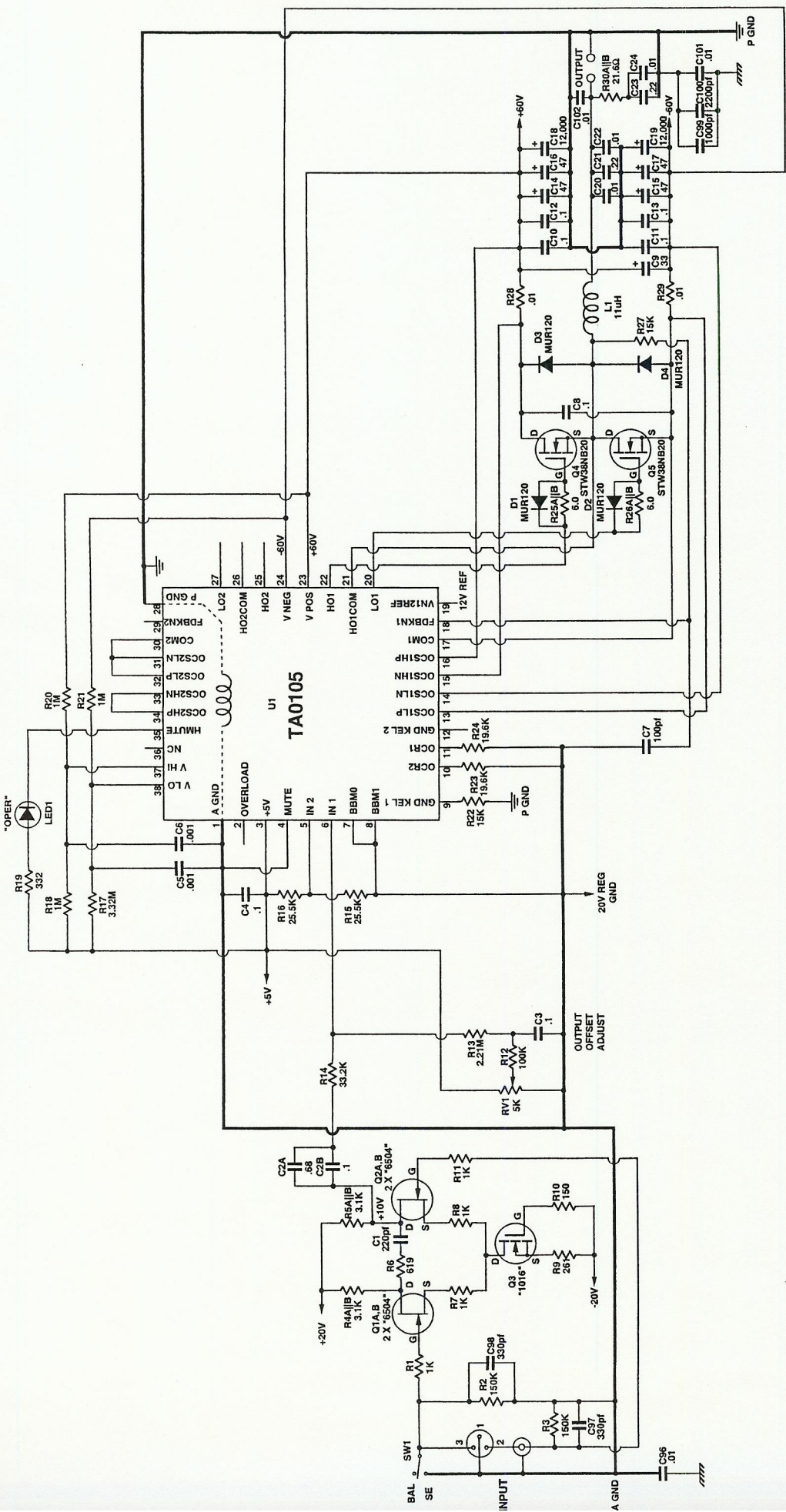


audio research

H I G H D E F I N I T I O N[®]

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

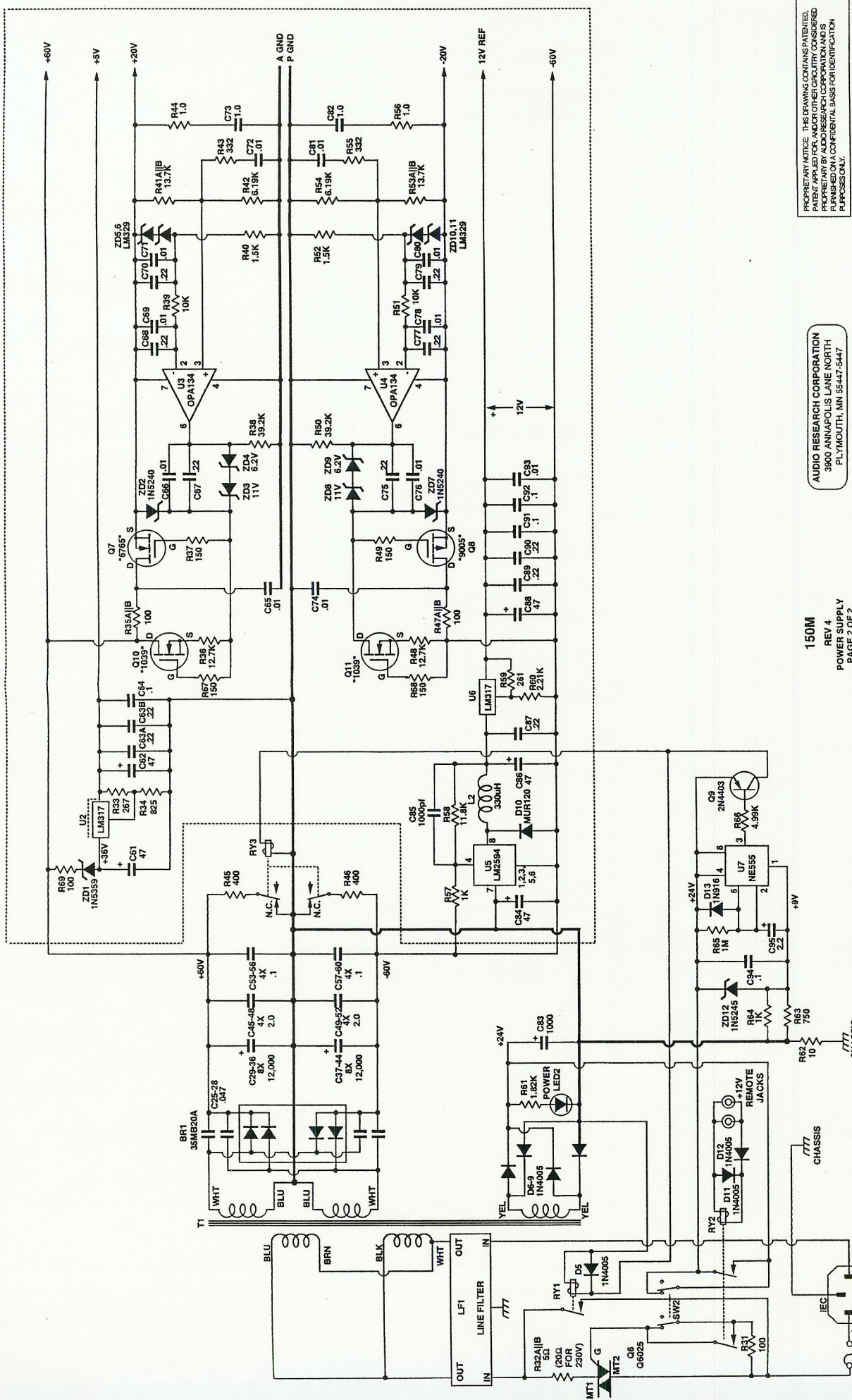
150M AMPLIFIER
SCHEMATIC



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 PLUMBOOTH, MINNESOTA 55447

150M
 REV 2
 AMPLIFIER MODULE
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150mW
REV 4
POWER SUPPLY
PAGE 2 OF 2
2-17-03

AUDIO RESEARCH CORPORATION
3800 ANNAPOLIS LANE NORTH
PLYMOUTH, MN 55447-5447

PARTS LIST

As of OCT 23 02

PRODUCT: 150M AM

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C2	1	53680507	CAP., .68 μ F 425V (M2A) INFINI
C3,4,10,11,12,13,64,91,92	9	53100510	CAP., 0.1uf 100V MKP2
C5,6	2	52100301	CAP., 1000pf 200V \pm 10% CER RAD
C7	1	53100202	CAP., 100pf \pm 2.5% 630V PPN
C8	1	53100506	CAP., 0.1 μ F \pm 10% 160V
C9	1	50330702	CAP,33UF 160V HF
C14,15,16,17,84	5	50470705	CAP,47UF 100V MUSE
C18,19	2	50121003	CAP, 12,000 μ F 63V
C20,22,24,66,69,71,72,76,78,80,81,93	12	53100410	CAP., .01uf \pm 10% 400V
C21,23,63,67,68,70,75,77,79,87,89,90	13	53220507	CAP., .22 μ F \pm 10% 160V
C61,86,88	4	50470704	CAP., 47 μ F "MUSE"
C65,74	2	53100412	CAP., .01 μ F \pm 10% 600V RTX
C73,82	2	53100609	CAP., 1.0 μ F \pm 10% 200V PPMF
C85	1	53100303	(SS)CAP., 1000pf \pm 10% 100V
D DIODES			
D1-4,10	5	30506100	DIODE,MUR120 FAST
L INDUCTORS			
L1	0	61000250	CHOKE ASSY 11UH LITZ
L2	1	61000260	CHOKE,330UH 0.5A
LED1	1	34300600	LED,RT ANGLE GRN
Q TRANSISTORS			
Q1A,1B,2A,2C	4	30006504	FET, WHITE YELLOW
Q3	1	30011016	FET, GREEN/WHITE/BLUE
Q4,5	2	30012000	FET,STW38NB20
Q7	1	30006765	FET, ORANGE-YELLOW-GREEN
Q8	1	30009005	FET, GREEN-GRAY
R RESISTORS			
R1,11	2	42100303	RES., 1K Ω MK-3 1% 50PPM
R2,3	1	42100503	RES., 100K Ω MK-3 1% 50PPM
R4A,4B,5A,5B,42,54	6	42619303	RES., 6.19K Ω MK-3 1% 50 PPM
R6	1	42619203	RES., 619 Ω MK-3 1% 50PPM
R7,8	2	42100313	RES., 1K Ω MK-4 1% PPM
R9,59	2	42261203	RES., 261 Ω MK3 1% 50 PPM
R10,37,49	5	42150202	RES., 150 Ω MK-2 1% 50PPM
R13	1	42221603	RES., 2.21 MEG MK-3 1% 50PPM
R14	1	49332413	RES., 33.2K CADDOCK
R15,16	2	42255403	RES., 25.5K Ω MK-3 1% 50PPM
R17	1	42332603	RES., 3.32 MEG MK-3 1% 50PPM
R18,20,21	3	42100603	RES., 1 MEG MK-3 1% 50PPM
R23,24	2	42196403	RES., 19.6K Ω MK-3 1% 50PPM
R25A,26A	2	42100103	RES., 10 Ω MK-3 1% 50PPM
R25B,26B	2	42150103	RES., 15 Ω MK-3 1% 50PPM

PARTS LIST

As of OCT 23 02

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Schematic Symbol	Quantity	ARC Part #	Description
R28,29	2	43010001	RES.,01Ω 1% 3W
R33	1	42267203	RES., 267Ω MK-3 1% 50PPM
R34	1	42825203	RES., 825Ω MK-3 1% 50PPM
R35A,35B,47A,47B	4	42200205	RES., 200Ω MK8 1% 50PPM
R38,50	2	42392403	RES., 39.2KΩ MK-3 1% 50PPM
R39,51	2	42100403	RES., 10KΩ MK-3 1% 50PPM
R41,41B,53A,53B	4	42274403	RES., 27.4KΩ MK-3 1% 50PPM
R43,55	2	42332203	RES., 332Ω MK-3 1% 50PPM
R44,56	2	43100002	RES., 1Ω 2W 5% W.W.
R57	1	42100302	RES., 1KΩ MK-2 1% 50 PPM
R58	1	42118403	RES., 11.8KΩ MK-3 1% 50PPM
R60	1	42221303	RES., 2.21KΩ MK-3 1% 50PPM
		RV	CONTROLS
RV1	1	45500301	POT., 5KΩ ±10% TRIM 15 TRUN
		SW	SWITCHES
SW1	1	24101510	SWITCH, TOGGLE NON-THREADED
		U	INTEGRATED CIRCUITS
U1	1	31009400	IC MODULE,TA0105A
U2,6	2	31004000	REGULATOR, VOLTAGE ADJ POS.
U3,4	2	31002230	OPA134
U5	1	31009500	IC,LM2594HVN-ADJ
		ZD	ZENER DIODES
ZD1	1	30503500	IN5359A OR B
ZD2,7	2	30504400	IN5240B
ZD3,8	2	30504900	ZENER, 11V BZX55C11
ZD4,9	2	30502100	1N5234B
ZD5,6,10,11	4	31000705	FET, GREEN

PARTS LIST

As of OCT 23 02

PRODUCT: 150M MF

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
			BR BRIDGE RECTIFIER
BR1	1	30501930	(SS)BRIDGE RECTIFIER, 36MB20A
			C CAPACITORS
C25-28	4	53470404	CAP., .047 μ f \pm 20% 250V
C29-44	16	50121003	CAP., 12,000 μ F 63V
C45-52	8	53200603	CAP., 2 μ F \pm 10% 250V
C53-60	8	53100507	CAP., 0.1 μ F \pm 10% 630V
C83	1	50100911	(SS)CAP., 1000 μ F 35V "LYTIC"
C94	1	53100510	CAP., 0.1 μ f 100V MKP2
C95	1	51220601	CAP., 2.2 μ F 25V \pm 20% DIP TANT.
			D DIODES
D5,6-9,11,12	7	30500400	IN4005
D13	1	30500910	1N916B
			F FUSES
F1	1	34501014	(B)FUSE, 10 AMP MDA BUSSMANN
			LED2
	1	34300320	L.E.D., GREEN SPOT L424GDT
			Q TRANSISTORS
Q6	1	30010920	TRANSISTOR, TRIAC 25A
Q9	1	30002900	TRANSISTOR, 2N4403
			R RESISTORS
R31	1	43100200	RES., 100 Ω 5% 2W
R32A,32B	2	43100106	RES., 10 Ω 20W W.W.
R45,46	2	43400201	(SS)RES., 400 Ω 7W \pm 5% W.W.
R61	1	42182303	RES., 1.82K Ω MK-3 1% 50PPM
R62	1	42100103	RES., 10 Ω MK-3 1% 50PPM
R63	1	42750203	RES., 750 Ω MK-3 1% 50PPM
R64	1	42100303	RES., 1K Ω MK-3 1% 50PPM
R65	1	42100603	RES., 1 MEG MK-3 1% 50PPM
R66	1	42499303	RES., 4.99K Ω MK-3 1% 50PPM
			RY RELAYS
RY1	1	64101510	RELAY, 24V
RY2	1	64101800	RELAY, 12V FAST
RY3	1	64101610	(SS)RELAY, 24VDC AZ820-2C-24

PARTS LIST

As of OCT 23 02

PRODUCT: 150M MF

NOTES:

Schematic Symbol		Quantity	ARC Part #	Description
	SW			SWITCHES
SW2		1	24102300	SWITCH, ROCKER
	T			TRANSFORMERS
T1		1	60018514	XFR.,150M DUAL PWR
	U			INTEGRATED CIRCUITS
U7		1	31000800	TIMER, NE555N
	ZD			ZENER DIODES
ZD12		1	30501800	DIODE, ZENER IN5245B