

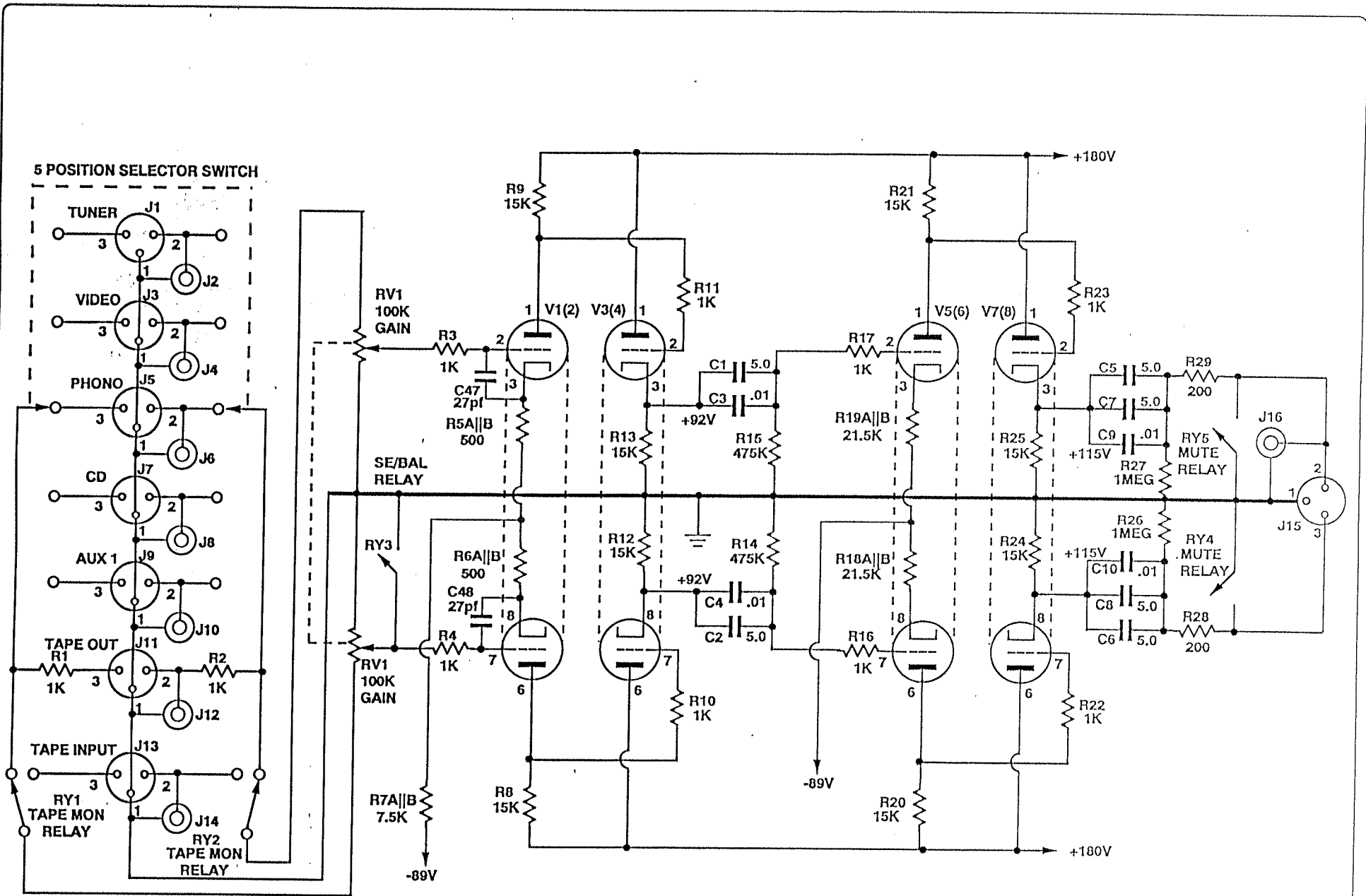
# **audio research**

H I G H D E F I N I T I O N<sup>®</sup>

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

LS22 PREAMPLIFIER  
SCHEMATIC  
AND PARTS LIST

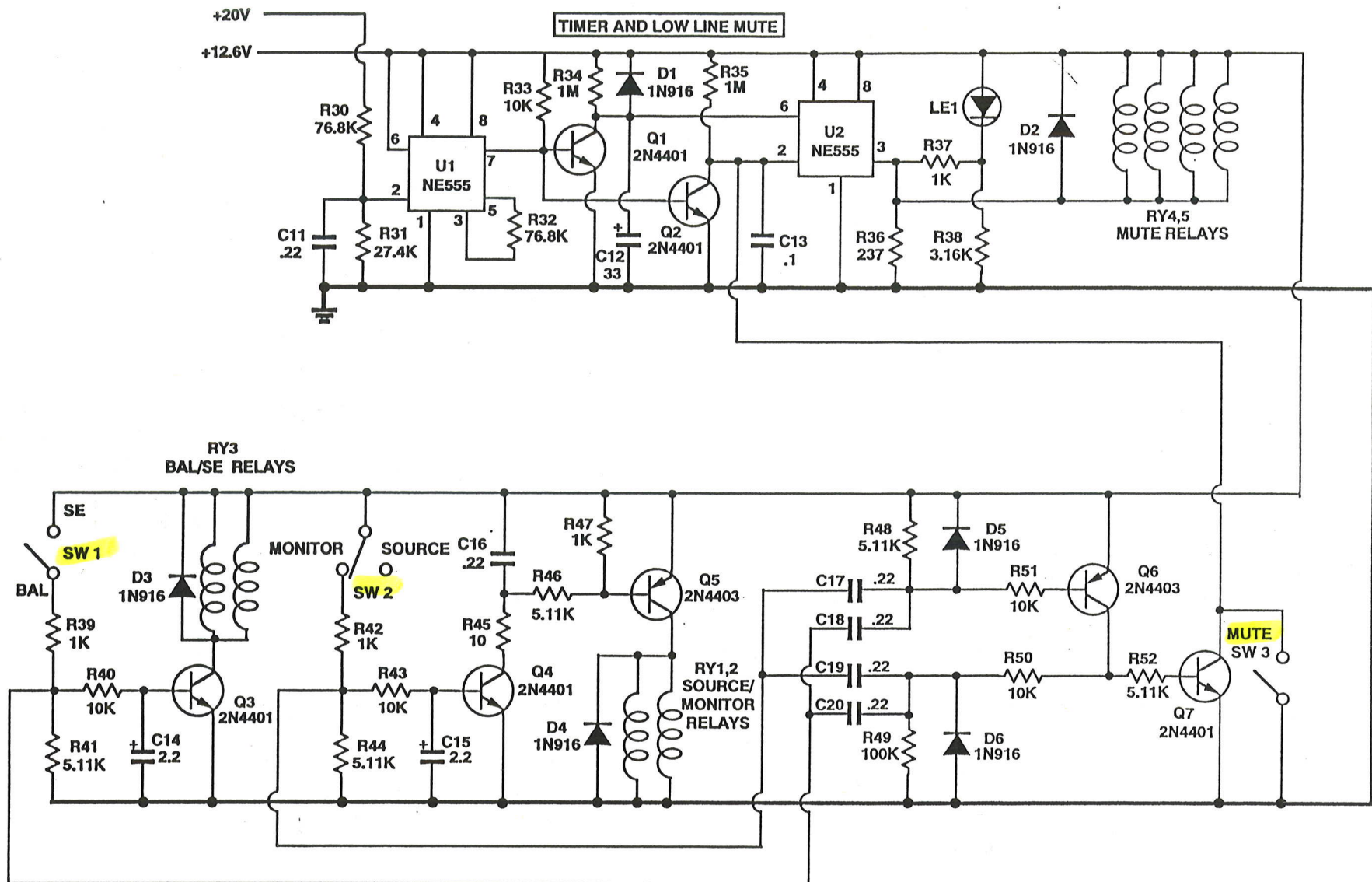
6-23-95



**LS22 PREAMPLIFIER**  
**AUDIO**  
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**AUDIO RESEARCH CORPORATION**  
 5740 GREEN CIRCLE DRIVE  
 MINNETONKA, MINNESOTA 55343-4424

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## PARTS LIST

As of JUN 23 95

PRODUCT: LS22

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2,5,6,7,8	12	53500607	CAP. 5 UF 200V
C3,4,9,10,25,35	10	53100412	CAP. .01UF 600V
C11,16-20,26-28,36-38,43,44	14	53220507	CAP. .22 UF 10% 160V
C12	1	51330702	CAP. 33 UF+/-10% 16V
C13	1	53100506	CAP. .1 UF 160V
C14,15	2	51220601	CAP. 2.2 UF+/-10% 25V
C21,31	2	50470807	CAP. 470UF 450V
C22,32	2	50100508	CAP. 100 UF 450V
C23,24,33,34	4	53200602	CAP. 2 UF +/-10% 450V
C29,39	2	53100406	CAP. .01 UF+/-10% 630V
C30,40	2	53200603	CAP. 2 UF +/-10% 250V
C41,42,49	3	50220903	CAP. 2200 UF 35V.
C45,46	2	52500300	CAP. .005 UF 20% CERAMIC DISC
C47,48	4	53270101	CAP. 27 PF +/-1PF 630V PNP
D DIODES			
D1-6,11,12,17,18	10	30500910	1N916B
D7-10,13-16	8	30502200	IN4006
D19-22	4	30501500	MOTOROLA IN5400
J CONNECTORS			
J1,3,5,7,9,13	12	23201960	CONNECTOR, XLR FEMALE
J2L,4L,6L,8L,10L,12L,14L,16L	9	23201510	CHASSIS JACK,WHITE
J2R,4R,6R,8R,10R,12R,14R,16R	9	23201509	CHASSIS JACK,RED
J11,15	6	23201965	CONNECTOR, MALE XLRS
L INDUCTORS			
L1-6	6	61000160	CHOKE, 2.7 UH +/- 10%
LE PANEL INDICATOR			
LE1	1	34300102	L.E.D. COLLAR & RETAINING RING
Q TRANSISTORS			
Q1-4,7	5	30002800	TRANSISTOR,2N4401
Q5,6	2	30002900	TRANSISTOR,2N4403
Q8	1	30006761	FET, ORANGE YELLOW BROWN
Q9	1	30008401	FET, RED BLUE
R RESISTORS			
R1,2,37,39,42,47	8	42100303	RES. 1K 1% MK-3 50PPM
R3,4,5A,5B,6A,6B,10,11,16,17,22,23	24	42100314	RES. 1K 1% MK-5 50PPM
R7A,7B,8,9,12,13,21,24,25,69A,69B	22	42150405	RES. 15K 1% MK-8 50PPM
R14,15	4	42475503	RES. 475K 1% MK-3 50PPM
R18A,19A,20	4	42274405	RES. 27.4K 1% MK-8 50PPM
R18B,19B	4	42100505	RES. 100K 1% MK-8 50PPM
R26,27,34,35	6	42100603	RES. 1 MEG 1% MK-3 50PPM
R28,29,55A,55B,66A,66B	8	42200205	RES. 200 OHM+/-1% MK8 50PPM

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R30,32	2	42768403	RES. 76.8K 1%MK-3 50PPM
R31	1	42274403	RES. 27.4K 1% MK-3 50PPM
R33,40,43,50,51	5	42100403	RES. 10K+/-1% MK-3 50PPM
R36	1	42237203	RES. 237 OHM 1% MK-3 50PPM
R38	1	42316303	RES. 3.16K 1% MK-3 50PPM
R41,44,46,48,52	5	42511303	RES. 5.11K 1% MK-3 50PPM
R45	1	42100103	RES. 10 OHM 1% MK-3 50PPM
R49	1	42100503	RES. 100K+/-1% MK-3 50PPM
R53,54,64,65,75,76	6	42549103	RES. 54.9 OHM 1% MK-3 50PPM
R56	1	42158513	RES. 158K 1% MK-4 50PPM
R57,68	2	42196403	RES. 19.6K 1% MK-3 50PPM
R58A,58B	2	42750405	RES. 75K 1% MK-8 50PPM
R59,70	2	42499303	RES. 4.99K 1% MK-3 50PPM
R60	1	42130403	RES. 13K 1% MK-3 50PPM
R61A	1	42243513	RES. 243K 1% MK-4 50PPM
R61B	1	42432503	RES. 432K 1% MK-3 50PPM
R62,73	2	42332203	RES. 332 OHM 1% MK-3 50PPM
R63,74	2	43100002	RES. 1 OHM 2W 5% W.W.
R67	1	42499403	RES. 49.9K 1% MK-3 50PPM
R71	1	42127403	RES. 12.7K 1% MK-3 50PPM
R72A	1	42130503	RES. 130K 1% MK-3 50PPM
R72B	1	42150503	RES. 150K 1% MK-3 50PPM
R77	1	42237303	RES. 2.37K 1% MK-3 50PPM
R78	1	42267203	RES. 267 OHM 1% MK-3 50PPM
		RV	CONTROLS
RV1	1	45100537	QUAD 100KΩ MOTORIZED GAIN POT.
		RY	RELAYS
RY1,2,3	4	64101600	RELAY, LS3
RY4,5	4	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
		T	TRANSFORMERS
T1	1	60012920	XFR. LS22 120V.
		U	INTEGRATED CIRCUITS
U1,2	2	31000800	NE555N TIMER
U3,4	2	31002210	OP176GP
U5	1	31004000	ADJ. O.P. VLTG. REG.

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Schematic Symbol		Quantity	ARC Part #	Description
	V			VACUUM TUBES
V1-8		8	32001150	VAC.TUBE 6922 RUSSIAN
	ZD			ZENER DIODES
ZD1,6		2	30500300	IN4740A
ZD2,7		2	30504210	IN5535A (KNOX ONLY)
ZD3,4,8,9		4	31000705	LM329DZ GREEN
ZD5,10		2	30503500	IN5359 B