

SPLIT TYPE
AIR CONDITIONER
CASSETTE TYPE (50Hz)

SERVICE MANUAL



Indoor unit	Outdoor unit
AUY54FUAS	AOY54FMAYT
AUY54UUAS	AOY54UMAYT

CONTENTS

SPECIFICATIONS	1
OUTLINE AND DIMENSIONS	2
REFRIGERANT SYSTEM DIAGRAM	4
CIRCUIT DIAGRAM	5
INDOOR PCB CIRCUIT DIAGRAM	7
OUTDOOR PCB CIRCUIT DIAGRAM	9
ERROR CONTENTS	10
DISASSEMBLY ILLUSTRATION	11
PARTS LIST	21

SPECIFICATIONS

TYPE	COOLING	COOLING & HEATING
INDOOR UNIT	AUY54FUAS	AUY54UUAS
OUTDOOR UNIT	AOY54FMAYT	AOY54UMAYT
COOLING CAPACITY	14.5 kW	14.5 kW
HEATING CAPACITY	-----	16.5 kW

ELECTRICAL DATA

POWER SOURCE		400 V	
FREQUENCY		50 Hz	
RUNNING CURRENT	COOLING	9.50 A	9.50 A
	HEATING	-----	9.50 A
INPUT WATTS	COOLING	5.16 kW	5.16 kW
	HEATING	-----	5.30 kW
E.E.R.	COOLING	2.81 kW/kW	2.81 kW/kW
	HEATING	-----	3.11 kW/kW
STARTING CURRENT		70 A	
MOISTURE REMOVAL (ℓ /hr)		6.0 L/hr	

COMPRESSOR

TYPE	Hermetic type, 2 pole, 3 phase, Induction motor, Scroll		
DISCRIMINATION	BN65YEAMT		
REFRIGERANT R410A	3,300 g	3,500 g	

FAN SPEED (r.p.m.)	INDOOR	HIGH	680 r.p.m.	
		MED	580 r.p.m.	
		LOW	500 r.p.m.	
		S-LOW	300 r.p.m.	
		OUTDOOR		780 r.p.m.
AIR FLOW (m³/h)	INDOOR		1,700 m3/h	
	OUTDOOR		6,300 m3/h	
DIMENSIONS H x W x D	INDOOR		296 x 830 x 830 mm	
	GRILLE		35 x 940 x 940 mm	
	OUTDOOR		1,290 x 900 x 330 mm	
WEIGHT NET / GROSS	INDOOR		40 kg / 55 kg	
	OUTDOOR		114 kg / 121 kg	118 kg / 125 kg
MAX PIPE LENGTH/HEIGHT			50 m / 30 m	
REMOTE CONTROLLER TYPE			WIRED	

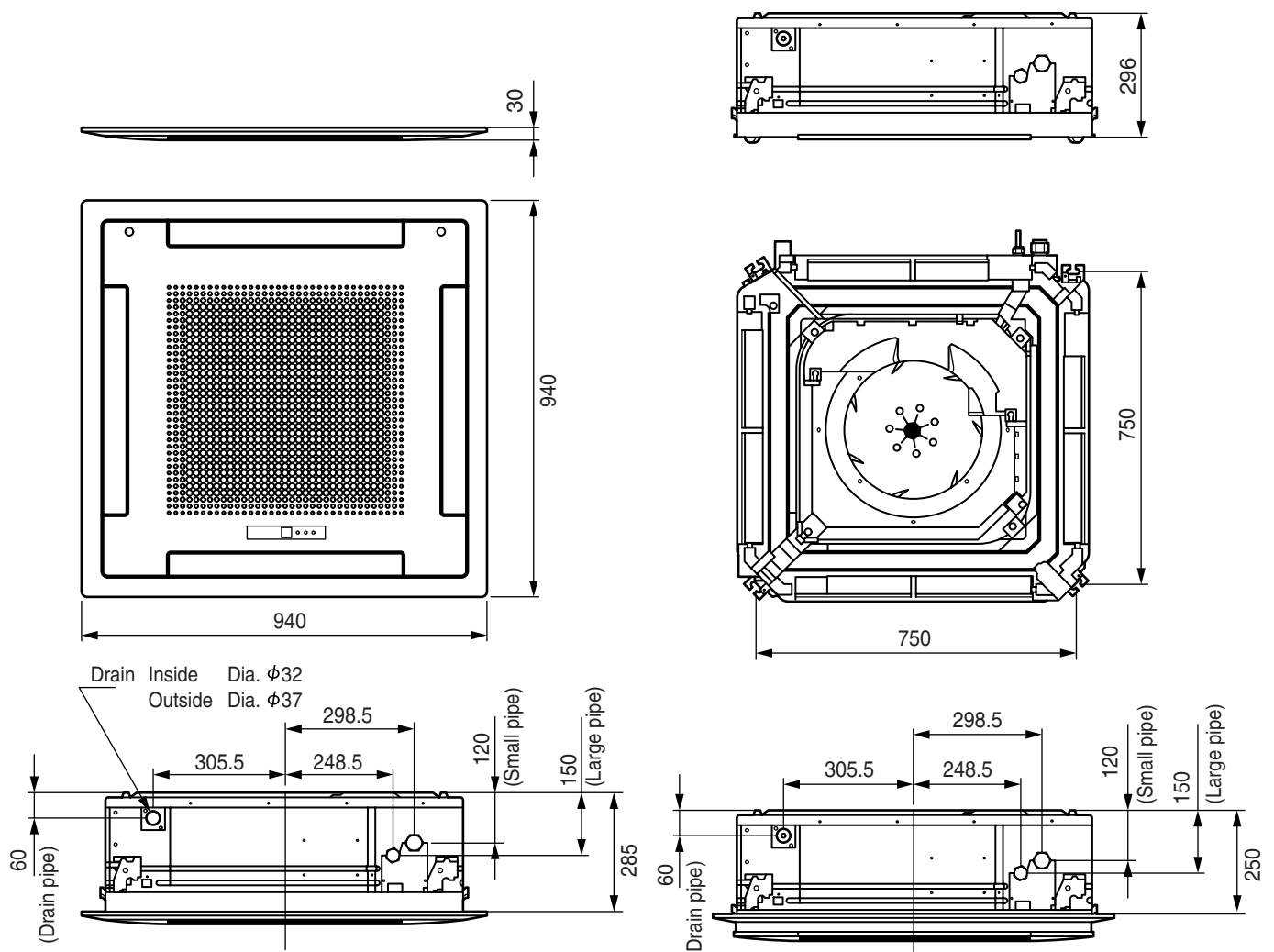
ADDITIONAL REFRIGERANT CHARGE (R410A)

FULL CHARGE AMOUNT	Pipe Length 20 m (66 ft.)	3,300 g (116.4 oz.)	3,500 g (123.5 oz.)
	30 m (99 ft.)	3,700 g (130.5 oz.)	3,900 g (137.6 oz.)
	40 m (132 ft.)	4,100 g (144.6 oz.)	4,300 g (151.7 oz.)
	50 m (164 ft.)	4,500 g (158.7 oz.)	4,700 g (165.8 oz.)
ADDITIONAL CHARGE		40 g / m (0.427 oz. / ft.)	

OUTLINE AND DIMENSIONS

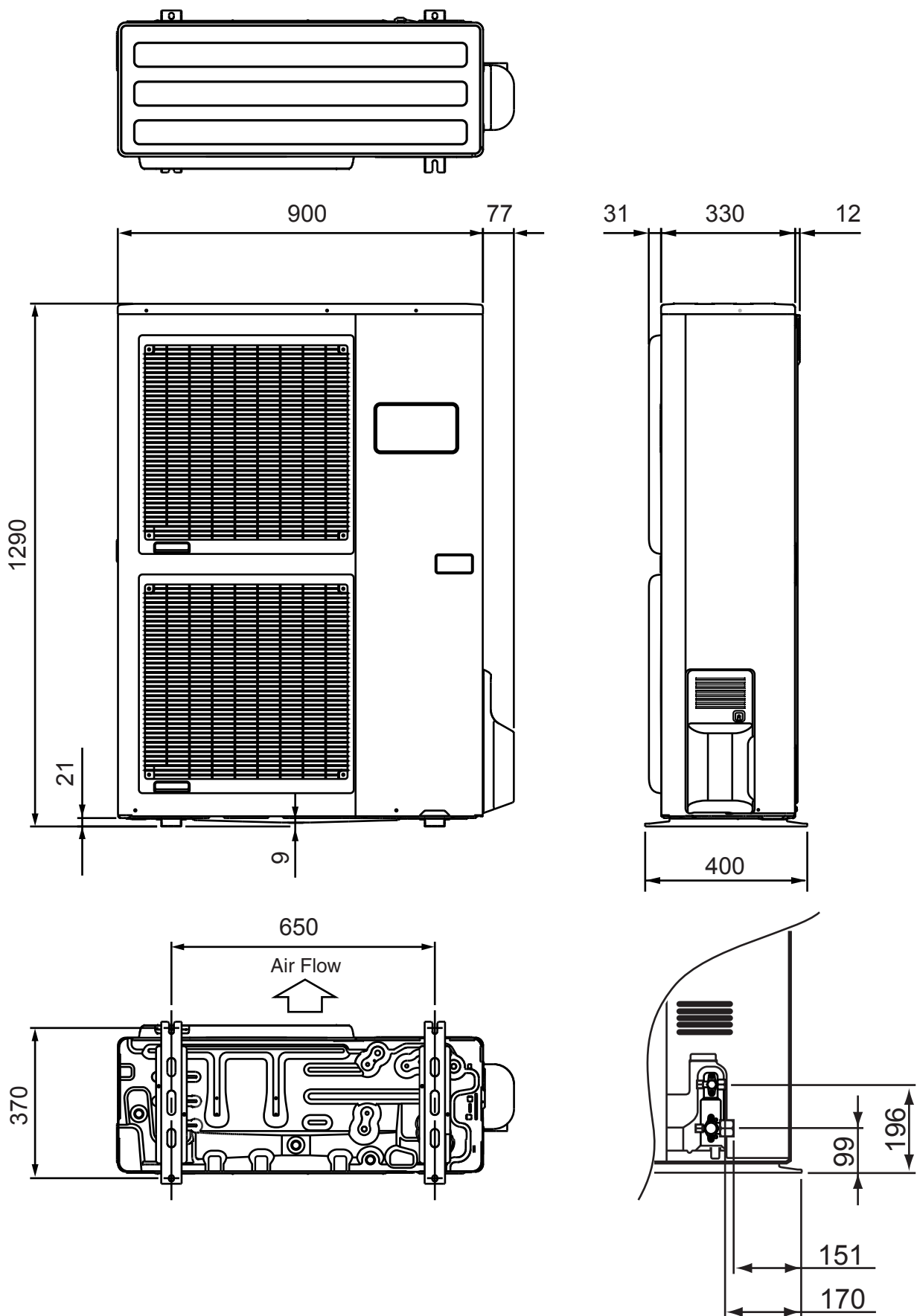
INDOOR UNIT (Unit : mm)

Models : AUY54FUAS
AUY54UUAS



OUTDOOR UNIT (Unit : mm)

Models : AOY54FMAYT
AOY54UMAYT

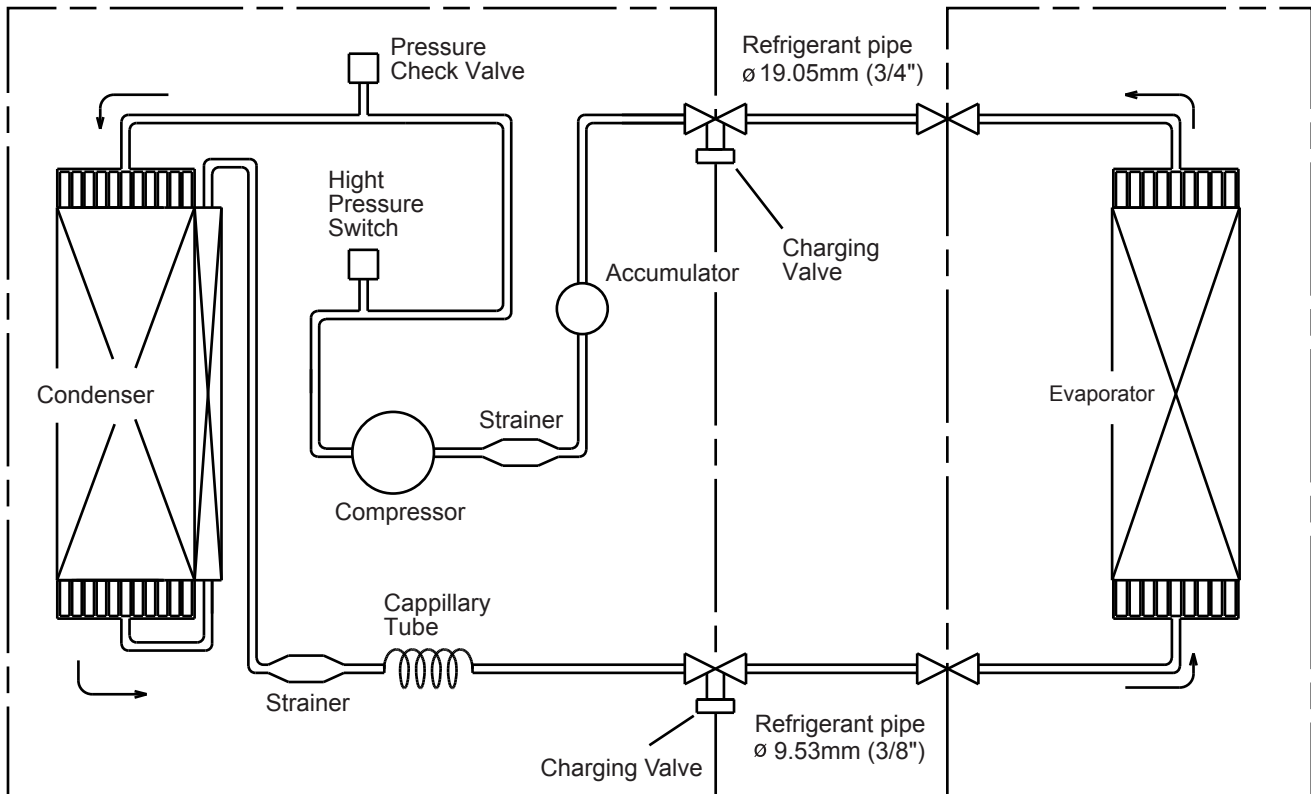


REFRIGERANT SYSTEM DIAGRAM

Models : AUY54FUAS / AOY54FMAYT

OUTDOOR UNIT

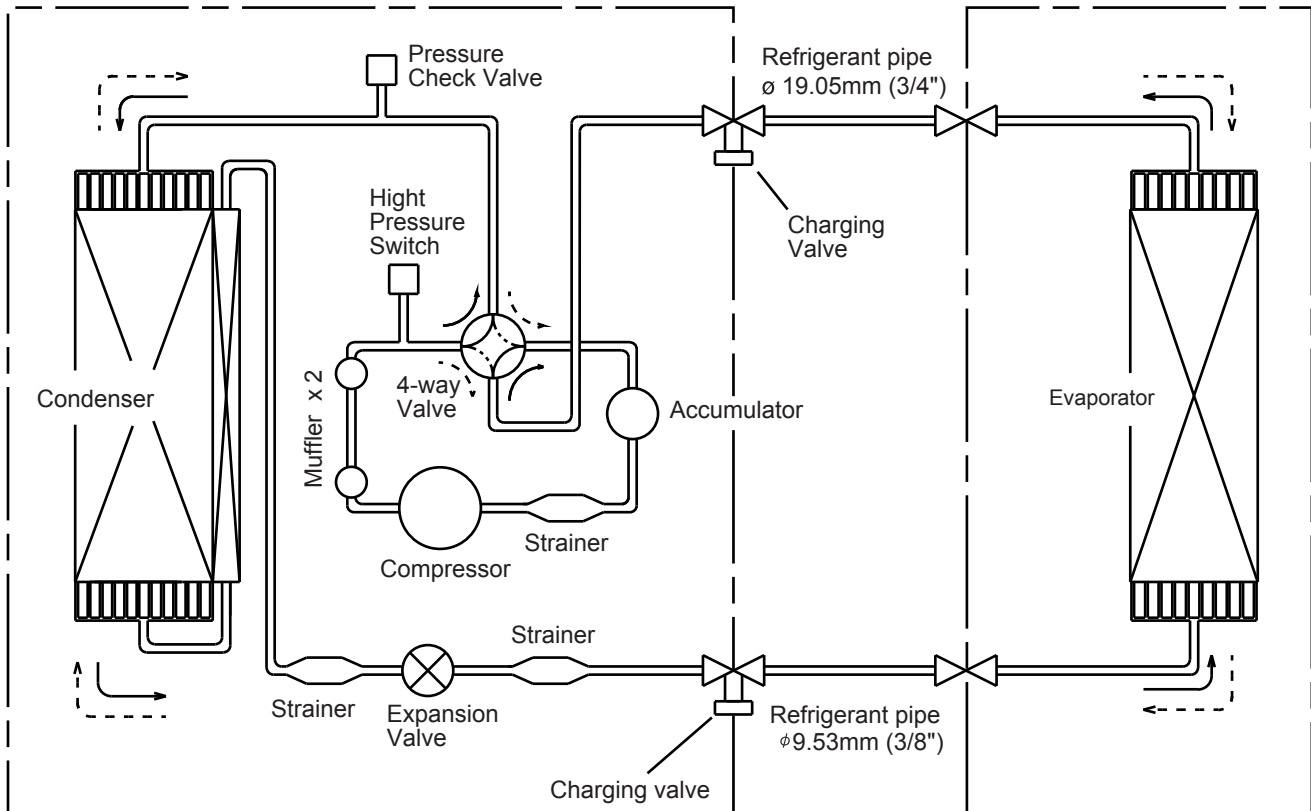
INDOOR UNIT



Models : AUY54UUAS / AOY54UMAYT

OUTDOOR UNIT

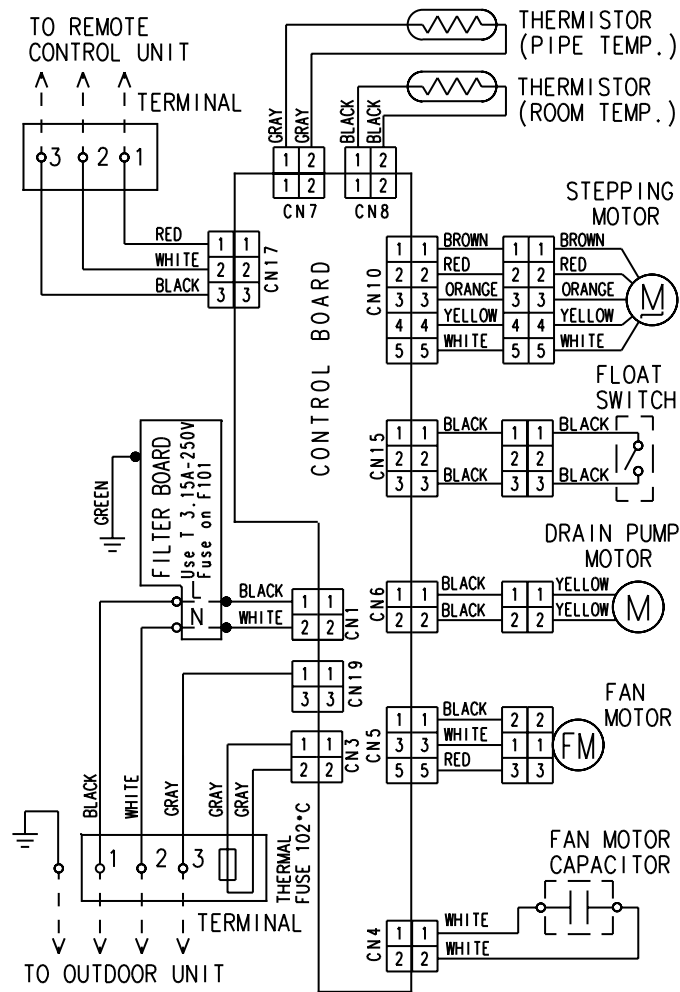
INDOOR UNIT



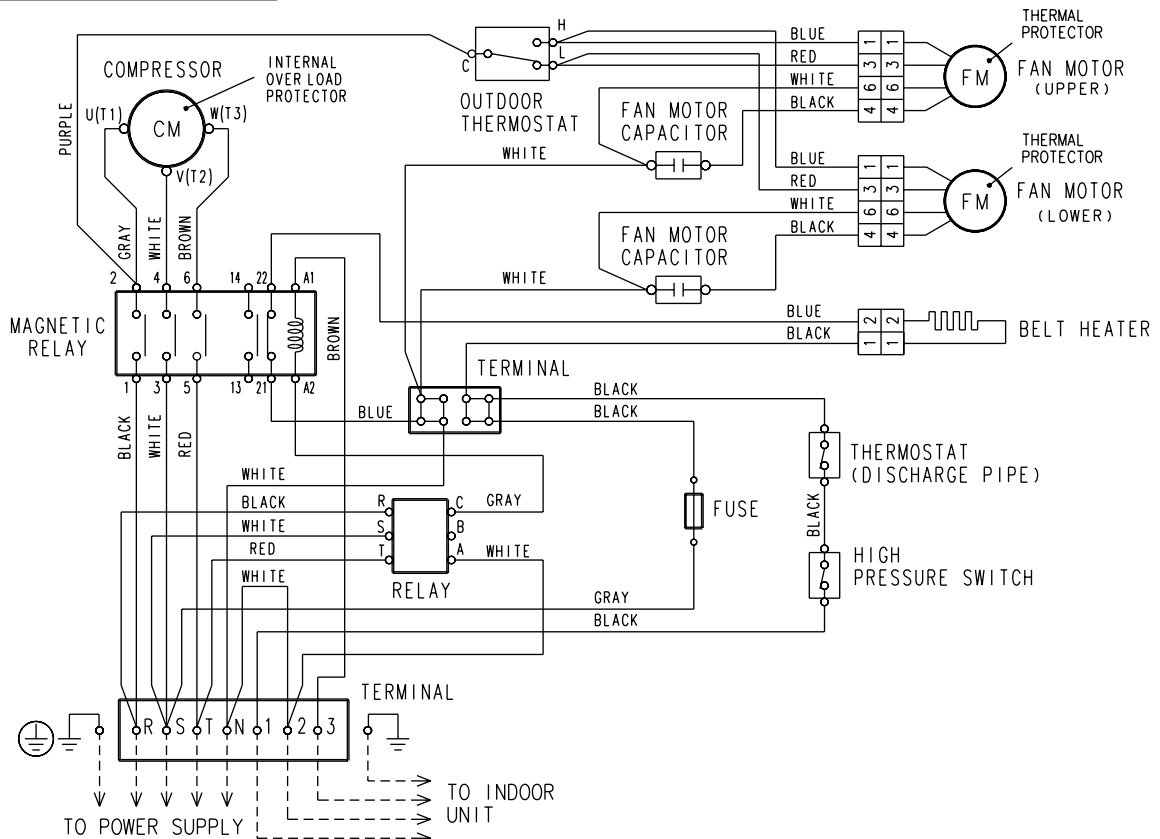
→ : COOL
 - - -> : HEAT

CIRCUIT DIAGRAM

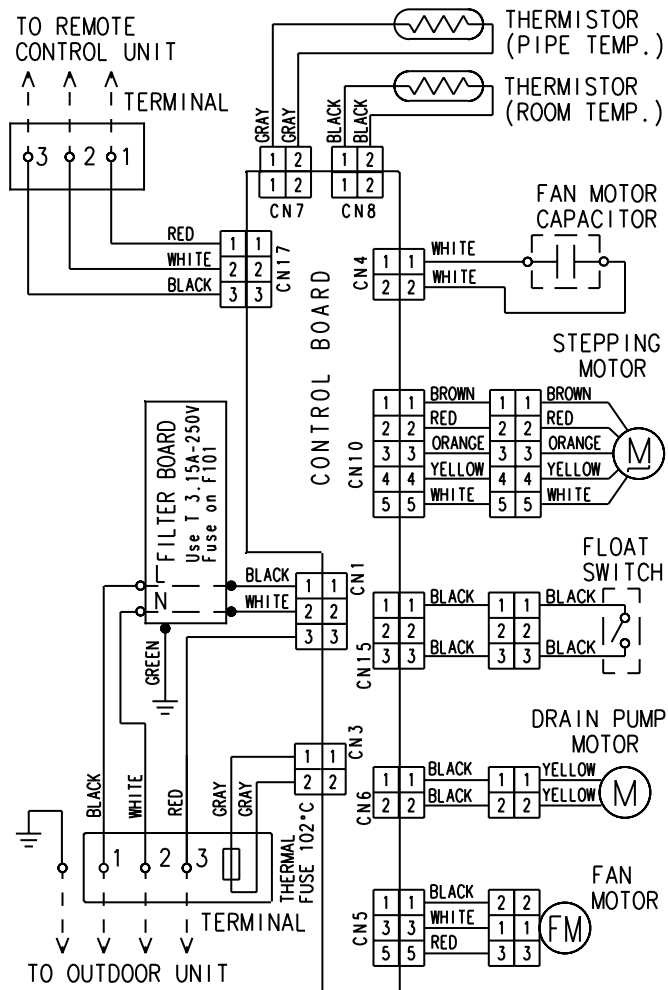
Model : AU54FUAS



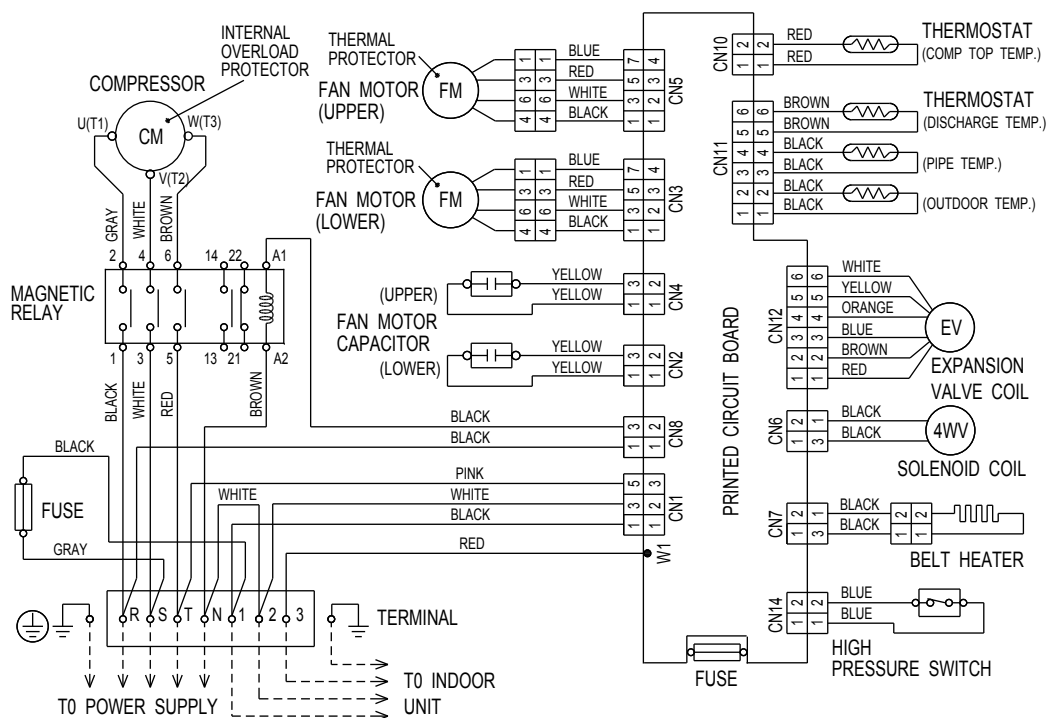
Model : AOY54FMAYT



Model : AUY54UUAS

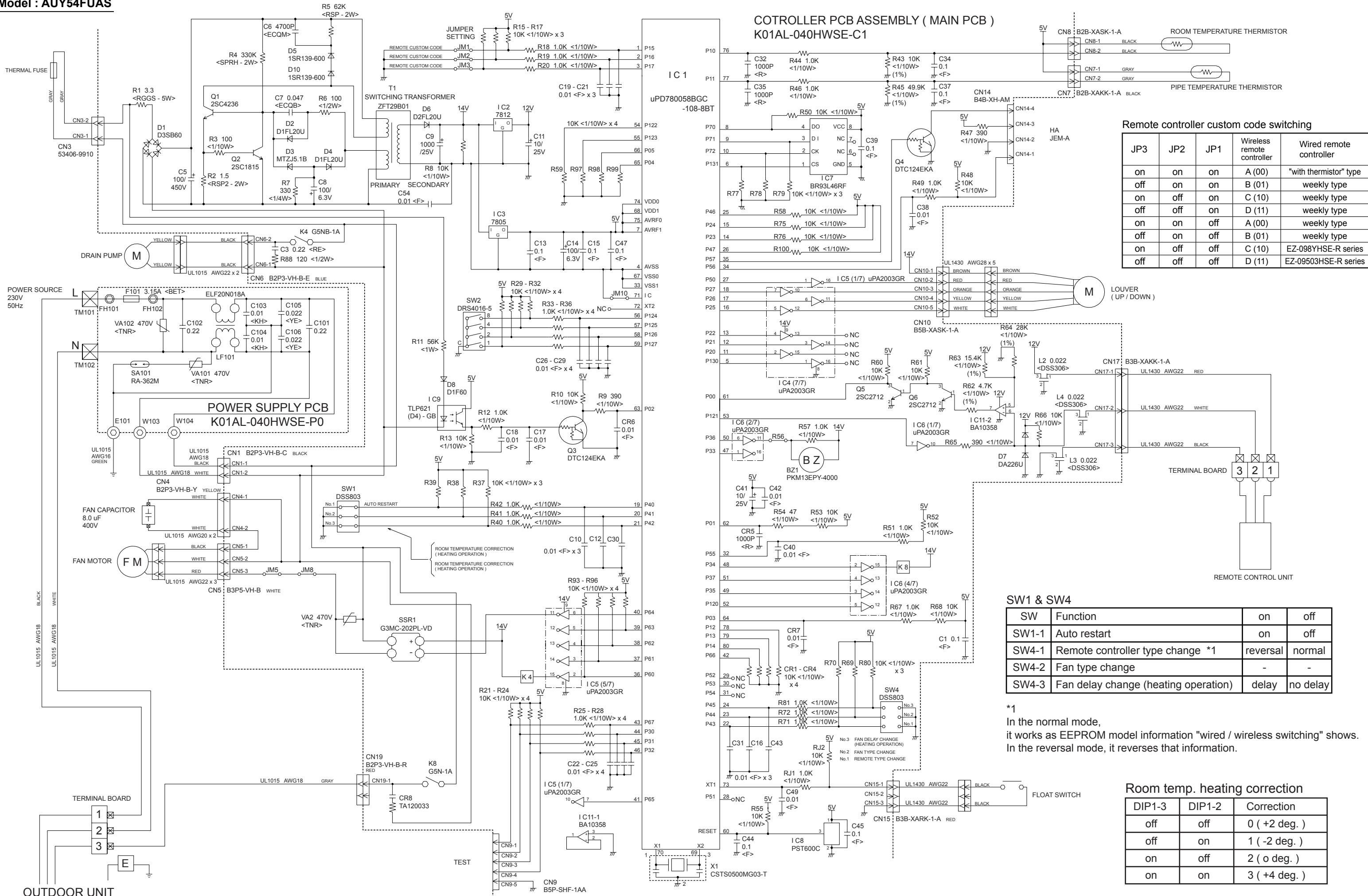


Model : AOY54UMAYT



INDOOR PCB CIRCUIT DIAGRAM

Model : AUY54FUAS



Remote controller custom code switching

JP3	JP2	JP1	Wireless remote controller	Wired remote controller
on	on	on	A (00)	"with thermistor" type
off	on	on	B (01)	weekly type
on	off	on	C (10)	weekly type
off	off	on	D (11)	weekly type
on	on	off	A (00)	weekly type
off	on	off	B (01)	weekly type
on	off	off	C (10)	EZ-098YHSE-R series
off	off	off	D (11)	EZ-09503HSE-R series

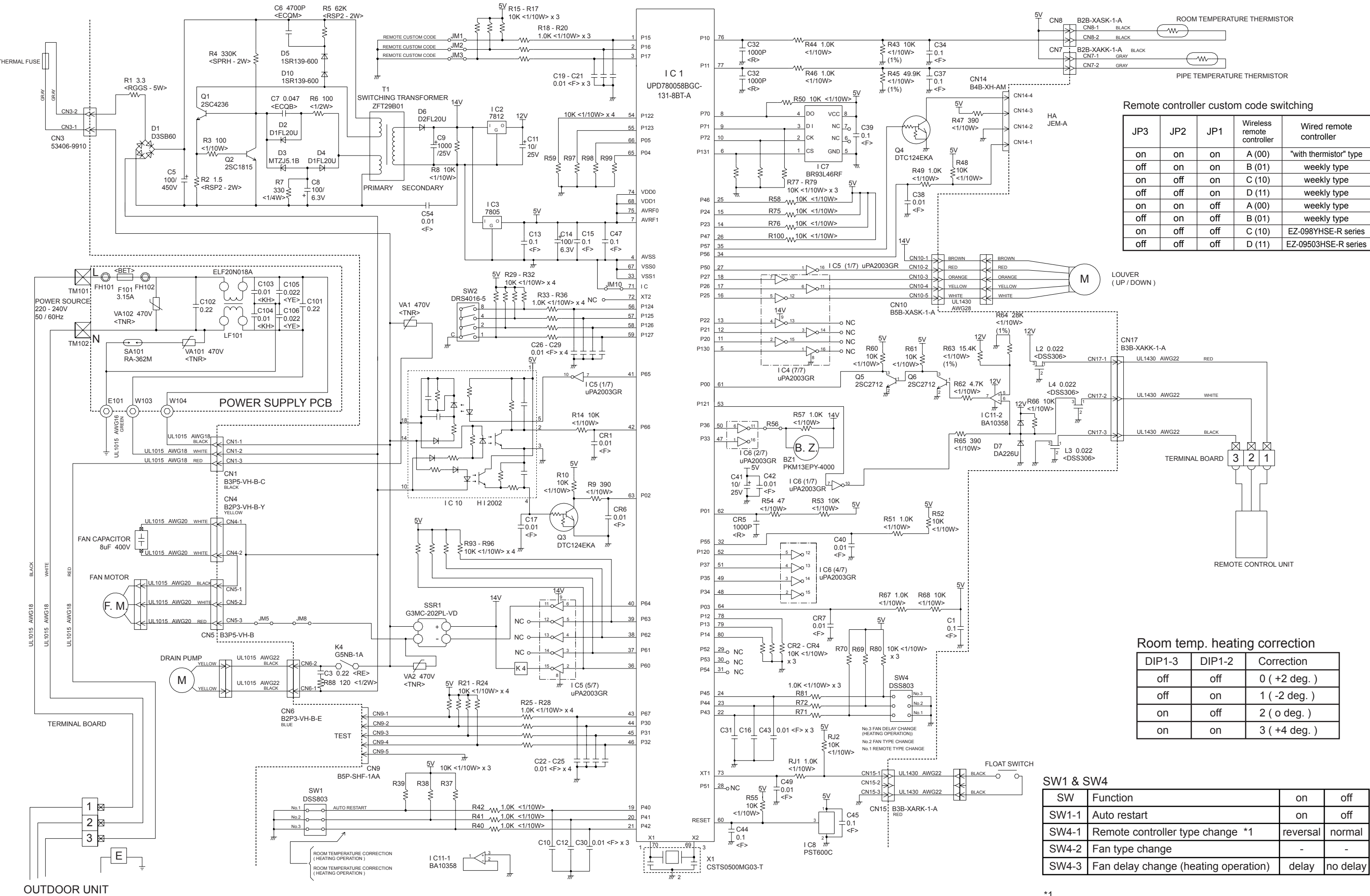
SW1 & SW4

SW	Function	on	off
SW1-1	Auto restart	on	off
SW4-1	Remote controller type change *1	reversal	normal
SW4-2	Fan type change	-	-
SW4-3	Fan delay change (heating operation)	delay	no delay

*1
In the normal mode,
it works as EEPROM model information "wired / wireless switching" shows.
In the reversal mode, it reverses that information.

Room temp. heating correction

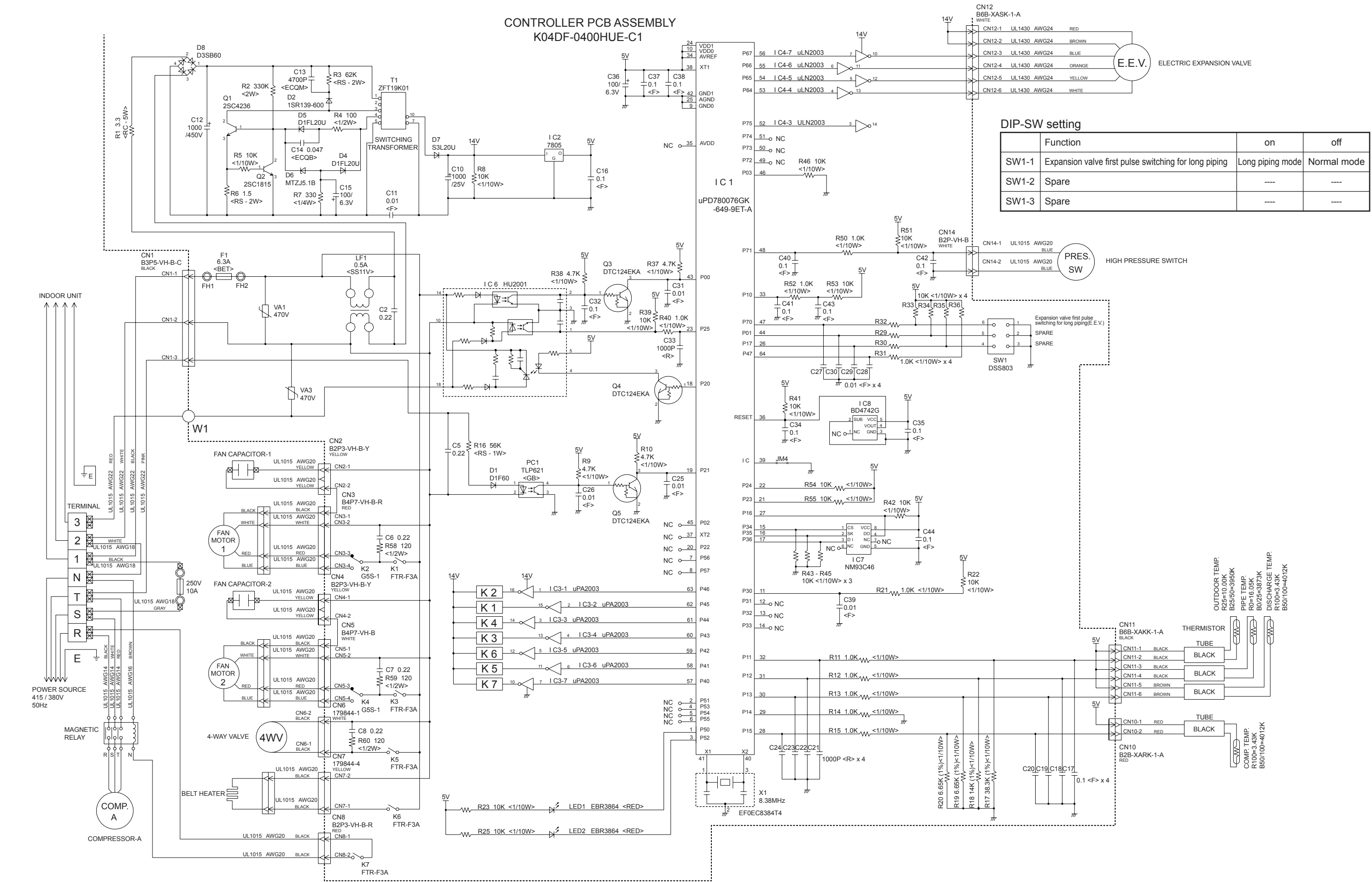
DIP1-3	DIP1-2	Correction
off	off	0 (+2 deg.)
off	on	1 (-2 deg.)
on	off	2 (o deg.)
on	on	3 (+4 deg.)



*1
In the normal mode,
it works as EEPROM model information "wired / wireless switching" shows.
In the reversal mode, it reverses that information.

OUTDOOR PCB CIRCUIT DIAGRAM

Model : AOY54UMAYT

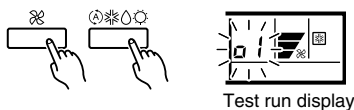


ERROR DISPLAY

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.



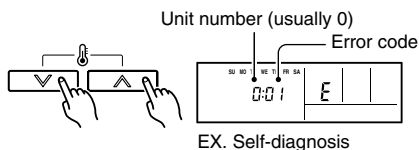
- (3) Press the start/stop button to stop the test run.

[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
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

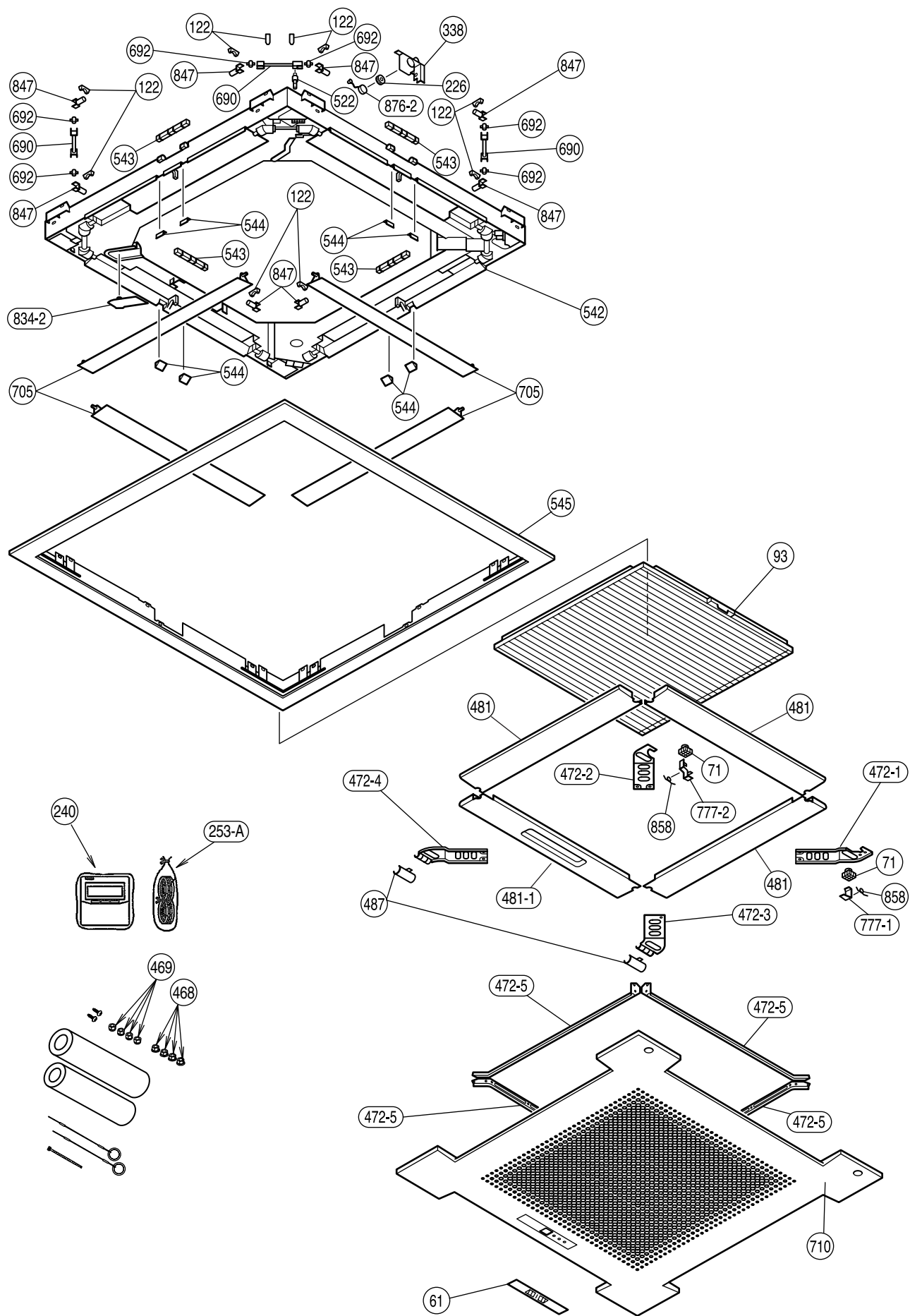


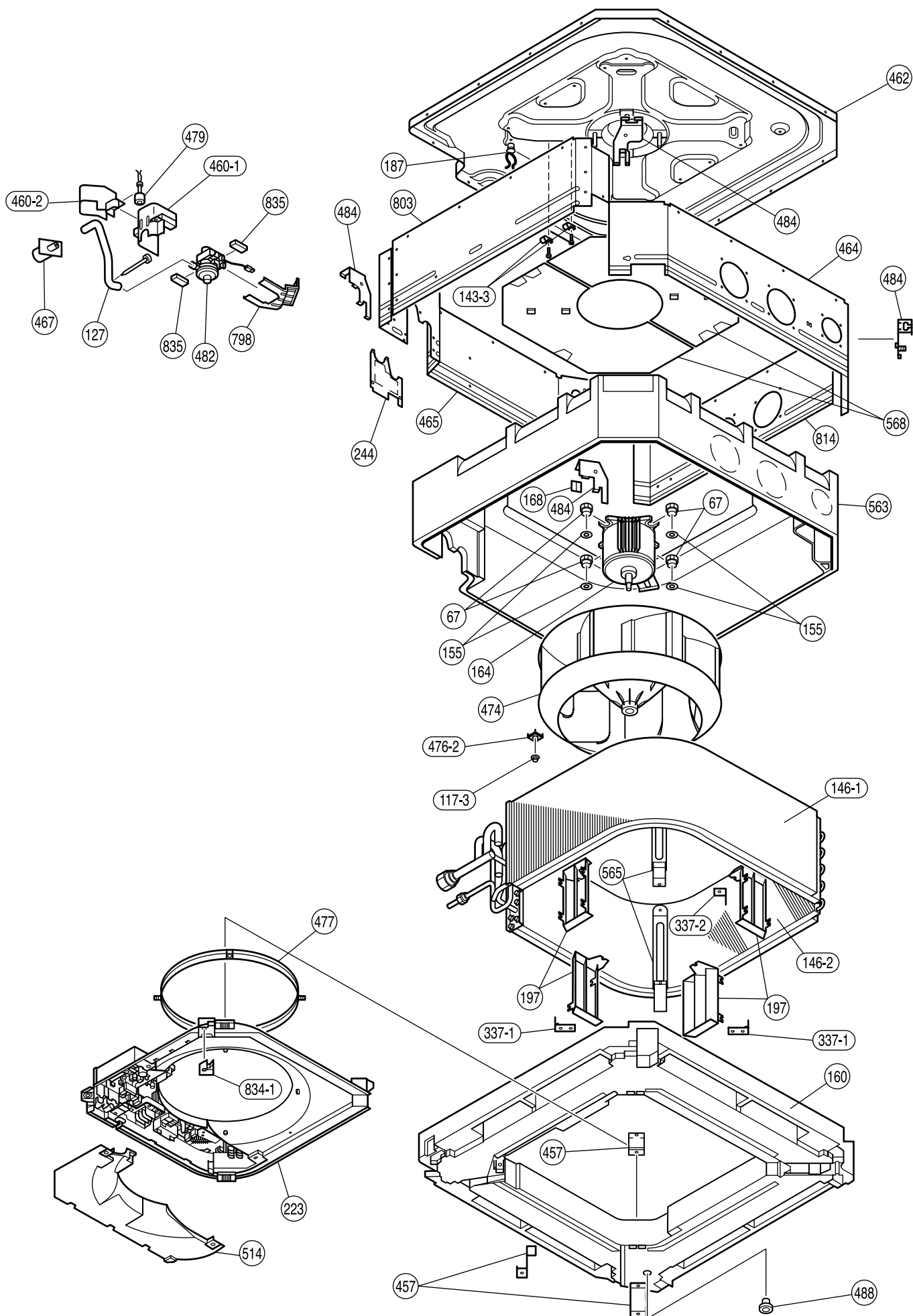
LED1	LED2	Error contents
flash	flash	Model abnormal or EEPROM abnormal
1 flash	Lighting	Power source connection error
2 flash	Lighting	Discharge temp. sensor error
3 flash	Lighting	Heat exchanger temp. sensor error
4 flash	Lighting	Outdoor temp. sensor error
5 flash	Lighting	Communication signal error
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

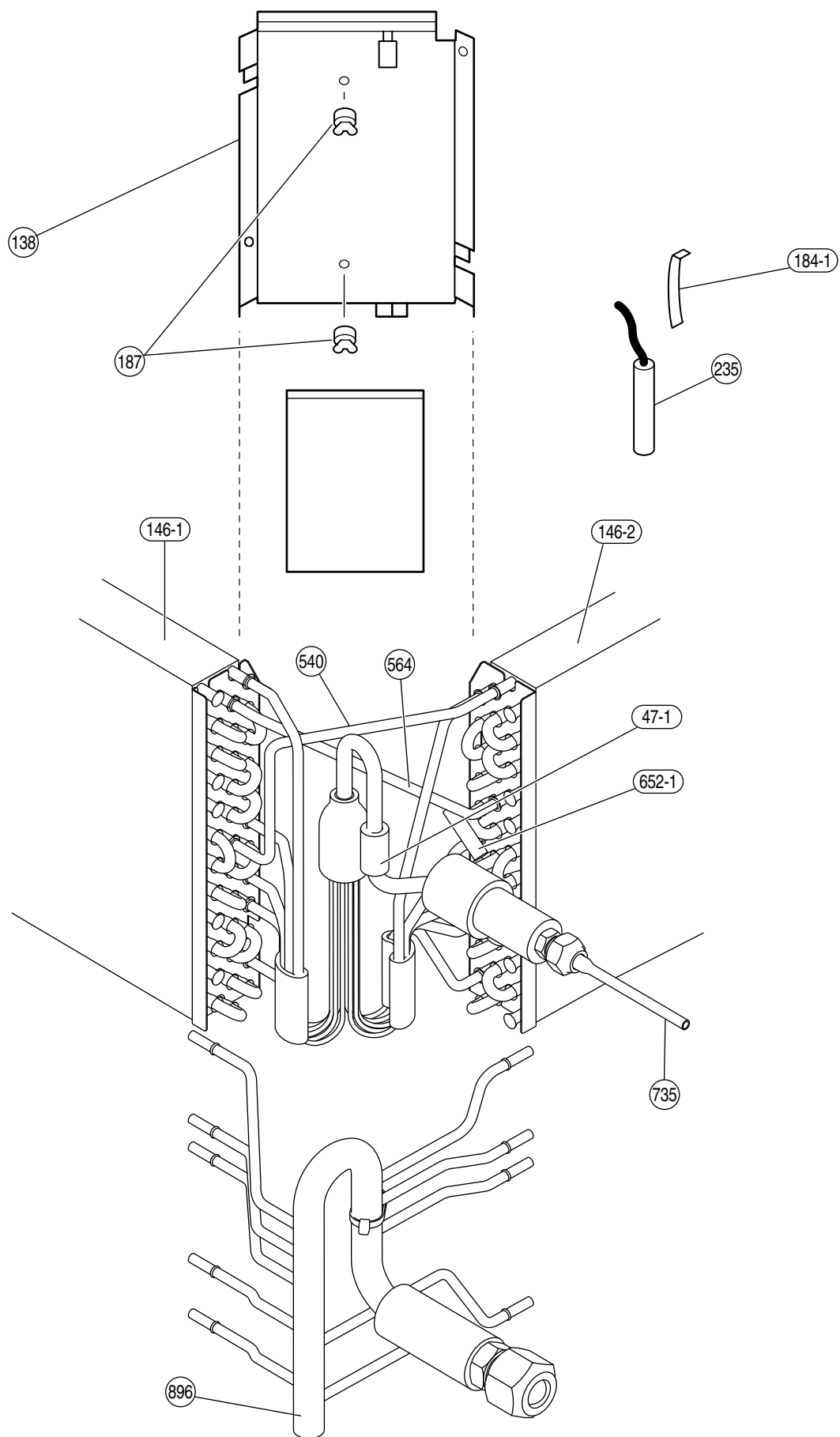
When the fault is cleared, the LED lamp goes off. However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

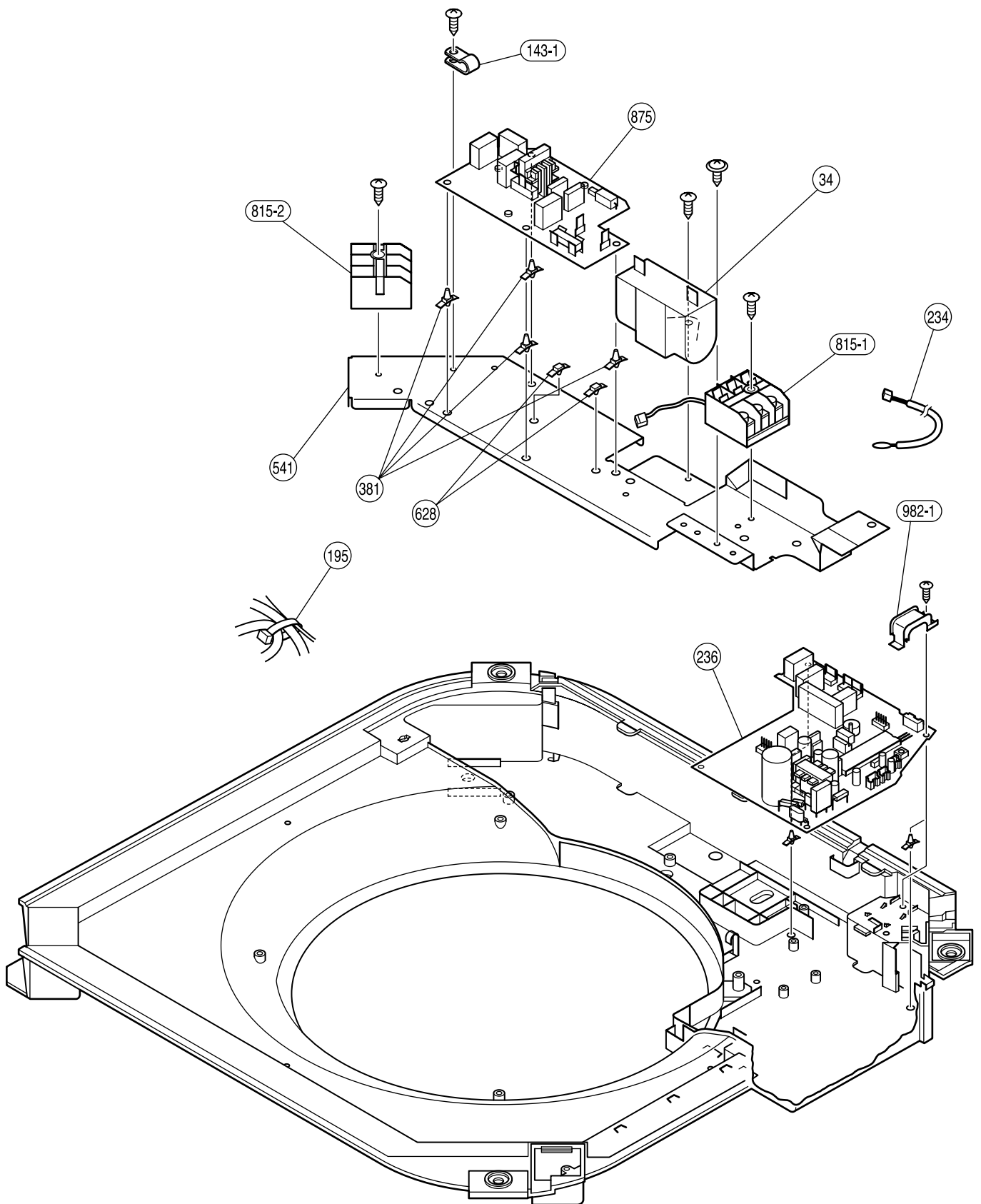
DISASSEMBLY ILLUSTRATION

INDOOR UNIT

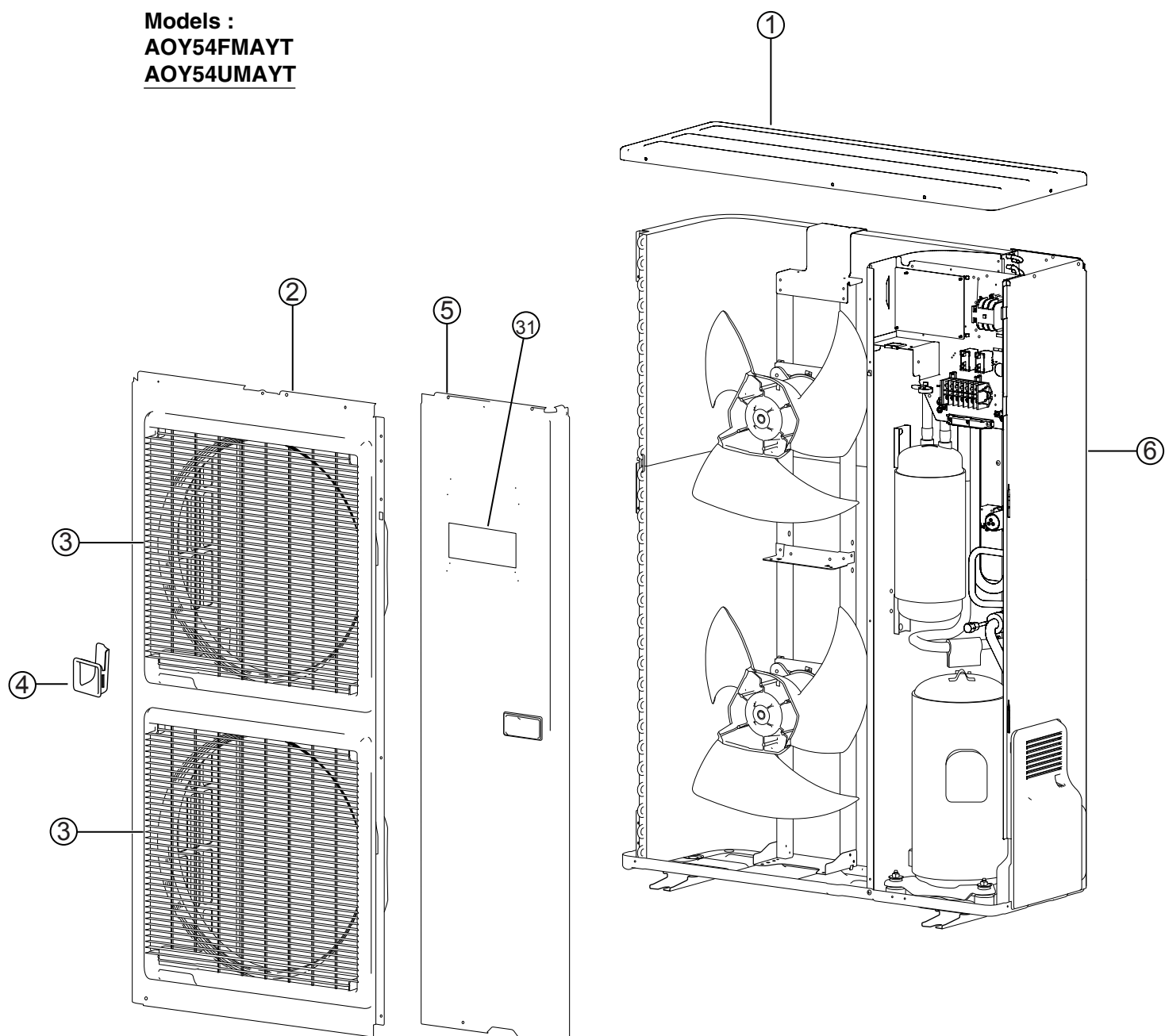




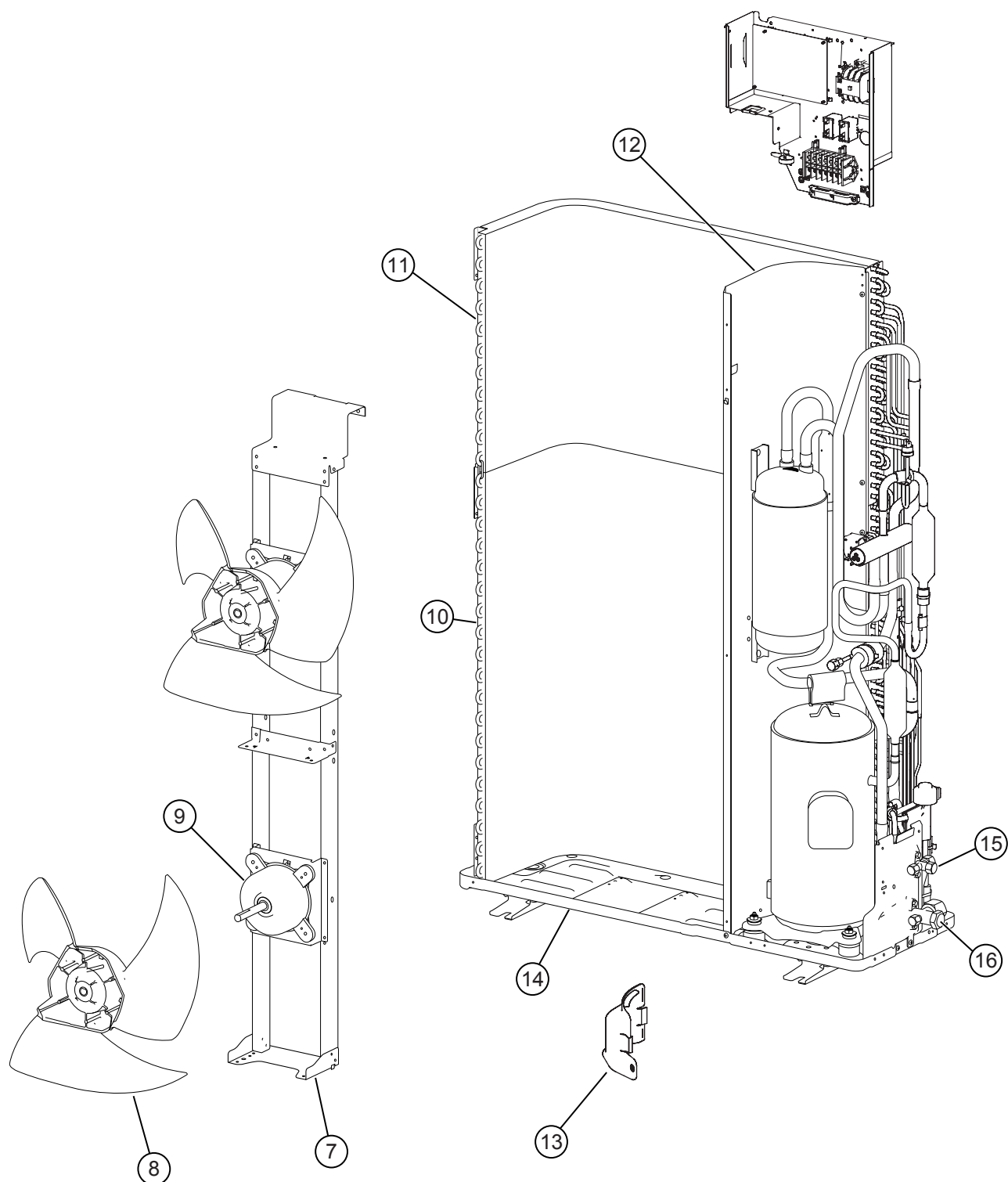




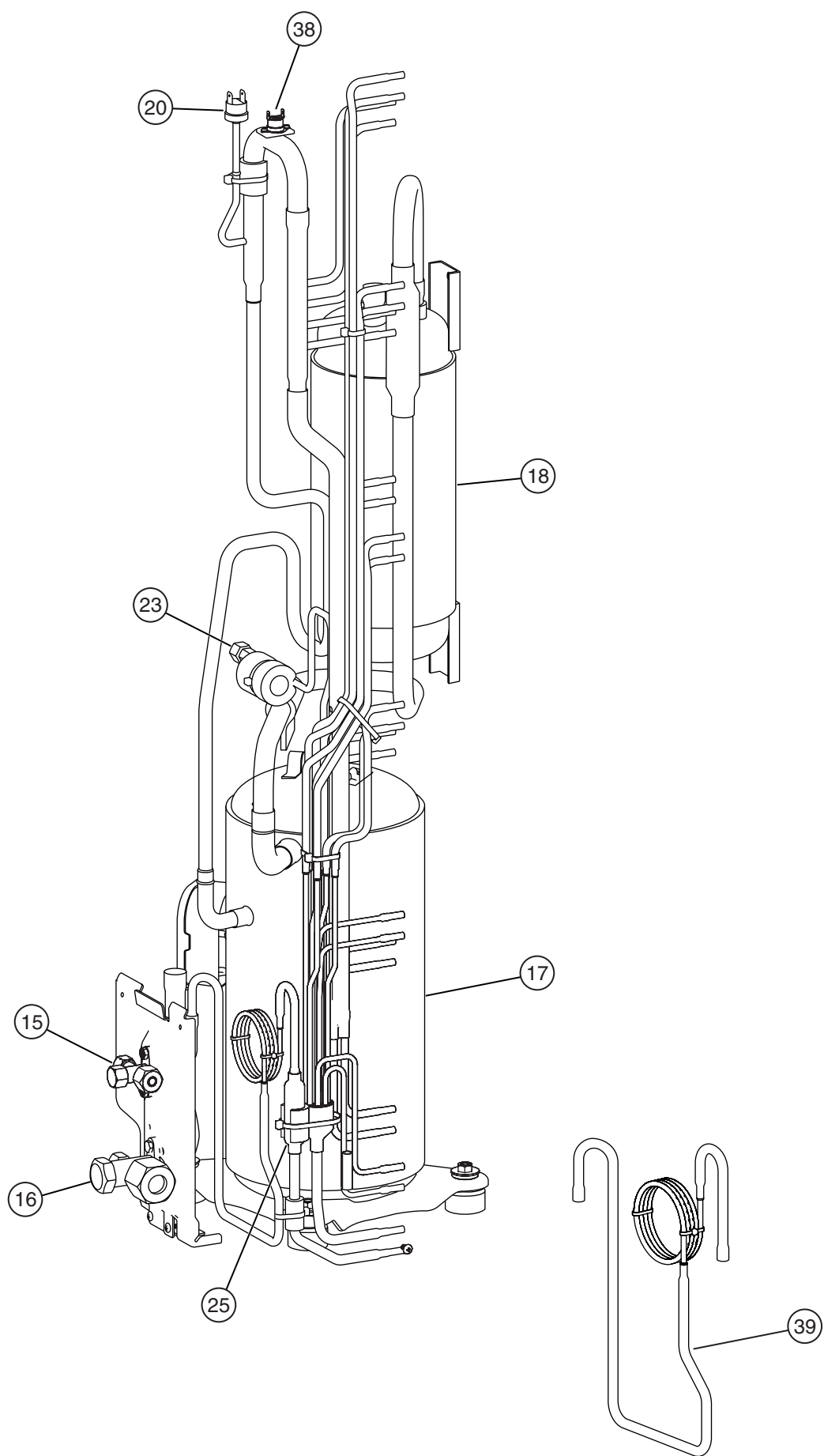
Models :
AOY54FMAYT
AOY54UMAYT



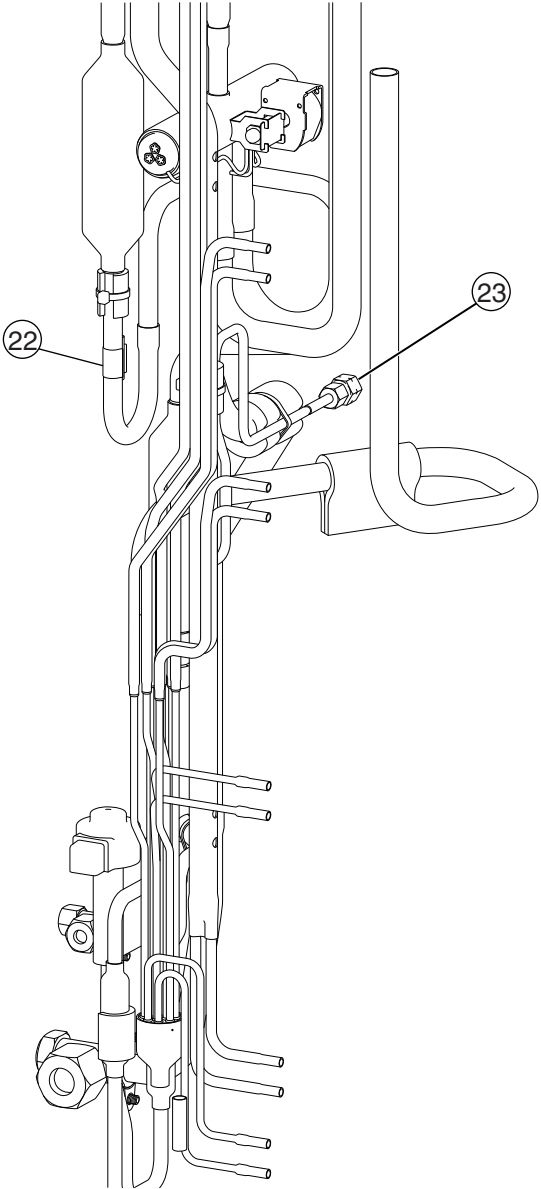
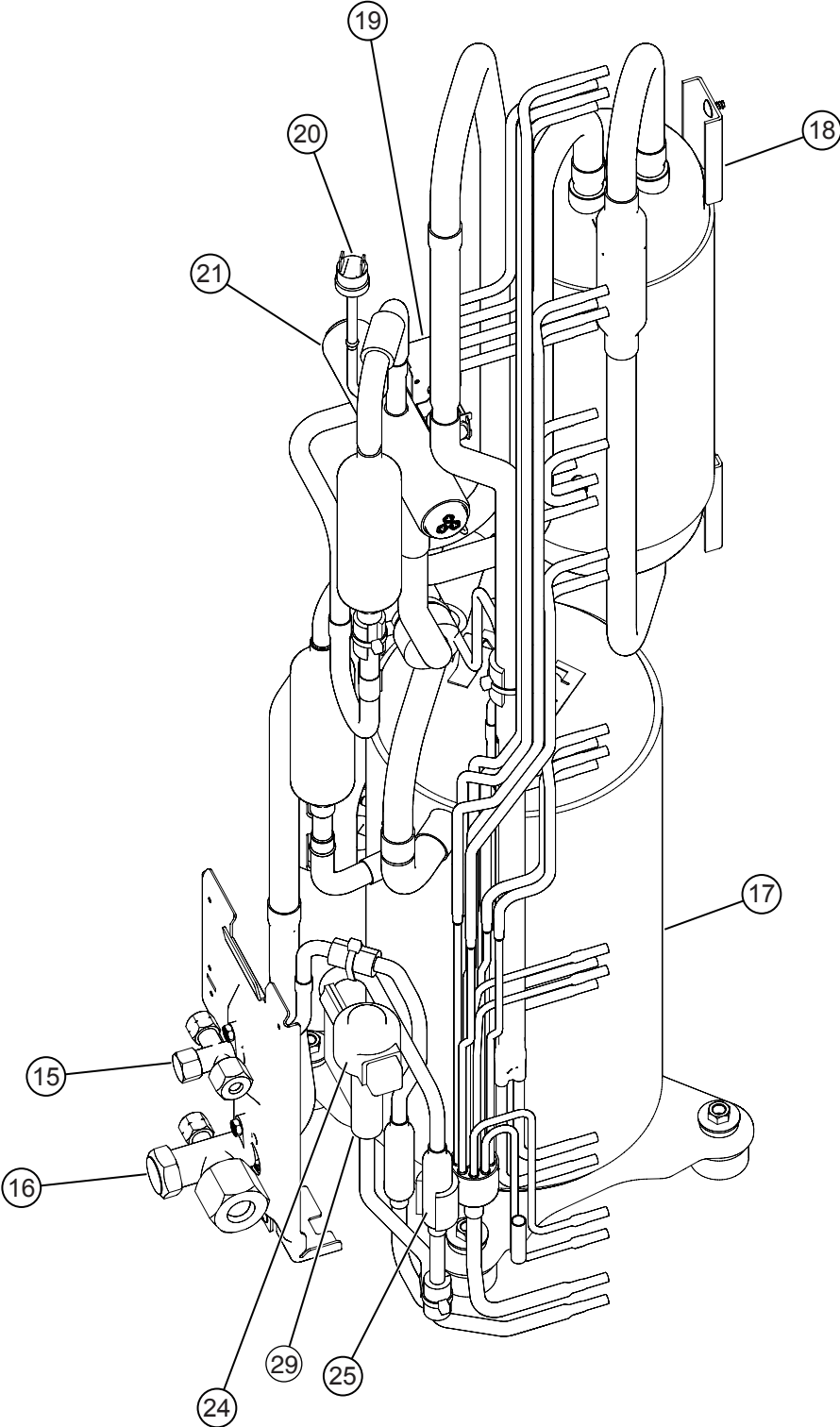
Models :
AOY54FMAYT
AOY54UMAYT



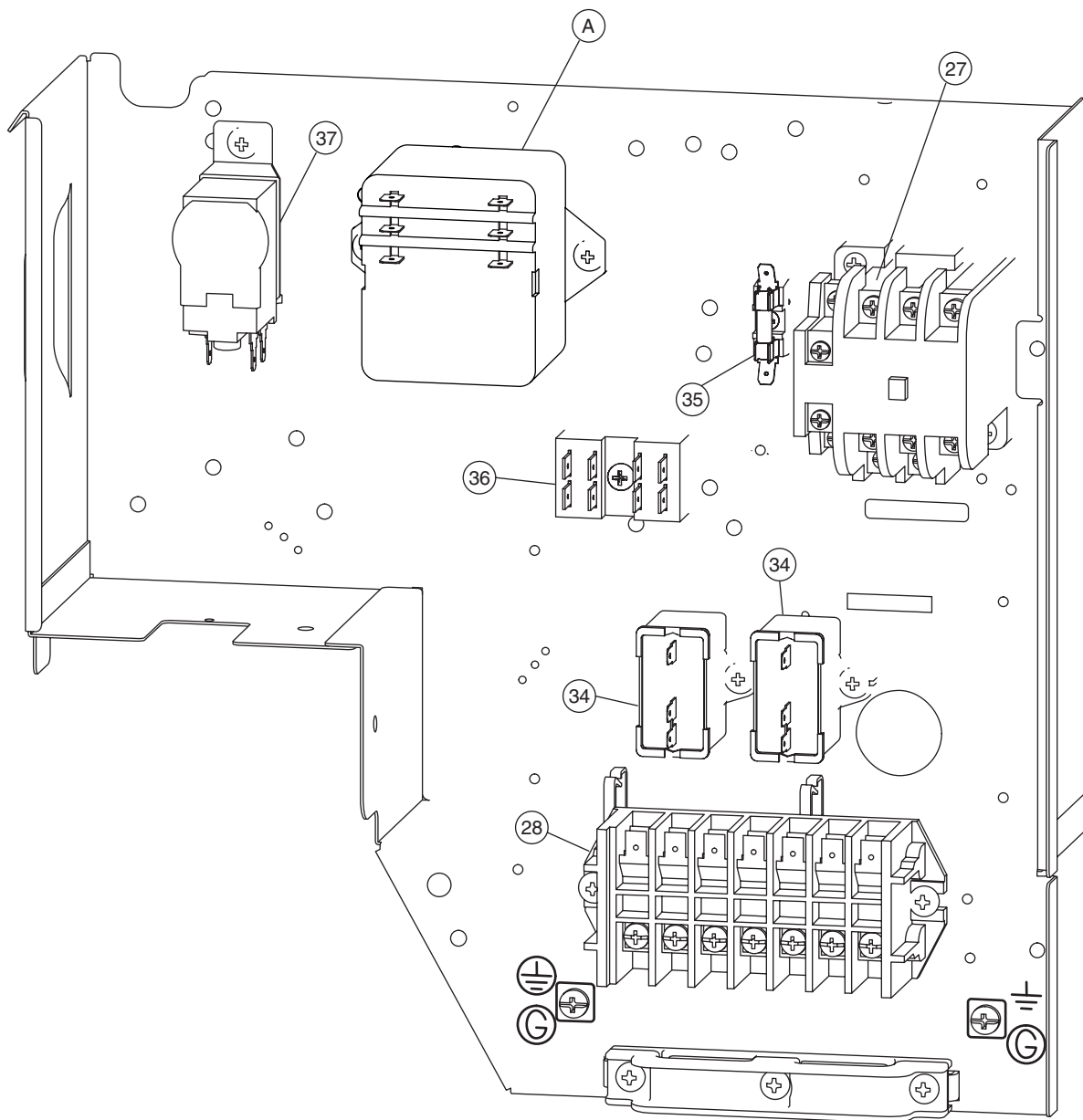
Model :
AOY54FMAYT



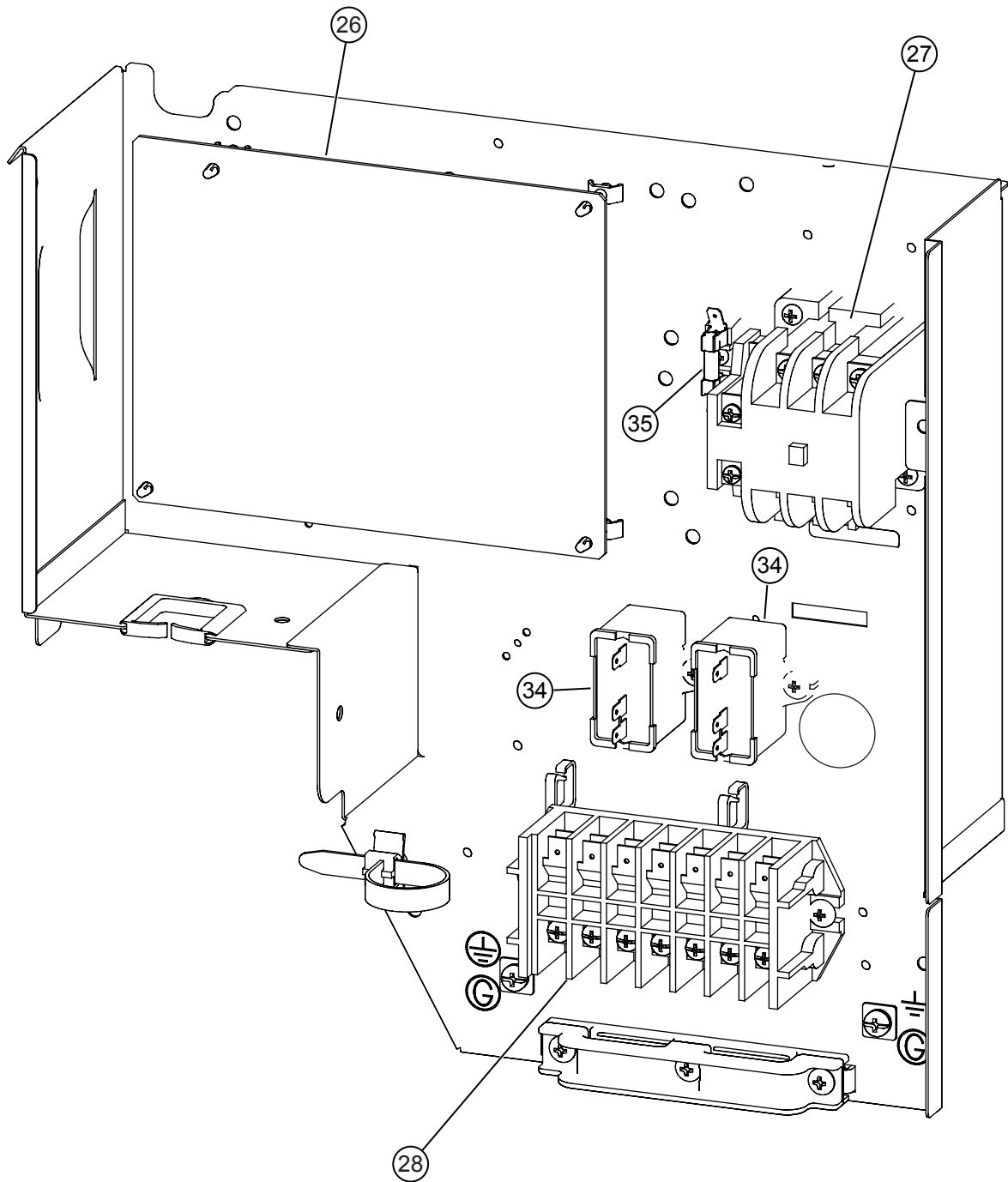
Model :
AOY54UMAYT



Model : AOY54FMAYT



Model : AOY54UMAYT



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.		Ord. Q'ty	Ref. No.	Description	Part No.		Ord. Q'ty
		AUY54FUAS	AUY54UUS				AUY54FUAS	AUY54UUS	
34	Capacitor (Fan Motor)	9900270162	9900270162		477	Bellmouth (B)	9362774000	9362774000	
47-1	Rubber (Discha. Pipe)	313194159807	313194159807		479	Float Switch	9703285004	9703285004	
61	Decoration Plate	9362787000	9362787000		481	Insulation (Grille)-A	9362780001	9362780001	
67	Rubber (Vibration Proof)	9362783002	9362783002		481-1	Insulation (Grille)-B	9362781008	9362781008	
71	Grille Hook Holder	9362782005	9362782005		482	Pump Unit	9703125010	9703125010	
93	Filter	9362766005	9362766005		484	Hook	9362736008	9362736008	
117-3	Hex. Nut w / Spring Washer	301721180114	301721180114		487	Grille Hinge Wire	9362754002	9362754002	
122	Louver Support Holder	9362799003	9362799003		488	Drain Pan Plug	313005174654	313005174654	
127	Drain Hose	9362784009	9362784009		514	Control Box Cover	9362763004	9362763004	
138	Separate Wall	9362737005	9362737005		522	Joint Gear	9362772006	9362772006	
143-1	Clamp NK-3N	313361274700	313361274700		540	Bypass Pipe-B	9371346069	9371346069	
143-3	Clamp NK-9N	313209399700	313209399700		541	Terminal Plate	9363642001	9363642001	
146-1	Evaporator-A Assy	9373799047	9373799047		542	Panel Base	9362759014	9362759014	
146-2	Evaporator-B Assy	9373800040	9373800040		543	Panel Frame Holder	9362761017	9362761017	
155	Special Nut M6	9307615016	9307615016		544	Panel Base Holder	9362760010	9362760010	
160	Drain Pan Assy	9362804004	9362804004		545	Panel Frame	9362758017	9362758017	
164	Fan Motor Assy-IN	9601915010	9601915010		563	Insulation (Inner Box)	9362768009	9362768009	
168	Cabinet-E	9362735001	9362735001		564	Bypass Pipe-A Assy	9371324067	9371324067	
184-1	Thermo. Spring-A	313728262708	313728262708		565	Evaporator Holder Assy	9362802017	9362802017	
187	Clamp No. 1219	313361271706	313361271706		568	Noise Insulation	9363143003	9363143003	
195	Clamp SKB-100	313361275805	313361275805		628	Locking Spacer-B	313005446558	313005446558	
197	Wind Guide Board	9373444015	9373444015		652-1	Thermistor Holder Pipe	313806262805	313806262805	
223	Control Box	9362762007	9362762007		690	Joint-A	9362773003	9362773003	
226	Motor Gear	9362764001	9362764001		692	Joint Shaft	9362771009	9362771009	
234	Thermistor Assy-Room	9703299025	9703299025		705	Louver	9362769013	9362769013	
235	Thermistor Assy-Pipe	9703297014	9703297014		710	Intake Grille	9362767019	9362767019	
236	Controller PCB Assy	9704557865	9704557865		735	Distributor Assy	9371325101	9371325101	
240	Remote Control Unit	9372266069	9372266069		777-1	Grille Hook-A	9362779012	9362779012	
244	Pipe Cover	9362748001	9362748001		777-2	Grille Hook-B	9362778015	9362778015	
253-A	Wire Assy	9372714010	9372714010		798	Pump Hook Bracket	9362753005	9362753005	
337-1	Reinforcement (Eva.)-A	9362749008	9362749008		803	Cabinet-D	9362734004	9362734004	
337-2	Reinforcement (Eva.)-B	9362750004	9362750004		814	Cabinet-C	9362733007	9362733007	
338	Motor Holder	9362765008	9362765008		815-1	Terminal 3P	9306489069	9306489069	
381	Locking Spacer	313209391506	313209391506		815-2	Terminal 3P	9703345012	9703345012	
457	Reinforcement (Drain Pan)	9362757003	9362757003		834-1	Wire Cover-A	9362789004	9362789004	
460-1	Pump Cover-A	9362775007	9362775007		834-2	Wire Cover-B	9362788007	9362788007	
460-2	Pump Cover-B	9362776004	9362776004		835	Cushion Rubber (Pump)	9362777001	9362777001	
462	Top Cover Plate	9362806015	9362806015		847	Louver Supporter	9362770019	9362770019	
464	Cabinet-A	9362800013	9362800013		858	Grille Spring	9362755009	9362755009	
465	Cabinet-B	9362801010	9362801010		875	Filter PCB Assy	9704561237	9704561220	
467	Drain Port	9362786003	9362786003		876-2	Step Motor	9360307019	9360307019	
468	Special Nut-A (Large)	313005446653	313005446653		896	Coupling Pipe Assy	9373038177	9373038177	
469	Special Nut-B (Small)	313005446759	313005446759		982-1	Cord Clamp	9356857009	9356857009	
472-1	Grille Reinforcement-T-A	9362738002	9362738002						
472-2	Grille Reinforcement-T-B	9362739009	9362739009						
472-3	Grille Reinforcement-T-C	9362740005	9362740005						
472-4	Grille Reinforcement-T-D	9362741002	9362741002						
472-5	Grille Reinforcement-T-E	9362742009	9362742009						
474	Turbo Fan Assy	9362803014	9362803014						
476-2	Special Washer	9362756006	9362756006						

OUTDOOR UNIT

AOY54FMAYT

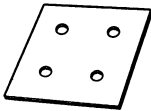
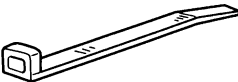
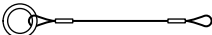
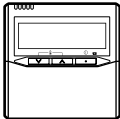
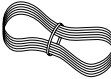
Ref	Description	Parts No.
1	Top Panel Sub Assy	9374417018
2	Front Panel-X, Painted	9374094028
3	Fan Guard	9374330010
4	Side Grip	9374173013
5	Service Panel Sub Assy	9374415014
6	Right Panel Sub Assy	9374416011
7	Motor Bracket Sub Assy	9374418015
8	Propeller Fan Assy	9366378013
9	Motor, Induction	9601671060
10	Condenser-A Assy	9374433025
11	Condenser-B Assy	9374434022
12	Separate Wall-X	9374135011
13	Cap Foot	9374345014
14	Base Assy	9374166022
15	3-Way Valve Assy	9372205044
16	3-Way Valve Assy	9372205099
17	Compressor Assy	9374250011
18	Accumulator Assy	9371615011
20	Pressure Switch	9900276010
23	Check Valve Assy	9374274017
25	Strainer Assy	9372524015
27	Magnetic Relay	9900227012
28	Terminal-7P	9363276039
31	Emblem Rear	9351355005
34	Capacitor (Fan Motor)	9900270049
35	Fuse	0600222529
36	Terminal-2P	9701971015
37	Thermostat (Outdoor)	9900275013
38	Thermostat (Overheat)	9354061002
39	Capillary Assy	9372197332
A	Relay	9900287016
----	Belt Heater	9361140240

AOY54UMAYT

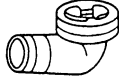
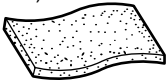
Ref	Description	Parts No.
1	Top Panel Sub Assy	9374417018
2	Front Panel-X	9374094028
3	Fan Guard	9374330010
4	Side Grip	9374173013
5	Service Panel Sub Assy	9374415014
6	Right Panel Sub Assy	9374416011
7	Motor Bracket Sub Assy	9374418015
8	Propeller Fan Assy	9366378013
9	Motor, Induction	9601671060
10	Condenser-A Assy	9374433018
11	Condenser-B Assy	9374434015
12	Separate Wall-X	9374135011
13	Cap Foot	9374345014
14	Base Assy	9374166022
15	3-Way Valve Assy	9372205044
16	3-Way Valve Assy	9372205099
17	Compressor Assy	9374250011
18	Accumulator Assy	9371615011
19	Solenoid	9900165055
20	Pressure Switch	9900186012
21	4-Way Valve	9970035012
22	Compressor Top Temp. Thermistor	9900277017
23	Check Valve Assy	9374274017
24	Coil (Expansion Valve)	9900190026
25	Strainer Assy	9372524015
26	Controller PCB Assy	9705677012
27	Magnetic Relay	9900227012
28	Terminal-7P	9363276039
29	Expansion Valve	9900170028
31	Emblem Rear	9351355005
34	Capacitor (Fan Motor)	9900270049
35	Fuse	0600222529
----	Thermistor Assy	9900274016
----	Drain Cap	313166024302
----	Drain Pipe	9301102000
----	Belt Heater	9361140240

STANDARD ACCESSORIES

INDOOR UNIT ACCESSORIES

Name and Shape	QÖty	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	QÖty	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)

