

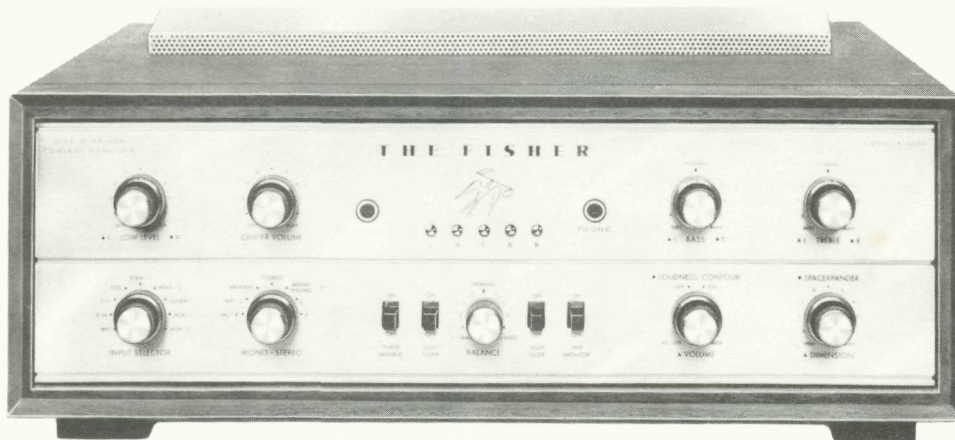


Stereophonic

THE FISHER X-1000

SERVICE

MANUAL



MODEL X-1000

CHASSIS SERIAL NUMBERS
FROM 20001 TO 29999 INCLUSIVE

PRICE: \$1.00

FISHER RADIO CORPORATION · NEW YORK

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CHASSIS SERIAL NUMBERS
FROM 20001 TO 29999 INCLUSIVE

THE FISHER X-1000



PARTS DESCRIPTION LIST

CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value).

Symbol	Description	Part No.
C1, 2	Ceramic, 100uf, GMV, N1500, 1000V	C50070-5
C3, 4	Mylar, .022uf, 250V	C50197-49
C5, 6	Mylar, .047uf, 250V	C50197-52
C7, 8	Ceramic, 16uf, N75, 1000V	C50070-21
C9, 10	Ceramic, .005uf, 20%, 500V	C50089-1
C11, 12	Electrolytic, 50uf, 3V	C50283-1
C13	Ceramic, .0027uf, 1000V	C50072-17
C14	Mylar, .047uf, 400V	C50197-30
C15	Ceramic, .0027uf, 1000V	C50072-17
C16, 17, 18	Mylar, .047uf, 400V	C50197-30
C19, 20	Ceramic, 24uf, 5%, N150, 1000V	C50070-8
C21, 22	Electrolytic, 50uf, 3V	C50283-1
C23, 24	Ceramic, 820uf, 1000V	C50072-7
C25, 26	Mylar, 1uf, 150V	C50197-78
C27, 28	Ceramic, 200uf, 1000V	C50072-22
C29, 30	Mylar, .022uf, 250V	C50197-49
C31	Mylar, .047uf, 400V	C50197-30
C32	Ceramic, 680uf, 1000V	C50072-2
C33	Mylar, .047uf, 400V	C50197-30
C34	Ceramic, 680uf, 1000V	C50072-2
C35, 36	Electrolytic, 50uf, 3V	C50283-1
C37	Electrolytic, 4uf, 350V	C50283-4
C38	Electrolytic, 4 Section:	C50180-33
	A — 20uf, 400V	
	B — 40uf, 450V	
	C — 20uf, 400V	
	D — 40uf, 450V	
C39	Electrolytic, 1uf, 350V	C50283-3
C40	Electrolytic, 50uf, 3V	C50283-1
C41	Electrolytic, 1uf, 350V	C50283-3
C42	Electrolytic, 50uf, 3V	C50283-1
C43, 44	Ceramic, 82uf, 5%, N1500, 1000V	C50070-33
C45, 46, 47	Mylar, .1uf, 400V	C50197-32
C48	Mylar, .1uf, 250V	C50197-54
C49	Mylar, .1uf, 400V	C50197-32
C50	Mylar, .1uf, 250V	C50197-54
C51	Electrolytic, 2 Section:	C50180-29
	A — 1000uf, 35V	
	B — 1000uf, 35V	
C52, 53, 54, 55	Mylar, .022uf, 250V	C50197-49
C56	Electrolytic, 3 Section:	C50180-31
	A — 30uf, 500V	
	B — 30uf, 500V	
	C — 30uf, 500V	
C57	Electrolytic, 2 Section:	C50180-32
	A — 30uf, 500V	
	B — 60uf, 500V	
C58	Ceramic, 24uf, 5%, N150, 1000V	C50070-8
C59, 60	Electrolytic, 50uf, 70V	C50283-2
C61	Ceramic, 24uf, 5%, N150, 1000V	C50070-8
C62, 63	Ceramic, 18uf, 5%, N150, 1000V	C50070-30
C64	Electrolytic, 50uf, 70V	C50283-2
C65, 66, 67	Ceramic, 330uf, 1000V	C50072-1
C68, 69	Molded, .01uf, 20%, 600V	C2747
C70	Ceramic, 330uf, 1000V	C50072-1
C71, 72	Ceramic, 35uf, N750, 1000V	C50070-15
C73, 74	Ceramic, .01uf, 20%, 500V	C50089-3
C75	Ceramic, 330uf, 1000V	C50072-1

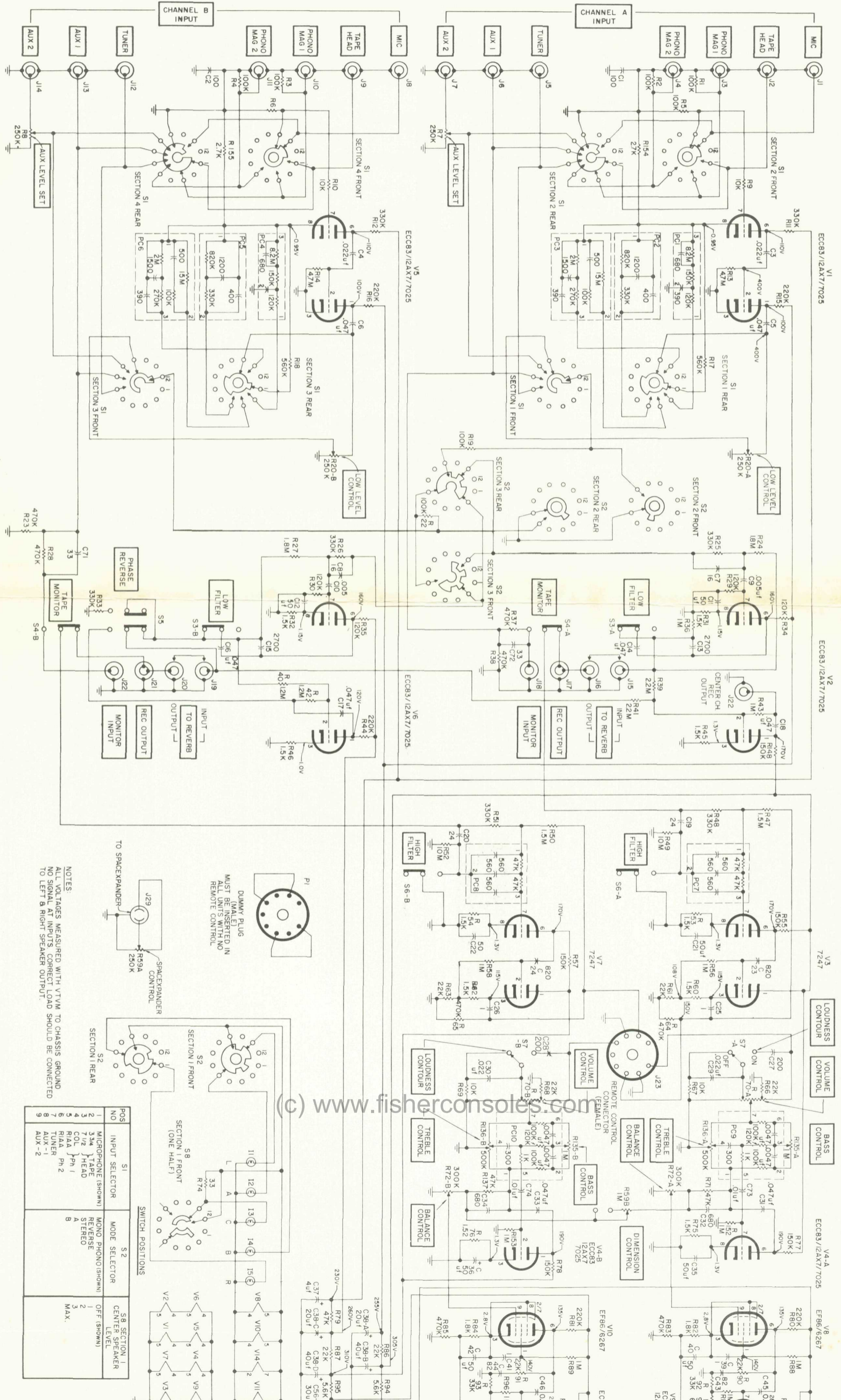
RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, 1/2 watt, unless otherwise noted. K=Kilohm, M=Megohm.

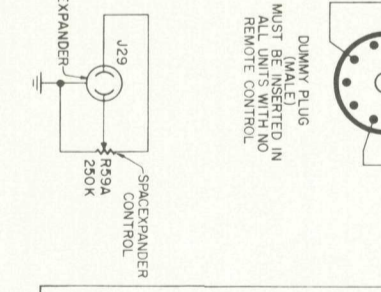
Symbol	Description	Part No.
R1, 2, 3, 4, 5, 6	Dep. Carbon, 100K, 5%, 1/3 W	R33DC104J
R7, 8	Potentiometer, 250K, Aux. Level Set	R50103-2
R9, 10	Dep. Carbon, 10K, 5%, 1/3 W	R33DC103J
R11, 12	Glass, 330K, 5%, 1W	R30G334J

R13, 14	Composition, 4.7M	RC20BF475K
R15, 16	Dep. Carbon, 220K, 5%, 1/3 W	R33DC224J
R17, 18	Composition, 560K, 5%	RC20BF564J
R19	Dep. Carbon, 100K, 5%, 1/3 W	R33DC104J
R20	Potentiometer, Dual, 250K, Low Level	R50160-78
R21	Potentiometer, 25K, DC, Balance, Ch. B	R50103-2
R22	Dep. Carbon, 100K, 5%, 1/3 W	R33DC104J
R23	Dep. Carbon, 470K, 5%, 1/3 W	R33DC474J
R24	Composition, 1.8M, 5%	RC20BF185J
R25, 26	Dep. Carbon, 330K, 5%, 1/3 W	R33DC334J
R27	Composition, 1.8M, 5%	RC20BF185J
R28	Dep. Carbon, 470K, 5%, 1/3 W	R33DC474J
R29, 30	Dep. Carbon, 120K, 5%, 1/3 W	R33DC124J
R31, 32	Dep. Carbon, 1.5K, 5%, 1/3 W	R33DC152J
R33	Dep. Carbon, 330K, 5%, 1/3 W	R33DC334J
R34, 35	Dep. Carbon, 120K, 5%, 1/3 W	R33DC124J
R36	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R37, 38	Dep. Carbon, 470K, 5%, 1/3 W	R33DC474J
R39	Composition, 2.2M, 5%, 1/3 W	RC20BF225J
R40	Composition, 1.2M, 5%	RC20BF125J
R41	Composition, 2.2M, 5%	RC20BF225J
R42	Composition, 1.2M, 5%	RC20BF125J
R43	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R44	Dep. Carbon, 220K, 5%, 1/3 W	R33DC224J
R45, 46	Dep. Carbon, 1.5K, 5%, 1/3 W	R33DC152J
R47	Composition, 1.5M, 5%	RC20BF155J
R48	Dep. Carbon, 330K, 5%, 1/3 W	R33DC334J
R49	Composition, 10M	RC20BF106K
R50	Composition, 1.5M, 5%	RC20BF155J
R51	Dep. Carbon, 330K, 5%, 1/3 W	R33DC334J
R52	Composition, 10M	RC20BF106K
R53, 54	Dep. Carbon, 1.5K, 5%, 1/3 W	R33DC152J
R55	Dep. Carbon, 150K, 5%, 1/3 W	R33DC154J
R56	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R57	Dep. Carbon, 150K, 5%, 1/3 W	R33DC154J
R58	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R59	Potentiometer, Dual, 250K Space Expander, 1M Dimension	R50160-76
R60	Dep. Carbon, 1.5K, 5%, 1/3 W	R33DC152J
R61	Composition, 22K, 1W	RC30BF223K
R62	Dep. Carbon, 1.5K, 5%, 1/3 W	R33DC152J
R63	Composition, 22K, 1W	RC30BF223K
R64, 65	Dep. Carbon, 470K, 5%, 1/3 W	R33DC474J
R66	Dep. Carbon, 22K, 5%, 1/3 W	R33DC223J
R67	Dep. Carbon, 10K, 5%, 1/3 W	R33DC103J
R68	Dep. Carbon, 22K, 5%, 1/3 W	R33DC223J
R69	Dep. Carbon, 10K, 5%, 1/3 W	R33DC103J
R70	Potentiometer, Dual Vol., 100K	R841-132
R71	Dep. Carbon, 47K, 5%, 1/3 W	R33DC473J
R72	Potentiometer, Dual Bal., 300K	R50160-75
R74	Composition, 33	RC20BF330K
R75, 76	Composition, 1.2K	RC20BF122K
R77, 78	Dep. Carbon, 150K, 5%, 1/3 W	R33DC154J
R79	Composition, 47K	RC20BF473K
R80, 81	Dep. Carbon, 220K, 5%, 1/3 W	R33DC224J
R82	Composition, 1.8K, 5%	RC20BF182J
R83	Dep. Carbon, 470, 5%, 1/3 W	R33DC471J
R84	Composition, 1.8K, 5%	RC20BF182J
R85	Dep. Carbon, 470, 5%, 1/3 W	R33DC471J
R86, 87	Composition, 22K	RC20BF223K
R88, 89	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R90, 91	Dep. Carbon, 22K, 5%, 1/3 W	R33DC223J
R92, 93	Dep. Carbon, 33K, 5%, 1/3 W	R33DC333J
R94, 95	Composition, 5.6K	RC20BF562K
R96	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R97, 98	Composition, 6.8K, 5%	RC20BF682J
R99	Potentiometer, 25K, Phase Inverter, Adj. Ch. A.	R50103-2
R100	Dep. Carbon, 33K, 5%, 1/3 W	R33DC333J
R101	Potentiometer, 25K, Phase Inverter, Adj. Ch. B.	R50103-2
R102	Dep. Carbon, 33K, 5%, 1/3 W	R33DC333J
R103, 104	Composition, 2.7K, 1W	RC30BF272K
R105	Wirewound, 15, 5W	R719-106
R106, 107, 108, 109	Dep. Carbon, 1M, 5%, 1/3 W	R33DC105J
R110, 111	Glass, 750, 5W	RPG5W751K
R112, 113	Composition, 56K	RC20BF563K
R114, 115	Potentiometer, 10K, Bias Adj.	R50103-5
R116	Composition, 390K, 5%	RC20BF394J
R117	Potentiometer, 25K, DC, Balance, Ch. A.	R50103-2
R118	Composition, 390K, 5%	RC20BF394J
R119	Composition, 3.3K, 5%	RC20BF332J
R120, 121	Composition, 390K, 5%	RC20BF394J
R122	Composition, 3.3K, 5%	RC20BF332J
R123, 124	Composition, 68K	RC20BF683K

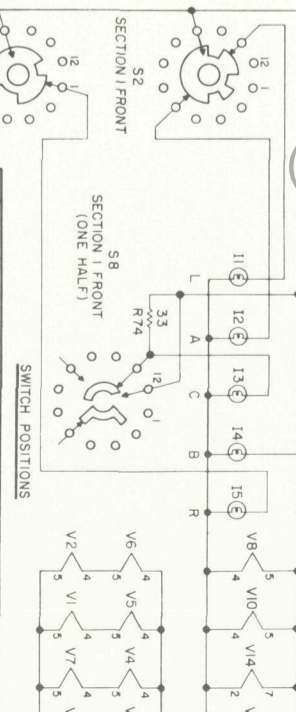
SCHEMATIC DIAGRAM



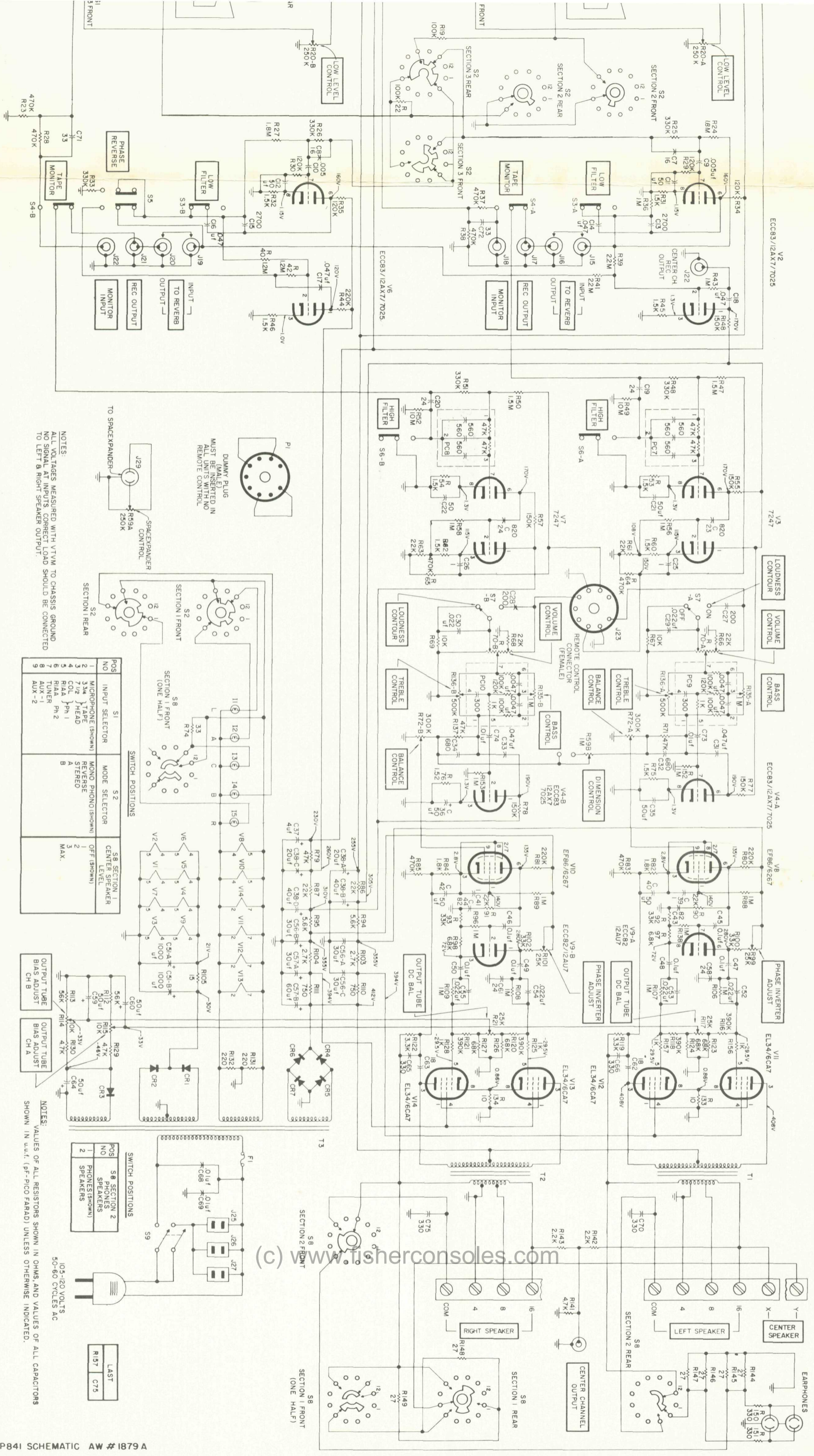
NOTES:
 ALL VOLTAGES MEASURED WITH VTVM TO CHASSIS GROUND
 NO SIGNAL AT INPUTS. CORRECT LOAD SHOULD BE CONNECTED
 TO LEFT & RIGHT SPEAKER OUTPUT.



POS NO	S1 INPUT SELECTOR	S2 MODE SELECTOR	S8 SECTION 1 CENTER SPEAKER LEVEL
1	MICROPHONE (SHOWN)	MONO PHONO (SHOWN)	OFF (SHOWN)
2	3 3/4" TAPE	REVERSE	1
3	7 1/2" HEAD	STEREO	2
4	GOA Ph 1	A	3
5	GOA Ph 2	B	MAX.
6	RIAA TUNER		
7	AUX - 1		
8	TUNER		
9	AUX - 2		



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 NO SIGNAL AT INPUTS. CORRECT LOAD SHOULD BE CONNECTED
 TO LEFT & RIGHT SPEAKER OUTPUT.

POS NO	S1	S2	S8 SECTION 1
1	MICROPHONE (SHOWN)	MONO PHONO (SHOWN)	OFF (SHOWN)
2	3 1/2" TAPE	REVERSE	LEVEL
3	7 1/2" HEAD	STEREO	
4	RAA Ph 1	A	
5	RAA Ph 2	B	
6	TUNER		
7	AUX-2		
8			
9			

NOTES:
 VALUES OF ALL RESISTORS SHOWN IN OHMS, AND VALUES OF ALL CAPACITORS
 SHOWN IN u.f.f. (pF-PICO FARAD) UNLESS OTHERWISE INDICATED.

POS NO	S8 SECTION 2
1	PHONES (SHOWN)
2	SPEAKERS

POS NO	LAST
1	R137
2	C75

ADJUSTMENTS

1. Output tube bias adjustment

- a** — Set Volume control to minimum.
- b** — Connect DC VTVM to Pin 8 of V11 or V12.
- c** — Adjust Channel A Bias control until VTVM reads 0.86 volt.
- d** — Connect DC VTVM to Pin 8 of V13 or V14 and adjust Channel B Bias control until VTVM reads 0.86 volt.
- e** — Repeat steps a through d until both readings are equal.

2. Output tube DC Balance and phase inverter adjustment

- a** — Connect 4-ohm load to SPKR output for Channel A.
- b** — Connect IM distortion analyzer output to the AUX 1 input for Channel A.
- c** — Connect the analyzer input ground lead to the terminal lug marked 4 on the Channel A speaker terminal strip.
- d** — The hot lead from the analyzer input should be connected to the terminal lug marked COM on the Channel A speaker terminal strip.
- e** — Set the Input selector to AUX 1, the MODE SELECTOR switch to STEREO and adjust the analyzer output until 10.5 volts are indicated across the output load.
- f** — Adjust the Channel A DC Balance and Channel A Phase Inverter controls for minimum IM distortion. Repeat this adjustment several times.
- g** — Repeat steps a through f for Channel B.

PARTS DESCRIPTION LIST

R125	Composition, 1K
R126, 127	Composition, 68K
R128	Composition, 1K
R129, 130	Composition, 4.7K
R131, 132	Composition, 220
R133, 134	Wirewound, 10, 5W
R135	Potentiometer, Dual, 1M, Bass
R136	Potentiometer, Dual, 500K, Treble
R137	Dep. Carbon, 47K, 5%, 1/3 W
R138	Dep. Carbon, 1M, 5%, 1/3 W
R139, 140	Composition, 390
R141	Composition, 4.7K
R142, 143	Composition, 2.2K
144, 145,	
146, 147,	
148, 149	Wire Wound, 7W, 27
R150, 151	Composition, 330, 1W
R152, 153	Dep. Carbon, 1M, 5%, 1/3 W
R154, 155	Glass, 2.7K, 5%, 1/3 W
R156, 157	Composition, 1K

RC20BF102K
RC20BF683K
RC20BF102K
RC20BF472K
RC20BF221K
R779-103
R50160-79
R50160-77
R33DC473J
R33DC105J
RC20BF391K
RC20BF472K
RC20BF222K
R841-109
RC30BF331K
R33DC105J
R30G272J
RC20BF102K

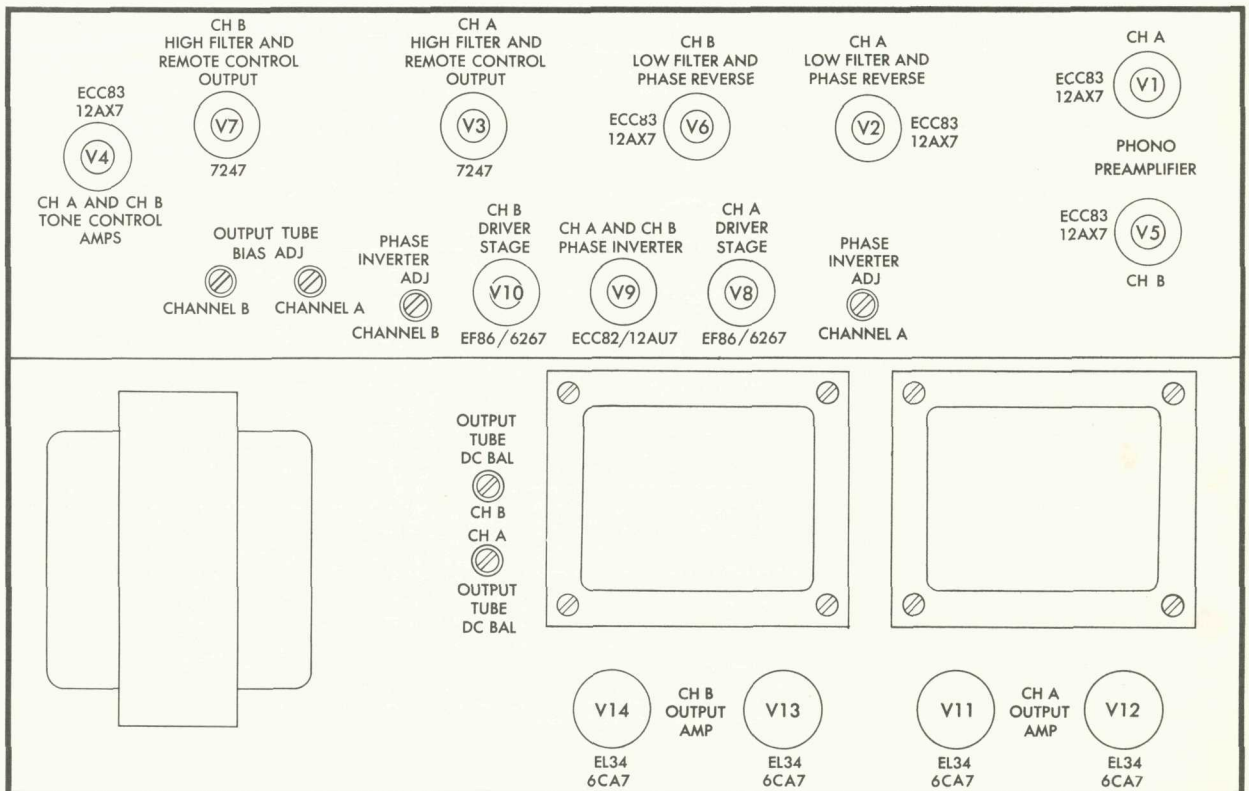
PC1	Printed Circuit, 3 3/4 Tape EQ.
PC2	Printed Circuit, Col. LP. EQ.
PC3	Printed Circuit, RIAA & Tape EQ.
PC4	Printed Circuit, 3 3/4 Tape EQ.
PC5	Printed Circuit, Col. LP. EQ.
PC6	Printed Circuit, RIAA & Tape EQ.
PC7, 8	Printed Circuit, H. Freq. Filter
PC9, 10	Printed Circuit, Tone Control
S1	Switch
S2	Switch
S3, 4,	
5, 6	Switch, Slide
S7	Switch, Loudness, Contour
S8	Switch, Center Ch., Power
S9	Switch, Power
T1	Transformer, Output
T2	Transformer, Output
T3	Transformer, Power
CR1, 2	Diode, Silicon, SD91
CR3	Senelium Rect.
CR4, 5,	
6, 7	Diode, Silicon, SD95A
—	Dress Panel
—	Tube Shield
—	Jewel, Red
—	Jewel, Yellow
—	Jewel, Green
—	Fuse Holder

PC50187-7
PC50187-6
PC50187-3
PC50187-7
PC50187-6
PC50187-3
PC50187-5
PC657-140
R841-123
R841-136
S50200-5
Part of R70
R841-137
Part of R70
T841-116-2
T841-116-1
T841-115
SR851-121
SR50253-5
SR806-126
AS841-127
E3287
150162-1
150162-2
150162-4
X563-151

MISCELLANEOUS

Symbol	Description	Part No.
F1	Fuse, 5 Amp., Slo-Blo	F841-133
I1, 2, 3,	Pilot Light, #47	150009-1
4, 5		

TUBE LAYOUT



AW 1881



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N841-108AX

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