
Service Manual

Model

SPA11

POWERED SPEAKER SYSTEM

FOSTEX[®]

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* This service manual applies to the new Model SPA11 powered speaker system.

* The following accessories are supplied with SPA11 as the standard accessories.

Owner's manual: 1 copy (P/N 0529301200)

Foot assy: 1 set (P/N 0578022100)

Mounting screw assy: 1 set (P/N 0578003400)

1. NOTES, CAUTION

NOTES

- * A Parts List and schematic diagrams are included in this manual to assist the service technician in maintaining the new Model SPA11.
Please feel free to contact the nearest Fostex Dealer and Distributor, or write directly to a Fostex office, the addresses of which are printed on the back cover of this manual.

CAUTION

- △ Parts marked with this sign are safety critical components. They must always be replaced with identical components. Refer to the Fostex Parts List and ensure exact replacement.

2. SPECIFICATIONS

- * **Speaker Section**

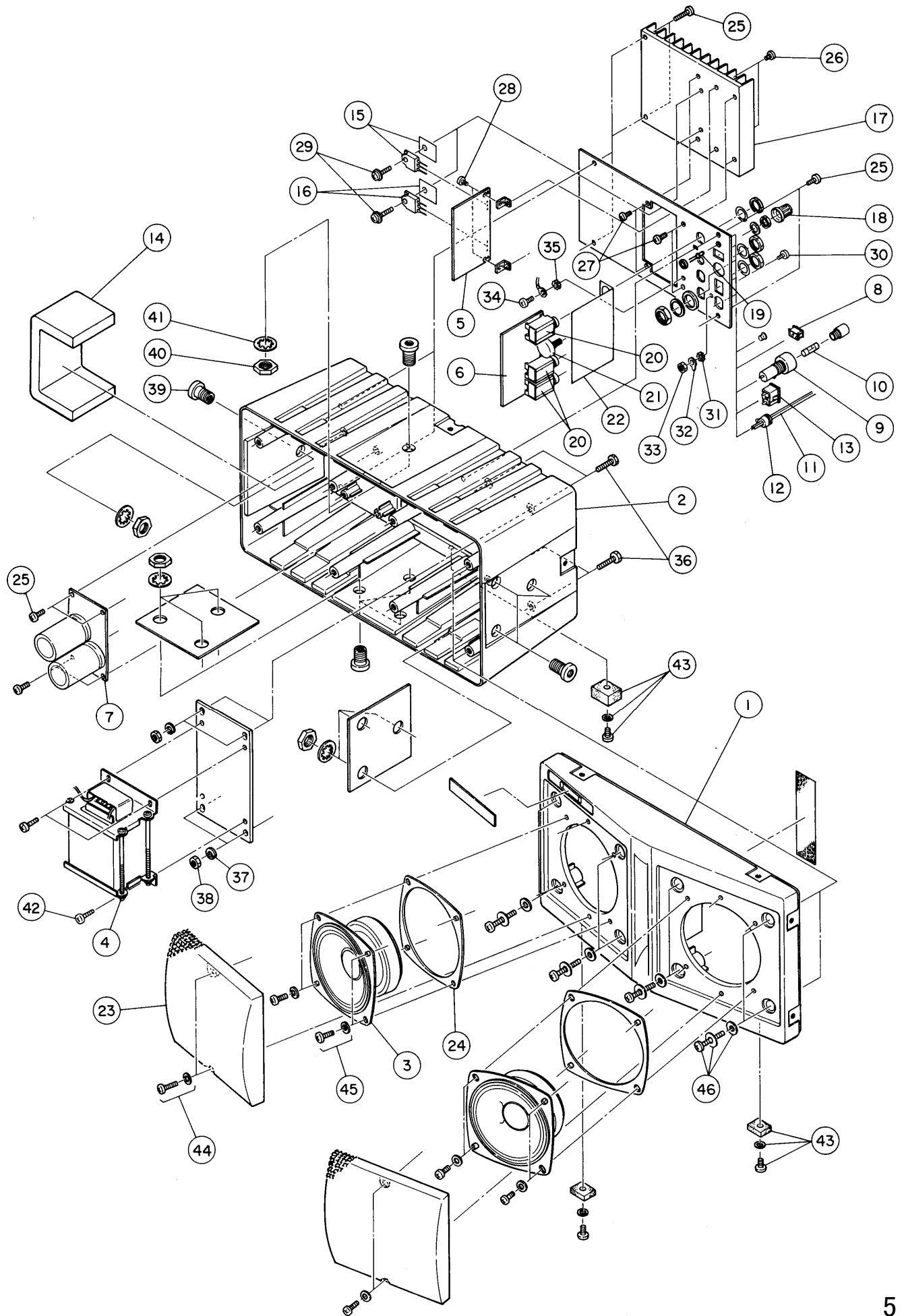
Driver complement	Two 10cm, full range type (Magnet 90mm Dia)
Impedance	8 ohm
Frequency range	60 – 18,000Hz
Sensitivity (1W, 1m)	92dB/1W (1m)
Maximum output sound pressure level	112dB/–20dBm (LINE INPUT)
Rated Input power	100W RMS
Max. Input power	200W program
Enclosure type	Vented type
Enclosure material	Fortified synthetic resin
Input jacks	Two 1/4" standard phone jack
- * **Amplifier Section**

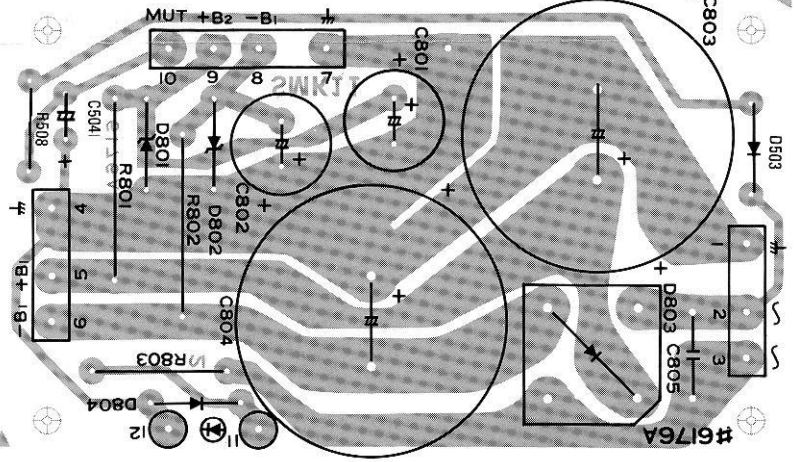
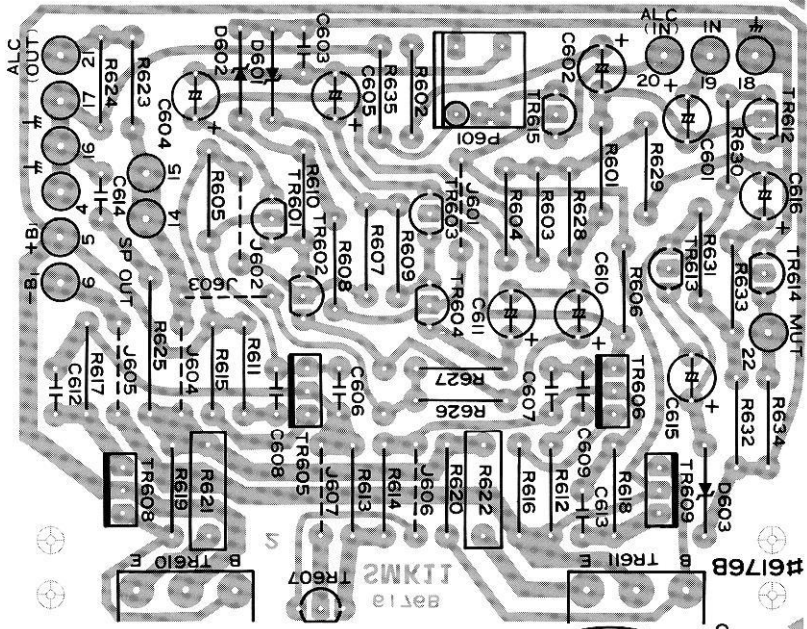
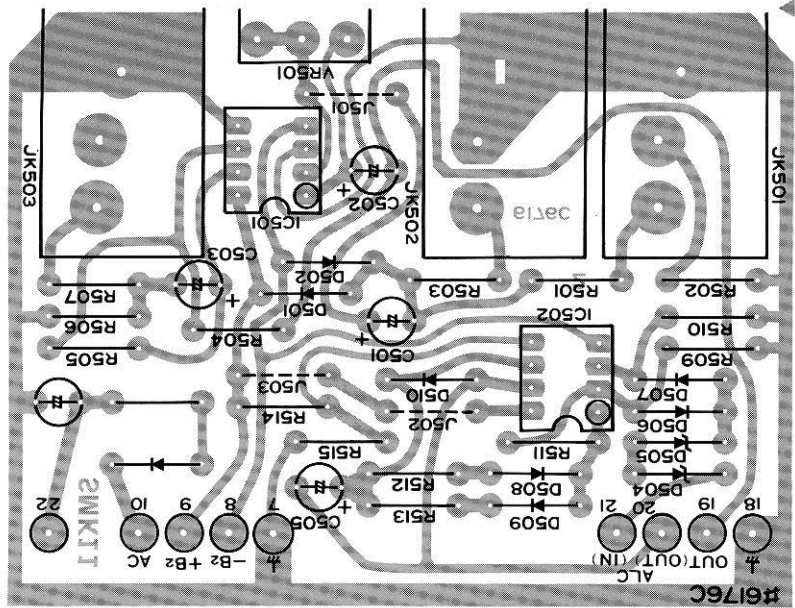
Signal to Noise	80dB (IHF-A) LINE INPUT
Power consumption	100VAC 50/60Hz 65W 120VAC 60Hz 120VA 220/240VAC 50Hz 185VA
- * **Dimensions** 350W × 182H × 213D (mm)
- * **Weight** 7.6Kg

3. EXPLODED VIEW, PCB ASSEMBLY AND PARTS LIST

SPA11 SERVICE PARTS LIST

Ref. No.	Parts No.	Description	Ref. No.	Parts No.	Description
1	0538 8137 00	Enclosure, front	37	8914 9124 01	Spring Washer, M4
2	0574 3401 00	Enclosure Assy, rear	38	8914 9204 01	Hex Nut, M4
3	L810 F07C A4	Speaker unit, 16 ohm	39	0514 9308 00	Anchor Bolt, M12
△ 4	8642 9000 01	T'former, power, 120V, USA/CND	40	0514 9313 00	Hex Nut, M12
△	8642 9000 02	T'former, power, 220V, EUR	41	8914 9131 21	Teeth Washer, M12
△	8642 9000 03	T'former, power, 240V, UK	42	0514 0037 00	M4 × 8mm, Bind, tite
△	8642 9000 00	T'former, power, 100V, DM	43	0578 0221 00	Foot assy
5	8673 0810 00	PCB assy, B, AMP	44	0514 1404 02	M4 × 25mm
6	8673 0800 00	PCB assy, A, input	45	0514 1404 01	M4 × 14mm
7	8673 0820 00	PCB assy, C, power supply	46	8914 1753 05	M4 × 30mm, Tapping
△ 8	8653 5000 00	Switch, power			
△ 9	8645 9010 00	Fuse holder, USA/CND			
△	8645 9000 00	Fuse holder, EUR/UK			
△	8645 9020 00	Fuse holder, DM			
△ 10	8939 1302 30	Fuse, 3A, 250V, USA/CND/DM			
△	8939 4442 16	Fuse, T1.6A, 250V, EUR/UK			
△ 11	8650 8000 00	AC cord, USA/CND			
△	8650 8010 00	AC cord, EUR			
△	8650 8030 00	AC cord, UK			
△	8650 8020 00	AC cord, DM			
12	8916 8001 00	Cord stopper, SR-5L-1, USA/CND			
	8916 8000 00	Cord stopper, SR-4P-4, EUR/UK/DM			
△ 13	8645 7010 00	AC outlet, USA/CND/DM			
14	0516 9000 00	Sound absorbent			
15	8934 2000 00	TR 2SC3856 (ref. TR610)			
16	8934 0000 00	TR 2SA1492 (ref. TR611)			
17	8610 5000 00	Heatsink			
18	8626 0000 00	Knob, VR			
19	8934 9001 00	LED, power			
20	8645 7000 00	Jack, phone, SG411103			
21	8640 1100 00	VR, VM10, 100kΩA			
22	8620 0001 00	Shield plate			
23	0519 5024 00	Metal cover			
24	0507 8102 01	Gasket			
25	8914 0401 65	M4 × 16mm, Bind, PC, BLK			
26	8914 0300 85	M3 × 8mm, Bind, BLK			
27	0514 0035 00	M3 × 6mm, Bind, B-tite			
28	8914 0300 61	M3 × 6mm, Bind			
29	8914 0301 25	M3 × 12mm, Bind SEMS, BLK			
30	8914 0040 85	M4 × 8mm, Bind, tite, BLK, USA			
31	8914 9144 01	Teeth washer, M4, USA			
32	8645 1000 00	Lug, M4, USA			
33	8914 9204 01	Hex nut, M4, USA			
34	0514 0035 01	M3 × 8mm, Bind, B-tite, USA/DM			
35	8914 9143 01	Teeth washer, M3, USA/DM			
36	8914 7404 05	Hex Bolt, M4 × 40mm			





INPUT PCB ASSEMBLY

PCB Ass'y No. 8673 0800 00

Ref. No.	Parts No.	Nomenclature
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IC's

IC501	8936 1000 10	TL072
IC502	8934 6100 00	IR94558

DIODES

D501	8934 6035 00	ISS92
D502	8934 6035 00	ISS92
D503	8934 6035 00	ISS92
D504	8934 6009 11	GZA 4.7Y
D505	8934 6009 11	GZA 4.7Y
D506	8934 6035 00	ISS92
D507	8934 6035 00	ISS92
D508	8934 6035 00	ISS92
D509	8934 6035 00	ISS92

CARBON RESISTORS

All resistors, 1/4W, $\pm 5\%$ unless noted otherwise.

R501	8930 3371 02	Flat mtg.,	1k Ω
R502	8930 3371 03	Flat mtg.,	10k Ω
R503	8930 3373 33	Flat mtg.,	33k Ω
R504	8930 3371 03	Flat mtg.,	10k Ω
R505	8930 3373 32	Flat mtg.,	3.3k Ω
R506	8930 3371 04	Flat mtg.,	100k Ω
R507	8930 3371 01	Flat mtg.,	100 Ω
R508	8930 3376 83	Flat mtg.,	68k Ω
R509	8930 3374 72	Flat mtg.,	4.7k Ω
R510	8930 3378 22	Flat mtg.,	8.2k Ω
R511	8930 3374 73	Flat mtg.,	47k Ω
R512	8930 3373 33	Flat mtg.,	33k Ω
R513	8930 3372 23	Flat mtg.,	22k Ω
R514	8930 3371 03	Flat mtg.,	10k Ω
R515	8930 3373 32	Flat mtg.,	3.3k Ω

CAPACITORS

ALU = Electrolytic type

C501	8932 0041 06	ALU, 35V, 10 μ F, V SME
C502	8932 0041 06	ALU, 35V, 10 μ F, V SME
C503	8932 0041 06	ALU, 35V, 10 μ F, V SME
C504	8932 0062 25	ALU, 63V, 2.2 μ F, V SME
C505	8932 0062 25	ALU, 63V, 2.2 μ F, V SME

Ref. No.	Parts No.	Nomenclature
MISCELLANEOUS		
VR501	8640 1100 00	VR VM10 100KA
JK501	8645 7000 00	Phone jack SG4111-03
JK502	8645 7000 00	Phone jack SG4111-03
JK503	8645 7000 00	Phone jack SG4111-03
	8650 3003 00	Cord assy 62901389
	8650 3001 01	Cord assy 62900522
	8650 3001 00	Cord assy 62900570
	8650 7002 00	Wire kit 2790368A0460
AMPLIFIER PCB ASSEMBLY		

PCB Ass'y No. 8673 0810 00

Ref. No.	Parts No.	Nomenclature
TRANSISTORS		
TR601	8934 2004 20	2SC 2240 BL
TR602	8934 2004 20	2SC 2240 BL
TR603	8934 0004 20	2SA 970BL
TR604	8934 0004 20	2SA 970BL
TR605	8934 0001 00	2SA 1352
TR606	8934 2001 00	2SC 3416
TR607	8934 2003 20	2SC 945
TR608	8934 2002 00	2SC 3421
TR609	8934 0002 00	2SA 1358
TR610	8934 2000 00	2SC 3856 O.P.Y
TR611	8934 0000 00	2SA 1492 O.P.Y
TR612	8934 2003 20	2SC 945
TR613	8934 0003 20	2SA 733
TR614	8934 2004 20	2SC 2240 BL
TR615	8934 1000 00	2SB 560F

DIODES

D601	8934 6019 11	GZA 12Y
D602	8934 6019 11	GZA 12Y
D603	8934 6019 11	GZA 12Y

CARBON RESISTORS

All resistors 1/4W, ±5% unless otherwise noted.

R601	8930 3371 82	Flat mtg., 1.8kΩ
R602	8930 3371 03	Flat mtg., 10kΩ
R603	8930 3374 73	Flat mtg., 47kΩ
R604	8930 3374 73	Flat mtg., 47kΩ
R605	8930 3371 22	Flat mtg., 1.2kΩ
R606	8930 3371 22	Flat mtg., 1.2kΩ

Ref. No.	Parts No.	Nomenclature
R607	8930 3371 03	Flat mtg., 10kΩ
R608	8930 3371 03	Flat mtg., 10kΩ
R609	8930 3375 62	Flat mtg., 5.6kΩ
R610	8930 3375 62	Flat mtg., 5.6kΩ
R611	8930 3374 71	Flat mtg., 470Ω
R612	8930 3374 71	Flat mtg., 470Ω
R613	8930 3375 62	Flat mtg., 5.6kΩ
R614	8930 3372 72	Flat mtg., 2.7kΩ
R615	8930 5361 01	Fail safe 100Ω
R616	8930 5361 01	Fail safe 100Ω
R617	8930 5363 31	Fail safe 330Ω
R618	8930 5363 31	Fail safe 330Ω
R619	8930 5363 31	Fail safe 330Ω
R620	8930 5363 31	Fail safe 330Ω
R621	8930 1424 73	Plate 3W 47Ω
R622	8930 1424 73	Plate 3W 47Ω
R623	8930 3373 33	Flat mtg., 33kΩ
R624	8930 3375 62	Flat mtg., 5.6kΩ
R625	8930 7341 00	Metal, OX 10Ω
R626	8930 3374 73	Flat mtg., 47kΩ
R627	8930 3374 73	Flat mtg., 47kΩ
R628	8930 3371 01	Flat mtg., 100Ω
R630	8930 3371 03	Flat mtg., 10kΩ
R631	8930 3371 03	Flat mtg., 10kΩ
R632	8930 3373 34	Flat mtg., 330kΩ
R633	8930 3371 02	Flat mtg., 1kΩ
R634	8930 3313 34	Flat mtg., 330kΩ
R635	8930 3311 02	Flat mtg., 1kΩ

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

PES = Mylar type

PPR = Polypropylene type

C601	8932 0034 75	ALU, 25V, 4.7μF V SME
C602	8932 0034 75	ALU, 25V, 4.7μF V SME
C603	8932 0154 71	PES, 50V, 470pF V SME
C604	8932 0041 06	ALU, 35V, 10μF V SME
C605	8932 0041 06	ALU, 35V, 10μF V SME
C606	8932 0251 00	CER, 50V, 10pF SL
C607	8932 0251 00	CER, 50V, 10pF SL
C608	8932 0351 01	CER, 50V, 100pF SL
C609	8932 0351 01	CER, 50V, 100pF SL
C610	8932 0001 07	ALU, 6.3V, 100μF V SME
C611	8932 0001 07	ALU, 6.3V, 100μF V SME
C612	8932 0151 02	PES, 50V, 0.001μF V SME
C613	8932 0151 02	PES, 50V, 0.001μF V SME

Ref. No.	Parts No.	Nomenclature
C614	8932 0154 73	PES, 50V, 0.047 μ F V SME
C615	8932 0062 25	ALU, 63V, 2.2 μ F V SME
C616	8932 0062 25	ALU, 63V, 2.2 μ F V SME

MISCELLANEOUS

P601	8934 9000 00	Photo-coupler P1501
	8650 3000 00	SP cable
	8650 3004 00	Cord Assy 62900533

POWER SUPPLY PCB ASSEMBLY

PCB Ass'y No. 8673 0820 00

Ref. No.	Parts No.	Nomenclature
DIODES		
D801	8934 6021 11	GZA 15Y
D802	8934 6021 11	GZA 15Y
D804	8934 6035 00	1SS92

CARBON RESISTORS

R801	8930 7352 22	Metal, OX, 2W 2.2k Ω
R802	8930 7352 22	Metal, OX, 2W 2.2k Ω
R803	8930 7341 52	Metal, OX, 1W 1.5k Ω

CAPACITORS

ALU = Electrolytic type

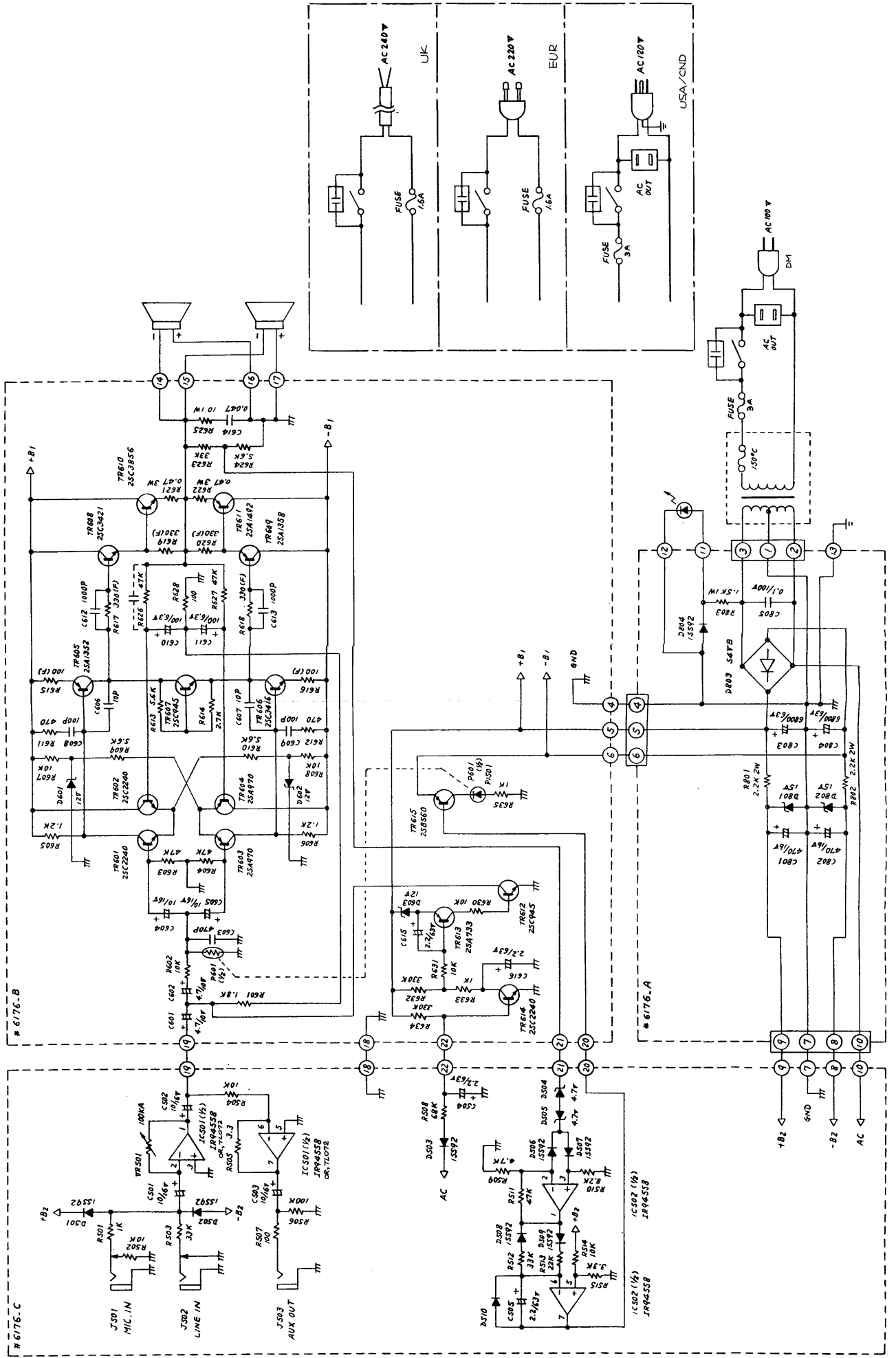
PES = Mylar type

C801	8932 0024 77	ALU, 16V, 470 μ F V SME
C802	8932 0024 77	ALU, 16V, 470 μ F V SME
C803	8932 0066 88	ALU, 16V, 6800 μ F V SME
C804	8932 0066 88	ALU, 16V, 6800 μ F V SME
C805	8932 0151 04	PES, 100V, 0.1 μ F V SME

MISCELLANEOUS

CN801	8645 2000 00	Connector V, 3P
CN802	8645 2000 00	Connector V, 3P
CN803	8645 2010 00	Connector V, 4P
	8650 3005 00	LED cord
	8650 3002 00	Cord Assy 1P

4. CIRCUIT DIAGRAM



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