

SPLIT TYPE
AIR CONDITIONER
CASSETTE TYPE (50Hz)

SERVICE MANUAL



Indoor unit	Outdoor unit
AUY45FUAS	AOY45FMAXT
AUY45UUAS	AOY45UMAXT

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SPECIFICATIONS

TYPE		COOLING	COOLING & HEATING
INDOOR UNIT		AUY45FUAS	AUY45UUAS
OUTDOOR UNIT		AOY45FMAXT	AOY45UMAXT
COOLING CAPACITY	(kW)	12.7	12.7
HEATING CAPACITY	(kW)	-----	14.3

POWER SOURCE	(V)	400	
	(Hz)	3 / 50	
RUNNING CURRENT (A)	COOL	7.70	
	HEAT	-----	7.70
INPUT WATTS (kW)	COOL	4.38	
	HEAT	-----	4.39
E.E.R. (kW/kW)	COOL	2.90	
	HEAT	-----	3.26
STARTING CURRENT	(A)	67	
MOISTURE REMOVAL	(ℓ / h)	5.0	

COMPRESSOR

TYPE	Hermetic type, 2 pole, Three phase, Induction motor, Scroll		
DISCRIMINATION	BN52YEAMT		
REFRIGERANT	R410A	(g)	3,400

FAN SPEED (r.p.m.)	INDOOR	HIGH	600	
		MED	530	
		LOW	450	
	OUTDOOR		780	
AIR FLOW (m ³ h)	INDOOR		1,550	
	OUTDOOR		6,100	
DIMENSIONS H x W x D	(mm)	IN	296 x 830 x 830	
		GRILLE	35 x 940 x 940	
		OUT	1,165 x 900 x 330	
WEIGHT NET / GROSS	(kg)	IN	40 / 55	
		OUT	109 / 116	113 / 120
MAX PIPE LENGTH		(m)	50	
MAX PIPE HEIGHT		(m)	30	
REMOTE CONTROLLER TYPE			WIRED	

REFRIGERANT CHARGE (R410A)

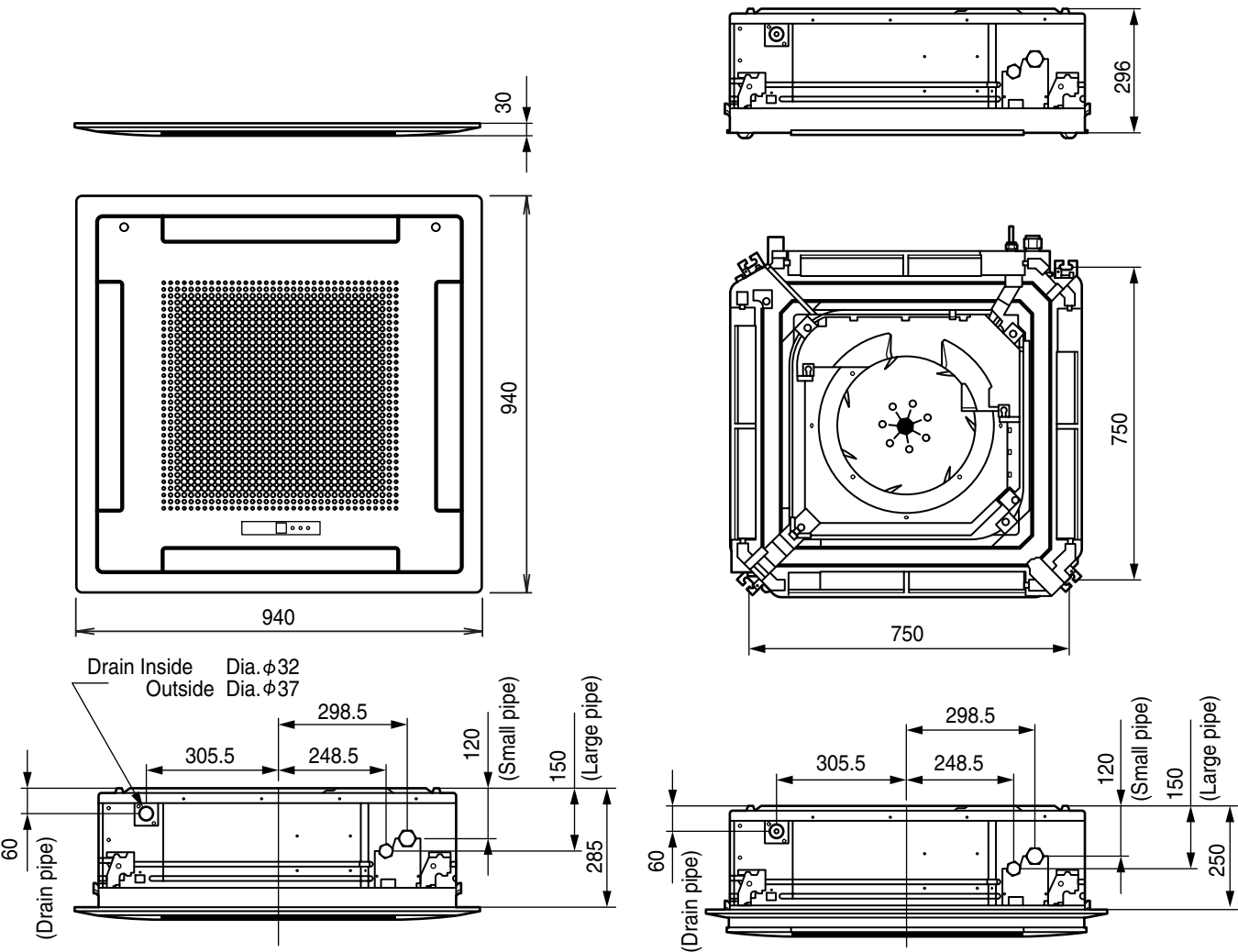
FULL CHARGE AMOUNT	PIPE LENGTH	20 m	3,400 g
		30 m	3,800 g
		40 m	4,200 g
		50 m	4,600 g
ADDITIONAL REFRIGERANT			40 g / m

DIMENSIONS

Unit : mm

INDOOR UNIT

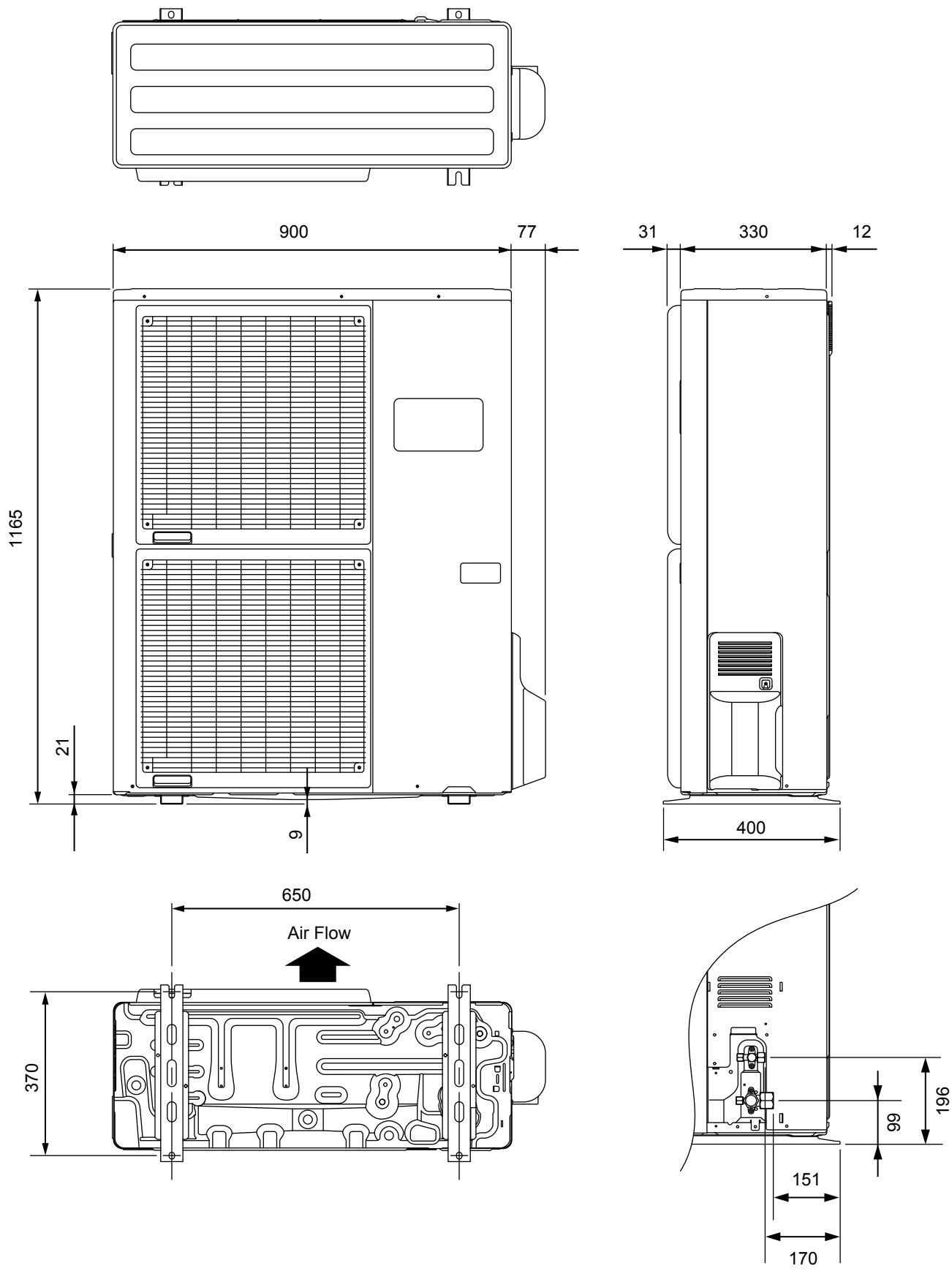
Models : AUY45FUAS
AUY45UUAS



OUTDOOR UNIT

Models : AOY45FMAXT
AOY45UMAXT

(Unit : mm)

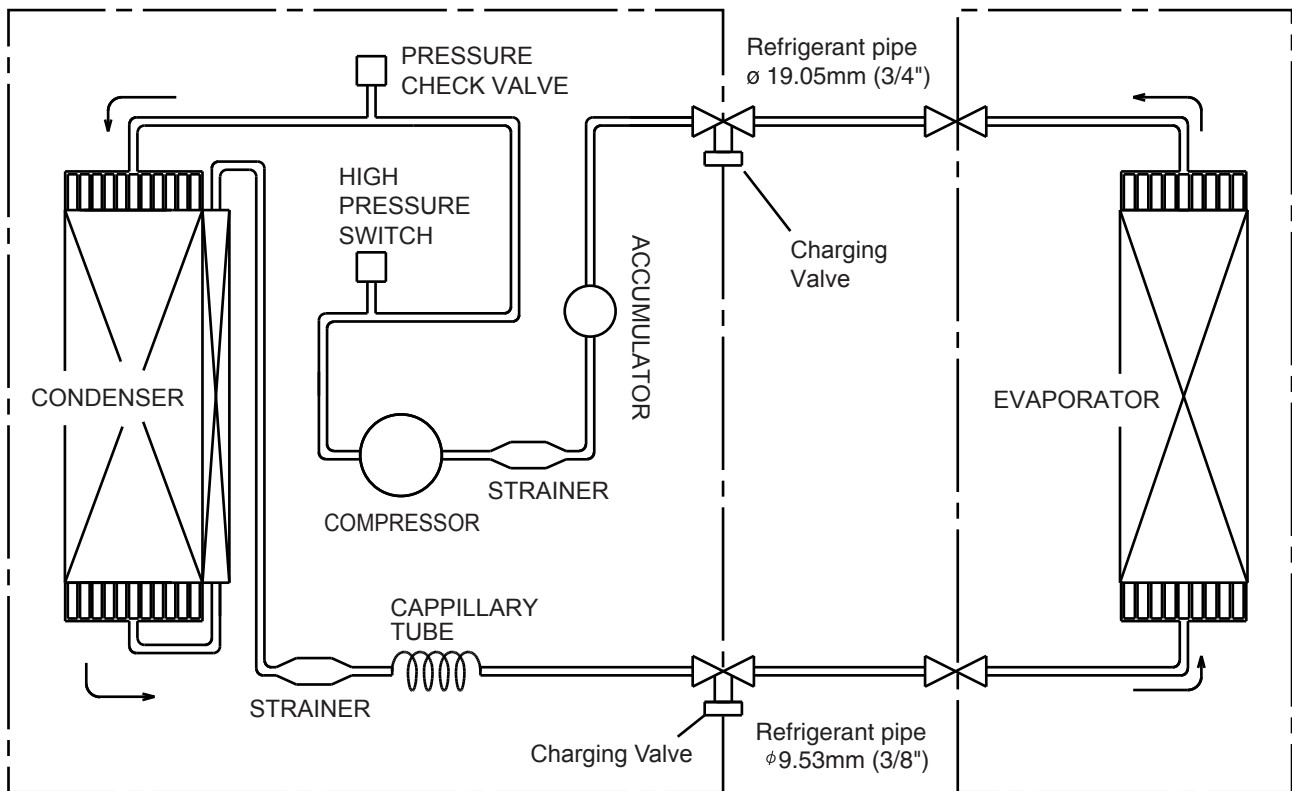


REFRIGERANT SYSTEM DIAGRAM

Models : AUY45FUAS / AOY45FMAXT

OUTDOOR UNIT

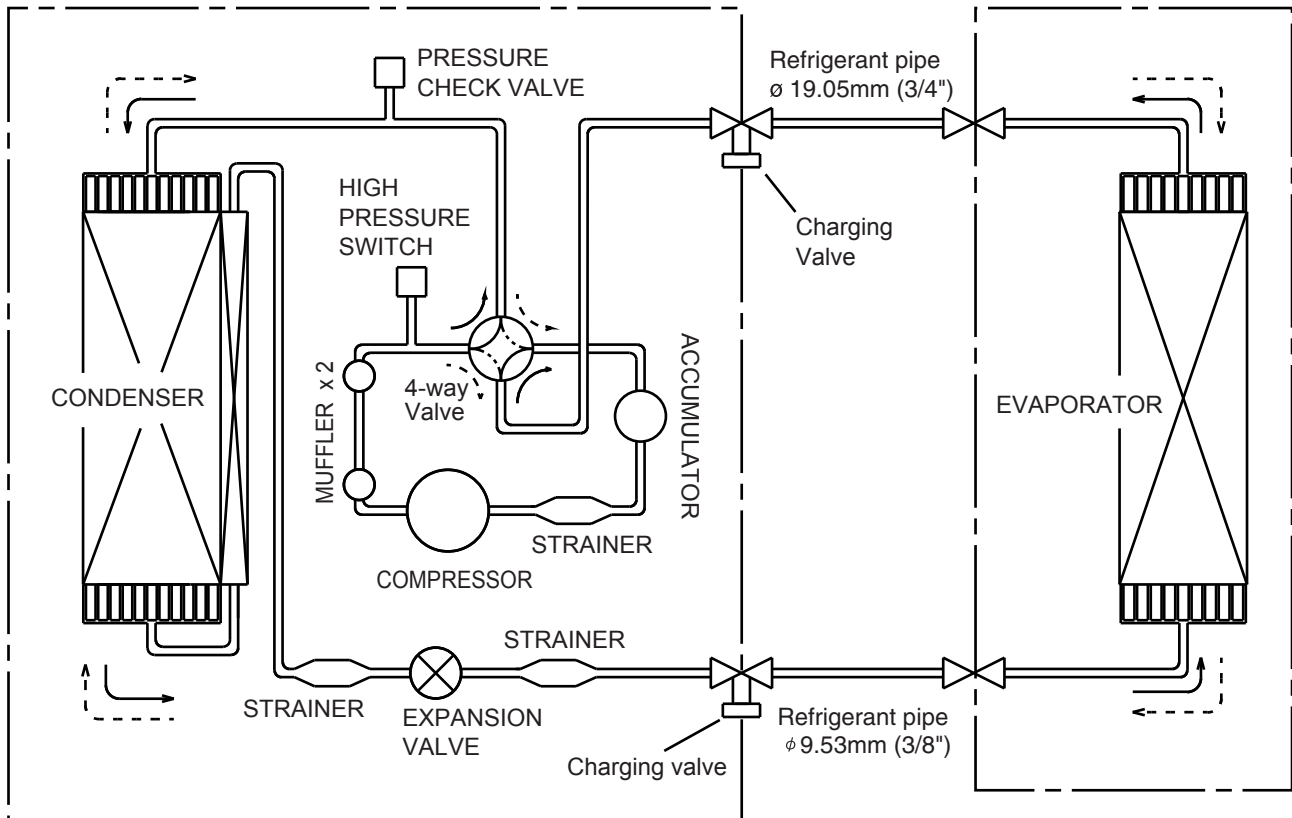
INDOOR UNIT



Models : AUY45UUAS / AOY45UMAXT

OUTDOOR UNIT

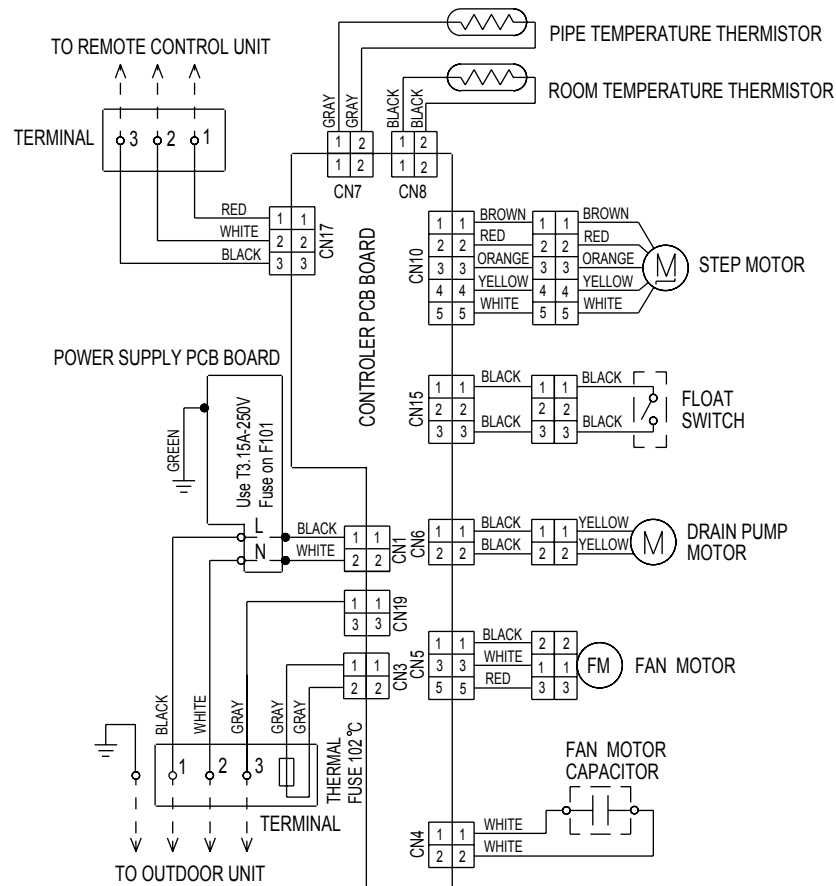
INDOOR UNIT



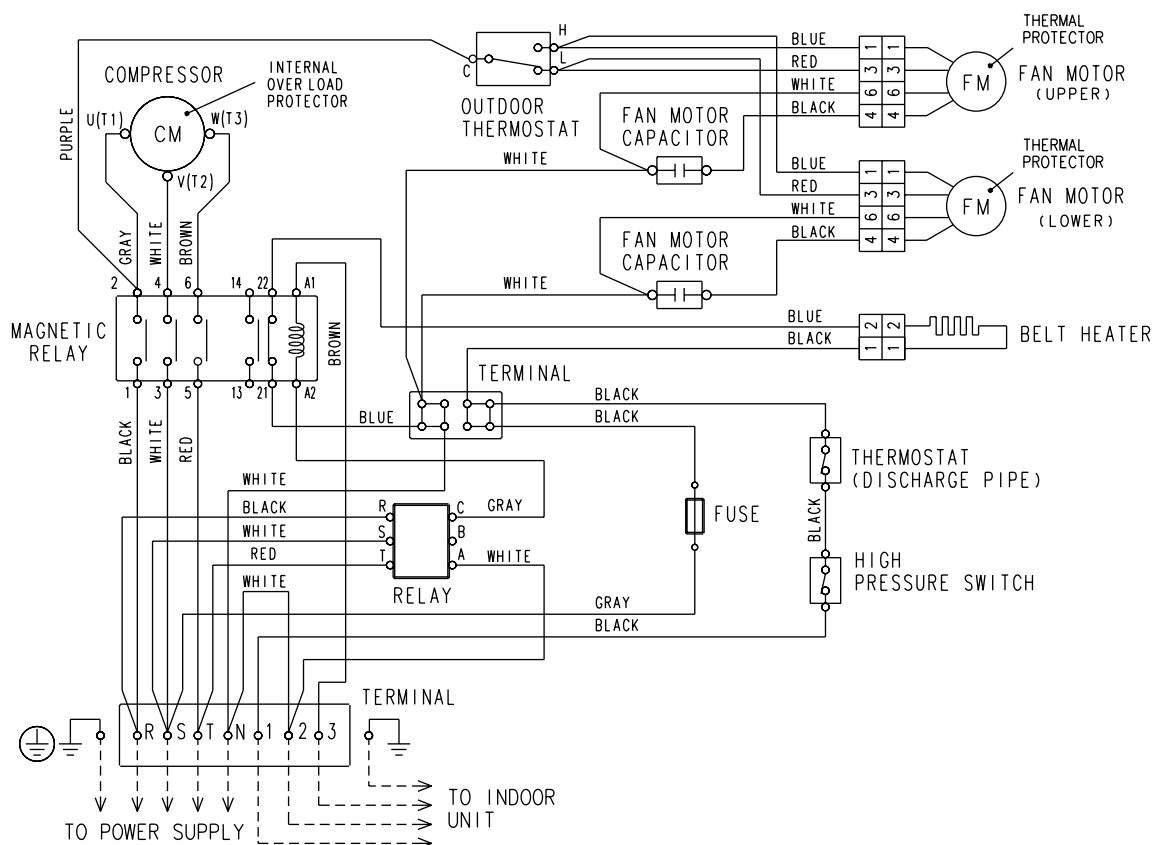
→ : COOL
 - - -> : HEAT

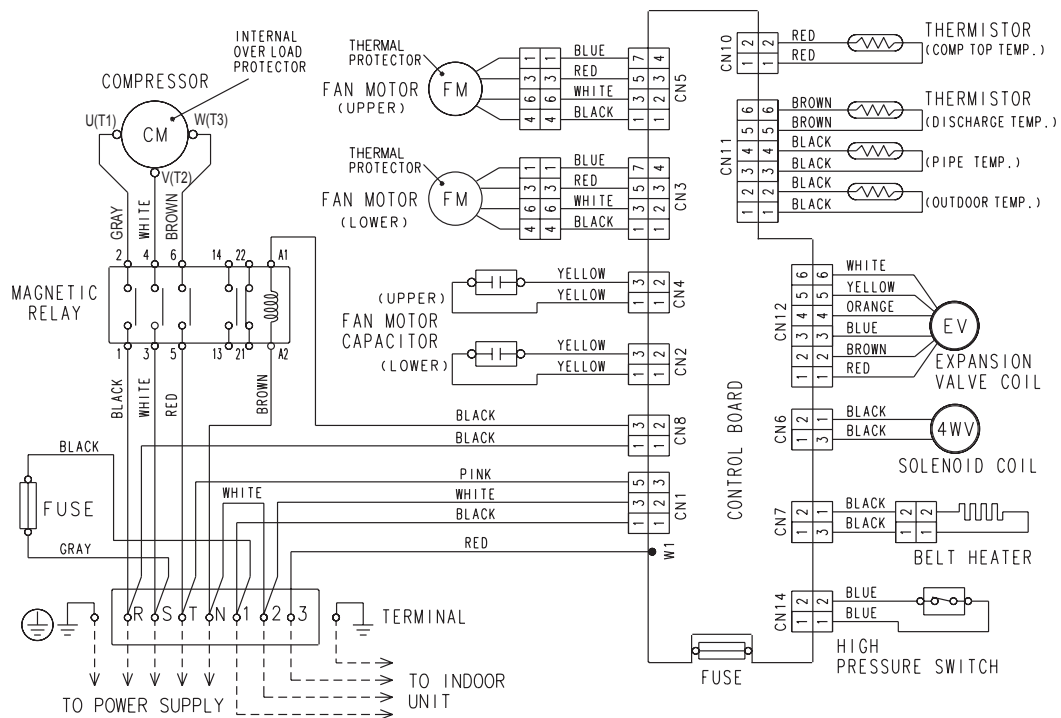
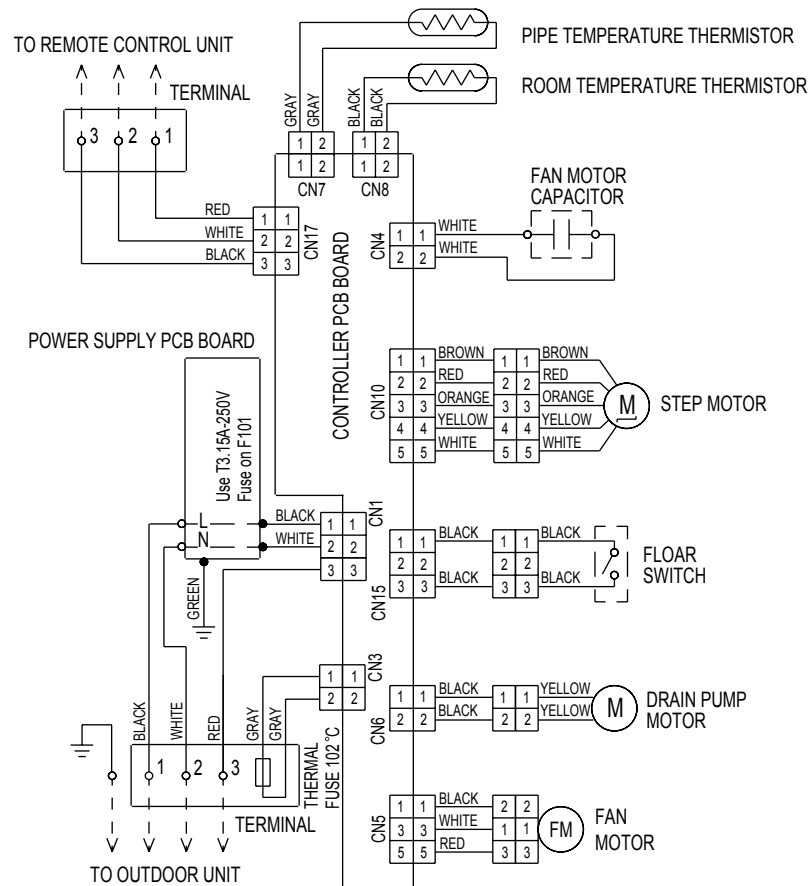
CIRCUIT DIAGRAM

Model : AUY45FUAS



Model : AOY45FMAXT

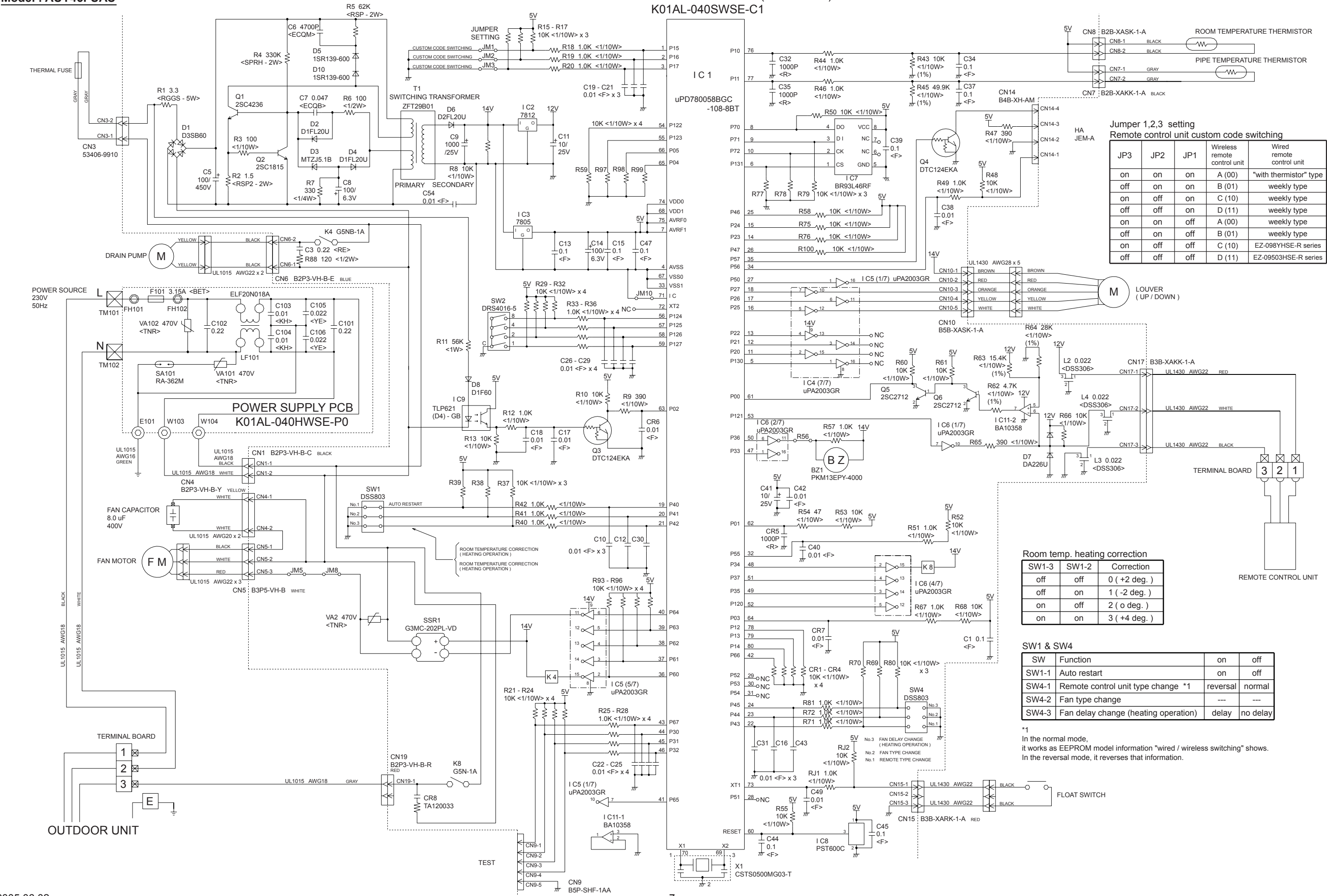




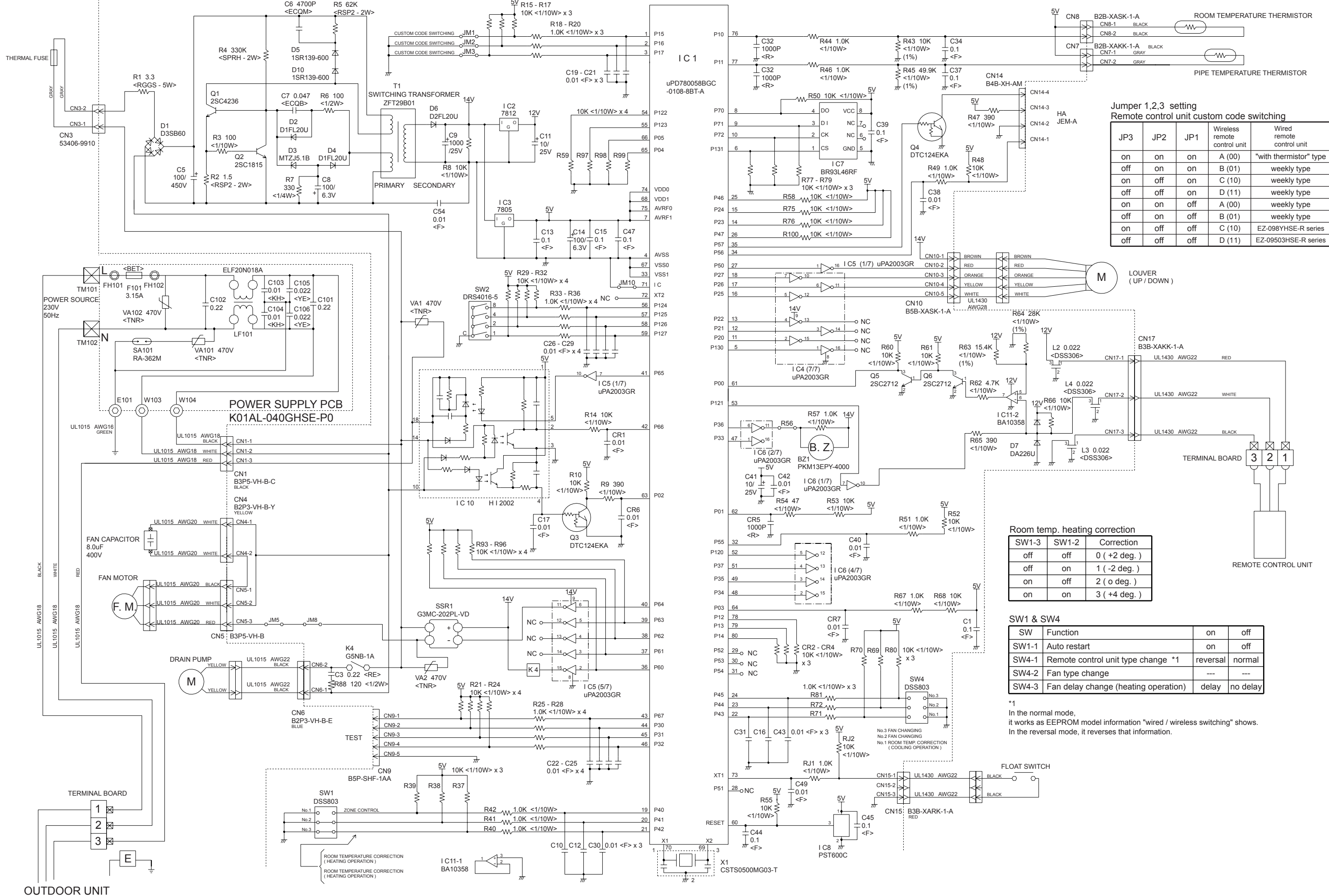
INDOOR PCB CIRCUIT DIAGRAM

Model : AUY45FUAS

CONTROLLER PCB ASSEMBLY (MAIN PCB)
K01AL-040SWSE-C1



CONTROLLER PCB ASSEMBLY (MAIN PCB)
K01AL-040RHSE-C1



Model : AOY45UMAXT

Model : AOY45UMAXT

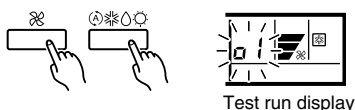
ERROR DISPLAY

Models : AU45FUAS / AO45FMAXT
AU45UUAS / AO45UMAXT

CAUTION

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

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



Test run display

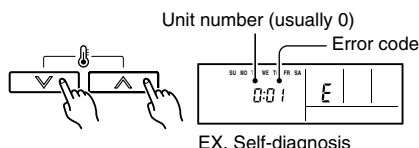
- Press the start/stop button to stop the test run.

[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

- Stop the air conditioner operation.
- 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.



EX. Self-diagnosis

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

Error code	Error contents
00	Communication error (indoor unit $\longleftrightarrow$ remote controller)
01	Communication error (indoor unit $\longleftrightarrow$ 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 open
07	Outdoor heat exchanger temperature sensor short-circuited
08	Power source connection error
09	Float switch operated
0A	Outdoor temperature sensor open
0b	Outdoor temperature sensor short-circuited

Error code	Error contents
0c	Discharge pipe temperature sensor or compressor temperature sensor open
0d	Discharge pipe temperature sensor or compressor temperature sensor short-circuited
0E	Outdoor high pressure abnormal
0F	Discharge pipe temperature or compressor temperature abnormal
11	Model abnormal
12	Indoor fan abnormal
13	Outdoor signal abnormal
14	Outdoor EEPROM abnormal

2. OUTDOOR UNIT LEDS

Heat & Cool model (reverse cycle) only

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

LED layout

LED2 LED1



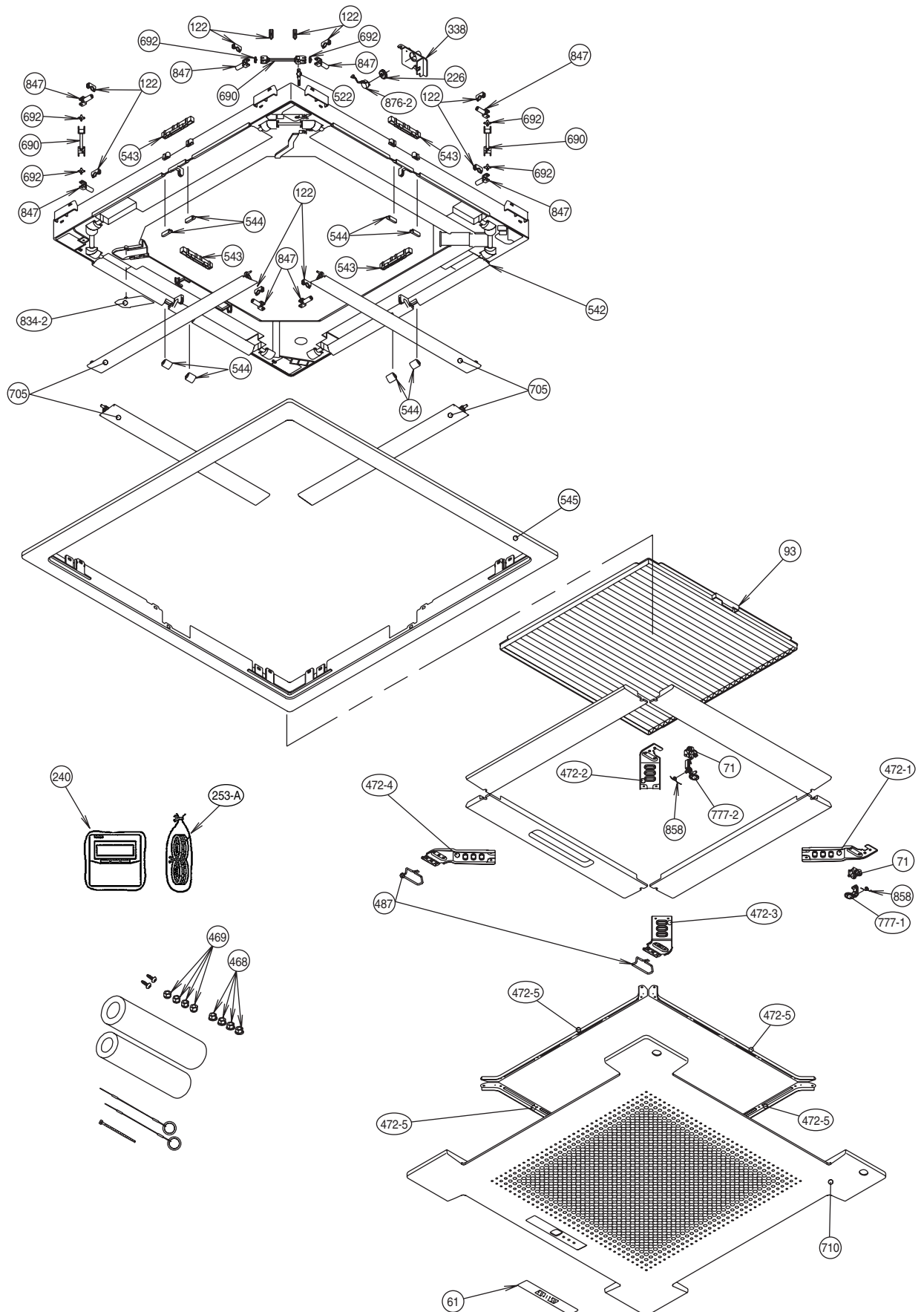
LED1	LED2	Error contents
flash	flash	Model abnormal or EEPROM abnormal
1 flash	Lighting	Power source connection error
2 flash	Lighting	Discharge temp. sensor error
3 flash	Lighting	Heat exchanger temp. sensor error
4 flash	Lighting	Outdoor temp. sensor error
5 flash	Lighting	Communication signal error
6 flash	Lighting	Indoor unit error
7 flash	Lighting	Discharge temp. abnormal
8 flash	Lighting	High pressure abnormal
9 flash	Lighting	Compressor temp. abnormal
10 flash	Lighting	Compressor temp. sensor error
Dislighting		No error. Protect operation

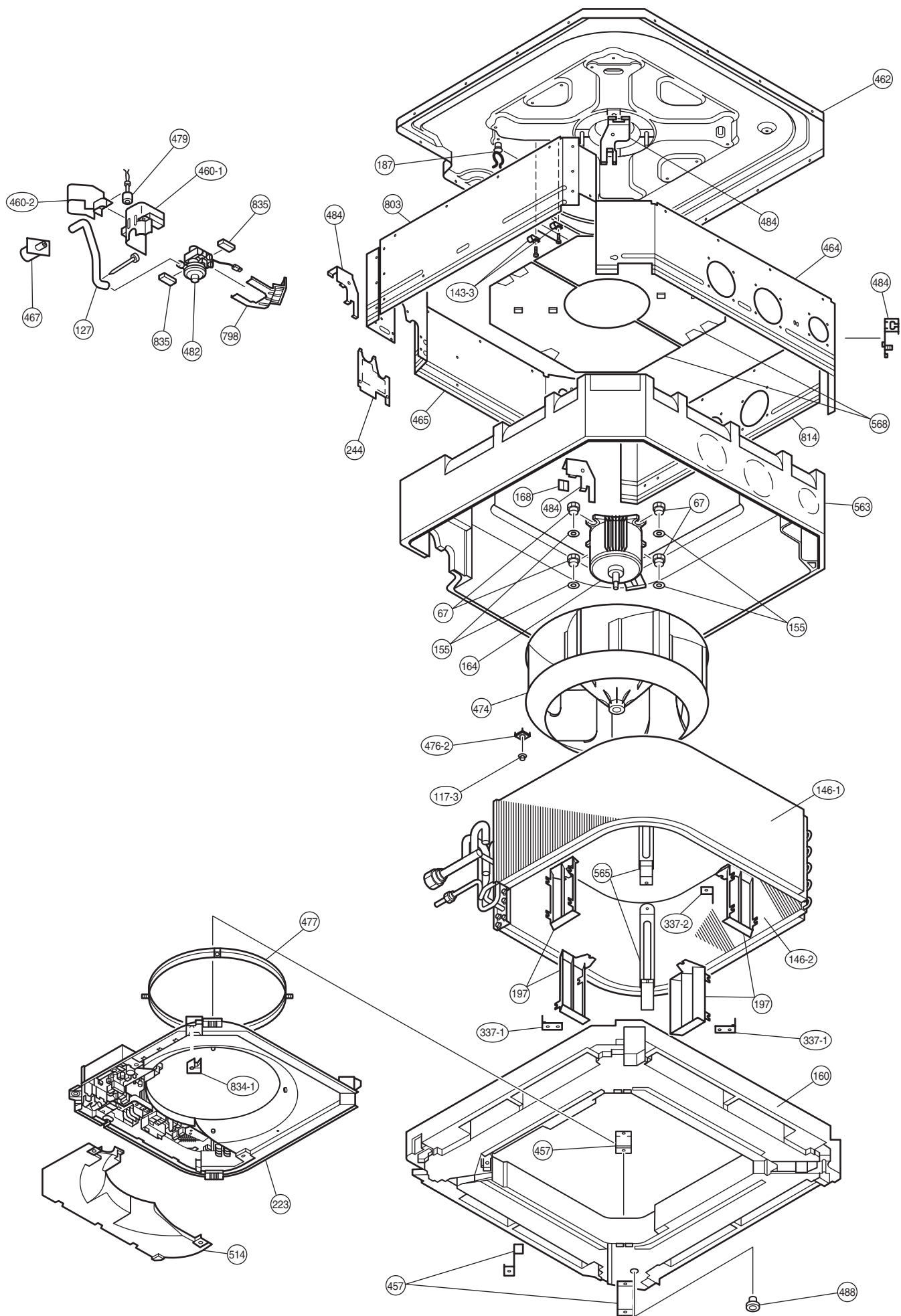
When the fault is cleared, the LED lamp goes off.

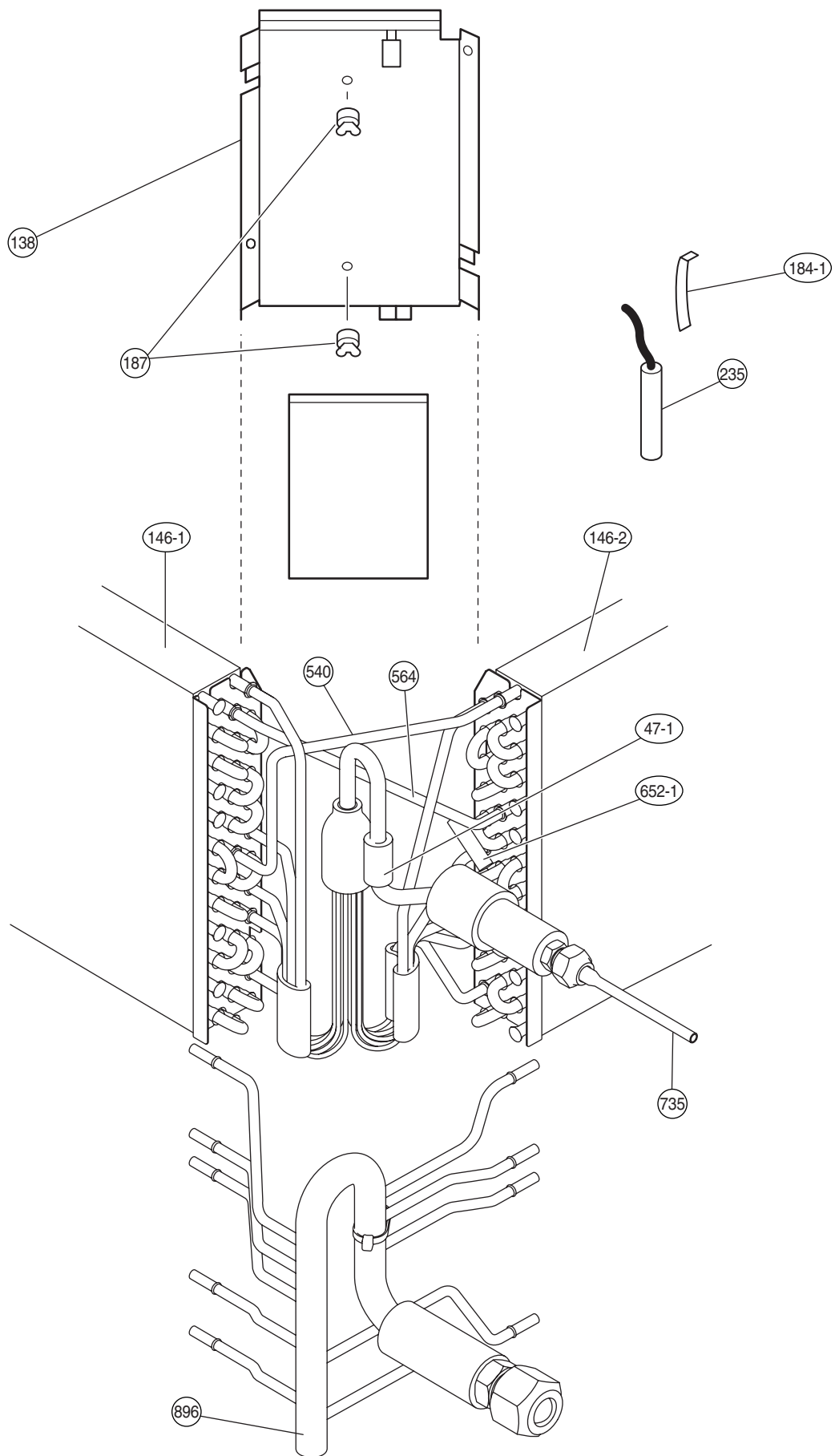
However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

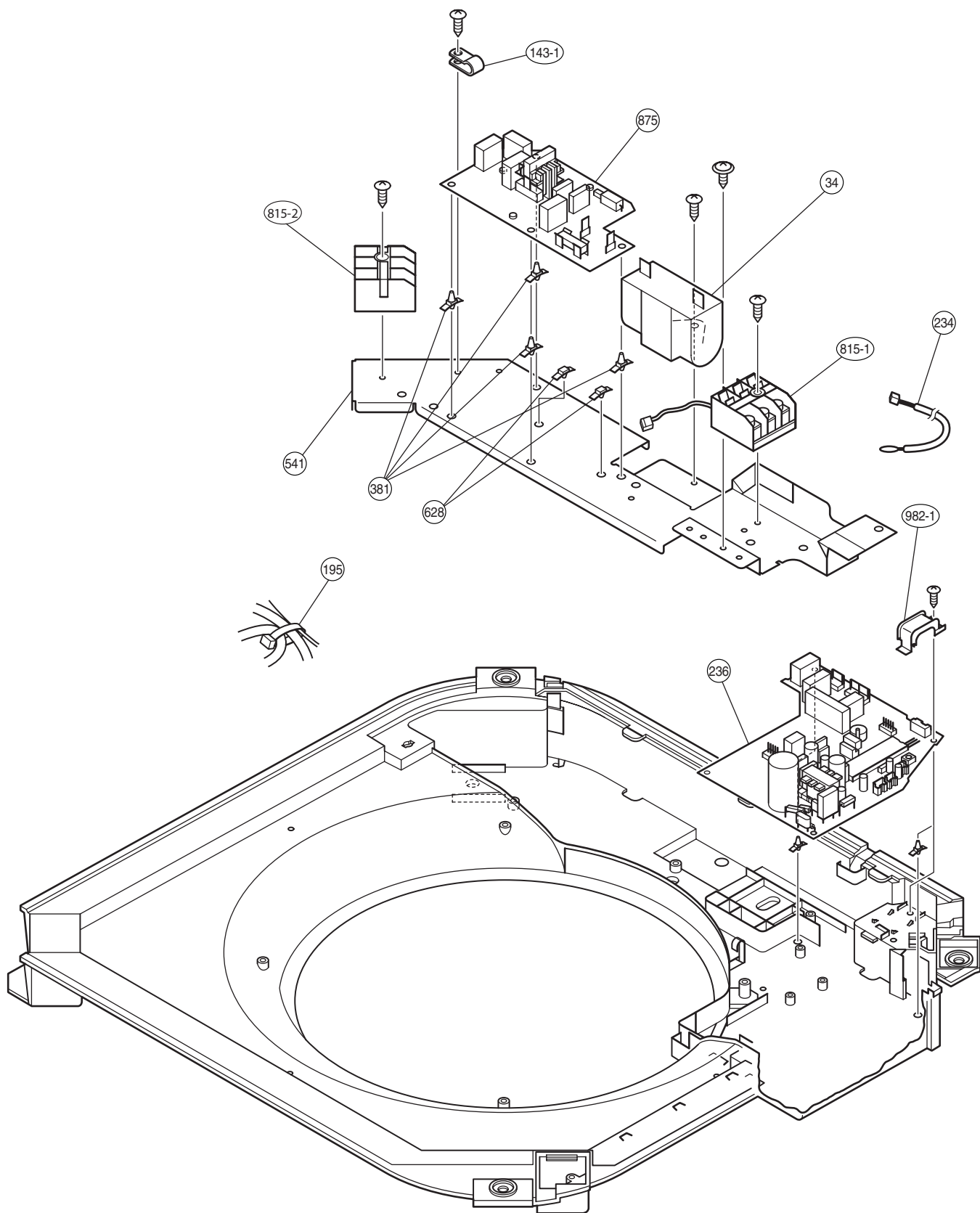
DISASSEMBLY ILLUSTRATION

Models : AUY45FUAS
AUY45UUAS

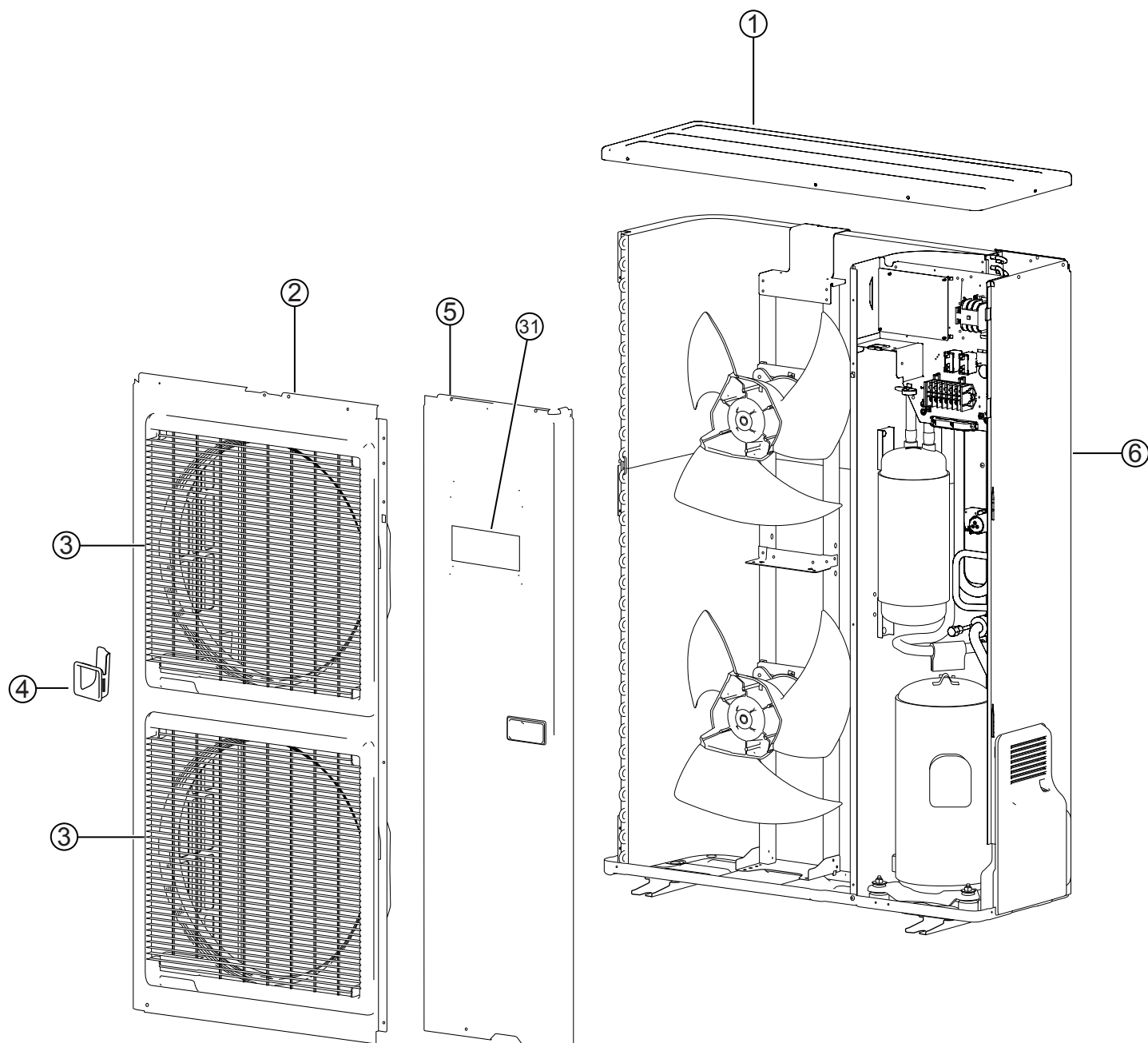




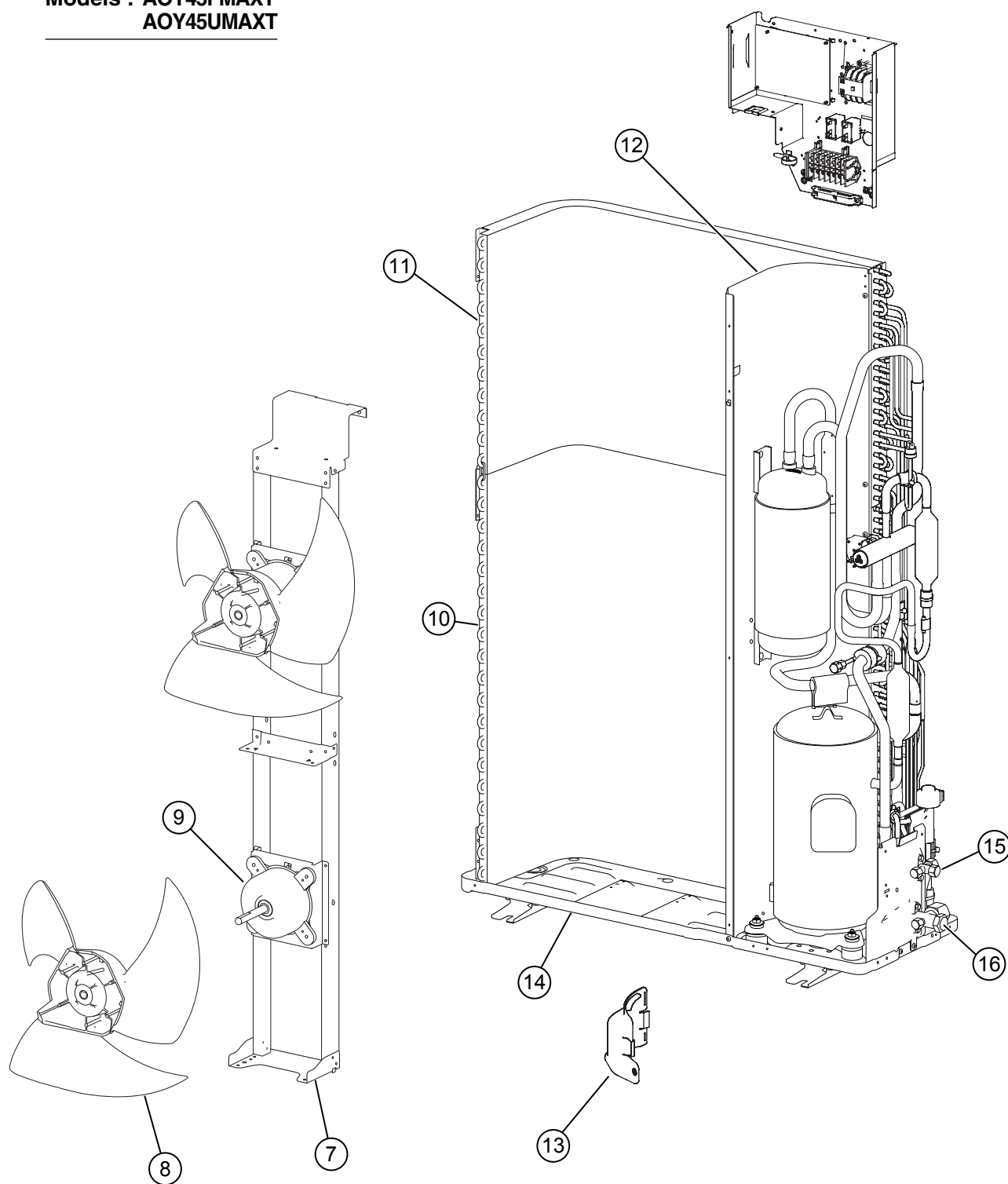




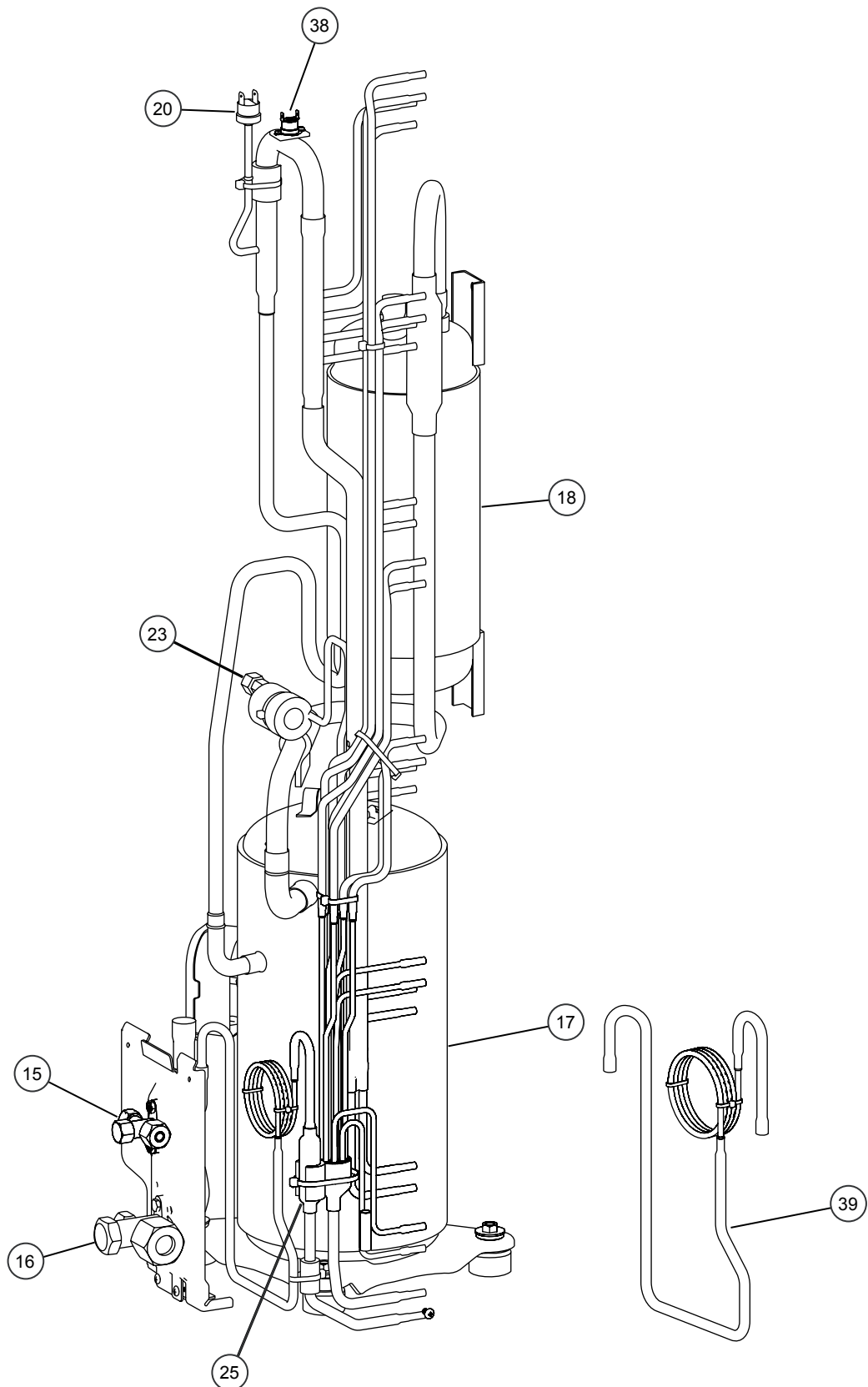
**Models : AOY45FMAXT
AOY45UMAXT**

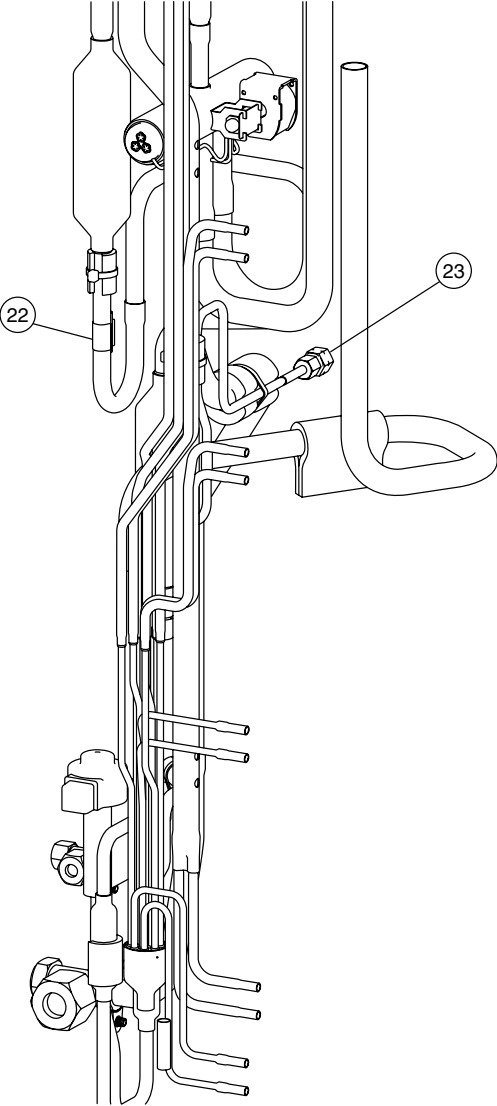
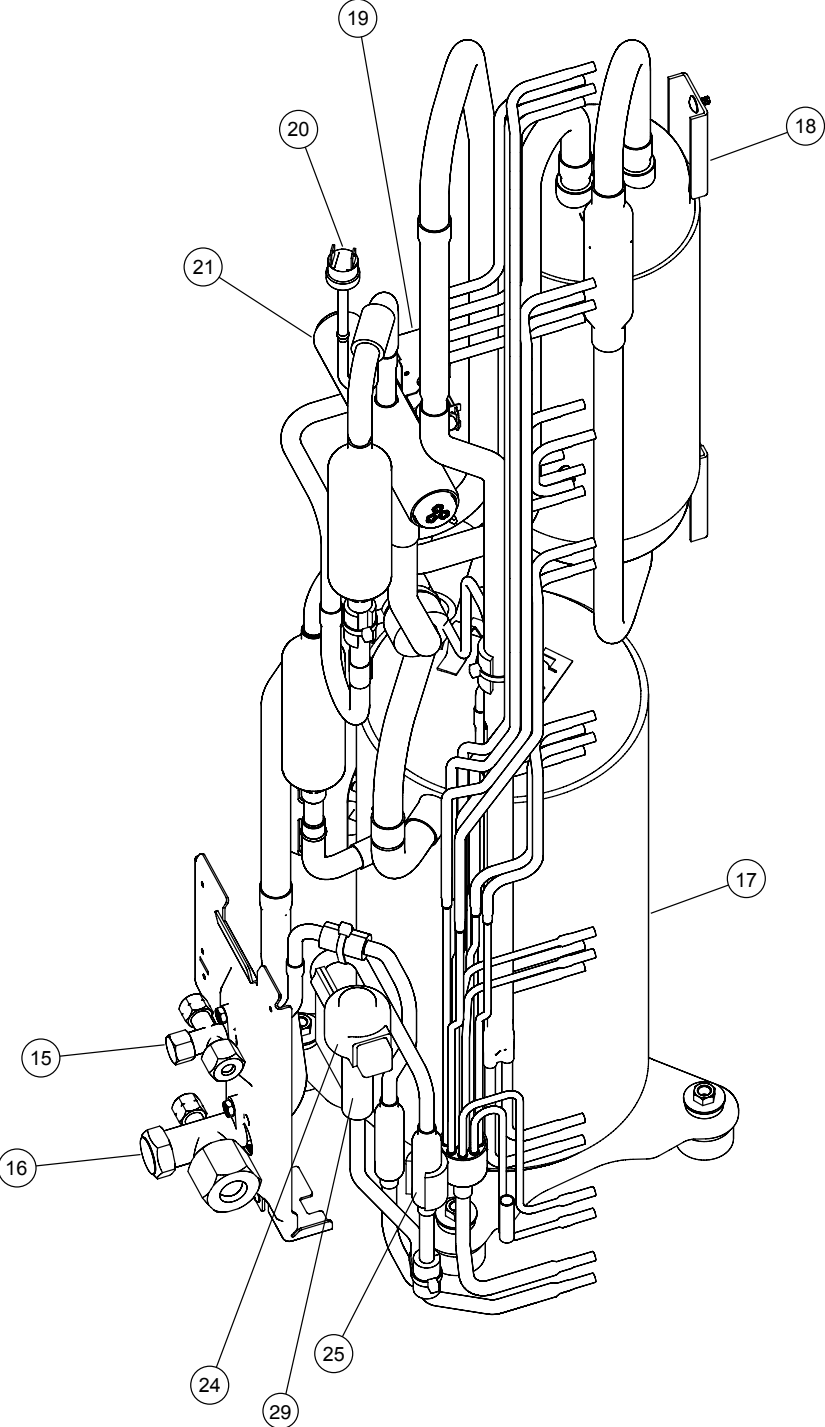


**Models : AOY45FMAXT
AOY45UMAXT**

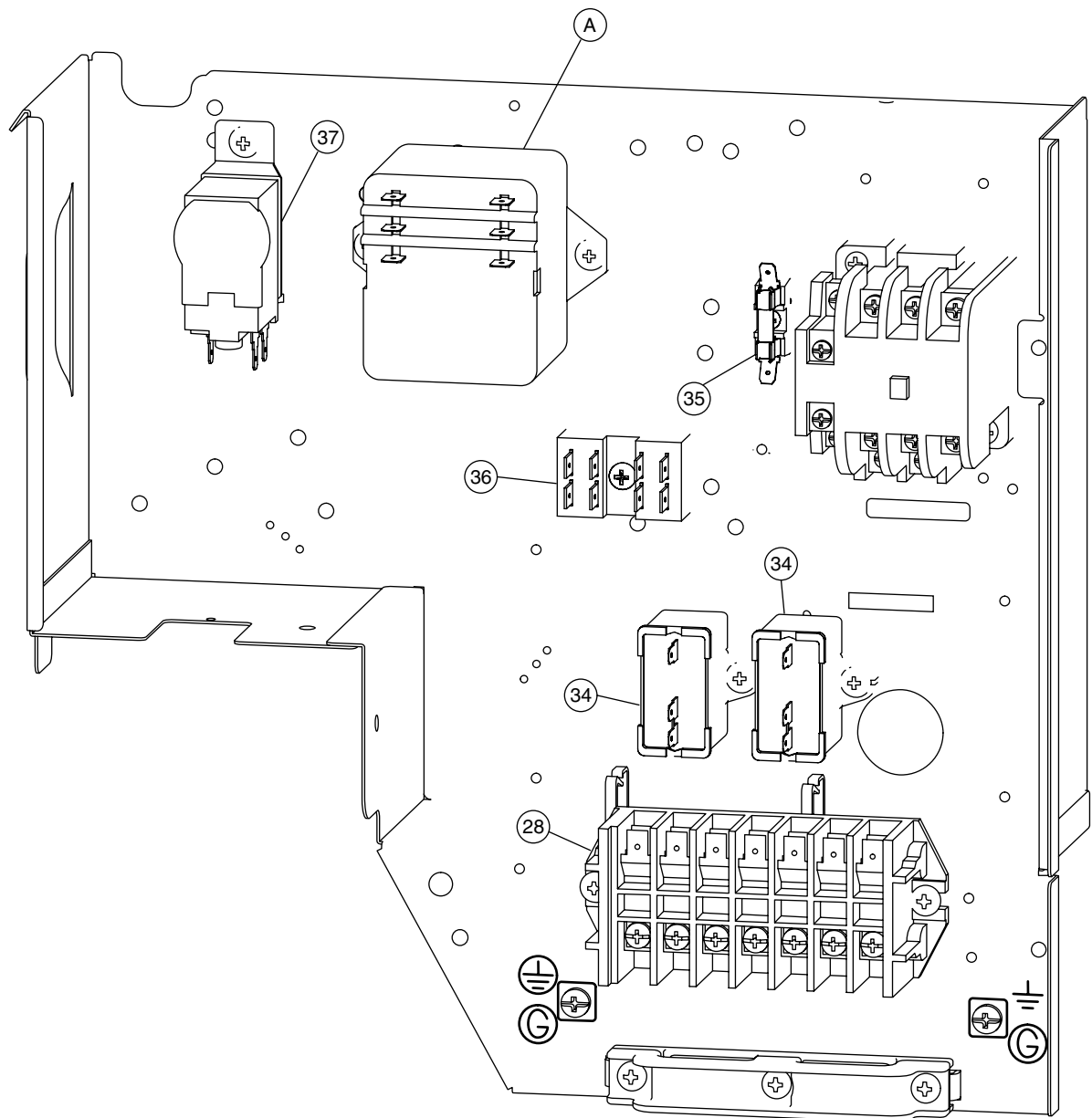


Model : AOY45FMAXT

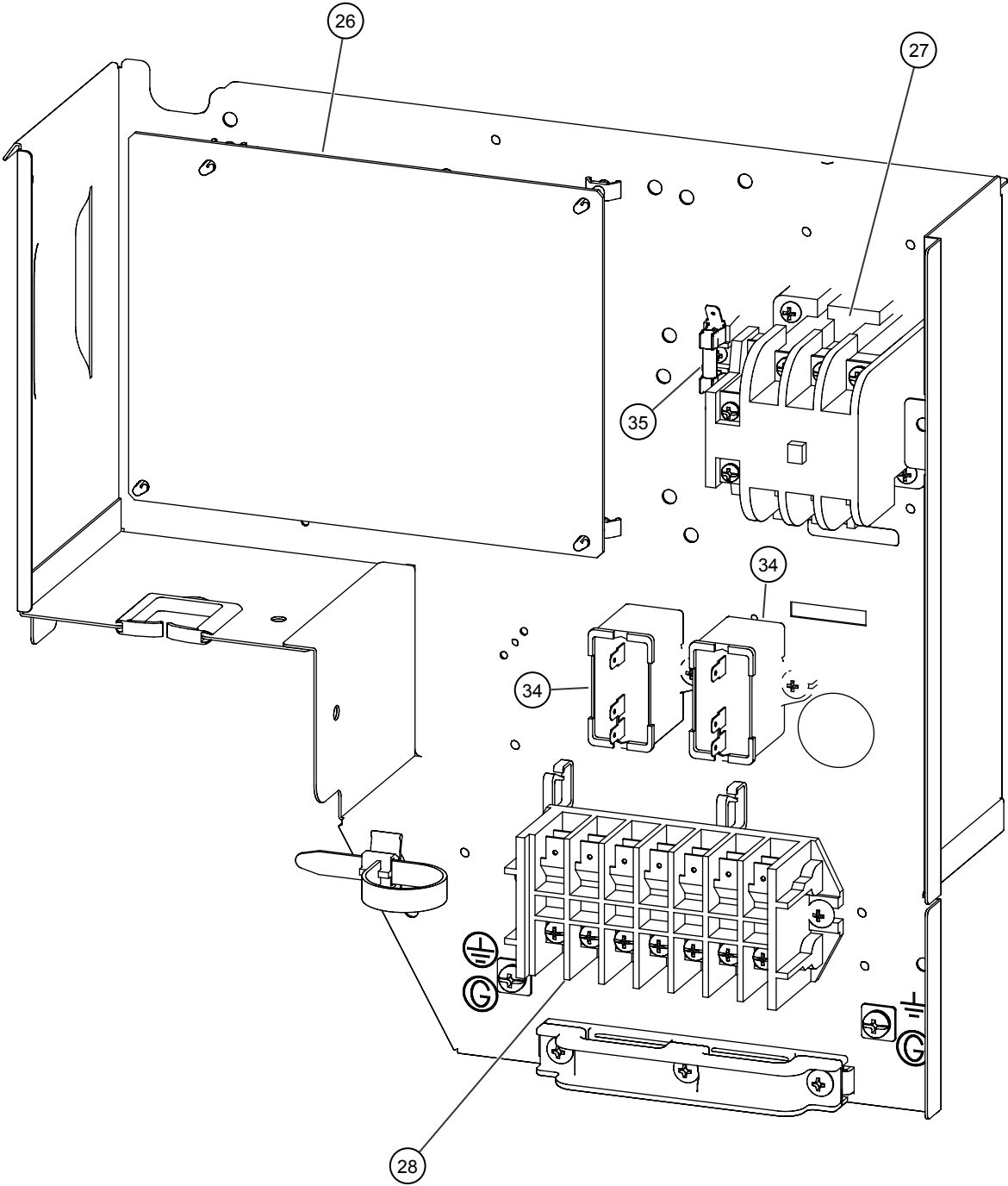




Model : AOY45FMAXT



Model : AOY45UMAXT



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Parts No.		Ord. Q'ty	Ref. No.	Description	Parts No.		Ord. Q'ty
		AUY45FUAS	AUY45UUAS				AUY45FUAS	AUY45UUAS	
34	Capacitor (Fan Motor)	9900270162	9900270162		472-5	Grille Reinforcement-T (E)	9362742009	9362742009	
47-1	Rubber (Discharge Pipe)	313194159807	313194159807		474	Turbo Fan Assy	9362803014	9362803014	
61	Decoration Plate	9362787000	9362787000		476-2	Spacial Washer	9362756006	9362756006	
67	Rubber (Vibration-proof)	9362783002	9362783002		477	Bellmouth-B	9362774000	9362774000	
71	Grille Hook Holder	9362782005	9362782005		479	Float Switch	9703285004	9703285004	
93	Filter	9362766005	9362766005		482	Pump Unit	9703125010	9703125010	
117-3	Hex. Nut w/Spring Washer	301721180114	301721180114		484	Hook	9362736008	9362736008	
122	Rubber Support Holder	9362799003	9362799003		487	Grille Hinge Wire	9362754002	9362754002	
127	Drain Hose	9362784009	9362784009		488	Drain Pan Plug	313005174654	313005174654	
138	Separate Wall	9362737005	9362737005		514	Control Box Cover	9362763004	9362763004	
143-1	Clamp NK-3N	313361274700	313361274700		522	Joint Gear	9362772006	9362772006	
143-3	Clamp NK-9N	313209399700	313209399700		540	Bypass Pipe-B	9371346069	9371346069	
146-1	Evaporator-A Assy	9373799047	9373799047		541	Terminal Plate	9363642001	9363642001	
146-2	Evaporator-B Assy	9373800040	9373800040		542	Panel Base	9362759014	9362759014	
155	Special Nut M6	9307615016	9307615016		543	Panel Frame Holder	9362761017	9362761017	
160	Drain Pan Assy	9362804004	9362804004		544	Panel Base Holder	9362760010	9362760010	
164	Fan Motor Assy-IN	9601915010	9601915010		545	Panel Frame Holder	9362758017	9362758017	
168	Cabinet-E	9362735001	9362735001		563	Insulation (Inner Box)	9362768009	9362768009	
184-1	Thermistor Spring-A	313728262708	313728262708		564	Bypass Pipe-A Assy	9371324067	9371324067	
187	Clamp No. 1219	313361271706	313361271706		565	Evaporator Holder Assy	9362802017	9362802017	
195	Clamp SKB-100	313361275805	313361275805		568	Noise Insulation	9363143003	9363143003	
197	Wind Guide Board	9373444015	9373444015		628	Locking Spacer-B	313005446558	313005446558	
223	Control Box	9362762007	9362762007		652-1	Thermistor Holder Pipe	313806262805	313806262805	
226	Motor Gear	9362764001	9362764001		690	Joint-A	9362773003	9362773003	
234	Room Thermistor	9703299025	9703299025		692	Joint Shaft	9362771009	9362771009	
235	Pipe Thermistor	9703297014	9703297014		705	Louver	9362769013	9362769013	
236	Controller PCB Assy	9704557926	9704557919		710	Intake Grille	9362767019	9362767019	
240	Remote Control Unit	9372266069	9372266052		735	Distributor Assy	9371325101	9371325101	
244	Pipe Cover	9362748001	9362748001		777-1	Grille Hook-A	9362779012	9362779012	
253-A	Wire Assy (Remote)	9372714010	9372714010		777-2	Grille Hook-B	9362778015	9362778015	
337-1	Reinforcement (Eva.)-A	9362749008	9362749008		798	Pump Hook Bracket	9362753005	9362753005	
337-2	Reinforcement (Eva.)-B	9362750004	9362750004		803	Cabinet-D	9362734004	9362734004	
338	Motor Holder	9362765008	9362765008		814	Cabinet-C	9362733007	9362733007	
381	Locking Spacer	313209391506	313209391506		815-1	Terminal-3P	9306489069	9306489069	
457	Reinforcement (Drain Pan)	9362757003	9362757003		815-2	Terminal-3P	9703345012	9703345012	
460-1	Pump Cover-A	9362775007	9362775007		834-1	Wire Cover-A	9362789004	9362789004	
460-2	Pump Cover-B	9362776004	9362776004		834-2	Wire Cover-B	9362788007	9362788007	
462	Top Cover Plate	9362806015	9362806015		835	Cushion Rubber (Pump)	9362777001	9362777001	
464	Cabinet-A	9362800013	9362800013		847	Louver Supporter	9362770019	9362770019	
465	Cabinet-B	9362801010	9362801010		858	Grille Spring	9362755009	9362755009	
467	Drain Port	9362786003	9362786003		875	Power Supply PCB Assy	9704561237	9704561220	
468	Spacial Nut-A (Large)	313005446653	313005446653		876-2	Motor, Step	9360307019	9360307019	
469	Spacial Nut-B (Small)	313005446759	313005446759		896	Coupling Pipe Assy	9373038177	9373038177	
472-1	Grille Reinforcement-T (A)	9362738002	9362738002		982-1	Cord Clamp	9356857009	9356857009	
472-2	Grille Reinforcement-T (B)	9362739009	9362739009		---	Insulation (Grille)-A	9362780001	9362780001	
472-3	Grille Reinforcement-T (C)	9362740005	9362740005		---	Insulation (Grille)-B	9362781008	9362781008	
472-4	Grille Reinforcement-T (D)	9362741002	9362741002						

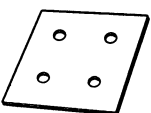
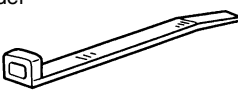
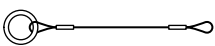
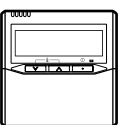
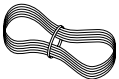
When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

OUTDOOR UNIT

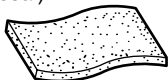
Ref.	Description	Part No.	
		AOY45FMAXT	AOY45UMAXT
1	Top Panel Sub Assy	9374417018	9374417018
2	Front Panel-L, Painted	9374094042	9374094042
3	Fan Guard	9374330010	9374330010
4	Side Grip	9374173013	9374173013
5	Service Panel Sub Assy	9374415021	9374415021
6	Right Panel Sub Assy	9374416028	9374416028
7	Motor Bracket Sub Assy	9374418022	9374418022
8	Propeller Fan Assy	9366378013	9366378013
9	Motor, Induction	9601671060	9601671060
10	Condenser-A Assy	9374433070	9374433032
11	Condenser-B Assy	9374434053	9374434039
12	Separate Wall-L	9374135028	9374135028
13	Cap Foot	9374345014	9374345014
14	Base Assy	9374166022	9374166022
15	3-Way Valve Assy	9372205044	9372205044
16	3-Way Valve Assy	9372205099	9372205099
17	Compressor Assy	9374251018	9374251018
18	Accumulator Assy	9371615011	9371615011
19	Solenoid	-----	9900165055
20	Pressure Switch	9900276010	9900186012
21	4-Way Valve	-----	9900164010
22	Compressor temp. Thermistor	-----	9900277017
23	Check Valve Assy	9374274017	9374274017
24	Coil (Expansion Valve)	-----	9900190026
25	Strainer Assy	9372524015	9372524015
26	Controller PCB Assy	-----	9705677029
27	Magnetic Relay	9900078010	9900078010
28	Terminal-7P	9363276039	9363276039
29	Expansion Valve	-----	9900170011
31	Emblem Rear	9351355005	9351355005
34	Capacitor (Fan Motor)	9900270049	9900270049
35	Fuse	0600376086	0600376086
36	Terminal-2P	9701971015	-----
37	Thermostat (Outdoor)	9900275013	-----
38	Thermostat (Overheat)	9354061002	-----
39	Capillary Assy	9372197356	-----
A	Relay	9900287016	-----
----	Thermistor Assy	-----	9900274016
----	Drain Cap	-----	313166024302
----	Drain Pipe	-----	9301102000

STANDARD ACCESSORIES

INDOOR UNIT ACCESSORIES

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 ACCESSORIES

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

Please contact Overseas Marketing Division directly about the following options.

ADDITIONAL GRILLE ASSY : UTG-AGEA-W (P/N 9002230002)
Simple remote controller : UTB-YPB (P/N 9077582006)

