

**SPLIT TYPE
AIR CONDITIONER**

CASSETTE type (50Hz)

SERVICE MANUAL



Models

Indoor unit

AUY30LUAS

AUY36LUAS

Outdoor unit

AOY30LNAWL

AOY36LNAWL

CONTENTS

SPECIFICATIONS	1
DIMENSIONS	2
REFRIGERANT SYSTEM DIAGRAM	4
CIRCUIT DIAGRAM	5
INDOOR PCB CIRCUIT DIAGRAM	6
OUTDOOR PCB CIRCUIT DIAGRAM	7
ERROR CONTENTS	12
DISASSEMBLY ILLUSTRATION	14
PARTS LIST	23
STANDARD ACCESSORIES	25

SPECIFICATIONS

TYPE	COOLING & HEATING	
INDOOR UNIT	AUY30LUAS	AUY36LUAS
OUTDOOR UNIT	AOY30LNAWL	AOY36LNAWL
COOLING CAPACITY	8.5 kW	10.0 kW
HEATING CAPACITY	10.0 kW	11.2 kW

ELECTRICAL DATA

POWER SOURCE		230V 50Hz	
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	

COMPRESSOR

TYPE	Total enclosed type, 4 poles, Inverter, Twin Rotary	
DISCRIMINATION	5KD240XAD21	
REFRIGERANT	R410A	2,100 g

FAN MOTOR

INDOOR UNIT	DISCRIMINATION	MFA-54PZM
	HIGH SPEED	600 r.p.m.
	MED SPEED	490 r.p.m.
	LOW SPEED	420 r.p.m.
	S-LOW SPEED	300 r.p.m.
OUTDOOR UNIT	DISCRIMINATION	MFE-60PO
	COOL	850 r.p.m.
	HEAT	900 r.p.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 / 62 kg

NOISE LEVEL

INDOOR UNIT (cool / heat)	HIGH SPEED	48.0 dB / 48.0 dB	
	MED SPEED	44.0 dB / 44.0 dB	
	LOW SPEED	41.0 dB / 41.0 dB	
OUTDOOR UNIT (cool / heat)		53 dB / 55 dB	54 dB / 55 dB

Note : Static pressure : 30Pa

Duct length : Inlet 1m, Outlet 2m

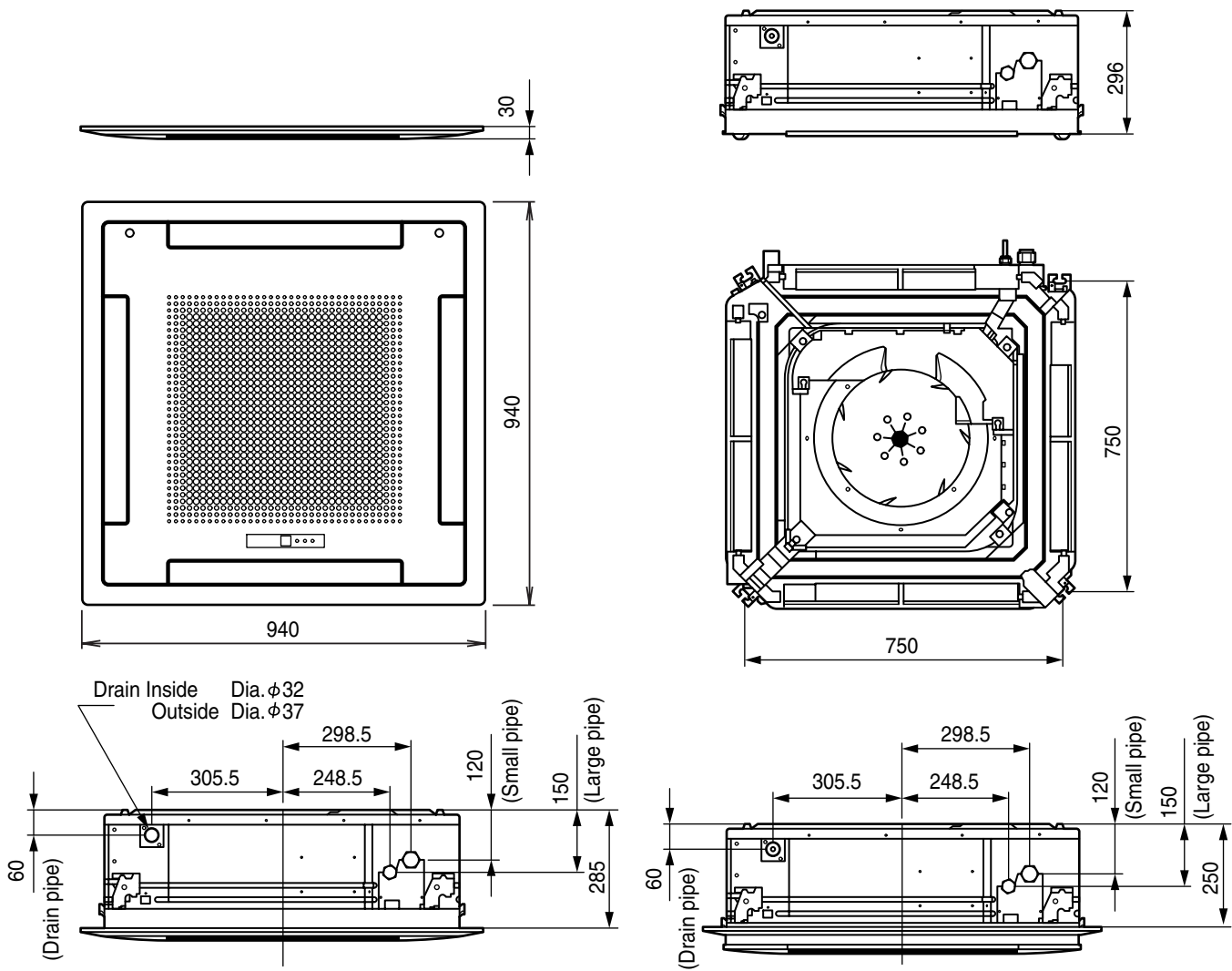
REFRIGERANT CHARGE (R410A)

MAX PIPE LENGTH		50 m
MAX PIPE HEIGHT		30 m
FULL CHARGE AMOUNT	PIPE LENGTH 20 m	2,100 g
	30 m	2,500 g
	40 m	2,900 g
	50 m	3,300 g
ADDITIONAL REFRIGERANT		40 g / m

DIMENSIONS

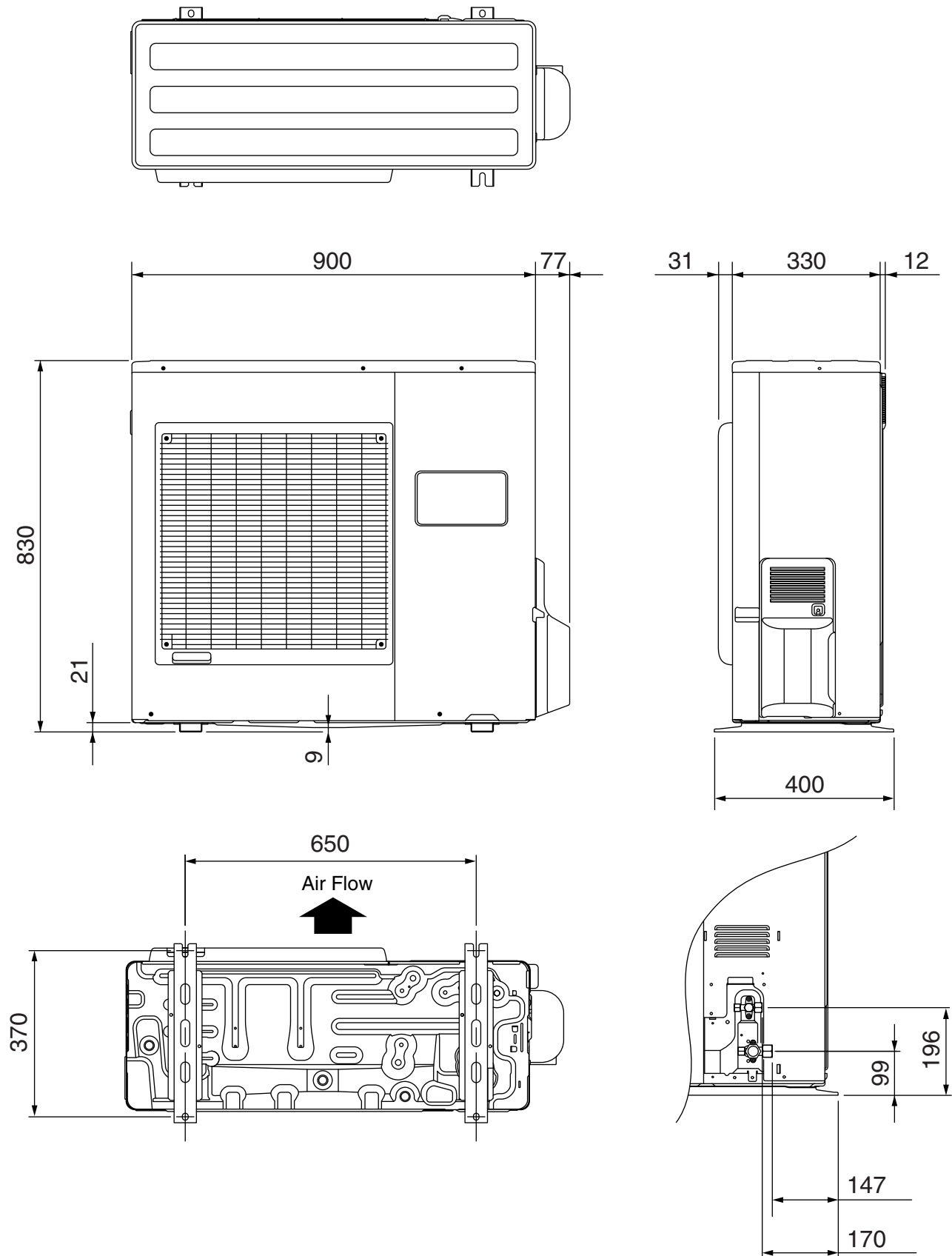
INDOOR UNIT

(Unit : mm)

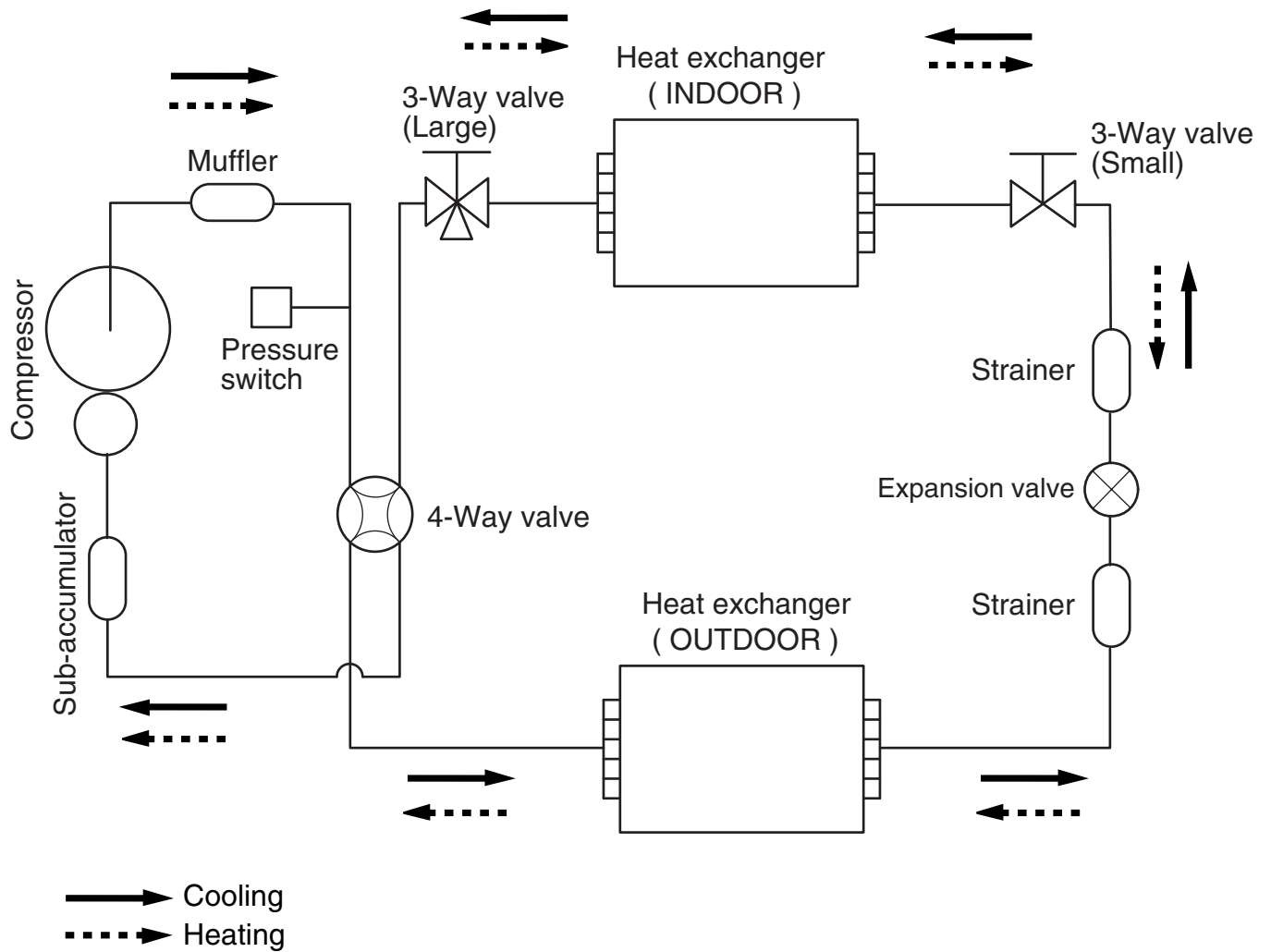


OUTDOOR UNIT

(Unit : mm)



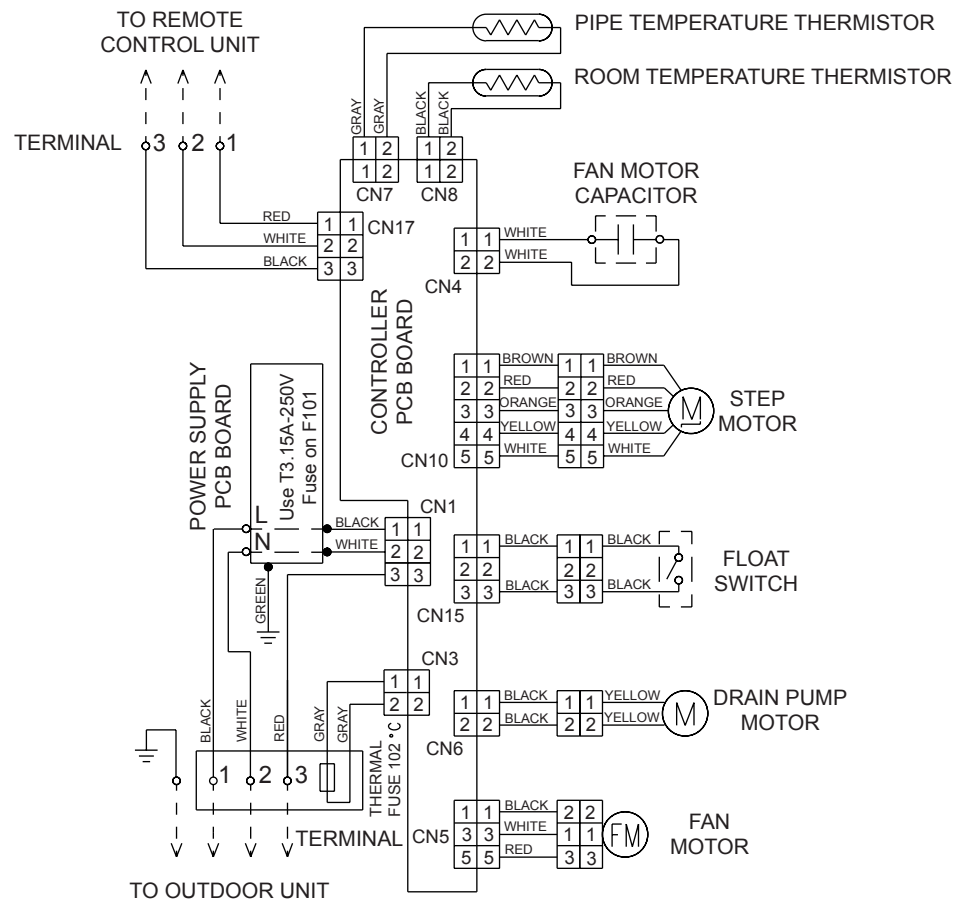
REFRIGERANT SYSTEM DIAGRAM



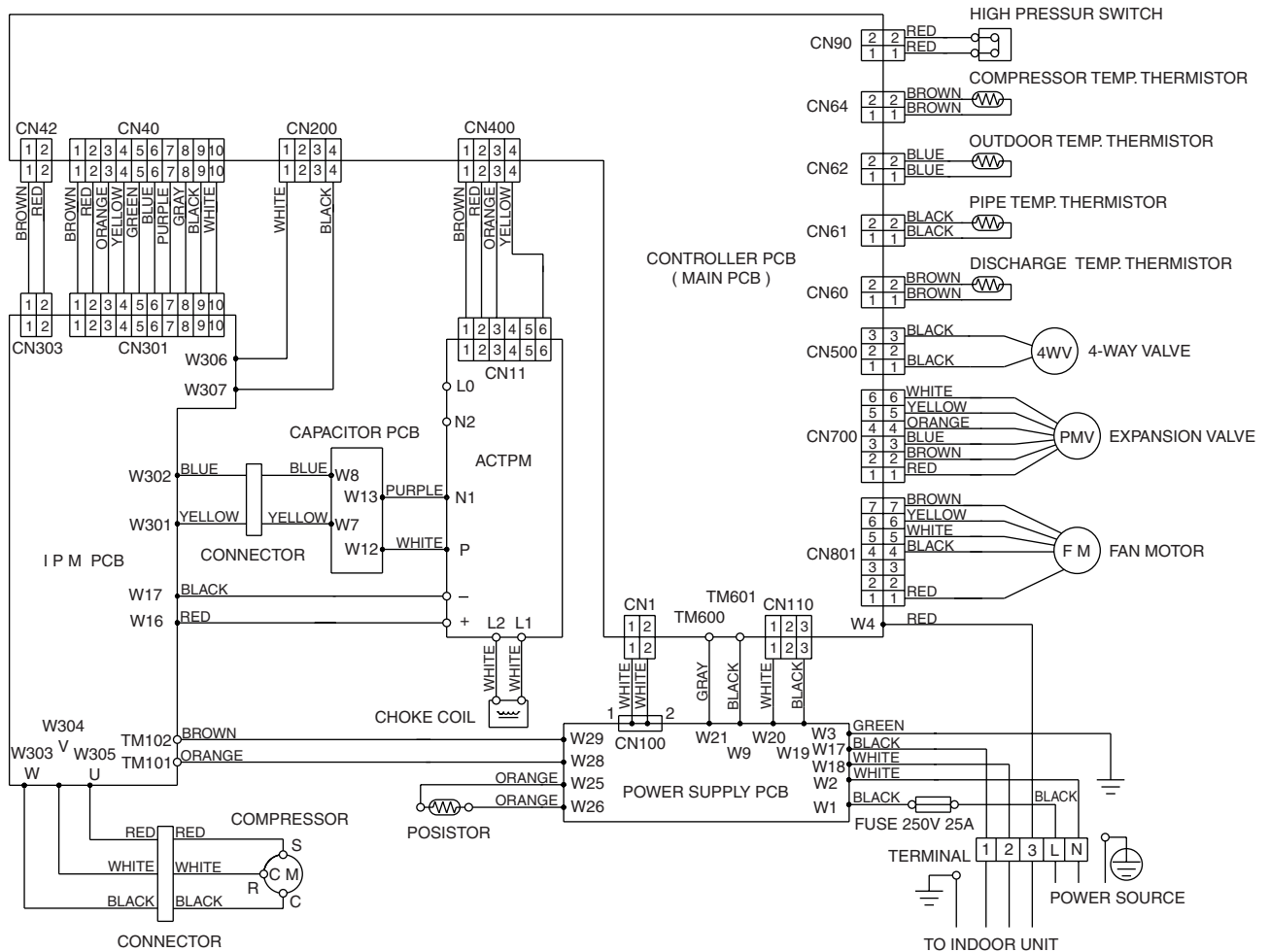
Refrigerant pipe diameter
 Liquid : 3/8" (9.52 mm)
 Gas : 5/8" (15.88 mm)

CIRCUIT DIAGRAM

INDOOR UNIT

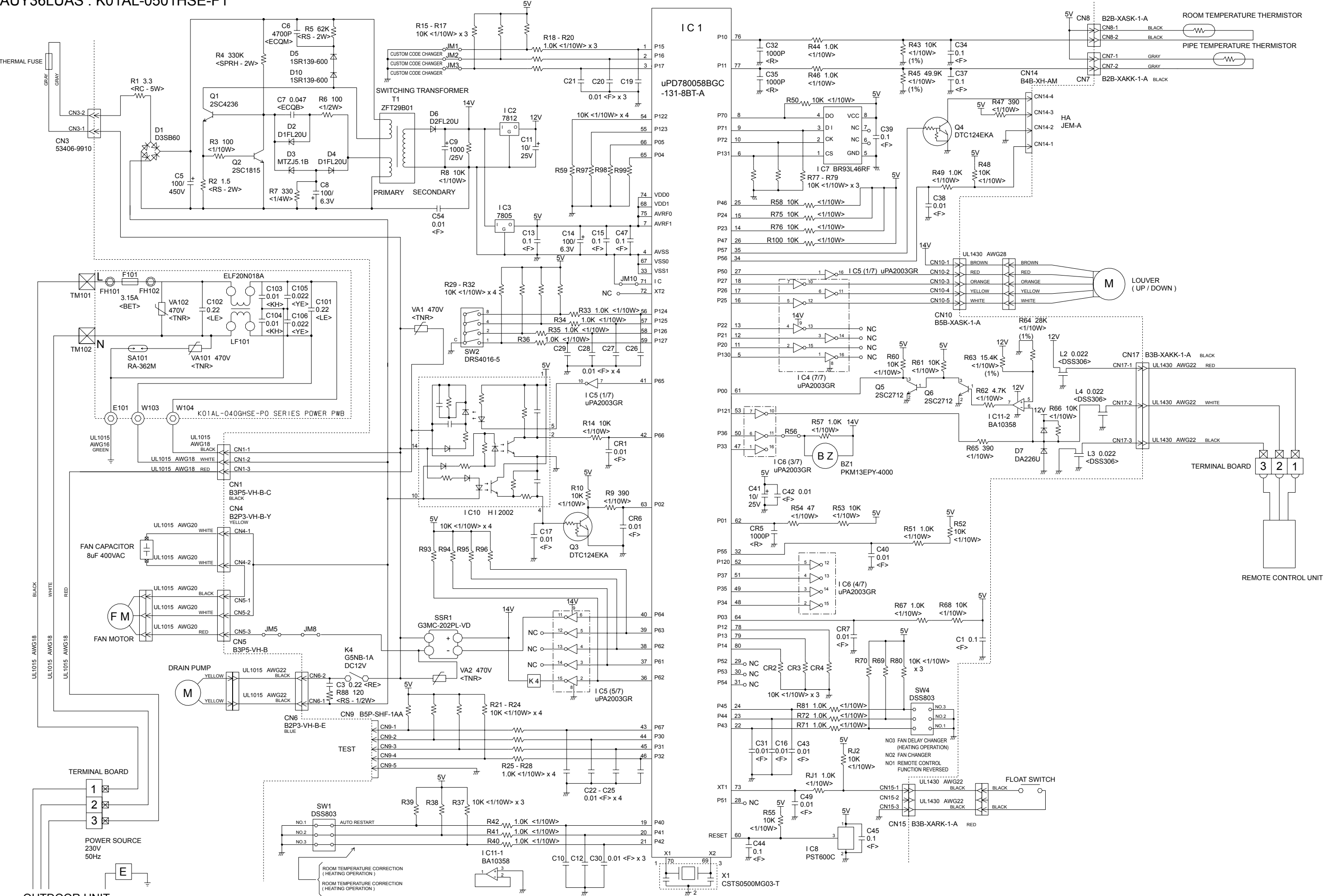


OUTDOOR UNIT

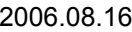


INDOOR PCB CIRCUIT DIAGRAM

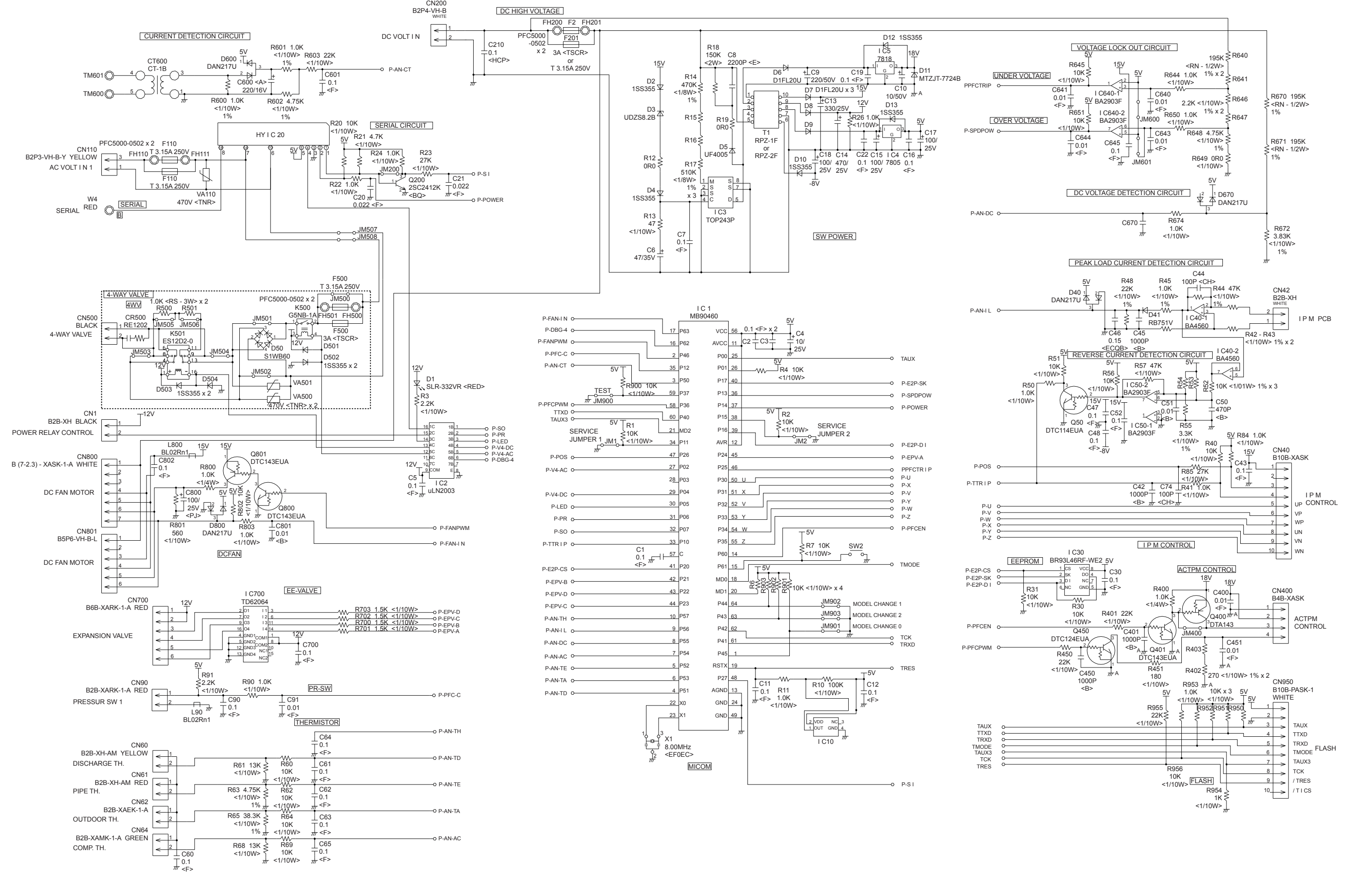
Controller PCB Assy
AUY30LUAS : K01AL-0500HSE-F1
AUY36LUAS : K01AL-0501HSE-F1



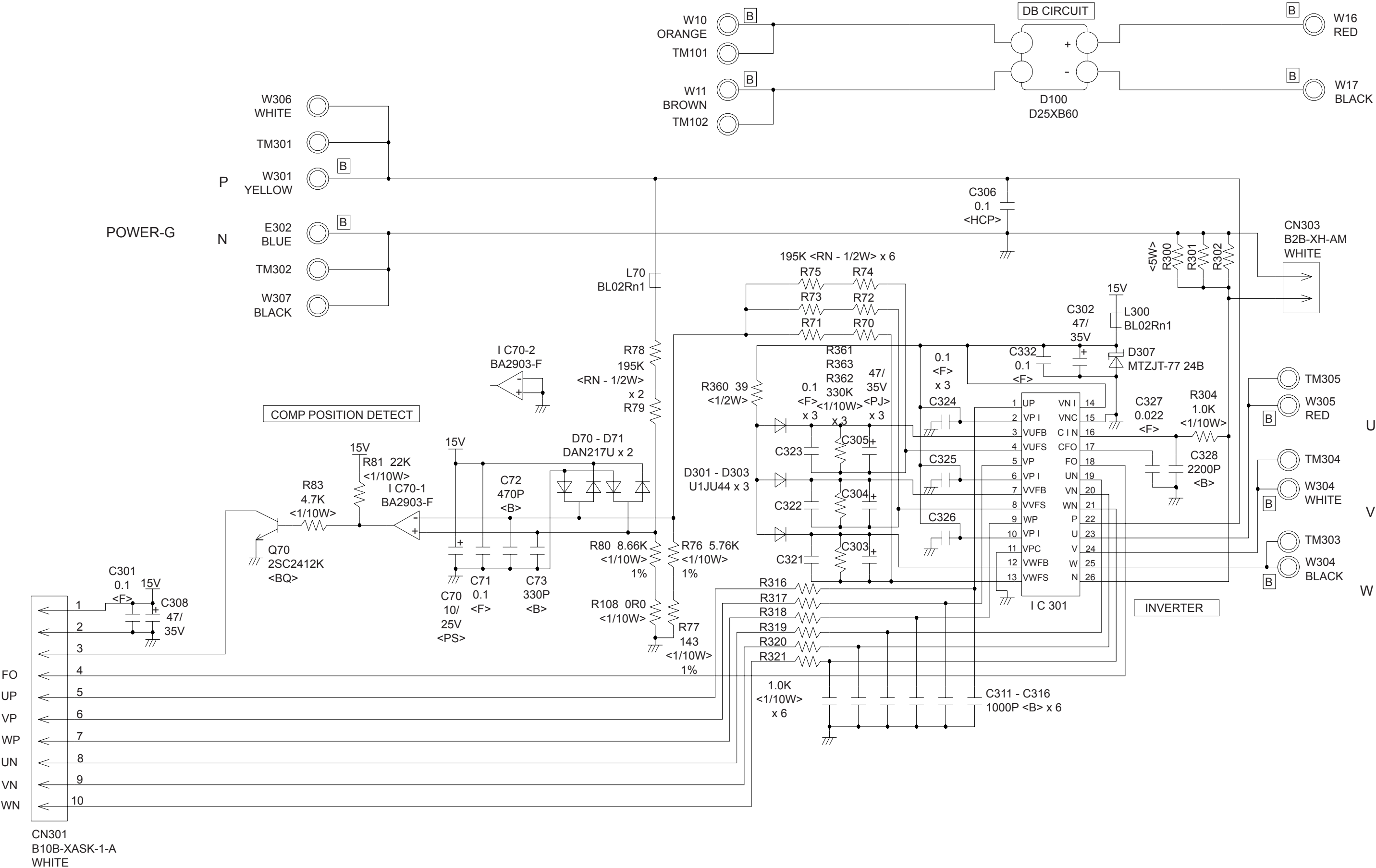
INVERTER ASSEMBLY
AOY30LNAWL : EZ-006PHUE
AOY36LNAWL : EZ-006MHUE



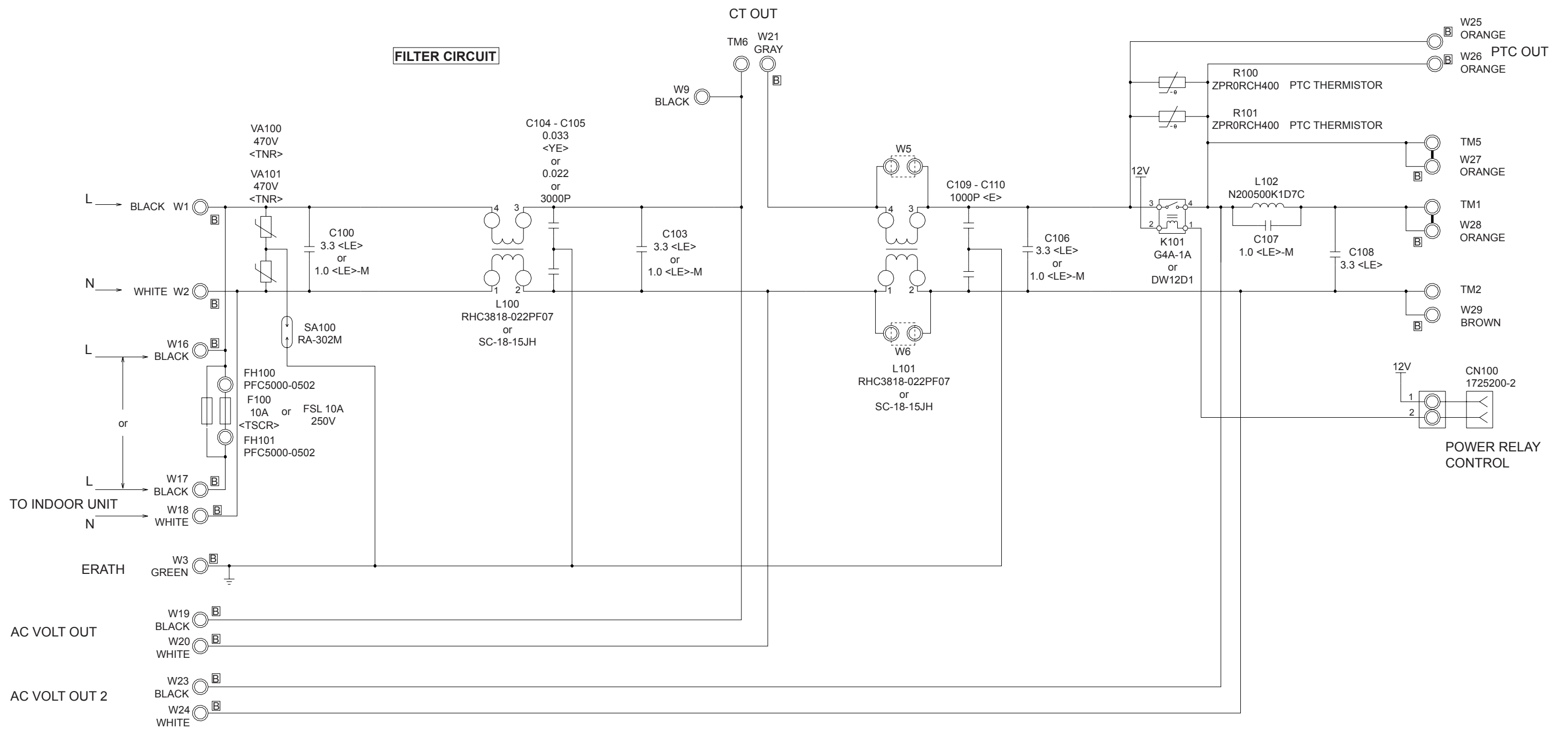
CONTROLLER PCB ASSY
 AOY30LNAWL : K05CU-0601HUE-C1
 AOY36LNAWL : K05CU-0600HUE-C1



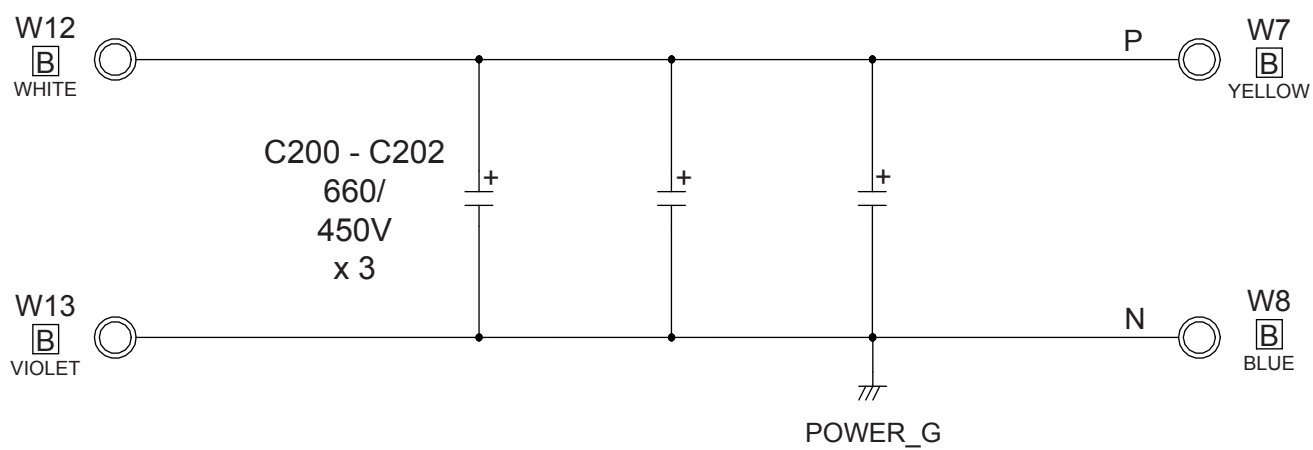
TRANSISTOR PCB ASSEMBLY (I P M)
K05CZ-0503HUE-TR0



POWER SUPPLY PCB ASSEMBLY
K05CW-0501HUE-FL0



OUTDOOR UNIT
CAPACITOR PCB
K05FB-1200HUE-P0

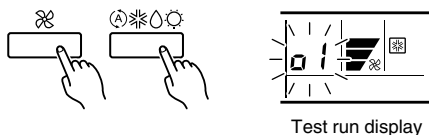


ERROR CONTENTS (indoor unit)

⚠ 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.



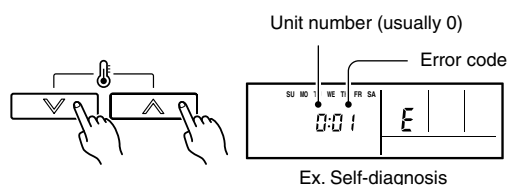
- (3) Press the start/stop button to stop the test run.

[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 Δ / ∇ simultaneously for 5 seconds or more to start the self-diagnosis.
Refer to the following tables for the description of each error code.



- (3) Press the set temperature buttons Δ / ∇ simultaneously for 5 seconds or more to stop the self-diagnosis.

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

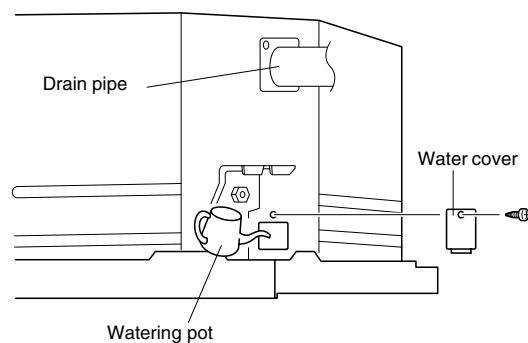
Error code	Error contents
13	Outdoor unit doesn't accept the signal from indoor unit.
14	Excessive outdoor pressure (permanent stop)
15	Compressor temperature sensor
16	Pressure switch error
17	IPM error
18	CT error
19	Active filter module (AFM) error
1A	Compressor does not operate
1b	Outdoor unit fan 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 figure.

The drain pump operates when operating in the cooling mode.



ERROR CONTENTS (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.

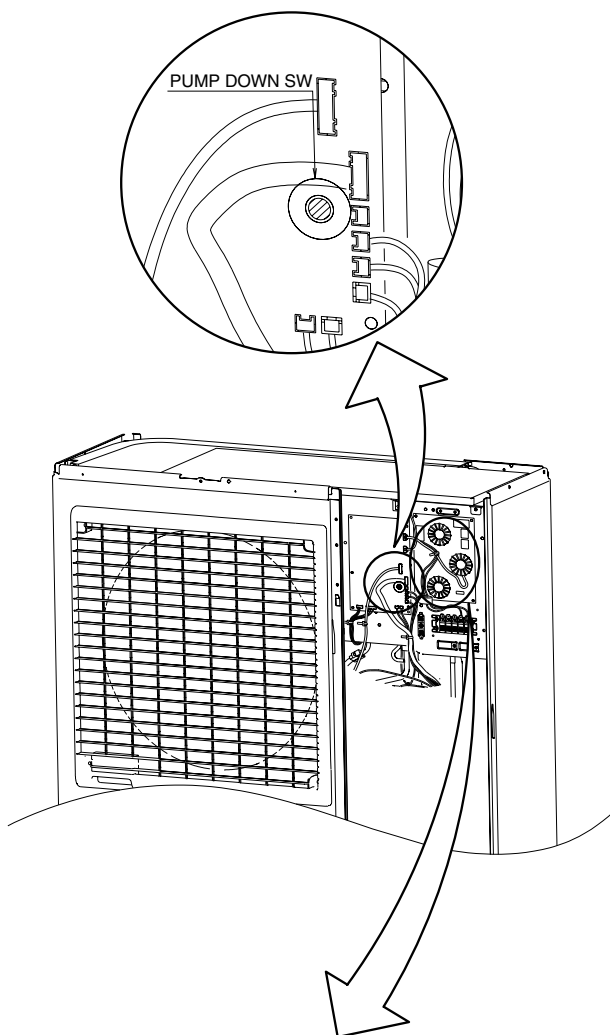
LED	ERROR CONTENTS
FLASH (0.1sec ON/0.1sec OFF)	Temperature sensor error
FLASH (0.5sec ON/0.5sec OFF)	IPM protection
FLASH (2sec ON/2sec OFF)	Current trans. error
FLASH (5sec ON/5sec OFF)	Outdoor fan error
FLASH (0.1sec ON/2sec OFF)	Compressor rotor position cannot be detected
FLASH (5sec ON/0.1sec OFF)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



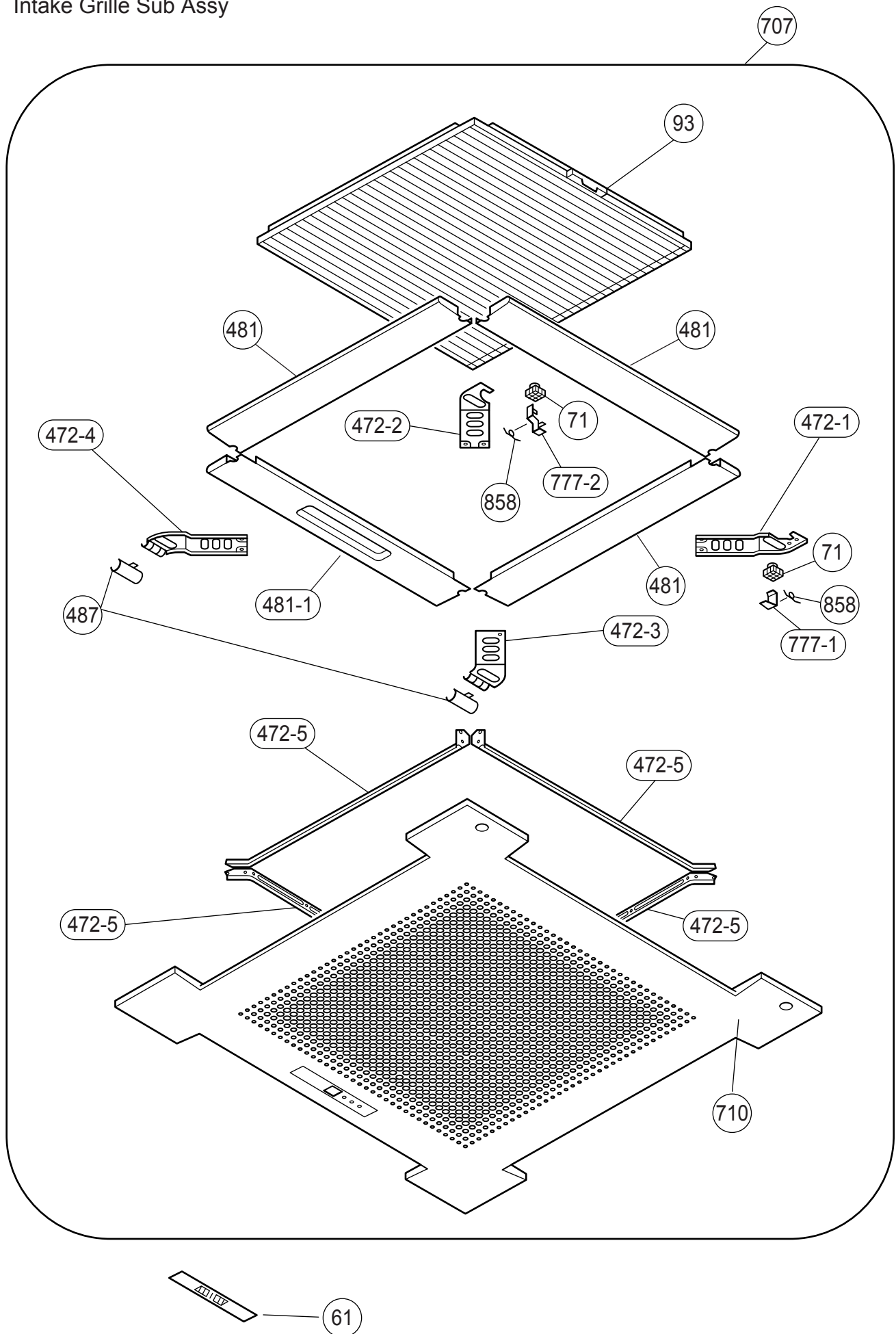
⚠ DANGER

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

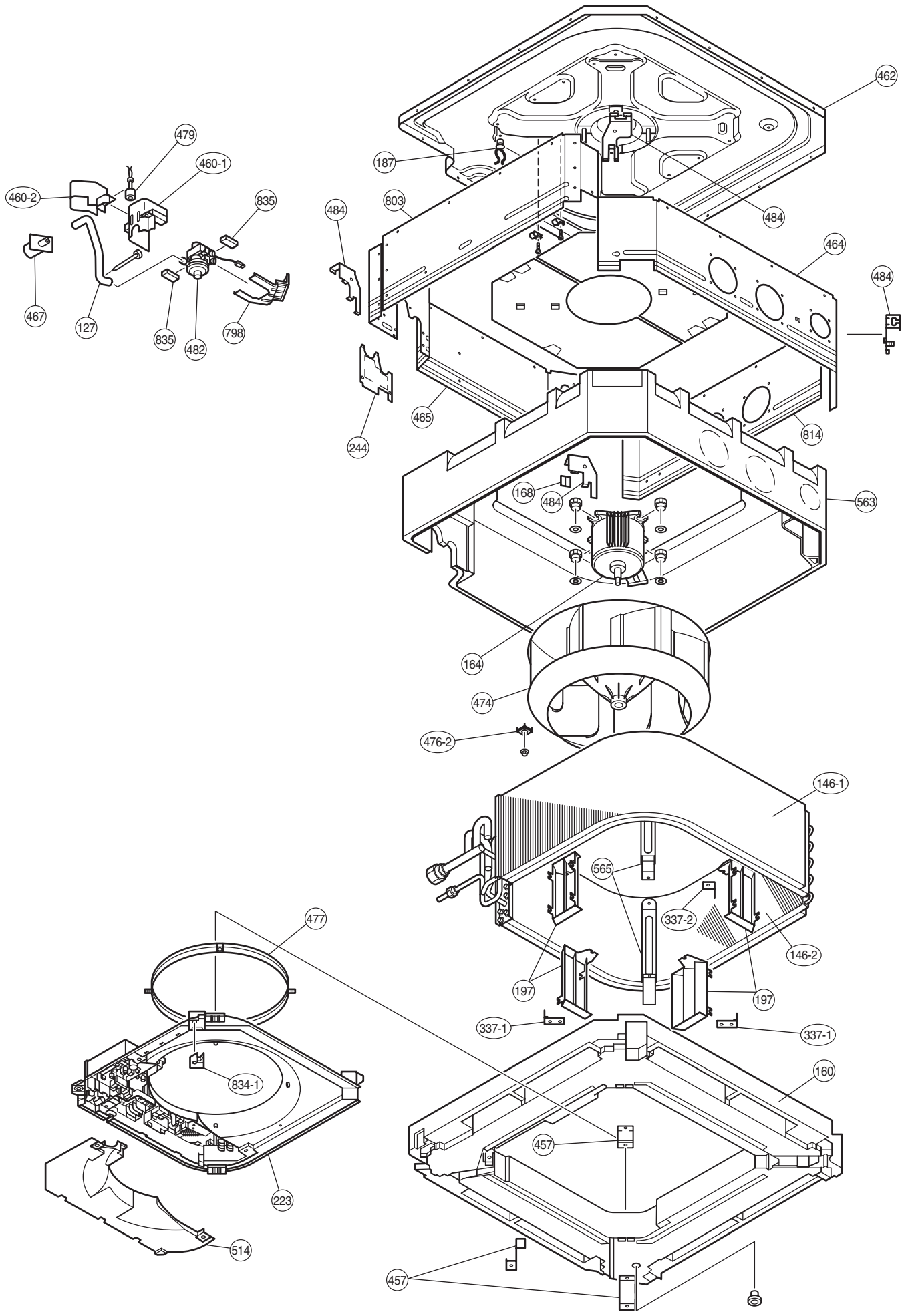
INDOOR UNIT



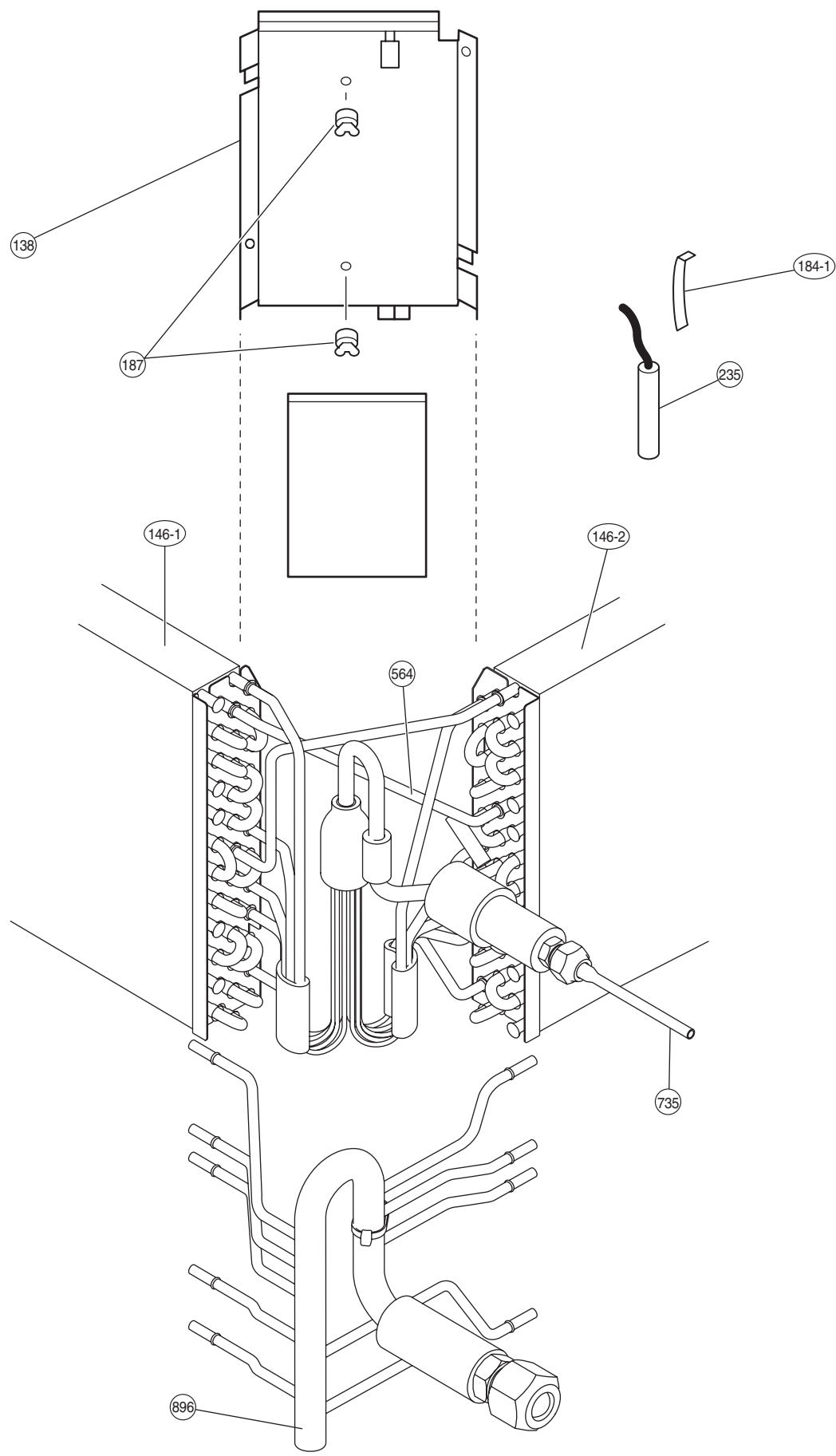
INDOOR UNIT
Intake Grille Sub Assy



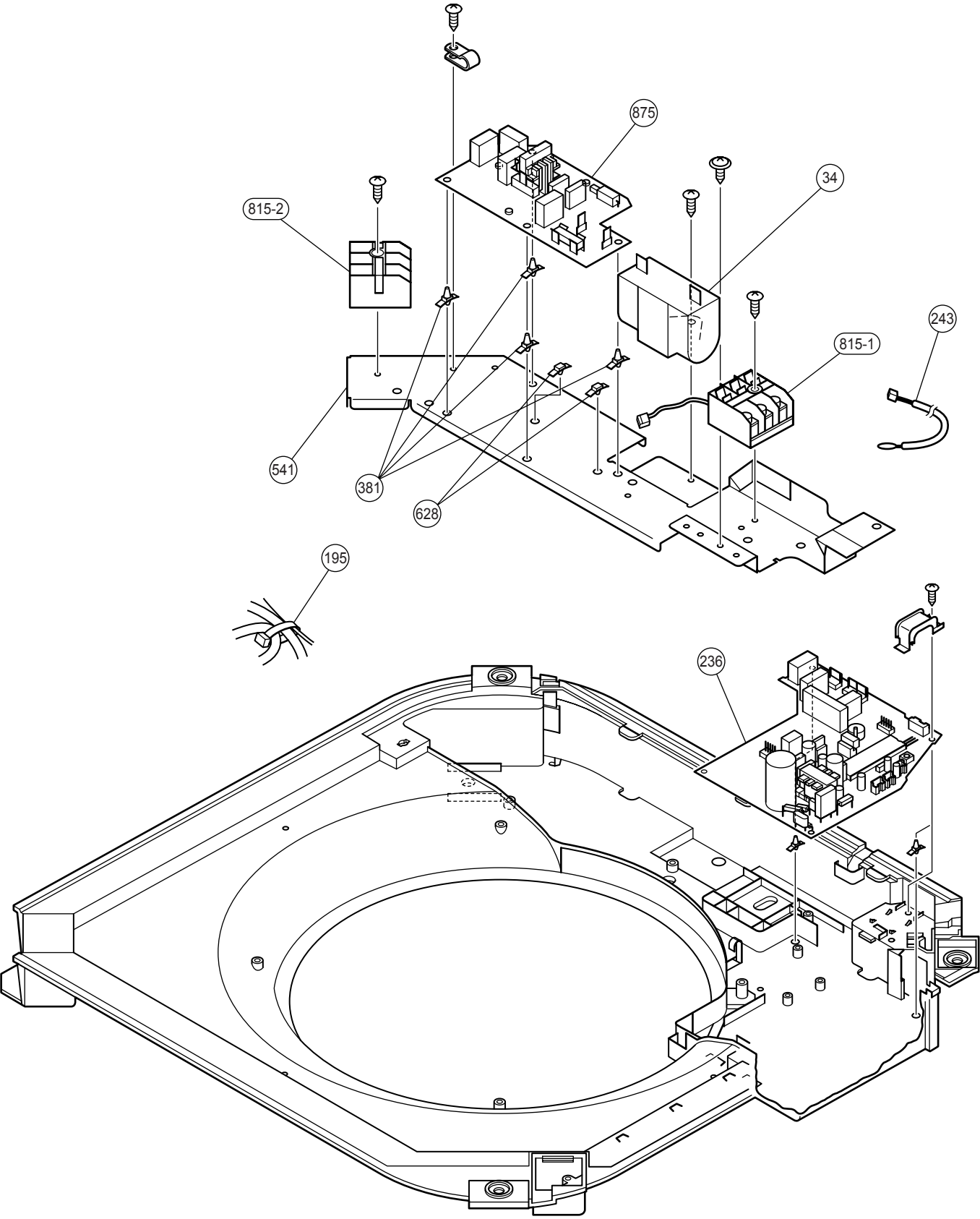
INDOOR UNIT



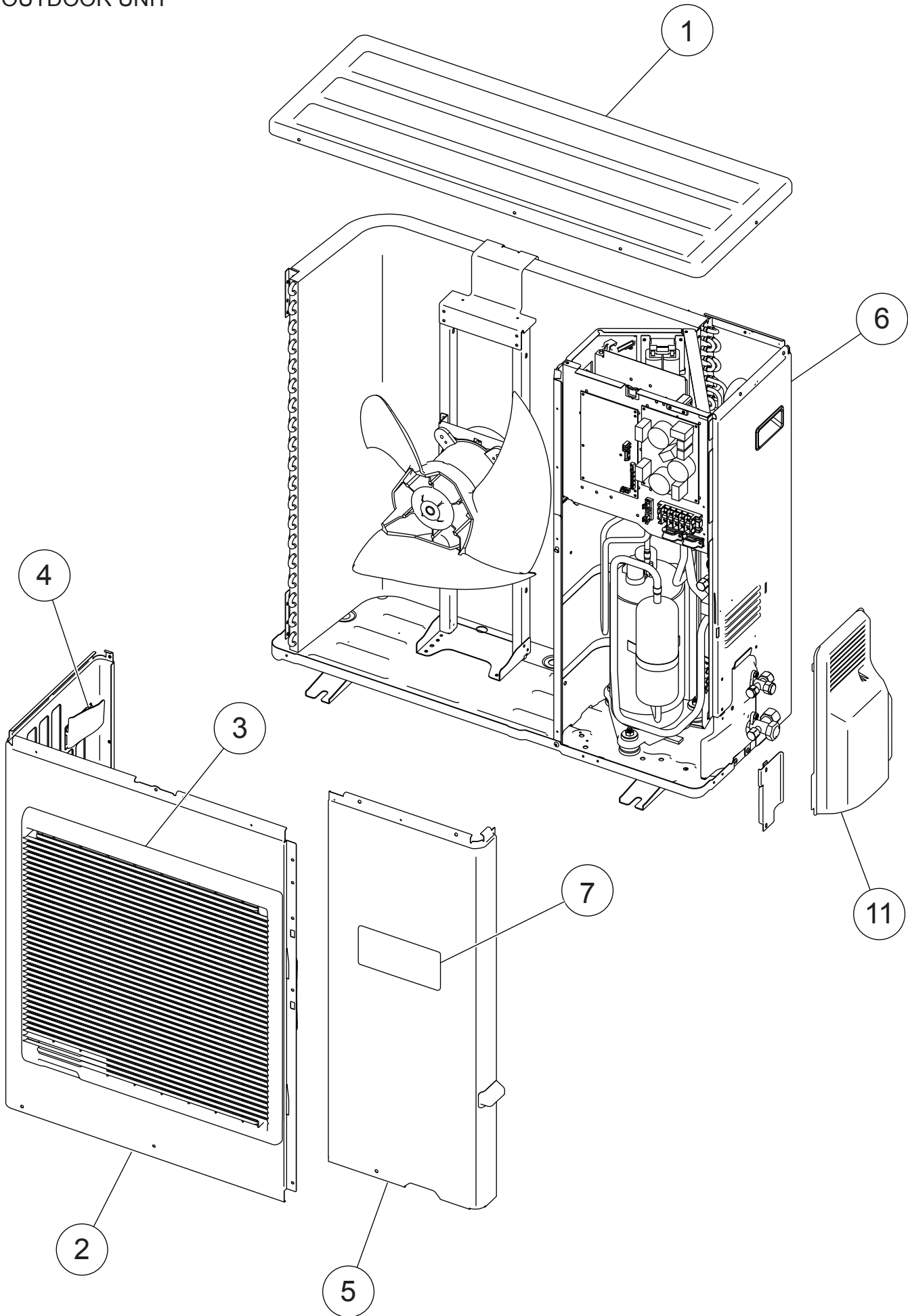
INDOOR UNIT



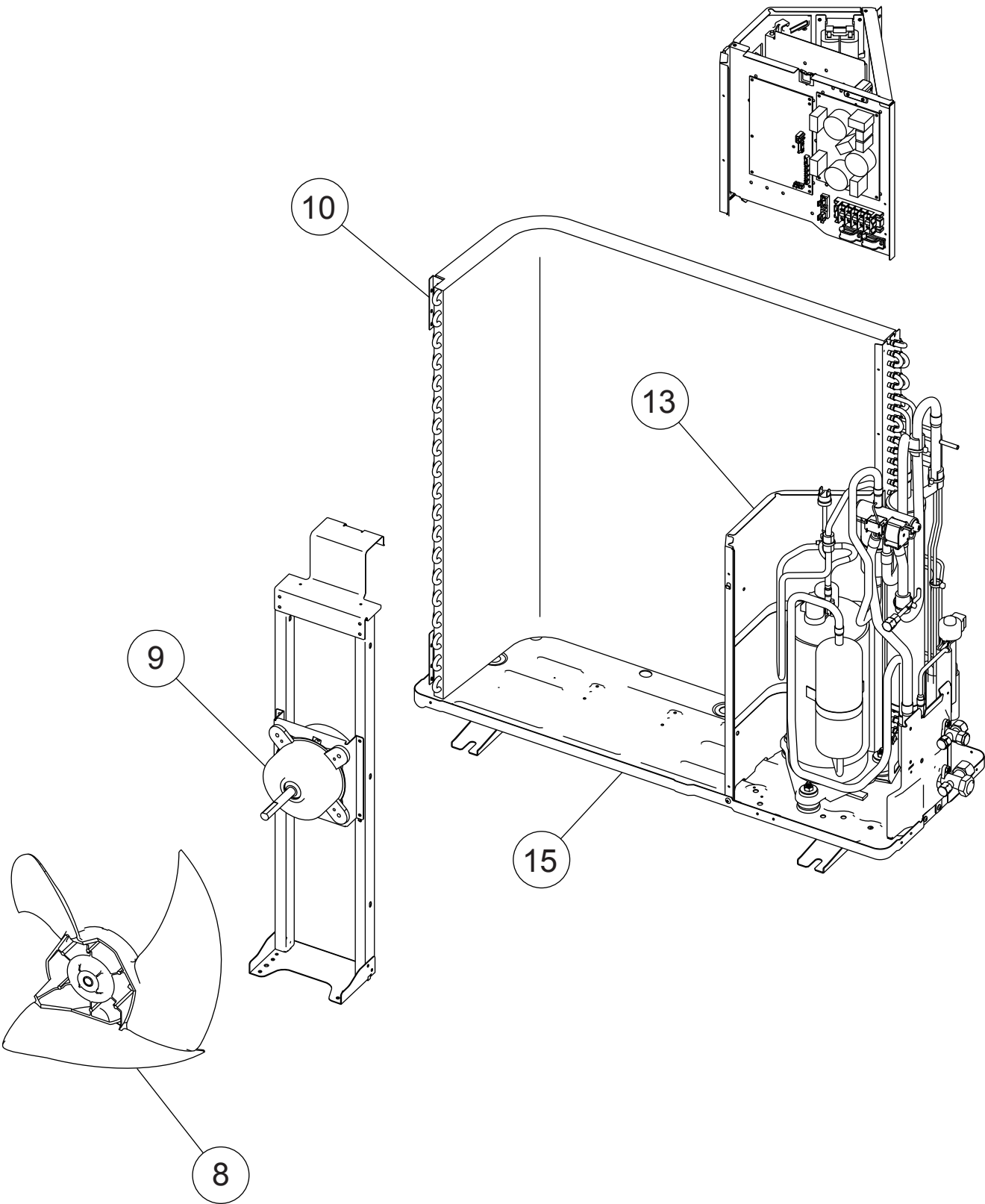
INDOOR UNIT



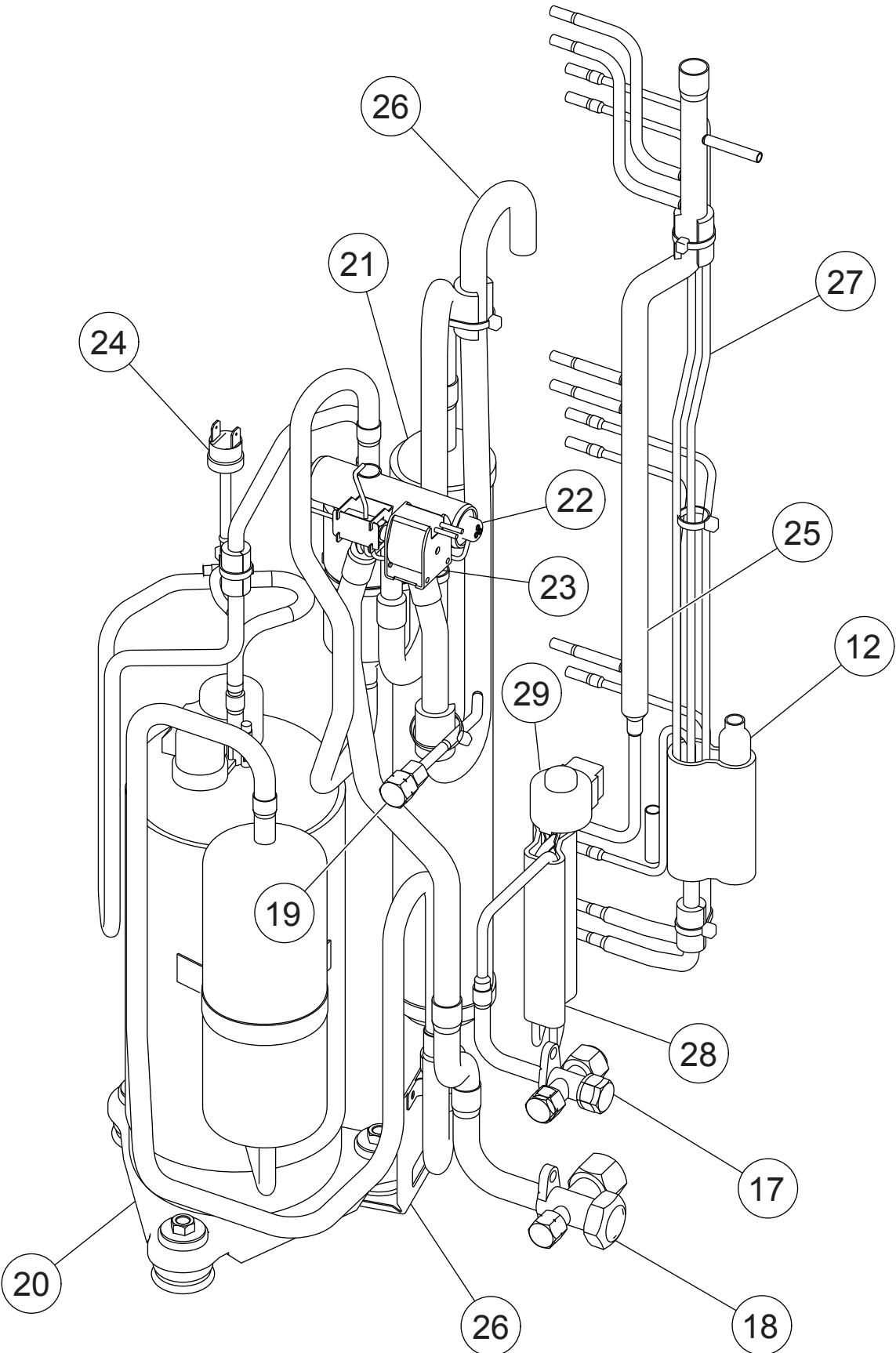
OUTDOOR UNIT



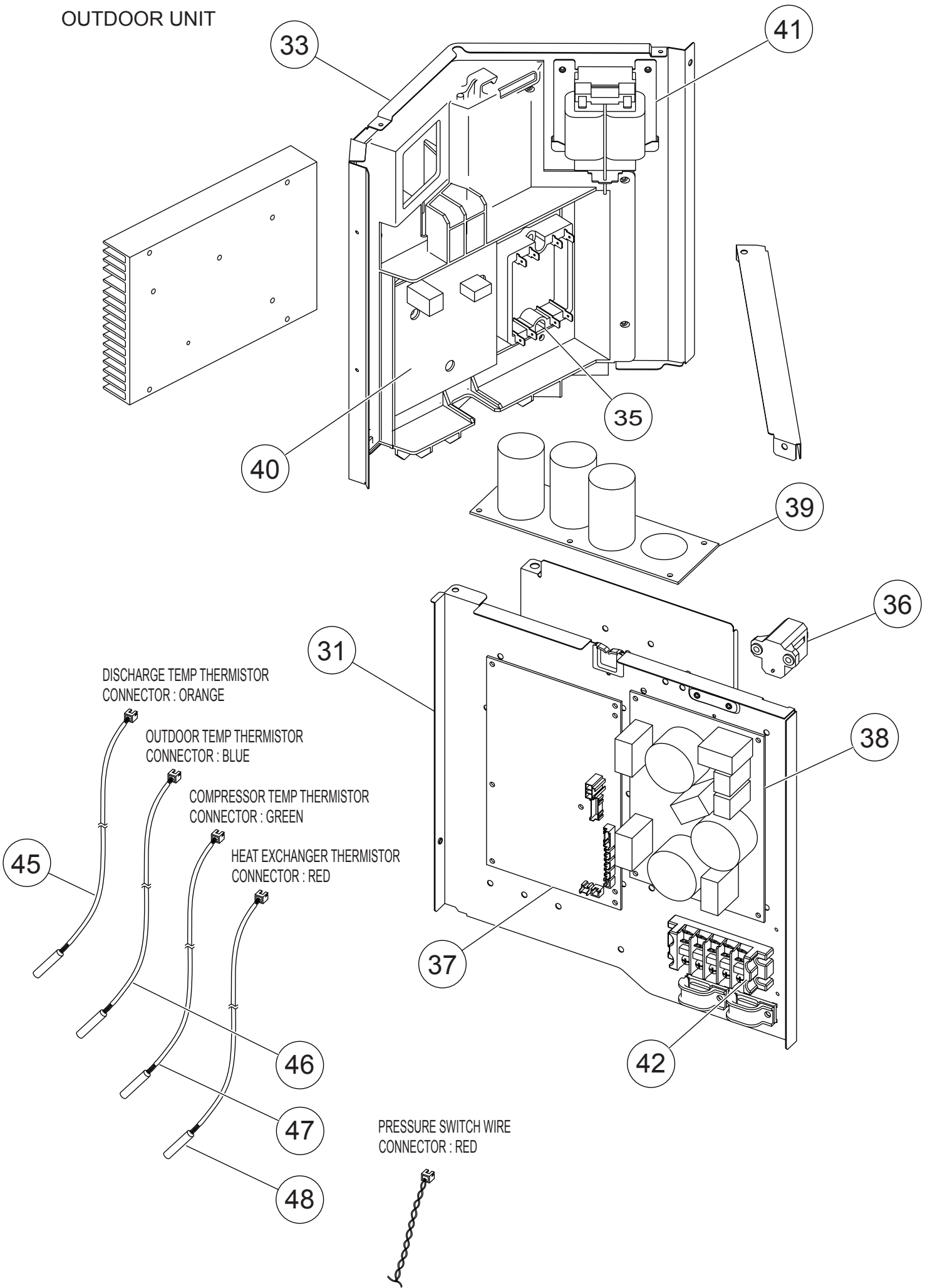
OUTDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.		Ord. Q'ty
		AUY30LUAS	AUY36LUAS	
34	Capacitor (Fan Motor)	9900270162	9900270162	
61	Decoration Plate	9362787000	9362787000	
71	Holder (Hook)	9362782005	9362782005	
93	Filter	9362766005	9362766005	
122	Holder (Louver Supporter)	9362799003	9362799003	
127	Drain Hose	9362784009	9362784009	
138	Separate wall	9362737005	9362737005	
146-1	Evaporator-A Assy	9373799054	9373799054	
146-2	Evaporator-B Assy	9373800057	9373800057	
160	Kit (Drain Pan Sub Assy)	9370934014	9370934014	
164	Motor, Induction	9601915010	9601915010	
168	Cabinet-E	9362735001	9362735001	
184-1	Thermistor Spring-A	313728262708	313728262708	
187	Clamp No. 1219	313361271706	313361271706	
195	Binder-C	313361275805	313361275805	
197	Wind Guide Board	9373444015	9373444015	
223	Control Box	9362762007	9362762007	
226	Motor Gear	9362764001	9362764001	
234	Room Temp. Thermistor	9703299025	9703299025	
235	Pipe Temp. Thermistor	9703297014	9703297014	
236	Controller PCB Assy	9705914049	9705914056	
		(K01AL-0500HSE-C1)	(K01AL-0501HSE-C1)	
240	Remote Control Unit	9372266052	9372266052	
244	Pipe Cover Assy	9362819015	9362819015	
337-1	RFM (Eva.)-A	9362749008	9362749008	
337-2	RFM (Eva.)-B	9362750004	9362750004	
338	Motor Holder	9362765008	9362765008	
381	Locking Spacer	313209391506	313209391506	
457	RFM (Drain Pan)	9362757003	9362757003	
460-1	Pump Cover-A	9362775007	9362775007	
460-2	Pump Cover-B	9362776004	9362776004	
462	Panel (Top) Assy	9362806015	9362806015	
464	Cabinet-A Assy	9362800013	9362800013	
465	Cabinet-B Assy	9362801010	9362801010	
467	Drain Port	9362786003	9362786003	
468	M10 Nut-A (Large)	313005446653	313005446653	
469	M10 Nut-B (Small)	313005446759	313005446759	
472-1	RFM (Grille)-A	9362738002	9362738002	
472-2	RFM (Grille)-B	9362739009	9362739009	
472-3	RFM (Grille)-C	9362740005	9362740005	
472-4	RFM (Grille)-D	9362741002	9362741002	

Ref. No.	Description	Part No.		Ord. Q'ty
		AUY30LUAS	AUY36LUAS	
472-5	RFM (Grille)-E	9362742009	9362742009	
474	Turbo Fan Assy	9362803014	9362803014	
476-2	Washer (Turbo Fan)	9362756006	9362756006	
477	Bellmouth-B	9362774000	9362774000	
479	Float Switch	9900361020	9900361020	
481	Insulation (Grille)-A	9362780001	9362780001	
481-1	Insulation (Grille)-B	9362781008	9362781008	
482	Pump Unit	9900360030	9900360030	
484	Hook	9362736008	9362736008	
487	Hinge Wire (Grille)	9362754002	9362754002	
488	Drain Pan Plug	313005174654	313005174654	
514	Control Box Cover	9362763004	9362763004	
522	Joint Gear	9362772006	9362772006	
541	Terminal Plate	9363642001	9363642001	
542	Panel Base	9362759014	9362759014	
543	Holder (Panel Frame)	9362761017	9362761017	
544	Holder (Panel Base)	9362760010	9362760010	
545	Panel Frame	9362758017	9362758017	
563	Inner Box	9362768009	9362768009	
564	Bypass Pipe-A Assy	9371323053	9371323053	
565	Evaporator Holder Assy	9362802017	9362802017	
628	Locking Spacer-B	313005446558	313005446558	
690	Joint-A	9362773003	9362773003	
692	Joint Shaft	9362771009	9362771009	
705	Louver Assy	9362836012	9362836012	
707	Intake Grille Sub Assy	9362818131	9362818131	
710	Intake Grille	9362767019	9362767019	
735	Distributor Assy	9371325132	9371325132	
777-1	Hook (Grille)-A	9362779012	9362779012	
777-2	Hook (Grille)-B	9362778015	9362778015	
798	Drain Pump Holder	9362753005	9362753005	
803	Cabinet-D	9362734004	9362734004	
814	Cabinet-C	9362733007	9362733007	
815-1	Terminal-3P	9306489069	9306489069	
815-2	Terminal-3P	9703345012	9703345012	
834-1	Cover (Wire)-A	9362789004	9362789004	
834-2	Cover (Wire)-B	9362788007	9362788007	
835	Cushion (Pump)	9362777001	9362777001	
847	Louver Supporter	9362770019	9362770019	
858	Spring (Grille)	9362755009	9362755009	
875	Power Supply PCB Assy	9704561220	9704561220	
876-2	Motor, Step	9900362027	9900362027	
896	Coupling Pipe Assy	9373038221	9373038221	

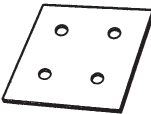
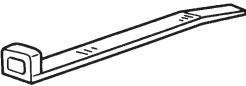
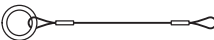
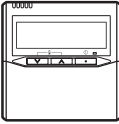
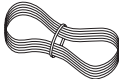
When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

OUTDOOR UNIT

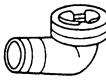
Ref. No.	Description	Part No.		Ord. Q'ty
		AOY30LNAWL	AOY36LNAWL	
1	Top Panel Sub Assy	9374417032	9374417032	
2	Front Panel	9374094066	9374094066	
3	Fan Guard	9374330010	9374330010	
4	Grip Side	9374173013	9374173013	
5	Service Panel Sub Assy	9374415052	9374415052	
6	Right Panel Sub Assy	9374416127	9374416127	
7	Emblem Rear	9351355005	9351355005	
8	Propeller Fan Assy	9366378020	9366378020	
9	Motor, DC Brushless	9601882015	9601882015	
10	Condenser A Assy	9374433056	9374433056	
11	Valve Cover	9374174010	9374174010	
12	Strainer Assy	9372524015	9372524015	
13	Separate Wall	9374413133	9374413133	
15	Base Assy	9374166138	9374166138	
17	3-Way Valve Assy	9372205044	9372205044	
18	3-Way Valve Assy	9372205075	9372205075	
19	Check Joint Assy	9372802038	9372802038	
20	Compressor Assy	9372558126	9372558126	
21	Accumulator	9385005006	9385005006	
22	4-Way Valve	9900164010	9900164010	
23	Solenoid	9900165079	9900165079	
24	Pressure Switch	9900186012	9900186012	
25	Inlet Pipe (Cond) A Assy	9373461067	9373461067	
26	Accumulator Support Assy	313986353804	313986353804	
27	Outlet Pipe (Cond) A Assy	9374266104	9374266104	
28	Expansion Valve Assy	9370947144	9370947144	
29	Coil (Expansion Valve)	9900057039	9900057039	
31	PCB Case Assy	9375316013	9375316013	
33	Inverter Case	9375314019	9375314019	
35	ACTPM	9703457012	9703457012	
36	Thermistor	9704265012	9704265012	
37	Controller PCB Assy	9707121179	9707121162	
38	Power Supply PCB Assy	9707128062	9707128062	
39	Capacitor PCB Assy	9707257090	9707257090	
40	TR PCB Assy (IPM)	9707125085	9707125085	
41	Choke Coil	9900366018	9900366018	
42	Terminal	9900203023	9900203023	
45	Discharge Temp Thermistor	9704219114	9704219114	
46	Thermistor (Outdoor Temp)	9900378028	9900378028	
47	Compressor Temp Thermistor	9900156022	9900156022	
48	Heat Exchanger Thermistor	9900374013	9900374013	

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 controller 	1	
Remote controller 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

