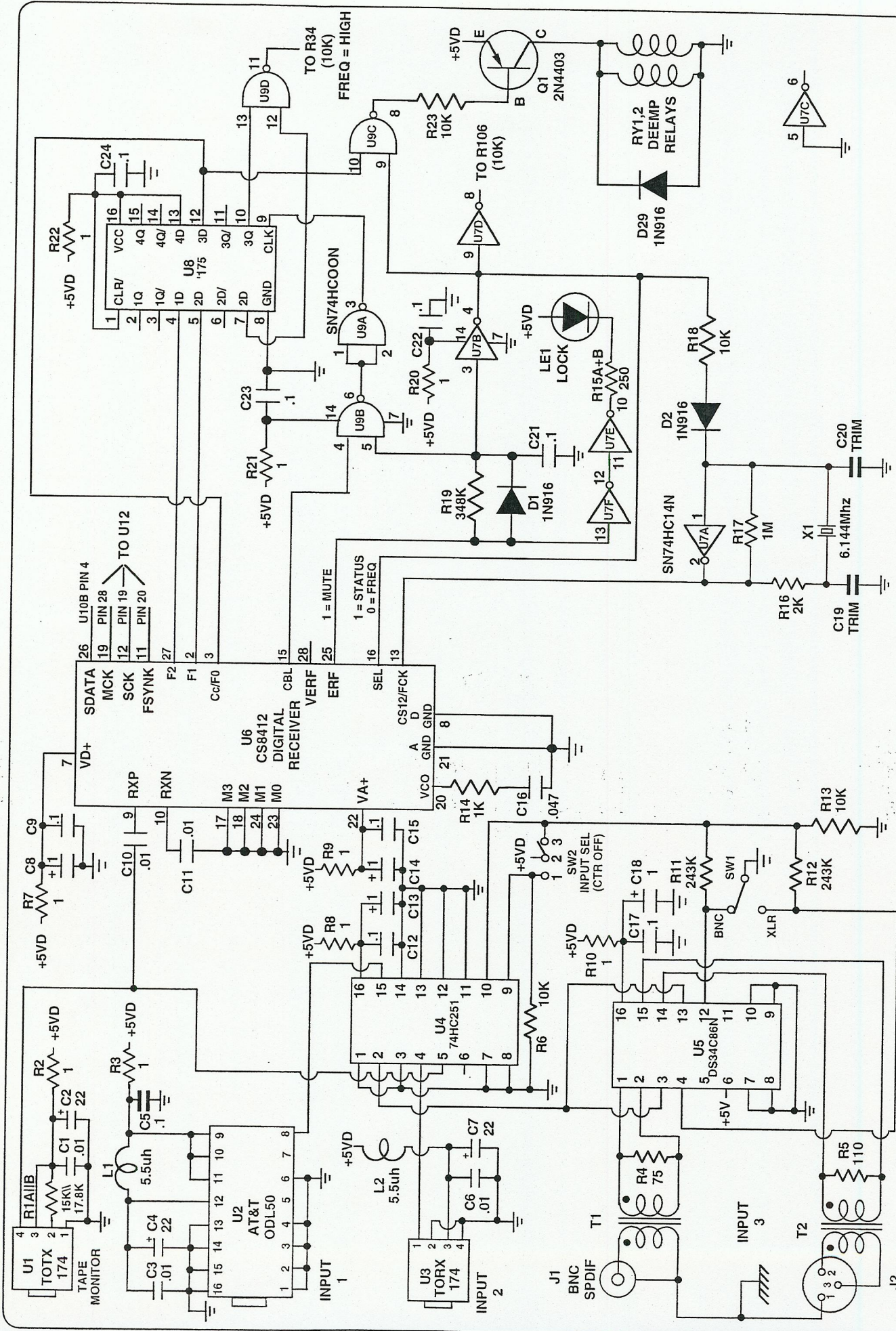


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DAC3MKII SCHEMATIC

10-7-96

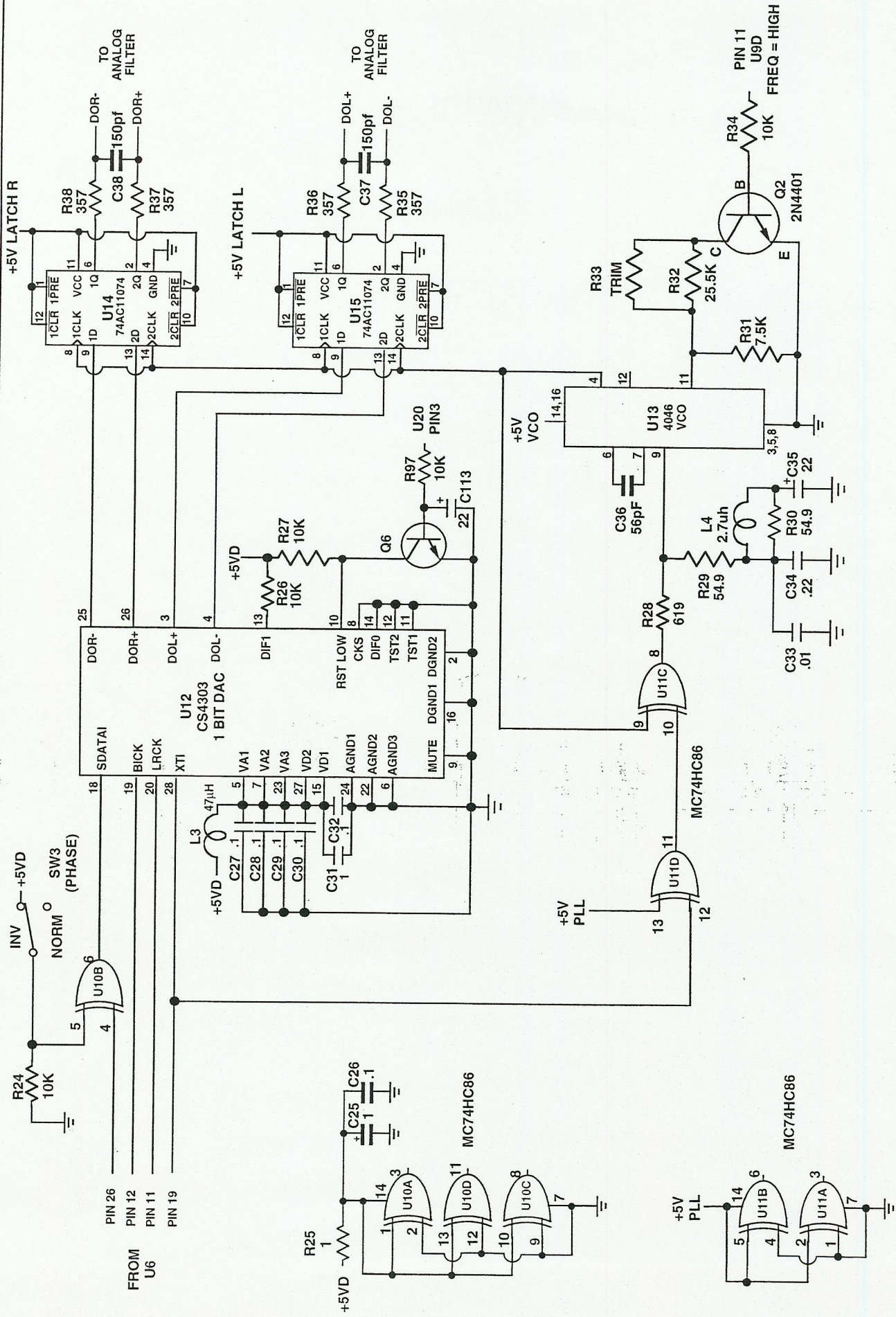


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**DAC3 MKII**  
 INPUT SEL & RCVR  
 PAGE 1 of 5  
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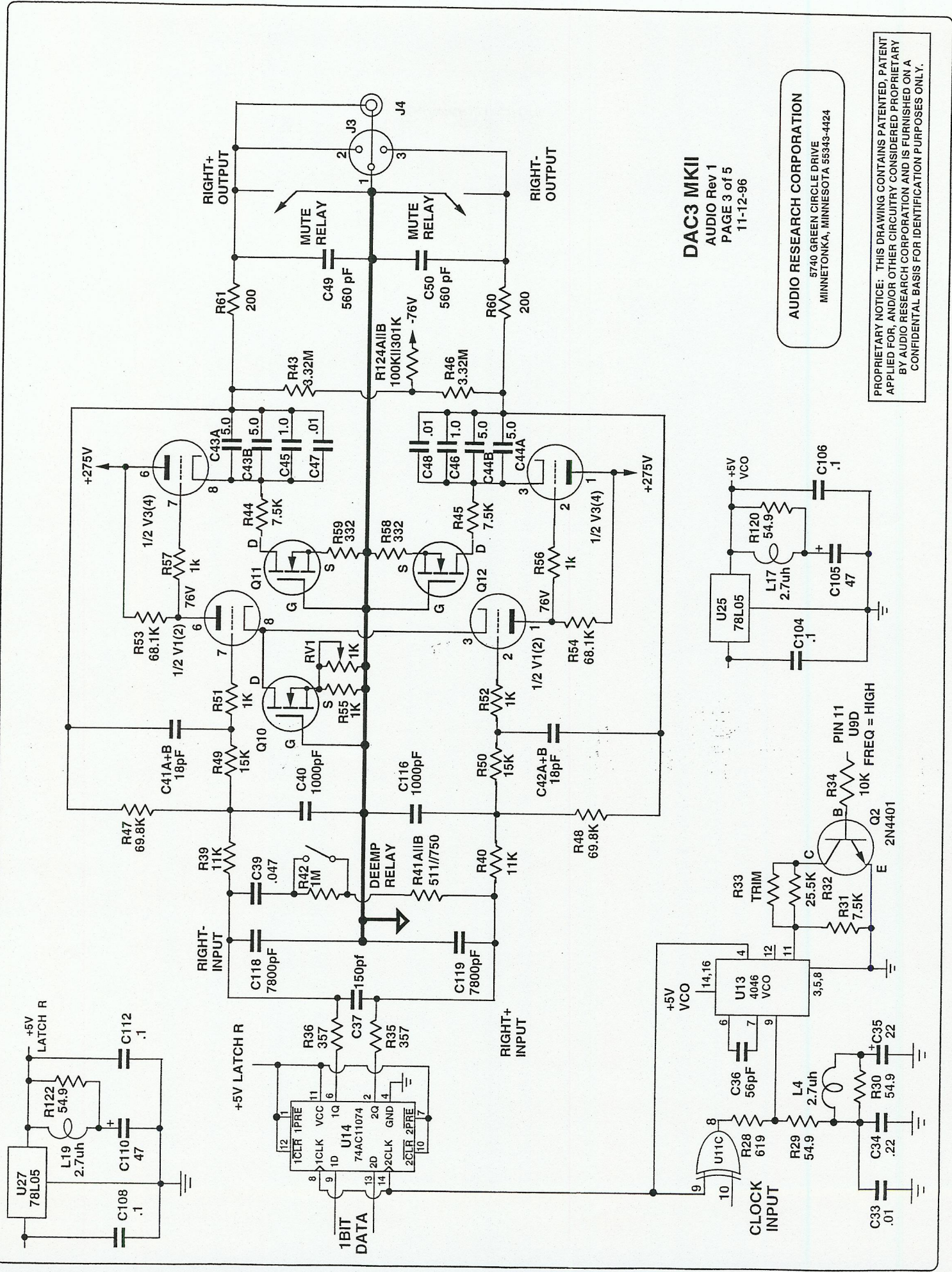
XLR  
 AES/EBU



**DAC3 MKII**  
 DAC & VCO  
 PAGE 2 of 5  
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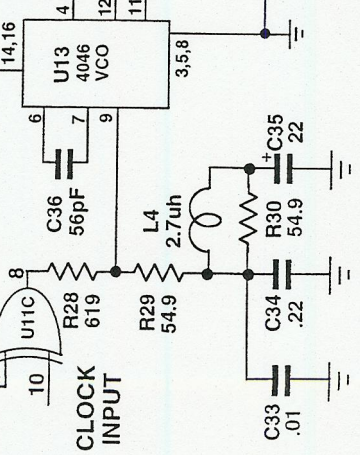
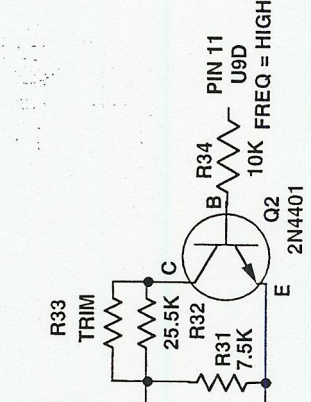
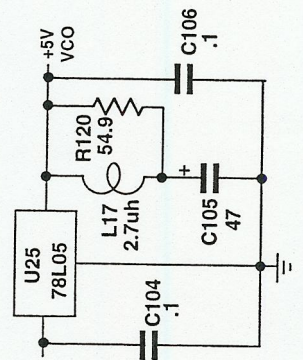
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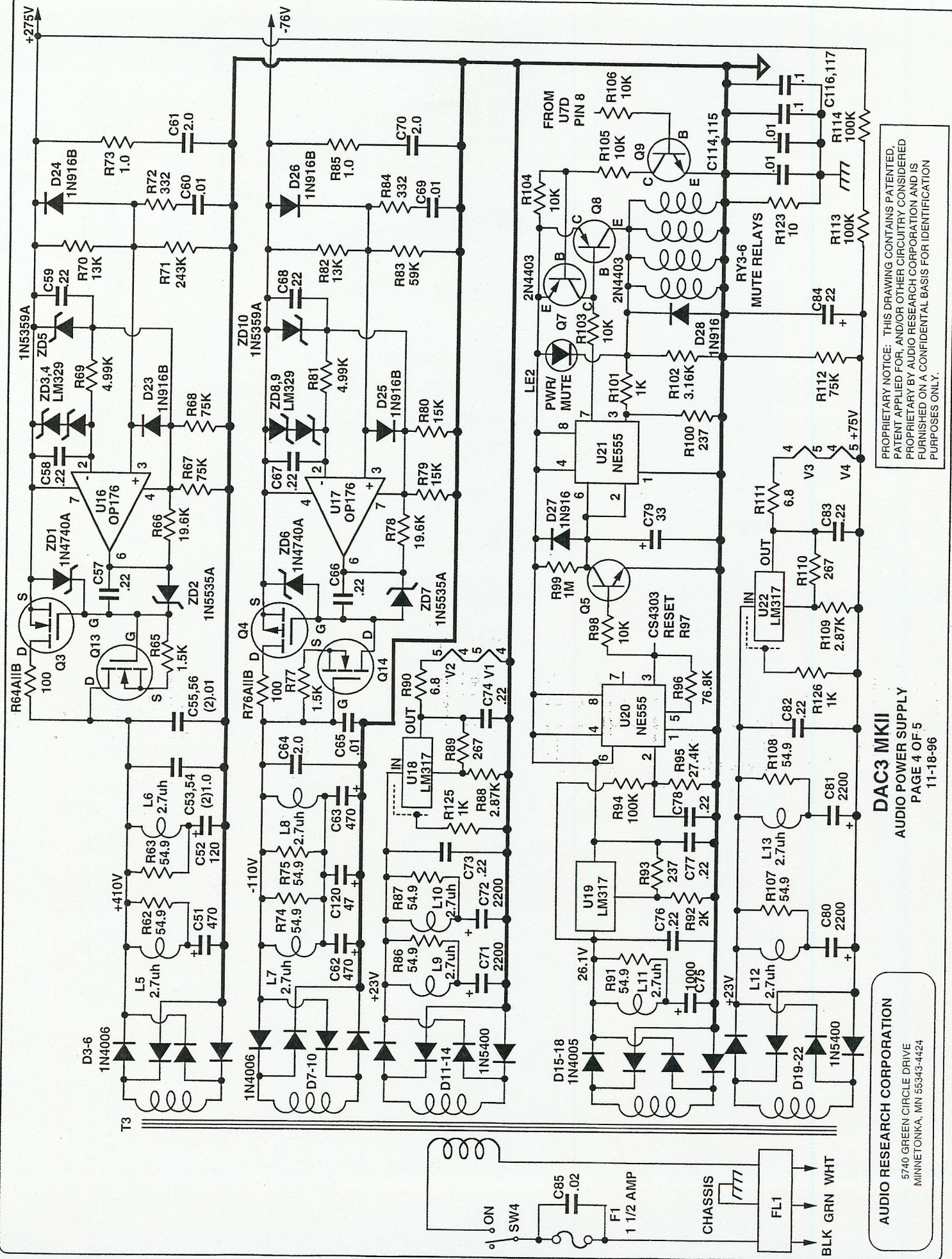


**DAC3 MKII**  
 AUDIO Rev 1  
 PAGE 3 of 5  
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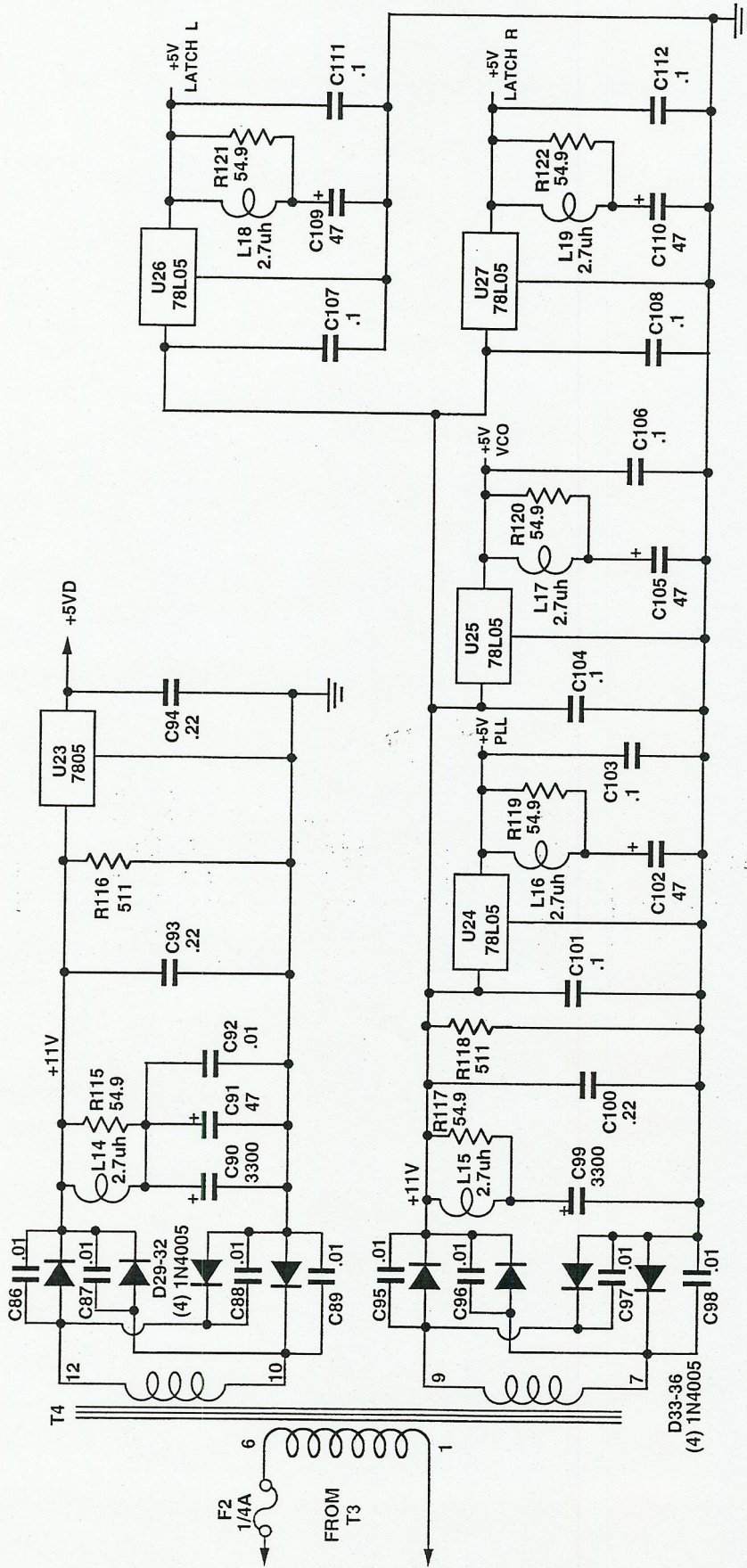




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**DAC3 MKII**  
**AUDIO POWER SUPPLY**  
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**DAC3 MKII**  
 DIGITAL POWER SUPPLY  
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## PARTS LIST

As of APR 30 97

PRODUCT: DAC3MKII

NOTES: REV. LEVEL 6

Schematic Symbol	Quantity	ARC Part #	Description
<b>C CAPACITORS</b>			
C1,3,6,10,86-89,95-98,114,115,11	15	52100400	CAP., .01 $\mu$ f 200V $\pm$ 10%
C2,4,7,35,113	5	50220702	CAP., 22 $\mu$ F 50V "LYTIC"
C5,9,12,15,17,21,22,23,24,26,27,28	17	52100500	CAP., 0.1 $\mu$ f 100V $\pm$ 20%
C 29,30,32,116,117			
C8,13,14,18,25,31	6	50100601	CAP., 1 $\mu$ F 50V "LYTIC"
C16	1	52470401	CAP., .047 $\mu$ F 200V $\pm$ 10% CER RAD
C33,92	2	53100410	CAP., .01 $\mu$ f $\pm$ 10% 400V
C34,57,58,59,66,67,68,73,74,76,77,78	17	53220507	CAP., .22 $\mu$ f $\pm$ 10% 160V
C 82,83,93,94,100			
C36,41B,42B	12	53560103	CAP., 56pf $\pm$ 2.5% 630V PPN
C37,38	2	53150202	CAP., 150pf 2-1/2% 630V PPN
C39	2	53470403	CAP., 0.047 $\mu$ f $\pm$ 10% 160V.
C40,116	4	53100304	CAP., 1000pf $\pm$ 2.5% 630V PPN
C43A,43B,44A,44B	8	53500607	CAP., 5.0 $\mu$ F $\pm$ 10% 200V PPMF
C45,46	4	53100610	CAP., 1.0 $\mu$ F $\pm$ 10% 400V PPMF
C47,48	4	53100412	CAP., .01 $\mu$ F $\pm$ 10% 600V RTX
C49,50	4	53560201	CAP., 560pF $\pm$ 2.5% 630V
C51	1	50470807	CAP., 470 $\mu$ F 450V "LYTIC"
C52	1	50120801	CAP., 120 $\mu$ F 450V "LYTIC"
C53,54	2	53100608	CAP., 1.0 $\mu$ f $\pm$ 20% 425V TYPE V
C55,56,60,65,69	5	53100406	CAP., .01 $\mu$ f $\pm$ 10% 630V
C61,65,70	3	53200602	CAP., 2 $\mu$ F $\pm$ 10% 450V
C62,63	2	50470804	CAP., 470 $\mu$ F 160V "LYTIC"
C71,72,80,81	4	50220903	CAP., 2200 $\mu$ F 35V ELECTROLYTIC
C75	1	50100911	CAP., 1000 $\mu$ F 35V "LYTIC"
C79	1	51330702	CAP., 33 $\mu$ f 16V $\pm$ 10%
C84	1	50220701	CAP., 22 $\mu$ F 100V
C85	1	52200400	CAP., .02 $\mu$ F 300VAC/2000VD 20%
C90,99	2	50330902	CAP., 3300 $\mu$ F 25V "LYTIC"
C91,102,105,109,110	5	50470701	CAP., 47 $\mu$ F 35V $\pm$ 20%
C101,103,104,106,107,108,111,112	8	53100506	CAP., 0.1 $\mu$ f $\pm$ 10% 160V
C118,119	4	53780301	CAP., 7800pF $\pm$ 2% 630V
C120	1	50470703	CAPACITOR 47 $\mu$ F 250V
<b>D DIODES</b>			
D3-10	8	30502200	IN4006
D11-14,19-22	8	30501500	IN5400
D15-18,29-36	12	30500400	IN4005
<b>F FUSES</b>			
F1	1	34501700	FUSE, 1.5 AMP MDX BUSSMAN
F2	1	34500102	FUSE, 1/4 AMP 250V
<b>FL LINE FILTERS</b>			
FL1	1	59000001	LINE FILTER, DAC1

## PARTS LIST

As of APR 30 97

PRODUCT: DAC3MKII

Schematic Symbol	Quantity	ARC Part #	Description
J CONNECTORS			
J1	1	23202210	CONNECTOR, BNC #222092-1
J2	1	23201990	CONNECTOR, XLR FEM. #NC3FD-H-B
J3	2	23201980	CONNECTOR, XLR MALE PC MOUNT
J4	1	23201510	JACK, CHASSIS WHITE
J4	1	23201509	JACK, CHASSIS RED
L INDUCTORS			
L1,2	2	61000170	CHOKE, 5.5 $\mu$ H .67 $\Omega$ max
L3	1	61000200	CHOKE, 47 $\mu$ H $\pm$ 5%
L4-19	16	61000160	CHOKE, 2.7 $\mu$ H $\pm$ 10%
LE PANEL INDICATOR			
LE1,2	2	34300102	L.E.D., COLLAR & RET. RING
Q TRANSISTORS			
Q1,7,8	3	30002900	TRANSISTOR, 2N4403
Q2,5,6,9	4	30002800	TRANSISTOR, 2N4401
Q3	1	30006761	FET, ORANGE YELLOW BROWN
Q10-14	8	30011019	FET, GREEN WHITE WHITE
R RESISTORS			
R1A	1	42150203	RES., 150 $\Omega$ MK-3 1% 50PPM
R1A,49,50	5	42150403	RES., 15K $\Omega$ MK-3 1% 50PPM
R1B	1	42178403	RES., 17.8K $\Omega$ MK-3 1% 50PPM
R2,3,7,8,9,10,20,21,22,25	10	42100002	RES., 1 $\Omega$ MK-2 1% 50 PPM
R4	1	42750103	RES., 75 $\Omega$ MK-3 1% 50PPM
R5	1	42110203	RES., 110 $\Omega$ MK-3 1% 50PPM
R6,13,18,23,24,26,27,34,97,98,103,104	14	42100403	RES., 10K $\Omega$ MK-3 1% 50PPM
R 105,106			
R11,12,71	3	42243503	RES., 243K $\Omega$ MK3 1% 50PPM
R14,51,52,56,57,101,125,126	12	42100303	RES., 1K $\Omega$ MK-3 1% 50PPM
R15A	1	42100203	RES., 100 $\Omega$ MK-3 1% 50PPM
R16,92	2	42200303	RES., 2K $\Omega$ MK-3 1% 50PPM
R17,42,99	4	42100603	RES., 1 MEG MK-3 1% 50PPM
R19	1	42348503	RES., 348K $\Omega$ MK-3 1% 50PPM
R28	1	42619203	RES., 619 $\Omega$ MK-3 1% 50PPM
R29,30,62,63,74,75,86,87,91,107,108	17	42549103	RES., 54.9 $\Omega$ MK-3 1% 50PPM
R 115,117,119-122			
R31	1	42750303	RES., 7.5K $\Omega$ MK-3 1% 50PPM
R32	1	42255403	RES., 25.5K $\Omega$ MK-3 1% 50PPM
R35-38,58,59	8	42357203	RES., 357 $\Omega$ MK-3 1% 50PPM
R39,40	4	42110403	RES., 11K $\Omega$ MK-3 1% 50PPM
R41A,116,118	4	42511203	RES., 511 $\Omega$ MK-3 1% 50PPM
R41B	2	42750203	RES., 750 $\Omega$ MK-3 1% 50PPM
R43,46	4	42332602	RES., 3.32 MEG MK-2 1% 50PPM
R44,45,58B,59B	8	42750302	RES., 7.5K $\Omega$ MK-2 1% 50PPM
R47,48	4	42698403	RES., 69.8K $\Omega$ MK-3 1% 50PPM
R53,54	4	42681405	RES., 68.1K $\Omega$ MK-8 1% 50PPM
R55	2	42100302	RES., 1K $\Omega$ MK-2 1% 50 PPM



## PARTS LIST

As of APR 30 97

PRODUCT: DAC3MKII

Schematic Symbol	Quantity	ARC Part #	Description
R58A,59A	4	42562202	RES., 562Ω MK-2 1% 50 PPM
R60,61,64A,64B,76A,76B	8	42200205	RES., 200Ω MK8 1% 50PPM
R66,78	2	42196403	RES., 19.6KΩ MK-3 1% 50PPM
R67,68,112	3	42750405	RES., 75KΩ MK-8 1% 50PPM
R69,81	2	42499303	RES., 4.99KΩ MK-3 1% 50PPM
R70,82	2	42130403	RES., 13KΩ MK-3 1% 50PPM
R73,85	2	43100002	RES., 1Ω 2W 5% W.W.
R79,80	2	42150405	RES., 15KΩ MK-8 1% 50PPM
R83	1	42590403	RES., 59KΩ MK-3 1% 50PPM
R88,109	2	42287303	RES., 2.87KΩ MK-3 1% 50PPM
R89,110	2	42267203	RES., 267Ω MK-3 1% 50PPM
R90,111	2	43680000	RES., 6.8Ω 2W ±5% W.W.
R93,100	2	42237203	RES., 237Ω MK-3 1% 50PPM
R94	1	42100503	RES., 100KΩ MK-3 1% 50PPM
R95	1	42274403	RES., 27.4KΩ MK-3 1% 50PPM
R96	1	42768403	RES., 76.8KΩ MK-3 1% 50PPM
R102	1	42316303	RES., 3.16KΩ MK-3 1% 50PPM
R113,114	2	42100505	RES., 100KΩ MK-8 1% 50PPM
R123	1	42100103	RES., 10Ω MK-3 1% 50PPM
R124A	2	42100502	RES., 100KΩ MK-2 1% 50PPM
R124B	2	42301502	RES., 301KΩ MK-2 1% 50PPM
RY RELAYS			
RY1,2	2	64101010	RELAY, 5 VDC 500Ω COIL
RY3-6	4	64101000	RELAY, 12V REED S1P 1200Ω
SW SWITCHES			
SW1	1	24101510	SWITCH, TOGGLE NON-THREADED
SW2	1	24101700	SWITCH, TOGGLE INPUT SATIN
SW3	1	24101630	SWITCH, TOGGLE MUTE
SW4	1	24102000	SWITCH, TOGGLE POWER "SPECIAL"
T TRANSFORMERS			
T1,2	2	60010300	XFR., CDT1/CD1/DAC2
T3	1	60010600	XFR., LS5/DAC3 TOROID 120V.
T4	1	60009400	XFR., 5 VOLT 120V.
U INTEGRATED CIRCUITS			
U1	1	34100010	MODULE, TRANSM. FIBER OPTIC
U2	1	34100001	RECEIVER, GLASS FIBER OPTIC
U3	1	34100002	RECEIVER, PLASTIC FIBER OPTIC
U4	1	31003600	IC, DATA MULTIPLEXER CMOS
U5	1	31003220	RECEIVER, LINE QUAD C MOS
U6,12	2	14004939	DAMPING PAD, 1.40" X .50" CDT1
U6	1	31004400	CRYSTAL SEMICONDUCTOR
U7	1	31003400	IC, QUAD AND GATE CMOS
U8	1	31005620	CLOCK DRIVER, HIGH SPEED QUAD
U9	1	31003300	INVERTER, IC CMOS HEX
U10,11	2	31004500	QUAD XOR LOGIC GATE, 2 INPUT
U11,13,14,15	4	14004938	DAMPING PAD, .80" X .25" CDT1
U12	1	31006400	DAC, 1 BIT CS4303-KP
U13	1	31006500	OSCILLATOR, VOLTAGE CONTROLLE

## PARTS LIST

As of APR 30 97

PRODUCT: DAC3MKII

Schematic Symbol	Quantity	ARC Part #	Description
U14,15	2	31005010	IC, DUAL D FLIP-FLOP
U16,17	2	31002210	OP-AMP, OP176GP
U18,19,22	3	31004000	REGULATOR, VOLTAGE ADJ POS.
U20,21	2	31000800	TIMER, NE555N
U23	1	31002910	REGULATOR, IC 5V
U24,25,26,27	4	31006600	REGULATOR, VOLTAGE 5V
V			VACUUM TUBES
V1-4	4	32001162	TUBE, 6922 SILVER TESTED
X			CRYSTALS
X1	1	27000020	CRYSTAL, 6.144MHz #CTX054-ND
ZD			ZENER DIODES
ZD1,6	2	30500300	IN4740A
ZD2,7	3	30504210	DIODE, ZENER IN5535A (KNOX)
ZD3,4,8,9	4	31000705	FET, GREEN
ZD5,10	2	30503500	IN5359A OR B