

SPLIT TYPE AIR CONDITIONER

CASSETTE type (50Hz)

SERVICE MANUAL



Models

Indoor unit	Outdoor unit
AUY36TLB3W	AOY36TPB3L
AUY45TLB3W	AOY45TPB3L

CONTENTS

SPECIFICATIONS	1
OUTLINE AND DIMENSIONS	2
REFRIGERANT SYSTEM DIAGRAM	4
CIRCUIT DIAGRAM	5
INDOOR PCB CIRCUIT DIAGRAM	6
OUTDOOR PCB CIRCUIT DIAGRAM	7
ERROR CONTENTS	8
DISASSEMBLY ILLUSTRATION	9
PARTS LIST	16
STANDARD ACCESSORIES	18

SPECIFICATIONS

TYPE		Cooling & heating	
IN		AUY36TLB3W	AUY45TLB3W
OUT		AOY36TPB3L	AOY45TPB3L
COOLING CAPACITY		10.3 kW - 10.5 kW	12.4 kW - 12.7 kW
HEATING CAPACITY		10.8 kW - 11.0 kW	14.0 kW - 14.3 kW
POWER SOURCE		380 V - 415 V	380 V - 415 V
		3 / 50 Hz	3 / 50 Hz
RUNNING CURRENT	COOL	6.9 A - 6.8 A	8.2 A - 8.4 A
	HEAT	6.5 A - 6.3 A	9.0 A - 9.0 A
INPUT WATTS	COOL	4.00 kW - 4.04 kW	4.55 kW - 4.60 kW
	HEAT	3.68 kW - 3.65 kW	5.05 kW - 5.05 kW
E.E.R	COOL	2.58 - 2.60 kW/kW	2.73 - 2.76 kW/kW
	HEAT	2.93 - 3.01 kW/kW	2.77 - 2.83 kW/kW
MOISTURE REMOVAL		5.0 L/h	6.0 L/h

FAN

FAN SPEED	INDOOR	HIGH	580 r.p.m.	620 r.p.m.
		MED	500 r.p.m.	550 r.p.m.
		LOW	420 r.p.m.	470 r.p.m.
	OUTDOOR UNIT	770 r.p.m.	770 r.p.m.	
AIR FLOW	INDOOR UNIT	1,500 m3/h	1,650 m3/h	
	OUTDOOR UNIT	6,000 m3/h	5,600 m3/h	

MEASUREMENT

DIMENSIONS H x W x D	INDOOR UNIT	296 x 830 x 830 mm	
	GRILLE	35 x 940 x 940 mm	
	OUTDOOR UNIT	1,152 x 940 x 370 mm	
WEIGHT Net / Gross	INDOOR UNIT	40 kg / 53 kg	
	OUTDOOR UNIT	100 kg / 114 kg	110 kg / 124 kg

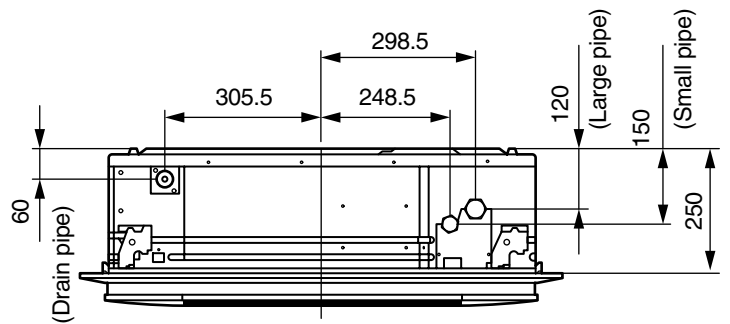
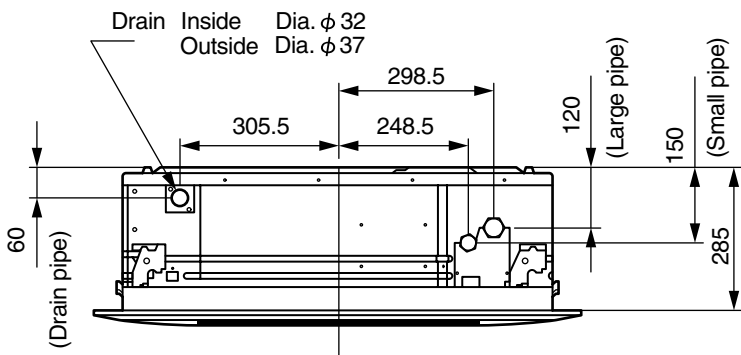
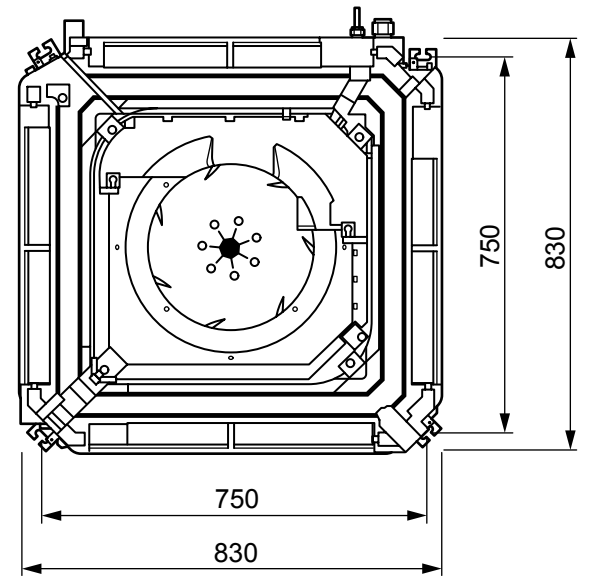
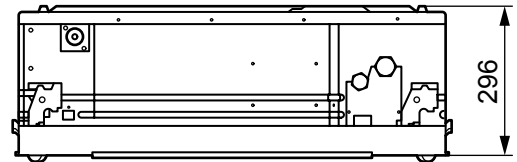
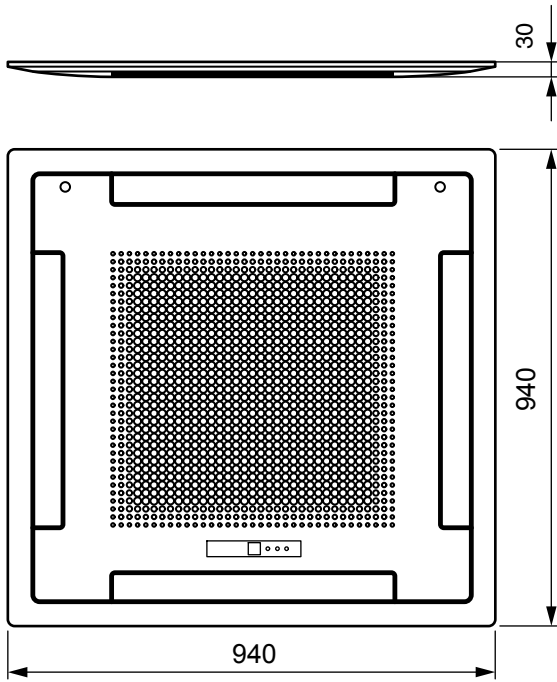
COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 2 pole, Three phase, Induction motor, Scroll		
DISCRIMINATION		ZR48K3E-TFD-501	ZR61KCE-TFD-599	
STANDARD REFRIGERANT		2,600 g	3,500 g	
REFRIGERANT		R407C	R407C	
MAX PIPE LENGTH		50 m	50 m	
MAX PIPE HEIGHT		30 m	30 m	
FULL CHARGE	Pipe length	20 m	2,600 g	3,500 g
		30 m	2,900 g	3,800 g
		40 m	3,200 g	4,100 g
		50 m	3,500 g	4,400 g
ADDITIONAL CHARGE		30 g/m	30 g/m	

DIMENSIONS

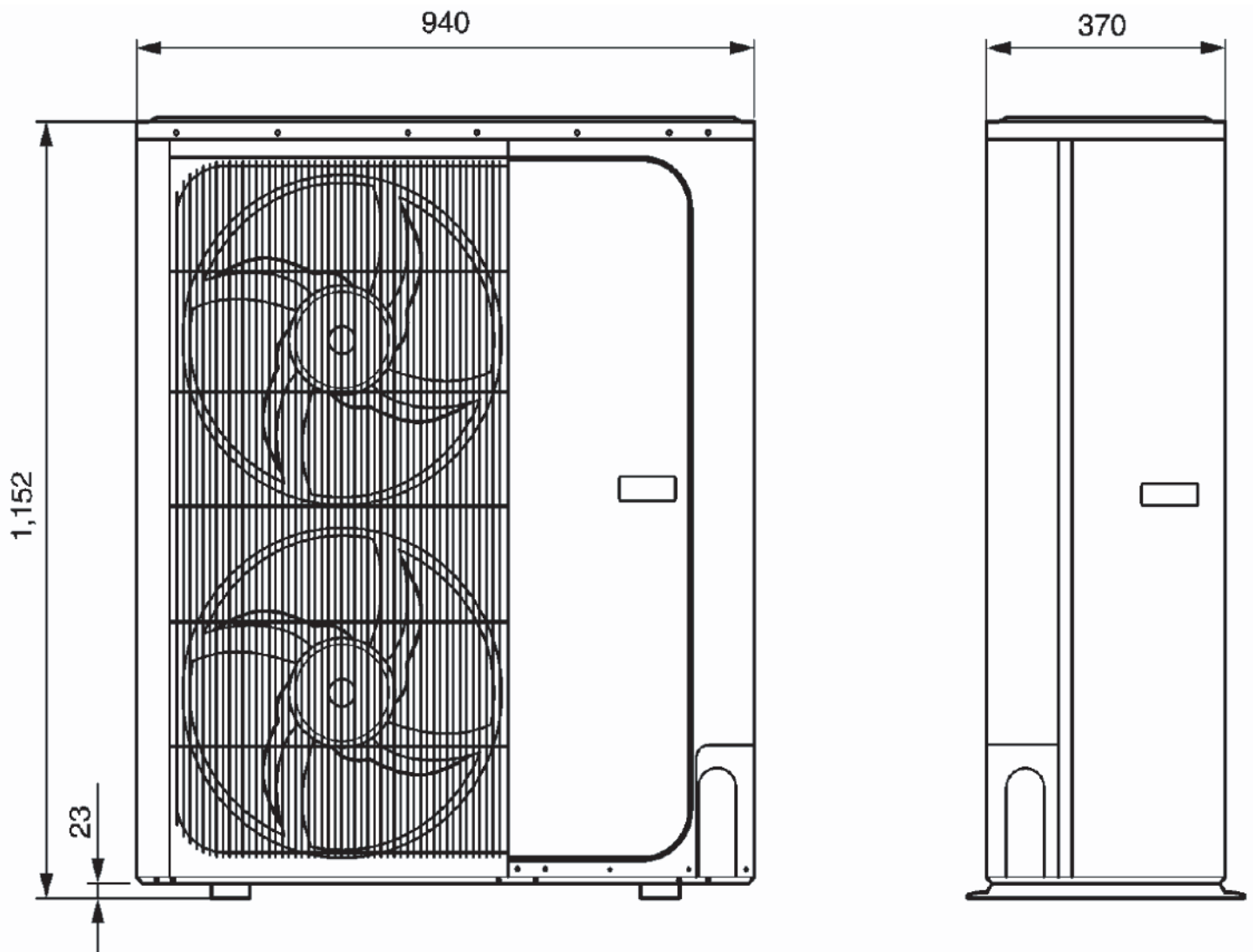
INDOOR UNIT

(Unit : mm)



OUTDOOR UNIT

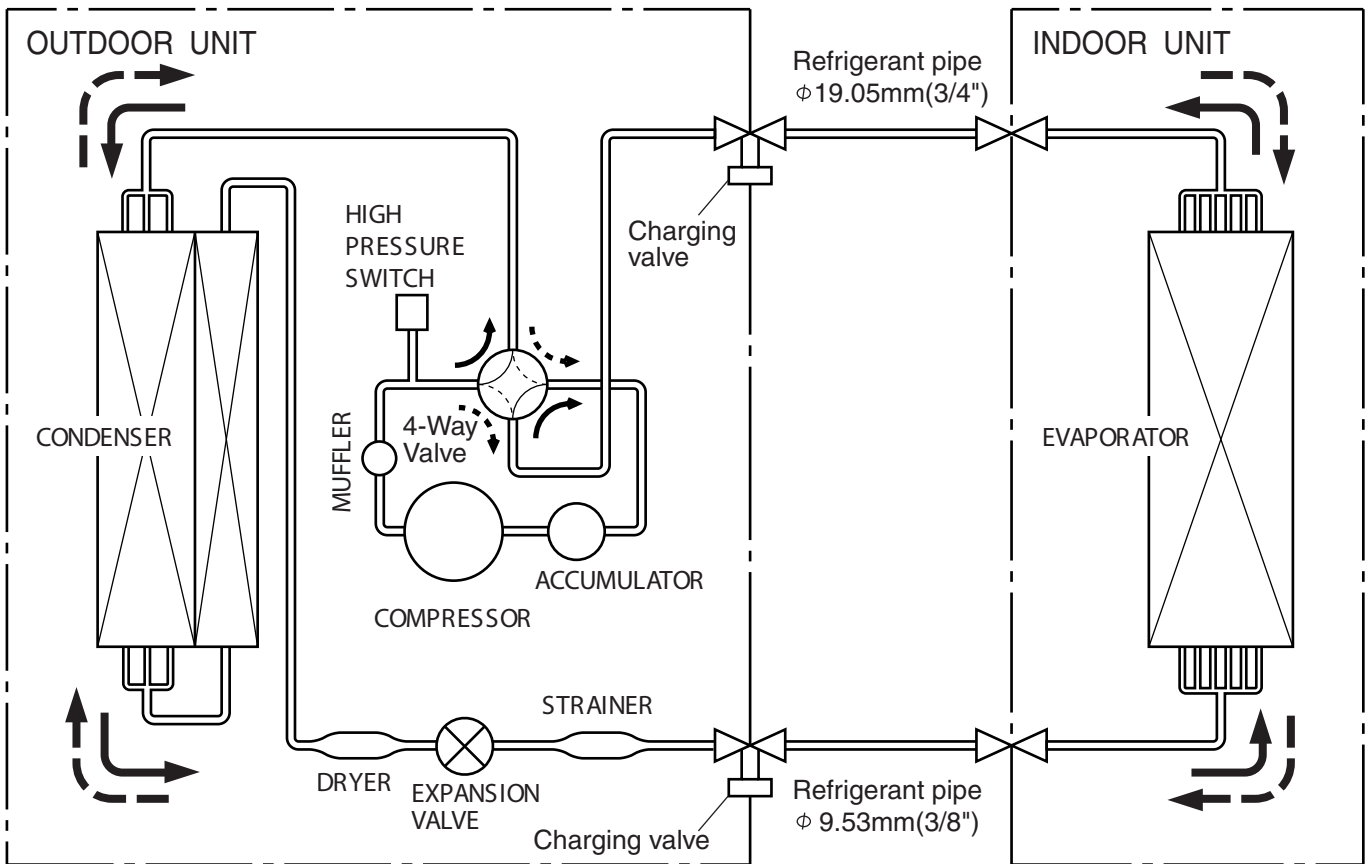
(Unit : mm)



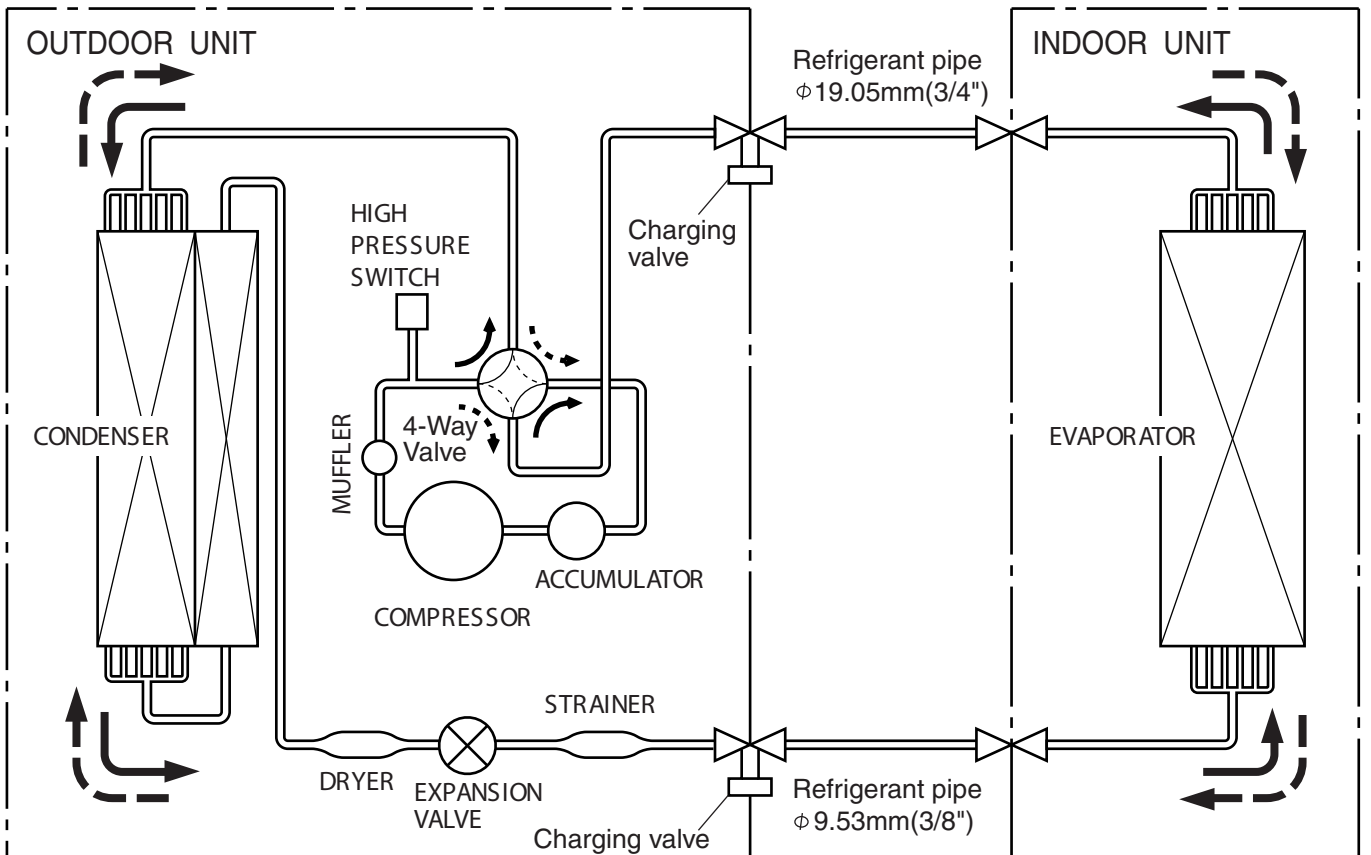
REFRIGERANT SYSTEM DIAGRAM

AUY36TLB3W / AOY36TPB3L

→ : COOL - - - → : HEAT

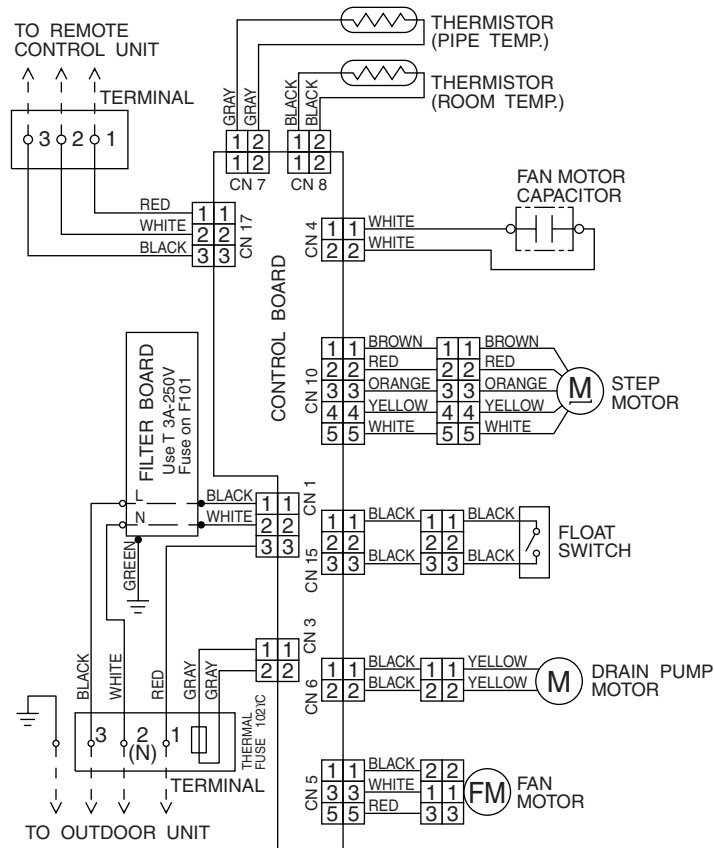


AUY45TLB3W / AOY45TPB3L

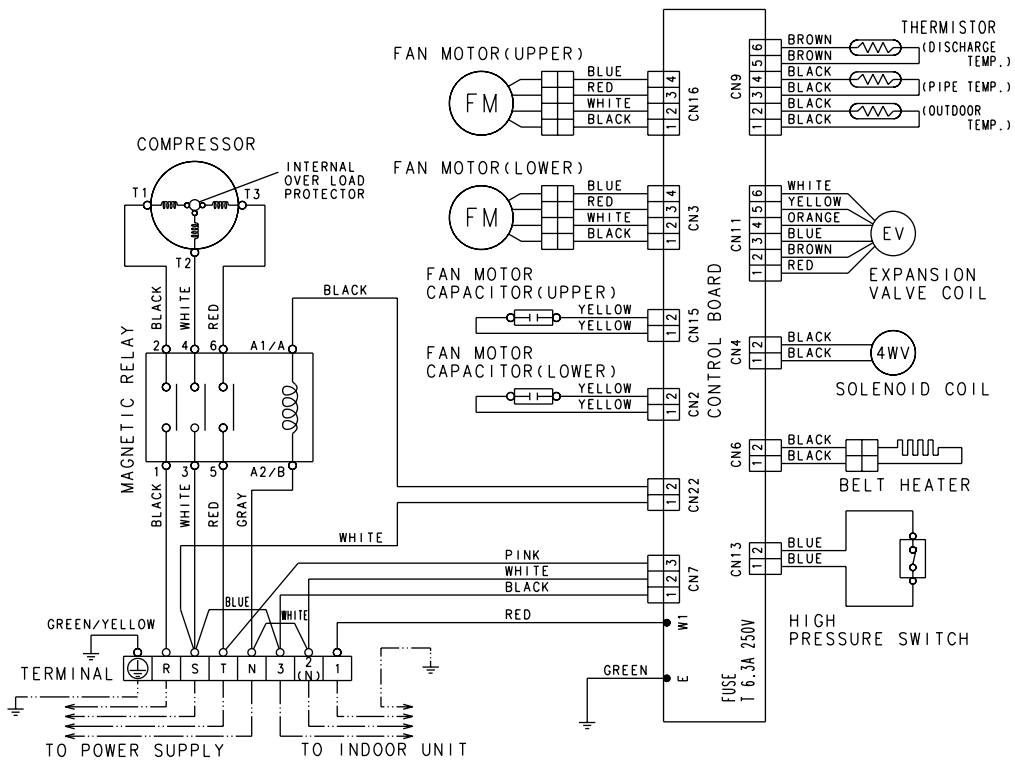


CIRCUIT DIAGRAM

INDOOR UNIT

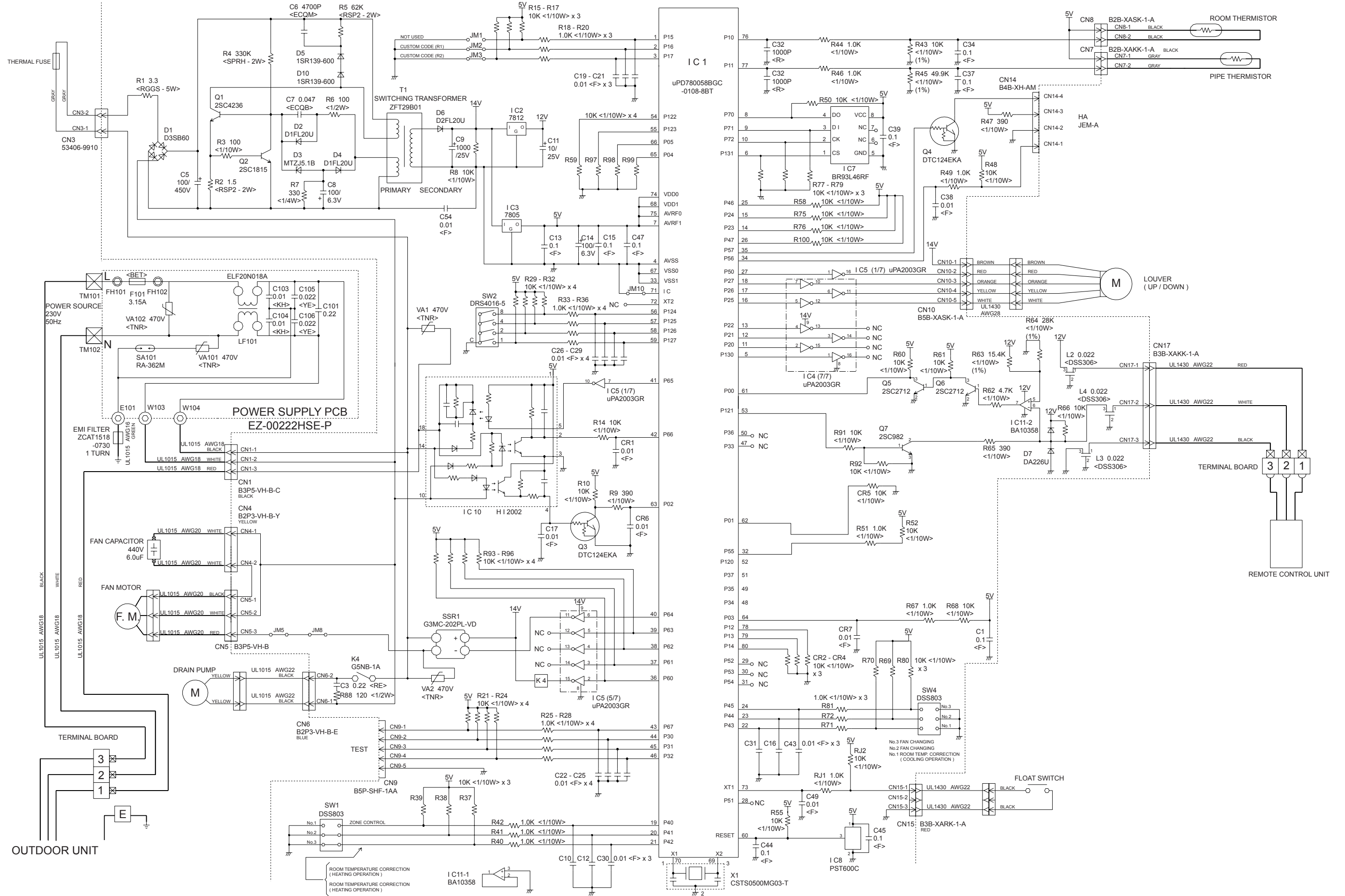


OUTDOOR UNIT

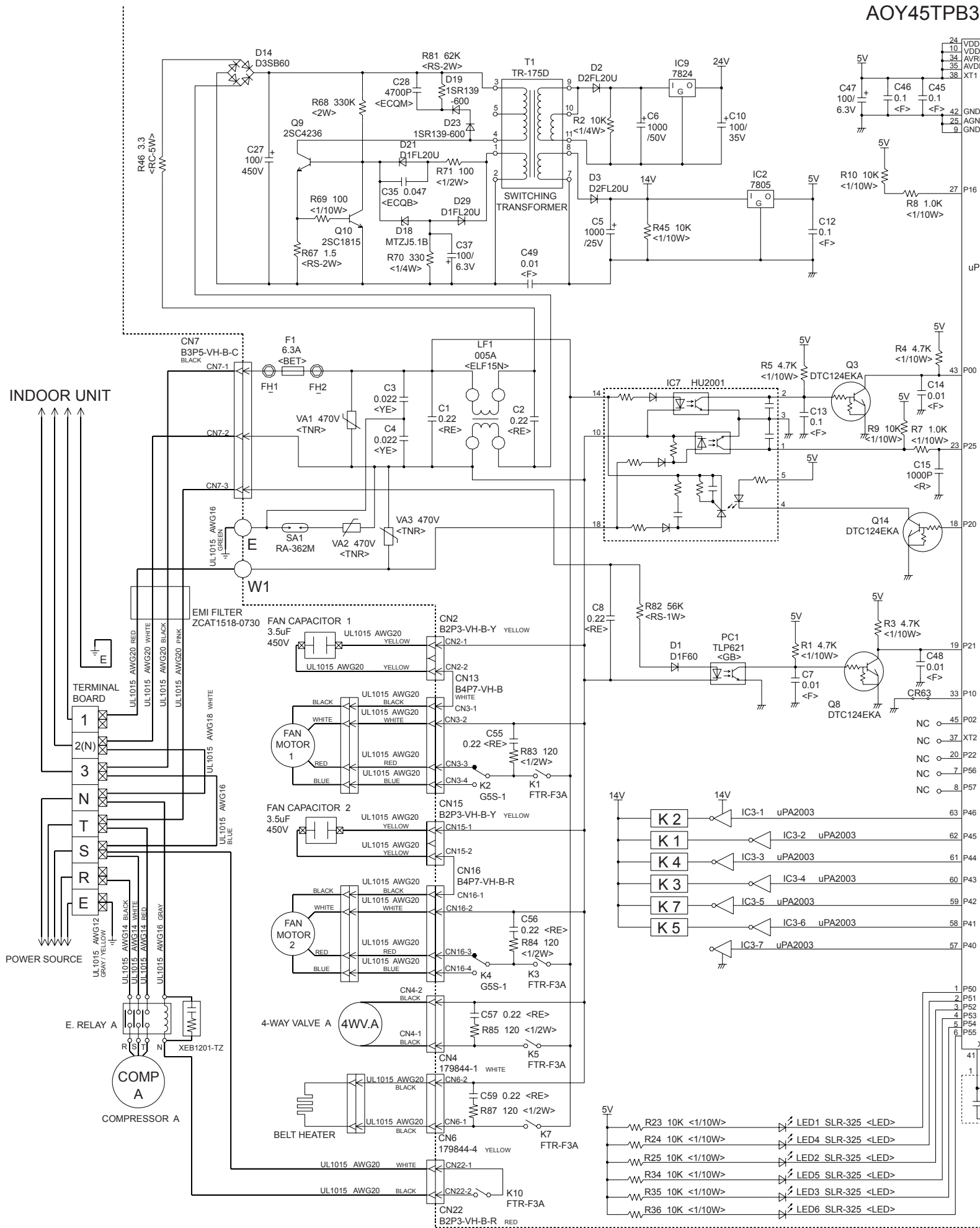


INDOOR PCB CIRCUIT DIAGRAM

Controller PCB assembly
 AUY36TLB3W : EZ-003GHSE-C
 AUY45TLB3W : EZ-003HHSE-C

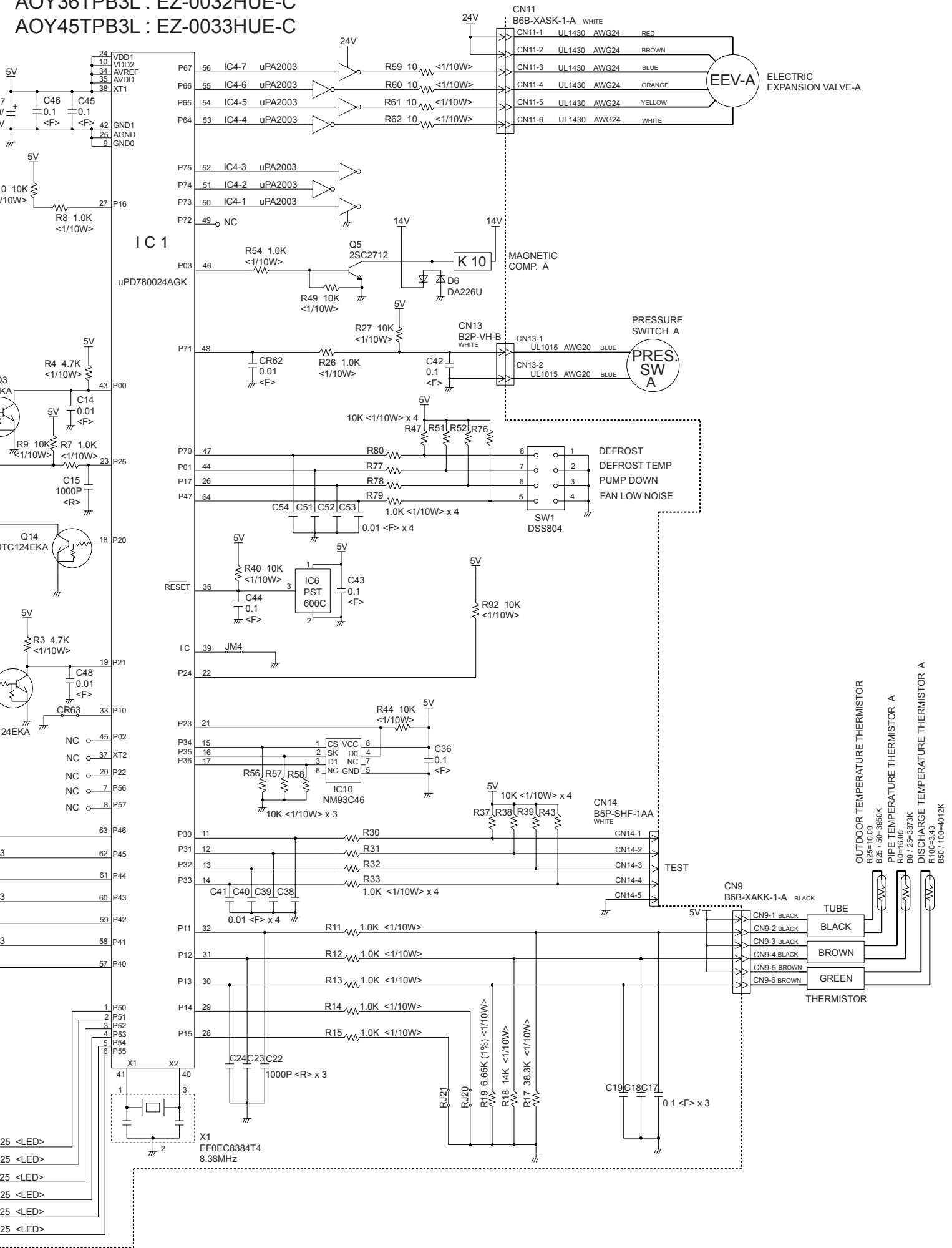


OUTDOOR PCB CIRCUIT DIAGRAM



CONTROLLER PCB ASSEMBLY

AOY36TPB3L : EZ-0032HUE-C
AOY45TPB3L : EZ-0033HUE-C



ERROR CONTENTS

1. REMOTE CONTROLLER

- When EE : EE blinks at the current time display, there is an error inside the air conditioner. If the SET TIME button (▼) and TEMP./DAY button (▼) are pressed simultaneously for more than three seconds, the self diagnosis check will start and the error contents will be displayed at the current time display. When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation. Process the error contents by referring to (Table 1).

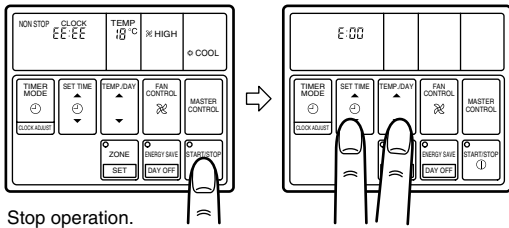


Table 1

Error cord	Error contents
E:00	Communication error (indoor unit ↔ remote controller)
E:01	Communication error (indoor unit ↔ outdoor unit)
E:02	Room temperature sensor open
E:03	Room temperature sensor shortcircuited
E:04	Indoor heat exchanger temperature sensor open
E:05	Indoor heat exchanger temperature sensor shortcircuited
E:06	Outdoor heat exchanger temperature sensor open
E:07	Outdoor heat exchanger temperature sensor shortcircuited
E:08	Power source connection error
E:09	Float switch operated
E:0A	Outdoor temperature sensor open
E:0b	Outdoor temperature sensor shortcircuited
E:0c	Discharge pipe temperature sensor open
E:0d	Discharge pipe temperature sensor shortcircuited
E:0E	Outdoor high pressure abnormal
E:0F	Discharge pipe temperature abnormal
E:11	Model abnormal
E:12	Indoor fan abnormal
E:13	Outdoor signal abnormal
E:14	Outdoor EEPROM abnormal

- To stop test running, press the START/STOP button.
- For the operation method, refer to the operating manual and perform operation check.
- Check that there are no abnormal sounds or vibration sounds during test running.

2. OUTDOOR UNIT

When the outdoor temperature drops, the outdoor unit's fans may switch to low speed, or one of the fans may stop intermittently.

ERROR : Heat & Cool model (Reverse cycle) only

The LED lamps operate as follows (Table 2) according to the error contents.

The LED lamps are on the outdoor unit board.

Table 2

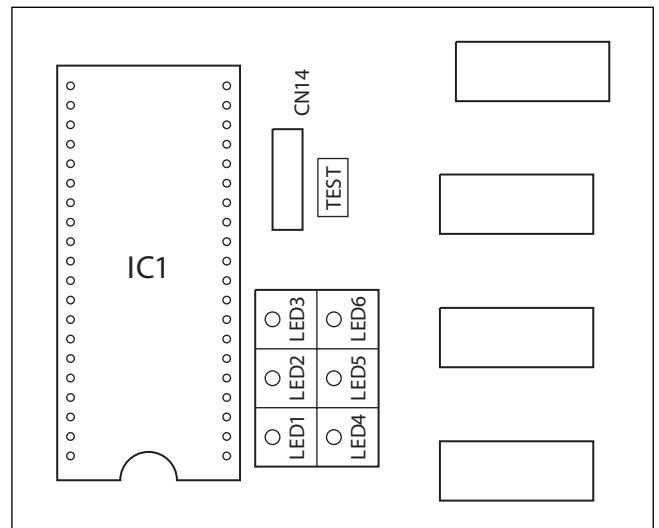
Error contents	LED1	LED2	LED3	LED4	LED5	LED6
Signal abnormal	—	—	X	○	X	X
Indoor unit abnormal	—	—	X	X	○	X
Discharge pipe temperature abnormal	—	—	X	X	X	○
Outdoor heat exchanger temperature abnormal	—	—	X	X	○	○
Outdoor temperature abnormal	—	—	X	○	X	○
Power source connection error	—	—	○	X	X	X
EEPROM abnormal	—	—	○	○	○	○
	◎	◎	◎	◎	◎	◎
Outdoor high pressure abnormal	○	—	—	—	—	—
Discharge pipe temperature abnormal	—	○	—	—	—	—

- : 0.5s ON / 0.5s OFF (flash) X : OFF
- ◎ : 0.1s ON / 0.1s OFF (flash) — : Indefinite

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

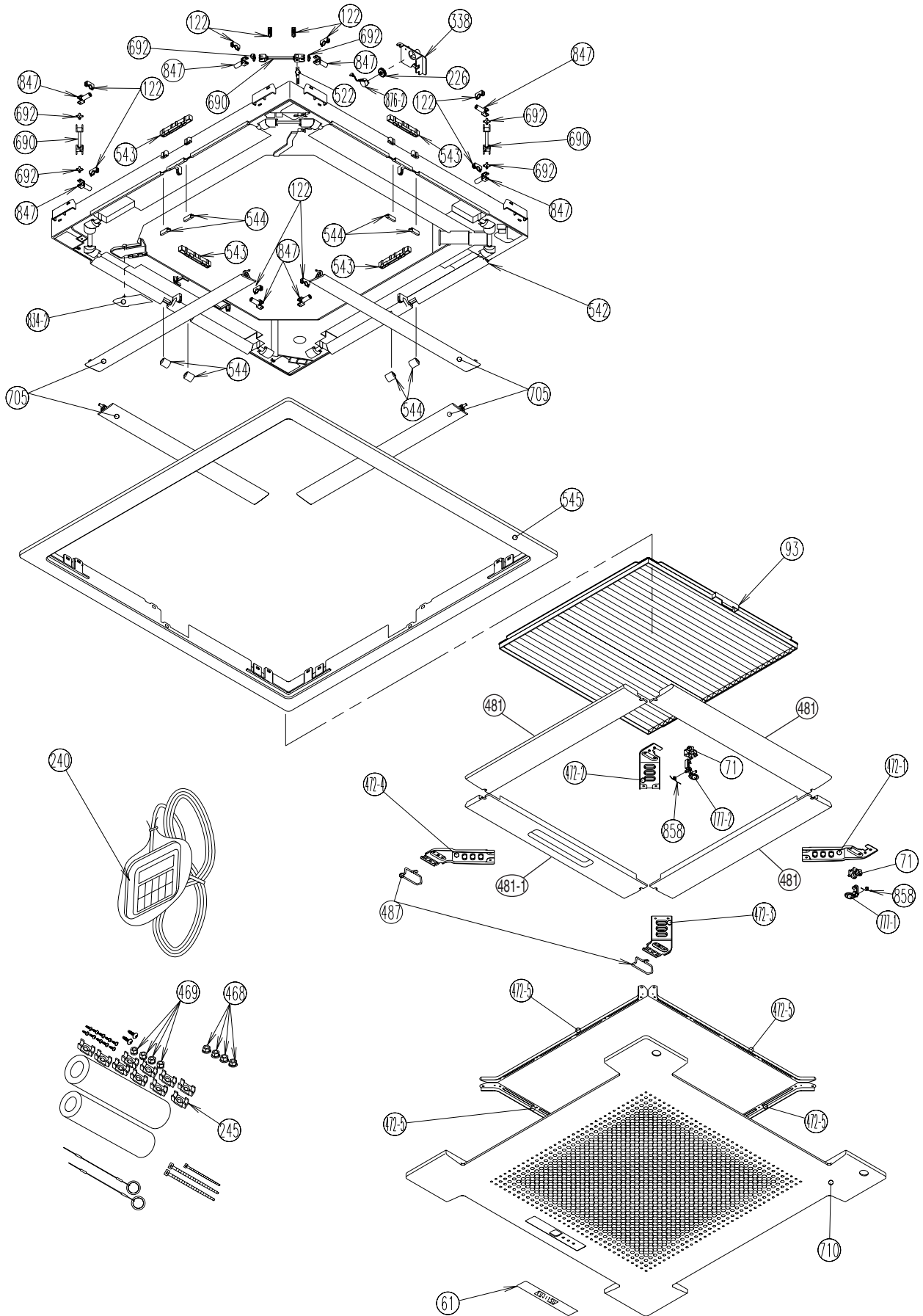
However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

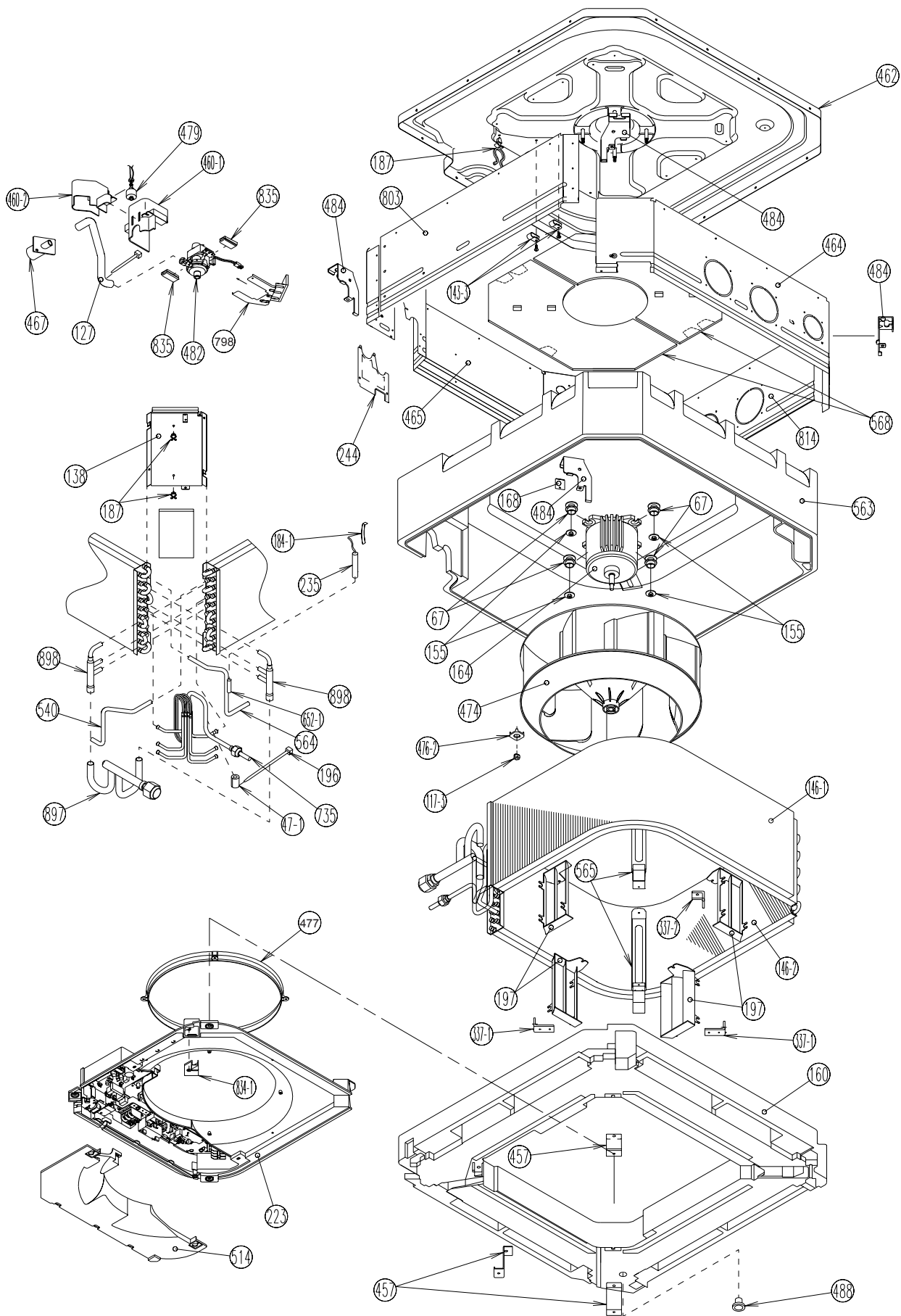
ERROR LED DISPLAY LAYOUT

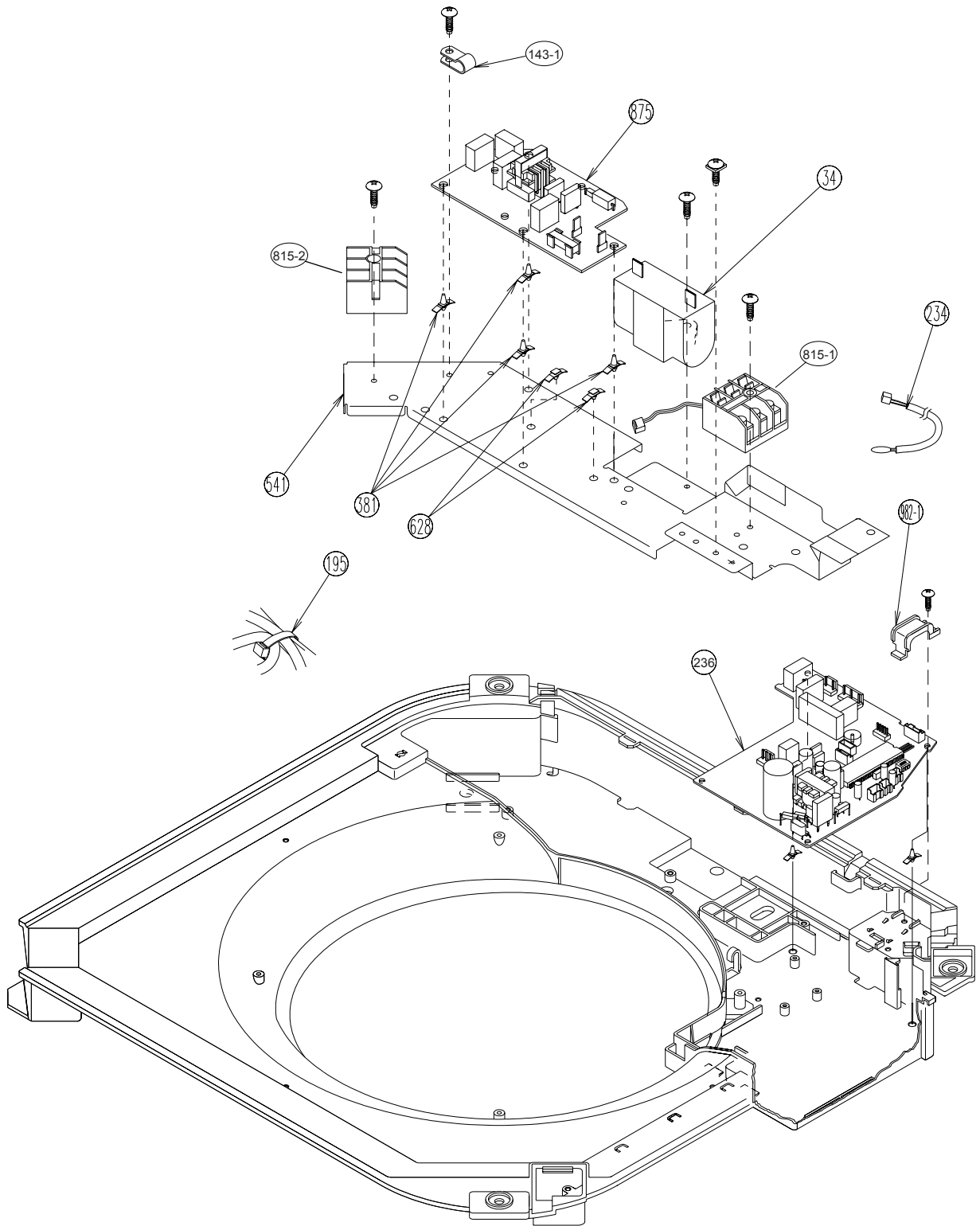


DISASSEMBLY ILLUSTRATION

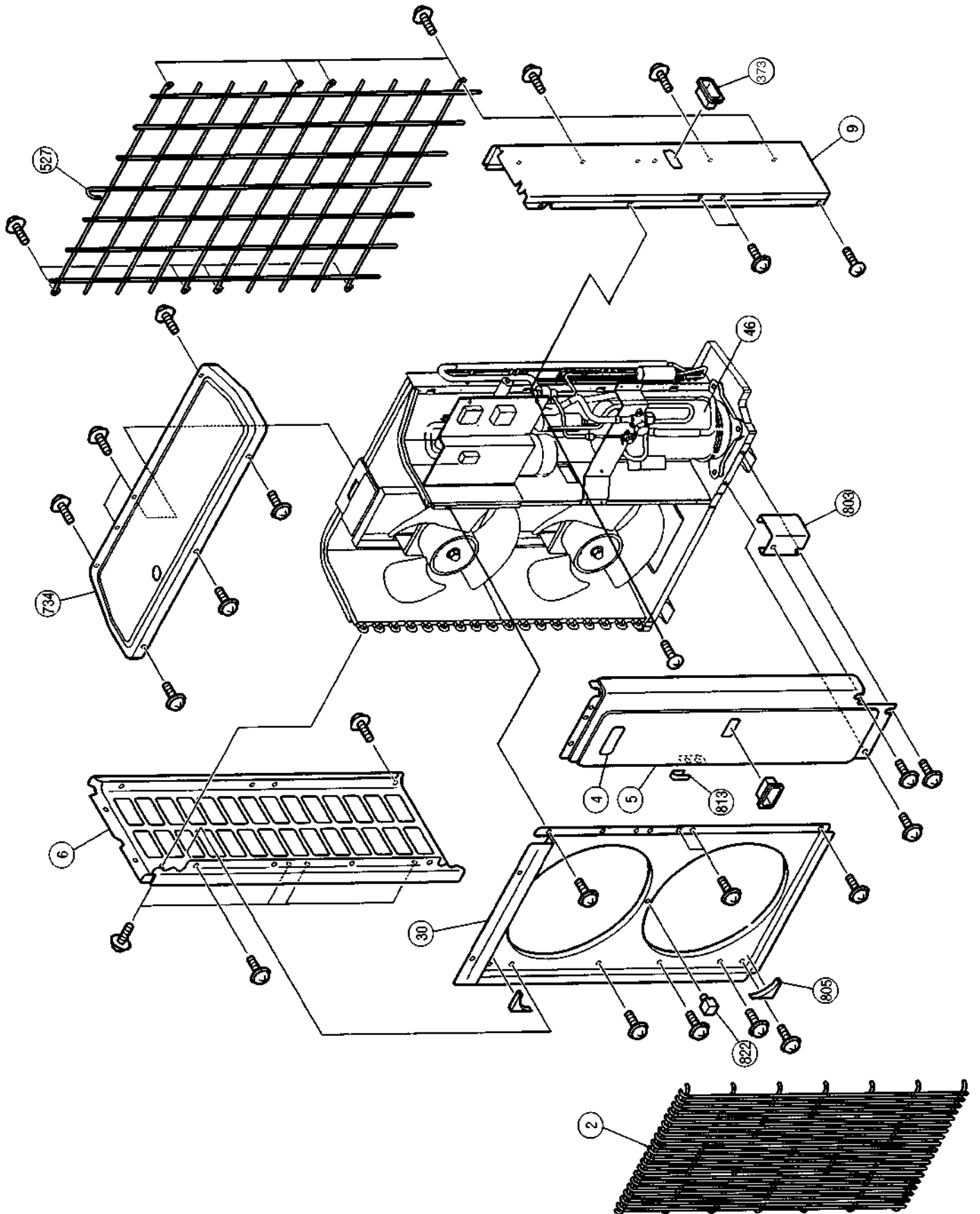
INDOOR UNIT



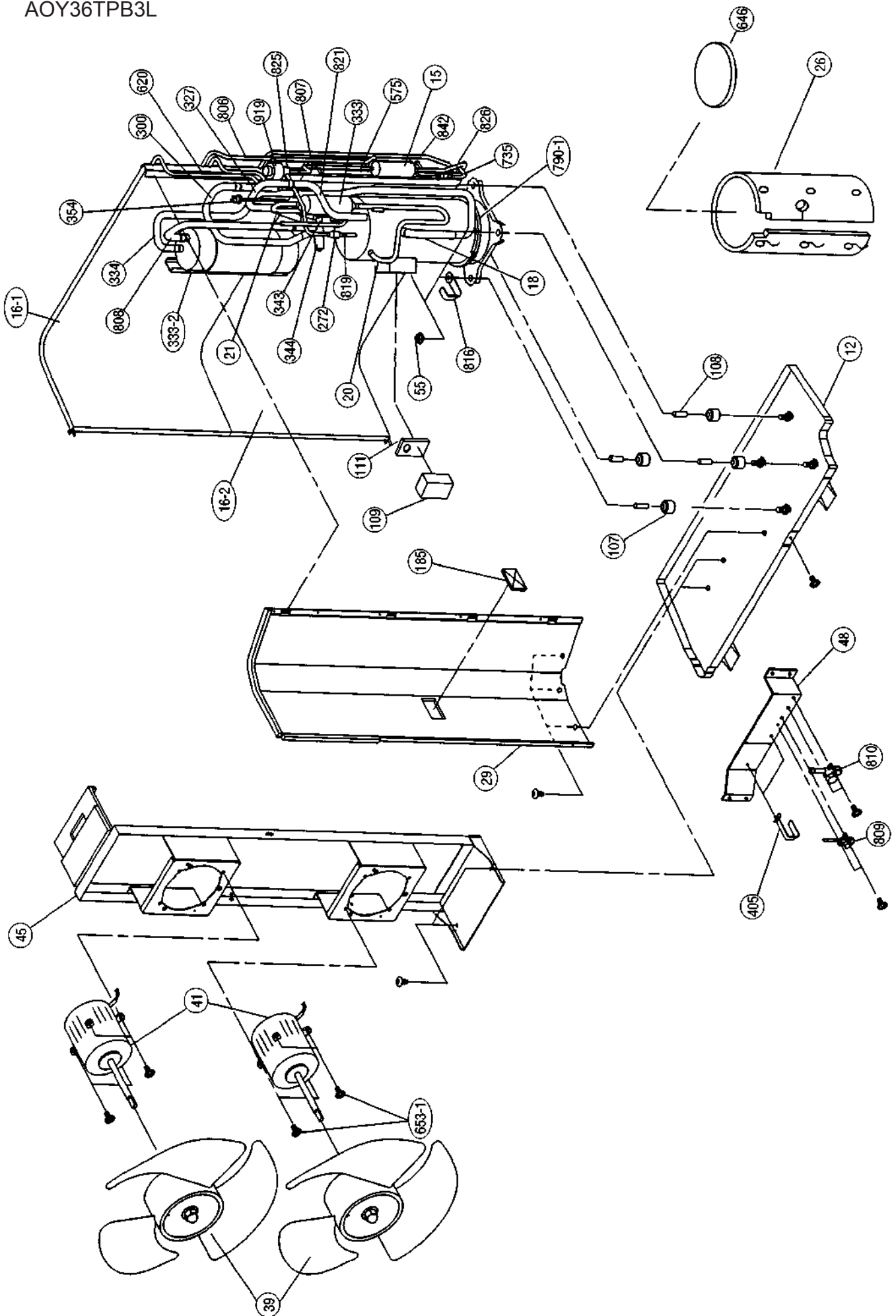




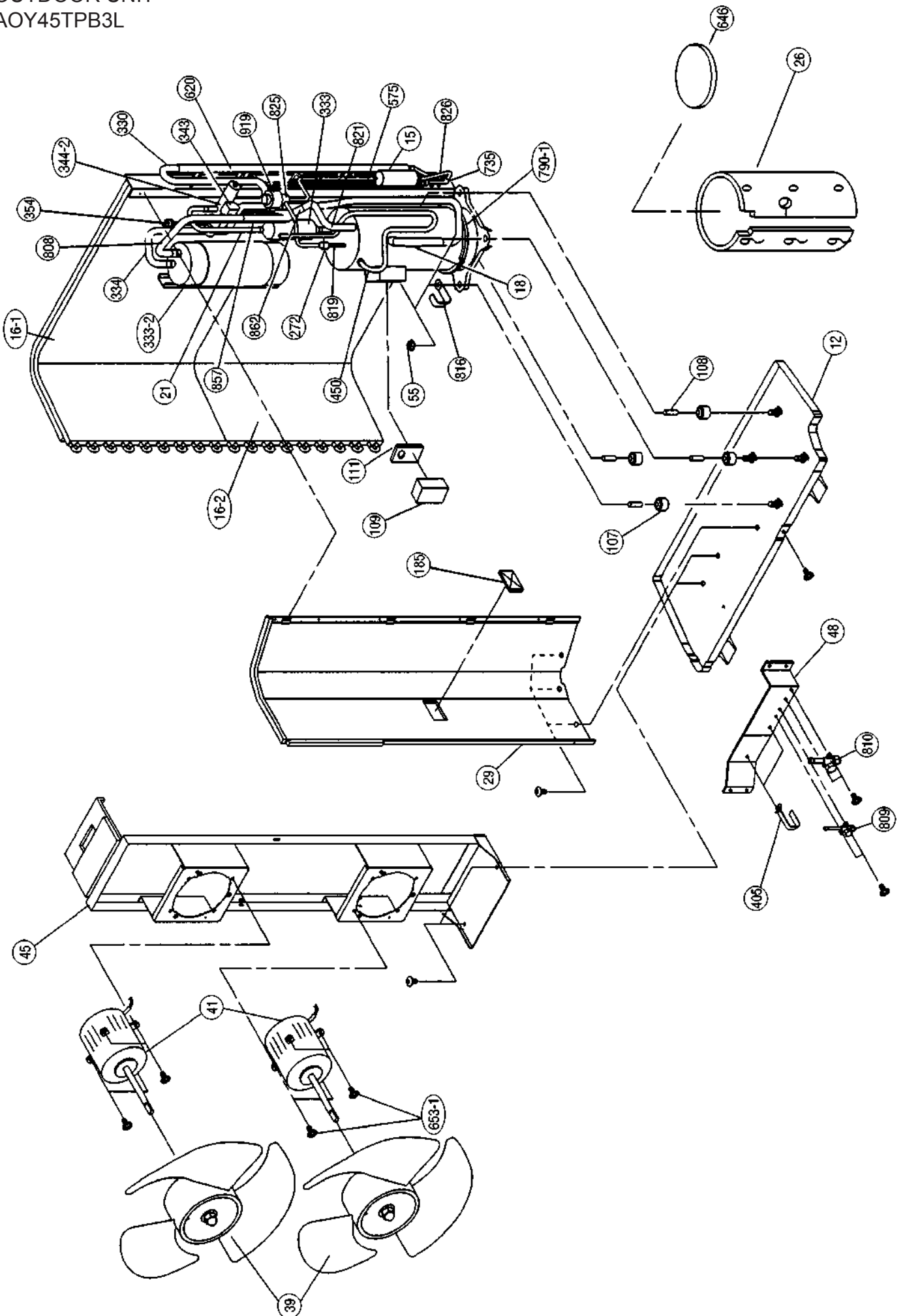
OUTDOOR UNIT



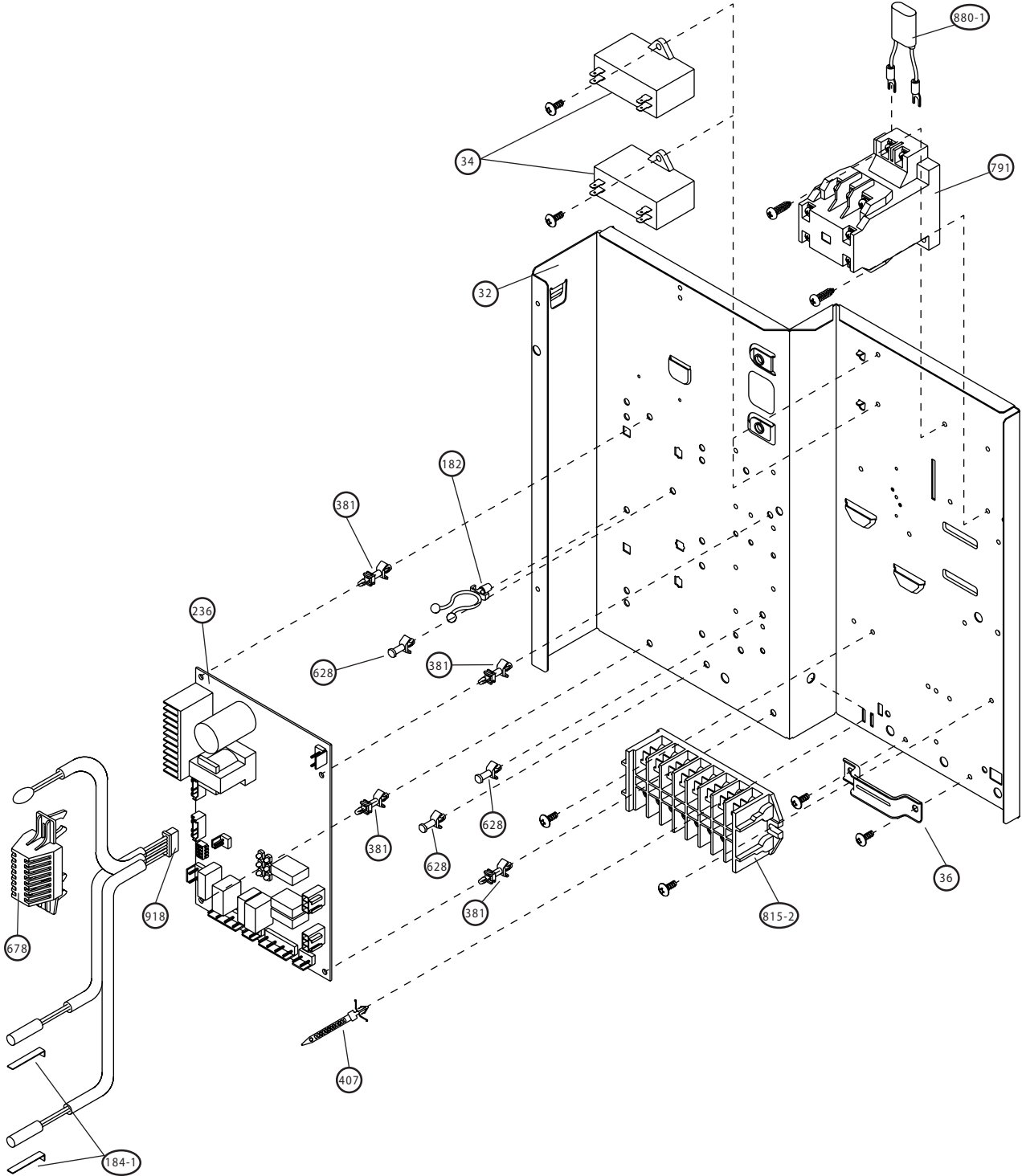
OUTDOOR UNIT
AOY36TPB3L



OUTDOOR UNIT
AOY45TPB3L



OUTDOOR UNIT



PARTS LIST

INDOOR UNIT








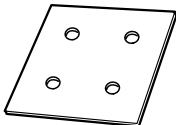

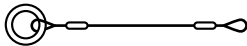
Ref.	Description	Part number	Ref.	Description	Part number
34	Capacitor (Fan Motor)	9703306068	472-4	Grille Reinforcement-D	9362741002
47-1	Rubber (Discha. Pipe)	313194159807	472-5	Grille Reinforcement-E	9362742009
61	Decoration Plate	9362787000	474	Turbo Fan Assy	9362803014
67	Rubber (Vibration Proof)	9362783002	476-2	Special Washer	9362756006
71	Grille Hook Holder	9362782005	477	Bellmouth (B)	9362774000
93	Filter	9362766005	479	Float Switch	9703285004
117-3	Hex. Nut w/Spring Washer	301721180114	481	Insulation (Grill) A	9362780001
122	Louver Support Holder	9362799003	481-1	Insulation (Grill) B	9362781008
127	Drain Hose	9362784009	482	Pump Unit	9703125010
138	Separate Wall	9362737005	484	Hook	9362736008
143-1	Clamp NK-3N	313361274700	487	Grille Hinge Wire	9362754002
143-3	Clamp NK-9N	313209399700	488	Drain Pan Plug	313005174654
146-1	Evaporator-A Assy	9364804002	514	Control Box Cover	9362763004
146-2	Evaporator-B Assy	9364805009	522	Joint Gear	9362772006
155	Special Nut M6	9307615016	540	Bypath Pipe-B	9363152005
160	Drain Pan Assy	9362804004	541	Terminal Plate	9363642001
164	Fan Motor Assy-IN	9600878019	542	Panel Base	9362759014
168	Cabinet-E	9362735001	543	Panel Frame Holder	9362761017
184-1	Thermo. Spring-A	313728262708	544	Panel Base Holder	9362760010
187	Clamp No. 1219	313361271706	545	Panel Frame	9362758017
195	Clamp SKB-100	313361275805	563	Insulation (Inner Box)	9362768009
196	Clamp SKB-150	313035356905	564	Bypath Pipe-A Assy	9363151008
197	Wind Guide Board	9363117004	565	Evaporator Holder Assy	9362802017
223	Control Box	9362762007	568	Noise Insulation	9363143003
226	Motor Gear	9362764001	628	Locking Spacer-B	313005446558
234	Thermistor Assy-Room	9703299025	652-1	Thermistor Holder Pipe	313806262805
235	Thermistor Assy-Pipe	9703297014	690	Joint-A	9362773003
236	Controller PCB Assy (for 36)	9704557421	692	Joint Shaft	9362771009
236	Controller PCB Assy (for 45)	9704557438	705	Louver	9362769013
240	Remote Control Unit	9371438016	710	Intake Grille	9362767019
244	Pipe Cover	9362748001	735	Distributor Assy	9364795003
245	Cable Clamp	313714181904	777-1	Grille Hook-A	9362779012
337-1	Reinforcement (Eva.)-A	9362749008	777-2	Grille Hook-B	9362778015
337-2	Reinforcement (Eva.)-B	9362750004	798	Pump Hook Bracket	9362753005
338	Motor Holder	9362765008	803	Cabinet-D	9362734004
381	Locking Spacer	313209391506	814	Cabinet-C	9362733007
457	Reinforcement (Drain Pan)	9362757003	815-1	Terminal 3P	9306489052
460-1	Pump Cover-A	9362775007	815-2	Terminal 3P	9703345012
460-2	Pump Cover-B	9362776004	834-1	Wire Cover-A	9362789004
462	Top Cover Plate	9362806015	834-2	Wire Cover-B	9362788007
464	Cabinet-A	9362800013	835	Cushion Rubber (Pump)	9362777001
465	Cabinet-B	9362801010	847	Louver Supporter	9362770019
467	Drain Port	9362786003	858	Grille Spring	9362755009
468	Special Nut-A (Large)	313005446653	875	Filter PCB Assy	9704561091
469	Special Nut-B (Small)	313005446759	876-2	Step Motor	9360307019
472-1	Grille Reinforcement-A	9362738002	897	Coupling Pipe-A Assy	9363153002
472-2	Grille Reinforcement-B	9362739009	898	Coupling Pipe-B Assy	9364806006
472-3	Grille Reinforcement-C	9362740005	982-1	Cord Clamp	9356857009

OUTDOOR UNIT



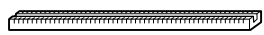

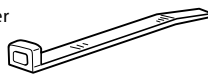

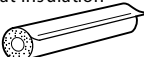



Ref.	Description	Part No.		Ref.	Description	Part No.	
		AOY36TPB3L	AOY45TPB3L			AOY36TPB3L	AOY45TPB3L
2	Fan Cover	9352159015	9352159015	344	4-Way Valve	9353055002	----
4	Emblem-Rear	9351355005	----	344-2	4-Way Valve	----	9353532008
5	Cabinet-A, Painted	9352146015	9352146015	354	Pressure Switch	9703667008	9704045003
6	Cabinet-C, Painted	9352149016	9352149016	373	Grip	9352157004	9352157004
9	Cabinet-B, Painted	9352147012	9352147012	381	Locking Spacer	313209391506	313209391506
12	Base Assy, Painted	9352136016	9352136016	405	Clamp No.1763	313816345304	313816345304
15	Dryer	9369978043	9369978043	407	Clip (Cable) No.1259	313739340109	313739340109
16-1	Condenser-A Assy	9368356002	9368409005	450	Discharge Pipe-A	----	9368338008
16-2	Condenser-B Assy	9368353001	9368536008	527	Protection Net	9352163012	9352163012
18	Suction Pipe Assy	9370948028	9364514000	575	Condensing Pipe-C	9368535001	9368535001
20	Discharge Pipe-A Assy	9370950021	----	620	Inlet Pipe (Cond.) Assy	9368355005	9362532006
21	Discharge Pipe-B Assy	9368347000	9368331009	628	Locking Spacer	313005446558	313005446558
26	Compressor Cover-A	9364088006	9364088006	646	Compressor Cover-B	9364089003	9364089003
29	Separate Wall	9355277013	9355277013	653-1	Bolt (Fan Motor Fixing)	9385089020	9385089020
30	Blower Cover, Painted	9352151019	9352151019	678	Bracket (Thermistor)	313557406106	313557406106
32	Control Box Metal	9352134012	9352134012	734	Cabinet Top Plate	9352161018	9352161018
34	Capacitor (Fan Motor)	9357965024	9357965024	735	Distributor Assy	9368352004	9362533003
36	Cord Holder Metal	9356934007	9356934007	790-1	Belt Heater-A	9361140066	9361140042
39	Propeller Fan Assy	9366378013	9366378013	791	Magnetic Relay	9900078010	9900078010
41	Fan Motor Assy-Out	9600832028	9600832028	803	Cabinet-D, Painted	9352150012	9352150012
45	Bracket (Motor) Assy	9368108007	9368108007	805	Blower Cover Corner	9352160011	9352160011
46	Compressor Assy	9370772012	9367376001	806	Cond. Pass Pipe-A Assy	9368351007	----
48	Bracket (Coupler) Assy	9355281010	9355281010	807	Cond. Pass Pipe-B	9368360009	----
55	Special Nut M8 (For Comp.)	9355091008	9355091008	808	Inlet Pipe (Accumulator)-A	9368349004	9368341008
107	Rubber Seat-A (For Comp.)	9364084008	9364084008	809	Ball Valve-A	9371799018	9371799018
108	Sleeve-A (For Comp.)	9364085005	9364085005	810	Ball Valve-B	9371799032	9371799032
109	Terminal Cover (For Comp.)	9364087009	9364087009	813	Cabinet Hook	9352148002	9352148002
111	Terminal Packing	9364086002	9364086002	815-2	Terminal-8P	9363276022	9363276022
182	Clamp No.149	313361271505	313361271505	816	Wire Clamp Metal	313584219902	313584219902
184-1	Thermo. Spring-A	313728262708	313728262708	819	Valve-A Coupl. Pipe	9368342005	9368342005
185	Rubber Bushing	313005066051	313005066051	821	Joint Pipe (Valve-B)	9364080000	9368340001
236	Controller PCB Assy	9704764119	9704764126	822	Fan Cover Fixture-A	9352158018	9352158018
272	Strainer Assy	9368343002	9368343002	825	Expansion Valve Assy	9368364007	9368363000
300	Suction Pipe-C	9368350000	----	826	Condensing Pipe-B	9368354008	9368335007
327	Suction Pipe-A	9368348007	----	842	Cond. Pass Pipe-C	9368361006	----
330	Inlet Pipe (Cond.)-A	----	9368334000	857	Inlet Pipe (Accumulator)-B	----	9368333003
333	Accumulator	9350363018	9350363018	862	Valve-B Coupl. Pipe	----	9368332006
333-2	Accumulator (B)	9368463007	9368463007	880-1	Network	9700987017	9700987017
334	Suction Pipe-B	9362557009	9362557009	918	Thermistor Assy	9900129019	9900129019
343	Solenoid Coil	9359616108	9359616108	919	Expansion Valve Coil	9363467017	9363467017

STANDARD ACCESSORIES

INDOOR UNIT ACCESSORIES

Name and Shape	Part No.
Coupler heat insulation 	9350716029 } 1 each 9352766015 }
Remote control unit cord clamp 	313714181904
Binder 	313035356905 (Large) 313361275805 (Small)
Screw 	(A) 301141134166 For installing the mounting bracket
	(B) 301141153027 For installing the cord clamp
Special nut A (large flange) 	313005446653
Special nut B (small flange) 	313005446759
Remote control unit 	9371438016
Template 	9363173000
Blower cover insulation 	9363265002
Hook wire 	9363168006

OUTDOOR UNIT ACCESSORIES

Name and Shape	Part No.
Power cap 	9352173011
Auxiliary pipe assembly 	9355292016
Edge cover 	9352436000
Tapping screw 	301463040100
Binder 	313035356905
Putty 	303020200114
Coupler heat insulation 	313005074759
Pipe (drain) 	313728031005
Flexible tube 	313013042915
Cap (drain) 	313166024302

0706G3243