

**SPLIT TYPE AIR
CONDITIONER (50Hz)**

DUCT type

SERVICE MANUAL

Models	Indoor unit	Outdoor unit
	ARY18RLB	AOY18RZDL
	ARY18RLBH	

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

INDOOR UNIT		ARY18RLB	ARY18RLBH
OUTDOOR UNIT		AOY18RZDL	
COOLING CAPACITY	(kW)	5.2 - 5.3	
HEATING CAPACITY	(kW)	5.5 - 5.6	

ELECTRICAL DATA

POWER SOURCE	(V)	220 - 240	
FREQUENCY	(Hz)	50	
RUNNING CURRENT	(A)	COOLING	9.4 - 9.2
		HEATING	8.3 - 8.2
INPUT WATTS	(kW)	COOLING	2.05 - 2.15
		HEATING	1.80 - 1.90
EER	(kW/kW)	COOLING	2.54 - 2.47
		HEATING	3.06 - 2.95
MOISTURE REMOVAL	(ℓ /hr)	1.6	
AIR CIRCULATION-Hi	(m ³ /hr)	750	

COMPRESSOR

TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor
CODE	AWG5524EXC

FAN MOTOR

TYPE		ARY18RLB	ARY18RLBH	AOY18RZDL
		MFA-18FTT	MFA-18FTAT	MFB-252TB
POWER SOURCE	(V)	220 - 240		
HI-SPEED	(r.p.m.)	960	1,230 (at 0 pa)	740
MED-SPEED	(r.p.m.)	900	1,110 (at 0 pa)	—
LO-SPEED	(r.p.m.)	840	990 (at 0 pa)	280

DIMENSIONS

HEIGHT	(mm)	217	643
WIDTH	(mm)	953	840
DEPTH	(mm)	595	336

WEIGHTS

GROSS WEIGHT	(kg)	29	76
NET WEIGHT	(kg)	25	67

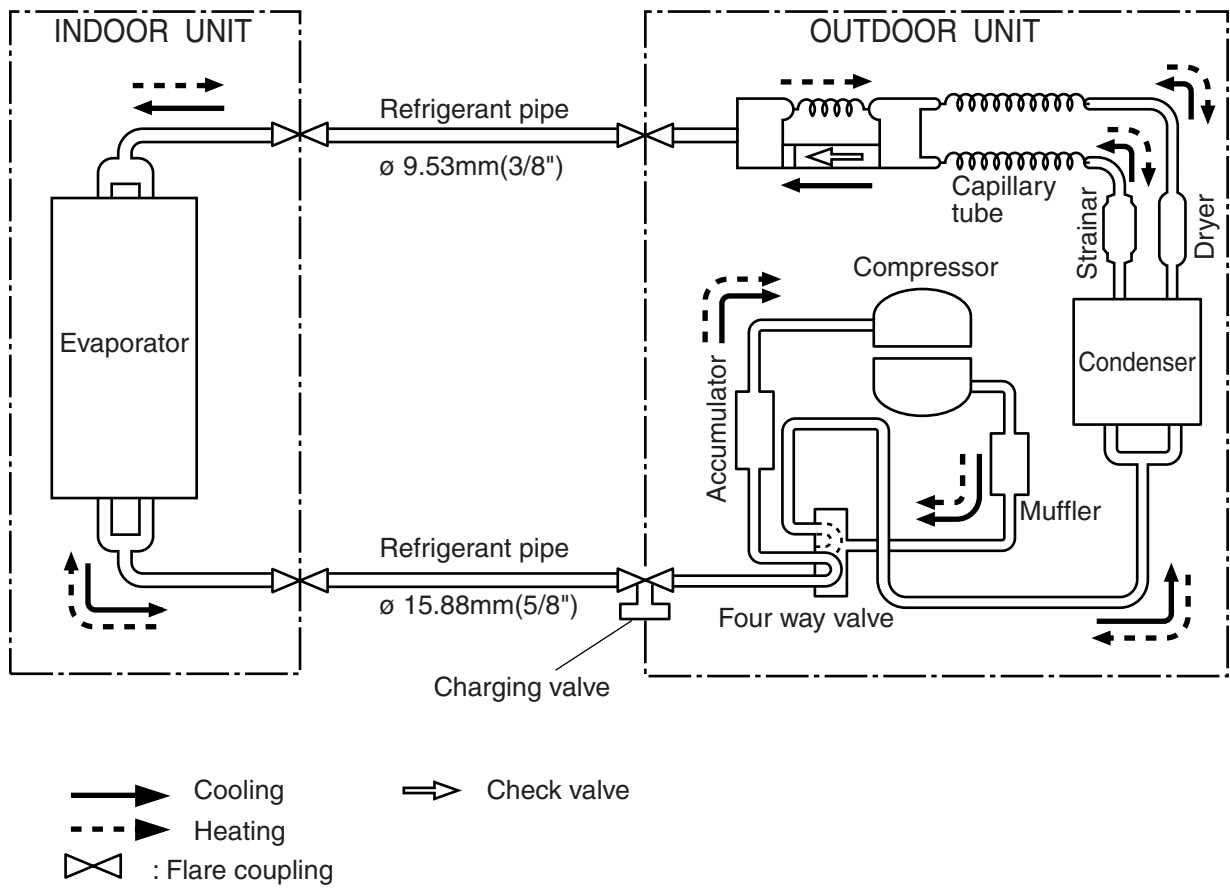
REFRIGERANT CHARGE

PIPE LENGTH		7.5 m (25 ft.)	10 m (33 ft.)	15 m (49 ft.)	20 m (66 ft.)
FULL CHARGE AMOUNT	ARY18RLB	1,650g (58.2 oz.)	1,775g (62.6 oz.)	2,025g (71.4 oz.)	2,275g (80.2 oz.)
	ARY18RLBH				

Notes : • Between 7.5 m and 20 m, when using a connection pipe other than that in the table, charge additional refrigerant with 50 g(1.8 oz.)/1 m(3.3 ft) for ARY18RLB and ARY18RLBH as the criteria.

• The above list shows values at the external static pressure of 0 Pa for ARY18RLB and 40 Pa for ARY18RLBH.

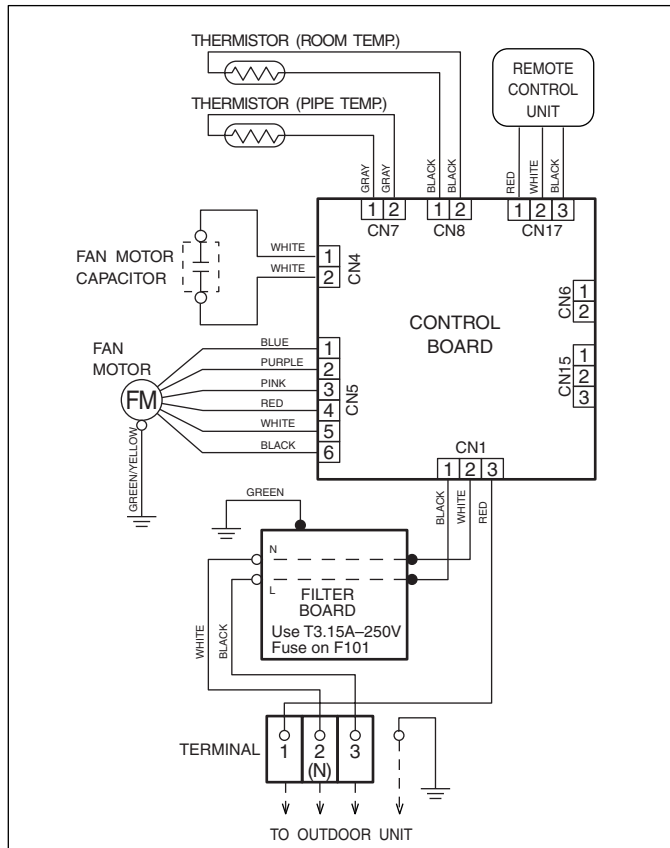
REFRIGERANT SYSTEM DIAGRAM



C I R C U I T D I A G R A M

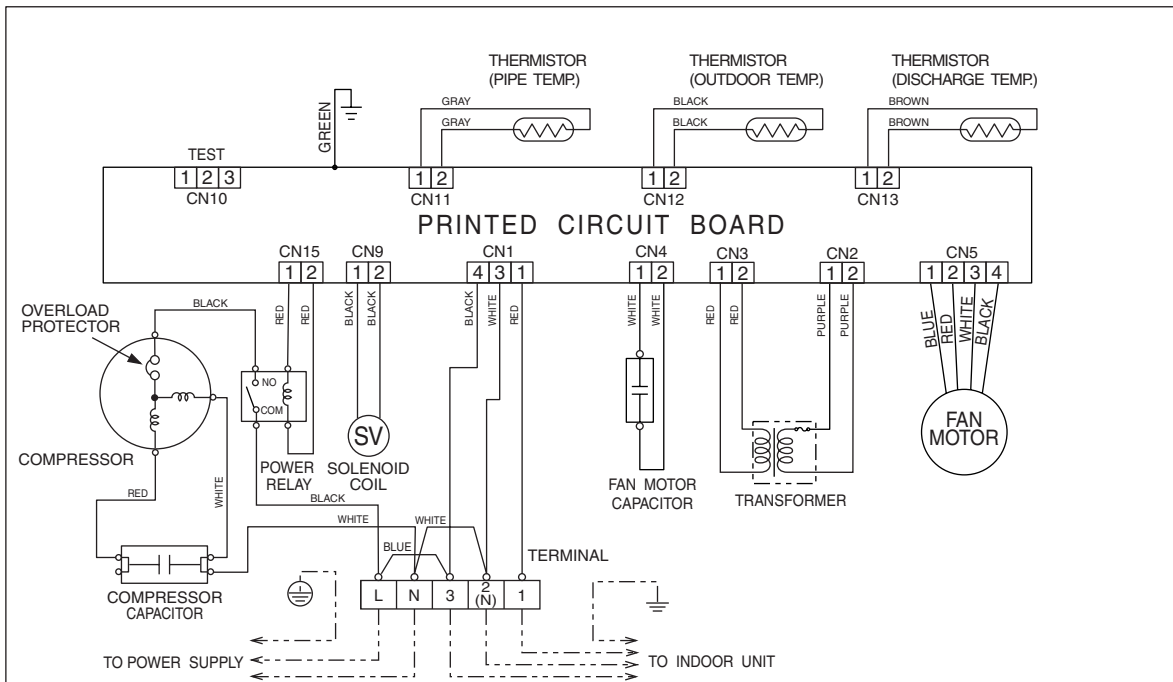
Models : ARY18RLB / AOY18RZDL
ARY18RLBH

INDOOR UNIT



FAN MOTOR CAPACITOR	2.3 μF
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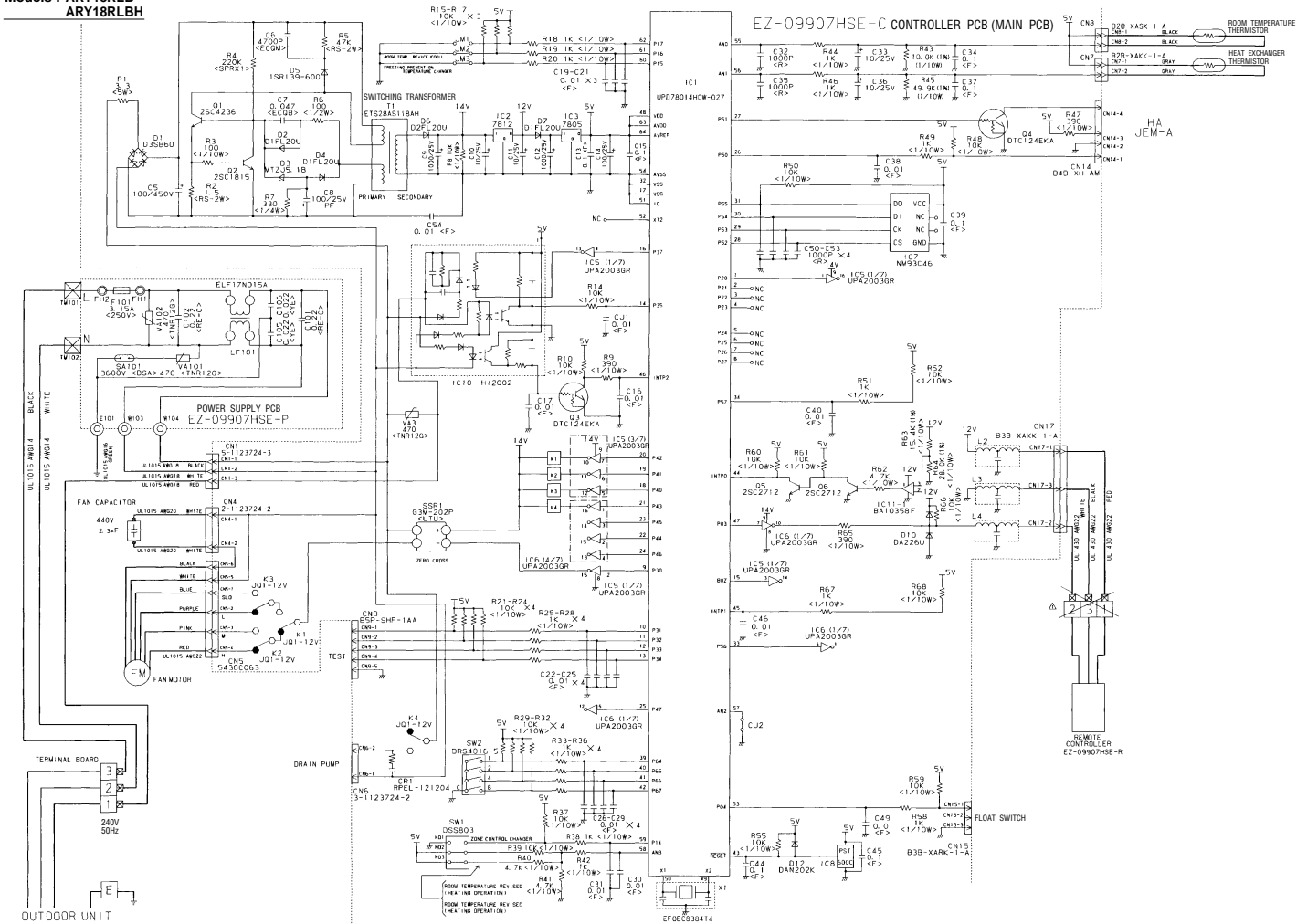
OUTDOOR UNIT



FAN MOTOR CAPACITOR	3.5 μF
COMPRESSOR CAPACITOR	46 μF

INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

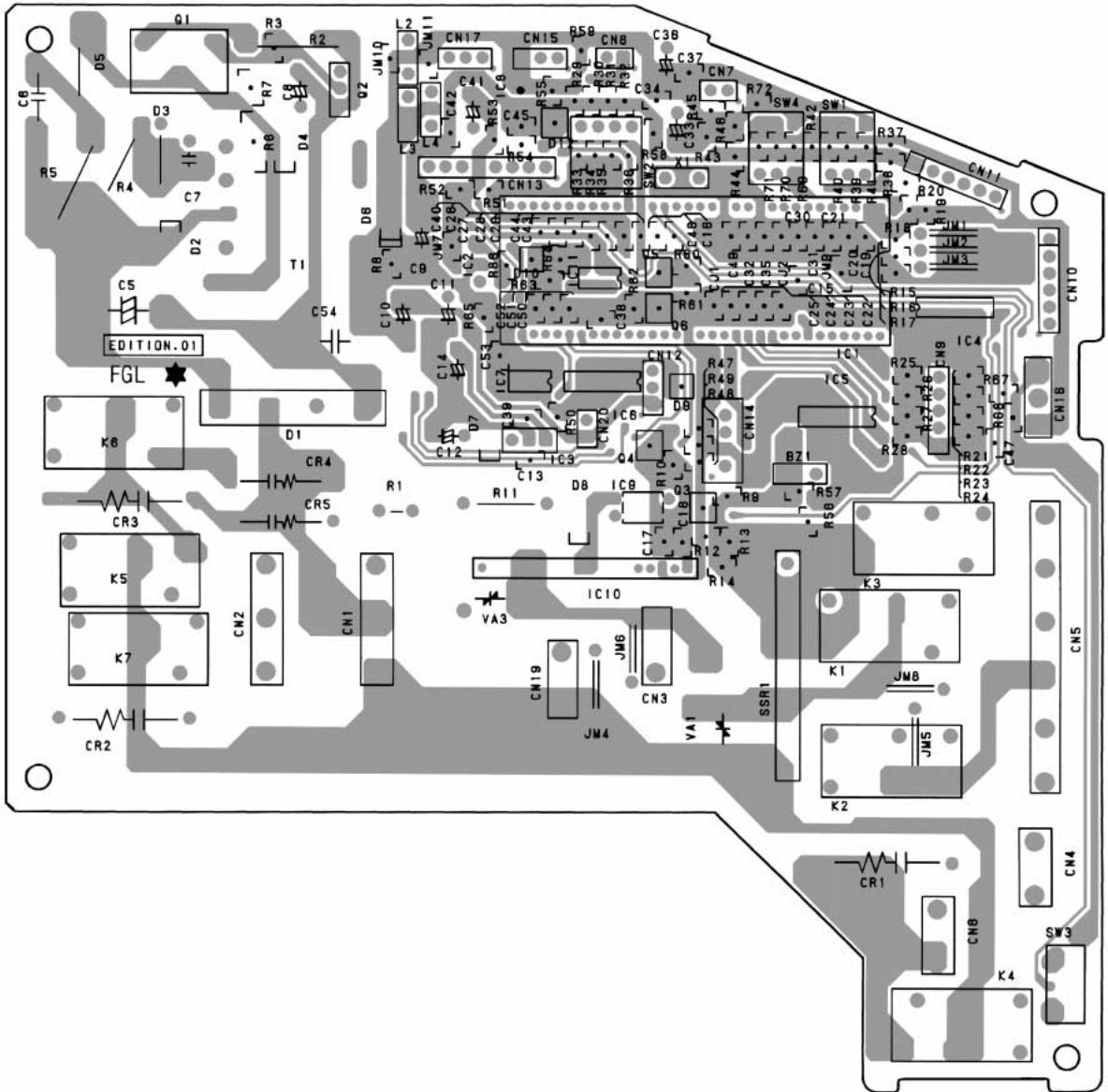
Models : ARY18RLB
ARY18RLBH



INDOOR P.C. BOARD LAYOUTS

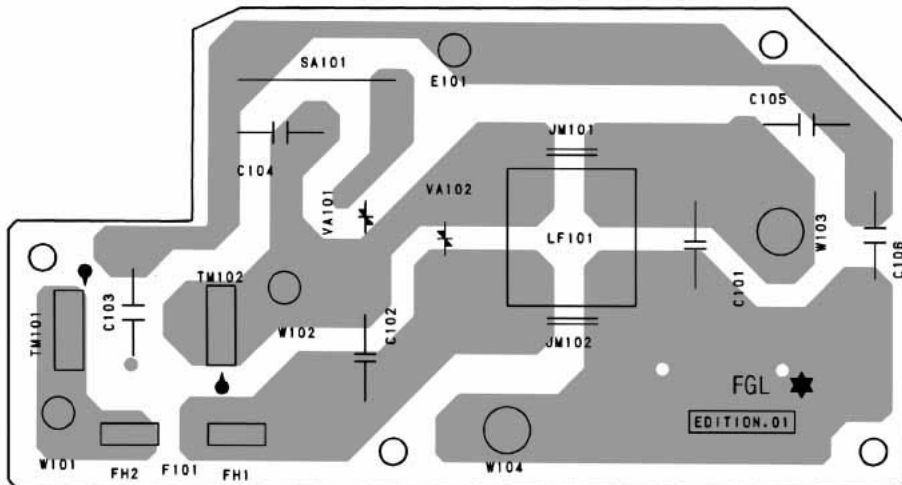
CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

(Viewed from the solder side)



FILTER P.C. BOARD ASSEMBLY

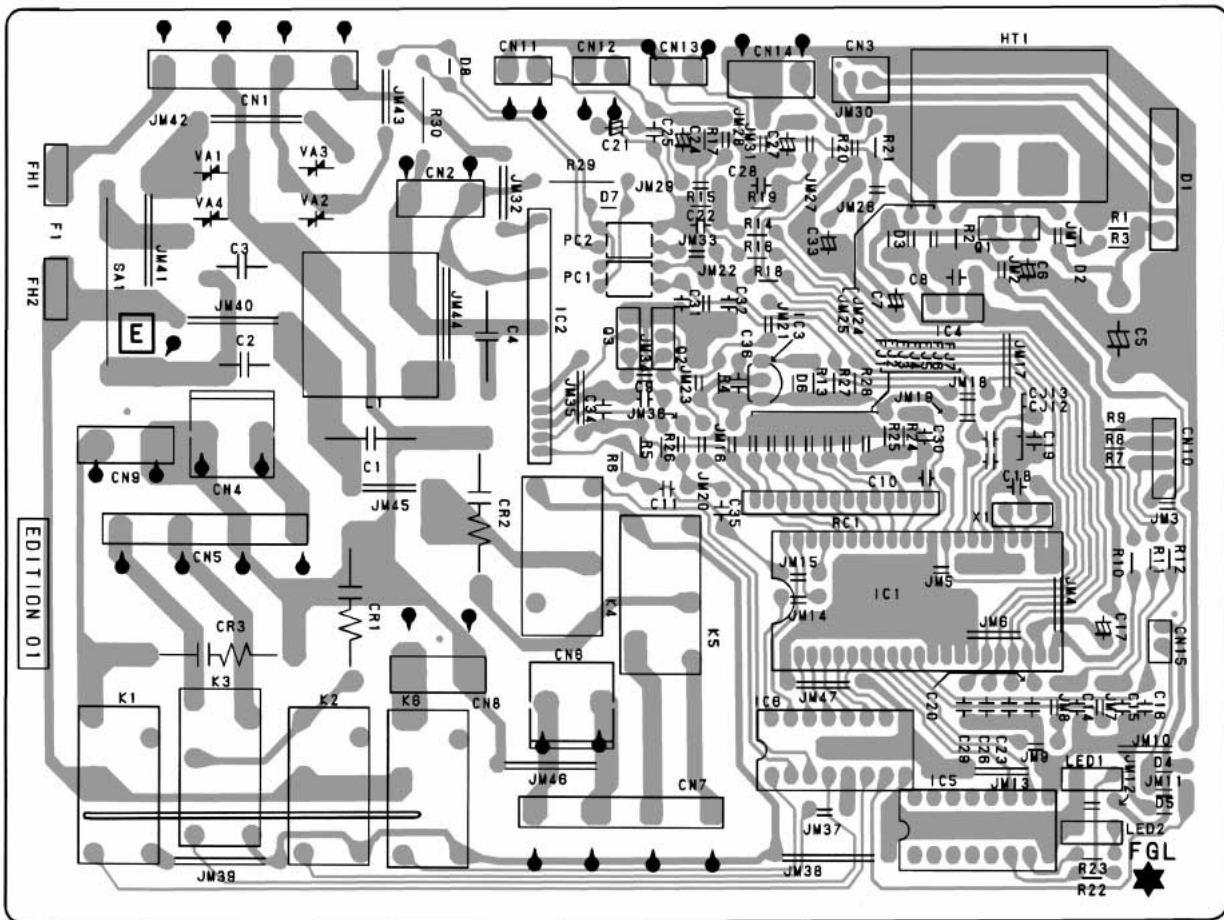
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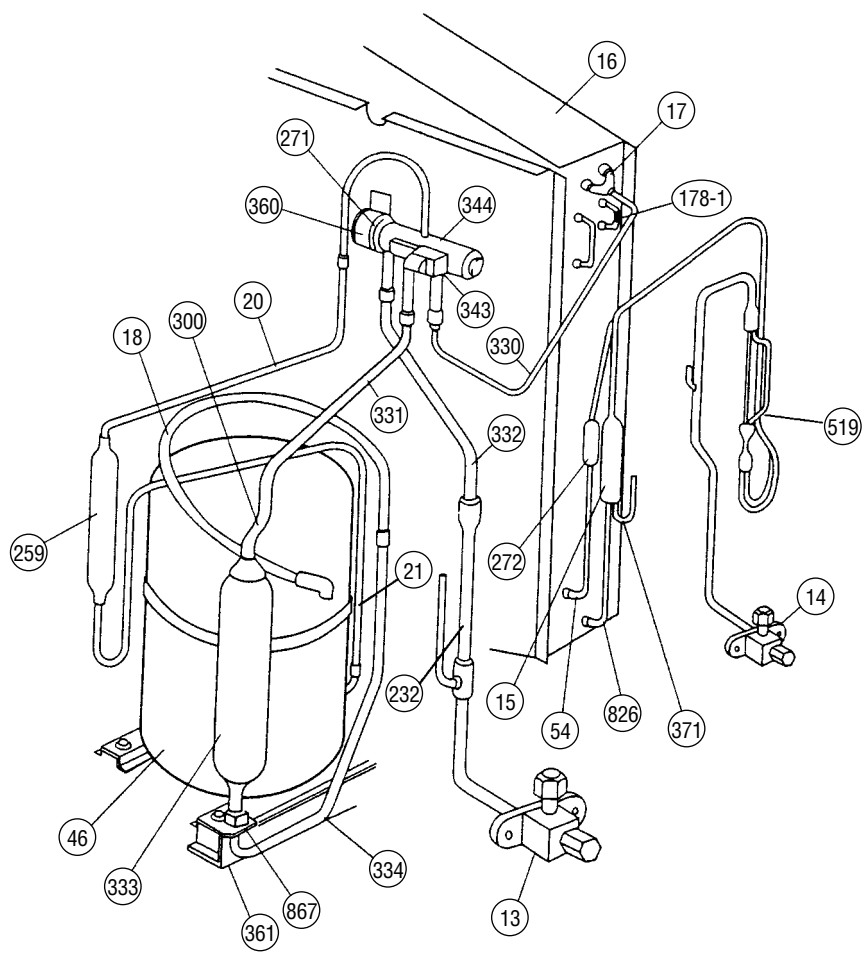


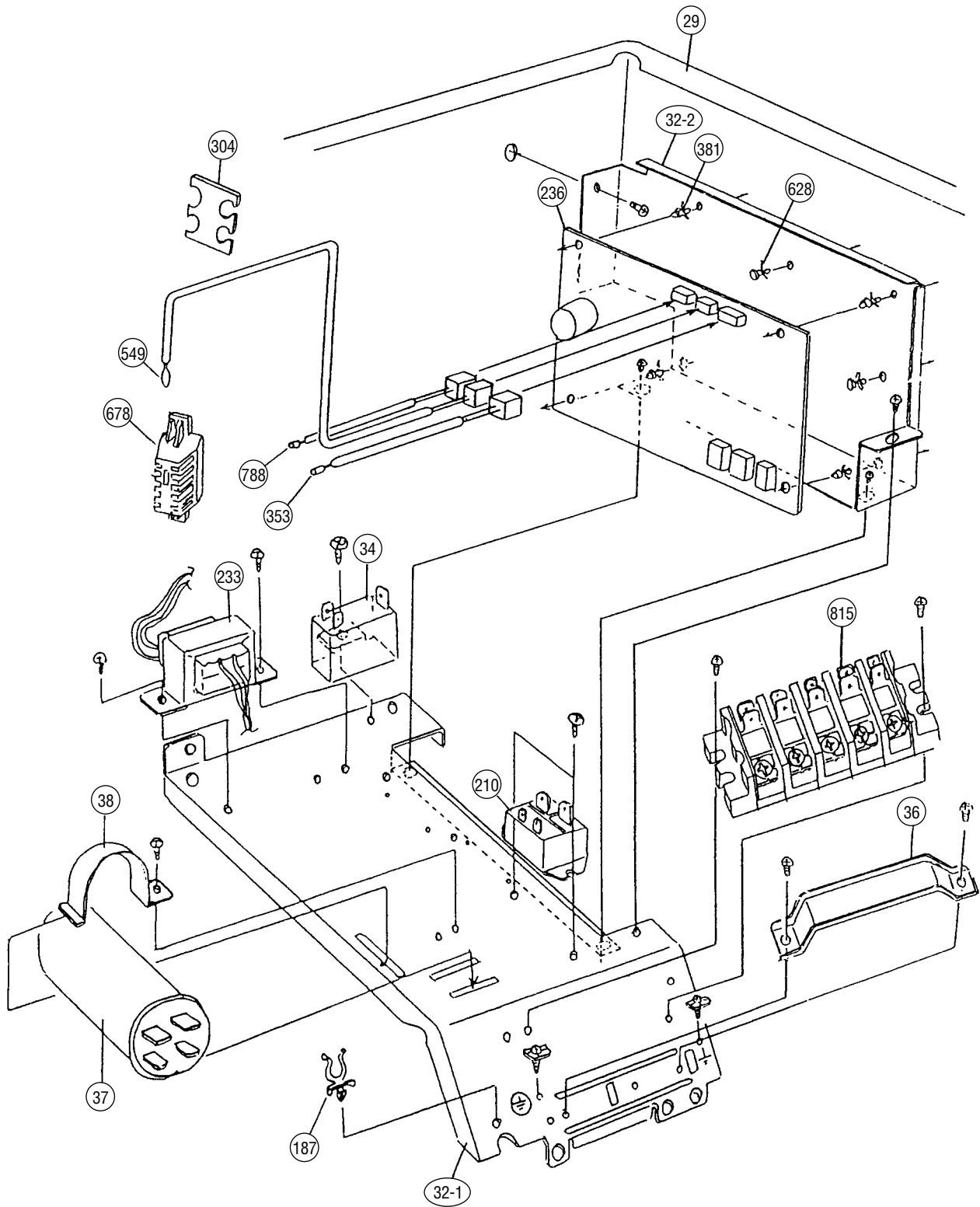
OUTDOOR P.C. BOARD LAYOUTS

CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

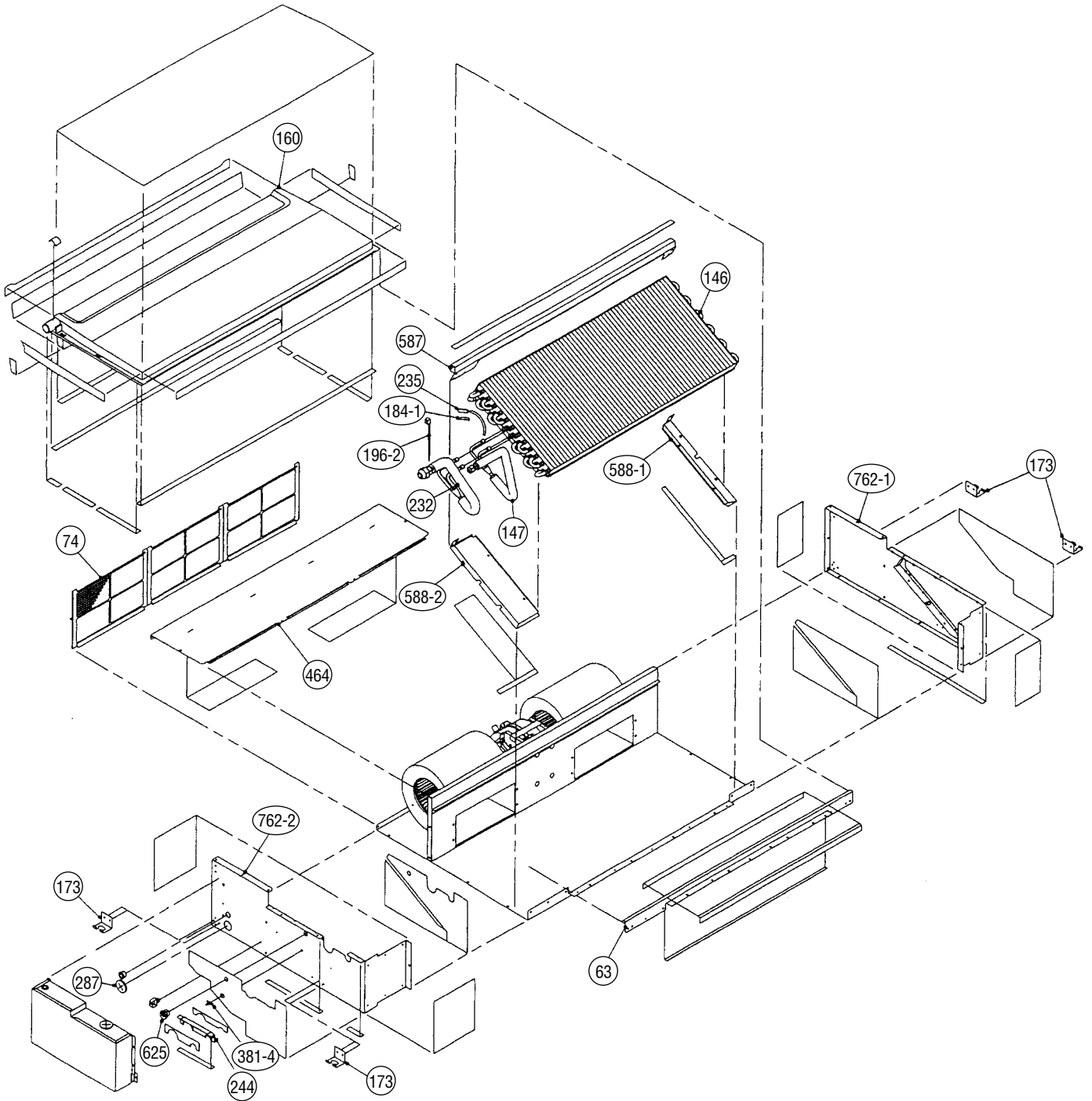
(Viewed from the solder side)

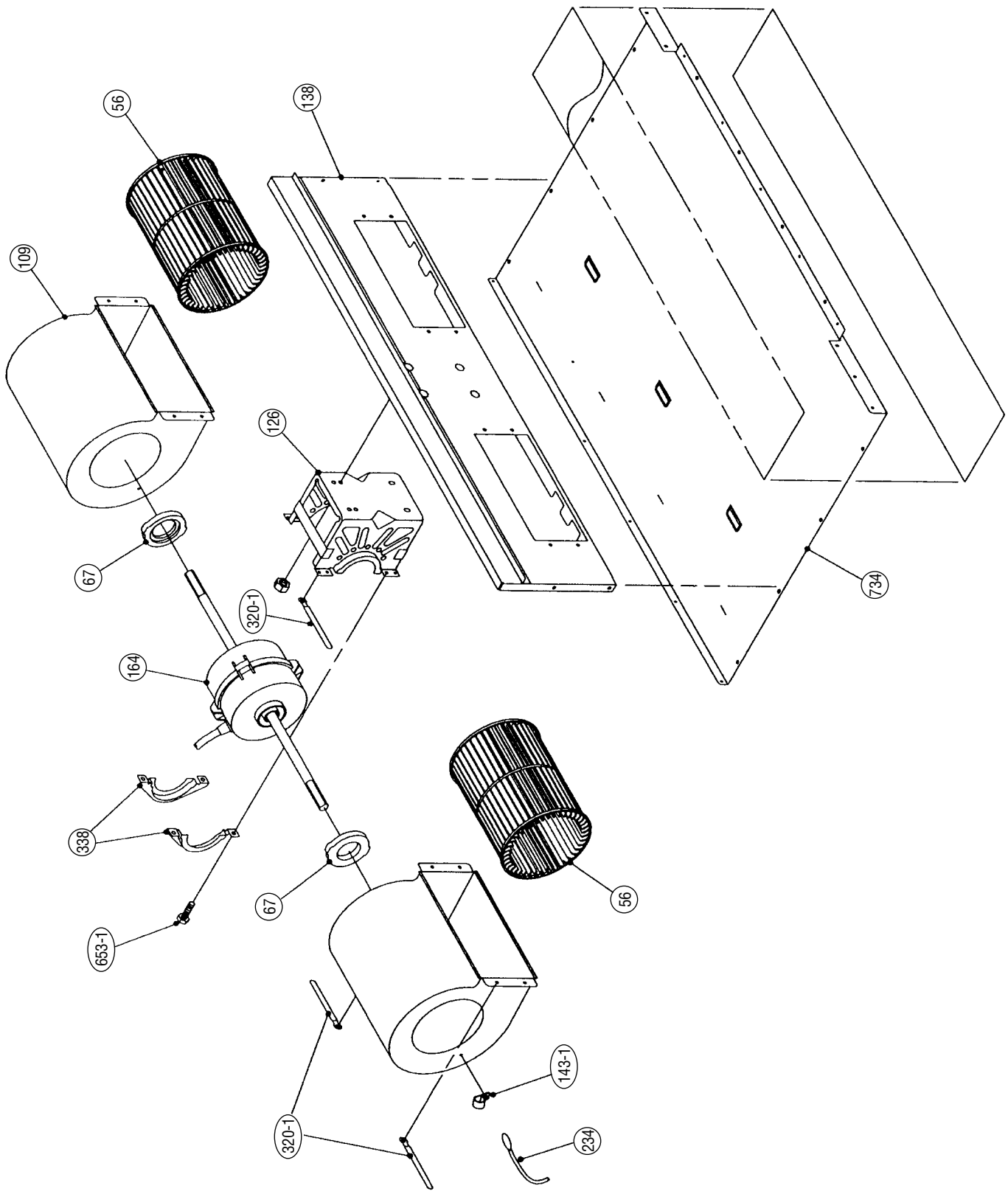




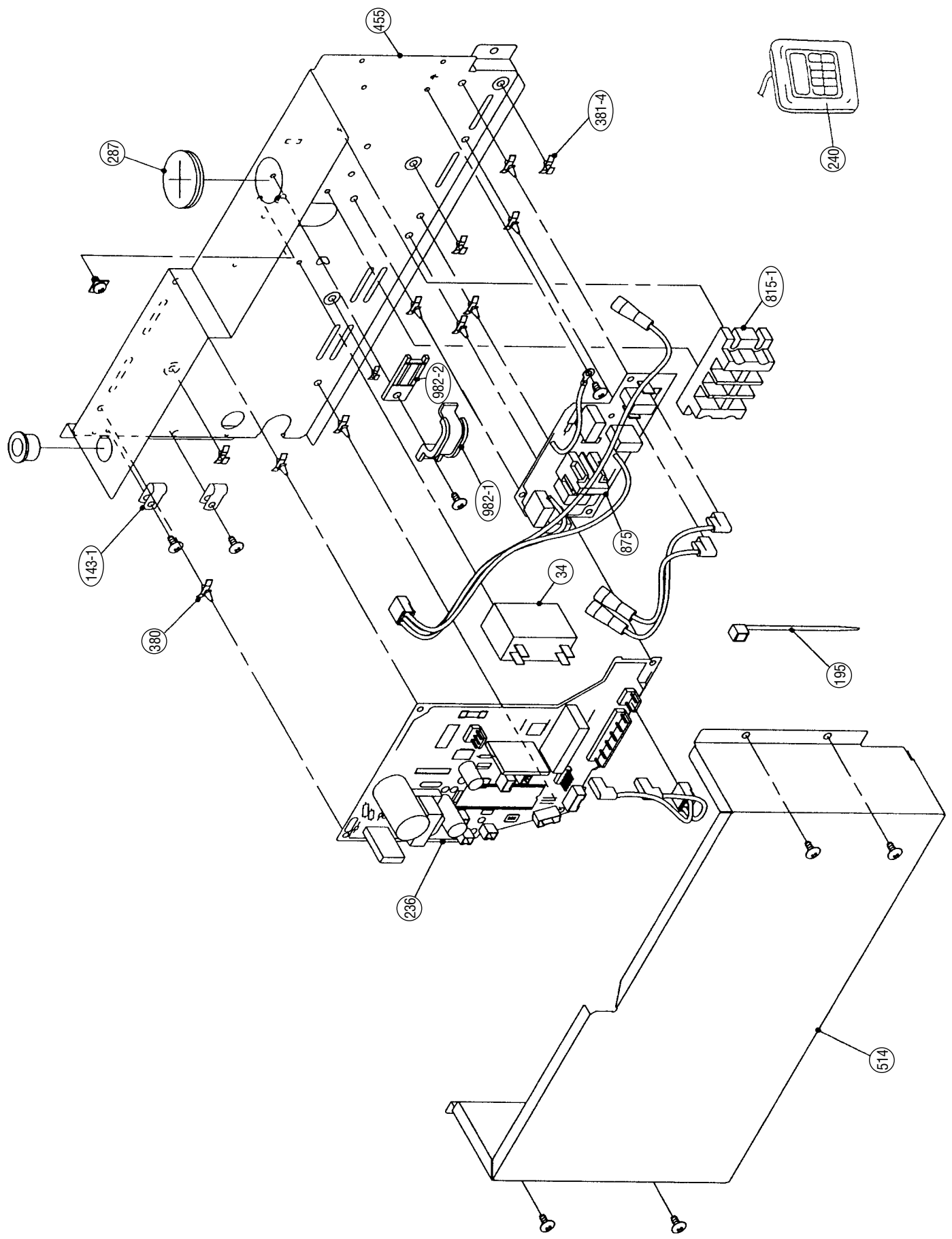


**Models : ARY18RLB
ARY18RLBH**





Models : ARY18RLB
ARY18RLBH



P A R T S L I S T

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.		Ord. Q'ty	Ref. No.	Description	Part No.		Ord. Q'ty
		ARY18RLB	ARY18RLBH				ARY18RLB	ARY18RLBH	
34	Capacitor (Fna Motor)	9357965017	9357965017		240	Remote Control Unit	9701673049	9701673049	
56	Sirocco Fan Assy	9358621004	9358621004		244	Cover (Piping)	9363327007	9363327007	
63	Front Panel Assy	9363723007	9363723007		287	Cap (Power)	9352173011	9352173011	
67	Rubber (Vibration - proof)	313659068604	313659068604		338	Motor Fixture	9358594001	9358594001	
74	Intake Panel	9363326000	9363326000		380	Locking Spacer	313209391403	313209391403	
109	Casing Assy	9363322002	9363322002		381-4	Locking Spacer	0600118075	0600118075	
126	Motor Fixing Table Assy	9358591000	9358591000		455	Control Box	9363200003	9363200003	
138	Panel Assy (Motor)	9363401004	9363401004		464	Cover (Cabinet)	9363400007	9363400007	
143-1	Clamp NK-3N	313361274700	313361274700		514	Control Box Cover	9363201000	9363201000	
146	Evaporator Assy	9364456070	9367456010		567	Support Plate (Eva.)	9363404005	9363404005	
147	Inlet Pipe (Eva.) Assy	9363382006	9363382006		588-1	Bracket Eva. R	9363199000	9363199000	
160	Drain Pan Assy	9363405002	9363405002		588-2	Bracket Eva. L	9363198003	9363198003	
164	Fan Motor Assy	9600778050	9600778067		625	Cord Bushing	9359240006	9359240006	
173	Hook Metal	9363195002	9363195002		653-1	Bolt (F.Motor Fixg)	0700156014	0700156014	
184-1	Thermo. Spring-A	313728262708	313728262708		734	Panel Top	9363504002	9363504002	
195	Clamp SKB-100	313361275805	313361275805		762-1	Side Panel-R Assy	9363507003	9363507003	
196-2	Clamp SKB-150	313035356905	313035356905		762-2	Side Panel-L Assy	9363505009	9363505009	
232	Outlet Pipe (Eva.) Assy	9363392005	9363392005		815-1	Terminal 3P	9356488005	9356488005	
234	Thermistor Assy-Room	9703299018	9703299018		875	Filter PCB Assy	9703583018	9703583018	
235	Thermistor Assy-Pipe	9703297052	9703297052		982-1	Cord Clamp	9356857009	9356857009	
236	Controller PCB Assy	9703582011	9703582011		982-2	Cord Clamp-B	9356858006	9356858006	

OUTDOOR UNIT

Ref. No.	Description	Part No.		Ord. Q'ty	Ref. No.	Description	Part No.		Ord. Q'ty
		AOY18RZDL					AOY18RZDL		
2	Fan Cover	9350214020			111	Terminal Packing (For Comp.)	313202059807		
4	Emblem-Rear	9351355005			178-1	Capillary Holder Rubber	313414274807		
5	Cabinet-A, Painted	9303876015			187	Clamp No. 1219	313361271706		
6	Cabinet-C, Painted	9353549013			210	Main Relay	9356781007		
7	Condenser Cover	9358011011			232	Pipe Assy	9300990028		
8	Wire Assy (Shield)-D	9350215027			233	Power Transformer	9701549016		
9	Cabinet-B, Painted	9303874011			236	Controller PCB Assy	9701888016		
12	Base Assy, Painted	9353452016			259	Muffler	313755083903		
13	3-Way Valve Assy	9357963013			271	4-Way Valve Rubber	313728251908		
14	2-Way Valve Assy	9357964010			272	Strainer	9350379026		
15	Dryer	9350380022			300	Suction Pipe-C	9350358014		
16	Condenser Assy	9353455048			304	Thermostat Fixture-B	313349051500		
17	"U" Pipe-Y	313728127102			330	Inlet Pipe (Cond.)-A	313986023206		
18	Suction Pipe	9351590017			331	Suction Pipe-D	9350359011		
20	Discharge Pipe	9358635001			332	Suction Pipe-E	9301296013		
21	Discharge Pipe-B	9358634004			333	Accumulator	9350363018		
26	Compressor Cover	9354036000			334	Suction Pipe-B	9351591014		
29	Separate Wall	9302475011			338	Motor Fixture	313029297108		
32-1	Control Box Metal-A	9357137001			343	Solenoid Coil	9359616108		
32-2	Control Box Metal-B	9357138008			344	4-Way Valve	313943302804		
34	Capacitor (Fan Motor)	9357965024			353	Thermistor Assy-Pipe	9701330010		
36	Cord Holder Metal	9356934007			360	4-Way Valve Band	313986251802		
37	Running Capacitor	9357211015			361	Accumulator Support	313986353804		
38	Capacitor Clamp	313791061807			371	Process Pipe-B	313142082352		
39	Propeller Fan Assy	9300855013			381	Locking Spacer	313209391506		
41	Fan Motor Assy-Out	9351333119			519	Check Valve Assy	9357341002		
45	Bracket (Motor) Assy	313029311100			549	Thermostat Assy-Outlet	9357328027		
46	Compressor Assy	9360509055			628	Locking Spacer-B	313005446558		
54	Condensing Pipe	313986123207			646	Compressor Cover-B	313986355101		
55	Special Nut M8 (For Comp.)	313252257701			678	Bracket (Thermistor)	313557406106		
67	Rubber (Vibration-proof)	313659068604			717	Center Plate	9350216017		
107	Rubber Seat-A (For Comp.)	313093081402			788	Thermistor-Discharge	9358337011		
108	Sleeve-A (For Comp.)	313093081706			815	Terminal-5P	9356497021		
109	Terminal Cover (For Comp.)	313202059600			826	Condensing Pipe-B	9353580016		
110	Lock Wire	313202059706			867	Accumulator Holder Rubber	9354022027		

[INDOOR UNIT]
CONTROLLER PCB ASSEMBLY (Ref. No.236)

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Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC1	IC μPD 78014HCW-027	9703514012		C7	Cap. Plastic 50V 0.047μF	0300169339	
IC2	IC NJM 7812FA	0100462104		C8	Cap. Elec 25V 100μF	0301197560	
IC3	IC NJM 7805FA	0100462081		C9	Cap. Elec 25V 1000μF	0301196495	
IC5,6	IC PA 2003GR E2	0100028041		C10,11,33,36	Cap. Elec 25V 10μF	0301192312	
IC7	IC BR 93LC46RF-E2	0100295016		C12	Cap. Elec 25V 1000μF	0301158264	
IC8	IC PST 600CMT R	0101461120		C13,15,34,37,39,44,45	Cap. Ceramic 50V 0.1μF	0300311752	
IC10	IC HI2002	9701384020		C14	Cap. Elec 25V 100μF	0301192350	
IC11	IC BA 10358F E2	0101846071		C16,17,19-31,38,40,46,49,J1	Cap. Ceramic 50V 0.01μF	0300311738	
Q1	Xstr 2SC4236 4009	0000164047		C32,35,50-53	Cap. Ceramic 50V 1000pF	0300308509	
Q2	Xstr 2SC1815 TP2	0000002011		C54	Cap. Ceramic 250V 0.01μF	0300209127	
Q3,4	Xstr DTC124EKA T146	0000936033		F101	Fuse 218V-3.15A	0600285210	
Q5,6	Xstr 2SC2712 TE85L TP130	0000781053		FH1,2	Fuse Holder PFC5000-0502	0500158072	
D1	Diode D3SB60 4101	0000689045		VA101,102,3	Varistor TNR12G471K	0000038010	
D2,4,7	Diode D1FL20U 4063	0000746519		SA101	Arrester DSA-362MA-05	0600168032	
D3	Diode MTZJ5.1B T-77 TP052	0000852166		K1,2,3,4	Relay JQ1-12V	9701316014	
D5	Diode 1SR139-600 T-32	0000353120		CR1	Network RPEL-121204 -C	9701125012	
D6	Diode D2FL20U 4063	0000906500		SW1	Switch, Slide DSS803	9701392018	
D10	Diode DA226U T106 TP130	0000625036		SW2	Switch, Slide DRS4016-5	9701694013	
D12	Diode DAN202K T146	0000684019		T1	Transformer SW. ETS28AS118AH	9702727017	
R1	Res. 3.3Ω±10%	0200153148		SSR1	Relay G3M-202P-UTU	9701829019	
R2	Res. 1.5Ω±5%	0201107119		X1	Ceramic Resonator EFOEC8384T4	9701261017	
R3	Res. 100Ω±5%	0200212500		L2-4	EMI Filter EXCEMT103DT	0400406396	
R4	Res. 220kΩ±5%	0200111353		TM101,102	Plug, Contact 86028	0500536016	
R5	Res. 47kΩ±5%	0201107652		CJ2	Res. 0Ω	0200212012	
R6	Res. 100Ω±5%	0200731506		C101,102	Cap. Plastic 275V 0.22μF	0300304099	
R7	Res. 330Ω±5%	0200708621		C105,106	Cap. Plastic 250V 0.022μF	0301052098	
R8,10,14-17,21-24,29-32,37,39,48,50,52,55,59,60,61,66,68				LF101	EMI Filter ELF17N015A	0400197119	
R9,47,65	Res. 390Ω±5%	0200212647		CN1	Plug, PCB 5-1123724-3	0501321635	
R18-20,25-28,33-36,38,42,44,46,49,51,58,67	Res. 1kΩ±5%	0200212746		CN4	Plug, PCB 2-1123724-2	0501321529	
R40,41,62	Res. 4.7kΩ±5%	0200212906		CN5	Plug, PCB 5430C063	0500957026	
R43	Res. 10kΩ±1%	0200279497		CN6	Plug, PCB 3-1123724-2	0501321536	
R45	Res. 49.9kΩ±1%	0200279824		CN7	Plug, PCB B2B-XAKK-1-A	0501045227	
R63	Res. 15.4kΩ±1%	0200279565		CN8	Plug, PCB B2B-XASK-1-A	0501045012	
R64	Res. 28.0kΩ±1%	0201114445		CN9	Plug, PCB B5P-SHF-1AA	0500006069	
C5	Cap. Elec 450V 100μF	0300256060		CN14	Plug, PCB B4B-XH-AM JST	0500005314	
C6	Cap. Plastic 600V 4700pF	0300269091		CN15	Plug, PCB B3B-XARK-1-A	0501045319	
				CN17	Plug, PCB B3B-XAKK-1-A	0501045357	
				E101	Wire w/Terminal GRN L=100	9702313012	
				W103,104	Wire w/Terminal	9702310059	

[OUTDOOR UNIT]
CONTROLLER PCB ASSEMBLY (Ref. No.236)

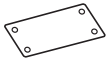








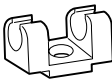

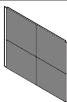
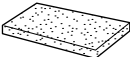
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Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC1	IC μ PD 78081CU-011	9701721016		C17	Cap. Elec 25V 100 μ F	0300051375	
IC2	IC HU2001	9701651016		C20,23,26,35,30	Cap. Ceramic 1000pF	0300011096	
IC3	IC PST 600D-2-TP	0101461113		C33	Cap. Elec 50V 2200 μ F	0300915417	
IC4	IC NJM 7805FA	0100462081		F1	Fuse 3.15A-218V	0600285210	
IC5-6	IC BA 12003 ROHM	0101650012		RC1	CR Module ARCL14FS103J102J103M	0200301020	
Q1	Xstr 2SD880	0000001014		CR1,3	CR Absorbar RPEL-121204 -C	9701125012	
Q2,3	Xstr DTC124ES TP-SPT	0000517010		SA1	Arrester DSA-362MA-05	0600168032	
D1	Diode D2SB20 4001	0000599023		K1-3	Relay JQ1-12V	9701316014	
D2	Diode MTZJ15C T-77	0000852203		L1	EMI Filter SU16VF-15030	0400134114	
D3-5	Diode 1SR139-400 T-32	0000353137		VA1,4	Varistor TNR12G471K	0000038010	
D6	Diode 1SS133 T-77 TP052	0000572019		HT1	Heat Sink PUG 26-25	9701428014	
R1,2	Res. Carbon 1/4W 5.6k Ω \pm 5%	0200994192		FH1,2	Fuse Holder PFC5000-0502	0500158072	
R3,6,10-12,14,16,18,20,24	Res. Carbon 1/4W 1k Ω \pm 5%	0200994017		X1	Ceramic Resonator EFOEC5004T4Z	9701261024	
R4,26	Res. Carbon 1/4W 4.7k Ω \pm 5%	0200994178		LED1,2	LED SLR-325VC T31 M,N RED	0000813259	
R5,7-9,13,21-23,25	Res. Carbon 1/4W 10k Ω \pm 5%	0200994253		CN1	Plug, PCB 53406-9110	0500951086	
R15,17	Res. Metal 14k Ω	0201028612		CN2	Plug, PCB B2P3-VH-B-R RED	0500011766	
R19	Res. Metal 6.65k Ω	0201028766		CN3	Plug, PCB B2B-XH-AM	0500005321	
C1,4	Cap. Plastic 250V 0.1 μ F	0300894835		CN4	Plug, PCB 53331-0210	0501033019	
C2-3	Cap. Ceramic 4700pF	0300727546		CN5	Plug, PCB B4P7-VH-B	0500011742	
C5	Cap. Elec 50V 2200 μ F	0301206026		CN9	Plug, PCB 179844-1	0501121013	
C6,21,24,27,7	Cap. Elec 50V 10 μ F	0300004258		CN10	Plug, PCB B4P-SHF-1AA	0500006038	
C8,18,19,22,25,28,29,34,36	Cap. Ceramic 0.1 μ F	0300988251		CN11	Plug, PCB B2P-VH-B	0500011124	
C9-11,14-16	Cap. Ceramic 0.01 μ F	0300013113		CN12	Plug, PCB B2P-VH-B-C	0500011568	
				CN13	Plug, PCB B2P-VH-B-R RED	0500011148	
				CN15	Plug, PCB B2B-XASK-1-A	0501045012	
				E	Wire w/Terminal GRN L=210	9701325016	





RELAY PCB ASSEMBLY (Ref. No.968)

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
HT201	Heat Sink OSH-4730C-SP	9701754014		CN201	Plug, PCB B4P7-VH-B	0500011742	
SSR201	Relay S202SE2	9701719013		R201	Res. Carbon 1/2W 680 Ω \pm 5%	0200012681	
CR201	CR Absorber RPEL-121204-C	9701125012					

INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Parts No.	
			ARY18RLB	ARY18RLBH
Installation template 	1	For positioning the indoor unit	9364225005	
Hook metal 	4	For suspending the indoor unit from ceiling	9363195002	
Tapping screw (ø 4 x 10) 	8	For installing the hanger	301171164104	
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling	313005446653	
Special nut B (small flange) 	4		313005446759	
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe)	9350716029	
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe)	9352766015	
Binder 	(Small) 1	For remote controller and remote controller cord binding	313361275805	
	(Large) 4	For fixing the coupler heat insulation	312300787605	
Remote control unit 	1		9701673049	
Remote control unit cord clamp 	10	For installing the remote controller cord	313714181904	
Tapping screw (flush heads) 	10	For installing the remote controller cord clamp	301141153027	
Filter 	3		9363326000	
Drain hose insulation 	1	Insulates the drain hose and vinyl hose connection	313806217708	

OUTDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Parts No.	
			AOY18RZDL	
Hexagon wrench 	1	For vacuum	9351228019	
Pipe (drain) 	1	For outdoor unit drain piping work (May not be supplied, depending on the model)	313728031005	
Flexible tube 	1		313013042915	
Cap (drain) 	2		313166024302	