

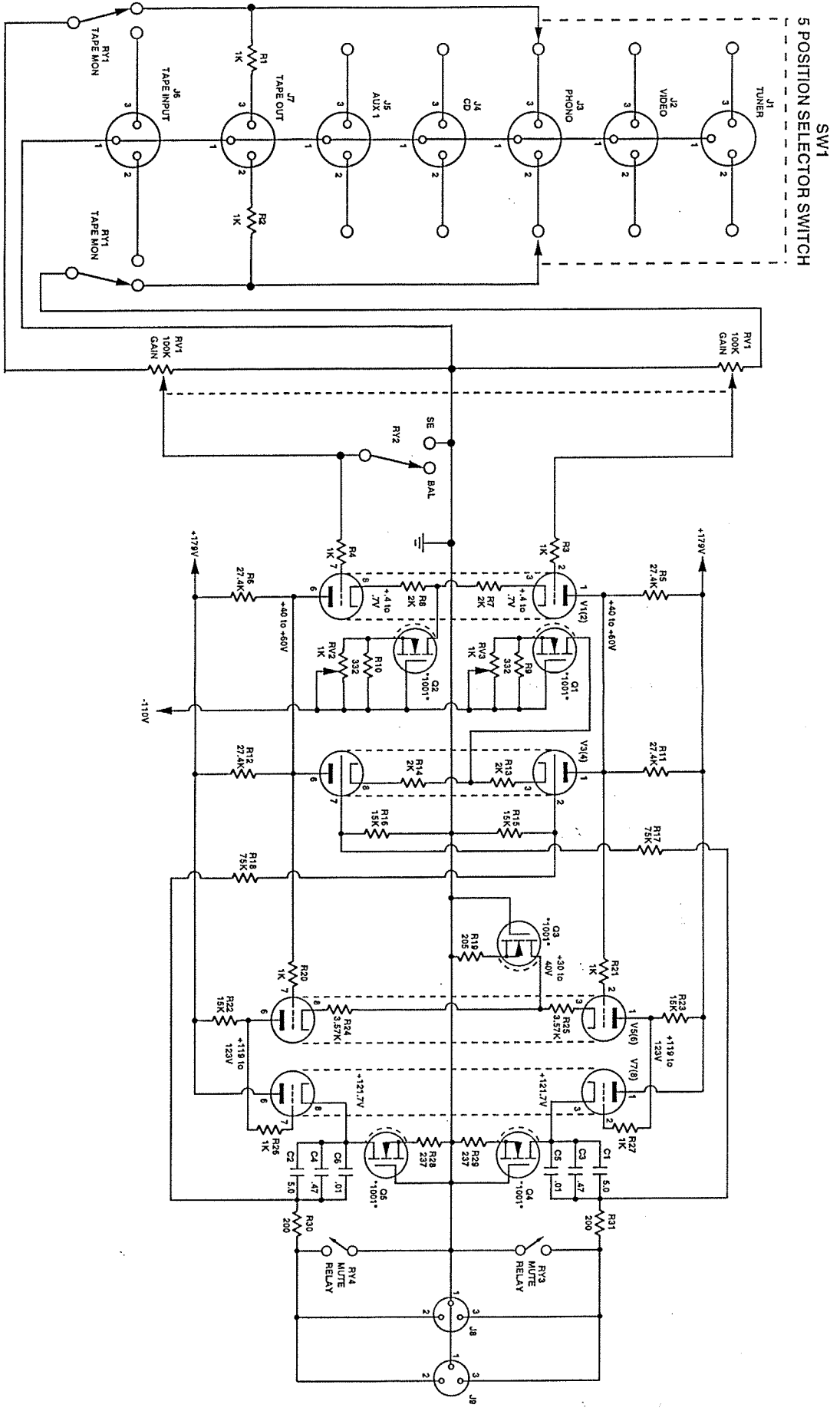
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5740 GREEN CIRCLE DRIVE / MINNETONKA, MINNESOTA 55343-4424 / PHONE 612/939-0600 FAX 612/939-0604

LS5MKIII SCHEMATIC

5-30-96

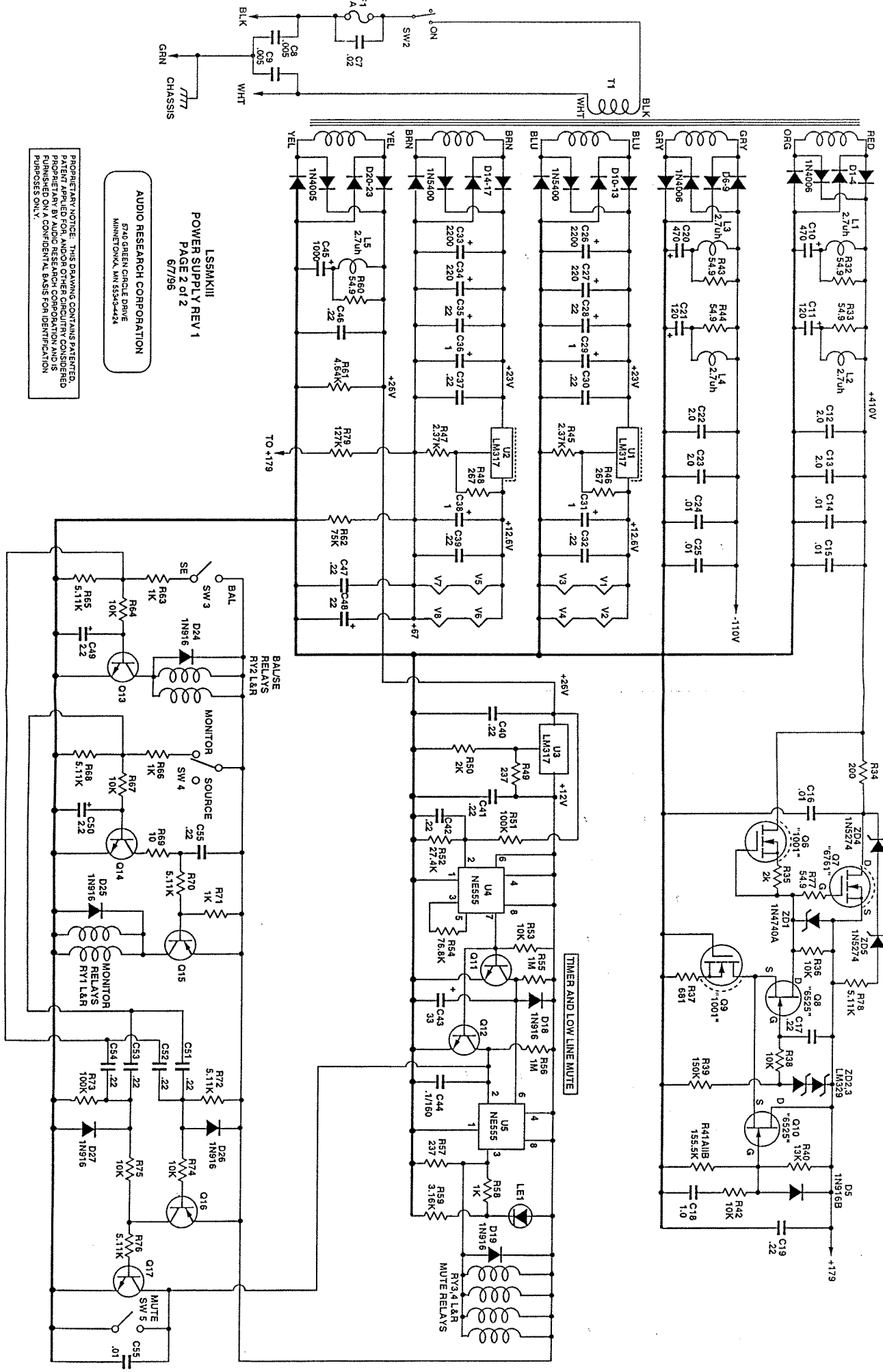


SW1
5 POSITION SELECTOR SWITCH

L55MKIII
AUDIO REV 2
PAGE 1 of 2
5-30-96

AUDIO RESEARCH CORPORATION
7140 GREEN CIRCLE DRIVE
MINNETONKA, MN 55342-4244

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LSSMKIII
 POWER SUPPLY REV 1
 6/7/96

AUDIO RESEARCH CORPORATION
 5740 GREEN CIRCLE DRIVE
 MINNETONKA, MN 55345-4424

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LS5MKII

PARTS LIST

PARTS LIST

As of SEP 19 95

PRODUCT: LS5MKII

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2	4	53270101	CAP. 27 PF +/-1PF 630V PNP
C7,8	4	53500607	CAP. 5 UF 200V
C9,10	4	53100610	CAP. 1UF 400V
C11,12	4	53100412	CAP. .01UF 600V
C15	2	53560103	CAP. 56 PF +/-2% 630V DPN
C17,22-25,35-37,41,50-52,57-60,63-66 C 69-71	23	53220507	CAP. .22 UF 10% 160V
C19,20	2	51220601	CAP. 2.2 UF +/-10% 25V
C21	1	53100506	CAP. .1 UF 160V
C26	1	53100410	CAP. .01 UF 400V MKP10
C27	1	50470807	CAP. 470UF 450V
C28	1	50120801	CAP. 120UF 450V.
C31,32	2	53100608	CAP. 1.0 UF 1-20% 425V TYPE V
C33,34,38,49,53	5	53100406	CAP. .01 UF +/-10% 630V
C39,54,48	3	53200602	CAP. 2 UF +/-10% 450V
C46,47	2	50470804	CAP. 470 UF 160V. RADIAL
C55,56,61,62	4	50220903	CAP. 2200 UF 35V.
C67	1	50220701	CAP. 22 UF 100V
C68	1	50100911	CAP. 1000 UF 35V
C72	1	51330702	CAP. 33 UF +/-10% 16V
C73	1	52200400	CAP. .02 UF 20% 300VAC/2000VD
C74,75	2	52500300	CAP. .005 UF 20% CERAMIC DISC
D DIODES			
D1,2,7-10,15,16,29,30	11	30500910	1N916B
D3-6,11-14	8	30502200	IN4006
D17-24	8	30501500	MOTOROLA IN5400
D25-28	4	30500400	IN4005 GENERAL INSTRUMENT
F FUSES			
F1	1	34500404	FUSE, MDQ-3
J CONNECTORS			
J1-6	12	23201960	CONNECTOR, XLR FEMALE
J7,8,9	6	23201965	CONNECTOR, MALE XLRS
L INDUCTORS			
L1,2,5-9	7	61000160	CHOKE, 2.7 UH +/- 10%
L3,4	2	61000170	CHOKE, 5.5 UH
LE PANEL INDICATOR			
LE-1	1	34300102	L.E.D. COLLAR & RETAINING RING

PARTS LIST

As of SEP 19 95

PRODUCT: LS5MKII

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
Q TRANSISTORS			
Q5,6,9,13,14	5	30002800	TRANSISTOR,2N4401
Q7,8	2	30002900	TRANSISTOR,2N4403
Q10	1	30006761	FET, ORANGE YELLOW BROWN
Q12	1	30008401	FET, RED BLUE
R RESISTORS			
R1,2	4	42100314	RES. 1K 1% MK-5 50PPM
R3	2	42681203	RES. 681 OHM 1% MK-3 50PPM
R4,139,147	4	42237203	RES. 237 OHM 1% MK-3 50PPM
R5,6	4	42475503	RES. 475K 1% MK-3 50PPM
R7,8	4	42255403	RES. 25.5K 1% MK-3 50PPM
R9A,10A,11A,B,12A,B,15A,16A,43A,B,44A R 44B	24	42150403	RES. 15K 1% MK-3 50PPM
R9B,10B,15B,16B	8	42118403	RES. 11.8K MK-3 1% 50PPM
R13A,B,14A,B	8	42182303	RES. 1.82K 1% MK-3 50PPM
R17,18,19,20	8	42681405	RES. 68.1K 1% MK-8 50PPM
R25-28,39,40,115,120,126,131,148,58-60 R 156,157	24	42100303	RES. 1K 1% MK-3 50PPM
R29A,B,30A,B,31A,B,32A,B,84,85,137	19	42750405	RES. 75K 1% MK-8 50PPM
R35A,B,36A,B	8	42619314	RES. 6.19K 1% MK-5 50PPM
R37A,B,38A,B	8	42665303	RES. 6.65K 1% MK-3 50PPM
R41,42	4	42274405	RES. 27.4K 1% MK-8 50PPM
R45A,B,46A,B	8	42619303	RES. 6.19K MK-3 1% 50 PPM
R49,50,81A,81B,103A,103B	8	42200205	RES. 200 OHM+/-1% MK8 50PPM
R51,52	4	42237303	RES. 2.37K 1% MK-3 50PPM
R61,62,72,73,143	5	42100403	RES. 10K+/-1% MK-3 50PPM
R65	1	42100103	RES. 10 OHM 1% MK-3 50PPM
R67-70,74	5	42511303	RES. 5.11K 1% MK-3 50PPM
R71,141	2	42100503	RES. 100K+/-1% MK-3 50PPM
R79,80,158,113,114,124,125	7	42549103	RES. 54.9 OHM 1% MK-3 50PPM
R82	1	42158513	RES. 158K 1% MK-4 50PPM
R83,105	2	42196403	RES. 19.6K 1% MK-3 50PPM
R86,108	2	42499303	RES. 4.99K 1% MK-3 50PPM
R87,109	2	42130403	RES. 13K 1% MK-3 50PPM
R88	1	42243513	RES. 243K 1% MK-4 50PPM
R89,111	2	42332203	RES. 332 OHM 1% MK-3 50PPM
R90,112	2	43100002	RES. 1 OHM 2W 5% W.W.
R104	1	42499403	RES. 49.9K 1% MK-3 50PPM
R106,107	2	42150405	RES. 15K 1% MK-8 50PPM
R110	1	42590403	RES. 59K 1% MK-3 50PPM
R116,121,127,132	4	42287303	RES. 2.87K 1% MK-3 50PPM
R117,122,128,133	4	42267203	RES. 267 OHM 1% MK-3 50PPM
R118,123,129,134	4	43680000	RES. 6.8 OHM 2W 5% SPH
R135,136,101,102	4	42100203	RES. 100 OHM 1% MK-3 50PPM
R138A,B	2	42100505	RES. 100K 1% MK-8 50PPM
R140	1	42200303	RES. 2K MK-3 1% 50PPM
R142	1	42274403	RES. 27.4K 1% MK-3 50PPM
R144	1	42768403	RES. 76.8K 1%MK-3 50PPM
R145,146	2	42100603	RES. 1 MEG 1% MK-3 50PPM
R149	1	42316303	RES. 3.16K 1% MK-3 50PPM
R158	1	42464303	RES. 4.64K 1% MK-3 50PPM

PARTS LIST

As of SEP 19 95

PRODUCT: LS5MKII

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
			RV CONTROLS
RV1	1	45100537	QUAD 100KΩ MOTORIZED GAIN POT.
			RY RELAYS
RY3	2	64101600	RELAY, LS3
RY9,10,11	6	64101000	RELAY, 12V REED S1P 1200 OHM
			SW SWITCHES
SW1,2,3	3	24100430	TOGGLE SWITCH GOLD, SATIN
SW4	1	24100730	TOGGLE SWITCH SILVER, SATIN
SW5	8	24002400	LS2 SWITCH WAFER
			T TRANSFORMERS
T1	1	60010600	XFR. LS5 TOROID 120V.
			U INTEGRATED CIRCUITS
U5,6	2	31002210	OP176GP
U8,9,12	3	31004000	ADJ. O.P. VLTG. REG.
U10,11	2	31004700	ADJ REG, NEG, LM337T
U13,14	2	31000800	NE555N TIMER
			V VACUUM TUBES
V1-10	10	32001150	VAC.TUBE 6922 RUSSIAN
			ZD ZENER DIODES
ZD1	1	30500300	IN4740A
ZD2,12	2	30504210	IN5535A (KNOX ONLY)
ZD3,4,13,14	4	31000705	LM329DZ GREEN
ZD5,15	2	30503500	IN5359 B
ZD11	1	30504400	IN5240B

Subject REF1 INPUT STAGE CALIBRATION (LSS III also)

- Turn RV1 and RV2 all the way clockwise.
- Turn on unit and warm up 45 minutes.
- Measure V1 plates, pins 1 and 6.
- Average the readings between V1 pins 1 and 6.
- Turn RV1 down so the average reading drops halfway to 60V.
- Turn RV2 down so the average reading is $60 \pm 2V$.
- Verify the spread V1 pins 1 to 6 is $\leq 4V$.
- Verify that the spread between Q2 drain and Q37 drain is $\leq .25 V$.