



ROOM AIR CONDITIONER

AKG SERIES

SERVICE MANUAL

Models : AKG7APG-W
AKG7APS-W
AKG7GQS-W
AKG9ANG-W
AKG9ARN-W
AKG9ADN-W
AKG9GRN-W
AKG9RRS-W

C O N T E N T S

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SPECIFICATIONS

MODEL		AKG7APG-W	AKG7GQS-W	AKG7APS-W	AKG9ANG-W	AKG9ARN-W	AKG9GRN-W	AKG9RRS-W
						AKG9ADN-W		
Cooling capacity	(kW)	2.10	2.00 - 2.05	2.00 - 2.05	2.50	2.50 - 2.55	2.50 - 2.55	2.50
Heating capacity	(kW)	—	—	—	—	—	—	2.80
Heating method		—	—	—	—	—	—	Reverse cycle

ELECTRICAL SPECIFICATIONS

Power supply	(V)	220	220 - 240	220 - 240	220	220 - 240	220 - 240	240
Frequency	(Hz)	50						
Running current	Cooling	3.6	3.5 - 3.5	3.5 - 3.5	4.2	4.4 - 4.3	4.4 - 4.3	4.4
	Heating	—	—	—	—	—	—	4.4
Input	Cooling	0.78	0.75 - 0.79	0.75 - 0.79	0.90	0.96 - 1.02	0.96 - 1.02	1.00
	Heating	—	—	—	—	—	—	0.98
EER	Cooling	2.69	2.67 - 2.59	2.67 - 2.59	2.78	2.60 - 2.50	2.60 - 2.50	2.50
	Heating	—	—	—	—	—	—	2.86

COMPRESSOR

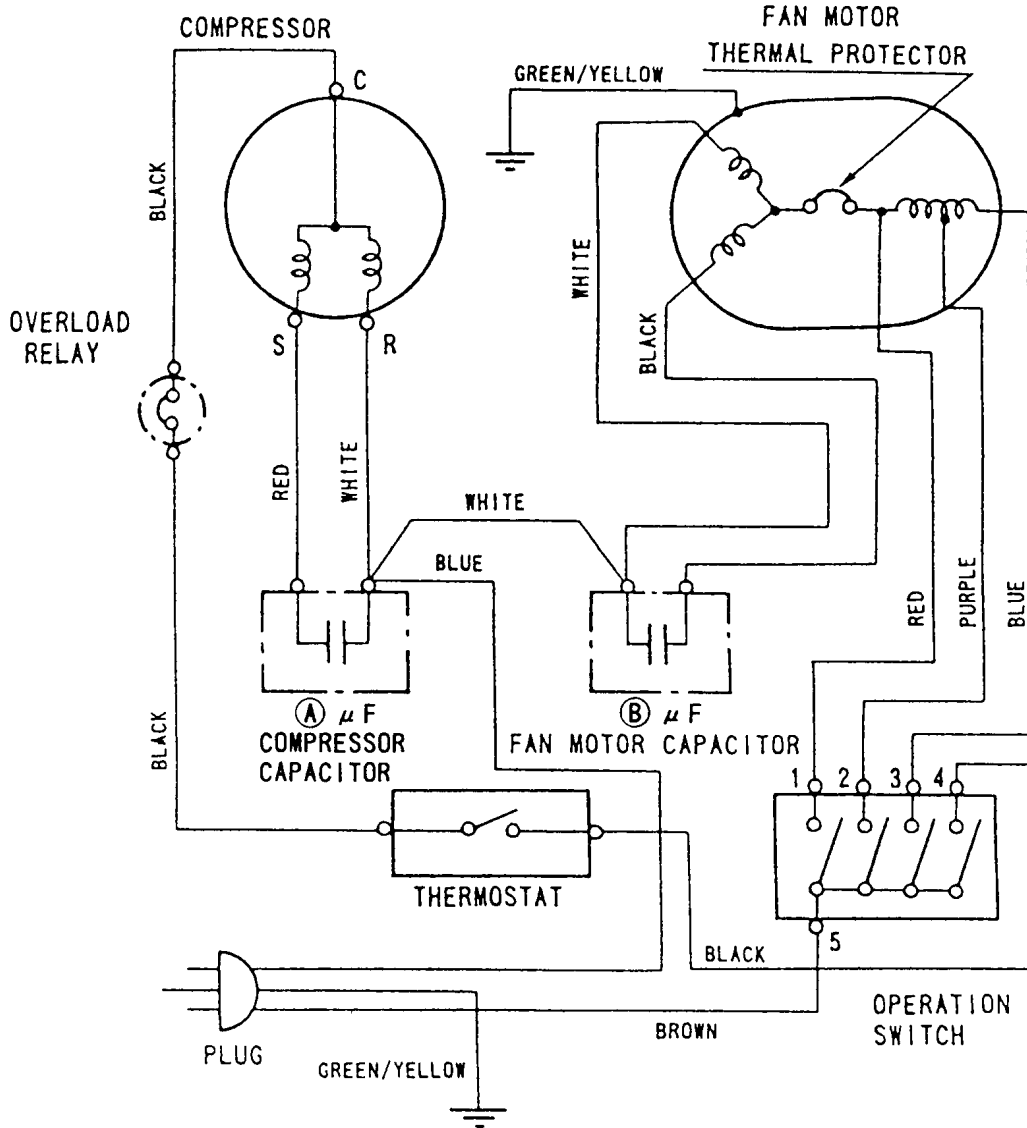
Type	Hermetic type, Rotary type							
Code	QB134PL22A 3 Leg 220-240V 50Hz	806-892-45 3 Leg 220-240V 50Hz	806-892-45 3 Leg 220-240V 50Hz	QK164PN23C 3 Leg 220-240V 50Hz	2PS164D2AE02 3Leg 220-240V 50Hz	2PS164D2AE02 3 Leg 220-240V 50Hz	806-919-45 3 Leg 220-240V 50Hz	
Refrigerant	R-22 (g)	540	460	460	750	640	640	680

FAN MOTOR

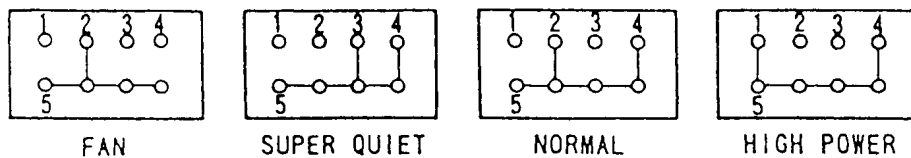
Code	MFC-09BTM 220-240V 50Hz	MFC-07CTAM 220-240V 50Hz	MFC-07CTAM 220-240V 50Hz	MFC-09BTM 220-240V 50Hz	MFC-09BTM 220-240V 50Hz	MFC-09BTM 220-240V 50Hz	MFC-09CTM 220-240V 50Hz	
High power	(r.p.m.)	1,040	1,010 - 1,075	1,010 - 1,075	1,040	1,040 - 1,100	1,040 - 1,100	1,120
Super quiet	(r.p.m.)	800	780 - 840	780 - 840	800	800 - 860	800 - 860	890

CIRCUIT DIAGRAM

Models : AKG7APG-W
 AKG7APS-W
 AKG9ANG-W
 AKG9ARN-W
 AKG9ADN-W



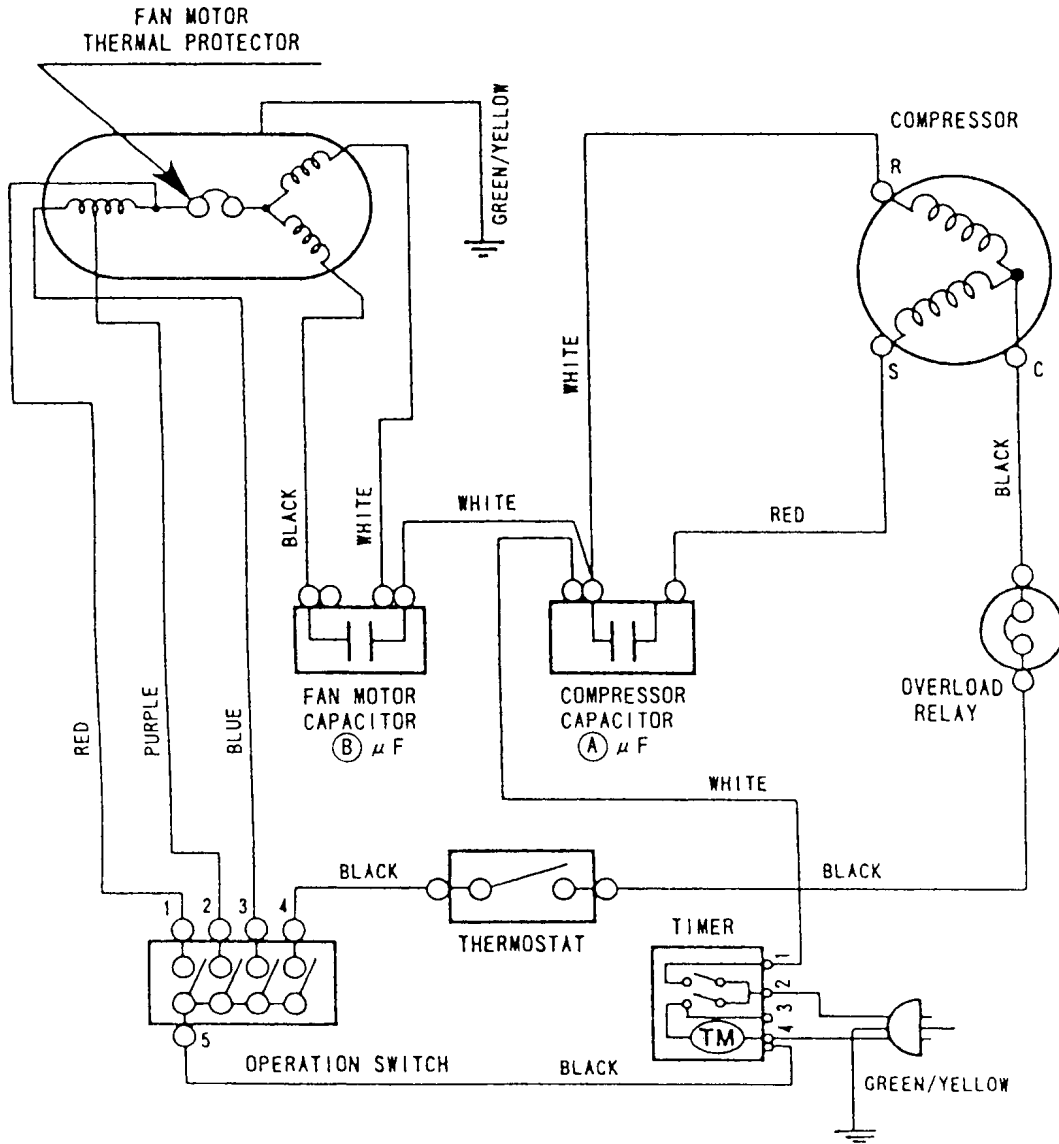
OPERATION SWITCH INTERNAL CONNECTIONS



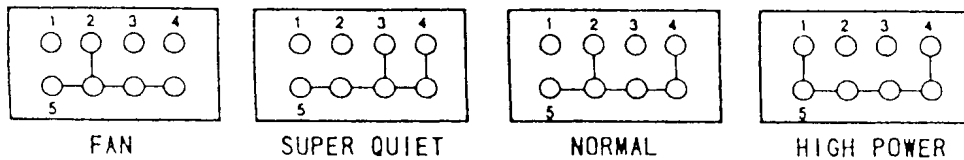
Ⓐ	Ⓑ	Applicable models
30	2.3	AKG9ANG-W
20	2.3	AKG7APS-W
25	2.3	AKG7APG-W, AKG9ARN-W, AKG9AND-W

Models : AKG7GQS-W
AKG9GRN-W

(Unit : mm)

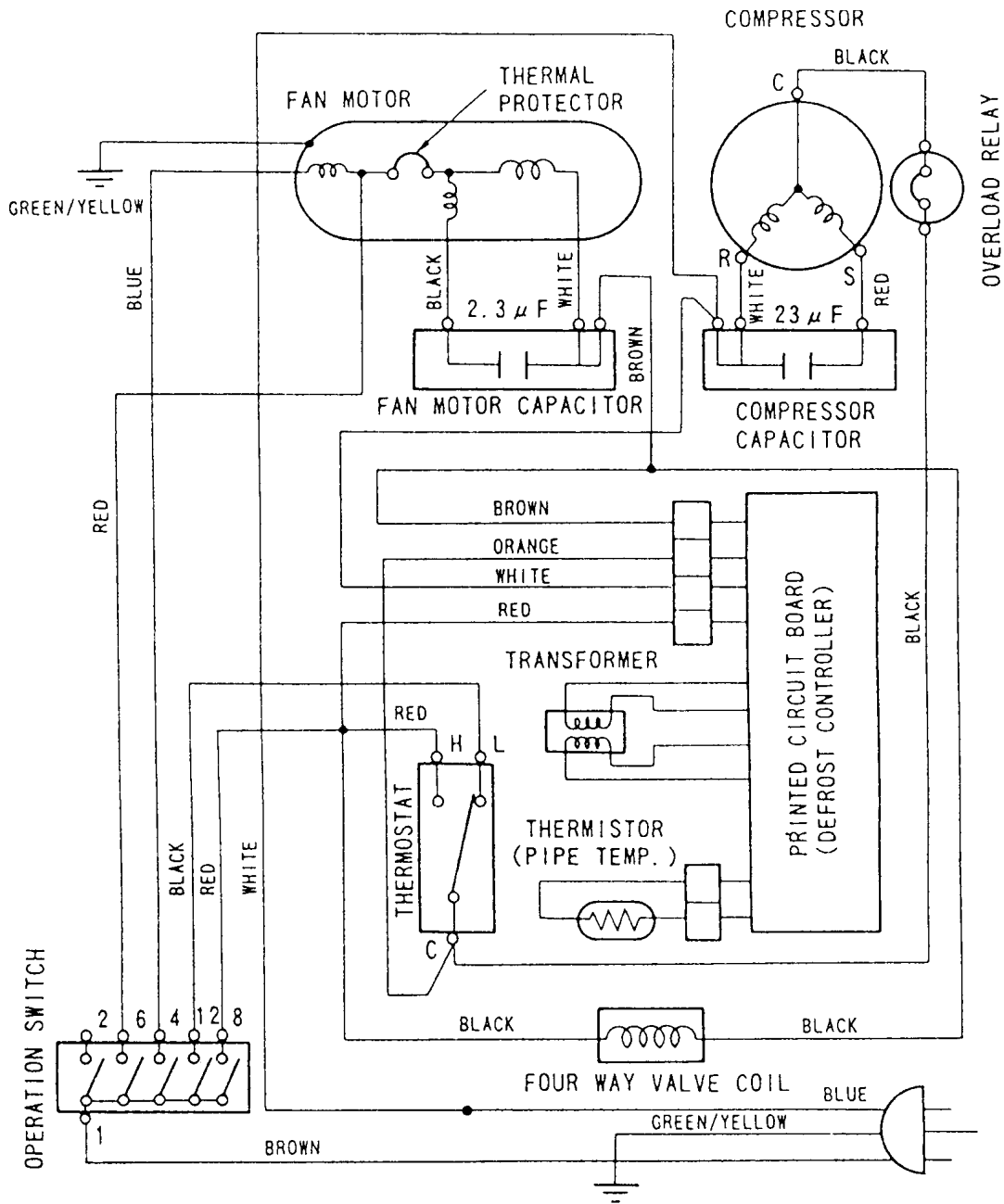


OPERATION SWITCH INTERNAL CONNECTIONS

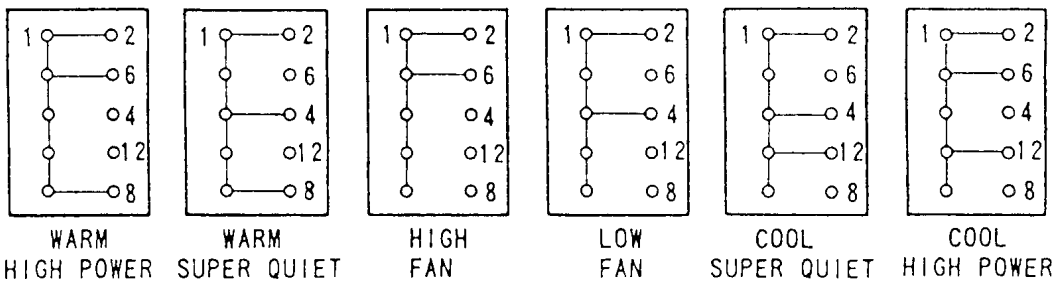


(A)	(B)	Applicable models
20	2.3	AKG7GQS-W
25	2.3	AKG9GRN-W

Models : AKG9RRS-W

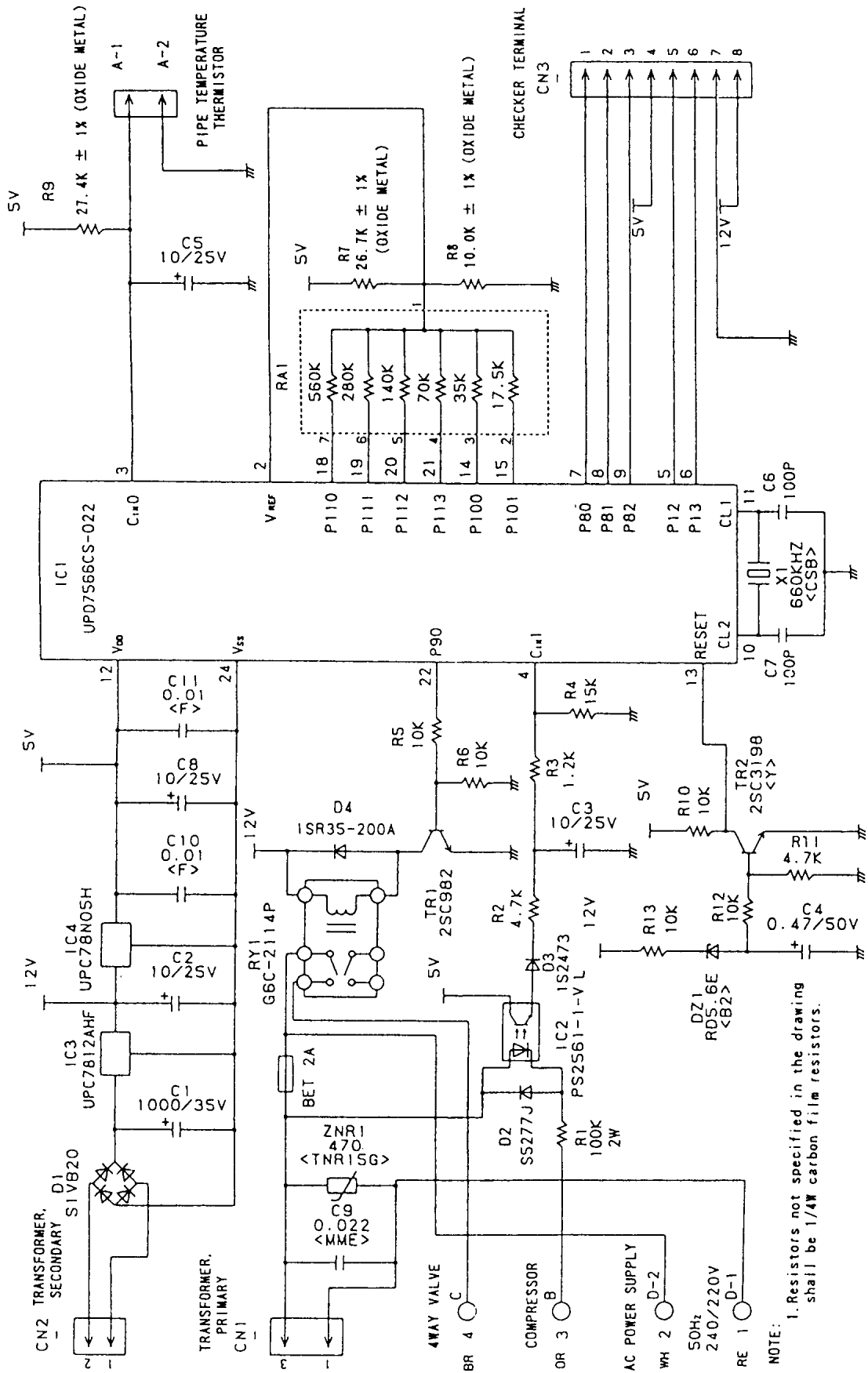


OPERATION SWITCH INTERNAL CONNECTIONS



MICROCOMPUTER CONTROL CIRCUIT

Models : AKG9RRS-W

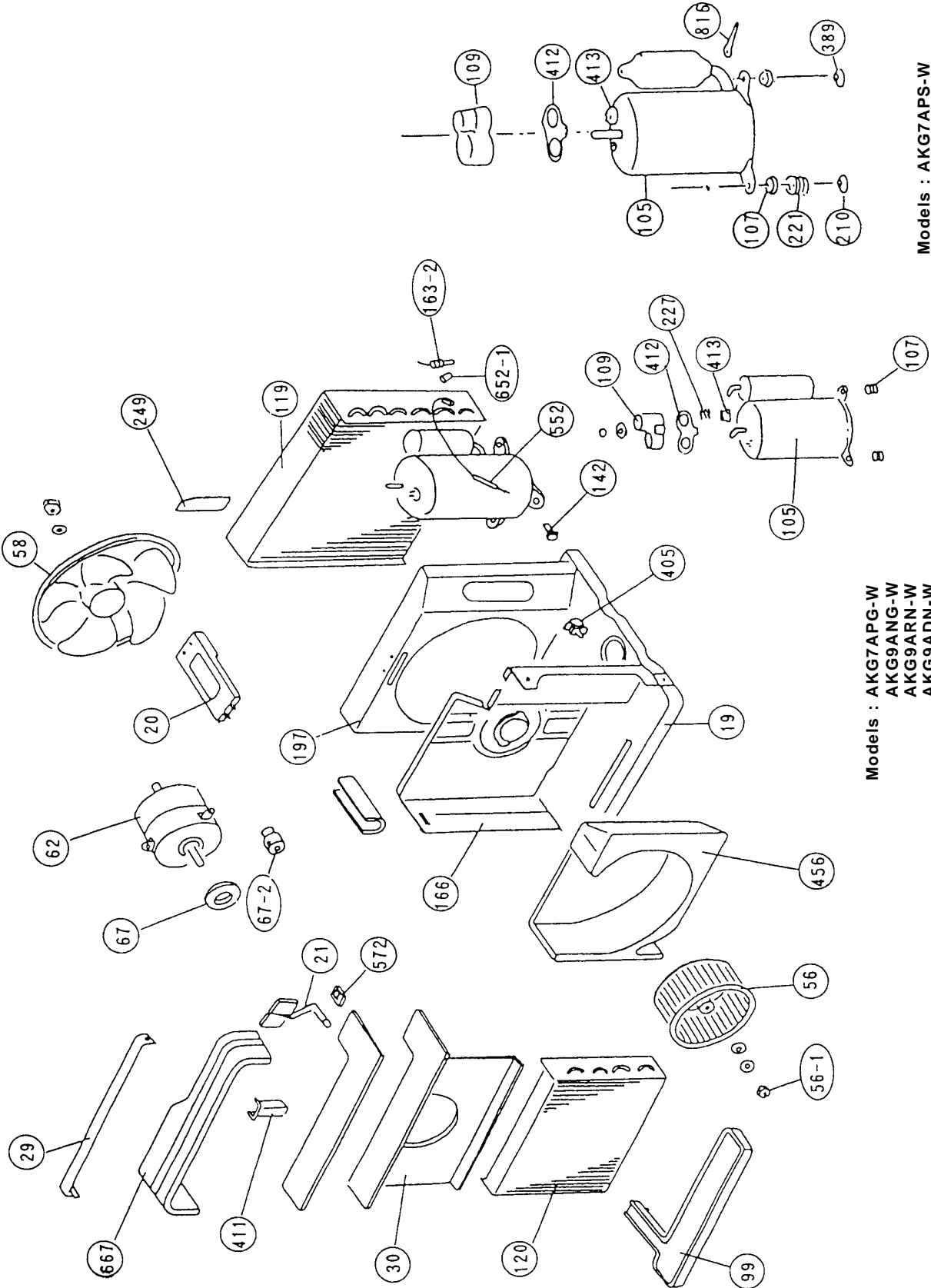


NOTE:
1. Resistors not specified in the drawing shall be 1/4W carbon film resistors.

PRINTED CIRCUIT BOARD LAYOUTS

Models : AKG9RRS-W

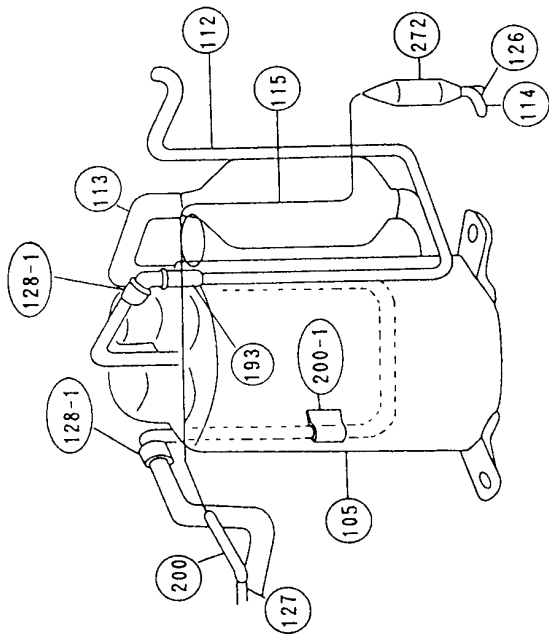
DISASSEMBLY ILLUSTRATION



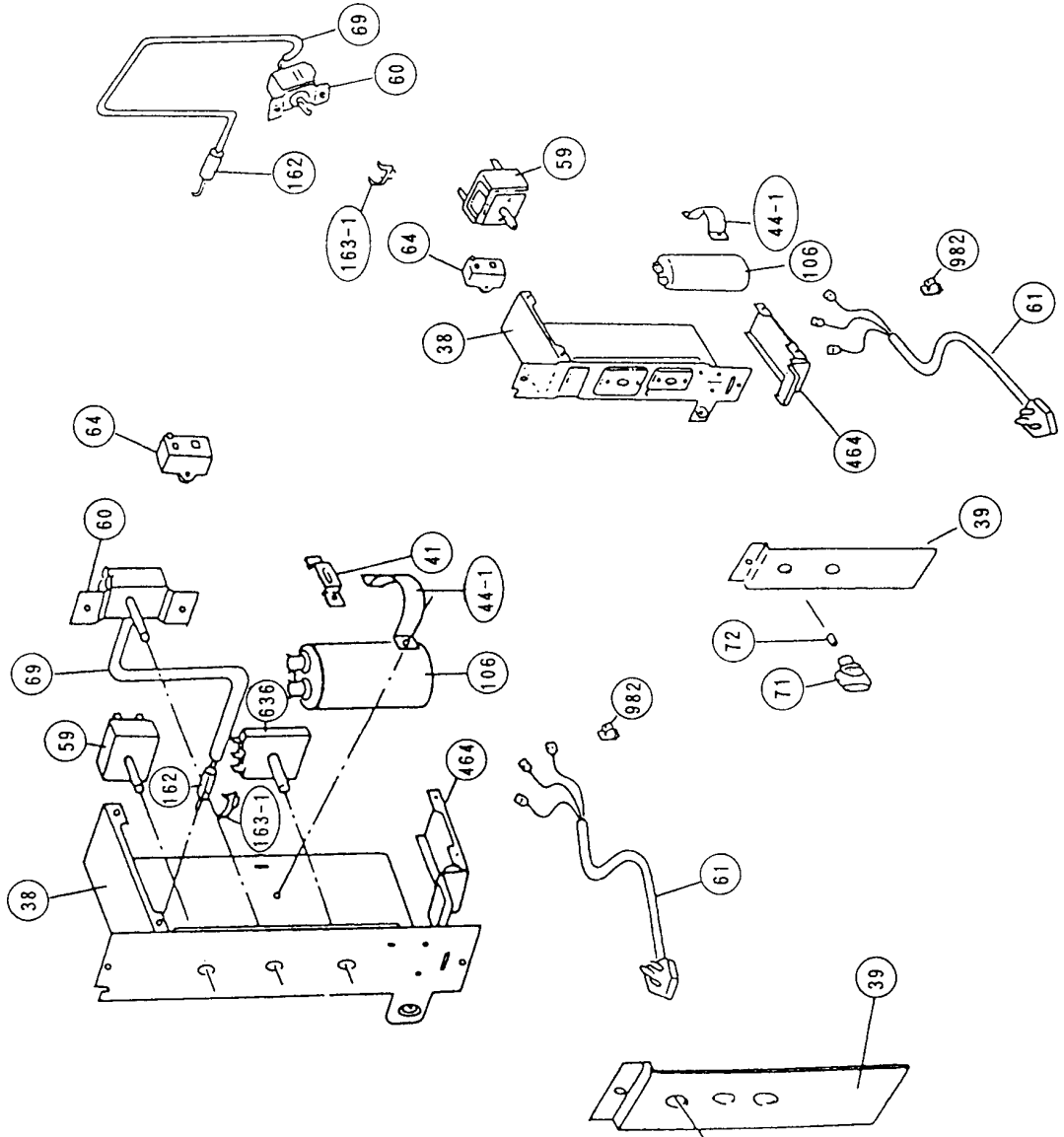
Models : AKG7APS-W
AKG9RRS-W

Models : AKG7APG-W
AKG9ANG-W
AKG9ARN-W
AKG9ADN-W
AKG9GRN-W

Models : AKG7GQS-W
AKG7APS-W

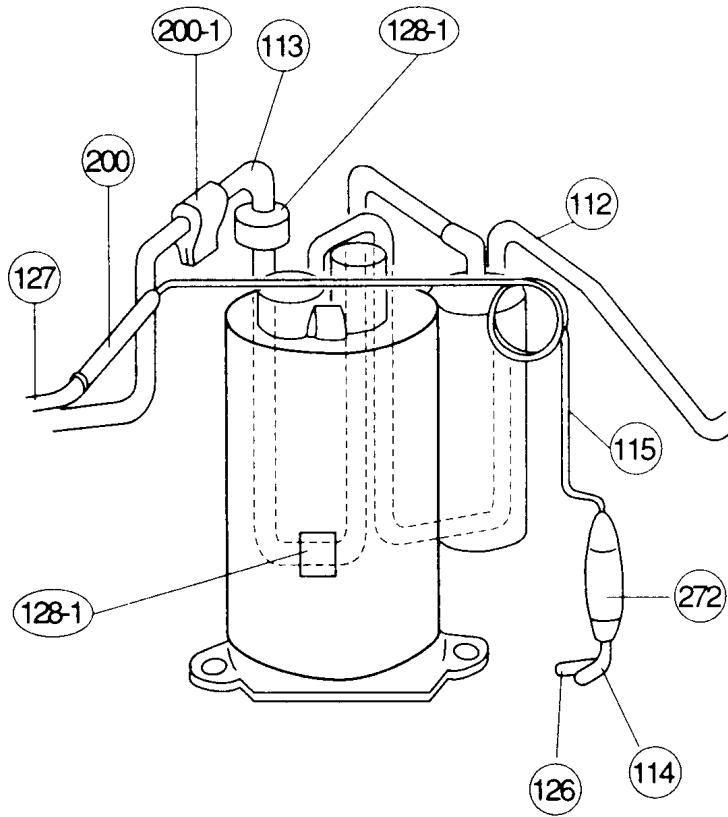


Models : AKG7GQS-W
AKG9GRN-W

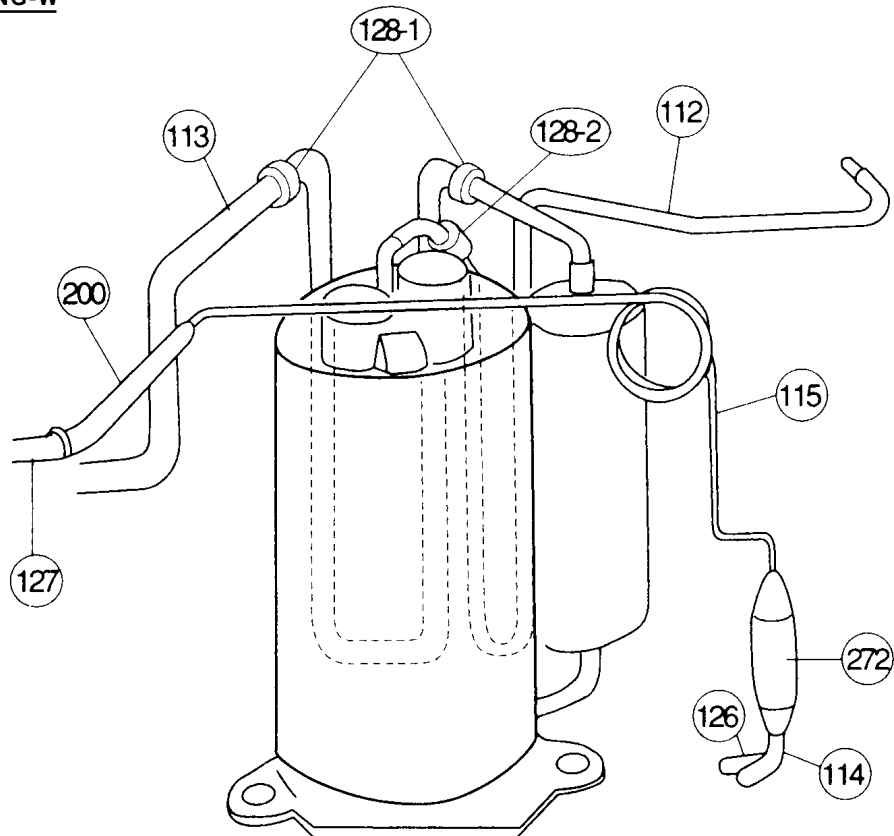


Models : AKG7APS-W
AKG7APG-W
AKG9ANG-W
AKG9ARN-W
AKG9ADN-W

Models : AKG9ARN-W
AKG9ADN-W
AKG9GRN-W

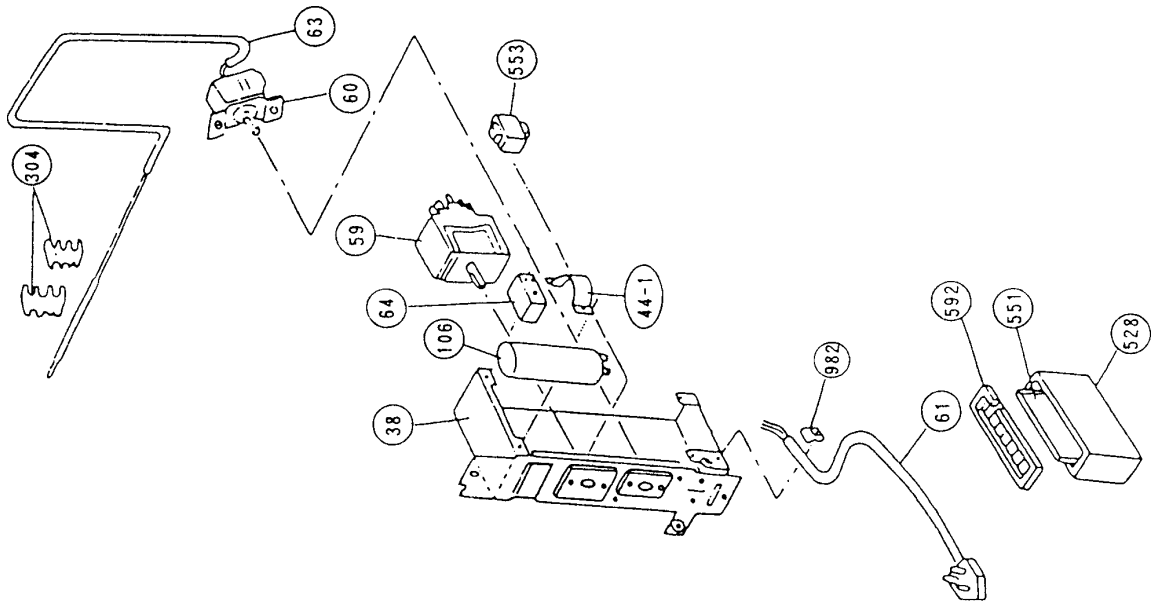
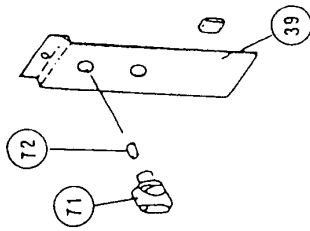
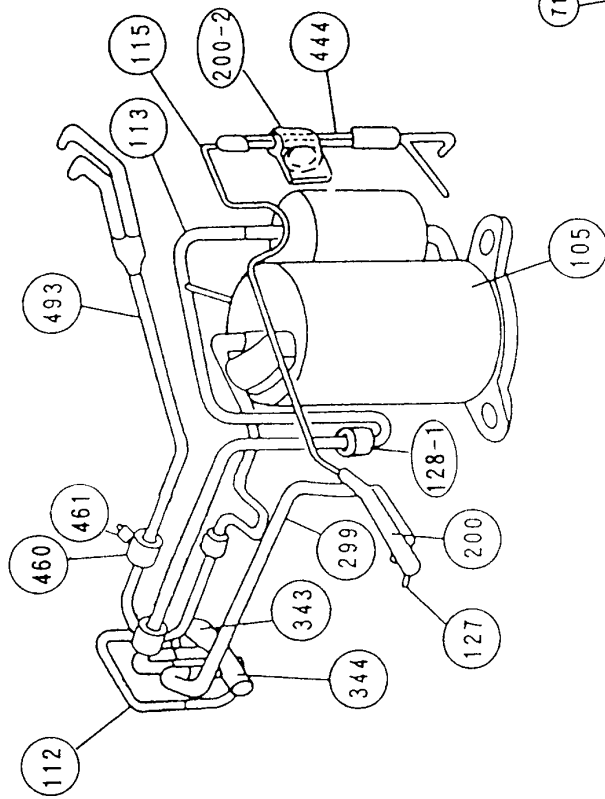


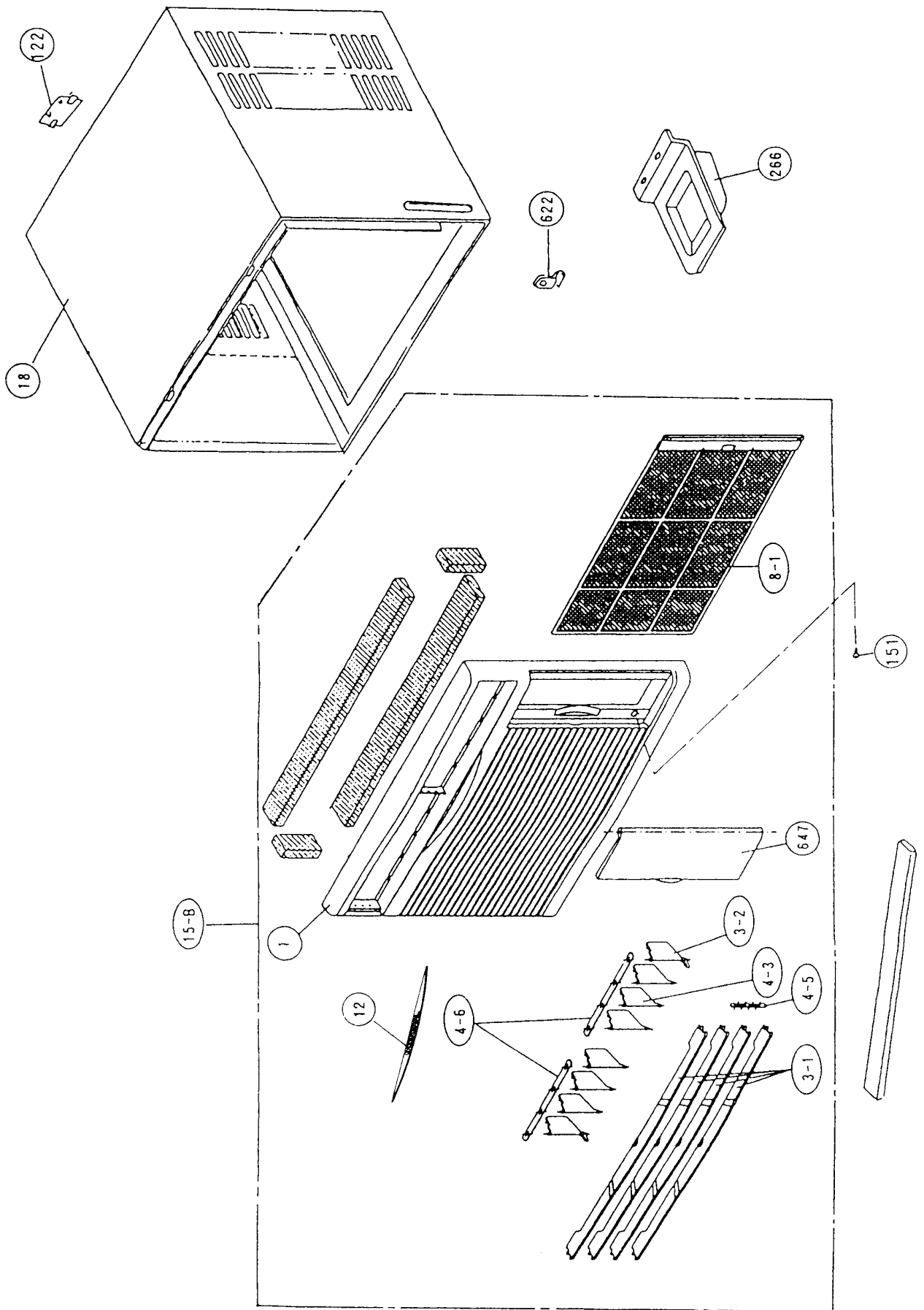
Models : AKG7APG-W
AKG9ANG-W



Models : AKG9RRS-W

Models : AKG9RRS-W





AKG7APG-W
 AKG7APS-W
 AKG7GQS-W
 AKG9ANG-W
 AKG9ARN-W
 AKG9ADN-W
 AKG9GRN-W
 AKG9RRS-W

PARTS LIST

FRONT PANEL PARTS

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

MODEL		AKG7APG-W	AKG7APS-W	AKG7GQS-W	AKG9ANG-W	AKG9ARN-W	AKG9ADN-W	AKG9GRN-W	AKG9RRS-W	ORDER Q' TY
REF. NO.	DESCRIPTION	PART NO.								
1	Front Panel	9358096055	-----	-----	9358096055	-----	-----	-----	-----	
1	Front Panel	-----	9358096017	9358096017	-----	9358096017	9358096017	9358096017	9358096017	
3-1	Louver-A	9358099018	9358099018	9358099018	9358099018	9358099018	9358099018	9358099018	9358099018	
3-2	Louver-C	9358101018	9358101018	9358101018	9358101018	9358101018	9358101018	9358101018	9358101018	
4-3	Louver-B	9358100011	9358100011	9358100011	9358100011	9358100011	9358100011	9358100011	9358100011	
4-5	Connecting Plate-A	9358102015	9358102015	9358102015	9358102015	9358102015	9358102015	9358102015	9358102015	
4-6	Connecting Plate-B	9358103012	9358103012	9358103012	9358103012	9358103012	9358103012	9358103012	9358103012	
6-1	Filter	9358098028	-----	-----	9358098028	-----	-----	-----	-----	
8-1	Filter	-----	9358098011	9358098011	-----	9358098011	9358098011	9358098011	9358098011	
12	Decoration Panel	9361217010	-----	-----	9361217010	-----	-----	-----	-----	
15-B	Front Panel Assy	9358865118	-----	-----	9358865118	-----	-----	-----	-----	
15-B	Front Panel Assy	-----	9358865040	9358865040	-----	9358865040	9358865040	9358865040	9358865040	
64/7	Switch Panel Lid	9358097014	9358097014	9358097014	9358097014	9358097014	9358097014	9358097014	9358097014	

MODEL		AKG7APG-W	AKG7APS-W	AKG7GQS-W	AKG9ANG-W	AKG9ARN-W	AKG9ADN-W	AKG9GRN-W	AKG9RRS-W	ORDER Q' TY
REF. NO.	DESCRIPTION	PART NO.								
18	Cabinet Assy	9389020067	-----	-----	9389020067	9389020067	9389020067	9389020067	9389020067	
18	Cabinet Assy	-----	9389020074	9389020074	-----	-----	-----	-----	-----	
19	Base Assy	9389017081	-----	-----	9389017081	-----	-----	-----	-----	
19	Base Assy	-----	9389017067	9389017067	-----	-----	-----	-----	-----	
19	Base Assy	-----	-----	-----	-----	9389017029	9389017029	9389017029	-----	
19	Base Assy	-----	-----	-----	-----	-----	-----	-----	9389017098	
20	Supporter-C	9358091005	-----	-----	9358091005	9358091005	9358091005	9358091005	9358091005	
20	Supporter-C	-----	9358090008	9358090008	-----	-----	-----	-----	-----	
21	Exhaust Air Damper	9358094020	-----	-----	9358094020	9358094020	9358094020	9358094020	9358094020	
21	Exhaust Air Damper	-----	9358094013	9358094013	-----	-----	-----	-----	-----	
29	Supporter B	9358089002	9358089002	9358089002	9358089002	9358089002	9358089002	9358089002	9358089002	
30	Blower Mouth	9358084007	-----	-----	9358084007	9358084007	9358084007	9358084007	9358084007	
30	Blower Mouth	-----	9358083000	9358083000	-----	-----	-----	-----	-----	
38	Switch Box-A Assy	313107242805	-----	-----	313107242805	313107242805	313107242805	313107242805	-----	
38	Switch Box-A Assy	-----	313106242808	-----	-----	-----	-----	-----	-----	
38	Switch Box-A Assy	-----	-----	31355242855	-----	-----	-----	-----	-----	
38	Switch Box-A Assy	-----	-----	-----	-----	-----	-----	31355242850	-----	
38	Switch Box-A Assy	-----	-----	-----	-----	-----	-----	-----	9358335017	
39	Switch Panel	9358134016	9358134016	-----	9358134016	9358134016	9358134016	-----	-----	
39	Switch Panel	-----	-----	9358134023	-----	-----	-----	9358134023	-----	
39	Switch Panel	-----	-----	-----	-----	-----	-----	-----	9358134061	
44-1	Capacitor Band (Running Capacitor)	313106061706	313106061706	313106061706	-----	313106061706	313106061706	313106061706	313106061706	
44-1	Capacitor Band (Running Capacitor)	-----	-----	-----	313306061707	-----	-----	-----	-----	
56	Sirocco Fan	9358107010	9358107010	9358107010	9358107010	9358107010	9358107010	9358107010	9358107010	
56-1	Nut For Sirocco Fan	9358135006	9358135006	9358135006	9358135006	9358135006	9358135006	9358135006	9358135006	
58	Propeller Fan	9358106013	9358106013	9358106013	9358106013	9358106013	9358106013	9358106013	9358106013	
59	Operation Switch	9370012019	9370012019	9370012019	9370012019	9370012019	9370012019	9370012019	9351214012	
60	Thermostat	9370013016	9370013016	-----	9370013016	9370013016	9370013016	-----	-----	
60	Thermostat	-----	-----	9350581016	-----	-----	-----	9350581016	-----	
60	Thermostat	-----	-----	-----	-----	-----	-----	-----	9355099004	
61	Power Cord Assy	9361101029	9361101029	9361101029	9361101029	9361101029	9361101029	9361101029	-----	
61	Power Cord Assy	-----	-----	-----	-----	-----	-----	-----	9361101081	
62	Fan Motor Assy	9358334003	-----	-----	9358334003	9358334003	9358334003	9358334003	-----	
62	Fan Motor Assy	-----	9359387008	9359387008	-----	-----	-----	-----	-----	
62	Fan Motor Assy	-----	-----	-----	-----	-----	-----	-----	9359408000	
63	Protection Tube-B (Thermostat)	-----	-----	-----	-----	-----	-----	-----	313152149608	
64	Capacitor (Fan Motor)	9350974016	9350974016	9350974016	-----	9350974016	9350974016	9350974016	9350974016	
64	Capacitor (Fan Motor)	-----	-----	-----	9703124013	-----	-----	-----	-----	
67	Rubber (Vibration-proof)	313106068602	313106068602	313106068602	313106068602	313106068602	313106068602	313106068602	313106068602	
67-2	Rubber-B (Vibration-proof)	9358306000	9358306000	9358306000	9358306000	9358306000	9358306000	9358306000	9358306000	
69	Protection Tube	313310060308	313310060308	313310060308	313310060308	313310060308	313310060308	313310060308	313310060308	
71	Thermostat Knob	9358105016	9358105016	9358105016	9358105016	9358105016	9358105016	9358105016	-----	
71	Thermostat Knob	-----	-----	-----	-----	-----	-----	-----	9358105023	
72	Knob Spring (Thermostat Knob)	313008061010	313008061010	313008061010	313008061010	313008061010	313008061010	313008061010	313008061010	
99	Drain Pan	9358086001	-----	-----	9358086001	9358086001	9358086001	9358086001	9358086001	
99	Drain Pan	-----	9358085004	9358085004	-----	-----	-----	-----	-----	

AKG7APG-W
 AKG7APS-W
 AKG7GQS-W
 AKG9ANG-W
 AKG9ARN-W
 AKG9ADN-W
 AKG9GRN-W
 AKG9RRS-W

CABINET CHASSIS PARTS (Continued)

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MODEL		AKG7APG-W	AKG7APS-W	AKG7GQS-W	AKG9ANG-W	AKG9ARN-W	AKG9ADN-W	AKG9GRN-W	AKG9RRS-W	ORDER QTY
REF. NO.	DESCRIPTION	PART NO.								
105	Compressor Assy	9361734005								
105	Compressor Assy		9351907006	9351907006						
105	Compressor Assy				9363262001	9357492001	9357492001	9357492001		
105	Compressor Assy								9359879008	
106	Running Capacitor	9350973019				9350973019	9350973019	9350973019		
106	Running Capacitor		9350973040	9350973040						
106	Running Capacitor				9350973026					
106	Running Capacitor								9350973033	
107	Rubber Seat-A (For Comp.)	9359425014				9359425014				
107	Rubber Seat-A (For Comp.)		9351918019	9351918019						
107	Rubber Seat-A (For Comp.)					9370009026	9370009026	9370009026		
107	Rubber Seat-A (For Comp.)								9359880011	
109	Terminal Cover (For Comp.)	9359426011								
109	Terminal Cover (For Comp.)		9351932015	9351932015						
109	Terminal Cover (For Comp.)				9363263008					
109	Terminal Cover (For Comp.)					9357437002	9357437002	9357437002		
109	Terminal Cover (For Comp.)								9359881018	
112	Discharge Pipe	9362062008								
112	Discharge Pipe		9359540007	9359540007						
112	Discharge Pipe				9363296006					
112	Discharge Pipe					9358926000	9358926000	9358926000	9357203003	
112	Discharge Pipe									
113	Suction Pipe Assy	9362060004								
113	Suction Pipe Assy		9359334002	9359334002						
113	Suction Pipe Assy				9363297003					
113	Suction Pipe Assy					9358927007	9358927007	9358927007		
113	Suction Pipe Assy								9357204000	
114	Air Duct Pipe-E	313252257206	313252257206	313252257206	313252257206	313252257206	313252257206	313252257206		
115	Capillary Tube	9362061001								
115	Capillary Tube		9359392002	9359392002						
115	Capillary Tube				9363298000					
115	Capillary Tube					9358928004	9358928004	9358928004		
115	Capillary Tube								9359399001	
119	Condenser Assy	9358132012				9358132012	9358132012	9358132012		
119	Condenser Assy		9358130018	9358130018						
119	Condenser Assy				9359920007					
119	Condenser Assy								9359397014	
120	Evaporator Assy	9358131015			9358131015	9358131015	9358131015	9358131015		
120	Evaporator Assy		9359331018	9359331018						
120	Evaporator Assy								9359395010	
122	Emblem-B (Rear)	9358104019	9358104019	9358104019	9358104019	9358104019	9358104019	9358104019	9358104019	
126	Condensing Pipe-B	9358923009				9358923009	9358923009	9358923009		
126	Condensing Pipe-B		9358368208	9358368208						
126	Condensing Pipe-B				9363369000					
127	Inlet Pipe (Evaporator)-B	9359748014				9359748014				
127	Inlet Pipe (Evaporator)-B		9358925003	9358925003						
127	Inlet Pipe (Evaporator)-B					9358929001	9358929001	9358929001		
127	Inlet Pipe (Evaporator)-B								93564019206	
128-1	Rubber (Discharge Pipe)		313155086308	313155086308	313155086308	313155086308	313155086308	313155086308	313155086308	
128-2	Rubber (Discharge Pipe)				313202086308					
142	Drain Pipe	9351674007	9351674007	9351674007	9351674007	9351674007	9351674007	9351674007		
151	Front Panel Screw	313306389909	313306389909	313306389909	313306389909	313306389909	313306389909	313306389909	313306389909	
162	Thermostat Holder	313616262803	313616262803	313616262803	313616262803	313616262803	313616262803	313616262803		
163-1	Thermostat Spring A	313668262714	313668262714	313668262714	313668262714	313668262714	313668262714	313668262714		
163-2	Thermostat Spring A								313728262708	
166	Separate Wall Assy	9358114018	9358114018	9358114018	9358114018	9358114018	9358114018	9358114018		
166	Separate Wall Assy								9358114032	
193	Cushion Rubber		313376149201	313376149201						
197	Wind Guide Board	9358092026			9358092026	9358092026	9358092026	9358092026	9358092026	
197	Wind Guide Board		9358092019	9358092019						
200	BR-Sheet-B	9359189008	9359189008	9359189008	9359189008	9359189008	9359189008	9359189008		
200	BR-Sheet-B									313806108302
200-1	BR-Sheet-B		313563108306	313563108306		313563108306	313563108306	313563108306		
200-2	BR-Sheet-B (65x130x75)								9351990022	
210	Rubber Seat-B (For Comp.)		9351926014	9351926014						
210	Rubber Seat-B (For Comp.)								9359887010	
221	Mounting Spring (For Comp.)		9351922016	9351922016						
221	Mounting Spring (For Comp.)								9359883012	

AKG7APG-W
AKG7APS-W
AKG7GQS-W
AKG9ANG-W
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CABINET CHASSIS PARTS (Continued)

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MODEL	AKG7APG-W	AKG7APS-W	AKG7GQS-W	AKG9ANG-W	AKG9ARN-W	AKG9ADN-W	AKG9GRN-W	AKG9RRS-W	ORDER QTY	
Ref. NO.	DESCRIPTION									PART NO.
227	Terminal Spring	9359429012								
227	Terminal Spring				9370009064	9370009064	9370009064			
249	Dew Proof Plate	313106041504	313106041504	313106041504	313106041504	313106041504	313106041504	313106041504	313106041504	
266	Drain Boat								313681252701	
272	Strainer	9350663026	9350663026	9350663026	9350663026	9350663026	9350663026	9350663026		
299	Suction Pipe-B								313565098706	
304	Thermostat Fixture-B								313349051500	
343	Solenoid Coil								9359617020	
344	4-Way Valve								313947302811	
389	Rubber Seat-C (Comp)		9351927011	9351927011						
389	Rubber Seat-C (Comp)								9359888017	
405	Clamp No. 1763	313816345304	313816345304	313816345304	313816345304	313816345304	313816345304	313816345304	313816345304	
411	Supporter-A	9358115015	9358115015	9358115015	9358115015	9358115015	9358115015	9358115015	9358115015	
412	Terminal Gasket (For Comp.)	9362004008			9362004008					
412	Terminal Gasket (For Comp.)		9351933012	9351933012						
412	Terminal Gasket (For Comp.)				9370009071	9370009071	9370009071			
412	Terminal Gasket (For Comp.)								9359882015	
413	Overload Relay	9362018005								
413	Overload Relay		9351934019	9351934019						
413	Overload Relay				9359927013					
413	Overload Relay					9370009057	9370009057	9370009057		
413	Overload Relay								9359885016	
444	Capillary Assy								9359401001	
456	Casing	9358082003	9358082003	9358082003	9358082003	9358082003	9358082003	9358082003	9358082003	
460	Suction Pipe Fixture-B								313592374404	
461	Clamp SKB-5M								313152375801	
464	Switch Box Cover-C	9358009024			9358009024	9358009024	9358009024	9358009024		
464	Switch Box Cover-C		9358009017	9358009017						
493	Discharge Pipe-A Assy								9359402008	
528	Control Box-A								313728265005	
551	Defrost Cont. PCB Assy								9701558018	
552	Thermistor Assy								34226300161	
553	Power Transformer								9702248017	
572	Holder (Ex. Air Damp.)	9358095010	9358095010	9358095010	9358095010	9358095010	9358095010	9358095010	9358095010	
592	Control Box-B								313370265167	
622	Bracket (Typhoon Lock)	9355799003	9355799003	9355799003	9355799003	9355799003	9355799003	9355799003	9355799003	
636	Time Switch			9351895013					9351895013	
652-1	Thermostat Holder								313714262805	
667	Casing-Upper	9358088005			9358088005	9358088005	9358088005	9358088005	9358088005	
667	Casing-Upper		9358087008	9358087008						
816	Wire Clamp Metal								313584219902	
982	Cord Clamp	9357884004	9357884004	9357884004	9357884004	9357884004	9357884004	9357884004	9357884004	

DEFROST CONT. PCB ASSEMBLY (Ref. No. 551)

REF. NO.	DESCRIPTION	PART NO.	ORD. QTY	REF. NO.	DESCRIPTION	PART NO.	ORD. QTY
IC1	IC μ PD7566CS-022	0100007015		R3	Res. Carbon 1/4W 1.2k Ω \pm 5%	0200038032	
IC2	IC PS2561-1-VL	0000050456		R4	Res. Carbon 1/4W 15k Ω \pm 5%	0200038292	
IC3	IC μ PC7812AHF	0100008104		R5,6,10,12,13	Res. Carbon 1/4W 10k Ω \pm 5%	0200038254	
IC4	IC μ PC78N 05H	0100884012		R7	Res. Metal 2W 26.7k Ω \pm 1%	0201028780	
D1	Diode 1SVB20	0000292054		R8	Res. Metal 2W 10k Ω \pm 1%	0201028797	
D2	Diode 1SR139-600	0000353120		R9	Res. Metal 2W 27.4k Ω \pm 1%	0201028735	
D3	Diode 1S2473	0000017015		RA1	Res. Array PKM7LW 1752G	0200070018	
D4	Diode 1SR35-400A	0000353038		X	Ceramic Resonator CSB660P	9701240012	
DZ1	Diode RD5 6FB2	0000025010		ZNR	Varistor TNR15G471K	0000038072	
TR1	Xstr 2SC982TM	0000005012		RY1	Relay G6C-2114P-US	9700050018	
TR2	Xstr 2SC3198	0000860017		FH1,2	Fuse Holder PFC5000-0502	0500158072	
C1	Cap. Elec. 35V 1000 μ F	0300915493		FUSE	Fuse BET 2A-250V	0600222550	
C2,3,5,8	Cap. Elec. 25V 10 μ F	0300004258		CN1	Plug, PCB B2P3-VH-B	0500011728	
C4	Cap. Elec. 50V 0.47 μ F	0300004302		CN2	Plug, PCB B2B-XH-A	0500005055	
C6,7	Cap. Ceramic 50V 1000pF	0300011072		CN3	Plug, PCB B8B-XH-A	0500005024	
C9	Cap. Plastic 250V 0.022 μ F	9702061012		C,B,D-1,D-2	Wire w/Connector 172338-1	9700051015	
C10,11	Cap. Ceramic 50V 0.01 μ F	0300013113		A-1,2	Wire w/Connector 172336-1	9700052012	
R1	Res. Metal 2W 100k Ω \pm 5%	0200047133		JM4,5	Wire Assembly IPS-1041-2	9700035015	
R2,11	Res. Carbon 1/4W 4.7k Ω \pm 5%	0200038179		JM1-3,6	Wire 0.6dia. L=10mm	9700025016	

