

SYSTEM SCHEMATICS

A2000
REVISION 6

AUGUST, 1989

PN-314135-02



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INTERNATIONAL EDITION

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TABLE OF CONTENTS

TITLE	PAGE
Parts List PCB Assembly #312720, Rev. 6	1
Board Layout PCB Assembly #312723, Rev. 6	3
Schematics #312721, Rev. 6.....	4

COMPONENT PARTS LIST PCB ASSEMBLY #312720, REV. 6.0

312720-05 PCB ASSY, A2000CR NTSC
312720-06 PCB ASSY, A2000CR PAL

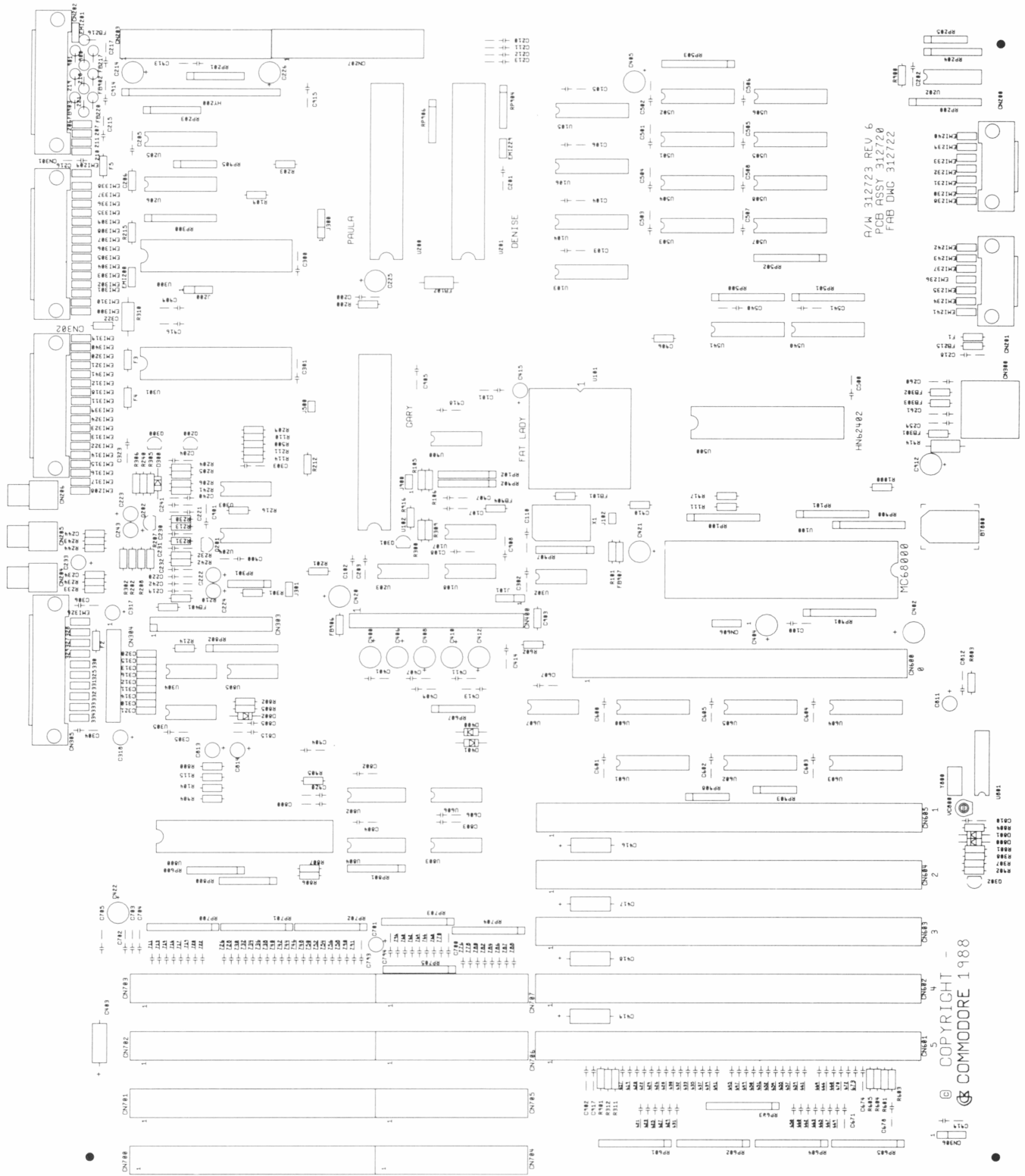
Commodore part numbers are provided for reference only and do not indicate the availability of parts from Commodore. Industry standard parts (Resistors, Capacitors, Connectors) should be secured locally. Approved cross-references for TTL chips, Transistors, etc. are available in manual form through the Service Department, order #314000-01.

IC COMPONENTS			RESISTORS 5% @1/4 WATT, unless otherwise noted (Continued)		
390084-03	MC6800, 8 MHz	U100	901550-56	47 OHM	R904, R905
318069-01	SUPER AGNUS, 8372	U101	901550-94	68 OHM	R307
252127-01	PAULA, 8364	U200	901550-112	200 OHM	R308
252126-01	DENISE, 8362	U201	901550-14	330 OHM	R110, R111, R114, R115,
318072-01	GARY, 5719	U102			R917, R1000
318075-01	BUSTER, 5721	U800	901550-108	360 OHM	R230, R240
318029-02	8520R4	U300, U301	901550-57	390 OHM	R234, R244
315093-02	ROM, KICKSTART V1.3	U500	901550-58	470 OHM	R801, R803
318073-01	REALTIME CLOCK, OKI MSM6242B	U801	901550-01	1K OHM	R233, R243, R301, R302,
901882-01	1488	U304			R311, R312, R601-R605,
901883-01	1489	U305			R800, R900
318099-04	DRAM, 256K X 4, 120 ns	U501-U508	901550-17	1.2K OHM	R209, R210
390110-01	74F04	U107	901550-23	2.7K OHM	R213
390203-01	74F08	U303	901550-02	3.3K OHM	R990
901521-03	74LS08	U607, U803	901440-19	4.7K OHM	R101, R104, R109, R201,
901521-31	74LS32	U302, U606			R300, R309, R500, R806,
901521-38	74LS38	U203			R807, R902, R916
901521-06	74LS74A	U108	901550-20	10K OHM	R202, R203, R206, R211,
901521-16	74LS138	U802			R214, R216, R231, R232,
901521-86	74LS148	U804			R241, R242, R305, R306,
901521-11	74LS157	U202			R802, R804
318050-01	74F244	U540, U541	901550-22	47K OHM	R805
318828-01	74HCT244	U205, U206	901550-82	470K OHM	R204, R205
310002-01	74HC244	U205, U206 MUST BE USED WITH RP904-RP906		POSITION LEFT BLANK	R901
390089-01	74F245	U103, U105	CAPACITORS		
901521-46	74LS245	U600, U601, U603, U604	900462-20	20 pf, MLC, AXIAL	C810
318092-01	74ALS245	U602, U605	900462-29	47 pf, MLC AXIAL	C908, C913
901521-29	74LS373	U104, U106	900462-37	100 pf, MLC, AXIAL	C259-261, C304, C306, C903-C905, C907, C914, C920
390086-01	LF347/TL084	U204			C320, C321
318827-01	LM339	U805	900014-05	470 pf, MLC, AXIAL	C310-C316, C617, C619- C633, C635, C637, C639, C641, C645, C647, C649- C652, C654, C655, C657- C674, C678, C711, C713, C714, C716, C717, C719, C720, C722, C726, C728, C730, C732, C734, C736, C738, C740, C742, C744, C746, C748, C750, C752, C754, C756, C758, C760, C762, C764, C766, C768, C770, C776, C778, C780, C782, C784, C786-C788, C790, C791, C793, C794, C796
901423-09	LM2901	SUB: U805	900014-02	1000 pf, MLC, AXIAL	C232, C242
318066-01	74F00	U900			C231, C241
904150-06	40 PIN, DIP	U300, U301, U500	900463-23	3900 pf, MLC, AXIAL	C204, C322, C323, C401, C407, C409, C411, C413, C414
251313-02	48 PIN, DIP	U102, U200, U201, U800	900463-26	6800 pf, MLC, AXIAL	C210-C213
251313-02	48 PIN, DIP	SUB: U102, U200, U201, U800	390082-02	.1 uf, MLC, AXIAL	C100-C108, C110, C200, C202, C203, C205, C206, C218, C234, C244, C300- C303, C305, C540, C541, C600-C607, C800, C802- C805, C812, C815, C900, C901, C906, C909, C910, C915, C916, C918, C919 C201, C215-C217, C219- C221, C500, C700, C702- C705
904150-10	64 PIN, DIP	U100	900463-36	.047 uf, MLC, AXIAL	C501-C508
390185-01	84 PIN, PLC	U101	390082-01	.1 uf, MLC, AXIAL	C224, C415, C811
RESISTOR NETWORKS					
390227-03	22 OHM X 5, 10 PIN	RP502			
902422-05	47 OHM X 4, 8 PIN	R102, RP201, RP203, R902, R907			
390227-06	47 OHM X 5, 10 PIN	RP500, RP501			
902422-06	68 OHM X 4, 8 PIN	RP204			
902441-10	120 OHM X 5, 6 PIN	RP205			
902410-11	470 OHM X 9, 10 PIN	RP503			
390227-07	1K OHM X 7, 8 PIN	RP800			
902441-22	1K OHM X 5, 6 PIN	RP301, RP607			
902442-22	1K OHM X 7, 8 PIN	RP800			
902410-10	1K OHM X 9, 10 PIN	RP601-RP605, RP700- RP704			
902441-29	3.3K OHM X 5, 6 PIN	RP903, RP908			
902441-31	4.7K OHM X 5, 6 PIN	RP904, RP905, RP906			
902442-55	4.7K OHM X 9, 10 PIN	RP801			
902410-08	4.7K OHM X 9, 10 PIN	RP100, RP101, RP200, RP705			
902442-35	10K OHM X 7, 8 PIN	RP600			
902410-07	10K OHM X 9, 10 PIN	RP300, RP900, RP901			
RESISTORS 5% @ 1/4 WATT, unless otherwise noted					
901600-36	1 OHM, 5%, 1/2 WATT	R914	390082-05	.22 uf, MLC, AXIAL	
901550-118	1 OHM	R200, R215			
901550-64	10 OHM	R207, R208			
901550-63	22 OHM	R105, R106, R212			
901600-15	47 OHM	R310	900022-05	.33 uf, MLC, RADIAL	
			390101-05	4.7 uf, 35V, ELEC, RADIAL	

COMPONENT PARTS LIST

PCB ASSEMBLY #312720, REV. 6.0 (Continued)

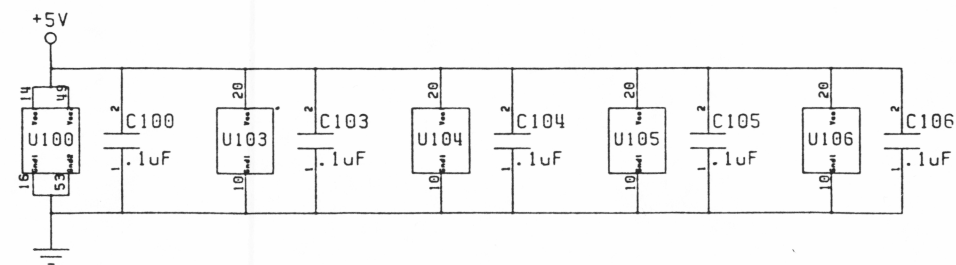
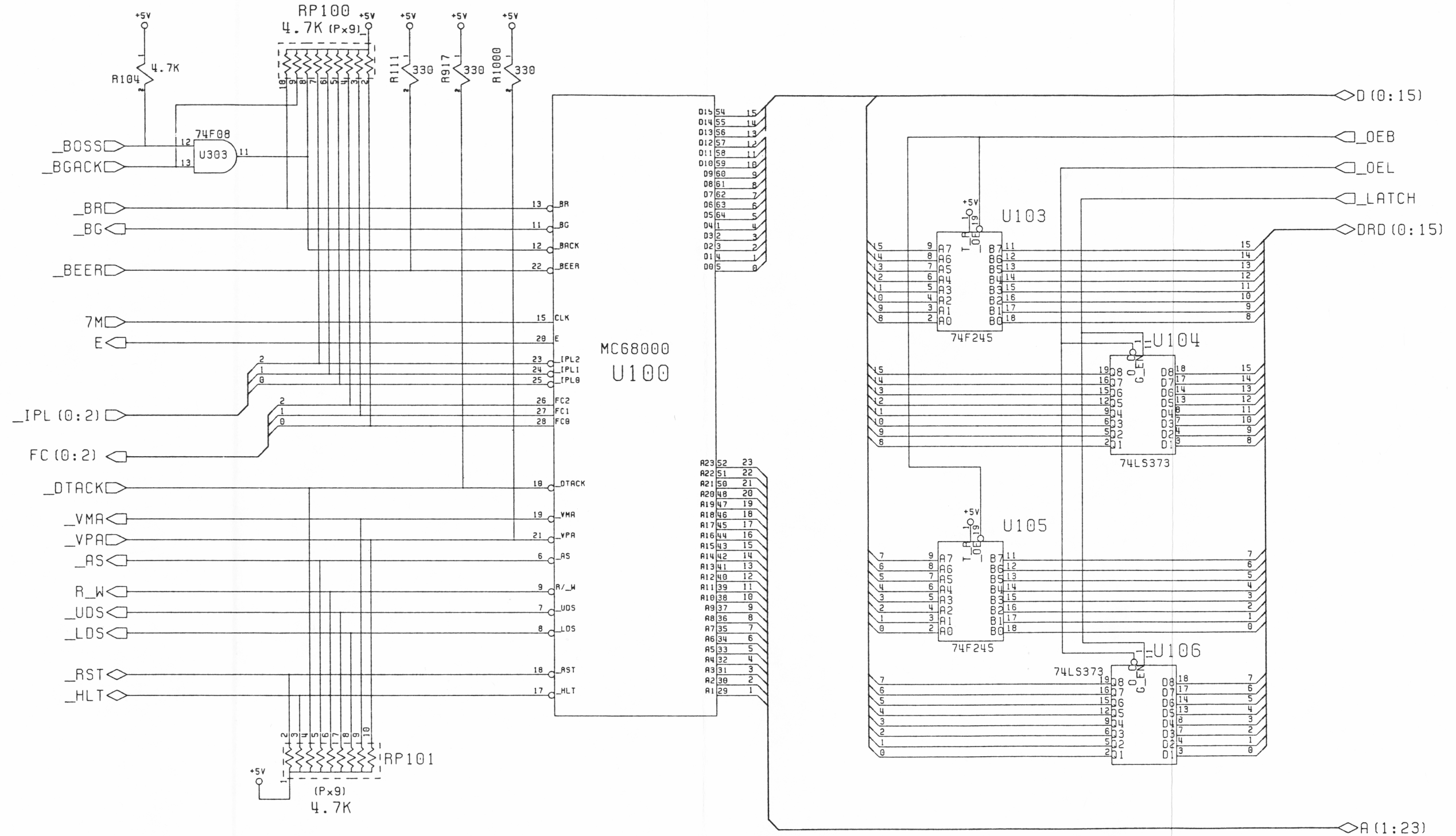
CAPACITORS (Continued)			CONNECTORS (Continued)		
390101-04	22 uf, 35V, ELEC, RADIAL	C233,C243,C317,C318, C701,C813,C814	903345-13	26 PIN, DIL, .100	CN304
390101-01	47 uf, 16V, ELEC, AXIAL	C222,C223,C402-C406, C408,C410,C412,C420- C422	903345-17	34 PIN, DIL, .100	CN303
900101-47	220 uf, 16V, ELEC, AXIAL	C400,C416-C419	390043-01	SHUNT, FEMALE, 2 POS, 0.100	J101,J200,J300,J500, J900
390101-03	470 uf, 16V, ELEC, RADIAL	C214,C225,C226,C912	359590-01	SHUNT, FEMALE, 2 POS, 0.100	J101,J200,J300,J500, J900
251019-06	VARIABLE 4.5-45pf POSITIONS LEFT BLANK	VC800 C230,C240,C902,C917	903446-04	36 PIN	CN203,CN207,CN706, CN707
DIODES AND TRANSISTORS			903646-04	36 PIN	CN704,CN705 OPTIONAL CN700-CN703
900750-01	DIODE, 1N4001	D400,D401	903446-02	62 PIN	CN600
900850-01	DIODE, 1N4148	D300,D800-D802	903446-05	86 PIN	CN601-CN605
902658-01	TRANSISTOR, 2N3904, NPN	Q301	903436-06	100 PIN	CN702,CN703,CN706, CN707
902707-01	TRANSISTOR, 2N3906, PNP	Q202,Q302	903446-07	36/62 PIN	
390252-01	TRANSISTOR, MPF102, JFET	Q200,Q201	MISCELLANEOUS		
390254-01	TRANSISTOR, PN4302, JFET	Q200,Q201	390229-01	VIDEO HYBIRD	HY200
902671-01	TRANSISTOR, 2SC945, NPN, JAP	Q300	325566-14	OSCILLATOR, 28.63636 MHz	XI
CONNECTORS			252344-01	OSCILLATOR, 28.37516 MHz	XI
252166-03	DIN, 5 PIN, SHIELDED, FEMALE	CN300	900568-03	CRYSTAL, 32.768 KHz	Y800
390242-01	D-SUB, 9 PIN, MALE, PCB	CN200	390280-01	PCB FUSE	F1-F5
390242-02	D-SUB, 9 PIN, MALE, PCB	CN200	312721	SCHEMATIC	
327032-07	D-SUB, 9 PIN, MALE, PCB	CN201	312722	PCB FABRICATION	
327032-01	D-SUB, 9 PIN, MALE, PCB	CN201	312723	ARTWORK	
390242-03	D-SUB, 23 PIN, MALE, PCB	CN202	251842-02	EMI FILTER, 100pF	EM1200,EM1206, EM1207,EM1210 EM1211,EM1229, EM1322-EM1324, EM1339-EM1341 EM1300-EM1310, EM1325-EM1338 EM1209,EM1230- EM1243 EM1208,EM1311- EM1321 FB101,FB215,FB301- FB303,FB401,FB907 FB102 FB216-FB221,EM1202, FB900-FB903 BT800
390242-04	D-SUB, 23 PIN, MALE, PCB	CN202			
327033-04	D-SUB, 23 PIN, FEMALE, PCB	CN302	390275-03	EMI FILTER, 330pF	
327033-03	D-SUB, 23 PIN, FEMALE, PCB	CN302	390275-01	EMI FILTER, 6800 pF	
390242-05	D-SUB, 25 PIN, MALE, PCB	CN305	390297-02	EMI FILTER, 100pF W/FERRITE	
390242-06	D-SUB, 25 PIN, MALE, PCB	CN305	903025-01	FERRITE BEAD	
390241-05	D-SUB, 25 PIN, FEMALE, PCB	CN301	903025-08	FERRITE BEAD	
390241-06	D-SUB, 25 PIN, FEMALE, PCB	CN301	252214-01	FERRITE BEAD, MEDIUM	
242122-01	RCA JACK, WHITE	CN205 LEFT AUDIO	380393-01	BATTERY, NICAD, 3.6V, 60MAH	
252122-04	RCA JACK, BLACK	CN204 RIGHT AUDIO			
252122-03	RCA JACK, YELLOW	CN206			
906800-02	SCREW, M3 X 0.5 X 10	CN201,CN302			
905960-03	NUT, M3 X 0.5	CN201,CN302			
903328-14	14 PIN, SIL, .156, KEY 10, LOCK	CN400			
903326-02	2 PIN, SIL, .100	J301,J500,J900			
903326-03	3 PIN, SIL, .100	J101,J200,J300			
903374-03	3 PIN, SIL, .100, RA	CN306			
903326-04	4 PIN, SIL, .100	CN606			

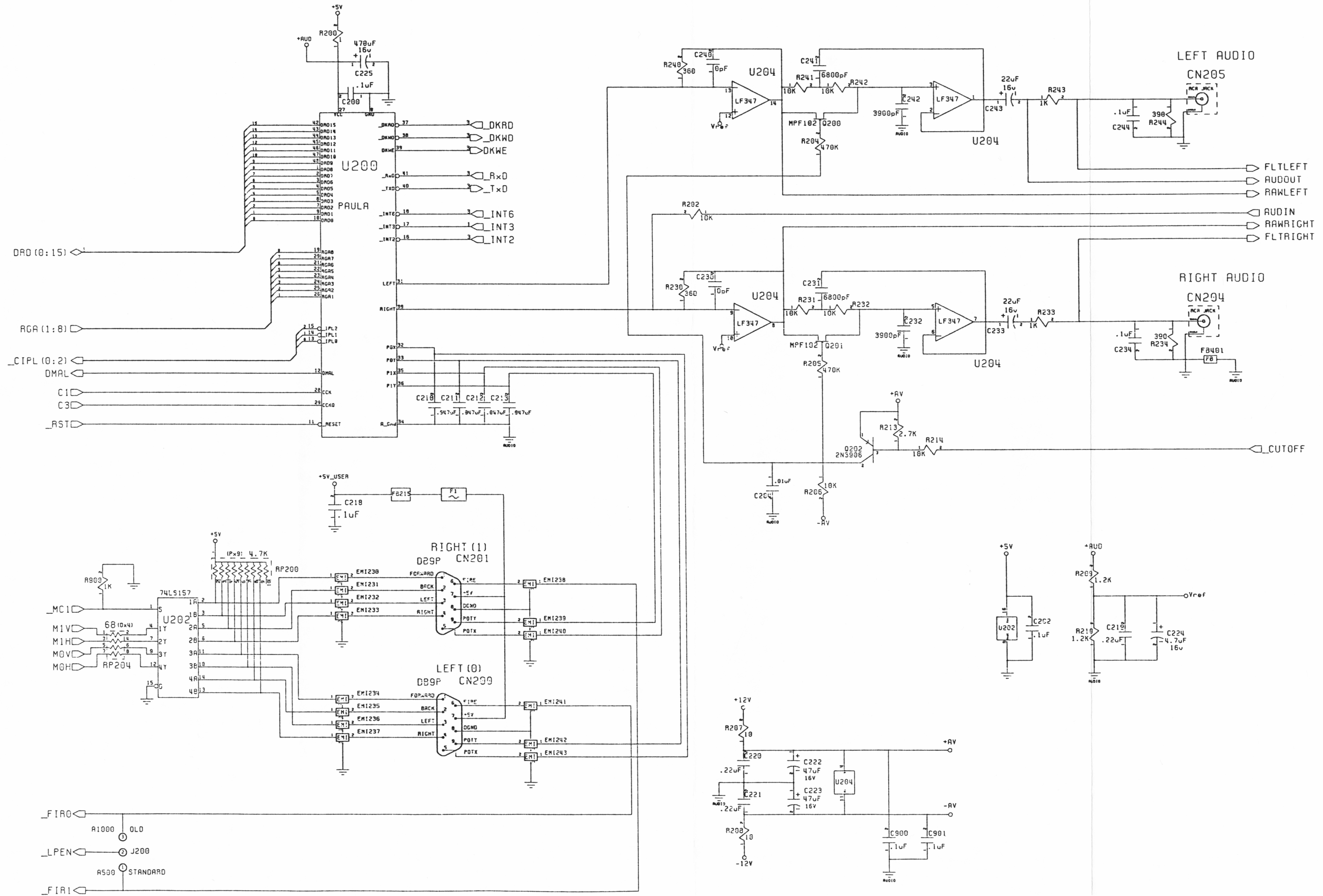


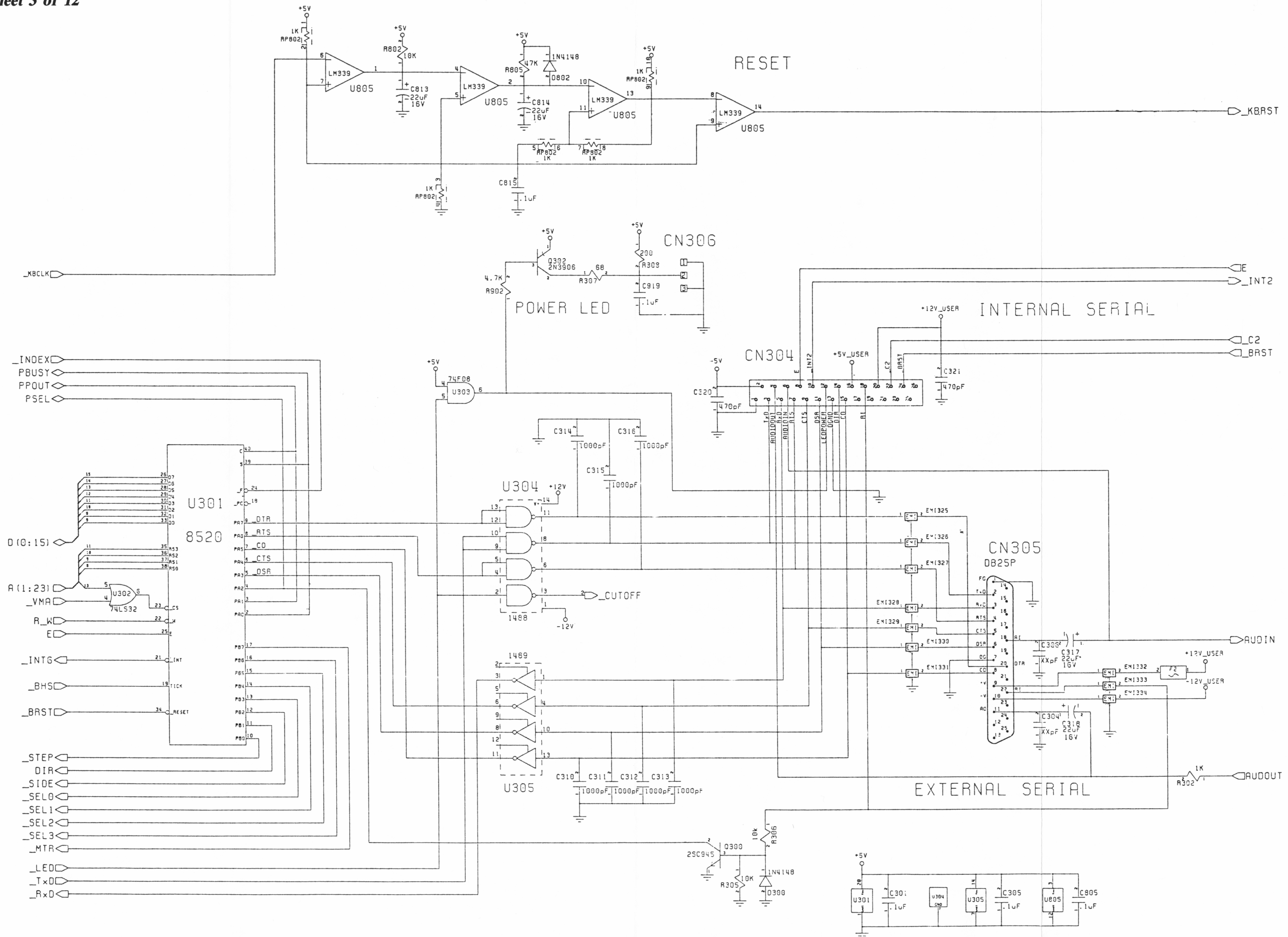
A/W 312723 REV 6
PCB ASSY 312720
FAB DMC 312722

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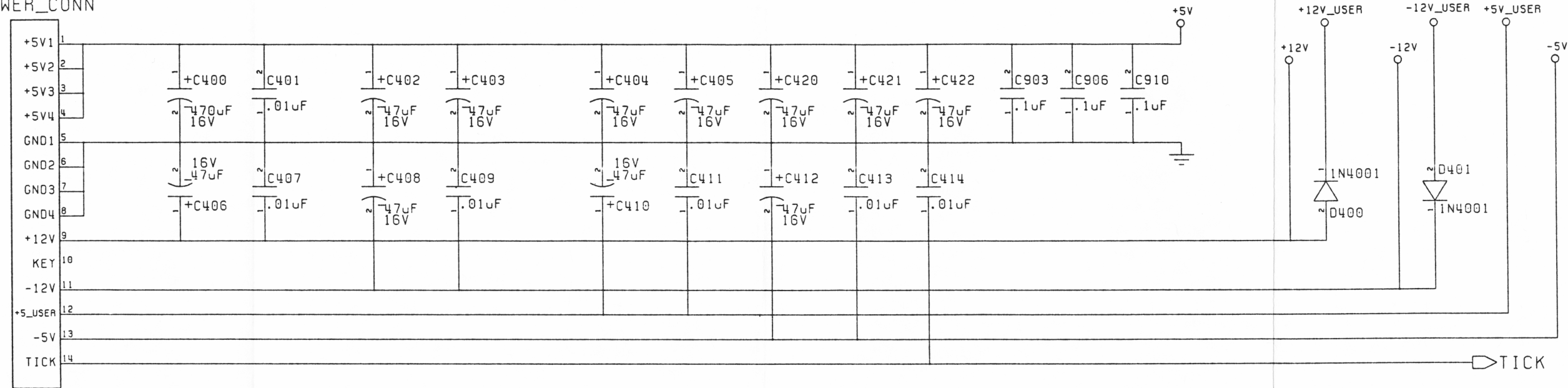
A2000 Board Layout #312723, Rev. 6



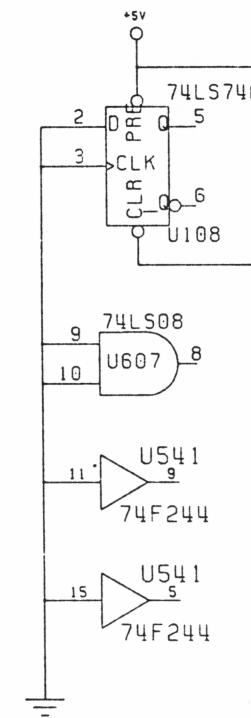
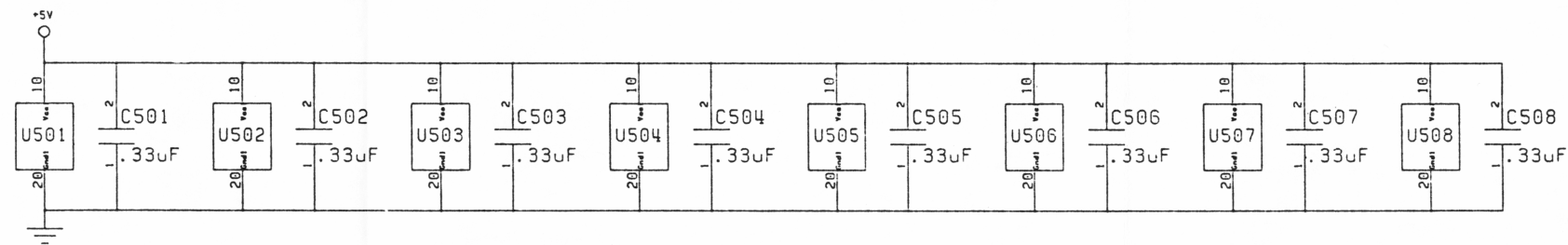


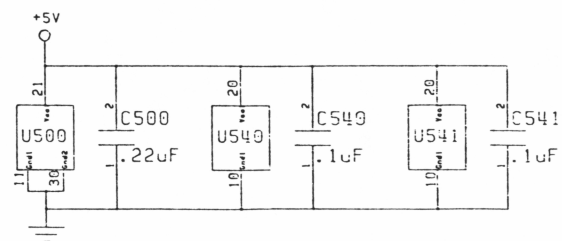
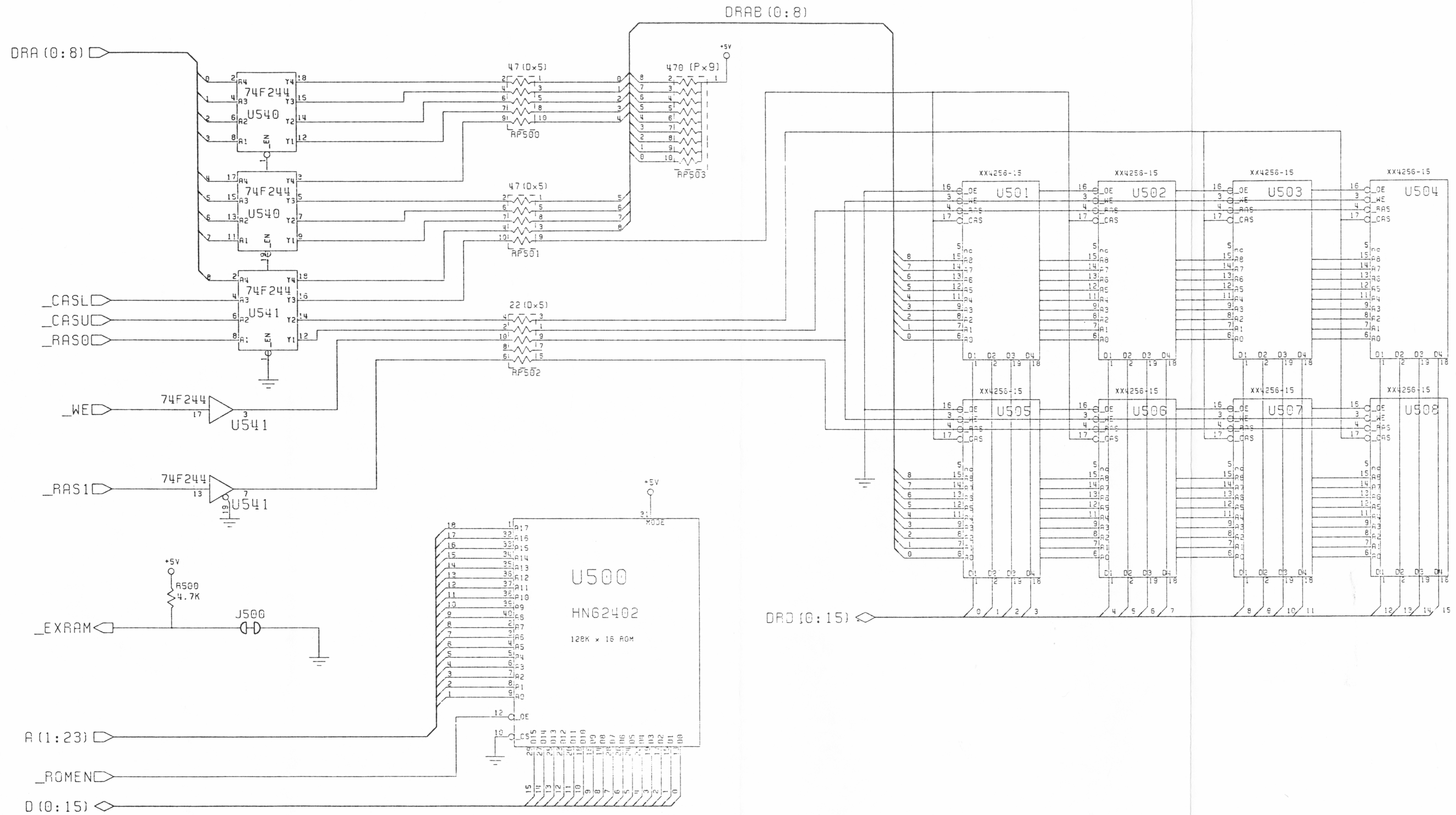


CN400
 POWER_CONN

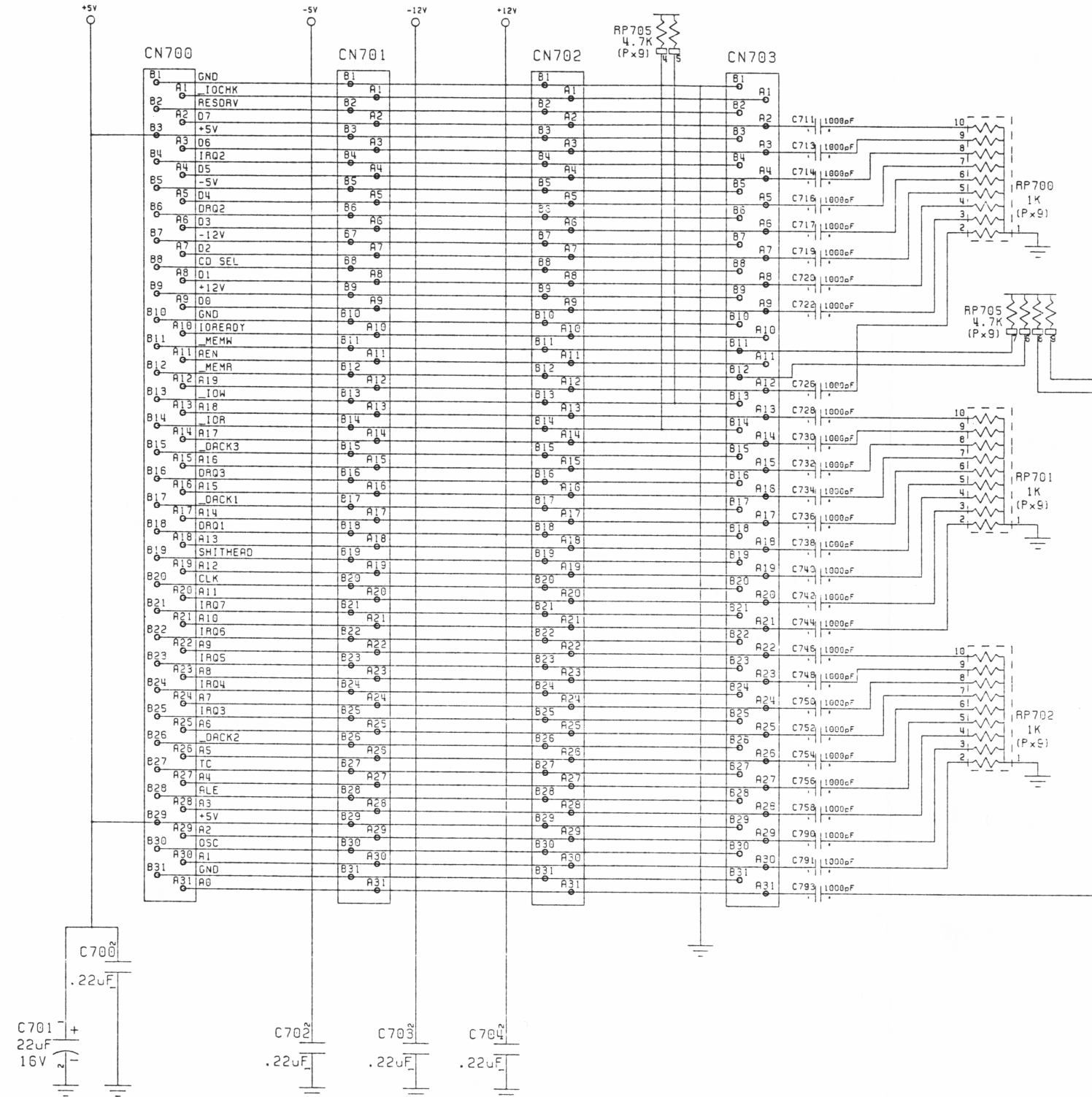


SPARES

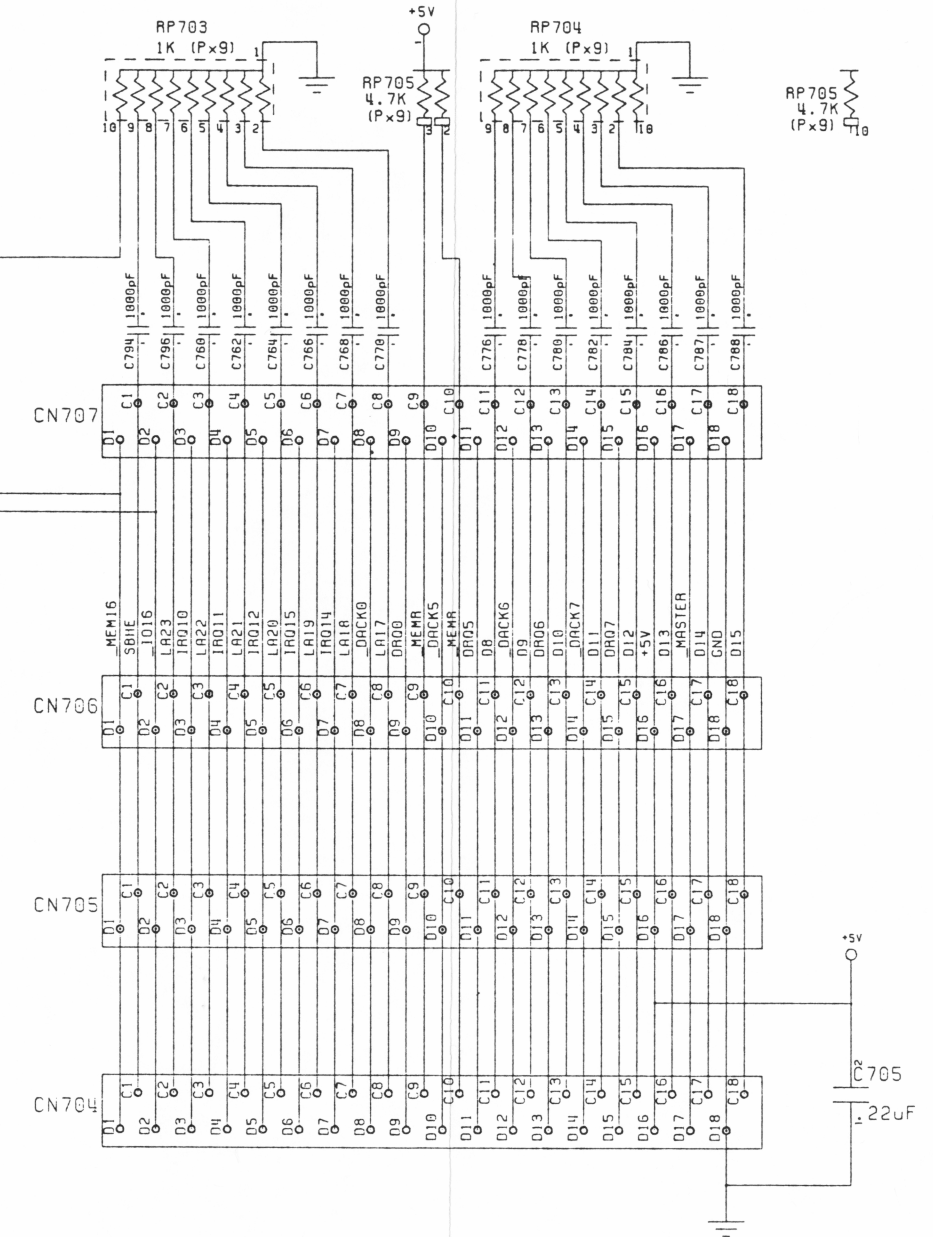


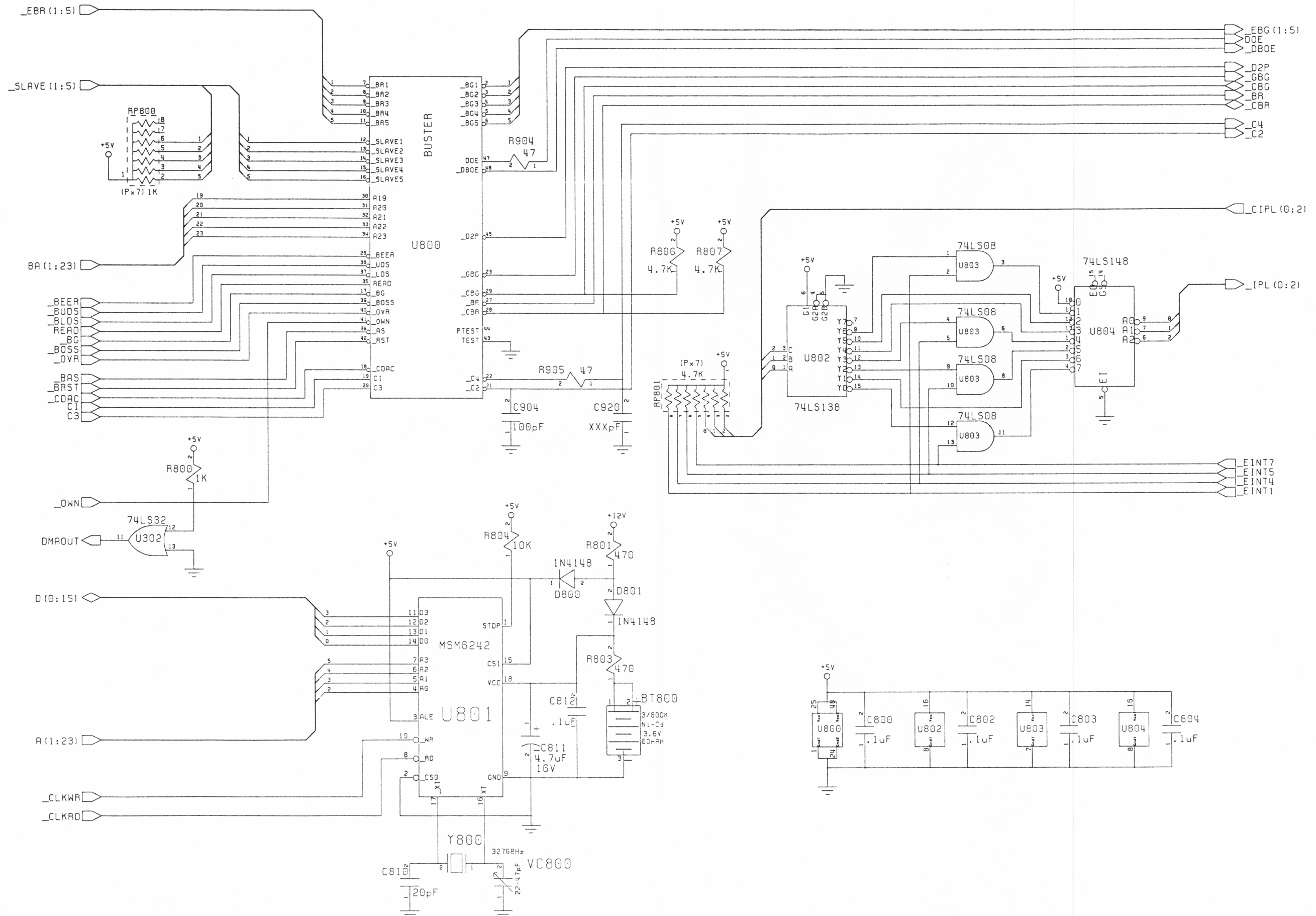


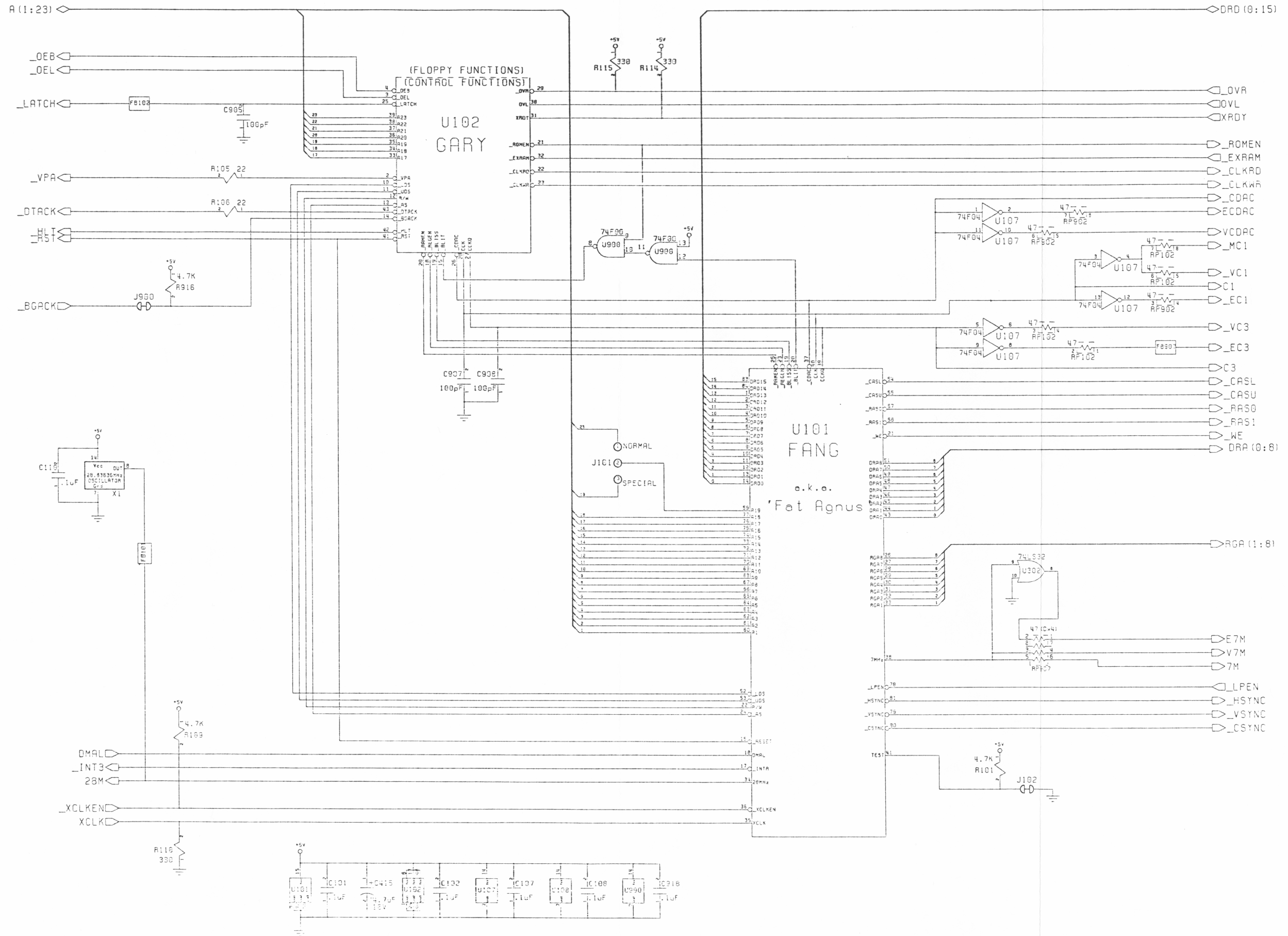
IBM 8 BIT EXPANSION BUS

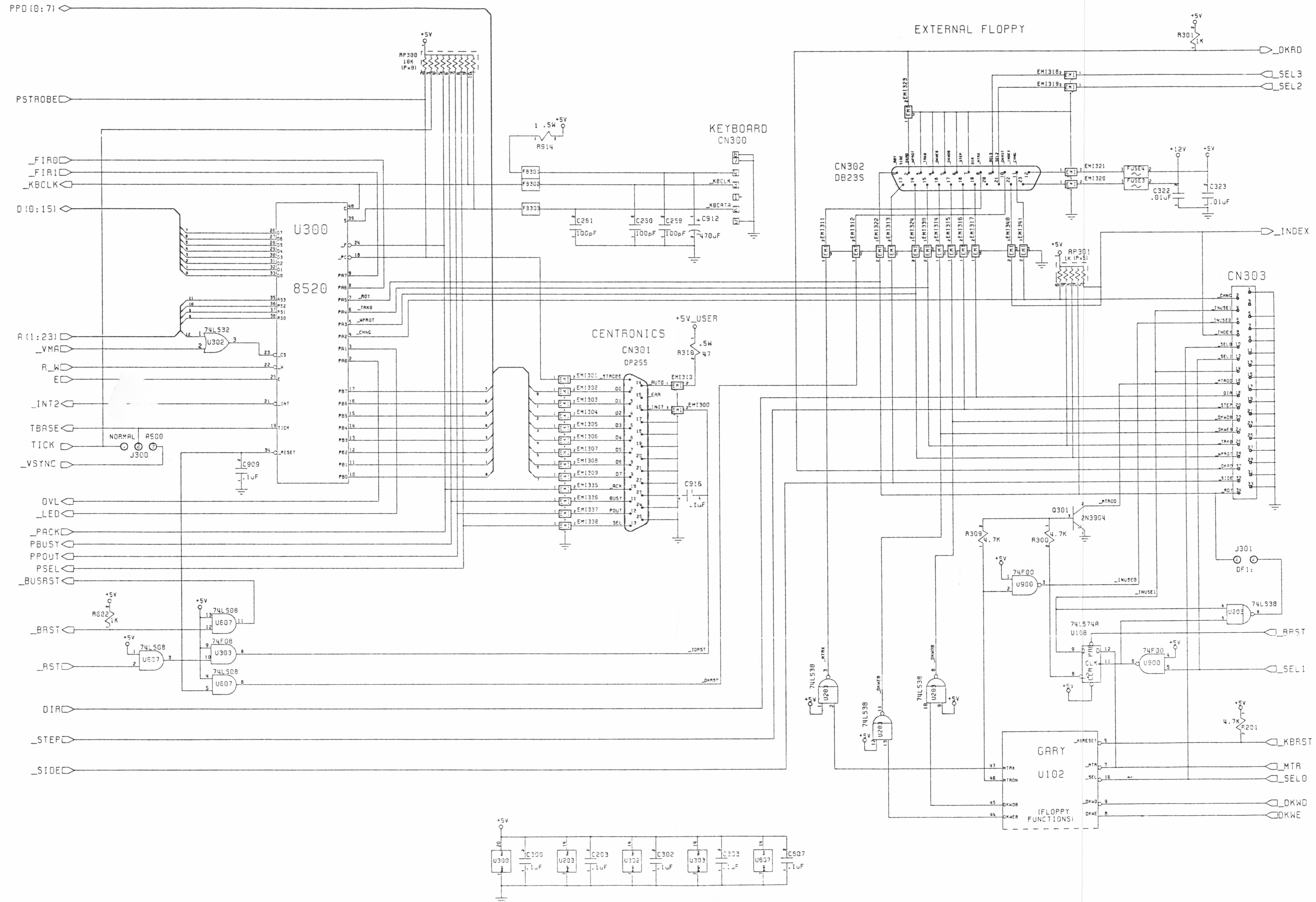


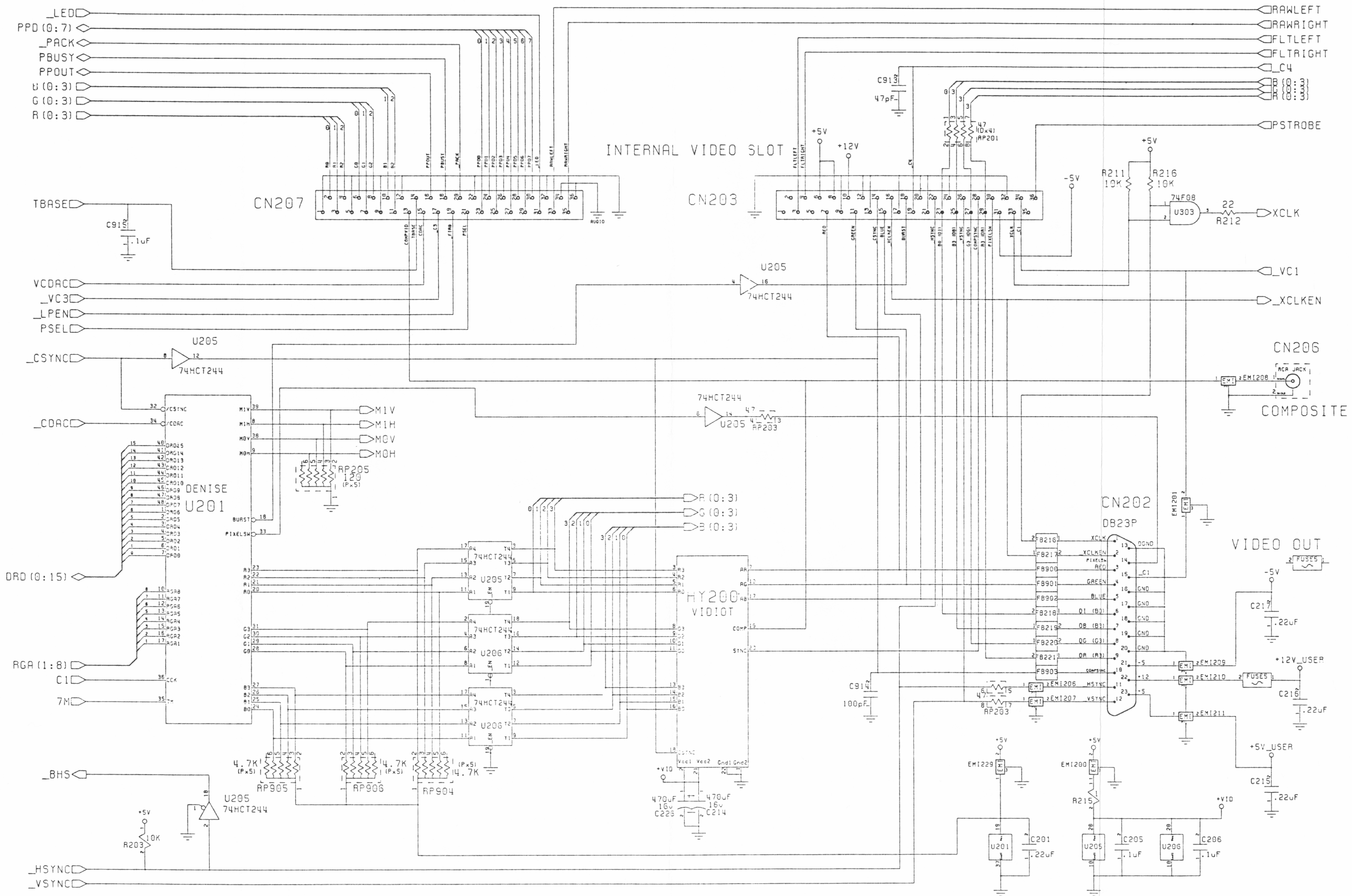
IBM 16 BIT EXTENDED BUS

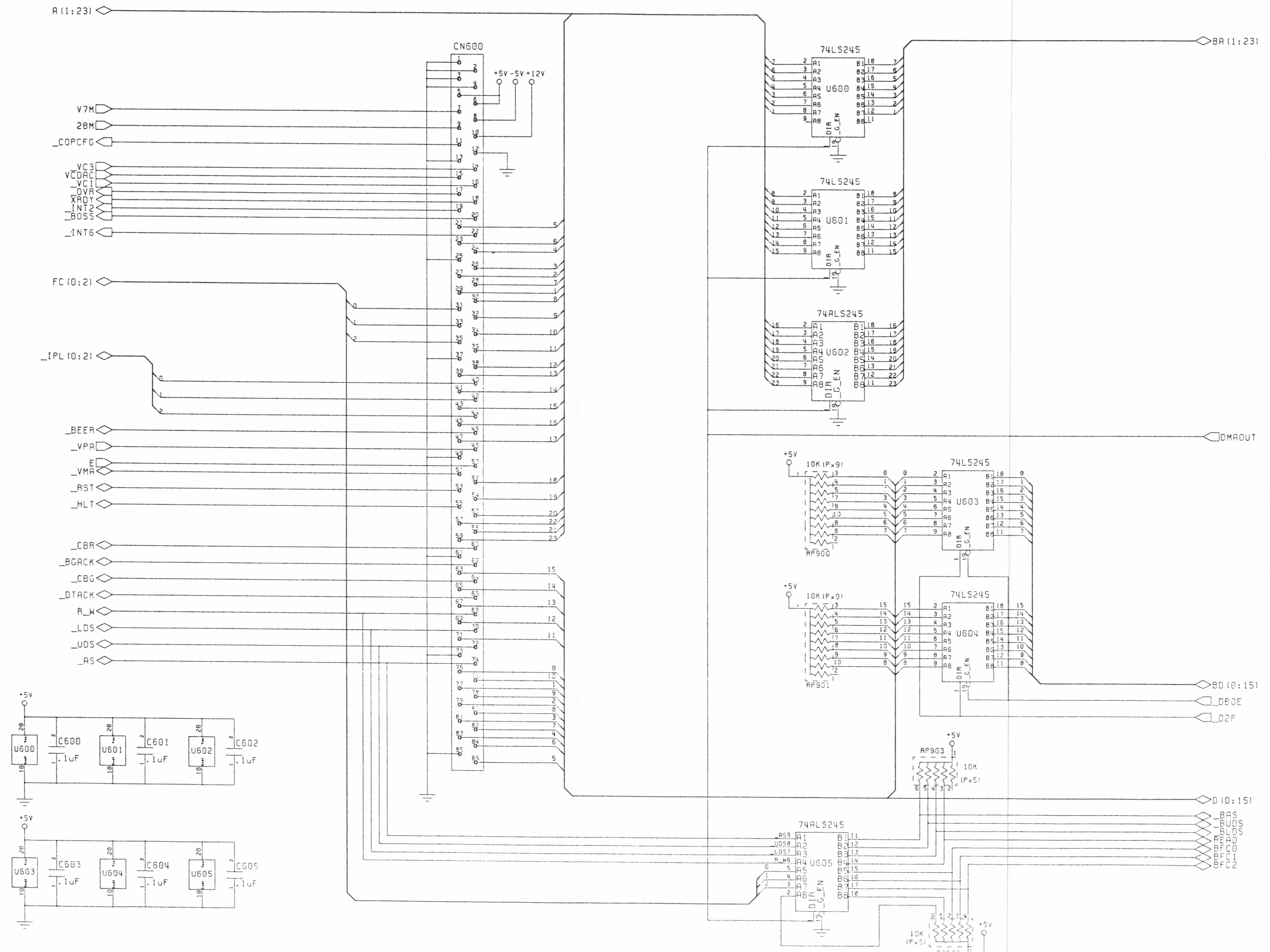










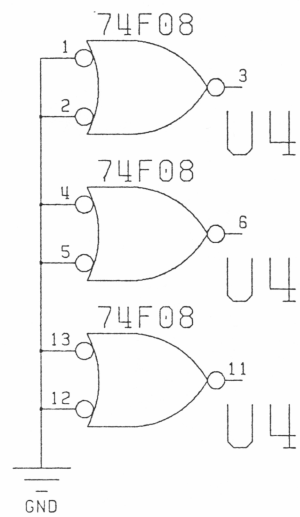


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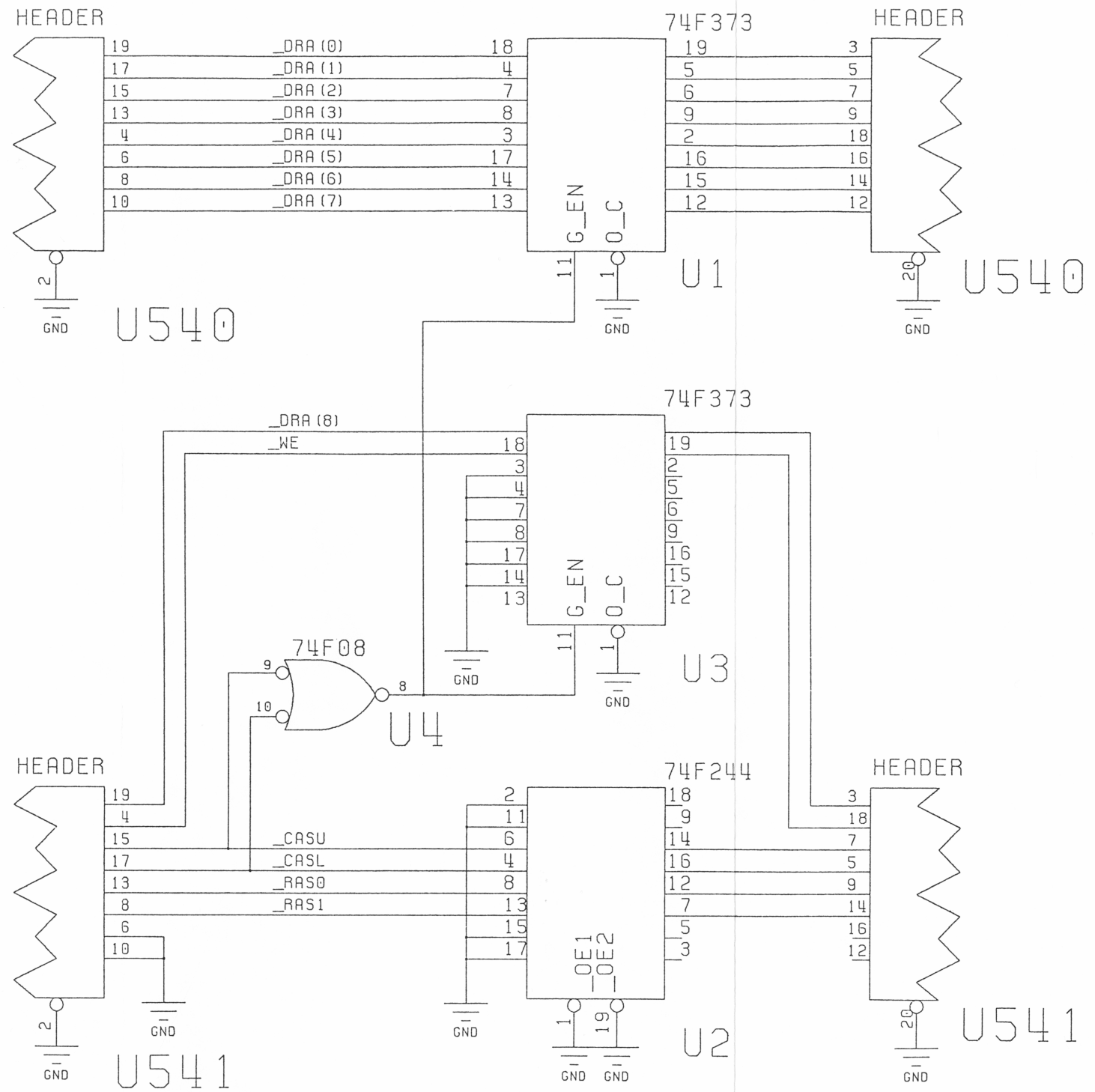
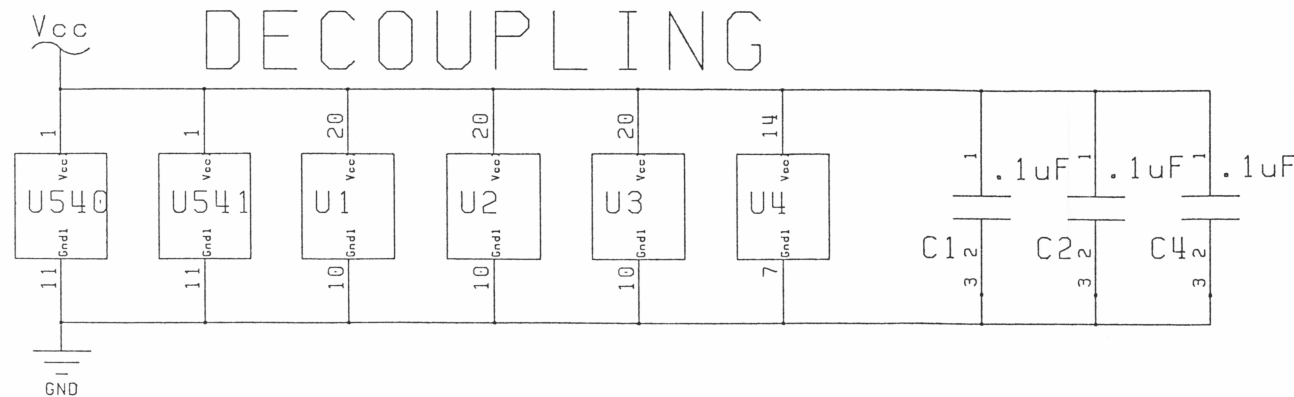
This tower is assembled separately with DIP headers in positions U540 and U541 and inserted upside-down in the location for U540 and U541 on the B2000 Rev 6 PCB.

The pinouts for U540 and U541 are thus reflections of the main board pinouts...

SPARES



DECOUPLING



A2000 Tower



Computer Systems Division
1200 Wilson Drive
West Chester, PA 19380