

INVERTER SPLIT TYPE
AIR CONDITIONER

CASSETTE type (50Hz)

SERVICE MANUAL



Models

Indoor unit

Outdoor unit

AUY24LUAR

AOY24LMAKL

CONTENTS

SPECIFICATIONS.....	1
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.....	14
STANDARD ACCESSORIES.....	16

SPECIFICATIONS

TYPE	Cooling & Heating
INDOOR UNIT	AUY24LUAR
OUTDOOR UNIT	AOY24LMAKL
COOLING CAPACITY	7.10 kW
HEATING CAPACITY	7.80 kW

ELECTRICAL DATA

POWER SOURCE	230 V	
FREQUENCY	50 Hz	
RUNNING CURRENT	Cooling	11.1 A
	Heating	10.5 A
INPUT WATTS	Cooling	2.53 kW
	Heating	2.40 kW
E.E.R.	Cooling	2.81 kW/kW
	Heating	3.25 kW/kW
STARTING CURRENT	10 A	
MOISTURE REMOVAL	2.0 l/hr	

COMPRESSOR

TYPE	Hermetic type, 4 poles, DC motor, Twin rotary
DISCRIMINATION	TNB220FPCM
REFRIGERANT	R410A 1,800 g

FAN SPEED	Indoor	Discrimination	MFA-30JTT
		High	540 r.p.m.
		Med	480 r.p.m.
		Low	390 r.p.m.
	Outdoor	Discrimination	MFB-
		High	780 / 400
Low		780 / 400	
AIR FLOW	Indoor	1,250 m ³ /h	
	Outdoor	3,200 m ³ /h	
DIMENSIONS H x W x D	Indoor	246 x 830 x 830 mm	
	Outdoor	650 x 830 x 320 mm	
WEIGHT Net / Gross	Indoor	34 kg / 44 kg	
	Outdoor	54 kg / 58 kg	

NOISE LEVEL

INDOOR UNIT	High speed	46 dB
	Med speed	43 dB
	Low speed	37 dB
OUTDOOR UNIT	Cooling	52 dB
	Heating	54 dB

REFRIGERANT CHARGE

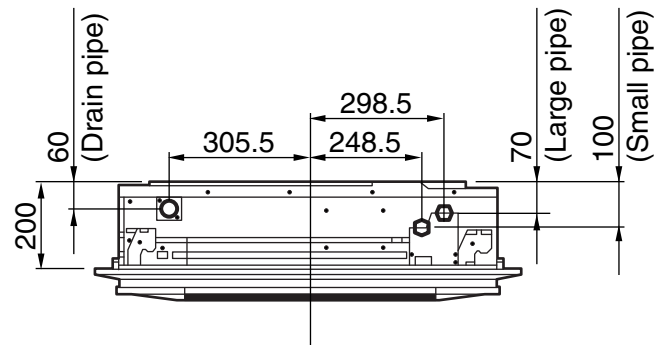
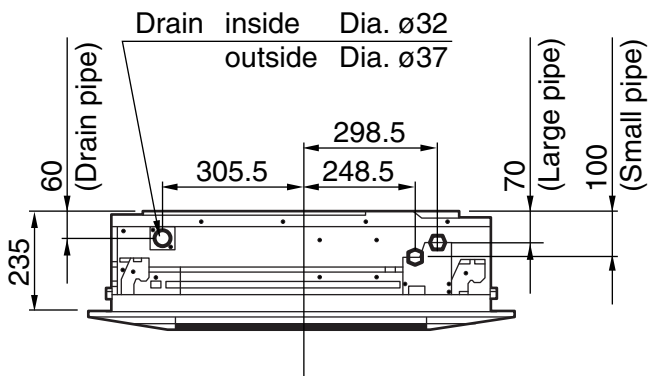
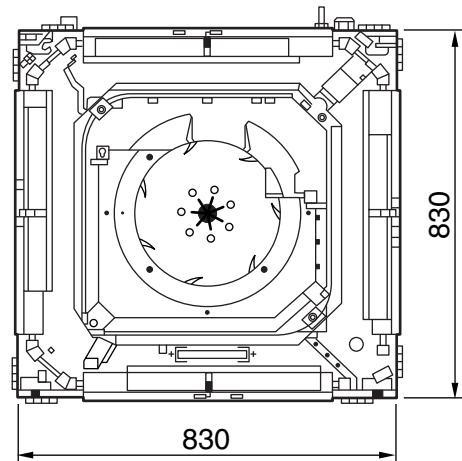
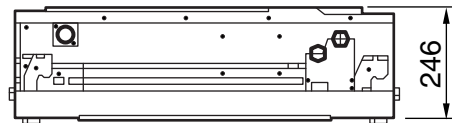
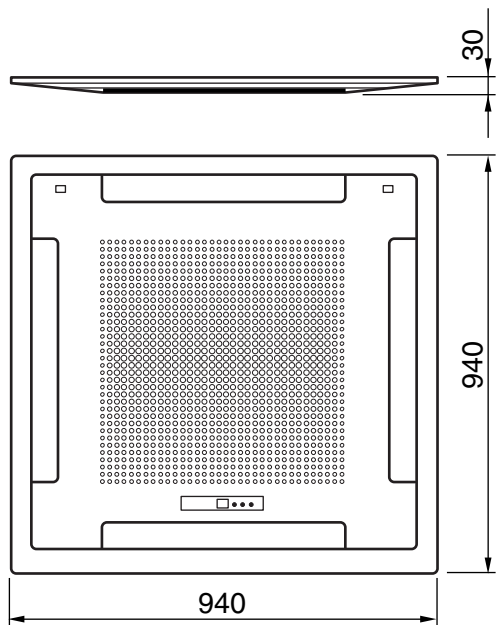
FULL CHARGE	Pipe Length	10 m	1,800 g
		15 m	2,000 g
		20 m	2,200 g
		25 m	2,400 g
ADDITIONAL CHARGE			40 g/m
MAX PIPE HEIGHT			15 m

When you dismantle indoor units which are installed, take care not to make parts fall down, especially motors.

DIMENSIONS

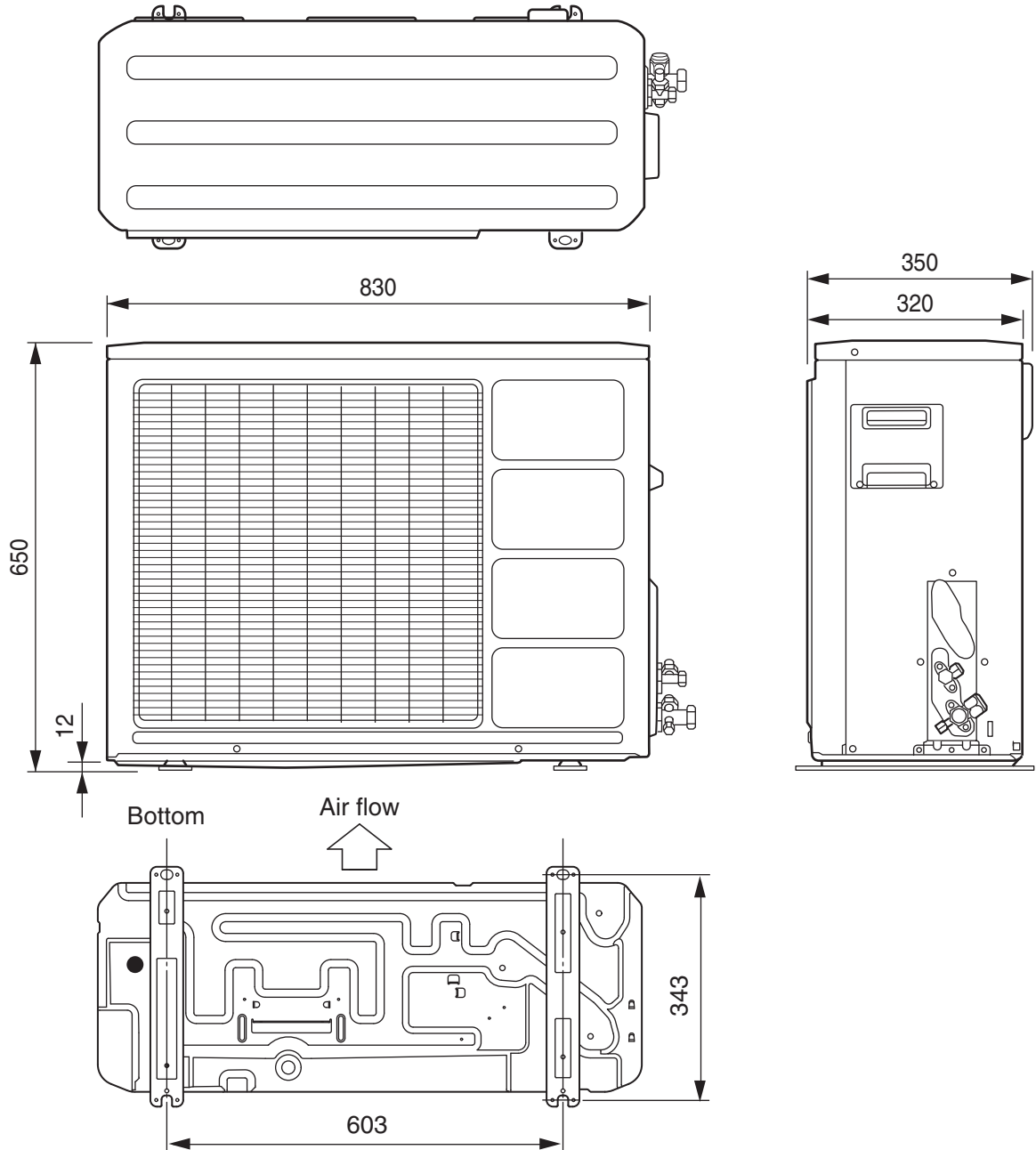
INDOOR UNIT

Unit : (mm)

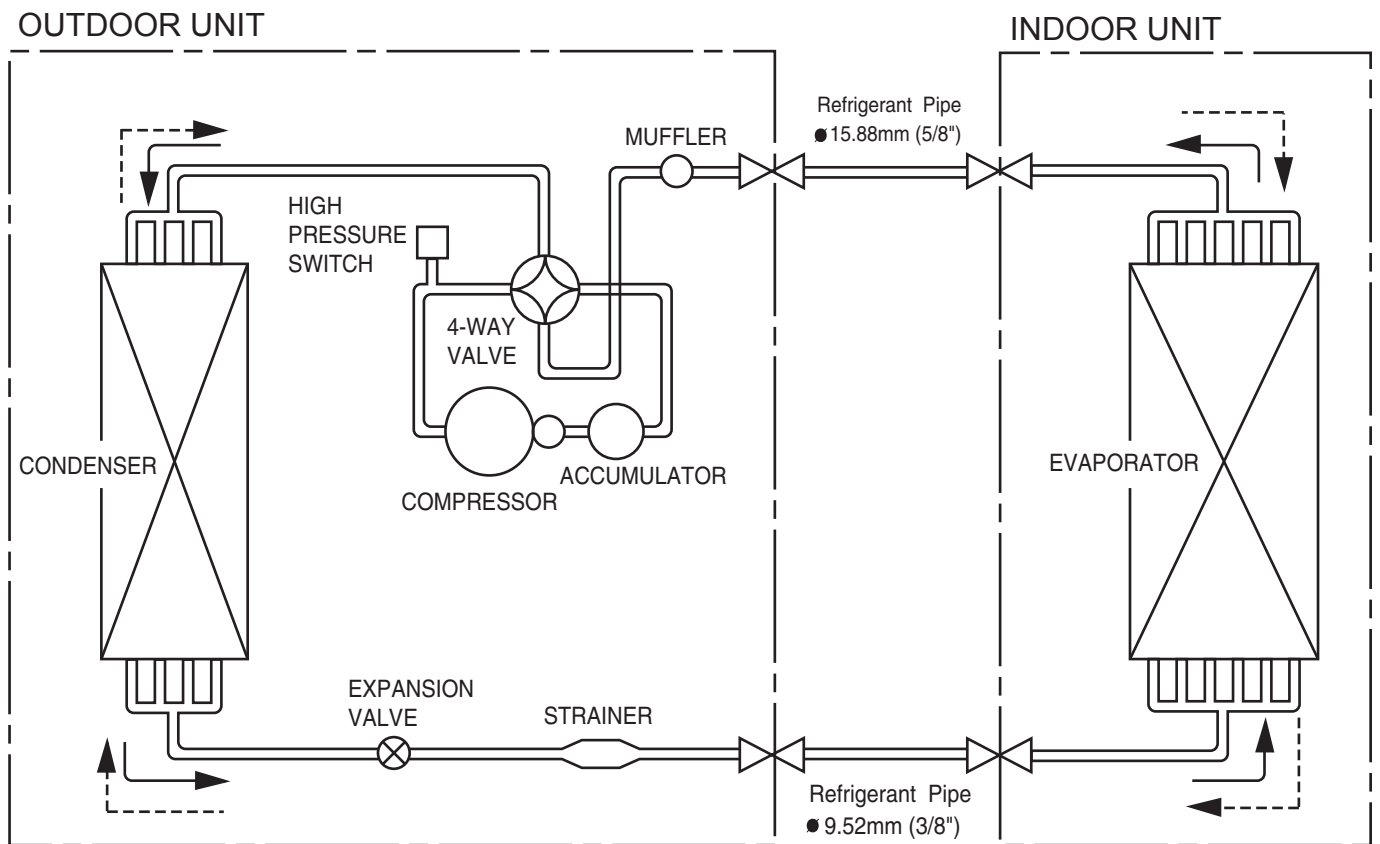



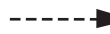
OUTDOOR UNIT

Unit : (mm)



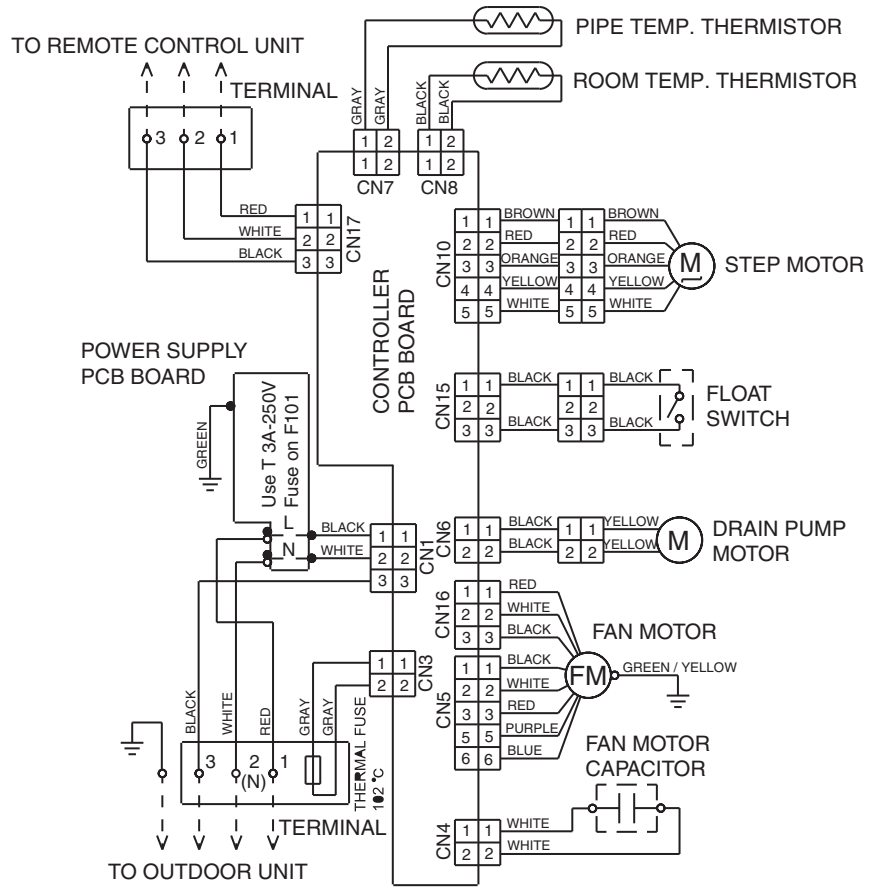
REDRIGERANT SYSTEM DIAGRAM



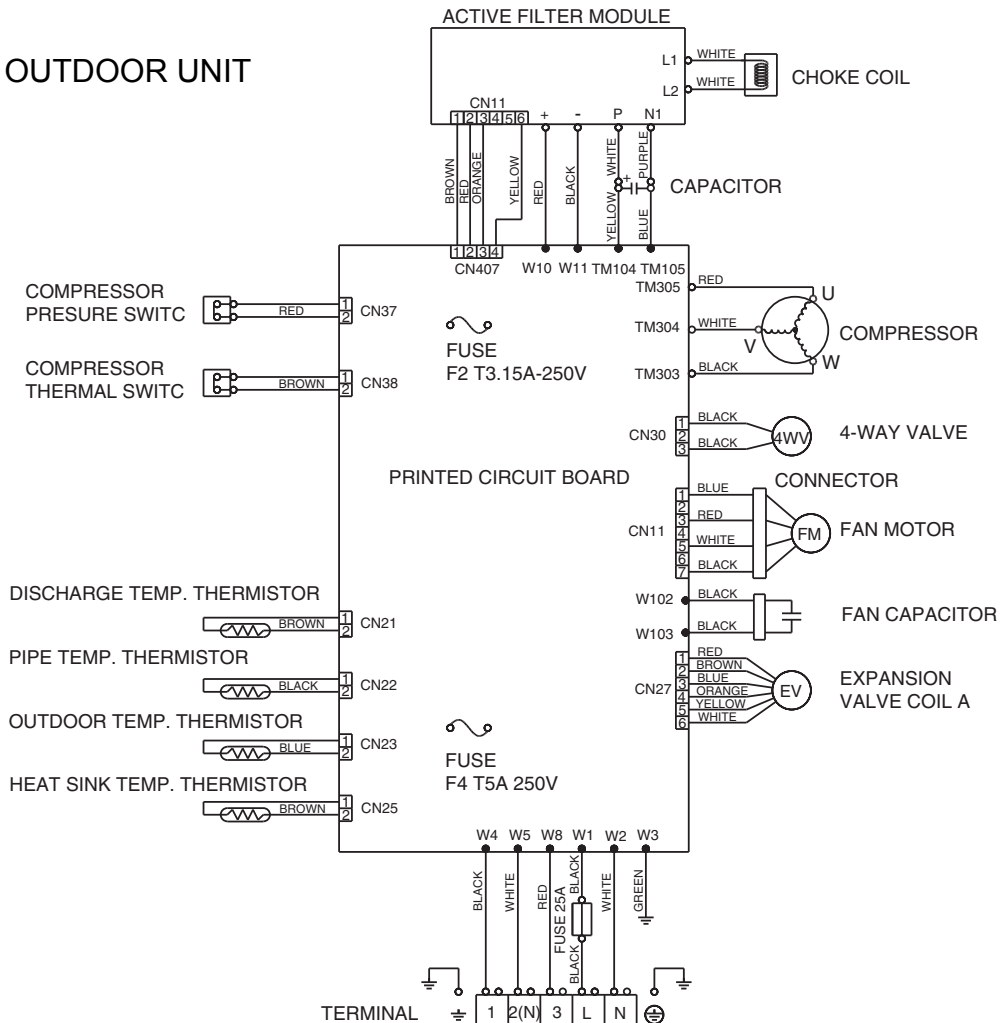
 Cool
 Heat

CIRCUIT DIAGRAM

INDOOR UNIT

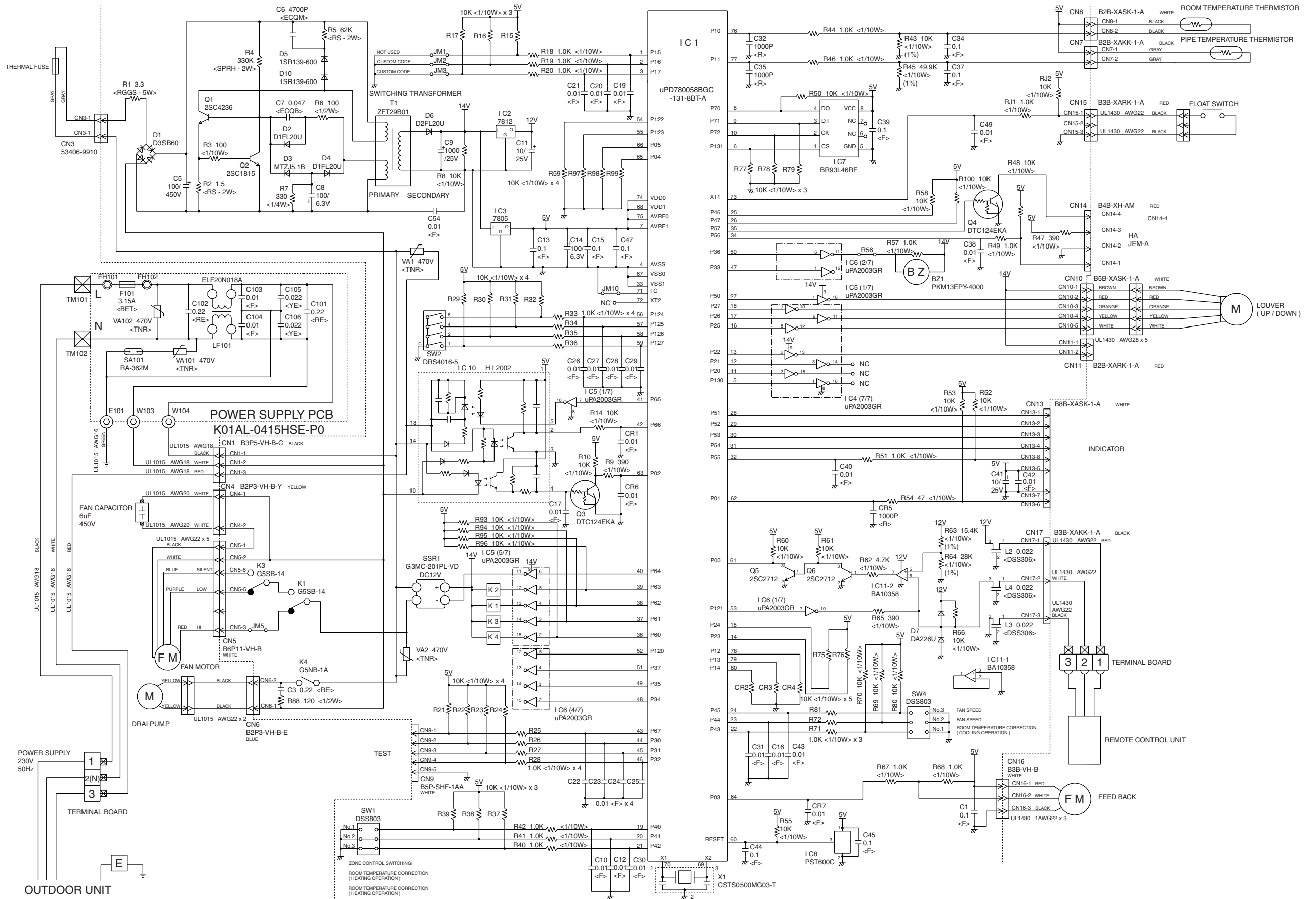


OUTDOOR UNIT



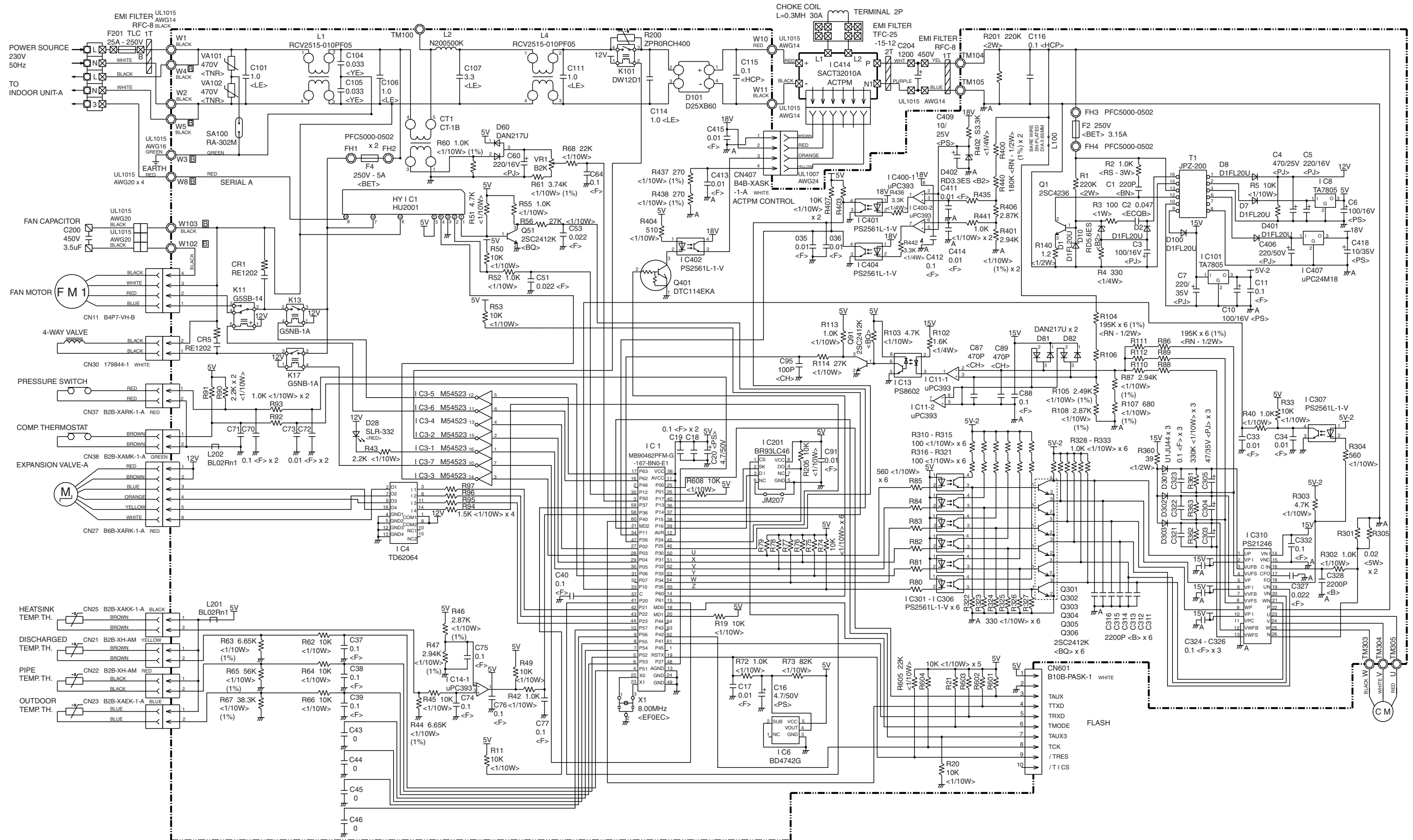
INDOOR PCB CIRCUIT DIAGRAM

Controller PCB Assy
K01AL-0415HSE-C1



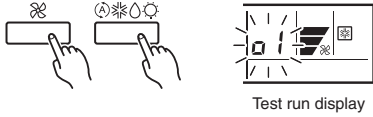
OUTDOOR PCB CIRCUIT DIAGRAM

Controller PCB Assy
K03AV-0402HUE-C1



ERROR CONTENTS

- 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.



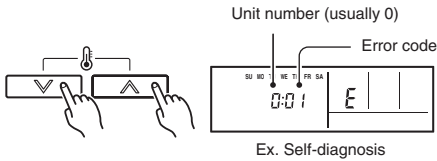
- Press the start/stop button to stop the test run.

[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.

REMOTE CONTROLLER DISPLAY

- Stop the air conditioner operation.
- 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.



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

Error code	Error contents
00	Communication error (indoor unit ↔ remote controller)
01	Communication error (indoor unit ↔ 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
0E	Outdoor high pressure abnormal
11	Model abnormal
12	Indoor fan abnormal
13	Outdoor signal abnormal
14	Outdoor EEPROM abnormal
15	Compressor temperature sensor
16	Pressure switch error
17	IPM error
18	CT error
19	Active filter module (AFM) error

Error code	Error contents
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

OUTDOOR UNIT

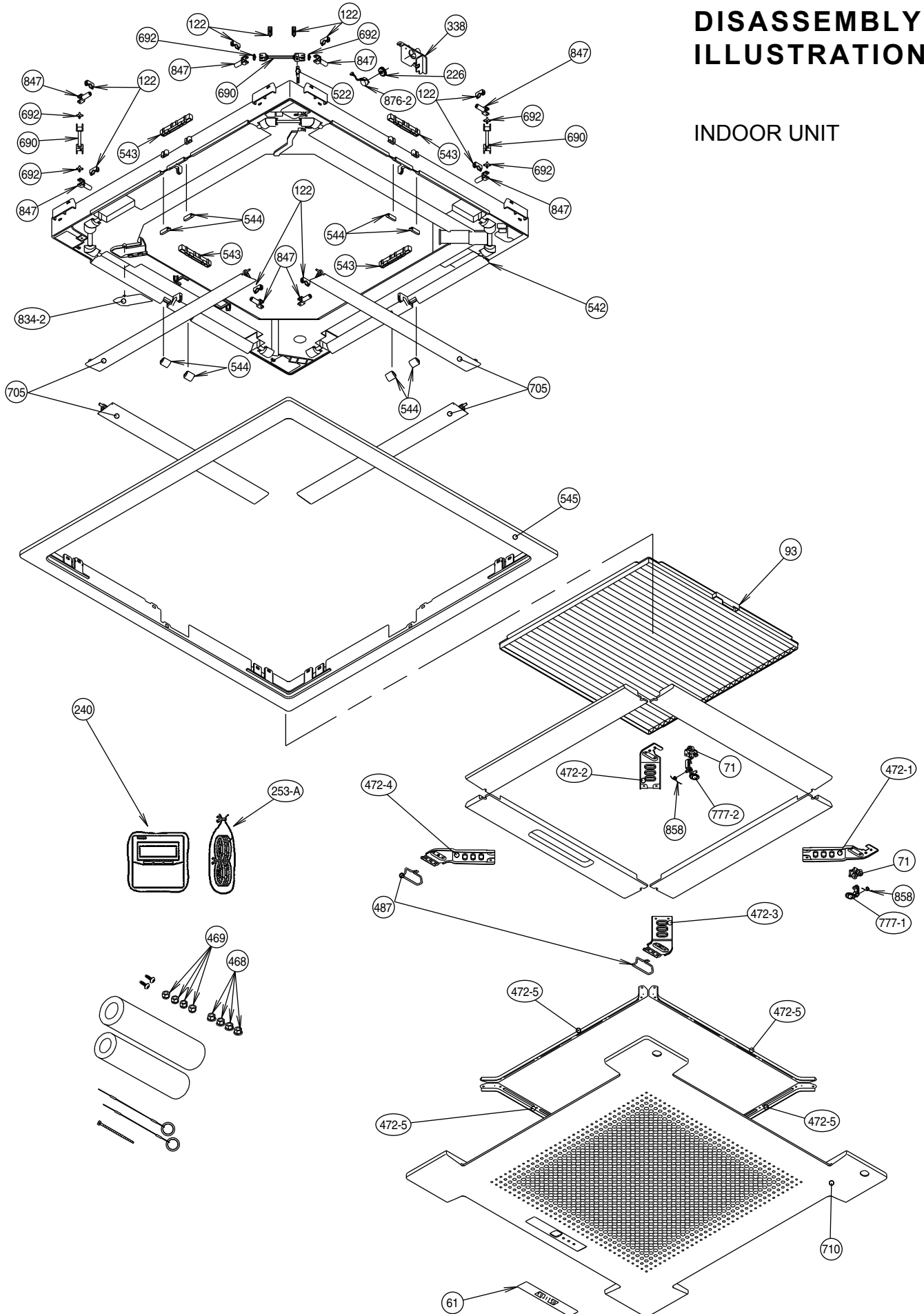
- Is there any abnormal noise and vibration during operation?
- Will noise, wind or drain water from the unit disturb the neighbours?
- Is there any gas leakage?

- Do not operate the air conditioner in the test running state for a long time.

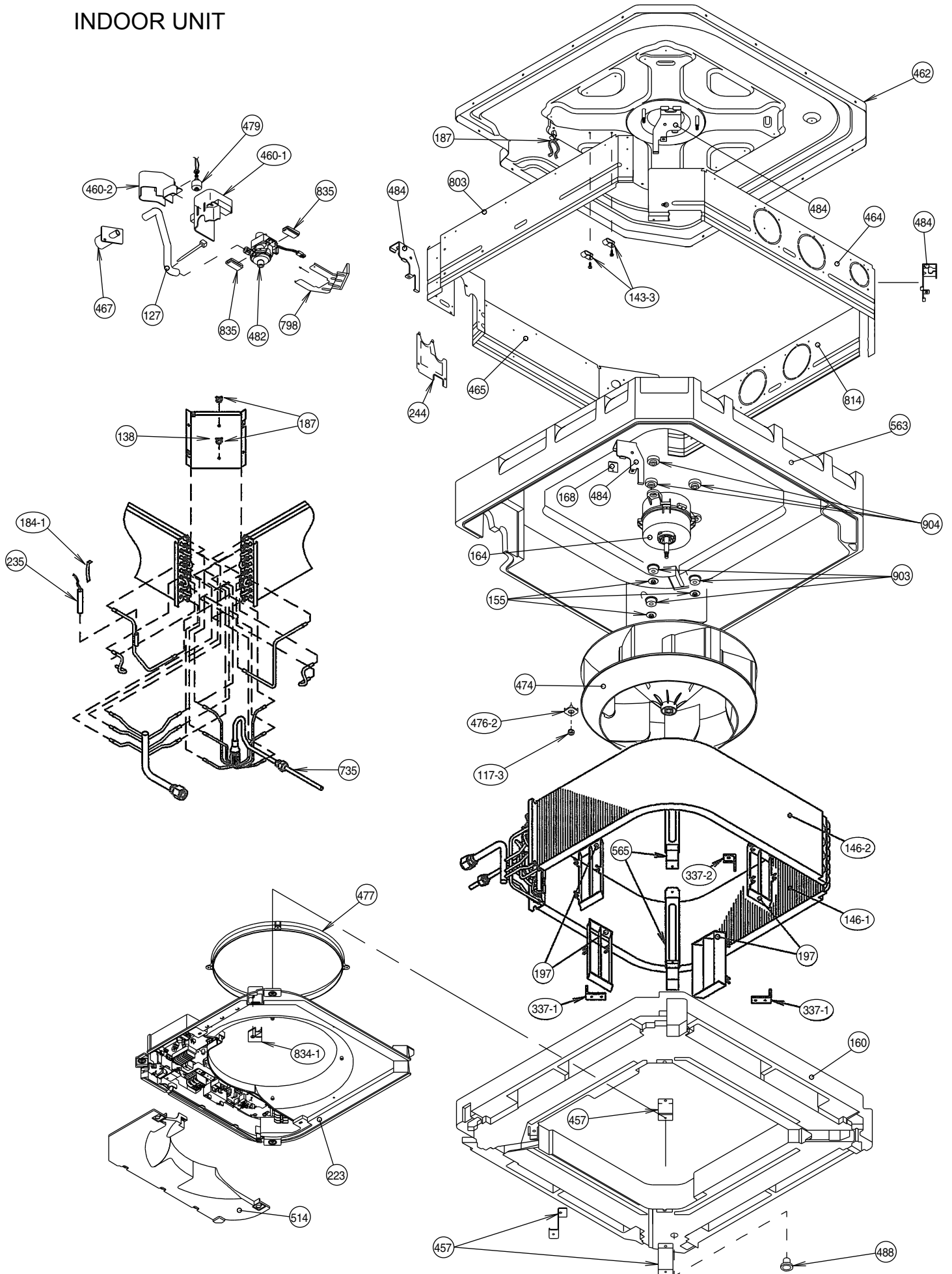
Error contents	LED (red)
Serial signal error	1 time blink
Discharge pipe thermistor error	2 times blink
Heat exchanger thermistor error	3 times blink
Outdoor temperature thermistor error	4 times blink
2 - way valve thermistor A, B error	5 times blink
3 - way valve thermistor A, B error	6 times blink
Compressor thermistor error	7 times blink
Pressure switch error	8 times blink
Indoor unit communication error	9 times blink
Current trip error	10 times blink
CT error	11 times blink
Compressor position detection error	12 times blink
Compressor starting error	13 times blink
Timer error	14 times blink

DISASSEMBLY ILLUSTRATION

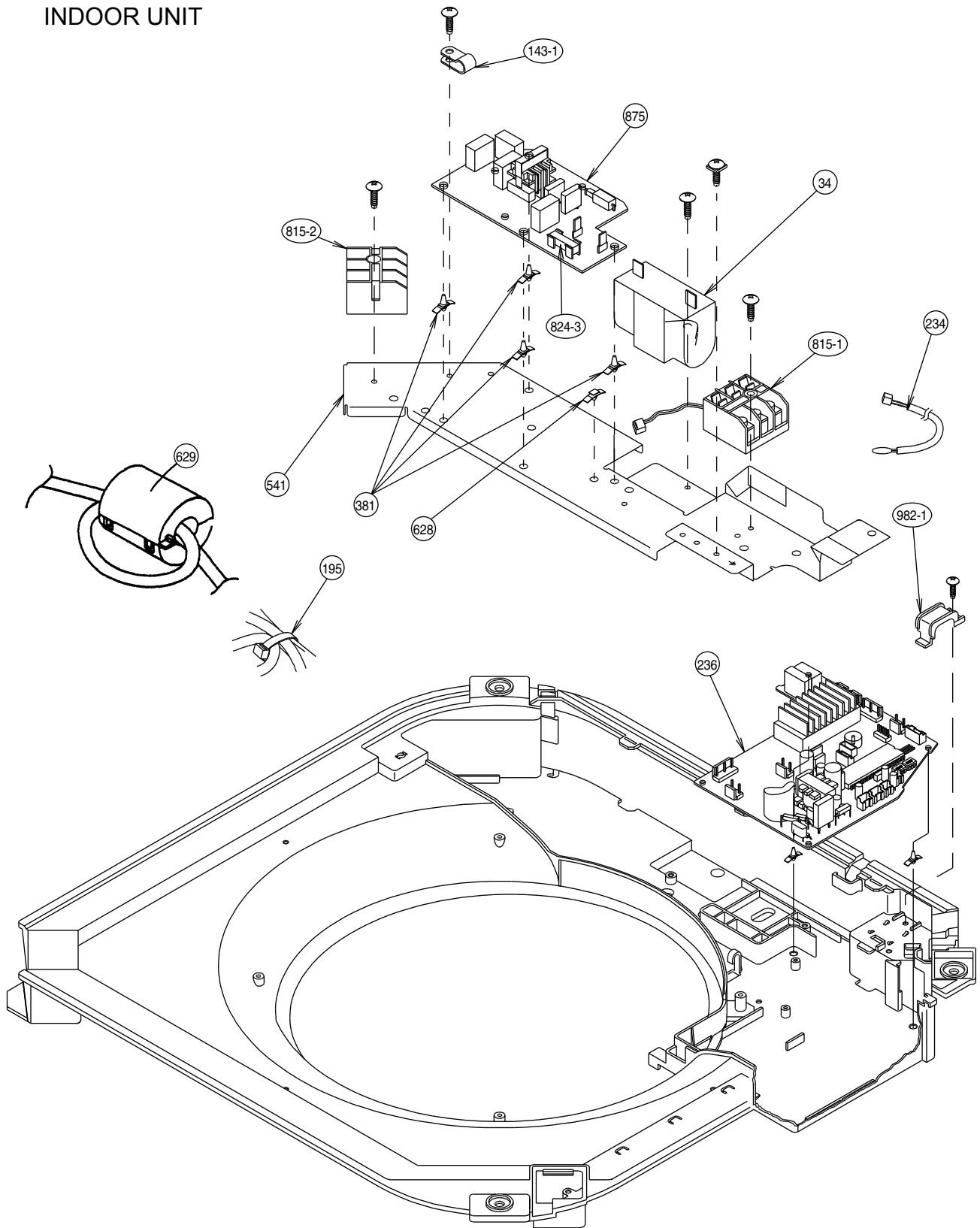
INDOOR UNIT



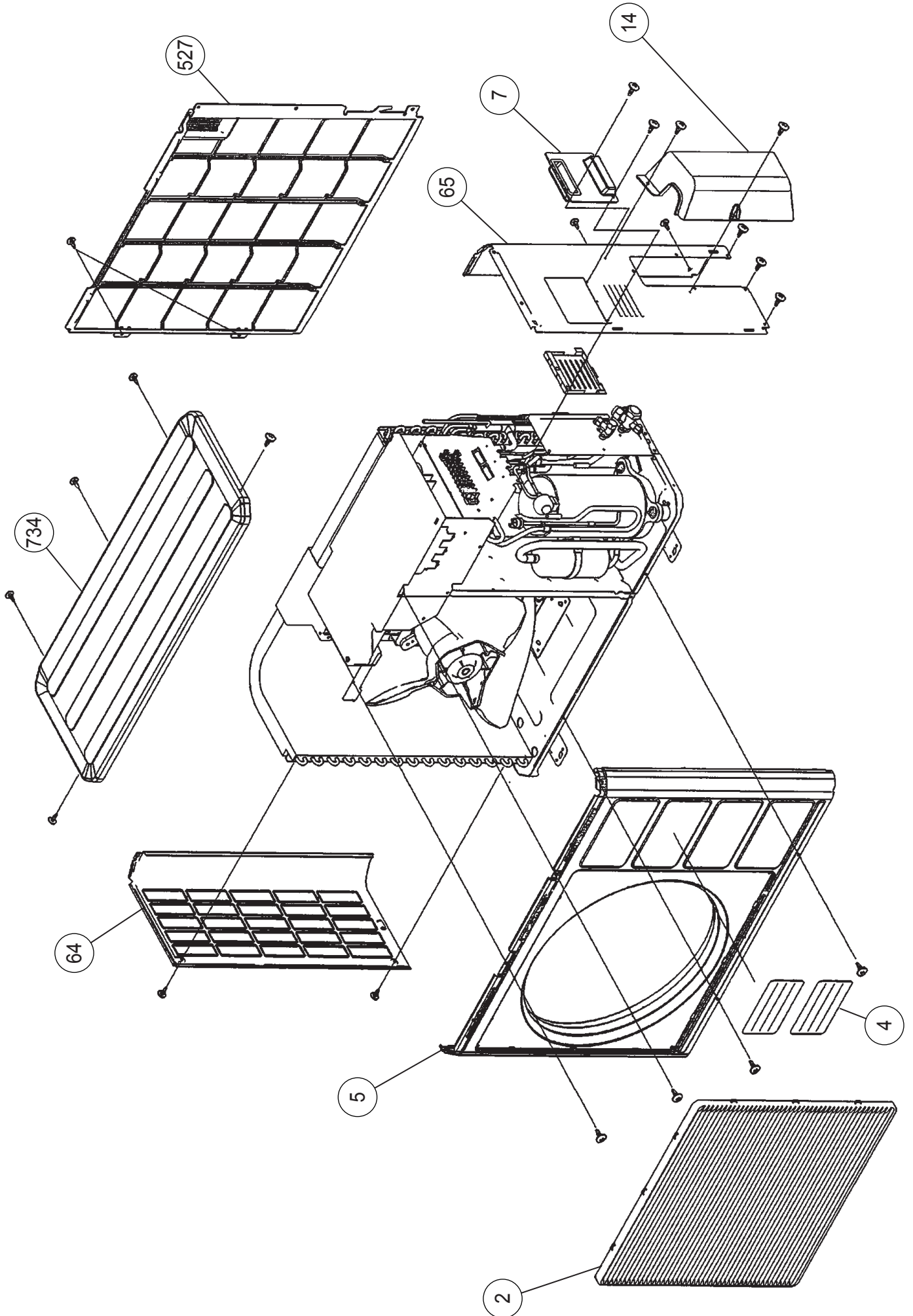
INDOOR UNIT



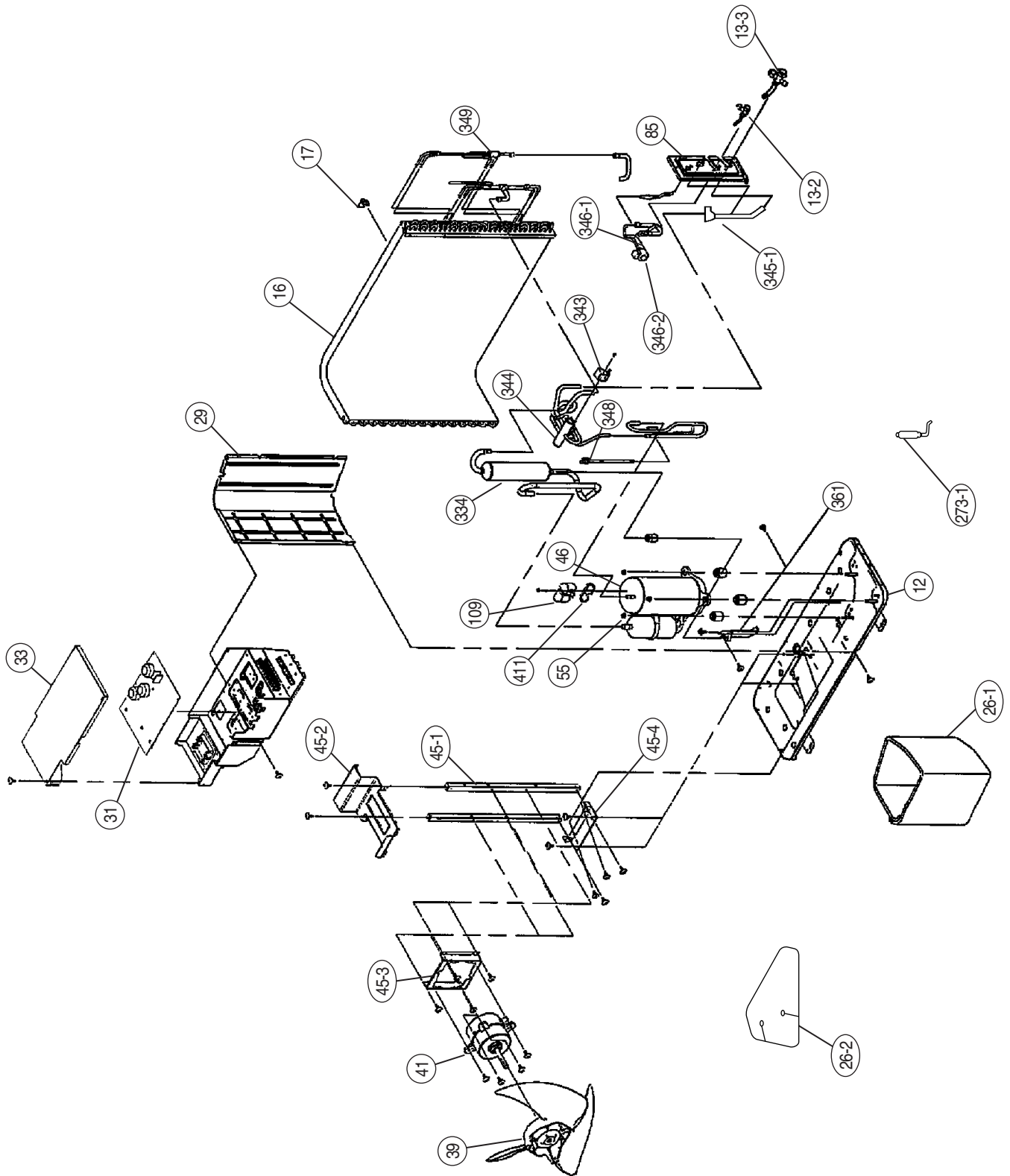
INDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT



PARTS LIST

INDOOR UNIT

Ref. No	Description	Part No.	Ord. Q'ty	Ref. No	Description	Part No.	Ord. Q'ty
		AUY24LUAR				AUY24LUAR	
34	Capacitor, Plastic	9900270216		472-4	Grille Reinforcement-D	9362741002	
61	Decoration Plate	9362787000		472-5	Grille Reinforcement-E	9362742009	
71	Grille Hook Holder	9362782005		474	Turbo Fan Assy	9362810012	
93	Filter	9362766005		476-2	Special Washer	9362756006	
117-3	Hex. Nut w/Spring Washer	301721180114		477	Bellmouth (B)	9362774000	
122	Louver Support Holder	9362799003		479	Float Switch	9703285004	
127	Drain Hose	9365074008		482	Pump Unit	9703125010	
138	Separate Wall	9362793001		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	9373799030		514	Control Box Cover	9362763004	
146-2	Evaporator-B Assy	9373800033		522	Joint Gear	9362772006	
155	Special Nut M6	9307615016		541	Terminal Plate	9363642001	
160	Drain Pan Assy	9362804004		542	Panel Base	9362759014	
164	Fan Motor Assy-IN	9601558019		543	Panel Frame Holder	9362761017	
168	Cabinet-E	9362735001		544	Panel Base Holder	9362760010	
184-1	Thermistor Spring-A	313728262708		545	Panel Frame	9362758017	
187	Clamp No. 1219	313361271706		563	Insulation (Inner Box)	9362797009	
195	Clamp SKB-100	313361275805		565	Evaporator Holder Assy	9362802024	
197	Wind Guide Board	9373444015		628	Locking Spacer-B	313005446558	
223	Control Box	9362762007		629	EMI Filter	0400247074	
226	Motor Gear	9362764001		690	Joint-A	9362773003	
234	Room Temperature Thermistor	9703299025		692	Joint Shaft	9362771009	
235	Pipe Temperature Thermistor	9703297014		705	Louver	9362769013	
236	Controller PCB Assy	9705914025		710	Intake Grille	9362767019	
240	Remote Control Unit	9372266052		735	Distributor Assy	9371325040	
244	Pipe Cover	9362748001		777-1	Grille Hook-A	9362779012	
253-A	Wire Assy (Remote)	9372714010		777-2	Grille Hook-B	9362778015	
337-1	Reinforcement (Eva.)-A	9362749008		798	Pump Hook Bracket	9362753005	
337-2	Reinforcement (Eva.)-B	9362750004		803	Cabinet-D	9362792004	
338	Motor Holder	9362765008		814	Cabinet-C	9362791007	
381	Locking Spacer	313209391506		815-1	Terminal 3P	9306489069	
457	Reinforcement (Drain Pan)	9362757003		815-2	Terminal 3P	9703345012	
460-1	Pump Cover-A	9362775007		824-3	Fuse	0600222512	
460-2	Pump Cover-B	9362776004		834-1	Wire Cover-A	9362789004	
462	TOP Cover Plate Assy	9362806022		834-2	Wire Cover-B	9362788007	
464	Cabinet-A Assy	9362807012		835	Cushion Rubber (Pump)	9362777001	
465	Cabinet-B Assy	9362808019		847	Louver Supporter	9362770019	
467	Drain Port	9362786003		858	Grille Spring	9362755009	
468	Special Nut-A (Large)	313005446653		875	Power Supply PCB Assy	9704561244	
469	Special Nut-B (Small)	313005446759		876-2	Step Motor	9360307019	
472-1	Grille Reinforcement-A	9362738002		903	Rubber (Vibration-proof)-A	9364891002	
472-2	Grille Reinforcement-B	9362739009		904	Rubber (Vibration-proof)-B	9364892009	
472-3	Grille Reinforcement-C	9362740005		982-1	Cord Clamp	9356857009	







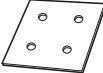


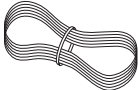
OUTDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty
		AOY24LMAKL	
2	Fan Guard	9371187013	
4	Emblem Rear	9351355005	
5	Front Panel	9371924014	
7	Connector Cover (Cabinet)	9366398004	
12	Base Assy	9371920078	
13-2	2-Way Valve	9372204023	
13-3	3-Way Valve	9372205075	
14	Valve Cover	9372796016	
16	Condenser Assy	9372181096	
17	Thermistor Holder Pipe	313714262805	
26-1	Compressor Cover-A	9374430055	
26-2	Compressor Cover-B	9374431052	
29	Separate Wall	9372795019	
31	Controller PCB Assy	9705285040	
33	Control Cover	9372792018	
39	Propeller Fan Assy	9366378013	
41	Fan Motor Assy-IN	9601671046	
45-1	Motor Bracket	9371929019	
45-2	Motor Bracket-Top	9371931012	
45-3	Motor Bracket-Center	9371930015	
45-4	Motor Bracket-Bottom	9371932019	
46	Compressor Assy	9373262015	
55	Special Nut M8	9355091008	
64	Side Panel-L	9371926018	
65	Side Panel-R Sub Assy	9372306048	
85	Valve Plate	9371928036	
109	Terminal Cover (For Comp.)	9373264019	
273-1	Strainer Assy	9372524015	

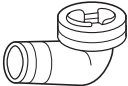

Ref. No.	Description	Part No.	Ord. Q'ty
		AOY24LMAKL	
334	Accumulator	9368391003	
343	Solenoid	9900165079	
344	4-Way Valve	9900163013	
345-1	Muffler	9372369029	
346-1	Expansion Valve Assy	9373729518	
346-2	Coil (Expansion Valve)	9900057022	
348	Pressure Switch Assy	9373729044	
349	Capillary Assy	9373729433	
361	Accumulator Support Assy	9372252017	
411	Gasket	9373266013	
527	Protective Net	9371934013	
734	Top Plate	9371925011	
----	Capacitor, Plastic	9704305077	
----	BR Sheet	9363708042	
----	Relay	9900117016	
----	ACTPM	9703457012	
----	Capacitor, Elec.	9705387010	
----	Fuse	0600086039	
----	Fuse Holder	0501454012	
----	Terminal-5P	9900203023	
----	Terminal-2P	9701971015	
----	Compressor Pressure Switch	9900186012	
----	Compressor Thermal Switch	9373263012	
----	Discharge Temperature Thermistor	9704219039	
----	Heat Exchanger Thermistor	9704220059	
----	Outdoor Temperature Thermistor	9703516047	
----	Heat Sink Thermistor	9900195014	

ACCESSORIES

INDOOR UNIT

Name and shape	Part No.
Coupler heat insulation 	9350716029 } 1 each 9352766015 }
Binder (small) 	313361275805
Screw for install a remote controller 	0700181108
Special nut A (large flange) 	313005446653
Special nut B (small flange) 	313005446759
Remote control unit 	9372266052
Template 	9363173000
Blower cover insulation 	9363265002
Hook wire 	9363168006
Remote controller cord 	9372714010

OUTDOOR UNIT

Name and shape	Parts No.
Drain pipe 	9303029015
Drain cap 	313166024302

0504J2787