

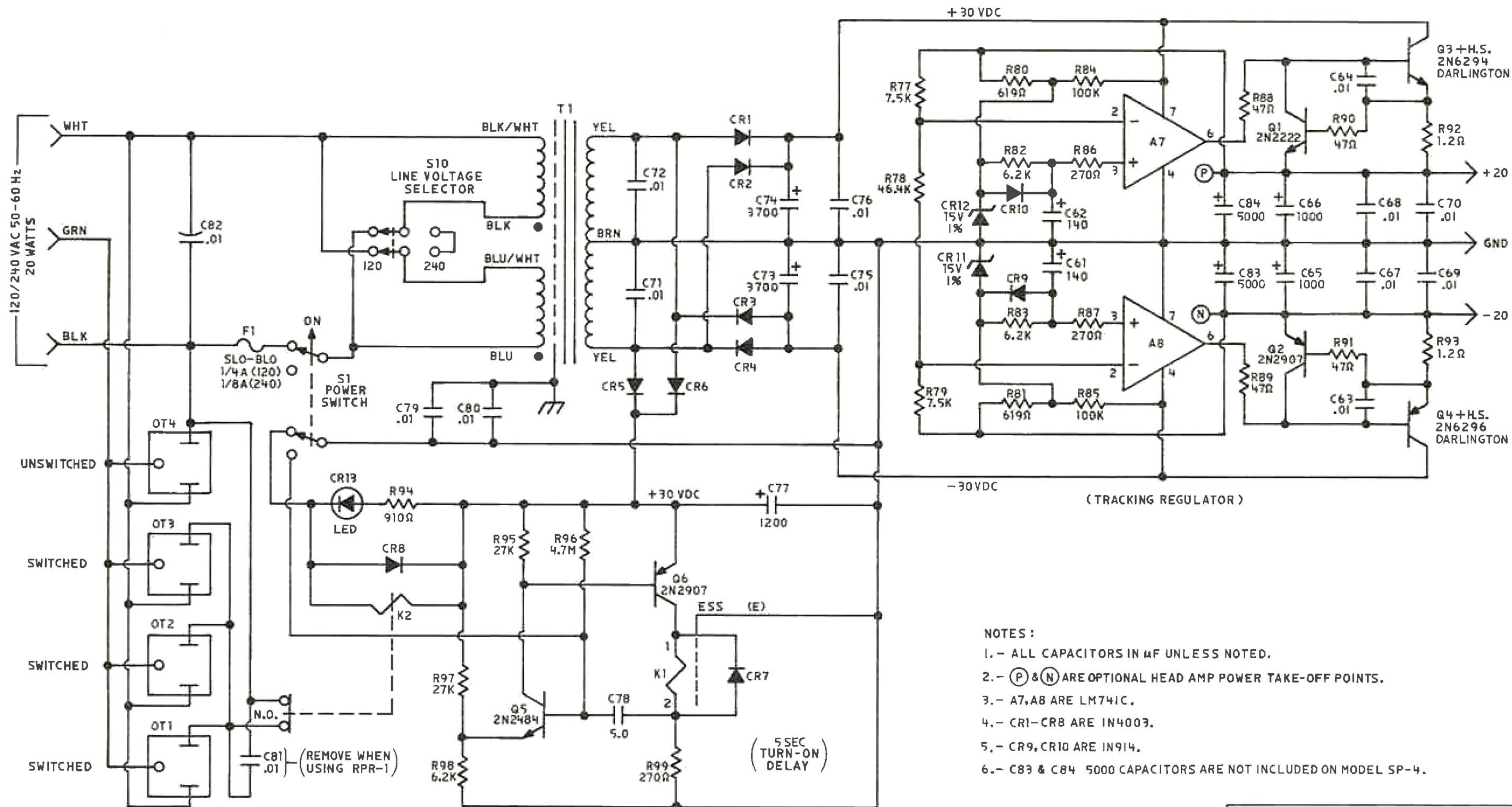
MODEL SP-4 AND SP-4A PREAMPLIFIER  
SCHEMATIC & PARTS LIST

**audio research corporation**

2843 TWENTY-SIXTH AVENUE SOUTH  
MINNEAPOLIS, MINNESOTA 55406

SP4A PARTS LIST

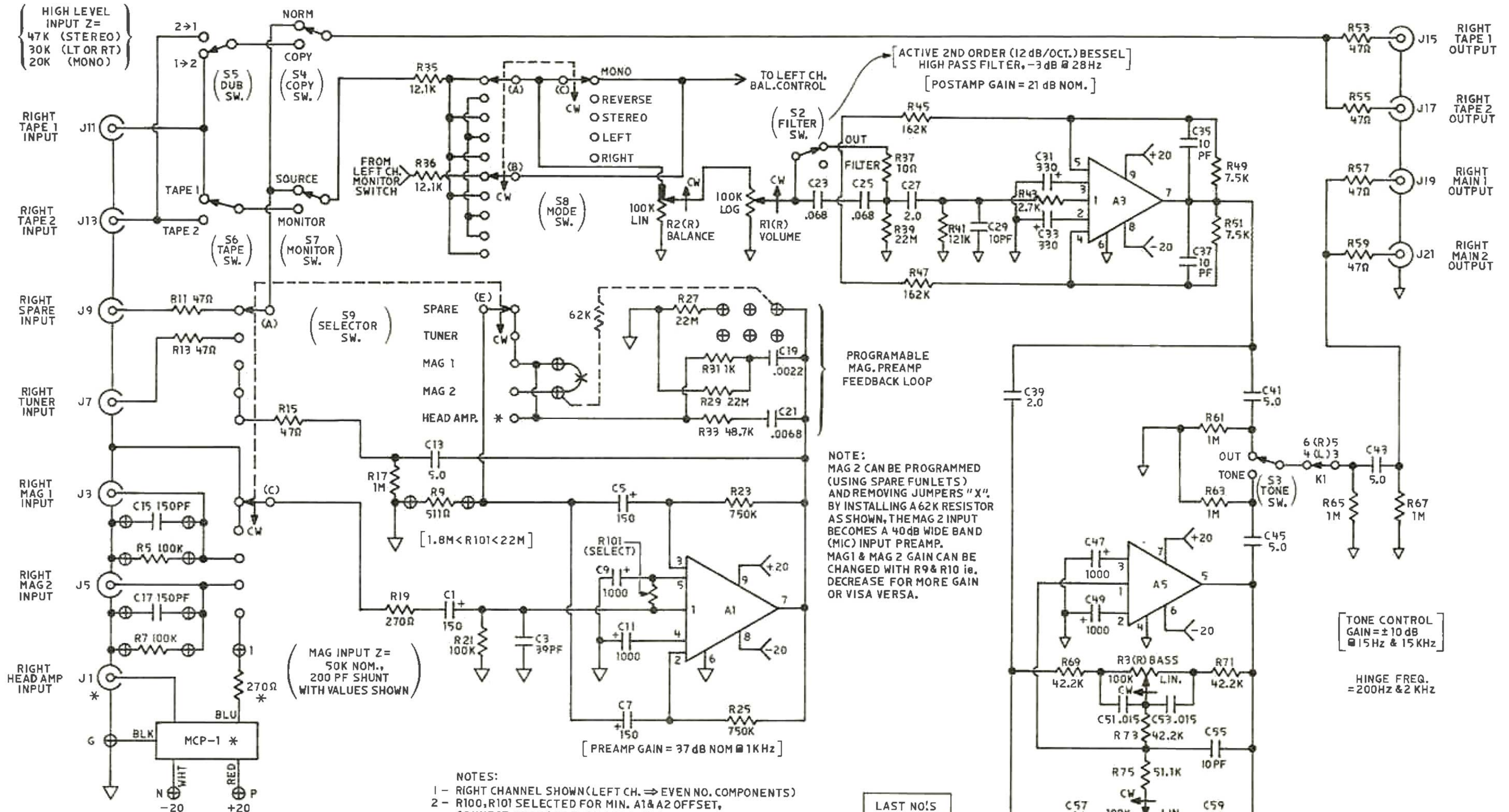
COMPONENT	QUAN.	VALUE	RATING	TOL.	ARC PART NO.	COMPONENT	QUAN.	VALUE	RATING	TOL.	ARC PART NO.
A1,A2	2				AM-6	R84,R85	2	100K	1/4W	5%	41100502
A3,A4	2				AM-5	R92,R93	2	1.2 Ω	1/2W	5%	41120003
A5,A6	2				AM-4	R94	1	910 Ω	1W	5%	41910204
A7,A8	2				31000400	R95,R97	2	27K	1/4W	5%	41270402
Q1	1				30000700	R96	1	4.7M	1/4W	5%	41470602
Q2,Q6	2				30000800	R100,R101	2	Selected	1/4W	5%	41XXX02
Q3	1				30002200	C1,2,5-8	6	150μF	6V	10%	51150801
Q4	1				30002300	C3,C4	2	39pF	500V	5%	57390100
Q5	1				30000600	C9-12,47-50,65,66	10	1000μF	25V	-10/+75%	50100903
CR1-8	8				30501700	C13,14,41-46,78	9	5.0μF	200V	10%	53500601
CR9,CR10	2				30500900	C15-18	4	150pF	500V	5%	57150201
CR11,CR12	2	15V	500MW	1%	30501800	C19,C20	2	.0022μF	200V	2%	53220301
CR13	1				34300100	C21,C22	2	.0068μF	200V	2%	53680301
R1	1	100K	LogTaper	10%	45100520	C23-26	4	.068μF	200V	2%	53680401
R2	1	100K	LinTaper	10%	45100525	C27,28,39,40	4	2.0μF	200V	10%	53200601
R3,R4	2	100K	LinTaper	10%	45100524	C29,30,35-38,55,56	8	10pF	500V	5%	57100100
R5-8,21,22	6	100K	1/4W	1%	42100502	C31-34	4	300μF	6V	10%	51330800
R9,R10	2	511 Ω	1/4W	1%	42511202	C51-54	4	.015μF	200V	2%	53150402
R11-16,53-60,88-91	18	47 Ω	1/4W	5%	41470102	C57-60	4	.0018μF	200V	2%	53180301
R17,18,61-68	10	1M	1/4W	5%	41100602	C61,C62	2	140μF	40V	-10/+75%	50140801
R19,20,86,87,99	5	270 Ω	1/4W	5%	41270202	C63,64,67-72,75, 76,79,80	12	.01μF	500V	20%	52100402
R23-26	4	750K	1/4W	1%	42750502	C73,C74	2	3700μF	40V	-10/+75%	50370901
R27-30,39,40	6	22M	1/4W	5%	41220702	C77	1	1200μF	40V	-10/+75%	50120901
R31,R32	2	1K	1/4W	1%	42100302	C81,C82	2	.01μF	1600V	10%	53100403
R33,R34	2	48.7K	1/4W	1%	42487402	C83,C84	2	5000μF	25V		50500900
R35,R36	2	12.1K	1/4W	1%	42121402	F1	1	¼A S.B.	250V		34500100
R37,R38	2	10 Ω	1/4W	5%	41100102	T1	1				60003201
R41,R42	2	121K	1/4W	1%	42121502	OT1-OT4	4				23200500
R43,R44	2	2.7K	1/2W	5%	41270303	S1	1				24100700
R45-48	4	162K	1/4W	1%	42162502	S2-7	6				24100400
R49-52,77,79	6	7.5K	1/4W	1%	42750302	S8	1				24000700
R69-74	6	42.2K	1/4W	1%	42422402	S9	1				24000800
R75,R76	2	51.1K	1/4W	1%	42511402	S10	1				24100600
R78	1	46.4K	1/4W	1%	42464402	K1	1	1750 Ω	24VDC		64100200
R80,R81	2	619 Ω	1/4W	1%	42619202	K2	1	290 Ω	24VDC		64100300
R82,83,98	3	6.2K	1/4W	5%	41620302	J1-22	22				23201000



- NOTES :
- 1.- ALL CAPACITORS IN  $\mu$ F UNLESS NOTED.
  - 2.- (P) & (N) ARE OPTIONAL HEAD AMP POWER TAKE-OFF POINTS.
  - 3.- A7, A8 ARE LM741C.
  - 4.- CR1-CR8 ARE 1N4003.
  - 5.- CR9, CR10 ARE 1N914.
  - 6.- C83 & C84 5000 CAPACITORS ARE NOT INCLUDED ON MODEL SP-4.

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TOLERANCES (EXCEPT AS NOTED)		AUDIO RESEARCH CORPORATION MINNEAPOLIS, MINNESOTA	
DECIMAL		SCALE	DRAWN BY S. C.
FRACTIONAL		TITLE	APPROVED BY
ANGULAR		SCHEMATIC SP-4 AND SP-4A POWER SUPPLY	
	DATE 8-1-77	DRAWING NUMBER 910040-10 A	



- NOTES:
- 1 - RIGHT CHANNEL SHOWN (LEFT CH. ⇒ EVEN NO. COMPONENTS)
  - 2 - R100, R101 SELECTED FOR MIN. A1 & A2 OFFSET, CONNECT FROM 1 TO 5 OR 1 TO 4 AS NEEDED.
  - 3 - MAGNETIC  $R_{IN} = R5$  OR  $R7$  IN PARALLEL WITH  $R21$  FOR RIGHT CH. SHOWN;  $R21$  FIXED,  $R5$  OR  $R7$  ADJ. MAGNETIC  $C_{IN} = C15$  OR  $C17$  IN PARALLEL WITH  $C3$  FOR RIGHT CH. SHOWN;  $C3$  FIXED,  $C15$  OR  $C17$  ADJ.

LAST NO'S  
 AB, S10, F1  
 T1, OT4, G6  
 K2, J22, C84  
 R101, CR13

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