

audio research
HIGH DEFINITION®

3900 ANNAPOLIS LANE NORTH / PLYMOUTH, MINNESOTA 55447-5447 / PHONE: 763-577-9700 FAX 763-577 0323

MODEL CLASSIC 120 MONAURAL POWER AMPLIFIER

SCHEMATIC AND PARTS LIST

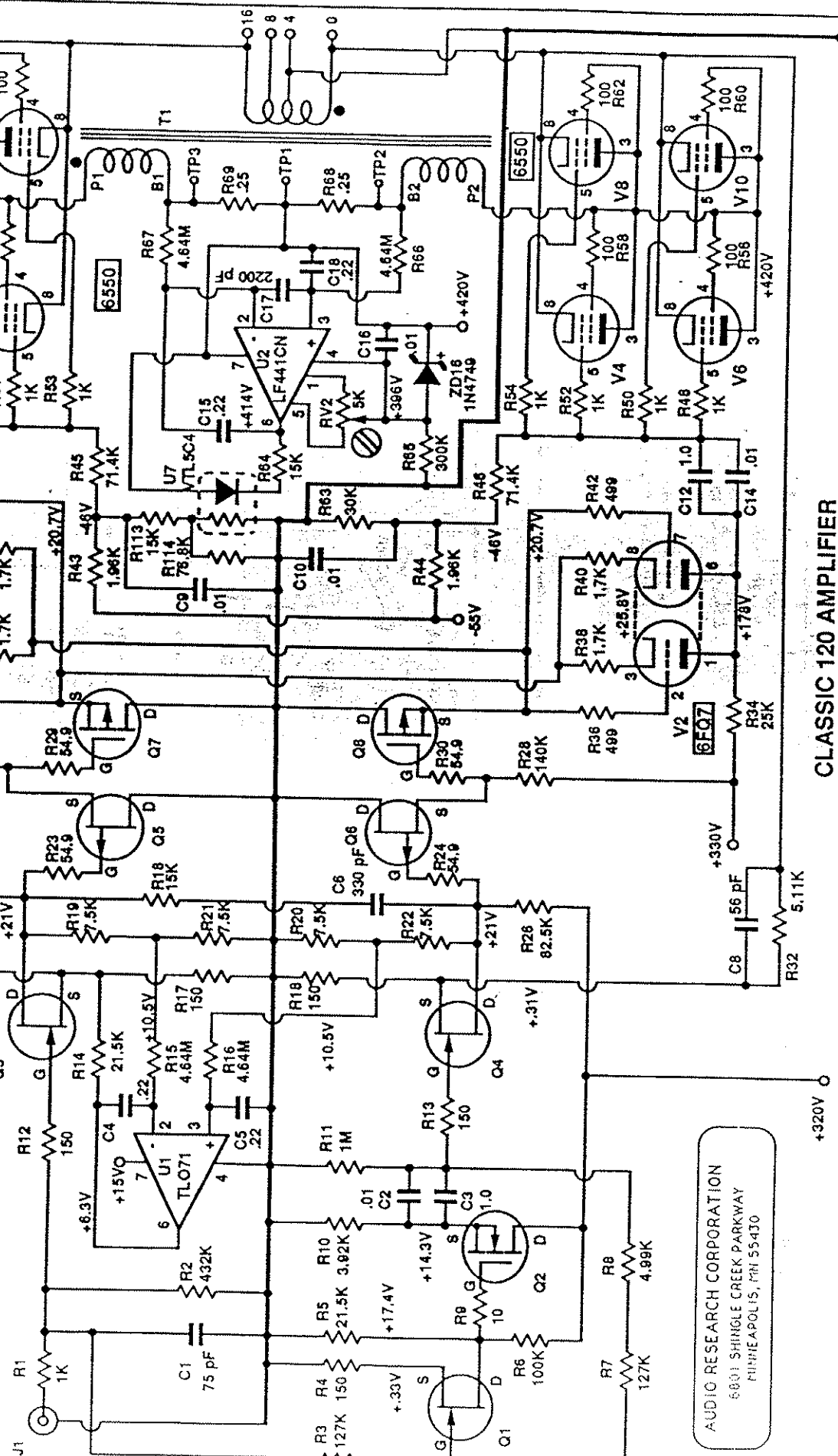
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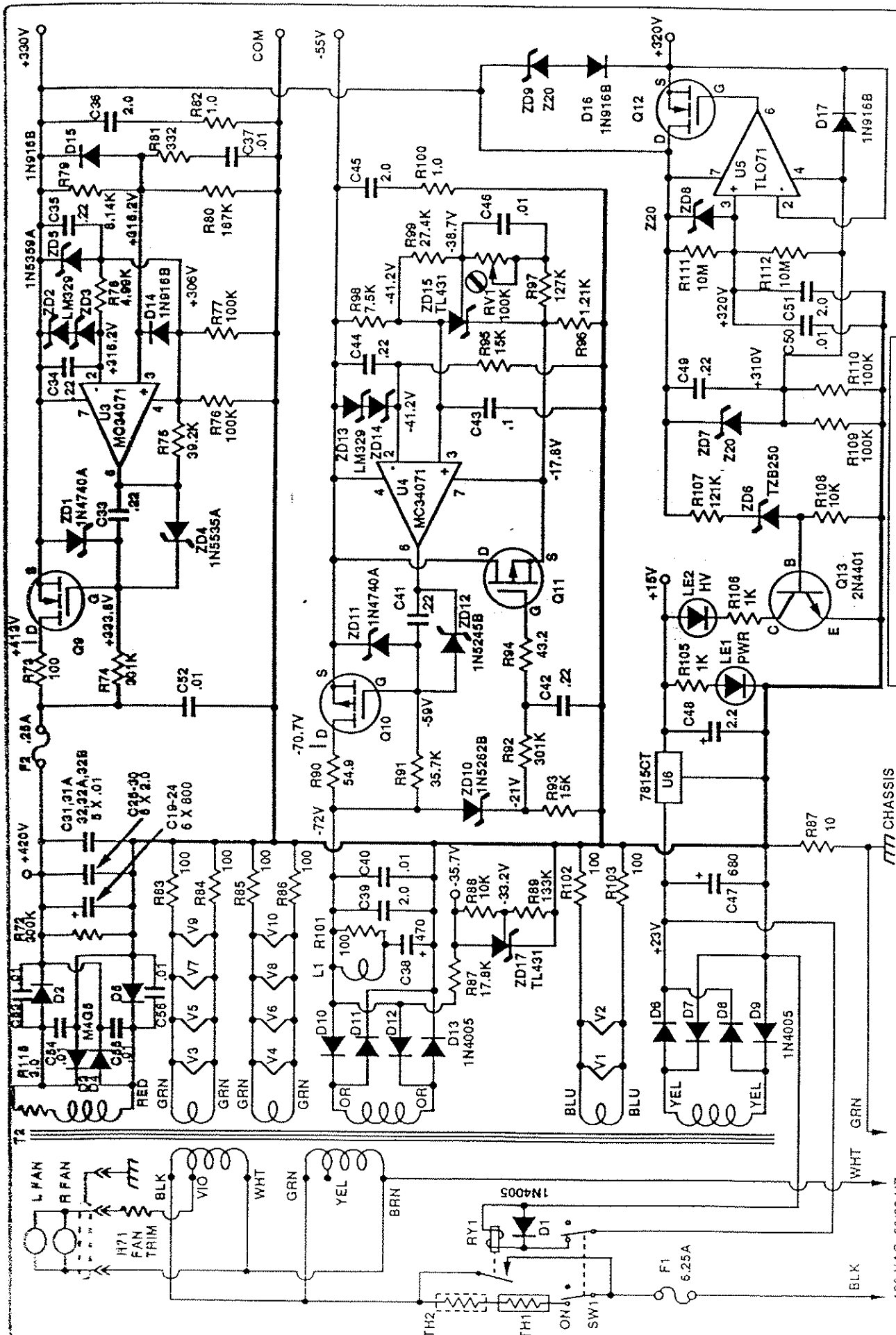
■ HIGH DEFINITION
SOUND EQUIPMENT

PROPRIETARY NOTICE THIS DRAWING CONTAINS PATENTED, PENDING APPLIED FOR, AND/OR OTHER CIRCUITRY CONSIDERED PROPRIETARY BY AUDIO RESEARCH CORPORATION AND IS FURNISHED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY



CLASSIC 120 AMPLIFIER

AUDIO RESEARCH CORPORATION
 6801 SHINGLE CREEK PARKWAY
 MINNEAPOLIS, MN 55430



**CLASSIC 120 AMPLIFIER
POWER SUPPLY**

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AUDIO RESEARCH CORPORATION
6901 SHINGLE CREEK PARKWAY
MIRREAPOLIS, MN 55430

120 VAC 50/60 HZ

PARTS LIST

As of MAY 31 90

PRODUCT: CL120

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
CAPACITORS			
C 19-24	6	50800801	CAP. 800 UF 450V GRAY
C 1,1A	2	53150202	CAP. 150 PF 2 1/2% 630V PPN
C 2,11,14,31,31A,32,32A,37,40,50,52	11	53100406	CAP. .01 UF +/-10% 630V
C 3	1	53100606	CAP. 1.0 UF +/-10% 250V
C 4,5,15,18,33,34,35,41,42,44,49	11	53220507	CAP. .22 UF 10% 160V
C 6	1	53330200	CAP. 330 PF 2.5% 160V
C 7,8	2	53560103	CAP. 56 PF +/-2% 630V DPN
C 9,10,16,46	4	53100408	CAP. .01 UF 10% 63V PPN
C 12,13	2	53100800	CAP. 1 UF 450V
C 17	1	53220306	CAP. 2200 PF 10% 100VDC
C 25-30,36,51	5	53200602	CAP. 2 UF +/-10% 450V
C 38	1	50470802	CAP. 470 UF 100V "LYTIC"
C 39,45	2	53200603	CAP. 2 UF +/-10% 250V
C 43	1	53100505	CAP. .1 UF 10% 63V MPCN
C 47	1	50680800	CAP. 680 UF 35V
C 48	1	51220601	CAP. 2.2 UF +/-10% 25V
C 53,54,55,56	4	53100407	CAP. .01 UF 250V 20% MPE MALL
DIODES			
D 1,6-13	9	30500400	IN4005 GENERAL INSTRUMENT
D 2,3,4,5	4	30503310	EDAL #M4GS
D 14,15,16,17	4	30500910	FAIRCHILD IN916B
FUSES			
F 1	1	34501000	FUSE, 6-1/4 MDX
F 2	1	34500102	FUSE, BUSSMAN AGC 1/4 250V
CONNECTORS			
J 1	1	23201501	GOLD PHONO JK.,W/RD.BND.SP11
INDUCTORS			
L 1	1	61000170	CHOKE 5.5 UH
PANEL INDICATOR			
LE 1,2	2	34300102	L.E.D.COLLAR & RETAINING RING
TRANSISTORS			
Q 1	1	30006503	FET, WHITE ORANGE
Q 2	1	30006724	FET, ORANGE RED YELLOW
Q 3,4	2	30006527	FET, WHITE RED VIOLET
Q 5,6	2	30006402	FET, BLUE RED
Q 7,8	2	30008106	FET, GRAY RED BLUE
Q 9	1	30006836	FET, GREEN BLUE
Q 10	1	30006200	MTP 2P4S
Q 11	1	30007029	FET, GRAY WHITE

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Schematic Symbol	Quantity	ARC Part #	Description
TRANSISTORS			
	1	30007102	FET, YELLOW RED
Q 13	1	30002800	TRANSISTOR,2N4401
RESISTORS			
R 55-62	8	43100200	RES. 100 OHM 5% 2W
R 1	1	42100314	RES. 1K 1% MK-5 50PPM
R 2	1	42432503	RES. 432K 1% MK-3 50PPM
R 3,7,97	4	42127503	RES. 127K 1% MK-3 50PPM
R 4,12,13,17,18	5	42150203	RES. 150 OHM 1% MK-3 50PPM
R 5,14	2	42215403	RES. 21.5K 1% MK-3 50PPM
R 6,33,33A,33B,33C,34,34A,34B,34C,76	13	42100505	RES. 100K 1% MK-8 50PPM
R 77,109,110			
R 8,78	2	42499303	RES. 4.99K 1% MK-3 50PPM
R 9,87,115	3	42100103	RES. 10 OHM 1% MK-3 50PPM
R 10,37,38,39,40,43,44,44A	9	42392303	RES. 3.92K 1% MK-3 50PPM
R 11	2	42100603	RES. 1 MEG 1% MK-3 50PPM
R 15,16,66,67	4	42464603	RES. 4.64 MEG. 1% MK-3 50PPM
R 18,63,63A,64,79,93,95,113	8	42150403	RES. 15K 1% MK-3 50PPM
R 19,20,21,22,98	5	42750303	RES. 7.5K 1% MK-3 50PPM
R 23,24,29,30,90	5	42549103	RES. 54.9 OHM 1% MK-3 50PPM
R 25,26	2	42825405	RES. 82.5K 1% MK-8 50PPM
R 27,27A,28,28A,80	5	42280513	RES. 280K1% MK-4 50PPM
R 31,32	2	42511313	RES. 5.11K 1% MK-4 50PPM
R 35,36,41,42	4	42499203	RES. 499 OHM 1% MK-3 50PPM
R 37A,38A,39A,40A	4	42301303	RES. 3.01K 1% MK-3 50PPM
R 45,45A,46,46A,91	5	42357403	RES. 35.7K 1% MK-3 50PPM
R 47-54,105	10	42100303	RES. 1K 1% MK-3 50PPM
R 65,72	2	42300514	RES. 300K 1% MK-5 50PPM
R 68,68A,69,69A	4	43050004	RES. 0.5 OHM+-2% 3W W.W.
R 70,107	2	42121503	RES. 121K 1% MK-350PPM
R 71	1	43100202	RES. 100 OHM 2W 5%
R 73	1	46100201	RES. POWER OX.100 OHM 5% 3W
R 74,92	2	42301503	RES. 301K 1% MK-3 50PPM
R 75	1	42392403	RES. 39.2K 1% MK-3 50PPM
R 79A,87	2	42178403	RES. 17.8K 1% MK-3 50PPM
R 80A	1	42562513	RES. 562K 1% MK-4 50PPM
R 81	1	42332203	RES. 332 OHM 1% MK-3 50PPM
R 82,100	2	43100002	RES. 1 OHM 2W 5% W.W.
R 83,84,85,86,101,102,103	7	42100203	RES. 100 OHM 1% MK-3 50PPM
R 88,108	2	42100403	RES. 10K+-1% MK-3 50PPM
R 89	1	42133503	RES. 133K 1% MK-3 50PPM
R 94	1	42432103	RES. 43.2 OHM 1% MK-3 50PPM
R 96	1	42121303	RES. 1.21K 1% MK-3 50PPM
R 99	1	42274403	RES. 27.4K 1% MK-3 50PPM
R 111,112	2	42100703	RES. 10 MEG 1% MK-3 50PPM
R 114	1	42768403	RES. 76.8K 1% MK-3 50PPM
CONTROLS			
RV 1	1	45100527	POT. 100 K 10%

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Schematic Symbol	Quantity	ARC Part #	Description
CONTROLS			
	1	45500301	TRIM POT, 5K 10% 15 TURN
RELAYS			
RY 1	2	64000300	FAN, ETRI 126LH TESTED
SWITCHES			
SW 1	1	24100900	TOGGLE SW.,SHORT BAR,AMP.
TRANSFORMERS			
T 1	1	60008910	XFR. CL120 OUTPUT
T 2	1	60009001	XFR. CL120 POWER
THERMISTORS			
TH 1,2	1	47000300	THERMISTOR 30 OHM +/-20% CL60
INTEGRATED CIRCUITS			
U 1,5	2	31001900	TL071CP
U 2	1	31002401	LF 441 CN TESTED-ACCEPT
U 3,4	2	31002200	MC34071P MOTOROLA
U 6	1	31002000	MC7815CT
U 7	1	34400122	PHOTO COUPLER TESTED
VACUUM TUBES			
V 3-10	8	32000501	VAC.TUBE, 6550 [TESTED]
V 1,2	2	32000201	VAC.TUBE, 6CG7/6FQ7
ZENER DIODES			
ZD 1,11	2	30500300	IN4740A
ZD 2,3,13,14	4	31000705	LM329DZ GREEN
ZD 4	1	30504200	IN5535A
ZD 5	1	30503500	IN5359 B
ZD 6	1	30503600	TZB 250A TRANSIENT SUPPRESSOR
ZD 7,8,9	3	30503700	DIODE, Z20 10%
ZD 10	1	30504700	DIODE,1N5262B
ZD 12	1	30501800	IN5245B
ZD 15,17	2	31002600	ZENER DIODE, TL431CLP ADJ
ZD 16	1	30502500	IN4749