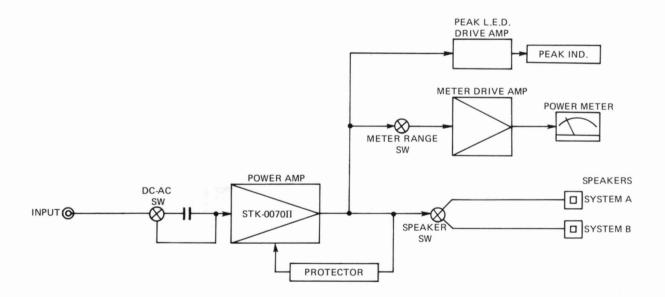


The first name in high fidelity

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FUNCTIONAL BLOCK DIAGRAM



SPECIFICATIONS

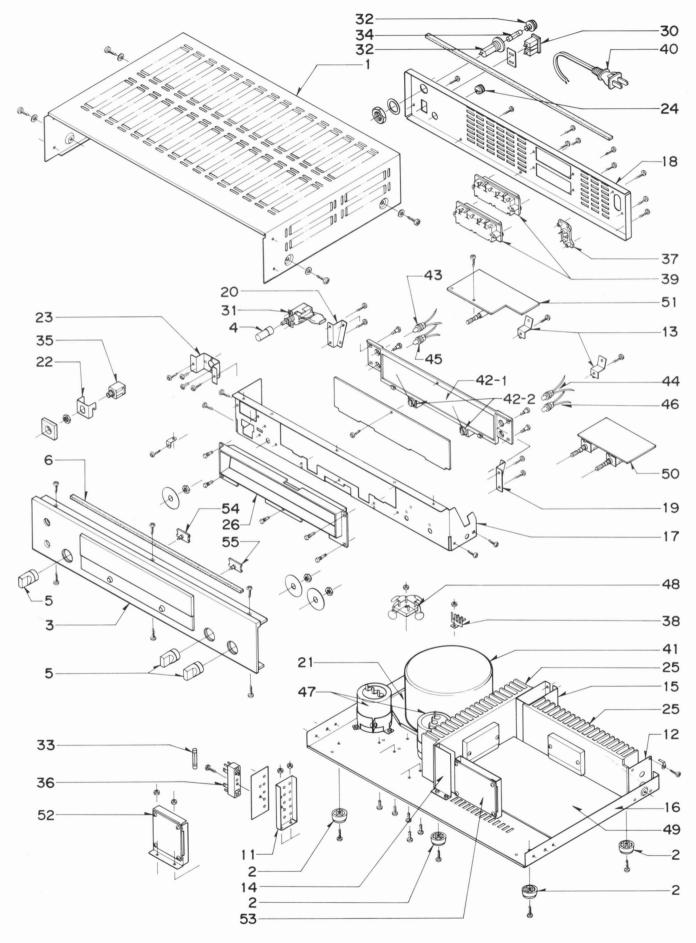
AMPLIFIER	BA-3000
Minimum RMS sine wave power per channel within stated banwidth at no more than stated distortion and with 8 ohm load.	60 Watts
Power Bandwidth	20 Hz — 20 kHz
Total Harmonic Distortion	0.01 %
IM Distortion	0.01 %
Speaker Damping	>50
Frequency Response	DC to 75 kHz, ±1 dB
Input Sensitivity and Impedance	1000 mV/50 kΩ
Headphones Output	5V/100Ω
Level Meters	VU Meter
Meter Range Switch	0 dB/-20 dB
Subsonic Filter below 5 Hz	12 dB/Oct.
Signal/Noise Ratio (Short Circuit A Network)	110 dB
Power Requirements	120 V AC ±10%
	60 Hz, 350 W
Dimensions (W x D x H)	17-1/3'' x 12-1/2'' x 3-1/2''
	440 x 320 x 89 mm
Weight (approx.)	21 lbs./9.5 kg

Because Fisher products are subject to continuous improvement, Fisher reserves the right to modify, change, or alter any design or specifications without notice and without incurring any obligation. Fisher reserves the right to make changes and improvements upon its products without any obligation to install such changes upon any of its products previously manufactured.

NOTE: The photograph on the cover shows the BA-3000 with a "BLACK" front panel. The "SILVER" model is identical in all respects.

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CABINET & CHASSIS EXPLODED VIEW



PARTS LIST

PACKING PARTS LIST

Ref. No. Parts Number Description

131 6 1139 72436	Box Corrugate-EXP
131 6 2119 02091	Bag Polyethylene-EXP
131 6 3009 26910	Pad (Right, Left)

ACCESSORIES PARTS LIST

Ref. No.	Parts Number	Description
	131 6 4519 14400	Leg Bag Fan Bag Fan Bag Fan (Fuse) Explanatory Booklet Guarantee Card Service Station List

CABINET PARTS LIST

Ref. No.	Parts Number	Description
1 2	131 2 1410 22700 131 2 1801 12900	

APPEARANCE PARTS LIST

Ref. No.	Parts Number	Description
3		Panel Decorate Assy (Silver)
4		Panel Decorate Assy (Black) Power Switch Knob (Silver)
	131 0 1001 52601	Power Switch Knob (Black)
5	131 0 1001 53700	Function Knob (Silver)
	131 0 1001 53701	Function Knob (Black)
6	131 2 5205 15300	Cushion

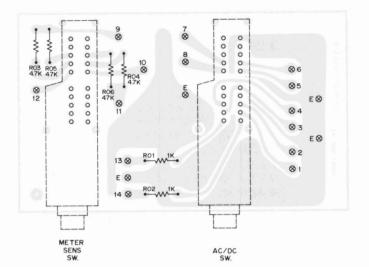
CHASSIS PARTS LIST

Ref.	No.	Parts Number	Description
11		131 2 3101 67000	Metal Mount (Fuse)
12		131 2 3101 67100	Metal Mount (Heat Sink R Side)
13		131 2 3101 67200	Metal Mount (Plate Dial Rear)
14		131 2 3101 67500	Metal Mount (Heat Sink Center)
15		131 2 3101 67600	Metal Mount (Heat Sink)
16	*	131 2 3301 26000	Chassis
17	*	131 2 3305 27200	Panel Front
18	*	131 2 3306 30401	Panel Rear
19		131 2 3310 16100	Metal Support (Plate Dial Rear)
20		131 2 3310 16200	Metal Support (Plate Dial Rear)
21		131 2 3617 17900	Metal Mount Transformer
22		131 2 3624 13100	Mount Headphone Jack
23		131 2 3701 24900	Mount Electric Part (Power Switch)
24		131 2 6111 11300	Bushing (AC Cord)
25		131 2 6201 27500	Plate Heat Sink
26		131 2 6113 35400	Shelter

ELECTRICAL PARTS LIST

Ref. No.	Parts Number	Description
30	4 2352 00400	AC Outlet
31	4 2312 00880	Switch Power
32	4 2359 21110	Fuse Holder
33	4 2342 00010	Fuse 1 A
34	4 2349 20912	Fuse 5 A
35	4 2352 00030	Jack Headphone
36	4 2352 00340	Fuse Holder
37	4 2359 23070	RCA 2P Jack
38	4 2372 00140	Terminal GND
39	4 2372 00680	
40	4 2439 20526	Power Cord
41	4 2512 10220	Power Transformer
42 —	— 4 5112 00460	Meter VU Assy
42-1 -	-131 0 1018 00900	Housing Assy
42-2	- 131 0 9905 00600	Movement
43	4 6122 00600	Pilot Lamp (8V 200mA)
44	4 6122 00620	Pilot Lamp (8V 200mA)
45	4 6122 01120	Pilot Lamp (8V 200mA)
46	4 6122 01130	Pilot Lamp (8V 200mA, Yellow)
C01,02	C2HYDP103A	Ceramic 0.01 µ F 500V +100,-0%
03,04		
05		
47(C06,0	07) 4 2232 00270	Electrolytic 4700 µFx2 63V
C09	C1HYDZ473A	Ceramic 0.047 µ F 50V +80,-20%
48(D01)	DDD-S5VB20	Diode, S5VB20
49	131 0 4001 03680	Power Amp P.C.B. Assy
50 *	131 0 4001 03691	Input Switch P.C.B. Assy
51 *	131 0 4001 03701	SP Select P.C.B. Assy
52 *	131 0 4001 03711	Power Supply P.C.B. Assy
53 *	131 0 4001 03721	Meter P.C.B. Assy
54 *	131 0 4001 03731	L.E.D. P.C.B. Assy
55 *	131 0 4001 03741	L.E.D. P.C.B. Assy

*-Not a Service Part.



INPUT SWICH P.C.BOARD

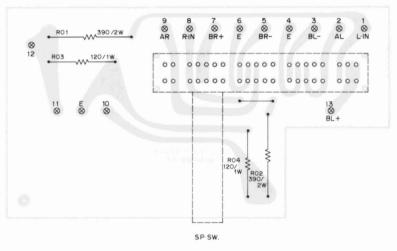
(BOTTOM VIEW)







SP SELECT P.C.BOARD (BOTTOM VIEW)



PARTS LIST

INPUT SWITCH P.C.B. Assy 131 0 4001 03691

Ref. No. Parts Number Description

4 2312 03630 Switch Rotary 2-3 4 2312 03640 Switch Rotary 4-2

RESISTORS

R01,02	R2EDZJ102APA	Carbon	1k	1/4W	±5%
R03,04	R2EDZJ472APA	Carbon	4.7k	1/4W	±5%
R05,06	R2EDZJ473APA	Carbon	47k	1/4W	±5%

L.E.D. P.C.B. Assy 131 0 4001 03731

Ref. No. Parts Number Description SEMICONDUCTORS D01

DOO-SLP-132B Diode, SLP-132B

SP SELECT P.C.B. Assy 131 0 4001 03701

Ref. No. Parts Number Description

4 2312 03660 Switch Rotary 8-4

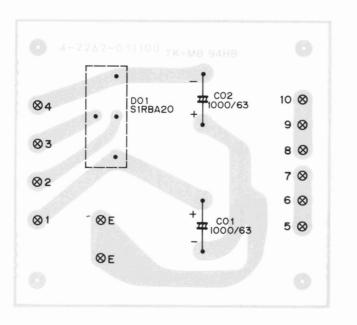
RESISTORS

R01,02	R3DXBJ391A	Oxide Metal Film	390	2W	±5%
R03,04	R3AXBJ121A	Oxide Metal Film	120	1W	±5%

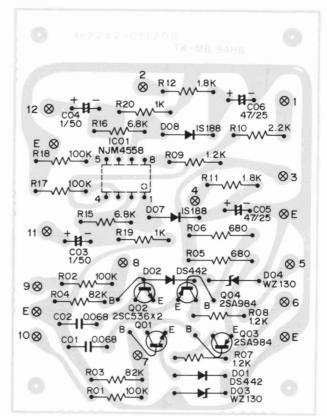
L.E.D. P.C.B. Assy 131 0 4001 03741

Ref. No. Parts Number Description SEMICONDUCTORS

D01 DOO-SLP-132B Diode, SLP-132B POWER SUPPLY P.C.BOARD







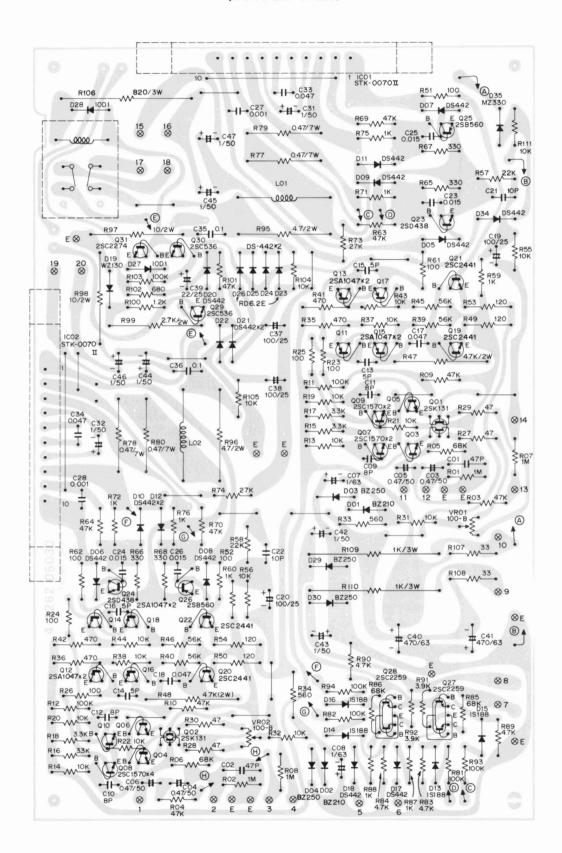
IC PIN NUMBERS VOLTAGE						
SYMBOL No. DEVICE 1 2 3 4						
IC01	NJM4558	0V	0V	0V	-19.0V	
		5	6	7	8	
		0V	0V	0V	22.0V	

PARTS LIST

POWER SUPPLY P.C.B. Assy 131 0 4001 03711

			Ref. No.	Parts Number	Description		
Ref. No.	Parts Number	Description		SEMICONDUCTO	IS		
C01,02	4 2232 00320	Electrolytic 1000 µF 63∨	D01,02 D03,04 D07,08	205 5 9040 44210 DJJ-WZ-130 202 5 9110 18820	Diode, DS442 Diode, WZ-130 Diode, 1S188FM	//1	
	SEMICONDUCTO	RS	IC01	IJJ-NJM4558DX	IC, NJM4558D		
D01	DDD-S1RBA20	Diode, Bridge S1RBA20	Q01,02 Q03,04	203 5 5000 53660 203 5 6820 98450		1	
				RESISTORS			
METER F 131 0 400	P.C.B. Assy 01 03721		R01,02 R03,04	R2EDZJ104APA R2EDZJ823APA	Carbon 100k Carbon 82k	1/4W 1/4W	±5% ±5%
Ref. No.	Parts Number CAPACITORS	Description	R05,06 R07,08 09	R2HZPK681A R2EDZJ122APA	Fuse 680 Carbon 1.2k	1/2W 1/4W	±10% ±5%
C01,02 C03,04 C05,06	C1HFAJ683A C1HRY-105APA C1ERY-476APA	Mylar $0.068 \mu\text{F} 50 \vee \pm 5\%$ Electrolytic $1 \mu\text{F} 50 \vee$ Electrolytic $47 \mu\text{F} 25 \vee$	R10 R11,12 R15,16 R17,18 - 7 - R19,20	R2EDZJ222APA R2EDZJ182APA R2EDZJ682APA R2EDZJ104APA R2EDZJ102APA	Carbon 2.2k Carbon 1.8k Carbon 6.8k Carbon 100k Carbon 1k	1/4W 1/4W 1/4W 1/4W 1/4W	±5% ±5% ±5% ±5%

POWER AMP P.C.BOARD



IC PIN NUMBERS VOLTAGES											
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10
IC01,02	S⊤K-0070II	-3.5V	-49.0V	0V	-1.8V	-0.6V	0.6V	1.8V	0V	49.0V	3.5V

PARTS LIST

POWER AMP P.C.B. Assy 131 0 4001 03680

Ref. No.	Parts Number	rts Number Description		Parts Number	Description				
	4 2329 20170	Relay LY-2-0		RESISTORS					
	HLL-PTH487A-B		R01,02	R2EDZJ105APA	Carbon	1M	1/4W	±5%	
L01,02	4 2539 20281	Coil	R03,04	R2EDZJ473APA	Carbon	47k	1/4W	±5%	
VR01,02	4 2222 00240	VR 100-B	R05,06	R2EDZJ683APA	Carbon	68k	1/4W	±5%	
			R07,08	R2EDZJ105APA	Carbon	1M	1/4W	±5%	
	CAPACITOR		R09,10	R2EDZJ473APA	Carbon	47k	1/4W	±5%	
C01,02	C1HCZJ470SPA	Ceramic 47 pF 50V ±5%	R11,12	R2EDZJ104APA	Carbon	100k	1/4W	±5%	
C03,04	C1HRE-474AL	Electrolytic 0.47 μ F 50V	R13,14	R2EDZJ103APA	Carbon	10k	1/4W	±5%	
05,06			R15,16	R2EDZJ332APA	Carbon	3,3k	1/4W	±5%	
C07,08	C1JRY-105APA	Electrolytic $1 \mu F 63V$	17,18						
C09,10	C1HCYD080APA	Ceramic 8 pF 50V ±0.5%	R19,20	R2EDZJ103APA	Carbon	10k	1/4W	±5%	
11,12			21,22						
C13,14	C2HCDK050SL	Ceramic 5 pF 500V ±10%	R23,24	R2EDZJ101APA	Carbon	100	1/4W	±5%	
15,16		Muler 0.047 E EOV +E%	25,26						
C17,18	C1HFAJ473A	Mylar $0.047 \mu\text{F}$ 50V ±5%	R27,28	R2EDZJ470APA	Carbon	47	1/4W	±5%	
C19,20	C1ERE-107A	Electrolytic 100 µF 25V Ceramic 10 pF 50V ±0.5%	29,30						
C21,22 C23,24	C1HCDD100SL	Ceramic 10 pF 50V ±0.5% Mylar 0.015 µF 50V ±5%	R31,32	R2EDZJ103APA	Carbon	10k	1/4W	±5%	
25,26	C1HFAJ153A	$10191a1 0.015 \mu 1 500 \pm 5\%$	R33,34	R2HZPK561A	Fuse	560	1/2W	±10%	
C27,28	C2YFRK102A	Mylar 0.001 µF 150∨ ±10%	R35,36	R2HZPK471A	Fuse	470	1/2W	±10%	
C31,32	C1HRY-105APA	Electrolytic $1 \mu F 50V$	R37,38	R2EDZJ103APA	Carbon	10k	1/4W	±5%	
C33,34	C1HFYK473APA		R39,40	R2EDZJ563APA	Carbon	56k	1/4W	±5%	
C35,36	C1HFAJ104A	Mylar $0.1 \mu\text{F}$ 50V ±5%	R41,42	R2HZPK471A	Fuse	470	1/2W		
C37,38	C1EAEN107A	Electrolytic $100 \mu\text{F}$ $25 \vee \pm 30\%$	R43,44	R2EDZJ103APA	Carbon	10k	1/4W 1/4W	±5% ±5%	
C39	C1ERE-226A	Electrolytic $22 \mu\text{F}$ 25V	R45,46	R2EDZJ563APA	Carbon Oxide Me	56k			
C40,41	C1JRE-477A	Electrolytic $470 \mu\text{F}$ 63V	R47,48 R49,50	R3DXBJ472A R2HZPK121A	Fuse	120		±10%	
C42,43	C1HRY-105APA	Electrolytic $1 \mu F 50V$	R51,52	R2EDZJ101APA	Carbon	100	1/200 1/4W	±5%	
44,45			R53,54	R2HZPK121A	Fuse	120	1/4W		
46,47			R55,56	R2EDZJ103APA	Carbon	120 10k	1/4W	±5%	
	SEMICONDUCTO	RS	R57,58	R2EDZJ223APA	Carbon	22k	1/4W	±5%	
D01,02	DJJ-BZ-210	Zener Diode, BZ-210	R59,60	R2EDZJ102APA	Carbon	1k	1/4W	±5%	
D03,04	DJJ-BZ-250	Zener Diode, BZ-250	R61,62	R2EDZJ101APA	Carbon	100	1/4W	±5%	
	205 5 9040 44210		R63,64	R2EDZJ473APA	Carbon	47k	1/4W	±5%	
	9,10,11,12		R65,66	R2EDZJ331APA	Carbon	330	1/4W	±5%	
	202 5 9110 18820	Diode, 1S188FM1	67,68						
15,16			R69,70	R2EDZJ473APA	Carbon	47k	1/4W	±5%	
D17,18	205 5 9040 44210	Diode, DS-442	R71,72	R2EDZJ102APA	Carbon	1k	1/4W	±5%	
D19	DJJ-WZ-130	Diode, WZ-130	R73,74	R2EDZJ273APA		27k	1/4W	±5%	
D20,21	205 5 9040 44210	Diode, DS-442		R2EDZJ102APA		1k	1/4W	±5%	
22			R77,78	4 2212 00070	Cemen	0.47	7W		
D23	DNN-RD6.2E	Diode, RD-6.2E	79,80						
	205 5 9040 44210		R81,82	R2EDZJ104APA		100k	1/4W	±5%	
D26	DNN-RD6.2E	Diode, RD-6.2E	R83,84	R2EDZJ472APA	Carbon	4.7k	1/4W	±5%	
D27,28	DCC-10D1NA	Diode, 10D1	R85,86	R2EDZJ683APA		68k	1/4W	±5%	
	DJJ-BZ-250	Diode, BZ-250	R87,88	R2EDZJ102APA		1k	1/4W 1/4W	±5%	
	205 5 9040 44210		R89,90 R91,92	R2EDZJ472APA		4.7k	1/4W	±5% ±5%	
D35	DMZ-MZ330A 206 5 5870 07010		R93,94	R2EDZJ392APA R2EDZJ104APA	Carbon Carbon	3.9k 100k	1/4W	±5%	
		FET 2SK131 K, L	R95,94	R3DXBJ4R7A	Oxide Me				
		TR 2SC1570GL-HL	R97,98	R3DXBJ100A	Oxide Me			2W ±5%	
	7,08,09,10	11120010/002112	R99	R3DXBJ272A	Oxide Me				
	203 5 7521 04750	TR 2SA1047 E. F	R100			1.2k	1/4W	±5%	
	5,16,17,18		R101	R2EDZJ472APA	Carbon	4.7k	1/4W	±5%	
	203 5 7512 44150	TR 2SC2441 E, F	R102	R2EDZJ681APA	Carbon	680	1/4W	±5%	
21,22			R103	R2EDZJ104APA	Carbon	100k	1/4W	±5%	
	203 5 6830 43850			5 R2EDZJ103APA	Carbon	10k	1/4W	±5%	
	203 5 6840 56050		R106	R3WXBJ821A	Oxide Me				
	TMM-2SC2259-F			3 R2HZPK330A	Fuse	33	1/2W	±10%	
	203 5 5000 53660		R109,110	R3WXBJ102A	Oxide Me	tal Film	1k 3	W ±5%	
Q31	203 5 7252 27450	TR 2SC2274 E, F - 9	R111	R2EDZJ103APA	Carbon	10k	1/4W	±5%	
		- 9							

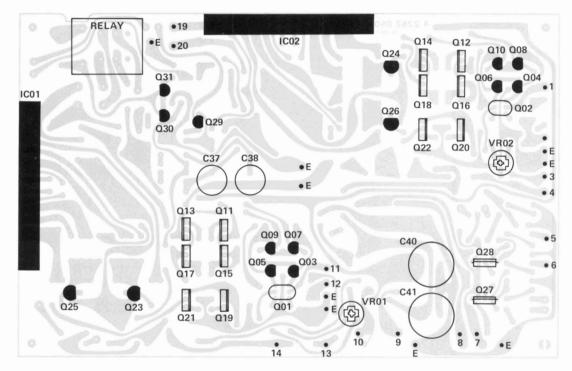
ADJUSTMENT OF THE POWER AMP P.C.BOARD

BEFORE ADJUSTMENT

- 1. After the power switch is turned ON, allow a few minutes before making adjustment, to be sure of the most stable operation.
- 2. Connect dummy load resistors (8 ohms) to the SPEAKERS terminals.
- 3. Use a DC V.T.V.M. (input impedance: More than 50k ohms/V).

ZERO BALANCE ADJUSTMENT

 Connect DC V.T.V.M. to the speaker output terminal. Turn VR01,02 until the output voltage becomes 0 V.

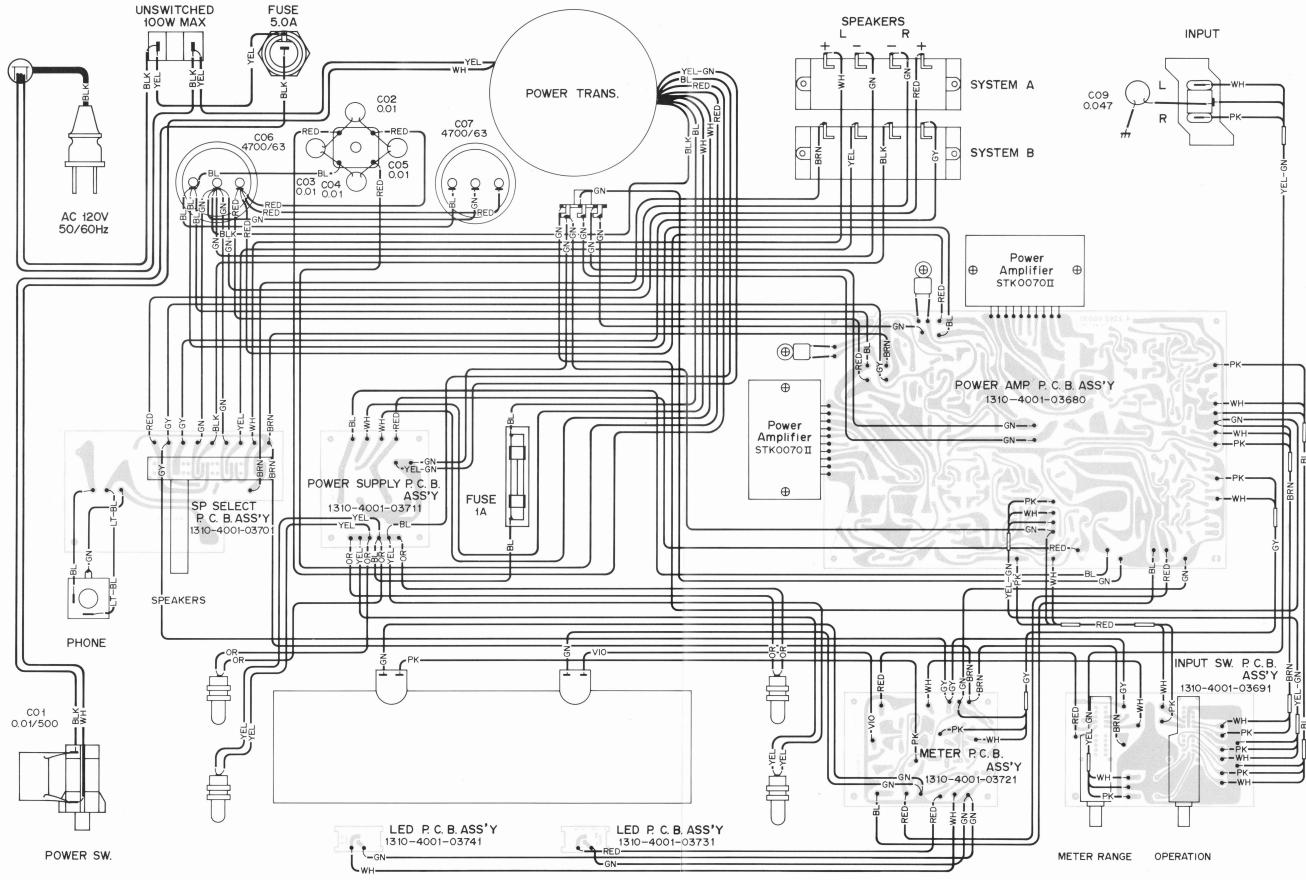


POWER AMP P.C.BOARD LAYOUT

EXPLANATION OF PROTECTIVE CIRCUITS

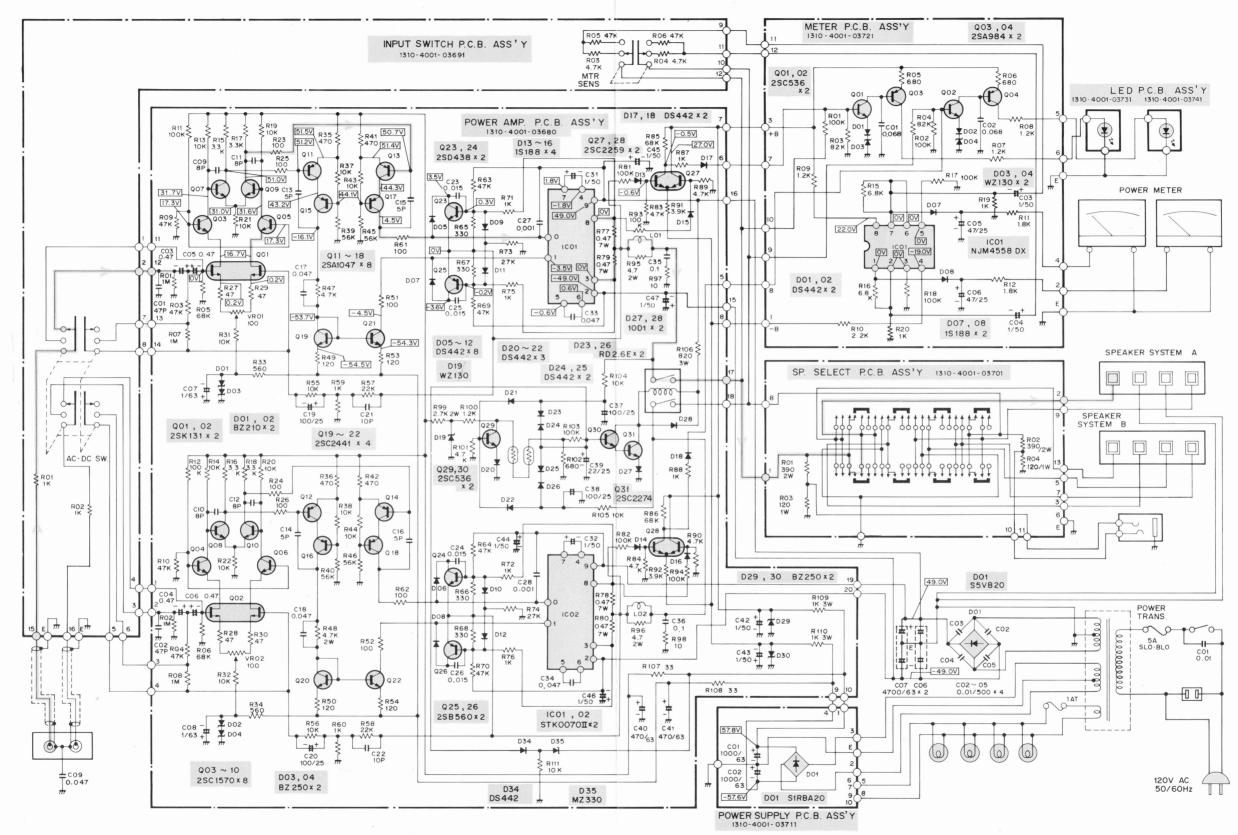
*For about two seconds after the power switch is turned on, the speakers remain silent because the power muting circuit operates during this time. *If the speaker terminals are short-circuited or the ventilation holes at the cabinet top are blocked during long periods of operation, the internal temperature may rise abnormally. At about 90°C, the thermal sensor (temperature detection) circuit becomes activated and will interrupt the signal. If the cause is removed and the internal temperature is back to normal, the unit automatically resets itself to restore normal operation.

POINT TO POINT WIRING DIAGRAM





SCHEMATIC DIAGRAM



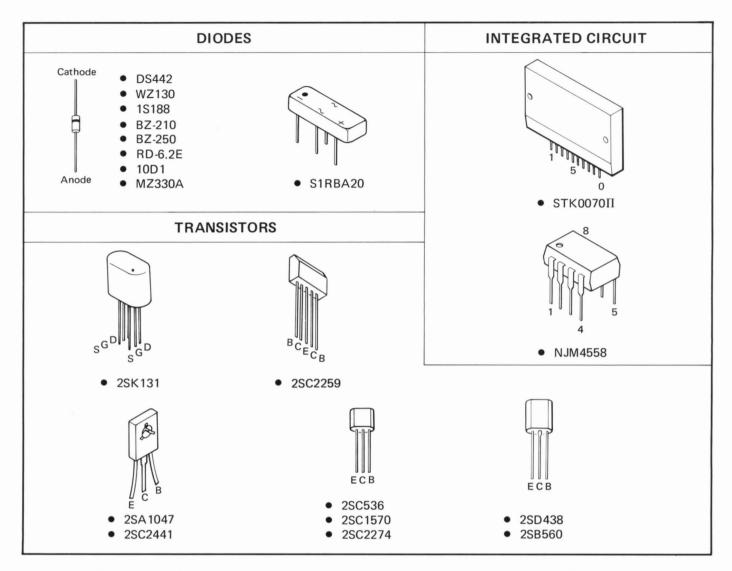
NOTES:

- 1. All resistors values are indicated in "ohm" (K=10³, M=10⁶).
- 2. All capacitors values are indicated in " μ F" (P=10⁻¹²).
- 3. All voltages indicated on the schematics are measured under the following conditions.
- a. Use a V.T.V.M.

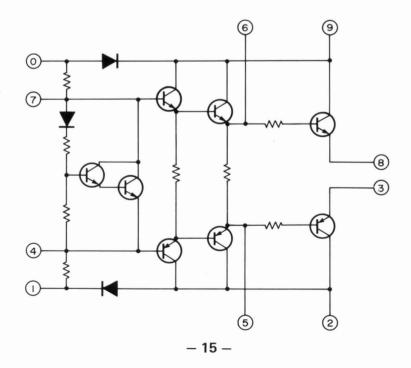
- b. All voltages ±10% with respect to chassis ground
- c. No signals at input terminals
- d. AC input at 120 volts 60Hz
- 4. This is a basic schematic diagram.

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SEMICONDUCTOR LEAD IDENTIFICATION



POWER AMP IC STK0070II EQUIVALENT CIRCUIT







FISHER CORPORATION, 21314 LASSEN STREET • CHATSWORTH • CALIFORNIA 91311

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