

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

SERVICE MANUAL

Models	Indoor unit	Outdoor unit
	ABY24AGB-W	AOY24ANA

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

TYPE		COOLING
INDOOR UNIT		ABY24AGB-W
OUTDOOR UNIT		AOY24ANA
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	(W)	2,670 - 2,780
EER	(W/W)	2.45 - 2.42
MOISTURE REMOVAL	(ℓ/hr)	3.4
AIR CIRCULATION-HI	(m ³ /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-24CTA
	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

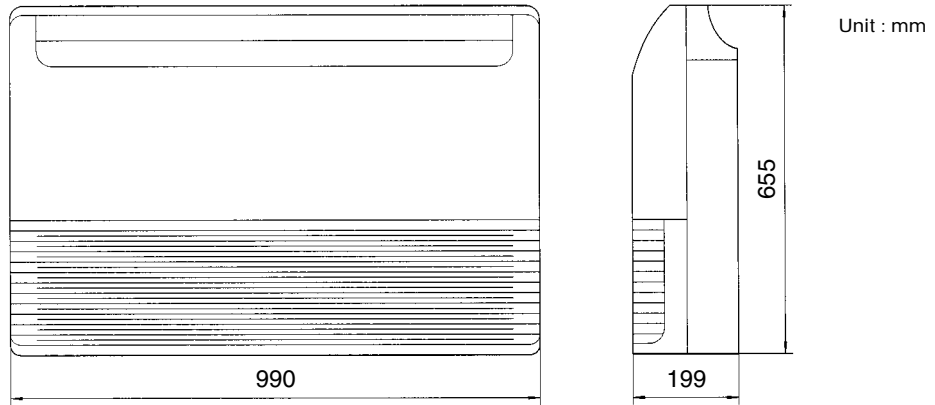
ADDITIONAL REFRIGERANT CHARGE

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.)

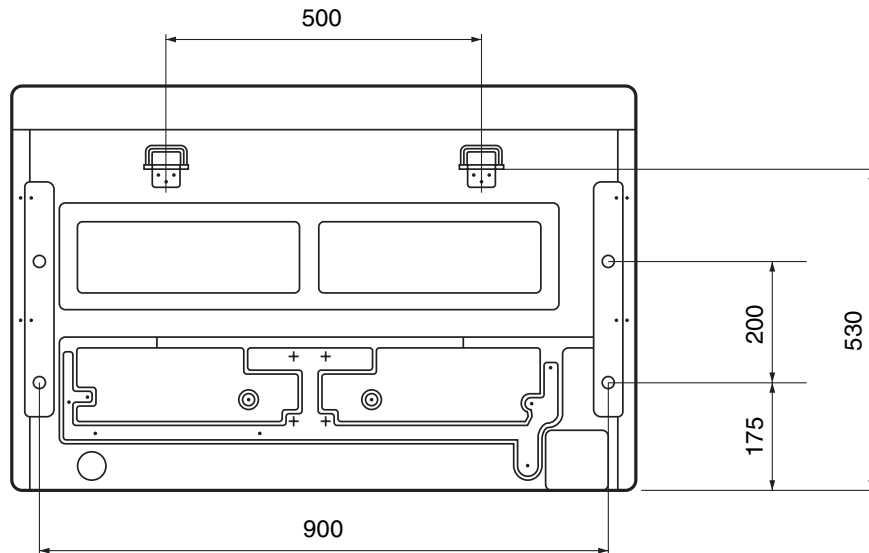
Note : In the case that 5 m are exceeded, when using a connection pipe other than that in the table, charge additional refrigerant with 16 g (0.56 oz.) / 1 m (3.3 ft.) as the criteria.

OUTLINE AND DIMENSIONS

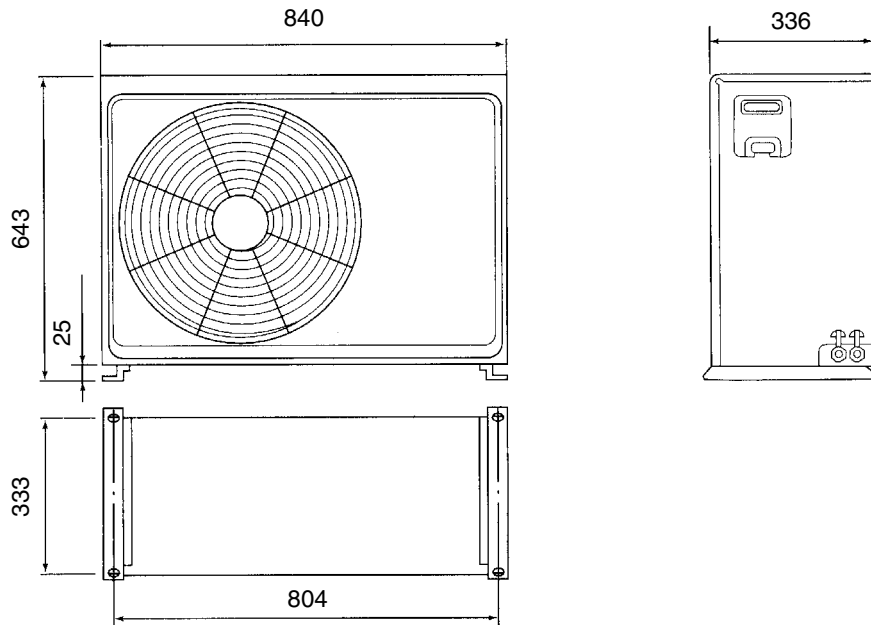
INDOOR UNIT



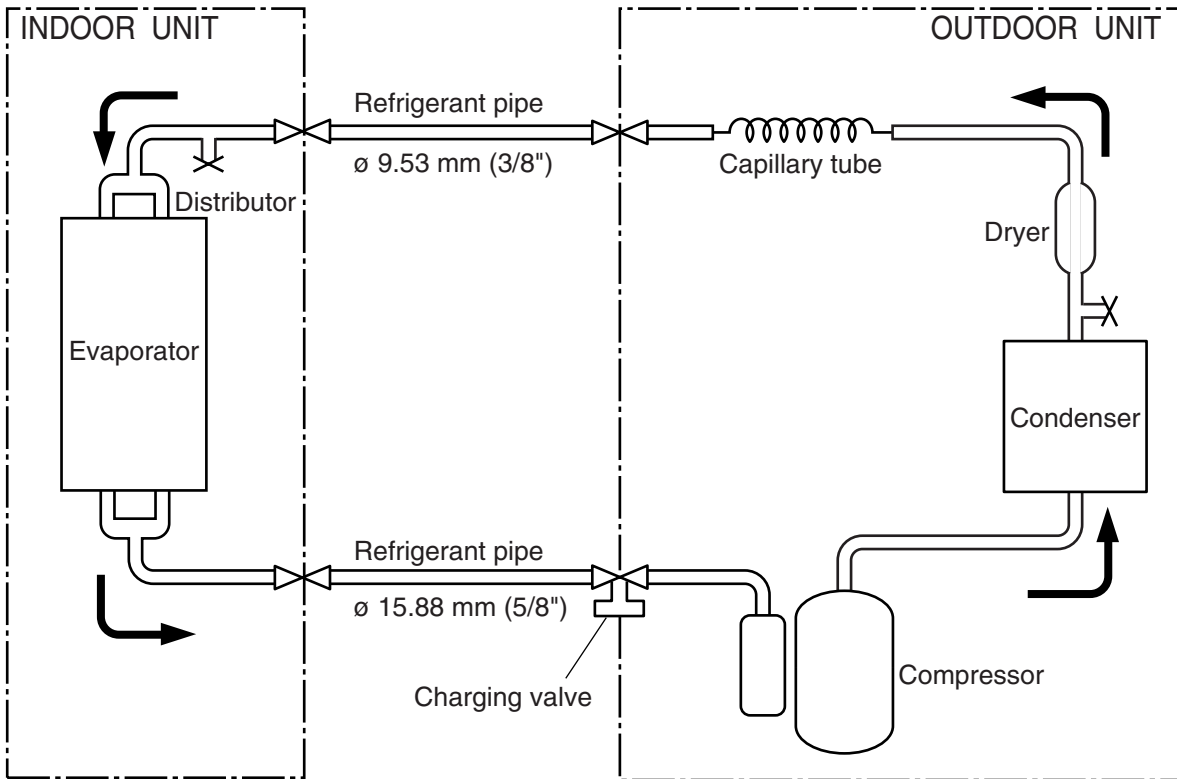
[Rear View]



OUTDOOR UNIT



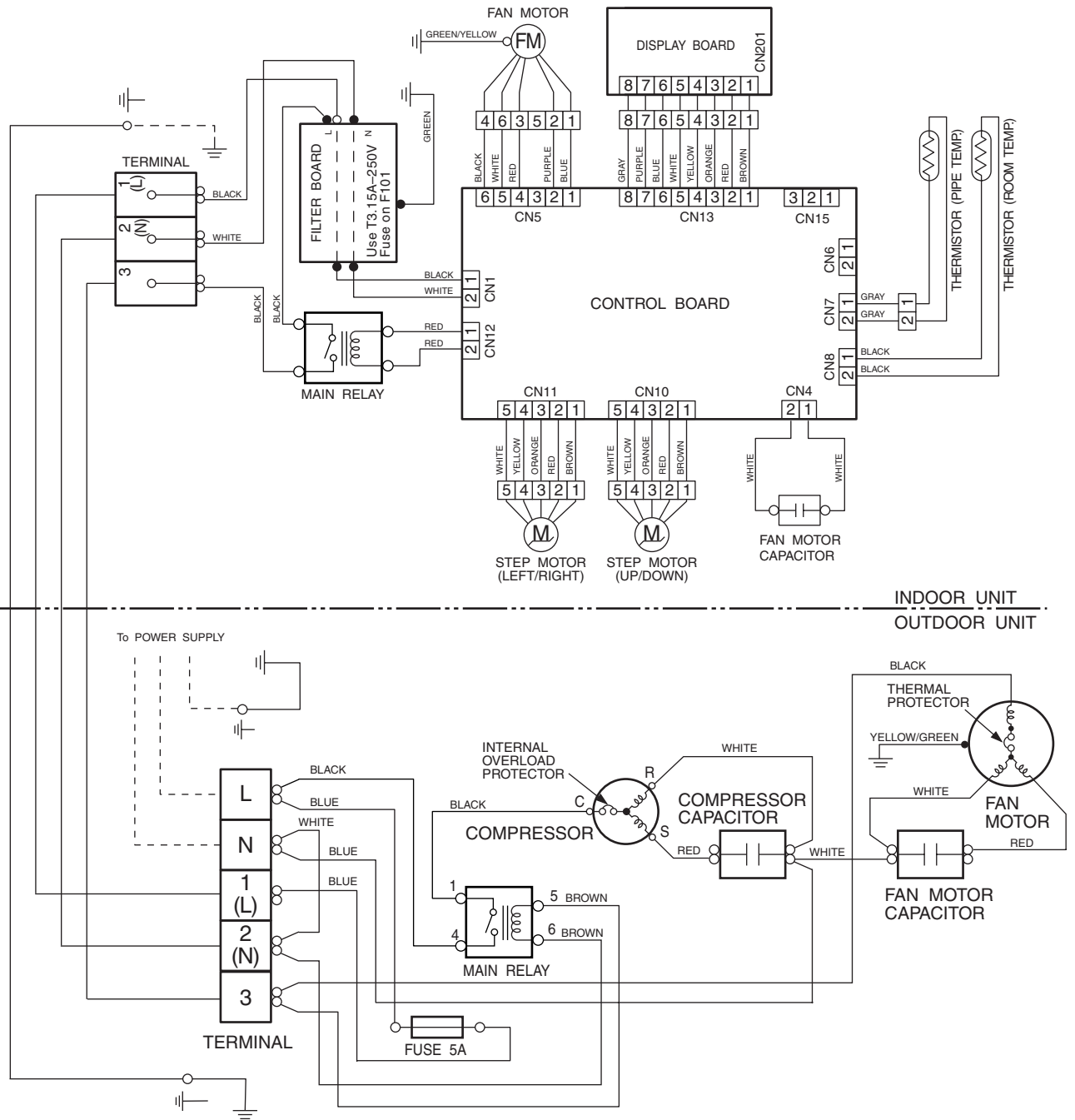
REFRIGERANT SYSTEM DIAGRAM



➔ Cooling
⋈ : Flare coupling

CIRCUIT DIAGRAM

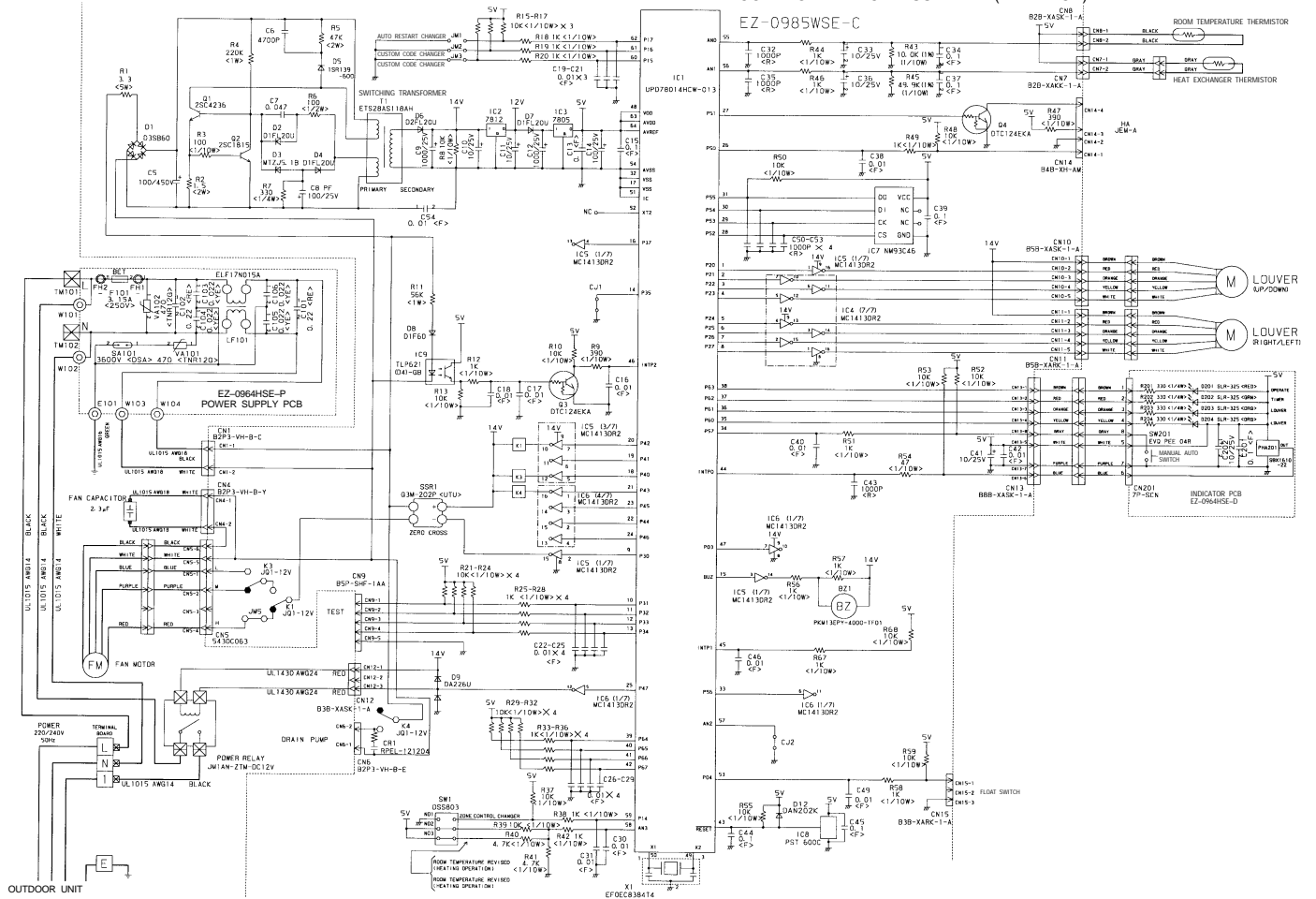
Models : ABY24AGB-W / AOY24ANA



INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

Model : **ABY24AGB-W**

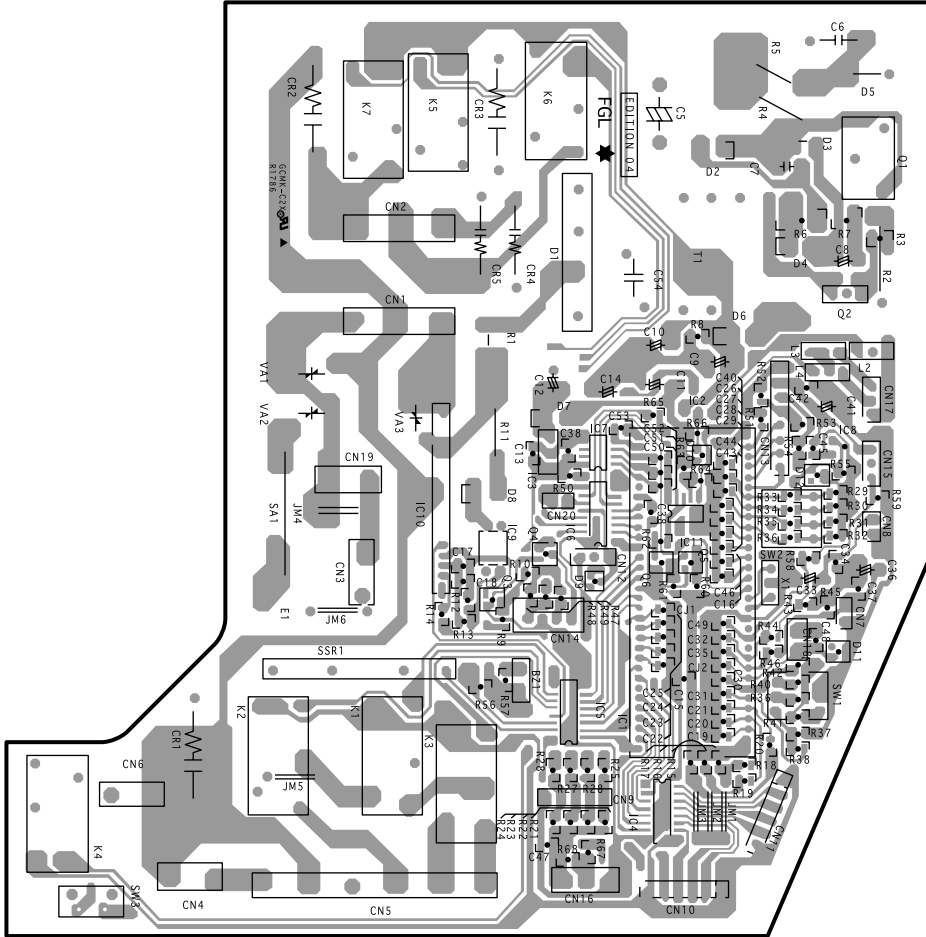
CONTROLLER PCB ASSEMBLY (MAIN PCB)



P. C. BOARD LAYOUTS

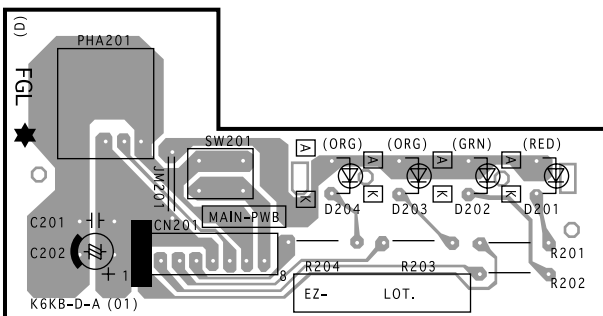
CONTROLLER P. C. BOARD ASSEMBLY

(Viewed from the solder side)



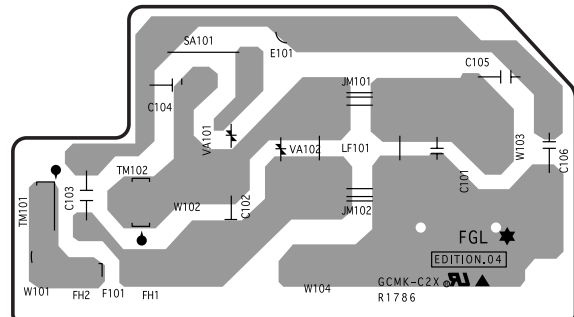
INDICATOR P. C. BOARD ASSEMBLY

(Viewed from the solder side)



FILTER P. C. BOARD ASSEMBLY

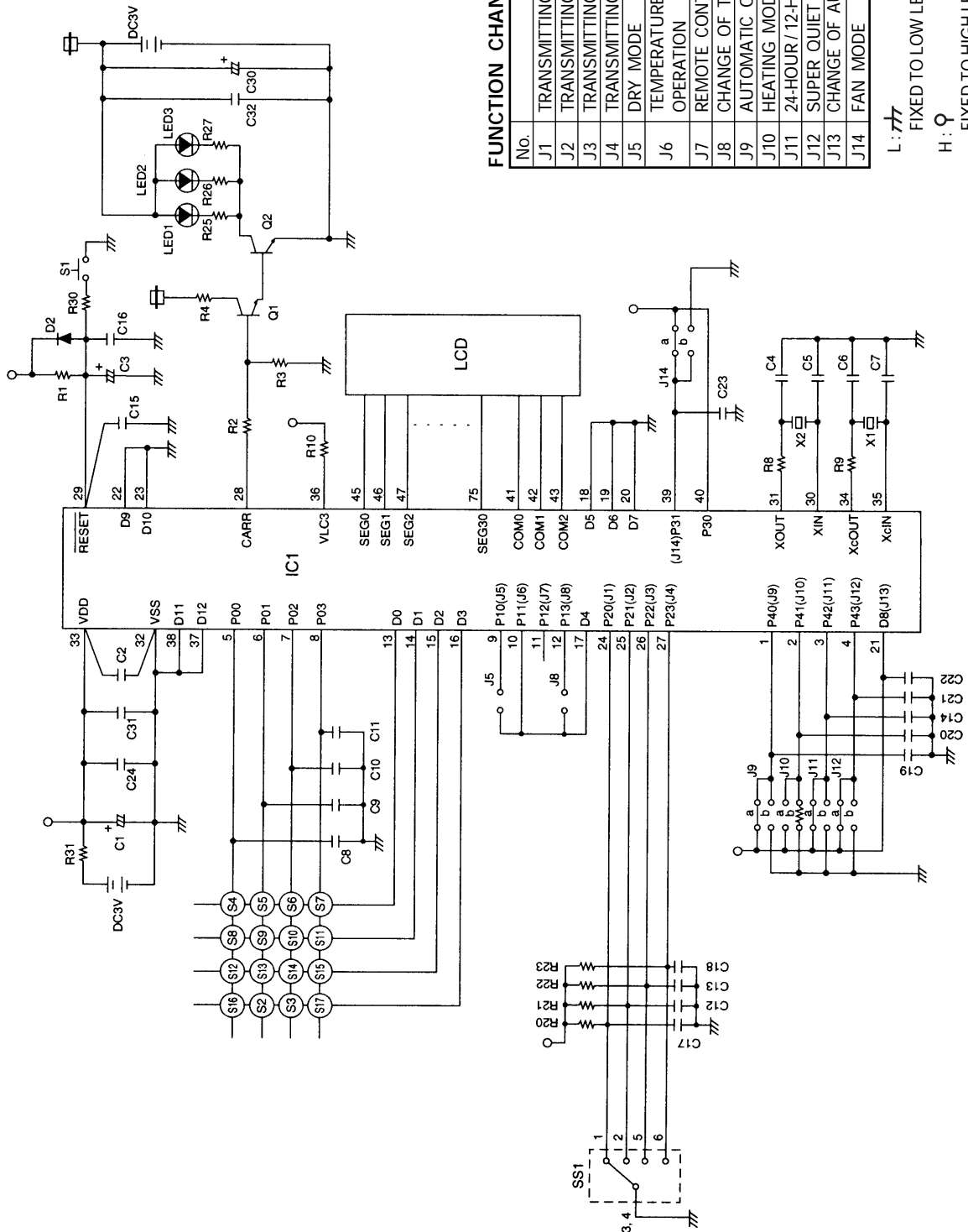
(Viewed from the solder side)



REMOTE CONTROL UNIT CIRCUIT DIAGRAM

**KEY NO. : KEY FUNCTION
CORRESPONDENCE TABLE**

No.	KEY FUNCTION
S1	ACL
S2	TIMER ADJUST
S3	TEST RUN
S4	START / STOP
S5	MASTER CONTROL
S6	SET TEMP. (+) / SET TIME (+)
S7	SET TEMP. (-) / SET TIME (-)
S8	FAN CONTROL
S9	
S10	
S11	UP AND DOWN SWING
S12	UP AND DOWN WIND
S13	ENERGY SAVE
S14	RIGHT AND LEFT SWING
S15	TIMER SELECTOR
S16	SLEEP
S17	RIGHT AND LEFT WIND



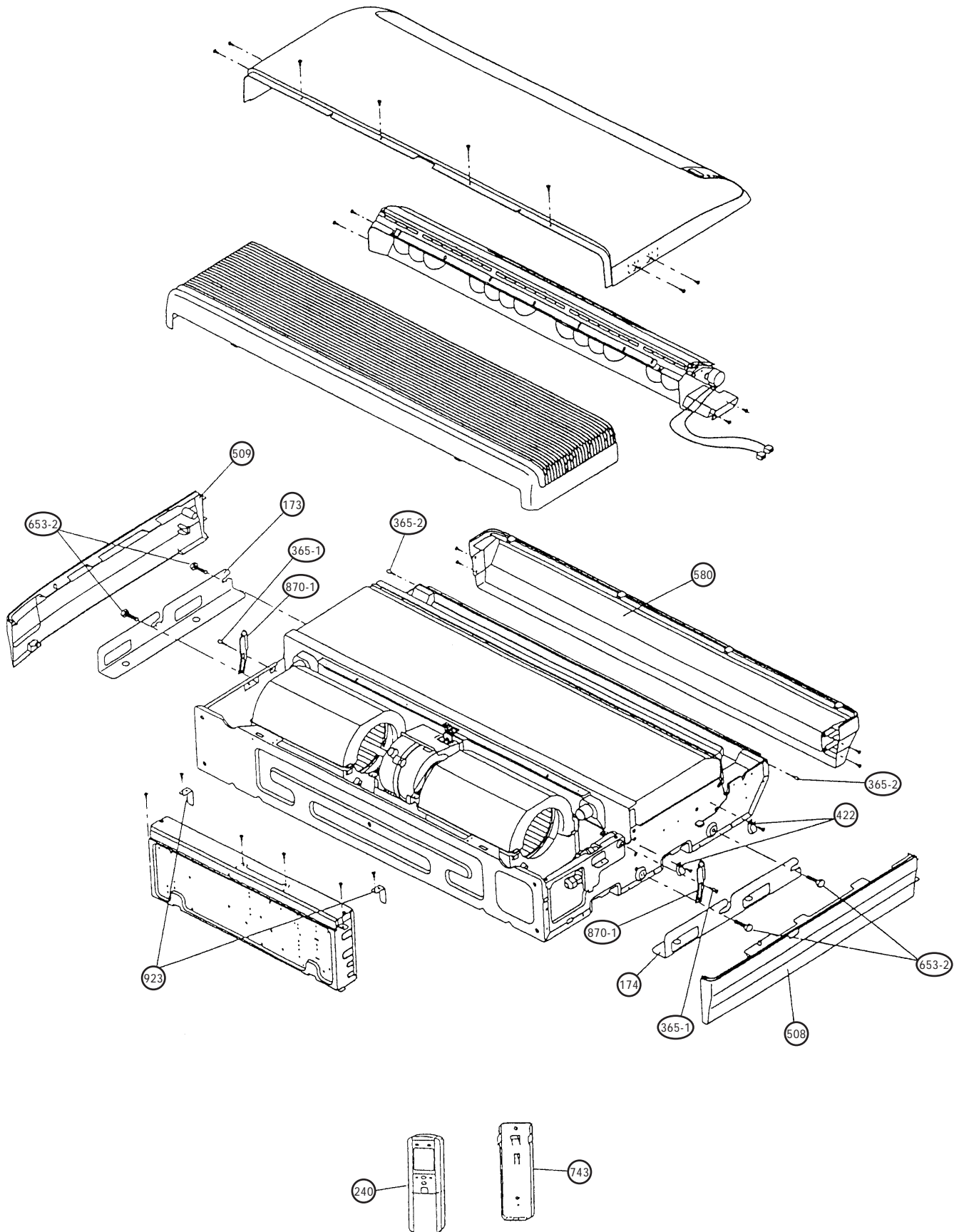
FUNCTION CHANGE BY THE JUMPER WIRE

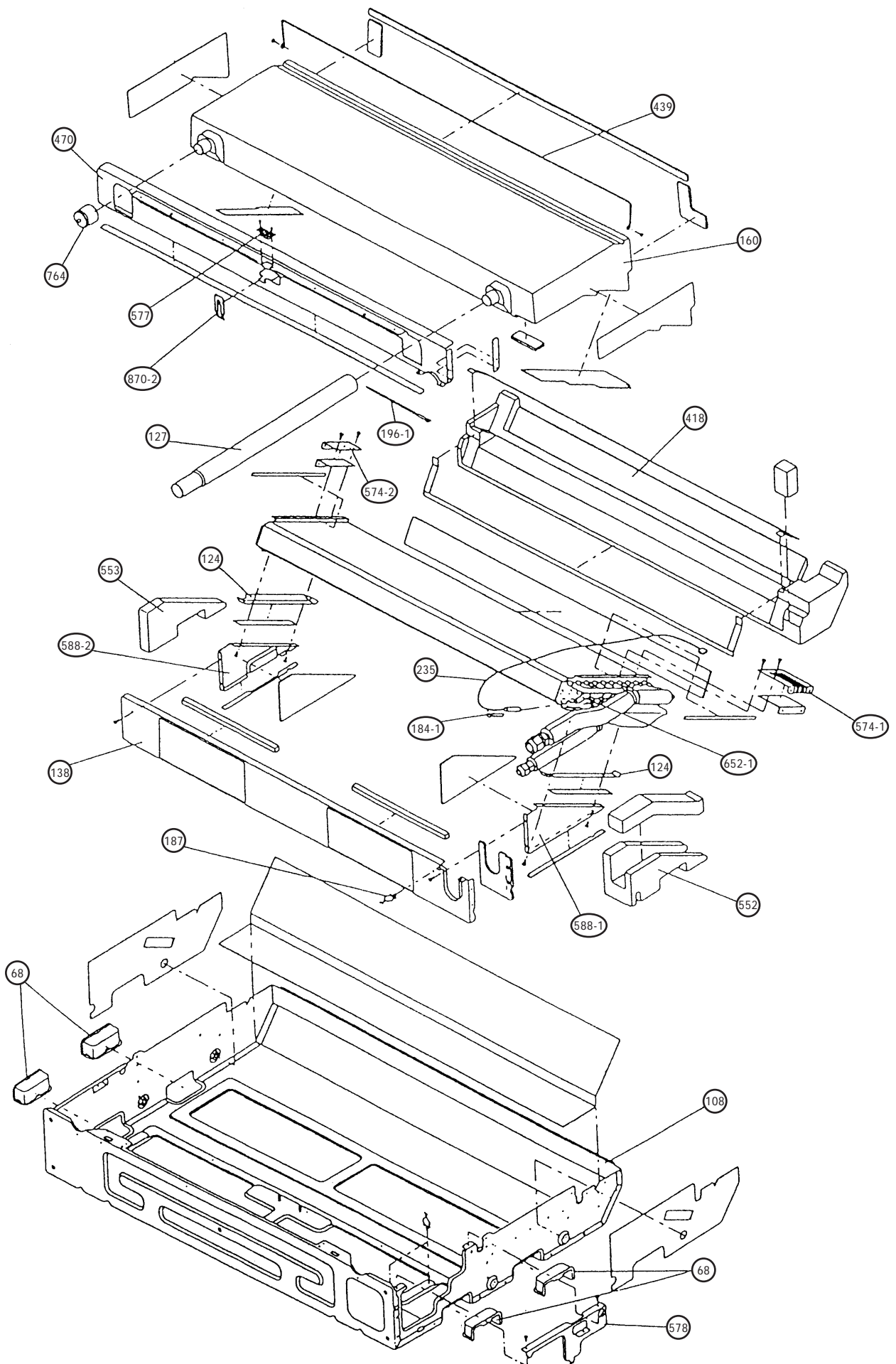
No.	FUNCTION
J1	TRANSMITTING CODE CHANGE L
J2	TRANSMITTING CODE CHANGE H
J3	TRANSMITTING CODE CHANGE H
J4	TRANSMITTING CODE CHANGE H
J5	DRY MODE H
J6	TEMPERATURE DISPLAY OF AUTOMATIC OPERATION L
J7	REMOTE CONTROL SELECTOR H
J8	CHANGE OF TEMPERATURE UNIT H
J9	AUTOMATIC OPERATION H
J10	HEATING MODE L
J11	24-HOUR / 12-HOUR H
J12	SUPER QUIET H
J13	CHANGE OF AUTOMATIC OPERATION DISPLAY H
J14	FAN MODE H

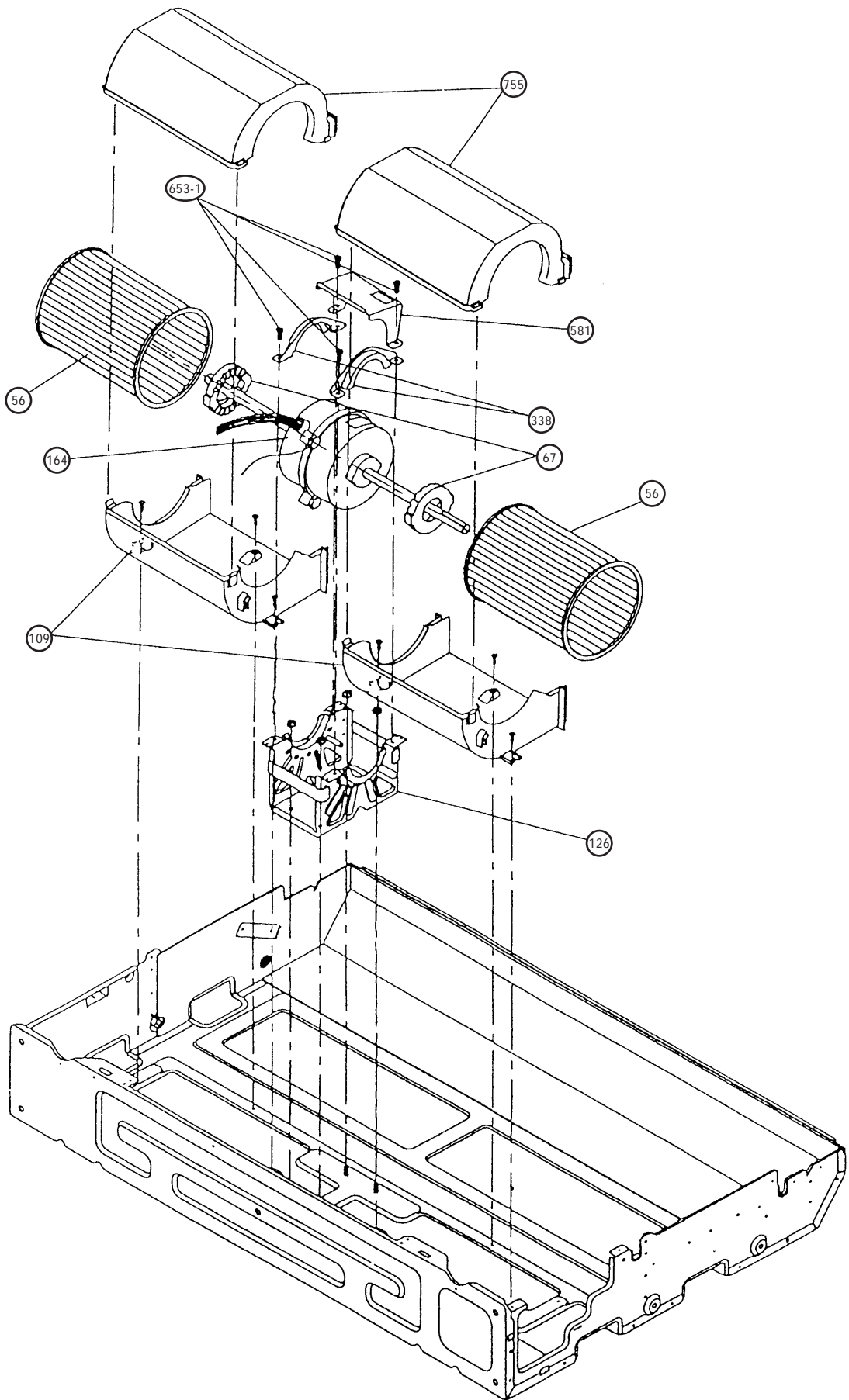
L: FIXED TO LOW LEVEL
H: FIXED TO HIGH LEVEL

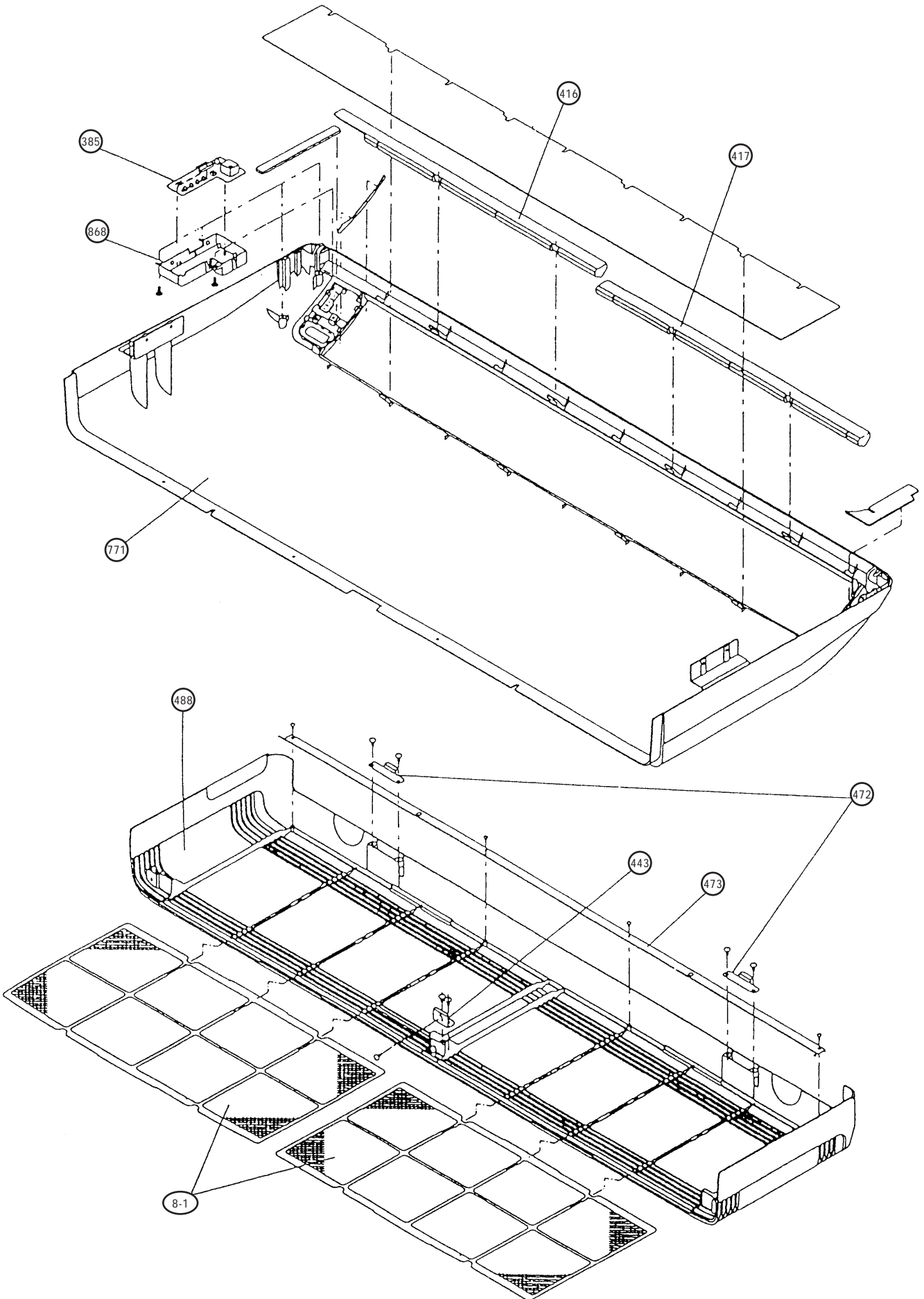
DISASSEMBLY ILLUSTRATION

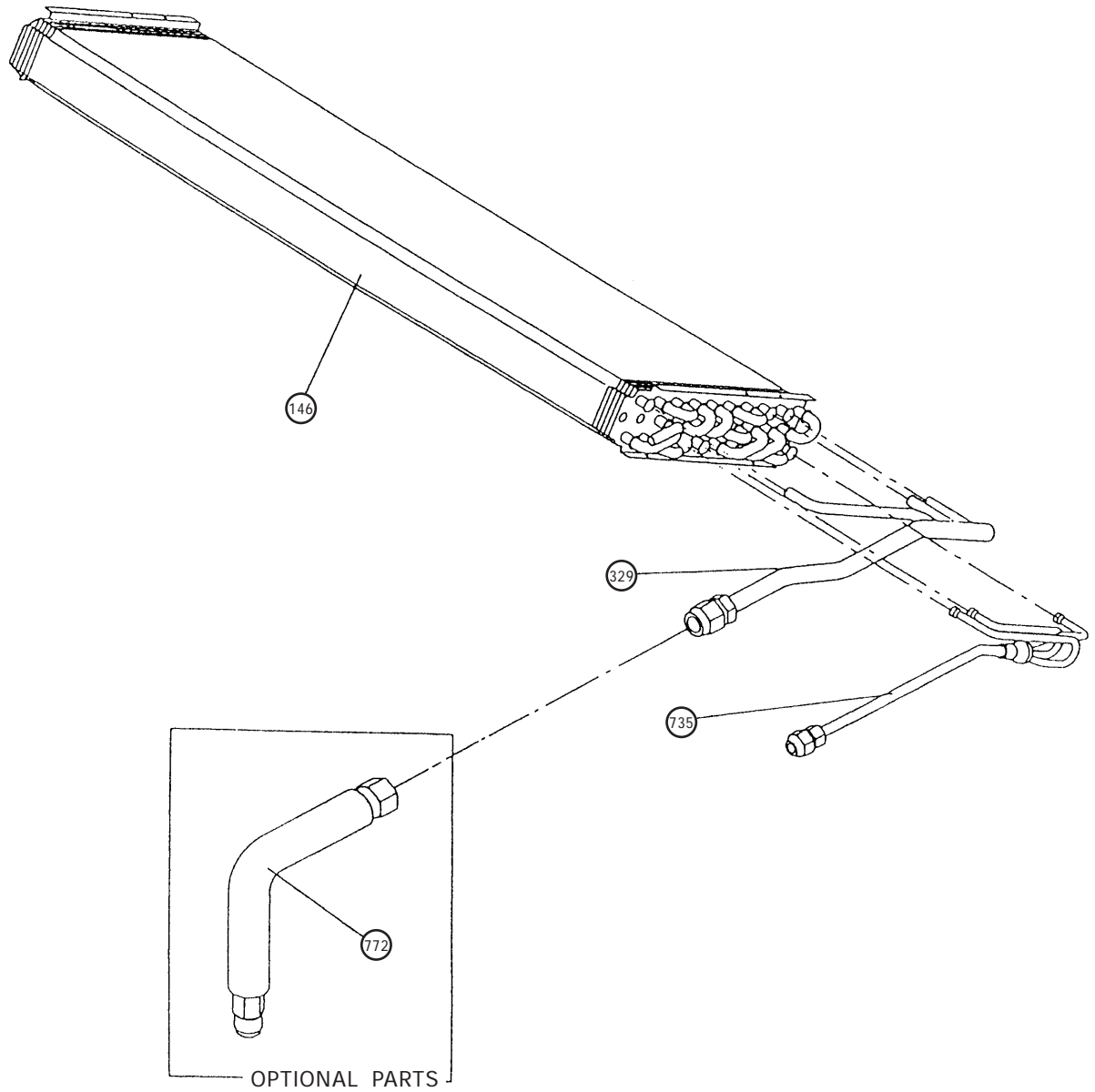
Model : ABY24AGB-W

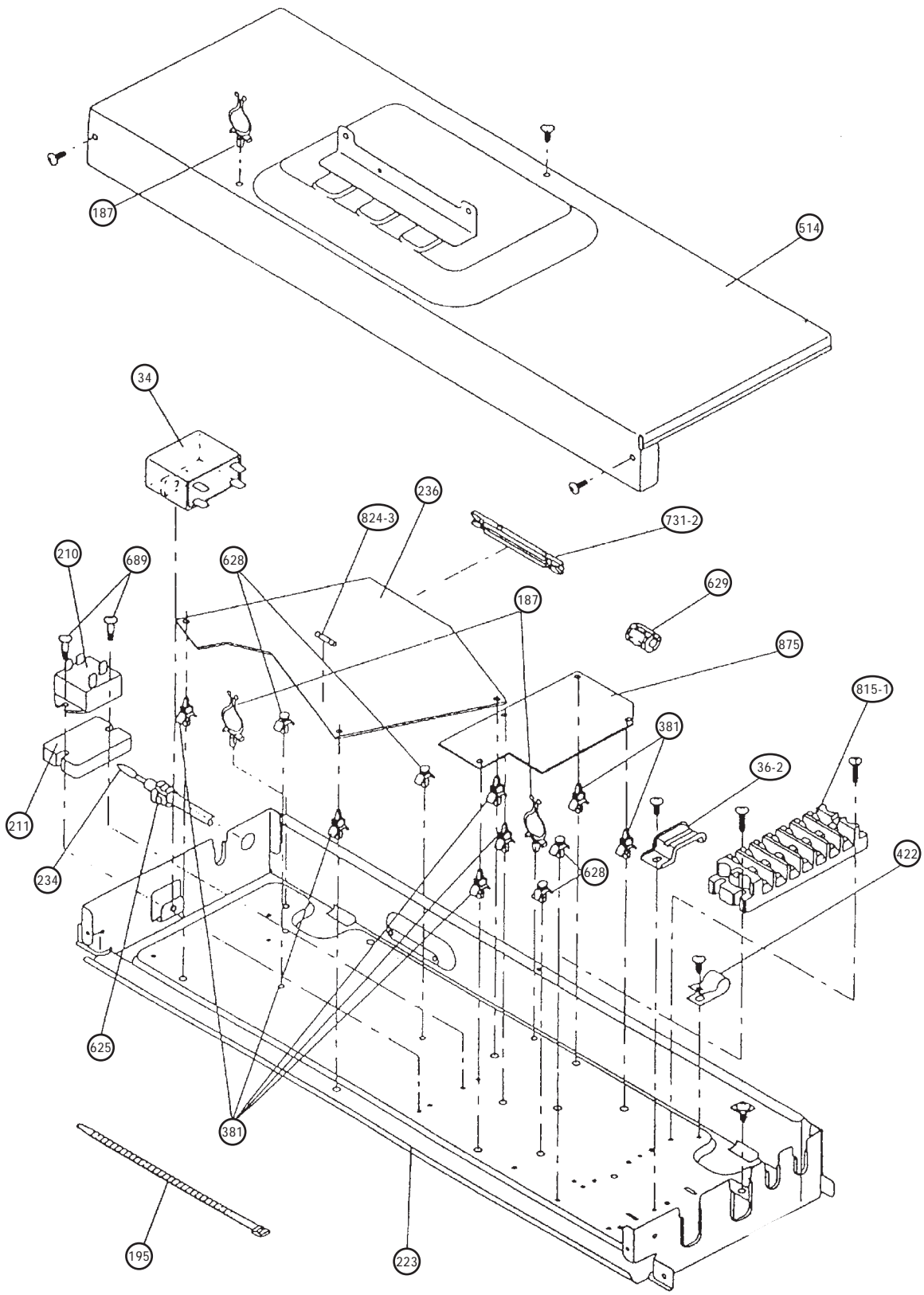


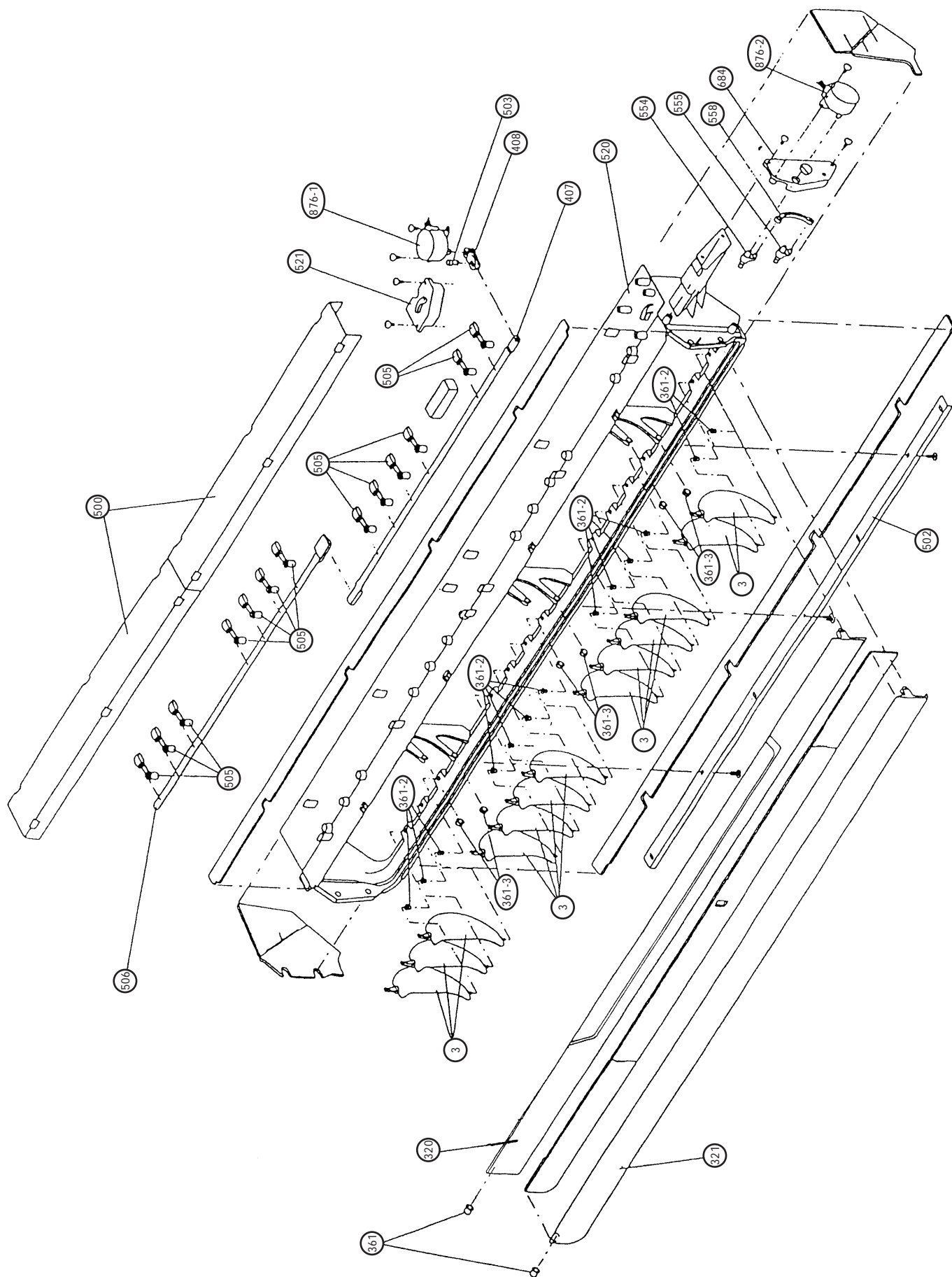




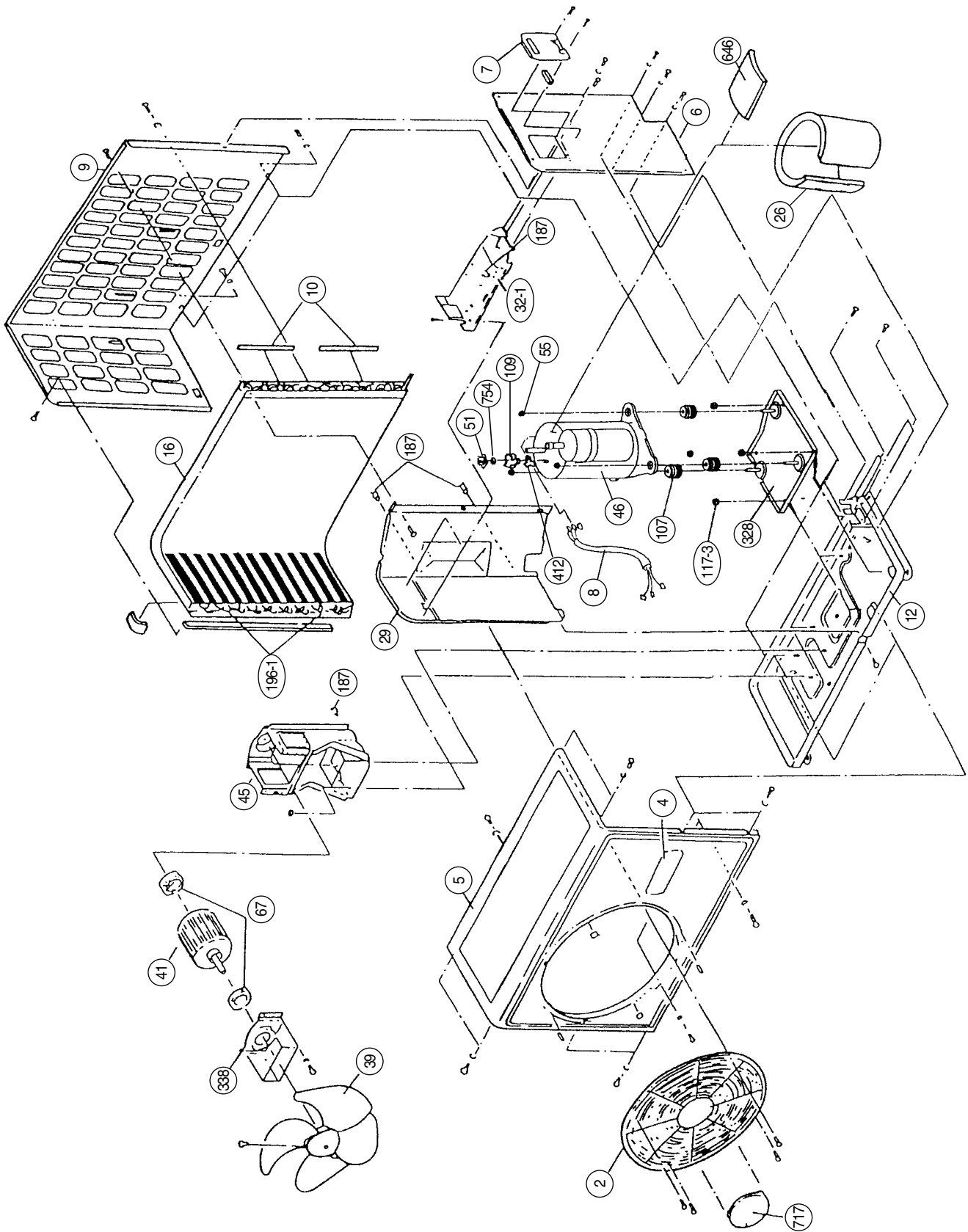




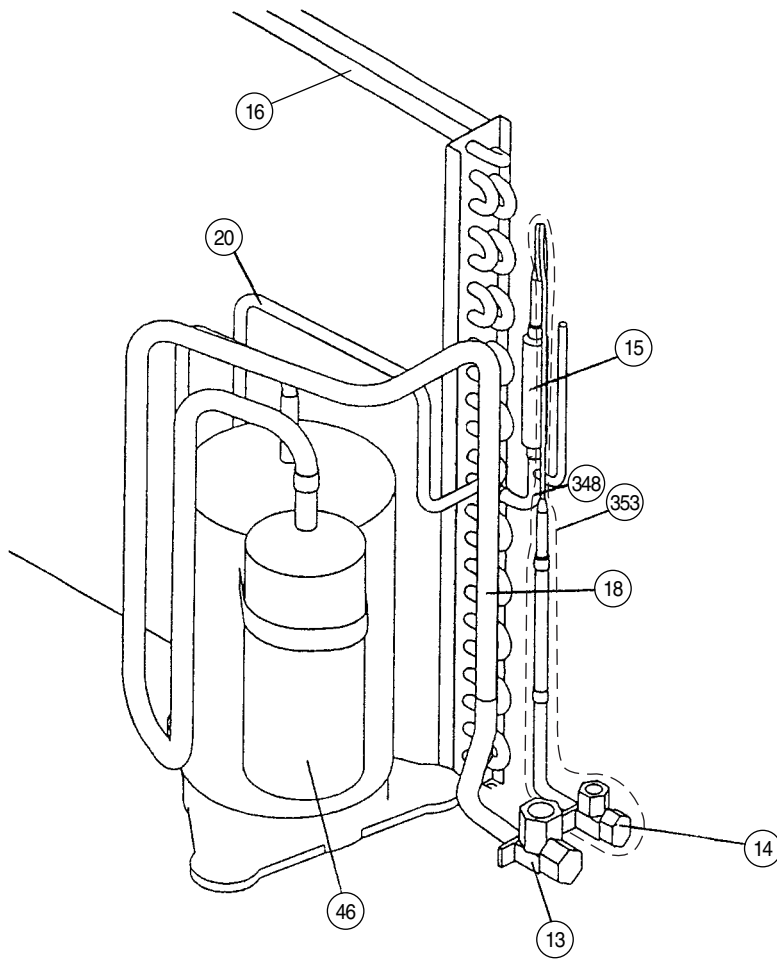




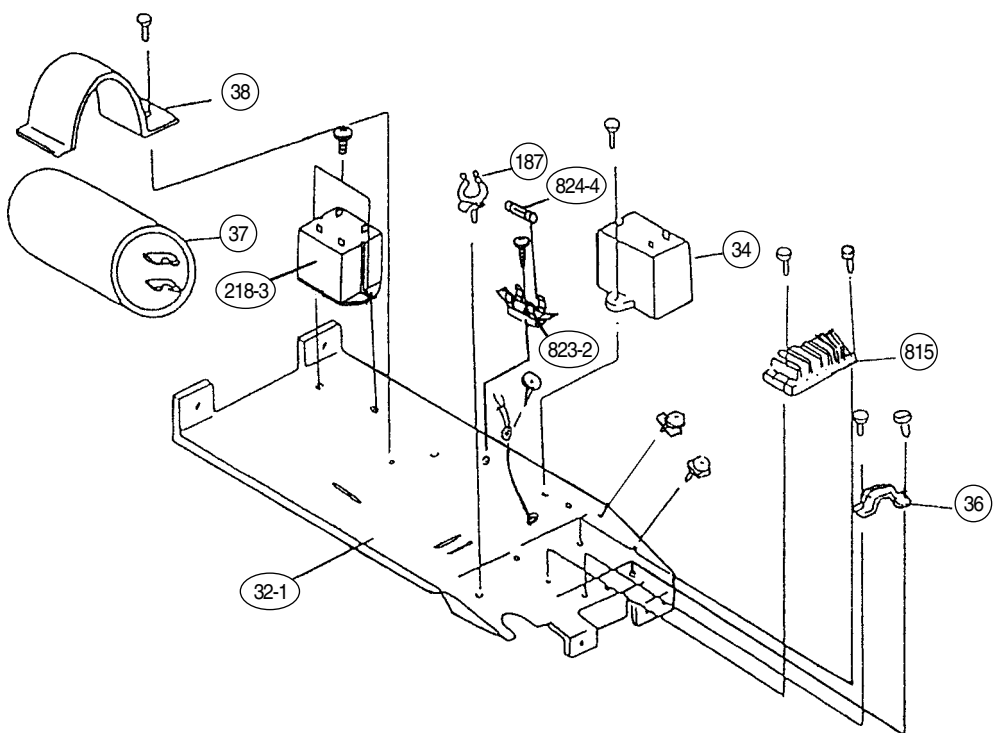
Model : AOY24ANA



Model : AOY24ANA



CONTROL UNIT



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	9357965017		488	Grille-F	9358532010	
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-24CTA	9600364031		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	
234	Thermistor Assy-Room	9703299025		625	Cord Bushing KR-51	9359240006	
235	Thermistor Assy-Pipe	9701102068		628	Locking Spacer-B	313005446558	
236	Controller PCB Assy EZ-096VWSE-C	9701941094		629	EMI Filter	0400197119	
240	Remote Control Unit AR-DL2	9359913023		652-1	Thermistor Holder Pipe	313806262805	
320	Flap (Upper)-F	9358538012		653-1	Bolt (Fan Motor Fixing)	0700156014	
321	Flap (Lower)	9358541012		653-2	Bolt	0700190018	
329	Coupling Pipe Assy	9358819005		684	Motor Base	9358562000	
338	Motor Fixture	9358594001		689	Screw, Grip Tapping SN+4016 ZNY, w/Grip	9357837000	
361	Bushing	9357942001		731-2	Holder (Guide Rail)	0600241018	
361-2	Bushing-B, Plastic	9358554005		735	Distributor Assy	9358814000	
361-3	Bushing-C, Plastic	9358553008		743	Remote Control Unit Holder	9359955016	
365-1	Special Screw	9359092001		755	Casing Cover	9358544006	
365-2	Special Screw	9359091004		764	Drain Cap	9358746004	
381	Locking Spacer, KGLS-4S	313209391506		771	Panel Assy "FUJITSU"	9359076018	
385	Indicator PCB Assy EZ-0964HSE-D	9701873012		815-1	Terminal-3P	9358660041	
407	Motor Rod	9358560006		824-3	Fuse BET 3.15A-250V	0600222512	
408	Louver Link	9358556009		868	PCB Holder	9358547007	
416	Insulation (Panel)-A	9358574003		870-1	Arm	9358565001	
417	Insulation (Panel)-B	9358914007		870-2	Center Arm	9359280002	
418	Insulation (Flap Base)	9358572009		875	Filter PCB Assy EZ-0964HSE-P	9702081010	
422	Clamp NK-10N	9359183006		876-1	Step Motor-H	9359106012	
439	Drain Pan Wire	9358598009		876-2	Step Motor-V	9359105015	
443	Arm Bracket	9359281009		923	Control Box Bracket	9358717004	
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		41	Fan Motor Assy-Out	9600738023	
4	Emblem-Rear "FUJITSU"	9351355005		45	Motor Fixing Table Assy	313029311100	
5	Cabinet-A, Painted	9303876015		46	Compressor Assy	9363019001	
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	
14	2-Way Valve Assy	9357964010		196-1	Clamp SKB-3M	312300787605	
15	Dryer	9353789006		218-3	Power Relay	9353619006	
16	Condenser Assy	9356015010		328	Compressor Plate-B	9363049015	
18	Suction Pipe Assy	9363043013		338	Motor Fixture Metal	313029297108	
20	Discharge Pipe	9363042016		348	Outlet Pipe (Cond.)	9363041019	
26	Compressor Cover-A	9363020007		353	Valve-A Assy	9364325002	
29	Separate Wall	313986033213		412	Terminal Gasket	9351051013	
32-1	Control Box Metal-A	9353595003		646	Compressor Cover-B	9363021004	
34	Capacitor (Fan Motor)	9357965017		717	Center Plate	9350216017	
36	Cord Holder Metal	9356934007		754	Terminal Gasket, Washer	9351053017	
37	Running Capacitor	9703107016		815	Terminal-5P	9356497021	
38	Capacitor Clamp Metal	9351770013		823-2	Fuse Holder	0500063024	
39	Propeller Fan Assy	9300855013		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.

FILTER PCB ASSEMBLY (Ref. No. 875)

Ref. No.	Description	Part No.	Ord. Qty	Ref. No.	Description	Part No.	Ord. Qty
C101, 102	Cap. Plastic 0.22µF	0300304099		F101	Fuse BET 3.15A-250V	0600222512	
C105, 106	Cap. Plastic 0.022µF	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	


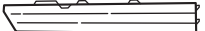

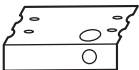
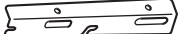
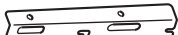
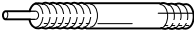








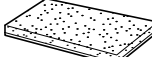

CONTROLLER PCB ASSEMBLY (Ref. No. 236)

Ref. No.	Description	Part No.	Ord. Qty	Ref. No.	Description	Part No.	Ord. Qty
IC1	IC µPD78014HCW-013	9702426026		R43	Res. 1/10W 10kΩ±5%	0200279497	
IC2	IC NJM7812FA	0100462104		R45	Res. 1/10W 49.9kΩ±5%	0200279824	
IC3	IC NJM7805FA	0100462081		R54	Res. 1/10W 47Ω±5%	0200212425	
IC4-6	Xstr µPA2003GR	0100028041		CJ1,2	Res. 0Ω	0200212012	
IC7	IC NM82C46M8-X	0101622026		C5	Cap. ELEC. 450V 100µF	0300256060	
IC8	IC PST600CMTR	0101461120		C6	Cap. Plastic 4700pF	0300269091	
IC9	Photocoupler TLP621(D4)-GB	0000117074		C7	Cap. Plastic 50V 0.047µF	0300169339	
Q1	Xstr 2SC4236	0000164047		C8	Cap. Elec. 25V 100µF	0301197560	
Q2	Xstr 2SC1740S	0000699235		C9	Cap. Elec. 25V 1000µF	0301196495	
Q3,4	Xstr DTC124EK	0000936033		C10,11,33,	Cap. Elec. 25V 10µF	0301192312	
D1	Diode D3SB60	0000689045		36,41			
D2,4,7	Diode D1FL20U	0000746519		C12	Cap. Elec. 25V 1000µF	0301158264	
D3	Diode MTZJ5.1B	0000852166		C13,15,34,	Cap. Ceramic 50V 0.1µF	0300311752	
D5	Diode 1SR139-600	0000353120		37,39,44,45			
D6	Diode D2FL20U	0000906500		C14	Cap. Elec. 25V 100µF	0301192350	
D8	Diode D1F60	0000208024		C16-31,38,	Cap. Ceramic 50V 0.01µF	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 3.3Ω±5%	0200244372		50-53			
R2	Res. Metal 2W 1.5Ω±5%	0201107119		C54	Cap. Ceramic 50V 0.01µF	0300727539	
R3	Res. 1/10W 100Ω±5%	0200212500		K1,3,4	Relay JQ1-12V	9701316014	
R4	Res. Carbon 1W 220kΩ±5%	0200111353		SSR1	Relay G3M-202P-UTU	9701829019	
R5	Res. Metal 2W 47kΩ±5%	0201107652		T1	Switching Transformer ETS28AS118AH	9702727017	
R6	Res. 1/2W 100Ω±5%	0200731506		X1	Ceramic Resonator EF0EC8384T4	9701261017	
R7	Res. 1/4W 330Ω±5%	0200708621		BZ1	Buzzer PKM13EPY-4000-TF01	9701298013	
R8,10,13,	Res. 1/10W 330Ω±5%	0200213019		CR1	Network RPEL-121204	9701125012	
15-17,21-24,				CN4	Plug, PCB B2P3-VH-B-Y	0500011827	
29-32,37,				CN5	Plug, PCB 5430C063	0500957026	
39,48,50,				CN6	Plug, PCB B2P3-VH-B-E	0500011759	
52,53,55,				CN7	Plug, PCB B2B-XAKK-1-A	0501045227	
59,68				CN8	Plug, PCB B2B-XASK-1-A	0501045012	
R9,47	Res. 1/10W 390Ω±5%	0200212647		CN9	Plug, PCB B2P-SHF-1AA	0500006069	
R11	Res. Metal 1W 56kΩ±5%	0201106662		CN10	Plug, PCB B5B-XASK-1-A	0501045043	
R12,18-20,	Res. 1/10W 1kΩ±5%	0200212746		CN11	Plug, PCB B5B-XARK-1-A	0501045517	
25-28,				CN12	Plug, PCB B3B-XASK-1-A	0501045029	
33-36,				CN13	Plug, PCB B8B-XASK-1-A	0501045074	
38,42,44,				CN14	Plug, PCB B4B-XH-AM	0500005314	
46,49,51,				CN15	Plug, PCB B3B-XARK-1-A	0501045319	
56-58,67							
R40,41	Res. 1/10W 4.7kΩ±5%	0200212906					

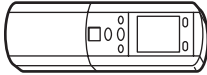



INDICATOR PCB ASSEMBLY (Ref. No. 385)

Ref. No.	Description	Part No.	Ord. Qty	Ref. No.	Description	Part No.	Ord. Qty
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 0.1µF	0300988251			Lamp Holder 94N40	9358548004	
C202	Cap. Elec. 25V 10µF	0300004258		JM201	Wire 0.6dia. L=10mm	9700025016	
R201-204	Res. Carbon 1/4W 330Ω±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