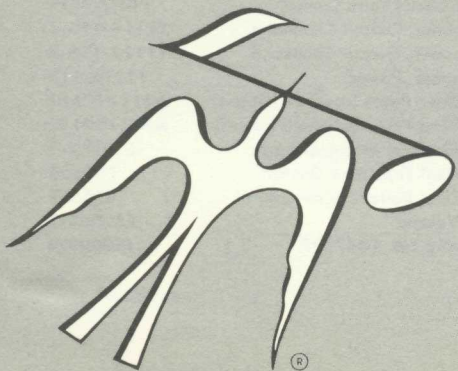
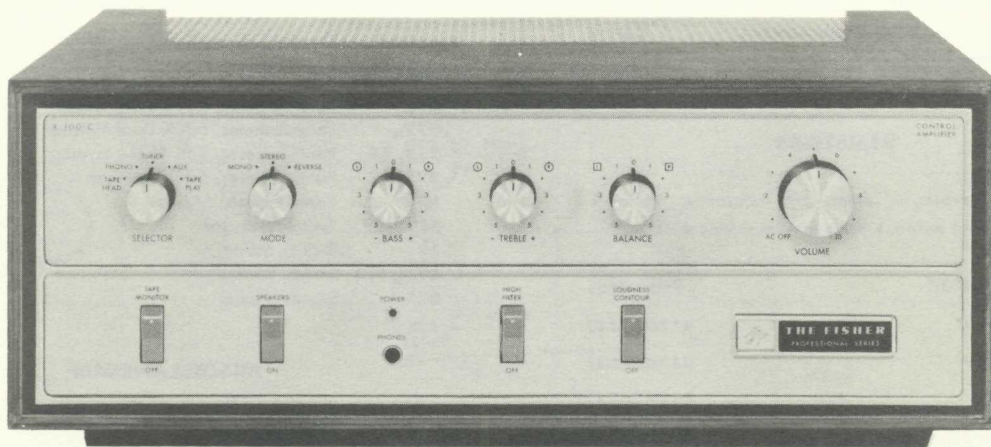


Service Manual

THE FISHER



X-100-C

CHASSIS SERIAL NUMBERS
FROM 10001 to 19999 INCLUSIVE

\$1.00

FISHER RADIO CORPORATION • LONG ISLAND CITY 1 • NEW YORK

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PARTS DESCRIPTION LIST

CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value). All capacitors not marked uF are pF (uF).

Symbol	Description	Part No.
C1, 2	Ceramic 30, N 150, 1000V	C50070-3
C3, 4, 9, 10	Mylar, .022uF, 400V	C50574-8
C5, 6		Ceramic, .01uF, 20%, 500V
C7, 8	Ceramic, 1000, 1000V	C50072-3
C11, 12	Mylar, .047uF, 630V	C50197-101
C13, 14	Ceramic, 33, N750, 1000V	C50070-15
C15, 16	Ceramic, .02uF, +80-20%, 100V	C50095-1
C17, 18, 21, 22	Mylar, .047uF, 400V	C50197-30
C19, 20		Ceramic, 180, 1000V
C23, 24	Ceramic, .001 uF, GMV, 1000V	C50071-2
C25	Electrolytic, 200uF, 250V	C50180-20
C26	Electrolytic, 2 section: A—200uF, 250V B—40uF, 500V	C50180-19
C27	Electrolytic, 3 section: A—40uF, 475V B—40uF, 475V C—20uF, 300V	C50180-75A
C28	Molded, .01uF, 20%, 600V	C2747
C29	Electrolytic, 100uF, 70V	C50483-19

RESISTORS

Deposited Carbon, in ohms, 5% tolerance, 1/3 watt unless otherwise noted. K = Kilohms, M = Megohms.

Symbol	Description	Part No.
R1, 2	180K, 1/8 W	R12DC184J
R3, 4, 17, 18	100K, 1/8 W	R12DC104J
R5, 6		68K, 1/8 W
R7, 8, 39, 40	470K	R33DC473J
R9, 10		Glass, 33K 5% 1W
R11, 12, 13, 14	220K	R33DC224J
R37, 38		10K
R15, 16, 29, 30	2.2M	R33DC225J
R19, 20		Glass, 2.2K 5% 1W
R21, 22	47K, 1/8 W	R12DC473J
R23, 24	1M	R33DC105J
R25, 26, 31, 32	82K	R33DC823J
R27, 28, 33, 34		2.2K
R35, 36	22K	R33DC223J
R41, 42	1.2K	R33DC122J

RESISTORS

Symbol	Description	Part No.
R43, 44	220	R33DC221J
R45, 46	39K	R33DC393J
R47, 48	68K	R33DC683J
R49, 50, 53, 54, 55, 56	330K	R33DC334J
R51, 52, 57, 58, 59, 60		1K
R61, 62	Glass 25 10% 5W	RPG5W250K
R63, 64	Composition 330 10% 1W	RC30BF331K
R65	W.W. 2.5K 10% 10W	R995-120
R66	Composition 1K 10% 1W	RC30BF102K
R67	Composition 2.2K 10% 1/2 W	RC20BF222K
R68	Composition 47K 10% 1W	RC30BF473K
R69	Composition 100K 10% 1W	RC30BF104K
R76	Glass 500 10% 5W	RPG5W501K
R77	Composition 3.3K 5% 1/2 W	RC20BF332J
R78	Composition 820 10% 1/2 W	RC20BF821K
R80, 81	Composition 10M 10% 1/2 W	RC20BF106K

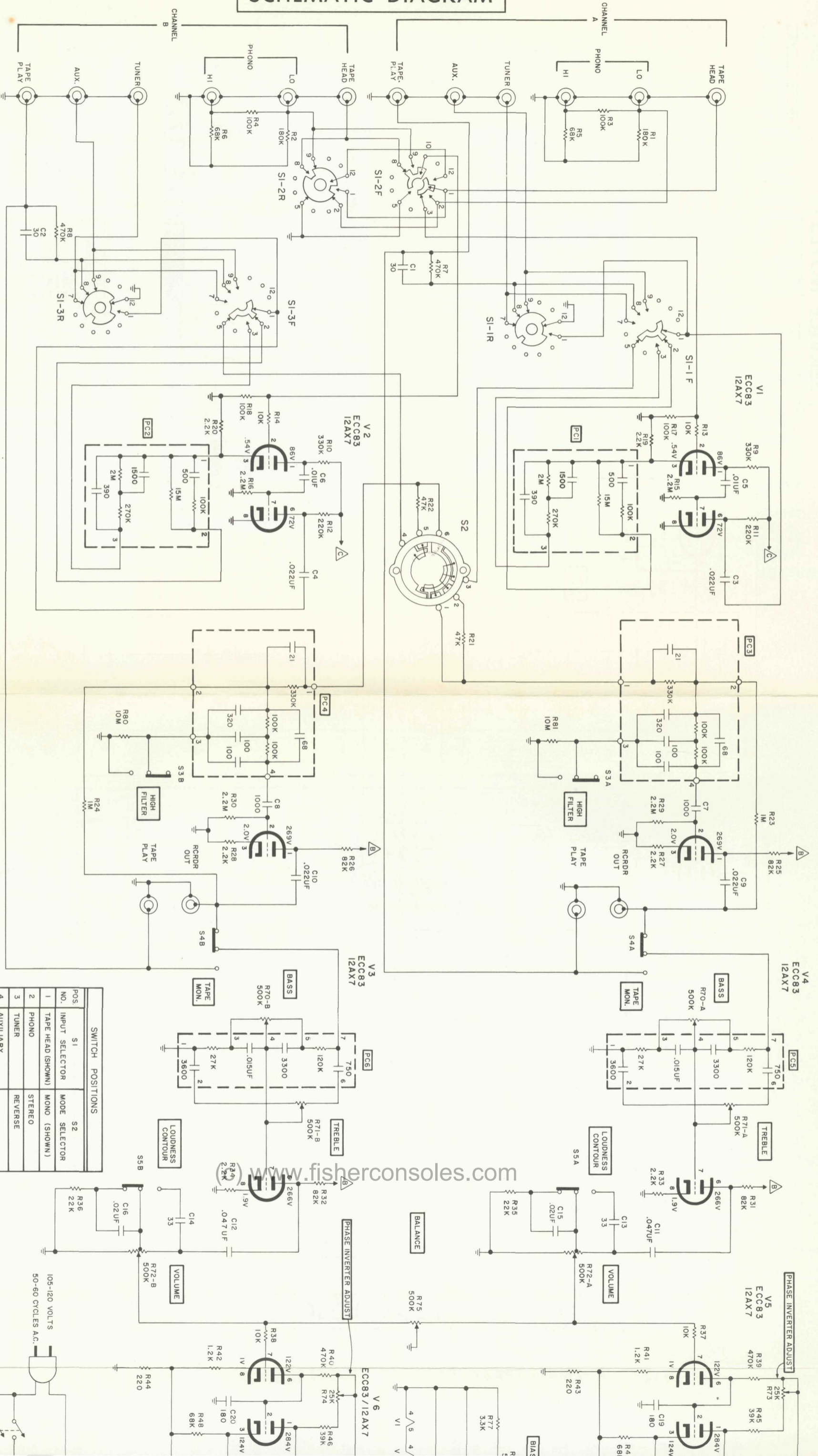
POTENTIOMETERS AND SWITCHES

Symbol	Description	Part No.
R70	Potentiometer, 500K Dual Bass	R50160-153
R71	Potentiometer, 500K Dual Treble	R50160-153
R72	Potentiometer, 500K Dual Volume	R50160-143
R73, 74	Potentiometer, 25K Phase Inverter	R50103-2
R75	Potentiometer, 500K Balance	R50160-149
R79	Potentiometer 5K Bias	R50103-4
S1	Switch, Selector	S1114-113
S2	Switch, Mode	S1113-117
S3, 4, 5, 6	Switch, Rocker	S50200-15-1
S-7	Switch Power	Part of R72

MISCELLANEOUS

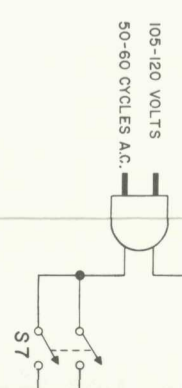
Symbol	Description	Part No.
CR1, 2	Silicon Diode	SR50411-1
F1	Fuse, 3, .2A, Slo-Blo	F3319
PC1, 2	Printed Circuit, Equalization	PC50187-18
PC3, 4	Printed Circuit, High Filter	PC50187-19
PC5, 6	Printed Circuit Tone Control	PC50187-9
T1	Transformer, Output Channel A	T1114-116-1
T2	Transformer, Output Channel B	T1114-116-2
T3	Transformer, Power	T1113-115
	Insert, Dress Panel Screened (Upper)	AS1114C119
	Insert, Dress Panel Screened (Lower)	AS1114C120
	Knob, Selector, Mode, Balance	E50562-1
	Knob, Dual Top, Tone Control	E50563
	Knob, Dual Bottom, Tone Control	E50564
	Knob, Volume	E50566-1
	Pilot Lamp No. 1847 OF	150009-8

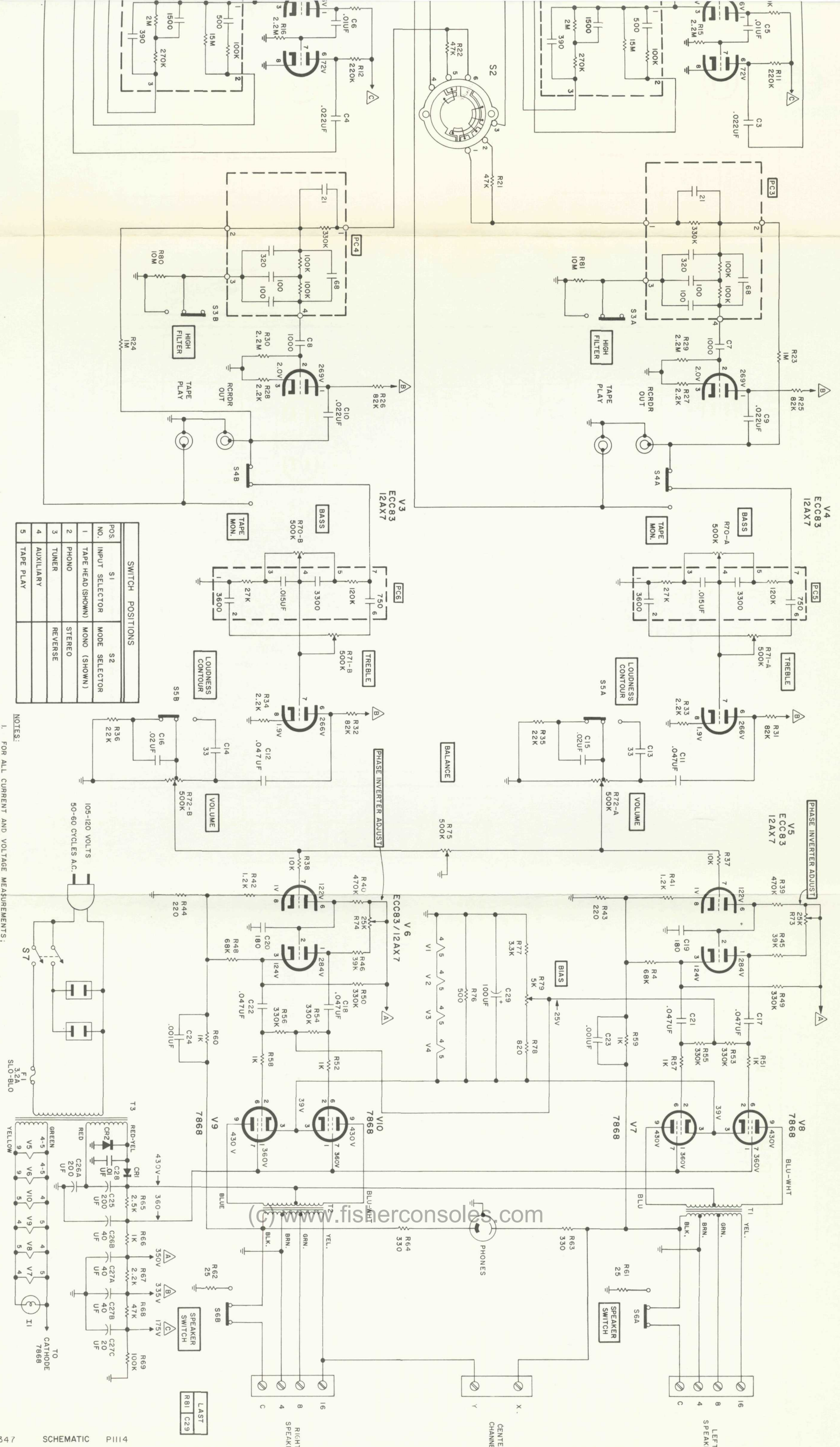
SCHEMATIC DIAGRAM



SWITCH POSITIONS			
POS. NO.	INPUT SELECTOR	MODE SELECTOR	MODE SELECTOR
1	TAPE HEAD (SHOWN)	MONO (SHOWN)	STEREO
2	PHONO		REVERSE
3	TUNER		
4	AUXILIARY		
5	TAPE PLAY		

- NOTES:**
1. FOR ALL CURRENT AND VOLTAGE MEASUREMENTS, LINE VOLTAGE = 117 V.A.C.
 2. D.C. VOLTAGE MEASURED WITH VTVM TO CHASSIS WITH NO SIGNAL INPUT.
 3. REAR SECTION OF DUAL CONTROLS USED IN LEFT CHANNEL; FRONT SECTION IN RIGHT.





SWITCH POSITIONS		
POS. NO.	S1	S2
1	INPUT SELECTOR	MODE SELECTOR
2	TAPE HEAD (SHOWN)	MONO (SHOWN)
3	PHONO	STEREO
4	AUXILIARY	REVERSE
5	TAPE PLAY	

- NOTES:
- FOR ALL CURRENT AND VOLTAGE MEASUREMENTS: LINE VOLTAGE = 117 V.A.C.
 - D.C. VOLTAGE MEASURED WITH VTVM TO CHASSIS WITH NO SIGNAL INPUT.
 - REAR SECTION OF DUAL CONTROLS USED IN LEFT CHANNEL; FRONT SECTION IN RIGHT.

ADJUSTMENTS

Equipment Required: DC VTVM, AC VTVM
IM Analyzer,
4-ohm, non-inductive load resistor
(minimum 25-watt rating)

1 — Bias Adjustment

- a. Set Volume control to minimum.
- b. Connect DC VTVM to Pin 5 of any output tube (V7, V8, V9 or V10).
- c. Adjust "Bias" control for 39.0 volts.

2 — Phase Inverter Adjustment

IMPORTANT: Note in the schematic that the C (common) speaker terminals are not grounded — the 4-ohm terminals are grounded. Never ground the C terminals either directly or accidentally through test equipment common ground leads.

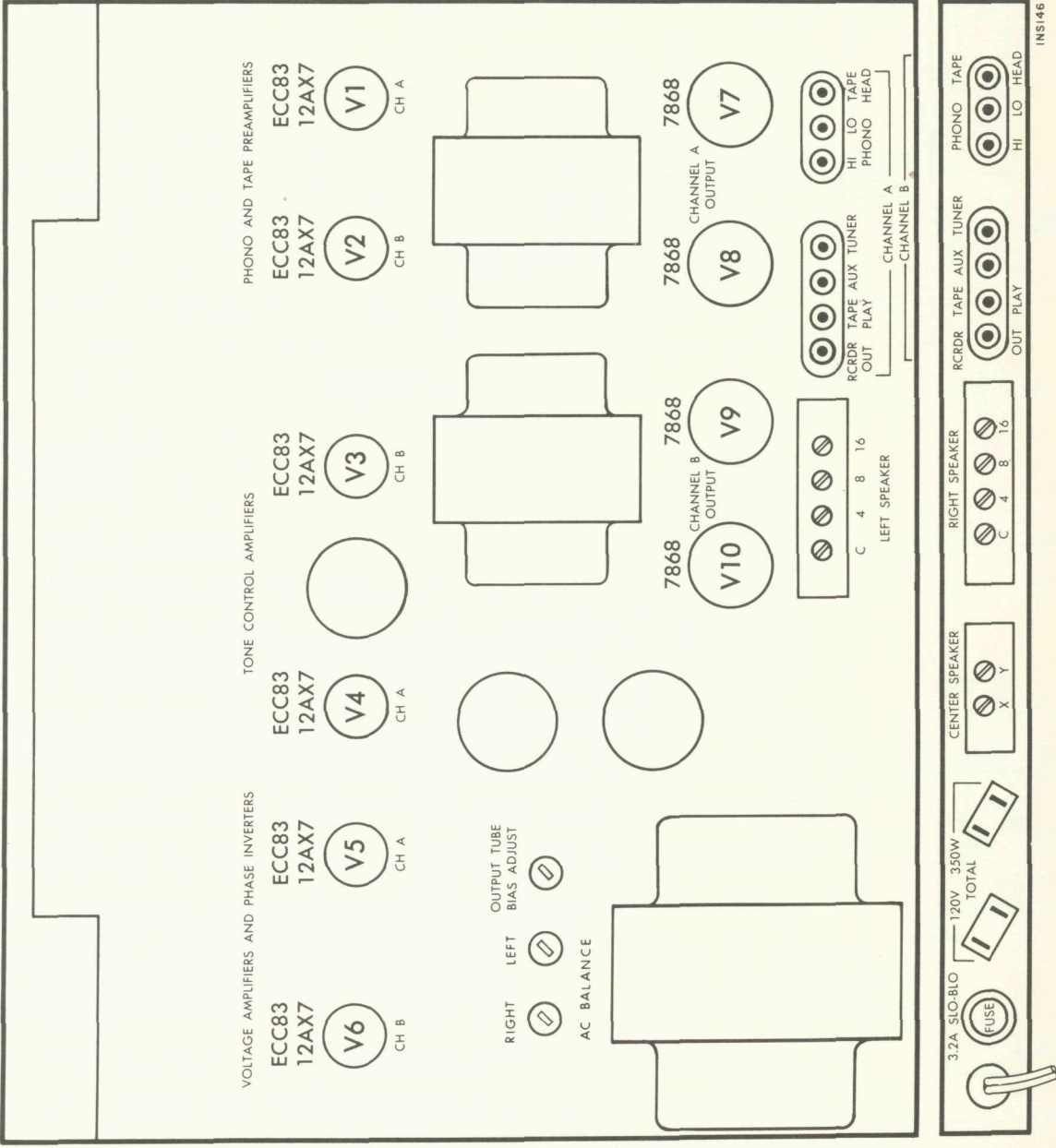
Channel A

- a. Connect a 4-ohm load between C and 4 left speaker terminals.
- b. Connect IM Distortion Analyzer output to channel A AUX input.
- c. Connect the Analyzer input ground lead to the left speaker 4-ohm terminal.
- d. Connect the Analyzer input hot lead to the left speaker C terminal
- e. Set the Selector switch to AUX, the Mode switch to STEREO, and adjust the Analyzer for 7.6 volts across the 4-ohm load.
- f. Adjust the CH A Phase Inverter control for minimum IM distortion.

Channel B

- a. Connect a 4-ohm load between C and 4 right speaker terminals.
- b. Connect IM Distortion Analyzer output to channel B AUX input.
- c. Connect the Analyzer input ground lead to the right speaker 4-ohm terminal.
- d. Connect the Analyzer input hot lead to the right speaker C terminal.
- e. Set the Selector switch to AUX, the Mode switch to STEREO, and adjust the Analyzer for 7.6 volts across the 4-ohm load.
- f. Adjust the CH B Phase Inverter control for minimum IM distortion.

TUBE LAYOUT



SERVICE NOTES



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