

FUJI
ELECTRIC

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

DUCT type

**SERVICE
MANUAL**

Models	Indoor unit	Outdoor unit
	RD-14RA	ROD-14RA

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

INDOOR UNIT		RD-14RA
OUTDOOR UNIT		ROD-14RA
COOLING CAPACITY	(kW)	3.9 - 4.0
HEATING CAPACITY	(kW)	4.7 - 4.8

ELECTRICAL DATA

POWER SOURCE	(V)	220 -240
FREQUENCY	(Hz)	50
RUNNING CURRENT (A)	COOLING	7.1 - 7.2
	HEATING	6.9 - 7.0
INPUT WATTS	COOLING	1.50 - 1.60
	HEATING	1.47 - 1.54
EER	COOLING	2.60 - 2.50
	HEATING	3.20 - 3.10
MOISTURE REMOVAL	(l /hr)	1.1
AIR CIRCULATION-Hi	(m ³ /hr)	640

COMPRESSOR

TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor
CODE	GRG163C

FAN MOTOR

TYPE	RD-14RA		ROD-14RA
	MFA-14FTT		MFB-09FT
POWER SOURCE	(V)	220 - 240	
HI-SPEED	(r.p.m.)	840	740
MED-SPEED	(r.p.m.)	740	—
LO-SPEED	(r.p.m.)	650	440

DIMENSIONS

HEIGHT	(mm)	217	530
WIDTH	(mm)	953	750
DEPTH	(mm)	595	250

WEIGHTS

GROSS WEIGHT	(kg)	29	39
NET WEIGHT	(kg)	25	37

ADDITIONAL REFRIGERANT CHARGE

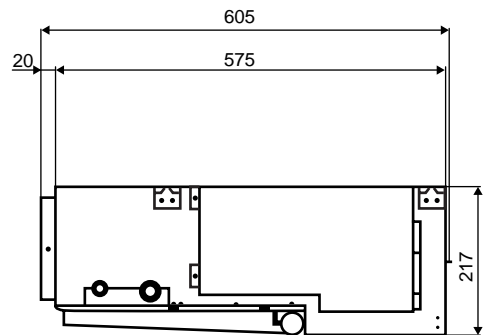
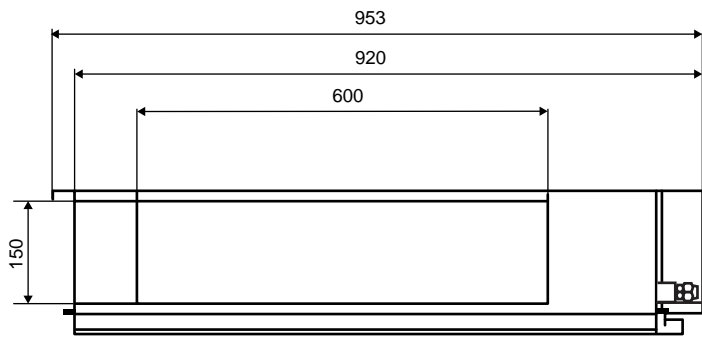
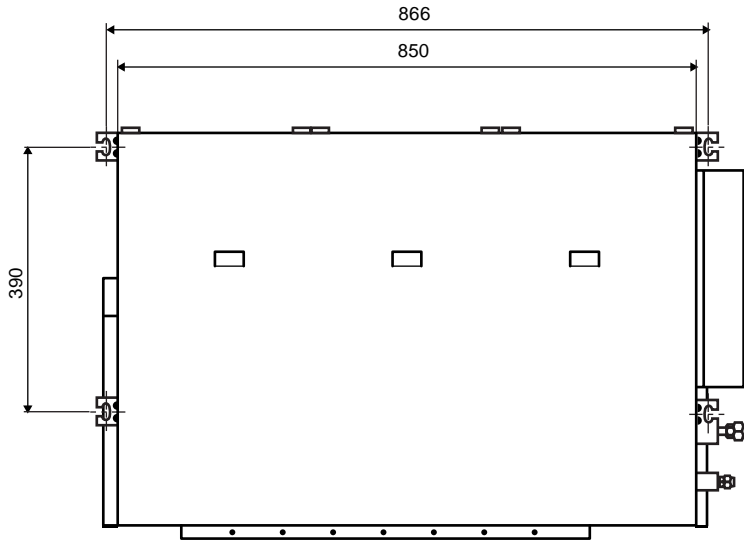
PIPE LENGTH	7.5m (25ft.)	10m (33ft.)	15m (49ft.)
FULL CHARGE AMOUNT	1,000g (35.3 oz.)	1,050g (37.0 oz.)	1,150g (40.6 oz.)

Note : Between 7.5m and 15m, when using a connection pipe other than that in the table, charge additional refrigerant with 20g(0.7oz.)/1m(3.3ft) as the criteria.
The above list shows values at the external static pressure of 0 Pa.

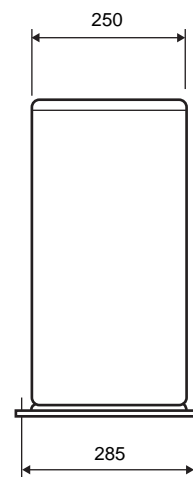
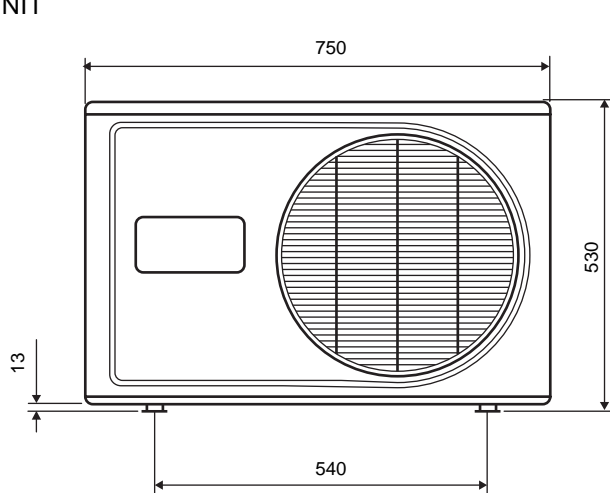
OUTLINE AND DIMENSIONS

INDOOR UNIT

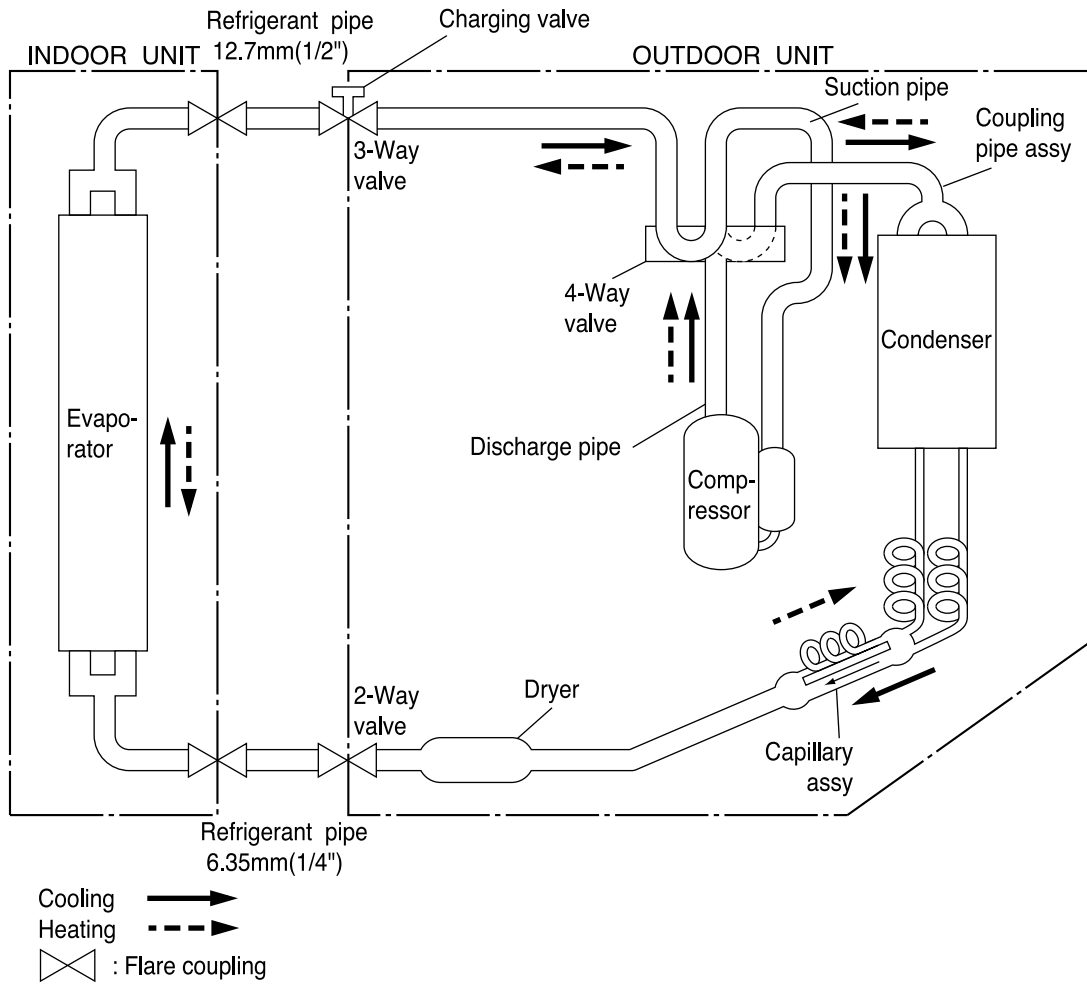
(Unit : mm)



OUTDOOR UNIT



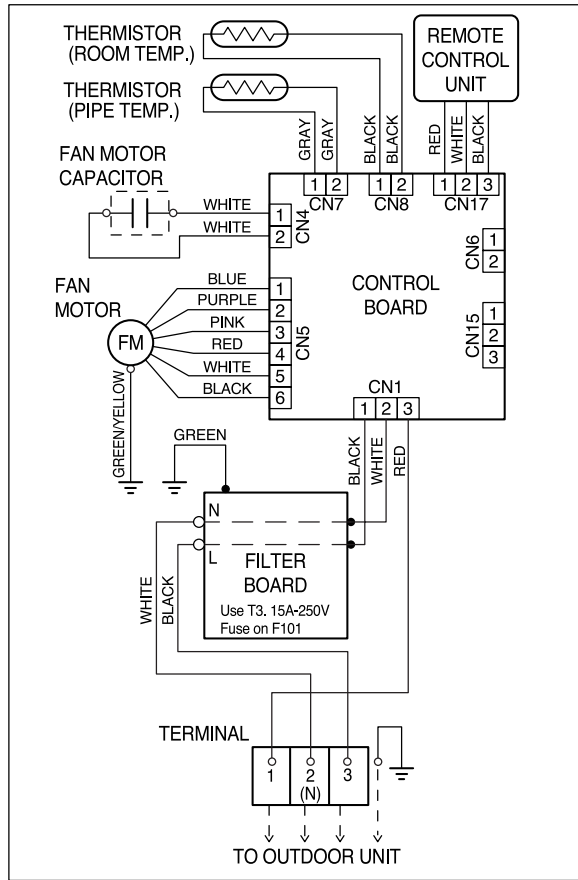
REFRIGERANT SYSTEM DIAGRAM



CIRCUIT DIAGRAM

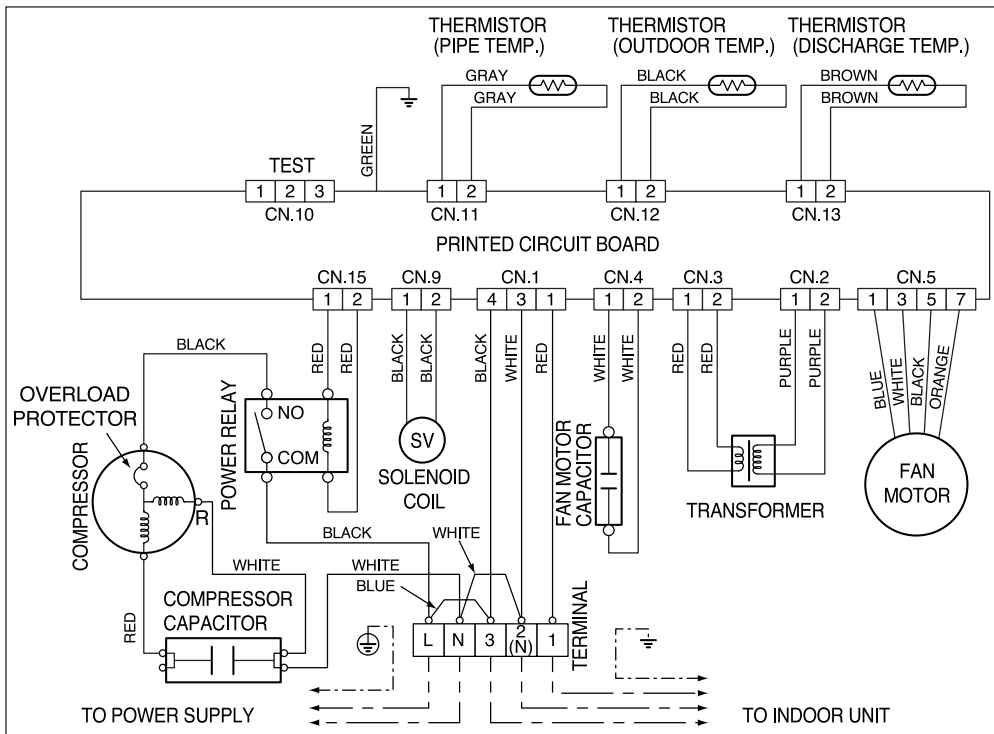
Models : RD-14RA/ROD-14RA

INDOOR UNIT



OUTDOOR UNIT

FAN MOTOR CAPACITOR	2.3 μ F
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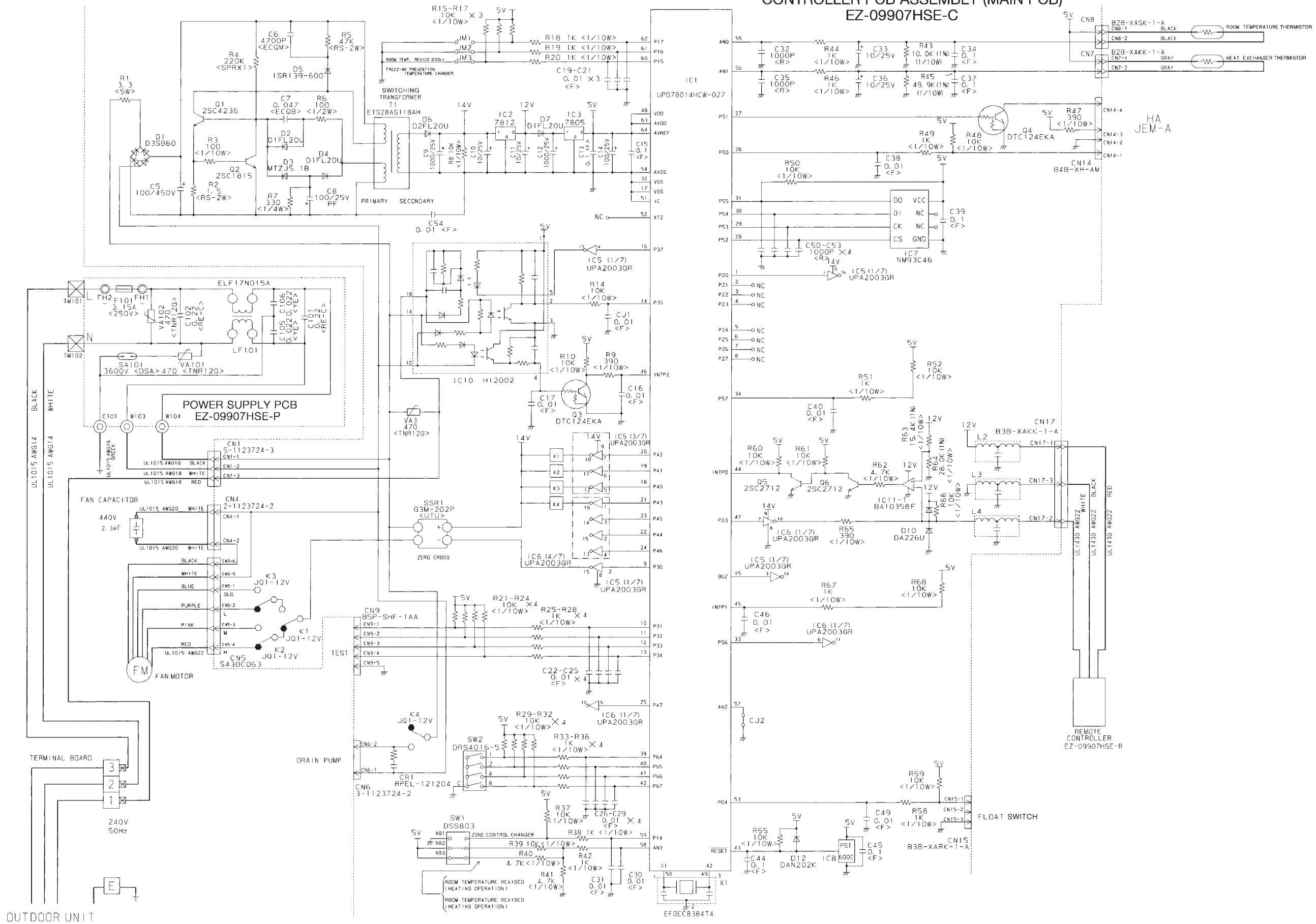


FAN MOTOR CAPACITOR	1.6 μ F
COMPRESSOR CAPACITOR	35 μ F

INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

RD-14RA

CONTROLLER PCB ASSEMBLY (MAIN PCB)
EZ-09907HSE-C

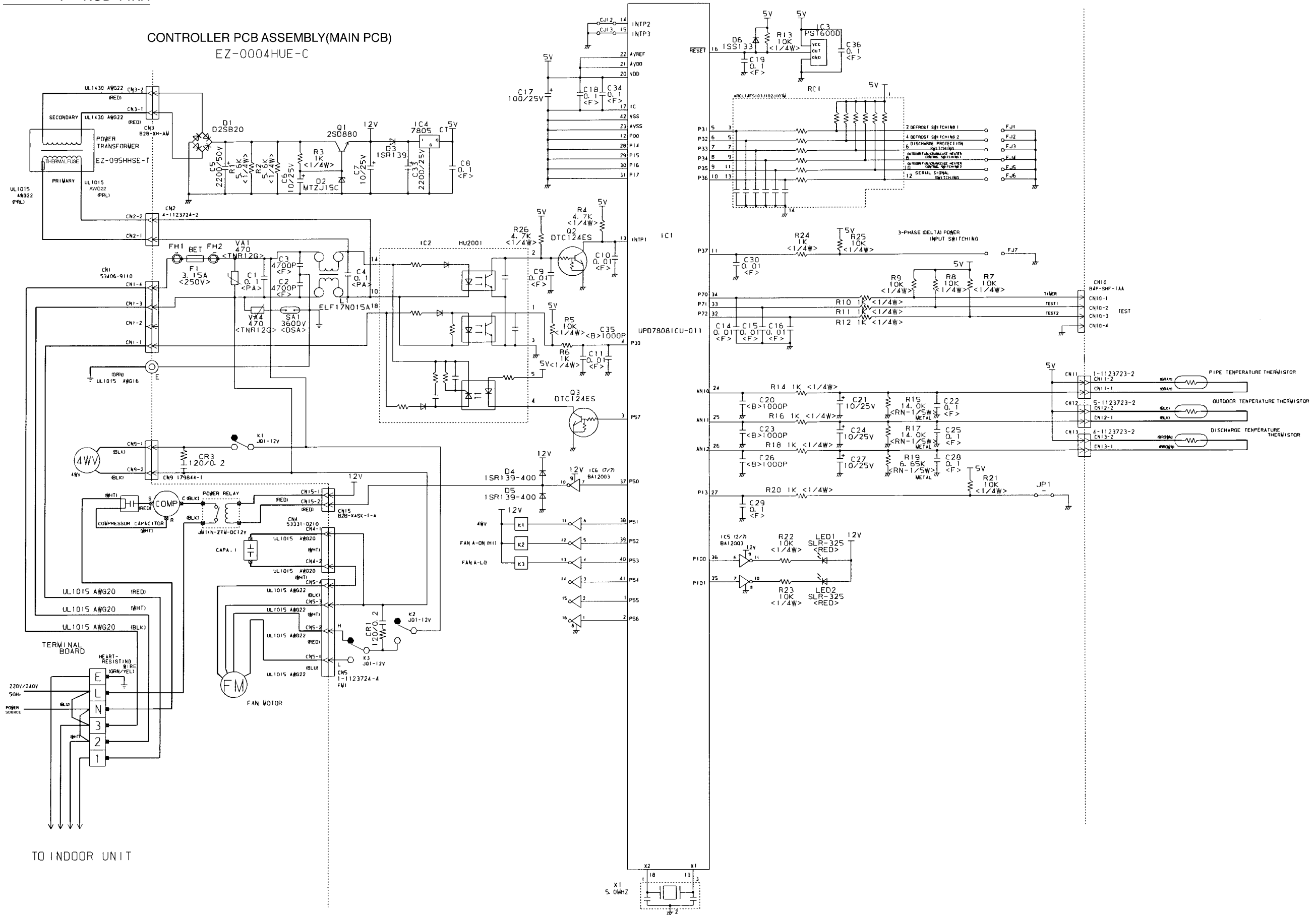


OUTDOOR UNIT

OUTDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

: ROD-14RA

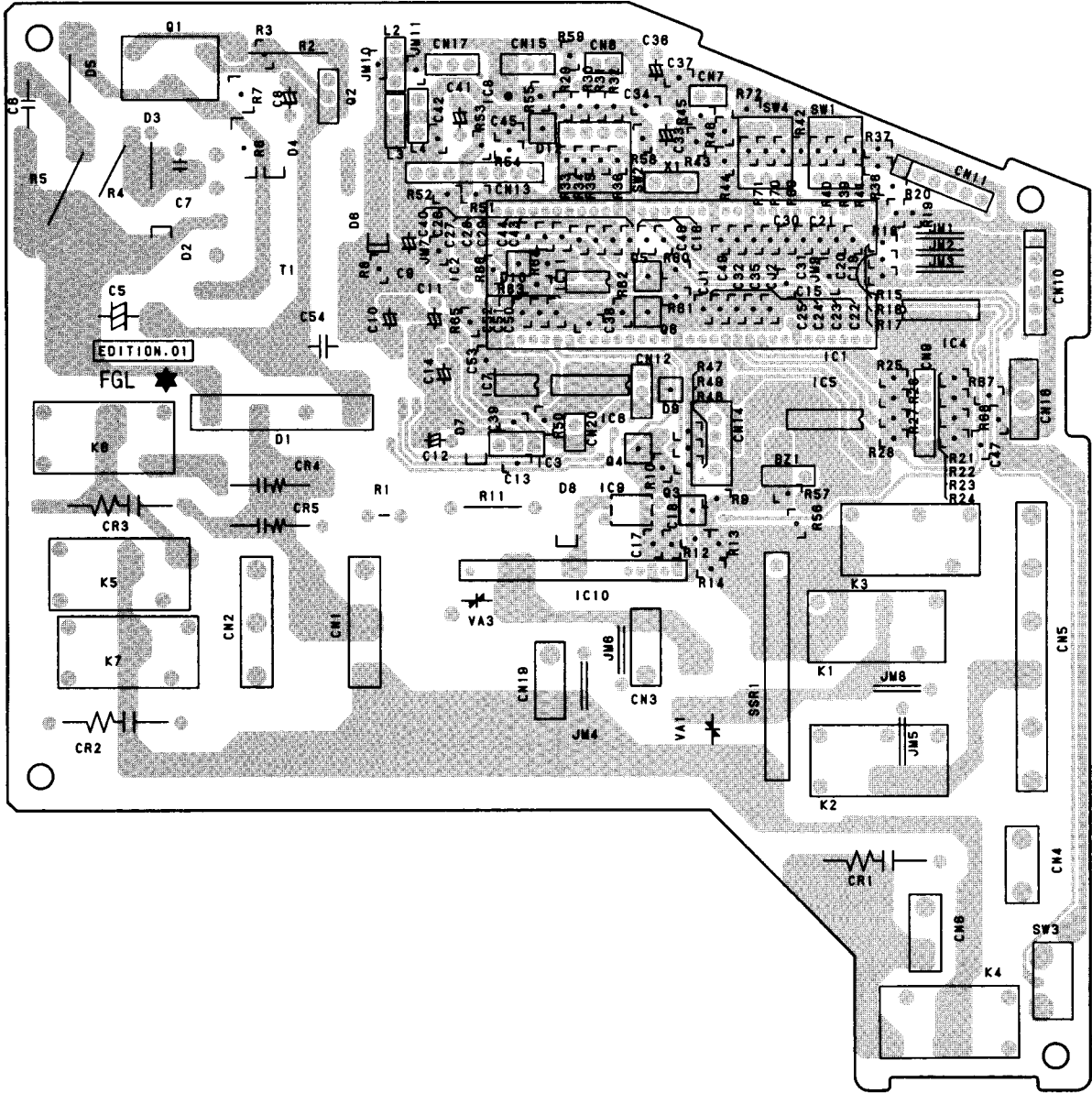
CONTROLLER PCB ASSEMBLY(MAIN PCB) EZ-0004HUE-C



INDOOR P.C. BOARD LAYOUTS

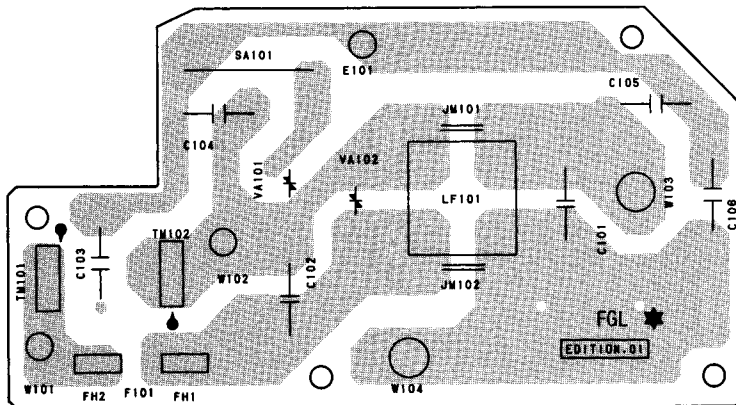
CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

(Viewed from the solder side)



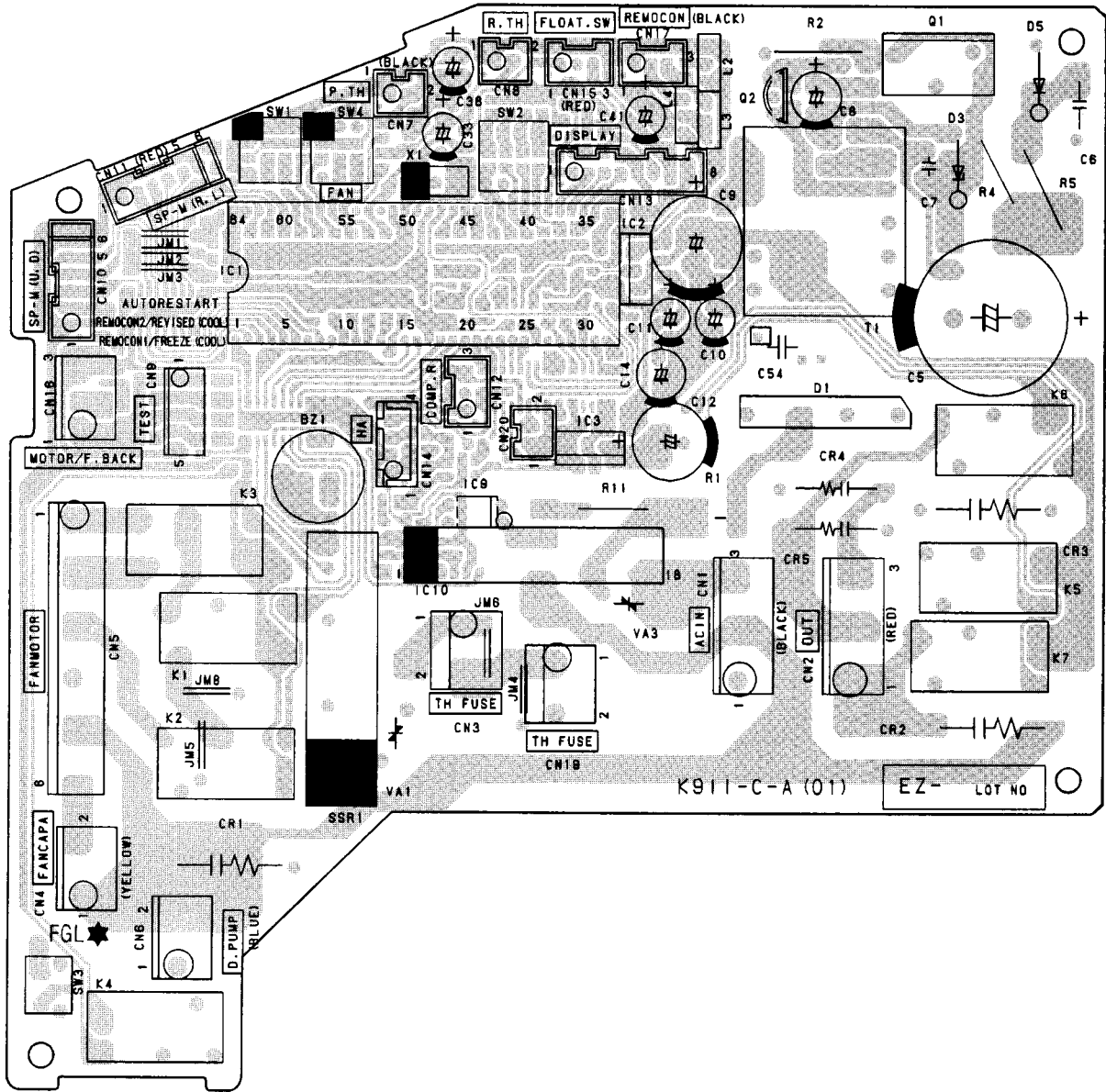
FILTER P.C. BOARD ASSEMBLY

(Viewed from the solder side)



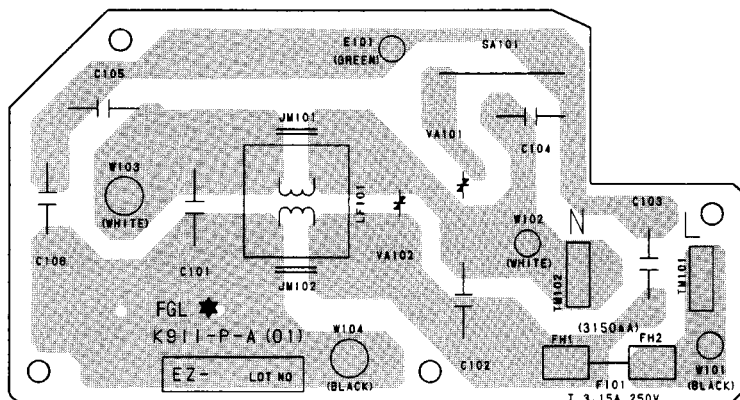
CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

(Viewed from the component side)



FILTER P.C. BOARD ASSEMBLY

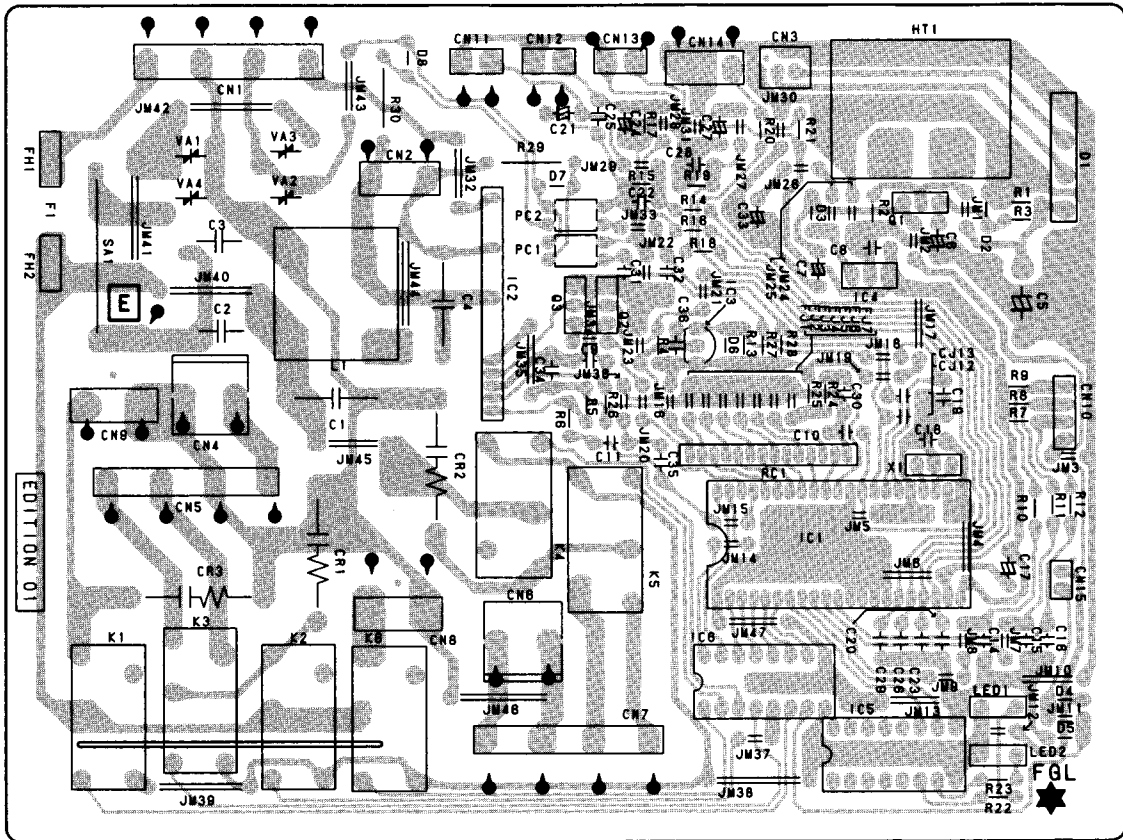
(Viewed from the component side)



OUTDOOR P.C. BOARD LAYOUTS

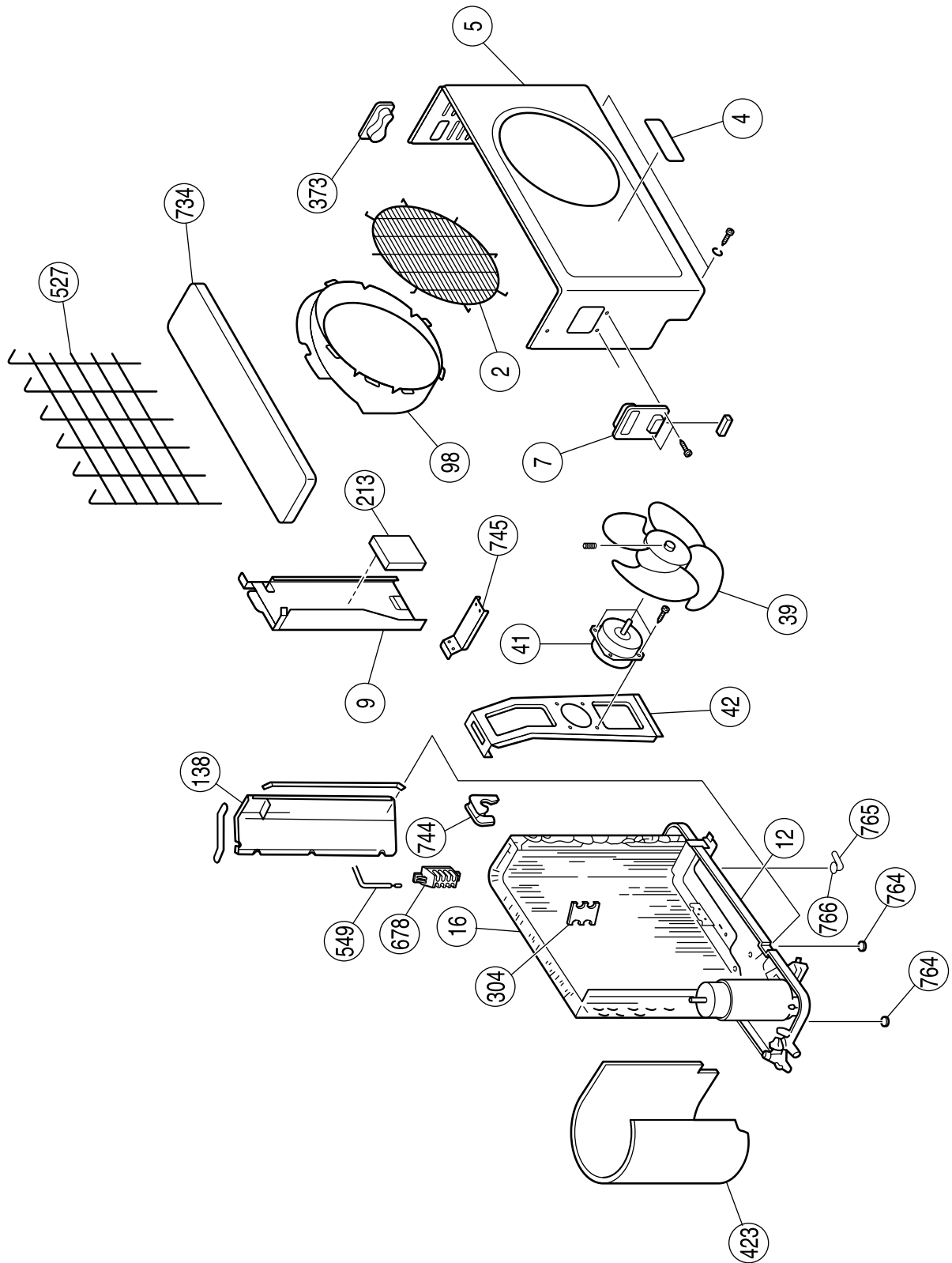
CONTROLLER P.C. BOARD ASSEMBLY

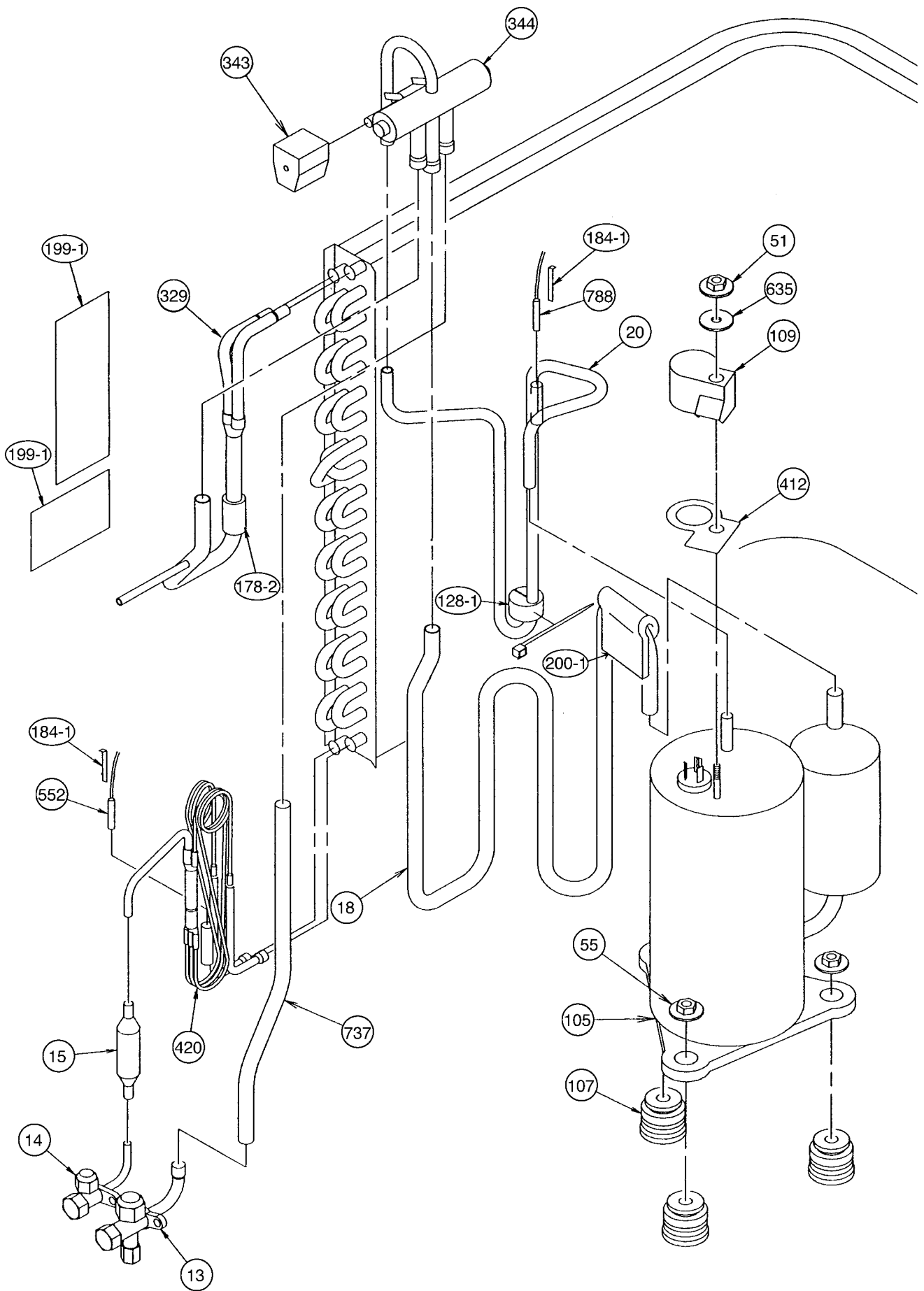
(Viewed from the solder side)

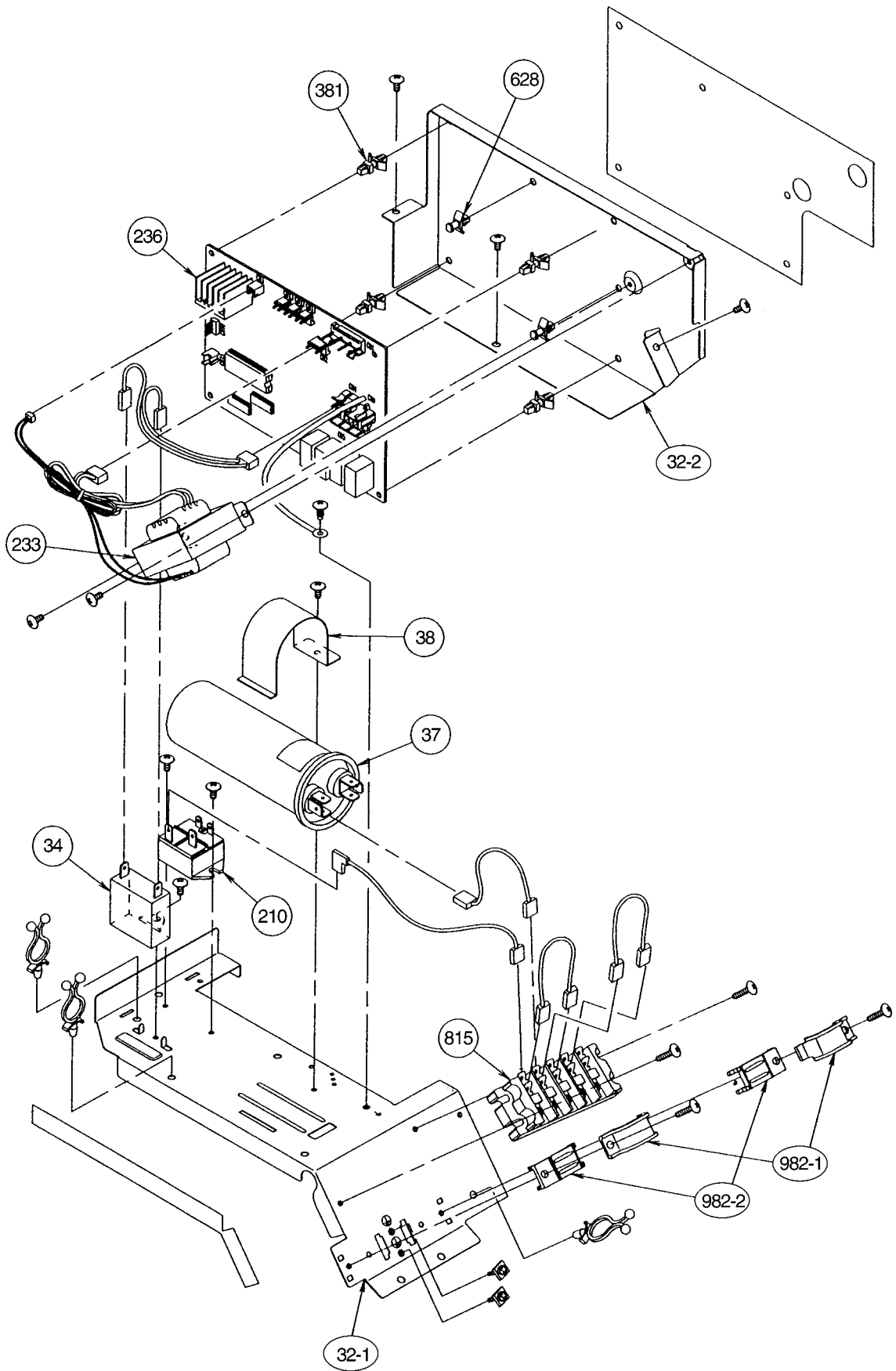


DISASSEMBLY ILLUSTRATION

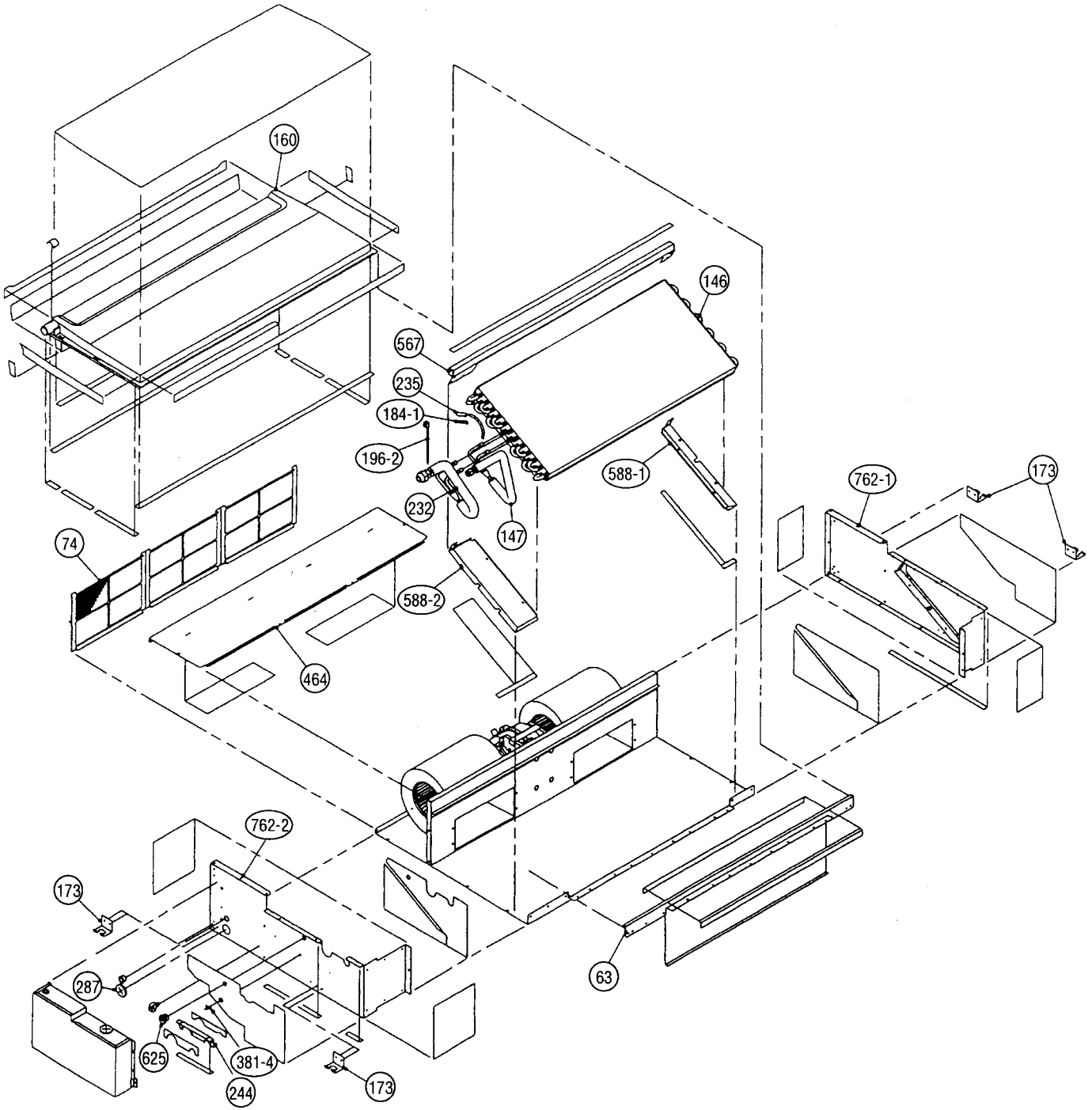
Model : ROD-14RA

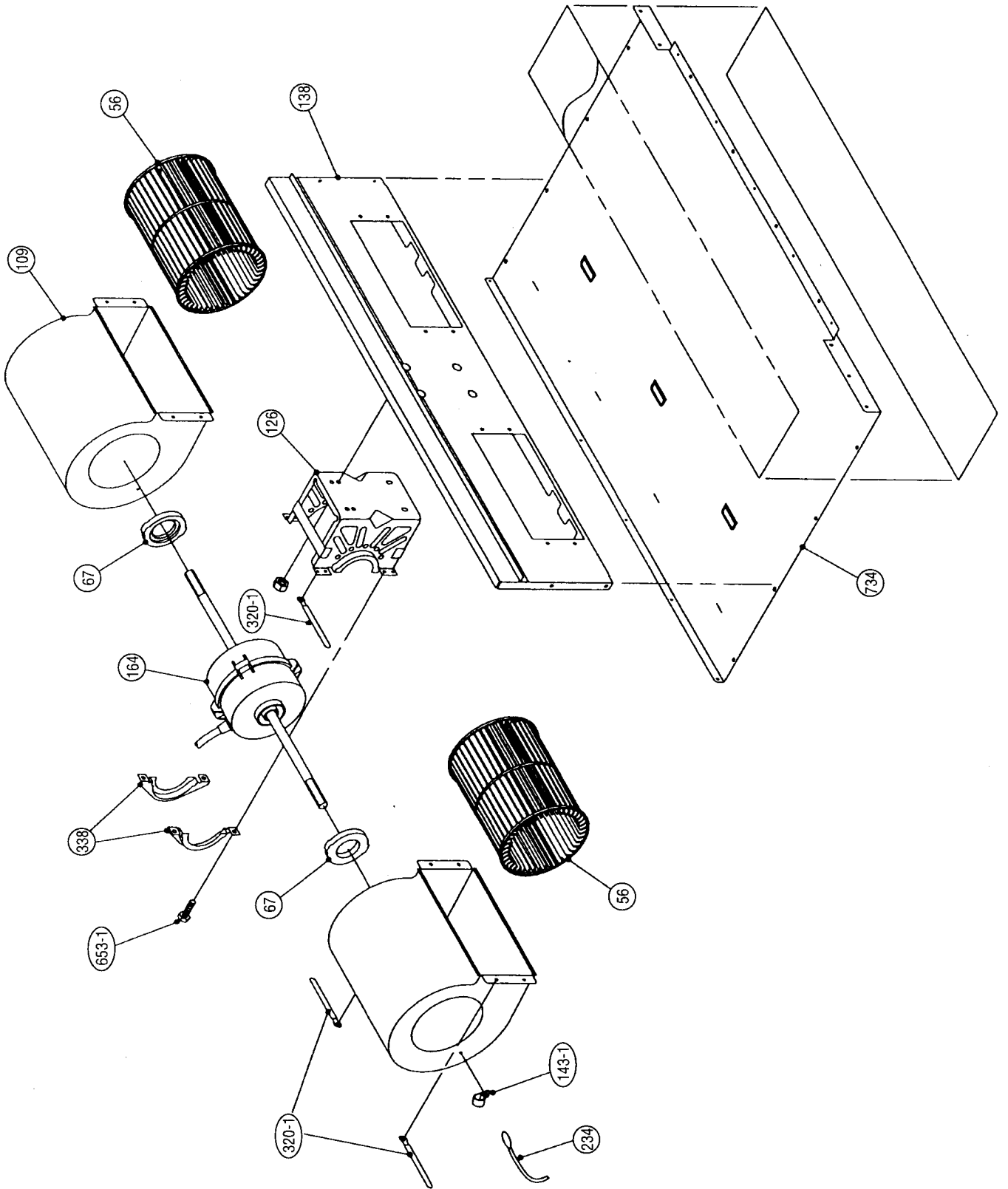


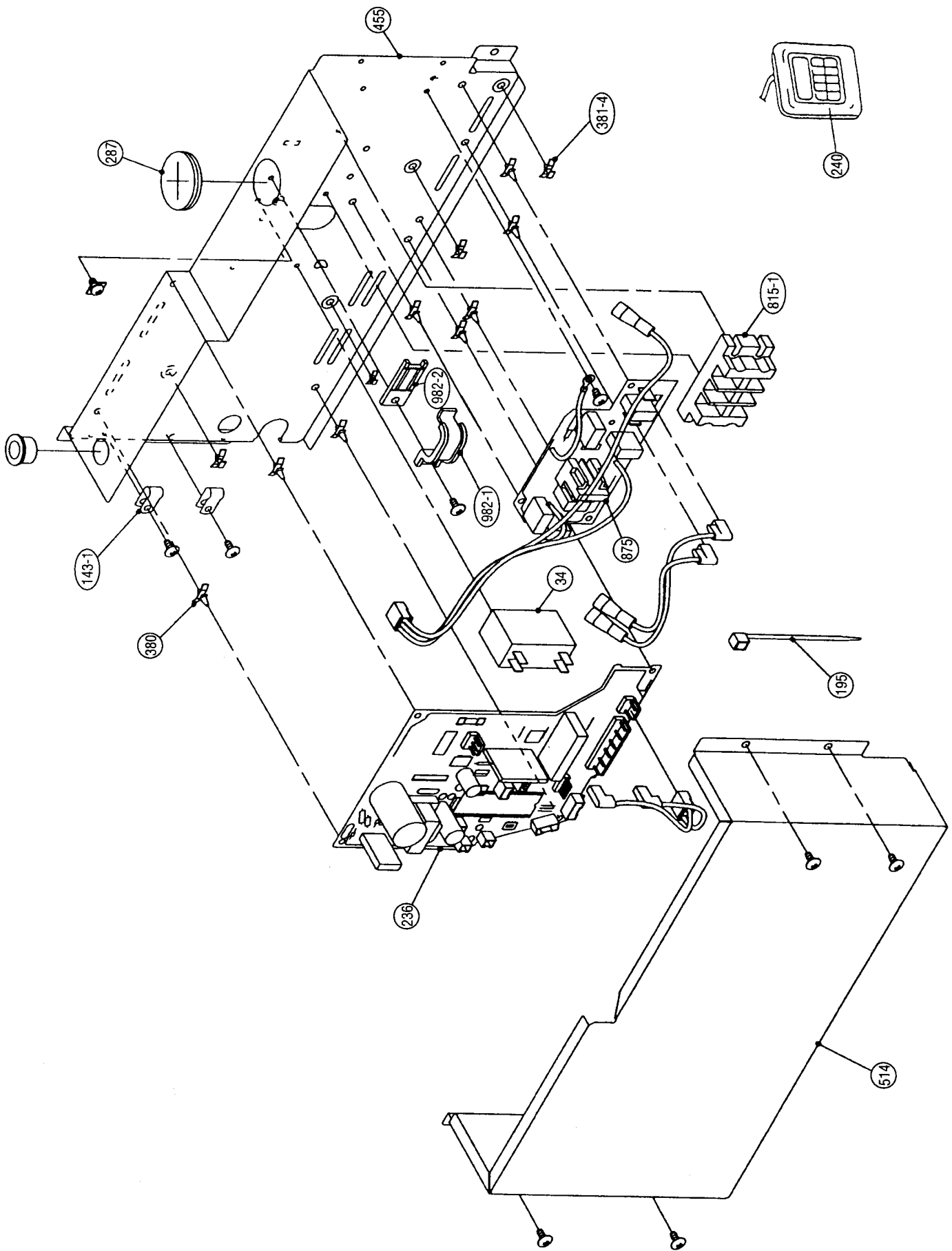




Model : RD-14RA







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
		RD-14RA				RD-14RA	
34	Capacitor (Fan Motor)	9357965017		240	Remote Control Unit	9701673049	
56	Sirocco Fan Assy	9358621004		244	Cover (Piping)	9363327007	
63	Front Panel Assy	9363723007		287	Cap (Power)	9352173011	
67	Rubber (Vibration-proof)	313659068604		320-1	Wire Clamp Metal	313483219905	
74	Intake Panel	9363326000		338	Motor Fixture	9358594001	
109	Casing Assy	9363322002		380	Locking Spacer	313209391403	
126	Motor Fixing Table Assy	9358591000		381-4	Locking Spacer	0600118075	
138	Panel Assy (Motor)	9363401004		455	Control Box	9363200003	
143-1	Clamp NK-3N	313361274700		464	Cover (Cabinet)	9363400007	
146	Evaporator Assy	9364456034		514	Control Box Cover	9363201000	
147	Inlet Pipe (Eva.) Assy	9363373004		567	Support Plate (Eva.)	9363404005	
160	Drain Pan Assy	9363405002		588-1	Bracket Eva. R	9363199000	
164	Fan Motor Assy	9600778098		588-2	Bracket Eva. L	9363198003	
173	Hook Metal	9363195002		625	Cord Bushing	9359240006	
184-1	Thermo. Spring-A	313728262708		653-1	Bolt (Fan Motor Fixing)	0700156014	
195	Clamp SKB-100	313361275805		734	Panel Top	9363504002	
196-2	Clamp SKB-150	313035356905		762-1	Side Panel-R Assy	9363507003	
232	Outlet Pipe (Eva.) Assy	9363377002		762-2	Side Panel-L Assy	9363505009	
234	Thermistor Assy-Room	9703299018		815-1	Terminal 3P	9356488005	
235	Thermistor Assy-Pipe	9703297052		875	Filter PCB Assy	9703583018	
236	Controller PCB Assy	9703582028		982-1	Cord Clamp	9356857009	
				982-2	Cord Clamp-B	9356858006	

OUTDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
		ROD-14RA				ROD-14RA	
2	Fan Cover	9304109006		210	Main Relay	9356781007	
4	Emblem-Rear	9361328006		213	Noise Insulation-B	313584258005	
5	Cabinet-A, Painted	9302936017		233	Power Transformer	9701549016	
7	Connector Cover	9357970004		236	Controller PCB Assy	9703572012	
9	Cabinet-B, Painted	9303744017		304	Thermostat Fixture-B	313349051500	
12	Base Assy, Painted	9354493032		329	Joint Pipe Assy	9352375002	
13	3-Way Valve	9364616001		343	Solenoid Coil	9359616122	
14	2-Way Valve	9364615004		344	4-Way Valve	313943302804	
15	Dryer	313523082505		373	Grip	313166178700	
16	Condenser Assy	9365325001		381	Locking Spacer	313209391506	
18	Suction Pipe	9365665008		412	Terminal Gasket	9364725000	
20	Discharge Pipe Assy	9365666005		420	Capillary Assy	9365382004	
32-1	Control Box Metal-A	9363406009		423	Noise Insulation-F	9350944019	
32-2	Control Box Metal-B	9363407006		527	Protection Net	9355444002	
34	Capacitor (Fan Motor)	9700468080		549	Thermistor Assy-Out	9357328027	
37	Running Capacitor	9356386066		552	Thermistor Assy	9701330034	
38	Capacitor Clamp	313468061808		628	Locking Spacer-B	313005446558	
39	Propeller Fan Assy	9351589011		635	Terminal Washer	9359428015	
41	Fan Motor Assy-Out	9600649107		678	Bracket (Thermistor)	313557406106	
42	Bracket (Motor)	313166243804		734	Cabinet Top Plate	9302937014	
51	Special Nut	9359430018		737	Suction Pipe-A	9357048000	
55	Special Nut M8 (For Comp.)	9355091008		744	Clamp (Condenser)	313166374106	
98	Fan Ring	313166296109		745	Motor Support	313166036308	
105	Compressor Assy	9364723006		764	Drain Cap	313166024302	
107	Rubber Seat-A (For Comp.)	9359425014		765	Drain Pipe (L-Type)	9301102000	
109	Terminal Cover (For Comp.)	9364724003		766	Drain Pipe Packing	9301143003	
128-1	Rubber (Discharge Pipe)	313155086308		788	Thermistor-Discharge	9358337011	
138	Separate Wall	9303729014		815	Terminal-5P	9356497021	
178-2	Capillary Holder Rubber	313394274808		982-1	Cord Clamp	9356857009	
184-1	Thermo. Spring-A	313728262708		982-2	Cord Clamp-C	9359677000	
199-1	BR Sheet	313612108209					
200-1	BR Sheet-B	9351990022					

[INDOOR UNIT]
CONTROLLER PCB ASSEMBLY(Ref.No.236)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.	Order Q'ty	Ref. No.	Description	Part No.	Order Q'ty
IC1	IC PD 78014HCW-027	9703514012		R45	Res. 49.9k 1%	0200279824	
IC2	IC NJM7812FA	0100462104		R63	Res. 15.4k 1%	0200279565	
IC3	IC NJM7805FA	0100462081		R64	Res. 28.0k 1%	0201114445	
IC5,6	Xstr Array PA2003GRE2	0100028041		C5	Cap.Elec 450V 100 F	0300256060	
IC7	IC BR93LC46RF-E2	0100295016		C6	Cap.Plastic 4700pF	0300269091	
IC8	IC PST600CMT	0101461120		C7	Cap. Plastic 50V 0.047 F	0300169339	
IC10	IC HI2002	9701384020		C8	Cap. Elec 25V 100 F	0301197560	
IC11	IC BA10358FE2	0101846071		C9	Cap. Elec 25V 1000 F	0301196495	
Q1	Xstr 2SC4236	0000164047		C10,11,33,36	Cap. Elec 25V 10 F	0301192312	
Q2	Xstr 2SC1815	0000002011		C12	Cap. Elec 25V 1000 F	0301158264	
Q3,4	Xstr DTC124EKA	0000936033		C13,15,34,37,39,44,45	Cap. Ceramic 50V 0.1 F	0300311752	
Q5,6	Xstr 2SC2712TE85L	0000781053		C14	Cap. Elec 25V 100 F	0301192350	
D1	Diode D3SB60	0000689045		C16,17,19-31,38,40,46,49,CJ1	Cap. Ceramic 50V 0.01 F	0300311738	
D2,4,7	Diode D1FL20U	0000746519		JM9	Res. 0	0200230016	
D3	Diode MTZJ5.1B	0000852166		C32,35,50-53	Cap. Ceramic 50V 1000p F	0300308509	
D5	Diode 1SR139-600	0000353120		C54	Cap. Ceramic 0.01 F	0300209127	
D6	Diode D2FL20U	0000906500		VA3	Varistor TNR12G471K	0000038010	
D10	Diode DA226U	0000625036		K1,2,3,4	Relay JQ1-12V	9701316014	
D12	Diode DAN202K	0000684019		CR1	Network RPEL-121204-C	9701125012	
R1	Res.Cement 5W 3.3 10%	0200153148		SW1	Switch, Slide DSS803	9701392018	
R2	Res.Metal 2W 1.5 5%	0201107119		SW2	Switch, Rotary DRS4016-5	9701694013	
R3	Res. 100 5%	0200212500		T1	Switching Transformer ETS28AS118AH	9702727017	
R4	Res.Carbon 220k 5%	0200111353		SSR1	Relay G3M-202P-UTU	9701829019	
R5	Res.Metal 2W 47k 5%	0201107652		X1	Ceramic Resonator EFOEC8384T4	9701261017	
R6	Res. 100 5%	0200731506		L2-4	EMI Filter EXCEMT103DT	0400406396	
R7	Res. 330 5%	0200708621		CJ2	Res. 0	0200212012	
R8,10,14-17,21-24,29-32,37,39,48,50,52,55,59,60,61,66,68	Res.			CN1	Plug, PCB 5-1123724-3	0501321635	
R9,47,65	Res. 390 5%	0200212647		CN4	Plug, PCB 2-1123724-2	0501321529	
R18-20,25-28,33-36,38,42,44,46,49,51,58,67	Res. 1k 5%	0200212746		CN5	Plug, PCB 5430C063	0500957026	
R40,41,62	Res. 4.7k 5%	0200212906		CN6	Plug, PCB 3-1123724-2	0501321536	
R43	Res. 10k 1%	0200279497		CN7	Plug, PCB B2B-XAKK-1-A	0501045227	
				CN8	Plug, PCB B2B-XASK-1-A	0501045012	
				CN9	Plug, PCB B5P-SHF-1AA	0500006069	
				CN14	Plug, PCB B4B-XH-AM	0500005314	
				CN15	Plug, PCB B3B-XARK-1-A	0501045319	
				CN17	Plug, PCB B3B-XAKK-1-A	0501045357	

FILTER PCB ASSEMBLY(Ref.No.875)

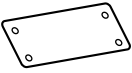











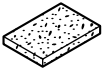
Ref. No.	Description	Part No.	Order Q'ty	Ref. No.	Description	Part No.	Order Q'ty
F101	Fuse 2183.15	0600285210		C105,106	Cap. Plastic 0.022 F	0301052098	
FH1,2	Fuse Holder PFC5000-0502	0500158072		LF101	EMI Filter ELF17N015A	0400197119	
SA101	Arrester DSA-362MA-05	0600168032		E101	Wire w/Terminal GRN L=100	9702313012	
TM101,102	Plug Contact 86028	0500536016		W103,104	Wire w/Terminal 3P	9702310059	
C101,102	Cap. Plastic 0.22 F	0300304099		VA101,102	Varistor TNR12G471K	0000038010	

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





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Ref. No.	Description	Part No.	Order Q'ty	Ref. No.	Description	Part No.	Order Q'ty
IC1	IC PD 78081CU-011	9701721016		C17	Cap.Elec 25V 100 F	0300051375	
IC2	IC HU2001	9701651016		C20,23,26,35	Cap.Ceramic 50V 1000pF	0300011096	
IC3	IC PST600D-2-TP	0101461113		C33	Cap. Elec 50V 2200 F	0300915417	
IC4	IC NJM7805FA	0100462081		F1	Fuse 2183.15	0600285210	
IC5,6	IC BA12003	0101650012		RC1	CR Module	0200301020	
O1	Xstr 2SD880	0000001014			ARCL14FS103J102J103M		
O2,3	Xstr DTC124ES	0000517010		CR1,3	CR Absorber RPEL-121204-C	9701125012	
D1	Diode D2SB20	0000599023		SA1	Arrester DSA-362MA-05	0600168032	
D2	Diode MTZJ15C	0000852203		K1-3	Relay JQ1-12V	9701316014	
D3-5	Diode 1SR139-400	0000353137		L1	EMI Filter SU16VF-15030	0400134114	
D6	Diode 1SS133	0000572019		VA1,4	Varistor TNR12G471K	0000038010	
R1,2	Res. Carbon 1/4W 5.6k 5%	0200994192		HT1	Heat Sink PUG 26-25	9701428014	
R3,6,10-12,14,16,18,20,24	Res. Carbon 1/4W 1k 5%	0200994017		FH1,2	Fuse Holder PFC5000-0502	0500158072	
R4,26	Res. Carbon 1/4W 4.7k 5%	0200994178		X1	Ceramic Resonator EFDEC5004T4Z	9701261024	
R5,7-9,13,21-23,25	Res. Carbon 1/4W 10k 5%	0200994253		LED1,2	Diode SLR-325VC RED	0000813259	
R15,17	Res. Metal 14k	0201028612		CN1	Plug, PCB 53406-9110	0500981086	
R19	Res. Metal 6.65k	0201028766		CN2	Plug, PCB B2P3-VH-B-R	0500011766	
C1,4	Cap. Plastic 0.1 F	0300894835		CN3	Plug, PCB B2B-XH-AM	0500005321	
C2,3	Cap. Ceramic 4700pF	0300727546		CN4	Plug, PCB 53331-0210	0501033019	
C5	Cap. Elec 50V 2200 F	0301206026		CN5	Plug, PCB B4P7-VH-B	0500011742	
C6,7,21,24,27	Cap. Elec 50V 10 F	0300004258		CN9	Plug, PCB 179844-1	0501121013	
C8,18,19,22,25,28,29,34,36	Cap. Ceramic 0.1 F	0300988251		CN10	Plug, PCB B4P-SHF-1AA	0500006038	
C9-11,14-16,30	Cap. Ceramic 0.01 F	0300013113		CN11	Plug, PCB B2P-VH-B	0500011124	
				CN12	Plug, PCB B2P-VH-B-C	0500011568	
				CN13	Plug, PCB B2P-VH-B-R	0500011148	
				CN15	Plug, PCB B2B-XASK-1-A	0501045012	
				E	Wire w/Terminal GRN L=210	9701325016	

INDOOR UNIT ACCESSORIES

Name and Shape	Q' ty	Application	Part No.
Installation template 	1	For positioning the indoor unit	9364225005
Hook metal 	4	For suspending the indoor unit from ceiling	9363195002
Tapping screw (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 insulator (large) 	1	For indoor side pipe joint (large pipe)	9350716029
Coupler heat insulator (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	For installing the hanger	9701673049
Remote control unit cord clamp 	10	For installing remote control unit cord	313714181904
Tapping screw (flush heads) 	10	For installing the remote control unit 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	Part No.
Hexagon wrench 	1	For vacuum	301980005800
Drain pipe packing 	1	For outdoor unit drain piping work (May not be supplied, depending on the model)	9301143003
Drain pipe 	1		9301102000
Cap (drain) 	2		313166024302



MANUFACTURER :

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