

**SPLIT TYPE
AIR CONDITIONER**

CASSETTE type (50Hz)

SERVICE MANUAL



Indoor unit	Outdoor unit
AUY30LUAS	AOY30LMAWL
AUY36LUAS	AOY36LMAWL

CONTENTS

SPECIFICATIONS	1
DIMENSIONS	2
REFRIGERANT SYSTEM DIAGRAM	4
CIRCUIT DIAGRAM	5
INDOOR PCB CIRCUIT DIAGRAM	6
OUTDOOR PCB CIRCUIT DIAGRAM	7
ERROR CONTENTS	10
DISASSEMBLY ILLUSTRATION	12
PARTS LIST	20
STANDARD ACCESSORIES	22

SPECIFICATIONS

ELECTRICAL DATA

TYPE		COOLING & HEATING	
INDOOR UNIT		AUY30LUAS	AUY36LUAS
OUTDOOR UNIT		AOY30LMAWL	AOY36LMAWL
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	12.5 A	17.6 A
	Heating	12.4 A	15.2 A
INPUT WATTS	Cooling	2.86 kW	4.01 kW
	Heating	2.84 kW	3.49 kW
E.E.R.	Cooling	2.97 kW/kW	2.49 kW/kW
	Heating	3.52 kW/kW	3.21 kW/kW
STARTING CURRENT		15 A	15 A
MOISTURE REMOVAL		3.0 L/hr	4.0 L/hr
AIR CIRCULATION HIGH		1,550 m3/hr	1,550 m3/hr

FAN MOTOR

INDOOR UNIT	Discrimination	MFA-54PZM	
	High speed	600 r.p.m.	
	Middle speed	490 r.p.m.	
	Low speed	420 r.p.m.	
	Super low	300 r.p.m.	
OUTDOOR UNIT	Discrimination	MFE-60PO	
	Cool	850 r.p.m.	
	Heat	900 r.p.m.	

NOISE LEVEL

INDOOR UNIT	High speed	48.0 dB	
	Middle speed	44.0 dB	
	Low speed	41.0 dB	
OUTDOOR UNIT	Cool	53.0 dB	54.0 dB
	Heat	55.0 dB	55.0 dB

Note : Static pressure : 30Pa

Duct length : Inlet 1m, Outlet 2m

COMPRESSOR AND REFRIGERANT

TYPE		Total enclosed type, 4 poles, Inverter, Twin Rotary	
DISCRIMINATION		TNB220FPBM9	
REFRIGERANT		2,200 g	
REFRIGERANT		R410A	
FULL CHARGE	Pipe length	15 m	2,200 g
		30 m	2,800 g
		50 m	3,600 g
MAX PIPE HEIGHT		30 m	
ADDITIONAL CHARGE		40 g/m	

DIMENSIONS

INDOOR UNIT	H x W x D	296 x 830 x 830 mm
OUTDOOR UNIT	H x W x D	830 x 900 x 330 mm

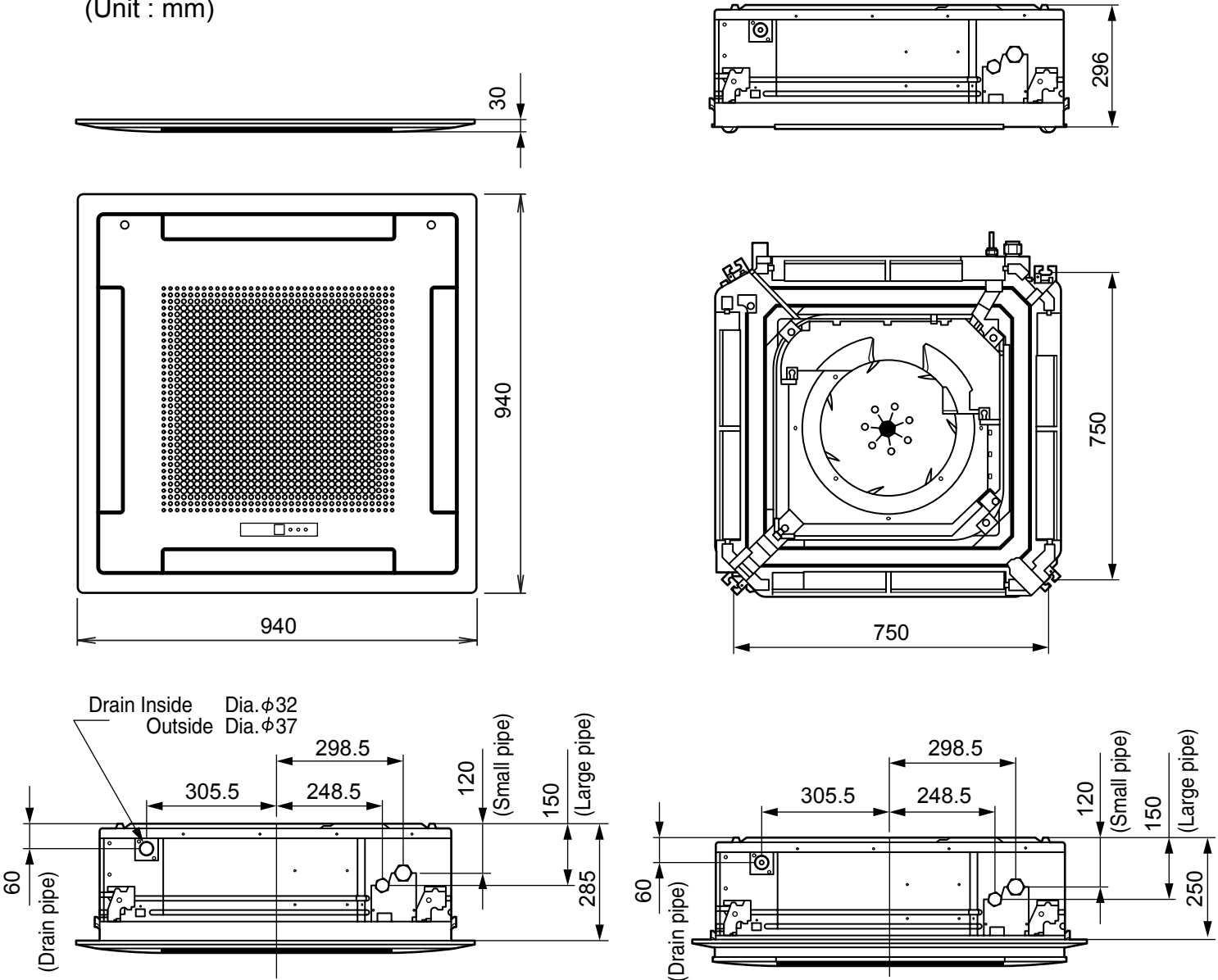
WEIGHT

INDOOR UNIT	Gross / Net	52 kg / 37 kg
OUTDOOR UNIT	Gross / Net	70 kg / 64 kg

DIMENSIONS

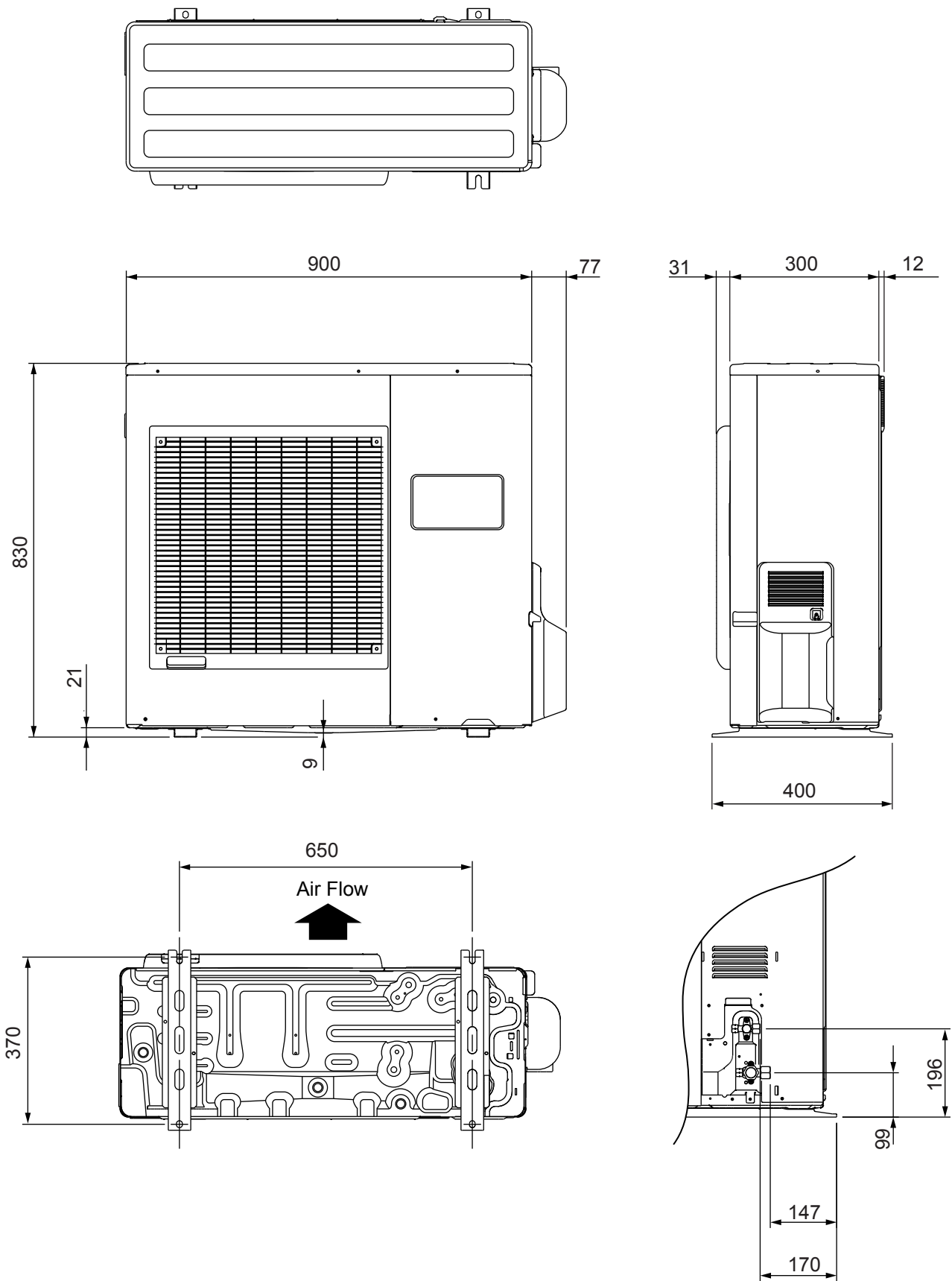
INDOOR UNIT

(Unit : mm)



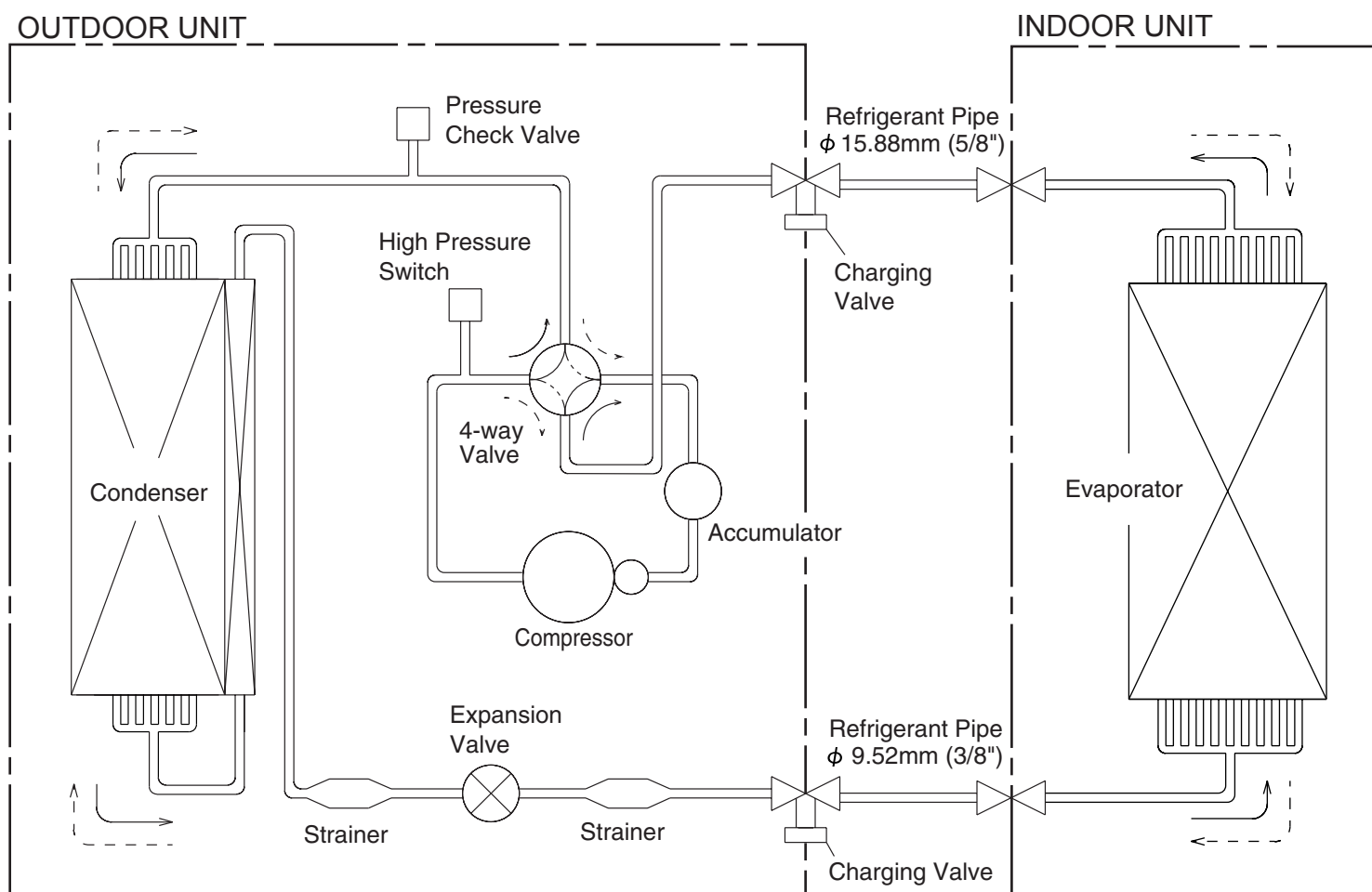
OUTDOOR UNIT

(Unit : mm)



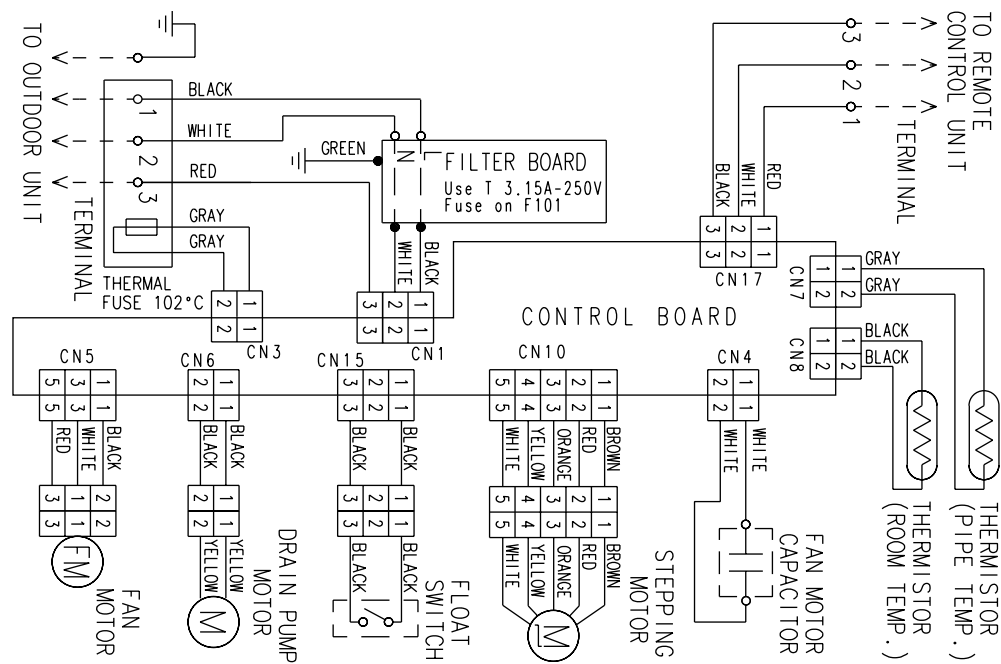
REFRIGERANT SYSTEM DIAGRAM

—→ : COOL
 - - -> : HEAT

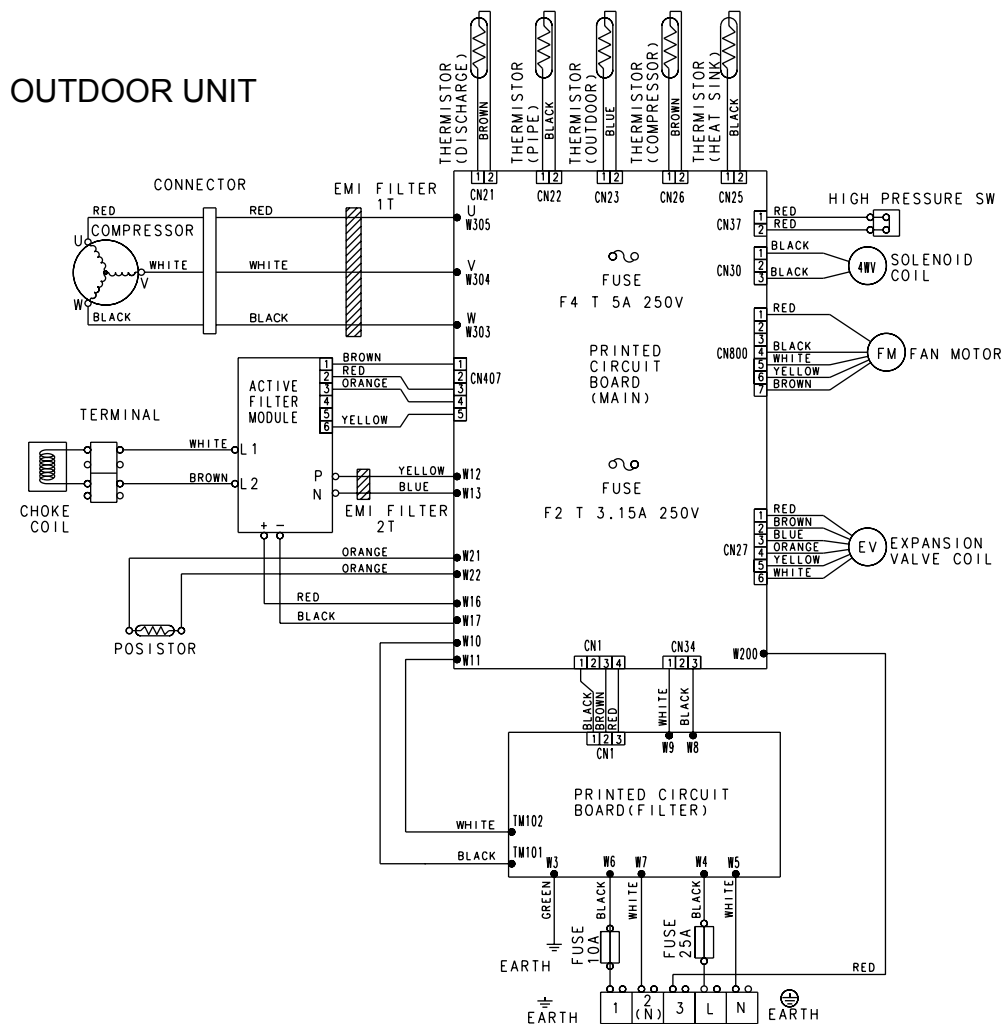


CIRCUIT DIAGRAM

INDOOR UNIT



OUTDOOR UNIT



CONTROLLER PCB ASSEMBLY
AUY30LUAS : K01AL-0500HSE-C1
AUY36LUAS : K01AL-0501HSE-C1

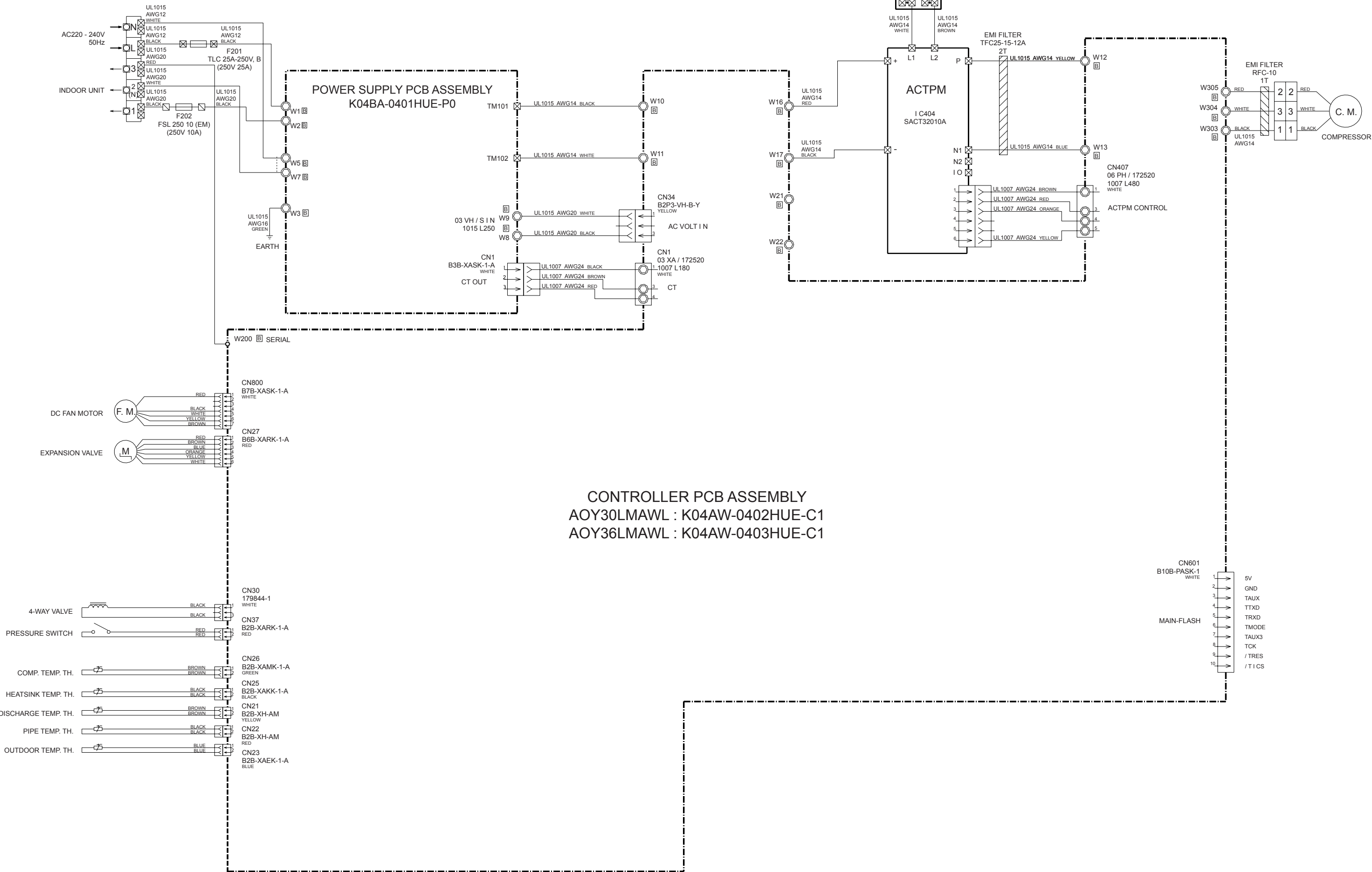


OUTDOOR PCB CIRCUIT DIAGRAM

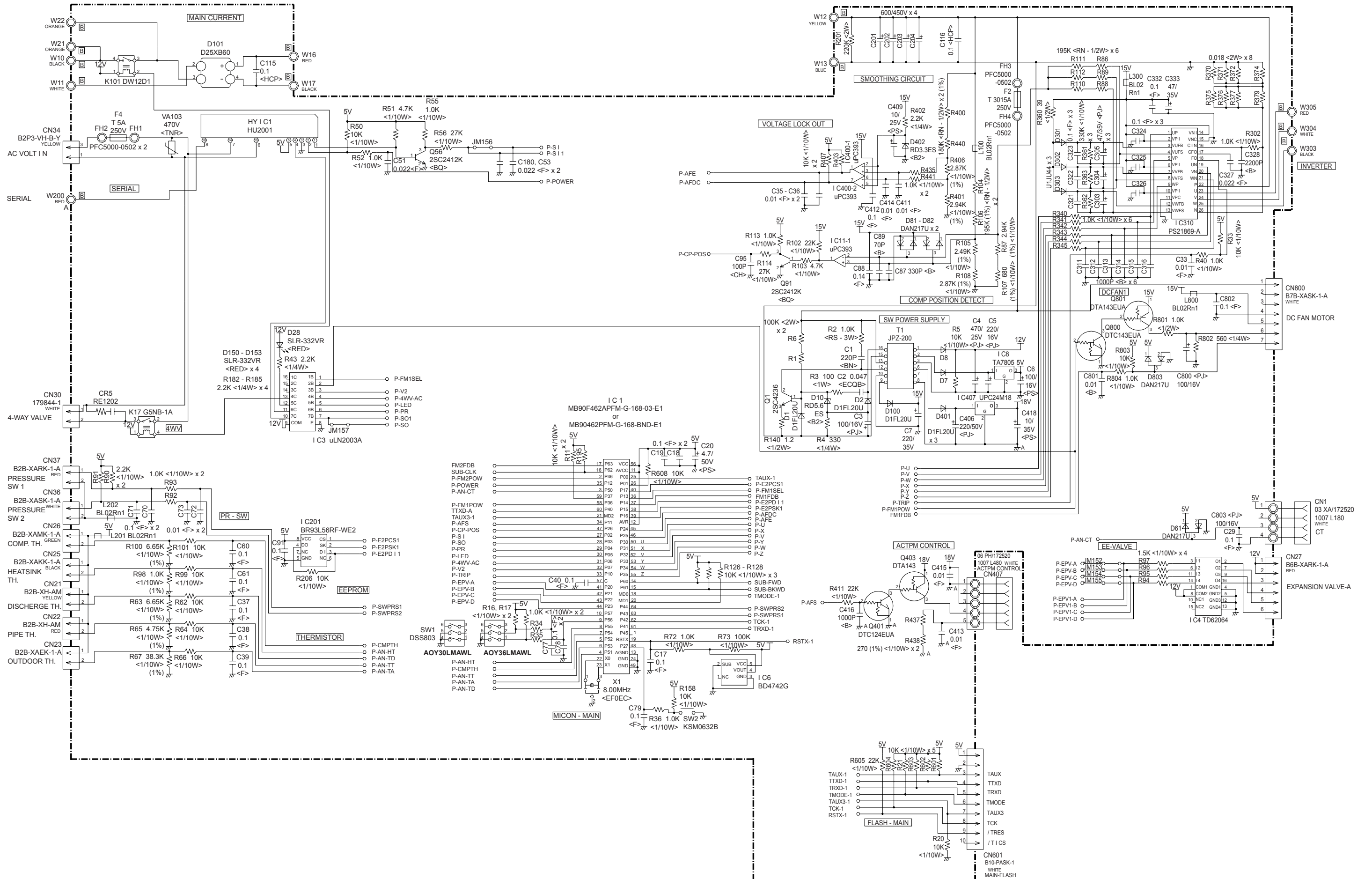
INVERTER ASSEMBLY

AOY30LMAWL : EZ-0050HUE

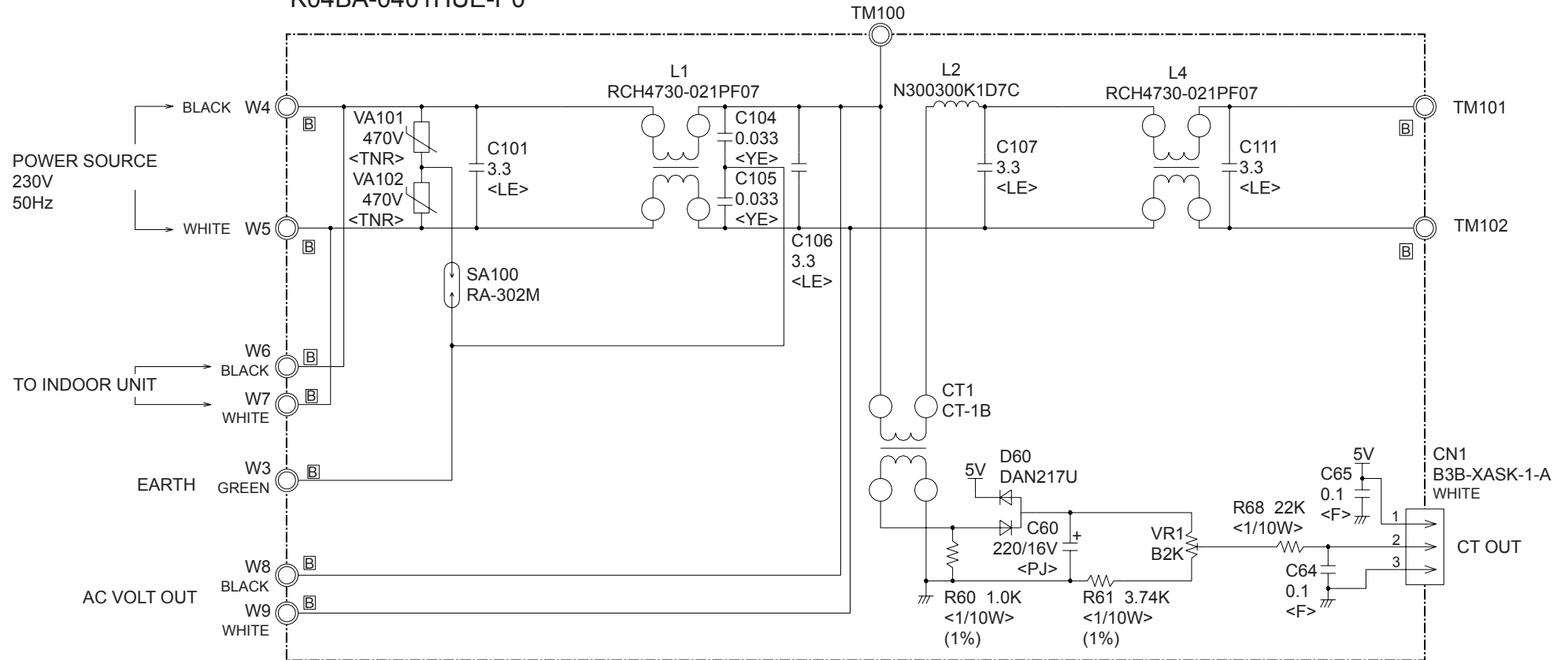
AOY36LMAWL : EZ-0051HUE



CONTROLLER PCB ASSEMBLY
 AOY30LMAWL : K04AW-0402HUE-C1
 AOY36LMAWL : K04AW-0403HUE-C1



OUTDOOR UNIT
POWER SUPPLY PCB ASSEMBLY
K04BA-0401HUE-P0



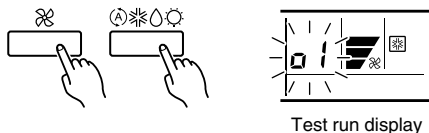
ERROR CONTENTS

INDOOR UNIT

CAUTION
Supply power to the crankcase heater for at least 12 hours before the start of operation in winter.

- (1) Stop the air conditioner operation.
- (2) Press the master control button and the fan control button simultaneously for 2 seconds or more to start the test run.

Fig. 48



- (3) Press the start/stop button to stop the test run.

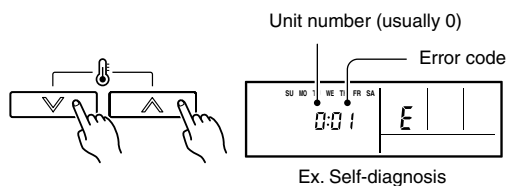
[SELF-DIAGNOSIS]

When the error indication "E:EE" is displayed, follow the following items to perform the self-diagnosis. "E:EE" indicates an error has occurred.

1. REMOTE CONTROLLER DISPLAY

- (1) Stop the air conditioner operation.
- (2) Press the set temperature buttons $\wedge$ / $\vee$ simultaneously for 5 seconds or more to start the self-diagnosis.
Refer to the following tables for the description of each error code.

Fig. 49



- (3) Press the set temperature buttons $\wedge$ / $\vee$ simultaneously for 5 seconds or more to stop the self-diagnosis.

Table 7

Error code	Error contents
01	Indoor unit doesn't accept the signal from outdoor unit.
02	Room temperature sensor open
03	Room temperature sensor short-circuited
04	Indoor heat exchanger temperature sensor open
05	Indoor heat exchanger temperature sensor short-circuited
06	Outdoor heat exchanger temperature sensor
08	Power source connection error
09	Float switch operated
0A	Outdoor temperature sensor
0c	Discharge pipe temperature sensor
11	Model abnormal
12	Indoor fan abnormal

Error code	Error contents
13	Outdoor unit doesn't accept the signal from indoor unit.
14	Excessive outdoor pressure (permanent stop)
15	Compressor temperature sensor
16	Pressure switch error
17	IPM error
18	CT error
19	Active filter module (AFM) error
1A	Compressor does not operate
1b	Outdoor unit fan error
1c	Communication error (inverter → multicontroller)
1d	2 way valve sensor error
1E	Expansion valve error
1F	Connection indoor unit error

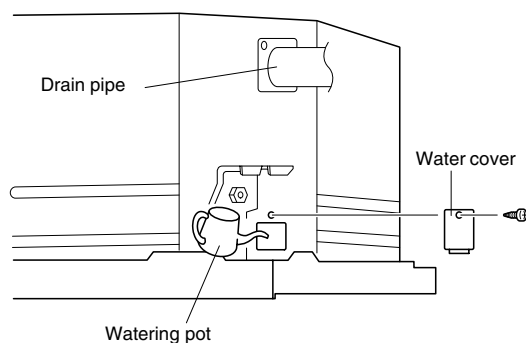
* 1c, 1d, 1E, 1F errors are only for multi type.

2. CHECKING DRAINAGE

To check the drain, remove the water cover and fill with 2 to 3 of water as shown in Fig. 50.

The drain pump operates when operating in the cooling mode.

Fig. 50



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.

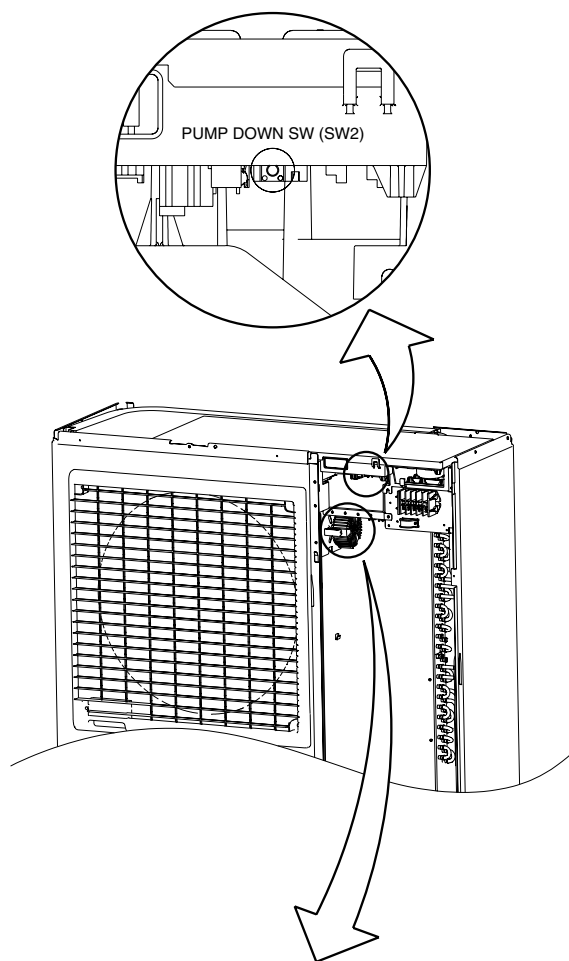
LED	Error contents
1 flash	Communication error (Indoor unit - Outdoor unit)
2 flash	Discharg pipe temperature sensor
3 flash	Outdoor heat exchanger temperature sensor
4 flash	Outdoor temperature sensor
7 flash	Compressor temperature sensor
8 flash	Heat sink temperature sensor
9 flash	Pressure switch abnormal
12 flash	IPM error
13 flash	Compressor rotor position cannot detect
14 flash	Compressor cannot operate
15 flash	Outdoor fan abnormal (upper fan)
16 flash	Outdoor fan abnormal (lower fan)
5 sec. ON/ 1 sec. OFF repeated	Protect operation
lighting	No error

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 (SW2) 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.

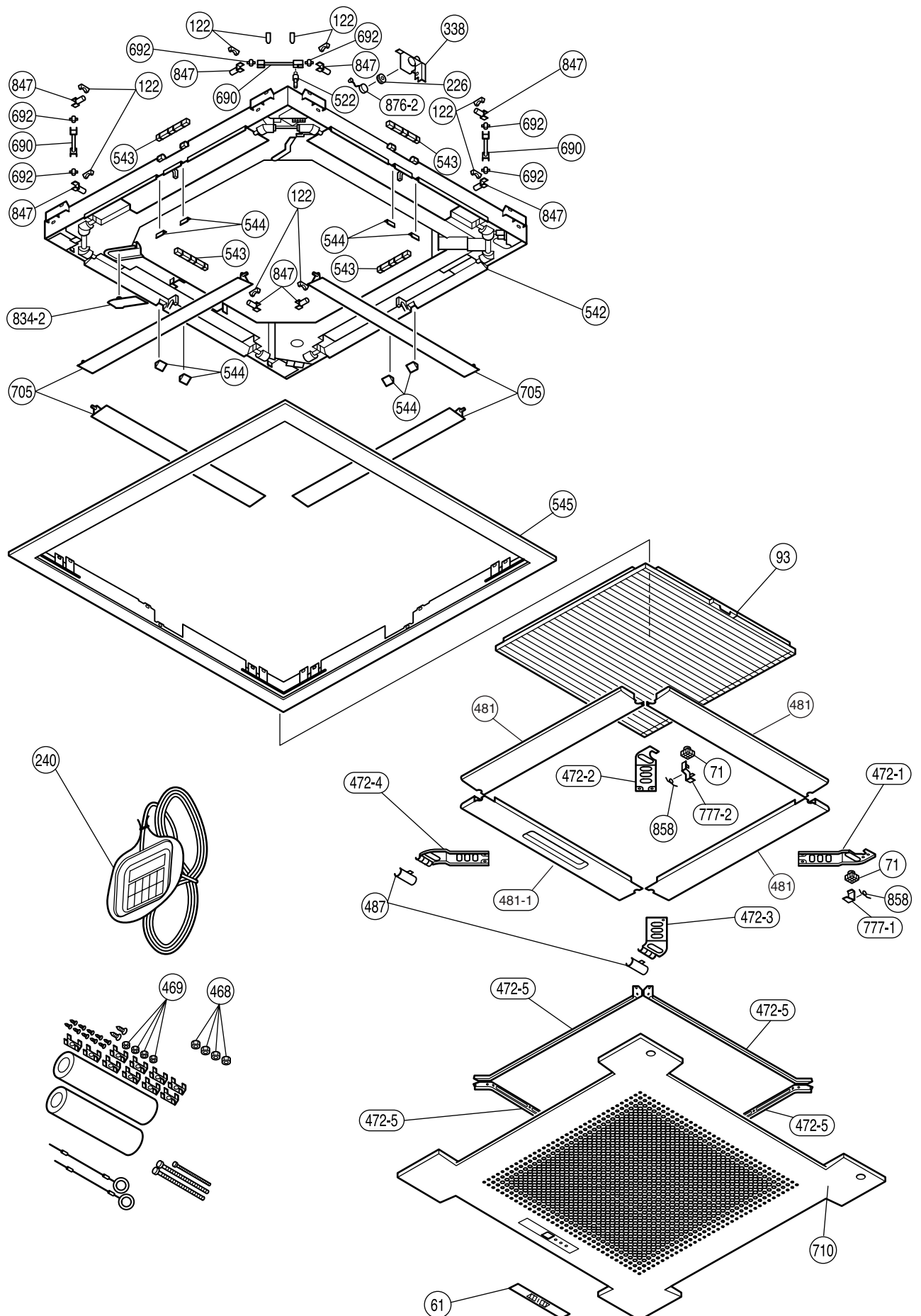


⚠ DANGER

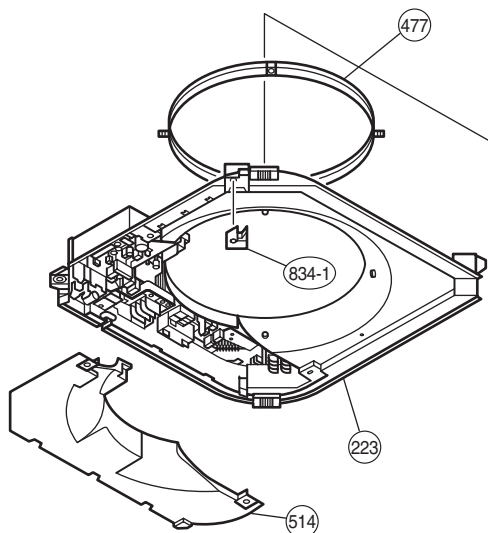
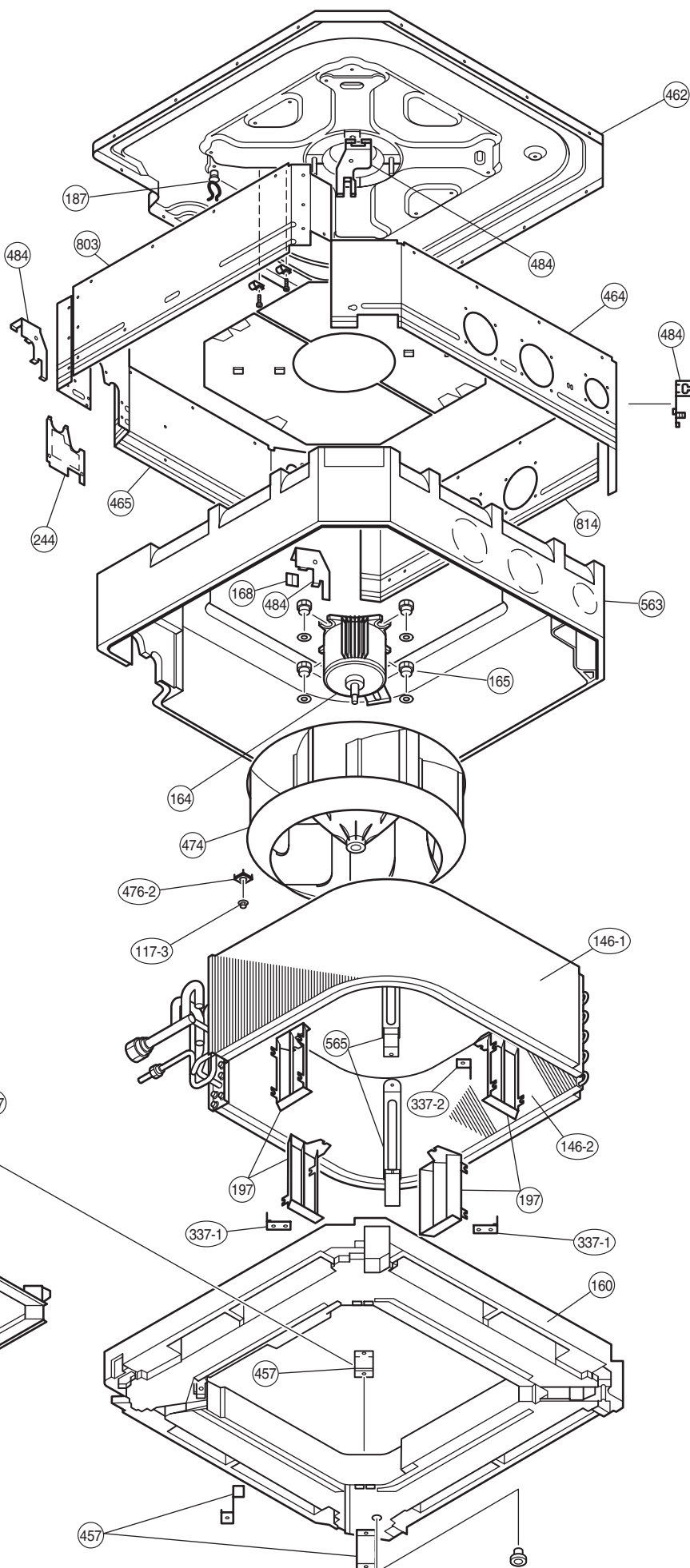
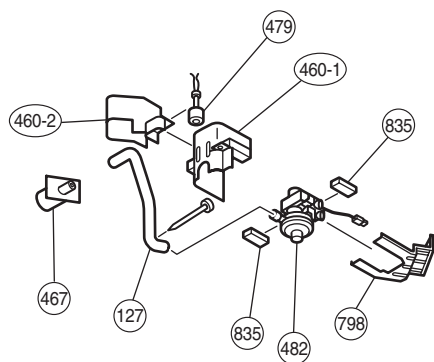
This part (Choke coil) generates high voltages.
Never touch this part.

DISASSEMBLY ILLUSTRATION

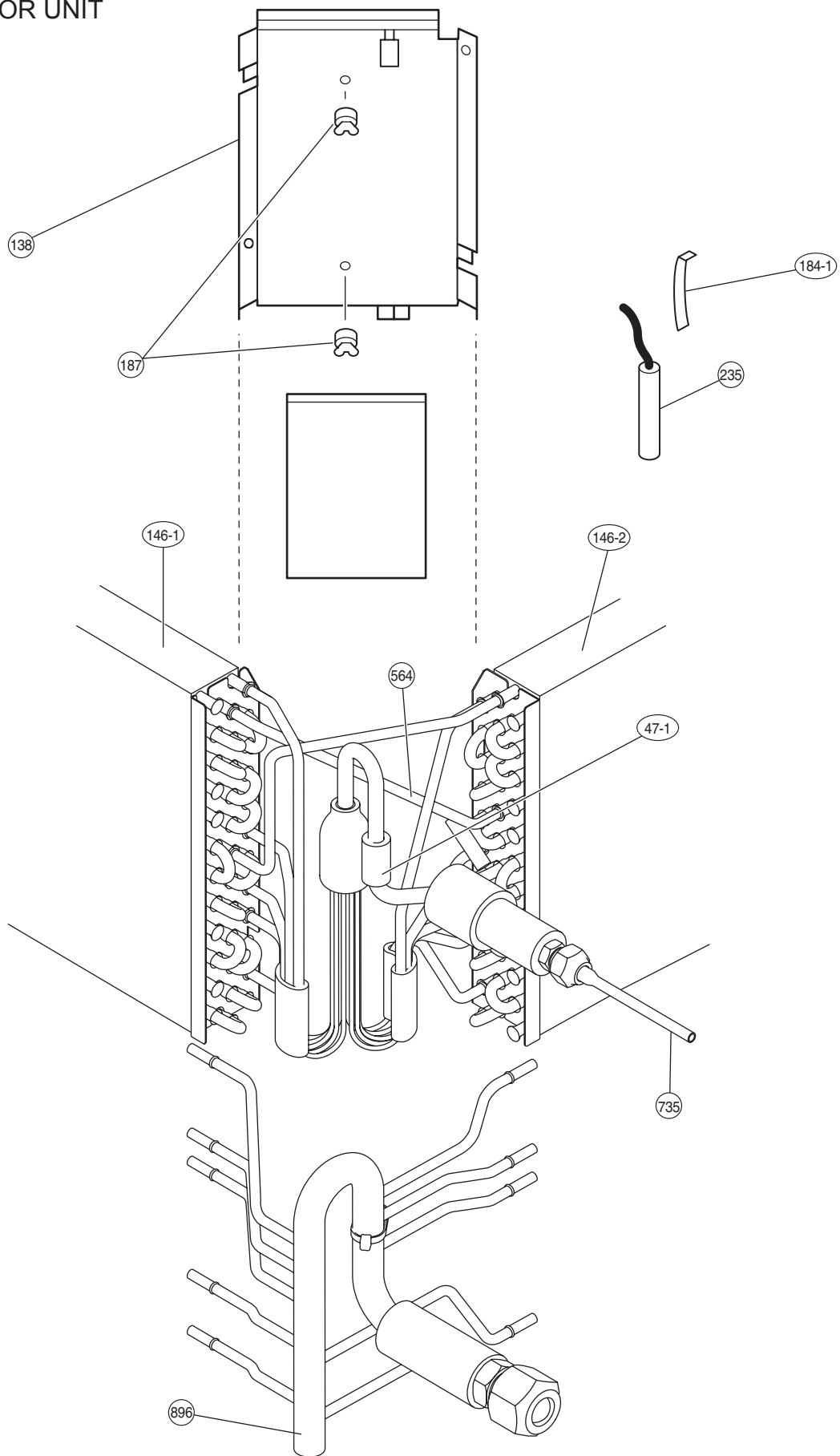
INDOOR UNIT



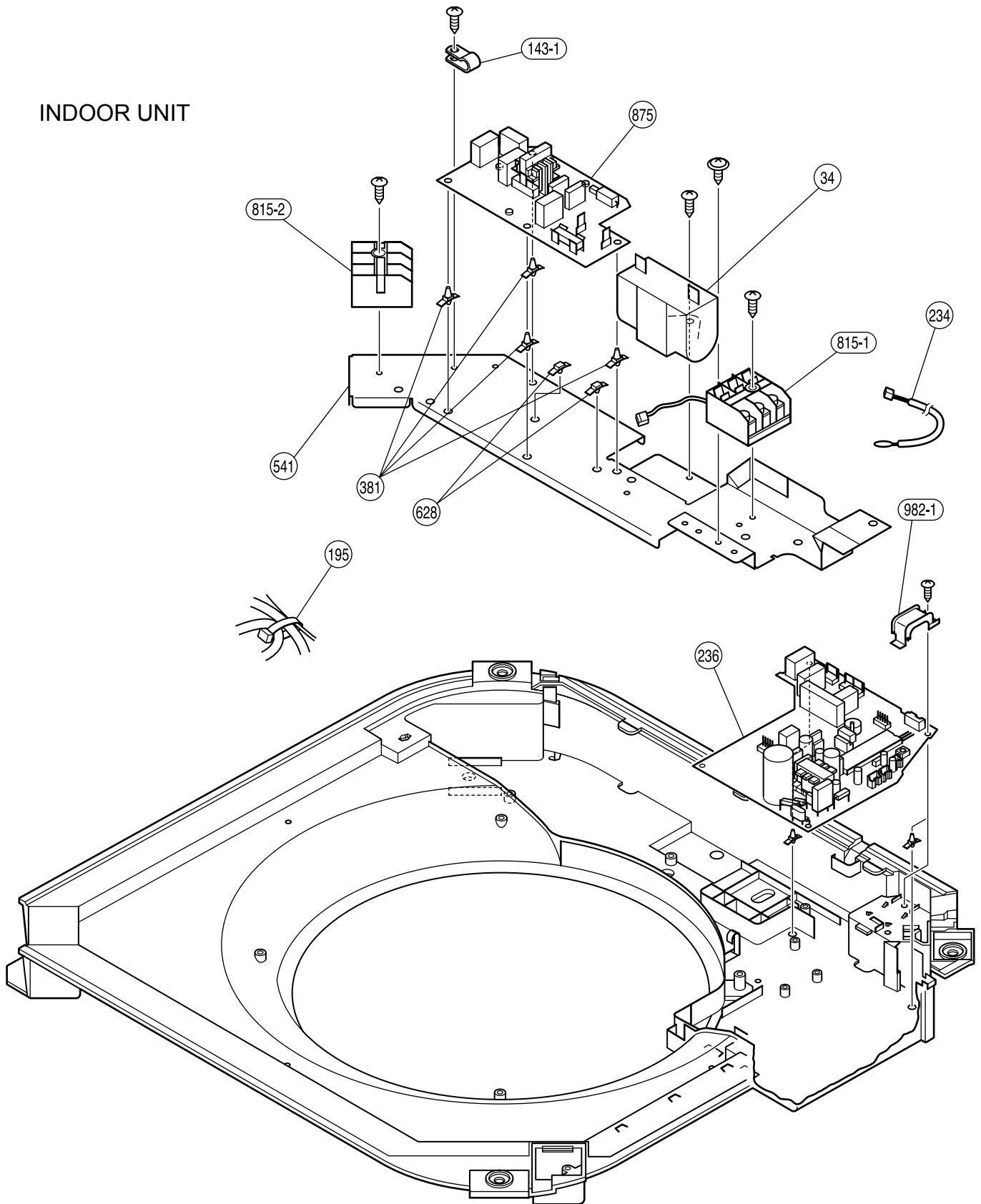
INDOOR UNIT



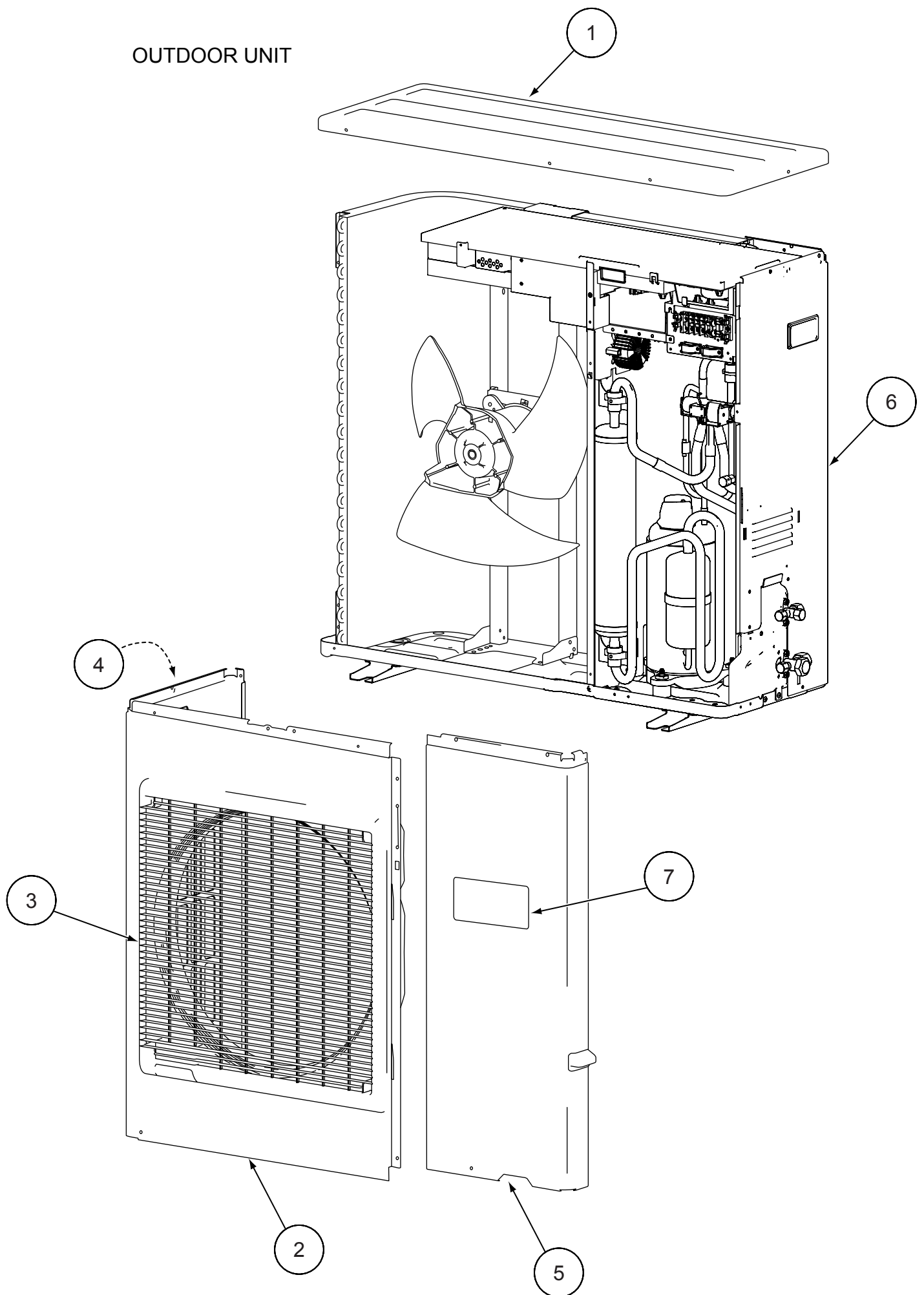
INDOOR UNIT



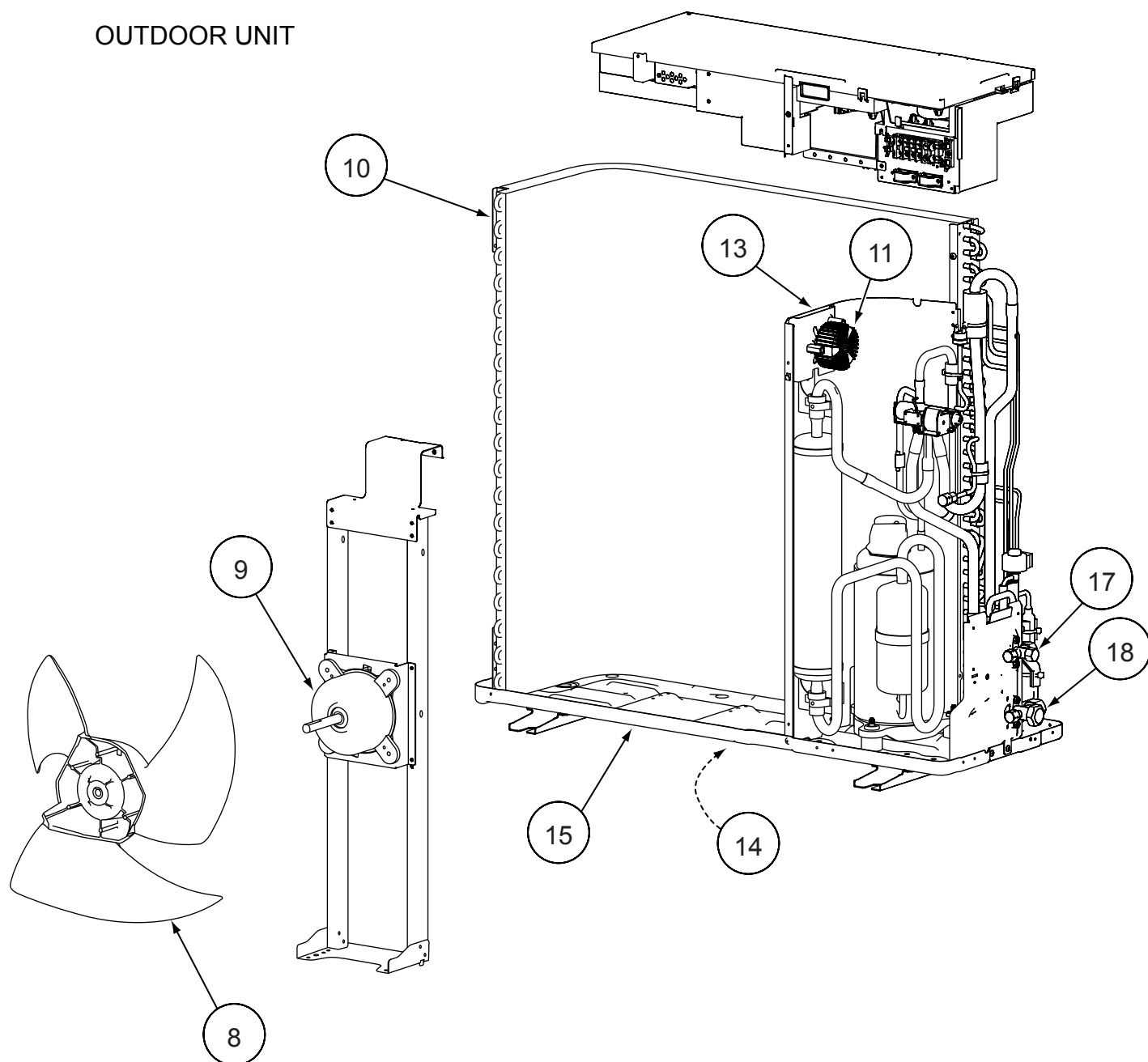
INDOOR UNIT



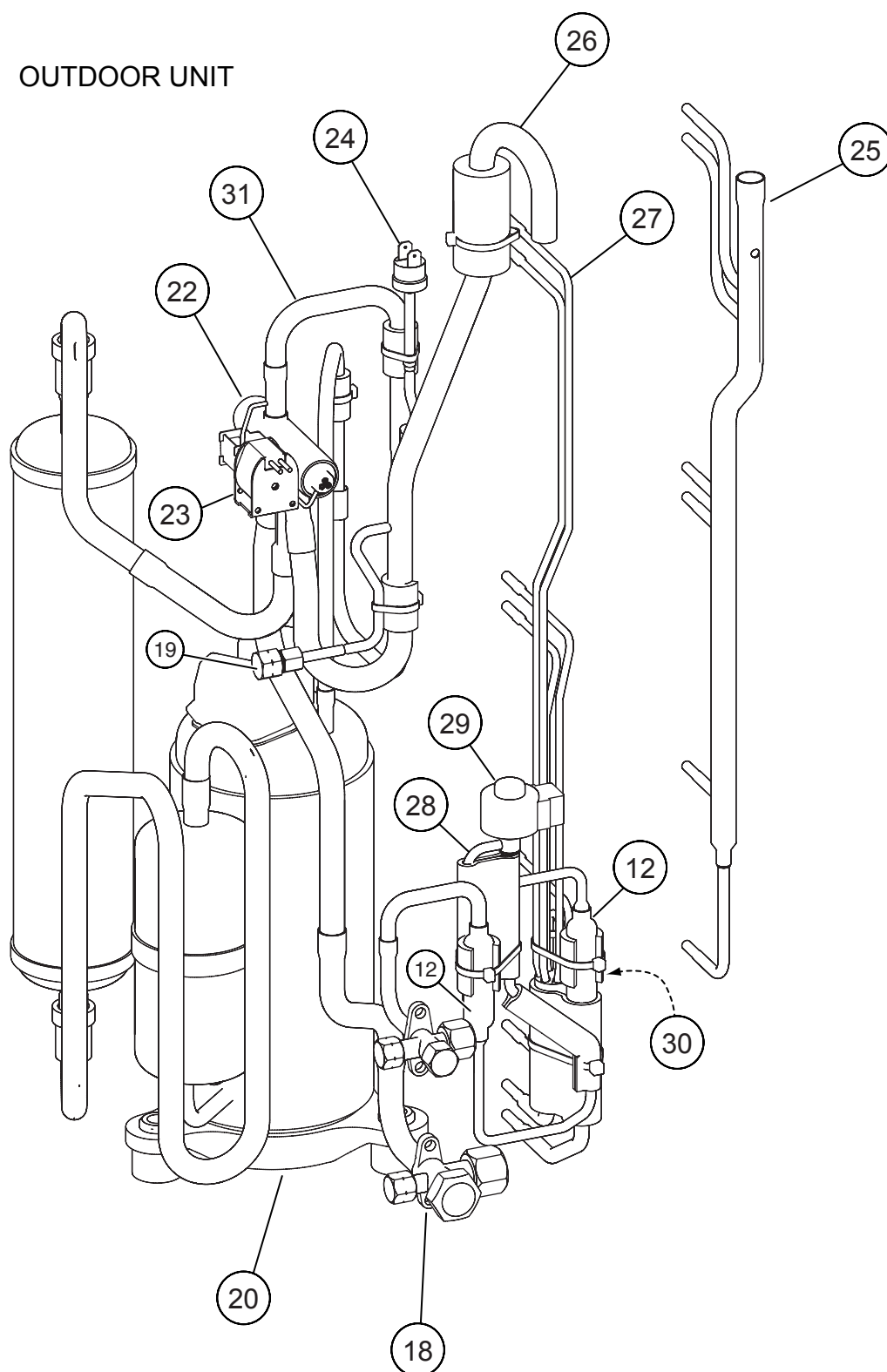
OUTDOOR UNIT



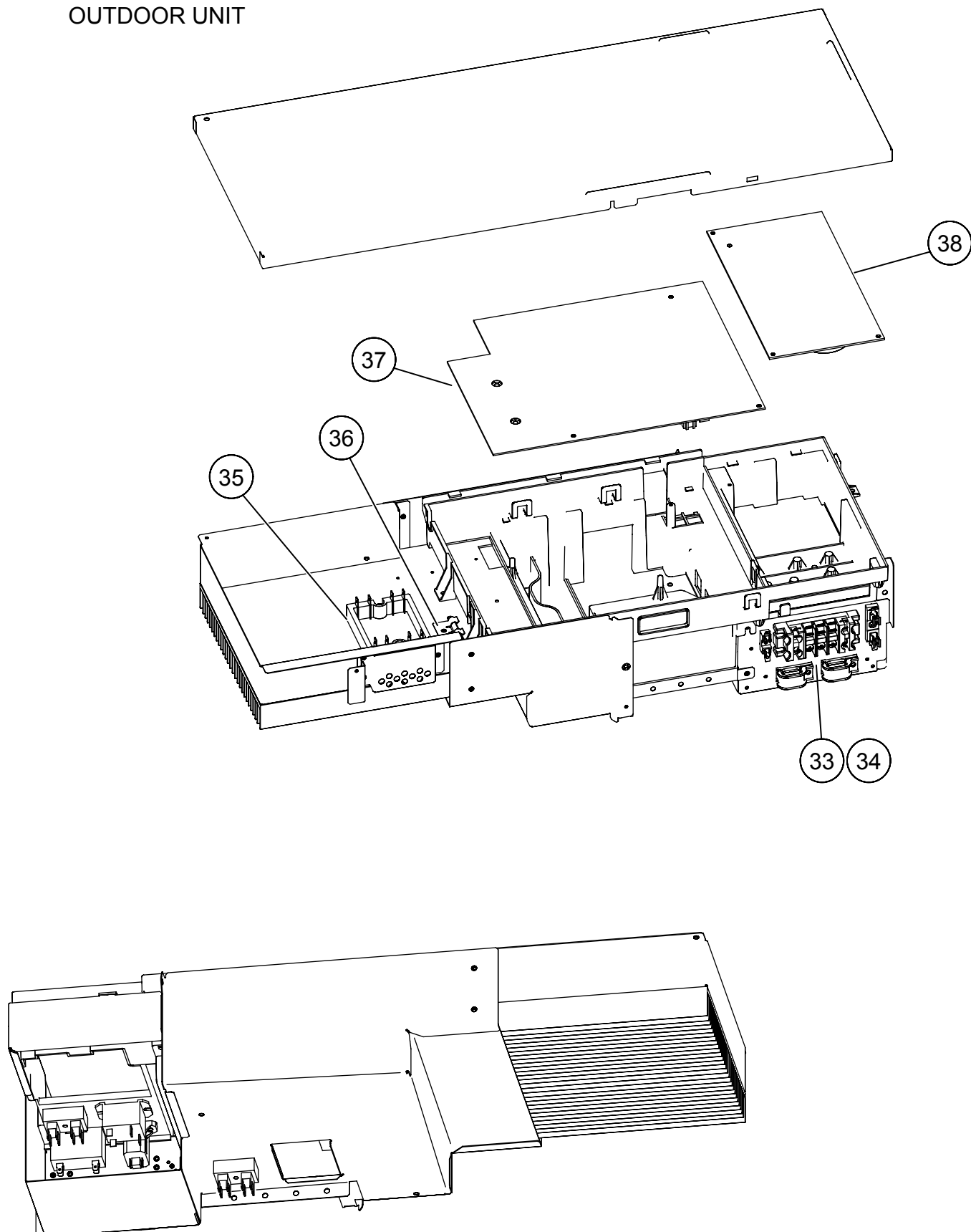
OUTDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT



PARTS LIST

INDOOR UNIT

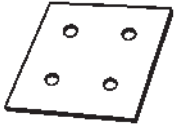
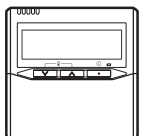
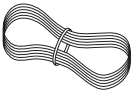
Ref.	Description	Part No.		Ref.	Description	Part No.	
		AUY30LUAS	AUY36LUAS			AUY30LUAS	AUY36LUAS
34	Capacitor (Fan Motor)	9900270162	9900270162	472-5	RFM (Grille)-E	9362742009	9362742009
47-1	Rubber (Discharge Pipe)	313194159807	313194159807	474	Turbo Fan Assy	9362803014	9362803014
61	Decoration Plate	9362787000	9362787000	476-2	Washer (Turbo Fan)	9362756006	9362756006
71	Holder (Hook)	9362782005	9362782005	477	Bellmouth-B	9362774000	9362774000
93	Filter	9362766005	9362766005	479	Float Switch	9703285004	9703285004
117-3	Hexagon Nut	301721180114	301721180114	481	Insulation (Grille)-A	9362780001	9362780001
122	Holder (Louver Supporter)	9362799003	9362799003	481-1	Insulation (Grille)-B	9362781008	9362781008
127	Drain Hose	9362784009	9362784009	482	Pump Unit	9703125010	9703125010
138	Separate wall	9362737005	9362737005	484	Hook	9362736008	9362736008
143-1	Clamp NK-3	313361274700	313361274700	487	Hinge Wire (Grille)	9362754002	9362754002
146-1	Evaporator-A Assy	9373799054	9373799054	488	Drain Pan Plug	313005174654	313005174654
146-2	Evaporator-B Assy	9373800057	9373800057	514	Control Box Cover	9362763004	9362763004
160	Kit (Drain Pan Sub Assy)	9370934014	9370934014	522	Joint Gear	9362772006	9362772006
164	Motor, Induction	9601915010	9601915010	541	Terminal Plate	9363642001	9363642001
165	Motor Rubber	9362783002	9362783002	542	Panel Base	9362759014	9362759014
168	Cabinet-E	9362735001	9362735001	543	Holder (Panel Frame)	9362761017	9362761017
184-1	Thermistor Spring-A	313728262708	313728262708				
187	Clamp No. 1219	313361271706	313361271706	544	Holder (Panel Base)	9362760010	9362760010
195	Binder-C	313361275805	313361275805	545	Panel Frame	9362758017	9362758017
197	Wind Guide Board	9373444015	9373444015	563	Inner Box	9362768009	9362768009
223	Control Box	9362762007	9362762007	564	Bypass Pipe-A Assy	9371323053	9371323053
226	Motor Gear	9362764001	9362764001	565	Evaporator Holder Assy	9362802017	9362802017
234	Room Temp. Thermistor	9703299025	9703299025	628	Locking Spacer-B	313005446558	313005446558
235	Pipe Temp. Thermistor	9703297014	9703297014	690	Joint-A	9362773003	9362773003
236	Controller PCB Assy	9705914049	9705914056	692	Joint Shaft	9362771009	9362771009
		(K01AL-0500HSE-C1)	(K01AL-0501HSE-C1)				
240	Remote Control Unit	9372266052	9372266052	705	Louver Assy	9362836012	9362836012
244	Pipe Cover Assy	9362819015	9362819015	710	Intake Grille	9362767019	9362767019
337-1	RFM (Eva.)-A	9362749008	9362749008	735	Distributor Assy	9371325132	9371325132
337-2	RFM (Eva.)-B	9362750004	9362750004	777-1	Hook (Grille)-A	9362779012	9362779012
338	Motor Holder	9362765008	9362765008	777-2	Hook (Grille)-B	9362778015	9362778015
381	Locking Spacer	313209391506	313209391506	798	Drain Pump Holder	9362753005	9362753005
457	RFM (Drain Pan)	9362757003	9362757003	803	Cabinet-D	9362734004	9362734004
460-1	Pump Cover-A	9362775007	9362775007	814	Cabinet-C	9362733007	9362733007
460-2	Pump Cover-B	9362776004	9362776004	815-1	Terminal-3P	9306489069	9306489069
462	Panel (Top) Assy	9362806015	9362806015	815-2	Terminal-3P	9703345012	9703345012
464	Cabinet-A Assy	9362800013	9362800013	834-1	Cover (Wire)-A	9362789004	9362789004
465	Cabinet-B Assy	9362801010	9362801010	834-2	Cover (Wire)-B	9362788007	9362788007
467	Drain Port	9362786003	9362786003	835	Cushion (Pump)	9362777001	9362777001
468	M10 Nut-A (Large)	313005446653	313005446653	847	Louver Supporter	9362770019	9362770019
469	M10 Nut-B (Small)	313005446759	313005446759	858	Spring (Grille)	9362755009	9362755009
472-1	RFM (Grille)-A	9362738002	9362738002	875	Power Supply PCB Assy	9704561220	9704561220
472-2	RFM (Grille)-B	9362739009	9362739009	876-2	Motor, Step	9360307019	9360307019
472-3	RFM (Grille)-C	9362740005	9362740005	896	Coupling Pipe Assy	9373038221	9373038221
472-4	RFM (Grille)-D	9362741002	9362741002	982-1	Clamp (Cord)	9356857009	9356857009

OUTDOOR UNIT

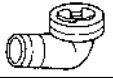
Ref.	Description	Part number		
		AOY30LMAWL	AOY36LMAWL	
1	Top Panel Sub Assy	9374417025	9374417025	
2	Front Panel	9374094066	9374094066	
3	Fan Guard	9374330010	9374330010	
4	Grip Side	9374173013	9374173013	
5	Service Panel Sub Assy	9374415038	9374415038	
6	Right Panel Sub Assy	9374416066	9374416066	
7	Emblem Rear	9351355005	9351355005	
8	Propeller Fan Assy	9366378020	9366378020	
9	Motor, Induction	9601882015	9601882015	
10	Condenser-A Assy	9374433056	9374433056	
11	Coil Choke	9703458019	9703458019	
12	Strainer Assy	9372524015	9372524015	
13	Separate Wall Assy	9374629022	9374629022	
14	Cap Foot	9374345014	9374345014	
15	Base Assy	9374166084	9374166084	
17	3-Way Valve Assy (3/8)	9372205044	9372205044	
18	3-Way Valve Assy (5/8)	9372205075	9372205075	
19	Check Joint Assy	9372802038	9372802038	
20	Compressor Assy	9373711018	9373711018	
22	4-Way Valve	9900164010	9900164010	
23	Solenoid	9900165055	9900165055	
24	Pressure Switch	9900186012	9900186012	
25	Inlet Pipe Cond A Assy	9373461067	9373461067	
26	Inlet Pipe Cond B Assy	9373463054	9373463054	
27	Outlet Pipe Cond A Assy	9374266050	9374266050	
28	Expansion Valve Assy	9370947113	9370947113	
29	Coil (Expansion Valve)	9900057039	9900057039	
30	Distributor	9369128004	9369128004	
31	Discharge Pipe A Assy	9372264126	9372264126	
33	Terminal 2P	9701971015	9701971015	
34	Terminal 5P	9900203023	9900203023	
35	ACTPM	9703457012	9703457012	
36	Holder Thermo	9372797013	9372797013	
37	Inverter PCB Assy	9705642034	9705642041	
38	Power PCB Assy	9705647022	9705647022	
----	Fuse 25A-250V	0600086039	0600086039	
----	Fuse 3.15A-250V	0600222512	0600222512	
----	Fuse 5A-250V	0600222529	0600222529	
----	Thermistor (Outdoor Temp.)	9703516078	9703516078	
----	Heat Exchanger Thermistor	9704220042	9704220042	
----	Thermistor (Discharge)	9704219114	9704219114	
----	Compressor Thermistor	9900156022	9900156022	
----	Thermistor	9704265012	9704265012	
----	Heatsink Thermistor	9900311018	9900311018	
----	Transformer	9702334024	9702334024	
----	Varistor	0000361224	0000361224	
----	Arrester	0600280147	0600280147	
----	Relay	9900117016	9900117016	
----	Relay	9900007010	9900007010	
----	Switch Push	9703476013	9703476013	
----	Switch Slide	9701392018	9701392018	
----	Drain Pipe (I-Type)	9301102000	9301102000	
----	Drain Pipe Packing	9301143003	9301143003	
----	Drain Cap	313166024302	313166024302	

STANDARD ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application
Coupler heat insulation 	2	For indoor side pipe joint
Screw 	2	For installing the remote controller
Special nut A (large flange) 	4	For installing indoor unit
Special nut B (small flange) 	4	For installing indoor unit
Template 	1	For ceiling hole cutting
Binder 	1 (small)	For remote controller and remote controller cord binding
Blower cover insulation 	2	For discharged air
Hook wire 	2	For installing intake grille
Remote control 	1	
Remote control cord 	1	For connecting the remote controller

OUTDOOR UNIT

Name and Shape	Q'ty	Application
Drain pipe 	1	For outdoor unit drain piping work (May not be supplied, depending on the model.)
Drain cap 	2	
Insulation (seal) 	1	For filling in a gap at the entrance of connection cords

