



# MULTI AIR CONDITIONER WALL MOUNTED type

# SERVICE MANUAL



Models

Indoor unit

Outdoor unit

ASH9FMBD

AOH20FSAV3

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE	COOL		
OPERATION	Unit A (1 room)	Unit B1 or B2 (1 room)	Unit A + B1 + B2 (3 rooms)
INDOOR UNIT / OUTDOOR UNIT	ASH9FMDB / AOH20FSAV3		
COOLING CAPACITY	2.50 kW	2.80 kW	6.05 kW
POWER SOURCE	230 V		
FREQUENCY	50 Hz		
RUNNING CURRENT	4.0 A	4.8 A	8.4 A
INPUT WATTS	0.85 kW	1.05 kW	1.88 kW
E.E.R.	2.94 kW/kW	2.66 kW/kW	3.22 kW/kW
MOISTURE REMOVAL	0.8 L/hr	1.0 L/hr	2.0 L/hr
AIR CIRCULATION-High	520 m <sup>3</sup> /hr	520 m <sup>3</sup> /hr	520 m <sup>3</sup> /hr x 3

## INDOOR UNIT

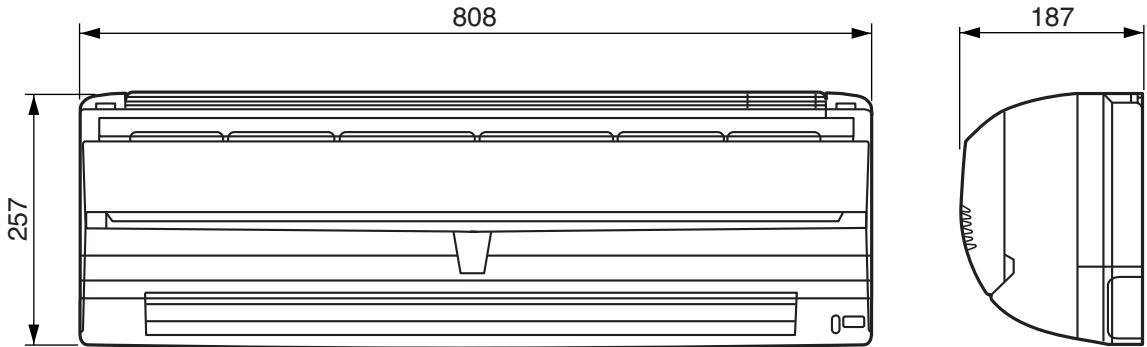
FAN MOTOR	HIGH-SPEED	1,310 r.p.m.
	MED-SPEED	1,190 r.p.m.
	LOW-SPEED	1,070 r.p.m.
	QUIET	960 r.p.m.
DIMENSIONS	H x W x D	257 x 808 x 187 mm
WEIGHT	GROSS / NET	10 kg / 8 kg
NOISE LEVEL	HIGH-SPEED	40 dB
	MED-SPEED	37 dB
	LOW-SPEED	34 dB
	QUIET	31 dB

## OUTDOOR UNIT

COMPRESSOR TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor, Rotary
COMPRESSOR DISCRIMINATION	Comp A : 802 100 65B, Comp B : 802 141 65B
POWER SOURCE	230V - 50Hz
REFRIGERANT R410A	Comp A : 750 g, Comp B : 850 g
ADDITIONAL CHARGE	Comp A : 10 g/m, Comp B : 10 g/m
CHARGELESS PIPE LENGTH	Comp A : 7.5 m, Comp B (Total) : 15 m
MAXIMUM PIPE LENGTH	Comp A : 15 m, Comp B (Total) : 20 m
FAN MOTOR	780 r.p.m.
DIMENSIONS	H x W x D 700 x 900 x 330 mm
WEIGHT	GROSS / NET 68 kg / 61 kg
NOISE LEVEL	52 dB

# OUTLINE AND DIMENSIONS

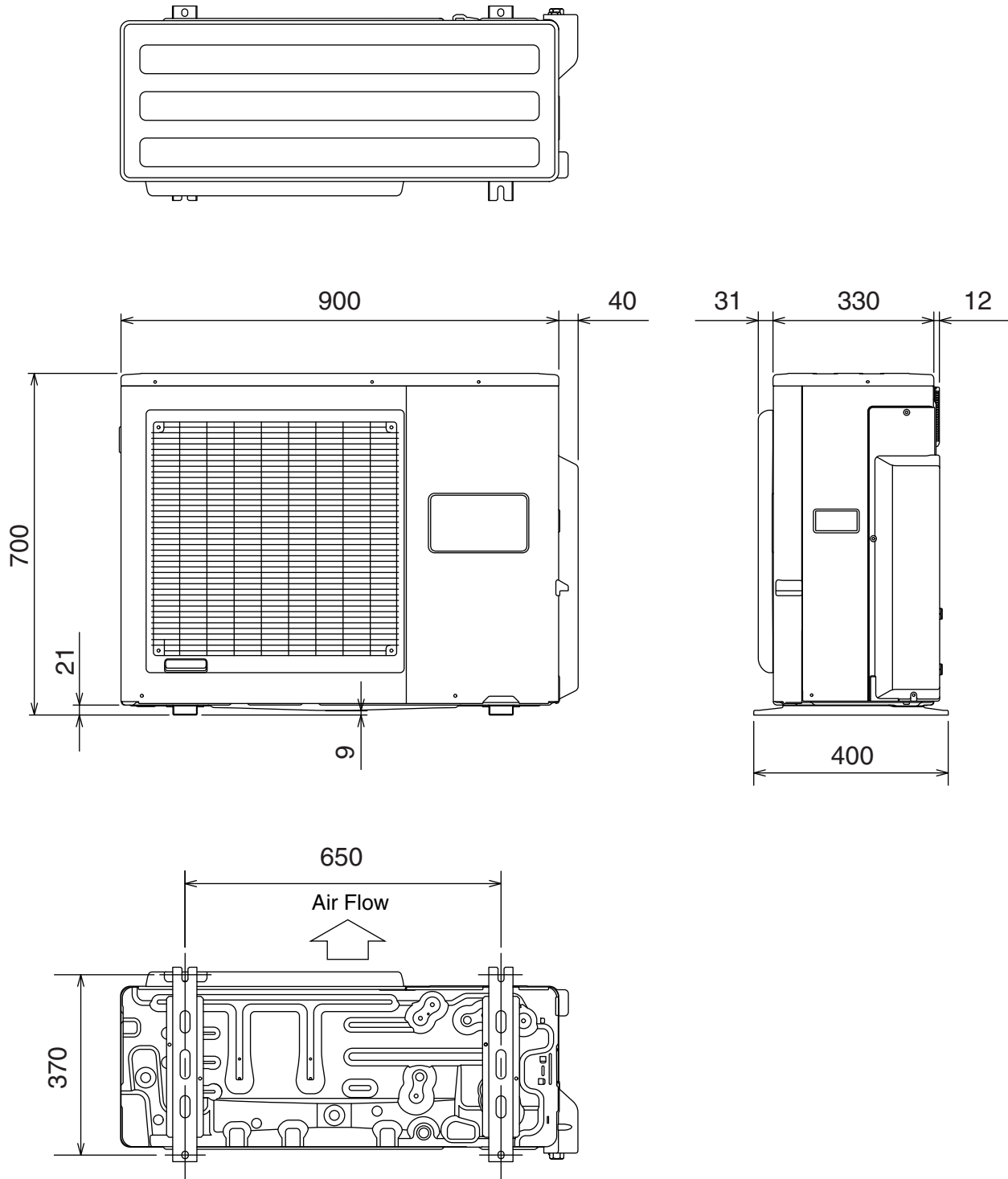
INDOOR UNIT  
Model : ASH9FMBD  
(Unit : mm)



OUTDOOR UNIT

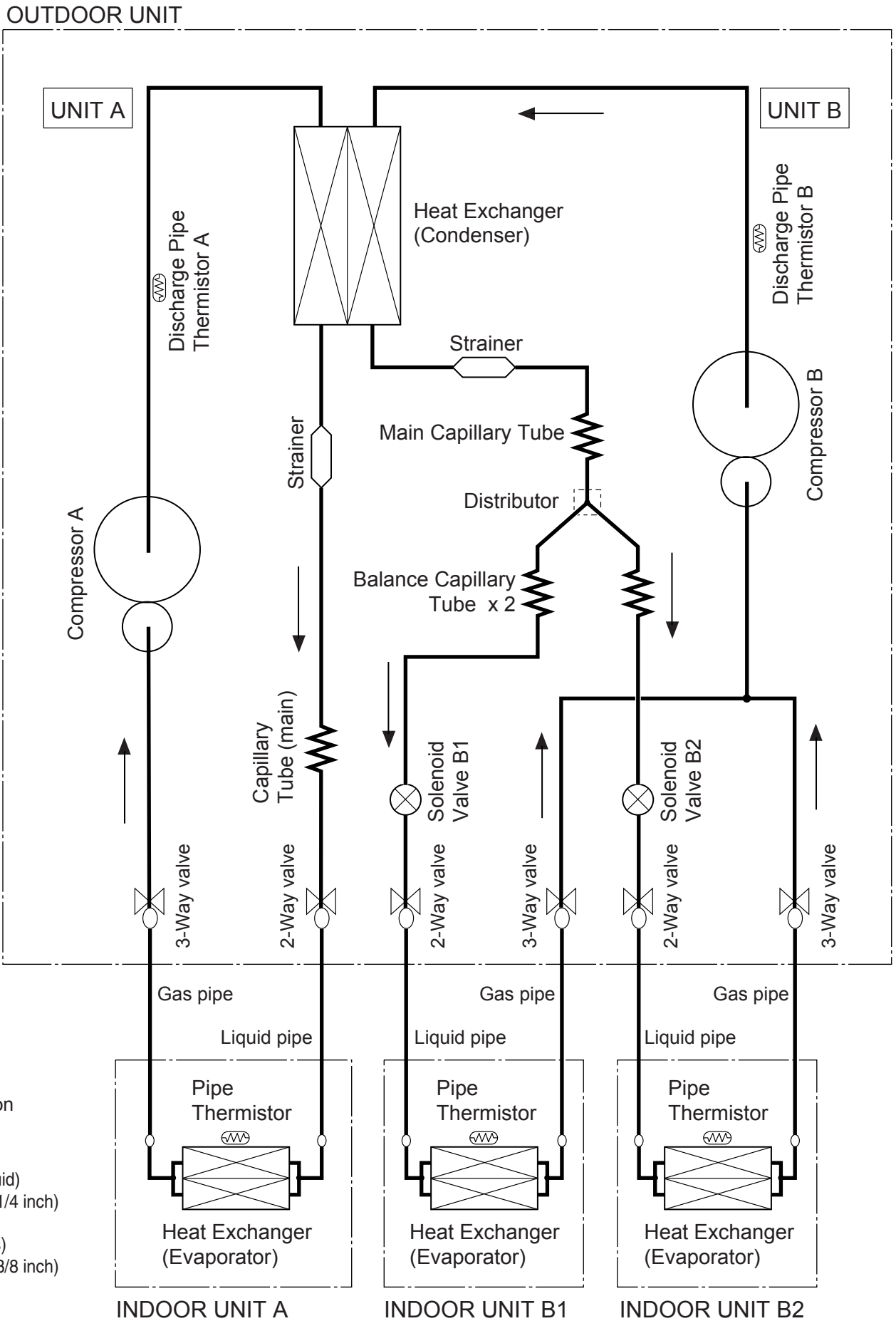
Model : AOH20FSAV3

(Unit : mm



# REFRIGERANT SYSTEM DIAGRAM

Models : ASH9FMBD x 3 / AOH20FSAV3

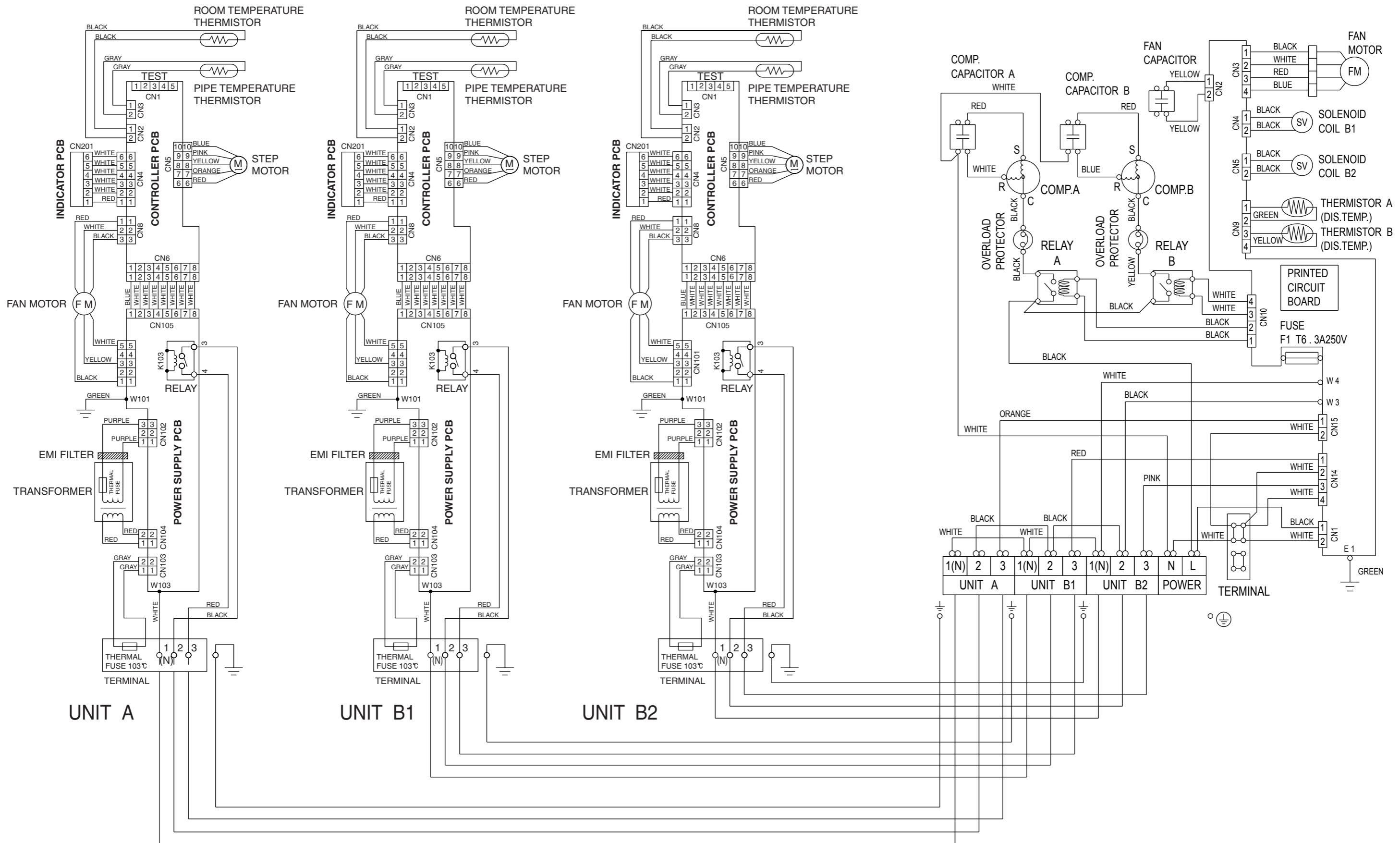


# CIRCUIT DIAGRAM

Models : ASH9FMBD / AOH20FSAV3

## INDOOR UNIT

## OUTDOOR UNIT

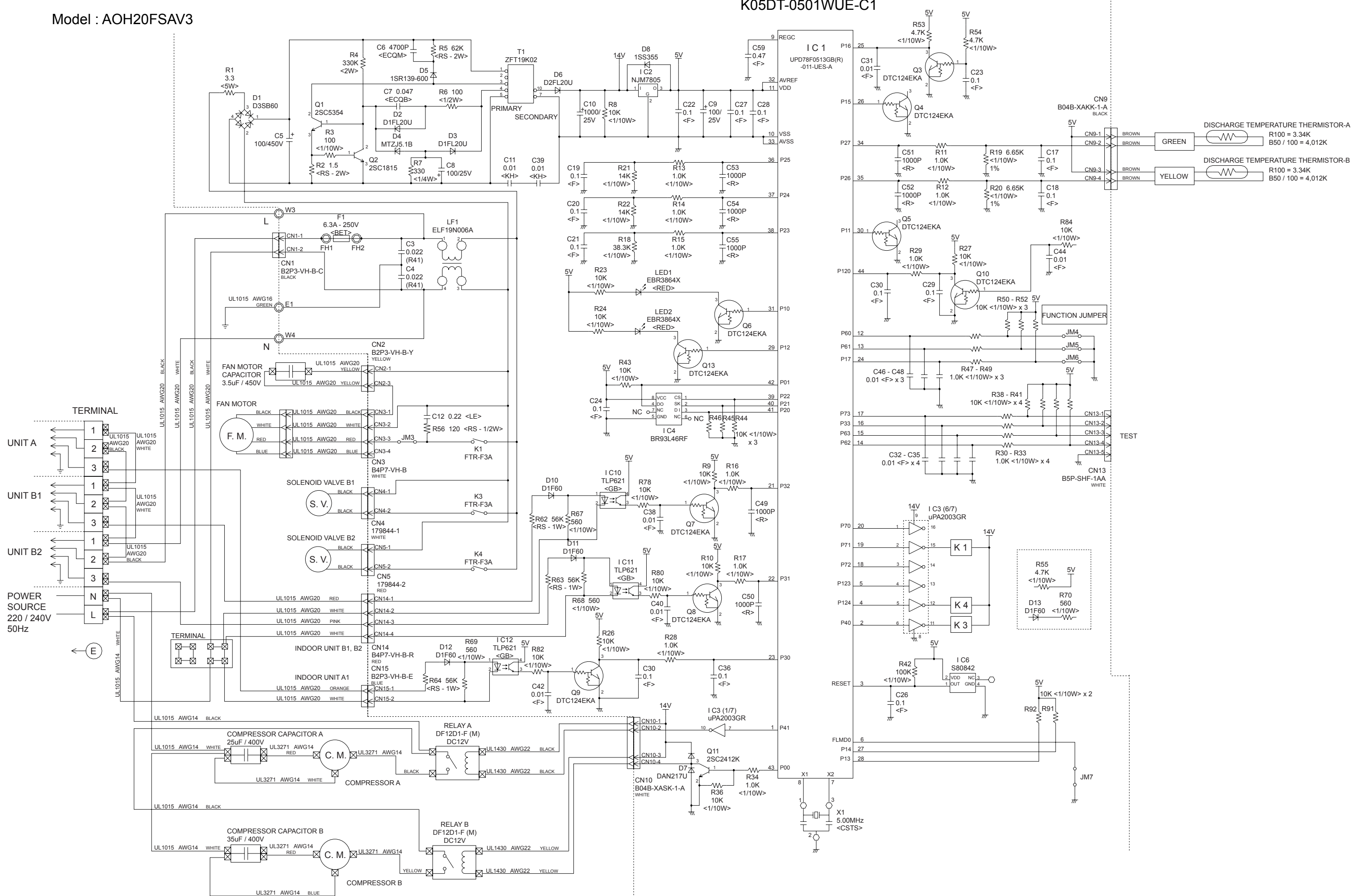




# OUTDOOR PCB CIRCUIT DIAGRAM

Model : AOH20FSAV3

# CONTROLLER PCB ASSEMBLY ( MAIN PCB ) K05DT-0501WUE-C1





# ERROR CONTENTS

## INDOOR UNIT

○ : Fast flashing      ● : Slow flashing

Operation lamp : Red lamp

Timer lamp : Green lamp

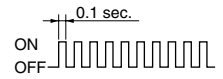
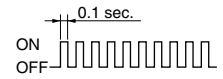
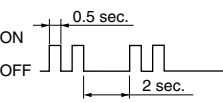
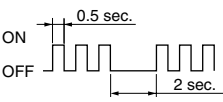
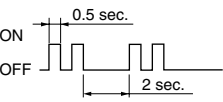
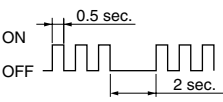
Large division indication			Small division indication		
Error contents	LED indication		Error contents	LED indication	
circuit board error (indoor unit )	Red lamp Green lamp	○ ○	-----	-----	-----
thermistor error	Red lamp Green lamp	● (2 times) ○	thermistor error (room temp.)	Red lamp	○
			thermistor error (heat exchanger)	Green lamp	● (2 times)
control unit error (indoor unit )	Red lamp Green lamp	● (4 times) ○	MANUAL AUTO button error	Red lamp	○
			power source Hz decision error	Green lamp	● (2 times)
fan motor error (indoor unit)	Red lamp Green lamp	● (6 times) ○	lock error	Red lamp	○
			r.p.m error	Green lamp	● (2 times)
				Red lamp	○
				Green lamp	● (3 times)

When an error occurs, "Large division indication" is indicated first.

Secondly, "Small division indication" is indicated by pushing "Test" button of remote controller.

## OUTDOOR UNIT

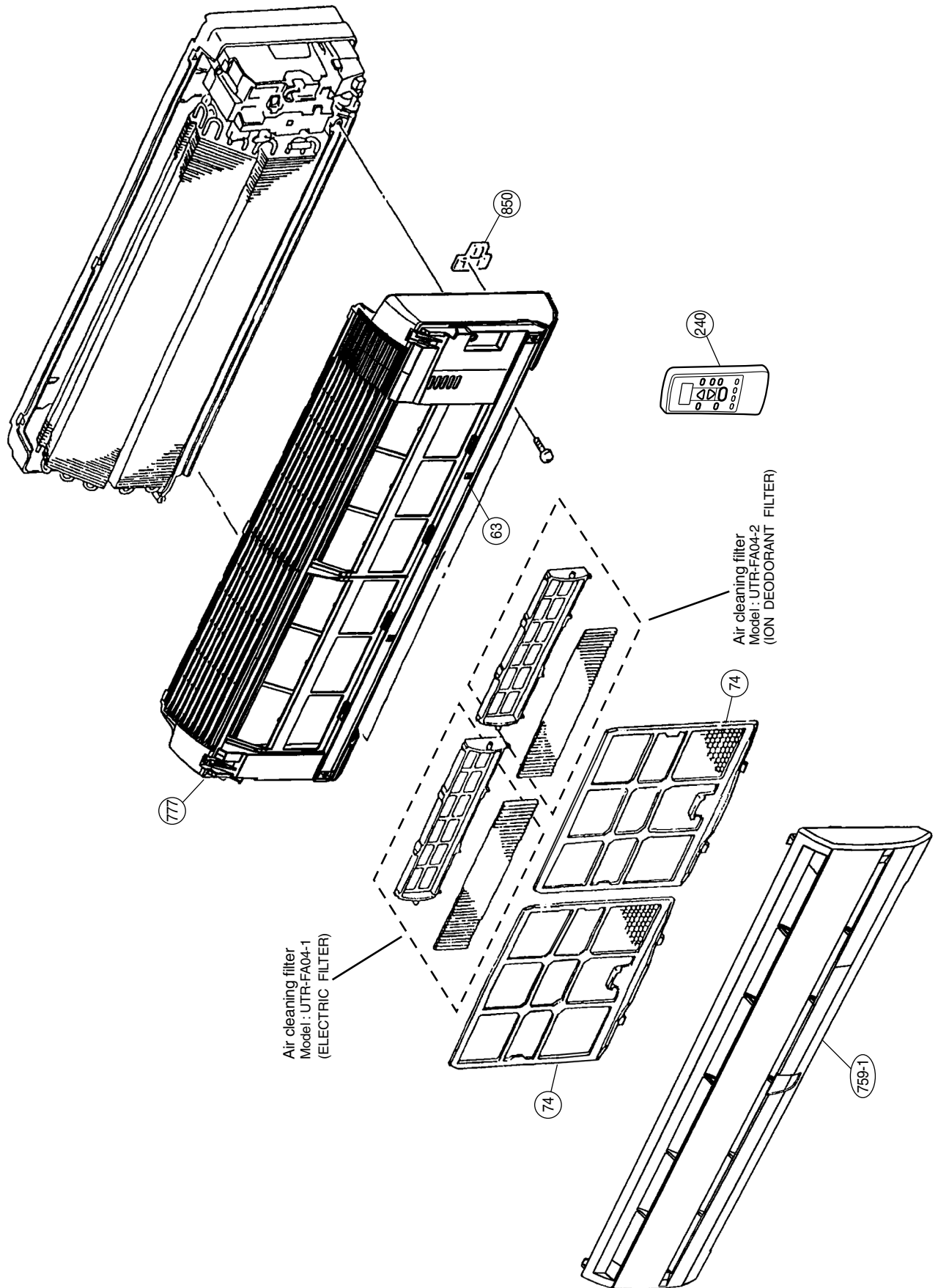
When a malfunction occurs in the outdoor unit, the LEDs on the circuit board light to indicate the error. Refer to the following table for the description of each error according to the LEDs.

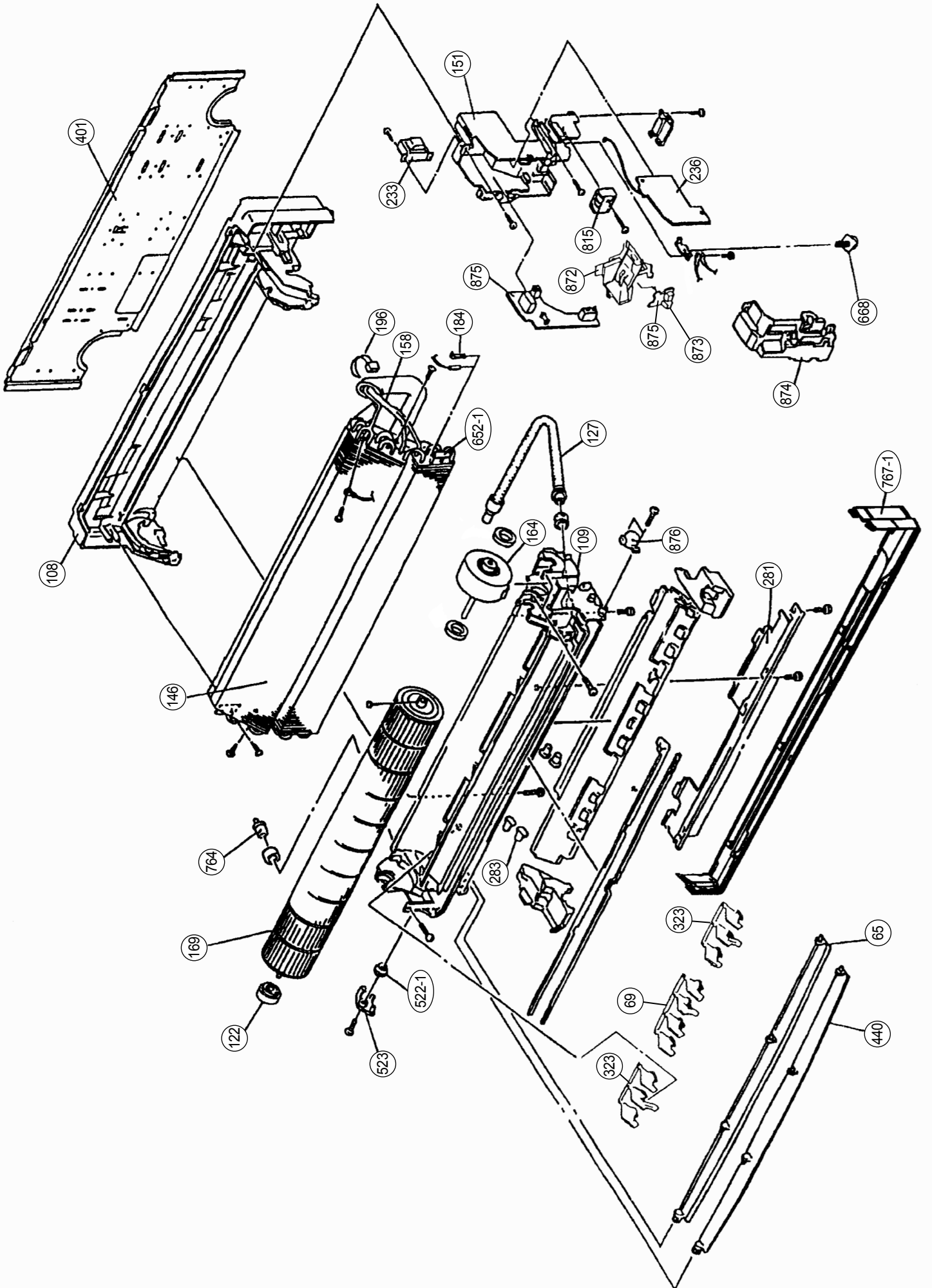
Error display		Error contents
LED 1	LED 2	
 <p>Quick flash continued</p>	 <p>Quick flash continued</p>	Model abnormal or EEPROM abnormal
 <p>2 quick flash repeated</p>	Dislighting continued	UNIT A Discharge temperature sensor error
 <p>3 quick flash repeated</p>	Dislighting continued	UNIT A Outdoor heat exchanger temperature sensor error
4 quick flash repeated	Dislighting continued	Outdoor temperature sensor error
5 quick flash repeated	Dislighting continued	UNIT A Communication signal error
6 quick flash repeated	Dislighting continued	UNIT A Indoor unit error
7 quick flash repeated	Dislighting continued	UNIT A Discharge temperature abnormal
Dislighting continued	 <p>2 quick flash repeated</p>	UNIT B Discharge temperature sensor error
Dislighting continued	 <p>3 quick flash repeated</p>	UNIT B Outdoor heat exchanger temperature sensor error
Dislighting continued	5 quick flash repeated	UNIT B Communication signal error
Dislighting continued	6 quick flash repeated	UNIT B Indoor unit error
Dislighting continued	7 quick flash repeated	UNIT B Discharge temperature abnormal

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

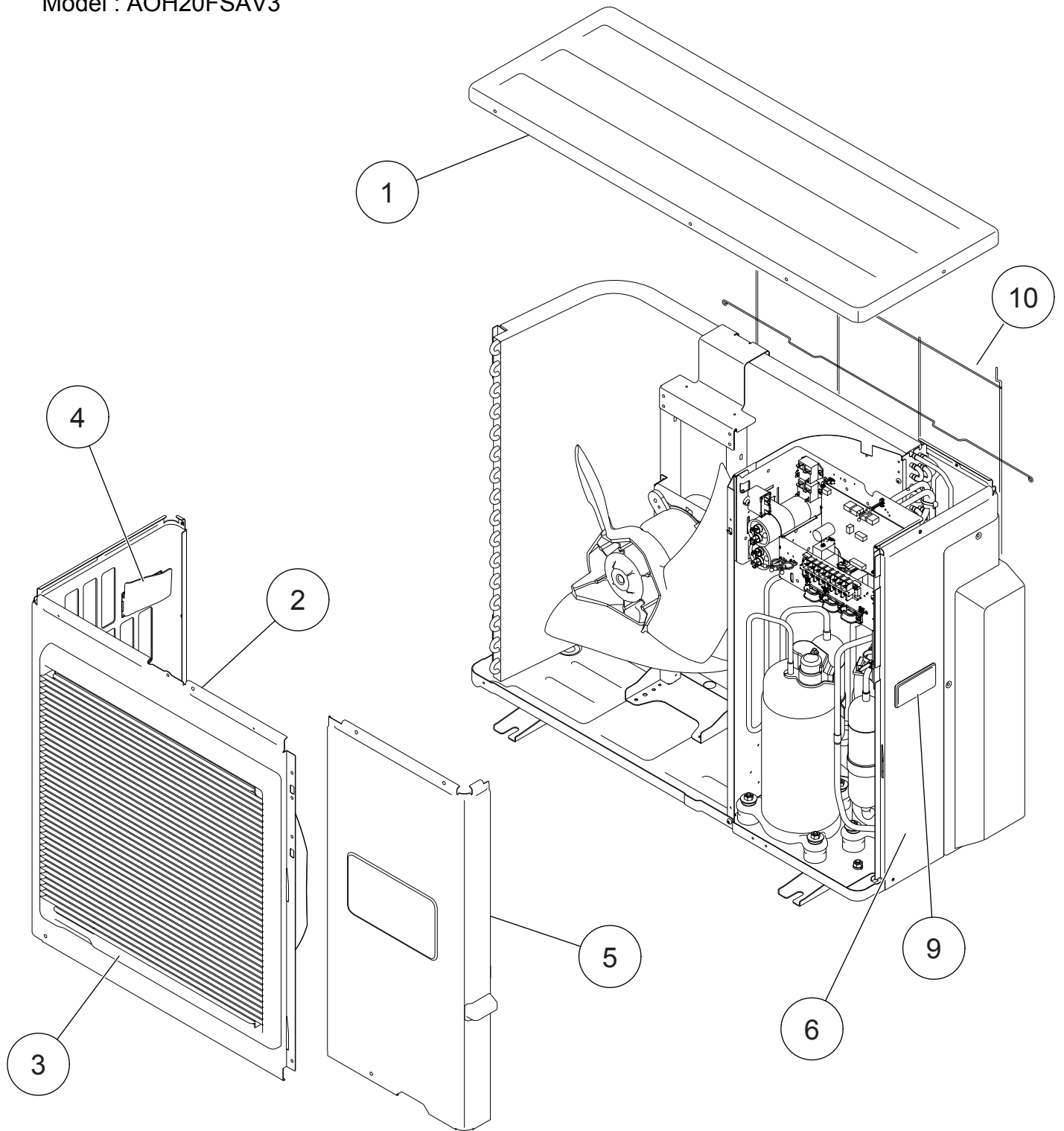
# DISASSEMBLY ILLUSTRATION

Model : ASH9FMBD

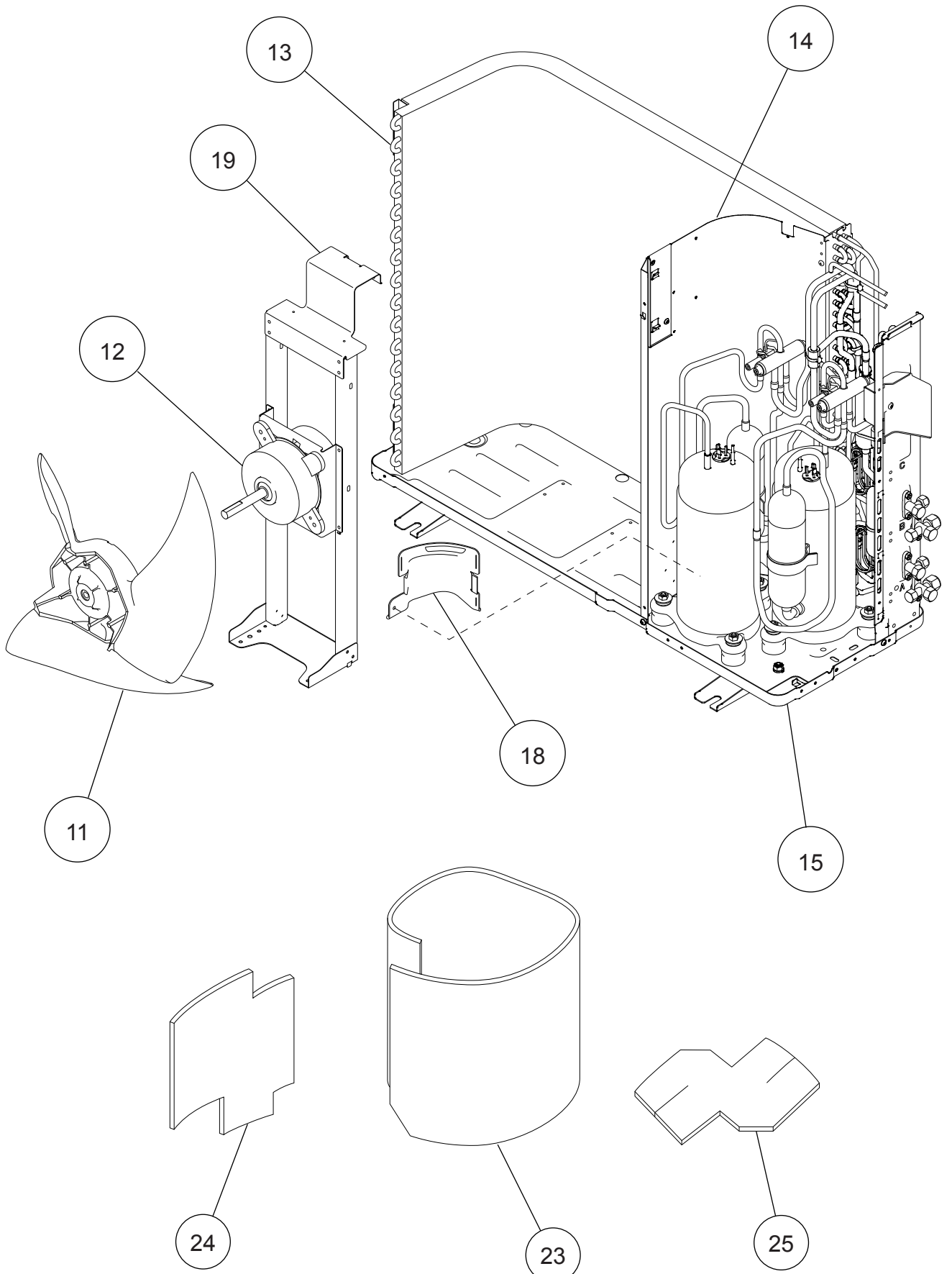




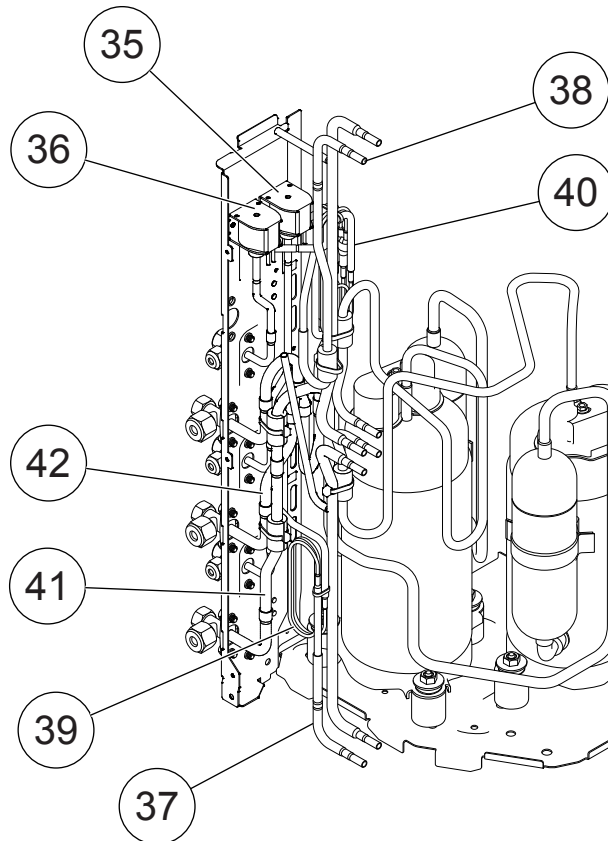
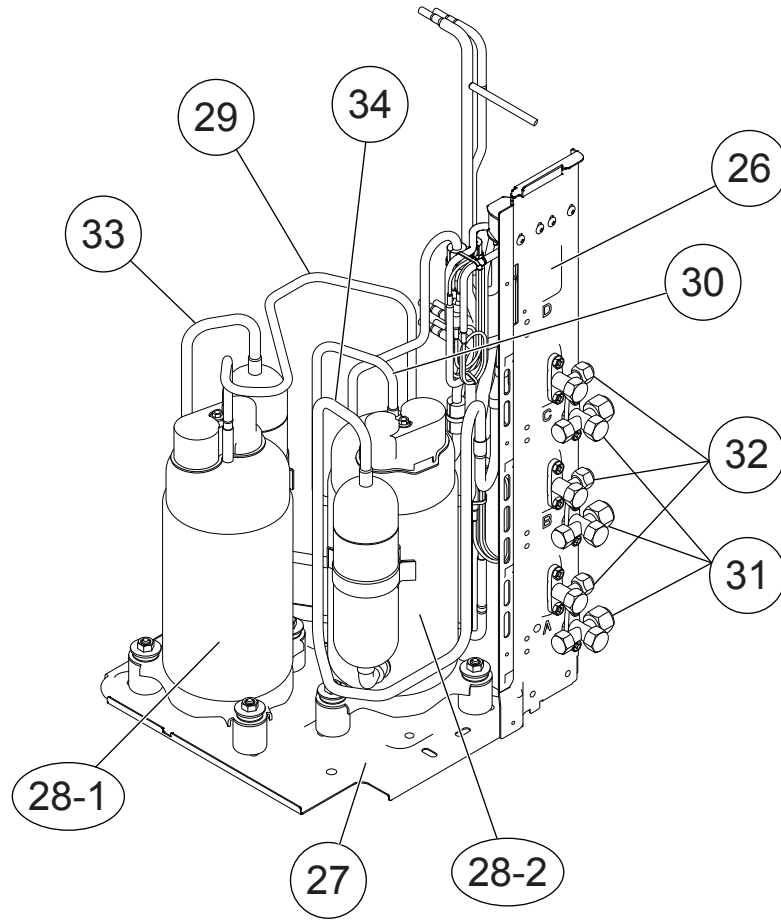
Model : AOH20FSAV3



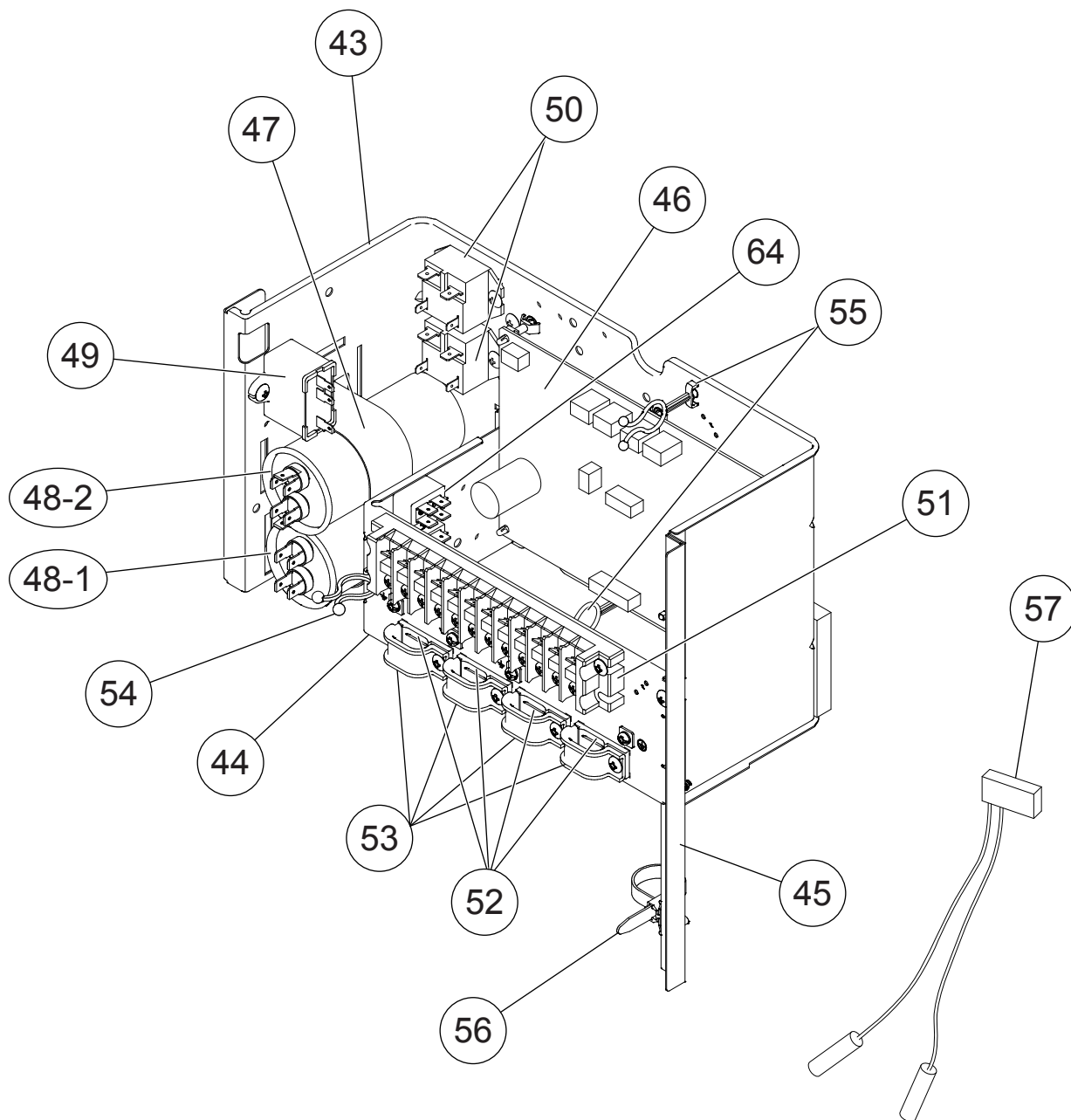
Model : AOH20FSAV3



Model : AOH20FSAV3

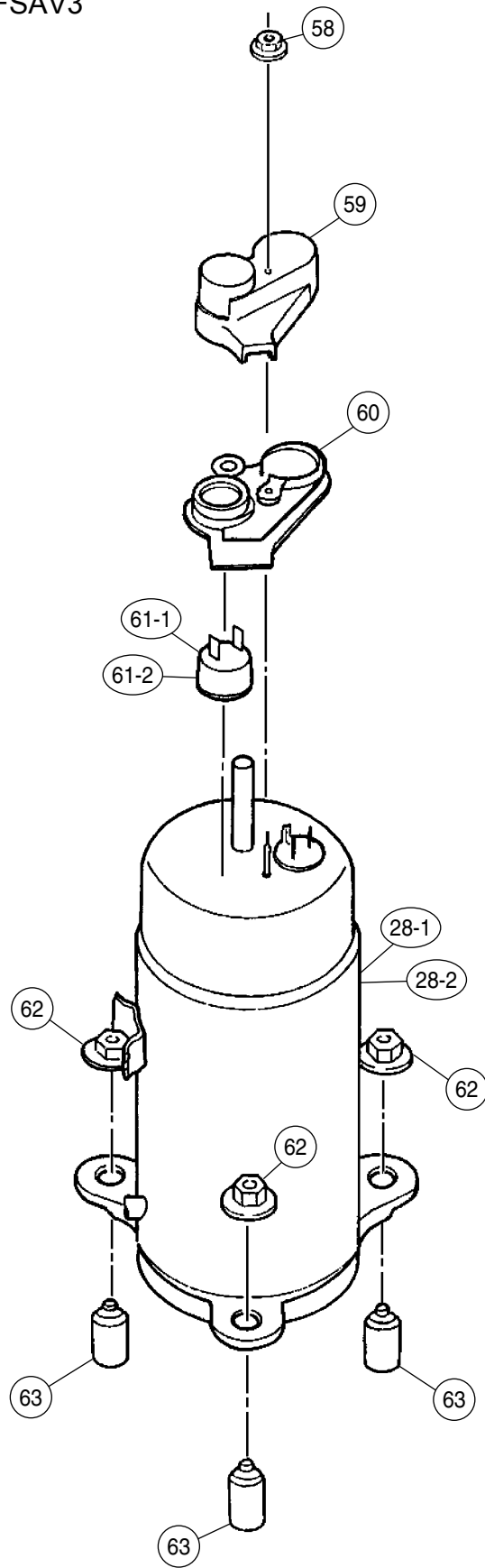


Model : AOH20FSAV3





Model : AOH20FSAV3



# PARTS LIST

## INDOOR UNIT

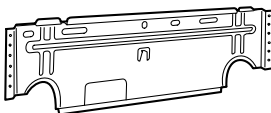
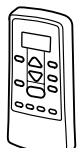

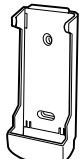
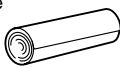
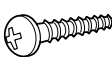

Ref. No.	Description	Part No.	Ord. Q'ty
		ASH9FMBD	
63	Front Panel Assy	9312172085	
65	Flow Control Panel-Z	9306058043	
69	Louver-A	9306055028	
74	Filter	9305444014	
108	Base	9309755062	
109	Casing	9306052027	
122	Shaft Holder-B	9303066010	
127	Drain Hose Assy	9305550029	
146	Evaporator Assy	9373044017	
151	Control Box	9330007017	
158	Connecting Pipe Assy	9306416010	
164	Fan Motor Assy-IN	9601844013	
169	Cross-Flow Fan Assy	9307836015	
184	Thermistor Spring	313728262708	
196	Clamp SKB-150	313035356905	
233	Power Transformer	9701803026	
236	Controller PCB Assy (EZ-00205WSE-C)	9704865045	
240	Remote Control Unit	9312058037	
281	Bracket (Pipe)	9330011014	
283	Bushing-A	9303529010	
323	Louver-B	9306056025	
401	Wall Hook Bracket	9304358008	
440	Flow Control Panel-U	9306057046	
522-1	Gear-A	9306062002	
523	Gear Bracket	9306407001	
652-1	Thermistor Holder Pipe	313714262805	
668	Screw w/Washer	9372808023	
759-1	Intake Grille	9330002012	
764	Drain Cap Assy	9304150008	
767-1	Bottom Cover	9330004016	
777	Clamper (Grill)	9306755010	
815	Terminal	9900040055	
850	Window (Receiver)	9330003019	
872	Indicator Case	9330009011	
873	Lamp Cover	9330014015	
874	Control Box Cover	9330008014	
875	PCB Assy (Power+Indicator)	9704871053	
876	Step Motor	9900139018	

## OUTDOOR UNIT


Ref. No.	Description	Part No.	Ord. Qty
		AOH20FSAV3	
1	Top Panel Sub Assy	9374417018	
2	Front Panel S	9374094080	
3	Fan Guard	9374330010	
4	Grip Side	9374173013	
5	Service Panel Sub Assy	9374415045	
6	Right Panel	9374599042	
9	Grip	9374172016	
10	Print Net S	9374255047	
11	Propeller Fan Assy	9366378013	
12	Motor, Induction	9601671060	
13	Condenser A Assy	9374433100	
14	Separate Wall S	9374135042	
15	Base Assy	9374166121	
18	Cap Foot	9374345014	
19	Motor Bracket Sub Assy	9374418084	
23	Compressor Cover A	9375323028	
24	Compressor Cover B	9374431076	
25	Compressor Cover C	9372067055	
27	Compressor Plate Assy	9375221010	
28-1	Compressor Assy (Unit A)	9373010012	
28-2	Compressor Assy (Unit B)	9373010029	
29	Discharge Pipe A1	9372179420	
30	Discharge Pipe B1	9372180334	
31	3-Way Valve Assy	9375103019	
32	2-Way Valve Assy	9375102012	
33	Suction Pipe A1	9372176351	
34	Suction Pipe B1	9371275239	
35	Solenoid (White)	9900189150	
36	Solenoid (Red)	9900189167	
37	Condensing Pipe A1	9372232008	
38	Condensing Pipe B1	9372231111	
39	Capillary A Assy	9375297022	
40	Solenoid Valve B Assy	9375325015	
41	Joint Pipe (Valve) A1	9372178164	
42	Joint Pipe (Valve) B Assy	9375296025	
46	PCB ASSY	9707096026	
47	Band (Capacitor)	9352123009	
48-1	Capacitor, Plastic (Comp.A)	9900269029	
48-2	Capacitor, Plastic (Comp.B)	9900269029	
49	Capacitor, Plastic (Fan)	9900270049	
50	Relay	9900264017	
51	Terminal	9358660164	
52	Clamp (Cord) C	9359677000	
53	Clamp (Cord)	9356857009	
54	Clamp No.1219	313361271706	
55	Wire Clamper	0600231019	
56	Clip (Cable) No 1259	313739340109	
57	Thermistor Assy	9900355012	
58	Special Nut M5	313199233602	
59	Terminal Cover (Comp.)	9302419008	
60	Terminal Gasket (Comp.)	9351505011	
61-1	OCR Assy (Comp.A)	9309128002	
61-2	OCR Assy (Comp.B)	9311143000	
62	Special Nut	9355091008	
63	Rubber Seat (For Comp) A	9351507015	
64	Terminal	9701971015	
---	Emblem Rear	9372171011	

# STANDARD ACCESSORIES

## INDOOR UNIT

Name and Shape	Q'ty	Part No.
Wall hook bracket 	1	9304358008
Remote control unit 	1	9312094066 (AR-JE06)
Battery (penlight) 	1 set	0600185534
Remote control unit holder case 	1	9312653010
Cloth tape 	1	9310519004
Tapping screw (big) ( $\phi$ 4 x 25) 	8	0700076046
Tapping screw (small) ( $\phi$ 3 x 12) 	2	0700019036

## OUTDOOR UNIT

Name and Shape	Q'ty	Part No.
Putty 	1	303020200114

0603G3046