

# **audio research**

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

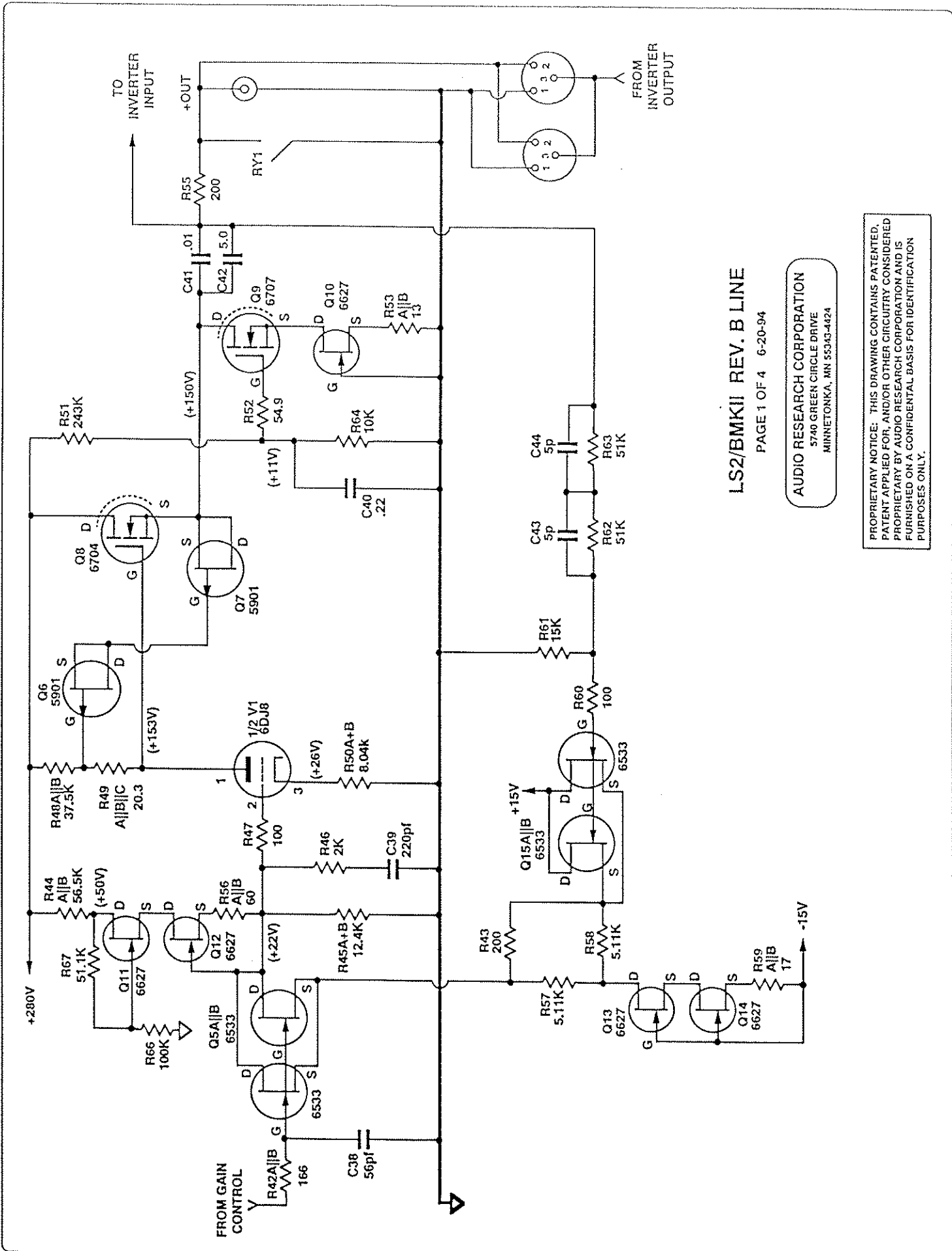
5740 GREEN CIRCLE DRIVE / MINNETONKA, MINNESOTA 55343-4424 / PHONE 612/939-0600 FAX 612/939-0604

LS2/LS2B MKII

SCHEMATIC

AND PARTS LIST

6-20-94

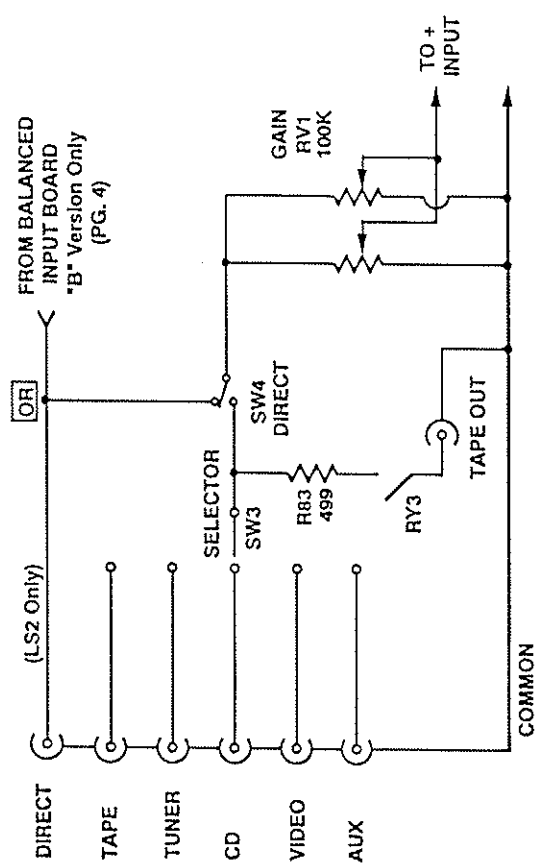
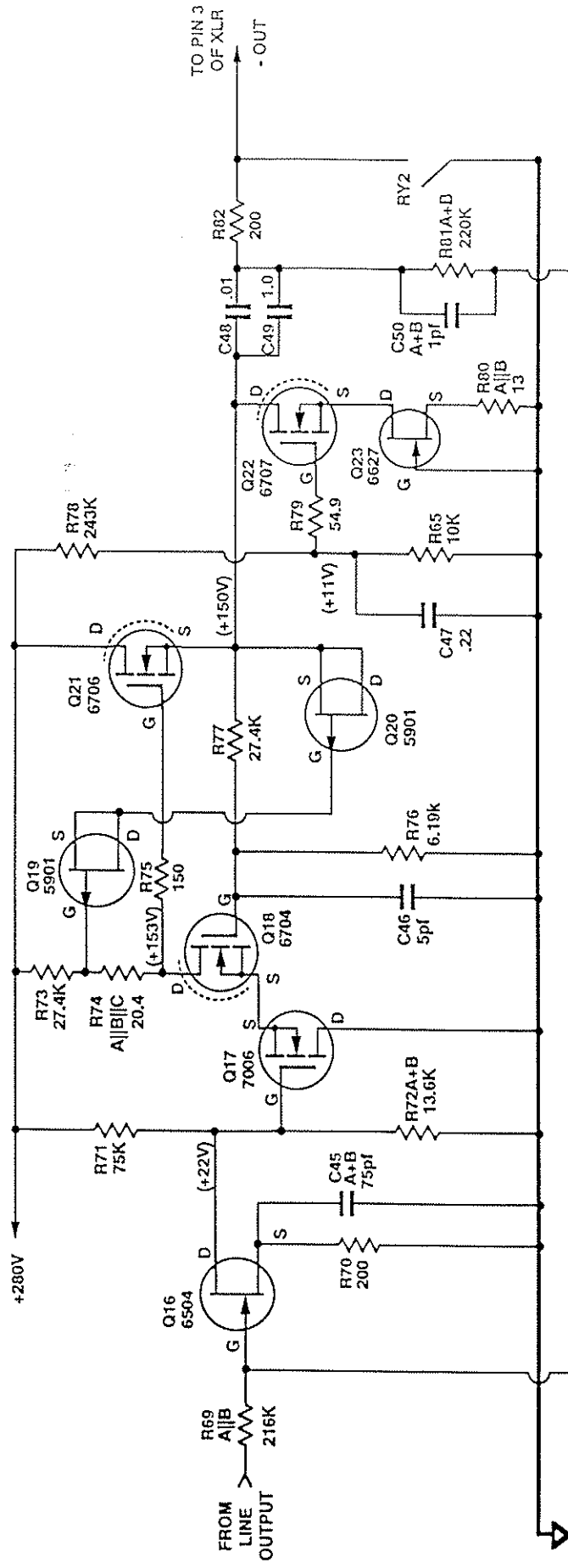


LS2/BMKII REV. B LINE

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 5740 GREEN CIRCLE DRIVE  
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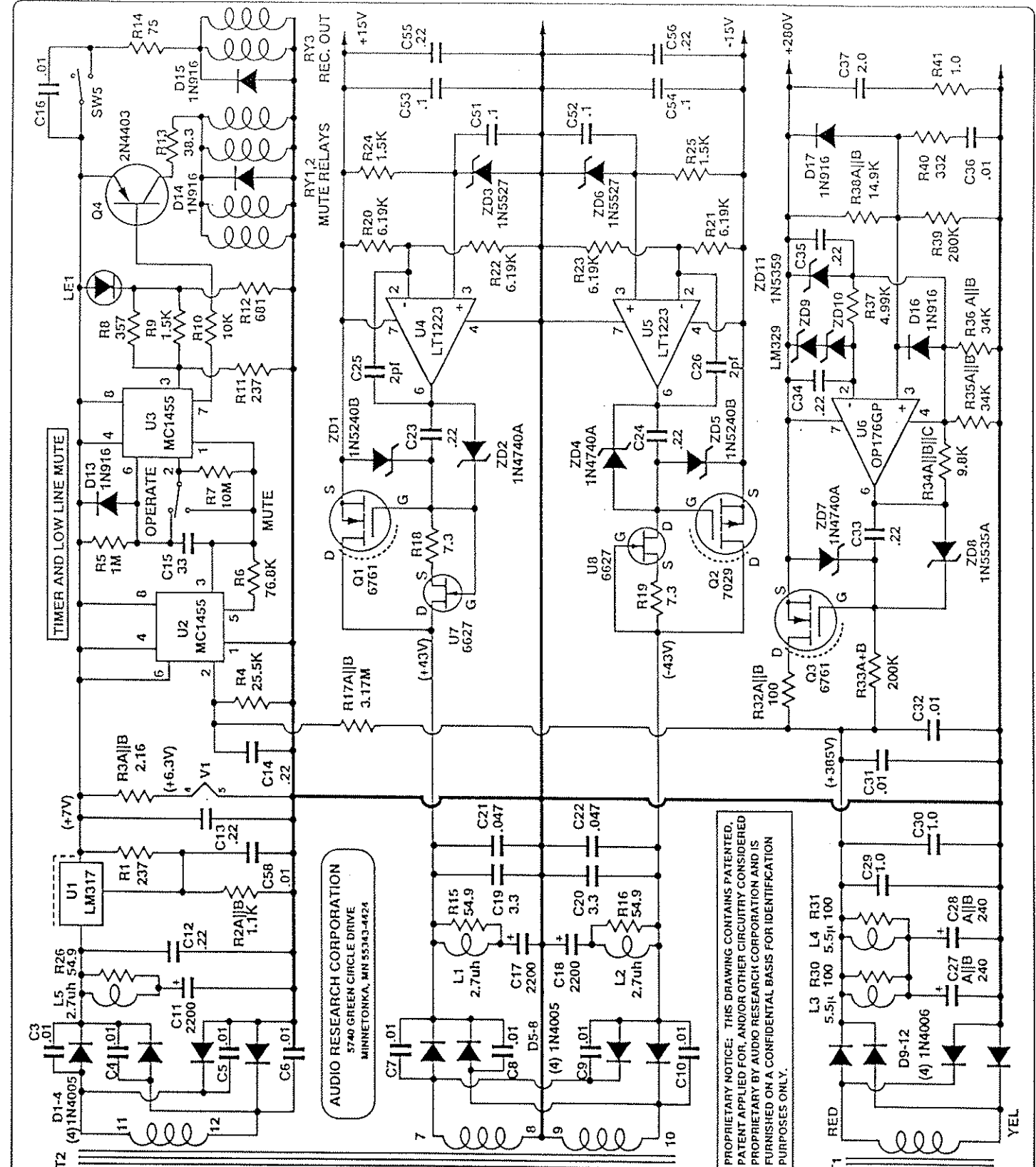
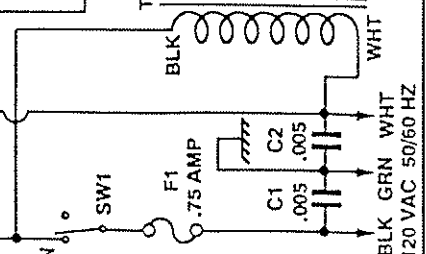
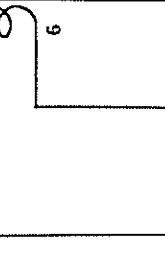
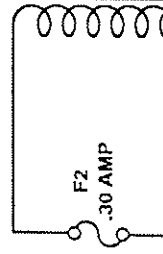


**LS2/BMKII INVERTER**  
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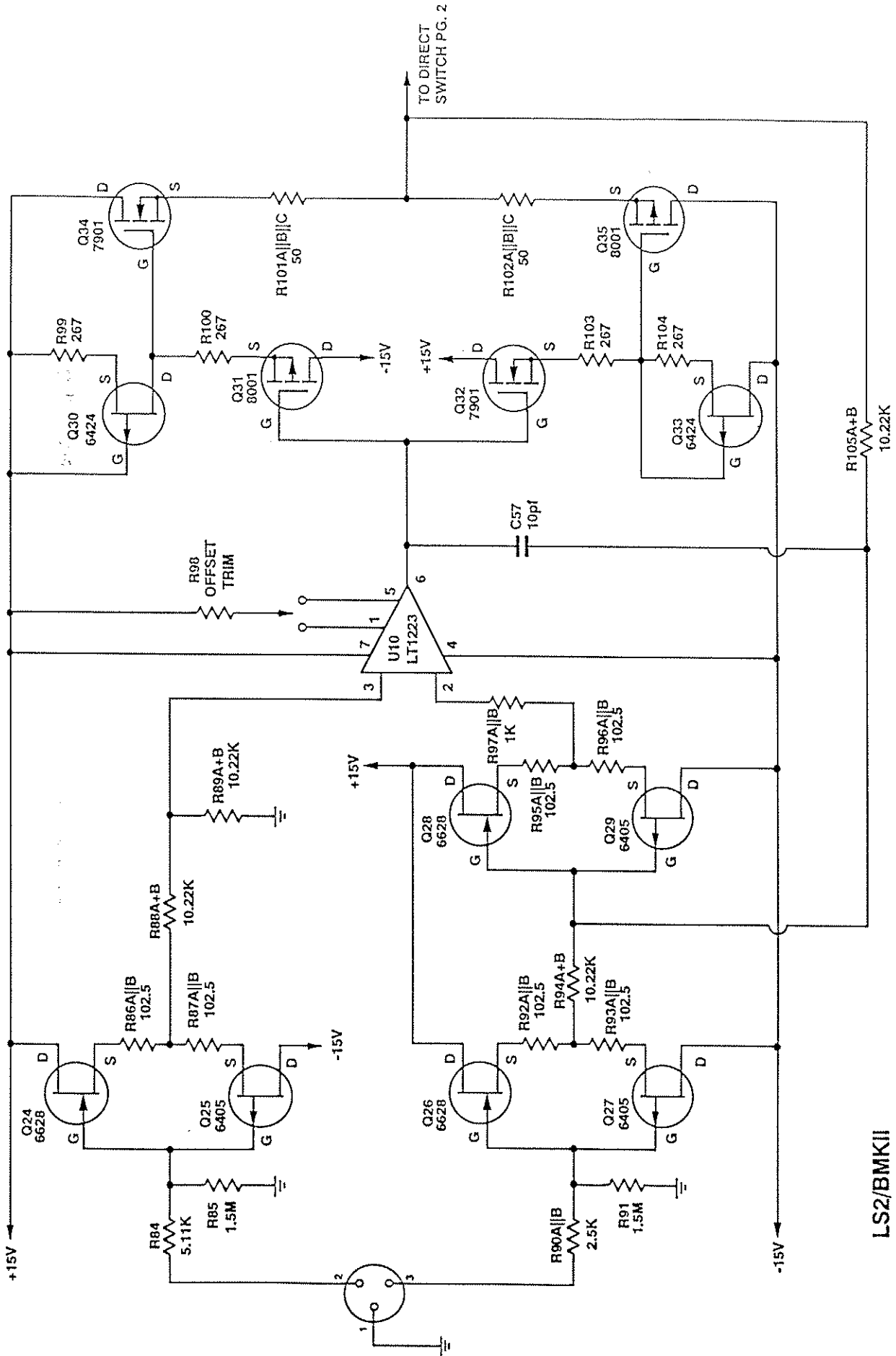
**LS2/BMKII P.S.**  
 REV. C VERSION  
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BLK GRN WHT  
 120 VAC 50/60 HZ



**LS2/BMKII**  
**BALANCED INPUT**  
**"B" Version Only**

**AUDIO RESEARCH CORPORATION**  
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## PARTS LIST

As of MAY 18 94

PRODUCT: LS2BMKII

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
LE			PANEL INDICATOR
LE1	1	34300102	L.E.D. COLLAR & RETAINING RING
Q			TRANSISTORS
Q1,3	2	30006761	FET, ORANGE YELLOW BROWN
Q2	1	30007029	FET, GRAY WHITE
Q4	1	30002900	TRANSISTOR,2N4403
Q5A,B,15A,B	8	30006533	FET, WHITE ORANGE ORANGE
Q6,7,19,20	8	30005901	FET, RED BROWN
Q8,18	4	30006704	FET, ORANGE YELLOW
Q9,22	4	30006707	FET, ORANGE VIOLET
Q10-14,23	12	30006627	FET, VIOLET RED VIOLET
Q16	2	30006504	FET, WHITE YELLOW
Q17	2	30007006	FET, GRAY BLUE
Q21	2	30006706	FET, ORANGE BLUE
Q24,26,28	6	30006628	FET, VIOLET RED GRAY
Q25,27,29	6	30006406	FET, BLUE BLUE
Q30,33	4	30006424	FET, GRAY YELLOW
Q31,35	4	30008001	FET,RED GREEN
Q32,34	4	30007901	FET,RED ORANGE
R			RESISTORS
R1,11	2	42237203	RES. 237 OHM 1% MK-3 50PPM
R2A,B	2	42221303	RES. 2.21K 1% MK-3 50PPM
R3A,B	2	42432003	RES. 4.32 OHM 1% MK-3 50PPM
R4,38B	2	42255403	RES. 25.5K 1% MK-3 50PPM
R5	1	42100603	RES. 1 MEG 1% MK-3 50PPM
R6	1	42768403	RES. 76.8K 1%MK-3 50PPM
R7,17A	2	42100703	RES. 10 MEG 1% MK-3 50PPM
R8,74C	3	42357203	RES. 357 OHM 1% MK-3 50PPM
R9,24,25	3	42150303	RES. 1.50K 1% MK-3 50PPM
R10,64,65	5	42100403	RES. 10K+/-1% MK-3 50PPM
R12,46,97A,B	7	42200303	RES. 2K MK-3 1% 50PPM
R13,59B	3	42383103	RES. 38.3 OHM 1% MK-3 50PPM
R14	1	42750103	RES. 75 OHM 1% MK-3 50PPM
R15,16,26,52,56A,B,79	11	42549103	RES. 54.9 OHM 1% MK-3 50PPM
R17B	1	42464603	RES. 4.64 MEG. 1% MK-3 50PPM
R18,19	2	42100103	RES. 10 OHM 1% MK-3 50PPM
R20-23	4	42619303	RES. 6.19K MK-3 1% 50 PPM
R30,31,47,60	6	42100203	RES. 100 OHM 1% MK-3 50PPM
R32A,B,43,55,70,82	10	42200205	RES. 200 OHM+/-1% MK8 50PPM
R33A,B	2	42100505	RES. 100K 1% MK-8 50PPM
R34A,B	2	42392403	RES. 39.2K 1% MK-3 50PPM
R34C	1	42196403	RES. 19.6K 1% MK-3 50PPM
R35A,B,36A,B,44A	6	42681405	RES. 68.1K 1% MK-8 50PPM
R37	1	42499303	RES. 4.99K 1% MK-3 50PPM
R38A	1	42357403	RES. 35.7K 1% MK-3 50PPM
R39	1	42280513	RES. 280K1% MK-4 50PPM
R40,42A,B,49C	7	42332203	RES. 332 OHM 1% MK-3 50PPM
R41	1	43100002	RES. 1 OHM 2W 5% W.W.
R44B	2	42562513	RES. 562K 1% MK-4 50PPM
R45A,B,76	6	42619314	RES. 6.19K 1% MK-5 50PPM

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R48A,B,71	6	42750405	RES. 75K 1% MK-8 50PPM
R49A,B,74A,B	8	42432103	RES. 43.2 OHM 1% MK-3 50PPM
R50A,B	4	42402303	RES. 4.02K 1% MK-3 50PPM
R51,78	4	42243513	RES. 243K 1% MK-4 50PPM
R53A,B,80A,B	8	42274103	RES. 27.4 OHM 1% MK-3 50PPM
R57,58,84,90A,B	10	42511313	RES. 5.11K 1% MK-4 50PPM
R59A	2	42332103	RES. 33.2 OHM 1% MK-3 50PPM
R61	2	42150403	RES. 15K 1% MK-3 50PPM
R62,63	4	42511403	RES. 51.1K 1% MK-3 50PPM
R69A,B	4	42432503	RES. 432K 1% MK-3 50PPM
R72A,B	4	42681303	RES. 6.81K 1% MK-3 50PPM
R73,77	4	42274405	RES. 27.4K 1% MK-8 50PPM
R75,101A,B,C,102A,B,C	14	42150203	RES. 150 OHM 1% MK-3 50PPM
R81A,B	4	42110503	RES. 110K 1% MK3 50PPM
R83	2	42499203	RES. 499 OHM 1% MK-3 50PPM
R85,91	4	42150613	RES. 1.5 MEG 1% MK-4 50PPM
R86A,B,87A,B,92A,B,93A,B,95A,B,96A R B	24	42205203	RES. 205 OHM 1% MK-3 50PPM
R88A,B,89A,B,94A,B,105A,B	16	42511303	RES. 5.11K 1% MK-3 50PPM
R99,100,103,104	8	42267203	RES. 267 OHM 1% MK-3 50PPM
RV			CONTROLS
RV1	1	45100536	QUAD 100K GAIN POT.
RY			RELAYS
RY1,2,3	6	64101010	RELAY, 5V DAC1
SW			SWITCHES
SW1	1	24102000	TOGGLE, POWER
SW2,5	2	24101610	TOGGLE, MUTE
SW3	2	24002400	LS2 SWITCH WAFER
SW4	1	24101900	TOGGLE, DIRECT
T			TRANSFORMERS
T1	1	60009500	XFR. LS2 TOROID (120V)
T2	1	60009600	XFR. LS2 (120V)
U			INTEGRATED CIRCUITS
U1	1	31004000	ADJ. O.P. VLTG. REG.
U2,3	2	31000800	NE555N TIMER
U4,5,10	4	31004300	LT1223CN8
U6	1	31002210	OP176GP
U7,8	2	30006627	FET, VIOLET RED VIOLET

## PARTS LIST

As of MAY 18 94

PRODUCT: LS2BMKII

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2	2	52500300	CAP. .005 UF 20% CERAMIC DISC
C3-10,16	9	52100400	CAP. .01 UF 200V
C11	1	50220902	CAP. 2200 UF 25V
C12-14,23,24,33-35,40,47,55,56	14	53220507	CAP. .22 UF 10% 160V
C15	1	51330702	CAP. 33 UF +/-10% 16V
C17,18	2	50220904	CAP. 2200 UF 63V.
C19,20	2	53330602	CAP. 3.3 UF 160V +/-10%
C21,22	2	53470402	CAP. 0.047 UF 160V 10%
C25,26,50A,B	6	53200003	CAP. 2 PF STY.
C27A,B,28A,B	4	50120801	CAP. 120UF 450V.
C29,30	2	53100608	CAP. 1.0 UF 1-20% 425V TYPE V
C31,32,36	3	53100406	CAP. .01 UF +/-10% 630V
C37	1	53200602	CAP. 2 UF +/-10% 450V
C38	2	53560103	CAP. 56 PF +/-2% 630V DPN
C39	2	53220201	CAP. 220 PF ±2.5% 630V PPN
C41,48	4	53100412	CAP. .01UF 600V
C42	2	53500607	CAP. 5 UF 200V
C43,44,46	6	53500001	CAP. 5 PF +/-1PF 630V DPN
C45A,B	4	53150202	CAP. 150 PF 2 1/2% 630V PPN
C49	2	53100609	CAP. 1UF 200V
C51-54	4	53100506	CAP. .1 UF 160V
C57	2	53100101	CAP. 10 PF +/-1 PF 630V PPN
D DIODES			
D1-8	8	30500400	IN4005 GENERAL INSTRUMENT
D9-12	4	30502200	IN4006
D13-17	5	30500910	1N916B
F FUSES			
F1	1	34500260	FUSE, BUSSMANN MDQ 3/4
F2	1	34500121	FUSE, MDQ 3/10 SL. BL.220
J CONNECTORS			
J1	2	23201970	XLR CONNECTOR (Female)
J2-8	7	23201509	CHASSIS JACK,RED
J2-8	7	23201510	CHASSIS JACK,WHITE
J9A,B,10A,B	4	23201910	SP15 MIC CONN. CH. MNT.
L INDUCTORS			
L1,2,5	3	61000160	CHOKE, 2.7 UH +/- 10%
L3,4	2	61000170	CHOKE, 5.5 UH



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NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
V			VACUUM TUBES
V1	1	32001150	VAC.TUBE 6922 RUSSIAN
ZD			ZENER DIODES
ZD1,5	2	30504400	IN5240B
ZD 2,4,7	5	30500300	IN4740A
ZD3,6	2	30505401	1N5527B APD (TESTED LN)
ZD8	1	30504210	IN5535A (KNOX ONLY)
ZD9,10	2	31000704	LM329DZ YELLOW
ZD11	1	30503500	IN5359 B