



**INVERTER MULTI
AIR CONDITIONER
FLOOR CONSOLE /
UNDER CEILING
DUAL type**

**SERVICE
MANUAL**



Models

Indoor unit		Outdoor unit
ABH14LBAJ	—	AOHA18LAT3
ABH14LBAJ	}	AOHA24LAT3
ABH18LBAJ		

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SPECIFICATIONS

INDOOR UNIT

TYPE	Cool and Heat	
MODEL NAME	ABH14LBAJ	ABH18LBAJ

ELECTRICAL DATA

POWER SOURCE	230 V	
FREQUENCY	50 Hz	
AIR CIRCULATION HIGH	640 m ³ /hr	780 m ³ /hr

FAN MOTOR

POWER SOURCE	230 V	
DISCRIMINATION	MFA-14JTT	MFA-18JTT
HIGH SPEED	850 r.p.m.	1,030 r.p.m.
MED SPEED	760 r.p.m.	890 r.p.m.
LOW SPEED	670 r.p.m.	770 r.p.m.

DIMENSIONS	H x W x D	199 x 990 x 655 mm
WEIGHT	Gross / Net	37 kg / 28 kg

OUTDOOR UNIT

TYPE	Colling & Heating	
MODEL NAME	AOHA18LAT3	AOHA24LAT3
COOLING CAPACITY	5.4 kW	6.8 kW
HEATING CAPACITY	6.8 kW	8.0 kW

ELECTRICAL SPECIFICATIONS

POWER SUPPLY	(220V) - 230V - (240V)		
FREQUENCY	50 Hz		
RUNNING CURRENT	Cooling	5.9 A	8.5 A
	Heating	7.1 A	8.8 A
INPUT	Cooling	1.35 kW	1.94 kW
	Heating	1.62 kW	2.00 kW
EER	Cooling	4.00 kW/kW	3.50 kW/kW
	Heating	4.20 kW/kW	4.00 kW/kW
AIR CIRCULATION HIGH	3,050 m ³ /hr	3,300 m ³ /hr	

COMPRESSOR

TYPE	Hermetic type, Inverter, 4 poles, 3-phase, DC motor, Twin Rotary		
DISCRIMINATION	DA150A1F-20NA		
REFRIGERANT	R410A	2,200 g	

FAN MOTOR

DISCRIMINATION	MFE-60PO	
HIGH SPEED (COOL)	730 r.p.m.	780 r.p.m.
HIGH SPEED (HEAT)	660 r.p.m.	780 r.p.m.

DIMENSIONS	H x W x D	700 x 900 x 330 mm
WEIGHT	Net / Gross	55 kg / 63 kg

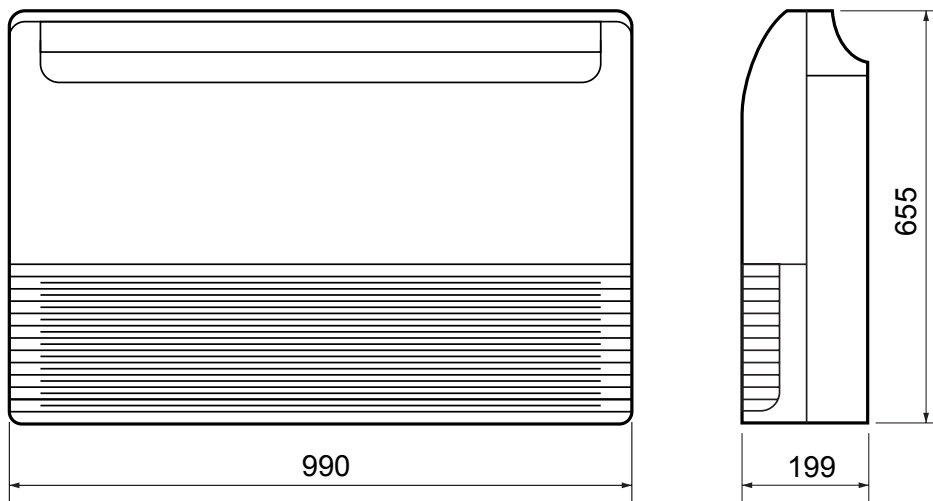
REFRIGERANT CHARGE (R410A)

FULL CHARGE AMOUNT	Total Pipe Length	30.0 m	2,200 g
		40.0 m	2,400 g
		50.0 m	2,600 g
ADDITIONAL CHARGE			20 g / m
CHARGELESS			30 m
MAX PIPE LENGTH (each unit)			25 m
MAX PIPE LENGTH (total)			50 m
MAX ELEVATION (between indoor units)			10 m
MAX ELEVATION (between indoor and outdoor)			15 m
MIN. PIPE LENGTH (each unit)			5 m

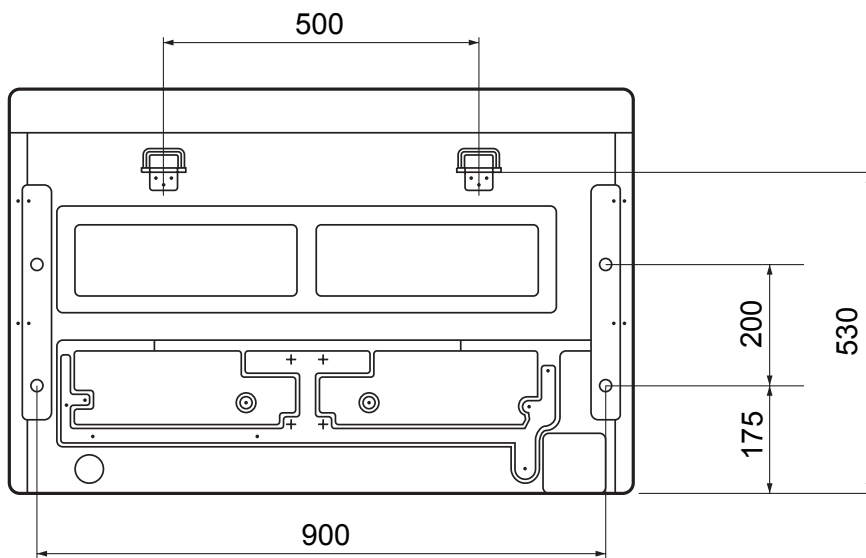
OUTLINE AND DIMENSIONS

INDOOR UNIT

Unit : mm

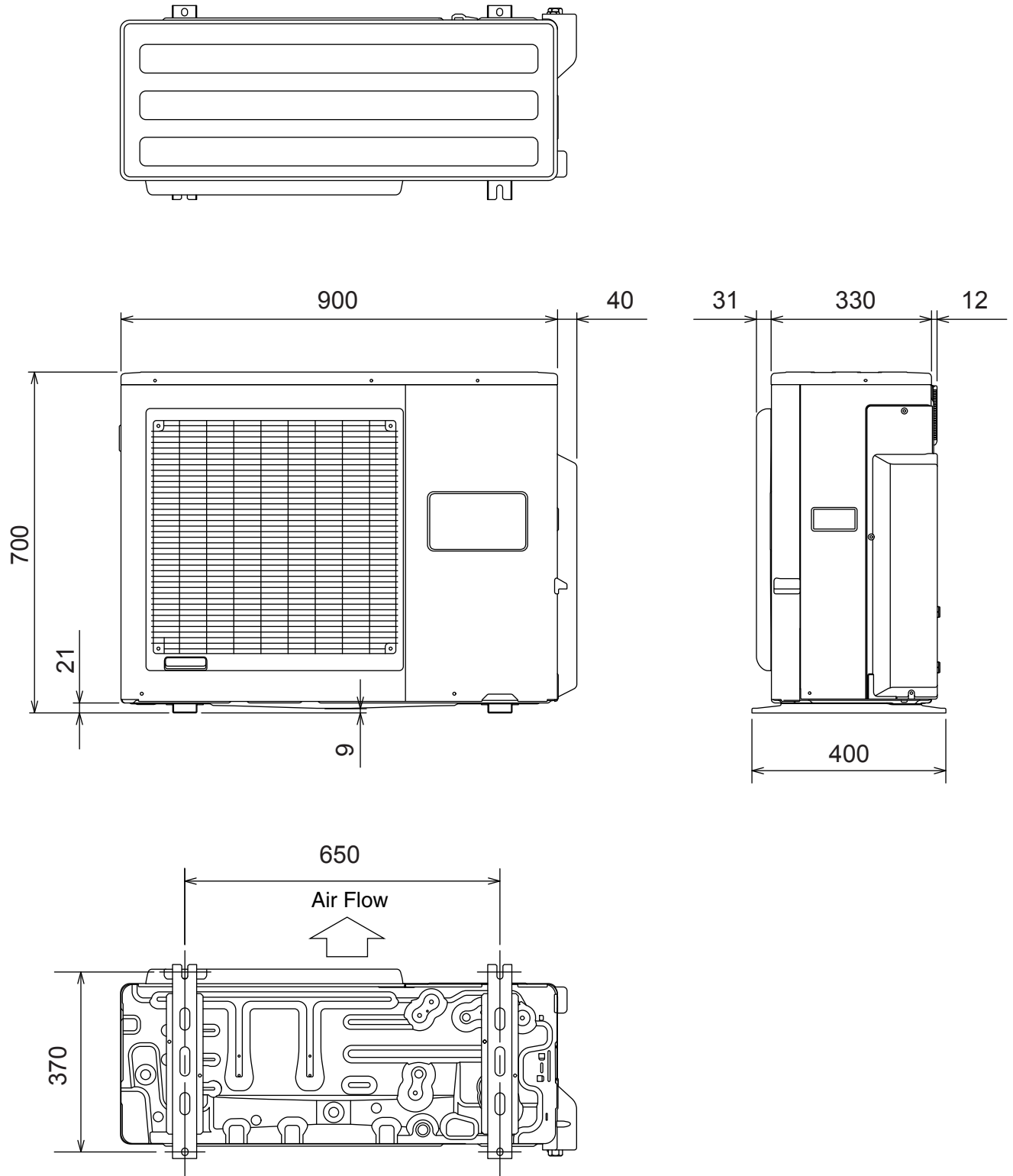


(rear view)



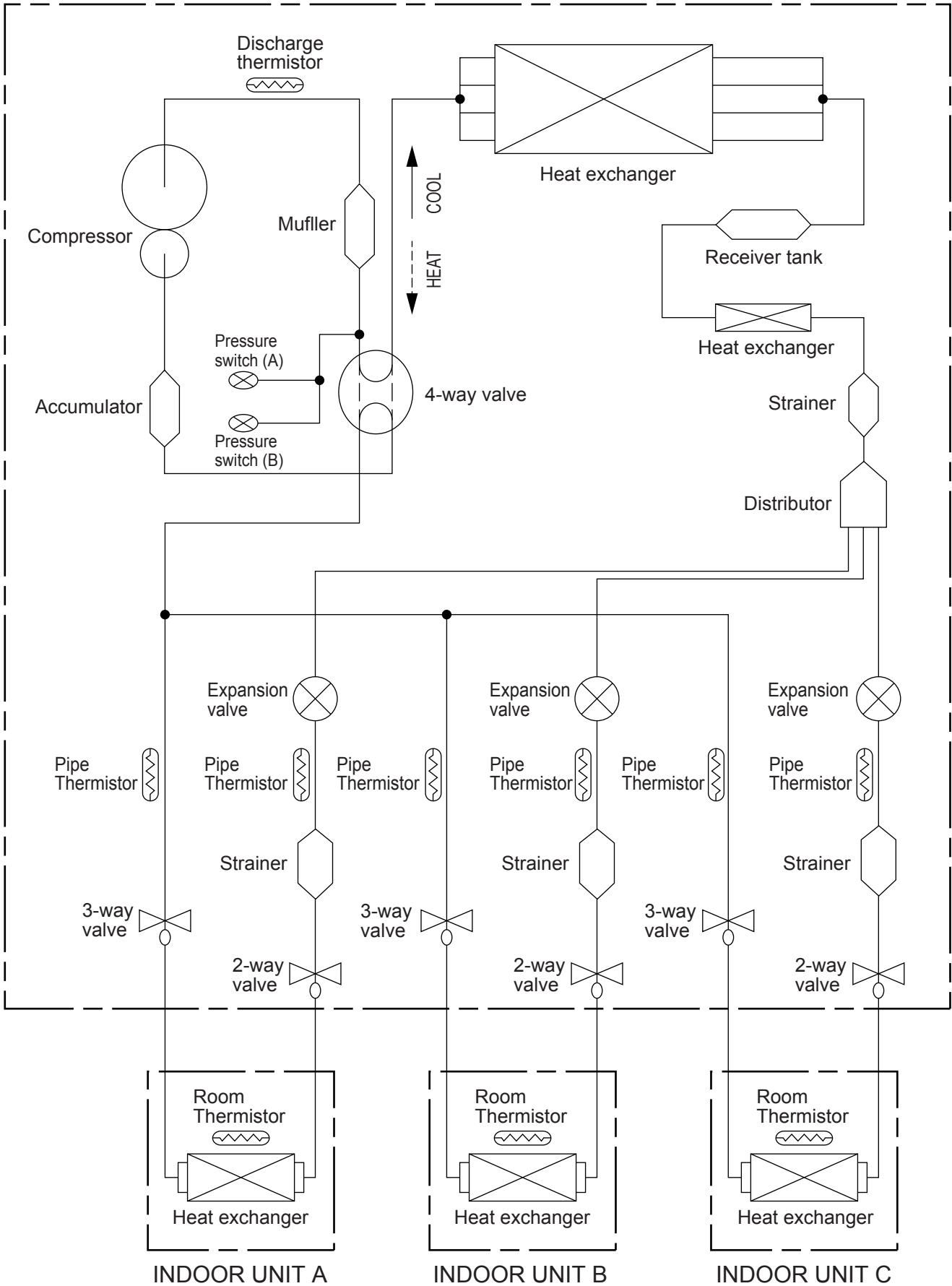
OUTDOOR UNIT

(Unit : mm)



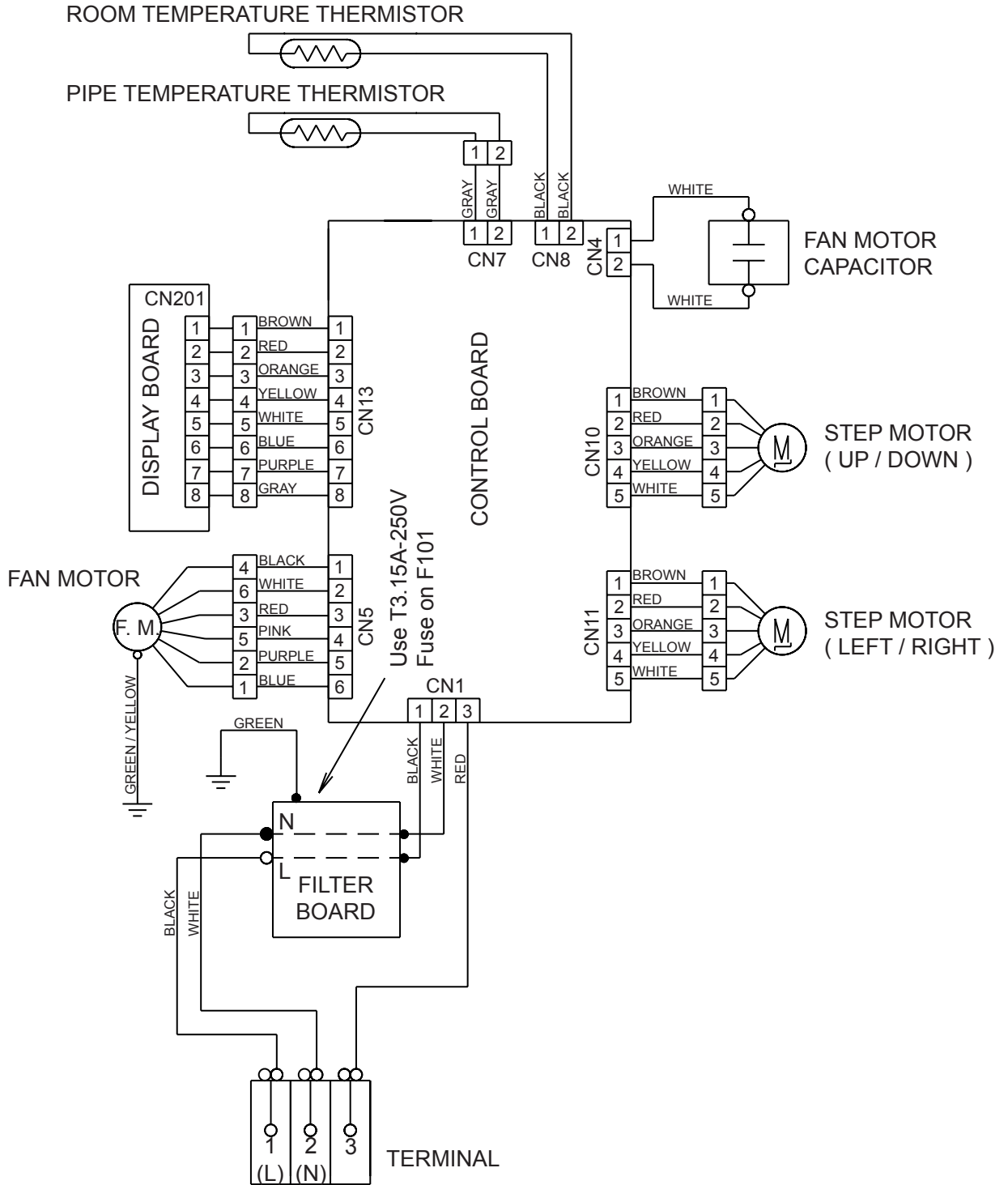
REFRIGERANT SYSTEM DIAGRAM

OUTDOOR UNIT

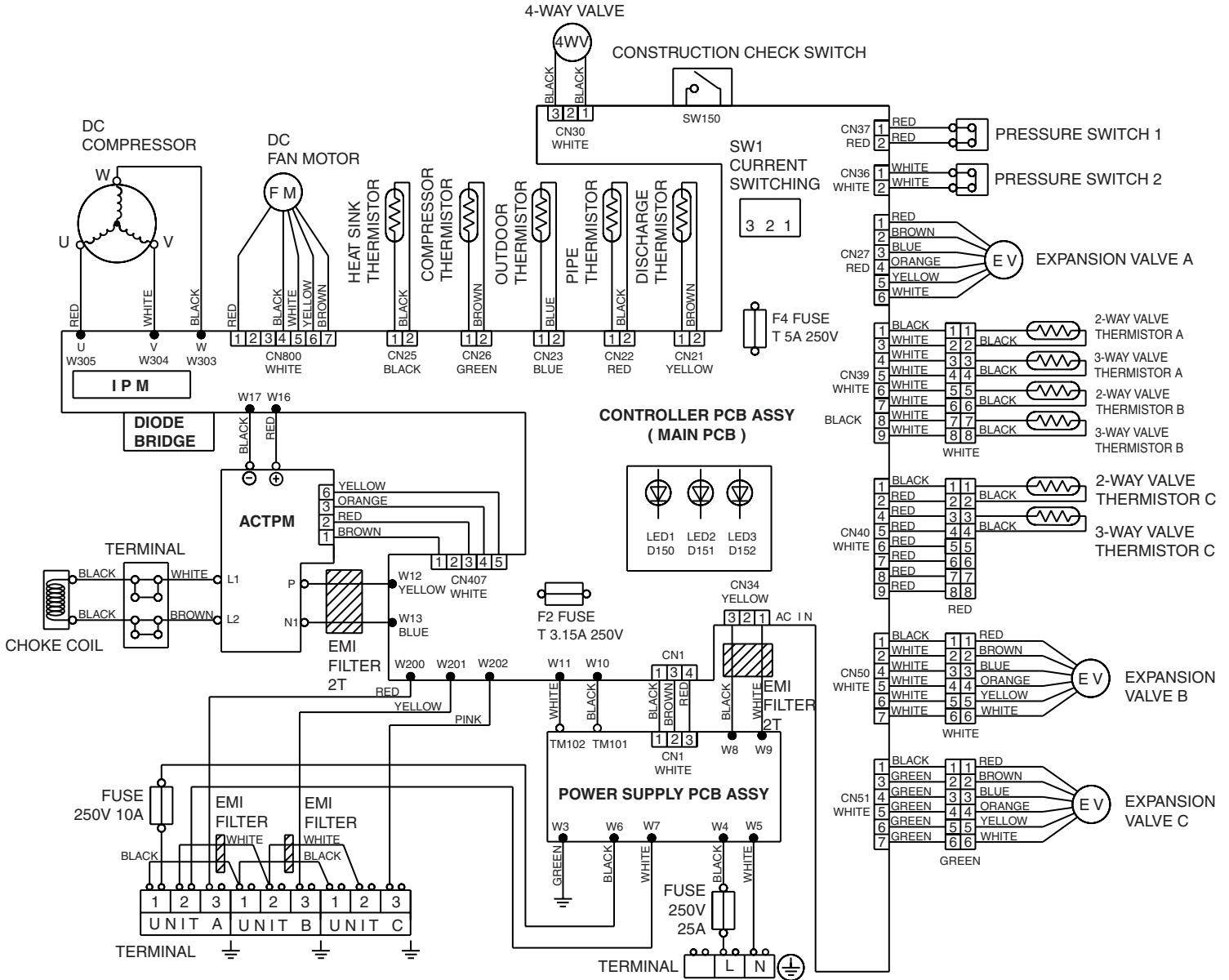


CIRCUIT DIAGRAM

INDOOR UNIT



OUTDOOR UNIT

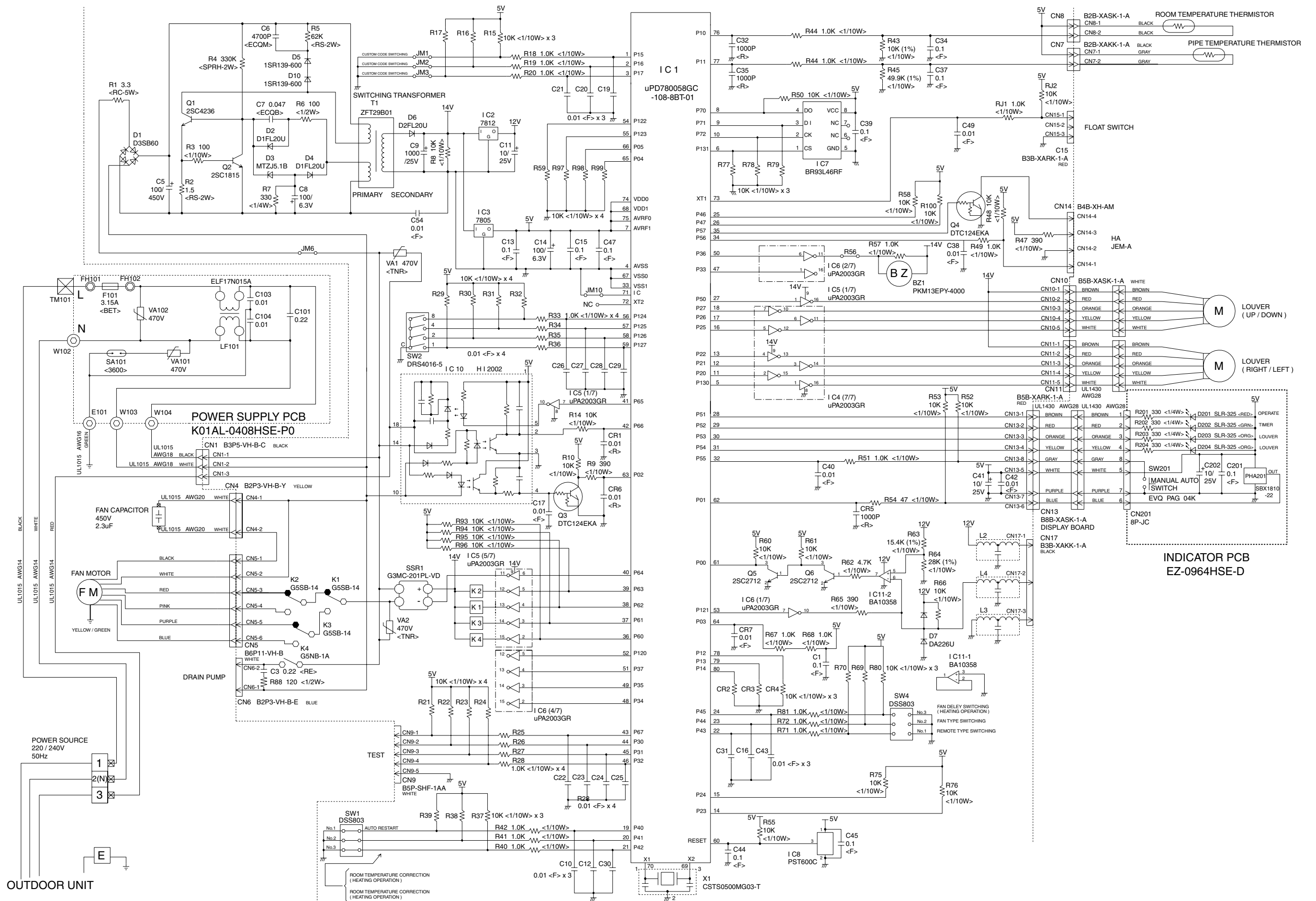


INDOOR PCB CIRCUIT DIAGRAM

Controller PCB Assy

ABH14LBAJ : K01AL-0414HSE-C1

ABH18LBAJ : K01AL-040DHSE-C1

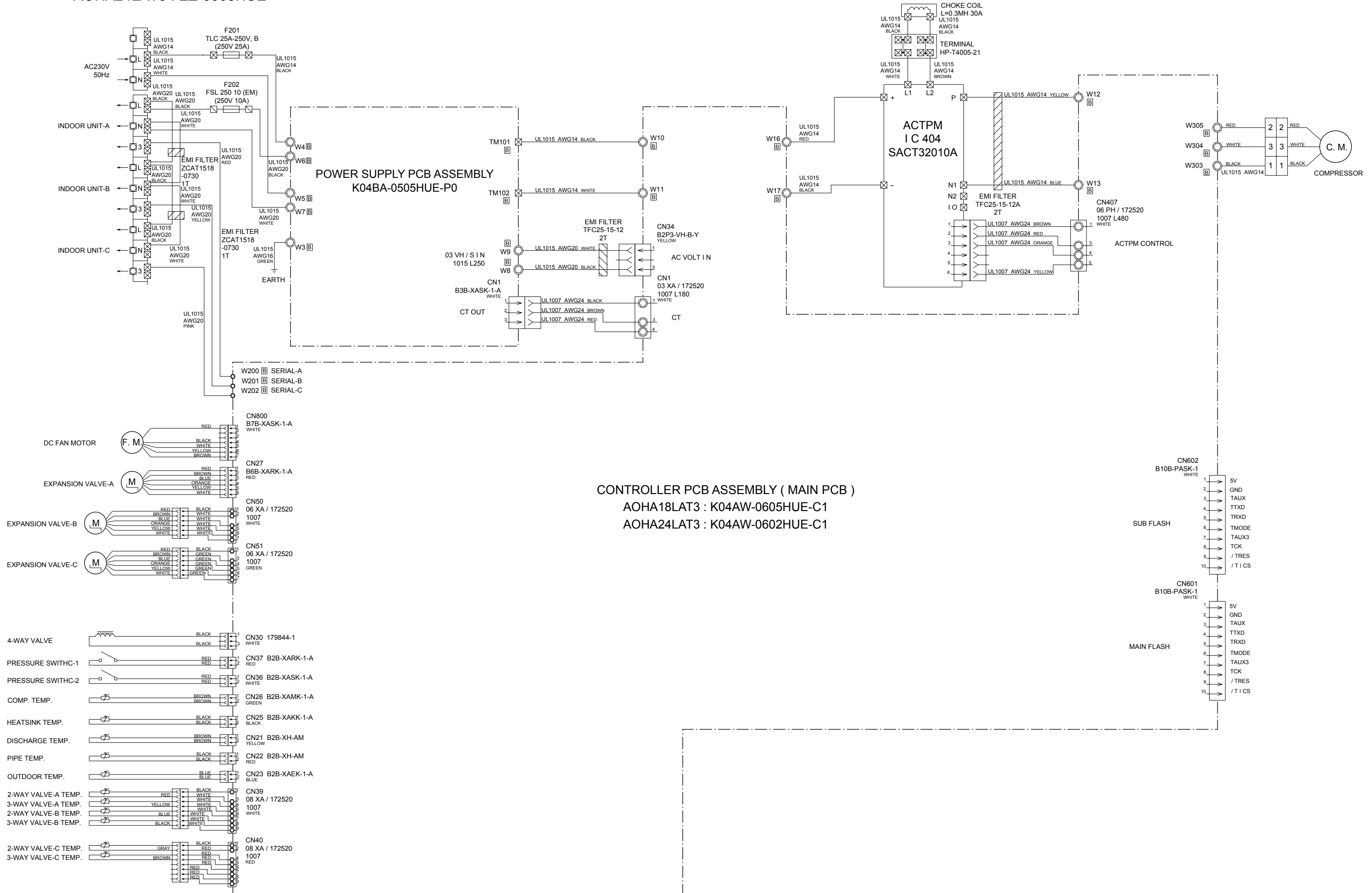


OUTDOOR PCB CIRCUIT DIAGRAM

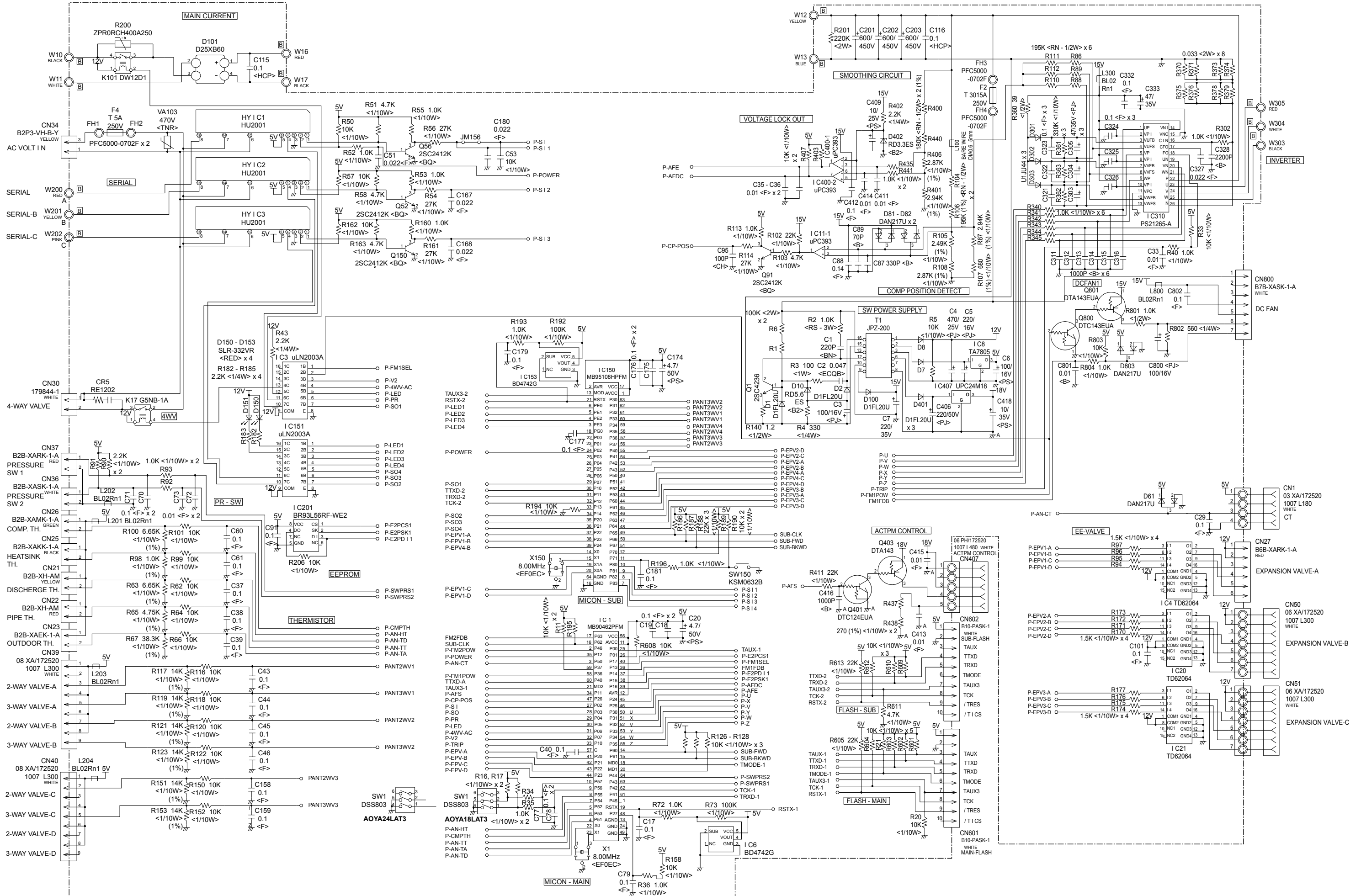
INVERTER ASSEMBLY

AOHA18LAT3 : EZ-006KHUE

AOHA24LAT3 : EZ-0068HUE

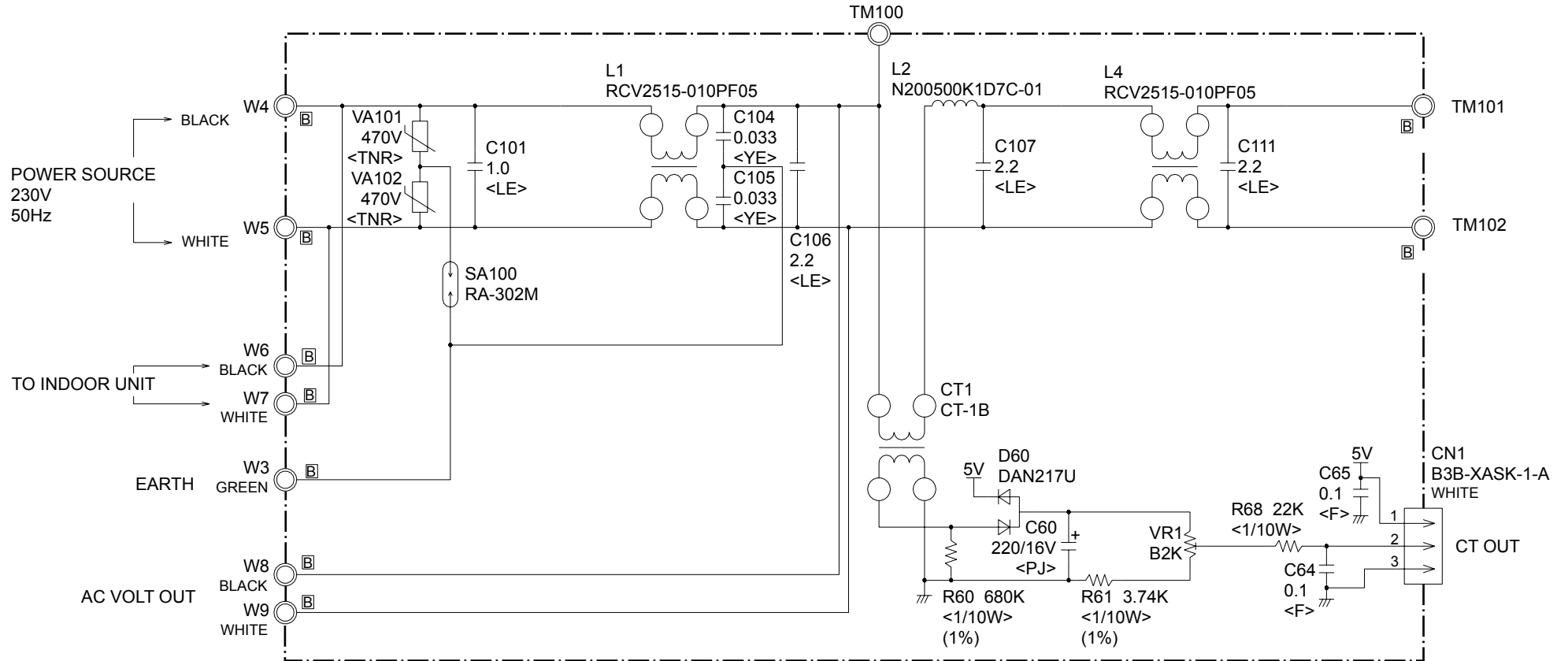


CONTROLLER PCB ASSEMBLY
AOHA18LAT3 : K04AW-0605HUE-C1
AOHA24LAT3 : K04AW-0602HUE-C1



OUTDOOR UNIT

POWER SUPPLY PCB ASSEMBLY K04BA-0505HUE-P0



ERROR CONTENTS

The OPERATION, TIMER and SWING lamps operate as follows according to the error contents.

○ : Fast flashing

● : Slow flashing

– : Off

Error contents	Error display		
	OPERATION (RED)	TIMER (GREEN)	SWING (ORANGE)
Indoor unit EEPROM error	○	○	–
Indoor unit room temperature thermistor opened	2 times ●	○	–
Indoor unit room temperature thermistor short-circuited	2 times ●	○	○
Indoor unit heat exchanger thermistor opened	3 times ●	○	–
Indoor unit heat exchanger thermistor short-circuited	3 times ●	○	○
Outdoor unit → Indoor unit communication error	5 times ●	○	–
Indoor unit → Outdoor unit communication error	5 times ●	○	○
Indoor unit fan error	6 times ●	○	–
Outdoor unit heat exchanger thermistor error	○	3 times ●	–
Outdoor unit outdoor temperature thermistor error	○	4 times ●	–
Outdoor unit discharge thermistor error	○	5 times ●	–
Outdoor unit compressor thermistor error	○	8 times ●	–
Outdoor unit pressure switch error	○	9 times ●	–
Outdoor unit 2 way valve thermistor error	○	–	2 times ●
Outdoor unit 3 way valve thermistor error	○	–	3 times ●
Indoor unit distinction error	○	–	4 times ●
Current trip	○	10 times ●	–
Compressor loter location error	○	13 times ●	–
Outdoor fan motor error	○	14 times ●	–

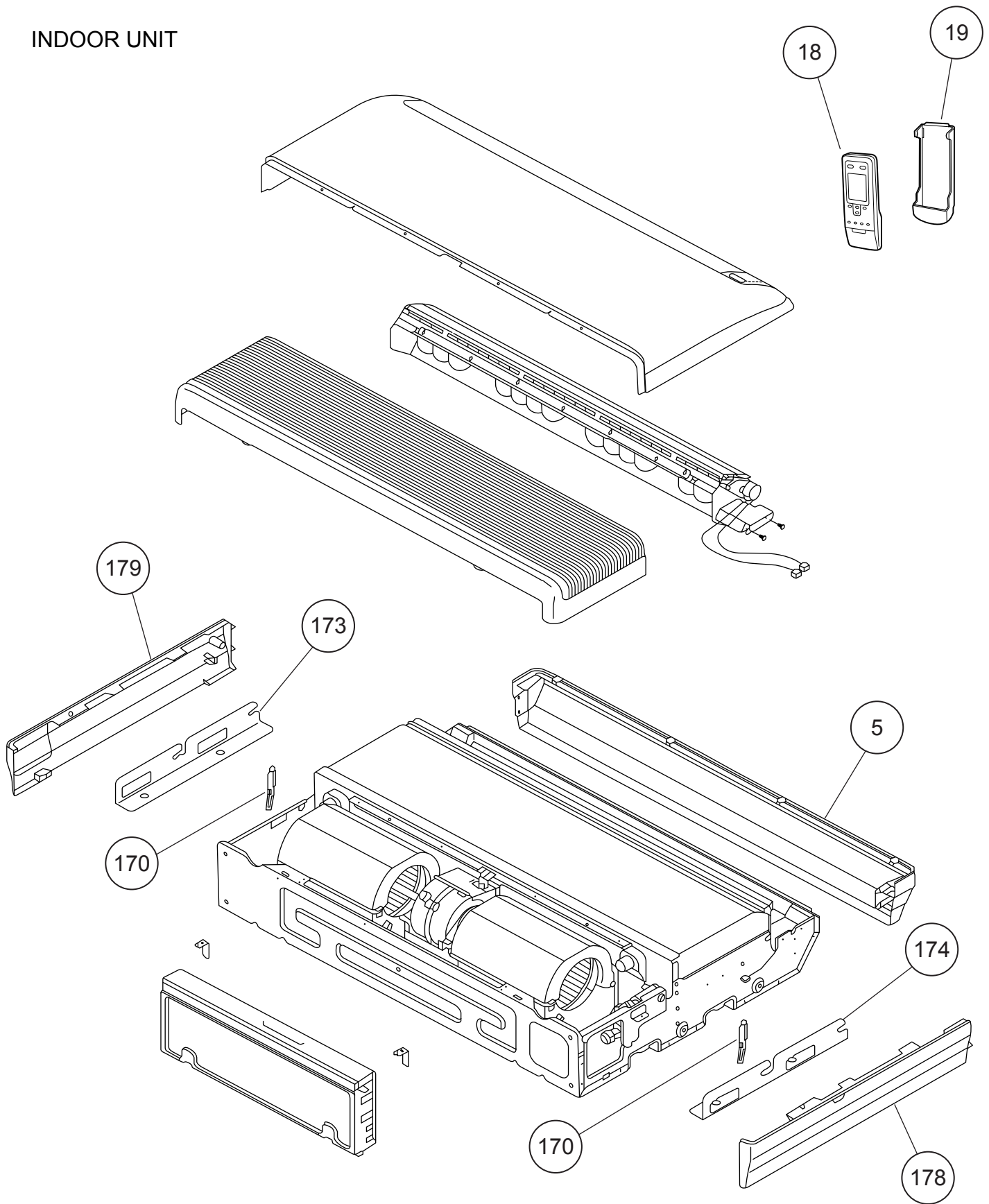
OUTDOOR UNIT LEDS

	LED A	LED B	LED C
Communication error (indoor unit A to outdoor unit)	● 1 time	—	—
Communication error (indoor unit B to outdoor unit)	—	● 1 time	—
Communication error (indoor unit C to outdoor unit)	—		● 1 time
Discharge pipe temperature sensor	● 2 times	—	—
Outdoor heat exchanger temperature sensor	● 3 times	—	—
Outdoor temperature sensor	● 4 times	—	—
Outdoor 2way valve(A) temperature sensor	● 5 times	—	—
Outdoor 2way valve(B) temperature sensor	—	● 5 times	—
Outdoor 2way valve(C) temperature sensor	—	—	● 5 times
Outdoor 3way valve(A) temperature sensor	● 6 times	—	—
Outdoor 3way valve(B) temperature sensor	—	● 6 times	—
Outdoor 3way valve(C) temperature sensor	—	—	● 6 times
Compressor temperature sensor	● 7 times	—	—
Heatsink temperature sensor	● 8 times	—	—
Pressure switch A abnormal	● 9 times	—	—
Pressure switch B abnormal	● 10 times	—	—
Indoor unit connection capacity error	● 11 times	—	—
IPM error	● 12 times	—	—
Compressor loter location error	● 13 times	—	—
Compressor can not start to operate	● 14 times	—	—
Outdoor fan (upper) motor error	● 15 times	—	—
Outdoor fan (lower) motor error	● 16 times	—	—
Microcomputer error	● 17 times	—	—
4way valve (Solenoid) abnormal	● 18 times	—	—

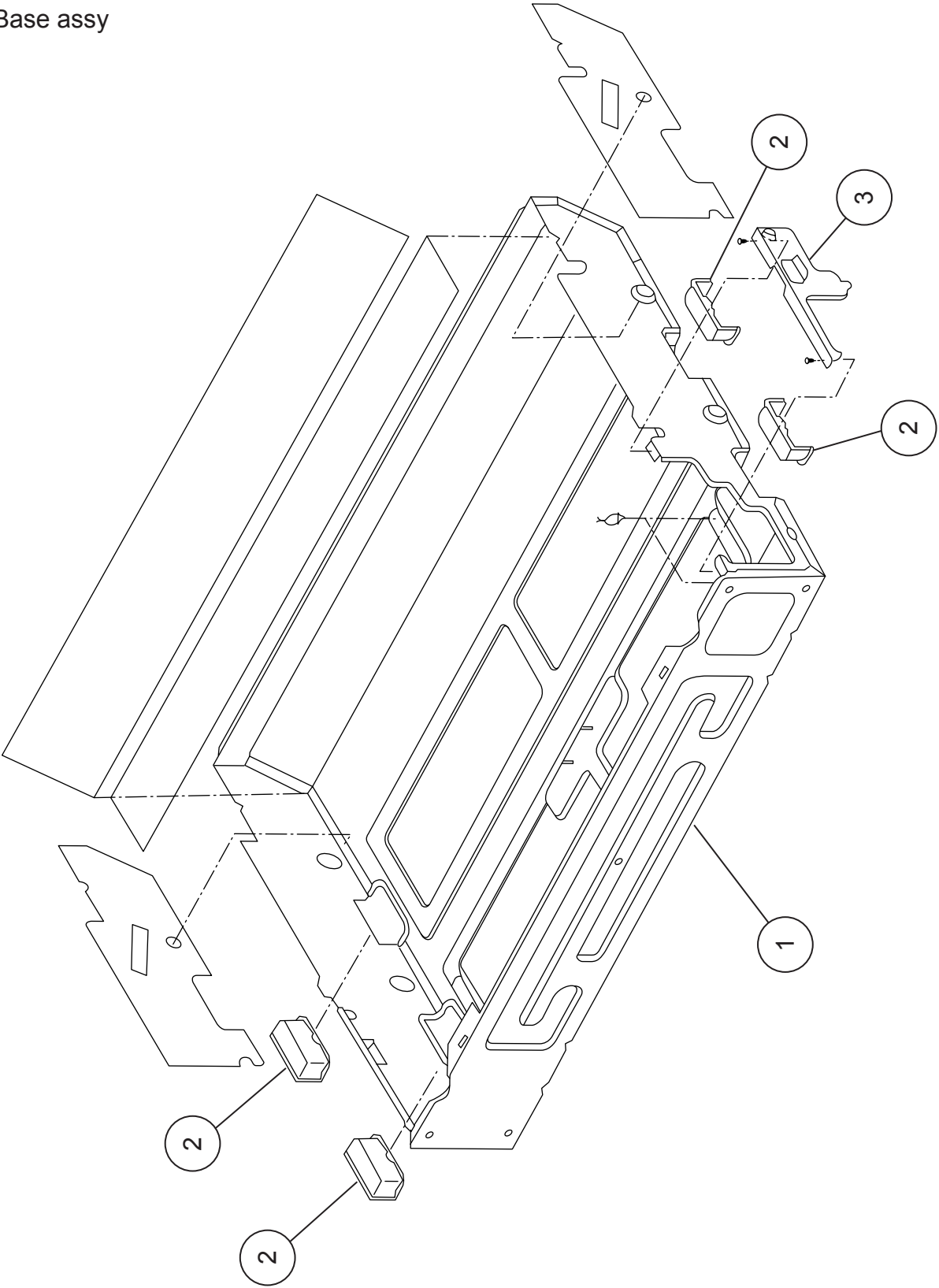
● : Slow flashing - : Off

DISASSEMBLY ILLUSTRATION

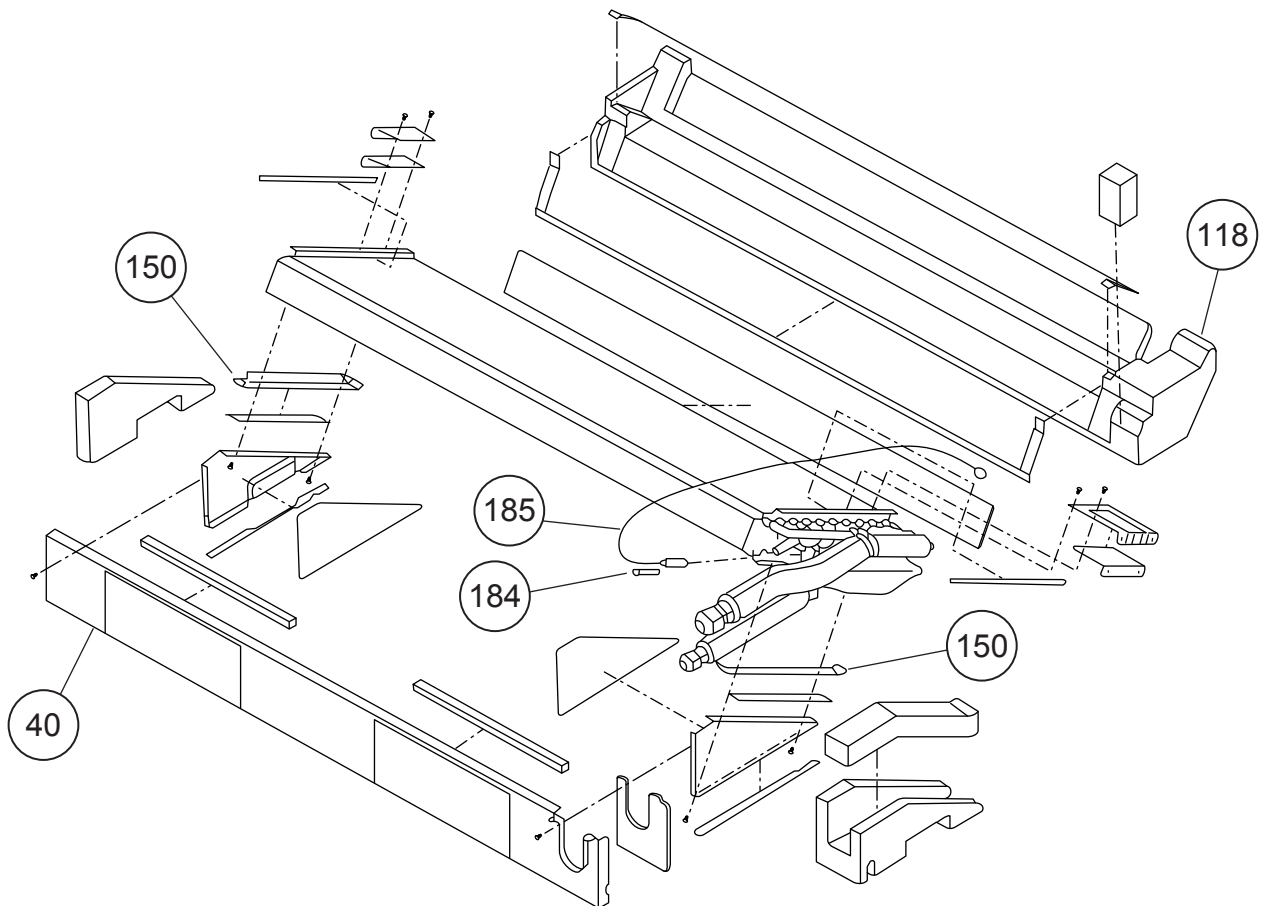
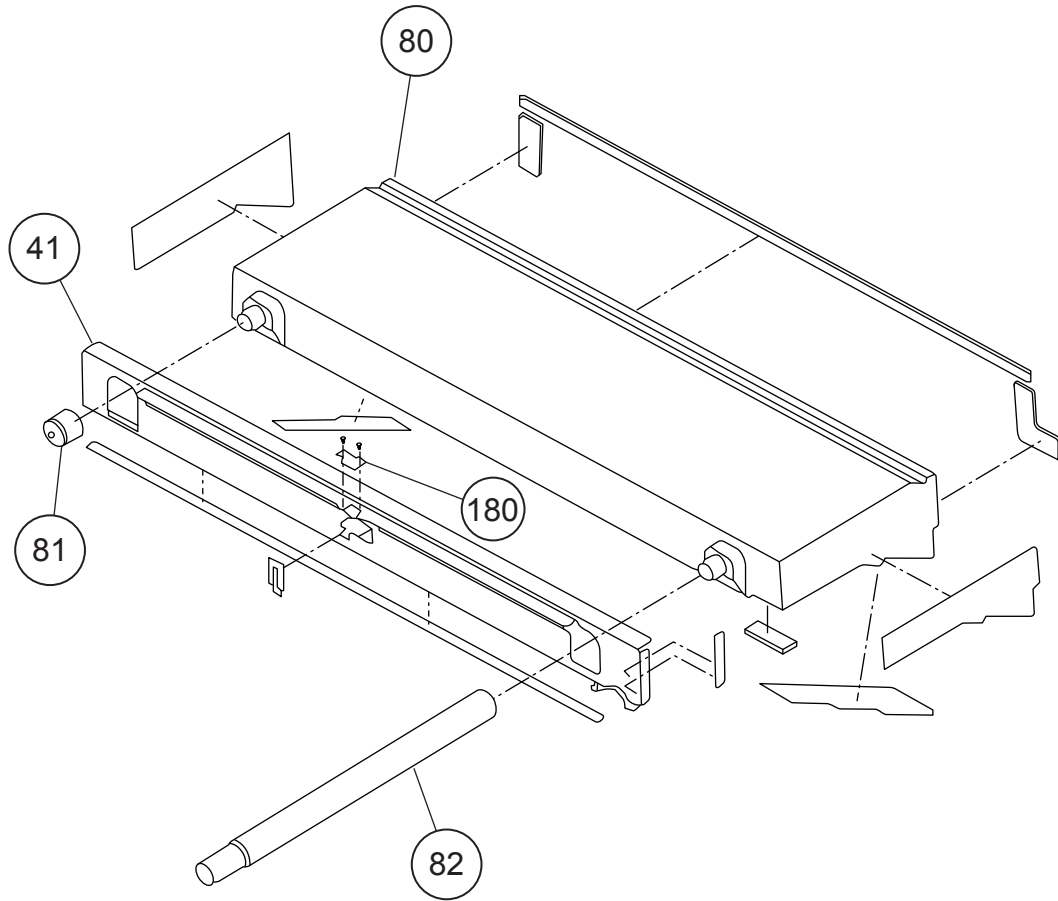
INDOOR UNIT



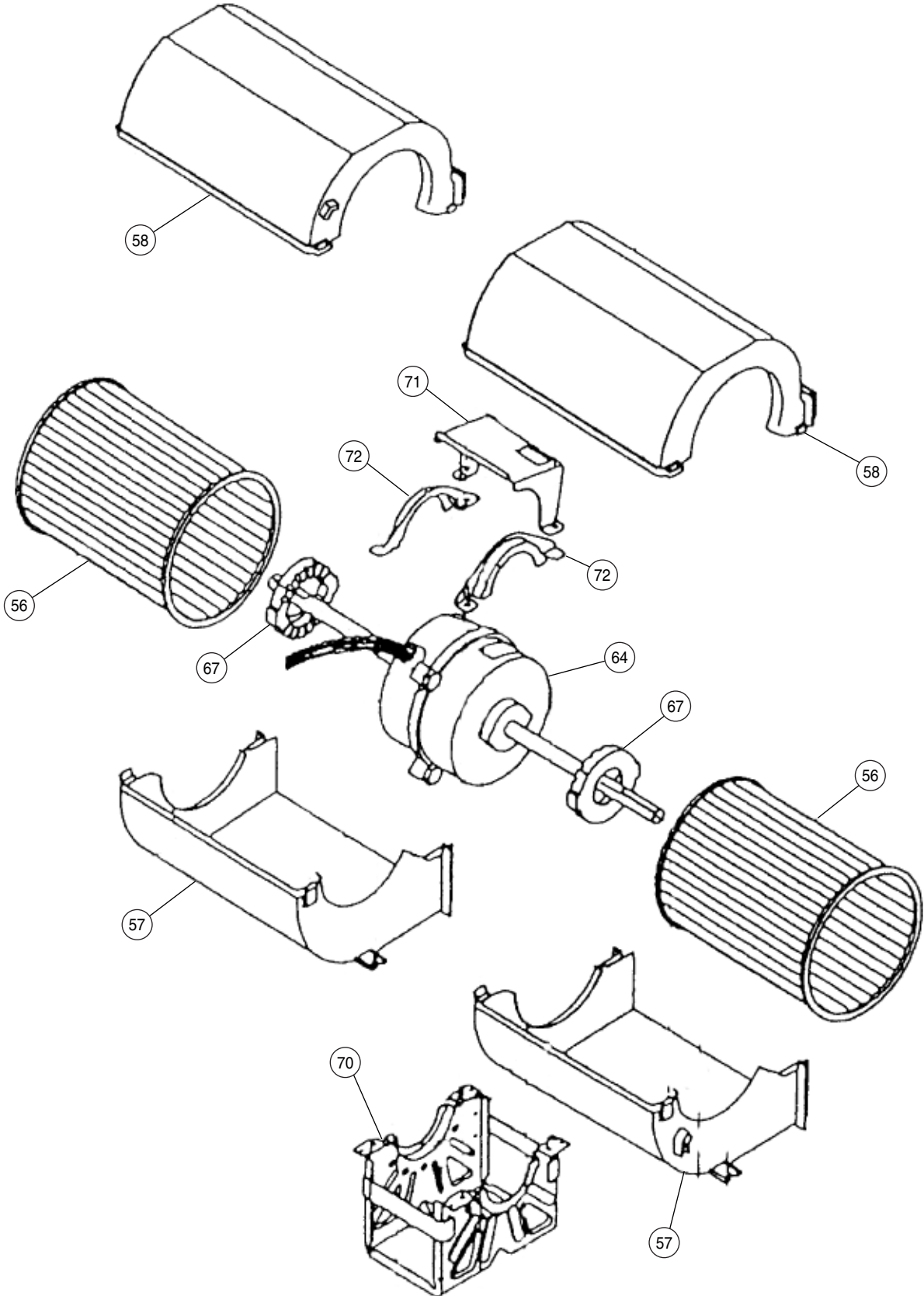
INDOOR UNIT
Base assy



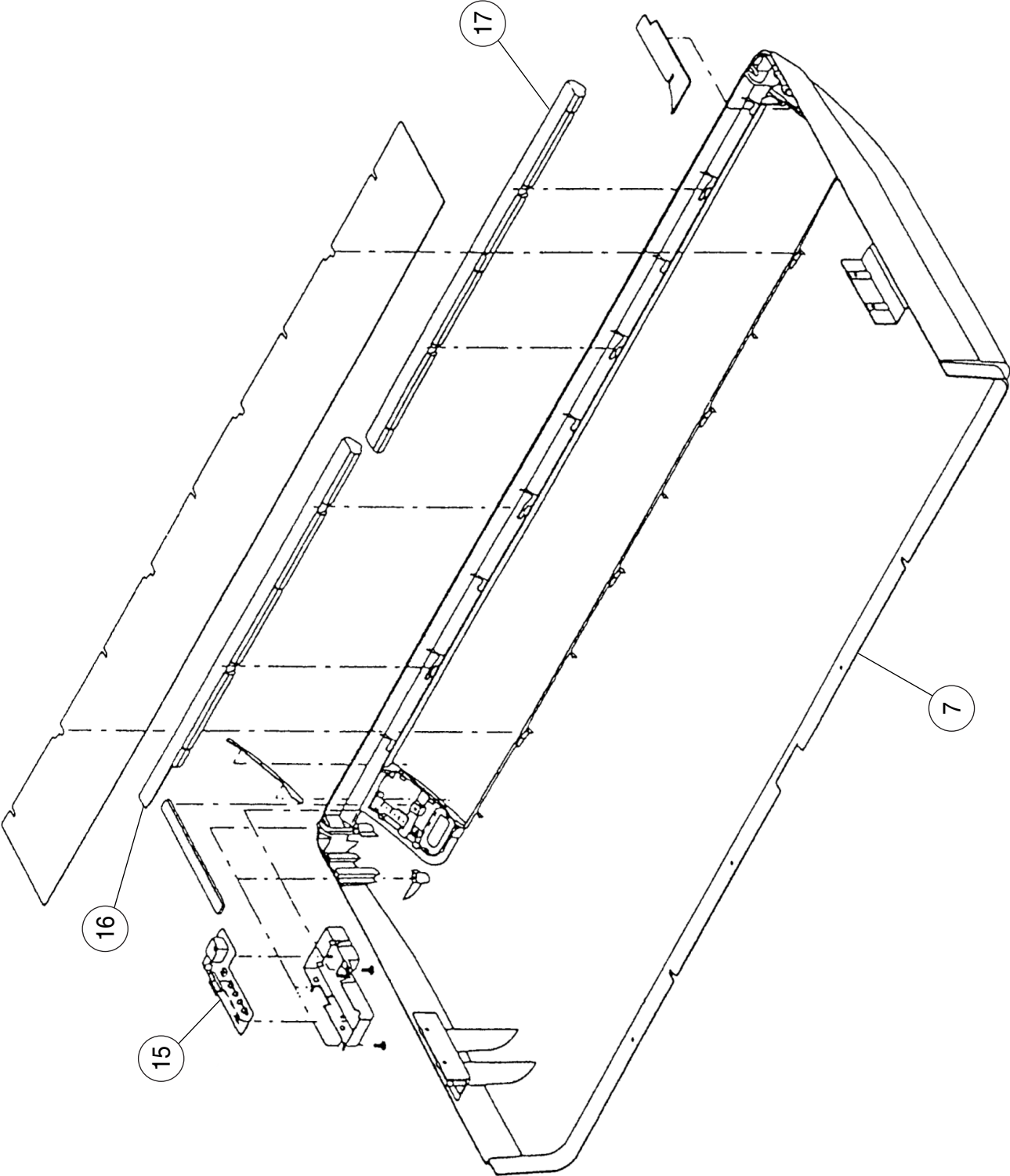
INDOOR UNIT
Drain pan assy
Evaporator



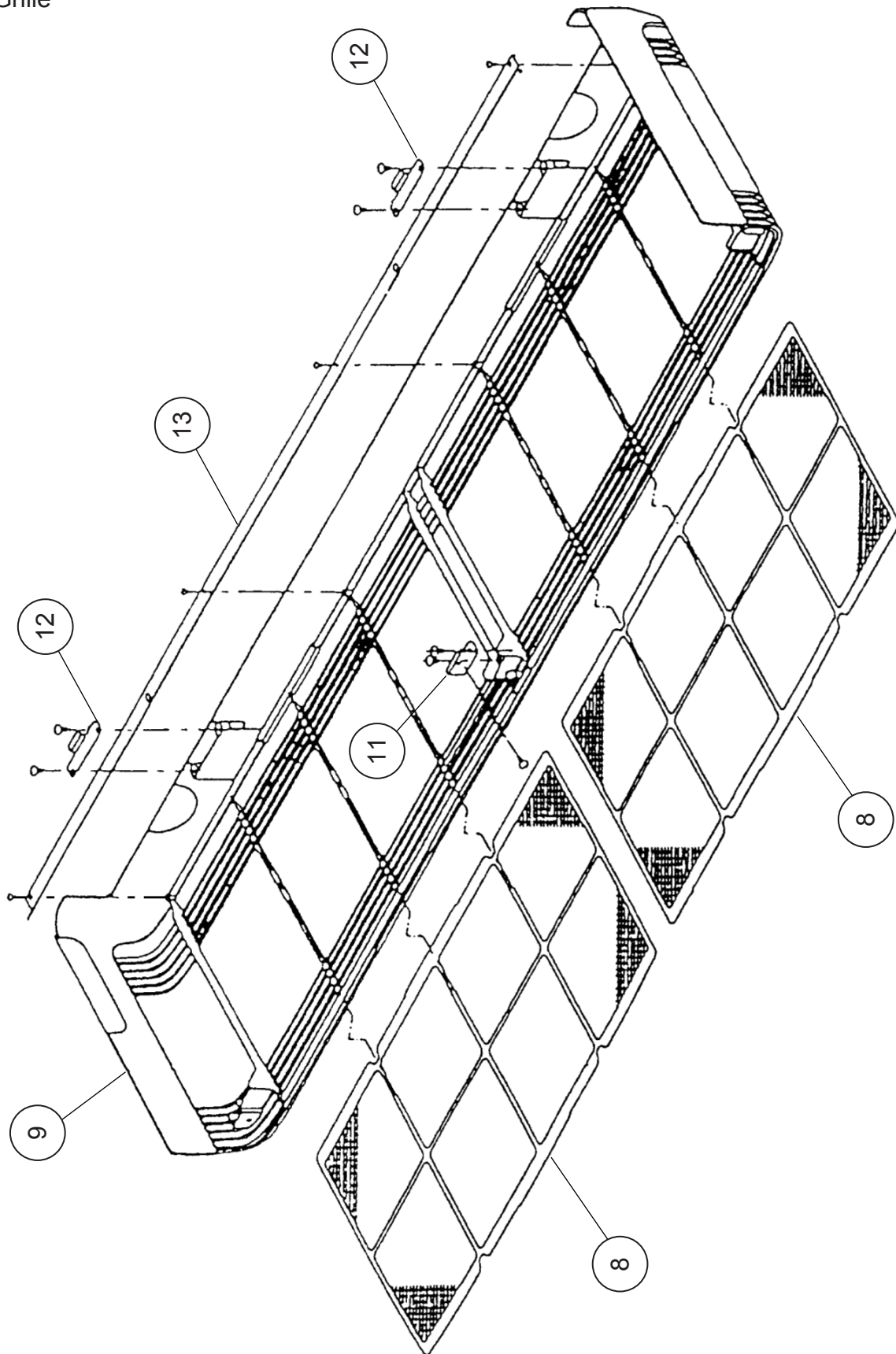
INDOOR UNIT
Fan motor



INDOOR UNIT
Panel

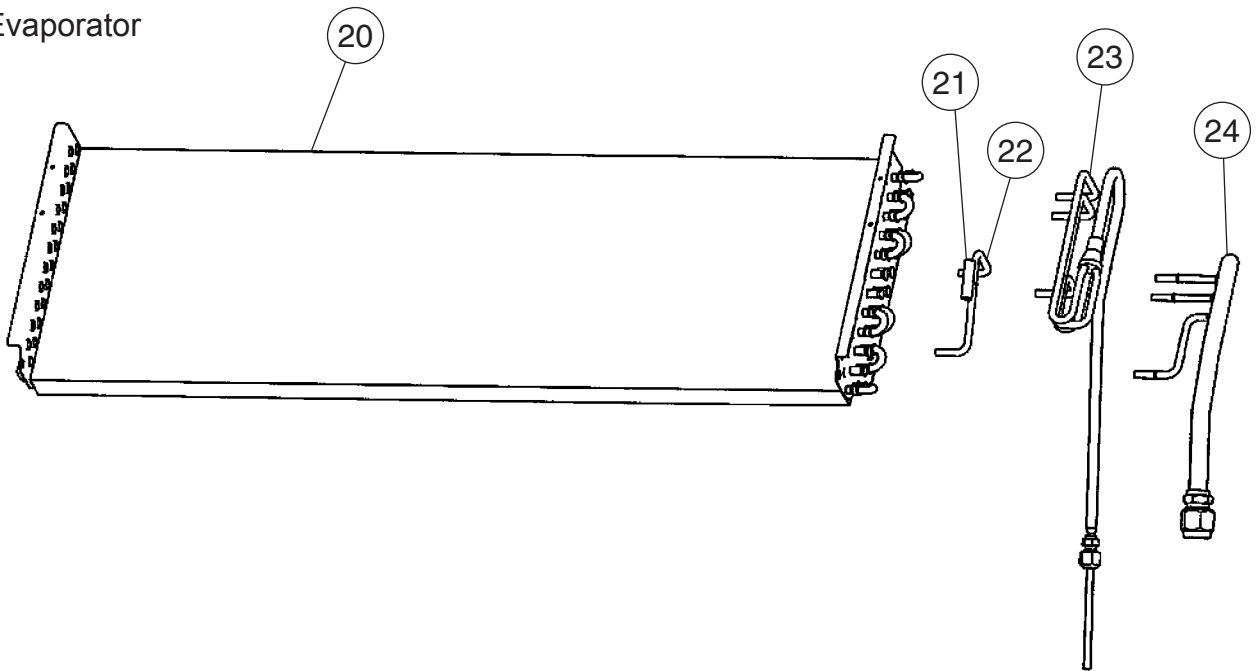


INDOOR UNIT
Grille

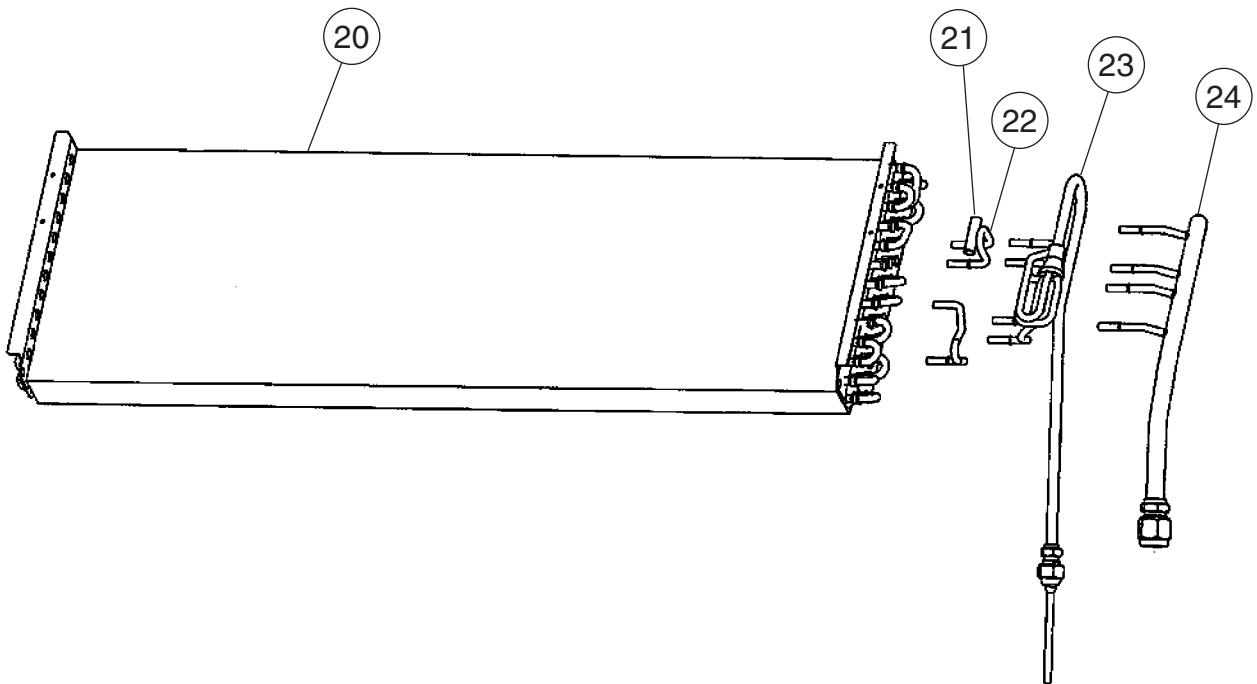


INDOOR UNIT

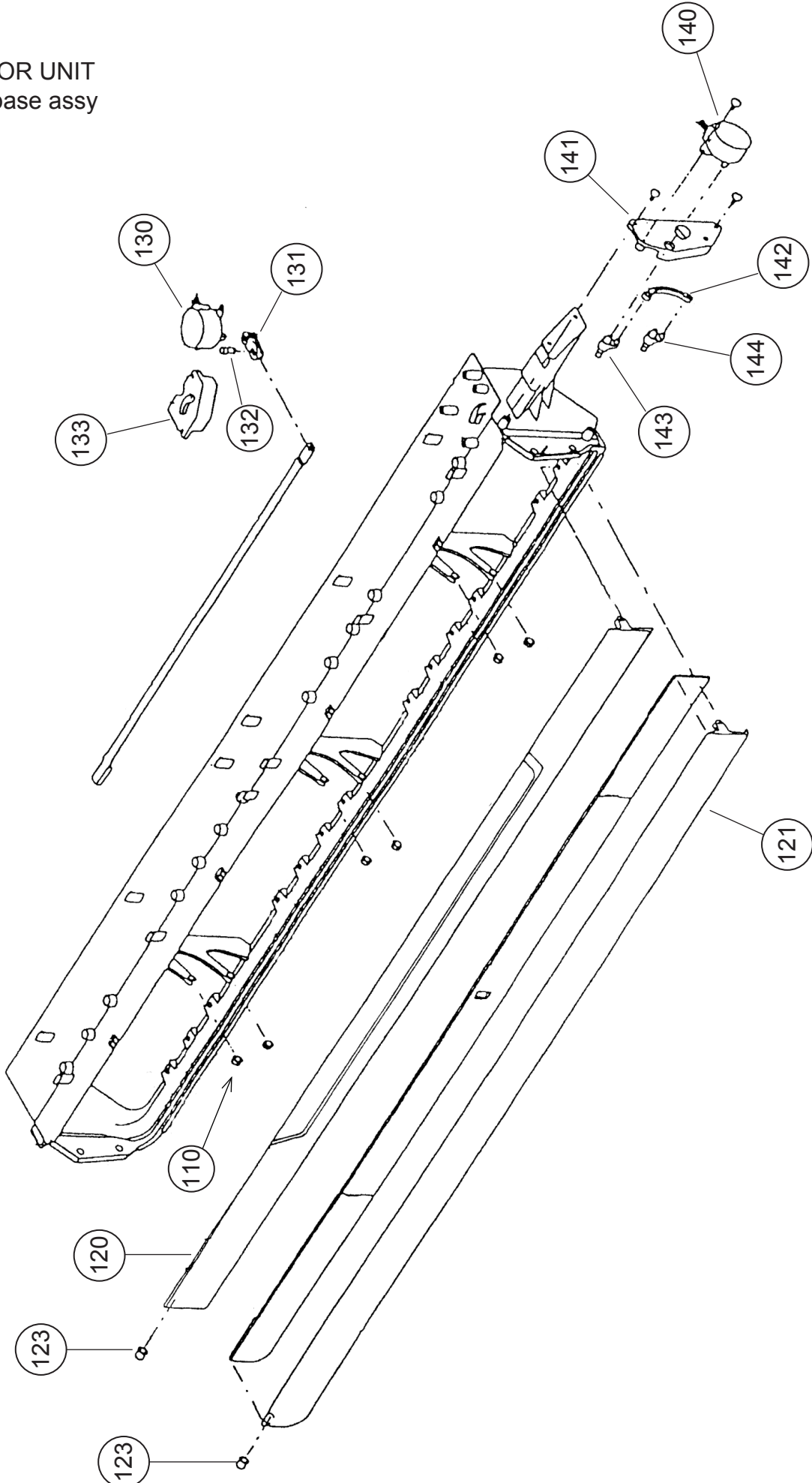
ABH14LBAJ
Evaporator



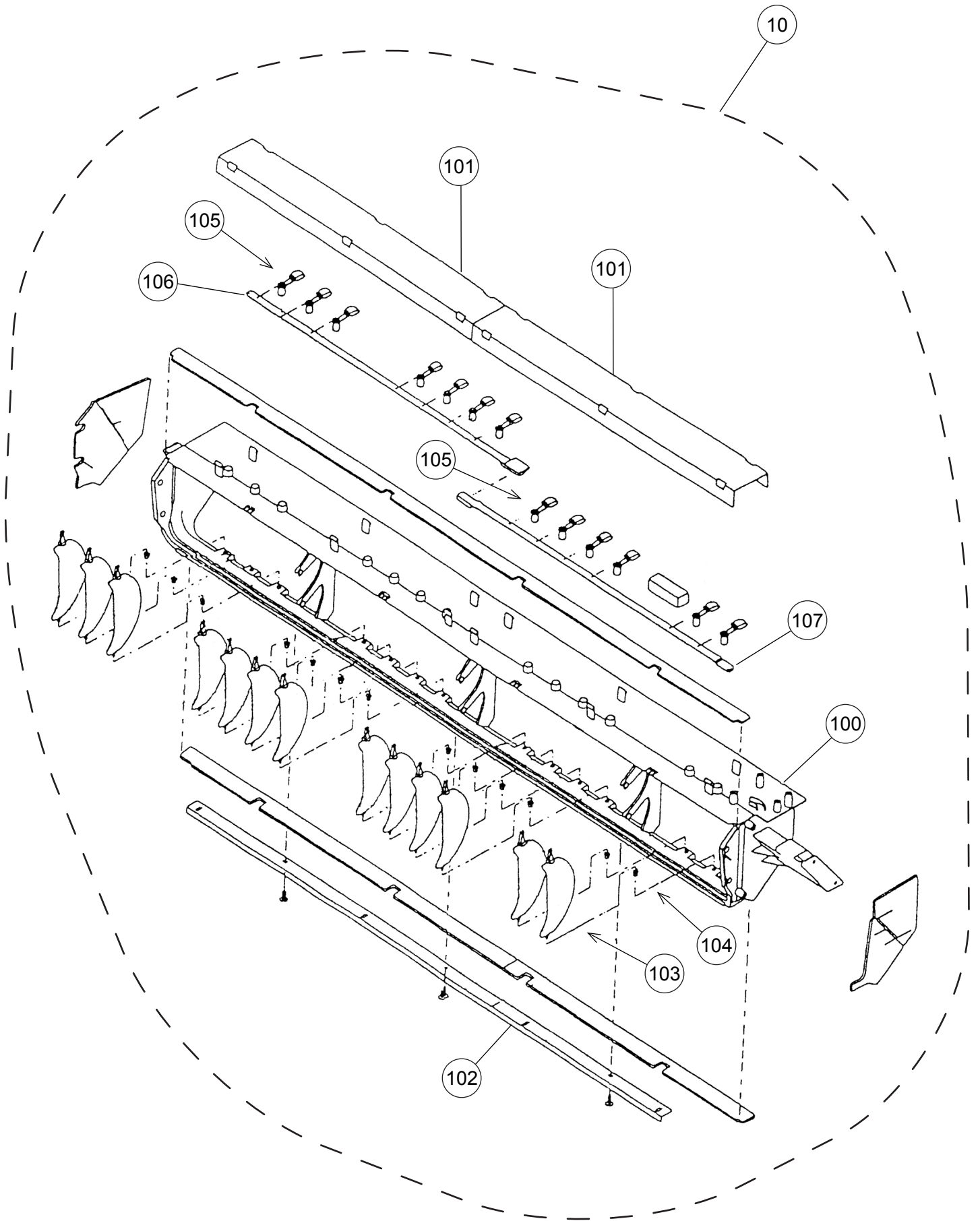
ABH18LBAJ
Evaporator



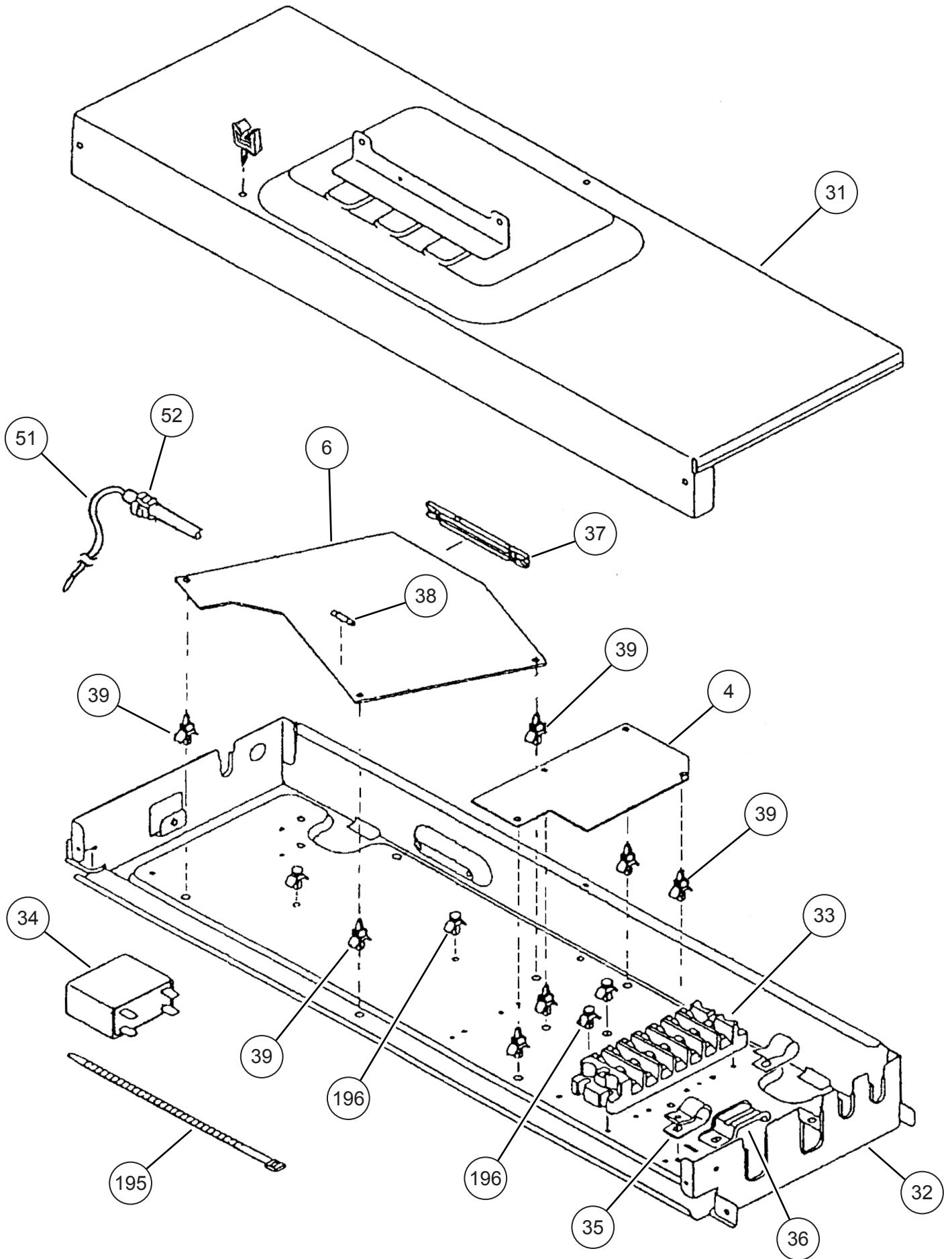
INDOOR UNIT
Flap base assy



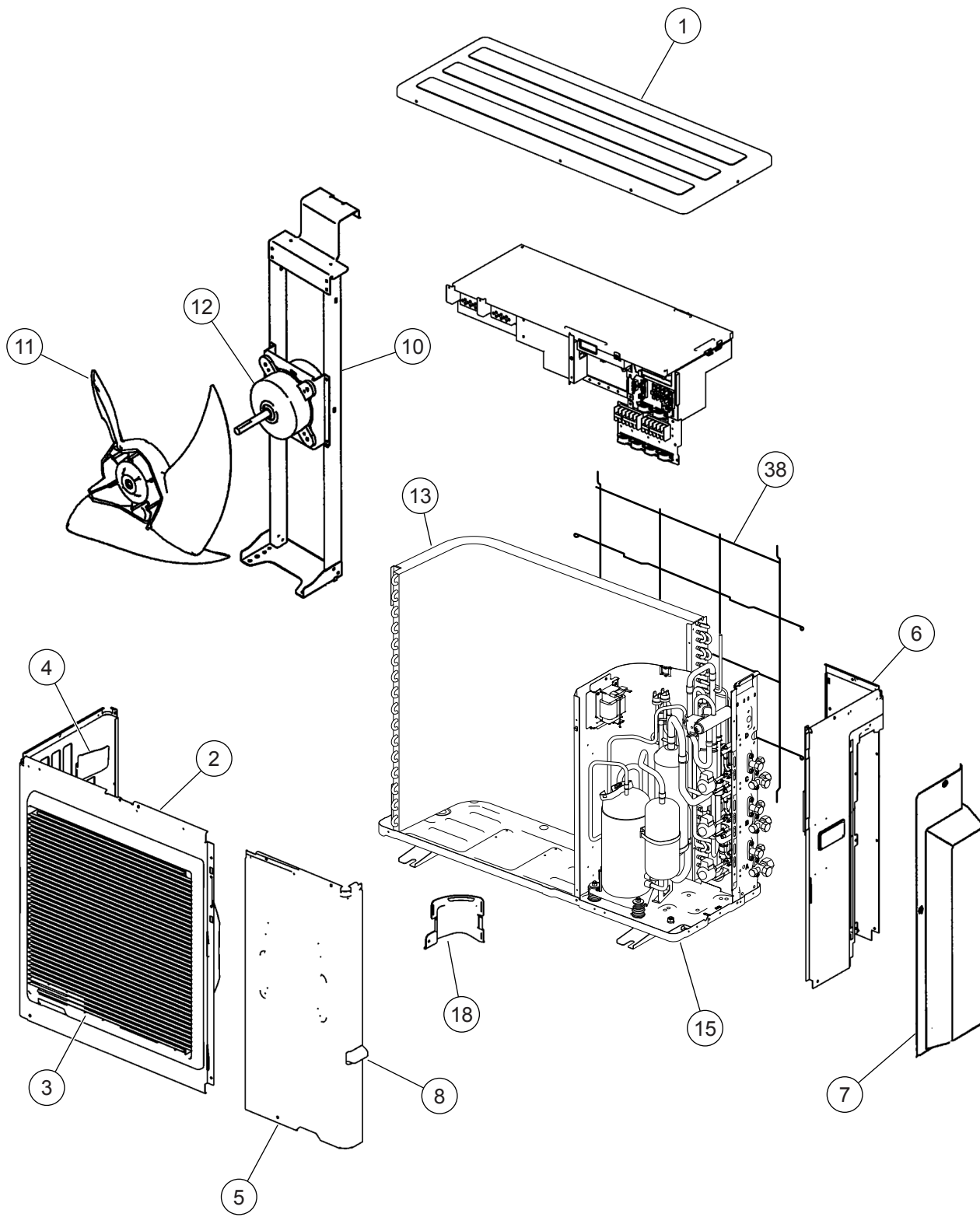
INDOOR UNIT
Kit (flap base)



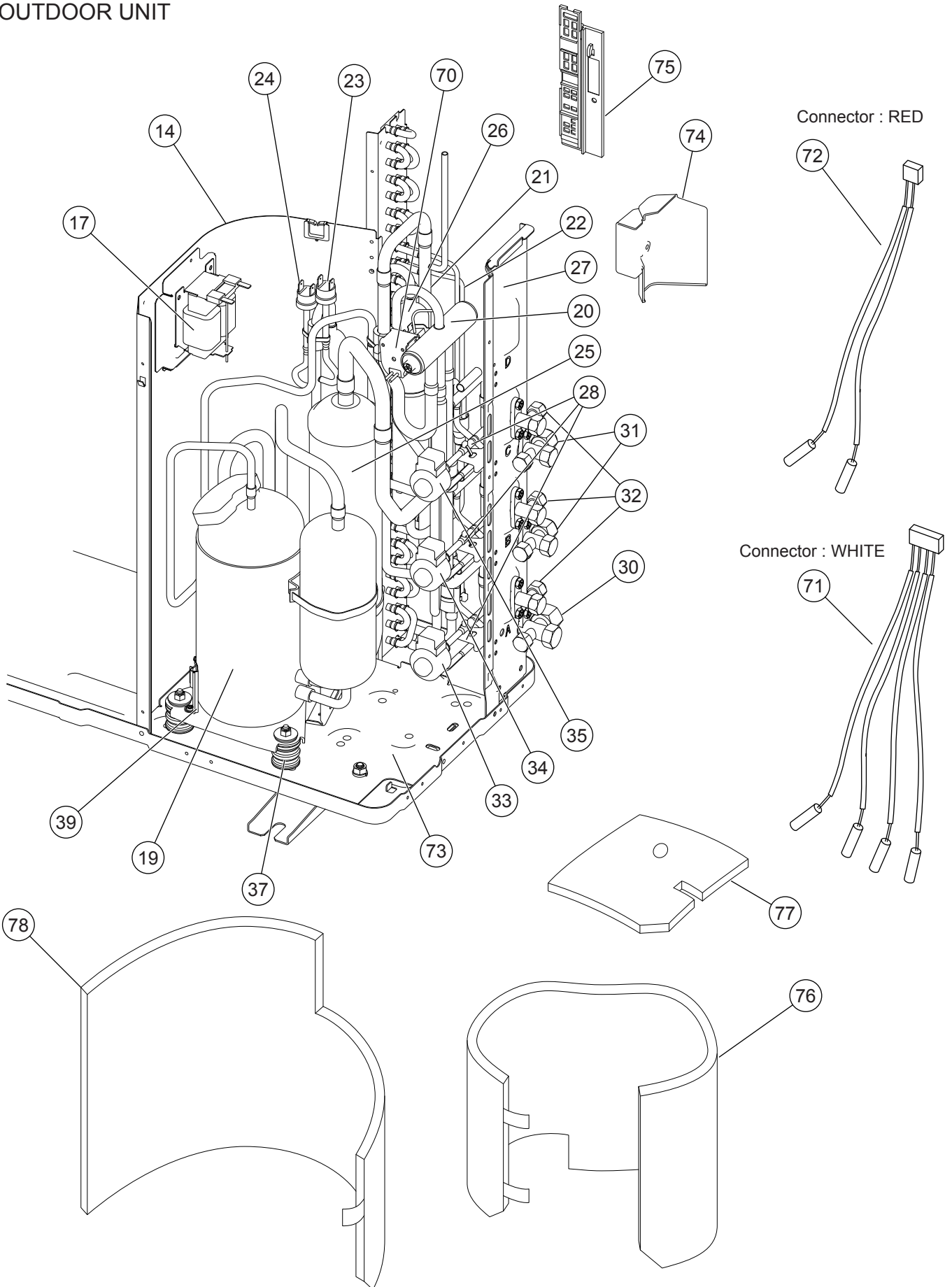
INDOOR UNIT
Control unit



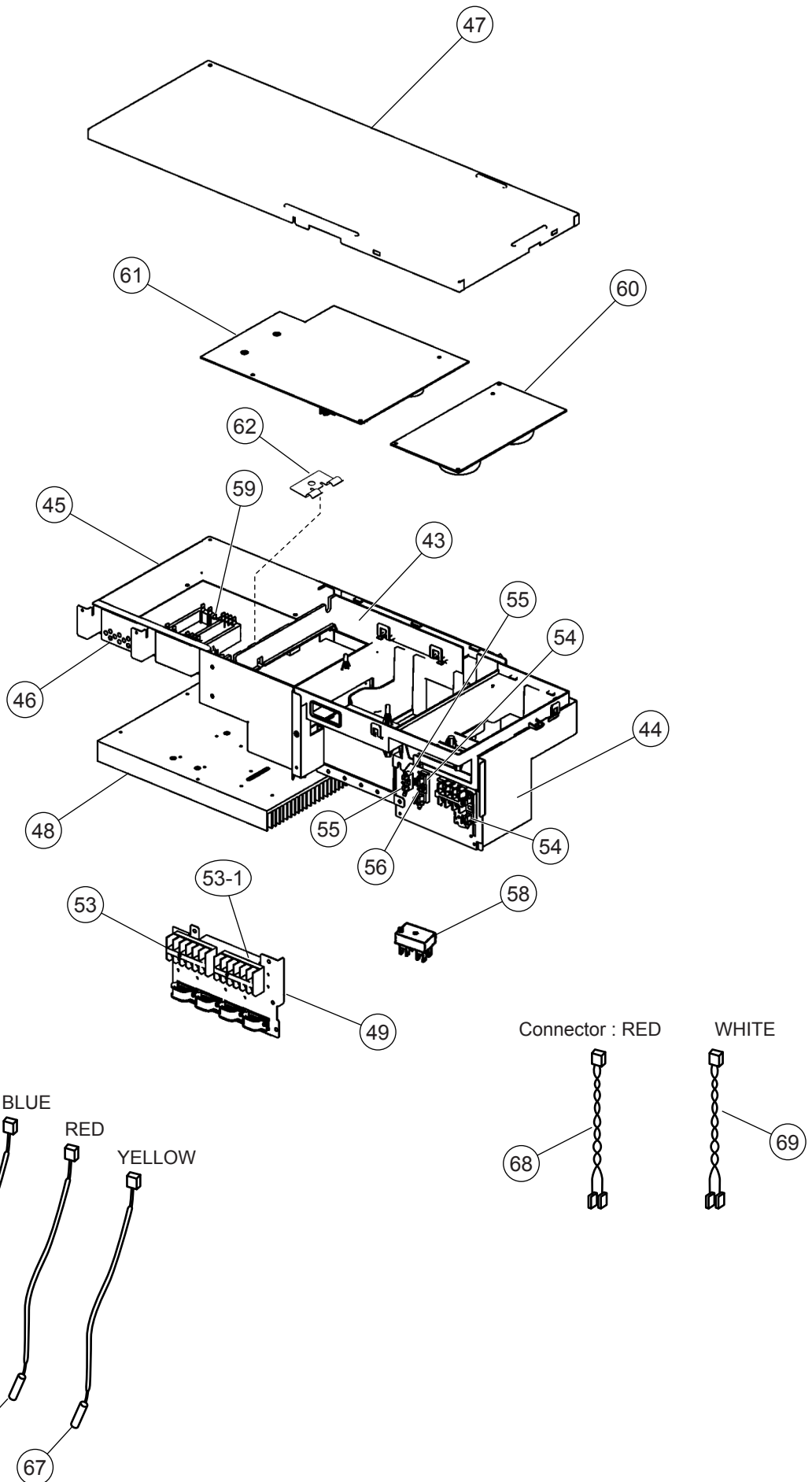
OUTDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT
INVERTER ASSY



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.		Ord. Q'ty
		ABH14LBAJ	ABH18LBAJ	
1	Base Assy	9359061038	9359061038	
2	Cap, Plastic	9358563007	9358563007	
3	Base Bracket	9358586006	9358586006	
4	Controller PCB Assy	9705914018	9704557780	
		(K01AL-0414HSE-C1)	(K01AL-040DHSE-C1)	
5	Top Cover	9358534014	9358534014	
6	Power Supply PCB Assy	9704561190	9704561190	
7	Panel Assy	9359076117	9359076117	
8	Air Filter	9358567029	9358567029	
9	Grill F	9358532010	9358532010	
10	Kit (Flap Base)	9372670019	9372670019	
11	Arm Bracket	9359281009	9359281009	
12	Grille Support	9358602003	9358602003	
13	Filter Bracket	9358607008	9358607008	
15	Indicator PCB Assy	9701873012	9701873012	
16	Insulation (Panel) A	9358574003	9358574003	
17	Insulation (Panel) B	9358914007	9358914007	
18	Remote Control Unit	9371190013	9371190013	
19	Remote Control Holder	9305642014	9305642014	
20	Evaporator Assy	9362513029	9362513036	
21	Thermistor Holder Pipe	313806262805	313806262805	
22	Bypass Pipe Assy	9373032014	9373032021	
23	Distributor Assy	9373034018	9373034032	
24	Coupling Pipe Assy	9373038061	9373038153	
31	Control Box Cover	9359097006	9359097006	
32	Control Box	9358600016	9358600016	
33	Terminal 3P	9900203016	9900203016	
34	Capacitor (Fan Motor)	9900270018	9900270179	
35	Cord Clamp	9357886008	9357886008	
36	Cord Holder Metal	9356362008	9356362008	
37	Holder (Guide Rail)	0600241018	0600241018	
38	Fuse BET3.15A - 250V	0600222512	0600222512	
39	Locking Spacer	313209391506	313209391506	
40	Kit (Separate Wall A)	9372666012	9372666012	
41	Kit (Separate Wall B)	9373448013	9373448013	
51	Thermistor Assy-Room	9703299087	9703299087	
52	Cord Bushing KR-51	9359240006	9359240006	
56	Sirocco Fan Assy	9385258006	9385258006	
57	Casing	9358543009	9358543009	
58	Casing Cover	9358544006	9358544006	
64	Fan Motor Assy	9601527039	9601527022	

Ref. No.	Description	Part No.		Ord. Q'ty
		ABH14LBAJ	ABH18LBAJ	
67	Rubber (Vibration-proof)	9385102002	9385102002	
70	Motor Fixing Table Assy	9358591000	9358591000	
71	Protector (Fan Motor)	9359282006	9359282006	
72	Motor Fixture	9358594001	9358594001	
80	Drain Pan Assy	9358568002	9358568002	
81	Drain Cap	9358746004	9358746004	
82	Drain Hose Assy	9359242000	9359242000	
100	Flap Base	9358537015	9358537015	
101	Protect Cover	9358564004	9358564004	
102	Support Stay	9358599006	9358599006	
103	Louver	9358561010	9358561010	
104	Bushing B	9358554005	9358554005	
105	Louver Stopper	9358555002	9358555002	
106	Louver Rod	9358559000	9358559000	
107	Motor Rod	9358560006	9358560006	
110	Bushing C	9358553008	9358553008	
118	Insulation (Flap Base)	9358572009	9358572009	
120	Flap (Upper) F	9358538012	9358538012	
121	Kit (Lower Flap)	9372671016	9372671016	
123	Bushing	9357942001	9357942001	
130	Step Motor H	9900297015	9900297015	
131	Louver Link	9358556009	9358556009	
132	Louver Shaft	9358557006	9358557006	
133	Louver Link Cover	9358558003	9358558003	
140	Step Motor V	9900362010	9900362010	
141	Motor Base	9358562000	9358562000	
142	Motor Rod A	9358550007	9358550007	
143	Flap Link Upper	9358551004	9358551004	
144	Flap Link Lower	9358552001	9358552001	
150	Kit (Dew Proof Plate)	9372673010	9372673010	
170	Arm	9358565001	9358565001	
173	Hanger Bracket-L	9358596005	9358596005	
174	Hanger Bracket-R	9358595008	9358595008	
178	Cosmetic Panel-R	9358535011	9358535011	
179	Cosmetic Panel-L	9358536018	9358536018	
180	Catch	9359096009	9359096009	
184	Thermistor Spring-A	313728262708	313728262708	
185	Thermistor Assy-Pipe	9900022020	9900022020	
195	Clamp SKB-100	313361275805	313361275805	
196	Locking Spacer-B	313005446558	313005446558	


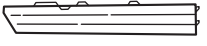

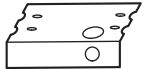
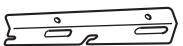

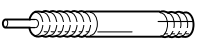



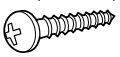




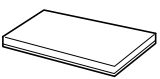

OUTDOOR UNIT

Ref. No.	Description	Part No.		Ref. No.	Description	Part No.	
		AOHA18LAT3	AOHA24LAT3			AOHA18LAT3	AOHA24LAT3
1	Top Panel Sub Assy	9374417049		45	Inverter Box C	9375140014	
2	Front Panel Sub Assy	9374414048		46	Inverter Box Duct	9374609017	
5	Service Panel Sub Assy	9374415045		47	Inverter Box Cover	9375139018	
6	Right Panel Sub Assy	9374416103		48	Heat Sink A	9375138011	
7	Valve Cover Sub Assy	9374827015		49	Inverter Box D	9374606023	
10	Motor Bracket Sub Assy	9374418060		52	Terminal (3P)	9900203016	
11	Propeller Fan Assy	9366378020		53	Terminal (6P)	9900016036	
12	Motor. DC Brushless	9601882015		53-1	Terminal (3P)	9306489045	
13	Condenser A Assy	9374433179		54	Fuse Holder (Big)	0501454012	
14	Separate Wall Assy SS	9375226022		55	Fuse Holder (Small)	0501456016	
15	Base Assy	9374166121		56	Fuse (Big)	0600086039	
17	Coil. Choke	9900366018		57	Fuse (Small)	0600376116	
18	Cap Foot	9374345014		58	Terminal (2P)	9701971015	
19	Compressor Assy	9315297037		59	ACTPM	9703457012	
20	4-Way Valve Assy	9374425136		60	Power Supply PCB Assy	9705647091	
21	Inlet Pipe (Cond) A Assy	9373461104		61	Controller PCB Assy (AOYA18L)	9705642225	
22	Outlet Pipe (Cond) A Assy	9374266111		61	Controller PCB Assy (AOYA24L)	9705642195	
23	Pressure Switch A	9900186012		62	Holder (Thermo)	9372797013	
24	Pressure Switch B	9900341015		63	Heat Sink Thermistor	9900311018	
25	Accumulator Assy	9375250027		64	Compressor Temp Thermistor	9900156053	
26	Receiver Tank Assy	9374575039		65	Thermistor (Outdoor Temp)	9900378028	
27	Valve Plate A Assy	9374628148		66	Heat Exchanger Thermistor	9900374020	
28	Pulse Motor Valve	9900056025		67	Discharge Temp Thermistor	9704219039	
30	3-Way Valve Assy (1/2")	9375104016		68	Wire (Pressure Sw) (Red)	9377823014	
31	3-Way Valve Assy (3/8")	9375103019		69	Wire (Pressure Sw) (White)	9377823021	
32	2-Way Valve Assy	9375102012		70	Solenoid	9900165079	
33	Coil (Expansion Valve) (A=Red)	9900057084		71	Thermistor (Pipe)(White)	9900373030	
34	Coil (Expansion Valve) (B=White)	9900057053		72	Thermistor (Pipe)(Red)	9900372019	
35	Coil (Expansion Valve) (C=Green)	9900057060		73	Compressor Plate Assy	9375221058	
37	Rubber Cushion (For Comp)	9312680016		74	Water Seal Plate	9375222017	
38	Net S Protective	9375381028		75	Thermo Holder	9375211011	
39	Thermistor Holder	9377911018		76	Compressor Cover A	9374430093	
43	Inverter Box A	9374603015		77	Compressor Cover B	9374431090	
44	Inverter Box B Assy	9374625024		78	Compressor Cover C	9372067079	
				---	Emblem Rear	9372171011	

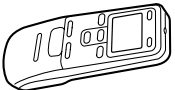
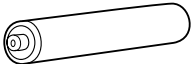
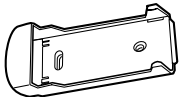

STANDARD ACCESSORIES

The following installation parts are furnished. Use them as required.

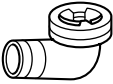



INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Part No.
Cosmetic Panel-L 	1		9358536018
Cosmetic Panel-R 	4		9358535011
Tapping screw (φ 4 x 10) 	2		301171164104
Installation template 	1	For positioning the indoor unit. For under ceiling type.	9359107002
Hanger bracket (left) 	1	For suspending the indoor unit from ceiling.	9358596005
Hanger bracket- (right) 	1		9358595008
Anchor bolt (M12) 	4		313806339400
Special nut 	4		
Spring washer 	4		301821112213
Wall bracket 	2	For suspending the indoor unit on the wall.	9358597002
Tapping screw (φ 4 x 20) 	6	For fixing the wall bracket.	301141164200
Coupler heat insulator (large) 	1	For indoor side pipe joint. (Large pipe)	9350716012
Coupler heat insulator (small) 	1	For indoor side pipe joint. (Small pipe)	313209328104
Nylon fastener (small) 	1	For fixing the drain hose.	312300787605
Drain hose 	1		9359242000
Insulation (drain hose) 	1	Adhesive type 70 x 230	9359225003
VT wire 	1	For fixing the drain hose L 280 mm	313806350303

REMOTE CONTROL UNIT

Name and Shape	Q'ty	Application	Part No.
Remote control unit 	1	Use for air conditioner operation (AR-JW1)	9371190013
Battery (penlight) 	2	For remote control unit	0600185534
Remote control unit holder 	1	For mounting the remote control unit	9305642014
Tapping screw (ϕ 3 x 12) 	2	For remote control unit holder installation	301141533125

OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Drain pipe 	1	For outdoor unit drain piping work	9303029015
Drain cap 	2		313166024302
Adapter assy 12.7 mm (1/2 in.) ↓ 9.52 mm (3/8 in.) 	1	For use when connecting models 9-12 to outdoor port A	9370244007
Putty 	1	For sealing	303020200114

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