

**HIGH POWER MULTI  
AIR CONDITIONER  
WALL MOUNTED type**

# **SERVICE MANUAL**

<b>Models</b>	<b>Indoor unit</b>	<b>Outdoor unit</b>
	ASU9RD	AOU18RD

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

INDOOR UNIT		ASU9RD	ASU9RD x 2
OUTDOOR UNIT		AOU18RD	
COOLING CAPACITY	(BTU/hr)	9,300 - 9,600	18,600 - 18,800
HEATING CAPACITY		10,300 - 10,700	20,500 - 21,500

## ELECTRICAL DATA

POWER SOURCE		(V)	208 - 230
FREQUENCY		(Hz)	60
RUNNING CURRENT	(A)	COOLING	4.9 - 4.6
		HEATING	4.6 - 4.4
INPUT WATTS	(W)	COOLING	1,000 - 1,030
		HEATING	940 - 980
SEER			10.5
MOISTURE REMOVAL		Pts/hr (ℓ/hr)	2.1 (1.0)
AIR CIRCULATION-Hi		(m <sup>3</sup> /hr)	510

## COMPRESSOR

TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor		
CODE	QK151KAA 208 - 230V 60Hz		
REFRIGERANT	R-22	lbs (g)	1.98 (900) x 2

## FAN MOTOR

POWER SOURCE		(V)	208 - 230
INDOOR UNIT	HI	COOL/HEAT (r.p.m.)	1,320 ± 20 / 1,300 ± 20
	MED	COOL/HEAT (r.p.m.)	1,210 ± 20 / 1,200 ± 20
	LO	COOL/HEAT (r.p.m.)	1,100 ± 20 / 1,080 ± 20
	QUIET	COOL/HEAT (r.p.m.)	1,000 ± 20 / 960 ± 20
OUTDOOR UNIT		(r.p.m.)	650 ± 50 / 750 ± 50

## DIMENSIONS

INDOOR UNIT	H x W x D inch (mm)	11 (280) x 32-1/8 (815) x 7 (179)
OUTDOOR UNIT		25-6/16 (643) x 33-1/16 (840) x 13-3/16 (335)

## WEIGHTS

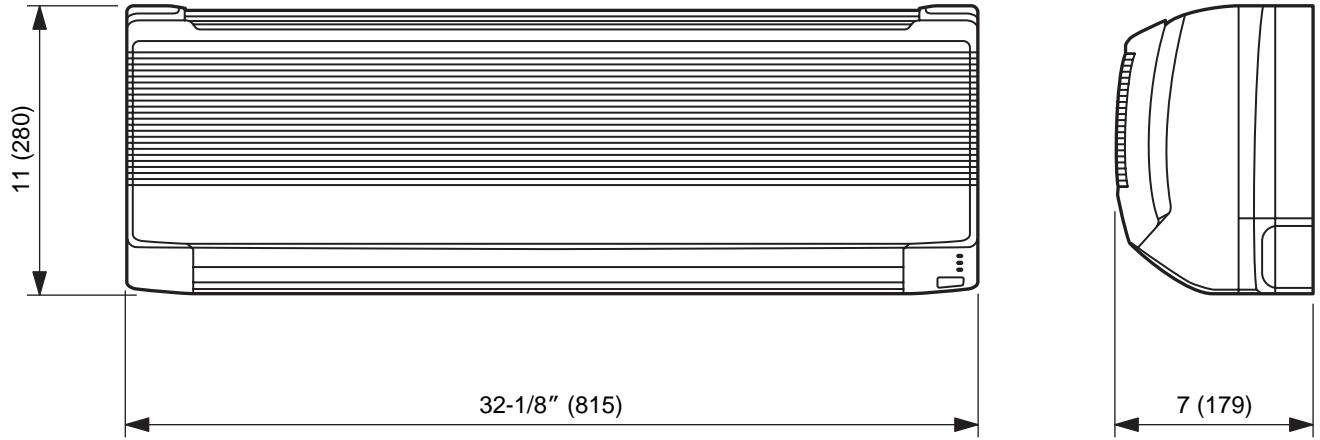
INDOOR UNIT	GROSS / NET lbs (kg)	26 / 22 (12 / 10)
OUTDOOR UNIT		168 / 150 (76 / 68)

# OUTLINE AND DIMENSIONS

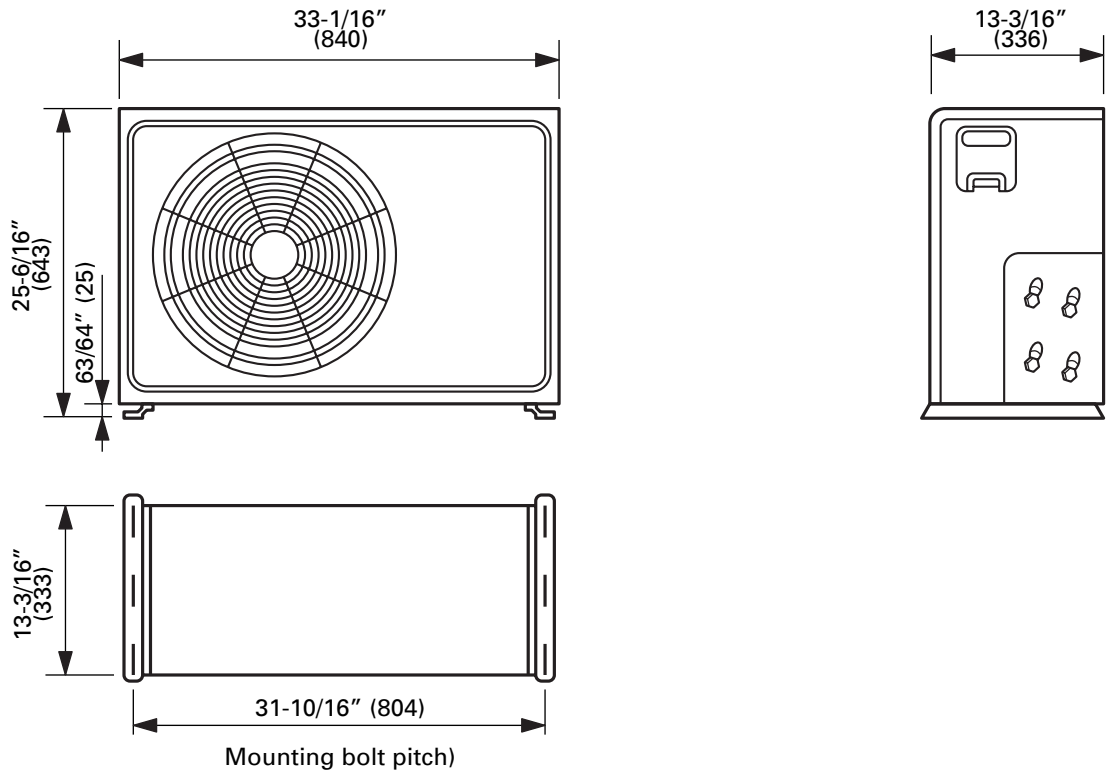
Models : ASU9RD / AOU18RD

Unit : inch (mm)

## INDOOR UNIT

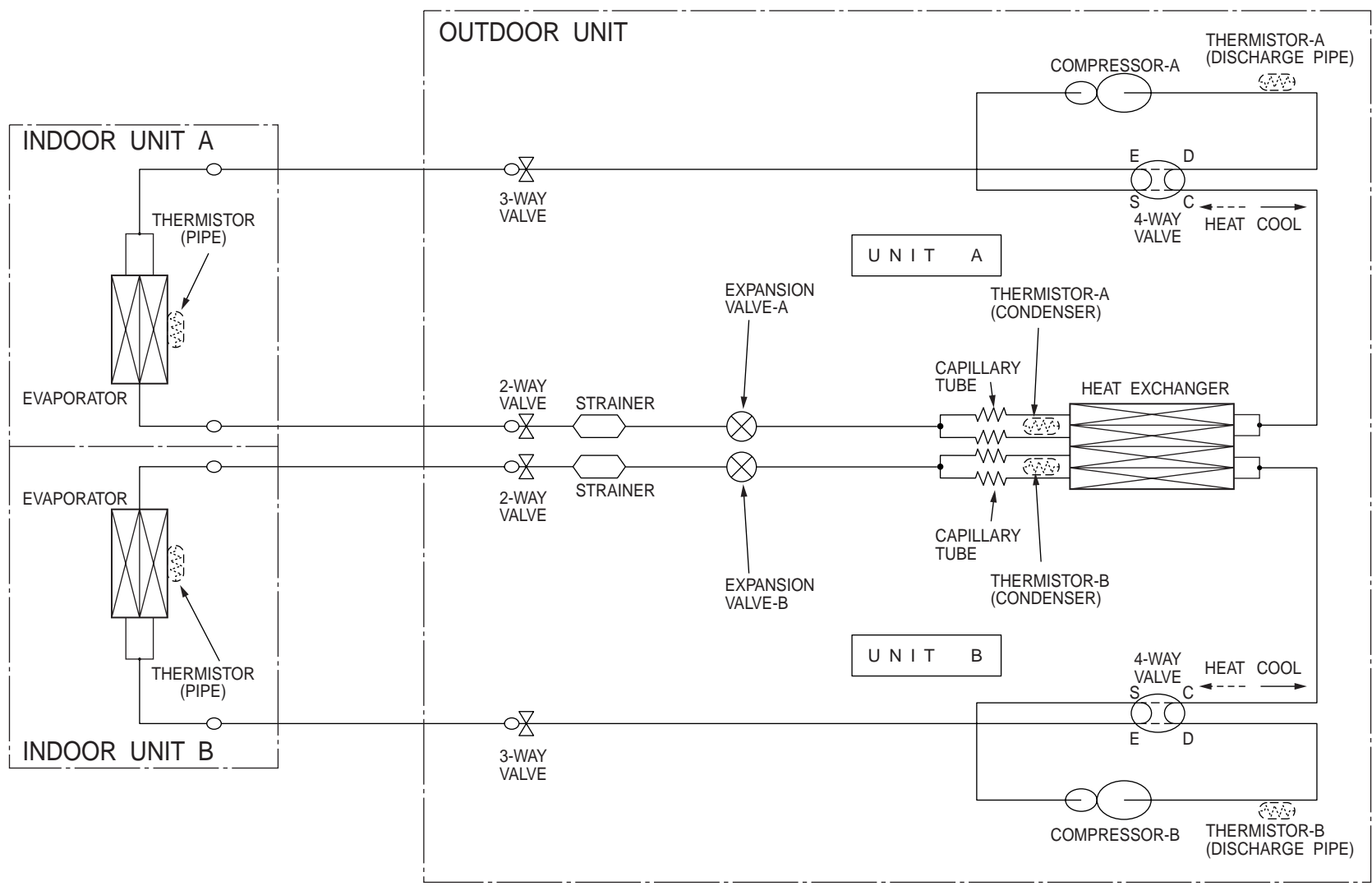


## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM

Models : ASU9RD x 2 / AOU18RD

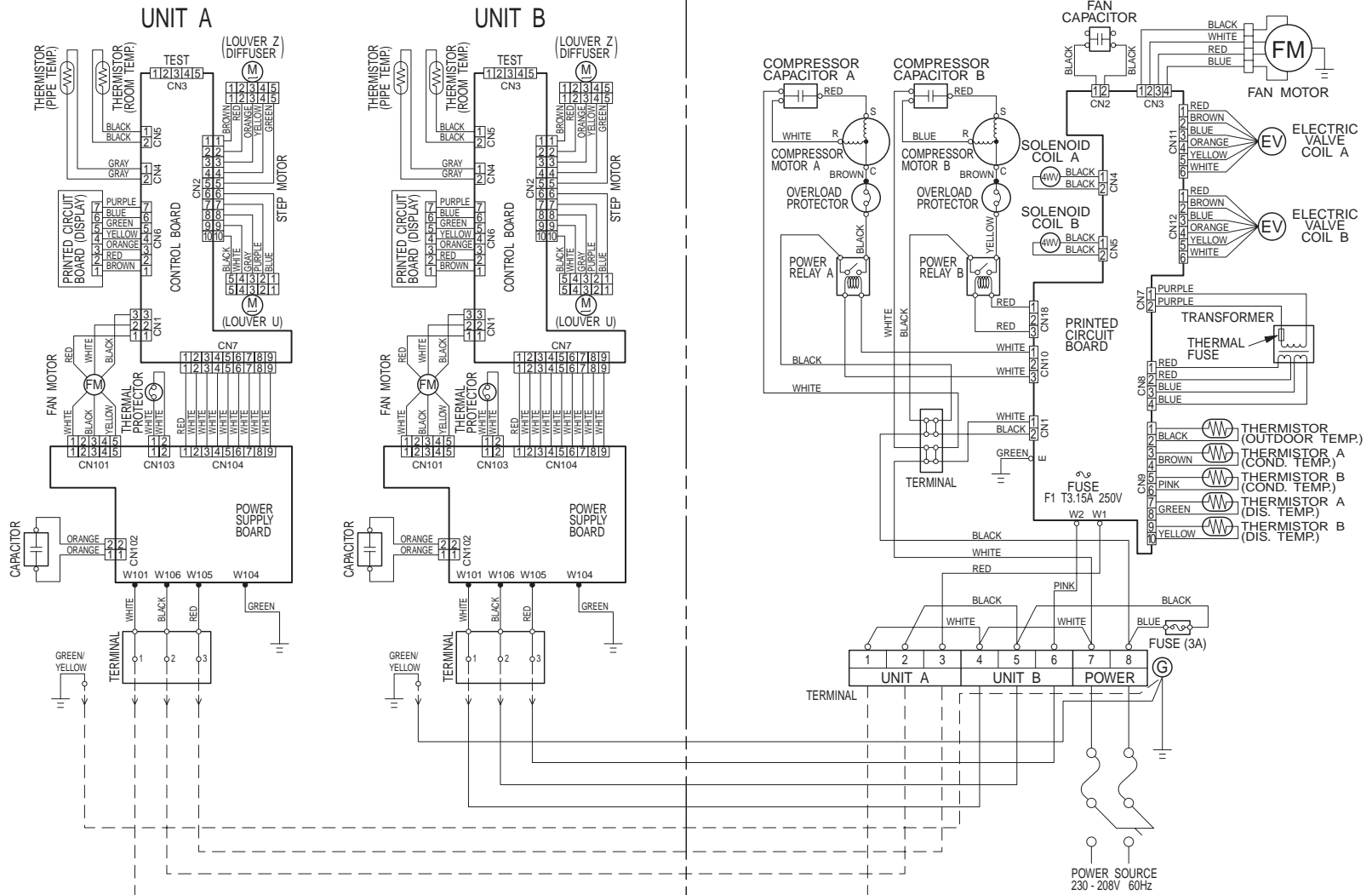


# CIRCUIT DIAGRAM

Models : ASU9RD x 2 / AOU18RD

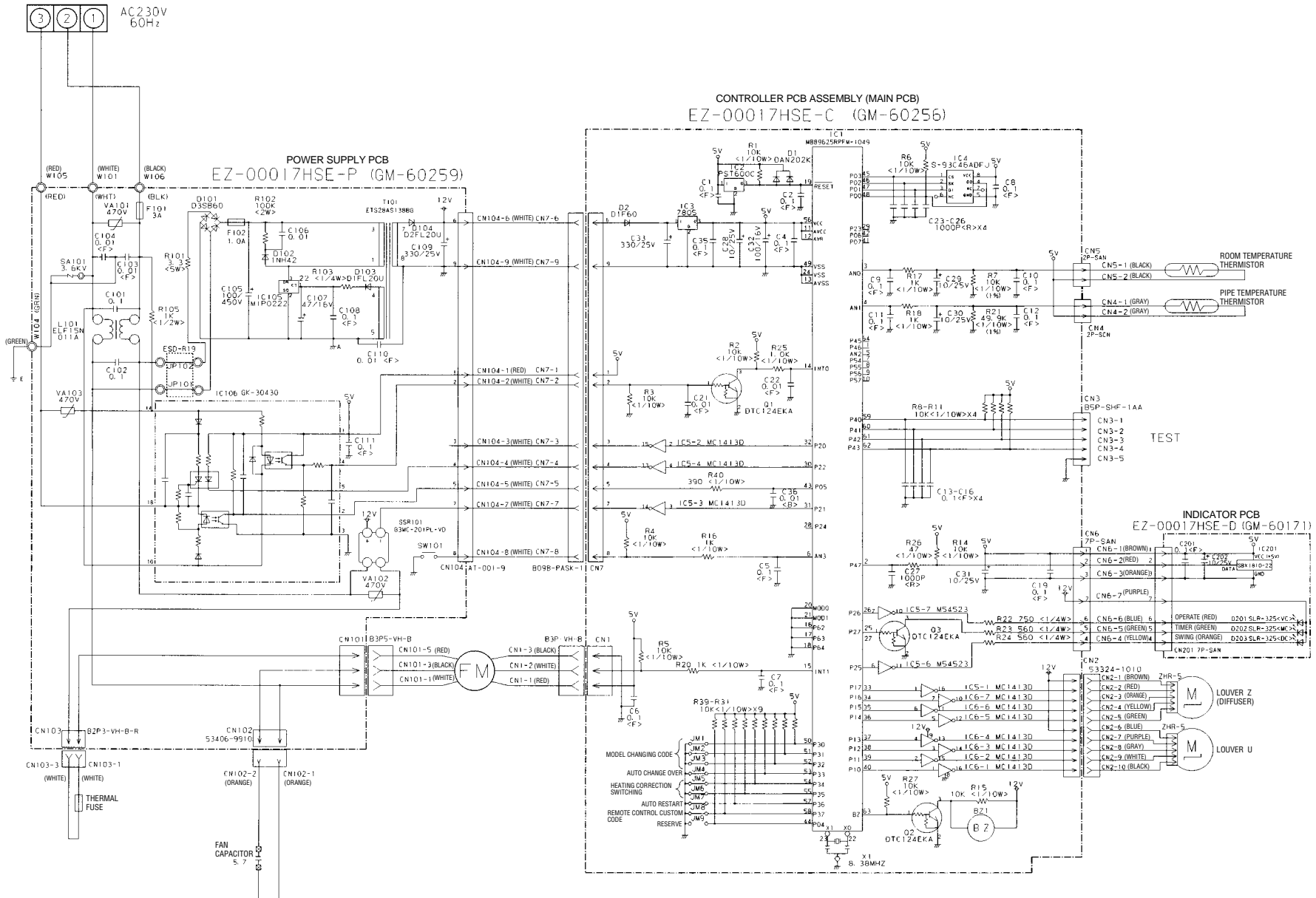
## INDOOR UNIT

## OUTDOOR UNIT



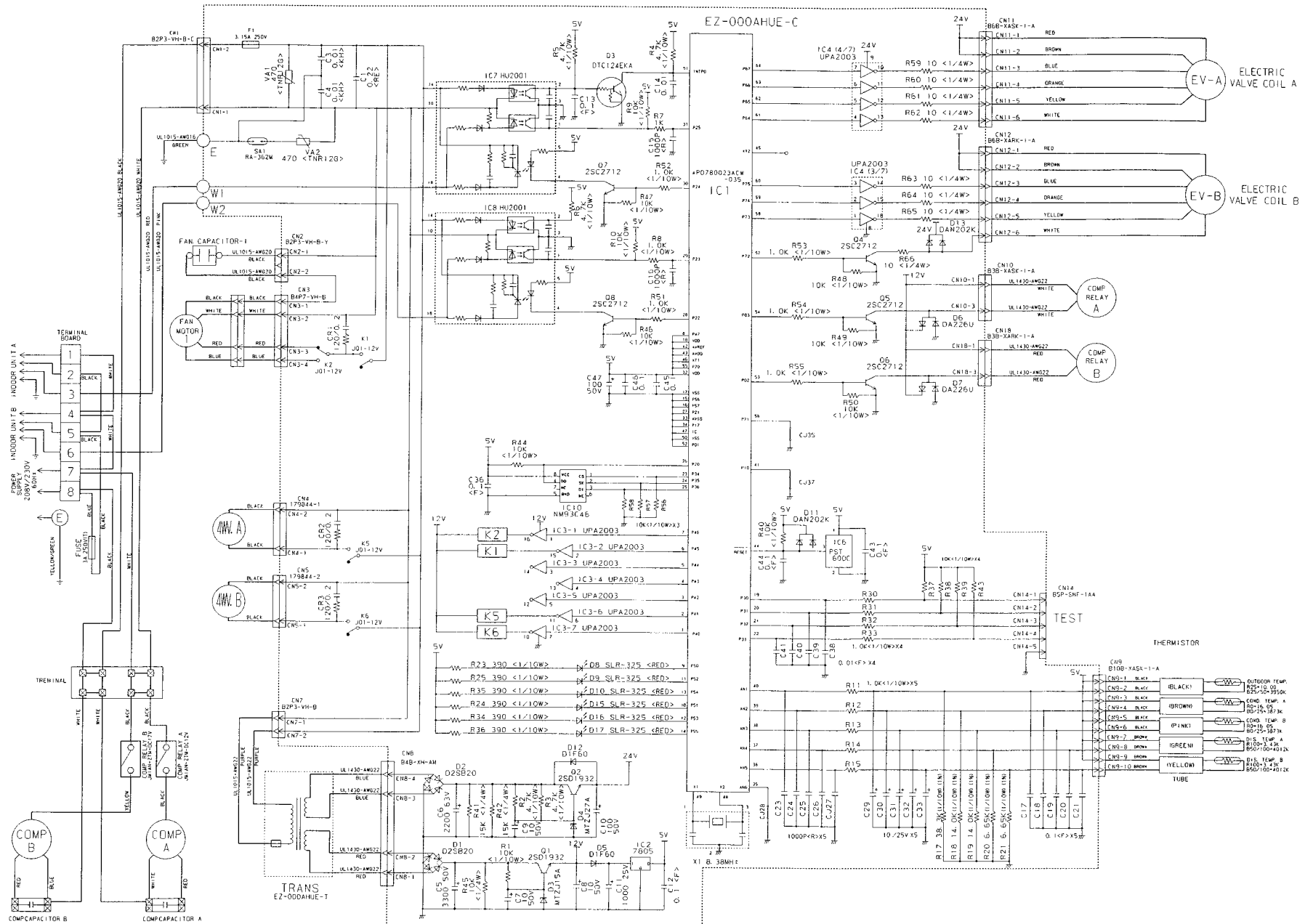
# INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

Model : ASU9RD



# OUTDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

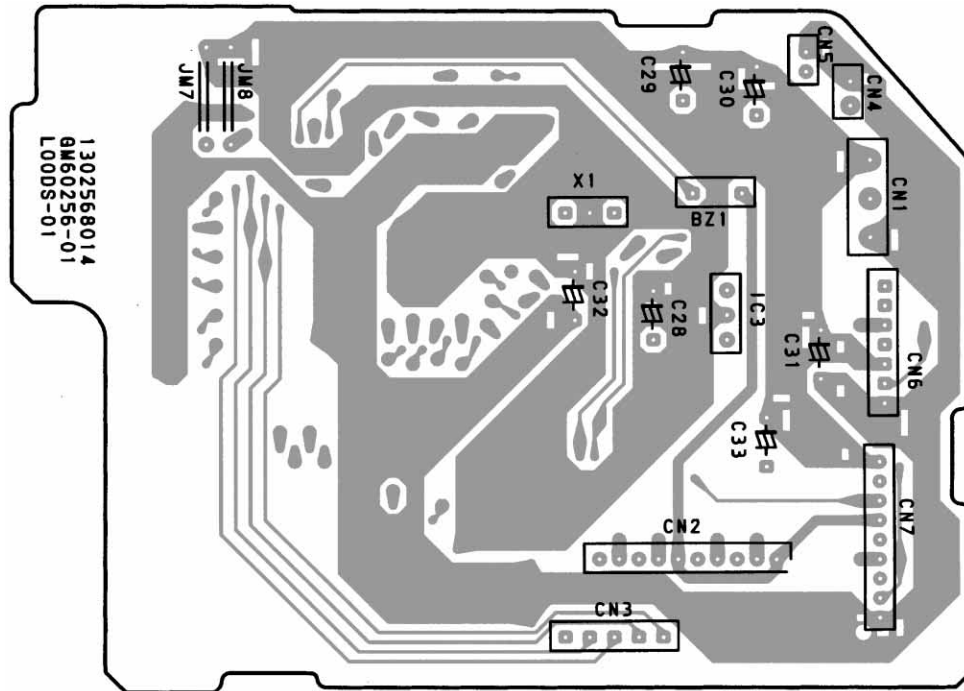
Model : AOU18RD



# INDOOR P.C. BOARD LAYOUTS

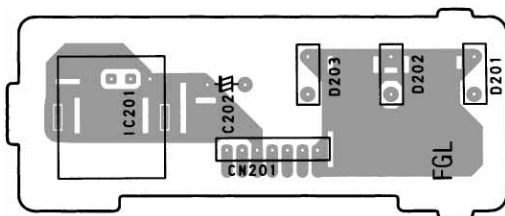
## CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

(Viewed from the solder side)



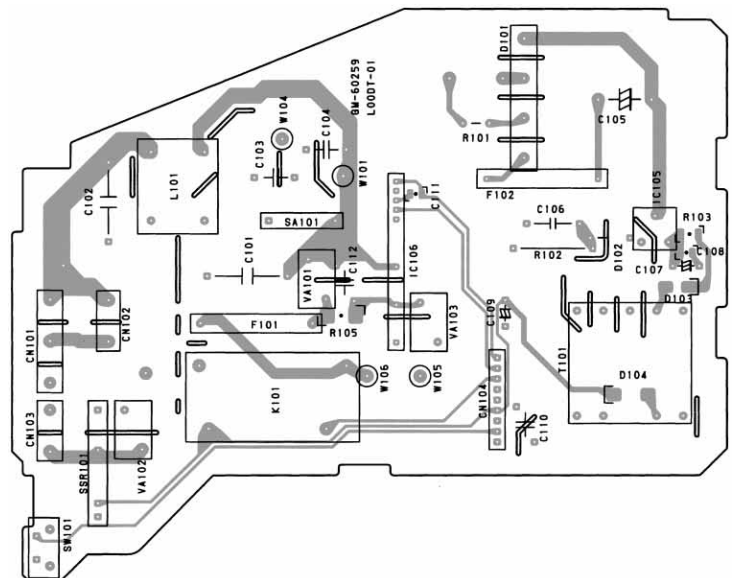
## INDICATOR P.C. BOARD ASSEMBLY

(Viewed from the solder side)



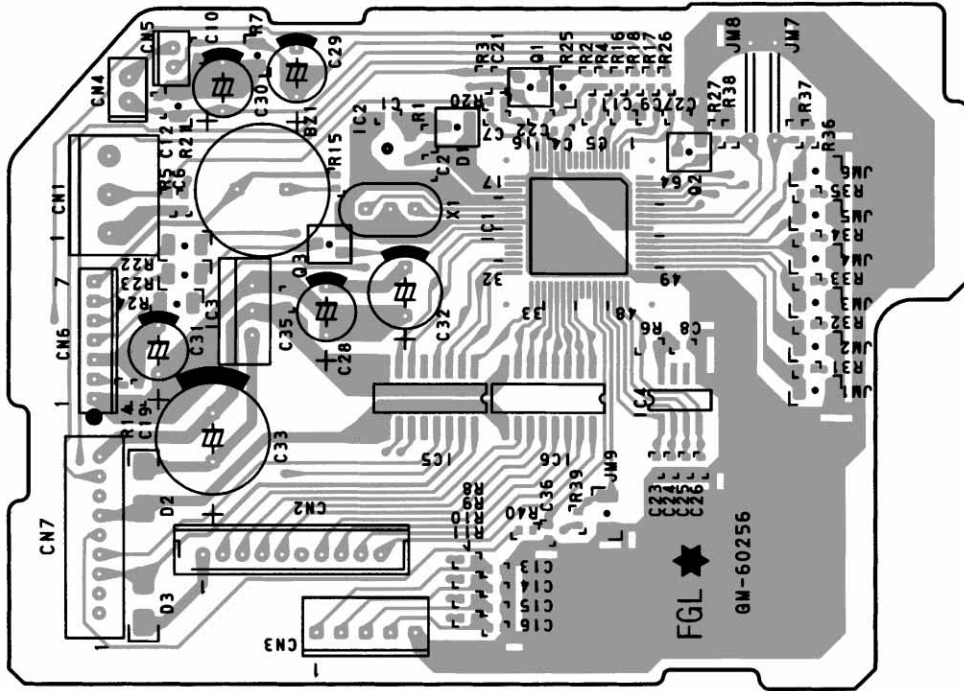
## POWER SUPPLY P.C. BOARD ASSEMBLY

(Viewed from the solder side)



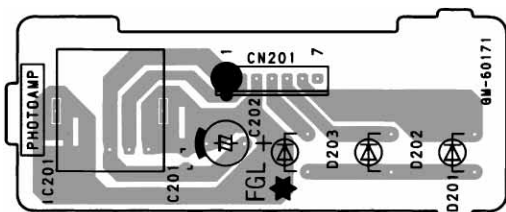
## CONTROLLER P.C. BOARD ASSEMBLY (MAIN PCB)

(Viewed from the component side)



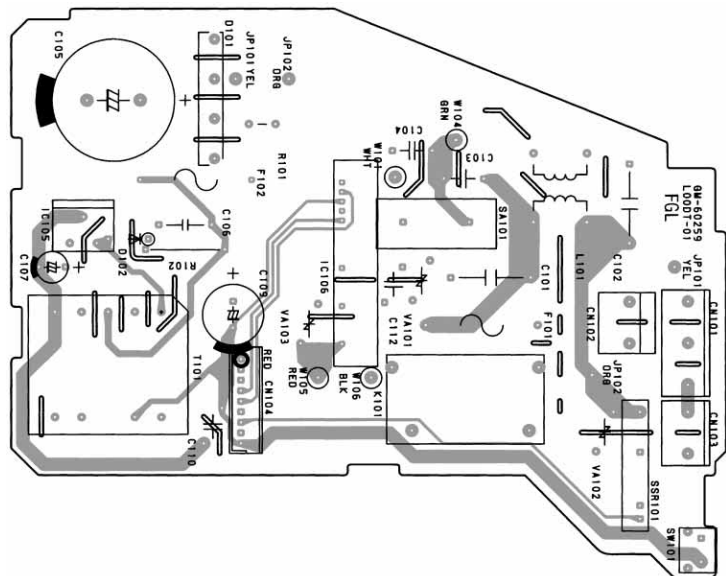
## INDICATOR P.C. BOARD ASSEMBLY

(Viewed from the component side)



## POWER SUPPLY P.C. BOARD ASSEMBLY

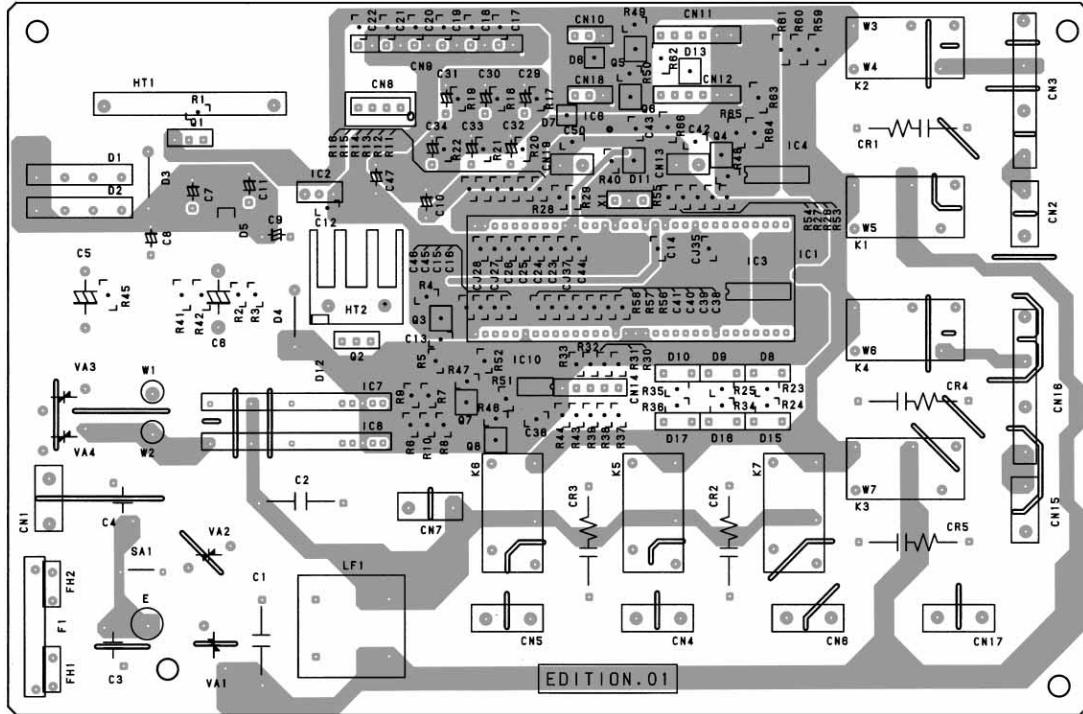
(Viewed from the component side)



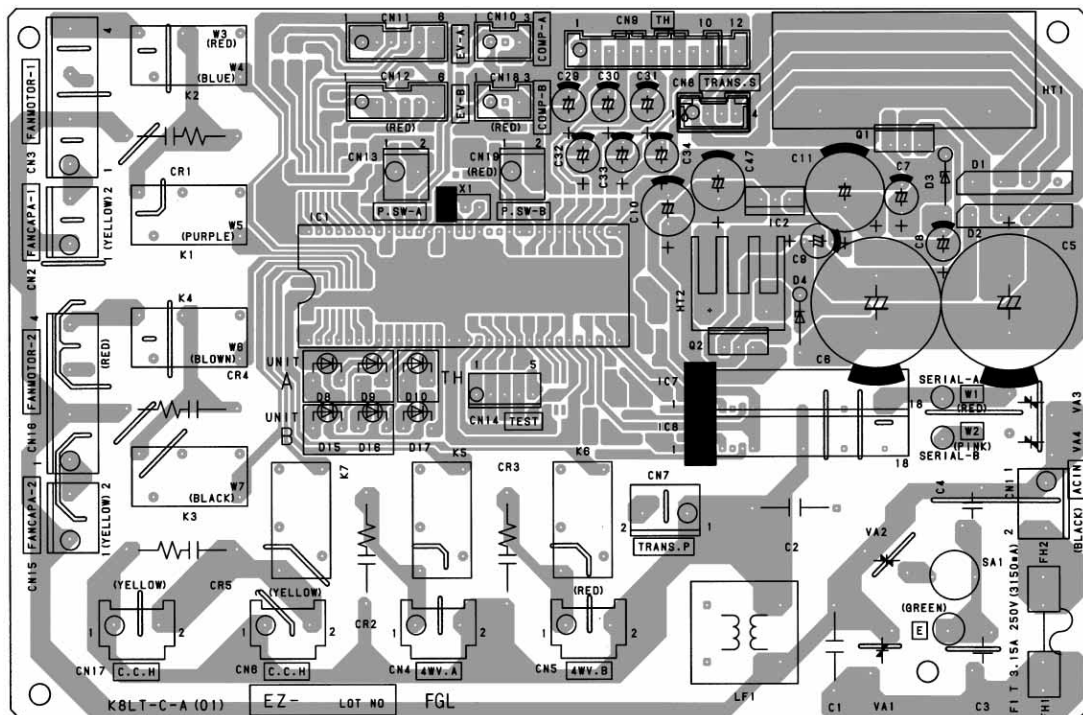
# OUTDOOR P.C. BOARD LAYOUTS

## CONTROLLER P.C. BOARD ASSEMBLY

(Viewed from the solder side)

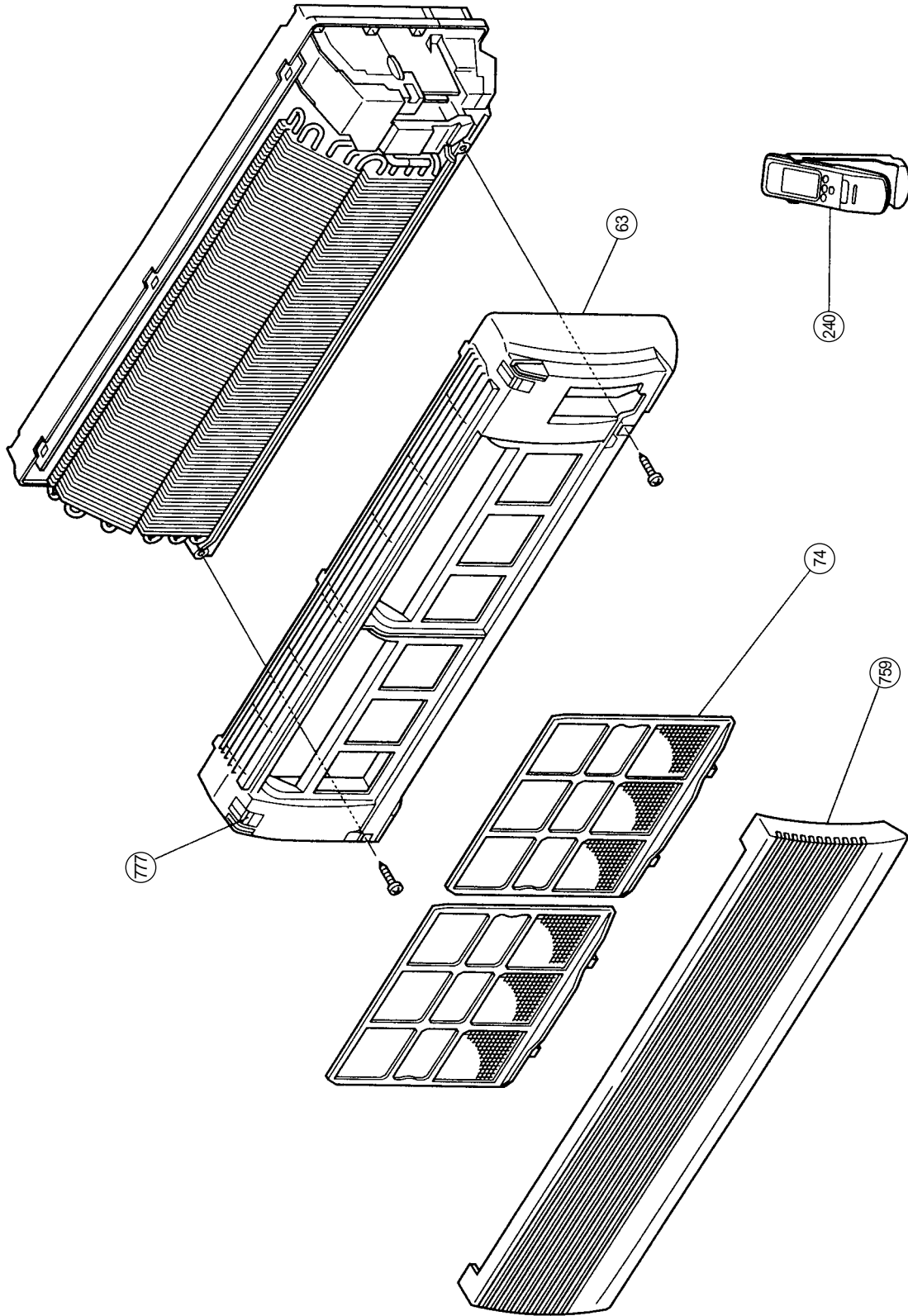


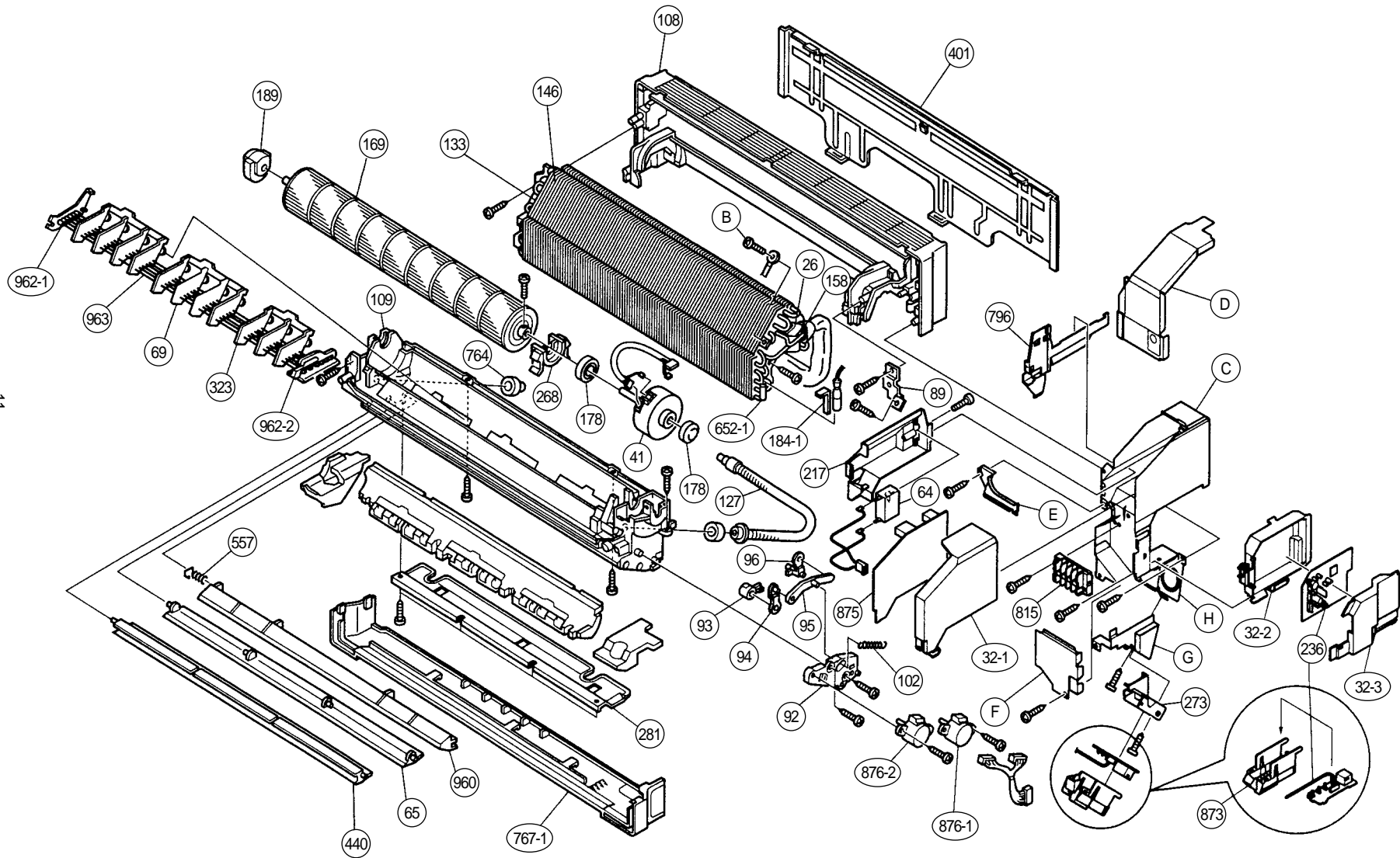
(Viewed from the component side)



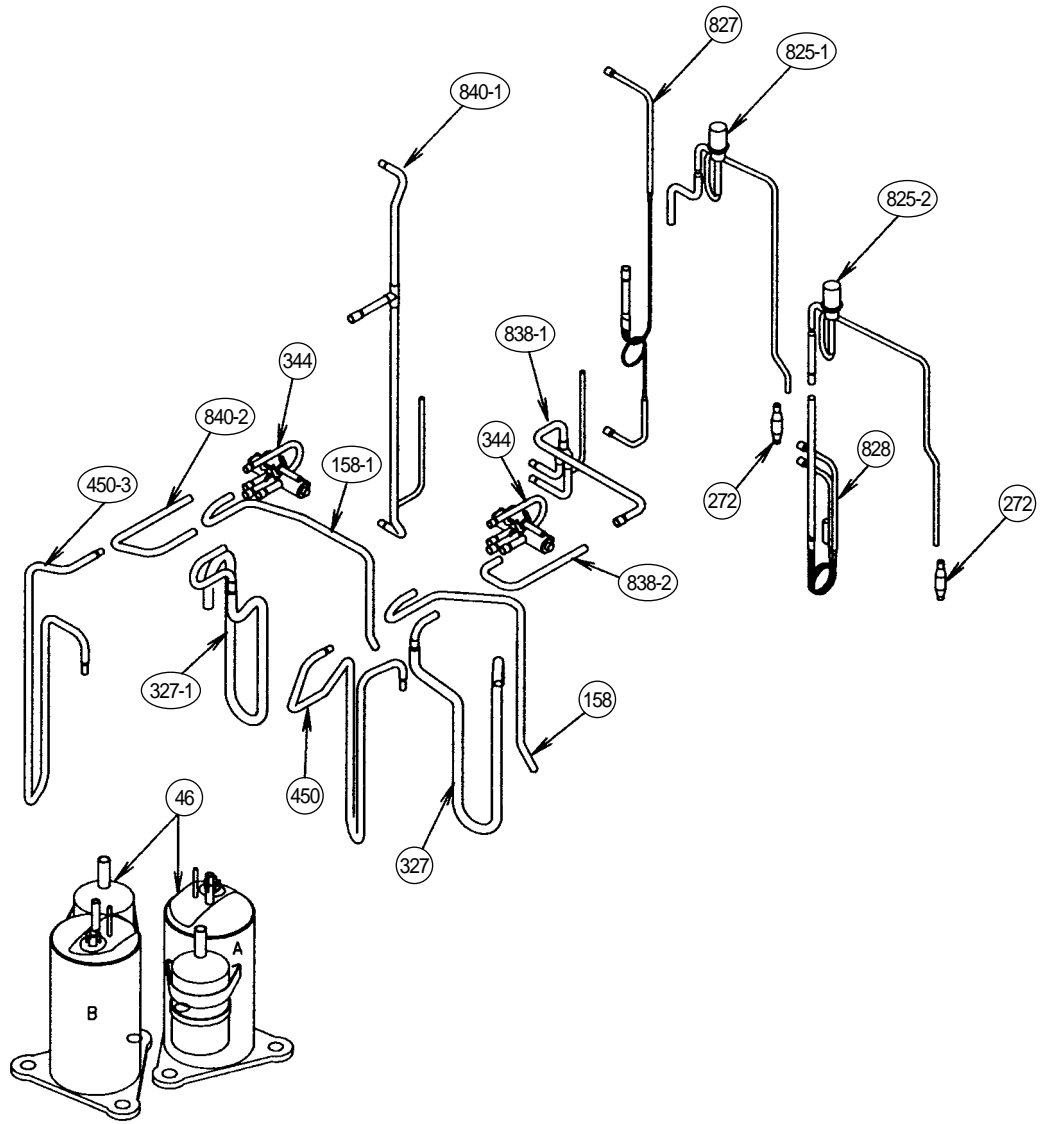
# DISASSEMBLY ILLUSTRATION

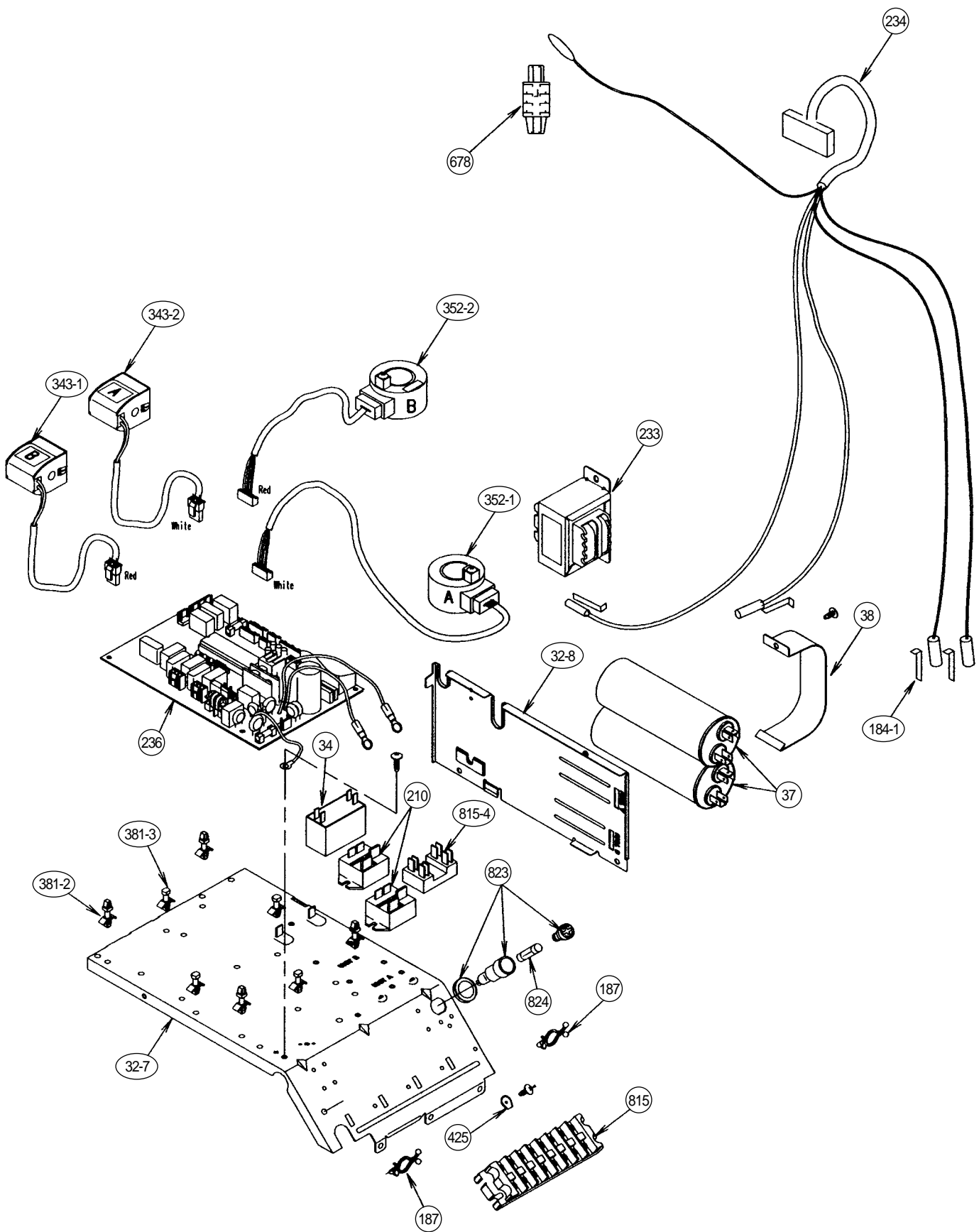
Model : ASU9RD

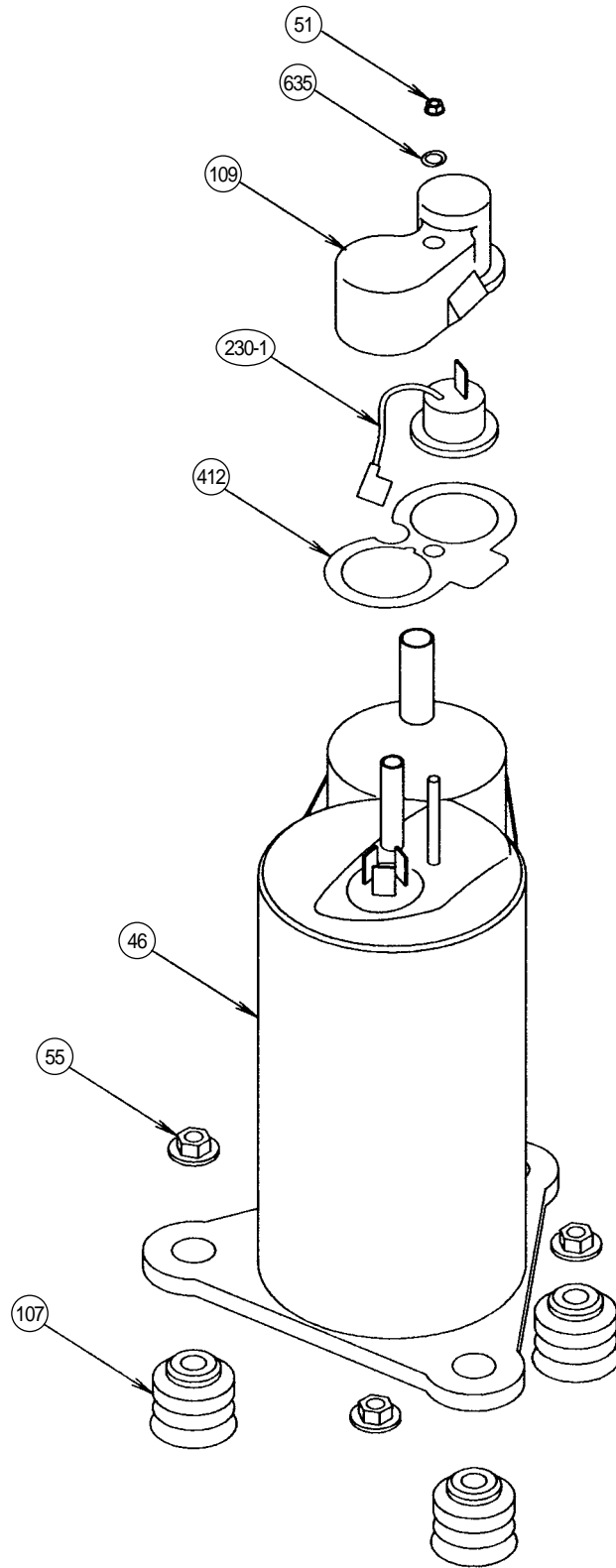












## PARTS LIST

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.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
26	BR Sheet 40 x 80 x T5	9305039043		268	Motor Cover-B	9306582012	
32-1	Control Box-A	9309045019		273	Lamp Cover Holder	9309048010	
32-2	Control Box-B	9309046016		281	Clamp Metal (Pipe)	9306607012	
32-3	Control Box-C	9309055018		323	Louver-B	9306584016	
41	Fan Motor Assy -In	9600881026		385	Indicator PCB Assy GM-60171	1301967016	
63	Front Panel Assy w/o Filter	9306817176		401	Wall Hook Bracket	9306588014	
64	Capacitor (Fan Motor) 7 $\mu$ F/ 200V	9700468103		440	Flow Control Panel-U	9306570019	
65	Flow Control Panel-Z	9306571016		557	Diffuser Spring	9306611019	
69	Louver-A	9306583019		652-1	Therm. Holder Pipe	313714262805	
74	Filter	9306601010		759	Intake Grille	9307130052	
89	Casing Fixture Metal	9307018008		764	Drain Cap Assy	9304150008	
92	Link Plate	9306577018		767-1	Bottom Cover-A	9306567019	
93	Link-A	9306573010		777	Intake Grille Clamp	9306755010	
94	Link-B	9306574017		796	Control Box-D	9309049017	
95	Link-C	9306575014		815	Terminal 4P	9703455018	
96	Link-D	9306576011		873	Lamp Cover	9306593025	
102	Link Spring	9306610012		875	Power Supply PCB Assy	9704125019	
108	Base	9306566012			EZ-00017HSE-P		
109	Casing	9306569013		876-1	Step Motor	9305780006	
127	Drain Hose Assy	9305550029		876-2	Step Motor	9305892006	
133	Evaporator Cover	9306606015		960	Diffuser	9306572013	
146	Evaporator Assy	9308200013		962-1	Guard Holder-L	9307229015	
158	Connecting Pipe Assy	9309515017		962-2	Guard Holder-R	9307228018	
169	Cross-flow Fan Assy	9307836015		963	Fan Guard Metal Rod	9305751020	
178	Motor Cushion-A (Fan Motor)	9303528006		B	Screw(w/Spring Washer)	0700179013	
184-1	Thermistor Spring-A	313728262708		C	Control Box Assy	9309044012	
189	Shaft Holder-C	9306628017		D	Control Box Cover A	9309039018	
217	Capacitor Holder	9309047013		E	Control Box Cover B	9309040014	
236	Controller PCB Assy EZ00017HSE-F	9704124012		F	Control Box Cover C	9309041011	
				G	Control Box Cover D	9309042018	
240	Remote Control Unit AR-FB5	9366645016		H	Conduit Holder	9309043015	

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

### OUTDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
2	Fan Cover	9363678000		272	Strainer Assy	9366602019	
4	Emblem Rear	9351355005		327	Suction Pipe-A Assy	9366572008	
5	Cabinet-A, Painted	9303876015		327-1	Suction Pipe-B Assy	9366578000	
6	Cabinet-C, Painted	9352674006		338	Motor Fixture	313029297108	
7	Panel (Top)	9357971018		343-1	Solenoid Coil	9704046024	
9	Cabinet-B, Painted	9353629012		343-2	Solenoid Coil	9704046017	
10	Noise Insulation-E	313791106305		344	4-Way Valve	313947302811	
12	Base Assy, Painted	9352577017		352-1	Expansion Coil-A	9366562016	
13	3-Way Valve	9357968001		352-2	Expansion Coil-B	9366563013	
14	2-Way Valve	9357969008		363	Bracket (Compressor)	9363840001	
16	Condenser Assy	9366566007		365	Bracket (3-Way Valve)	9355842020	
29	Separate Wall	313111033209		381-2	Locking Spacer KGLS-8S	0600035020	
32 -7	Control Box Metal-U	9365924006		381-3	Locking Spacer KGPS-8S	0600118051	
32 -8	Control Box Metal-S	9365925003		412	Terminal Gasket	9362004008	
34	Capacitor (Fan Motor)	9355306010		423	Noise Insulation-F	9350944019	
37	Running Capacitor	9356386035		425	Earth Terminal	9355678001	
38	Capacitor Band	9352123009		450-3	Discharge Pipe-B Assy	9366577003	
39	Propeller Fan Assy	9300855013		450	Discharge Pipe-A Assy	9366571001	
41	Fan Motor Assy-Out	9600738139		635	Terminal Washer	9359428015	
45	Motor Fixing Table Assy	313029311100		678	Bracket (Thermistor)	313557406106	
46	Compressor Assy	9366567004		717	Center Plate	9363776003	
51	Special Nut	9359430018		815	Terminal 8P	9358659021	
55	Special Nut M8	313252257701		815-4	Terminal 2P	9701971015	
67	Rubber	313659068604		823	Fuse Holder	0500802111	
107	Rubber Seat-A	9359425014		824	Fuse 3A-250V	0600106546	
109	Terminal Cover	9363263008		825-1	Expansion Valve-A Assy	9360821034	
158	Connect Pipe A1	9366570004		825-2	Expansion Valve-B Assy	9360822031	
158-1	Connect Pipe B1	9366576006		827	Capillary-A Assy	9360814081	
184-1	Thermo Spring-A	313728262708		828	Capillary-B Assy	9360815088	
187	Clamp No.1219	313361271706		838-1	Inlet Pipe (Cond.)-A	9360832023	
210	Main Relay	9356581007		838-2	Inlet Pipe A1	9366569008	
213	Noise Insulation-B	9352670008		840-1	Inlet Pipe (Cond.)-B	9360833020	
230-1	Amt (OLP Assy)	9366568001		840-2	Inlet Pipe B1	9366575009	
233	Transformer	9704034014		940	Hole Plug No.0875	9355891004	
234	Thermistor Assy	9702925017		941	Conduit Plate	9359468011	
236	Controller PCB Assy	9704088017					

**INDOOR PCB****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.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC1	IC MB89625RPFM-1049	9702928018		R21	Res. 1/10W 49.9kΩ±1%	0200279824	
IC2	IC PST600CMT	0101461120		R22	Res. 1/4W 750Ω±5%	0200230719	
IC3	IC NJM7805FA	0100462081		R23,24	Res. 1/4W 560Ω±5%	0200230689	
IC4	IC S-93C46ADFJ-TB	0101919027		R25	Res. 1/10W 1kΩ±5%	0200212746	
IC5,6	IC MC1413D	0101736013		R26	Res. 47kΩ±5%	0201010426	
D1~3	Xstr DTC124EKA	0000936033		R40	Res. 390Ω±5%	0201010648	
D1	Diode DAN202K	0000684019		JM1~6	Res. 0Ω	0200230016	
D2	Diode D1F60	0000208024		JM7,8	Jumper Wire IPS-3043-02	1903332014	
C1,2,4~16,19,35	Cap. Ceramic 25V 0.1μF	0301102885		X1	Ceramic Resonator CST8.38MTW-TF01	0400061021	
C21,22	Cap. Ceramic 50V 0.01μF	0301102830		BZ1	Buzzer PKM13EPY-4000-TF01	9701298013	
C23~27	Cap. Ceramic 50V 1000pF	0300277096		CN1	Plug, PCB B3P-VH-B	0500011520	
C28~31	Cap. Elec. 25V 10μF	0300328026		CN2	Plug, PCB 53324-1010	0501052096	
C32	Cap. Elec. 16V 100μF	0301192251		CN3	Plug, PCB B5P-SHF-1AA	0500006069	
C33	Cap. Elec. 25V 330μF	0301196952		CN4	Thermistor 105-503-96063	9702039028	
C36	Cap. Ceramic 50V 0.01μF	0301102809		CN5	Thermistor 105-103-86119	9700801078	
R1~6,8~11,14, 15,27,31~39	Res. 10kΩ±10%	0201011010		CN6	Wire w/Connector UL1061AWG26 L=170	9703353017	
R7	Res. 1/10W 10kΩ±1%	0200279497		CN7	Plug, PCB B09B-PASK-1	0501360092	
R16~18,20	Res. 1kΩ±5%	0201010747					

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

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC201	Remote Control Amplifier SBX1810-22	0101525129		D203	Diode SLR-325DC ORG	0000813235	
D201	Diode SLR-325VC RED	0000813259		C201	Cap. Ceramic 25V 0.1μF	0301102885	
D202	Diode SLR-325MC GRN	0000813242		C202	Cap Elec. 25V 10μF	0300099339	

**INDOOR PCB****POWER SUPPLY PCB ASSEMBLY (Ref. No. 875)**

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC105	IC MIP0222SY-LT	0101972077		SA101	Surge Absorber RAM-362LAS	0600275037	
IC106	IC GK-30430	1082951006		F101	Fuse MT3 3A-250V	0600239015	
D101	Diode D3SB60	0000689045		F102	Fuse 1A-250V	0600078119	
D102	Diode 1NH42	0000325028		T101	Switching Transformer ETS28AS138AG	1302433015	
D103	Diode D1FL20U	0000746519		L101	EMI Filter ELF15N011A	0400165095	
D104	Diode D2FL20U	0000906500		SW101	Push Switch KSM0632B	9703476013	
D105	Diode D1F60U	0000208024		CN101	Plug, PCB B3P5-VH-B	0500011735	
C101,102	Cap. Plastic 0.1μF	0300304075		CN102	Plug, PCB 53406-9910	0500951048	
C103,104,110	Cap. Ceramic 0.01μF	0300031063		CN103	Plug, PCB B2P3-VH-B-R	0500011766	
C105	Cap. Elec. 450V 100μF	0300256060		CN104	Wire w/Connector UL1061 AWG26 L=200	9703350016	
C106	Cap. Plastic 0.01μF	0300334010		W101	Wire w/Terminal UL1015 AWG18 WHT L=150	1302453013	
C107	Cap. Elec. 16V 47μF	0301197447		W104	Wire w/Terminal UL1015 AWG18 GRN L=130	9703348037	
C108,111	Cap. Ceramic. 50V 0.1μF	0300311752		W105	Wire w/Terminal RED L=150	1302454010	
C109	Cap. Elec. 25V 330μF	0301196952		W106	Wire w/Terminal BLK L=150	9703348044	
R101	Res. Cement 3.3Ω±5%	0200153148		JP101,102	Wire UL1015 AWG22 YEL/ORG L=200	1301974038	
R102	Res. Metal 100kΩ±5%	0201107690					
R103	Res. 220Ω±5%	0200230344					
R105	Res. Metal 1kΩ±5%	0200731742					
SSR101	Relay G3MC-201PL-VD	9702430016					
VA101~103	Varistor TNR10V471K	0000361224					

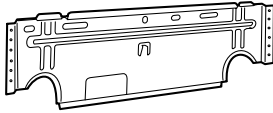
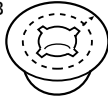



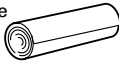
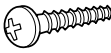

**OUTDOOR PCB  
CONTROLLER PCB ASSEMBLY (Ref. No. 236)**

 When you order parts, please make a photocopy of this page  
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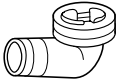

Ref. No.	Description	Part No.	Ord. Q'ty	Ref. No.	Description	Part No.	Ord. Q'ty
IC1	IC $\mu$ PD780023CW-035	9702969028		C7-9	Cap. Elec. 50V 10 $\mu$ F	0301192541	
IC2	IC NJM7805FA	0100462081		C10,47	Cap. Elec. 50V 100 $\mu$ F	0301192589	
IC3,4	Transistor Array $\mu$ PA2003GR	0100028041		C11	Cap. Elec. 25V 1000 $\mu$ F	0301190615	
IC6	IC PST600CMTR	0101461120		C12,13,17-21, 36,43-46	Cap. Ceramic. 50V 0.1 $\mu$ F	0300311752	
IC7,8	IC HU2001	9701651016		C14,38-41	Cap. Ceramic. 50V 0.01 $\mu$ F	0300311738	
IC10	IC NM93C46M8-X	0101622026		C15,16,23-26, CJ27	Cap. Ceramic. 50V 1000 $\mu$ F	0300308509	
Q1,2	Xstr 2SD1932	9701235018		C29-33	Cap. Elec. 25V 10 $\mu$ F	0300822340	
Q3	Xstr DTC-124EKA	0000936033		X1	Ceramic Resonator EFOEC8384T4	9701261017	
Q4-8	Xstr 2SC2712	0000781053		K1,2,5,6	Relay JQ1-12V	9701316014	
D1,2	Diode D2SB20	0000599023		CR1-3	CR Absorber RPEL-121204	9701125012	
D3	Diode MTZJ15A	0000852081		VA1,2	Varistor TNR12G471K	0000038010	
D4	Diode MTZJ27A	0000852098		SA1	Arrester RA-362M-V7-F	0600280154	
D5,12	Diode D1F60	0000208024		F1	Fuse BET 3.15A-250V	0600239534	
D6,7	Diode DA226U	0000625036		FH 1,2	Fuse Holder PFC5000-0502	0500158072	
D8-10,15-17 43,44,46-50, 56-58	Diode SLR-325VC	0000813259		HT1	Heat Sink PUG-46	9702966010	
D11,13	Diode DAN202K	0000684019		HT2	Heat Sink B.PUE-16	9701376018	
R1,9,10,37-40, 51-55	Res. 1/10W 10k $\Omega$ $\pm$ 5%	0200213019		CN1	Plug. PCB B2P3-VH-B-C	0500011773	
R2-6	Res. 1/10W 4.7k $\Omega$ $\pm$ 5%	0200212906		CN2	Plug. PCB B2P3-VH-B-Y	0500011827	
R7,8,11-15 30-33, 51-55	Res. 1/10W 1k $\Omega$ $\pm$ 5%	0200212746		CN3	Plug. PCB B4P7-VH-B	0500011742	
R17	Res. 1/10W 38.3k $\Omega$ $\pm$ 1%	0201114575		CN4	Plug. PCB 179844-1	0501121013	
R18,19	Res. 1/10W 14k $\Omega$ $\pm$ 1%	0201114193		CN5	Plug. PCB 179844-2	0501121020	
R20,21	Res. 1/10W 6.65k $\Omega$ $\pm$ 1%	0201113806		CN7	Plug. PCB B2P3-VH-B	0500011728	
R23-25,34-36	Res. 1/10W 390k $\Omega$ $\pm$ 5%	0200212647		CN8	Plug. PCB B4B-XH-AM	0500005314	
R41,42	Res. 1/4W 15k $\Omega$ $\pm$ 5%	0200231051		CN9	Plug. PCB B10B-XASK-1-A	0501045098	
R45	Res. 1/4W 10k $\Omega$ $\pm$ 5%	0200231013		CN10	Plug. PCB B3B-XASK-1-A	0501045029	
R59-66	Res. 1/4W 10 $\Omega$ $\pm$ 5%	0200230269		CN11	Plug. PCB B6B-XASK-1-A	0501045050	
CJ28,35,37	Res. 0 $\Omega$	0200212012		CN12	Plug. PCB B6B-XASK-1-A	0501045418	
C1	Cap. Plastic 0.22 $\mu$ F	0300304099		CN14	Plug. PCB B5P-SHF-1AA	0500006069	
C3,4	Cap. Ceramic 0.1 $\mu$ F	0300209127		CN18	Plug. PCB B3B-XARK-1-A	0501045319	
C5	Cap. Elec. 50V 3300 $\mu$ F	0301190998		E	Wire w/Terminal L=100mm GRN	9702313012	
C6	Cap. Elec. 63V 2200 $\mu$ F	0301191117		W1	Wire w/Terminal L=330mm RED	9703932021	
				W2	Wire w/Terminal L=380mm PNK	9703932014	

# STANDARD ACCESSORIES

## INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Part No.
Wall hook bracket 	1	9306588014
Wall cap-B 	1	313714296205
Remote control unit 	1	9366645016 (AR-FB5)
Battery (penlight) 	1 set	0600185534
Remote control unit holder 	1	9305642014
Cloth tape 	1	9308117007
Tapping screw (big) (ø4 x 25) 	8	0700076046
Tapping screw (small) (ø3 x 12) 	2	0700019036

## OUTDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Part No.
Cable mark 	1	9352786006
Hexagon wrench 	1	9351228019
Drain pipe 	1	9303029015
Drain cap 	2	313166024302

**Parts Orders**

Parts maybe ordered from

FUJITSU GENERAL AMERICA, INC

353 RTE 46 W.

FAIRFIELD NJ 07004 PHONE 1-973-575-0380

FAX 1-973-575-2194

Specify complete Parts No., Model & Description to ensure correct parts are supplied.

FUJITSU GENERAL AMERICA, INC.  
353 ROUTE 46W., FAIRFIELD, N.J. 07004