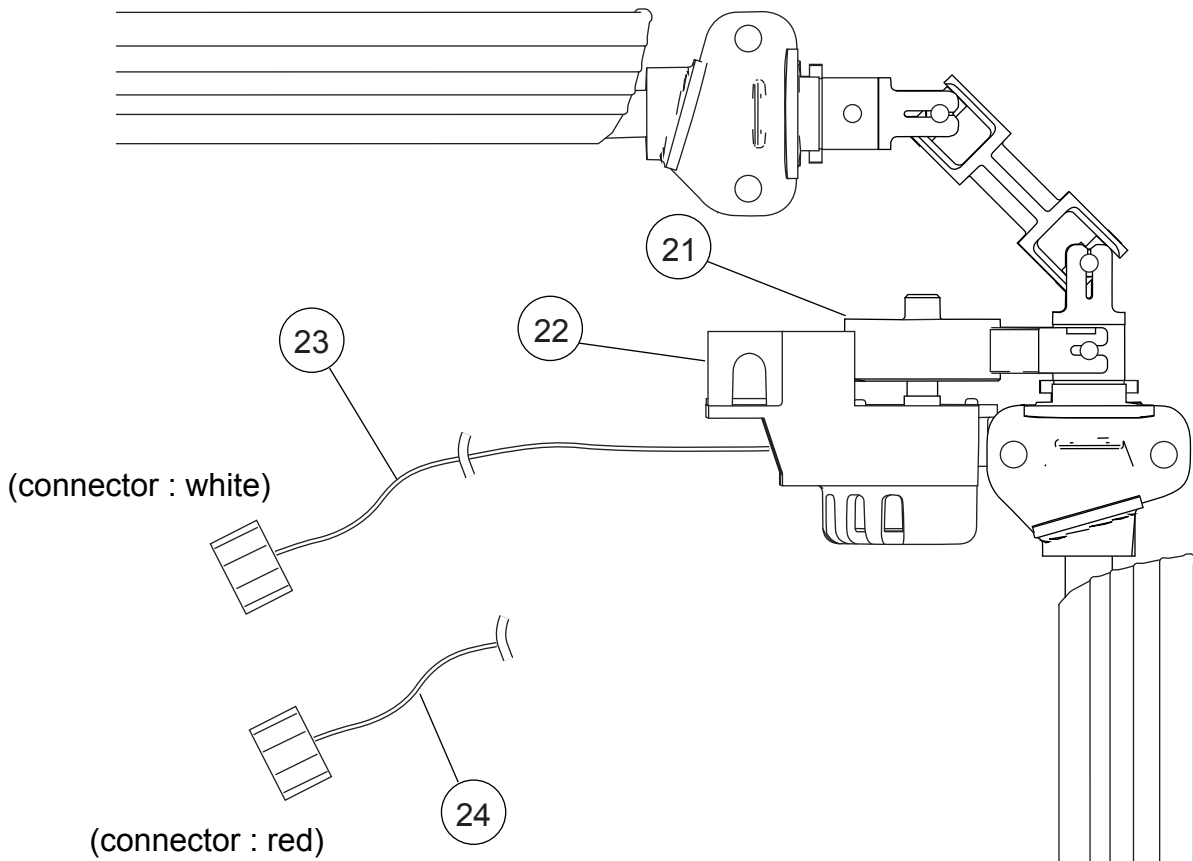
DECORATION PANEL UTG-CCGF



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

DECORATION PANEL
 UTG-CCGF

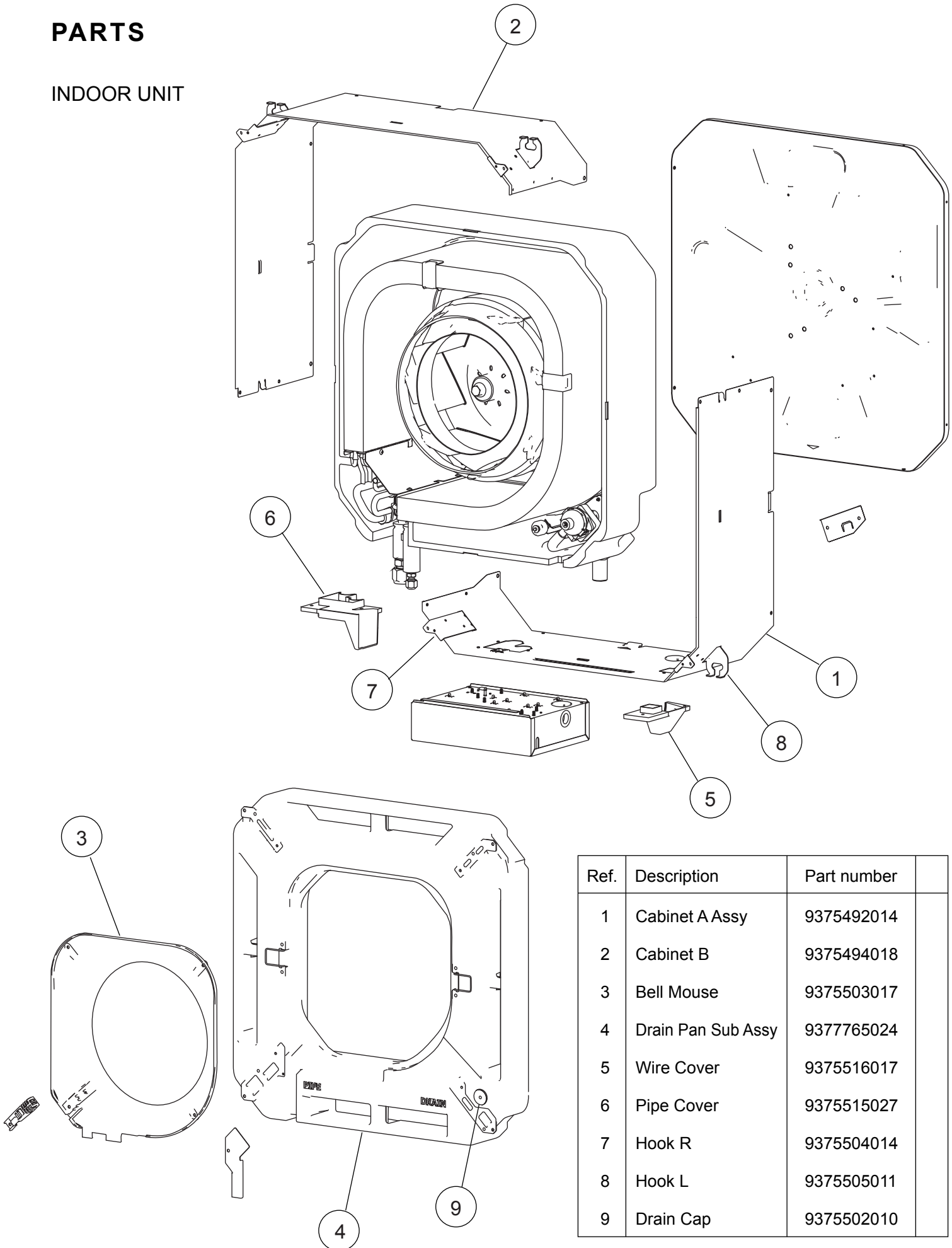
Flap total assy
 Motor holder assy



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

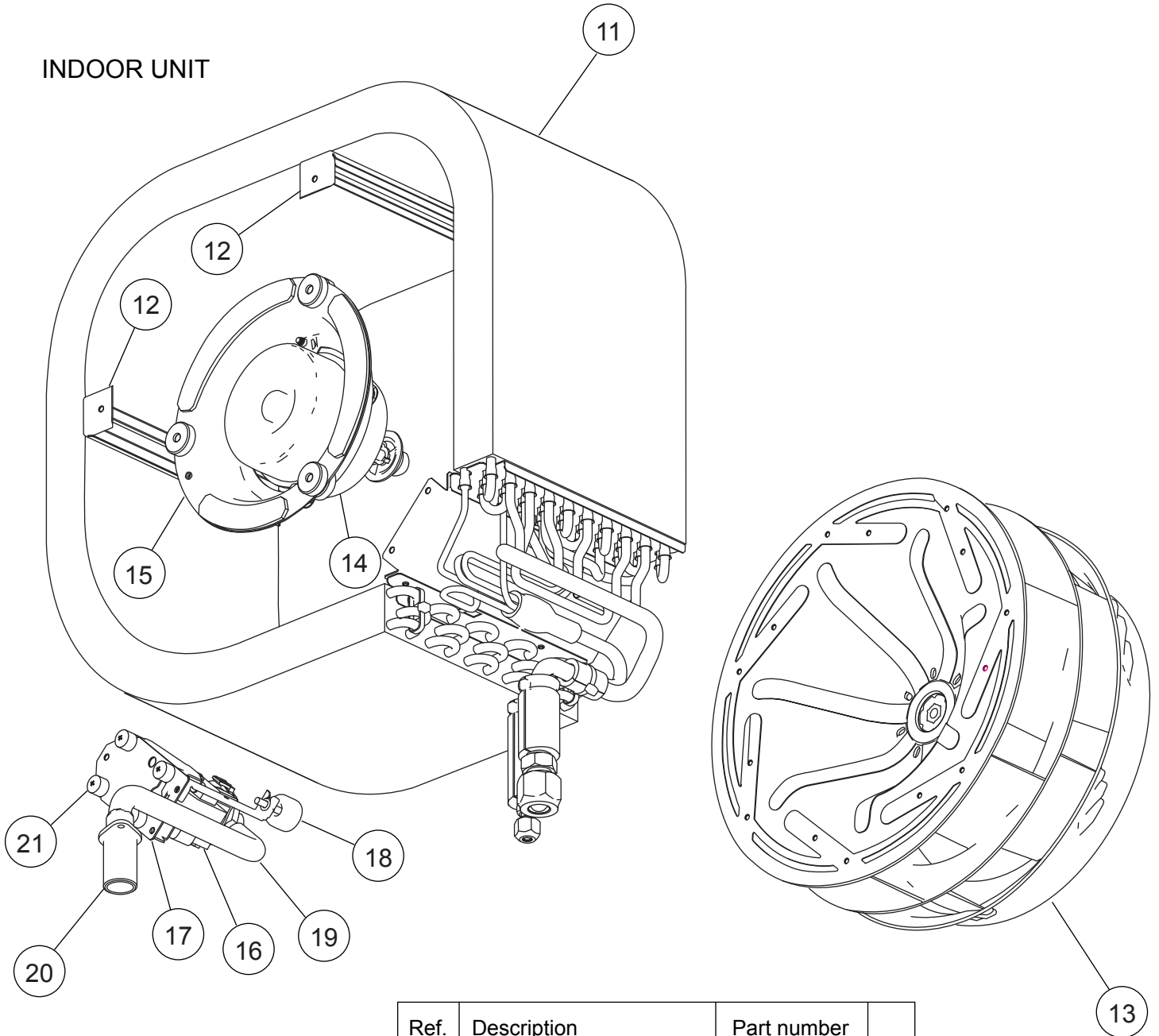
PARTS

INDOOR UNIT



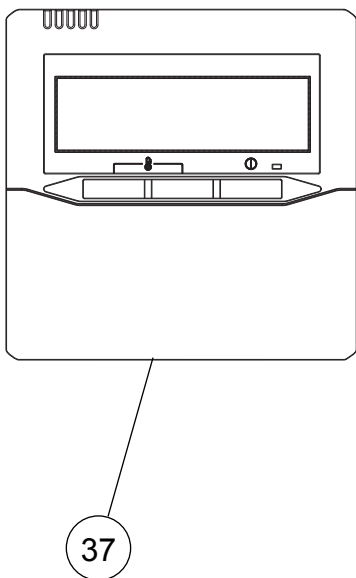
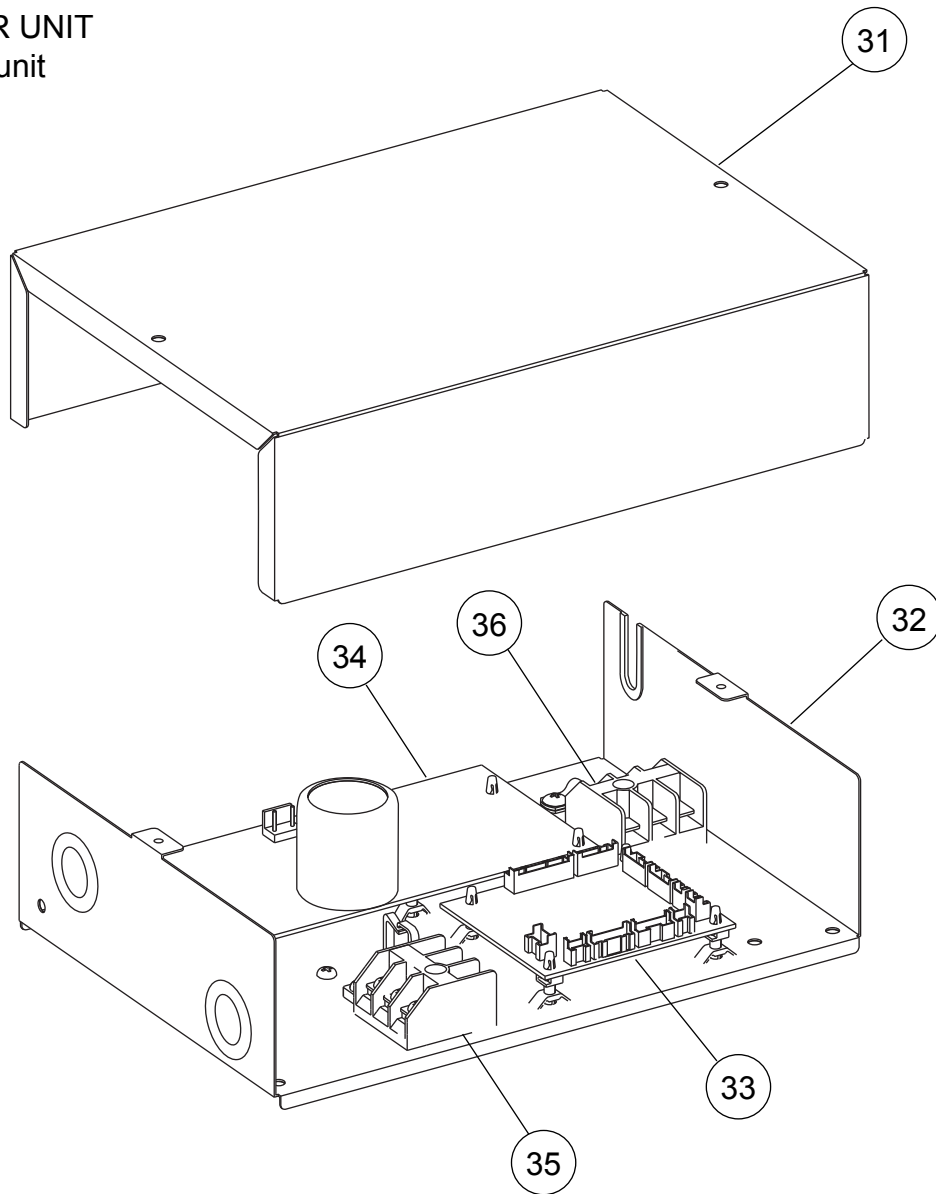
Ref.	Description	Part number
1	Cabinet A Assy	9375492014
2	Cabinet B	9375494018
3	Bell Mouse	9375503017
4	Drain Pan Sub Assy	9377765024
5	Wire Cover	9375516017
6	Pipe Cover	9375515027
7	Hook R	9375504014
8	Hook L	9375505011
9	Drain Cap	9375502010

INDOOR UNIT



Ref.	Description	Part number
11	Evaporator Total Assy	9377914033
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	9375519018
20	Drain Port	9375520014
21	Rubber (Pump)	9378426016

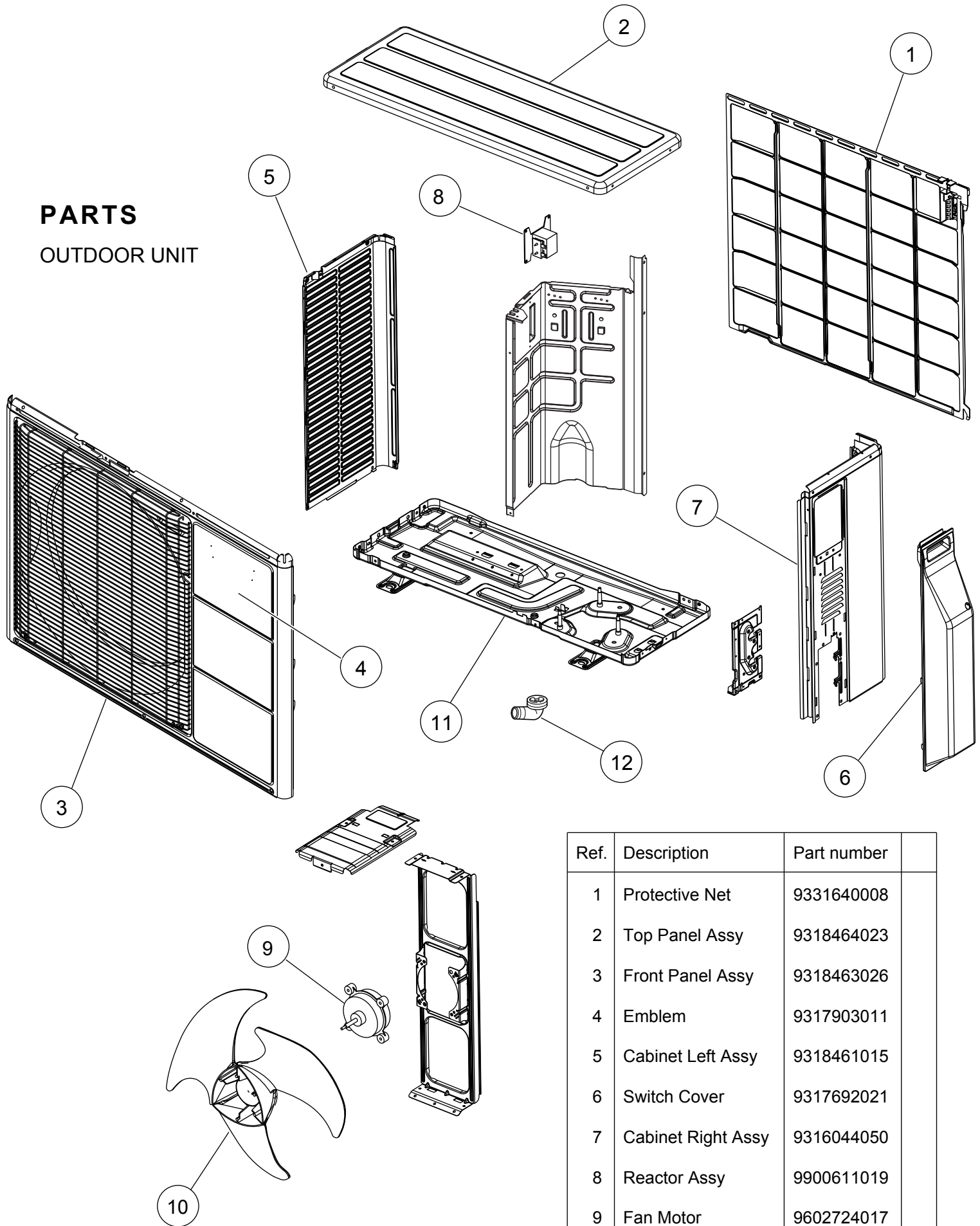
INDOOR UNIT
Control unit



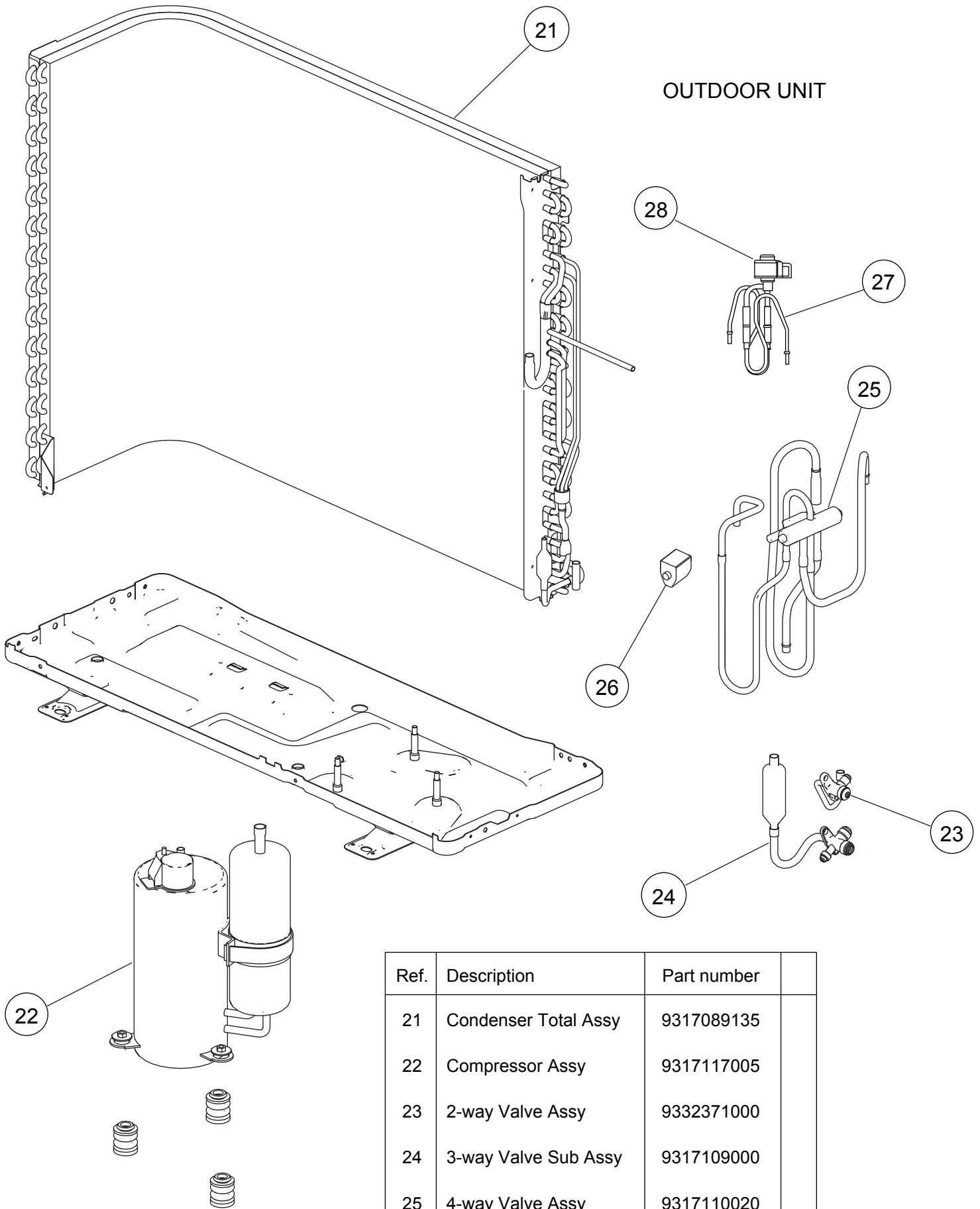
Ref.	Description	Part number
31	Control Box Cover	9375512019
32	Control Box A Assy	9379250016
33	Main PCB (AUU9)	9707393668
33	Main PCB (AUU12)	9707393712
34	Power Supply PCB	9707398236
35	Terminal	9306489045
36	Terminal	9703345012
37	Remote Control	9318593006
--	Pipe Thermistor	9703297014
--	Room Thermistor	9900502003

PARTS

OUTDOOR UNIT

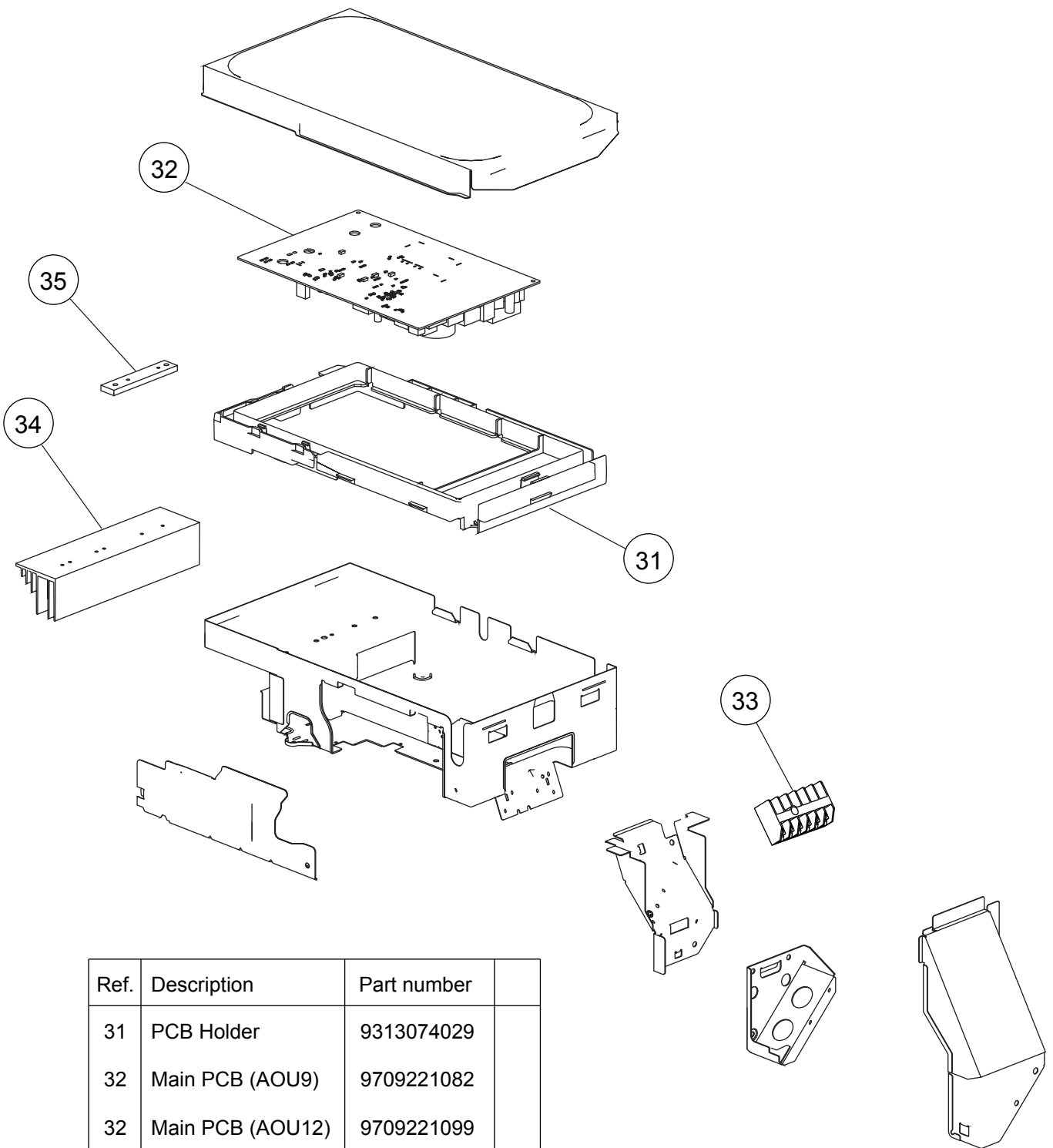


Ref.	Description	Part number
1	Protective Net	9331640008
2	Top Panel Assy	9318464023
3	Front Panel Assy	9318463026
4	Emblem	9317903011
5	Cabinet Left Assy	9318461015
6	Switch Cover	9317692021
7	Cabinet Right Assy	9316044050
8	Reactor Assy	9900611019
9	Fan Motor	9602724017
10	Propeller Fan	9313808013
11	Base Assy	9316885066
12	Drain Assy	9303029022



Ref.	Description	Part number
21	Condenser Total Assy	9317089135
22	Compressor Assy	9317117005
23	2-way Valve Assy	9332371000
24	3-way Valve Sub Assy	9317109000
25	4-way Valve Assy	9317110020
26	Solenoid	9970110047
27	Pulse Motor Valve Assy	9332368000
28	Expansion Valve Coil	9970095030





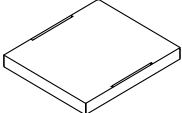
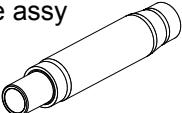


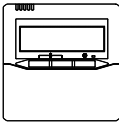
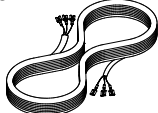

OUTDOOR UNIT



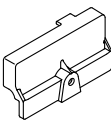



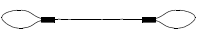


Ref.	Description	Part number
31	PCB Holder	9313074029
32	Main PCB (AOU9)	9709221082
32	Main PCB (AOU12)	9709221099
33	Terminal	9900016081
34	Heatsink A	9314410017
35	Heatsink B	9314090011
--	Outdoor Thermistor	9900544010
--	Thermistor Assy	9900614027

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
Template (Carton top) 	1	For ceiling openings cutting Also used as packing
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.)
Drain hose insulation 	1	For installing drain hose
Wired remote control 	1	
Remote control cable 	1	For connecting the remote control
Tapping screw (M4 × 16 mm) 	2	For installing the wired remote control

DECORATION PANEL UTG-CCGF

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 the Hook Wire to the Decoration panel
Hook wire 	2	For suspending the Decoration panel
Screw [pitch small] (M4 × 10 mm) 	2	For mounting the Hook Wire (for metals)
Screw [pitch large] (M4 × 10 mm) 	4	For mounting the L angle and Hook wire (for resins)

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