

I/O DETAILED DIAGRAM SET

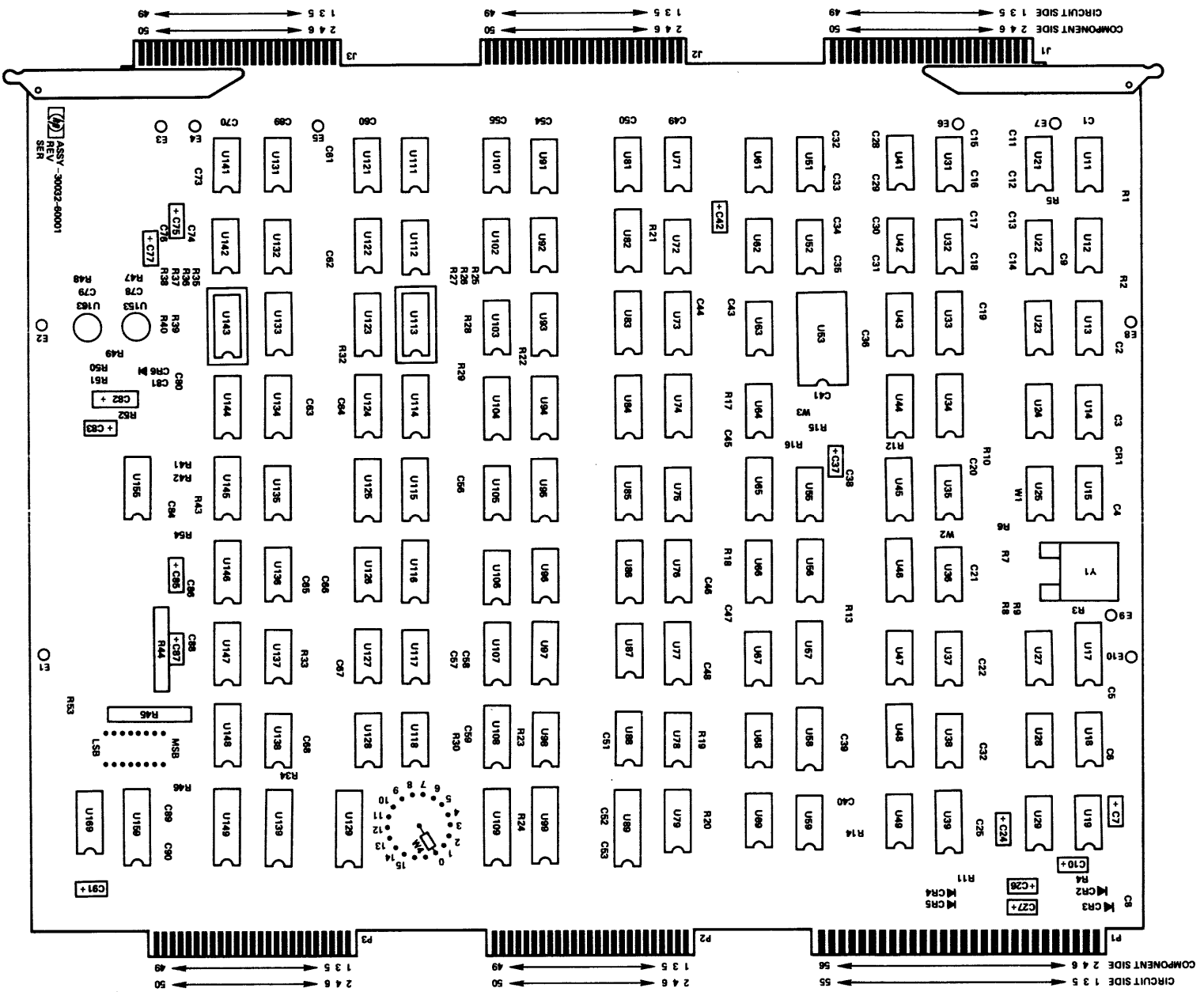
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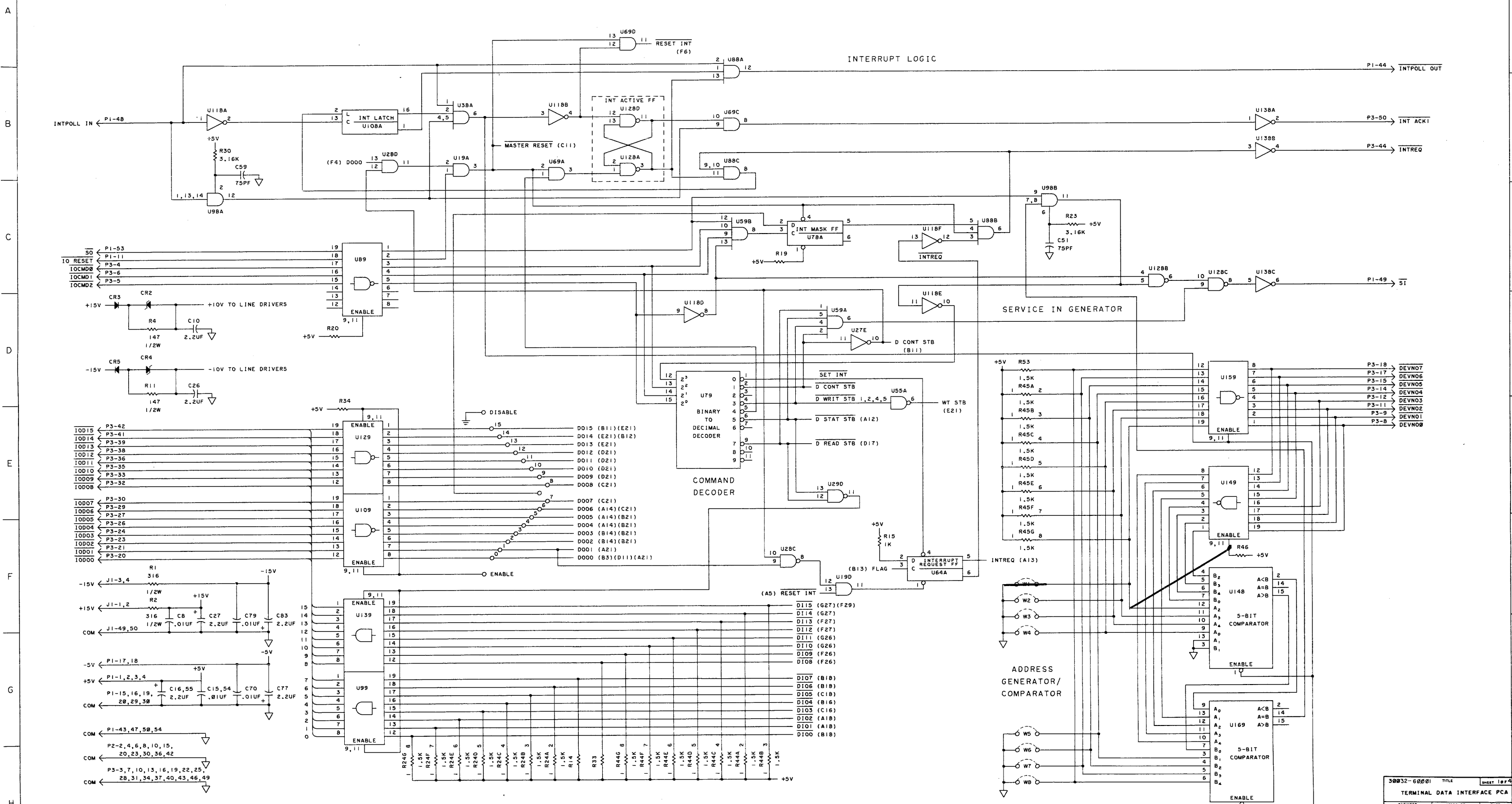
TERMINAL DATA INTERFACE PCA

30032-60001

SERIES 1343

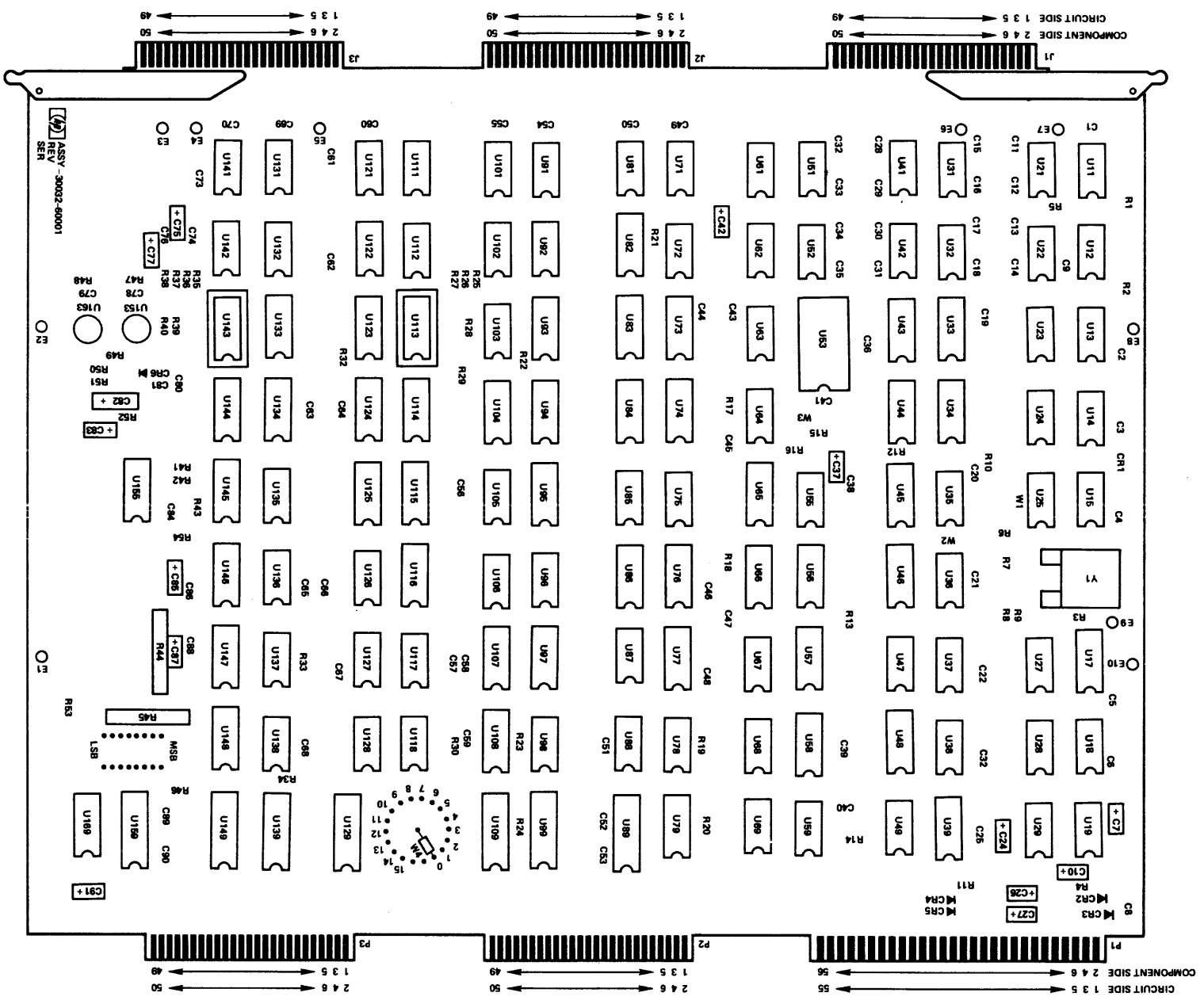
1461



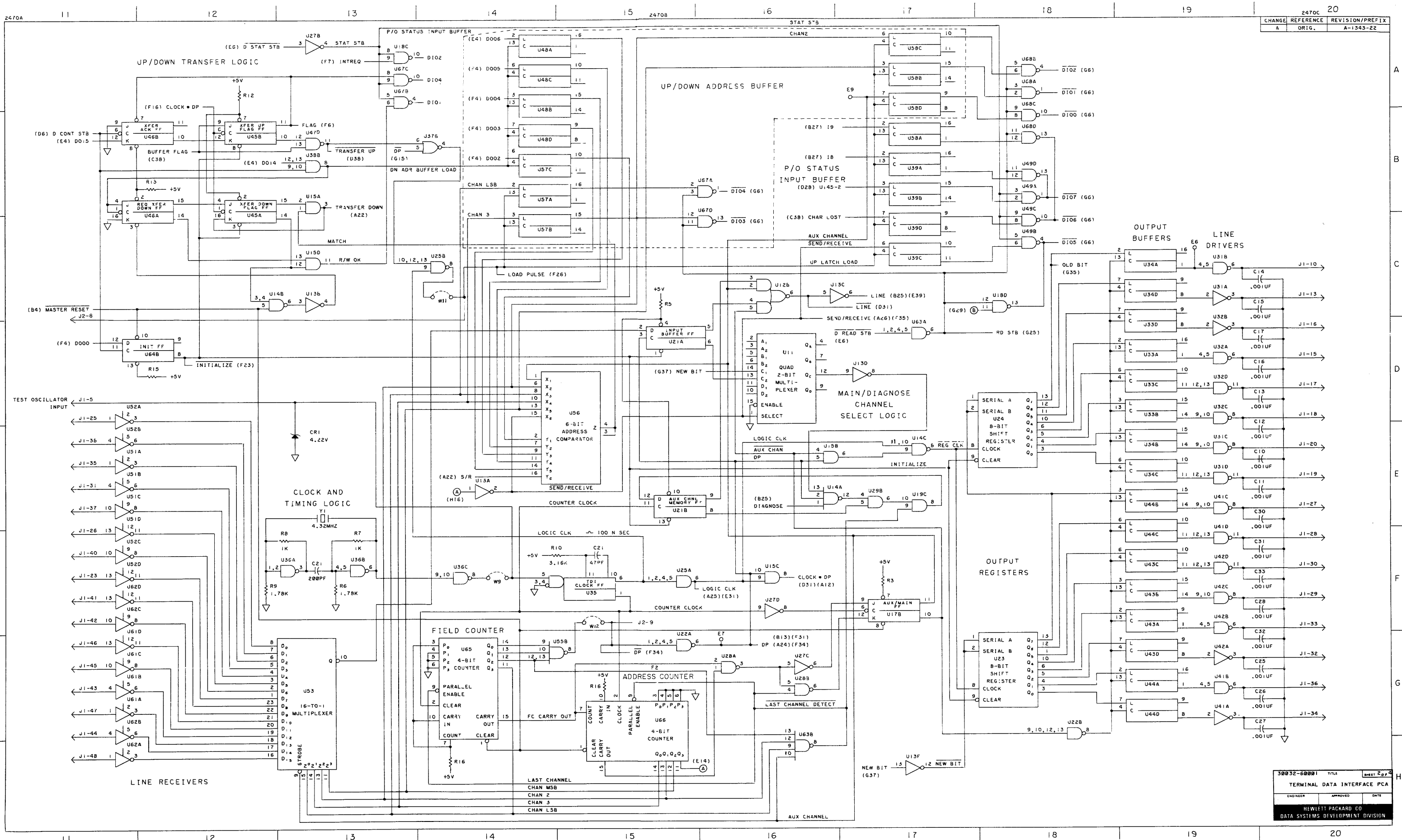


1. ALL RESISTOR VALUES ARE IN OHMS, 1.47K, 1/8W, ±1%.

NOTE: UNLESS OTHERWISE SPECIFIED

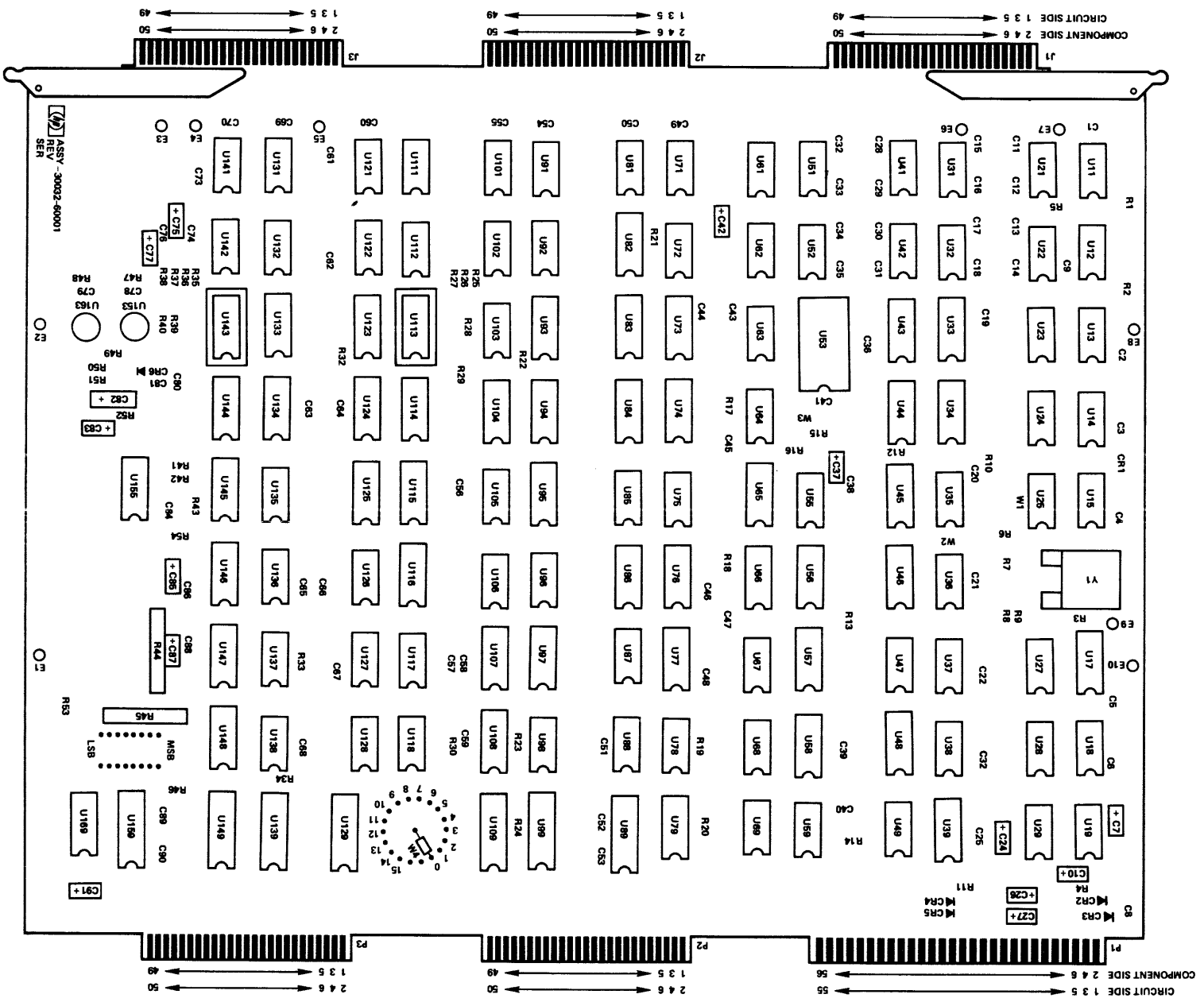


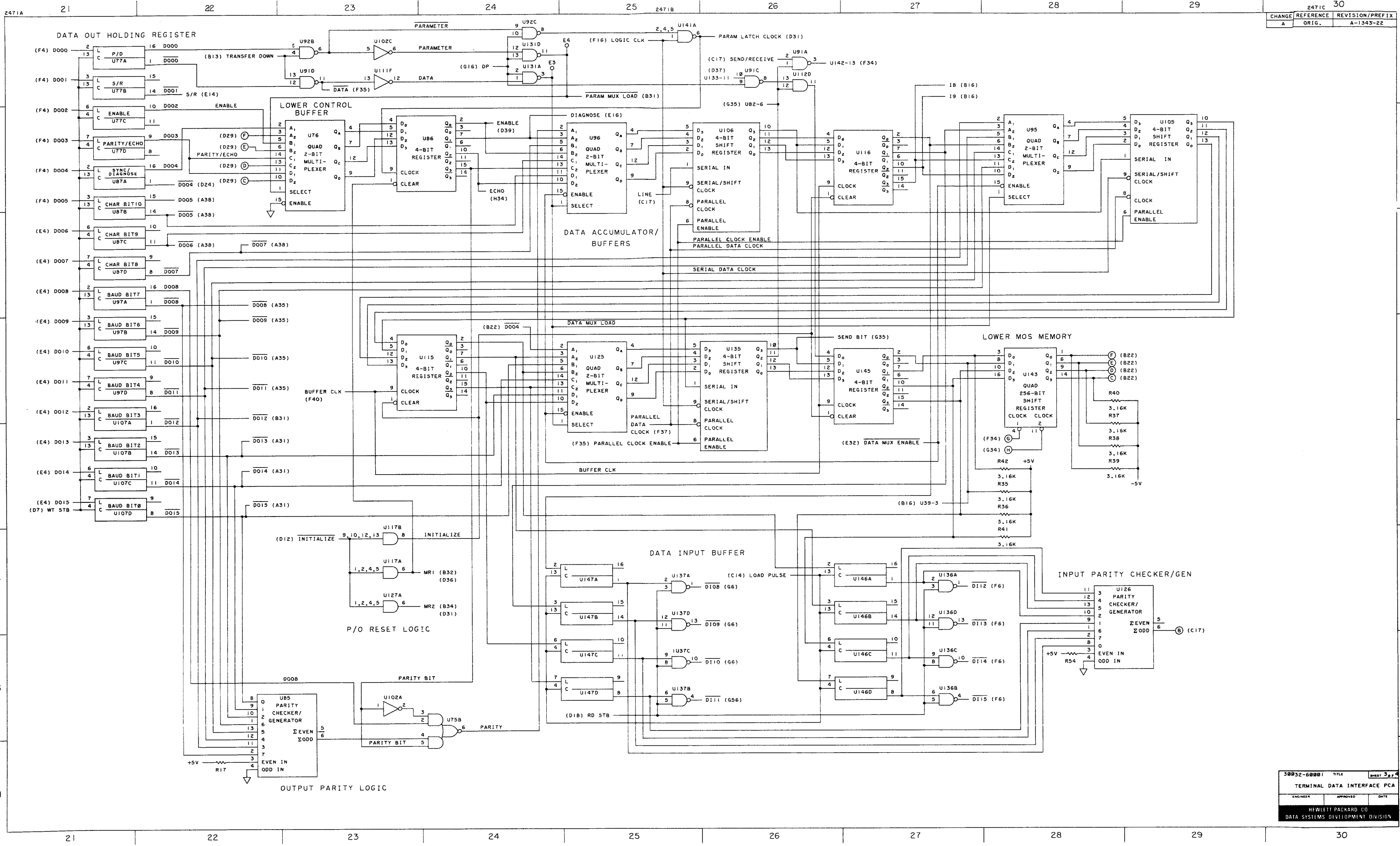
ASSY 30032-90001
REV
SER



CHANGE	REFERENCE	REVISION/PREFIX
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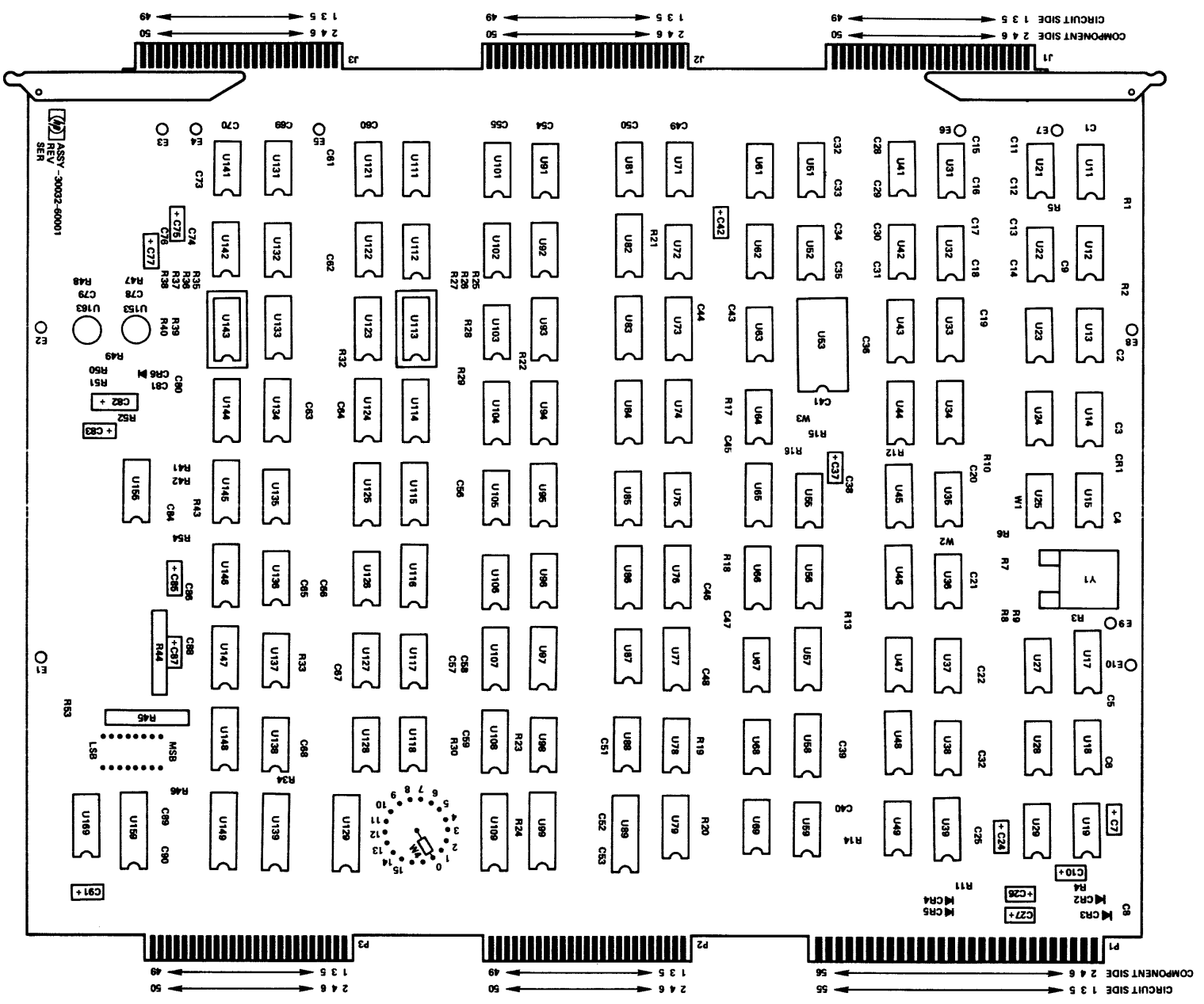
30032-60001	TITLE	Sheet 2 of 4
TERMINAL DATA INTERFACE PCA		
ENGINEER	APPROVED	DATE
HEWLETT-PACKARD CO DATA SYSTEMS DEVELOPMENT DIVISION		

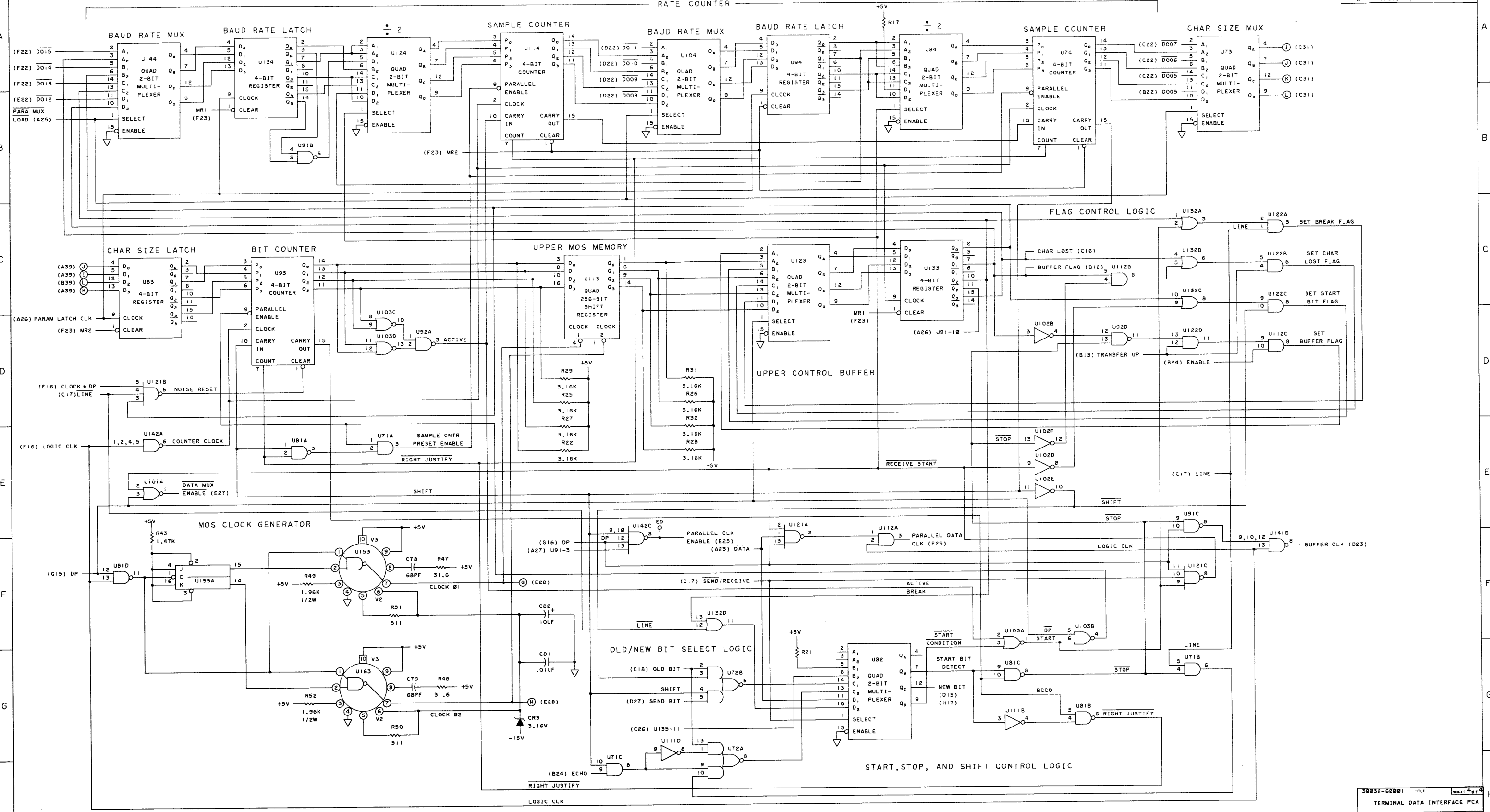




CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1343-22

30032-60001	TITLE	Sheet 3 of 4
TERMINAL DATA INTERFACE PCA		
ENGINEER	APPROVED	DATE
HWLETT PACKARD CO DATA SYSTEMS DEVELOPMENT DIVISION		





ASSEMBLY # 30032-60001

* REFERENCE DESIGNATION *	* HP * * PART NO. *	* DESCRIPTION *	* MFR * * CODE *	* MFR * * PART NO. *	* TQ *
* C1-6,8,9,19,22,23, * 25,36,38-41,43-50, * 52-58,60-74,76,80, * 81,84,86,88-90	* 0160-2055	* CAPACITOR,FXD,CER,0.01 UF,+80 -20%,100VDCW	* 28480	* 0160-2055	* 55 *
* C7,10,24,26,27,37, * 42,75,77,83,85,87,91	* 0180-0197	* CAPACITOR,FXD,ELECT,2.2 UF,10%,20 VDCW	* 28480	* 0180-0116	* 13 *
* C11-18,28-35	* 0160-3456	* CAPACITOPR,FXD,NON-ELECT,.001UF 10%	* 56289	* C016F251F107K522	* 16 *
* C20	* 0160-2307	* CAPACITOR,FXD,NON-ELECT,4.7PF 5% 300WVDC	* 72136	* RDM15E470J3C	* 1 *
* C21	* 0140-0198	* CAPACITOR,FXD,MICA,200 PF,5%	* 28480	* 0140-0198	* 1 *
* C51,59	* 0160-2202	* CAPACITOR,FXD,MICA,75PF,5%,300 VDCW	* 72136	* 0160-2202 OBD	* 2 *
* C78,79	* 0140-0192	* CAPACITOR,FXD,MICA,68 PF,5%	* 28480	* 0140-0192	* 2 *
* C82	* 0180-0374	* CAPACITOR,FXD,ELECT,10 UF,10%,20 VDCW	* 28480	* 0180-0374	* 1 *
* CR1	* 1902-3070	* DIODE,ZENER,4.22V 5%,0.4W MAX	* 04713	* OBD	* 1 *
* CR2,4	* 1902-0579	* DIODE,ZENER,5.11V 5%,1W MAX	* 04713	* OBD	* 2 *
* CR3,5	* 1901-0159	* DIODE,PWR RECT,SI,400V MAX,750MA	* 04713	* OBD	* 2 *
* CR6	* 1902-3036	* DIODE,ZENER,3.16V,0.4W MAX	* 15818	* OBD	* 1 *
* E1-10	* 0360-0294	* TERMINAL,SOLDER STUR,SINGLE TURRET,0.063 DIA.	* 88245	* 2010B-2	* 10 *
* R1,2	* 0698-3402	* RESISTOR,FXD,FLM,316 OHM 1%,.5W 350VDC	* 19701	* MF7C1/2-f0-316R	* 2 *
* R3,5,12-14,16-21,33, * 34,43,46,54	* 0757-1094	* RESISTOR,FXD,FLM,1.47K,1%,1/8W	* 28480	* 0757-1094	* 16 *
* R4,11	* 0698-3400	* RESISTOR,FXD,FLM,147 OHMS,1%,1/2W	* 28480	* 0698-3400	* 2 *
* R6,9	* 0757-0278	* RESISTOR,FXD,FLM,1.78KOHM 1% .125W 250VDC	* 19701	* MF4C-1/8-T0-1.78KR-F	* 2 *
* R7,8,15	* 0757-0280	* RESISTOR,FXD,FLM,1K,1%,1/8W	* 28480	* 0757-0280	* 3 *
* R10,22,23,25-32,35-42	* 0757-0279	* RESISTOR,FXD,FLM,3.16K,1%,1/4W	* 24546	* C4-1/8-T0-3161-F	* 19 *
* R24,44,45	* 1810-0020	* RESISTOR,7 X 1.5K OHMS,5%,500PPM	* 56289	* 200C1098-LRR	* 3 *
* R47,48	* 0757-0180	* RESISTOR,FXD,FLM,31.6 OHM 1% .125W 250VDC	* 19701	* MF4C-1/8-T0-31.6R-F	* 2 *
* R49,52	* 0698-3407	* RESISTOR,FXD,FLM,1.96K,1%,1/2W	* 28480	* 0698-3407	* 2 *
* R50,51	* 0757-0416	* RESISTOR,FXD,FLM,511 OHMS,1%,1/8W	* 28480	* 0757-0416	* 2 *
* R53	* 0757-0427	* RESISTOR,FXD,FLM,1.5K OHM,1%,0.125W,250VDC	* 19701	* MF4C-1/8-T0-1.5KR-F	* 1 *
* U11,73,76,82,84,95, * 96,104,123,124,125, * 144	* 1820-0616	* IC,2-INPUT 4-BIT MULTIPLEXER,TTL	* 07263	* U7B932259X	* 12 *
* U12,72,75	* 1820-0063	* IC,DUAL 2-WIDE 2-INPUT AND-OR-INVERT GATE,TTL	* 01295	* SN7451N	* 3 *
* U13,27,102,111,118	* 1820-0424	* IC,HS HEX INVERTER,TTL	* 01295	* SN74H04N	* 5 *
* U14,121	* 1820-0371	* IC,HS TRIPLE 3-INPUT NAND GATE,TTL	* 01295	* SN74H10N	* 2 *
* U15,19,69,71,112,122	* 1820-0141	* IC,QUAD 2-INPUT AND GATE,TTL	* 04713	* MC3001P	* 6 *
* U17,46,155	* 1820-0715	* IC,HS DUAL J-K FLIP-FLOP EDGE TRIGGERED,TTL	* 01295	* SN74H106N	* 3 *
* U18,49,67,68,136,137	* 1820-0327	* IC,QUAD 2-INPUT NAND GATE OPEN COLLECTOR	* 01295	* SN7401N	* 6 *
* U21,64,78	* 1820-0077	* IC,DUAL D FLIP-FLOP,TTL	* 01295	* SN7474N	* 3 *
* U22,55,63,141,142	* 1820-0376	* IC,HS DUAL 4-INPUT NAND BUFFER,TTL	* 01295	* SN74H40N	* 5 *
* U23,24	* 1820-0294	* IC,8 BIT SER-IN PAR-OUT SHIFT REGISTER,TTL	* 27014	* DMR570N	* 2 *
* U25,38,117,127	* 1820-0140	* IC,DUAL 4-INPUT AND BUFFER,TTL	* 04713	* MC3026P	* 4 *
* U28,29,47,81,91,92, * 128,131	* 1820-0370	* IC,HS QUAD 2-INPUT NAND GATE,TTL	* 01295	* SN74H00N	* 8 *
* U31,32,41,42	* 1820-0509	* IC,QUAD 1-2-2-2--INPUT NAND LINE DRIVER	* 04713	* MC1488L	* 4 *
* U33,34,39,43,44,48, * 57,58,77,87,97,107, * 108,146,147	* 1820-0301	* IC,QUAD BISTABLE D LATCH,TTL	* 01295	* SN7475N	* 15 *

ASSEMBLY # 30032-60001 (CONTINUED)

* REFERENCE DESIGNATION *	* HP * * PART NO. *	* DESCRIPTION *	* MFR * * CODE *	* MFR * * PART NO. *	* TQ *
* U35	* 1820-0261	* IC, MONOSTABLE MULTIVIBRATOR, TTL	* 01295	* SN74121N	* 1 *
* U36	* 1820-0127	* IC, QUAD 2-INPUT NAND GATE, TTL	* 07263	* U6A900259X	* 1 *
* U37, 101, 103	* 1820-0328	* IC, QUAD 2-INPUT NOR GATE, TTL	* 01295	* SN7402N	* 3 *
* U45	* 1820-0076	* IC, DUAL J-K FLIP-FLOP W/PRESET AND CLOCK, TTL	* 01295	* SN7476N	* 1 *
* U51, 52, 61, 62	* 1820-0990	* IC, QUAD NAND LINE RECIEVER, DTL	* 04713	* MC1489AL	* 3 *
* U53	* 1820-0640	* IC, 16-INPUT MULTIPLEXER, TTL	* 01295	* SN74150N	* 1 *
* U56	* 1820-0250	* IC, DGTL 6-BIT COMPARATOR, TTL	* 28480	* 1820-0250	* 1 *
* U59	* 1820-0374	* IC, HS DUAL 4-INPUT AND GATE, TTL	* 01295	* SN74H21N	* 1 *
* U65, 66, 74, 93, 114	* 1820-0231	* IC, 4-BIT BINARY COUNTER, SYNCHRO, TTL	* 07263	* U68931659X	* 5 *
* U79	* 1820-0214	* IC, BCD/DECIMAL DECODER, TTL	* 01295	* SN7442N	* 1 *
* U83, 86, 94, 115, 116, * 133, 134, 145	* 1820-0839	* IC, QUAD D FLIP-FLOP W/CLEAR, TTL	* 01295	* SN74175N	* 8 *
* U85, 126	* 1820-0435	* IC, 8-BIT ODD/EVEN PARITY GENERATOR/CHECKER, TTL	* 01295	* SN74180N	* 2 *
* U88	* 1820-0686	* IC, TRIPLE 3-INPUT AND GATE, SCHOTTKY TT	* 01295	* SN74511N	* 1 *
* U89, 109, 129, 149	* 1820-0760	* IC, 8-BIT RECEIVER INVERTING (TRI-STATE), TTL	* 28480	* 1820-0760	* 4 *
* U98	* 1820-0844	* IC, DUAL 3-INPUT PULSE SHAPER/DELAY AND GATE, TTL	* 04713	* MC426	* 1 *
* U99, 139	* 1820-0755	* IC, 8-BIT DRIVER NON-INVERTING (TRI-STATE), TTL	* 28480	* 1820-0755	* 2 *
* U105, 106, 135	* 1820-0367	* IC, 4-BIT RT/LT SHIFT REGISTER PAR IN/OUT, TTL	* 01295	* SN7495N	* 3 *
* U113, 143	* 1820-0733	* IC, QUAD 256-BIT DYNAMIC SHIFT REGISTER, MOS	* 34649	* P1402	* 2 *
* U132	* 1820-0205	* IC, QUAD 2-INPUT OR GATE, TTL	* 04713	* MC3003P	* 1 *
* U138	* 1820-0761	* IC, HEX-INVERTER/DRIVER	* 01295	* SN7406N	* 1 *
* U148, 169	* 1820-0706	* IC, 5-BIT COMPARATOR, TTL	* 07263	* U78932459x	* 2 *
* U153, 163	* 1820-0832	* IC, TRANSLATOR/CLOCK DRIVER, TTL-TO-MOS	* 27014	* NH0007C	* 2 *
* U159	* 1820-0756	* IC, 8-BIT DRIVER INVERTING (TRI STATE), TTL	* 28480	* 1820-0756	* 1 *
* W1-4	* 8159-0005	* WIRE JUMPER, 22 AWG	* 00736	* L-2007-1	* 4 *
* X1	* 1200-0199	* SOCKET, ELECT: CRYSTAL 2-CONT HC-6/V PKG DIP	* 91506	* 8000-AG9	* 1 *
* XU113, 143	* 1200-0482	* SOCKET, ELECT: IC 16-CONT DIP SOLDER TERM	* 91506	* 516-AG10D	* 2 *
* XW5	* 1200-0473	* SOCKET, ELECT: IC 16-CONT DIP SOLDER TERM	* 01295	* C931602	* 1 *
* Y1	* 0410-0459	* XTAL-QUARTZ, 4.32MHZ .002% @25DEG	* 28480	* 0410-0459	* 1 *

I/O DETAILED DIAGRAM SET

DD-606

CARTRIDGE DISC CONTROLLER PCA

30210-60001

SERIES 1307

1401

SIGNAL INDEX

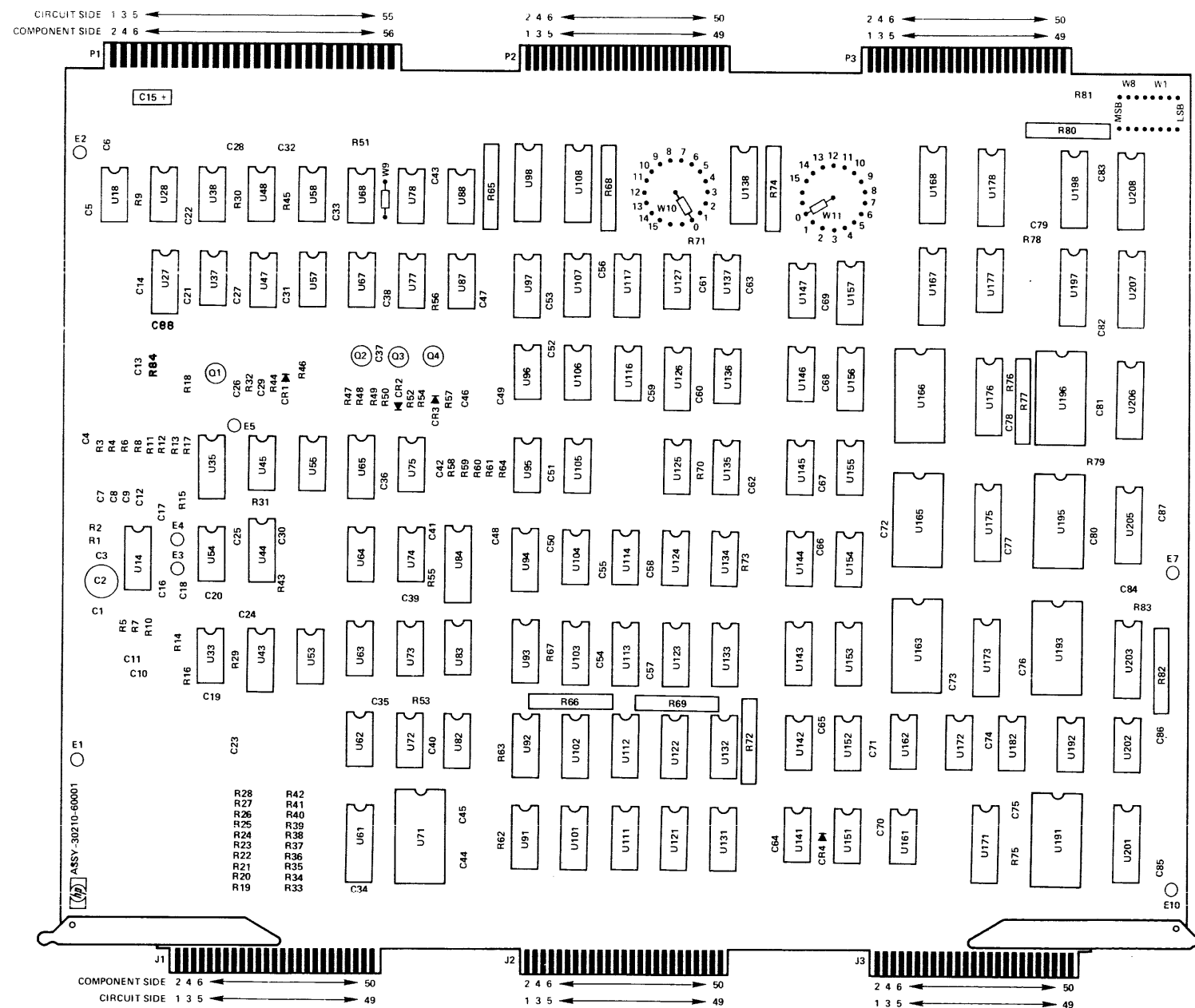
P1		P2		P3		J1		J2		J3	
PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
1	+5V	1	CHAN SO	1	IODPRTY	1		1	COM	1	COM
2	+5V	2	COM	2	IOD PE	2		2	COM	2	CLEAR
3	+5V	3	SR CLOCK	3	COM	3		3	ROM 04	3	T0
4	+5V	4	COM	4	IOCMD 00	4		4		4	T3
5	PF WARN	5	DEV END	5	IOCMD 02	5		5	ROM 05	5	T2
6	ENTIMER	6	COM	6	IOCMD 01	6		6		6	DEST
7	(SPARE)	7	ACK SR	7	COM	7		7	ROM 06	7	STROBES
8	(SPARE)	8	COM	8	DEVNO 00	8		8		8	STROBES
9	PWR ON	9	CHAN ACK	9	DEVNO 01	9		9	ROM 07	9	FLAGS
10	COM	10	COM	10	COM	10		10		10	STROBES
11	IORESET	11	DEVNO DB	11	DEVNO 02	11		11	ROM 08	11	
12	COM	12	SIO ENABLE	12	DEVNO 03	12		12		12	FLAGS
13	MCUCLKS	13	EOT	13	COM	13		13	ROM 09	13	FLAGS
14	COM	14	JMP MET	14	DEVNO 04	14	IN BUS 1	14		14	FLAGS
15	COM	15	COM	15	DEVNO 05	15	CRC TEST	15	ROM 10	15	XXX
16	COM	16	TOGGLE	16	COM	16	POINT	16		16	FLAGS
17	-5V	17	INXFER	17	DEVNO 06	17	READY	17	ROM 11	17	DEST
18	-5V	17	TOGGLE SR	18	DEVNO 07	18	RESET	18		18	
19	COM	18	TOGGLE	19	COM	19	SECTOR	19	ROM 12	19	
20	COM	19	TOGGLE	20	IOD 00	20	COMPARE	20		20	DEST
21	+15V	20	COM	21	IOD 01	21		21	ROM 13	21	FLAGS
22	+15V	21	SIO OK	22	COM	22	ACCESS	22		22	FLAGS
23	+15V	20	COM	23	IOD 02	23	READY	23	ROM 14	23	FLAGS
24	+15V	21	XFER ERROR	24	IOD 03	24	DATA +	24		24	FLAGS
25	-15V	22	REQ	25	COM	25	IN BUS 4	25	ROM 15	25	
26	-15V	23	COM	26	IOD 04	26	DATA -	26		26	FLAGS
27	-15V	24	SR 15	27	IOD 05	27	IN BUS 0	27	ROM 16	27	SELECT
28	-15V	25	SR 14	28	COM	28	CONTROL	28	ROM 00	28	FLAGS
29	COM	26	SR 13	29	IOD 06	29	IN BUS 2	29	ROM 17	29	FLAGS
30	COM	27	SR 12	30	IOD 07	30	OUT BUS 1	30	ROM 01	30	FLAGS
31	-20V	28	SR 11	31	COM	31	SPARE	31	ROM 18	31	MIO 12
32	-20V	29	SR 10	32	IOD 08	32	OUT BUS 3	32	ROM 02	32	
33	-20V	30	COM	33	IOD 09	33	IN BUS 3	33	ROM 19	33	MIO 13
34	-20V	31	SR 9	34	COM	34	OUT BUS 0	34	ROM 03	34	MIO 11
35	+20V	32	SR 8	35	IOD 10	35	OUT BUS 0	35		35	MIO 14
36	+20V	33	SR 7	36	IOD 11	36	SECTOR	36	ROM ENABLE	36	MIO 10
37	+20V	34	SR 6	37	COM	37	PULSE	37	A0	37	MIO 15
38	+20V	35	SR 5	38	IOD 12	38	OUT BUS 6	38	A1	38	MIO 09
39	+20V	36	COM	39	IOD 13	39		39	A2	39	T1
40	+20V	37	SR 4	40	COM	40	OUT BUS 2	40	A3	40	MIO 08
41	HSREQ	38	SR 3	41	IOD 14	41		41	A4	41	MIO 03
42	COM	39	SR 2	42	IOD 15	42		42	A5	42	MIO 04
43	COM	40	SR 1	43	COM	43	OUT BUS 7	43	A6	43	MIO 02
44	INTPOLL OUT	41	SR 0	44	INTREQ	44		44	A7	44	MIO 05
45	(SPARE)	42	COM	45	SPARE	45	OUT BUS 4	45	A8	45	MIO 01
46	COM	43	P CMD 1	46	SPARE	46		46	A9	46	MIO 06
47	COM	44	SET JMP	47	COM	47	DRIVE SEL	47	A10	47	MIO 00
48	INTROLL IN	45	P STATUS STB	48	SPARE	48	MSB (1)	48	A11	48	MIO 07
49	SI	46	P CONT STB	49	COM	49		49	COM	49	COM
50	COM	47	RD NEXT WD	50	INTACK	50	DRIVE SEL				
51	COM	48	P WRITE STB				LSB (0)				
52	DATAPOLL	49	SET INT								
53	SO	50	P READ STB								
54	COM										
55	COM										
56	DATAPOLL IN										

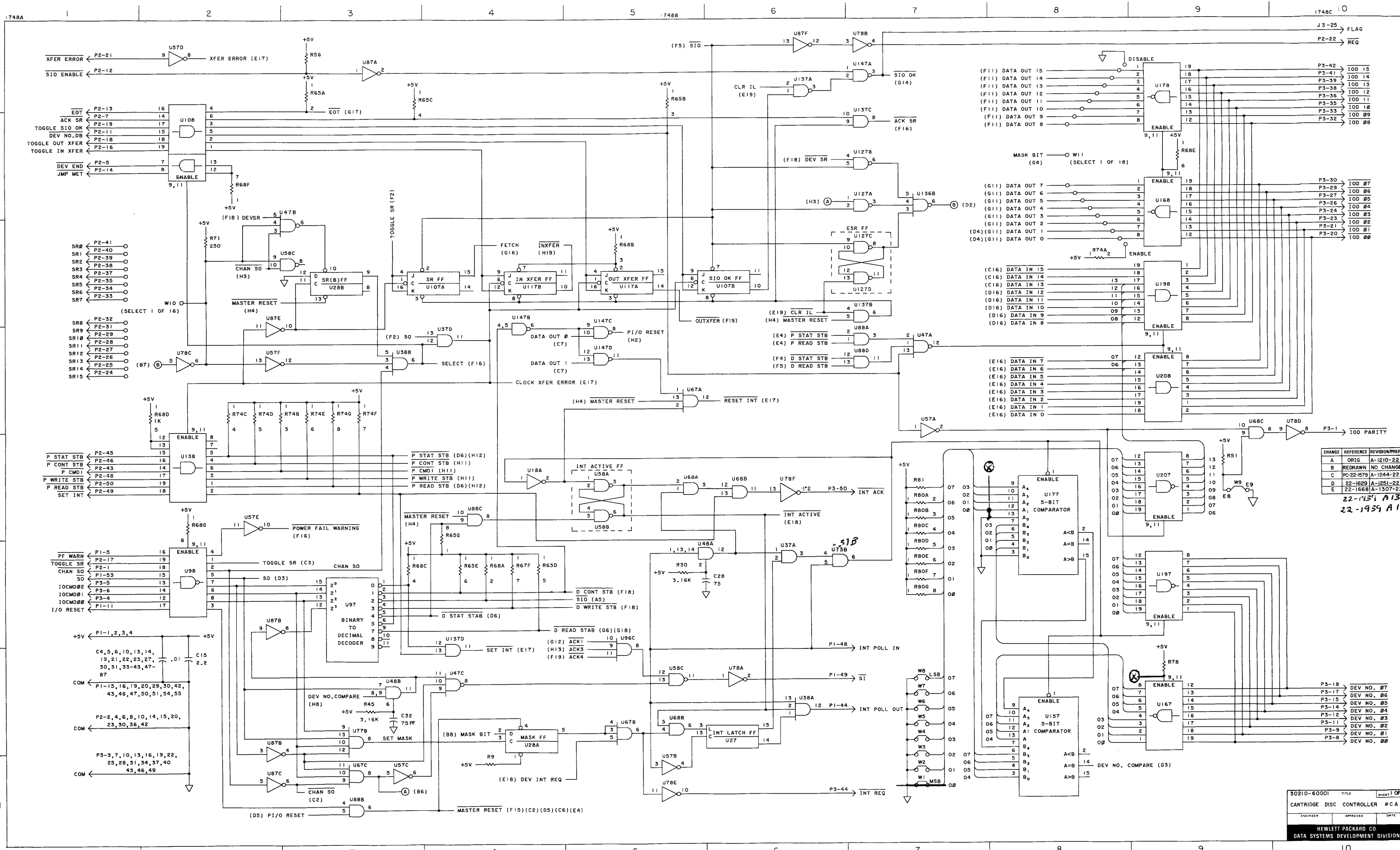
I.C. INDEX

U	1820-	U	1820-	U	1820-	U	1820-	U	1820-
18	0424	71	0726	103	0205	141	0239	171	0755
27	0301	72	0613	104	0370	142	0370	172	0424
28,33	0077	73	0077	105	0239	143	0715	173,175	0756
34	0282	74	0370	106	0141	144	0374	176	0756
35	0715	75	0722	107	0715	145	0205	177	0706
37	0141	77	0374	108	0759	146	0372	178	0760
38	0686	78	0761			147	0370		
				113	0077			182	0424
43,44	0515	82	0613	114	0424			191	0742
45	0370	83	0282	116	0370	151	0141	192	0424
47	0371	84	0755	117	0715	152	0424	193	0746
48	0844	87	0424	123	0715	153	0715	195,196	0742
53	0077	88	0141	124	0372	154	0099	197	0756
55,57	0424			125	0077	155	0205	198	0755
58	0370			126	0715	156	0616		
		93	0077	127	0370	157	0706	201	0755
61	0368	94	0715					202	0424
62	0613	95	0723					203	0756
63	0141	96	0372	133	0715	161	0608	205,206	0755
64	0373	97	0491	134,135	0077	162	0077		
65	0616	98	0760	136	0371	163	0726		
67	0372			137	0141	165,166	0742		
68	0141			138	0759	167,168	0760		

Note: The following are ROM IC packs:

U14, 91, 92, 101, 102, 111, 112, 121, 122, 131, 132





CHANGE	REFERENCE	ORIGIN	REVISION	DATE
A		ORIG	A-1210-22	
B		REDRAWN	NO CHANGE	
C		PC-22-1579	A-1244-22	
D		22-1629	A-1251-22	
E		22-1668	A-1307-22	

22-1434 A1324
22-1939 A1401

SIGNAL INDEX

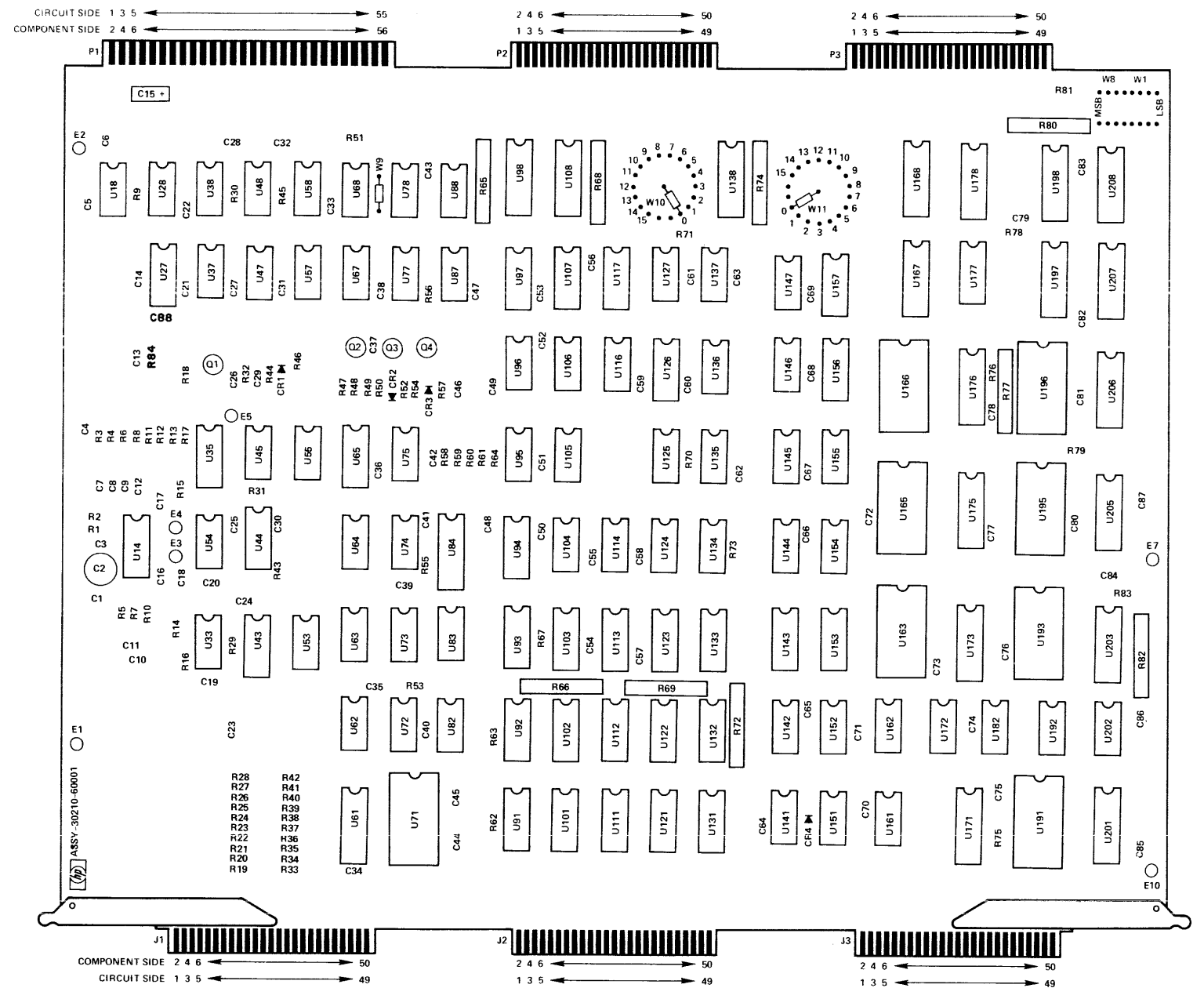
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PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
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2	+5V	2	COM	2	IOD PE	2		2	COM	2	CLEAR
3	+5V	3	SR CLOCK	3	COM	3		3	ROM 04	3	T0
4	+5V	4	COM	4	IOCMD 00	4		4		4	T3
5	PF WARN	5	DEV END	5	IOCMD 02	5		5	ROM 05	5	T2
6	ENTIMER	6	COM	6	IOCMD 01	6		6		6	DEST
7	(SPARE)	7	ACK SR	7	COM	7		7	ROM 06	7	STROBES
8	(SPARE)	8	COM	8	DEVNO 00	8		8		8	STROBES
9	PWR ON	9	CHAN ACK	9	DEVNO 01	9		9	ROM 07	9	FLAGS
10	COM	10	COM	10	COM	10		10		10	STROBES
11	IORESET	11	DEVNO DB	11	DEVNO 02	11		11	ROM 08	11	
12	COM	12	SIO ENABLE	12	DEVNO 03	12		12		12	FLAGS
13	MCUCLKS	13	EOT	13	COM	13		13	ROM 09	13	FLAGS
14	COM	14	JMP MET	14	DEVNO 04	14	IN BUS 1	14		14	FLAGS
15	COM	15	COM	15	DEVNO 05	15	CRC TEST	15	ROM 10	15	XXX
16	COM	16	TOGGLE	16	COM	16	POINT	16		16	FLAGS
17	-5V	17	TOGGLE INXFER	17	DEVNO 06	17	READY	17	ROM 11	17	DEST
18	-5V	18	TOGGLE SR	18	DEVNO 07	18	RESET	18		18	
19	COM	19	TOGGLE	19	COM	19	SECTOR COMPARE	19	ROM 12	19	
20	COM	20	OUTXFER	20	IOD 00	20		20	ROM 13	20	DEST
21	+15V	21	TOGGLE	21	IOD 01	21	ACCESS	21	ROM 14	21	FLAGS
22	+15V	22	SIO OK	22	COM	22	READY	22		22	FLAGS
23	+15V	23		23	IOD 02	23	DATA +	23	ROM 15	23	FLAGS
24	+15V	24		24	IOD 03	24	IN BUS 4	24		24	FLAGS
25	-15V	25	XFER ERROR	25	COM	25	DATA -	25	ROM 16	25	SELECT
26	-15V	26		26	IOD 04	26	IN BUS 0	26	ROM 00	26	SELECT
27	-15V	27		27	IOD 05	27	IN BUS 2	27	ROM 17	27	SELECT
28	-15V	28		28	COM	28	CONTROL	28	ROM 01	28	SELECT
29	COM	29	SR 15	29	IOD 06	29	IN BUS 2	29	ROM 02	29	SELECT
30	COM	30	SR 14	30	IOD 07	30	OUT BUS 1	30	ROM 18	30	SELECT
31	-20V	31	SR 13	31	COM	31	SPARE	31	ROM 03	31	MIO 12
32	-20V	32	SR 12	32	IOD 08	32	OUT BUS 3	32	ROM 19	32	MIO 13
33	-20V	33	SR 11	33	COM	33	OUT BUS 3	33	ROM 04	33	MIO 11
34	-20V	34	SR 10	34	IOD 09	34	OUT BUS 0	34	ROM 05	34	MIO 14
35	+20V	35	SR 9	35	COM	35	OUT BUS 6	35	ROM 06	35	MIO 10
36	+20V	36	SR 8	36	IOD 10	36	OUT BUS 2	36	ROM 07	36	MIO 15
37	+20V	37	SR 7	37	COM	37	OUT BUS 5	37	ROM 08	37	MIO 09
38	+20V	38	SR 6	38	IOD 12	38	OUT BUS 7	38	ROM 09	38	T1
39	+20V	39	SR 5	39	IOD 13	39	OUT BUS 4	39	ROM 10	39	MIO 08
40	+20V	40	SR 4	40	COM	40	OUT BUS 5	40	ROM 11	40	MIO 03
41	HSREQ	41	SR 3	41	IOD 14	41	OUT BUS 7	41	ROM 12	41	MIO 04
42	COM	42	SR 2	42	IOD 15	42	OUT BUS 4	42	ROM 13	42	MIO 02
43	COM	43	SR 1	43	COM	43	OUT BUS 4	43	ROM 14	43	MIO 05
44	INTPOLL OUT	44	SR 0	44	INTREQ	44	OUT BUS 4	44	ROM 15	44	MIO 01
45	(SPARE)	45	SR 0	45	SPARE	45	OUT BUS 4	45	ROM 16	45	MIO 06
46	COM	46	COM	46	COM	46	OUT BUS 4	46	ROM 17	46	MIO 00
47	COM	47	P CMD 1	47	SPARE	47	OUT BUS 4	47	ROM 18	47	MIO 07
48	INTROLL IN	48	SET JMP	48	SPARE	48	OUT BUS 4	48	ROM 19	48	COM
49	SI	49	P STATUS STB	49	COM	49	OUT BUS 4	49	ROM 20	49	COM
50	COM	50	P CONT STB	50	INTACK	50	OUT BUS 4	50	ROM 21	50	COM
51	COM		RD NEXT WD				OUT BUS 4		ROM 22		
52	DATAPOLL OUT		P WRITE STB				OUT BUS 4		ROM 23		
53	SO		SET INT				OUT BUS 4		ROM 24		
54	COM		P READ STB				OUT BUS 4		ROM 25		
55	COM						OUT BUS 4		ROM 26		
56	DATAPOLL IN						OUT BUS 4		ROM 27		

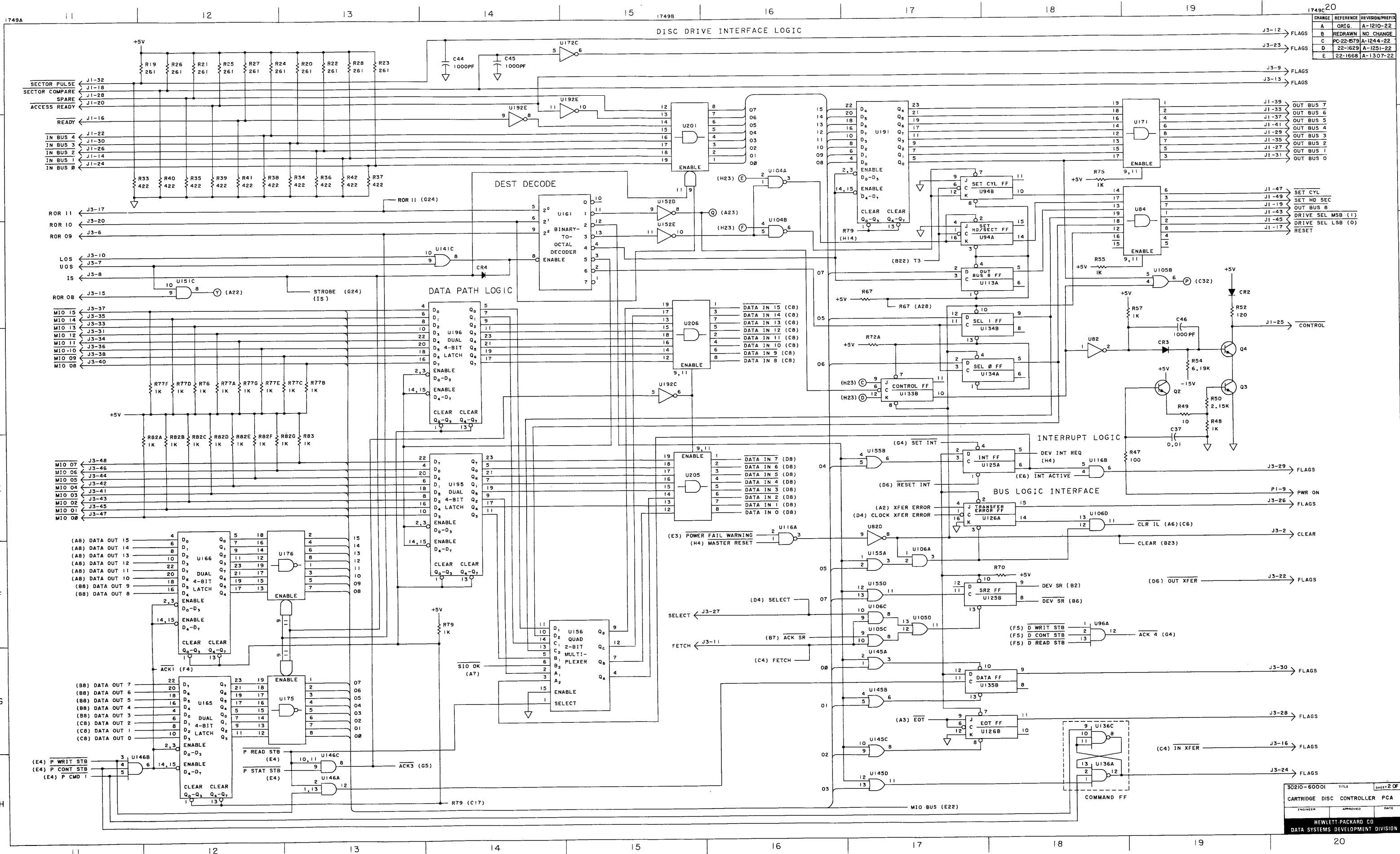
I.C. INDEX

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18	0424	71	0726	103	0205	141	0239	171	0755
27	0301	72	0613	104	0370	142	0370	172	0424
28,33	0077	73	0077	105	0239	143	0715	173,175	0756
34	0282	74	0370	106	0141	144	0374	176	0756
35	0715	75	0722	107	0715	145	0205	177	0706
37	0141	77	0374	108	0759	146	0372	178	0760
38	0686	78	0761			147	0370		
				113	0077			182	0424
43,44	0515	82	0613	114	0424			191	0742
45	0370	83	0282	116	0370	151	0141	192	0424
47	0371	84	0755	117	0715	152	0424	193	0746
48	0844	87	0424	123	0715	153	0715	195,196	0742
53	0077	88	0141	124	0372	154	0099	197	0756
55,57	0424			125	0077	155	0205	198	0755
58	0370			126	0715	156	0616		
		93	0077	127	0370	157	0706		
61	0368	94	0715					201	0755
62	0613	95	0723					202	0424
63	0141	96	0372	133	0715	161	0608	203	0756
64	0373	97	0491	134,135	0077	162	0077	205,206	0755
65	0616	98	0760	136	0371	163	0726		
67	0372			137	0141	165,166	0742		
68	0141			138	0759	167,168	0760		

Note: The following are ROM IC packs:

U14, 91, 92, 101, 102, 111, 112, 121, 122, 131, 132





CHANGE	REFERENCE	REVISION/PREF
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-579	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22

SIGNAL INDEX

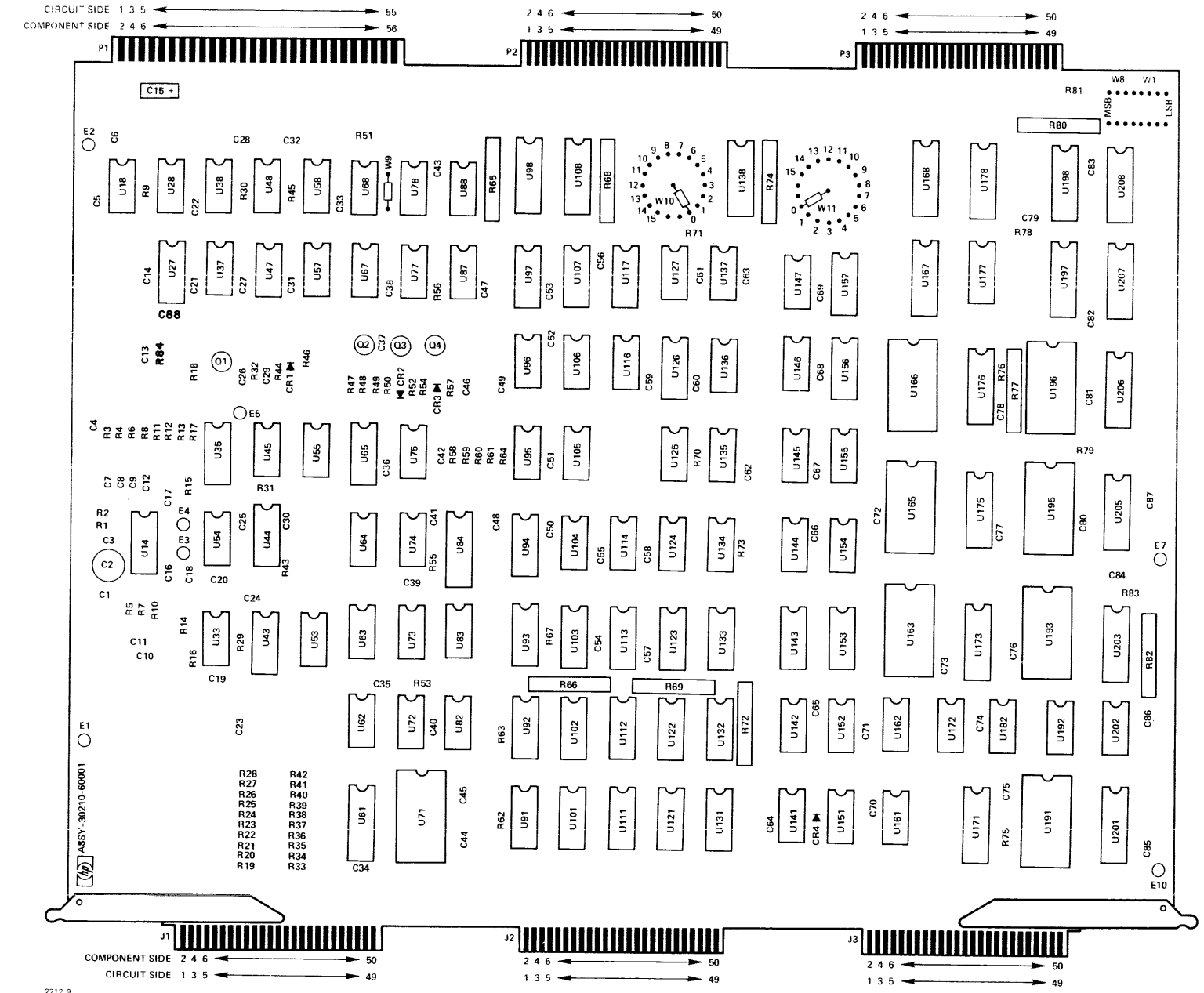
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2	+5V	2	COM	2	IOD PE	2		2	COM	2	CLEAR
3	+5V	3	SR CLOCK	3	COM	3		3	ROM 04	3	TO
4	+5V	4	COM	4	IOCMD 00	4		4		4	T3
5	PF WARN	5	DEV END	5	IOCMD 02	5		5	ROM 05	5	T2
6	ENTIMER	6	COM	6	IOCMD 01	6		6		6	DEST
7	(SPARE)	7	ACK SR	7	COM	7		7	ROM 06	7	STROBES
8	(SPARE)	8	COM	8	DEVNO 00	8		8		8	STROBES
9	PWR ON	9	CHAN ACK	9	DEVNO 01	9		9	ROM 07	9	FLAGS
10	COM	10	COM	10	COM	10		10		10	STROBES
11	IORESET	11	DEVNO DB	11	DEVNO 02	11		11	ROM 08	11	FLAGS
12	COM	12	SIO ENABLE	12	DEVNO 03	12		12		12	FLAGS
13	MCUCLKS	13	EOT	13	COM	13		13	ROM 09	13	XXX
14	COM	14	JMP MET	14	DEVNO 04	14	IN BUS 1	14		14	FLAGS
15	COM	15	COM	15	DEVNO 05	15	CRC TEST	15	ROM 10	15	POINT
16	COM	16	TOGGLE	16	COM	16	POINT	16		16	FLAGS
17	-5V	17	INXFER	17	DEVNO 06	17	READY	17	ROM 11	17	DEST
18	-5V	17	TOGGLE SR	18	DEVNO 07	18	RESET	18		18	
19	COM	18	TOGGLE	19	COM	19	SECTOR	19	ROM 12	19	DEST
20	COM	19	TOGGLE	20	IOD 00	20	COMPARE	20		20	FLAGS
21	+15V	20	COM	21	IOD 01	21	ACCESS	21	ROM 13	21	FLAGS
22	+15V	21	XFER ERROR	22	COM	22	READY	22		22	FLAGS
23	+15V	22	REQ	23	IOD 02	23	DATA +	23	ROM 14	23	FLAGS
24	+15V	23	COM	24	IOD 03	24	IN BUS 4	24		24	FLAGS
25	-15V	24	SR 15	25	COM	25	DATA -	25	ROM 15	25	SELECT
26	-15V	25	SR 14	26	IOD 04	26	IN BUS 0	26		26	FLAGS
27	-15V	26	SR 13	27	IOD 05	27	CONTROL	27	ROM 16	27	FLAGS
28	-15V	27	SR 12	28	IOD 06	28	IN BUS 2	28	ROM 17	28	FLAGS
29	COM	28	SR 11	29	IOD 07	29	OUT BUS 1	29	ROM 18	29	FLAGS
30	COM	29	SR 10	30	COM	30	SPARE	30	ROM 19	30	MIO 12
31	-20V	30	COM	31	IOD 08	31	OUT BUS 3	31	ROM 20	31	MIO 13
32	-20V	31	SR 9	32	IOD 09	32	IN BUS 3	32	ROM 03	32	MIO 11
33	-20V	32	SR 8	33	COM	33	OUT BUS 0	33		33	MIO 14
34	+20V	33	SR 7	34	IOD 10	34	OUT BUS 6	34	ROM ENABLE	34	MIO 10
35	+20V	34	SR 6	35	COM	35	A0	35	A0	35	MIO 15
36	+20V	35	SR 5	36	IOD 11	36	OUT BUS 2	36	A1	36	MIO 09
37	+20V	36	COM	37	COM	37	OUT BUS 5	37	A2	37	T1
38	+20V	37	SR 4	38	IOD 12	38		38	A3	38	MIO 08
39	+20V	38	SR 3	39	IOD 13	39	OUT BUS 7	39	A4	39	MIO 03
40	HSREQ	39	SR 2	40	COM	40	OUT BUS 4	40	A5	40	MIO 04
41	COM	40	SR 1	41	IOD 14	41		41	A6	41	MIO 02
42	COM	41	SR 0	42	IOD 15	42		42	A7	42	MIO 05
43	COM	42	COM	43	COM	43		43	A8	43	MIO 01
44	INTPOLL OUT	43	P CMD 1	44	INTREQ	44		44	A9	44	MIO 06
45	(SPARE)	44	SET JMP	45	SPARE	45		45	A10	45	MIO 00
46	COM	45	P STATUS STB	46	COM	46		46	A11	46	MIO 07
47	COM	46	P CONT STB	47	SPARE	47	DRIVE SEL	47	COM	47	COM
48	COM	47	RD NEXT WD	48	COM	48	MSB (1)	48	COM	48	
49	COM	48	PWRITE STB	49	COM	49	LSB (0)	49	COM	49	
50	COM	49	SET INT	50	INTACK	50		50	COM	50	
51	COM	50	P READ STB								
52	DATAPOLL										
53	OUT										
54	SO										
55	COM										
56	DATAPOLL IN										

I.C. INDEX

U	1820-	U	1820-	U	1820-	U	1820-	U	1820-
18	0424	71	0726	103	0205	141	0239	171	0755
27	0301	72	0613	104	0370	142	0370	172	0424
28,33	0077	73	0077	105	0239	143	0715	173,175	0756
34	0282	74	0370	106	0141	144	0374	176	0756
35	0715	75	0722	107	0715	145	0205	177	0706
37	0141	77	0374	108	0759	146	0372	178	0760
38	0686	78	0761			147	0370		
				113	0077			182	0424
43,44	0515	82	0613	114	0424			191	0742
45	0370	83	0282	116	0370	151	0141	192	0424
47	0371	84	0755	117	0715	152	0424	193	0746
48	0844	87	0424	123	0715	153	0715	195,196	0742
53	0077	88	0141	124	0372	154	0099	197	0756
55,57	0424			125	0077	155	0205	198	0755
58	0370			126	0715	156	0616		
		93	0077	127	0370	157	0706	201	0755
61	0368	94	0715					202	0424
62	0613	95	0723					203	0756
63	0141	96	0372	133	0715	161	0608	205,206	0755
64	0373	97	0491	134,135	0077	162	0077		
65	0616	98	0760	136	0371	163	0726		
67	0372			137	0141	165,166	0742		
68	0141			138	0759	167,168	0760		

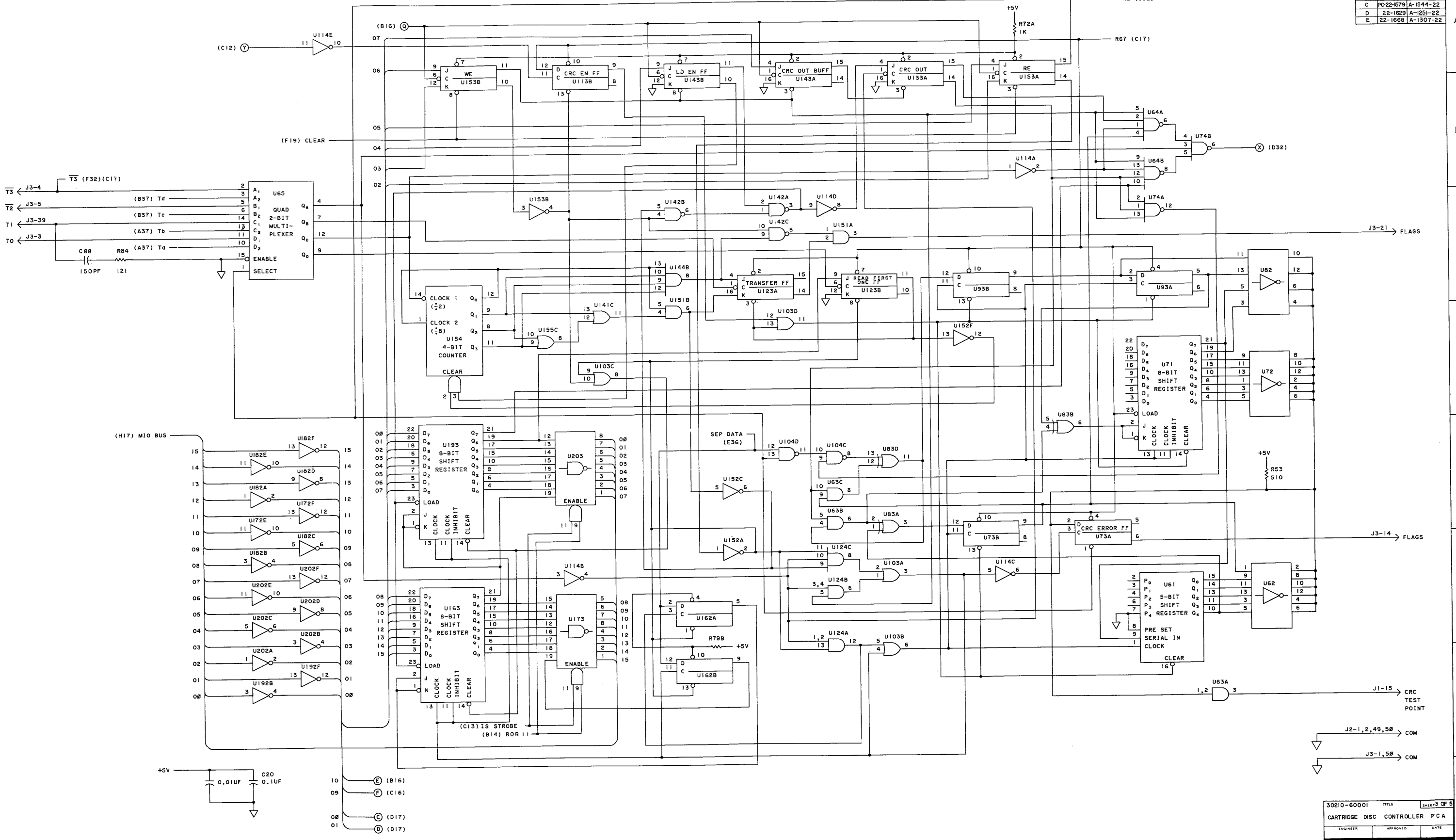
Note: The following are ROM IC packs:

U14, 91, 92, 101, 102, 111, 112, 121, 122, 131, 132



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-579	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22

READ/WRITE LOGIC



30210-60001	TITLE	SHEET 3 OF 5
CARTRIDGE DISC CONTROLLER P C A		
ENGINEER	APPROVED	DATE
HEWLETT-PACKARD CO DATA SYSTEMS DEVELOPMENT DIVISION		

SIGNAL INDEX

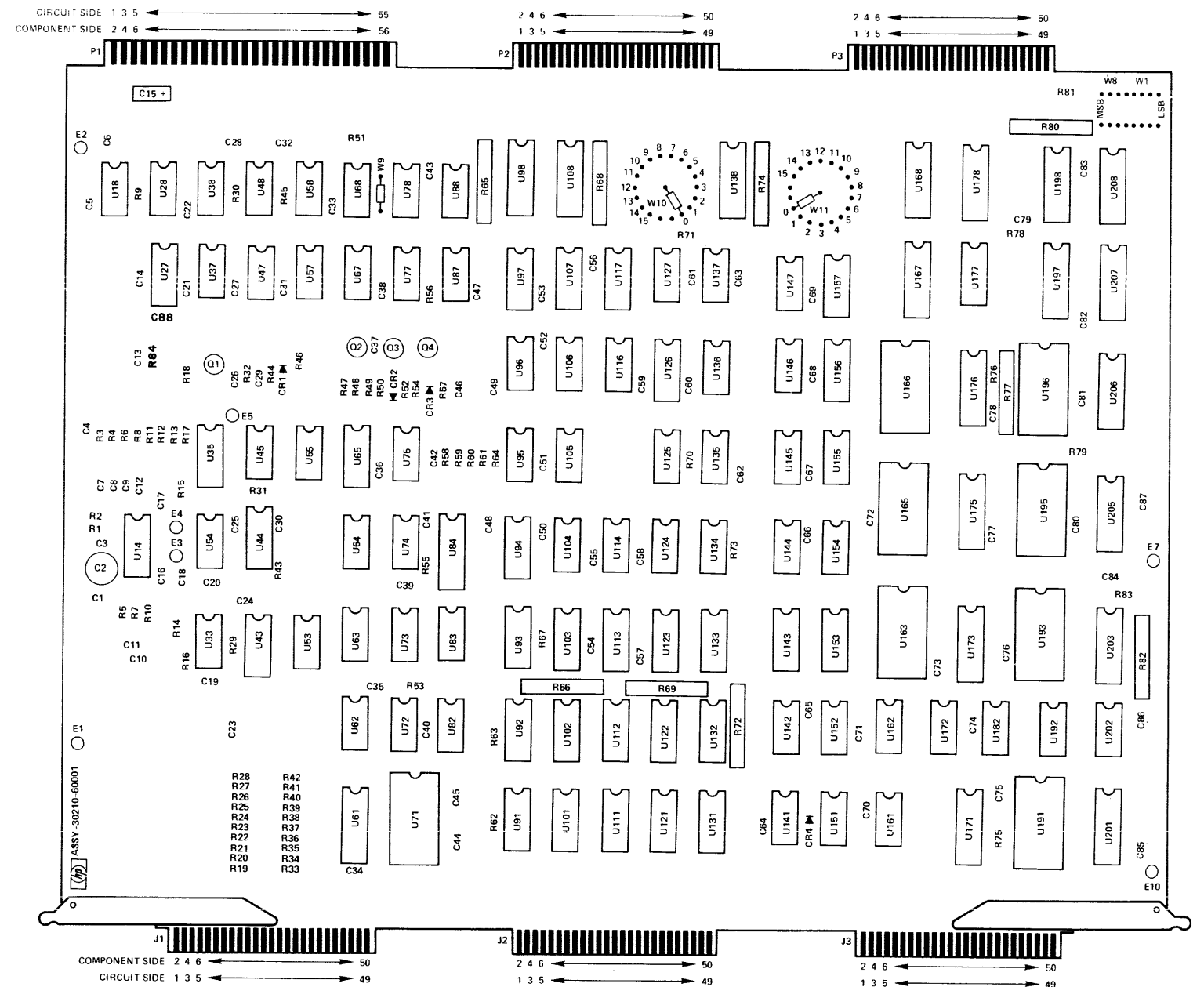
P1		P2		P3		J1		J2		J3	
PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
1	+5V	1	CHAN SO	1	IODPRTY	1		1	COM	1	COM
2	+5V	2	COM	2	IOD PE	2		2	COM	2	CLEAR
3	+5V	3	SR CLOCK	3	COM	3		3	ROM 04	3	T0
4	+5V	4	COM	4	IOCMD 00	4		4		4	T3
5	PF WARN	5	DEV END	5	IOCMD 02	5		5	ROM 05	5	T2
6	ENTIMER	6	COM	6	IOCMD 01	6		6		6	DEST
7	(SPARE)	7	ACK SR	7	COM	7		7	ROM 06	7	STROBES
8	(SPARE)	8	COM	8	DEVNO 00	8		8		8	STROBES
9	PWR ON	9	CHAN ACK	9	DEVNO 01	9		9	ROM 07	9	FLAGS
10	COM	10	COM	10	COM	10		10		10	STROBES
11	IORESET	11	DEVNO DB	11	DEVNO 02	11		11	ROM 08	11	
12	COM	12	SIO ENABLE	12	DEVNO 03	12		12		12	FLAGS
13	MCUCLKS	13	EOT	13	COM	13		13	ROM 09	13	FLAGS
14	COM	14	JMP MET	14	DEVNO 04	14	IN BUS 1	14		14	FLAGS
15	COM	15	COM	15	DEVNO 05	15	CRC TEST	15	ROM 10	15	XXX
16	COM	16	TOGGLE	16	COM	16	POINT	16		16	FLAGS
17	-5V	17	INXFER	17	DEVNO 06	17	READY	17	ROM 11	17	DEST
18	-5V	17	TOGGLE SR	18	DEVNO 07	18	RESET	18		18	
19	COM	18	TOGGLE	19	COM	19	SECTOR COMPARE	19	ROM 12	19	
20	COM	19	OUTXFER	20	IOD 00	20		20		20	DEST
21	+15V	20	TOGGLE	21	IOD 01	21	ACCESS	21	ROM 13	21	FLAGS
22	+15V	21	SIO OK	22	COM	22	READY	22		22	FLAGS
23	+15V	22	COM	23	IOD 02	23		23	ROM 14	23	FLAGS
24	+15V	21	XFER ERROR	24	IOD 03	24	DATA +	24		24	FLAGS
25	-15V	22	REQ	25	COM	25	IN BUS 4	25	ROM 15	25	
26	-15V	23	COM	26	IOD 04	26	DATA -	26		26	FLAGS
27	-15V	24	SR 15	27	IOD 05	27	IN BUS 0	27	ROM 16	27	SELECT
28	-15V	25	SR 14	28	COM	28	CONTROL	28	ROM 00	28	FLAGS
29	COM	26	SR 13	29	IOD 06	29	IN BUS 2	29	ROM 17	29	FLAGS
30	COM	27	SR 12	30	IOD 07	30	OUT BUS 1	30	ROM 01	30	FLAGS
31	-20V	28	SR 11	31	COM	31	SPARE	31	ROM 18	31	MIO 12
32	-20V	29	SR 10	32	IOD 08	32	OUT BUS 3	32	ROM 02	32	
33	-20V	30	COM	33	IOD 09	33	IN BUS 3	33	ROM 19	33	MIO 13
34	-20V	31	SR 9	34	COM	34	OUT BUS 0	34	ROM 03	34	MIO 11
35	+20V	32	SR 8	35	IOD 10	35		35		35	MIO 14
36	+20V	33	SR 7	36	IOD 11	36	SECTOR PULSE	36	ROM ENABLE	36	MIO 10
37	+20V	34	SR 6	37	COM	37	OUT BUS 6	37	A0	37	MIO 15
38	+20V	35	SR 5	38	IOD 12	38		38	A1	38	MIO 09
39	+20V	36	COM	39	IOD 13	39	OUT BUS 2	39	A2	39	T1
40	+20V	37	SR 4	40	IOD 14	40	OUT BUS 5	40	A3	40	MIO 08
41	HSREQ	38	SR 3	41	IOD 15	41	OUT BUS 7	41	A4	41	MIO 03
42	COM	39	SR 2	42	COM	42	OUT BUS 5	42	A5	42	MIO 04
43	COM	40	SR 1	43	COM	43	OUT BUS 7	43	A6	43	MIO 02
44	INTPOLL OUT	41	SR 0	44	INTREQ	44	OUT BUS 4	44	A7	44	MIO 05
45	(SPARE)	42	COM	45	SPARE	45		45	A8	45	MIO 01
46	COM	43	P CMD 1	46	COM	46		46	A9	46	MIO 06
47	COM	44	SET JMP	47	SPARE	47	DRIVE SEL MSB (1)	47	A10	47	MIO 00
48	INTROLL IN	45	P STATUS STB	48	SPARE	48	DRIVE SEL LSB (0)	48	A11	48	MIO 07
49	SI	46	P CONT STB	49	COM	49		49	COM	49	COM
50	COM	47	RD NEXT WD	50	INTACK	50		50	COM	50	COM
51	COM	48	P WRITE STB								
52	DATAPOLL OUT	49	SET INT								
53	SO	50	P READ STB								
54	COM										
55	COM										
56	DATAPOLL IN										

I.C. INDEX

U	1820-	U	1820-	U	1820-	U	1820-	U	1820-
18	0424	71	0726	103	0205	141	0239	171	0755
27	0301	72	0613	104	0370	142	0370	172	0424
28,33	0077	73	0077	105	0239	143	0715	173,175	0756
34	0282	74	0370	106	0141	144	0374	176	0756
35	0715	75	0722	107	0715	145	0205	177	0706
37	0141	77	0374	108	0759	146	0372	178	0760
38	0686	78	0761			147	0370		
				113	0077			182	0424
43,44	0515	82	0613	114	0424			191	0742
45	0370	83	0282	116	0370	151	0141	192	0424
47	0371	84	0755	117	0715	152	0424	193	0746
48	0844	87	0424	123	0715	153	0715	195,196	0742
53	0077	88	0141	124	0372	154	0099	197	0756
55,57	0424			125	0077	155	0205	198	0755
58	0370			126	0715	156	0616		
		93	0077	127	0370	157	0706	201	0755
61	0368	94	0715					202	0424
62	0613	95	0723	133	0715	161	0608	203	0756
63	0141	96	0372	134,135	0077	162	0077	205,206	0755
64	0373	97	0491	136	0371	163	0726		
65	0616	98	0760	137	0141	165,166	0742		
67	0372			138	0759	167,168	0760		
68	0141								

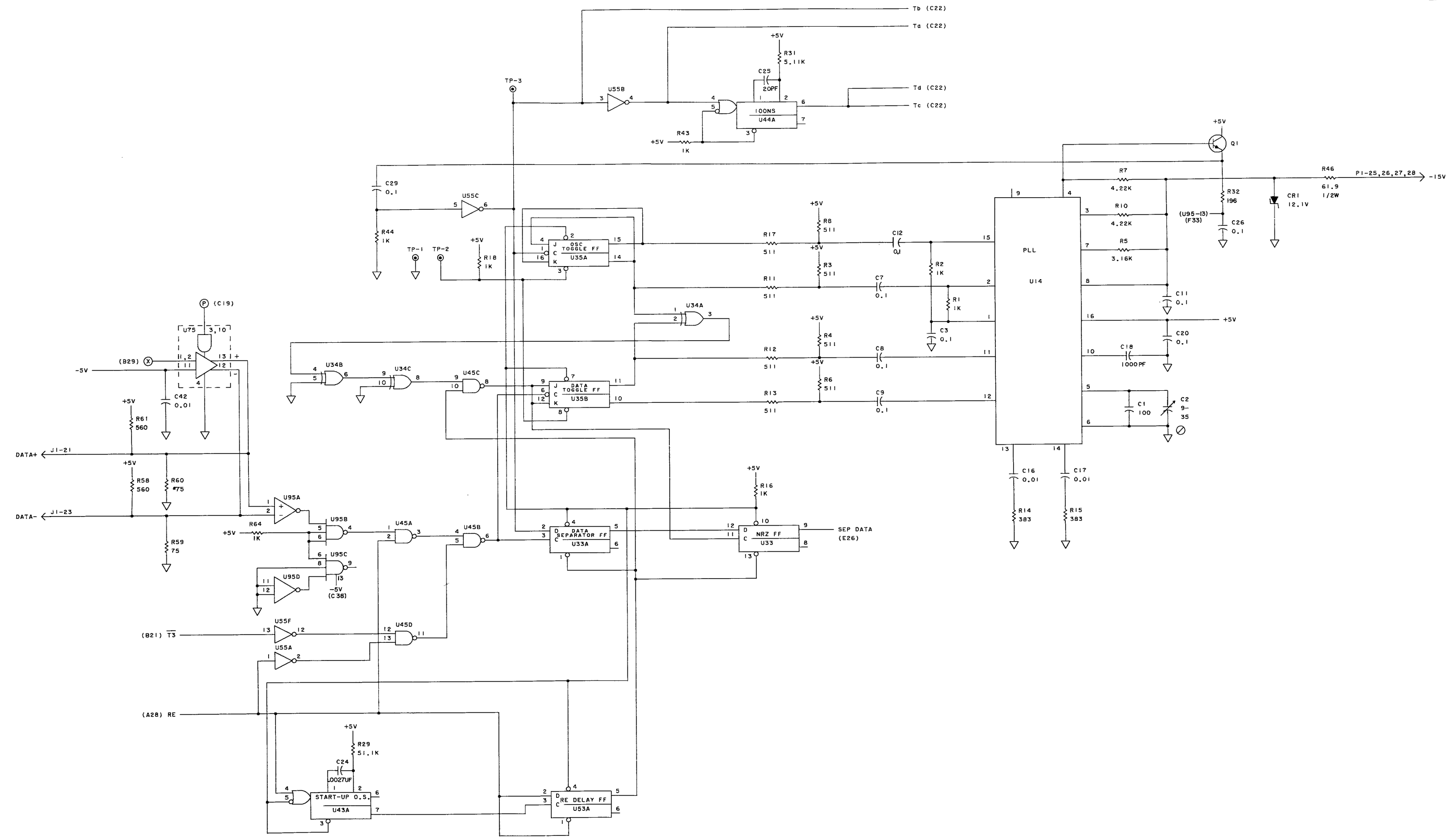
Note: The following are ROM IC packs:

U14, 91, 92, 101, 102, 111, 112, 121, 122, 131, 132



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-1579	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22

TIMING LOGIC



SIGNAL INDEX

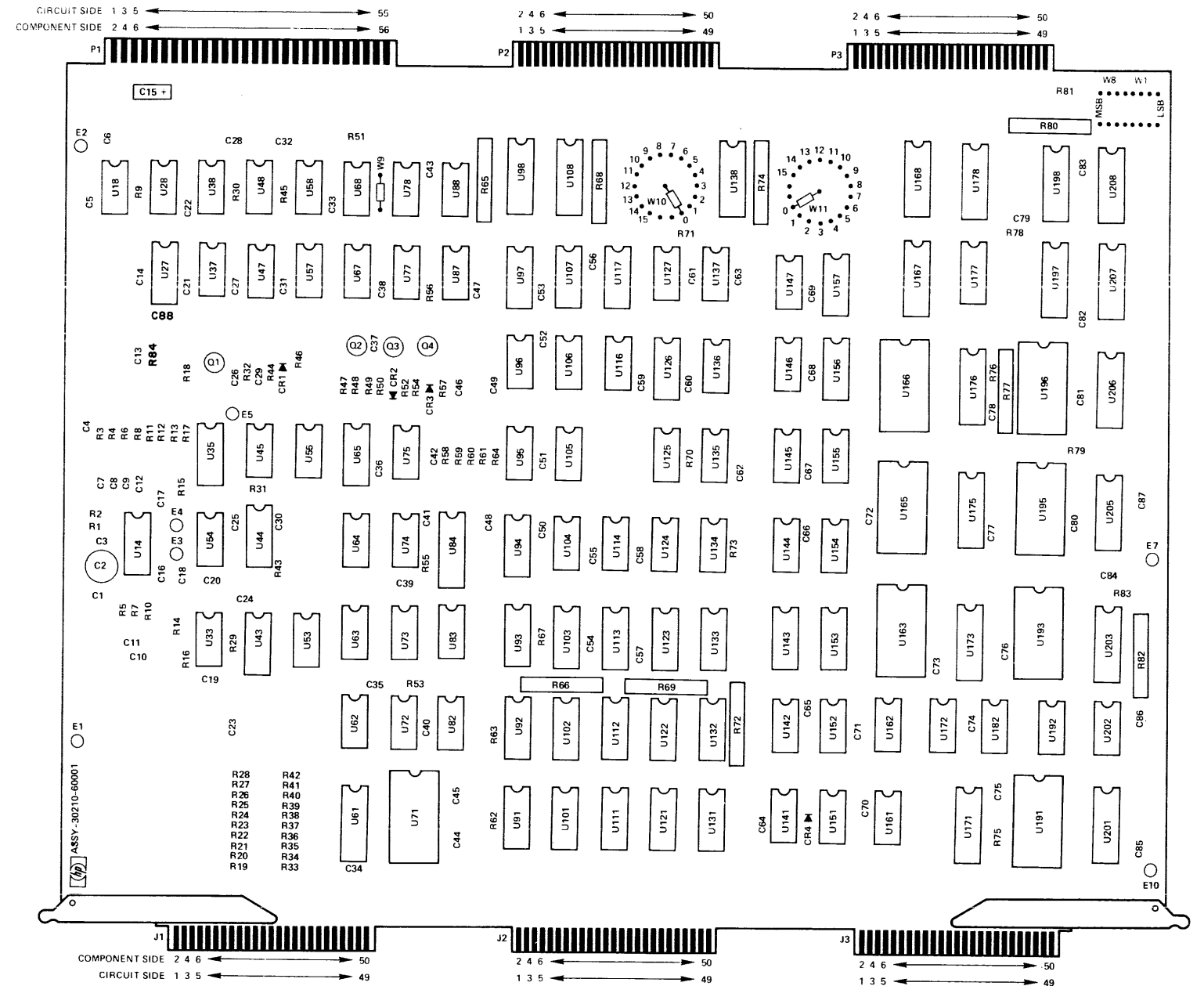
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PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
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2	+5V	2	COM	2	IOD PE	2		2	COM	2	CLEAR
3	+5V	3	SR CLOCK	3	COM	3		3	ROM 04	3	TO
4	+5V	4	COM	4	IOCMD 00	4		4		4	T3
5	PF WARN	5	DEV END	5	IOCMD 02	5		5	ROM 05	5	T2
6	ENTIMER	6	COM	6	IOCMD 01	6		6		6	DEST
7	(SPARE)	7	ACK SR	7	COM	7		7	ROM 06	7	STROBES
8	(SPARE)	8	COM	8	DEVNO 00	8		8		8	STROBES
9	PWR ON	9	CHAN ACK	9	DEVNO 01	9		9	ROM 07	9	FLAGS
10	COM	10	COM	10	COM	10		10		10	STROBES
11	IORESET	11	DEVNO DB	11	DEVNO 02	11		11	ROM 08	11	
12	COM	12	SIO ENABLE	12	DEVNO 03	12		12	ROM 09	12	FLAGS
13	MCUCLKS	13	EOT	13	COM	13		13	ROM 10	13	FLAGS
14	COM	14	JMP MET	14	DEVNO 04	14	IN BUS 1	14		14	FLAGS
15	COM	15	COM	15	DEVNO 05	15	CRC TEST POINT	15	ROM 10	15	XXX
16	COM	16	TOGGLE	16	COM	16	READY	16	ROM 11	16	FLAGS
17	-5V	17	INXFER	17	DEVNO 06	17	RESET	17	ROM 11	17	DEST
18	-5V	17	TOGGLE SR	18	DEVNO 07	17	SECTOR COMPARE	18		18	
19	COM	18	TOGGLE	19	COM	19		19	ROM 12	19	DEST
20	COM	19	OUTXFER	20	IOD 00	20	ACCESS	20	ROM 13	20	FLAGS
21	+15V	20	TOGGLE	21	IOD 01	21	READY	21	ROM 14	21	FLAGS
22	+15V	20	SIO OK	22	COM	22	DATA +	22	ROM 15	22	FLAGS
23	+15V	21	XFER ERROR	23	IOD 02	23	IN BUS 4	23	ROM 16	23	FLAGS
24	-15V	22	REQ	24	IOD 03	24	DATA -	24	ROM 17	24	SELECT
25	-15V	23	COM	25	COM	25	IN BUS 0	25	ROM 00	25	FLAGS
26	-15V	24	SR 15	26	IOD 04	26	CONTROL	26	ROM 01	26	FLAGS
27	-15V	25	SR 14	27	IOD 05	27	IN BUS 2	27	ROM 02	27	FLAGS
28	-15V	26	SR 13	28	COM	28	OUT BUS 1	28	ROM 03	28	MIO 12
29	COM	27	SR 12	29	IOD 06	29	SPARE	29	ROM 04	29	
30	COM	28	SR 11	30	IOD 07	30	OUT BUS 3	30	ROM 05	30	MIO 13
31	-20V	29	SR 10	31	COM	31	IN BUS 3	31	ROM 06	31	MIO 11
32	-20V	30	COM	32	IOD 08	32	OUT BUS 0	32	ROM 07	32	MIO 14
33	-20V	31	SR 9	33	IOD 09	33	SECTOR PULSE	33	ROM 08	33	MIO 10
34	+20V	32	SR 8	34	COM	34	OUT BUS 6	34	ROM 09	34	MIO 15
35	+20V	33	SR 7	35	IOD 10	35		35	ROM 10	35	MIO 09
36	+20V	34	SR 6	36	IOD 11	36		36	ROM 11	36	T1
37	+20V	35	SR 5	37	COM	37		37	ROM 12	37	MIO 08
38	+20V	36	SR 4	38	IOD 12	38	OUT BUS 2	38	ROM 13	38	MIO 03
39	+20V	37	SR 3	39	IOD 13	39	OUT BUS 5	39	ROM 14	39	MIO 04
40	+20V	38	SR 2	40	COM	40	OUT BUS 7	40	ROM 15	40	MIO 02
41	HSREQ	39	SR 1	41	IOD 14	41	OUT BUS 4	41	ROM 16	41	MIO 05
42	COM	40	SR 0	42	IOD 15	42		42	ROM 17	42	MIO 01
43	COM	41	COM	43	COM	43		43	ROM 18	43	MIO 06
44	INTPOLL OUT (SPARE)	42	COM	44	INTREQ	44		44	ROM 19	44	MIO 00
45	COM	43	P CMD 1	45	SPARE	45		45	ROM 20	45	MIO 07
46	COM	44	SET JMP	46	COM	46	DRIVE SEL MSB (1)	46	ROM 21	46	COM
47	COM	45	P STATUS STB	47	SPARE	47	DRIVE SEL LSB (0)	47	ROM 22		
48	INTROLL IN SI	46	P CONT STB	48	SPARE	48		48	ROM 23		
49	COM	47	RD NEXT WD	49	COM	49		49	ROM 24		
50	COM	48	P WRITE STB	50	INTACK	50		50	ROM 25		
51	COM	49	SET INT						ROM 26		
52	DATAPOLL OUT	50	P READ STB						ROM 27		
53	SO								ROM 28		
54	COM								ROM 29		
55	COM								ROM 30		
56	DATAPOLL IN								ROM 31		

I.C. INDEX

U	1820-	U	1820-	U	1820-	U	1820-	U	1820-
18	0424	71	0726	103	0205	141	0239	171	0755
27	0301	72	0613	104	0370	142	0370	172	0424
28,33	0077	73	0077	105	0239	143	0715	173,175	0756
34	0282	74	0370	106	0141	144	0374	176	0756
35	0715	75	0722	107	0715	145	0205	177	0706
37	0141	77	0374	108	0759	146	0372	178	0760
38	0686	78	0761			147	0370		
				113	0077			182	0424
43,44	0515	82	0613	114	0424			191	0742
45	0370	83	0282	116	0370	151	0141	192	0424
47	0371	84	0755	117	0715	152	0424	193	0746
48	0844	87	0424	123	0715	153	0715	195,196	0742
53	0077	88	0141	124	0372	154	0099	197	0756
55,57	0424			125	0077	155	0205	198	0755
58	0370			126	0715	156	0616		
		93	0077	127	0370	157	0706	201	0755
61	0368	94	0715					202	0424
62	0613	95	0723					203	0756
63	0141	96	0372	133	0715	161	0608	205,206	0755
64	0373	97	0491	134,135	0077	162	0077		
65	0616	98	0760	136	0371	163	0726		
67	0372			137	0141	165,166	0742		
68	0141			138	0759	167,168	0760		

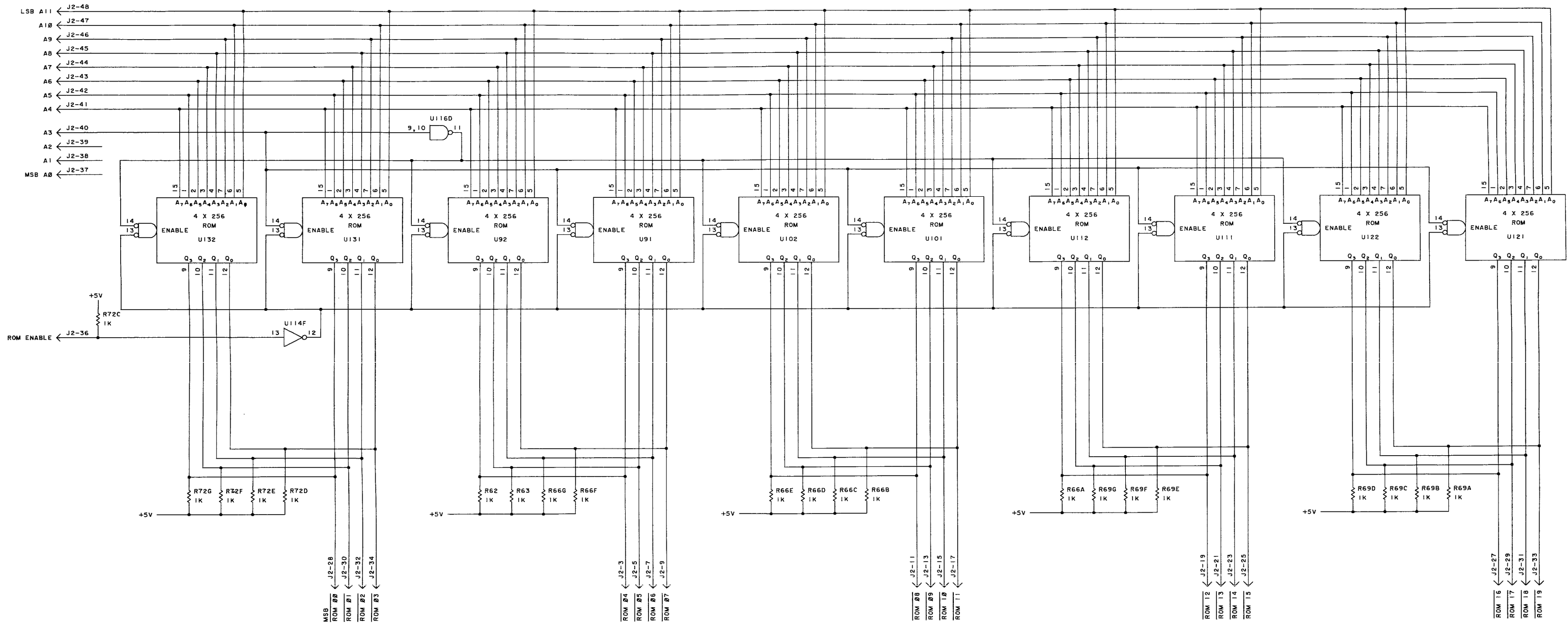
Note: The following are ROM IC packs:

U14, 91, 92, 101, 102, 111, 112, 121, 122, 131, 132



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-679	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22

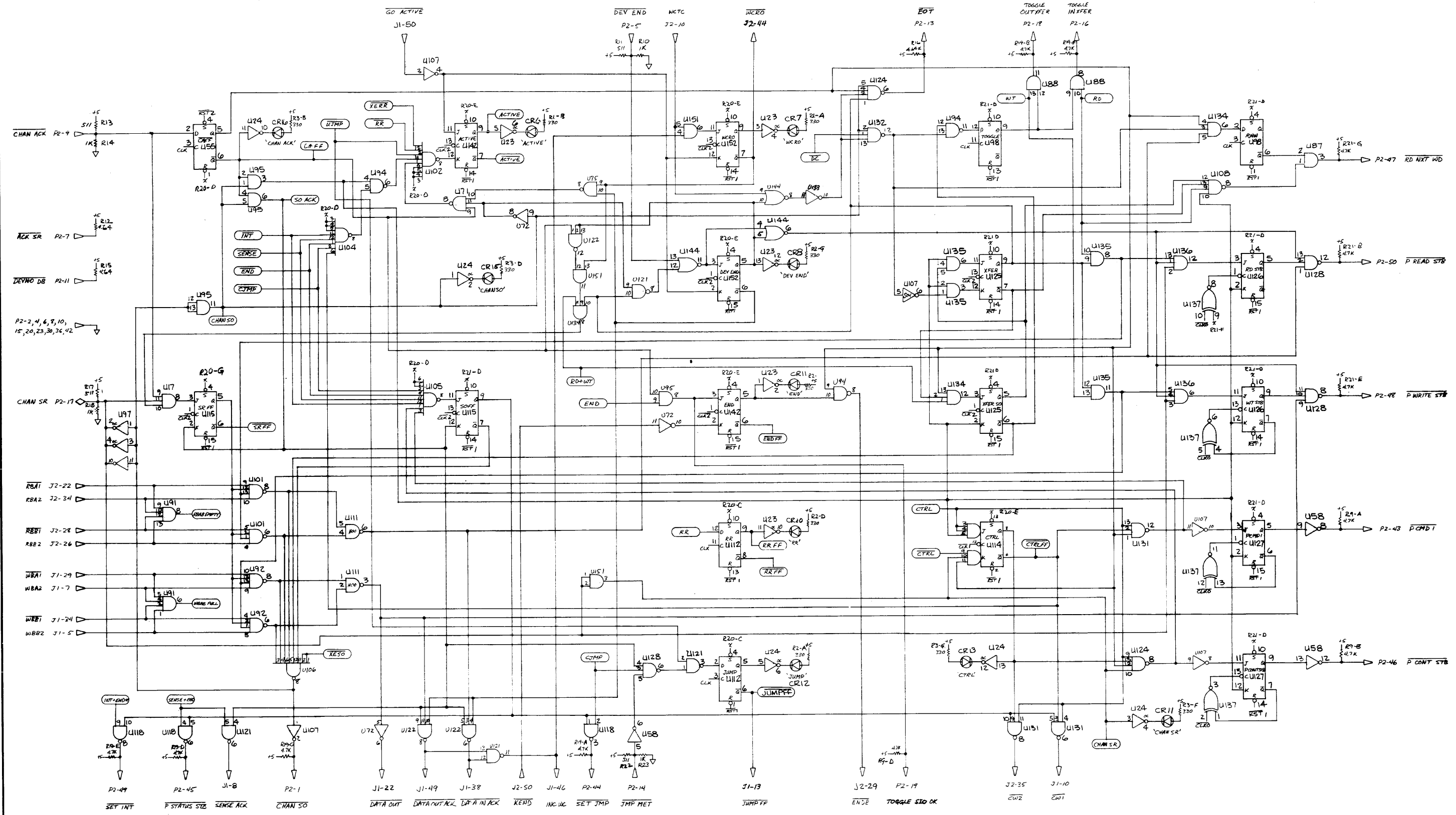
ROM LOGIC



30030B
SELECTOR CHANNEL

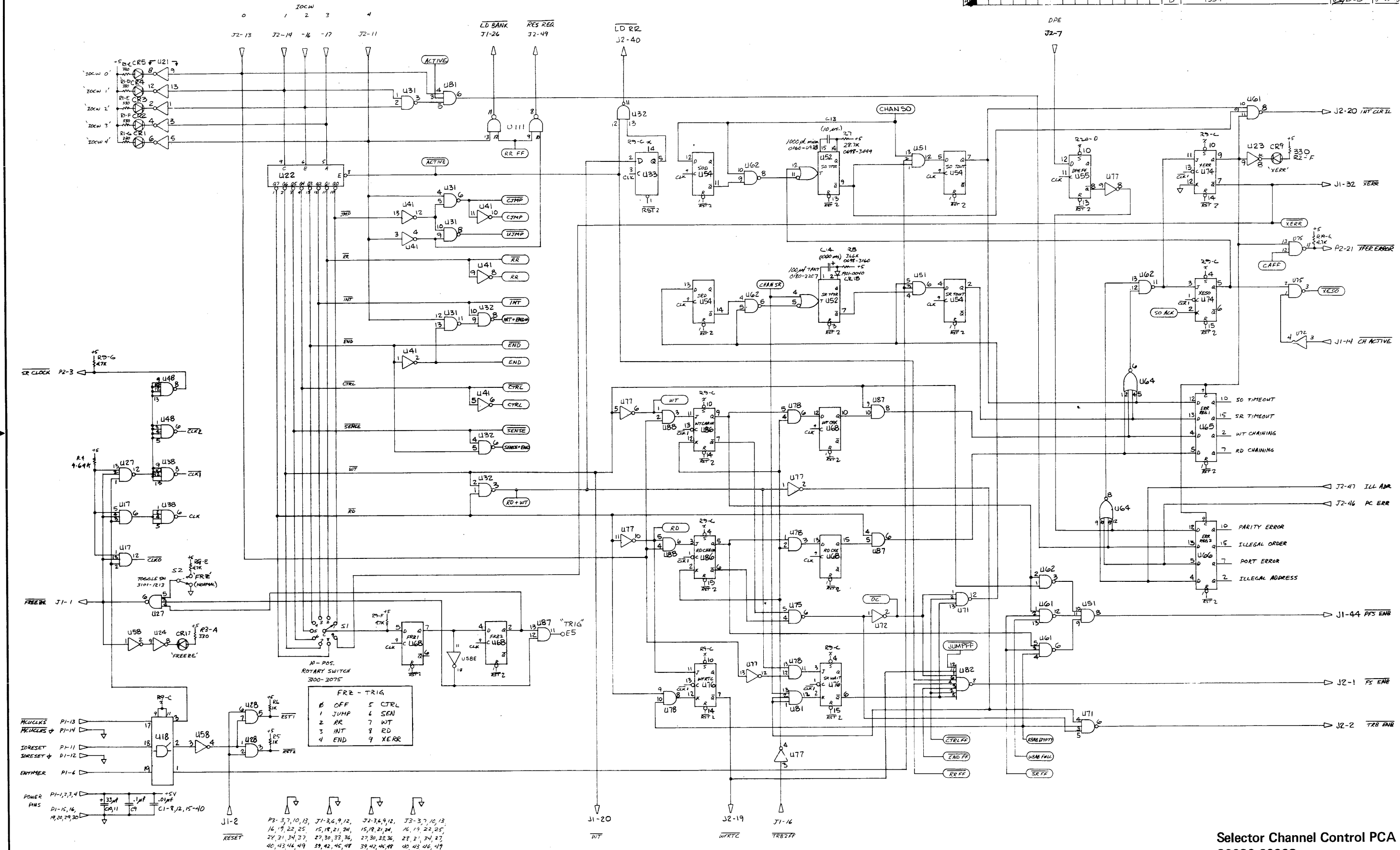
SELECTOR CHANNEL CONTROL PCA	30030-60003	4 SHEETS
SELECTOR CHANNEL SEQUENCER PCA	30030-60011	4 SHEETS
PORT CONTROLLER PCA	30030-60016	4 SHEETS
SELECTOR CHANNEL REGISTER PCA	30030-60018	4 SHEETS

ENGINEERING RESPONSIBILITY										SERIAL										SYM		REVISIONS		APPROVED	DATE																																								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	A	B	A	B	A	B	A	B	A	B	AS/SSURD	1334	8/10/88	8/21/91		

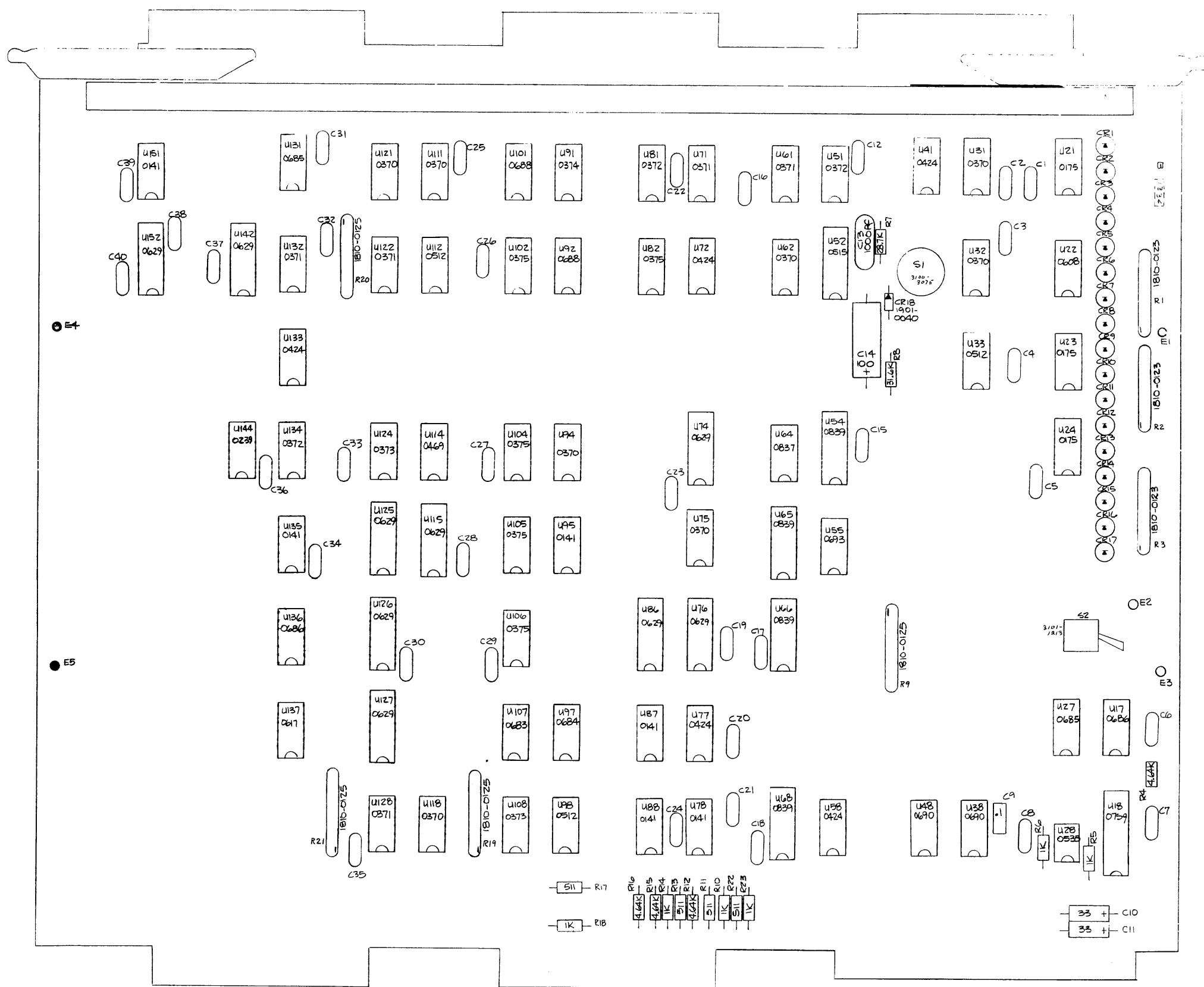


Selector Channel Control PCA
30030-6003
Sheet 1 of 4

ENGINEERING RESPONSIBILITY										SERIAL					REVISIONS		APPROVED	DATE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM A	AS 135JLD	DATE 02/15/73	DATE 5-1-73
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				



Selector Channel Control PCA
30030-60003
Sheet 2 of 4



7 9 7
 80009-06003
 9 8
 SEL CHAN CONTROL

NOTES: UNLESS OTHERWISE SPECIFIED
 1. ALL RESISTANCE VALUES ARE IN OHMS, ±1% 1/8W.
 ALL CAPACITANCE VALUES ARE IN MICROFARADS, .01 CER DISC
 ALL IC'S ARE 1820-.....
 ALL CR'S ARE 1990-0404.

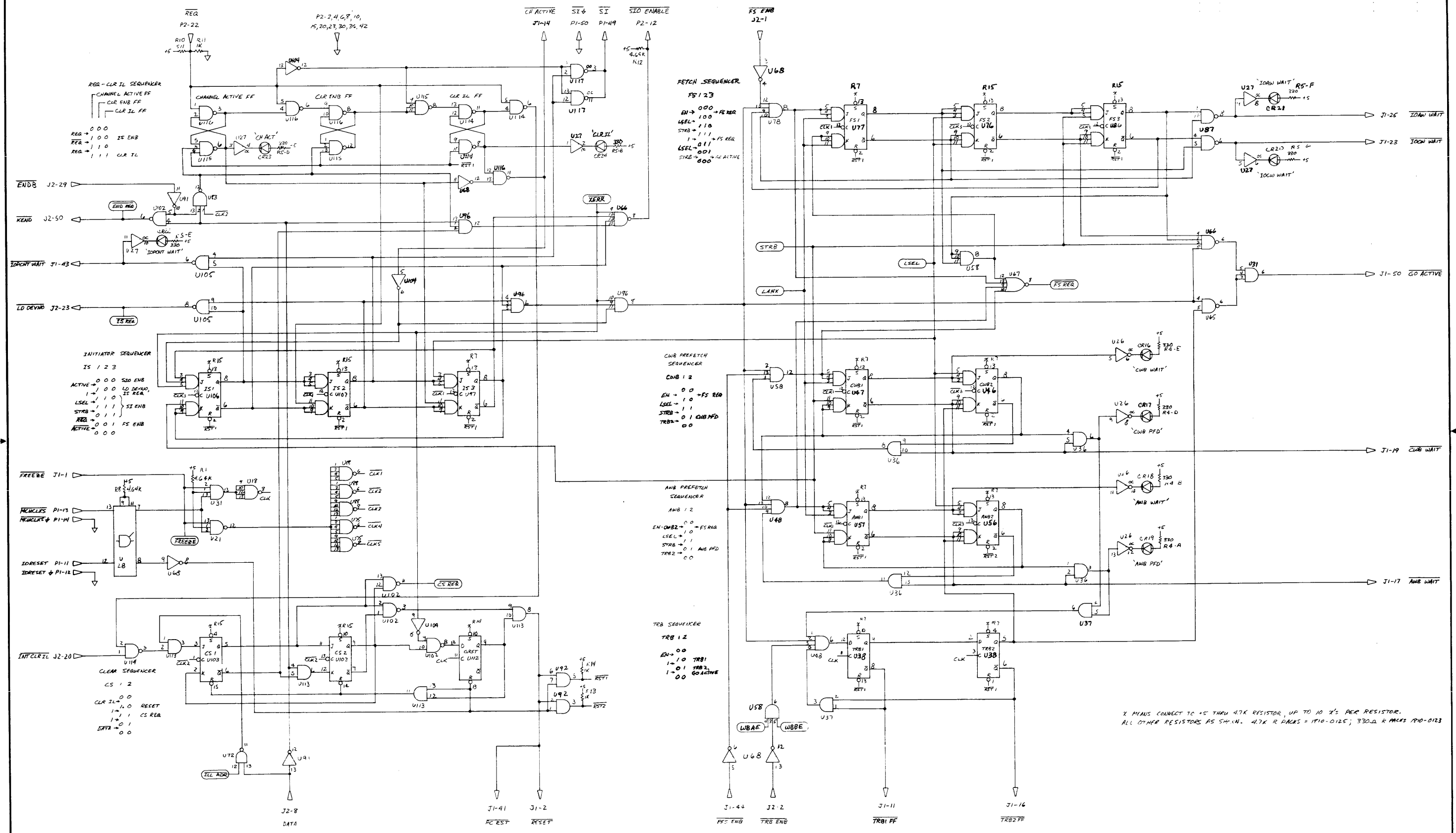
SELECTOR CHANNEL CONTROL PCA

30030-60003

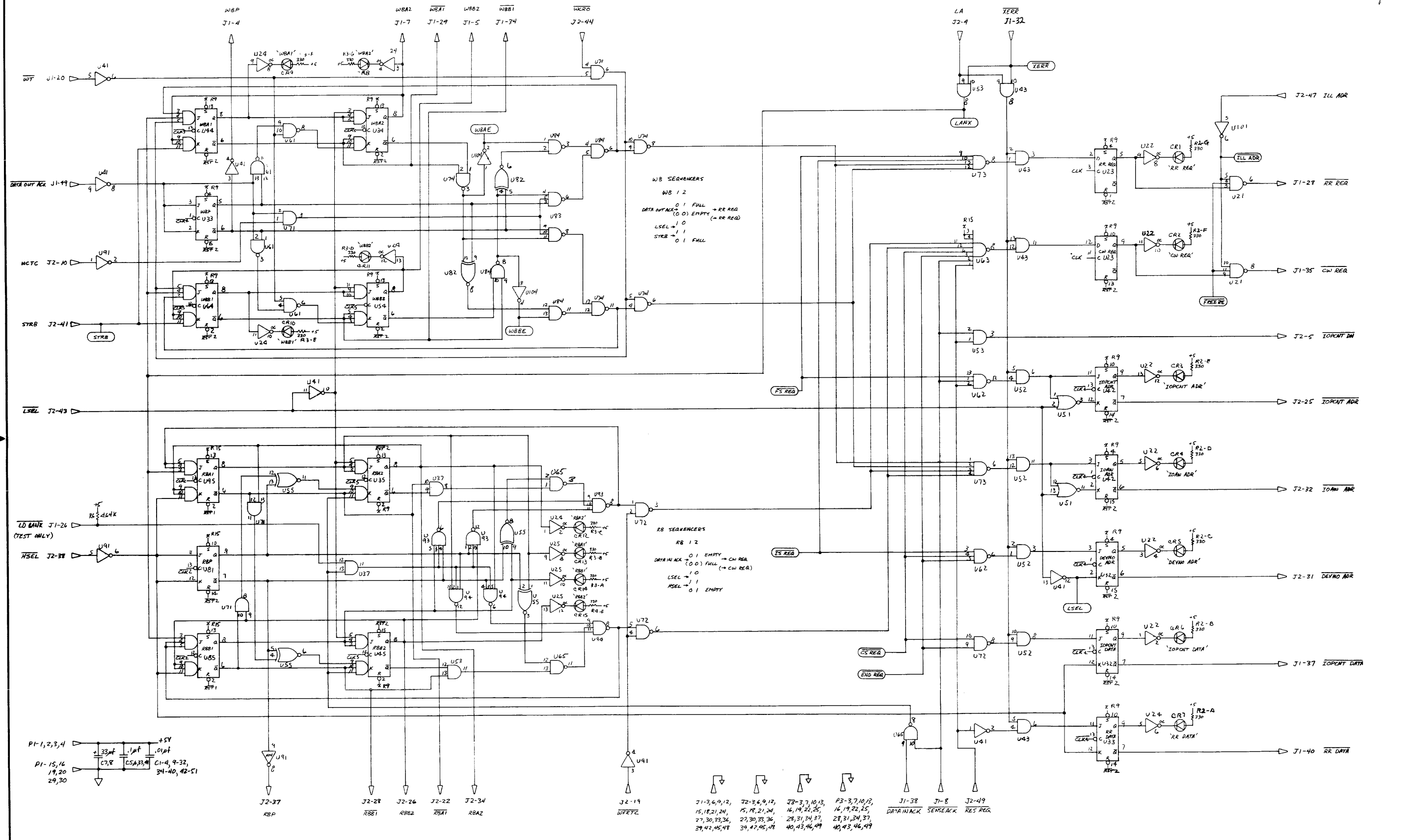
IC Index

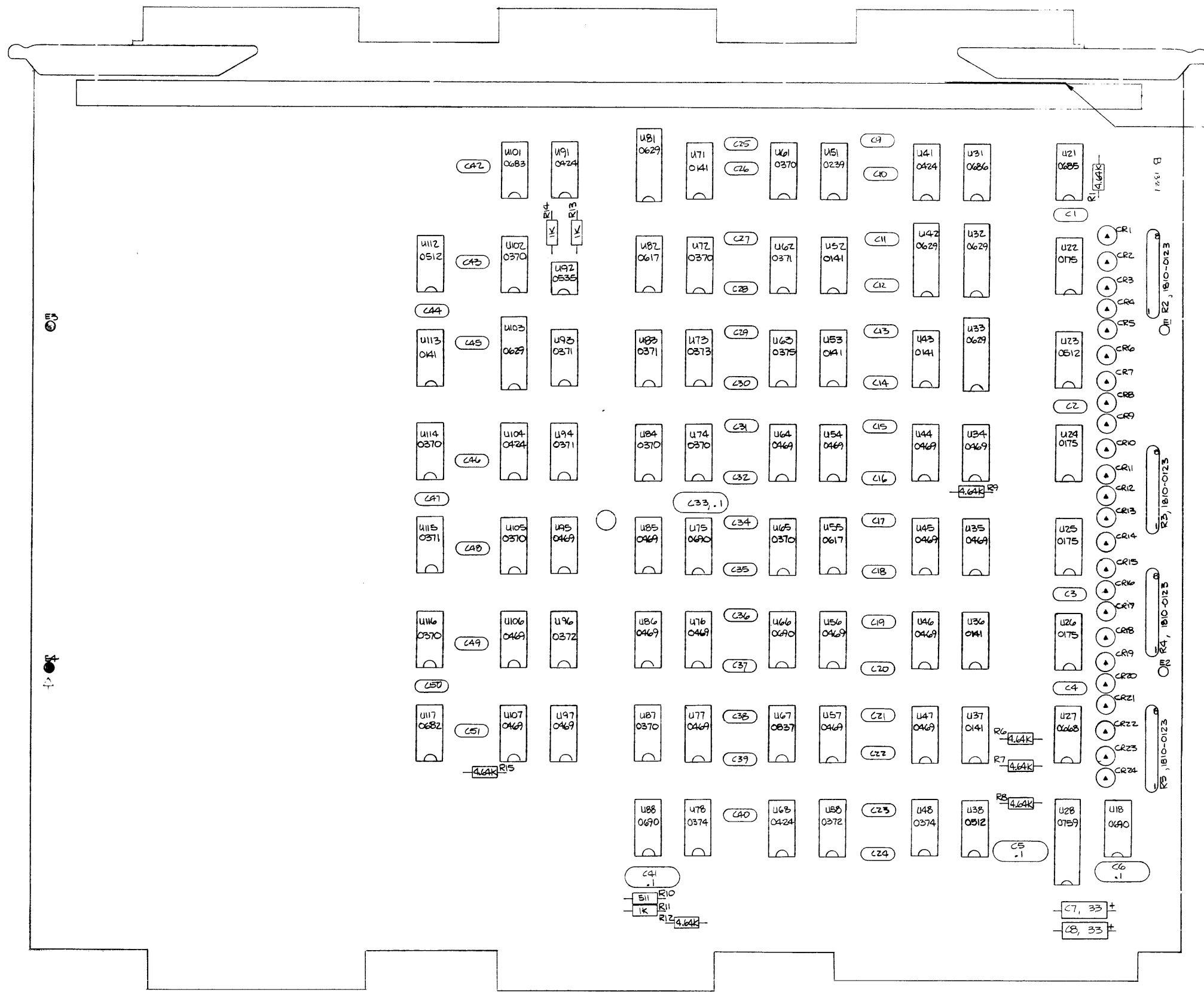
U	1820-	U	1820-	U	1820-
17	0686	71	0371	111	0370
18	0759	72	0424	112	0512
21	0175	74	0629	114	0469
22	0608	75	0370	115	0629
23,24	0175	76	0629	118	0370
27	0685	77	0424	121	0370
28	0535	78	0141	122	0371
31,32	0370	81	0372	124	0373
33	0512	82	0375	125-127	0629
38	0690	86	0629	128	0371
41	0424	87,88	0141	131	0685
48	0690	91	0374	132	0371
51	0372	92	0688	133	0424
52	0515	94	0370	134	0372
54	0839	95	0141	135	0141
55	0693	97	0684	136	0686
58	0424	98	0512	137	0617
61	0371	101	0688	142	0629
62	0370	102	0375	144	0239
64	0837	104-106	0375	151	0141
65,66	0839	107	0683	152	0629
68	0839	108	0373		

ENGINEERING RESPONSIBILITY										SEPA										SYM		REVISIONS		APPROVED		DATE							
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	A	B	A	B	1320	1321	10/27/73	11/1/73



X MEANS CONNECT TO +5 THRU 47K RESISTOR, UP TO 10 X'S PER RESISTOR.
 ALL OTHER RESISTORS AS SHOWN. 47K R PACKS = 1% 0-0125; 330Ω R PACKS 1% 0-0123





30030-60011
SEL CHAN SEQUENCER

NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS ± 1% 1/8W
 CAPACITANCE VALUES ARE IN MICROFARADS, ALL CAPS .01 CER DISC
 DIODES ARE 1N90-0404,
 ICs ARE 1820-.....

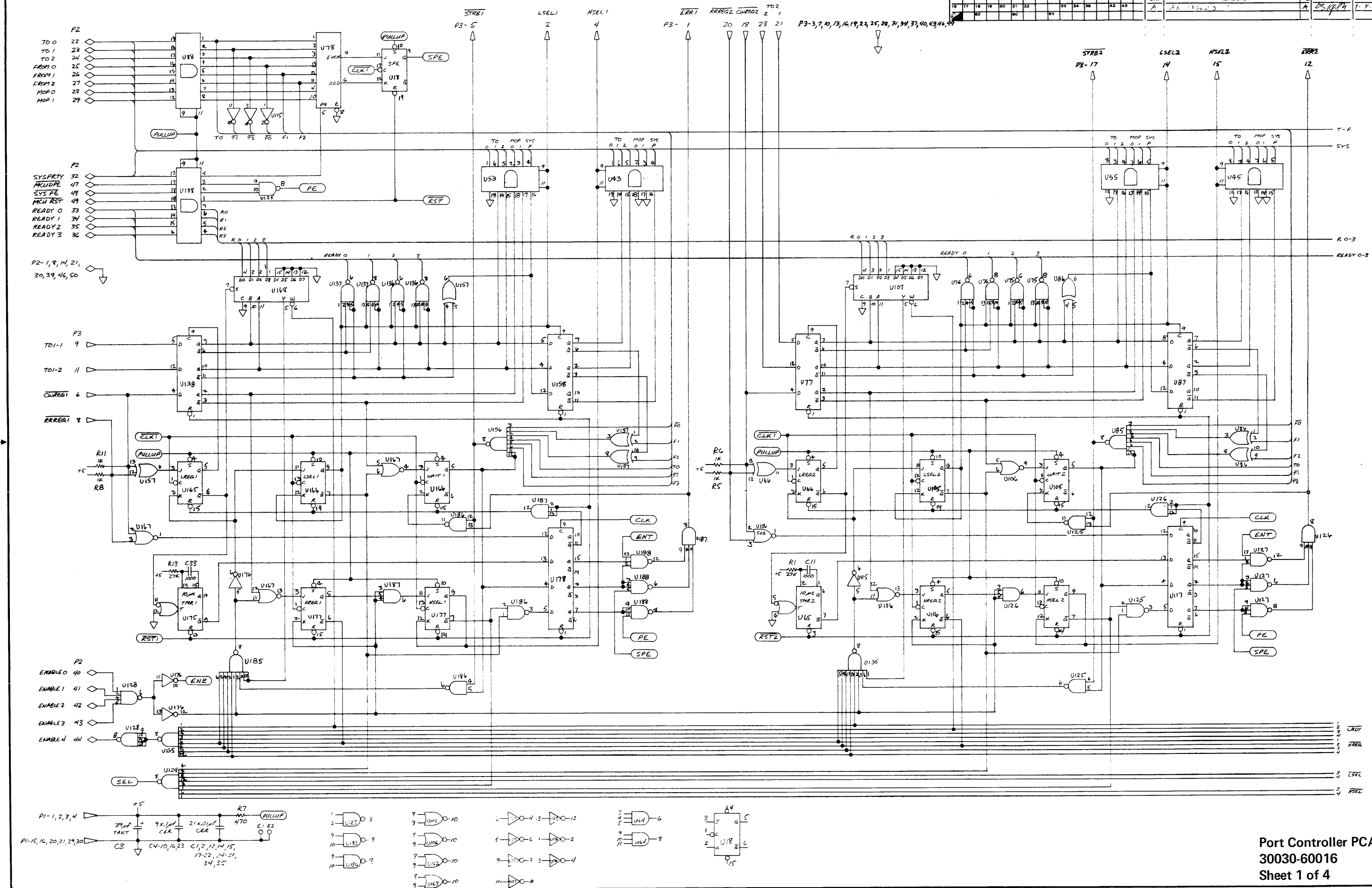
Selector Channel Sequencer PCA
 30030-60011
 Sheet 3 of 4

SELECTOR CHANNEL SEQUENCER PCA

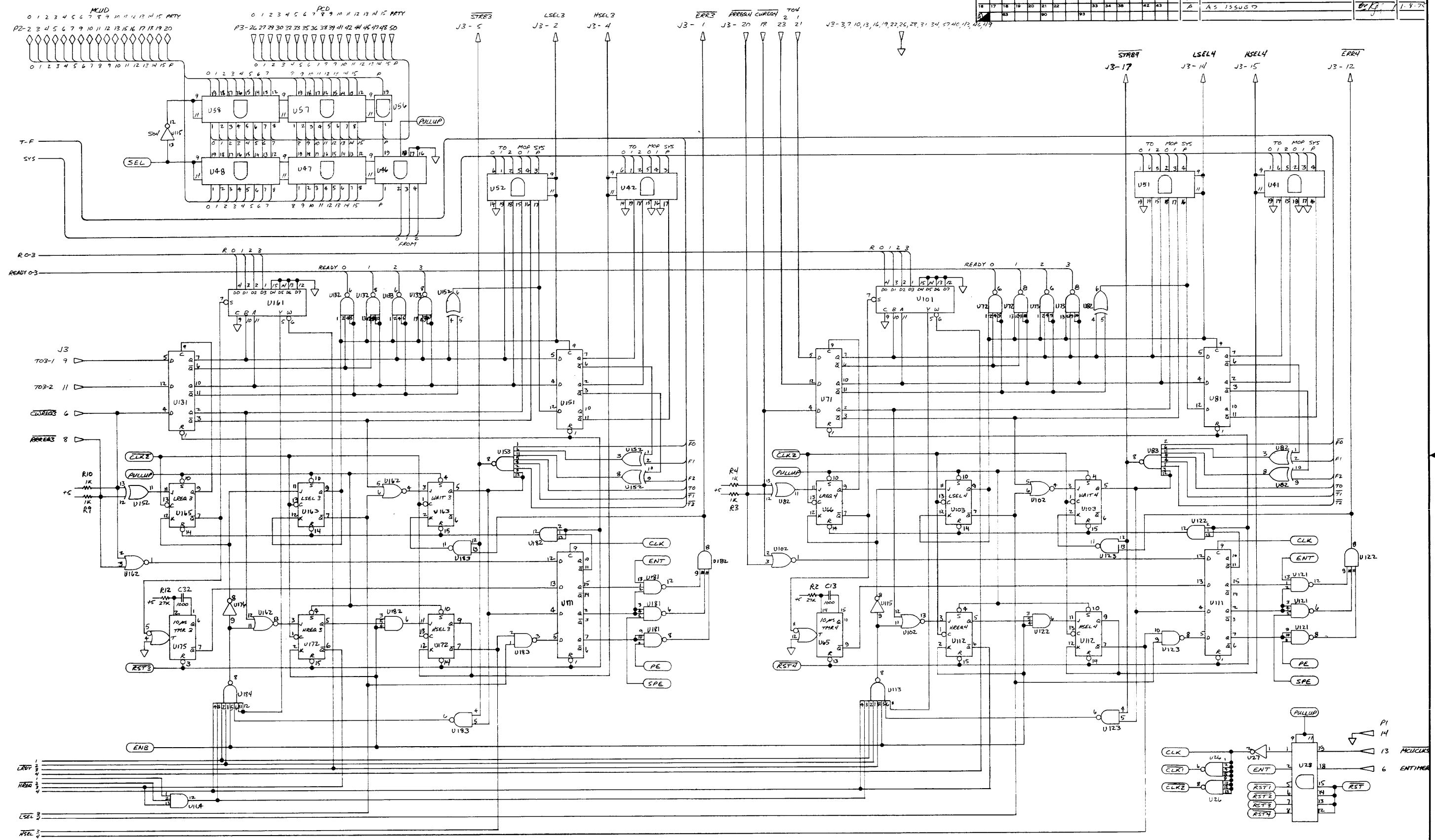
30030-60011

IC Index

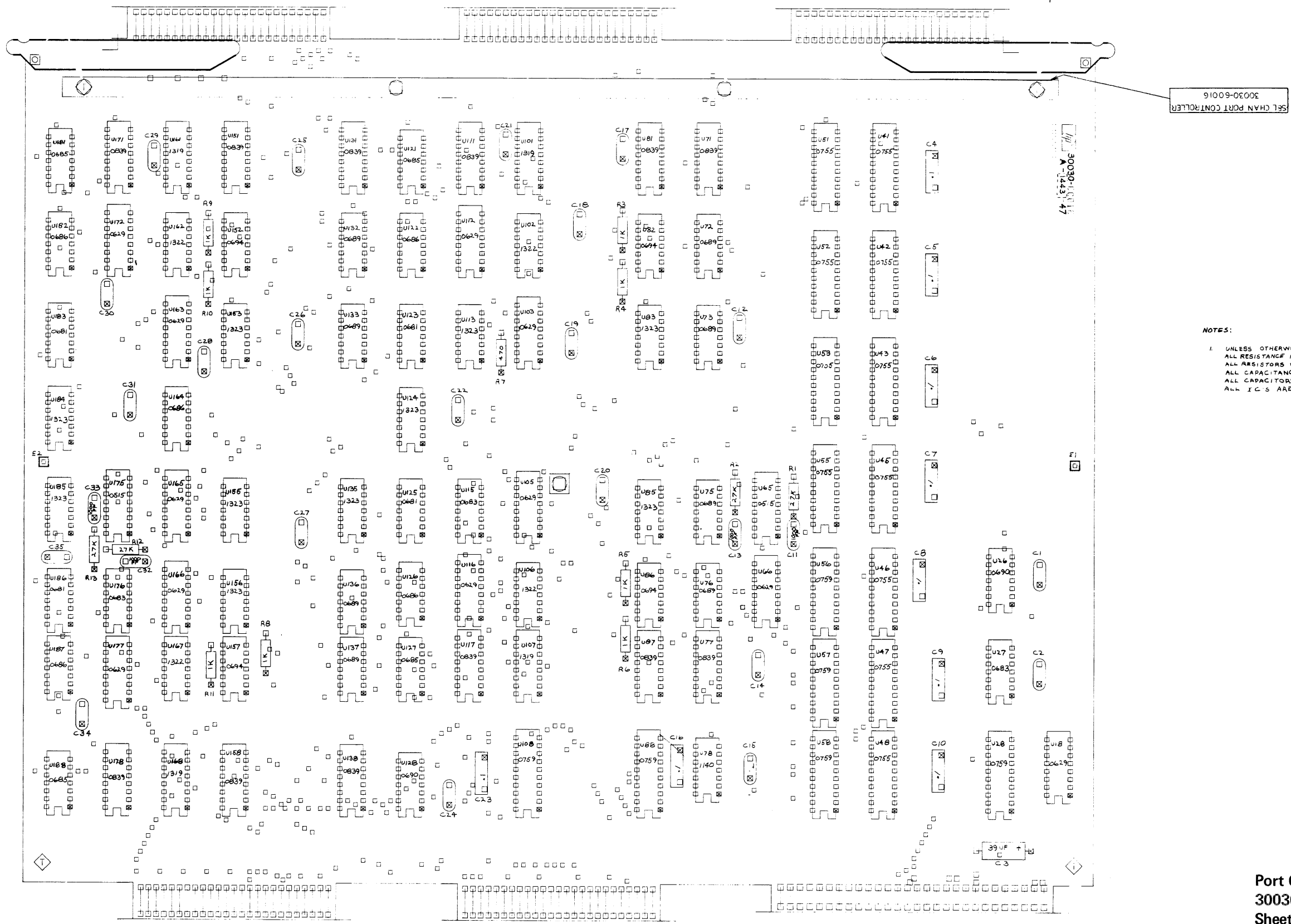
U	1820-	U	1820-	U	1820-
21	0685	58	0372	87	0370
22	0175	61	0370	88	0690
23	0512	62	0371	91	0424
24-26	0175	63	0375	92	0535
27	0668	64	0469	93,94	0371
28	0759	65	0370	95	0469
31	0686	66	0690	96	0372
32,33	0629	67	0837	97	0469
34,35	0469	68	0424	101	0683
36,37	0141	71	0141	102	0370
38	0512	72	0370	103	0629
41	0424	73	0373	104	0424
42	0629	74	0370	105	0370
43	0141	75	0690	106,107	0469
44-47	0469	76,77	0469	112	0512
48	0374	78	0374	113	0141
51	0239	81	0629	114	0370
52,53	0141	82	0617	115	0371
54	0469	83	0371	116	0370
55	0617	84	0370	117	0682
56,57	0469	85,86	0469		



ENGINEERING RESPONSIBILITY										SEMA		REVISIONS		APPROVED	DATE			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	AS 135067		1-9-72
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			



ENGINEERING RESPONSIBILITY												DATE																																																																																							
DESIGN												DATE																																																																																							
CHECKED												DATE																																																																																							
APPROVED												DATE																																																																																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
AS ISSUED												25/2/83																																																																																							



NOTES:
 1. UNLESS OTHERWISE NOTED
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W 1% MF
 ALL CAPACITANCE IN MKRD FARADS
 ALL CAPACITORS .01 U.F CERAMIC DISC
 ALL I.C.'S ARE 1820-

Port Controller PCA
 30030-60016
 Sheet 3 of 4

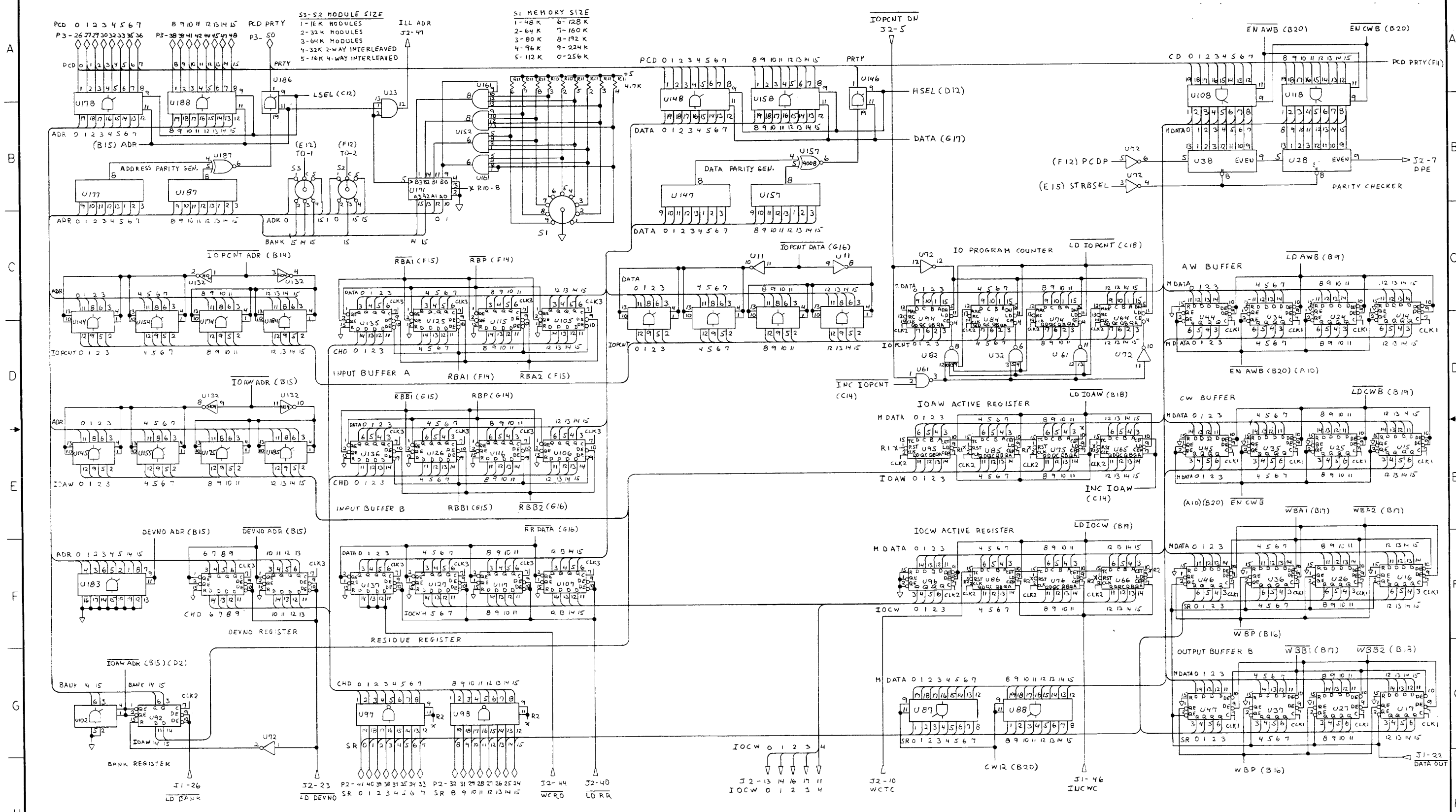
SELECTOR CHANNEL PORT CONTROLLER PCA

30030-60016

IC Index

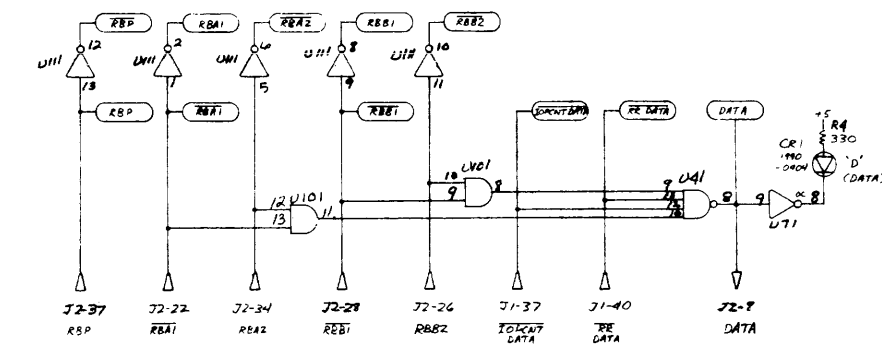
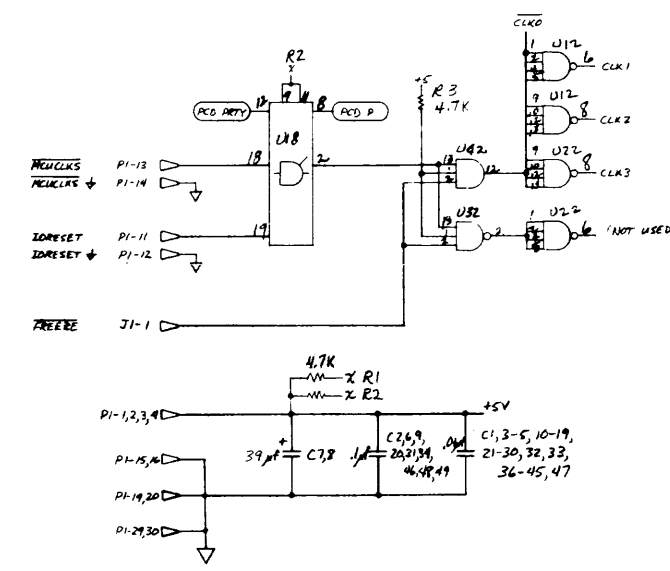
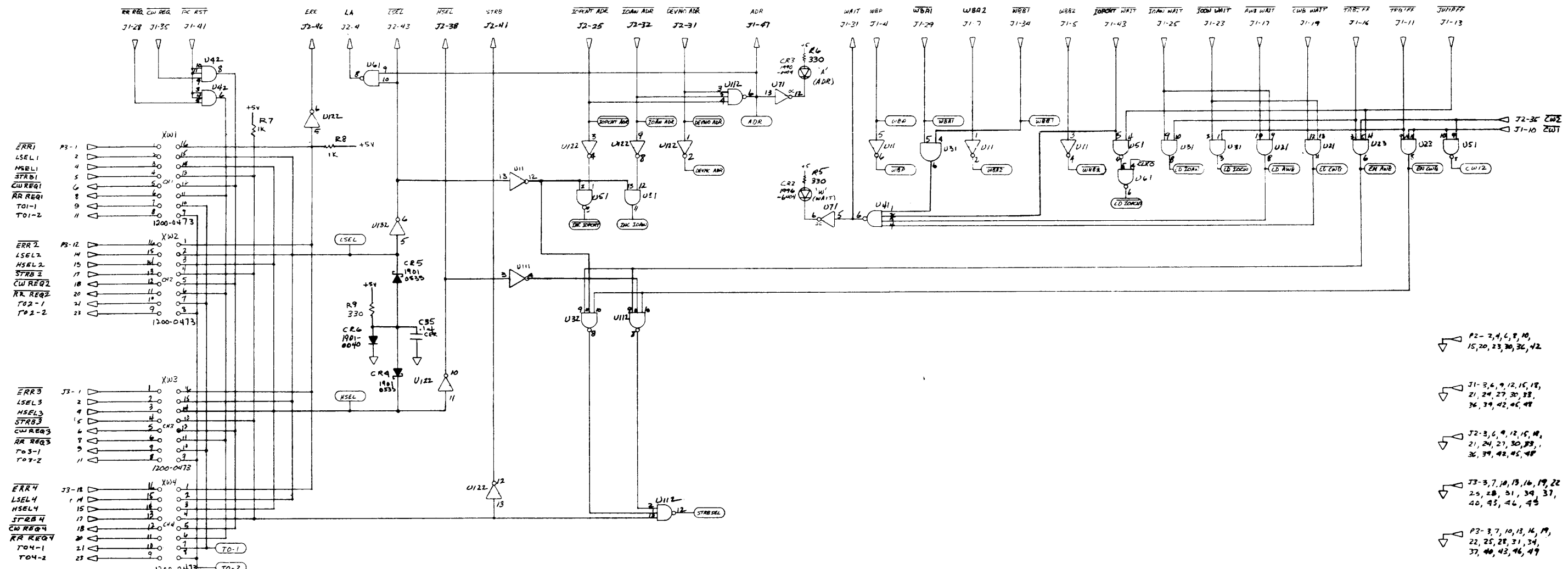
U	1820-	U	1820-	U	1820-
18	0629	103	1322	153	1323
26	0690	105	0629	155,156	1323
27	0683	106	1322	157	0694
28	0759	107	1319	158	0839
41-43	0755	108	0759	161	1319
45-48	0755	111	0839	162	1322
51-53	0755	112	0629	163	0629
55	0755	113	1323	164	0686
56-58	0759	115	0683	165,166	0629
65	0515	116	0629	167	1322
66	0629	117	0839	168	1319
71	0889	121	0685	171	0839
72,73	0689	122	0686	172	0629
75,76	0689	123	0681	175	0515
77	0839	124	1323	176	0683
78	1140	125	0681	177	0629
81	0839	126	0686	178	0839
82	0694	127	0685	181	0685
83	1323	128	0690	182	0686
85	1323	131	0839	183	0681
86	0694	132,133	0689	184,185	1323
87	0839	135	1323	186	0681
88	0759	136-138	0689	187	0686
101	1319	151	0839	188	0685
102	1322	152	0694		

ENGINEERING RESPONSIBILITY																REVISED		APPROVED		DATE	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A		S2		7/20/76	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AS ISSUED		A			
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47						



Selector Channel Register PCA
30030-60018
Sheet 1 of 4

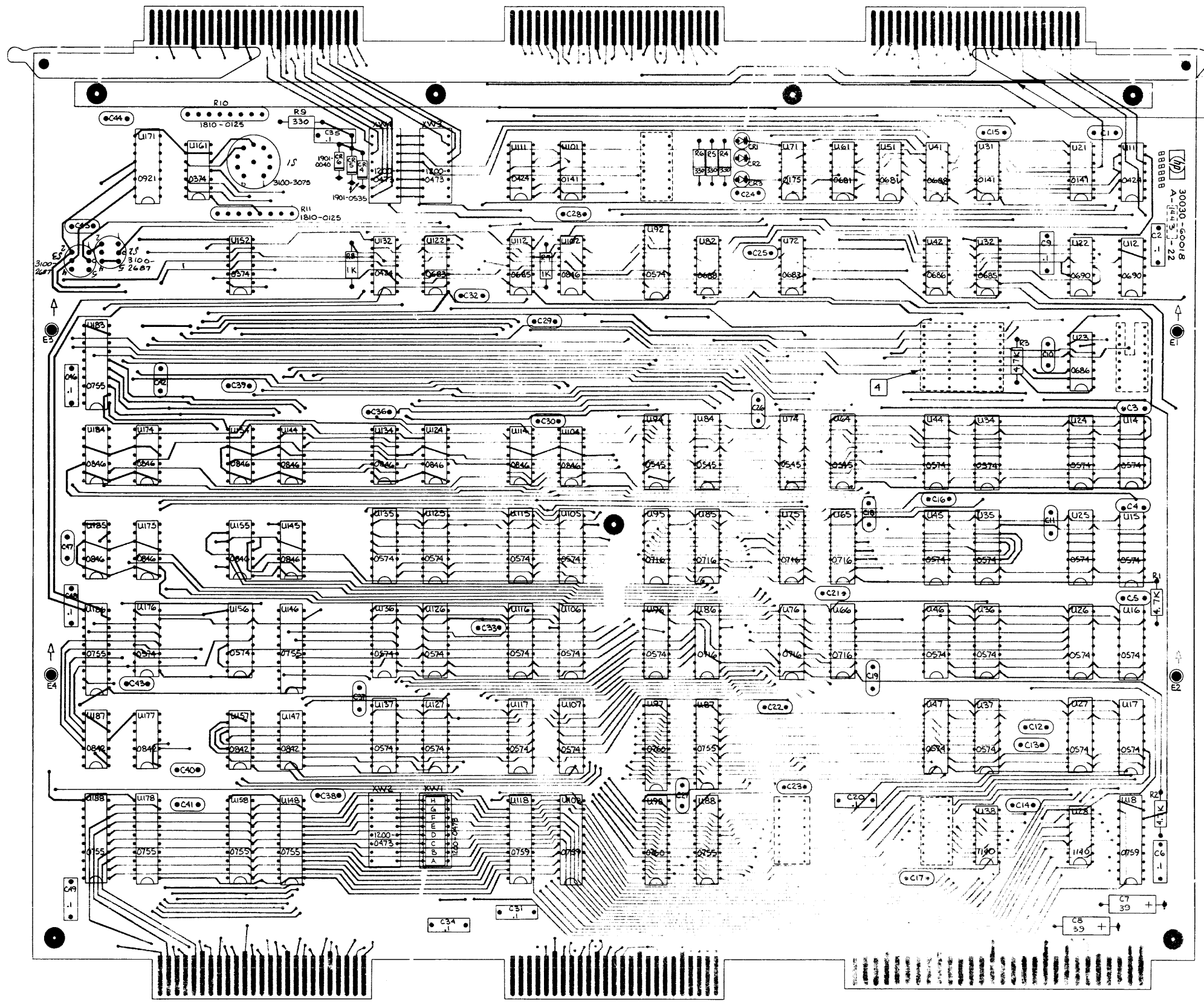
ENGINEERING RESPONSIBILITY															REVISIONS															APPROVED	DATE															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	AS	1/25/75



- ▲ P2-2, 4, 6, 8, 10, 15, 20, 23, 30, 36, 42
- ▲ J1-3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48
- ▲ J2-3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48
- ▲ J3-3, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49
- ▲ P3-3, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49

X MEANS CONNECT TO +5V THROUGH 4.7K, UP TO 10 X'S PER RESISTOR MAY USE RESISTOR NETWORK (7 X 4.7K = 1810-0125)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----



SEL. CHAN. REGISTER
30030-60018

- NOTES:
- Unless otherwise specified
 All resistors are in ohms, $\pm 1\%$, 1/8W
 All capacitors are in microfarads
 All diodes are 1990-0404
 All IC's are 1820-

Selector Channel Register PCA
 30030-60018
 Sheet 3 of 4

SELECTOR CHANNEL REGISTER PCA

30030-60018

IC Index

U	1820-	U	1820-	U	1820-
11	0424	76	0716	132	0424
12	0690	82	0688	134	0846
14-17	0574	84	0545	135-137	0574
18	0759	85,86	0716	144,145	0846
21	0147	87,88	0755	146	0755
22	0690	92	0574	147	0842
23	0686	94	0545	148	0755
24-27	0574	95	0716	152	0374
28	1140	96	0574	154,155	0846
31	0141	97,98	0760	156	0574
32	0685	101	0141	157	0842
34-37	0574	102	0846	158	0755
38	1140	104	0846	161	0374
41	0688	105-107	0574	171	0921
42	0686	108	0759	174,175	0846
44-47	0574	111	0424	176	0574
51	0681	112	0685	177	0842
61	0681	114	0846	178	0755
64	0545	115-117	0574	183	0755
65,66	0716	118	0759	184,185	0846
71	0175	122	0683	186	0755
72	0683	124	0846	187	0842
74	0545	124	0846	188	0755
		125-127	0574		

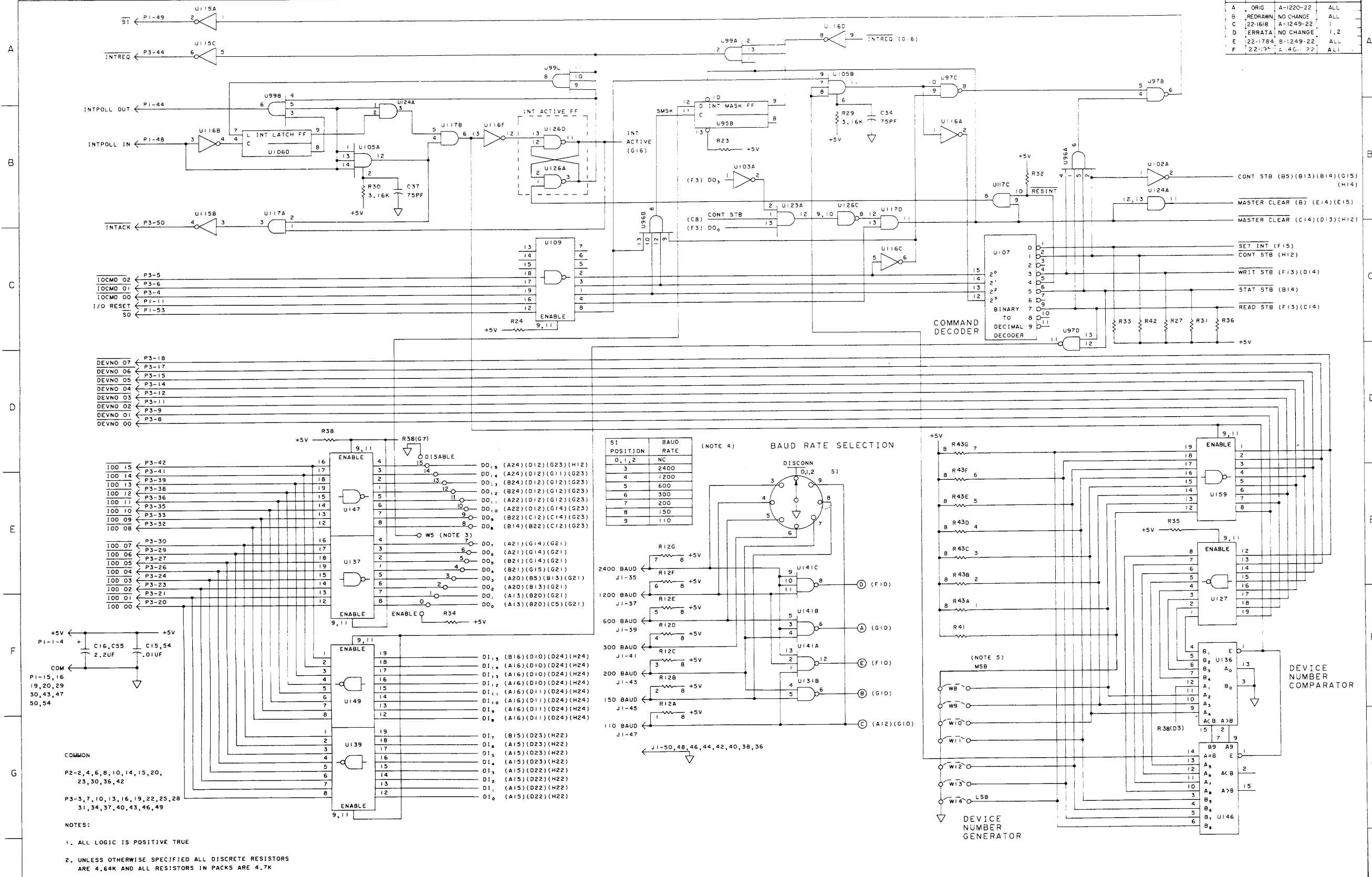
30031A
SYSTEM CLOCK

SYSTEM CLOCK/CONSOLE INTERFACE PCA

30031-60001

5 SHEETS

CHANGE	REFERENCE	REVISION/PREFIX	SHEETS AFFECTED
A	ORIG	A-1220-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	22-1618	A-1249-22	1
D	ERRATA	NO CHANGE	1, 2
E	22-1784	B-1249-22	ALL
F	22-194	A-1401-22	ALL



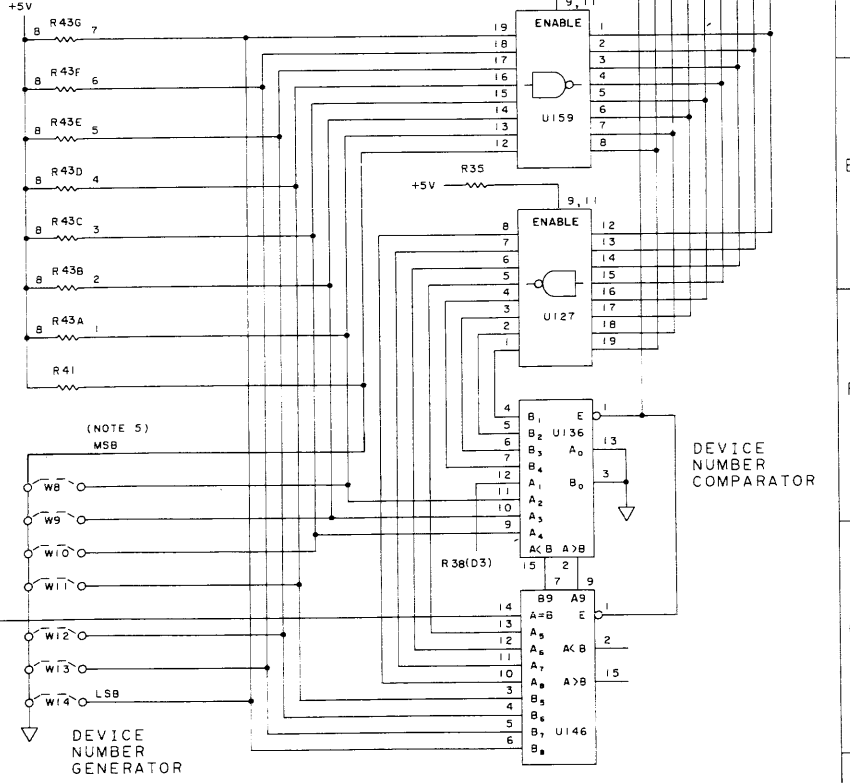
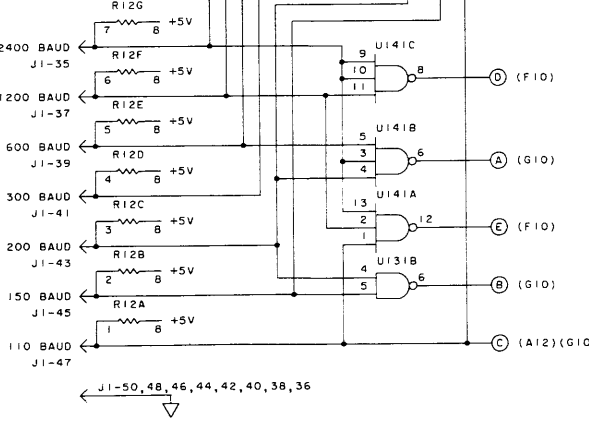
IOCMD 02	P3-5
IOCMD 01	P3-6
IOCMD 00	P3-4
I/O RESET	P1-11
	P1-53
	P3-18
	P3-17
	P3-15
	P3-14
	P3-12
	P3-11
	P3-9
	P3-8
DEVNO 07	P3-18
DEVNO 06	P3-17
DEVNO 05	P3-15
DEVNO 04	P3-14
DEVNO 03	P3-12
DEVNO 02	P3-11
DEVNO 01	P3-9
DEVNO 00	P3-8

100 15	P3-42
100 14	P3-41
100 13	P3-39
100 12	P3-38
100 11	P3-36
100 10	P3-35
100 09	P3-33
100 08	P3-32
100 07	P3-30
100 06	P3-29
100 05	P3-27
100 04	P3-26
100 03	P3-24
100 02	P3-23
100 01	P3-21
100 00	P3-20

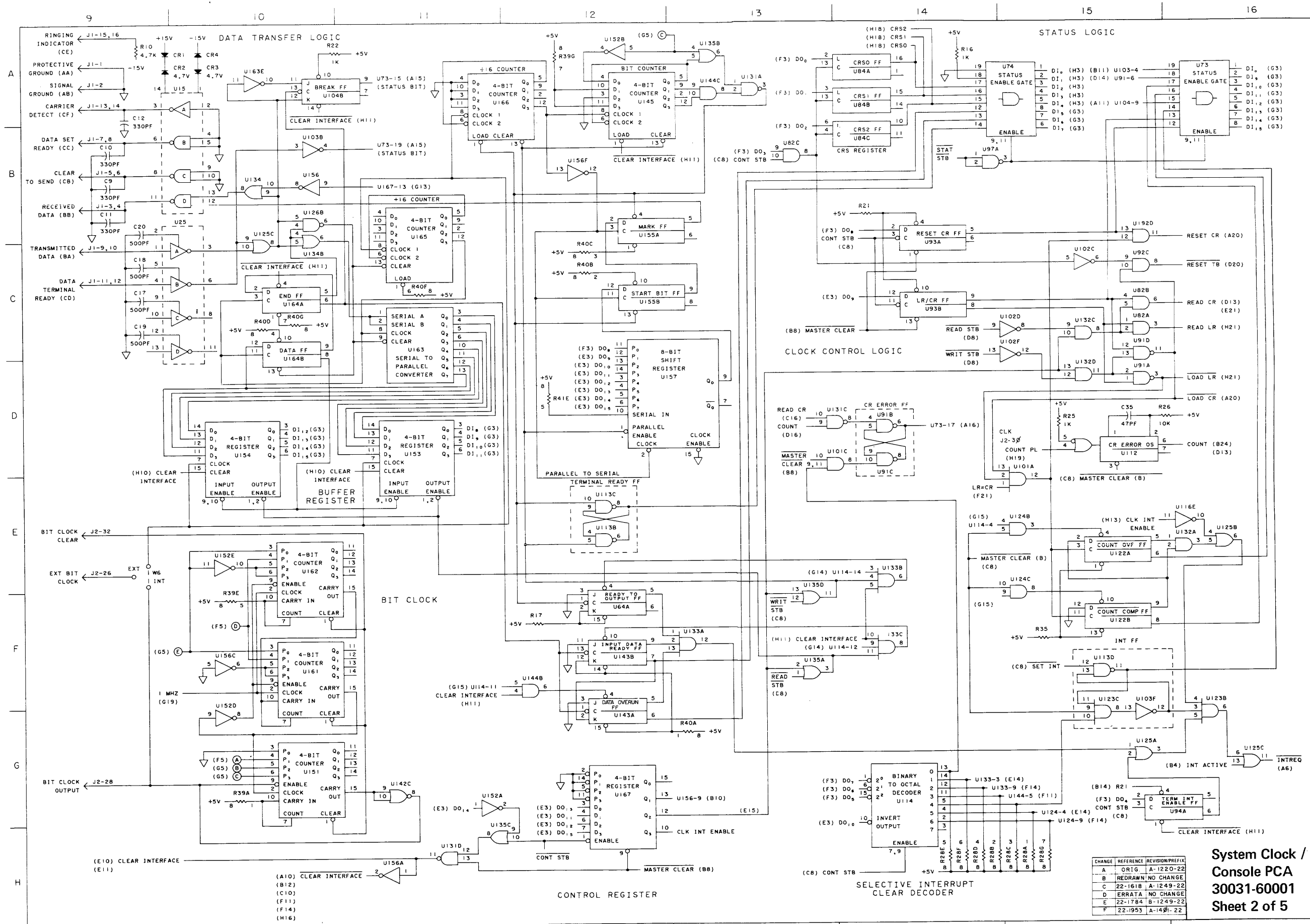
- NOTES:
- ALL LOGIC IS POSITIVE TRUE
 - UNLESS OTHERWISE SPECIFIED ALL DISCRETE RESISTORS ARE 4.7K AND ALL RESISTORS IN PACKS ARE 4.7K
 - SELECT ONE OF 18 MASK POSITIONS.
 - IF BAUD RATE IS SELECTED BY CONNECTION IN J1 SWITCH S1 MUST BE IN POSITION 0, 1, OR 2.
 - JUMPER INSTALLED SELECTS LOGIC 0 IN DEVICE NUMBER

S1 POSITION	BAUD RATE
0, 1, 2	NC
3	2400
4	1200
5	600
6	300
7	200
8	150
9	110

(NOTE 4)

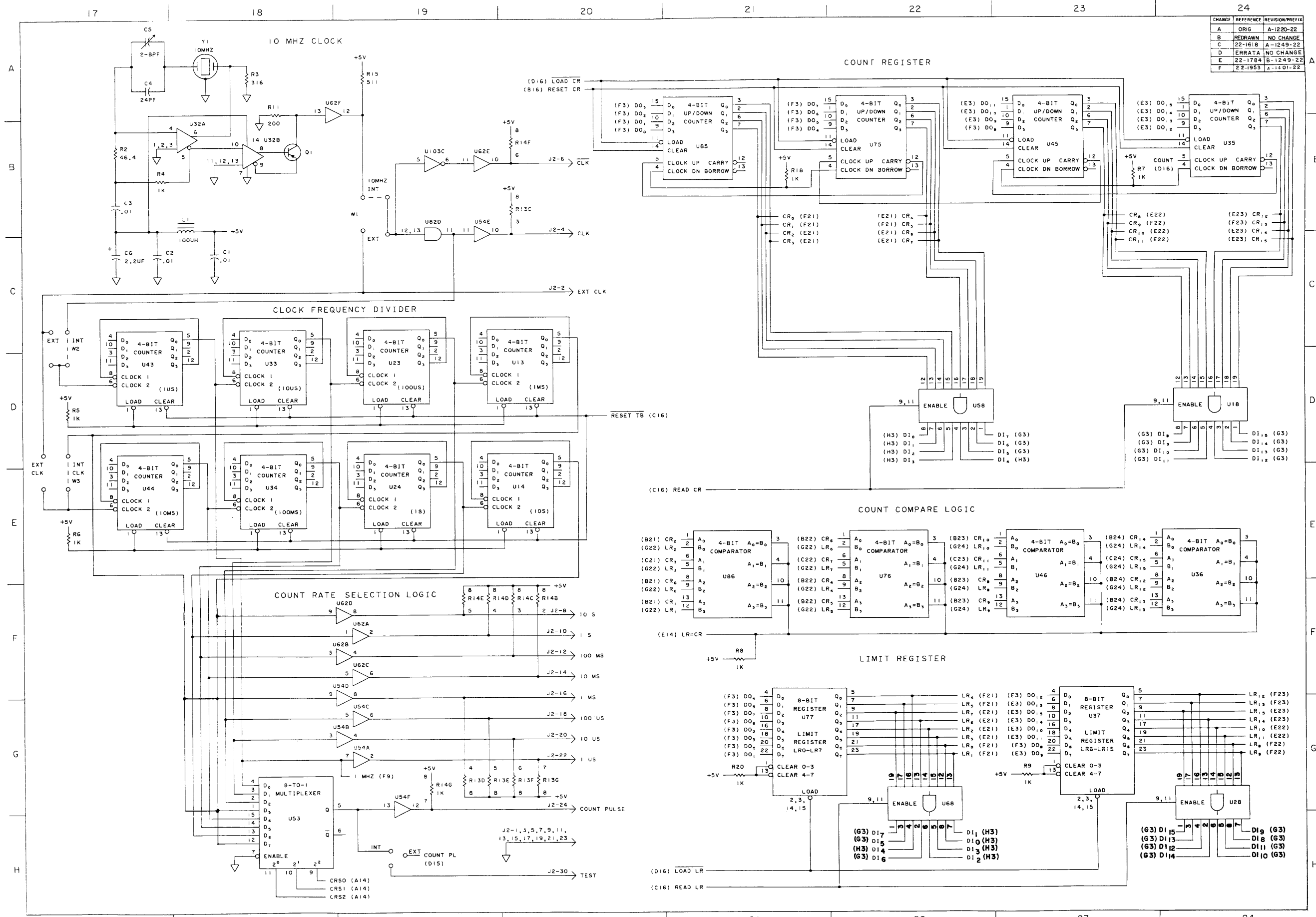


System Clock / Console PCA
30031-60001
Sheet 1 of 5



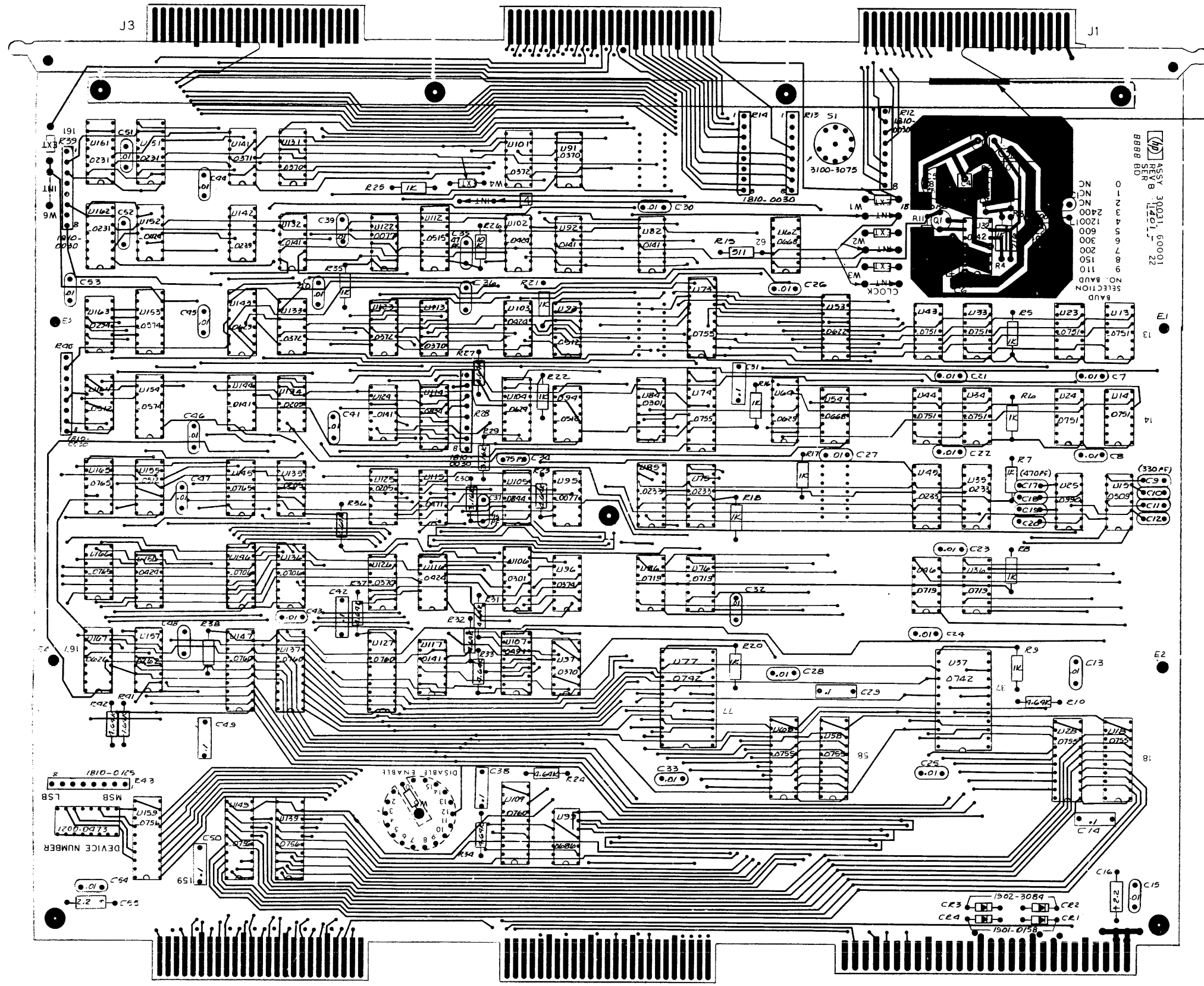
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1220-22
B	REDRAWN	NO CHANGE
C	22-1618	A-1249-22
D	ERRATA	NO CHANGE
E	22-1784	B-1249-22
F	22-1953	A-1401-22

**System Clock /
Console PCA
30031-60001
Sheet 2 of 5**



CHANGE#	REFERENCE	REVISION/PREFIX
A	ORIG	A-1220-22
B	REDRAWN	NO CHANGE
C	22-1618	A-1249-22
D	ERRATA	NO CHANGE
E	22-1784	B-1249-22
F	22-1953	Z-1401-22

ENGINEERING RESPONSIBILITY		REVISIONS	
DATE	BY	NO.	DESCRIPTION
		1	AC ISSUED
		2	REVISED DATE CODE HAS B 1249
		3	ADDED 1% RESISTORS
		4	REVISED DATE CODE HAS B 1249



10007-1400E
SYS CLOCK

ASSY 30031-60001
REV B 1401-22
8888 BD

NOTES:
1 UNLESS OTHERWISE NOTED:
ALL RESISTANCE IN OHMS
ALL RESISTORS 1/8W 1% FILM
ALL CAPACITANCE IN MICROFARADS
ALL I.C.S ARE 1820-

System Clock / Console PCA
30031-60001
Sheet 4 of 5

SYSTEM CLOCK/CONSOLE PCA

30031-60001

IC Index

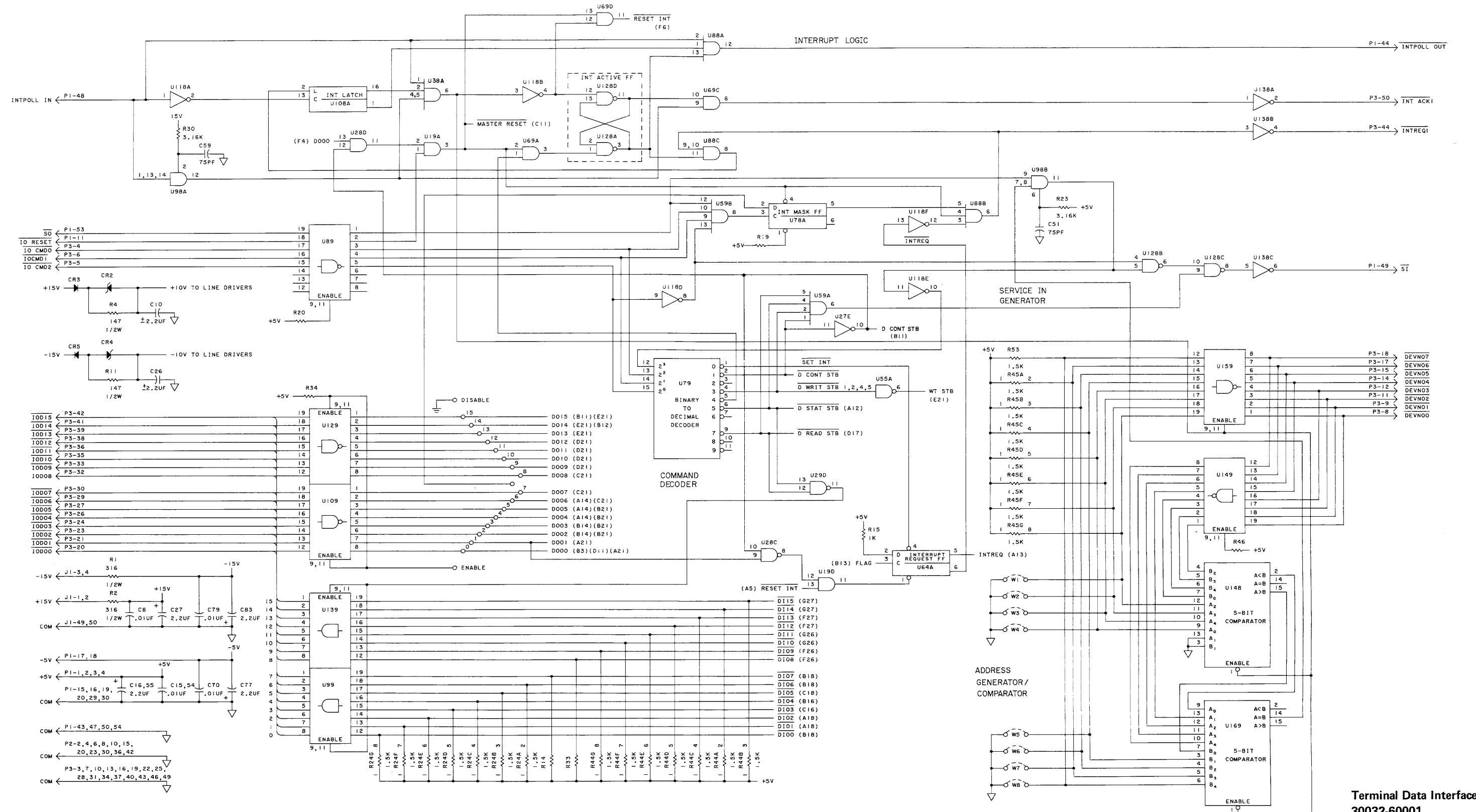
U	1820-	U	1820-	U	1820-
13,14	0751	91	0370	133	0372
15	0509	92	0141	134,135	0205
18	0755	93,94	0512	136	0706
23,24	0751	95	0077	137	0760
25	0990	96	0374	139	0756
28	0755	97	0370	141	0371
32	0142	99	0686	142	0239
33,34	0751	101	0372	143	0629
35	0233	102,103	0424	144	0141
36	0719	104	0629	145	0765
37	0742	105	0844	146	0701
43,44	0751	106	0301	147	0760
45	0233	107	0491	149	0756
46	0719	109	0760	151	0231
53	0622	112	0515	152	0424
54	0668	113	0370	153,154	0574
58	0755	114	0834	155	0512
62	0668	115	0471	156	0424
64	0629	116	0424	157	0262
68	0755	117	0141	159	0756
73,74	0755	122	0077	161,162	0231
75	0233	123	0372	163	0294
76	0719	124	0141	164	0512
77	0742	125	0205	165,166	0765
82	0141	126	0370	167	0626
84	0301	127	0760		
85	0233	131	0370		
86	0719	132	0141		

30032B

ASYNCHRONOUS TERMINAL CONTROLLER

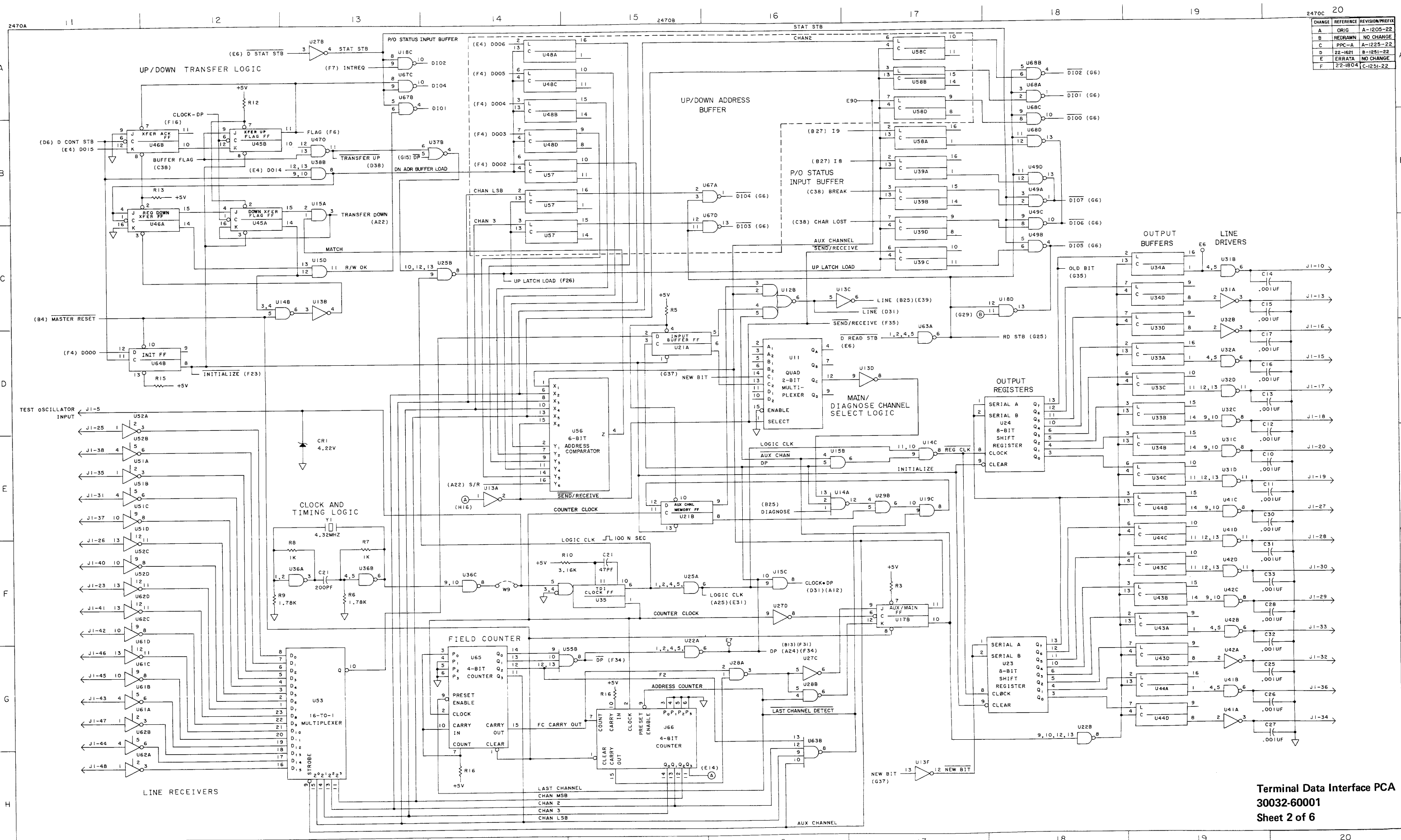
TERMINAL DATA INTERFACE PCA	30032-60001	6 SHEETS
TERMINAL CONTROLLER INTERFACE PCA	30061-60001	5 SHEETS

CHANGE	REFERENCE	REVISION/PREFIX	SHEETS AFFECTED
A	ORIG	A-1205-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	PCP-A	A-1225-22	ALL
D	PC-22-1822	B-1251-21	ALL
E	ERRATA	NO CHANGE	ALL
F	22-1804	C-1251-22	ALL

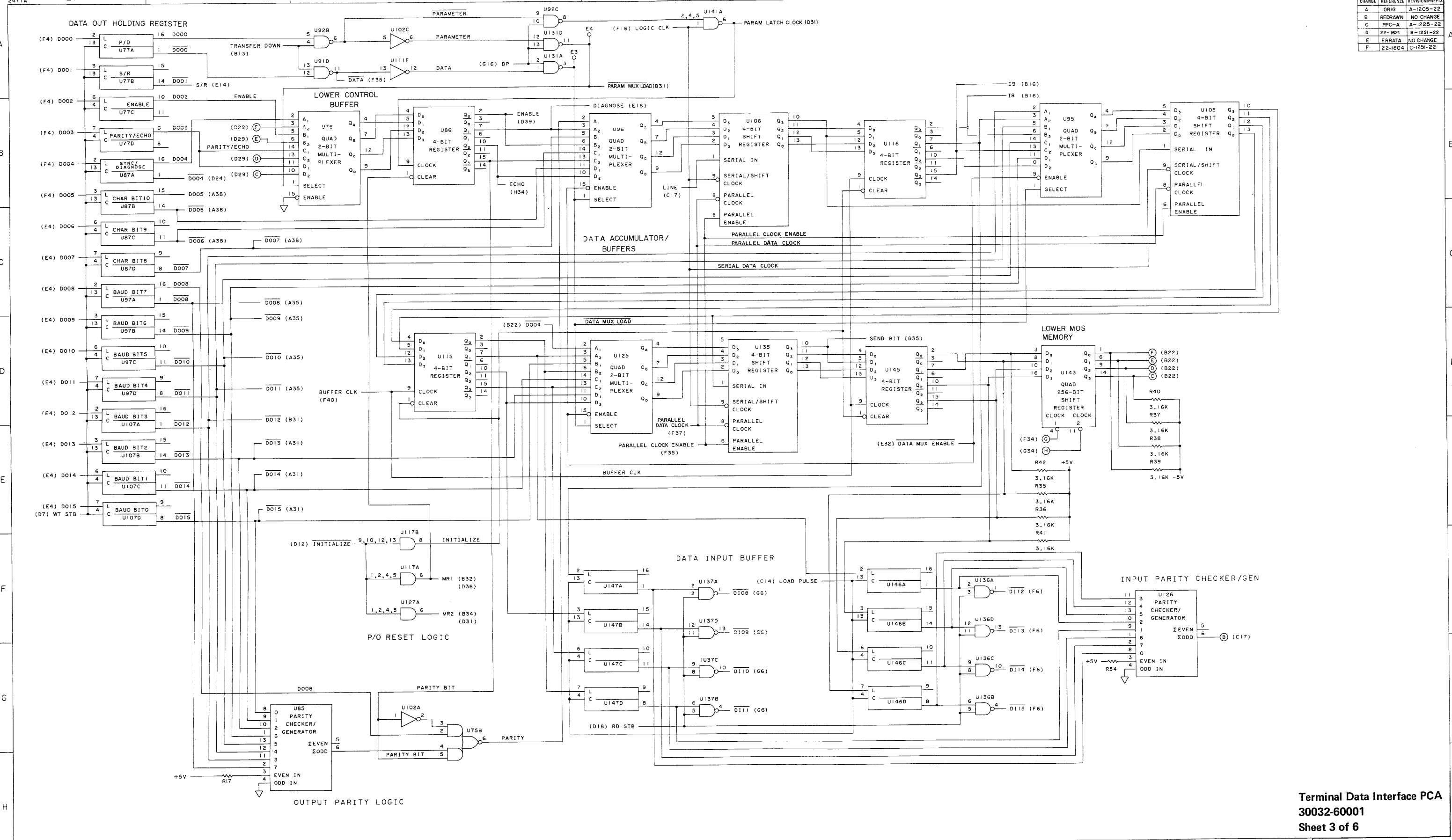


1. ALL RESISTOR VALUES ARE IN OHMS, 1.47K, 1/8W, ±1%
NOTE: UNLESS OTHERWISE SPECIFIED

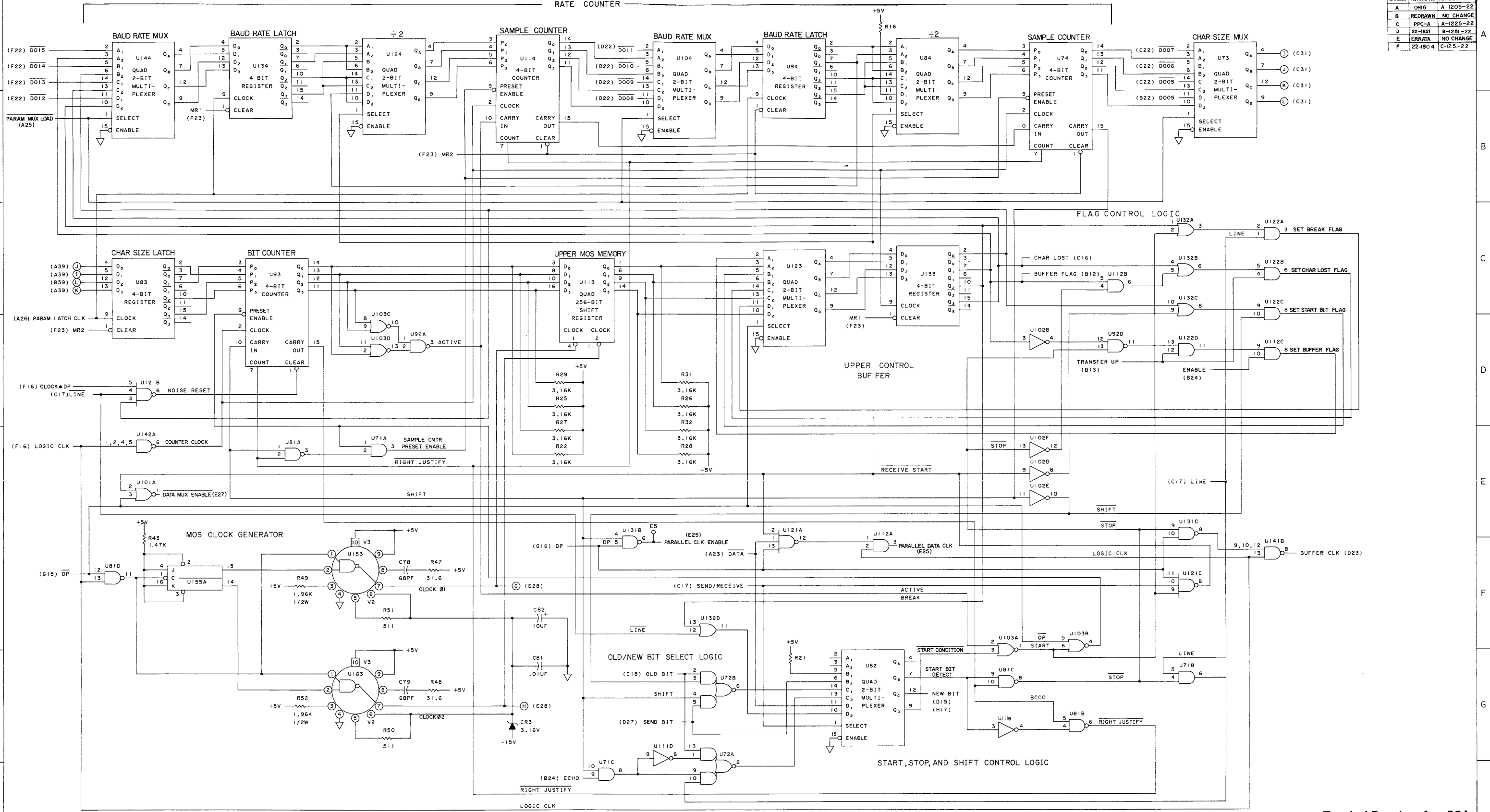
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1205-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1225-22
D	22-1621	B-1251-22
E	ERRATA	NO CHANGE
F	22-1804	C-1251-22



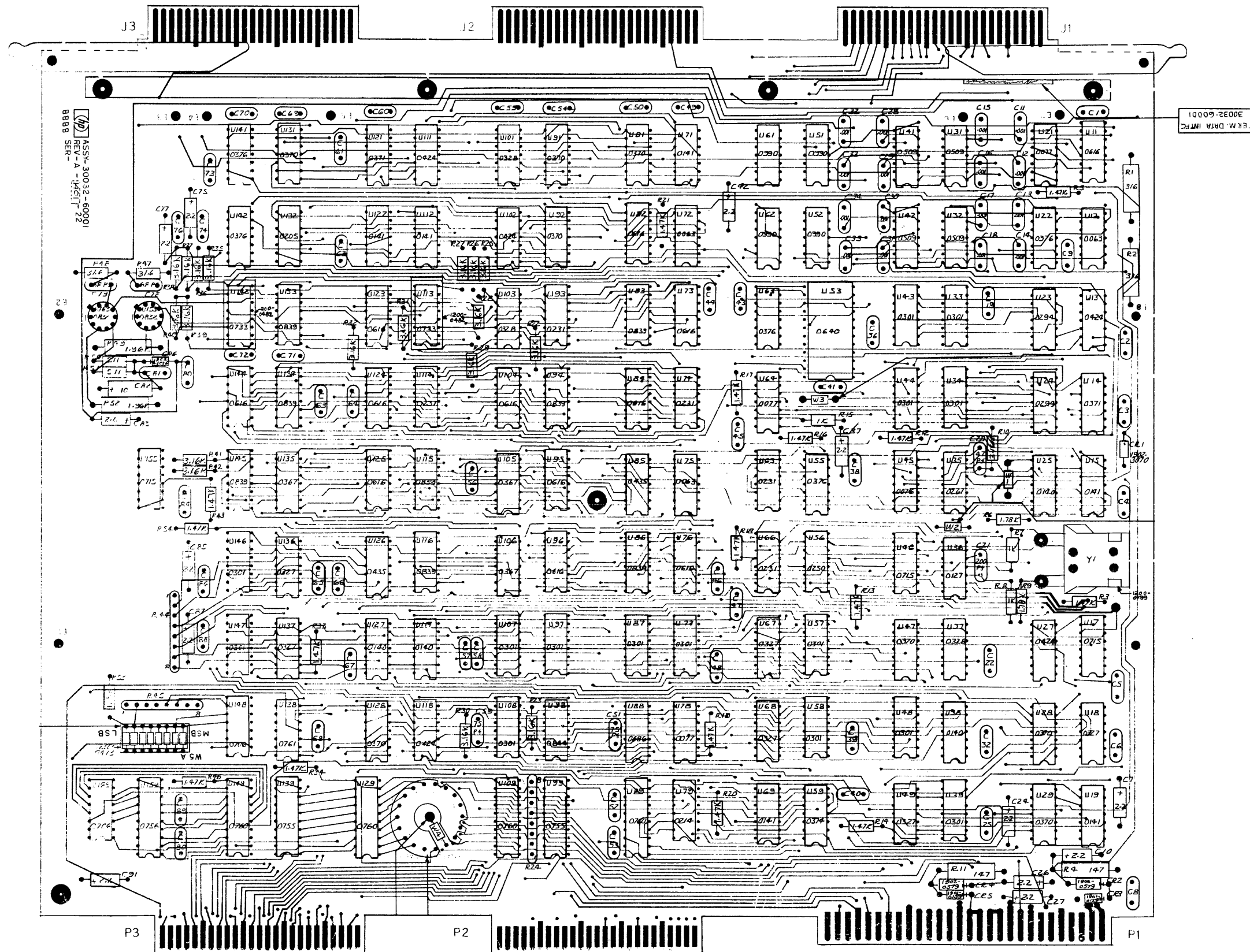
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1205-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1225-22
D	22-1621	B-1251-22
E	ERRATA	NO CHANGE
F	22-1604	C-1251-22



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1205-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1225-22
D	22-1621	B-1251-22
E	ERRATA	NO CHANGE
F	22-1804	C-1251-22



REV	REVISIONS	APPROVED	DATE
A	As Issued		1/28/73
B	CHG. NOTE #7		1/28/73
C	ADDR. 3032A 601 U.S.A.C.		1/28/73



UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8 1%
 ALL RESISTOR PACK 180-0020
 ALL CAPACITANCE IN MICRO-FARADS
 ALL CAPACITORS .01 CER. DISC
 ALL IC'S ARE 1820-

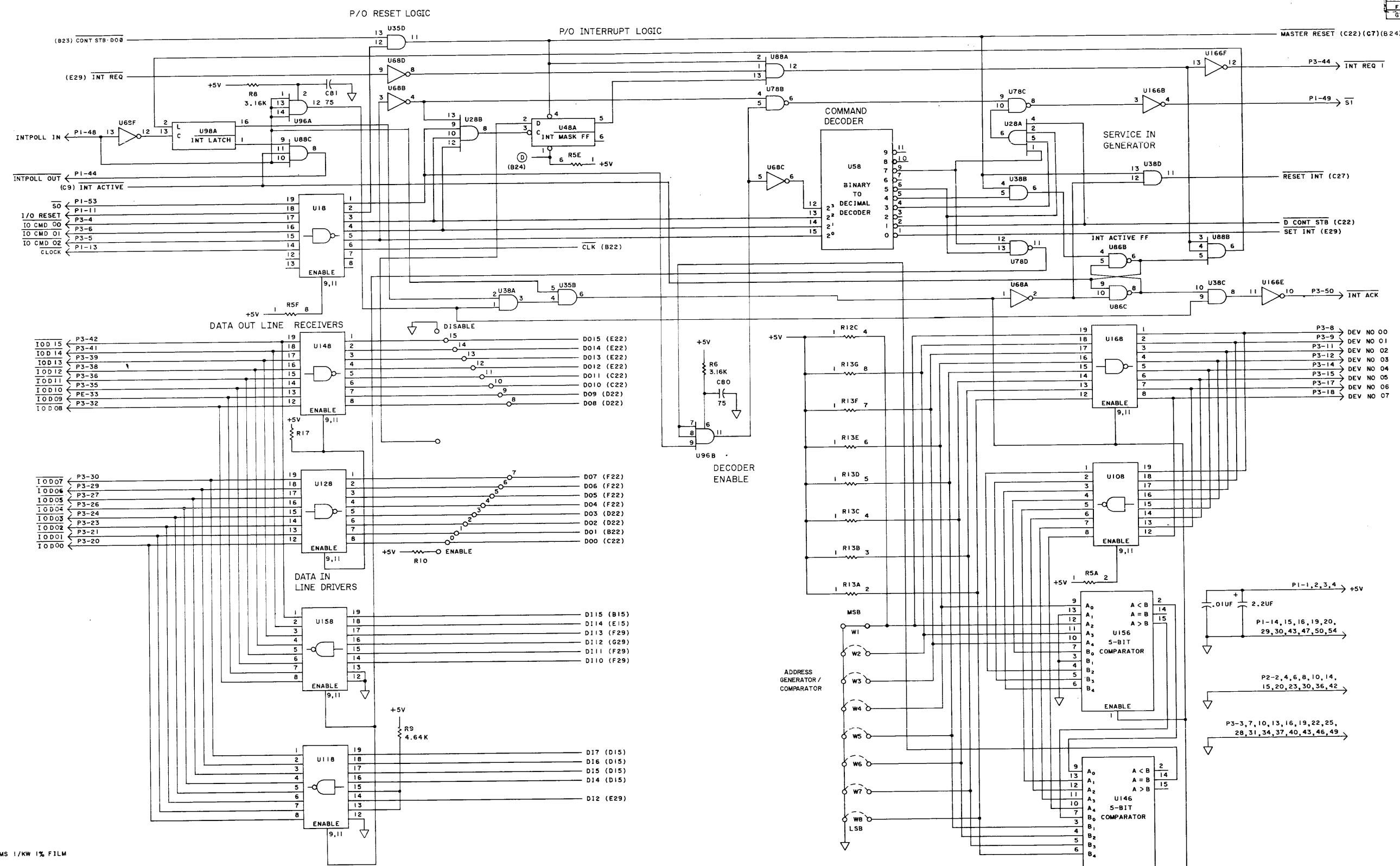
Terminal Data Interface PCA

30032-60001

IC Index

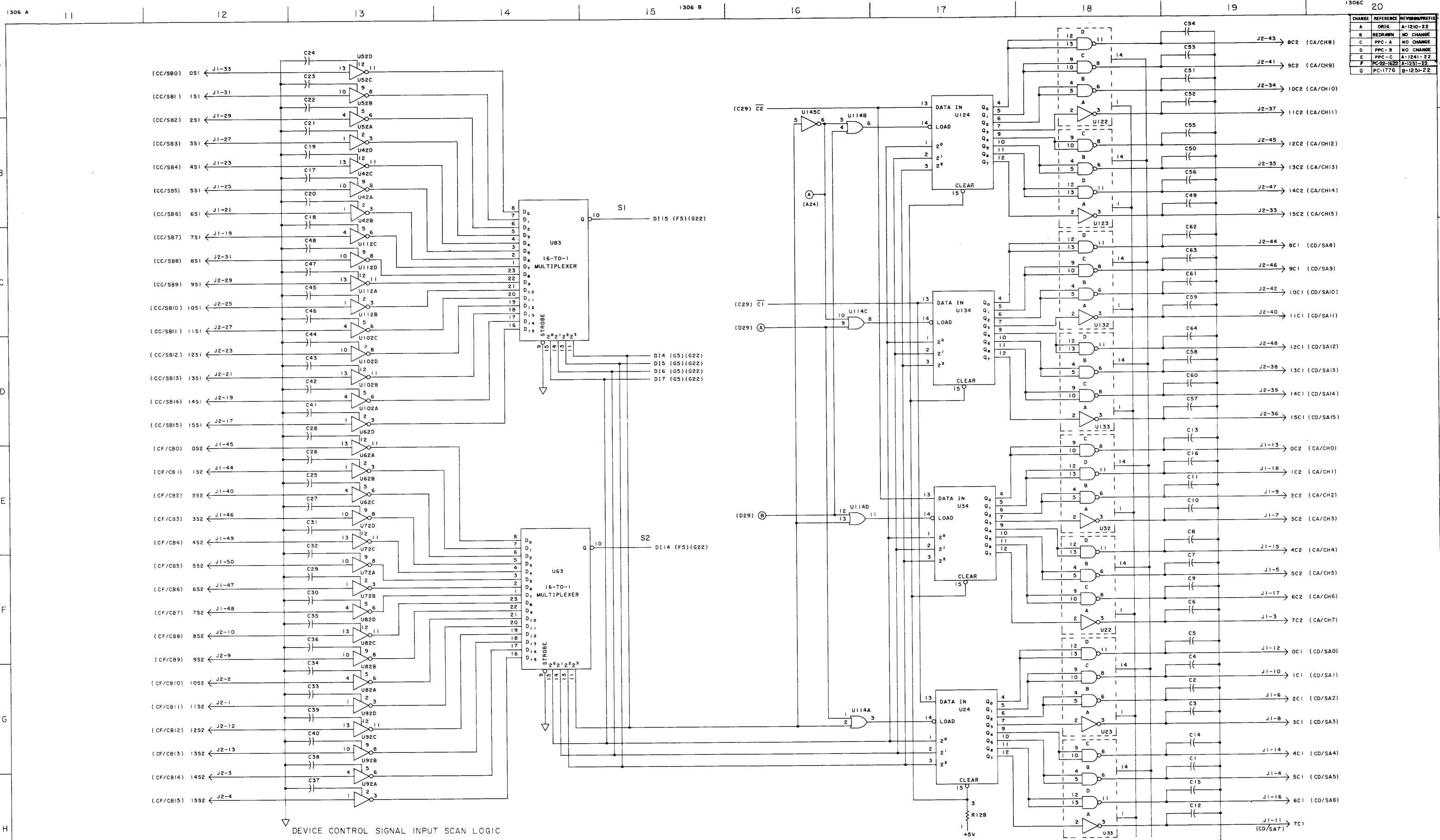
U	1820-	U	1820-	U	1820-
11	0616	64	0077	111	0424
12	0063	65,66	0231	112	0141
13	0424	67,68	0327	113	0733
14	0371	69	0141	114	0231
15	0141	71	0141	115,116	0839
17	0715	72	0063	117	0140
18	0327	73	0616	118	0424
19	0141	74	0231	121	0371
21	0077	75	0063	122	0141
22	0376	76	0616	123	0610
23,24	0294	77	0301	124,125	0616
25	0140	78	0077	126	0435
27	0424	79	0214	127	0140
28,29	0370	81	0370	128	0370
31,32	0509	82	0616	129	0760
33,34	0301	83	0839	131	0370
35	0261	84	0616	132	0205
36	0127	85	0435	133,134	0839
37	0328	86	0839	135	0367
38	0140	87	0301	136,137	0327
39	0301	88	0686	138	0761
41,42	0509	89	0760	139	0755
43,44	0301	91,92	0370	141,142	0376
45	0076	93	0231	143	0733
46	0715	94	0839	144	0616
47	0370	95,96	0616	145	0839
48	0301	97	0301	146,147	0301
49	0327	98	0844	148	0706
51,52	0990	99	0755	149	0760
53	0640	101	0328	153	0832
55	0376	102	0424	155	0715
56	0250	103	0328	159	0756
57,58	0301	104	0616	163	0832
59	0374	105,106	0367	168	0706
61,62	0990	107,108	0301		
63	0376	109	0760		

CHANGE	REFERENCE	REVISION/REVISION	SHEETS AFFECTED
A	ORIS	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	PPC-A	NO CHANGE	1
D	PPC-B	NO CHANGE	1
E	PPC-C	A-1241-22	1
F	PC-52	A-1251-22	ALL
G	PC-176	B-1251-22	1, 3



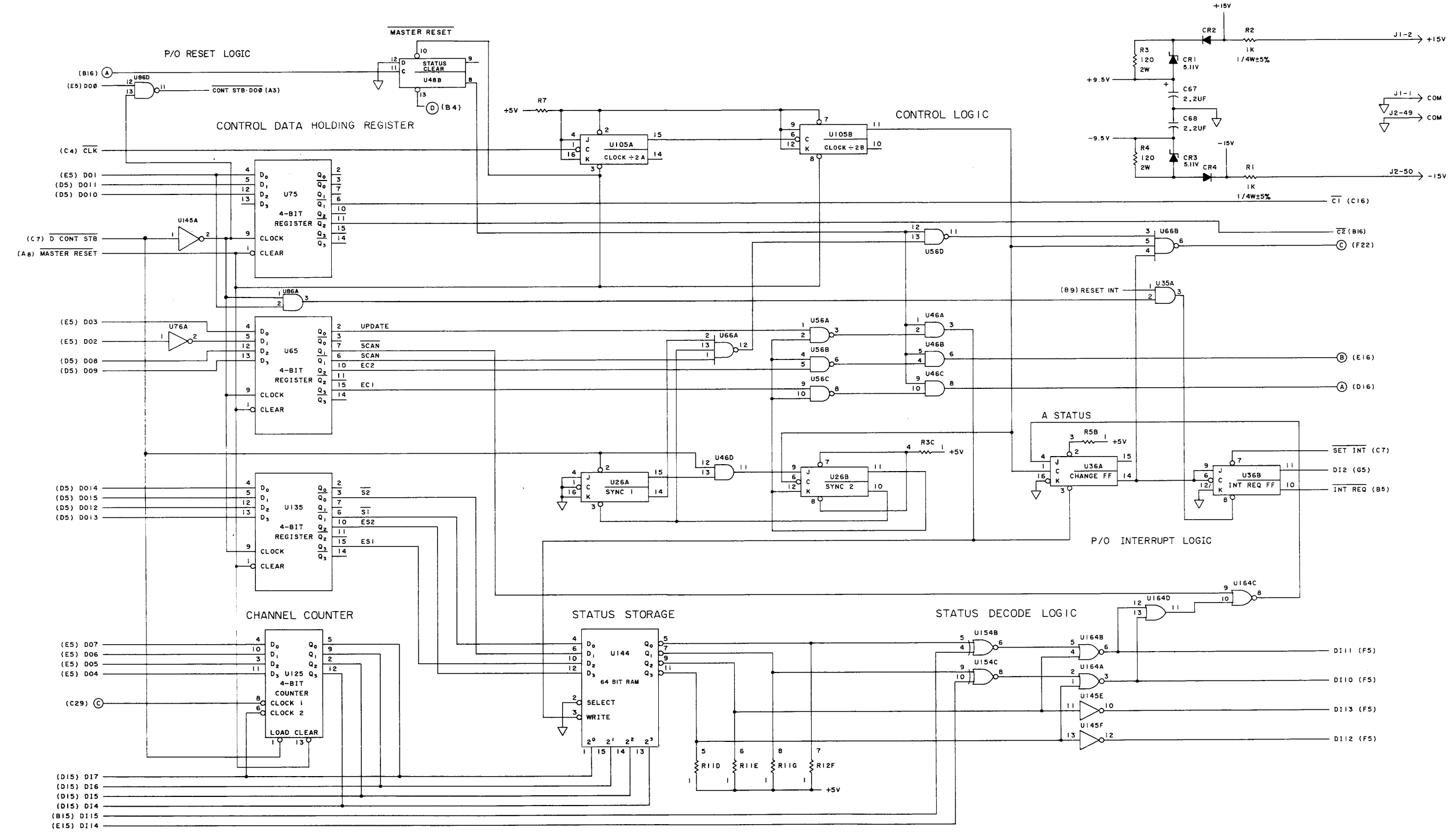
4. ALL RESISTANCE IS IN OHMS 1/KW 1% FILM
 3. ALL RESISTORS IN PACKS 4.7K 1810-0125
 2. ALL DISCRETE RESISTORS 4.64K
 1. ALL CAPACITORS ARE 470 PICOFARADS.
 NOTES: UNLESS OTHERWISE SPECIFIED

Terminal Controller Interface PCA
 30061-60001
 Sheet 1 of 5

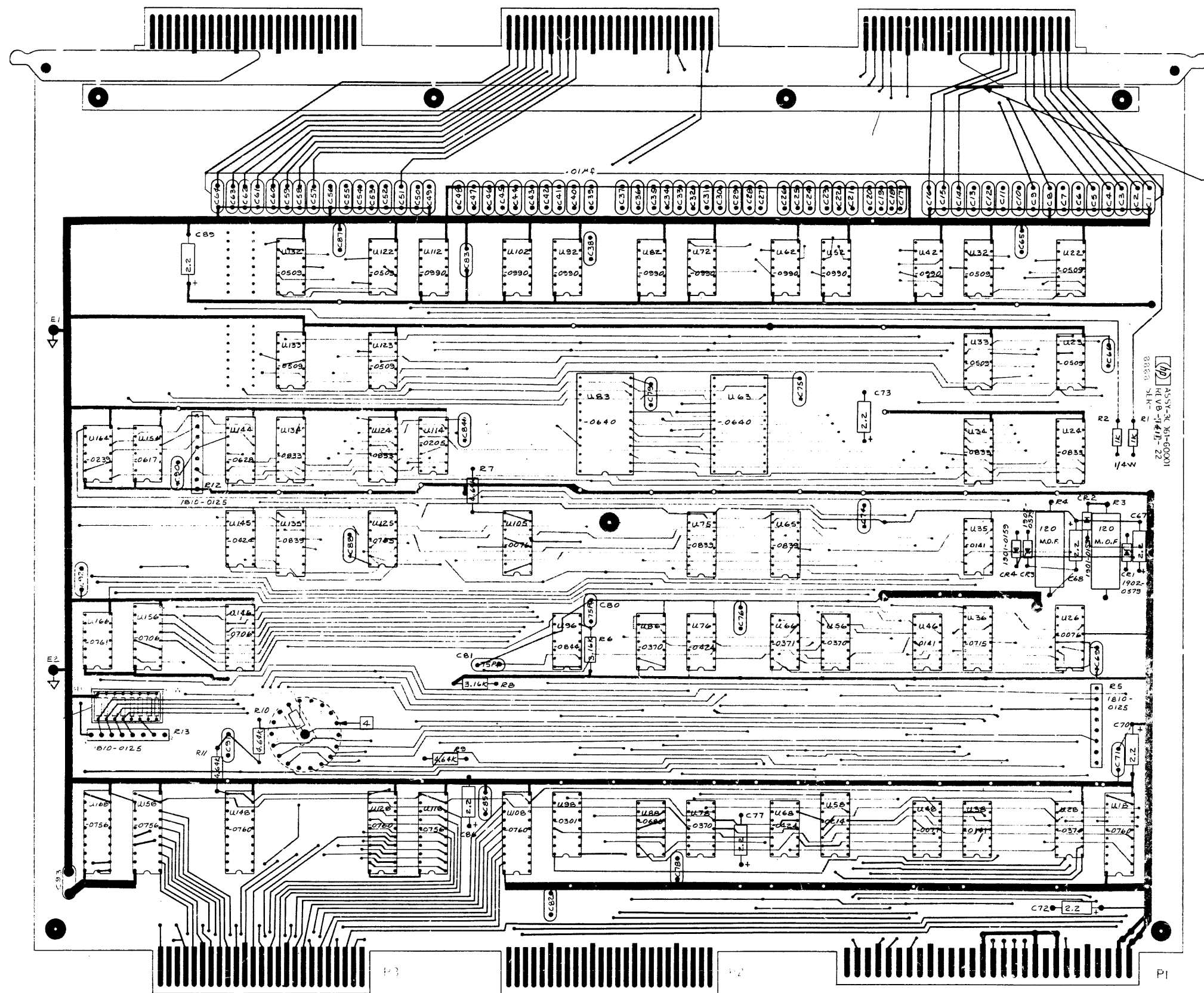


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	NO CHANGE
D	PPC-B	NO CHANGE
E	PPC-C	A-1241-22
F	PC-22-1622	A-1251-22
G	PC-1776	B-1251-22

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	NO CHANGE
D	PPC-B	NO CHANGE
E	PPC-C	A-1241-22
F	PC-22-1622	A-1251-22
G	PC-1776	B-1251-22



REV	REVISIONS	APPROVED	DATE
A	AS ISSUED	[Signature]	5-3-75
B	200-21-135 ADDED NEXT ASST 200-21-135 GP/POI. 200-21-135; MODIFY PER CSFC G. DATE CODE WAS 151.	[Signature]	1-8-74
C	DATE CODE WAS 1401-22 PER PC12-2187	[Signature]	7-23-74
D	1152-V 300712A SKI USA 15 PC12-21-1001, ADD. ITEMS 3, 10 AND NOTE 3	[Signature]	5-1-75
E		[Signature]	11/24/75



30061-80001
TERM CTRL INTFC

(75)
30061-60001
REV 5
DATE 11/24/75

NOTES:
1. UNLESS OTHERWISE NOTED:
ALL RESISTANCE IN OHMS 1% F
ALL RESISTORS 1/8W
ALL CAPACITANCE IN MICRO-FARADS
ALL CAPACITORS 50V 4 CERAMIC DISC
ALL I.C. ARE 1820-

Terminal Controller Interface PCA

30061-80001

IC Index

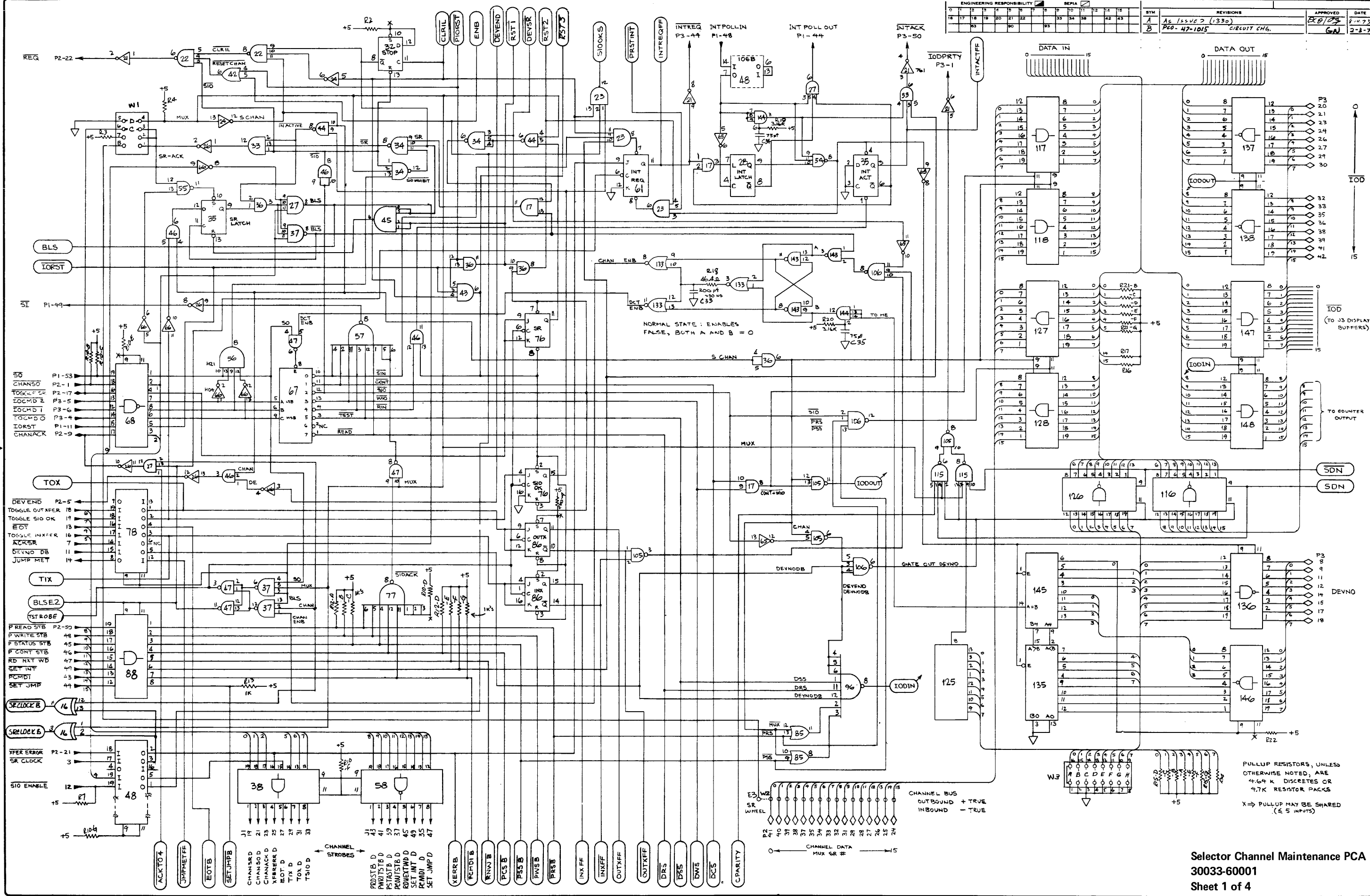
U	1820-	U	1820-	U	1820-
18	0760	65	0839	118	0756
22,23	0509	66	0371	122,123	0509
24	0833	68	0424	124	0833
26	0076	72	0990	125	0705
28	0374	75	0839	128	0760
32,33	0509	76	0424	132,133	0509
34	0833	78	0370	134	0833
35	0141	82	0990	135	0839
36	0715	86	0370	144	0628
38	0141	88	0686	145	0424
42	0990	92	0990	146	0706
46	0141	96	0844	148	0760
48	0077	98	0301	154	0617
52	0990	102	0990	156	0706
56	0370	105	0076	158	0756
58	0214	108	0760	164	0239
62	0990	112	0990	166	0761
63	0640	114	0205	168	0756

30033A

SELECTOR CHANNEL MAINTENANCE BOARD

SELECTOR CHANNEL MAINTENANCE BOARD PCA 30033-60001 4 SHEETS

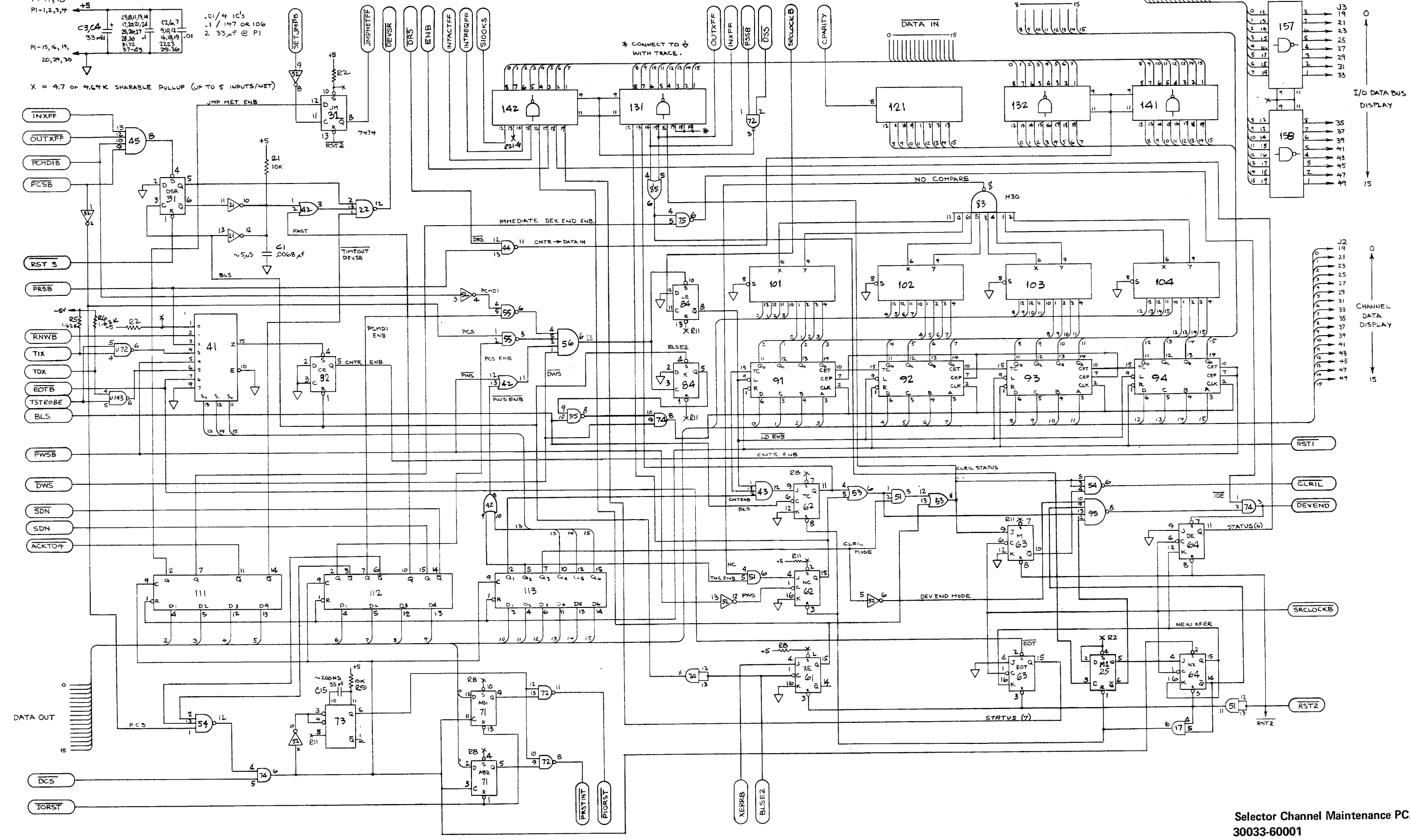
ENGINEERING RESPONSIBILITY															REVISIONS					APPROVED	DATE	
SEP14																						
BYM															A2 ISSUE 2 (1330)					R01/03	11/4/73	
B															PCO-47-1015					CIRCUIT CHG.	GAW	2-8-74



PULLUP RESISTORS, UNLESS OTHERWISE NOTED, ARE 4.7K DISCRETES OR 4.7K RESISTOR PACKS
 X => PULLUP MAY BE SHARED (.E 5 INPUTS)

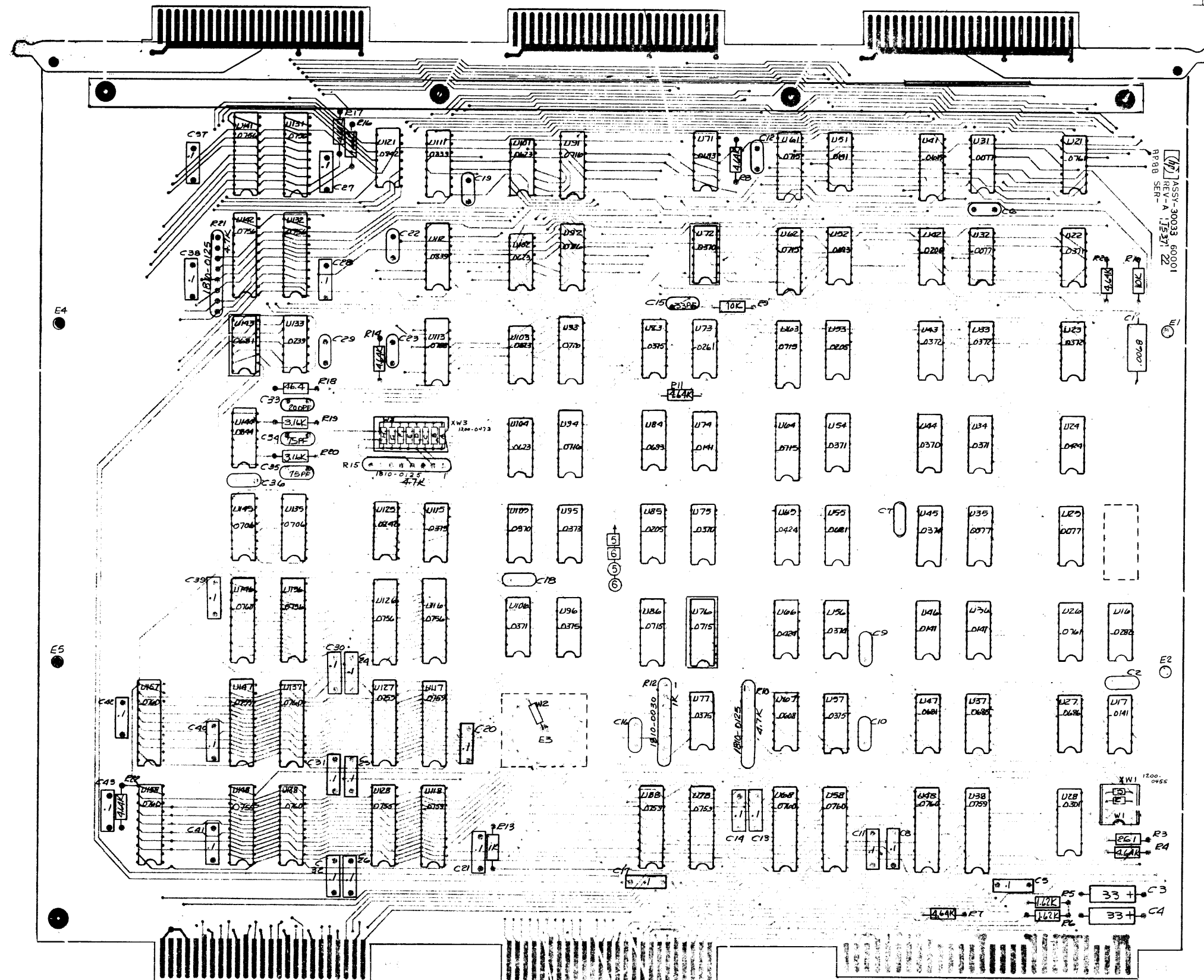
ENGINEERING RESPONSIBILITY															REVISIONS										APPROVED	DATE
BY															REVISED											
A															As Issued (1330)										6/14/72	
B															PCO-47-1015										Circuit Chg.	
																									6/14/72	

P1-10,12,14,42,43,47,50,54. J1-J2-J3-2,4,6,...48 (even#s)
 P2-2,4,6,8,10,15,20,23,30,36,42
 P3-3,7,10,13,16,19,22,25,28,31,34,37,40,43,46,49
 P1-17,18
 P1-1,2,3,4
 P1-15,16,19,20,24,30
 X = 4.7 or 4.64K SHARABLE PULLUP (UP TO 5 INPUTS/WET)



Selector Channel Maintenance PCA
 30033-60001
 Sheet 2 of 4

ENGINEERING RESPONSIBILITY		SERIAL		APPROVED		DATE	
BY	DATE	NO.	DATE	BY	DATE	NO.	DATE
A	AS ISSUED	(1534)					
B	REV. DATE: U43 WAS -0512, U157 WAS U147						
C	PRO. 22-1551 - DATA CODE WAS 7350-0						
D	ADD'D 2031A331 U43E						
E	PRO. 47-1015 - DATA CODE WAS 1-1401-22, ADD. ITEMS 12, 13, C46, U2 OMBINATION, ADD. NOTE 10						



SEL CHAN MAINTENANCE
30033-60001

UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE IN OHMS
ALL RESISTORS 1/8W, 1% MF.
ALL CAPACITORS IN MICROFARADS
ALL CAPACITORS ARE .01 CER. DISC.
ALL IC'S 1820-

Selector Channel Maintenance PCA

30033-60001

IC Index

U	1820-	U	1820-	U	1820-
16	0282	52	0083	96	0375
17	0141	53	0205	101-104	0623
21	0761	54	0371	105	0370
22	0371	55	0681	106	0371
23	0372	56	0374	111,112	0839
24	0424	57	0375	113	0788
25	0077	58	0760	115	0373
26	0761	61-64	0715	116	0756
27	0686	65,66	0424	117,118	0759
28	0301	67	0608	121	0842
31,32	0077	68	0760	125	0142
33	0372	71	0693	126	0756
34	0371	72	0370	127,128	0755
35	0077	73	0261	131,132	0756
36	0141	74	0141	133	0239
37	0685	75	0370	135	0706
38	0759	76	0715	136	0756
41	0615	77	0375	137,138	0760
42	0206	78	0759	141,142	0756
43	0372	83	0375	143	0681
44	0370	84	0693	144	0844
45	0374	85	0205	145	0706
46	0141	86	0715		
47	0681	88	0759		
48	0760	91-94	0716		
51	0141	95	0373		

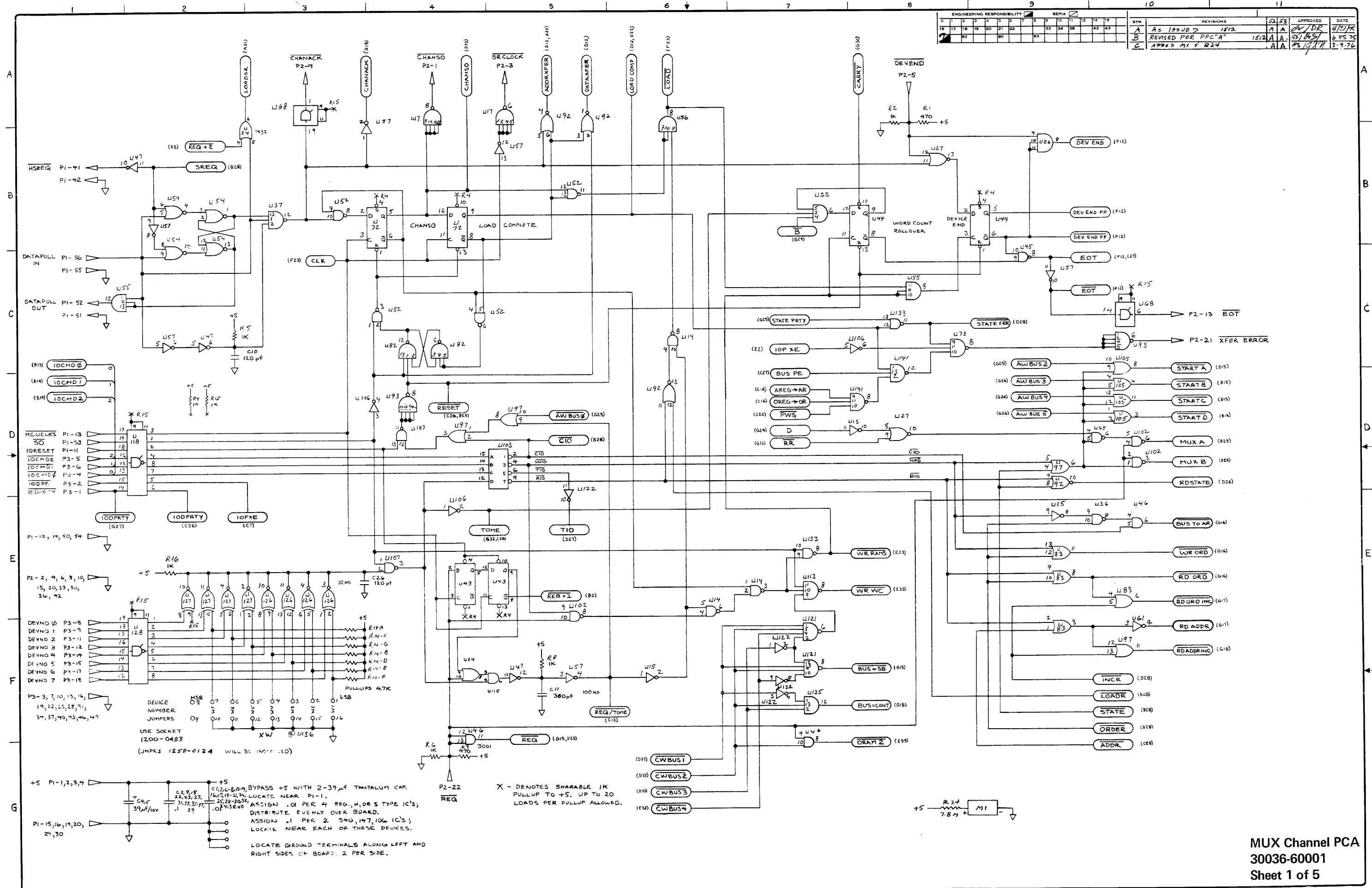
30036A
MULTIPLEXER CHANNEL

MULTIPLEXER CHANNEL PCA

30036-60001

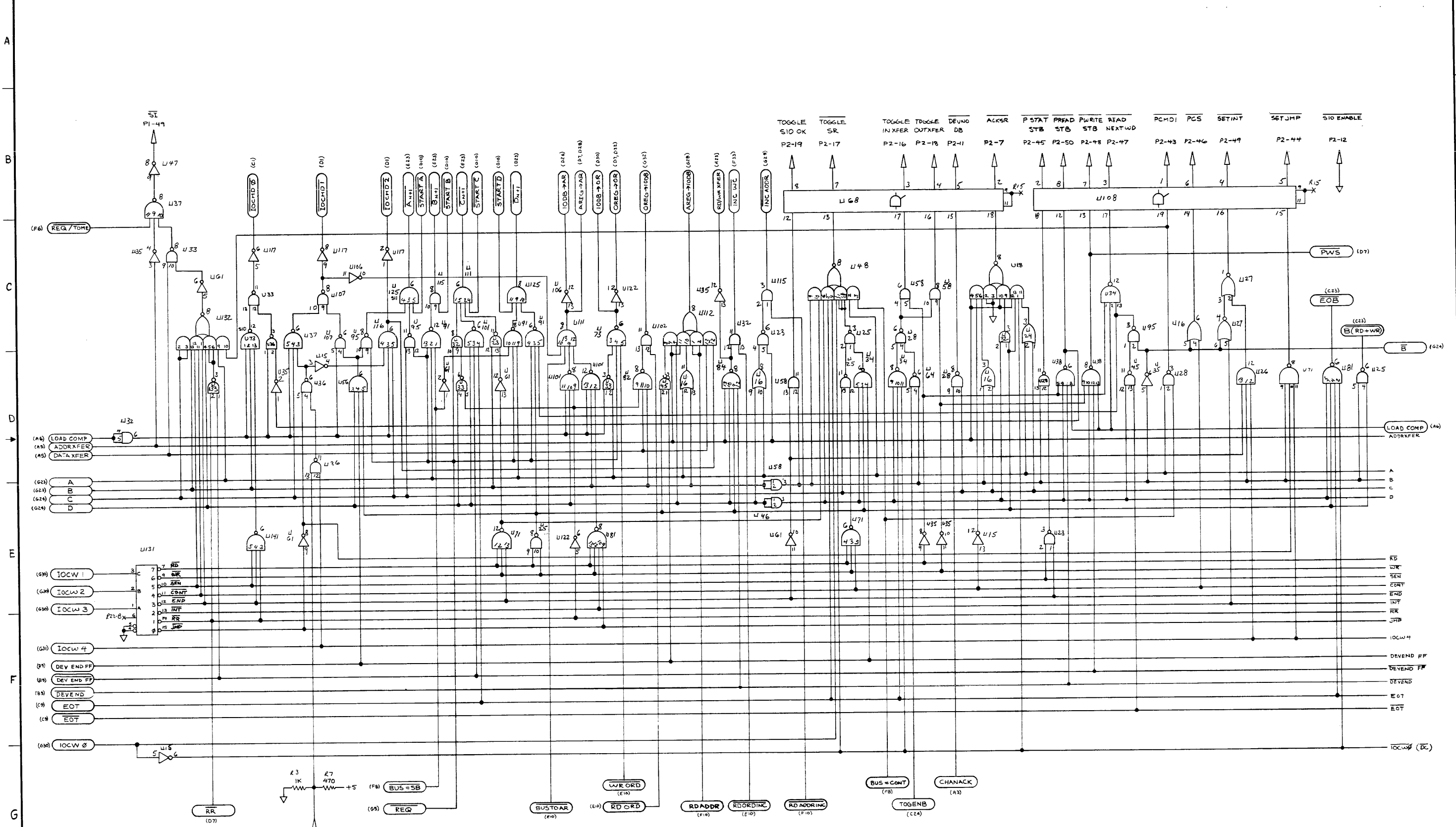
5 SHEETS

ENGINEERING RESPONSIBILITY												SEPIA											
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43												52 53											
SYMBOL												APPROVED											
A AS ISSUE 7 1512												DATE											
B REVISED PER PDC-A 1512												6 25 75											
C ADD'D M.F.R. 24												8 9 76											



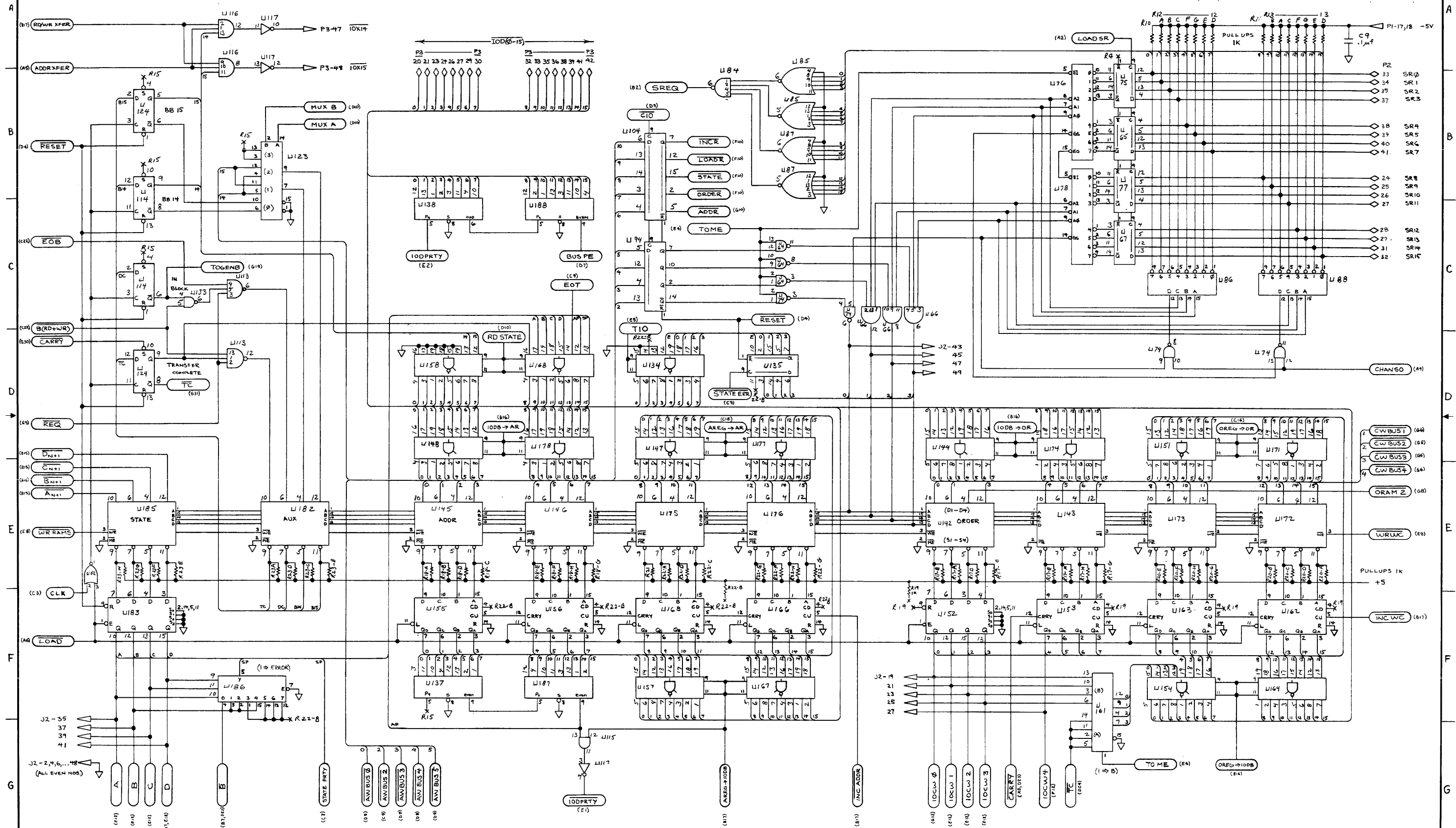
MUX Channel PCA
30036-60001
Sheet 1 of 5

ENGINEERING RESPONSIBILITY										SEPIA															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
										REVISED															
										BYM															
										A As Issued															
APPROVED										DATE															
/s/ DR										4/21/75															

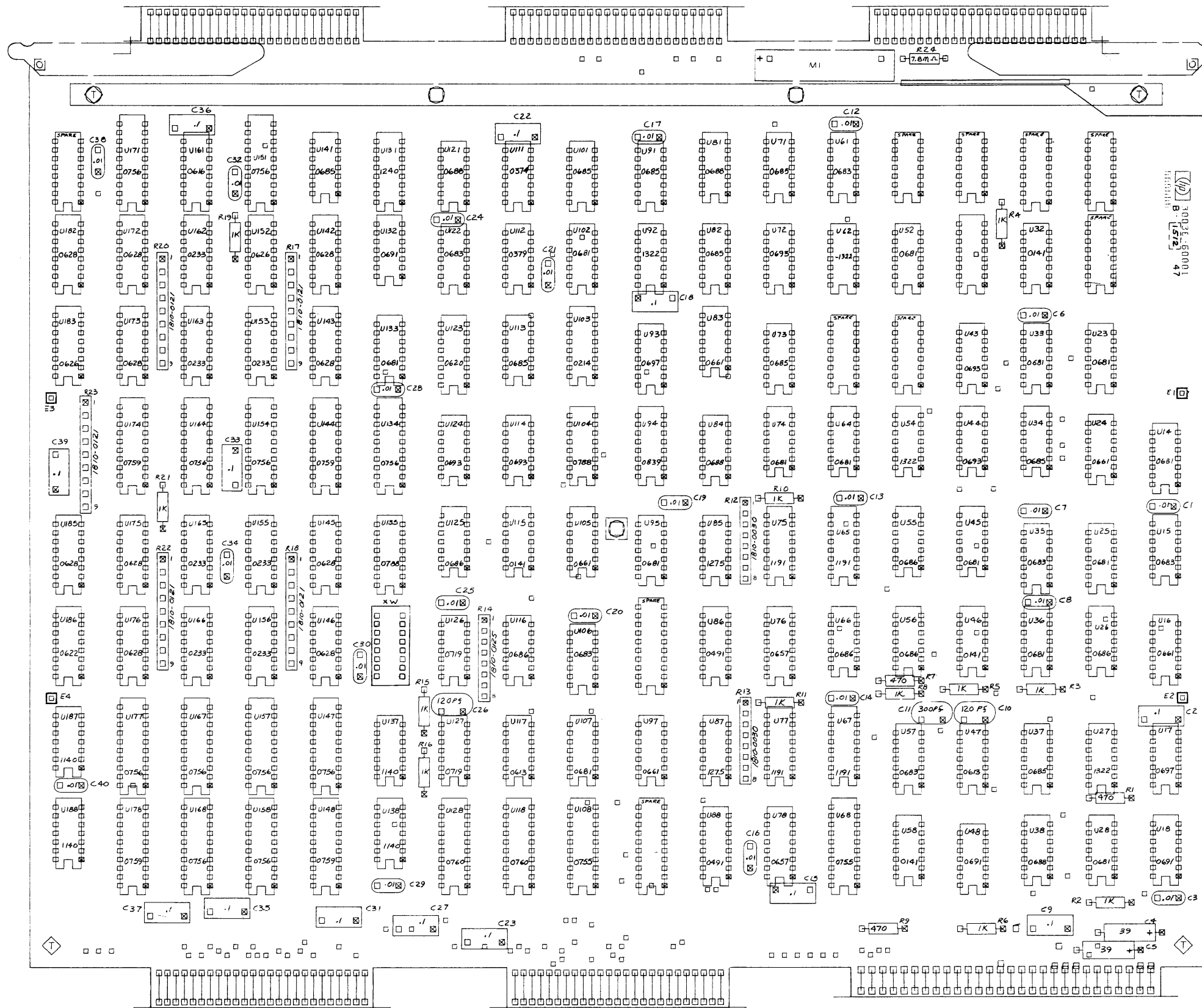


MUX Channel PCA
 30036-60001
 Sheet 2 of 5

ENGINEERING RESPONSIBILITY															SEPIA																													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
															SYN																													
															A 2 ISSUED																													
															REVISED																													
															APPROVED																													
															DATE																													
															4/26/78																													



MUX Channel PCA
30036-60001
Sheet 3 of 5



NOTE:
 1. UNLESS OTHERWISE NOTED:
 ALL RESISTORS IN OHMS
 ALL CAPACITANCE IN MICROFARADS
 ALL IC'S ARE 1820-

MUX Channel PCA
 30036-60001
 Sheet 4 of 5

MUX CHANNEL PCA

30036-60001

IC Index

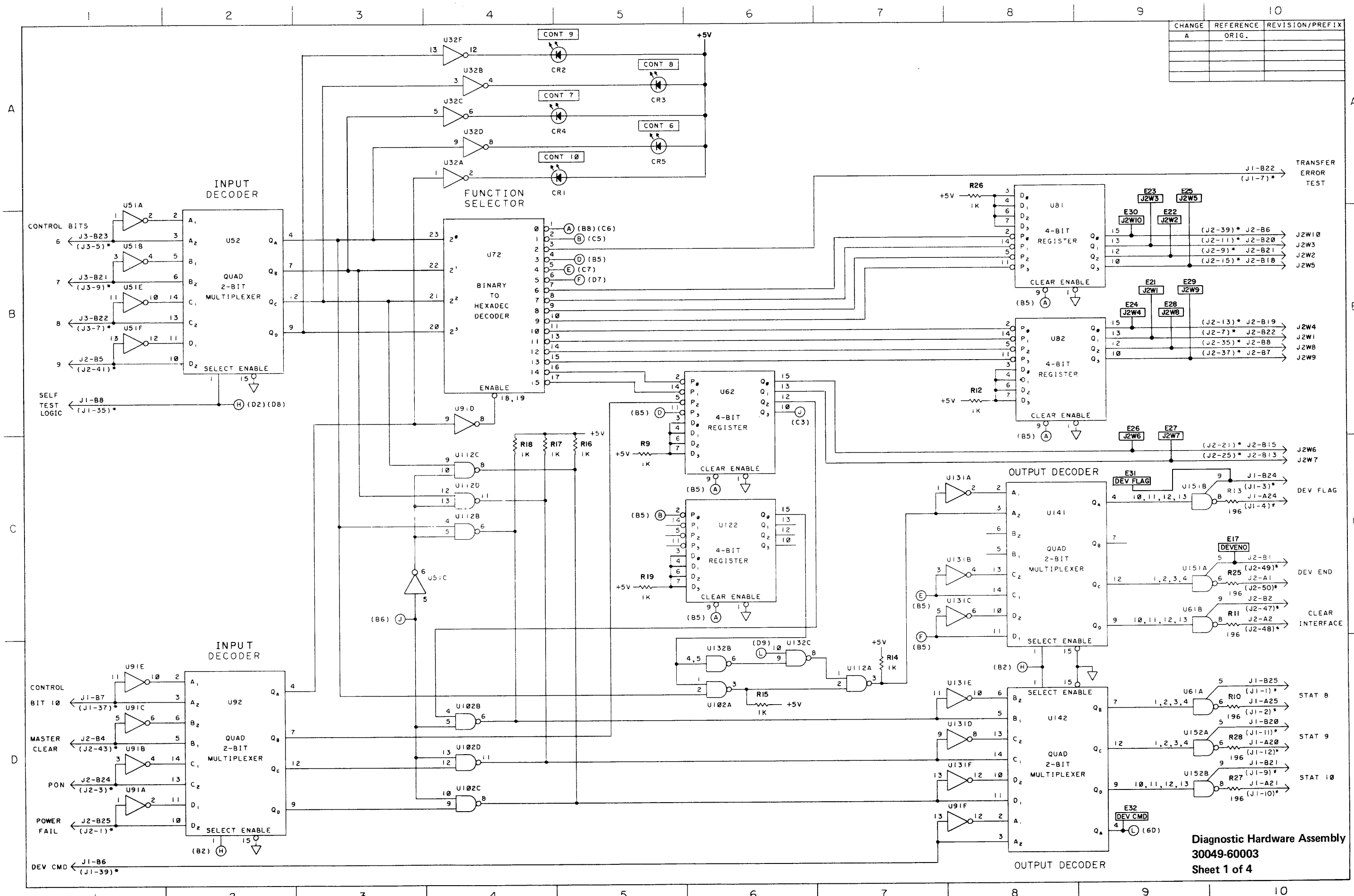
U	1820-	U	1820-	U	1820-
14	0681	74	0681	123	0620
15	0683	75	1191	124	0693
16	0661	76	0657	125	0686
17	0697	77	1191	126,127	0719
18	0691	78	0657	128	0760
23	0681	81	0688	131	1240
24	0661	82	0685	132	0691
25	0681	83	0661	133	0681
26	0686	84	0688	134	0756
27	1322	85	1275	135	0788
28	0681	86	0491	137,138	1140
32	0141	87	1275	141	0685
33	0681	88	0491	142,143	0628
34	0685	91	0685	144	0759
35	0683	92	1322	145,146	0628
36	0681	93	0697	147	0756
37	0685	94	0839	148	0759
38	0688	95	0681	151	0756
43,44	0693	97	0661	152	0626
45	0681	101	0685	153	0233
46	0141	102	0681	154	0756
47	0613	103	0214	155,156	0233
48	0691	104	0788	157,158	0756
52	0681	105	0661	161	0616
54	1322	106	0683	162,163	0233
55,56	0686	107	0681	164	0756
57	0683	108	0755	165,166	0233
58	0141	111	0374	167,168	0756
61	0683	112	0379	171	0756
62	1322	113	0685	172,173	0628
64	0681	114	0693	174	0759
65	0686	115	0141	175,176	0628
67	1191	116	0686	177	0756
68	0755	117	0613	178	0759
71	0685	118	0760	182	0628
72	0693	121	0688	183	0626
73	0685	122	0683	185	0628
				186	0622
				187,188	1140

30049C

DIAGNOSTIC HARDWARE ASSEMBLY

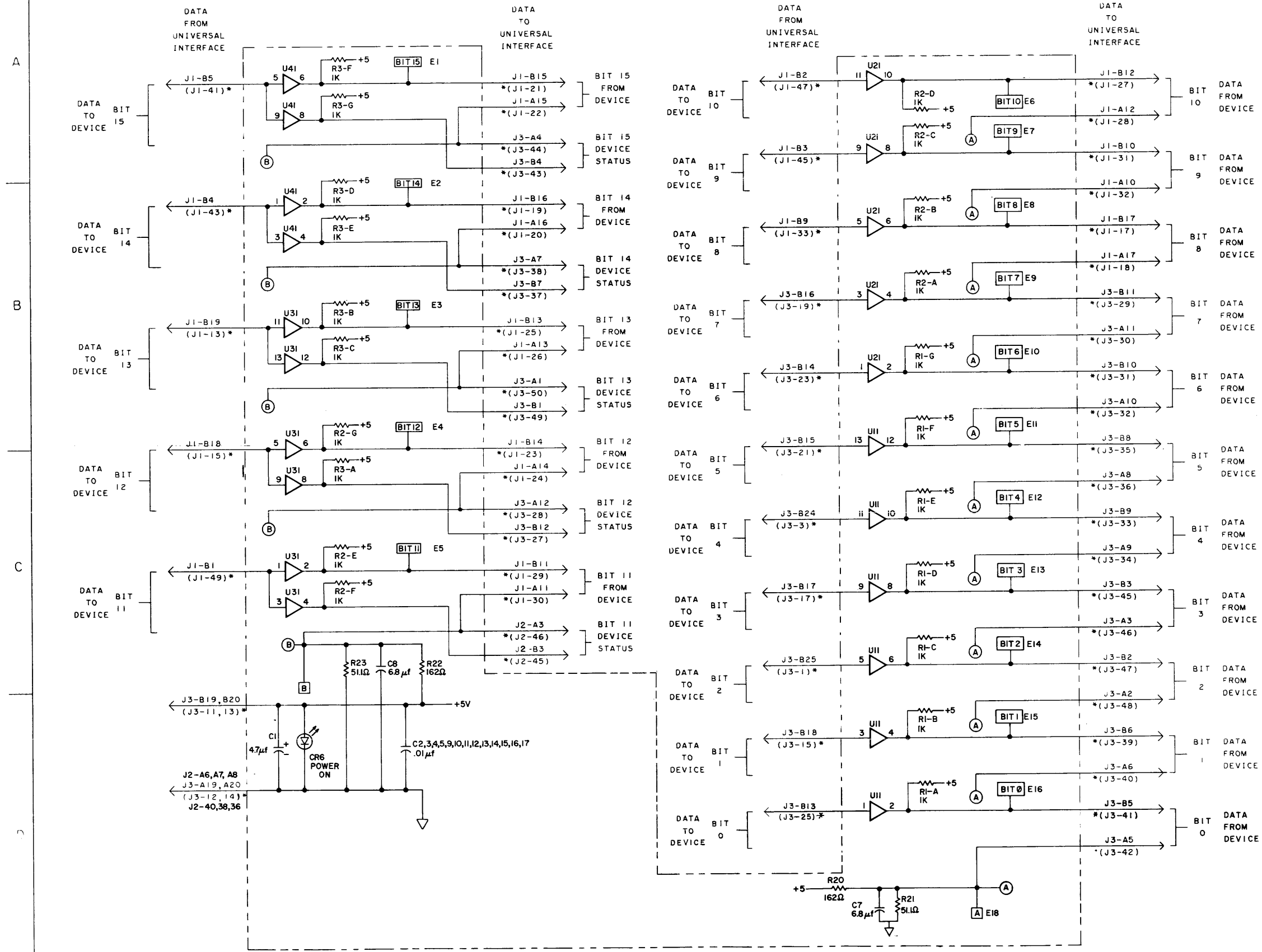
DIAGNOSTIC HARDWARE ASSEMBLY 30049-60003 4 SHEETS

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	



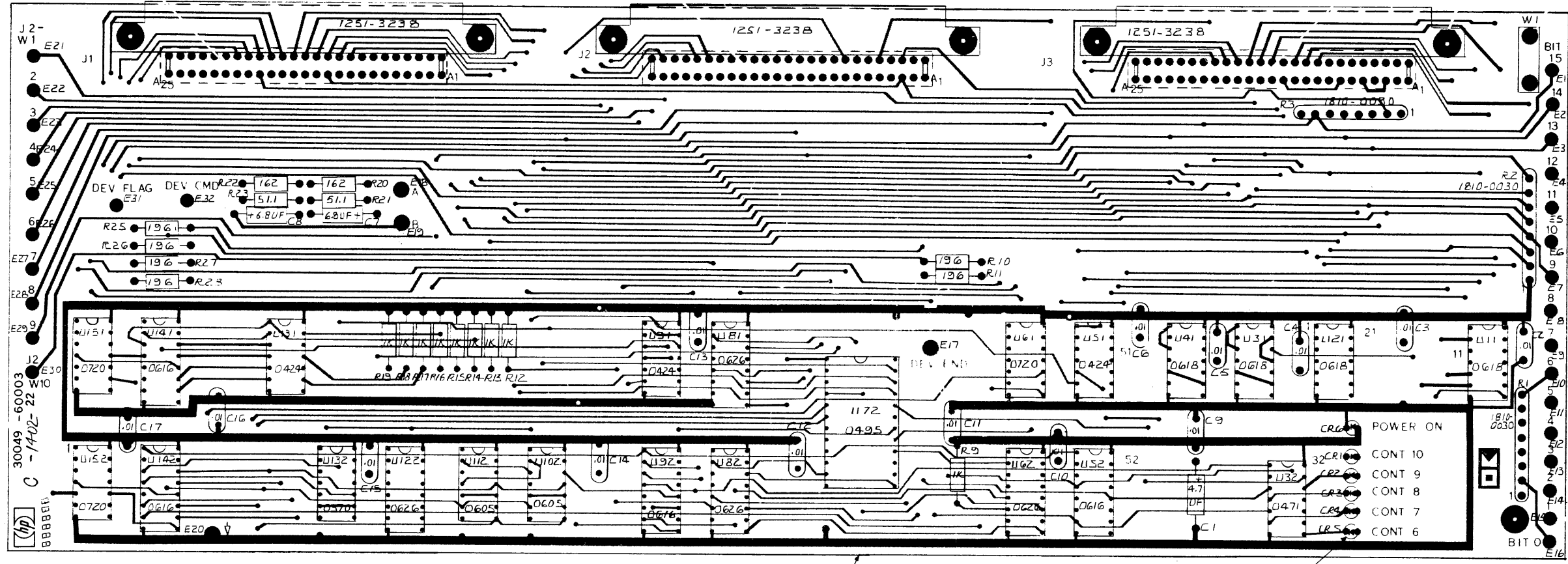
**Diagnostic Hardware Assembly
30049-60003
Sheet 1 of 4**

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	



NOTES
 * INDICATES CORRESPONDING CONNECTOR PIN ON UNIVERSAL INTERFACE PCA

ENGINEERING RESPONSIBILITY													SERIAL		SYMBOL		REVISIONS		APPROVED	DATE
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
																C	PCO # 22-1919	RE	4-26-74	
																D	CHG #7 FROM 5480-CCS & PWR R. 247498	See 2, 3, 4	2-2-76	



NOTES:
 1 UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W, 1%
 ALL CAPACITANCE IN MICROFARADS
 ALL IC'S ARE 1820-

Diagnostic Hardware Assembly PCA

30049-60003

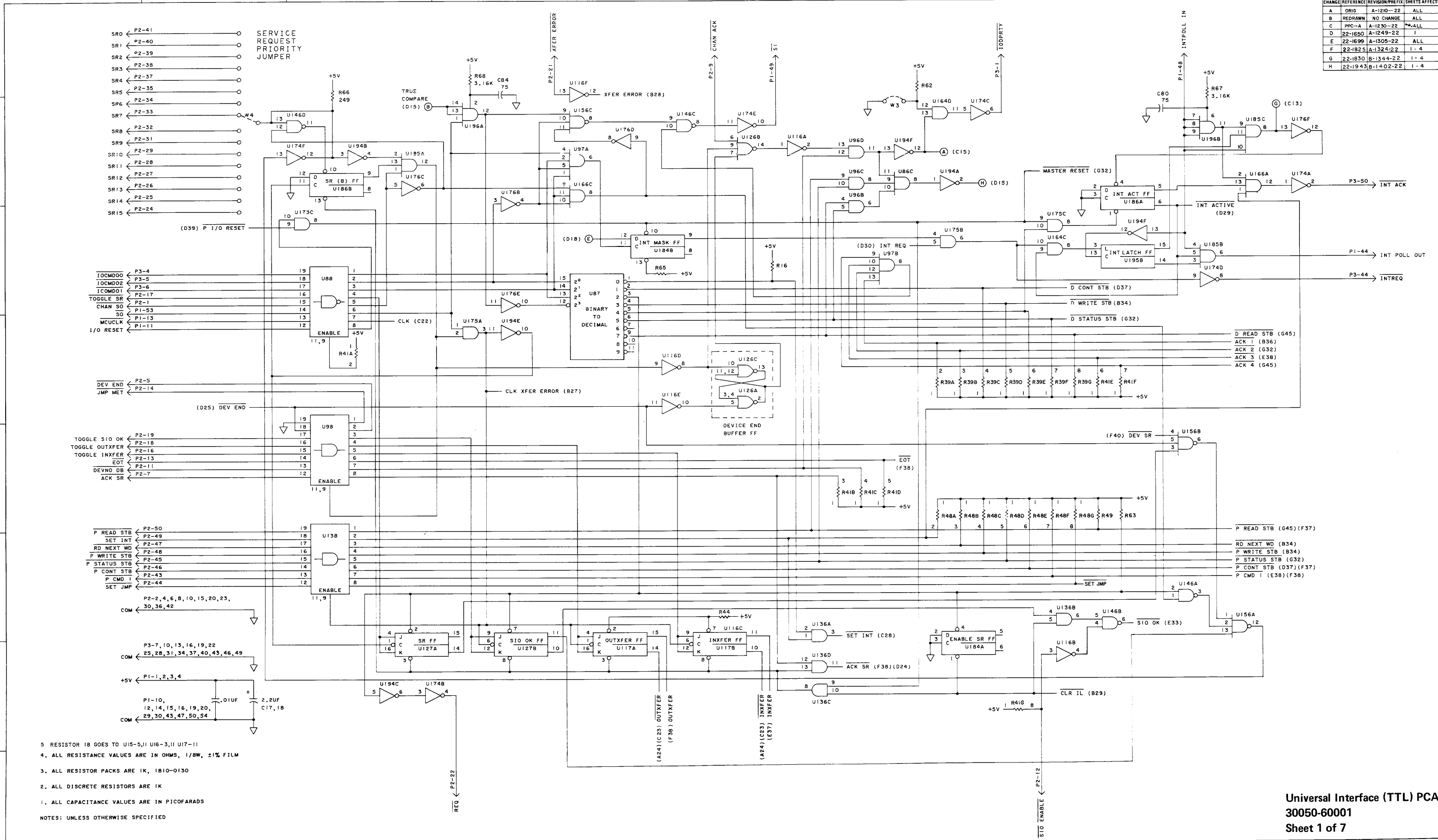
IC Index

U	1820-	U	1820-	U	1820-
11	0618	61	0720	112	0605
21	0618	62	0626	122	0626
31	0618	72	0495	131	0424
32	0471	81,82	0626	132	0570
41	0618	91	0424	141	0616
51	0424	92	0616	142	0616
52	0616	102	0605	151,152	0720

30050A
UNIVERSAL INTERFACE

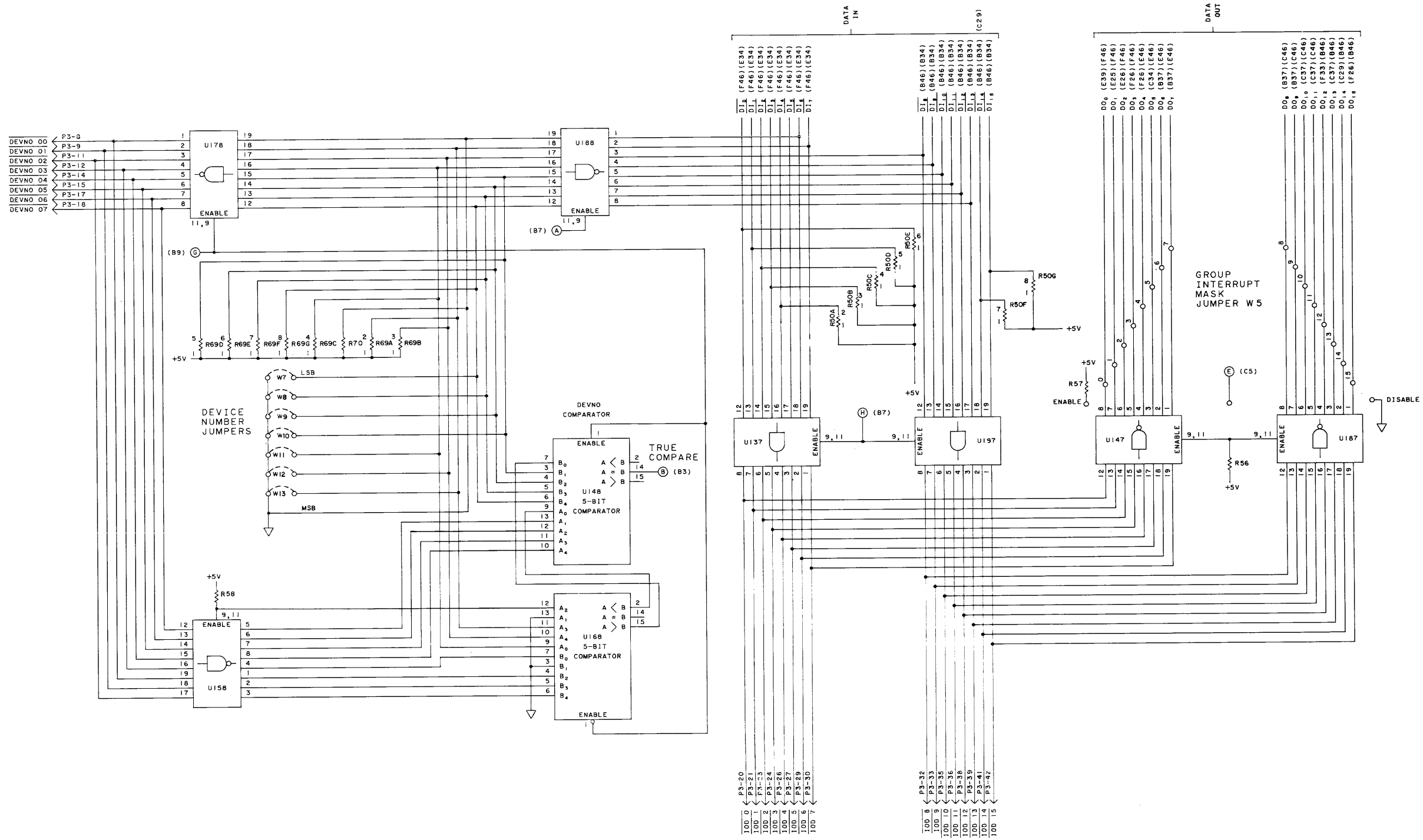
UNIVERSAL INTERFACE (TTL) PCA	30050-60001	7 SHEETS
CARD READER PUNCH INTERFACE	30050-60008	(SEE PRODUCT 30219A)

CHANGE	REFERENCE	REVISION/PREFIX	SHEETS AFFECTED
A	ORIG	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	PPC-A	A-1230-22	ALL
D	22-1690	A-1249-22	1
E	22-1699	A-1305-22	ALL
F	22-1825	A-1324-22	1-4
G	22-1830	B-1344-22	1-4
H	22-1943	B-1402-22	1-4

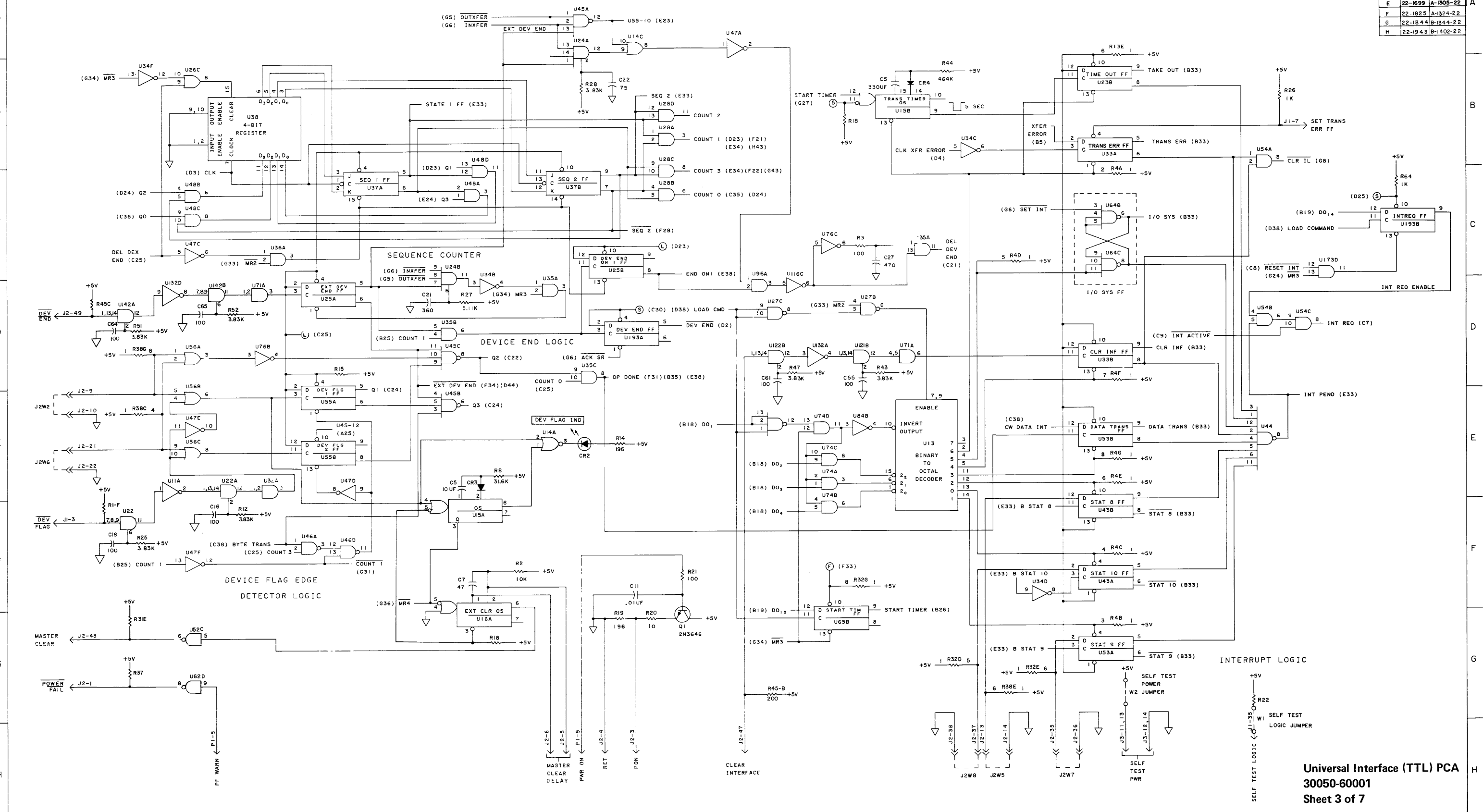


- 5. RESISTOR 18 GOES TO U15-5, U16-3, U17-11
 - 4. ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, 2% FILM
 - 3. ALL RESISTOR PACKS ARE 1K, 1810-0130
 - 2. ALL DISCRETE RESISTORS ARE 1K
 - 1. ALL CAPACITANCE VALUES ARE IN PICOFARADS
- NOTES: UNLESS OTHERWISE SPECIFIED

CHANGE	REFERENCE	REVISION/PREF
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1650	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22

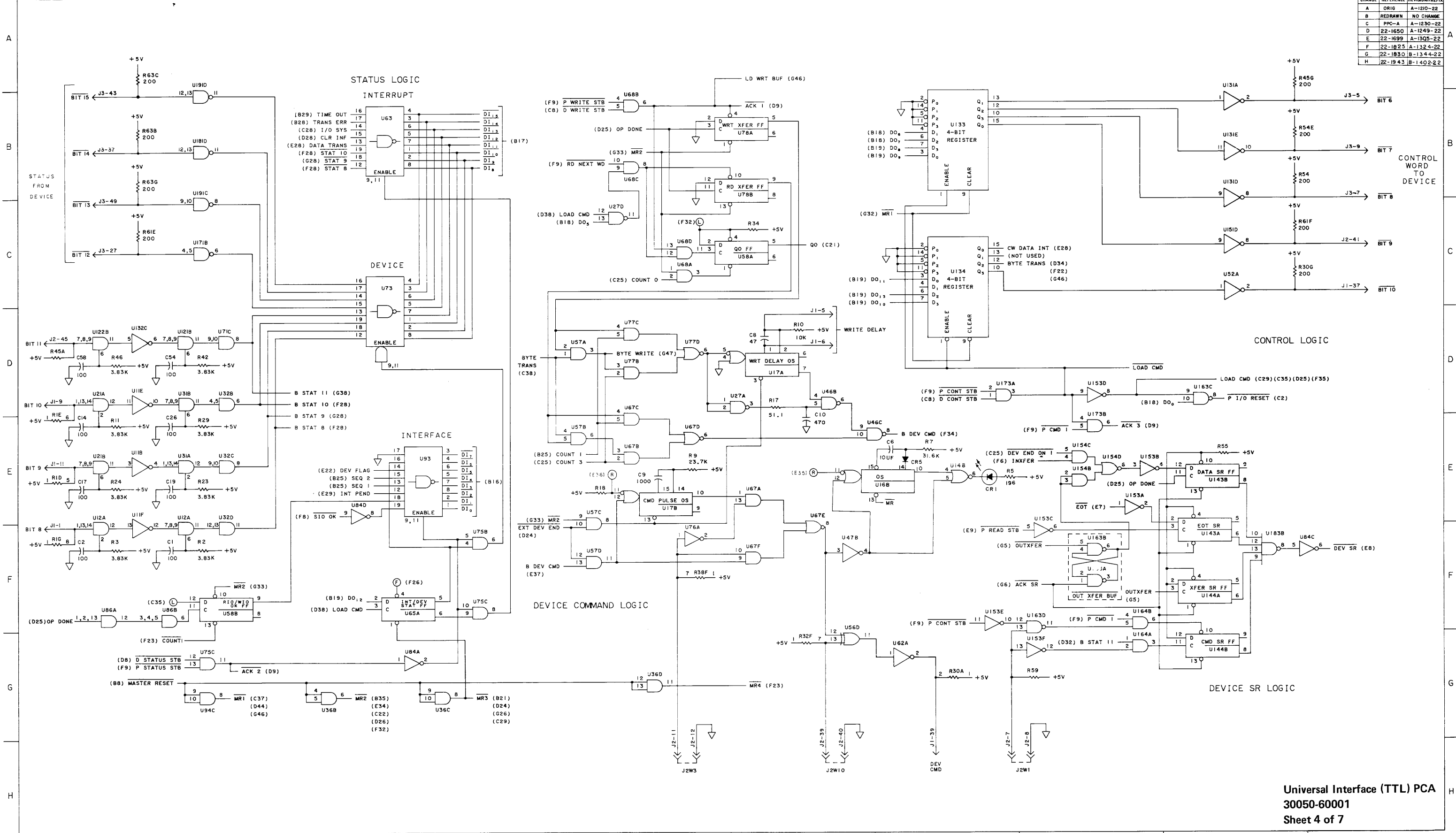


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1690	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1844	B-1344-22
H	22-1943	B-1402-22

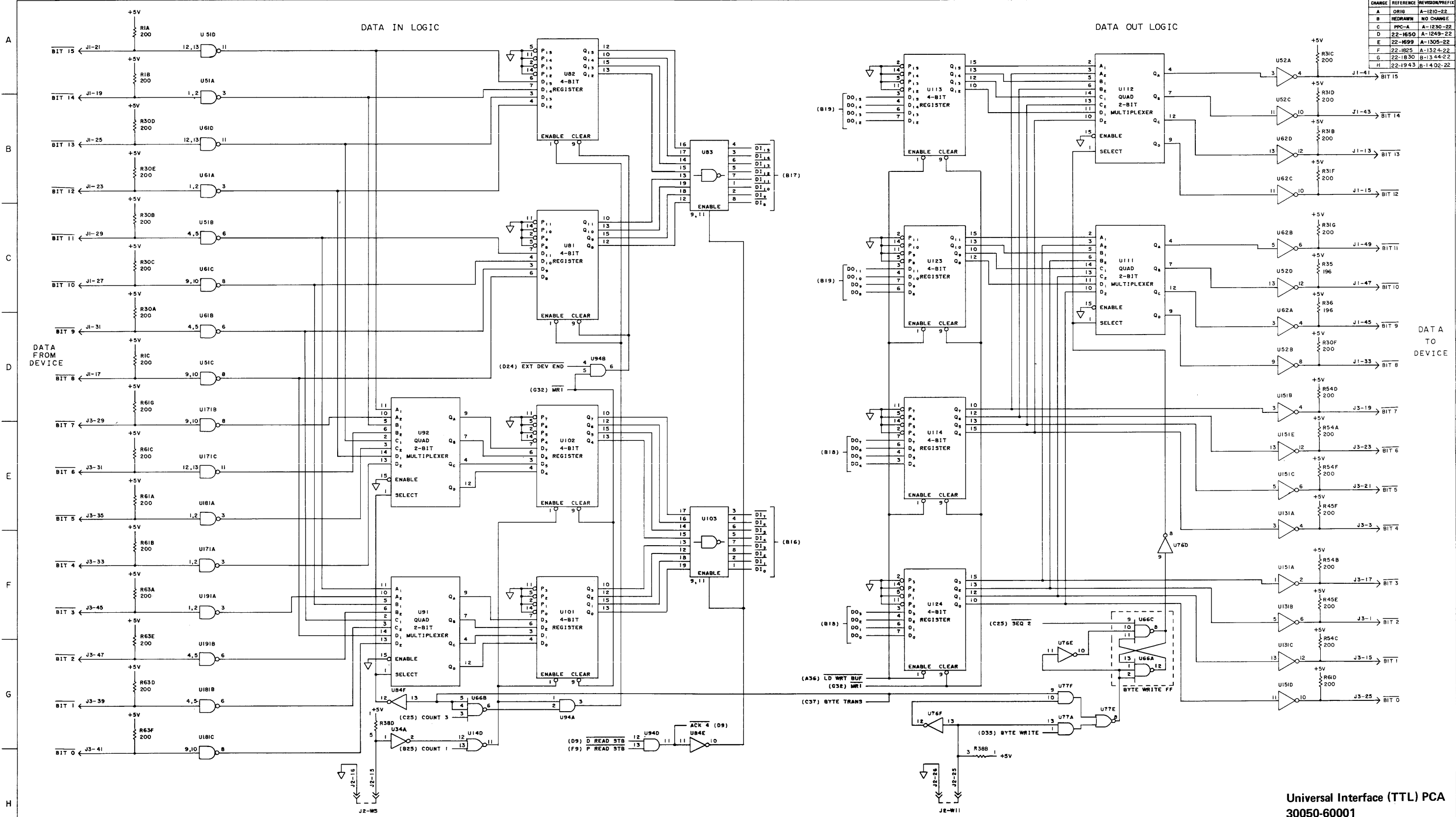


Universal Interface (TTL) PCA
30050-60001
Sheet 3 of 7

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1650	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22



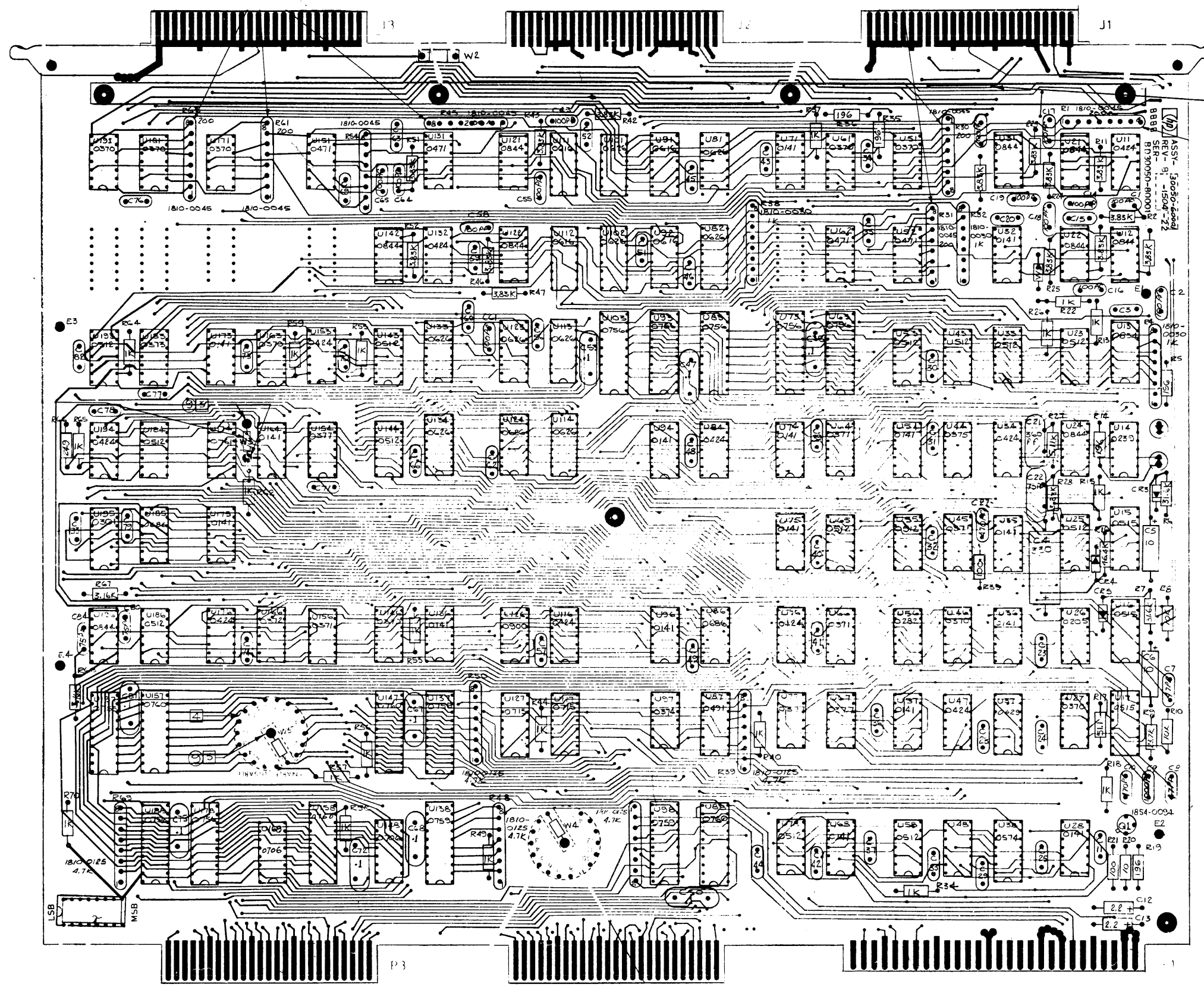
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-2E
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1650	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22



Universal Interface (TTL) PCA
30050-60001
Sheet 5 of 7

REV	DESCRIPTION	DATE
A	AS ISSUED PCO-72-1943	8/27/72
B	CHANGE VALUE FOR R13, R35, R46 WAS 200, R16 WAS 51K	9/22/72
C	ADD. ITEM 13, CHG. NOTE 9.	9/27/72
D	ADD. NOTE #10	9/27/72
E	PCO-72-1943. DATA CODE WAS B-1492	11/15/72
F	REVISION OF PART DESIGNATION FOR U11, U21, U22, U23, U24, U25, U26, U27, U28, U29, U30, U31, U32, U33, U34, U35, U36, U37, U38, U39, U40, U41, U42, U43, U44, U45, U46, U47, U48, U49, U50, U51, U52, U53, U54, U55, U56, U57, U58, U59, U60, U61, U62, U63, U64, U65, U66, U67, U68, U69, U70, U71, U72, U73, U74, U75, U76, U77, U78, U79, U80, U81, U82, U83, U84, U85, U86, U87, U88, U89, U90, U91, U92, U93, U94, U95, U96, U97, U98, U99, U100	11/15/72
G	ADDED 30372A 005 USA92	11/15/72

30050-60001
UNIV INTFC (TTL)



NOTE: UNLESS OTHERWISE SPECIFIED,
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W ±1% FILM
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01µF CERAMIC DISC
 ALL DIODES ARE 1901-0081
 ALL IC'S ARE -

Universal Interface (TTL) PCA

30050-60001

IC Index

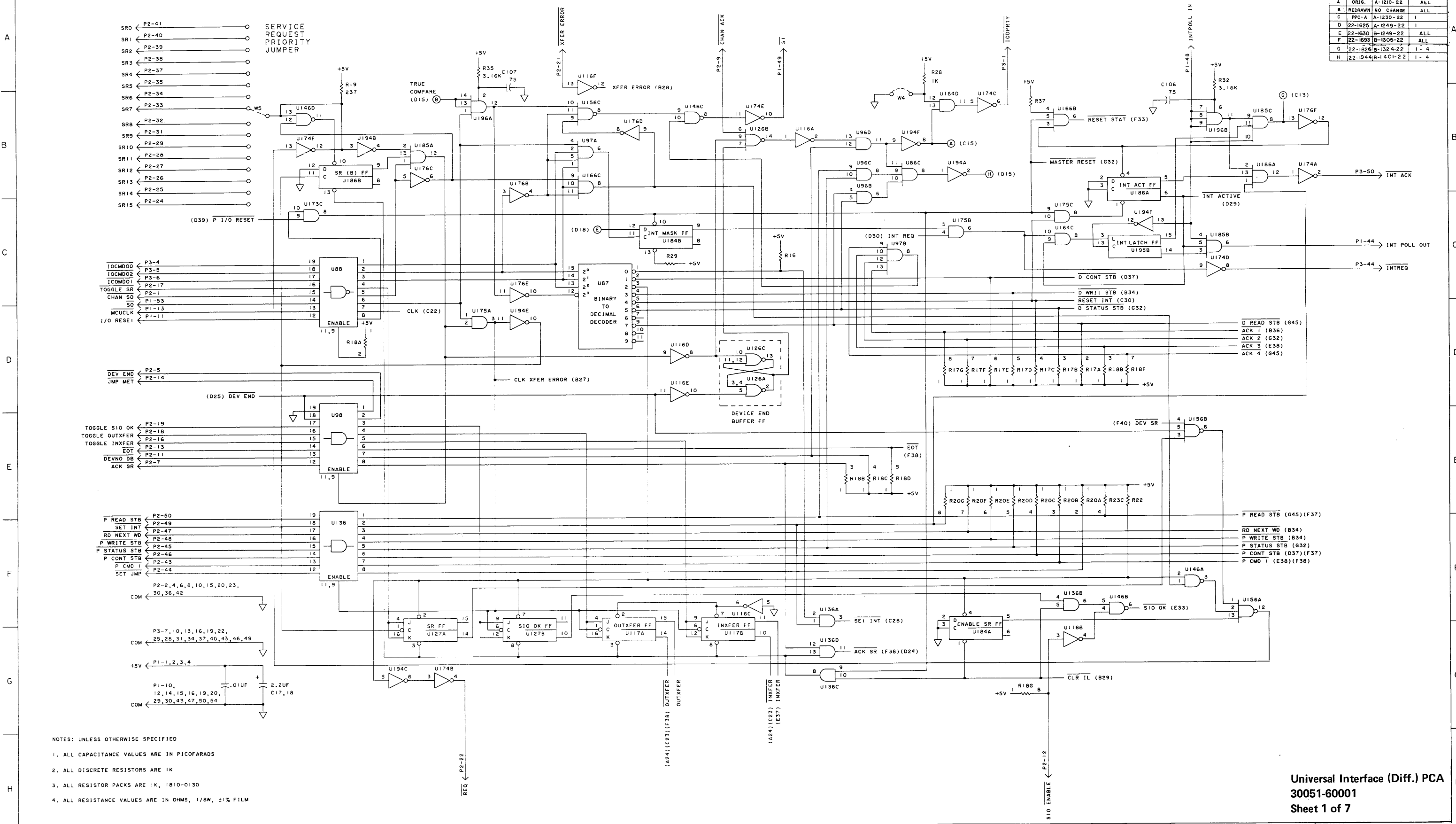
U	1820-	U	1820-	U	1820-
11	0424	64	0371	136	0141
12	0844	65	0512	137	0755
13	0834	66	0371	138	0759
14	0239	67	0377	142	0844
15-17	0515	68	0141	143,144	0512
21,22	0844	71	0141	146	0370
23	0512	73	0756	147	0760
24	0844	74,75	0141	148	0706
25	0512	76	0424	151	0471
26	0205	77	0377	153	0424
27	0370	78	0512	154	0377
28	0141	81,82	0626	156	0371
31	0844	83	0756	158	0760
32	0141	84	0424	163	0370
33	0512	86	0686	164	0141
34	0424	87	0491	166	0372
35,36	0141	88	0760	168	0706
37	0629	91,92	0616	171	0370
38	0574	93	0756	173	0141
43	0512	94	0141	174	0761
44	0375	96	0141	175	0141
45	0371	97	0374	176	0424
46	0370	98	0759	178	0756
47	0424	101,102	0626	181	0370
48	0141	103	0756	183	0373
51	0370	111,112	0616	184	0512
52	0471	113,114	0626	185	0686
53	0512	116	0424	186	0512
54	0141	117	0715	187	0760
55	0512	121,122	0844	188	0756
56	0282	123,124	0626	191	0370
57	0141	126	0900	193	0512
58	0512	127	0715	194	0424
61	0370	131	0471	195	0301
62	0471	132	0424	196	0844
63	0796	133,134	0626	197	0755

30051A

UNIVERSAL INTERFACE

UNIVERSAL INTERFACE (DIFF.) PCA 30051-60001 7 SHEETS

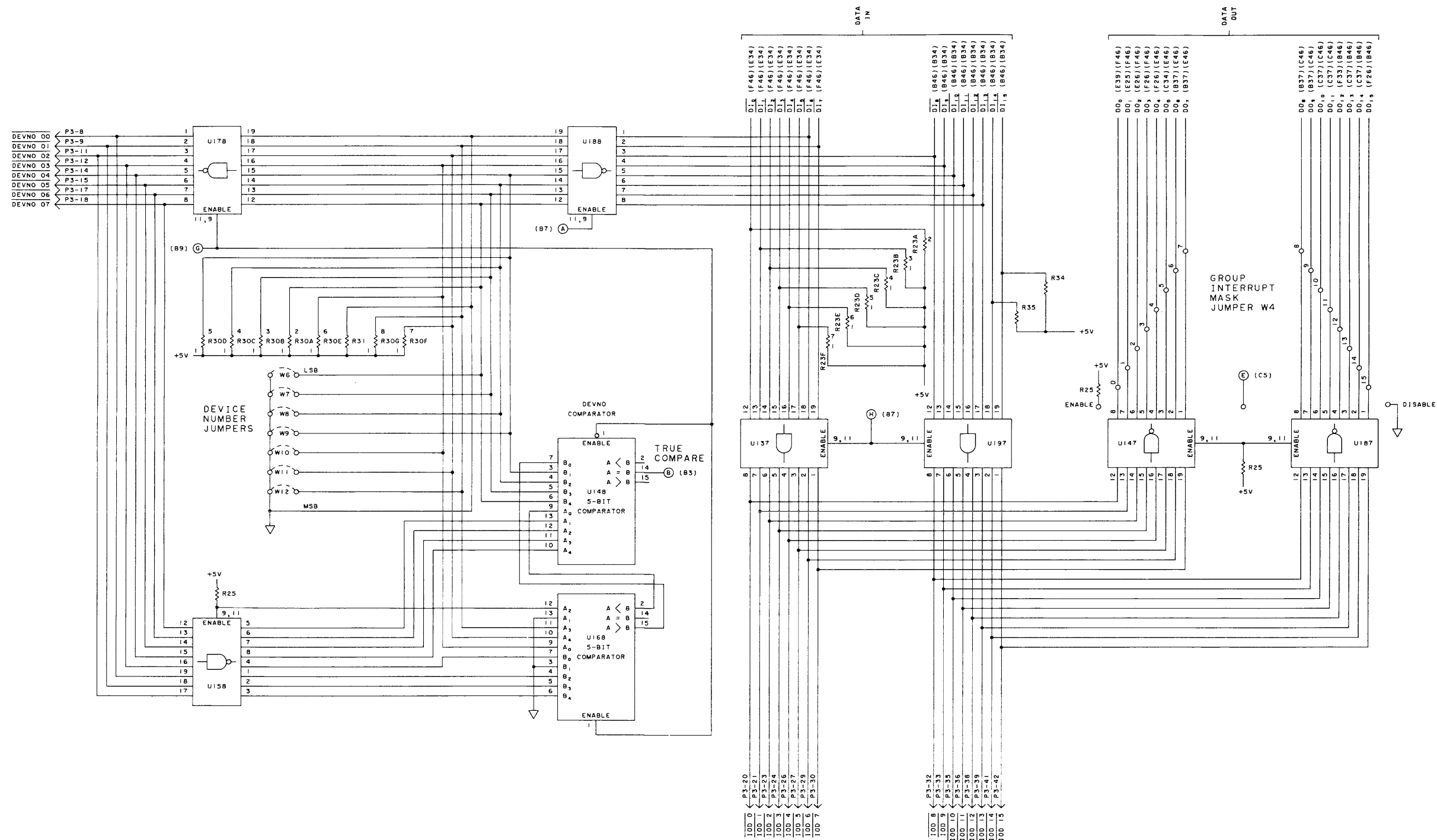
CHANGE	REFERENCE	REVISION PREFIX	SHEETS AFFECTED
A	ORIG.	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	PPC-A	A-1230-22	1
D	22-1625	A-1249-22	1
E	22-1630	B-1249-22	ALL
F	22-1693	B-1305-22	ALL
G	22-1826	B-1324-22	1-4
H	22-1944	B-1401-22	1-4



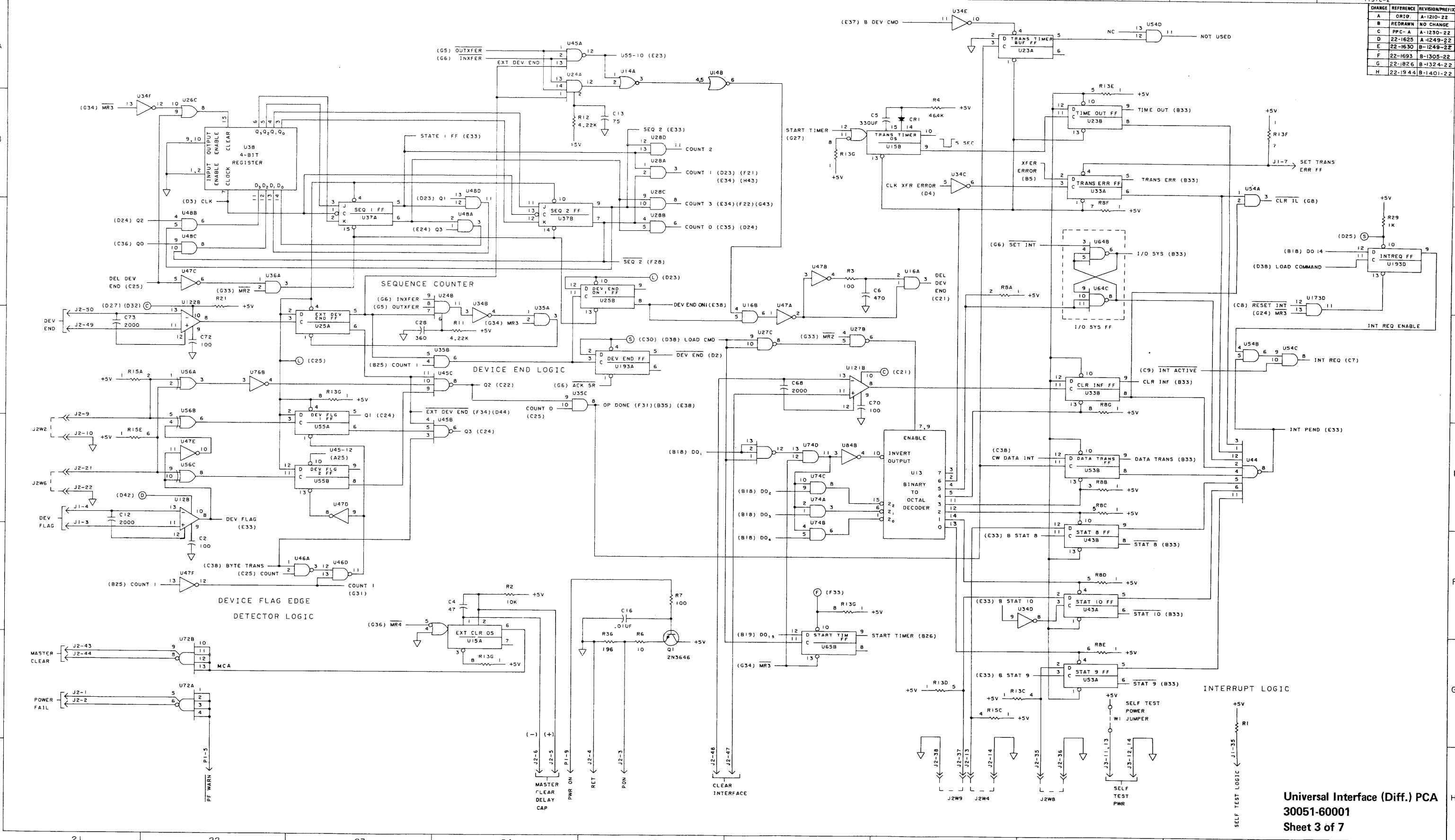
- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL CAPACITANCE VALUES ARE IN PICOFARADS
 2. ALL DISCRETE RESISTORS ARE 1K
 3. ALL RESISTOR PACKS ARE 1K, 1810-0130
 4. ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, ±1% FILM

Universal Interface (Diff.) PCA
 30051-60001
 Sheet 1 of 7

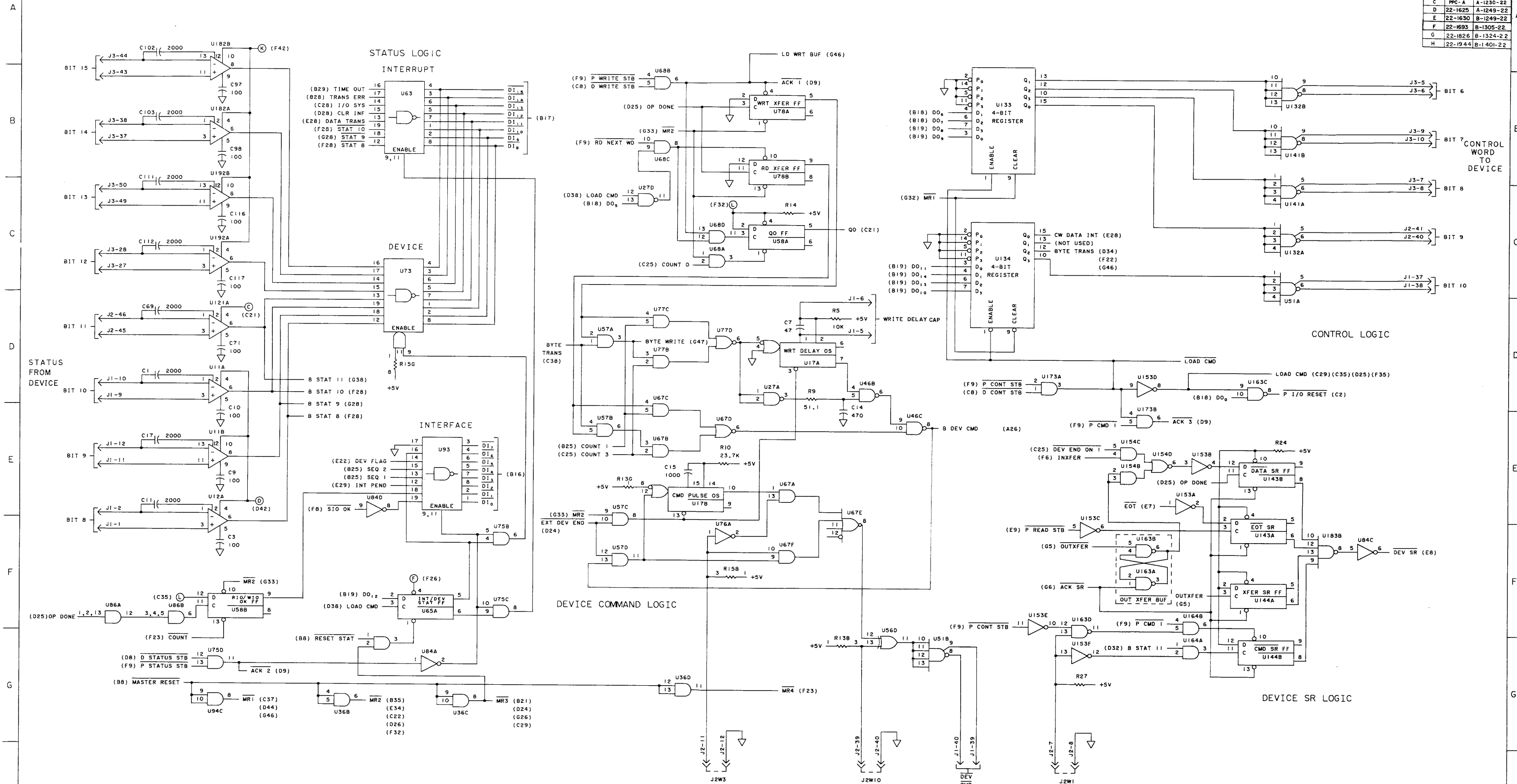
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1625	A-1249-22
E	22-1630	B-1249-22
F	22-1693	B-1305-22
G	22-1826	B-1324-22
H	22-1944	B-1401-22



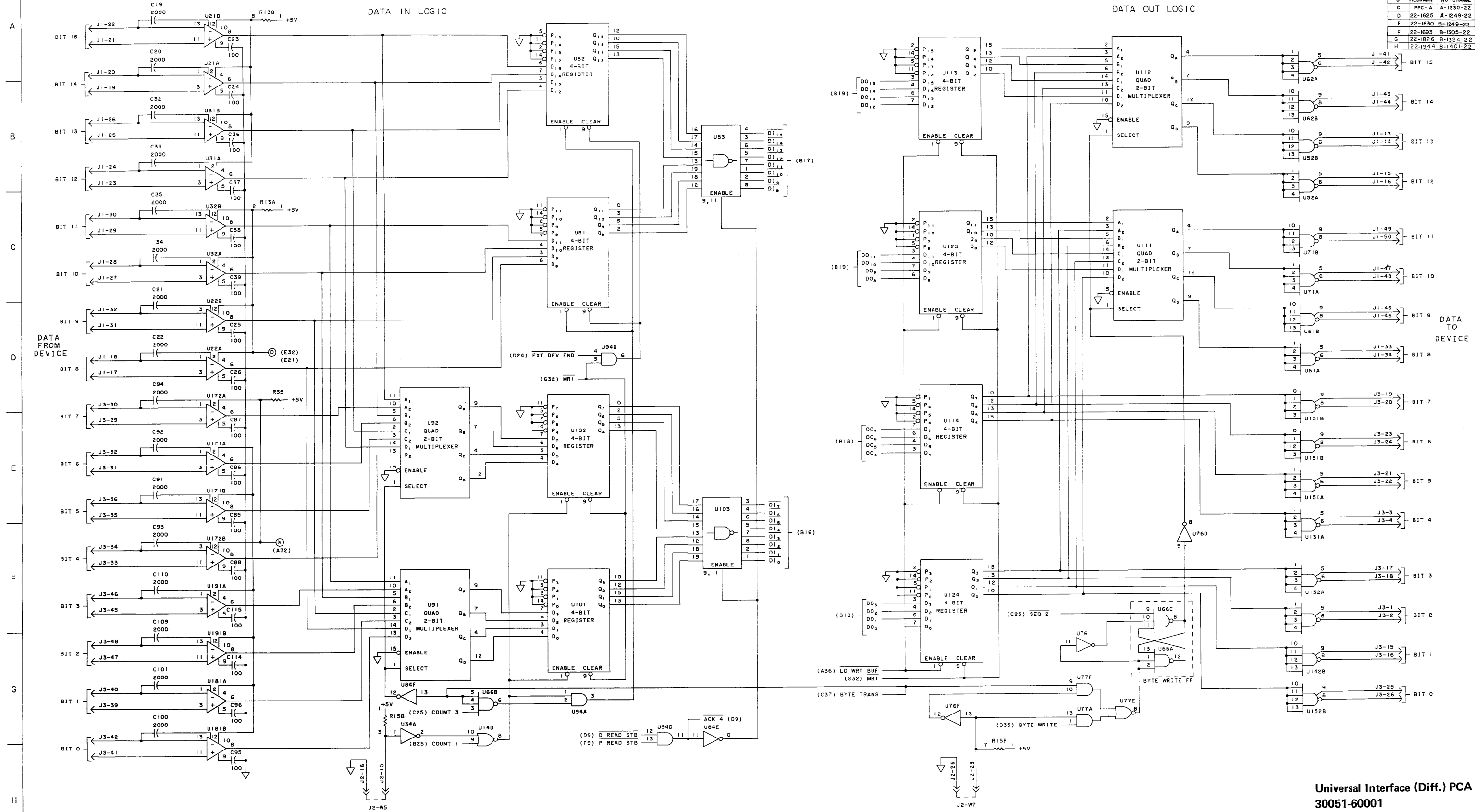
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1625	A-1249-22
E	22-1630	B-1248-22
F	22-1693	B-1305-22
G	22-1826	B-1324-22
H	22-1944	B-1401-22



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1625	A-1249-22
E	22-1630	B-1249-22
F	22-1693	B-1305-22
G	22-1826	B-1324-22
H	22-1944	B-1401-22

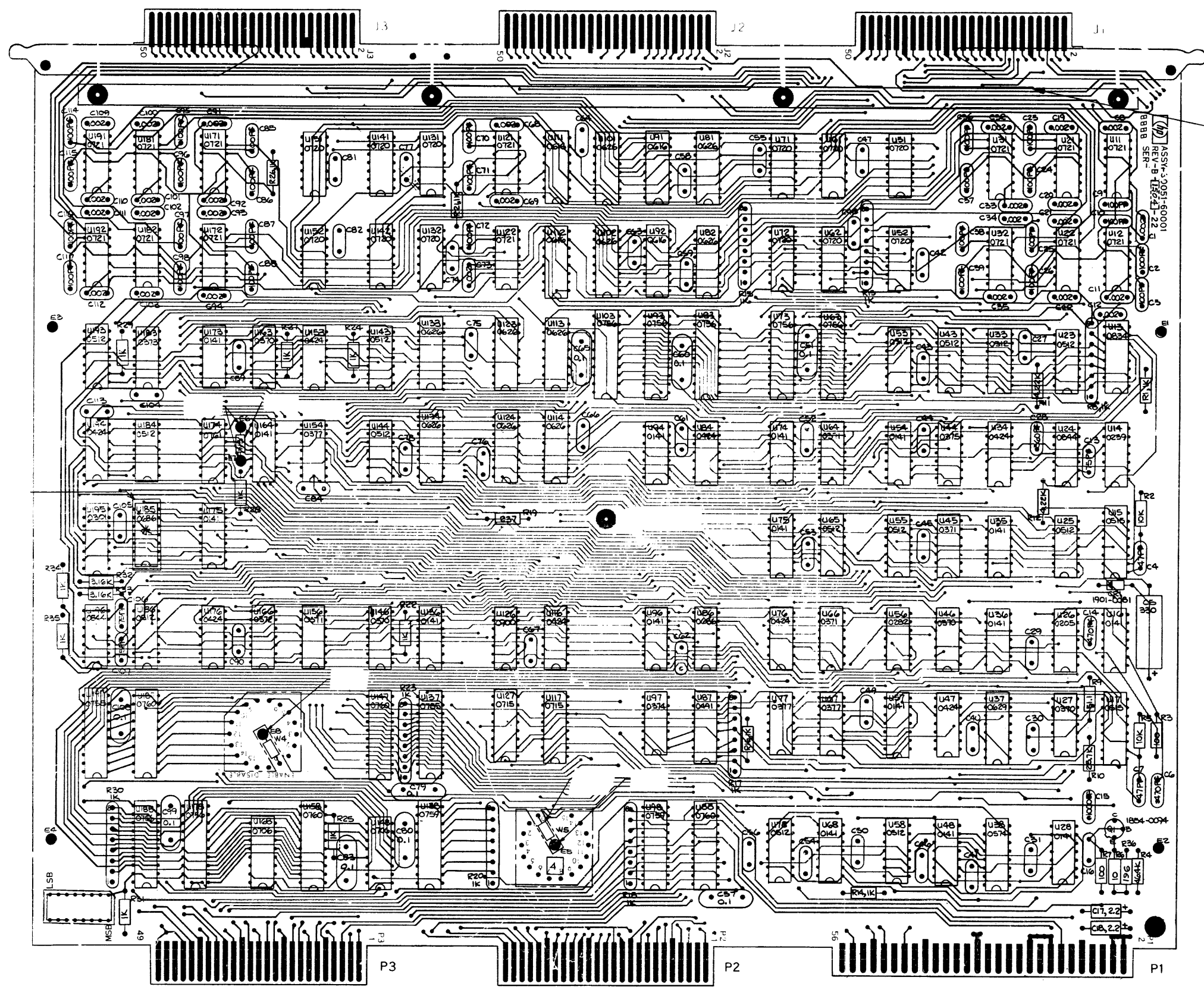


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC - A	A-1230-22
D	22-1625	A-1249-22
E	22-1630	B-1249-22
F	22-1693	B-1305-22
G	22-1826	B-1324-22
H	22-1944	B-1401-22



Universal Interface (Diff.) PCA
30051-60001
Sheet 5 of 7

A	AS ISSUED	1-12-71
B	REV. 21-4854, CRT & TRANSFORMER	1-12-71
C	REV. 21-4854, CRT & TRANSFORMER	1-12-71
D	REV. 21-4854, CRT & TRANSFORMER	1-12-71
E	CHG. NOTE 6, ADD. NOTE #11	2-13-71
F	CHG. NOTE 6	2-13-71
G	REV. 21-4854, CRT & TRANSFORMER	2-13-71
H	ADD. NOTE 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	5-28-71
J	ADD. NOTE 12	5-28-71



1000P-1500P
(DIFF) UNN INTFC (DIFF)

NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS ± 1% 1/4W
 CAPACITANCE VALUES ARE IN MICROFARADS
 CAPACITORS ARE .01 CER DISC.
 IC'S ARE 1820-

Universal Interface (Diff.) PCA

30051-60001

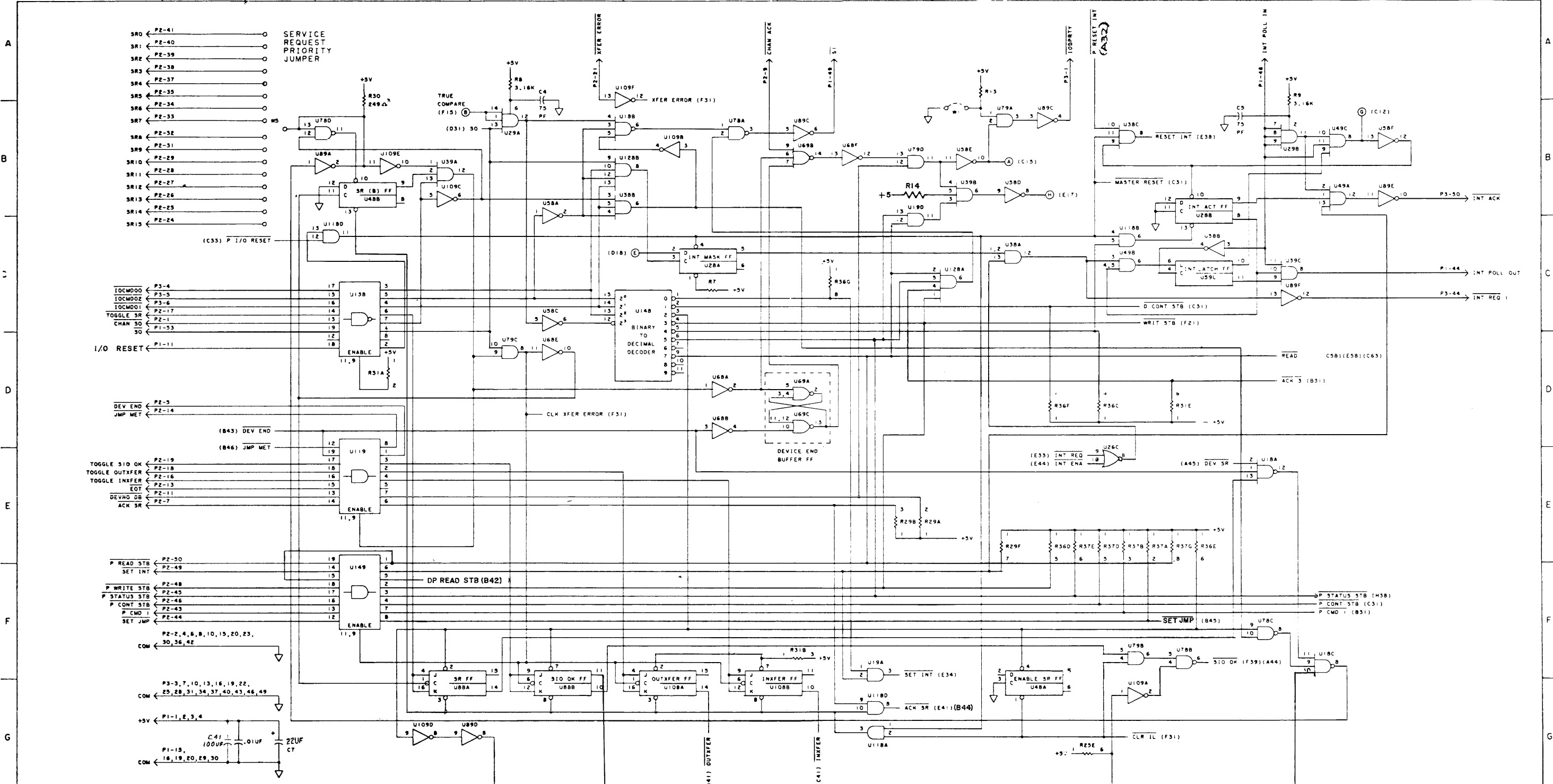
IC Index

U	1820-	U	1820-	U	1820-
11,12	0721	65	0512	141,142	0720
13	0834	66	0371	143,144	0512
14	0239	67	0377	146	0370
15	0515	68	0141	147	0760
16	0141	71,72	0720	148	0706
17	0515	73	0756	151,152	0720
21,22	0721	74,75	0141	153	0424
23	0512	76	0424	154	0377
24	0844	77	0377	156	0371
25	0512	78	0512	158	0760
26	0205	81,82	0626	163	0370
27	0370	83	0756	164	0141
28	0141	84	0424	166	0372
31,32	0721	86	0686	168	0706
33	0512	87	0441	171,172	0721
34	0424	88	0760	173	0141
35,36	0141	91,92	0616	174	0761
37	0629	93	0756	175	0141
38	0574	94	0141	176	0424
43	0512	96	0141	178	0756
44	0375	97	0374	181,182	0721
45	0371	98	0759	183	0373
46	0141	101,102	0616	184	0512
47	0424	113,114	0626	185	0686
48	0141	116	0484	186	0812
51,52	0720	117	0715	187	0760
53	0512	121,122	0616	188	0756
54	0141	123,124	0626	191,192	0721
55	0512	126	0900	193	0512
56	0282	127	0715	194	0424
57	0141	131,132	0720	195	0301
58	0512	133,134	0626	196	0844
61,62	0720	136	0141	197	0755
63	0756	137	0755		
64	0371	138	0759		

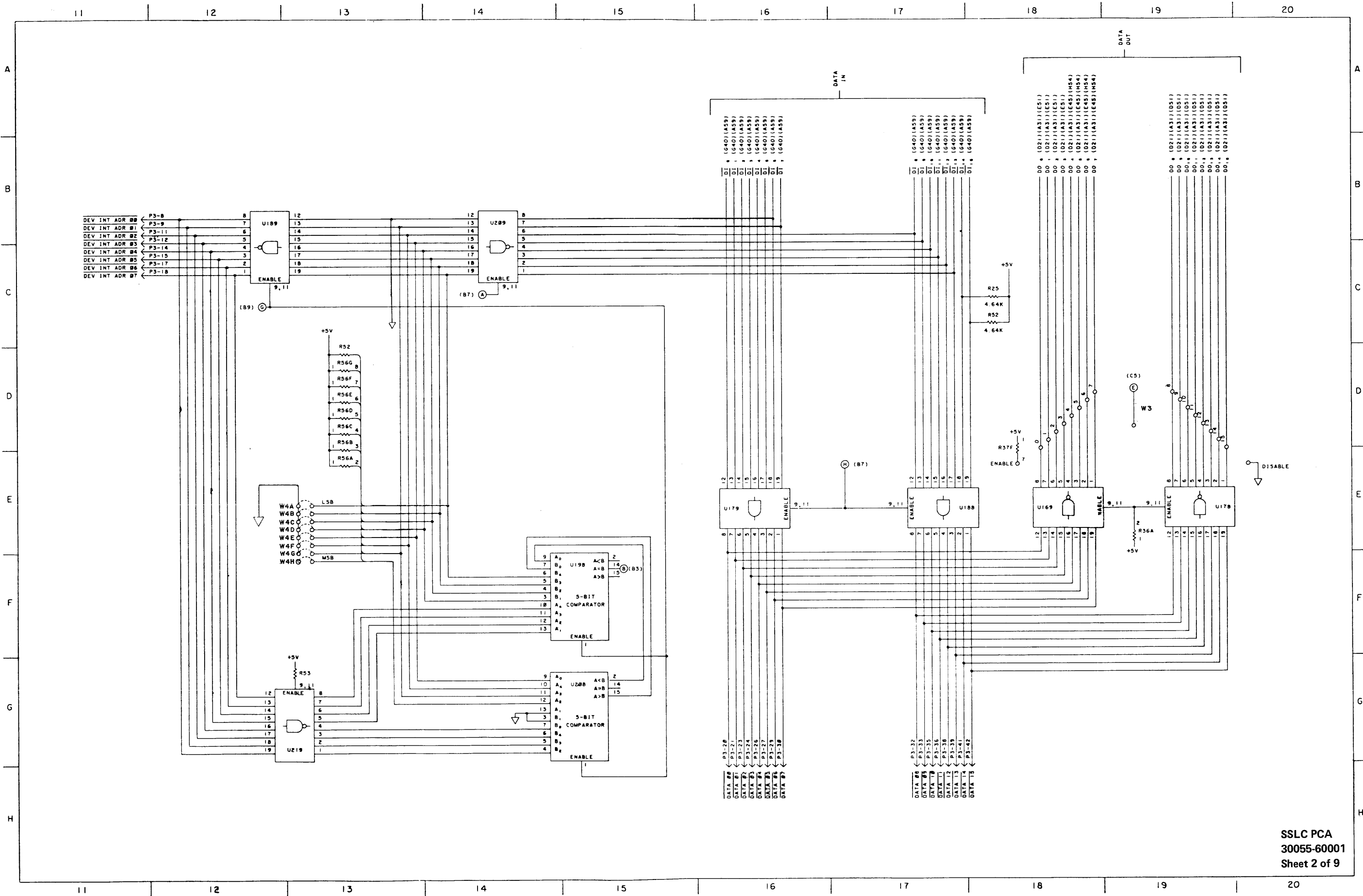
30055A

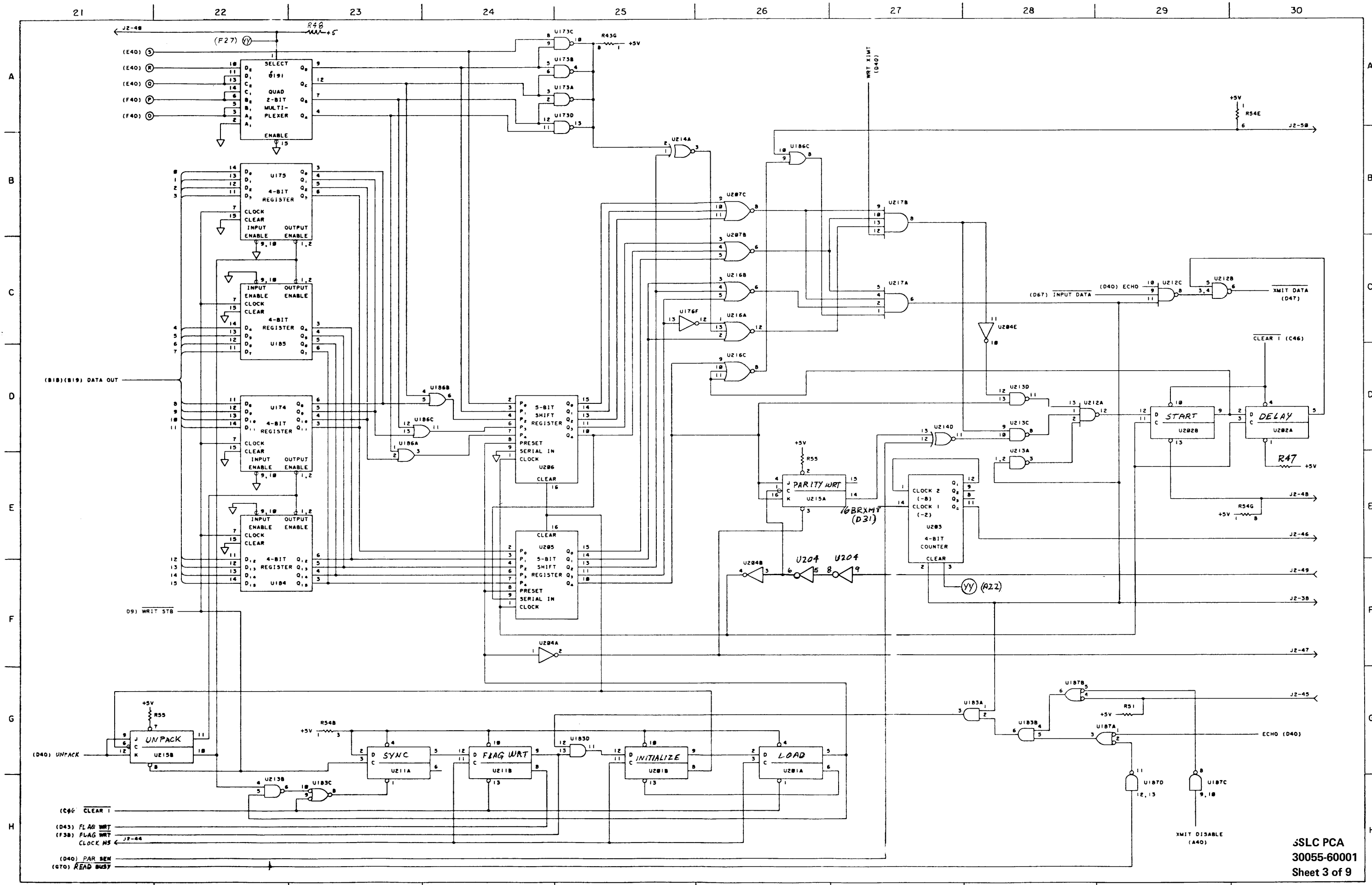
SYNCHRONOUS SINGLE LINE CONTROLLER (SSLC)

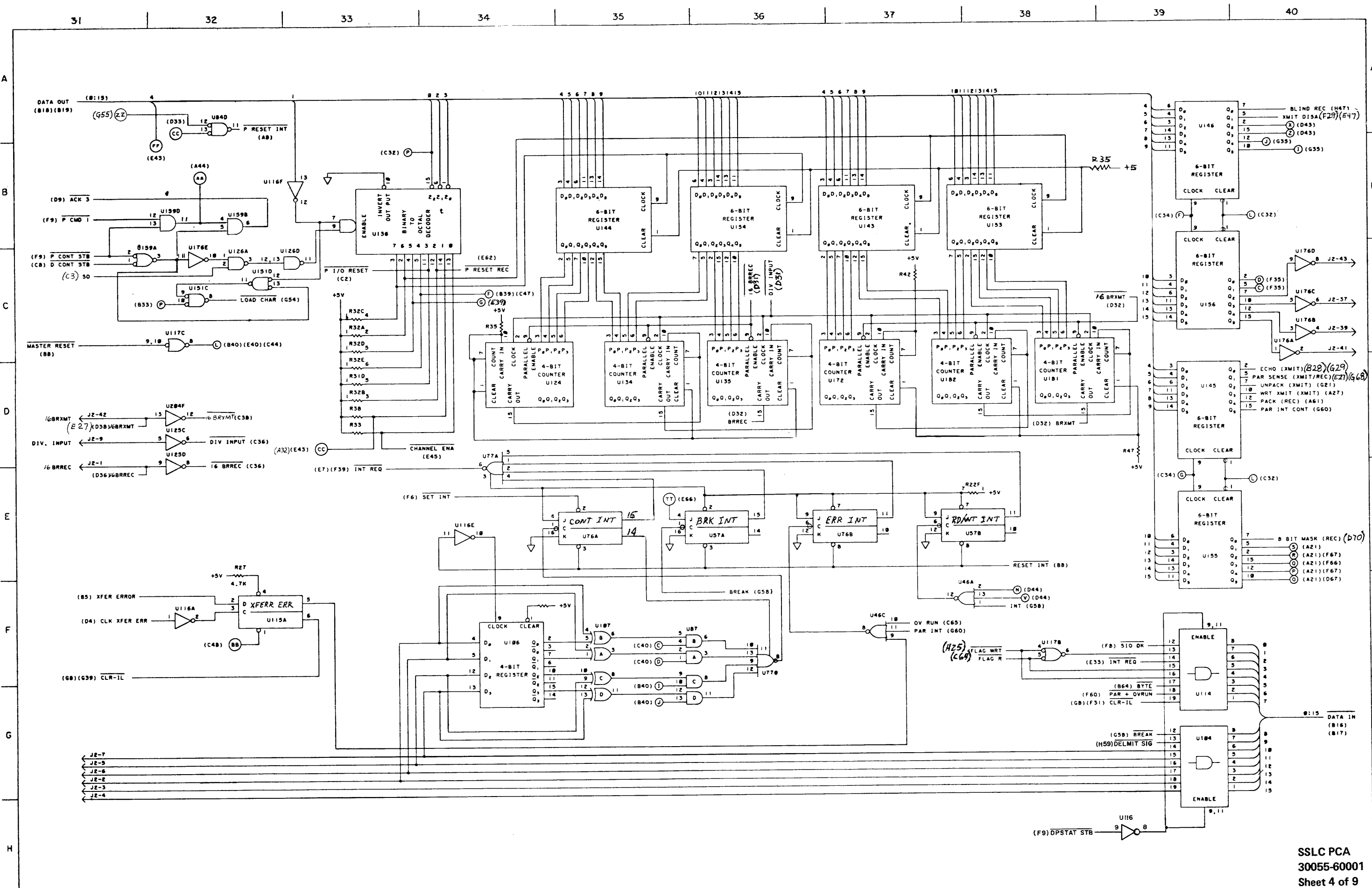
SSLC 30055-60001 9 SHEETS

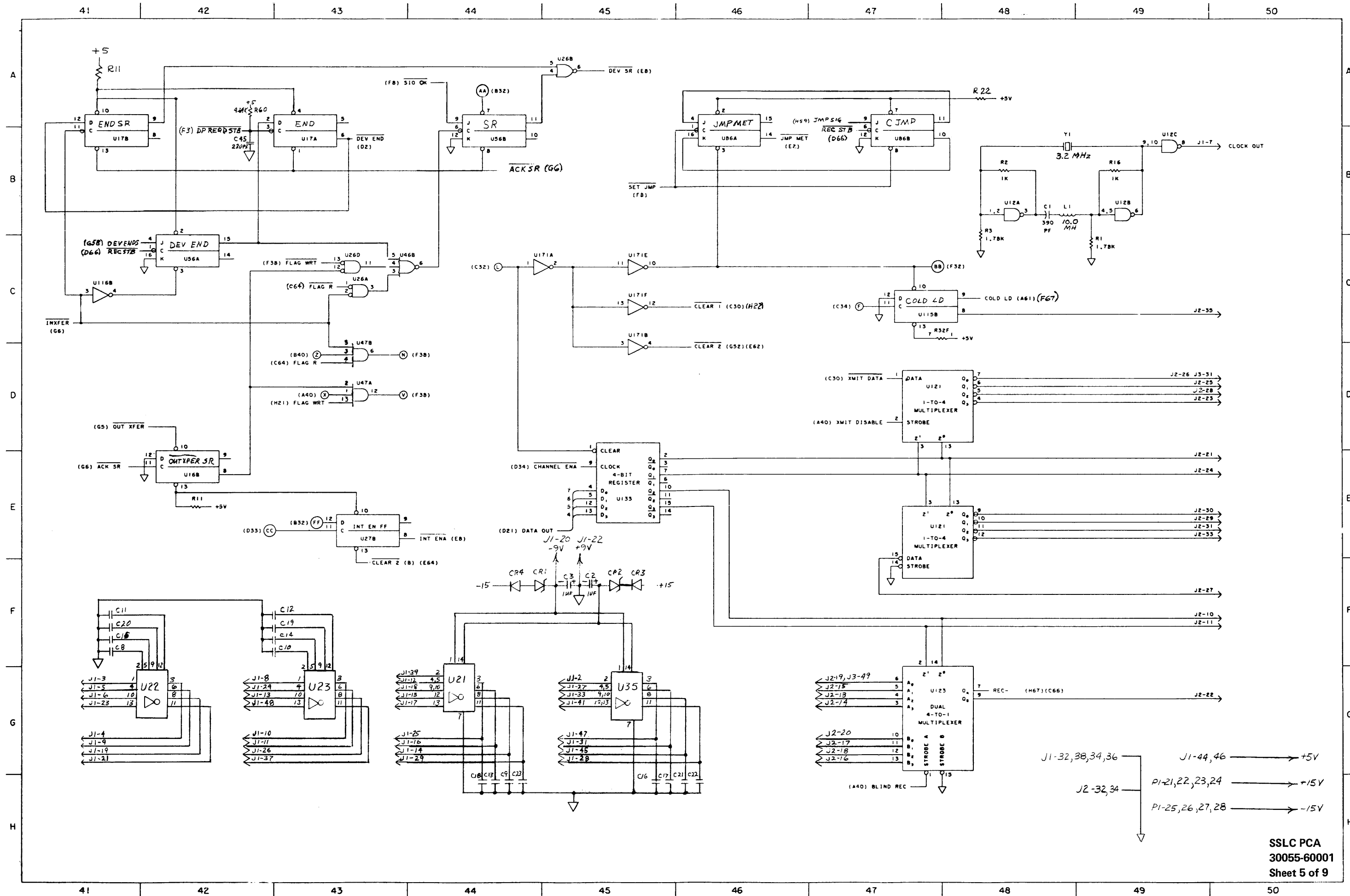


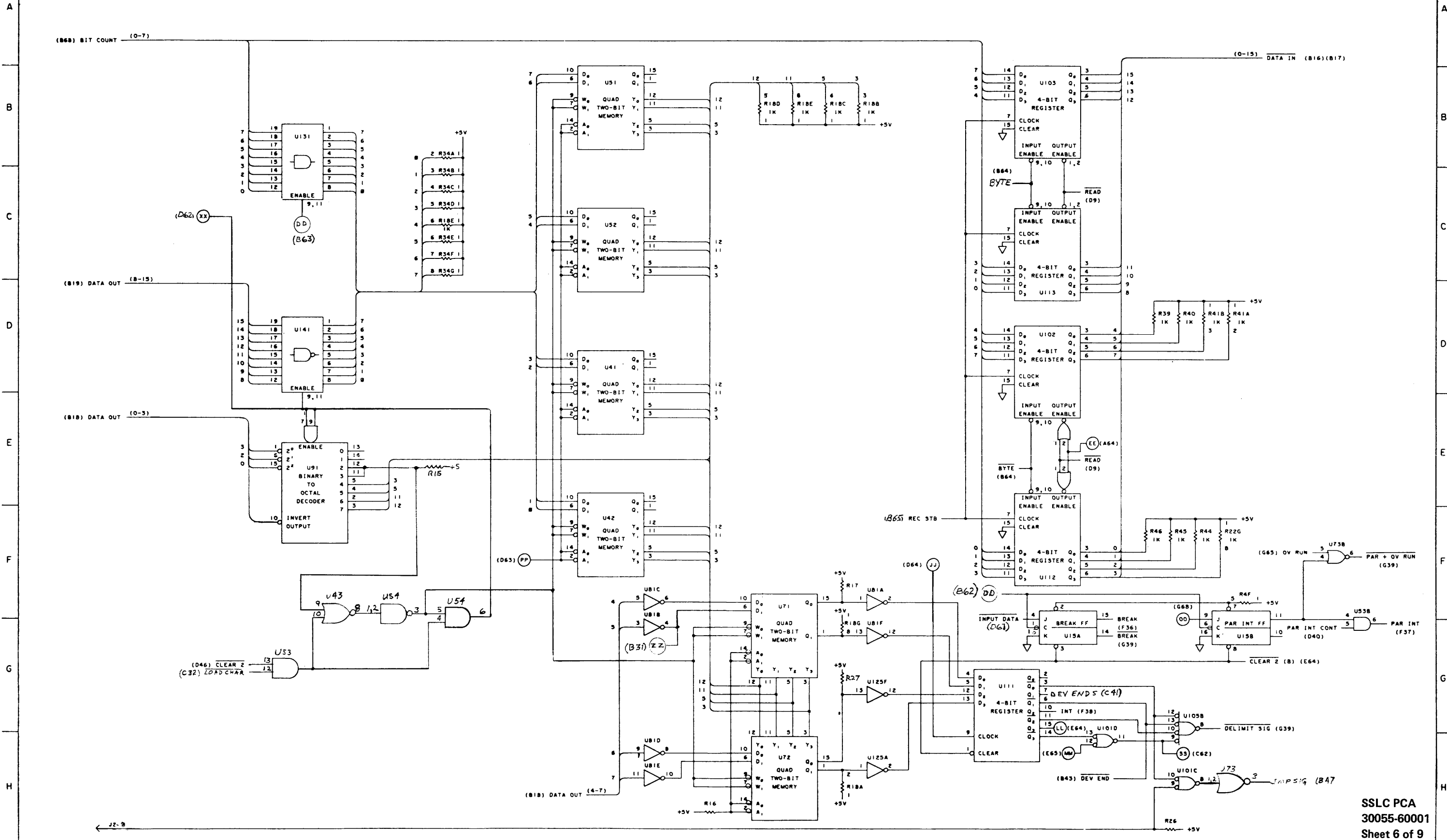
- 1. ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, 5% FILM
 - 2. ALL RESISTOR PACKS ARE 1K, 1810-0125
 - 3. ALL DISCRETE RESISTORS ARE 4.64K
 - 4. ALL CAPACITANCE VALUES ARE IN PICOFARADS
- NOTES: UNLESS OTHERWISE SPECIFIED

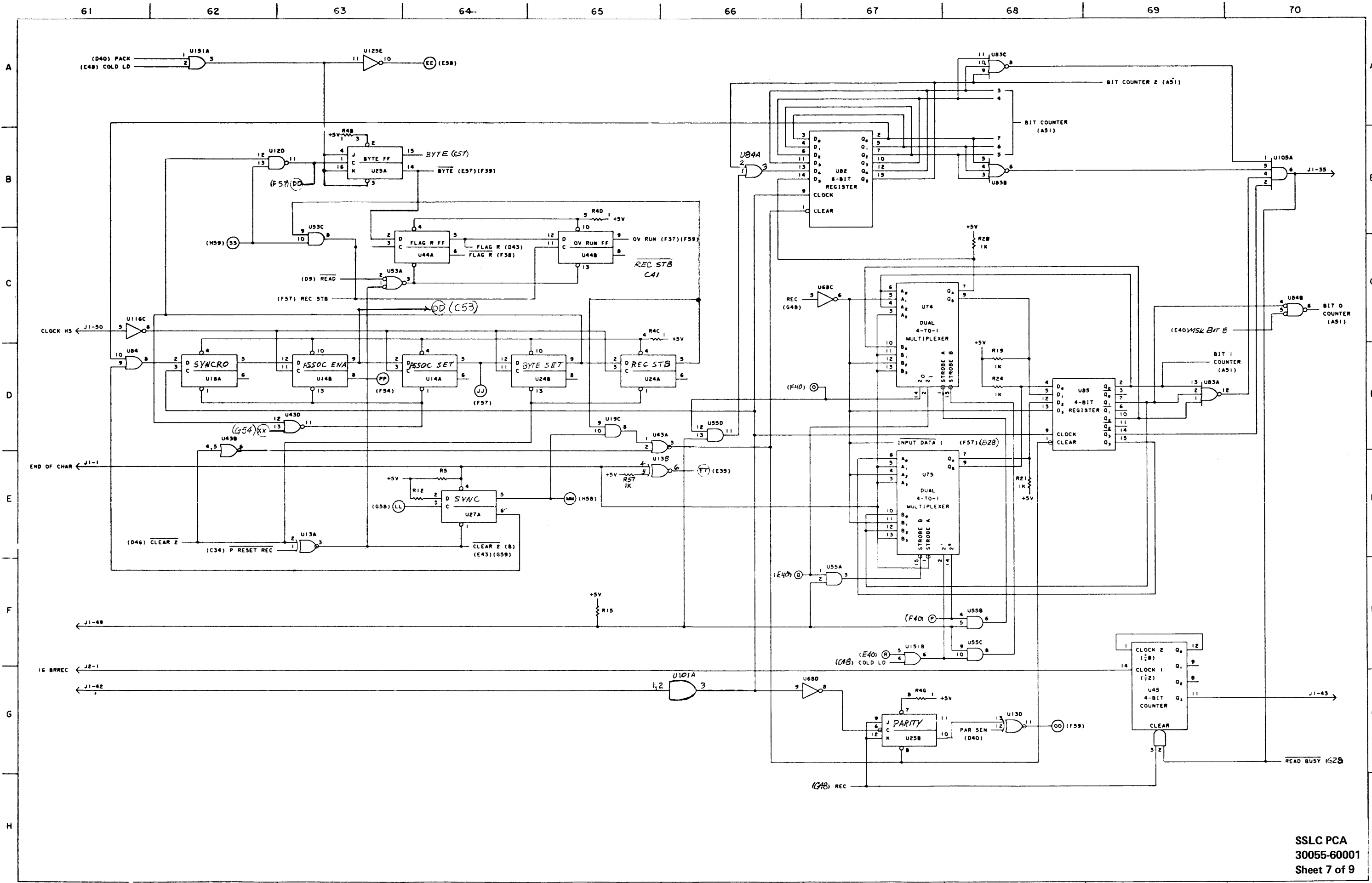




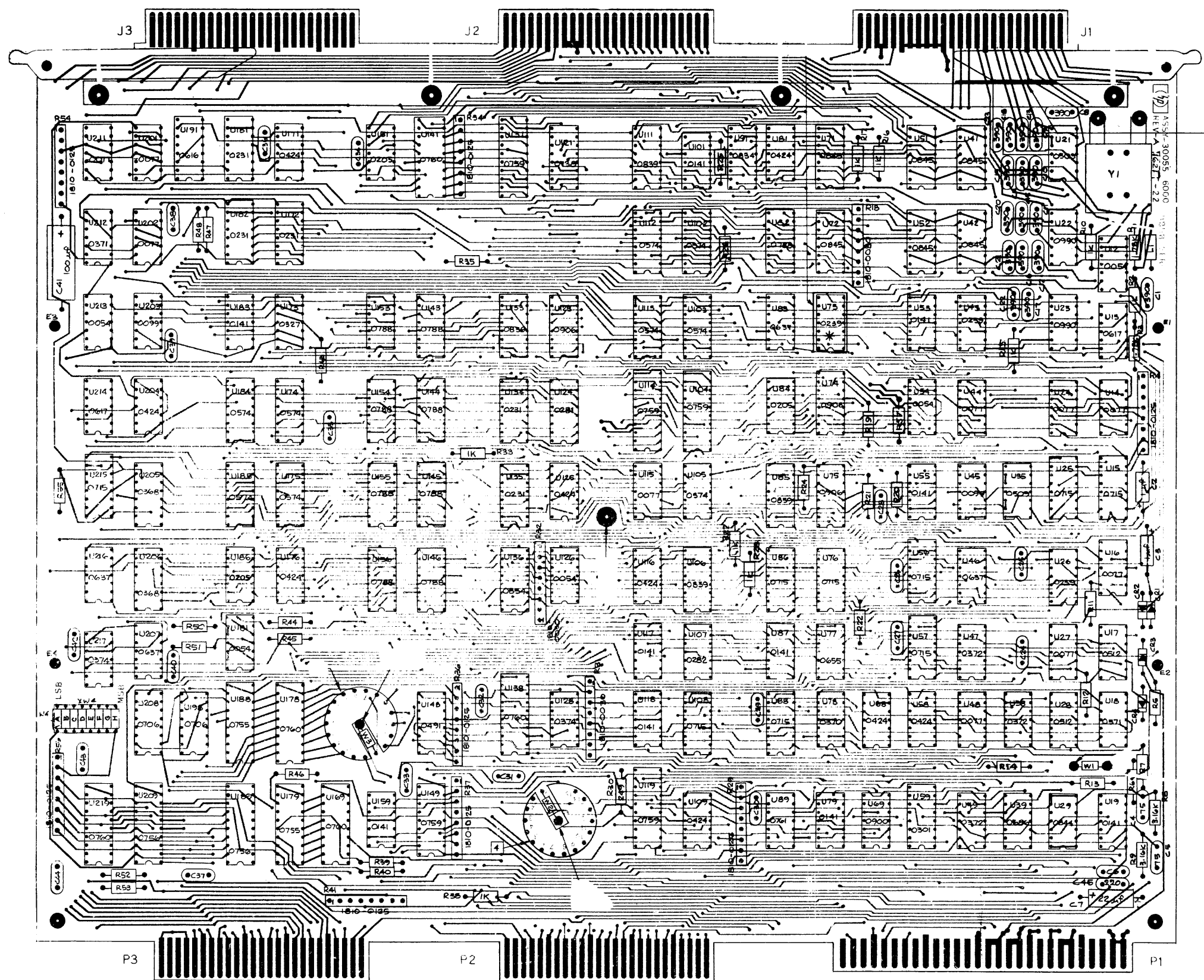








A	AS 1550KD	REV. 1
B	PROJ. 22-2158, PLCT. 30055-60001, 1550-12	REV. 1
C	DATE COMP. 11-15-67	REV. 1
D	DESIGNED BY: J. J. WILSON	REV. 1



30055-60001
SYNC SCL LINE DRIVER

1. UNLESS OTHERWISE SPECIFIED:
 ALL RESISTORS IN OHMS
 ALL RESISTORS 4-64K, 1/8W, 1% MF
 ALL CAPACITORS IN PF
 ALL CAPACITORS 0.1 MF
 ALL DIODES 1901-0040
 ALL IC'S 1520-

SSLC PCA

30055-60001

IC Index

U	1820-	U	1820-	U	1820-
12	0054	76	0715	138	0760
13	0617	77	0655	141	0760
14	0077	78	0370	143-146	0788
15	0715	79	0141	148	0491
16	0066	81	0424	149	0759
17	0512	82	0788	151	0205
18	0571	83	0637	153-156	0788
19	0141	84	0205	159	0141
21	0509	85	0839	169	0760
22,23	0990	86	0715	171	0424
24	0077	87	0141	172	0231
25	0715	88	0715	173	0327
26	0239	89	0761	174,175	0574
27	0077	101	0141	176	0424
28	0512	102,103	0574	178	0760
29	0844	104	0759	179	0755
35	0509	105	0574	181,182	0231
38	0372	106	0839	183	0141
39	0686	107	0282	184,185	0574
41,42	0845	108	0715	186	0205
43	0259	109	0424	187	0054
44	0077	111	0839	188	0755
45	0099	112,113	0574	189	0756
46	0637	114	0759	191	0616
47	0372	115	0077	198	0706
48	0077	116	0424	201,202	0077
49	0372	117,118	0141	203	0099
51,52	0141	119	0759	204	0424
54	0054	121	0738	205,206	0368
55	0141	123	0906	207	0637
56,57	0715	124	0281	208	0706
58	0424	125	0424	209	0756
59	0301	126	0054	211	0077
68	0424	128	0374	212	0371
69	0900	131	0759	213	0054
71,72	0845	133	0838	214	0617
73	0239	134,135	0231	215	0715
74,75	0906	136	0834	216	0637
				217	0374
				219	0760

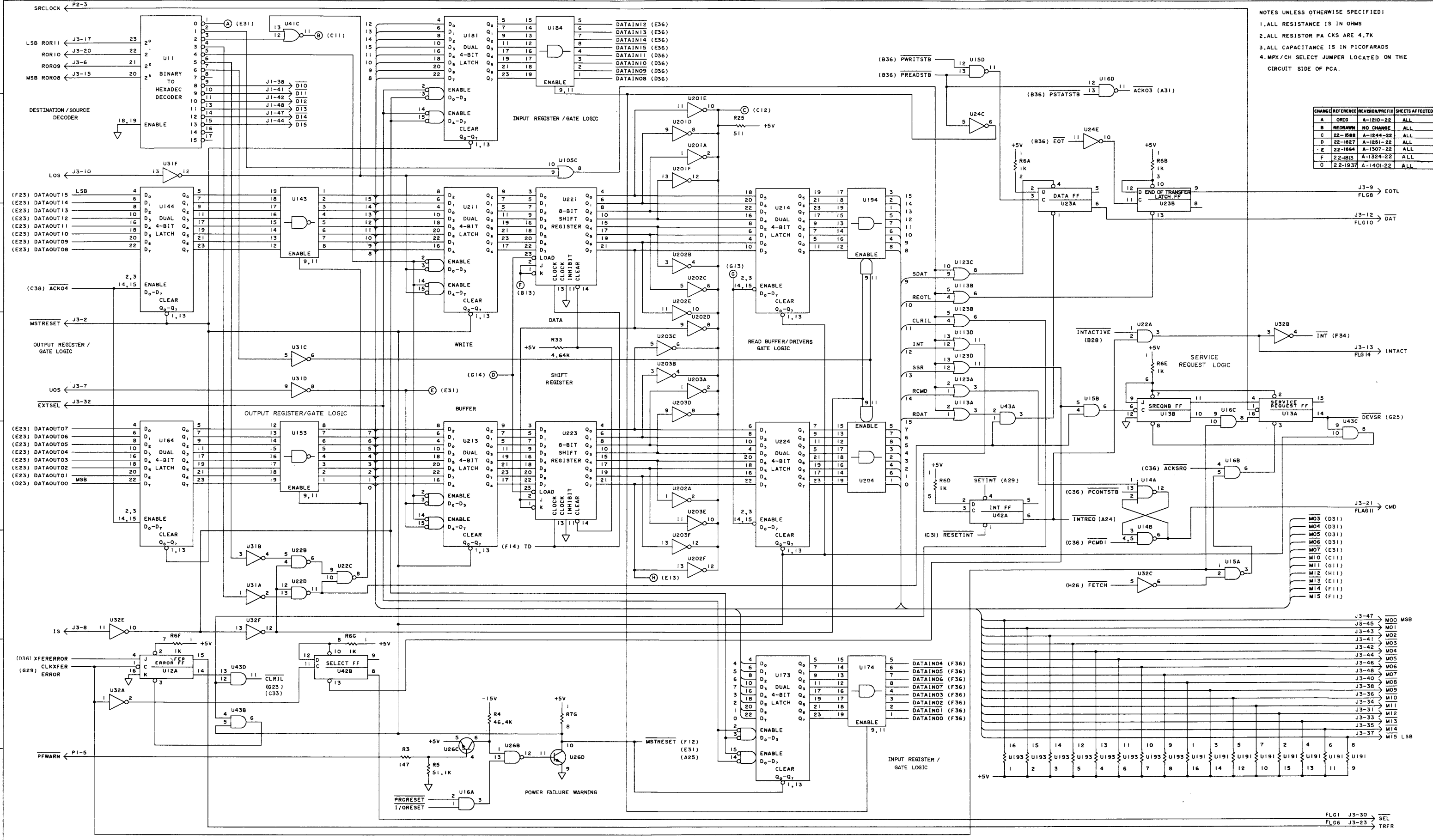
30061A
TERMINAL CONTROLLER

(SEE PRODUCT 30032B)

30102A

DISC DRIVE (HP 2888A) CONTROLLER INTERFACE

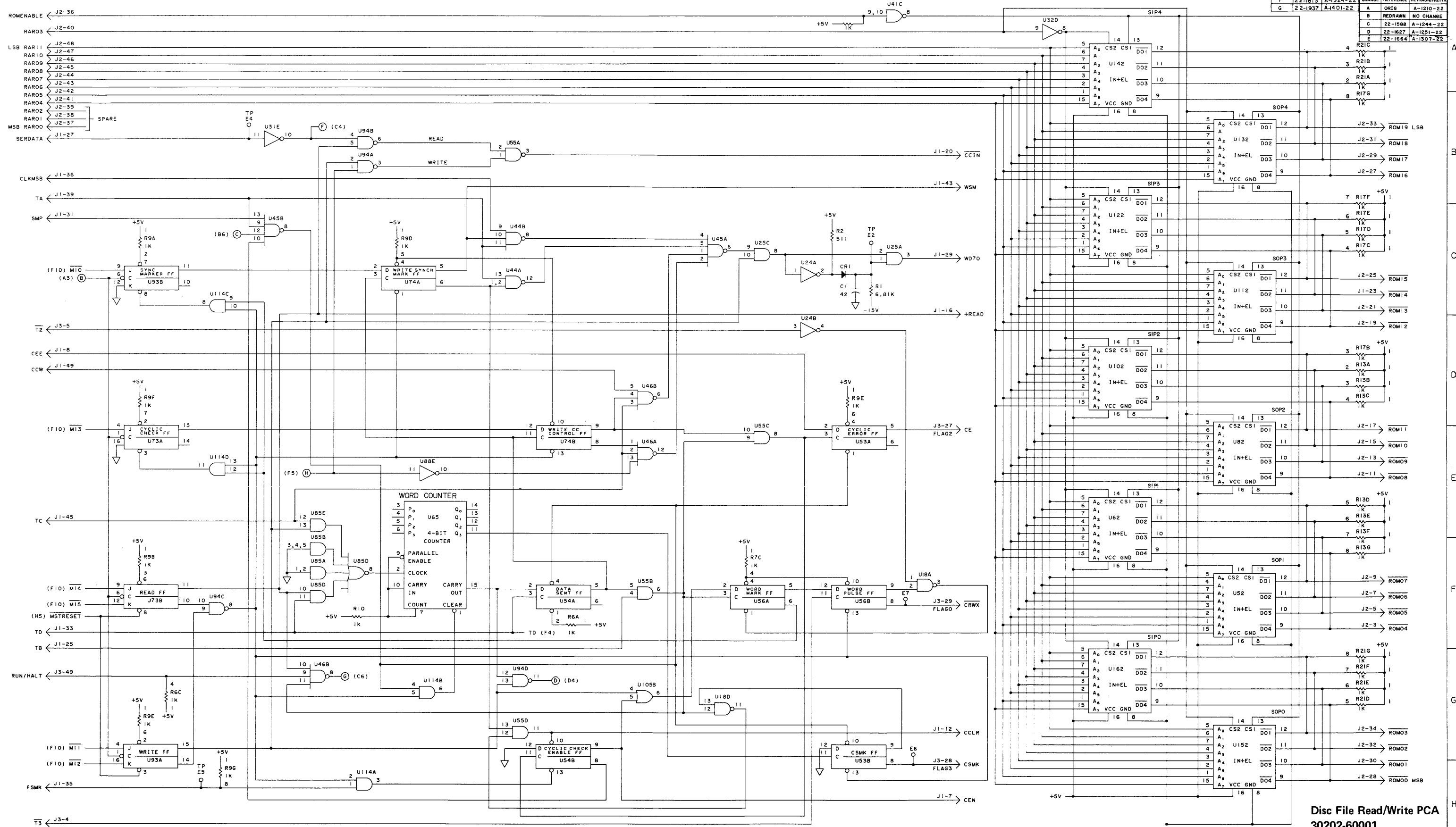
DISC FILE READ/WRITE PCA	30202-60001	6 SHEETS
DISC FILE BUS PCA	30202-60002	5 SHEETS
DISC CONTROLLER PROCESSOR PCA	30202-60003	6 SHEETS



NOTES UNLESS OTHERWISE SPECIFIED:
 1. ALL RESISTANCE IS IN OHMS
 2. ALL RESISTOR PACKS ARE 4.7K
 3. ALL CAPACITANCE IS IN PICOFARADS
 4. MPX/CH SELECT JUMPER LOCATED ON THE CIRCUIT SIDE OF PCA.

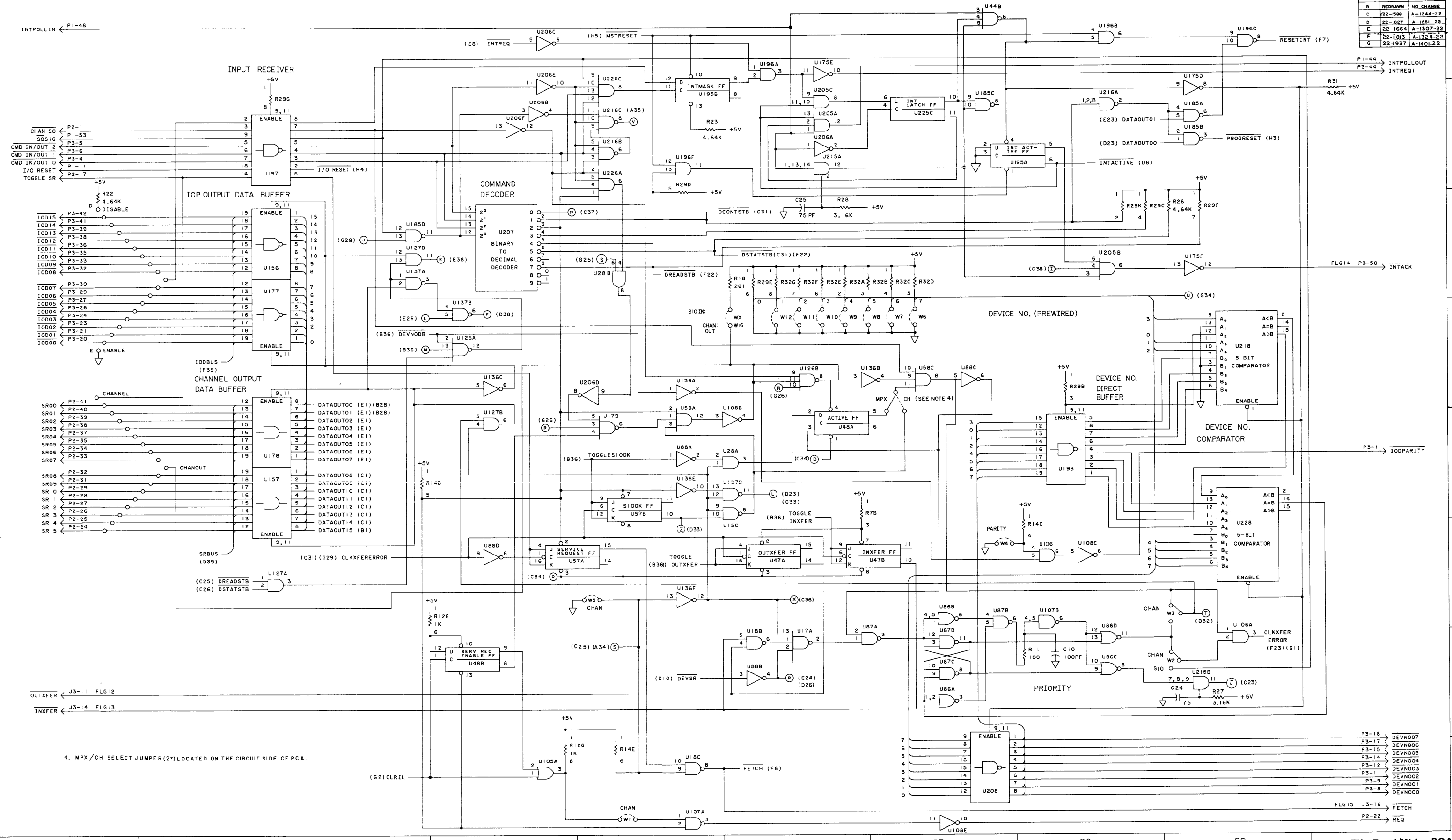
CHANGE	REFERENCE	REVISION/PREFIX	SHEETS AFFECTED
A	ORIG	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	22-1588	A-1244-22	ALL
D	22-1627	A-1251-22	ALL
E	22-1664	A-1307-22	ALL
F	22-1815	A-1324-22	ALL
G	22-1937	A-1401-22	ALL

CHANGE	REFERENCE	REVISION/PREFIX
F	22-1813	A-1324-22
G	22-1937	A-1401-22
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1588	A-1244-22
D	22-1627	A-1251-22
E	22-1664	A-1307-22

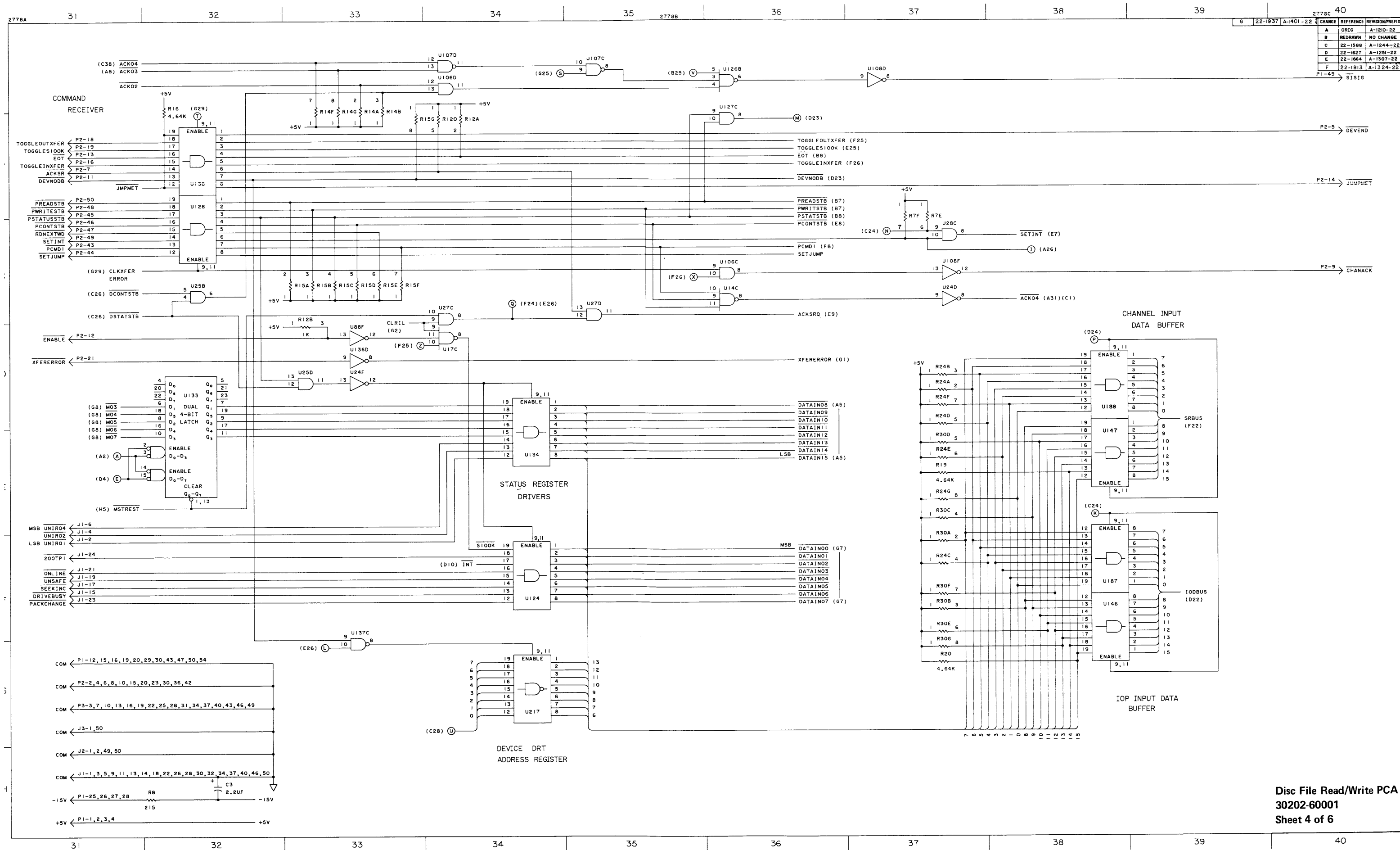


Disc File Read/Write PCA
30202-60001
Sheet 2 of 6

CHANGE	ORIG	REVISION/PREFIX
A		A-1210-22
B	REDRAWN	NO CHANGE
C	22-1588	A-1244-22
D	22-1627	A-1251-22
E	22-1664	A-1307-22
F	22-1813	A-1324-22
G	22-1937	A-1401-22

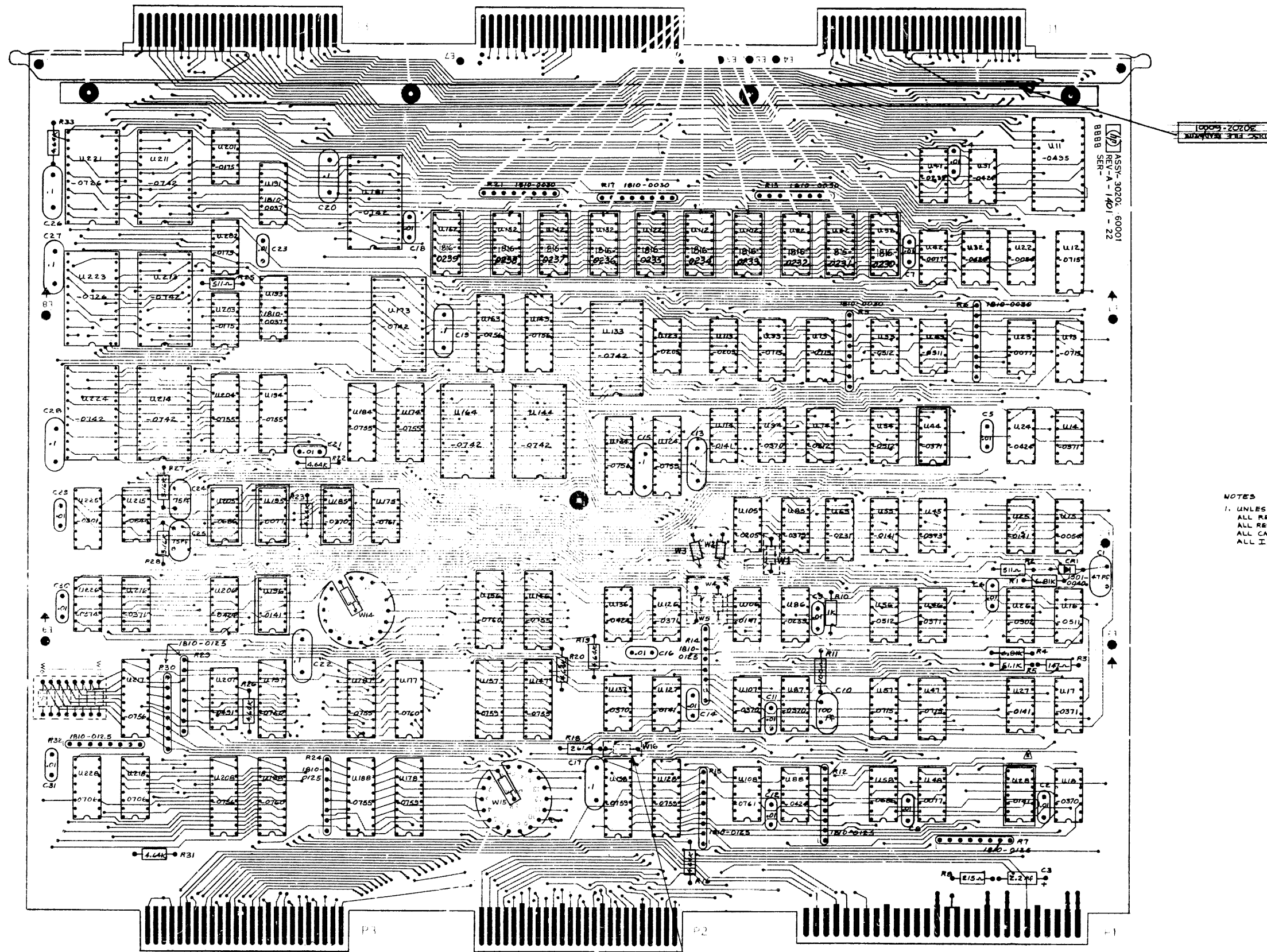


4. MPX/CH SELECT JUMPER(27) LOCATED ON THE CIRCUIT SIDE OF PCA.



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1588	A-1244-22
D	22-1627	A-1251-22
E	22-1664	A-1307-22
F	22-1813	A-1324-22

REV.	REVISIONS	APPROVED	DATE
H	REDRAWN - CHG. NOTE 5; ADD. NOTES 10, 11, 12, AND ITEMS 10, 11.	GO/UC	4-8-74
J	ADD. P10 TO W16, ADD. W16 TO NOTE H	CM/UMM	9-3-74
K	CHG. NOTE 3, ADD. NOTE 8	ED/UMM	2-21-75
L	ADDED 3012A Q02 USAGE	PL/PL	5-27-75



NOTES
 1. UNLESS OTHERWISE NOTED
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W, 1/4, FILM
 ALL CAPACITANCE IN MICROFARADS
 ALL I.C.'S ARE 1820-

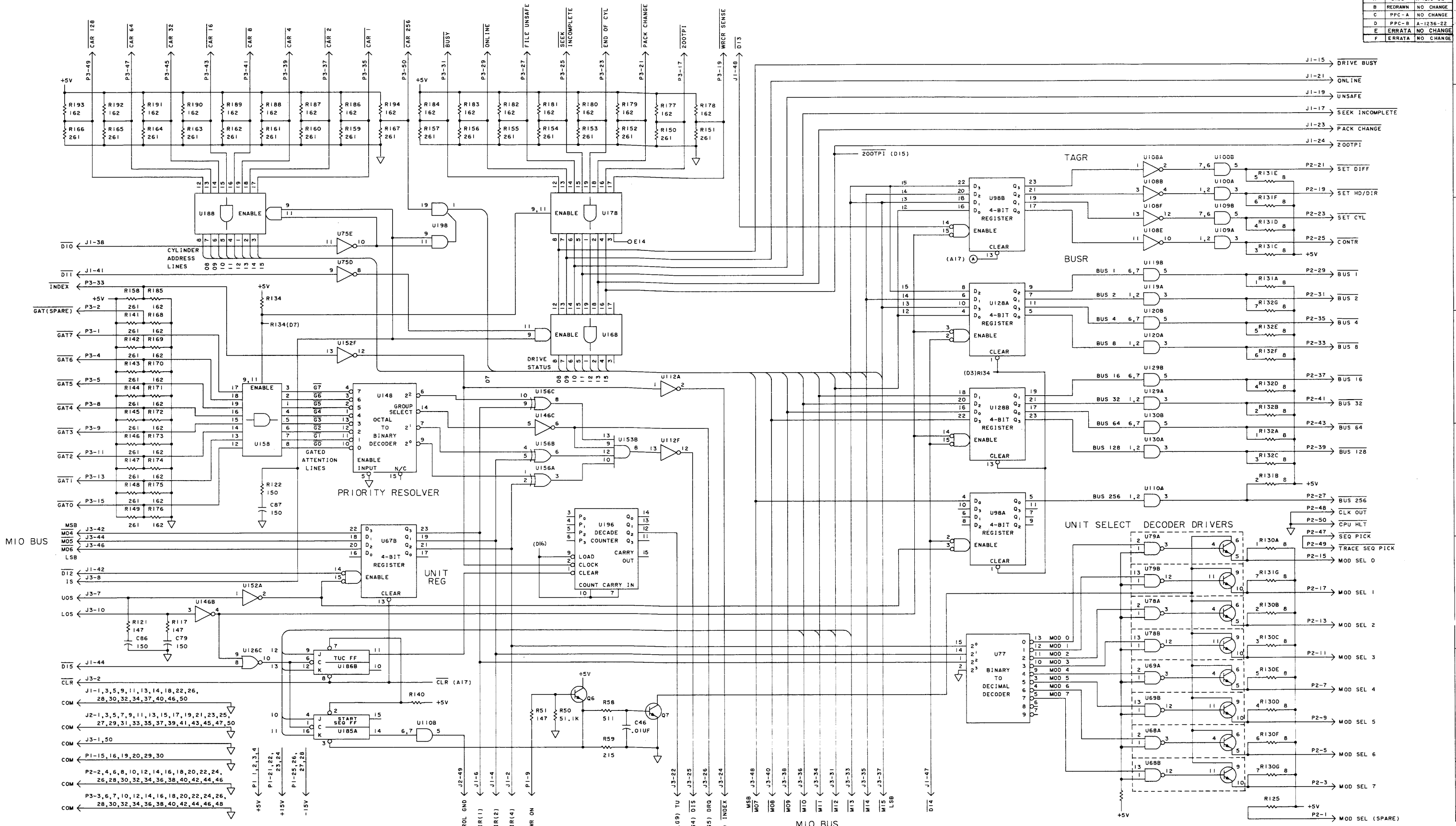
Disc File Read/Write PCA

30202-60001

IC Index

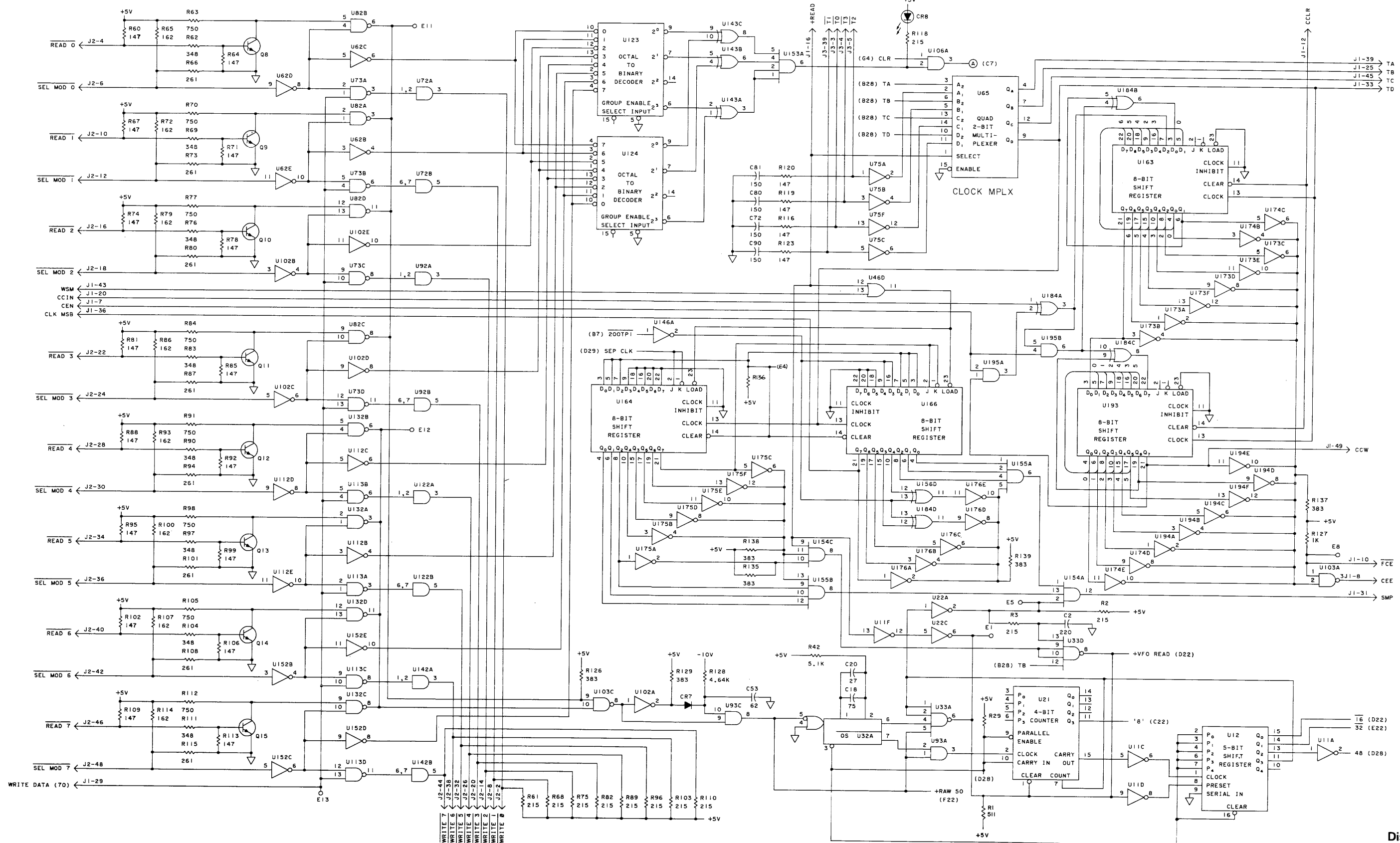
U	1820-	U	1820-	U	1820-
11	0495	86	1820-0239	173	1820-0742
12,13	0715	87	0370	174	0755
14	0371	88	0424	175	0761
15	0054	93	0715	177	0760
16	0511	94	0370	178	0759
17	0371	102	1816-0233	181	0742
18	0370	105	1820-0205	184	0755
22	0054	106	0141	185	0370
23	0077	108	0761	187,188	0755
24	0424	112	1816-0234	191	1810-0037
25	0141	113	1820-0205	193	0037
26	0902	114	0141	194	1820-0755
27,28	0141	122	1816-0235	195	0077
31,32	0424	123	1820-0205	196	0141
41	0235	124	0755	197,198	0760
42	0077	126	0371	201-203	0175
43	0511	127	0141	204	0755
44	0371	128	0759	205	0686
45	0373	132	1816-0236	206	0424
46	0371	133	1820-0742	207	0491
47	0715	134	0756	208	0756
48	0077	136	0424	211	0742
52	1816-0230	137	0370	213,214	0742
53,54	1820-0512	138	0759	215	0844
55	0141	142	1816-0237	216	0371
56	0512	143	1820-0756	217	0756
57	0715	144	0742	218	0706
58	0686	146,147	0755	221	0726
62	1816-0231	152	1816-0238	223	0726
65	1820-0231	153	1820-0756	224	0742
73	0115	156	0760	225	0301
74	0512	157	0759	226	0374
82	1816-0232	162	1816-0239	228	0706
85	1820-0379	164	1820-0742		

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	NO CHANGE
D	PPC-B	A-1236-22
E	ERRATA	NO CHANGE
F	ERRATA	NO CHANGE

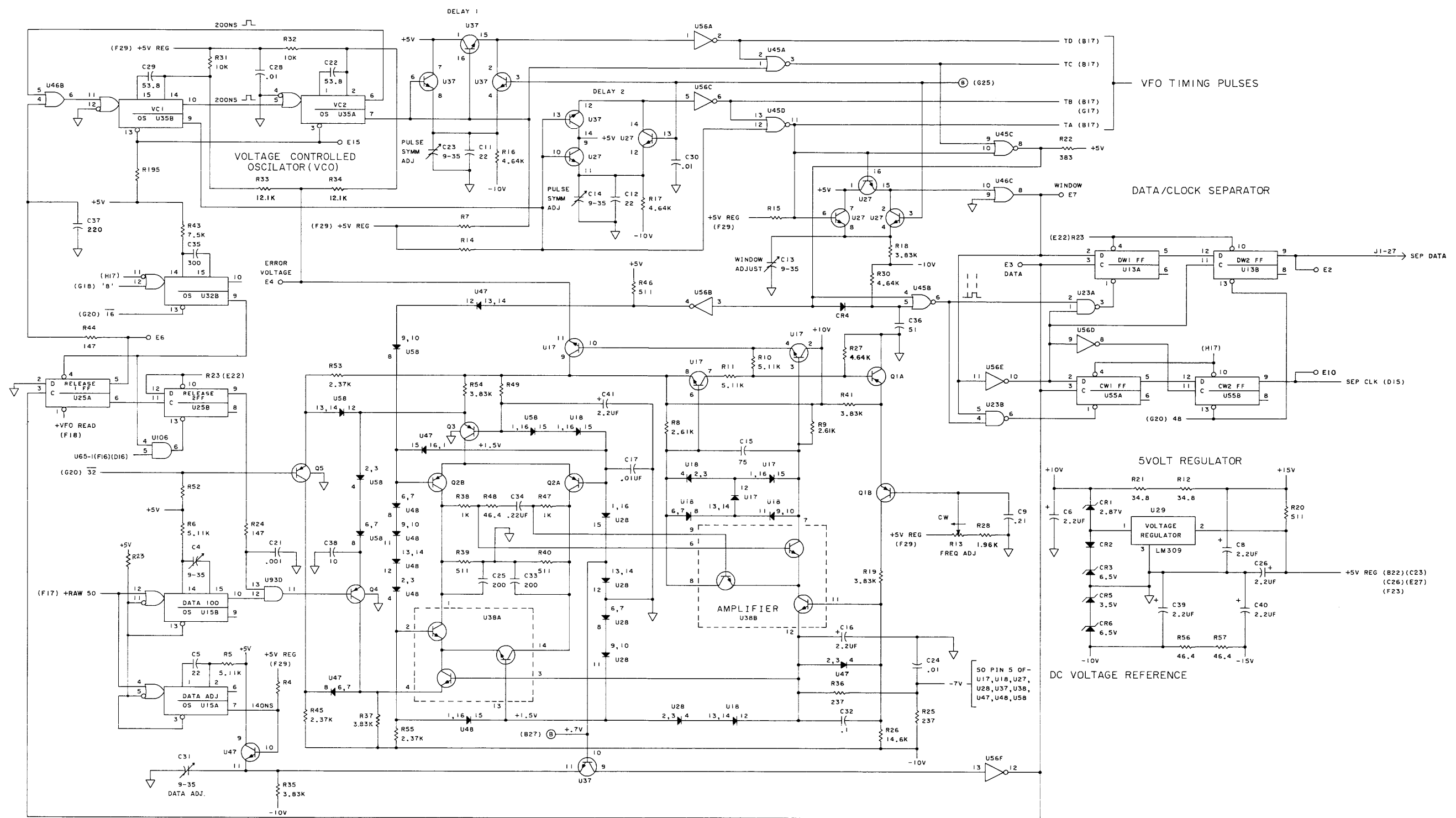


2 ALL CAPACITORS PICOFARADS UNLESS OTHERWISE SPECIFIED.
NOTE: ALL RESISTORS 1K UNLESS OTHERWISE SPECIFIED.

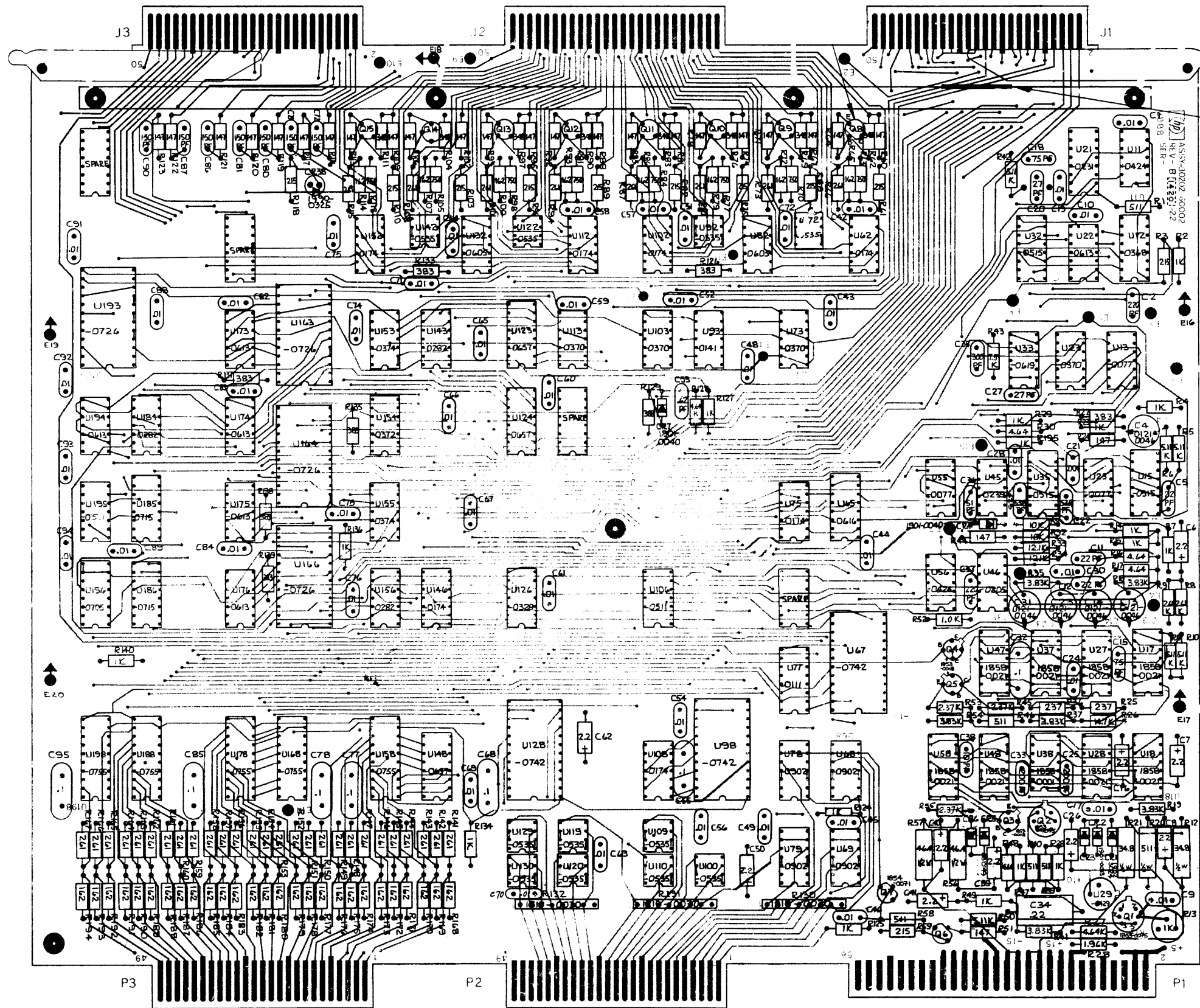
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	NO CHANGE
D	PPC-B	A-1236-22
E	ERRATA	NO CHANGE
F	ERRATA	NO CHANGE



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	NO CHANGE
D	PPC-B	A-1236-22
E	ERRATA	NO CHANGE
F	ERRATA	NO CHANGE



REV	DATE	DESCRIPTION	BY	CHKD
A	AS 125 U/P			
B	ADDED 30202A BUS			
C	REMOVED 30202A BUS			
D	30202A BUS			



DISC FILE BUS
30202-60002

UNLESS OTHERWISE NOTED
ALL RESISTORS 1/8W 10% FILM
ALL RESISTANCE IN OHMS
ALL CAPACITANCE IN MICROFARADS
ALL DIODES 1902-3119
ALL IC'S ARE 1820-
Q6, Q8-15-1854-0094

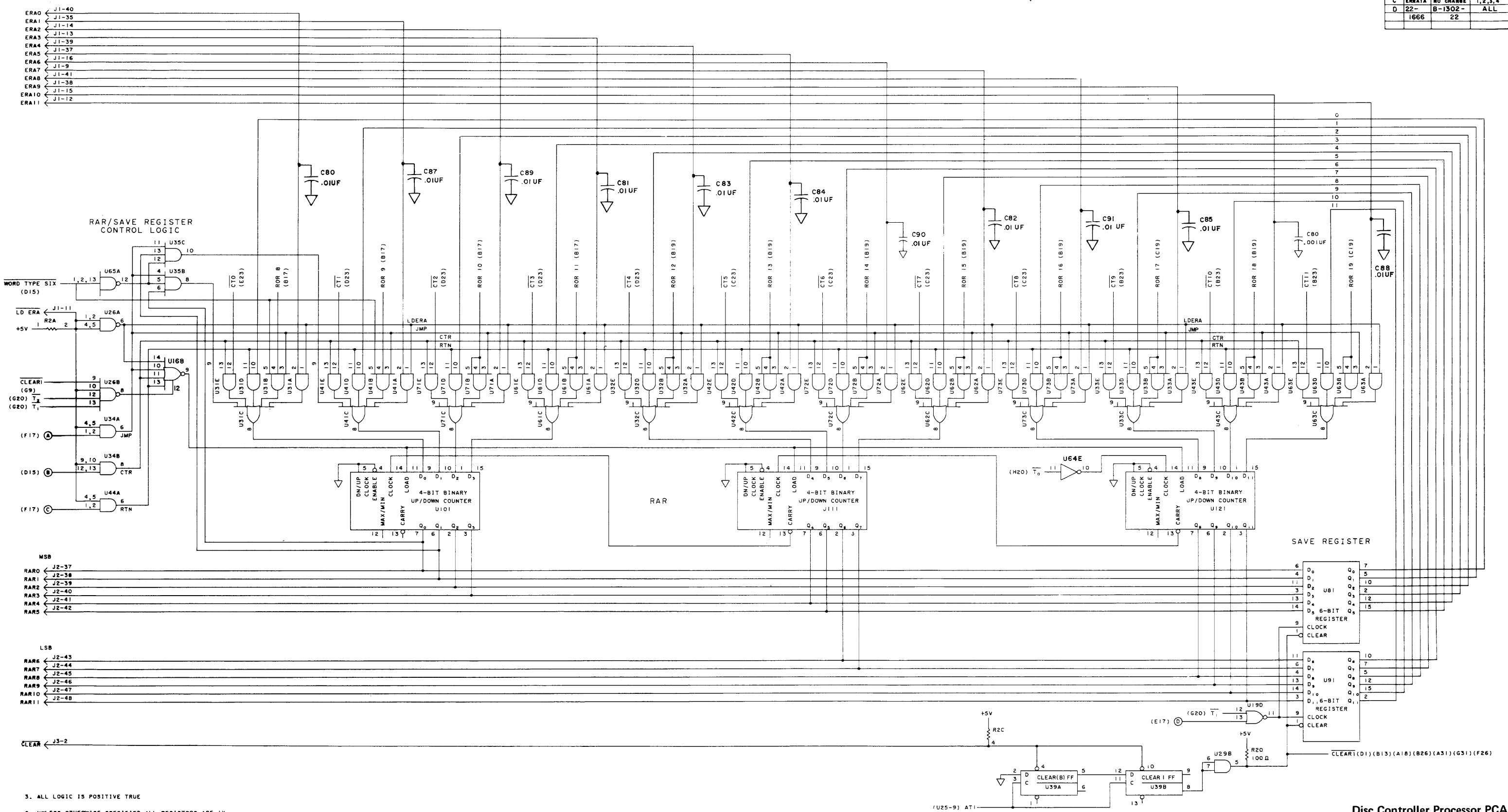
Disc File Bus PCA

30202-60002

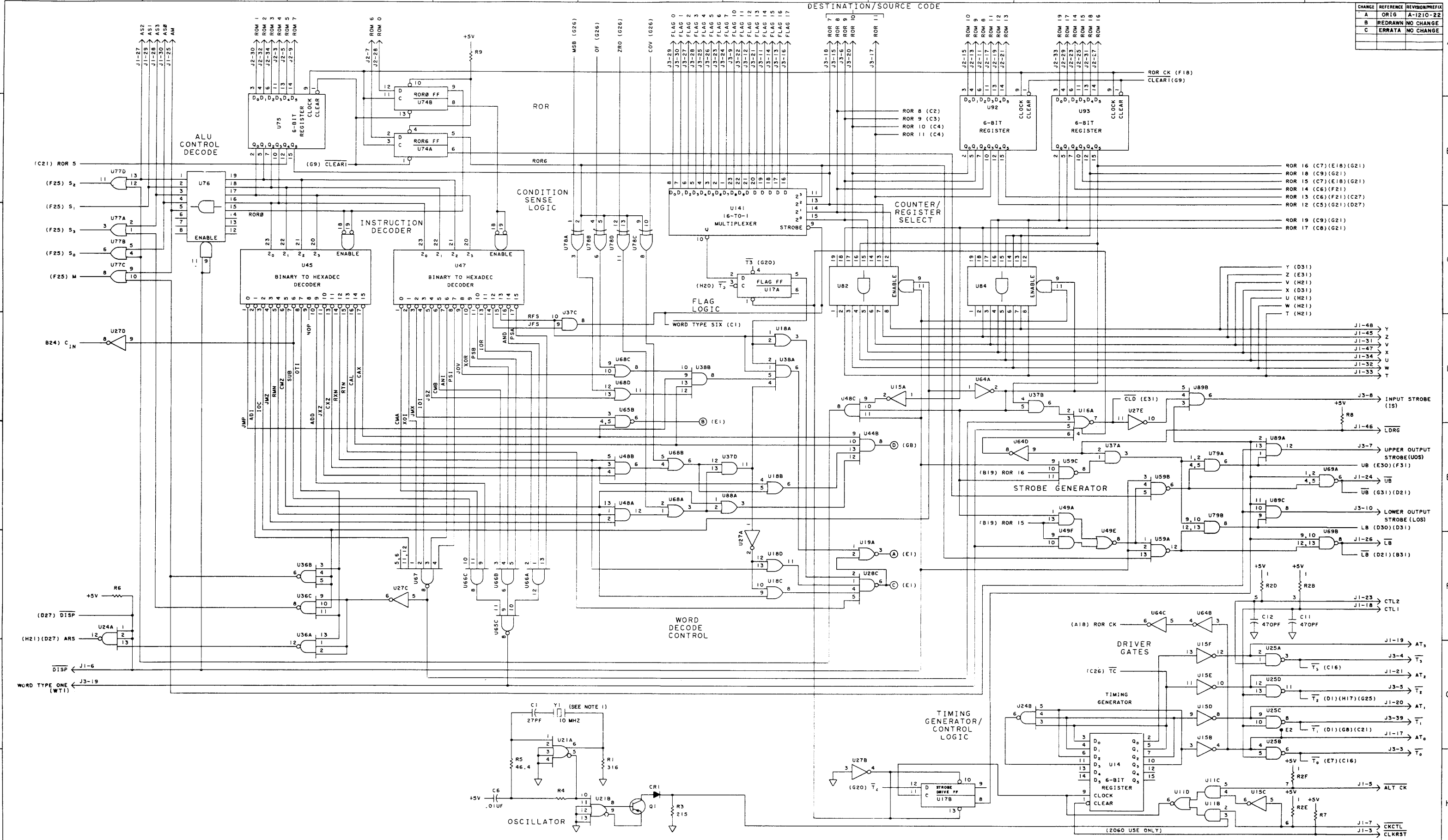
IC Index

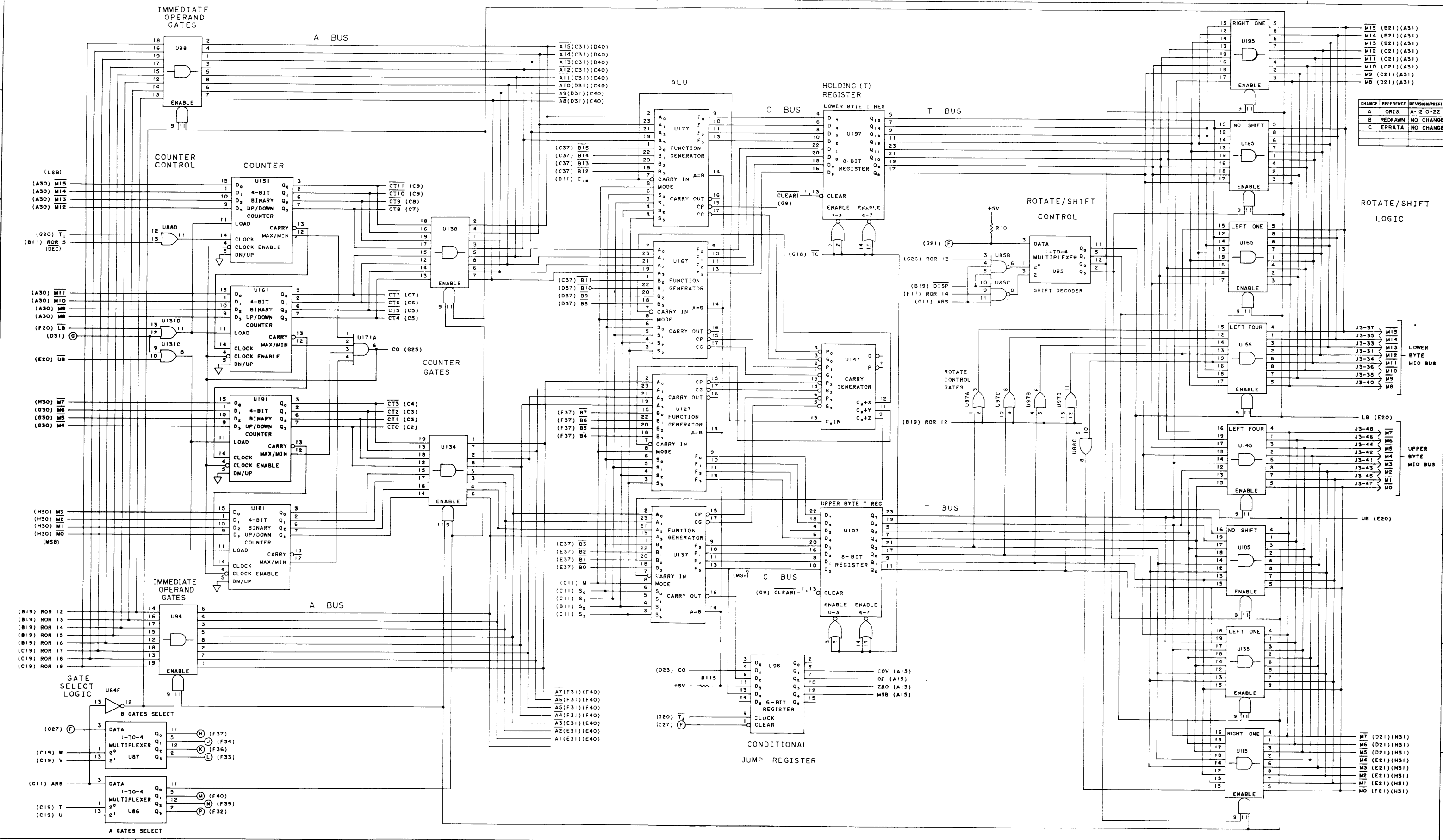
U	1820-	U	1820-	U	1820-
11	0424	67	0742	128	0742
12	0368	68,69	0902	129,130	0535
13	0077	72	0535	132	0605
15	0515	73	0370	142	0535
17,18	1858-0021	75	0174	143	0282
21	1820-0231	77	0111	146	0174
22	0613	78,79	0902	148	0657
23	0370	82	0605	152	0174
25	0077	92	0535	153	0374
27,28	1858-0021	93	0141	154,155	0372
32	1820-0515	98	0742	156	0282
33	0619	100	0535	158	0755
35	0515	102	0174	163,164	0726
37	1858-0021	103	0370	166	0726
38	1858-0001	106	0511	168	0755
45	1820-0239	108	0174	173-176	0613
46	0205	109,110	0535	178	0755
47,48	1858-0021	112	0174	184	0282
55	1820-0077	113	0370	185,186	0715
56	0424	119,120	0535	188	0755
58	1858-0021	122	0535	193	0726
62	1820-0174	123,124	0657	194	0613
65	0616	126	0328	195	0511
				196	0705
				198	0755

CHANGE	REFERENCE	REVISION/PREF	SHEETS AFFECTED
A	ORIG	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	ERRATA	NO CHANGE	1,2,3,4
D	22-	B-1302-	ALL
	1666	22	



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE

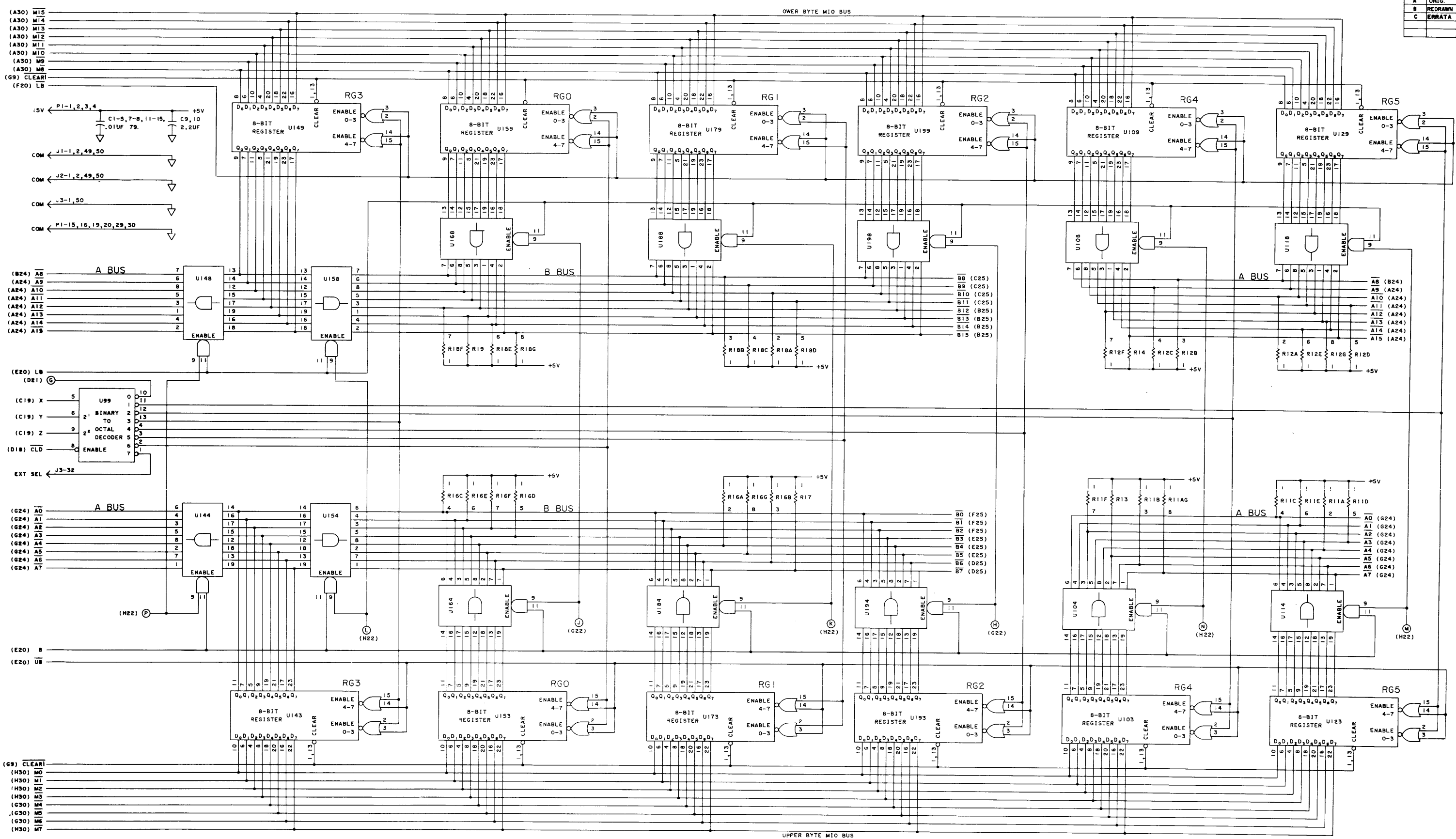




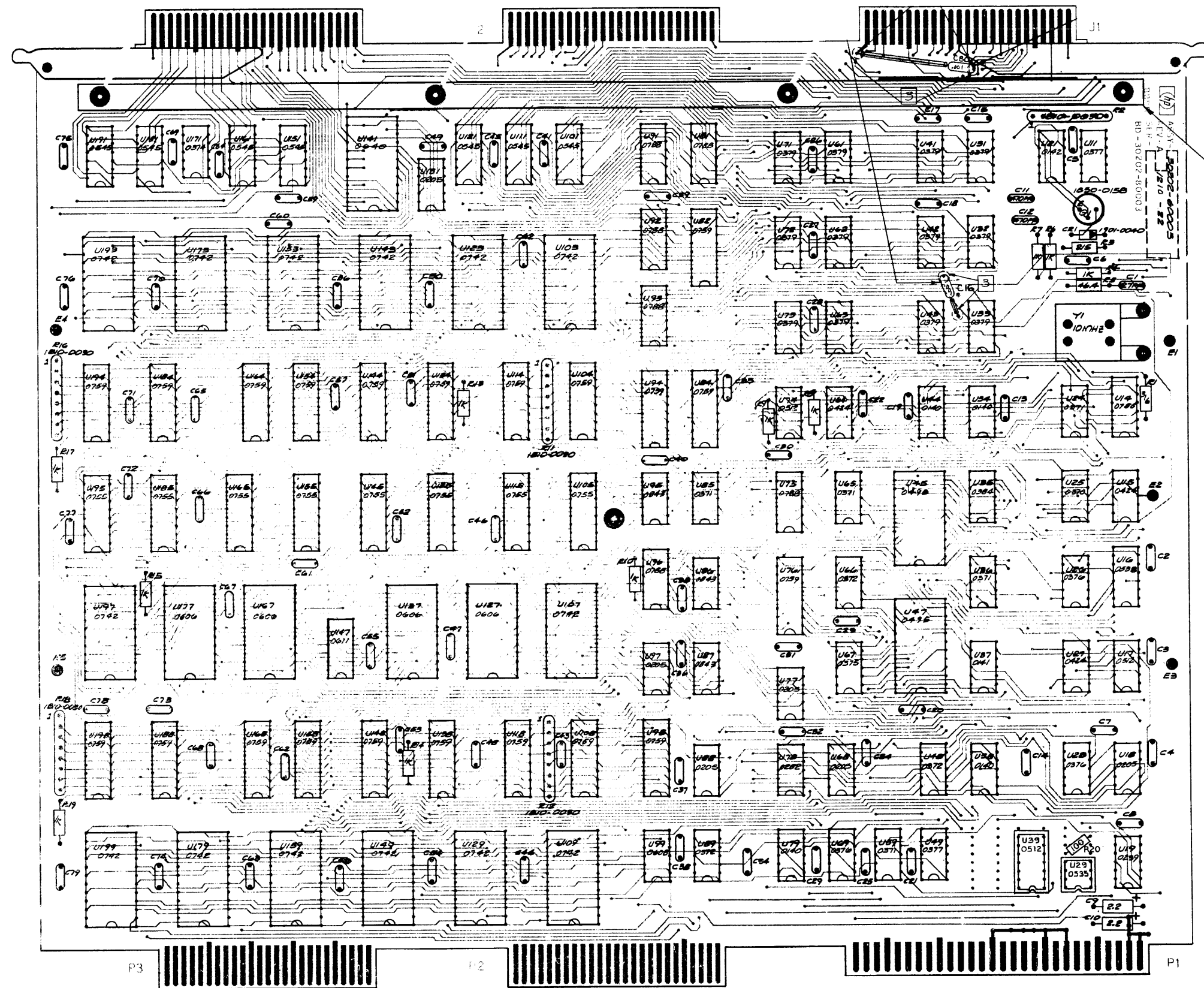
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE

LOWER BYTE MIO BUS	UPPER BYTE MIO BUS
J3-37 M15	J3-48 M7
J3-35 M14	J3-46 M6
J3-33 M13	J3-44 M5
J3-31 M12	J3-42 M4
J3-29 M11	J3-40 M3
J3-27 M10	J3-38 M2
J3-25 M9	J3-36 M1
J3-23 M8	J3-34 M0

CHANGE	REFERENCE	REVISION/PREV. I/A
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE



REV	REV. LINE	APPROVED	DATE
A	AS ISSUED (A-1210)	[Signature]	5/27/72
B	PILOT RUN MODIFICATIONS (A-1210)	[Signature]	7-27-72
C	DESIGN CHANGES (A-1210)	[Signature]	8-2-72
D	ADD. NOTE 1	[Signature]	9-1-72



MST CTRL PROC
30202-60003

- NOTES:
- UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS (1/4W, 1/16W TL, FILM)
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01UF CER
 ALL IC'S ARE PRECEDED BY #1820

Disc Controller Processor PCA

30202-60003

IC Index

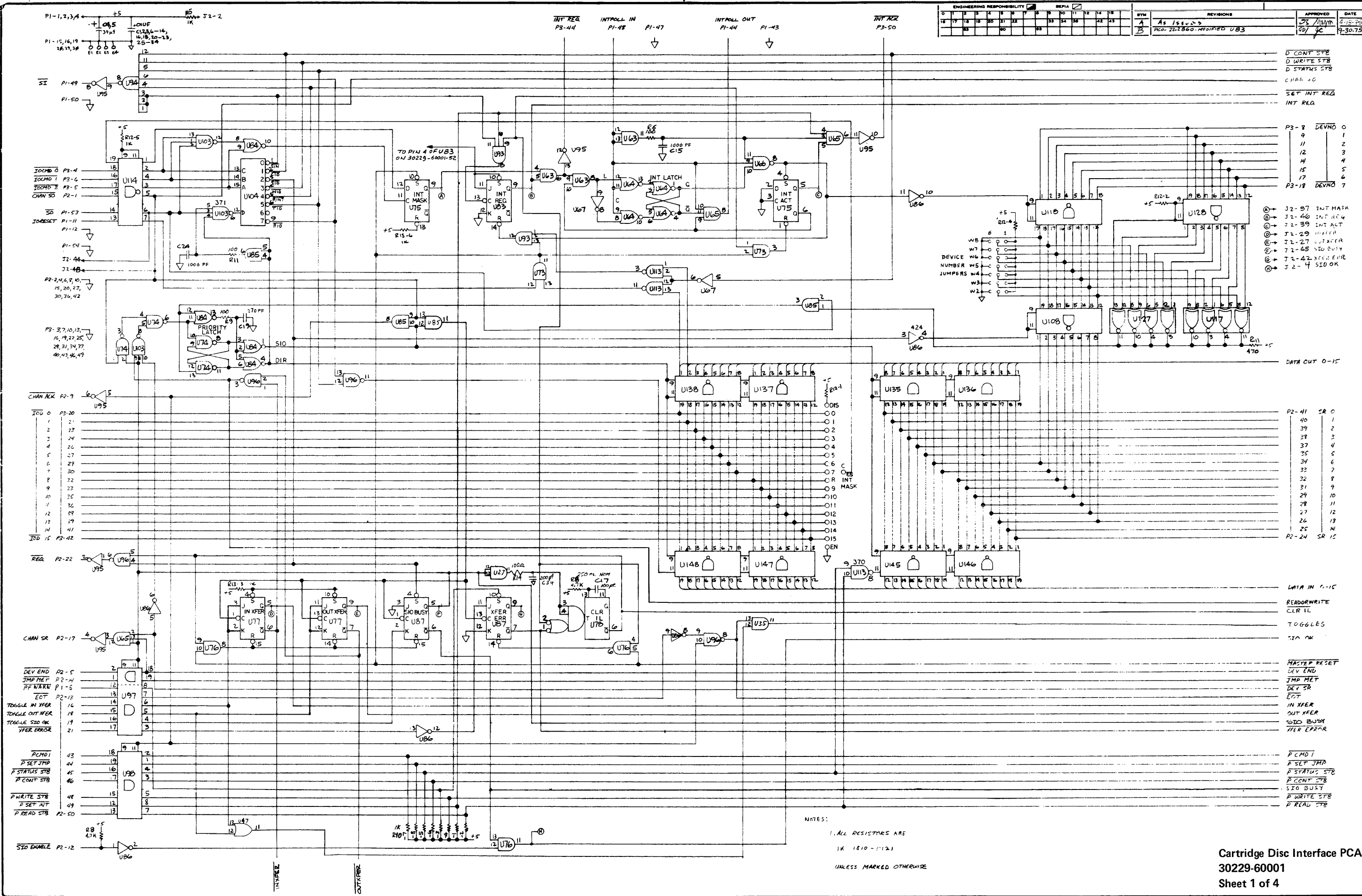
U	1820-	U	1820-	U	1820-
11	0377	71-73	0379	129	0742
14	0788	74	0512	131	0205
15	0424	75	0788	134	0759
16	0538	76	0759	135	0756
17	0512	77	0205	138	0759
18	0205	78	0282	141	0640
19	0239	79	0140	143	0742
21	0142	81	0788	144	0759
24	0371	82	0759	145	0755
25	0370	84	0759	148	0759
26	0376	85	0371	149	0742
27	0424	86,87	0843	151	0545
28	0376	88	0205	153	0748
29	0535	89	0372	154	0759
31-33	0379	91-93	0788	155	0755
34	0140	94	0739	158	0759
35	0384	95	0843	159	0742
36	0371	96	0788	161	0545
37	0141	97	0205	164	0759
38	0140	98	0759	165	0755
39	0535	99	0608	167	0606
41-43	0379	101	0545	168	0759
44	0140	103	0742	171	0374
45	0495	104	0759	173	0742
47	0495	105	0755	177	0606
48	0372	107	0742	179	0742
49	0377	108	0759	181	0545
59	0371	109	0742	184	0759
61-63	0379	111	0545	185	0755
64	0424	114	0759	188	0759
65	0371	115	0755	191	0545
66	0372	118	0759	193	0742
67	0375	121	0545	194	0759
68	0205	123	0742	195	0755
69	0376	127	0606	197	0742
				198	0759
				199	0742

30129A

CARTRIDGE DISC (HP 7905A) CONTROLLER INTERFACE

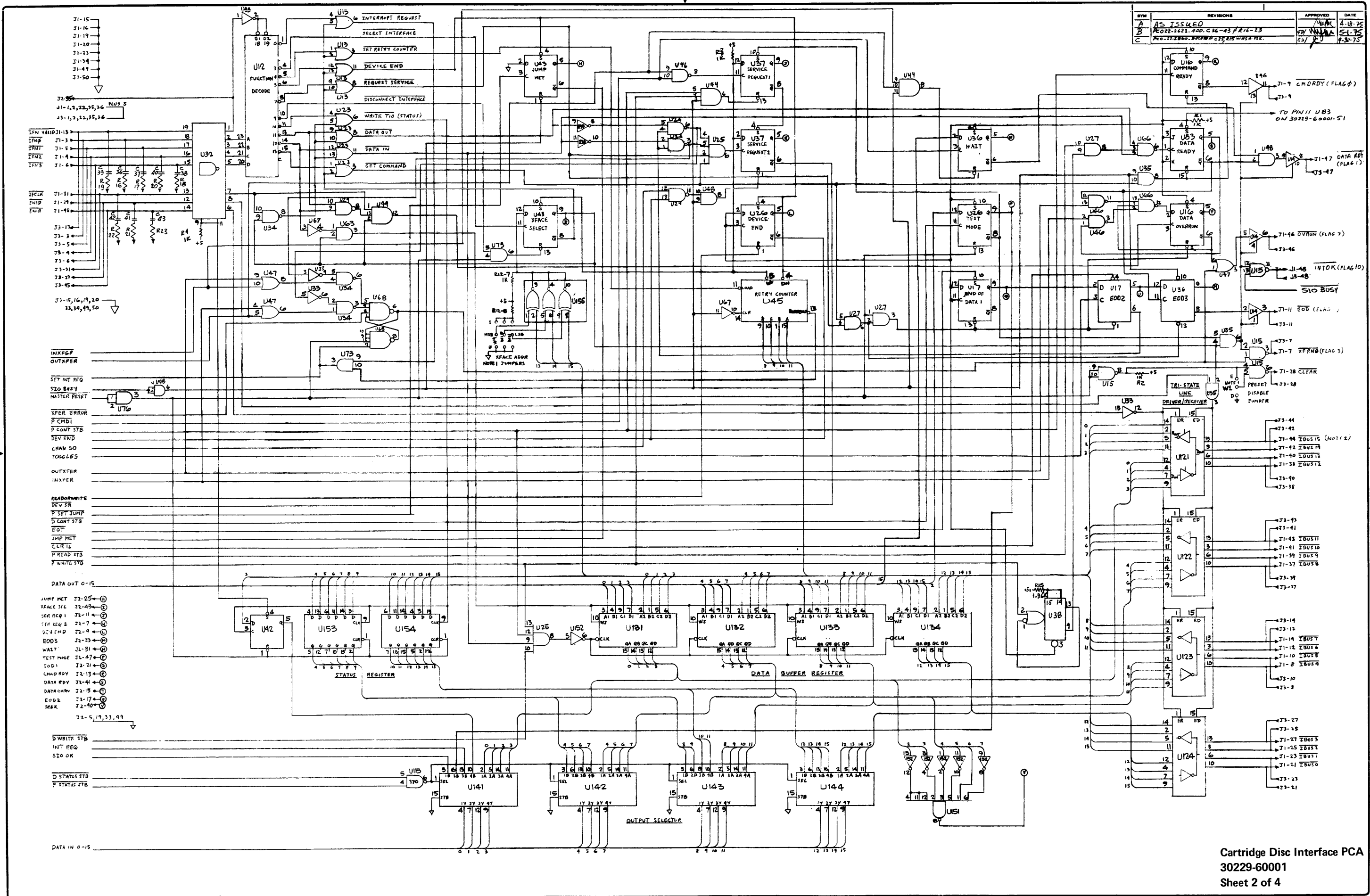
CARTRIDGE DISC INTERFACE PCA 30229-60001 4 SHEETS

ENGINEERING RESPONSIBILITY														REVISIONS													
BY														DATE													
A														As Issued													
B														PCA-22386G-MODIFIED UB3													
APPROVED														DATE													
[Signature]														9/1/75													



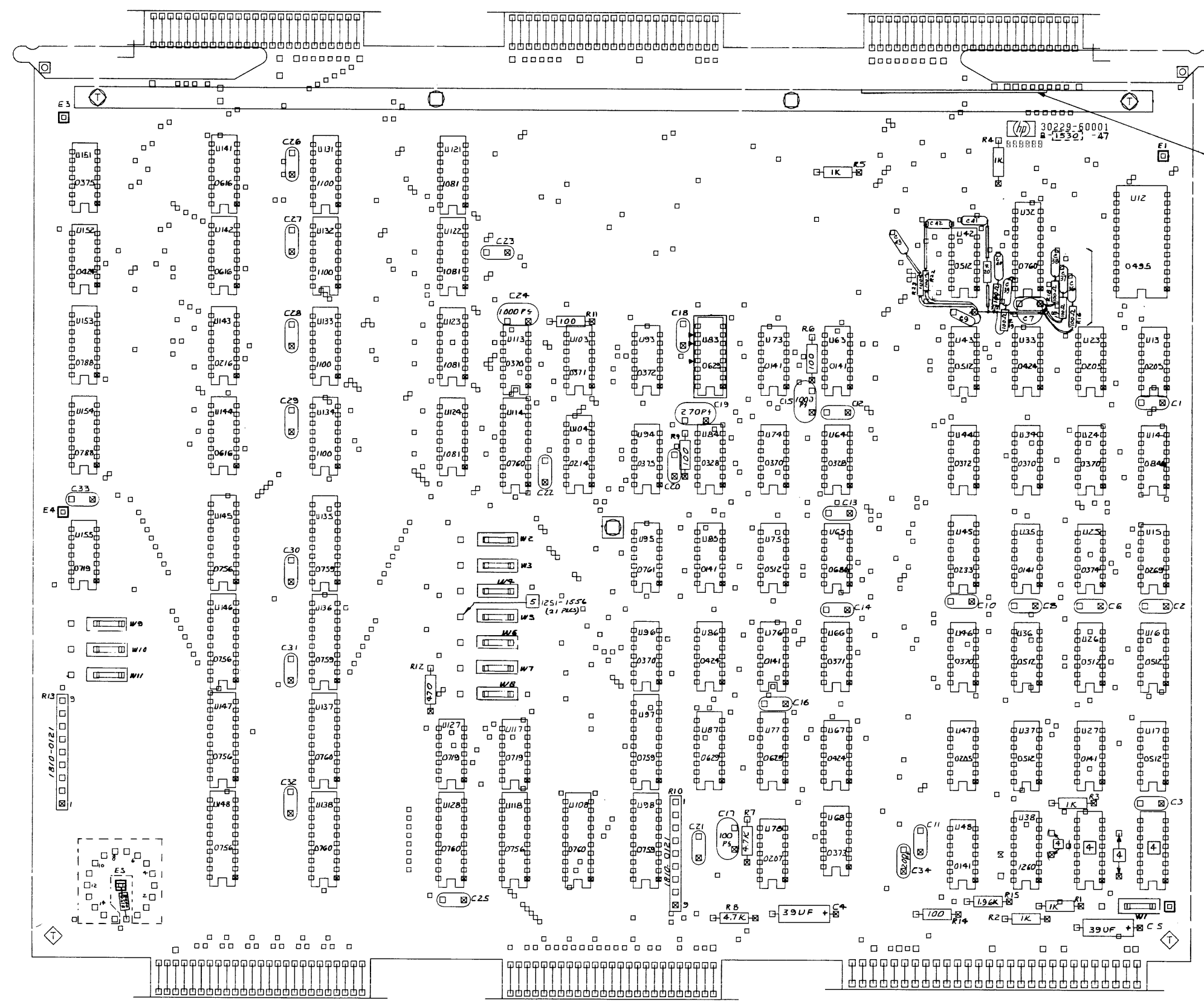
NOTES:
 1. ALL RESISTORS ARE
 1K 1810-0121
 UNLESS MARKED OTHERWISE

BY	REVISION	APPROVED	DATE
A	AS ISSUED		4-18-75
B	REVISED: ADD: C36-43 #21-13		5-1-75
C	REVISED: ADD: C36-43 #21-13		9-3-75



Cartridge Disc Interface PCA
30229-60001
Sheet 2 of 4

A	AA 1ESUBS	PC 28-2612	PS/M/10	4-10-75
B	PCO-22-9023	CMS, NOTES 3, 4, 6, 200	BY WLL/M	5-2-75
C	NOTE 10, 17 & 18 U12, U14, U15, U16	ADDED 3072A DRIVERS	CS/1/12	5-28-75
D	PCO-22-11860	DELTED C 10, R 15 WAS A REE	PC	4-30-75
	720-1724-17	AT U13, U12, U10 AND B-1442	401	



10009-6720E
CARTRIDGE DISC INTF

NOTES:
 1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS
 ALL RESISTORS 1/4W 5%
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01 CERAMIC DISC
 ALL IC'S AR 1820-KXXX

Cartridge Disc Interface PCA

30229-60001

IC Index

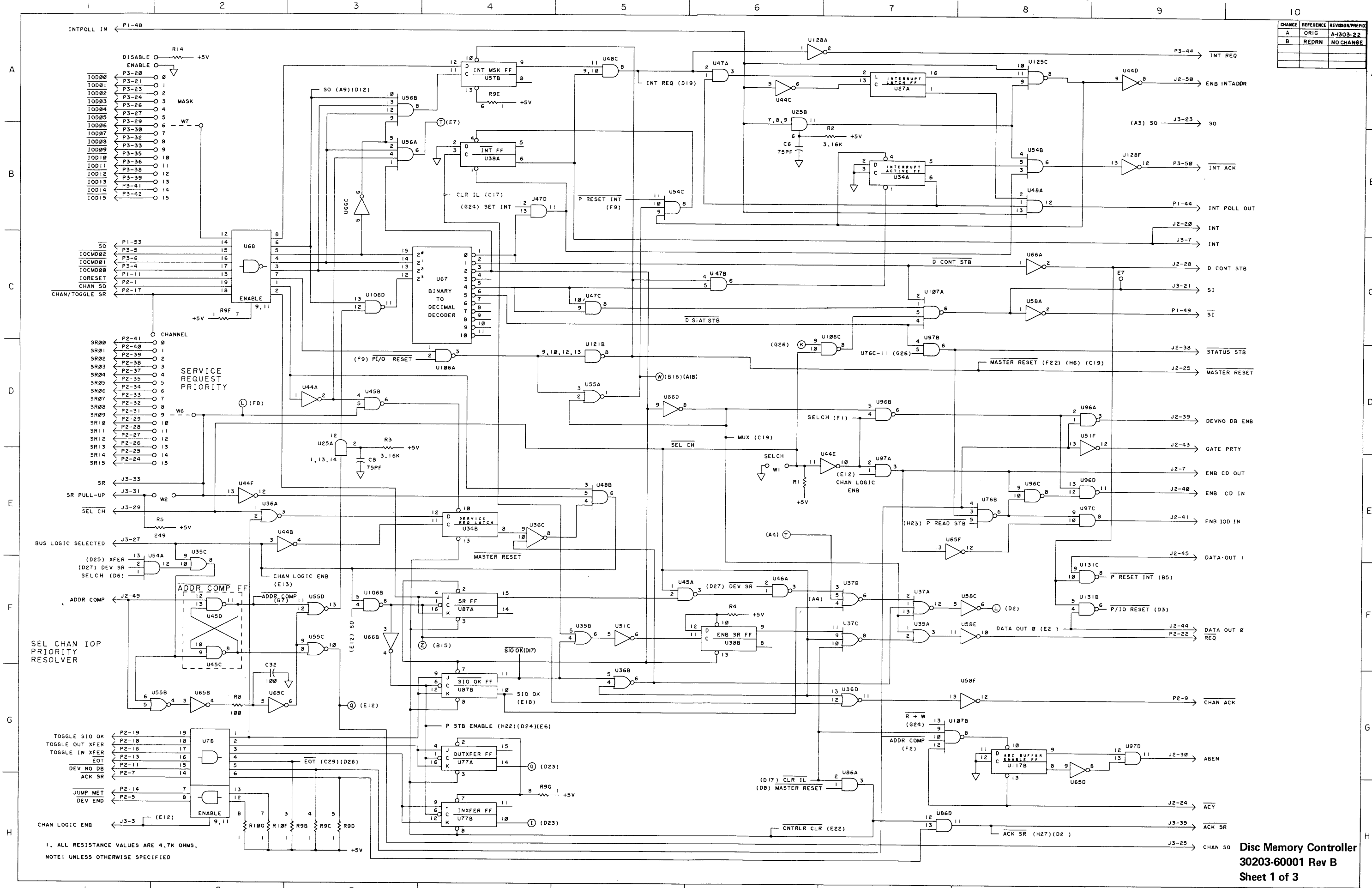
U	1820-	U	1820-	U	1820-
12	0495	63	0141	103	0371
13	0205	64	0328	104	0214
14	0846	65	0686	108	0760
15	0269	66	0371	113	0370
16,17	0512	67	0424	114	0760
23	0205	68	0373	117	0719
24	0370	73	0141	118	0756
25	0374	74	0370	121-124	1081
26	0512	75	0512	127	0719
27	0141	76	0141	128	0760
32	0760	77	0629	131-134	1100
33	0424	78	0207	135,136	0759
34	0370	83	0629	137,138	0760
35	0141	84	0328	141,142	0616
36,37	0512	85	0141	143	0216
38	1260	86	0424	144	0616
42,43	0512	87	0629	145-148	0756
44	0372	93	0372	151	0375
45	0233	94	0375	152	0424
46	0370	95	0761	153,154	0788
47	0205	96	0370	155	0719
48	0141	97,98	0759		

30203A

DISC MEMORY (HP 2660A) INTERFACE

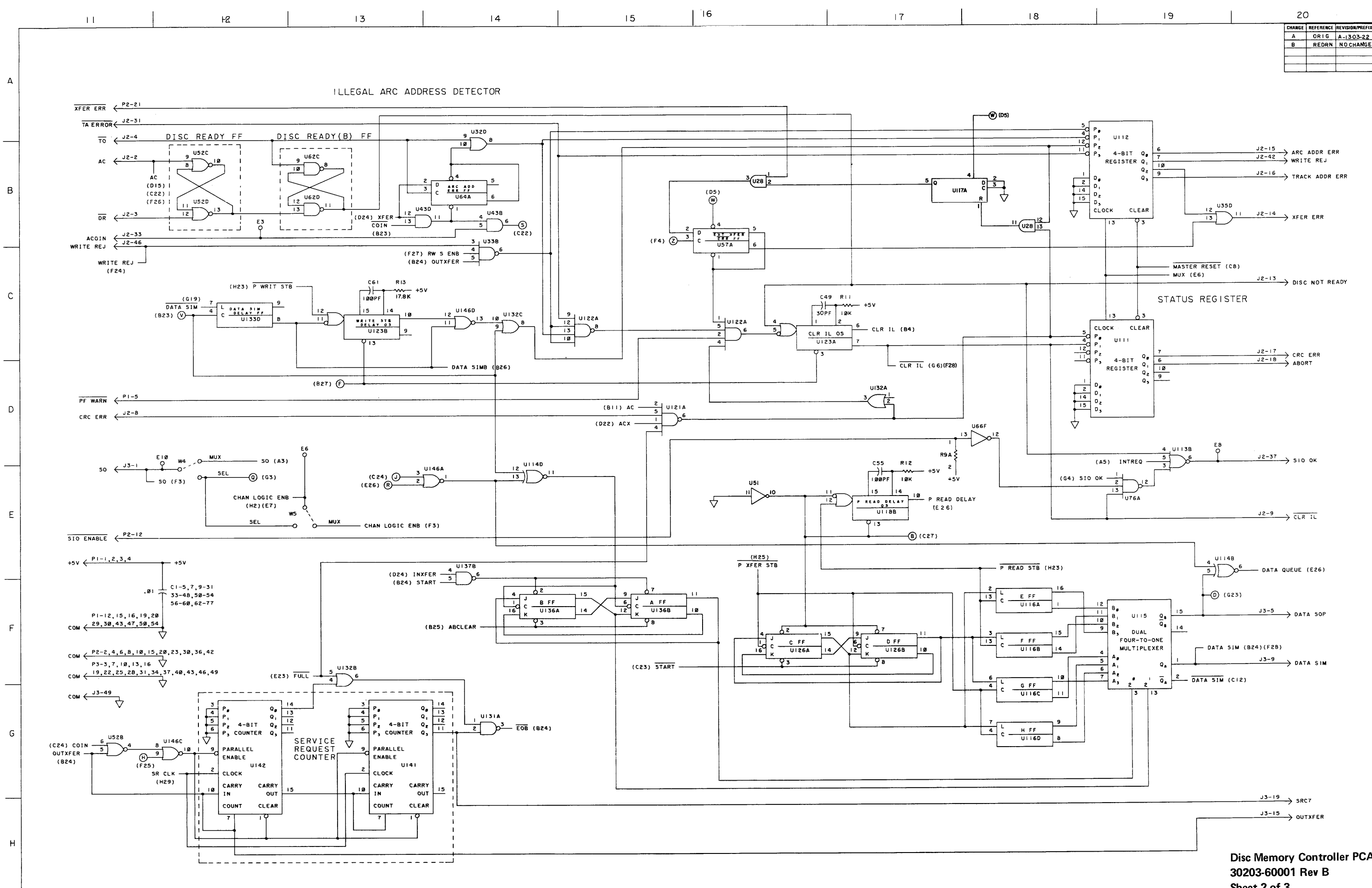
DISC MEMORY CONTROLLER PCA	REV. B	30203-60001	3 SHEETS
DISC MEMORY CONTROLLER PCA	REV. C	30203-60001	5 SHEETS
DISC MEMORY DATA PCA		30203-60002	5 SHEETS

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1303-2-2
B	REDRN	NO CHANGE



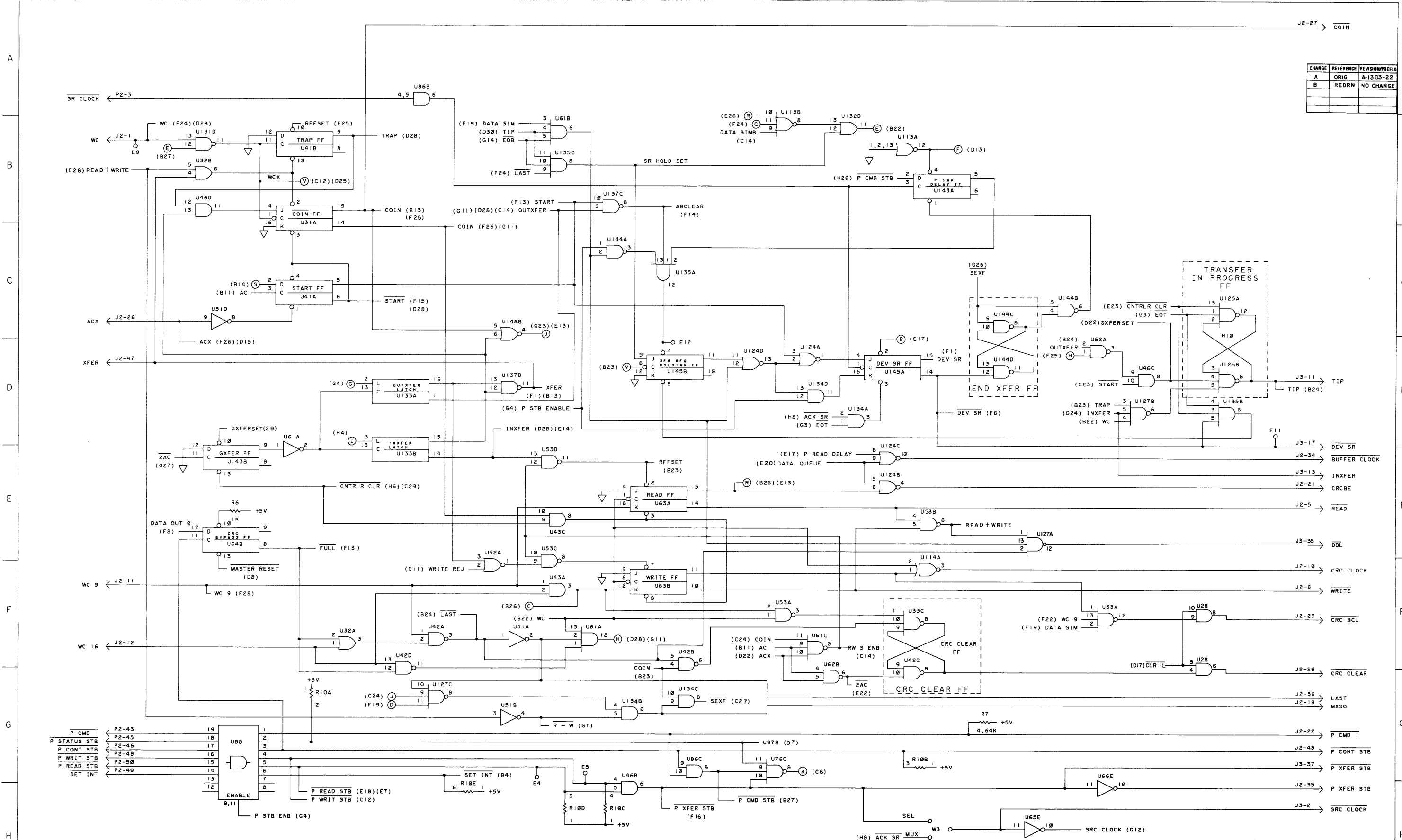
Disc Memory Controller
30203-60001 Rev B
Sheet 1 of 3

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1303-22
B	REDRN	NO CHANGE

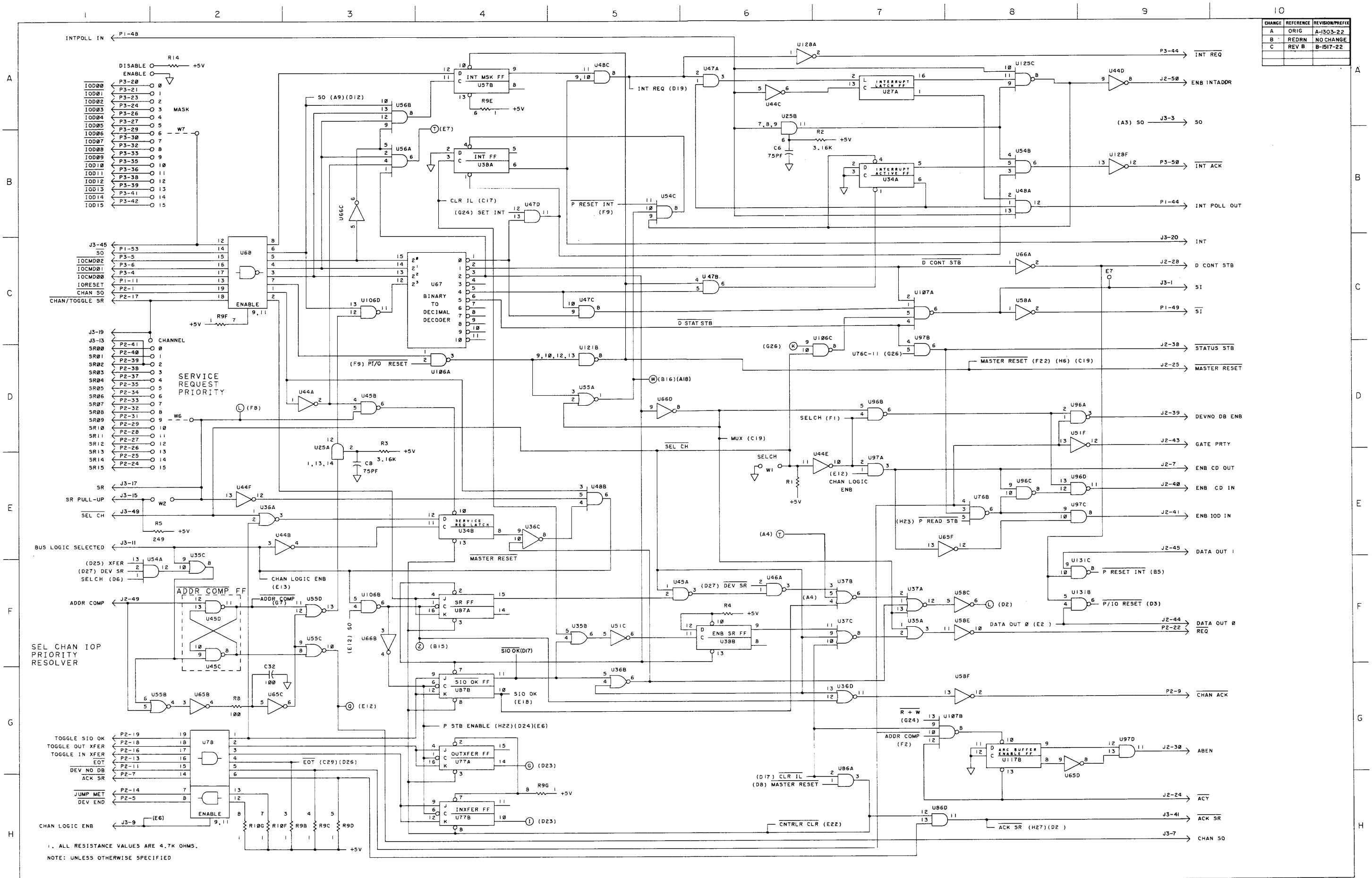


Disc Memory Controller PCA
30203-60001 Rev B
Sheet 2 of 3

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1303-22
B	REDRN	NO CHANGE

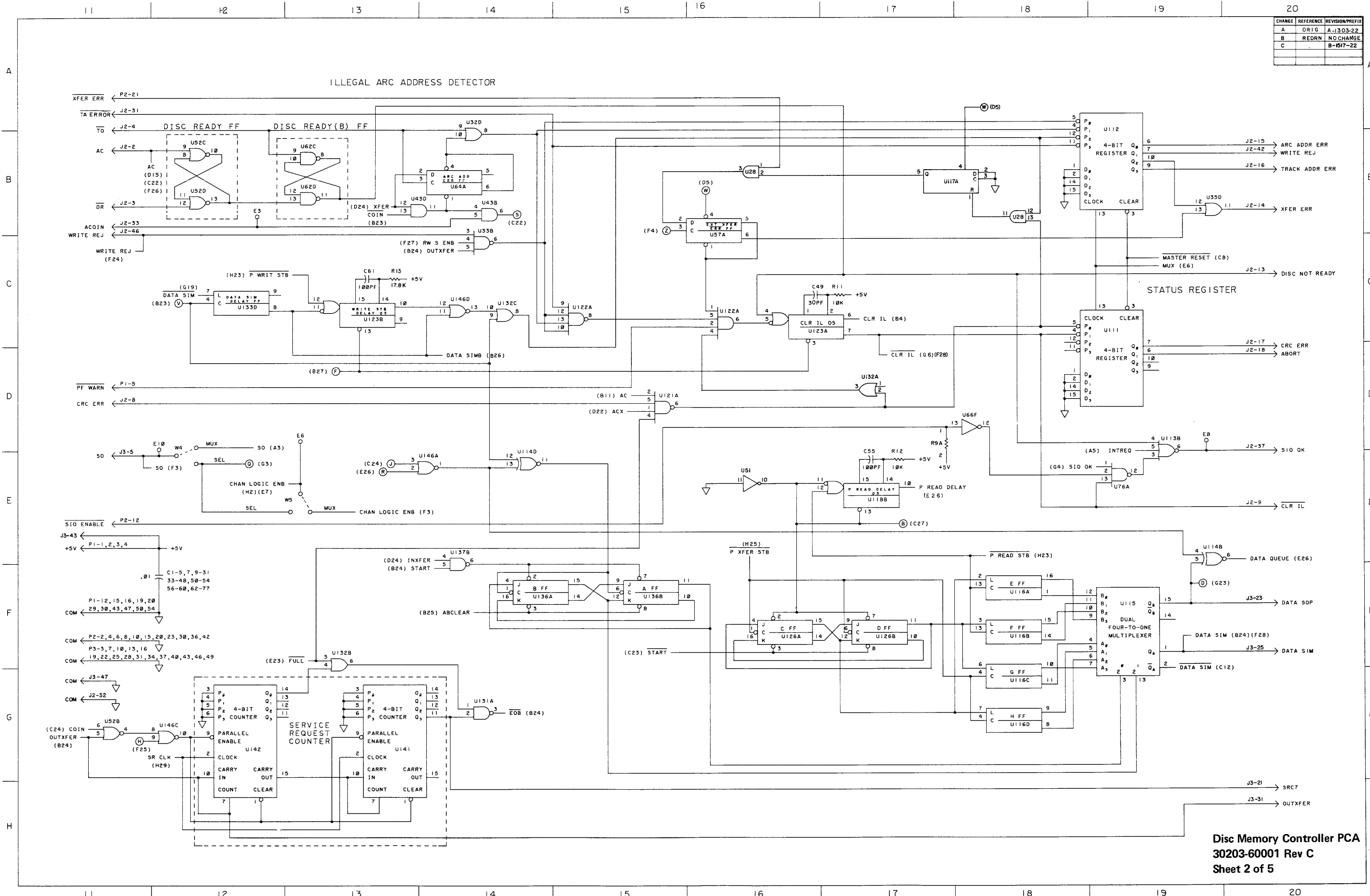


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1303-22
B	REDRN	NO CHANGE
C	REV B	B-1517-22

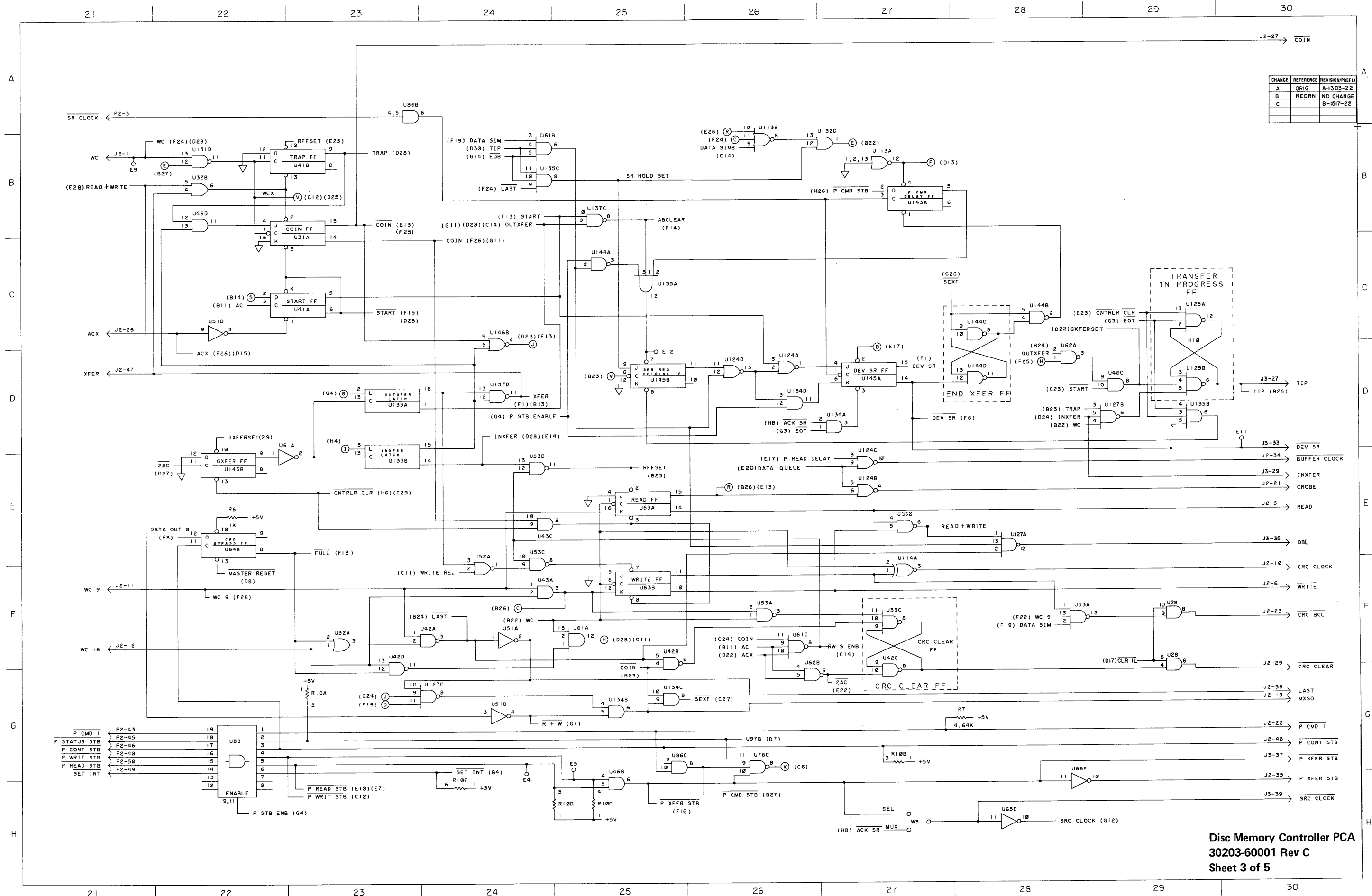


1. ALL RESISTANCE VALUES ARE 4.7K OHMS.
NOTE: UNLESS OTHERWISE SPECIFIED

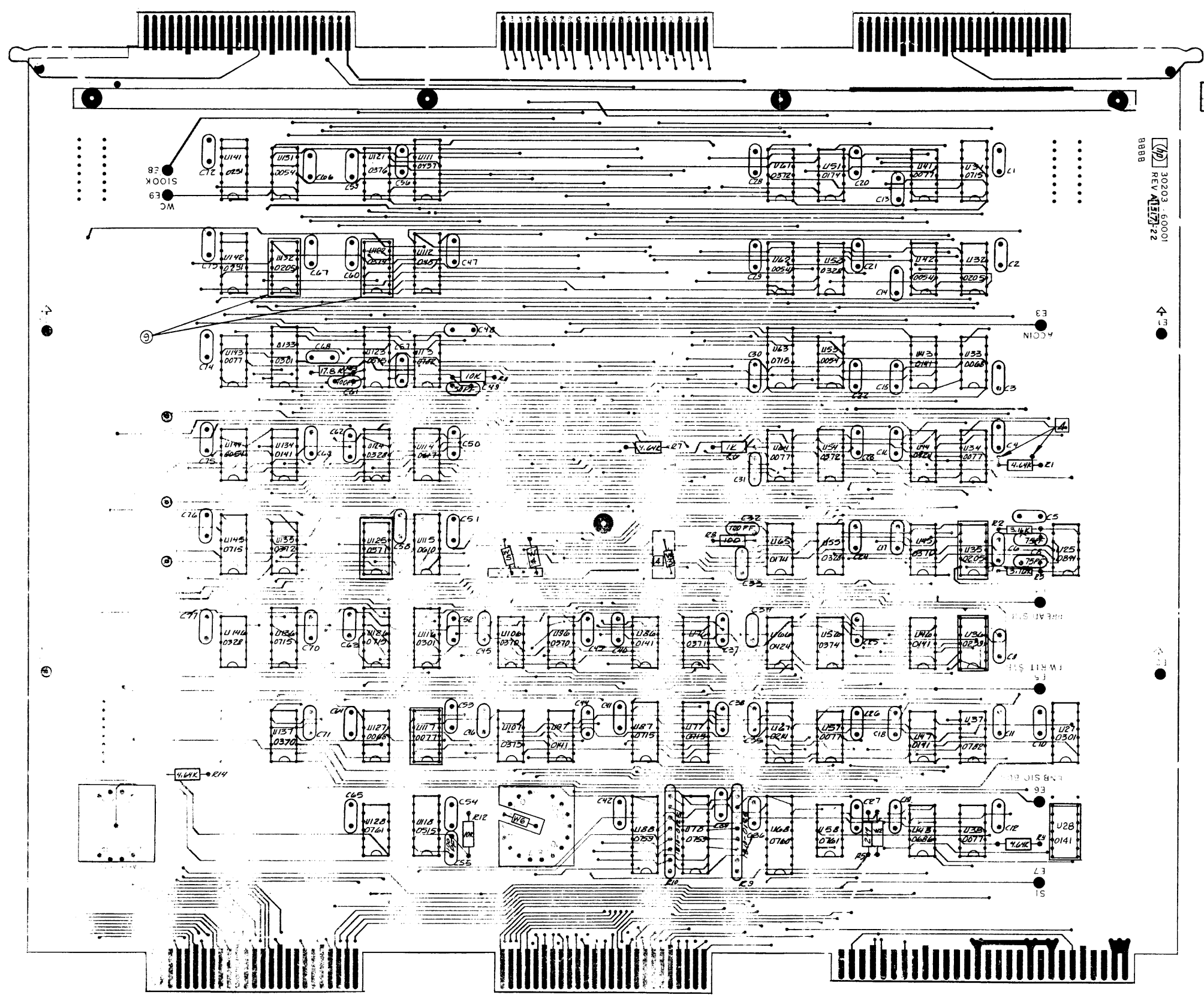
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1303-22
B	REDRN	NO CHANGE
C		B-1517-22



Disc Memory Controller PCA
30203-60001 Rev C
Sheet 2 of 5



REV	REVISIONS	APPROVED	DATE
A	AS ISSUED	KB/ML	7/21/74
B	DATE CODE WAS 1222. SOCKET (U125) ADDED MODIF. DWGS C-2, C-3 ADDED.	KB/ML	11/21/74
C	ITEM 9 ADDED. PRC "E" DATE CODE WAS 1250	KB/ML	2/9/75
D	CHG. NOTE "B", ADD. W3, W4, W5	GP/COZ	3-7-75
E	PRO. 22-24B1, ITEM 9 QTY WAS 2, ADD. U28, DATE CODE WAS A-1303.	GP/MLM	2-7-75
F	PRO. 22-24B1, ITEM 9 ADDED, USAGE	GP/MLM	5-28-75
G	PRO. 22-24B1, DWGS 4-64K, DATE CODE WAS A-1304-13.	GP/MLM	6-12-75



30203-60001
DISC MEM. CTRL.

30203-60001
REV A17122

NOTES:
1. UNLESS OTHERWISE SPECIFIED
ALL RESISTORS 1/4 WATT
ALL RESISTORS 1/8W 1% FILM
ALL CAPACITANCE IN MICROFARADS
ALL CAPACITORS .01 UF CERAMIC DISC
ALL IC'S ARE #1820

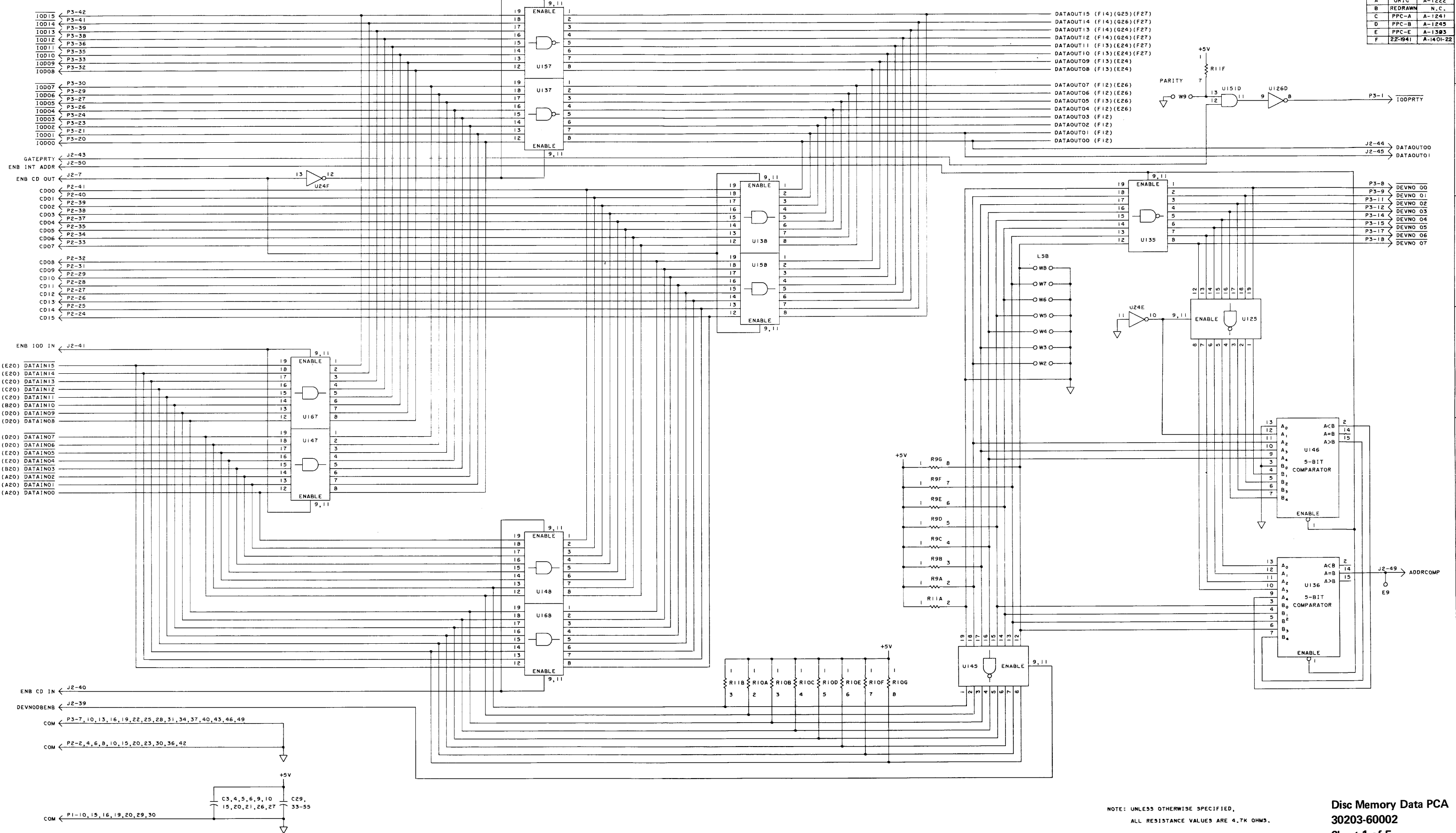
Disc Memory Controller PCA

30203-60001

IC Index

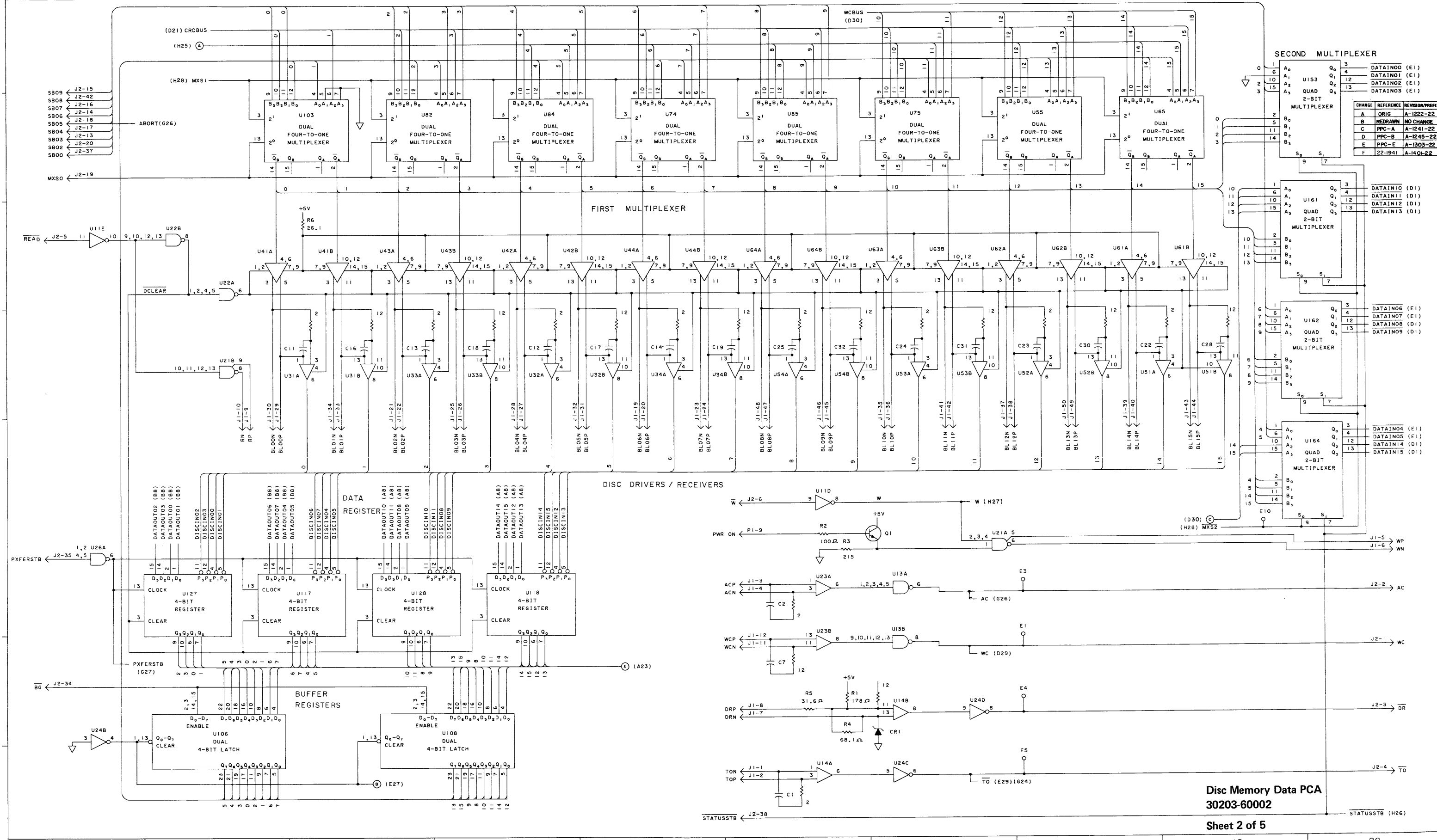
U	1820-	U	1820-	U	1820-
25	0844	58	0761	117	0077
27	0301	61	0372	118	0515
28	0141	62	0054	121	0376
31	0715	63	0715	122	0314
32	0205	64	0077	123	0515
33	0068	65	0174	124	0328
34	0077	66	0424	125	0371
35	0205	67	0214	126	0715
36	0239	68	0760	127	0068
37	0782	76	0371	128	0761
38	0077	77	0715	131	0054
41	0077	78	0759	132	0205
42	0054	86	0141	133	0301
43	0141	87	0715	134	0141
44	0424	88	0759	135	0372
45	0370	96	0370	136	0715
46, 47	0141	97	0141	137	0370
48	0686	106	0370	141, 142	0231
51	0174	107	0373	143	0077
52	0328	111	0437	144	0054
53	0054	112	0407	145	0715
54	0572	113	0782	146	0328
55	0328	114	0617		
56	0374	115	0610		
57	0077	116	0301		

CHANGE	REFERENCE	REVISION/PREF
A	ORIC	A-1222
B	REDRAWN	N. C.
C	PPC-A	A-1241
D	PPC-B	A-1245
E	PPC-E	A-1383
F	22-941	A-1401-22

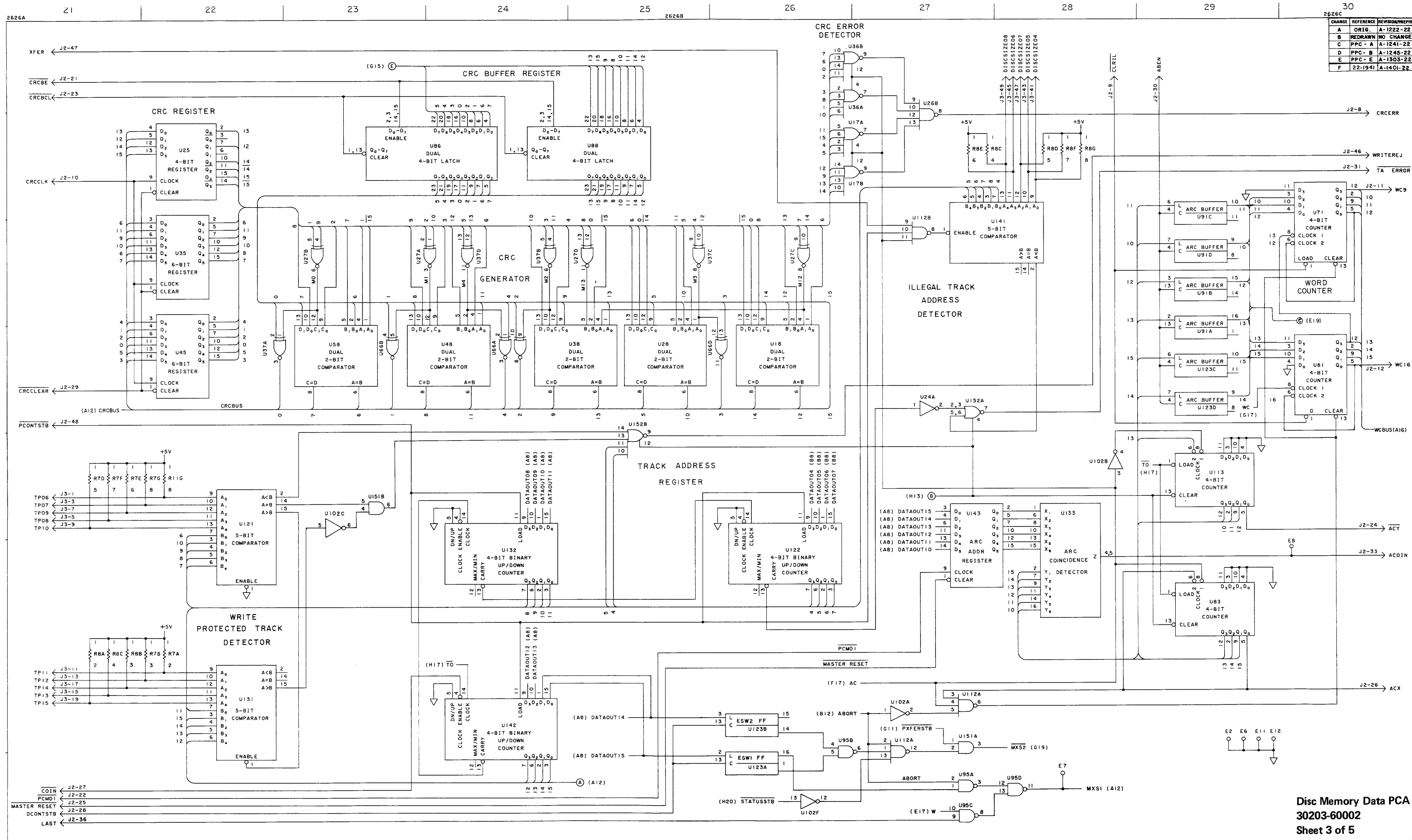


NOTE: UNLESS OTHERWISE SPECIFIED,
ALL RESISTANCE VALUES ARE 4.7K OHMS.

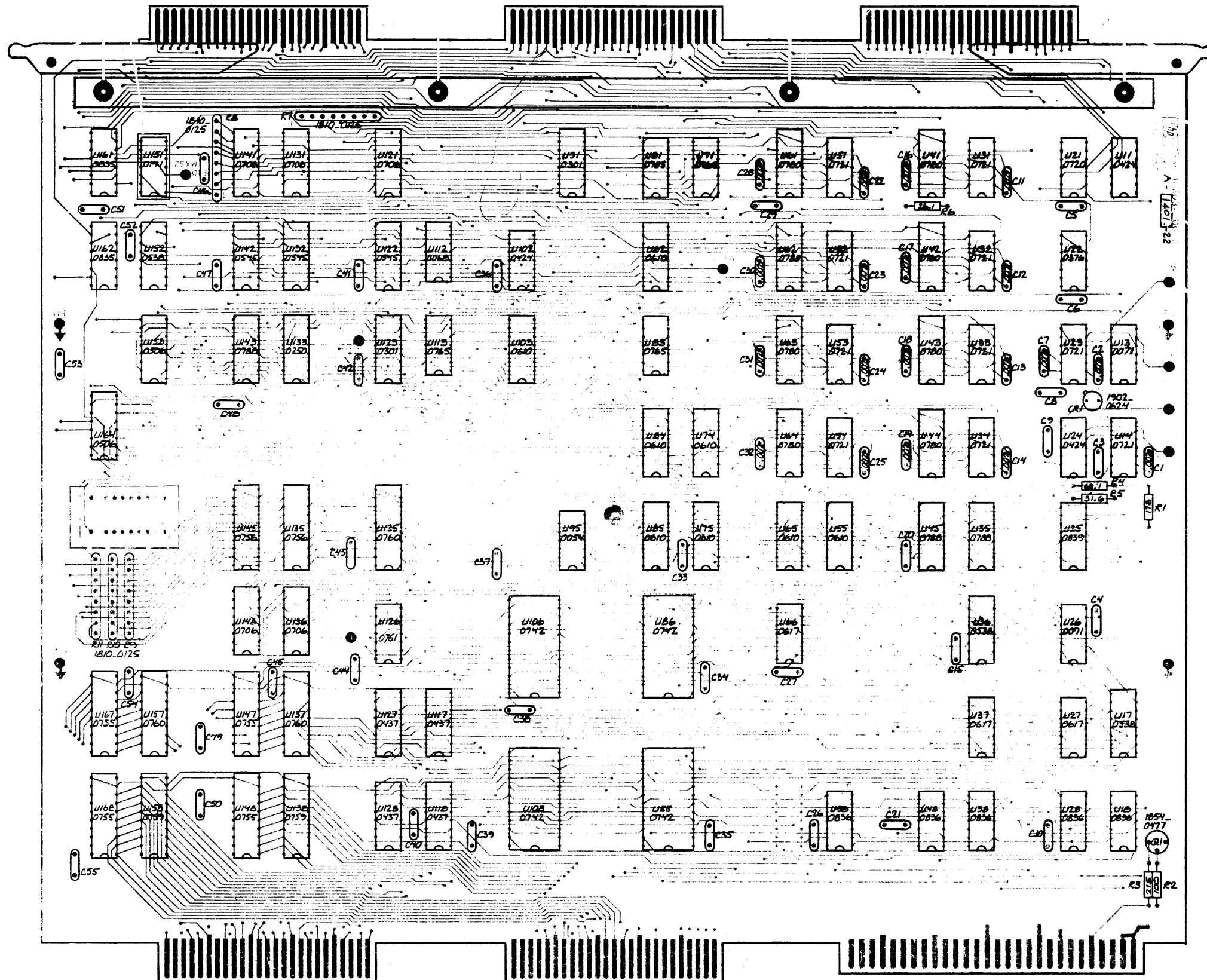
Disc Memory Data PCA
30203-60002
Sheet 1 of 5



Disc Memory Data PCA
30203-60002



REV	REV. DATE	APPROVED	DATE
A	AS ISSUED		
B	PILOT RUN MODIFICATIONS		
C	DATE CODE WAS 1241 - PPC "C"		1-11-74
D	ITEM 9 ADDED DATE CODE WAS 1245 - PPC "E"		5-19-74
E	LABEL WAS "DISC MEM CTRL"		5-24-74
F	RESISTOR 541 1249 WAS # 103		6-17-74
G	ADDED 3237Z HARD 1134E		1-25-74



DISC MEM DATA
30203-60002

UNLESS OTHERWISE NOTED
ALL RESISTANCE IN OHMS
ALL RESISTORS 10W 1% FIRM
ALL CAPACITANCE IN MICRO FARADS
ALL CAPACITORS 0.1UF CERAMIC DISC
ALL IC'S ARE #1820

Disc Memory Data PCA

30203-60002

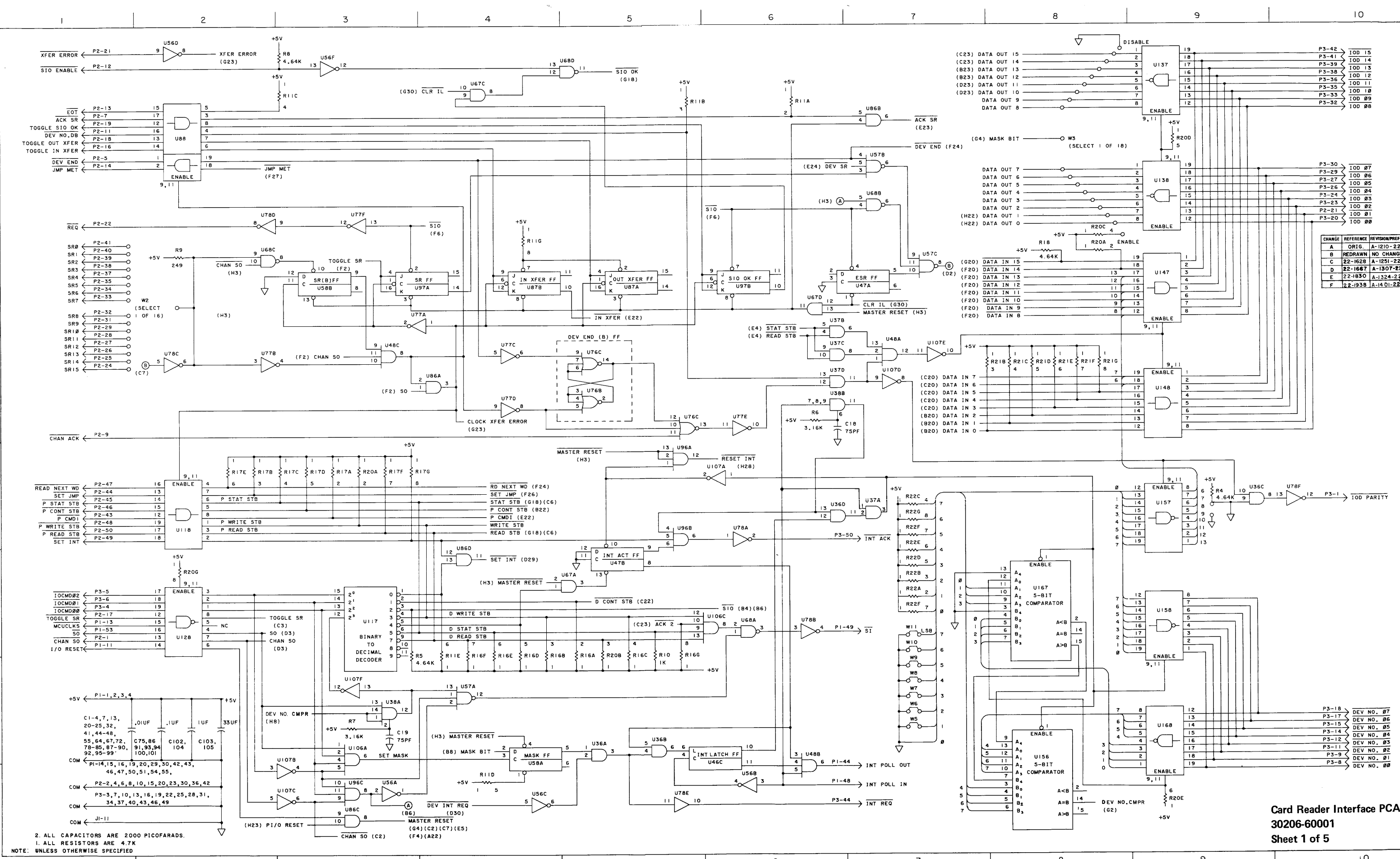
IC Index

U	1820-	U	1820-	U	1820-
11	0424	61-64	0780	125	0760
13	0071	65	0610	126	0761
14	0721	66	0617	127,128	0437
17	0538	71	0785	131	0706
18	0836	74,75	0610	132	0545
21	0720	81	0785	133	0250
22	0376	82	0610	135	0756
23	0721	83	0765	136	0706
24	0424	84,85	0610	137	0760
25	0839	86	0742	138	0759
26	0071	88	0742	141	0706
27	0617	91	0301	142	0545
28	0836	95	0054	143	0788
31-34	0721	102	0424	145	0756
35	0788	103	0610	146	0706
36	0538	106	0742	147,148	0755
37	0617	108	0742	151	0141
38	0836	112	0068	152	0538
41-45	0780	113	0765	153	0506
48	0836	117,118	0437	157	0760
51-54	0721	121	0706	158	0759
55	0610	122	0545	161,162	0835
58	0836	123	0301	164	0506
				167,168	0755

30206A

CARD READER (HP 2893A) INTERFACE

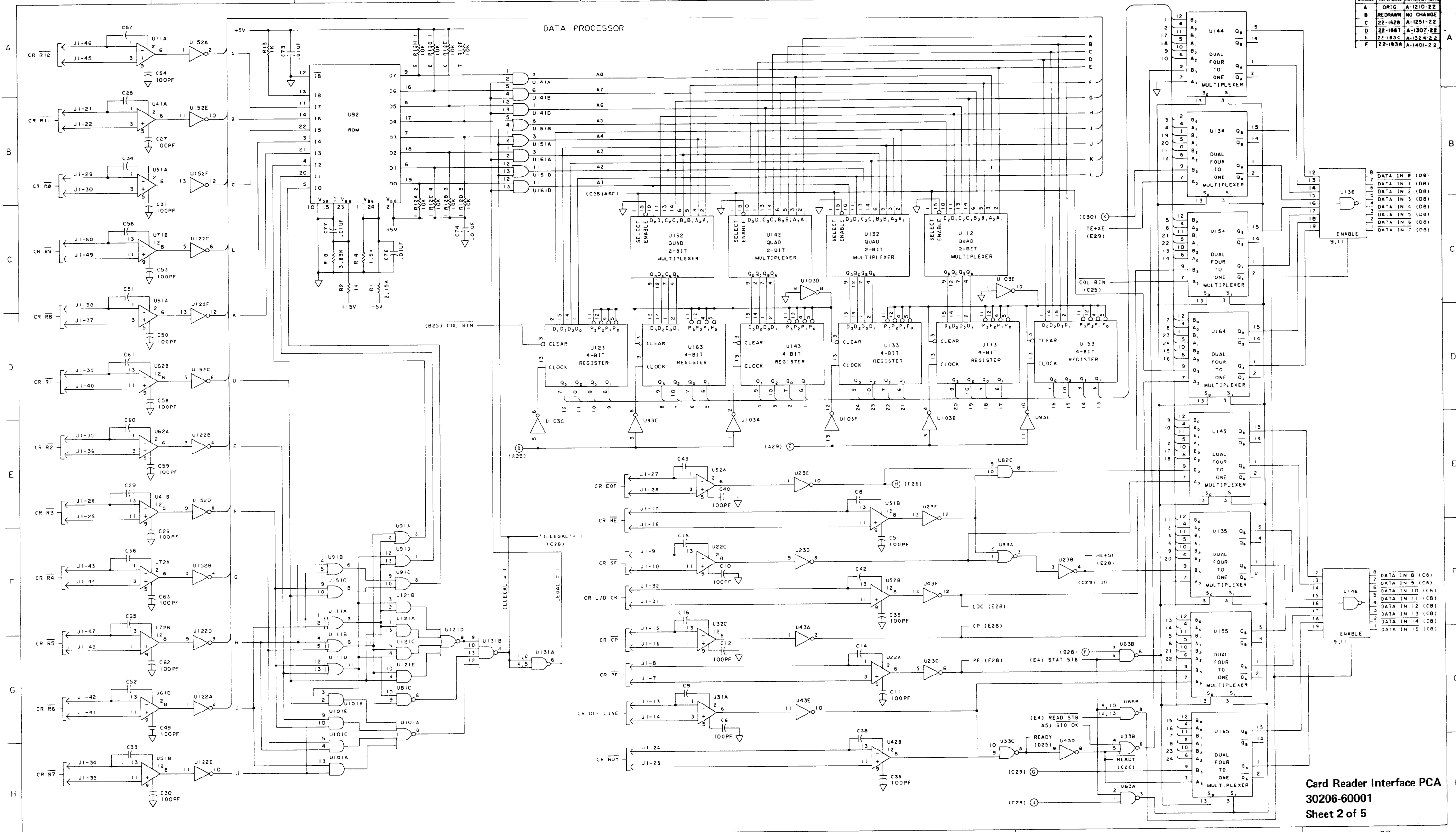
CARD READER INTERFACE PCA 30206-60001 5 SHEETS



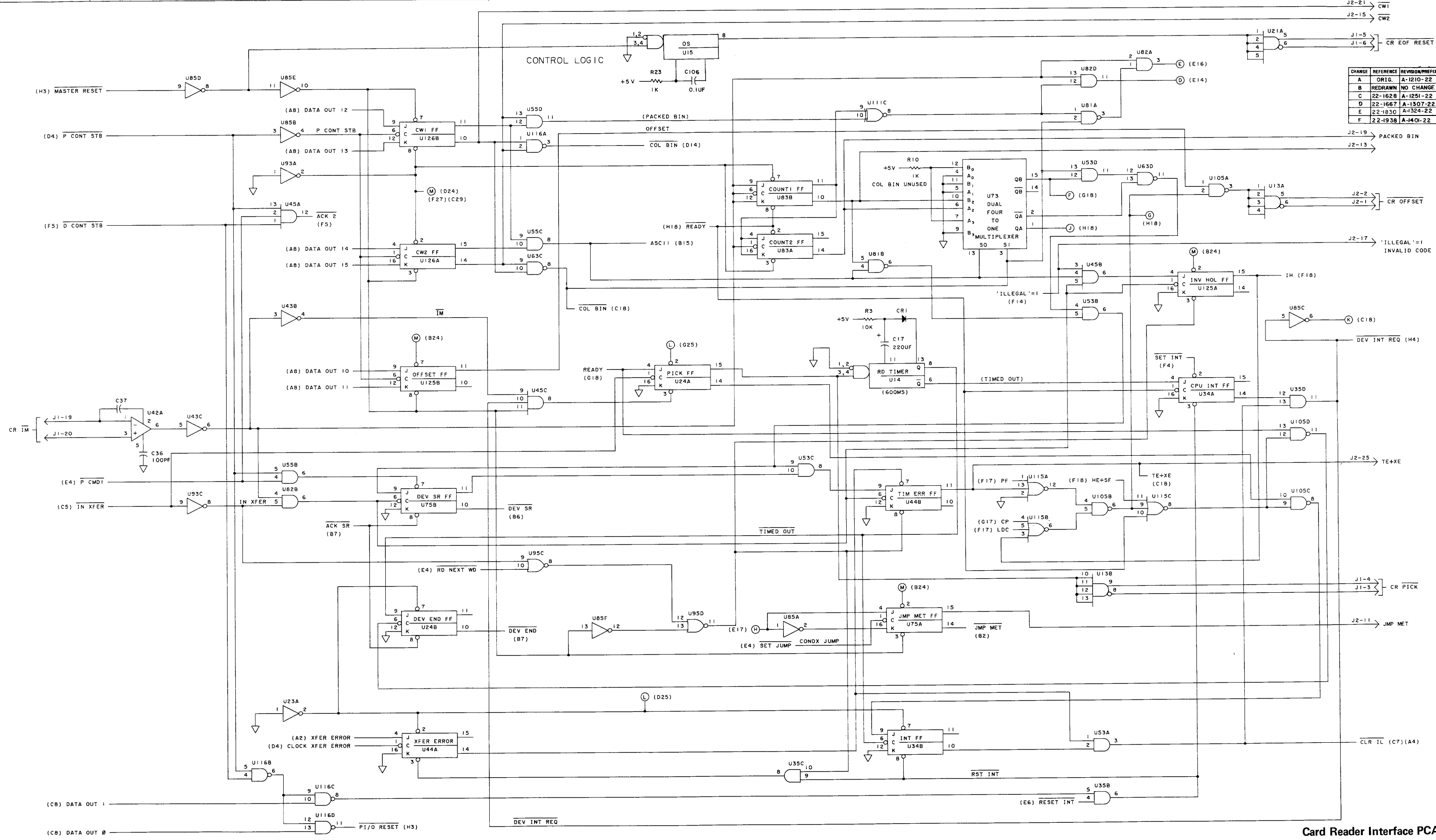
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1628	A-1251-22
D	22-1667	A-1307-22
E	22-1830	A-1324-22
F	22-1938	A-1401-22

2. ALL CAPACITORS ARE 2000 PICOFARADS.
 1. ALL RESISTORS ARE 4.7K
 NOTE: UNLESS OTHERWISE SPECIFIED

Card Reader Interface PCA
 30206-60001
 Sheet 1 of 5



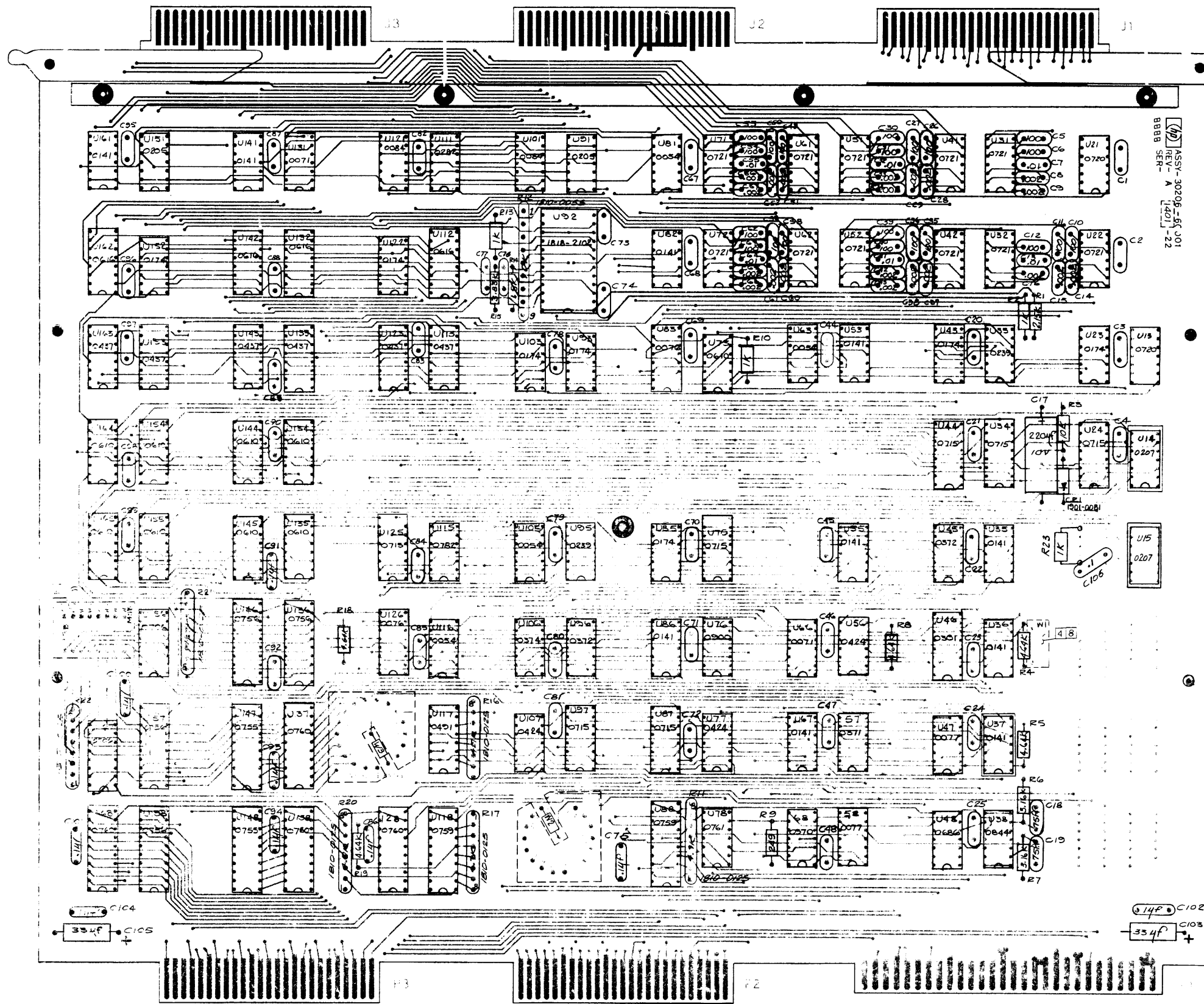
Card Reader Interface PCA
30206-60001
Sheet 2 of 5



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1628	A-1251-22
D	22-1667	A-1307-22
E	22-1830	A-1324-22
F	22-1938	A-1401-22

Card Reader Interface PCA
30206-60001
Sheet 3 of 5

REV	REVISIONS	APPROVED	DATE
A	AS ISSUED		
B	U15 & 3 IC SOCKETS ADDED - DATE CODE WAS 1225 - C-18C-3 ADDED - KEY & E104 ADDED.	L6/20A	1-14-73 2-1-73
C	DATE CODE WAS 1251 - PC 22-1667	LL/20A	9-7-73
D	PCO#22-1938 LOGO WAS 2-1307	607/LS	1-24-74
E	PCO#22-1938 LOGO WAS 7-1324	3 RD/LS	1-24-74
F	ADDED 31372A 001 USA4E	3/1/75	1-24-75



LD RDR INTFC
30206-60001

- NOTES:
- UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE IN OHMS
ALL RESISTORS 1/4W 1% FILM
ALL CAPACITANCE IN MICROFARADS
ALL CAPACITORS .01UF CER DISC
ALL IC'S ARE #820-

ASSEMBLY - 30206-60001
REV - A [1401]-22
BBB SER-

Card Reader Interface PCA

30206-60001

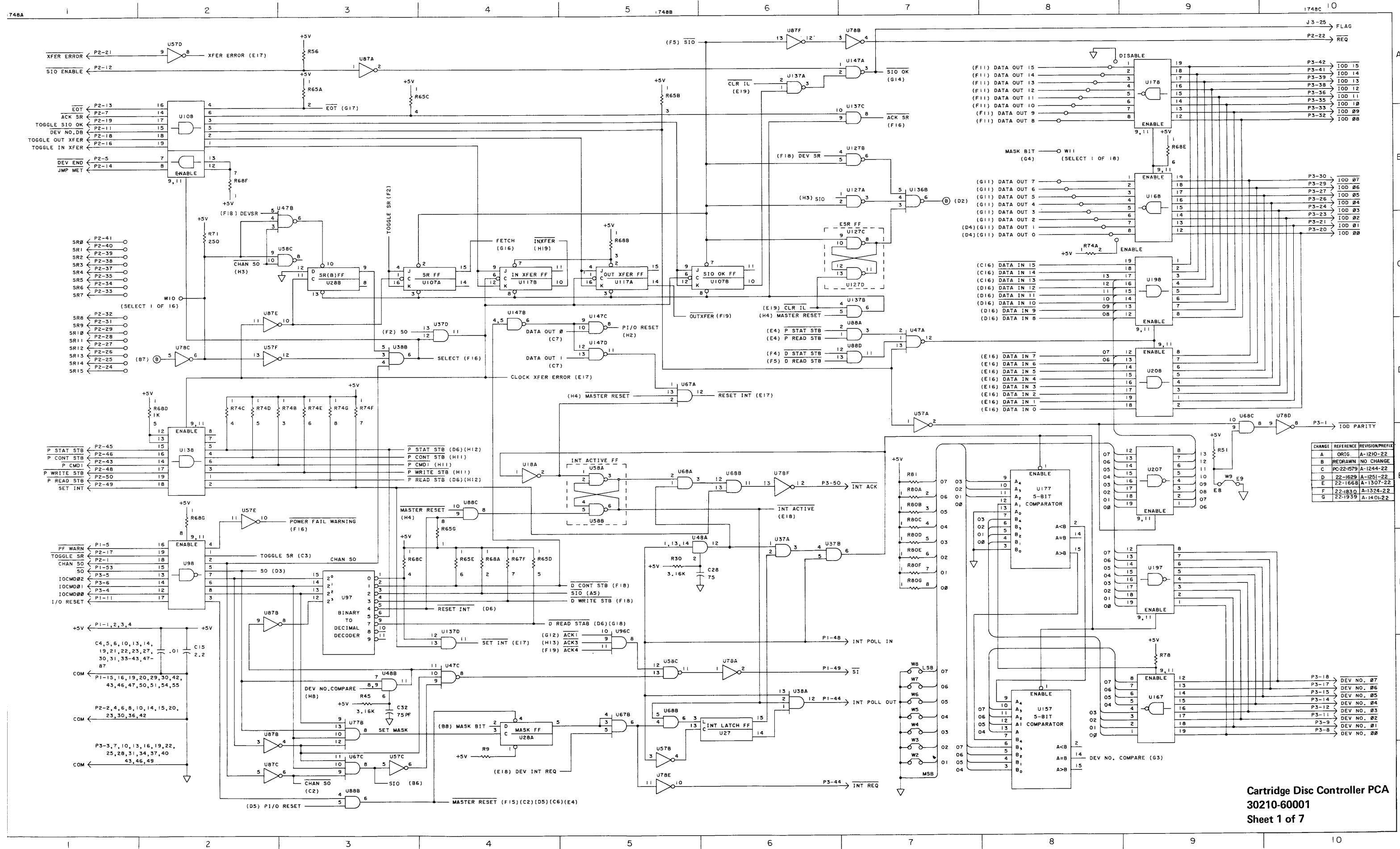
IC Index

U	1820-	U	1820-	U	1820-
13	0720	73	0610	121	0084
14,15	0207	75	0715	122	0174
21	0720	76	0900	123	0437
22	0721	77	0424	125	0715
23	0174	78	0761	126	0076
24	0175	81	0054	128	0760
31,32	0721	82	0141	131	0071
33	0239	83	0076	132	0616
34	0715	85	0174	133	0437
35-37	0141	86	0141	134,135	0610
38	0844	87	0715	136	0756
41,42	0721	88	0759	137,138	0760
43	0174	91	0205	141	0141
44	0715	92	1818-2102	142	0616
45	0372	93	1820-0174	143	0437
46	0301	95	0239	144,145	0610
47	0077	96	0372	146	0756
48	0686	97	0715	147,148	0755
51,52	0721	101	0084	151	0205
53	0141	103	0174	152	0174
55	0141	105	0054	153	0437
56	0424	106	0374	154,155	0610
57	0371	107	0424	156	0706
58	0077	111	0282	157,158	0756
61,62	0721	112	0616	161	0141
63	0054	113	0437	162	0616
66	0071	115	0782	163	0437
67	0141	116	0054	164,165	0610
68	0370	117	0491	167	0706
71,72	0721	118	0759	168	0760

30210A

CARTRIDGE DISC (HP 7900) INTERFACE

DISC CONTROLLER PROCESSOR PCA	30202-60003	(SEE PRODUCT 30102A)
CARTRIDGE DISC CONTROLLER PCA	30210-60001	7 SHEETS

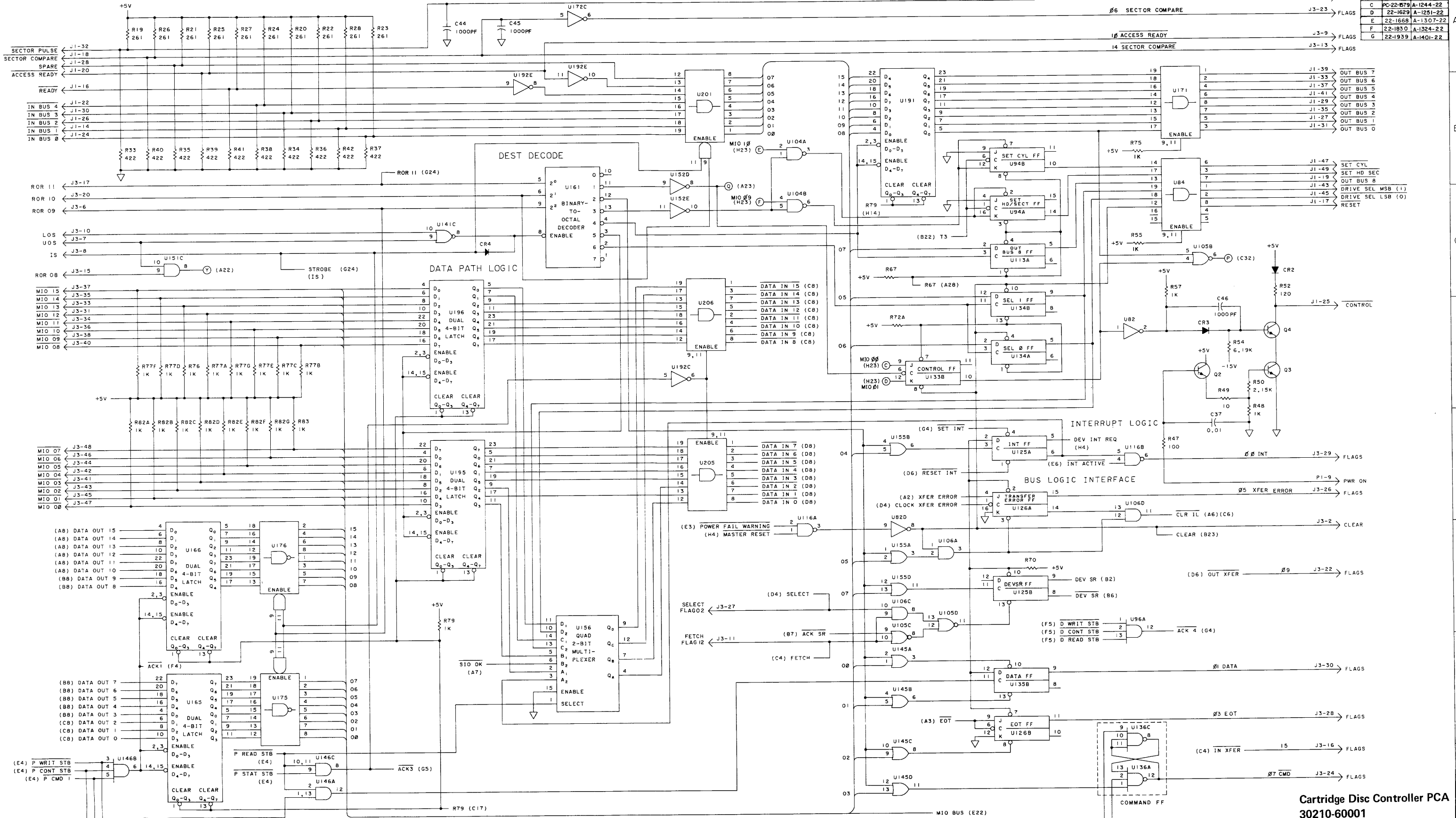


CHANGE	REFERENCE	REVISION	PREFIX
A	ORIG	A-1210-22	
B	REDRAWN	NO CHANGE	
C	PC-22-1579	A-1244-22	
D	22-1629	A-1251-22	
E	22-1668	A-1307-22	
F	22-1830	A-1324-22	
G	22-1939	A-1401-22	

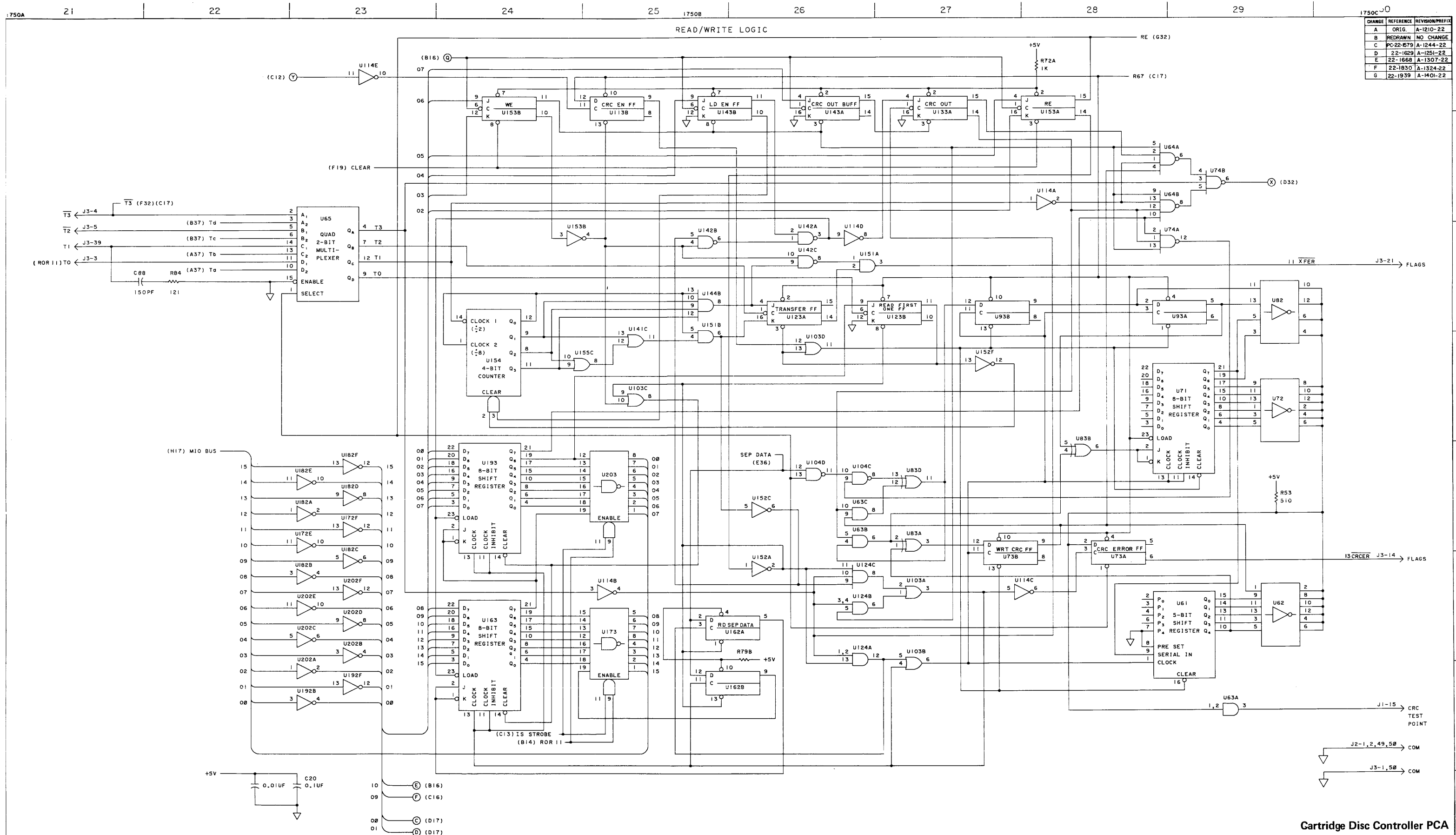
**Cartridge Disc Controller PCA
30210-3001
Sheet 1 of 7**

DISC DRIVE INTERFACE LOGIC

CHANGE	ORIG	REVISION/PREFIX
A	PC-22-579	A-1210-22
B		NO CHANGE
C		A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22
F	22-1830	A-1324-22
G	22-1939	A-1401-22



Cartridge Disc Controller PCA
 30210-60001
 Sheet 2 of 7

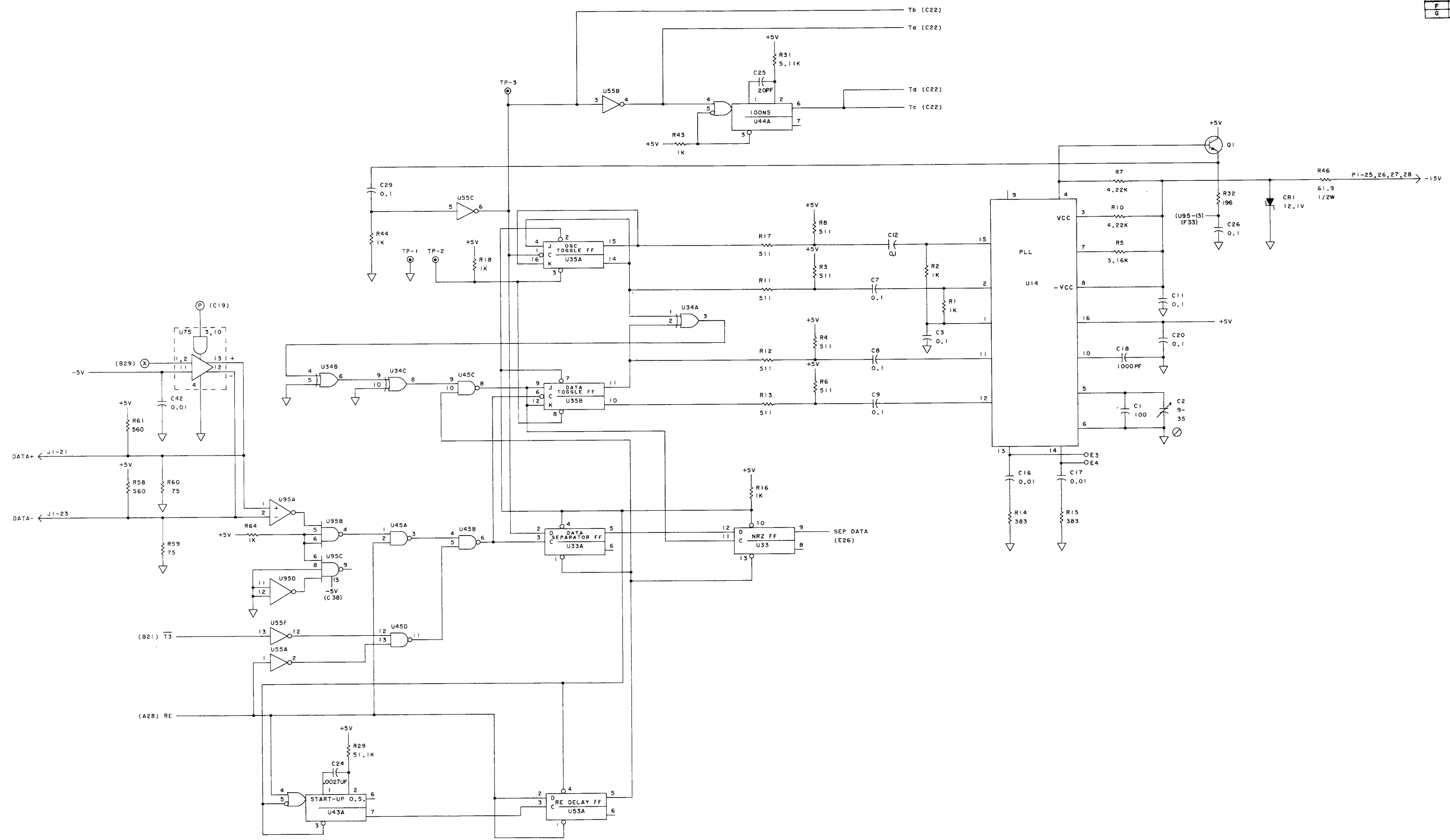


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-579	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22
F	22-1830	A-1324-22
G	22-1939	A-1401-22

Cartridge Disc Controller PCA
30210-60001
Sheet 3 of 7

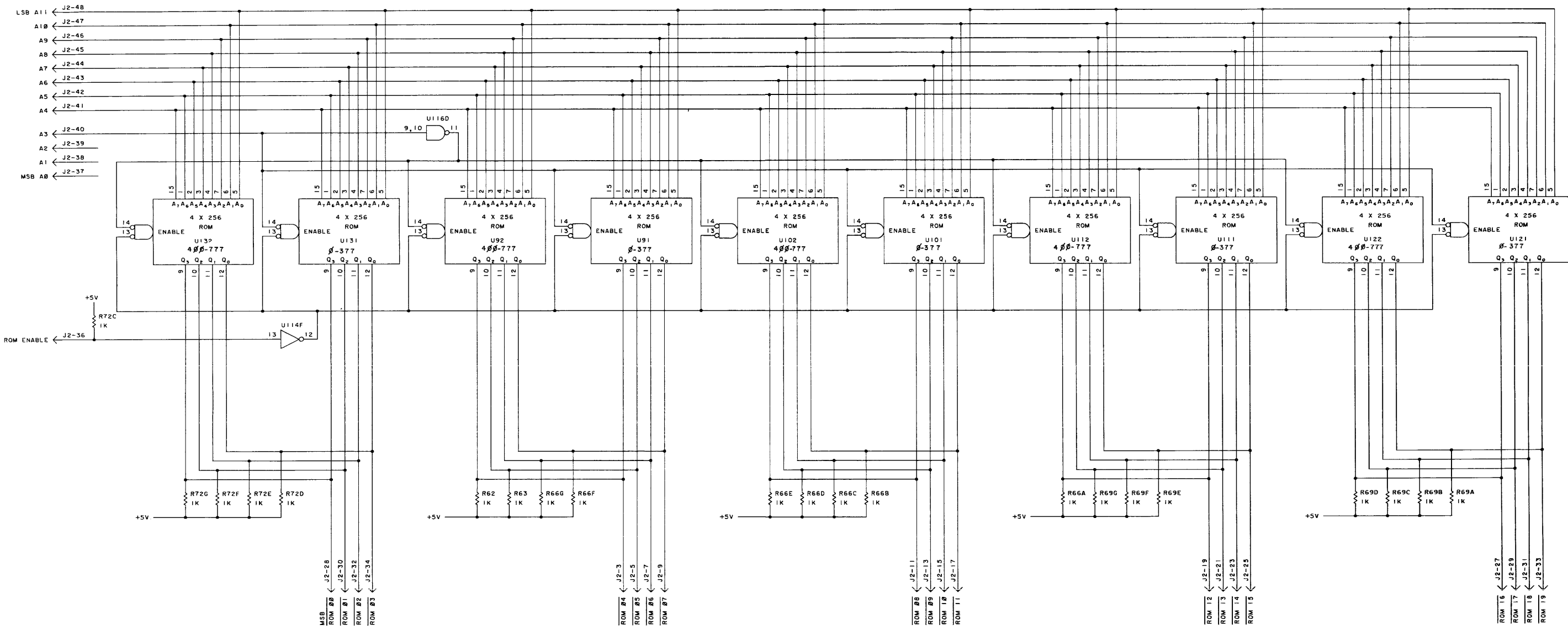
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-22-1579	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22
F	22-1850	A-1324-22
G	22-1939	A-1401-22

TIMING LOGIC

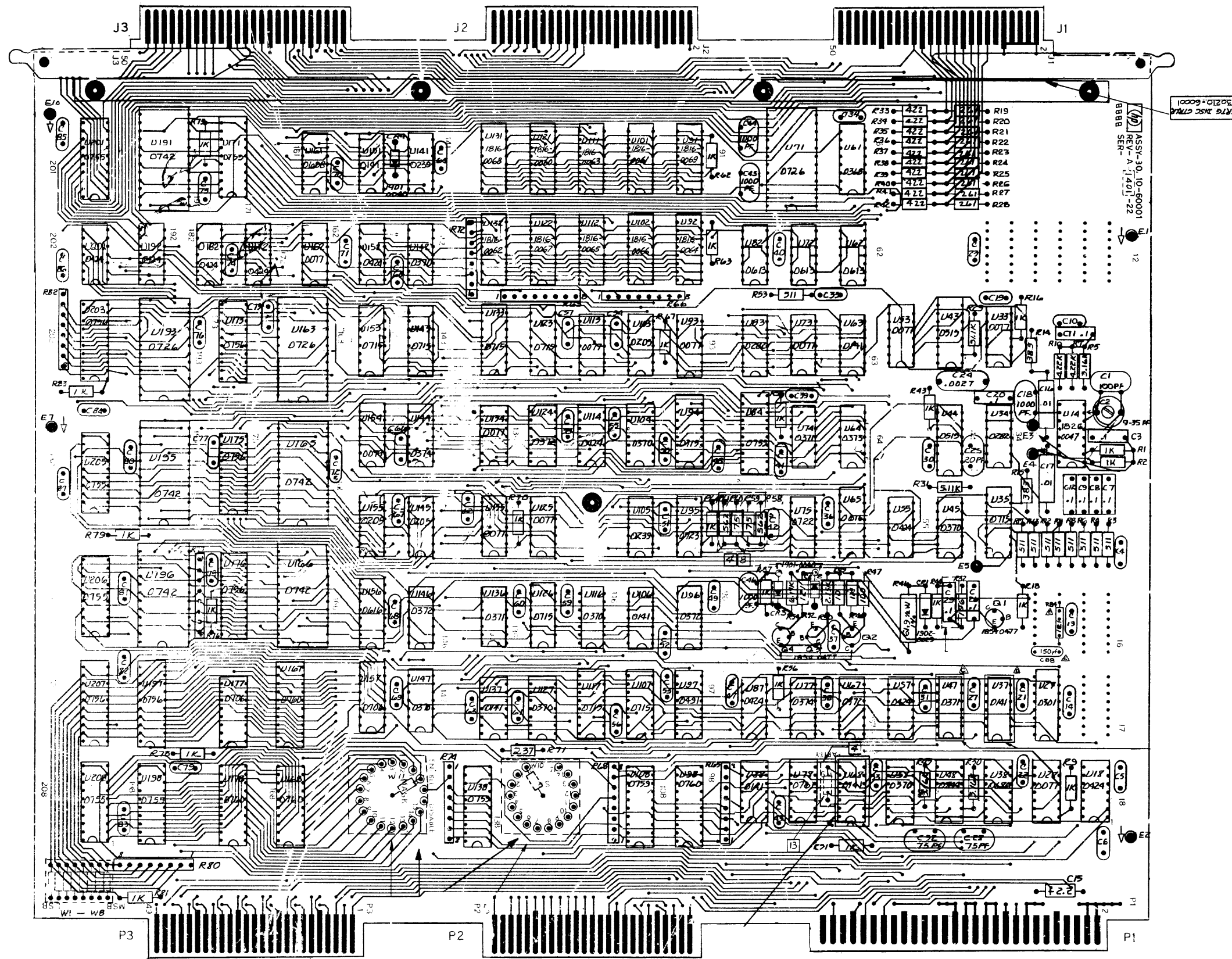


CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PC-2-879	A-1244-22
D	22-1629	A-1251-22
E	22-1668	A-1307-22
F	22-1830	A-1324-22
G	22-1939	A-1401-22

ROM LOGIC



H	REDESIGNED ADDRESSES U12, U13	CS/	4-68
J	CHANGED LOGIC B ₁₀ , ADDITIONAL I/O	GD/	5-68
K	DELETED R15 1K	AG/	5-68
L	ADDED 3072AD ONLY USAPE	AG/	5-68



UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8 W 1% F
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01 CER DISC.
 ALL RESISTOR NETWORKS ARE
 1K - 1R10 - 0030
 C88
 ALL IC'S ARE 1820-

Cartridge Disc Controller PCA

30210-60001

IC Index

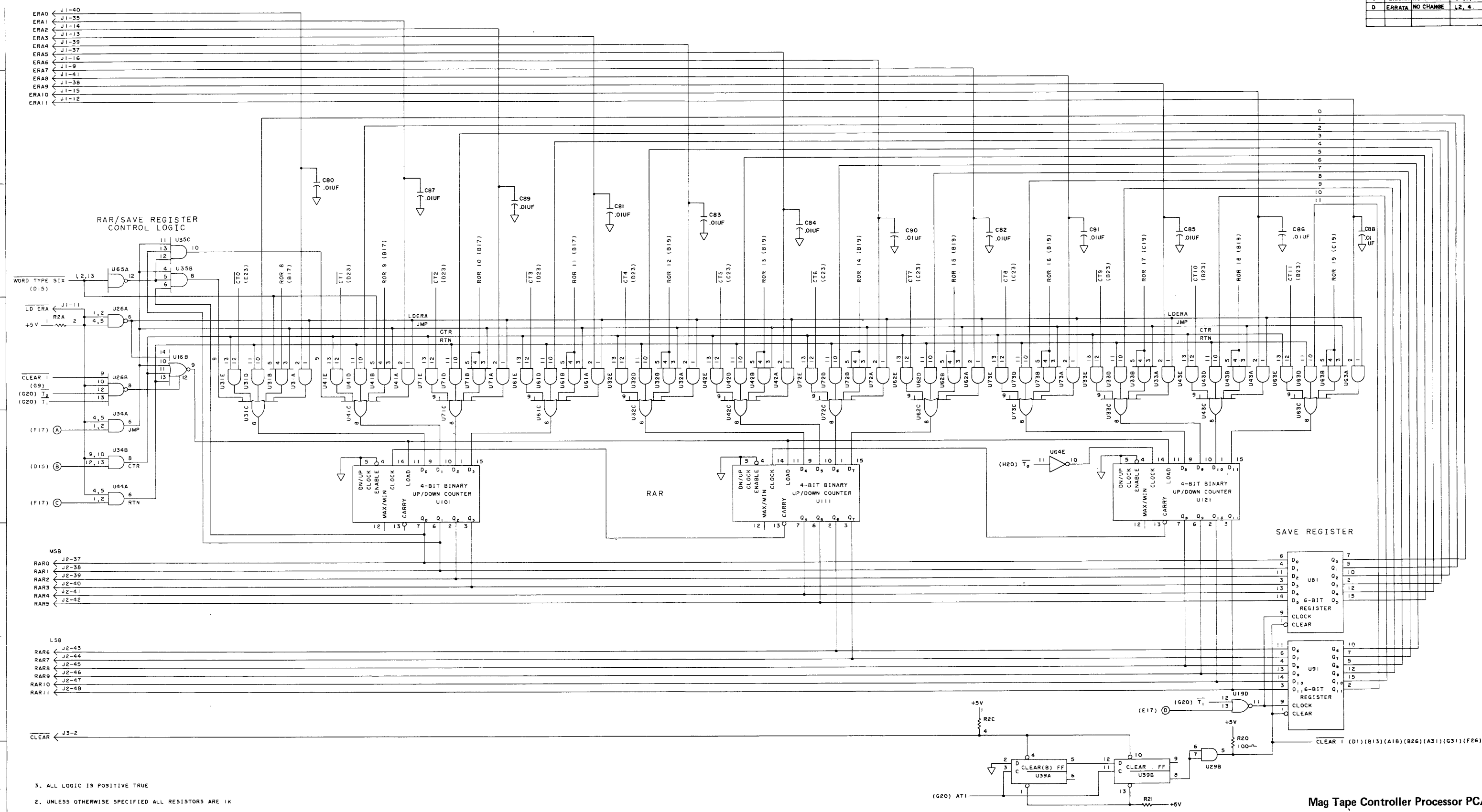
U	1820-	U	1820-	U	1820-
14	1826-0047	92	1816-0064	141	0239
18	1820-0424	93	1820-0077	142	0370
27	0301	94	0715	143	0715
28	0077	95	0723	144	0374
33	0077			145	0205
34	0282	96	0372	146	0372
35	0715	97	0491	147	0370
37	0141	98	0760	151	0141
38	0686	101	1816-0061	152	0424
43,44	0515	102	0066	153	0715
45	0370	103	1820-0205	154	0099
47	0371	104	0370	155	0205
48	0844	105	0239	156	0616
53	0077	106	0141	157	0706
55	0424	107	0715	161	0608
57	0424	108	0759	162	0077
58	0370	111	1816-0063	163	0726
61	0368	112	0065	165,166	0742
62	0613	113	1820-0077	137,168	0760
63	0141	114	0424	171	0755
64	0373	116	0370	172	0424
65	0616	117	0715	173	0756
67	0372	121	1816-0060	175,176	0756
68	0141	122	0067	177	0706
71	0726	123	1820-0715	178	0760
72	0613	124	0372	182	0424
73	0077			191	0742
74	0371	125	0077	192	0424
75	0722	126	0715	193	0726
77	0374	127	0370	195,196	0742
78	0761	131	1816-0068	197	0756
82	0613	132	0062	198	0755
83	0282	133	1820-0715	201	0755
84	0755	134,135	0077	202	0424
87	0424	136	0371	203	0756
88	0141	137	0141	205,206	0755
91	1816-0069	138	0759	207	0756
				208	0755

30215A

MAG TAPE INTERFACE

MAG TAPE CONTROLLER PROCESSOR PCA	30215-60002	6 SHEETS
MAG TAPE (9 TRACK) CONTROLLER PCA	30215-60006	6 SHEETS

CHANGE	REFERENCE	REVISION/PREFIX	SHEETS AFFECTED
A	ORIG.	A-1210-22	ALL
B	REDRAWN	NO CHANGE	ALL
C	ERRATA	NO CHANGE	1,2,3,4
D	ERRATA	NO CHANGE	1,2,4

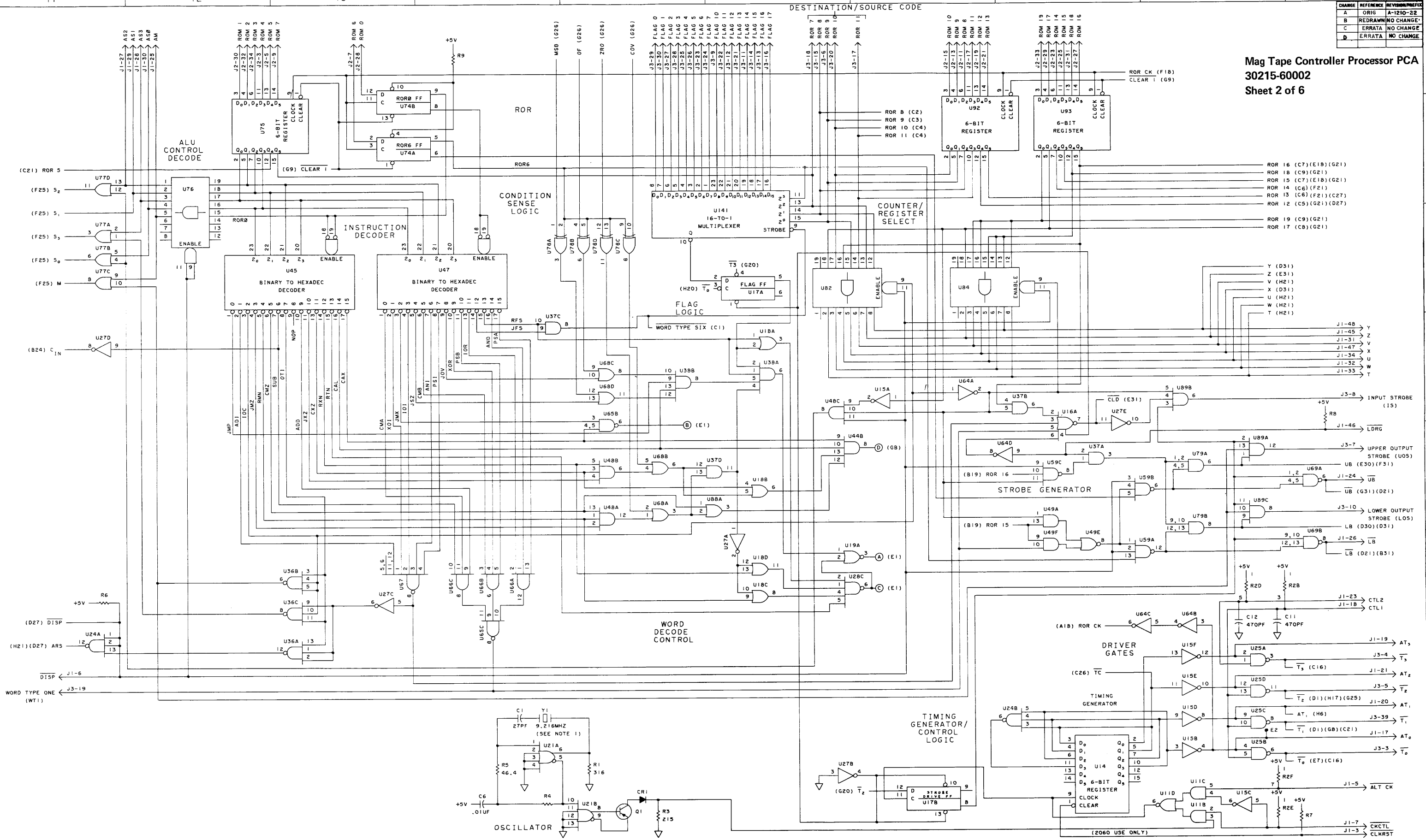


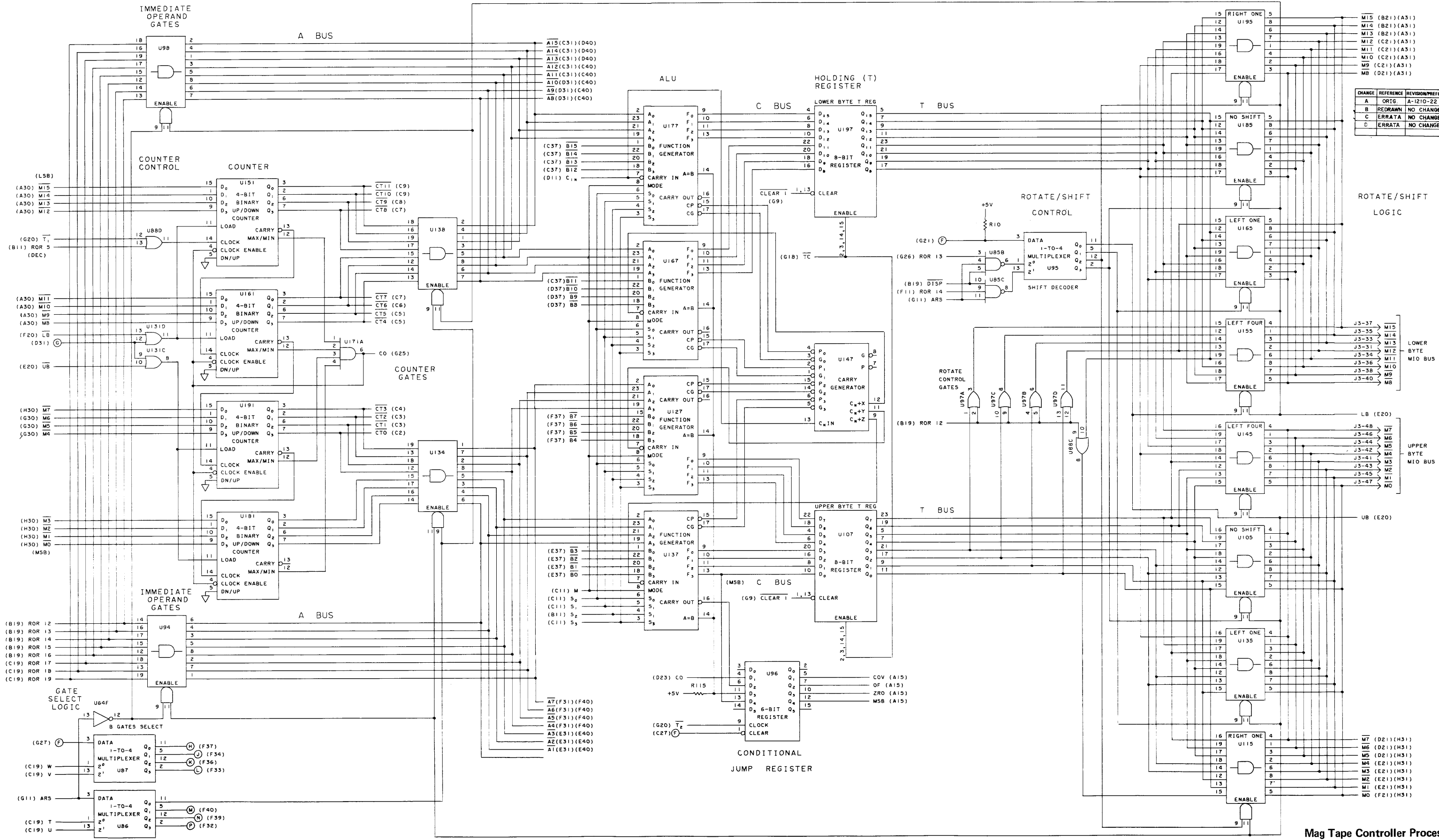
- 3. ALL LOGIC IS POSITIVE TRUE
 - 2. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE 1K
 - 1. CRYSTAL FREQUENCY MAY VARY WITH DIFFERENT SUBSYSTEMS
- NOTES:

Mag Tape Controller Processor PCA
30215-60002
 Sheet 1 of 6

CHANGE	REFERENCE	REVISION/DESCRIPTION
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE!
C	ERRATA	NO CHANGE!
D	ERRATA	NO CHANGE!

**Mag Tape Controller Processor PCA
30215-60002
Sheet 2 of 6**

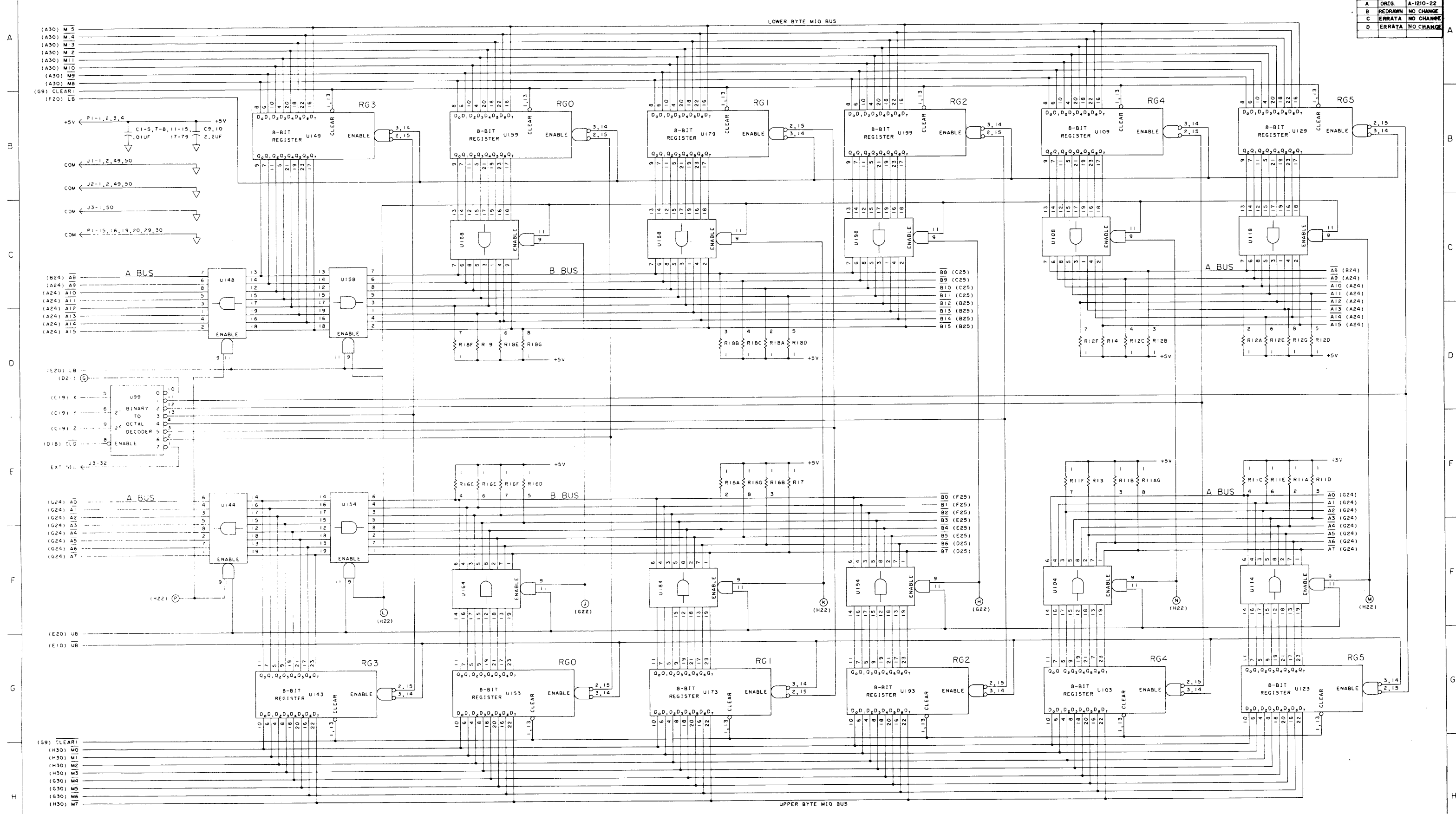




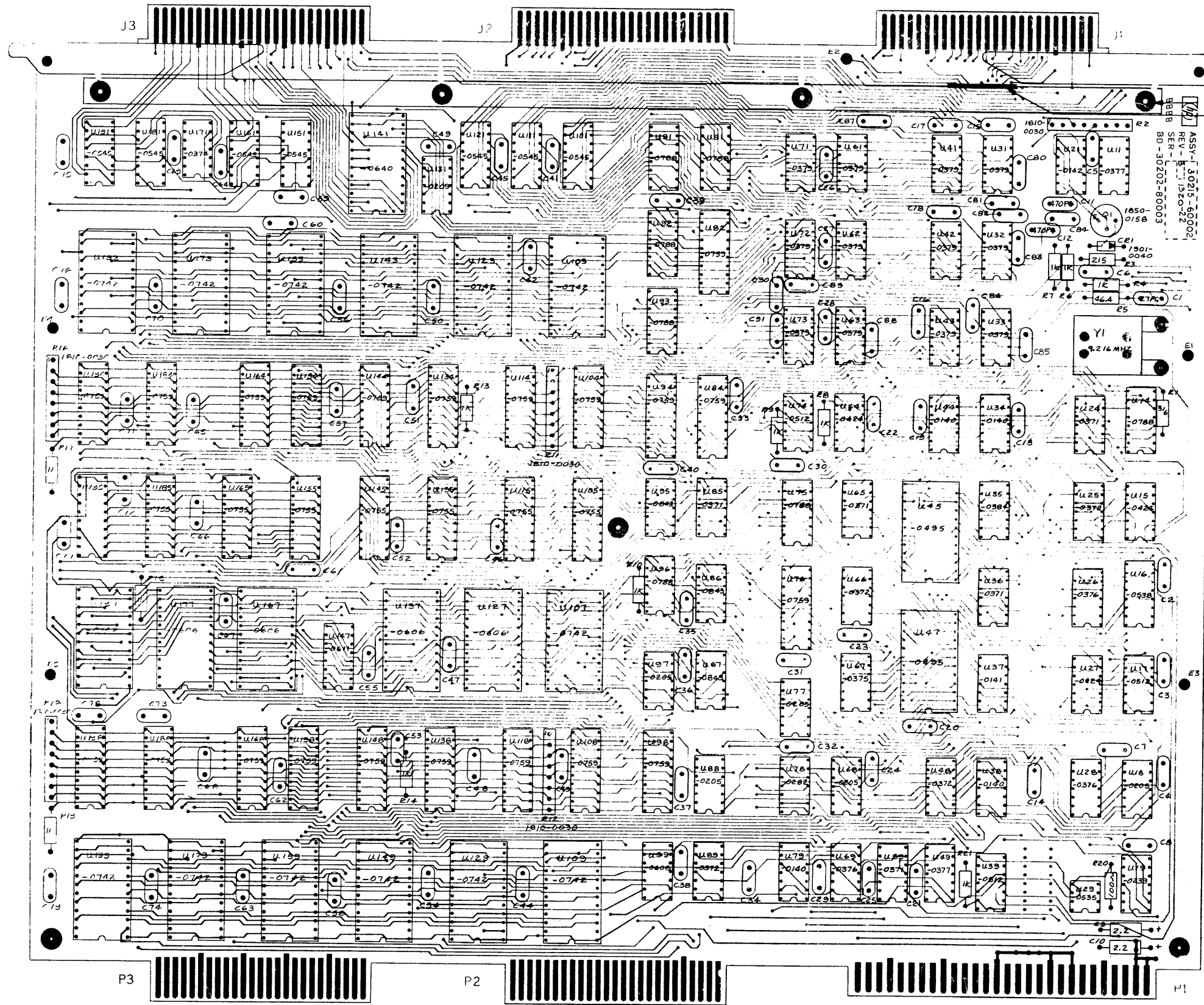
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE
D	ERRATA	NO CHANGE

LOWER BYTE MIO BUS	UPPER BYTE MIO BUS
J3-37 M15	J3-48 M7
J3-35 M14	J3-46 M6
J3-33 M13	J3-44 M5
J3-31 M12	J3-42 M4
J3-29 M11	J3-41 M3
J3-27 M10	J3-39 M2
J3-25 M9	J3-37 M1
J3-23 M8	J3-35 M0

CHANGE	REFERENCE	REVISION/REF
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE
D	ERRATA	NO CHANGE



REV	REVISIONS	APPROVED	DATE
A	AS ISSUED	LG 7/74	3-11-74
B	CLARIFIED THE DWG. ITEM 8 WAS	9/1/74	3-30-74
C	ADDED 30212A.D01 USAGE	1/1/75	5-27-74
D	IN NOTE 3, ITEM 2 WAS 2 PLACES	10/6/74	2-10-74



30215-60002
MAG TAPE CTRLR PROC

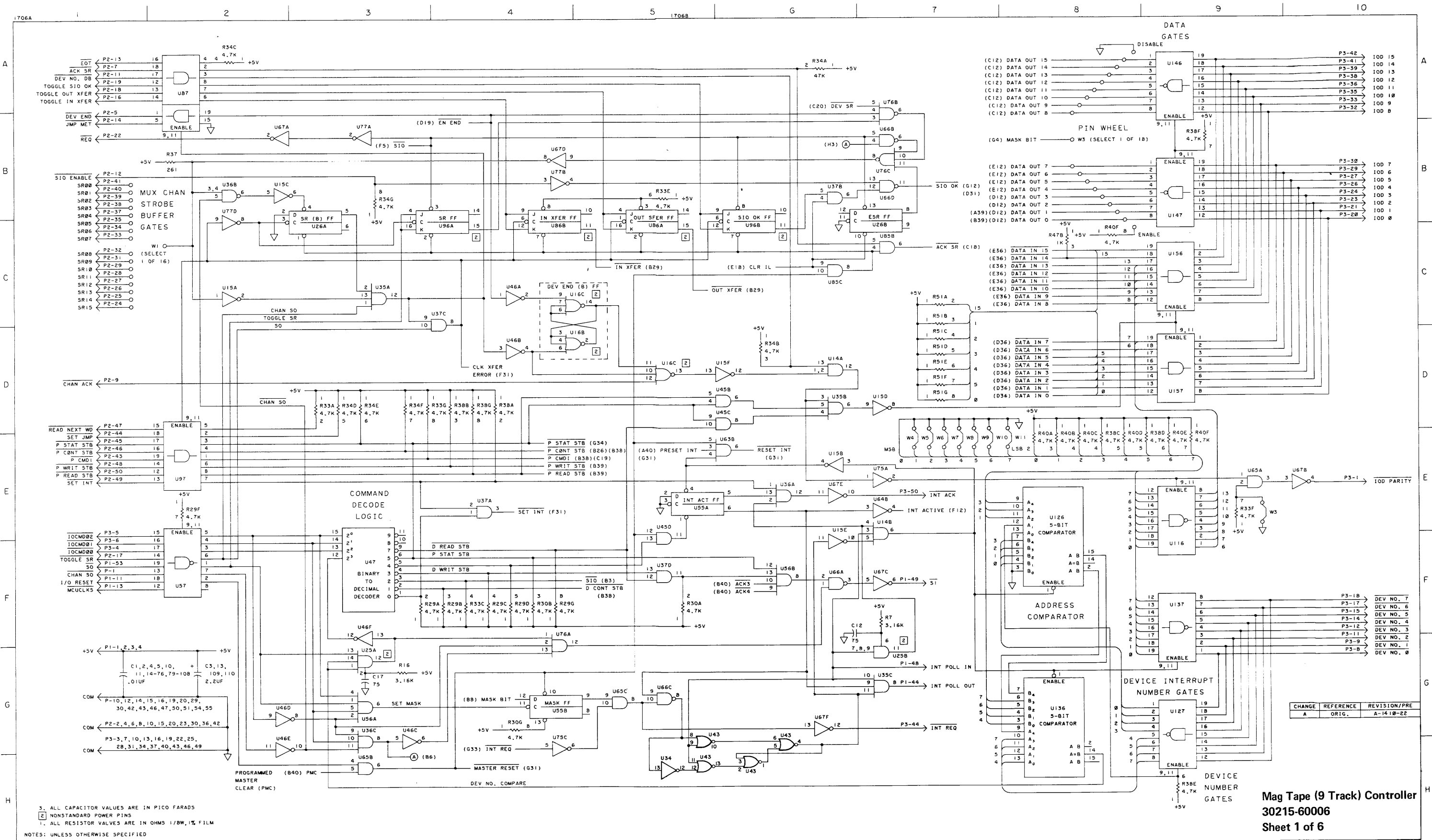
NOTES
 1 UNLESS OTHERWISE NOTED
 ALL RESISTORS IN OHMS
 ALL RESISTORS 1/8W 1/4%
 ALL CAPACITANCE IN MICRO FARADS
 ALL CAPACITORS .01MFD CER. DISC
 ALL IC'S ARE 1820

Mag Tape Controller Processor PCA

30215-60002

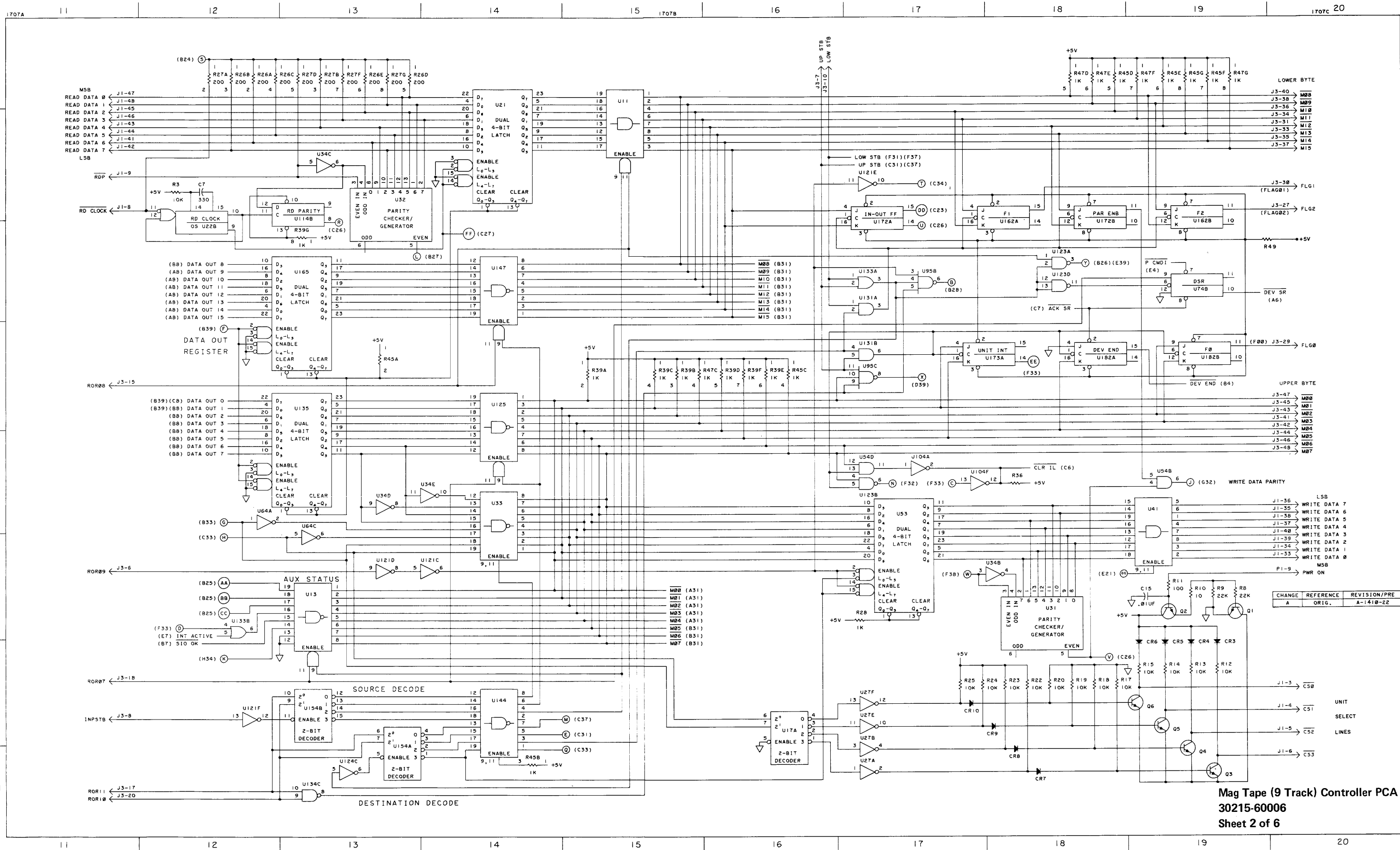
IC Index

U	1820-	U	1820-	U	1820-
11	0377	74	0512	138	0759
14	0788	75	0788	141	0640
15	0424	76	0759	143	0742
16	0538	77	0205	144	0759
17	0512	78	0282	145	0755
18	0205	79	0140	148	0759
19	0239	81	0788	149	0742
21	0142	82	0759	151	0545
24	0371	84	0759	153	0742
25	0370	85	0371	154	0759
26	0376	86,87	0843	155	0755
27	0424	88	0205	158	0759
28	0376	89	0372	159	0742
29	0535	91-93	0788	161	0545
31-33	0379	94	0759	164	0759
34	0140	95	0843	165	0755
35	0384	96	0788	167	0606
36	0371	97	0205	168	0759
37	0141	98	0759	171	0374
38	0140	99	0608	173	0742
39	0512	101	0545	177	0606
41-43	0379	103	0742	179	0742
44	0140	104,105	0759	181	0545
45	0495	107	0742	184	0759
47	0495	108	0759	188	0759
48	0372	109	0742	191	0545
49	0377	111	0545	194	0759
59	0371	114	0759	195	0755
61-63	0379	115	0755	197	0742
64	0424	118	0759	198	0759
65	0371	121	0545	199	0742
66	0372	123	0742		
67	0375	127	0606		
68	0205	129	0209		
69	0376	134	0759		
71-73	0379	135	0755		

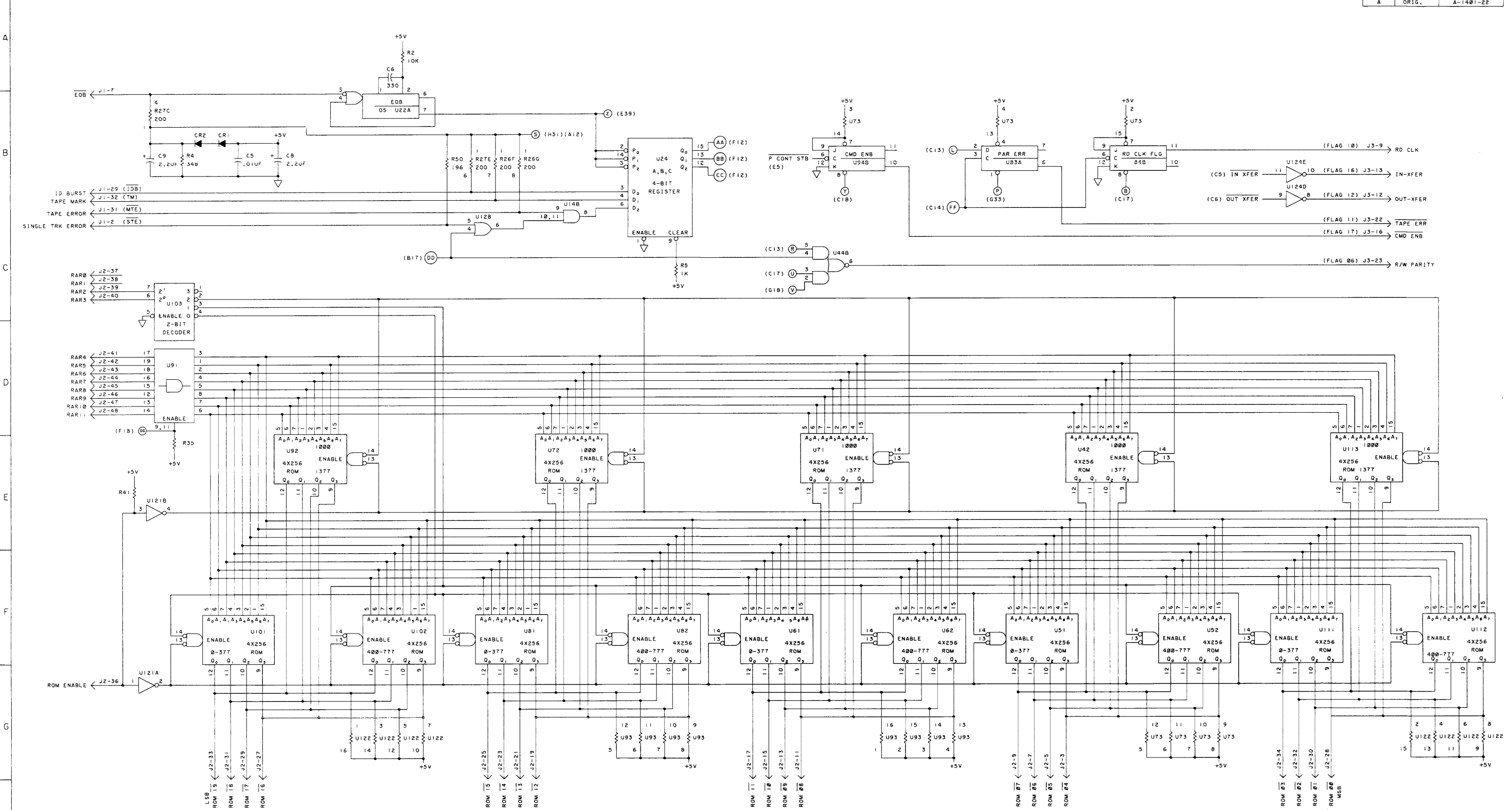


Mag Tape (9 Track) Controller
30215-60006
Sheet 1 of 6

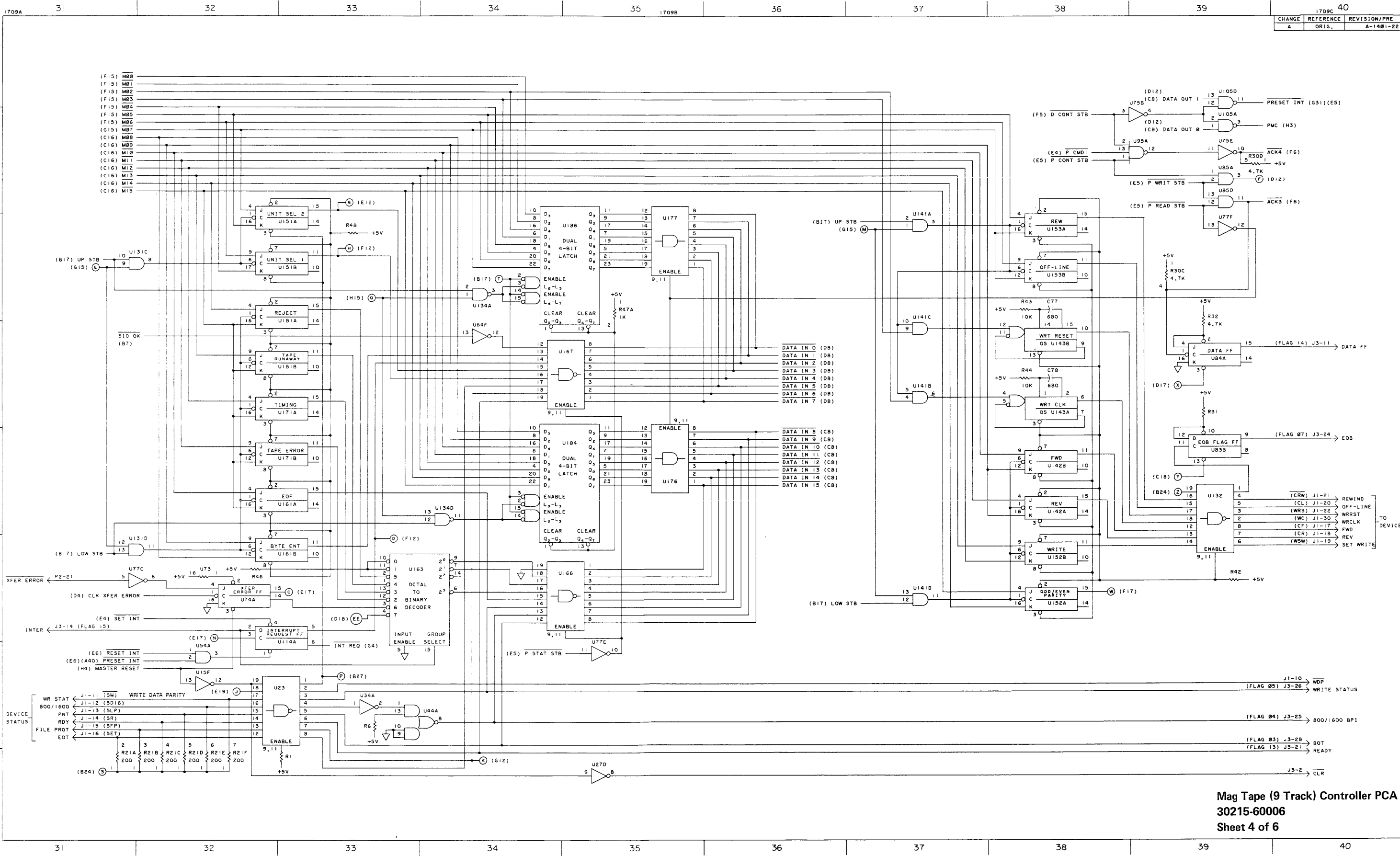
3. ALL CAPACITOR VALUES ARE IN PICO FARADS
 2. NONSTANDARD POWER PINS
 1. ALL RESISTOR VALUES ARE IN OHMS 1/8W, 1% FILM
 NOTES: UNLESS OTHERWISE SPECIFIED



Mag Tape (9 Track) Controller PCA
 30215-60006
 Sheet 2 of 6



**Mag Tape (9 Track) Controller PCA
30215-60006
Sheet 3 of 6**



CHANGE	REFERENCE	REVISION/PRE
A	ORIG.	A-1481-22

Mag Tape (9 Track) Controller PCA
30215-60006
Sheet 4 of 6

C	REDRAWN: ADD NOTE 7.13 CHG. NOTE 10.	GM	4-3-76
D	FIG. 21-2285-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.	CA	9-24-75
E	REVISED NOTE 11	GM	10-9-75
F	FIG. 47-1016 - ADD. NOTE 13, MODIFIED NOTE 12, DATE CODE WAS A-1533-12.	GM	2-3-76



NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS $\pm 1\%$
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01 μ F CERAMIC DISC
 ALL DIODES 901-C081
 ALL IC'S ARE 1820-
 ALL TRANSISTORS ARE .054-C477
 W1-W2 ARE 059-0005

Mag Tape Controller (9 Track)

30215-60006

IC Index

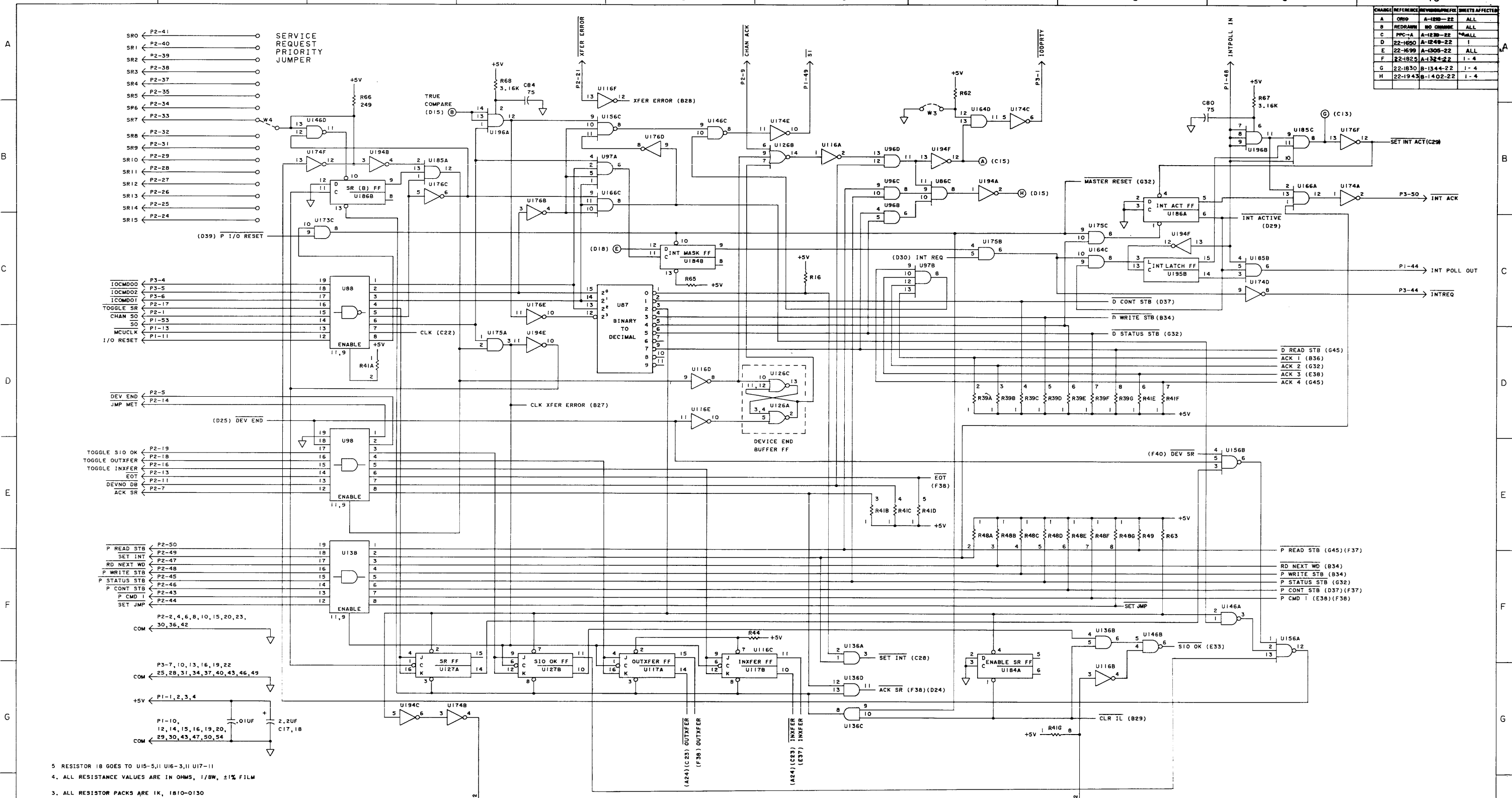
U	1820-	U	1820-	U	1820-
11	0755	62	1816-0293	114	1820-0077
12	0661	63	1820-0372	116	0756
13	0756	64	0424	121	0424
14	0372	65	0141	122	1810-0037
15	0424	66	0370	123	1820-0370
16	0900	67	0761	124	0424
17	0724	71	1816-0290	125	0756
21	0742	72	0292	126	0706
22	0515	73	1810-0037	127	0760
23	0756	74	1820-0715	131	0141
24	0626	75	0424	132	0756
25	0844	76	0371	133	0661
26	0077	77	0424	134	0370
27	0613	81	1816-0774	135	0742
31,32	0435	82	0294	136	0706
33	0756	83	1820-0077	137	0756
34	0424	84	0715	141	0141
35	0686	85	0141	142	0715
36	0372	86	0715	143	0515
37	0141	87	0759	144	0756
41	0755	91	0755	146,147	0760
42	1816-0296	92	1816-0297	151-153	0715
43	1820-1322	93	1810-0037	154	0724
44	0378	94	1820-0715	156,157	0755
45	0141	95	0371	161,162	0715
46	0424	96	0715	163	0657
47	0491	97	0759	165	0742
51	1820-0773	101	1816-0775	166,167	0756
52	0168	102	0295	171-173	0715
53	1820-0742	103	1820-0742	174	0756
54	0141	104	0613	176,177	0755
55	0077	105	0370	181,182	0715
56	0374	111	1816-0776	184	0742
57	0760	112	0167	186	0742
61	1816-0222	113	0291		

30219A

CARD READER PUNCH INTERFACE

CARD READER PUNCH INTERFACE PCA 30050-60008 7 SHEETS

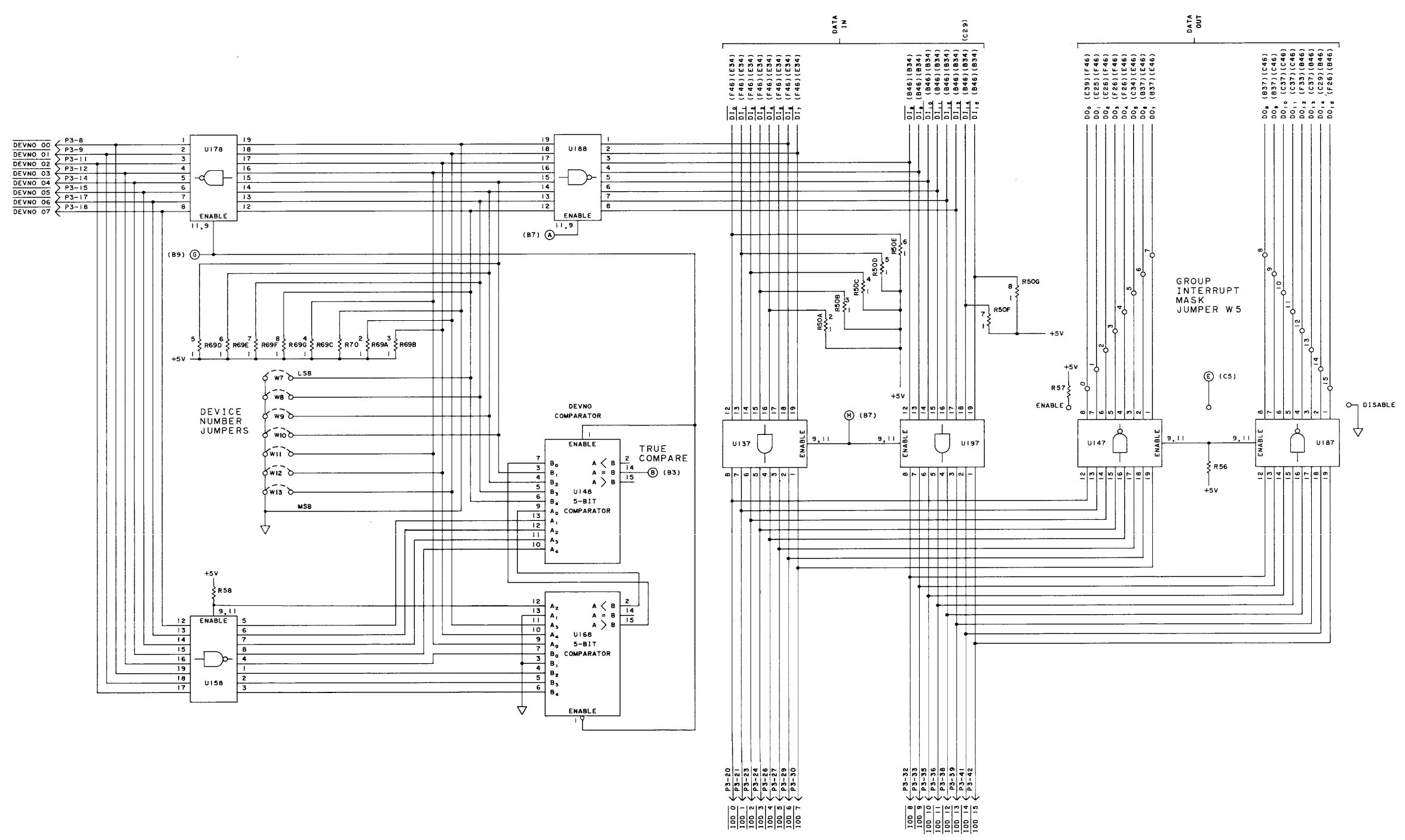
CHANGE REFERENCE	DESCRIPTION	SHEETS AFFECTED
A	ORIP A-1300-22	ALL
B	REDRAWN NO CHANGE	ALL
C	PPC-A A-1230-22	ALL
D	22-1650 A-1240-22	1-4
E	22-1699 A-1305-22	ALL
F	22-1825 A-1324-22	1-4
G	22-1830 B-1344-22	1-4
H	22-1943 B-1402-22	1-4



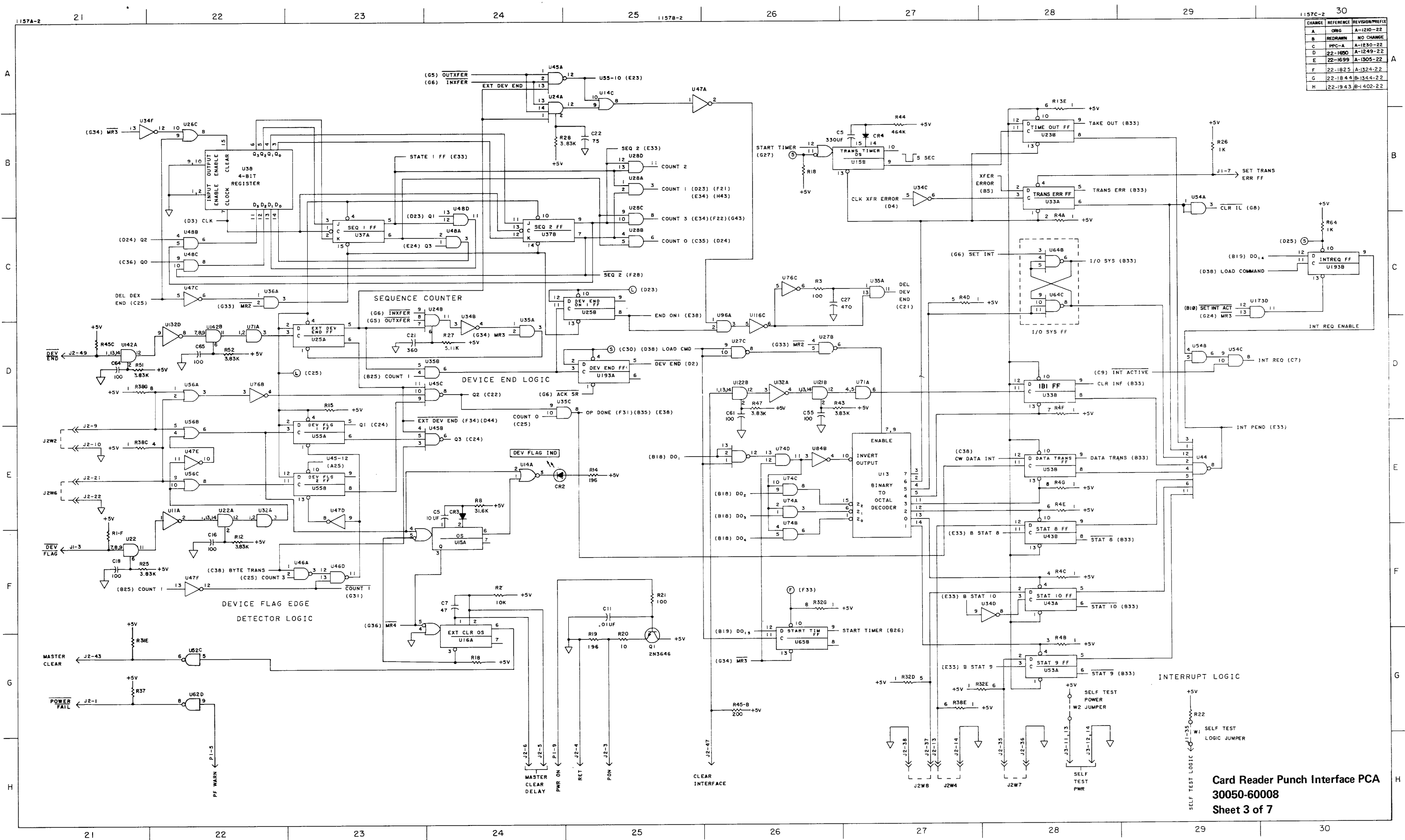
- 5. RESISTOR 18 GOES TO U15-5, U16-3, U17-11
 - 4. ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, ±1% FILM
 - 3. ALL RESISTOR PACKS ARE 1K, 1810-0130
 - 2. ALL DISCRETE RESISTORS ARE 1K
 - 1. ALL CAPACITANCE VALUES ARE IN PICOFARADS
- NOTES: UNLESS OTHERWISE SPECIFIED

Card Reader Punch Interface PCA
30050-60008
Sheet 1 of 7

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1850	A-1249-22
E	22-1899	A-1305-22
F	22-1825	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22



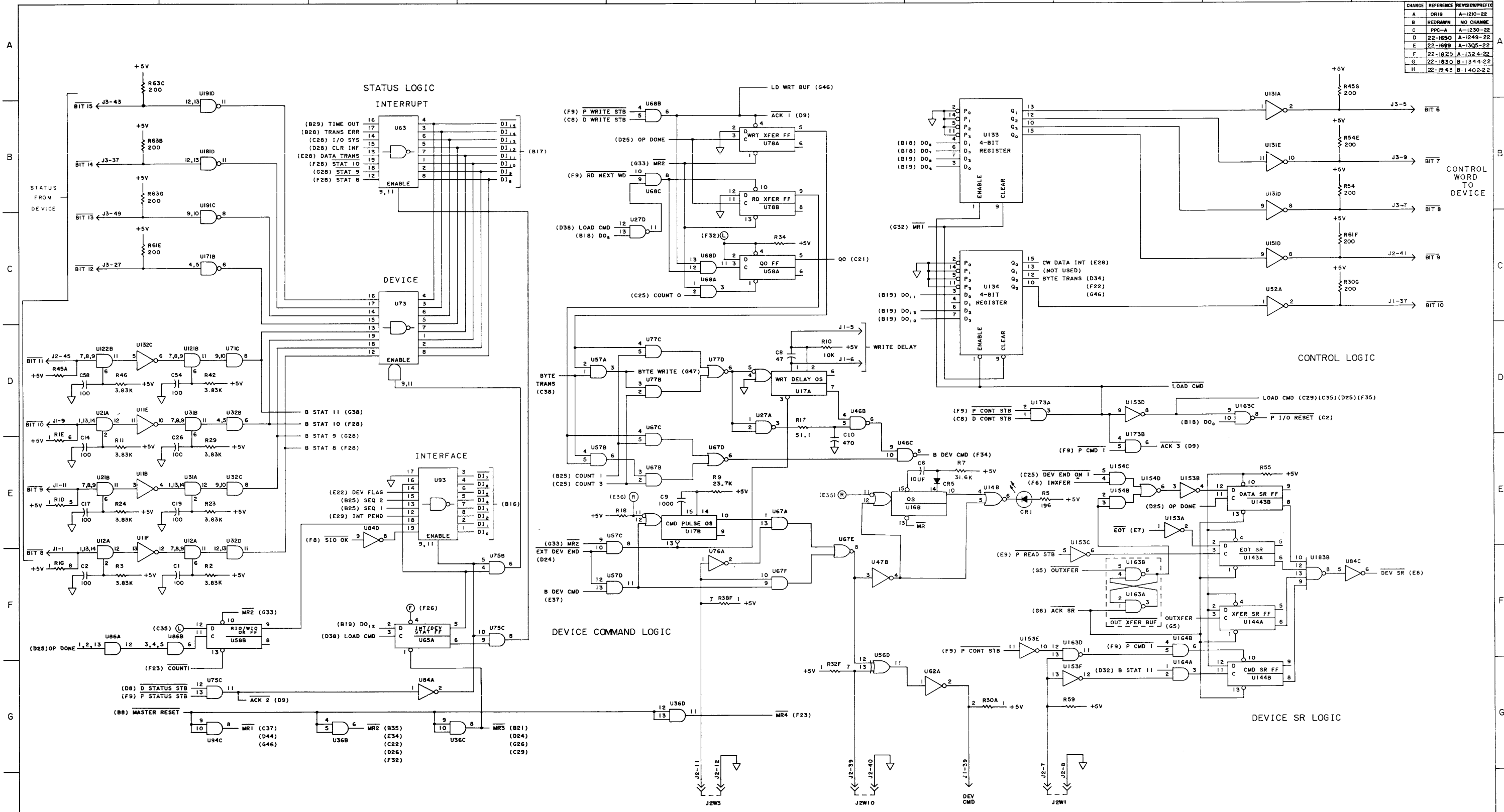
Card Reader Punch Interface PCA
30050-60008
Sheet 2 of 7



CHANGE	REFERENCE	REVISION/DATE
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1650	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1844-B	B-1344-22
H	22-1943	B-1402-22

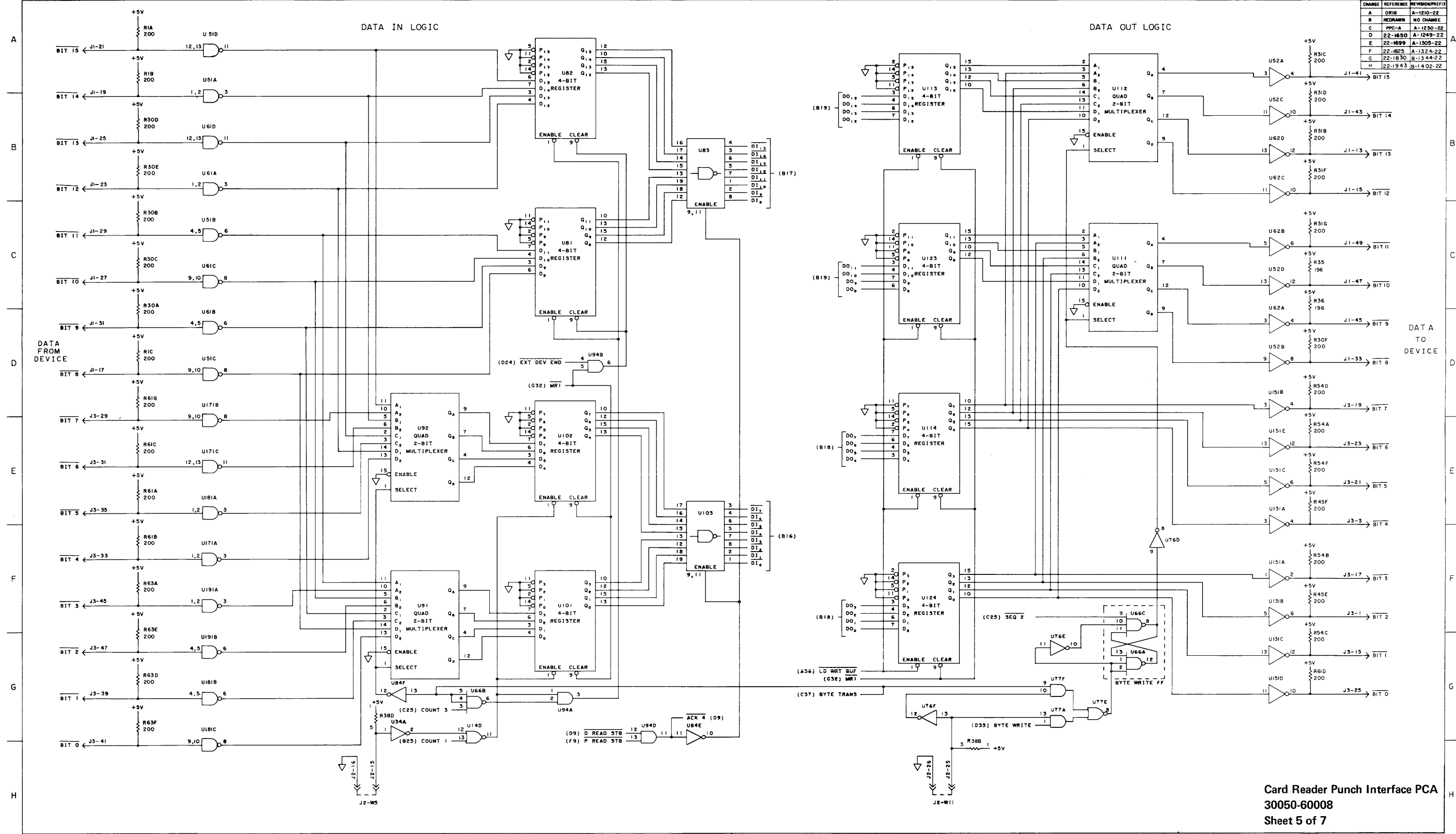
Card Reader Punch Interface PCA
30050-60008
Sheet 3 of 7

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1230-22
D	22-1650	A-1249-22
E	22-1699	A-1305-22
F	22-1825	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22

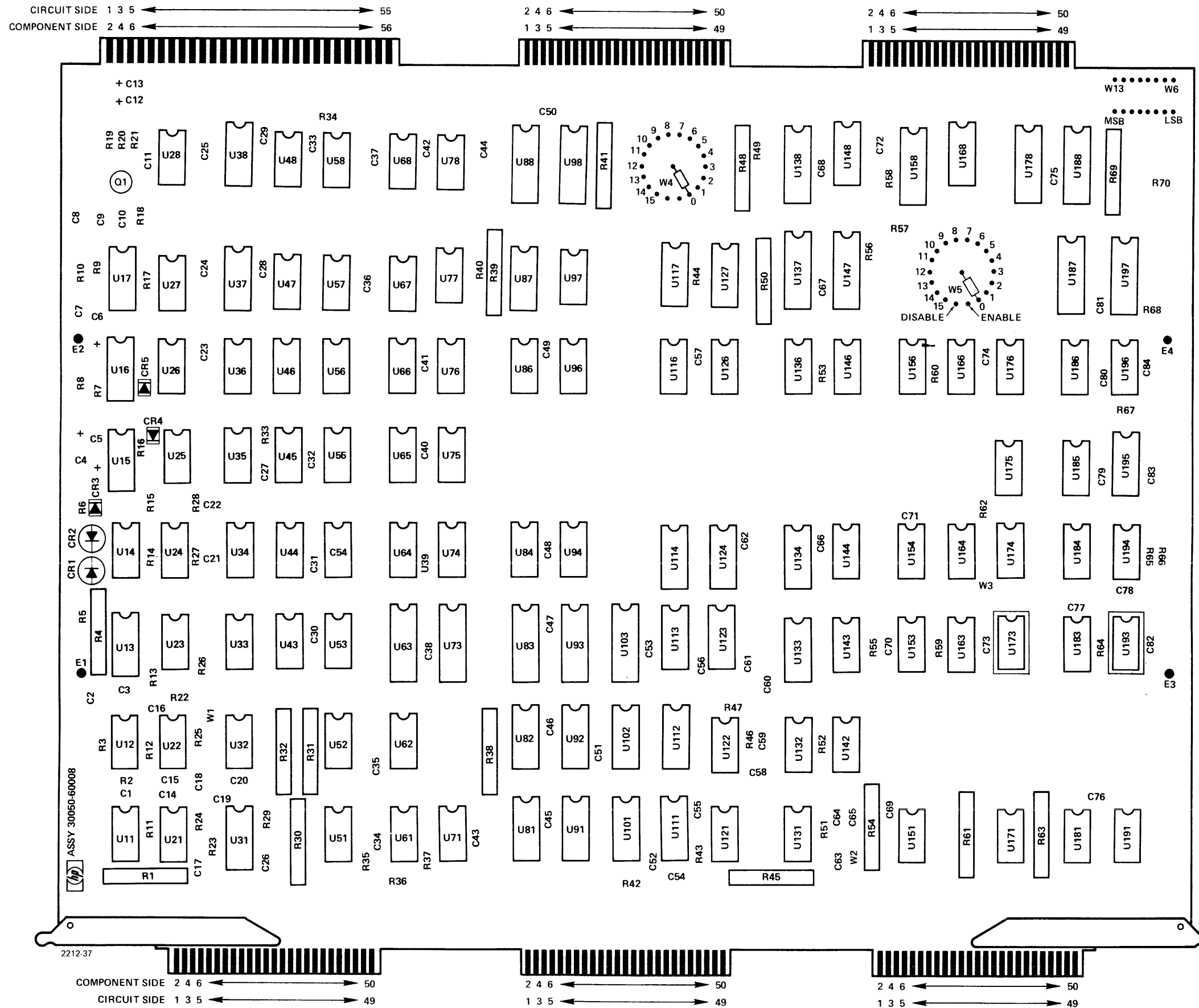


Card Reader Punch Interface PCA
30050-60008
Sheet 4 of 7

CHANGE	REFERENCE	REVISION/PREFIX
A	DR18	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-A	A-1249-22
D	22-1650	A-1249-22
E	22-1659	A-1305-22
F	22-1625	A-1324-22
G	22-1830	B-1344-22
H	22-1943	B-1402-22



Card Reader Punch Interface PCA
30050-60008
Sheet 5 of 7



Card Reader Punch Interface PCA

30050-60008

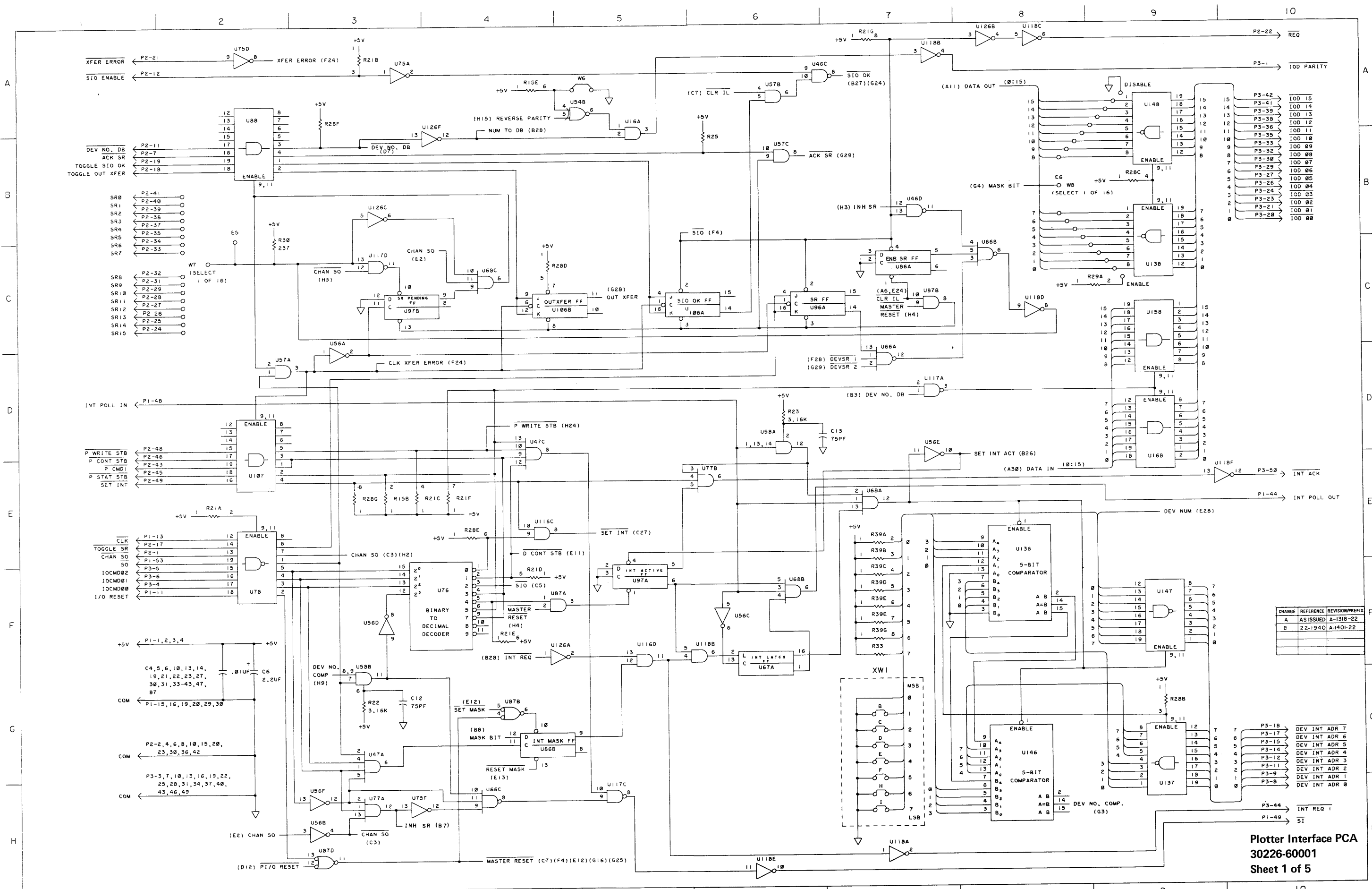
IC Index

U	1820-	U	1820-	U	1820-
11	0424	64	0371	137	0755
12	0844	65	0512	138	0759
13	0834	66	0371	142	0844
14	0239	67	0377	143,144	0512
15-17	0515	68	0141	146	0370
21,22	0844	71	0141	147	0760
23	0512	73	0756	148	0706
24	0844	74,75	0141	151	0471
25	0512	76	0424	153	0424
26	0205	77	0377	154	0377
27	0370	78	0512	156	0371
28	0141	81,82	0626	158	0760
31	0844	83	0756	163	0376
32	0141	84	0424	164	0141
33	0512	86	0686	166	0372
34	0424	87	0491	168	0706
35,36	0141	88	0760	171	0370
37	0629	91,92	0616	173	0141
38	0574	93	0756	174	0761
43	0512	94	0141	175	0141
44	0375	96	0141	176	0424
45	0371	97	0374	178	0756
46	0370	98	0759	181	0370
47	0424	101,102	0626	183	0373
48	0141	103	0756	184	0512
51	0370	111-114	0616	185	0686
52	0471	116	0424	186	0512
53	0512	117	0715	188	0756
54	0141	121,122	0844	191	0370
55	0512	123,124	0626	193	0512
56	0282	126	0900	194	0424
57	0141	127	0715	195	0301
58	0512	131	0471	196	0844
61	0370	132	0424	197	0755
62	0471	133,134	0626		
63	0756	136	0141		

30226A

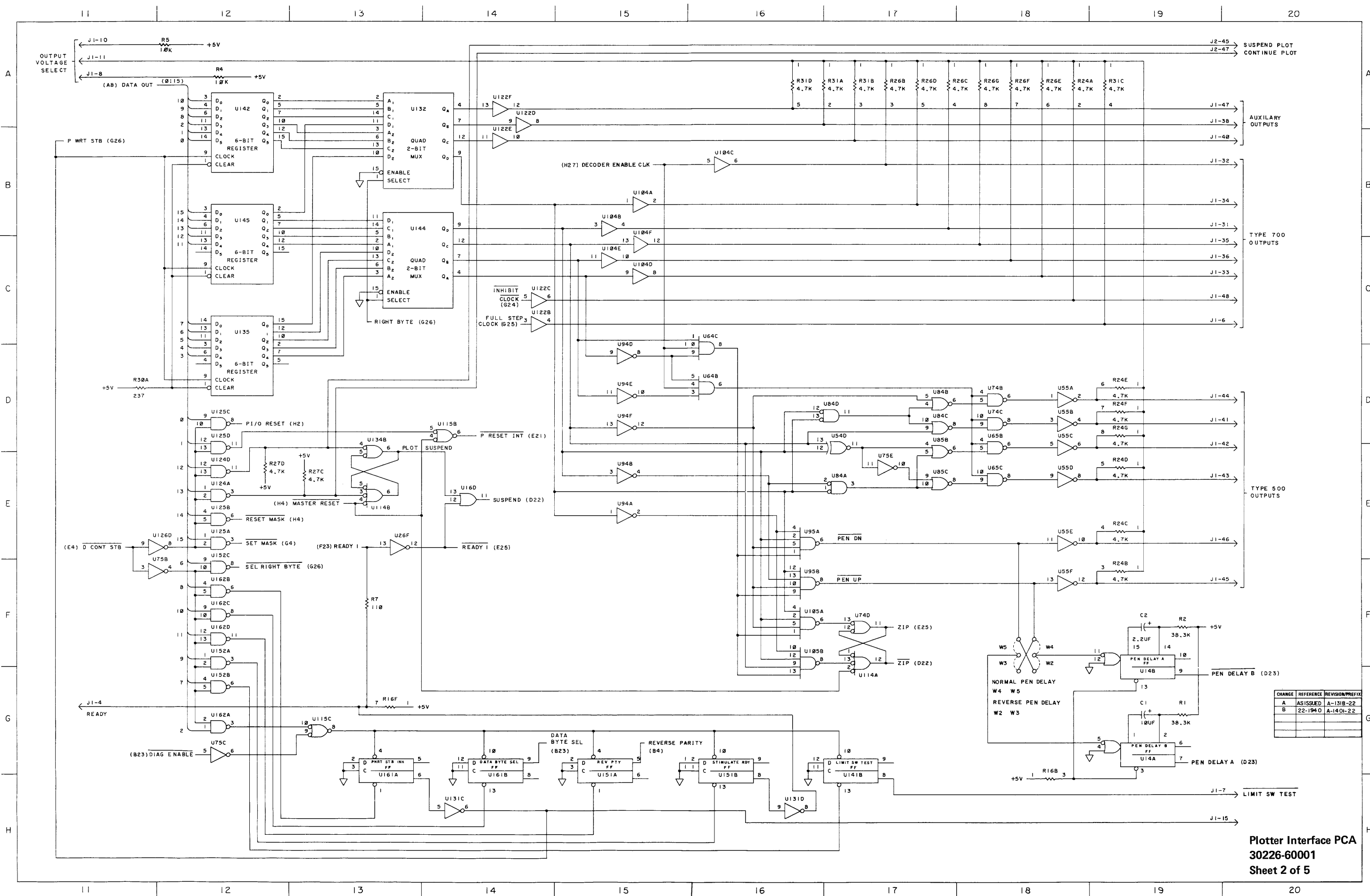
PLOTTER INTERFACE

PLOTTER INTERFACE PCA 30226-60001 5 SHEETS



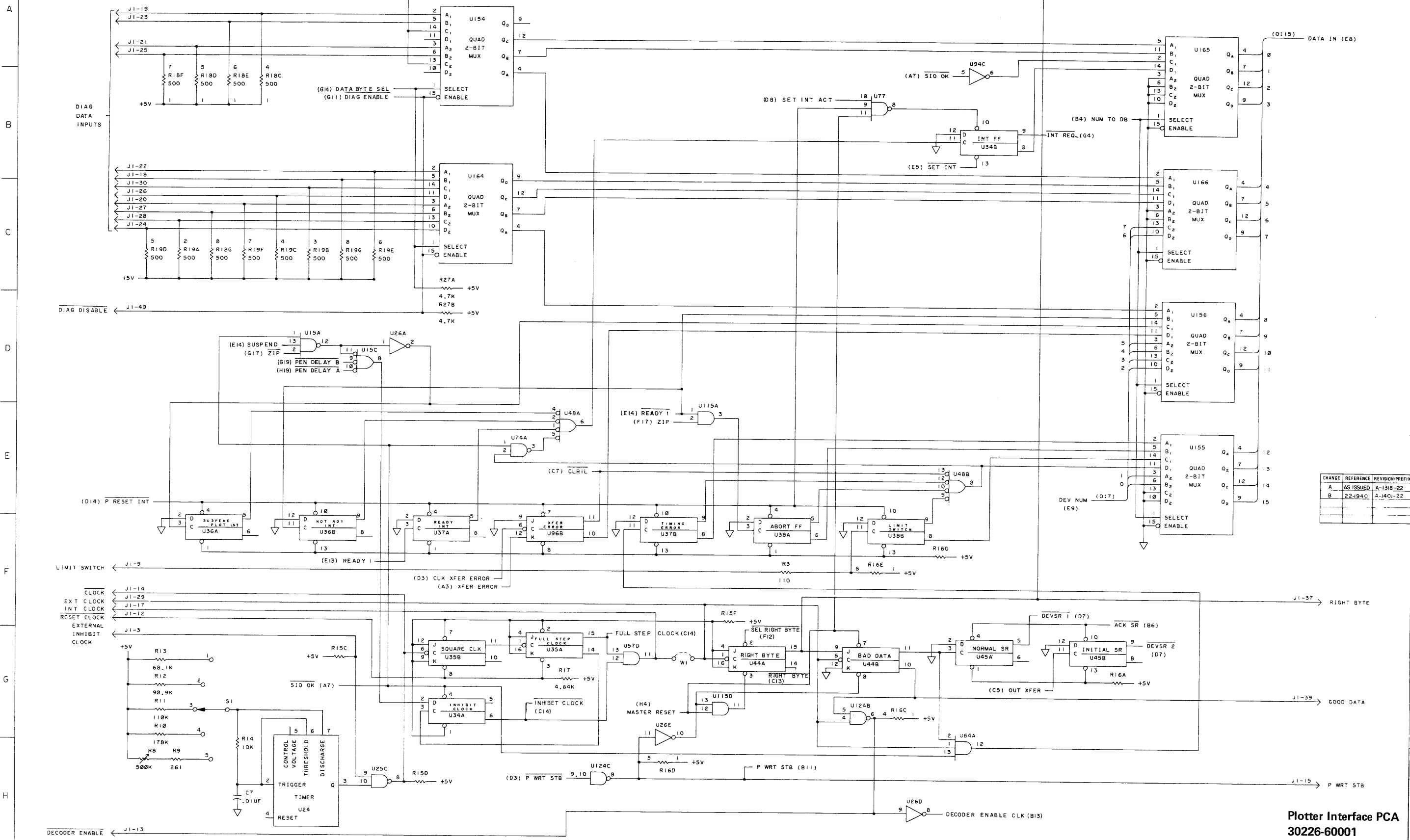
CHANGE	REFERENCE	REVISION/PREFIX
A	AS ISSUED	A-1318-22
B	22-1940	A-1401-22

Plotter Interface PCA
30226-60001
Sheet 1 of 5



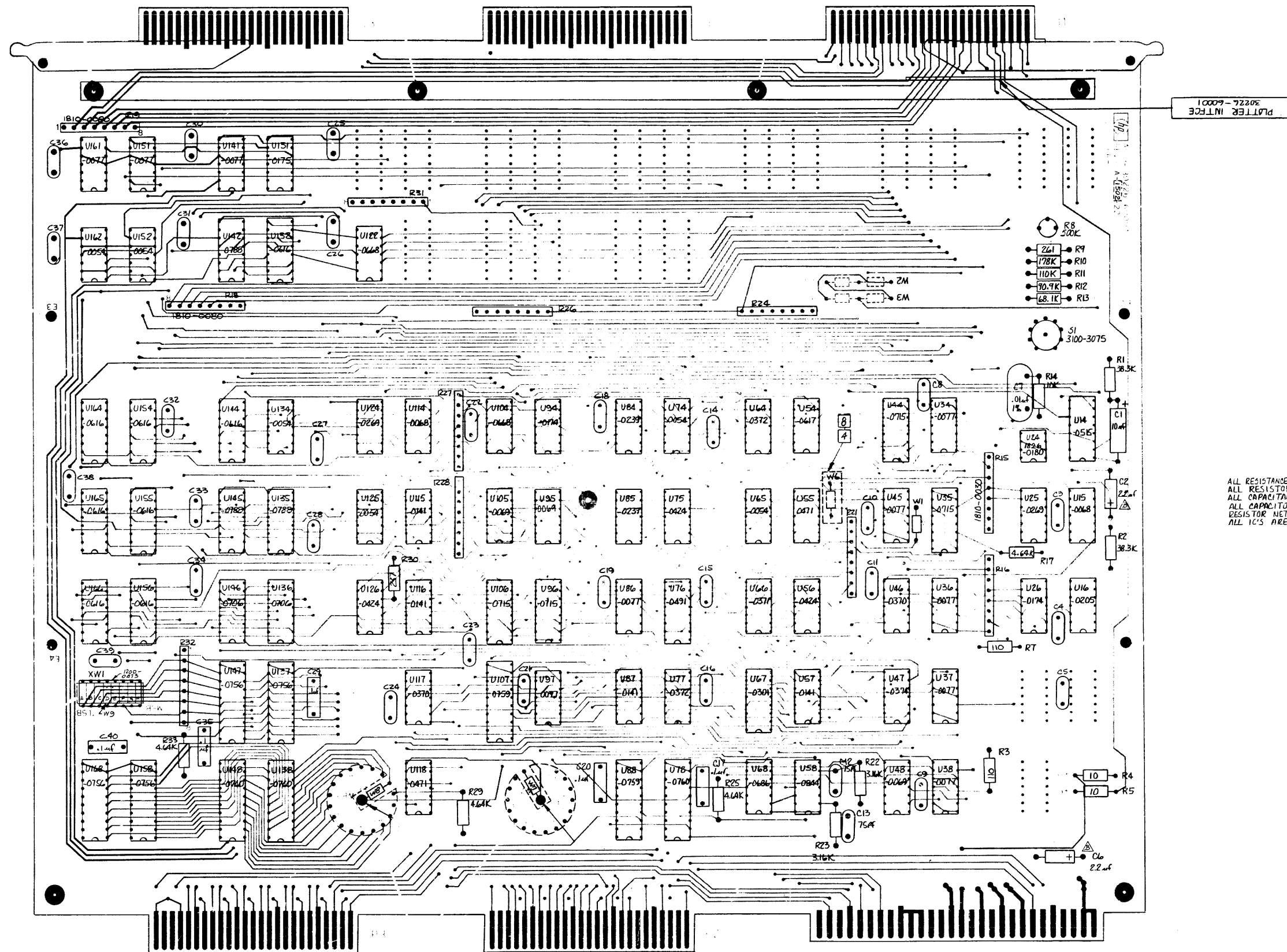
CHANGE	REFERENCE	REVISION	PREPARED
A	AS ISSUED	A-1318-22	
B	22-1940	A-1401-22	

Plotter Interface PCA
30226-60001
Sheet 2 of 5



Plotter Interface PCA
30226-60001
Sheet 3 of 5

REV	DESCRIPTION	DATE
A	AS ISSUED	1-14-75
B	CHANGE PLACE FOR C8 AND C6	1-14-75
C	PCO. 22-1940, DATE CODE WAS A.1316	1-14-75
D	REWORK 3072A016 U34IC	5-27-75
E	PCO. 22-1813, REWORK WAS 4.5, ADD. 1787.9, DATE CODE WAS A.1401-12	8-29-75



ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W 1%
 ALL CAPACITANCE IN MICROFARADS.
 ALL CAPACITORS .01 CER DISC.
 RESISTOR NETWORKS-1810-0125
 ALL IC'S ARE 1920-

Plotter Interface PCA

30226-60001

IC Index

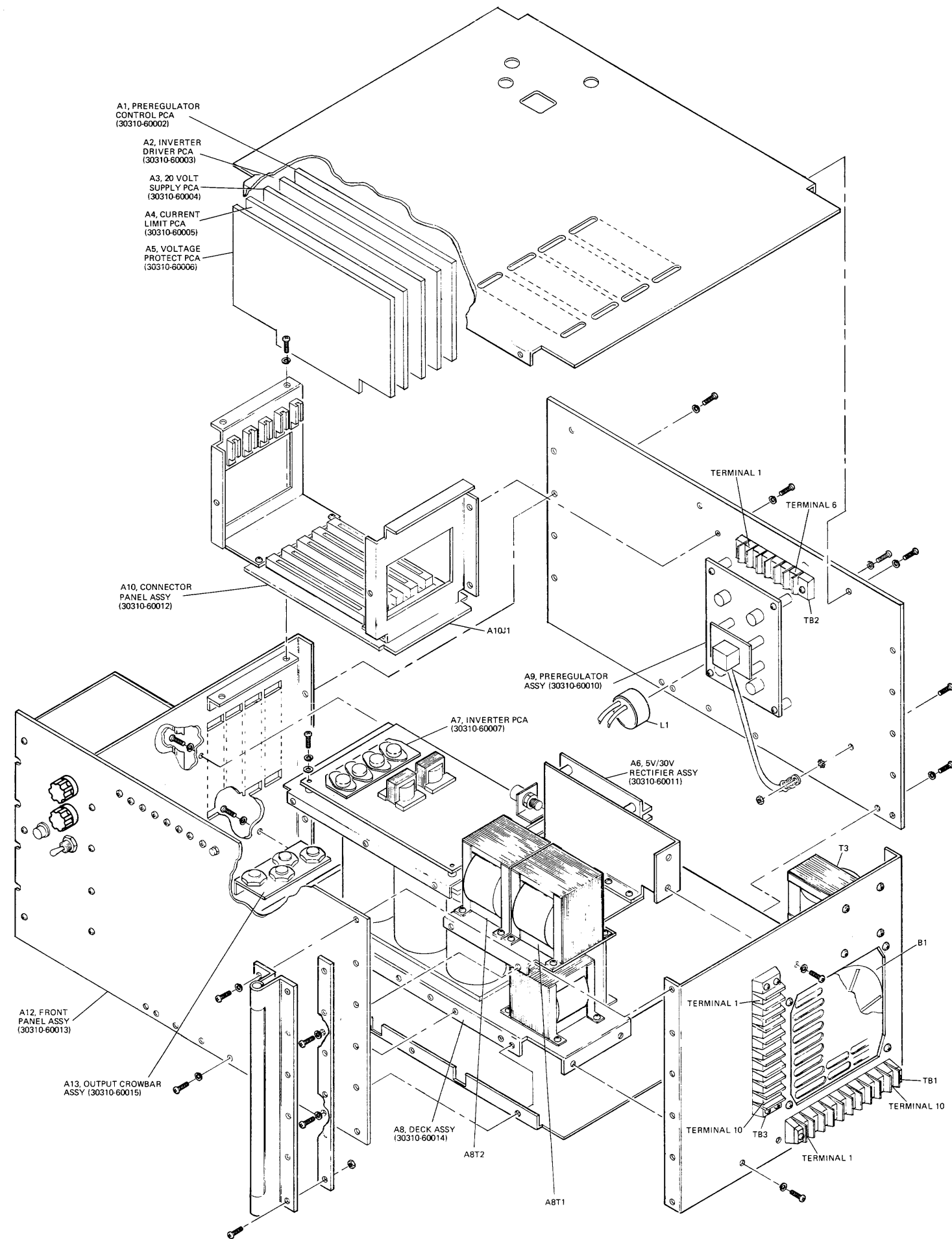
U	1820-	U	1820-	U	1820-
14	0515	67	0301	126	0424
15	0068	68	0686	131	0175
16	0205	74	0054	132	0616
24	1826-0180	75	0424	134	0054
25	1820-0269	76	0491	135	0788
26	0174	77	0372	136	0706
34	0077	78	0760	137	0756
35	0715	84,85	0239	138	0760
36-38	0077	86	0077	141	0077
44	0715	87	0147	142	0788
45	0077	88	0759	144	0616
46	0370	94	0174	145	0788
47	0374	95	0069	146	0706
48	0069	96	0715	147	0756
54	0617	97	0077	148	0760
55	0471	104	0668	151	0077
56	0424	105	0069	152	0054
57	0141	106	0715	154-156	0616
58	0844	107	0759	158	0756
64	0372	122	0668	161	0077
65	0054	124	0269	162	0054
66	0371	125	0054	164-166	0616
				168	0756

30310A

HP 30310A POWER SUPPLY

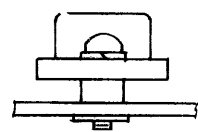
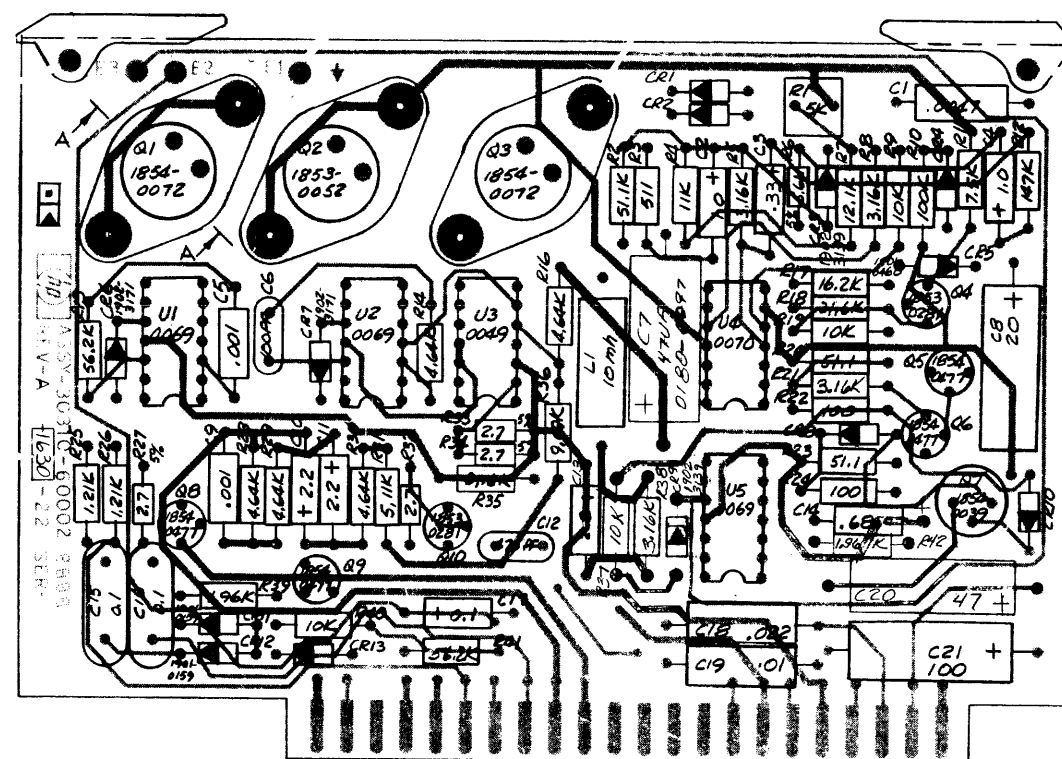
POWER SUPPLY-EXPLODED VIEW

A1	PRE-REGULATOR CONTROL PCA	30310-60002	2 SHEETS
A2	INVERTER DRIVER PCA	30310-60003	2 SHEETS
A3	20 VOLT SUPPLY PCA	30310-60004	2 SHEETS
A4	CURRENT LIMIT PCA	30310-60005	2 SHEETS
A5	VOLTAGE PROTECT PCA	30310-60006	2 SHEETS
A6	5V/30V RECTIFIER ASSEMBLY	30310-60011	1 SHEET
A7	INVERTER PCA	30310-60007	1 SHEET
A8	DECK ASSEMBLY	30310-60014	3 SHEETS
A9	PRE-REGULATOR ASSEMBLY	30310-60010	1 SHEET
A12	FRONT PANEL ASSEMBLY	30310-60013	1 SHEET
A13	OUTPUT CROWBAR ASSEMBLY	30310-60015	1 SHEET
	POWER SUPPLY SCHEMATIC		2 SHEETS



HP 30310A Power Supply,
Exploded View

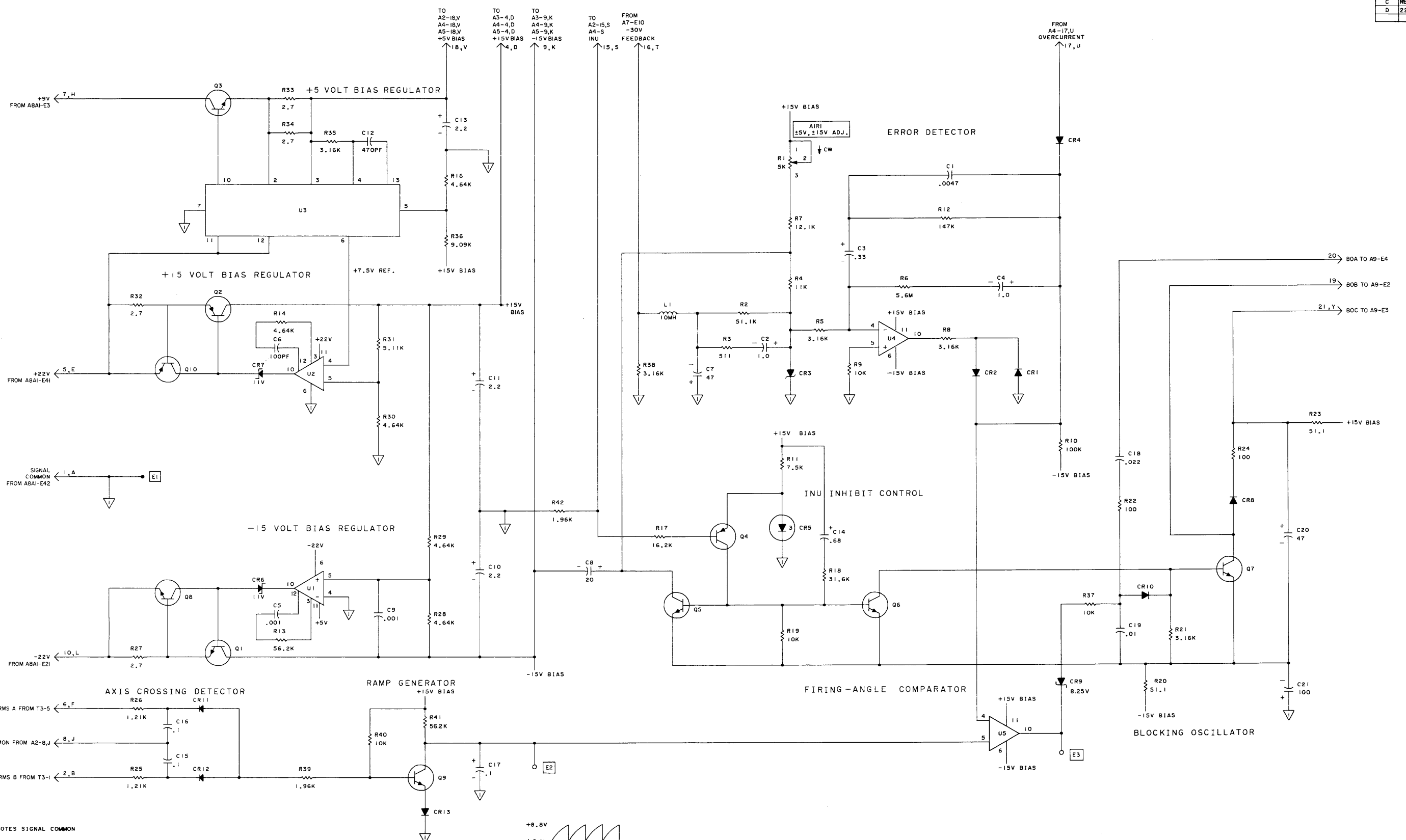
ENGINEERING RESPONSIBILITY															SERIAL		REV. SIGNS		APPROVED		DATE															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35		
															SYM		REV. SIGNS		APPROVED		DATE															
															A		AS ISSUED (A-1210)		[Signature]		3-20-72															
															B		PCO 21-2000 CHG. PLACE + FOR C 3 C 23 WAS 19020023, DATE CODE W/15 1210-72		[Signature]		4-1-74															
															C		ADDED 30312A 001 USE 4P		[Signature]		5-28-75															
															D		30310-60024 WAS 30300A 22 2779		[Signature]		9-3-75															
															E		REVISED PER PCO 47-1079		[Signature]		8-18-76															
															F		DELETE P/N 0380-0305 P/O 47-1116		[Signature]		10/13/76															



VIEW A-A
TYPICAL
6 PLACES

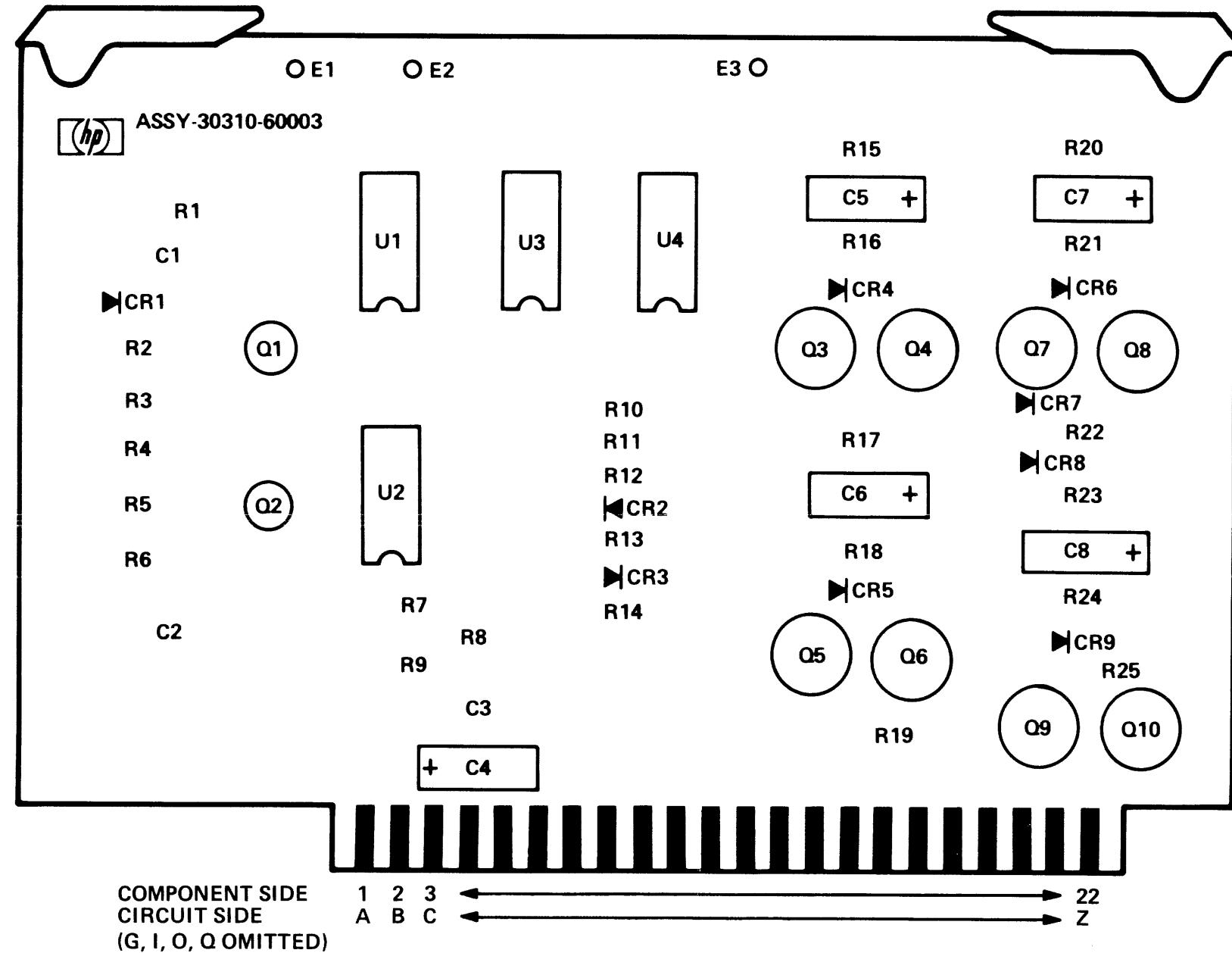
- NOTES :
- UNLESS OTHERWISE SPECIFIED
 ALL RESISTANCE IN OHMS
 ALL RESISTOR 1/4W, ±1%
 ALL CAPACITANCE IN MICROFARADS
 ALL DIODES # 1901-0083
 ALL IC'S ARE # 1826-

CHANGE	REFERENCE	REVISION/DATE
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	REDRAWN	NO CHANGE
D	22-2000	A-1408-22



- 3. ▽ DENOTES SIGNAL COMMON
 - 2. CAPACITANCE VALUES ARE IN MICROFARADS
 - 1. RESISTANCE VALUES ARE IN OHMS
- NOTES: UNLESS OTHERWISE SPECIFIED



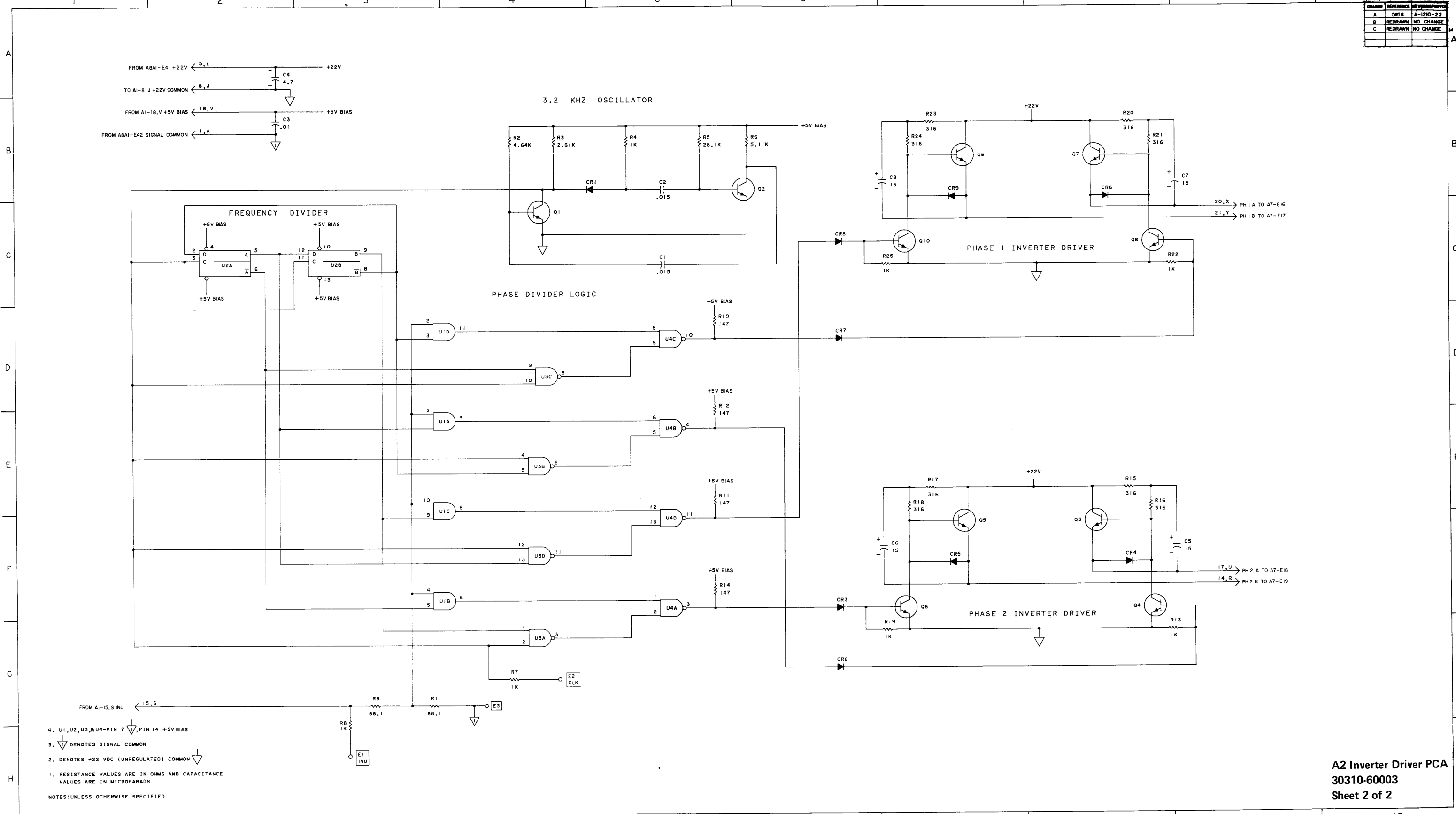


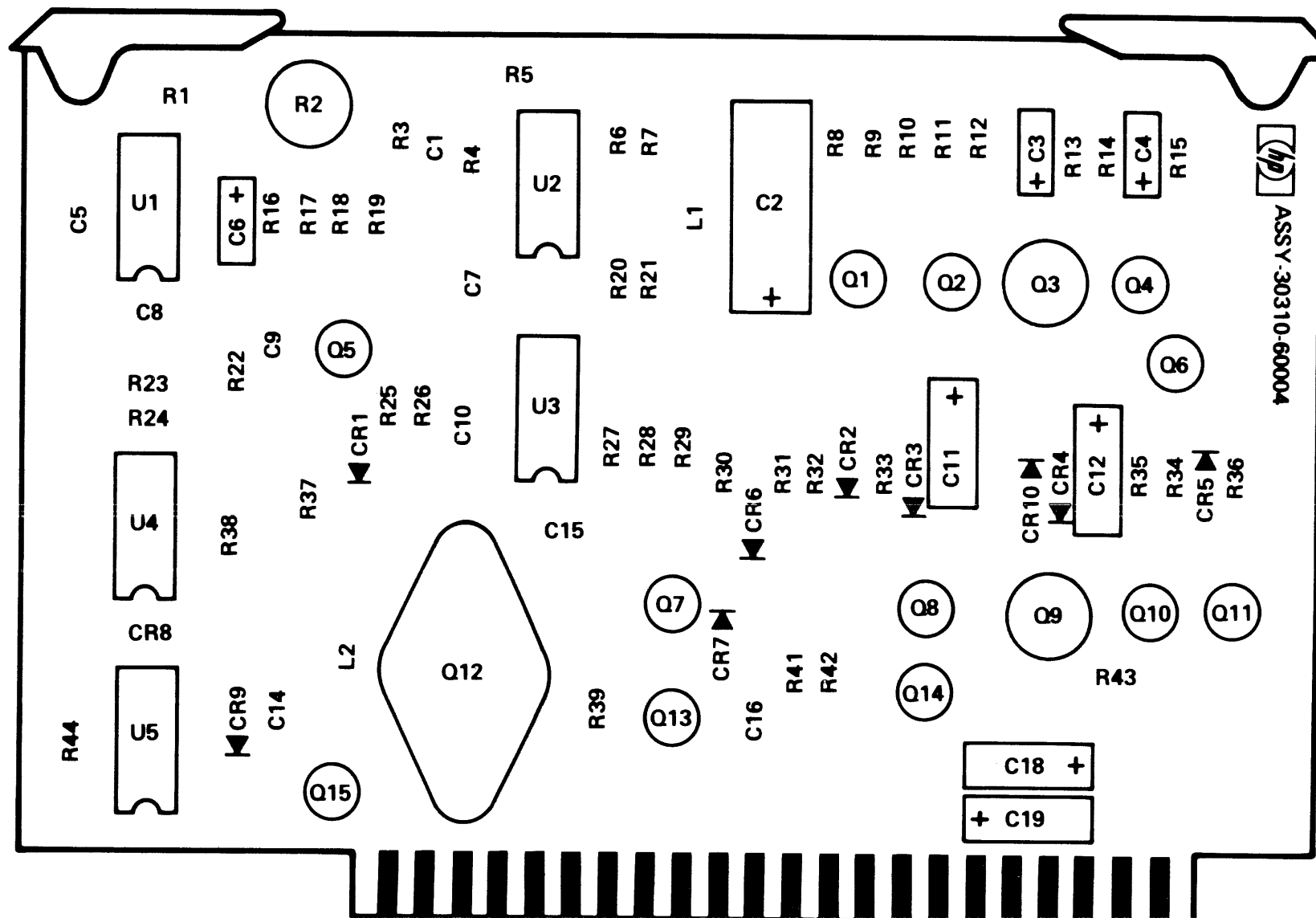
7011-35

I.C. INDEX

U	PART NO.
1	1820-0141
2	1820-0077
3	1820-0054
4	1820-0256

CHANGE	REFERENCE	REVISION
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	REDRAWN	NO CHANGE





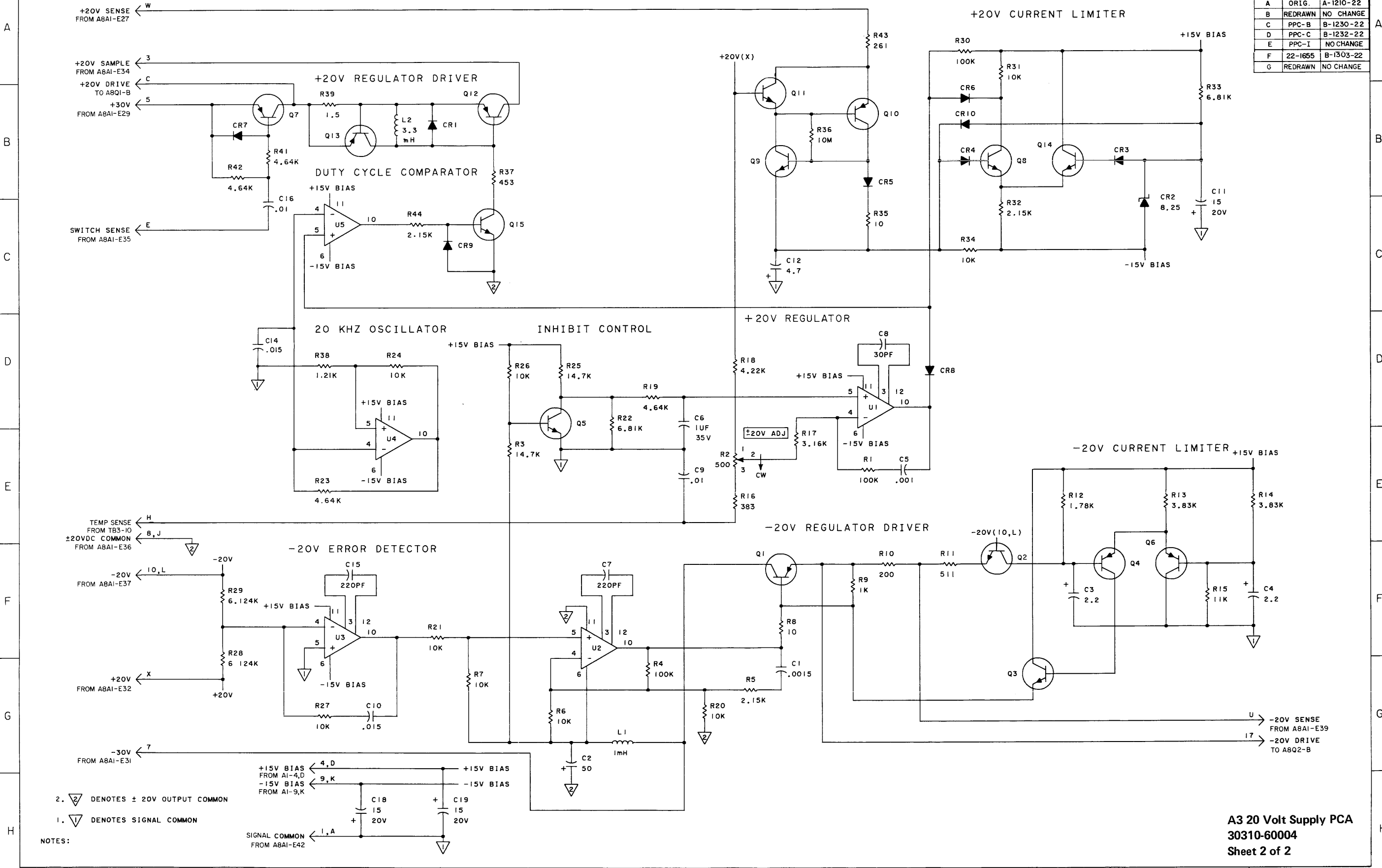
I.C. INDEX

U	PART NO.
1	1826-0069
2	1826-0069
3	1826-0069
4	1826-0069
5	1826-0069

COMPONENT SIDE 1 2 3 ←
 CIRCUIT SIDE A B C ←
 (G, I, O, Q OMITTED) 22 Z

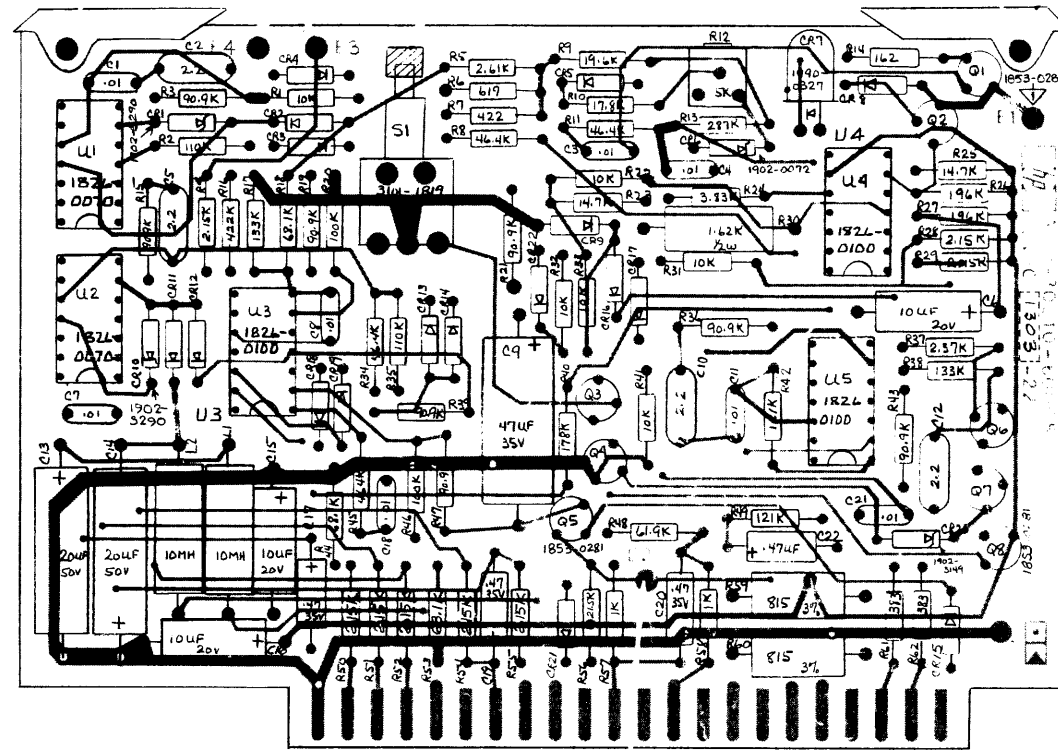
7011-36

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-B	B-1230-22
D	PPC-C	B-1232-22
E	PPC-I	NO CHANGE
F	22-1655	B-1303-22
G	REDRAWN	NO CHANGE



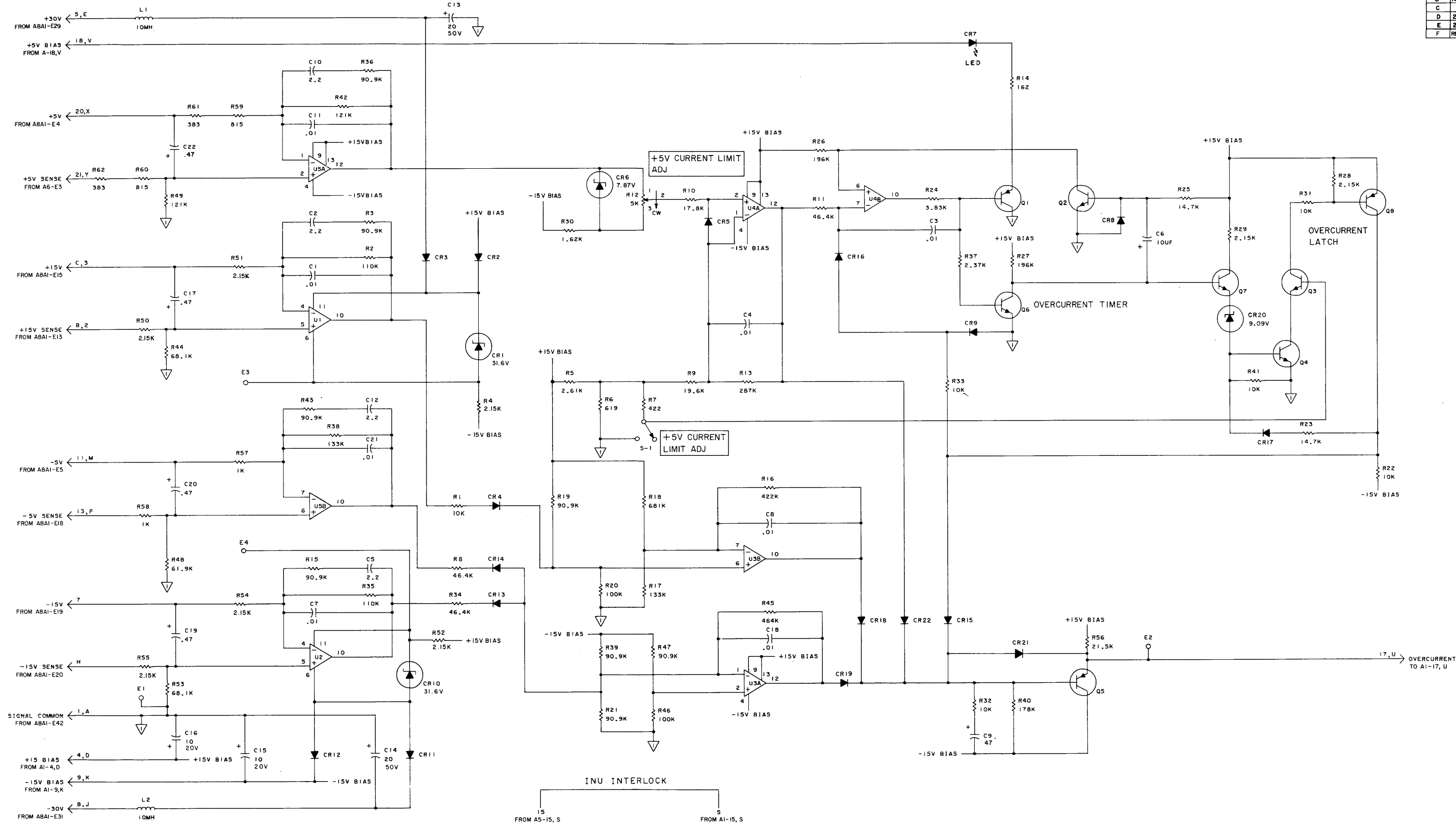
NOTES:
 1. ▽ DENOTES SIGNAL COMMON
 2. ▽ DENOTES ± 20V OUTPUT COMMON

REV	DESCRIPTION	DATE
A	AS ISSUED PCO# 22-2008	6/17/71
B	R50,51,54,55 WERE INCORRECT MARKED 1K	11/21/71
C	ADDED 30372A 001 U3BAC	5-21-75
D	30310-6002A WAS 30310A. PC 22 2779	9-3-75

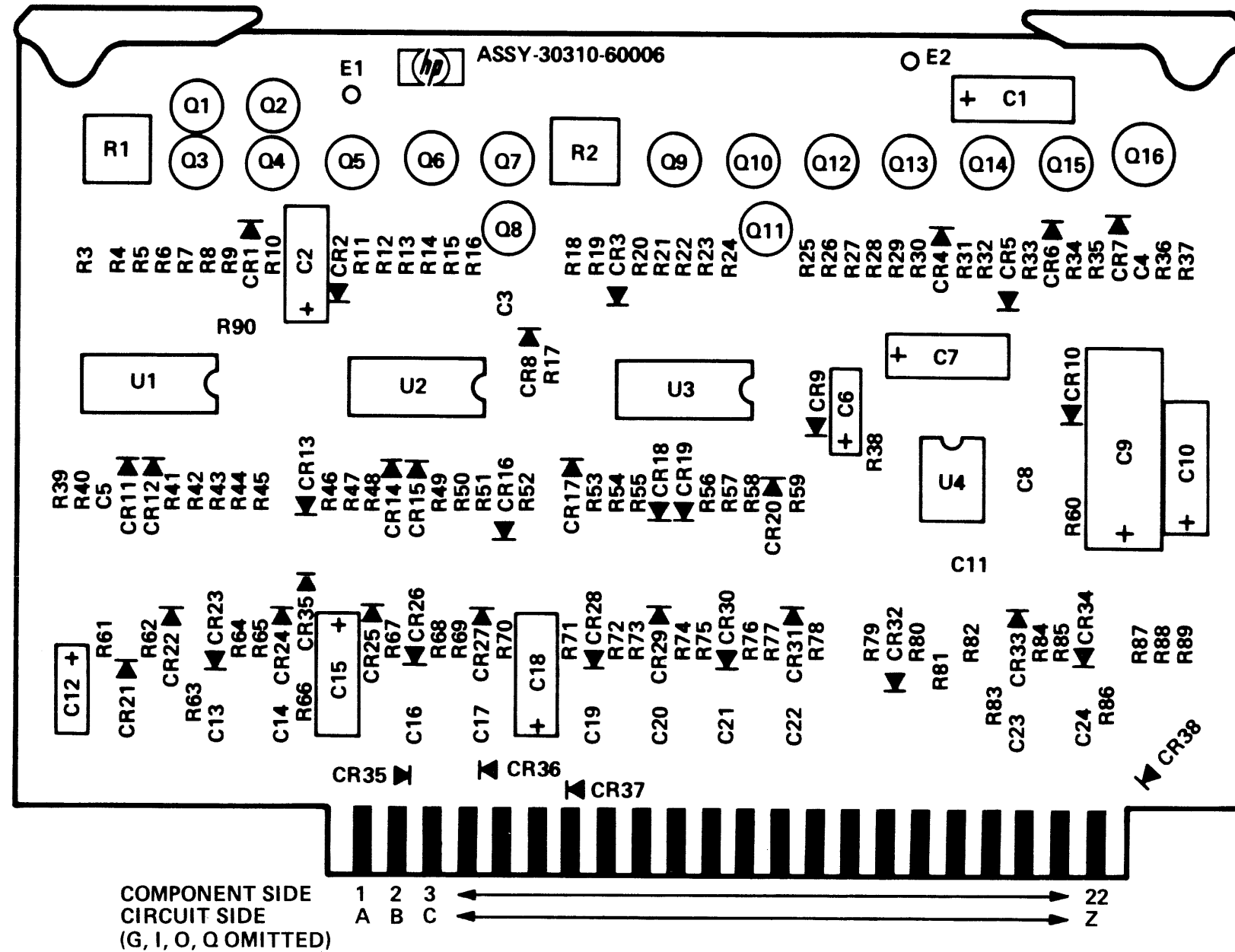


UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/4W 1%MF
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01UF CERAMIC DISC
 ALL DIODES 1901-0033
 ALL TRANSISTORS 1854-0477

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC - L	B-1232-22
D	22-1655	B-1303-22
E	22-1696	C-1303-22
F	REDRAWN	NO CHANGE



1. ALL RESISTORS 1/4 WATT, 1%
 NOTES: UNLESS OTHERWISE SPECIFIED

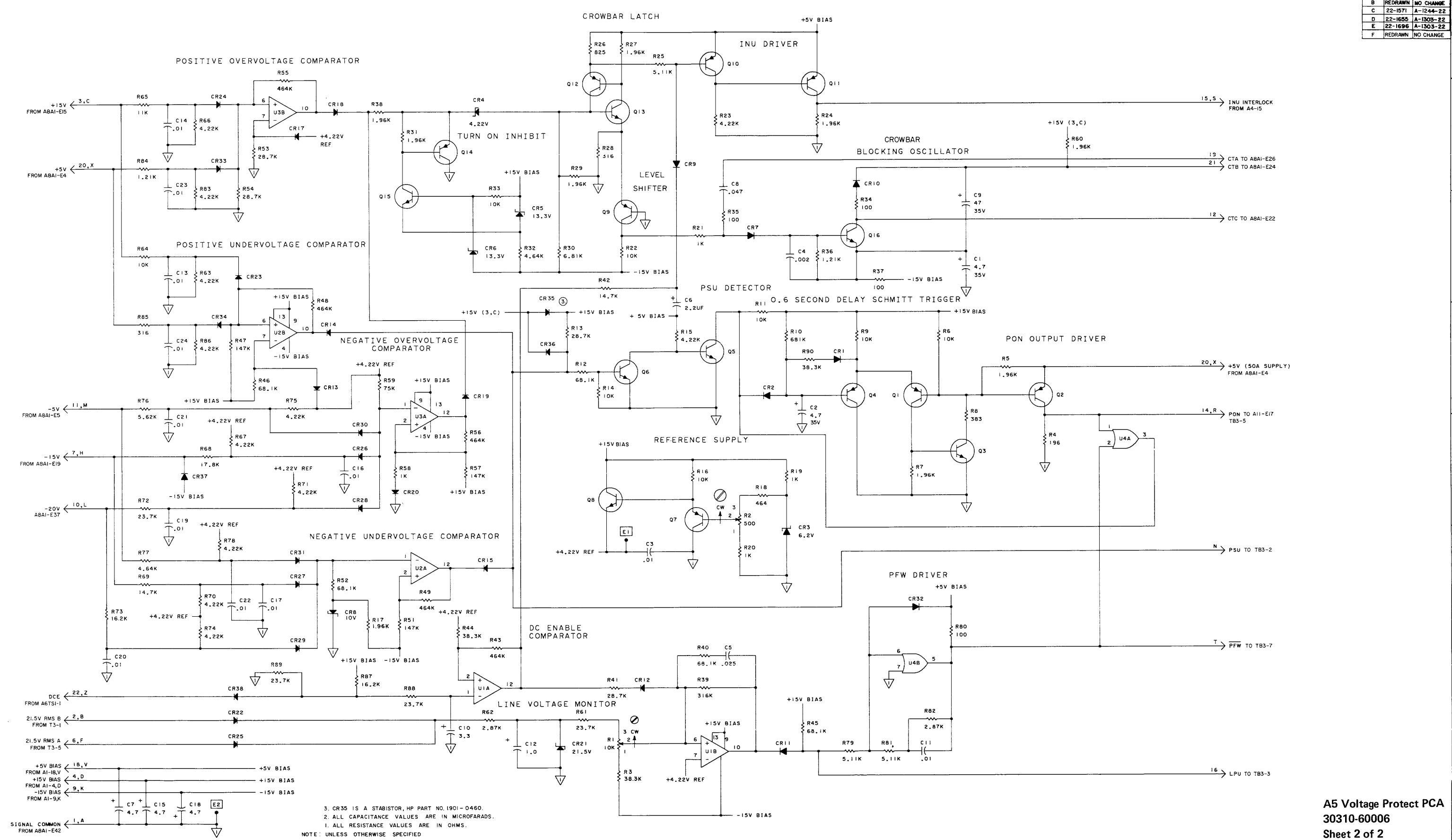


I.C. INDEX

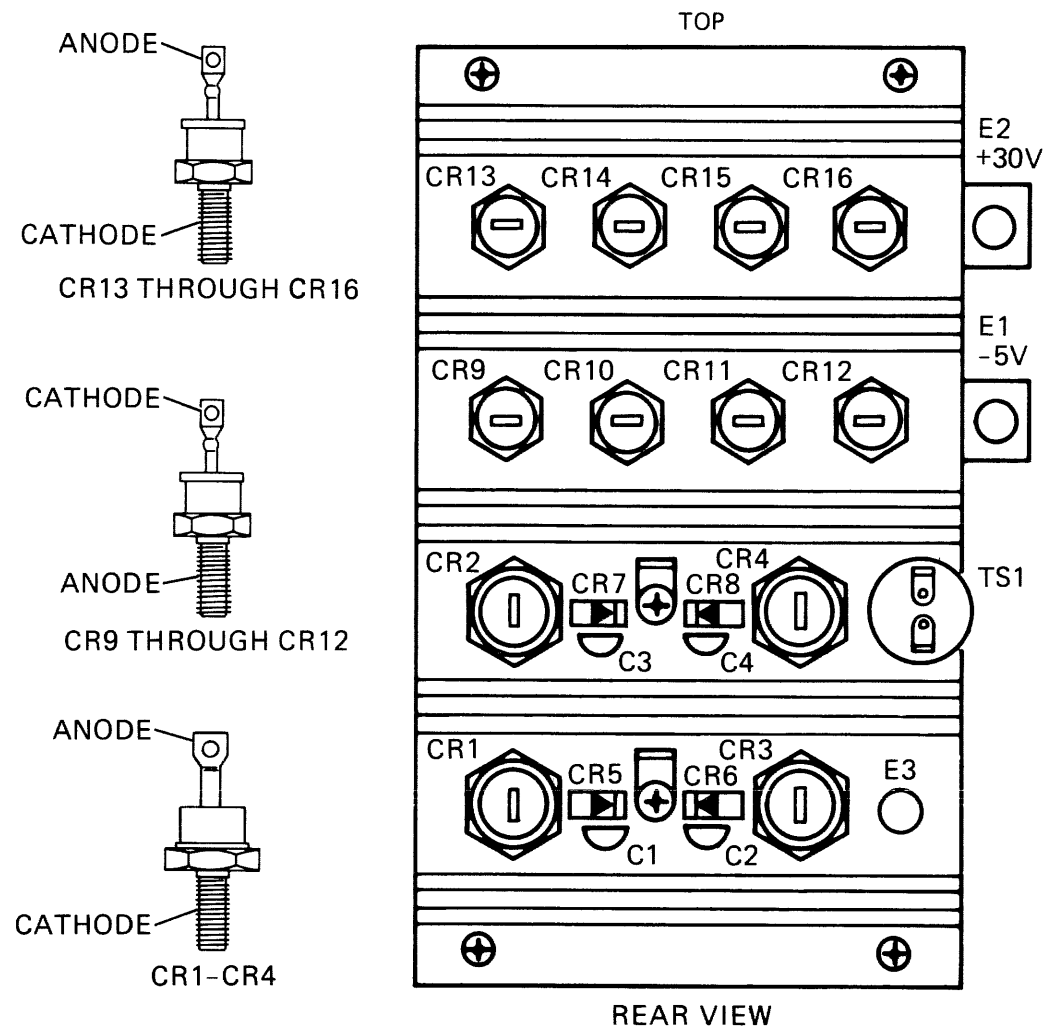
U	PART NO.
1	1826-0100
2	1826-0100
3	1826-0100
4	1820-1016

7011-38

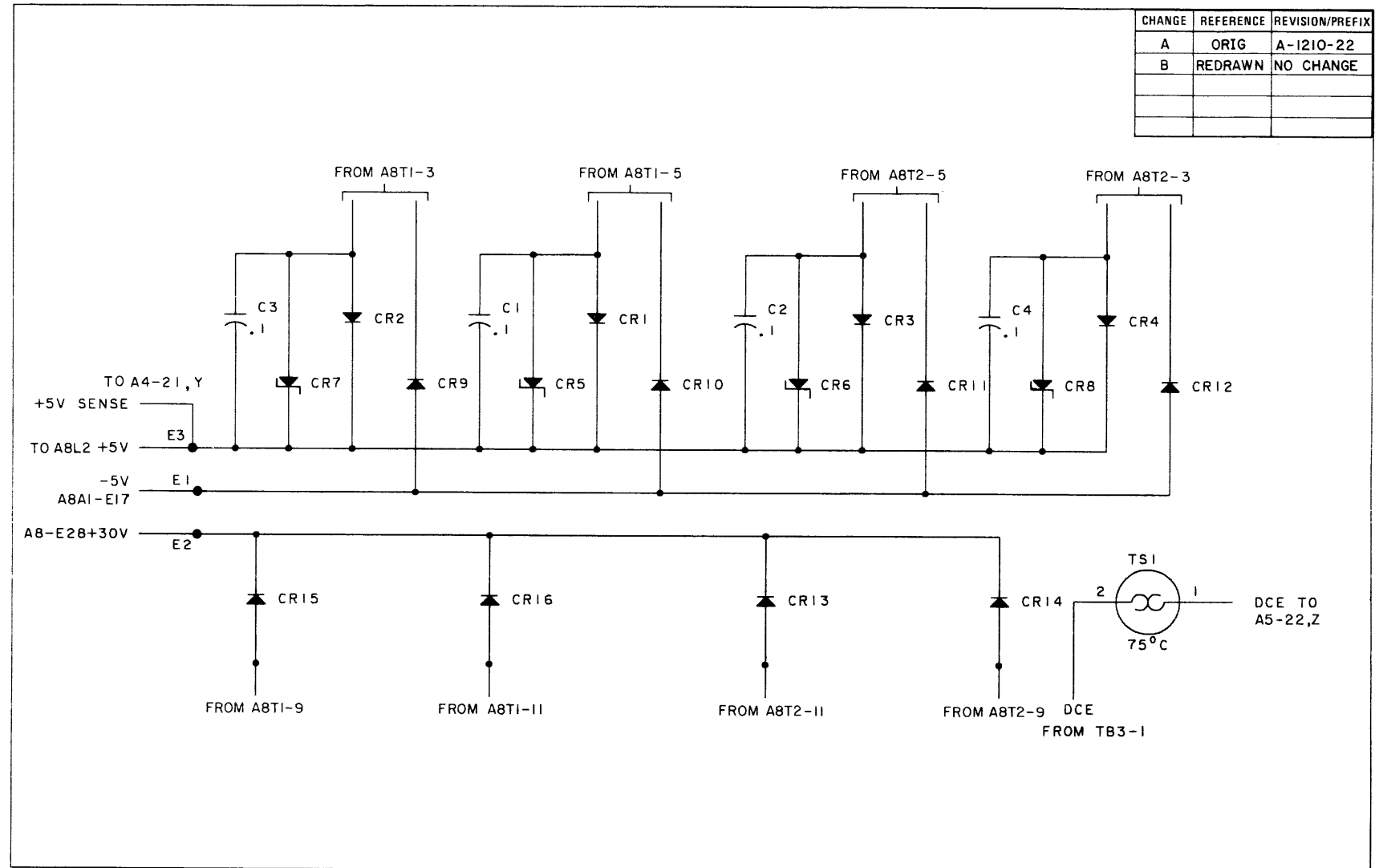
CHANGE	REFERENCE	REVISION/DATE
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1571	A-1244-22
D	22-1655	A-1303-22
E	22-1696	A-1303-22
F	REDRAWN	NO CHANGE



3. CR35 IS A STABISTOR, HP PART NO. 1901-0460.
 2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
 1. ALL RESISTANCE VALUES ARE IN OHMS.
 NOTE: UNLESS OTHERWISE SPECIFIED



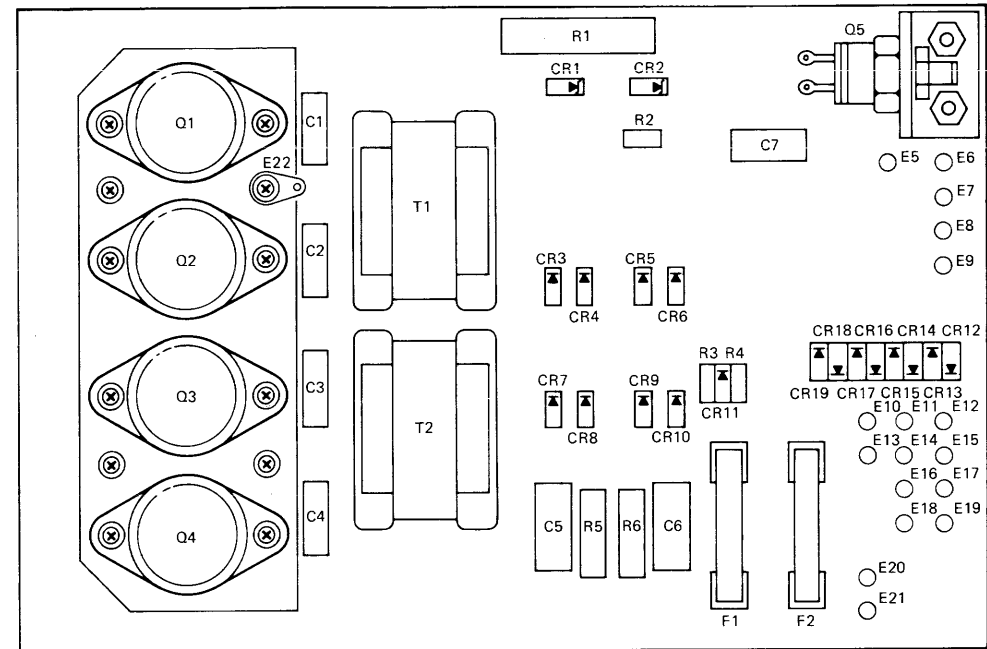
1304-1



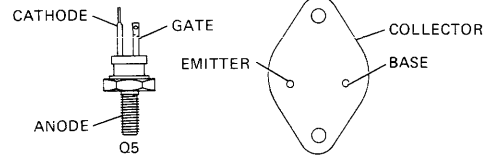
7011-26

NOTES:

1. **CAUTION.** HEAT SINK IS +5V WITH RESPECT TO POWER SUPPLY CHASSIS.
2. WHEN INSTALLING DIODES IN THIS ASSEMBLY, USE THERMAL COMPOUND (HP STOCK NO. 6040-0239) ON BOTH SIDES OF INSULATING WASHERS OR ON METAL WASHER AND DIODE MOUNTING SURFACE.
3. TIGHTEN MOUNTING NUTS FOR CR1 THROUGH CR4 TO 30 IN.-LBS (0.35 kg-m).
4. TIGHTEN MOUNTING NUTS FOR CR9 THROUGH CR16 TO 15 IN.-LBS (0.17 kg-m).
5. REFERENCE DESIGNATION PREFIX IS A6.



TOP VIEW

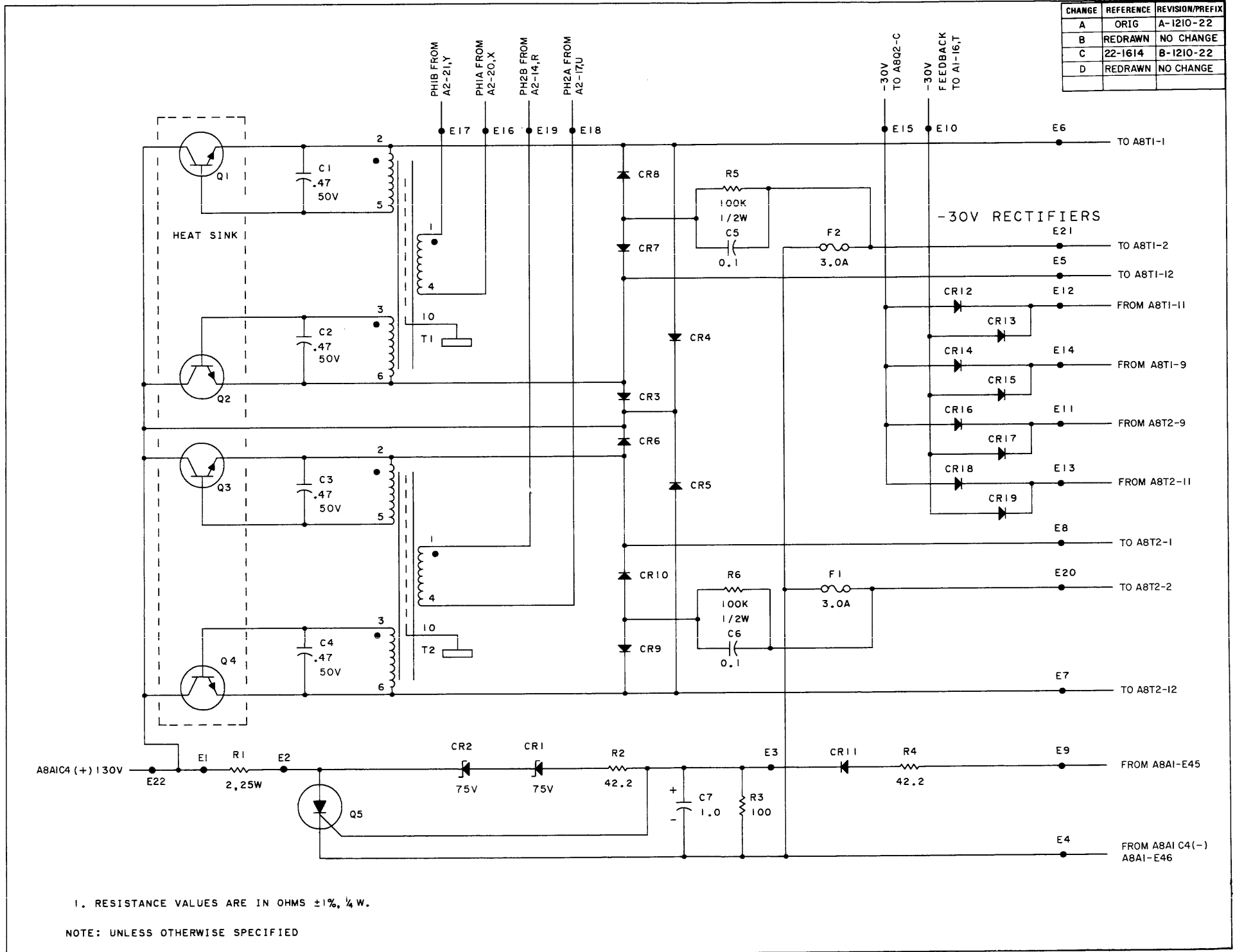


Q1, Q2, Q3, Q4
(PINS FACING VIEWER)

NOTES:

1. WHEN INSTALLING Q1, Q2, Q3, OR Q4, USE THERMAL COMPOUND (HP STOCK NO. 6040-0239) BETWEEN TRANSISTOR AND HEAT SINK.
2. WHEN INSTALLING Q5, TIGHTEN MOUNTING NUT TO 15 IN.-LBS (0.17 kg-m).
3. REFERENCE DESIGNATION PREFIX IS A7.

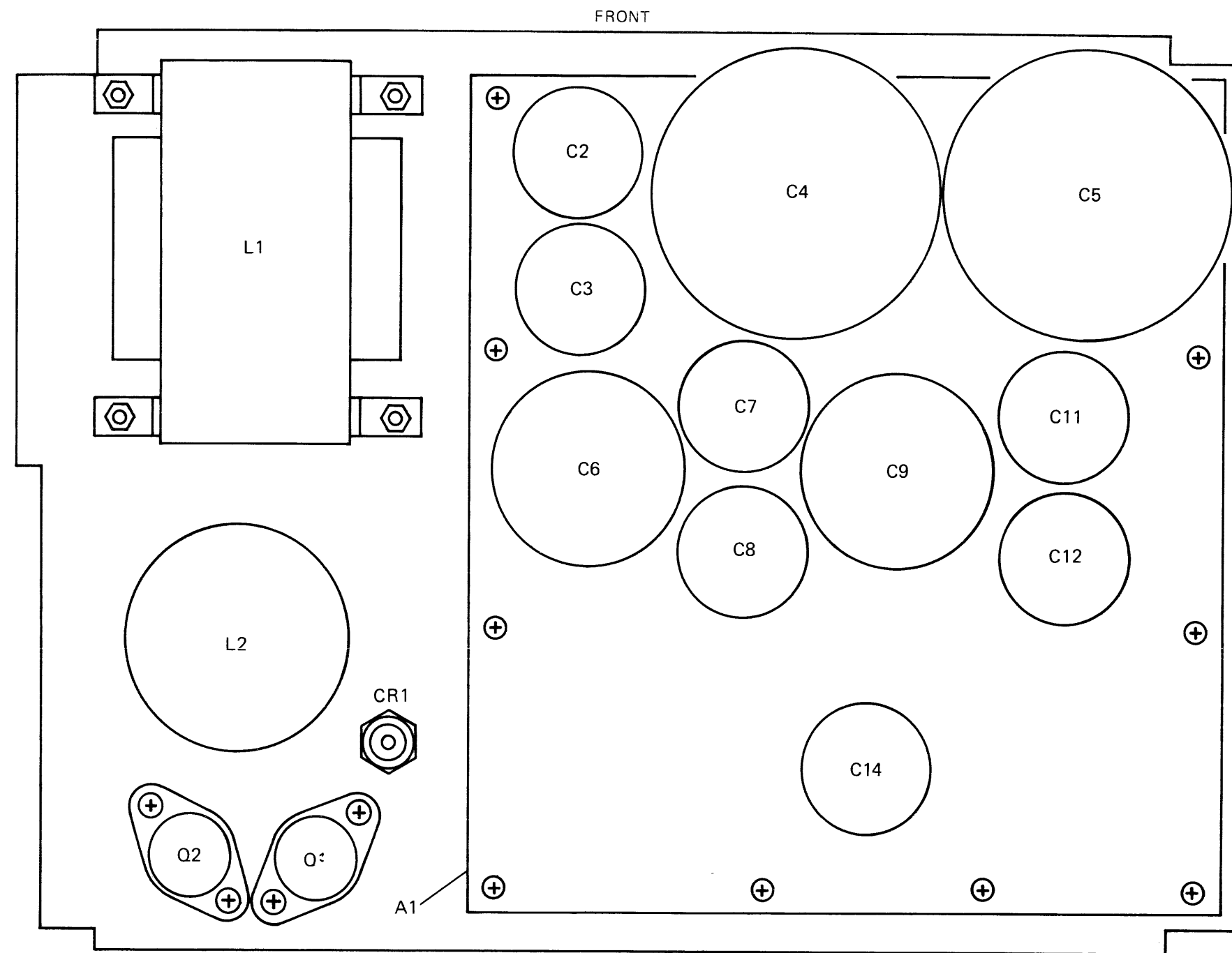
7011-31



1. RESISTANCE VALUES ARE IN OHMS $\pm 1\%$, $\frac{1}{4}$ W.

NOTE: UNLESS OTHERWISE SPECIFIED

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1614	B-1210-22
D	REDRAWN	NO CHANGE



7011-33

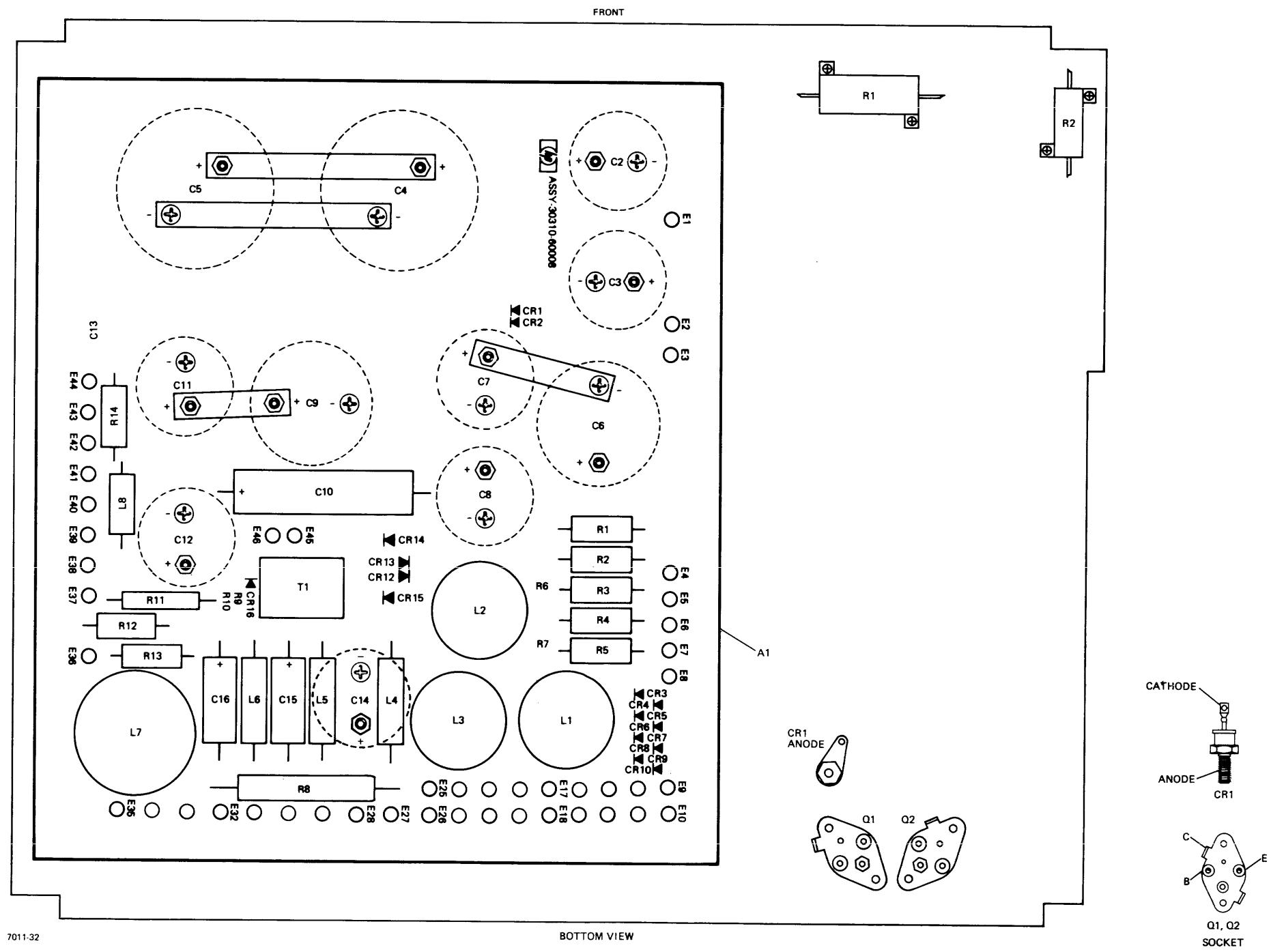
TOP VIEW

NOTES:

1. FOR CLARITY T1 AND T2, SITUATED ABOVE L1, ARE NOT SHOWN.
2. WHEN INSTALLING Q1 OR Q2 IN THE TRANSISTOR SOCKET, USE THERMAL COMPOUND (HP STOCK NO. 6040-0239) ON BOTH SIDES OF INSULATING WASHER.
3. TIGHTEN MOUNTING NUT FOR CR1 TO 15 IN.-LBS (0.17 kg-m).
4. COMPONENTS MAY VARY SLIGHTLY FROM LOCATIONS SHOWN.
5. REFERENCE DESIGNATION PREFIX IS A8.

30310-16

A8 Deck Assembly (Top View)
30310-60014
Sheet 1 of 3

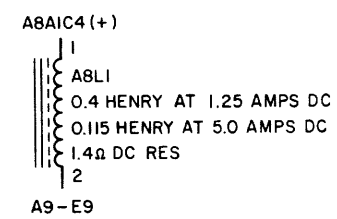
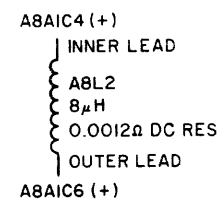
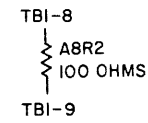
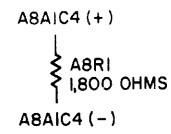
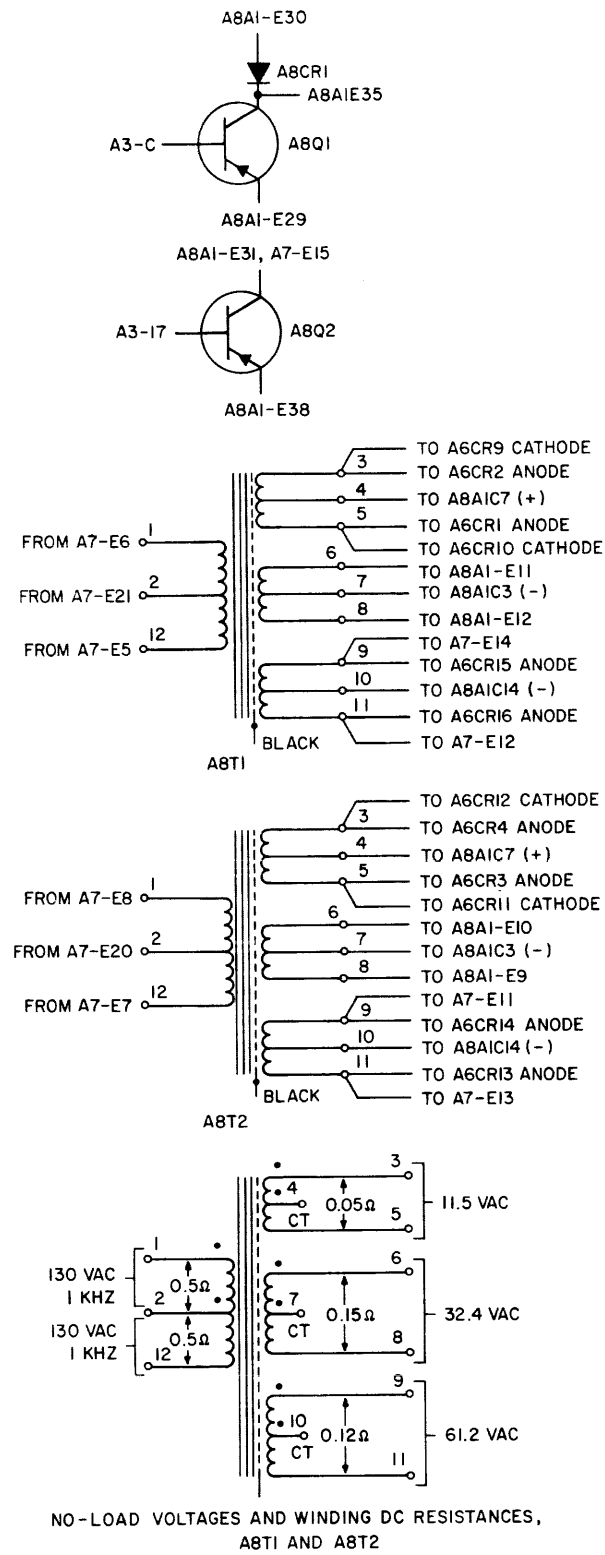


7011-32

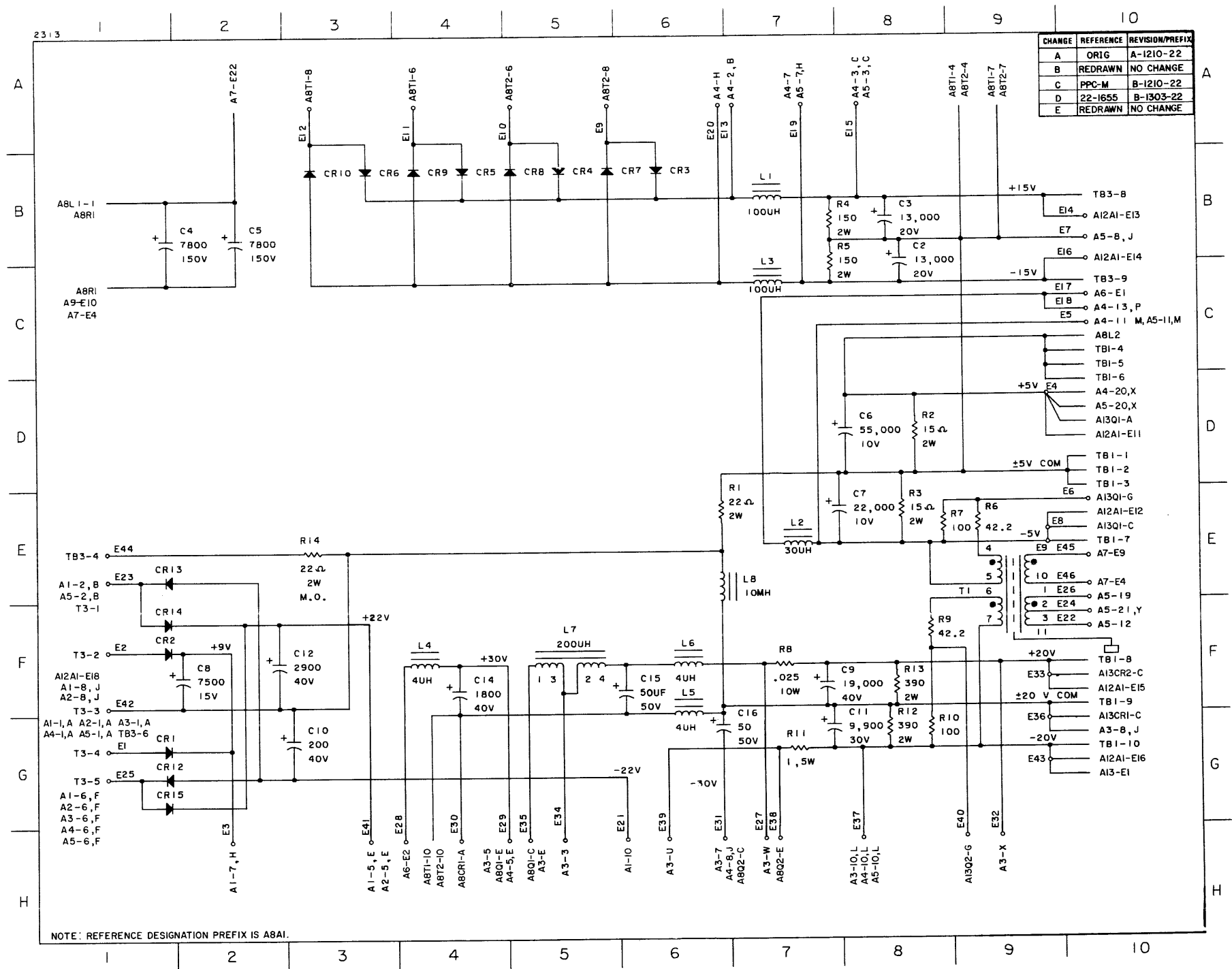
BOTTOM VIEW

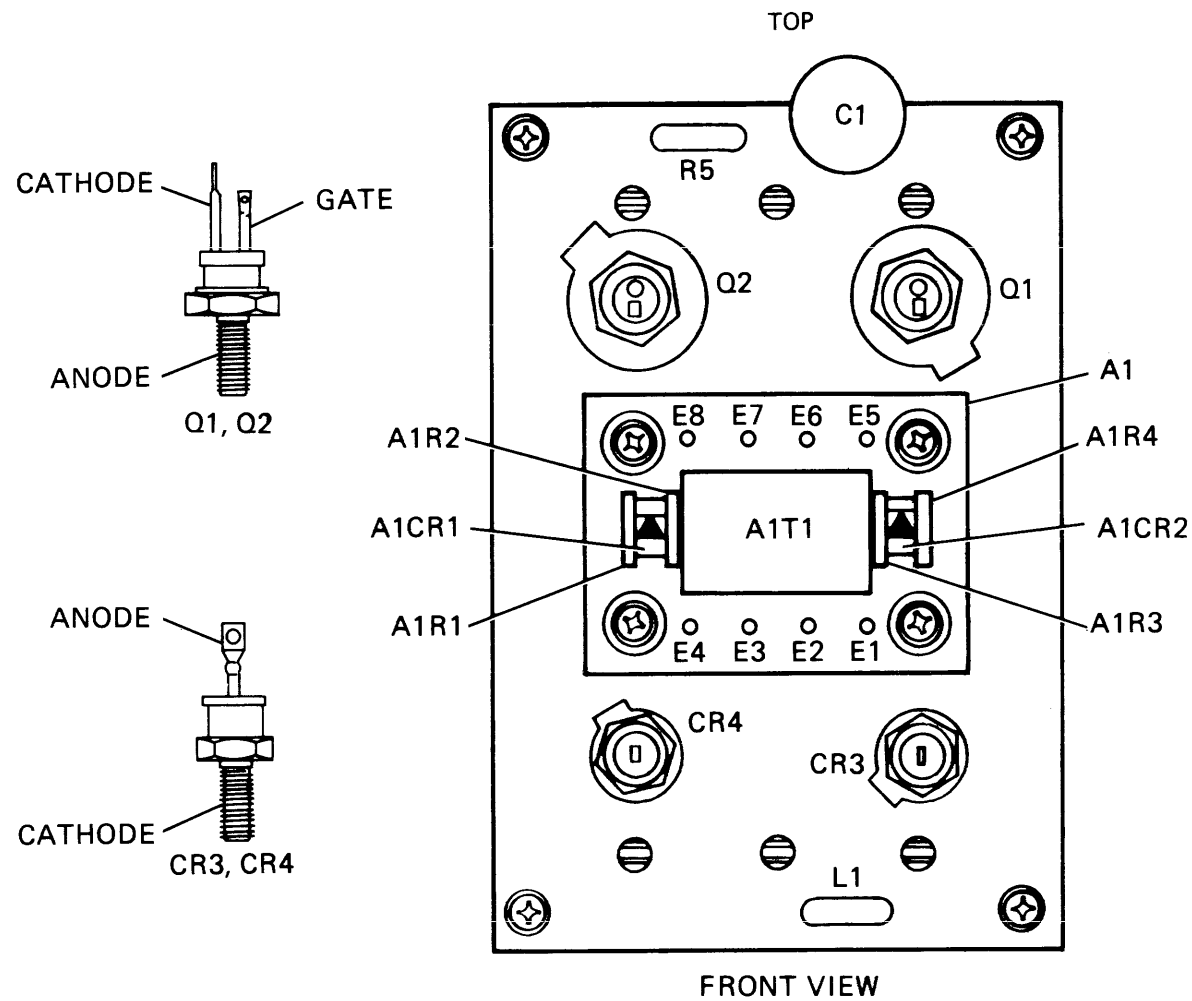
30310-17

A8 Deck Assembly (Bottom View)
 30310-60014
 Sheet 2 of 3



NOTE:
ON LOW-RESISTANCE RANGES SOME OHMMETERS
APPLY AC TO THE COMPONENT BEING MEASURED.
THEREFORE AN ACCURATE READING WILL NOT BE
FURNISHED FOR INDUCTIVE COMPONENTS.



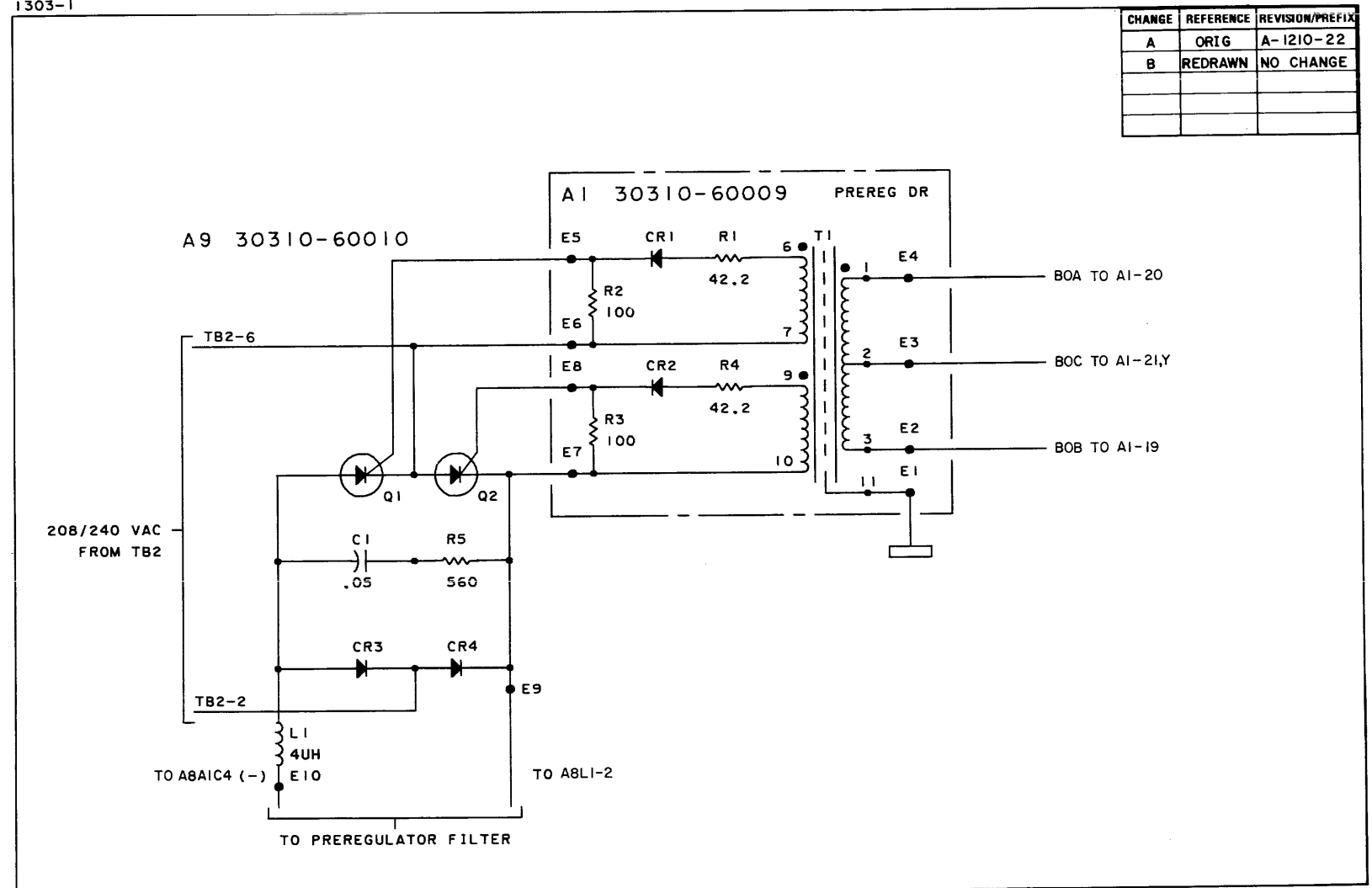


NOTES:

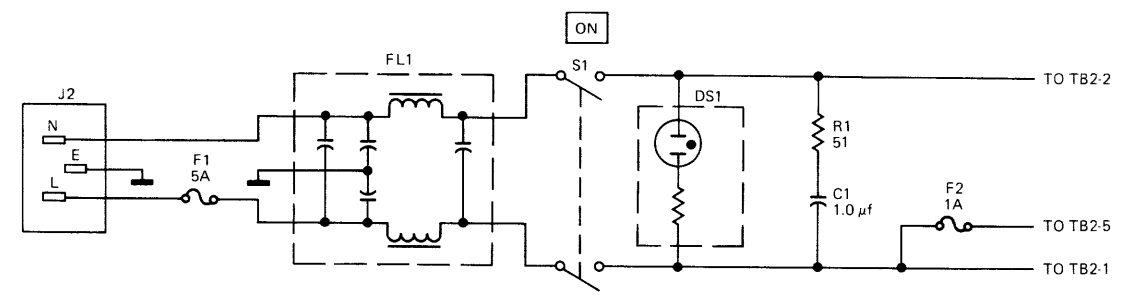
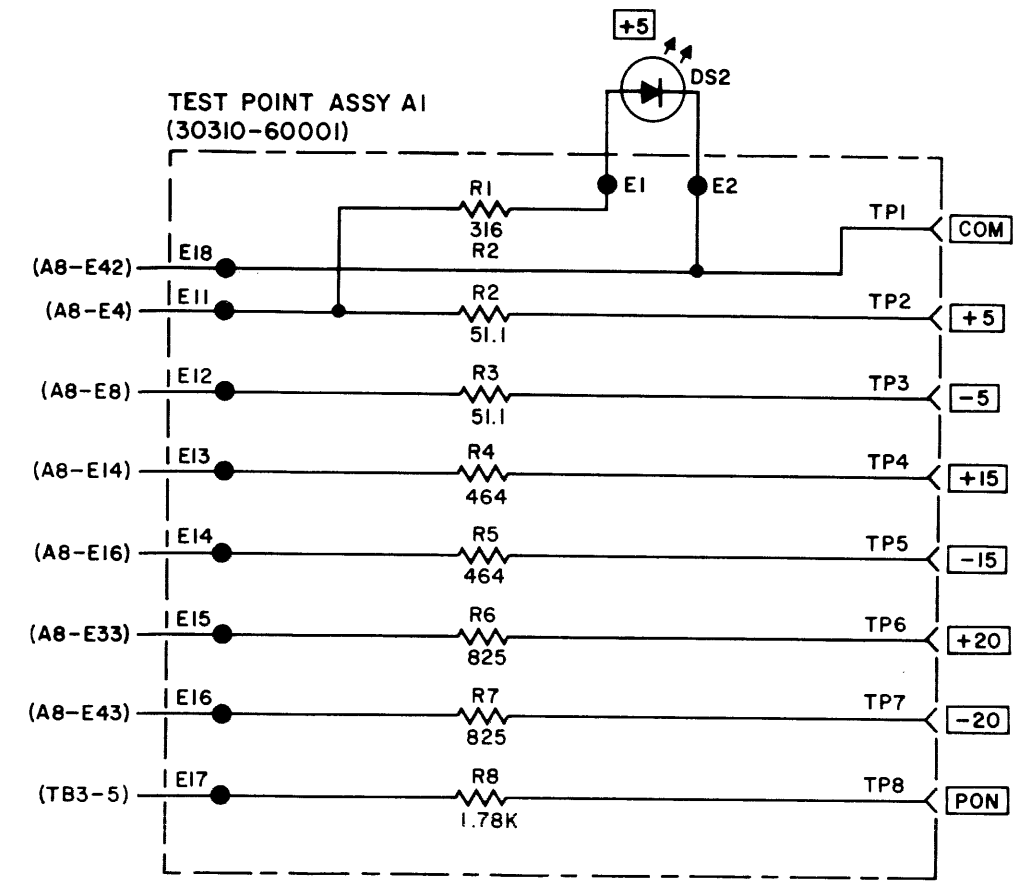
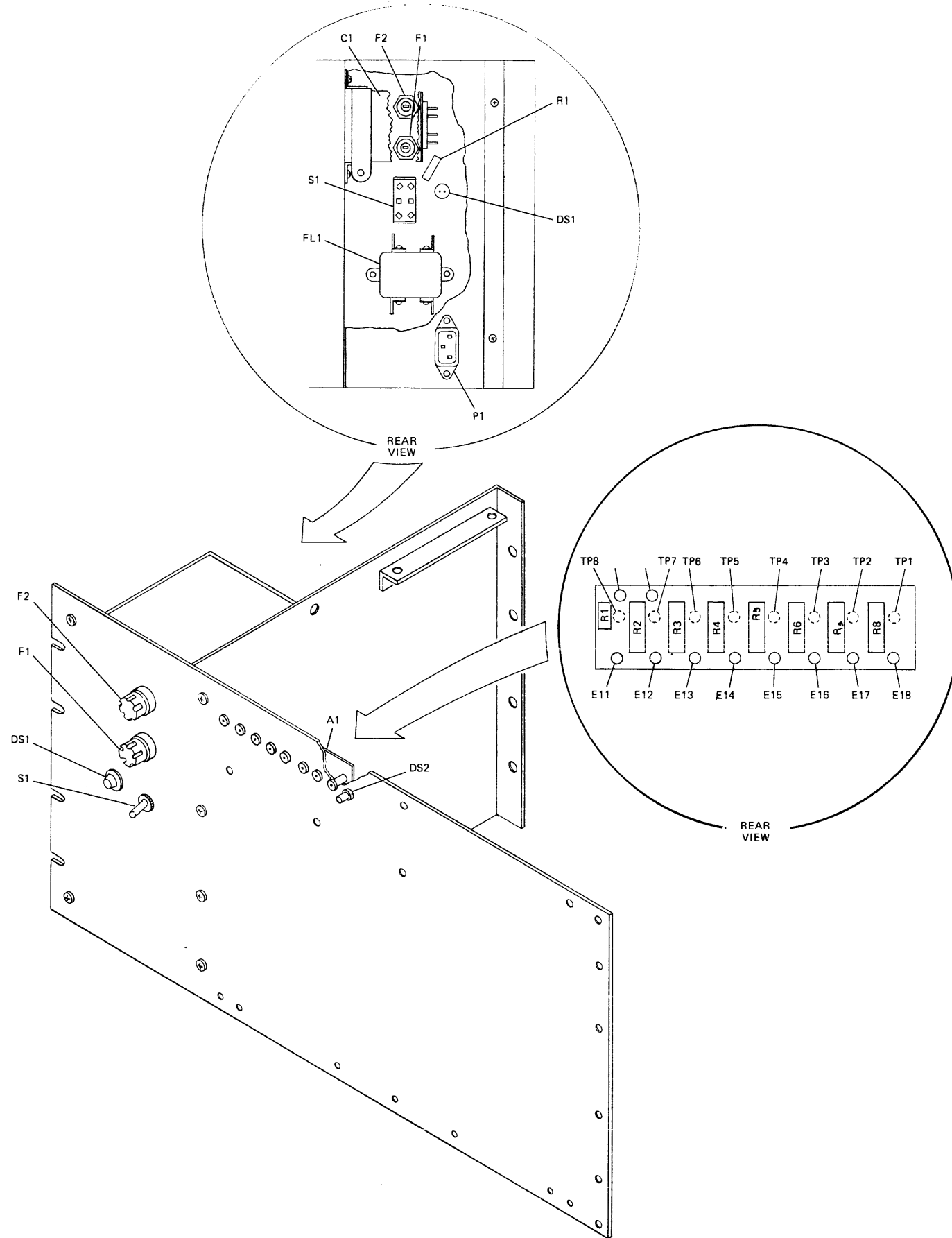
1. WHEN INSTALLING SEMICONDUCTOR DEVICES IN THIS ASSEMBLY, USE THERMAL COMPOUND (HP STOCK NO. 6040-0239) ON BOTH SIDES OF INSULATING WASHERS.
2. TIGHTEN ALL SEMICONDUCTOR MOUNTING NUTS TO 15 IN.-LBS (0.17 kg-m).
3. WHEN INSTALLING PLASTIC SCREWS USE THREAD SEALANT (HP STOCK NO. 0470-0013). DO NOT TIGHTEN EXCESSIVELY.
4. REFERENCE DESIGNATION PREFIX IS A9.

7011-30

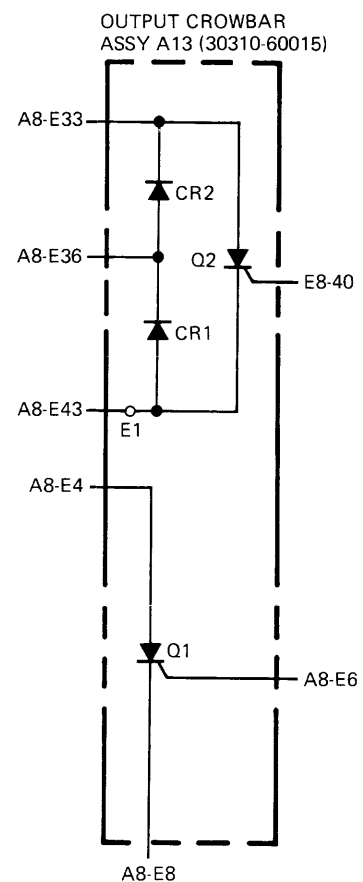
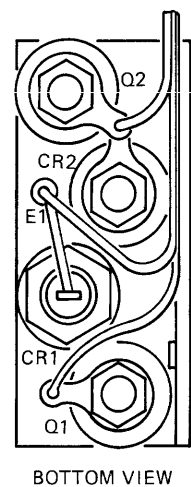
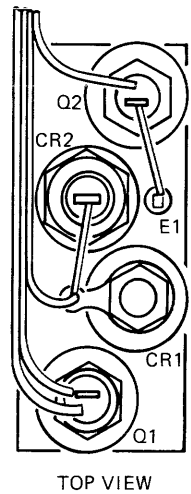
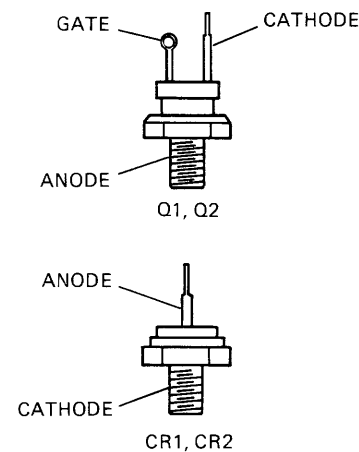
1303-1



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE



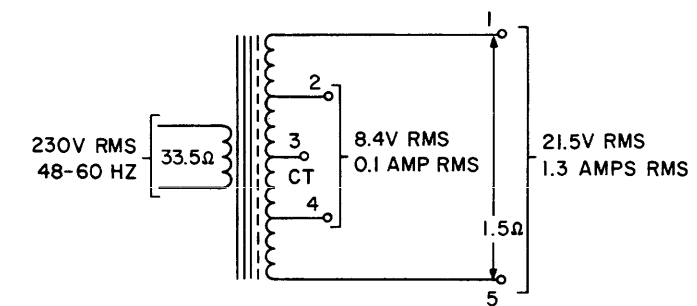
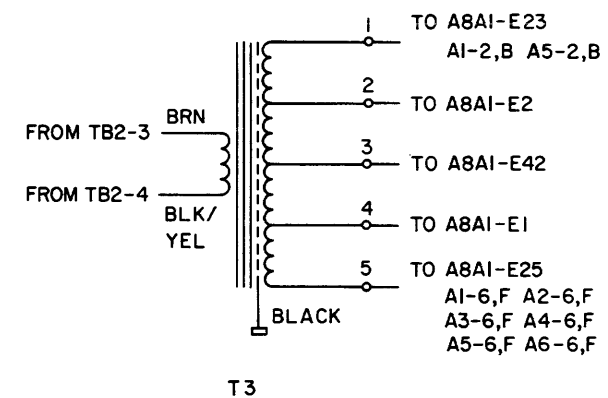
NOTES:
 1. RESISTANCE VALUES ARE IN OHMS.
 2. REFERENCE DESIGNATION PREFIX IS A12.



NOTES:

1. WHEN INSTALLING SEMICONDUCTOR DEVICES IN THIS ASSEMBLY, USE THERMAL COMPOUND (HP STOCK NO. 6040-0239) ON BOTH SIDES OF MOUNTING WASHERS.
2. TIGHTEN MOUNTING NUTS TO 15 IN.-LBS (0.17 kg-m).
3. REFERENCE DESIGNATION PREFIX IS A13.

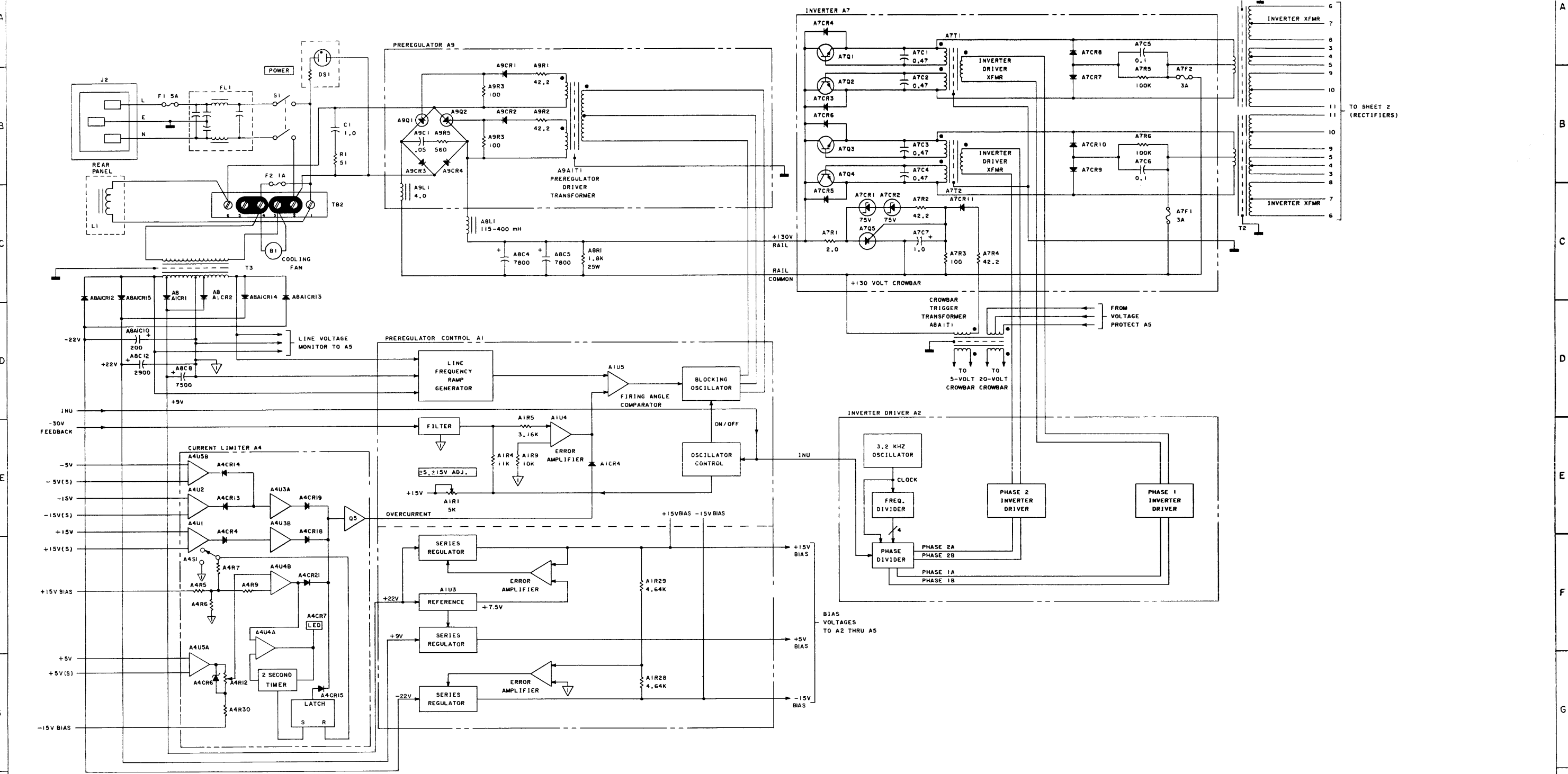
7011-27



NO-LOAD VOLTAGES AND WINDING DC RESISTANCES, T3

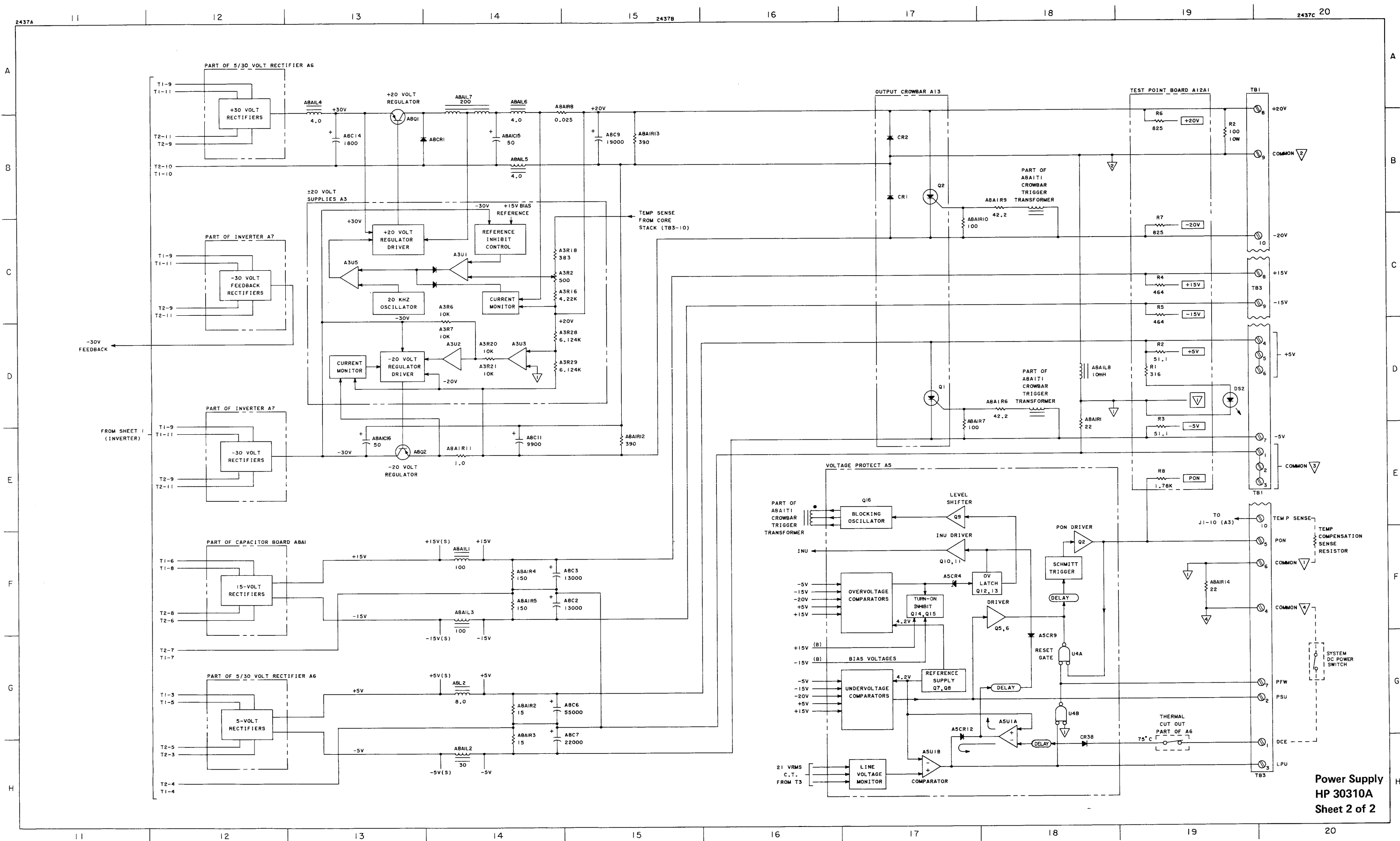
NOTE:
ON LOW-RESISTANCE RANGES SOME OHMMETERS APPLY AC TO THE COMPONENT BEING MEASURED. THEREFORE AN ACCURATE READING WILL NOT BE FURNISHED FOR INDUCTIVE COMPONENTS.

FAN B1, CHOKE L1, TRANSFORMER T3



TO SHEET 2 (RECTIFIERS)

3. ALL INDUCTANCE VALUES ARE IN MICROHENRIES
 2. ALL CAPACITANCE VALUES ARE IN MICROFARADS
 1. ALL RESISTANCE VALUES ARE IN OHMS
 NOTES: UNLESS OTHERWISE SPECIFIED

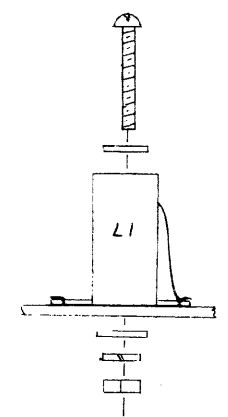
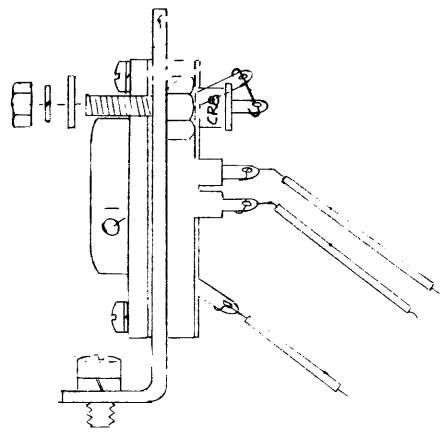
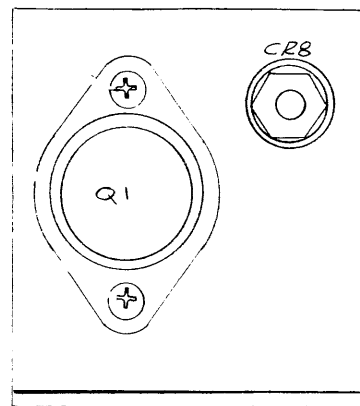
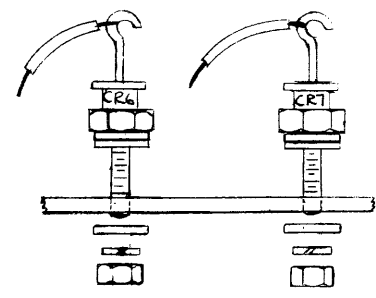
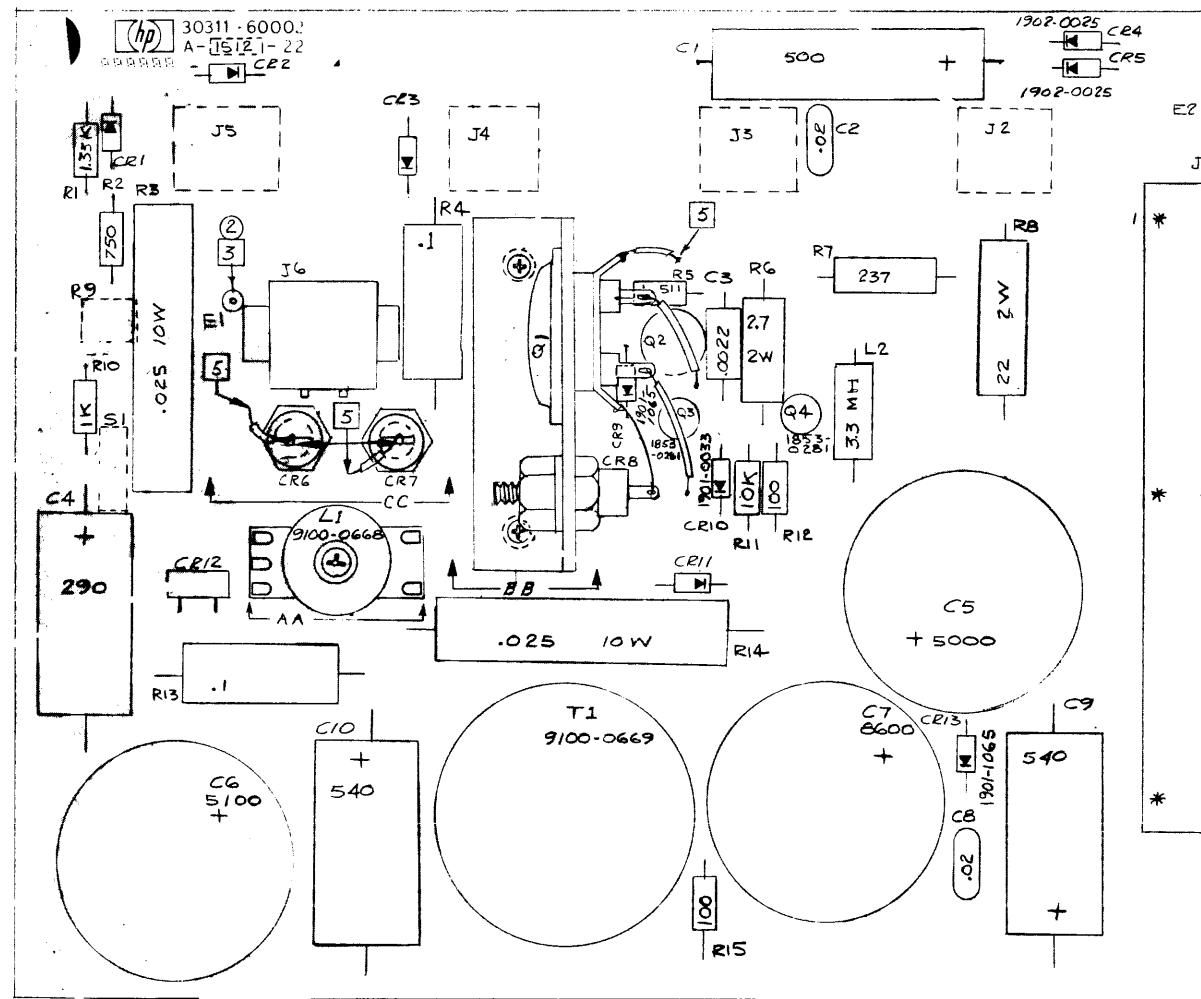
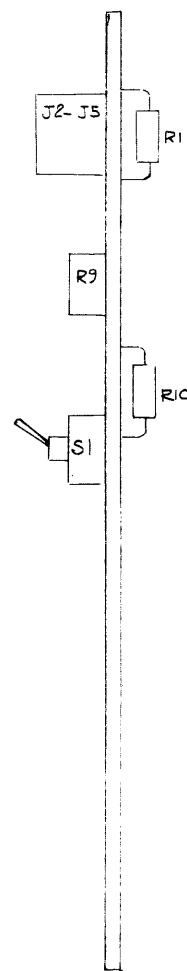


Power Supply
HP 30310A
Sheet 2 of 2

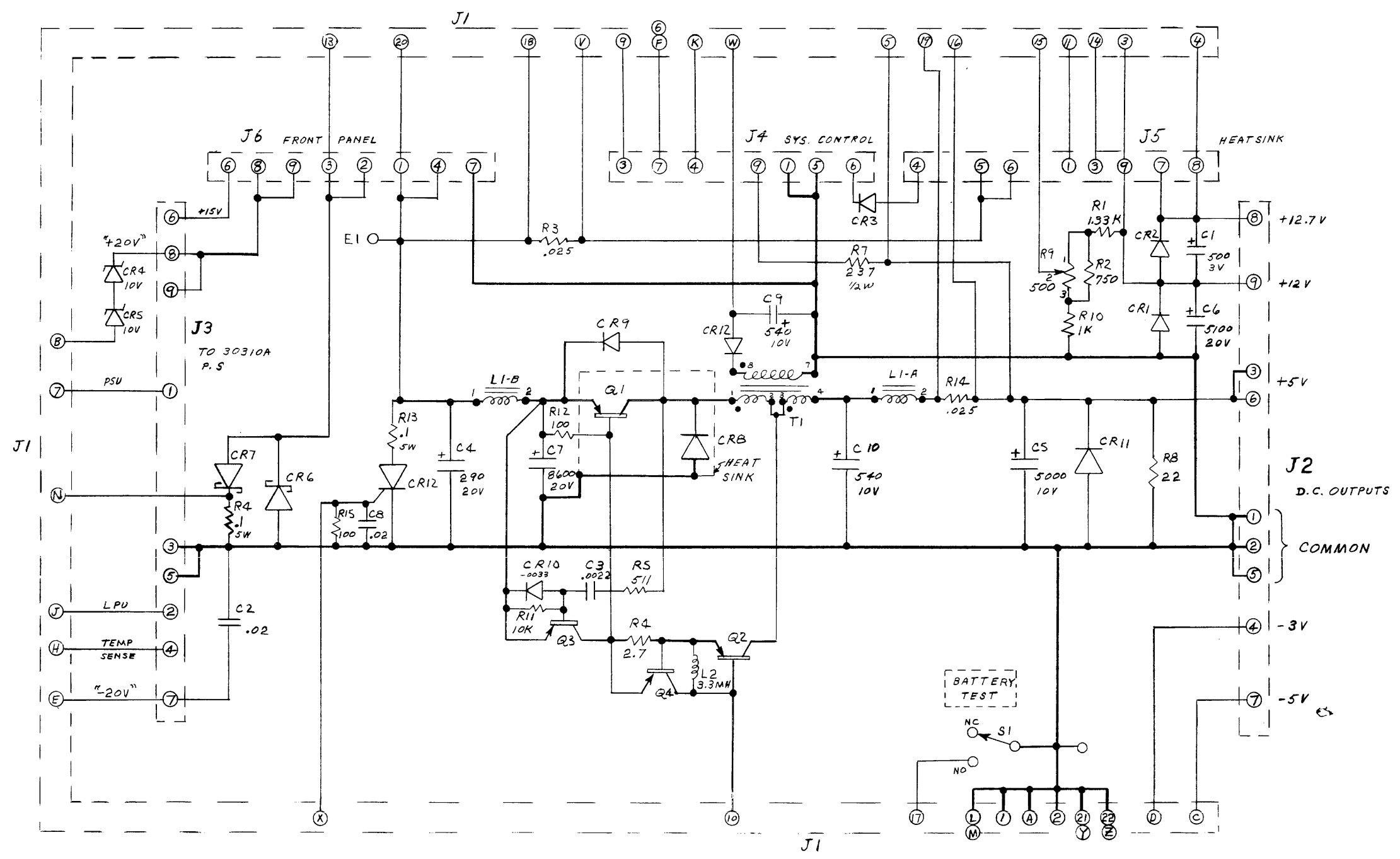
30311A

SEMICONDUCTOR MEMORY POWER SUPPLY

MOTHER BOARD ASSEMBLY	30311-60002	2 SHEETS
CONTROL BOARD ASSEMBLY	30311-60003	2 SHEETS
HEAT SINK ASSEMBLY	30311-60005	1 SHEET
BATTERY PACK ASSEMBLY	30311-60006	1 SHEET



SYM	REVISIONS	APPROVED	DATE
A	A3 ISSUED	83/22	4/11/75



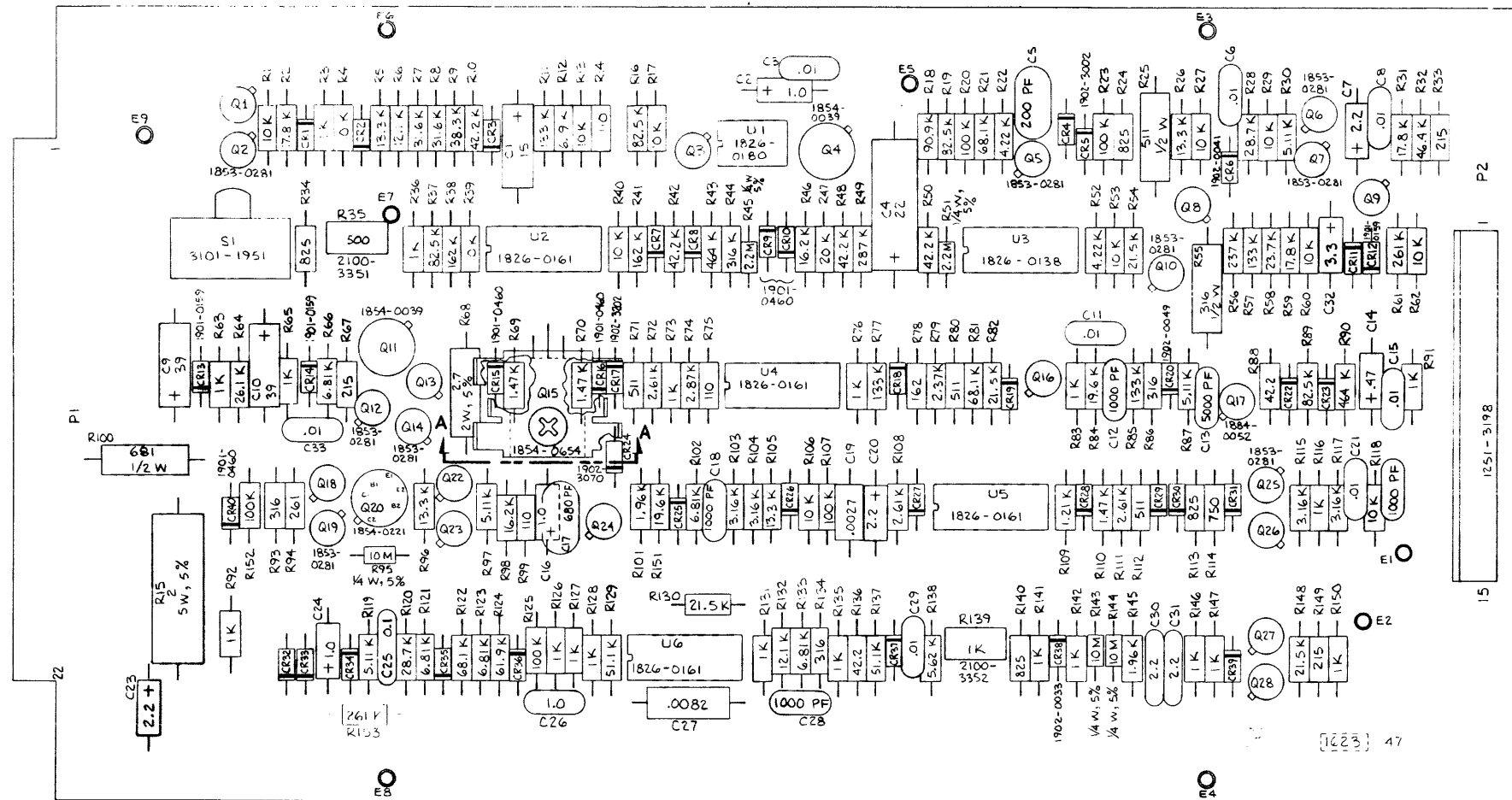
Mother Board Assembly
30311-60002
Sheet 2 of 2

CONTROL BOARD ASSEMBLY

30311-60003

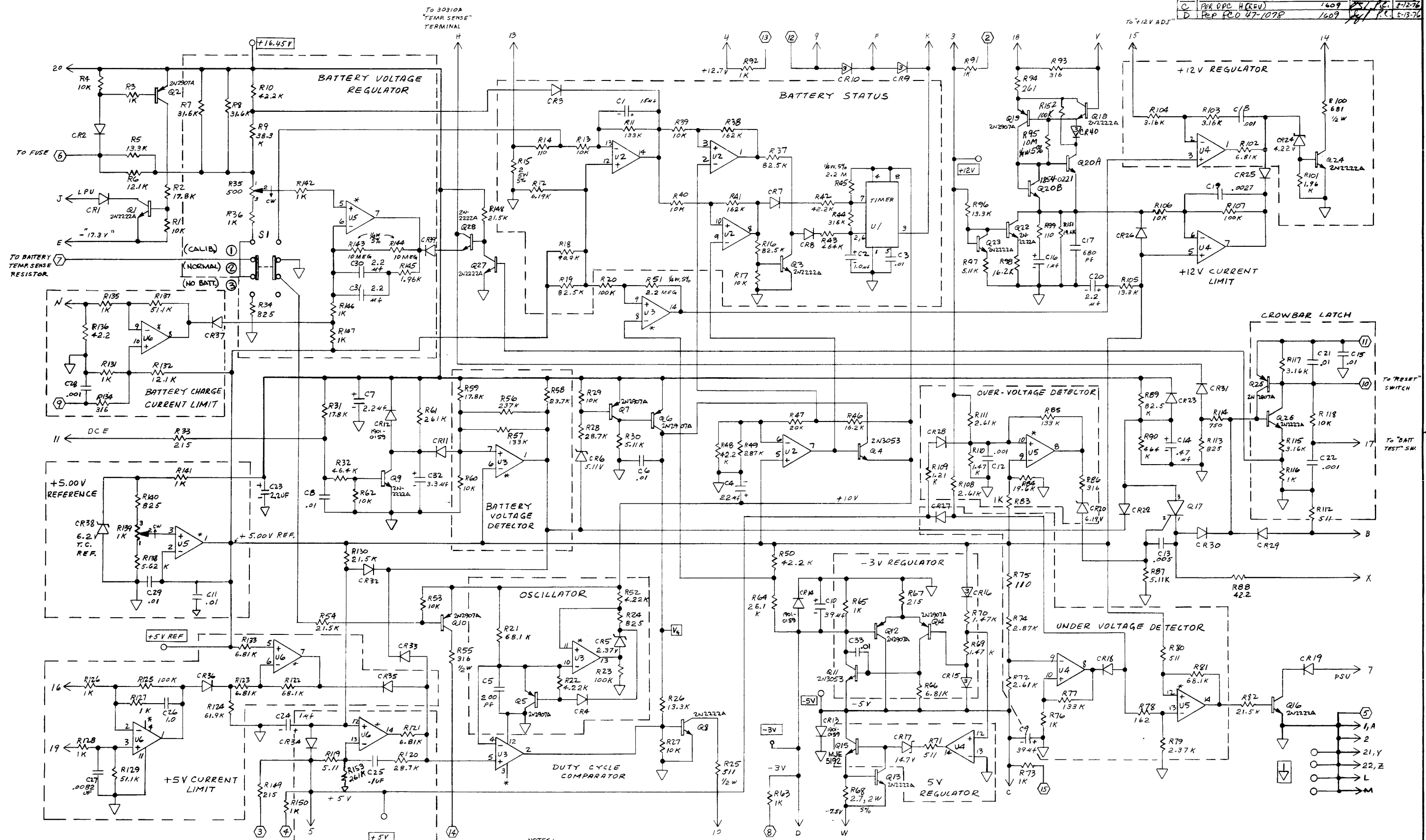
IC Index

U	1826-
2	0161
3	0138
4-6	0161



NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 ALL RESISTORS ARE IN OHMS ±1%, 1/8W
 ALL CAPACITORS ARE IN MICROFARADS
 ALL TRANSISTORS ARE 1854-0477
 ALL DIODES ARE 1901-0033

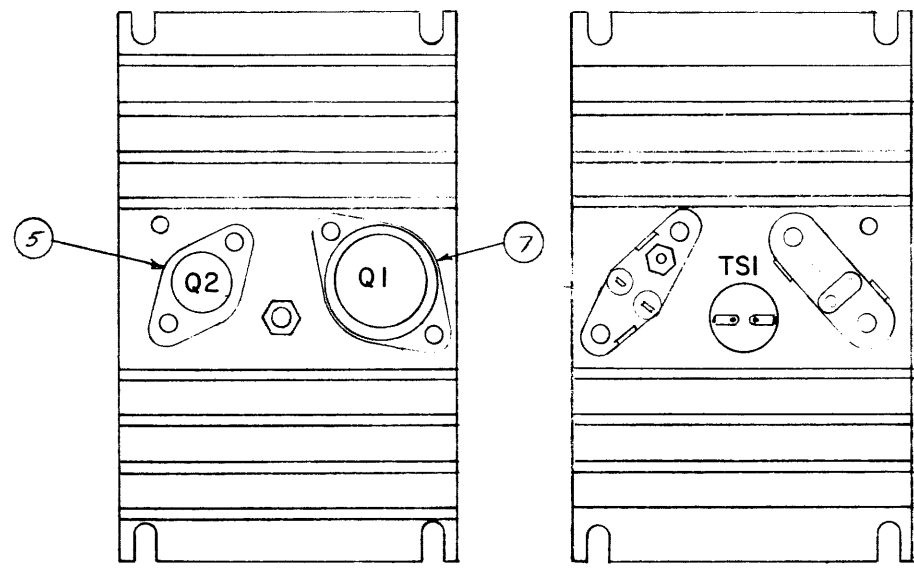
SYM	REVISIONS	APPROVED	DATE
A	As ISSUED	1512	5/7/75
B	PER PFC A (REV)	1512	5/14/75
C	PER DPC H (REV)	1609	5/12/76
D	PER PFC 47-1078	1609	5/13/76



NOTES:
 1. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS, 1% 1/8W
 ALL DIODES ARE 1901-0033
 2. ← DENOTES P1
 ○ DENOTES P2
 3. * VCC TO "16.45V"
 ALL OTHERS TO "14"

Control Board Assembly
 30311-60003
 Sheet 2 of 2

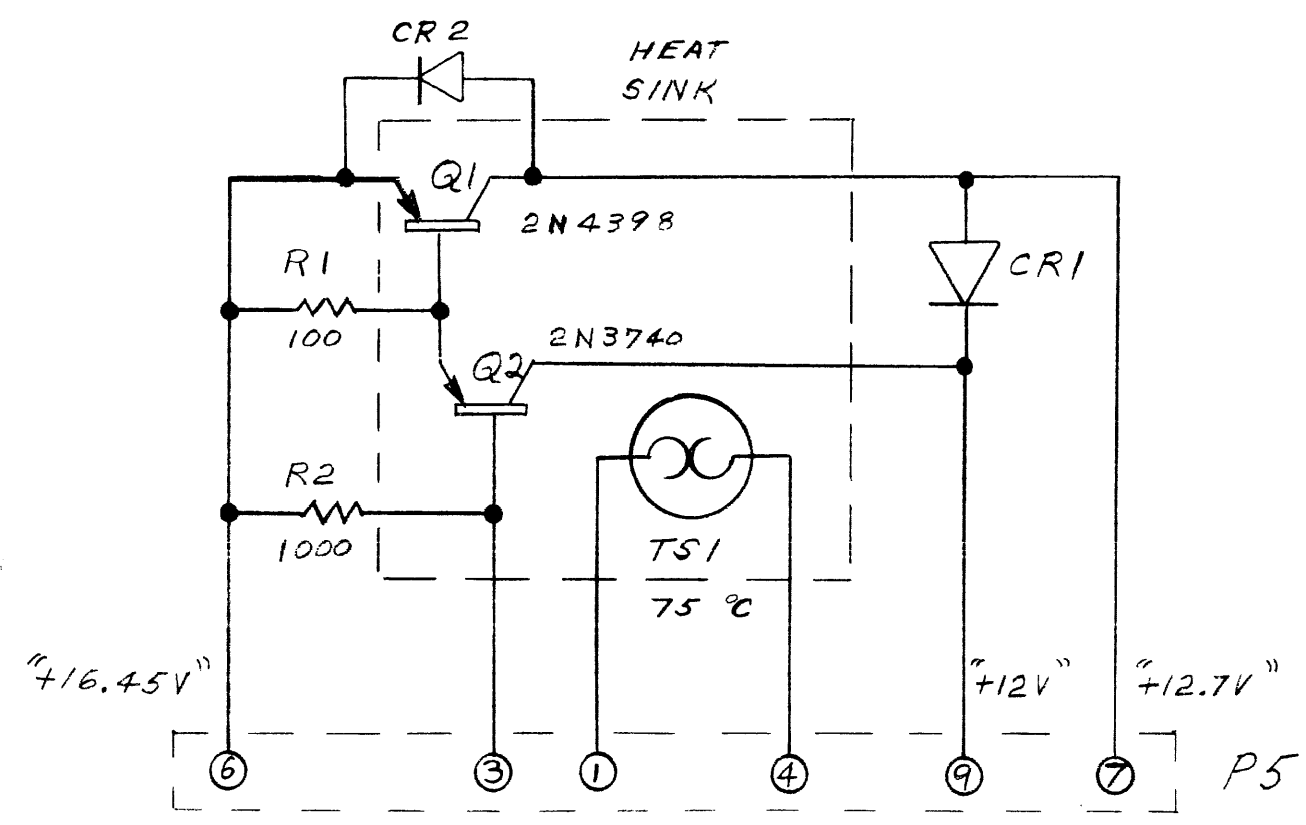
A | AS ISSUED



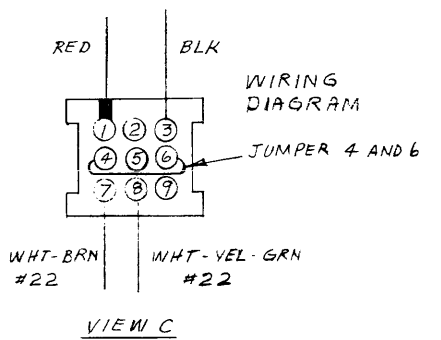
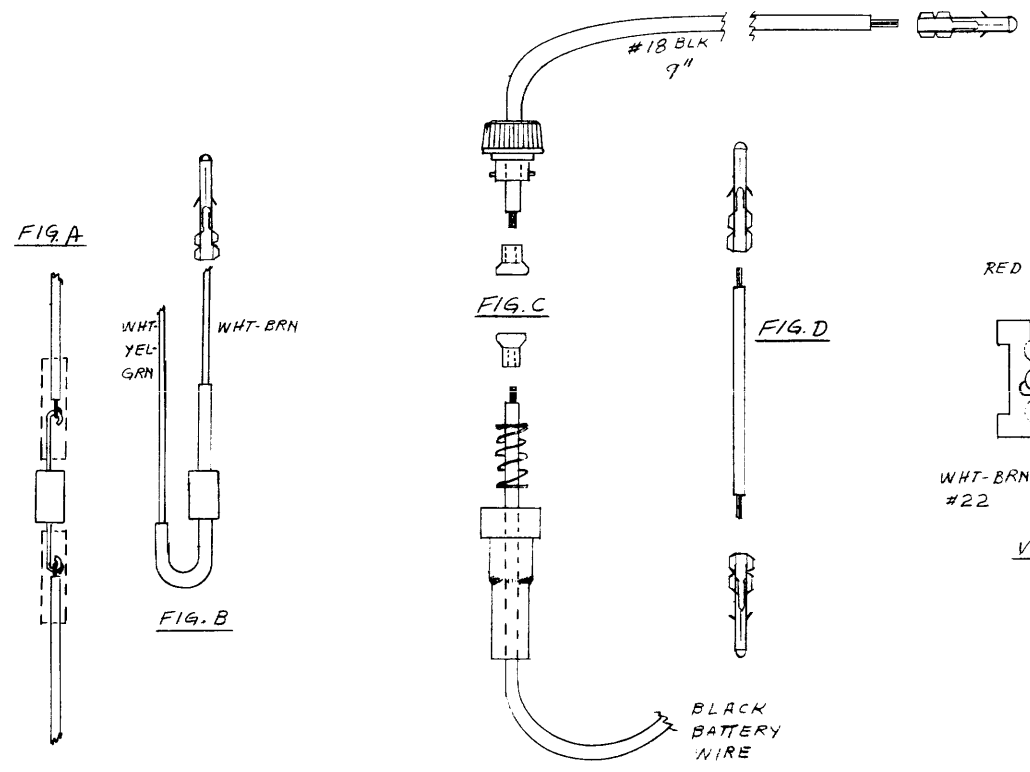
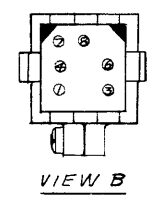
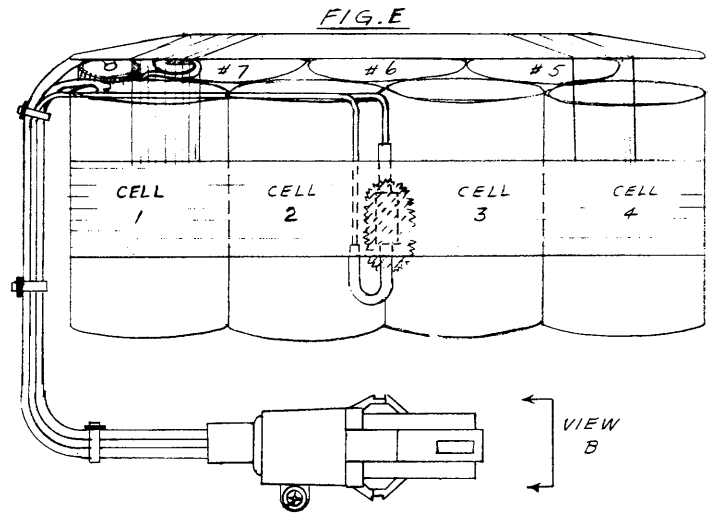
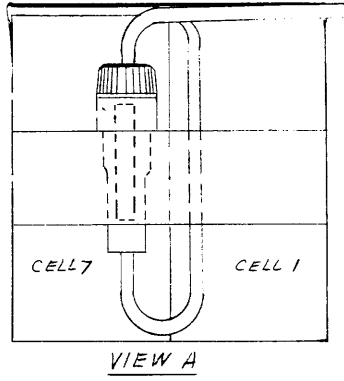
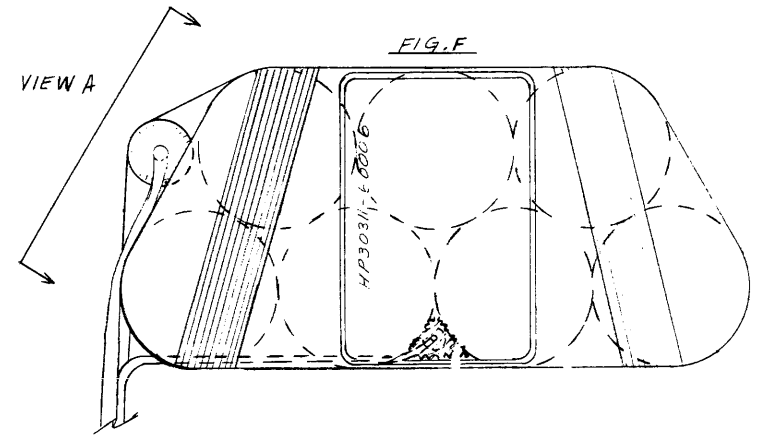
TOP VIEW

BOTTOM VIEW

- Q1 1853-0310
- Q2 1853-0052
- TSI 3103-0015



SYM	REVISIONS	APPROVED	DATE
A		PC	7/27/75

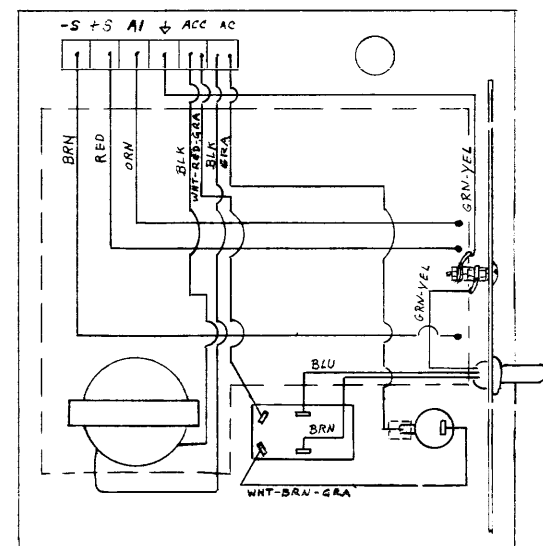
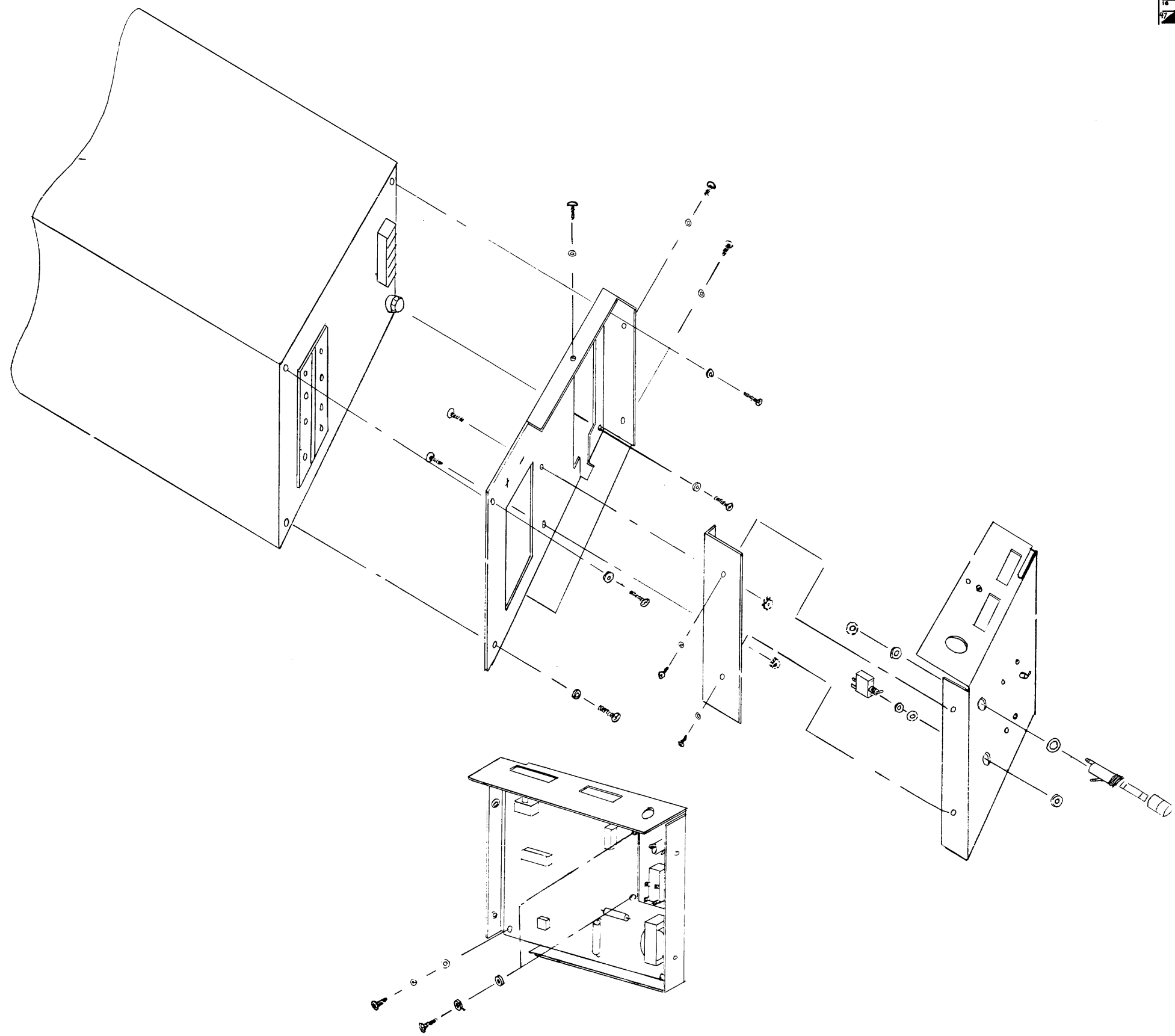


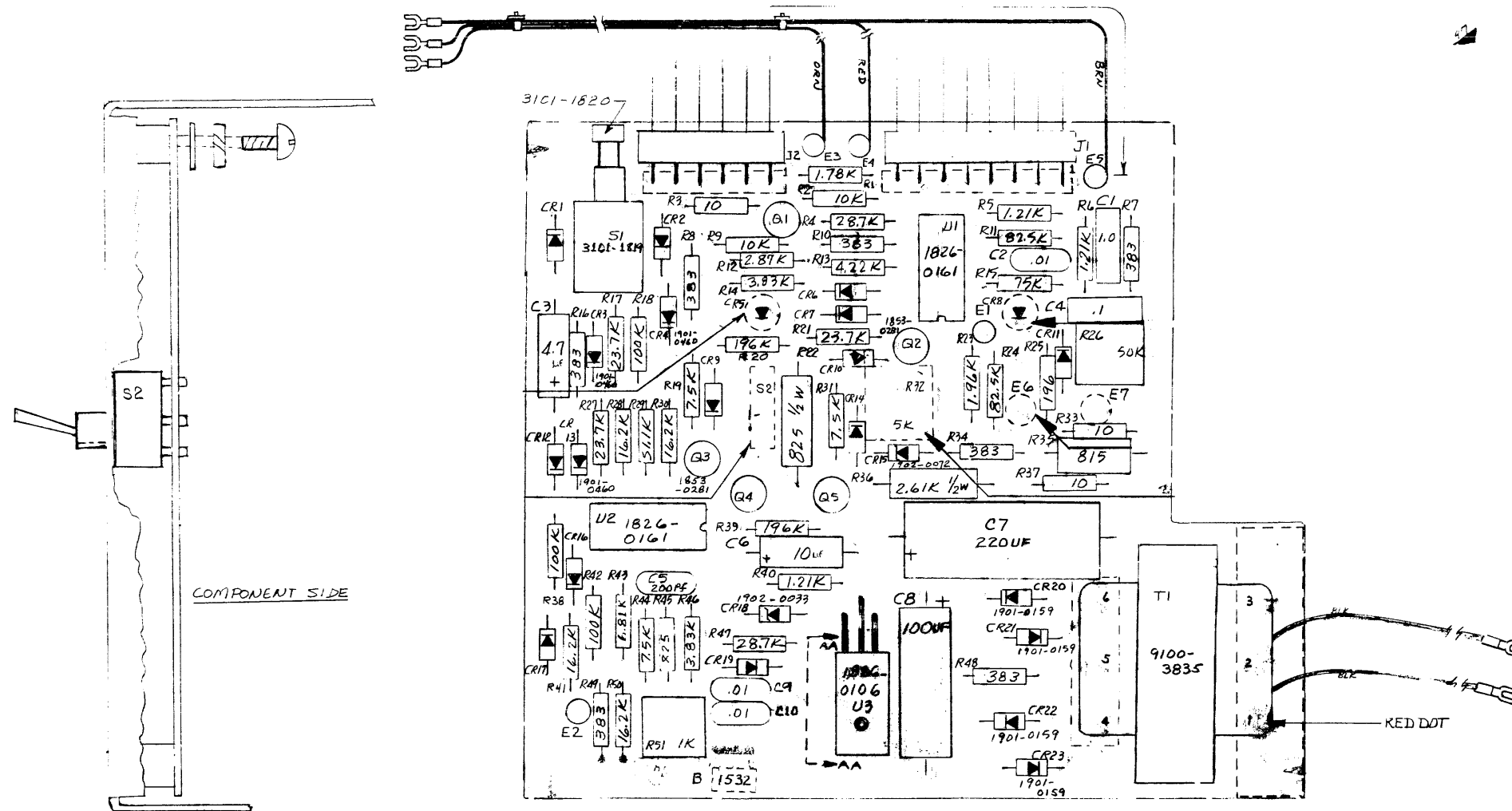
30312A

POWER SUPPLY (+5V)

POWER SUPPLY ASSEMBLY	30312-60001	1 SHEET
INTERFACE BOARD ASSEMBLY	30312-60002	2 SHEETS

ENGINEERING RESPONSIBILITY														REVISIONS		APPROVED	DATE		
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BY	DATE		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	ES/DC	9/9/76
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	B	REV PER DCC CHG	ES/DC	8/18/76
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	C	Deleted Item 4, Item 2, GIV WAS L.	ES/DC	9/15/76





NOTES:

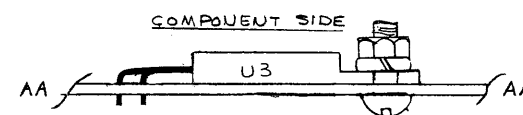
- 1. UNLESS OTHERWISE SPECIFIED:
- ALL RESISTANCE IN OHMS
- ALL RESISTORS 1/8W, 1%
- ALL CAPACITANCE IN MICROFARADS
- ALL TRANSISTORS - 1854-0477
- ALL DIODES - 1901-0050

INTERFACE BOARD ASSEMBLY

30312-60002

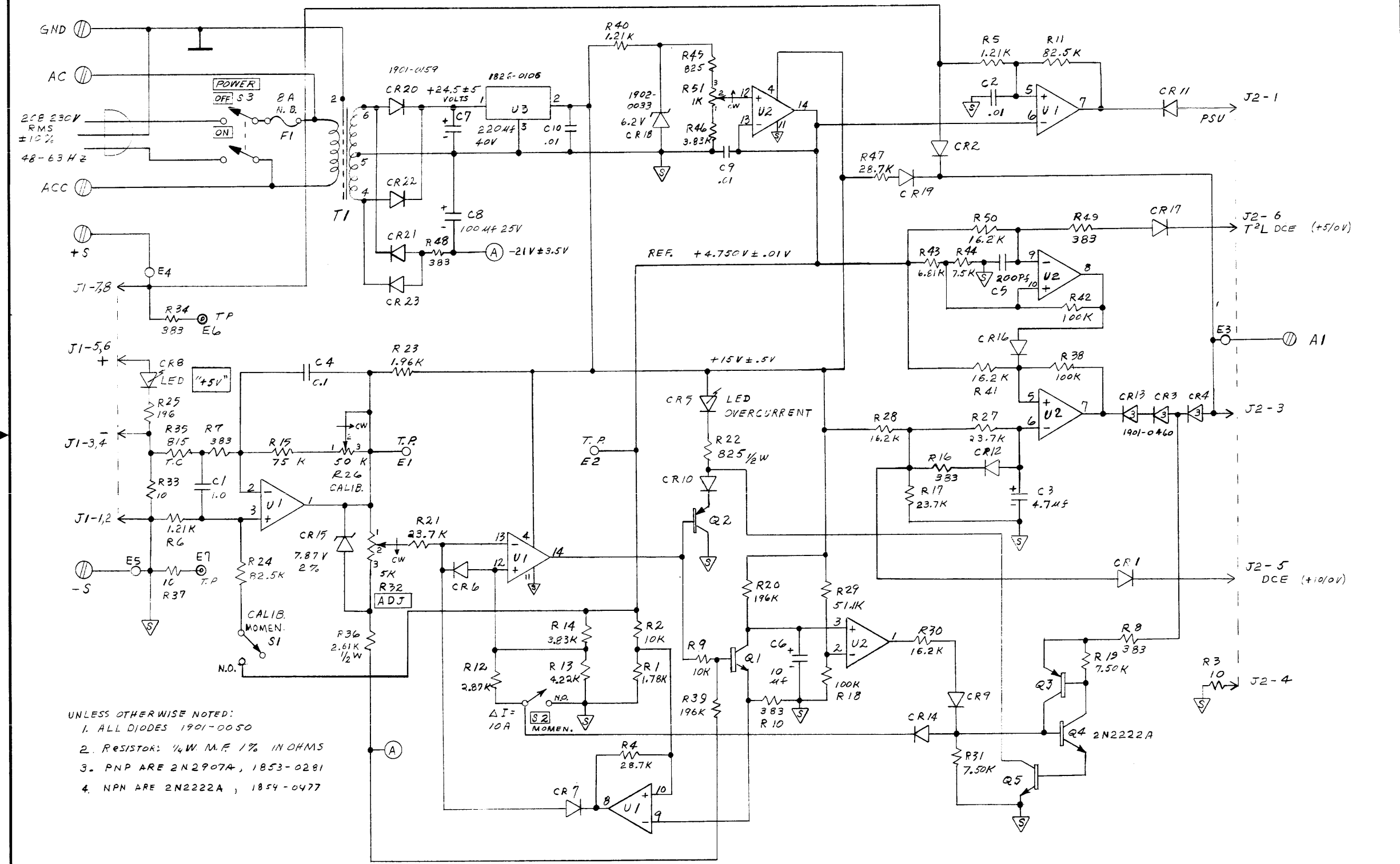
IC Index

U	1826-
1,2	0161
3	0106



ENGINEERING RESPONSIBILITY													SEPIA																																		
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SYM	REVISIONS	APPROVED	DATE
A	A3 ISSUED	1532	5/14/76



UNLESS OTHERWISE NOTED:
 1. ALL DIODES 1901-0050
 2. RESISTOR: 1/4W M.F. 1% IN OHMS
 3. PNP ARE 2N2907A, 1853-0281
 4. NPN ARE 2N2222A, 1854-0477

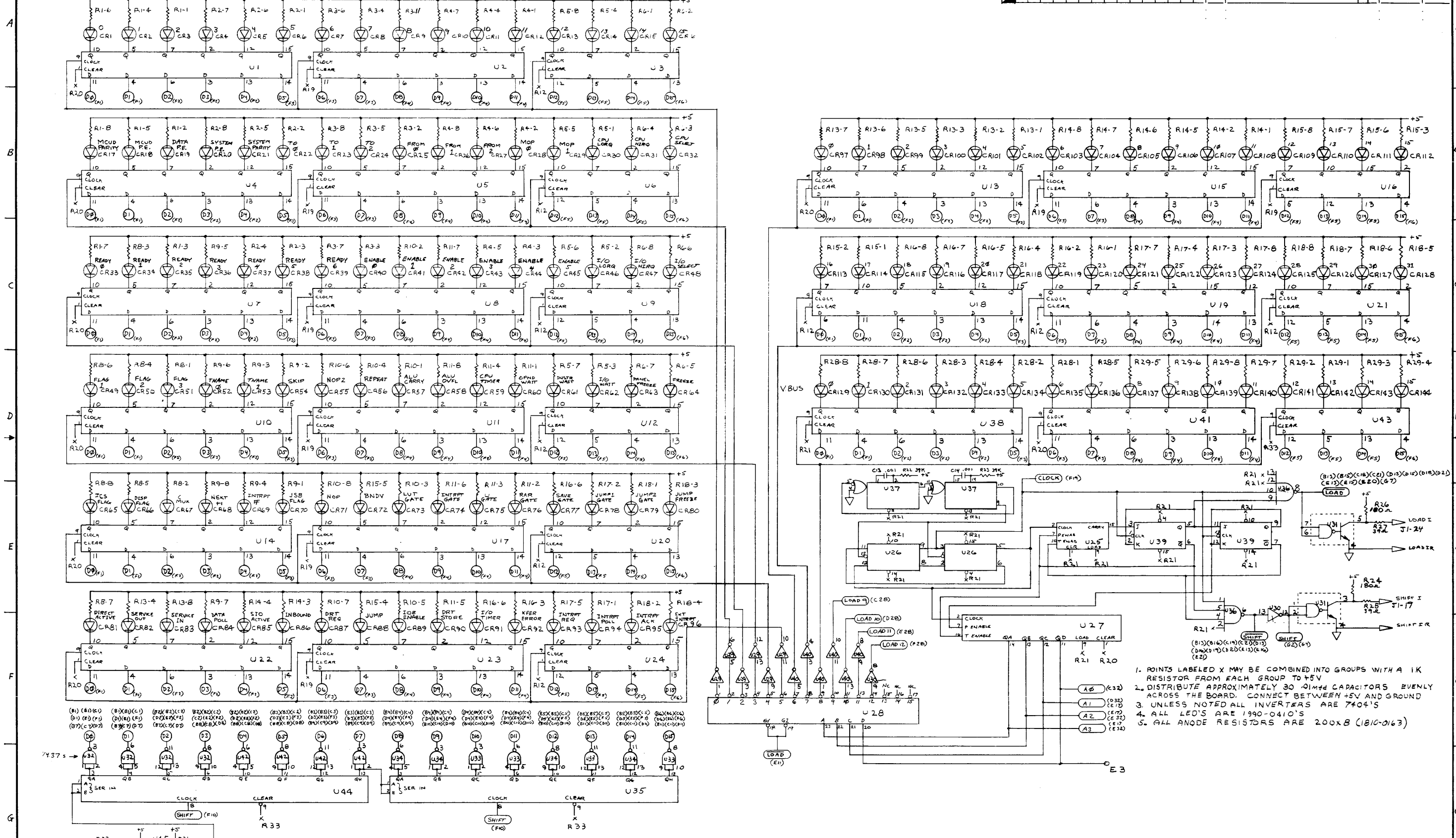
30354A

MAINTENANCE PANEL

MAINTENANCE PANEL ASSEMBLY	30354-60001	5 SHEETS
MAINTENANCE PANEL INTERFACE PCA	30354-60003	5 SHEETS

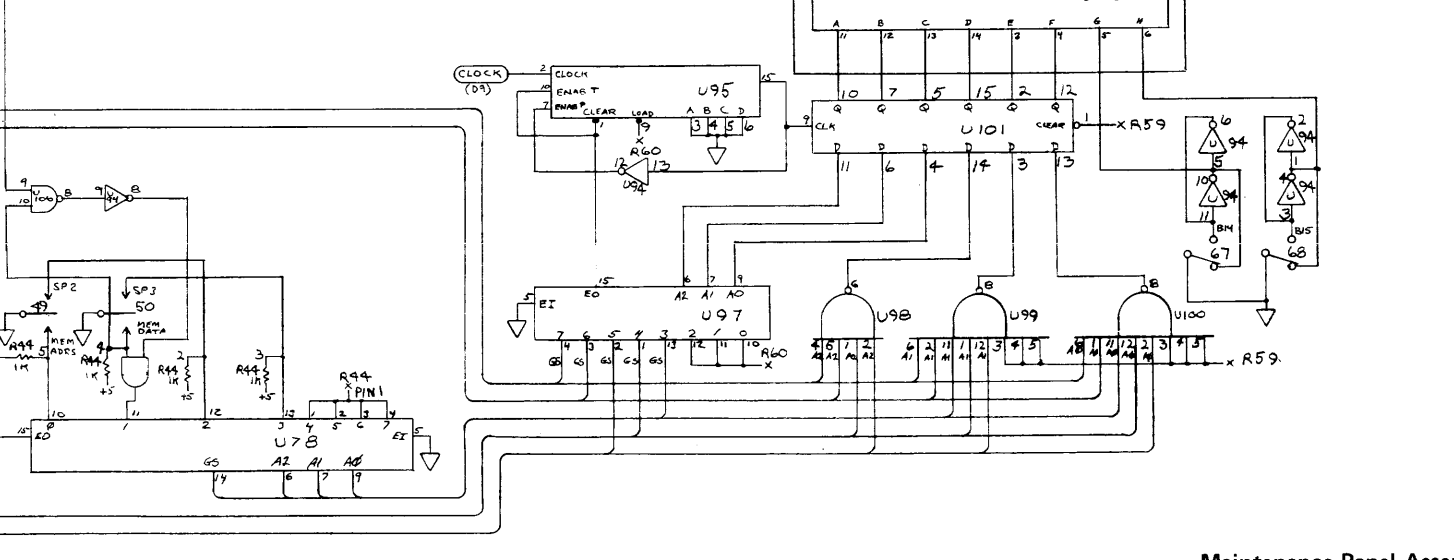
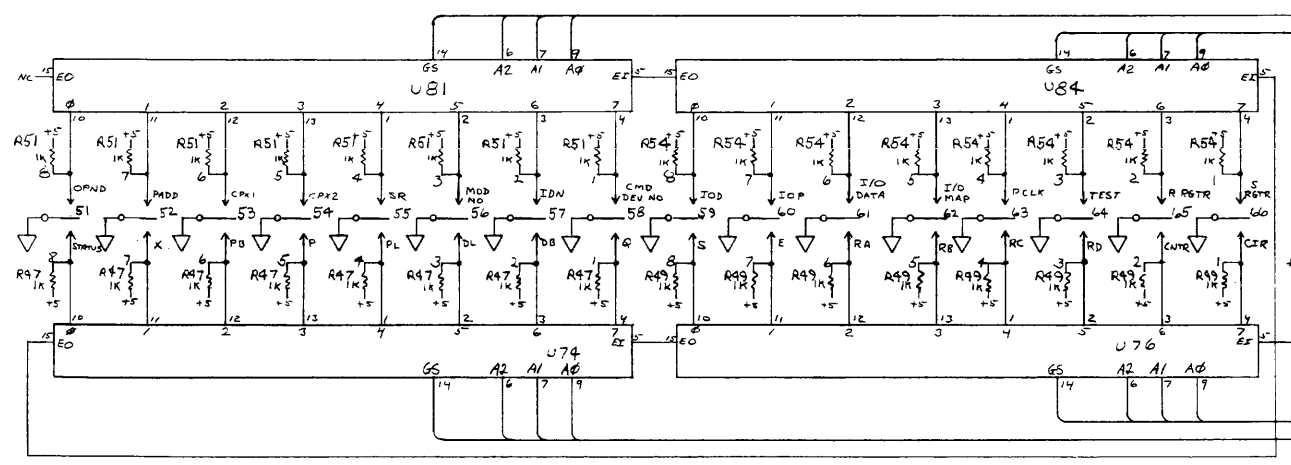
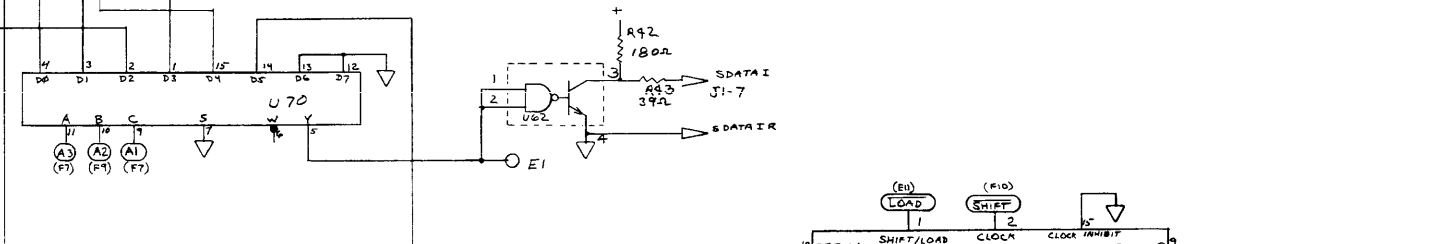
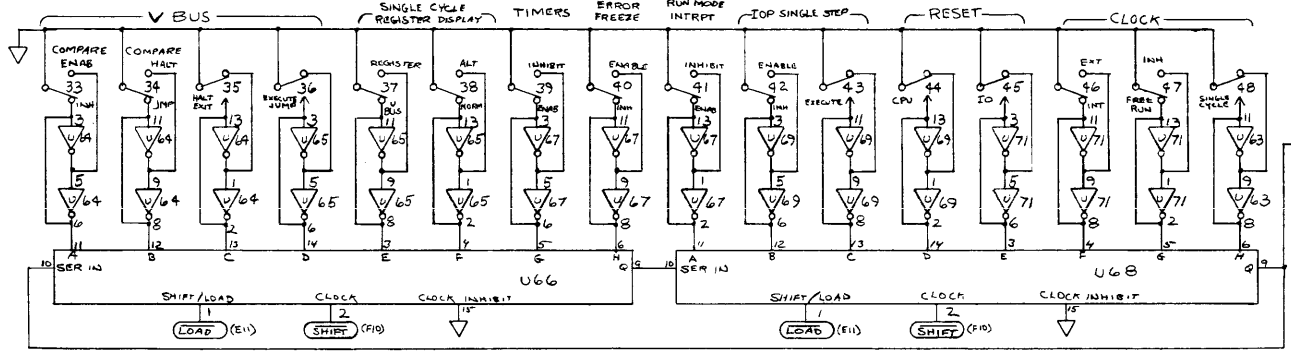
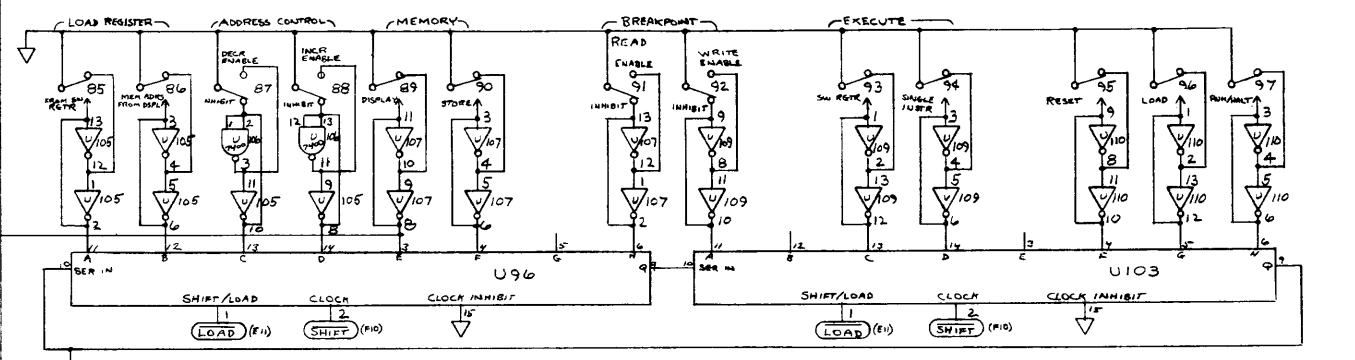
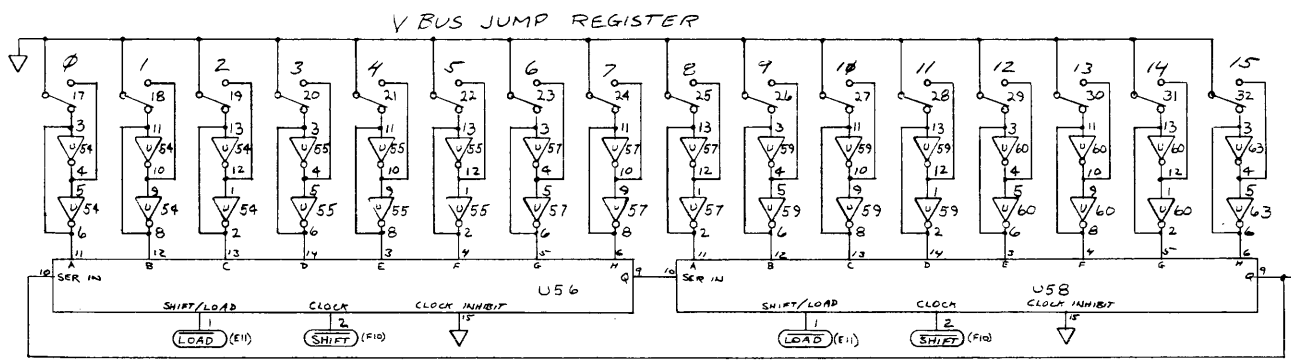
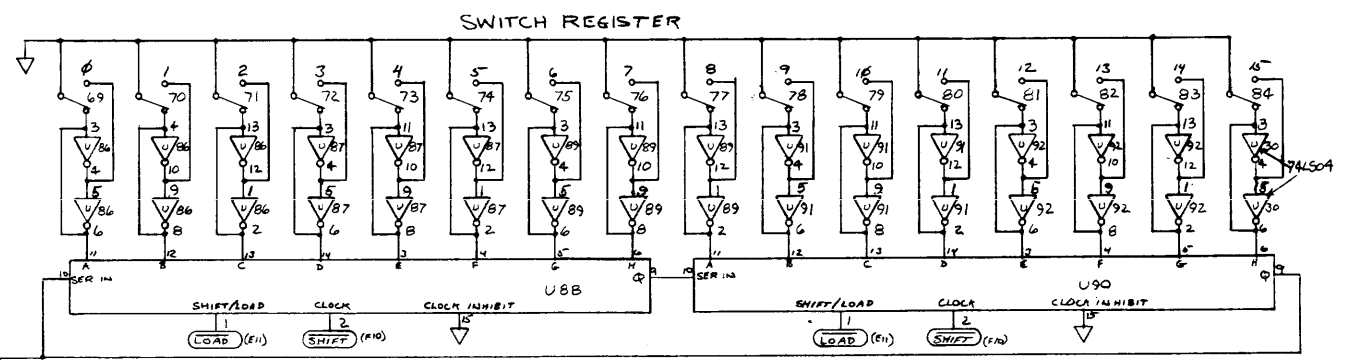
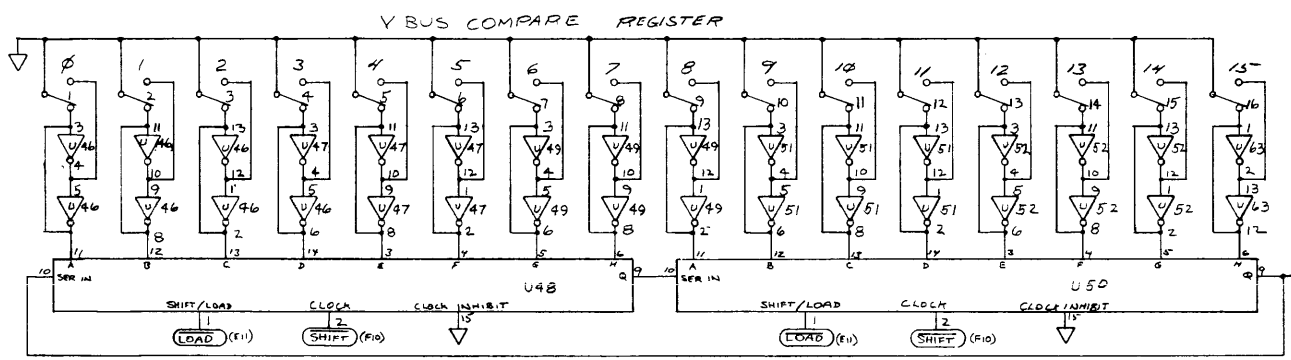
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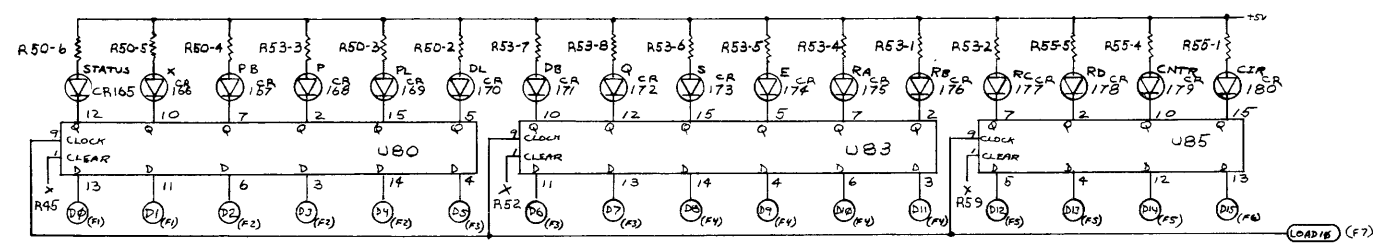
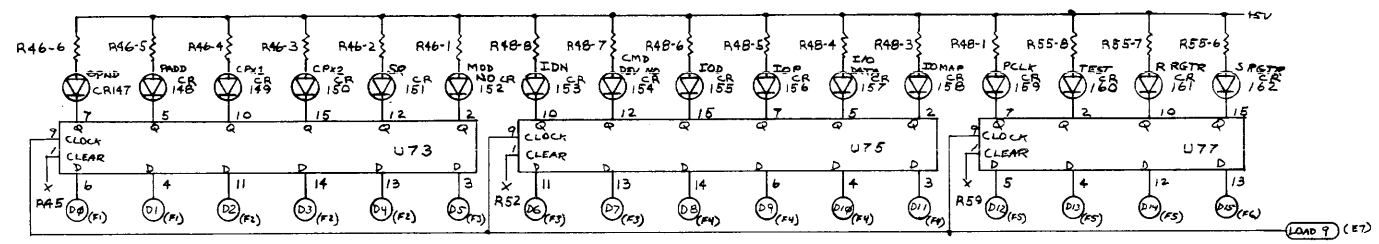
CENTRAL DATA BUS



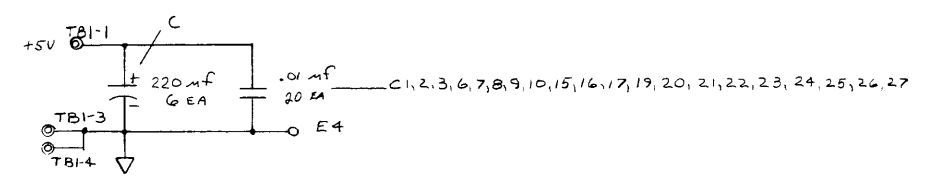
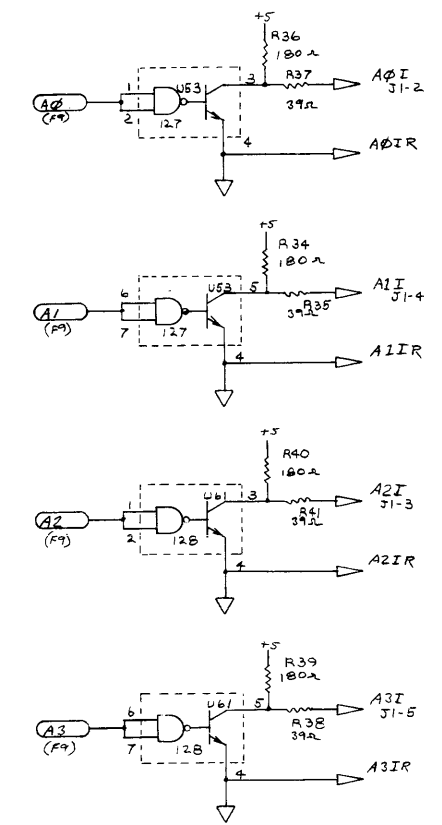
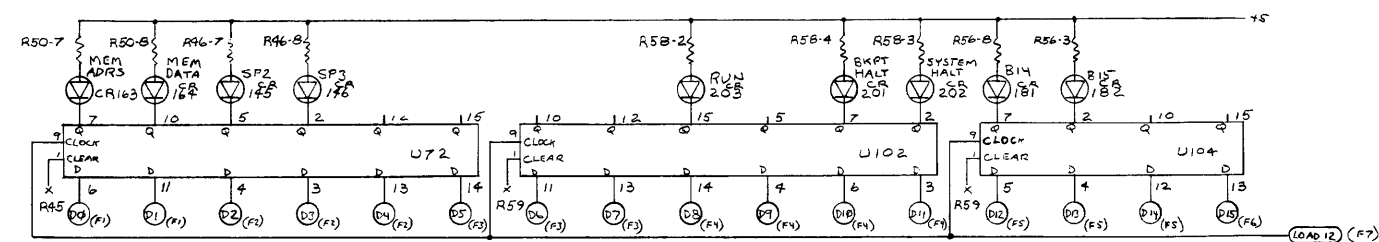
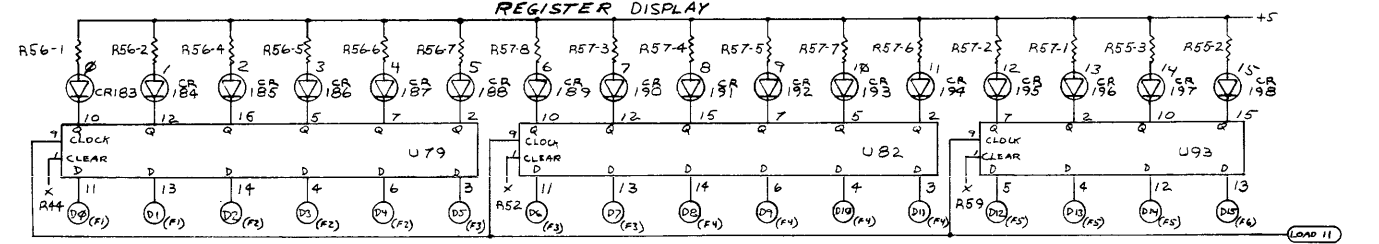
- POINTS LABELED X MAY BE COMBINED INTO GROUPS WITH A 1K RESISTOR FROM EACH GROUP TO +5V
- DISTRIBUTE APPROXIMATELY 30 0.1μF CAPACITORS EVENLY ACROSS THE BOARD. CONNECT BETWEEN +5V AND GROUND
- UNLESS NOTED ALL INVERTERS ARE 7404'S
- ALL LED'S ARE 1990-0410'S
- ALL ANODE RESISTORS ARE 200X8 (B10-0163)

ENGINEERING RESPONSIBILITY															REVISED															APPROVED					DATE																																																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	DATE	DATE
															A AS ISSUED															B/TUC					4/7/75																																																																		

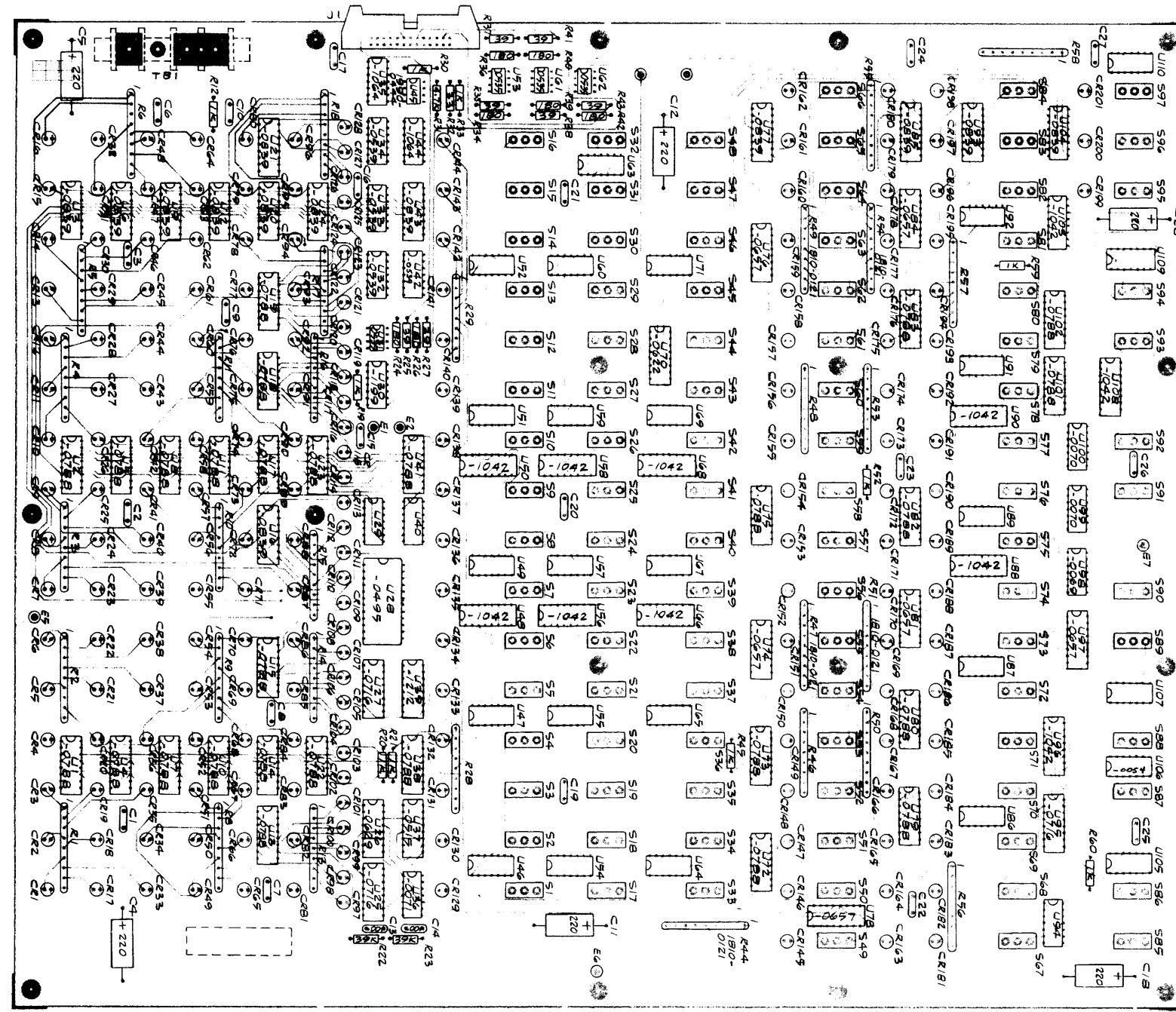




REGISTER DISPLAY



REVISIONS		APPROVED	DATE
A	AS ISSUED	<i>[Signature]</i>	11/17/75
B	ADDED ITEM 8 PCO #47-1076	BB	11/17/75



NOTES:

- UNLESS OTHERWISE SPECIFIED :
 ALL RESISTANCE IN OHMS
 ALL RESISTORS ARE 1/4W 9%
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS ARE .01 CERAMIC DISC
 ALL DIODES ARE 1N90-0410
 ALL RESISTOR NETWORKS ARE 200Ω 1810-0163
 ALL I.C.'S ARE 1820-0174
 ALL SWITCHES ARE 3101-1927 (CK 7101-70644E)
 S49-S64 ARE 3101-1968 (CK 7105-CRATOR OPT)
 S35, 36, 43-45, 48, 85, 86, 89,
 90, 93-97 ARE 3101-1966 (CK 7108-HOBBENTARY)

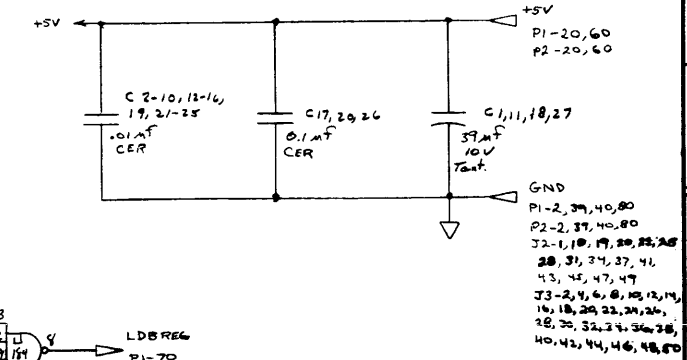
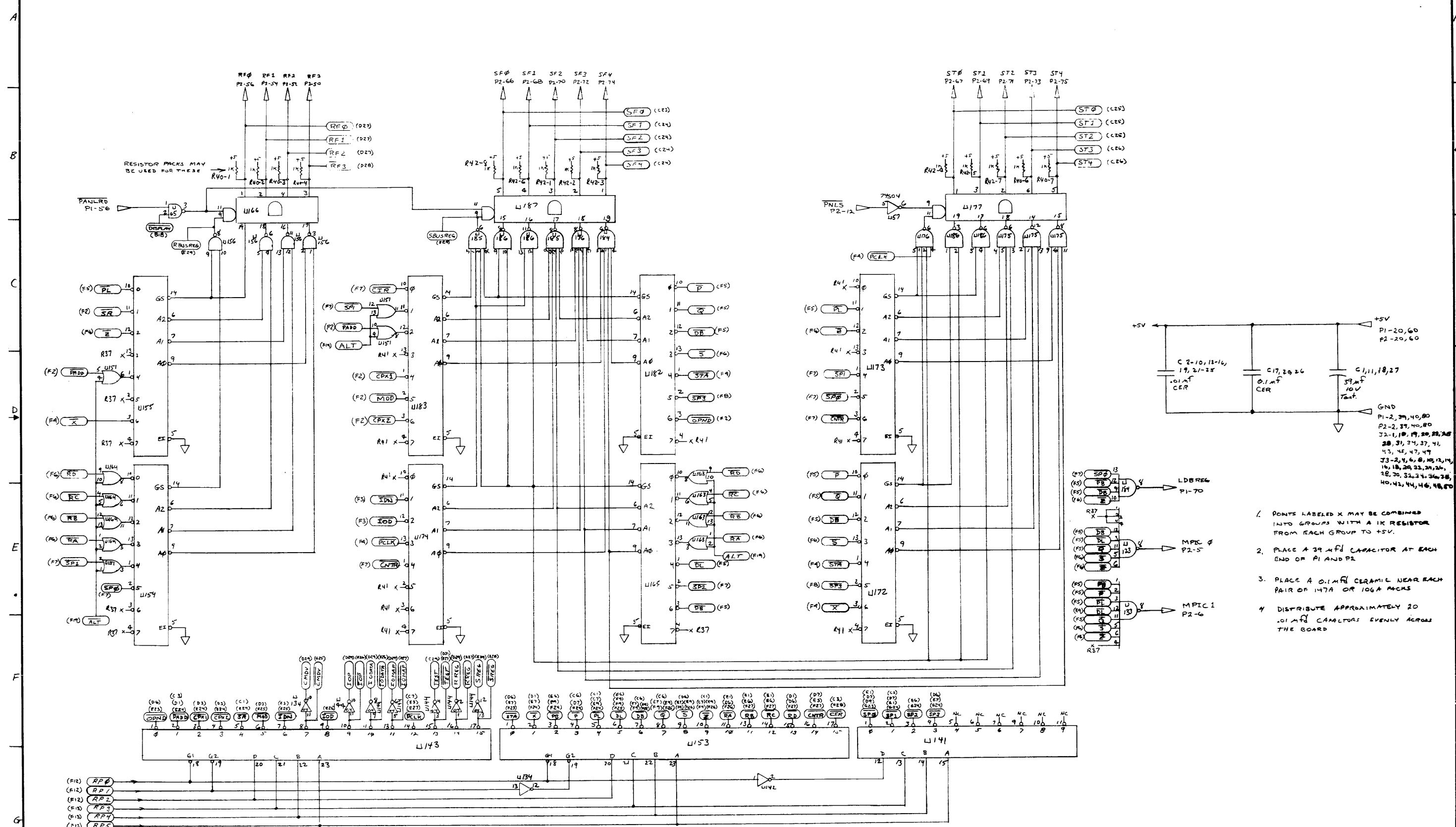
MAINTENANCE PANEL

30354-60001

IC Index

U	1820-	U	1820-	U	1820-
1,2	0788	42,43	0539	79,80	0788
3	0839	44	1064	81	0657
4,5	0788	45	1990-0144	82,83	0788
6	0839	46,47	1820-0174	84	0657
7,8	0788	48	1042	85	0839
9	0839	49	0174	86,87	0174
10,11	0788	50	1042	88	1042
12	0839	51,52	0174	89	0174
13-15	0788	53	0535	90	1042
16	0839	54,55	0174	91,92	0174
17-19	0788	56	1042	93	0839
20,21	0839	57	0174	94	0174
22,23	0788	58	1042	95	0716
24	0839	59,60	0174	96	1042
25	0716	61,62	0535	97	0657
26	0629	63-65	0174	98	0069
27	0716	66	1042	99,100	0070
28	0495	67	0174	101,102	0788
29	0174	68	1042	103	1042
30	1199	69	0174	104	0839
32-34	0539	70	0622	105	0174
35	1064	71	0174	106	0054
36	0071	72,73	0788	107	0174
37	0515	74	0657	108	1042
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39	1212	76	0657		
40	0174	77	0839		
41	0788	78	0657		

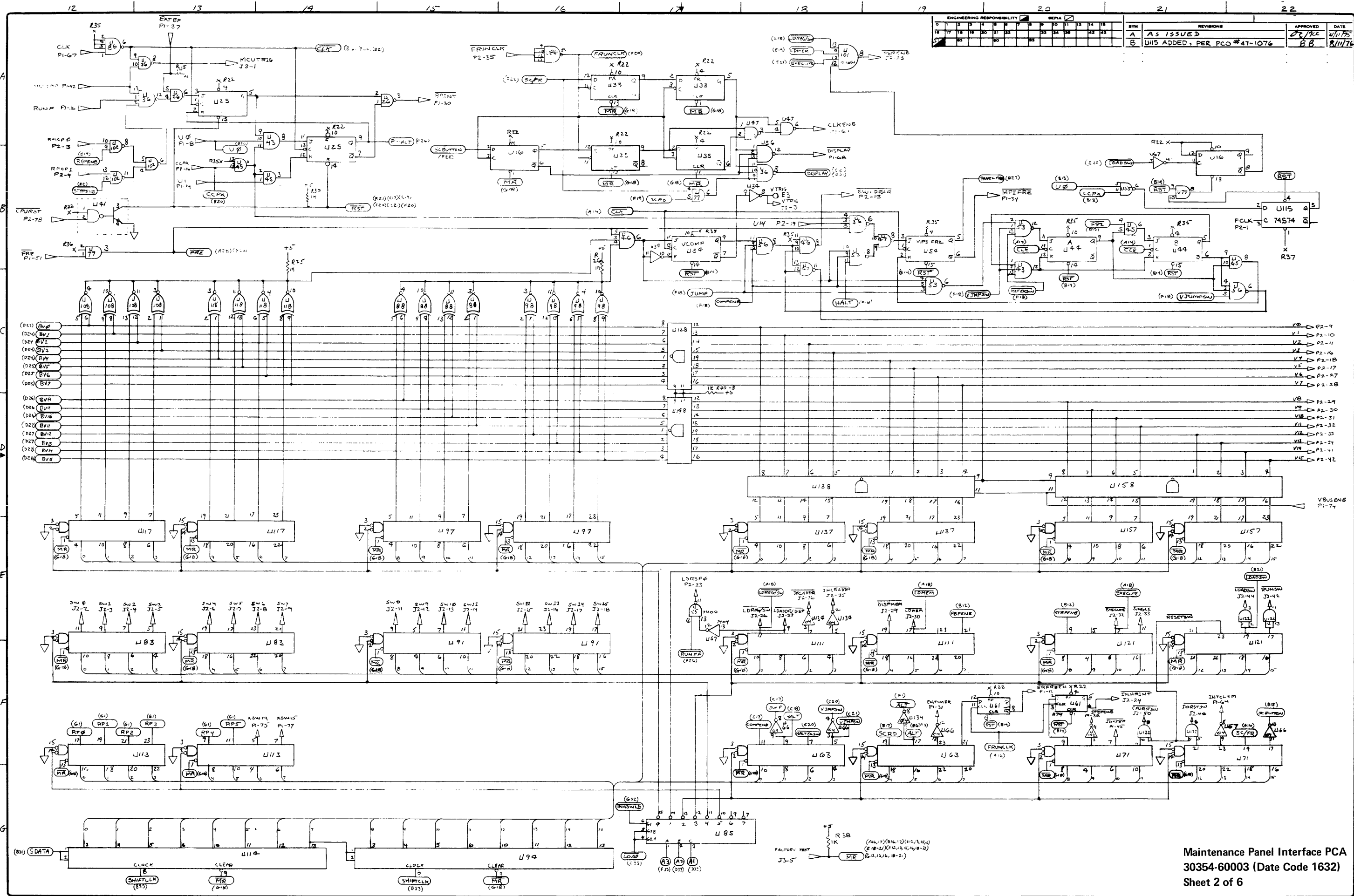
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BYM										REVISIONS																			
A										AS 153063																			
DATE										4/1/76																			



1. POINTS LABELED X MAY BE COMBINED INTO GROUPS WITH A 1K RESISTOR FROM EACH GROUP TO +5V.
2. PLACE A 39 nF CAPACITOR AT EACH END OF P1 AND P2.
3. PLACE A 0.1mF CERAMIC NEAR EACH PAIR OF 147A OR 106A PACKS.
4. DISTRIBUTE APPROXIMATELY 20 .01mF CAPACITORS EVENLY ACROSS THE BOARD.

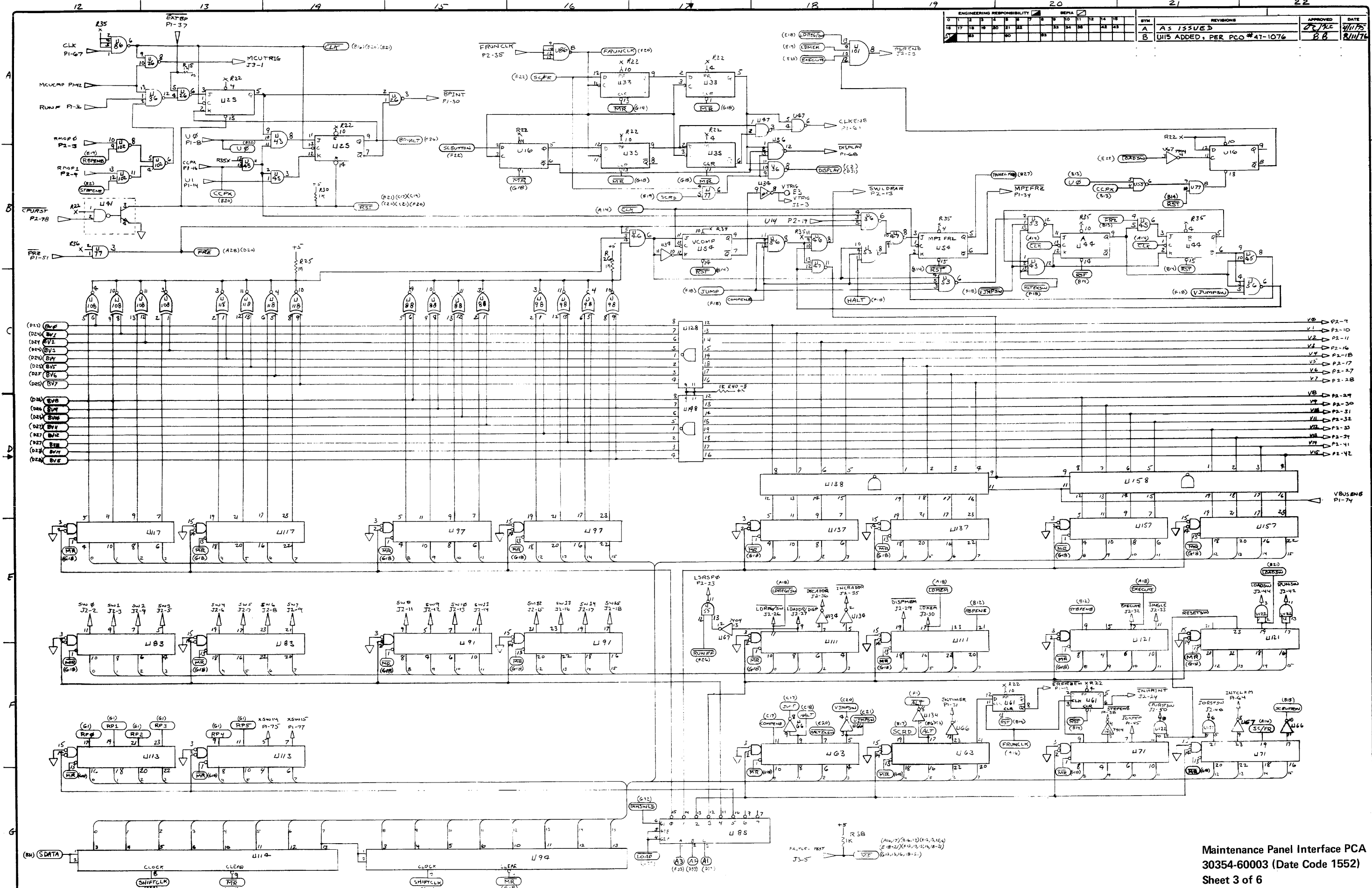
Maintenance Panel Interface PCA
30354-60003
Sheet 1 of 6

ENGINEERING RESPONSIBILITY																REVISIONS				APPROVED	DATE
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	REVISIONS	APPROVED	DATE		
																A	AS ISSUED	BB	8/11/76		
																B	UIIS ADDED, PER PCO #41-1076	BB	8/11/76		



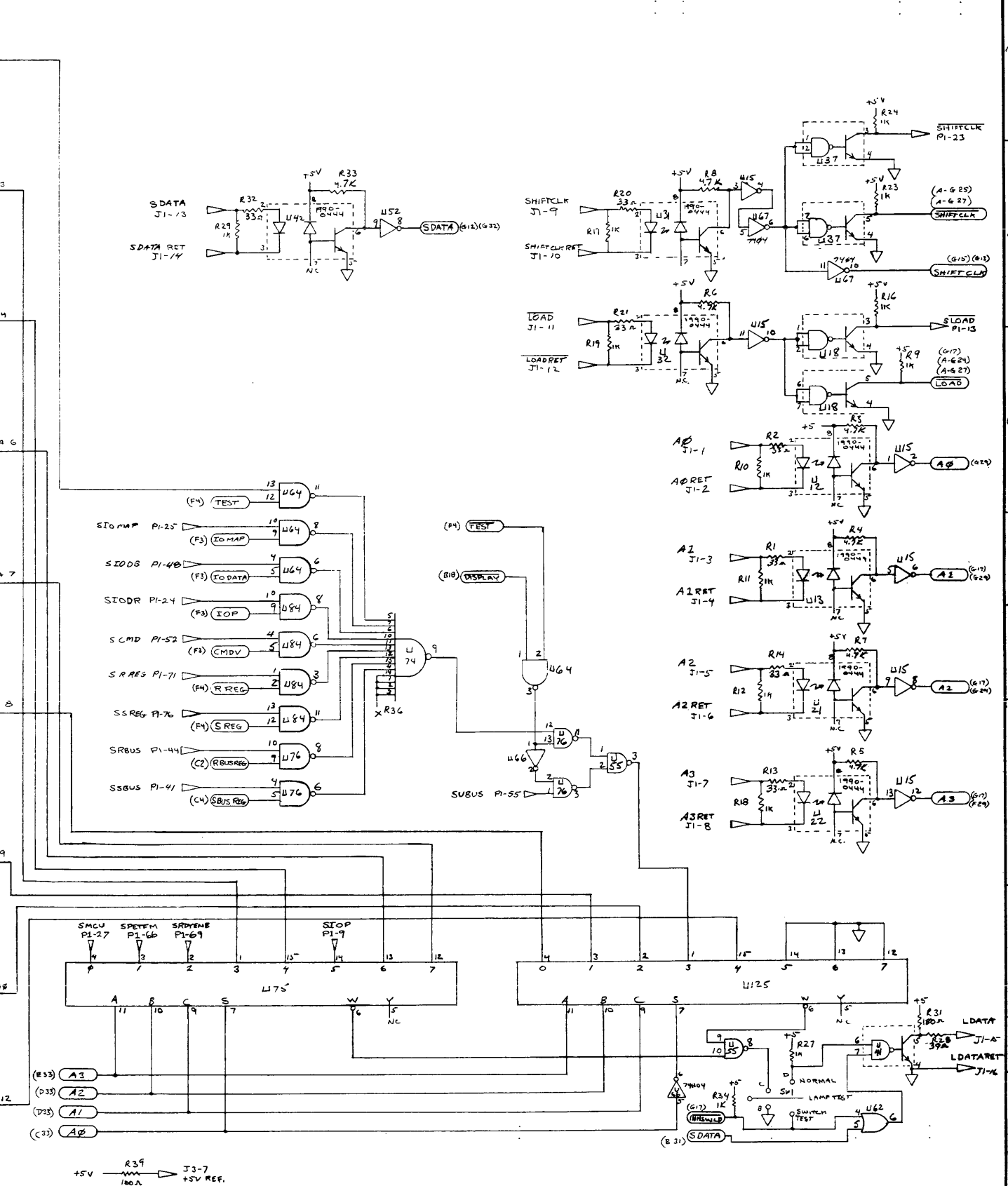
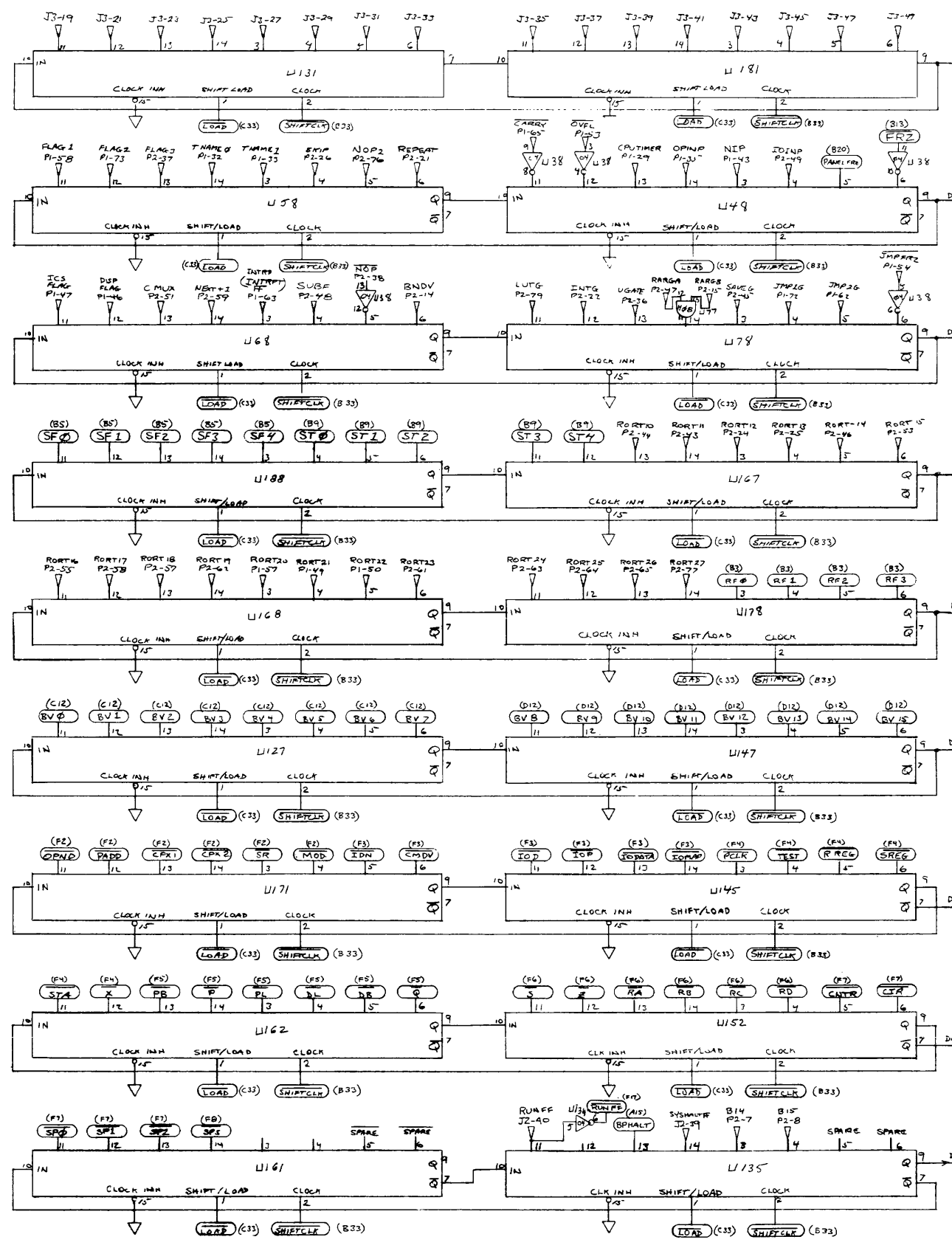
Maintenance Panel Interface PCA
 30354-60003 (Date Code 1632)
 Sheet 2 of 6

ENGINEERING RESPONSIBILITY		REV. #												DATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000

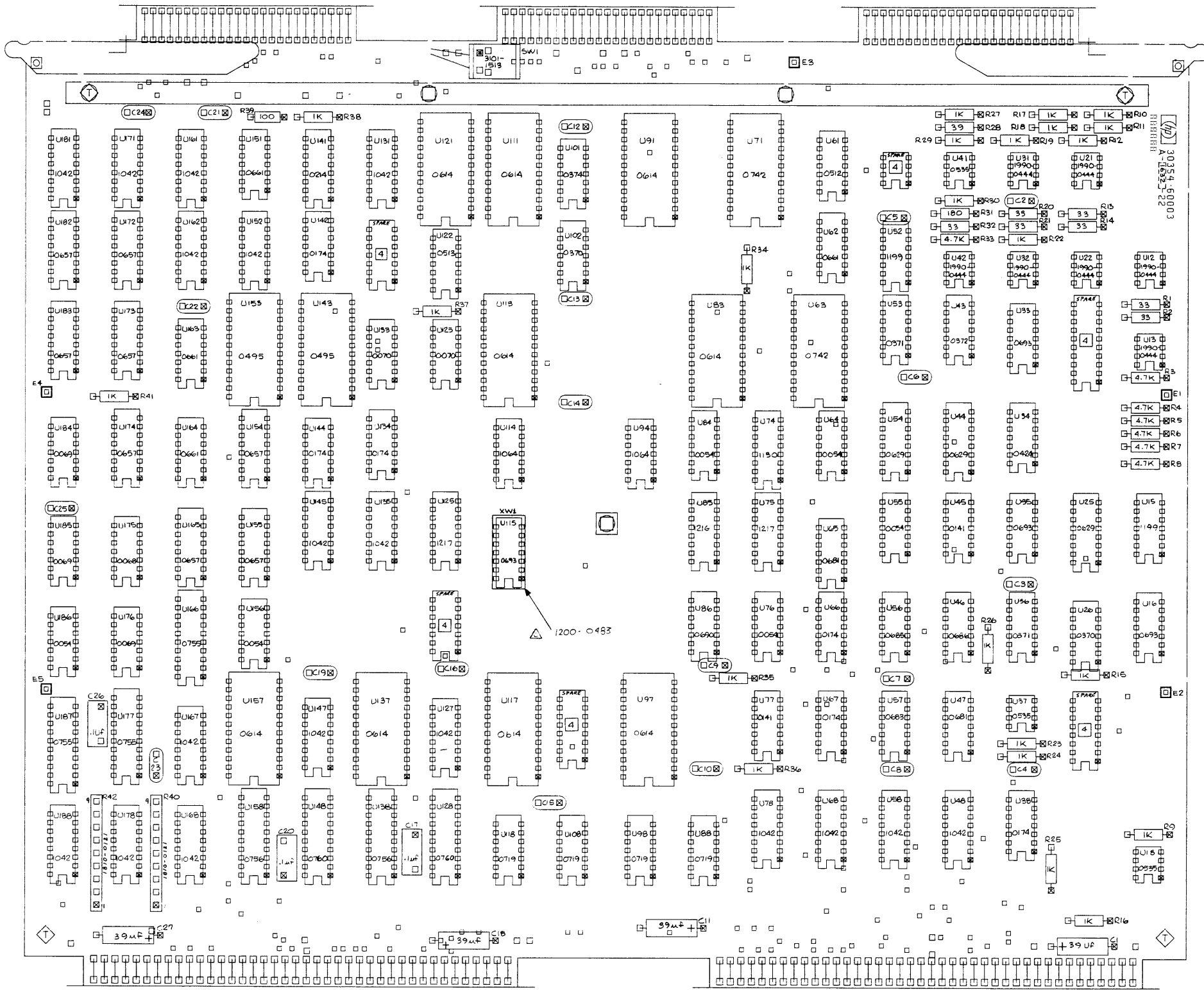


Maintenance Panel Interface PCA
 30354-60003 (Date Code 1552)
 Sheet 3 of 6

ENGINEERING RESPONSIBILITY														REVISED		APPROVED		DATE					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BYN		REVISIONS		APPROVED		DATE	
														A		AS 155063		R/L		4/1/75			



A. AS ISSUED
 B. REVISED PER PCO #47-1076
 C. ADDED XMI PART NUMBER 1200-0483, NY 88, 9-30-76



30354-60003
 MAINT PANEL INTER

UNLESS OTHERWISE NOTED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/4W 5%
 ALL CAPACITANCE IN MICROFARADS
 ALL CAPACITORS .01UF CERAMIC DISC
 ALL IC's ARE 1820-XXXX
 U115 NOT USED ON PCA's WITH DATE CODE
 OF 1552

MAINTENANCE PANEL INTERFACE PCA

30354-60003

IC Index

U	1820-	U	1820-	U	1820-
12,13	1990-0444	68	1042	138	0756
15	1820-1199	71	0742	141	0214
16	0693	74	0030	142	0174
18	0535	75	1217	143	0495
21,22	1990-0444	76	0054	144	0174
25	1820-0629	77	0141	145	1042
26	0370	78	1042	147	1042
31,32	1990-0444	83	0614	148	0760
33	1820-0693	84	0054	151	0661
34	0424	85	1216	152	1042
35	0693	86	0690	153	0495
36	0371	88	0719	154,155	0657
37	0535	91	0614	156	0054
38	0174	94	1064	157	0614
41	0535	97	0614	158	0756
42	1990-0444	98	0719	161,162	1042
43	1820-0372	101	0374	163,164	0661
44	0629	102	0370	165	0657
45	0141	108	0719	166	0755
46	0686	111	0614	167,168	1042
47	0681	113	0614	171	1042
48	1042	114	1064	172-174	0657
52	1199	*115	0693	175	0068
53	0371	117	0614	176	0069
54	0629	118	0719	177	0755
55	0054	121	0614	178	1042
56	0685	122	0513	181	1042
57	0683	123	0070	182,183	0657
58	1042	125	1217	184,185	0069
61	0512	127	1042	186	0054
62	0661	128	0760	187	0755
63	0742	131	1042	188	1042
64	0054	134	0174		
65	0681	135	1042		
66,67	0174	137	0614		

* U115 not used on PCA's with date code of 1552.

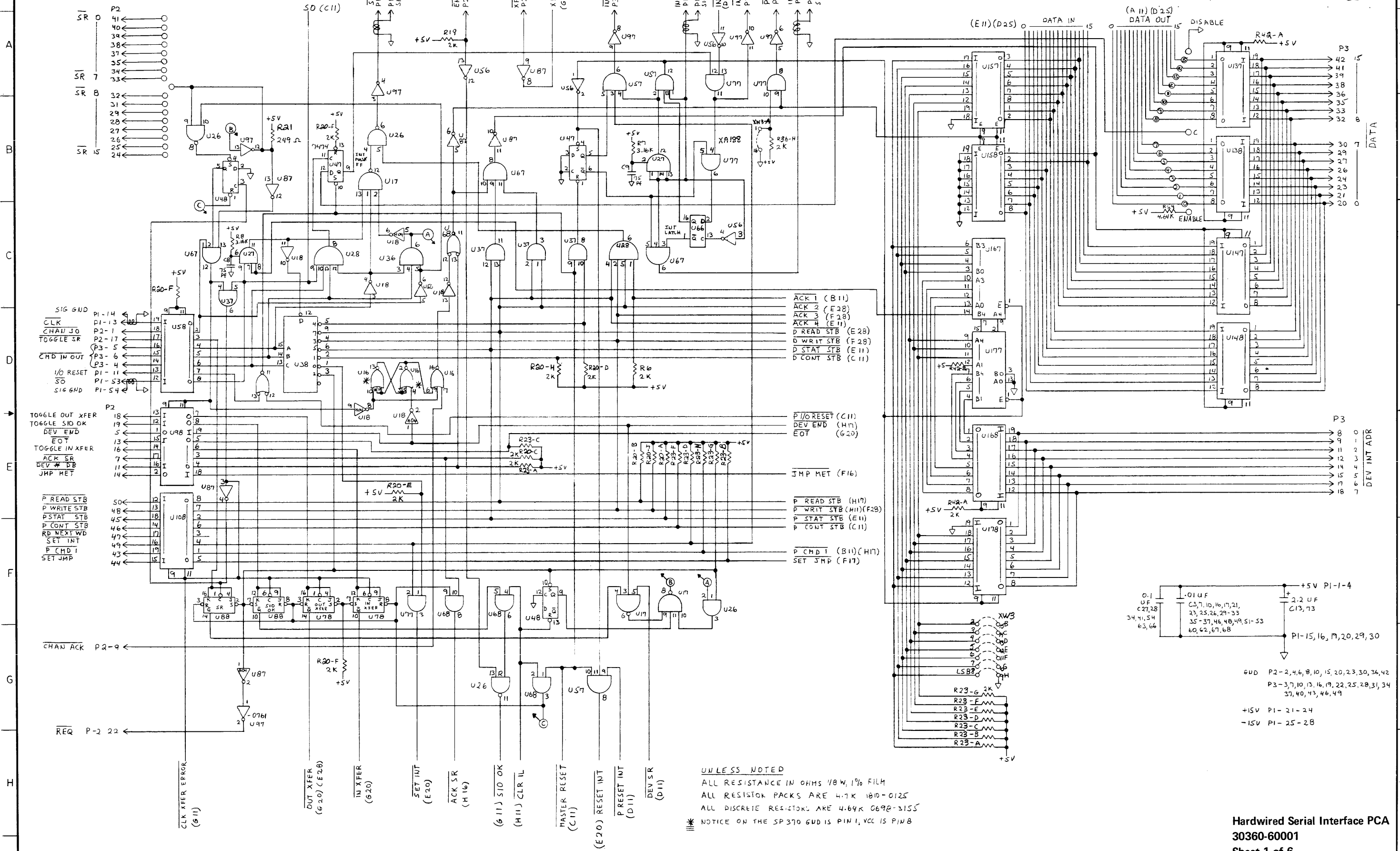
30360A
HSI

HARDWIRED SERIAL INTERFACE PCA

30360-60001

6 SHEETS

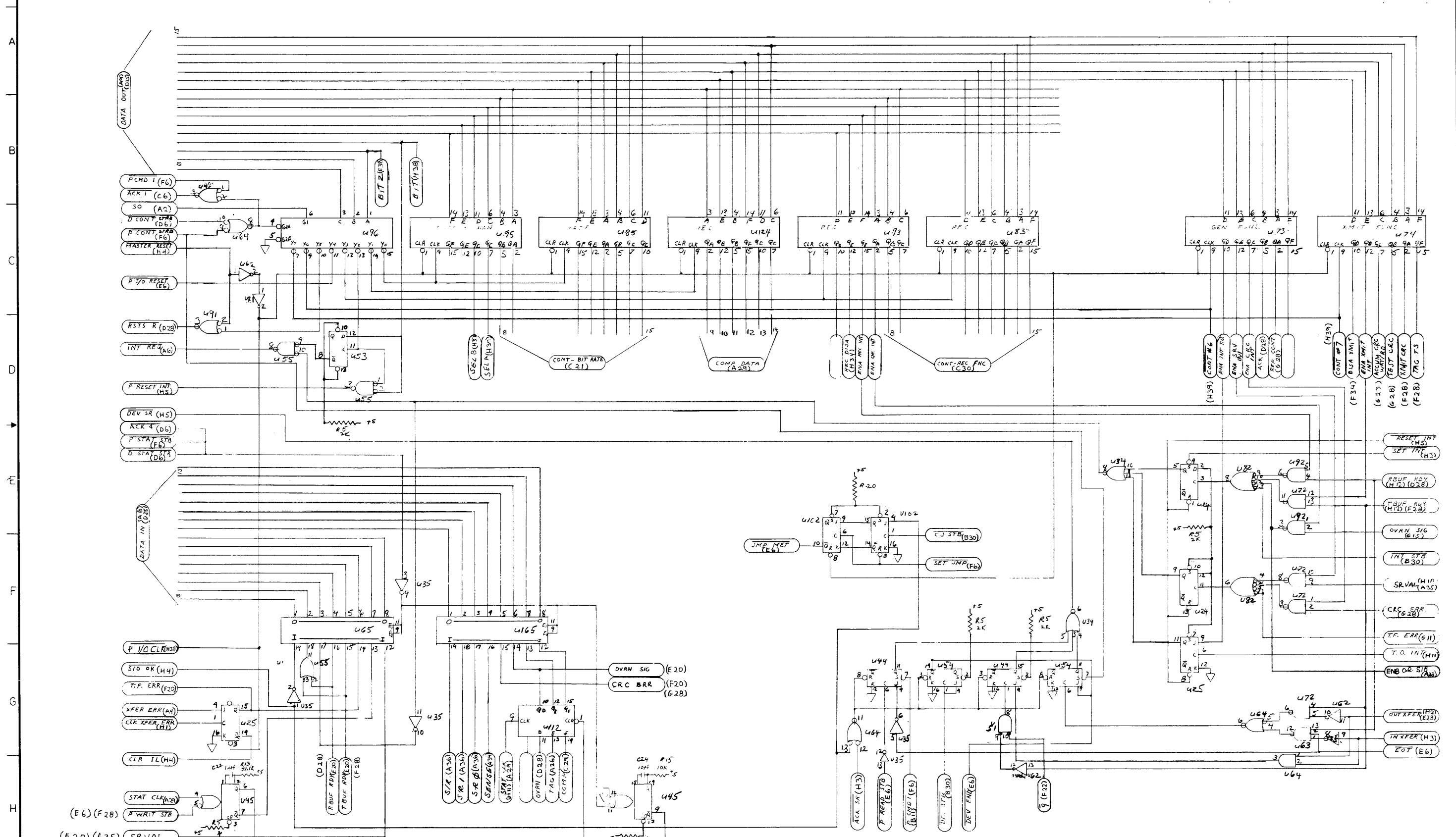
ENGINEERING RESPONSIBILITY															REVISIONS														
DEPT															SYM														
E															REDRAWN														
C															CHANGED PER P0047-1015														
D															Revised per P047-1153														
APPROVED															DATE														
B C B															1-27-78														
C D B															10/88														
E E B															1-18-77														



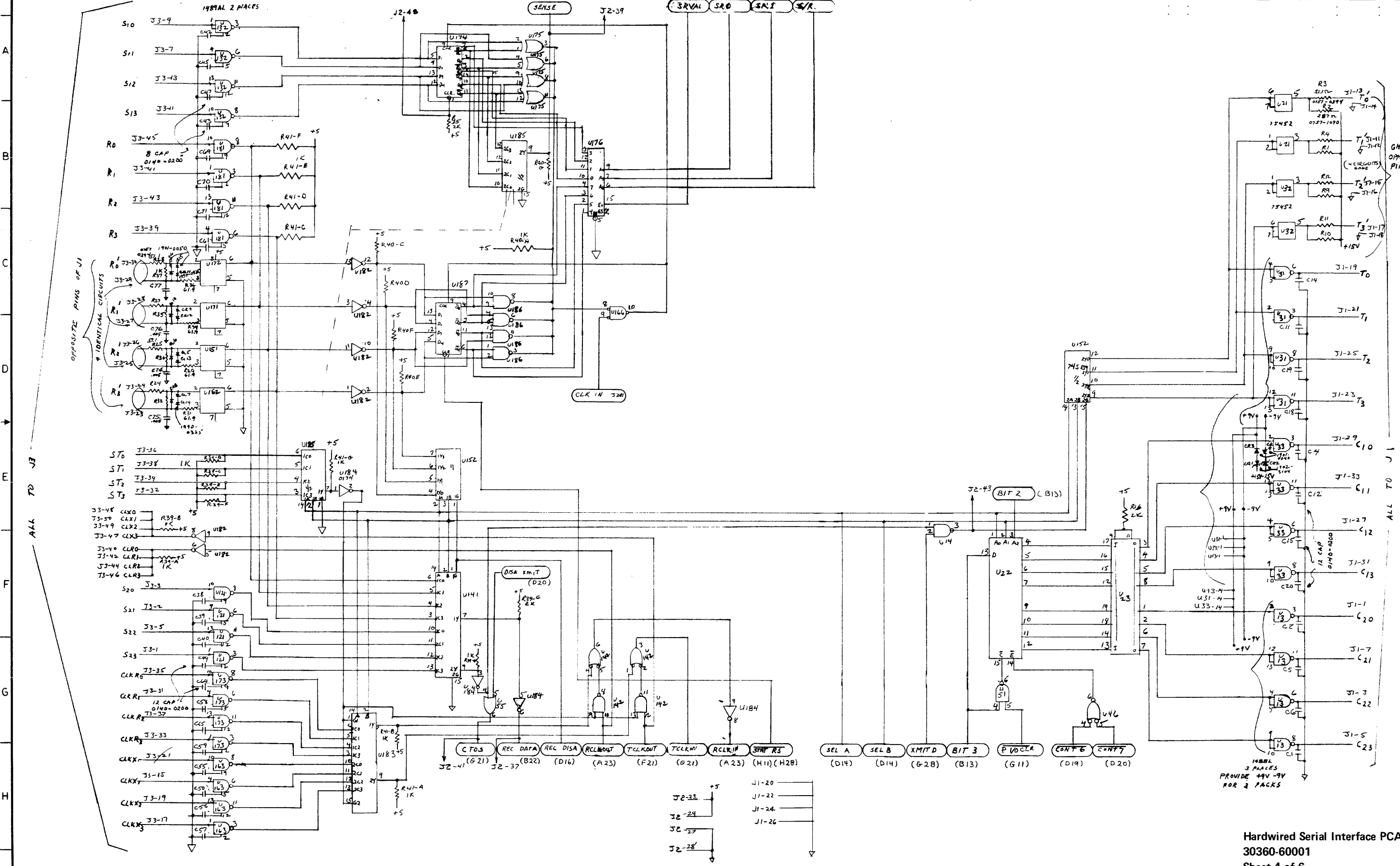
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- P1 8
- P1 7
- P1 6
- P1 5
- P1 4
- P1 3
- P1 2
- P1 1
- P1 0

UNLESS NOTED
 ALL RESISTANCE IN OHMS 1/8 W, 1% FILM
 ALL RESISTOR PACKS ARE 4.7K 1810-0125
 ALL DISCRETE RESISTORS ARE 4.64K 0698-3155
 * NOTICE ON THE SP370 6UD IS PIN 1, VCC IS PIN 8

ENGINEERING RESPONSIBILITY												REVISIONS												APPROVED	DATE
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	RC/BAW	6/27/76
C												CHANGED PER PED 41-1075												DD/BTB	6/27/76

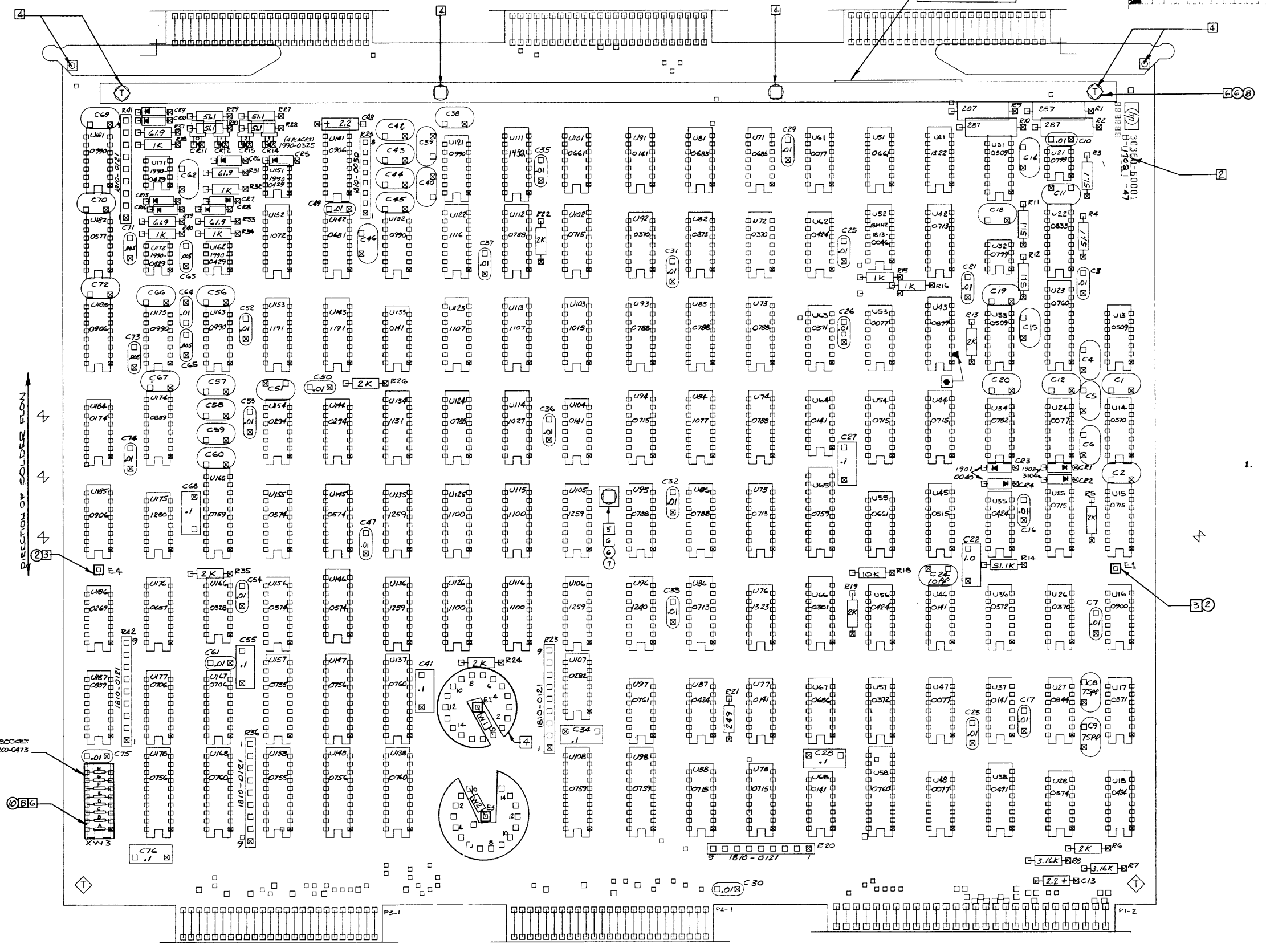


Hardwired Serial Interface PCA
30360-60001
Sheet 2 of 6



Hardwired Serial Interface PCA
30360-60001
Sheet 4 of 6

10009-09202
ISH



- NOTES:
1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE IN OHMS
ALL CAPACITANCE IN MICRO FARADS
ALL CAPACITORS ARE 390 P.P.
ALL DIODES ARE 1901-0050
ALL IC'S 1820-

Hardwired Serial Interface PCA

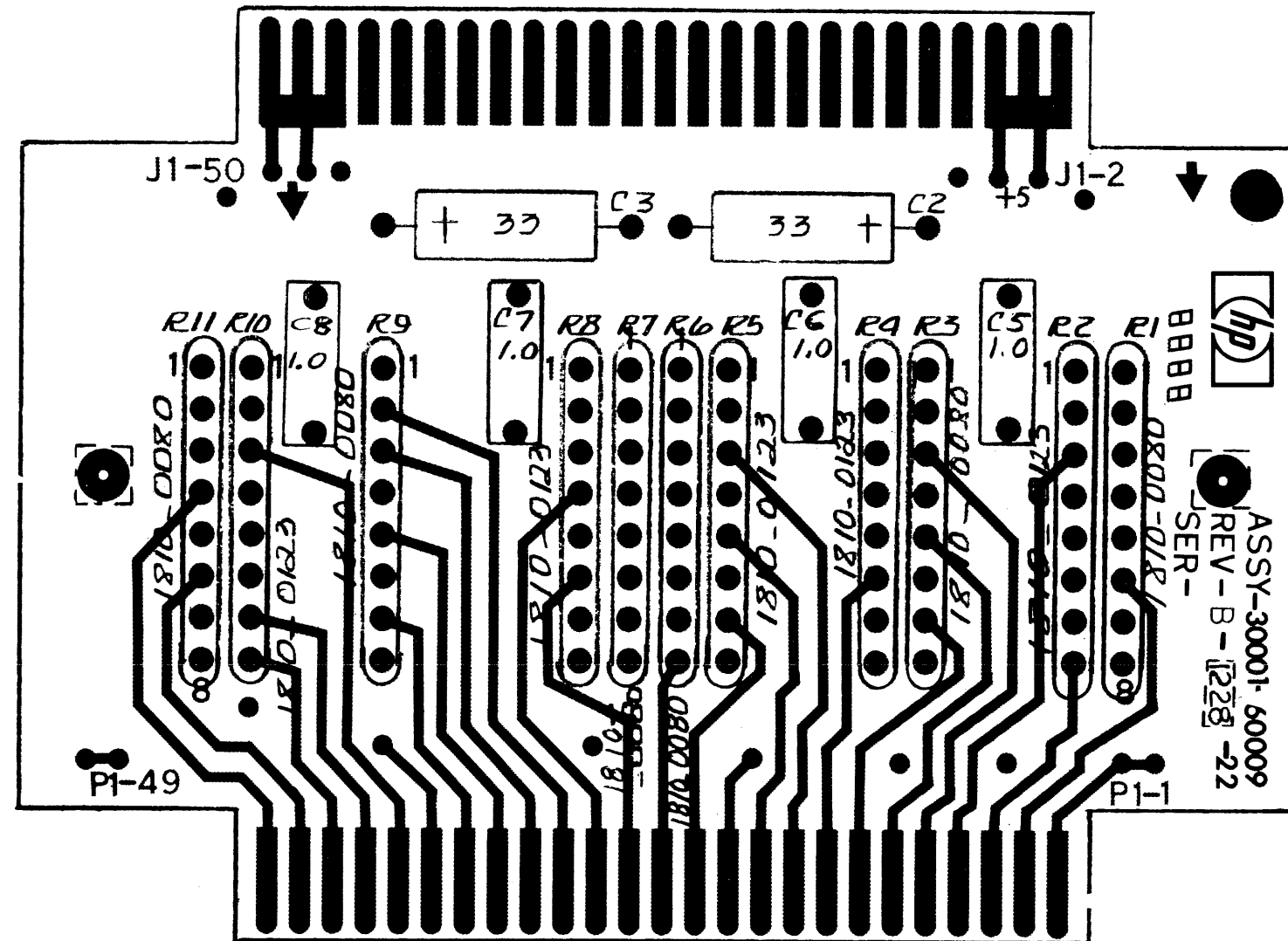
30360-60001

IC Index

U	1820-	U	1820-	U	1820-	U	1820-
13	0509	53	0077	93	0788	144	0294
14	0370	54	0715	94	0715	145,146	0574
15	0715	55	0661	95	0788	147,148	0756
16	0900	56	0424	96	1240	151	1990-0429
17	0371	57	0372	97	0761	152	1820-1072
18	0424	58	0760	98	0759	153	1191
21	0799	61	0077	101	0661	154	0294
22	0833	62	0424	102	0715	155,156	0574
23	0760	63	0371	103	1015	157	0755
24	0077	64	0141	104	0141	158	0755
25	0715	65	0759	105,106	1259	162	1990-0429
26	0370	66	0301	107	0282	163	1820-0990
27	0844	67	0686	108	0759	165	0759
28	0374	68	0141	111	1452	166	0328
31	0509	71	0685	112	0788	167	0706
32	0799	72	0370	113	1107	168	0760
33	0509	73,74	0788	114	1027	171	1990-0429
34	0782	75	0713	115,116	1100	172	1990-0429
35	0424	76	1323	121	0990	173	1820-0990
36	0372	77	0141	122	1116	174	0839
37	0141	78	0715	123	1107	175	1250
38	0491	81	0683	124	0788	176	0657
41	1322	82	0373	125,126	1100	177	0706
42	0713	83	0788	132	0990	178	0756
43	0899	84	1077	133	0141	181	0990
44	0715	85	0788	134	1131	182	0577
45	0515	86	0713	135,136	1259	183	0906
46	0141	87	0424	137,138	0760	184	0174
47,48	0077	88	0715	141	0906	185	0906
51	0661	91	0141	142	0681	186	0269
52	1813-0046	92	0370	143	1191	187	0839

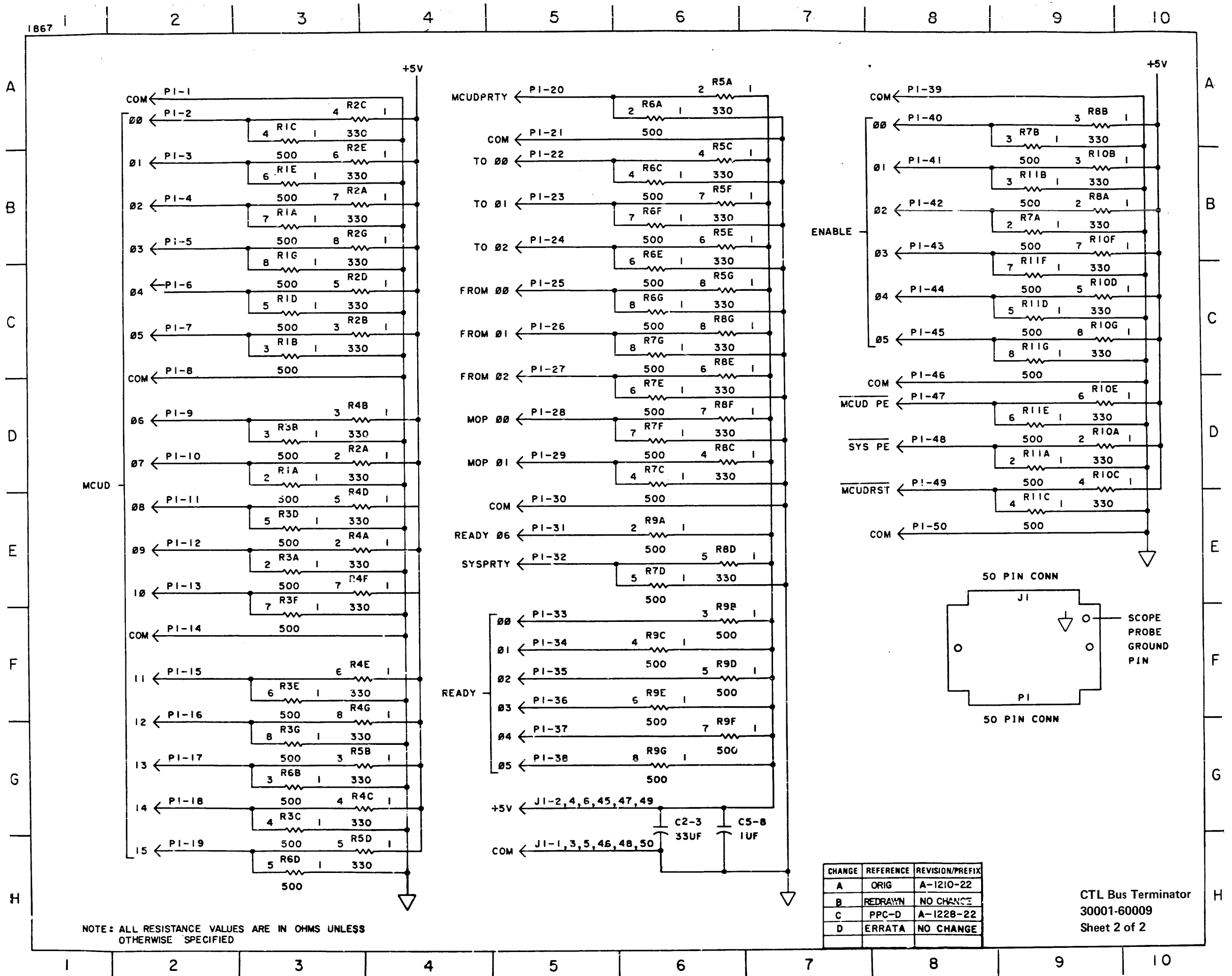
TERMINATOR PCA'S

CTL BUS TERMINATOR	30001-60009	2 SHEETS
IOP BUS TERMINATOR	30001-60016	2 SHEETS
POWER BUS TERMINATOR	30001-60021	2 SHEETS
DATA TERMINATOR 1	30007-60003	2 SHEETS
DATA TERMINATOR 2	30007-60004	2 SHEETS
SELECTOR CHANNEL BUS TERMINATOR	30030-60015	2 SHEETS
MULTIPLEXER CHANNEL BUS TERMINATOR	30035-60003	2 SHEETS
CARTRIDGE DISC TERMINATOR	30229-60003	1 SHEET



NOTE

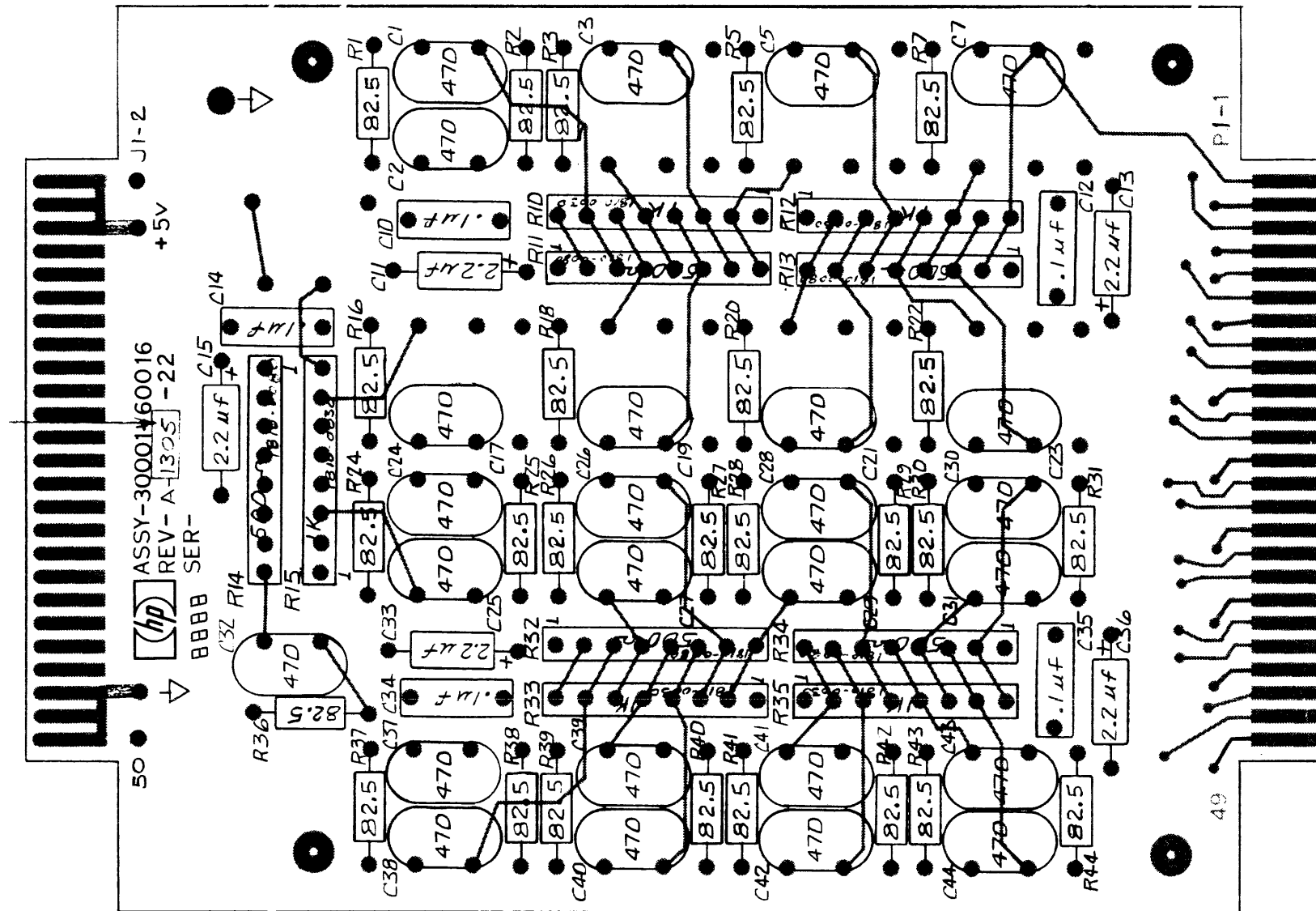
- 1. UNLESS OTHERWISE SPECIFIED,
 ALL CAPACITANCE IN MICROFARADS,
 ALL RESISTANCE IN OHMS.



NOTE: ALL RESISTANCE VALUES ARE IN OHMS UNLESS OTHERWISE SPECIFIED

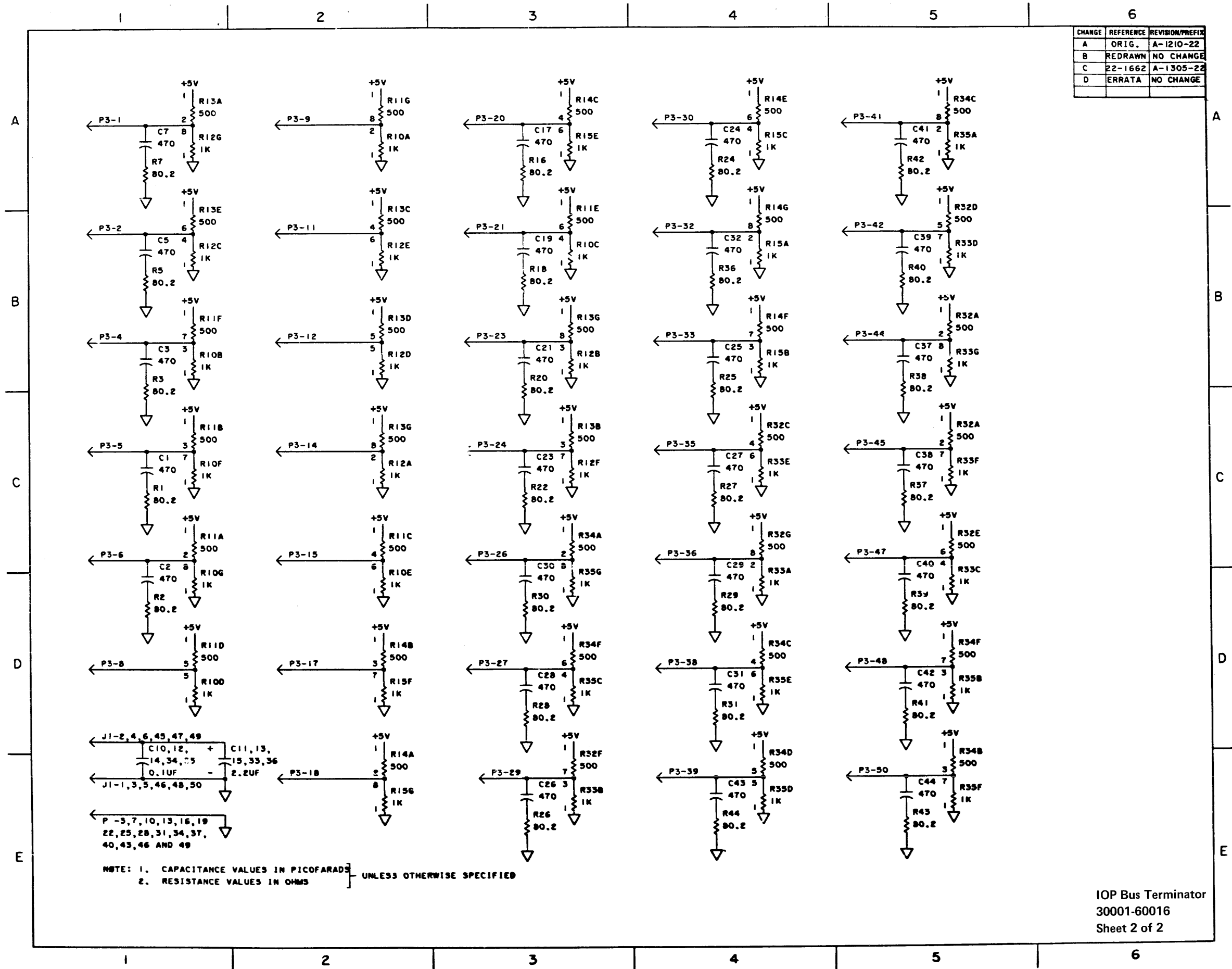
CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG	A-1210-22
B	REDRAWN	NO CHANGE
C	PPC-D	A-1228-22
D	ERRATA	NO CHANGE

CTL Bus Terminator
30001-60009
Sheet 2 of 2

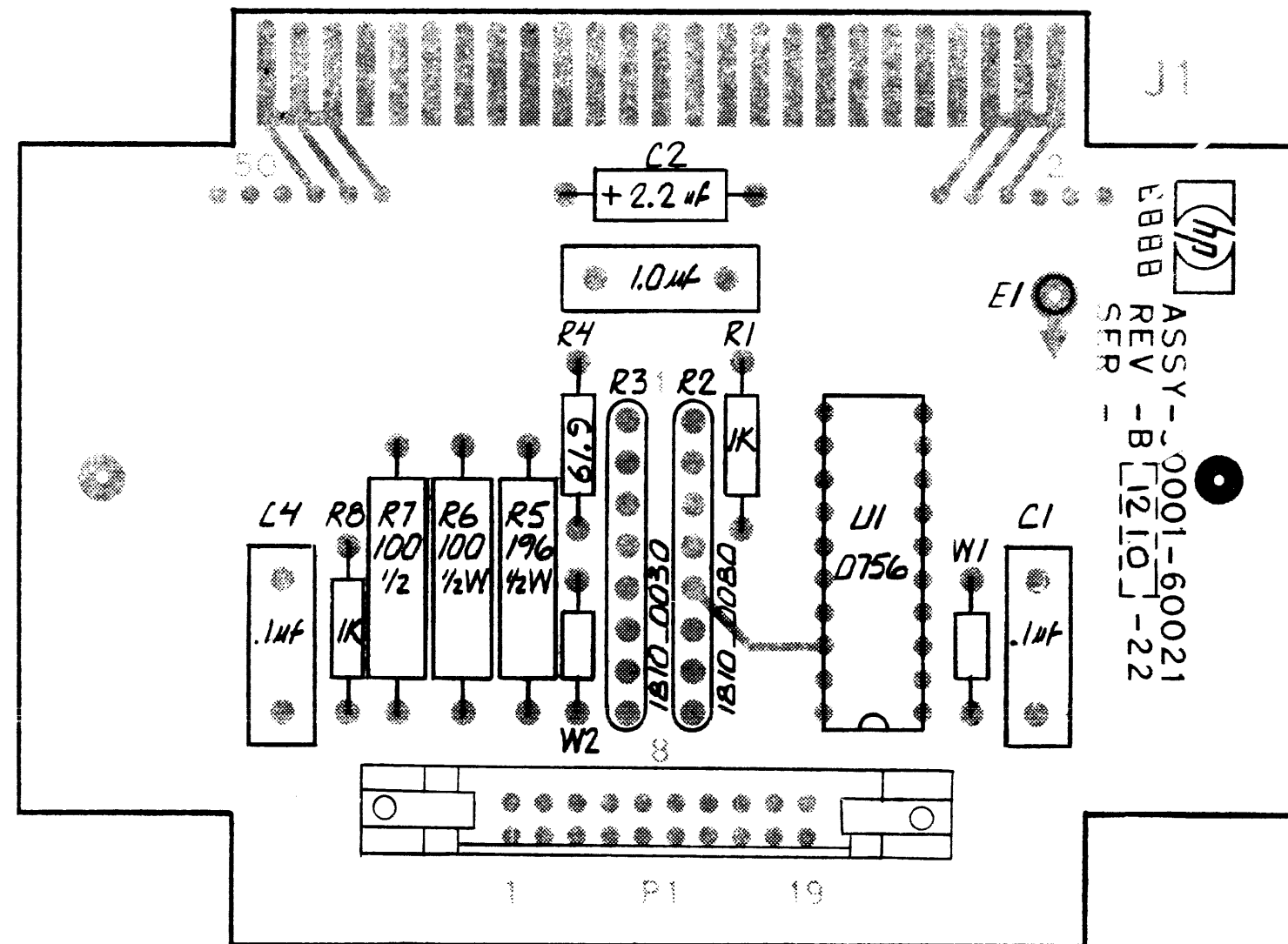


- NOTE:
- UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W 1% M.F.
 ALL CAPACITANCE IN PICO FARADS

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	22-1662	A-1305-22
D	ERRATA	NO CHANGE

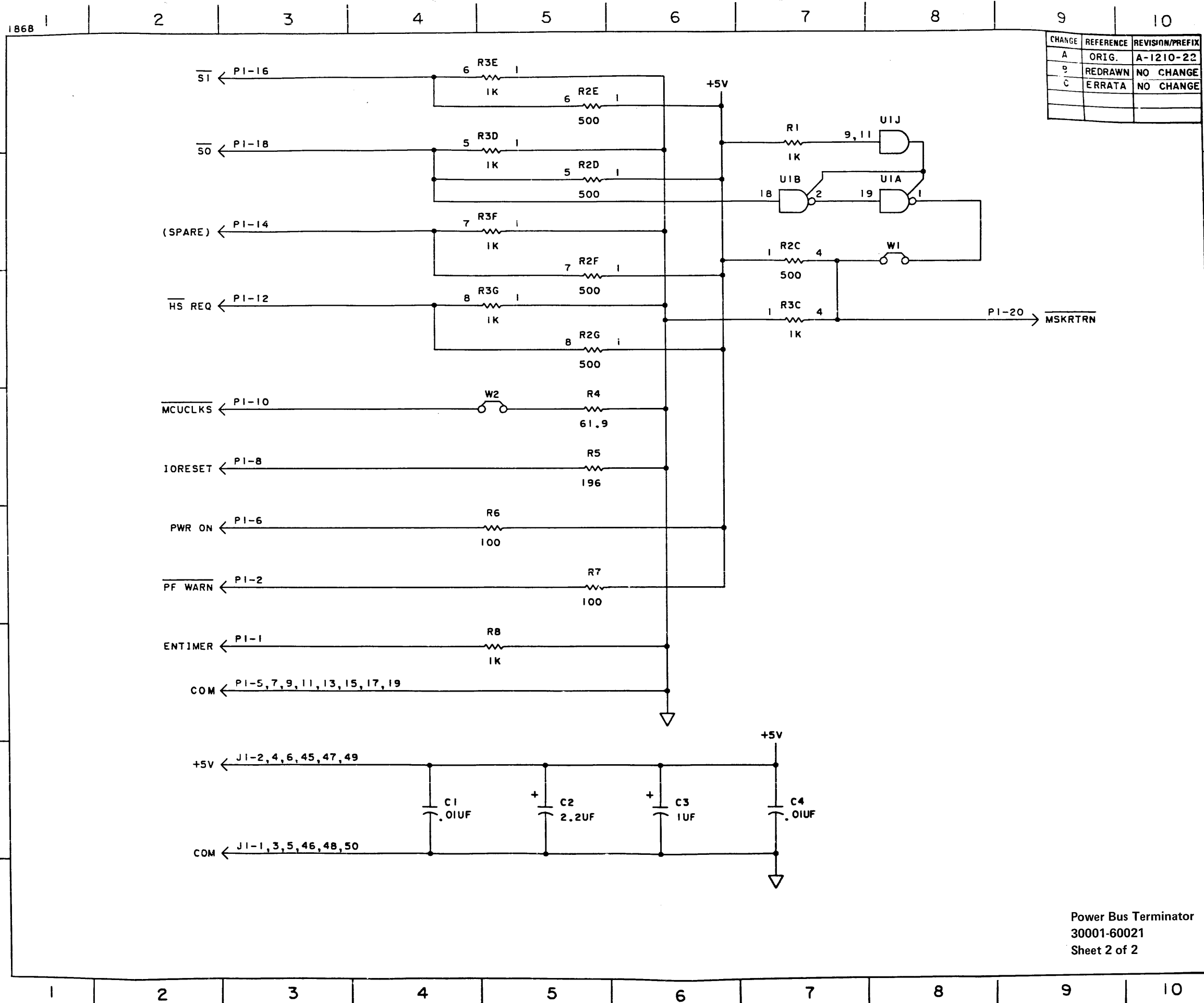


IOP Bus Terminator
 30001-60016
 Sheet 2 of 2



NOTES:

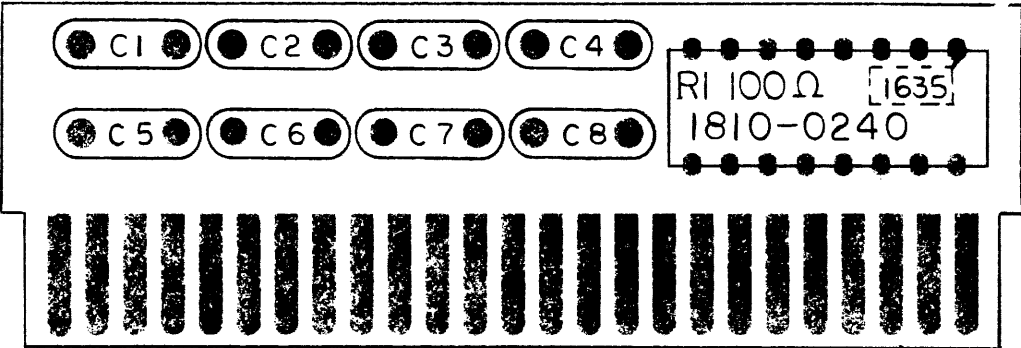
1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/4W-1% MF
 ALL CAPACITANCE IN MICRO-FARADS



CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	A-1210-22
B	REDRAWN	NO CHANGE
C	ERRATA	NO CHANGE

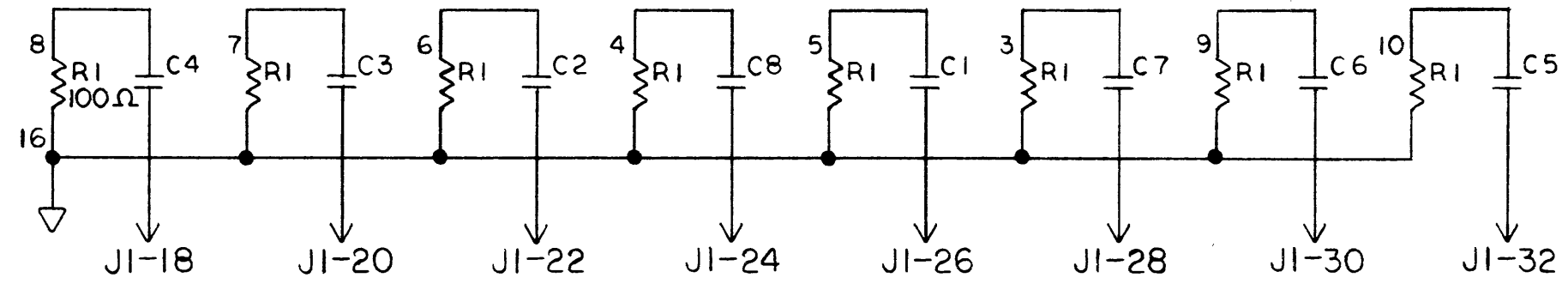
Power Bus Terminator
30001-60021
Sheet 2 of 2

COMPONENT SIDE

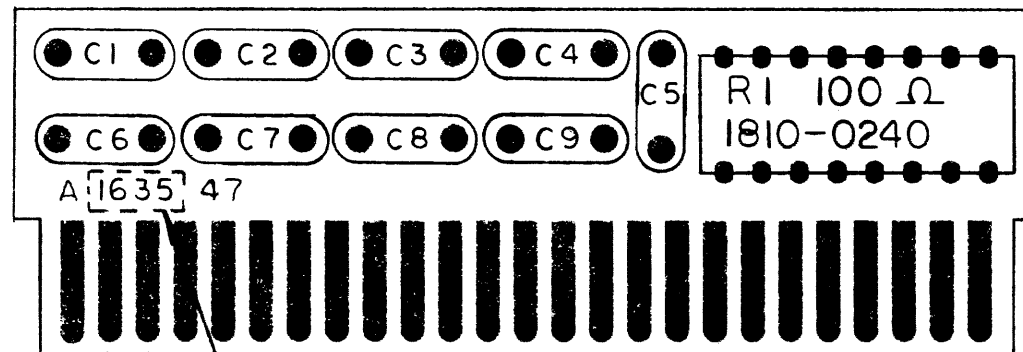


UNLESS OTHERWISE SPECIFIED:
I. ALL CAPACITORS 330 PF, 0160-3572

ENGINEERING RESPONSIBILITY														SEPIA														SYM	REVISIONS	APPROVED	DATE
0	1	2	3	4	6	8	9	11	12	14	15	16	17	19	21	22	23	25	29	30	32	33	38	43							
																										A	AS ISSUED	<i>fc</i>	9/1/76		
45	46	61	63	47																											

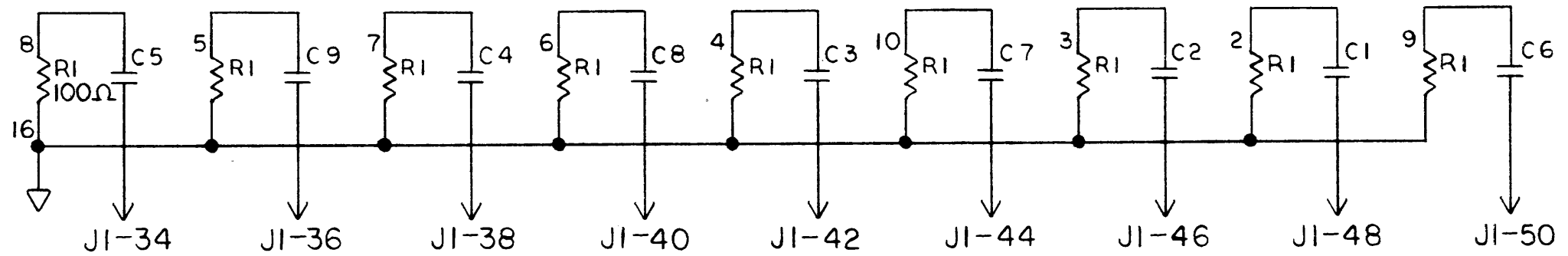


NOTES:
 ALL CAPACITORS ARE 330 PF
 RI = 100 Ω RESISTOR NETWORK



UNLESS OTHERWISE SPECIFIED:
I. ALL CAPACITORS 330 PF, 0160- 3572

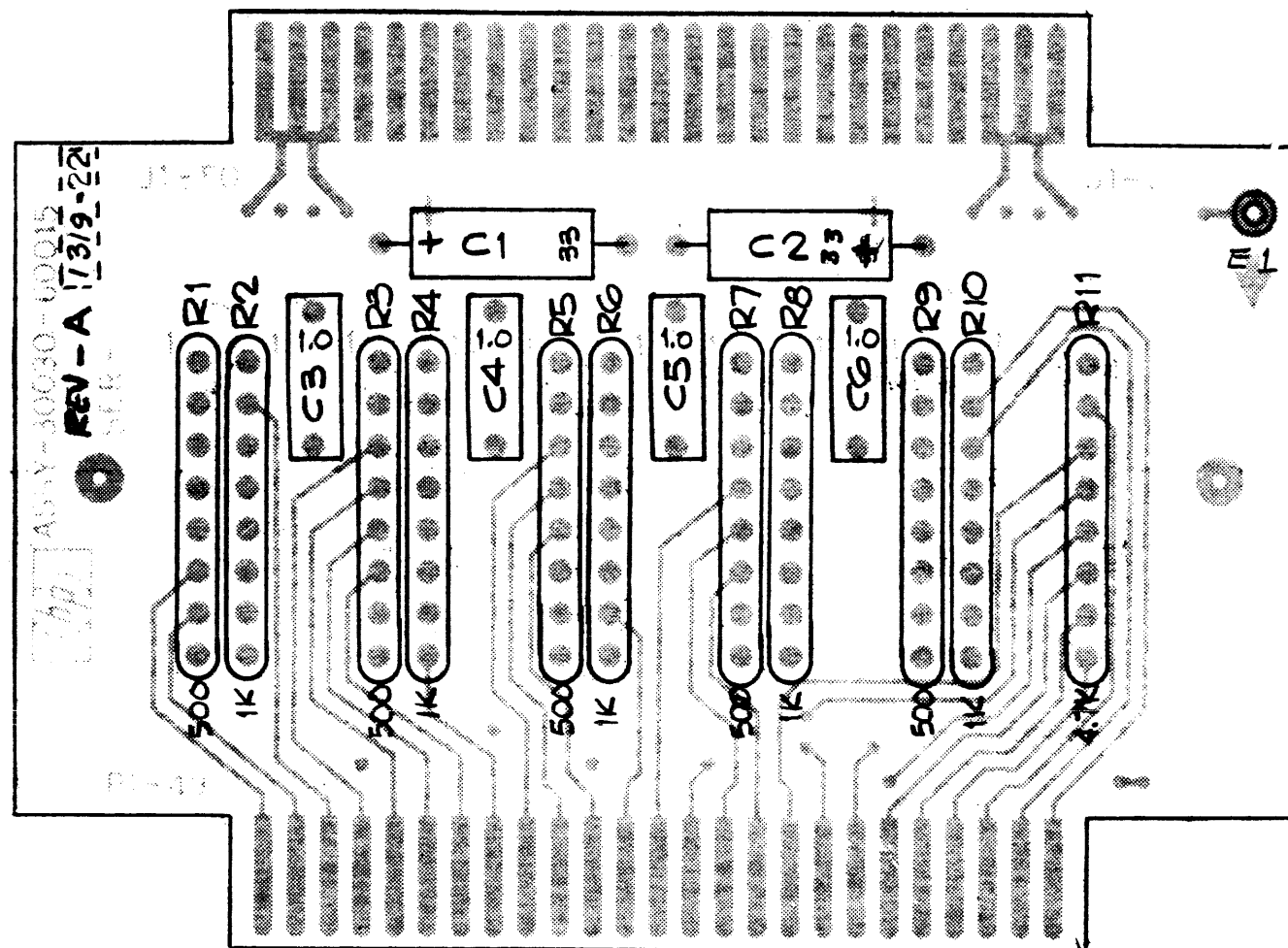
ENGINEERING RESPONSIBILITY														SEPIA														SYM	REVISIONS	APPROVED	DATE
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																										A	AS ISSUED	f.c.	9/1/76		
45	46	61	63	47																											



NOTES:

ALL CAPACITORS ARE 330 PF

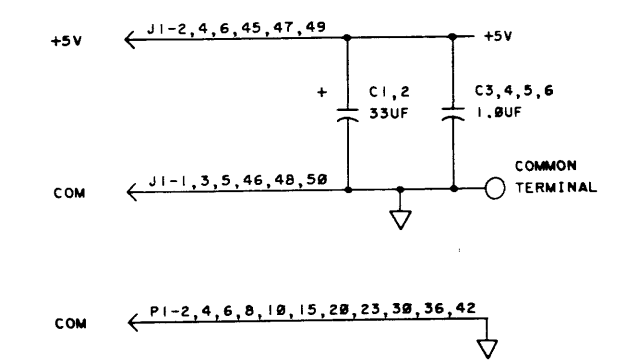
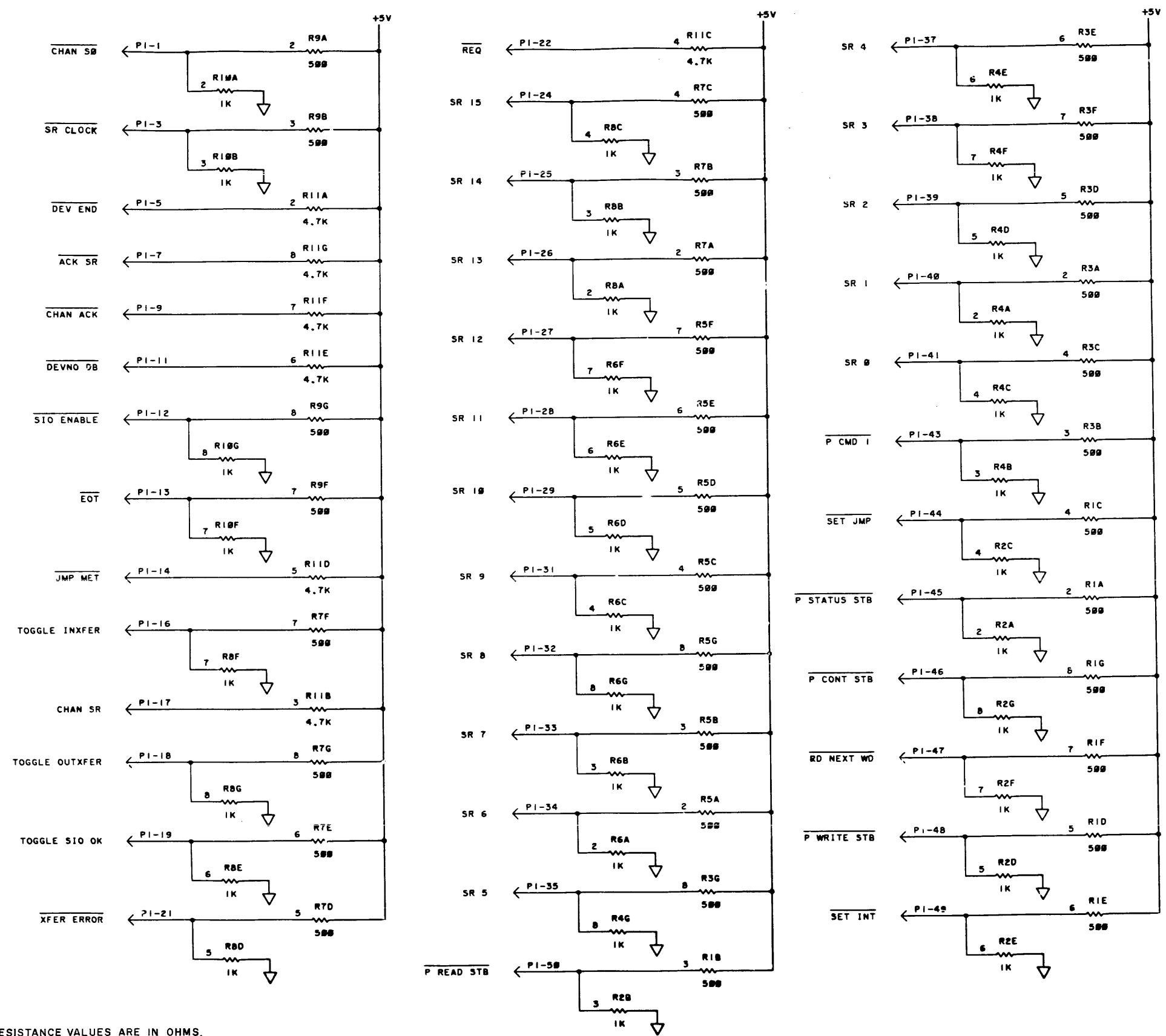
RI = 100 Ω RESISTOR NETWORK



NOTES :

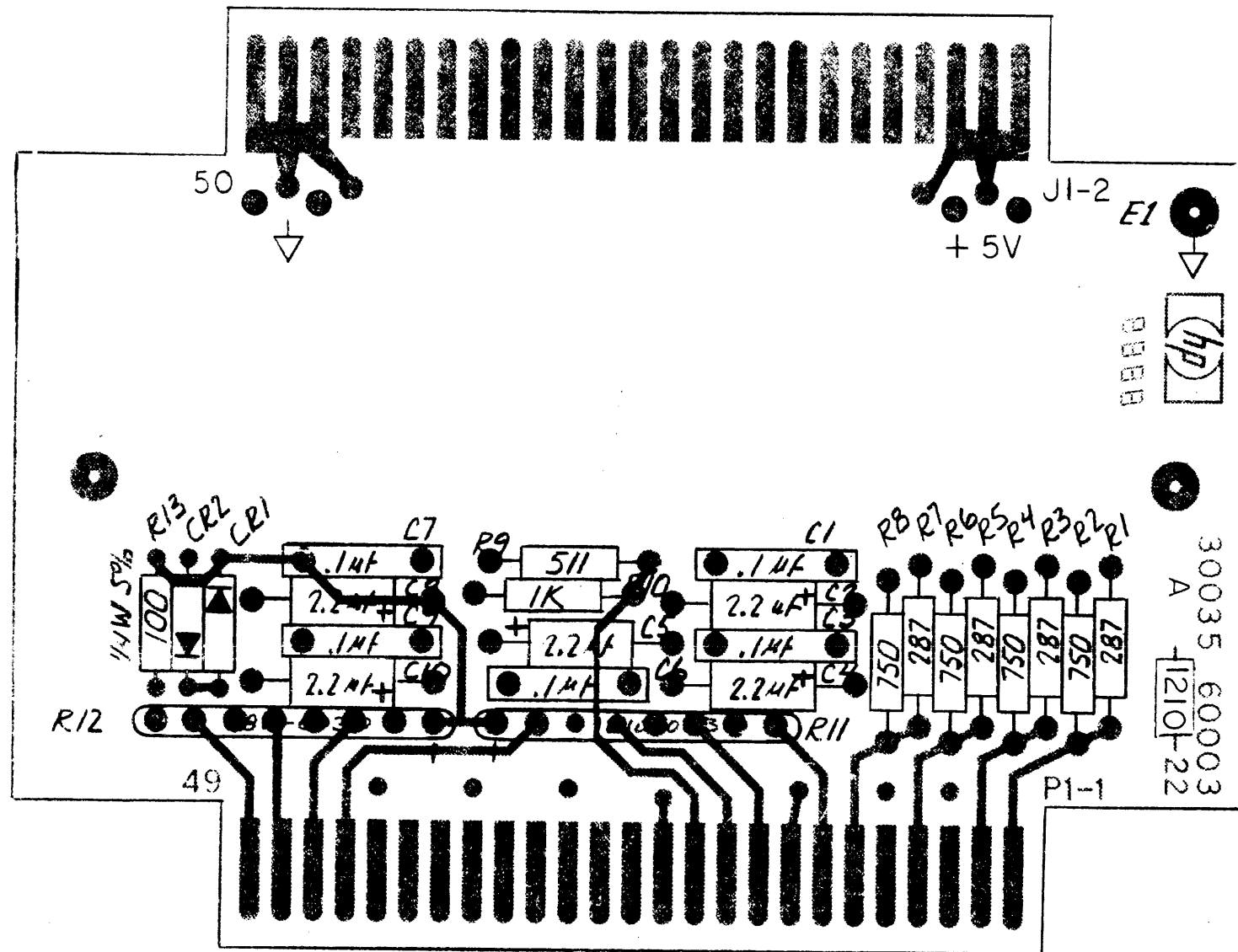
- UNLESS OTHERWISE NOTED :
 ALL RESISTANCE IN OHMS
 ALL CAPACITANCE IN MICROFARADS

CHANGE	REFERENCE	REVISION/PREFIX
A	ORIG.	
B	REDRAWN	NO CHANGE

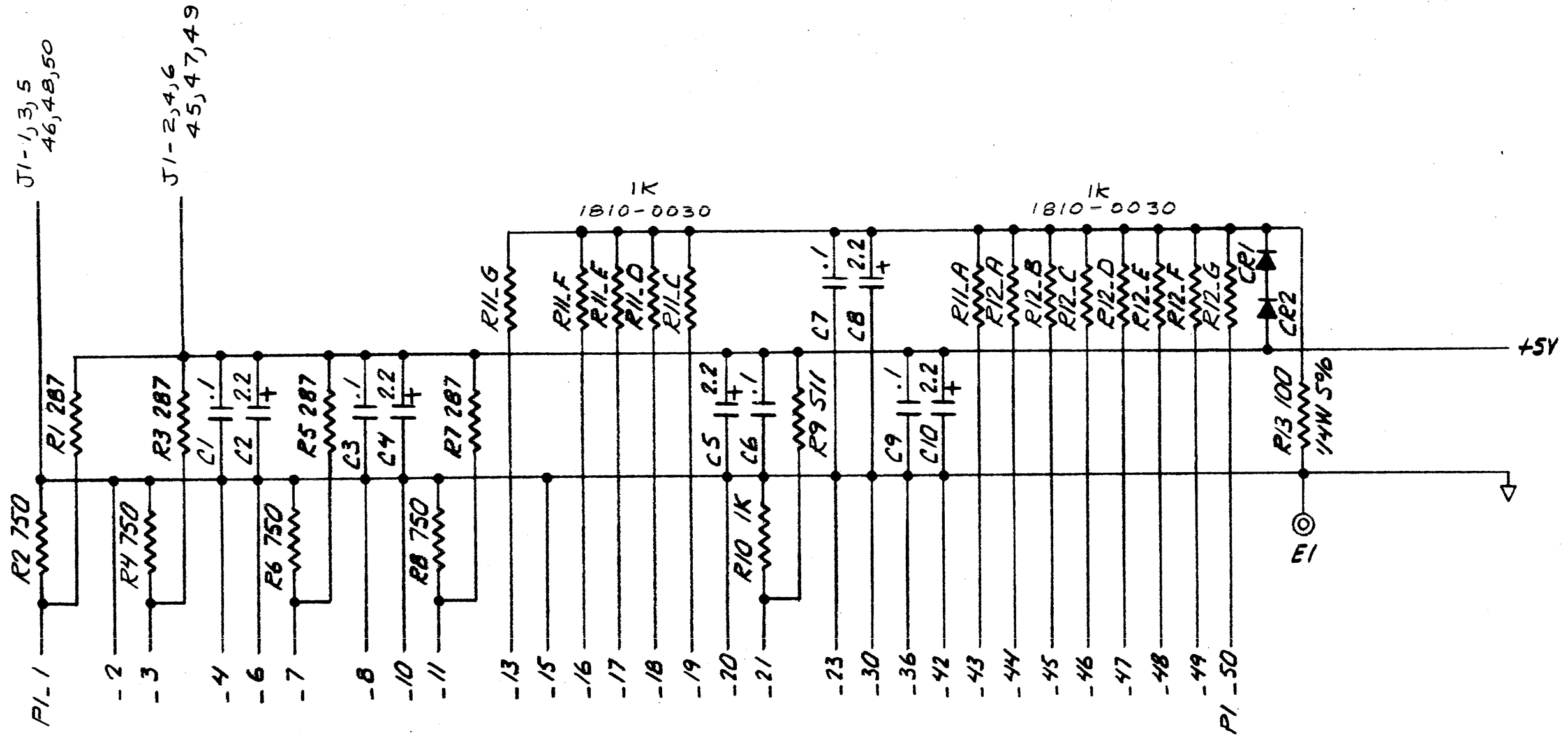


NOTE: ALL RESISTANCE VALUES ARE IN OHMS.

Selector Channel Bus Terminator
30030-60015
Sheet 2 of 2



1. UNLESS OTHERWISE NOTED
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W 1% M.F.
 ALL CAPACITANCE IN MICRO-FARADS
 ALL DIODES #1901-0159



UNLESS OTHERWISE NOTED
 ALL RESISTANCE IN OHMS
 ALL RESISTORS 1/8W 1% MF
 ALL CAPACITANCE IN MICRO FARADS
 ALL DIODES #1901-0159

