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FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS11-D-01

UNIT VARIATIONS	
VAR	TITLE
TS11-DA	TAPE DRIVE AND CAB ASSEMBLY (120V)
TS11-DB	TAPE DRIVE AND CAB ASSEMBLY (240V)

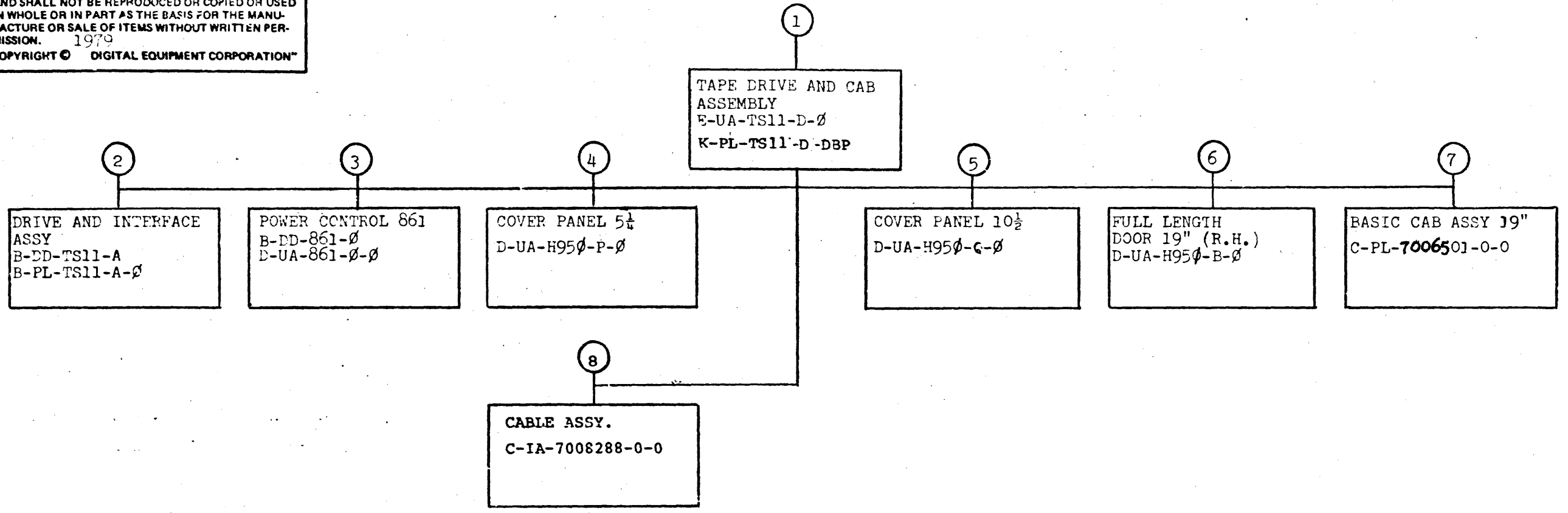
REV. NO.	A

CHANGE NO.	MLO01

CHK	MLO01

USED ON OPTION/MODEL TS11	DRN. G. Marini	DATE 3/20/79	TITLE digital TAPE DRIVE AND CAB ASSEMBLY (TS11-D)
	CHK'D. <i>BM</i>	DATE 9/25/79	
	PROJ. ENG. <i>Purdan</i>	DATE 9/2/79	SIZE CODE NUMBER REV B DD TS11-D A
SHEET 1 OF 3	PROD <i>Purdan</i>	DATE 1-7-79	DIST.

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FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	E-UA-TS11-D-0	TAPE DRIVE AND CAB ASSY	E/M	8	C-IA-700S288-0-0	CABLE ASSY	E/M
	K-PL-TS11-D-DBP	TAPE DRIVE AND CAB ASSY (PL)	E/M				
	D-IA-7407936-0-0	LOGO PANEL (BLANK)	M				
	C-MD-7407606-0-0	PLATE JONES STRIP	M				
	A-DC-7407314-0-0	DECAL 115V	M				
	A-DC-7406574-0-0	DECAL 230V	M				
	C-MD-7422937-0-0	CHANNEL MTG.	M				
	C-MD-7422938-0-0	BRKT FILLER	M				
	A-PS-3615180-0-0	LABEL I.D.	M				
	A-PS-3613211-0-0	LABEL C.S.A.	M				
	A-DC-7416197-0-0	LABEL UL	M				
	A-PS-3617249-0-0	LABEL CAUTION STABILITY H950	M				
	A-PS-3610267-0-0	DECAL ADHESIVE BACK-DANGER HIG	M				
	D-MD-7422059-0-0	FRAME SUPPORT	M				
	2	B-DD-TS11-A	DRAWING DIRECTORY				
E/M							
3	B-DD-861-0	DRAWING DIRECTORY 861	E/M				
			E/M				
4	D-UA-H950-P-0	COVER PANEL 5½	M				
5	D-UA-H950-Q-0	COVER PANEL 10½	M				
6	D-UA-H950-B-0	FULL LENGTH DOOR 19" (R.H.)	M				
7	C-PL-7006501-0-0	BASIC CAB ASSY 19"	M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



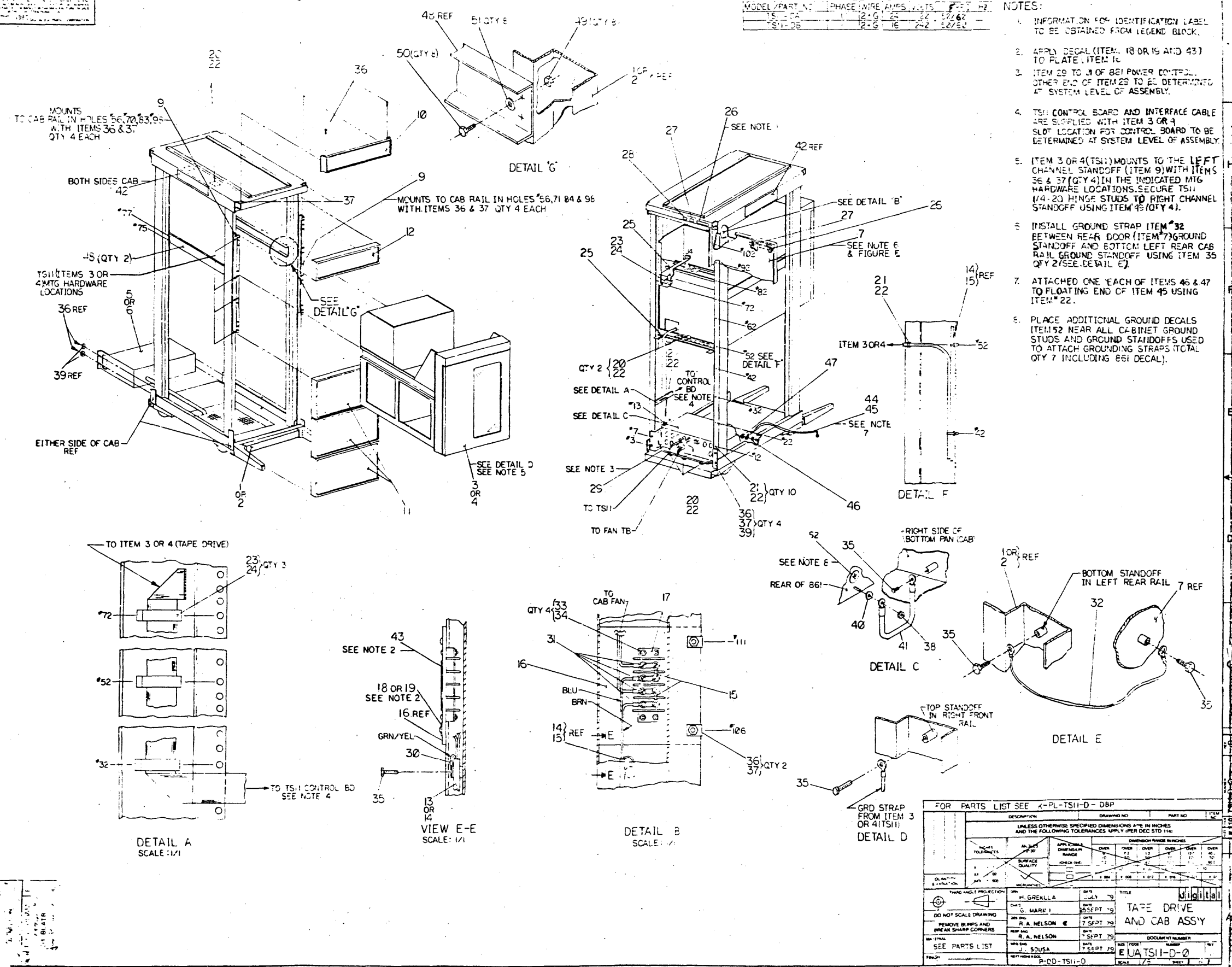
TITLE TAPE DRIVE AND CAB ASSY SHEET 3 OF 3 SIZE CODE B DD NUMBER TS11-D REV A

4-12-75
 4-13-75
 4-14-75
 4-15-75
 4-16-75

LEGEND

MODEL / PART NO.	PHASE	WIRE	ANGES	DATE
45-38	2-G	25	2-2	7/2/62
45-38	2-G	16	2-2	5/2/62

- NOTES:
- INFORMATION FOR IDENTIFICATION LABEL TO BE OBTAINED FROM LEGEND BLOCK.
 - APPLY DECAL (ITEM 18 OR 19 AND 43) TO PLATE (ITEM 16).
 - ITEM 29 TO J1 OF BSI POWER CONTROL. OTHER END OF ITEM 29 TO BE DETERMINED AT SYSTEM LEVEL OF ASSEMBLY.
 - TSII CONTROL BOARD AND INTERFACE CABLE ARE SUPPLIED WITH ITEM 3 OR 4. SLOT LOCATION FOR CONTROL BOARD TO BE DETERMINED AT SYSTEM LEVEL OF ASSEMBLY.
 - ITEM 3 OR 4 (TSII) MOUNTS TO THE LEFT CHANNEL STANDOFF (ITEM 9) WITH ITEMS 36 & 37 (QTY 4) IN THE INDICATED MTG HARDWARE LOCATIONS. SECURE TSII (1/4" 20 HINGE STUDS TO RIGHT CHANNEL STANDOFF USING ITEM 45 (QTY 4).
 - INSTALL GROUND STRAP ITEM 32 BETWEEN REAR DOOR (ITEM 7) GROUND STANDOFF AND BOTTOM LEFT REAR CAB RAIL GROUND STANDOFF USING ITEM 35 (QTY 2) (SEE DETAIL E).
 - ATTACH ONE EACH OF ITEMS 46 & 47 TO FLOATING END OF ITEM 45 USING ITEM 22.
 - PLACE ADDITIONAL GROUND DECALS ITEM 52 NEAR ALL CABINET GROUND STUDS AND GROUND STANDOFFS USED TO ATTACH GROUNDING STRAPS (TOTAL QTY 7 INCLUDING BSI DECAL).



MOUNTS TO CAB RAIL IN HOLES 56, 70, 83, 95 WITH ITEMS 36 & 37 QTY 4 EACH

TSII (ITEMS 3 OR 4) MOUNTS TO THE LEFT CHANNEL STANDOFF (ITEM 9) WITH ITEMS 36 & 37 (QTY 4) IN THE INDICATED MTG HARDWARE LOCATIONS. SECURE TSII (1/4" 20 HINGE STUDS TO RIGHT CHANNEL STANDOFF USING ITEM 45 (QTY 4).

EITHER SIDE OF CAB REF

TO ITEM 3 OR 4 (TAPE DRIVE)

TO TSII CONTROL BD SEE NOTE 4

TO TSII TO FAN TB

TO CAB FAN

GRD STRAP FROM ITEM 3 OR 4 (TSII)

BOTTOM STANDOFF IN LEFT REAR RAIL 7 REF

TOP STANDOFF IN RIGHT FRONT RAIL

DETAIL A SCALE: 1/1

VIEW E-E SCALE: 1/1

DETAIL B SCALE: 1/1

FOR PARTS LIST SEE 4-PL-TSII-D-DBP

DESCRIPTION		DRAWING NO.	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)				
DIMENSION RANGE IN INCHES				
		OVER	UNDER	
0 - 1/16		0.005	-0.005	
1/16 - 1/8		0.005	-0.005	
1/8 - 3/16		0.005	-0.005	
3/16 - 1/2		0.005	-0.005	
1/2 - 3/4		0.010	-0.010	
3/4 - 1 1/2		0.015	-0.015	
SURFACE QUALITY				
FINISH: SEE PARTS LIST				
TYPICAL PROJECTION				
DATE: 7 SEPT 75				
DRAWN BY: R. A. NELSON				
CHECKED BY: J. SOUSA				
TITLE: TAPE DRIVE AND CAB ASSY				
DOCUMENT NUMBER: E U A T S II - D - 0				
SCALE: 1/2				

B01

AUTOMATED BY PRTLST.3L(40)

PARTS LIST

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					DA	DB
1	1	C-PL-7006501-0-0	7006501-47	BASIC CABINETS 19 IN.	1	-
2	2	C-PL-7006501-0-0	7006501-48	BASIC CABINETS 19 IN.	-	1
3	3	B-PL-TS11-A-0	OTS11-AA	TS04-AA & TS11 45IPS NRZI MAGTAP	1	-
4	4	B-PL-TS11-A-0	OTS11-AB	TS04-AB 25FT. SERIAL CABLE,M7982	-	1
5	5	D-UA-861-0-0	00861-C	120VAC 24A POWER CONTROL,19"W,5.	1	-
6	6	D-UA-861-0-0	00861-B	240VAC 16A POWER CONTROL,19"W,5.	-	1
7	7	D-UA-H950-B-0	OH950-BA	FULL LGTH RH DR BK	1	1
8	8	C-MD-7422938-0-0	7422938-00	*** THIS ITEM IS NOT USED ***	-	-
9	9	C-MD-7422937-0-0	7422937-0C	CHANNEL,STANDOFF	2	2
10	10	D-IA-7407936-0-0	7407936-01	PANEL, LOGO	1	1
11	11		OH950-QA	COVER PNL 10 1/2 IN W THK LATCH	3	3
12	12		OH950-PA	PANEL COVER/THICK LATCH MOLD M	1	1
13	13		1700015-09	PWR CORD,TERM. 9FT,18-3,115V 10	1	-
14	14		1700016-09	PWR CORD,TERM. 9FT,18-3,230V 10	-	1
15	15		9009002-00	TERM BLOCK JUMPER	2	2
16	16	C-MD-7407607-0-0	7407607-00	PLATE, JONES STRIP	1	1
17	17		9006899-00	TERM BLOCK 04POS(2X02).437CC	1	1
18	18	A-DC-7407314-0-0	7407314-00	DECAL	1	-
19	19	A-DC-7406574-0-0	7406474-00	PLATE,LOCKING	-	1
20	20		9008264-00	MOUNT, CABLE TIE, ADHESIVE BACKE	7	7
21	21		9007867-00	MOUNT, PUSH,CABLE TIE	12	12
22	22		9007032-00	TIE,CABLE BUNDL.DIA 0-1-3/4"=101	20	20
23	23		1215843-00	CLIP,FLAT CABLE W/ADHESIVE BK	4	4
24	24		1213716-01	SPACER,FOAM 1/2	4	4
25	25		9009718-01	GROMMET,STRIP STYRENE	3	3
26	26	A-PS-3613210-0-0	3613210-00	LABEL, UL. FOIL ADH BACK	2	2
27	27	A-PS-3613211-0-0	3613211-01	DECAL,CLEAR PREPRINTED CSA 1-1/4	2	2
28	28	A-DC-7416197-0-0	7416197-01	DECAL	1	1
29	29	C-IA-7008288-0-0	7008288-8F	CABLE ASSY PDP-11	1	1
30	30		9007930-00	TERM,RING #10STUD CRIMP 16-2	1	1

REVISION HISTORY			BASIC PART NO: OTS11		DRN: A. J. ROCHA		DATE: 20-OCT-80		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: R. NELSON		DATE: 20-OCT-80		TITLE PARTS LIST			
RN	TS11D-ML001	A	SECTION. VARIATION INDEX		DES.ENG.: DICK NELSON		DATE: 20-OCT-80		TAPE DRIVE AND CAB ASSEMBLY			
JB	TS11D-ML002	B	[A] DA,DB		RESP.ENG.: DICK NELSON		DATE: 12/11/79		DOCUMENT NUMBER			
			[B]		MFG.ENG.: JOHN SOUZA		DATE: 20-OCT-80		SIZE	CODE	NUMBER	REV
			[C]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		K	PL	TS11-D-DBP	B
			[D]		E-UA-TS11-D-0		#B-DD-TS11-D		FILE NAME:		EDIT #	
			[E]						Z1141B.PLS		14	
			[F]									

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C01
P A R T S L I S T

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					DA	DB
31	31		9007929-00	TERM,RING #5,6STUD CRIMP 16-2	4	4
32	32		1213756-16	GROUND STRAP	1	1
33	33		9006025-01	SCREW,MACH PAN PHIL 6-	4	4
34	34		9006560-00	NUT,HEX EXT TOOTH LCKWSHR 6-32	4	4
35	35		9010156-00	SCREW,SEMS HEX 10-	5	5
36	36		9009700-00	SCREW,SEMS TRUSS PHIL 10-	20	20
37	37		9007786-00	NUT,U-NUT RETAINER .240ID	20	20
38	38		9006565-00	NUT,HEX EXT TOOTH LCKWSHR 10-32	1	1
39	39		9006664-00	WASHER,FLAT SST	4	4
40	40		9007651-00	WASHER,LOCK EXTERNAL STEEL	1	1
41	41		1213756-20	GROUND STRAP	1	1
42	42	A-PS-3717249-0-0	3617249-00	LABEL,CAUTION,STABILITY H950	2	2
43	43	A-PS-3610267-0-0	3610267-00	DECAL, ADHESIVE BACK -DANGER HIG	1	1
44	44		9107250-00	TUBING,SHRINK .750ID EXP	1	1
45	45		9008887-00	STRAP,JUMPER, BRAID WITH TERMINA	1	1
46	46		9007959-00	WASHER,LOCK EXTERNAL STEEL	2	2
47	47		9006568-00	NUT,HEX EXT TOOTH LCKWSHR 5/16-18	2	2
48	48	D-MD-7422059-0-0	7422059-00	FRAME SUPPORT	2	2
49	49		9008203-00	NUT,HEX EXT TOOTH LCKWSHR 1/4-20	12	12
50	50		9006242-09	SCREW,MACH HEX PLN 1/4-	8	8
51	51		9007792-00	WASHER,FLAT SST	8	8
52	52		3612680-00	DECAL, GROUND SIGN PER 3E6 *	7	7

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							TAPE DRIVE AND CAB ASSEMBLY		K	PL	TS11-D-DBP	B

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FIELD MAINTENANCE PRINT SET

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TABLE OF CONTENTS

B-TC-TS11-A-Ø1
 B-DD-TS11-A
 B-PL-TS11-A-Ø
 B-DD-M7982-Ø
 D-UA-M7982-Ø-Ø*
 D-CS-M7982-Ø-1
 K-PL-M7982-Ø-DEP
 MP848

UNIT VARIATIONS COVERED BY THIS PRINT SET	
TS11-AA	
TS11-AB	

TS11-A
Field Maintenance
Print Set

Digital Equipment Corporation
 PRINT SET ORDER
 NO. MP00849

REV. CHG. NO. DATE	USED ON OPTION/MODEL		DRN.	DATE	TITLE: FIELD MAINTENANCE PRINT SET (TS11-A)	digital
		TS11		G. Marini		
			CHK'D	DATE		
			<i>Shemley</i>	<i>7/28/79</i>		
			PROJ. ENG.	DATE		
			<i>M. Cucini</i>	<i>7/19/79</i>		
			FIELD SERV.	DATE		
			<i>S. Loukins</i>	<i>7/19/79</i>		
			SHEET 1 OF 1		SIZE B	CODE TC
					NUMBER	REV.
					TS11-A-01	
					DIST.	

EN-01124-16-N676-13271

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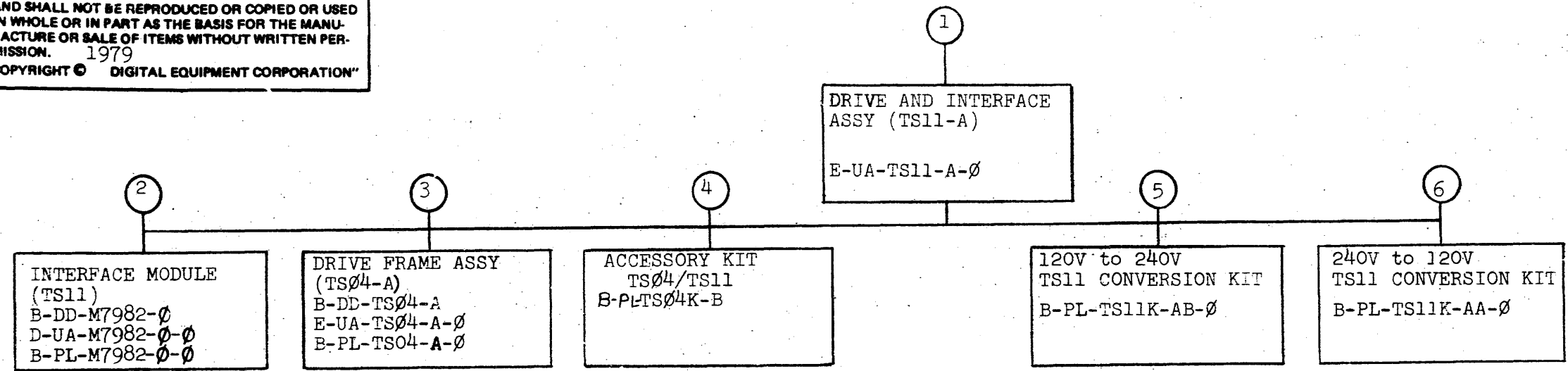
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FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS11-A-01

UNIT VARIATIONS	
VAR	TITLE
TS11-AA	DRIVE AND INTERFACE ASSY (TS11-A) 120V
TS11-AB	DRIVE AND INTERFACE ASSY (TS11-A) 240V

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	DATE	TITLE	digital
	CHANGE NO.			G. Marini	3/20/79		
CHK				CHK'D.	DATE		
				<i>Robert Henry</i>	7/18/79		
			PROJ. ENG.	DATE	SIZE CODE NUMBER REV		
			<i>M. Cucina</i>	7/19/79	B DD TS11-A		
			PROD.	DATE	DIST.		
			<i>T. Wright</i>	7/18/79			
SHEET 1 OF 3							

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FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	E-UA-TS11-A-Ø	DRIVE AND INTERFACE ASSY (TS11-A)	E/M				
	B-PL-TS11-A-Ø	DRIVE AND INTERFACE ASSY (TS11-A)	E/M				
	D-IA-7014094-Ø-Ø	CABLE, 25 FT	E/M				
2	B-DD-M7982-Ø	DRAWING DIRECTORY M7982	-				
	D-UA-M7982-Ø-Ø	TS11 INTERFACE	E/M				
	B-PL-M7982-Ø-Ø	TS11 INTERFACE	E/M				
3	B-DD-TSØ4-A	DRAWING DIRECTORY (TSØ4-A)	E/M				
	E-UA-TSØ4-A-Ø	DRIVE, FRAME ASSY (TSØ4-A)	E/M				
	B-PL-TSØ4-A-Ø	DRIVE, FRAME ASSY (TSØ4-A)	E/M				
4	B-PL-TSØ4K-B-Ø	ACCESSORY KIT TSØ4/TS11	---				
5	B-PL-TS11K-AB-Ø	120V to 240V TS11 CONVERSION KIT	E/M				
6	B-PL-TS11K-AA-Ø	240V to 120V TS11 CONVERSION KIT	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



TITLE
DRAWING DIRECTORY (TS11-A)

SHEET 3 OF 3

SIZE CODE
B DD

NUMBER
TS11-A

REV

DIGITAL EQUIPMENT CORPORATION PARTS LIST

MADE BY G. Marini	CHECKED <i>Fremblay</i>	SECTION
DATE 3-12-79	DATE 2/18/79	
ENG <i>M. Cucin</i>	PROD <i>T. Wright</i>	ISSUED SECTION
DATE 7/19/79	DATE 7/18/79	

QUANTITY / VARIATION

NOTES: INSTALL CABLE (ITEM #3) TO CONN-J4MB FOUND ON MOTHER BD
PART OF TS04-A) AND TO CONN FOUND ON M7982-0 INTERFACE MODULE (ITEM #4)

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11-AA (120V)	TS11-AB (240V)											REF DESIGNATION			
1	E-UA-TS04-A-0	TS04-AA	DRIVE AND FRAME ASSY	1	---														
2	E-UA-TS04-A-0	TS04-AB	DRIVE AND FRAME ASSY	---	1														
3	D-IA-7014094-0-0	7014094-ME	CABLE 25' (INTERFACE CABLE)	1	1														
4	E-UA-M7982-0-0	M7982-0	INTERFACE MODULE (TS11)	1	1														
5	B-PL-TS11K-AA-0	TS11K-AA	240V to 120V TS11 CONVERSION KIT	---	REF														
6	B-PL-TS11K-AB-0	TS11K-AB	120V to 240V TS11 CONVERSION KIT	REF	---														
7	B-PL-TS04K-B-0	TS04K-B	ACCESSORY KIT TS04/TS11	1	1														
8	A-PS-3612063-0-0	3612063-00	TAG..UL (RECOGNIZED)	1	1														
9	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1	1														
10	A-PS-3616410-0-0	3616410-00	DIGITAL TS-11 LOGO	1	1														

E.C.O. NO. M1001

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SHEET 1 OF 1			INSERTION PARTS LIST DATA BASE REV			

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS	
B-DD-M7982-0	1		M7982 DRAWING DIRECTORY	*	A
D-UA-M7982-0-0	6		M7982 UNIT ASSEMBLY	C	D
K-PL-M7982-0-DBP	-		M7982 PARTS LIST DATA BASE	C	D
D-CS-M7982-0-1	12		UNIBUS TO SERIAL BUS CONTROLLER	C	D
D-FD-M7982-0-2	3		M7982 CONTROL FLOWS	*	*
D-TD-M7982-0-3	3		M7982 TIMING DIAGRAMS	*	*
A-SP-M7982-0-4	18		M7982 ENGINEERING SPEC.	*	*
D-BD-M7982-0-5	1		M7982 BLOCK DIAGRAM	*	*
D-MD-5012174-0	6		M7982 DRILL & ETCH DWG.	C	C
K-PC-M7982-0-DBC	-		M7982 PCB DESIGN DATABASE	A	A
		5012174	M7982 ETCHED CIRCUIT BOARD	D	D

NOTES:

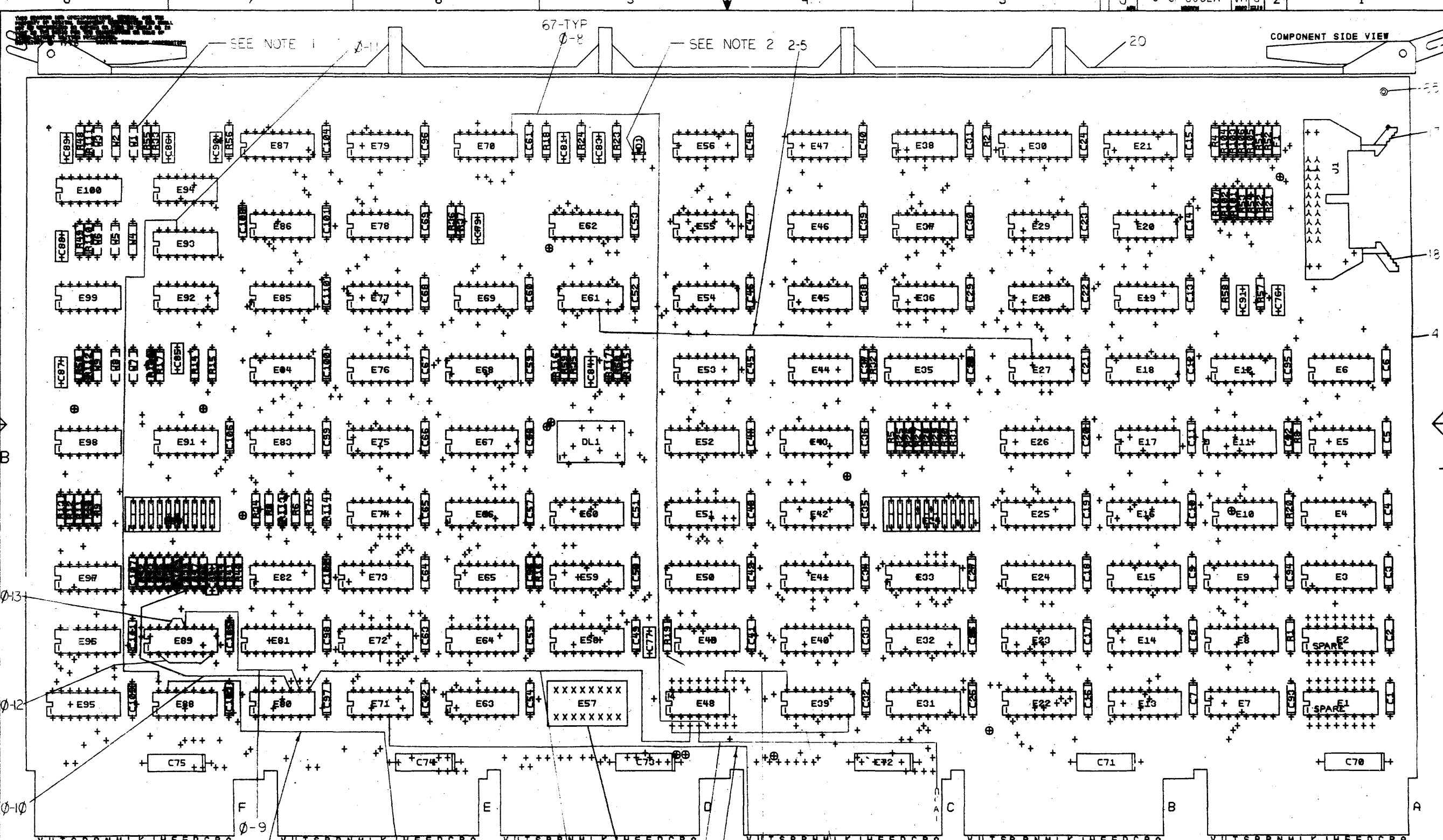
REVISIONS	DATE	CHG NO.	REV.		
	11-79	M.L.002	A		

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USED ON OPTION/MODEL	DRN. R. TREMBLAY 2/21/78	TITLE
TS11	CHK'D R. TREMBLAY 2/22/78	UNIBUS TO SERIAL BUS CONTROLLER
	ENG. <i>Paul Kingdon</i> 1/8/79	SIZE B DD
	PROD. <i>John Baker</i> 1-17-79	CODE DD
		NUMBER M7982-0
		REV. A
		SHEET 1 OF 1

COMPONENT SIDE VIEW



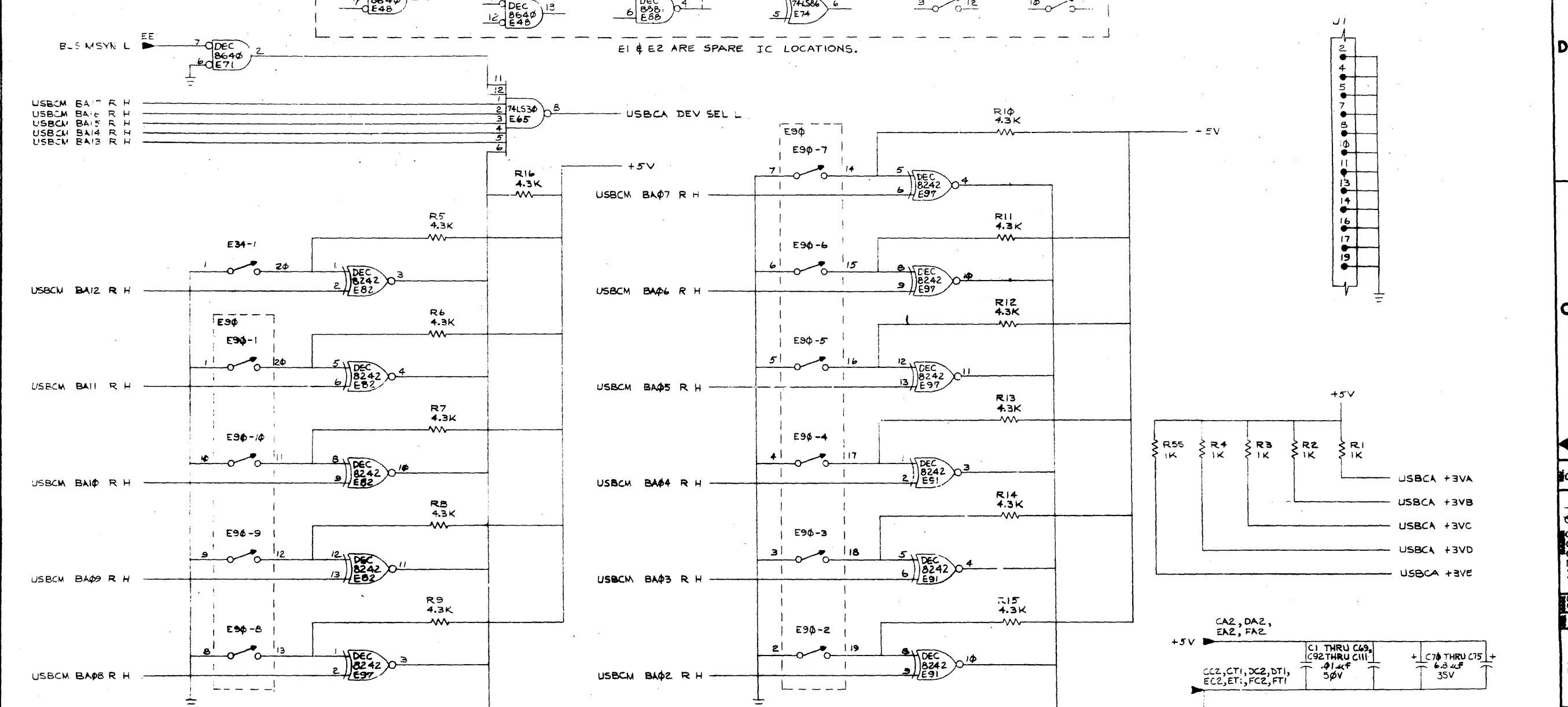
NOTES: 1. RI01 THRU RI08 AND RI10 THRU RI17 ARE OPTIONAL. DO NOT INSTALL. W1, W3, W5 THRU W8 & F1 ALSO.
 2. THIS IS FLAT SIDE OF LED.
 3. FOR REWORK, SEE SHEETS 1, 2, 5 & 6 OF THIS DWG.

CHANGE NO	REV	DATE	BY	CHK'D
1	D	1/17/79	P. KINZELMAN	
2	D	1/17/79	P. KINZELMAN	

ETCH REV. D-P2				
P.C. DESIGN DATA BASE REV. DL2 & DM2				

SIGNATURES	DATE	TITLE
DRN. [Signature]	1/17/79	digital
CHK'D. [Signature]	1/17/79	
ENG. [Signature]	1/17/79	TITLE UNIBUS TO SERIAL BUS CONTROLLER
PROD. [Signature]	1-17-79	
SCALE 2/1		SIZE CODE NUMBER
SHT. OF 6		D U A M7982-0-0
NEXT HIGHER ASSY. B-00-M7982-0		

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SWITCH	BAXX	8242 OUT
ON	L	H
ON	H	L
OFF	L	L
OFF	H	H

NON-STANDARD POWER CONNECTIONS:
 IC TYPE +5V GND
 DEC8640 8 1
 74LS75 5 12

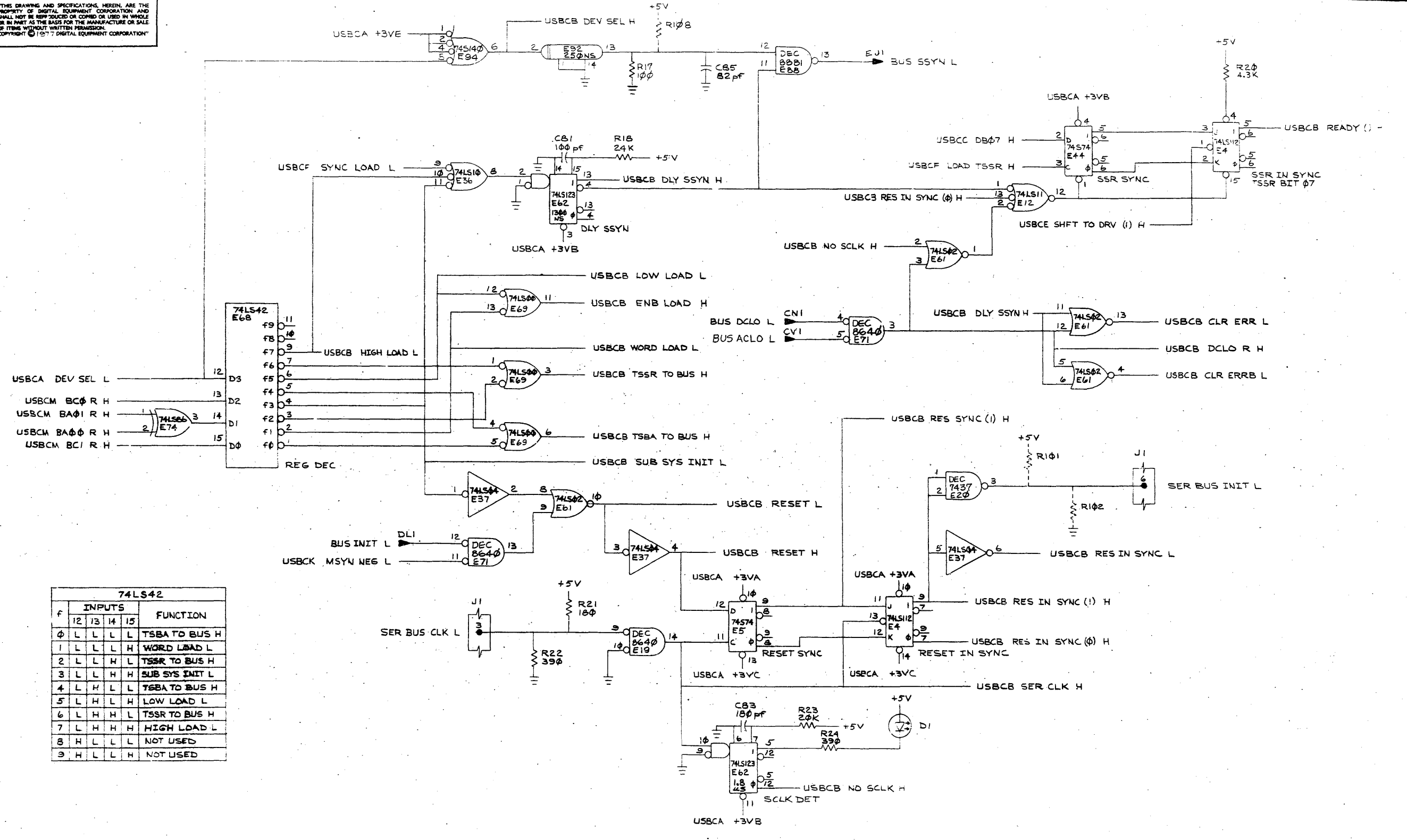
ADDRESS DECODE		SPC SLOT	
DRN. K. Hodgson	MAY 1977	FIRST USED ON	TS11
CHK'D	1/1/77	TITLE	(USBCA)
ENG. R. ...	1/1/77	UNIBUS TO SERIAL BUS CONTROLLER	
PROD. ...	1-1-77	SIZE	CODE
NEXT HIGHER ASSY.	TS11	NUMBER	M7982-0-1
SCALE	D	DIST.	CS
SHEET	1 OF 12	REV.	0

REVISIONS
 CHANGE NO. 1
 DATE 1/1/77
 BY P. KINZELMAN
 10/16/77

CS M7982-0-1

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0-2862W 2



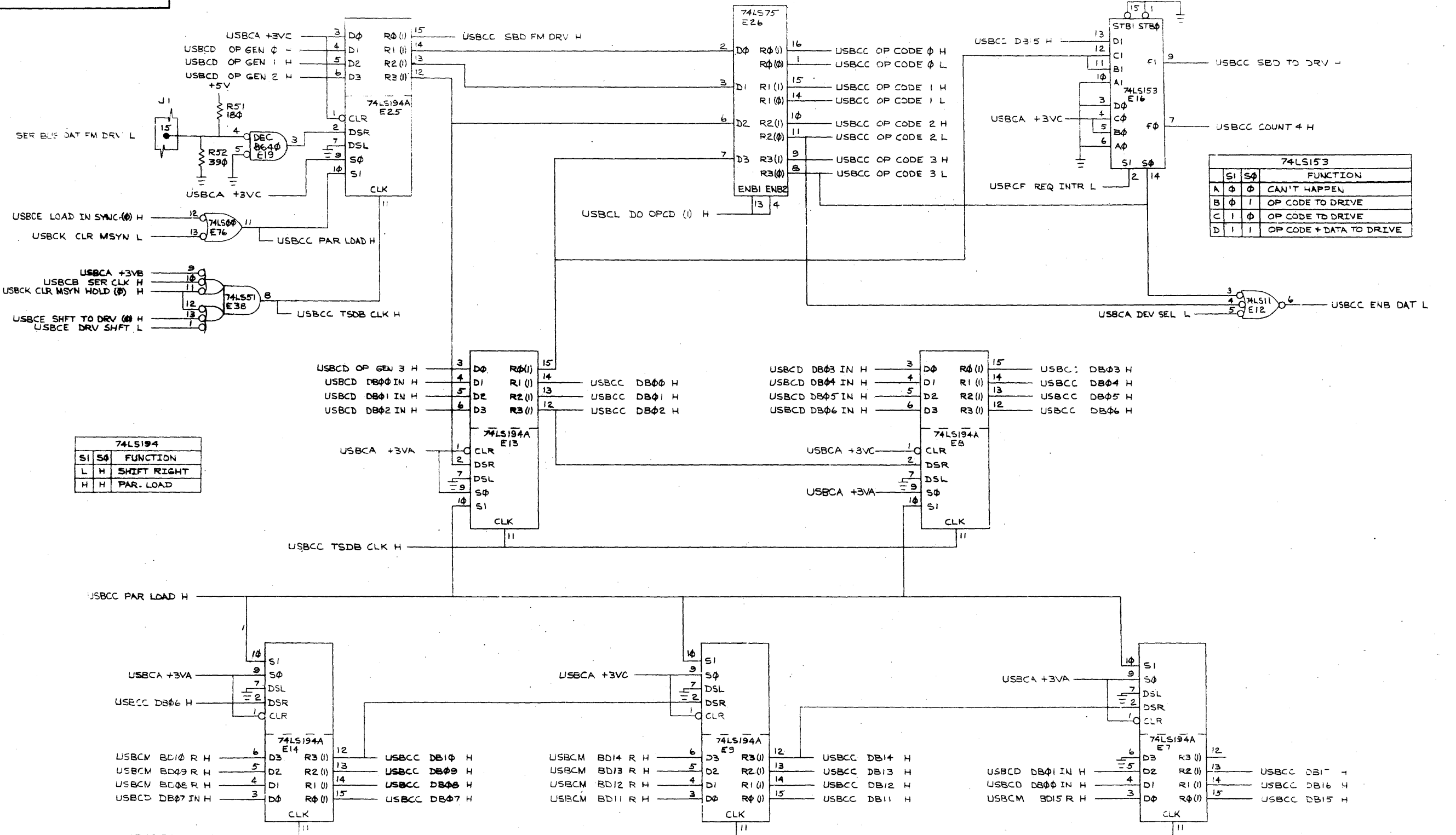
74LS42					
f	INPUTS				FUNCTION
	12	13	14	15	
0	L	L	L	L	TSBA TO BUS H
1	L	L	L	H	WORD LOAD L
2	L	L	H	L	TSSR TO BUS H
3	L	L	H	H	SUB SYS INIT L
4	L	H	L	L	TSBA TO BUS H
5	L	H	L	H	LOW LOAD L
6	L	H	H	L	TSSR TO BUS H
7	L	H	H	H	HIGH LOAD L
8	H	L	L	L	NOT USED
9	H	L	L	H	NOT USED

REVISIONS		
CHK	CHANGE NO.	REV.

ADDRESS DECODE, INIT, SER CLK, RDY, SSYN		SPC SLOT	
TITLE UNIBUS TO SERIAL BUS CONTROLLER (USBCB)		SIZE CODE DCS	NUMBER M7982-0-1
SCALE	SHEET 2 OF 12	DIST.	REV. 0

REV. D M7982-0-1

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74LS194		
SI	S0	FUNCTION
L	H	SHIFT RIGHT
H	H	PAR. LOAD

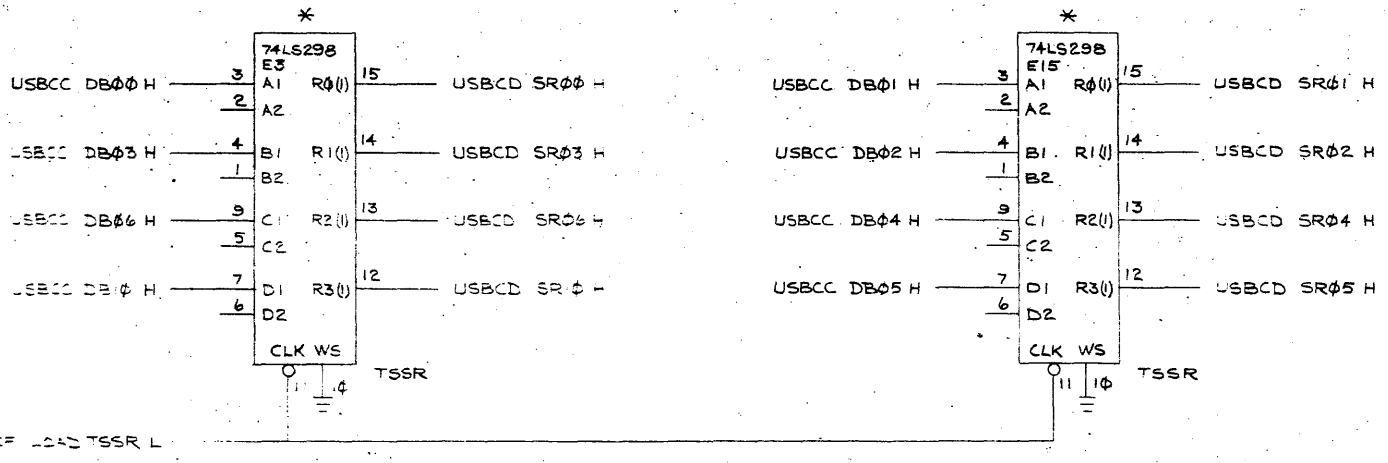
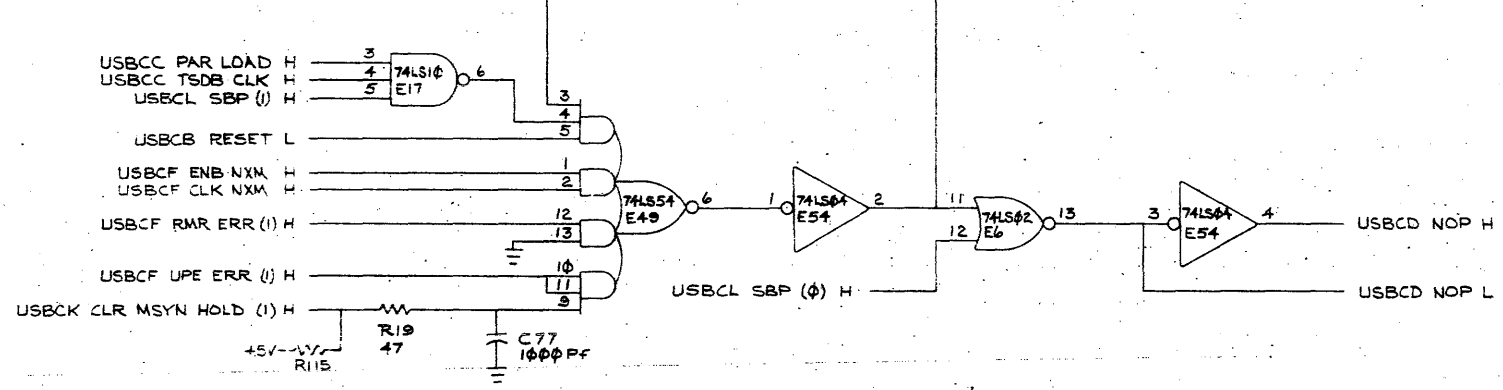
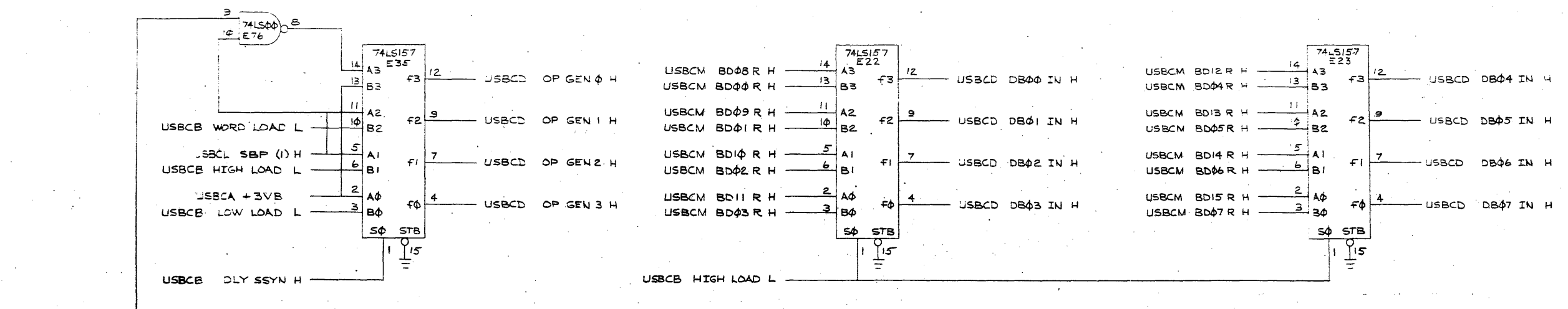
74LS153		
SI	S0	FUNCTION
A	φ	CAN'T HAPPEN
B	φ	OP CODE TO DRIVE
C	1	OP CODE TO DRIVE
D	1	OP CODE + DATA TO DRIVE

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE UNIBUS TO SERIAL BUS CONTROLLER (USBCC)		SIZE CODE DCS	NUMBER M7982-0-1	REV. D
SCALE		SHEET 3 OF 12	DIST.	

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1-0-22621 2



* THESE 8 BITS OF THE STATUS REGISTER ARE FOR SOFTWARE PURPOSES ONLY AND HAVE NO EFFECT ON THE TS11. THEIR MEANING WILL VARY ACCORDING TO THE TYPE OF DRIVE USED.

OP CODE GEN, TSDB CLK, TSSR <00,06,10> SPC SLOT

REVISIONS		
CHK	CHANGE NO.	REV.

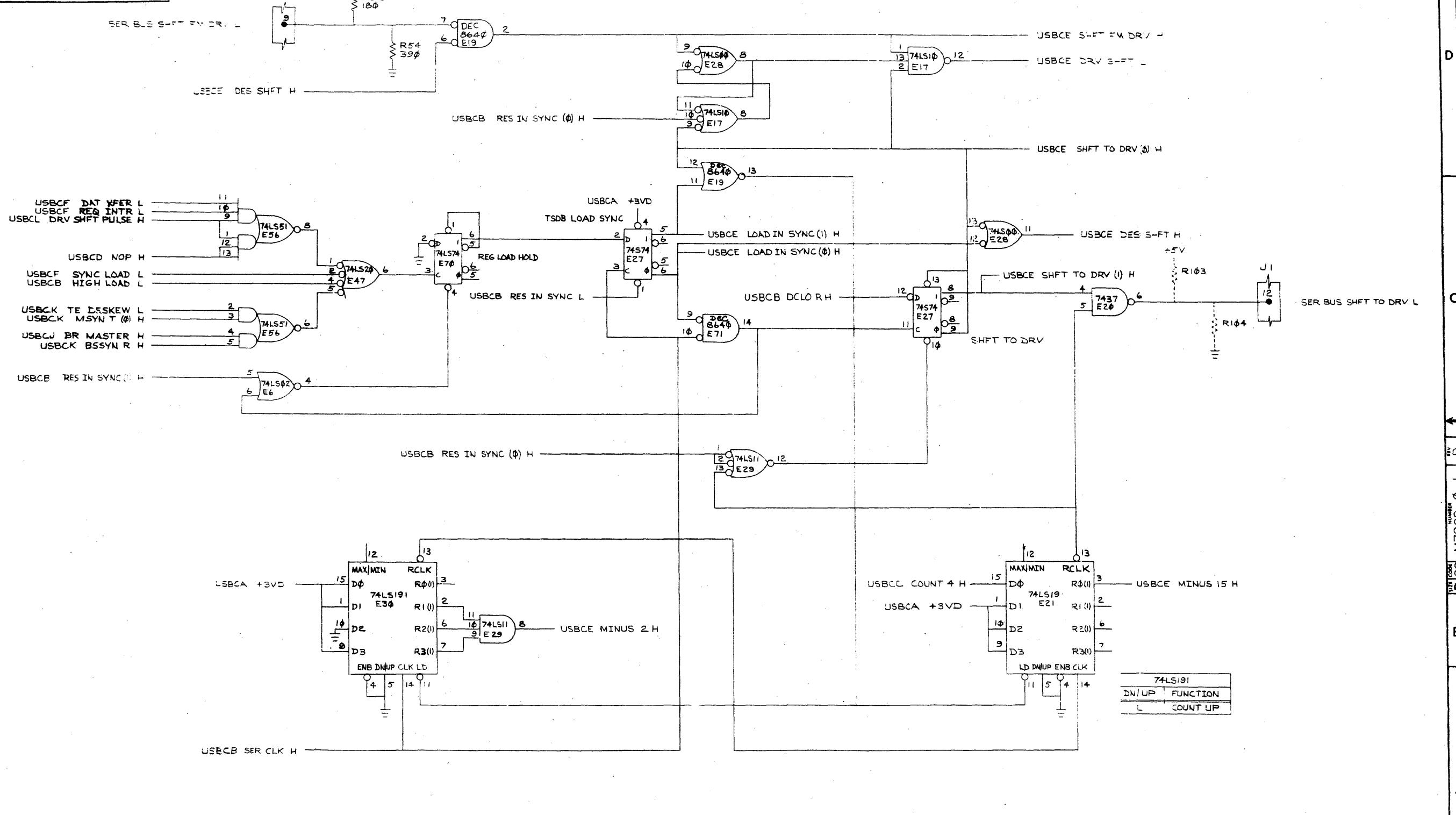
TITLE	UNIBUS TO SERIAL BUS CONTROLLER (USBCD)	SIZE CODE	D CS	NUMBER	M7982-01	REV.	0
SCALE		SHEET	4 OF 12	DIST.			

DRAWING NUMBER M7982-01

B

A

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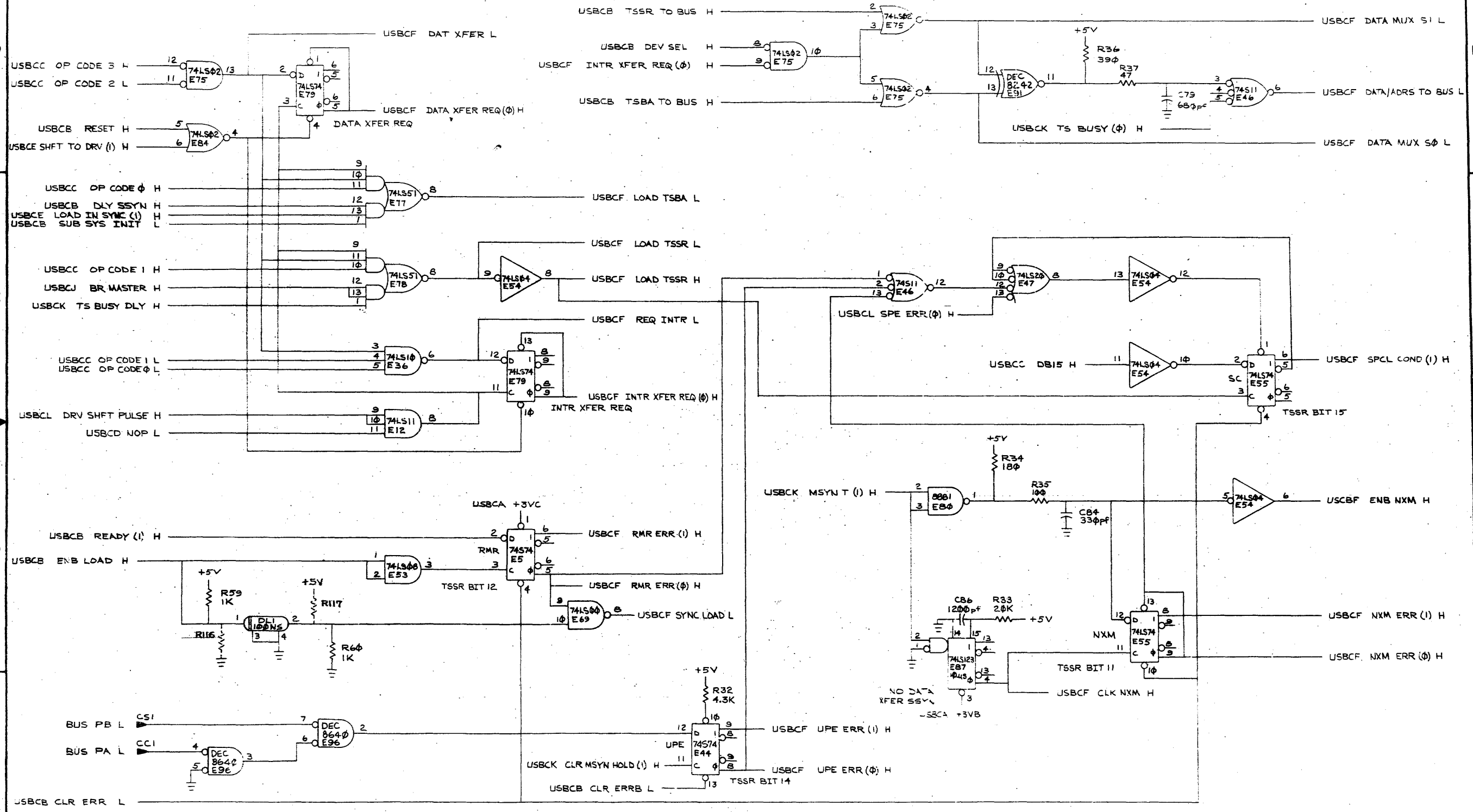
74LS191	
DN/UP	FUNCTION
L	COUNT UP

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		SIZE CODE		NUMBER		REV.	
UNIBUS TO SERIAL		D CS		M7982-0-1		D	
BUS CONTROLLER (USBCE)		SHEET 5 OF 12		DIST.			

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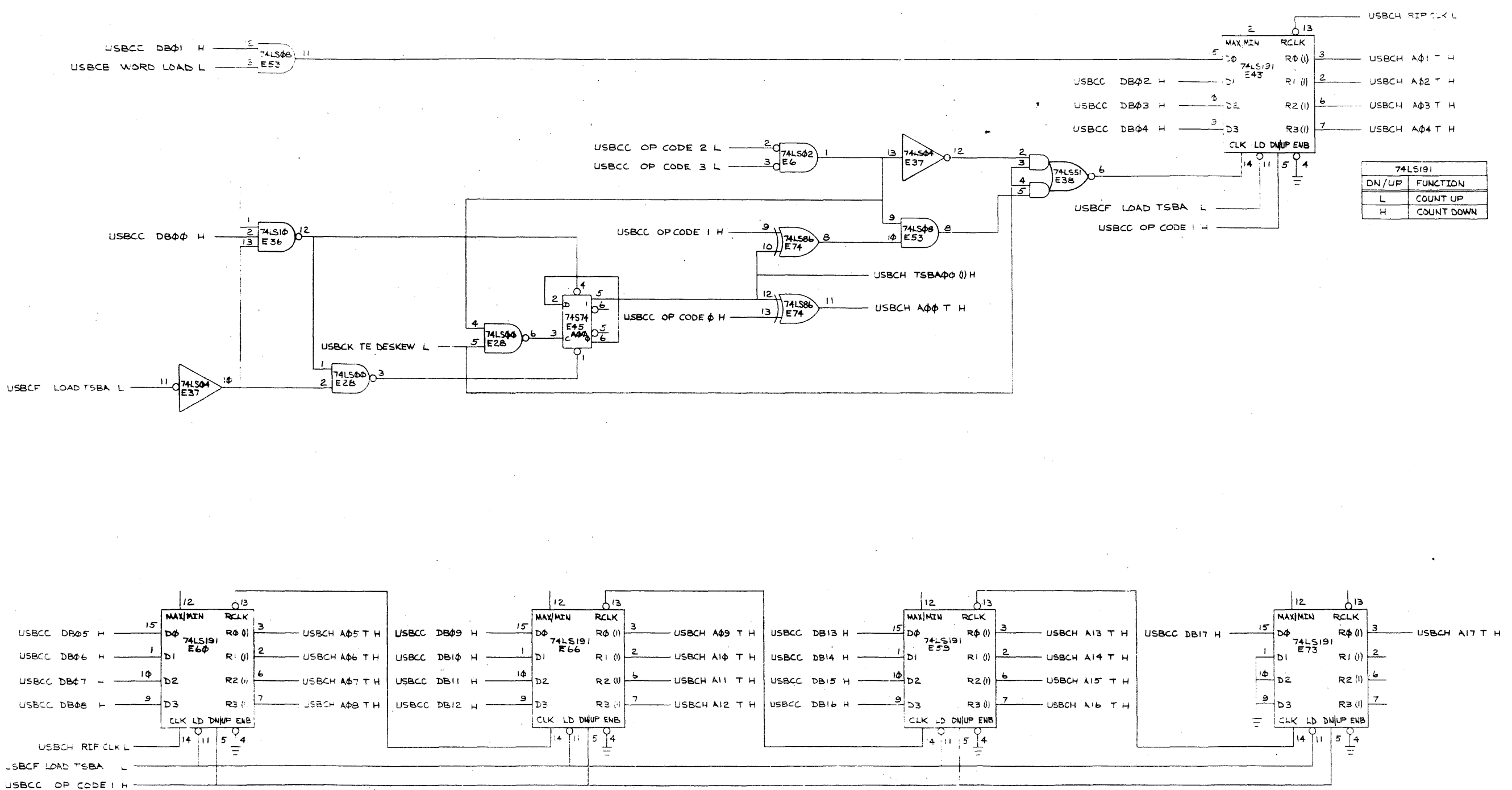
M7982-01



REVISIONS		
CHK	CHANGE NO.	REV.

UNIBUS TRANSFER REQUEST & ERRORS		SPC SLOT	
TITLE UNIBUS TO SERIAL BUS CONTROLLER (USBCF)			
SIZE CODE	NUMBER	REV.	
D CS	M7982-01	D	
SCALE	SHEET 6 OF 12	DIST.	

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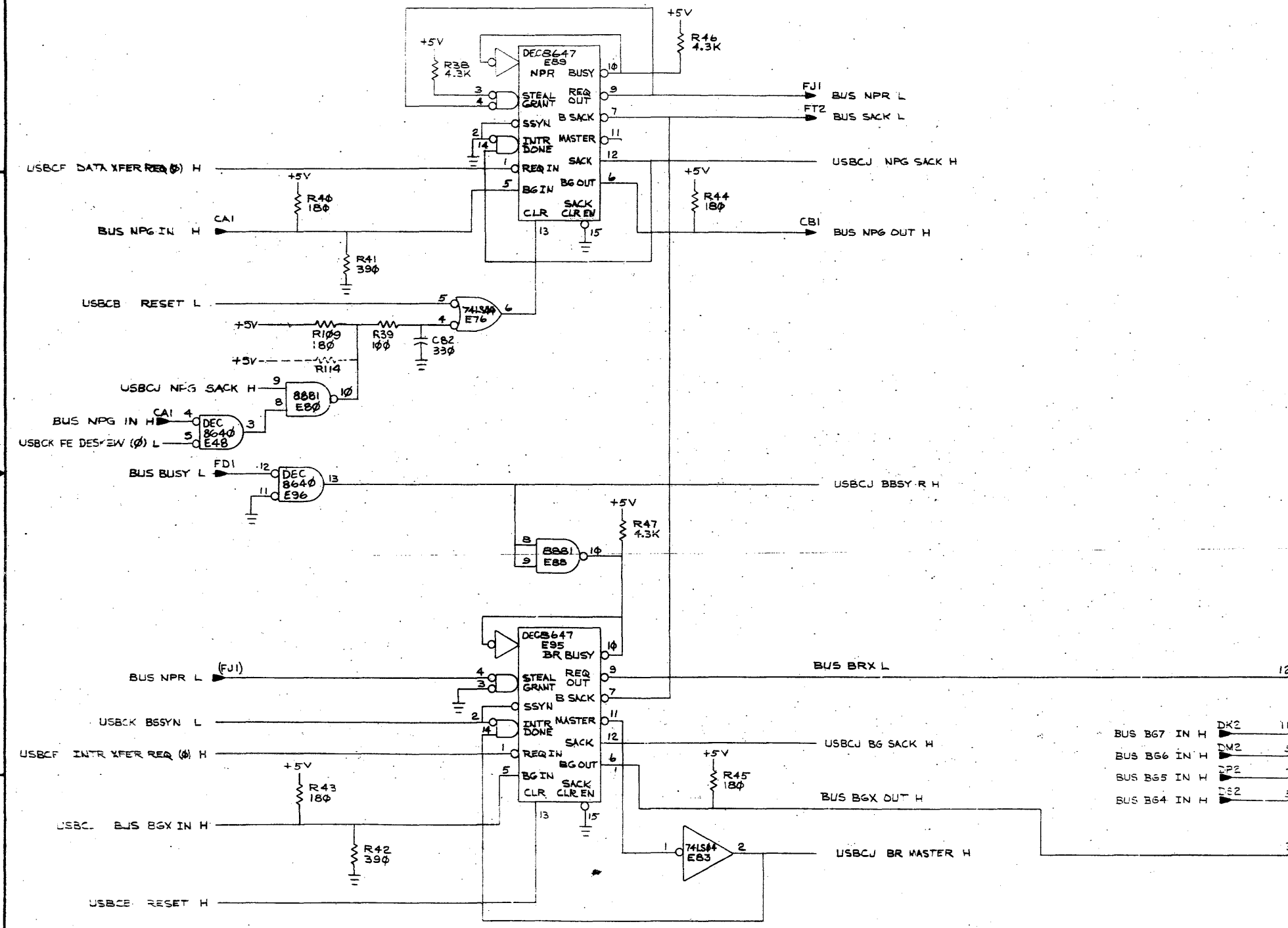
REVISIONS

CHK	CHANGE NO.	REV.

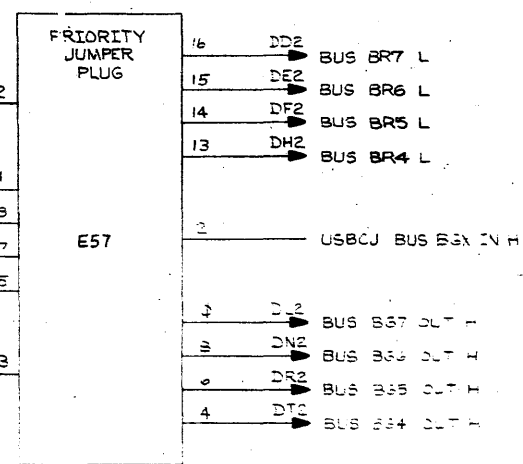
ADDRESS REG. (TSBA) SPC SLOT

TITLE	UNIBUS TO SERIAL BUS CONTROLLER (USBCH)	SIZE CODE	D CS	NUMBER	M7982-0-1	REV.	D
SCALE		SHEET	7 OF 12	DIST.			

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NOTE:
 THE DC013 CHIP MAY BE
 SUBSTITUTED FOR THE 8647
 CHIPS E89,E95



REVISIONS		
CHK	CHANGE NO.	REV.

8

7

6

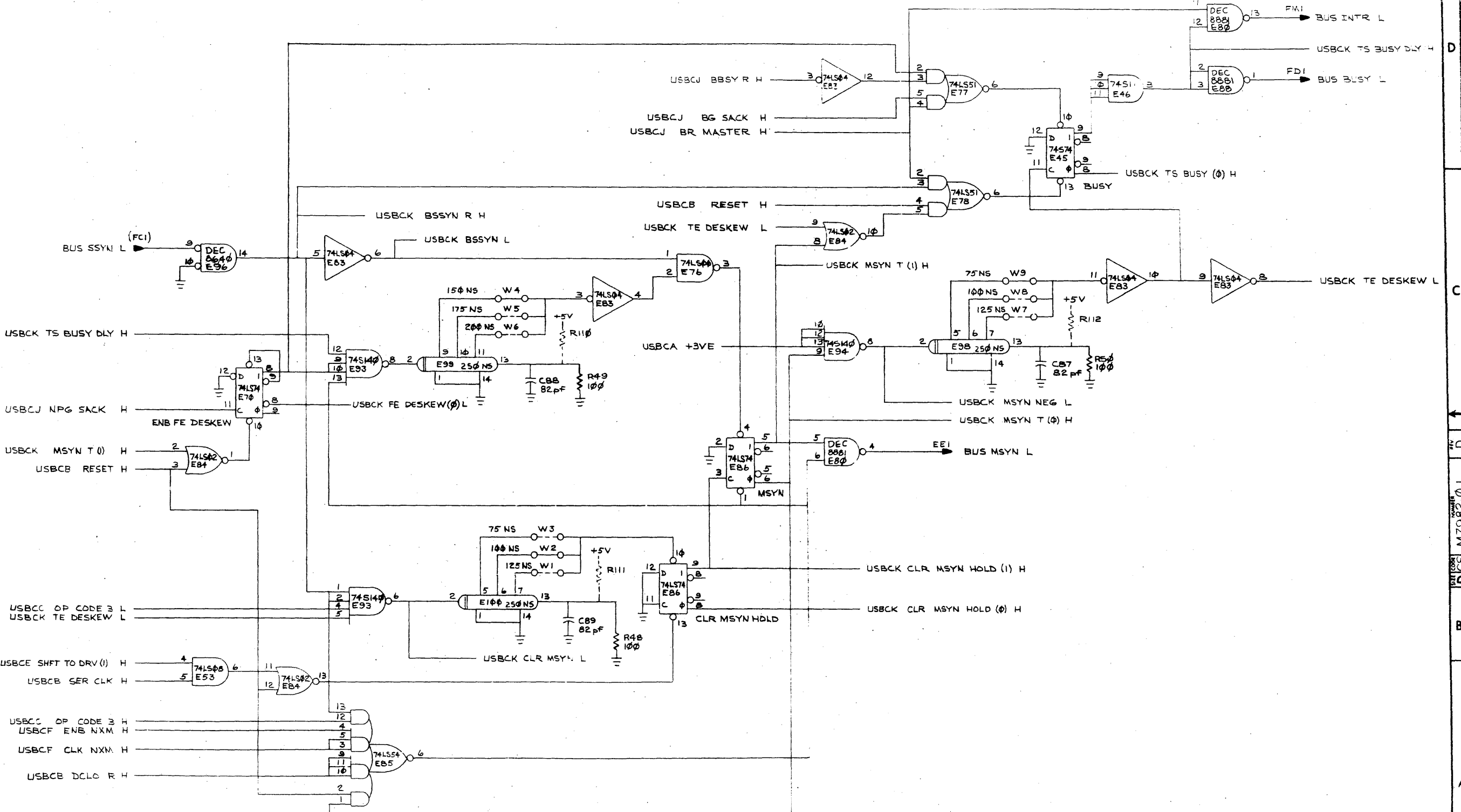
5

4

3

1

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REVISIONS		
CHK	CHANGE NO.	REV.

8

7

6

5

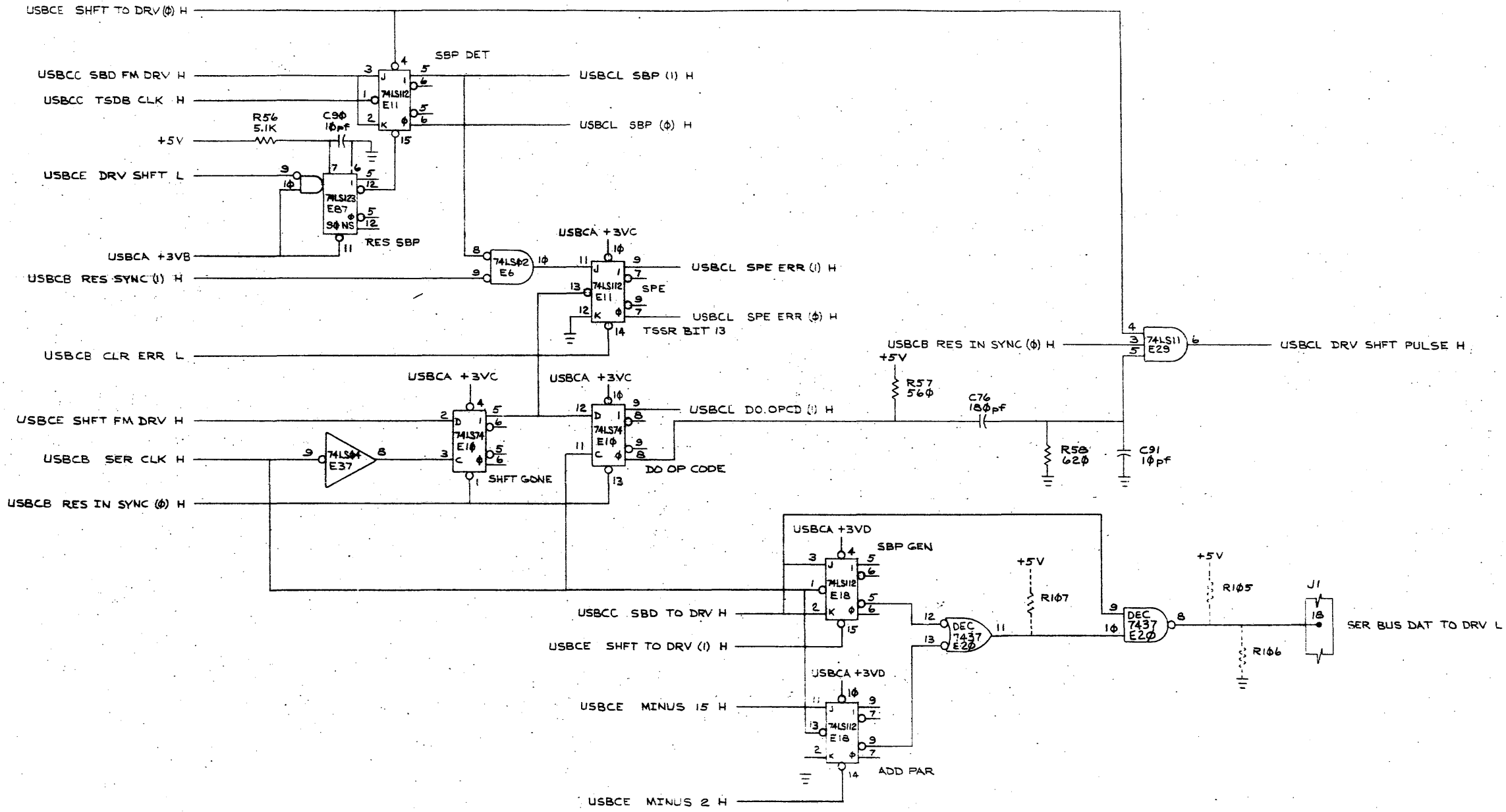
4

3

2

1

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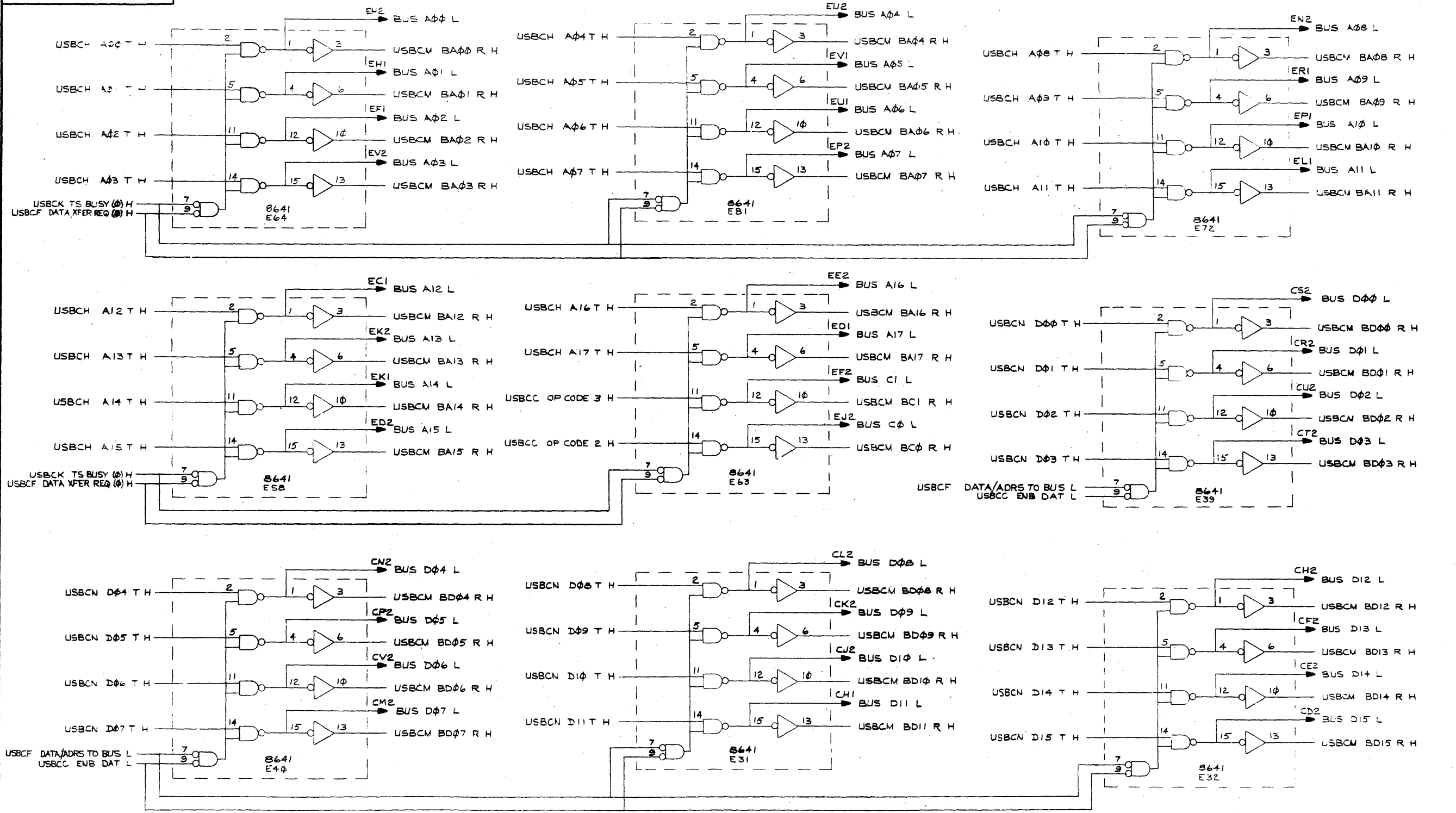
SBP DETECT, GENERATE & ERROR

SPC SLOT

REVISIONS		
CHK	CHANGE NO.	REV.

PART CODE NUMBER DCS M7982-0-1

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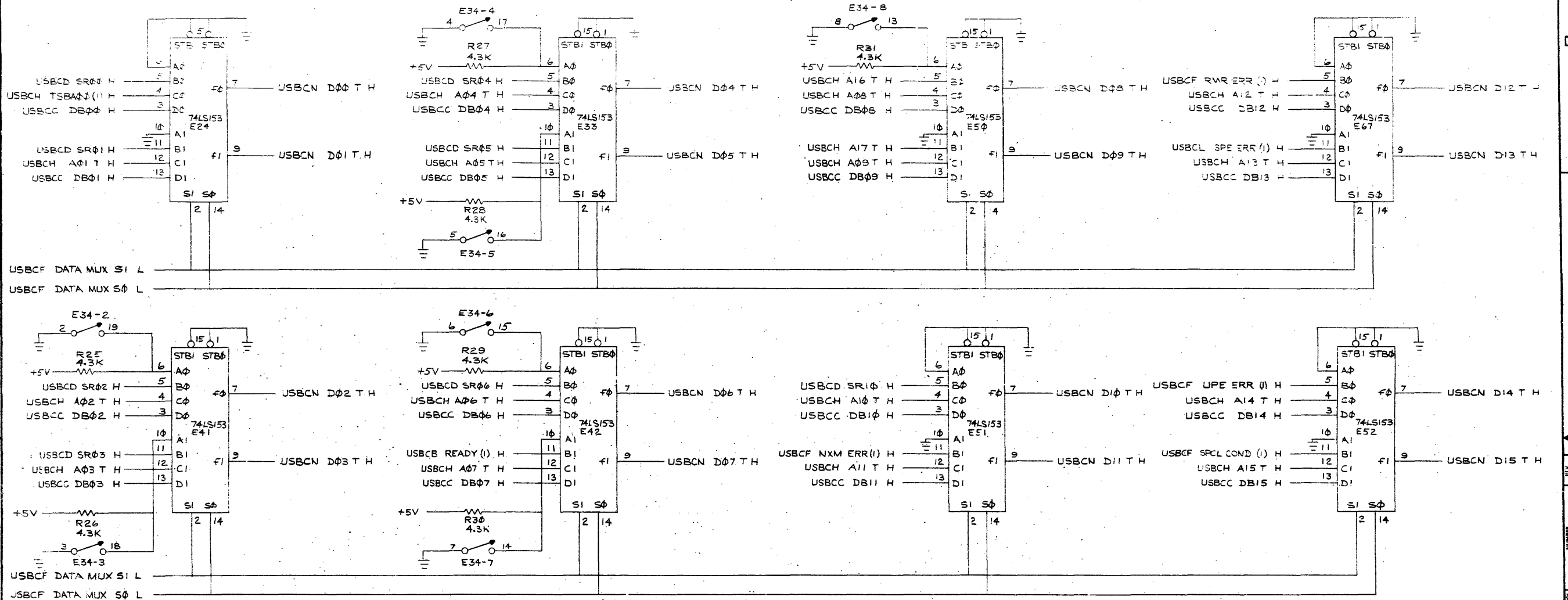
BUS ADDR, DATA XCVRS. SPC SLOT

REVISIONS		
CHK	CHANGE NO.	REV.

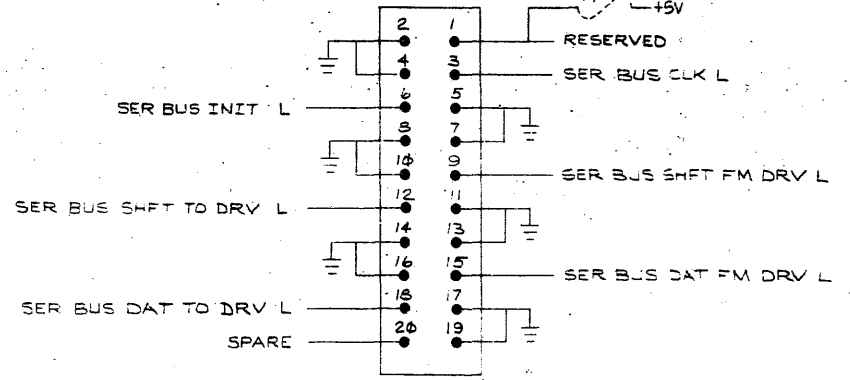
TITLE	UNIBUS TO SERIAL	SIZE CODE	NUMBER	REV.
BUS CONTROLLER (USBCM)	DCS	M7982-0-1	0	
SCALE	SHEET	11 OF 12	DIST.	

REV D M7982-0-1

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REFERENCE ONLY - CONN J1 PIN ASSIGNMENTS



74LS153	
SI S0	FUNCTION
A 0 0	VECTOR TO BUS
B 0 1	TSSR TO BUS
C 1 0	TSBA TO BUS
D 1 1	TSDB TO BUS

REVISIONS		
CHK	CHANGE NO.	REV.

REG. DATA MUX., VECTOR GEN. SPC SLOT

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
		D-CS-M7982-0-1		CIRCUIT SCHEMATIC			
		D-UA-M7982-0-0		UNIT ASSEMBLY			
		B-DD-M7982-0-0		DWG DIRECTORY			
		D-MD-5012174-0-0	5012174-00	M7982			
			1000006-00	10.0 MMF 100V 5%200PPM MICA			C90,C91
			1000015-00	82.0 MMF 100V 5%200PPM MICA			C87,C85,C88,C89
			1000016-00	100.0 MMF 100V 5%200PPM MICA			C81
			1000020-00	180.0 MMF 100V 5%200PPM MICA			C76,C83
			1000023-00	330.0 MMF 100V 5%200PPM MICA			C82,C84
			1000026-00	580.0 MMF 100V 5%200PPM MICA			C79
			1000042-00	1000.0 MMF 100V 5%200PPM MICA			C77
			1001610-00	.01 MFD 50V +80-20% Z5U CER	89		C1-C69,C92-C111
			1002424-00	1200.0 MMF 100V 5%200PPM MICA			C86
			1005306-00	6.8MFD 35V 10% S.TANT	6		C70-C75
			1110864-00	LED 2MCD@10MA			D1
		USED FOR E57.	1209838-00	SKT IC 16PIN DIP GOLD PLATE			
			1209941-03	HEADER RT ANGLE LEFT L			
			1209941-04	HEADER RT ANGLE RIGHT			
			1209941-05	HEADER.100 20POS RT ANGLE			J1
			1210711-02	/REPLACED BY 12-16988-02			
			1211164-06	SW,DIP 1P 1A 10POS			E34,E90
			1300202-00	47.0 .25 W 5.0 %			R37,R19
			1300229-00	100.0 .25 W 5.0 %			R17,R35,R39,R48-R50
			1300309-00	390.0 .25 W 5.0 %			R22,R24,R41,R42,R52,R54,R36
			1300365-00	1.0 K .25 W 5.0 %			R1-R4,R55,R59,R60
			1301322-00	180.0 .25 W 5.0 %			R21,R34,R40,R43-R45,R51,R53,R109
			1301890-00	560.0 .25 W 5.0 %			R57
			1302389-00	4.30 K .25 W 5.0 %			R5-R16,R20,R25-R31,R38,R46,R47,
							R32
							R23,R33
29	29		1302391-00	20.0 K .25 W 5.0 %		CONT	

REVISION HISTORY		BASIC PART NO: M7982		DRN: FRED MAY		DATE: 06-DEC-77		D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: C.CAMPBELL		DATE: 06-DEC-77		TITLE PARTS LIST	
---	INIT	C	SECTION VARIATION INDEX	DES.ENG: R. BOUCHER		DATE: 17-JUL-78		DOCUMENT NUMBER	
PK	M7982-MLO02	D	(A) 00	RESP.ENG.: R. BOUCHER		DATE: 17-JUL-78		SIZE CODE NUMBER REV	
			(B)	MFG.ENG.: P. BARTON		DATE: 17-JUL-78		K PL M7982-0-DSF D	
			(C)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			(D)	D-UA-M7982-0-0		TS11		Z10790.PLS 20	
			(E)	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"					
			(F)						
			(G)						
			(H)						
			(I)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
30	30		1303178-00	620.0 .25 W 5.0 % CC	1	R58
31	31		1312930-00	5.10 K .25 W 5.0 % CC	1	R56
32	32		1609559-00	DELAY= 100NS,OTAPS D10100	1	DL1
33	33		1611243-00	DELAY=25-250NS,10TAPS RCL#L-183	4	E98,E99,E100,E92
34	34		1909705-00	DEC 8881 NAND GATE-QUAD 2IN 0	2	E80,E88
35	35		1909712-00	DEC 8242 COMPARATOR-4BIT N	2	E97,E82,E91
36	36		1910091-00	DEC 7437 AND GATE-QUAD 2IN,BU	1	E20
37	37		1910537-00	74511 AND GATE-TRIPLE 3INP	1	E46
38	38		1910546-00	745140 NAND GATE-DUAL 4INPU	2	E93,E94
39	39		1910544-00	74574 FF-D DUAL,EDGE TRIGG	4	E5,E27,E45,E44
40	40		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	4	E19,E48,E71,E96
41	41		1911579-00	8641 TRANSCEIVER,BUS,QUA	9	E31,E32,E39,E40,E58,E63,E64,E72.
						CONT
42	42		1912083-00	/REPLACED BY 19-14438-00	2	E81
43	43		1912649-00	LS75 LATCH 4BIT BISTABLE	1	E89,E95
44	44		1912696-00	LS194A SHIFT REG. 4BIT BI-D	1	E26
45	45		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	3	E7-E9,E13,E14,E25
46	46		1912801-00	LS02 NOR-GATE-QUAD 2IN	4	E28,E69,E76
47	47		1912803-00	74LS04 INVERTER GATE,HEX	3	E6,E61,E75,E84
48	48		1912805-00	LS08 AND GATE-QUAD 2IN,PO	1	E37,E54,E83
49	49		1912807-00	LS10 NAND GATE-TRIPLE 3IN	2	E53
50	50		1912808-00	LS11 AND GATE-TRIPLE 3IN	2	E17,E36
51	51		1912810-00	LS20 NAND GATE-DUAL 4IN	1	E12,E29
52	52		1912815-00	LS30 NAND GATE-SINGLE 6IN	1	E47
53	53		1912819-00	LS42 DECODER,BCD-DECIMAL	1	E65
54	54		1912820-00	LS51 A-O-I GATE 2-WIDE 2I	4	E68
55	55		1912821-00	LS54 A-O-I GATE 3-2-2-3IN	5	E38,E56,E77,E78.
56	56		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	5	E85,E49
57	57		1912829-00	LS86 X-OR GATE-QUAD 2IN	1	E10,E55,E70,E79,E86
58	58		1912834-00	LS112 FF-JK DUAL,EDGE TRIG	1	E74
59	59		1912837-00	LS123 ONE SHOT-DUAL,RETRIG	3	E4,E11,E18
60	60		1912845-00	LS153 MUX 1 OF 4 (DUAL)	9	E62,E87
						CONT
61	61		1912847-00	LS157 MUX 1 OF 2(QUAD)	3	E16,E67,E52,E50,E51,E33,E42,E24.
62	62		1912867-00	LS298 MUX 1 OF 4 2IN W/S	2	E41
63	63		1913939-00	LS191 COUNTER,SYNCR. UP/D	7	E22,E23,E35
64	64		5408778-00	PLUG PRIORITY	1	E3,E15
65	65		9000024-01	EYELET,ROLL FLANGE .1210DX .192	12	E21,E30,E73,E59,E60,E43,E66
66	66		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	3	E57
67	67		9105740-55	WIRE(WRAP)30AWG ULI423	A/R	W2,W4,W9
68	68		1304837-00	24.0 K .25 W 5.0 % CC	1	R18

D	I	G	I	T	A	L	TITLE	UNIBUS SERIAL BUS CONTROLLER	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M7982-Q-DBP	D

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FIELD MAINTENANCE PRINT SET

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TABLE OF CONTENTS

B-TC-TS04-A-1	K-PL-M8962-0-DBP
B-DD-TS04-A	D-UA-M8963-0-0*
E-UA-TS04-A-0	D-CS-M8963-0-1
E-UA-TS04K-A-0	K-PL-M8963-0-DBP
B-PL-TS11K-AA-0	D-UA-M8964-0-0*
B-PL-TS11K-AB-0	D-CS-M8964-0-1
B-DD-5412989-0	K-PL-M8964-0-DBP
E-UA-5412989-0-0*	D-UA-M8965-0-0*
D-CS-5412989-0-1	D-CS-M8965-0-1
K-PL-5412989-0-DBP	K-PL-M8965-0-DBP
D-UA-G057-0-0*	D-UA-M8966-0-0*
D-CS-G057-0-1	D-CS-M8966-0-1
K-PL-G057-0-DBP	K-PL-M8966-0-DBP
D-UA-G157-0-0*	D-UA-M8967-0-0*
D-CS-G157-0-1	D-CS-M8967-0-1
K-PL-G157-0-DBP	K-PL-M8967-0-DBP
D-UA-G158-0-0*	D-UA-M8968-0-0*
D-CS-G158-0-1	D-CS-M8968-0-1
K-PL-G158-0-DBP	K-PL-M8968-0-DBP
D-UA-G159-0-0*	2-AD-7016288-0-0
D-CS-G159-0-1	B-DD-7016288-0
K-PL-G159-0-DBP	B-PL-7016288-0-0
D-UA-5413692-0-0*	D-UA-5413609-0-0*
D-CS-5413692-0-1	D-CS-5413609-0-1
K-PL-5413692-0-DBP	K-PL-5413609-0-DBP
D-UA-M8922-0-0*	D-CS-5411086-0-1
D-CS-M8922-0-1	D-UA-H744-0-1
K-PL-M8922-0-DBP	D-CS-H744-0-1
D-UA-M8923-0-0*	D-AD-7016287-0-0
D-CS-M8923-0-1	B-PL-7016287-0-0
K-PL-M8923-0-DBP	K-PL-TS04-A-DBP
D-UA-M8924-0-0*	
D-CS-M8924-0-1	
K-PL-M8924-0-DBP	
D-UA-M8929-0-0*	
D-CS-M8929-0-1	
K-PL-M8929-0-DBP	
D-UA-M8962-0-0*	
D-CS-M8962-0-1	

* INCLUDE SHEET 1 ONLY

UNIT VARIATIONS COVERED BY THIS PRINT SET
TS11-AA
TS11-AB

TS04-A-1

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO. MP03848



TITLE: FIELD MAINTENANCE PRINT SET (TS04)			
SIZE B	CODE TC	NUMBER TS04-A-01	REV. B
DIST.			

REV. NO.	CHG. NO.	DATE	DESCRIPTION	USED ON OPTION/MODEL	DRN.	DATE	
						CHK'D	DATE
A		7/7/80	TS04A-ML002	TS11	G. Marini		3/79
B		0/81	TS04A-ML003		R. Tremblay		7/79
					M. Cucina		7/79
					S. Lunkins		7/79
				SHEET 1 OF 1			

FN 01137 16 N/A 7/81

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DRAWING DIRECTORY

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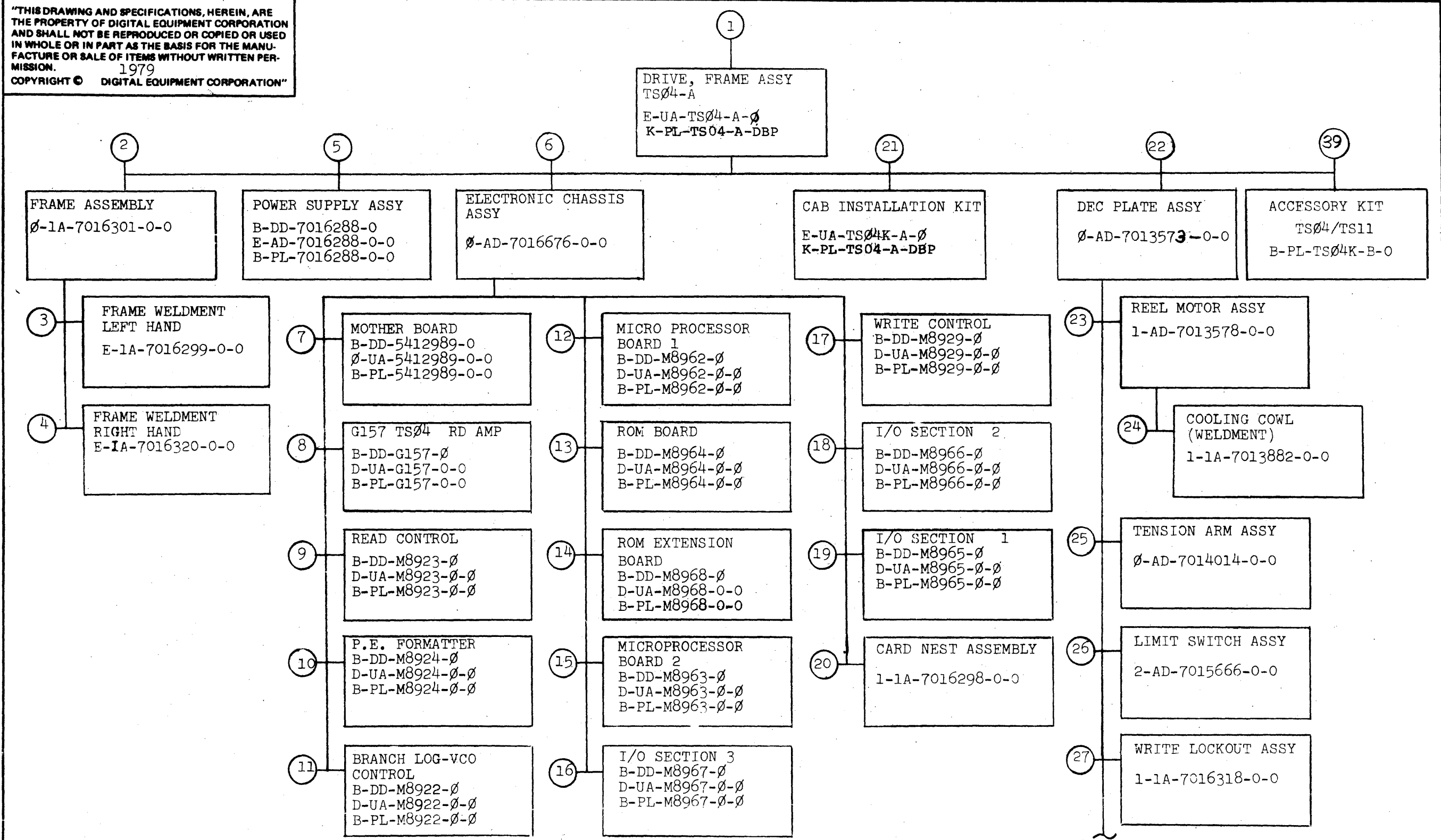
FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS04-A-01 (FIELD MAIN PRINT SET)
B-TC-TS04-A-02 (CUSTOMER PRINT SET)

UNIT VARIATIONS

VAR	TITLE
TS04-AA	DRIVE, FRAME ASSY (TS04-A) 120V
TS04-AB	DRIVE, FRAME ASSY (TS04-A) 240V

REVISIONS	CHK	CHANGE NO.	REV.	USED ON OPTION/MODEL	DRN.	DATE	TITLE					
	M5	TS04A-MI.003	A		TS11-A	G. Marini	3/12/79	DRAWING DIRECTORY				
								digital				
							CHK'D.	DATE				
					PROJ. ENG.	DATE						
					M. Luena	7/19/79	SIZE	CODE	NUMBER	REV		
							B	DD	TS04-A	A		
					PROD.	DATE						
					T. Wright	7/18/79	DIST.					

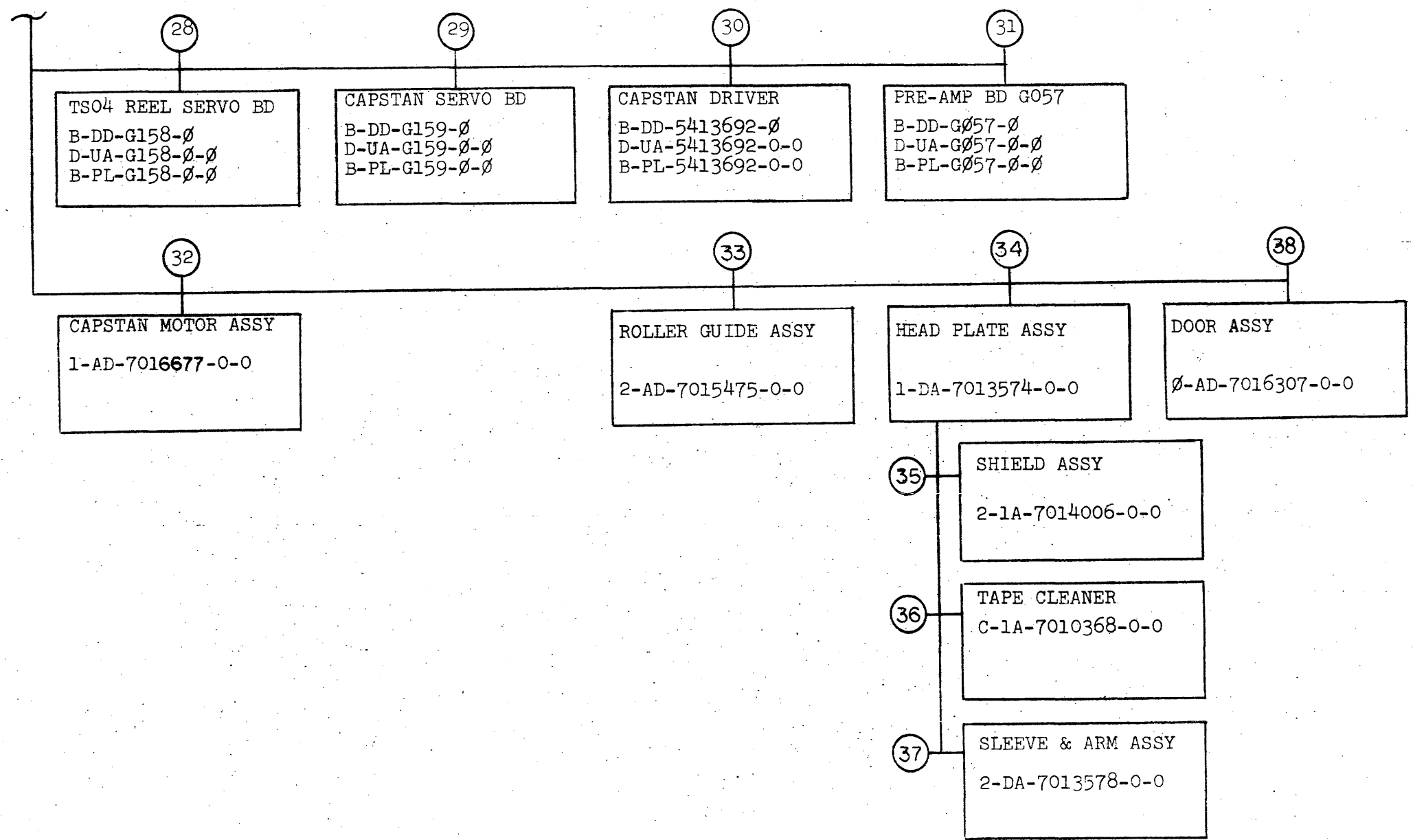
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CONTINUED ON SHEET 3 OF 6

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FROM SHEET 2 OF 7



FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	E-UA-TS04-A-0	DRIVE, FRAME ASSY (TS04-A)	E/M	9	B-DD-M8923-0	DRAWING DIRECTORY	--
	K-PL-TS04-A-DBP	PARTS LIST	E/M		D-UA-M8923-0-0	READ CONTROL	E/M
	B-TC-TS04-A-01	TABLE OF CONTENTS (TS04-A)	---		B-PL-M8923-0-0	READ CONTROL (PL)	E/M
	2-1A-7422626-0-0	STRAP GROUND	M				
	EKOTSII-UG	USER GUIDE	REF				
	EKOTSII-TM	TECH MANUAL	REF	10	B-DD-M8924-0	DRAWING DIRECTORY	--
	EKOTSII-SV	POCKET SERVICE GUIDE	REF		D-UA-M8924-0-0	P.E. FORMATTER	E/M
					B-PL-M8924-0-0	P.E. FORMATTER (PL)	E/M
2	0-1A-7016301-0-0	FRAME ASSY	M	11	B-DD-M8922-0	DRAWING DIRECTORY	--
	1-MD-7422062-0-0	SPACER FRONT	M		D-UA-M8922-0-0	BRANCH LOG-VCO CONTROL	E/M
	1-MD-7422061-0-0	BRACE, CENTER	M		B-PL-M8922-0-0	BRANCH LOG-BCO CONTROL (PL)	E/M
	1-MD-7422060-0-0	SUPPORT, POWER SUPPLY	M				
	1-MD-7422064-0-0	SPACER, REAR	M	12	B-DD-M8962-0	DRAWING DIRECTORY	--
	E-1A-7422058-0-0	SPACER, MIDDLE	M		D-UA-M8962-0-0	MICROPROCESSOR BOARD 1	E/M
					B-PL-M8962-0-0	MICROPROCESSOR BOARD 1 (PL)	E/M
3	E-1A-7016299-0-0	FRAME WELDMENT LEFT HAND	M	13	B-DD-M8964-0	DRAWING DIRECTORY	--
	1-MD-7422067-0-0	SUPPORT L.H.	M		D-UA-M8964-0-0	ROM BOARD	E/M
	1-MD-7422084-0-0	FRAME SIDE L.H.	M		B-PL-M8964-0-0	ROM BOARD (PL)	E/M
				14	B-DD-M8968-0	DRAWING DIRECTORY	--
	E-1A-7016320-0-0	FRAME WELDMENT RIGHT HAND	M		D-UA-M8968-0-0	ROM EXTENSION BOARD	E/M
	1-MD-7422066-0-0	SUPPORT R.H.	M		B-PL-M8968-0-0	ROM EXTENSION BOARD (PL)	E/M
	1-MD-7422084-0-0	FRAME SIDE R.H.	M	15	B-DD-M8963-0	DRAWING DIRECTORY	--
					D-UA-M8963-0-0	MICROPROCESSOR BOARD 2	E/M
					B-PL-M8963-0-0	MICROPROCESSOR BOARD 2 (PL)	E/M
4	B-DD-7016288-0	DRAWING DIRECTORY POWER SUPPLY ASSY	---	16	B-DD-M8967-0	DRAWING DIRECTORY	--
	E-AD-7016288-0-0	POWER SUPPLY ASSY	E/M		D-UA-M8967-0-0	I/O SECTION 3	E/M
	B-PL-7016288-0-0	POWER SUPPLY ASSY (PL)	E/M		B-PL-M8967-0-0	I/O SECTION 3 (PL)	E/M
5	0-1A-7016676-0-0	ELECTRONIC CHASSIS ASSY	E/M	17	B-DD-M8929-0	DRAWING DIRECTORY	--
	2-MD-7419785-0-0	ANGLE MOTHER BD	M		D-UA-M8929-0-0	WRITE CONTROL	E/M
	2-MD-7419784-0-0	INSULATOR CARD GUIDE	M		B-PL-M8929-0-0	WRITE CONTROL (PL)	E/M
	2-MD-7418050-0-0	BAR RETAINER	M				
	1-1A-7016285-0-0	CABLE, FAN LOGIC	E/M				
6	B-DD-5412989-0	DRAWING DIRECTORY	---				
	0-UA-5412989-0-0	MOTHER BOARD	E/M				
	B-PL-5412989-0-0	MOTHER BOARD (PL)	E/M				
7	B-DD-G157-0	DRAWING DIRECTORY	---				
	0-UA-G157-0-0	G157 TS04 RE AMP	E/M				
	B-PL-G157-0-0	G157 TS04 RE AMP (PL)	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



TITLE
DRAWING DIRECTORY TS04-A

SHEET 4 OF 6

SIZE CODE
B DD

NUMBER
TS04-A

REV
A

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
18	B-DD-M8966-0	DRAWING DIRECTORY	---		A-PS-1214813-0-0	COVER HEAD RIGHT	M
	D-UA-M8966-0-0	I/O SECTION 2	E/M		A-PS-1214812-0-0	COVER HEAD LEFT	M
	B-PL-M8966-0-0	I/O SECTION 2 (PL)	E/M		A-PS-1215655-0-0	SWITCH INTERLOCK	M
					A-PS-1214815-0-0	COVER HUB	M
					A/1-PS-1214816-0-0	RING CENTER	M
19	B-DD-M8965-0	DRAWING DIRECTORY	---		A-PS-1214946-0-0	RING RUBBER	M
	D-UA-M8965-0-0	I/O SECTION 1	E/M		D-PS-1213119-0-0	HUB QUICK RELEASE	M
	B-PL-M8965-0-0	I/O SECTION 1 (PL)	E/M		A-PS-1214843-0-0	LATCH	M
					A-PS-1215235-0-0	LID SUPPORT	M
					2-MD-7422583-0-0	INSULATOR G057	M
20	1-1A-7016298-0-0	CARD NEST ASSY	M		A-PS-1214955-0-0	HINGE DEC PLATE	M
	1-1A-7422065-0-0	SUPPORT CARD GUIDE	M		2-MD-7418032-0-0	INSULATOR G158	M
	1-1A-7422081-0-0	PANEL CHASSIS	M		A-PS-1214609-0-0	LATCH GRIP	M
	1-MD-7422063-0-0	BRACKET FAN	M		1-IA-7014149-0-0	CABLE WRITE HEAD	E/M
					1-IA-7013582-0-0	CABLE READ HEAD	E/M
					1-IA-7016284-0-0	CABLE POWER R/W	E/M
					1-IA-7016259-0-0	HARNESS C/P	E/M
21	E-UA-TS04K-A-0	CAB INSTALLATION KIT	M		2-IA-7016528-0-0	CABLE INTERCONNECT	E/M
	K-PL-TS04-A-DBP	PARTS LIST	M		D-IA-7013577-0-0	HARNESS DRIVE	E/M
					1-IA-7016258-0-0	HARNESS W/L/L	E/M
					1-IA-7014186-0-0	CABLE ASSY/FOLDED	E/M
					A-PS-1215031-0-0	LID SUPPORT D/S	M
22	0-AD-7013573-0-0	DECK PLATE ASSY	E/M		1-IA-7013581-0-0	CABLE ASSY FOLDED	E/M
	0-MD-7417657-0-0	DECK PLATE	M		1-IA-7014136-0-0	TRANSDUCER AND CONNECTOR ASSY	E/M
	2-MD-7418013-0-0	SPACER MOTOR MTG	M		2-MD-7418507-0-0	BRACKET INTERLOCK	M
	2-MD-7418016-0-0	PLATE CABLE	M				
	2-MD-7418008-0-0	BLOCK TRANSDUCER	M				
	2-MD-7418048-0-0	BLOCK BASE	M				
	2-MD-7418049-0-0	BLOCK SPRING ADJ	M				
	2-MD-7418012-0-0	PIN RAMP	M				
	1-MD-7418009-0-0	BRACKET GUSSET L.H.	M	23	1-AD-7013578-0-0	REEL MOTOR ASSY	E/M
	1-IA-7418004-0-0	BRACKET GUSSET R.H.	M		A-PS-1214528-0-0	REEL MOTOR	E/M
	1-IA-7418022-0-0	BLOCK HINGE	M		A/C-PS-1214606-0-0	BRAKE MOTOR	E/M
	1-MD-7418014-0-0	HOLDER PRE-AMP	M		1-1A-7014362-0-0	HARNESS CAPACITOR FAN	E/M
	1-MD-7418015-0-0	COVER PRE-AMP	M				
	2-MD-7417985-0-0	BLOCK CAPSTAN ADJ	M				
	2-MD-7418036-0-0	STOP RUBBER	M	24	1-1A-7013882-0-0	COOLING COWL WELDMENT	M
	2-MD-7422071-0-0	SPACER	M		2-MD-7418506-0-0	SLEEVE COWL	M
	2-MD-7421766-0-0	COVER G158	M		2-1A-7418505-0-0	FLANGE COWL	M
	2-MD-7418010-0-0	CAPSTAN	M		2-MD-7418006-0-0	BRACKET COWLMTG	M
	2-MD-7418021-0-0	CLAMP CAPSTAN	M				
	0-MD-7418878-0-0	HUB INNER	M				
	D-MD-7417902-0-0	FLANGE	M	25	0-AD-7014014-0-0	TENSION ARM ASSY	E/M
	2-MD-7418507-0-0	BRACKET SWITCH	M		2-MD-7417982-0-0	SHAFT PIVOT	M
	1-MD-7422508-0-0	BRACKET DOOR STAY	M		2-MD-7417989-0-0	ARM TENSION	M
	D-DA-7418005-0-0	BEZEL	M		2-MD-7417983-0-0	HOUSING TENSION ARM	M
	A-PS-1214839-0-0	CLIP TUBULAR	M		A/C-PS-1216060-0-0	ROLLER ASSY	M

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL

digital

TITLE DRAWING DIRECTORY TS04

SHEET 5 OF 6

SIZE CODE
B DD

NUMBER
TS04-A

REV
A

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
25	A-PS-1214164-0-0	BEARING	M	34	2-MD-7418265-0-0	GUIDE, TAPE PIN	M
26	2-AD-7015666-0-0	LIMIT SWITCH ASSY	E/M		A/C-PS-1216060-0-0	ROLLER ASSY	M
	2-MD-7418035-0-0	BRACKET SWITCH	M		A-PS-1209877-0-0	WASHER CERAMIC	M
	2-MD-7418035-0-0	SWITCH REWORK	E/M		2-MD-7417900-0-0	WASHER CLAMP	M
27	1-IA-7016318-0-0	WRITE LOCKOUT ASSY	E/M		2-MD-7420621-0-0	WASHER	M
	2-IA-7422069-0-0	BRACKET W.L.O.	M		2-IA-7016662-0-0	EOT/BOT ASSY	M
	2-MD-7422070-0-0	ARM W.L.O.	M		B-MD-7422992-0-0	SHAFT BUFFER	M
	A-PS-1214548-0-0	SOLENOID	E/M		B-MD-7422993-0-0	WASHER	M
	2-IA-7016317-0-0	HARNESS WRITE LOCK	E/M	35	2-IA-7014006-0-0	SHIELD ASSY	M
	2-MD-7422082-0-0	HOLDER ARM	M		2-MD-7418667-0-0	SHIELD MAGNETIC FLUX	M
28	B-DD-G158-0	DRAWING DIRECTORY	---		2-MD-7418666-0-0	HOLDER	M
	D-UA-G158-0-0	TS04 REEL SERVO BD	E/M		2-MD-7422487-0-0	SHIELD COPPER	M
	B-PL-G158-0-0	TS04 REEL SERVO BD (PL)	E/M		A-PS-1614497-0-0	FIRRITE	M
29	B-DD-G159-0	DRAWING DIRECTORY	---	36	C-IA-7010368-0-0	TAPE CLEANER	M
	D-UA-G159-0-0	CAPSTAN SERVO BD	E/M		C-MD-7414126-0-0	SUPPORT SCRAPER	M
	B-PL-G159-0-0	CAPSTAN SERVO BD (PL)	E/M		C-MD-7414127-0-0	SCRAPER, TAPE	M
30	B-DD-5413692-0	DRAWING DIRECTORY	---	37	2-DA-7013578-0-0	SLEEVE ARM ASSY	M
	D-UA-5413692-0-0	CAPSTAN DRIVER	E/M		2-MD-7420619-0-0	ARM DAMPER	M
	B-PL-5413692-0-0	CAPSTAN DRIVER (PL)	E/M		A-PS-1215236-0-0	SLEEVE BEARING	M
31	B-DD-G057-0	DRAWING DIRECTORY	---	38	2-AD-7016307-0-0	DOOR ASSY	M
	D-UA-G057-0-0	PRE-AMP BOARD	E/M		0-MD-7418027-0-0	DOOR	M
	B-PL-G057-0-0	PRE-AMP BOARD (PL)	E/M		2-MD-7419698-0-0	WINDOW	M
32	1-AD-7016677-0-0	CAPSTAN MOTOR ASSY	E/M		2-IA-7419911-0-0	BRACKET LATCH	M
	1-PS-1214529-0-0	MOTOR CAPSTAN	M		A-PS-1214956-0-0	HINGE	M
	2-MD-7417984-0-0	PLATE CAPSTAN MOTOR	M		A-PS-1214838-0-0	CLIP	M
33	2-AD-7015475-0-0	ROLLER GUIDE ASSY	M	39	B-PL-TS04K-B-0	ACCESSORY KIT TS04/TS11	---
	A/C-PS-1216060-0-0	ROLLER ASSY	M				
	2-MD-7418011-0-0	CLAMP ROLLER GUIDE	M				
	1-MD-7418520-0-0	BASE ROLLER GUIDE	M				
34	1-DA-7013574-0-0	HEAD PLATE ASSY	E/M				
	D-MD-7418034-0-0	HEAD PLATE	M				
	A-SP-7412561-0-0	HEAD, MAG, 9TRK	---				
	B-MD-7418000-0-0	FLOCK AZIMUTH ALF	M				
	2-MD-1218010-0-0	SPRING GUIDE	M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL

digital

TITLE
DRAWING DIRECTORY

SHEET 6 OF 6

SIZE CODE
B DD

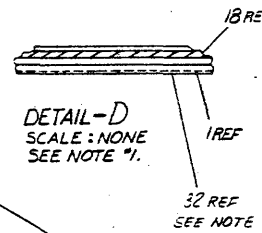
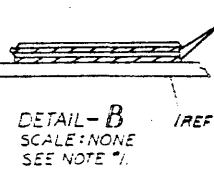
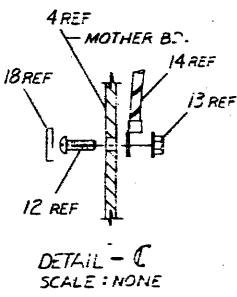
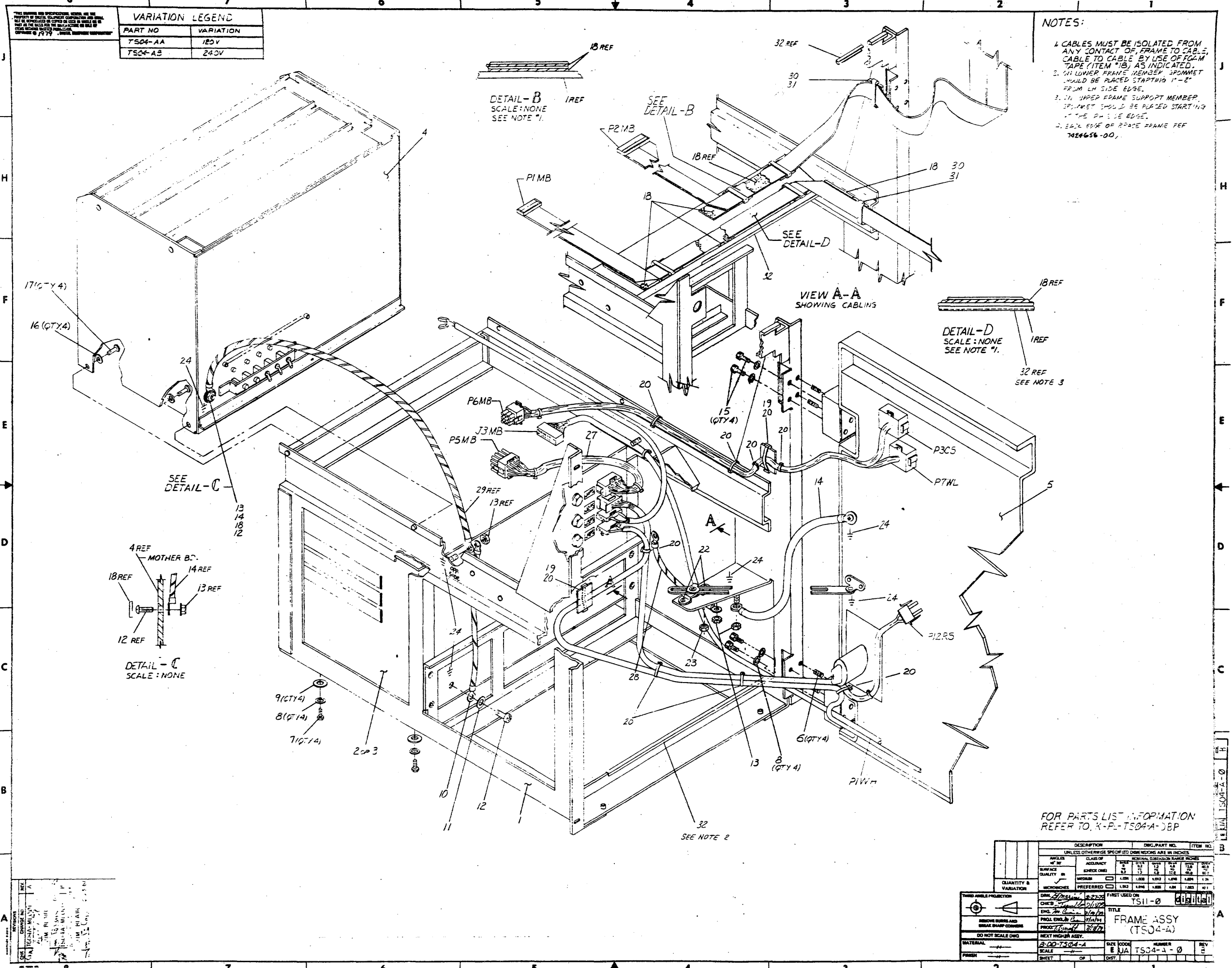
NUMBER
TS04-A

REV
A

VARIATION LEGEND	
PART NO	VARIATION
TS04-AA	120V
TS04-AS	240V

NOTES:

1. CABLES MUST BE ISOLATED FROM ANY CONTACT OF FRAME TO CABLE, CABLE TO CABLE BY USE OF FGM TAPE (ITEM #18) AS INDICATED.
2. LOWER FRAME MEMBER SPACET SHOULD BE PLACED STARTING 1" - 2" FROM LH SIDE EDGE.
3. UPPER FRAME SUPPORT MEMBER, SPACET SHOULD BE PLACED STARTING AT THE RH SIDE EDGE.
4. EDGE OF RPOSE FRAME REF 7424656-00.



SEE NOTE 2

FOR PARTS LIST INFORMATION
REFER TO: X-P-TS04-A-38P

REV	DESCRIPTION	DATE
1	REVISED TO ADD 120V/240V VARIATION	10/1/68
2	REVISED TO CORRECT DIMENSIONS	10/1/68
3	REVISED TO CORRECT DIMENSIONS	10/1/68
4	REVISED TO CORRECT DIMENSIONS	10/1/68
5	REVISED TO CORRECT DIMENSIONS	10/1/68
6	REVISED TO CORRECT DIMENSIONS	10/1/68

DESCRIPTION	QTY	UNIT	PART NO	ITEM NO
FRAME ASSY (TS04-A)	1	EA	TS04-A	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES	CLASS OF ACCURACY	FINISH	PLATE	PLATE	PLATE	PLATE	PLATE	PLATE	PLATE
1/2°	1	1	1	1	1	1	1	1	1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DIMS

NEXT HIGHER ASSY.

MATERIAL: 3003-T504-A

SCALE: E:UA

DATE: 10/1/68

DESIGNER: [Signature]

DRAWN: [Signature]

CHECKED: [Signature]

PROD ENGR: [Signature]

PROD: [Signature]

REV: 1

SHEET: 1

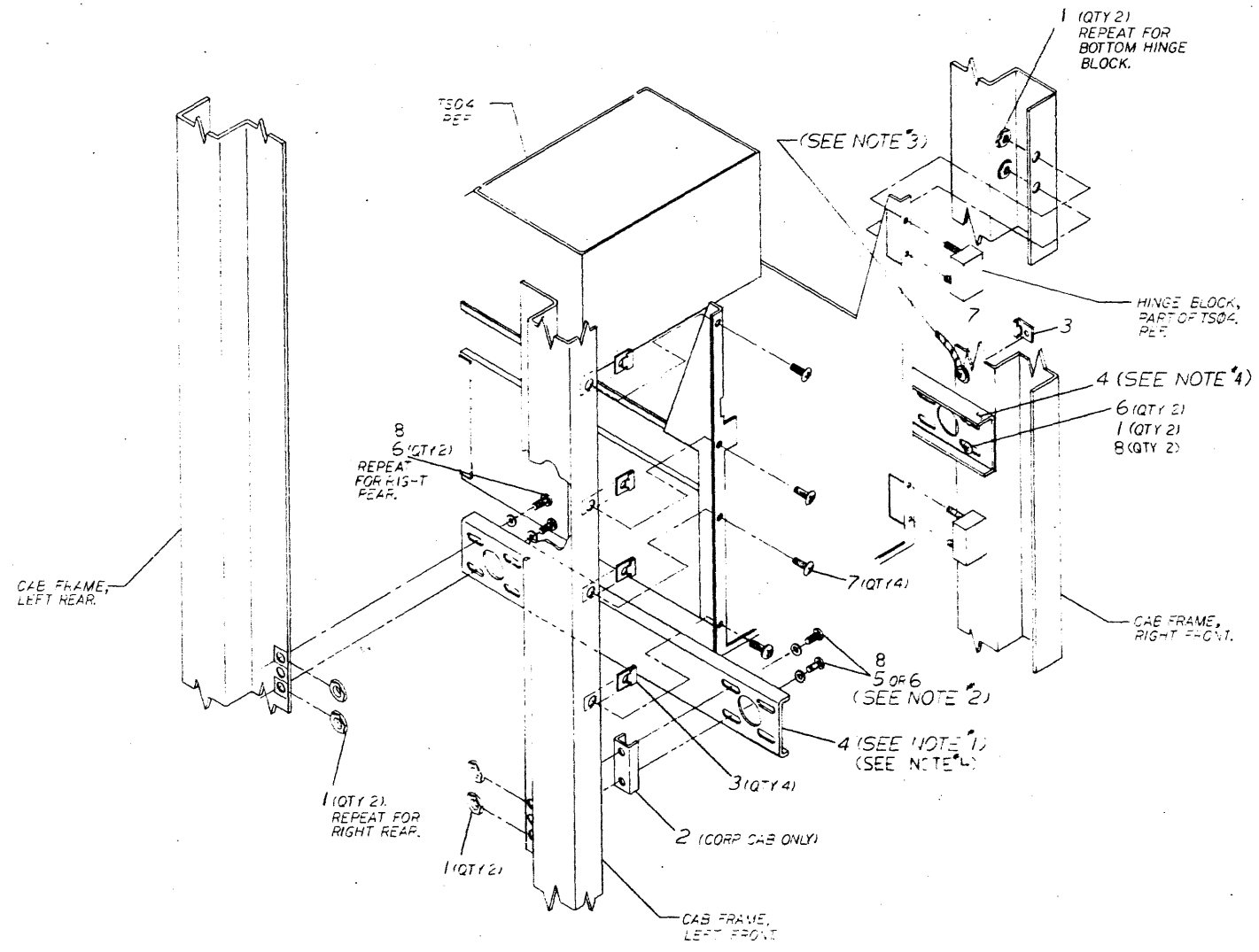
OF: 1

DATE: 10/1/68

BY: [Signature]

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 OR BY ANY INFORMATION STORAGE AND
 RETRIEVAL SYSTEM, WITHOUT THE WRITTEN
 PERMISSION OF THE COMPANY.

- NOTES:
1. INSTALL ITEM 4 (FRAME SUPPORT) USING SECOND SET OF FRONT SLOTS AS SHOWN FOR CORP CAB INST. USE FIRST SET OF FRONT SLOTS ON ALL OTHER CABS.
 2. USE ITEM 5 (SCR 1/4-20 X.75L) AND ITEM 2 (SPACER) TOGETHER FOR CORP CAB INST. USE ITEM 6 (SCR 1/4-20 X.50L) ON ALL OTHER CABS.
 3. SECURE GROUND STRAP PART OF TS04 TO CAB FRAME.
 4. WIDER EDGE DENOTES TOP OF "U" CHANNEL FRAME SUPPORT



FOR PARTS LIST REFER TO, K-PLTS04K-A-002

DESCRIPTION		DWG/PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
ANGLE	CLASS OF ACCURACY	AS	FS	FS	FS
FINISH	QUANTITY IN	CHECK ONE	AS	FS	FS
QUANTITY & VARIATION	QUANTITY	PREPARED	AS	FS	FS
THIS APPLICABLE PRELIMINARY	DATE	BY	DATE	BY	DATE
REVISIONS	NO.	DESCRIPTION	DATE	BY	DATE
DO NOT SCALE DIMS		NEXT NUMBER ASSY.			
SCALE		SCALE			
SHEET		SHEET			

DESCRIPTION: CAB INSTALLATION KIT
 DWG/PART NO.: TS04
 ITEM NO.: 000000
 TITLE: CAB INSTALLATION KIT
 SCALE: NONE
 SHEET: 1 OF 2

TS04
 CAB INSTALLATION KIT
 K-PLTS04K-A-002

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:						
MADE BY G. Marini DATE 2/27/79		CHECKED R. Tremblay DATE 7/18/79																		
ENG M. Cucini DATE 7/19/79		PROD T. Wright DATE 7/18/79																		
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11K-AA (120V)																
																			REF DESIGNATION	
1	D-AD-7016287-0-0	7016287-0	A.C. INPUT ASSY (120V)	1																
2	D-1A-1700083-0-0	1700083-00	POWER CORD ASSY (120V)	1																
3		9107253-0	TUBING SHRINK	A/R																
4	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1																
5		9905136-00	BOX	1																
6		9906200-01	PACKING BUBBLE PACK	A/R																
7		9009357-00	2" MASKING TAPE	A/R																

E.C.O. NO.
MLO01
MLO02

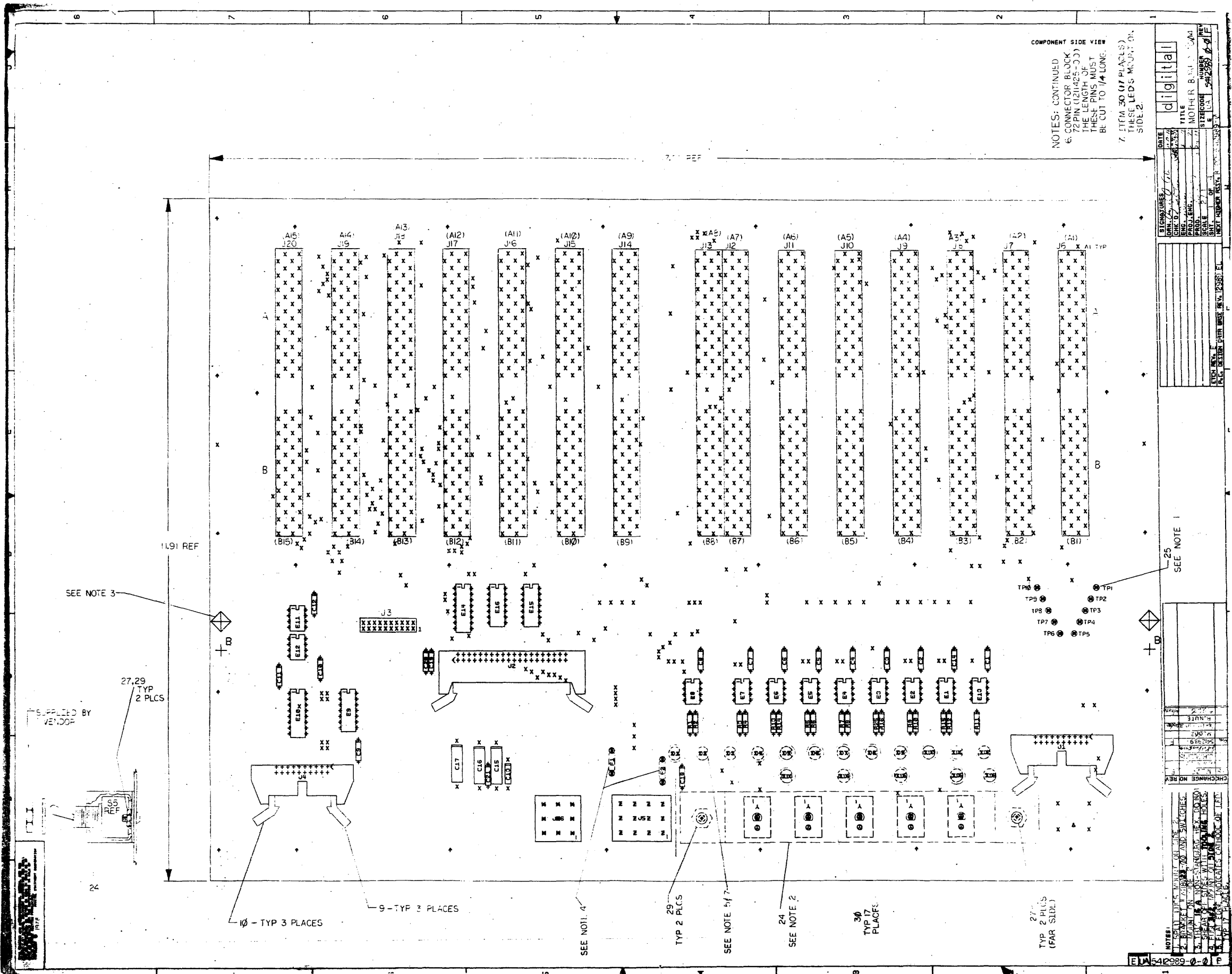
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SHEET 1 OF 1								INSERTION PARTS LIST DATA BASE REV					

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:		
MADE BY G. Marini DATE 2/27/79		CHECKED Robert Tremblay DATE 7/18/79														
ENG M. Cucina DATE 7/19/79		PROD T. Wright DATE 7/18/79														
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11K-AB (240V)												REF DESIGNATION
1	D-AD-7016287-0-0	7016287-01	A.C. INPUT ASSY (240V)	1												
2	D-1A-1700083-0	17-00083-17	POWER CORD ASSY (240V)	1												
3		9107253-0	TUBING SHRINK	A/R												
4	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1												
5		9905136-00	BOX	1												
6		9906200-01	PACKING BUBBLE PACK	A/R												
7		9009357-00	2" MASKING TAPE	A/R												

E.C.O. NO.
ML001
ML002

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	SHEET 1 OF 1				INSERTION PARTS LIST DATA BASE REV				

M13



NOTES: CONTINUED
 6. CONNECTOR BLOCK 72 PIN (21425-00) THE LENGTH OF THESE PINS MUST BE CUT TO 1/4 LONG.
 7. ITEM 30 (17 PLACES) THESE LEDs MOUNT ON SIDE 2.

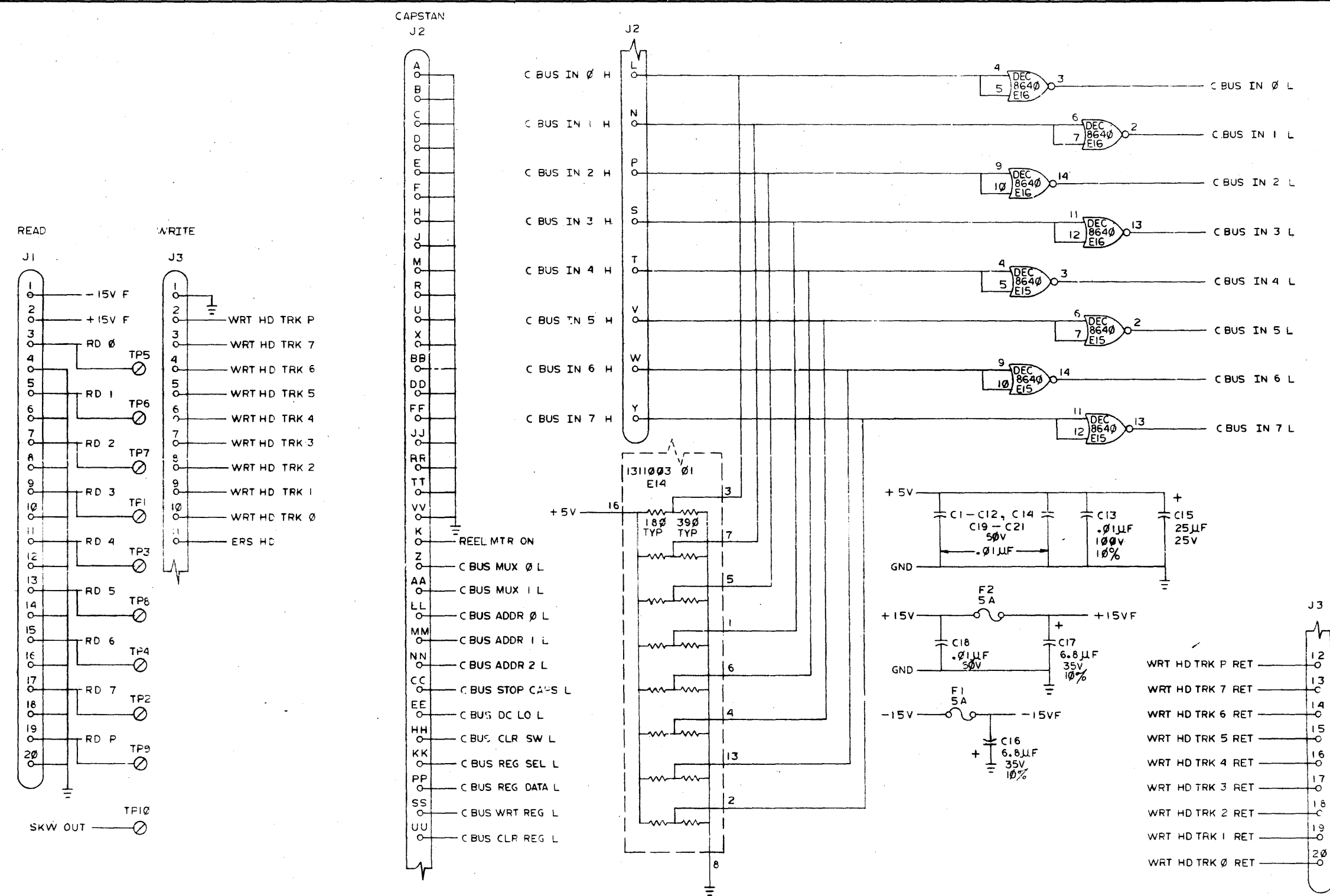
DATE	10/10/73
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SHEET	1 OF 1
REV.	...
REV. NO.	...
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REV. BY	...

STANDARD	...
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DESCRIPTION	...
QUANTITY	...
UNIT PRICE	...
TOTAL PRICE	...
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REV.	...
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DESCRIPTION	...
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NOTES:
 1. SPALL PLCS MOUNT ON SIDE 1.
 2. BOARD TO BE MOUNTED ON 700 AND SWITCHES.
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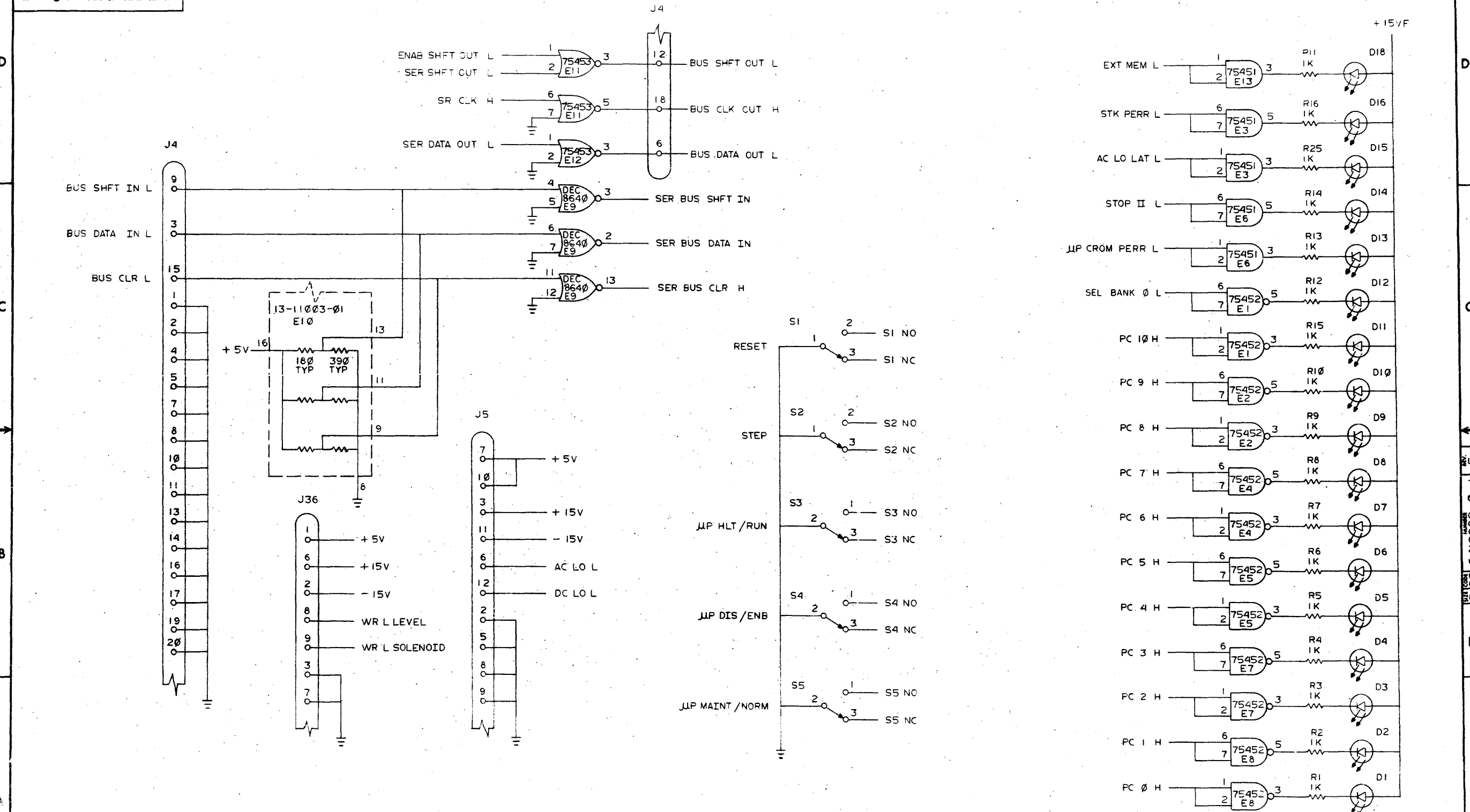
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REV.	CHANGE NO.	REV.
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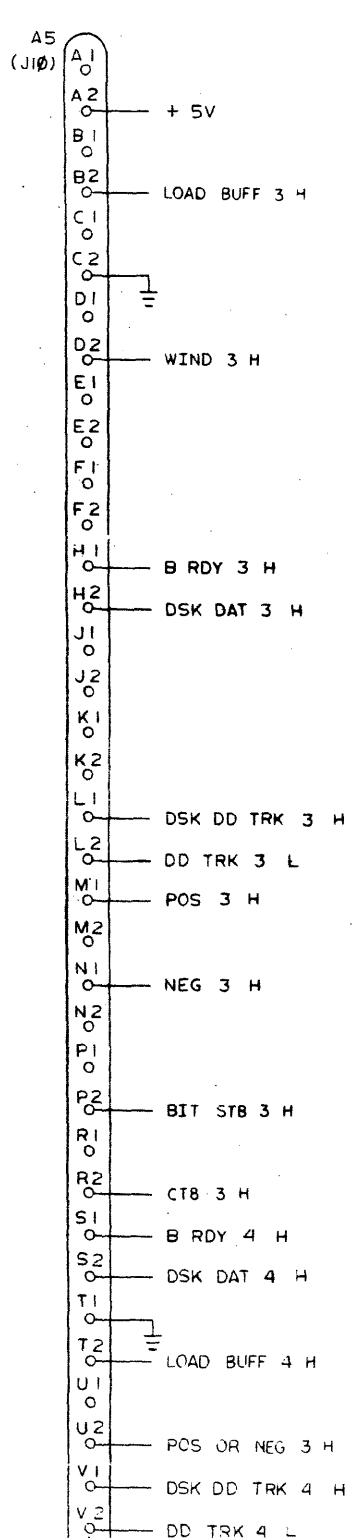
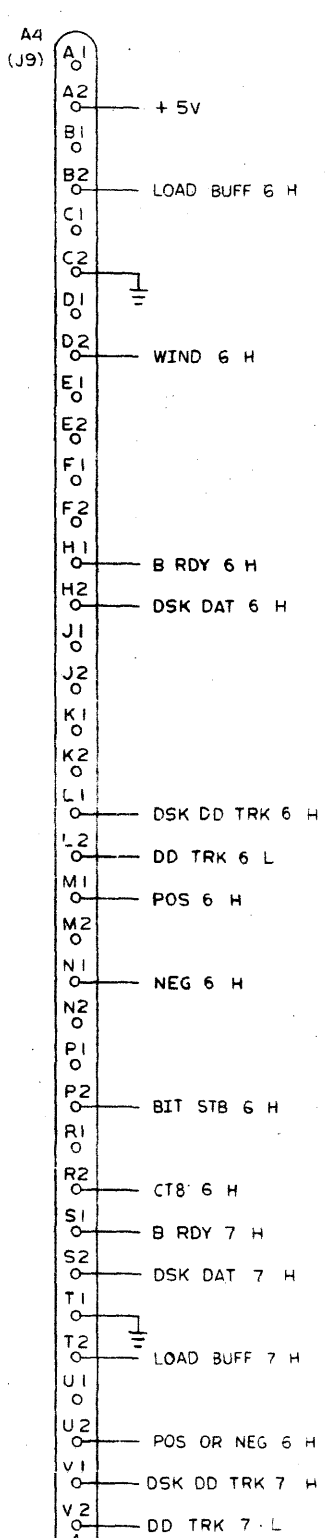
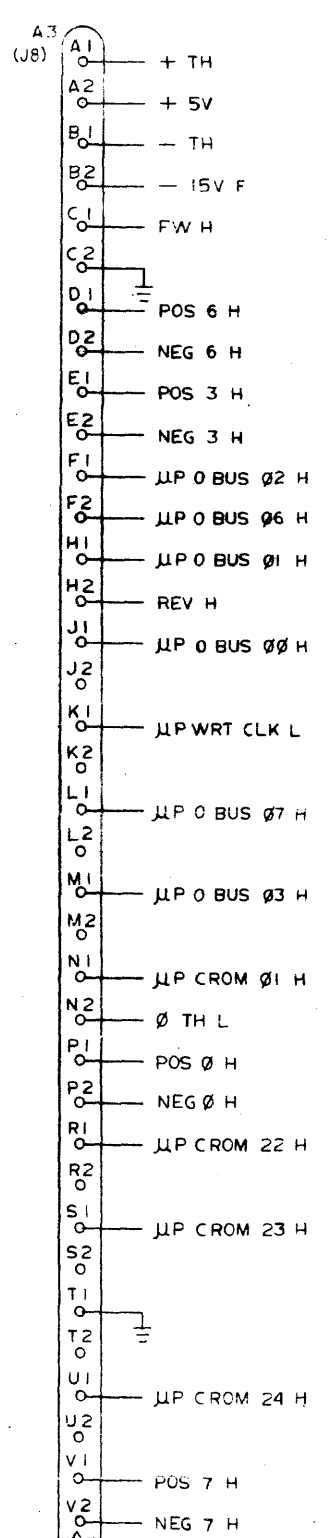
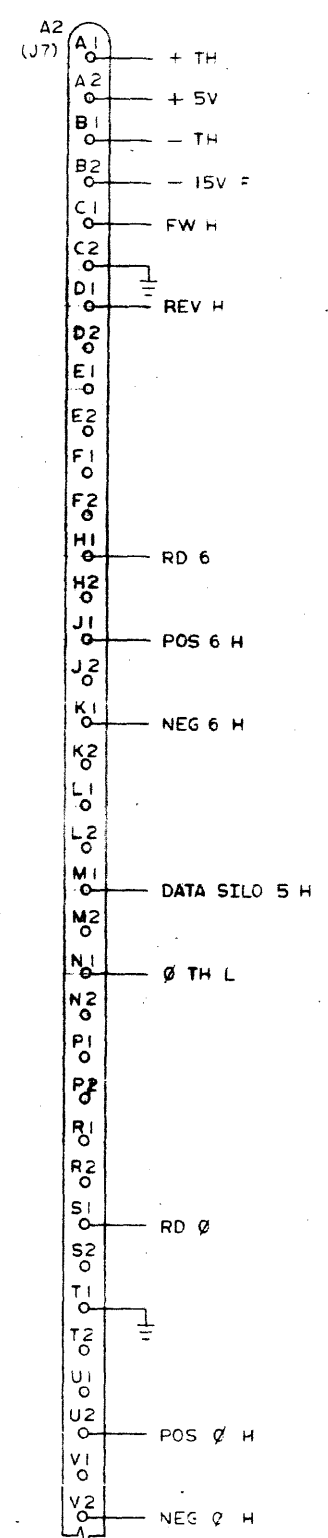
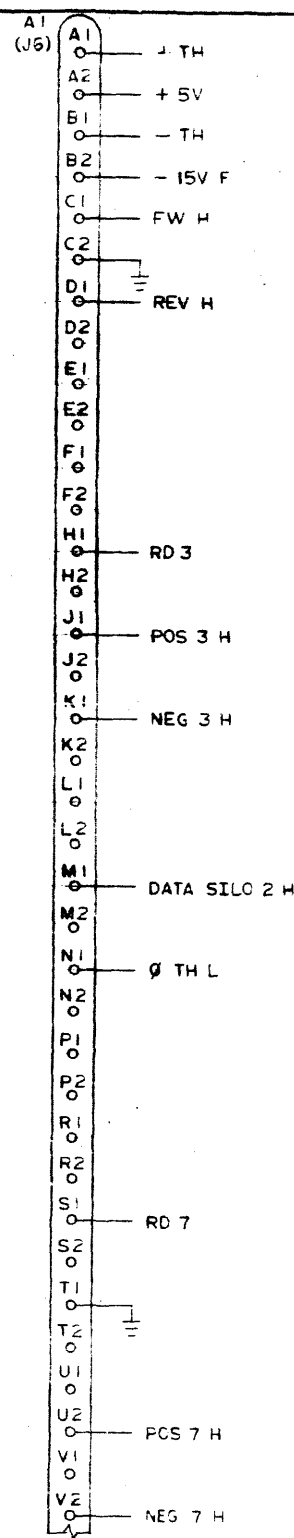
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CHK'D <i>D. ...</i> 3 JAN 78	TITLE	MOTHER BOARD
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PROD. <i>J. ...</i> 1 FEB 78	SIZE	D
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SCALE NONE	DIST.	
SHEET 1 OF 8		

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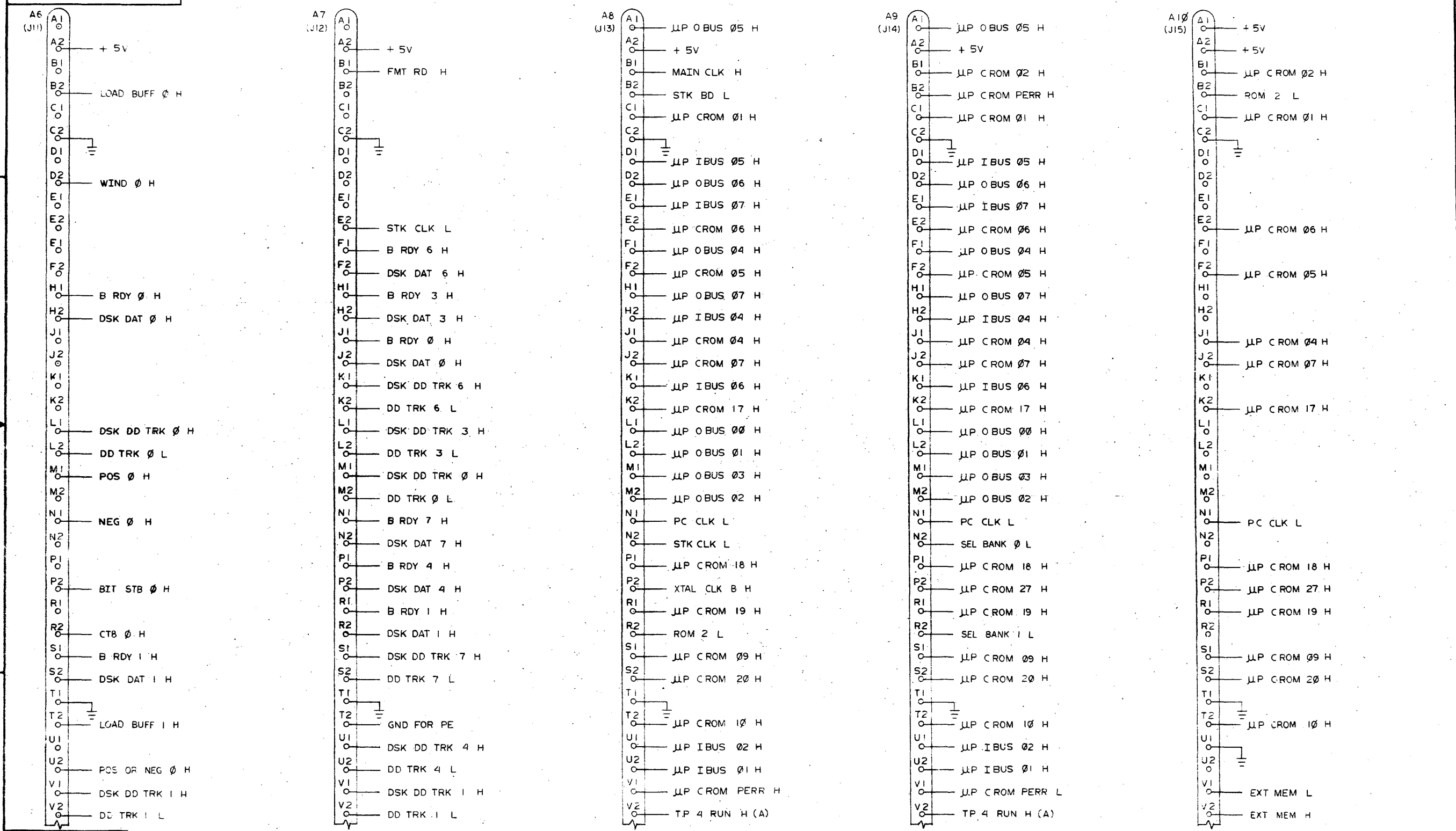
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REVISIONS		
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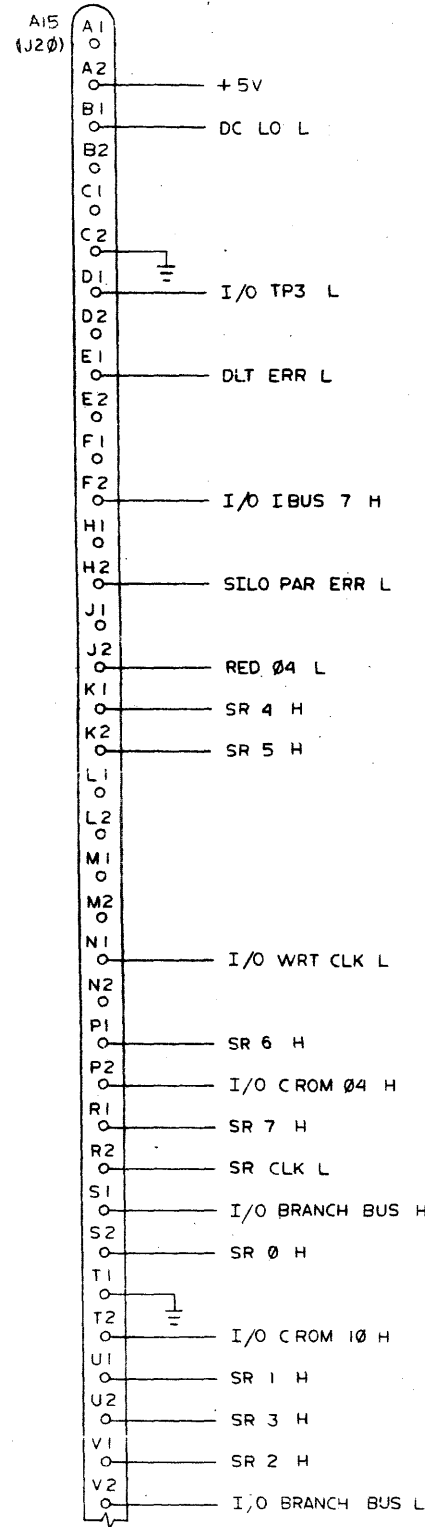
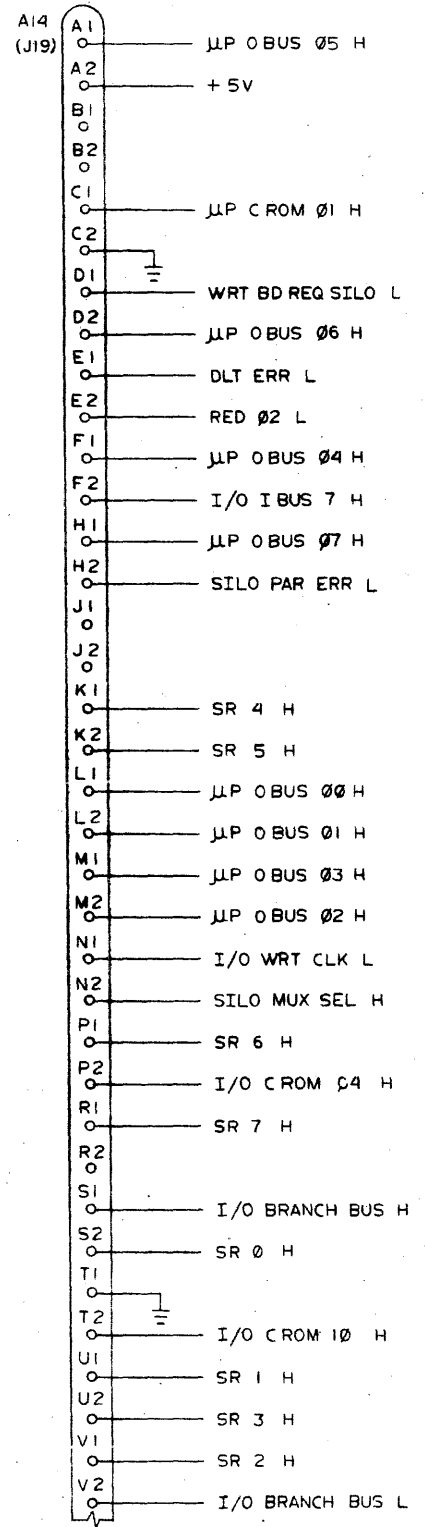
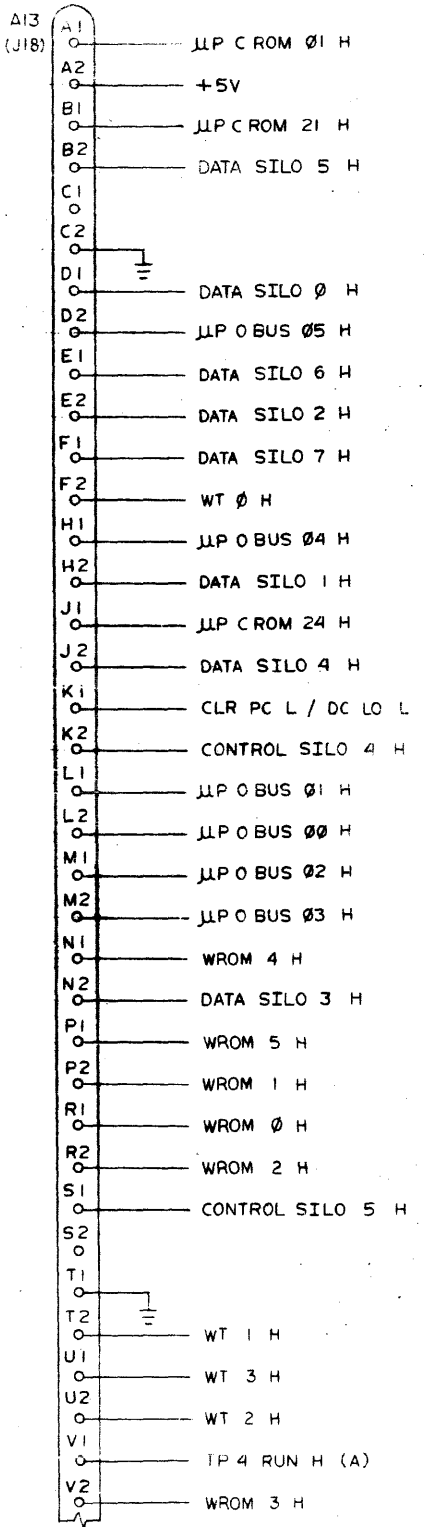
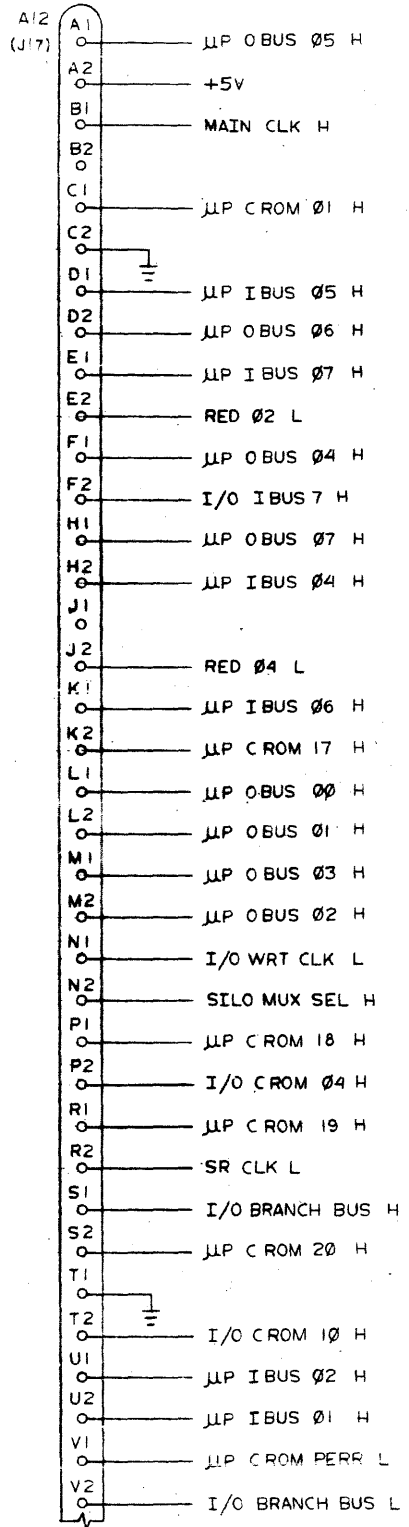
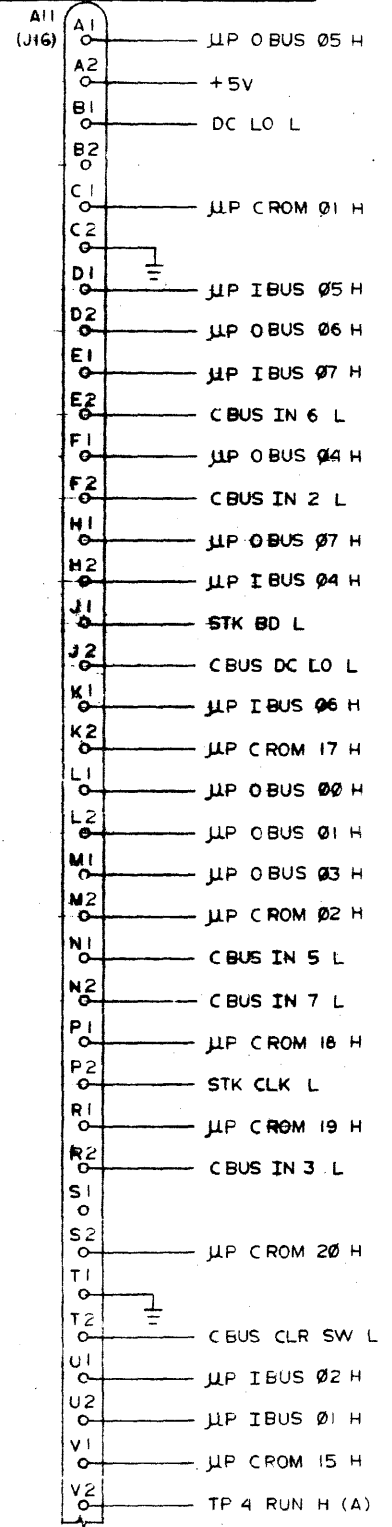
DIGITAL EQUIPMENT CORPORATION
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REVISIONS		
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SCALE	NONE	SHEET	4 OF 8	DIST.	

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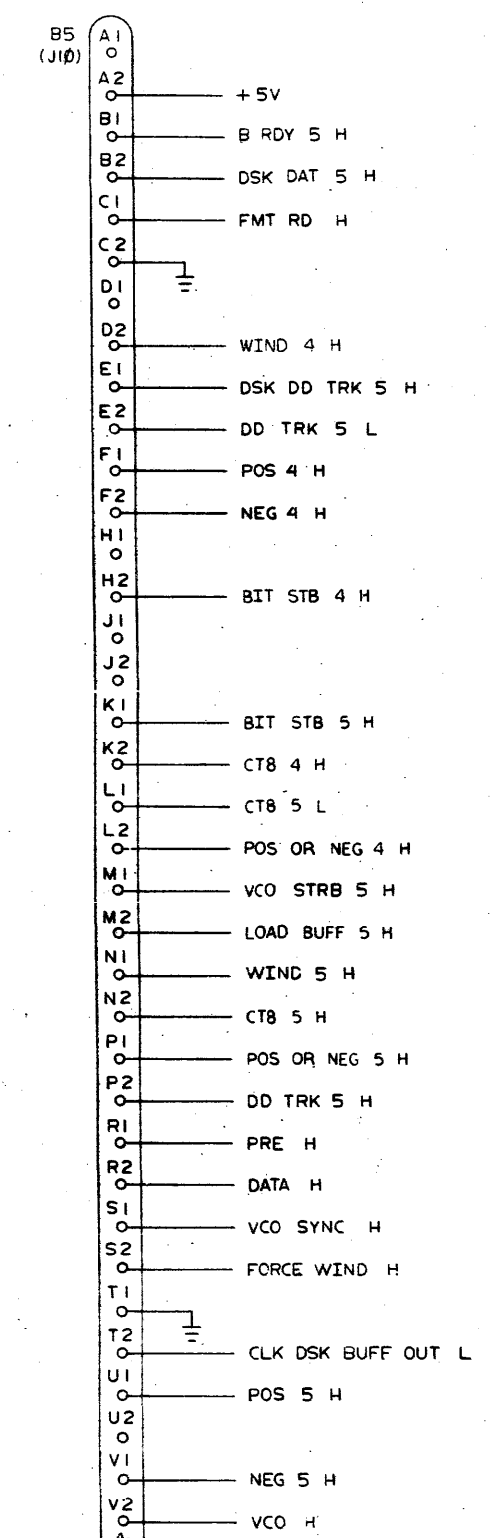
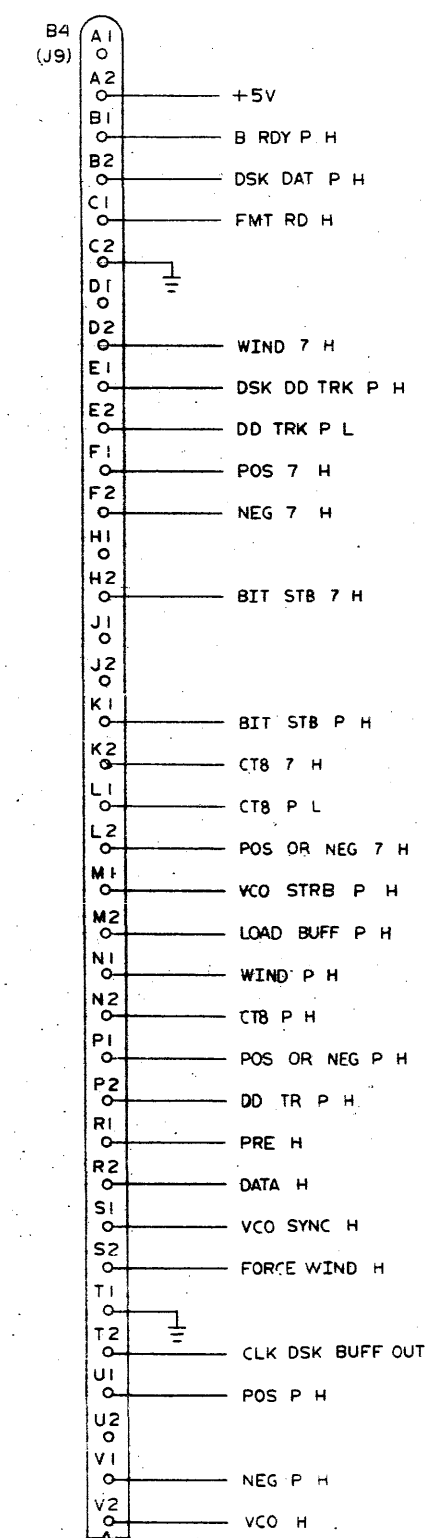
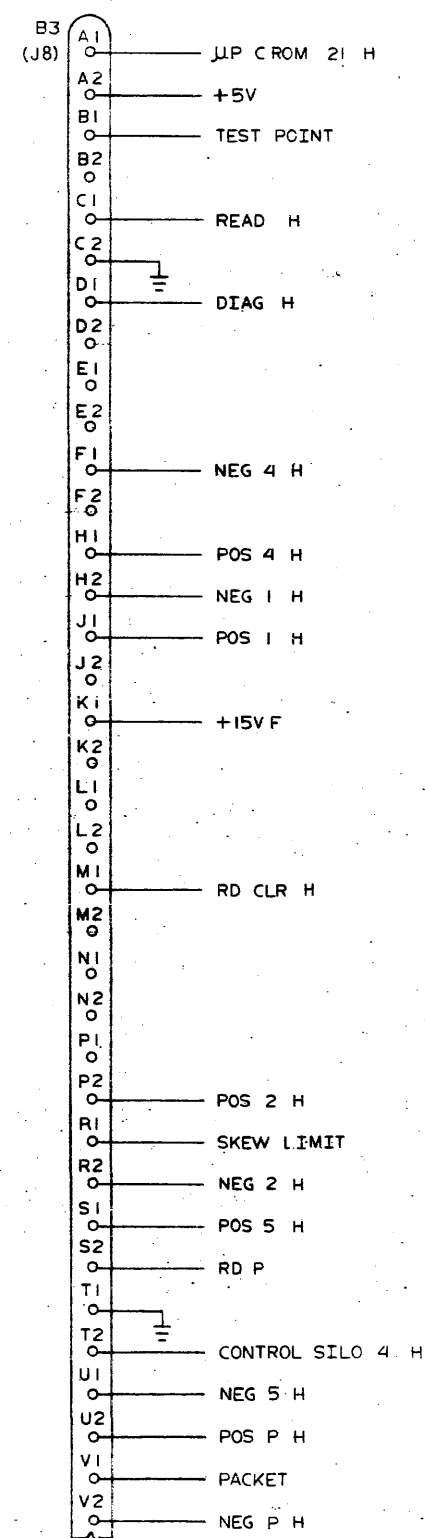
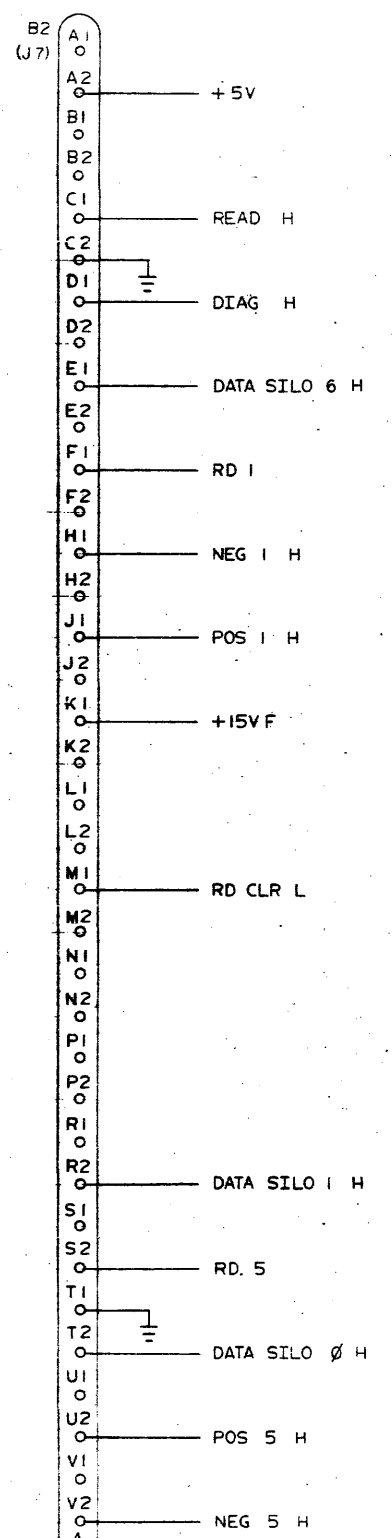
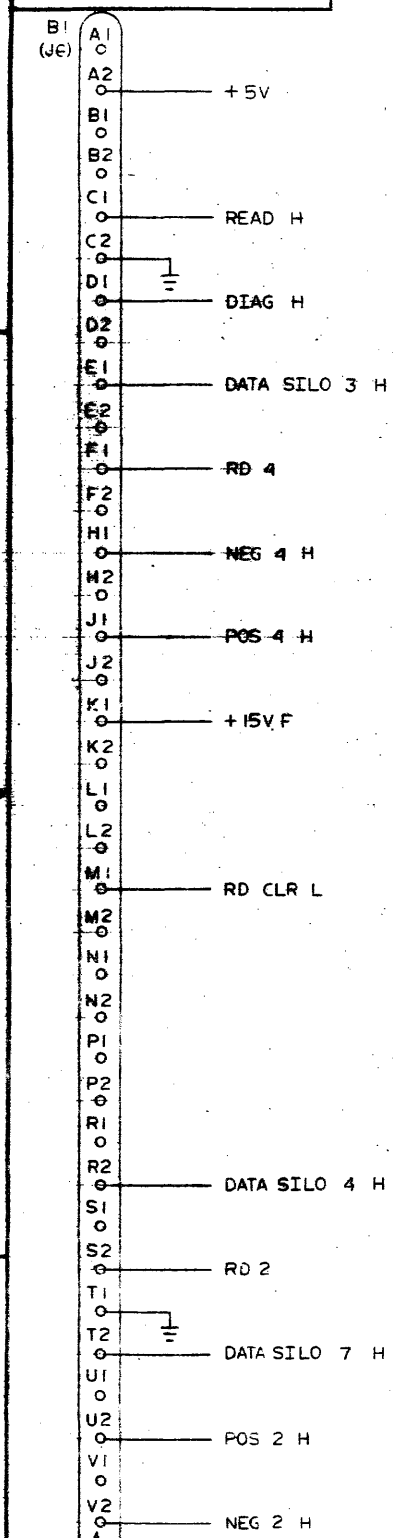


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CHK	CHANGE NO.	REV.

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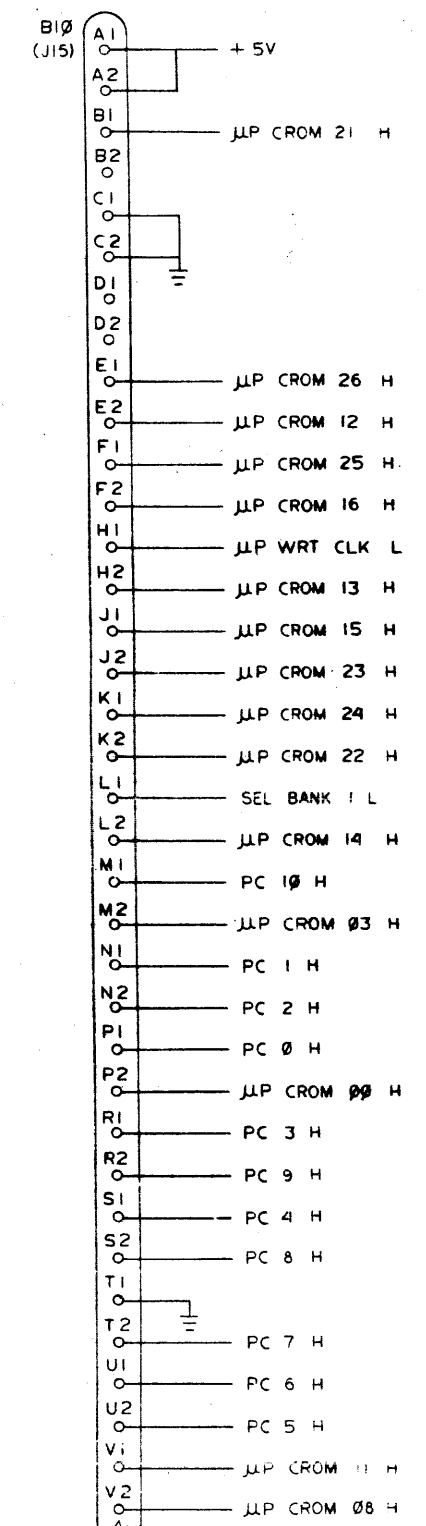
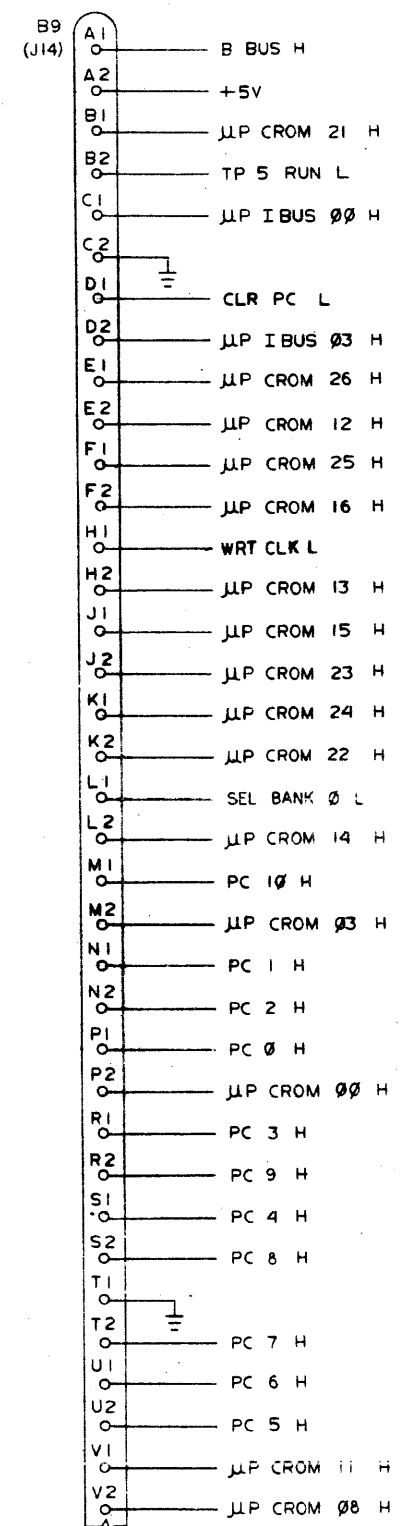
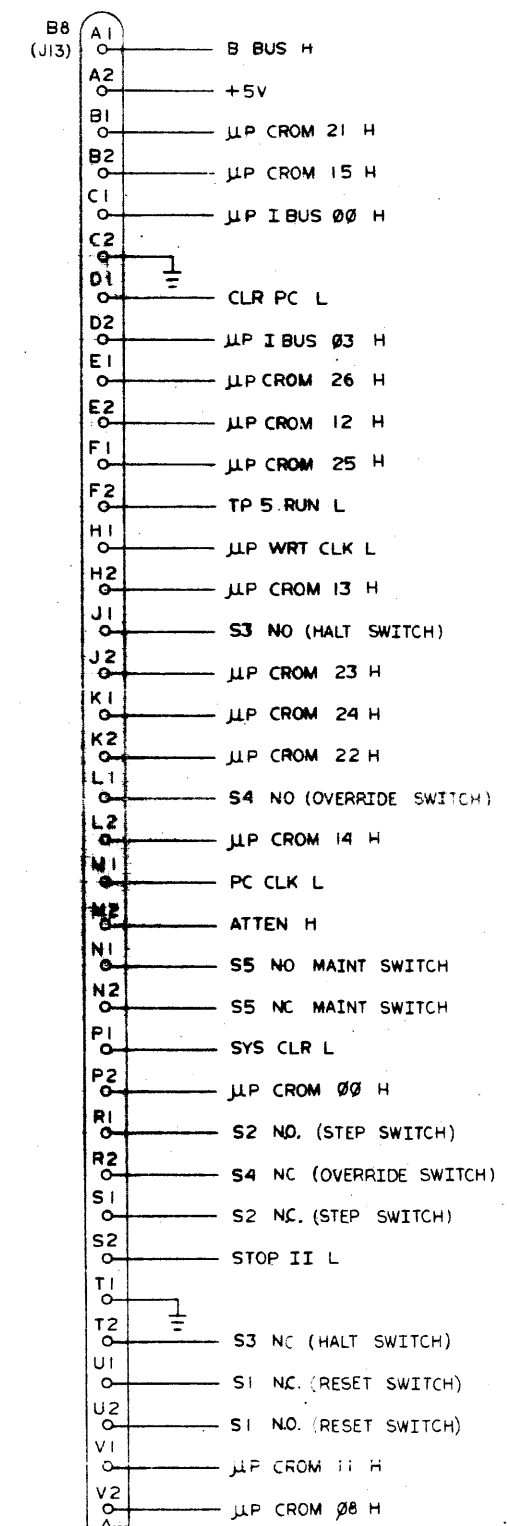
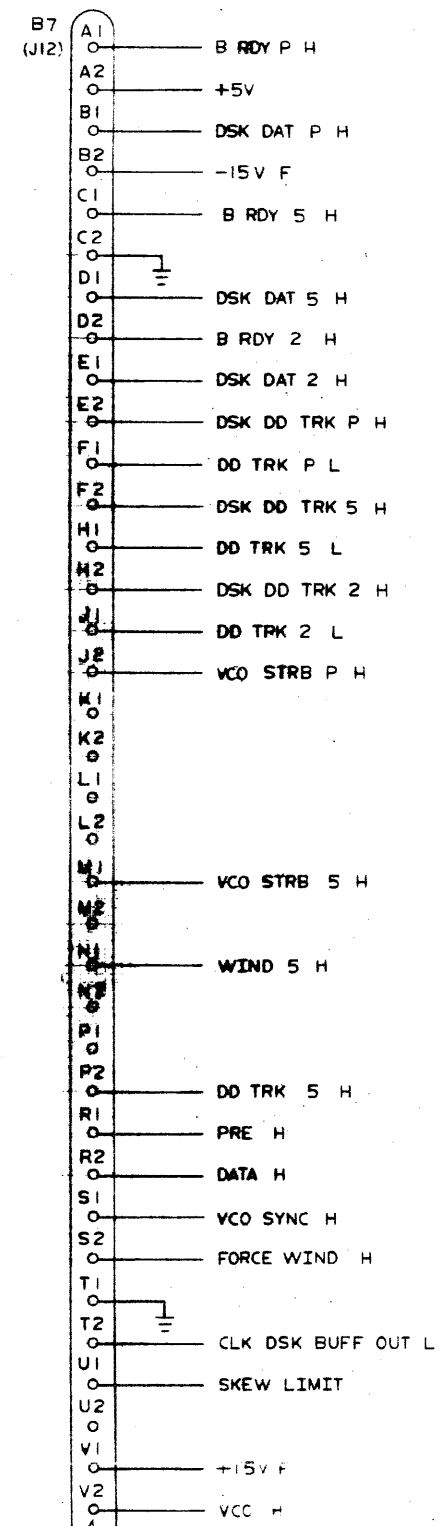
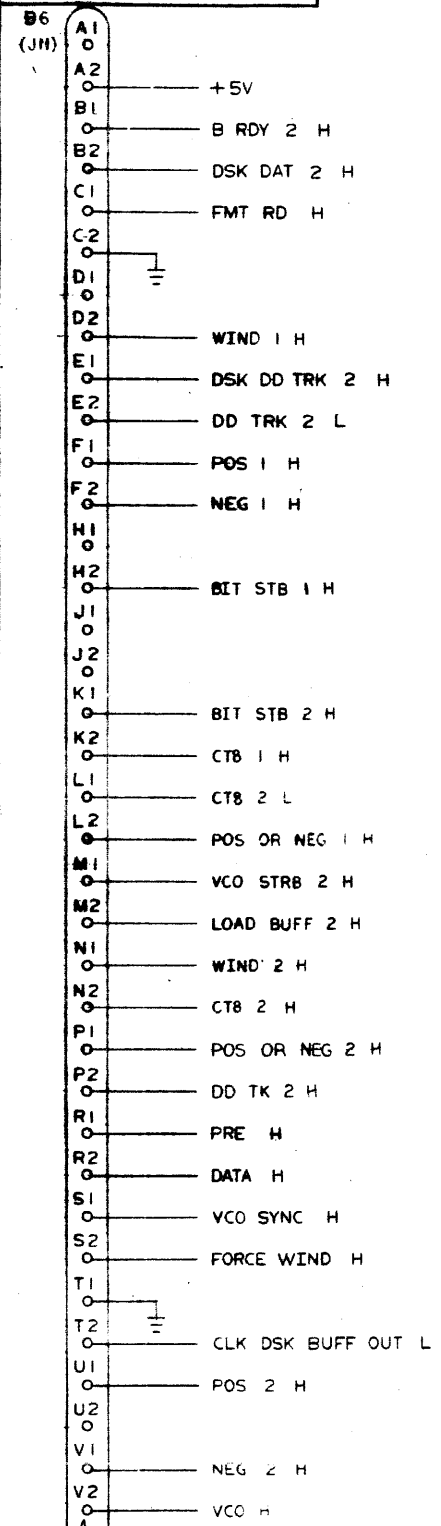
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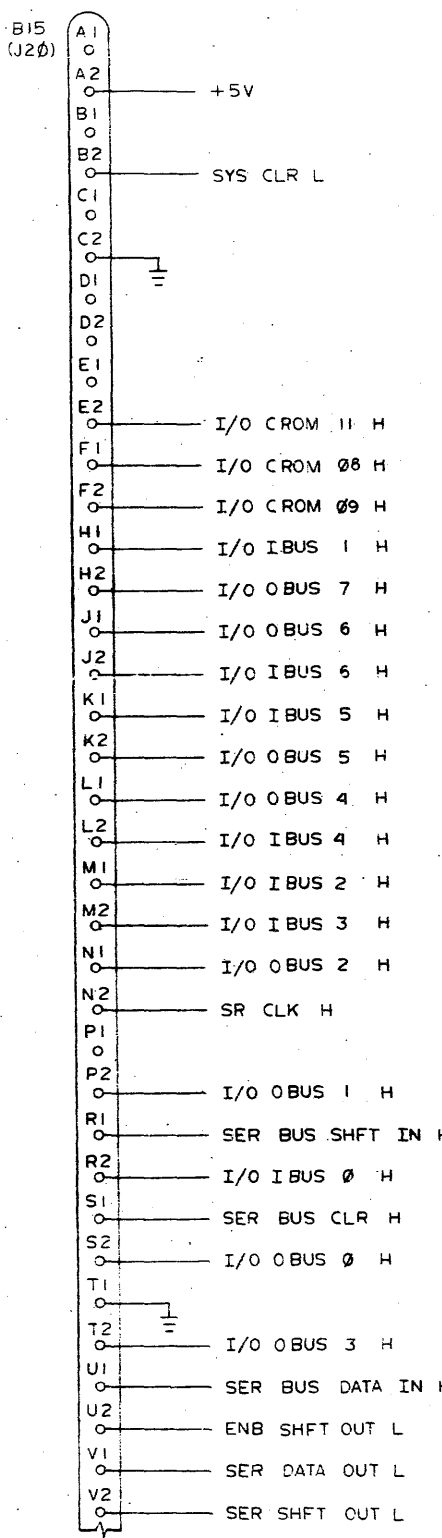
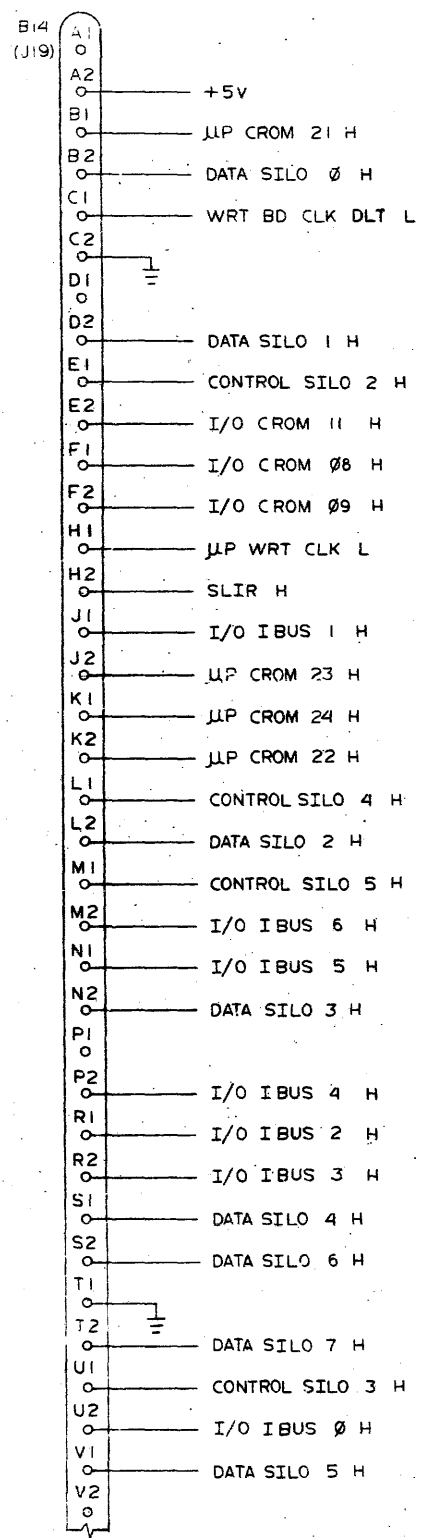
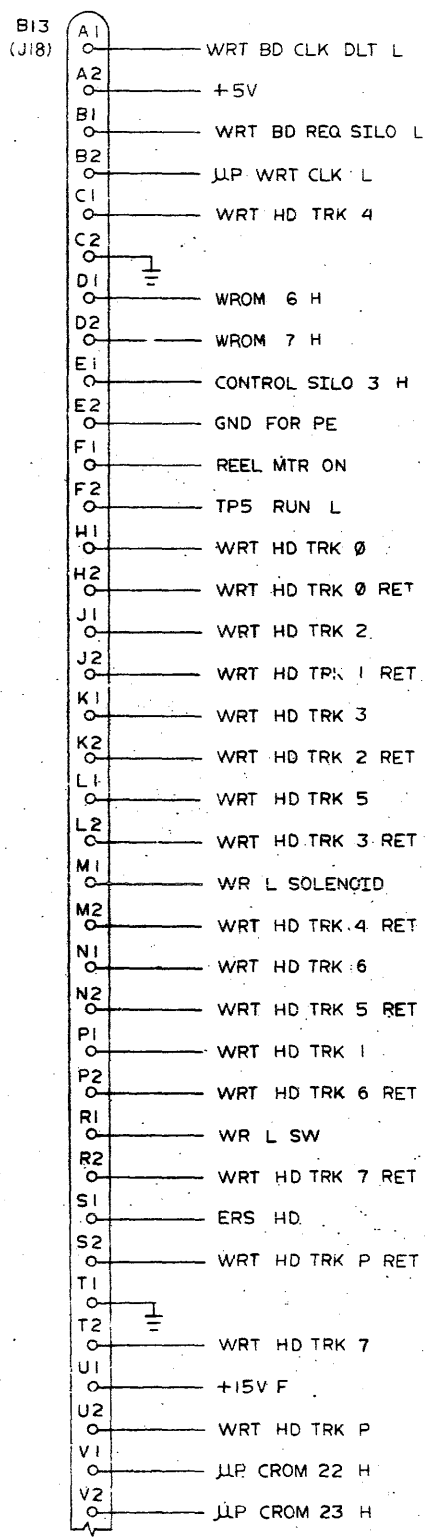
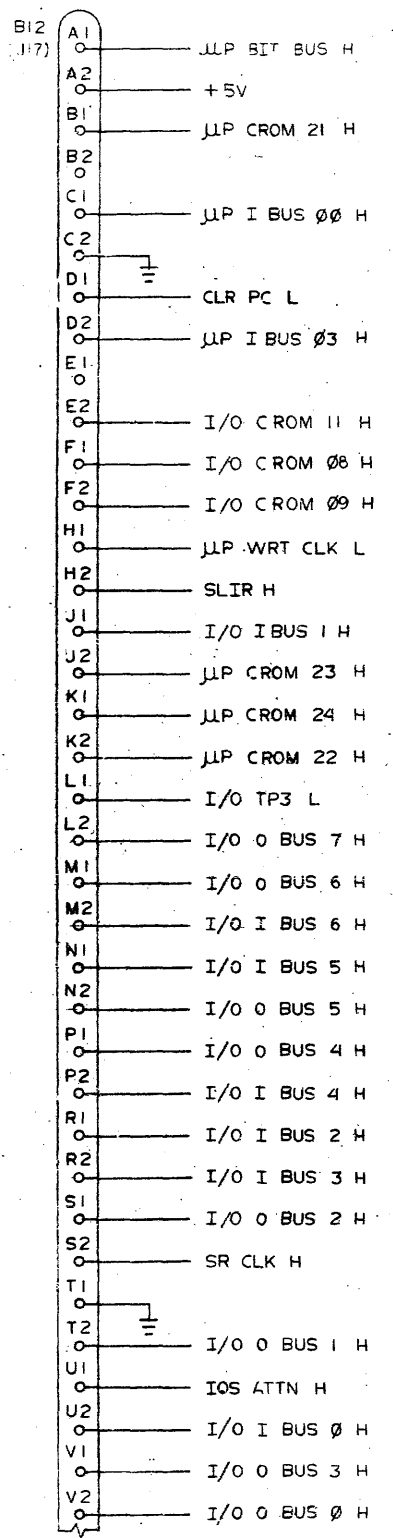
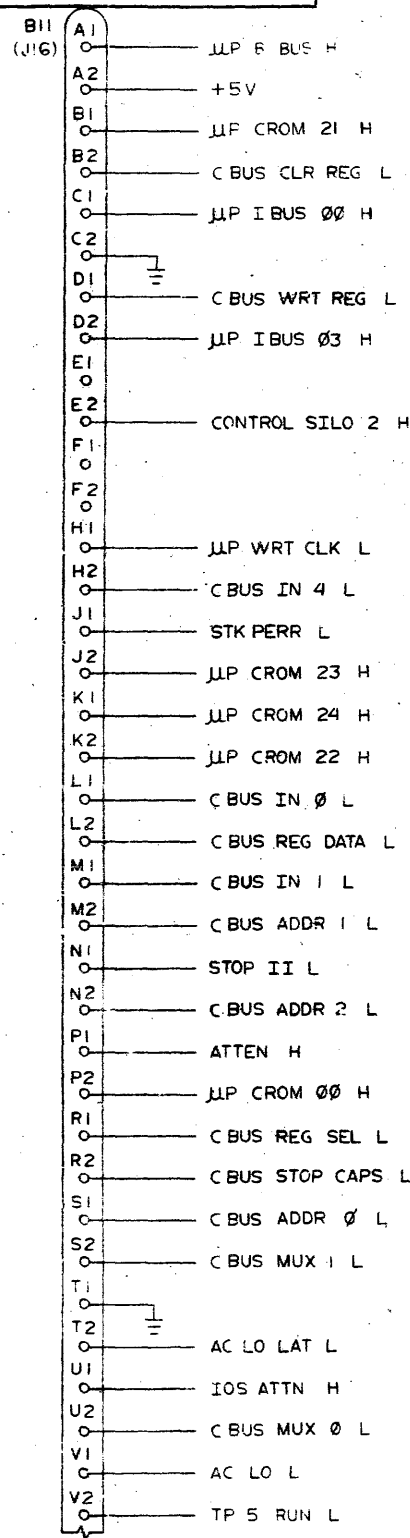
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REVISIONS		
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TITLE	MOTHER BOARD	SIZE CODE	NUMBER	REV.
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SCALE	NONE	SHEET	7 OF 8	DIST.

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1		5012988-00	TS04 LOGIC BACKPLANE	1		
2		1000075-00	25 MFD 25V 6% 30D AL EL	1		C15
3		1001610-00	.01 MFD 50V +80-20% Z5UCR	17		C1-C12,C14,C18-C20,C21
4		1005306-00	6.8MFD 35V 10% S.TANT	2		C16,C17
5		1005784-00	.01 MFD 100V 10% 6630W MYLR	1		C13
6		1110324-00	LED 1MCD@10MA FIV=3	17		D1-D16,D18
7		1209590-00	SW,T38 1P 5A ON/NONE/ON	3		S3-S5
8		1209941-02	HEADER 100 40POS RT ANGLE	1		J2
9	USED ON J1,J2,J4.	1209941-03	HEADER RT ANGLE LEFT L	3		
10	USED ON J1,J2,J4.	1209941-04	HEADER RT ANGLE,RIGHT	3		
11		1209941-06	HEADER.100 20POS RT ANGLE	2		J1,J4
12		1205747-00	FUSE- SUB-MINI, 5.000A, 125V, A	2		F1,F2
13		1211079-00	SW,PB 1P 1A	2		S1,S2
14		1211425-00	CONN,CARD 72PIN SLOTTED DOUBLE	15		J6-J20
15		1212297-02	MATE-N-LOK 9PIN UNIV HEADER	1		J36
16		1212297-06	MATE-N-LOK 12PIN UNIV HEADER	1		J5
17		1213335-00	HEADER 20POS RT ANGLE FOR 12	1		J3
18		1300365-00	1.0 K .25 W 5.0 % CC	17		R1-R16,R25
19		1311003-01	R NETWORK 14-180 14-390 16PIN	2		E10,E14
20		1910406-00	75451 DRIVER,PERIPH,DUAL,	3		E3,E6,E13
21		1910645-00	75452 DRIVER,PERIPH,DUAL,	6		E1,E2,E4,E5,E7,E8
22		1911036-00	75453 DRIVER,PERIPH,DUAL,	2		E11,E12
23		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	3		E9,E15,E16
24		7418023-00	BRACKET SWITCH	1		
25		9006735-00	EYELET, FUNNEL FLANGE, .059 OD X	14		
26	USED ON 31-S5.	9008437-00	*** THIS ITEM IS NOT USED ***	-		
27		9006021-01	SCREW,PAN,PHIL 6-32X 5/16 SS	2		
28		9006709-00	*** THIS ITEM IS NOT USED ***	-		
29		9006560-00	NUT,KEP 6-32 X5/16AF	2		
30	SEE NOTE.	1210695-00	WASHER MOUNT LIGHT EMIT DIODE	17		

REVISION HISTORY		E4SIL PART NO: 5412989		DRN: S. TUTTLE		DATE: 7-27-78		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF H	CHK'D:	P. BOSSMAN	DATE:	10-23-78	TITLE	PARTS LIST
---	INIT	D	SECTION VARIATION INDEX	CHK'D:	P. BOSSMAN	DATE:	10-23-78		
J.R.	5412989-ML001	E	[A] 00					MOTHER BOARD TS04	
RN	5412989-ML002	F	[B]						
			[C]	DES.ENG:	J. ROLLINS	DATE:	10-23-78		
			[D]						
			[E]					DOCUMENT NUMBER	
			[F]	RESP.ENG.:	J. ROLLINS	DATE:	10-23-78		
			[G]						
			[H]					SIZE	CODE
			[J]					NUMBER	REV
			[K]	MFG.ENG.:	P. BARTON	DATE:	10-23-77	K	PL
			[L]					5412989-0-DBP	F
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	EDIT #
			[N]	E-UA-5412989-0-0		TS04		Z0301F.PLS	14

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PARTS LIST

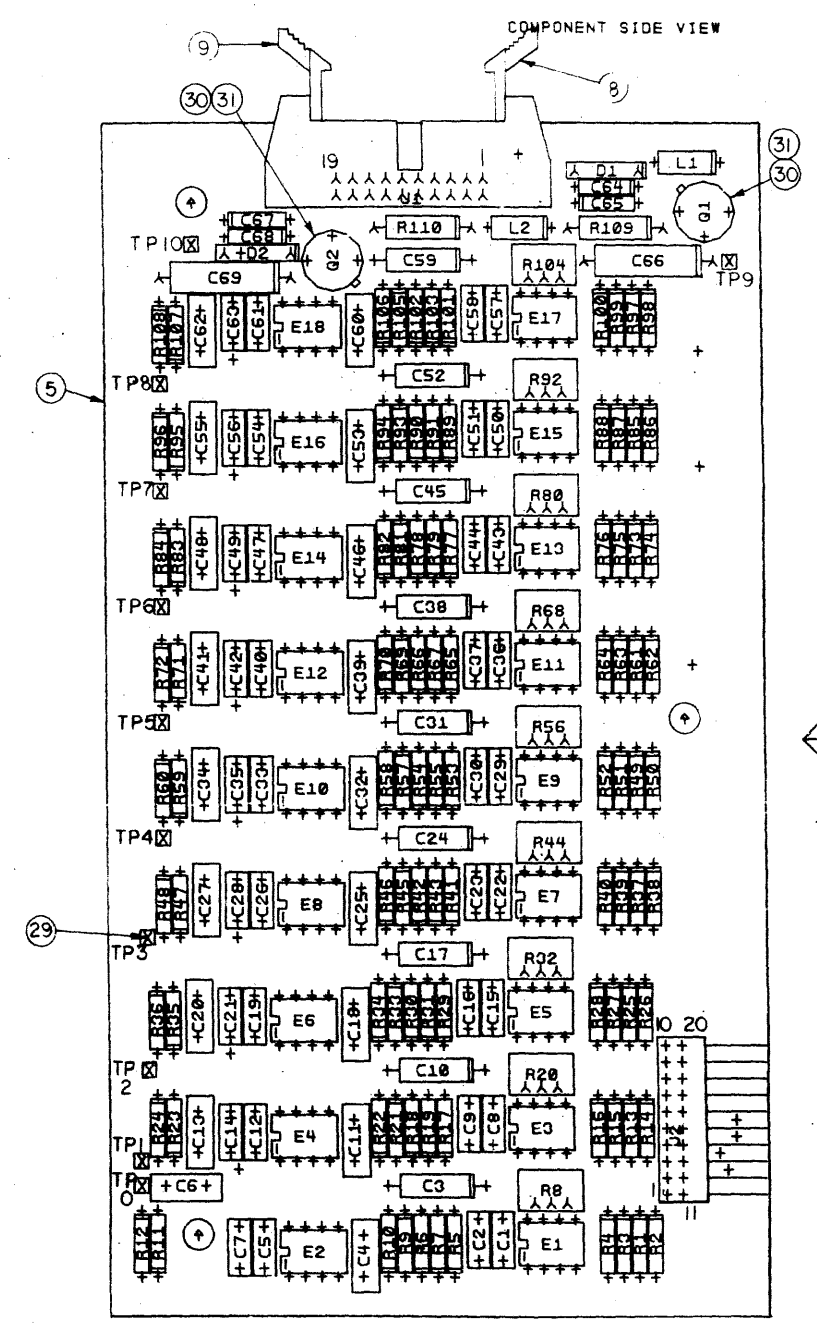
SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
31	31		9107370-00	WIRE,STRND,14AWG,IPVC UL1534	A/R	

32 NOTE: ITEM #30 USED UNDER D1-D16,D18.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							MOTHER BOARD TSO4		K	PL	5412989-0-DBP	F

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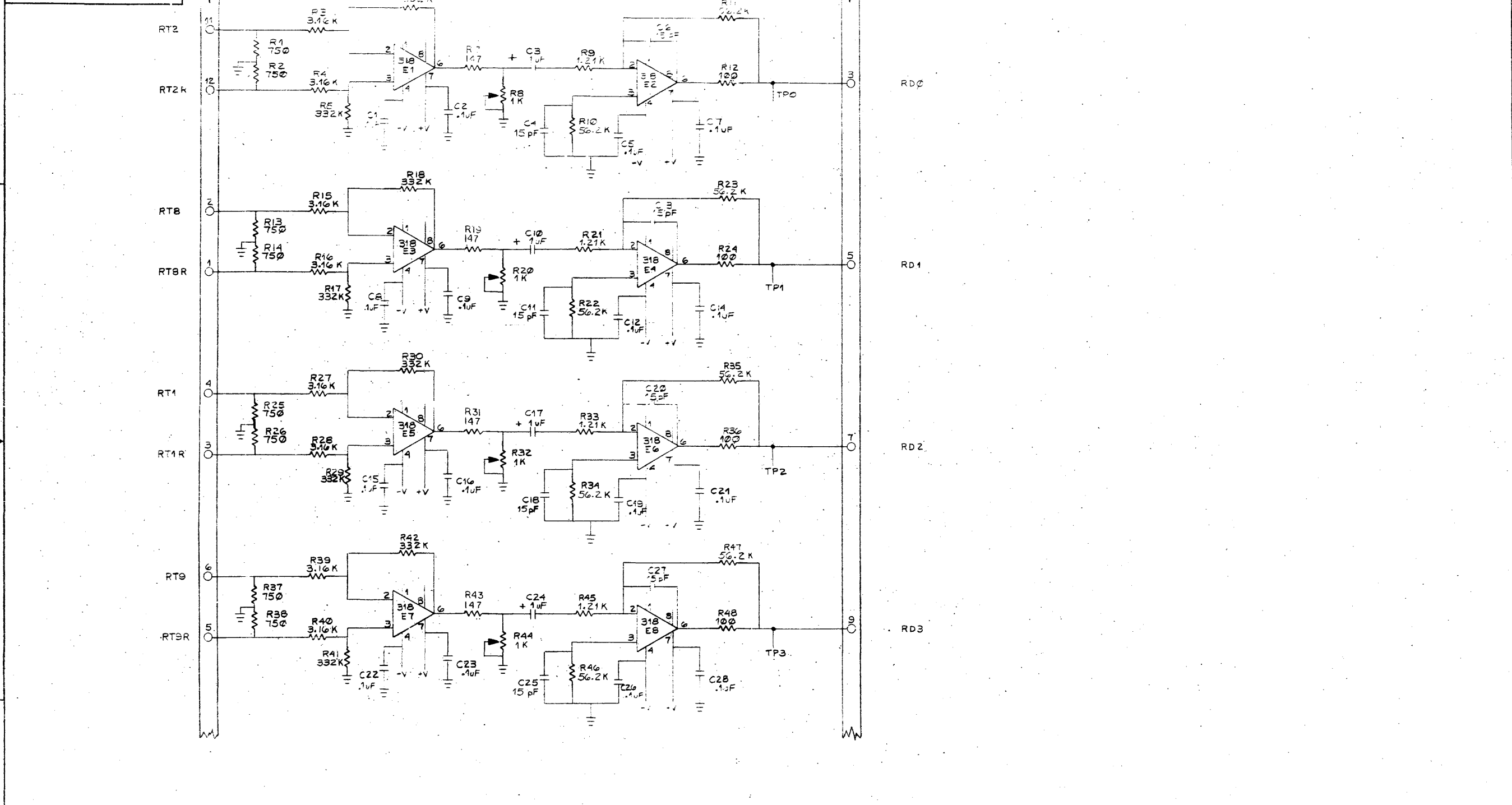
NOTES:
 1. NO GR TEST REQUIRED.
 2. SPECIAL TESTER G057 REQUIRED.

CH	REV	NO	REV
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6	1	1	1
7	1	1	1
8	1	1	1

ETCH REV. D	P.C. DESIGN DATA BASE REV. D-P1
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SIGNATURES	DATE	TITLE
DRN. P. NICHOLLS	7-18-78	digital
CHK. D. [Signature]	7-2-78	
ENG. G. [Signature]	7-28-78	
PROJ. ENG. G. [Signature]	7-28-78	TS04 PRE-AMP
PROD. [Signature]		
SCALE 2:1		
SHT. 1 OF 3		
NEXT HIGHER ASSY. B-DD-G057-0-0		

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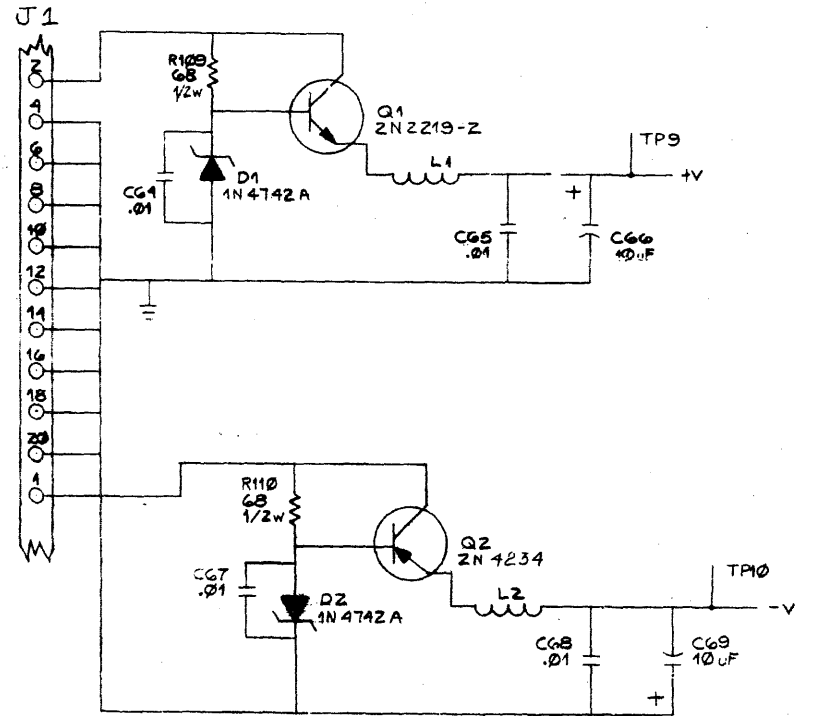
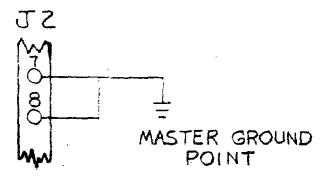
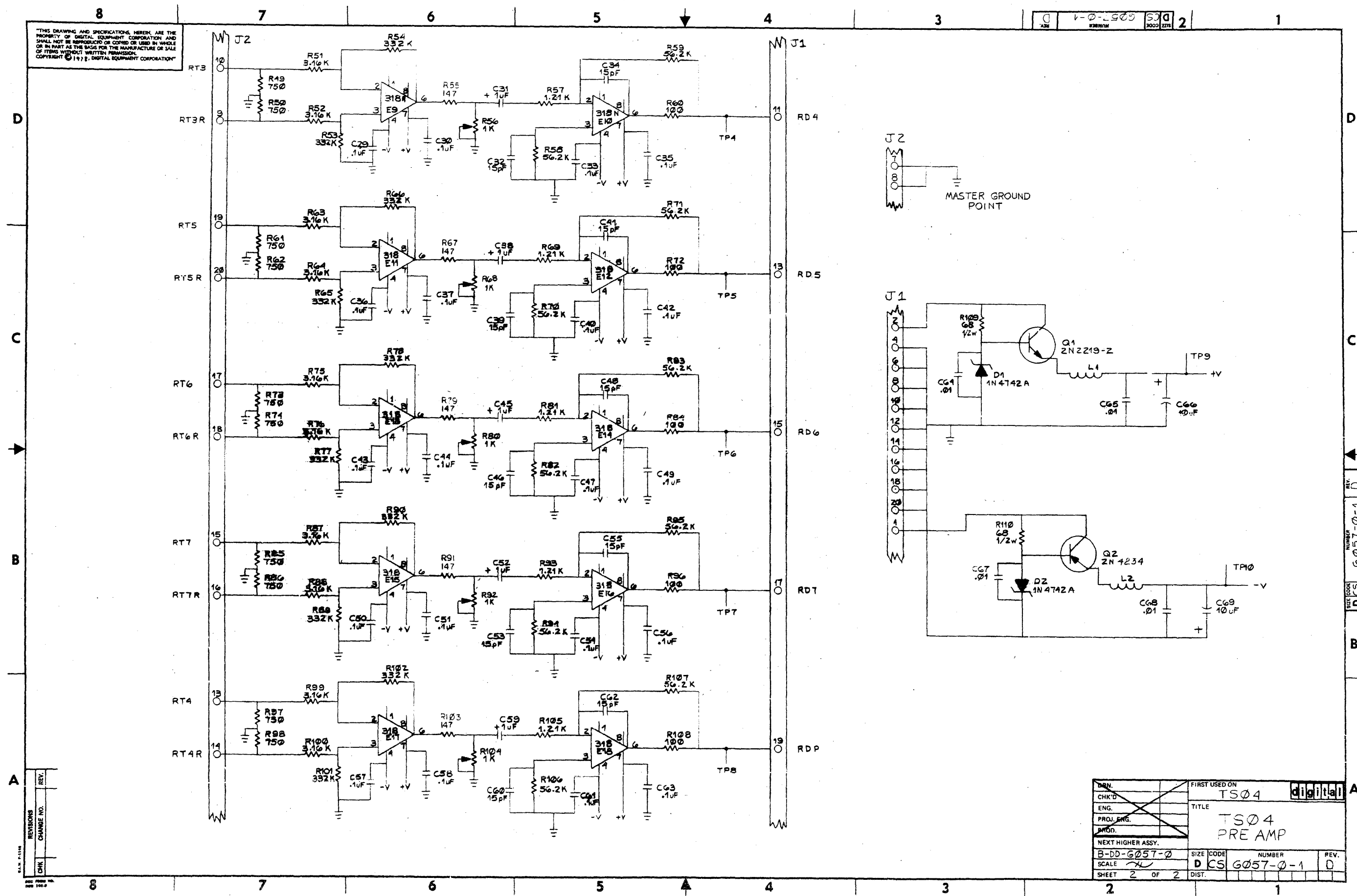


REV.	CHG.	NO.	REVISED AND
1	1	1	REVISED AND
2	1	1	REWORKED
3	1	1	REWORKED
4	1	1	REWORKED
5	1	1	REWORKED
6	1	1	REWORKED
7	1	1	REWORKED
8	1	1	REWORKED

DRN. S. EVANS	6-29-78	FIRST USED ON	304	digital
CHK'D				
ENG.		TITLE	304	
PROJ. ENG.				
PROD.				
NEXT HIGHER ASSY.				
B-DD-6057-0	SIZE	CODE	NUMBER	REV.
SCALE	D	CS	6057-0-1	D
SHEET	1	OF	2	
DIST.				

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1-0-1909 53 2



REV.	CHANGE NO.	REVISIONS

DRN.		FIRST USED ON	TS04	digital
CHK'D		TITLE	TS04	PRE AMP
ENG.				
PROJ. ENG.				
PROD.				
NEXT HIGHER ASSY.				
B-DD-6057-0	SIZE CODE	NUMBER	REV.	
SCALE	D CS	G057-0-1	D	
SHEET 2 OF 2	DIST.			

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1		D-CS-G057-0-1		CIRCUIT SCHEMATIC			REF
2		D-UA-G057-0-0		UNIT ASSEMBLY			REF
3		B-DD-G057-0-0		DRAWING DIRECTORY			REF
4		D-MD-5011944-0-0		DRILL & ETCH DRAWING			REF
5			5011944-00	G057	1		
6			1002427-00	15.0 MMF 100V 5%200PPM MICA	18		C4, C6, C11, C13, C18, C20, C25, C27, C32, C34, C39, C41, C46, C48, C53, C55, C60, C62
7	7		1213488-02	CONN 20POS HOUSING, STRAIGH	1		J2
8	8		1209941-03	HEADER RT ANGLE LEFT L	1		
9	9		1209941-04	HEADER RT ANGLE, RIGHT	1		
10	10		1209941-06	HEADER.100 20POS RT ANGLE	1		J1
11	11		1910735-02	318 OP AMP	18		E1-E18
12	12		1001610-00	.01 MFD 50V +80-20% 25U CER	4		C64, C65, C67, C68
13	13		1010978-36	.1 MFD 50V 10% CER	36		C1, C2, C5, C7, C8, C9, C12, C14, C15, C16, C19, C21, C22, C23, C26, C28, C29, C30, C33, C35, C36, C37, C40, C42, C43, C44, C47, C49, C50, C51, C54, C56, C57, C58, C61, C63
14	14		1001776-00	1 MFD 35V 10% S.TANT	9		C3, C10, C17, C24, C31, C38, C45, C52, C59
15	15		1004813-00	10 MFD 20V 10% S.TANT	2		C66, C69
16	16		1109502-02	1N 4742A VZ= 12.0 5% 1W	2		D1, D2
17	17		1302874-00	147.0 .25 W 1.0 % RN55D-F10	9		R7, R19, R31, R43, R55, R67, R79, R91, R103
18	18		1309405-00	68.0 .50 W 5.0 % CC	2		R109, R110
19	19		1302858-00	100.0 .25 W 1.0 % RN55D-F10	9		R12, R24, R36, R48, R60, R72, R84, R96, R108
20	20		1302955-00	750.0 .25 W 1.0 % RN55D-F10	18		R1, R2, R13, R14, R25, R26, R37, R38, R49, R50, R61, R62, R73, R74, R85, R86

REVISION HISTORY		BASIC PART NO: G057		DRN: J. FITZGERALD		DATE: 19-SEP-78		D I G I T A L	
ENG:	ECC NUMBER	REV	SECTION A OF A	CHK'D: P. KENDRICK		DATE: 19-SEP-78		TITLE PARTS LIST	
CL	INIT	C	SECTION VARIATION INDEX	DES. ENG: J. ROLLINS		DATE: 19-SEP-78		DOCUMENT NUMBER	
J.R.	G057-ML002	D	[A] 00	RESP. ENG.: M. F.		DATE: 19-SEP-78		SIZE: CODE: NUMBER REV	
			[B]	MFG. ENG.: G. DILLARD		DATE: 19-SEP-78		K PL G057-0-DBF D	
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-UA-G057-0-0		TS04		Z0200D.PLS 8	
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION."					
			[F]						
			[G]						
			[H]						
			[I]						

AUTOMATED BY PARTLIST.BEAB

PARTS LIST

SHEET A2 OF A2

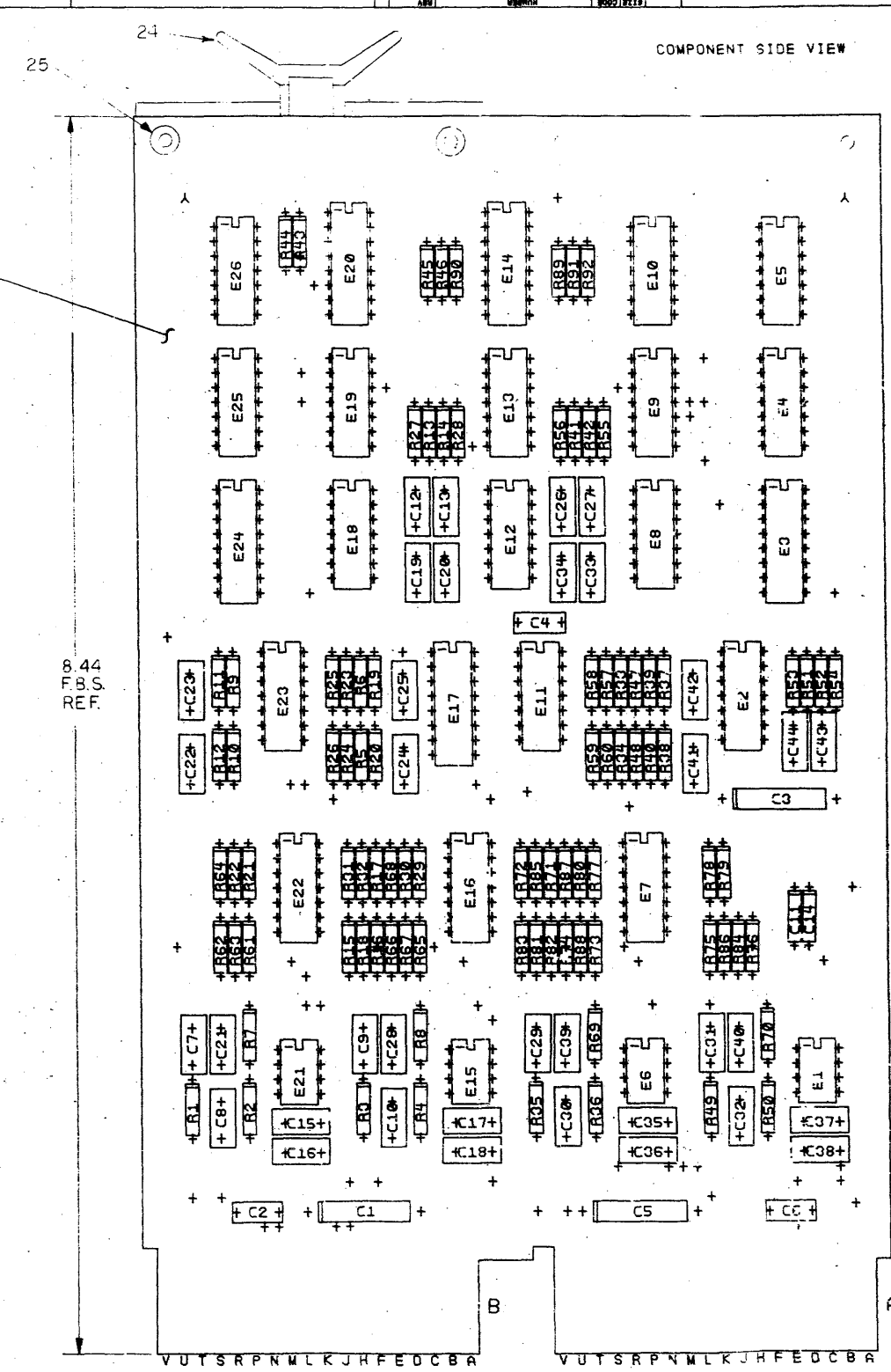
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
21	21	1302871-00	1.21 K .25 W 1.0 X RN55D-F10	9	CONT R97,R98 R9,R21,R33,R45,R57,R69,R81,R93, R105
22	22	1303045-00	3.16 K .25 W 1.0 X RN55D-F10	18	CONT R3,R4,R15,R16,R27,R28,R39,R40, R51,R52,R63,R64,R75,R76,R87,R88, R99,R100
23	23	1312747-00	56.20 K .25 W 1.0 X RN55D-F10	18	CONT R10,R11,R22,R23,R34,R35,R46,R47, R58,R59,R70,R71,R82,R83,R94,R95, R106,R107
24	24	1312985-00	332.0 K .25 W 1.0 X RN55D-F10	18	CONT R5,R6,R17,R18,R29,R30,R41,R42, R53,R54,R65,R66,R77,R78,R89,R90, R101,R102
25	25	1315900-00	1.0 K .50 W 10.0 X POT	9	CONT R8,R20,R32,R44,R56,R68,R80,R92, R104
26	26	1501883-00	DEC2219-2 NPN 3WC SI 30100 M	1	Q1
27	27	1504809-00	2N 4234 PNP 5W T0-5	1	Q2
28	28	1611257-01	CHOKE(CERAMIC BEAD)AXIAL LEAD,ON	2	L1,L2
29	29	1210385-01	PIN 1POS WIRE WRAP	11	TP0-TP10
30	30	1210001-00	HEAT SINK BLACK	2	
31	31	9007201-00	TRANSIPADS #10253	2	

32 NOTE: USED ON: OPTION/MODEL T504

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV.
							T504 PRE-AMP		K	PL	0057-0-05F	0

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COMPONENT SIDE VIEW



NOTES:

CHANGE NO	REV
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1

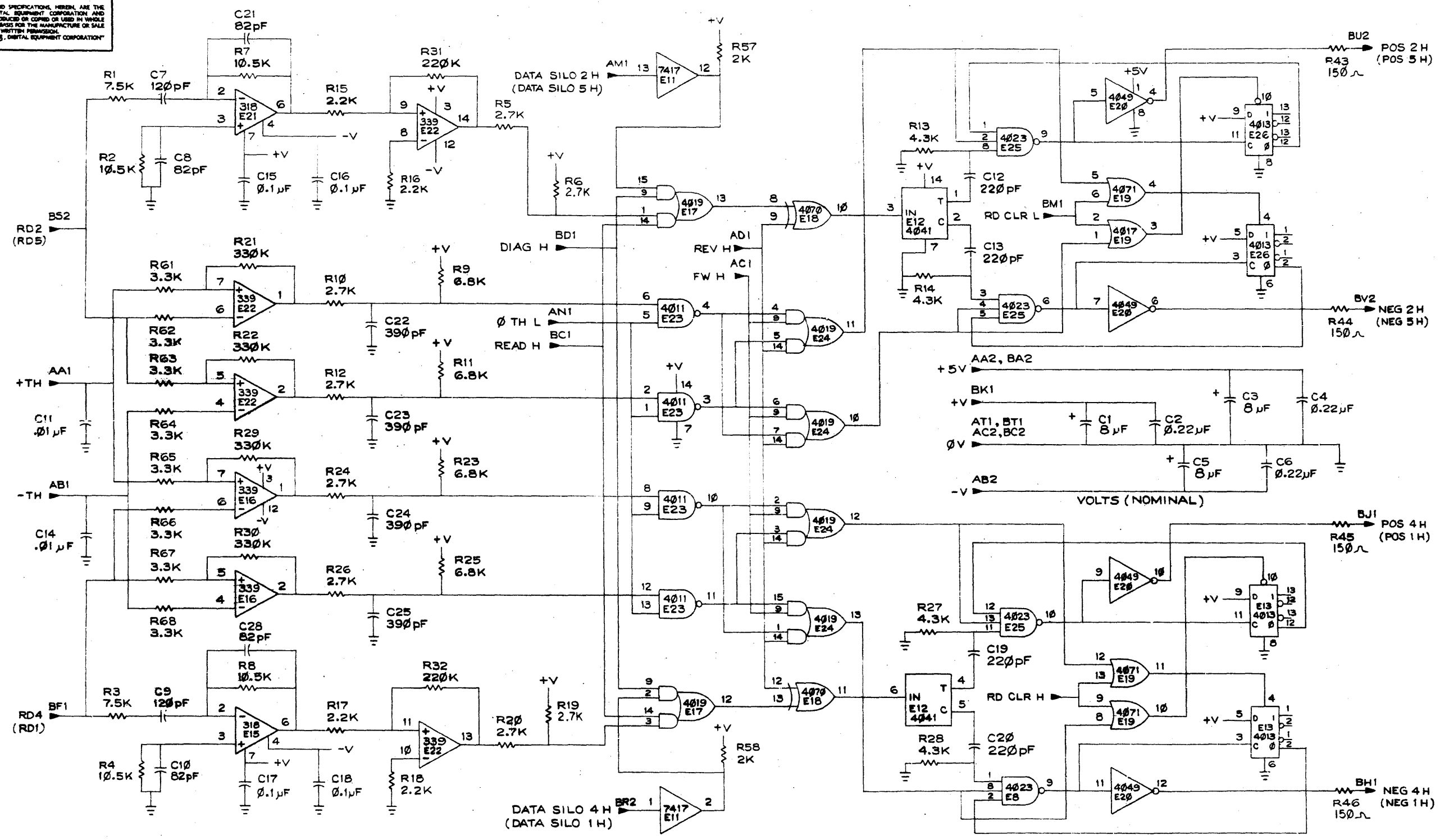
ETCH REV.	F-P2
P.C. DESIGN DATA BRSE REV.	FL

SIGNATURES		DATE
DRN. D POWERS		3/27/77
CHK'D.		3/27/77
ENG. J. Rollins		3/27/77
PROJ. ENG. J. Rollins		3/27/77
PROD.		
SCALE	2/1	
SHT.	1 OF 3	
NEXT HIGHER ASSY. B-DD-G157-0		

digital		
TITLE TSC+ READ AMP		
SIZE CODE	NUMBER	REV
D UA	G157-O-0	E

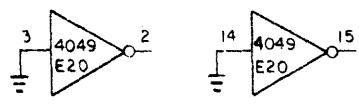
1 MS#

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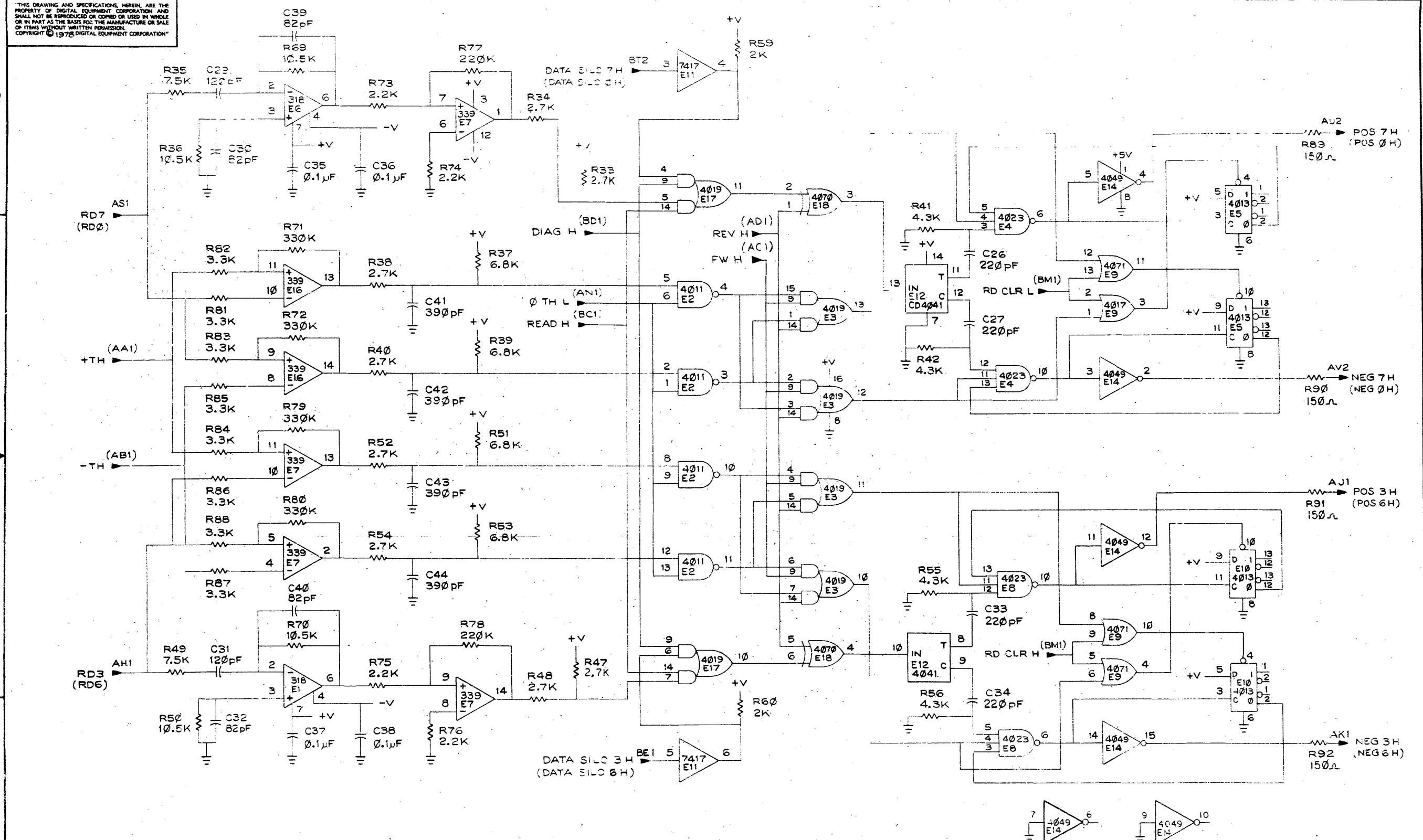


REVISIONS	NO.	REV.
CHK	CHANGE NO.	REV.
	REVISED & REDRAWN	
	REVISIONS	
	DATE	

DRN. J. CARTER	6-19-77	FIRST USED ON	TS04
CHK'D	10-12-77	TITLE	TS04
ENG. J. Rollins	10-18-78	NUMBER	G157-0-1
PROJ. ENG. J. Rollins	10-18-78	REV.	E
PROJ. ENG. J. Rollins	11-14-77	SIZE	D
NEXT HIGHER ASSY.		SCALE	
B-DD-G157-0		SHEET	1 OF 2



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REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	D-MD-5011898-0-0	5011898-00	G157	1		
2	2		1013292-00	*** THIS ITEM IS NOT USED ***	-		
3	3		1010274-01	.22 MFD 50V -20+80 Z5U CER	3		C2,C4,C6
4	4		1004813-00	*** THIS ITEM IS NOT USED ***	-		
5	5		1000016-00	*** THIS ITEM IS NOT USED ***	-		
6	6		1000006-00	*** THIS ITEM IS NOT USED ***	-		
7	7		1100114-00	*** THIS ITEM IS NOT USED ***	-		
8	8		1300271-00	*** THIS ITEM IS NOT USED ***	-		
9	9		1300365-00	*** THIS ITEM IS NOT USED ***	-		
10	10		1301423-00	6.8 K 1/4W 5% CC	8		R9,R11,R23,R25,R37,R39,R51,R53
11	11		1300426-00	2.7 K 1/4W 5% CC	16		R5,R10,R12,R20,R24,R26,R34,R38, CONT R40,R48,R52,R54,R6,R19,R33,R47
12	12		1302466-00	*** THIS ITEM IS NOT USED ***	-		
13	13		1300479-00	*** THIS ITEM IS NOT USED ***	-		
14	14		1302398-00	*** THIS ITEM IS NOT USED ***	-		
15	15		1302389-00	4.3 K 1/4W 5% CC	8		R13,R14,R27,R28,R41,R42,R55,R56
16	16		1910735-02	318 OP AMP	4		E1,E6,E15,E21
17	17		1912108-00	339 VOLT CMPRTR,QUAD	3		E7,E16,E22
18	18		2113612-00	4019B AND-OR SELECT GATE-Q	3		E3,E17,E24
19	19		2113634-00	4070B X-OR GATE-QUAD CMOS	1		E18
20	20		2113607-00	4011UBNAND GATE-QUAD 2IN C	2		E2,E23
21	21		2113621-00	4041B BUFFER GATE-QUAD TRU	1		E12
22	22		2113627-00	4049UBINVERTER-HEX BUFFER-	2		E14,E20
23	23		2113635-00	4071B OR GATE-QUAD 2IN CMO	2		E9,E19
24	24		9008337-01	HANDLE, FLIP CHIP, GREEN	2		
25	25		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4		
26	26		1302388-00	2 K 1/4W 5% CC	4		R57-R60
27	27		1909929-00	7417 BUFFER GATE-HEX 1INP	1		E11
28	28		2113609-00	4013B FF-D DUAL W/SET/RESE	4		E5,E10,E13,E26

REVISION HISTORY		BASIC PART NO: 0G157		DRN:	P. KENDRICK	DATE:	16-SEP-78	D I G I T A L			
ENG	ECD NUMBER	REV	SECTION A OF A	CHK'D:	P. BOSSMAN	DATE:	16-SEP-78	TITLE PARTS LIST			
C.L	G157-ML001	D	SECTION.VARIATION INDEX	DES.ENG:	H. FINDEISEN	DATE:	16-SEP-78	DOCUMENT NUMBER			
	G157-ML002	E	[A] 00	RESP.ENG.:	H. FINDEISEN	DATE:	16-SEP-78	SIZE	CODE	NUMBER	REV
			[B]	MFG.ENG.:	G. DILLARD	DATE:	16-SEP-78	K	PL	G157-0-DBP	E
			[C]	ASSEMBLY NUMBER:						FILE NAME:	EDIT #
			[D]		D-UA-G157-0-0					Z0476E.PLS	7
			[E]								
			[F]								
			[G]								
			[H]								
			[I]								
			[J]								
			[K]								
			[L]								
			[M]								
			[N]								

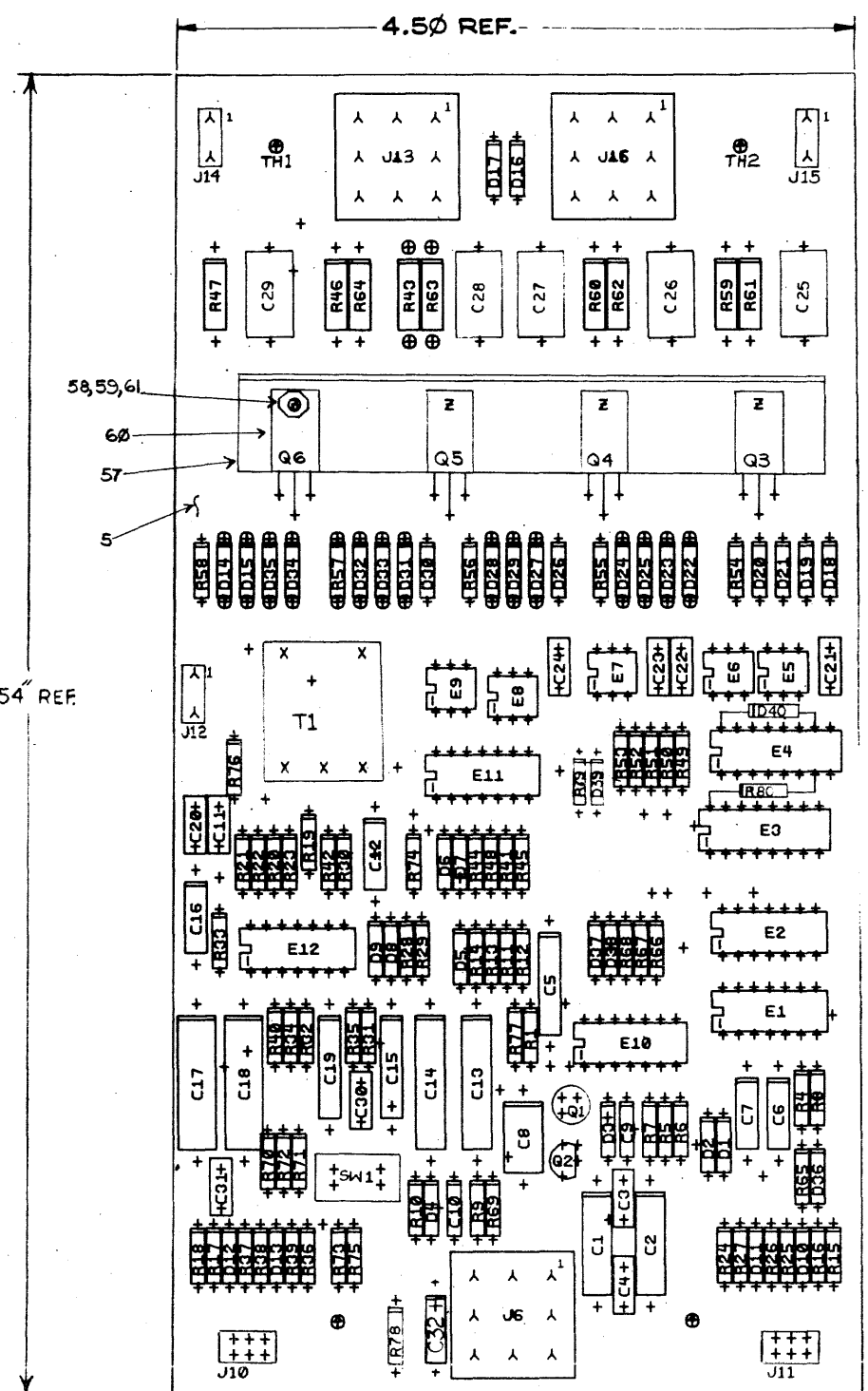
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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
29	29		2113613-00	4023B NAND GATE-TRIPLE 3IN	3	E4,E8,E25
30	30		9105740-55	*** THIS ITEM IS NOT USED ***	-	
31	31	B-DD-G157-0-0		DRAWING DIRECTORY	REF	
32	32	D-CS-G157-0-1		CIRCUIT SCHEMATIC	REF	
33	33		1305322-00	7.5 K 1/4W 1% RN55D-F 100PPM	4	R1,R3,R35,R49
34	34		1300417-00	2.2 K 1/4W 5% CC	8	R15-R18,R73-R76
35	35		1312987-00	10.5 K 1/4W 1% RN55D-1052F	8	R2,R4,R7,R8,R36,R50,R69,R70
36	36		1300439-00	3.3 K 1/4W 5% CC	16	R61-R68,R81-R88
37	37		1302092-00	220 K 1/4W 5% CC	4	R31,R32,R77,R78
38	38		1000018-00	120.0 MMF 100V 5%200PPM DM15S	4	C7,C9,C29,C31
39	39		1000015-00	82.0 MMF 100V 5%200PPM DM15S	8	C8,C10,C21,C28,C30,C32,C39,C40
40	40		1001610-00	.01 MFD 50V -20+80 Z5U AXIAL	2	C11,C14
41	41		1010978-36	.1 MFD 50V 10% 2C067 CER	8	C15-C18,C35-C38
42	42		1001631-00	390.0 MMF 100V 5%200PPM DM15S	8	C22-C25,C41-C44
43	43		1302091-00	330 K 1/4W 5% CC	8	R21,R22,R29,R30,R71,R72,R79,R80
44	44		1300250-00	150 1/4W 5% CC	8	R43-R46,R89-R92
45	45		1012084-01	8 MFD 25V GX 30D AL EL	3	C1,C3,C5
46	46		1000021-00	220.0 MMF 100V 5%200PPM DM15S	8	C12,C13,C19,C20,C26,C27,C33,C34
				RELEASABLE		

D I G I T A L										TITLE										SECTION A OF A										SIZE CODE										DOCUMENT NUMBER										REV									
										TS04 READ AMP																				K PL										G157-0-DBP										E									

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COMPONENT SIDE VIEW



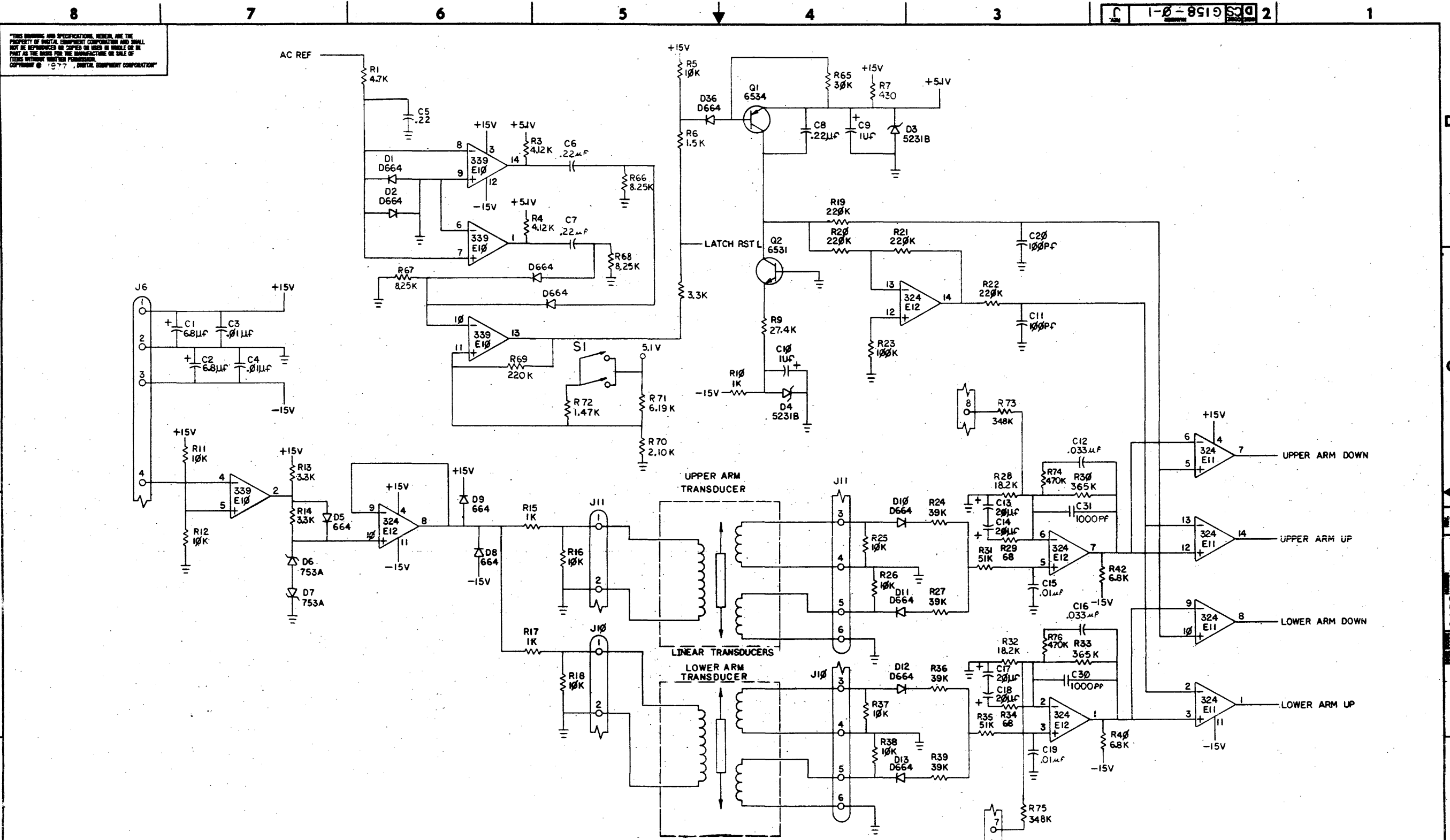
NOTES:
 1. THIS BOARD MUST MEET U.L. REQUIREMENTS.
 2. ECO-M1004 NETWORK INSTRUCTIONS NOT REQUIRED PER ENGINEER BOB NUTE.

CHANGE NO	REV	DATE	BY	CHK'D
1	G158-M1001 E	5/3/78	D. Dingledine	
2	G158-M1002 F	8/7/78	J. J. O'Neil	
3	G158-M1003 H	11/29/78	J. J. O'Neil	
4	G158-M1004 J	1/25/79	J. J. O'Neil	
5	G158-M1005 K			
6	G158-M1006 L			
7	G158-M1007 M			
8	G158-M1008 N			
9	G158-M1009 O			
10	G158-M1010 P			

ETCH REV. F-P
 P.C. DESIGN DATA BASE REV. F

SIGNATURES	DATE	TITLE
DRN. D. Dingledine	5/3/78	digital
CHK'D. J. J. O'Neil	8/7/78	
ENG. J. J. O'Neil	11/29/78	
PROJ. ENG. J. J. O'Neil	1/25/79	
PROD. J. J. O'Neil	1/25/79	
SCALE 2X		
SHT. 1 OF 3		
NEXT HIGHER ASSY.		

ML2 1 MS#



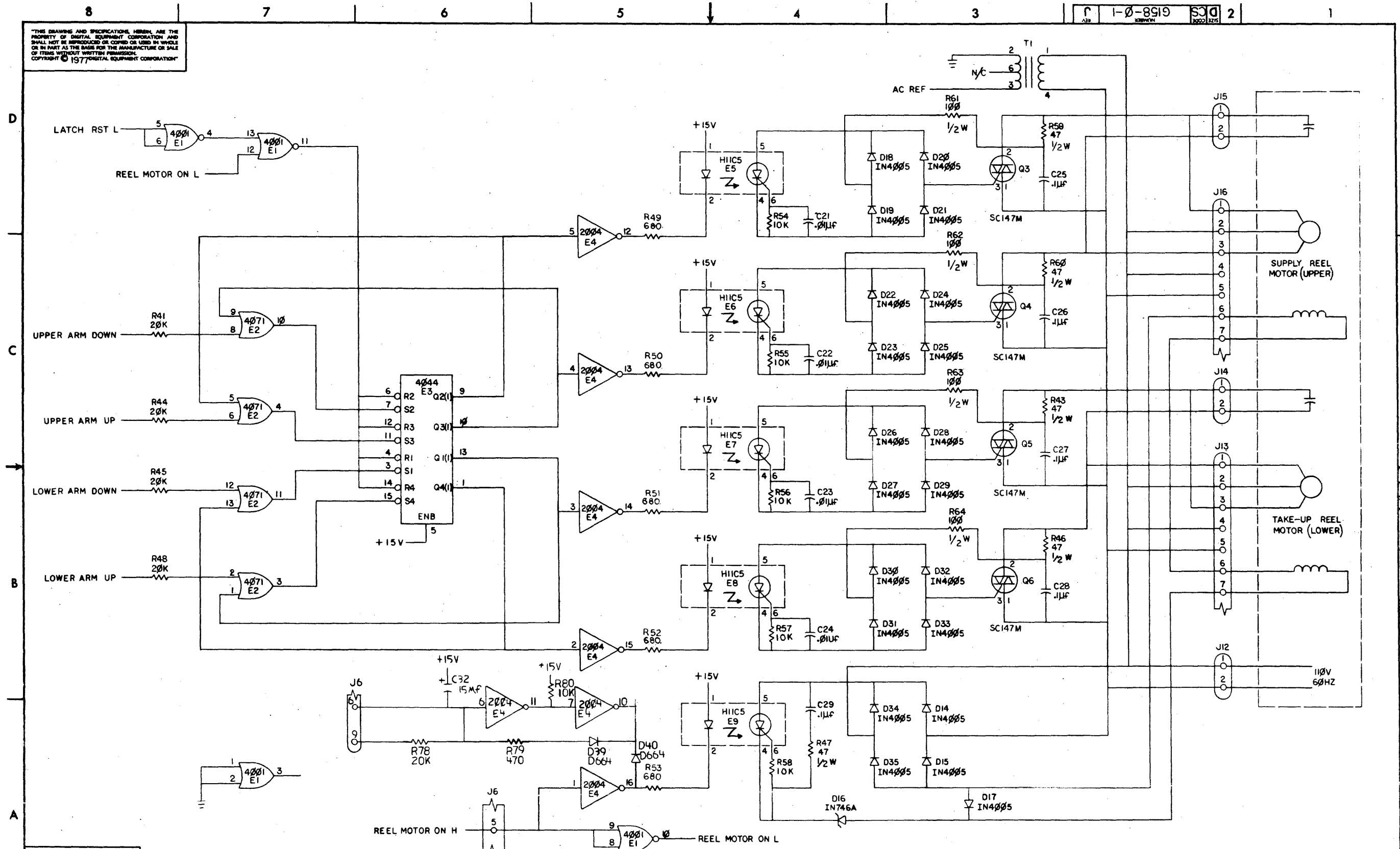
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REV.	DATE	BY	CHKD.
1	11/10/77	R. NUTL	
2	12/12/77	B. NUTE	
3	1/12/78	B. NUTE	
4	4/12/82	B. NUTE	

DRN. Steve Garity	11-4-77	FIRST USED ON	TS04
CHK'D. R. NUTL	12-12-77	TITLE	TS04 REEL SERVO
ENG. H. Friedman	3-7-78	SCALE	
PROJ. ENG. M. B. ...	3-7-78	SIZE	D CS
PROD. ...	3-7-78	NUMBER	G158-0-1
NEXT HIGHER ASSY.		DRGT.	J
B-DD-G158-0		SHEET	2 OF 2

ML2

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		SIZE CODE	NUMBER	REV.
TS04 REEL SERVO		DCS	G158-0-1	J
SCALE	SHEET	OF	DIST.	
	2	2		

PART CODE: G158-0-1
 DCS

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1		D-CS-G158-0-1		CIRCUIT SCHEMATIC	REF		
2		D-UA-G158-0-0		UNIT ASSY	REF		
3		B-DD-G158-0-0		DWG DIRECTORY	REF		
4		D-MD-5011917-0-0		DRILL & ETCH DWG	REF		
5			5011917-00	G158	1		
6			1000002-01	20 MFD 50V 5% S.TANT	4		C13,C14,C17,C18
7			1009016-00	100.0 MMF 100V 5%200PPM MICA	2		C11,C20
8			1000050-00	.033 MFD 100V 80V 10% MYL	2		C12,C16
9			1001610-00	.01 MFD 50V +80-20% Z5U CER	6		C3,C4,C21-C24
10			1001776-00	1 MFD 35V 10% S.TANT	2		C9,C10
11			1002630-00	*** THIS ITEM IS NOT USED ***	1		
12			1005306-00	6.8MFD 35V 10% S.TANT	2		C1,C2
13			1005784-00	.01 MFD 100V 200V 10% MYL	2		C15,C19
14			1010031-03	.22 MFD 50V 10% M.POLYCARB	4		C8,C6,C7,C5
15			1010075-00	.1 MFD 400V 20% MYLR	5		C25-C29
16			1100114-00	D 664 QS\75PCB PIV= 25V SP	14		D1,D2,D5,D8-D13,D36,D37,D38-D40,
17			1102421-00	IN 753A VZ= 6.2 5% .40W P	2		D6,D7
18			1104860-00	IN 746A VZ= 3.3 5%	1		D16
19			1109443-00	IN 5231B VZ= 5.1 5% .50W Y	2		D3,D4
20			1110967-00	IN 4005 PIV=600 I= 1A D041 SI	21		D14,D15,D17-D35
21			1114344-00	H1105 SCR2400V I=10A	5		E5-E9
22			1212297-00	MATE-N-LOK 02PIN(1X02).250CC HDR	3		J12,J14,J15
23			1212297-02	MATE-N-LOK 09PIN(2X05).250CC HDR	3		J13,J16,J6
24			1212297-05	*** THIS ITEM IS NOT USED ***	1		
25			1213488-01	PCB,HEADER 05PIN(2X03).100CC STR	2		J10,J11
26			1300219-00	68.0 .25 W 5.0 % CC	2		R29,R34
27			1300228-00	100.0 .50 W 5.0 % CC	4		R61-R64
28			1300365-00	1.0 K .25 W 5.0 % CC	3		R10,R15,R17
29			1300391-00	1.50 K .25 W 5.0 % CC	1		R6
30			1300439-00	3.30 K .25 W 5.0 % CC	3		R13,R14,R77

REVISION HISTORY		BASIC PART NO: 0G158		DRN: P.KENDRICK		DATE: 19-DEC-77		D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R.A.M.	DATE:	19-DEC-77	TITLE	PARTS LIST
---	INIT	D	SECTION VARIATION INDEX	DES.ENG:	H.FINDEISEN	DATE:	02-MAR-78	DOCUMENT NUMBER	
J.R.	G158-ML001	E	[A] 00	RESP.ENG.:	H.FINDEISEN	DATE:	02-MAR-78	SIZE:CODE: NUMBER	REV
M.C.	G158-ML002	F	[B]	MFG.ENG.:	P.BARTON	DATE:	02-MAR-78	K PL G158-0-DBP	J
BN	G158-ML003	H	[C]	ASSEMBLY NUMBER:	D-UA-G158-0-0	TOP DOCUMENT NUMBER:	TS04	FILE NAME:	EDIT #
BN	G158-ML004	J	[D]					Z0464J.PLS	22
			[E]						
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
31	31		1300447-00	4.70 K .25 W 5.0 % CC	1		R1
32	32		1300479-00	10.0 K .25 W 5.0 % CC	15		R5, R11, R12, R16, R18, R25, R26, R37, R38, R54-R58, R80
						CONT	
33	33		1313349-00	*** THIS ITEM IS NOT USED ***	-		
34	34		1301423-00	6.80 K .25 W 5.0 % CC	2		R40, R42
35	35		1301695-00	47.0 .50 W 5.0 % CC	5		R59, R60, R43, R46, R47
36	36		1302092-00	220.0 K .25 W 5.0 % CC	5		R19-R22, R69
37	37		1302177-00	*** THIS ITEM IS NOT USED ***	-		
38	38		1302391-00	20.0 K .25 W 5.0 % CC	5		R41, R44, R45, R48, R70
39	39		1302394-00	30.0 K .25 W 5.0 % CC	1		R65
40	40		1302465-00	*** THIS ITEM IS NOT USED ***	-		
41	41		1302466-00	100.0 K .25 W 5.0 % CC	1		R23
42	42		1302514-00	39.0 K .25 W 5.0 % CC	4		R24, R27, R36, R39
43	43		1304839-00	51.0 K .25 W 5.0 % CC	2		R31, R35
44	44		1305130-00	*** THIS ITEM IS NOT USED ***	-		
45	45		1309417-00	27.40 .25 W 1.0 % RN550-F10	1		R9
46	46		1312933-00	*** THIS ITEM IS NOT USED ***	-		
47	47		1503409-01	DEC6534B PNP 310MW SI 40 90 P	1		Q1
48	48		1509338-00	DEC6531B NPN 310MW SI 40 90 P	1		Q2
49	49		1514341-00	ULN2004A NPN 1W SI ARRAY	1		E4
50	50		1514342-00	*** THIS ITEM IS NOT USED ***	-		
51	51		1609844-00	XFMR P=A S= 12.6@10MA	1		T1
52	52		1912107-01	324ANOP AMP, QUAD	2		E11, E12
53	53		1912108-00	339 VOLT CMPRTR, QUAD	1		E10
54	54		2113603-00	4001UBIOR GATE-QUAD 2IN CM	1		E1
55	55		2113624-00	4044B NAND R/S LATCH, QUAD	1		E3
56	56		2113635-00	4071B OR GATE-QUAD 2IN CMO	1		E2
57	57		7418017-00	HEAT SINK	1		HS1
58	58		9006011-04	SCREW, MACH BIND SLOT 4-	4		
59	59		9006557-00	NUT, KEP 4-40X 1/4 AF	4		
60	60		9008268-00	COMPOUND, THERMAL JOINT	A/R		
61	61		9009769-00	WASHER, RECTNGLR STEEL	4		
62	62		1312992-00	*** THIS ITEM IS NOT USED ***	-		
63	63		1313150-00	430.0 .25 W 5.0 % CC	1		R7
64	64		1302398-00	470.0 K .25 W 5.0 % CC	2		R74, R76
65	65		1305325-00	8.25 K .25 W 1.0 % RN550-F10	3		R66, R67, R68
66	66		1312923-00	2.10 K .25 W 1.0 % RN550-F10	1		R70
67	67		1305108-00	1.47 K .25 W 1.0 % RN550-F10	1		R72
68	68		1314187-00	6.19 K .25 W 1.0 % RN550-F10	1		R71
69	69		1211164-07	SW, DIP 2POS/1PST 5VDC100MA F	1		S1
70	70		1000042-00	1000.0 MMF 100V 5%200PPM MICA	2		C30, C31
71	71		1314763-00	4.12 K .25 W 1.0 % RN550-F10	2		R3, R4
72	72		1316576-00	348.0 K .25 W 1.0 % RN550-F10	2		R73, R75
73	73		1305266-00	365.0 K .25 W 1.0 % RN550-F10	2		R30, R33
74	74		1309412-00	18.20 K .25 W 1.0 % RN550-F10	2		R28, R32
75	75		1514342-01	TRIAC 600V 10A	4		Q3-Q6
76	76		1301424-00	680.0 .25 W 5.0 % CC	5		R49-R53
77	77		1300316-00	470.0 .25 W 5.0 % CC	1		R79

D	I	G	I	T	A	L	TITLE	TS04 REEL SERVO	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
											K	PL	G158-C-DBP	J

AUTOMATED BY PRTLIST.JD(2)

PARTS LIST

SHEET A3 OF A3

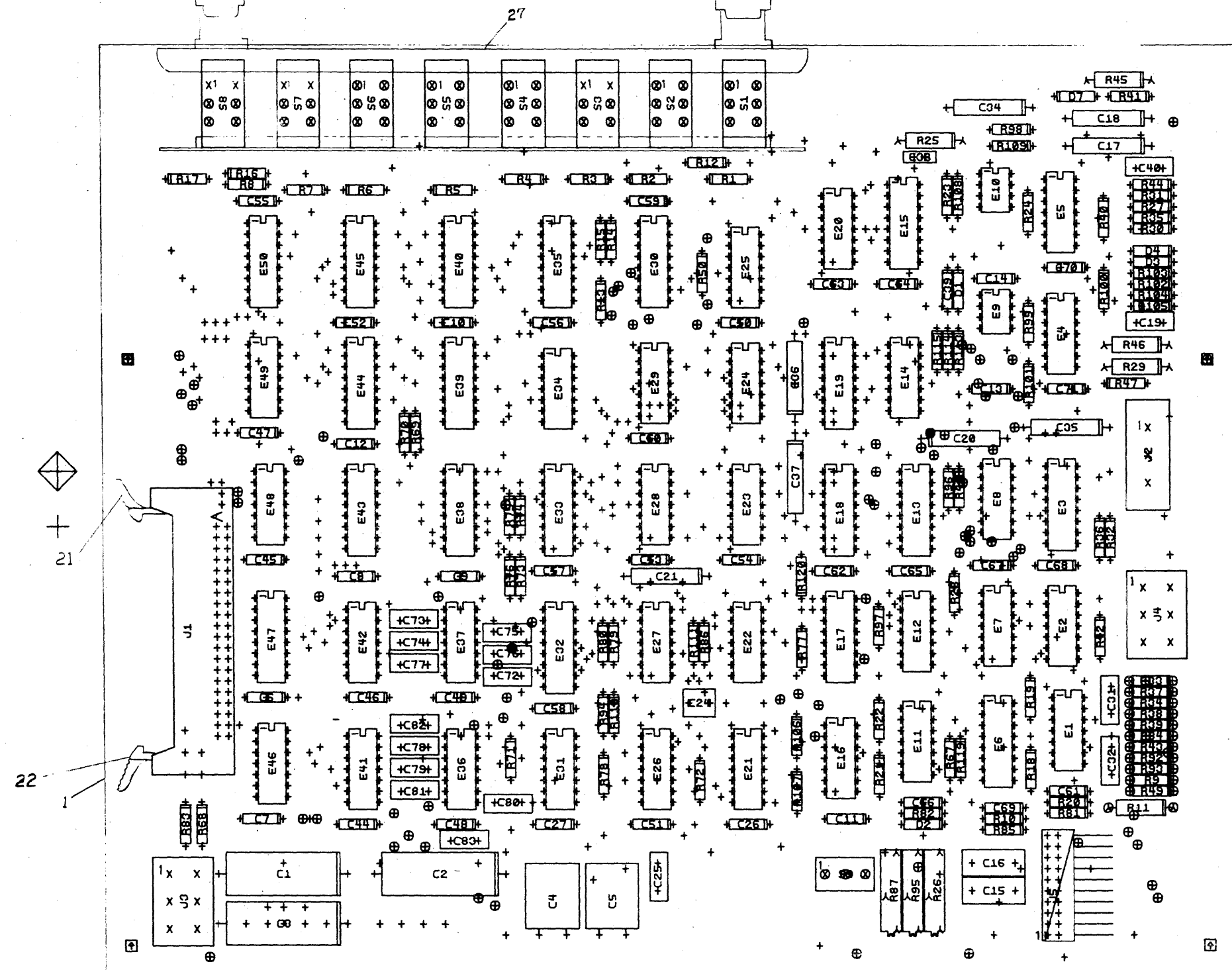
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
78	78	1004812-00	15 MFD 20V 10% S.TANT	1	C32

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							TS04 REEL SERVO		K	PL	G158-0-DBP	J

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0-0-659-0-0

COMPONENT SIDE VIEW



NOTES:

STEP	E	+ Y AXIS	STEP	TIMES
REPRT		+ X AXIS	STEP	TIMES

CHANGE NO	REV	DATE	BY	CHKD
1				
2				
3				
4				
5				
6				
7				
8				

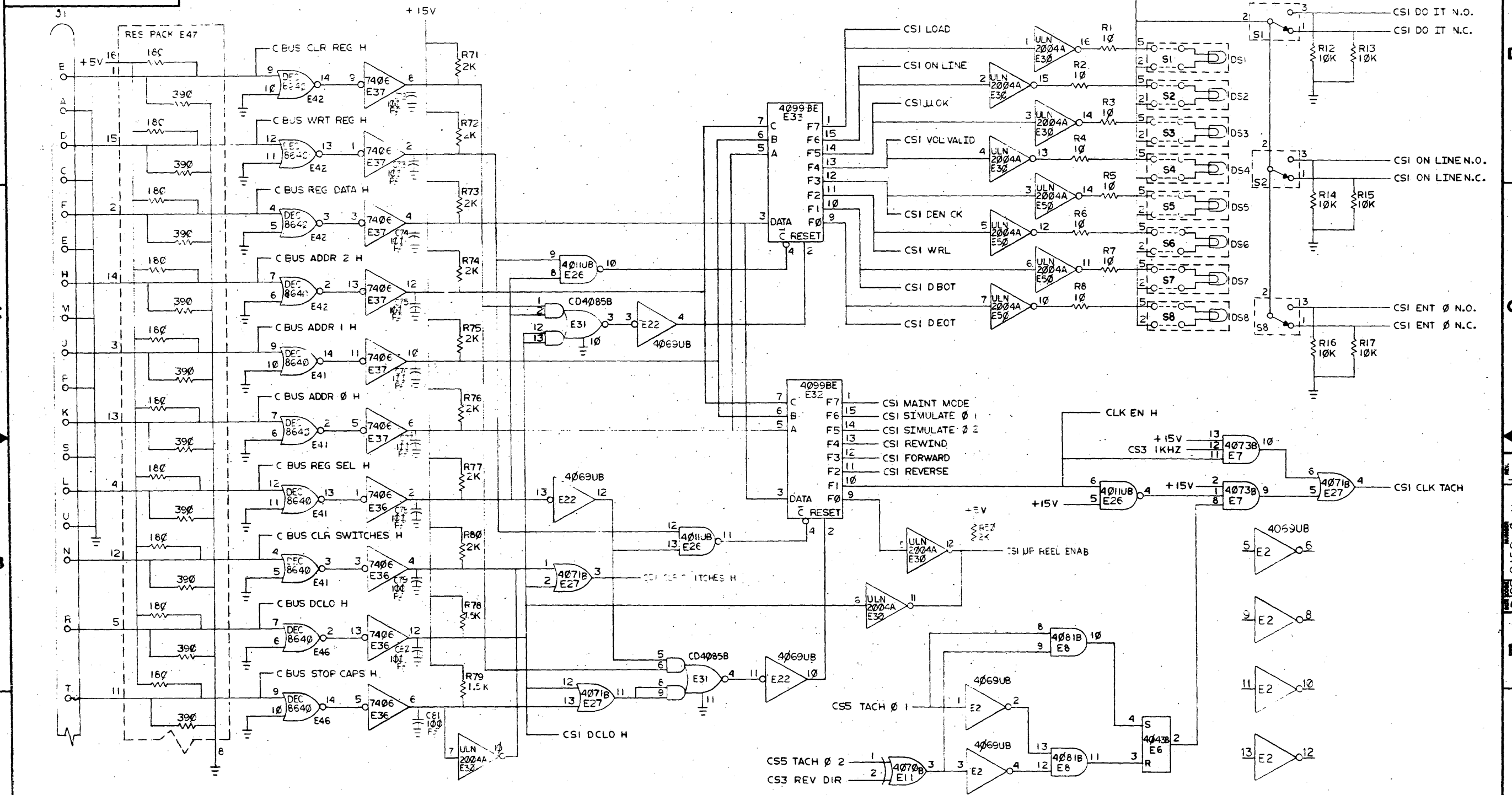
ETCH REV.	F-1
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SIGNATURES	DATE	TITLE
DRN. <i>[Signature]</i>	11-20-77	digital
CHK'D. <i>[Signature]</i>		
RECH. ENG. <i>[Signature]</i>		
PROJ. ENG. <i>[Signature]</i>		
PROD. <i>[Signature]</i>		
SCALE 2X1		
SHT. OF 3		
NEXT HIGHER REV. B-DD-G159-0		

TITLE	CAPSTAN SERVO
SIZE CODE	D U/A
NUMBER	G159-0-0
REV	L

1 MS#

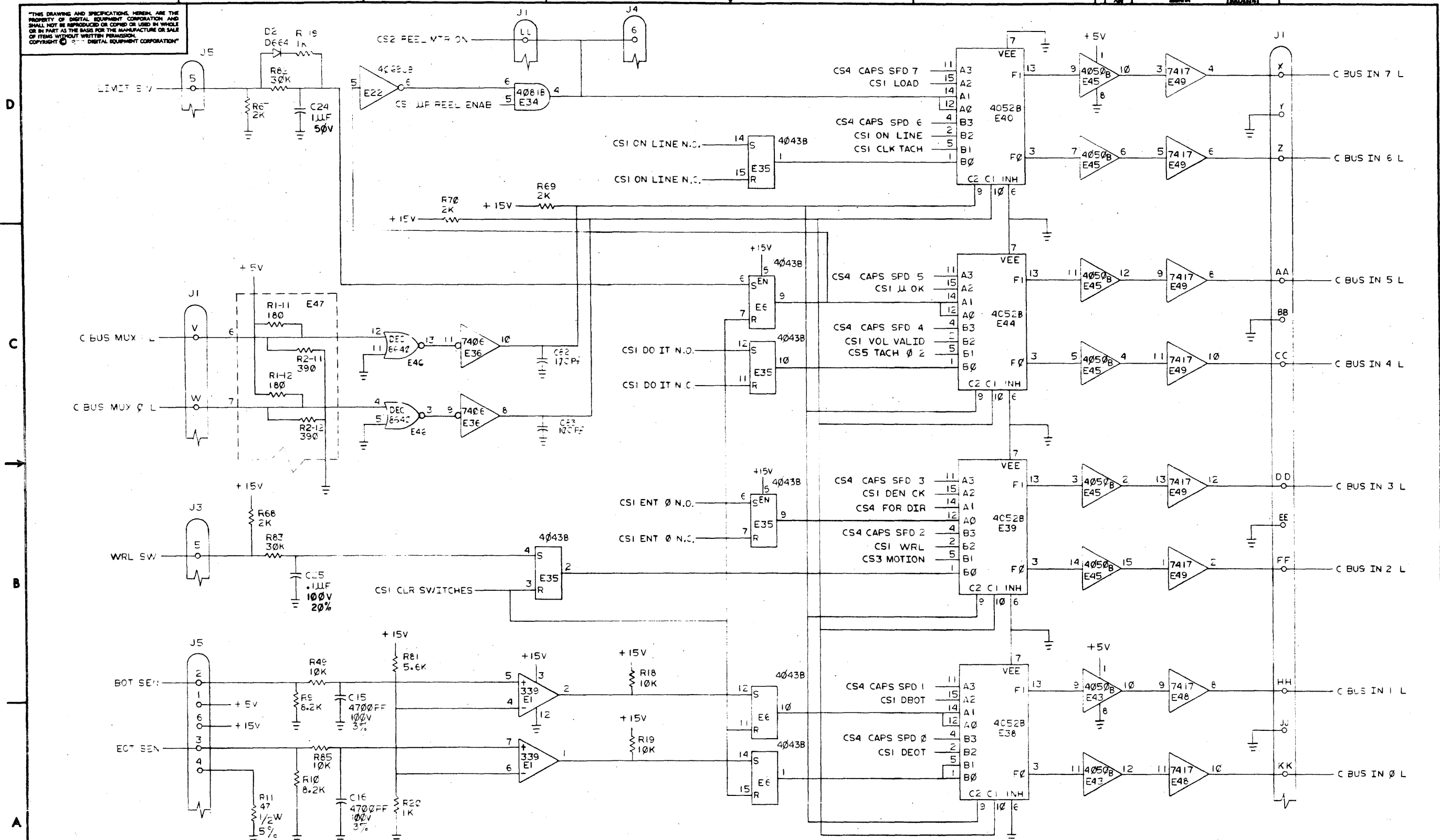
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REV	DATE	BY	CHKD
1	11/17/77	B. KRASNICK	B. KRASNICK
2	12/1/77	B. KRASNICK	B. KRASNICK
3	12/1/77	B. KRASNICK	B. KRASNICK
4	12/1/77	B. KRASNICK	B. KRASNICK
5	12/1/77	B. KRASNICK	B. KRASNICK
6	12/1/77	B. KRASNICK	B. KRASNICK
7	12/1/77	B. KRASNICK	B. KRASNICK
8	12/1/77	B. KRASNICK	B. KRASNICK
9	12/1/77	B. KRASNICK	B. KRASNICK
10	12/1/77	B. KRASNICK	B. KRASNICK
11	12/1/77	B. KRASNICK	B. KRASNICK
12	12/1/77	B. KRASNICK	B. KRASNICK
13	12/1/77	B. KRASNICK	B. KRASNICK
14	12/1/77	B. KRASNICK	B. KRASNICK
15	12/1/77	B. KRASNICK	B. KRASNICK
16	12/1/77	B. KRASNICK	B. KRASNICK
17	12/1/77	B. KRASNICK	B. KRASNICK
18	12/1/77	B. KRASNICK	B. KRASNICK
19	12/1/77	B. KRASNICK	B. KRASNICK
20	12/1/77	B. KRASNICK	B. KRASNICK

DRW. BY	DATE	FIRST USED ON	TS11	20-0000
CHK'D BY	DATE	TITLE	CAPSTAN SERVO (CSI)	
ENGR. BY	DATE	SCALE	NONE	
PROJ. ENGR. BY	DATE	SIZE	D	CS
PROD. BY	DATE	NUMBER	G159-0-1	
NEXT HIGHER ASSY.		REV.	L	
SHEET	1	OF 5		

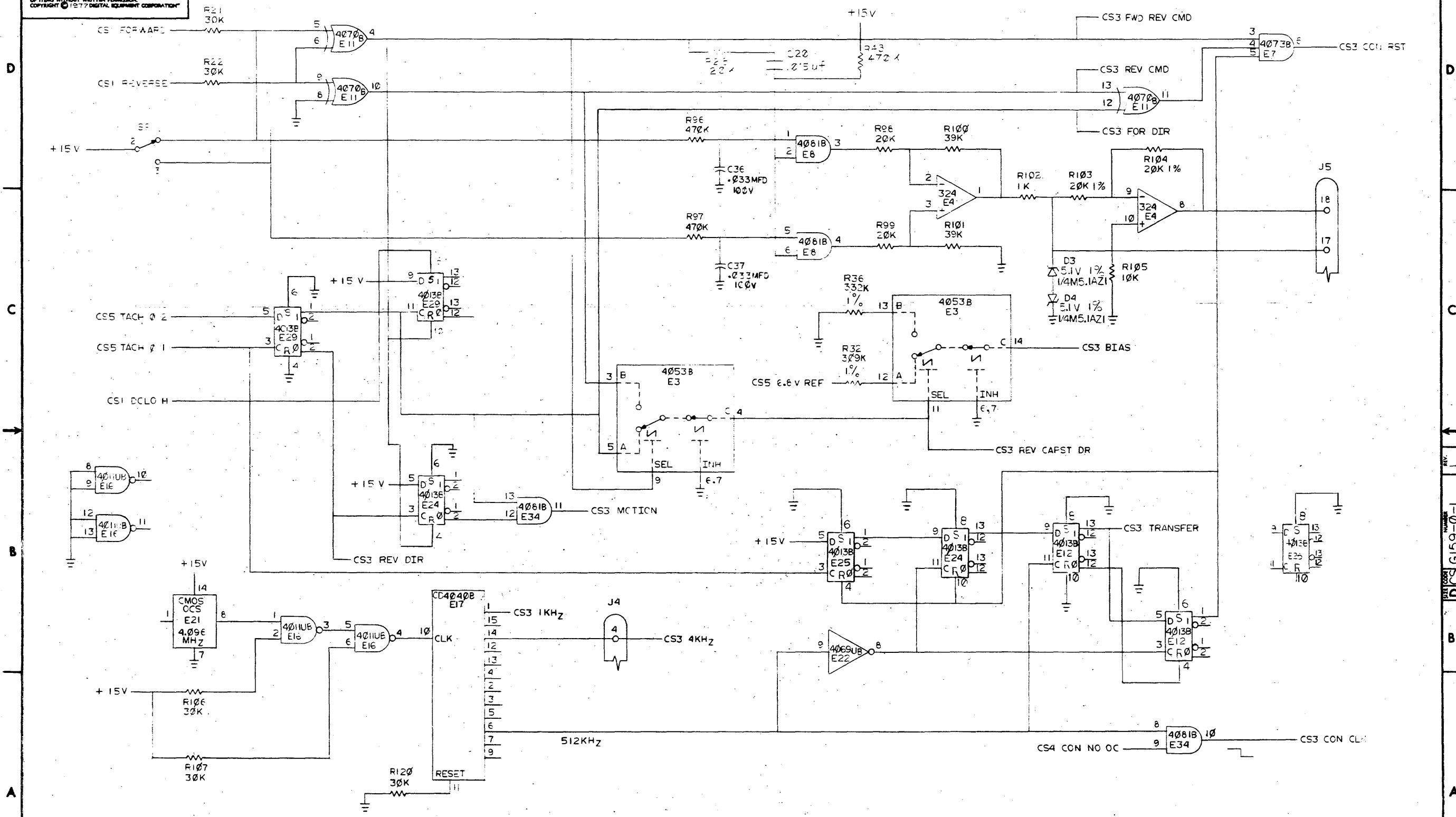
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REVISIONS		
CHK	CHANGE NO.	REV.

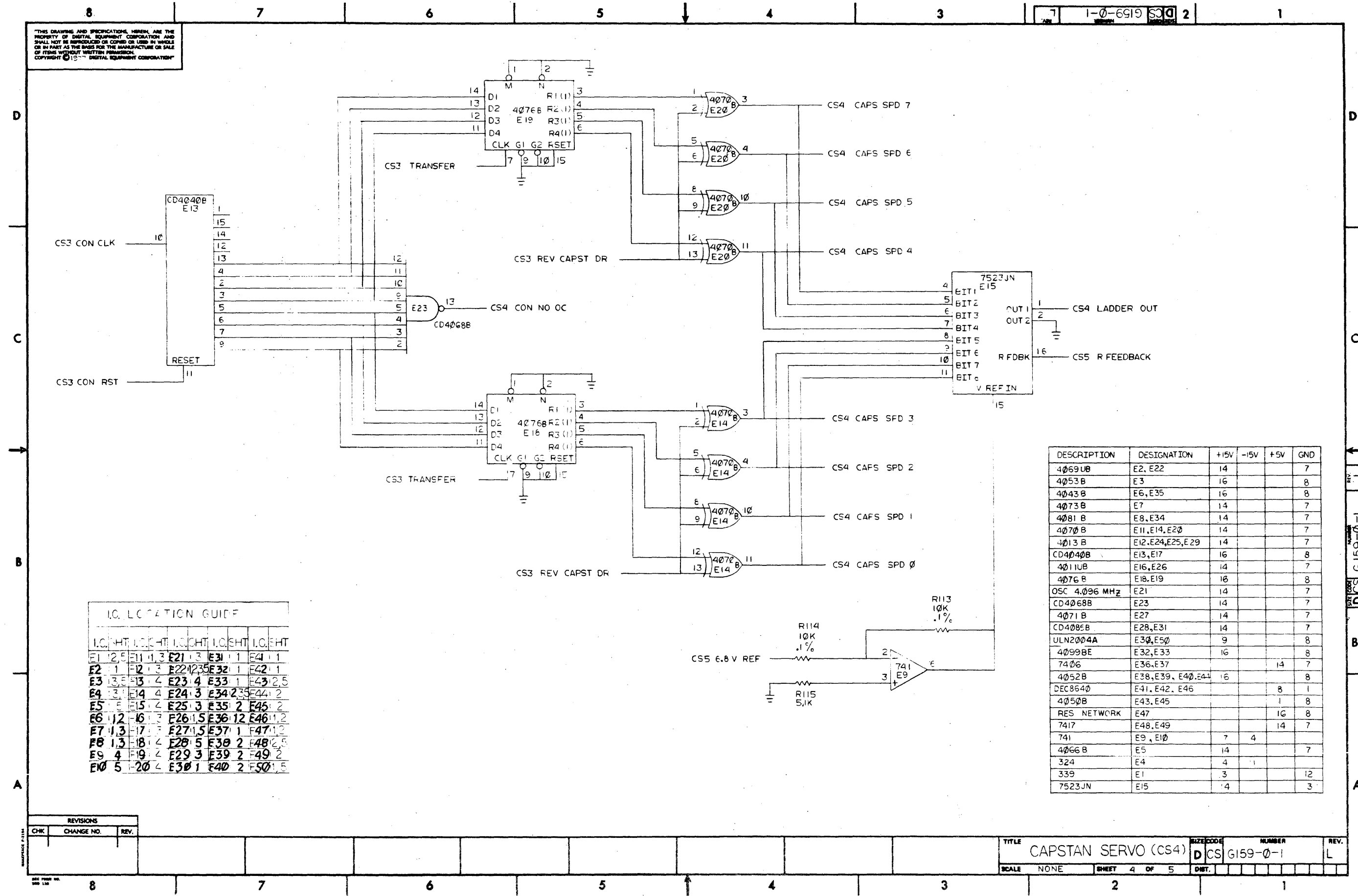
TITLE	CAPSTAN SERVO (CS2)	SIZE CODE	D CS	NUMBER	GI59-0-1	REV.	L
SCALE	NONE	SHEET	2 OF 5	DIST.			

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REVISIONS		
CHK	CHANGE NO.	REV.

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IC LOCATION GUIDE

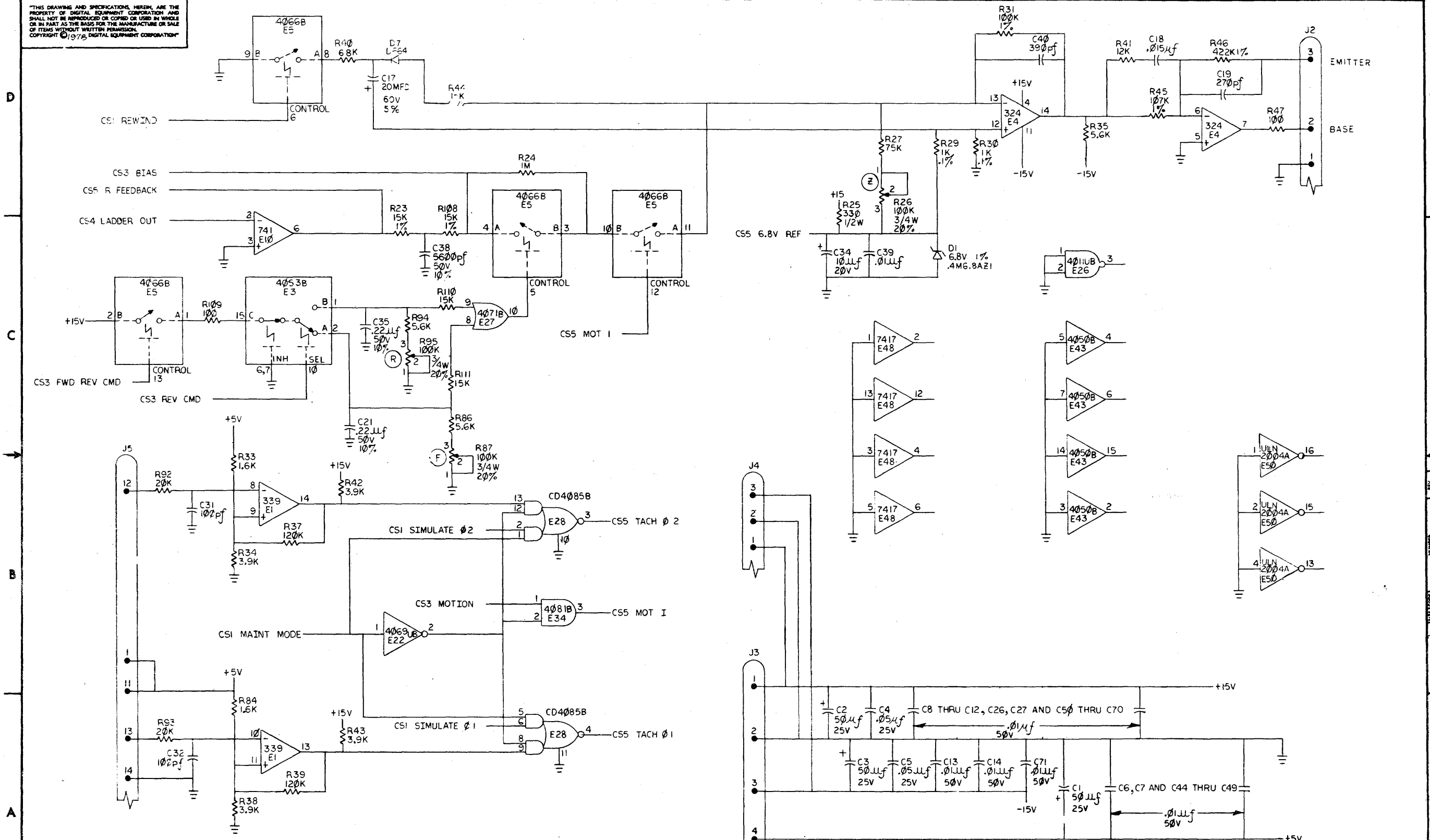
IC	SHT	IC	SHT	IC	SHT	IC	SHT	IC	SHT
E1	2,5	E11	1,3	E21	1,3	E31	1	E41	1
E2	1	E12	3	E22	1,3,5	E32	1	E42	1
E3	3,5	E13	4	E23	4	E33	1	E43	2,5
E4	3	E14	4	E24	3	E34	2,3,5	E44	2
E5	5	E15	4	E25	3	E35	2	E45	2
E6	1,2	E16	3	E26	1,5	E36	1,2	E46	1,2
E7	1,3	E17	3	E27	1,5	E37	1	E47	1,2
E8	1,3	E18	4	E28	5	E38	2	E48	2,5
E9	4	E19	4	E29	3	E39	2	E49	2
E10	5	E20	4	E30	1	E40	2	E50	1,5

DESCRIPTION	DESIGNATION	+15V	-15V	+5V	GND
4069UB	E2, E22	14			7
4053B	E3	16			8
4043B	E6, E35	16			8
4073B	E7	14			7
4081B	E8, E34	14			7
4070B	E11, E14, E20	14			7
4013B	E12, E24, E25, E29	14			7
CD4040B	E13, E17	16			8
4011UB	E16, E26	14			7
4076B	E18, E19	16			8
OSC 4.096 MHz	E21	14			7
CD4068B	E23	14			7
4071B	E27	14			7
CD4085B	E28, E31	14			7
ULN2004A	E30, E50	9			8
4099BE	E32, E33	16			8
7406	E36, E37			14	7
4052B	E38, E39, E40, E41	16			8
DEC8640	E41, E42, E46			8	1
4050B	E43, E45			1	8
RES NETWORK	E47			16	8
7417	E48, E49			14	7
741	E9, E10	7	4		
4066B	E5	14			7
324	E4	4	1		
339	E1	3			12
7523JN	E15	14			3

REVISIONS

CHK	CHANGE NO.	REV.

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1		5012399-00	G159	1	
2	2		1000016-00	100.0 MMF 100V 5%200PPM MICA	14	C31,C32,C72-C83
3	3		1000022-00	270.0 MMF 100V 5%200PPM MICA	1	C19
4	4		1010978-36	.1 MFD 50V 10% CER	1	C25
5	5		1001383-00	4700.0 MMF 100V 3%200PPM MICA	2	C15,C16
6	6		1001610-00	.01 MFD 50V +80-20% Z5U CFK	4	C6-C14,C26,C27,C39,C44-C71
7	7		1001631-00	390.0 MMF 100V 5%200PPM MICA	1	C40
8	8		1001774-00	.05 MFD 25V 10% Y5U DISC	2	C4,C5
9	9		1001796-00	50 MFD 25V +75-10% AL EL	3	C1-C3
10	10		1010716-00	20 MFD 60V 5% W.TANT	1	C17
11	11		1004813-00	10 MFD 20V 10% S.TANT	1	C34
12	12		1010031-03	.22 MFD 50V 10% M.POLYCARB	2	C21,C35
13	13		1010274-02	1 MFD 50V +80-20% CER	1	C24
14	14		1010646-00	.015 MFD 50V 2% M.POLYCARB	1	C18
15	15		1011740-00	5600.0 MMF 50V 10% CER	1	C38
16	16		1000050-00	.033 MFD 100V 80V 10% MYL	2	C36,C37
17	17		1100114-00	D 664 QS\75PCB PIV= 25V SP	2	D2,D7
18	18		1109991-01	4M6.8AZ1 VZ= 6.8 1% .40W	1	D1
19	19		1105871-00	1/4MS.1AZ1 = 5.1 1% .25W N	2	D3,D4
20	20		1209941-02	PCB,HEADER 40PIN(2X20).100CC 90D	1	J1
21	21	USED ON J1	1209941-03	PCB,HEADER LATCH	1	
22	22	USED ON J1	1209941-04	PCB,HEADER LATCH	1	
23	23		1211180-00	SW,TOG 1PDT ON-OFF-ON 5A	1	S9
24	24		1212297-03	MATE-N-LOK 03PIN(1X03).250CC HDR	1	J2
25	25		1212297-05	MATE-N-LOK 6PIN(2X03).250CC HDR	2	J3,J4
26	26		1213335-00	PCB,HEADER 20POS(2X10).100CC 90D	1	J5
27	27	USED FOR S1-S3	1214343-02	SW,PB LT 2PDT 8SEC W/BUTTONS 1A	1	
28	28		1300229-00	100.0 .25 W 5.0 % CC	2	R47,R109
29	29		1300296-00	330.0 .50 W 5.0 % CC	1	R25
30	30		1300365-00	1.0 K .25 W 5.0 % CC	3	R20,R102,R119

REVISION HISTORY		BASIC PART NO: 0G159		DRN:	MILT RIPLEY	DATE: 17-OCT-78	D I G I T A L			
ENG!	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P.ROSSMAN	DATE: 09-NOV-78	TITLE PARTS LIST			
---	INIT	D	SECTION VARIATION INDEX	DES.ENG:	B.KRASNICK	DATE: 09-NOV-78	DOCUMENT NUMBER			
B.	G159-ML002	E	[A] 00	RESP.ENG.:	B.KRASNICK	DATE: 09-NOV-78	SIZE	CODE	NUMBER	REV
B.K	G159-ML003	F	[B]	MFG-ENG.:	P.BARTON	DATE: 09-NOV-78	K	PL	G159-0-DRP	L
BK	G159-ML004	H	[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
RN	G159-ML007	K	[D]	ID-UA-G159-0-0		IS-DD-G159-0-0	Z0517L.PLS		28	
RN	G159-ML009	L	[E]							
			[F]							
			[H]							
			[J]							
			[K]							
			[L]							
			[M]							
			[N]							

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AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A2 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
31	31		1300444-00	3.90 K .25 W 5.0 % CC	4	R34,R38,R42,R43
32	32		1300479-00	10.0 K .25 W 5.0 % CC	11	R12-R19,R49,R85,R105
33	33		1300488-00	12.0 K .25 W 5.0 % CC	1	R41
34	34		1313752-00	15.0 K .25 W 1.0 % RN55D-F10	2	R23,R108
35	35		1300539-00	120.0 K .25 W 5.0 % CC	2	R37,R39
36	36		1301317-00	10.0 .25 W 5.0 % CC	8	R1-R8
37	37		1301695-00	47.0 .50 W 5.0 % CC	1	R11
38	38		1301808-00	*** THIS ITEM IS NOT USED ***	-	
39	39		1301874-00	5.60 K .25 W 5.0 % CC	4	R35,R81,R86,R94
40	40		1300496-00	15.0 K .25 W 5.0 % CC	3	R110,R111,R44
41	41		1302388-00	2.0 K .25 W 5.0 % CC	13	R67-R77,R80,R50
42	42		1302391-00	20.0 K .25 W 5.0 % CC	5	R28,R92,R93,R98,R99
43	43		1302394-00	30.0 K .25 W 5.0 % CC	7	R21,R22,R82,R83,R106,R107,R120
44	44		1302398-00	470.0 K .25 W 5.0 % CC	3	R49,R96,R97
45	45		1302514-00	39.0 K .25 W 5.0 % CC	2	R100,R101
46	46		1303044-00	100.0 K .25 W 1.0 % RN55D-F10	1	R31
47	47		1303176-00	1.60 K .25 W 5.0 % CC	2	R33,R84
48	48		1303179-00	8.20 K .25 W 5.0 % CC	2	R9,R10
49	49		1301327-00	68.0 K .25 W 5.0 % CC	1	R40
50	50		1304841-00	75.0 K .25 W 5.0 % CC	1	R27
51	51		1304865-00	1.0 K .25 W .10% RN55E-B 2	2	R29,R30
52	52		1305425-00	309.0 K .25 W 1.0 % RN55D-F10	1	R32
53	53		1305431-00	10.0 K .25 W .10% RN55E-B 2	2	R113,R114
54	54		1309143-14	100.0 K .75 W 10.0 % POT	3	R26,R87,R95
55	55		1309595-00	1.0 M .25 W 5.0 % CC	1	R24
56	56		1310607-00	422.0 K .25 W 1.0 % RN55C-F 5	1	R46
57	57		1311003-01	R NETWORK 14-180 14-390 16PIN	1	E47
58	58		1312930-00	5.10 K .25 W 5.0 % CC	1	R115
59	59		1313843-00	107.0 K .25 W 1.0 % RN55D-F10	1	R45
60	60		1514341-00	ULN2004A NPN 1W SI ARRAY	2	E30,E50
61	61		1814249-00	OSCILLATOR, XTAL 4.096 MHZ	1	E21
62	62		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E48,E49
63	63		1910298-00	741 OP AMP GEN PURP. COM	2	E10,E9
64	64		1910741-00	7406 INVERTER GATE-HEX 1I	2	E36,E37
65	65		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	3	E41,E42,E46
66	66		1912107-00	324 OP AMP,QUAD	1	E4
67	67		1912108-00	339 VOLT CMPRTR,QUAD	1	E1
68	68		2113607-00	4011UBNAND GATE-QUAD 2IN C	2	E16,E26
69	69		2113609-00	4013B FF-D DUAL W/SET/RESE	4	E12,E24,E25,E29
70	70		2113623-00	4043B NOR R/S LATCH,QUAD	2	E6,E35
71	71		2113628-00	4050B BUFFER/CONVERTER GAT	2	E43,E45
72	72		2113630-00	4052B MULTIPLEXER 4CHAN DI	4	E38-E40,E44
73	73		2113632-00	4066B BILATERAL SWITCH-QUA	1	E5
74	74		2113633-00	4069UBINVERTER GATE-HEX	2	E22,E2
75	75		2113634-00	4070B X-OR GATE-QUAD CMOS	3	E11,E14,E20
76	76		2113635-00	4071B OR GATE-QUAD 2IN CHO	1	E27
77	77		2113637-00	4073B AND GATE-TRIPLE 3IN	1	E7
78	78		2113639-00	4076B REGISTER 4BIT D-TYPE	2	E18,E19

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							CAPSTAN SERVO				G159)-DBP	L

AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A3 OF A3

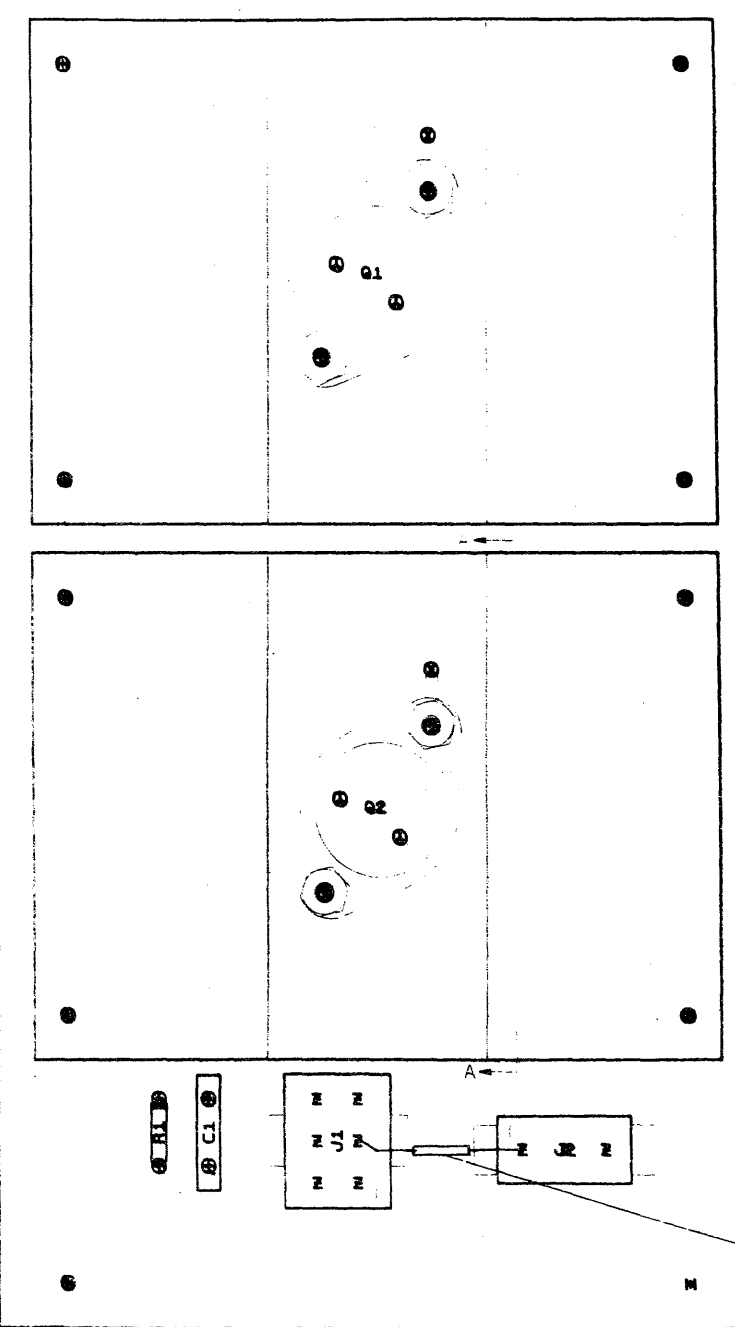
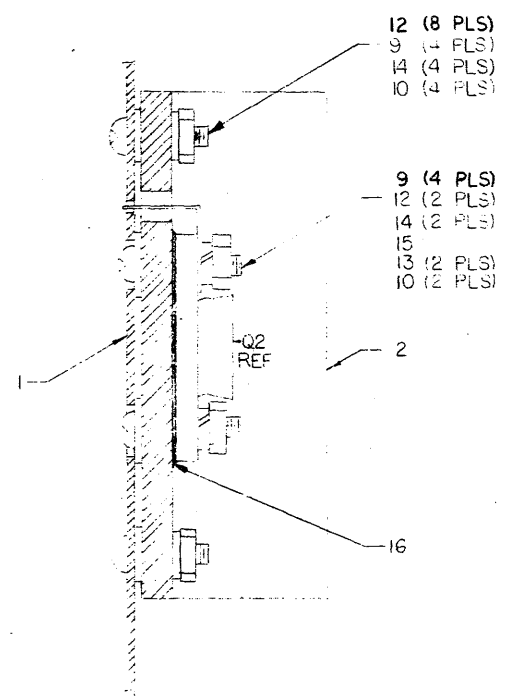
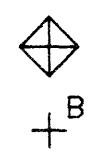
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
79	79		2113642-00	4081B AND GATE-QUAD 2IN CM	2	E34,E8
80	80		2113946-00	4053B MULTIPLEXER 2CHAN CM	1	E3
81	81		2114462-00	4040B COUNTER/DIVIDER,BINA	2	E13,E17
82	82		2114463-00	4068B NAND GATE,8IN	1	E23
83	83		2114464-00	4085B AND-OR GATE,DUAL,2IN	2	E28,E31
84	84		2114465-00	4099BELATCH-ADDRESSABLE 8BIT	2	E32,E33
85	85		2116019-00	7523JND/A CONVERTER,MULT,8	1	E15
86	86		1312985-00	332.0 K .25 W 1.0 % RN55D-F10	1	R36
87	87		9105740-55	*** THIS ITEM IS NOT USED ***	-	
88	88		1313596-00	20.0 K .25 W 1.0 % RN55D-F10	2	R103,R104
89	89		9107256-11	*** THIS ITEM IS NOT USED ***	-	
90	90		1300391-00	1.50 K .25 W 5.0 % CC	2	R78,R79
91	91		1002630-00	.015 MFD 100V 10% MYLR	1	C20
92	92	D-UA-G159-0-0		UNIT ASS'Y	REF	
93	93	D-CS-G159-0-0		CIRCUIT SCHEMATIC	REF	
94	94	D-MD-5012399-0-0		DRILL AND ETCH DRAWING	REF	

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							CAPSTAN SERVO		K	PL	G159-0-DBP	L

1978

COMPONENT SIDE VIEW

SECTION A-A 2 PLACES



NOTES: THIS BOARD MUST BE UL APPROVED

CHANGE NO	REV	DATE	BY	CHK'D
5413692-0-0	B			

ETCH REV. 8
A.C. DESIGN DATA ENGR. REV. BL

SIGNATURES	DATE	TITLE
DRN. J. FITZGERALD	18 NOV 78	
CHK'D. <i>[Signature]</i>	18 NOV 78	
ENG. B. KRAMICK	5/2/79	
PROJ. ENG. B. KRAMICK	5/2/79	
PROD. <i>[Signature]</i>	5-17-79	
SCALE 2/1		
SMT. 1 OF 4		
NEXT WORKING COPY: 8-00-5413692-0		

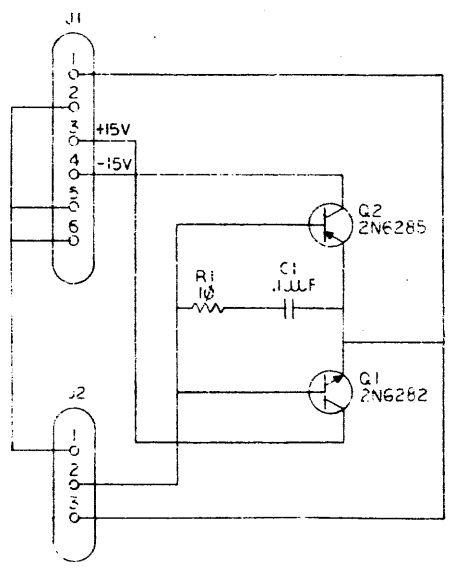
digital

CAPSTAN DRIVER BD.

SIZE CODE NUMBER REV
D UA 5413692-0-0 B

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1-0 2692-0-1 2



REV.	CHANGE NO.	CHK.	DATE
B		ML	10/1/79
A		BK	7/2/79

DRN. <i>1/1/79</i>	FIRST USED ON	digital
CHK'D <i>1/1/79</i>	TSD	
ENG. R. <i>1/1/79</i>	TITLE	CAPSTAN DRIVER BOARD
PROJ. ENG. C. <i>1/1/79</i>		
PROD. <i>1/1/79</i>		
NEXT HIGHER ASSY.		
B-00-5413692-0	SIZE CODE	NUMBER
SCALE	D	CS 5413692-0-1
SHEET	OF	DIST.

AUTOMATED BY PRILET,EE(3)

P A R T S L I S T

SHEET 21 OF 21

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	5413692-00	5013691-00	DRILL & ETCH BD	1	
1	5413692-00	1216232-00	HEAT SINK 3 X 1-1/8	1	
1	5413692-00	1516120-01	PNP 150W SI 60 750 DA	1	
1	5413692-00	1516120-00	PNP 150W SI 60 750 DA	1	
1	5413692-00	1000030-00	MFD 100V 20X 25U DISC	1	
1	5413692-00	1212297-03	MATE-N-LOK 6PIN UNIV HEADER	1	
1	5413692-00	1212297-05	MATE-N-LOK 25 W 5.0 X 9/16 SS	1	
1	5413692-00	9007793-01	10.0 SCREW PAN,PHIL	1	
1	5413692-00	9006553-00	NUT,HEX 6-32X 5/16F X 7/8	1	
1	5413692-00	9006655-00	*** THIS ITEM IS NOT USED ***	1	
1	5413692-00	9006022-01	SCREW PAN,PHIL 6-32X 3/8 SS	1	
1	5413692-00	9007801-00	WASHER, LOCK S/S #6	1	
1	5413692-00	9008992-00	WASHER, FLAT, WHITE NYLON 375 X	20	
1	5413692-00	9009676-00	TERM SOLDER BARRIER STR	20	
1	5413692-00	9008268-00	COMPOUND, THERMAL JOINT	20	
1	5413692-00	9107636-55	WIRE, STRND, 26AWG, IPVC	A/R	

REVISION HISTORY

ENG	ECO NUMBER	REV	SECTION A OF A	SECTION, VARIATION INDEX	DATE	BY	TITLE
B.K.	5413692-ML001	A		[A] 00	08-NOV-78	P. BOSSMAN	CAPSTAN DRIVER BD
		B		[B]	08-NOV-78	B. KRASNICK	
				[C]	08-NOV-78	B. KRASNICK	
				[D]	08-NOV-78	B. KRASNICK	
				[E]	08-NOV-78	B. KRASNICK	
				[F]	08-NOV-78	B. KRASNICK	
				[G]	08-NOV-78	B. KRASNICK	
				[H]	08-NOV-78	B. KRASNICK	
				[I]	08-NOV-78	B. KRASNICK	
				[J]	08-NOV-78	B. KRASNICK	
				[K]	08-NOV-78	B. KRASNICK	
				[L]	08-NOV-78	B. KRASNICK	
				[M]	08-NOV-78	B. KRASNICK	
				[N]	08-NOV-78	B. KRASNICK	

DRN: J. FITZGERALD DATE: 25-SEP-78

CHK'D: P. BOSSMAN DATE: 08-NOV-78

DES. ENG.: B. KRASNICK DATE: 08-NOV-78

RESP. ENG.: B. KRASNICK DATE: 25-SEP-78

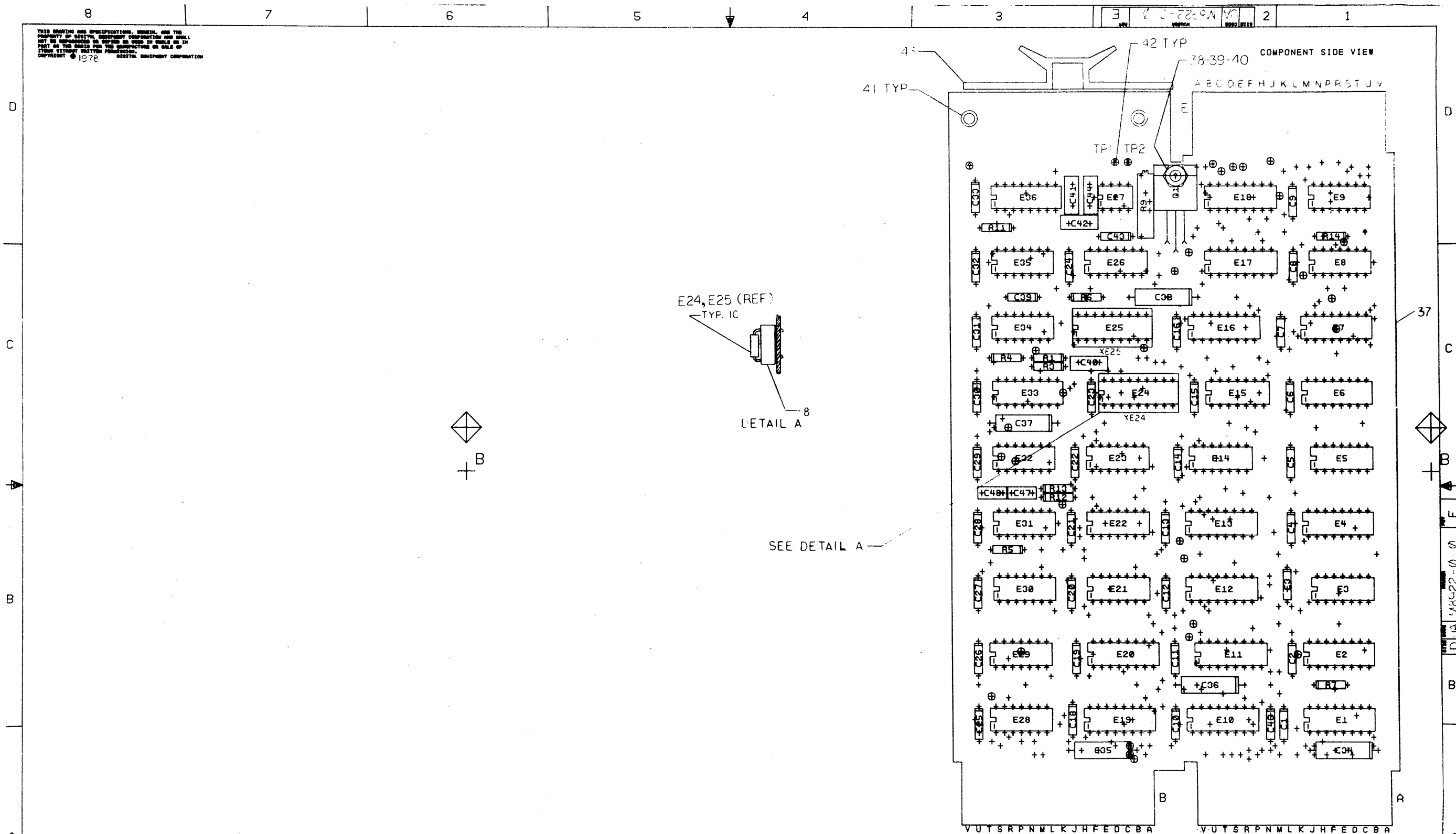
MFG. ENG.: P. BARTON DATE: 08-NOV-78

ASSEMBLY NUMBER: TOP DOCUMENT NUMBER: K PL 5413692-0-DBP 8

D-UR-5413692-0-0 TS11 FILE NAME: 203008.PLS EDIT # 9

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NOTES:

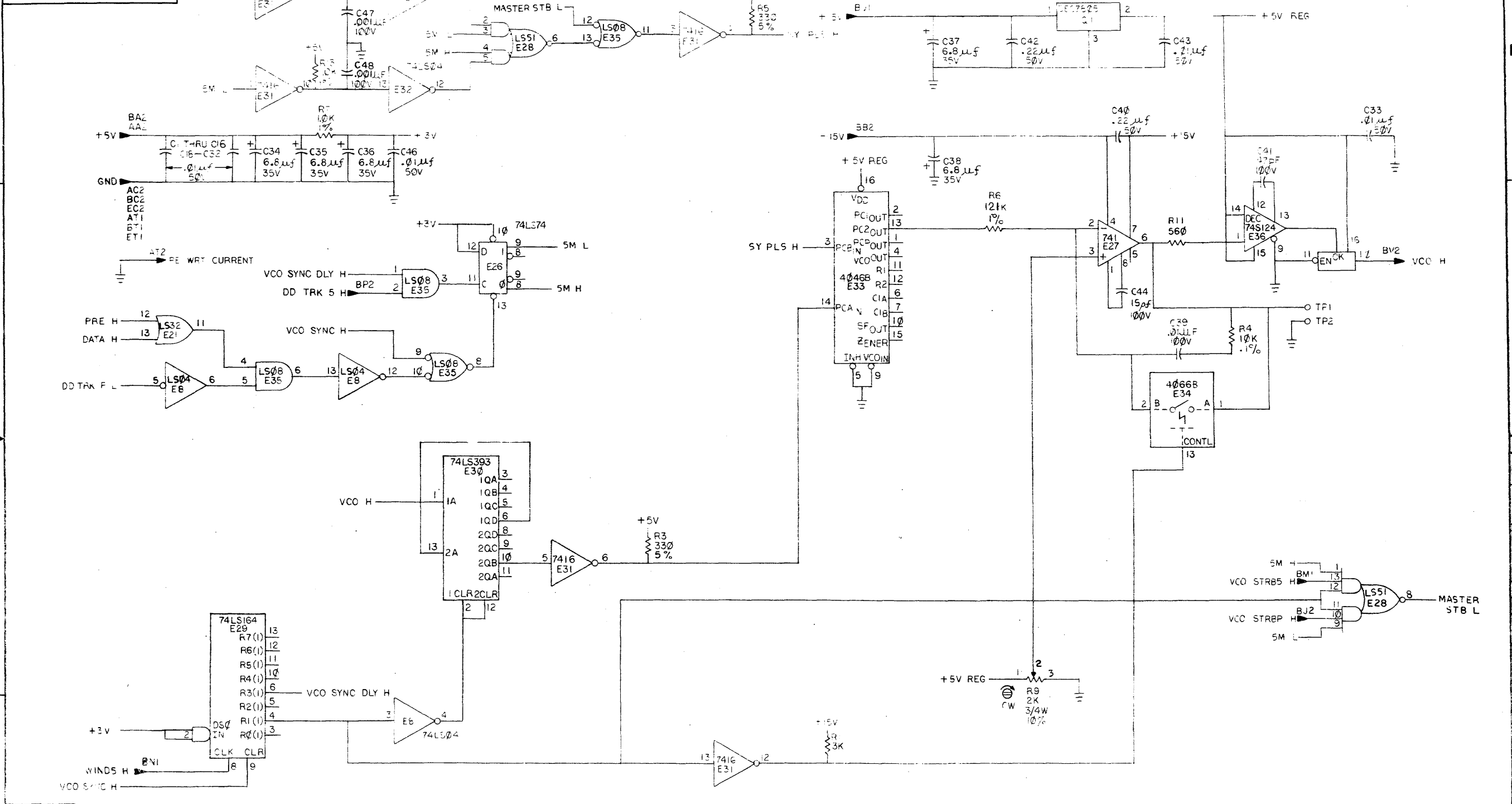
CHG. NO.	REV.	DATE	BY
MS922-0-001	E	3/27/78	R. CORNEAU

ETCH REV.	E
P.C. DESIGN DATA BASE REV.	EL & EM

SIGNATURES		DATE	digital
DRN. ANGEL COLON		3/27/78	
CHK'D. <i>[Signature]</i>		3/27/78	TITLE BRANCH - LOGIC AND VCO CONTROL
ENG. <i>[Signature]</i>		3/27/78	
PROD. <i>[Signature]</i>		3/27/78	SCALE 2/1
SHT. 1 OF 5			
NEXT HIGHER ASSY. 8-DD-MS922-0			SIZE CODE NUMBER REV
			D JAL MS922-0-0 E

1 MS# 10-4737

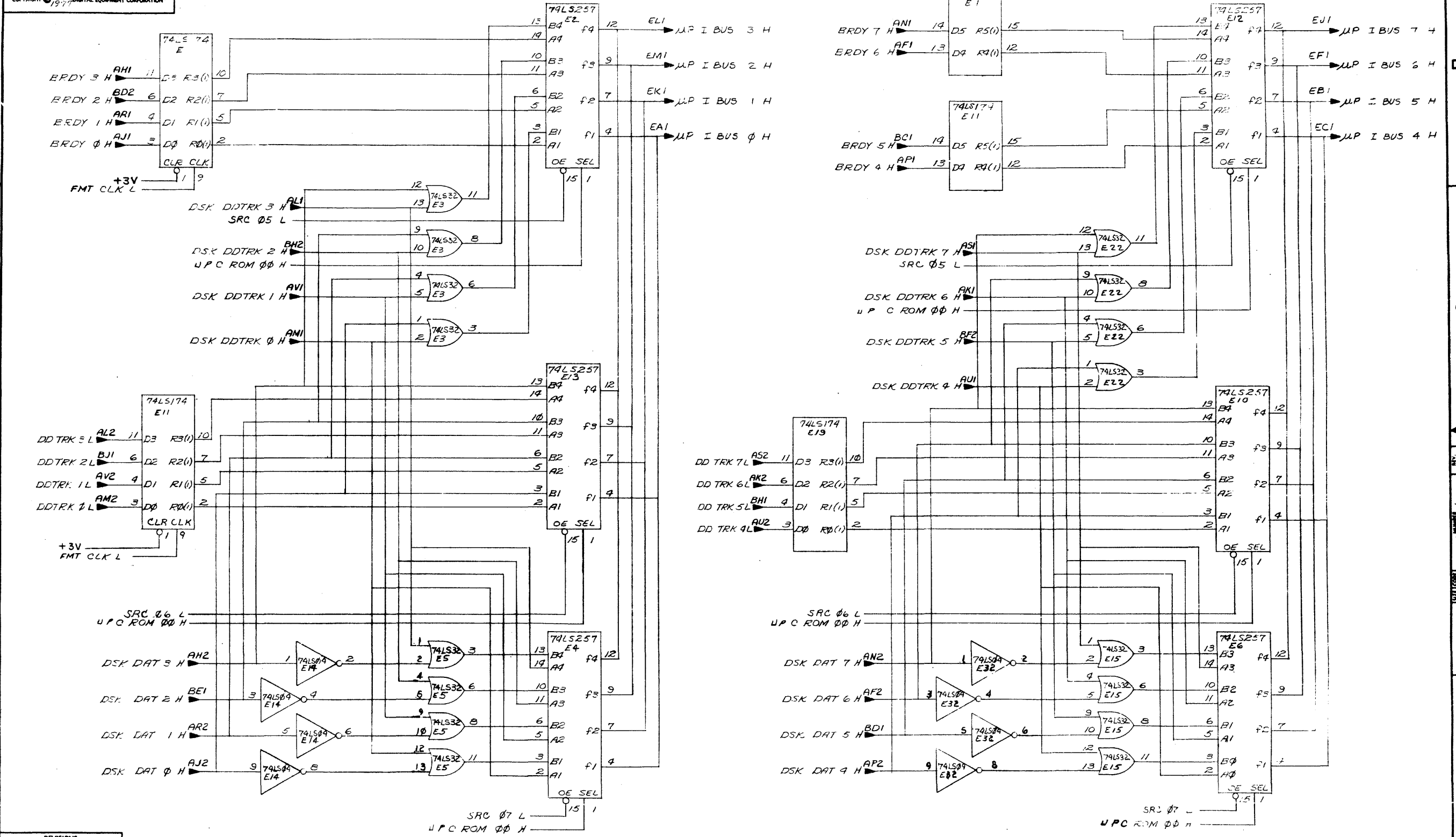
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REV	DATE	BY	CHK
1	11 MAY 71	R. CORNEAU	
2	22 NOV 71		

DRN. JAV. HILLIS	4/25/71	FIRST USED ON	TS11
CHK'D	5/11/71	TITLE	BRANCH LOGIC & VCC CONTROL
ENG. R. CORNEAU	2/11/71	PROJ. ENG.	
PROD.		NEXT HIGHER ASSY.	
B-DD-M8922-0		SCALE	NONE
SHEET 1 OF 3		SIZE	D
		CODE	CS
		NUMBER	M8922-0-1
		DIST.	

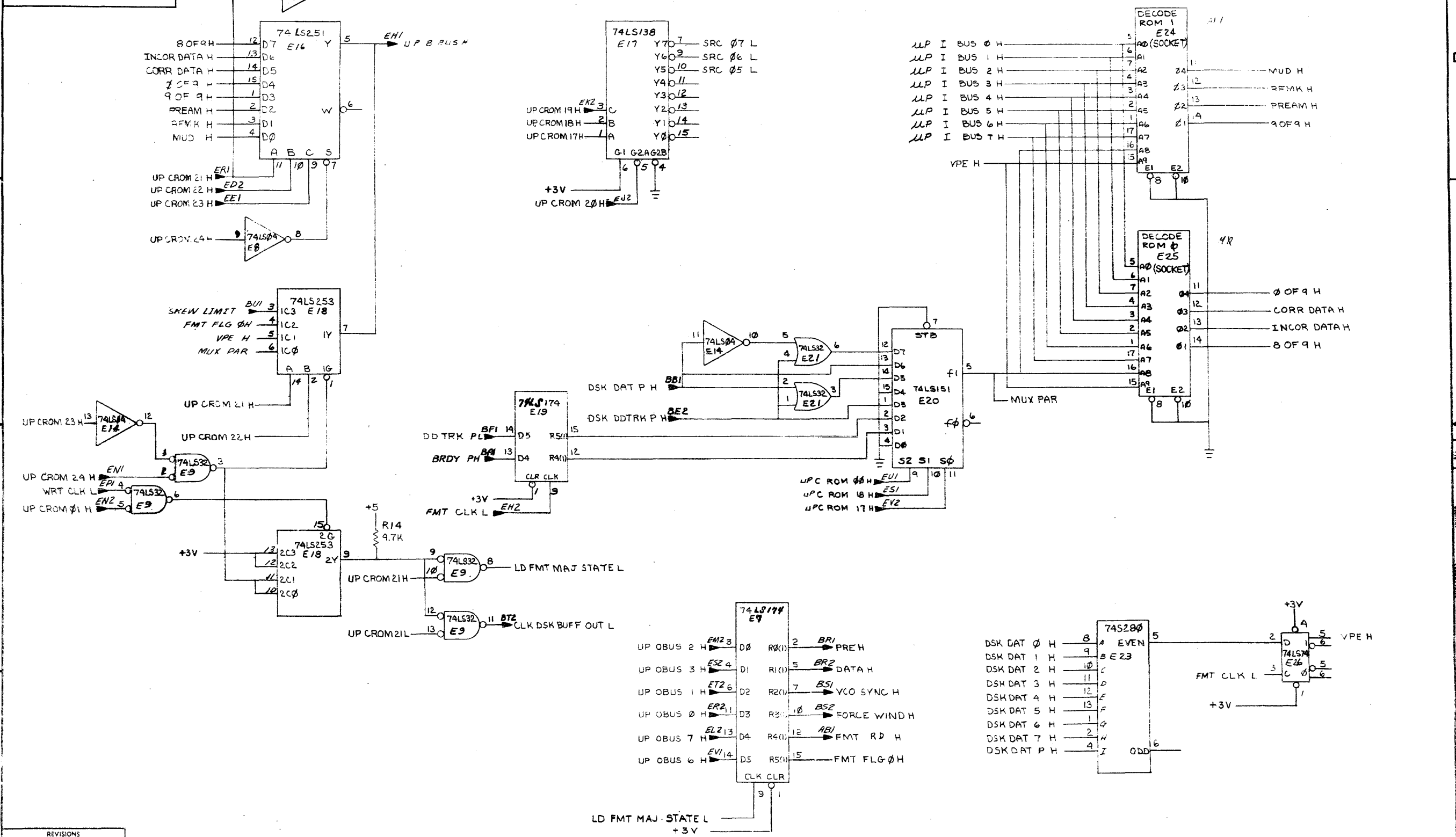
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
BRANCH LOGIC & VCO CONTROL	D CS	M8922-0-1	E
SCALE NONE	SHEET 2 OF 3	DIST.	

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REVISIONS		
CHK	CHANGE NO.	REV

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
37			5012776-00	M8922	1		
1			1000011-00	47.0 MMF 100V 5%200PPM MICA	1		C41
2			1000042-00	1000.0 MMF 100V 5%200PPM MICA	2		C47, C48
3			1001610-00	.01 MFD 50V +80-20% 25U CER	34		C1-C16, C18-C33, C46, C43
4			1002427-00	15.0 MMF 100V 5%200PPM MICA	1		C44
5			1005306-00	6.8MFD 35V 10% S.TANT	5		C34-C38
6			1005784-00	.01 MFD 100V 10% MYLR	1		C39
7			1010274-00	.22 MFD 50V +80-20% Z5U CER	2		C40, C42
8			1211666-00	SKT, IC 18PIN DIP GOLD PLATE	2		XE24, XE25
9			1300432-00	3.0 K .25 W 5.0 % CC	1		R1
10			1300447-00	4.70 K .25 W 5.0 % CC	1		R14
11			1301890-00	560.0 .25 W 5.0 % CC	1		R11
12			1302748-00	1.0 K .25 W 1.0 % RN55C-F 5	3		R7, R12, R13
13			1303438-00	121.0 K .25 W 1.0 % RN55D-F10	1		R6
14			1305431-00	10.0 K .25 W .10% RN55E-B 2	1		R4
15			1309143-08	2.0 K .75 W 10.0 % POT	1		R9
16			1909928-00	7416 INVERTER GATE-HEX 1I	1		E31
17			1910298-00	741 OP AMP GEN PURP. COM	1		E27
18			1911573-00	74S280 PARITY GEN/CHKR, 9BIT	1		E23
19			1911911-00	DEC 74S124 OSCILLATOR, DUAL VOLT	1		E36
20			1912536-00	DEC 7805 VOLT REG, FIX +5V	1		Q1
21			1912646-00	LS253 MUX 1 OF 4 (DUAL)	1		E18
22			1912647-00	LS257 MUX 1 OF 2 (QUAD)	6		E2, E4, E5, E10, E12, E13
23			1912648-00	LS251 MUX 8 INPUT, TRI-STA	1		E16
24			1912697-00	LS174 FF-D HEX W/CLEAR	4		E1, E7, E11, E19
25			1912803-00	74LS04 INVERTER GATE, HEX	3		E8, E14, E32
26			1912805-00	LS08 AND GATE-QUAD 2IN, FO	1		E35
27			1912816-00	LS32 OR GATE-QUAD 2IN, POS	6		E3, E5, E9, E15, E21, E22
28			1912820-00	LS51 A-O-I GATE 2-WIDE 2I	1		E28
29			1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1		E26

REVISION HISTORY		BASIC PART NO: M8922		DRN: H. RICHER	DATE: 20-FEB-78	D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: P. BOSSMAN	DATE: 21-JUN-78	PARTS LIST	
	INIT	D	SECTION VARIATION INDEX	DES. ENG: R. ODOM	DATE: 10 NOV 78	BRANCH LOGIC & VCO CONTROL	
	R.C. M8922-MLOO1	E	(A) 00	RESP. ENG.: R. ODOM	DATE: 10 NOV 78	DOCUMENT NUMBER	
			(B)	MFG. ENG.: P. BARTON	DATE: 10 NOV 78	SIZE: K	PL: M8922-G-DBP
			(C)	ASSEMBLY NUMBER: D-UA-M8922-0-0	TOP DOCUMENT NUMBER: TSD4	NUMBER: 20564E.PLS	REV: E
			(D)				EDIT #: 23
			(E)	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"			
			(F)				
			(G)				
			(H)				
			(I)				
			(J)				
			(K)				
			(L)				
			(M)				
			(N)				

AUTOMATED BY PRTLST.1D(10)

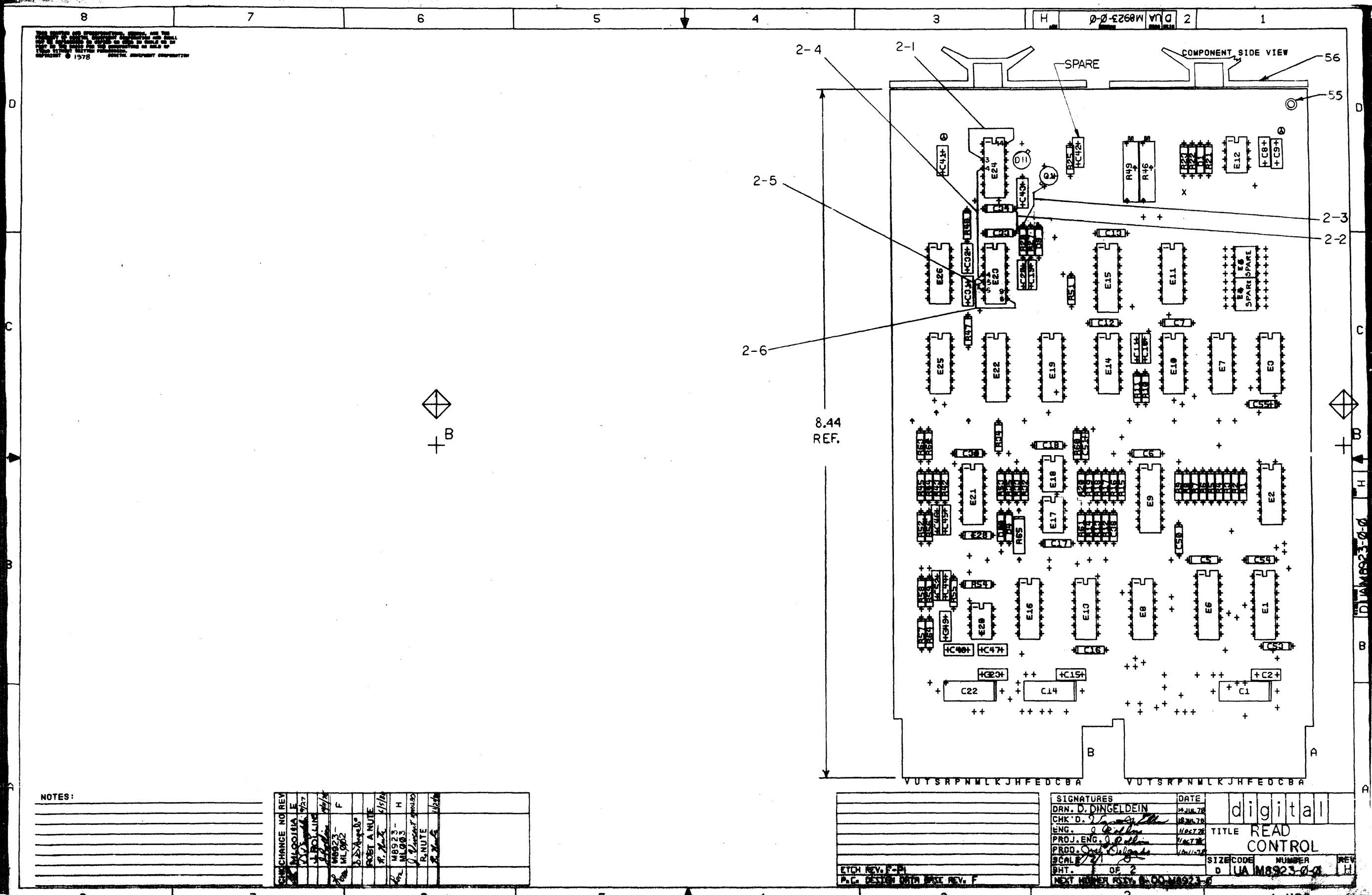
PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	30		1912842-00	LS138 DECODER-THREE INPUT,	1	E17
32	31		1912844-00	LS151 MUX 1 OF 8 & DATA	1	E20
33	32		1912850-00	LS164 SHIFT REG. 8BIT SERI	1	E29
34	33		1914451-00	74LS393 COUNTER, BINARY, 4BIT	1	E30
35	34		2113625-00	40468 PHASE-LOCKED LOOP	1	E33
36	35		2113632-00	40668 BILATERAL SWITCH-QUA	1	E34
37	44		23383F1-00	F1-01	1	E25
38	45		23384F1-00	F1-01	1	E24
39	38		9006009-04	SCREW, BIND, SLOT 4-40X 1/4 SS	1	
40	39		9006556-00	NUT, HEX 4-40X1/4 AF X 3/	1	
41	40		9006688-00	WASHER, LOCK, S.S. #4	1	
42	41		9006732-00	EYELET, ROLL FLANGE .1210DX .219	2	
43	42		9006735-00	EYELET, FUNNEL FLANGE .059 OD X	2	TP1, TP2
44	43		9008337-06	HANDLE, FLIP CHIP, MAGENTA	1	
45	44		1300295-00	330.0 .25 W 5.0 X CC	2	R3, R5

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							BRANCH LOGIC & VCC CONTROL		K	PL	M8922-0-DEP	E

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 1978



NOTES:

CHANGE NO	REV	DATE	BY	CHK'D

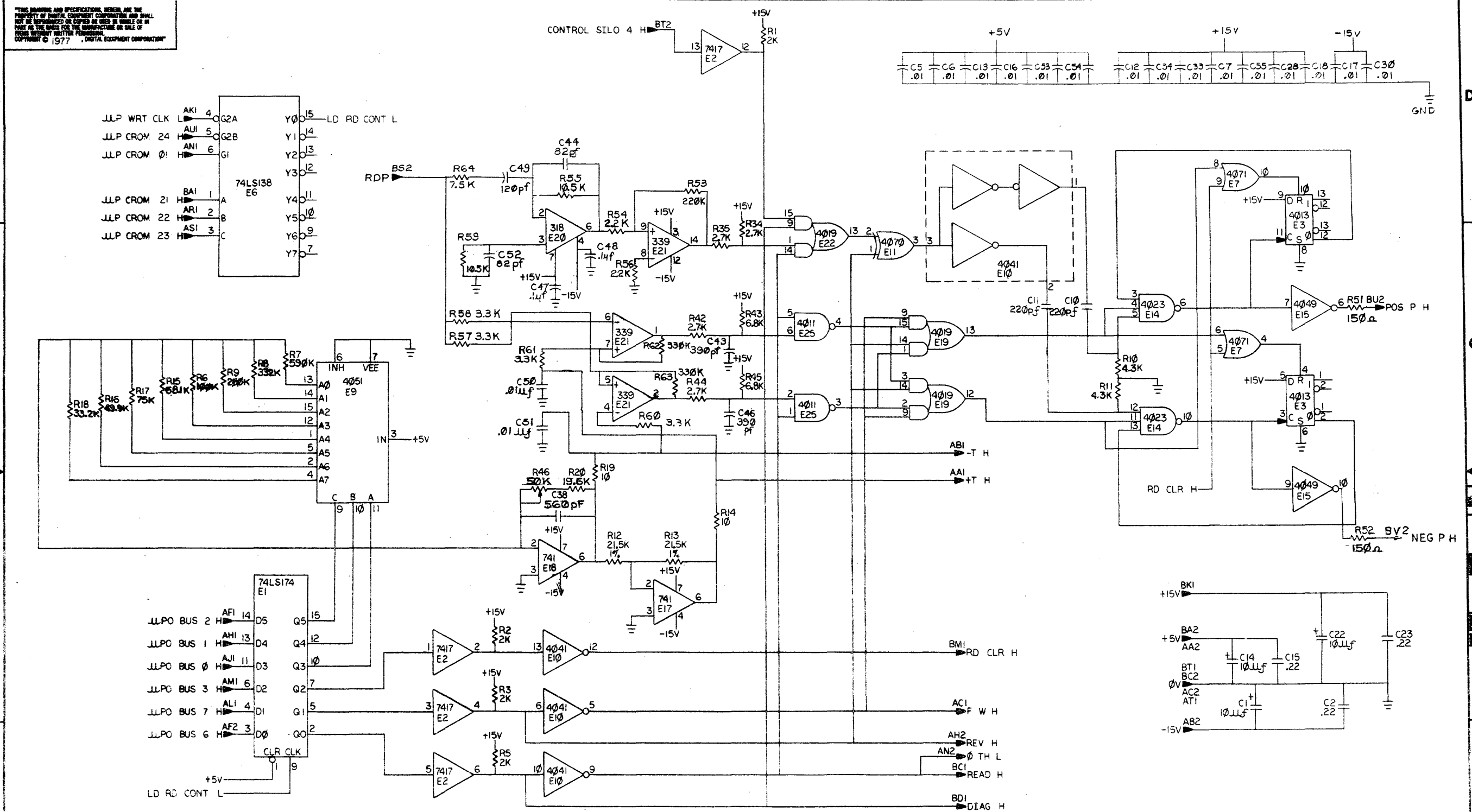
ETCH REV. F-1	
P.C. DESIGN DATA REV. F	

SIGNATURES	DATE
DRN. D. DINGELDEIN	14 JUN 78
CHK'D. <i>[Signature]</i>	18 JUN 78
ENG. <i>[Signature]</i>	18 JUN 78
PROJ. ENG. <i>[Signature]</i>	18 JUN 78
PRDD. <i>[Signature]</i>	18 JUN 78
SCALE 2/1	
SHT. 1 OF 2	
NEXT NUMBER R55, B-00, M8923-0	

digital	
TITLE READ CONTROL	
SIZE CODE NUMBER	
D U A M 8 9 2 3 - 0 - 0 H	
1 MS#	

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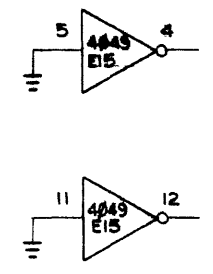
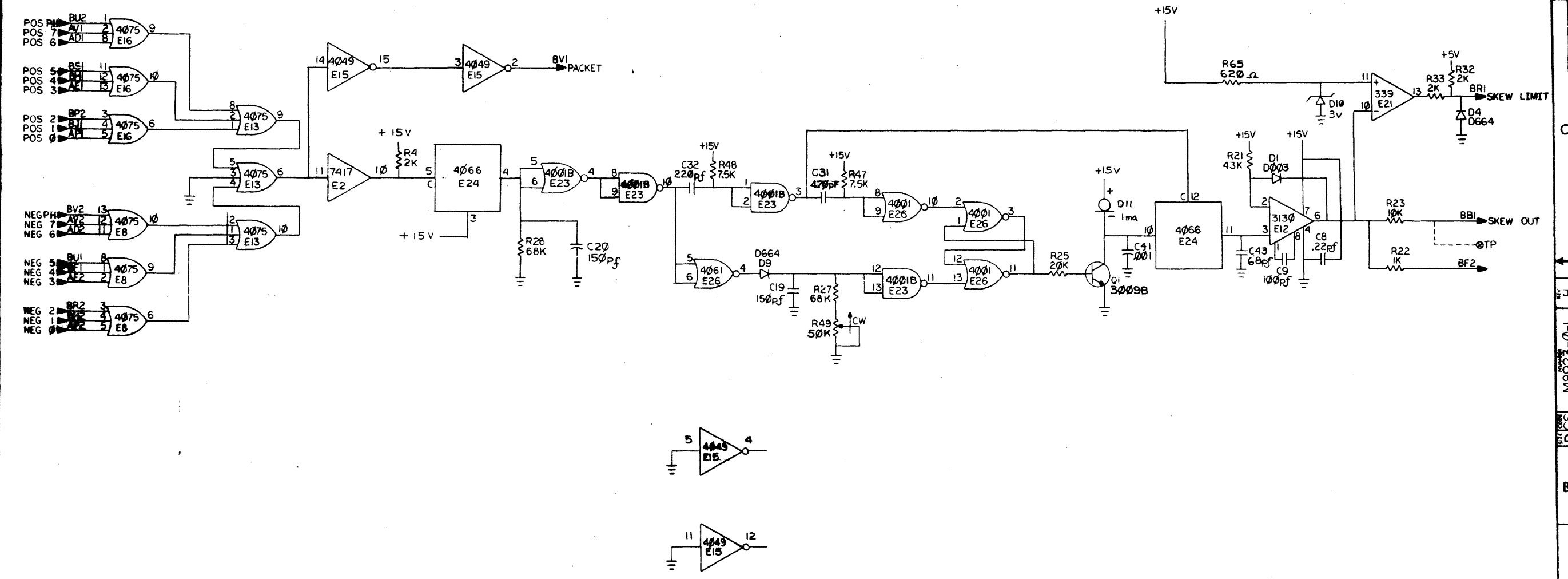
H 1-0-2268W SQD 2



REV.	CHG.	NO.	BY	DATE
1	E	1	MLOOIA	11/18/77
2	E	2	J.ROLLINS	11/18/77
3	E	3	R. INUTE	11/18/77
4	E	4	R. INUTE	11/18/77
5	E	5	R. INUTE	11/18/77
6	E	6	R. INUTE	11/18/77
7	E	7	R. INUTE	11/18/77

DRN: <i>[Signature]</i>	FIRST USED ON: TS04
CHK'D: <i>[Signature]</i>	TITLE: READ CONTROL
ENG. H. Paul: <i>[Signature]</i>	PROJ. ENG. H. Paul: <i>[Signature]</i>
PROJ. ENG. H. Paul: <i>[Signature]</i>	PROJ. ENG. H. Paul: <i>[Signature]</i>
NEXT HIGHER ASSY.	SIZE CODE: DCS
B-00-M8923-0	NUMBER: M8923-0-1
SCALE: 1/1	SHEET: 1 OF 2

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REVISIONS		
CHK	CHANGE NO.	REV

TITLE	TS04	SIZE CODE	NUMBER	REV.
READ CONTROL		D CS	M8923-0-1	
SCALE	SHEET 2 OF 2	DIST.		

DEC FORM NO. DDD 138

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1		D-CS-M8923-0-1		READ CONTROL			REF
2		D-UA-M8923-0-0		READ CONTROL			REF
3		B-DD-M8923-0-0		READ CONTROL			REF
4		D-MD-5012847-0-0		DRILL & ETCH DRAWING			REF
5			5012847-00	M8923			1
6			1000014-00	68.0 MMF 100V 5%200PPM MICA			1
7			1000016-00	100.0 MMF 100V 5%200PPM MICA			1
8			1000019-00	150.0 MMF 100V 5%200PPM MICA			2
9			1001610-00	.01 MFD 50V +80-20% Z5U CER			17
10			1004813-00	10 MFD 20V 10% S.TANT			3
11			1010274-00	.22 MFD 50V +80-20% Z5U CER			4
12			1100100-00	D 003 TR= 50NS PIV= 25V GN			1
13			1100114-00	D 664 QS\75PCB PIV= 25V SP			2
14			1300365-00	1.0 K .25 W 5.0 % CC			1
15			1300426-00	2.70 K .25 W 5.0 % CC			3
16			1300479-00	10.0 K .25 W 5.0 % CC			1
17			1301317-00	10.0 K .25 W 5.0 % CC			2
18			1301327-00	68.0 K .25 W 5.0 % CC			2
19			1301422-00	7.50 K .25 W 5.0 % CC			2
20			1301423-00	6.80 K .25 W 5.0 % CC			3
21			1302388-00	2.0 K .25 W 5.0 % CC			7
22			1302391-00	20.0 K .25 W 5.0 % CC			1
23			1305336-00	200.0 K .25 W 1.0 % RN55D-F10			1
24			1303155-00	21.50 K .25 W 1.0 % RN55D-F10			2
25			1313344-00	75.0 K .25 W 1.0 % RN55D-F10			1
26			1305252-00	68.10 K .25 W 1.0 % RN55D-F10			1
27			1303044-00	100.0 K .25 W 1.0 % RN55D-F10			1
28			1309143-09	*** THIS ITEM IS NOT USED ***			-
29			1309143-13	50.0 K .75 W10.0 % POT			2

CONT
 C43
 C9
 C19, C20
 C5, C6, C7, C12, C13, C16-C18, C28,
 C30, C33, C34, C50, C51, C53-C55
 C1, C14, C22
 C2, C8, C15, C23
 D1
 D4, D9
 R22
 R35, R42, R44
 R23
 R14, R19
 R27, R28
 R48, R47
 R34, R43, R45
 R1-R5, R32, R33
 R25
 R9
 R12, R13
 R17
 R15
 R6
 R49, R46

REVISION HISTORY		BASIC PART NO: M8923		DRN: P.KENDRICH		DATE: 20-SEP-78		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	T.QUILLIN	DATE:	20-SEP-78	TITLE	PARTS LIST
M.F	M8923-ML001	E	SECTION.VARIATION INDEX	DES.ENG:	J.ROLLINS	DATE:	20-SEP-78	DOCUMENT NUMBER	
RN	M8923-ML002	F	[A] 00	RESP.ENG.:	J.ROLLINS	DATE:	20-SEP-78	SIZE	CODE
DJ	M8923-ML003	H	[B]	MFG.ENG.:	P.BARTON	DATE:	20-SEP-78	NUMBER	REV
			[C]	ASSEMBLY NUMBER:	D-UA-M8923-0-0	TOP DOCUMENT NUMBER:	TS04	FILE NAME:	EDIT #
			[D]					Z1482H.PLS	12
			[E]						
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
30	30		1305420-00	33.20 K .25 W 1.0 % RN550-F10	1	R18
31	31		1301732-00	620.0 .50 W 5.0 % CC	1	R65
32	32		1305427-00	590.0 K .25 W 1.0 % RN550-F10	1	R7
33	33		1312985-00	332.0 K .25 W 1.0 % RN550-F10	1	R8
34	34		1312988-00	49.90 K .25 W 1.0 % RN550-F10	1	R16
35	35		1503100-00	DEC30098 NPN 200MW SI 20 25	1	Q1
36	36		1909929-00	7417 BUFFER GATE-HEX 1INP	1	E2
37	37		1910298-00	741 OP AMP GEN PURP. COM	2	E17,E18
38	38		1910735-02	318 OP AMP	1	E20
39	39		1912108-00	339 VOLT CMPRTR, QUAD	1	E21
40	40		1912697-00	LS174 FF-D HEX W/CLEAR	1	E1
41	41		1912842-00	LS138 DECODER-THREE INPUT	1	E6
42	42		2113603-00	4001UBNOR GATE-QUAD 2IN CM	1	E26
43	43		2113607-00	4011UBNAND GATE-QUAD 2IN C	1	E25
44	44		2113609-00	4013B FF-D DUAL W/SET/RESE	1	E3
45	45		2113612-00	4019B AND-OR SELECT GATE-Q	2	E19,E22
46	46		2113613-00	4023UBNAND GATE, TRIPLE 3IN	1	E14
47	47		2113621-00	4041UB BUFFER GATE, QUAD TR	1	E10
48	48		2113627-00	4049UBINVERTER-HEX BUFFER-	1	E15
49	49		2113629-00	4051B MULTIPLEXER 8CHAN CM	1	E9
50	50		2113632-00	4066B BILATERAL SWITCH-QUA	1	E24
51	51		2113634-00	4070B X-OR GATE-QUAD CMOS	1	E11
52	52		2113638-00	4075B OR GATE-TRIPLE 3IN C	3	E8,E13,E16
53	53		2113644-00	*** THIS ITEM IS NOT USED ***		
54	54		1914466-00	3130E OP AMP MOS/FET IN,CM	1	E12
55	55		9006732-00	EYELET, ROLL FLANGE .12100X .219	4	
56	56		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
57	57		2113635-00	4071B OR GATE-QUAD 2IN CMO	1	E7
58	58		1302389-00	4.30 K .25 W 5.0 % CC	2	R10,R11
59	59		1304838-00	43.0 K .25 W 5.0 % CC	1	R21
60	60		1001739-00	*** THIS ITEM IS NOT USED ***		
61	61		1118180-00	CR 100 POV=100V 1MA	1	D11
62	62		1113295-00	1N 4372A VZ= 3.0 5% .40W	1	D10
63	63		1300250-00	150.0 .25 W 5.0 % CC	2	R51,R52
64	64		1300417-00	2.20 K .25 W 5.0 % CC	2	R54,R56
65	65		1300439-00	3.30 K .25 W 5.0 % CC	4	R57,R58,R60,R61
66	66		1305322-00	7.50 K .25 W 1.0 % RN550-F10	1	R64
67	67		1312987-00	10.50 K .25 W 1.0 % RN550-F10	2	R55,R59
68	68		1302092-00	220.0 K .25 W 5.0 % CC	1	R53
69	69		1302091-00	330.0 K .25 W 5.0 % CC	2	R62,R63
70	70		1014169-00	1000.0 MMF 100V 1%200PPM MICA	1	C41
71	71		1000018-00	120.0 MMF 100V 5%200PPM MICA	1	C49
72	72		1000015-00	82.0 MMF 100V 5%200PPM MICA	2	C44,C52
73	73		1001631-00	390.0 MMF 100V 5%200PPM MICA	2	C45,C46
74	74		1010978-36	.1 MFD 50V 10% CER	3	C47,C48
75	75		1000021-00	220.0 MMF 100V 5%200PPM MICA	3	C10,C11,C32
76	76		1309419-00	19.60 K .25 W 1.0 % RN550-F10	1	R20
77	77		1305265-00	*** THIS ITEM IS NOT USED ***		

D	I	G	I	T	A	L	TITLE	READ CONTROL	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8923-0-DBP	H

AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A3 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
78	78		1000025-00	560.0 MMF 100V 5%200PPM MICA	1		C38
79	79		1000024-00	470.0 MMF 100V 5%200PPM MICA	1		C31
80	80		2116333-00	4001BE NOR GATE-QUAD 2IN C	1		E23

81 NOTE: USED ON:OPTION/MODEL T504

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							READ CONTROL		K	PL	M8923-0-DBP	H

8

k

0-0-2689 7

6

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2

1

1980

D

C

B

A

NOTES:

STEP E	↑ Y AXIS	STEP	TIMES
REPEAT	→ X AXIS	STEP	TIMES

CHANGE NO	REV
REDRAWN	K
M8924-M14	

8

7

6

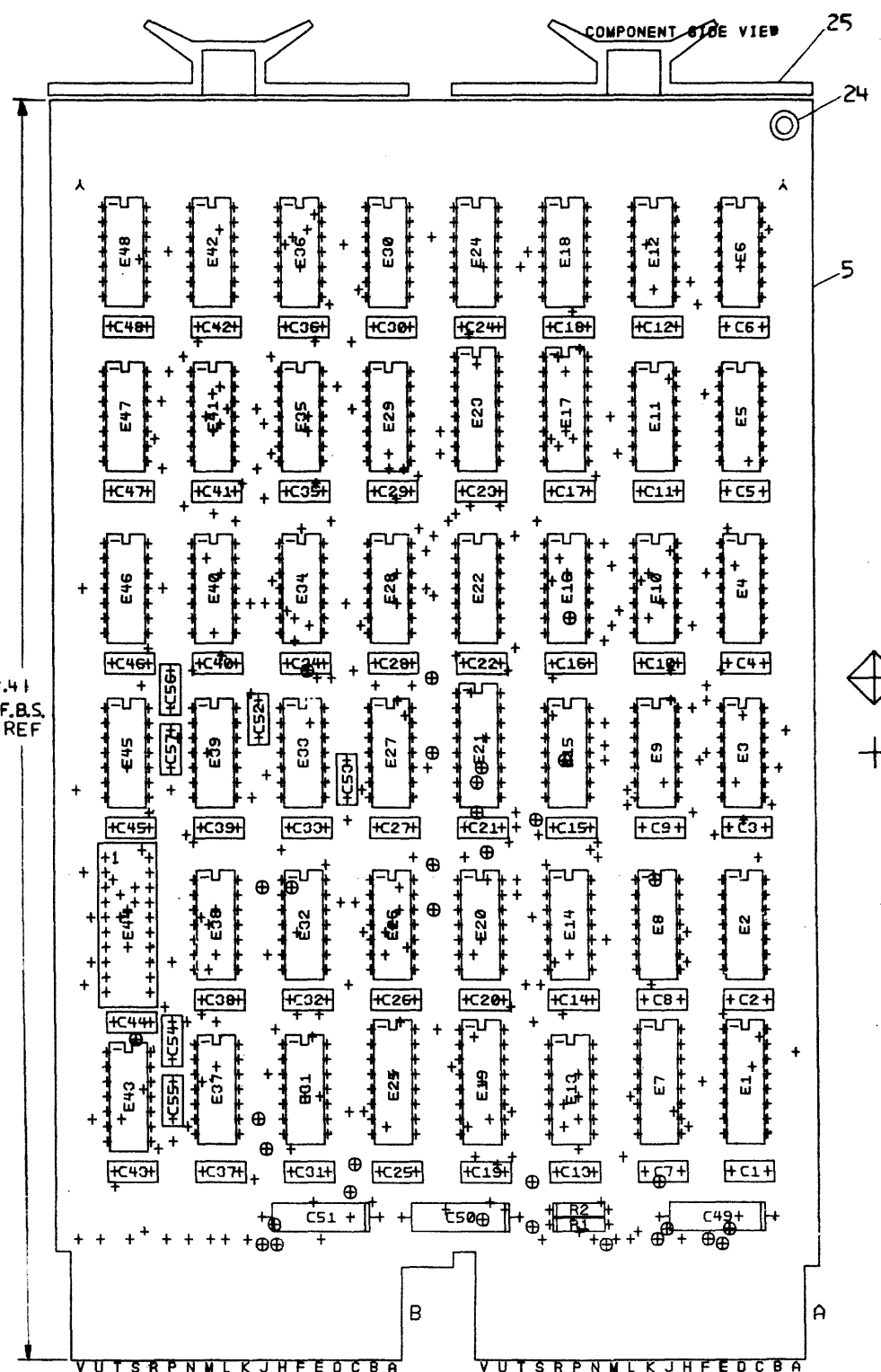
5

4

3

2

1 WO#



D

C

B

A

ETCH REV.	H-P2
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SIGNATURES		DATE	
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CHK'D. <i>[Signature]</i>		10-07-80	
MECH. ENG. <i>[Signature]</i>		10-28-80	TITLE
PROJ. ENG. <i>[Signature]</i>		10-28-80	P.E. FORMATTER
PROD. <i>[Signature]</i>		10-28-80	
SCALE 2/1		SHT. 1 OF 1	SIZE CODE
			NUMBER
			D UA M8924-0-0 K
			REV

D

C

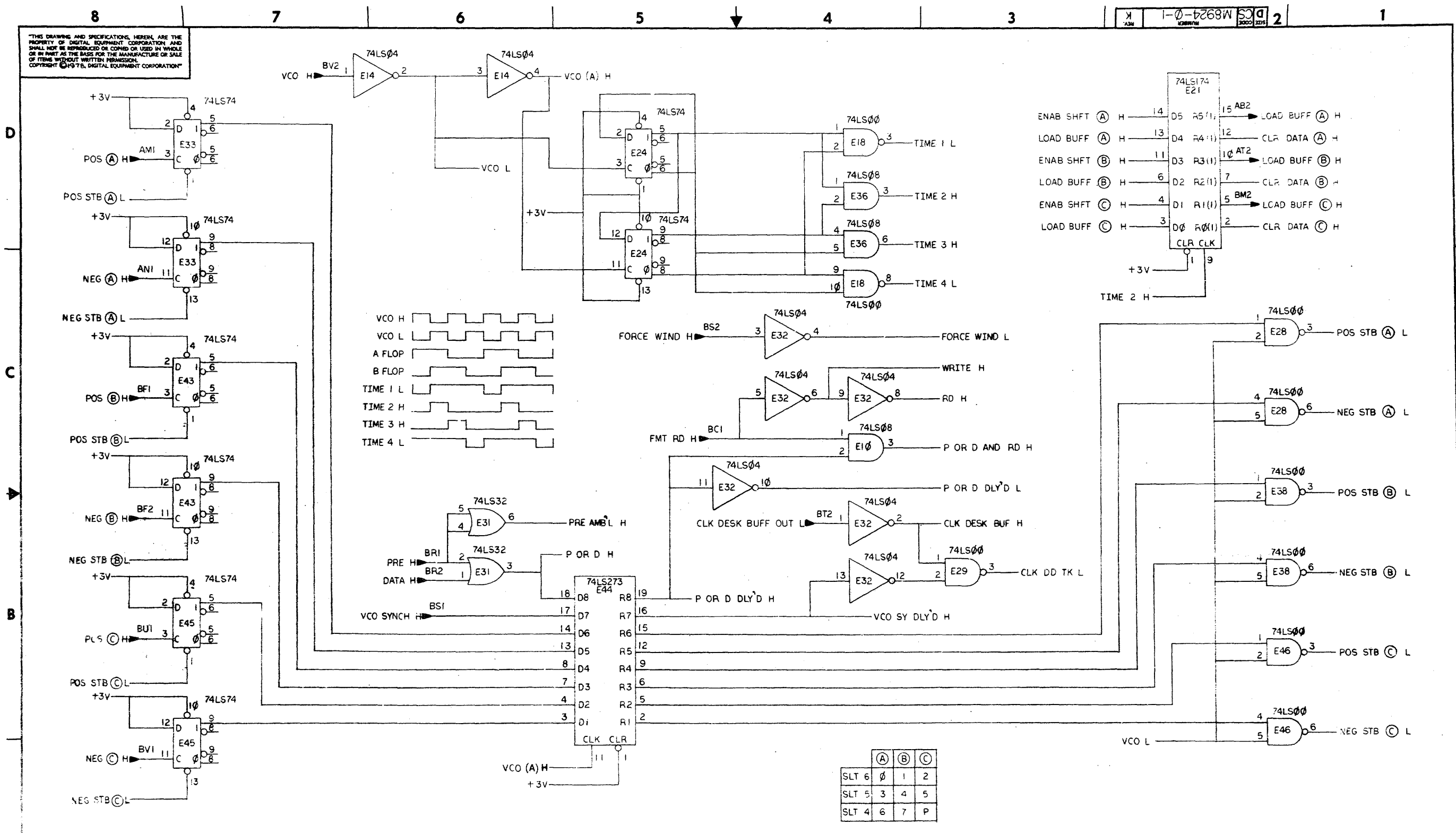
B

A

DUA M8924-0-0	K
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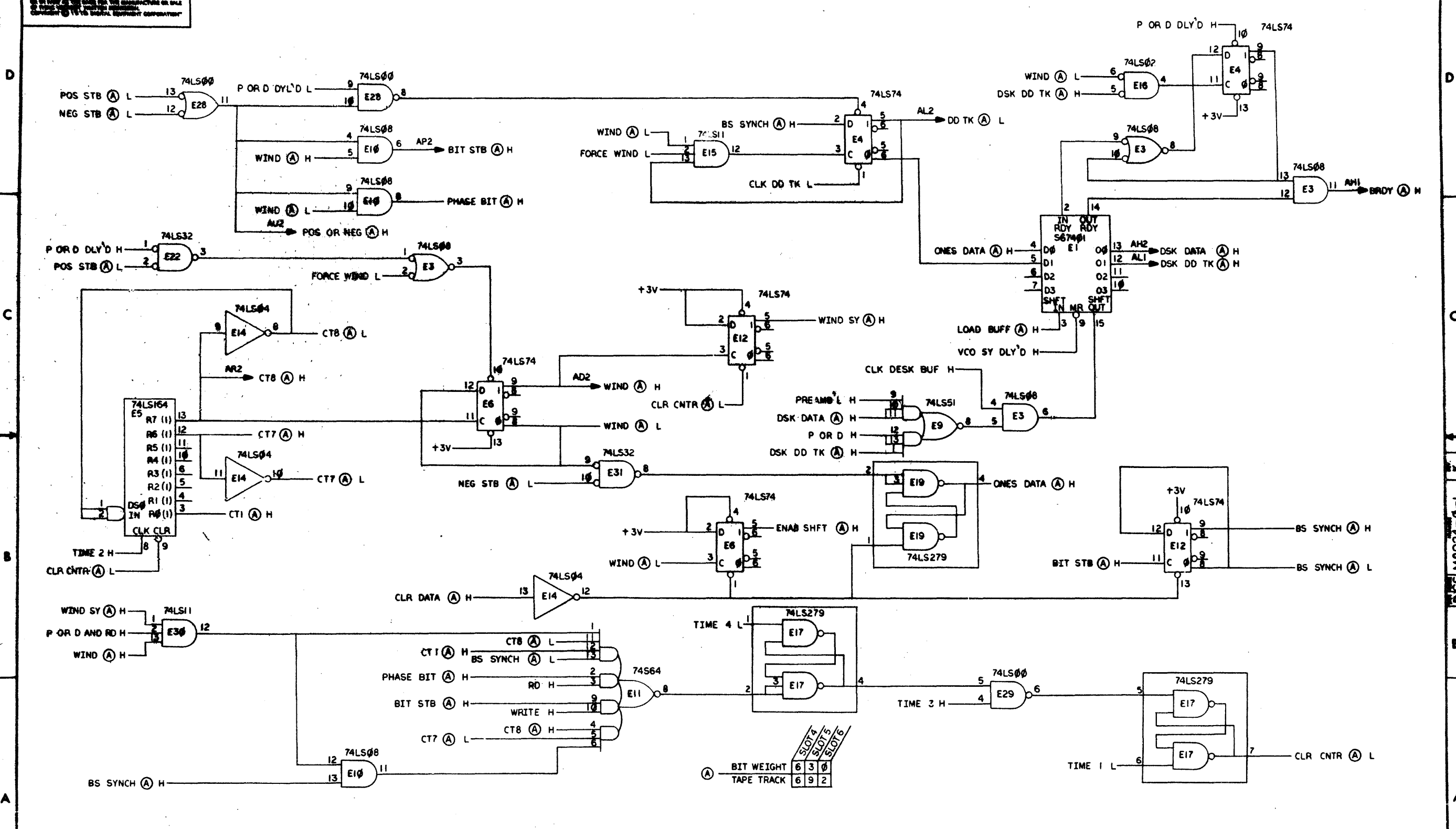
DIGITAL EQUIPMENT CORPORATION
M8924-0-1



REV.	CHG.	NO.	BY	DATE
1			J. ROLLINS	3-2-78
2			J. ROLLINS	3-2-78
3			J. ROLLINS	3-2-78
4			J. ROLLINS	3-2-78
5			J. ROLLINS	3-2-78
6			J. ROLLINS	3-2-78
7			J. ROLLINS	3-2-78
8			J. ROLLINS	3-2-78
9			J. ROLLINS	3-2-78
10			J. ROLLINS	3-2-78
11			J. ROLLINS	3-2-78
12			J. ROLLINS	3-2-78
13			J. ROLLINS	3-2-78
14			J. ROLLINS	3-2-78
15			J. ROLLINS	3-2-78
16			J. ROLLINS	3-2-78
17			J. ROLLINS	3-2-78
18			J. ROLLINS	3-2-78
19			J. ROLLINS	3-2-78
20			J. ROLLINS	3-2-78
21			J. ROLLINS	3-2-78
22			J. ROLLINS	3-2-78
23			J. ROLLINS	3-2-78
24			J. ROLLINS	3-2-78
25			J. ROLLINS	3-2-78
26			J. ROLLINS	3-2-78
27			J. ROLLINS	3-2-78
28			J. ROLLINS	3-2-78
29			J. ROLLINS	3-2-78
30			J. ROLLINS	3-2-78

DRN: J. ROLLINS	1-2-78	FIRST USED ON	TS04
CHK'D: J. ROLLINS	3-2-78	TITLE	P. E. FORMATTER
ENG: J. ROLLINS	3-2-78	NUMBER	M8924-0-1
PROJ. ENG: J. ROLLINS	3-2-78	REV.	K
PROD. PLAN: J. ROLLINS	3-2-78	SCALE	NONE
NEXT HIGHER ASSY.		SIZE CODE	D CS
B-DD-M8924-0		DIST.	
SHEET 1 OF 4			

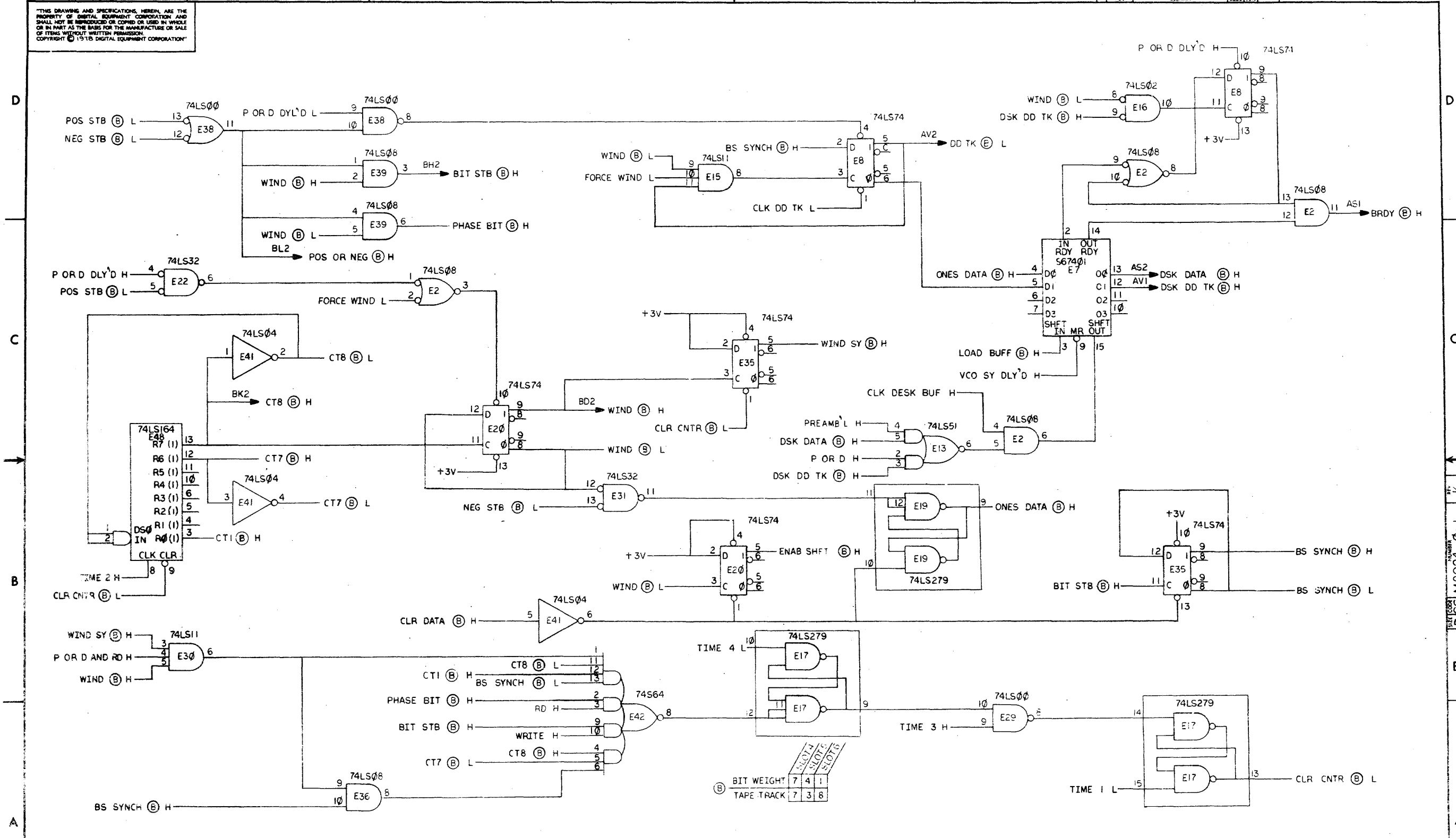
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REVISIONS		
CHK	CHANGE NO.	REV.

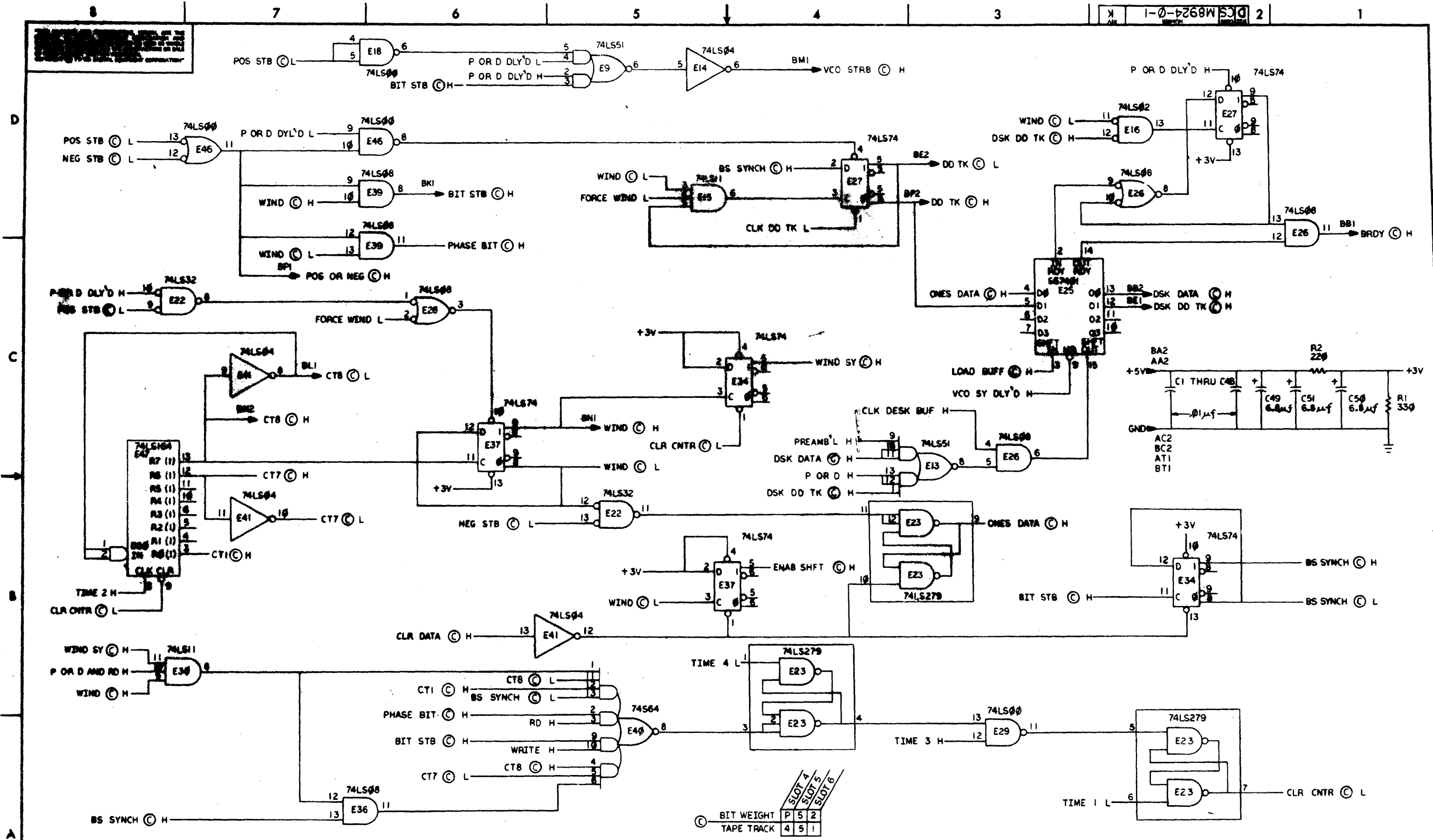
DCS M8924-0-1 K

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REVISIONS		
CHK	CHANGE NO.	REV.

DCS M8924-0-1



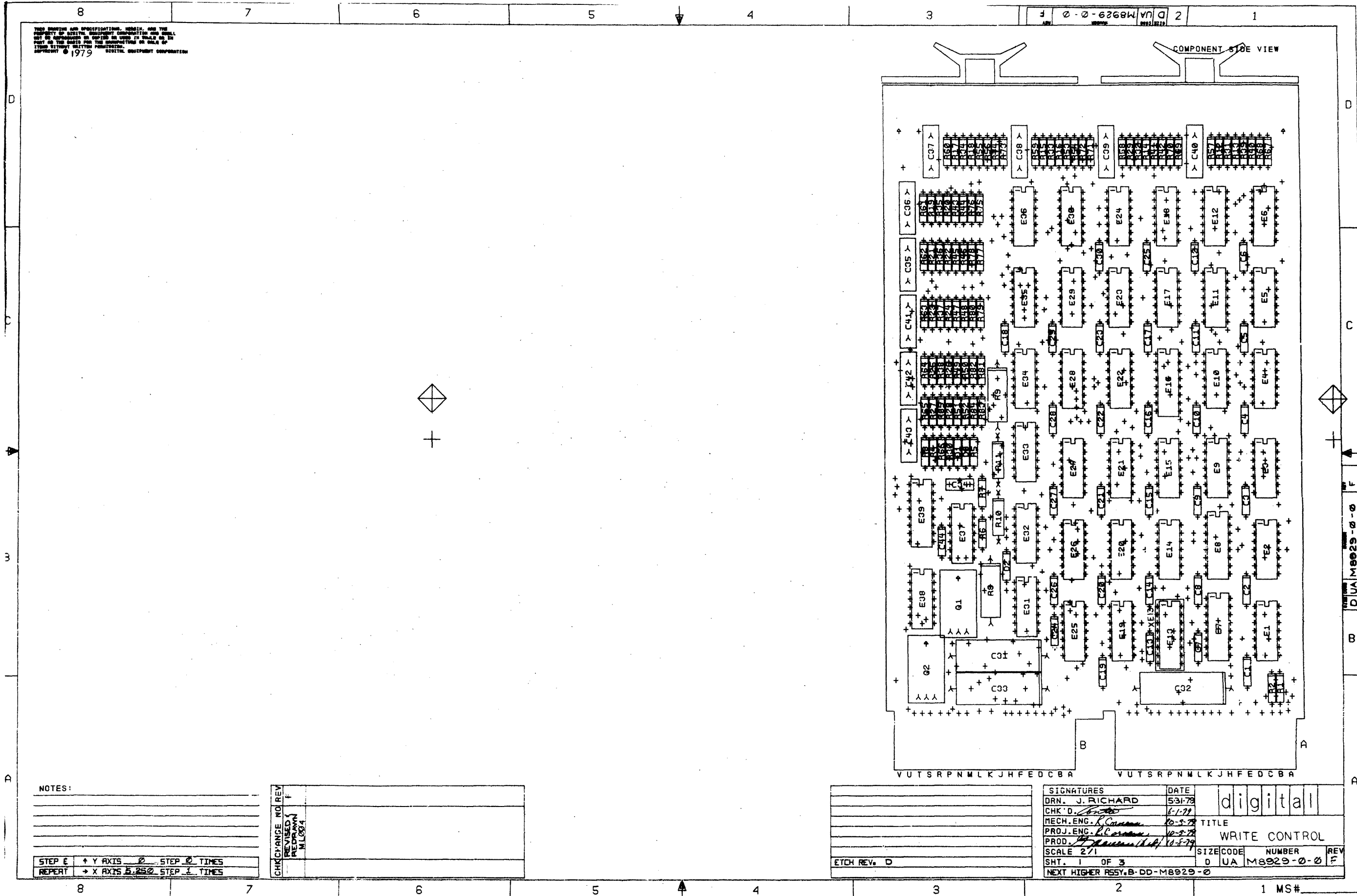
REVISIONS			TITLE		SIZE CODE		NUMBER		REV.	
CHK	CHANGE NO.	REV.	P. E. FORMATTER		DCS		M8924-0-1		K	
			SCALE	NONE	SHEET	4	OF	4		

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1	D-CS-M8924-0-1		CIRCUIT SCHEMATIC	REF	
2	2	D-UA-M8924-0-0		UNIT ASSY	REF	
3	3	B-DD-M8924-0-0		DWG DIRECTORY	REF	
4	4	D-MD-5011956-0-0		DRILL & ETCH DWG	REF	
5	5		5011956-00	M8924	1	
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	48	C1-C48
7	7		1005306-00	6.8MFD 35V 10% S.TANT	3	C49-C51
8	8		1300271-00	220.0 .25 W 5.0 % CC	1	R2
9	9		1300295-00	330.0 .25 W 5.0 % CC	1	R1
10	10		1910542-00	74S64 A-0-I GATE 4-2-3-2	3	E11,E40,E42
11	11		1912697-00	LS174 FF-D HEX W/CLEAR	1	E21
12	12		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	5	E18,E28,E29,E38,E46
13	13		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E16
14	14		1912803-00	774LS04 INVERTER GATE, HEX	3	E14,E32,E41
15	15		1912805-00	LS08 AND GATE-QUAD 2IN,PO	6	E2,E3,E10,E26,E36,E39
16	16		1912808-00	LS11 AND GATE-TRIPLE 3IN	2	E15,E30
17	17		1912816-00	LS32 OR GATE-QUAD 2IN,POS	2	E22,E31
18	18		1912820-00	LS51 A-0-I GATE 2-WIDE 2I	2	E9,E13
19	19		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	13	E4,E6,E8,E12,E20,E24,E27, E33-E35,E37,E43,E45
						CONT
20	20		1912850-00	LS164 SHIFT REG. 8BIT SERI	3	E5,E47,E48
21	21		1912863-00	LS273 FF-D OCTAL W/CLEAR	1	E44
22	22		1912864-00	LS279 LATCH,QUAD-S-R	3	E17,E19,E23
23	23		1914768-01	FIFO, SLOW (67401)	3	E1,E7,E25
24	24		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4	
25	25		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
26	26		9105740-55	*** THIS ITEM IS NOT USED ***	-	
27	27		1000023-00	330.0 MMF 100V 5%200PPM MICA	6	C52-C57
28	28	D-EC-5011956-0-0		ETCH CUT DRAWING	REF	

REVISION HISTORY		BASIC PART NO: M8924		DRN:	J.ROGERS	DATE:	30-DEC-77	DIGITAL			
ENG	ECD NUMBER	REV	SECTION A OF A	CHK'D:	H.RICHER	DATE:	13-JUL-78	PARTS LIST			
---	INIT	E	SECTION.VARIATION INDEX	DES.ENG:	R.CORNEAU	DATE:	13-JUL-78	DOCUMENT NUMBER			
J.R	M8924-ML001	F	[A] 00	RESP.ENG.:	R.ODOM	DATE:	13-JUL-78	SIZE	CODE	NUMBER	REV
BK	M8924-ML003	J	[B]	MFG.ENG.:	P.BARTON	DATE:	13-JUL-78	K	PL	M8924-0-DBP	K
R.N	M8924-ML004	K	[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
			[D]	D-UA-M8924-0-0		#B-DD-M8924-0		Z0288K.PLS		22	
			[E]								
			[F]								
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NOTES:

STEP 1 + Y AXIS 2 STEP 2 TIMES

REPEAT + X AXIS 2.250 STEP 1 TIMES

CHANGE NO	REV
REVISION	1
REVISION	2
REVISION	3
REVISION	4
REVISION	5
REVISION	6
REVISION	7
REVISION	8
REVISION	9
REVISION	10

ETCH REV. D

SIGNATURES		DATE	digital
DRN. J. RICHARD		5-31-79	
CHK. D. [Signature]		6-1-79	
MECH. ENG. [Signature]		10-3-79	
PROJ. ENG. [Signature]		10-3-79	
SCALE 2/1			
SHT. 1 OF 3			
NEXT HIGHER ASSY: B-DD-M8929-0			

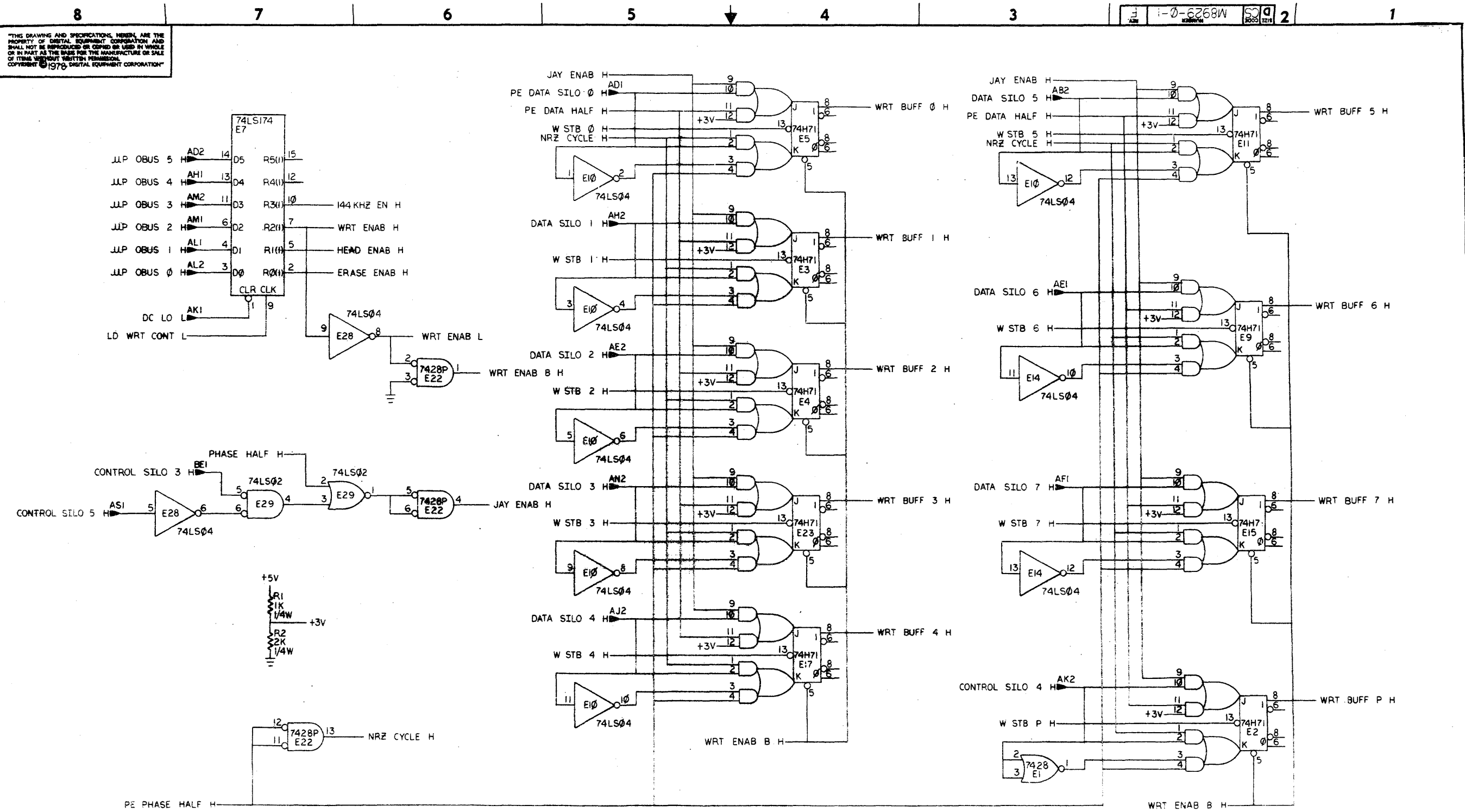
TITLE: WRITE CONTROL

SIZE CODE: D

NUMBER: UA M8929-0-0

REV: F

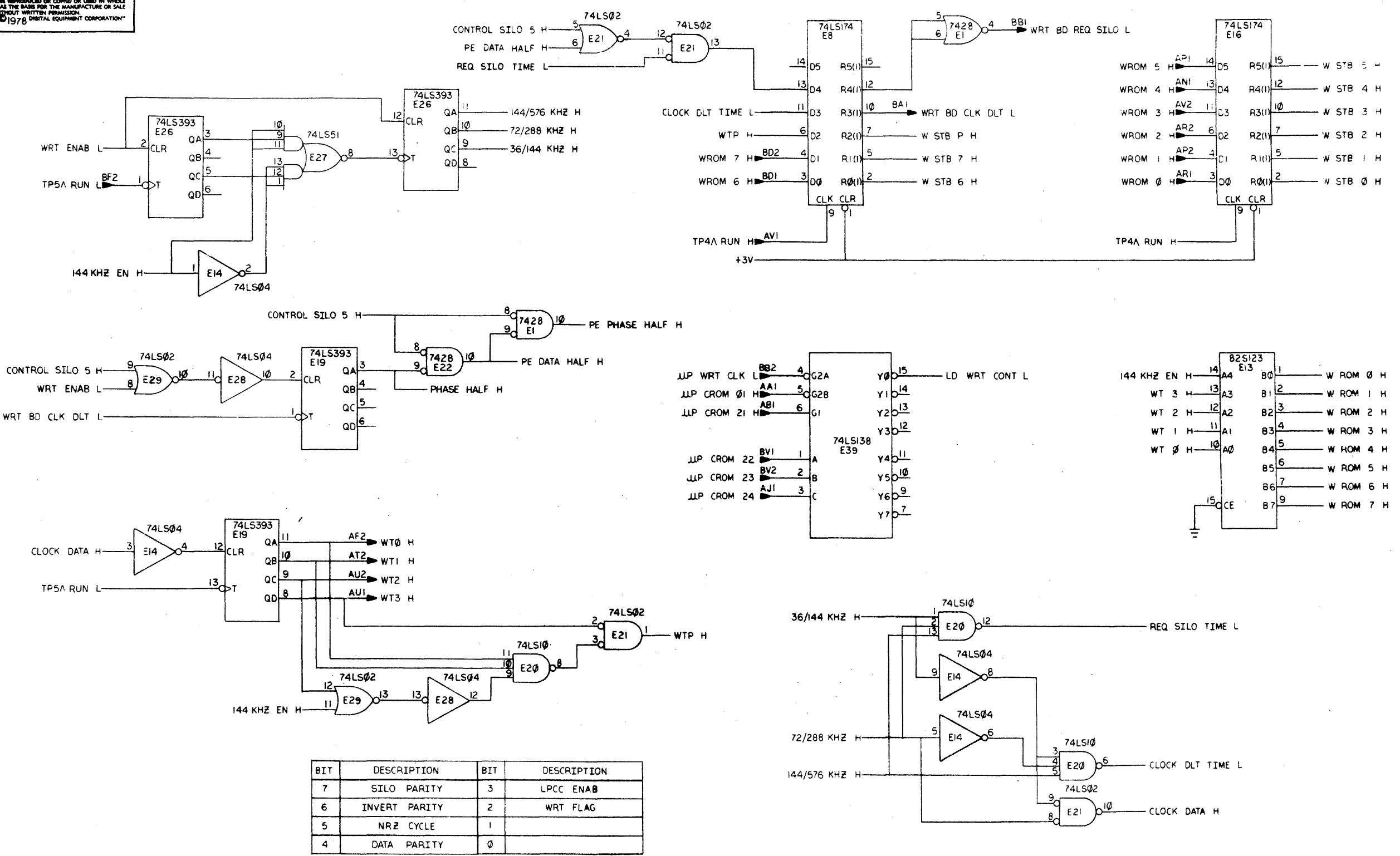
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REV.	CHG.	NO.	BY	DATE
1		1	R. CORNEAU	12/24/79
2		2	R. CORNEAU	1/24/80
3		3	R. CORNEAU	2/24/80
4		4	R. CORNEAU	3/24/80
5		5	R. CORNEAU	4/24/80
6		6	R. CORNEAU	5/24/80
7		7	R. CORNEAU	6/24/80
8		8	R. CORNEAU	7/24/80

DR. <i>[Signature]</i>	FIRST USED ON	digital
CHK. <i>[Signature]</i>	TS04	
ENG. <i>[Signature]</i>	TITLE	WRITE CONTROL
PRD. <i>[Signature]</i>	DATE	4-7-79
NEXT HIGHER ASSY.	SIZE	CODE
B-DD-M8929-0	D	CS
SCALE	NUMBER	M8929-0-1
SHEET 1 OF 5	DIST.	

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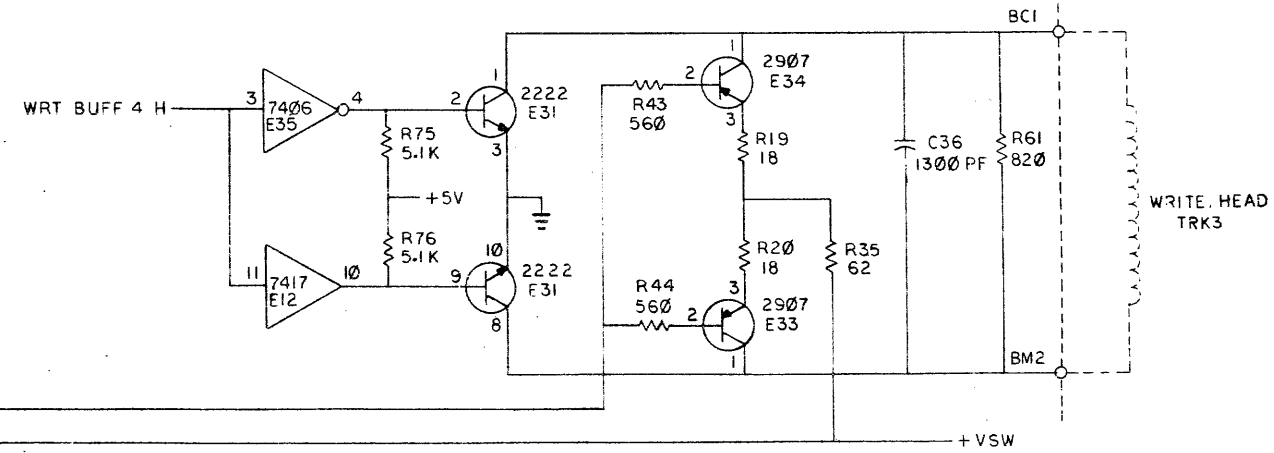
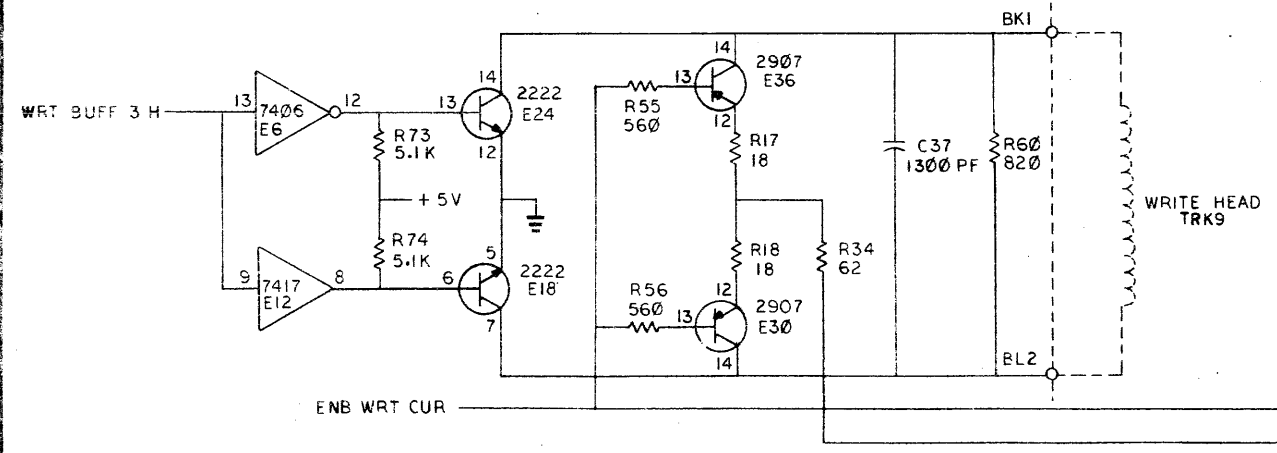
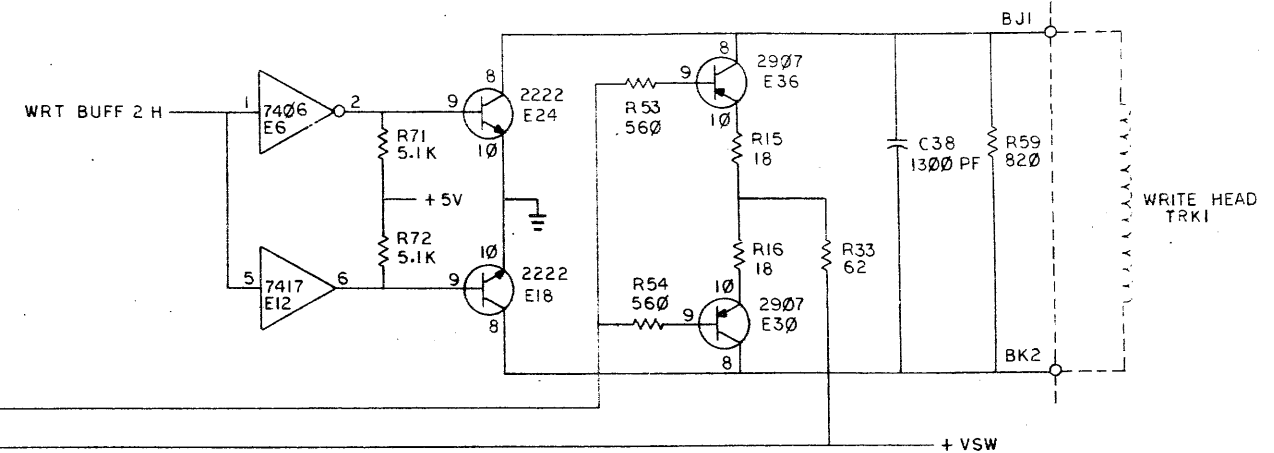
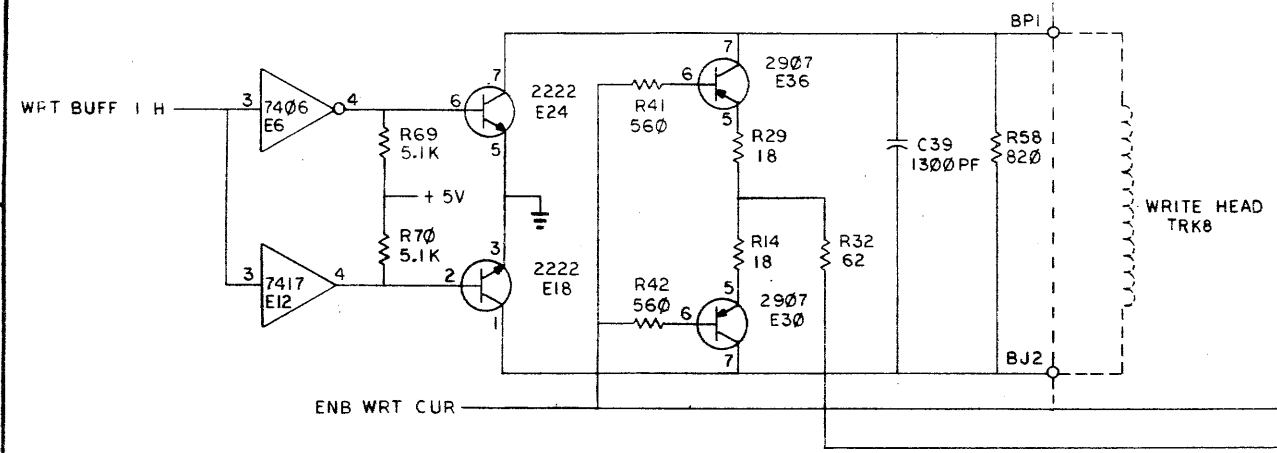


BIT	DESCRIPTION	BIT	DESCRIPTION
7	SILO PARITY	3	LPCC ENAB
6	INVERT PARITY	2	WRT FLAG
5	NRZ CYCLE	1	
4	DATA PARITY	0	

REVISIONS		
CHK	CHANGE NO.	REV

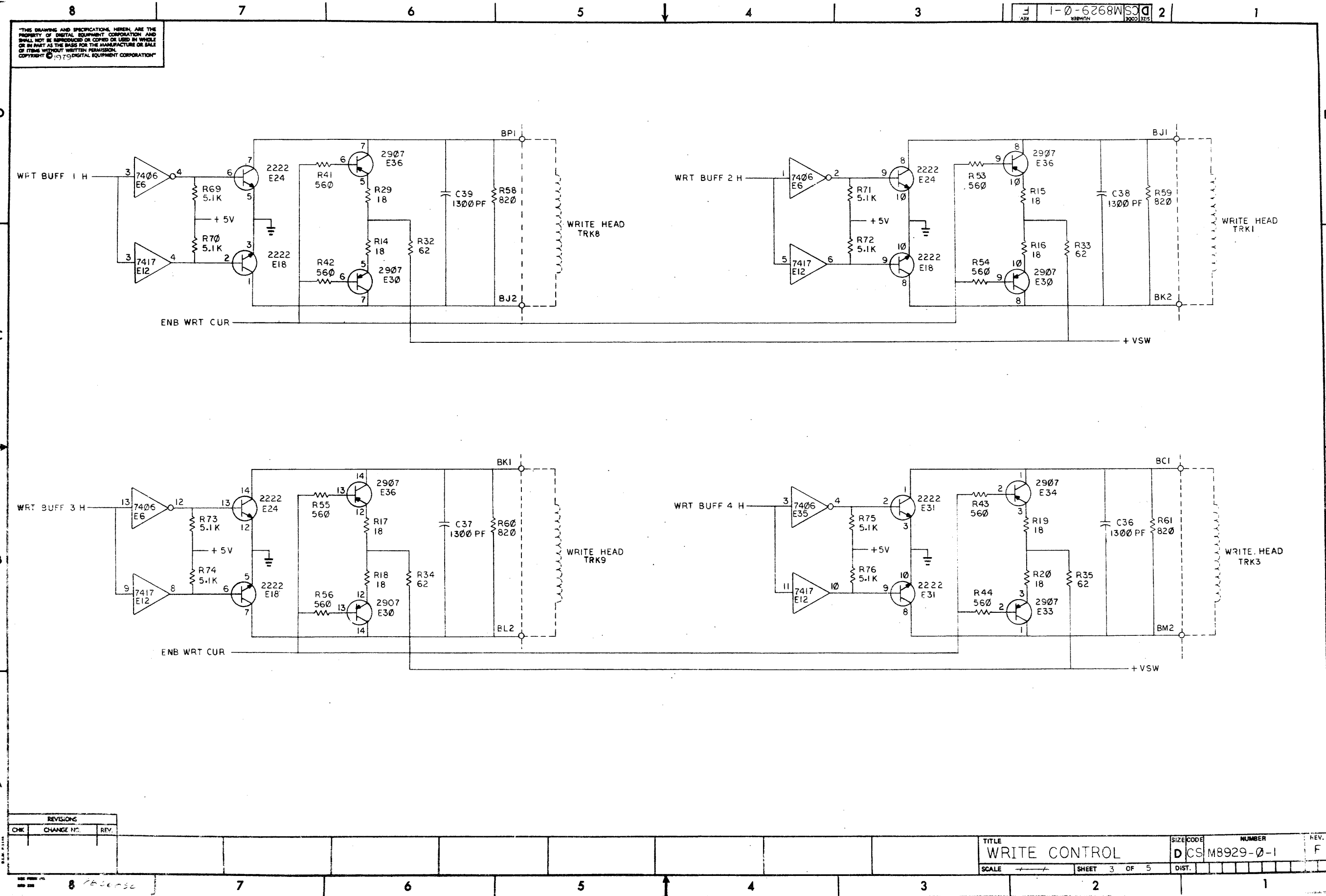
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REV. 1-0-6268W DCS M8929-0-1 2

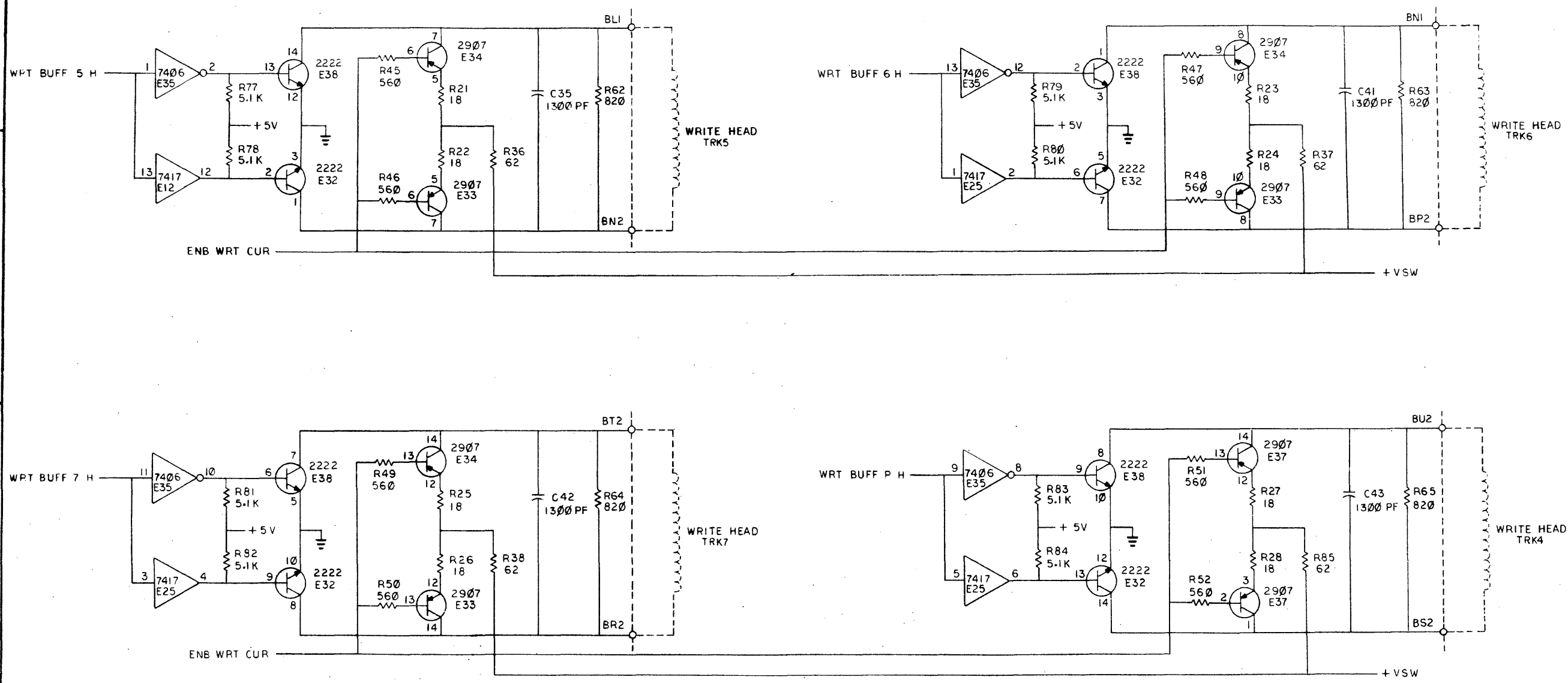


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
WRITE CONTROL	D	CS M8929-0-1	F
SCALE	SHEET	OF	DIST.
	3	5	

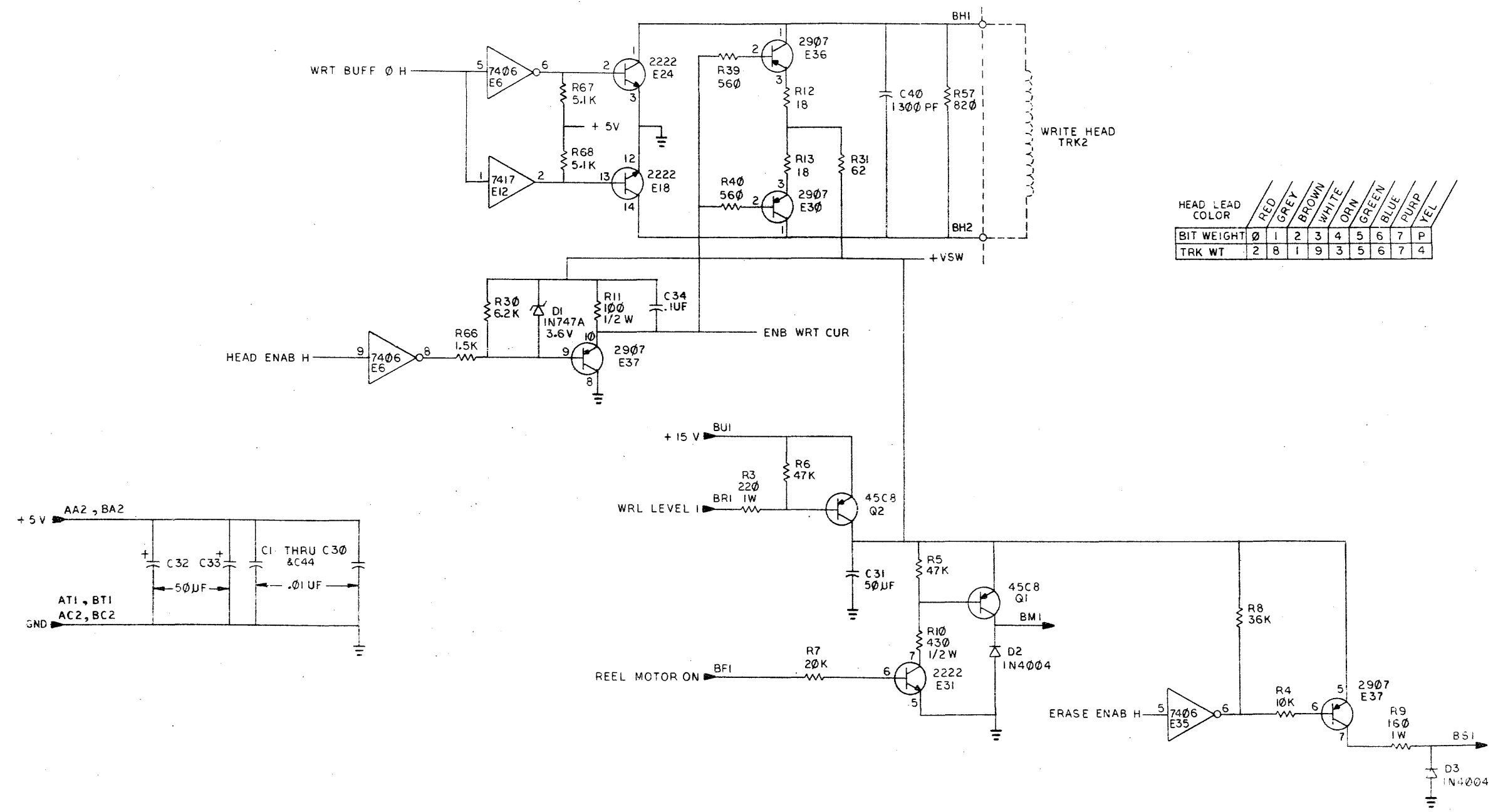


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REVISIONS		
CHK	CHANGE NO.	REV.

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HEAD LEAD COLOR	RED	GREY	BROWN	WHITE	ORN	GREEN	BLUE	PURP	YEL
BIT WEIGHT	0	1	2	3	4	5	6	7	P
TRK WT	2	8	1	9	3	5	6	7	4

REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1		D-CS-M8929-0-1		CIRCUIT SCHEMATIC	REF		
2		D-UA-M8929-0-0		UNIT ASSY	REF		
3		B-DD-M8929-0-0		DWG DIRECTORY	REF		
4		D-MD-5012937-0-0		DRILL & ETCH DWG	REF		
5			5012937-00	M8929	1		
6			1000061-00	*** THIS ITEM IS NOT USED ***	-		
7			1000080-00	50 MFD 50V +75-10% AL EL	3		C31-C33
8			1001610-00	.01 MFD 50V +80-20% 25U CER	31		C1-C30,C44
9			1001739-00	*** THIS ITEM IS NOT USED ***	-		
10			1005306-00	*** THIS ITEM IS NOT USED ***	-		
11			1100124-00	*** THIS ITEM IS NOT USED ***	-		
12			1101938-00	*** THIS ITEM IS NOT USED ***	-		
13			1109991-01	*** THIS ITEM IS NOT USED ***	-		
14			1105796-00	1N 4004 PIV=400 I= 1A DO41 SP	2		D2,D3
15			1211813-02	SOCKET 16PIN IC LOW PROFILE,	1		XE13
16			1300229-00	*** THIS ITEM IS NOT USED ***	-		
17			1300277-00	220.0 1.0 W10.0 % CC	1		R3
18			1300365-00	1.0 K .25 W 5.0 % CC	1		R1
19			1300479-00	10.0 K .25 W 5.0 % CC	1		R4
20			1301322-00	*** THIS ITEM IS NOT USED ***	-		
21			1301401-00	*** THIS ITEM IS NOT USED ***	-		
22			1302177-00	47.0 K .25 W 5.0 % CC	2		R5,R6
23			1302388-00	2.0 K .25 W 5.0 % CC	1		R2
24			1302391-00	20.0 K .25 W 5.0 % CC	1		R7
25			1302466-00	*** THIS ITEM IS NOT USED ***	-		
26			1302602-00	*** THIS ITEM IS NOT USED ***	-		
27			1312932-00	36.0 K .25 W 5.0 % CC	1		R8
28			1314953-00	160.0 1.0 W 5.0 % CC	1		R9
29			1314954-00	430.0 .50 W 5.0 % CC	1		R10
30			1510421-00	*** THIS ITEM IS NOT USED ***	-		

REVISION HISTORY		BASIC PART NO: M8929		DRN: H.WEINBRENNER	DATE: 02-FEB-78	D I G I T A L	
ENG: ECO NUMBER	REV	SECTION A OF A		CHK'D: R.ODOM	DATE: 02-FEB-78	TITLE PARTS LIST	
INIT	B	SECTION VARIATION INDEX		DES.ENG: H.FINDEISEN	DATE: 04-APR-78	DOCUMENT NUMBER	
BHF M1001	C	[A]	00	RESP.ENG.: H.FINDEISEN	DATE: 04-APR-78	SIZE: CODE: NUMBER	REV
R.C. M8929-M1002	D	[B]		MFG.ENG.: P.BARTON	DATE: 04-APR-78	K PL M8929-0-DBP	F
P.K. M8929-M1003	E	[C]		ASSEMBLY NUMBER: D-UA-M8929-0-0	TOP DOCUMENT NUMBER: B-DD-M8929-0-0	FILE NAME: 20214F.PLS	EDIT #: 21
R.C. M8929-M1004	F	[D]		"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"			
		[E]					
		[F]					
		[G]					
		[H]					
		[I]					
		[J]					
		[K]					
		[L]					
		[M]					
		[N]					

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					DC	
31	31		1510598-00	DEC4508 PNP 27WT SI 60 20 Y	2	Q1, Q2
32	32		1514961-00	TPQ2222 NPN 500MW SI 40 100	5	E24, E18, E38, E32, E31
33	33		1514962-00	TPQ2907 PNP 500MW SI 40 100	5	E37, E36, E30, E34, E33
34	34		1909067-00	74H71 FF-JK MASTER SLAVE 2	9	E2, E5, E9, E11, E15, E17, E23
35	35		1910741-00	7406 INVERTER GATE-HEX 1I	2	E6, E35
36	36		1912697-00	LS174 FF-D HEX W/CLEAR	2	E7, E8, E16
37	37		1912801-00	LS02 NOR-GATE-QUAD 2IN	2	E21, E29
38	38		1912803-00	74LS04 INVERTER GATE HEX	2	E10, E14, E28
39	39		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	E20
40	40		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	1	E27
41	41		1912842-00	LS138 DECODER-THREE INPUT	1	E39
42	42		1913312-00	7428P NOR GATE-QUAD 2IN POS	2	E1, E22
43	43		1914451-00	74LS393 COUNTER, BINARY, 4BIT	2	E19, E26
44	44		1914466-00	*** THIS ITEM IS NOT USED ***	-	
45	45		2113646-00	*** THIS ITEM IS NOT USED ***	-	
46	46		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
47	47		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
48	48		23251A1-00	A1-07	1	E13
49	49		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E12, E25
50	50		1110672-00	1N 747A VZ= 3.6 5%	1	D1
51	51		1300228-00	100.0 .50 W 5.0 % CC	1	R11
52	52		1302124-00	18.0 .25 W 5.0 % CC	18	R12-R29
53	53		1312929-00	62.0 .25 W 5.0 % CC	9	R31-R38, R85
54	54		1301890-00	560.0 .25 W 5.0 % CC	18	R39-R56
55	55		1301775-00	820.0 .25 W 5.0 % CC	9	R57-R65
56	56		1300391-00	1.50 K .25 W 5.0 % CC	1	R66
57	57		1312930-00	5.10 K .25 W 5.0 % CC	18	R67-R84
58	58		1312931-00	6.20 K .25 W 5.0 % CC	1	R30
59	59		1010978-36	.1 MFD 50V 10% CER	1	C34
60	60		1001633-00	1300.0 MMF 100V 5%200PPM MICA	9	C35-C43
61	61		9008301-01	SCREW, PAN, PHIL 4-40X 1/4 SS	2	
62	62		9006557-00	NUT, KEP 4-40X 1/4 AF	2	

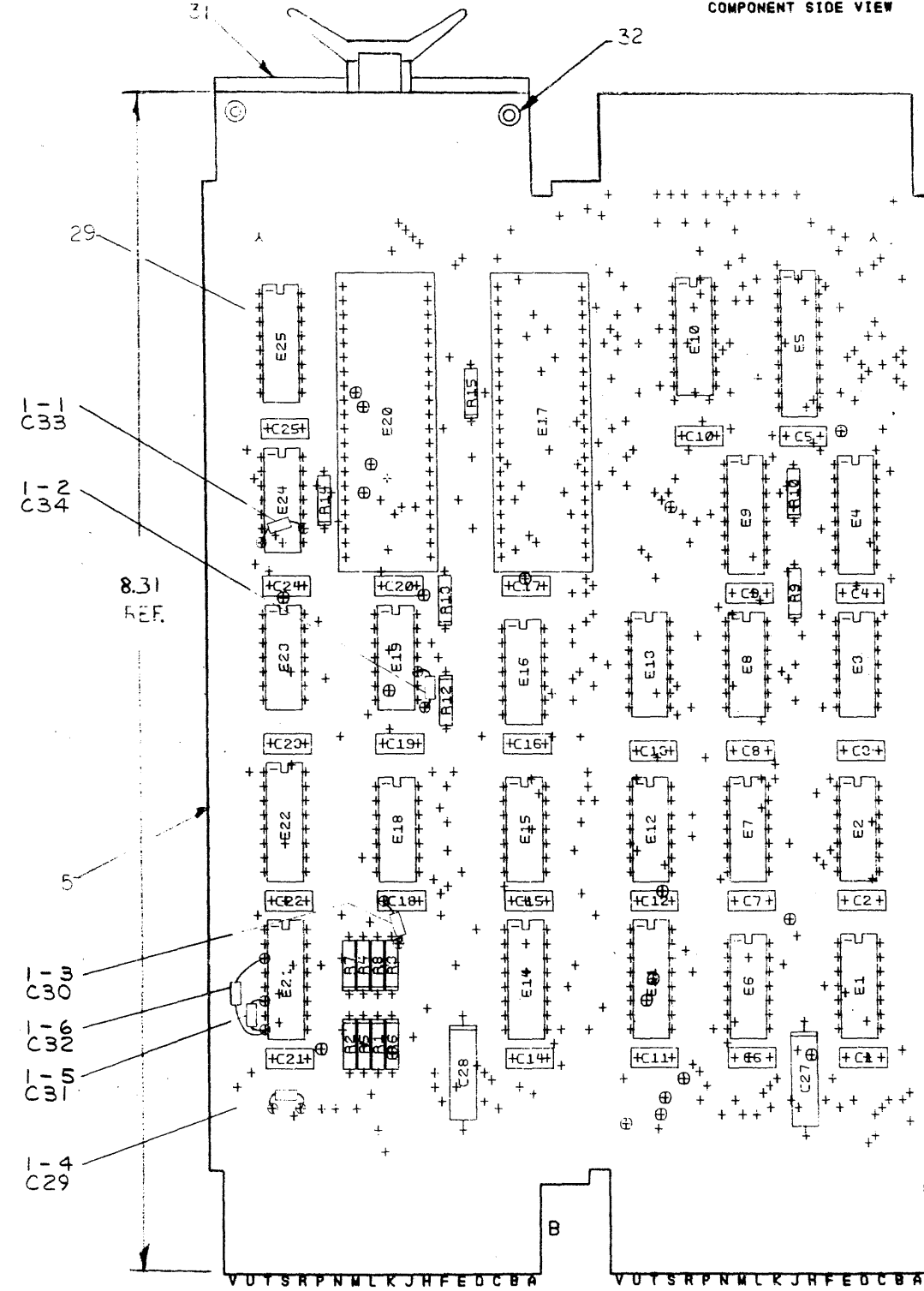
D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							WRITE CONTROL		K	PL	M8929-D-DBF	F

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0-0-2962X D 2 1

COMPONENT SIDE VIEW

- REWORK INSTRUCTIONS:**
ECO #1
- 1-1 COMPONENT ADDS SIDE 1:
 - 1-1 ADD CAPACITOR 100 PF FROM E24-9 TO E24-7
 - 1-2 ADD CAPACITOR 100 PF FROM E19-10 TO GND ETCH NEAR E19-8
 - 1-3 ADD CAPACITOR 100 PF FROM FEEDTHRU NEAR R3 TO GND END OF C18
 - 1-4 ADD CAPACITOR 100 PF FROM BT1 TO BR1 AT FEEDTHRU APPROX. 3/4" ABOVE GOLD FINGERS
 - 1-5 ADD CAPACITOR 100 PF FROM E21-6 TO E21-8
 - 1-6 ADD CAPACITOR 100 PF FROM E21-3 TO E21-8 (USE SLEEVING)



NOTES:

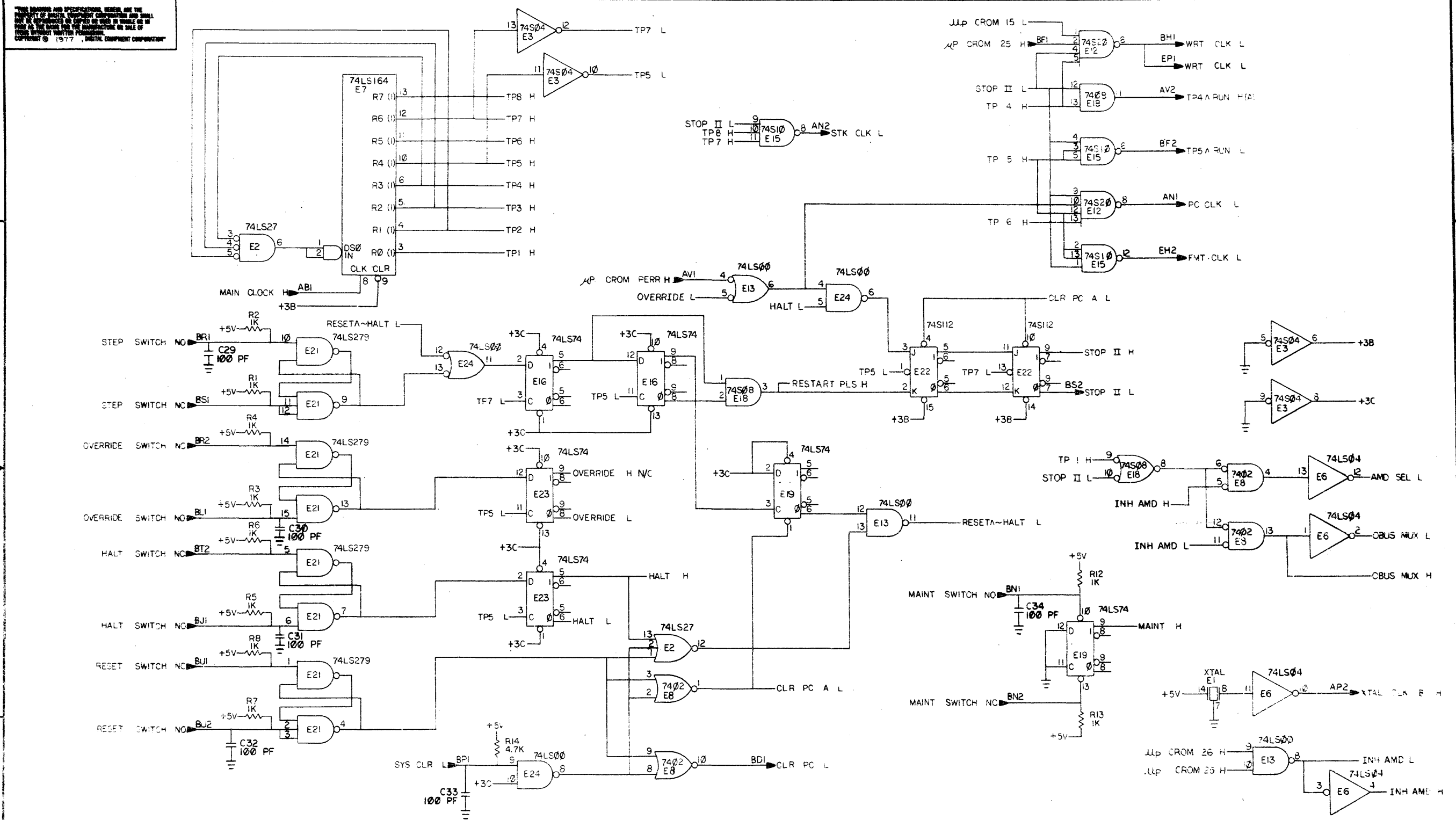
CHG	NO	REV	DATE	BY	APPROV
17	M8962	M1001	D	2/5/78	B. KRASNIK
18	M8962	M1001	D	2/27/78	B. KRASNIK

SIGNATURES	DATE
DRN. <i>[Signature]</i>	2-5-78
CHK'D. <i>[Signature]</i>	2-5-78
ENG. <i>[Signature]</i>	2-29-78
PROD. <i>[Signature]</i>	2/21/78

digital			
TITLE MICRO -		PROCESSOR BOARD ONE	
SCALE 2/1	SIZE CODE D	NUMBER UA M8962-0-01 D	REV 1
NEXT HIGHER ASSY. B-DD-M8962-0-0			

1 MS#116059

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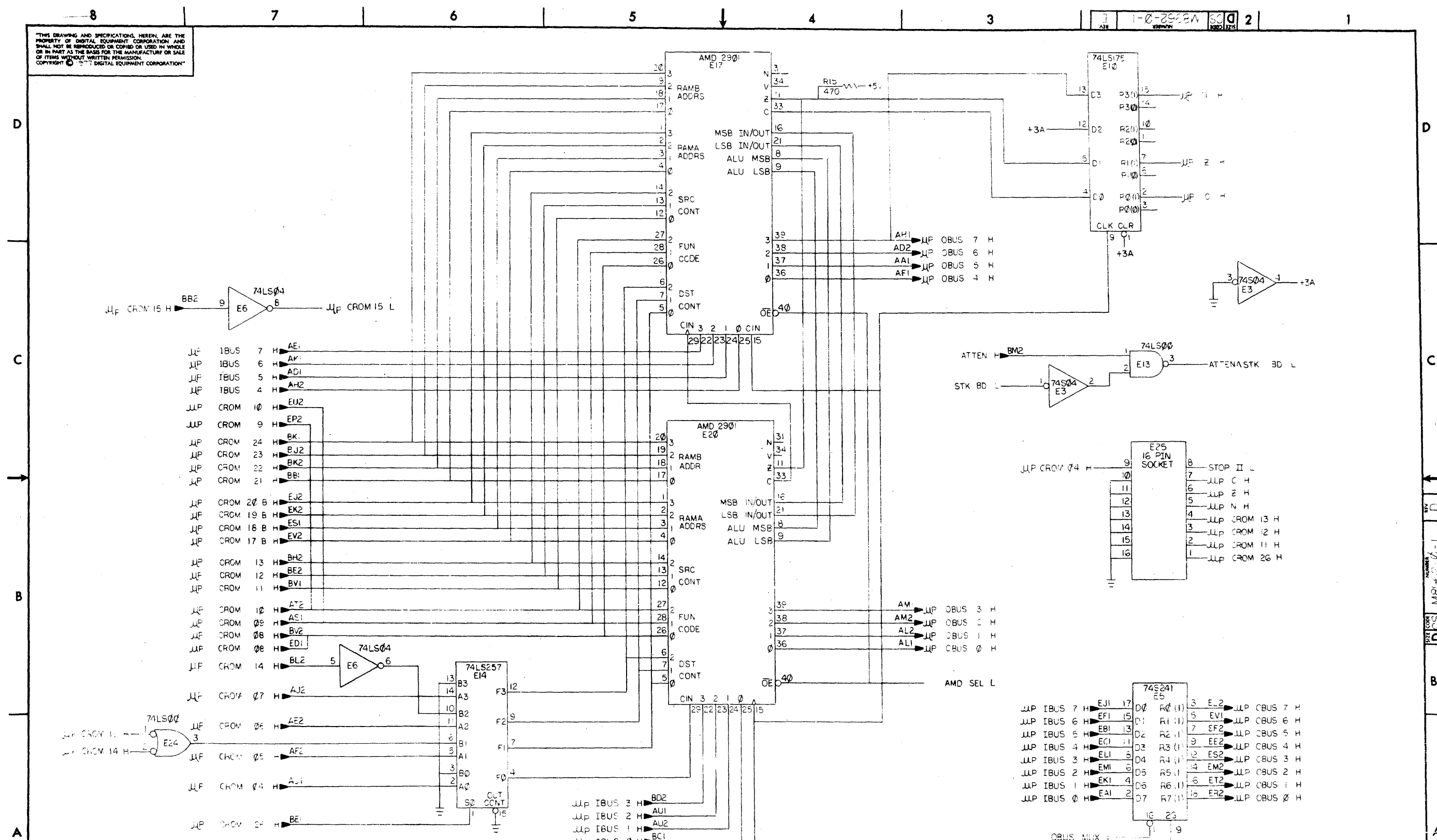


REV.	CHG.	NO.	DATE	BY
D		M8962-01001	26 JUN 79	B K
C		M8962-01001	9 JUL 79	B K
B		M8962-01001		B K
A		M8962-01001		B K

CHK'D BY: <i>[Signature]</i>	FIRST USED ON: TSC-10-0000
ENG. <i>[Signature]</i>	TITLE: MICROPROCESSOR BOARD 1
PROJ. ENG. <i>[Signature]</i>	
PROD. <i>[Signature]</i>	
NEXT HIGHER ASSY.	
B-DD-M8962-0	SIZE CODE NUMBER
SCALE	D CS M8962-0-1 D
SHEET 1 OF 3	DIST.

D CS M8962-0-1 D

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NOTE:
* PC CLK L WIRED TO JJP CLK L ON BACK PANEL.
* (PC CLK L) JJP CLK L

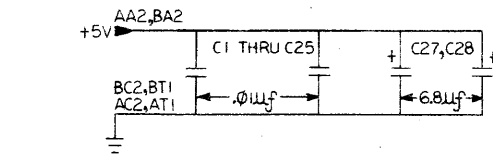
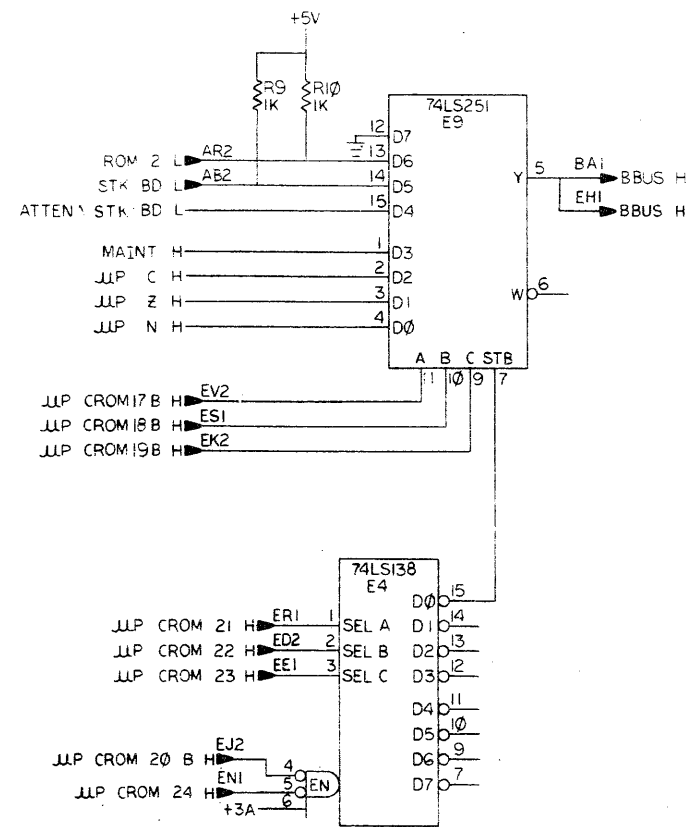
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MICROPROCESSOR BOARD	SIZE/CODE	D CS	NUMBER	V6J62-0-1	REV.	D
SCALE		SHEET	2 OF 3	DIST.			

REV. D
M8+0-1
D CS

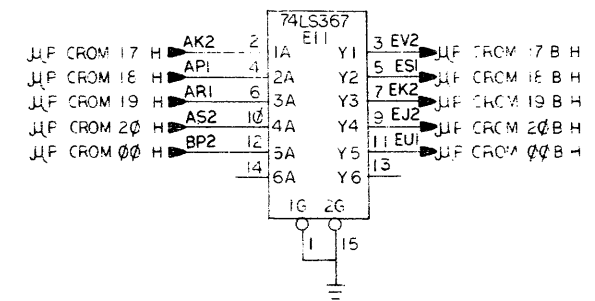
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1-0-2968W DCS 2



AC1 → EN2 → JJP CROM 01 H

OVER TOP CONNECTOR	
SIGNAL	PIN
JJP CROM 00 B H	EUI
JJP CROM 01 H (AC1)	EN2
JJP CROM 17 B H	EV2
JJP CROM 18 B H	ES1
JJP CROM 19 B H	EK2
JJP CROM 20 B H	EJ2
JJP CROM 21 H	ER1
JJP CROM 22 H	ED2
JJP CROM 23 H	EE1
JJP CROM 24 H	EN1
JJP OBUS 0 H	ER2
JJP OBUS 1 H	ET2
JJP OBUS 2 H	EM2
JJP OBUS 3 H	ES2
JJP OBUS 4 H	EE2
JJP OBUS 6 H	EVI
JJP OBUS 7 H	EL2
JJP IBUS 0 H	EAI
JJP IBUS 1 H	EK1
JJP IBUS 2 H	EMI
JJP IBUS 3 H	EL1
JJP IBUS 4 H	EC1
JJP IBUS 5 H	EB1
JJP IBUS 6 H	EF1
JJP IBUS 7 H	EJ1
BBUS H	EH1
FMT CLK L	EH2
WRT CLK L	EPI
JJP OBUS 5 H	EF2
JJP CROM 8 H	ED1
JJP CROM 9 H	EP2
JJP CROM 10 H	EU2



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MICROPROCESSOR BOARD	SIZE CODE	DCS	NUMBER	M5962-0-1	REV.	0
SCALE	1/1	SHEET	3 OF 3	DIST.			

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8962-0-1		CIRCUIT SCHEMATIC			REF
2	2	D-UA-M8962-0-0		UNIT ASSY			REF
3	3	B-DD-M8962-0-0		DWG DIRECTORY			REF
4	4	D-MD-5012863-0-0		DRILL & ETCH DWG			REF
5	5		5012863-00	M8962	1		
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	25		C1-C25
7	7		1005306-00	6.8MFD 35V 10% S.TANT	2		C27, C28
8	8		1300316-00	470.0 .25 W 5.0 % CC	1		R15
9	9		1300365-00	1.0 K .25 W 5.0 % CC	12		R1-R10, R12, R13
10	10		1300447-00	4.70 K .25 W 5.0 % CC	1		R14
11	11		1913471-00	LS367 DRIVER, BUS, HEX, TRI-	1		E11
12	12		1912850-00	LS164 SHIFT REG. 8BIT SERI	1		E7
13	13		1910534-00	74504 INVERTER GATE-HEX 1I	1		E3
14	14		1910539-00	74520 NAND GATE-DUAL 4INPU	1		E12
15	15		1910545-00	745112 FF-JK DUAL, EDGE TRIG	1		E22
16	16		1911641-00	SN 745257 MUX, QUAD 2 TO 1	1		E14
17	17		1912389-00	74508 AND GATE-QUAD 2IN, PO	1		E18
18	18		1912648-00	LS251 MUX 8 INPUT, TRI-STA	1		E9
19	19		1912799-00	LS00 NAND-GATE-QUAD 2IN, P	2		E13, E24
20	20		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1		E2
21	21		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	3		E16, E19, E23
22	22		1912853-00	LS175 FF-D QUAD	1		E10
23	23		1912864-00	LS279 LATCH, QUAD-S-R	1		E21
24	24		1913245-00	2901 BIPOLAR MICROPROCESSO	2		E17, E20
25	25		1909004-00	DEC 7402 NOR GATE-QUAD 2IN	1		E8
26	26		1910536-00	74510 NAND GATE-TRIPLE 3IN	1		E15
27	27		1912842-00	LS138 DECODER-THREE INPUT	1		E4
28	28		1913493-00	745241 OCTAL BUFFER, TRI-STA	1		E5
29	29		1211813-02	SKT, IC 16PIN DIP GOLD PLATE	1		E25
30	30		1812131-00	OSCILLATOR, XTAL 13.824 MHZ	1		E1

REVISION HISTORY		BASIC PART NO: M8962		DRN: J. ROGERS		DATE: 21-NOV-77		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	*****		*****		TITLE PARTS LIST	
---	INIT	C	SECTION VARIATION INDEX	CHK'D:	R. WALDIE	DATE:	21-NOV-77	MICRO PROCESSOR BOARD 1	
B.K.	M8962-ML001	D	[A] 00	*****		*****		DOCUMENT NUMBER	
			[B]	DES. ENG:	P. KINZELMAN	DATE:	05-JUL-78	*****	
			[C]	*****		*****		SIZE: CODE: NUMBER REV	
			[D]	RESP. ENG.:	P. KINZELMAN	DATE:	05-JUL-78	*****	
			[E]	*****		*****		K PL M8962-0-DBP D	
			[F]	MFG. ENG.:	P. BARTON	DATE:	05-JUL-78	*****	
			[G]	*****		*****		ASSEMBLY N' MBER: TOP DOCUMENT NUMBER: FILE NAME: EDIT #	
			[H]	D-UA-M8962-0-0		TS04		Z06110.PLS	22
			[I]	*****		*****		*****	
			[J]	*****		*****		*****	
			[K]	*****		*****		*****	
			[L]	*****		*****		*****	
			[M]	*****		*****		*****	
			[N]	*****		*****		*****	

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AUTOMATED BY PRTLST.1C(5)

PARTS LIST

SHEET A2 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

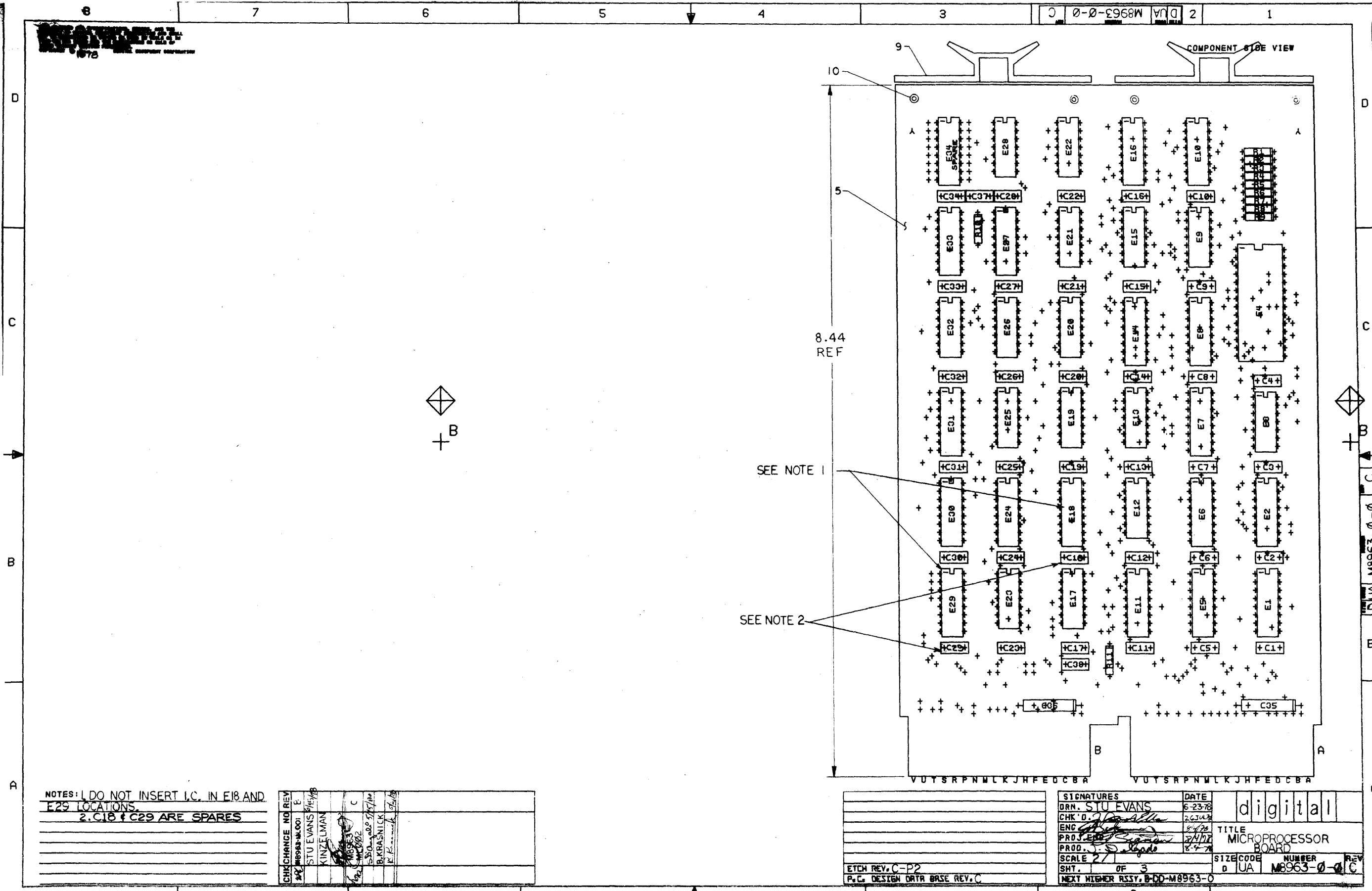
DESCRIPTION

QTY PER VARIATION
00

REFERENCE DESIGNATOR

31	31	9008337-06	HANDLE, FLIP CHIP, MAGENTA	1	
32	32	9006732-00	EYELET, ROLL FLANGE .1210DX .219	2	
33	33	1912803-00	74LS04 INVERTER GATE, HEX	1	E6
34	34	1000016-00	100.0 MMF 100V 5%200PPM MICA	6	C29-C34
35	35	9107256-11	TUBING, THIN WALL, .027ID UL	A/R	

D	I	G	I	T	A	L	TITLE	MICRO PROCESSOR BOARD 1	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8962-0-DBP	D



SEE NOTE 1

SEE NOTE 2

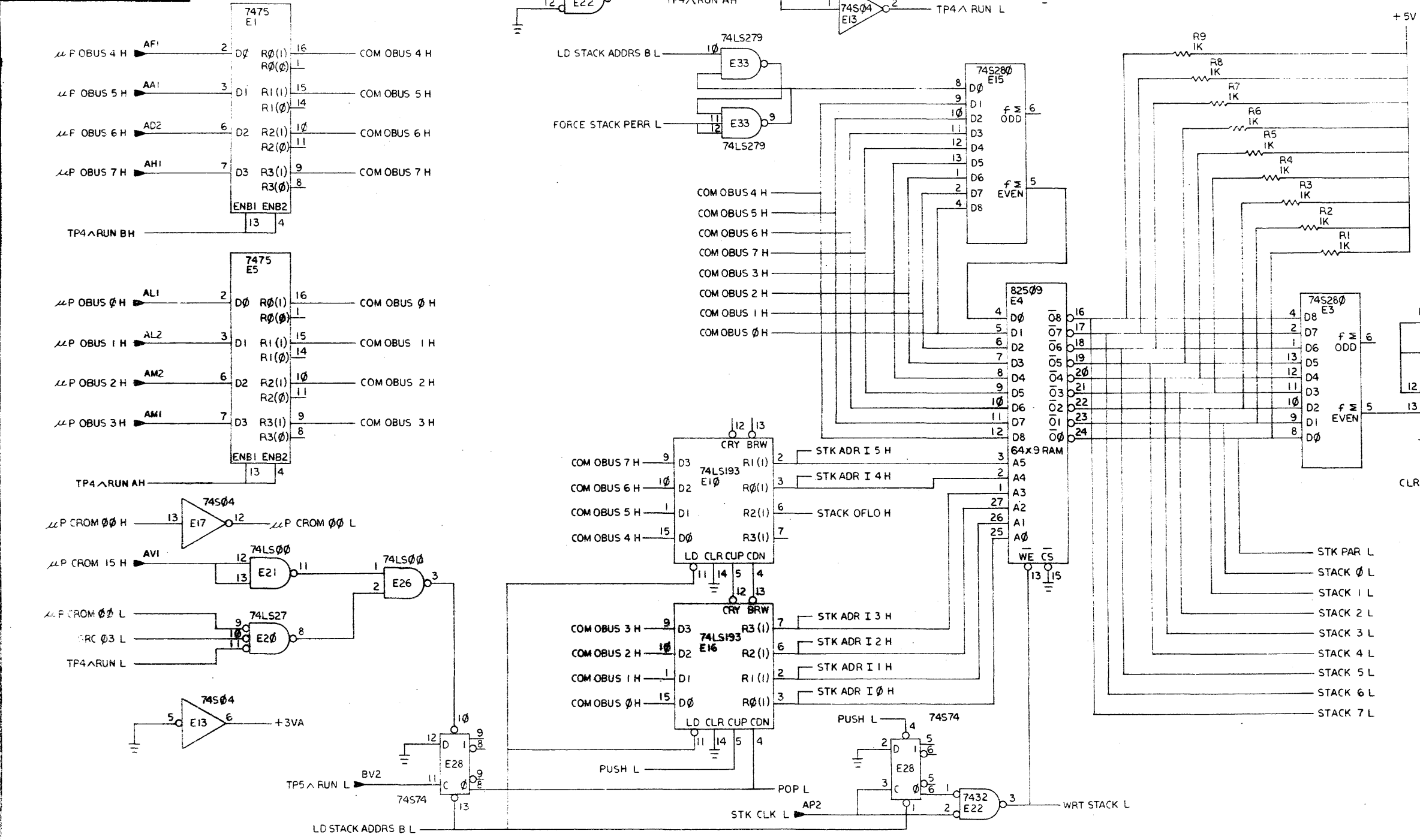
NOTES: 1. DO NOT INSERT I.C. IN E18 AND E29 LOCATIONS.
 2. C18 & C29 ARE SPARES

CHK	CHANGE NO	REV	BY	DATE	REASON
			STU EVANS	5/15/78	
			KINZELMAN	5/15/78	
			B. KRASNICK	5/15/78	

ETCH REV. C-22
P.C. DESIGN DATA BASE REV. C

SIGNATURES		DATE	digital
DRN. STU EVANS		6-23-78	
CHK'D.		2/23/78	
ENG.		5/17/78	
PRD.		5/17/78	
SCALE 27			TITLE MICROPROCESSOR BOARD
SHT. OF 3			SIZE CODE NUMBER REV
NEXT HIGHER ASSY. B-DD-M8963-0			D U A M8963-0-0 C

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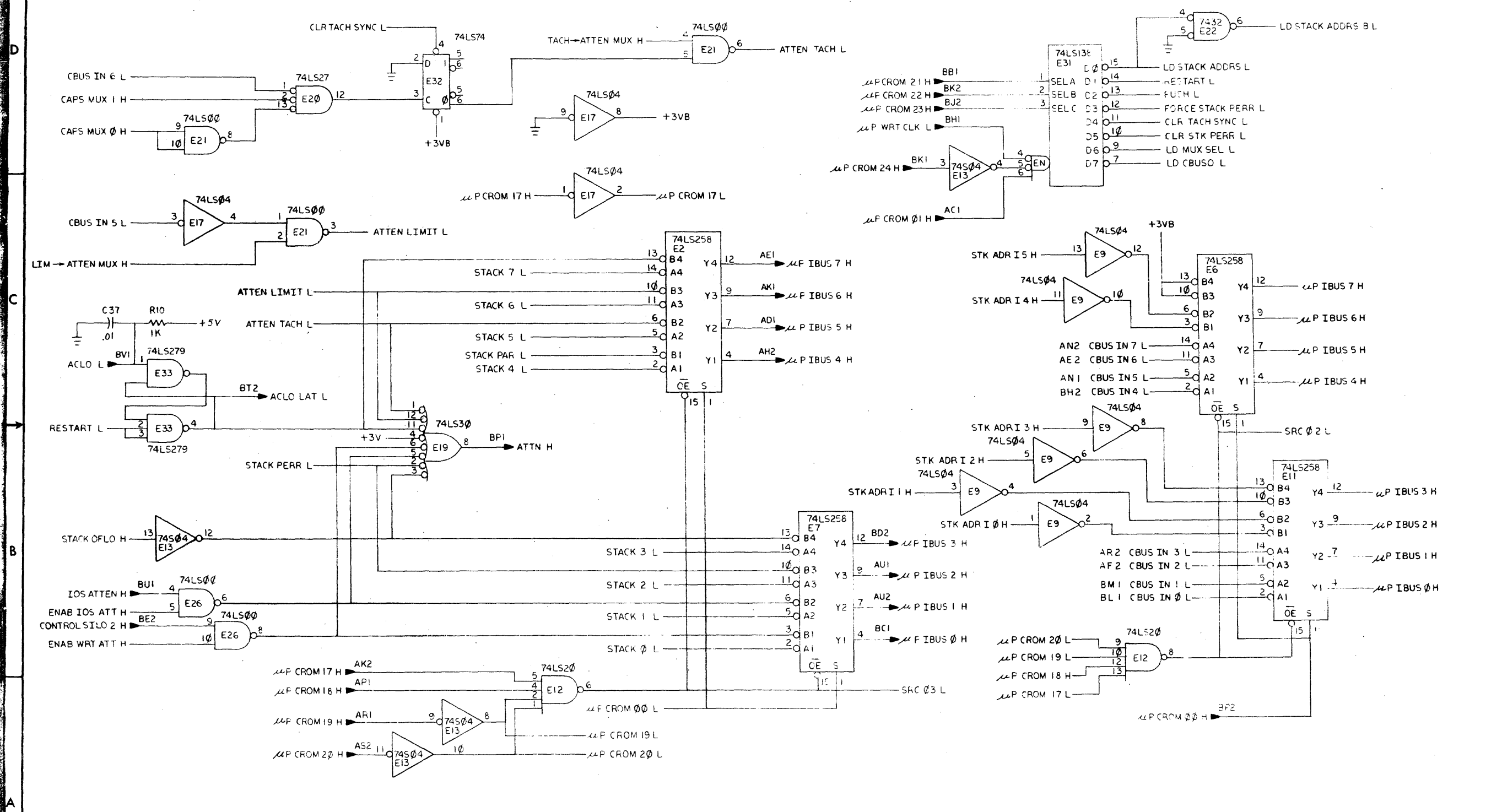


REV.	CHANGE NO.	BY	DATE
1	1	S. EVANS	10-31-77
2	1	S. EVANS	10-31-77
3	1	B. KRASNIC	11-1-77
4	1	B. KRASNIC	11-1-77
5	1	B. KRASNIC	11-1-77
6	1	B. KRASNIC	11-1-77

ETCH REV C-P2		FIRST USED ON	
DRN	2/3003	TS04	
CHKD	DRS/10/2/77	TITLE	
ENG.	DR/10/2/77	MICROPROCESSOR	
PROJ. ENG.	DR/10/2/77	BOARD 2	
PROD.	DR/10-31-77	SIZE	CODE
NEXT HIGHER ASSY.		B-DD	M9863-0
		SCALE	NONE
		SHEET	1 OF 3
		NUMBER	M8963-0-1
		REV.	C
		DIST.	

REV. C

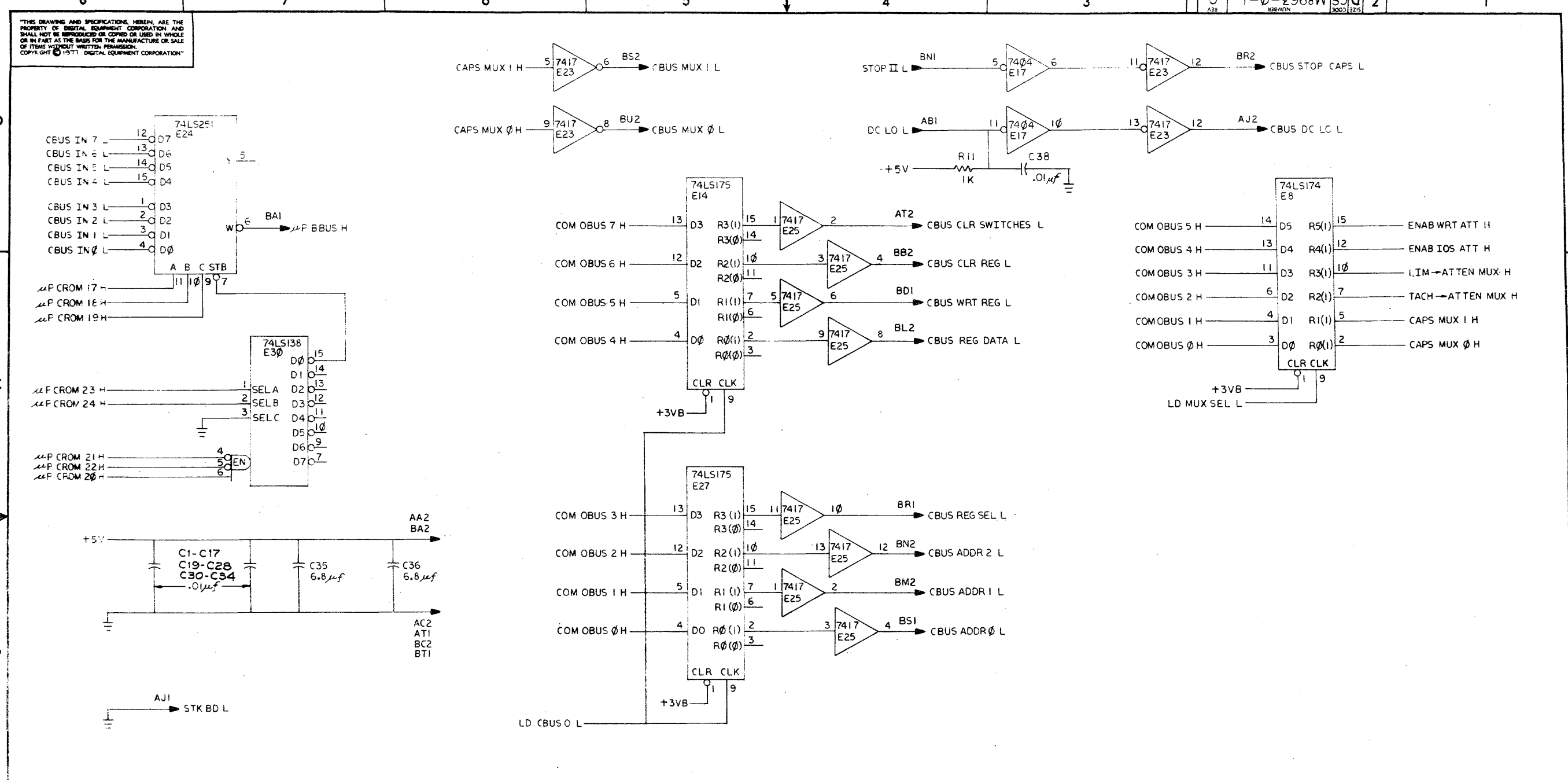
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REVISIONS		
CHK	CHANGE NO.	REV

TITLE	SIZE CODE	NUMBER	REV.
MICROPROCESSOR BOARD 2	D CS	M8963-0-1	C
SCALE NONE	SHEET 2 OF 3	DIST.	

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CBUS IN

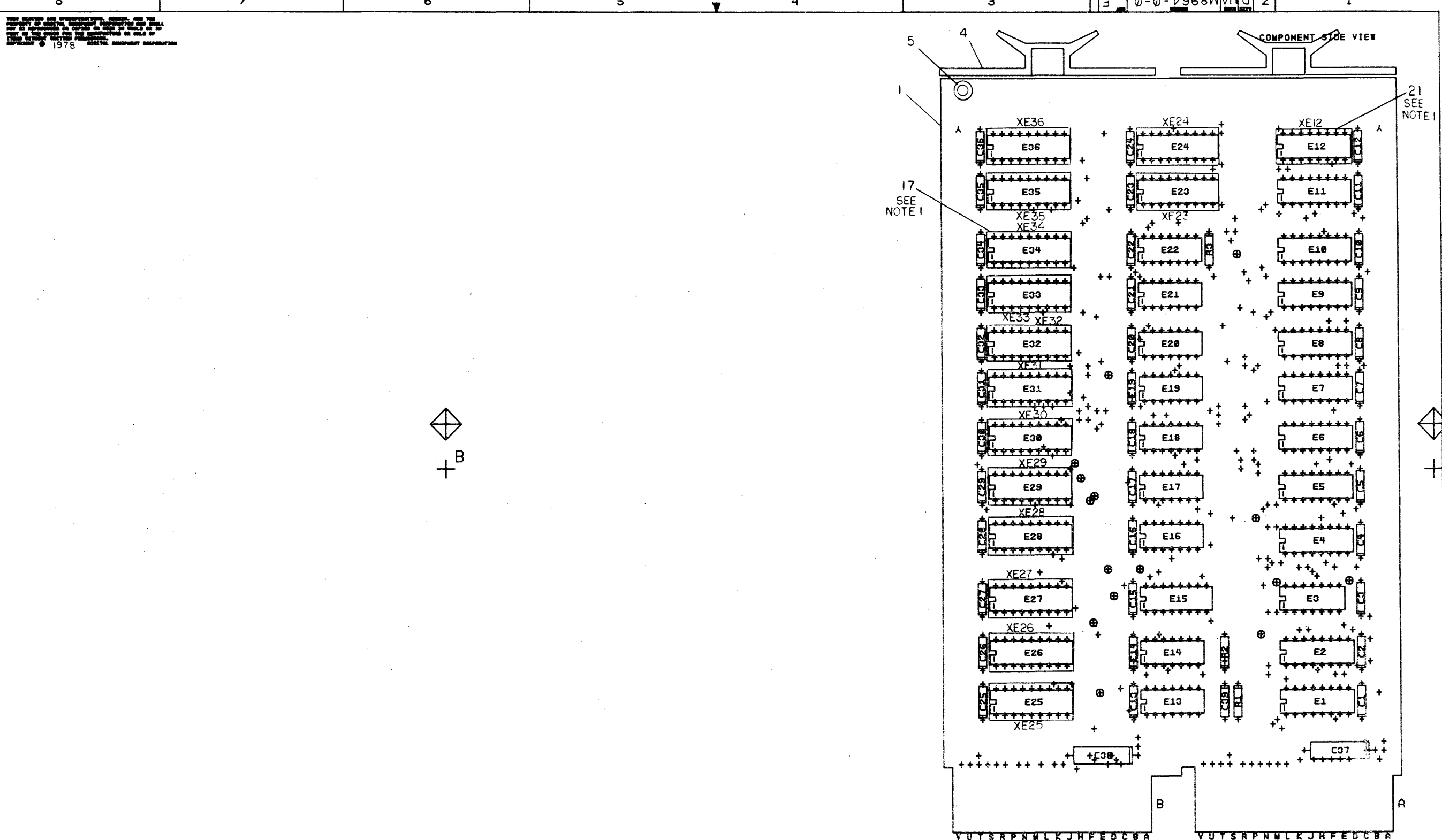
CBUS MUX I	CBUS MUX 0	7	6	5	4	3	2	1	0
0	0	RL MTRON	ONLSWIT	LIMIT	DO ITSWIT	ENTER ZERO	WLK SWIT	BOT	EOT
0	1	RL MTRON	TACH I	LIMIT	TACH 2	FWD DIR	MOVING	BOT	EOT
1	0	LOAD LT	ONL LT	UOK LT	VV LT	IDB LT	WLK LT	BOT LT	EOT LT
1	1	CS7	CS6	CS5	CS4	CS3	CS2	CS1	CS0

REVISIONS		
CHK	CHANGE NO	REV

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1	D-CS-M8963-0-1		CIRCUIT SCHEMATIC	REF	
2	2	D-UA-M8963-0-0		UNIT ASSEMBLY	REF	
3	3	B-DD-M8963-0-0		DWG. DIRECTORY	REF	
4	4	D-MD-M8963-0-0		DRILL & ETCH DWG.	REF	
5	5		5012890-00	M8963	1	
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	34	C1-C17, C19-C28, C30-C34, C37, C38
7	7		1005306-00	6.8MFD 35V 10% S.TANT	2	C35, C36
8	8		1300365-00	1.0 K .25 W 5.0 % CC	11	R1-R11
9	9		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
10	10		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
11	11		1912859-00	LS258 MUX 1 OF 2 (DUAL),	4	E2, E6, E11, E7
12	12		1912810-00	LS20 NAND GATE-DUAL 4IN	1	E12
13	13		1912648-00	LS251 MUX 8 INPUT TRI-STA	1	E24
14	14		1912799-00	LS00 NAND-GATE-QUAD 2IN, P	2	E21, E26
15	15		1912803-00	74LS04 INVERTER GATE, HEX	2	E9, E17
16	16		1912853-00	LS175 FF-D QUAD	2	E14, E27
17	17		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E23, E25
18	18		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1	E32
19	19		1909050-00	7475 LATCH 4BIT	2	E1, E5
20	20		1910534-00	74504 INVERTER GATE-HEX 1I	1	E13
21	21		1912864-00	LS279 LATCH, QUAD-S-R	1	E33
22	22		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E20
23	23		1910544-00	74574 FF-D DUAL, EDGE TRIGG	1	E28
24	24		1911521-00	7432 OR GATE-QUAD 2IN, PO	1	E22
25	25		1911573-00	745280 PARITY GEN/CHKR, 9BIT	2	E3, E15
26	26		1912854-00	LS193 COUNTER, SYNCHR, 4BIT,	2	E10, E16
27	27		1912697-00	LS174 FF-D HEX W/CLEAR	1	E8
28	28		1912842-00	LS138 DECODER-THREE INPUT,	2	E30, E31
29	29		1912815-00	LS30 NAND GATE-SINGLE 8IN	1	E19
30	30		1913663-00	93419DC RAM 64X9 28PIN TT	1	E4

REVISION HISTORY		BASIC PART NO: M8963		DRN: H. WEINBRENNER DATE: 17-JUL-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	DATE:	TITLE	PARTS LIST
WE	00001	B	SECTION VARIATION INDEX	C. CAMPBELL	17-JUL-78	MICROPROCESSOR BOARD 2	
BK	M8963-ML002	C	[A] 00				
			[B]				
			[C]	DES. ENG: N. FINDEAN	17-JUL-78		
			[D]				
			[E]	RESP. ENG.: N. FINDEAN	17-JUL-78	DOCUMENT NUMBER	
			[F]				
			[H]			SIZE: CODE: NUMBER	REV
			[J]	MFG. ENG.: G. DILLARD	17-JUL-78	K PL M8963-0-DBP	C
			[K]				
			[L]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #
			[M]	D-UA-M8963-0-0	TS04	Z1472C.PLS	4
			[N]				

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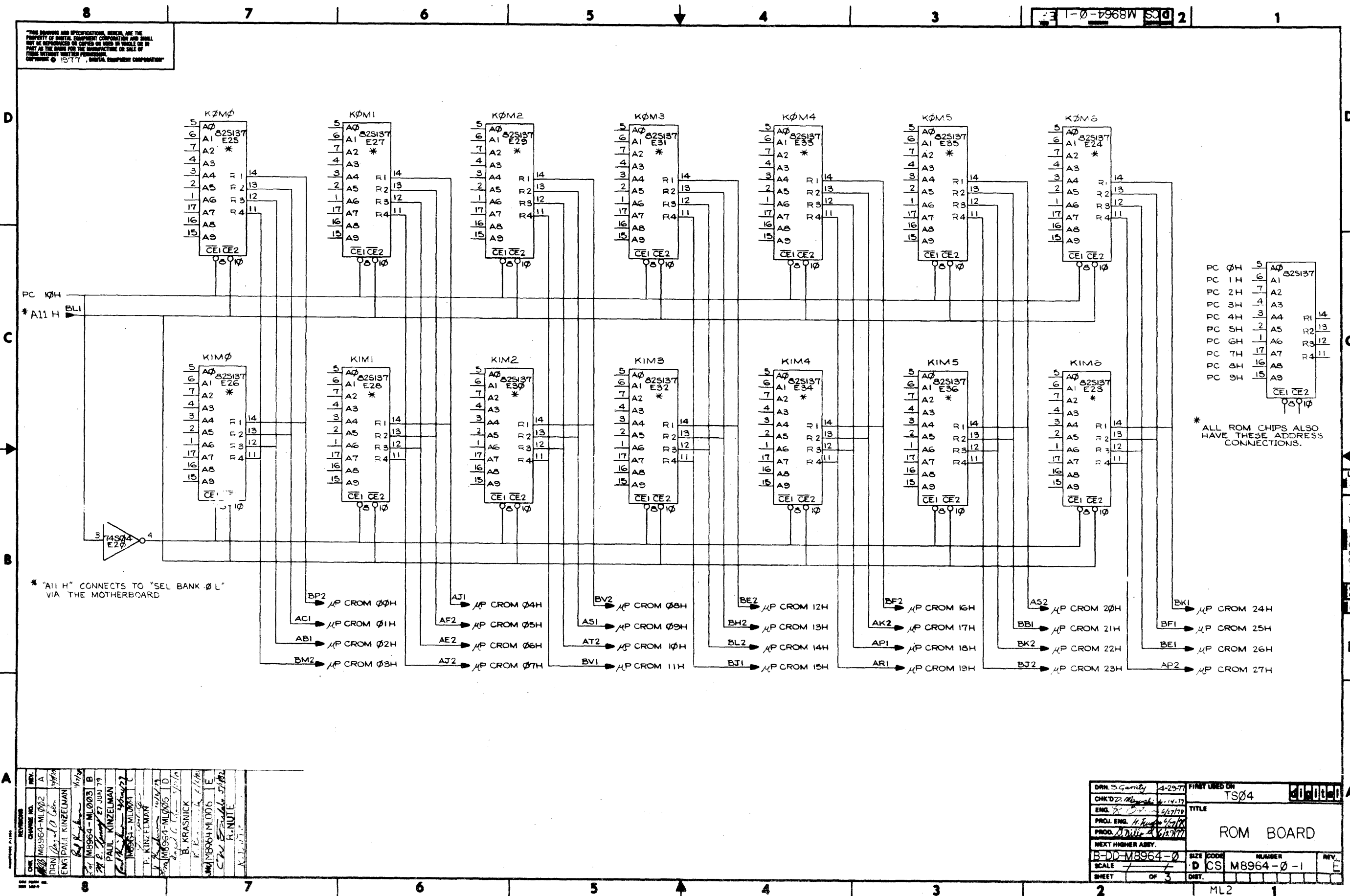
NOTES: INSTAL. SOCKETS, ITEMS 17 & 21
BEFORE INSTALLING IC'S.

CHK	CHANGE NO	REV
	MS64-PL002	A
	MS64-ML003	B
	MS64-ML004	C
	MS64-ML005	D
	MS64-ML006	E
	MS64-ML007	F
	MS64-ML008	G
	MS64-ML009	H
	MS64-ML010	I
	MS64-ML011	J
	MS64-ML012	K
	MS64-ML013	L
	MS64-ML014	M
	MS64-ML015	N
	MS64-ML016	O
	MS64-ML017	P
	MS64-ML018	Q
	MS64-ML019	R
	MS64-ML020	S
	MS64-ML021	T
	MS64-ML022	U
	MS64-ML023	V
	MS64-ML024	W
	MS64-ML025	X
	MS64-ML026	Y
	MS64-ML027	Z
	MS64-ML028	AA
	MS64-ML029	AB
	MS64-ML030	AC
	MS64-ML031	AD
	MS64-ML032	AE
	MS64-ML033	AF
	MS64-ML034	AG
	MS64-ML035	AH
	MS64-ML036	AI
	MS64-ML037	AJ
	MS64-ML038	AK
	MS64-ML039	AL
	MS64-ML040	AM
	MS64-ML041	AN
	MS64-ML042	AO
	MS64-ML043	AP
	MS64-ML044	AQ
	MS64-ML045	AR
	MS64-ML046	AS
	MS64-ML047	AT
	MS64-ML048	AU
	MS64-ML049	AV
	MS64-ML050	AW
	MS64-ML051	AX
	MS64-ML052	AY
	MS64-ML053	AZ
	MS64-ML054	BA
	MS64-ML055	BB
	MS64-ML056	BC
	MS64-ML057	BD
	MS64-ML058	BE
	MS64-ML059	BF
	MS64-ML060	BG
	MS64-ML061	BH
	MS64-ML062	BI
	MS64-ML063	BJ
	MS64-ML064	BK
	MS64-ML065	BL
	MS64-ML066	BM
	MS64-ML067	BN
	MS64-ML068	BO
	MS64-ML069	BP
	MS64-ML070	BQ
	MS64-ML071	BR
	MS64-ML072	BS
	MS64-ML073	BT
	MS64-ML074	BV
	MS64-ML075	BW
	MS64-ML076	BX
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	MS64-ML078	BZ
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	MS64-ML084	CF
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	MS64-ML092	CN
	MS64-ML093	CO
	MS64-ML094	CP
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	MS64-ML104	CZ
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	MS64-ML112	DH
	MS64-ML113	DI
	MS64-ML114	DJ
	MS64-ML115	DK
	MS64-ML116	DL
	MS64-ML117	DM
	MS64-ML118	DN
	MS64-ML119	DO
	MS64-ML120	DP
	MS64-ML121	DQ
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	MS64-ML126	DV
	MS64-ML127	DW
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	MS64-ML129	DY
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	MS64-ML135	EE
	MS64-ML136	EF
	MS64-ML137	EG
	MS64-ML138	EH
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	MS64-ML142	EL
	MS64-ML143	EM
	MS64-ML144	EN
	MS64-ML145	EO
	MS64-ML146	EP
	MS64-ML147	EQ
	MS64-ML148	ER
	MS64-ML149	ES
	MS64-ML150	ET
	MS64-ML151	EU
	MS64-ML152	EV
	MS64-ML153	EW
	MS64-ML154	EX
	MS64-ML155	EY
	MS64-ML156	EZ
	MS64-ML157	FA
	MS64-ML158	FB
	MS64-ML159	FC
	MS64-ML160	FD
	MS64-ML161	FE
	MS64-ML162	FF
	MS64-ML163	FG
	MS64-ML164	FH
	MS64-ML165	FI
	MS64-ML166	FJ
	MS64-ML167	FK
	MS64-ML168	FL
	MS64-ML169	FM
	MS64-ML170	FN
	MS64-ML171	FO
	MS64-ML172	FP
	MS64-ML173	FQ
	MS64-ML174	FR
	MS64-ML175	FS
	MS64-ML176	FT
	MS64-ML177	FU
	MS64-ML178	FV
	MS64-ML179	FW
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	MS64-ML184	GB
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	MS64-ML186	GD
	MS64-ML187	GE
	MS64-ML188	GF
	MS64-ML189	GG
	MS64-ML190	GH
	MS64-ML191	GI
	MS64-ML192	GJ
	MS64-ML193	GK
	MS64-ML194	GL
	MS64-ML195	GM
	MS64-ML196	GN
	MS64-ML197	GO
	MS64-ML198	GP
	MS64-ML199	GQ
	MS64-ML200	GR

ETCH REV. CP2
P.C. DESIGN DATA DATE REV. CL2 & CM2

SIGNATURES	DATE	TITLE
DRN. <i>[Signature]</i>	7-19-78	digital
CHK'D. <i>[Signature]</i>	7-22-78	
ENG. <i>[Signature]</i>	7-22-78	
PROJ. ENG. <i>[Signature]</i>	7-22-78	ROM BOARD
PROD. <i>[Signature]</i>	7-22-78	
SCALE 2/1	SIZE CODE	NUMBER
SHT. 1 OF 5	D	UA M8964-0-0
NEXT HIGHER REV. B-DD-M8964-0		

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PC 0H	5	A0	25137
PC 1H	6	A1	
PC 2H	7	A2	
PC 3H	4	A3	
PC 4H	3	A4	R1 14
PC 5H	2	A5	R2 13
PC 6H	1	A6	R3 12
PC 7H	17	A7	R4 11
PC 8H	16	A8	
PC 9H	15	A9	

* ALL ROM CHIPS ALSO HAVE THESE ADDRESS CONNECTIONS.

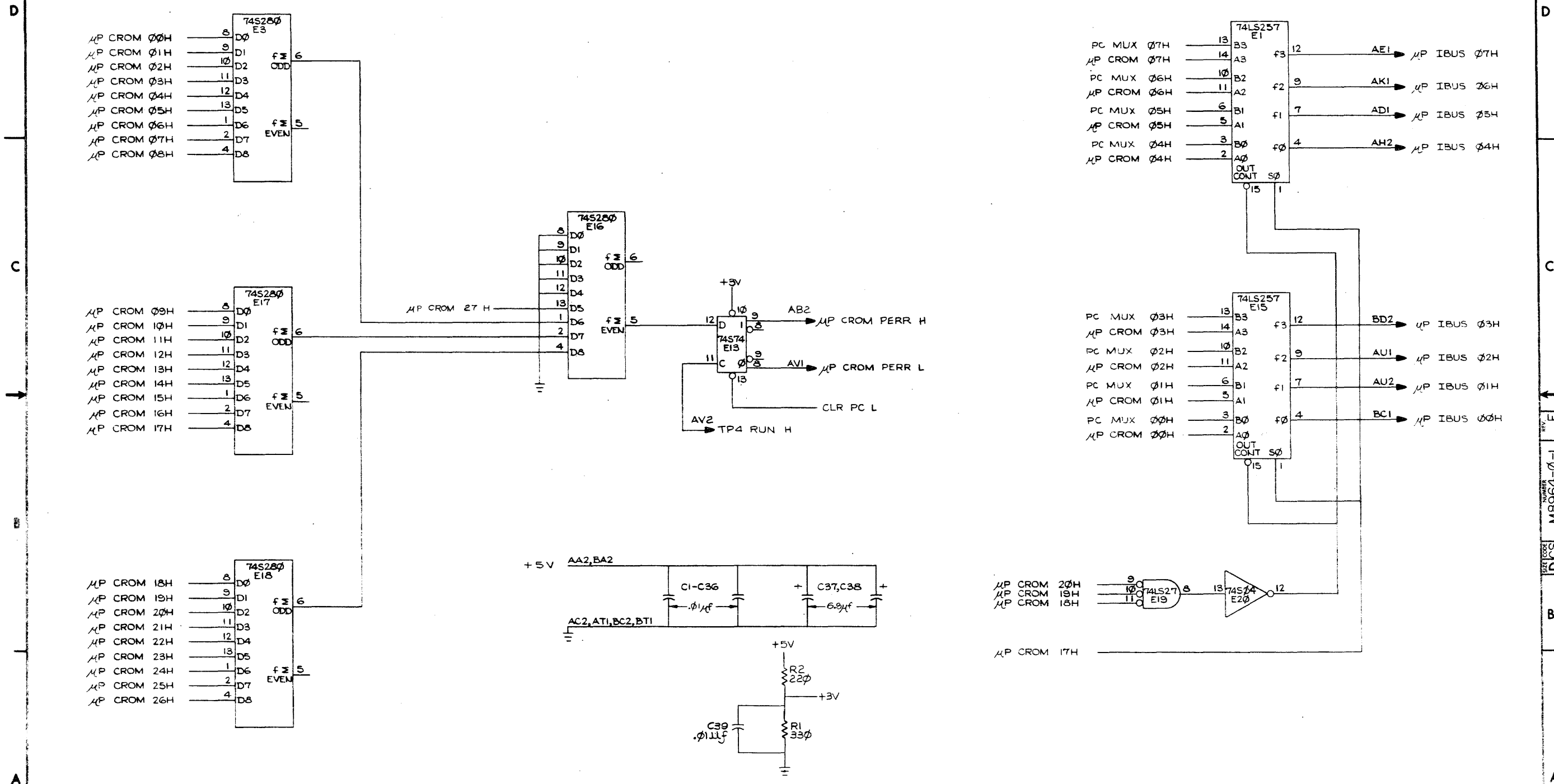
* "All H" CONNECTS TO "SEL BANK 0 L" VIA THE MOTHERBOARD

REV.	DATE	BY	CHK'D
A			
B			
C			
D			
E			

DRN. S. Gandy	4-29-77	FIRST USED ON	TS04
CHK'D D. M...	6-14-77	TITLE	ROM BOARD
ENG. J. ...	6/17/77	PROJ. ENG. H. ...	
PROJ. ENG. H. ...	6/27/77	PROG. D. ...	
NEXT HIGHER ASSY.		NUMBER	
B-DD-M8964-0		SCALE	D CS M8964-0-1
SHEET	OF 3	DIST.	

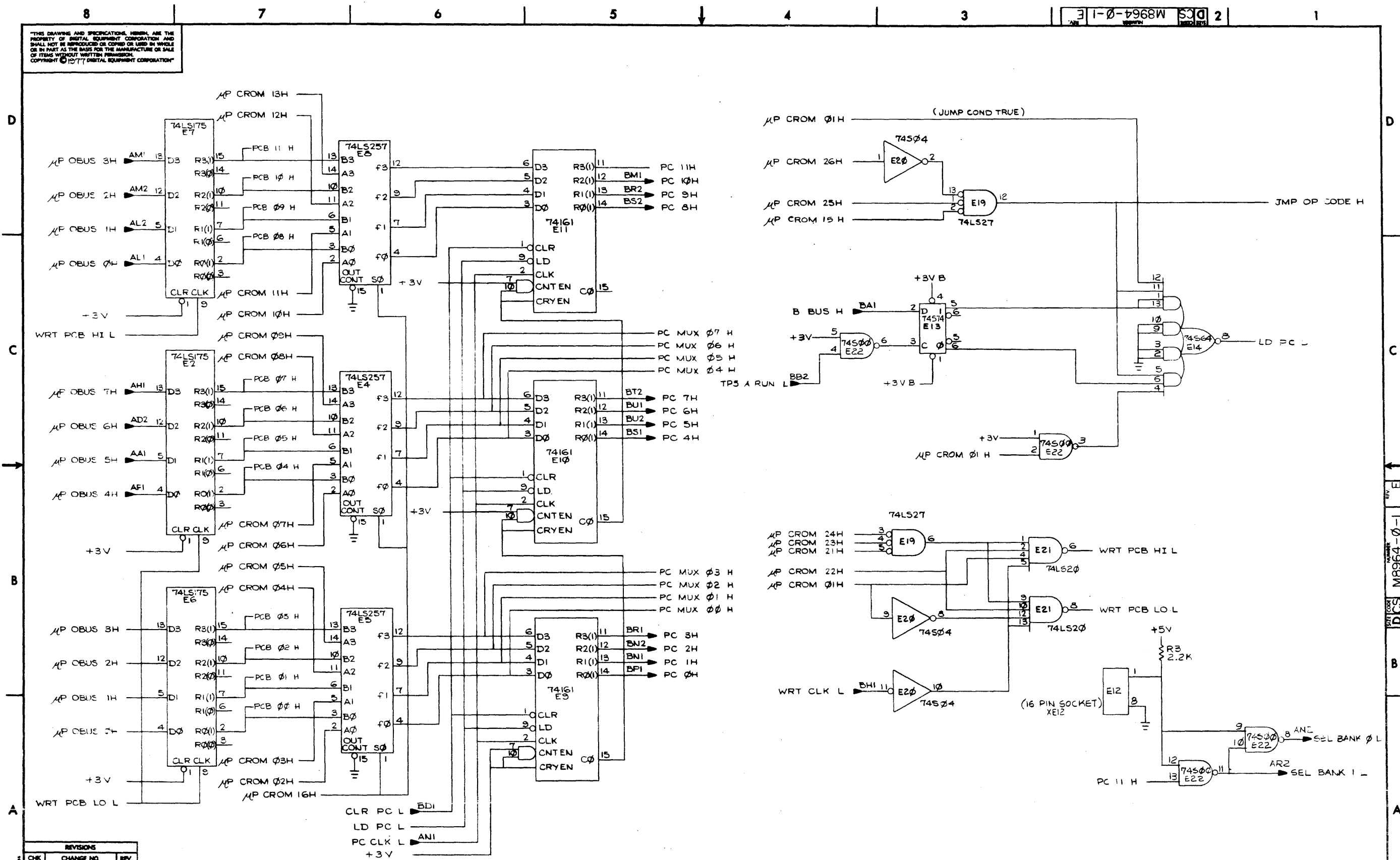
D CS M8964-0-1 1 E

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REVISIONS		
CHK	CHANGE NO.	REV.
	M8964-NL072	A
ENR	Paul Kinzelman	1/1/77
ENG	PAUL KINZELMAN	

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REVISIONS		
CHK	CHANGE NO.	REV.
DRN	M8964-M.002	A
ENG	PAUL KINZELMAN	

TITLE	ROM BOARD	SIZE CODE	D CS	NUMBER	M8964-0-1	REV.	E
SCALE	1/1	SHEET	3	OF	3	DIST.	

REV. E
D CS M8964-0-1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1		5012817-00	H8964	1	
2	2		1001610-00	.01 MFD 50V +80-20% Z5U CER	37	C1-C36,C39
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2	C37,C38
4	4		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
5	5		9006732-00	EYELET,ROLLED 0.1210DX0.219	4	
6	6		1910534-00	74S04 INVERTER GATE-HEX 1I	1	E20
7	7		1912810-00	LS20 NAND GATE-DUAL 4IN	1	E21
8	8		1910532-00	74S00 NAND GATE-QUAD 2IN	1	E22
9	9		1910650-00	74161 COUNTER,SYNCHR. UP	3	E9-E11
10	10		1910950-00	74S74 FF-D DUAL (-45 VERSI	1	E13
11	11		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E19
12	12		1910542-00	74S64 A-0-I GATE 4-2-3-2	1	E14
13	13		1911573-00	74S280 PARITY GEN/CHKR,9BIT	4	E3,E16-E18
14	14		1912647-00	LS257 MUX 1 OF 2 (QUAD)	5	E1,E4,E5,E8,E15
15	15		1912853-00	LS175 FF-D QUAD	3	E2,E6,E7
16	16		23000F1-01	*** THIS ITEM IS NOT USED ***	-	
17	17		1211666-00	SKT,IC 18PIN DIP GOLD SOLD	14	XE23-XE36
18	18		1300271-00	220.0 .25 W 5.0 Z CC	1	R2
19	19		1300295-00	330.0 .25 W 5.0 Z CC	1	R1
20	20		1300417-00	2.20 K .25 W 5.0 Z CC	1	R3
21	21		1211613-00	/REPLACED BY 12-15006-02	1	XE12
22	22		23622F1-00	*** THIS ITEM IS NOT USED ***	-	
23	23		23623F1-00	*** THIS ITEM IS NOT USED ***	-	
24	24		23624F1-00	*** THIS ITEM IS NOT USED ***	-	
25	25		23625F1-00	*** THIS ITEM IS NOT USED ***	-	
26	26		23626F1-00	*** THIS ITEM IS NOT USED ***	-	
27	27		23627F1-00	*** THIS ITEM IS NOT USED ***	-	
28	28		23628F1-00	*** THIS ITEM IS NOT USED ***	-	
29	29		23620F1-00	F1-01	1	E26
30	30		23397F1-00	F1-01	1	E28

REVISION HISTORY		BASIC PART NO: M8964		DRN:	L.METZGER	DATE: 18-JUL-78	DIGITAL			
ENGR	ECO NUMBER	REV	SECTION A OF A	CHK'D:	S.TUTTLE	DATE: 18-JUL-78	PARTS LIST			
	INIT		SECTION VARIATION INDEX				ROM BOARD			
IPB	M8964-ML002	A	[A] 00							
IPK	M8964-ML003	B	[B]							
IPK	M8964-ML004	C	[C]	DES. ENGR:	P.KINZELMAN	DATE: 12-SEP-78				
IBK	M8964-ML005	D	[D]							
IRN	M8964-ML006	E	[E]							
			[F]	RESP. ENGR:	P.KINZELMAN	DATE: 12-SEP-78	DOCUMENT NUMBER			
			[G]				SIZE	CODE	NUMBER	REV
			[H]							
			[I]	ENGR:	P.BARTON	DATE: 18-JUL-78	K	PL	M8964-0-DBP	E
			[J]							
			[K]							
			[L]							
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #:		
			[N]	ID-UA-M8964-0-0		ITS04	Z0609F.PLS	10		

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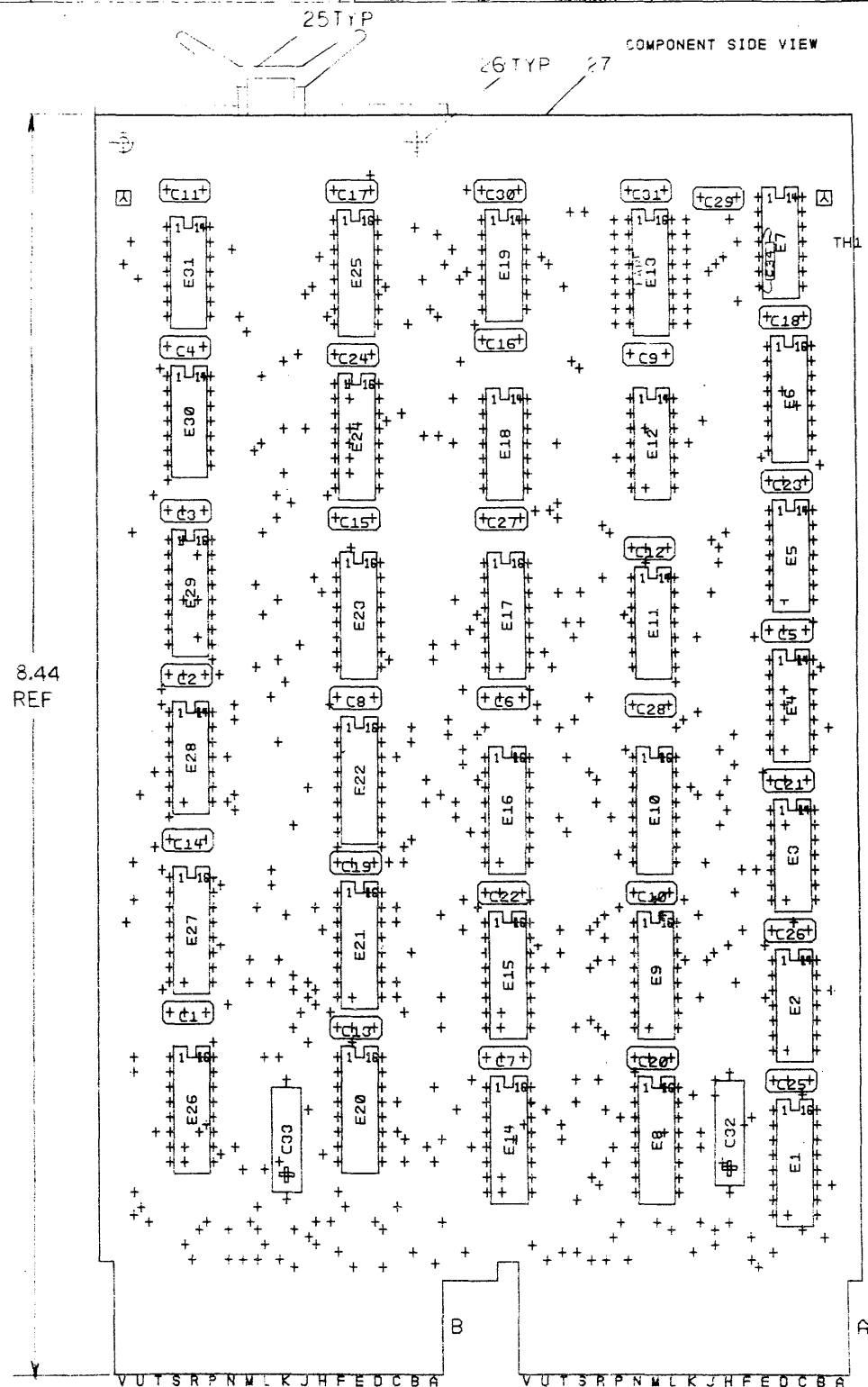
ML2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	31	23398F1-00	F1-01	1	E30
32	32	23399F1-00	F1-01	1	E32
33	33	23400F1-00	F1-01	1	E34
34	34	23401F1-00	F1-01	1	E36
35	35	23621F1-00	F1-01	1	E23
36	36	23982F1-00	F1-01	1	E25
37	37	23983F1-00	F1-01	1	E27
38	38	23984F1-00	F1-01	1	E29
39	39	23985F1-00	F1-01	1	E31
40	40	23986F1-00	F1-01	1	E33
41	41	23987F1-00	F1-01	1	E35
42	42	23988F1-00	F1-01	1	E24

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							ROM BOARD		K	PL	M8944-0-DBP	E

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ECO #1
 COMPONENT ADD: SIDE 1
 I-I CAPACITOR (C34) BETWEEN E7 AND E4



NOTES:

CHG	NO	REV	DATE	BY	CHK
1	MS895	MLL	C		
2					
3					
4					

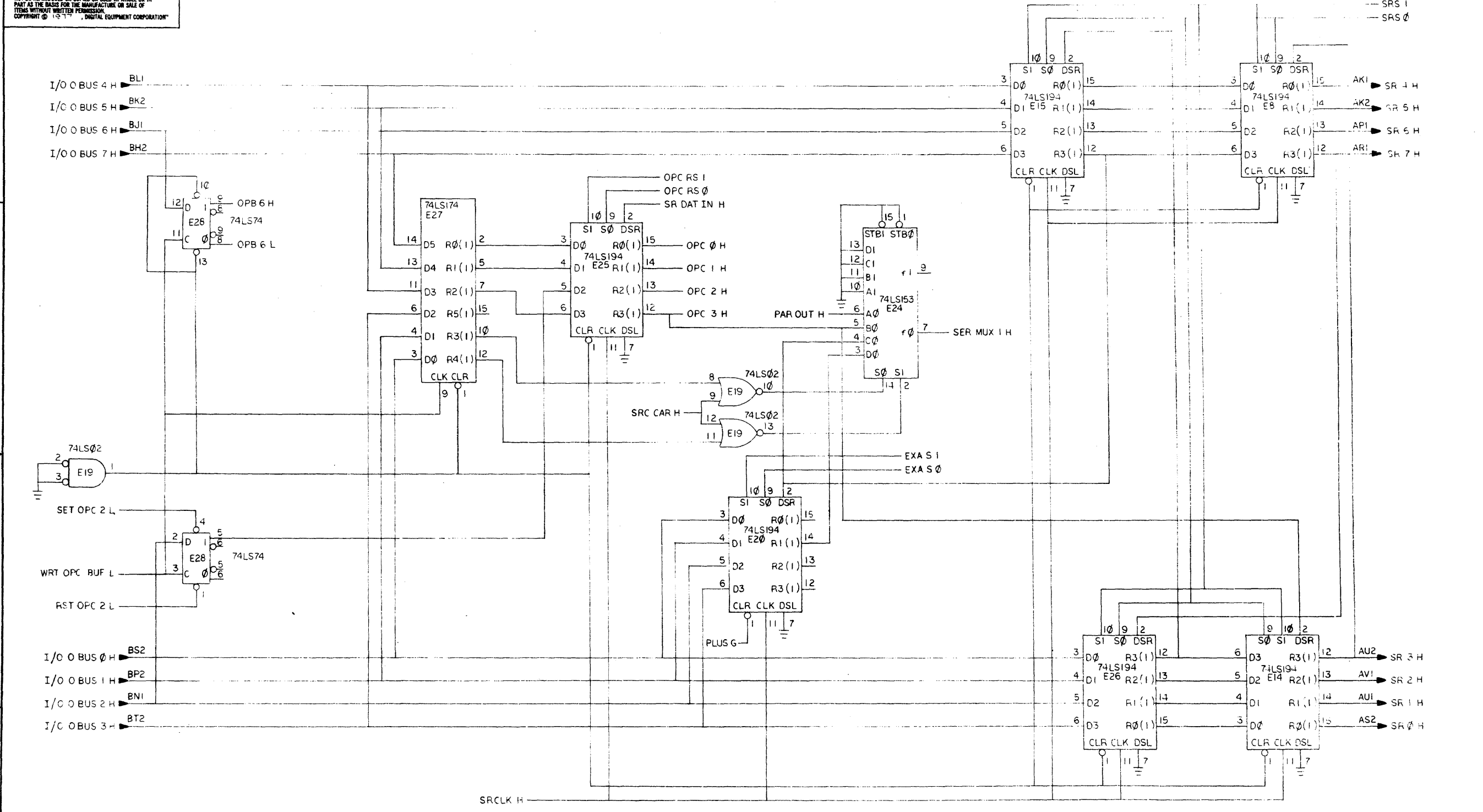
ETCH REV. C	P.C. DESIGN DATA BASE REV. CL
-------------	-------------------------------

SIGNATURES	DATE	TITLE
DRN. <i>Don King</i>	16-0001	digital I/O SECTION 1
CHK'D. <i>W. Ward</i>	17-0001	
ENG. <i>H. Fung</i>	17-0001	
PROJ. ENG. <i>W. F. ...</i>	17-0001	
PROD. <i>...</i>	17-0001	
SCALE 2/1	SIZE CODE	NUMBER
SHT. OF 3	D UA	M8965-0-0
NEXT HIGHER ASSY. B-DD-M8965-0		

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1 MS# 116062

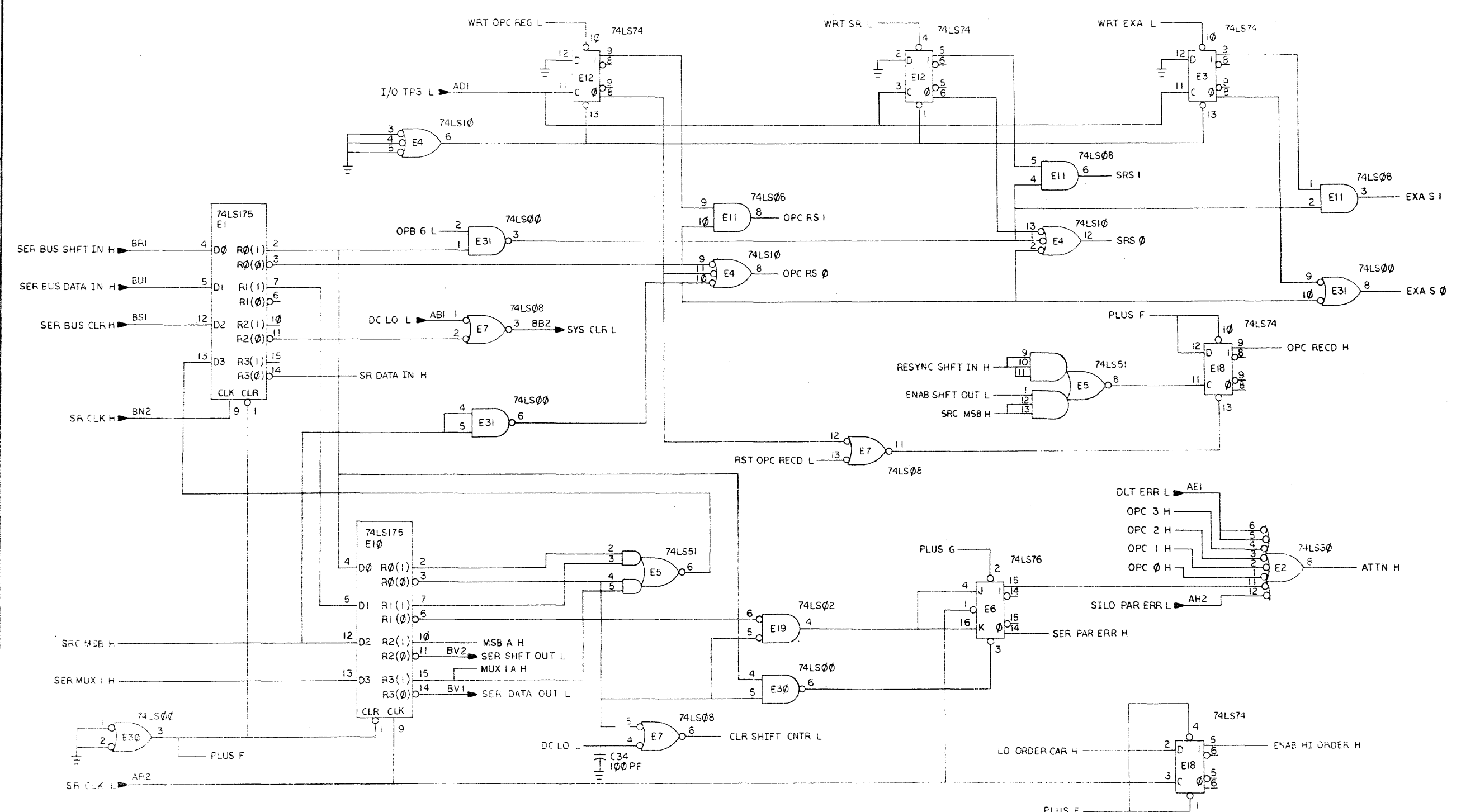
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REV.	CHG.	NO.	DATE	BY	CHK.
1	MB965 ML 001	C		B. KRASNICK	
2					

DRN. No. 51100	1978-177	FIRST USED ON	TS04
CHK'D		TITLE	I/O SECTION 1
ENG. M. ...		PROD. ...	
PROD. ...		NEXT HIGHER ASSY.	
B-DD-M8965-0	SIZE D	CODE CS	NUMBER M8965-0-1
SCALE NONE			REV. C
SHEET 1	OF 3	DIST.	

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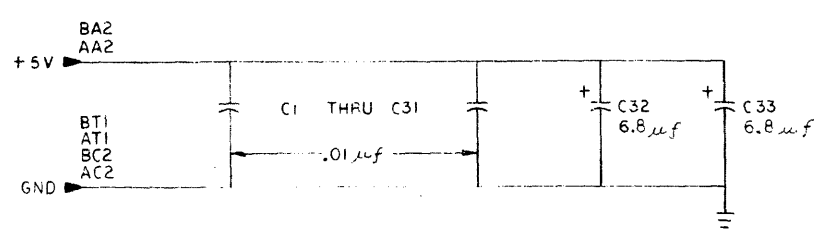
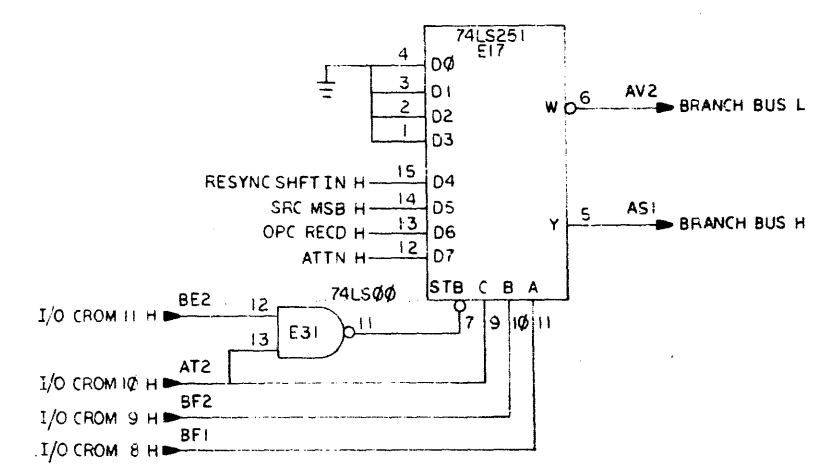
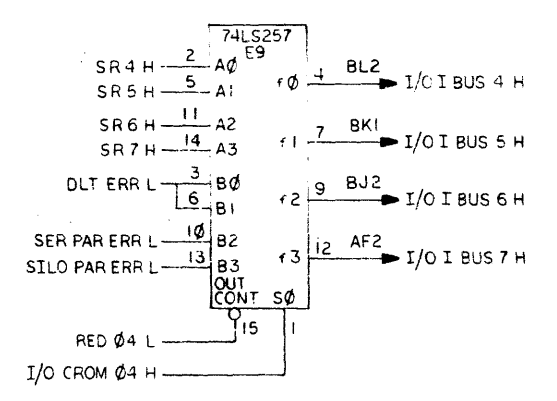
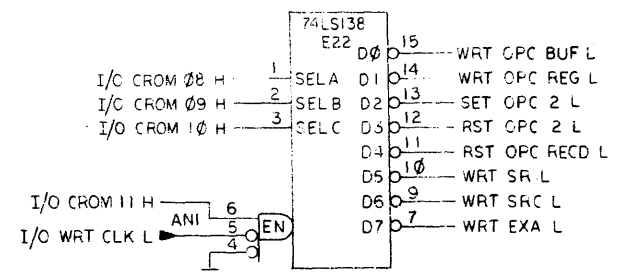
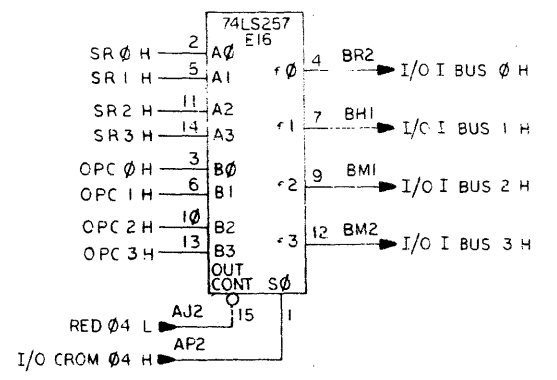
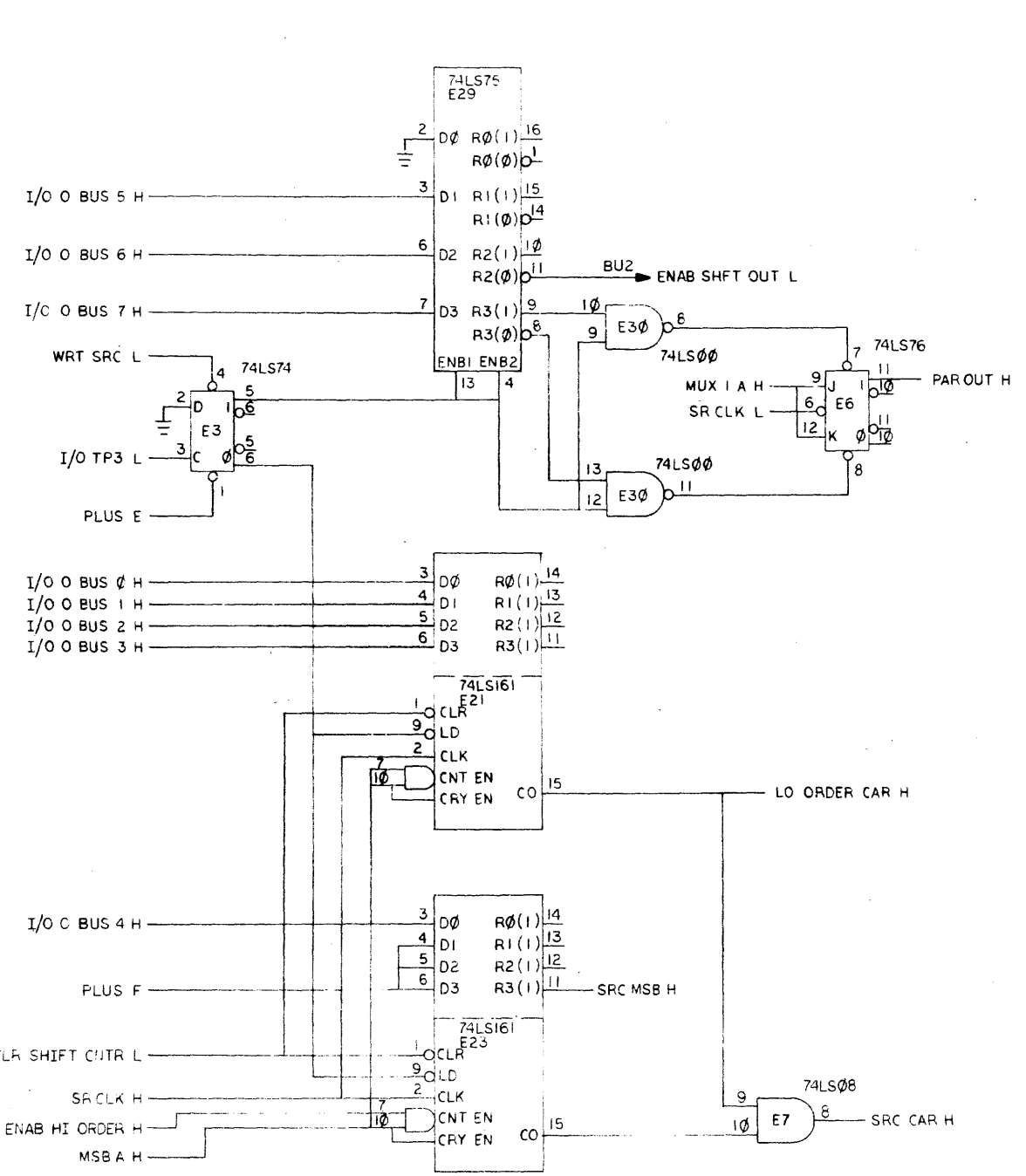


REVISIONS		
CHK	CHANGE NO	REV

TITLE I/O SECTION 1		SIZE CODE D CS	NUMBER M8965-0-1	REV C
SCALE NONE	SHEET 2	OF 3	DIST.	

D
C
B
A

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REVISIONS		
CHK	CHANGE NO.	REV

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8965-0-1		CIRCUIT SCHEMATIC	REF		
2	2	D-UA-M8965-0-0		UNIT ASSY	REF		
3	3	B-DD-M8965-0-0		DWG DIRECTORY	REF		
4	4	D-MD-5012885-0-0		DRILL & ETCH DWG	REF		
5	5		1001610-00	.01 MFD 50V +80-20% 25U CER	31		C1-C31
6	6		1005306-00	6.8MFD 35V 10% 5.TANT	2		C32, C33
7	7		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2		E9, E15
8	8		1912648-00	LS251 MUX 8 INPUT TRI-STA	1		E17
9	9		1912649-00	LS75 LATCH 4BIT BISTABLE	1		E29
10	10		1912696-00	LS194A SHIFT REG. 4BIT BI-D	6		E8, E14, E15, E20, E25, E26
11	11		1912697-00	LS174 FF-D HEX W/CLEAR	1		E27
12	12		1912799-00	LS00 NAND-GATE-QUAD 2IN, P	2		E30, E31
13	13		1912801-00	LS02 NOR-GATE-QUAD 2IN	1		E19
14	14		1912805-00	LS08 AND GATE-QUAD 2IN, PO	2		E7, E11
15	15		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1		E4
16	16		1912815-00	LS30 NAND GATE-SINGLE 8IN	1		E2
17	17		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	1		E5
18	18		1912824-00	LS74 FF-D DUAL EDGE TRIGG	4		E3, E12, E18, E28
19	19		1912825-00	LS76 FF-JK DUAL W/PRESET	1		E6
20	20		1912842-00	LS138 DECODER-THREE INPUT,	1		E22
21	21		1912845-00	LS153 MUX 1 OF 4 (DUAL)	1		E24
22	22		1912849-00	LS161 COUNTER, SYNCHR, 4BIT	2		E21, E23
23	23		1912853-00	LS175 FF-D QUAD	2		E1, E10
24	24	SPARE LOCATION		IC SPARE	1		E13
25	25		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2		
26	26		9006732-00	EYELET, ROLL FLANGE .12100X .219	4		
27	27		5012885-00	M8965	1		
28	28		1000016-00	100.0 MMF 100V 5%200PPM MICA	1		C34

REVISION HISTORY		BASIC PART NO: M8965		DRN: DON COREY		DATE: 07-NOV-77		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: DON COREY		DATE: 07-NOV-77		TITLE PARTS LIST	
	INIT	B	SECTION VARIATION INDEX	DES. ENG: R. ODOM		DATE: 11-JAN-78		DOCUMENT NUMBER	
	B.K. MLOO1	C	[A] 00	RESP. ENG.: H. FINDEISEN		DATE: 11-JAN-78		SIZE: CODE: NUMBER REV	
			[B]	MFG. ENG.: P. BARTON		DATE: 11-JAN-78		K PL M8965-0-DBP C	
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-UA-M8965-0-0				Z0610C.PLS 23	
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"					
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			[G]						
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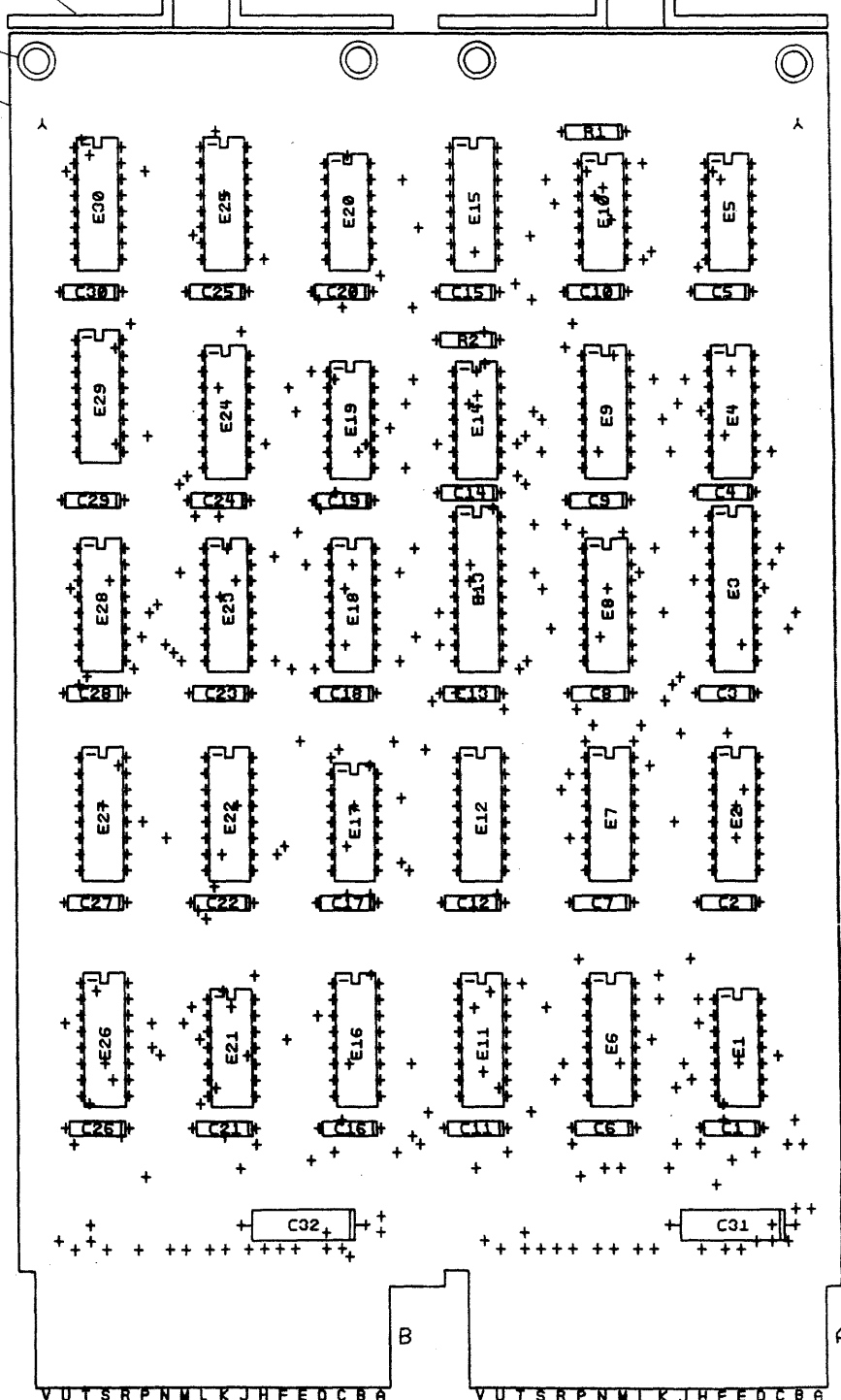
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0-0-9966M DUA

1978

20 TYP
19 TYP
COMPONENT SIDE VIEW



NOTES:

CHANGE NO	REV	DATE	BY
001	B	7-13-78	R. K. SNICK
002	C	7-13-78	R. K. SNICK
003	D	7-13-78	R. K. SNICK

ETCH REV.	C-P2
P.C. DESIGN DATA BRZE REV.	CL2 & CM2

SIGNATURES	DATE	TITLE	SIZE	CODE	NUMBER	REV
DRN. <i>V. F. Smith</i>	7-27-78	I/O SECTION 2	D	UA	M8966-0-0	C
CHK'D. <i>B. Cassidy</i>	10 JUL 78					
ENC. <i>Bill Reynolds</i>	7-13-78					
PROJ. ENG. <i>Bill Reynolds</i>	7-13-78					
PROD. <i>ETER BARTON N.C.</i>	7-13-78					
SCALE	2/1					
SHT.	1 OF 5					
NEXT HIGHER ASSY.	B-00-M8966-0					

digital

I/O SECTION 2

SIZE CODE NUMBER REV

D UA M8966-0-0 C

MS# 262426

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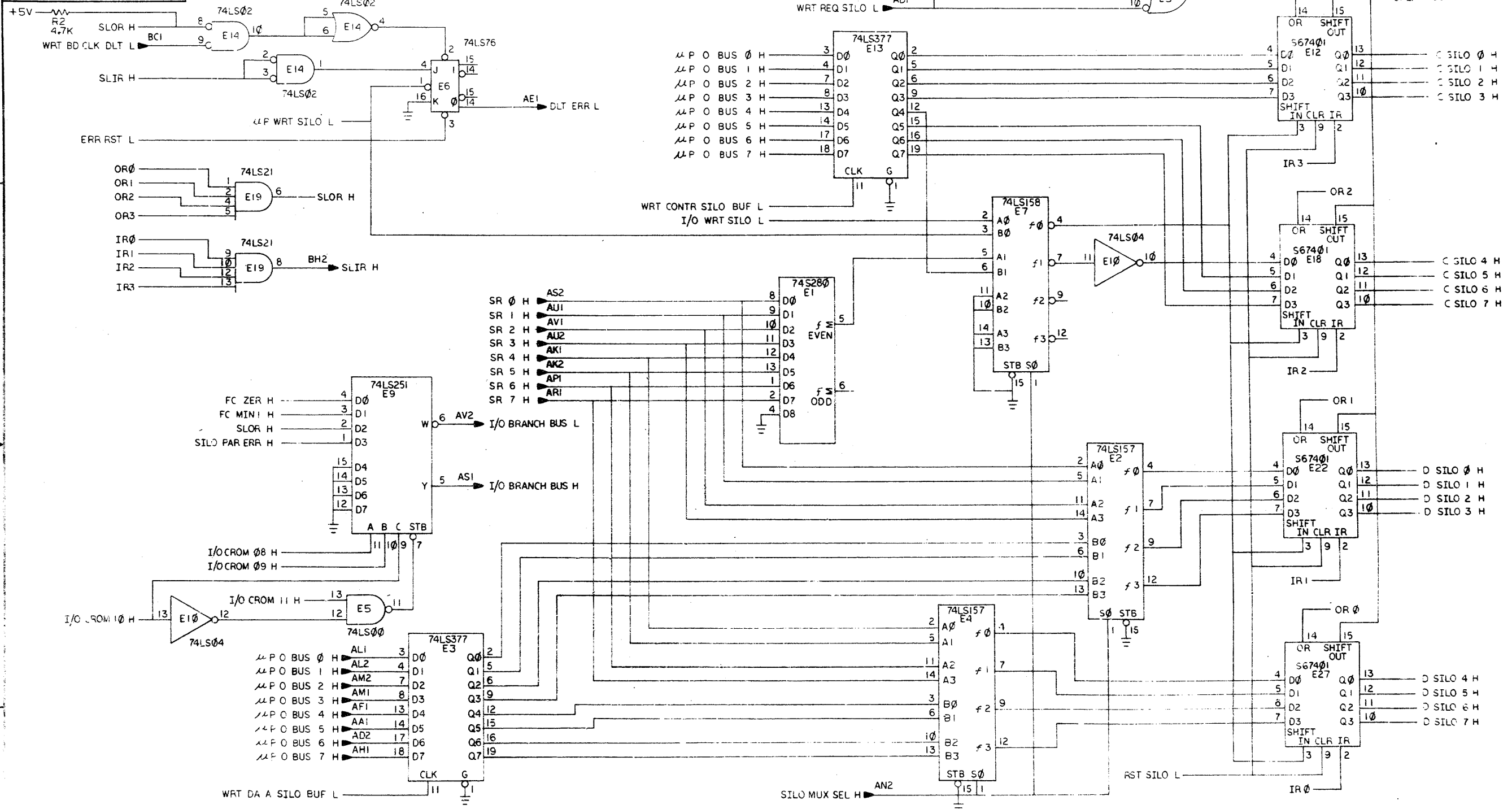
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3

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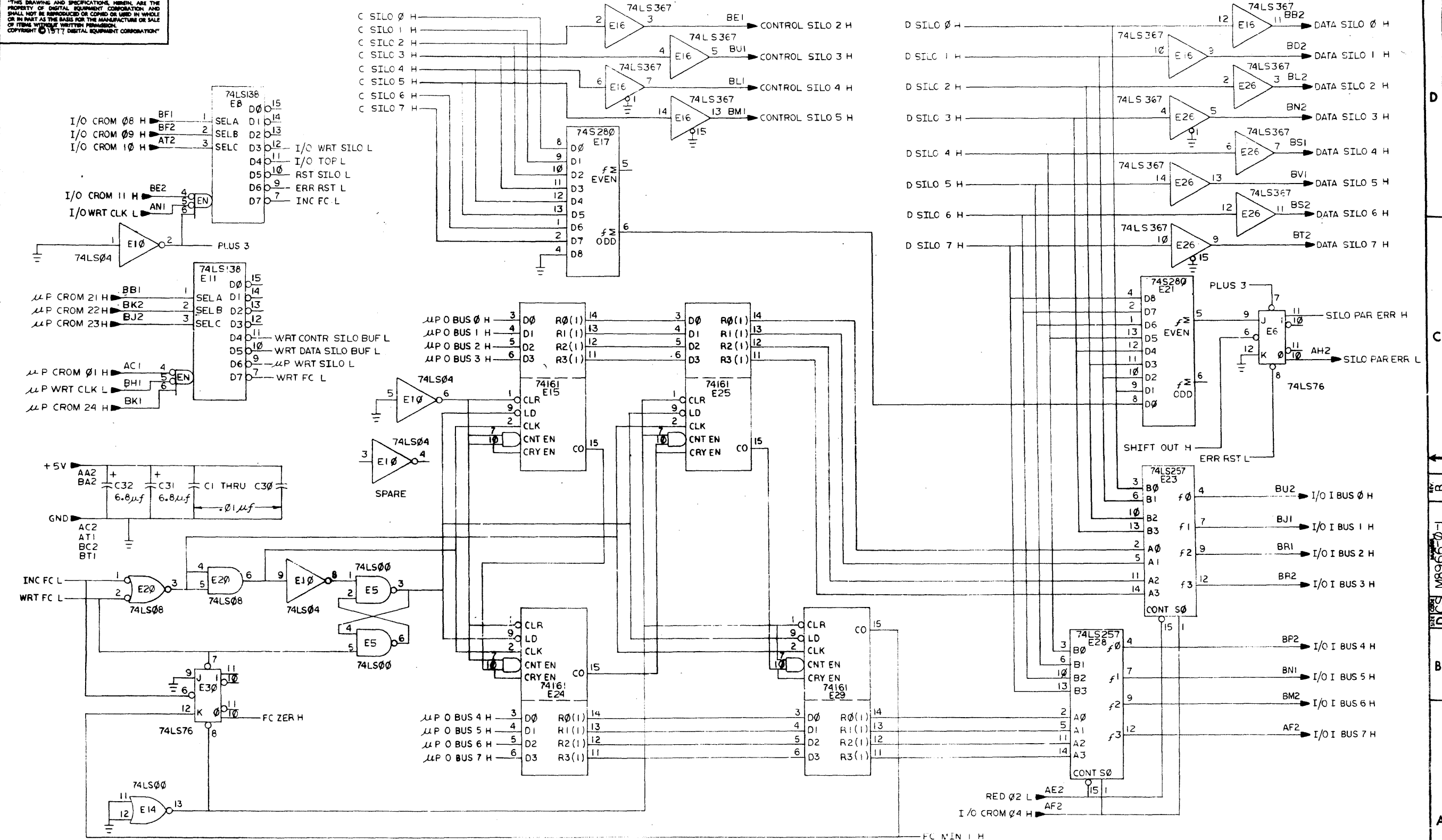


REV.	CHG.	NO.	DATE	BY	CHK'D
1					
2					
3					
4					
5					
6					
7					
8					

REVISIONS
 CHANGE NO. REV. DATE BY CHK'D
 1 1/15/77 [Signature] [Signature]
 2 1/15/77 [Signature] [Signature]
 3 1/15/77 [Signature] [Signature]
 4 1/15/77 [Signature] [Signature]
 5 1/15/77 [Signature] [Signature]
 6 1/15/77 [Signature] [Signature]
 7 1/15/77 [Signature] [Signature]
 8 1/15/77 [Signature] [Signature]

DRN. NO. SA 1000-1000-1000	REV. 1	FIRST USED ON	
CHK'D. [Signature]	DATE 1/15/77	TITLE	I/O SECTION 2
ENG. H. [Signature]	DATE 1/15/77	PROJECT	
PROD. [Signature]	DATE 1/15/77	SCALE	NONE
NEXT HIGHER ASSY.		SIZE	D
B-DD-V8866-0		CODE	CS
SCALE NONE		NUMBER	M8966-0-1
SHEET 1 OF 2		DIST.	

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D
C
B
A
DCS M8966-0-1

CHK	CHANGE NO.	REV.
M8966	ML001	B
DR: KINZELMAN		03/78
ENGR: KINZELMAN		

TITLE	I/O SECTION 2	SIZE/SCALE	NUMBER	REV.
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SCALE	NONE	SHEET	2 OF 2	
		DIST.		

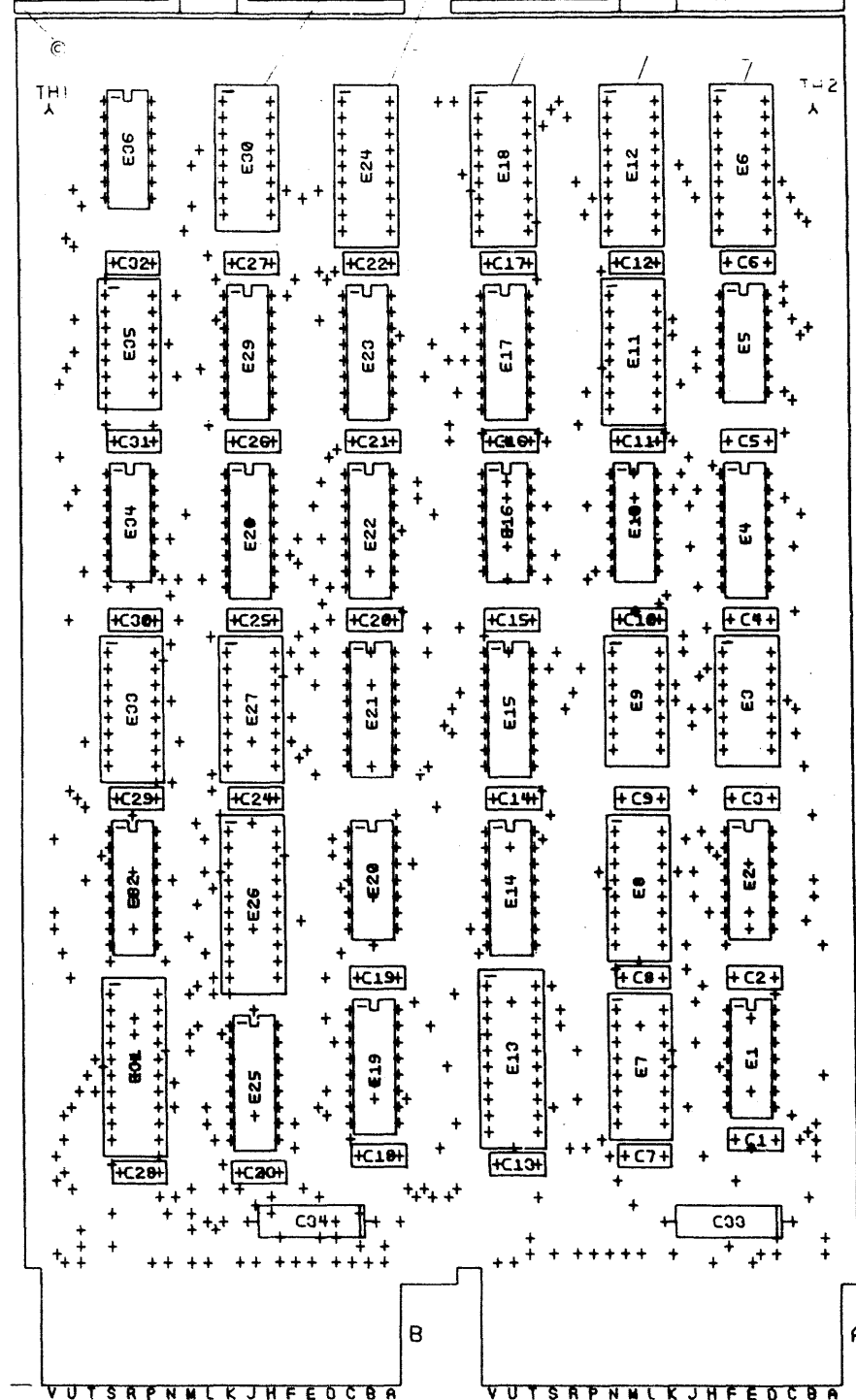
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1	1		5012886-00	M8966	1	
2	2		1001610-00	.01 MFD 50V +80-20% Z5U CER	30	C1-C30
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2	C31,C32
4	4		1910650-00	74161 COUNTER SYNCHR. UP	4	E15,E24,E25,E29
5	5		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	E23,E28
6	6		1912648-00	LS251 MUX 8 INPUT TRI-STA	1	E9
7	7		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E14
8	8		1912825-00	LS76 FF-JK DUAL W/PRESET	2	E6,E30
9	9		1912847-00	LS157 MUX 1 OF 2 (QUAD)	2	E2,E4
10	10		1912872-00	LS377 FF-D 8BIT W/ENABLE	2	E3,E13
11	11		1914768-01	FIFO, SLOW (67401)	4	E12,E18,E22,E27
12	12		1911573-00	745280 PARITY GEN/CHKR, 9BIT	3	E1,E17,E21
13	13		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	1	E5
14	14		1912803-00	74LS04 INVERTER GATE, HEX	1	E10
15	15		1912805-00	LS08 AND GATE-QUAD 2IN, PO	1	E20
16	16		1912842-00	LS138 DECODER-THREE INPUT,	2	E8,E11
17	17		1912848-00	LS158 MUX 1 OF 2 (QUAD)	1	E7
18	18		1912811-00	LS21 AND GATE-DUAL 4IN, PO	1	E19
19	19		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
20	20		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
21	21		1300447-00	4.70 K .25 W 5.0 % CC	2	R1,R2
22	22		1913471-00	LS367 DRIVER, BUS, HEX, TRI-	2	E16,E26

REVISION HISTORY		BASIC PART NO: M8966		DRN: H.WEINBRENNER		DATE: 29-AUG-78		D I G I T A L					
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: W.CASSIDY		DATE: 29-AUG-78		TITLE PARTS LIST					
---	INIT	A	SECTION VARIATION INDEX	DES.ENG: B.KRASNICK		DATE: 29-AUG-78		I/O SECTION 2					
ER	MLO01	B	[A] 00	RESP.ENG.: B.KRASNICK		DATE: 29-AUG-78		DOCUMENT NUMBER					
BK	M8966-MLO02	C	[B]	MFG.ENG.: P.BARTON		DATE: 29-AUG-78		K	PL	M8966-D-DBP	C		
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #			
			[D]	D-UA-M8966-D-D		TS04		20950C.PLS		9			
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									
			[F]										
			[H]										
			[J]										

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7-7-1974

COMPONENT SIDE VIEW



R.44
R.F.F

NOTES:

CHK/CHANGE NO.	REV.	DATE	BY
M8967-ML001	E1		
REVISED			
RE-DRAWN			
M8967-ML001	C		
REVISED			
RE-DRAWN			
M8967-ML001	D		
REVISED			
RE-DRAWN			

ETCH REV. C-P1
P.C. DESIGN DATA BASE REV. C

SIGNATURES		DATE	TITLE
DRN.	<i>[Signature]</i>	5/15/74	DESIGNER
CHK'D.	<i>[Signature]</i>	5/15/74	DESIGNER
ENG.	<i>[Signature]</i>	5/15/74	DESIGNER
PROJ. ENG.	<i>[Signature]</i>	5/15/74	DESIGNER
PROD.	<i>[Signature]</i>	5/15/74	DESIGNER
SCALE 2/1			
SHT. 1 OF 3			
NEXT HIGHER ASSY. b-00-N-9-74			
SIZE CODE	NUMBER	REV	
0 VA	M8967-0-0	D	

digital

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8965-0-1		CIRCUIT SCHEMATIC	REF		
2	2	D-UA-M8965-0-0		UNIT ASSY	REF		
3	3	B-DD-M8965-0-0		DWG DIRECTORY	REF		
4	4	D-MD-5012885-0-0		DRILL & ETCH DWG	REF		
5	5		1001610-00	.01 MFD 50V +80-20% 25U CER	31		C1-C31
6	6		1005306-00	6.8MFD 35V 10% S.TANT	2		C32, C33
7	7		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2		E9, E16
8	8		1912648-00	LS251 MUX 8 INPUT TRI-STA	1		E17
9	9		1912649-00	LS75 LATCH 4BIT BISTABLE	1		E29
10	10		1912696-00	LS194A SHIFT REG, 4BIT BI-D	6		E8, E14, E15, E20, E25, E26
11	11		1912697-00	LS174 FF-D HEX W/CLEAR	1		E27
12	12		1912799-00	LS00 NAND-GATE-QUAD 2IN, P	2		E30, E31
13	13		1912801-00	LS02 NOR-GATE-QUAD 2IN	1		E19
14	14		1912805-00	LS08 AND GATE-QUAD 2IN, PO	2		E7, E11
15	15		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1		E4
16	16		1912815-00	LS30 NAND GATE-SINGLE 8IN	1		E2
17	17		1912820-00	LS51 A-O-I GATE 2-WIDE 2I	1		E5
18	18		1912824-00	LS74 FF-D DUAL EDGE TRIGG	4		E3, E12, E18, E28
19	19		1912825-00	LS76 FF-JK DUAL W/PRESET	1		E6
20	20		1912842-00	LS138 DECODER-THREE INPUT,	1		E22
21	21		1912845-00	LS153 MUX 1 OF 4 (DUAL)	1		E24
22	22		1912849-00	LS161 COUNTER SYNCHR, 4BIT	2		E21, E23
23	23		1912853-00	LS175 FF-D QUAD	2		E1, E10
24	24	SPARE LOCATION		IC SPARE	1		E13
25	25		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2		
26	26		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4		
27	27		5012885-00	M8965	1		
28	28		1000016-00	100.0 MMF 100V 5%200PPM MICA	1		C34

REVISION HISTORY		BASIC PART NO: M8965		DRN: DON COREY		DATE: 07-NOV-77		DIGITAL	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: DON COREY		DATE: 07-NOV-77		TITLE PARTS LIST	
	INIT	B	SECTION VARIATION INDEX	DES. ENG: R. ODOM		DATE: 11-JAN-78		DOCUMENT NUMBER	
	B.K!MLOO1	C	[A] 00	RESP. ENG.: H. FINDEISEN		DATE: 11-JAN-78		SIZE: CODE: NUMBER REV	
			[B]	MFG. ENG.: P. BARTON		DATE: 11-JAN-78		K PL M8965-0-DBP C	
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-UA-M8965-0-0				Z0610C.PLS 23	
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"					
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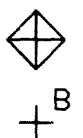
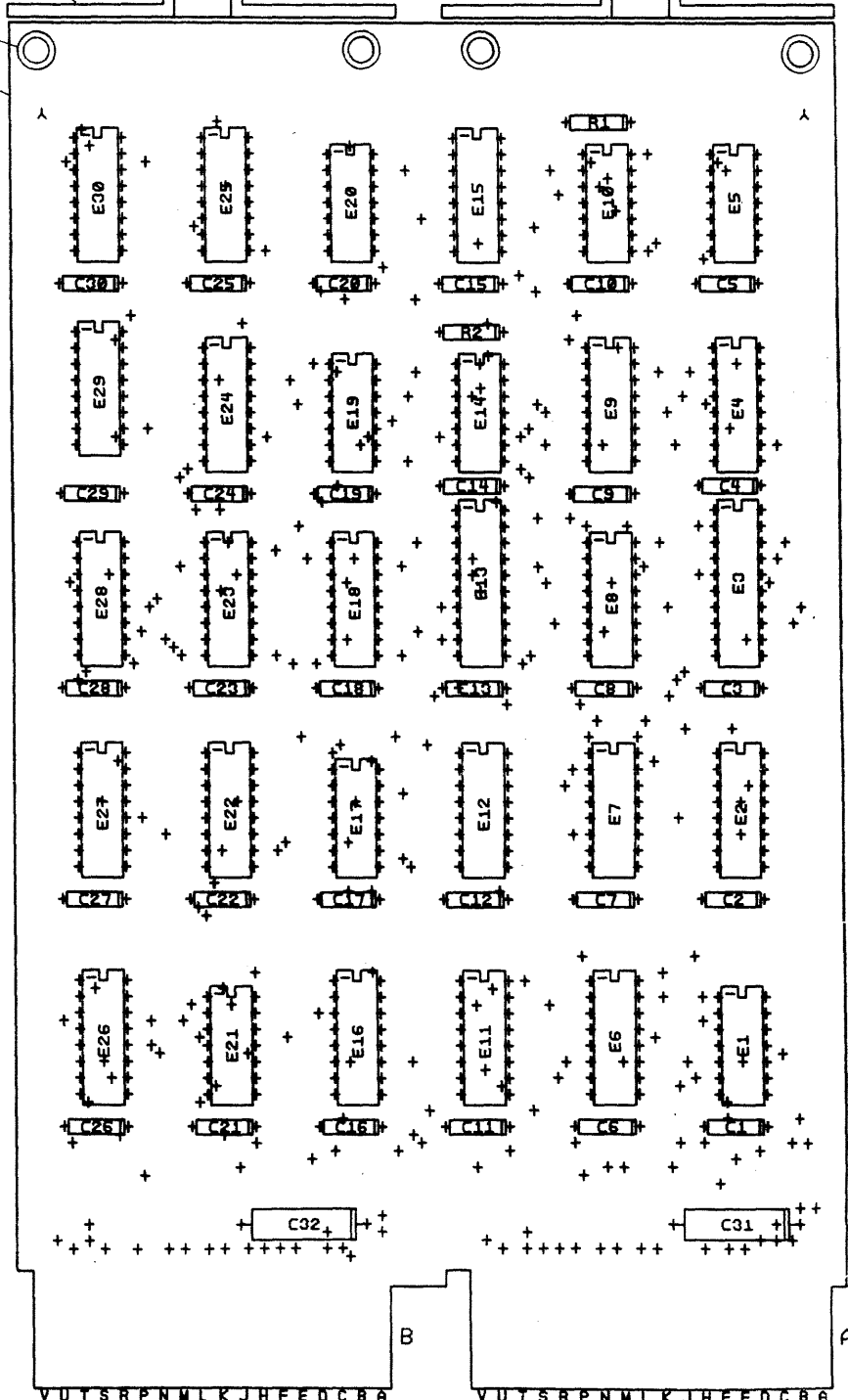
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D/UA M8966-0-0

1978

20 TYP
19 TYP
COMPONENT SIDE VIEW



NOTES:

CHG	NO	REV
1	1	B
1	2	C
1	3	D
1	4	E
1	5	F
1	6	G
1	7	H
1	8	I
1	9	J
1	10	K
1	11	L
1	12	M
1	13	N
1	14	O
1	15	P
1	16	Q
1	17	R
1	18	S
1	19	T
1	20	U
1	21	V
1	22	W
1	23	X
1	24	Y
1	25	Z

ETCH REV.	C- P2
P.C. DESIGN DATA BASE REV.	CL2 & CM2

SIGNATURES	DATE	TITLE	SIZE	CODE	NUMBER	REV
DRN. <i>V. Smith</i>	6-27-78	I/O SECTION 2	D	UA	M8966-0-0	C
CHK'D. <i>B. Cassidy</i>	10 JUL 78					
ENG. <i>Bob K...</i>	7-13-78					
PROJ. ENG. <i>P. ...</i>	7-13-78					
PROD. <i>Peter Barlow M.C.</i>	7-13-78					
SCALE	2/1					
SHT.	1 OF 5					
NEXT HIGHER ASSY. B-DD-M8966-0						

digital

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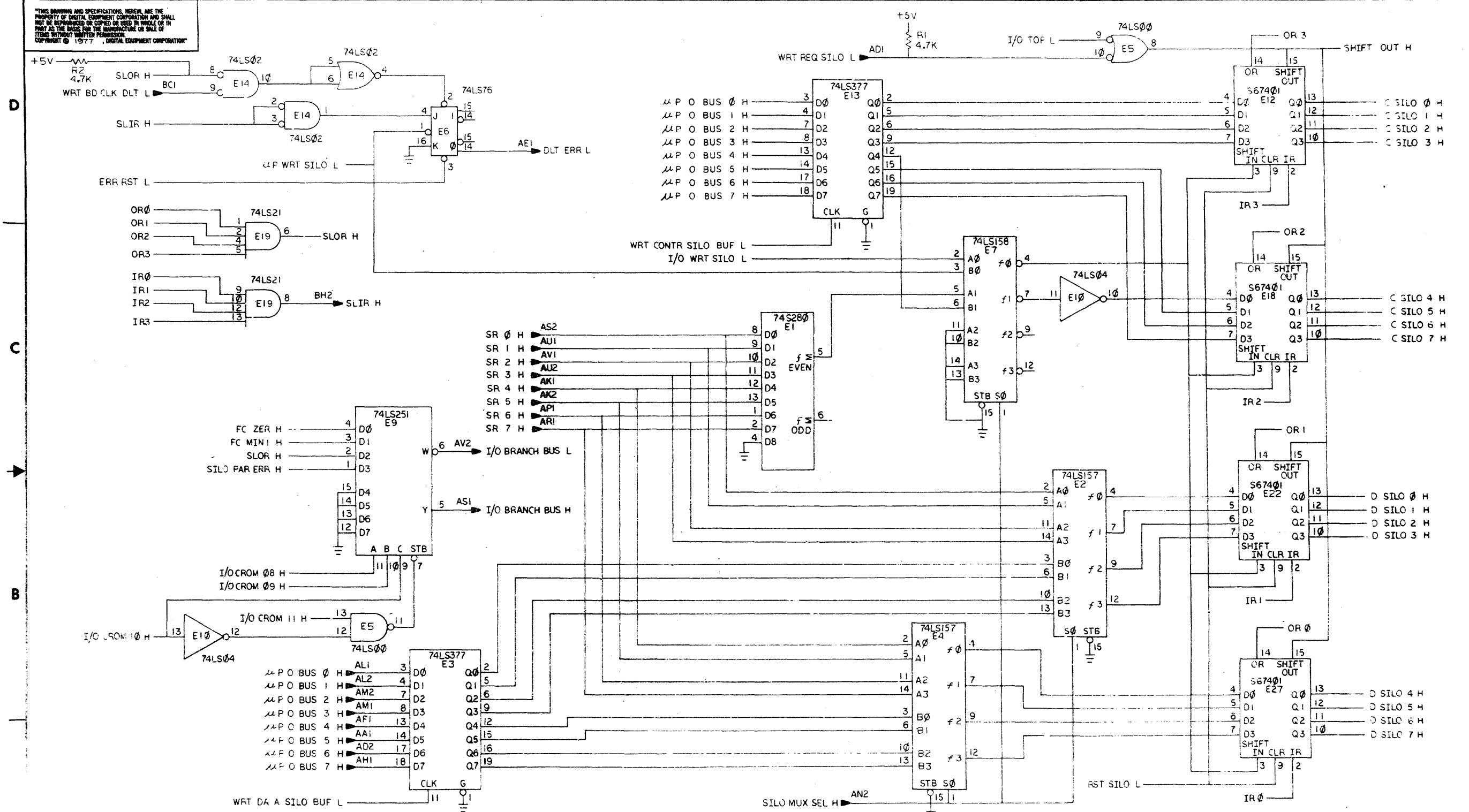
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1 MS#262426

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1	1	11/17/77	PAUL KINZELMAN
2	1	12/22/77	B. KRASNICK

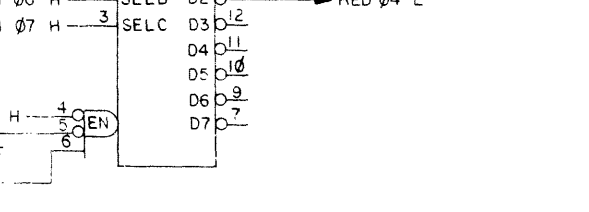
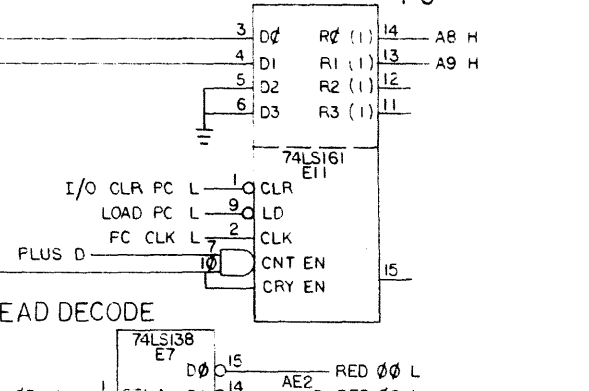
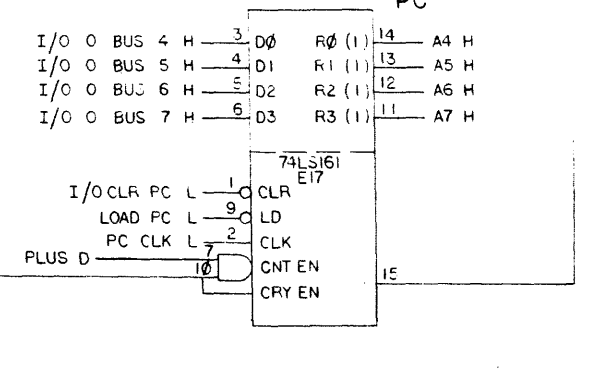
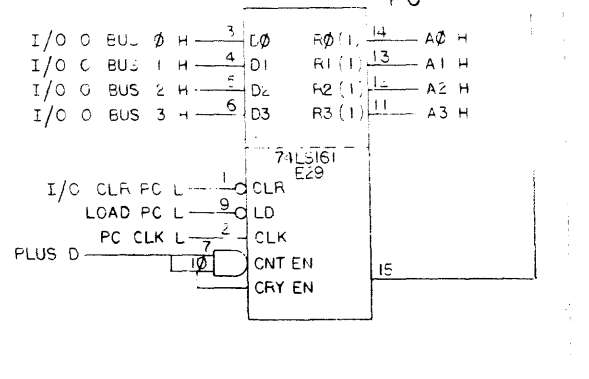
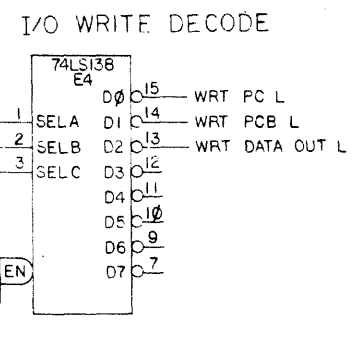
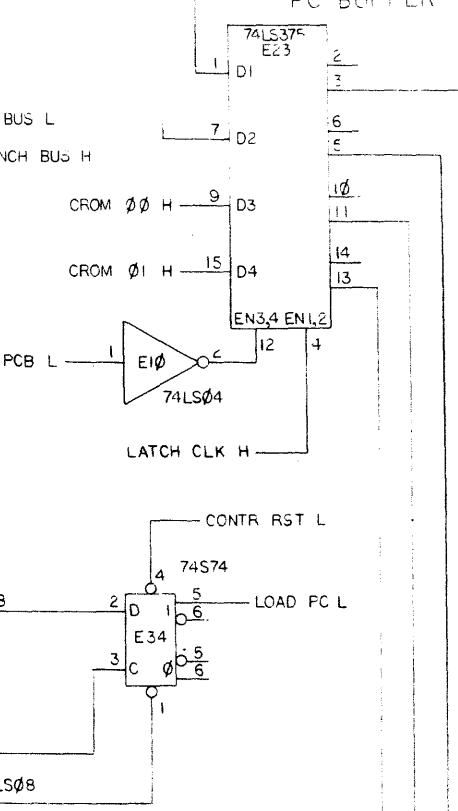
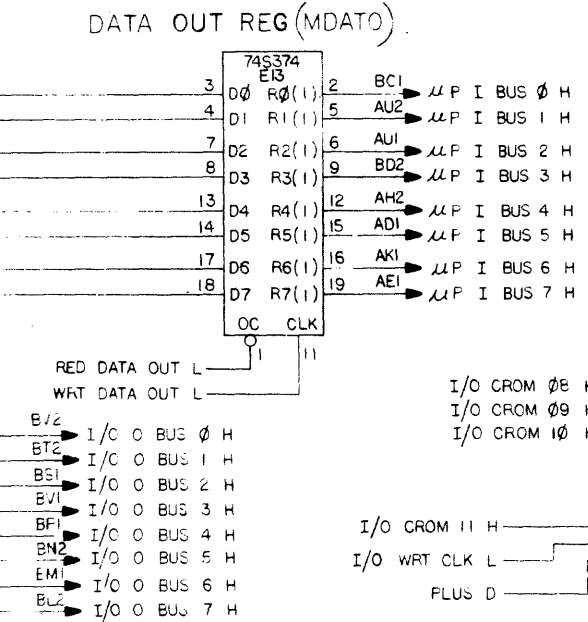
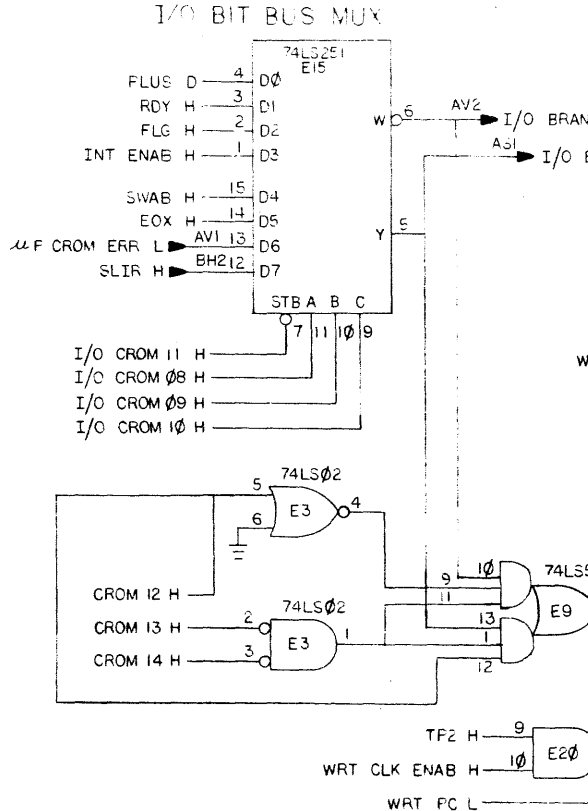
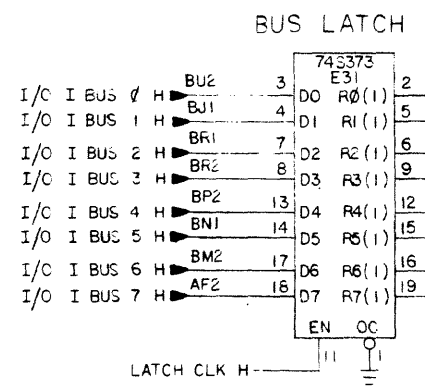
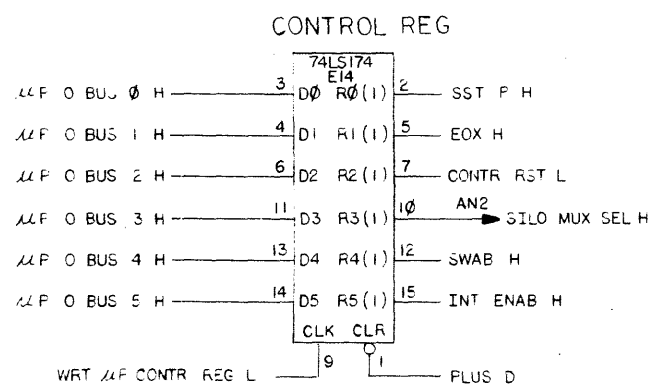
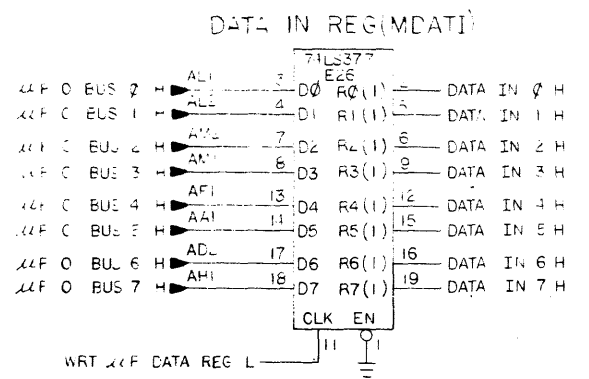
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CHK'D <i>[Signature]</i>	TITLE
ENG. <i>[Signature]</i>	12-22-77
PROJ. ENG. <i>[Signature]</i>	12-22-77
PROD. <i>[Signature]</i>	12-22-77
NEXT HIGHER ASSY.	
B-00-M8966-0	SIZE CODE
SCALE NONE	D CS M8966-0-1
SHEET 1 OF 2	DIST.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1		5012886-00	M8966	1	
2	2		1001610-00	.01 MFD 50V +80-20% Z5U CER	30	C1-C30
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2	C31,C32
4	4		1910650-00	74161 COUNTER, SYNCHR. UP	4	E15,E24,E25,E29
5	5		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	E23,E28
6	6		1912648-00	LS251 MUX 8 INPUT TRI-STA	1	E9
7	7		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E14
8	8		1912825-00	LS76 FF-JK DUAL W/PRESET	2	E6,E30
9	9		1912847-00	LS157 MUX 1 OF 2(QUAD)	2	E2,E4
10	10		1912872-00	LS377 FF-D 8BIT W/ENABLE	2	E3,E13
11	11		1914768-01	FIFO, SLOW (67401)	4	E12,E18,E22,E27
12	12		1911573-00	745280 PARITY GEN/CHKR, 9BIT	3	E1,E17,E21
13	13		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	1	E5
14	14		1912803-00	74LS04 INVERTER GATE, HEX	1	E10
15	15		1912805-00	LS08 AND GATE-QUAD 2IN, PO	1	E20
16	16		1912842-00	LS138 DECODER-THREE INPUT,	2	E8,E11
17	17		1912848-00	LS158 MUX 1 OF 2 (QUAD)	1	E7
18	18		1912811-00	LS21 AND GATE-DUAL 4IN, PO	1	E19
19	19		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
20	20		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
21	21		1300447-00	4.70 K .25 W 5.0% CC	2	R1,R2
22	22		1913471-00	LS367 DRIVER, BUS, HEX, TRI-	2	E16,E26

REVISION HISTORY		BASIC PART NO: M8966		DRN: H.WEINBRENNER		DATE: 29-AUG-78		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	W.CASSIDY	DATE:	29-AUG-78	TITLE	PARTS LIST
	INIT	A	SECTION VARIATION INDEX						
ER	MLO01	B	[A] 00					I/O SECTION 2	
BK	M8966-MLO02	C	[B]						
			[C]	DES.ENG:	B.KRASNICK	DATE:	29-AUG-78		
			[D]						
			[E]	RESP.ENG.:	B.KRASNICK	DATE:	29-AUG-78		DOCUMENT NUMBER
			[F]						
			[H]					SIZE	CODE
			[J]	MFG.ENG.:	P.BARTON	DATE:	29-AUG-78	K	PL
			[K]						M8966-Q-DBP
			[L]	ASSEMBLY NUMBER:	D-UA-M8966-Q-D	TOP DOCUMENT NUMBER:	TS04	FILE NAME:	EDIT #
			[M]					Z0950C.PLS	9
			[N]						

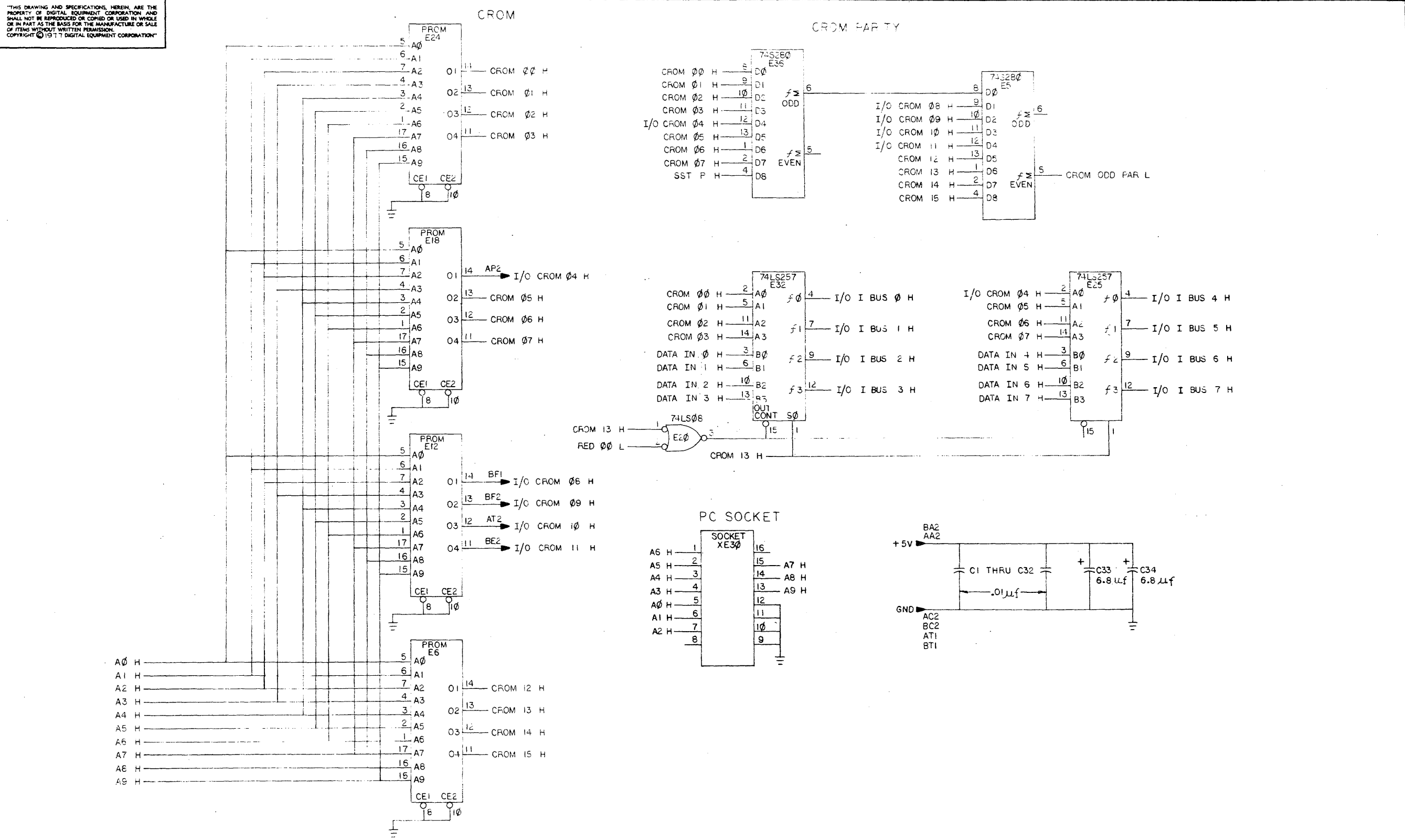
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REVISIONS		
CHK	CHANGE NO.	REV.

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8967-0-1		CIRCUIT SCHEMATIC		REF	
2	2	B-DD-M8967-0-0		DRAWING DIRECTORY		REF	
3	3	D-UA-M8967-0-0		UNIT ASSEMBLY		REF	
4	4	D-MD-5012887-0-0		DRILL & ETCH DRAWING		REF	
5	5		5012887-00	M8967	1		
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	32		C1-C32
7	7		1005306-00	6.8MFD 35V 10% S.TANT	2		C33, C34
8	8		1912801-00	LS02 NOR-GATE-QUAD 2IN	2		E3, E35
9	9		1912803-00	74LS04 INVERTER GATE, HEX	1		E10
10	10		1912805-00	LS08 AND GATE-QUAD 2IN, PO	1		E20
11	11		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1		E16
12	12		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1		E2
13	13		1912820-00	LS51 A-0-I GATE 2-WIDE 2I	1		E9
14	14		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1		E1
15	15		1912842-00	LS138 DECODER-THREE INPUT,	3		E4, E7, E22
16	16		1912846-00	LS155 DECODER, 2 OF 4 (DUAL)	1		E19
17	17		1912849-00	LS161 COUNTER, SYNCHR, 4BIT	3		E11, E17, E29
18	18		1912697-00	LS174 FF-D HEX W/CLEAR	1		E14
19	19		1912648-00	LS251 MUX 8 INPUT, TRI-STA	1		E15
20	20		1912646-00	LS253 MUX 1 OF 4 (DUAL)	1		E27
21	21		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2		E25, E32
22	22		1912864-00	LS279 LATCH, QUAD-S-R	2		E28, E33
23	23		1912871-00	LS375 LATCH	1		E23
24	24		1912872-00	LS377 FF-D 8BIT W/ENABLE	1		E26
25	25		1910950-00	74S74 FF-D DUAL (-45 VERSI	1		E34
26	26		1910545-00	74S112 FF-JK DUAL, EDGE TRIG	1		E21
27	27		1910552-00	74S194 SHIFT REG, 4BIT RIGH	1		E8
28	28		1911573-00	74S280 PARITY GEN/CHKR, 9BIT	2		E5, E36
29	29		1913670-00	74S373 LATCH 8BIT TRASP TR	1		E31
30	30		1913671-00	74S374 FF-D OCTAL TRISTATE	1		E13

REVISION HISTORY		BASIC PART NO: M8967		DRN:	WEINBRENNER	DATE:	22-AUG-78	DIGITAL	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	W. CASSIDY	DATE:	22-AUG-78	TITLE	PARTS LIST
---	00000	A	SECTION VARIATION INDEX	DES. ENG.:	H. FINDEISEN	DATE:	22-AUG-78	I/O SECTION 3	
CL	MLO01	B	[A] DO	RESP. ENG.:	H. FINDEISEN	DATE:	22-AUG-78	DOCUMENT NUMBER	
P. K.	M8967-MLO02	C	[B]	MFG. ENG.:	E. PINA	DATE:	22-AUG-78	SIZE	CODE
P. K.	M8967-MLO03	D	[C]	ASSEMBLY NUMBER:	D-UA-M8967-0-0	TOP DOCUMENT NUMBER:	TS04	NUMBER	REV
			[D]					K	PL
			[E]					M8967-0-DBP	D
			[F]					FILE NAME:	EDIT #
			[G]					Z03220.PLS	8
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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AUTOMATED BY PRTLST.2E(3)

PARTS LIST

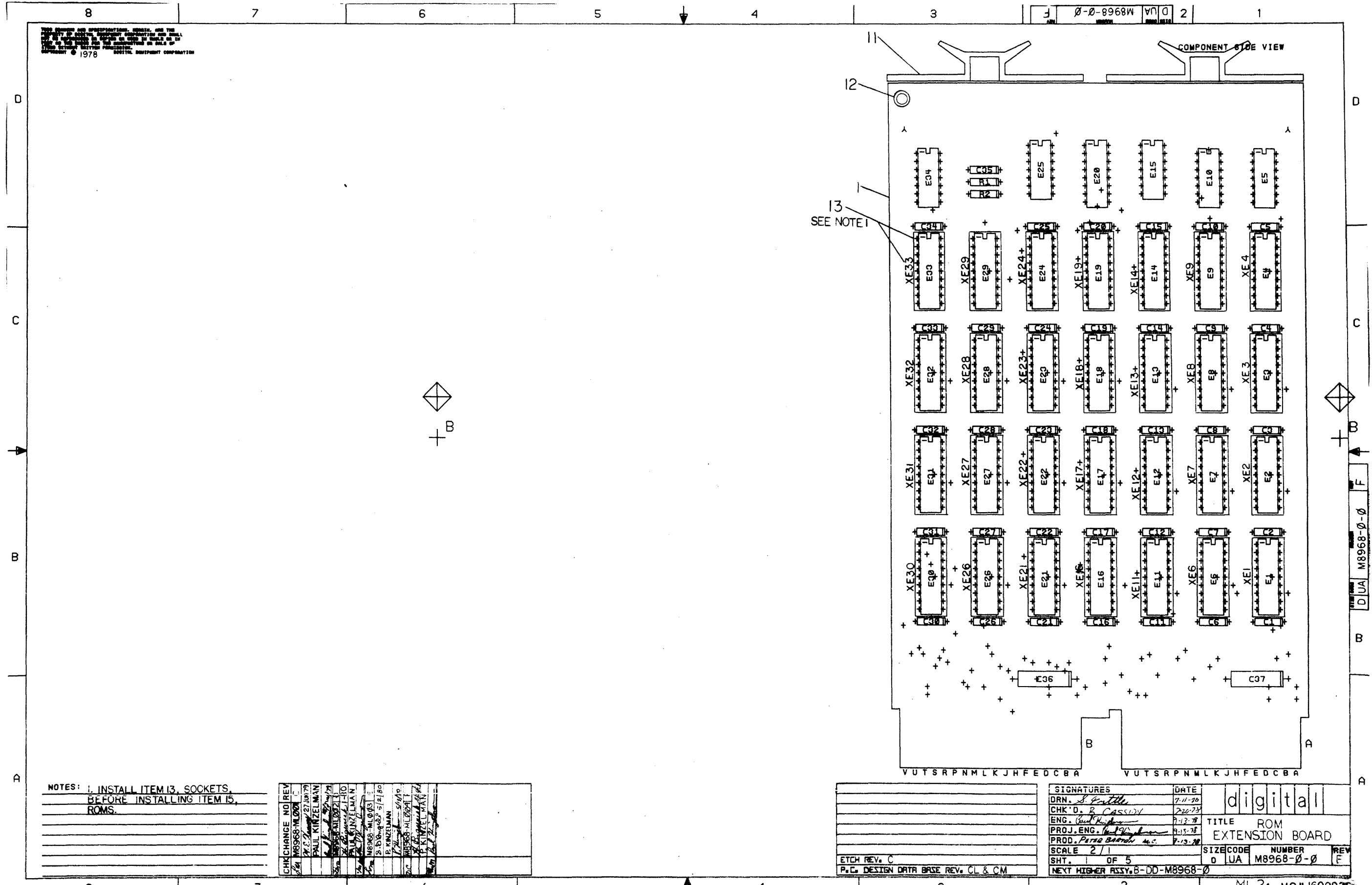
SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	31		23000F1-01	*** THIS ITEM IS NOT USED ***	-	
32	32		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
33	33		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
34	34		1211813-02	SOCKET 16PIN IC LOW PROFILE,	1	E30
35	35		1211666-00	SOCKET 18PIN IC LOW PROFILE	4	XE6, XE12, XE18, XE24
36	36		23476F1-00	F1-01	1	E24
37	37		23477F1-00	F1-01	1	E18
38	38		23478F1-00	F1-01	1	E12
39	39		23479F1-00	F1-01	1	E6

D	I	G	I	T	A	L	TITLE	I/O SECTION 3	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8967-0-DBP	D

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0 UA M8968-0-0



NOTES: 1. INSTALL ITEM 13, SOCKETS, BEFORE INSTALLING ITEM 15, ROMS.

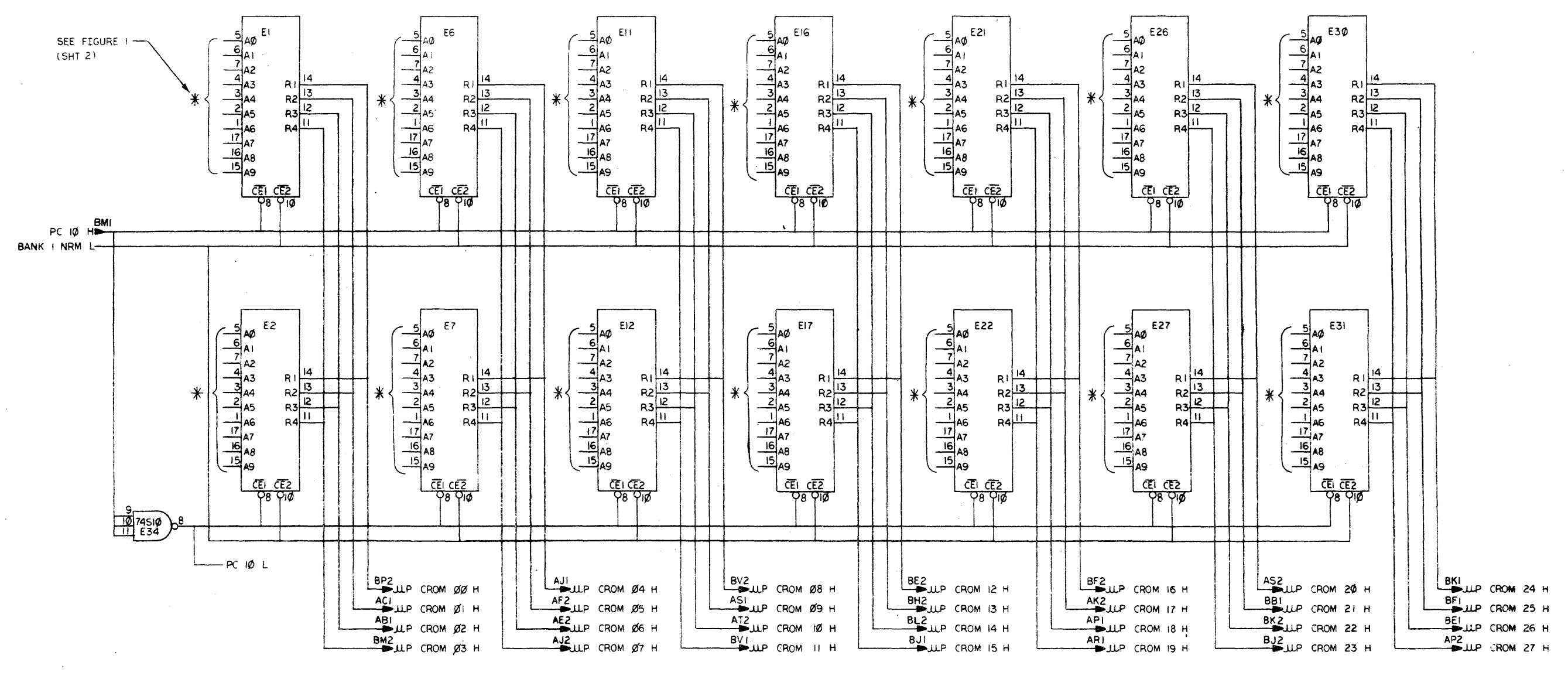
CHK CHANGE NO	REV	DATE	BY
M8968-ML000	C	7-11-78	P. KINZELMAN
M8968-ML001	D	7-12-78	P. KINZELMAN
M8968-ML002	E	7-13-78	P. KINZELMAN
M8968-ML003	F	7-13-78	P. KINZELMAN

ETCH REV. C	P.C. DESIGN DATA BASE REV. CL & CM
-------------	------------------------------------

SIGNATURES		DATE	digital
DRN. S. Pottle	7-11-78		
CHK'D. R. Cassidy	7-12-78		
ENG. Paul Kinzelman	7-12-78		
PROJ. ENG. Peter Barlow	7-13-78		
PROD. Peter Barlow	7-13-78		
SCALE 2/1	SHT. OF 5	SIZE CODE	NUMBER
		0 UA	M8968-0-0
			REV F

ML21 MS#160092C

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SEE FIGURE 1 (SHT 2)

REV. F
M8968-0-1

REV.	CHANGE NO.	DATE	BY	CHK'D
1	M8968-ML001	27 JUN 79	P. KINZELMAN	
2	M8968-ML002	1/2/79	P. KINZELMAN	
3	M8968-ML003	5/2/79	P. KINZELMAN	
4	M8968-ML004	5/2/79	P. KINZELMAN	
5	M8968-ML005	5/2/79	P. KINZELMAN	
6	M8968-ML006	5/2/79	P. KINZELMAN	
7	M8968-ML007	5/2/79	P. KINZELMAN	
8	M8968-ML008	5/2/79	P. KINZELMAN	

DRN	2/20/78	FIRST USED ON	TS04
CHK'D	5/24/79	TITLE	RCM EXTENSION BOARD
ENG.	1-13-78	SCALE	1:1
PROJ. ENG.	1-15-78	SIZE CODE	D
PROD. PIZZA	8-8-78	NUMBER	M8968-0-1
NEXT HIGHER ASSY.		DIST.	
B-DD-M8968-0			
SHEET 1 OF 2			

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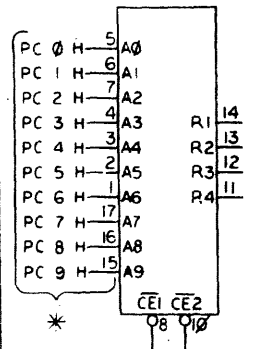
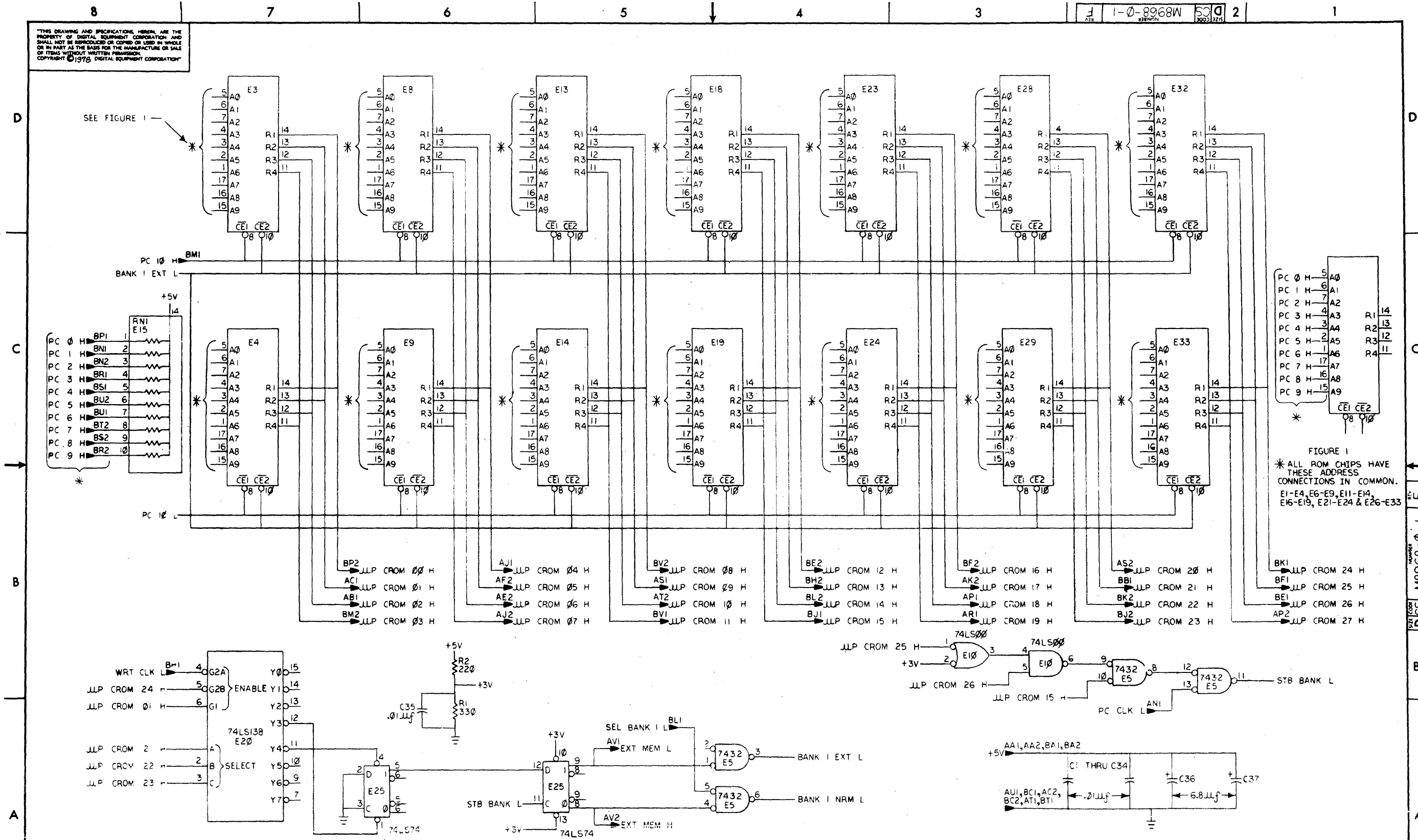
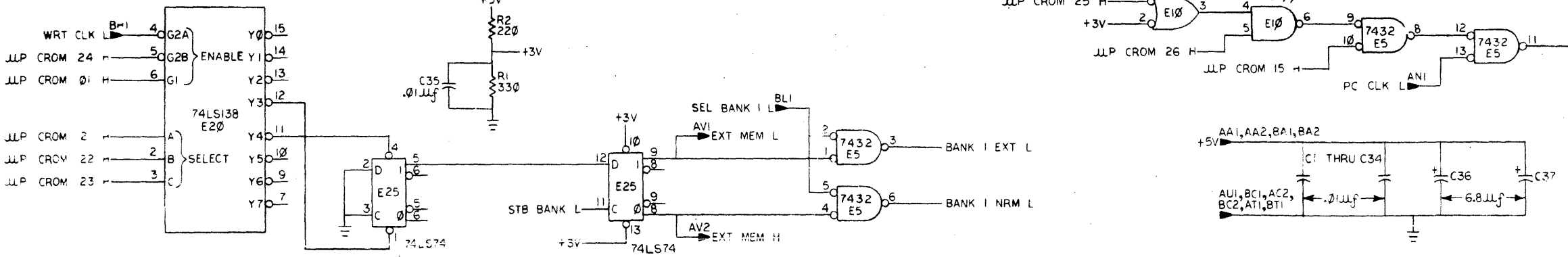


FIGURE 1
* ALL ROM CHIPS HAVE THESE ADDRESS CONNECTIONS IN COMMON.
E1-E4, E6-E9, E11-E14, E16-E19, E21-E24 & E26-E33

- BP2 JLP CROM 00 H
- AC1 JLP CROM 01 H
- AB1 JLP CROM 02 H
- BM2 JLP CROM 03 H
- AJ1 JLP CROM 04 H
- AF2 JLP CROM 05 H
- AE2 JLP CROM 06 H
- AJ2 JLP CROM 07 H
- BV2 JLP CROM 08 H
- AS1 JLP CROM 09 H
- AT2 JLP CROM 10 H
- BV1 JLP CROM 11 H
- BE2 JLP CROM 12 H
- BH2 JLP CROM 13 H
- BL2 JLP CROM 14 H
- BJ1 JLP CROM 15 H
- BF2 JLP CROM 16 H
- AK2 JLP CROM 17 H
- AP1 JLP CROM 18 H
- AR1 JLP CROM 19 H
- AS2 JLP CROM 20 H
- BB1 JLP CROM 21 H
- BK2 JLP CROM 22 H
- BJ2 JLP CROM 23 H
- BK1 JLP CROM 24 H
- BF1 JLP CROM 25 H
- BE1 JLP CROM 26 H
- AP2 JLP CROM 27 H



REVISIONS		
CHK	CHANGE NO.	REV

AUTOMATED BY PRTLST.1D(10)

PARTS LIST

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1		5013277-00	M8968	1		
2	2		1001610-00	.01 MFD 50V +80-20% Z5U CER	35		C1-C35
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2		C36,C37
4	4		1300271-00	220.0 .25 W 5.0 % CC	1		R2
5	5		1300295-00	330.0 .25 W 5.0 % CC	1		R1
6	6		1300005-01	R NETWORK 13-1K 5.0 % 14PIN	1		E15
7	7		1911521-00	7432 OR GATE-QUAD 2IN. PO	1		E5
8	8		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1		E25
9	9		1912799-00	LS00 NAND-GATE-QUAD 2IN. P	1		E10
10	10		1912842-00	LS138 DECODER-THREE INPUT,	1		E20
11	11		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2		
12	12		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4		
13	13	SEE NOTE	1211666-00	SKT, IC 18PIN DIP GOLD PLATE	28		
						CONT	XE1-XE4, XE6-XE9, XE11-XE14, XE16-XE19, XE21-XE24, XE26-XE33
14	14		1910536-00	74510 NAND GATE-TRIPLE 3IN	1		E34
15	15		23403F1-00	F1-01	1		F1
16	16		23404F1-00	F1-01	1		E6
17	17		23405F1-00	F1-01	1		E11
18	18		23406F1-00	F1-01	1		E16
19	19		23407F1-00	F1-01	1		E21
20	20		23408F1-00	F1-01	1		E26
21	21		23409F1-00	F1-01	1		E30
22	22		23813F1-00	F1-01	1		E2
23	23		23658F1-00	F1-01	1		E7
24	24		23659F1-00	F1-01	1		E12
25	25		23660F1-00	F1-01	1		E17
26	26		23661F1-00	F1-01	1		E22
27	27		23662F1-00	F1-01	1		E27
28	28		23814F1-00	F1-01	1		E31
29	29		23417F1-00	F1-01	1		E3

REVISION HISTORY		BASIC PART NO: M8968		DRN: R.WALDIE		DATE: 01-MAR-78		D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R.ODOM	DATE:	01-MAR-78	TITLE	PARTS LIST
---	INIT	B	SECTION VARIATION INDEX	DES.ENG:	R.ODOM	DATE:	01-MAR-78	ROM EXTENSION BD	
P.K.	M8968-ML001	C	[A] 00	RESP.ENG.:	R.ODOM	DATE:	01-MAR-78	DOCUMENT NUMBER	
PK	M8968-ML002	D	[B]	MFG.ENG.:	P.BARTON	DATE:	01-MAR-78	SIZE: CODE: NUMBER	REV
PK	M8968-ML003	E	[C]	ASSEMBLY NUMBER:	D-UA-M8968-Q-D	TOP DOCUMENT NUMBER:	T504	FILE NAME:	EDIT #
PK	M8968-ML004	F	[D]					20597F.PLS	21
			[E]						
			[F]						
			[H]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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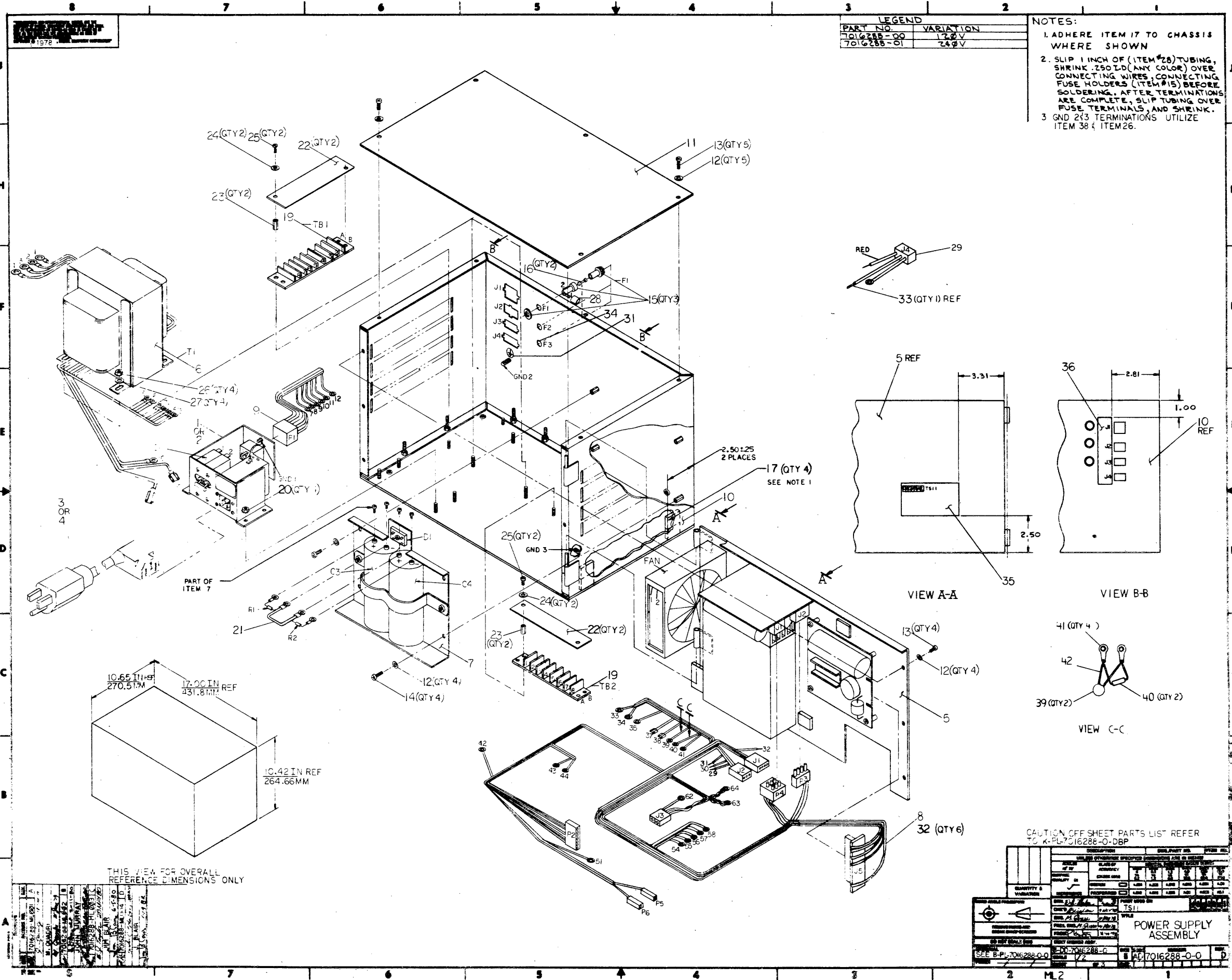
AUTOMATED BY PRTLST.1D(10)

PARTS LIST

SHEET A2 OF A2

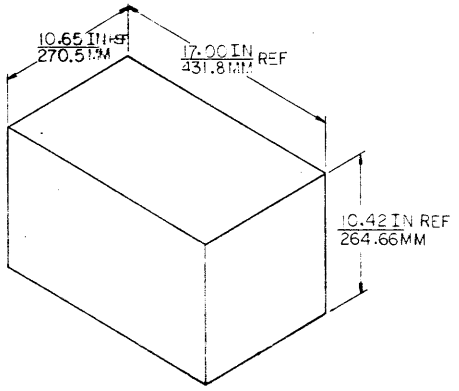
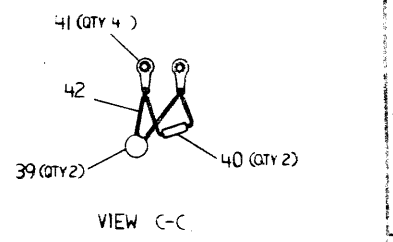
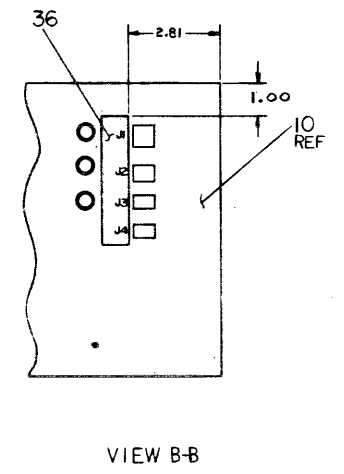
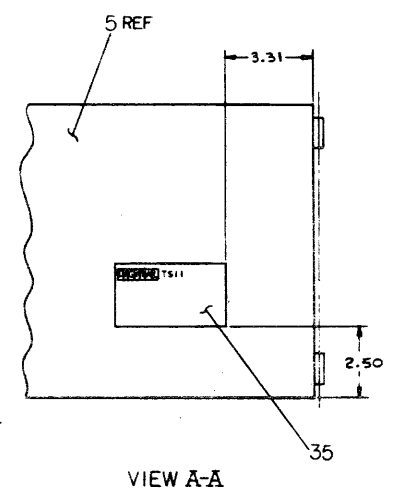
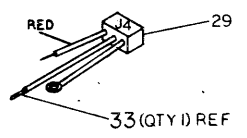
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30	23611F1-00	F1-01	1	E8
31	31	23419F1-00	F1-01	1	E13
32	32	23420F1-00	F1-01	1	E18
33	33	23421F1-00	F1-01	1	E23
34	34	23422F1-00	F1-01	1	E28
35	35	23612F1-00	F1-01	1	E32
36	36	23424F1-00	F1-01	1	E4
37	37	23613F1-00	F1-01	1	E9
38	38	23426F1-00	F1-01	1	E14
39	39	23427F1-00	F1-01	1	E19
40	40	23428F1-00	F1-01	1	E24
41	41	23429F1-00	F1-01	1	E29
42	42	23614F1-00	F1-01	1	E33

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							ROM EXTENSION BD		K	PL	M8968-0-DBP	F



LEGEND	
PART NO.	VARIATION
7016288-00	12.0V
7016288-01	24.0V

- NOTES:
1. ADHERE ITEM 17 TO CHASSIS WHERE SHOWN
 2. SLIP 1 INCH OF (ITEM #28) TUBING, SHRINK .250 I.D. (ANY COLOR) OVER CONNECTING WIRES, CONNECTING FUSE HOLDERS (ITEM #15) BEFORE SOLDERING. AFTER TERMINATIONS ARE COMPLETE, SLIP TUBING OVER FUSE TERMINALS, AND SHRINK.
 3. GND 2/3 TERMINATIONS UTILIZE ITEM 38 & ITEM 26.



THIS VIEW FOR OVERALL REFERENCE DIMENSIONS ONLY

QTY	DESCRIPTION	REF
1	CHASSIS	1
1	COVER	2
1	TRANSFORMER	3
1	RECTIFIER	4
1	REGULATOR	5
1	FAN	6
1	WINDING	7
1	WINDING	8
1	WINDING	9
1	WINDING	10
1	WINDING	11
1	WINDING	12
1	WINDING	13
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1	WINDING	41
1	WINDING	42

CAUTION OFF SHEET PARTS LIST REFER TO X-PL-7016288-0-DBP

QTY	DESCRIPTION	REF
1	CHASSIS	1
1	COVER	2
1	TRANSFORMER	3
1	RECTIFIER	4
1	REGULATOR	5
1	FAN	6
1	WINDING	7
1	WINDING	8
1	WINDING	9
1	WINDING	10
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1	WINDING	42

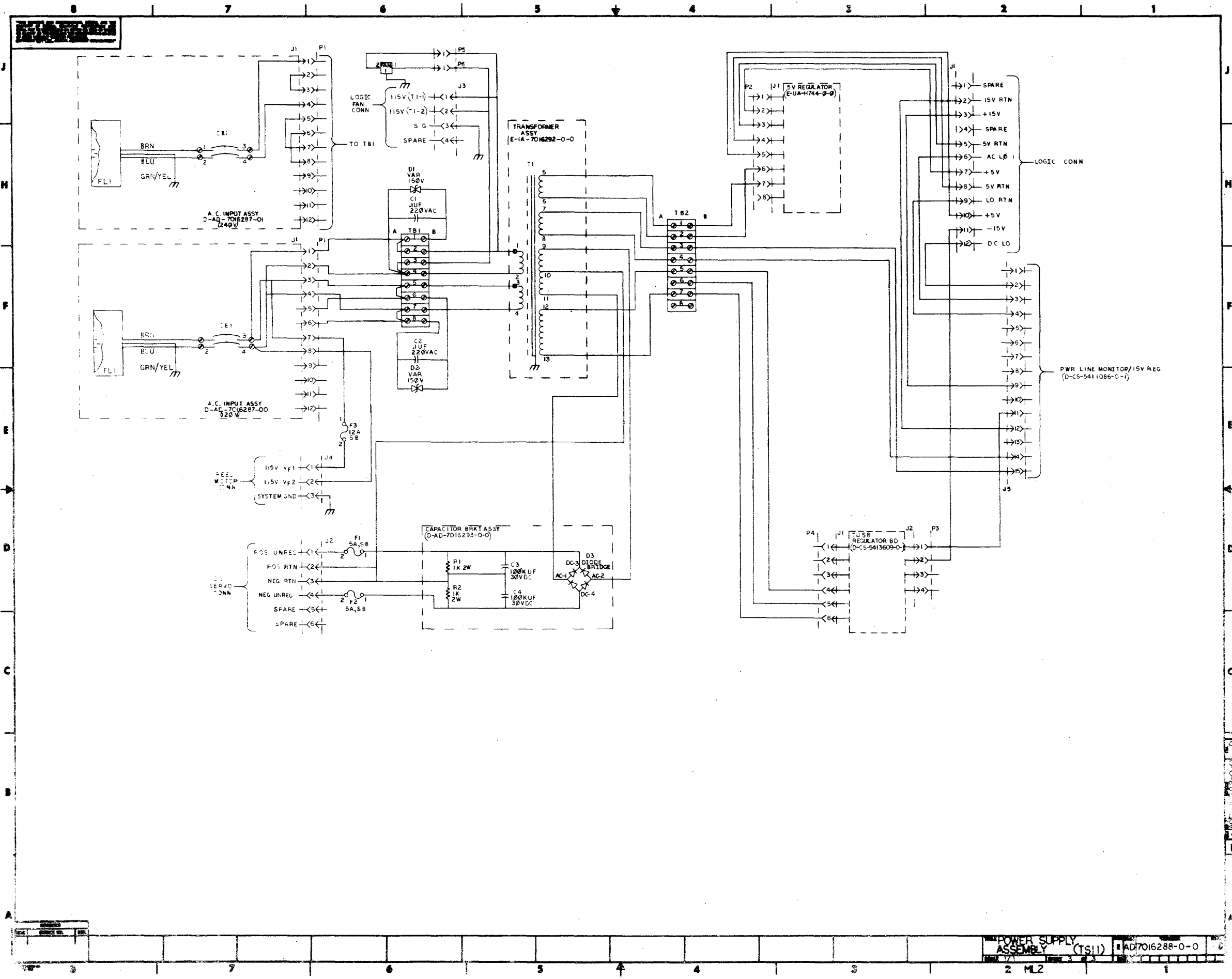
POWER SUPPLY ASSEMBLY

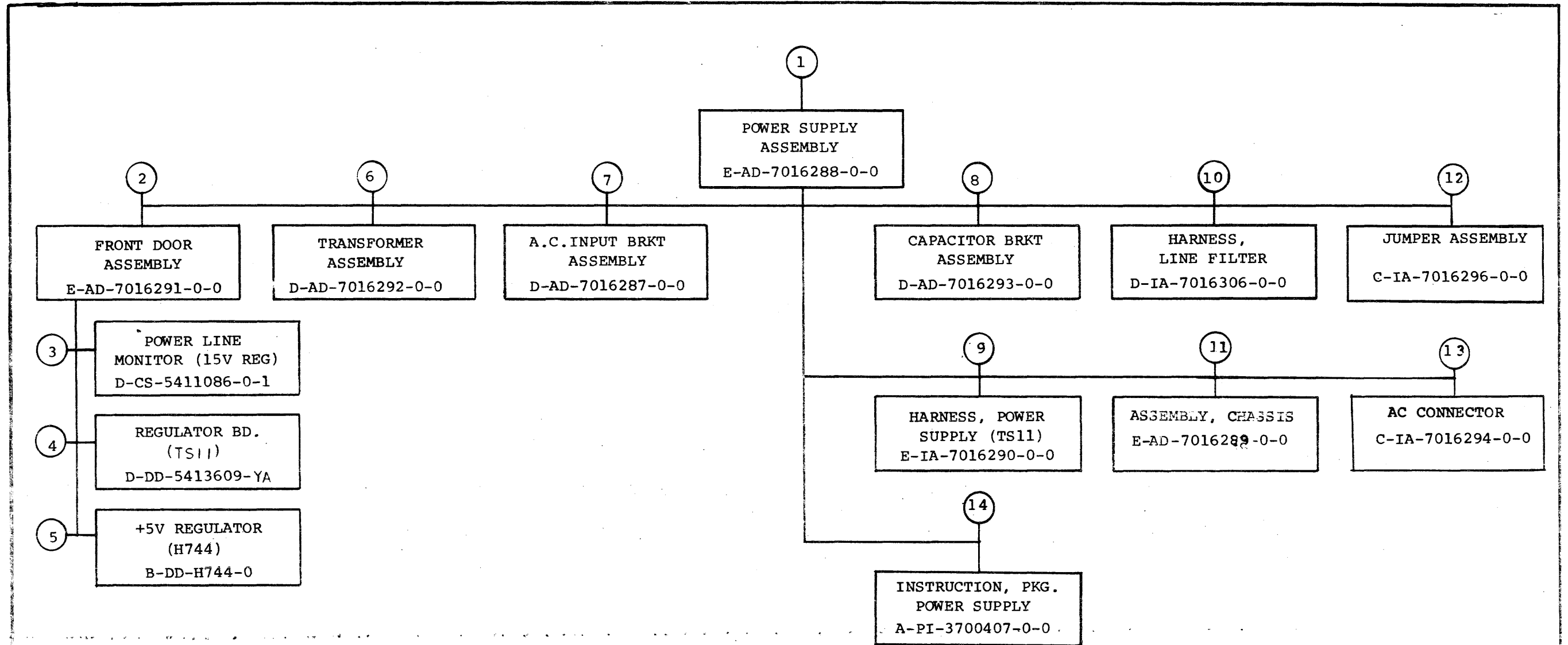
WIRE TABLE 7016288-00											WIRE TABLE 7016288-01										
ITEM NO	DESCRIPTION			FROM			TO			REMARKS	ITEM NO	DESCRIPTION			FROM			TO			REMARKS
	AWG	COLOR	POINT	CONNECTION	WITH	POINT	CONNECTION	WITH	POINT			CONNECTION	WITH	POINT	CONNECTION	WITH	POINT	CONNECTION	WITH		
8	14	BLACK	50	P2-7		43	TB2-1B			2	14	BLACK		CBI-3			J1-1			A.C. INPUT ASSEMBLY	
8	14	BLACK	49	P2-6		44	TB2-2B			2	14	BLACK		CBI-4			J1-4			D-1A-7016287-01	
8	14	GRN/YEL	51	FAN-GND		42	GND-3	26,3B		2	14	BLACK		J1-2			J1-3			240V WIRING (ONLY)	
8	18	RED	P6	FAN-1		64	TB1-3B			2	14	BLACK		J1-5			J1-7				
8	TWP	WHITE	P5	FAN-2		63	TB1-2B			2	14	BLACK		J1-6			J1-8				
8	18	RED	60	J3-2		64	TB1-3B			2		BROWN		FLI-1			CBI-1				
8	TWP	WHITE	59	J3-1		63	TB1-2B			2		BLUE		FLI-2			CBI-2				
8	14	GRN/YEL	61	J3-3		62	GND-2	26		2	14	GRN/YEL		FLI-GND			GND-1				
8	18	BLACK	1	P4-5		54	TB2-7B														
8	18	BLACK	2	P4-5		55	TB2-6B														
8	18	BLACK	3	P4-4		56	TB2-5B														
8	18	BLACK	6	J5-15		58	TB2-3B														
8	18	BLACK	7	J5-14		57	TB2-4B														
8	18	BLACK	8	J5-13		56	C4-2														
8	14	BLUE	33	C4-1		37	D3-4														
8	14	BLUE	34	C4-1		31	F2-1	28													
8	14	BLACK	25	J2-3		35	C4-2														
8	14	ORANGE	38	D3-3		41	C3-1														
8	14	BLACK	38	J3-2		39	C3-1														
8	14	ORANGE	40	C3-1		32	FLI-1	28													
8	14	BLUE	28	J2-4		30	F2-2	28													
8	14	ORANGE	27	J2-1		29	FLI-2	28													
9	14	BLACK	1	P1-1		12	TB1-2A														
9	14	BLACK	2	P1-2		11	TB1-4A														
9	14	BLACK	3	P1-3		10	TB1-5A														
9	14	BLACK	4	P1-4		8	TB1-7A														
9	14	BLACK	5	P1-5		9	TB1-6A														
9	14	BLACK	6	P1-6		7	TB1-8A														
19				TB1-2A			TB1-1A	30													
19				TB1-4A			TB1-3A	30													
19				TB1-6A			TB1-5A	30													
19				TB1-8A			TB1-7A	30													
19				TB1-4A			D1														
19				TB1-4A			C1														
19				TB1-2B			D1														
19				TB1-2B			C1														
19				TB1-6B			D2														
19				*E1-8B			C2														
19				*E1-6A			D2														
19				*F1-6A			C2														
20	18	BROWN		F3-1			P1-7	33,28	LINE FILTER ASSEMBLY												
20	18	BLUE		J4-2			P1-8	33	ASSEMBLY												
21	14	RED		J4-1			F3-2	28													
21	14	GRN/YEL		J4-3			GND-2	26,3B													
6	14	BLACK		T1-1			TB1-2B														
6	14	BLACK		T1-2			TB1-4B														
6	14	BLACK		T1-3			TB1-5B														
6	14	BLACK		T1-4			TB1-7B														
6	14	BLACK		T1-5			*B2-1A														
6	14	BLACK		T1-6			TB2-2A														
6	14	BLACK		T1-7			TB2-3A														
6	14	BLACK		T1-8			TB2-4A														
6	14	BLACK		T1-9			D3-2														
6	14	BLACK		T1-10			J2-3														
6	14	BLACK		T1-11			D3-1														
6	14	BLACK		T1-12			TB2-5A														
6	14	BLACK		T1-13			TB2-7A														
1	14	BLACK		J1-1			CBI-3														
1	14	BLACK		J1-2			CBI-4														
1	14	BLACK		J1-3			CBI-3														
1	14	BLACK		J1-4			CBI-4														
1	14	BLACK		J1-7			CBI-3														
1	14	BLACK		J1-8			CBI-4														
1	14	BLACK		J1-2			CBI-4														
1		BROWN		FLI-1			CBI-1														
1		BLUE		FLI-2			CBI-2														
1	14	GRN/YEL		FLI-GND			GND-1														

WIRING TYPICAL FOR BOTH 7016288-00 AND 7016288-01

WIRING FOR 7016288-00 (ONLY)

WIRING FOR 7016288-01 (ONLY)





TITLE	SHEET	OF	SIZE	CODE	NUMBER	REF
POWER SUPPLY (TS11)	2	4	B	DD	7016288-0	B

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP00699	FIELD MAINTENANCE PRINT SET (MP)	REF	5	B-DD-H744-0	+5V REGULATOR (H744)	E/M
	E-AD-7016288-0-0	POWER SUPPLY (TS11)	E/M				
	K-PL-7016288-0-0	POWER SUPPLY (TS11)	E/M				
	D-MD-7421771-0-0	COVER, TOP	M				
	B-MD-7422499-0-0	PLEXI COVER	M				
				6	D-AD-7016292-0-0	TRANSFORMER ASSY	E/M
					B-PL-7016292-0-0	TRANSFORMER ASSY	E/M
				7	D-AD-7016287-0-0	A.C. INPUT BRKT ASSEMBLY	E/M
					B-PL-7016287-0-0	A.C. INPUT BRKT ASSEMBLY	E/M
					D-IA-7422052-0-0	BRACKET, A.C. INPUT	M
2	E-AD-7016291-0-0	FRONT DOOR ASSEMBLY	E/M				
	B-PL-7016291-0-0	FRONT DOOR ASSEMBLY	E/M				
	D-IA-7421772-0-0	DOOR, FRONT	M	8	D-AD-7016293-0-0	CAPACITOR BRKT ASSEMBLY	E/M
	C-IA-7421770-0-0	BRACKET, FAN	M		B-PL-7016293-0-0	CAPACITOR BRKT ASSEMBLY	E/M
					D-IA-7421773-0-0	BRACKET, CAPACITOR	M
					C-IA-7418370-0-0	RETAINER CAPACITOR	M
3	D-CS-5411086-0-1	POWER LINE MONITOR/15V REG	E/M				
	K-CO-5411086-0-4	X-Y COORDINATE HOLE LOCATION	M				
	D-AH-5411086-0-5	ASSY/DRILLING HOLE LAYOUT	M	9	E-IA-7016290-0-0	HARNESS, POWER SUPPLY (TS11)	E/M
	B-MH-5411086-0-6	MODULE E.C.O. HISTORY	REF		B-PL-7016290-0-0	HARNESS, POWER SUPPLY (TS11)	E/M
	5011085	ETCHED CIRCUIT BOARD	M				
	A-SP-11/45-TA-2	MODULE TEST PROCEDURE	REF				
	A-SP-5411086-0-3	ENG. SPEC-AND TEST PROC.	REF				
	7413721-0-0	.010 INCH SHIM	M				
				10	D-IA-7016206-0-0	HARNESS, LINE FILTER	E/M
					B-PL-7016306-0-0	HARNESS, LINE FILTER	E/M
4	B-DD-5413609-YA	REGULATOR BD. (TS11)	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL

digital

TITLE

POWER SUPPLY (TS11)

SHEET 3 OF 4

SIZE CODE
B DD

NUMBER
7016288-0

REV
B

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
11	E-AD-7016289-0-0	ASSEMBLE, CHASSIS	M				
	E-IA-7422049-0-0	CHASSIS	M				
	D-IA-7422050-0-0	PLATE, BOTTOM	M				
12	C-IA-7016296-0-0	JUMPER ASSEMBLY	E/M				
	B-PL-7016296-0-0	JUMPER ASSEMBLY	E/M				
13	C-IA-7016294-0-0	AC CONNECTOR ASSY	E/M				
	B-PL-7016294-0-0	AC CONNECTOR ASSY	E/M				
14	A-PI-3700407-0-0	INSTRUCTION, PKG. POWER SUPPLY	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



TITLE POWER SUPPLY (TS11)

SHEET 4 OF 4

SIZE B
CODE DD

NUMBER 7016288-0

REV B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					00	01
1		D-AD-7016287-0-0	7016287-00	A.C. IPUT ASSY 120V	1	-
2		D-AD-7016287-0-0	7016287-01	A.C. IPUT ASSY 240V	-	1
3		A-PS-1700083-0-0	1700083-00	PWR CORD, TERM. 75IN, 14-3, 125V 15	1	-
4		A-PS-1700083-0-0	1700083-17	PWR CORD, TERM. 75IN, 1E-3, 250V 6	-	1
5		E-AD-7016291-0-0	7016291-00	FRONT DOOR ASSY	1	1
6		E-IA-7016292-0-0	7016292-00	TRANSFORMER ASSY	1	1
7		D-AD-7016293-0-0	7016293-00	CAPACITOR BRKT. ASSY	1	1
8		E-IA-7016290-0-0	7016290-00	HARNESS, POWER SUPPLY	1	1
9		C-IA-7016306-0-0	7016306-00	HARNESS, LINE FILTER	1	1
10		E-AD-7016289-0-0	7016289-00	CHASSIS WELDMENT ASSY	1	1
11		D-MD-7421771-0-0	7421771-00	TOP COVER	1	1
12			9006634-00	WASHER, LOCK, INT, .2300D X .172ID	10	10
13			9006035-01	SCREW, PAN, PHIL 6-32X 1/4 SS	9	9
14			9006037-01	SCREW, PAN, PHIL 8-32X 3/8 SS	4	4
15		A-PS-1212893-0-0	1212893-00	FUSE HOLDER, 20A, 300V, PNL MNT	3	3
16			9007222-00	FUSE SLO BLO 5 A 250V GLASS	2	2
17			9008264-00	MOUNT, CABLE TIE, ADHESIVE BACKE	A/R	A/R
18			9008509-00	*** THIS ITEM IS NOT USED ***		
19			9006910-00	TERM BLOCK 8POS 7/16 SPACING CL	2	2
20			9006560-00	NUT, KEP 6-32X 5/16AF	4	4
21		C-IA-7016296-0-0	7016296-00	JUMPER ASSY	1	1
22		B-MD-7422499-0-0	7422499-00	PLEXI-COVER	1	1
23			9006857-00	SPACER, HEX THD'D, ALUM 6-32X 5	4	4
24			9006659-00	WASHER, FLAT .375 O.D. X .156 I	4	4
25			9006020-01	SCREW, PAN, PHIL 6-32X 1/4 SS	4	4
26			9006565-00	NUT, KEP 10-32X 3/8 AF	4	4
27			9006664-00	WASHER, FLAT, .437 OD X .218 ID	4	4
28			9107253-00	TUBING, SHRINK 1/4 DIA. EXP UL	A/R	A/R
29		C-IA-7016294-0-0	7016294-00	LINE FILTER ASSY	1	1
30			9009003-00	JUMPER FOR TERM BLOCK	4	4

REVISION HISTORY			BASIC PART NO: 7016288		DRN: W.J. MAHER		DATE: 28-AUG-78		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: D. BRIGHAM	DATE: 09-NOV-78	TITLE PARTS LIST				
J.B	7016288-ML004	D	SECTION. VARIATION INDEX	DES. ENG.: M. QUADRI	DATE: 10-NOV-78	POWER SUPPLY ASSEMBLY				
			[A] 00,01	RESP. ENG.: M. QUADRI	DATE: 10-NOV-78	DOCUMENT NUMBER				
			[B]	MFG. ENG.: P. BARTON	DATE: 10 NOV 78	K	PL	7016288-0-DBP	D	
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:			FILE NAME:	EDIT #	
			[D]	E-AD-7016288-0-0				Z30680.PLS	20	
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION."						
			[F]	COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION						

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

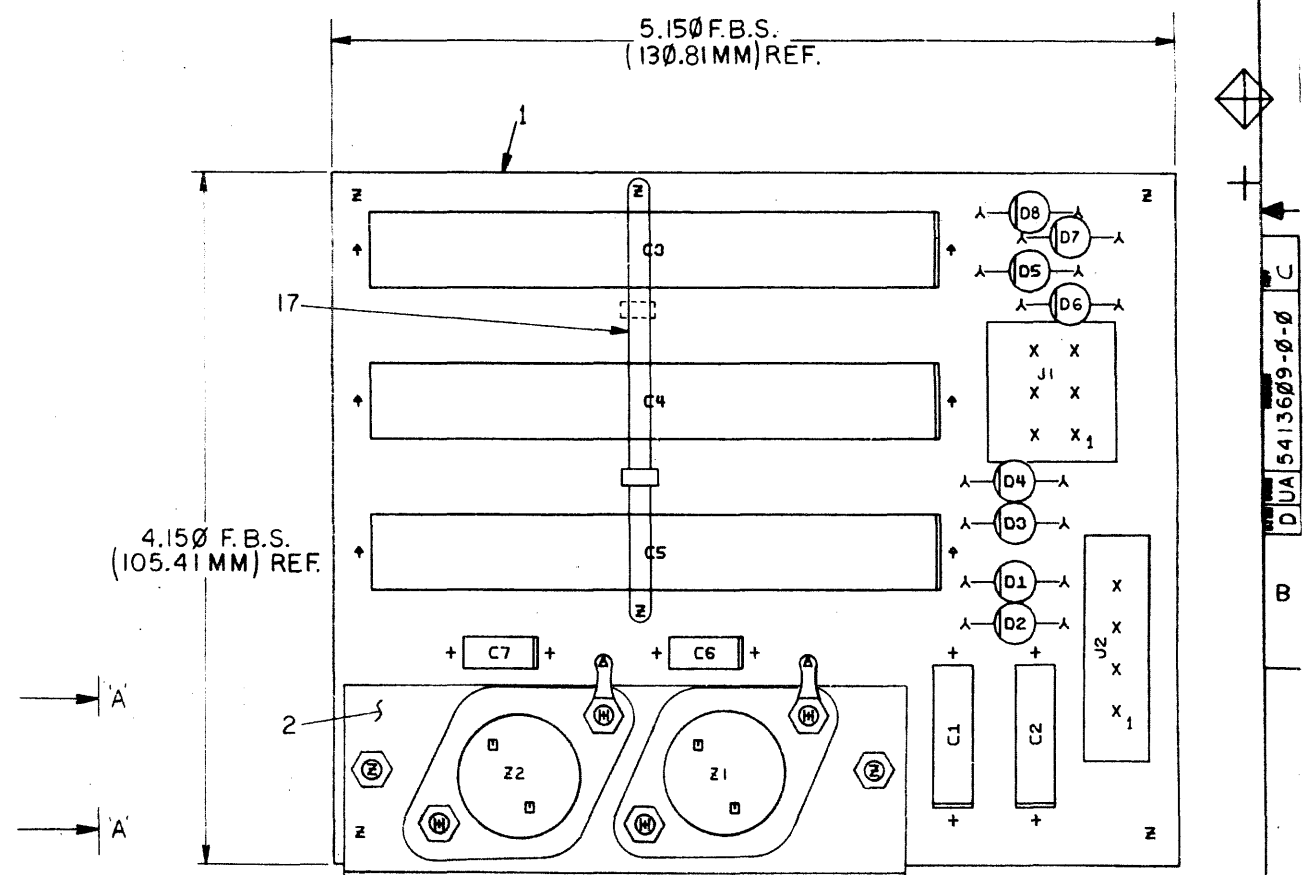
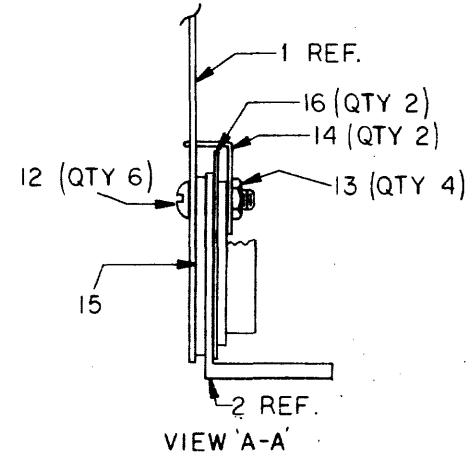
SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					00	01
31	31	A-PS-3612680-0-0	3612680-00	DECAL, GROUND SIGN PER 3E6 *	2	2
32	32		9007880-00	TIE, CABLE BUNDL DIA 0-1.14"=101	2	2
33	33	A-PS-1212170-0-0	1212170-00	MATE-N-LOK SKT UNIV 20-14AWG REE	2	2
34	34		9008290-01	FUSE, SLO BLO 12 A, 250V CER.	1	1
35	35	A-SP-3616126-0-0	3616126-00	LABEL, VOLTAGE & FREQUENCY CONFIG	1	1
36	36	A-SP-3616128-0-0	3616128-00	LABEL, TS11 PWR SUPPLY FUSE RATIN	1	1
37	37	A-PI-3700407-0-0	3700407-00	INSTR, PKG POWER SUPPLY 7016288-0	1	1
38	38		9007651-00	WASHER, LOCK, EXTERNAL TOOTH #10	1	1
39	39	A-PS-1311996-0-0	1311996-00	VARISTOR 150VAC VOLT TRANS SUP	1	1
40	40	A-PS-1012210-0-0	1012210-00	.1 MFD 220V 10% MET. MYLR	2	2
41	41		9006762-00	TERM, LUG #6STUD LOCKING 30	4	4
42	42		9107278-11	TUBING, THIN WALL, .042ID UL	A/R	A/R

D	I	G	I	T	A	L	TITLE	POWER SUPPLY ASSEMBLY	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
											K	PL	7016288-0-DBP	D

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 1979

COMPONENT SIDE VIEW



NOTES:

STEP E	→ Y AXIS	STEP	TIMES
REPORT	→ X AXIS	STEP	TIMES

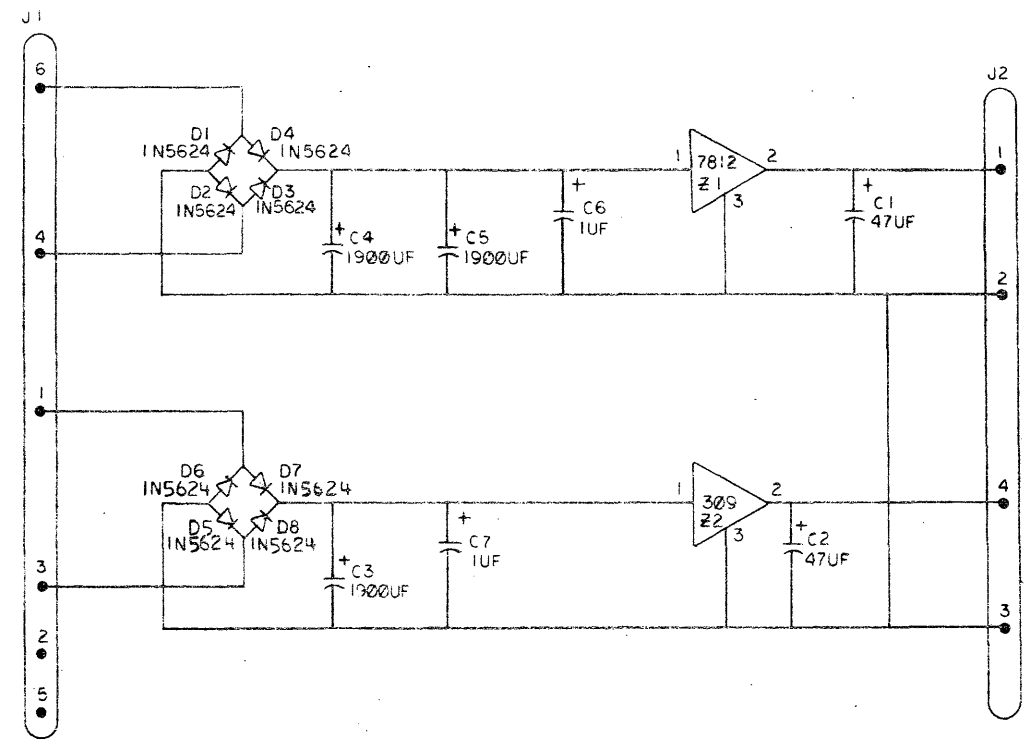
CHANGE NO	REV	DATE	BY	CHK'D.
	B			
	C			
	D			

ETCH REV. C-PI

SIGNATURES		DATE	digital
DRN. Paul Nicholls		12-28-79	
CHK'D. J. Bosman		1-7-80	TITLE TU 58 REGULATOR BD
MECH. ENG. J. Bosman		2-28-80	
PROJ. ENG. J. Bosman		2-28-80	
PROD. J. Bosman		2-28-80	
SCALE 2/1			
SHT. 1 OF 1	SIZE CODE	NUMBER	REV
NEXT HIGHER ASSY. B-DD-5413609-0	D UA	5413609-0-0	C

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CS 5413609-0-1 2



REVISIONS	REV.
CHANGE NO.	ML1 B
CHK	ML1 B
DRN	A. BARON
CHK	A. BARON
DRN	A. BARON
CHK	A. BARON
DRN	A. BARON
CHK	A. BARON

DRN	USE GRAMMA	8/23/78	FIRST USED ON	
CHK'D	ML1 B	8/22/78		
ENG.	Kenny Doman	10/11/78	TITLE	TU58 REGULATOR BOARD
PROJ. ENG.	Kenny Doman	10/14/78		
PROD.	John G. ...	10/16/78		
NEXT HIGHER ASSY.				
B-DD-5413609-0	SIZE	CODE	NUMBER	REV.
SCALE	1/1	D	CS 5413609-0-1	C
SHEET	1	OF	1	

ML2 1

AUTOMATED BY PRTLST.3N(43)

PARTS LIST

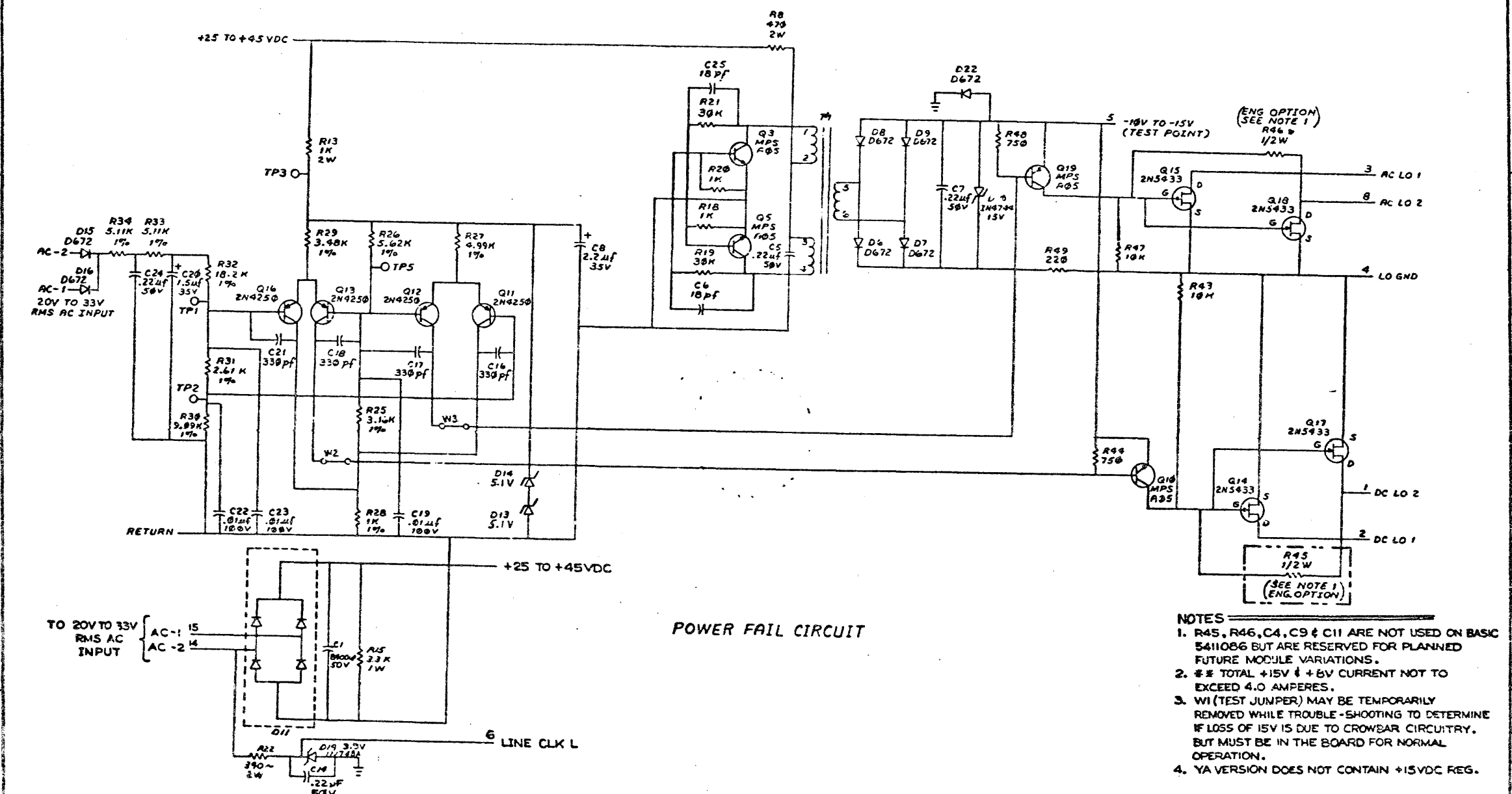
SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					CO	
1		D-MD-5013608-0-0	5013608-00	DRILL & ETCH BD	1	
1			1215894-00	HEAT SINK, 2-3 ALUM	1	
1			1912048-04	DEC 7812 VOLT REG, FIX +12V	1	Z1
1			1910460-00	DEC 309 VOLT REG, FIX +15V	1	Z2
1			1110420-00	IN 5624 FIV=200 I= 5A	1	D1-D6
1			1105796-00	*** THIS ITEM IS NOT USED ***		
1			1011607-00	1900 MFD. 40V +75-10% AL EL		C8-C5
1			1001776-00	1 MFD 35V 10% S.TANT		C8, C7
1			1000079-00	47 MFD 20V 20% S.TANT		C1, C2
1			1212297-01	MATE-N-LOK 4PIN UNIV HEADER		J2, J1
1			1212297-05	MATE-N-LOK 6PIN UNIV HEADER		J1
1			9006023-01	SCREW, PAN, PHIL 6-32X 7/16 SS		
1			9008185-00	NUT, KEP 6-32X 1/4 AF		
1			9009676-00	TERM, SOLDER BARRIER STR		
1			1215580-00	INSULATOR, MOLDED		
1			1213071-02	INSULATOR, RUBBER SILICONE SM		
1			9007880-00	TIE, CABLE BUNDL DIA 0-1.14"=101		
19		D-EC-5013609-0-0		ETCH CUT DRAWING	REF	
20		D-UA-5413609-0-0		UNIT ASSEMBLY	REF	
20		D-CS-5413609-0-1		CIRCUIT SCHEMATIC	REF	

REVISION HISTORY			BASIC PART NO: 5413609			D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A	DRN:	J.WHITNEY	DATE:	10-JUN-80	TITLE	PARTS LIST
---	INITIAL	A	SECTION VARIATION INDEX	CHK'D:	LARRY DOIRON	DATE:	10-JUN-80	TU58 REGULATOR BD	
AB	5413609-ML001	B	[A] 00	DES.ENG:	LARRY DOIRON	DATE:	10-JUN-80	DOCUMENT NUMBER	
AB	5413609-ML002	C	[B]	RESP.ENG.:	LARRY DOIRON	DATE:	10-JUN-80	SIZE	CODE
			[C]	MFG.ENG.:	PETER BARTON	DATE:	10-JUN-80	K	PL
			[D]	ASSEMBLY NUMBER:	D-UA-5413609-0-0	TOP DOCUMENT NUMBER:	#B-DD-5413609-0	FILE NAME:	EDIT #
			[E]					214830.PLS	E
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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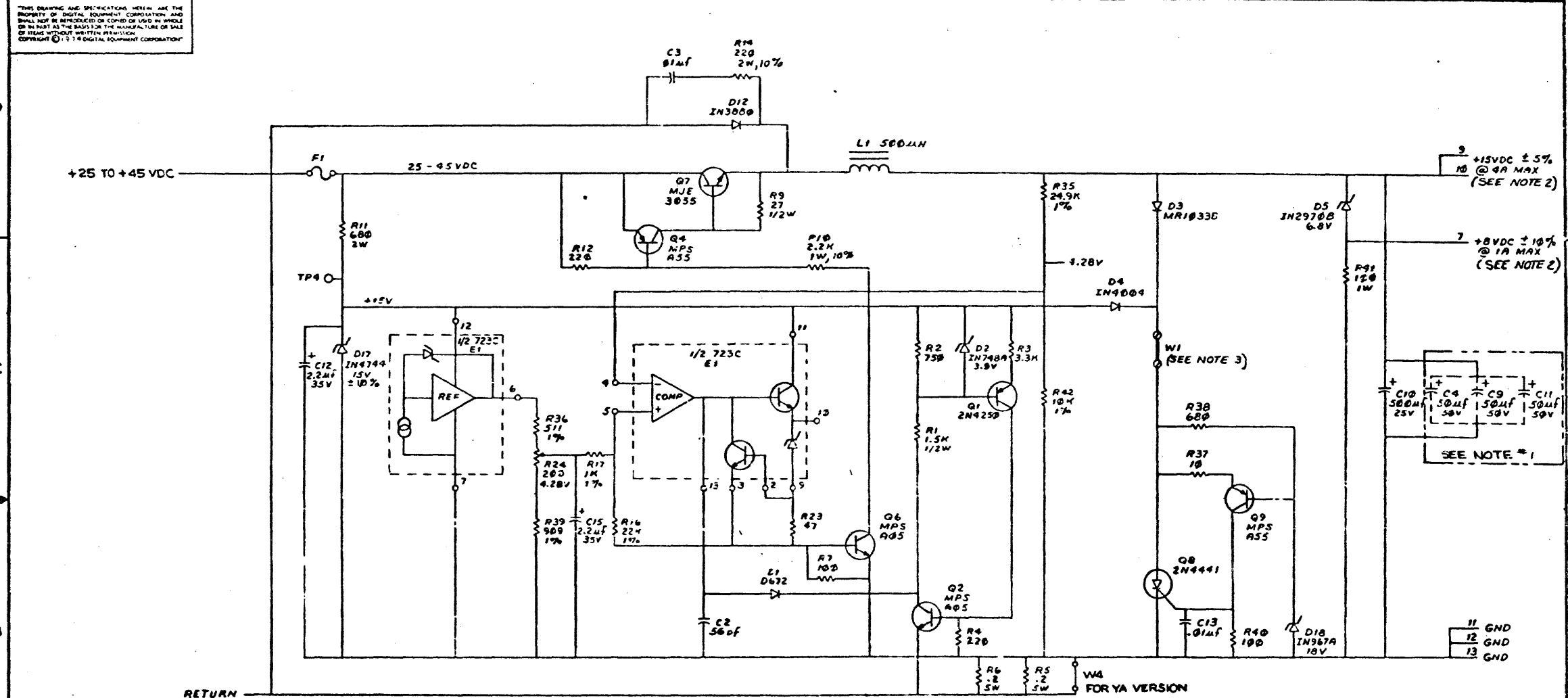
- NOTES**
1. R45, R46, C4, C9 & C11 ARE NOT USED ON BASIC 5411086 BUT ARE RESERVED FOR PLANNED FUTURE MODULE VARIATIONS.
 2. ** TOTAL +15V & +5V CURRENT NOT TO EXCEED 4.0 AMPERES.
 3. W1 (TEST JUMPER) MAY BE TEMPORARILY REMOVED WHILE TROUBLE-SHOOTING TO DETERMINE IF LOSS OF 15V IS DUE TO CROWBAR CIRCUITRY. BUT MUST BE IN THE BOARD FOR NORMAL OPERATION.
 4. YA VERSION DOES NOT CONTAIN +15VDC REG.

REV	DATE	BY	CHKD	APP'D
1		MLOOB		
2		CARTER		
3		R. KENNEDY		
4		G.P.		
5		Z. MULLIGAN		
6		J. MULLIGAN		
7		A. BARON		
8		M. O. V. V. V.		

DRANDPOWERS	1-17-75	FIRST USED ON	
CHKD	2-11-77	TITLE	POWER LINE
ENGR. C. CARTER	3-6-77	NUMBER	5411086-0-1
PROJ. ENGR. J. MULLIGAN	3-6-77	REV	V
PROG. BY J. MULLIGAN	3-6-77	SCALE	NONE
NEXT HIGHER ASSY.		SIZE	D
B-00-5411086-0		DIST.	
SHEET 1	OF 2		

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N 1-0-9801149 2

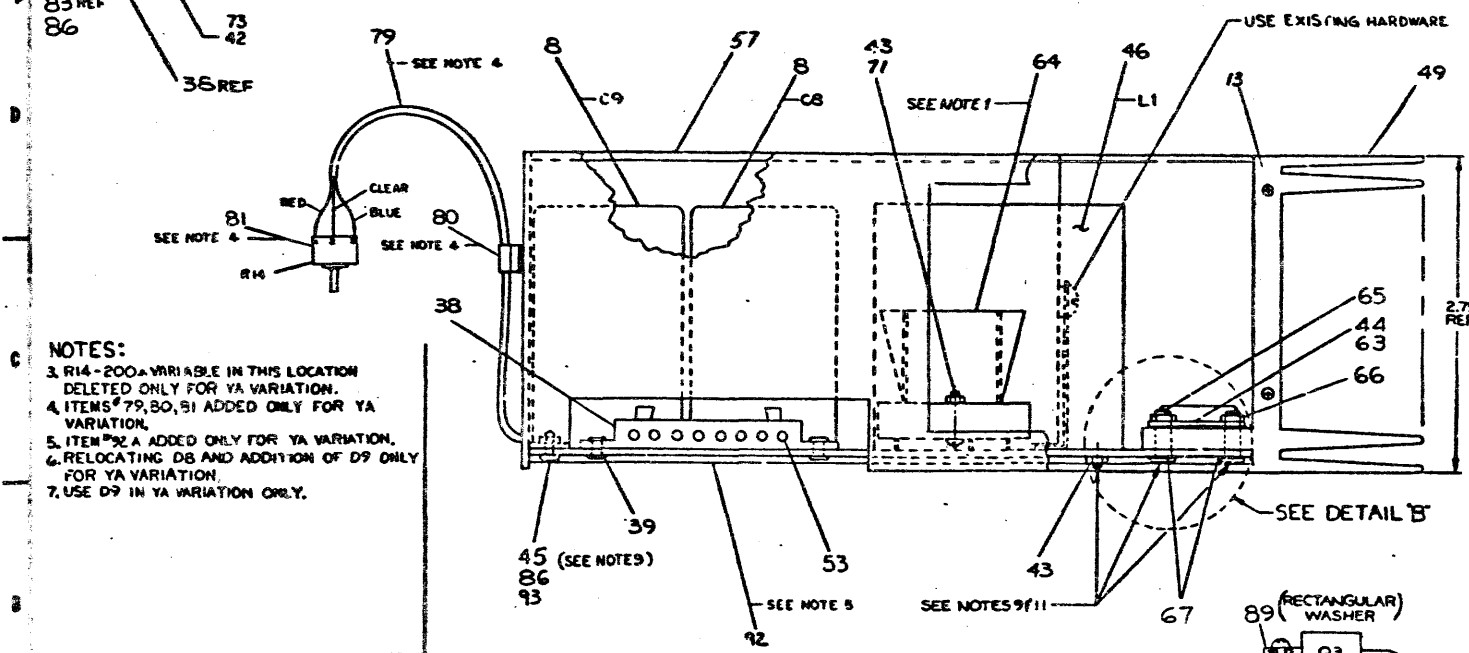
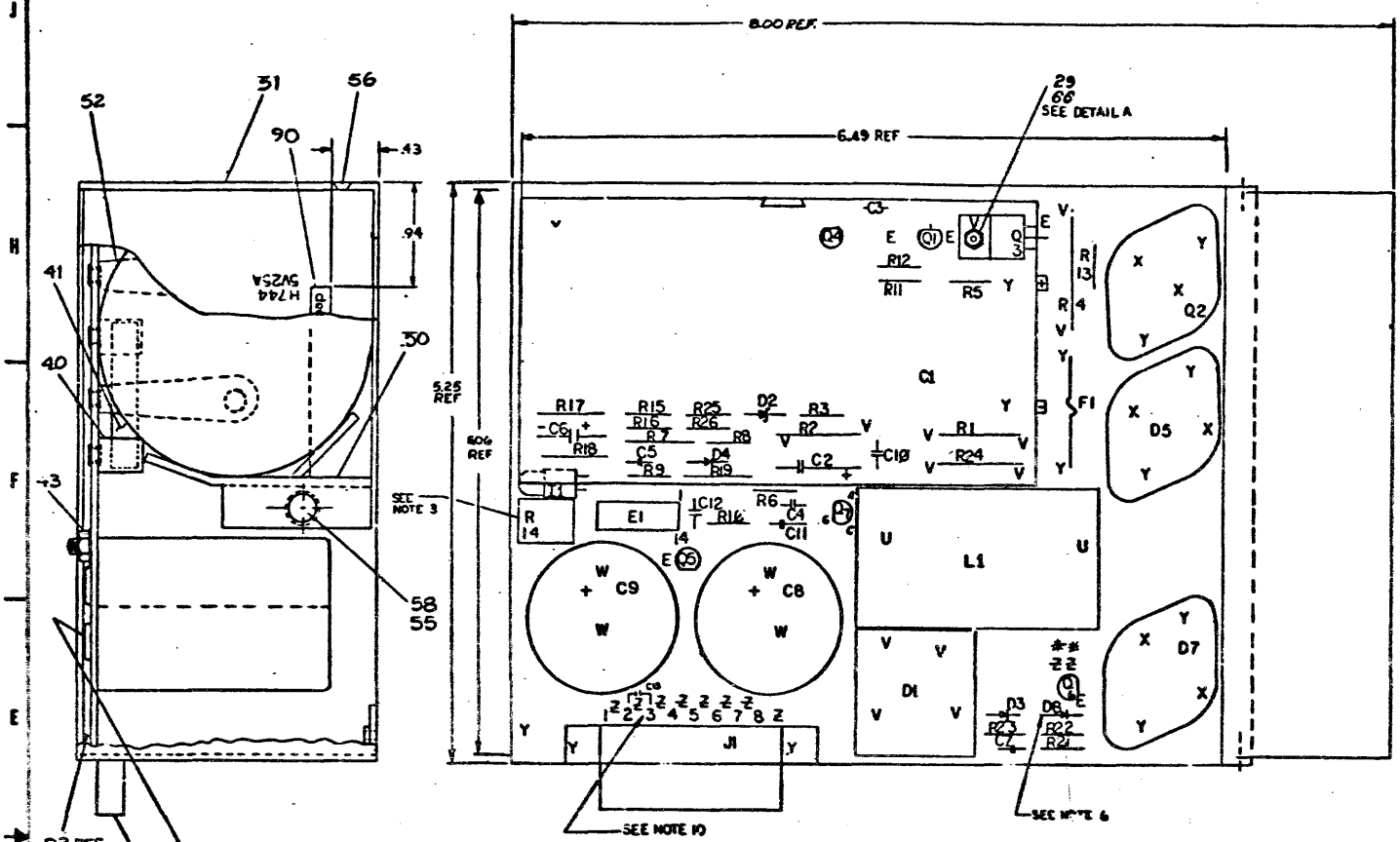


15V REGULATOR
(SEE NOTE #4)

REVISIONS		
CHK	CHANGE NO	REV

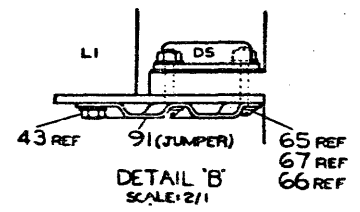
TITLE	PWR. LINE MONITOR/15V REG.	SIZE CODE	NUMBER	REV.
SCALE	SHEET 2 OF 2	DIST	DCS5411086-0-1	N

NOTES:
 1. APPLY ITEM #3 (COMPOUND) BETWEEN TRANSISTOR (Q2), DIODES (D5, D7) AND ITEM #4 (WASHER) ALSO BETWEEN ITEM #4 (WASHER) AND HEAT SMK (ITEM #49). ALSO APPLY ITEM #63 (COMPOUND) BETWEEN ITEM #9 (DIODE BRIDGE) AND ITEM #64 (HEAT SINK BRIDGE).



NOTES:
 3. R14-200 VARIABLE IN THIS LOCATION DELETED ONLY FOR YA VARIATION.
 4. ITEMS #79, 80, 81 ADDED ONLY FOR YA VARIATION.
 5. ITEM #92A ADDED ONLY FOR YA VARIATION.
 6. RELOCATING D8 AND ADDITION OF D9 ONLY FOR YA VARIATION.
 7. USE D9 IN YA VARIATION ONLY.

NOTES CONT:
 NOTE 8:
 (1) Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO EXT. BOARD BEFORE SOLDERING.
 NOTE 9: TORQUE APPLICATION
 (1) APPLY 12 INCH LBS. OF TORQUE TO THE SCREW HEAD OF #4 HARDWARE EXCEPT Q3.
 (2) APPLY 12 INCH LBS. OF TORQUE TO #6 HARDWARE ON L1.
 (3) APPLY 16 INCH LBS. OF TORQUE TO ALL #6 AND #10 HARDWARE EXCEPT ON L1.
 (4) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.
 NOTE 10:
 INSERT Q3 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS, 2-3.
 NOTE 11:
 MIN TORQUE REQUIRED FOR INSPECTION:
 8 INCH LBS FOR #4 HARDWARE;
 12 INCH LBS FOR #6 AND #10 HARDWARE
 *SEE NOTE 7



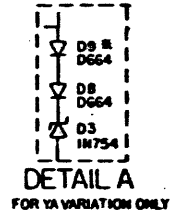
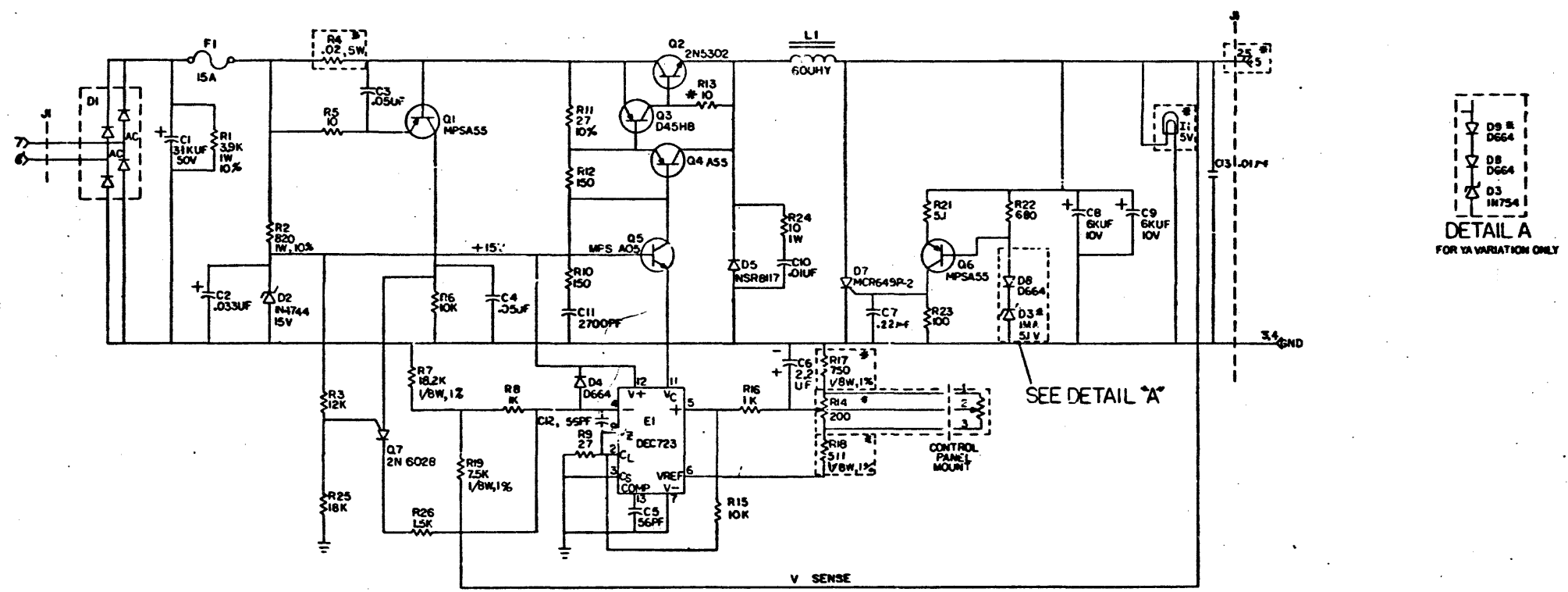
CAUTION: OFF SHEET PARTS LIST REF TO K-PL-W744-0-DBP

IC TYPE	SPD	HOW	ITEM NO	QTY	FRONT	TO PT

QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF
1	RESISTOR	R1	1	RESISTOR	R2	1	RESISTOR	R3
1	RESISTOR	R4	1	RESISTOR	R5	1	RESISTOR	R6
1	RESISTOR	R7	1	RESISTOR	R8	1	RESISTOR	R9
1	RESISTOR	R10	1	RESISTOR	R11	1	RESISTOR	R12
1	RESISTOR	R13	1	RESISTOR	R14	1	RESISTOR	R15
1	RESISTOR	R16	1	RESISTOR	R17	1	RESISTOR	R18
1	RESISTOR	R19	1	RESISTOR	R20	1	RESISTOR	R21
1	RESISTOR	R22	1	RESISTOR	R23	1	RESISTOR	R24
1	RESISTOR	R25	1	RESISTOR	R26	1	RESISTOR	R27
1	RESISTOR	R28	1	RESISTOR	R29	1	RESISTOR	R30
1	RESISTOR	R31	1	RESISTOR	R32	1	RESISTOR	R33
1	RESISTOR	R34	1	RESISTOR	R35	1	RESISTOR	R36
1	RESISTOR	R37	1	RESISTOR	R38	1	RESISTOR	R39
1	RESISTOR	R40	1	RESISTOR	R41	1	RESISTOR	R42
1	RESISTOR	R43	1	RESISTOR	R44	1	RESISTOR	R45
1	RESISTOR	R46	1	RESISTOR	R47	1	RESISTOR	R48
1	RESISTOR	R49	1	RESISTOR	R50	1	RESISTOR	R51
1	RESISTOR	R52	1	RESISTOR	R53	1	RESISTOR	R54
1	RESISTOR	R55	1	RESISTOR	R56	1	RESISTOR	R57
1	RESISTOR	R58	1	RESISTOR	R59	1	RESISTOR	R60
1	RESISTOR	R61	1	RESISTOR	R62	1	RESISTOR	R63
1	RESISTOR	R64	1	RESISTOR	R65	1	RESISTOR	R66
1	RESISTOR	R67	1	RESISTOR	R68	1	RESISTOR	R69
1	RESISTOR	R70	1	RESISTOR	R71	1	RESISTOR	R72
1	RESISTOR	R73	1	RESISTOR	R74	1	RESISTOR	R75
1	RESISTOR	R76	1	RESISTOR	R77	1	RESISTOR	R78
1	RESISTOR	R79	1	RESISTOR	R80	1	RESISTOR	R81
1	RESISTOR	R82	1	RESISTOR	R83	1	RESISTOR	R84
1	RESISTOR	R85	1	RESISTOR	R86	1	RESISTOR	R87
1	RESISTOR	R88	1	RESISTOR	R89	1	RESISTOR	R90
1	RESISTOR	R91	1	RESISTOR	R92	1	RESISTOR	R93
1	RESISTOR	R94	1	RESISTOR	R95	1	RESISTOR	R96
1	RESISTOR	R97	1	RESISTOR	R98	1	RESISTOR	R99
1	RESISTOR	R100	1	RESISTOR	R101	1	RESISTOR	R102

FIRST USED ON QSTN/D		PARTS LIST		EQUIPMENT CORPORATION
D-1A-H744-A-D-5		H		
DATE	IN 2606	REV	1	+5V REGULATOR
IN 4744		REV	2	
DEC NO	EIA NO	DEC NO	EIA NO	

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*FUSIBLE RESISTOR

- FOR YA VARIATION COMPONENT VALUES ARE AS FOLLOWS:
- R4 - .06 SW
 - R14 - 1K 10 TURN
 - R17 - 300 1/8W 1%
 - R19 - 150 1/4W 5%
 - D3 - 1N754
 - I1 - 15V
 - I2 - 2.5 - +20-8.0V
- # D9 - D664 ADDED FOR YA VARIATION ONLY

UNLESS OTHERWISE INDICATED:
RESISTORS ARE 1/4W, 5%

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	REV. NO.
PARTS LIST				
	ETCH BOARD REV	F	H	
	IN964A	SAME	MPSA55	
	D664	IN3606	2N5302	
	MCR649P-2		D45HB	
	1N751A	SAME	MPSA05	
	1N4744	SAME		
	NS58117			
	2N5302			
DEC NO.	EIA NO.	DEC NO.	EIA NO.	SCALE
SEMICONDUCTOR CONVERSION CHART				1 OF 1
EQUIPMENT CORPORATION				
TITLE				
+5V REGULATOR				
D/C S H744-0-1				REV. Z

1	2	3	4	5	6	7
A	B	C	D	E	F	G
H	I	J	K	L	M	N
O	P	Q	R	S	T	U
V	W	X	Y	Z		

D/C S H744-0-1 Z

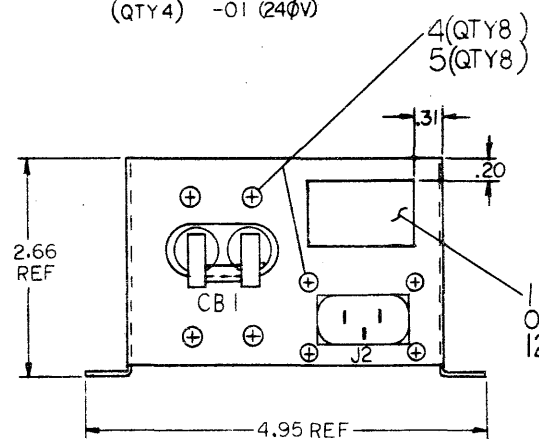
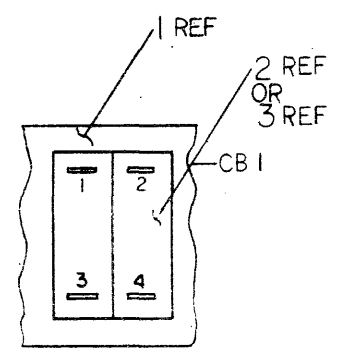
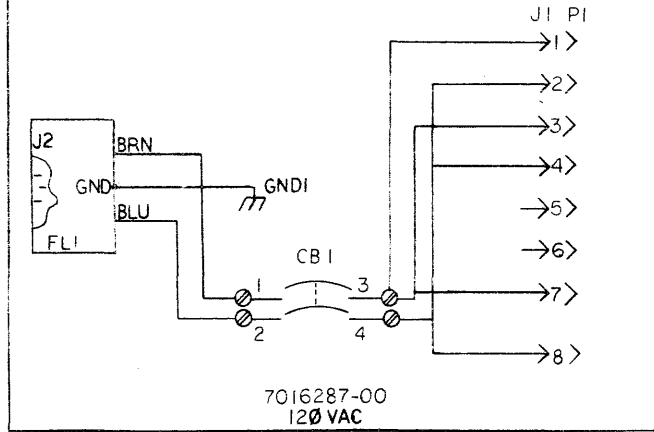
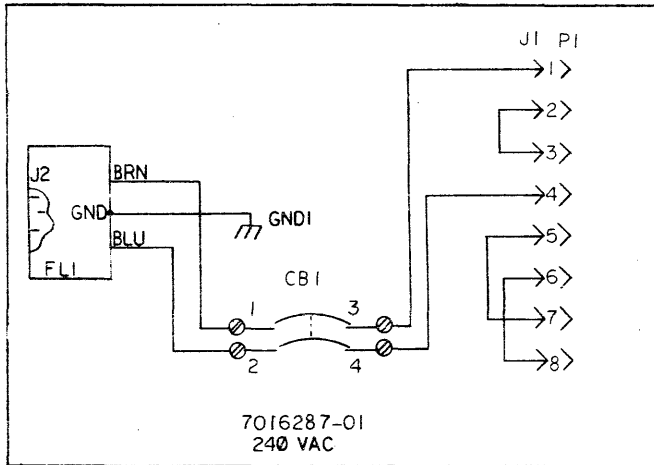
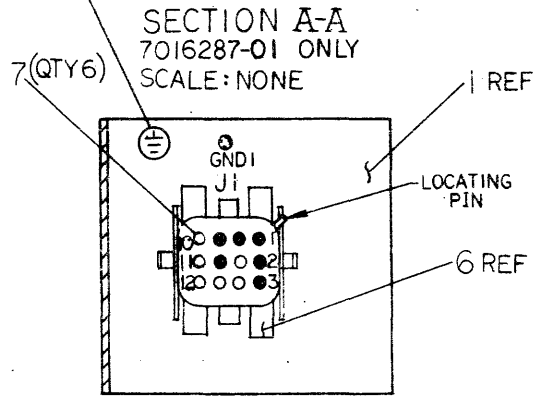
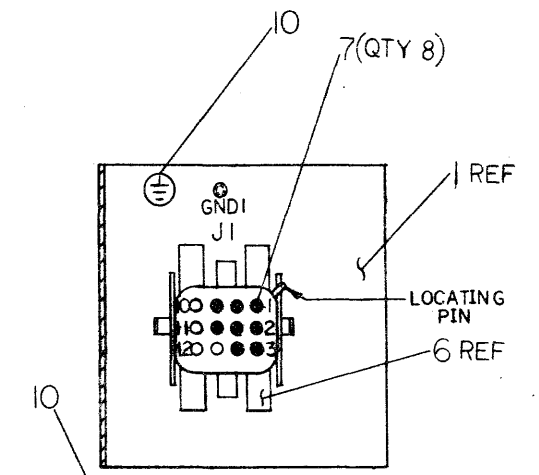
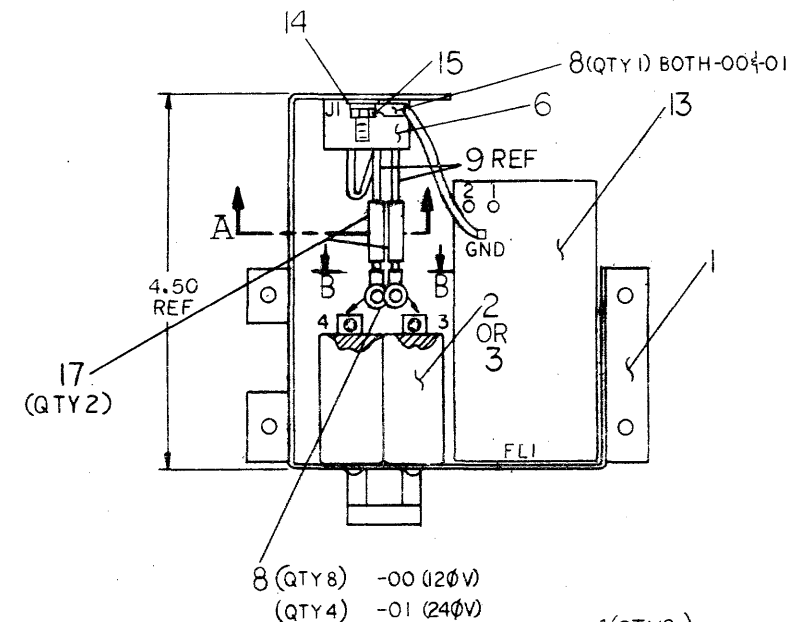
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ITEM NO	AWG	COLOR	FROM CONN	WITH	TO CONN	WITH	REMARKS
9	14	BLACK	J1-1	7	CBI-3	8	
			J1-2		CBI-4		
			J1-3		CBI-3		
			J1-4		CBI-4		
			J1-7		CBI-3		
9	14	BLACK	J1-8	7	CBI-4	8	
13	-	BROWN	FLI-1	-	CBI-1	8	
13	-	BLUE	FLI-2	-	CBI-2	8	
16	14	GRN/YEL	FLI-GND	SOLDER	GND-1	8	

ITEM NO	AWG	COLOR	FROM CONN	WITH	TO CONN	WITH	REMARKS
9	14	BLACK	J1-1	7	CBI-3	8	
			J1-2		CBI-3		JUMPER
			J1-4		CBI-4		
			J1-5		J1-7		JUMPER
			J1-6		J1-8		JUMPER
9	14	BLACK	J1-6	7	J1-8	7	
13	-	BROWN	FLI-1	-	CBI-1	8	
13	-	BLUE	FLI-2	-	CBI-2	8	
16	14	GRN/YEL	FLI-GND	SOLDER	GND-1	8	

PART NO	VARIATION
7016287-00	120V
7016287-01	240V

NOTES:



CAUTION OFF SHEETS PARTS LIST REFER TO K-PL-7016287-0-DBP (Z3784)

REV.	DATE	BY	CHK'D	APP'D	DESCRIPTION
1					INITIAL DESIGN
2					REVISED TO ADD 120V OPTION
3					REVISED TO ADD 240V OPTION
4					REVISED TO ADD DIMENSIONS
5					REVISED TO ADD PARTS LIST
6					REVISED TO ADD WIRE TABLES
7					REVISED TO ADD SECTION A-A
8					REVISED TO ADD VIEW B-B

DESCRIPTION		DWG. PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
ANGLES	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES			
30°	1	OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0
SURFACE QUALITY	(CHECK ONE)	±.004	±.008	±.012	±.016
MEDIUM	<input type="checkbox"/>	±.012	±.016	±.020	±.024
PREFERRED	<input type="checkbox"/>	±.012	±.016	±.020	±.024
QUANTITY & VARIATION	MICROINCHES				
THIRD ANGLE PROJECTION	DRN: M. QUINN	FIRST USED ON			
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D: M. QUINN	TS11			
DO NOT SCALE DWG	ENG. M. QUINN	TITLE			
MATERIAL	PROD. DATE	A.C. INPUT ASSEMBLY			
FINISH	NEXT HIGHER ASSY.	SIZE CODE			
SEE B-PL-7016287-0-0	E-AD-7016288-0-0	NUMBER			
SCALE 1/1	SCALE 1/1	D 7016287-0-0			
SHEET	OF	REV			
		C			

AUTOMATED BY PRLST.3P(44)

P A R T S L I S T

SHEET 01 OF 01

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY	PER VARIATION
1	D-1A-7422051-0-0	7422051-00	BKRT 90 INPUT	1	A/R
1		1312124-03	CKT BRK 10.0 A 240V 2P SERIES TR	1	A/R
1		1212124-05	CKT BRK 20.0 A 240V 2P SERIES TR	1	A/R
1		90066030-01	SCREW PAN PH 6-32X 1/4 55	1	A/R
1		90066033-00	WASHER LOCK INT .2800D X.14610	1	A/R
1		121212169-03	MATE-N-LOCK 12P05 UNIV HSG, PIN OR	1	A/R
1		9007928-00	MATE-N-LOCK PIN 14-20AWG	1	A/R
1		9107370-00	TERM RING #10STUD CRIMP 14-1	1	A/R
1		3612680-00	WIRE STRND 14AWG TPVC UL1534 *	1	A/R
1		3616127-00	DECAL, GROUND SIGN PER 3E	1	A/R
1		1216199-01	LABEL, INPUT POWER 120V	1	A/R
1		9007651-00	LABEL, INPUT POWER 240V	1	A/R
1		9006565-00	FILTER, LINE 115V	1	A/R
1		9107777-54	WASHER, LOCK, EXTERNAL TOOTH #10	1	A/R
1		1605147-00	NUT KEP 10-32X 3/8 AF	1	A/R
1			WIRE STRND 14AWG TPVC UL1534 GR	1	A/R
1			SS-261-30-38 FERRITE TUBE	1	A/R

REVISION HISTORY

ENG: ECO NUMBER REV SECTION R OF A
 M.O. 7016287-ML002 C SECTION, VARIATION INDEX: [A] 00, 01

BASIC PART NO: 7016287

DRN: M.J. MAHER DATE: 28 AUG 78
 CHK'D: SRIGHAM DATE: 10 NOV 78
 DES. ENG.: M. QUADRI DATE: 10 NOV 78
 RESP. ENG.: M. QUADRI DATE: 11-JAN-82

MFG. ENG.: P. BARLION DATE: 10 NOV 78
 ASSEMBLY NUMBER: TOP DOCUMENT NUMBER:
 D-RD-7016287-0-0

REV	SECTION R OF A	SECTION, VARIATION INDEX	DATE	BY	TITLE
C		[A] 00, 01	10 NOV 78	M.J. MAHER	D I G I T A L
			11-JAN-82	M. QUADRI	PARTS LIST
			10 NOV 78	M. QUADRI	A.C. INPUT BRACKET ASSY

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AUTOMATED BY: PREST, G.P.H.

P A R T S L I S T

SHEET 1 OF 2

LINE ITEM DOCUMENT NUMBER PART NUMBER DESCRIPTION QUANTITY PER VARIATION

10	E-19-7016301-0-0	7016301-00	FRAME ASSY 120V	1
11	E-19-7016288-0-0	7016288-00	POWER SUPPLY ASSY 120V	1
12	E-19-7016288-01-0	7016288-01	ELECTRONIC ASSY	1
13	0-19-7016676-0-0	7016676-00	TRANSFER DRIVE ASSY	1
14	0-19-7016573-0-0	7016573-00	TRANSFER SET, SKT, 1/4-20X 1-1/4	1
15		1216508-00	SCREW HEX, 1/4-20X 1/2	1
16		9006291-00	SCREW HEX, S.S. 1/4	1
17		9007797-00	WASHER, FLAT, S.S. 1/4	1
18		9008071-00	WASHER, FLAT, S.S. 1/4	1
19		1213755-19	GROUND STRAP	1
20		9007651-00	WASHER LOCK	1
21		9006071-01	SCREW PAN, PHIL 10-32X 3/8 SS	1
22		9006555-00	NUT KEP 10-32X 3/8 AF	1
23		1213755-12	GROUND STRAP	1
24		9006243-00	SCREW HEX 1/4-20X 3/4	1
25		9006633-00	WASHER LOCK, INT, 2800D X 1/4-20	1
26		9006021-01	SCREW PAN, PHIL, 5-32X 5/16 SS	1
27		9008228-00	FORM TAPE, SINGLE COATED VINYL 1	1
28		9009911-00	MOUNT CABLE TIE SCREW OR ADHESI	1
29		9007032-00	TIE CABLE BUNDLE DIA 0-1-3/4=101	1
30		TS11K-AR	CONVERT S11 TO 120V (LINE CORD)	1
31		9006022-02	SCREW FLAT PHIL, 5-32X 3/8	1
32		9009030-00	WASHER LOCK BY 90-05560-00	1
33		3612680-00	DECEL, GROUND SIGN PER 366	1
34		3612063-00	LABEL ELECTRICAL DATA	1
35		7013603-00	POWER SUPPLY HARNESS	1
36		1213755-25	GROUND STRAP	1
37		1213755-07	GROUND STRAP	1
38		1215893-00	CLIP, FLAT CABLE W/ADHESIVE BK	1

REVISION HISTORY

ENG	ECO NUMBER	REV	SECTION A OF A	DATE	TITLE	DRIVE FRAME ASSY 9TS04-A
10	A-PS-3612063-0-0	1		22-JUN-81		
11	C-19-70136603-0-0	1		22-JUN-81		
12	A-PS-1213755-0-0	1		22-JUN-81		
13	A-PS-1213755-0-0	1		22-JUN-81		
14	A-PS-1213755-0-0	1		22-JUN-81		
15	A-PS-1215893-0-0	1		22-JUN-81		
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BASIC PART NO: TS04
 PRN: G.MARINI
 DES. ENG.: M.CUCINA
 RESP. ENG.: M.CUCINA
 MFG. ENG.: T.WRIGHT
 ASSEMBLY NUMBER:
 E-0A-TS04-A-0

DATE: 22-JUN-81
 DATE: 22-JUN-81
 DATE: 22-JUN-81
 DATE: 22-JUN-81
 DATE: 22-JUN-81

SECTION. VARIATION INDEX: CHK'D: B.TREMBLY
 [A] AA, AB
 [B]
 [C]
 [D]
 [E]
 [F]

TOP DOCUMENT NUMBER: B-DD-TS04-A-0
 FILE NAME: Z27458.PLS
 EDIT # 7

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AUTOMATED BY PR1STJSP1991

PARTS LIST

SHEET 02 OF 02

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
31	A-FS-1213718-0-0	1213718-01	SPACER FOR EMT WIRE CLIP	3
32		9009718-00	SCREW, STRIP, 1/4"	3

0	1	2	3	4	5	6	7	8	9	TITLE	SECTION A OF A	SIZE/	CODE/	DOCUMENT NUMBER	REV
										DRIVE FRAME ASSY 9T504-A (T504-A)		X	PL	T504-A-08P	B