

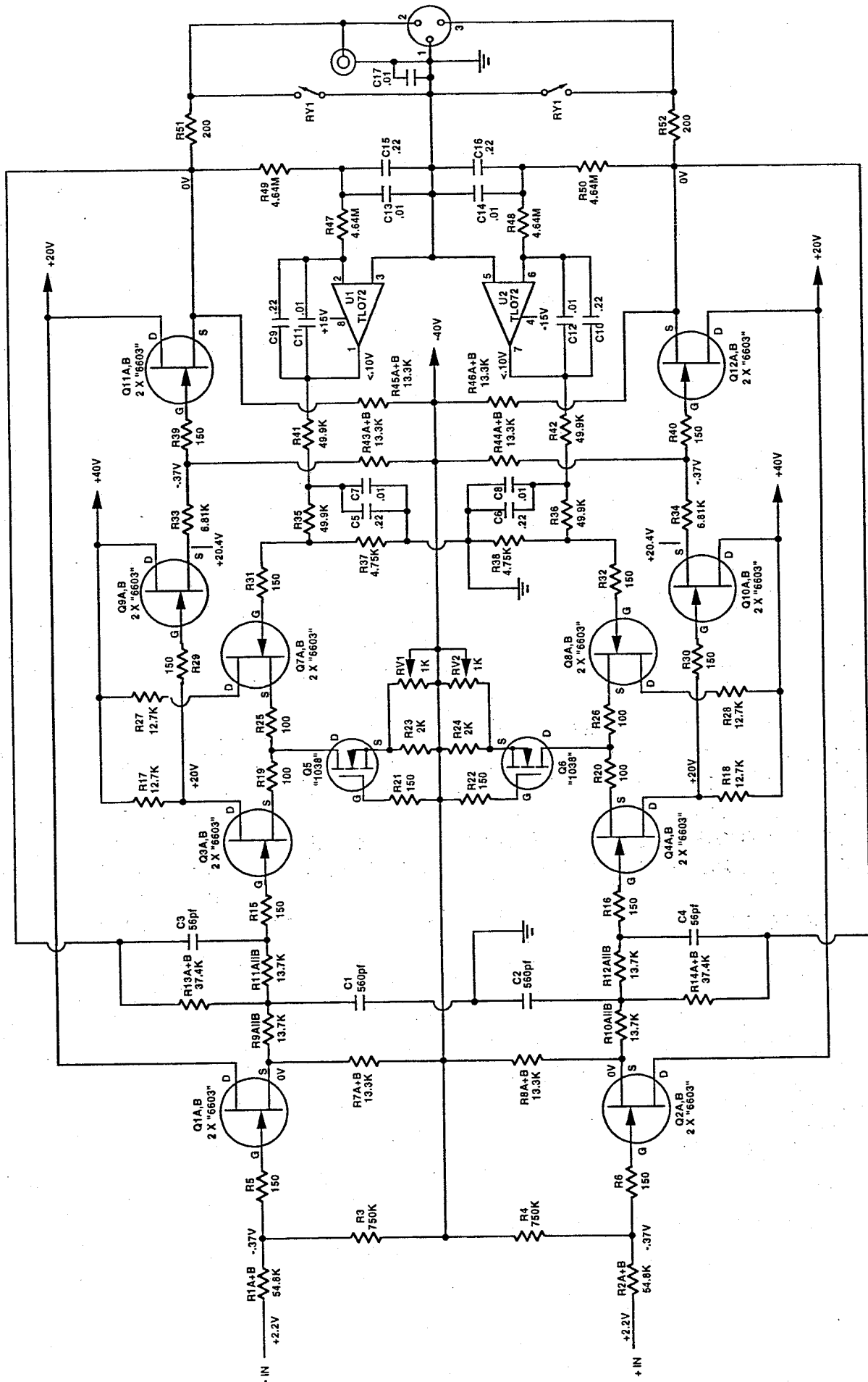
audio research

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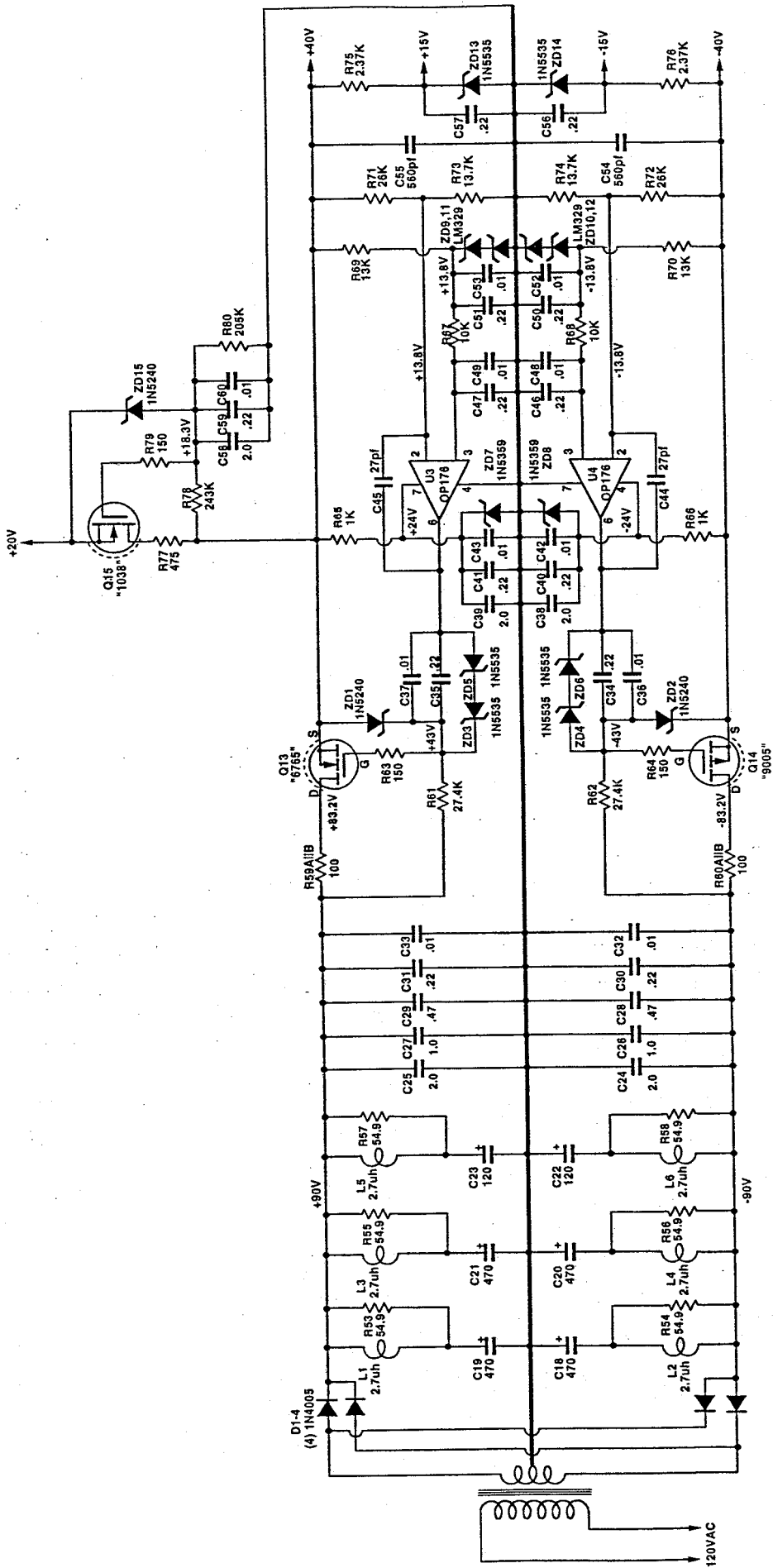
CD3 / CD3MKII

SCHEMATIC



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

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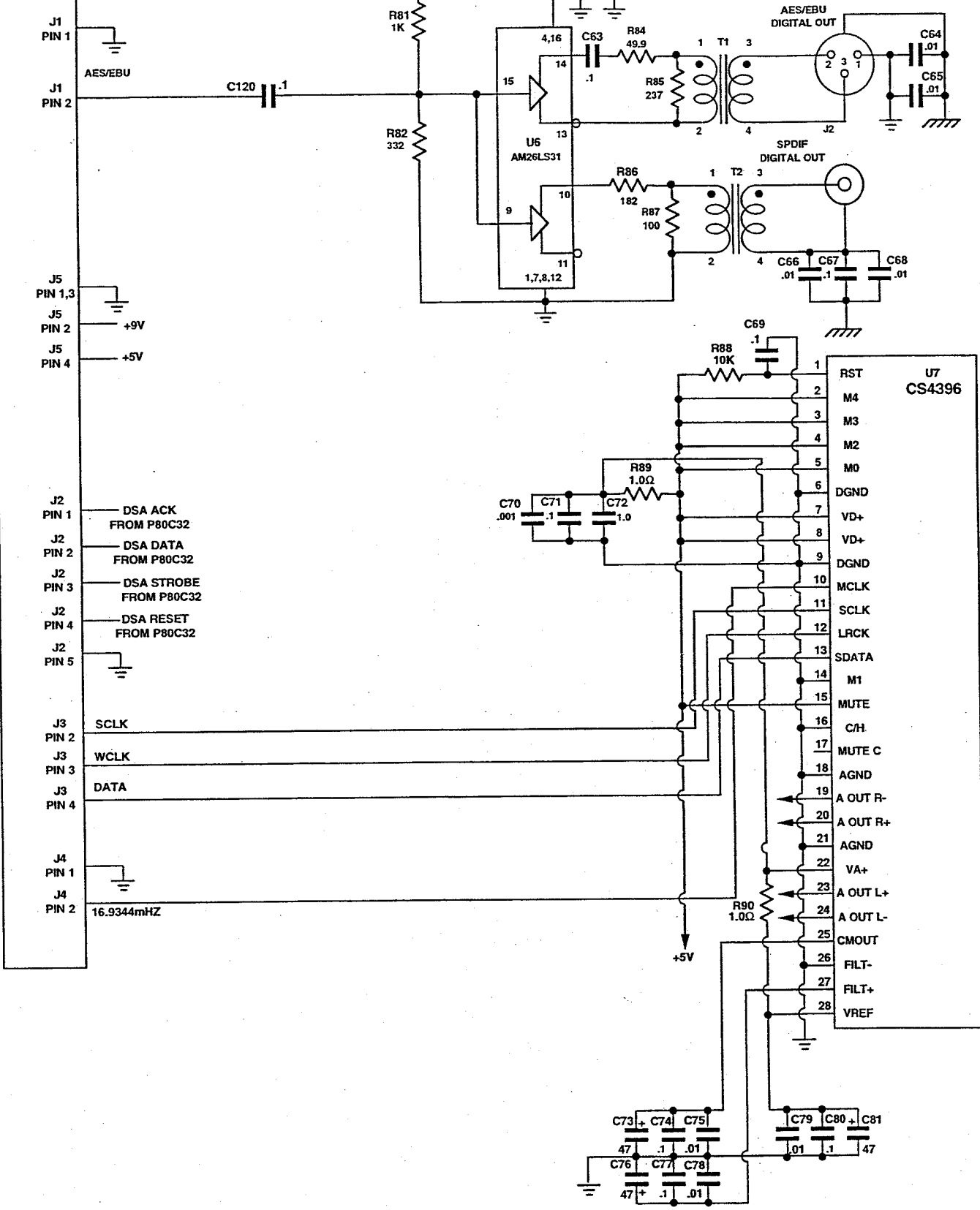


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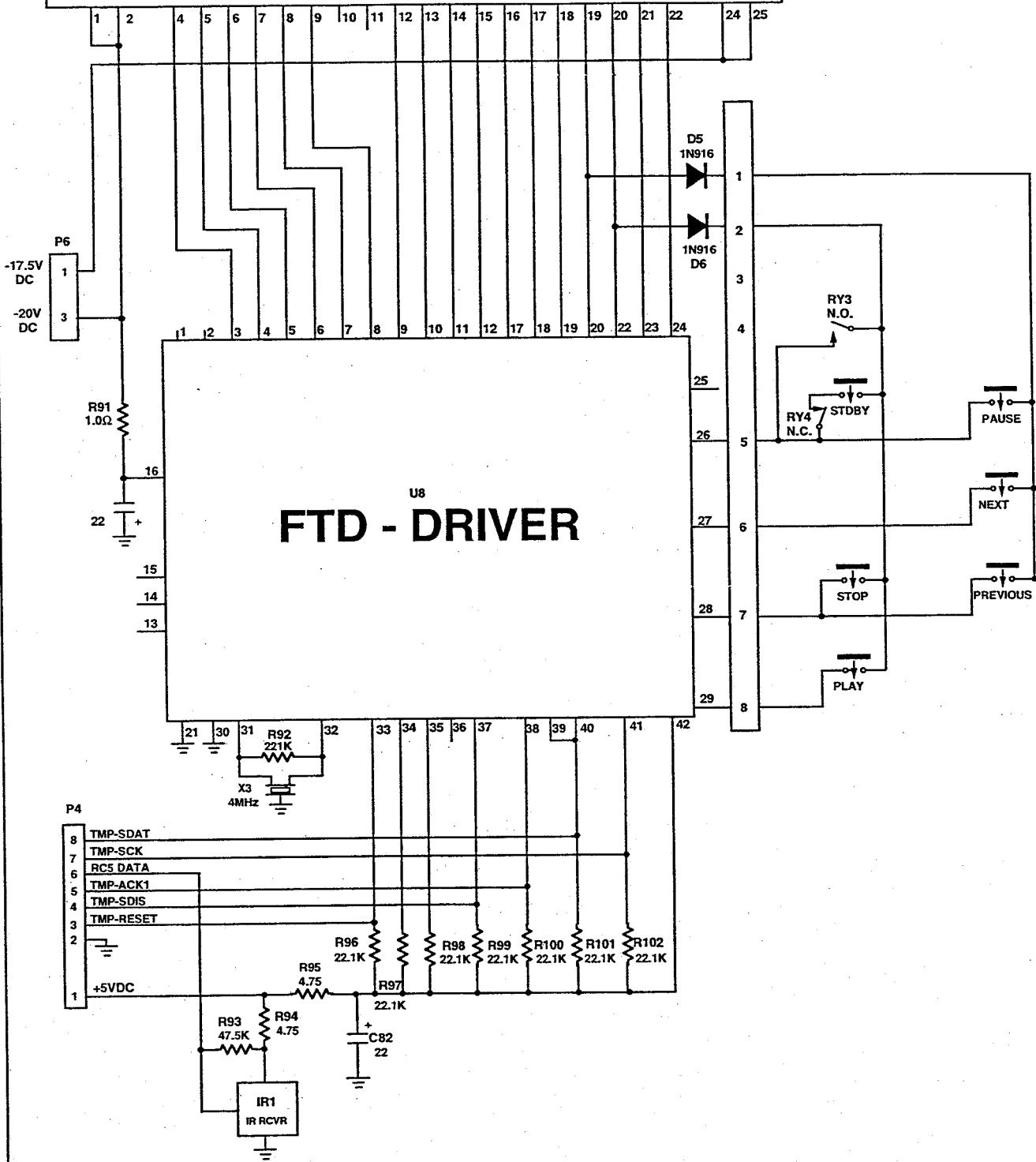
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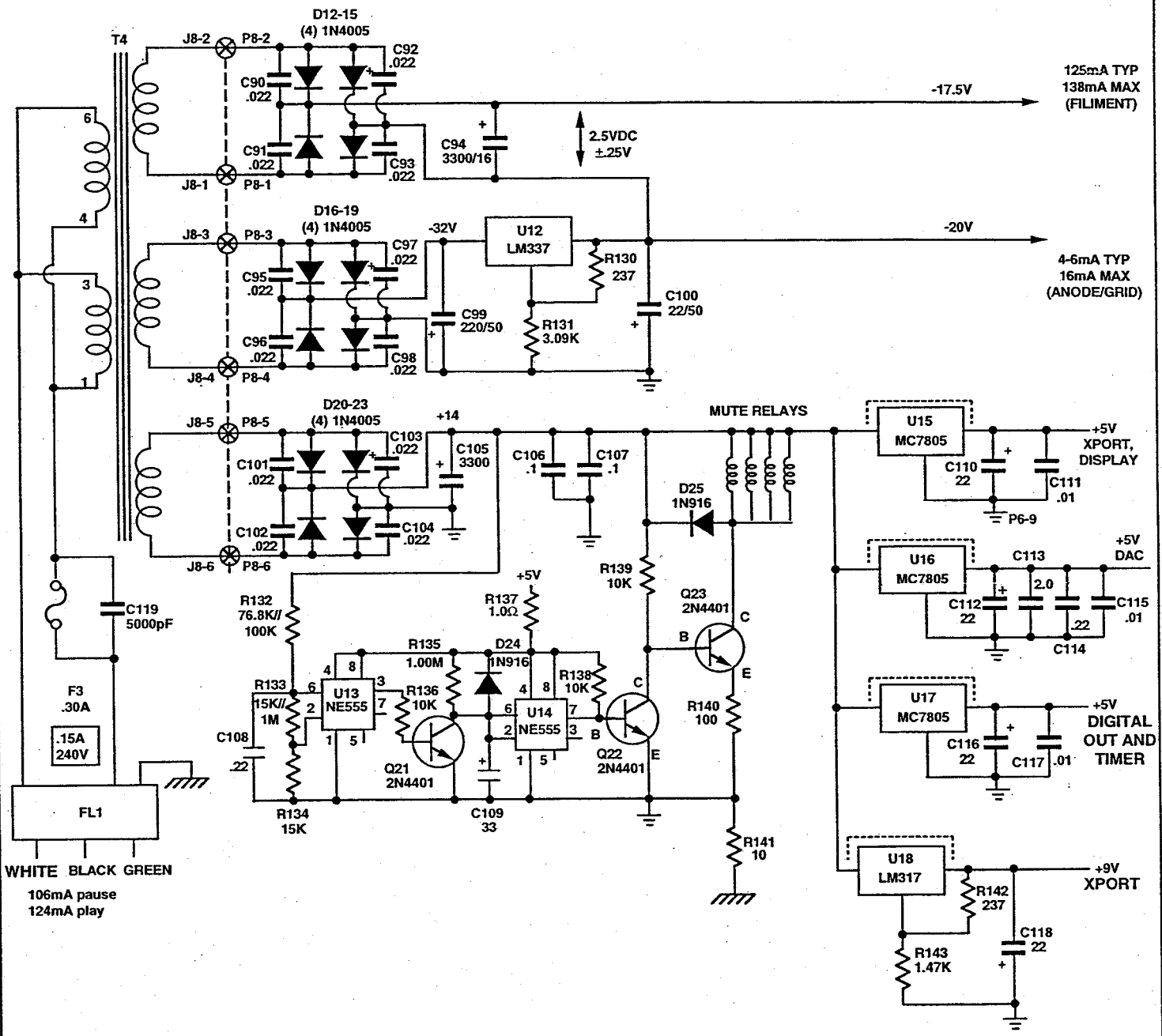
CD3
 AUDIO REQS
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 8-21-01

CD PRO



FLORESCENT TUBE DISPLAY





WHITE BLACK GREEN
106mA pause
124mA play

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PARTS LIST

CD3

1-10-02

PARTS LIST

As of JAN 10 02

PRODUCT: CD3

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2,54,55	6	53560201	CAP., 560pF \pm 2.5% 630V
C3,4	4	53560103	CAP., 56pF \pm 2.5% 630V PPN
C5,6,9,10,15,16,30,31,34,35,40,41,46	25	53220507	CAP., .22 μ f \pm 10% 160V
C 47,50,51,56,57,59			
C7,8,11-14,32,33,36,37,42,43,48,49	27	53100410	CAP., .01 μ f \pm 10% 400V
C 52,53,60,75,78,79,115			
C17,64,65,66,68,111,117	8	52100400	CAP., .01 μ f 200V \pm 10%
C18-21	4	50470809	CAP., 470 μ F 250V
C22,23	2	50120801	CAP., 120 μ F 450V "LYTIC"
C24,25,38,39,58,113	6	53200603	CAP., 2 μ F \pm 10% 250V
C26,27,72	3	53100606	CAP., 1.0 μ f \pm 10% 250V
C28,29	2	53470511	CAP., .47 μ f \pm 20% 250V
C44,45	2	53270101	CAP., 27pf \pm 1pf 630V PNP
C61,63,67,69,71,85,87,88,106,107,120	11	52100500	CAP., 0.1 μ f 100V \pm 20%
C62	1	50470701	CAP., 47 μ F 35V \pm 20%
C70	1	52100301	CAP., 1000pf 200V \pm 10% CER RAD
C73,76,81	3	50470704	CAP., 47 μ F "MUSE"
C74,77,80	3	53100506	CAP., 0.1 μ f \pm 10% 160V
C82,119	2	50220703	CAP., 22 μ F 35V AXIAL
C83,84	2	52220100	CAP., 22pf 200V \pm 10%
C86	1	52220500	CAP., .22pF CERAMIC
C89	1	50100601	CAP., 1 μ F 50V "LYTIC"
C90-93,95-98,101-104	12	52220401	CAP., .022 μ F 200V \pm 10%
C94,105	2	50330901	CAP., 3300 μ F 16V
C99	1	50220801	CAP., 220 μ F 50V
C100,110,112,116,118	5	50220702	CAP., 22 μ F 50V "LYTIC"
C108,114	2	53220507	CAP., .22 μ f \pm 10% 160V
C109	1	51330702	CAP., 33 μ f 16V \pm 10%
C119	1	52500300	CAP., .005 μ F 300VAC/2000V \pm 20%
D DIODES			
D1-4, 12-23	16	30500400	IN4005
D5-11,24,25	8	30500910	1N916B
FD1	1	33000300	DISPLAY, CD2/3 6BT165GK
FL LINE FILTERS			
FL1	1	59000002	LINE FILTER, DAC5/CD2
IR IR RECEIVERS			
IR1	1	34100400	RECEIVER, IR VISHAY TSOP1736

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Schematic Symbol	Quantity	ARC Part #	Description
J CONNECTORS			
J1	1	23201509	JACK, CHASSIS RED
J1	1	23201510	JACK, CHASSIS WHITE
J2,3	3	23201982	INSERT, CONNECTOR GOLD PIN
J4	1	23202200	CONNECTOR, BNC #227161-3
L INDUCTORS			
L1-6	6	61000160	CHOKE, 2.7 μ H \pm 10%
Q TRANSISTORS			
Q1A,B-4A,B 7A,B-12A,B	40	30006603	FET, VIOLET ORANGE
Q5,6,15	5	30011038	FET, GREEN-ORANGE-GRAY
Q13	1	30006765	FET, ORANGE-YELLOW-GREEN
Q14	1	30009005	FET, GREEN-GRAY
Q16,17,18	3	30002900	TRANSISTOR, 2N4403
Q19,20,21,22,23	5	30002800	TRANSISTOR, 2N4401
R RESISTORS			
R1A,B,2A,B,9A,B,10A,B,11A,B,12A,B,61	30	42274403	RES., 27.4K Ω MK-3 1% 50PPM
R 62,73A,B,74A,B			
R3,4	4	42750503	RES., 750K Ω MK-3 1% 50PPM
R5,6,15,16,21,22,31,32,29,30,39,40	23	42150202	RES., 150 Ω MK-2 1% 50PPM
R 63,64,79			
R7A,8A,43A,44A,45A,46A	12	42121403	RES., 12.1K Ω MK-3 1% 50PPM
R7B,8B,43B,44B,45B,46B	12	42121303	RES., 1.21K Ω MK-3 1% 50PPM
R13A,13B,14A,14B	8	42187402	RES., 18.7K Ω MK2 1% 50PPM
R17,18,27,28	8	42127403	RES., 12.7K Ω MK-3 1% 50PPM
R19,20,25,26	8	42100203	RES., 100 Ω MK-3 1% 50PPM
R23,24	4	42200303	RES., 2K Ω MK-3 1% 50PPM
R33,34	4	42681303	RES., 6.81K Ω MK-3 1% 50PPM
R35,36,41,42	8	42499403	RES., 49.9K Ω MK-3 1% 50PPM
R37,38	4	42475302	RES., 4.75K Ω MK-2 1% 50 PPM
R47-50	8	42464603	RES., 4.64 MEG. MK-3 1% 50PPM
R51,52,59A,59B,60A,60B	8	42200205	RES., 200 Ω MK8 1% 50PPM
R53-58	6	42549103	RES., 54.9 Ω MK-3 1% 50PPM
R65,66	2	42100314	RES., 1K Ω MK-5 1% 50PPM
R67,68	2	42100403	RES., 10K Ω MK-3 1% 50PPM
R69,70,71A,71B,72A,72B	6	42130403	RES., 13K Ω MK-3 1% 50PPM
R75,76	2	42237303	RES., 2.37K Ω MK-3 1% 50PPM
R77	1	42475203	RES., 475 Ω MK-3 1% 50PPM
R78	1	42243503	RES., 243K Ω MK3 1% 50PPM
R80	1	42205503	RES., 205K Ω MK-3 1% 50PPM
R81	1	42100302	RES., 1K Ω MK-2 1% 50 PPM
R82,129	2	42332202	RES., 332 Ω MK-2 1% 50PPM
R83,89,90,91,137	4	42100002	RES., 1 Ω MK-2 1% 50 PPM
R84,103-106	5	42499102	RES., 49.9 Ω MK-2 1% 50PPM
R85,130,142	3	42237202	RES., 237 Ω MK-2 1% 50PPM
R86	1	42182203	RES., 182 Ω MK-3 1% 50PPM
R87,114-123,140	12	42100202	RES., 100 Ω MK-2 1% 50 PPM
R88,121,124-128,136,138,139	10	42100402	RES., 10K Ω MK-2 1% 50 PPM
R92	1	42221502	RES., 221K Ω MK-2 1% 50 PPM

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Schematic Symbol	Quantity	ARC Part #	Description
R93,113	2	42475402	RES., 47.5K Ω MK-2 1% 50 PPM
R94,95	2	42475002	RES., 4.75 Ω MK-2 1% 50 PPM
R96-102,107-110	11	42221402	RES., 22.1K Ω MK-2 1% 50 PPM
R111	1	42221202	RES., 221 Ω MK-2 1% 50PPM
R131	1	42309302	RES., 3.09K Ω MK-2 1% 50PPM
R132A	1	42768402	RES., 76.8K Ω MK-2 1% 50PPM
R132B	1	42100502	RES., 100K Ω MK-2 1% 50PPM
R133A,134	2	42150402	RES., 15.0K Ω MK-2 1% 50 PPM
R133B,135	2	42100602	RES., 1 MEG MK2 1% 50PPM
R141	1	42100103	RES., 10 Ω MK-3 1% 50PPM
R143	1	42147302	RES., 1.47K Ω MK-2 1% 50PPM
			RV CONTROLS
RV1,2	4	45100301	POT., TRIM 1K Ω
			RY RELAYS
RY1-2	4	64101000	RELAY, 12V REED S1P 1200 Ω
RY3	1	64101900	RELAY, 5V
RY4	1	64101010	(SS)RELAY, 5 VDC 500 Ω COIL
			SW SWITCHES
SW1-6	6	24200910	SWITCH, CD3 BLACK KS11
			T TRANSFORMERS
T1	1	60018214	TRANSF, CD3 ANALOG
T2,3	2	60010300	XFR., CDT1/CD1/DAC2
T4	1	60014314	XFR., CD2 T2 DIGITAL
			TR TRANSPORT ASSEMBLYS
TR1	1	66000260	TRANSPORT, MECHANISM CD3
			U INTEGRATED CIRCUITS
U1	2	31001910	TLO72CP
U2,3	2	31002210	OP-AMP, OP176GP
U4	1	31005700	LINE DRIVER, AM26LS31PC
U5	1	31006410	DAC,CS4396KS, CD3
U6	1	31006210	I.C., VF DRIVER TMP47C212
U7	1	31008710	P80C32, CD3
U8	1	31006820	74HC373, CD3
U9	1	31008810	MC27C256, CD3
U10	1	31004700	REGULATOR, VOLTAGE ADJ. NEG.
U11,12	2	31000800	TIMER, NE555N
U13,14,15	3	31002910	REGULATOR, IC 5V
U16	1	31004000	REGULATOR, VOLTAGE ADJ POS.
U17	1	34400600	OPTICAL SWITCH

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Schematic Symbol	Quantity	ARC Part #	Description
	X		CRYSTALS
X1	1	27000200	RESONATOR, 4Mhz #EFO-GC4004A4
X2	1	27000400	RESONATOR, 12mhz CERAMIC
	ZD		ZENER DIODES
ZD1,2,15	3	30504400	IN5240B
ZD3-6,13,14	6	30504210	DIODE, ZENER IN5535A (KNOX)
ZD7,8	2	30503500	IN5359A OR B
ZD9-12	4	31000705	FET, GREEN
ZD16	1	30505300	ZENER, 3.9V BZX79-C3V9RL