



**SPLIT TYPE ROOM AIR  
CONDITIONER**  
FLOOR CONSOLE /  
UNDER CEILING  
DUAL type (50Hz)

# SERVICE MANUAL

Models	Indoor unit	Outdoor unit
	ABG24AGB-W	AOG24ANA

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# S P E C I F I C A T I O N S

TYPE		COOLING
INDOOR UNIT		ABG24AGB-W
OUTDOOR UNIT		AOG24ANA
COOLING CAPACITY	(W)	6,550 - 6,750

## ELECTRICAL DATA

POWER SOURCE	(V)	220 - 240
FREQUENCY	(Hz)	50
RUNNING CURRENT	(A)	13.2 - 13.4
INPUT WATTS	(W)	2,670 - 2,780
EER	(W/W)	2.45 - 2.42
MOISTURE REMOVAL	(ℓ /hr)	3.4
AIR CIRCULATION-Hi	(m <sup>3</sup> /hr)	900

## COMPRESSOR

TYPE		Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor
CODE		2JS438D5AA02
REFRIGERANT	R-22 (g)	1,870

## FAN MOTOR

POWER SOURCE	(V)	240
INDOOR UNIT	TYPE	MFA-24CTAT
	HI-SPEED (r.p.m.)	1,180
	MED-SPEED (r.p.m.)	1,040
	LO-SPEED (r.p.m.)	900
OUTDOOR UNIT	TYPE	MFB-247FB
	FAN SPEED (r.p.m.)	735

## DIMENSIONS

INDOOR UNIT	H x W x D (mm)	199 x 990 x 655
OUTDOOR UNIT		643 x 840 x 336

## WEIGHTS

INDOOR UNIT	GROSS / NET (kg)	39 / 30
OUTDOOR UNIT		68 / 60

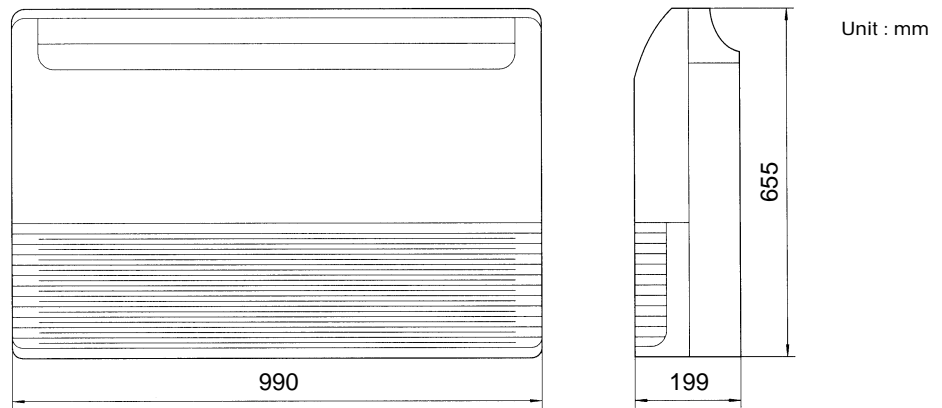
## ADDITIONAL REFRIGERANT CHARGE

PIPE LENGTH	5 m ( 16 ft. )	7 m ( 23 ft. )	10 m ( 33 ft. )	15 m ( 49 ft. )	20 m ( 66 ft. )
FULL CHARGE AMOUNT	1,870 g (66.0 oz.)	1,902 g (67.1 oz.)	1,950 g (68.8 oz.)	2,030 g (71.6 oz.)	2,110 g (74.4 oz.)

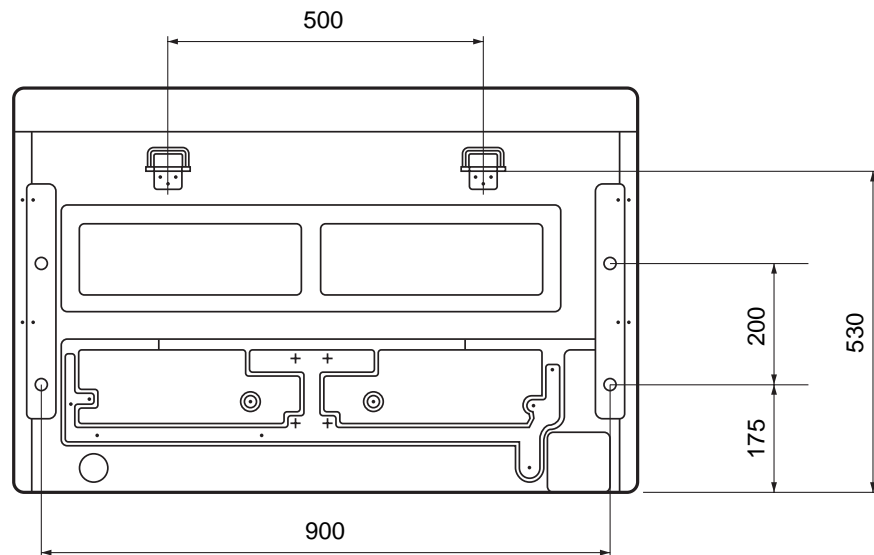
Note : In the case that 5 m are exceeded, when using a connection pipe other than that in the table, charge additional refrigerant with 16 g (0.56 oz.) / 1 m (3.3 ft.) as the criteria.

# OUTLINE AND DIMENSIONS

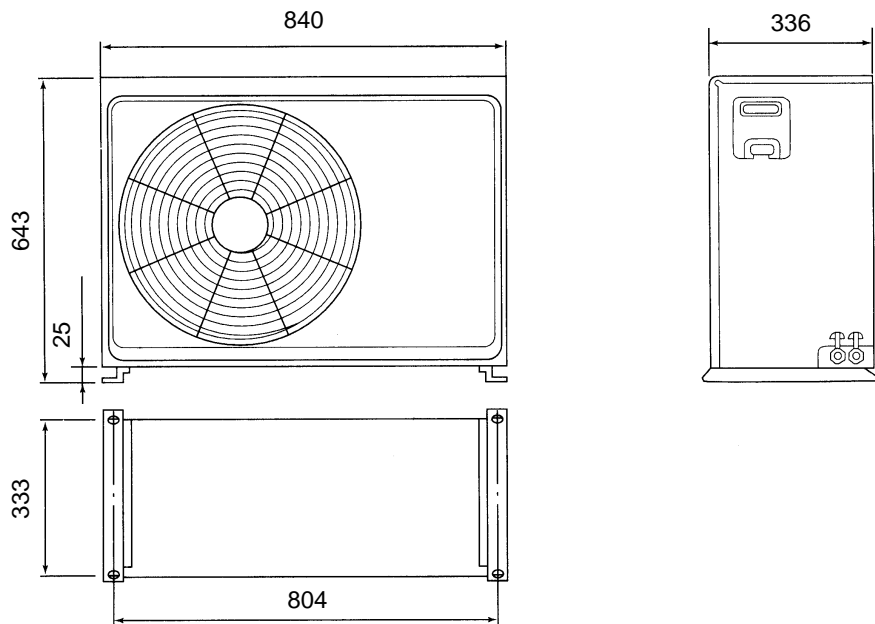
## INDOOR UNIT



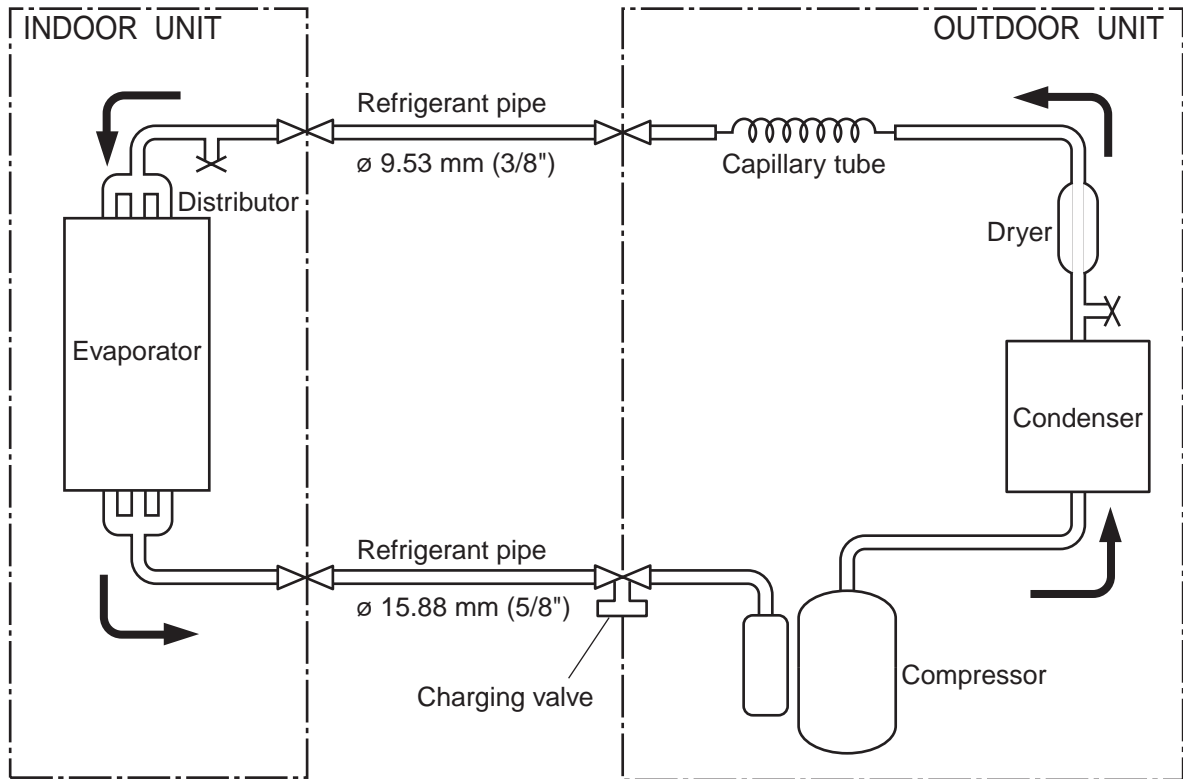
### [Rear View]



## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM

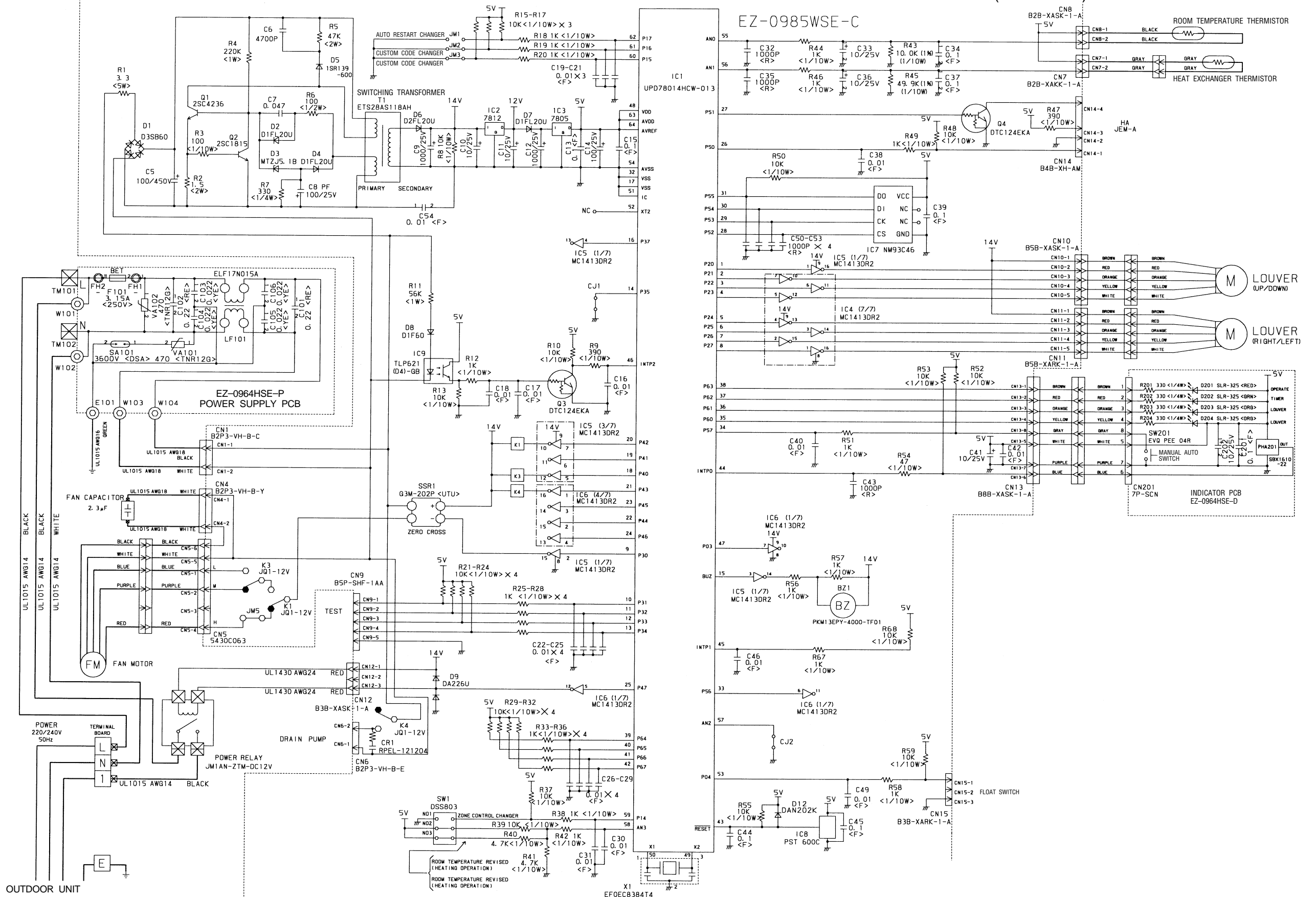


➔ Cooling  
⊗ : Flare coupling

# INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

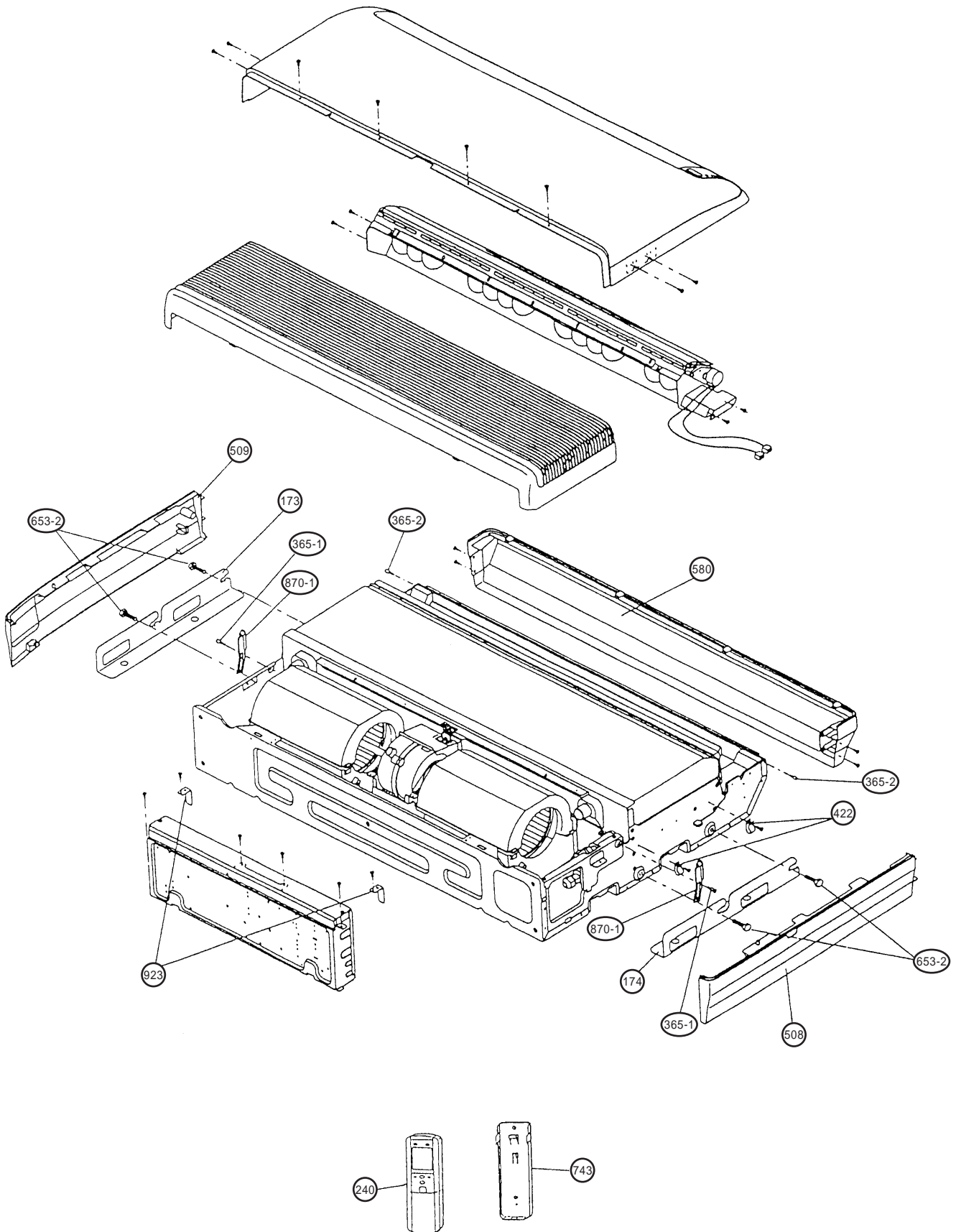
Model : **ABG24AGB-W**

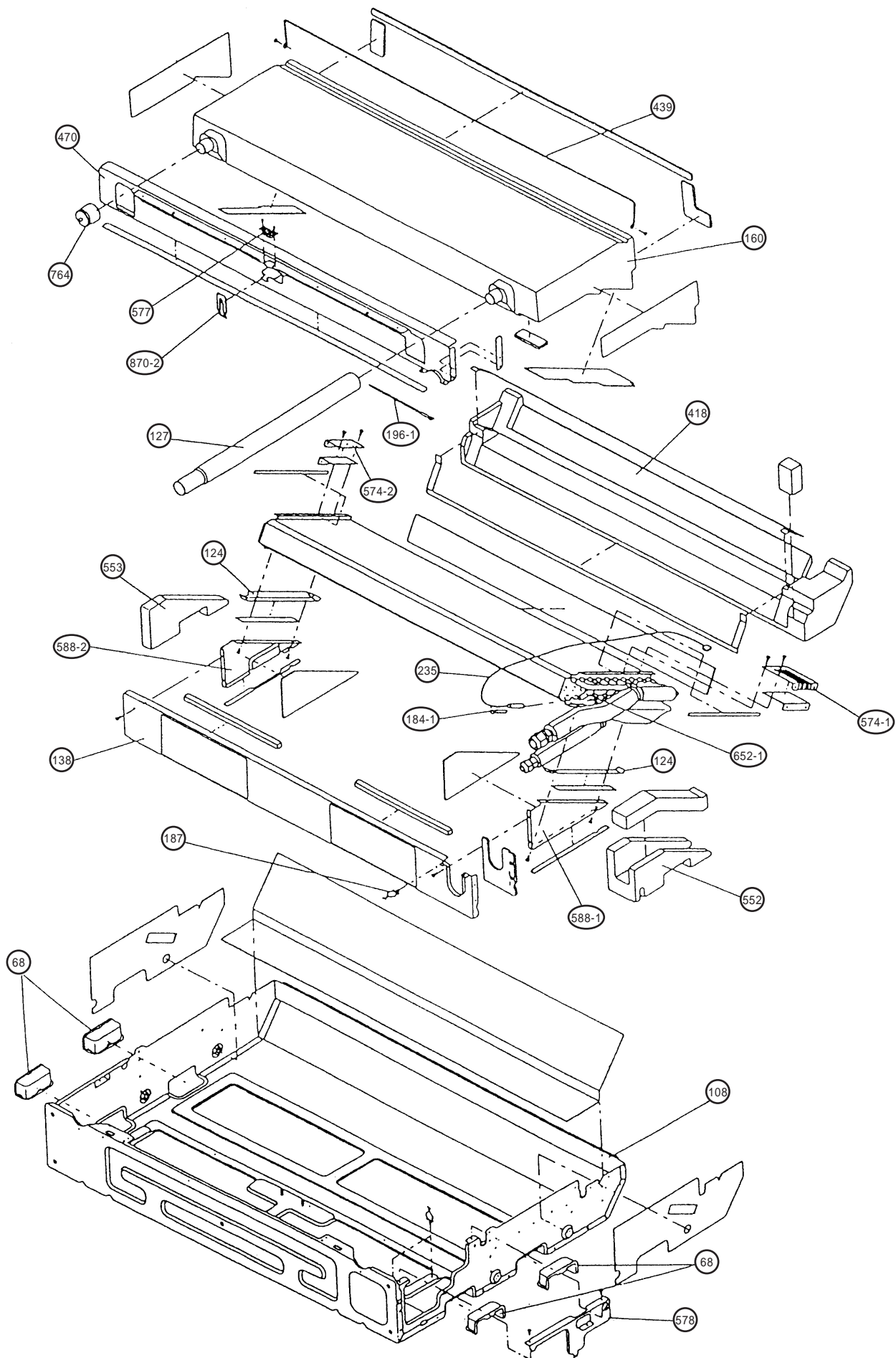
## CONTROLLER PCB ASSEMBLY (MAIN PCB)

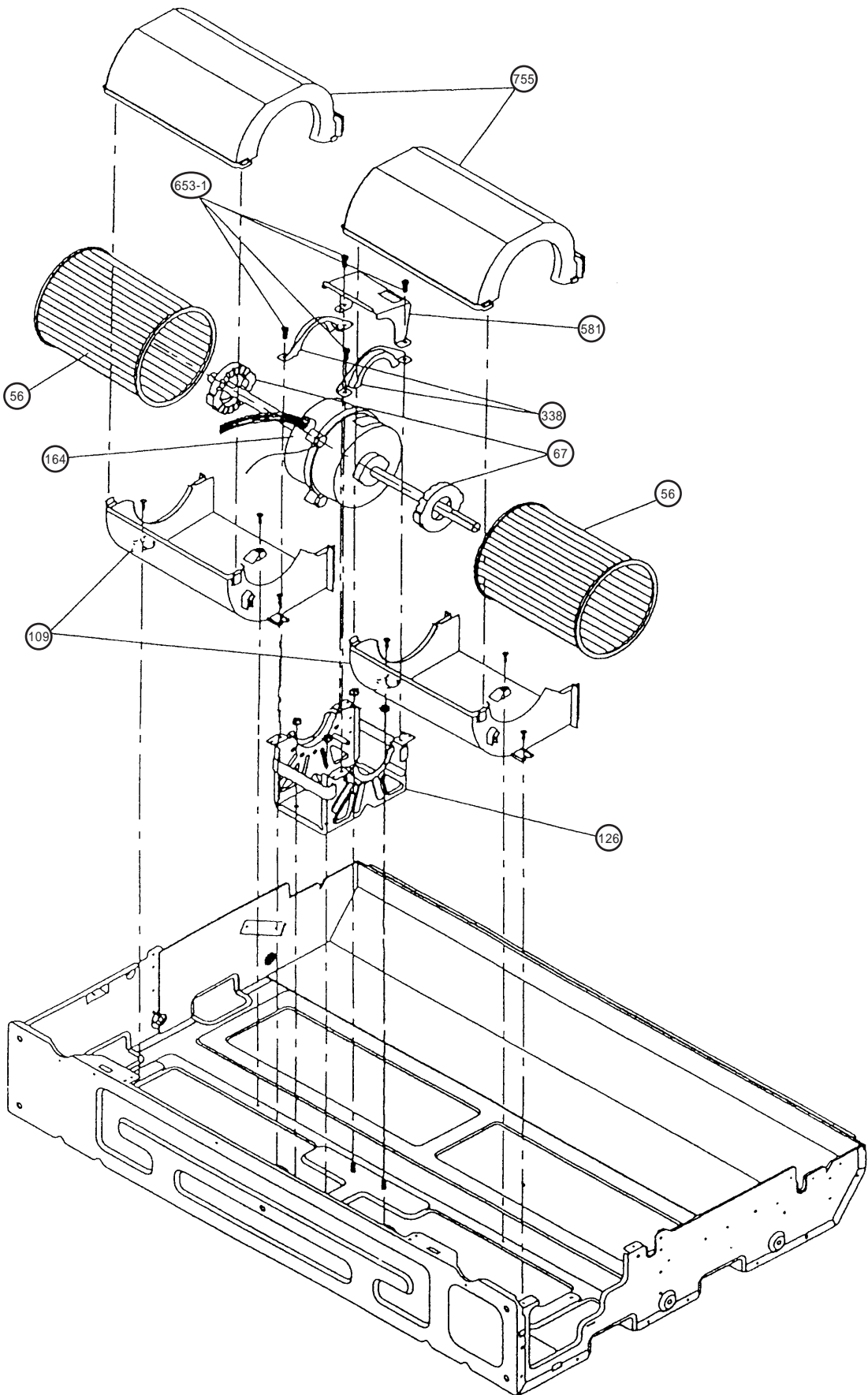


# DISASSEMBLY ILLUSTRATION

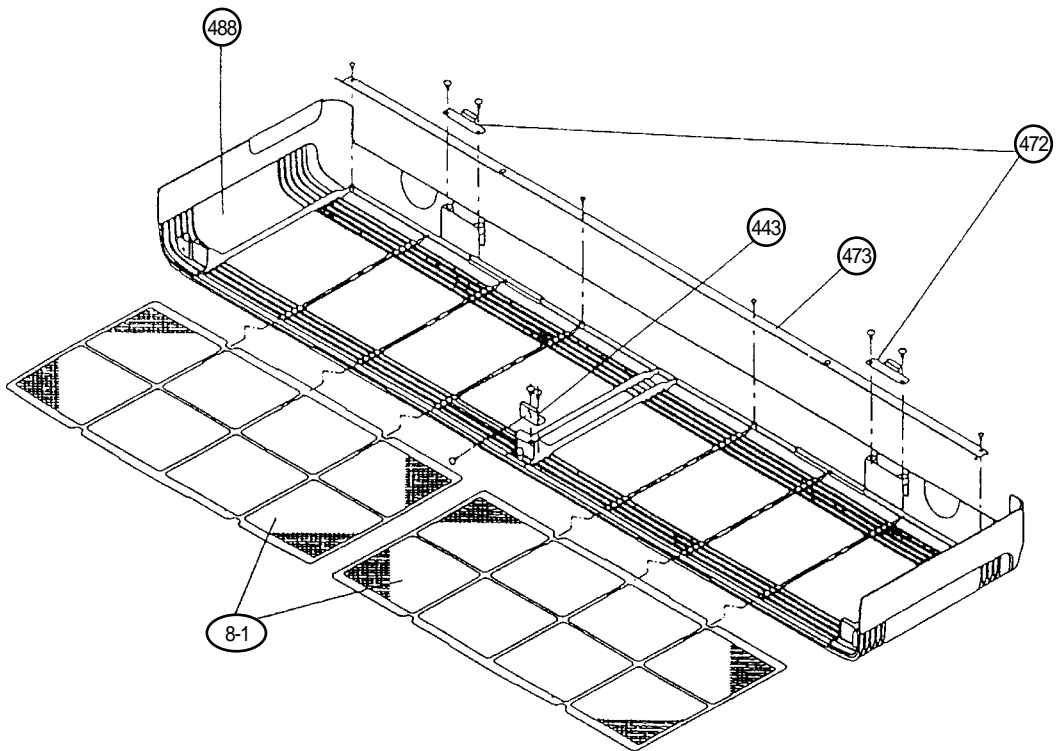
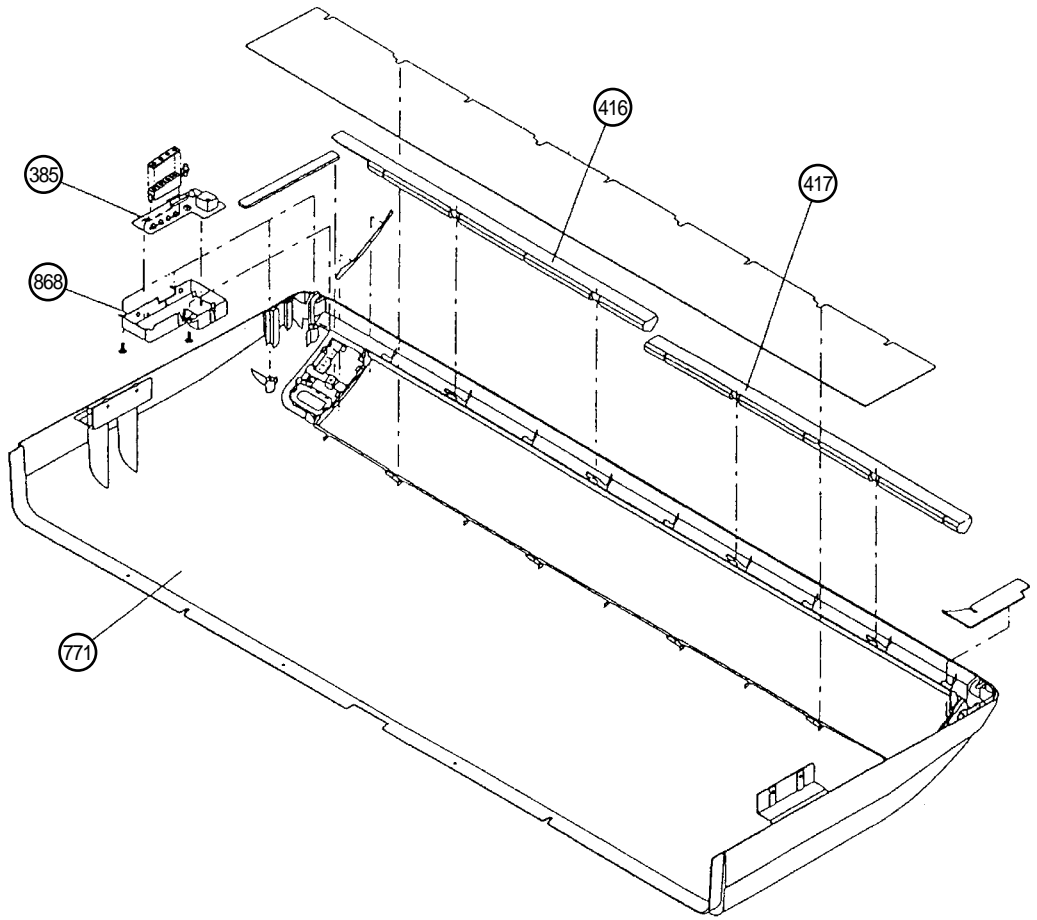
Models : ABG14EGA-W  
ABG18EGA-W

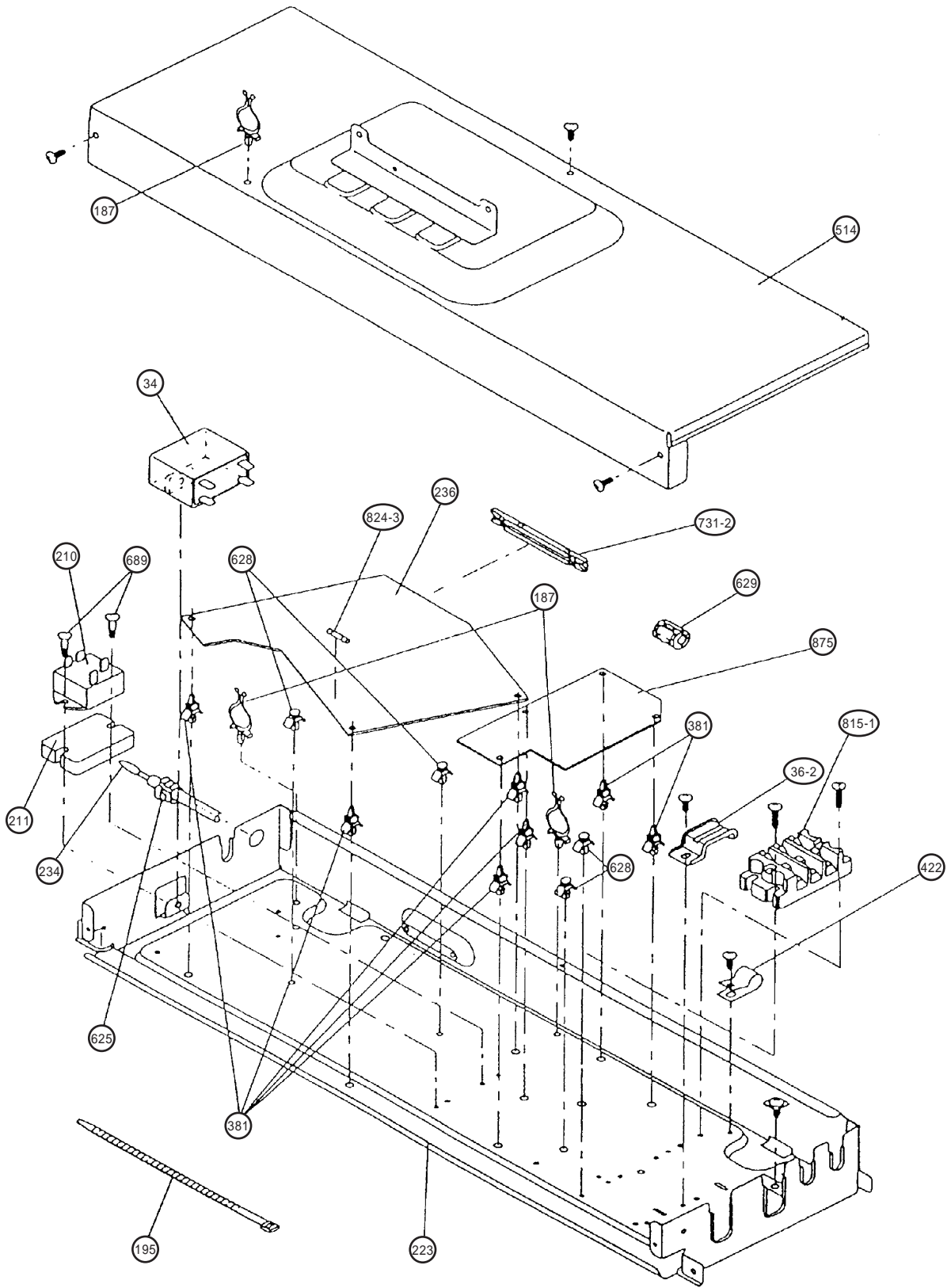


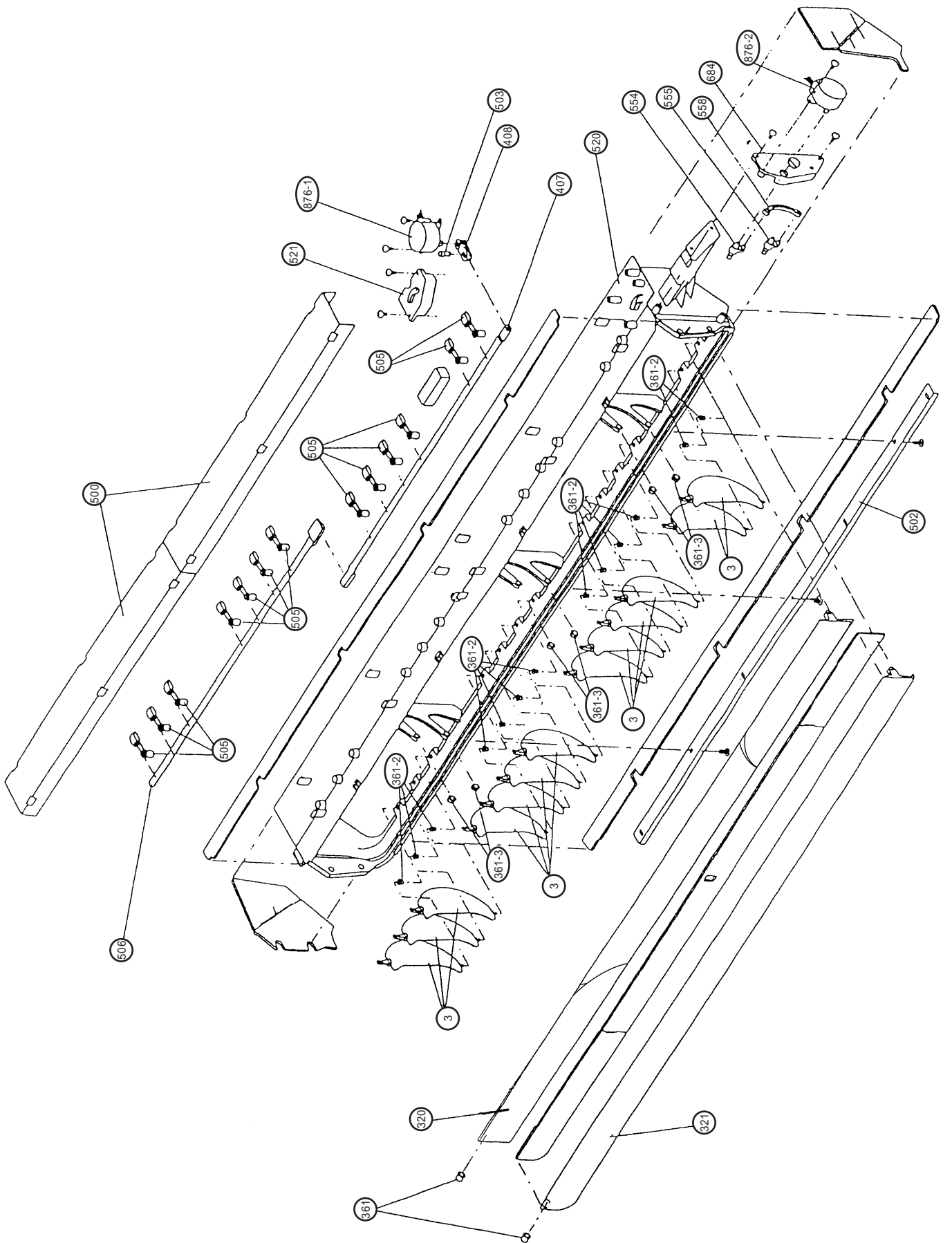




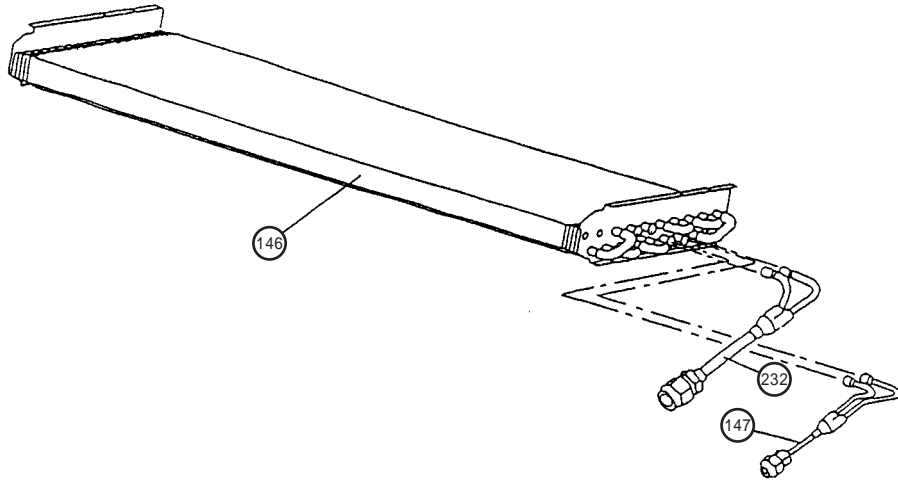




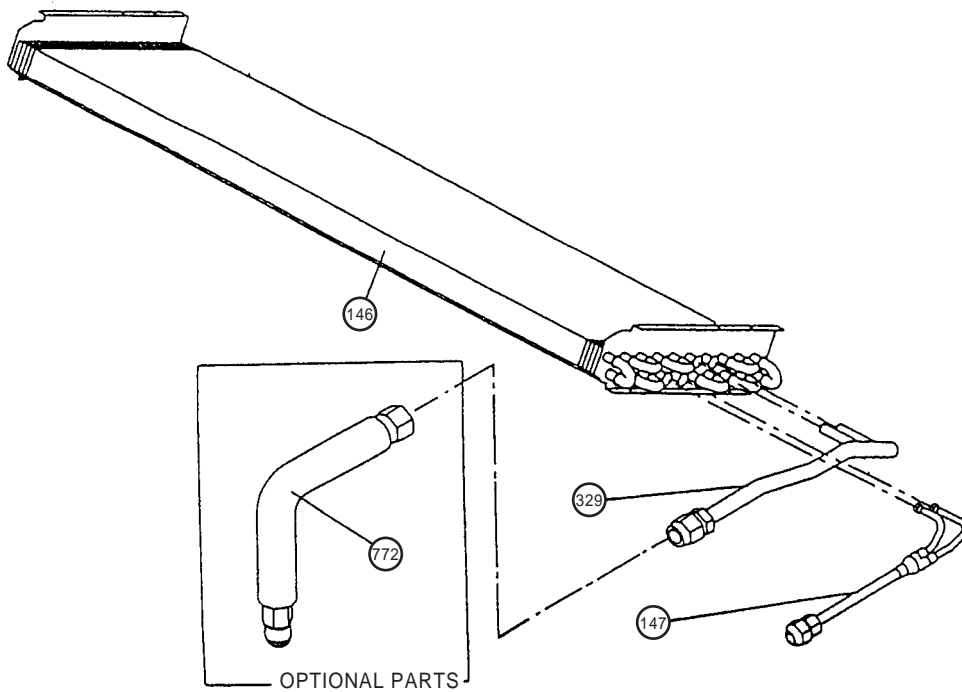




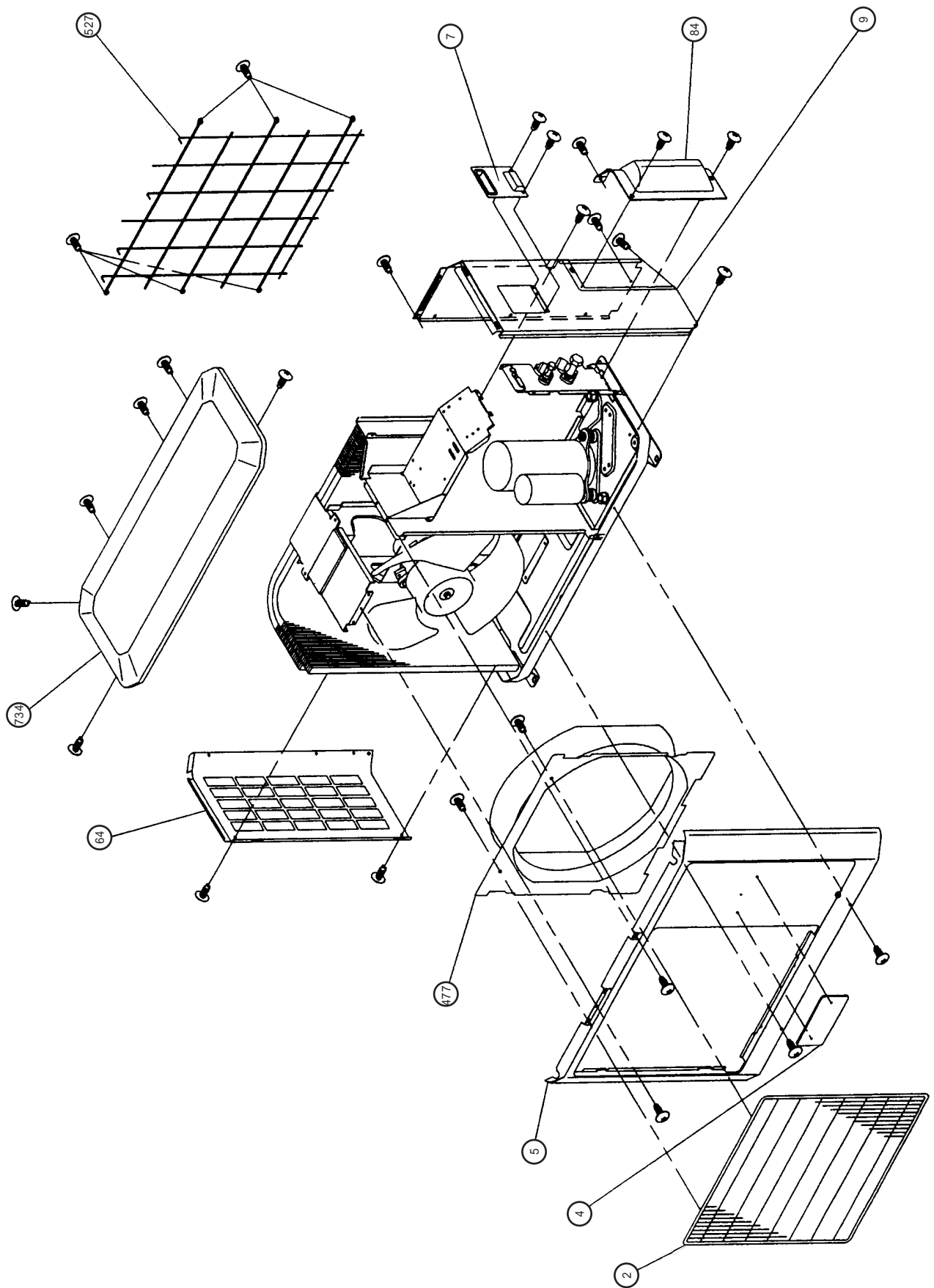
Model : ABG14EGA-W



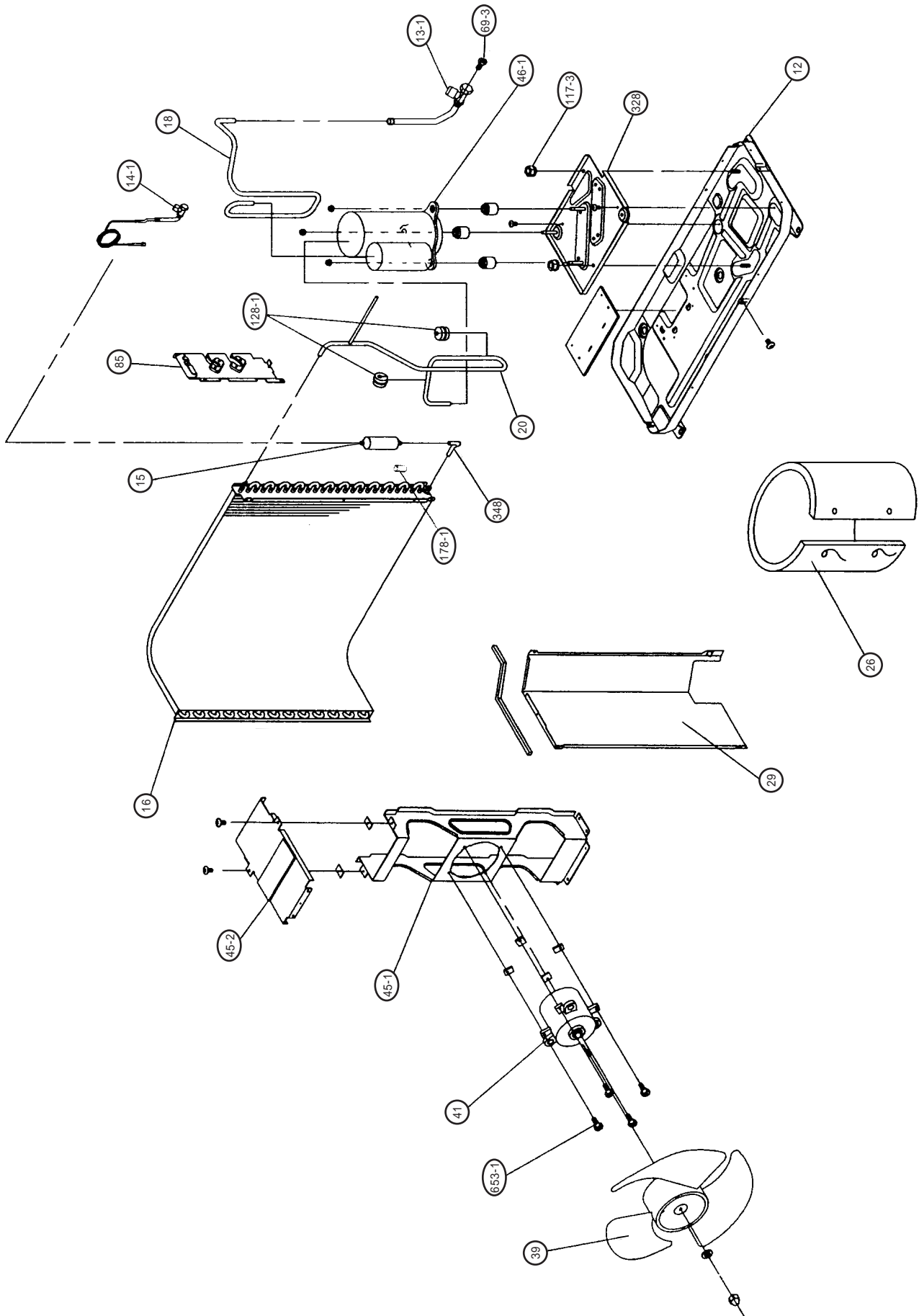
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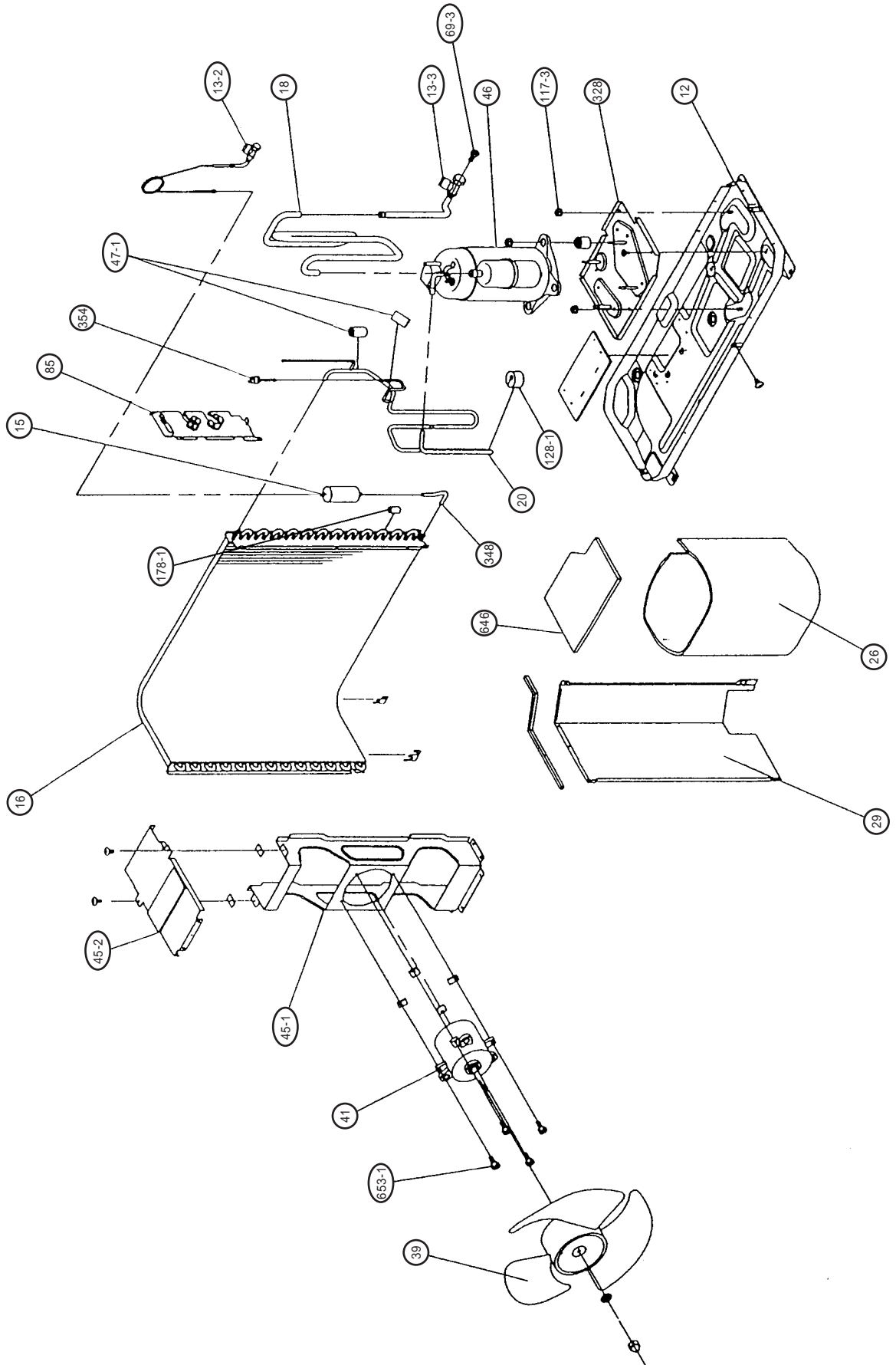


Models : AOG14EMB  
AOG18EMA

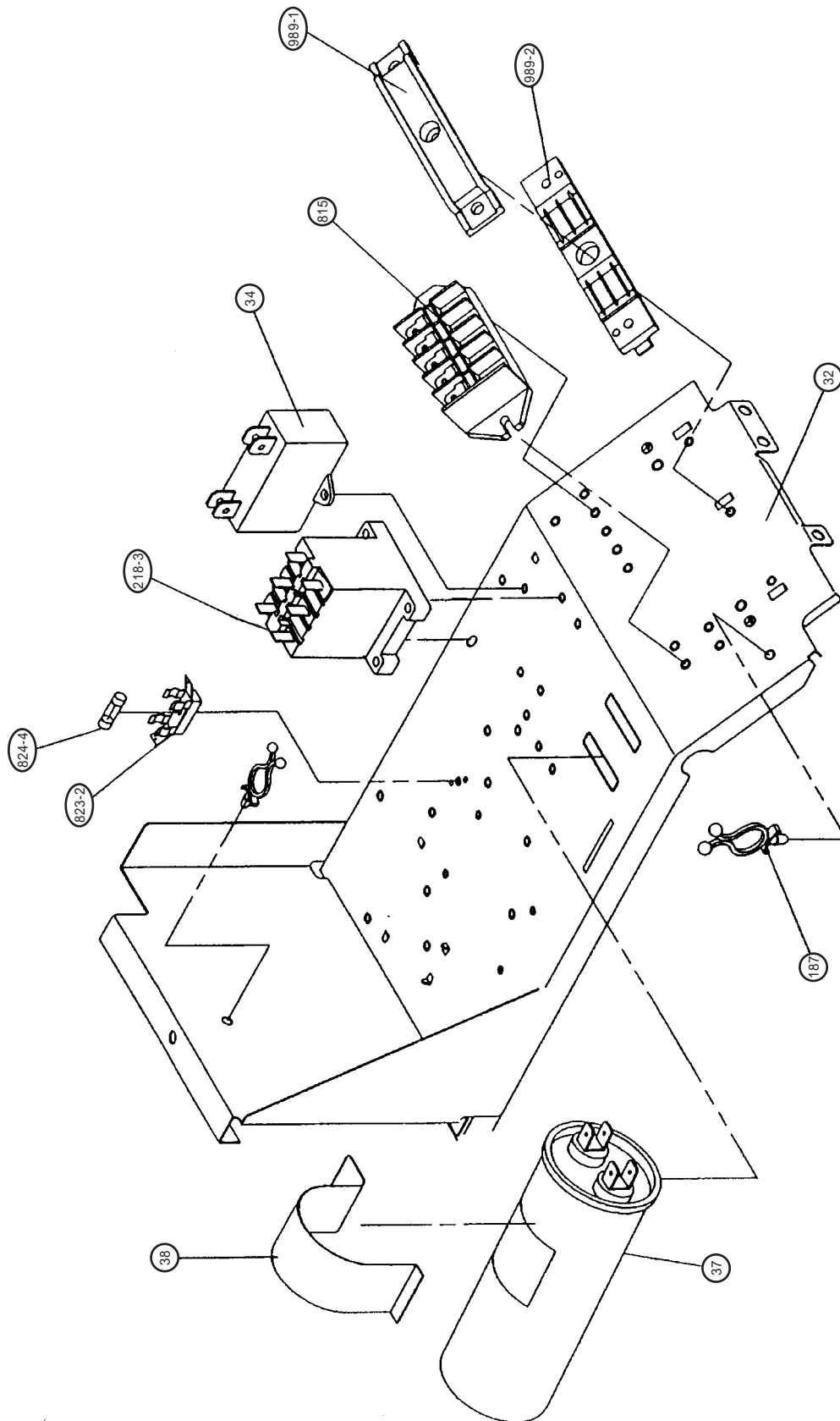


Model : AOG14EMB

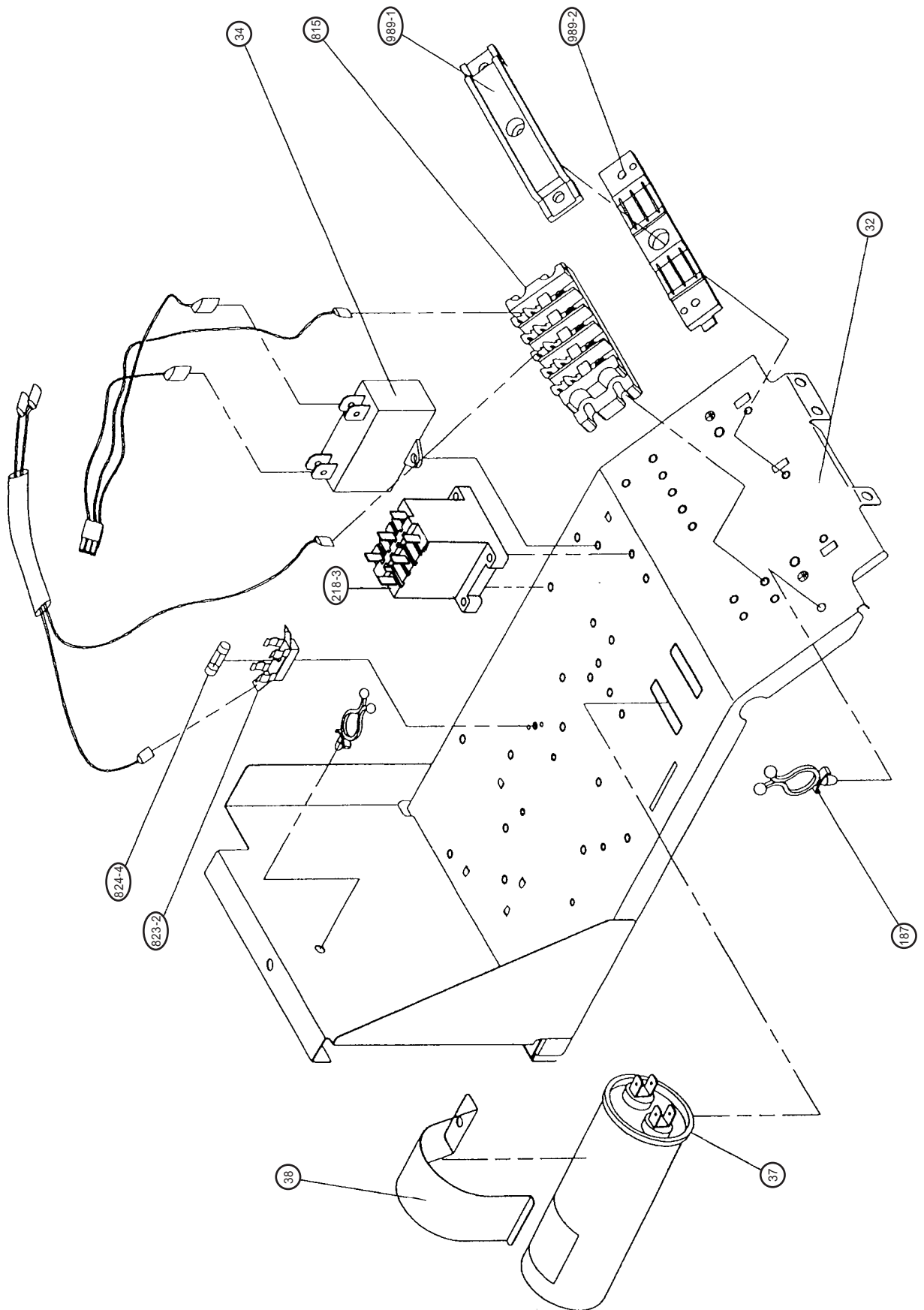




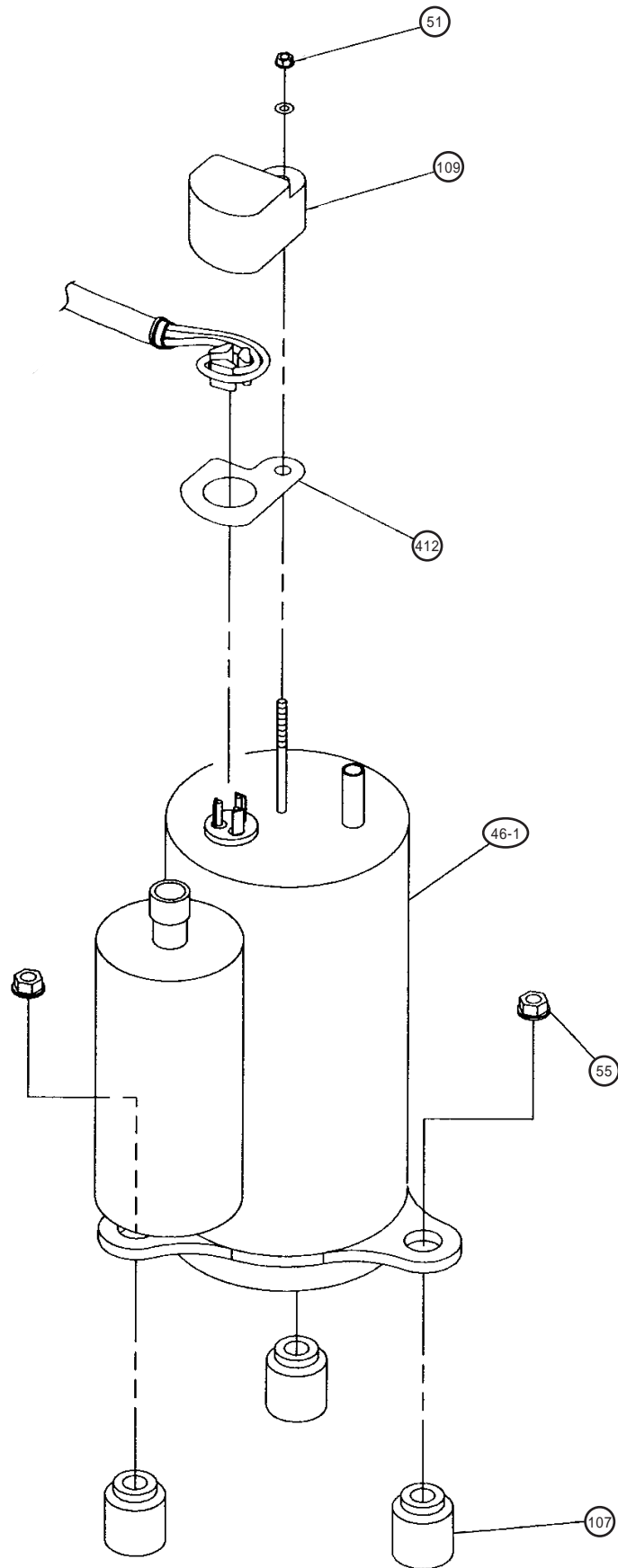
Model : AOG14EMB



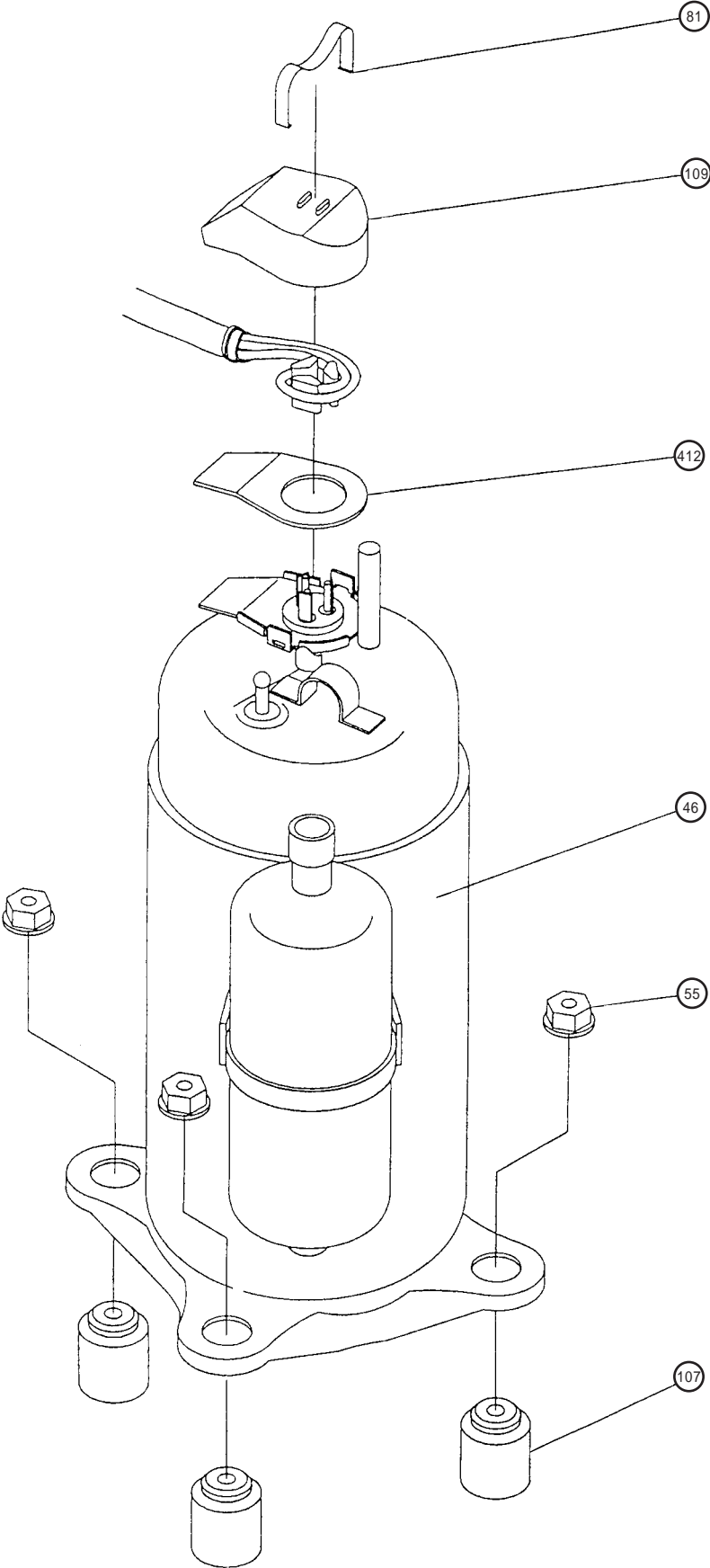




Model : AOG14EMB



Model : AOG18EMA



# PARTS LIST

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

## INDOOR UNIT

Ref. No.	Description	Part No.	Q'ty	Ref. No.	Description	Part No.	Q'ty
3	Louver	9358561010		472	Grille Support	9358602003	
8-1	Air Filter	9358567012		473	Filter Bracket	9358607008	
34	Capacitor (Fan Motor) 2.3µF/450V	9703306044		488	Grille-G	9358533017	
36-2	Cord Holder Metal	9356362008		500	Protect Cover	9358564004	
56	Sirocco Fan Assy	9358621004		502	Support Stay	9358599006	
67	Rubber (Vibration-proof)	313659068604		503	Louver Shaft	9358557006	
68	Cap, Plastic	9358563007		505	Louver Stopper	9358555002	
108	Base Assy	9359061014		506	Louver Rod	9358559000	
109	Casing, Plastic	9358543009		508	Cosmetic Panel-R	9358535011	
				509	Cosmetic Panel-L	9358536018	
124	Dew Proof Plate	9359196006		514	Control Box Cover	9359097006	
126	Motor Fixing Table Assy	9358591000		520	Flap Base	9358537015	
127	Drain Hose Assy	9359242000		521	Louver Link Cover	9358558003	
138	Separate Wall-A	9358584002		552	Insulation (Eva.)-R	9358575000	
146	Evaporator Assy C688E	9358870013		553	Insulation (Eva.)-L	9358857007	
160	Drain Pan Assy	9358568002		554	Flap Link-Upper (Step Motor-V)	9358551004	
164	Fan Motor Assy-In MFA-24CTAT	9600778043		555	Flap Link-Lower (Step Motor-V)	9358552001	
173	Hanger Bracket-L	9358596005		558	Motor Rod-A (Step Motor-V)	9358550007	
174	Hanger Bracket-R	9358595008		574-1	Evaporator Fixture-R (Bracket)	9358589007	
184-1	Thermistor Spring-A	313728262708		574-2	Evaporator Fixture-L (Bracket)	9358590003	
187	Clamp No. 1219	313361271706		577	Catch TL-119	9359096009	
195	Clamp SKB-100	313361275805		578	Base Bracket (Reinforcement Metal)	9358586006	
196-1	Clamp SKB-3M	312300787605		580	Top Cover	9358534014	
210	Main Relay JM1AN-ZTM-DC12V	9356781007		581	Protector, Metal (For Motor)	9359282006	
211	Cushion Rubber	313806328306		588-1	Evaporator Bracket-R	9358587003	
223	Control Box	9358600016		588-2	Evaporator Bracket-L	9358588000	
227	Badge "GENERAL"	9357914008		625	Cord Bushing KR-51	9359240006	
234	Thermistor Assy-Room	9703299025		628	Locking Spacer-B	313005446558	
235	Thermistor Assy-Pipe	9701102068		629	EMI Filter	0400197119	
236	Controller PCB Assy EZ-096VWSE-C	9701941094		652-1	Thermistor Holder Pipe	313806262805	
240	Remote Control Unit AR-DL2	9359913023		653-1	Bolt (Fan Motor Fixing)	0700156014	
320	Flap (Upper)-G	9358539019		653-2	Bolt	0700190018	
321	Flap (Lower)	9358541012		684	Motor Base	9358562000	
329	Coupling Pipe Assy	9358819005		689	Screw, Grip Tapping SN+4016 ZNY, w/Grip	9357837000	
338	Motor Fixture	9358594001		731-2	Holder (Guide Rail)	0600241018	
361	Bushing	9357942001		735	Distributor Assy	9358814000	
361-2	Bushing-B, Plastic	9358554005		743	Remote Control Unit Holder	9359955016	
361-3	Bushing-C, Plastic	9358553008		755	Casing Cover	9358544006	
365-1	Special Screw	9359092001		764	Drain Cap	9358746004	
365-2	Special Screw	9359091004		771	Panel Assy "GENERAL"	9359076025	
381	Locking Spacer, KGLS-4S	313209391506		815-1	Terminal-3P	9356488005	
385	Indicator PCB Assy EZ-0964HSE-D	9701873012		824-3	Fuse BET 3.15A-250V	0600222512	
407	Motor Rod	9358560006		868	PCB Holder	9358547007	
408	Louver Link	9358556009		870-1	Arm	9358565001	
416	Insulation (Panel)-A	9358574003		870-2	Center Arm	9359280002	
417	Insulation (Panel)-B	9358914007		875	Filter PCB Assy EZ-0964HSE-P	9702081010	
418	Insulation (Flap Base)	9358572009		876-1	Step Motor-H	9359106012	
422	Clamp NK-10N	9359183006		876-2	Step Motor-V	9359105015	
439	Drain Pan Wire	9358598009		923	Control Box Bracket	9358717004	
443	Arm Bracket	9359281009					
470	Separate Wall-B	9358585009					

## OPTIONAL PARTS FOR INDOOR UNIT

Ref. No.	Description	Part No.	Q'ty
772	Joint Pipe-A	9302812021	

## OUTDOOR UNIT

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

Ref. No.	Description	Part No.	Q'ty	Ref. No.	Description	Part No.	Q'ty
2	Fan Cover	9350214020		45	Motor Fixing Table Assy	313029311100	
4	Emblem-Rear "GENERAL"	313791088308		46	Compressor Assy	9363019001	
5	Cabinet-A, Painted	9303876015		47-1	Rubber (Discha. Pipe)	313194159807	
6	Cabinet-C, Painted	9353549013		51	Special Nut M5 (For Comp.)	9300301015	
7	Connector Cover	9358011010		55	Special Nut M8 (For Comp.)	313252257701	
8	Wire Assy (Shield)-D	9359904076		67	Rubber (Vibration-proof)	313659068604	
9	Cabinet-B, Painted	9303874011		107	Rubber Seat-A (For Comp.)	9351049010	
10	Noise Insulation-E	313791106305		109	Terminal Cover (For Comp.)	9351048013	
12	Base Assy, Painted	9353452054		117-3	Hex. Nut w/Sp. Washer	301721180114	
13	3-Way Valve Assy	9364523002		187	Clamp No. 1219	313361271706	
15	Dryer	9353789006		196-1	Clamp SKB-3M	312300787605	
16	Condenser Assy	9356015010		218-3	Power Relay	9353619006	
18	Suction Pipe Assy	9363043013		328	Compressor Plate-B	9363049015	
20	Discharge Pipe	9363042016		338	Motor Fixture Metal	313029297108	
26	Compressor Cover-A	9363020007		348	Outlet Pipe (Cond.)	9363041019	
29	Separate Wall	313986033213		353	Valve-A Assy	9364325002	
32-1	Control Box Metal-A	9353595003		412	Terminal Gasket	9351051013	
34	Capacitor (Fan Motor)	9357965017		646	Compressor Cover-B	9363021004	
36	Cord Holder Metal	9356934007		717	Center Plate	9350216017	
37	Running Capacitor	9703107016		754	Terminal Gasket, Washer	9351053017	
38	Capacitor Clamp Metal	9351770013		815	Terminal-5P	9356497021	
39	Propeller Fan Assy	9300855013		823-2	Fuse Holder	0500063024	
41	Fan Motor Assy-Out	9600738023		824-4	Fuse	0600222529	

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

**CONTROLLER PCB ASSEMBLY (Ref. No. 236)**

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC1	IC $\mu$ PD78014HCW-013	9702426026		R43	Res. 1/10W 10k $\Omega$ $\pm$ 1%	0200279497	
IC2	IC NJM7812FA	0100462104		R45	Res. 1/10W 49.9k $\Omega$ $\pm$ 1%	0200279824	
IC3	IC NJM7805FA	0100462081		R54	Res. 1/10W 47 $\Omega$ $\pm$ 5%	0200212425	
IC4~6	Xstr $\mu$ PA2003GR	0100028041		CJ1,2	Res. 0 $\Omega$	0200212012	
IC7	IC NM82C46M8-X	0101622026		C5	Cap. ELEC. 450V 100 $\mu$ F	0300256060	
IC8	IC PST600CMTR	0101461120		C6	Cap. Plastic 4700pF	0300269091	
IC9	Photocoupler TLP621(D4)-GB	0000117074		C7	Cap. Plastic 50V 0.047 $\mu$ F	0300169339	
Q1	Xstr 2SC4236	0000164047		C8	Cap. Elec. 25V 100 $\mu$ F	0301197560	
Q2	Xstr 2SC1740S	0000699235		C9	Cap. Elec. 25V 1000 $\mu$ F	0301196495	
Q3,4	Xstr DTC124EK	0000936033		C10,11,33,	Cap. Elec. 25V 10 $\mu$ F	0301192312	
D1	Diode D3SB60	0000689045		36,41			
D2,4,7	Diode D1FL20U	0000746519		C12	Cap. Elec. 25V 1000 $\mu$ F	0301158264	
D3	Diode MTZJ5.1B	0000852166		C13,15,34,	Cap. Ceramic 50V 0.1 $\mu$ F	0300311752	
D5	Diode 1SR139-600	0000353120		37,39,44,45			
D6	Diode D2FL20U	0000906500		C14	Cap. Elec. 25V 100 $\mu$ F	0301192350	
D8	Diode D1F60	0000208024		C16~31,38,	Cap. Ceramic 50V 0.01 $\mu$ F	0300311738	
D9	Diode DA226U	0000625036		40,42,46,49			
D12	Diode DAN202K	0000684019		C32,35,43,	Cap. Ceramic 50V 1000pF	0300308509	
R1	Res. Cement 5W 3.3 $\Omega$ $\pm$ 5%	0200244372		50~53			
R2	Res. Metal 2W 1.5 $\Omega$ $\pm$ 5%	0201107119		C54	Cap. Ceramic 50V 0.01 $\mu$ F	0300727539	
R3	Res. 1/10W 100 $\Omega$ $\pm$ 5%	0200212500		K1,3,4	Relay JQ1-12V	9701316014	
R4	Res. Carbon 1W 220k $\Omega$ $\pm$ 5%	0200111353		SSR1	Relay G3M-202P-UTU	9701829019	
R5	Res. Metal 2W 47k $\Omega$ $\pm$ 5%	0201107652		T1	Switching Transformer	9702727017	
R6	Res. 1/2W 100 $\Omega$ $\pm$ 5%	0200731506			ETS28AS118AH		
R7	Res. 1/4W 330 $\Omega$ $\pm$ 5%	0200708621		X1	Ceramic Resonator EF0EC8384T4	9701261017	
R8,10,13,	Res. 1/10W 330 $\Omega$ $\pm$ 5%	0200213019		BZ1	Buzzer PKM13EPY-4000-TF01	9701298013	
15~17,21~24,				CR1	Network RPEL-121204	9701125012	
29~32,37,				CN1	Plug, PCB B2P3-VH-B-C	0500011773	
39,48,50,				CN4	Plug, PCB B2P3-VH-B-Y	0500011827	
52,53,55,				CN5	Plug, PCB 5430C063	0500957026	
59,68				CN6	Plug, PCB B2P3-VH-B-E	0500011759	
R9,47	Res. 1/10W 390 $\Omega$ $\pm$ 5%	0200212647		CN7	Plug, PCB B2B-XAKK-1-A	0501045227	
R11	Res. Metal 1W 56k $\Omega$ $\pm$ 5%	0201106662		CN8	Plug, PCB B2B-XASK-1-A	0501045012	
R12,18~20,	Res. 1/10W 1k $\Omega$ $\pm$ 5%	0200212746		CN9	Plug, PCB B2P-SHF-1AA	0500006069	
25~28,				CN10	Plug, PCB B5B-XASK-1-A	0501045043	
33~36,				CN11	Plug, PCB B5B-XARK-1-A	0501045517	
38,42,44,				CN12	Plug, PCB B3B-XASK-1-A	0501045029	
46,49,51,				CN13	Plug, PCB B8B-XASK-1-A	0501045074	
56~58,67				CN14	Plug, PCB B4B-XH-AM	0500005314	
R40,41	Res. 1/10W 4.7k $\Omega$ $\pm$ 5%	0200212906		CN15	Plug, PCB B3B-XARK-1-A	0501045319	


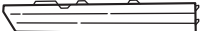

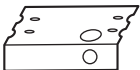
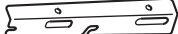
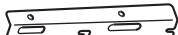
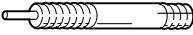








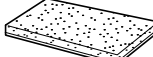

**FILTER PCB ASSEMBLY (Ref. No. 875)**

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
C101, 102	Cap. Plastic 0.22 $\mu$ F	0300304099		F101	Fuse BET 3.15A-250V	0600222512	
C105, 106	Cap. Plastic 0.022 $\mu$ F	0301052098		FH1, 2	Fuse Holder PFC5000-0502	0500158072	
SA101	Arrester DSA-362MA-05	0600168032		E101	Wire w/Terminal L=120mm GRN	9702066062	
VA101, 102	Varistor TNR12G471K	0000038010		W101	Wire w/Terminal L=80mm BLK	9702066017	
TM101, 102	Plug Contact 86028	0500536016		W102	Wire w/Terminal L=100mm WHT	9702066024	
LF101	EMI Filter ELF17N015A	0400197119		W103, 104	Wire #18 2p	9702067014	

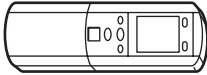



**INDICATOR PCB ASSEMBLY (Ref. No. 385)**

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
D201	Diode SLR-325VC RED	0000813259		PHA201	Remote Control Amplifier SBX1810-22	0101525129	
D202	Diode SLR-325MC GRN	0000813242		SW201	Switch, EVQ-PAG-04K	9700450016	
D203, 204	Diode SLR-325DC ORG	0000813235		CN201	Wire w/Connector JC25/XMR	9701875016	
C201	Cap. Ceramic 0.1 $\mu$ F	0300988251			Lamp Holder 94N40	9358548004	
C202	Cap. Elec. 25V 10 $\mu$ F	0300004258		JM201	Wire 0.6dia. L=10mm	9700025016	
R201~204	Res. Carbon 1/4W 330 $\Omega$ $\pm$ 5%	0201038659					


# INDOOR UNIT ACCESSORIES

Name and Shape	Use	Part No.
Cosmetic Panel-L 		9358536018
Cosmetic Panel-R 		9358535011
Tapping screw (ø4 x 10) 		301171164104
Installation template 	For positioning the indoor unit. For under ceiling type.	9359107002
Hanger bracket-L 	For suspending the indoor unit from ceiling.	9358596005
Hanger bracket-R 		9358595008
Anchor bolt (M12) 		} 313806339400
Special nut 		
Spring washer 		301821112213
Wall bracket 	For suspending the indoor unit on the wall.	9358597002
Tapping screw (ø4 x 20) 	For fixing the wall bracket.	301141164200
Coupler heat insulator (large) 	For indoor side pipe joint. (Large pipe)	9350716012
Coupler heat insulator (small) 	For indoor side pipe joint. (Small pipe)	313209328104
Nylon fastener (small) 	For fixing the drain hose.	312300787605
Drain hose 		9359242000
Insulation (drain hose) 	Adhesive type 70 x 230	9359225003
VT wire 	For fixing the drain hose L 280 mm	313806350303

## REMOTE CONTROL UNIT

Name and Shape	Use	Part No.
Remote control unit 	Use for air conditioner operation	9359913023
Battery (penlight) 	For remote control unit	0600185534
Remote control unit holder 	For mounting the remote control unit	9359955016
Tapping screw (ø3 x 12) 	For remote control unit holder installation	301141533125

## OUTDOOR UNIT ACCESSORIES

Name and Shape	Use	Part No.
Hexagon wrench 	For air purge	9351228019



