

SPLIT TYPE
AIR CONDITIONER
CASSETTE TYPE (50Hz)

SERVICE MANUAL



Indoor unit	Outdoor unit
AUYA30LBLU	AOYA30LFTL
AUYA36LBLU	AOYA36LFTL

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cooling & Heating	
INDOOR UNIT		AUYA30LBLU	AUYA36LBLU
OUTDOOR UNIT		AOYA30LFTL	AOYA36LFTL
COOLING CAPACITY		8.5 kW	10.0 kW
HEATING CAPACITY		10.0 kW	11.2 kW
POWER SOURCE		230 V 50 Hz	230 V 50 Hz
RUNNING CURRENT	Cooling	11.6 A	13.7 A
	Heating	12.2 A	13.3 A
INPUT WATTS	Cooling	2.65 kW	3.12 kW
	Heating	2.77 kW	3.02 kW
E.E.R.	Cooling	3.21 kW/kW	3.21 kW/kW
	Heating	3.61 kW/kW	3.71 kW/kW
STARTING CURRENT		15 A	15 A
MOISTURE REMOVAL		2.5 L/hr	3.5 L/hr
AIRCIRCULATION INDOOR		1,600 m3/hr	1,800 m3/hr
AIRCIRCULATION OUTDOOR		3,600 m3/hr	3,800 m3/hr
MAXIMUM CURRENT		17.0 A	20.0 A

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, Inverter, 6 poles, 3 phase, DC motor, Twin Rotary	
DISCRIMINATION		N-TF30ND1A	
WEIGHT (with oil)		15.5 kg	
STANDARD REFRIGERANT		2,100 g	
REFRIGERANT TYPE		R410A	
MAX PIPE LENGTH		50 m	
MAX PIPE HEIGHT		30 m	
FULL CHARGE	Pipe length	20 m	2,100 g
		30 m	2,500 g
		40 m	2,900 g
		50 m	3,300 g
ADDITIONAL CHARGE		40 g/m	

FAN SPEED

INDOOR UNIT	Discrimination	MFF-54TVM	MFF-54TVM
	High speed	570 r.p.m.	640 r.p.m.
	Med speed	510 r.p.m.	510 r.p.m.
	Low speed	470 r.p.m.	470 r.p.m.
	Quiet speed	420 r.p.m.	420 r.p.m.
OUTDOOR UNIT	Discrimination	MFE-60TVT	MFE-60TVT
	Speed	850 r.p.m.	900 r.p.m.

NOISE LEVEL

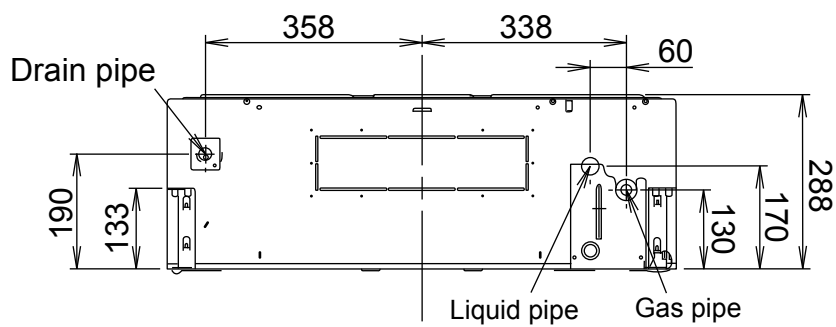
INDOOR UNIT	High speed	40 dB	43 dB
	Med speed	38 dB	38 dB
	Low speed	36 dB	36 dB
	Quiet speed	32 dB	32 dB
OUTDOOR UNIT	Cooling	53 dB	54 dB
	Heating	55 dB	55 dB

DIMENSIONS

INDOOR UNIT	H x W x D	288 x 840 x 840 mm
DECORATION PANEL	H x W x D	50 x 950 x 950 mm
OUTDOOR UNIT	H x W x D	830 x 900 x 330 mm

WEIGHT

INDOOR UNIT	Shipping / Net	32 kg / 26 kg
DECORATION PANEL	Shipping / Net	9 kg / 5.5 kg
OUTDOOR UNIT	Shipping / Net	68 kg / 61 kg



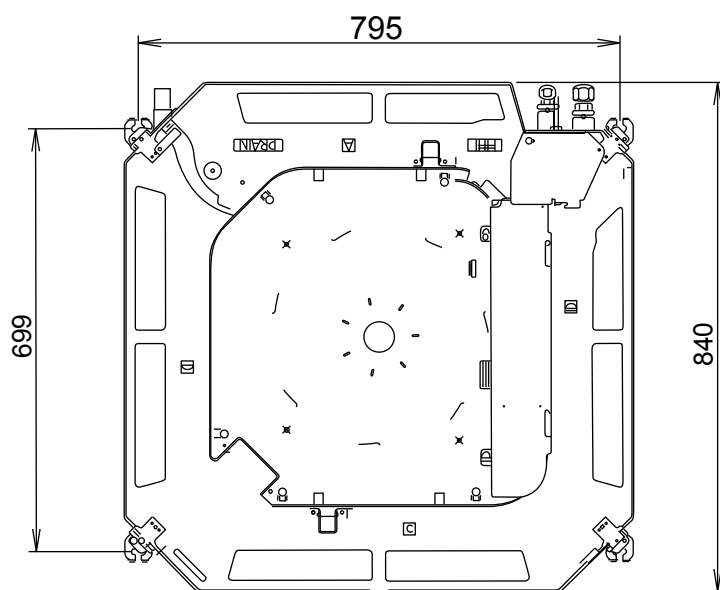
Side view

DIMENSIONS

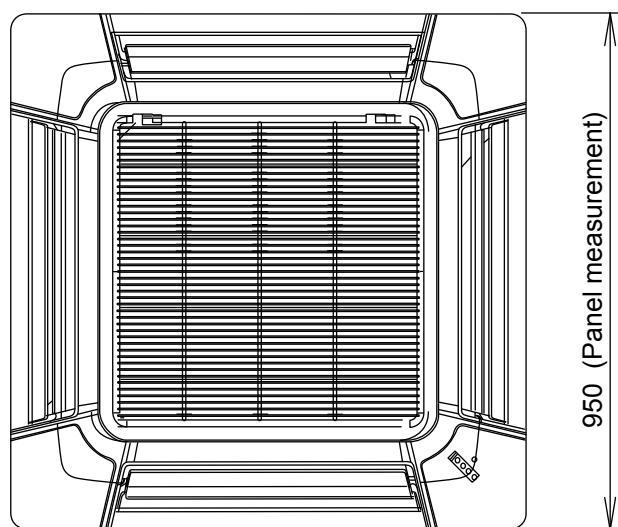
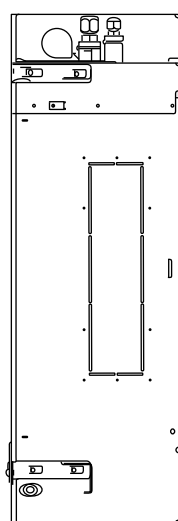
INDOOR UNIT
DECORATION PANEL

(Unit : mm)

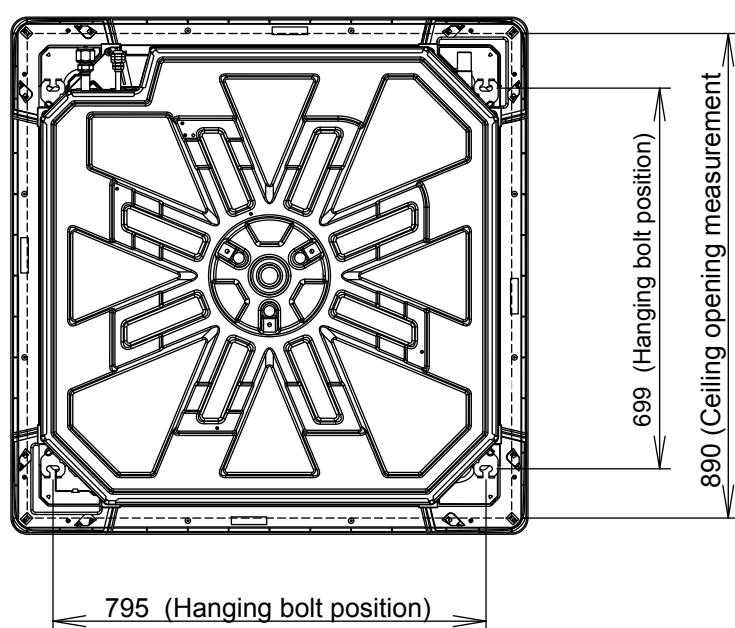
Drain pipe diameter
Inside : 20 mm
Outside : 26 mm



Bottom view



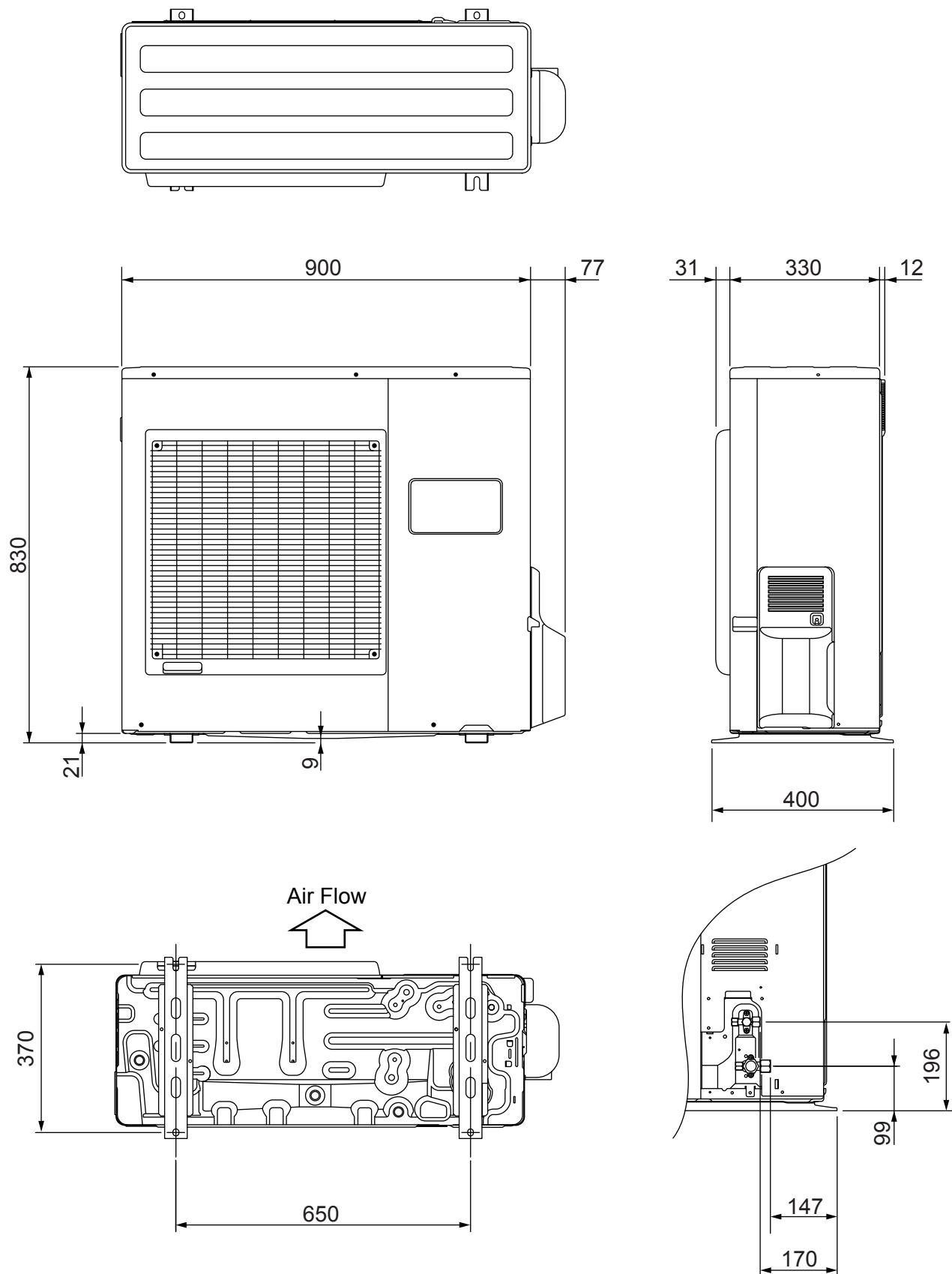
Bottom view



Top view

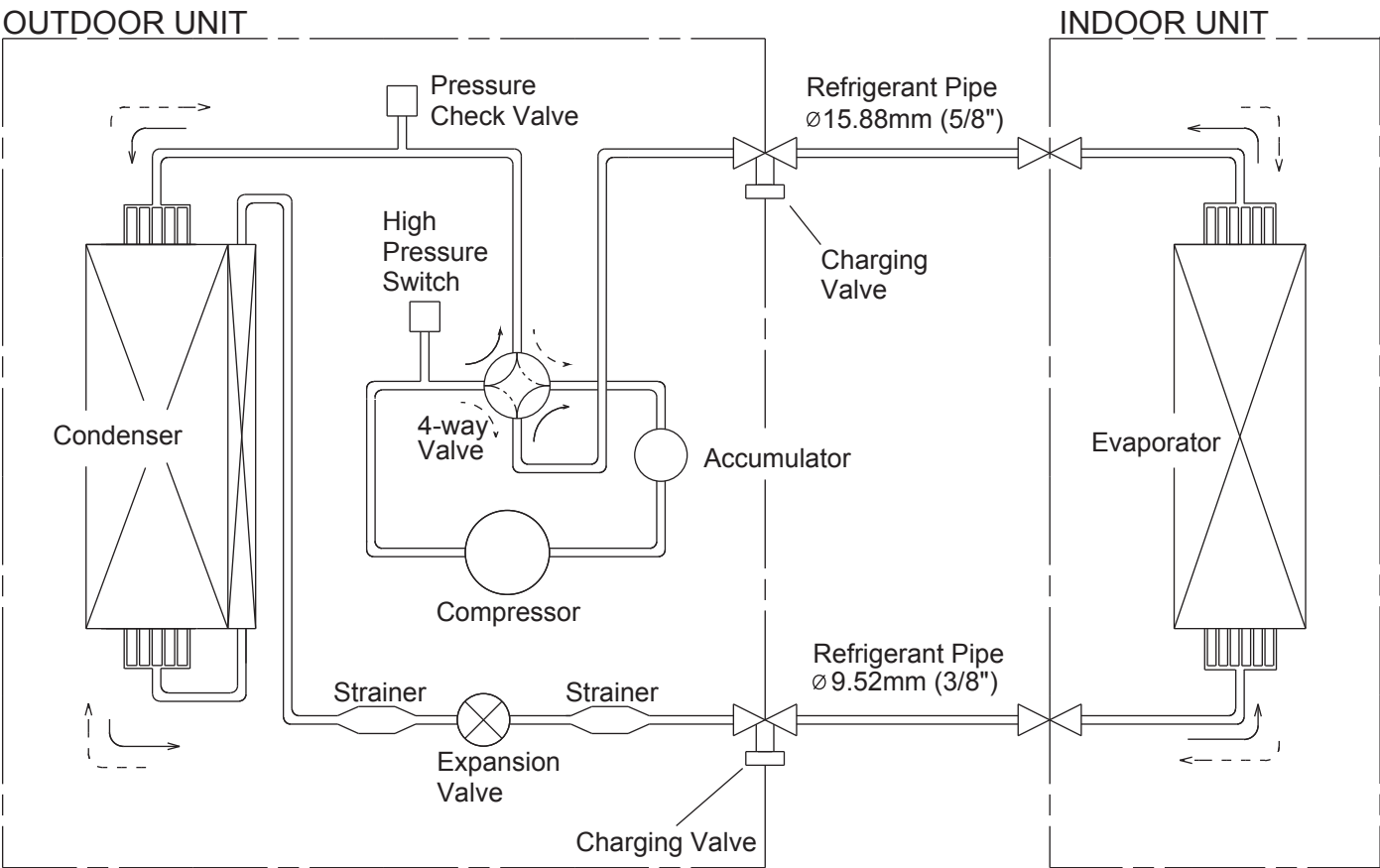
OUTDOOR UNIT

(Unit : mm)



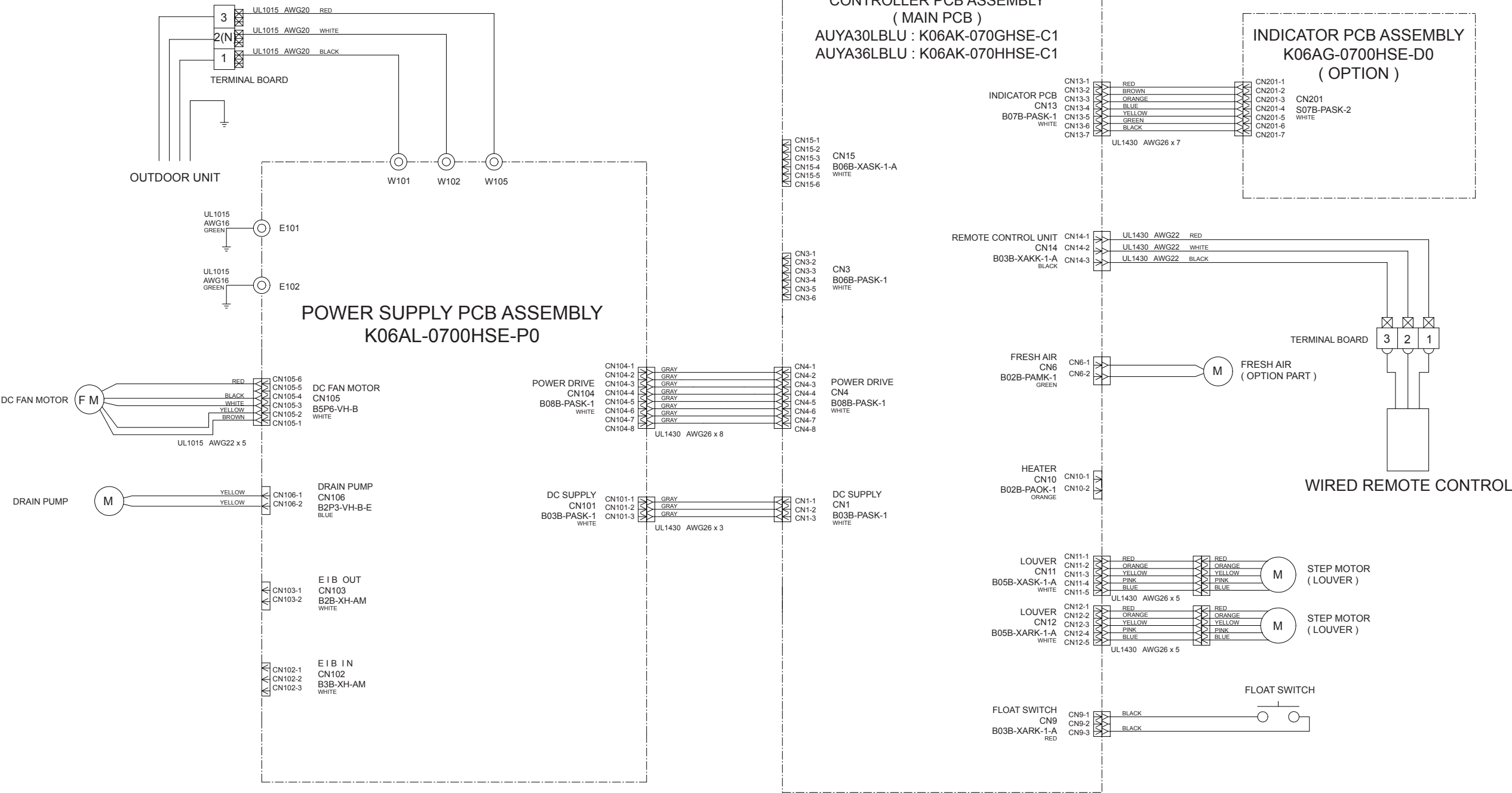
REFRIGERANT
SYSTEM DIAGRAM

Refrigerant direction
——> : Cool
---> : Heat

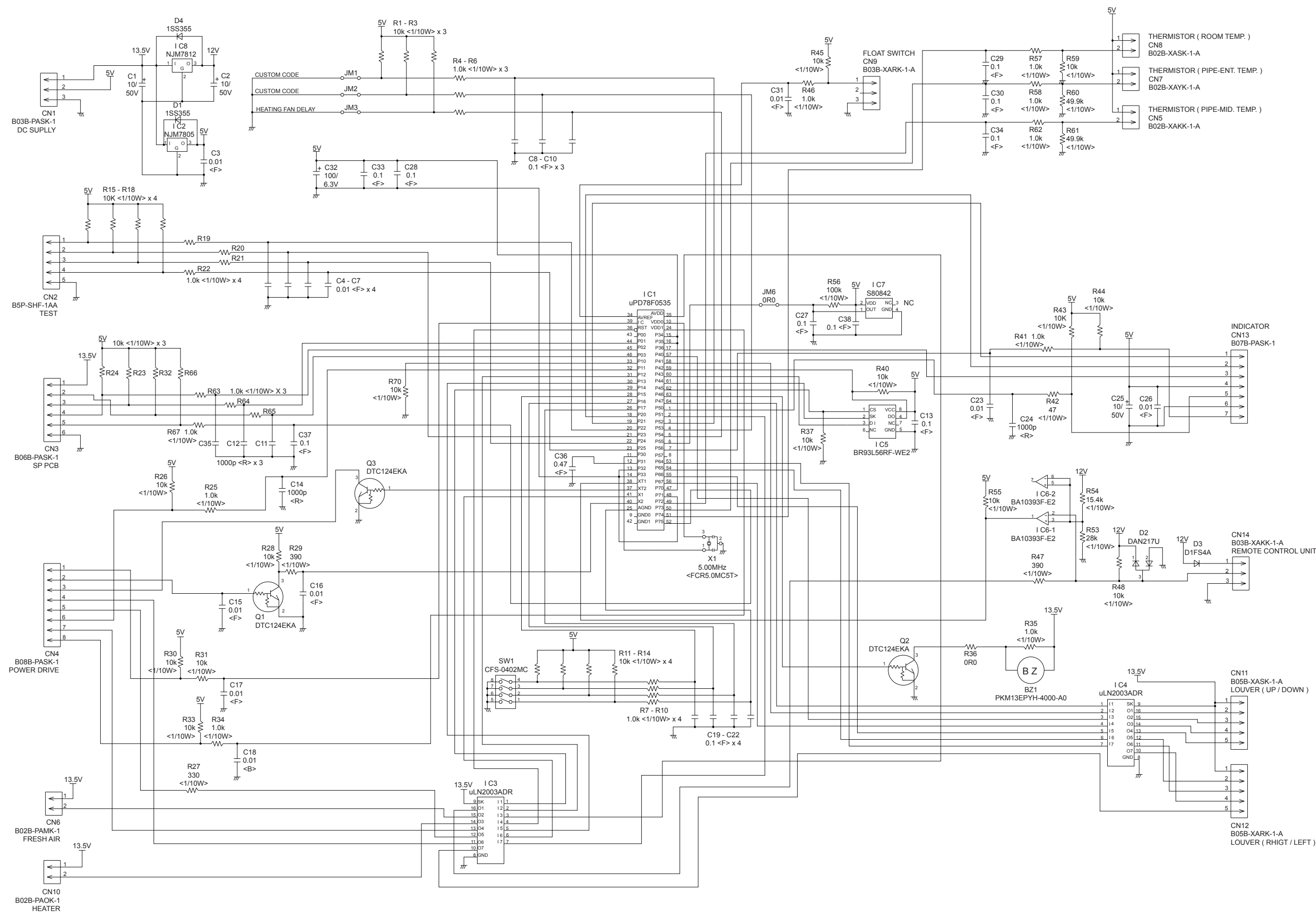


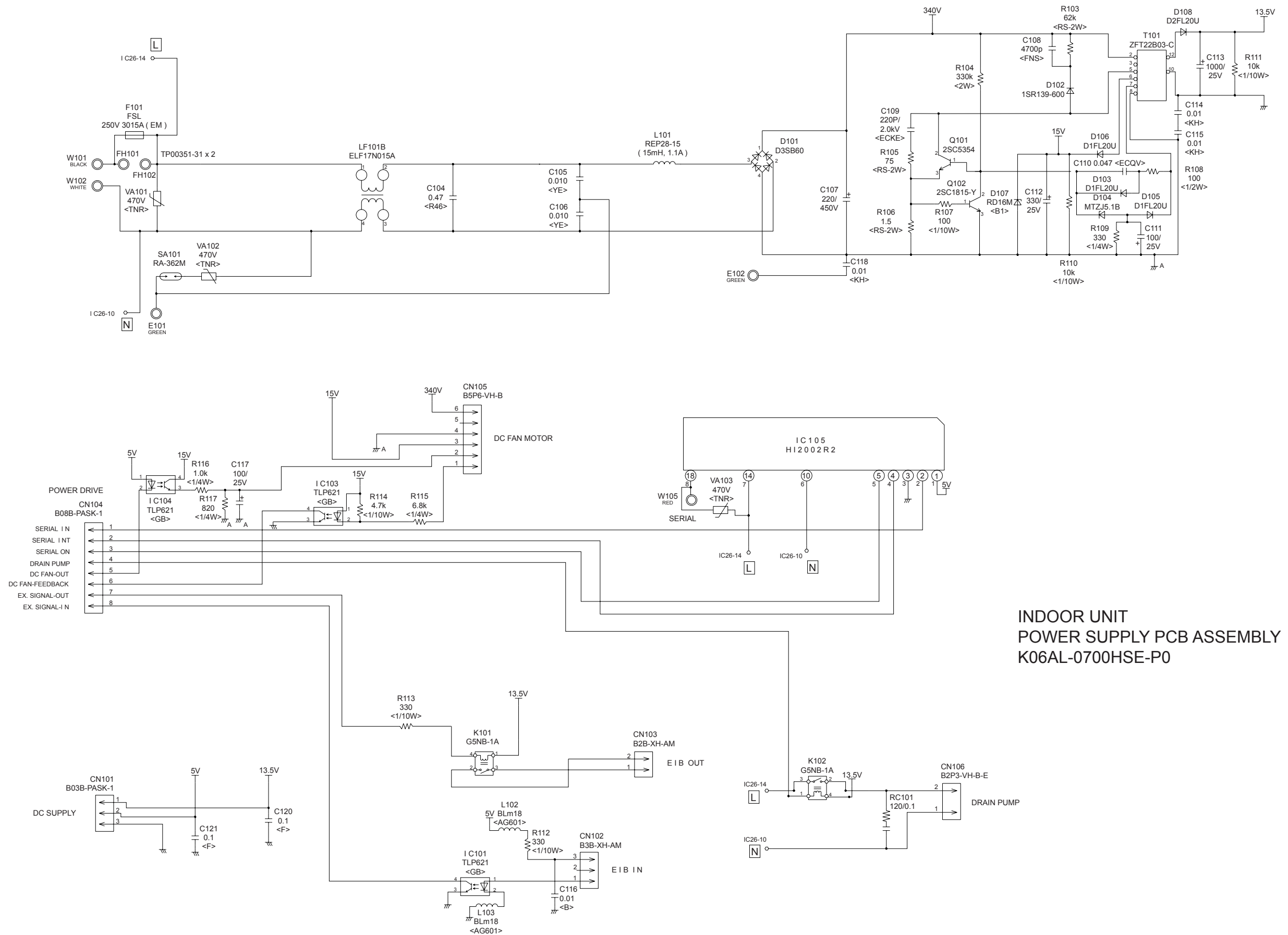
INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
AUYA30LBLU : EZ-00710HSE
AUYA36LBLU : EZ-00711HSE

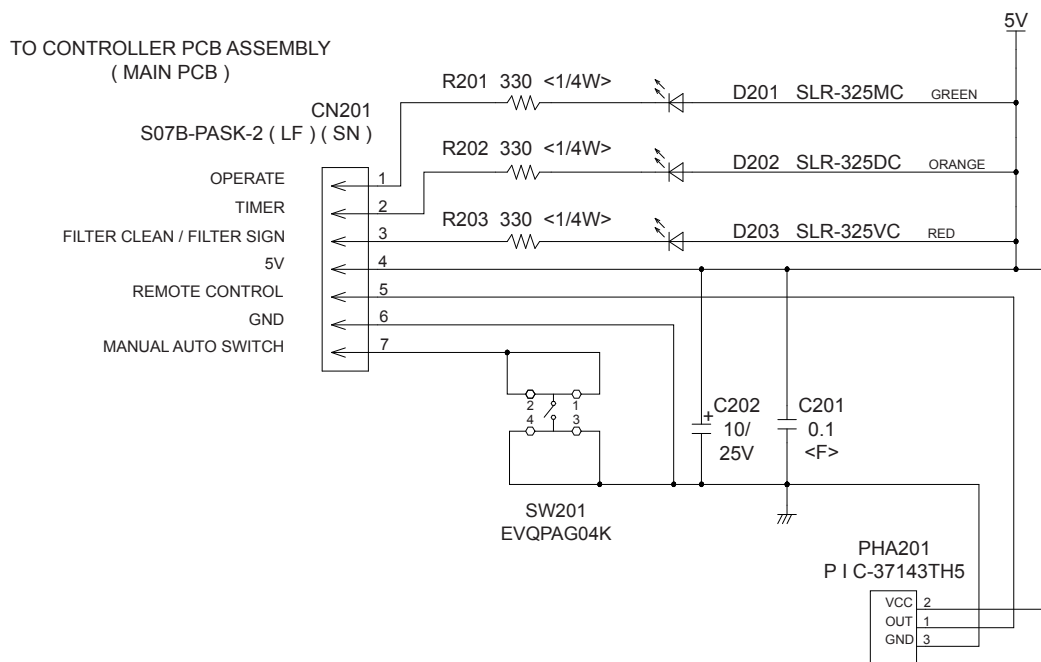


INDOOR UNIT
CONTROLLER PCB ASSEMBLY (MAIN PCB)
AUYA30LBLU : K06AK-070GHSE-C1
AUYA36LBLU : K06AK-070HHSE-C1

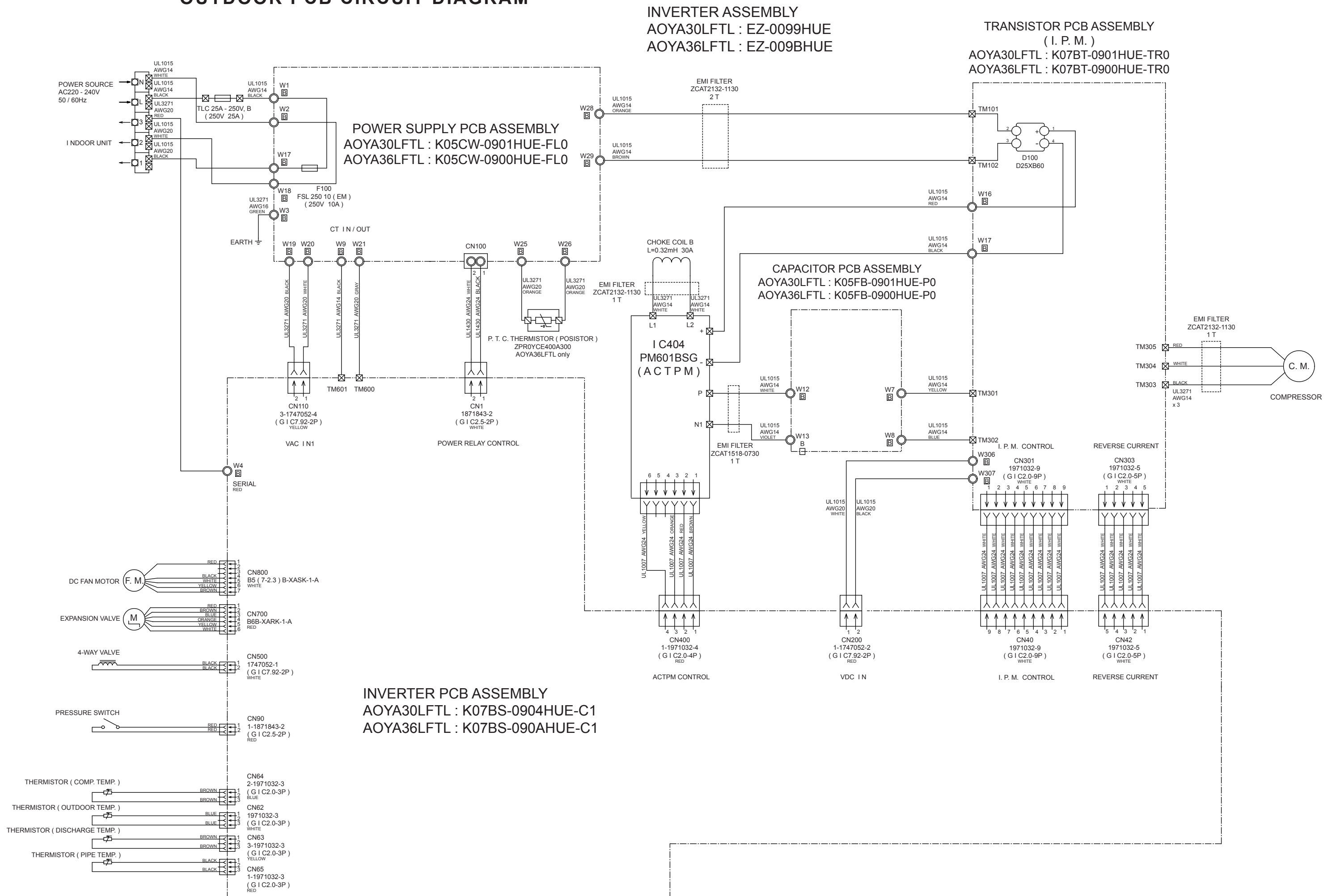




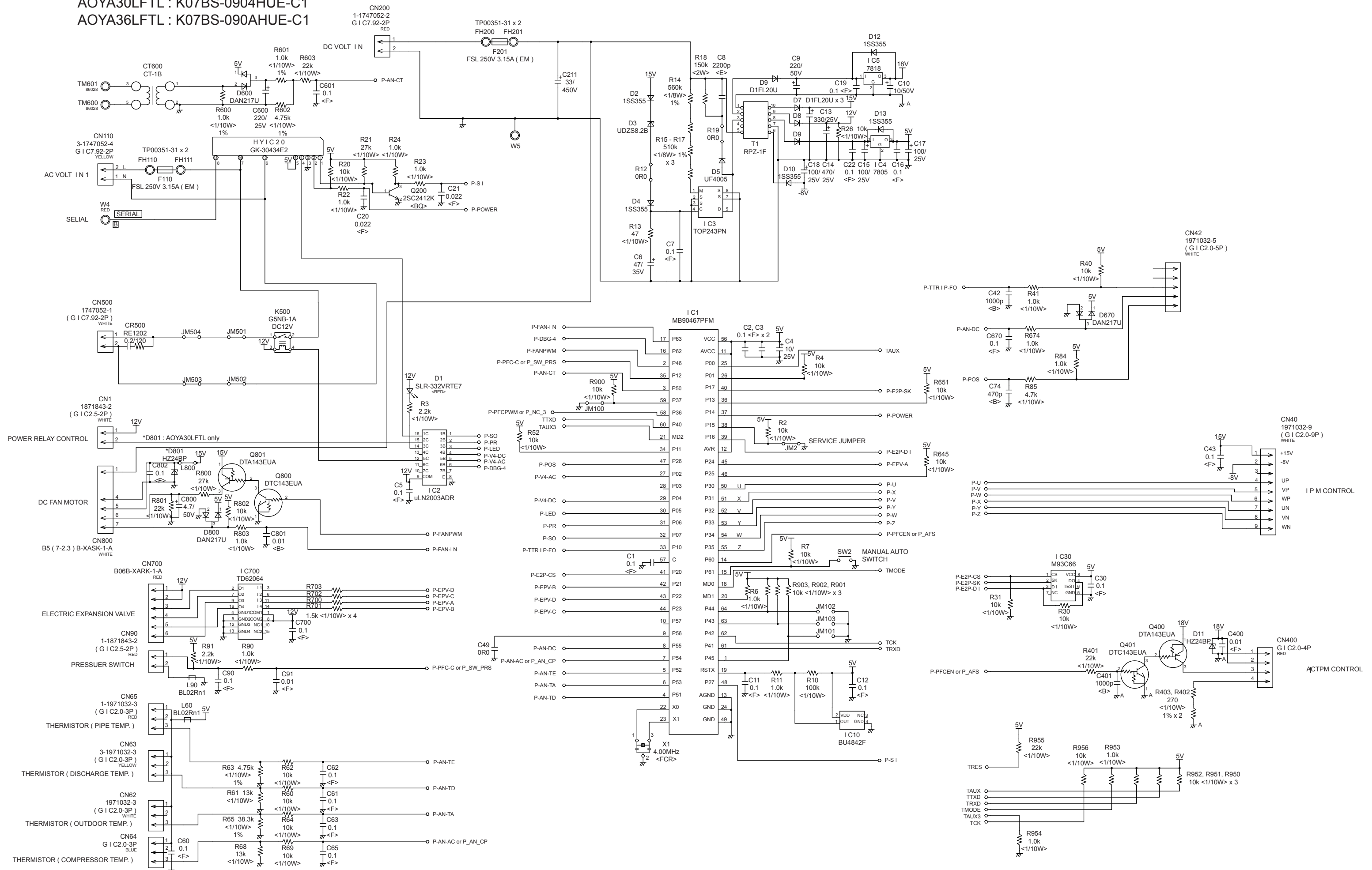
INDOOR UNIT
INDICATOR PCB ASSEMBLY (OPTION)
K06AG-0700HSE-D0



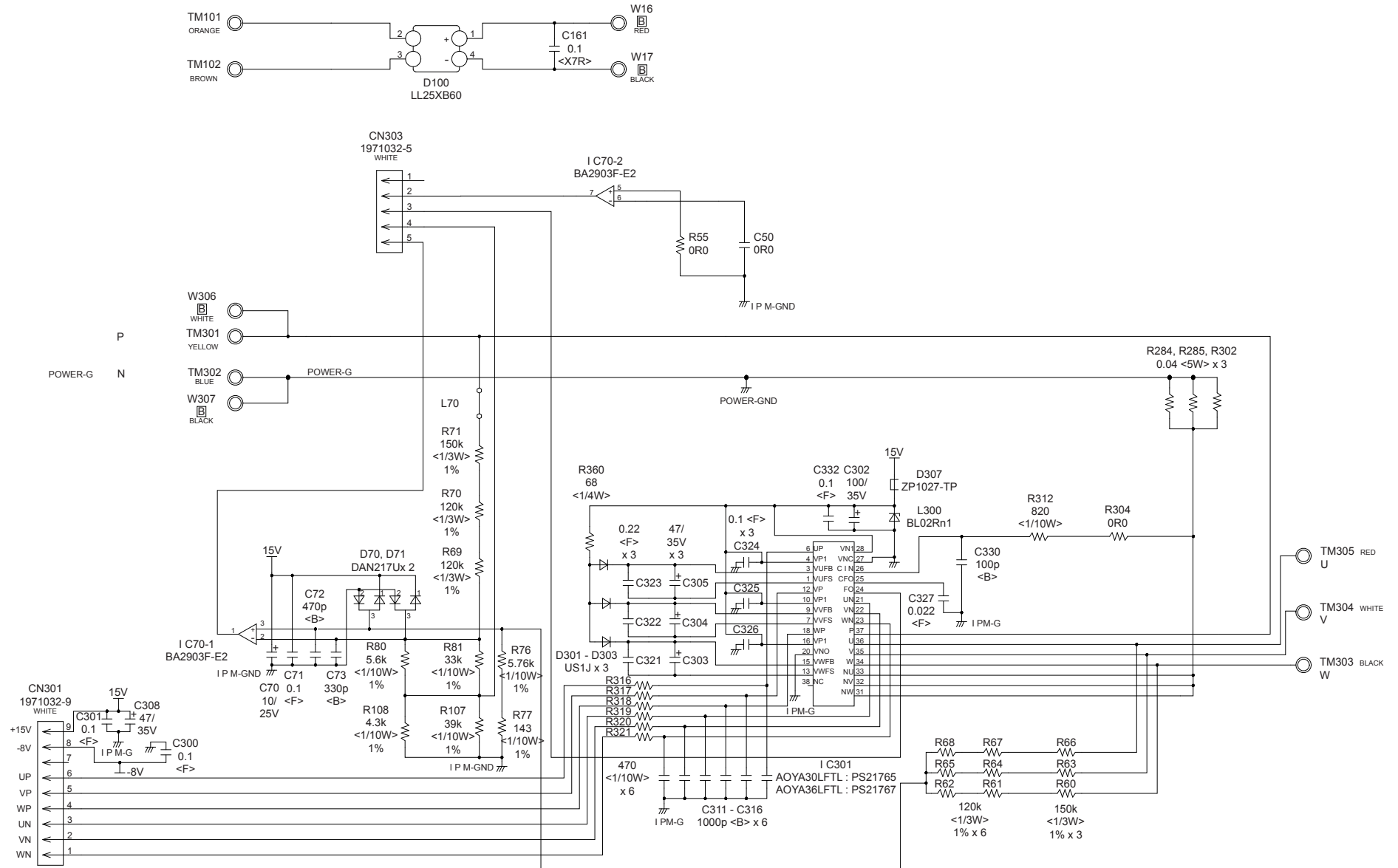
OUTDOOR PCB CIRCUIT DIAGRAM



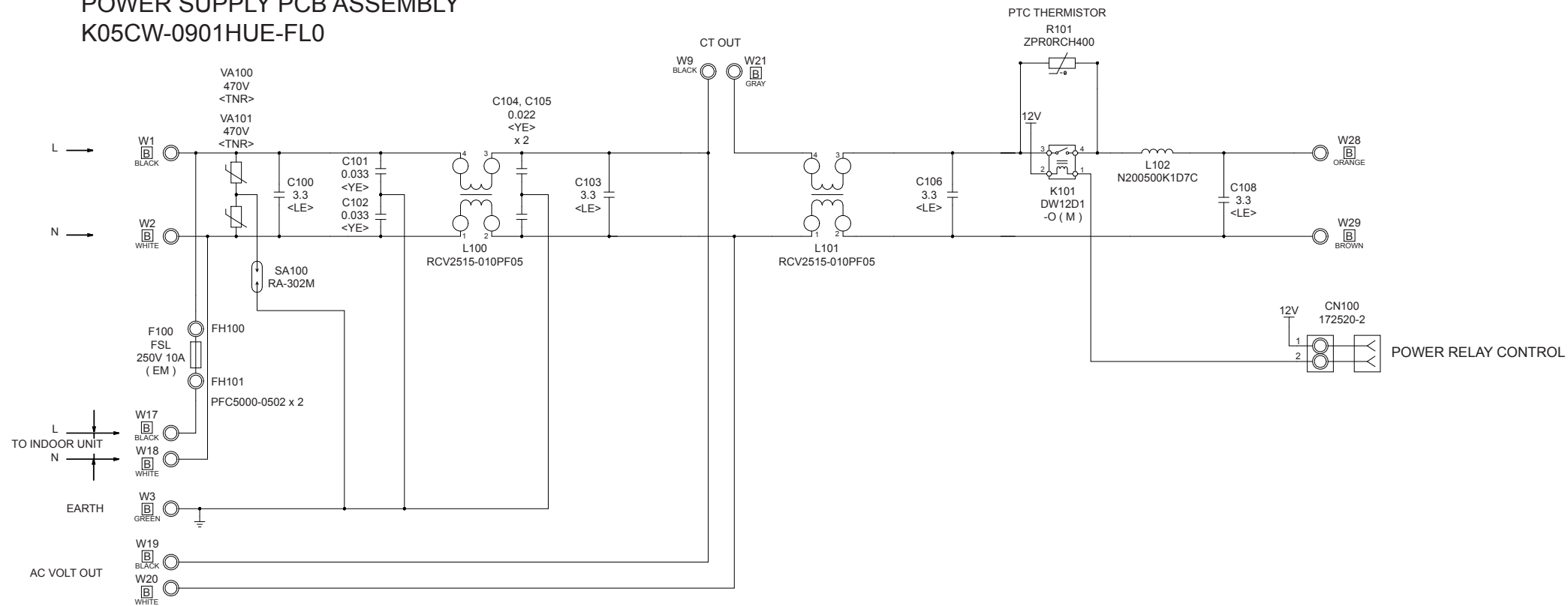
OUTDOOR UNIT
INVERTER PCB ASSEMBLY
AOYA30LFTL : K07BS-0904HUE-C1
AOYA36LFTL : K07BS-090AHUE-C1



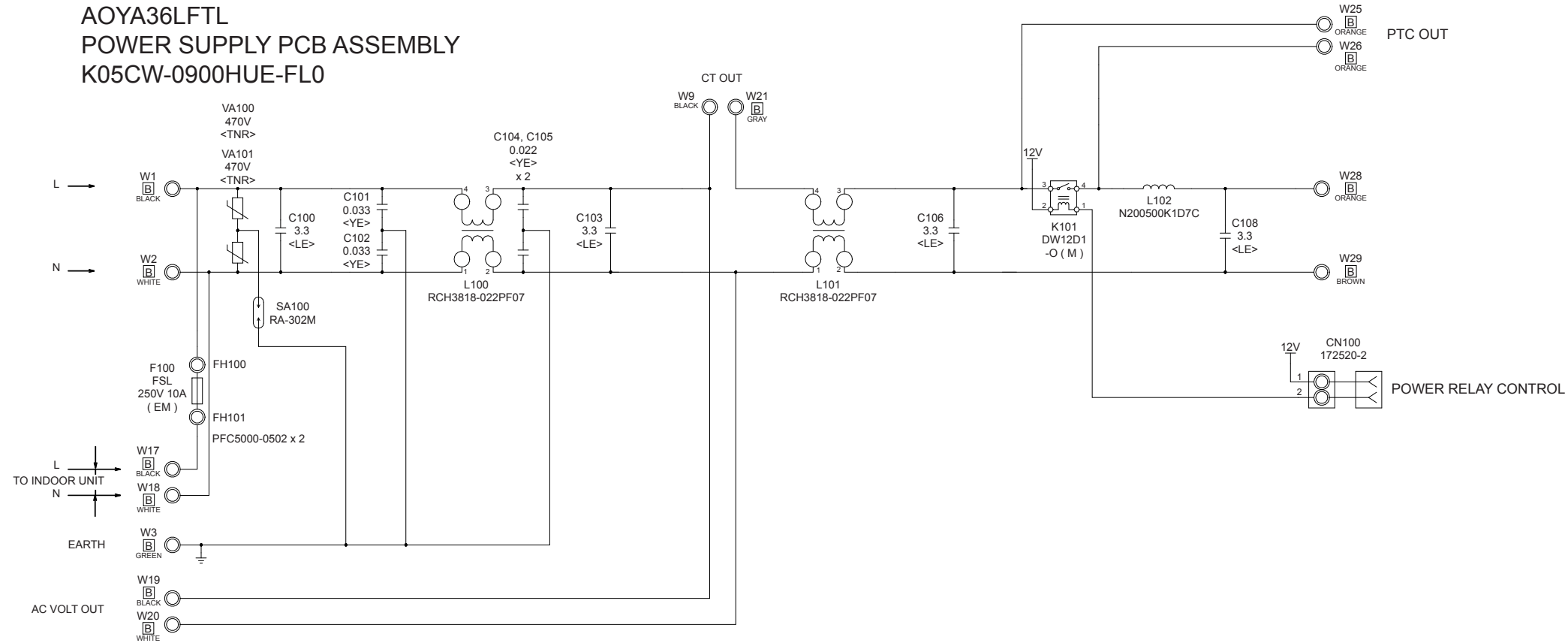
OUTDOOR UNIT
 TRANSISTOR PCB ASSEMBLY (IPM PCB)
 AOYA30LFTL : K07BT-0901HUE-TR0
 AOYA36LFTL : K07BT-0900HUE-TR0



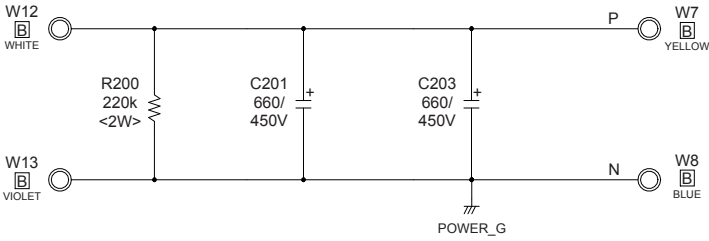
OUTDOOR UNIT
AOYA30LFTL
POWER SUPPLY PCB ASSEMBLY
K05CW-0901HUE-FL0



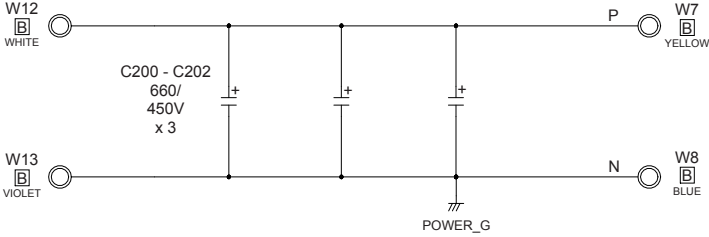
AOYA36LFTL
POWER SUPPLY PCB ASSEMBLY
K05CW-0900HUE-FL0



OUTDOOR UNIT
 AOYA30LFTL
 CAPACITOR PCB ASSEMBLY
 K05FB-0901HUE-P0



AOYA36LFTL
 CAPACITOR PCB ASSEMBLY
 K05FB-0900HUE-P0



ERROR DETECTION

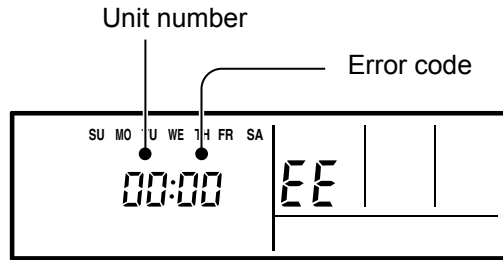
TROUBLESHOOTING AT A REMOTE CONTROL LCD

You will find this on a wired remote control LCD. (option)

If an error occurs, the following display will be shown.

("EE" will appear in the set room temperature display.)

If "CO" appears in the unit number display, there is a remote control error.
Refer to the installation instruction sheet included with the remote control.



Error code	Error contents
01	Serial reverse transfer error
13	Serial forward transfer error
00	Wired remote controller abnormal
02	Indoor room temperature sensor error
04	Indoor heat exchanger temperature sensor (middle) error
28	Indoor heat exchanger temperature sensor (inlet) error
09	Float switch operated
0C	Outdoor discharge pipe temperature sensor error
06	Outdoor heat exchanger temperature sensor (outlet) error
0A	Outdoor temperature sensor error
15	Compressor temperature sensor error
20	Indoor manual auto switch abnormal
2A	Power supply frequency detection error
17	IPM protection
18	CT error
1A	Compressor location error
1b	Outdoor fan error
12	Indoor fan abnormal
0F	Discharge temperature error
24	Excessive high pressure protection on cooling
2c	4-way valve abnormal
16	Pressure switch abnormal
2b	Compressor temperature error
19	Active filter abnormal
25	PFC circuit error

OUTDOOR UNIT

CAUTION

Always turn on the power 12 hours prior to the start of the operation in order to ensure compressor protection

1. Make a TEST RUN in accordance with the installation instruction sheet for the indoor unit.

2. OUTDOOR UNIT LEDS

When a malfunction occurs in the outdoor unit, the LED on the circuit board lights to indicate the error. Refer to the following table for the description of each error according to the LED.

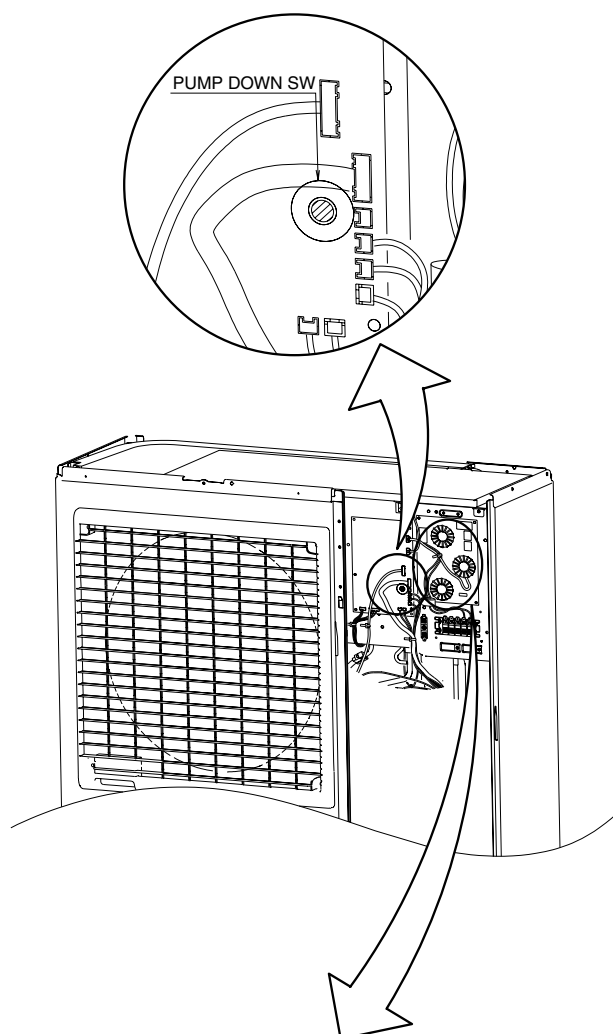
LED	ERROR CONTENTS
FLASH (0.1sec ON/0.1sec OFF)	Temperature sensor error
FLASH (0.5sec ON/0.5sec OFF)	IPM protection
FLASH (2sec ON/2sec OFF)	Current trans. error
FLASH (5sec ON/5sec OFF)	Outdoor fan error
FLASH (0.1sec ON/2sec OFF)	Compressor rotor position cannot be detected
FLASH (5sec ON/0.1sec OFF)	ACTPM error
Lighting	Overheat discharge temperature protection

SPECIAL INSTALLATION SETTING

PUMP DOWN (Refrigerant collecting operation)

Perform the following procedures to collect the refrigerant when moving the indoor unit or the outdoor unit.

- (1) Press the push-button switch on the circuit board once.
The LED on the circuit board starts flashing (one second ON/one second OFF). This indicates the start of PUMP DOWN operation.
When the switch is pressed while the compressor is in operation, PUMP DOWN operation starts automatically.
When the switch is pressed while the compressor is in stop, the compressor starts to operate automatically, and then move on to PUMP DOWN operation.
- (2) PUMP DOWN operation continues for about 1 minute. When PUMP DOWN operation is completed, the compressor stops automatically. Then close the 2-way valve and 3-way valve immediately.
- (3) Turn the power off.

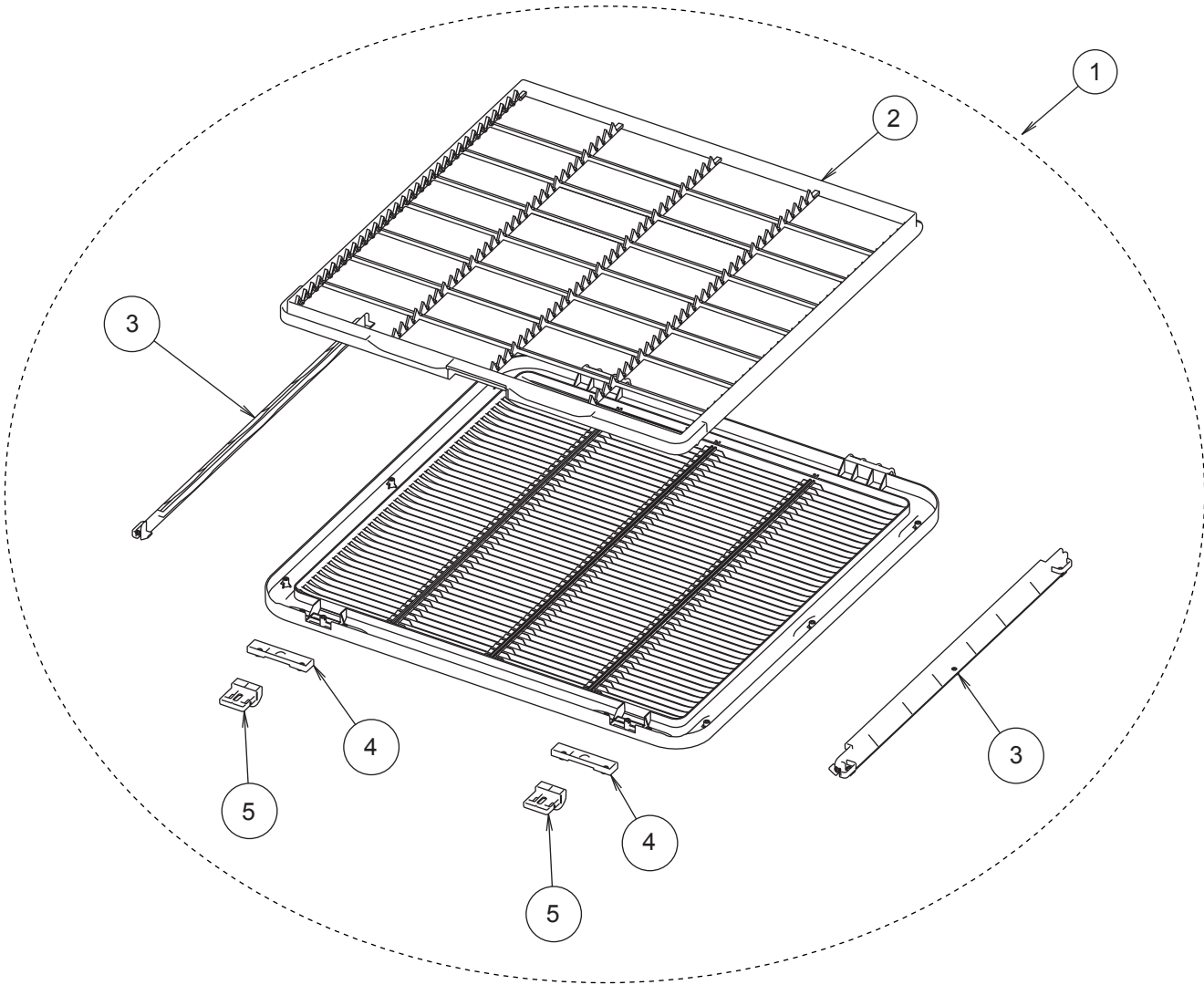


DANGER

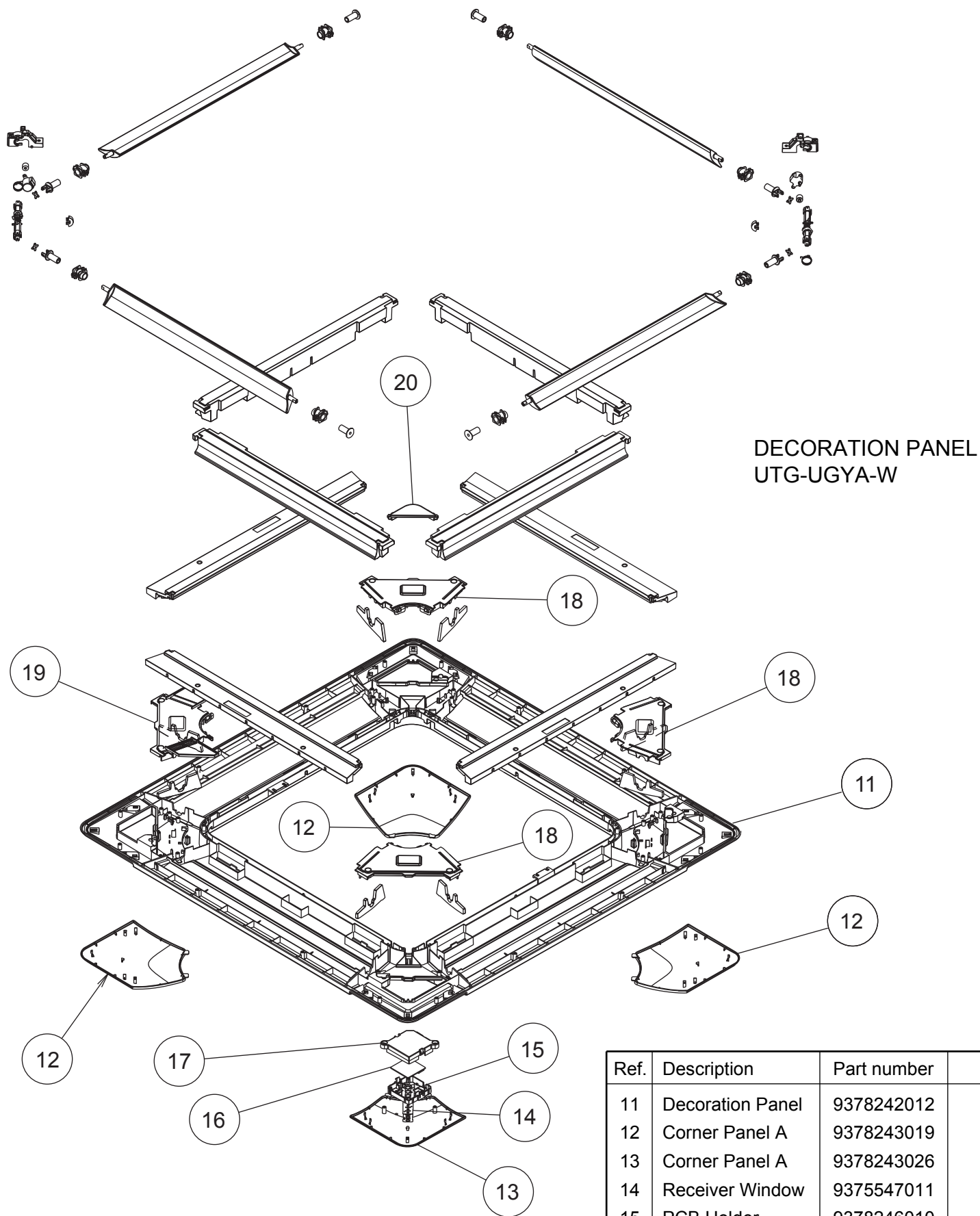
This part (Choke coil) generates high voltages. Never touch this part.

PARTS

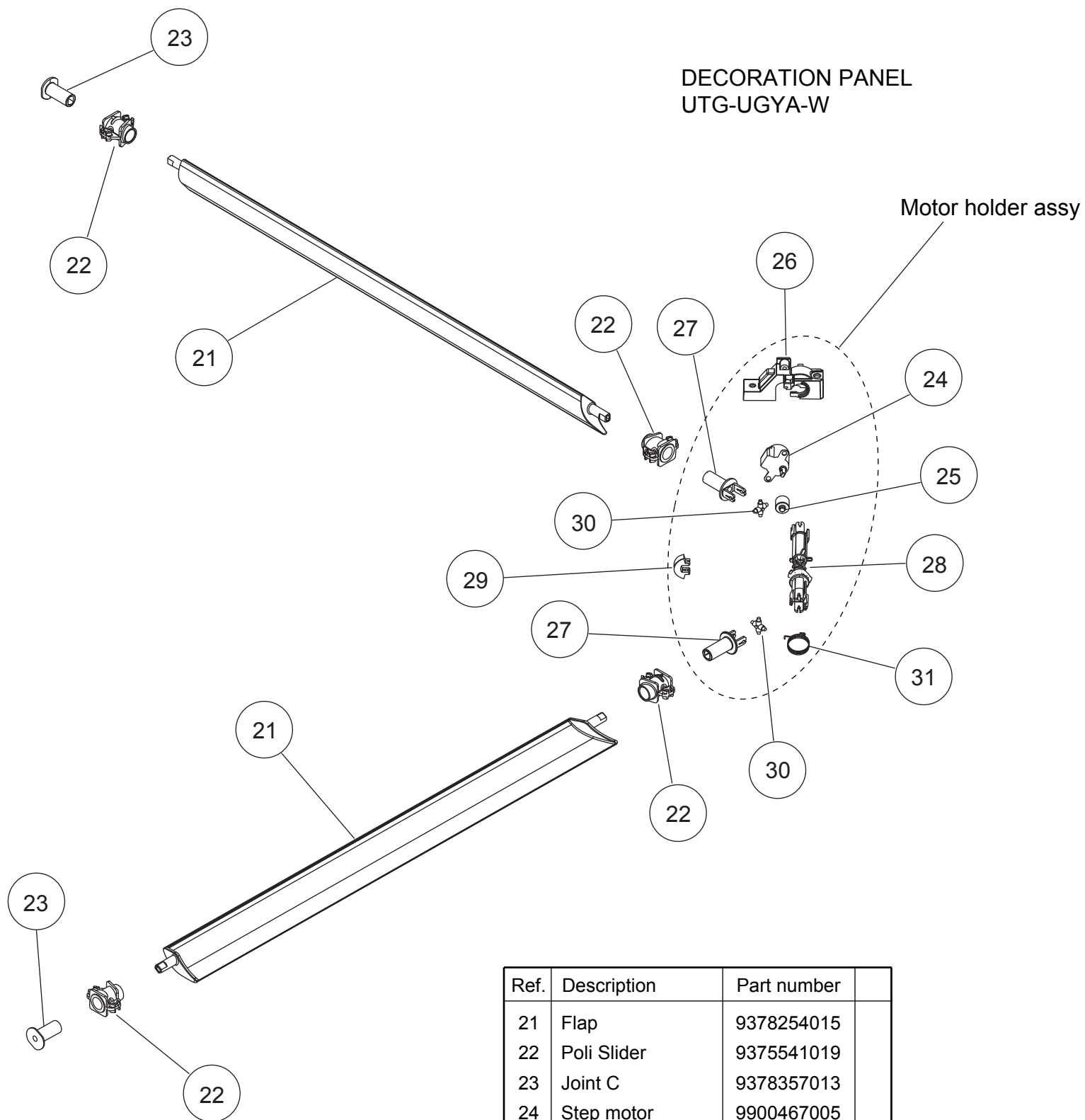
DECORATION PANEL
UTG-UGYA-W



Ref.	Description	Part number	
1	Intake Grille Assy	9378565012	
2	Long Life Filter	9378252011	
3	Filter Guide	9378253018	
4	Hook Bracket	9378435018	
5	Grille Hook	9378250017	

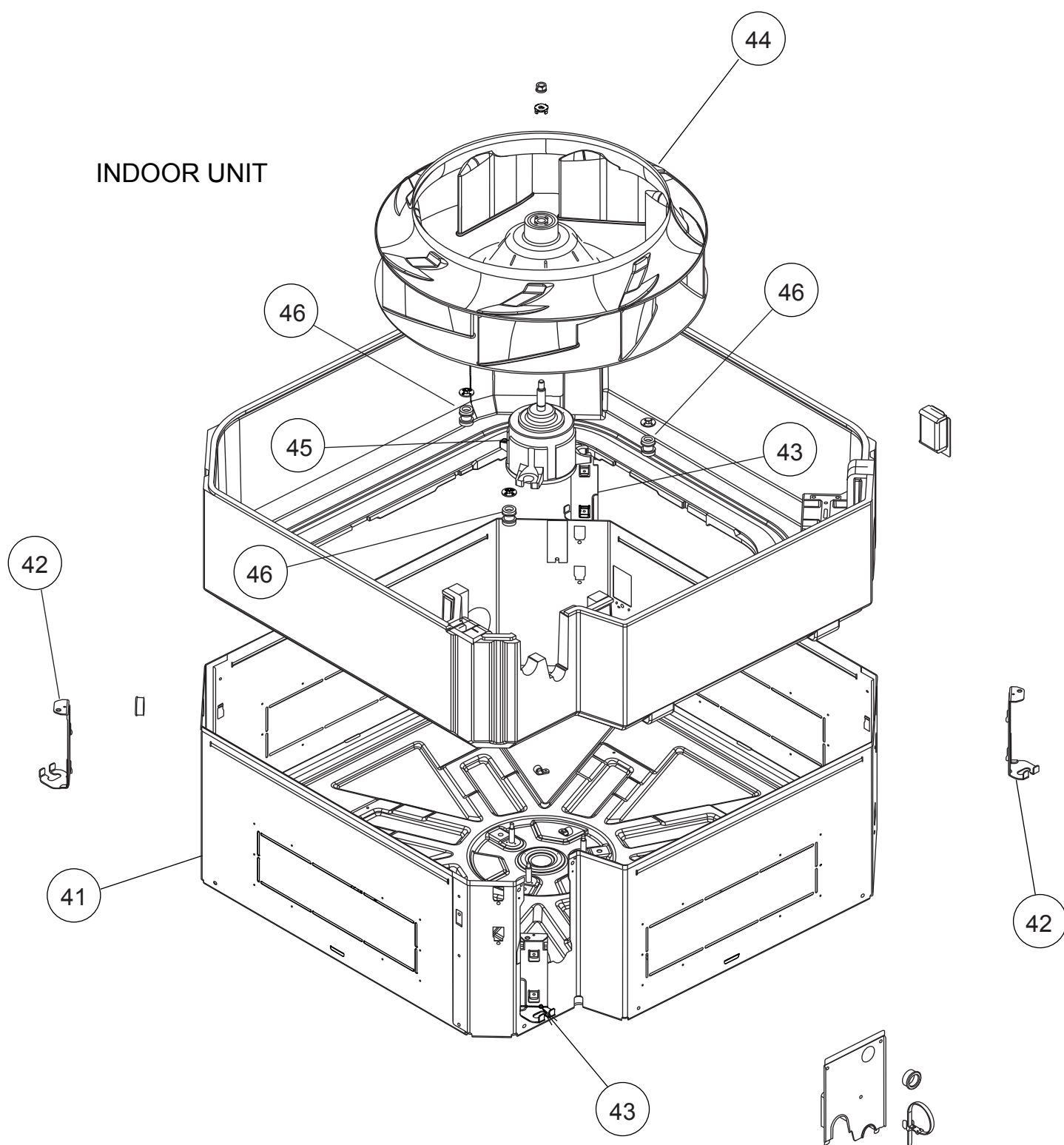


Ref.	Description	Part number
11	Decoration Panel	9378242012
12	Corner Panel A	9378243019
13	Corner Panel A	9378243026
14	Receiver Window	9375547011
15	PCB Holder	9378246010
16	PCB Sube Assy	9707372021
17	PCB Cover	9378245013
18	Panel Cover A	9378261013
19	Panel Cover B	9378262010
20	Drain Cover	9378359017



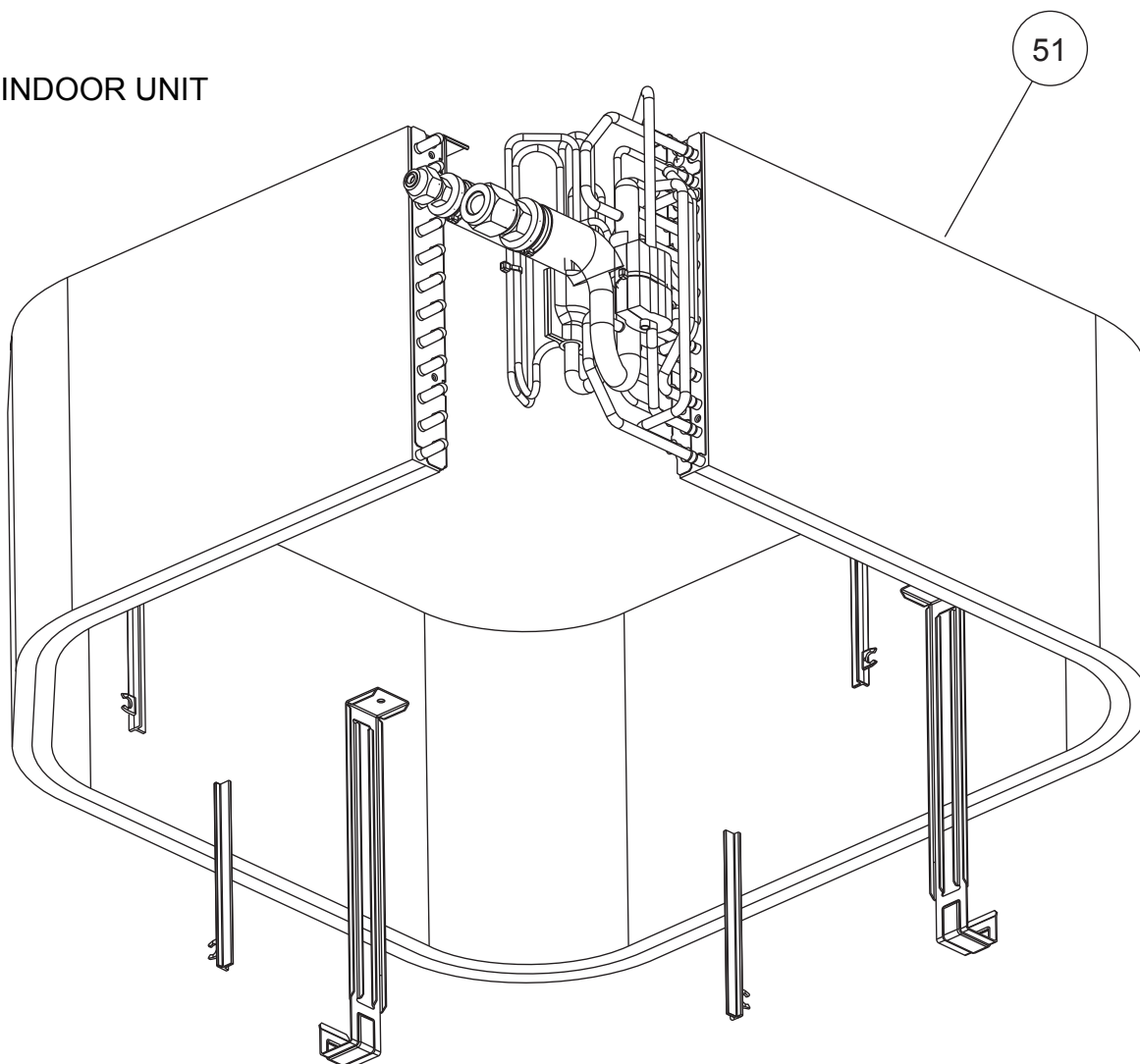
Ref.	Description	Part number	
21	Flap	9378254015	
22	Poli Slider	9375541019	
23	Joint C	9378357013	
24	Step motor	9900467005	
25	Gear A	9378256019	
26	Motor Holder	9378255012	
27	Joint A	9378258013	
28	Joint B	9378259010	
29	Gear B	9378257016	
30	Joint Shaft	9378260016	
31	Flap Spring	9378356016	
--	Wire (Step Motor)	9707869019	
--	Wire (Step Motor)	9707869026	

INDOOR UNIT



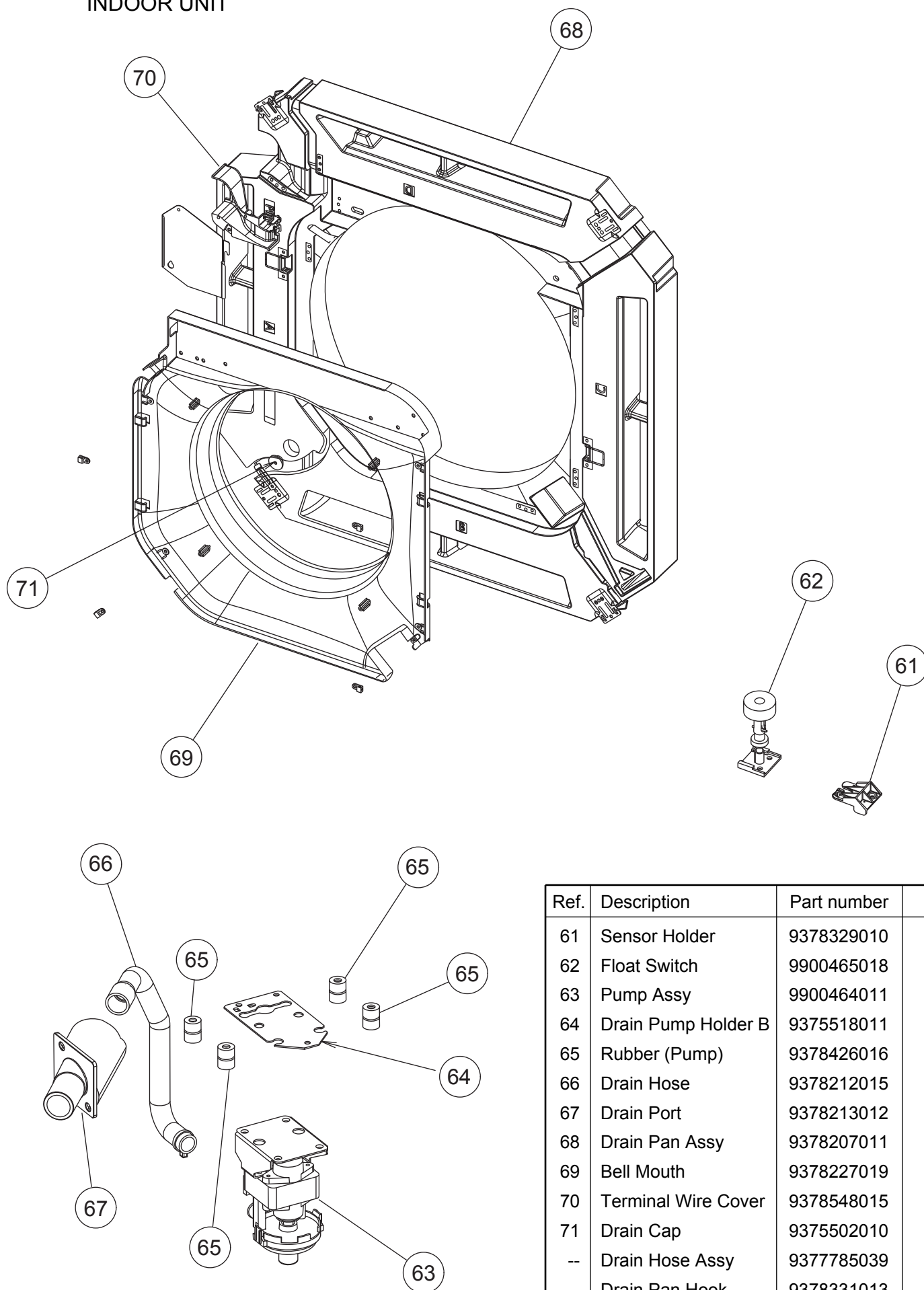
Ref.	Description	Part number	
41	Cabinet C	9378196018	
42	Hook R	9378197015	
43	Hook L	9378198012	
44	Turbo Fan Assy	9378228016	
45	Motor, DC Brushless	9602716005	
46	Rubber (Motor)	9378223011	

INDOOR UNIT



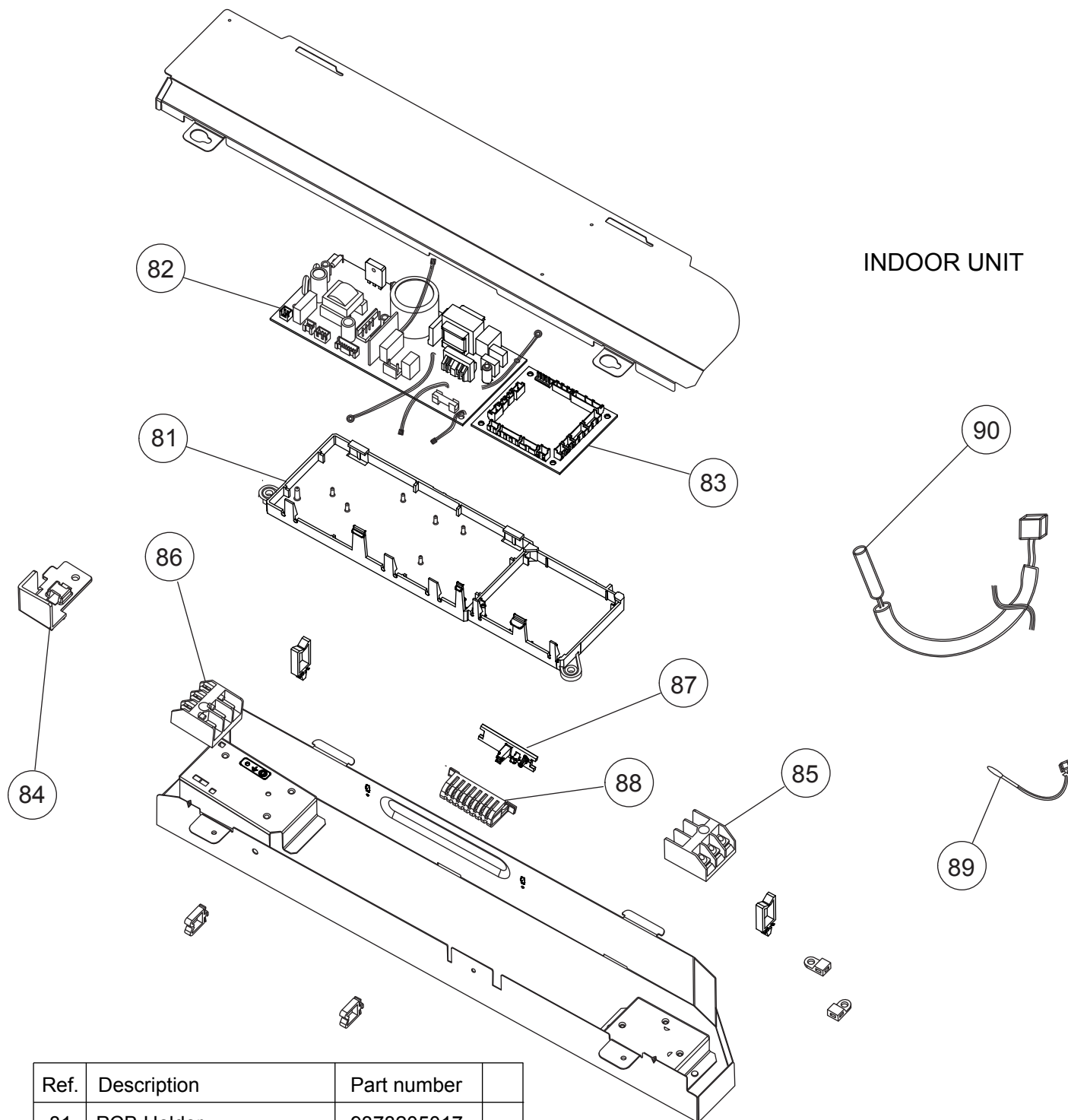
Ref.	Description	Part number	
51	Evaporator Total Assy	9378580015	
--	Coupling Pipe Assy	9373038481	
--	Distributor Assy	9371325446	

INDOOR UNIT



Ref.	Description	Part number	
61	Sensor Holder	9378329010	
62	Float Switch	9900465018	
63	Pump Assy	9900464011	
64	Drain Pump Holder B	9375518011	
65	Rubber (Pump)	9378426016	
66	Drain Hose	9378212015	
67	Drain Port	9378213012	
68	Drain Pan Assy	9378207011	
69	Bell Mouth	9378227019	
70	Terminal Wire Cover	9378548015	
71	Drain Cap	9375502010	
--	Drain Hose Assy	9377785039	
--	Drain Pan Hook	9378331013	

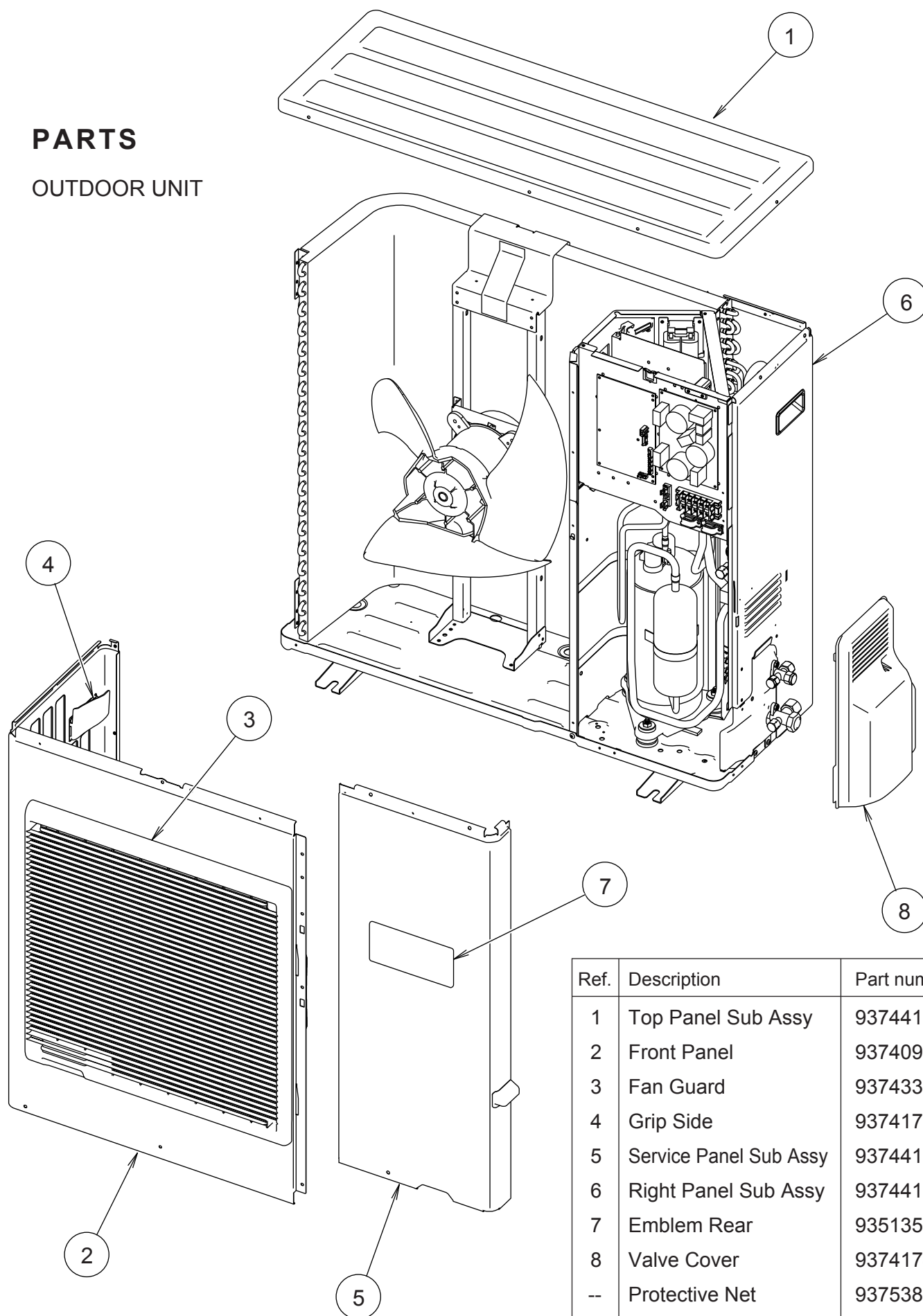
INDOOR UNIT



Ref.	Description	Part number	
81	PCB Holder	9378205017	
82	Power PCB Assy	9707398083	
83	Controller PCB Assy (30)	9707393316	
83	Controller PCB Assy (36)	9707393323	
84	Clamp	9378237018	
85	Terminal 3P	9306489045	
86	Terminal 3P	9703345012	
87	Thermistor Holder A	9378206014	
88	Thermistor Holder B	9378330016	
89	Room Thermistor	9900445010	
90	Pipe Thermistor	9900470012	
--	Remote Control	9372266199	
--	Wire (to Remote Control)	9703301049	
--	Wire (Control - Power) 8 lines	9703339035	
--	Wire (Control - Power) 3 lines	9707442021	

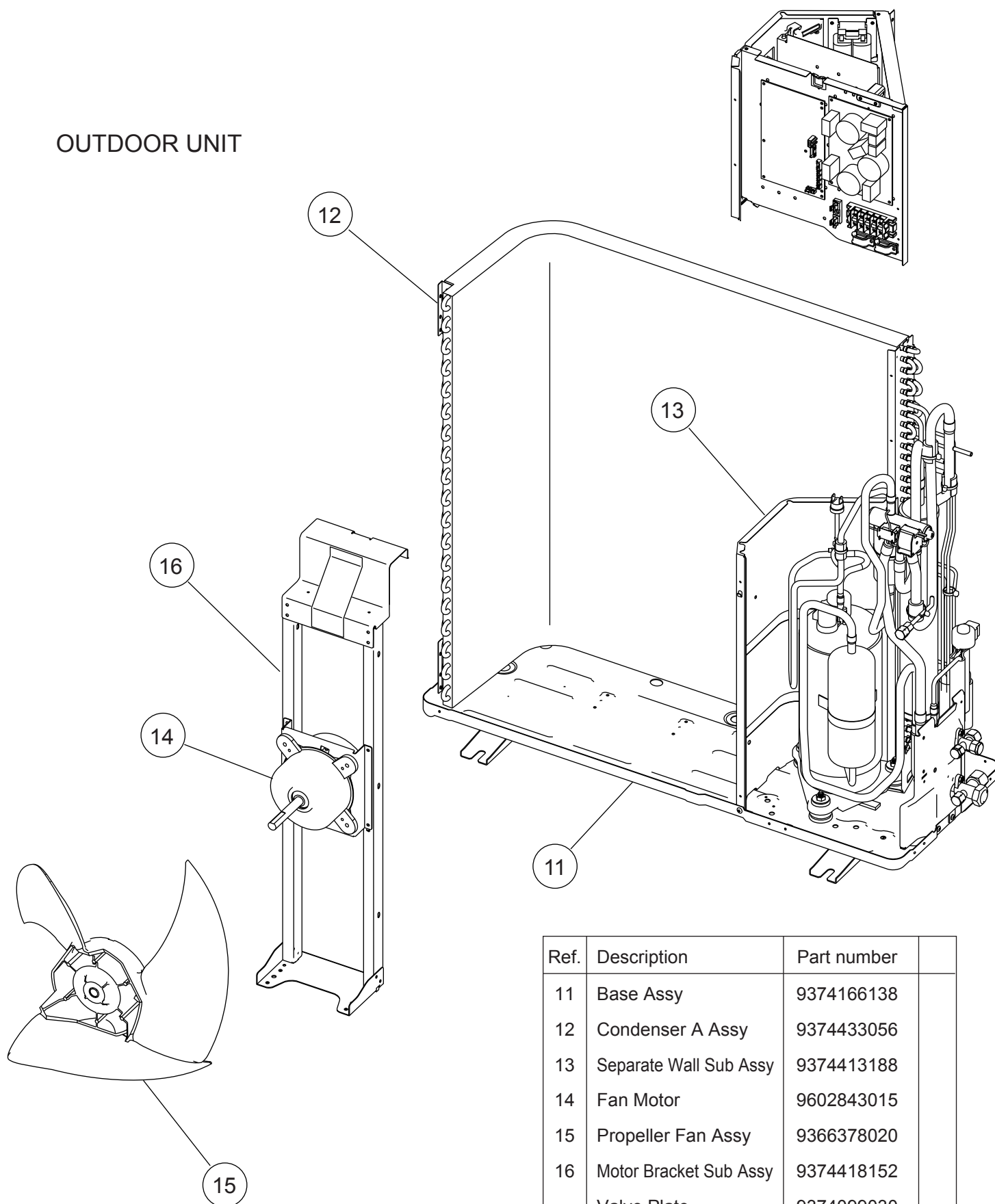
PARTS

OUTDOOR UNIT

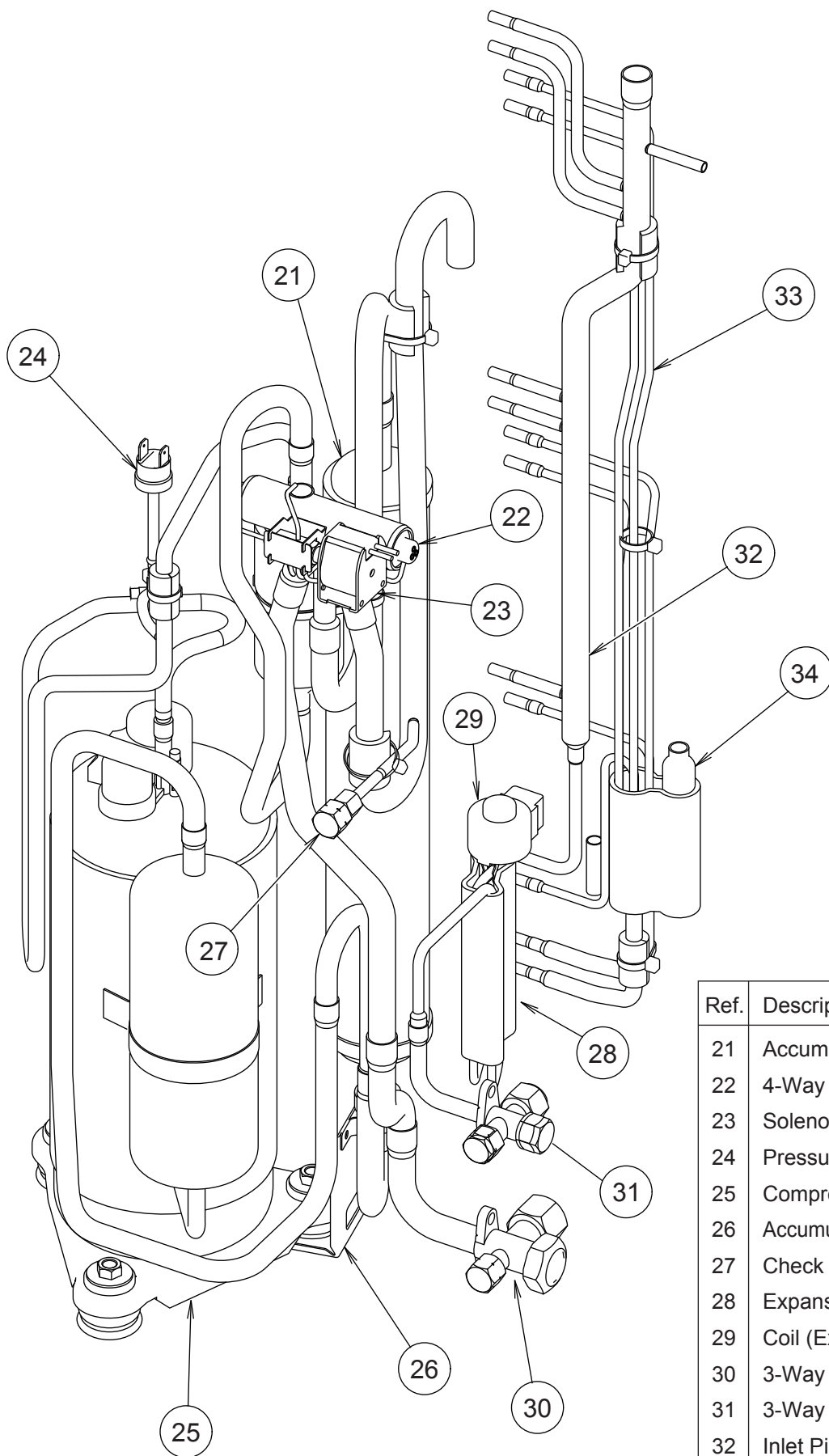


Ref.	Description	Part number	
1	Top Panel Sub Assy	9374417032	
2	Front Panel	9374094066	
3	Fan Guard	9374330010	
4	Grip Side	9374173013	
5	Service Panel Sub Assy	9374415052	
6	Right Panel Sub Assy	9374416127	
7	Emblem Rear	9351355005	
8	Valve Cover	9374174010	
--	Protective Net	9375381011	
--	Fan Guard Cover	9378111011	

OUTDOOR UNIT



Ref.	Description	Part number	
11	Base Assy	9374166138	
12	Condenser A Assy	9374433056	
13	Separate Wall Sub Assy	9374413188	
14	Fan Motor	9602843015	
15	Propeller Fan Assy	9366378020	
16	Motor Bracket Sub Assy	9374418152	
--	Valve Plate	9374099030	



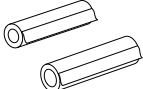
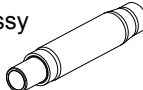
OUTDOOR UNIT

Ref.	Description	Part number
21	Accumulator	9385005006
22	4-Way Valve	9900164010
23	Solenoid	9970055034
24	Pressure Switch	9900186012
25	Compressor Assy	9810135001
26	Accumulator Support Assy	9355351003
27	Check Joint Assy	9372802038
28	Expansion Valve Assy	9370947144
29	Coil (Expansion Valve)	9900057039
30	3-Way Valve Assy	9377959010
31	3-Way Valve Assy	9377958013
32	Inlet Pipe (Cond) A Assy	9373461067
33	Outlet Pipe (Cond) A Assy	9374266104
34	Strainer Assy	9372524015
--	Discharge Pipe Assy	9372264249

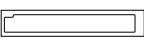
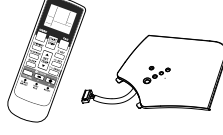
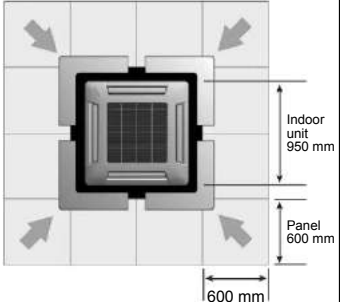
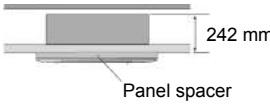
	Part number
Base	9375314019
Compressor Assy (IPM) (30)	9707669077
Compressor Assy (IPM) (36)	9707669060
Condenser Fan Assy (30)	9707592016
Condenser Fan Assy (36)	9900390020
Control PCB Assy (30)	9900223014
Control PCB Assy (36)	9707257052
Control PCB Assy (36)	9707257045
Control PCB Assy	9375316020
Control PCB Assy (30)	9707667189
Control PCB Assy (36)	9707667240
Control PCB Assy (30)	9707128215
Control PCB Assy (36)	9707128208
Control PCB Assy (36)	9900203023
Control PCB Assy (36)	9704265012
Control PCB Assy (36)	9900461003
Control PCB Assy (36)	9900463007
Control PCB Assy (36)	9900466015
Control PCB Assy (36)	9900462000
Control PCB Assy (36)	9367595099

ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application
Template (Carton top) 	1	For installing indoor unit
Washer 	8	For installing indoor unit
Coupler heat insulation 	2	For indoor side pipe joint
Insulation 	1	For installing drain pipe
Drain hose assy 	1	For installing drain pipe
Hose band assy 	1	For installing drain pipe
Drain pipe insulation 	1	For installing drain pipe
Binder (Large) 	3	For electrical wiring
Binder (Small) 	1	For electrical wiring
Wired remote control 	1	
Remote Control Cord 	1	For connecting remote control
Tapping screw ($\phi 4 \times 16$) 	2	For installing remote control

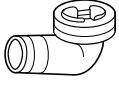
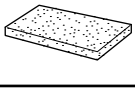
OPTIONAL PARTS

Name and Shape	Model name	Application
Wired remote contro 	UTB-YUD	Control unit on wall
Air outlet shutter plate 	UTR-YDZC	Install the plate at outlet when carrying out 3-way direction operation.
Wireless remote control kit 	UTY-LRHYA1	Wireless remote control and IR receiver unit
Wide panel 	UTG-AGYA	For ceiling hole
Panel spacer 	UTG-BGYA-W	For making up difference

DECORATION PANEL

Name and Shape	Q'ty	Application
Hexigon Screw 	4	For mounting decoration panel
Screw 	4	For installing grille holding wire
Strap 	4	For installing corner panel
Grille holding Wire 	2	For installing intake grille

OUTDOOR UNIT

Name and Shape	Q'ty	Application	Part number
Drain pipe 	1	For outdoor unit drain piping work	9303029015
Drain cap 	2		313166024302
Installation (seal) 	1	For filling in a gap at the entrance of connection cords	9374756018

0911G3681