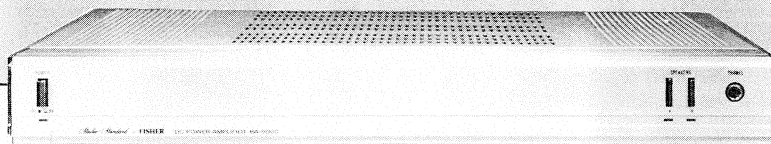


SERVICE MANUAL

# FISHER

# BA9000

POWER AMPLIFIER



*THE FIRST NAME IN HIGH FIDELITY*

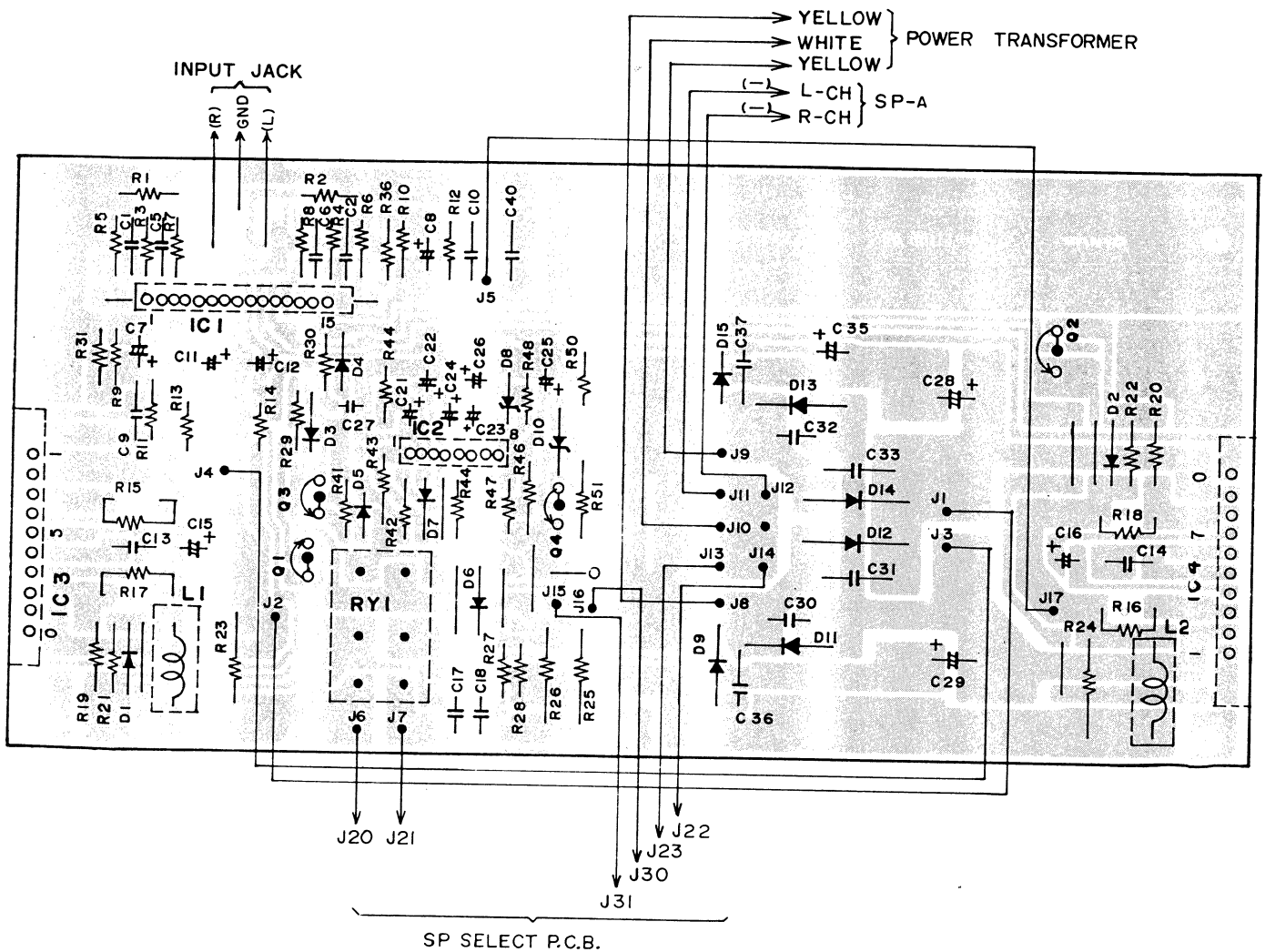
# SPECIFICATIONS

Sine wave output power (1kHz, T.H.D 1%)	63W+63W
T. H. D. (1kHz)	0.01%
Damping factor (1kHz)	50
Frequency response (1W, ±0.3dB)	10 Hz— 20 kHz
Input	1V/ 47 k ohm
Headphone output	40 mW/8 ohm

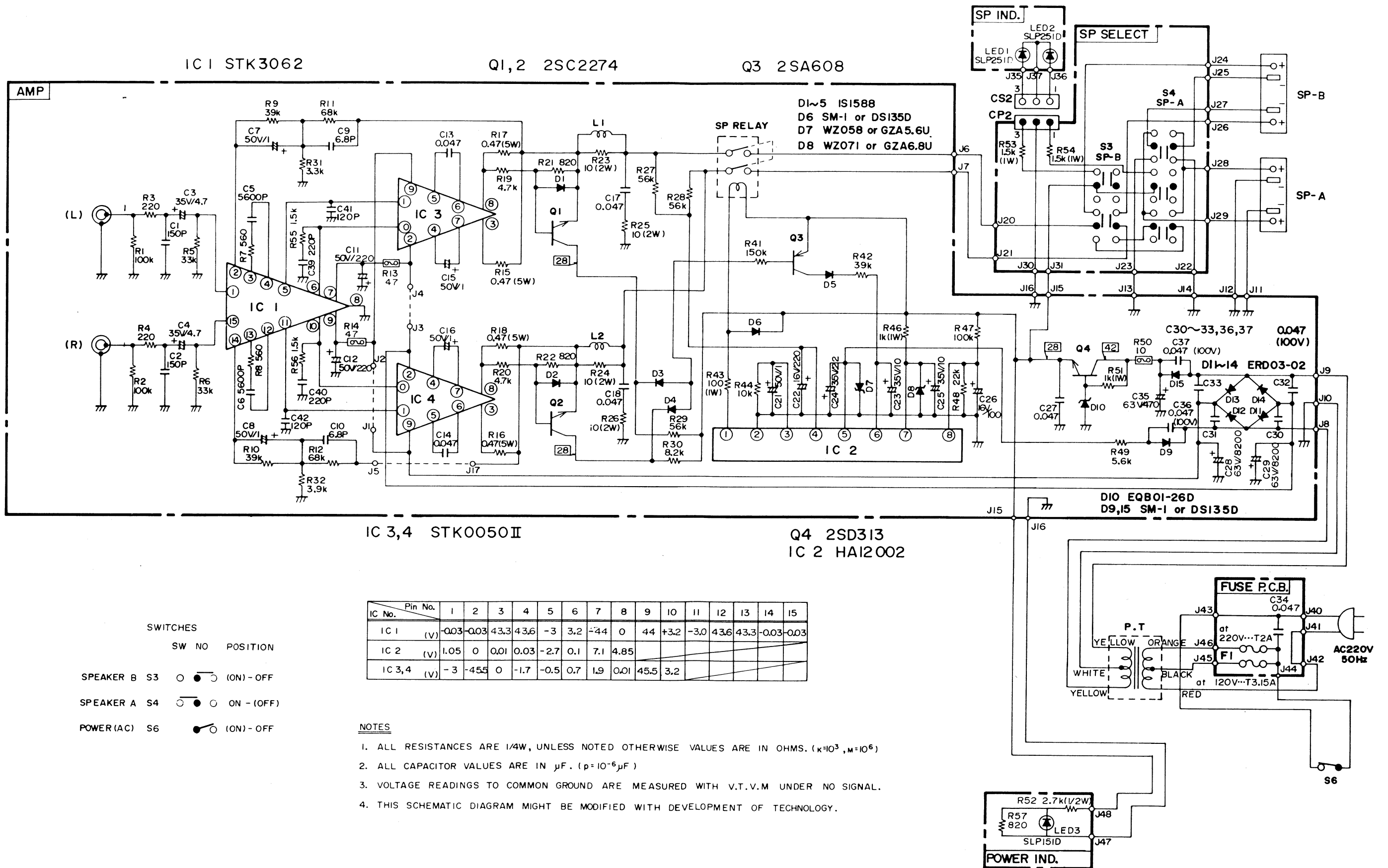
Channel separation (1 kHz)	65 dB
S/N ratio (50 mW)	60 dB
Power supply	AC220V, 50 Hz

# WIRING DIAGRAM

AMP P.C.B. Bottom



# SCHEMATIC DIAGRAM



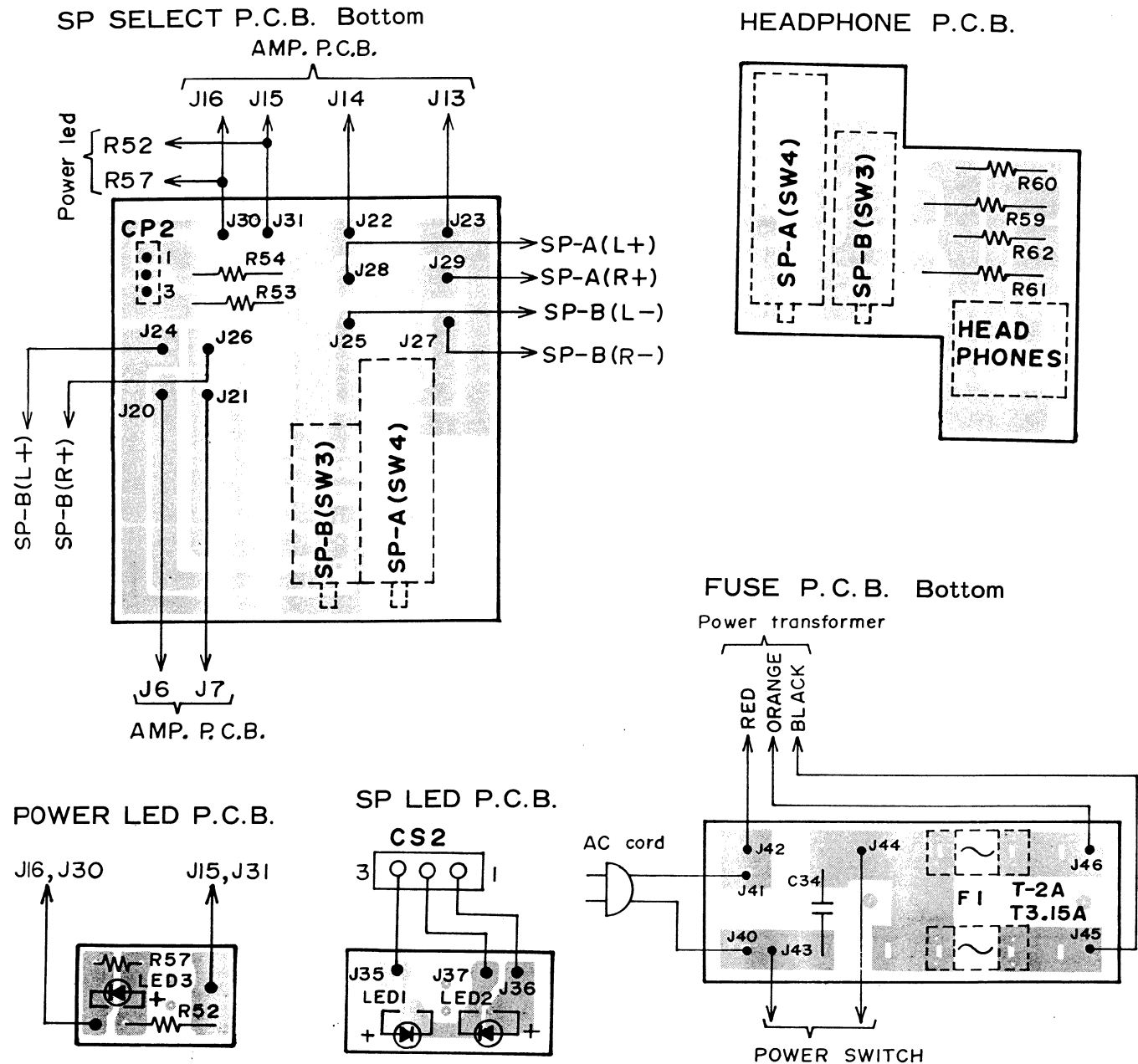
- SWITCHES
- SW NO POSITION
- SPEAKER B S3 ○ ● (ON) - OFF
- SPEAKER A S4 ○ ● (ON) - (OFF)
- POWER (AC) S6 ● ○ (ON) - OFF

IC No.	Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IC 1	(V)	-0.03	-0.03	43.3	43.6	-3	3.2	-44	0	44	+3.2	-3.0	43.6	43.3	-0.03	-0.03
IC 2	(V)	1.05	0	0.01	0.03	-2.7	0.1	7.1	4.85							
IC 3,4	(V)	-3	-4.5	0	-1.7	-0.5	0.7	1.9	0.01	45.5	3.2					

**NOTES**

1. ALL RESISTANCES ARE 1/4W, UNLESS NOTED OTHERWISE VALUES ARE IN OHMS. (K=10<sup>3</sup>, M=10<sup>6</sup>)
2. ALL CAPACITOR VALUES ARE IN μF. (P=10<sup>-6</sup>μF)
3. VOLTAGE READINGS TO COMMON GROUND ARE MEASURED WITH V.T.V.M UNDER NO SIGNAL.
4. THIS SCHEMATIC DIAGRAM MIGHT BE MODIFIED WITH DEVELOPMENT OF TECHNOLOGY.

# WIRING DIAGRAM



# PARTS LIST

Key No.	Ref. No.	Part No.	Description	Qty
<b>PACKAGE PARTS</b>				
		R-4075179	Individual carton	1
		R-4771703-S	Label	2
		R-4770191	Label, caution	1
		R-357503	Polyethylene bag 100x240, AC cord	1
		R-4774495	Polyethylene bag, set	1
		R-4172783A	Instruction book	1
		R-4172784A	Polyethylene bag, 240x320 instruction book	1
		R-4172784A	Styro-foam cushion, right	1
		R-4075027	Styro-foam cushion, left	1
		R-4075217	Protector	1
		R-4075217	Protector, individual carton	2
<b>CABINET APPEARANCE PARTS (SILVER)</b>				
1		R-277721	Panel, base	1

Key No.	Ref. No.	Part No.	Description	Qty
2		R-277722	Panel	1
3		R-3973921	Screw, Pan Hd., 2x6	6
4		R-3973932	Fix board, Panel right	1
4		R-3973932	Fix board, Panel left	1
5		R-1272491-L	Screw Pan Hd., with washer 3x6	4
5		R-1272491-L	Top cover	1
6		R-3973918	Screw Bind Hd., 4x6	4
7		R-3973919	Fix board, power switch	1
7		R-3973919	Fix board, speaker switch	1
8		R-3973920	Screw, Pan Hd., 2x8	4
9		R-3973829	Knob, power	1
9		R-3973829	Knob, speaker	2
<b>CABINET APPEARANCE PARTS (BLACK)</b>				
1		R-277721-L	Panel, base	1
2		R-277722-L	Panel	1

NOTES: 1. Part orders must contain Model Number, Part Number and Description.  
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

# PARTS LIST

Key No.	Ref. No.	Part No.	Description	Qty
3		R-3973921-L	Screw Pan Hd., 2x6	6
4		R-3973932-L	Fix board, panel right	1
4		R-3973932-L	Fix board, panel left	1
5		R-1272491-M	Screw pan Hd., with washer 3x6	4
5		R-1272491-M	Top cover	1
6		R-3973918-L	Screw Bind Hd., 4x6	4
7		R-3973919-L	Fix board, power switch	1
7		R-3973919-L	Fix board, speaker switch	1
9		R-3973829-L	Screw Pan Hd., 2x8	4
8		R-3973920-L	Knob, speaker	2
8		R-3973920-L	Knob, power	1
<b>CHASSIS MECHANICAL PARTS</b>				
10		R-1272493B	Bottom case	1
11		R-1272501	Bracket, power switch	1
11		R-1272501	Screw Pan Hd., 3x6	1
12		R-1272756	Lever, power switch	1
13		R-1272753	Bracket, speaker & head phone	1
13		R-1272753	Screw Pan Hd., 3x6	1
14		R-4171489	Cushion, speaker switch	2
15		R-1272746	Bracket, panel	2
15		R-1272746	Screw Pan Hd., 3x8, B-tight	4
16		R-377065	Holder, wire	2
17		R-1272747	Bracket, power trans	1
17		R-1272747	Screw Pan Hd., 3x8 B-tight	3
18		R-1272495	Bracket, power trans rear	1
18		R-1272495	Screw Pan Hd., 3x8 B-tight	3
19		R-277684-L	Heat sink	2
19		R-277684-L	Screw Pan Hd., 4x10 S-tight	6
19		R-277684-L	Screw Pan Hd., 3x14 B-tight	4
19		R-277684-L	Bracket-Heat sink	4
20		R-377095	Fixture, fuse PCB	2
21		R-1272754	Screw Pan Hd., 3.5x6 P-tight	2
21		R-1272754	Chassis, rear	1
22		R-377070	Screw Pan Hd., 3x6	1
22		R-377070	Screw Bind Hd., 3x6	4
23		R-1272496	Bushing, AC cord	1
23		R-1272496	Bottom cover	1
24		R-S872150	Screw Pan Hd., 3x6 B-tight	3
24		R-S872150	Foot base	4
25		R-437384	Tap, Screw Flat Hd., 3x6	4
25		R-437384	Cushion, felt 40x12x4	1
25		R-437384	Screw Pan Hd., 3x6 B-tight	7
25		R-437384	Panel mtg.	2
25		R-437384	Push switch mtg.	2
25		R-437384	Screw Pan Hd., with Washer 3x6 B-tight	6
25		R-437384	AMP PCB mtg.	2
25		R-437384	Screw Pan Hd., 3x6 P-tight	2
25		R-437384	SP select PCB mtg.	2
<b>CHASSIS ELECTRICAL PARTS</b>				
26		R-S37089-1	AC cord L=2200	1
26		R-S47655	Push switch, Power	1
27		R-W77972	Screw, Oval Hd., 3x6	2
27		R-W77972	Power transformer	1
28		R-S17410-1	Screw Pan Hd., with flat Washer 4x10	4
28		R-S17410-1	Nut with Washer 4	4
29		R-S17360	Terminal plate, Input	1
29		R-S27298-3	Screw Pan Hd., 3x8 P-tight	2
29		R-S27298-3	Terminal plate, speaker	1
29		R-S17243	Housing, 3P	3
29		R-S17243	Terminal, CS2	3
29		R-S17185	Wire band	3
29		R-S17286	Screw Pan Hd., 3x6 B-tight	1
29		R-S17286	Fuse, 2A SEMKO	1
29		R-S17286	Fuse, 3.15A SEMKO	1
29		R-S17286	Integrated circuit, STK0050 II	2
29		R-S17286	Screw Pan Hd., with Washer, 3x14	4
<b>AMP PCB ASSEMBLY</b>				
30		R-A75369	Circuit board assembly, AMP	1
30		R-W6754	Choke coil	2

NOTES: 1. Part orders must contain Model Number, Part Number and Description.  
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

Key No.	Ref. No.	Part No.	Description	Qty
31		R-S47585	Relay	1
31		R-2671941	Heat sink, transistor	1
31		R-2671941	Screw Pan Hd., 3x6 B-tight	1
<b>SEMICONDUCTORS</b>				
IC1			Integrated circuit, STK3062	1
IC2			Integrated circuit, HA12002	1
Q1,2			Transistor, 2SC2274	2
Q3			Transistor, 2SA608	1
Q4			Transistor, 2SD313	1
D1,2,3,4,5			Diode, 1S1588 or ITT73N	5
D6,9,15			Diode, DS-135 D or SM-1-02C	3
D7			Diode, WZ-058 or GZA-5.6U	1
D8			Diode, WZ-071 or GZA-6.8U	1
D10			Diode, EQB-01-26D	1
D11,12,13,14			Diode, ERD-03-02	4
<b>RESISTORS</b>				
(Resistors are of carbon type, ±5% allowance and 1/4 W unless otherwise noted.)				
R3,4			220 ohm	2
R7,8			560 ohm	2
R21,22			820 ohm	2
R56			1.5 k ohm	1
R31,32			3.3 k ohm	2
R19,20			3.9 k ohm	2
R49			5.6 k ohm	1
R30,29			8.2 k ohm	2
R44			10 k ohm	1
R48			22 k ohm	1
R5,6			33 k ohm	2
R9,10,42			39 k ohm	3
R28,27			56 k ohm	2
R11,12			68 k ohm	2
R47,41			150 k ohm	2
R55			1.5 k ohm	1
R1,2			100 k ohm	2
R25,26,23,24			Metal oxide film, 10 ohm, ±10%, 2W	4
R43			Metal oxide film, 100 ohm, ±10%, 1W	1
R46,51			Metal oxide film, 1 k ohm, ±10%, 1W	2
R13,14			Fuse, 47 ohm, ±5%, 1/4 W	2
R50			Fuse, 10 ohm, ±10%, 1/4 W	1
R15,16,17,18			Cement, 0.47 ohm, ±5%, 5W	4
<b>CAPACITOR</b>				
C9,10			Ceramic, 6.8 pF, ±5%, 50V	2
C1,2			Ceramic, 150 pF, ±5%, 50V	2
C40			Ceramic, 220 pF, ±10%, 50V	1
C5,6			Ceramic, 560 pF, ±5%, 50V	2
C13,14,17,18			Mylar, 0.047 μF, ±10%, 50V	4
C30,31,32,33,36,37			Mylar, 0.047 μF, ±10%, 100V	6
C41,42			Ceramic, 120 pF, ±10%, 50V	2
C27			Ceramic, 0.047 μF, ±10%, 50V	1
C39			Ceramic, 220 pF, ±10%, 50V	1
C8,7,15,16,21			Electrolytic, 1 μF 50V	5
C11,12			Electrolytic, 220 μF 50V	2
C24			Electrolytic, 22 μF 35V	1
C23,25			Electrolytic, 10 μF 35V	2
C29,28			Electrolytic, 8200 μF 63V	2
C35			Electrolytic, 470 μF 63V	1
C26			Electrolytic, 100 μF 16V	1
C22			Electrolytic, 220 μF 16V	1
C3,4			Electrolytic, 4.7 μF 50V	2
<b>SPEAKER SELECT PCB ASSEMBLY</b>				
32		R-A75370	Circuit board assembly, SP select A	1
33		R-S47627	Push switch	1
33		R-S27207-3	Plug, 3P	1
33		R53,54	Metal oxide film, 1.5k ohm, ±10%, 1W	2
<b>SPEAKER SELECT PCB ASSEMBLY</b>				
34		R-A75371	Circuit board assembly, SP select B	1
35		R-S27438	Headphone	1
35		R59,61	Metal oxide film, 270 ohm, ±5%, 2W	2
35		R60,62	Metal oxide film, 100 ohm, ±5%, 1W	2

# PARTS LIST

Key No.	Ref.No.	Part No.	Description	Qty
<b>FUSE PCB ASSEMBLY</b>				
36		R-A75372	Circuit board assembly, Fuse	1
		R-S17024	Fuse clip	4
		R-237188	Eyelet	2
		R-237196	Terminal	4
	C34	Metallized polyester, 0.047 $\mu$ F, 250V	1	
<b>POWER LED PCB ASSEMBLY</b>				
37		R-A75373	Circuit board assembly, Power LED	1

Key No.	Ref.No.	Part No.	Description	Qty
	LED3		LED, SLP-151D	1
	R52		Solid 2.7 k ohm, $\pm 10\%$ , $\frac{1}{2}$ W	1
	R57		Carbon, 820 ohm, $\pm 5\%$ , $\frac{1}{4}$ W	1
<b>SPEAKER LED PCB ASSEMBLY</b>				
38	R-A75374		Circuit board assembly, SP LED	1
	LED1,2		LED, SLP-251D	2

NOTES: 1. Part orders must contain Model Number, Part Number and Description.  
 2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

# EXPLODED VIEW

