

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION				
					AA	AB	AC	AD	YX
1	1	E-UA-BA11-N-0	0BA11-NC	5.2" BOX, METAL COVER, H9273 BACK	1	-	1	-	1
2	2	E-UA-BA11-N-0	0BA11-ND	5.2" BOX, METAL COVER, H9273 BACK	-	1	-	1	-
3	3	A-PL-MSV11-D-0	MSV11-DC	32K 16 BIT MOS RAM, 16K CHIPS M80	2	2	4	4	-
4	4	D-UA-BDV11-A-0	BDV11-AA	M8012 WITH BOOTSTRAP DIAGNOSTIC	1	1	1	1	1
5	5	A-PL-DLV11-J-0	DLV11-J	4 SERIAL LINE PERIPHERAL INTF	1	1	1	1	-
6	6	A-PS-3616407-0-0	3616407-00	LABEL, PDP11/23	1	1	1	1	1
7	7	A-PS-3700323-0-0	3700323-00	PKG COMPUTER 11/03-L, -N & DPM23	1	1	1	1	1
8	8	C-UA-H3270-0-0	H3270-00	TEST CONNECTOR	3	3	3	3	-
9	9	K-PL-KDF11-A-DBP	KDF11-AA	M8186 + KTF11-AA (CHIP)	1	1	1	1	1
10	10	B-PL-11/23-0		SHIPPING LIST 11/23	1	1	1	1	1

11 NOTE: NOTE 1: SEE ITEM #5. PART #DLV11-J MUST BE M8043 CS REV E OR LATER.
 12 NOTE: NOTE 2: VARIATION YX IS FOR INTERNAL MANUFACTURING USE ONLY

REVISION HISTORY			BASIC PART NO: 11/23		DRN: P. TESLA		DATE: 15-JAN-79		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	DATE:	TITLE		PARTS LIST		
---	INITIAL	*	SECTION. VARIATION INDEX	D. BRIGHAM	11-APR-79	UNIT ASSY 11/23				
RL	11/23-ML001	A	(A) AA, AB, AC, AD, YX							
			(B)	DES. ENG.: J. KALAGHER	15-JAN-79					
			(C)	RESP. ENG.: J. KALAGHER	15-JAN-79	DOCUMENT NUMBER				
			(D)			SIZE	CODE	NUMBER	REV	
			(E)	MFG. ENG.: R. HAMILTON	11-APR-79	K	PL	11/23-0-DBP	A	
			(F)	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #		
				E-UA-11/23-0-0		Z0212A.PLS		12		

"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"

DIGITAL EQUIPMENT CORPORATION PARTS LIST

MADE BY PEG TESLA	CHECKED DATE <i>R. Hamilton</i> 11-4-79	SECTION 1
DATE 19 MAR 79	PROD <i>R. Hamilton</i>	ISSUED SECTION 1
ENG <i>J. Kellogg</i>	DATE 4-11-79	
DATE 11 APRIL 79		

QUANTITY / VARIATION											
11/23-AA	11/23-AB	11/23-AC	11/23-AD	11/23-EA	11/23-EB						

NOTES:
* THESE ITEMS ARE ONLY TO BE SHIPPED WITH FIRST SHIP TO CUSTOMER.

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	11/23-AA	11/23-AB	11/23-AC	11/23-AD	11/23-EA	11/23-EB									REF DESIGNATION
1		EK-BA11-N-TM-001	BA11-N TECHNICAL MANUAL	*	*	*	*	*	*									
2		ZJ012-RB	F11 BASIC CPU DOC/PT KIT	*	*	*	*	*	*									
3		ZJ269-RB	DLV11-J DIAG DOC/PT KIT	*	*	*	*	*	*									
4		ZJ254-RB	M8012 DIAGNOSTIC KIT	*	*	*	*	*	*									
5	B-TC-11/23-0-1	MP00740	11/23 FIELD MAINTENANCE PRINT SET	1	1	1	1	1	1									
6		EB-15115-78	MICROCOMPUTER PROCESSORS HANDBOOK	*	*	*	*	*	*									
7		EB-15114-78	MEMORIES AND PERIPHERALS HANDBOOK	*	*	*	*	*	*									
8		EK-KDF11-UG	KDF11-A USER'S GUIDE	1	1	1	1	1	1									

E.C.O. NO. 11/23-ML003

"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 © 1979 DIGITAL EQUIPMENT CORPORATION"	TITLE SHIPPING LIST 11/23	ASSY NO. E-UA-11/23-0-0	SIZE B	CODE PL	NUMBER 11/23-0	REV. A
		SHEET 1 OF 1		INSERTION PARTS LIST DATA BASE REV		

PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION		
				AA	AB	AC
1	1	M8184-00	16 BIT MICROPROCESSOR	1	1	1
2	2	2115542-01	F1==11 MMV W/FLOAT PT RE	1	1	-
3	3	5700001-00	CTL/CTL HYBRID KEF11-AA	-	1	-
4	4	9905622-00	BOX, FOLDING	1	1	1

REVISION HISTORY			BASIC PART NO: KDF11		DRN: P. BLODGETT	DATE: 21-JAN-80	DIGITAL			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: W.J. MAHER	DATE: 21-JAN-80	TITLE PARTS LIST				
MT	KDF11A-MLO01	B	SECTION. VARIATION INDEX [A] AA,AB,AC	DES.ENG.: R. BADEAU <td>DATE: 21-JAN-80 <td colspan="2">DUAL HEIGHT CPL <td colspan="3"></td> </td></td>	DATE: 21-JAN-80 <td colspan="2">DUAL HEIGHT CPL <td colspan="3"></td> </td>	DUAL HEIGHT CPL <td colspan="3"></td>				
			[B]	RESP.ENG.: R. BADEAU <td>DATE: 21-JAN-80 <td colspan="2">DOCUMENT NUMBER</td> <td colspan="3"></td> </td>	DATE: 21-JAN-80 <td colspan="2">DOCUMENT NUMBER</td> <td colspan="3"></td>	DOCUMENT NUMBER				
			[C]	MFG.ENG.: A. HOFFMAN <td>DATE: 21-JAN-80 <td>K</td> <td>PL</td> <td>KDF11-A-DBF</td> <td>REV</td> <td></td> </td>	DATE: 21-JAN-80 <td>K</td> <td>PL</td> <td>KDF11-A-DBF</td> <td>REV</td> <td></td>	K	PL	KDF11-A-DBF	REV	
			[D]	ASSEMBLY NUMBER: B-DD-KDF11-A-0 <td>TOP DOCUMENT NUMBER:</td> <td>FILE NAME:</td> <td>EDIT #</td> <td colspan="3"></td>	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #			
			[E]			Z0473B.PLS	4			
			[F]							

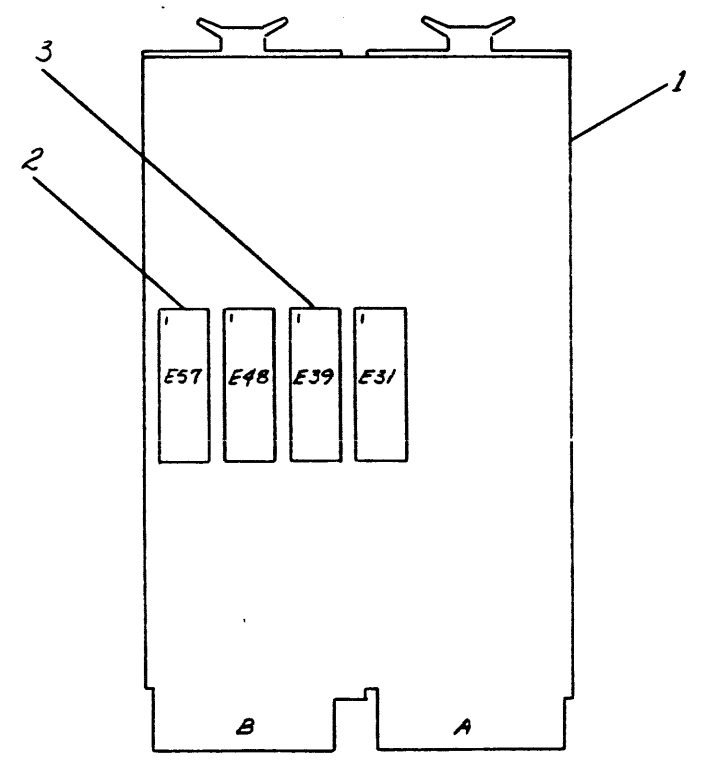
*THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1980. DIGITAL EQUIPMENT CORPORATION *

SIZE CODE
 CUA KDFII-A-0
 REV B

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 © 1980 DIGITAL EQUIPMENT CORPORATION

LEGEND	
NUMBER	DESCRIPTION
KDFII-AA	MB186 + KTFII-AA
KDFII-AB	MB186 + KTFII-AA + KEFII-AA
KDFII-AC	MB186

NOTES:
 1. FOR PROPER OPERATION OF FLOATING POINT (ITEM#3), THE MB186 MODULE (ITEM#1) MUST BE AT HARDWARE REVISION A6 OR C2 OR LATER.
 2. WHEN INSTALLING ITEMS#2 OR#3 ON ITEM#1 MAKE SURE THAT PIN 1 IS LOCATED AS SHOWN.



COMPONENT SIDE VIEW

FOR PARTS LIST SEE: K-PL-KDFII-A-DBP

REVISION HISTORY	
DATE	REV.
1/10/80	B
4/7/80	B

M. TEHRANIAN
 ILL. SC.

DESCRIPTION	DRAWING NO.	PART NO.	ITEM NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)					
INCHES TOLERANCES ± 0' 30"	ANGLES ± 0' 30"	APPLICABLE DIMENSION RANGE (CHECK ONE)	DIMENSIONS RANGE IN INCHES		
			OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0
QUANTITY & VARIATION X = ± .1 XX = ± .02 XXX = ± .005	SURFACE QUALITY ✓ MICROFINISH		± .02 ± .05 ± .08 ± .10 ± .12 ± .15 ± .20 ± .25 ± .30 ± .40 ± .50 ± .60 ± .70 ± .80 ± .90 ± 1.00 ± 1.25 ± 1.50 ± 2.00 ± 2.50 ± 3.00 ± 4.00 ± 5.00 ± 6.00 ± 8.00 ± 10.00 ± 12.50 ± 15.00 ± 20.00 ± 25.00 ± 30.00 ± 40.00 ± 50.00 ± 60.00 ± 80.00 ± 100.00		
THIRD ANGLE PROJECTION DO NOT SCALE DRAWING REMOVE BURRS AND BREAK SHARP CORNERS	DATE 2/7/80 DATE 2/7/80 DATE 11 Feb 80 DATE 11 Feb 80 DATE 11 Feb 80	TITLE digital KDFII-A CPU UNIT ASSEMBLY	DOCUMENT NUMBER C UA KDFII-A-0 REV B		
MATERIAL	FINISH	SCALE	SHEET 1 OF 1		

C

B

A

D

C

B

A

C UA KDFII-A-0
 REV B

THIS DRAWING AND SPECIFICATIONS, HEREIN, AND 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 © 1971 DIGITAL EQUIPMENT CORPORATION

JUMPER CONFIGURATIONS																							
JUMPER	NAME	FUNCTIONALITY	SHIPPING STATUS																				
W1	MASTER CLOCK	IN=ENABLED	IN																				
W2	RESERVED FOR DEC USE	FACTORY CONFIGURED, DO NOT CHANGE	OUT																				
W3	RESERVED FOR DEC USE	FACTORY CONFIGURED, DO NOT CHANGE	IN																				
W4	EVENT LINE ENABLE	OUT=ENABLED	IN																				
W5,W6	POWER UP MODE	<table border="1"> <thead> <tr> <th>MODE</th> <th>NAME</th> <th>W5</th> <th>W6</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>PC@24, PS@26</td> <td>OUT</td> <td>OUT</td> </tr> <tr> <td>1</td> <td>CONSOLE ODT</td> <td>N</td> <td>OUT</td> </tr> <tr> <td>2</td> <td>BOOTSTRAP</td> <td>OUT</td> <td>IN</td> </tr> <tr> <td>3</td> <td>EXTENDED MICROCODE</td> <td>IN</td> <td>IN</td> </tr> </tbody> </table>	MODE	NAME	W5	W6	0	PC@24, PS@26	OUT	OUT	1	CONSOLE ODT	N	OUT	2	BOOTSTRAP	OUT	IN	3	EXTENDED MICROCODE	IN	IN	W5-IN W6-OUT
MODE	NAME	W5	W6																				
0	PC@24, PS@26	OUT	OUT																				
1	CONSOLE ODT	N	OUT																				
2	BOOTSTRAP	OUT	IN																				
3	EXTENDED MICROCODE	IN	IN																				
W7	HALT/TRAP OPTION	IN=TRAP TO I08 ON HALT OUT=ENTER CONSOLE ODT ON HALT	OUT																				
W8	BOOTSTRAP ADDRESS	IN=POWER UP TO 1730008 OUT=POWER UP TO ADDRESS SPECIFIED BY W9-W15	IN																				
W9-W15	USER SELECTABLE BOOTSTRAP ADDRESS	W9-W15 CORRESPOND TO ADDRESS BITS 9 THRU 15 RESPECTIVELY IN=LOGIC 1, OUT=LOGIC 0	IN																				
W16,W17	RESERVED FOR DEC USE	FACTORY CONFIGURED, DO NOT CHANGE	IN																				
W18	WAKE-UP CIRCUIT	OUT=ENABLED	IN																				

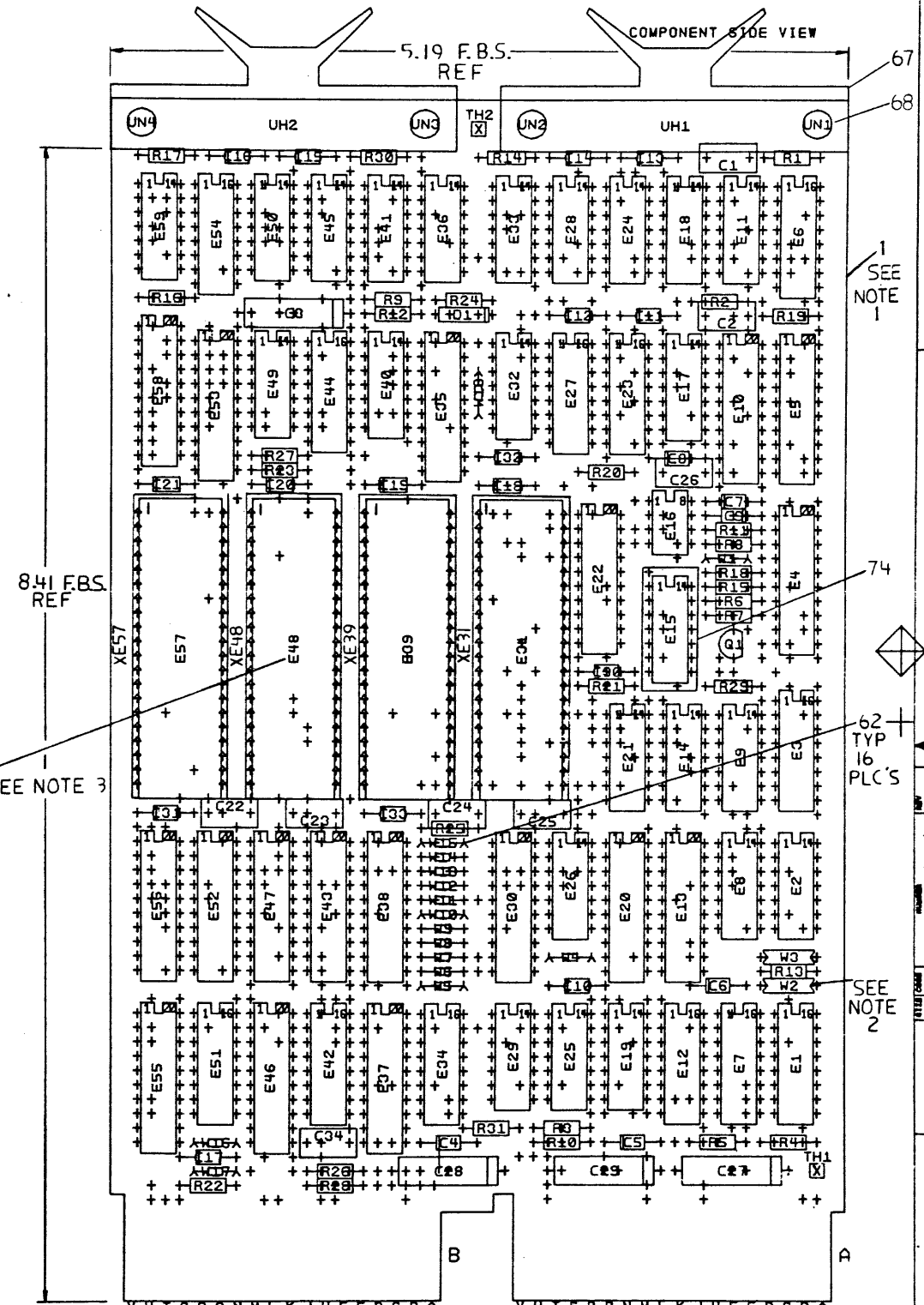
NOTES: 1. REFER TO PARTS LIST FOR ALL NUMBERED ITEMS.

2. W2 IS A SPARE JUMPER.

3. E39, E48 & E57 ARE SPARE IC'S.

STEP 6 → Y AXIS — STEP — TIMES
REPEAT → X AXIS — STEP — TIMES

CHANGE NO	REV
REDRAWN	H
M8186-M1010	



SIGNATURES		DATE
DRN. <i>[Signature]</i>		29 Feb 71
CHK'D. <i>[Signature]</i>		20 MAY 71
MECH. ENG. <i>[Signature]</i>		20 MAY 71
PROJ. ENG. <i>[Signature]</i>		20 MAY 71
PROD. <i>[Signature]</i>		22 MAY 71

ETCH REV. D-P4

TITLE	KDF11-A CPU
SIZE CODE	D UA M8186-0-0
NUMBER	1
REV	H

1 WO#264708

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013326-0-0	5013326-00	KDF11-CPU	1	
2	2		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	1	E45
3	3		1910532-00	74S00 NAND GATE-QUAD 2IN	1	E2
4	4		1912388-00	74S02 NOR GATE-QUAD 2IN,PO	1	E33
5	5		1910534-00	74S04 INVERTER GATE-HEX 1I	1	E14
6	6		1910535-00	74S05 INVERTER GATE-HEX 1	1	E59
7	7		1912805-00	LS08 AND GATE-QUAD 2IN,PO	1	E28
8	8		1912389-00	74S08 AND GATE-QUAD 2IN,PO	1	E9
9	9		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	E36
10	10		1912808-00	LS11 AND GATE-TRIPLE 3IN	1	E41
11	11		1913414-00	LS14 INVERTER GATE-HEX SC	1	E40
12	12		1910539-00	74S20 NAND GATE-DUAL 4INPU	1	E18
13	13		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E17
14	14		1913340-00	74S32 OR GATE-QUAD 2IN	1	E32
15	15		1910542-00	74S64 A-O-I GATE 4-2-3-2	2	E21,E50
16	16		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	2	E11,E29
17	17		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	2	E24,E49
18	18		1912649-00	LS75 LATCH 4BIT,BISTABLE	1	E27
19	19		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	1	E44
20	20		1912837-00	LS123 ONE SHOT-DUAL,RETRIG	1	E6
21	21		1912842-00	LS138 DECODER-THREE INPUT,	1	E54
22	22		1910550-00	74S174 FF-D HEX	1	E3
23	23		1910957-00	74S175 FF-D QUAD COMMON CLO	1	E1
24	24		1913777-00	LS240 DRIVER,LINE,OCTAL,T	2	E20,E30
25	25		1913462-00	74S240 OCTAL BUFFER,INVERTI	2	E4,E46
26	26		1913493-00	74S241 OCTAL BUFFER,TRI-STA	1	E13
27	27		1915193-00	LS244 DRIVER,LINE,OCTAL,T	1	E53
28	28		1912863-00	LS273 FF-D OCTAL W/CLEAR	1	E10
29	29		1915367-00	74276 FF-JK QUAD	1	E35
30	30		1913671-00	74S374 FF-D OCTAL TRISTATE	4	E5,E22,E38,E58

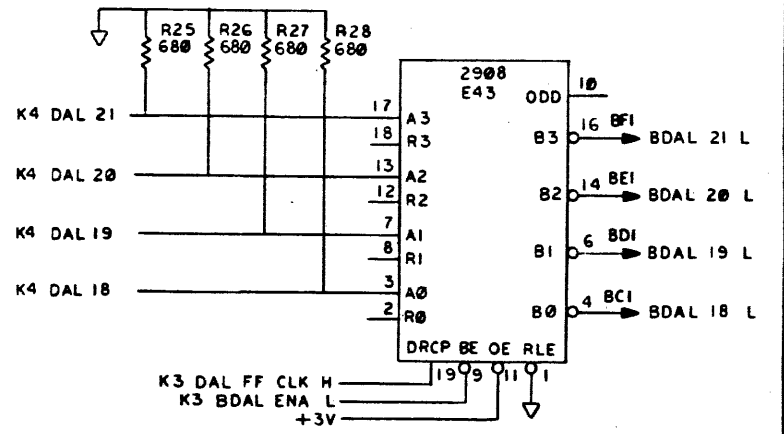
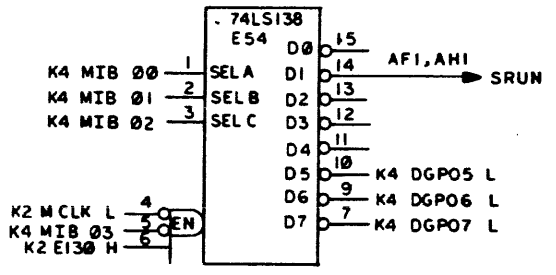
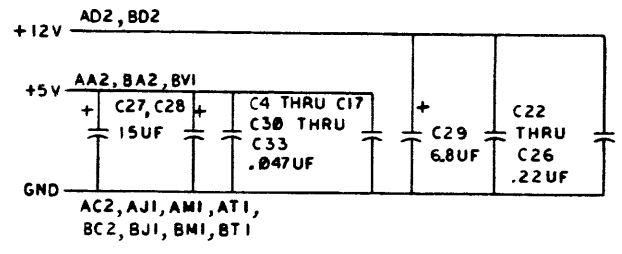
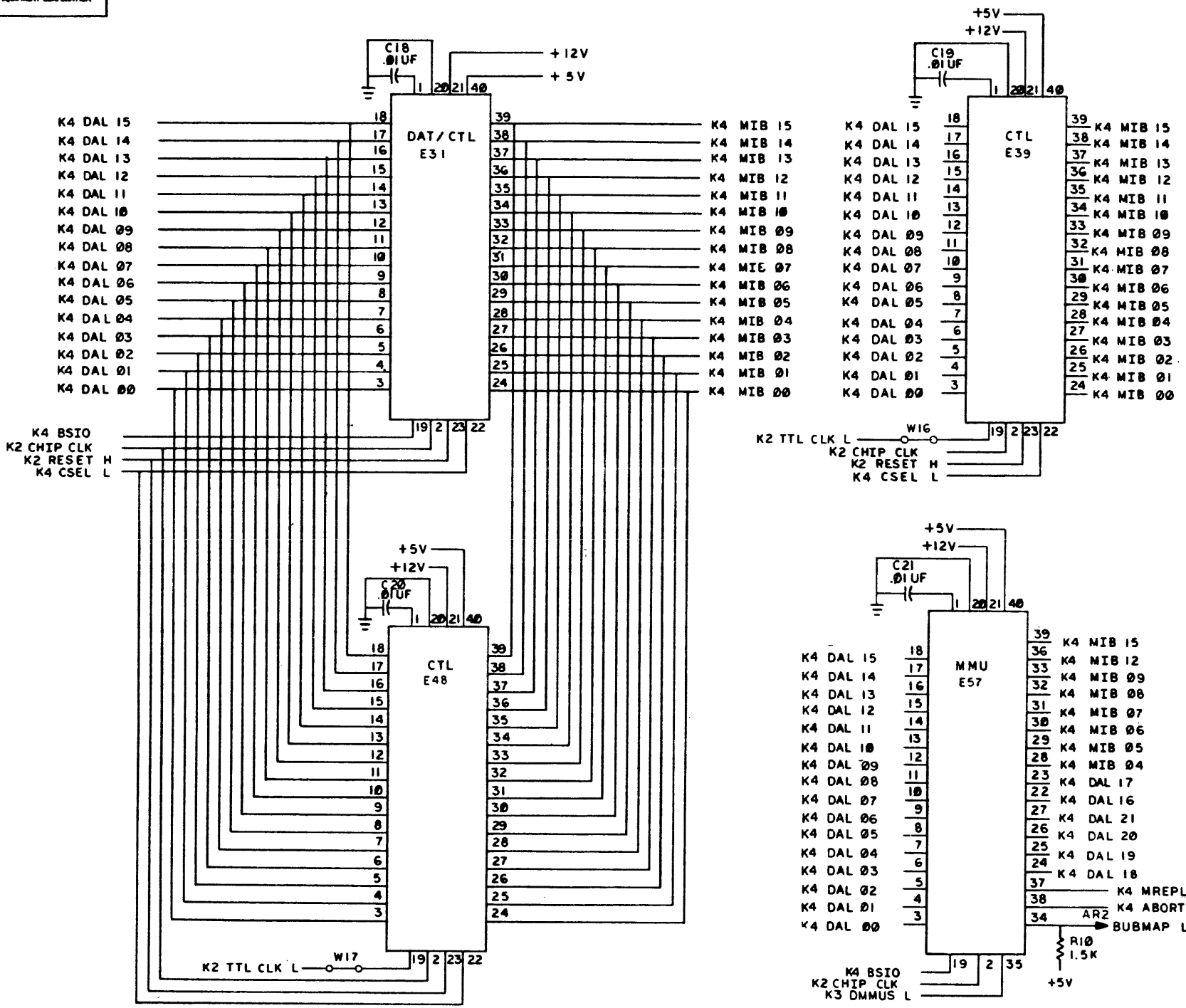
REVISION HISTORY			BASIC PART NO: M8186		DRN:	VIN FARECHANIAN	DATE: 18-JUN-79	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D:	T. SHETRAWSKI	DATE: 4-SEP-79	TITLE PARTS LIST			
---	INITIAL	IT	SECTION VARIATION INDEX		CHK'D:	T. SHETRAWSKI	DATE: 4-SEP-79	TITLE PARTS LIST			
RB	M8186-ML006	E	[A] 00					KDF11 CPU			
MT	M8186-ML007	F	[B]								
MT	M8186-ML008	H	[C]		DES.ENG:	ROY BADEAU	DATE: 4-SEP-79				
MT	M8186-ML009	J	[D]								
			[E]								
			[F]		RESP.ENG.:	ROY BADEAU	DATE: 4-SEP-79	DOCUMENT NUMBER			
			[G]								
			[H]								
			[I]								
			[J]								
			[K]		MFG.ENG.:	AMALENDA SANYAL	DATE: 4-SEP-79	K	PL	M8186-0-DBF	J
			[L]								
			[M]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #:	
			[N]		D-UA-M8186-0-0			Z0224J.PLS		21	

"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) 1980, DIGITAL EQUIPMENT CORPORATION"

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	31	1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	2	E19,E25
32	32	1911579-00	8641 TRANSCEIVER,BUS,QUA	2	E12,E34
33	33	1909705-00	DEC 8881 NAND GATE-QUAD 2IN 0	1	E8
34	34	1916028-01	9643 DRIVER,TTL TO MOS,D	1	E16
35	35	1915305-00	AM 2908 TRANSCEIVER,BUS,LATCH	6	E37,E43,E47,E52,E55,E56
36	36	1812131-00	OSCILLATOR, XTAL 13.824 MHZ	1	E15
37	37	23266A1-00	A1-07	1	E23
38	38	1311003-02	R NETWORK 14-330 14-680 16PIN	3	E7,E42-E51
39	39	1300005-02	R NETWORK 13-6.8K 5.0 % 14PIN	1	E26
40	40	1301317-00	10.0 .25 W 5.0 % CC	1	R20
41	41	1300250-00	150.0 .25 W 5.0 % CC	1	R29
42	42	1301322-00	180.0 .25 W 5.0 % CC	4	R15,R16,R18,R19
43	43	1301972-00	270.0 .25 W 5.0 % CC	1	R17
44	44	1303178-00	620.0 .25 W 5.0 % CC	1	R6
45	45	1301424-00	680.0 .25 W 5.0 % CC	6	R4,R5,R25-R28
46	46	1300365-00	1.0 K .25 W 5.0 % CC	4	R14,R24,R30,R31
47	47	1300391-00	1.50 K .25 W 5.0 % CC	2	R10,R23
48	48	1302398-00	2.0 K .25 W 5.0 % CC	4	R3,R13,R21,R22
49	49	1300417-00	2.20 K .25 W 5.0 % CC	1	R7
50	50	1312930-00	5.10 K .25 W 5.0 % CC	1	R11
51	51	1302177-00	47.0 K .25 W 5.0 % CC	2	R1,R2
52	52	1302466-00	100.0 K .25 W 5.0 % CC	1	R12
53	53	1000016-00	100.0 MMF 100V 5%200PPM DM15S	1	C34
54	54	1013398-00	750.0 MMF 100V 5%200PPMD15S	2	C1,C2
55	55	1001610-00	.01 MFD 50V +80-20% ZSUCER	4	C18,C19,C20,C21
56	56	1012784-00	.047 MFD 50V +80-20% CER	18	C4-C17,C30-C33
57	57	1010274-00	.22 MFD 50V -20+80 Z5U CER	5	C22-C26
58	58	1005306-00	6.8MFD 35V 10% S.TANT	1	C29
59	59	1004812-00	15 MFD 20V 10% S.TANT	2	C27,C28
60	60	1000076-00	39 MFD 10V 10% 150D S.TA	1	C3
61	61	1216116-00	SOCKET 40PIN	4	XE31,XE39,XE48,XE57
62	62	1215899-00	CLIP,JUMPER GOLD/TIN	15	W1,W4-W17
63	63	1215901-00	CONN 36POS STRAIGHT	1	
64	64	1503100-00	DEC3009B NPN 200MW SI 20 25	1	Q1
65	65	2115542-01	*** THIS ITEM IS NOT USED ***	-	
66	66	5700000-01	DAT/CTL HYBRID ASSY W/FP,DCF11-A	1	E31
67	67	9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
68	68	9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4	
69	69	9009185-00	JUMPER, WIRE, INSULATED, BLACK B	1	W3
70	70	1301808-00	22.0 K .25 W 5.0 % CC	1	R8
71	71	1300496-00	15.0 K .25 W 5.0 % CC	1	R9
72	72	1100114-00	D 664 QS\75PCB PIV= 25V SP	1	D1
73	73	9105740-22	WIRE(WRAP)30AWG UL1423	A/R	W18
74	74	9010213-01	SPACER, DUAL IN-LINE	1	

D	I	G	I	T	A	L	TITLE	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							KDF11 CPU			K	PL	M8186-0-DRP	J

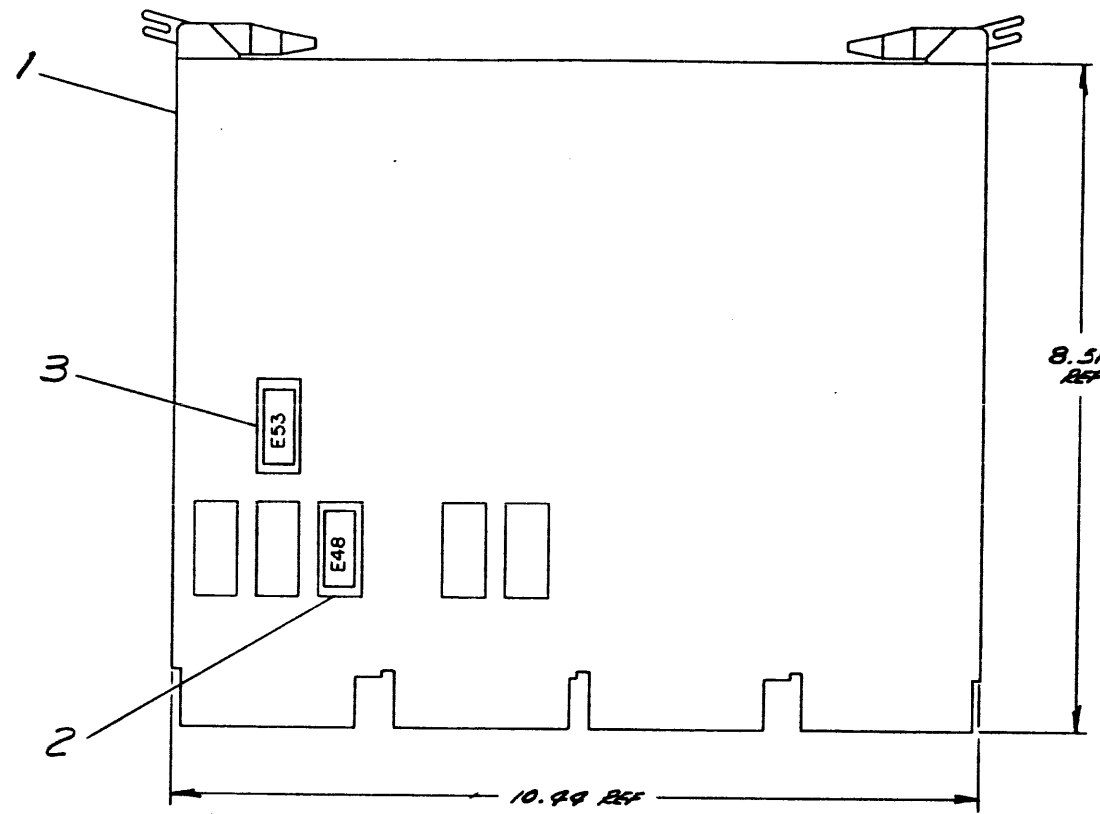
"THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1979 DIGITAL EQUIPMENT CORPORATION"



REVISIONS		
CHK	CHANGE NO.	REV.

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 © 1977 . DIGITAL EQUIPMENT CORPORATION

NOTES:
1. CHECK WORDS FOR BDVII-AA DIAGNOSTIC.
017092, 020656, 065162, 161744,
124453, 113667, 056040, 044734



1	BDVII-A SHIPPING LIST	AA-BDVII-A	4
1	2K X 8 ROM	23046E2	3
1	2K X 8 ROM	23045E2	2
1	BOOT TERMINATOR AND DIAGNOSTIC ROM	D-UN-M09R2-1A	1

QUANTITY & VARIATION		DESCRIPTION		DRG. PART NO.	ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES						
ANGLES 16° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE TOLERANCES				
SURFACE QUALITY IN	CHECK ONE	OVER 6 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.9	OVER 4.9 TO 49.9	
		1.004	1.000	1.012	1.010	1.004
MEDIUM		1.012	1.010	1.008	1.004	1.001
PREFERRED		1.012	1.010	1.008	1.004	1.001
THIRD ANGLE PROJECTION		FIRST USED ON		BDVII		
REMOVE BURRS AND BREAK SHARP CORNERS		TITLE		UNIT ASSY (BDVII)		
DO NOT SCALE DRWG		NEXT HIGHER ASSY.				
MATERIAL	B-DD-BDVN-A	SIZE	CODE	NUMBER	REV.	
FINISH	SCALE NONE	D	JA	BDVII-A-0	A	
SHEET 1 OF 1		DIST.				

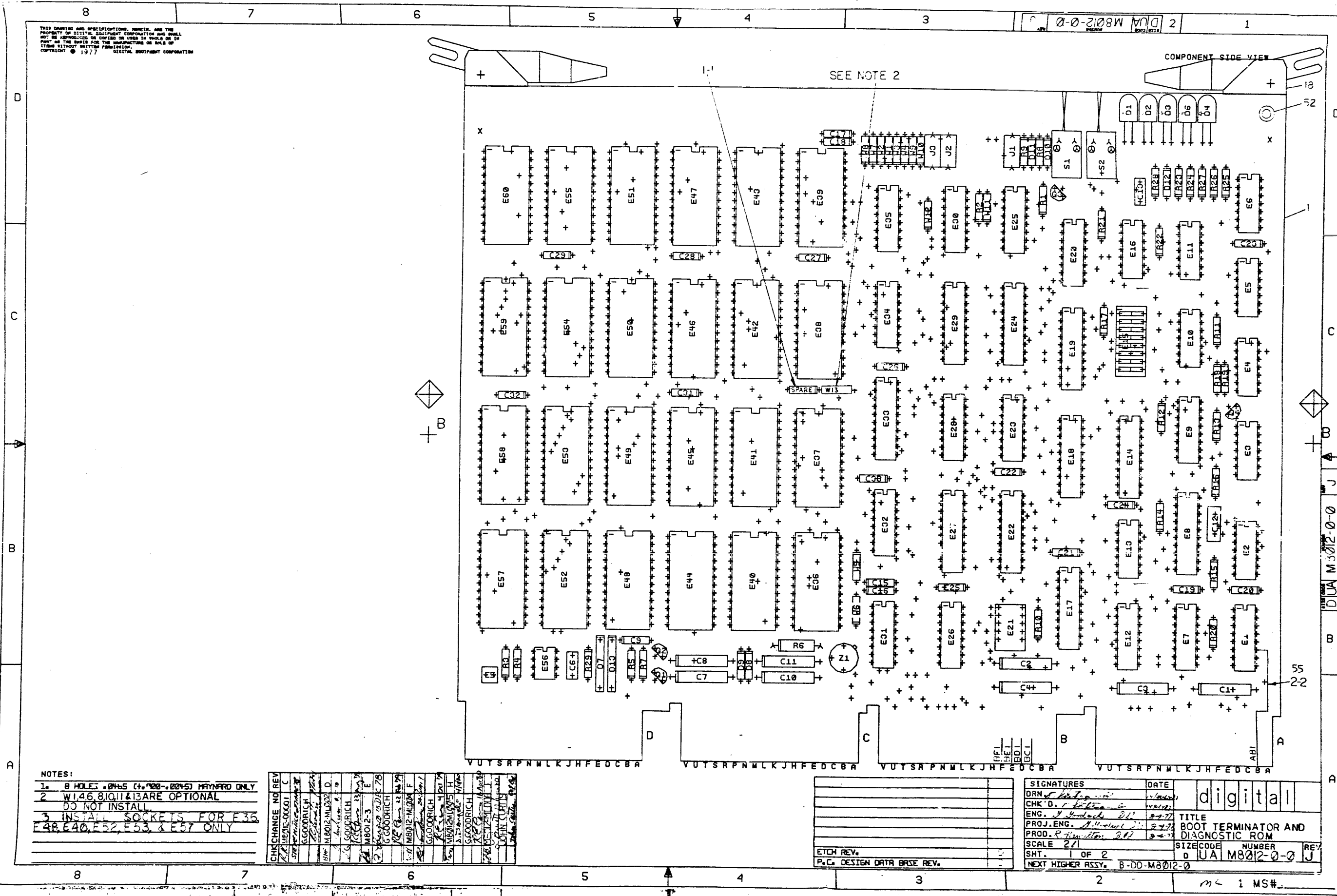
REV.	REV.
CHANGE NO.	DATE
1	10/1/77
2	10/1/77
3	10/1/77
4	10/1/77
5	10/1/77
6	10/1/77
7	10/1/77
8	10/1/77

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

MIL 1

THIS DRAWING AND SPECIFICATIONS, HEREIN, AND THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

2 DUA M8012-0-0



- NOTES:
1. 8 HOLES (4x4) (4x4) MAYNARD ONLY
 2. W146, B1Q11 & B3ARE OPTIONAL DO NOT INSTALL
 3. INSTALL SOCKETS FOR E35, E48, E40, E52, E53, & E57 ONLY

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

ETCH REV.	1
P.C. DESIGN DATA BASE REV.	1

SIGNATURES	DATE	TITLE
DRN <i>[Signature]</i>	11/24/77	BOOT TERMINATOR AND DIAGNOSTIC ROM
CHK'D. <i>[Signature]</i>	11/24/77	
ENG. <i>[Signature]</i>	11/24/77	SIZE CODE NUMBER
PROJ. ENG. <i>[Signature]</i>	11/24/77	
PROD. <i>[Signature]</i>	11/24/77	0 U A M8012-0-0
SCALE 2/1		
SHT. 1 OF 2		
NEXT HIGHER ASSY. B-DD-M8012-0		

digital

REV. J

mc 1 MS#

"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 © DIGITAL EQUIPMENT CORPORATION"

REWORK INSTRUCTIONS

ECO #1

COMPONENT DELETES SIDE 1:
 1-1. DELETE C30, .047μf (PIN 10/2784)
 COMPONENT ADDS SIDE 1:

ECO #2

~~2-1 CUT ETCH SIDE 2 BETWEEN E-21
 PIN 11 AND FINGER A21~~
 2-2 ADD WIRE SIDE 1 BETWEEN E01
 PIN 11 AND FINGER A21

~~ECO #5~~

~~WIRE ADDS, SIDE 1~~
~~5-1 ADD WIRE FROM FINGER BC1 TO E1 PIN 15~~
~~5-2 ADD WIRE FROM FINGER SD1 TO E1 PIN 14~~
~~5-3 ADD WIRE FROM FINGER DE1 TO E1 PIN 13~~
~~5-4 ADD WIRE FROM FINGER DF1 TO E1 PIN 12~~

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		SIZE CODE	NUMBER	REV.
BOOT TERMINATOR AND DIAGNOSTIC ROM		DUA	M8012-0-0	J
SCALE	SHEET	OF	DIST.	
2/1	2	2		

INT. LOCK DUA M8012-0-0 REV. J

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION		REFERENCE DESIGNATOR
					00	YA	
1	1		5012569-00	M8012	1	1	
2	2		1000024-00	470.0 MMF 100V 5%200PPM MICA	1	1	C12
3	3		1001610-01	.01 MFD50/100V +80-20% DISC	2	2	C6,C13
4	4		1004812-00	15 MFD 20V 10% S.TANT	4	4	C7,C8,C10,C11
5	5		1005306-00	6.8MFD 35V 10% S.TANT	4	4	C1-C4
6	6		1011740-00	5600.0 MMF 50V 10% CER	1	1	C5
7	7		1012784-00	.047 MFD 50V +80-20% CER	19	19	C9,C15-C29,C31-C33
8	8		1103441-00	1N 756A VZ= 8.2 5% .40W P	1	1	D11
9	9		1104860-00	1N 746A VZ= 3.3 5%	1	1	D10
10	10		1105275-00	D 672 TR= 15NS PIV= 60V SI	3	3	D8,D9,D12
11	11		1109991-00	1N 754A VZ= 6.8 5% .40W	2	2	D7,D13
12	12		1110864-00	LED 2MCD@10MA	4	4	D1-D4
13	13		1114384-00	LED 105MW 35MA GREEN	1	1	D6
14	14		1210209-00	SW,TOG,SPDT,.01A@6V,ON/ON,SUBMIN	2	2	S1,S2
15	15		1215006-06	SOCKET 24PIN IC LOW PROFILE	6	-	XE36,XE40,XE48,XE52,XE53,XE57
			CONT		-	24	XE37-XE39,XE41-XE47,XE49-XE51, XE54,XE55,XE58-XE60,XE36,XE40, XE48,XE52,XE53,XE57
							CONT
							CONT
16	16		1211164-01	SW,DIP 1P 1A 5POS	1	1	E21
17	17		1211164-04	SW,DIP 1P 1A 8POS	1	1	E15
18	18		1213113-01	HANDLE,MODULE	1	1	
19	19		1213974-06	JACK 2LINE RED	1	1	J2
20	20		1213974-07	JACK 2LINE BLACK	1	1	J1
21	21		1213974-03	JACK 2LINE PURPLE	1	1	J3
22	22		1300271-00	220.0 .25 W 5.0 % CC	6	6	R5,R7,R25-R28
23	23		1300365-00	1.0 K .25 W 5.0 % CC	14	14	R8,R11-R15,R17-R24
24	24		1300417-00	2.20 K .25 W 5.0 % CC	1	1	R4
25	25		1301322-00	180.0 .25 W 5.0 % CC	1	1	R10
26	26		1301830-00	560.0 .25 W 5.0 % CC	2	2	R1,R2
27	27		1311003-01	R NETWORK 14-180 14-390 16PIN	3	3	E1,E12,E26

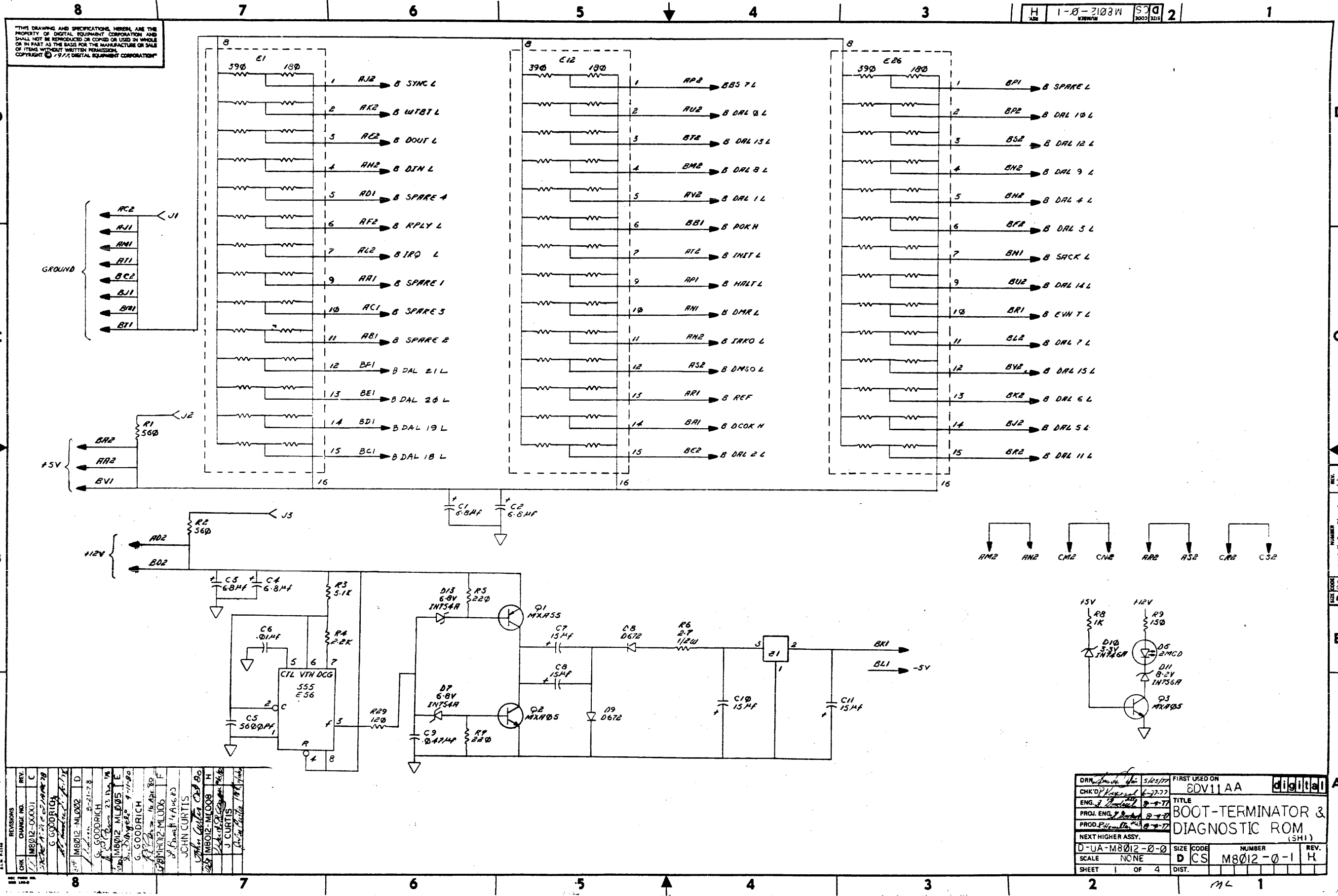
REVISION HISTORY		BASIC PART NO: M8012		DRN: A COLON		DATE: 25-APR-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R KOPPENAL	DATE:	25-APR-78	TITLE	PARTS LIST
R.R	00001	C	SECTION.VARIATION INDEX	DES.ENG:	G GOODRICH	DATE:	25-APR-78	DOCUMENT NUMBER	
BHF	MLO02	D	[A] 00, YA	RESP.ENG.:	G GOODRICH	DATE:	25-APR-78	SIZE	CODE
G.G	M8012-MLO03	E	[B]	MFG.ENG.:	R HAMILTON	DATE:	25-APR-78	PL	NUMBER
GG	M8012-MLO04	F	[C]	ASSEMBLY NUMBER:	D-UA-M8012-0-0	TOP DOCUMENT NUMBER:	#B-DD-M8012-0	FILE NAME:	EDIT #
JC	M8012-MLO06	H	[D]					Z0913H.PLS	22
			[E]						
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

"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"

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	VARIATION	REFERENCE DESIGNATOR
					00	YA		
28	28		1309444-00	2.70 .50 W10.0 % CC	1	1		R6
29	29		1312930-00	5.10 K .25 W 5.0 % CC	2	2		R3,R16
30	30		1300247-00	120.0 .25 W 5.0 % CC	1	1		R29
31	31		1300250-00	150.0 .25 W 5.0 % CC	1	1		R9
32	32		1510705-00	XA 05 NPN 500MW SI 60 50 P	3	3		Q2-Q4
33	33		1510706-00	XA 55 PNP 500MW SI 60 50 P	1	1		Q1
34	34		1910741-00	7406 INVERTER GATE-HEX 1I	2	2		E6,E16
35	35		1911579-00	8641 TRANSCEIVER,BUS,QUA	1	1		E7
36	36		1911944-00	555CN TIMER,FUNCT.BLOCK	1	1		E56
37	37		1912541-00	79M05 VOLT REG, FIX -5V	1	1		Z1
38	38		1912647-00	LS257 MUX 1 OF 2 (QUAD)	6	6		E20,E23,E28,E31,E32,E34
39	39		1912729-00	DC 004 PROTOCOL,REG. SELECT	1	1		E8
40	40		1912803-00	774LS04 INVERTER GATE, HEX	2	2		E5,E13
41	41		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	1		E11
42	42		1912813-00	LS27 NOR GATE-TRIPLE 3IN	3	3		E2-E4
43	43		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	1	1		E10
44	44		1912842-00	LS138 DECODER-THREE INPUT,	1	1		E35
45	45		1912843-00	LS139 DECODER, 2 OF 4(DUAL	1	1		E30
46	46		1912853-00	LS175 FF-D QUAD	1	1		E25
47	47		1912863-00	LS273 FF-D OCTAL W/CLEAR	3	3		E27,E29,E33
48	48		1912868-00	LS299 SHIFT REG. 8-BIT UNI	2	2		E22,E24
49	49		1913040-00	DC 005 TRANSCEIVER 4BIT	4	4		E14,E17-E19
50	50		23208A1-00	A1-03,A1-04,A1-05	1	1		E9
51	51		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	6	6		W2,W3,W5,W7,W9,W12
52	52		9000024-01	EYELET, ROLLED FLANGE, .121 OD X	8	8		
53	53	BLANK			0	0		
54	54		9107256-11	TUBING, THIN WALL, .027ID UL	A/R	A/R		
55	55		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	A/R		
56	56	D-EC-5012569-0-0		ETCH CUT DRAWING	REF	REF		
57	57	D-MD-5012569-0-0		DRILL & ETCH DRAWING	REF	REF		
58	58	D-UA-M8012-0-0		UNIT ASSEMBLY	REF	REF		
59	59	D-CS-M8012-0-1		CIRCUIT SCHEMATIC	REF	REF		
60	60	B-DD-M8012-0		DRAWING DIRECTORY	REF	REF		

61 NOTE: IF 1215006-06 IS NOT AVAILABLE USE 1210693

D	I	G	I	T	A	L	TITLE	BOOT-TERM & DIAGNOSTIC ROM	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8012-0-DBP	H



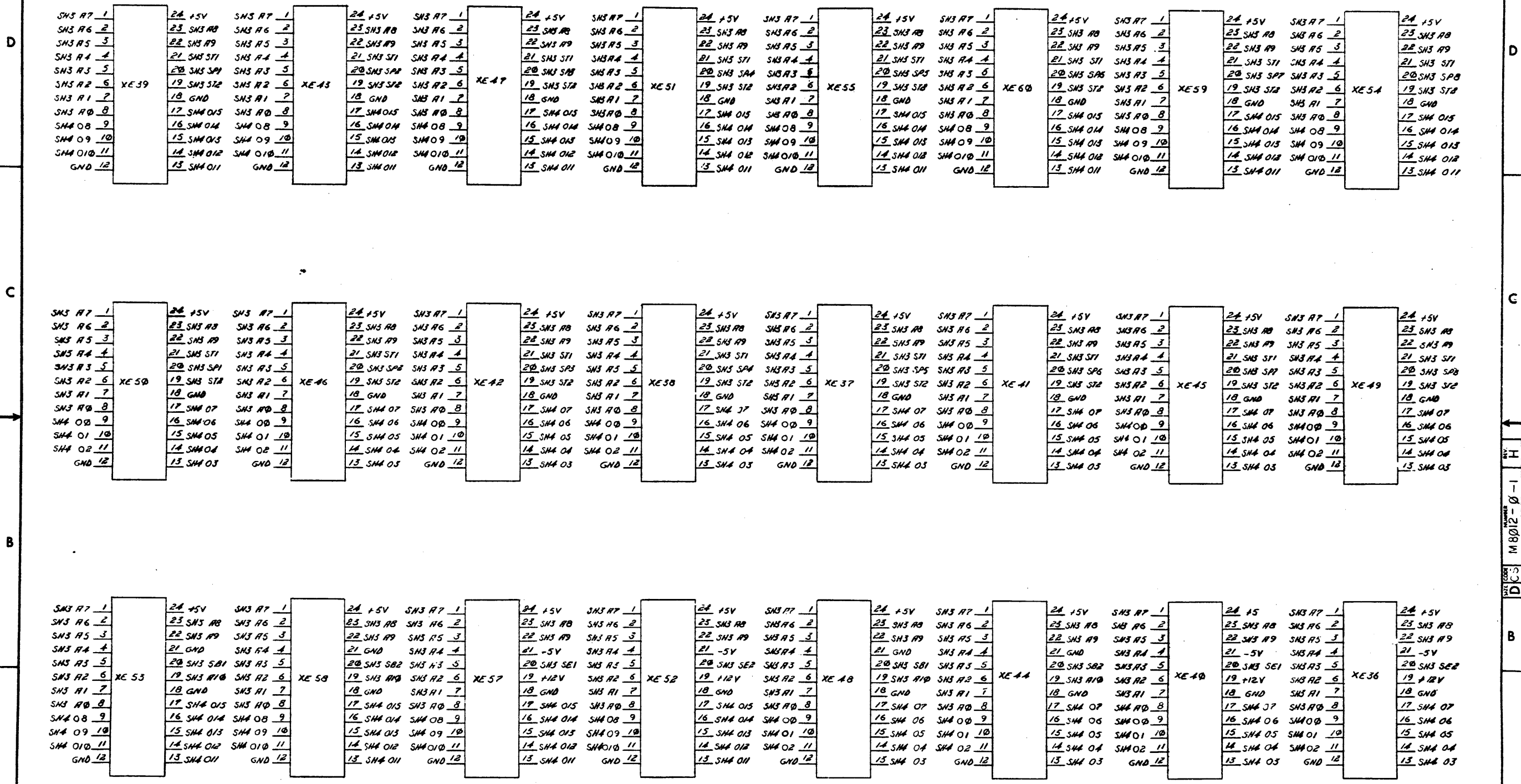
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

REV.	CHANGE NO.	DATE	BY	CHKD.
1	00001	10-21-78	G. GOODRICH	J. CURTIS
2	00002	11-11-80	G. GOODRICH	J. CURTIS
3	00003	11-11-80	G. GOODRICH	J. CURTIS
4	00004	11-11-80	G. GOODRICH	J. CURTIS
5	00005	11-11-80	G. GOODRICH	J. CURTIS
6	00006	11-11-80	G. GOODRICH	J. CURTIS
7	00007	11-11-80	G. GOODRICH	J. CURTIS
8	00008	11-11-80	G. GOODRICH	J. CURTIS
9	00009	11-11-80	G. GOODRICH	J. CURTIS
10	00010	11-11-80	G. GOODRICH	J. CURTIS
11	00011	11-11-80	G. GOODRICH	J. CURTIS
12	00012	11-11-80	G. GOODRICH	J. CURTIS
13	00013	11-11-80	G. GOODRICH	J. CURTIS
14	00014	11-11-80	G. GOODRICH	J. CURTIS
15	00015	11-11-80	G. GOODRICH	J. CURTIS
16	00016	11-11-80	G. GOODRICH	J. CURTIS
17	00017	11-11-80	G. GOODRICH	J. CURTIS
18	00018	11-11-80	G. GOODRICH	J. CURTIS
19	00019	11-11-80	G. GOODRICH	J. CURTIS
20	00020	11-11-80	G. GOODRICH	J. CURTIS

DRN	5/25/77	FIRST USED ON	EDV11AA
CHK'D	6-27-77	TITLE	BOOT-TERMINATOR & DIAGNOSTIC ROM
ENG.	8-9-77	SIZE	D
PROJ. ENG.	8-9-77	CODE	CS
PROD. ENGR.	8-9-77	NUMBER	M8012-0-1
NEXT HIGHER ASSY.		REV.	H
D-UA-M8012-0-0		SCALE	NONE
SHEET 1 OF 4		DIST.	

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 © 1977 DIGITAL EQUIPMENT CORPORATION

NOTES: ALL SIGNALS ON THIS SHEET EXCEPT THOSE CONNECTED TO PIN 20 OF ALL SOCKETS ON THIS SHEET ARE HIGH INPUTS AND OUTPUTS. THE SIGNALS CONNECTED TO PIN 20 OF ALL SOCKETS ON THIS SHEET ARE LOW.



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	BOOT-TERMINATOR & DIAGNOSTIC ROM(SH4)	SIZE CODE	DCS	NUMBER	M8012-0-1	REV.	H
SCALE	NONE	SHEET	4 OF 4	DIST.			

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.

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS						
ENGINEERING SPECIFICATION				DATE 27-May-77		
TITLE M8012 TERM, BOOT AND DISGNOSTIC BOARD - M8012						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	00001	GOODRICH	3-78	<i>G. Goodrich</i>	<i>6/21/78</i>
ENG <i>G. Goodrich</i>	APPD <i>[Signature]</i>	SIZE A	CODE SP	NUMBER M8012-0-7	REV A	

DEC 16-(392)-1079-N971
DRA 107

ENGINEERING SPECIFICATION		CONTINUATION SHEET
TITLE M8012 -- TERM, BOOT AND DIAGNOSTIC BOARD		
<p>TABLE OF CONTENTS</p> <ul style="list-style-type: none"> 1.0 GENERAL DESCRIPTION <ul style="list-style-type: none"> 1.1 GENERAL 1.2 POWER REQUIREMENTS 2.0 ROM <ul style="list-style-type: none"> 2.1 ROM 2.2 ROM PAGES 3.0 BEVENT CLAMP (RTC DISABLE) <ul style="list-style-type: none"> 3.1 GENERAL 3.2 ADDRESS 4.0 MAINTENANCE REGISTERS <ul style="list-style-type: none"> 4.1 READ WRITE REGISTER 4.2 DISPLAY REGISTER 4.3 SWITCH REGISTER 5.0 TERMINATION/PINOUT 6.0 POWER OK LED, RESTART AND HALT SWITCHES 7.0 ROM CODE 8.0 TEST JACKS 9.0 ROM ADDRESS MAP <ul style="list-style-type: none"> 9.1 MASKED BOOT/DIAGNOSTIC ROM 9.2 EPROM 9.3 PROGRAM ROM 9.4 ADDRESS JUMPERS 10.0 PROGRAM ROM/PROM JUMPERS <p style="text-align: center;">-----</p> <p>NOTE: THE LSI-11 BUS SPECIFICATION (DEC STD-160) IS REFERENCED BY AND SHALL BE CONSIDERED PART OF THIS SPECIFICATION</p> <p style="text-align: center;">-----</p>		
SIZE A	CODE SP	NUMBER M8012-0-7
REV A		REV A

DEC FORM NO EN-01022-16-N370-(381)
DRA 108

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

1.0 GENERAL DESCRIPTION

1.1 DESCRIPTION

THE M8012 TERMINATOR, BOOTSTRAP AND DIAGNOSTIC BOARD IS A QUAD HEIGHT MODULE WHICH INTERFACES WITH THE LSI-11 BUS. IT PROVIDES THE FOLLOWING FEATURES:

- A) ROM SPACE FOR BOOTSTRAP/DIAGNOSTIC AND OTHER PROGRAMS.
- B) A 12 BIT READABLE SWITCH REGISTER
- C) A 16 BIT READ WRITE REGISTER
- D) A PROGRAMABLE RTC ENABLE
- E) A POWER OK LED
- F) A 4 LED DISPLAY REGISTER
- G) RESTART AND HALT SWITCHES
- H) 120 OHM LSI-11 BUS TERMINATION

1.2 POWER REQUIREMENTS

	TYPICAL		MAX
+5 VOLTS	1.25	1.6	AMPS
+12 VOLTS	0.05	0.07	AMPS

NOTE: POWER MUST BE ADDED FOR ANY ROMS USED.

SIZE A	CODE SP	NUMBER M8012-0-7	REV A
-----------	------------	---------------------	----------

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

2.0 ROM

2.1 ROM

THE M8012 PROVIDES 2K WORDS OF MASKED ROM SOCKETS FOR BOOTSTRAPS AND DIAGNOSTICS WITH PADS FOR AN ADDITIONAL 2K WORDS FOR FUTURE USE.

IT ALSO PROVIDES SOCKETS FOR 4 2708 EPROMS (2K WORDS) AND PADS FOR 16 8316E/2716 (16K WORDS) ROM/EPROM. THESE PADS MAY BE USED FOR 2708 EPROMS (8K WORDS) BY CHANGING JUMPERS AND SUPPLYING -5 VOLT POWER THRU PINS CB2 AND DB2.

THE M8012-YA PROVIDES SOCKETS FOR THE ADDITIONAL 2K OF BOOT/DIAGNOSTIC ROMS AND FOR THE PROGRAM ROM/EPROM.

2.2 ROM PAGES

ALL ROM IS ACCESED IN A PAGED FORMAT OF 2 128 WORD PAGES AT THE FOLLOWING BUS ADDRESSES

173000 TO 173377	LOW PAGE
173400 TO 173777	HIGH PAGE

SIZE A	CODE SP	NUMBER M8012-0-7	REV A
-----------	------------	---------------------	----------

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

TO CONTROL MAPPING OF THESE PAGES INTO PHYSICAL ROM ADDRESSES A PAGE CONTROL REGISTER IS USED AT BUS ADDRESS 177520. THIS REGISTER IS WORD OR BYTE ADDRESSABLE AND MAY BE READ OR WRITTEN AND IS CLEARED UPON THE NEGATION OF BDCOK.

THE PHYSICAL ROM ADDRESS IS GENERATED BY LATCHING DAL1-DAL7 AT SYNC AS A0-A6 AND USING THE LOW OR HIGH BYTE OF THE PAGE REGISTER (DEPENDING IF BUS ADDRESS IS IN LOW OR HIGH PAGE) AS A7-A14. TWO ROMS ARE ACCESSED AT A TIME, ONE AS LOW BYTE AND ONE AS HIGH BYTE.

NOTE THAT ANY PAGE IN PHYSICAL ROM MAY BE ACCESSED THROUGH THE LOW OR HIGH BUS PAGE.

IF THE BUS ADDRESS IS BETWEEN:

173000 AND 173377

173400 AND 173777

ROM ADR=SOURCE

ROM ADR=SOURCE

A0= DAL1 (LATCHED)
 A1= DAL2
 A2= DAL3
 A3= DAL4
 A4= DAL5
 A5= DAL6
 A6= DAL7
 A7= BIT0 (PAGE REG)
 A8= BIT1
 A9= BIT2
 A10= BIT3
 A11= BIT4
 A12= BIT5
 A13= BIT6
 A14= BIT7

A0= DAL1 (LATCHED)
 A1= DAL2
 A2= DAL3
 A3= DAL4
 A4= DAL5
 A5= DAL6
 A6= DAL7
 A7= BIT8 (PAGE REG)
 A8= BIT9
 A9= BIT10
 A10= BIT11
 A11= BIT12
 A12= BIT13
 A13= BIT14
 A14= BIT15

WHERE PHYSICAL ROM ADDRESS BIT=

SOURCE

SIZE	CODE	NUMBER	REV
A	SP	M8012-0-7	A

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

3.0 BEVENT CLAMP (REAL TIME CLOCK DISABLE)

3.1 GENERAL

A SINGLE BIT WRITE ONLY REGISTER CLAMPS BEVENTL LOW WHEN CLEARED. THIS ALLOWS PROGRAM CONTROL OF THE LSI-11 LINE TIME CLOCK FUNCTION. REGISTER IS CLEARED UPON NEGATION OF BDCOK. THE M8012 MODULE MUST BE LOCATED IN THE BACKPLANE PROVIDING BEVENT FOR PROPER OPERATION OF THIS FUNCTION. IT MAY BE DISABLED BY SWITCH SELECTION. SWITCH #5 OF E21 DISABLES THIS FUNCTION WHEN OFF.

3.2 ADDRESS

177546 BIT 6 BEVENT CLAMPED WHEN CLEAR (RTC OFF)

4.0 MAINTENANCE REGISTERS

4.1 READ WRITE REGISTER

A SIXTEEN BIT READ WRITE REGISTER IS PROVIDED AT ADDRESS 177522 FOR DIAGNOSTICS. THE REGISTER IS WORD OR BYTE ADDRESSABLE AND IS CLEARED UPON NEGATION OF BDCOK.

4.2 DISPLAY REGISTER

A 4 BIT WRITE ONLY REGISTER AT ADDRESS 177524 CONTROLS A 4 LED EDGE MOUNTED RED DISPLAY USED FOR DIAGNOSTICS. BITS 0-3 CORESPOND TO D1 TO D4 WITH A SET BIT TURNING THE RESPECTIVE LED OFF. THE REGISTER IS CLEARED (ALL LEDS ON) UPON NEGATION OF BDCOK.

4.3 SWITCH REGISTER

A 12 BIT READ ONLY REGISTER AT ADDRESS 177524 IS USED FOR MAINTENANCE AND SYSTEM CONFIGURATION (BITS 0-11). NOTE THAT THIS ADDRESS IS SHARED WITH THE DISPLAY REGISTER. E15 SWITCHES 1-8 CORESPOND TO BITS 0-7 AND E21 SWITCHES 1-4 CORESPOND TO BITS 8-11 WITH A ON SWITCH READ AS A 1 AND AN OFF SWITCH AS A 0.

SIZE	CODE	NUMBER	REV
A	SP	M8012-0-7	A

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

5.0 TERMINATION/PINOUT

ALL BUS LINES ARE TERMINATED BY A RESISTOR NETWORK OF 180 OHMS TO +5 AND 390 OHMS TO GND.

THE PINOUT AND BUS DRIVER/RECEIVER CHARACTERISTICS COMPLY WITH THE LSI-11 BUS SPECIFICATION (DEC STD-160)

6.0 POWER OK LED, RESTART AND HALT SWITCHES

A GREEN EDGE MOUNTED POWER OK LED IS PROVIDED AND IS LIGHTED WHEN +12 IS GREATER THAN 10 VOLTS AND +5 IS GREATER THAN 4V VOLTS.

A EDGE MOUNTED SWITCH (S2) REBOOTS THE SYSTEM BY DEASSERTING BDCOK FOR A NOMINAL 2 USEC WHEN IT IS CYCLED BACK AND FORTH ONCE. A SECOND EDGE MOUNTED SWITH (S1) ASSERTS BHALT WHEN POSITIONED WITH ITS LEVER AWAY FROM THE LED DISPLAY.

7.0 ROM CODE

SEE DIAGNOSTIC ENGINEERING DESIGN PLAN FOR THE BDV11-AA DIAGNOSTIC ROM, DIAGNOSTIC RETRIVAL NUMBER HP-046-10-S58 FOR BOOTSTRAPS/DIAGNOSTICS AND RESTRICTIONS ON EPROM AND PROGRAM ROM CODE

8.0 TEST POINTS

TIP JACKS ARE PROVIDED TO ALLOW MEASUREMENT OF THE 5 AND 12 VOLT POWER SUPPLIES. THE 5 AND 12 VOLT TEST JACKS HAVE A 560 OHM SERIES RESISTOR TO PREVENT DAMAGE BY ACCIDENTAL SHORTS.

JACK	FUNCTION	COLOR
J1	GND	BLACK
J2	+5	RED
J3	+12	PURPLE

SIZE A	CODE SP	NUMBER M8012-0-7	REV A
-----------	------------	---------------------	----------

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

9.0 ROM ADDRESS MAP
SEE SECTION 9.4 FOR DESCRIPTION OF CHARACTERS USED TO BRACKET ADDRESSES IN 9.1 TO 9.3

9.1 MASKED BOOT/DIAGNOSTIC ROM

HIGH BYTE	LOW RYTE	CHIP ADDRESS
----- I I I E53 I I I -----	----- I I I E48 I I I -----	0-2K, (4K-6K) BOOT/DIAG [16K-18K], <20K-22K>
----- I I I E58 I I I -----	----- I I I E44 I I I -----	2K-4K, (6K-8K) RESERVED [18K-20K], <22K-24K>

9.2 EPROM SOCKETS (INTERNAL -5V POWER)

----- I I I E57 I I I -----	----- I I I E40 I I I -----	4K-5K, (0-1K) <16K-17K>, [20K-21K]
----- I I I E52 I I I -----	----- I I I E36 I I I -----	5K-6K, (1K-2K) <17K-18K>, [21K-22K]

9.3 PROGRAM ROM/EPROM

----- I I I E54 I I I -----	----- I I I E49 I I I -----	16K-18K, !16K-17K! :0-2K:, *0-1K*
----- I I I E59 I I I -----	----- I I I E45 I I I -----	18K-20K, !18K-19K! :2K-4K:, *1K-2K*

SIZE A	CODE SP	NUMBER M8012-0-7	REV A
-----------	------------	---------------------	----------

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

9.2 PROGRAM ROM/EPROM CONTINUED

HIGH BYTE	LOW BYTE	CHIP ADDRESS
I E60 I	I E41 I	20K-22K, !20K-21K! :4K-6K!, *4K-5K*
I E55 I	I E37 I	22K-24K, !22K-23K! :6K-8K!, *6K-7K*
I E51 I	I E38 I	24K-26K, !17K-18K! :8K-10K!, *1K-2K*
I E47 I	I E42 I	26K-28K, !19K-20K! :10K-12K!, *3K-4K*
I E43 I	I E46 I	28K-30K, !21K-22K! :12K-14K!, *5K-6K*
I E39 I	I E50 I	30K-32K, !23K-24K! :14K-16K!, *7K-8K*

SIZE **A** CODE SP NUMBER M8012-0-7 REV **A**

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

9.4 ADDRESS JUMPERS

THE CHARACTERS USED TO BRACKET VARIOUS ADDRESSES IN SECTIONS 9.1 TO 9.3 CORRESPOND TO THOSE IN THE TABLE BELOW. FOR EACH JUMPER COMBINATION LISTED BELOW A GIVEN CHIP WILL BE SELECTED AT THE ADDRESSES INDICATED BY THE BRACKETS

CHAR	W1	W2	W3	W4	W9	W10	W11	W12
NONE	R	I	I	R	I	R	R	I
()	X	X	X	X	I	R	I	R
[]	X	X	X	X	R	I	R	I
< >	X	X	X	X	R	I	I	R
! !	I	R	I	R	X	X	X	X
: :	R	I	R	I	X	X	X	X
* *	I	R	R	I	X	X	X	X

I=INSTALLED R=REMOVED X=DON'T CARE

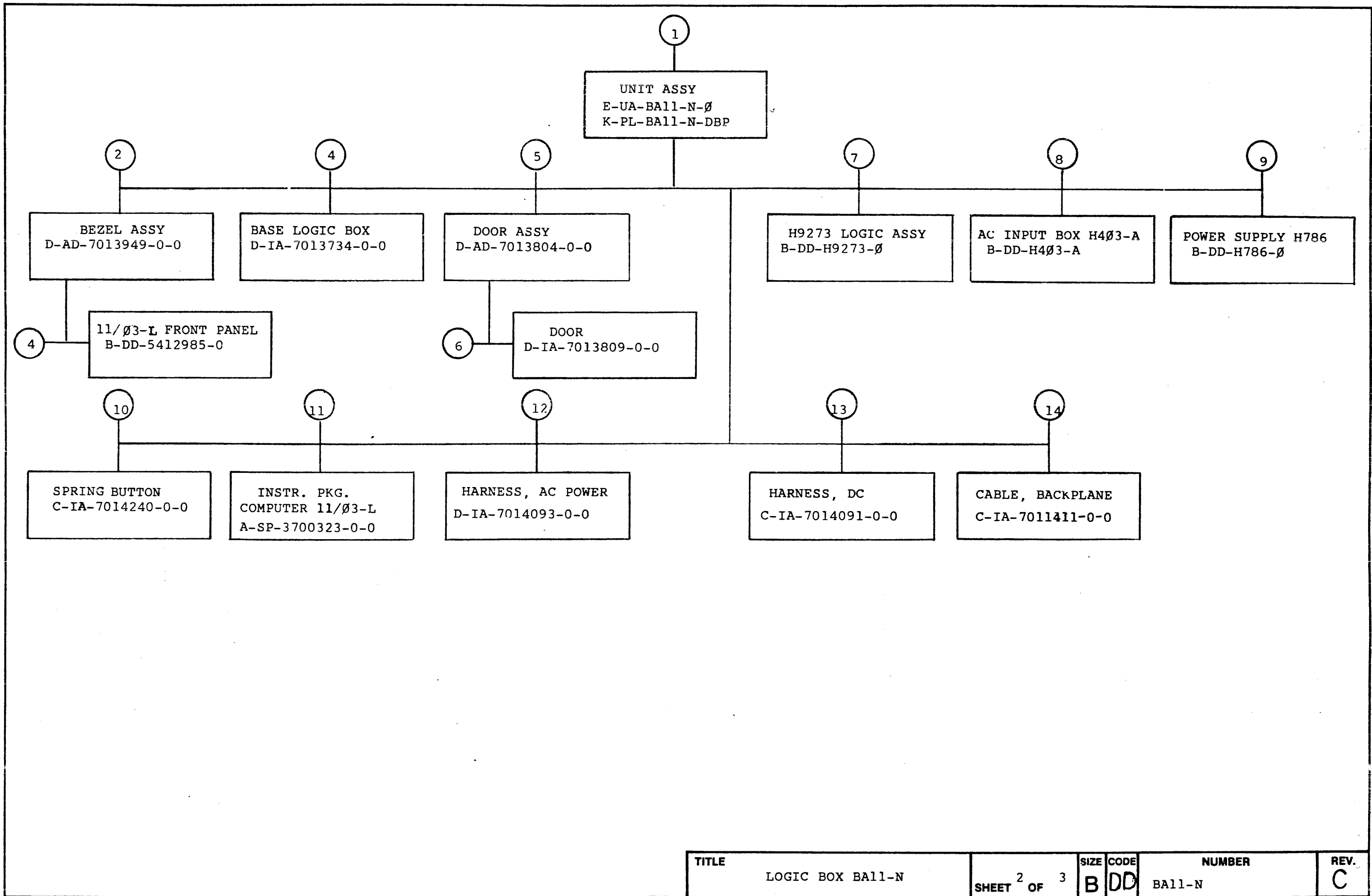
NOTE: JUMPERS MUST NOT BE CONFIGURED AND CHIPS INSTALLED SUCH THAT 2 CHIPS RESPOND TO THE SAME ADDRESS.

10.0 PROGRAM ROM/EPROM JUMPERS

	W5	W6	W7	W8	W13	
8316E	I	R	I	R	R	NOTE 1
8316E	R	R	I	R	I	NOTE 2
2716	R	R	I	R	I	NOTE 3
2708	R	I	R	I	R	NOTE 4

NOTES:
 (1) CS1=0, CS2=0, CS3=0
 (2) CS1=0, CS2=0, CS3=1
 (3) +5 VOLT ONLY PARTS
 (4) 2708 WITH EXTERNAL -5 SUPPLIED BY CB2 & DB2.

SIZE **A** CODE SP NUMBER M8012-0-7 REV **A**



P

TITLE	LOGIC BOX BALL-N	SHEET 2 OF 3	SIZE	CODE	NUMBER	REV.
			B	DD	BALL-N	C

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP00487	FIELD MAINTENANCE PRINT SET (MP)	-	6	D-IA-7013809-0-0	DOOR	M
	B-TC-BALL-N-1	FIELD MAINTENANCE PRINT SET (TC)	-		B-MD-7418692-0-0	PIN	M
	E-UA-BALL-N-Ø	UNIT ASSEMBLY (BALL-N)	E/M				
	K-PL-BALL-N-DBP	UNIT ASSEMBLY (BALL-N) PARTS LIST	E/M				
	C-MD-7418384-0-0	CLAMP, HINGE	M				
	C-IA-7418276-0-0	BRACKET, SUPPORT	M				
	E-IA-7418275-0-0	COVER, LOGIC BOX	M	7	B-DD-H9273-Ø	LOGIC ASSY H9273	E/M
	C-MD-7418573-0-0	BRACKET, BEZEL MTG.	M				
	E-MD-7415313-0-0	BEZEL 5- 1/4" BLANK	M				
	A-PL-BALL-N-2	SHIPPING LIST					
2	D-AD-7013949-0-0	BEZEL ASSY WITH SEITCHES	E/M				
	E-MD-7415313-0-0	BEZEL 5- 1/4"	M				
	D-MD-7411945-0-0	FRAME	M	9	B-DD-H786-Ø	POWER SUPPLY H786	E/M
	B-MD-7411744-0-0	WINDOW	M				
3	B-DD-5412985-0	11/03-L FRONT PANEL BOARD	E/M	10	C-IA-7014240-0-0	SPRING, BUTTON ASSY	M
					C-MD-7418376-0-0	SPRING	M
					B-MD-7418693-0-0	BUTTON	M
4	D-IA-7014734-0-0	BASE LOGIC BOX ASSY.	M	11	A-SP-3700323-0-0	INSTR. PKG. COMPUTER 11/03-L	M
	E-IA-7418434-0-0	BASE LOGIC BOX	M				
	C-IA-7418436-0-0	BRKT, DOOR SUPP.	M				
	C-MD-7418433-0-0	SCREEN	M				
	B-MD-7418694-0-0	BUSHING	M	12	D-IA-7014093-0-0	HARNESS, AC POWER	E/M
5	D-AD-7013804-0-0	DOOR ASSEMBLY	M	13	C-IA-7014091-0-0	HARNESS DC	E/M
	C-MD-7418375-0-0	WINDOW	M				
	C-IA-7418374-0-0	STRAIN RELIEF	M				
				14	C-IA-7011411-0-0	CABLE, BACKPLANE	E/M

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

digital

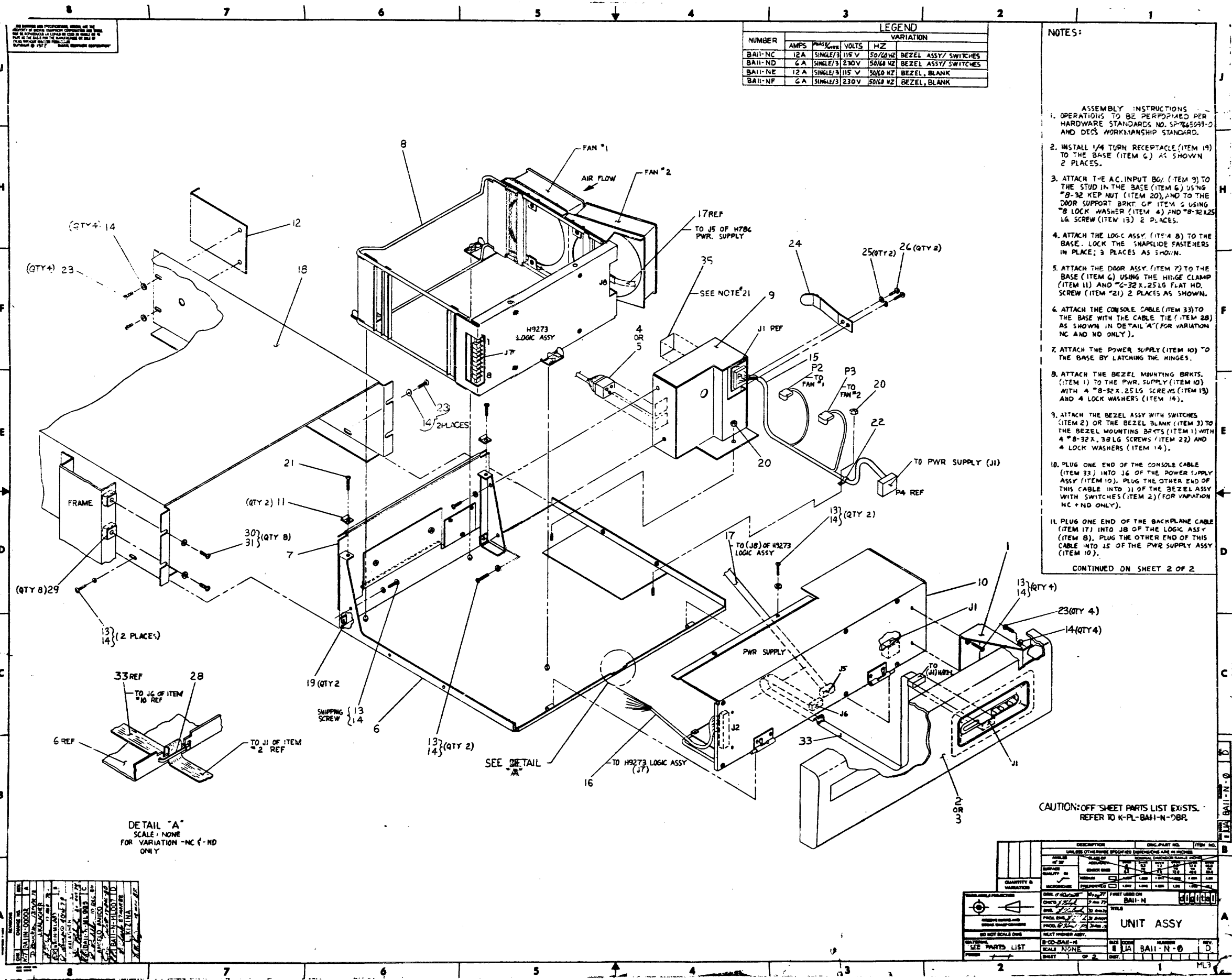
TITLE
BALL-N LOGIC BOX

SHEET 3 OF 3

SIZE CODE
B DD

NUMBER
BALL-N

REV.
C



NUMBER	LEGEND			
	AMPS	PHASE	VOLTS	HZ
BA11-NC	12 A	SINGLE/3	115 V	50/60 HZ
BA11-ND	6 A	SINGLE/3	230 V	50/60 HZ
BA11-NE	12 A	SINGLE/3	115 V	50/60 HZ
BA11-NF	6 A	SINGLE/3	230 V	50/60 HZ

- NOTES:
- ASSEMBLY INSTRUCTIONS OPERATIONS TO BE PERFORMED PER HARDWARE STANDARDS NO. SP-745093-0 AND DEC'S WORKMANSHIP STANDARD.
 - INSTALL 1/4 TURN RECEPTACLE (ITEM 19) TO THE BASE (ITEM 6) AS SHOWN 2 PLACES.
 - ATTACH THE A.C. INPUT BOX (ITEM 9) TO THE STUD IN THE BASE (ITEM 6) USING "8-32 KEEP NUT (ITEM 20), AND TO THE DOOR SUPPORT BRKT. OF ITEM 6 USING "8 LOCK WASHER (ITEM 4) AND "8-32 X 25 LG SCREW (ITEM 13) 2 PLACES.
 - ATTACH THE LOGIC ASSY (ITEM 8) TO THE BASE. LOCK THE SNAPSIDE FASTENERS IN PLACE; 3 PLACES AS SHOWN.
 - ATTACH THE DOOR ASSY (ITEM 7) TO THE BASE (ITEM 6) USING THE HINGE CLAMP (ITEM 11) AND "6-32 X .25 LG FLAT HD. SCREW (ITEM 21) 2 PLACES AS SHOWN.
 - ATTACH THE CONSOLE CABLE (ITEM 33) TO THE BASE WITH THE CABLE TIE (ITEM 28) AS SHOWN IN DETAIL "A" (FOR VARIATION NC AND ND ONLY).
 - ATTACH THE POWER SUPPLY (ITEM 10) TO THE BASE BY LATCHING THE HINGES.
 - ATTACH THE BEZEL MOUNTING BRKTS. (ITEM 1) TO THE PWR. SUPPLY (ITEM 10) WITH 4 "8-32 X .25 LG SCREWS (ITEM 13) AND 4 LOCK WASHERS (ITEM 14).
 - ATTACH THE BEZEL ASSY WITH SWITCHES (ITEM 2) OR THE BEZEL BLANK (ITEM 3) TO THE BEZEL MOUNTING BRKTS (ITEM 1) WITH 4 "8-32 X .38 LG SCREWS (ITEM 22) AND 4 LOCK WASHERS (ITEM 14).
 - PLUG ONE END OF THE CONSOLE CABLE (ITEM 33) INTO J6 OF THE POWER SUPPLY ASSY (ITEM 10). PLUG THE OTHER END OF THIS CABLE INTO J1 OF THE BEZEL ASSY WITH SWITCHES (ITEM 2) (FOR VARIATION NC + ND ONLY).
 - PLUG ONE END OF THE BACKPLANE CABLE (ITEM 17) INTO J8 OF THE LOGIC ASSY (ITEM 8). PLUG THE OTHER END OF THIS CABLE INTO J5 OF THE PWR SUPPLY ASSY (ITEM 10).
- CONTINUED ON SHEET 2 OF 2

REV.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED FOR PRODUCTION	10/1/77	J. J. BAI	J. J. BAI
2	REVISED TO ADD PART 14	10/1/77	J. J. BAI	J. J. BAI
3	REVISED TO ADD PART 13	10/1/77	J. J. BAI	J. J. BAI
4	REVISED TO ADD PART 12	10/1/77	J. J. BAI	J. J. BAI
5	REVISED TO ADD PART 11	10/1/77	J. J. BAI	J. J. BAI
6	REVISED TO ADD PART 10	10/1/77	J. J. BAI	J. J. BAI
7	REVISED TO ADD PART 9	10/1/77	J. J. BAI	J. J. BAI
8	REVISED TO ADD PART 8	10/1/77	J. J. BAI	J. J. BAI
9	REVISED TO ADD PART 7	10/1/77	J. J. BAI	J. J. BAI
10	REVISED TO ADD PART 6	10/1/77	J. J. BAI	J. J. BAI
11	REVISED TO ADD PART 5	10/1/77	J. J. BAI	J. J. BAI
12	REVISED TO ADD PART 4	10/1/77	J. J. BAI	J. J. BAI
13	REVISED TO ADD PART 3	10/1/77	J. J. BAI	J. J. BAI
14	REVISED TO ADD PART 2	10/1/77	J. J. BAI	J. J. BAI
15	REVISED TO ADD PART 1	10/1/77	J. J. BAI	J. J. BAI

DETAIL "A"
SCALE: NONE
FOR VARIATION -NC & -ND ONLY

CAUTION: OFF SHEET PARTS LIST EXISTS. REFER TO K-PL-BAN-N-DBR.

REV.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED FOR PRODUCTION	10/1/77	J. J. BAI	J. J. BAI

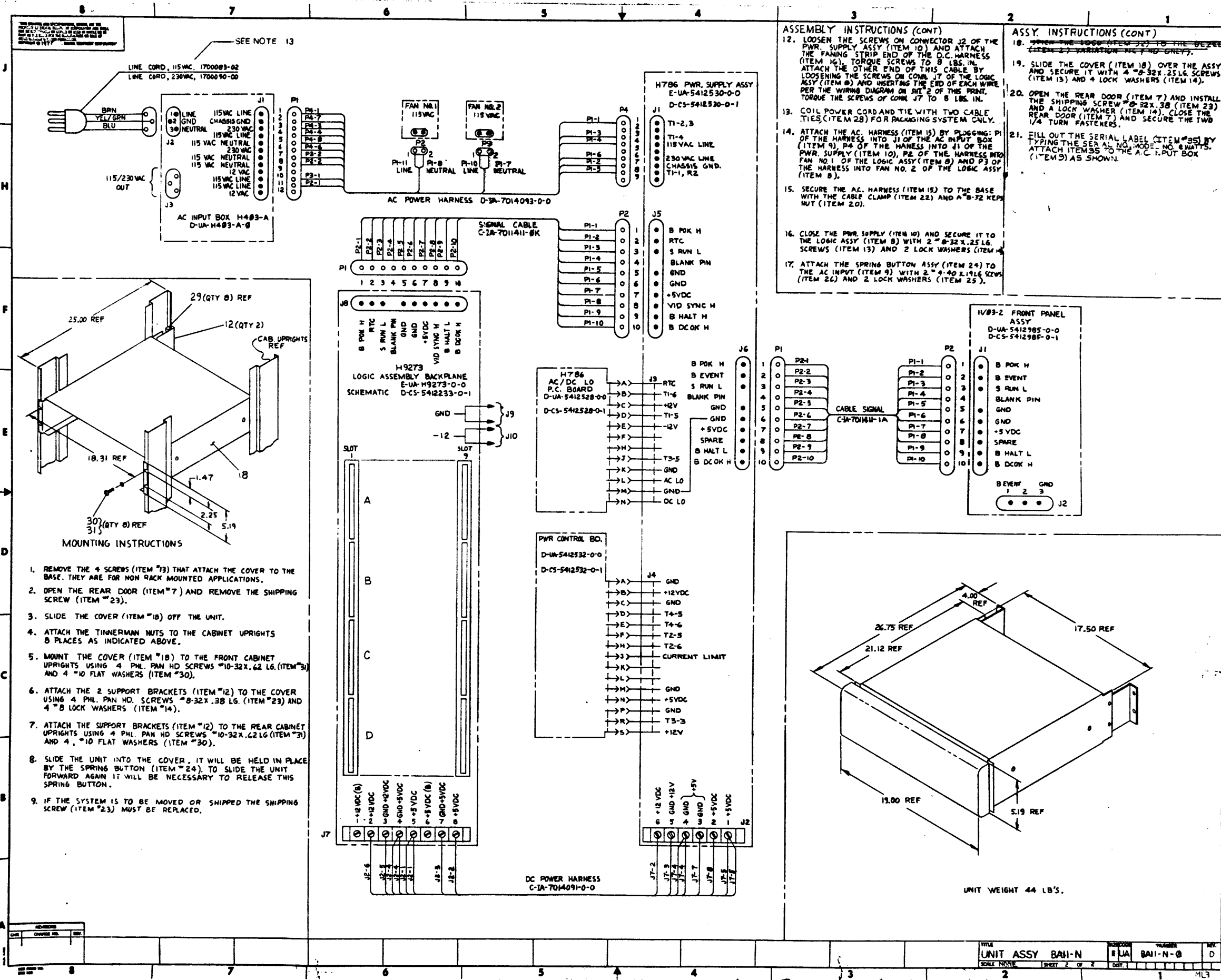
QUANTITY & VARIATION	REV. OF ORIGINAL	DATE	BY	CHKD.

DATE	BY	CHKD.	REV.
10/1/77	J. J. BAI	J. J. BAI	1

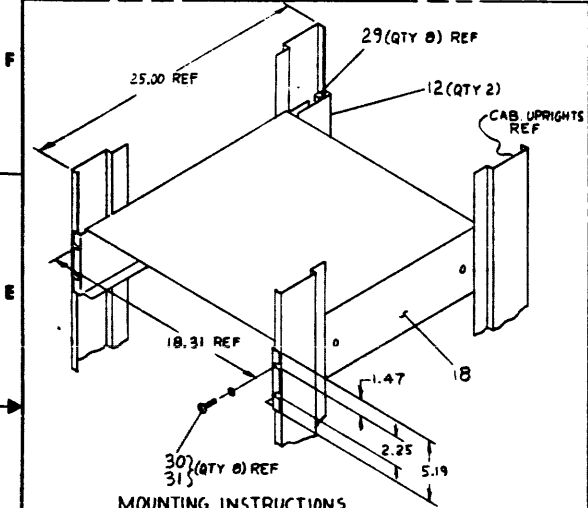
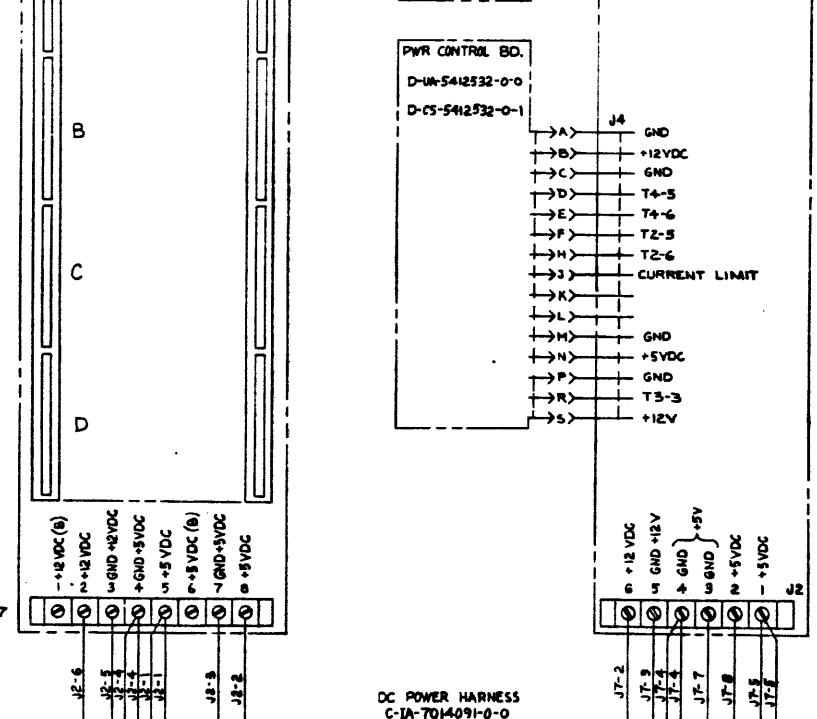
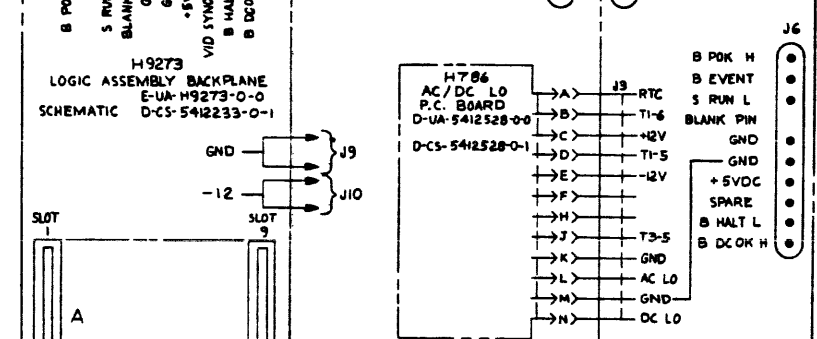
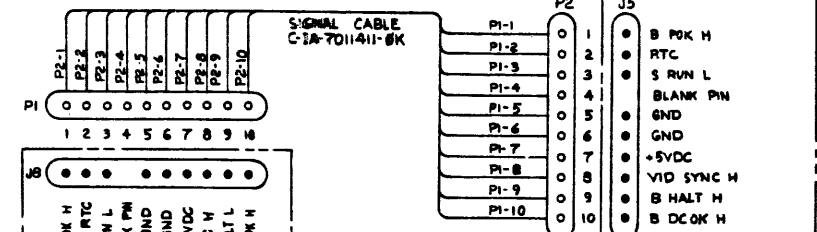
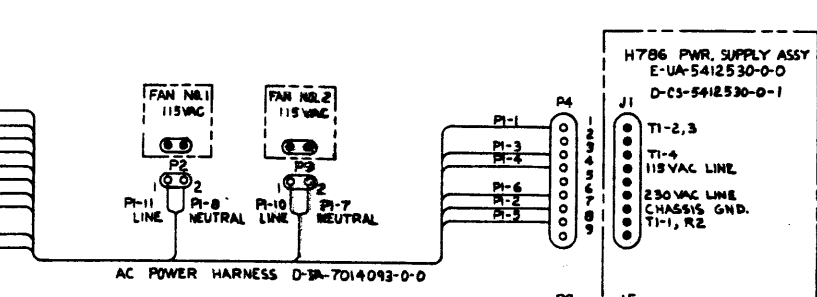
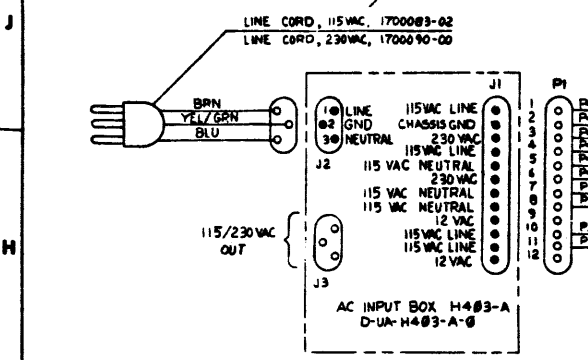
UNIT ASSY

SCALE: NONE

SHEET 1 OF 2



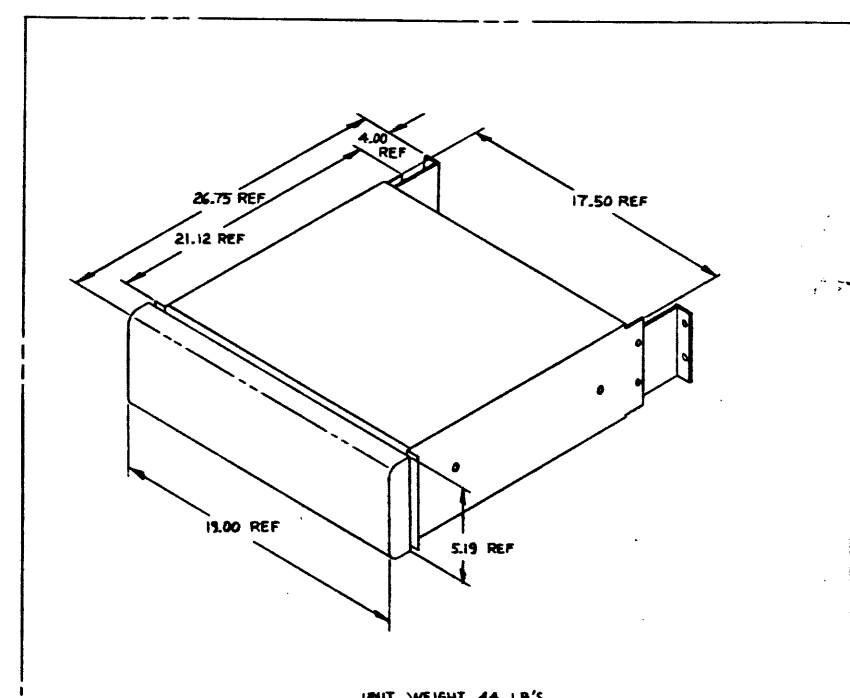
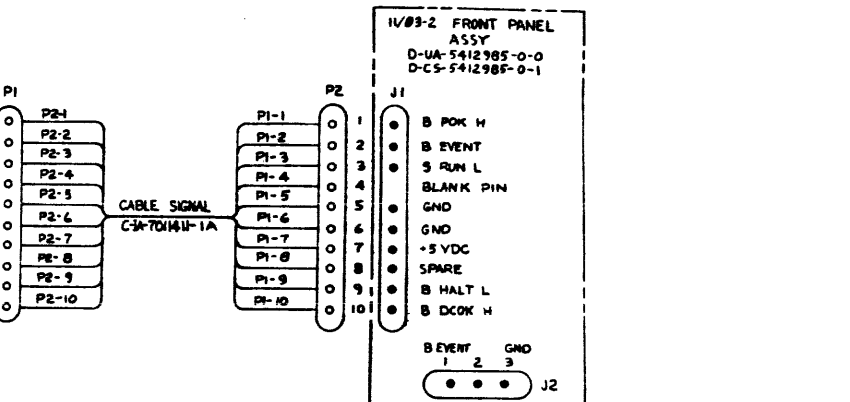
SEE NOTE 13



- REMOVE THE 4 SCREWS (ITEM #3) THAT ATTACH THE COVER TO THE BASE. THEY ARE FOR NON RACK MOUNTED APPLICATIONS.
- OPEN THE REAR DOOR (ITEM #7) AND REMOVE THE SHIPPING SCREW (ITEM #23).
- SLIDE THE COVER (ITEM #10) OFF THE UNIT.
- ATTACH THE TINNEMAN NUTS TO THE CABINET UPRIGHTS 8 PLACES AS INDICATED ABOVE.
- MOUNT THE COVER (ITEM #18) TO THE FRONT CABINET UPRIGHTS USING 4 PHL. PAN HD SCREWS #10-32X.62 LG. (ITEM #3) AND 4 #10 FLAT WASHERS (ITEM #30).
- ATTACH THE 2 SUPPORT BRACKETS (ITEM #12) TO THE COVER USING 4 PHL. PAN HD. SCREWS #8-32X.38 LG. (ITEM #23) AND 4 #8 LOCK WASHERS (ITEM #14).
- ATTACH THE SUPPORT BRACKETS (ITEM #12) TO THE REAR CABINET UPRIGHTS USING 4 PHL. PAN HD SCREWS #10-32X.62 LG (ITEM #3) AND 4 #10 FLAT WASHERS (ITEM #30).
- SLIDE THE UNIT INTO THE COVER. IT WILL BE HELD IN PLACE BY THE SPRING BUTTON (ITEM #24). TO SLIDE THE UNIT FORWARD AGAIN IT WILL BE NECESSARY TO RELEASE THIS SPRING BUTTON.
- IF THE SYSTEM IS TO BE MOVED OR SHIPPED THE SHIPPING SCREW (ITEM #23) MUST BE REPLACED.

- ### ASSEMBLY INSTRUCTIONS (CONT)
- LOOSEN THE SCREWS ON CONNECTOR J2 OF THE PWR. SUPPLY ASSY (ITEM 10) AND ATTACH THE FANING STRIP END OF THE D.C. HARNESS (ITEM 16). TORQUE SCREWS TO 8 LBS. IN. ATTACH THE OTHER END OF THIS CABLE BY LOOSENING THE SCREWS ON CONN. J7 OF THE LOGIC ASSY (ITEM 8) AND INSERTING THE END OF EACH WIRE PER THE WIRING DIAGRAM ON INT. 2 OF THIS PRINT. TORQUE THE SCREWS OF CONN. J7 TO 8 LBS. IN.
 - COIL POWER CORD AND TIE WITH TWO CABLE TIES (ITEM 28) FOR PACKAGING SYSTEM ONLY.
 - ATTACH THE AC. HARNESS (ITEM 15) BY PLUGGING: P1 OF THE HARNESS INTO J1 OF THE AC INPUT BOX (ITEM 9), P4 OF THE HARNESS INTO #1 OF THE PWR. SUPPLY (ITEM 10), P2 OF THE HARNESS INTO FAN NO. 1 OF THE LOGIC ASSY (ITEM 8) AND P3 OF THE HARNESS INTO FAN NO. 2 OF THE LOGIC ASSY (ITEM 8).
 - SECURE THE AC. HARNESS (ITEM 15) TO THE BASE WITH THE CABLE CLAMP (ITEM 22) AND A #8-32 KEPS NUT (ITEM 20).
 - CLOSE THE PWR. SUPPLY (ITEM 10) AND SECURE IT TO THE LOGIC ASSY (ITEM 8) WITH 2 #8-32X.25 LG. SCREWS (ITEM 13) AND 2 LOCK WASHERS (ITEM #14).
 - ATTACH THE SPRING BUTTON ASSY (ITEM 24) TO THE AC INPUT (ITEM 9) WITH 2 #4-40 X.19 LG SCREWS (ITEM 26) AND 2 LOCK WASHERS (ITEM 25).

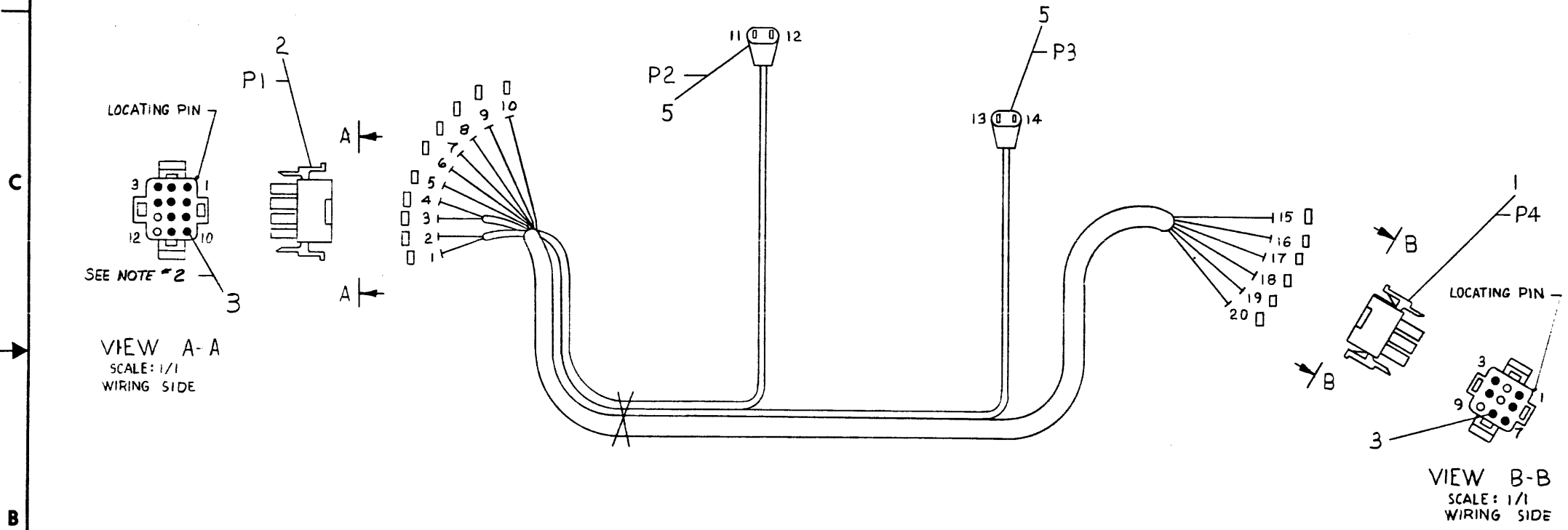
- ### ASSY. INSTRUCTIONS (CONT)
- REMOVE THE SHIPPING SCREW (ITEM #23) TO THE REAR DOOR (ITEM #7) AND REPLACE WITH A #8-32X.25 LG. SCREW.
 - SLIDE THE COVER (ITEM #18) OVER THE ASSY. AND SECURE IT WITH 4 #8-32X.25 LG. SCREWS (ITEM 13) AND 4 LOCK WASHERS (ITEM #14).
 - OPEN THE REAR DOOR (ITEM #7) AND INSTALL THE SHIPPING SCREW #8-32X.38 (ITEM #23) AND A LOCK WASHER (ITEM #14). CLOSE THE REAR DOOR (ITEM #7) AND SECURE THE TWO 1/4 TURN FASTENERS.
 - FILL OUT THE SERIAL LABEL (ITEM #35) BY TYPING THE SERIAL NO., MODE, NO. OF WATTS. ATTACH ITEM 35 TO THE A.C. INPUT BOX (ITEM 9) AS SHOWN.



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 © 1977, DIGITAL EQUIPMENT CORPORATION

WIRE TABLE								
ITEM NO	DESCRIPTION		FROM			TO		
	AWG	COLOR	POINT	CONN	TERM	POINT	CONN	TERM
5	18	BLK	1	PI-10	3	13	P3	---
			2	PI-7	↑	14	P3	---
5	18	BLK	3	PI-11	↑	11	P2	---
			4	PI-8	↑	12	P2	---
10	14	BLK	5	PI-4	↑	19	P4-4	3
4	14	BLU	6	PI-5	↑	17	P4-8	---
11	14	BRN	7	PI-6	↑	16	P4-6	↑
7	18	BLK	8	PI-1	↑	18	P4-1	↓
9	18	GRN/YEL	9	PI-2	↓	20	P4-7	↓
8	18	BRN	10	PI-3	3	15	P4-3	3

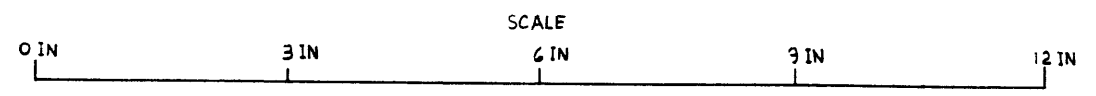
- NOTES:
- USE TIE WRAPS (X) ITEM #6 APPROXIMATELY AS SHOWN.
 - ITEM #3 CAN BE SUBSTITUTED BY P/N 121270-00 WHEN USING AN AUTOMATIC CRIMPING MACHINE.



VIEW A-A
SCALE: 1/1
WIRING SIDE

VIEW B-B
SCALE: 1/1
WIRING SIDE

DO NOT REDUCE
FOR MANUFACTURING PURPOSES ONLY



CAUTION: OFF SHEET PARTS LIST EXISTS.
REFER TO K-PL-7014093-0-DBP

REV	DATE	BY	CHK'D	DESCRIPTION
1	7/22/77	J. KALAGHER		INITIAL RELEASE
2	8/29/77	J. KALAGHER		REVISED TO 1000
3	1/28/78	J. KALAGHER		REVISED TO 1000
4	1/28/78	J. KALAGHER		REVISED TO 1000
5	1/28/78	J. KALAGHER		REVISED TO 1000
6	1/28/78	J. KALAGHER		REVISED TO 1000
7	1/28/78	J. KALAGHER		REVISED TO 1000
8	1/28/78	J. KALAGHER		REVISED TO 1000
9	1/28/78	J. KALAGHER		REVISED TO 1000
10	1/28/78	J. KALAGHER		REVISED TO 1000
11	1/28/78	J. KALAGHER		REVISED TO 1000
12	1/28/78	J. KALAGHER		REVISED TO 1000
13	1/28/78	J. KALAGHER		REVISED TO 1000
14	1/28/78	J. KALAGHER		REVISED TO 1000
15	1/28/78	J. KALAGHER		REVISED TO 1000
16	1/28/78	J. KALAGHER		REVISED TO 1000
17	1/28/78	J. KALAGHER		REVISED TO 1000
18	1/28/78	J. KALAGHER		REVISED TO 1000
19	1/28/78	J. KALAGHER		REVISED TO 1000
20	1/28/78	J. KALAGHER		REVISED TO 1000
21	1/28/78	J. KALAGHER		REVISED TO 1000
22	1/28/78	J. KALAGHER		REVISED TO 1000
23	1/28/78	J. KALAGHER		REVISED TO 1000
24	1/28/78	J. KALAGHER		REVISED TO 1000
25	1/28/78	J. KALAGHER		REVISED TO 1000
26	1/28/78	J. KALAGHER		REVISED TO 1000
27	1/28/78	J. KALAGHER		REVISED TO 1000
28	1/28/78	J. KALAGHER		REVISED TO 1000
29	1/28/78	J. KALAGHER		REVISED TO 1000
30	1/28/78	J. KALAGHER		REVISED TO 1000

QUANTITY & VARIATION	DESCRIPTION	DWG. PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
	ANGLES 90° 30'		
	SURFACE QUALITY IN MICROINCHES		
	THIRD ANGLE PROJECTION		
	REMOVE BLURS AND BREAK SHARP CORNERS		
	DO NOT SCALE DWG		
	NEXT HIGHER ASSY.		
	MATERIAL SEE PARTS LIST		
	FINISH		
	DRN. 3	CHK'D	ENG. 2
	PROJ. ENG. 1	PROD. 1	
	FIRST USED ON BAI-N		
	TITLE HARNESS AC POWER		
	E-VA-B111-N-0	SIZE CODE D	NUMBER 1A
	SCALE 1/1	DIST.	REV. C
	SHEET 1	OF 1	ML3

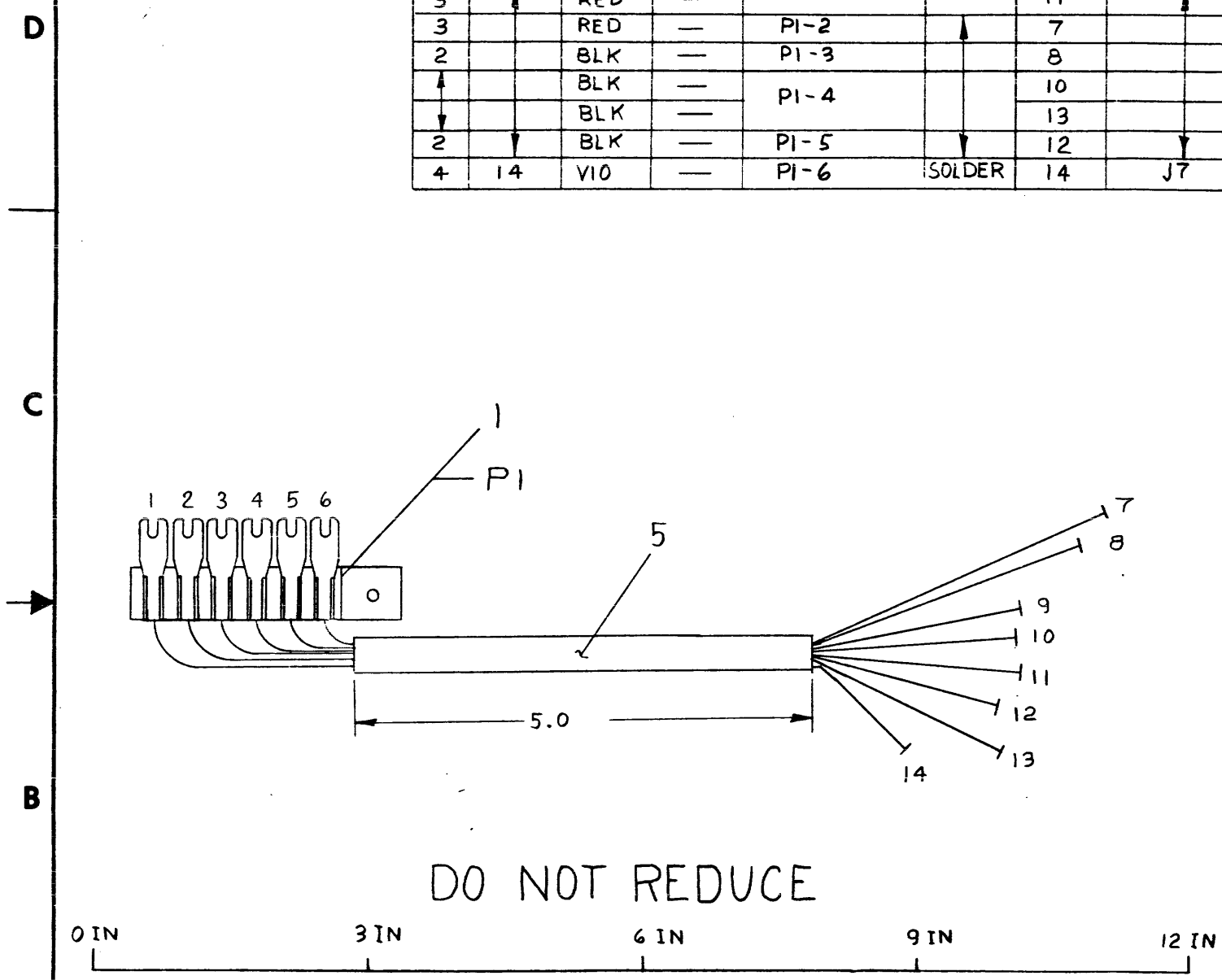
DRAWING NUMBER: 7014093-0-0

"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 © 1977, DIGITAL EQUIPMENT CORPORATION"

WIRE TABLE								
ITEM NO	DESCRIPTION		FROM			TO		
	AWG	COLOR	POINT	CONN.	TERM	POINT	CONN (REF)	TERM (REF)
3	14	RED	—	PI-1	SOLDER	9	J7	5
3	↑	RED	—			11	↑	5
3	↑	RED	—	PI-2		7		8
2		BLK	—	PI-3		8		7
↑		BLK	—	PI-4		10		4
↓		BLK	—			13		4
2	↓	BLK	—	PI-5		12	↓	3
4	14	VIO	—	PI-6	SOLDER	14	J7	2

NOTES:

- 1. STRIP INSULATION BACK .38 INCH. POINTS 7-14



A/R	DESCRIPTION	DWG./PART NO.	ITEM NO.
A/R	TUBING EXTRUDED .375 I.D.	9107245-00	5
A/R	WIRE, #14 AWG STRD (VIO)	9107370-77	4
A/R	WIRE, #14 AWG STRD (RED)	9107370-22	3
A/R	WIRE, #14 AWG STRD (BLK)	9107370-00	2
1	STRIP, CONNECTOR, (6 POSITION)	1212698-00	1

DESCRIPTION	DWG./PART NO.	ITEM NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES							
ANGLES 30° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES					
SURFACE QUALITY IN MICROINCHES	MEDIUM <input type="checkbox"/> PREFERRED <input checked="" type="checkbox"/>	OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
		±.004	±.008	±.012	±.016	±.024	±.04
QUANTITY & VARIATION		±.012 ±.016 ±.025 ±.04 ±.063 ±.1					

REV.	CHANGE NO.	DATE	BY	REVISIONS
A	00001	16-04-77	J. KALAGHER	17 Apr 77
B	00002	19 Dec 77	J. KALAGHER	22 Dec 77

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH *++*

DRN. *B. B. Hodge* 12/20/77

CHK'D *J. F. Hodge* 20/2/77

ENG. *J. Kalagher* 1/7/77

PROJ. ENG. *J. Kalagher* 1/7/77

PROD. *R. Hamilton* 1/5/77

FIRST USED ON BAI1-N

TITLE HARNESS, D.C.

SIZE CODE C IA

NUMBER 7014091-0-0

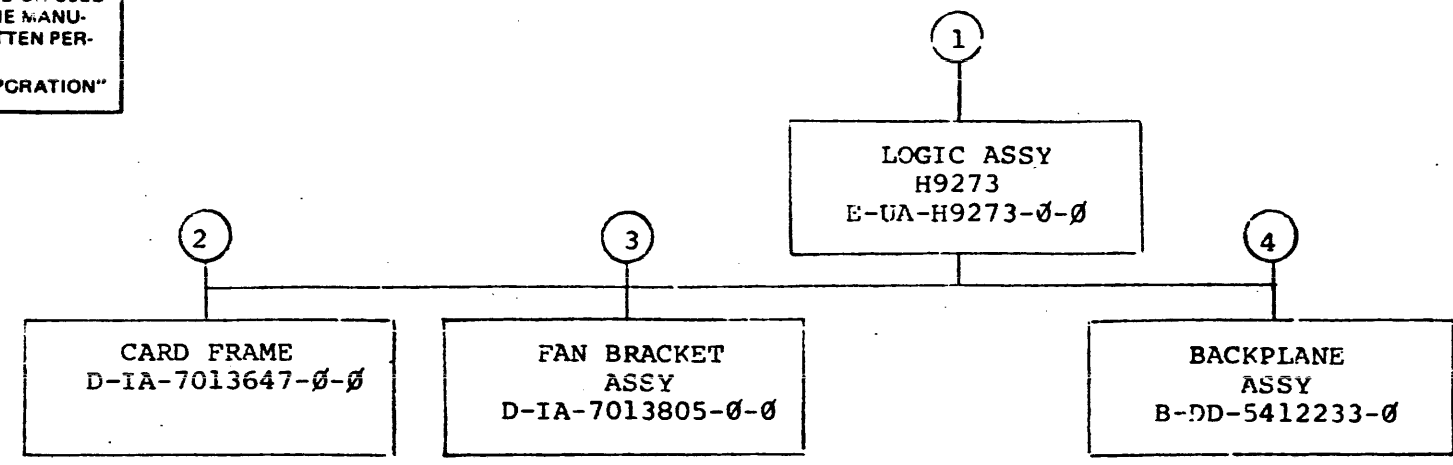
REV. B

MANUFACTURE P-1085

DEC FORM NO. DEC 1962

REV. B
NUMBER 7014091-0-0
SIZE CODE C IA

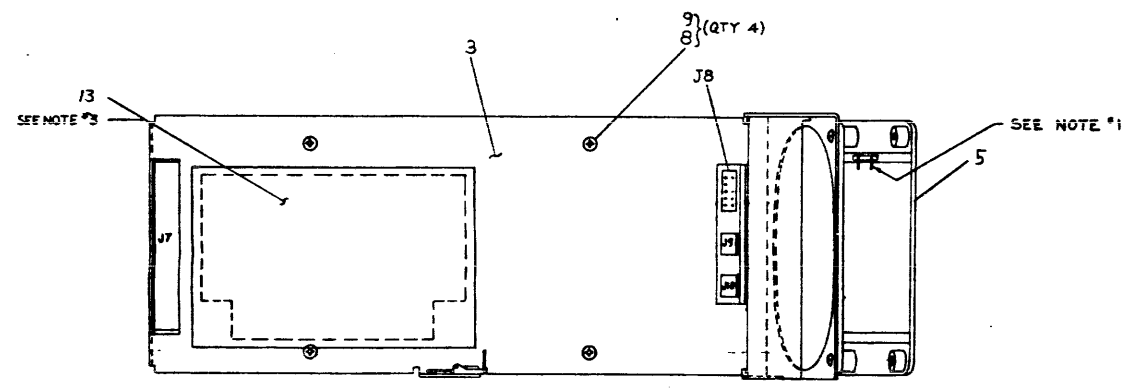
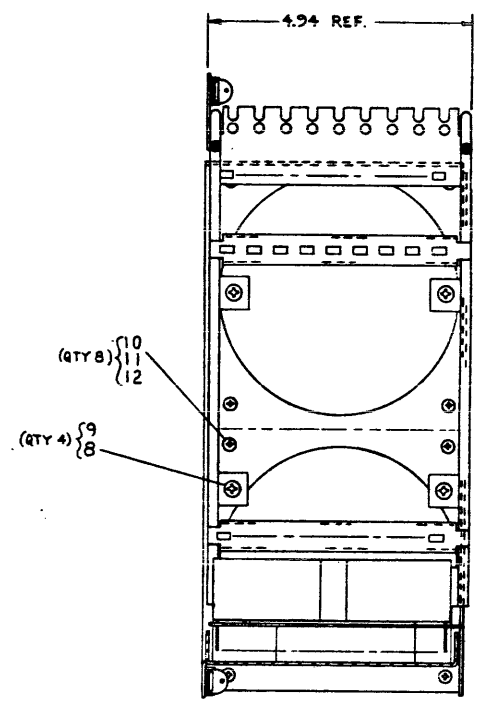
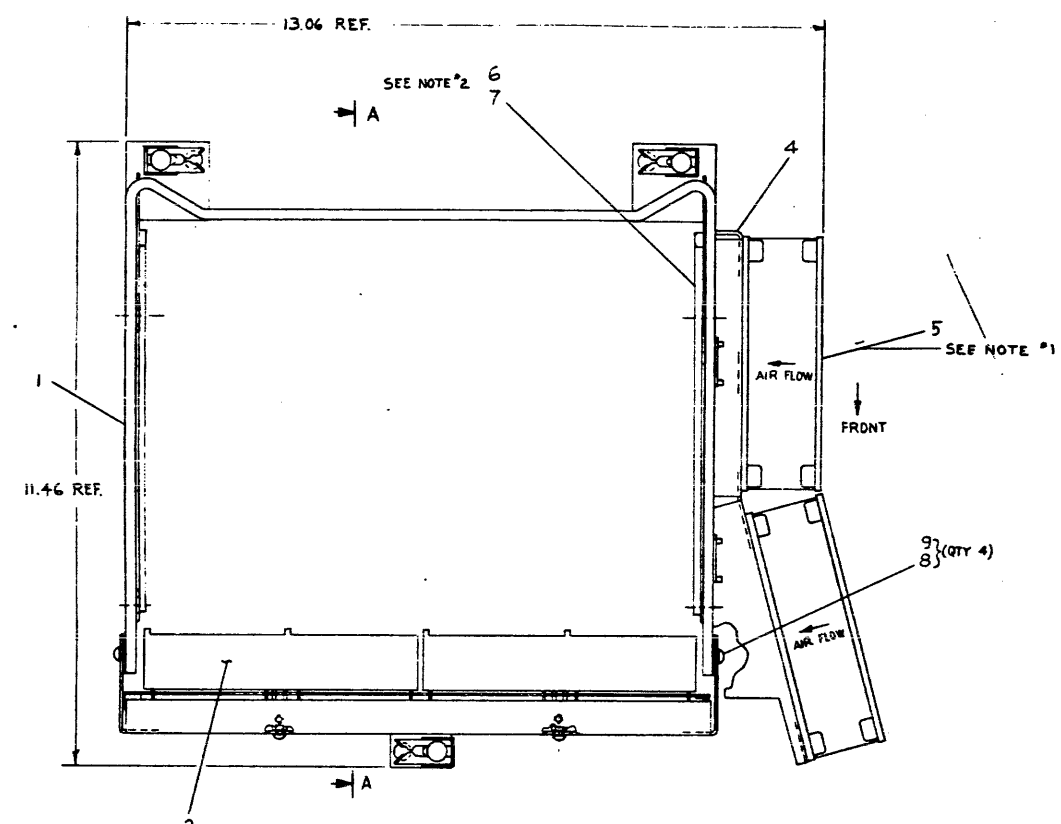
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. 1977
 COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



TITLE	LOGIC ASSY H9273	SHEET 2 OF 3	SIZE CODE	B DD	NUMBER	H9273-0	REV	B
-------	------------------	--------------	-----------	------	--------	---------	-----	---

THIS DRAWING AND PHOTOGRAPH SHALL BE THE PROPERTY OF THE AIR FORCE. IT IS TO BE KEPT IN THE ORIGINAL FORM AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

- NOTES:
1. MOUNT FANS SO THAT THE TERMINALS ARE ON THE TOP TOWARDS THE FRONT.
 2. 5 NATURAL CARD GUIDES (ITEM *7) AND 4 MEGENTA CARD GUIDES (ITEM *8) ON EACH SIDE. INSTALL SO COLORS ALTERNATE.
 3. DECAL MUST COVER SILK SCREENING COMPLETELY.



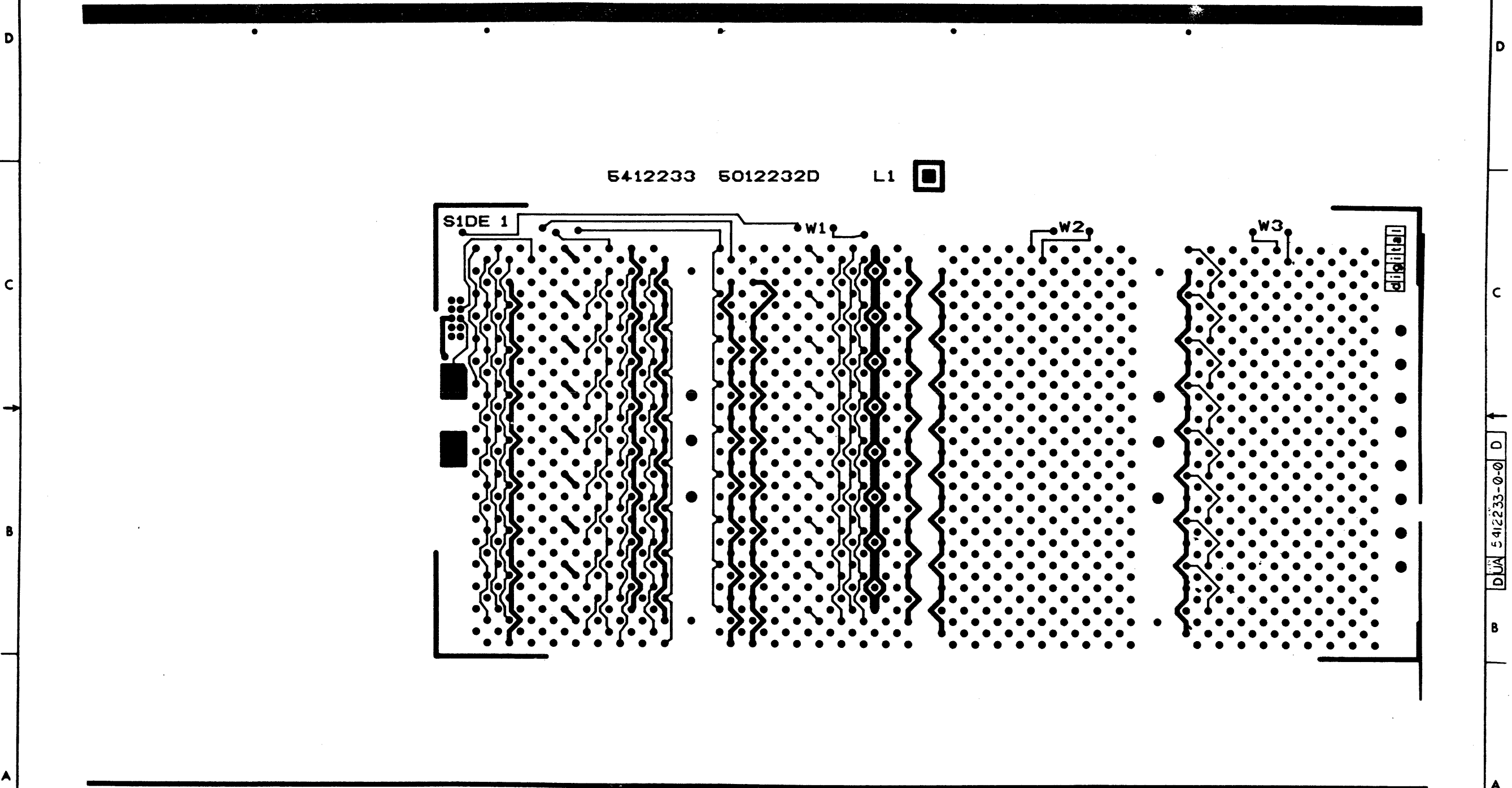
QTY	DESCRIPTION	PART NO.	ITEM NO.
1	PACKAGING INSTRUCTIONS	ASP 120324-00	14
1	DECAL IDENTIFICATION	361551700	13
8	CLIP, MOUNTING	9009165-00	12
8	WASHER, LOCK INT TOOTH #6	9006433-00	11
8	SCR, PH. PAN HD #6-32X.62	9006025-01	10
8	WASHER, LOCK INT. TOOTH #8	9006234-00	9
8	SCR, PH. PAN HD #8-32X.30	9006037-01	8
10	GUIDE, CARD (NATURAL)	1212405-08	7
8	GUIDE, CARD (MEGENTA)	1212405-09	6
2	FAN	1213185-00	5
1	FRONT FAN MTS	D-14-701805-0-0	4
1	BRACKET, BACKPLANE	D-14-701822-0-0	3
1	BACKPLANE ASSY	D-14-541233-0-0	2
1	CARD FRAME ASSY	C-14-701367-0-0	1

H9273-A
 1/5273
 H9273
 LOGIC ASSY
 SCALE 1/1
 SEE PARTS LIST
 H9273-0
 1/1
 H9273-0-0
 1/1

REV.	DATE	BY	CHKD.	DESCRIPTION
1	11/17/50	W. J. GREEN		INITIAL DESIGN
2	1/10/51	W. J. GREEN		REVISED TO SHOW CHANGES
3	1/10/51	W. J. GREEN		REVISED TO SHOW CHANGES
4	1/10/51	W. J. GREEN		REVISED TO SHOW CHANGES
5	1/10/51	W. J. GREEN		REVISED TO SHOW CHANGES

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 © 1971 DIGITAL EQUIPMENT CORPORATION.

DJA 5412233-0-0 D 2



VIEWED FROM SIDE 1

REVISIONS		
CHK	CHANGE NO.	REV

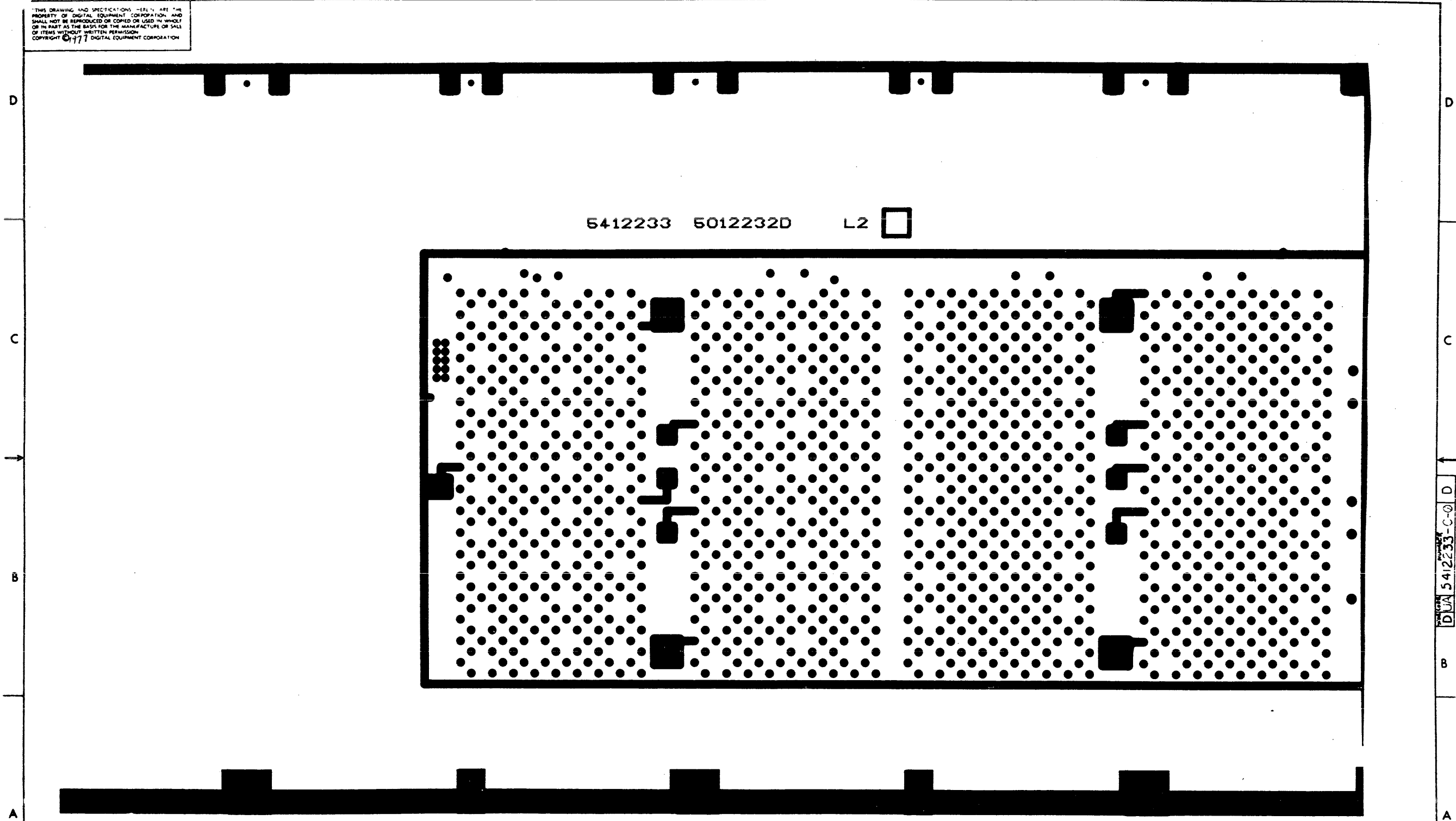
TITLE	BACKPLANE ASS'Y	SIZE CODE	D UA	NUMBER	5412233-0-0	REV.	D
SCALE	2:1	SHEET	2 OF 5	DIST.			

DEC FORM NO. 500 137

DJA 5412233-0-0 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 © 1977 DIGITAL EQUIPMENT CORPORATION

DUA 5412233-0-0 2



VIEWED FROM SIDE 1

REVISIONS		
CHK	CHANGE NO.	REV

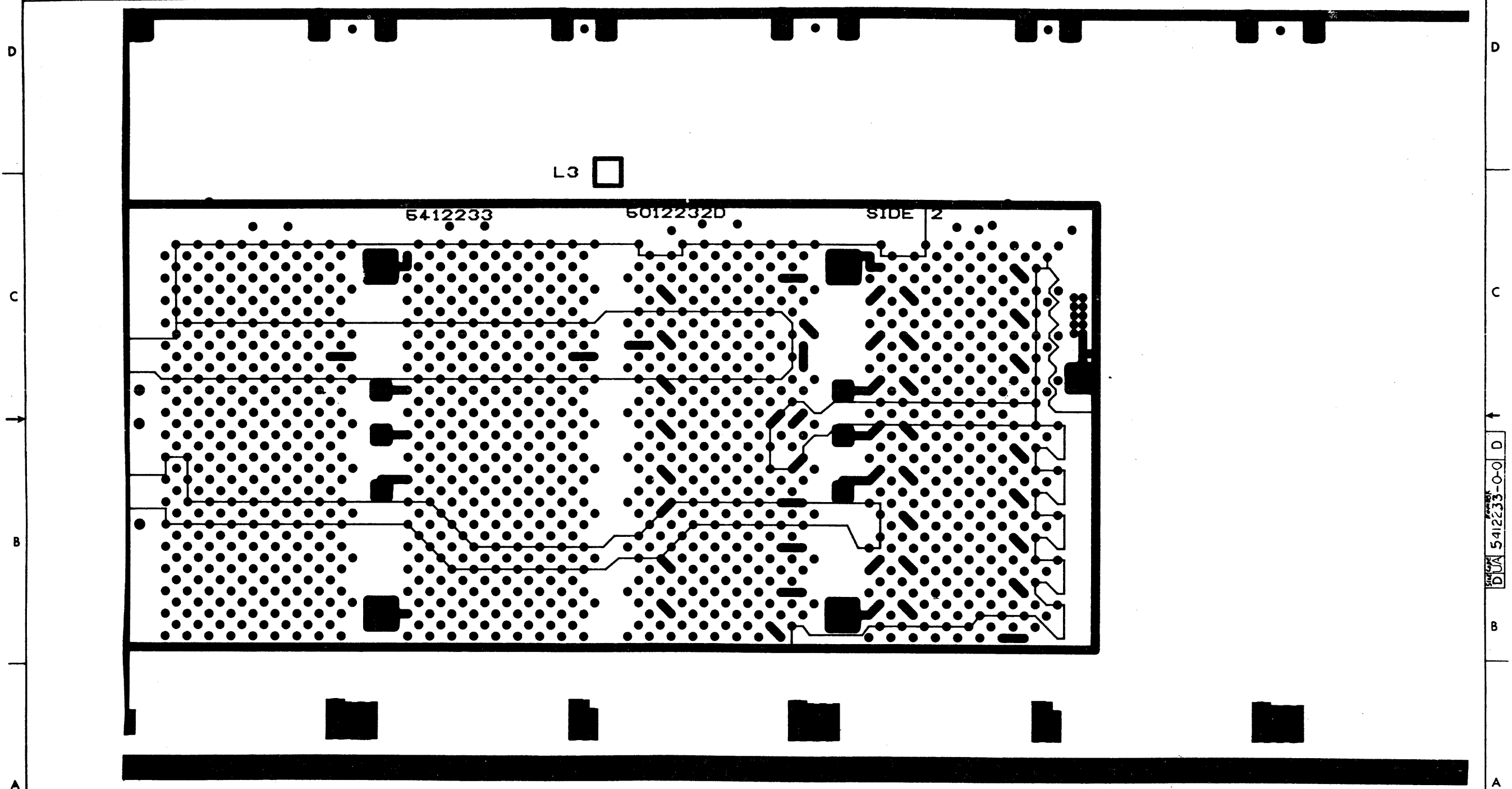
TITLE	BACKPLANE ASS'Y	SIZE CODE	DUA	NUMBER	5412233-0-0	REV.	D
SCALE	1:1	SHEET	3 OF 5	DIST			



DUA 5412233-C-0 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 © 1977 DIGITAL EQUIPMENT CORPORATION.

DUA 5412233-0-0 2



VIEWED FROM SIDE 2

REVISIONS		
CHK	CHANGE NO.	REV

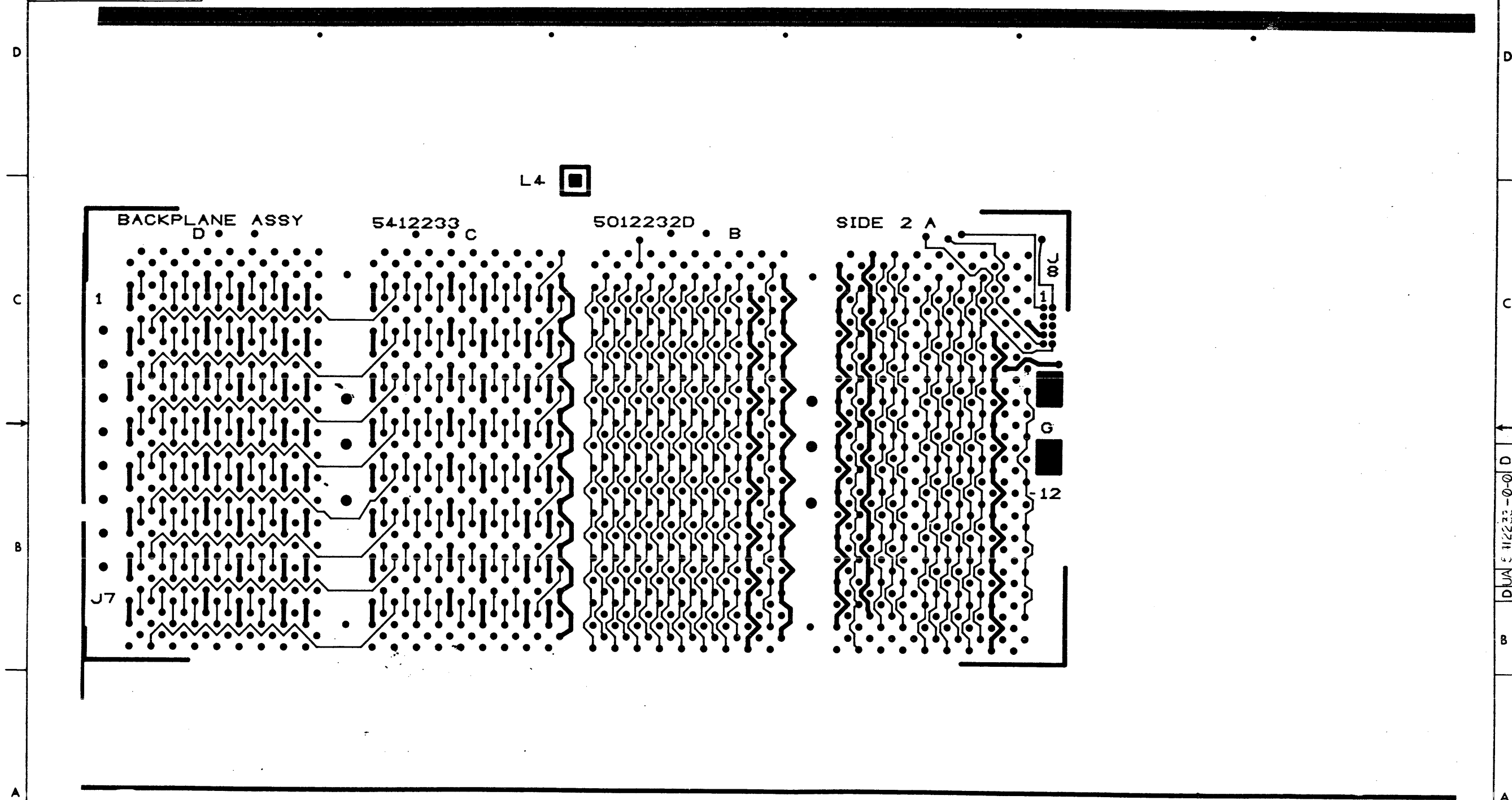
TITLE	BACKPLANE ASS'Y	SIZE CODE	DUA	NUMBER	5412233-0-0	REV	D
SCALE	2:1	SHEET	4 OF 5	DIST			

DEC FORM NO 240 117

DUA 5412233-0-0 D

THIS DRAWING AND SPECIFICATIONS HERIN 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 © 1977 DIGITAL EQUIPMENT CORPORATION

DIA 5412233-0-0 2



VIEWED FROM SIDE 2

REVISIONS		
CHK	CHANGE NO.	REV

8	7	6	5	4	3	2	1	
TITLE BACKPLANE ASS'Y						SIZE CODE DUA	NUMBER 5412233-0-0	REV D
SCALE 2:1		SHEET 5 OF 5		DIST				

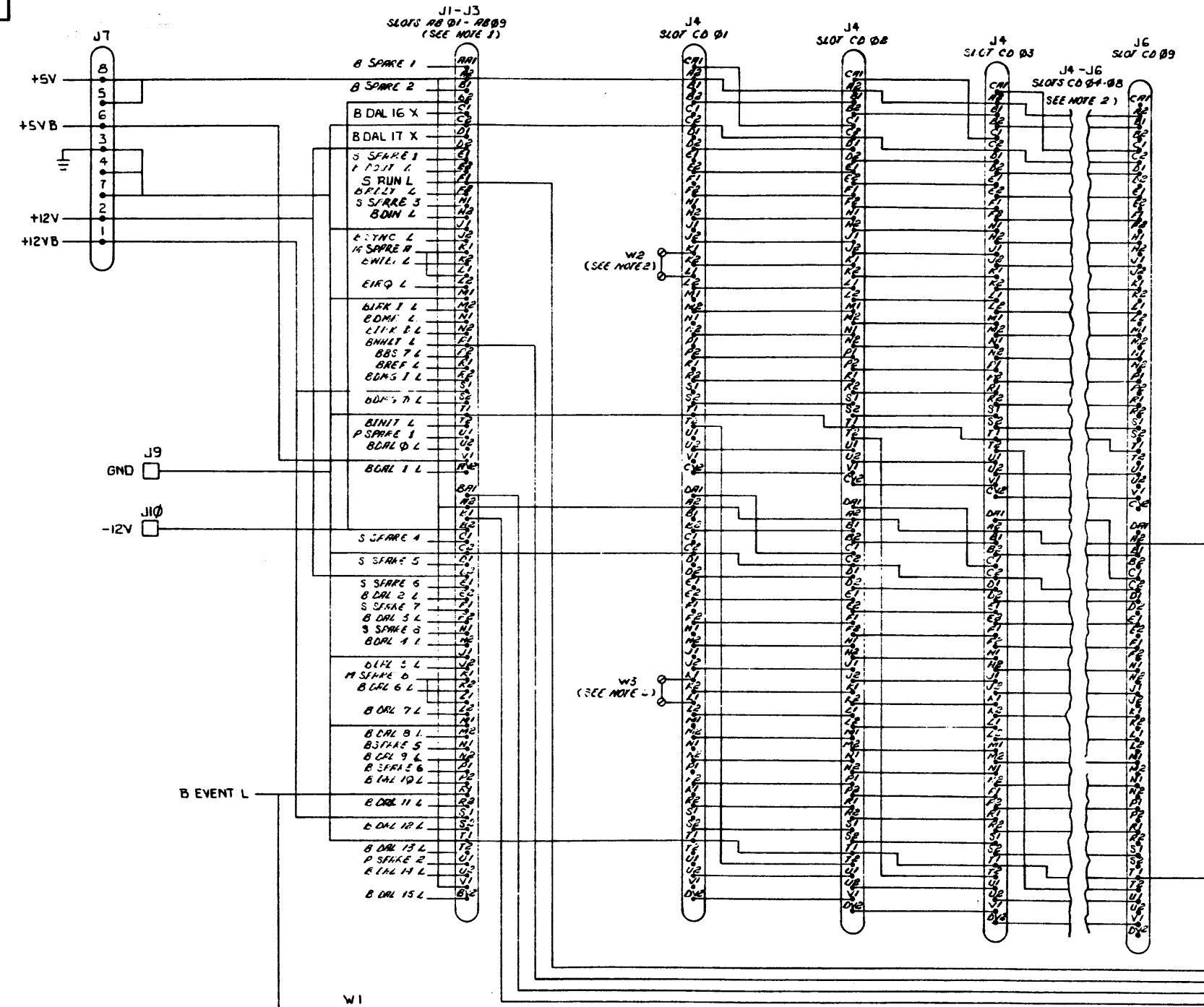
15 137

DUA 5412233-0-0 D

"THE 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 © 1974, DIGITAL EQUIPMENT CORPORATION"

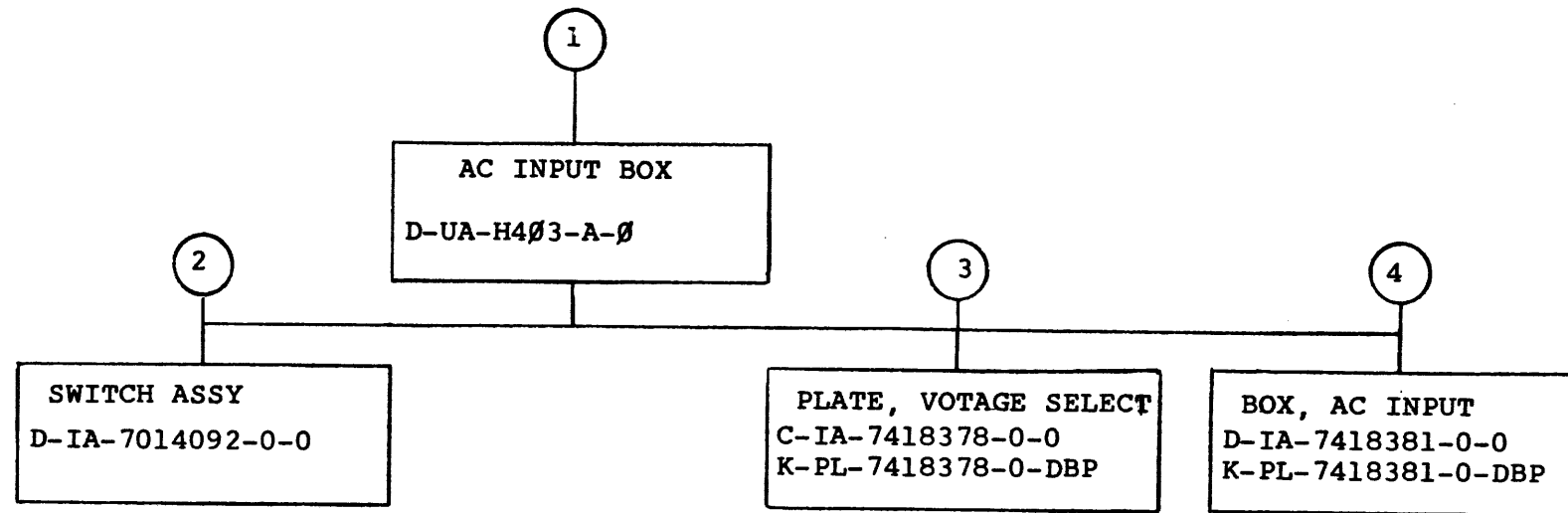
D 1-0-5412233-0-1 2

- NOTES:**
- ALL SIGNALS IN SLOTS AB 01 - AB 09 ARE BUSSED TO EACH SLOT OF CONNECTORS J1 - J3 WITH THE FOLLOWING EXCEPTIONS:
 - A. S SPARE 1-9: NOT BUSSED.
 - B. M SPARE A18: PINS AK1 AND AL1, BK1 AND BL1 ARE TIED TOGETHER RESPECTIVELY FOR EACH SLOT.
 - C. P SPARE 1+2: NOT BUSSED
 - D. PIAK 1 L; PIAK 0 L; BDMG 1 L; BDMG 0 L
 - THE SIGNALS IN SLOTS CD 01 - CD 09 ARE NOT BUSSED EXCEPT FOR +5V (CAZ, DA2) AND GND (CC2, CT1, DC2, DT1). EACH SLOT IS WIRED USING SLOT CD 02 AS AN EXAMPLE WITH THE FOLLOWING EXCEPTIONS:
 - A. SLOT CD 01 HAS TWO WIRE JUMPERS (W2, W3) WHICH ALLOW THE LSI-11 CPU TO RUN IN THIS SLOT. IF THIS BACKPLANE IS BEING USED AS AN EXTENDED BUS THEN THESE JUMPERS MUST BE REMOVED.



REV.	REV.
CHG.	CHG.
DATE	DATE
BY	BY
BY	BY

DRN	2/1/77	FIRST USED ON	H9273
CHK	2/1/77	TITLE	BACK PLANE
ENG.	2-5-77		
PROJ. ENG.	2-5-77		
PROD.	2-5-77		
NEXT HIGHER ASSY.			
D-UA-5412233-0-0	SIZE	CODE	NUMBER
SCALE	NONE	D	CS 5412233-0-1
SHEET	OF	DIST.	REV.



TITLE	SIZE	CODE	NUMBER	REV.
AC INPUT BOX H403-A	B	DD	H4Ø3-A	B
SHEET 2 OF 3				

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	D-UA-H403-A-0	AC INPUT BOX H403-A	E/M				
	D-IA-7418381-0-0	BOX AC INPUT	M				
	C-IA-7418380-0-0	COVER, AC INPUT	M				
	C-IA-7418378-0-0	PLATE, VOLTAGE SELECT	M				
2	D-IA-7014092-0-0	SWITCH ASSY	E/M				
	C-IA-7418379-0-0	BRACKET, 12 PIN MATE-N-LOK	M				
	C-IA-7418377-0-0	CLAMP 12 PIN MATE-N-LOK	M				
3	C-IA-7418378-0-0	PLATE, VOLTAGE SELECT	M				
	K-PL-7418378-0-DBP	PLATE, VOLTAGE SELECT (PARTS LIST)	M				
	A-SS-7418378-0-1	SILK SCREEN (115V)	M				
	A-SS-7418378-0-2	SILK SCREEN (230V)	M				
	A-SS-7418378-0-4	SILK SCREEN (240V)	M				
	A-SS-7418378-0-5	SILK SCREEN (120V)	M				
4	D-IA-7418381-0-0	BOX, AC INPUT	M				
	K-PL-7418381-0-DBP	BOX, AC INPUT (PARTS LIST)	M				

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



TITLE AC INPUT BOX H403-A

SHEET 3 OF 3

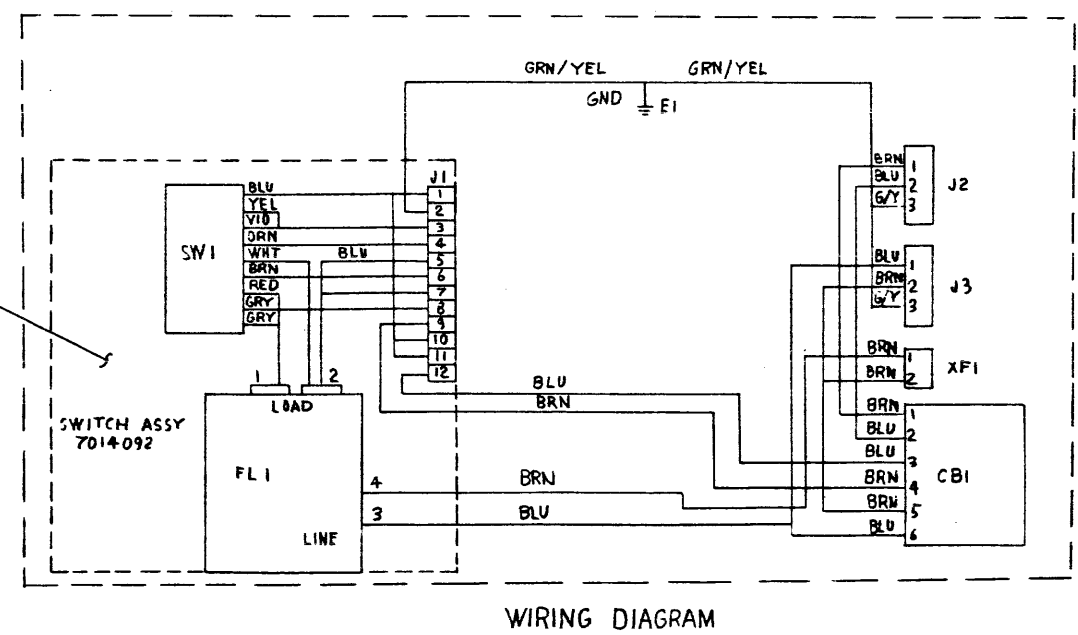
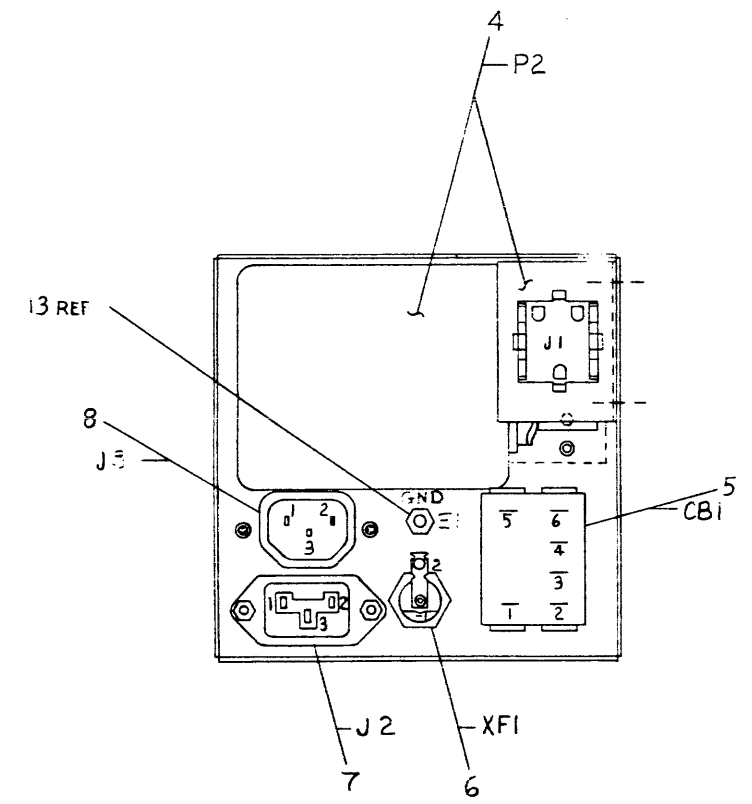
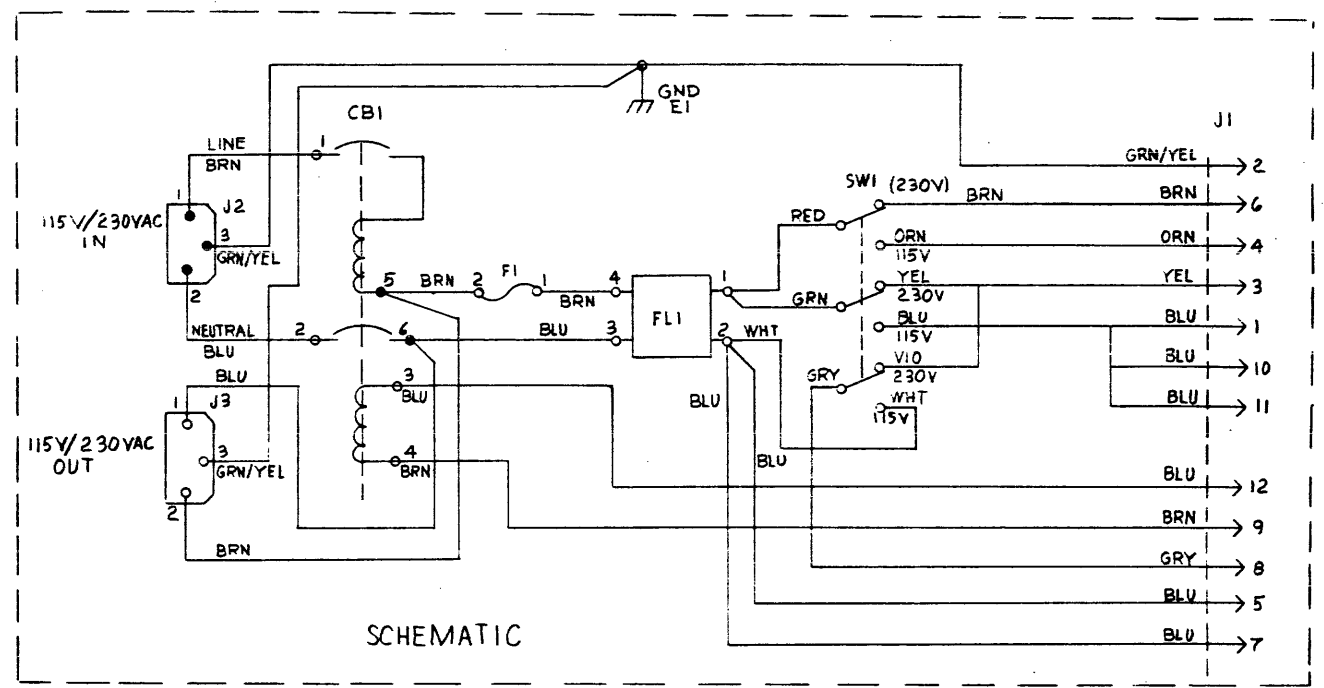
SIZE CODE
B DD

NUMBER
H403-A

REV.
B

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 © 1977 DIGITAL EQUIPMENT CORPORATION

WIRE TABLE							
ITEM NO	AWG	COLOR	FROM		TO		
			CONN	TERM	CONN	TERM	
16	14	GRN/YEL	J3-3	SOLDER		15	2.25
16	14	GRN/YEL	J2-3	SOLDER	GND (E1)	15	2.25
4	18	GRN/YEL	P2 (J1-2)				
18		BRN	J2-1	SOLDER	CBI-1	23	5.50
18		BRN	J3-2	SOLDER	CBI-5	14	4.75
18		BRN	XFI-2	SOLDER			3.00
17		BLU	J2-2	SOLDER	CBI-2	23	4.50
17		BLU	P2 (J1-2)		CBI-3	23	4.00
18		BRN	P2 (J1-9)		CBI-4	23	4.00
4		BRN	P2 (FLI-4)		XFI-1	SOLDER	
4		BLU	P2 (FLI-3)				
4	18	BLU	J5-1	SOLDER	CBI-6		



REVISIONS		
CHK	CHANGE NO.	REV.

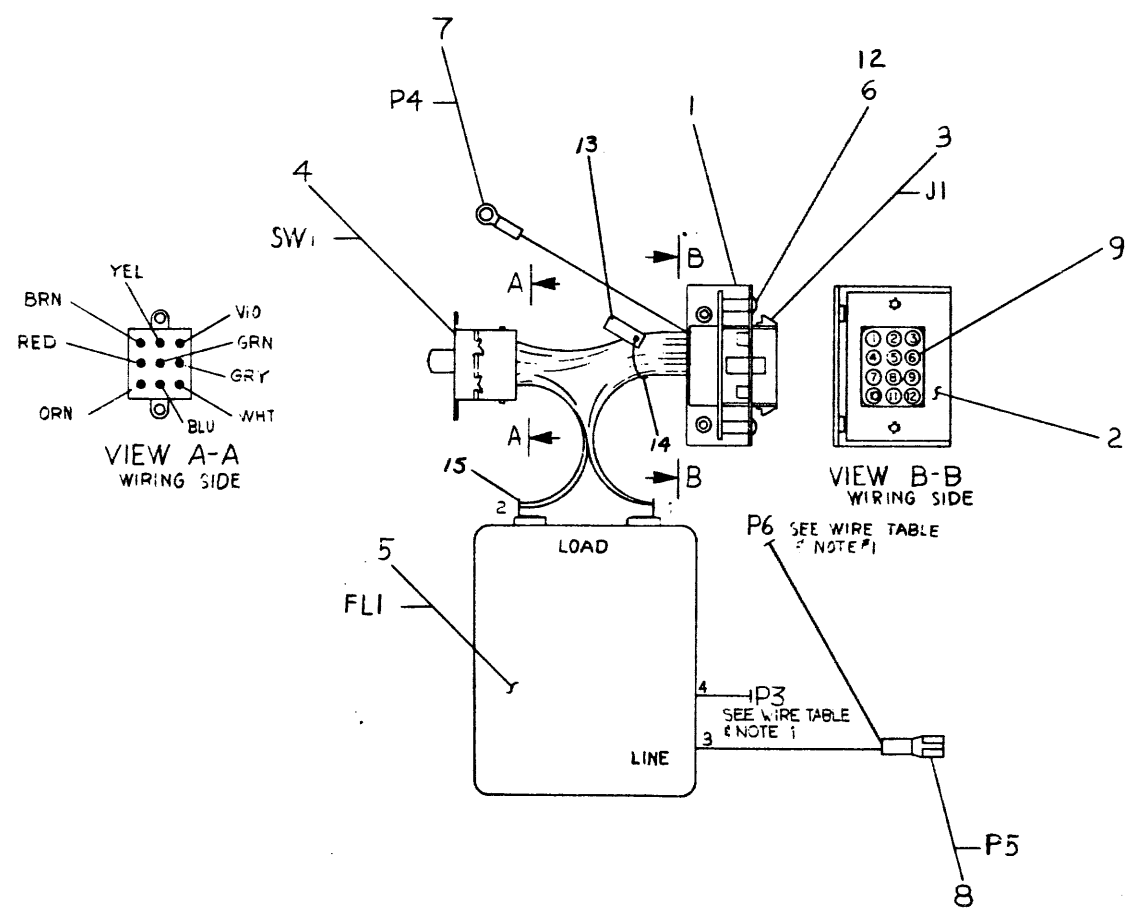
TITLE: AC INPUT BOX H403-A
 SCALE: 1/1
 SHEET: 2 OF 2
 SIZE CODE: DUA
 NUMBER: H403-A-0
 REV. B

DUA H403-A-0
 NUMBER
 REV. B

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 © 1977, DIGITAL EQUIPMENT CORPORATION

WIRE TABLE							WIRE TABLE						
ITEM NO	DESCRIPTION	FROM	TO	PRECUT LENGTH	ITEM NO	DESCRIPTION	FROM	TO	PRECUT LENGTH				
AWG	COLOR	CONN	TERM		AWG	COLOR	CONN	TERM					
4	18	BLU	SW1	---	4	18	GRY	SW1	---				
11		BLU	J1-10	ITEM#9	4		BRN	SW1	---				
11		BLU	J1-11	ITEM#9	4		YEL	SW1	---				
4		ORN	SW1	---	4		VIO	SW1	---				
4		WHT	SW1	---	10		GRN/YEL	J1-2	ITEM#9				
11		BLU	J1-5	ITEM#9	5		BLU	FLI-3	---				
11		BLU	J1-5	ITEM#9	11		BLU	P6	---				
4		RED	SW1	---	5	18	BRN	FLI-4	---				
4	18	GRN	SW1	---									
			FLI-1	SOLDER									
				3.25 IN. ±.12									
				3.0 IN.									
				2.0 IN.									
				3.0 IN.									
				3.25 IN. ±.12									

NOTES:
 1. STRIP INSULATION 1/4 INCH AND TIN.



QTY	DESCRIPTION	DWG. PART NO.	ITEM NO.
2	SHRINK SLEEVING 1/2" LG	9107253-00	15
1	CABLE TIE	9007031	14
1	TA'S	9009532	13
2	WASHER, LOCK INT TOOTH #4	9006632-00	12
A/R	WIRE, 18 AWG 300V (BLU)	3107786-26	11
A/R	WIRE, 18 AWG 150V (GRN/YEL)	9107410-54	10
10	PIN, MALE MATE-N-LOK	1213907-01	9
1	TERM, QUICK CONN, (BLU)	9007969-00	8
1	TERM, RING #10 (RED)	9007930-00	7
2	SCREW PHL. PAN HD #4-40x25	9009331-01	6
1	FILTER, AC	1214183-00	5
1	SWITCH, VOLTAGE SELECT	1214155-00	4
1	CONN, FEMALE MATE-N-LOK	1212168-03	3
1	CLAMP 12 PIN MATE-N-LOK C-1A-7418377-0-0	C-1A-7418377-0-0	2
1	BRKT, 12 PIN MATE-N-LOK C-1A-7418379-0-0	C-1A-7418379-0-0	1

REV.	DATE	BY	CHKD.	DESCRIPTION
1	11/17/77	J. KALAGHER	J. KALAGHER	INITIAL RELEASE
2	12/14/77	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
3	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
4	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
5	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
6	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
7	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST
8	1/10/78	J. KALAGHER	J. KALAGHER	REVISED TO ADD PARTS LIST

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES					
15° 30'	CHECK ONE	OVER 0 TO 0.25	0.25 TO 0.5	0.5 TO 1.0	1.0 TO 2.0	2.0 TO 4.0	OVER 4.0
		±0.004	±0.005	±0.007	±0.010	±0.015	±0.020
		±0.001	±0.002	±0.003	±0.004	±0.005	±0.007

QUANTITY & VARIATION

DRN: J. Kalagher 18 Nov 77

CHK'D: J. Kalagher 20 Nov 77

ENG: J. Kalagher 1 Dec 77

PROJ. ENG: J. Kalagher 1 Dec 77

PROD. J. Kalagher 15 Dec 77

FIRST USED ON H4B3-A

TITLE SWITCH, VOLTAGE SELECT ASSY

D-1A-H4B3-A-B

SCALE

SHEET 1 OF 1

SIZE D

CODE IA

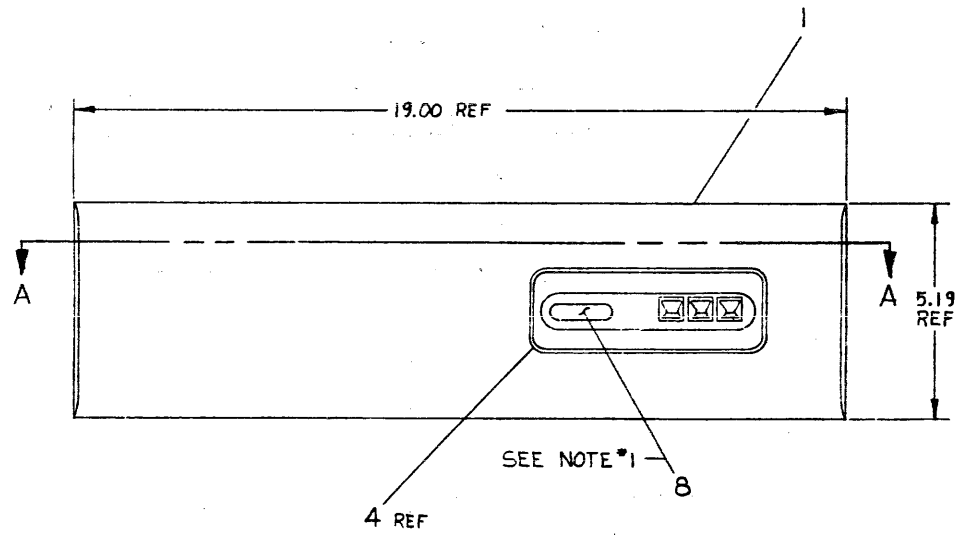
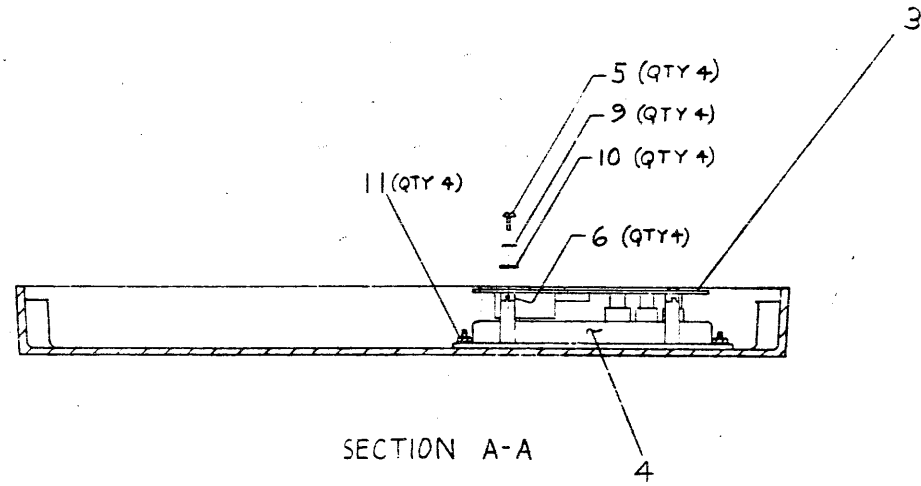
NUMBER 7014092-0-0

REV C

"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 © 1977, DIGITAL EQUIPMENT CORPORATION"

NOTES:

1. ULTRASONICALLY WELD THE WINDOW (ITEM*8) TO THE FRAME (ITEM*4) BEFORE INSTALLING THE FRAME INTO THE BEZEL



QTY	DESCRIPTION	DWG./PART NO.	ITEM NO.
4	FASTENER, PUSH ON	9010032-00	11
4	WASHER, FLAT #6	9006653	10
4	L'WASHER #6	9006633	9
1	WINDOW	B-MD-7411744-00	8
4	WASHER, FLAT NO. 8	9006660-00	7
4	INSERT #6-32	9009601-00	6
4	SLR. PHL HD PAN #6-32x.38	9006022-01	5
1	FRAME	D-MD-7411945-02	4
1	11/03-L FRONT PANEL	0-UA-5412985-0-0	3
4	NUT, KEPS #8-32	9006563-00	2
1	BEZEL 5-1/4"	E-MD-7415313-03	1

QUANTITY & VARIATION		DESCRIPTION		DWG./PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES							
ANGLES 90° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES					
SURFACE QUALITY	(CHECK ONE)	OVER 0.2	OVER 0.5	OVER 1.0	OVER 1.5	OVER 2.0	OVER 3.0
MEDIUM	<input checked="" type="checkbox"/>	±.008	±.008	±.012	±.012	±.024	±.024
MICRONCHES		±.012	±.018	±.028	±.04	±.062	±.062
THIRD ANGLE PROJECTION		DRN. 9. A. [Signature]		22-06-77		FIRST USED ON	
REMOVE BURRS AND BREAK SHARP CORNERS		CHK'D [Signature]		22-06-77		BA11-N	
DO NOT SCALE DWG		PROJ. ENG. [Signature]		1 JUNE 77		TITLE	
MATERIAL SEE PARTS LIST		E-UA-BA11-N-0		NUMBER		REV.	
FINISH		SCALE 1/2		D AD 7013949-0-0		A	
		SHEET 1 OF 1		DIST.			

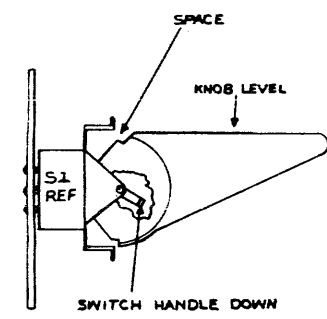
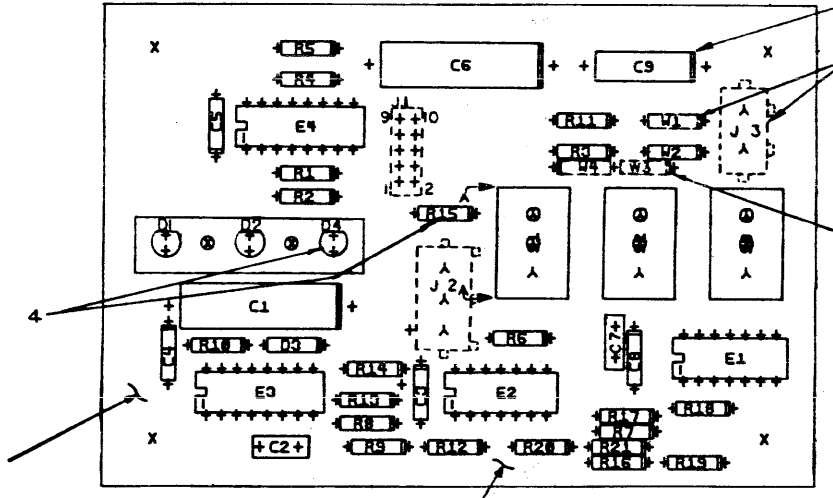
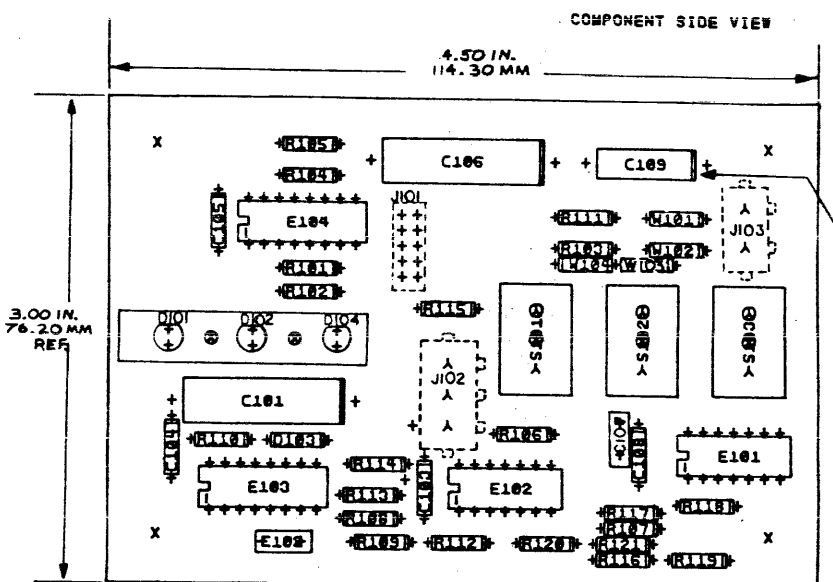
REV.	CHANGE NO.	DATE	BY	APP.
A				

THIS DRAWING AND INFORMATION HEREON ARE THE PROPERTY OF BUSHNELL TELEPHONIC INDUSTRIES AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BUSHNELL TELEPHONIC INDUSTRIES.

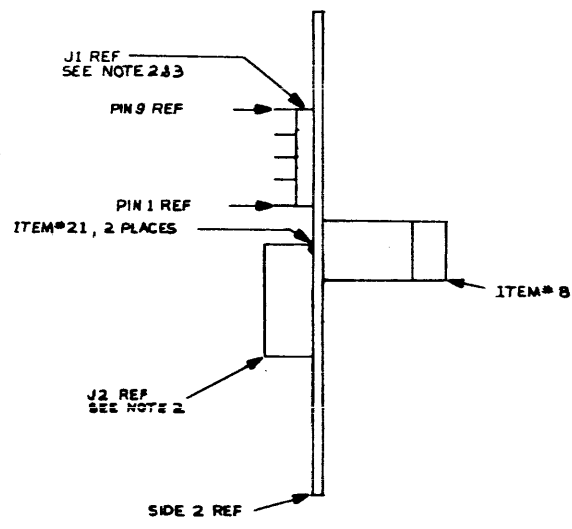
8-0-5412985-0-B 2 1

REFERENCE DESIGNATION CHART	
ACTUAL REF DESIGN.	SUPERFICIAL REF DESIGN.
E1	E101
E2	E102
E3	E103
E4	E104
S1-S3	S101 - S103
C1-C9	C101 - C109
D1-D4	D101 - D104
R1-R21	R101 - R121
J1-J3	J101 - J103
W1-W4	W101 - W104

SEE NOTE 4
SEE NOTE 4
SEE NOTE 244



NOTE: FOR S1, S2 AND S3 TO BE PROPERLY INSTALLED, SWITCH HANDLE MUST BE DOWN, SWITCH KNOB MUST BE LEVEL AND THERE MUST BE A SPACE AT THE TOP OF THE SWITCH ASSEMBLY.



NOTES:
5. W3 IS A FIELD OPTION AND MUST BE INSERTED ON SIDE 2.

NOTE: - MULTI-REF DESIGNATIONS ARE USED TO ACCOMMODATE PANEL INSERTION TECHNIQUES. REFER TO CHART FOR CROSS-REFERENCE.

- NOTES:
- 8 HOLES .0465(+.003-.0045) MAYNARD ONLY
 - MOUNT J1, J2, J3, W1, W2 AND W4 ON SIDE 2 AFTER ALL OTHER COMPONENTS HAVE BEEN ASSEMBLED ONTO BOARD AND BOARD HAS BEEN RUN THROUGH WAVE SOLDER.
 - CUT PINS OF J1 OFF AT BASE OF COMPONENT
 - DO NOT INSERT W3, D4, C3 OR R21; THESE COMPONENTS ARE CUSTOMER OPTIONS.

CHANGE NO	REV	DATE	BY	CHK'D
0	1	11/21/68	TOM PITMAN	

ETOH REV. C-P2	P.C. DESIGN DATA BRSE REV.
----------------	----------------------------

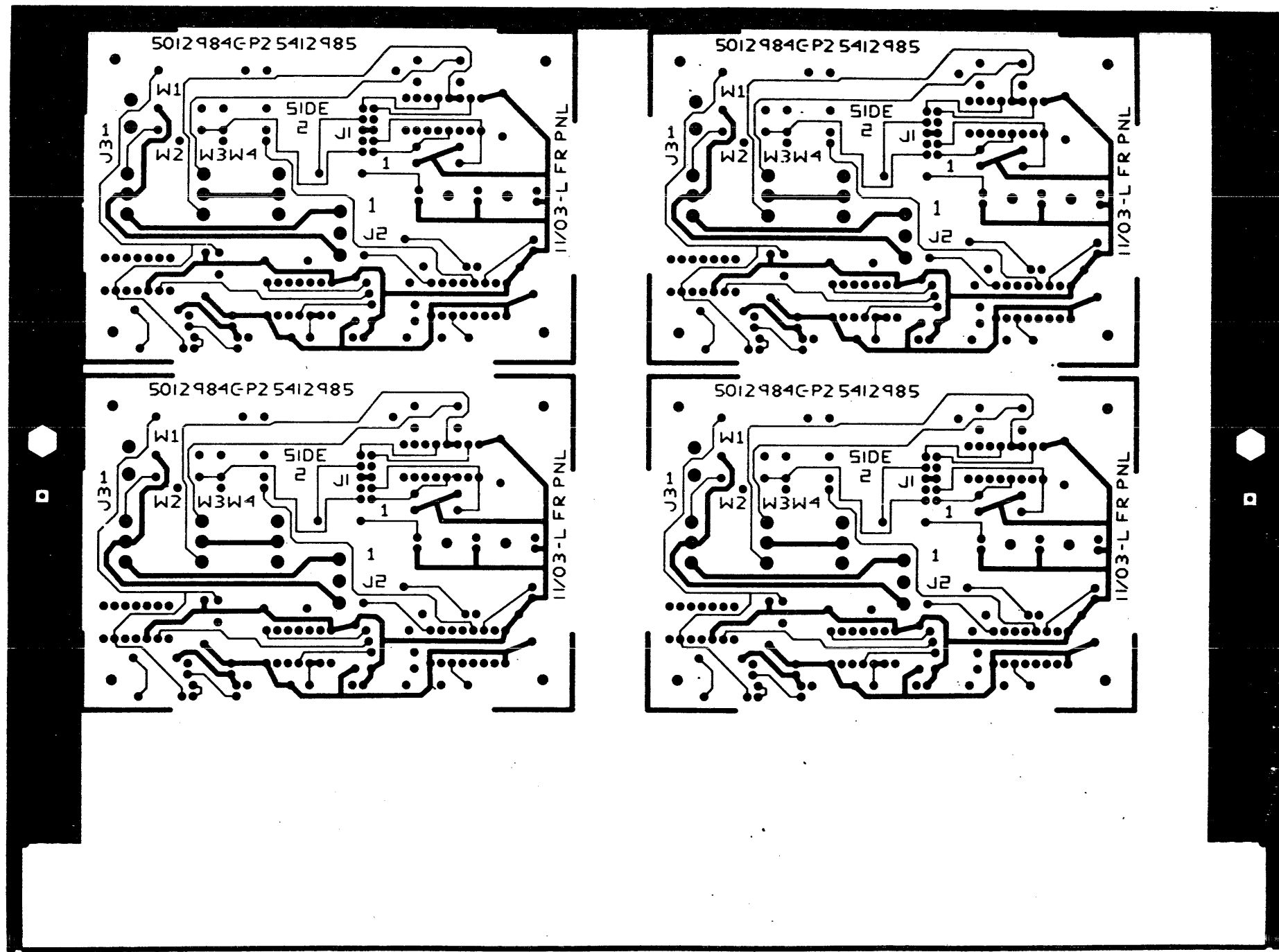
SIGNATURES		DATE	digital	
DRN. <i>[Signature]</i>		11/21/68		
CHK'D. <i>[Signature]</i>		6-2-72		
PROJ. ENG. <i>[Signature]</i>		5-22-72		
PROD. <i>[Signature]</i>		4-2-72		
SCALE 2 to 1				
SHT. 1 OF 3				
NEXT HIGHER ASSY. B-DD-5412985-0				

TITLE 11/03-L
FRONT PANEL

SIZE CODE NUMBER REV
D U A 5412985-0-B B

1 MS#

7 11/03-L-055-0-0



REV	DATE	BY

8	7	6	5	4	3	2	1	
TITLE: 11/03-L FRONT PANEL							DUA: 5412985-0-0	B
SCALE: 2x1							SHEET: 3	OF: 3

DJA 5412985-0-0 B

DIGITAL EQUIPMENT CORPORATION PARTS LIST

QUANTITY / VARIATION

NOTES:
FOR ADDITIONAL INSERTION DATA SEE
D-UA-5412985-0-0

MADE BY DATE	R. KOPPENAL	CHECKED DATE	SECTION
ENG DATE	T. Pittman 8-17-77	PROD R. Hamelton DATE 7-26-77	1 ISSUED SECTION 1

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	5412985-0-0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REF DESIGNATION
1	D-MD-5012984-0-0	5012984	ETCHED BOARD	1																					
2		1002433	CAP., 22 UF, 35V 2Ø TANT	1																					C1
3		1000023	CAP., 33Ø PF, 1ØØV 5% DM	1																					C2, C
4		1005335	CAP., 39 UF, 2ØV 10% TANT	1																					C6
5		1012784	CAP., .Ø47 UF, 5ØV CER	4																					C3, C4, C5, C8
6		1100114	DIODE, D664	1																					D3
7		1110324-ØØ	DIODE, MV5Ø54	2																					D1, D2
8		1210940-02	HOLDER, TRIPLE, LED	1																					
9		1210840-ØØ	SWITCH, TOGGLE, SPDT	2																					S2, S3
10		1210786-ØØ	KNOB, LIGHT GRAY	3																					
11		1213488-ØØ	CONNECTOR, 1Ø PIN HOUSING	1																					J1
12		1211342-Ø3	CONNECTOR, 3 PIN (P.C. TYPE)	1																					J2
13		1302388	RES., 2K, 1/4W, 5% CC	10																					R1-R8, R11, R12
14		1302514	RES., 39K, 1/4W, 5% CC	1																					R1Ø
15		1300479	RES., 10K, 1/4W, 5% CC	5																					R9, R16, R17, R18, R21
16		1300271	RES., 22Ø, 1/4W, 5% CC	2																					R13, R14
17		1911117	I.C. 8838	1																					E4
18		1910741	I.C., 74Ø6	1																					E2
19		1910436	I.C., 74123	1																					E3
20		9009185	JUMPER INSUIATED	3																					W1, W2, W4

E.C.O. NO. 00001

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 © 1977 DIGITAL EQUIPMENT CORPORATION	TITLE 11/Ø3-L FRONT PANEL	ASSY NO. D-UA-5412985-0-0 SHEET 1 OF 2	SIZE B PL	CODE PL NUMBER 5412985-0-0 INSERTION PARTS LIST DATA BASE REV B	REV. B
---	---------------------------------	--	-----------------	---	-----------

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION												NOTES:	
MADE BY R. KOPPENAL		CHECKED <i>[Signature]</i>		5412985-0-0													
DATE		DATE 6/17/77															SECTION 1
ENG - J. Finnan DJS		PRODR Hamilton															
DATE 2-17-77		DATE 7-26-77		ISSUED SECTION 1													
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION													REF DESIGNATION	
21		9008230-01	SCREW, SELF-TAPPING, #6-32 X .25	2													
22		1210841-00	SWITCH, MOMENTARY	1												S1	
23		1209350-03	CONNECTOR HOUSING	1												J2	
24		1209456-01	PIN MATE-N-LOC	3													
25		1212297-00	CONNECTOR 2 PIN P.C. MOUNT	1												J3	
26		1302466	RES. 100K, 1/4 W 5% CC.	1												R 19	
27		1300365	RES. 1K, 1/4 W 5% CC.	1												R 20	
28		1010279	CAP. .47 UF 25V	1												C7	
29		1912108	I.C. LM 339	1												E1	
30		9009575-01	SCREW, SELF-TAPPING #4 X .25	2													

E.C.O. NO.

"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 © 1977 DIGITAL EQUIPMENT CORPORATION"

TITLE
11/03-L
FRONT PANEL

ASSY NO.
D-UA-5412985-0-0
SHEET 2 OF 2

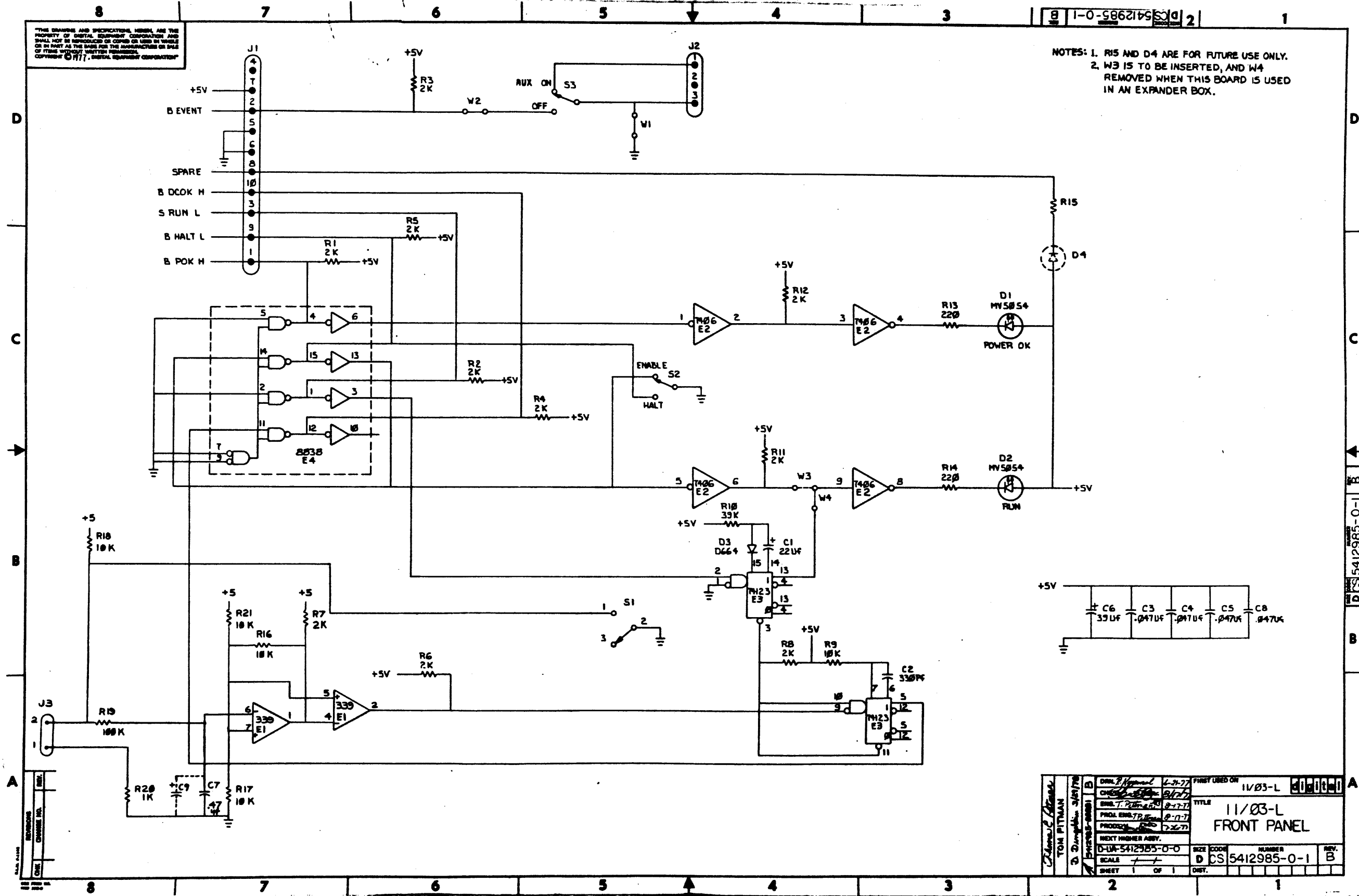
SIZE CODE
B PL
NUMBER
5412985-0-0
INSERTION PARTS LIST DATA BASE REV B

REV.
B

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 © 1977, DIGITAL EQUIPMENT CORPORATION

D 1-0-5412985-0-1 2

NOTES: 1. R15 AND D4 ARE FOR FUTURE USE ONLY.
 2. W3 IS TO BE INSERTED, AND W4 REMOVED WHEN THIS BOARD IS USED IN AN EXPANDER BOX.



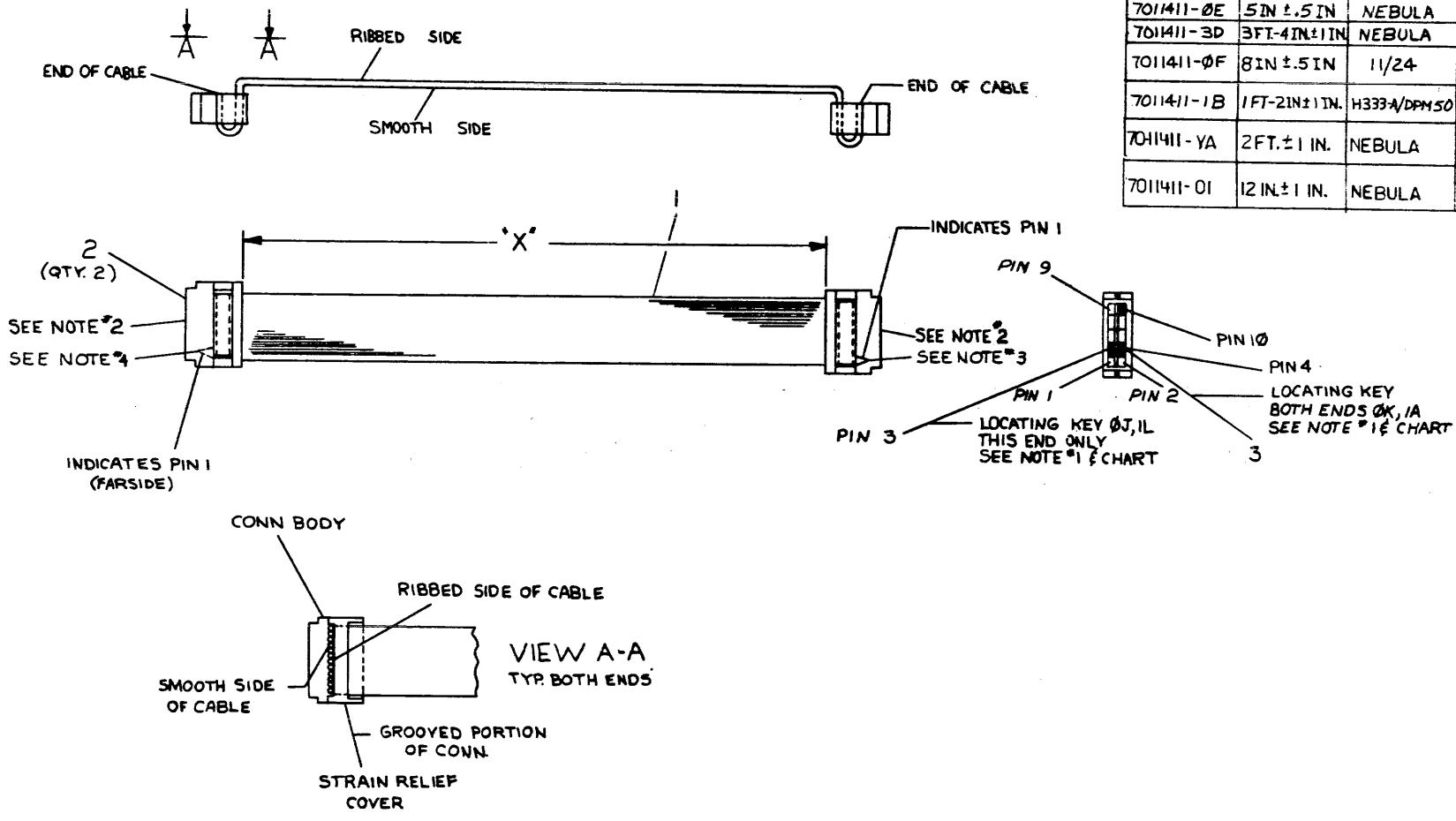
DESIGNED BY TOM PITMAN	DATE 11-2-77	FIRST USED ON 11/03-L	REV. B
CHECKED BY D. DUNN	DATE 11-2-77	TITLE 11/03-L FRONT PANEL	SIZE D
PROD. ENG. BY D. DUNN	DATE 11-2-77	NUMBER CS 5412985-0-1	SCALE 1
PRODUCTION D. DUNN	DATE 11-2-77	SHEET 1	OF 1
NEXT HIGHER ASSY. D-1A-5412985-0-0		DST.	

THIS DRAWING AND SPECIFICATIONS HEREAFTER 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 © 1975 . DIGITAL EQUIPMENT CORPORATION

M 0-0-1141102 VIG 2

NUMBER	DIM * X VARIATION	USED ON	KEY PIN
7011411-0J	8 IN ± .5 IN	BA11-L OR K	10 ONE END
7011411-0K	9 IN ± .5 IN	LS1-11	4 BOTH ENDS
7011411-1D	1 FT-4 IN ± .1 IN	KY11-LB	
7011411-2D	2 FT-4 IN ± .1 IN	BA11-F/DO/PPF	10 ONE END
7011411-0H	7 IN ± .5 IN	H780, 1, 2, 3	
7011411-1F	1 FT-8 IN ± .1 IN	1104/34-7A	
7011411-1L	1 FT-10 IN ± .1 IN	BA11-L, H777	PIN 3 1 END
7011411-1A	1 FT-2 IN ± .1 IN	H787	4 BOTH ENDS
7011411-3J	3 FT-8 IN ± .1 IN	BA11-K, H785	
7011411-2J	2 FT-8 IN ± .1 IN	BA11-K-H785	NO KEY
7011411-5F	5 FT-6 IN ± .1 IN	1160	8 ONE END
7011411-12	12 FT ± .3 IN	XA570	
7011411-7	7 FT ± .2 IN	11780	
7011411-1C	1 FT-3 IN ± .1 IN	VT103	SEE NOTES 3 AND 4
7011411-2	2 FT ± .1 IN	VT103	SEE NOTES 3 AND 4
7011411-0E	5 IN ± .5 IN	NEBULA	10 BOTH ENDS
7011411-3D	3 FT-4 IN ± .1 IN	NEBULA	5 BOTH ENDS
7011411-0F	8 IN ± .5 IN	11/24	PIN 3 ONE END PIN 6 ONE END
7011411-1B	1 FT-2 IN ± .1 IN	H333A/DPH50	4 BOTH ENDS
7011411-YA	2 FT ± .1 IN	NEBULA	PIN 5 BOTH ENDS
7011411-0I	12 IN ± .1 IN	NEBULA	PIN 10 BOTH ENDS

NOTES:
 1. INSERT KEY IN PROPER CONNECTOR PIN AND BREAK OFF TAB.
 2. FOR ITEM (2) DRAWING IS SHOWING 3M CONNECTOR.
 3. FOR -1C AND -2 VARIATIONS, KEY PIN 6.
 4. FOR -1C AND -2 VARIATIONS, KEY PIN 5.



DESCRIPTION	DWG/PART NO.	ITEM NO.
1 TIE, CABLE	9007031	5
1 LABEL, CABLE IDENT.	9009532	4
1 KEY	9009707	3
2 CONN. CRIMP	1211206-02	2
1 CABLE, 10 CONDUCT	9107747-02	1

ANGLES	CLAS. OF ACCURACY	NORMAL DIMENSION RANGE MICRONS				
30° 30'	(CHECK ONE)	OVER 2 TO 0.25	OVER 0.25 TO 0.5	OVER 0.5 TO 1.0	OVER 1.0 TO 2.0	OVER 2.0 TO 50.0
SURFACE QUALITY IN MICRONS	MEDIUM	1.000	2.000	4.000	8.000	16.000
QUANTITY & VARIATION	PREFERRED	1.012	1.016	1.020	1.04	1.06

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN. M. BAPTIST 5-20-75
 CHK'D. HEALY 6-13-75
 ENG. R. BARRY 6-18-75
 PROJ. ENGR. BARRY 6-18-75
 PROD. R. PETERSON 6-19-75

FIRST USED ON SEE LEGEND

TITLE
CABLE CONSOLE BACKPLANE

SIZE CODE D IA
 NUMBER 7011411-0-0
 REV. W

SHEET 1 OF 1
 DIST.

REV.	CHANGE NO.	BY	DATE
1	7011411-0001	M	
2	7011411-0002	M	
3	7011411-0003	M	
4	7011411-0004	M	
5	7011411-0005	M	
6	7011411-0006	M	
7	7011411-0007	M	
8	7011411-0008	M	

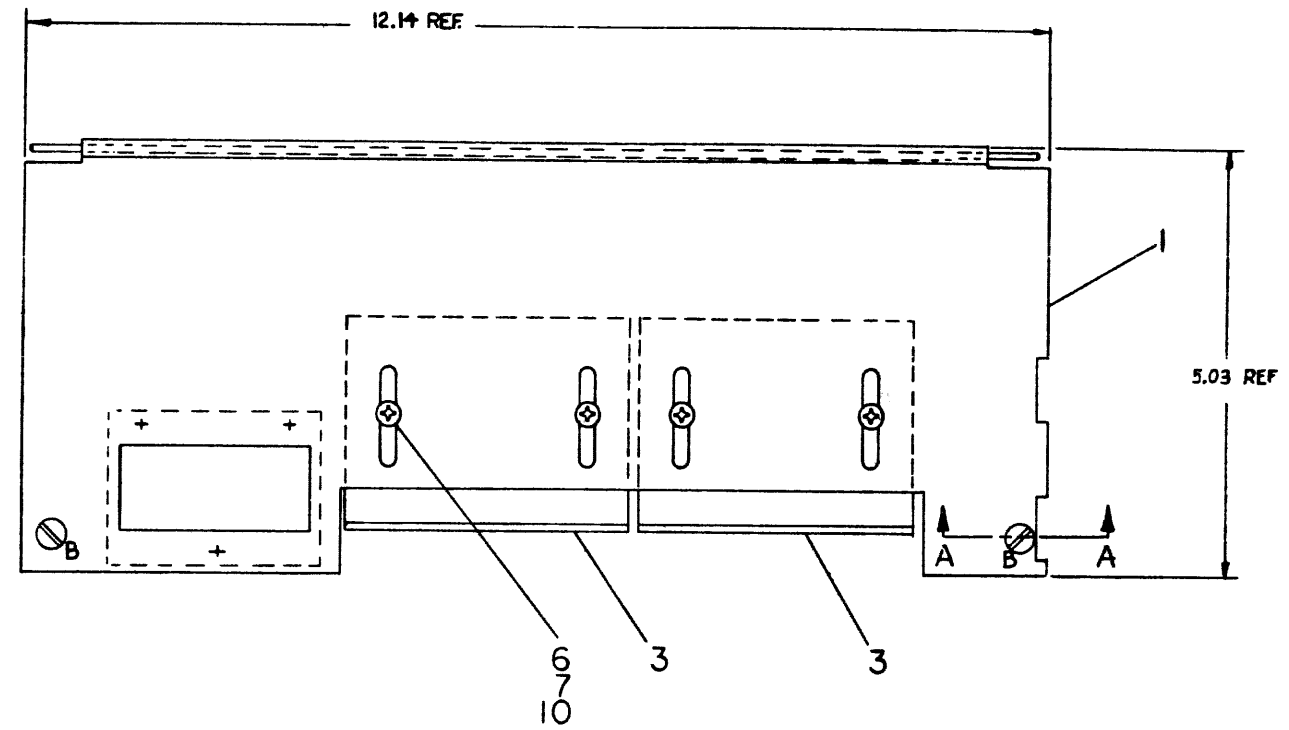
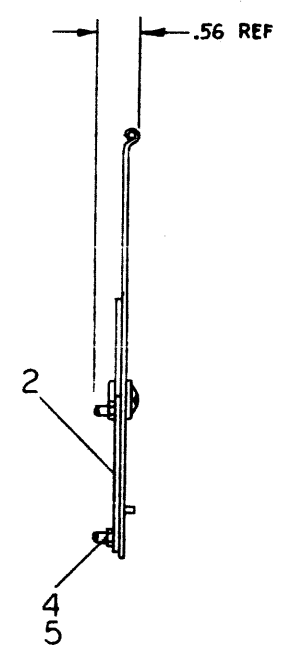
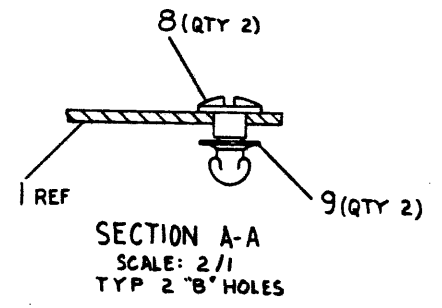
7011411-0-0

A

TW 1

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 © 1977, DIGITAL EQUIPMENT CORPORATION

DWG. PART NO. 7013804-0-0 2



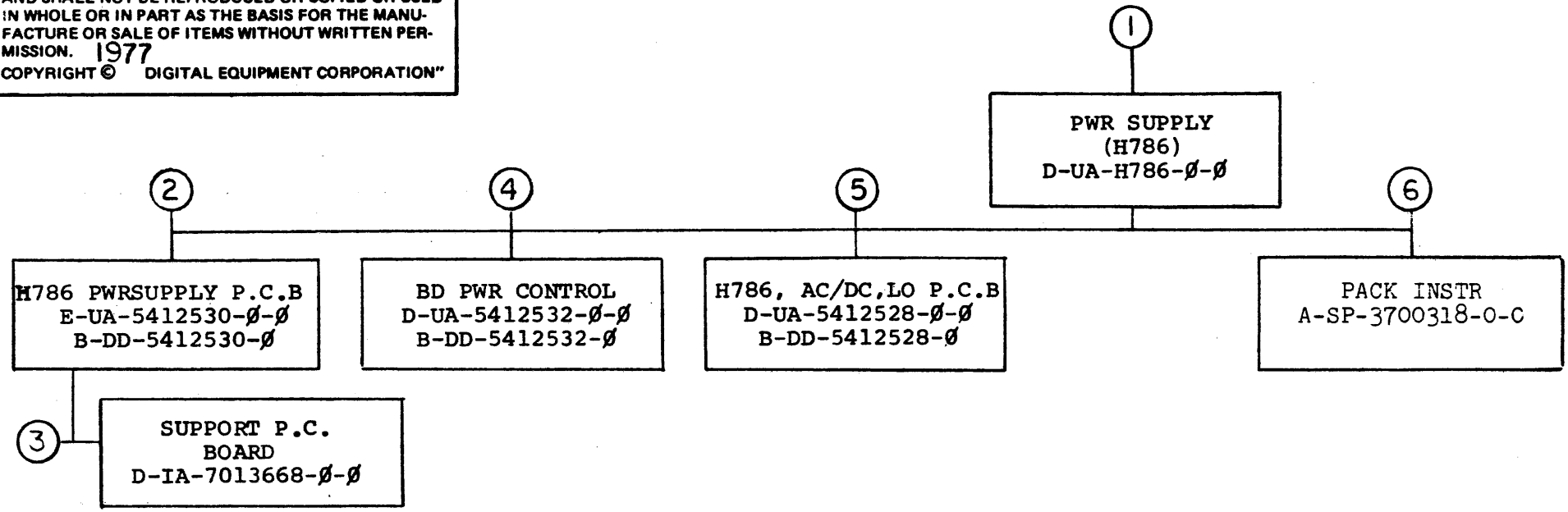
QTY	DESCRIPTION	DWG. PART NO.	ITEM NO.
4	L. WASHER #8	9006634-00	10
2	RETAINER 1/4 TURN	9008200-00	9
2	FASTENER 1/4 TURN	9008343-00	8
4	WASHER FLAT #8	9006660-00	7
4	SCREW, PAN HD. #8-32 X 3/8	9006037-01	6
3	WASHER, FLAT #6-.032 THK.	9006653-00	5
3	KEP NUT #6-32	9006580-00	4
2	STRAIN RELIEF	C-1A-7418374-0-0	3
1	WINDOW	C-MD-7418375-0-0	2
1	DOOR	D-1A-7013809-0-0	1

THIRD ANGLE PROJECTION		DRN. <i>[Signature]</i> 1/2/77		FIRST USED ON	
CHECKED BY <i>[Signature]</i>		CHK'D BY <i>[Signature]</i> 2/24/77		BA11-N	
ENG. <i>[Signature]</i> 1/24/77		PROJ. ENG. <i>[Signature]</i> 1/24/77		TITLE	
DO NOT SCALE DWG		NEXT HIGHER ASSY.		DOOR ASSEMBLY	
MATERIAL SEE PARTS LIST		E-1A-BA11-N-0		SIZE CODE NUMBER	
FINISH		SCALE NONE		D AD 7013804-0-0	
SHEET		OF		1	

REV.	CHANGE NO.	DESCRIPTION

D AD 7013804-0-0

"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. 1977
 COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	D-MD-5012529-0-0	5012529-00	5412530	1		
2	2		1014240-00	2000 MFD 200V +75-10% AL EL	2		C1,C2
3	3		1014260-02	2100 MFD 40V +75-10% AL EL	1		C3
4	4		1014139-00	.0022 MFD 600V 10% POLYPROP	2		C4,C6
5	5		1010274-00	.22 MFD 50V +80-20% Z5U CER	5		C5,C10,C17,C23,C24
6	6		1000042-00	1000.0 MMF 100V 5X200PPM MICA	8		C7,C9,C11-C16
7	7		1004814-00	.47 MFD 20V 10% S.TANT	1		C8
8	8		1000004-00	.02 MFD 100V 20% Z5U DISC	2		C18,C19
9	9		1001610-01	.01 MFD50/100V +80-20% DISC	1		C20
10	10		1014260-00	11,000 MFD 6.3V +75-10% AL EL	2		C21,C25
11	11		1014260-01	3700 MFD 25V +75-10% AL EL	1		C22
12	12		1105796-00	1N 4004 PIV=400 I= 1A D041 SP	10		D11-D14,D17,D25,D27,D30-D32
13	13		1114245-00	NBS30600LPIV=600 I=30A	1		D5
14	14		1112594-02	A115M PIV=600 I= 3A	2		D9,D16
15	15		1112595-02	A114M PIV=600 I= 1A	2		D10,D15
16	16		1105648-00	1N 4744 VZ= 15.0 10% 1W	1		D33
17	17		1212297-02	MATE-N-LOK 9PIN UNIV HEADER	1		J1
18	18		1213463-05	TERM BLOCK 6POS .375 SPACING	1		J2
19	19		1214257-00	EDGE CARD 12POS STRAIGHT .156CC	1		J3
20	20		1214257-01	EDGE CARD 15POS STRAIGHT .156CC	1		J4
21	21		1112595-01	A114B PIV=200 I= 1A	1		D19
22	22		1211987-03	HEAT SINK	4		
23	23		1211987-04	HEAT SINK	1		
24	24		1214256-00	BUS BAR, INSULATED	2		
25	25		1912108-00	339 VOLT CMPRTR, QUAD	1		E1
26	26		1214259-02	THERMOSTAT, 0.185, C3148	1		S1
27	27		1314270-02	2.50 15.0 % NTC THERM	2		R1,R2
28	28		1314088-00	20.0 K 5.0 W 5.0 % WW	2		R3,R4
29	29		1301952-00	1.0 K 2.0 W 5.0 % CC	2		R5,R8
30	30		1314350-00	1.0 2.0 W10.0 % FUSE	3		R6,R7,R37

REVISION HISTORY		BASIC PART NO: 5412530		DRN: R.KOPPENAL		DATE: 01-FEB-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: K.GLEEZEN		DATE: 01-FEB-78		TITLE PARTS LIST	
P.G	00003	E	SECTION VARIATION INDEX	MASTER BOARD					
KG	00004	F	[A] 00	DES.ENG: J.GREGORICH		DATE: 01-FEB-78		DOCUMENT NUMBER	
DC	5412530-ML005	H	[B]	RESP.ENG.: J.GREGORICH		DATE: 01-FEB-78		SIZE CODE NUMBER REV	
GC	5412530-ML006	J	[C]	MFG.ENG.: R.HAMILTON		DATE: 01-FEB-78		K PL 5412530-0-DBP M	
GC	5412530-ML007	K	[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
GC	5412530-ML008	L	[E]	E-UA-5412530-0-0				20613M.PLS 17	
G.C	5412530-ML009	M	[F]						
			[H]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

"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"

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
31	31		1110488-00	1N 4733 VZ= 5.1 10% 1W N	1		D18
32	32		1301499-00	1.0 K 1.0 W10.0 % CC	2		R9,R12
33	33		1300232-00	100.0 1.0 W 5.0 % CC	2		R10,R13
34	34		1314239-00	33.0 3.0 W 5.0 % WN	1		R11
35	35		1310632-00	2.37 K .25 W 1.0 % RN550-F10	2		R15,R17
36	36		1303044-00	100.0 K .25 W 1.0 % RN550-F10	1		R16
37	37		1304843-00	243.0 K .25 W 1.0 % RN550-F10	1		R18
38	38		1313014-00	.01 3.75 W 3.0 % WN	3		R19-R21
39	39		1300365-00	1.0 K .25 W 5.0 % CC	3		R22,R25,R32
40	40		1309595-00	1.0 M .25 W 5.0 % CC	4		R23,R26,R38,R39
41	41		1302666-00	10.0 M .25 W 5.0 % CC	2		R24,R27
42	42		1300202-00	47.0 .25 W 5.0 % CC	2		R28,R29
43	43		1301317-00	10.0 .25 W 5.0 % CC	2		R30,R31
44	44		1614274-00	XFMR P=AB S=87V	1		T1
45	45		1614272-00	PULSE XFMR 4 WOUND	1		T2
46	46		1614275-00	XFMR P=200-375V S=5V@3.5A	1		T3
47	47		1614273-00	PULSE XFMR, TRI-WOUND	1		T4
48	48		1614261-00	24.0 UH-80UH DUAL INDUCTOR	1		L1
49	49		1912048-02	DEC 7812 VOLT REG, FIX +12V	1		Z1
50	50		9009798-00	SPACER, CERAMIC .186 ODX.078 ID	4		
51	51		9009676-00	TERM LUG 1POS SOLDER	12		
52	52		9009149-00	PIN, STAKING, P.C. BOARD, .025 X	20		J5-J7
53	53		9006071-01	SCREW, PAN, PHIL 10-32X 3/8 SS	4		
54	54		9006660-00	WASHER, FLAT, .375 O.D. X .187 I	5		
55	55		9006636-00	WASHER, LOCK, INT, .38000 X .200ID	4		
56	56		9007794-01	SCREW, PAN, PHIL 6-32X 11/16SS	12		
57	57		9006021-01	SCREW, PAN, PHIL 6-32X 5/16 SS	3		
58	58		9006633-00	WASHER, LOCK, INT, .28000 X .146ID	8		
59	59		9008185-00	NUT, KEP 6-32X1/4 AF	2		
60	60	D-1A-7013668-0-0	7013668-00	P.C. BOARD STIFFENER	1		
61	61		1214789-00	INSERT, THREADED 6-32, BRASS, ELEC	12		
62	62		9009947-00	*** THIS ITEM IS NOT USED ***	-		
63	63		9006844-00	SPACER, HEX, THD'D, ALUM 6-32X 3	7		
64	64		9006653-00	WASHER, FLAT, .375 O.D. X .156 I	2		
65	65		9107240-00	WRAP, CABLE, .25000 VINYL	A/R		
66	66		9006020-01	SCREW, PAN, PHIL 6-32X 1/4 SS	2		
67	67		9006565-00	NUT, KEP 10-32X 3/8 AF	1		
68	68		1114543-00	UES2602 PIV=100 I=20A T03	2		D20,D21
69	69		1114246-00	UES-2603 PIV=150 I=30A T03	1		D22
70	70		1111205-00	SCREENED VZ= 5.7 2% .40W	1		D24
71	71		1109988-00	1N 9648 VZ= 13.0 5% .40W	1		D26
72	72		1110615-00	MR 752 PIV=200 I=22A A264 SM	2		D28,D29
73	73		1517910-00	2N 6547 NPN T0-3	2		Q1,Q2
74	74		1510969-00	2N 5038 NPN 140WC SI 90 50 Y	1		Q3
75	75		1510877-00	2N 6028 UJT 300MW R678	2		Q4,Q5
76	76		1505867-00	2N 4441 SCR@ 50V & 8A	1		Q6
77	77		9107460-22	WIRE STRND, 20AWG, IPVC UL1429	A/R		W1-W5
78	78		9007801-00	WASHER, LOCK, S.S. #6	12		

D	I	G	I	T	A	L	TITLE	MASTER BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5412530-0-DBP	M

AUTOMATED BY PRTLST.1D(7)

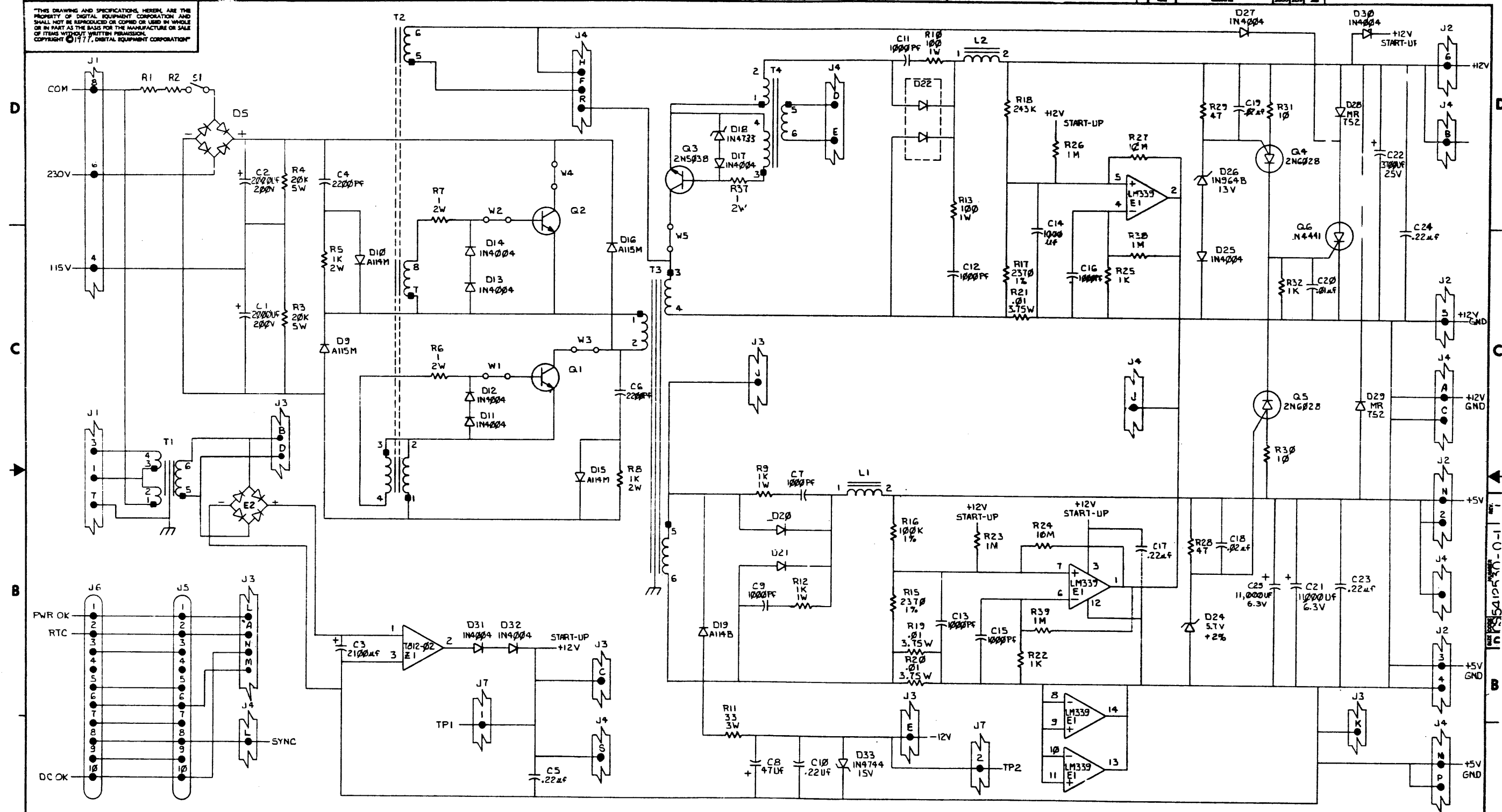
PARTS LIST

SHEET A3 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
79	79		9006563-00	NUT, KEP	1		
80	80		9006566-00	WASHER, FLAT, 8-32 X1 1/32AF	10		
81	81		1115369-00	VM 18 PIV=100 I=1A	1		E2

D	I	G	I	T	A	L	TITLE	MASTER BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5412530-0-06P	M

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 © 1977, DIGITAL EQUIPMENT CORPORATION.

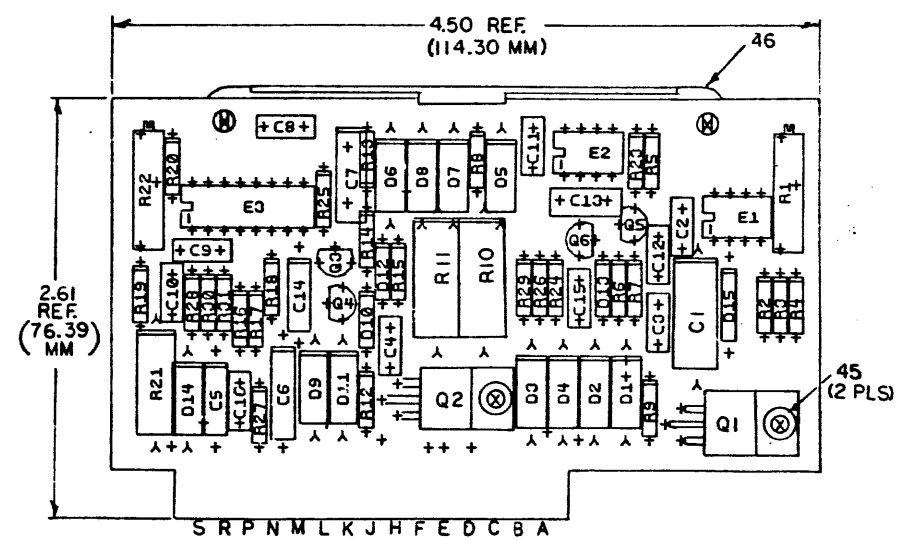


REV.	DATE	BY	CHKD
1	11/1/77	J. GREGORICH	
2	11/1/77	J. GREGORICH	
3	11/1/77	J. GREGORICH	
4	11/1/77	J. GREGORICH	
5	11/1/77	J. GREGORICH	
6	11/1/77	J. GREGORICH	
7	11/1/77	J. GREGORICH	
8	11/1/77	J. GREGORICH	
9	11/1/77	J. GREGORICH	
10	11/1/77	J. GREGORICH	
11	11/1/77	J. GREGORICH	
12	11/1/77	J. GREGORICH	
13	11/1/77	J. GREGORICH	
14	11/1/77	J. GREGORICH	
15	11/1/77	J. GREGORICH	
16	11/1/77	J. GREGORICH	
17	11/1/77	J. GREGORICH	
18	11/1/77	J. GREGORICH	
19	11/1/77	J. GREGORICH	
20	11/1/77	J. GREGORICH	
21	11/1/77	J. GREGORICH	
22	11/1/77	J. GREGORICH	
23	11/1/77	J. GREGORICH	
24	11/1/77	J. GREGORICH	
25	11/1/77	J. GREGORICH	
26	11/1/77	J. GREGORICH	
27	11/1/77	J. GREGORICH	
28	11/1/77	J. GREGORICH	
29	11/1/77	J. GREGORICH	
30	11/1/77	J. GREGORICH	
31	11/1/77	J. GREGORICH	
32	11/1/77	J. GREGORICH	
33	11/1/77	J. GREGORICH	
34	11/1/77	J. GREGORICH	
35	11/1/77	J. GREGORICH	
36	11/1/77	J. GREGORICH	
37	11/1/77	J. GREGORICH	
38	11/1/77	J. GREGORICH	
39	11/1/77	J. GREGORICH	
40	11/1/77	J. GREGORICH	

DRN: K... 5-4-77	FIRST USED ON: H786 digital
ENGR: J. GREGORICH 8-16-77	TITLE: MASTER BOARD
PROJ ENGR: J. GREGORICH 8-11-77	
PROD: J. GREGORICH 8/14/77	
NEXT HIGHER ASSY:	
E-UA-5412530-0-0	SIZE CODE: D
SCALE: 1/1	NUMBER: 5412530-0-1
SHEET: 1	REV: J

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART OR THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
 COPYRIGHT © 1978 DIGITAL EQUIPMENT CORPORATION

COMPONENT SIDE VIEW



NOTES:
 1. THIS BOARD REQUIRES U/L APPROVAL.
 2. THIS BOARD WILL NOT BE GR. TESTED.

CHK	CHANGE NO.	REV	DATE	BY	APP
	MLO04	H			
	MID	POWERS			
	D	CALDERAN			
	5412532	J			
	MLO05				
	CALDERAN				
	MEYER				

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

SIGNATURES		DATE	TITLE
DRN. <i>Andy Onellita</i>		10-30-78	digital H786 CONTROL BOARD
CHK'D. <i>F. Marcano</i>		12-77	
ENG. <i>...</i>		3-28-79	
PROJ. ENG. <i>...</i>		1-28-79	
PROD. <i>...</i>		1-3-79	
SCALE 2/1			SIZE CODE
SHT. 1 OF 1			NUMBER
NEXT HIGHER ASSY. 8-DD-5412532-0-0			REV

1 MS#104582

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
				00	
1	1	D-MD-5012531-0-0	5012531-00	5412532	1
2	2		1013669-02	.10 MFD 150V 5% M.POLYPROP	1 C1
3	3		1000009-00	33.0 MMF 100V 5%200PPM MICA	1 C2
4	4		1000055-00	2200.0 MMF 250V 20% Y5S DISC	2 C3,C4
5	5		1002627-00	2.2MFD 20V 10% S.TANT	1 C5
6	6		1005784-00	.01 MFD 100V 200V 10% MYL	1 C6
7	7		1010274-00	.22 MFD 50V +80-20% Z5U CER	4 C8,C10-C12
8	8		1000042-00	1000.0 MMF 100V 5%200PPM MICA	1 C13
9	9		1000016-00	100.0 MMF 100V 5%200PPM MICA	3 C9,C15,C16
10	10		1005328-00	.33 MFD 20V 10% S.TANT	1 C14
11	11		1112595-00	A114F PIV= 50 I= 1A	4 D1-D3,D5
12	12		1112595-01	A114B PIV=200 I= 1A	7 D4,D6-D9,D11,D14
13	13		1100114-00	D 664 QS\75PCB PIV= 25V SP	3 D10,D12,D13
14	14		1109991-01	4M6.8AZ1 VZ= 6.8 1% .40W	1 D15
15	15		1309143-07	1.0 K .75 W10.0 % POT	2 R1,R22
16	16		1304868-00	2.74 K .25 W 1.0 % RN55D-F10	1 R2
17	17		1304833-00	1.96 K .25 W 1.0 % RN55D-F10	1 R3
18	18		1302391-00	20.0 K .25 W 5.0 % CC	1 R4
19	19		1303187-00	*** THIS ITEM IS NOT USED ***	-
20	20		1300271-00	220.0 .25 W 5.0 % CC	2 R6,R14
21	21		1301317-00	10.0 .25 W 5.0 % CC	3 R7,R15,R25
22	22		1300417-00	2.20 K .25 W 5.0 % CC	1 R8
23	23		1300219-00	68.0 .25 W 5.0 % CC	2 R9,R12
24	24		1300288-00	270.0 2.0 W10.0 % CC	2 R10,R11
25	25		1300365-00	1.0 K .25 W 5.0 % CC	2 R13,R26
26	26		1309680-00	2.70 M .25 W 5.0 % CF	2 R16,R17
27	27		1305114-00	3.48 K .25 W 1.0 % RN55D-F10	1 R18
28	28		1309413-00	3.83 K .25 W 1.0 % RN55D-F10	2 R19,R20
29	29		1314239-00	33.0 3.0 W 5.0 % WW	1 R21
30	30		1300426-00	2.70 K .25 W 5.0 % CC	1 R23

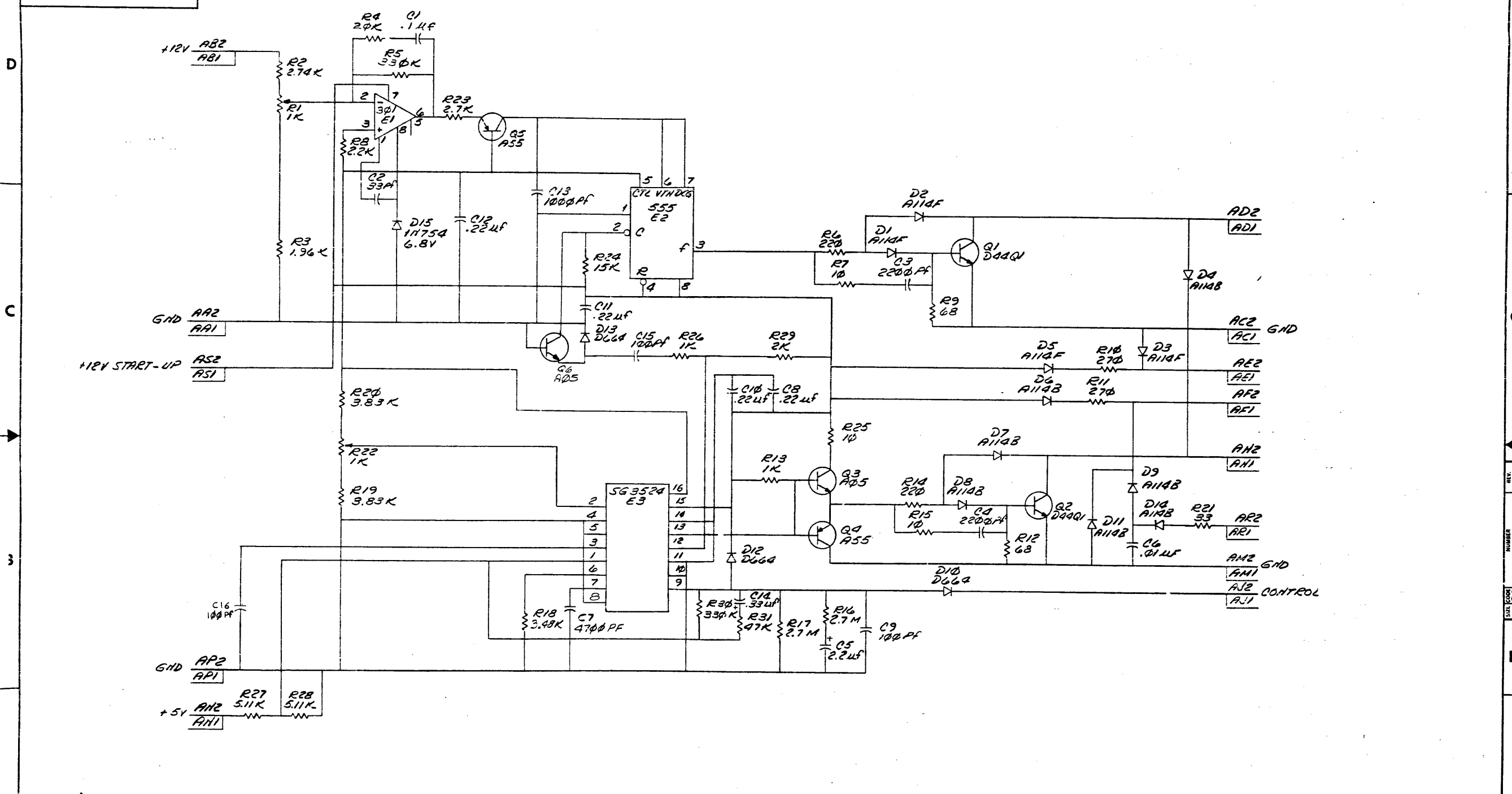
REVISION HISTORY		BASIC PART NO: 5412532		DRN:	R.BUREAU	DATE: 16-FEB-78	D I G I T A I L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	K.GLEASN	DATE: 16-FEB-78	TITLE PARTS LIST			
P.G	00003	F	SECTION.VARIATION INDEX	CHK'D:	K.GLEASN	DATE: 16-FEB-78	CONTROL BOARD			
	5412532-ML004	H	[A] 00							
D.C	5412532-ML005	J	[B]							
D.C	5412532-ML006	K	[C]	DES.ENG:	J. GREGORICH	DATE: 16-FEB-78				
			[D]							
			[E]							
			[F]	RESP.ENG.:	J.GREGORICH	DATE: 16-FEB-78	DOCUMENT NUMBER			
			[G]				SIZE	CODE	NUMBER	REV
			[H]							
			[I]	MFG.ENG.:	R.HAMILTON	DATE: 16-FEB-78	K	PL	5412532-0-DBP	K
			[J]							
			[K]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #
			[L]	D-UA-5412532-0-0				Z0353K.PLS		12
			[M]							
			[N]							

* 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) 1982. DIGITAL EQUIPMENT CORPORATION *

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	31	1300496-00	15.0 K .25 W 5.0 % CC	1	R24
32	32	1304854-00	5.11 K .25 W 1.0 % RN55D-F10	2	R27,R28
33	33	1302388-00	2.0 K .25 W 5.0 % CC	1	R29
34	34	1302091-00	330.0 K .25 W 5.0 % CC	2	R30,R5
35	35	1302177-00	47.0 K .25 W 5.0 % CC	1	R31
36	36	1514271-00	D 44Q1 NPN 31W SI	2	Q1,Q2
37	37	1510705-00	XA 05 NPN 500MW SI 60 50 P	2	Q3,Q6
38	38	1510706-00	XA 55 PNP 500MW SI 60 50 P	2	Q4,Q5
39	39	1910282-00	301AN OP AMP	1	E1
40	40	1911944-00	555CN TIMER,FUNCT.BLOCK	1	E2
41	41	1914250-00	3524 MODULATOR-REGULATING	1	E3
42	42	9009000-00	*** THIS ITEM IS NOT USED ***	-	
43	43	1001383-00	4700.0 MMF 100V 3%200PPM MICA	1	C7
44	44	7418695-00	*** THIS ITEM IS NOT USED ***	-	
45	45	9006732-00	EYELET,ROLLED 0.1210DX0.219	2	
46	46	1215993-00	RETAINER, CARD	1	

D	I	G	I	T	A	L	TITLE	CONTROL BOARD	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
											K	PL	5412532-0-DBP	K

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 ANY EQUIPMENT WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977, DIGITAL EQUIPMENT CORPORATION



REV.	CHANGE NO.	DATE	BY	CHKD.
1	00002	11/17/77	J. GREGORICH	
2	00003	11/17/77	J. GREGORICH	
3	00004	11/17/77	J. GREGORICH	
4	00005	11/17/77	J. GREGORICH	
5	00006	11/17/77	J. GREGORICH	
6	00007	11/17/77	J. GREGORICH	
7	00008	11/17/77	J. GREGORICH	
8	00009	11/17/77	J. GREGORICH	
9	00010	11/17/77	J. GREGORICH	
10	00011	11/17/77	J. GREGORICH	
11	00012	11/17/77	J. GREGORICH	
12	00013	11/17/77	J. GREGORICH	
13	00014	11/17/77	J. GREGORICH	
14	00015	11/17/77	J. GREGORICH	
15	00016	11/17/77	J. GREGORICH	
16	00017	11/17/77	J. GREGORICH	
17	00018	11/17/77	J. GREGORICH	
18	00019	11/17/77	J. GREGORICH	
19	00020	11/17/77	J. GREGORICH	
20	00021	11/17/77	J. GREGORICH	
21	00022	11/17/77	J. GREGORICH	
22	00023	11/17/77	J. GREGORICH	
23	00024	11/17/77	J. GREGORICH	
24	00025	11/17/77	J. GREGORICH	
25	00026	11/17/77	J. GREGORICH	
26	00027	11/17/77	J. GREGORICH	
27	00028	11/17/77	J. GREGORICH	
28	00029	11/17/77	J. GREGORICH	
29	00030	11/17/77	J. GREGORICH	
30	00031	11/17/77	J. GREGORICH	
31	00032	11/17/77	J. GREGORICH	
32	00033	11/17/77	J. GREGORICH	
33	00034	11/17/77	J. GREGORICH	
34	00035	11/17/77	J. GREGORICH	
35	00036	11/17/77	J. GREGORICH	
36	00037	11/17/77	J. GREGORICH	
37	00038	11/17/77	J. GREGORICH	
38	00039	11/17/77	J. GREGORICH	
39	00040	11/17/77	J. GREGORICH	
40	00041	11/17/77	J. GREGORICH	
41	00042	11/17/77	J. GREGORICH	
42	00043	11/17/77	J. GREGORICH	
43	00044	11/17/77	J. GREGORICH	
44	00045	11/17/77	J. GREGORICH	
45	00046	11/17/77	J. GREGORICH	
46	00047	11/17/77	J. GREGORICH	
47	00048	11/17/77	J. GREGORICH	
48	00049	11/17/77	J. GREGORICH	
49	00050	11/17/77	J. GREGORICH	
50	00051	11/17/77	J. GREGORICH	
51	00052	11/17/77	J. GREGORICH	
52	00053	11/17/77	J. GREGORICH	
53	00054	11/17/77	J. GREGORICH	
54	00055	11/17/77	J. GREGORICH	
55	00056	11/17/77	J. GREGORICH	
56	00057	11/17/77	J. GREGORICH	
57	00058	11/17/77	J. GREGORICH	
58	00059	11/17/77	J. GREGORICH	
59	00060	11/17/77	J. GREGORICH	
60	00061	11/17/77	J. GREGORICH	
61	00062	11/17/77	J. GREGORICH	
62	00063	11/17/77	J. GREGORICH	
63	00064	11/17/77	J. GREGORICH	
64	00065	11/17/77	J. GREGORICH	
65	00066	11/17/77	J. GREGORICH	
66	00067	11/17/77	J. GREGORICH	
67	00068	11/17/77	J. GREGORICH	
68	00069	11/17/77	J. GREGORICH	
69	00070	11/17/77	J. GREGORICH	
70	00071	11/17/77	J. GREGORICH	
71	00072	11/17/77	J. GREGORICH	
72	00073	11/17/77	J. GREGORICH	
73	00074	11/17/77	J. GREGORICH	
74	00075	11/17/77	J. GREGORICH	
75	00076	11/17/77	J. GREGORICH	
76	00077	11/17/77	J. GREGORICH	
77	00078	11/17/77	J. GREGORICH	
78	00079	11/17/77	J. GREGORICH	
79	00080	11/17/77	J. GREGORICH	
80	00081	11/17/77	J. GREGORICH	
81	00082	11/17/77	J. GREGORICH	
82	00083	11/17/77	J. GREGORICH	
83	00084	11/17/77	J. GREGORICH	
84	00085	11/17/77	J. GREGORICH	
85	00086	11/17/77	J. GREGORICH	
86	00087	11/17/77	J. GREGORICH	
87	00088	11/17/77	J. GREGORICH	
88	00089	11/17/77	J. GREGORICH	
89	00090	11/17/77	J. GREGORICH	
90	00091	11/17/77	J. GREGORICH	
91	00092	11/17/77	J. GREGORICH	
92	00093	11/17/77	J. GREGORICH	
93	00094	11/17/77	J. GREGORICH	
94	00095	11/17/77	J. GREGORICH	
95	00096	11/17/77	J. GREGORICH	
96	00097	11/17/77	J. GREGORICH	
97	00098	11/17/77	J. GREGORICH	
98	00099	11/17/77	J. GREGORICH	
99	00100	11/17/77	J. GREGORICH	
100	00101	11/17/77	J. GREGORICH	

DRN: 8/1/77	FIRST USED ON: H783	Digital
CHK: 8/1/77	TITLE: CONTROL BOARD	
ENG: 8/1/77	SIZE: D	CODE: CS
PROJ. ENG: 8/1/77	NUMBER: 5412532-0-1	REV: H
PROD. 8/1/77	SCALE: 1 OF 1	DIST.:
NEXT HIGHER ASSY:		
0-UA-5412532-0-0		

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																			
				A	B	C																	
		5412528	MODULE REV																				
B-DD-5412528-0	1		POWER MONITOR BOARD	A	B	C																	
D-UA-5412528-0-0	3		POWER MONITOR BOARD	A	B	C																	
K-PL-5412528-0-DBP	-		PARTS LIST DATA BASE	A	B	C																	
D-CS-5412528-0-1	1		POWER MONITOR BOARD	A	B	C																	
D-MD-5012527-0-1	4		DRILL & ETCH DRAWING	A	A	B																	
		5012527	ETCHED BOARD	B	B	C																	
K-PC-5412528-0-DBG	-		P.C. DESIGN DATA BASE (TAPED)	A	B	C																	

NOTES:

REVISIONS		DATE	CHG NO.	REV.
		10-77	0001	B
		3-79	ML002	C

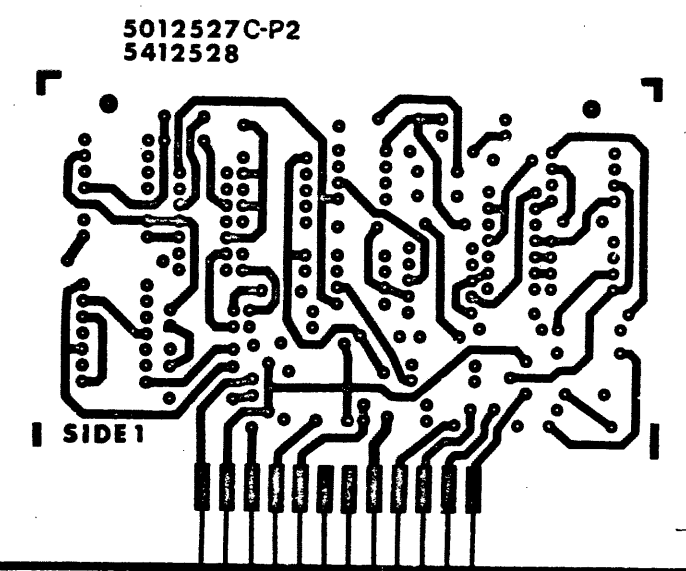
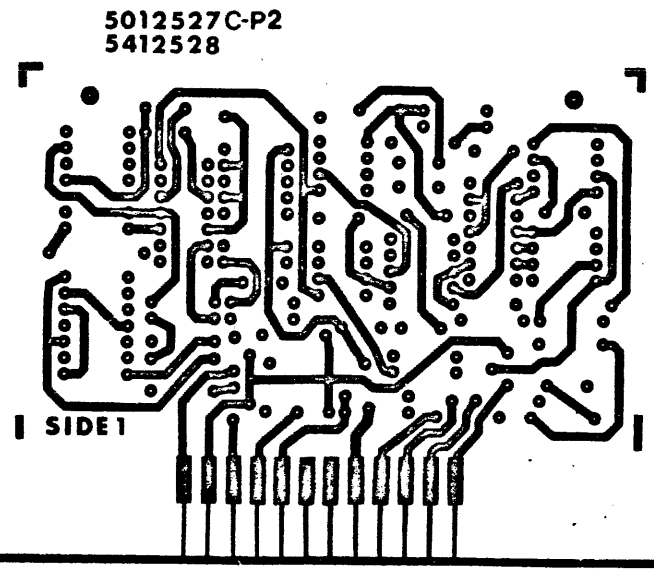
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION



USED ON OPTION/MODEL	DRN.	DATE
H786	KOPPENAL	4-7-77
	CHK'D GLEAZER	8-31-77
	ENG. GREGORICH	8-1-77
	PR'D HAMILTON	8-1-77

TITLE POWER MONITOR BOARD			
SIZE B DD	CODE	NUMBER 5412528-0	REV. C
SHEET 1 OF 1			

2 DUA 5412528-0-0 C

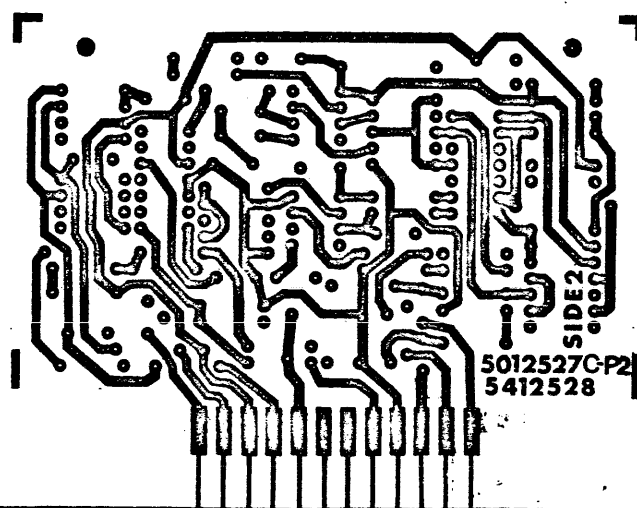
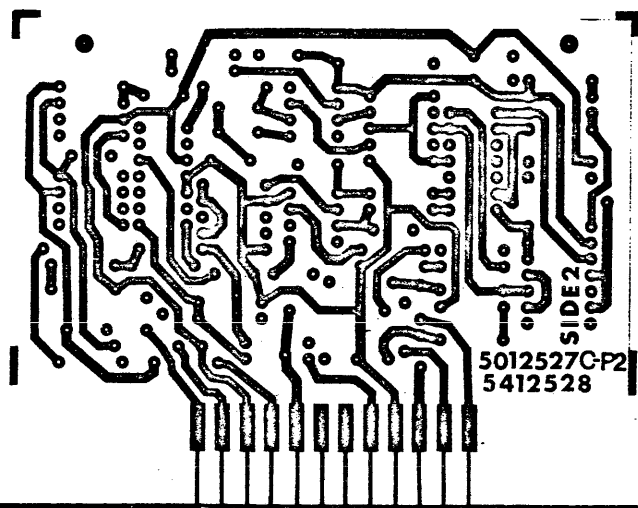


REVISIONS	
NO.	DESCRIPTION

TITLE	DRILL & ETCH DRAWING	DUA 5412528-0-0 C
SCALE	2:1	SHEET 2 OF 3

2 DUA 5412528-0-0 C

REV



D
C
B
A

REV	DATE	BY	CHKD

TITLE	SCALE	SHEET	OF	NO. SHEETS	REV
DRILL & ETCH DRAWING	2/1	3	3	3	C
DUA 5412528-0-0					

8 7 6 5 4 3 2 1

AUTOMATED BY PRTLST.3J(25)

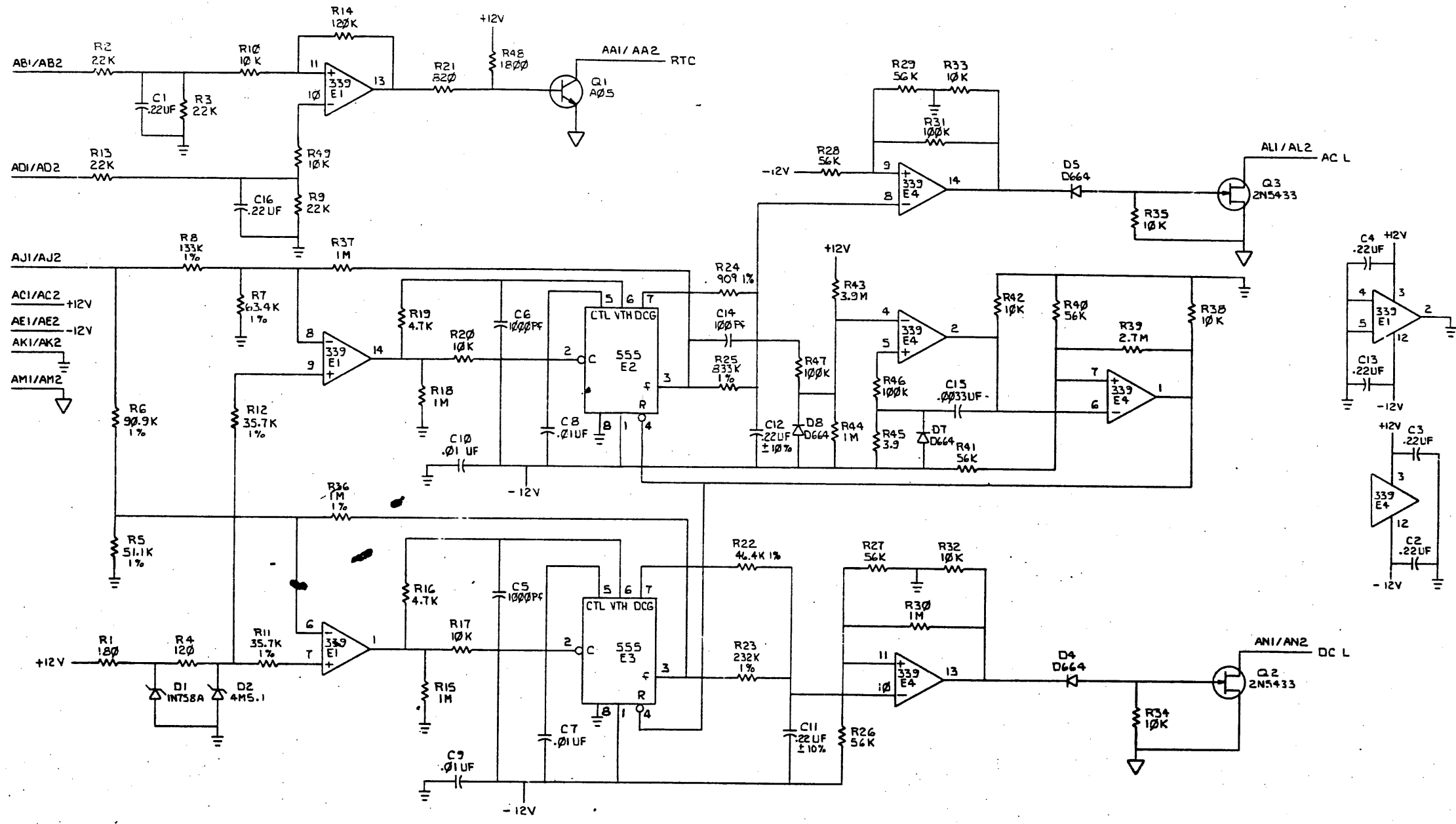
PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30		1912108-00	339 VOLT CMPRTR, QUAD	2	E1, E4
31	31		1911944-00	555CN TIMER, FUNCT. BLOCK	2	E2, E3
32	32		1305424-00	232.0 K .25 W 1.0 % RN55D-F10	1	R23
33	33		1314387-00	3.90 M .25 W 5.0 % CC	2	R43, R45
34	34		1000042-00	1000.0 MMF 100V 5%200PPM MICA	2	C5, C6
35	35		7418695-00	*** THIS ITEM IS NOT USED ***	-	
36	36		9009000-00	*** THIS ITEM IS NOT USED ***	-	
37	37		9105740-55	*** THIS ITEM IS NOT USED ***	-	
38	38		1303311-00	46.40 K .25 W 1.0 % RN55D-F10	1	R22
39	39		1302685-00	909.0 .25 W 1.0 % RN55D-F10	1	R24
40	40		1215993-00	RETAINER, CARD	1	

D	I	G	I	T	A	L	TITLE	POWER MONITOR BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5412528-0-DBP	C

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 © 1977, DIGITAL EQUIPMENT CORPORATION.



REV.	CHG.	BY	DATE
1	5412528-0001	B	11/22/77
2	5412528-0002	C	11/25/77
3	5412528-0003	C	11/25/77

REVISIONS
 1. J. J. GREGORICH
 2. J. J. GREGORICH
 3. J. J. GREGORICH

DATE	8-6-77	FIRST USED ON	H786
CHKD	J. J. GREGORICH	TITLE	POWER MONITOR BOARD
ENGR	J. J. GREGORICH	PROJ. ENGR	J. J. GREGORICH
PROD. ENGR	J. J. GREGORICH	SCALE	
NEXT HIGHER ASSY.		SIZE	CS
D-UA-5412528-0-0		NUMBER	5412528-0-1
SCALE		REV.	C
SHEET 1 OF 1		DIST.	

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
	MP00566	FIELD MAINTENANCE PRINT SET (MP)	-				
	B-TC-MSV11-D-1	FIELD MAINTENANCE PRINT SET (TC)	-				
1	A-PL-MSV11-D-0	PARTS LIST (MSV11-D)	E/M				
	D-BD-MSV11-D-4	MSV11D/E BLOCK DIAGRAM	E				
	D-FD-MSV11-D-5	MSV11 D/E FLOW DIAGRAM	E				
	D-TD-MSV11-D-6	MSV11 D/E TIMING DIAGRAM	E				
	A-SP-MSV11-D-3	MSV11-D SYSTEM SPECIFICATION	E/M				
	A-PL-MSV11-D-7	MSV11-D SHIPPING LIST	-				
	EK-MSV1D-OP-001	USERS MANUAL	E/M				
	D-08-MSV11-D-10	MSV11-D 32K MOS MEMORY	E				
2	B-DD-MSV11-D	DRAWING DIRECTORY MSV11-D MOS MEMORY SYSTEM	E/M				
3	B-DD-M8044-0	DRAWING DIRECTORY (M8044) MODULE	E/M				

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



TITLE DRAWING DIRECTORY MOS MEM. SYSTEM
MSV11-D (32K X 16)

SHEET 3 OF 3

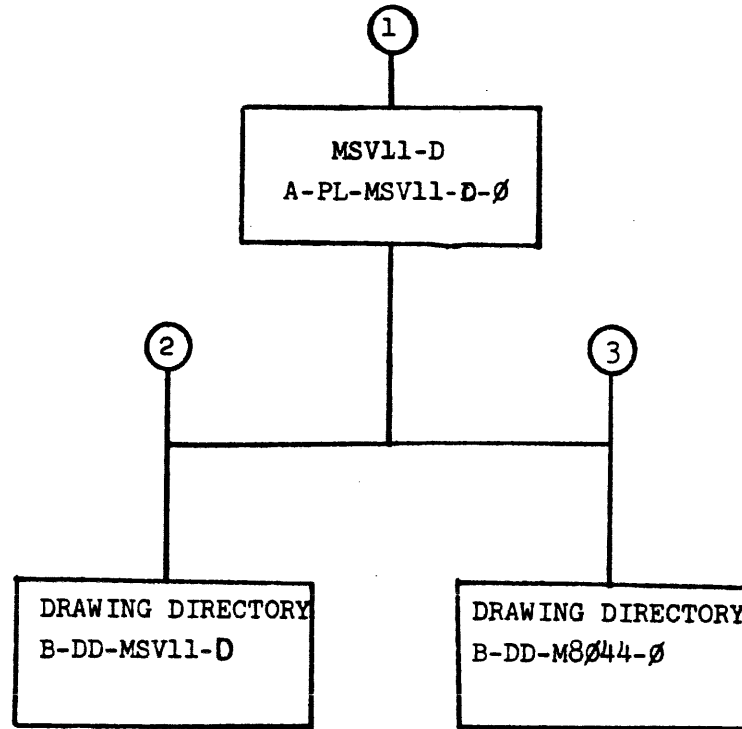
SIZE CODE B DD

NUMBER MSV11-D

REV A

"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 © 1977 DIGITAL EQUIPMENT CORPORATION"

REV. A
 NUMBER MSVII-D
 SIZE CODE B DD

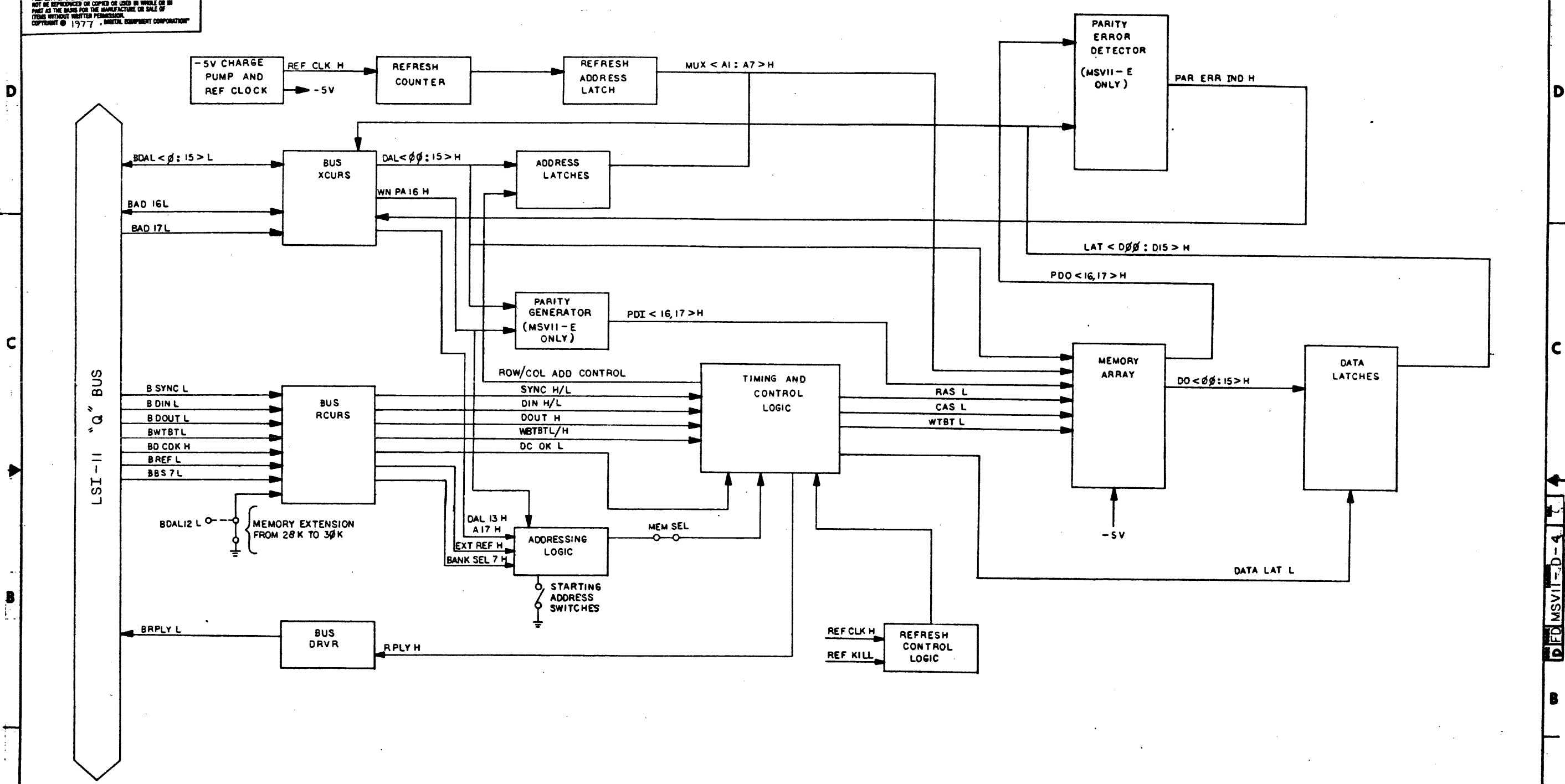


TITLE DRAWING DIRECTORY MSVII-D (32K X 16) MOS MEMORY SYSTEM	SHEET 2 OF 3	SIZE CODE B DD	NUMBER MSVII-D	REV A
--	--------------	-------------------	-------------------	----------

ML

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 © 1977, DIGITAL EQUIPMENT CORPORATION

MSVII-D-4 2



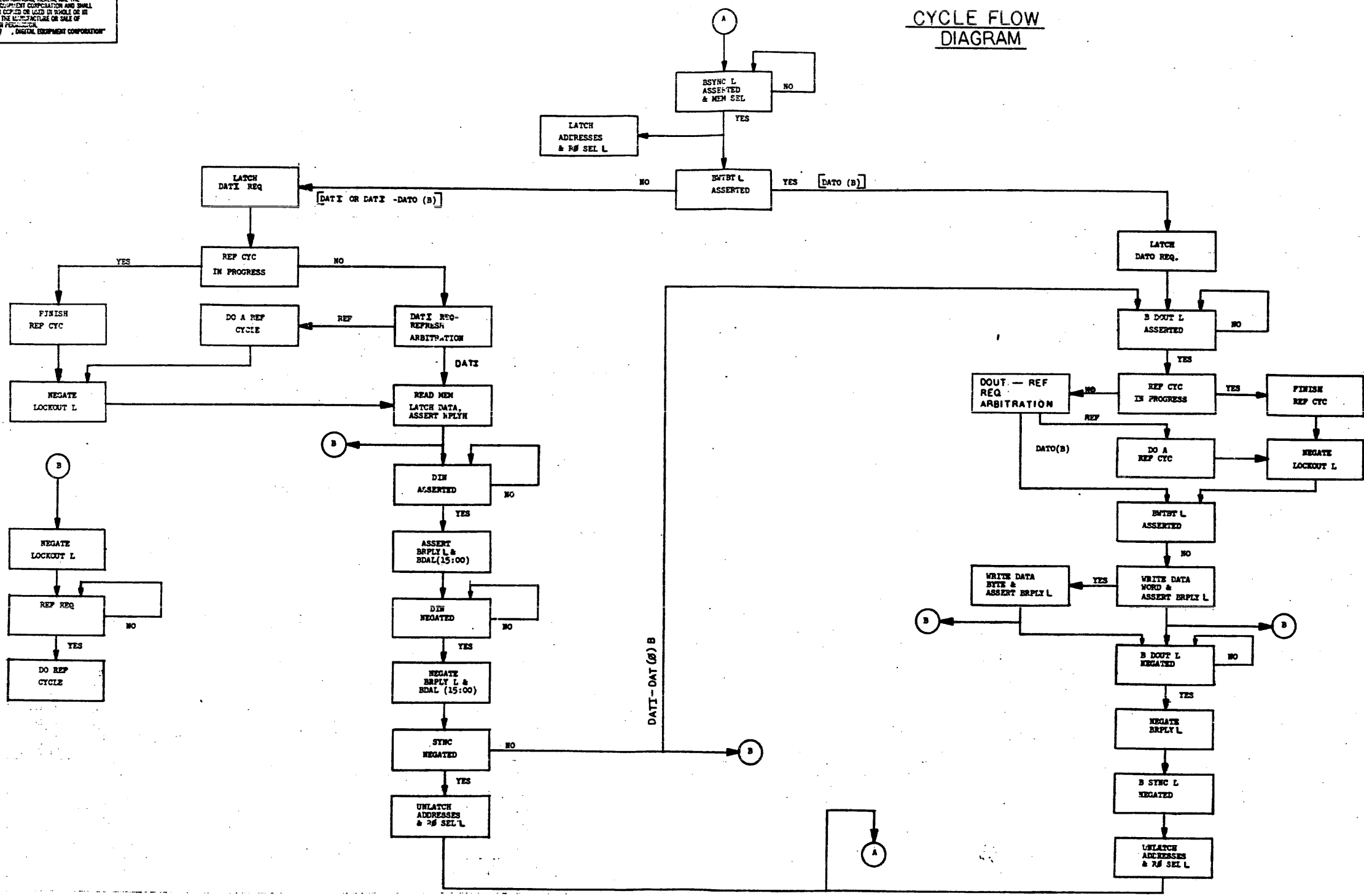
REV. NO.	REV. DATE

DRN. E. DeVellis	FIRST USED ON	2-21-78
CHK'D R. Given	2-21-78	
ENG. R. Given	2-21-78	
PROJ. ENG. R. Given	2-21-78	
PROD. R. [unclear]	2-21-78	
NEXT HIGHER ASSY.		
B-DD-MSVII-D/E	SIZE	CODE
SCALE	D	BD
SHEET 1 OF 1	DIST.	

MSVII-D-4

"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 © 1977, DIGITAL EQUIPMENT CORPORATION"

CYCLE FLOW DIAGRAM

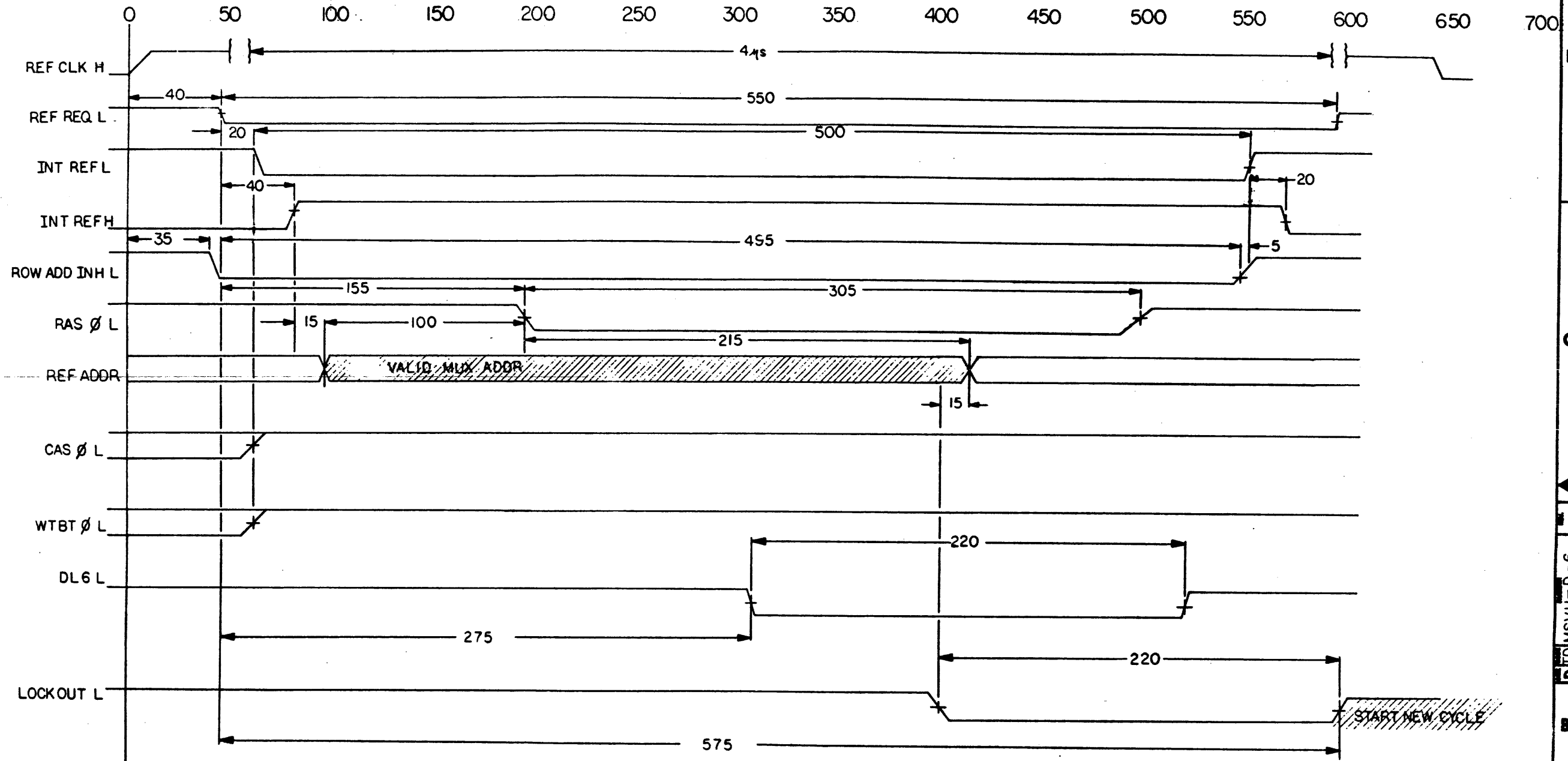


REV.	
CHG.	
NO.	
CHG.	
NO.	

ORNL 2-12-77	FIRST USED ON	200000
CHG'D R. 2-21-78	TITLE	
ENGL R. 2-21-78	MSVII D/E	
PROJ ENGR P. 2-21-78	FLOW DIAGRAM	
PROD R. 2-21-78	SIZE	CODE
	D	FD
	NUMBER	REV.
	D	MSVII-D-5
	SHEET	1 OF 1
	DIST.	

REFRESH CYCLE

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 © 1977, DIGITAL EQUIPMENT CORPORATION



$t_{\text{CYCLE}} = 575 \text{ NS (TYP)}; 600 \text{ NS (MAX)}$

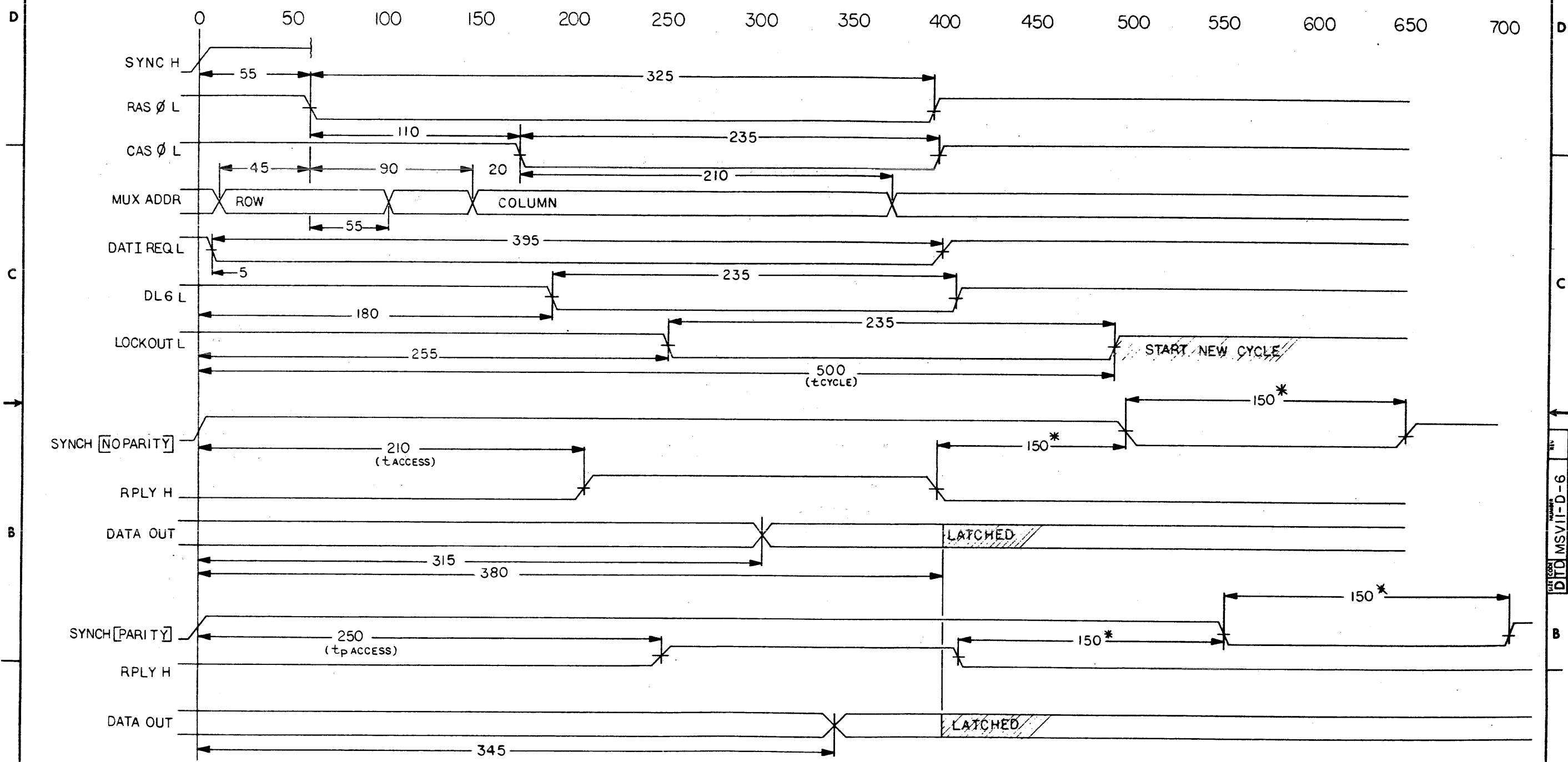
DRN. E. DeVito (TASV 7)	FIRST USED ON	digital
CHK'D R. Gruen 2-21-78	TITLE	MSVII D/E TIMING DIAGRAM
ENGR. R. Gruen 2-21-78	SIZE	D TD MSVII-D-6
PROJ. ENGR. R. Gruen 2-21-78	CODE	NUMBER
PROD. R. Gruen 2-21-78	SCALE	REV.
NEXT HIGHER ASSY.	SHEET	1 OF 4
B-DD-MSVII-D/E	DIST.	

REVISIONS
REV. NO.
DATE

D TD MSVII-D-6

DATI CYCLE

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 © 1977 DIGITAL EQUIPMENT CORPORATION



* SPECIFIED BUS MINIMUMS :
 $t_{ACCESS} = 210\text{ NS (TYP); } 225\text{ NS (MAX)}$
 $t_{PACCESS} = 250\text{ NS (TYP); } 265\text{ NS (MAX)}$
 $t_{CYCLE} = 500\text{ NS (TYP); } 520\text{ NS (MAX)}$

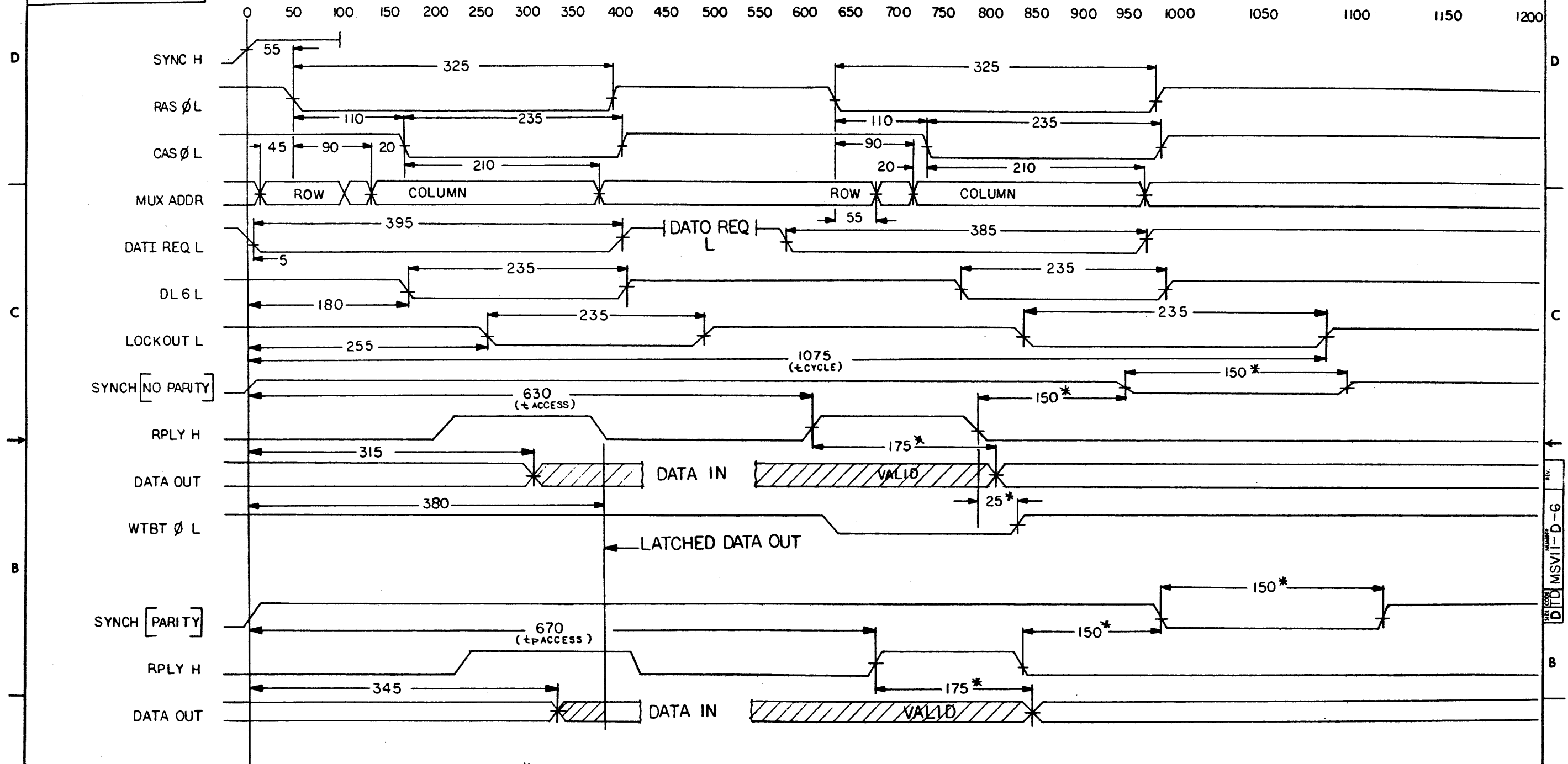
REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO. 138

FILE CODE DTD MSVII-D-6

DATIO (B) CYCLE

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 © 1977 DIGITAL EQUIPMENT CORPORATION



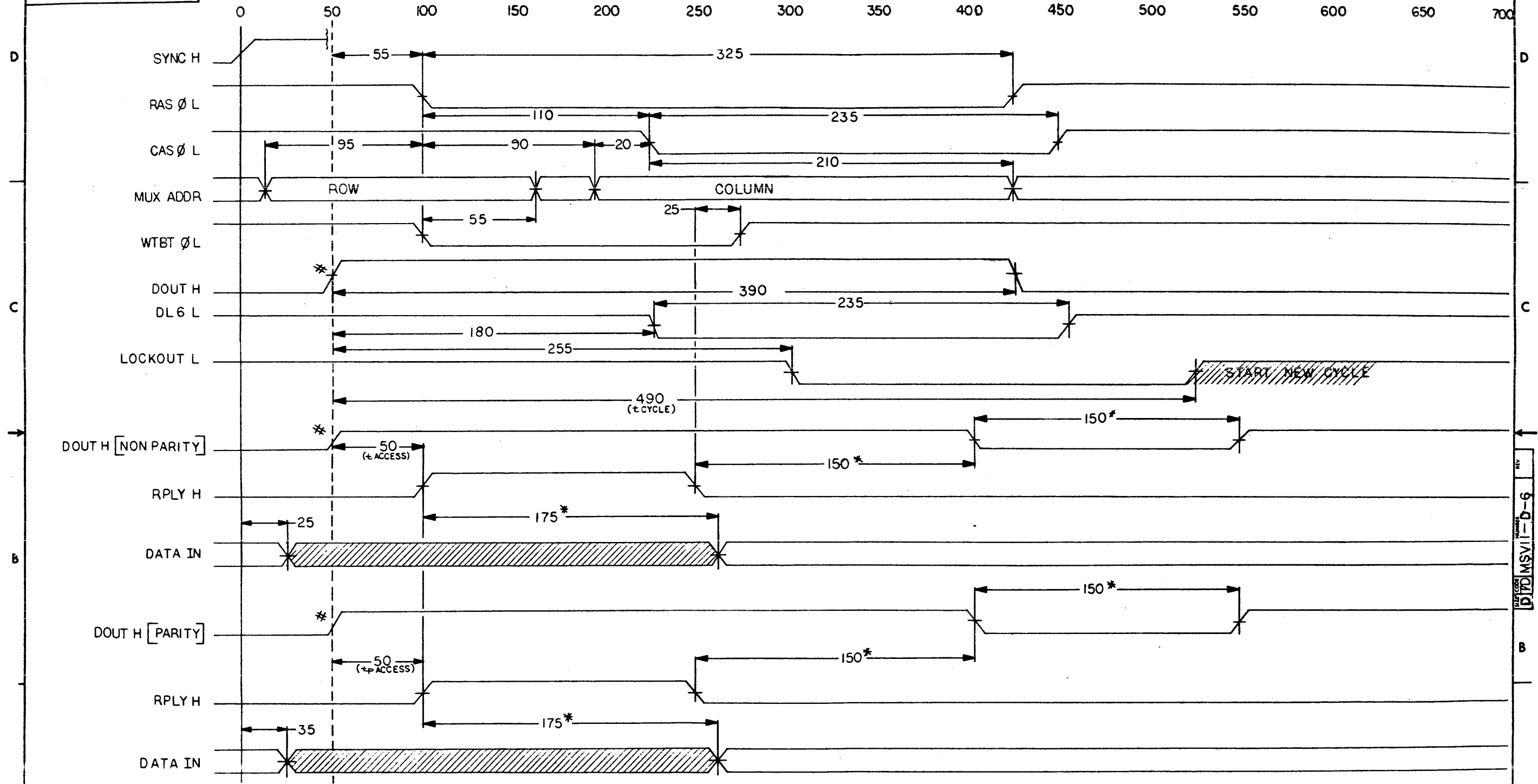
* SPECIFIED BUS MINIMUMS
 $t_{ACCESS} = 630\text{ ns (TYP); } 650\text{ ns (MAX)}$
 $t_{PACCESS} = 670\text{ ns (TYP); } 690\text{ ns (MAX)}$
 $t_{CYCLE} = 1075\text{ ns (TYP); } 1100\text{ ns (MAX)}$
 $t_{PCYCLE} = 1115\text{ ns (TYP); } 1140\text{ ns (MAX)}$

REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO. 10 128

DATO (B) CYCLE

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 © 1977 DIGITAL EQUIPMENT CORPORATION



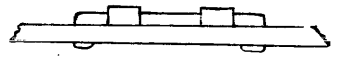
* SPECIFIED BUS MINIMUMS
 * TIME DEPENDENT ON PROCESSOR
 t_{ACCESS} = 100 NS (TYP); 110 NS (MAX)
 t_{PACCESS} = 100 NS (TYP); 110 NS (MAX)
 t_{CYCLE} = 545 NS (TYP); 565 NS (MAX)
 SYNC H TO DOUT H SPECIFIED AT A MINIMUM OF 50 NS

REVISIONS		
CHK	CHANGE NO.	REV.

THIS DRAWING AND SPECIFICATIONS, WHETHER AND THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART OR THE WHOLE FOR THE PURPOSES OF SALE OF THIS WITHOUT WRITTEN PERMISSION. DIGITAL EQUIPMENT CORPORATION © 1972

MODULE VARIATIONS AA/CA

- 1.
2. W2 THRU W5 SHOULD BE INSTALLED WITH ASSEMBLY SPACERS SO THAT THEY LOOK LIKE THE FOLLOWING:
3. R-PACKS SHOULD BE INSTALLED SO THAT LEADS DO NOT INTERFERE WITH OTHER COMPONENTS
4. ⊗ WIRE WRAP PIN.



5. MEMORY TYPE	JUMPER CONFIG	VARIATION
NON-PARITY	5-7	AA, CA

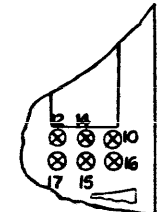
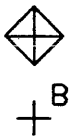
6. MEMORY SIZE	JUMPER CONFIG	VARIATION
4 K	17-15 17-14	AA
16 K	16-15 16-14	CA

7. OPTIONAL JUMPER J2 WILL ALLOW USER TO EXTEND USABLE MEMORY SPACE FROM 28K TO 30K. NORMAL JUMPER IS J-3.

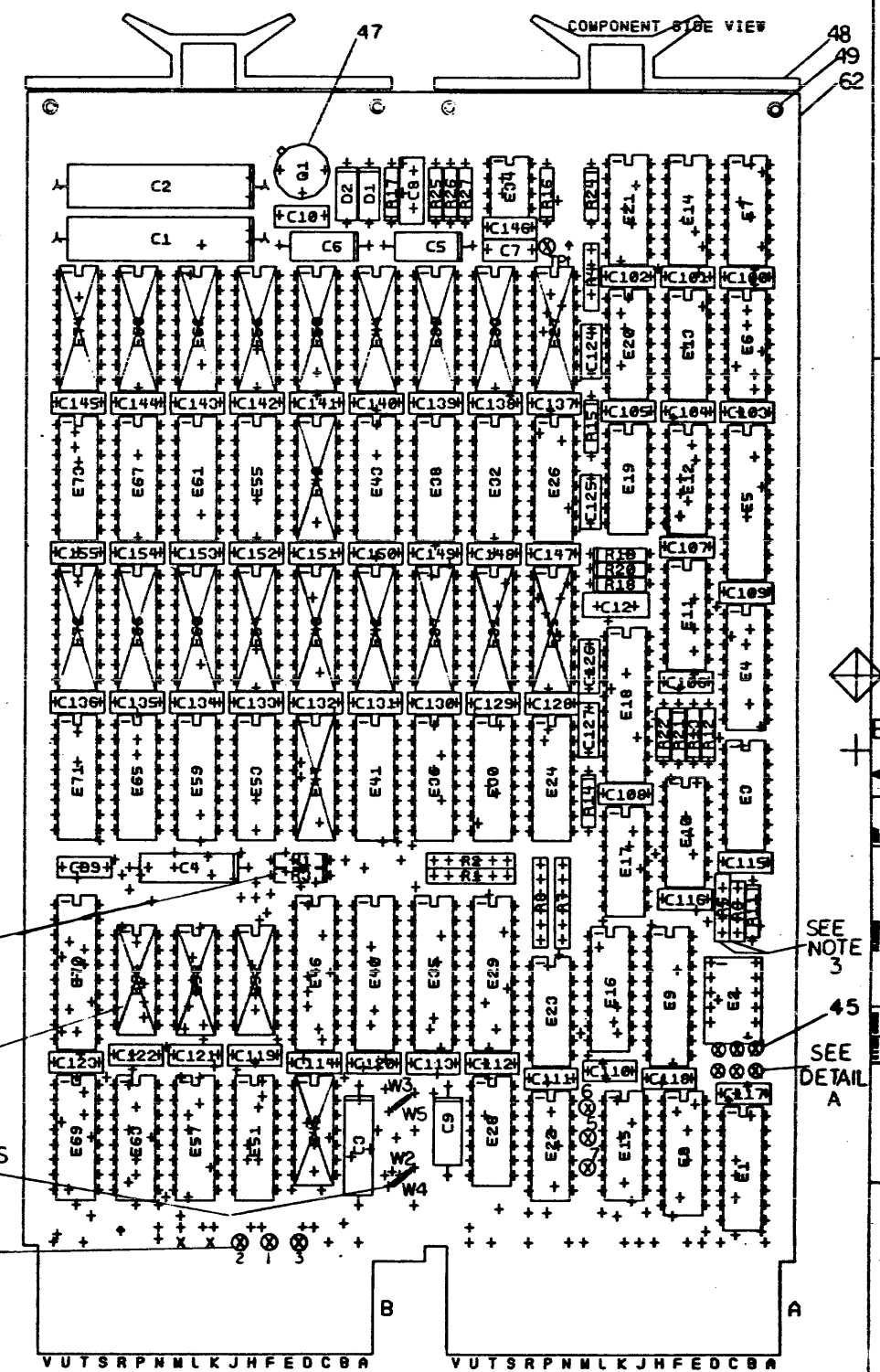
8. JUMPER	BATTERY BACK-UP	NON BATTERY BACK-UP
W2	OUT	IN
W3	OUT	IN
W4	IN	OUT
W5	IN	OUT

9. MEMORY SIZE	W1	R3	VARIATION
4K	IN	OUT	AA
16K	OUT	IN	CA

10. THE FOLLOWING IC'S ARE NOT INSTALLED IN AA & CA VARIATIONS:
E25, 27, 31, 33, 37, 39, 42, 44, 45, 47, 48, 49, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 72 & 74.



DETAIL A



SEE NOTE 9
SEE NOTE 10
SEE NOTES 2 & 8
SEE NOTE 7

SEE NOTE 3
SEE DETAIL A

NOTES:

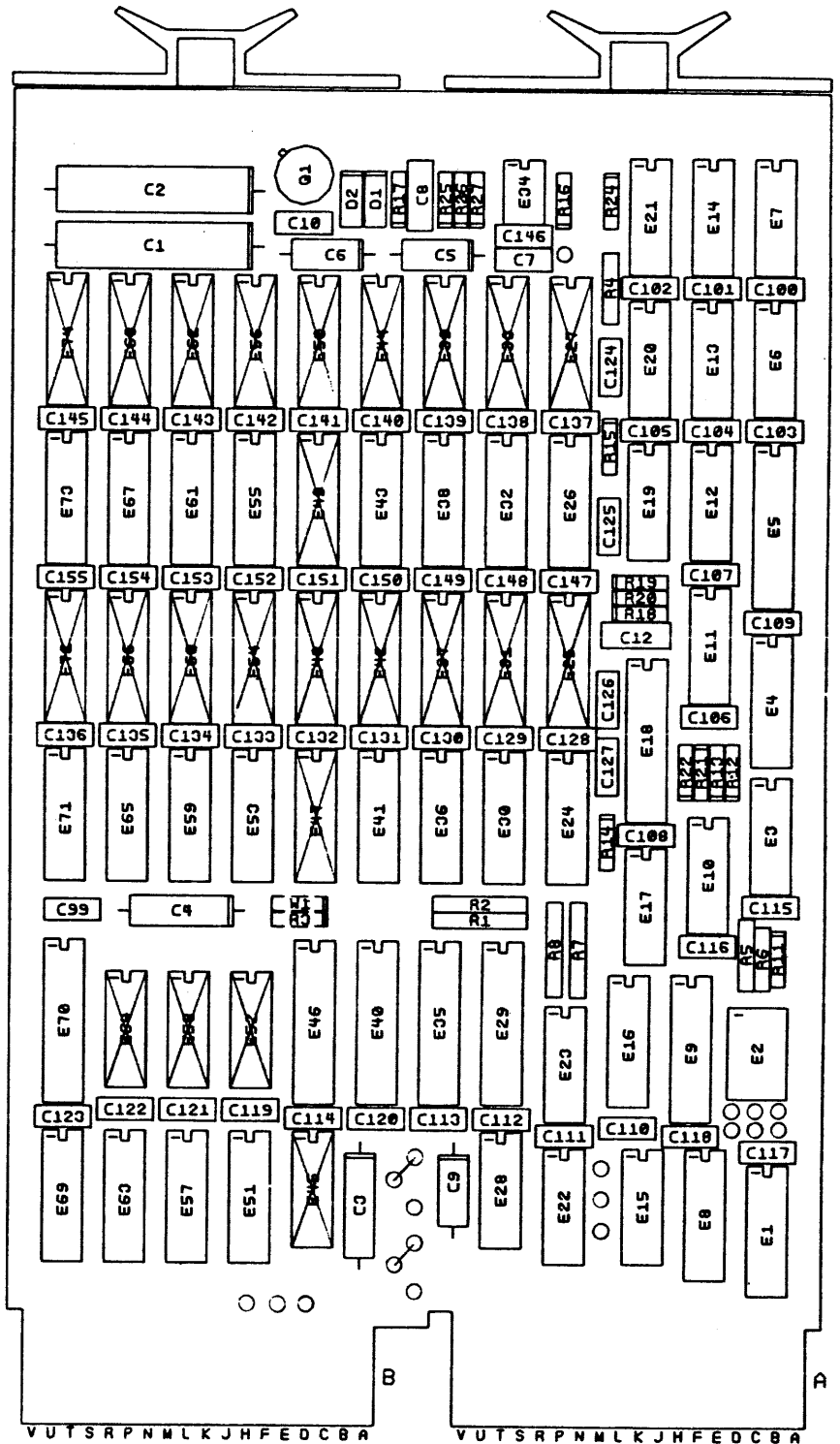
CHK	CHANGE NO	REV	DATE

ETCH REV. D-P	P.C. DESIGN DATA BASE REV. J-EDM
---------------	----------------------------------

SIGNATURES	DATE	digital
DRN: [Signature]	7-7-72	
CHK: [Signature]	3-20-72	TITLE
ENC.		32K 16BIT MOS MEMORY
PROJ. ENG.		SCALE 2/1
PROD.		SIZE CODE NUMBER
		0 UA M8044-0-0 D
		REV
		1 MS#261966

THIS DRAWING AND SPECIFICATIONS, WHETHER AND THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OF THIS OR OTHER WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

MODULE VARIATIONS AA'CA



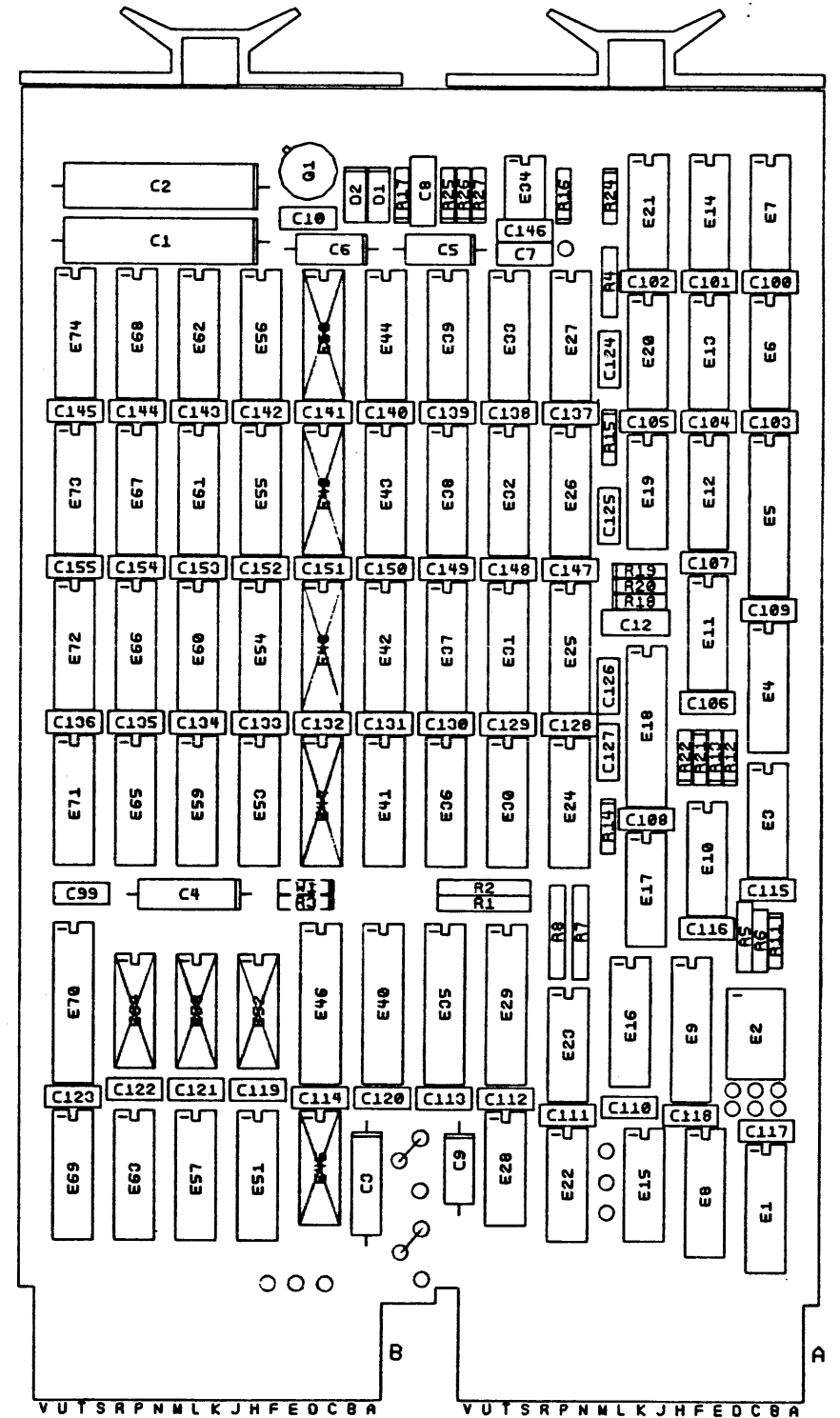
NOTES:

CHK	CHANGE NO	REV

SIGNATURES		DATE	digital
DRN.			
CHK'D		3-2-	
ENC.			TITLE
PROJ. ENG.			32K 16 BIT MOS MEMORY
PROD.			SIZE CODE NUMBER
SCALE 2/1			0 UA M8044-0-0
SHT. 2 OF 8			REV
NEXT HIGHER ASSY. F-100-MPC-14-0-0			1 MS#261966

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART ON THE BASIS FOR THE MANUFACTURE OF ANY ITEM WITHOUT WRITTEN PERMISSION. DIGITAL EQUIPMENT CORPORATION Copyright © 1974

MODULE VARIATIONS BA DA



NOTES:

CHG	NO	REV

SIGNATURES		DATE	digital
DRN.		3-2-74	
CHK'D.	(Signature)	3-2-74	
ENC.			TITLE
PROJ. ENC.			32K 16 BIT MOS MEMORY
PROD.			SIZE CODE NUMBER
SCALE 2/1			D UA M8044-0-0 D
SHT. 4 OF 8			REV
NEXT HIGHER ASSY: B-DD-M8044-0-0			

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF ANALOG DEVICES CORPORATION AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM ANALOG DEVICES CORPORATION.

NOTES:

1. ● = WIRE WRAP PIN

TYPE MEMORY	JUMPER CONFIGURATION
NON PARITY	5 TO 7
PARITY	5 TO 6

TYPE	JUMPER CONFIGURATION
4K	17 TO 15 & 17 TO 14
8K	17 TO 15 & 12 TO 14
16K	16 TO 15 & 16 TO 14
32K	16 TO 15 & 16 TO 14

DEC (K)	OCTAL	SWITCH SETTING (X = OFF)				
		SI-1	SI-2	SI-3	SI-4	SI-5
0	000000					
4	020000					X
8	040000				X	
12	060000				X	X
16	100000			X		
20	120000			X		X
24	140000			X	X	
28	160000			X	X	X
32	200000	X				
36	220000	X				X
40	240000	X			X	
44	260000	X			X	X
48	300000	X	X			
52	320000	X	X	X		X
56	340000	X	X	X	X	
60	360000	X	X	X	X	X
64	400000	X				
68	420000	X				X
72	440000	X			X	
76	460000	X			X	X
80	500000	X		X		
84	520000	X		X		X
88	540000	X		X	X	
92	560000	X		X	X	X
96	600000	X	X			
100	620000	X	X			X
104	640000	X	X		X	
108	660000	X	X		X	X
112	700000	X	X	X		
116	720000	X	X	X		X
120	740000	X	X	X	X	
124	760000	X	X	X	X	X

5. NORMAL JUMPER 1 TO 3. OPTIONAL JUMPER 1 TO 2 WILL ALLOW USER TO EXTEND USABLE MEMORY SPACE FROM 28K TO 30K.

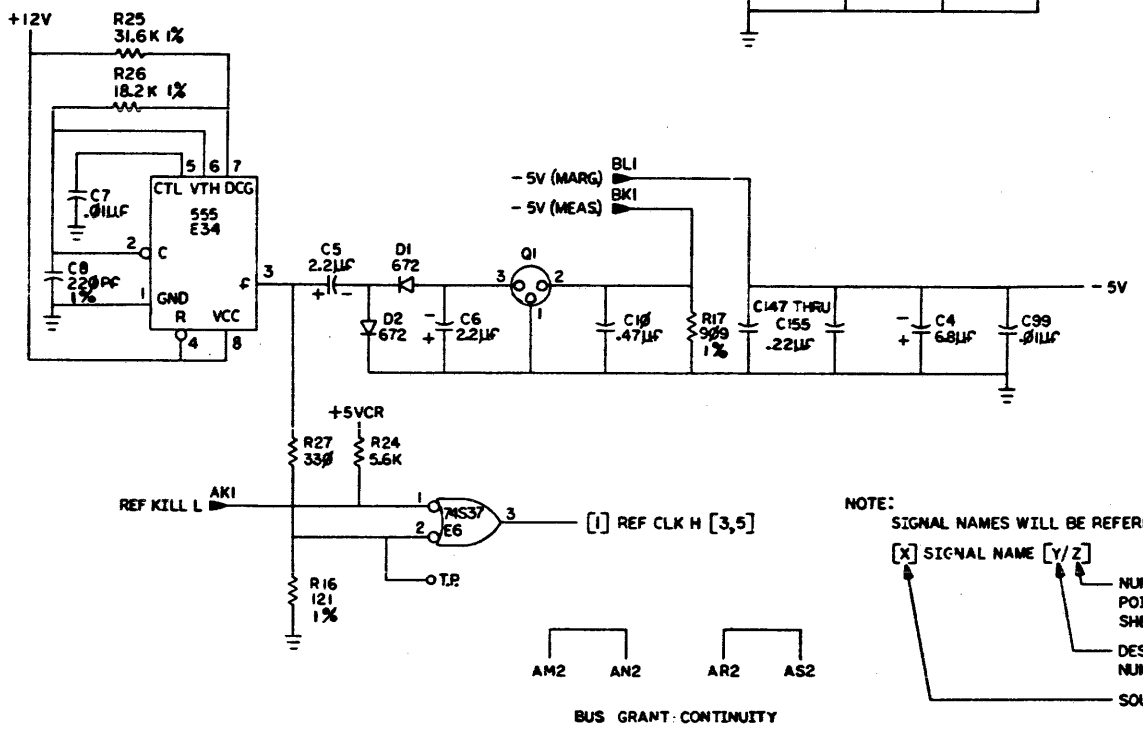
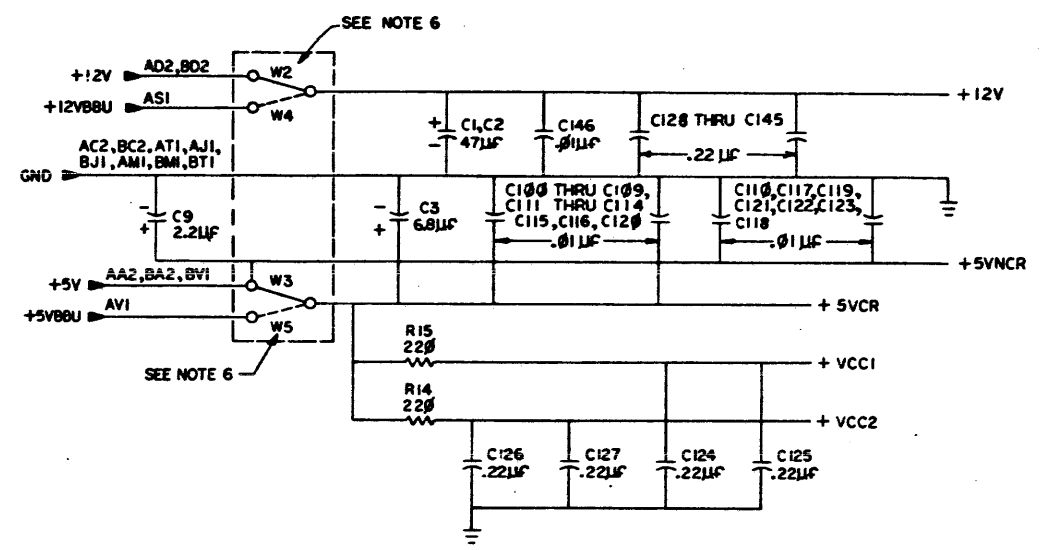
JUMPER	BATTERY BACK-UP	NON BATTERY BACK-UP
W2	OUT	IN
W3	OUT	IN
W4	IN	OUT
W5	IN	OUT

MEMORY SIZE	W1	R3
4K	IN	OUT
8K	IN	OUT
16K	OUT	IN
32K	OUT	IN

OPTION DESIGNATION	PRIMARY VARIATION	SYSTEM DESCRIPTION
MSVII-DA	M8044-AA	4K X 16 BITS
MSVII-DB	M8044-BA	8K X 16 BITS
MSVII-DC	M8044-CA	16K X 16 BITS
MSVII-DD	M8044-DA	32K X 16 BITS

IC TYPE	+5V	GND	+12V	-5V
555		1	8	
MOS	9	16	8	1
74S373	20	10		
74LS393	14	7		
74S280	14	7		
74S74	14	7		
74S10	14	7		
74S11	14	7		
8641	16	8		
8640	8	1		
74S240	20	10		
74S37	14	7		
74S22	14	7		
1KX4 PROM	18	9		
74S02	14	7		
74LS75	5	12		
74S32	14	7		
74LS10	14	7		
74LS240	20	10		

THESE I.C.'S USED ONLY IN 8K & 32K CONFIG'S.



NOTE: SIGNAL NAMES WILL BE REFERENCED AS FOLLOWS:
 [X] SIGNAL NAME [Y/Z]
 NUMBER OF CONNECTION POINTS ON DESTINATION SHEET.
 DESTINATION SHEET NUMBER.
 SOURCE SHEET NUMBER.

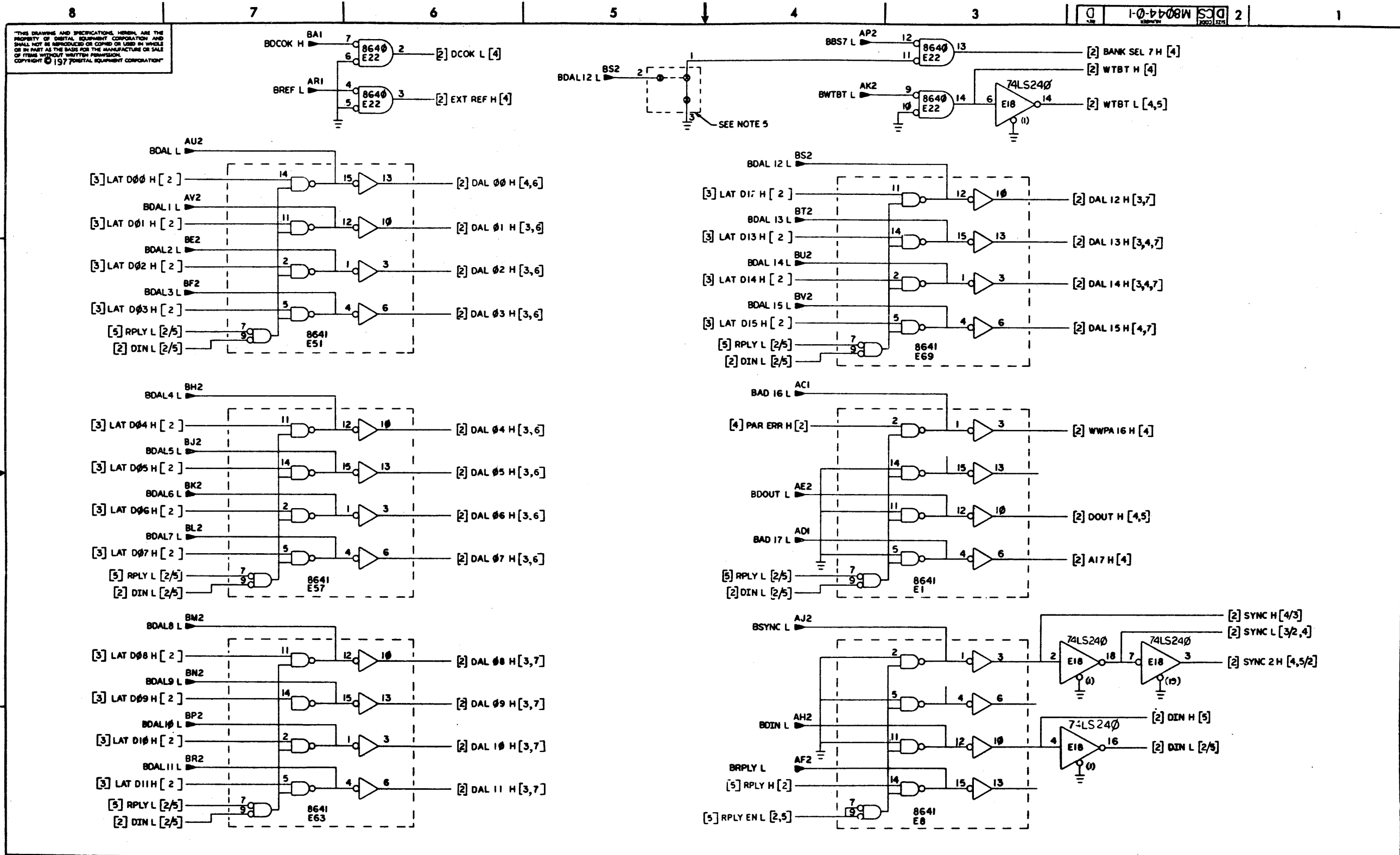
REV.	CHG.	DATE	BY	APP.
1	MSA	10/01/78	R. GIVEN	R. GIVEN
2	MSA	11/01/78	R. GIVEN	R. GIVEN
3	MSA	12/01/78	R. GIVEN	R. GIVEN
4	MSA	01/01/79	R. GIVEN	R. GIVEN
5	MSA	02/01/79	R. GIVEN	R. GIVEN
6	MSA	03/01/79	R. GIVEN	R. GIVEN
7	MSA	04/01/79	R. GIVEN	R. GIVEN
8	MSA	05/01/79	R. GIVEN	R. GIVEN
9	MSA	06/01/79	R. GIVEN	R. GIVEN
10	MSA	07/01/79	R. GIVEN	R. GIVEN
11	MSA	08/01/79	R. GIVEN	R. GIVEN
12	MSA	09/01/79	R. GIVEN	R. GIVEN
13	MSA	10/01/79	R. GIVEN	R. GIVEN
14	MSA	11/01/79	R. GIVEN	R. GIVEN
15	MSA	12/01/79	R. GIVEN	R. GIVEN
16	MSA	01/01/80	R. GIVEN	R. GIVEN
17	MSA	02/01/80	R. GIVEN	R. GIVEN
18	MSA	03/01/80	R. GIVEN	R. GIVEN
19	MSA	04/01/80	R. GIVEN	R. GIVEN
20	MSA	05/01/80	R. GIVEN	R. GIVEN
21	MSA	06/01/80	R. GIVEN	R. GIVEN
22	MSA	07/01/80	R. GIVEN	R. GIVEN
23	MSA	08/01/80	R. GIVEN	R. GIVEN
24	MSA	09/01/80	R. GIVEN	R. GIVEN
25	MSA	10/01/80	R. GIVEN	R. GIVEN
26	MSA	11/01/80	R. GIVEN	R. GIVEN
27	MSA	12/01/80	R. GIVEN	R. GIVEN
28	MSA	01/01/81	R. GIVEN	R. GIVEN
29	MSA	02/01/81	R. GIVEN	R. GIVEN
30	MSA	03/01/81	R. GIVEN	R. GIVEN
31	MSA	04/01/81	R. GIVEN	R. GIVEN
32	MSA	05/01/81	R. GIVEN	R. GIVEN
33	MSA	06/01/81	R. GIVEN	R. GIVEN
34	MSA	07/01/81	R. GIVEN	R. GIVEN
35	MSA	08/01/81	R. GIVEN	R. GIVEN
36	MSA	09/01/81	R. GIVEN	R. GIVEN
37	MSA	10/01/81	R. GIVEN	R. GIVEN
38	MSA	11/01/81	R. GIVEN	R. GIVEN
39	MSA	12/01/81	R. GIVEN	R. GIVEN
40	MSA	01/01/82	R. GIVEN	R. GIVEN
41	MSA	02/01/82	R. GIVEN	R. GIVEN
42	MSA	03/01/82	R. GIVEN	R. GIVEN
43	MSA	04/01/82	R. GIVEN	R. GIVEN
44	MSA	05/01/82	R. GIVEN	R. GIVEN
45	MSA	06/01/82	R. GIVEN	R. GIVEN
46	MSA	07/01/82	R. GIVEN	R. GIVEN
47	MSA	08/01/82	R. GIVEN	R. GIVEN
48	MSA	09/01/82	R. GIVEN	R. GIVEN
49	MSA	10/01/82	R. GIVEN	R. GIVEN
50	MSA	11/01/82	R. GIVEN	R. GIVEN
51	MSA	12/01/82	R. GIVEN	R. GIVEN
52	MSA	01/01/83	R. GIVEN	R. GIVEN
53	MSA	02/01/83	R. GIVEN	R. GIVEN
54	MSA	03/01/83	R. GIVEN	R. GIVEN
55	MSA	04/01/83	R. GIVEN	R. GIVEN
56	MSA	05/01/83	R. GIVEN	R. GIVEN
57	MSA	06/01/83	R. GIVEN	R. GIVEN
58	MSA	07/01/83	R. GIVEN	R. GIVEN
59	MSA	08/01/83	R. GIVEN	R. GIVEN
60	MSA	09/01/83	R. GIVEN	R. GIVEN
61	MSA	10/01/83	R. GIVEN	R. GIVEN
62	MSA	11/01/83	R. GIVEN	R. GIVEN
63	MSA	12/01/83	R. GIVEN	R. GIVEN
64	MSA	01/01/84	R. GIVEN	R. GIVEN
65	MSA	02/01/84	R. GIVEN	R. GIVEN
66	MSA	03/01/84	R. GIVEN	R. GIVEN
67	MSA	04/01/84	R. GIVEN	R. GIVEN
68	MSA	05/01/84	R. GIVEN	R. GIVEN
69	MSA	06/01/84	R. GIVEN	R. GIVEN
70	MSA	07/01/84	R. GIVEN	R. GIVEN
71	MSA	08/01/84	R. GIVEN	R. GIVEN
72	MSA	09/01/84	R. GIVEN	R. GIVEN
73	MSA	10/01/84	R. GIVEN	R. GIVEN
74	MSA	11/01/84	R. GIVEN	R. GIVEN
75	MSA	12/01/84	R. GIVEN	R. GIVEN
76	MSA	01/01/85	R. GIVEN	R. GIVEN
77	MSA	02/01/85	R. GIVEN	R. GIVEN
78	MSA	03/01/85	R. GIVEN	R. GIVEN
79	MSA	04/01/85	R. GIVEN	R. GIVEN
80	MSA	05/01/85	R. GIVEN	R. GIVEN
81	MSA	06/01/85	R. GIVEN	R. GIVEN
82	MSA	07/01/85	R. GIVEN	R. GIVEN
83	MSA	08/01/85	R. GIVEN	R. GIVEN
84	MSA	09/01/85	R. GIVEN	R. GIVEN
85	MSA	10/01/85	R. GIVEN	R. GIVEN
86	MSA	11/01/85	R. GIVEN	R. GIVEN
87	MSA	12/01/85	R. GIVEN	R. GIVEN
88	MSA	01/01/86	R. GIVEN	R. GIVEN
89	MSA	02/01/86	R. GIVEN	R. GIVEN
90	MSA	03/01/86	R. GIVEN	R. GIVEN
91	MSA	04/01/86	R. GIVEN	R. GIVEN
92	MSA	05/01/86	R. GIVEN	R. GIVEN
93	MSA	06/01/86	R. GIVEN	R. GIVEN
94	MSA	07/01/86	R. GIVEN	R. GIVEN
95	MSA	08/01/86	R. GIVEN	R. GIVEN
96	MSA	09/01/86	R. GIVEN	R. GIVEN
97	MSA	10/01/86	R. GIVEN	R. GIVEN
98	MSA	11/01/86	R. GIVEN	R. GIVEN
99	MSA	12/01/86	R. GIVEN	R. GIVEN
100	MSA	01/01/87	R. GIVEN	R. GIVEN
101	MSA	02/01/87	R. GIVEN	R. GIVEN
102	MSA	03/01/87	R. GIVEN	R. GIVEN
103	MSA	04/01/87	R. GIVEN	R. GIVEN
104	MSA	05/01/87	R. GIVEN	R. GIVEN
105	MSA	06/01/87	R. GIVEN	R. GIVEN
106	MSA	07/01/87	R. GIVEN	R. GIVEN
107	MSA	08/01/87	R. GIVEN	R. GIVEN
108	MSA	09/01/87	R. GIVEN	R. GIVEN
109	MSA	10/01/87	R. GIVEN	R. GIVEN
110	MSA	11/01/87	R. GIVEN	R. GIVEN
111	MSA	12/01/87	R. GIVEN	R. GIVEN
112	MSA	01/01/88	R. GIVEN	R. GIVEN
113	MSA	02/01/88	R. GIVEN	R. GIVEN
114	MSA	03/01/88	R. GIVEN	R. GIVEN
115	MSA	04/01/88	R. GIVEN	R. GIVEN
116	MSA	05/01/88	R. GIVEN	R. GIVEN
117	MSA	06/01/88	R. GIVEN	R. GIVEN
118	MSA	07/01/88	R. GIVEN	R. GIVEN
119	MSA	08/01/88	R. GIVEN	R. GIVEN
120	MSA	09/01/88	R. GIVEN	R. GIVEN
121	MSA	10/01/88	R. GIVEN	R. GIVEN
122	MSA	11/01/88	R. GIVEN	R. GIVEN
123	MSA	12/01/88	R. GIVEN	R. GIVEN
124	MSA	01/01/89	R. GIVEN	R. GIVEN
125	MSA	02/01/89	R. GIVEN	R. GIVEN
126	MSA	03/01/89	R. GIVEN	R. GIVEN
127	MSA	04/01/89	R. GIVEN	R. GIVEN
128	MSA	05/01/89	R. GIVEN	R. GIVEN
129	MSA	06/01/89	R. GIVEN	R. GIVEN
130	MSA	07/01/89	R. GIVEN	R. GIVEN
131	MSA	08/01/89	R. GIVEN	R. GIVEN
132	MSA	09/01/89	R. GIVEN	R. GIVEN
133	MSA	10/01/89	R. GIVEN	R. GIVEN
134	MSA	11/01/89	R. GIVEN	R. GIVEN
135	MSA	12/01/89	R. GIVEN	R. GIVEN
136	MSA	01/01/90	R. GIVEN	R. GIVEN
137	MSA	02/01/90	R. GIVEN	R. GIVEN
138	MSA	03/01/90	R. GIVEN	R. GIVEN
139	MSA	04/01/90	R. GIVEN	R. GIVEN
140	MSA	05/01/90	R. GIVEN	R. GIVEN
141	MSA	06/01/90	R. GIVEN	R. GIVEN
142	MSA	07/01/90	R. GIVEN	R. GIVEN
143	MSA	08/01/90	R. GIVEN	R. GIVEN
144	MSA	09/01/90	R. GIVEN	R. GIVEN
145	MSA	10/01/90	R. GIVEN	R. GIVEN
146	MSA	11/01/90	R. GIVEN	R. GIVEN
147	MSA	12/01/90	R. GIVEN	R. GIVEN
148	MSA	01/01/91	R. GIVEN	R. GIVEN
149	MSA	02/01/91	R. GIVEN	R. GIVEN
150	MSA	03/01/91	R. GIVEN	R. GIVEN
151	MSA	04/01/91	R. GIVEN	R. GIVEN
152	MSA	05/01/91	R. GIVEN	R. GIVEN
153	MSA	06/01/91	R. GIVEN	R. GIVEN
154	MSA	07/01/91	R. GIVEN	R. GIVEN
155	MSA	08/01/91	R. GIVEN	R. GIVEN
156	MSA	09/01/91	R. GIVEN	R. GIVEN
157	MSA	10/01/91	R. GIVEN	R. GIVEN
158	MSA	11/01/91	R. GIVEN	R. GIVEN
159	MSA	12/01/91	R. GIVEN	R. GIVEN
160	MSA	01/01/92	R. GIVEN	R. GIVEN
161	MSA	02/01/92	R. GIVEN	R. GIVEN
162	MSA	03/01/92	R. GIVEN	R. GIVEN
163	MSA	04/01/92	R. GIVEN	R. GIVEN
164	MSA	05/01/92	R. GIVEN	R. GIVEN
165	MSA	06/01/92	R. GIVEN	R. GIVEN
166	MSA	07/01/92	R. GIVEN	R. GIVEN
167	MSA	08/01/92	R. GIVEN	R. GIVEN
168	MSA	09/01/92	R. GIVEN	R. GIVEN
169	MSA	10/01/92	R. GIVEN	R. GIVEN
170	MSA	11/01/92	R. GIVEN	R. GIVEN
171	MSA	12/01/92	R. GIVEN	R. GIVEN
172	MSA	01/01/93	R. GIVEN	R. GIVEN
173	MSA	02/01/93	R. GIVEN	R. GIVEN
174	MSA	03/01/93	R. GIVEN	R. GIVEN
175	MSA	04/01/93	R. GIVEN	R. GIVEN
176	MSA	05/01/93	R. GIVEN	R. GIVEN
177	MSA	06/01		

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 © 1977 DIGITAL EQUIPMENT CORPORATION.

DCS M8044-0-1 2

D
C
B
A

D
C
B
A

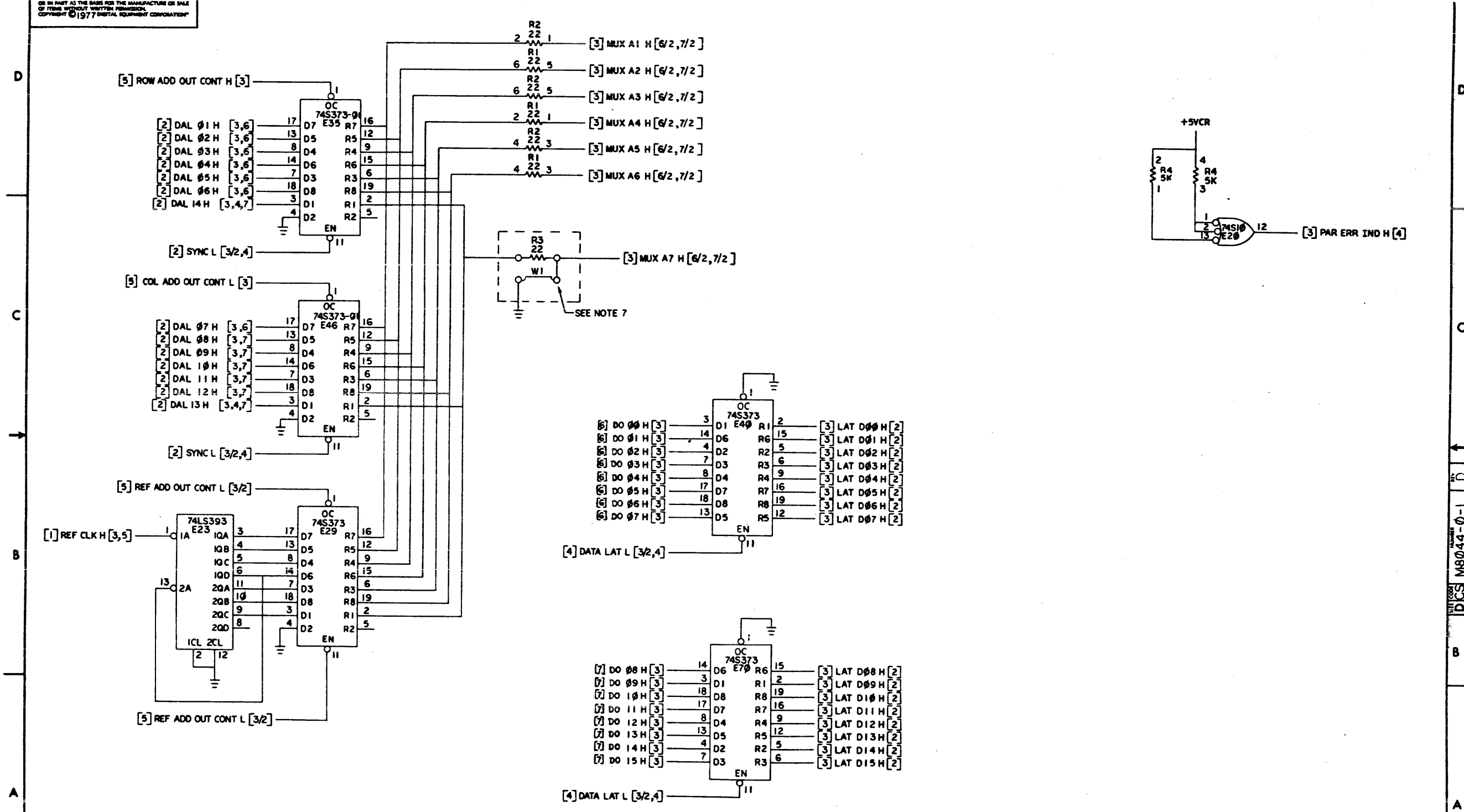


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: 32K 16BIT MOS MEM
 SIZE CODE: DCS
 NUMBER: M8044-0-1
 REV: D
 SCALE: SHEET 2 OF 7
 ML 1

8 7 6 5 4 3 2 1

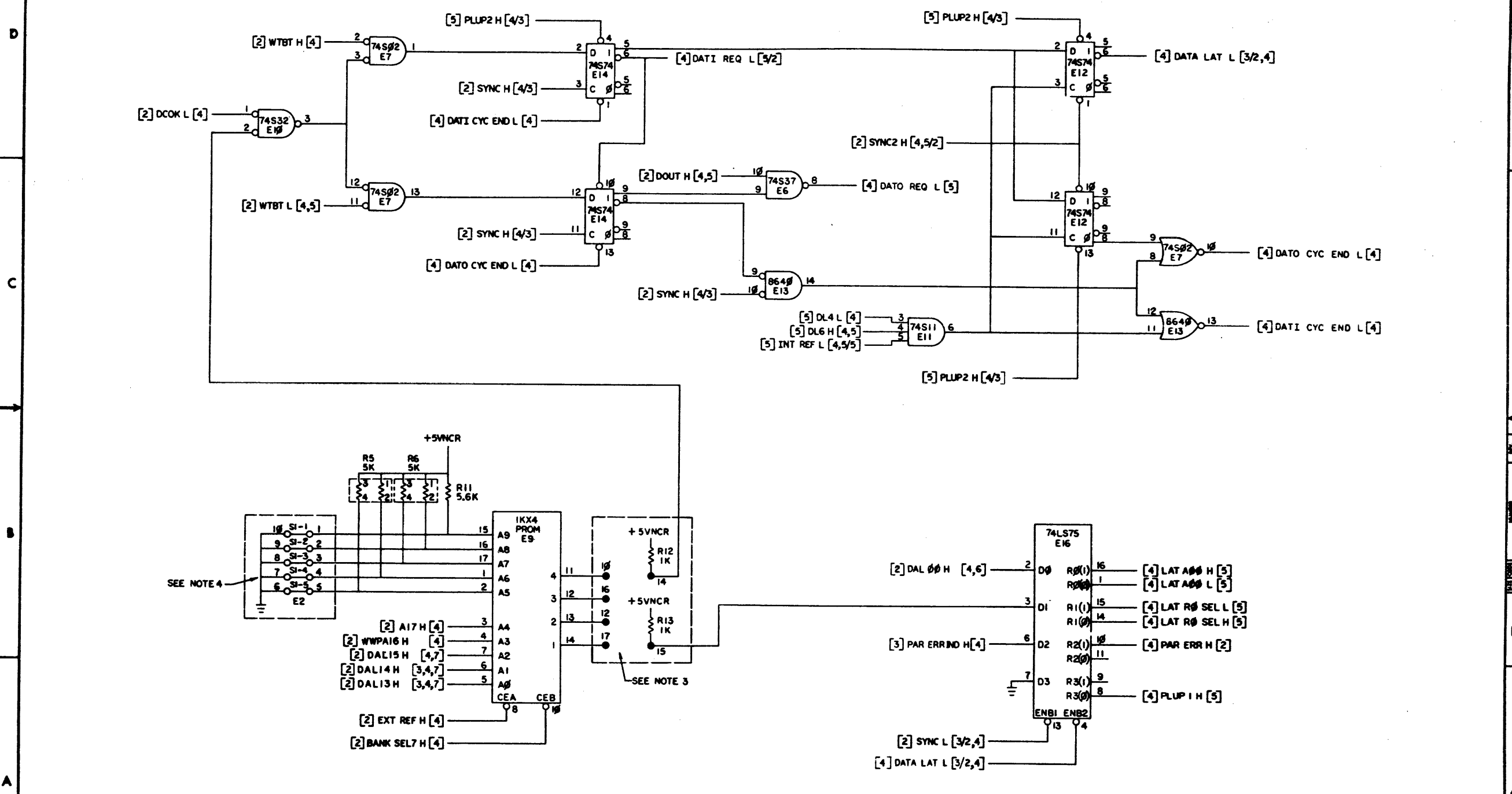
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION



REVISIONS		
CHK	CHANGE NO.	REV.

THIS DRAWING AND SPECIFICATIONS HERIN 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 © 1977 DIGITAL EQUIPMENT CORPORATION

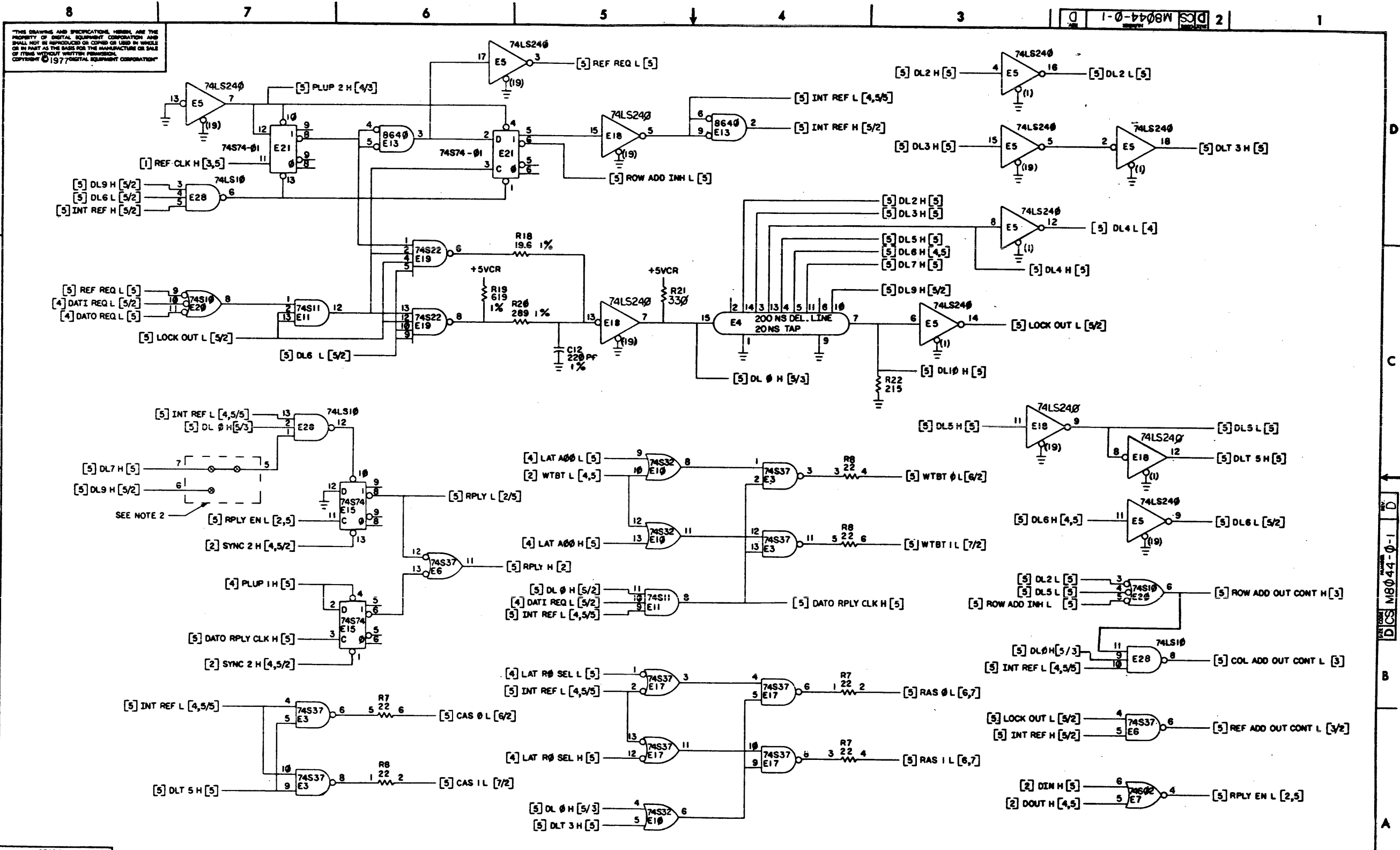
DCS M8044-0-1 2



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: 32K 16 BIT MOS MEM
 SCALE: / / SHEET: 4 OF 7
 NUMBER: DCS M8044-0-1
 REV: D

DCS M8044-0-1

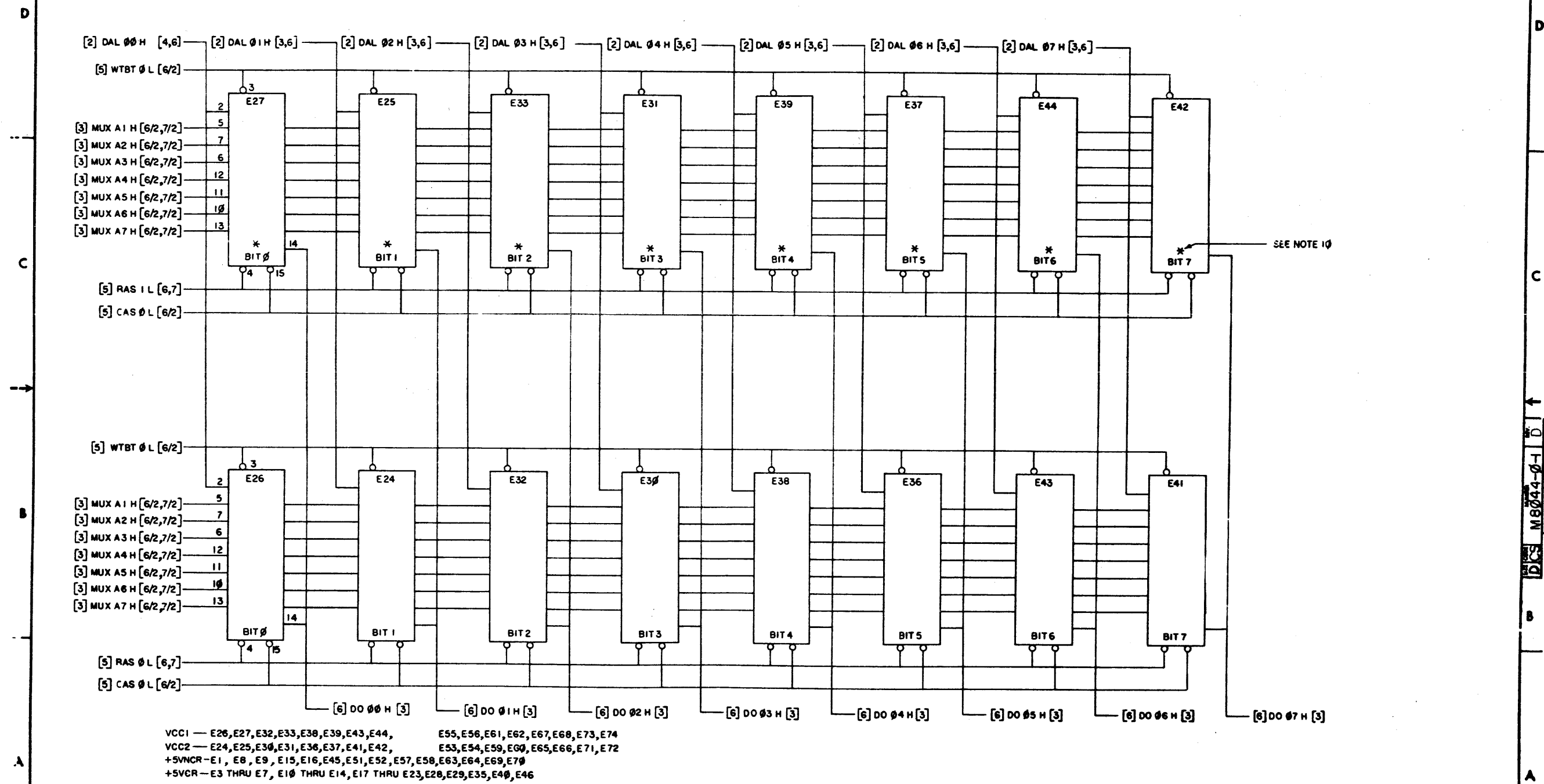


THIS DRAWING AND SPECIFICATIONS HEREAFTER ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	32K 16BIT MOS MEM	SIZE/COORD	D CS	NUMBER	M8044-0-1	REV.	D
SCALE		SHEET	5 OF 7	DWT.			

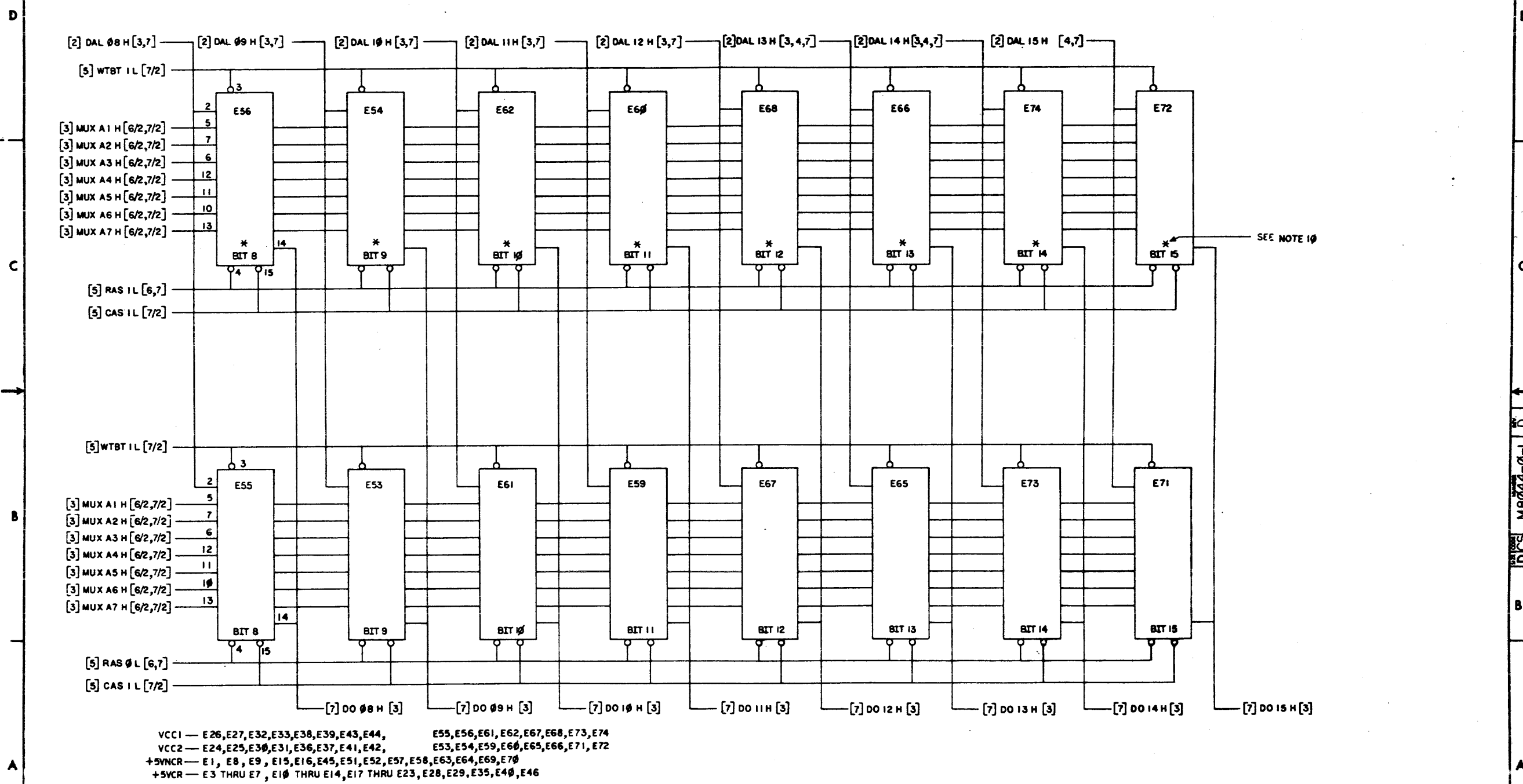
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION



VCC1 — E26, E27, E32, E33, E38, E39, E43, E44, E55, E56, E61, E62, E67, E68, E73, E74
 VCC2 — E24, E25, E30, E31, E36, E37, E41, E42, E53, E54, E59, E60, E65, E66, E71, E72
 +5VNCR — E1, E8, E9, E15, E16, E45, E51, E52, E57, E58, E63, E64, E69, E70
 +5VCR — E3 THRU E7, E10 THRU E14, E17 THRU E23, E28, E29, E35, E40, E46

REVISIONS		
CHK	CHANGE NO.	REV.

THIS DRAWING AND SPECIFICATIONS HEREAFTER 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 © 1977 DIGITAL EQUIPMENT CORPORATION



SEE NOTE 10

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	32K 16BIT MOS MEM	DWG CODE	DCS	NUMBER	M8044-0-1	REV.	D
SCALE		SHEET	7 OF 7	DIST.			

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
				J	JA
1	1	M8043-00	DLV11-J,4-SERIAL LINE PERIPHEREL	1	1
2	2	9905622-00	BOX,FOLDING	1	-
3	3	7018204-00	D315 SLU EXPANSION ASSY	-	1
4	4	9009701-00	SCREW,PAN,PHIL,SENS 6-32X .312L	-	4
5	5	3700273-00	INSTR PKG KIT OPTION IBV11-A	-	1
6	6 C-UA-H315-B-0	OH315-00	MODEM TEST CONNECTOR	1	4

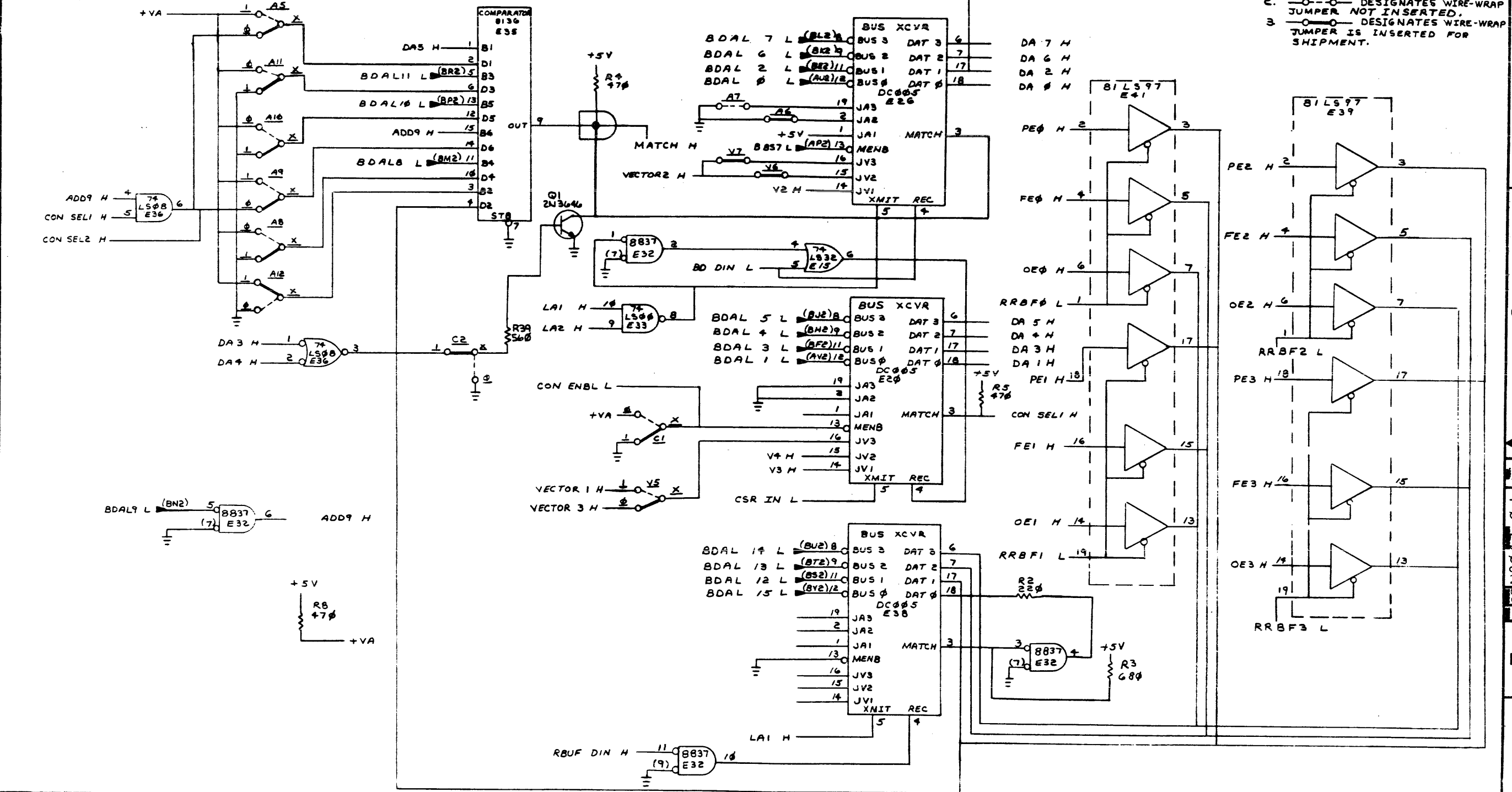
REVISION HISTORY		BASIC PART NO: DLV11		DRN: B. CSERPES		DATE: 02-MAR-82		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	L. GILBERT	DATE:	02-MAR-82	TITLE	PARTS LIST
	INITIAL	A	SECTION. VARIATION INDEX					DLV11-JA INSTALLATION ARRANG.	
			[A] J,JA						
			[B]	DES.ENG.:	J.CURTIS	DATE:	02-MAR-82		
			[C]						DOCUMENT NUMBER
			[D]	RESP.ENG.:	J.CURTIS	DATE:	02-MAR-82	SIZE	CODE
			[E]					NUMBER	REV
			[F]	MFG.ENG.:	N.POLLITT	DATE:	02-MAR-82	K	PL
				ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	EDIT #
				D-AR-DLV11-J-4		B-DD-DLV11-J-0		DLV11A.PLS	7

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) 1982. DIGITAL EQUIPMENT CORPORATION

EQ.43.19.01.13.01

THIS DRAWING AND SPECIFICATIONS HEREAFTER 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 © 1978, DIGITAL EQUIPMENT CORPORATION

- NOTES:
1. UNDERLINED TERM DESIGNATES LABEL IN ETCH.
 2. DESIGNATES WIRE-WRAP JUMPER NOT INSERTED.
 3. DESIGNATES WIRE-WRAP JUMPER IS INSERTED FOR SHIPMENT.

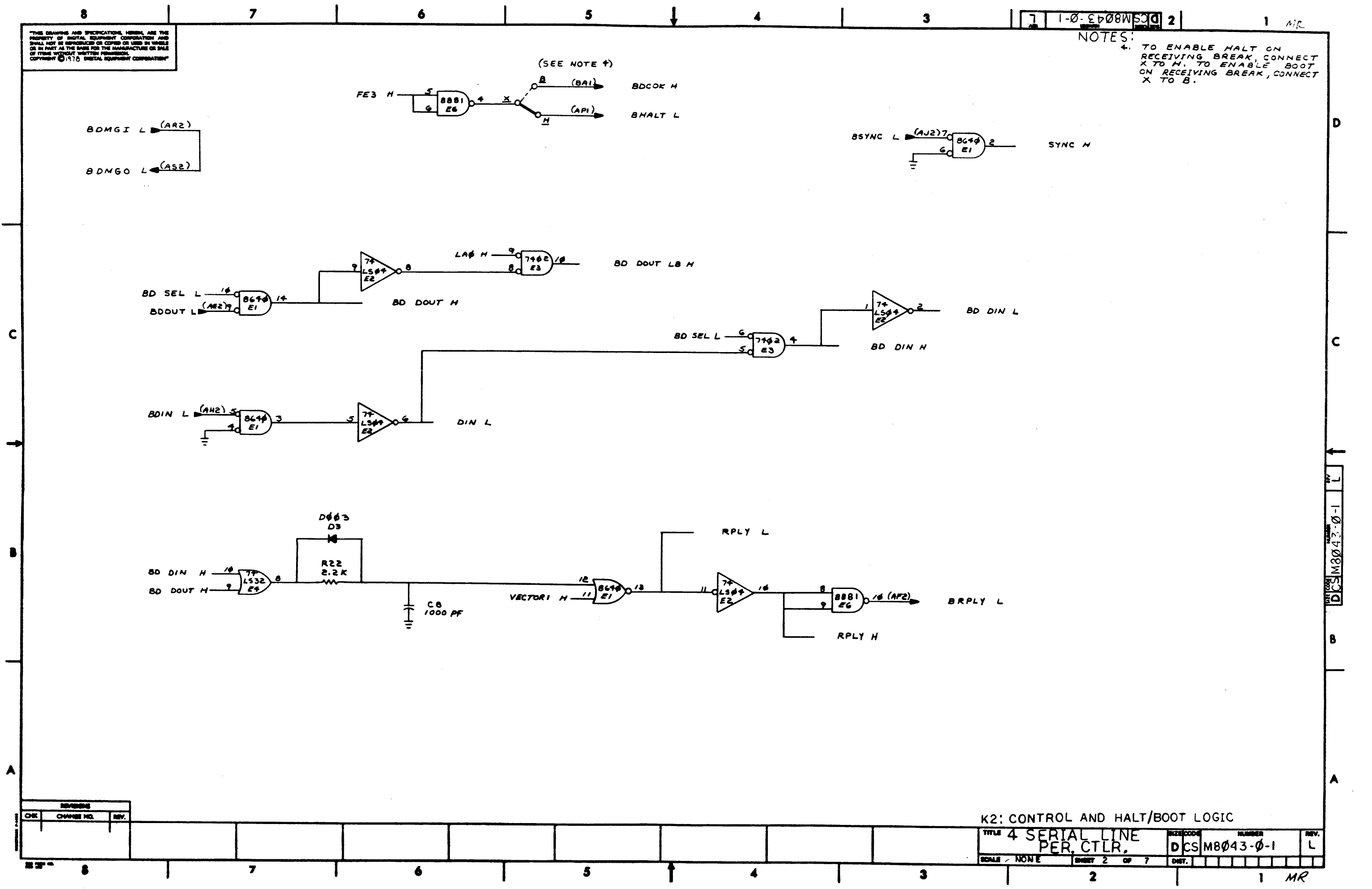


REV.	CHG.	BY	DATE
1	1	T. ZAJAC	11/15/78
2	1	T. ZAJAC	12/11/78
3	1	T. ZAJAC	1/17/79
4	1	T. ZAJAC	2/1/79
5	1	T. ZAJAC	2/1/79
6	1	T. ZAJAC	2/1/79
7	1	T. ZAJAC	2/1/79
8	1	T. ZAJAC	2/1/79
9	1	T. ZAJAC	2/1/79
10	1	T. ZAJAC	2/1/79
11	1	T. ZAJAC	2/1/79
12	1	T. ZAJAC	2/1/79
13	1	T. ZAJAC	2/1/79
14	1	T. ZAJAC	2/1/79
15	1	T. ZAJAC	2/1/79
16	1	T. ZAJAC	2/1/79
17	1	T. ZAJAC	2/1/79
18	1	T. ZAJAC	2/1/79
19	1	T. ZAJAC	2/1/79
20	1	T. ZAJAC	2/1/79
21	1	T. ZAJAC	2/1/79
22	1	T. ZAJAC	2/1/79
23	1	T. ZAJAC	2/1/79
24	1	T. ZAJAC	2/1/79
25	1	T. ZAJAC	2/1/79
26	1	T. ZAJAC	2/1/79
27	1	T. ZAJAC	2/1/79
28	1	T. ZAJAC	2/1/79
29	1	T. ZAJAC	2/1/79
30	1	T. ZAJAC	2/1/79
31	1	T. ZAJAC	2/1/79
32	1	T. ZAJAC	2/1/79
33	1	T. ZAJAC	2/1/79
34	1	T. ZAJAC	2/1/79
35	1	T. ZAJAC	2/1/79
36	1	T. ZAJAC	2/1/79
37	1	T. ZAJAC	2/1/79
38	1	T. ZAJAC	2/1/79
39	1	T. ZAJAC	2/1/79
40	1	T. ZAJAC	2/1/79
41	1	T. ZAJAC	2/1/79
42	1	T. ZAJAC	2/1/79
43	1	T. ZAJAC	2/1/79
44	1	T. ZAJAC	2/1/79
45	1	T. ZAJAC	2/1/79
46	1	T. ZAJAC	2/1/79
47	1	T. ZAJAC	2/1/79
48	1	T. ZAJAC	2/1/79
49	1	T. ZAJAC	2/1/79
50	1	T. ZAJAC	2/1/79

KI: BUS ADDRESS/DATA LOGIC	
DRN. <i>E. Wilson</i> 30 JAN 79	FIRST USED ON DLV11-J
CHK'D <i>J. Curtis</i> 2 FEB 79	TITLE 4 SERIAL LINE PER. CTRL.
ENGR. <i>James J. ...</i> 2 MAR 79	PROD. <i>...</i> 13 MAR 79
PROJ. ENG. <i>...</i> 2 MAR 79	NEXT HIGHER ASSY.
SHEET 1 OF 7	SIZE CODE D CS M8043-0-1
	SCALE NONE
	NUMBER 1
	REV. -L

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 © 1970 DIGITAL EQUIPMENT CORPORATION

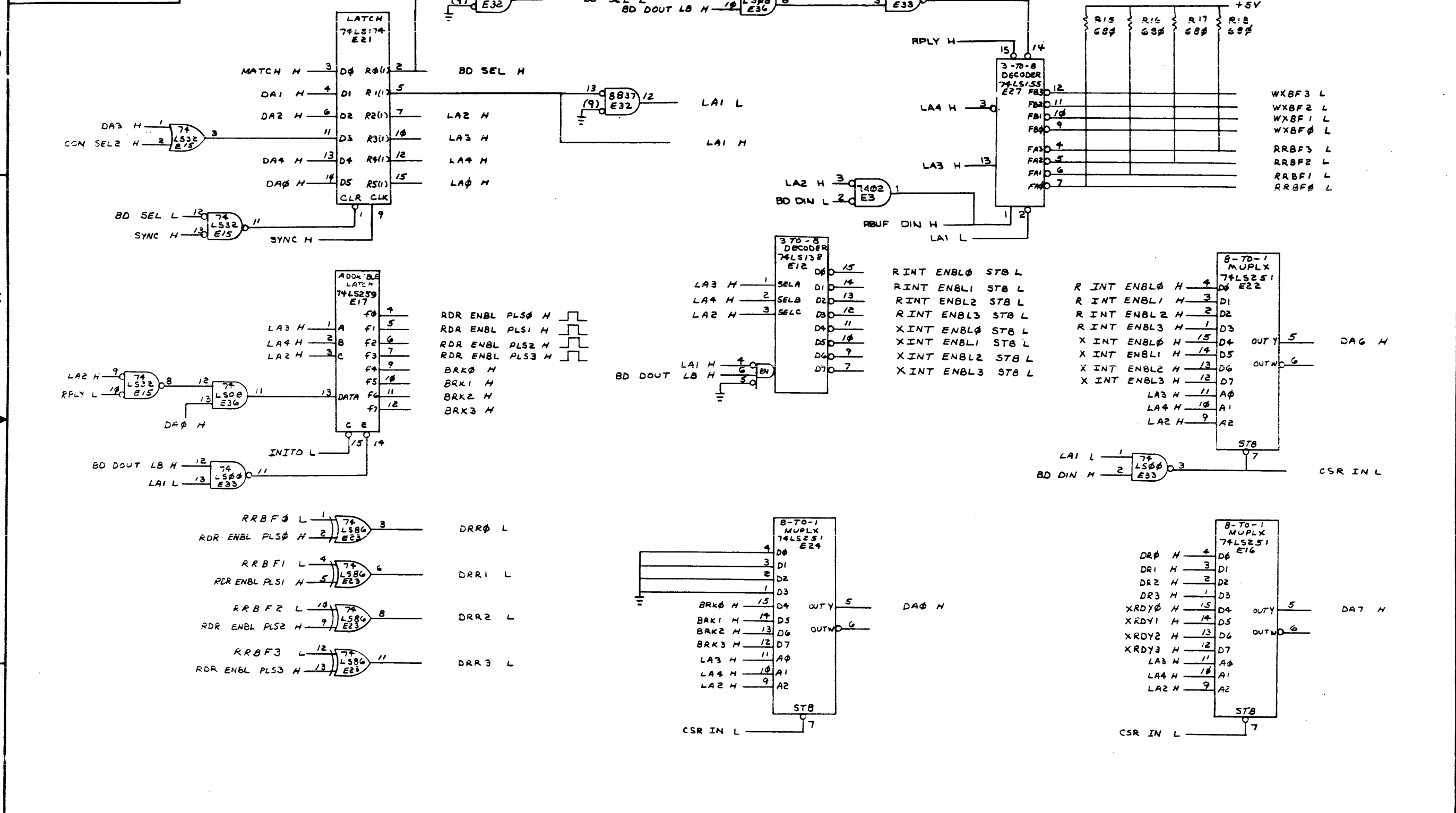
NOTES:
 4. TO ENABLE HALT ON RECEIVING BREAK, CONNECT X TO H. TO ENABLE BOOT ON RECEIVING BREAK, CONNECT X TO B.



REVISIONS		
CHK	CHANGE NO.	REV.

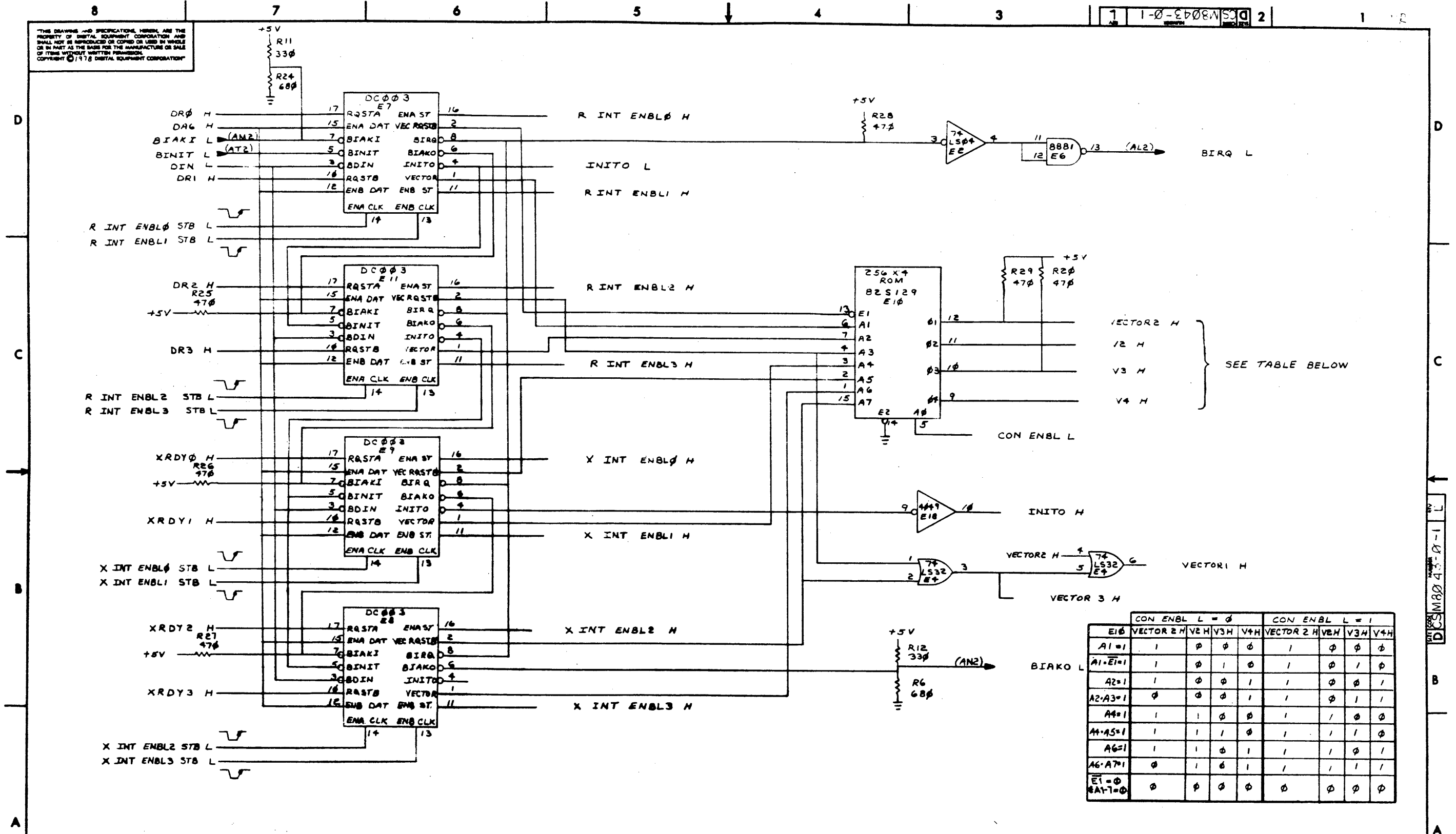
K2: CONTROL AND HALT/BOOT LOGIC			
TITLE 4 SERIAL LINE PER. CTRL.		SIZE CODE DCS	NUMBER M8043-0-1
SCALE NONE	SHEET 2 OF 7	DIST.	REV. L

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 © 1975 DIGITAL EQUIPMENT CORPORATION



REVISIONS		
CHK	CHANGE NO.	REV.

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 © 1978 DIGITAL EQUIPMENT CORPORATION



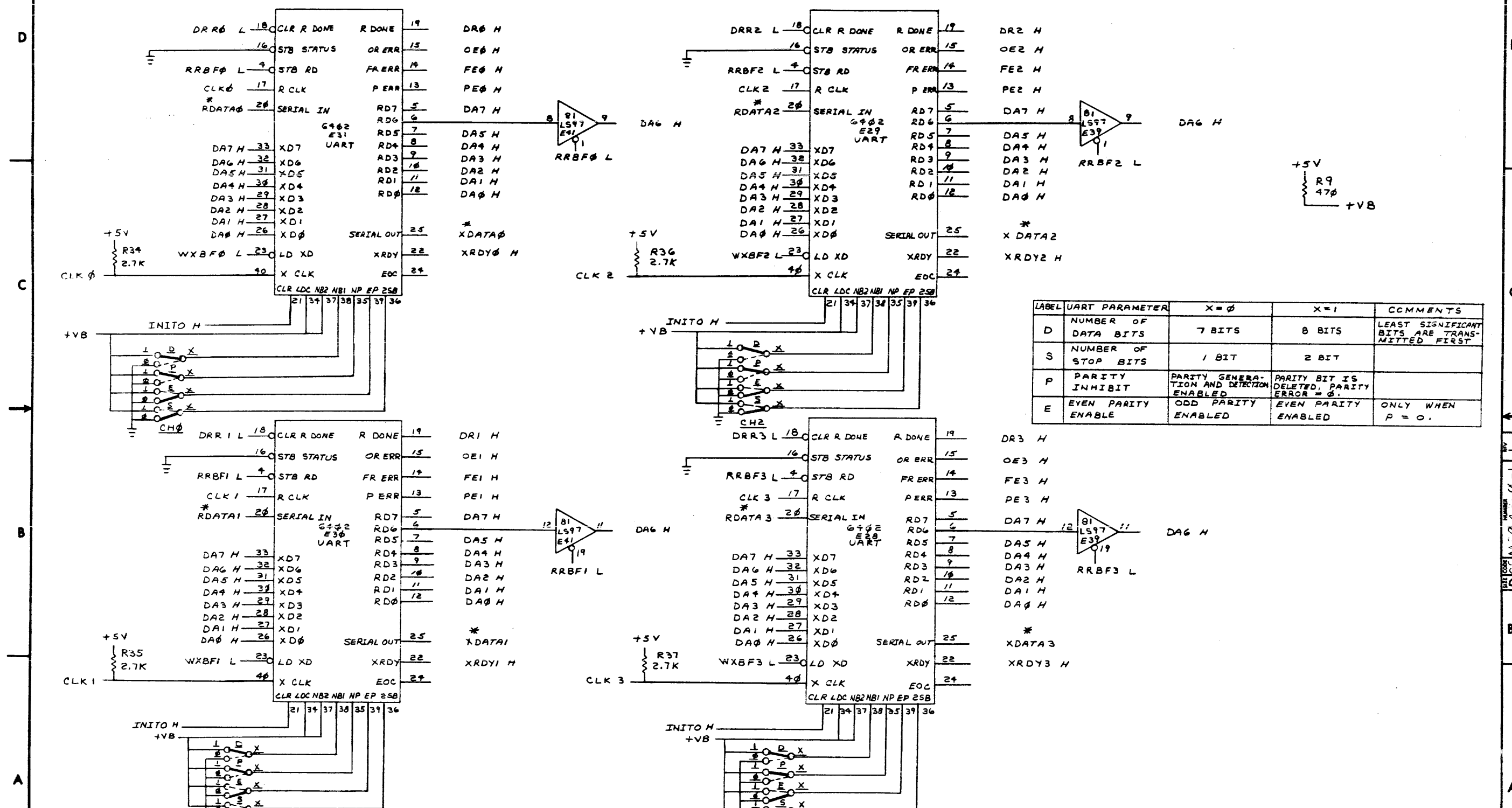
SEE TABLE BELOW

E10	CON ENBL L = 0				CON ENBL L = 1			
	VECTOR 2 H	V2H	V3H	V4H	VECTOR 2 H	V2H	V3H	V4H
A1=1	1	0	0	0	1	0	0	0
A1-E1=1	1	0	1	0	1	0	1	0
A2=1	1	0	0	1	1	0	0	1
A2-A3=1	0	0	0	1	1	0	1	1
A4=1	1	1	0	0	1	1	0	0
A4-A5=1	1	1	1	0	1	1	1	0
A6=1	1	1	0	1	1	1	0	1
A6-A7=1	0	1	0	1	1	1	1	1
E1=0	0	0	0	0	0	0	0	0
A1-1=0	0	0	0	0	0	0	0	0

REVISIONS		
CHK	CHANGE NO.	REV.

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 © 1978 DIGITAL EQUIPMENT CORPORATION

NOTES:
 * S, Y HIGH = MARK = 1
 Y LOW = SPACE = 0

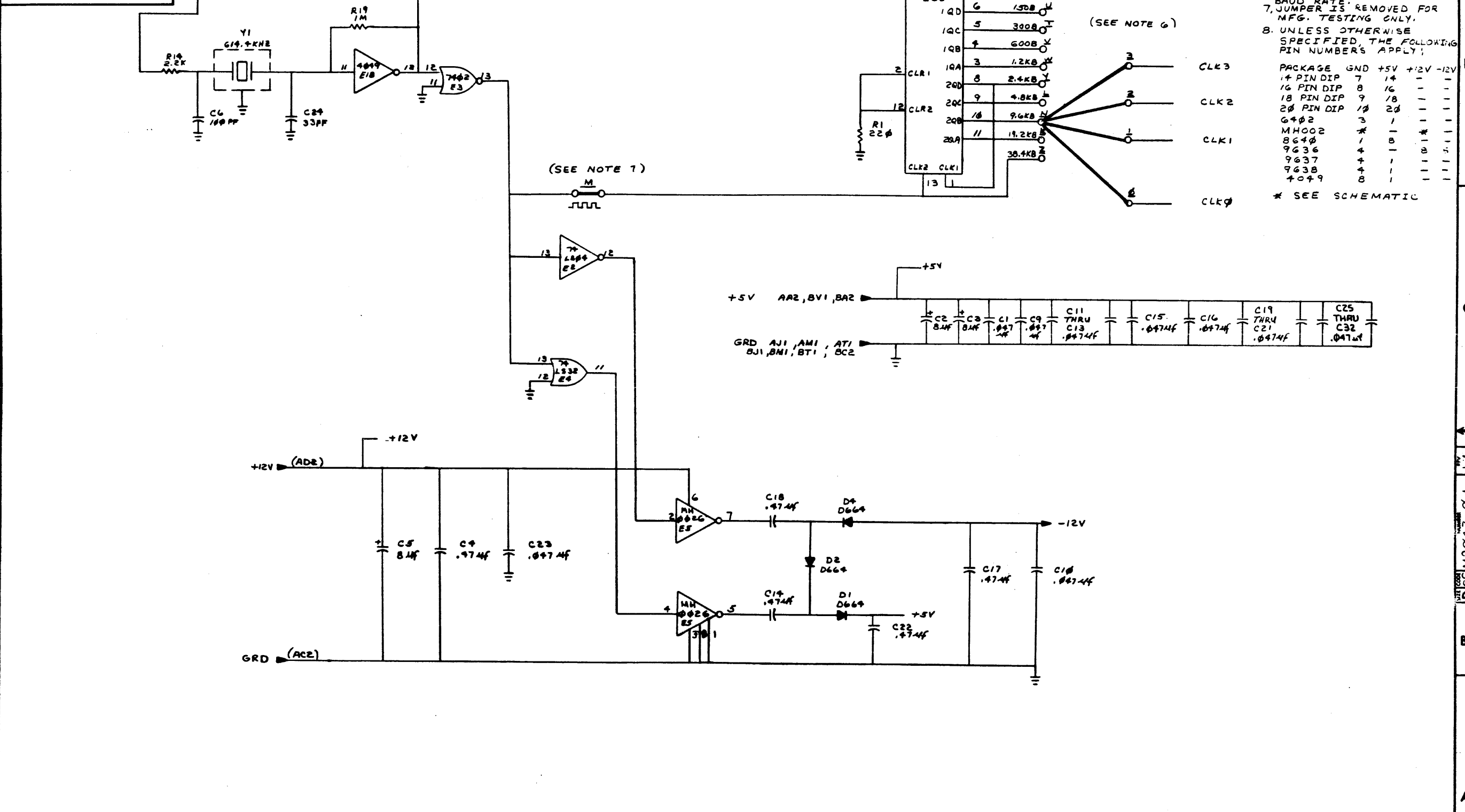


LABEL	UART PARAMETER	X=0	X=1	COMMENTS
D	NUMBER OF DATA BITS	7 BITS	8 BITS	LEAST SIGNIFICANT BITS ARE TRANSMITTED FIRST
S	NUMBER OF STOP BITS	1 BIT	2 BIT	
P	PARITY INHIBIT	PARITY GENERATION AND DETECTION ENABLED	PARITY BIT IS DELETED, PARITY ERROR = 0.	
E	EVEN PARITY ENABLE	ODD PARITY ENABLED	EVEN PARITY ENABLED	ONLY WHEN P = 0.

REVISIONS		
CHK	CHANGE NO.	REV.

1-0-3708WSD 2
 DCSM8043-0-1

THE 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 © 1978 DIGITAL EQUIPMENT CORPORATION



NOTES:
 6 CLK0-3 ARE WIREWRAP JUMPED TO REQUIRED BAUD RATE. JUMPER IS REMOVED FOR MFG. TESTING ONLY.
 7 UNLESS OTHERWISE SPECIFIED, THE FOLLOWING PIN NUMBERS APPLY:
 PACKAGE GND +5V +12V -12V
 14 PIN DIP 7 14 - -
 16 PIN DIP 8 16 - -
 18 PIN DIP 9 18 - -
 20 PIN DIP 10 20 - -
 24 PIN DIP 13 1 - -
 MH002 * - * -
 8640 1 8 - -
 9636 4 - 8 - -
 9637 4 1 - -
 9638 4 1 - -
 4049 8 1 - -
 * SEE SCHEMATIC

REV.	CHANGE NO.	REV.

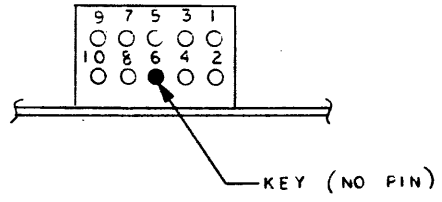
K6: PWR DIST, BAUD RATE GEN & -12V. CIRCUITRY

TITLE	4 SERIAL LINE PER. CTRL.	SIZE CODE	NUMBER	REV.
SCALE	NONE	SHEET	6 OF 7	MR

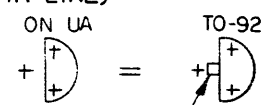
DCSM8043-0-1 L7

THIS DRAWING AND SPECIFICATIONS, DIMENSIONS, AND THE PROPERTY OF BAKERS, INCORPORATED. IT IS HEREBY AGREED ON BEHALF OF THE BUYER THAT THE BUYER SHALL NOT REPRODUCE OR TRANSMIT THIS DRAWING OR ANY PART OF THE CONTENTS FOR THE PURPOSES OF THIS OR ANY OTHER CONTRACT WITHOUT THE WRITTEN PERMISSION OF BAKERS, INCORPORATED.

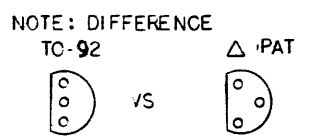
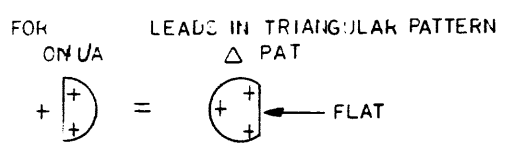
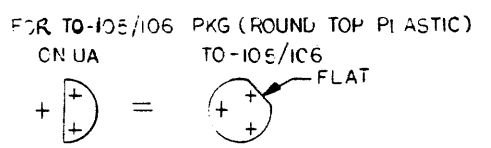
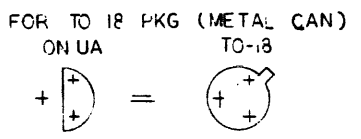
DUA M8043-0-0 1 MR



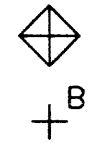
NOTES:
1. PLACEMENT OF Q1 FOR TO 92 (LEADS IN-LINE)



BEND MIDDLE LEAD OUT



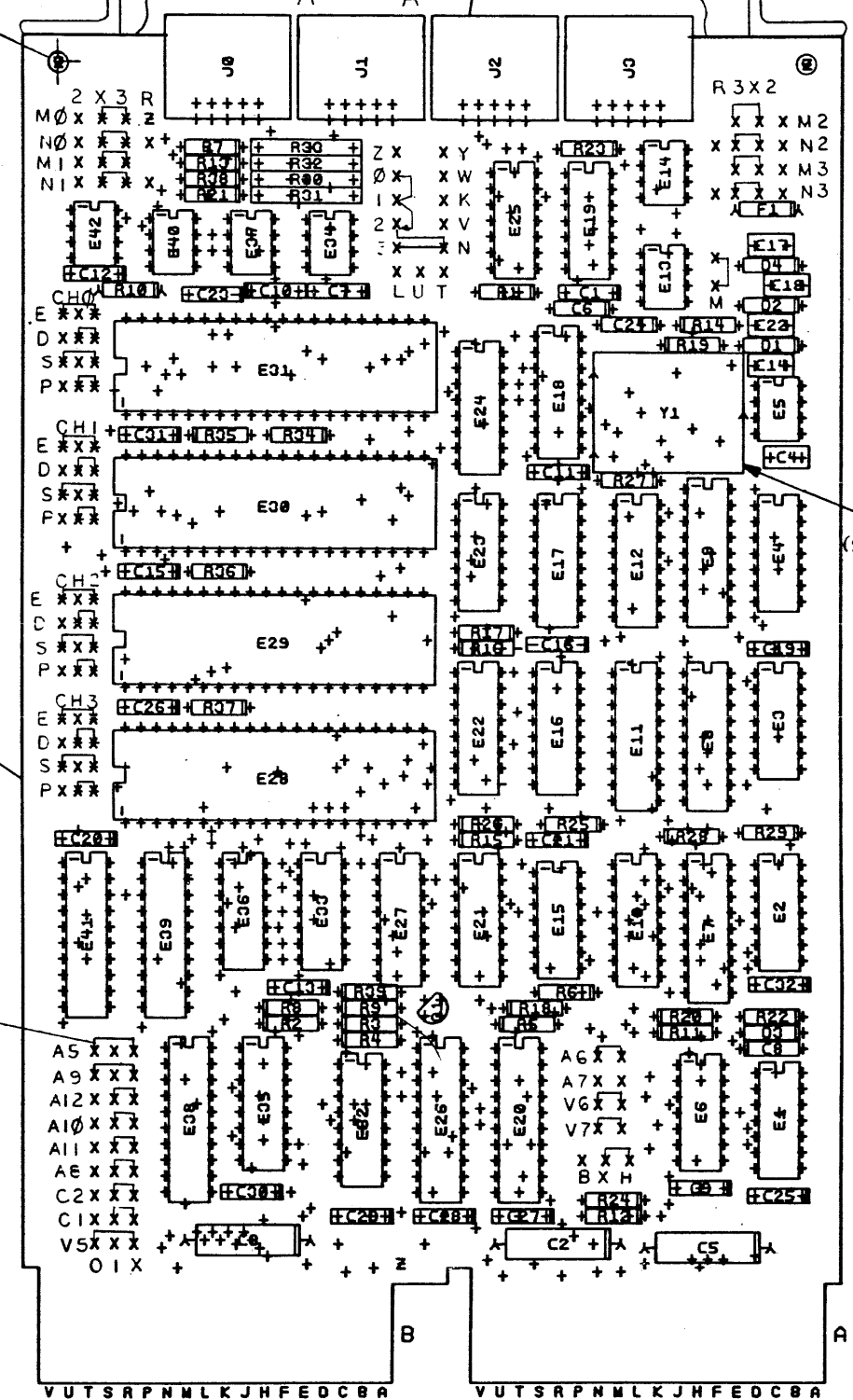
DETAIL A-A
4 PLACES



48 (QTY 2)

9 (QTY 4)

COMPONENT SIDE VIEW



53 (SEE NOTE 1)

56

NOTES: 1. R30 THRU R33 OPTIONAL
2. CASE OF Y: MUST BE INSULATED FROM PCB WITH ITEM #53
3. S DESIGNATES WIRE WRAP JUMPER (ITEM #56) INSULATED FOR SHIPMENT

CHANGE NO	REV	DATE	BY	CHK'D	APP'D
1	1	12/14/71	T. ZAJAC		
2	1	12/14/71	BRYAN LOCKE		
3	1	12/14/71	M. B. MRS. H.		
4	1	12/14/71	R. GALLEGOS		
5	1	12/14/71	B. LOCKE		

ETCH REV.	E-PI
P.C. DESIGN DATA BASE REV.	C

SIGNATURES		DATE	digital
DRN.		12/14/71	
CHK'D.		12/14/71	TITLE 4 SERIAL LINE PER. CTLR
ENG.		12/14/71	
PROJ. ENG.		12/14/71	
PROD. K. MERCADE		12/14/71	
SCALE 2/1			SIZE CODE NUMBER REV DUA M8043-0-0 J
SHT. 1 OF 2			
NEXT HIGHER ASSY. 8-DD-M8043-0			MR 1 MS# 190028D

D
C
B
A

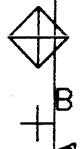
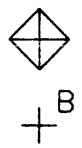
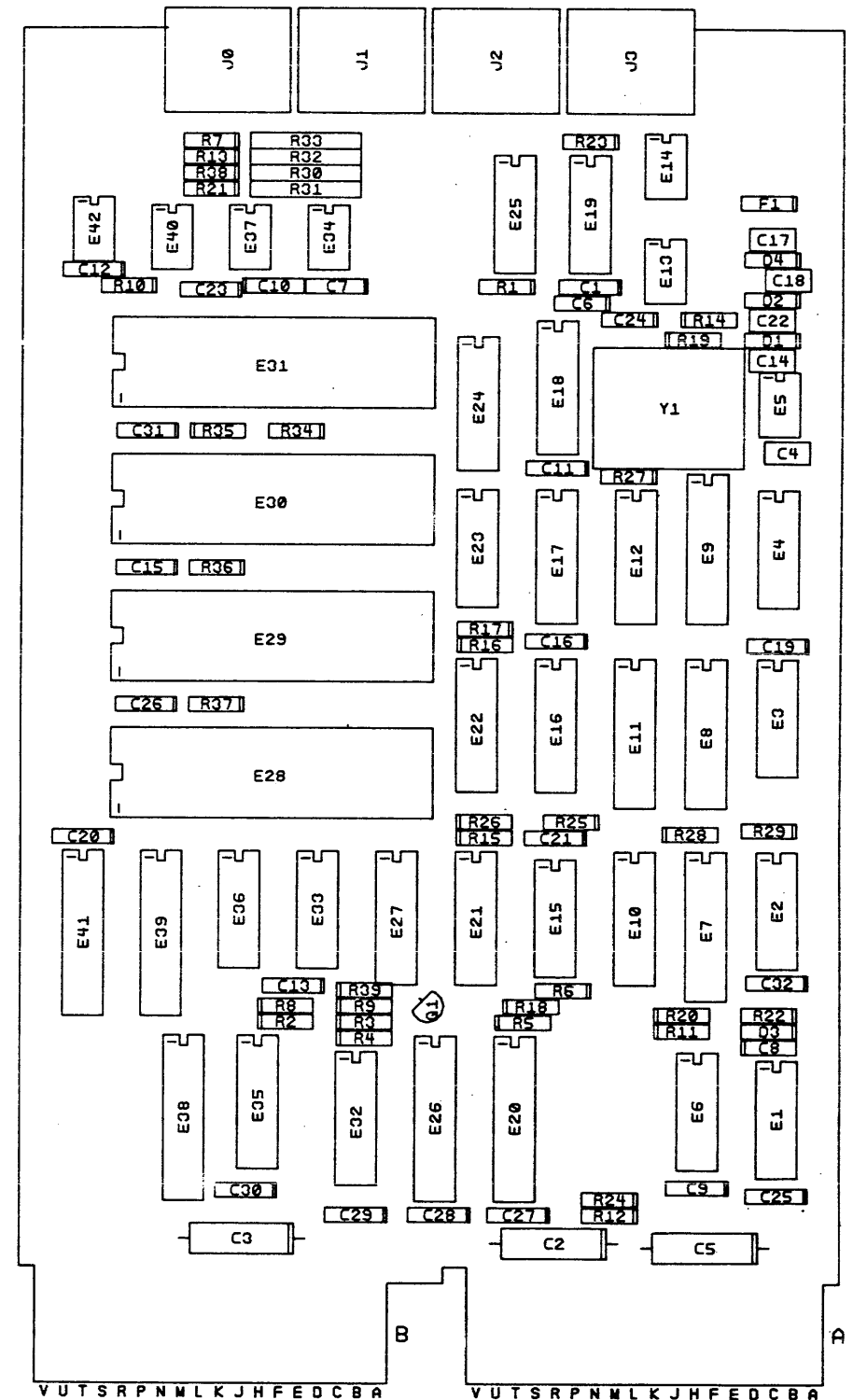
D
C
B
A

DUA M8043-0-0

8 7 6 5 4 3 2 1 MR 1 MS# 190028D

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART OR THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1975 DIGITAL EQUIPMENT CORPORATION

8 7 6 5 4 3 2 1 MR



NOTES:

CHG	CHANGE NO	REV

SIGNATURES	DATE	digital
DRN.		
CHK'D.		TITLE 4 SERIAL LINE
ENG.		PER. CTLR
PROJ. ENG.		
PROD.		
SCALE 2/1	SIZE CODE	NUMBER
SHT. 2 OF 2	D UA	M8043-0-0 J
NEXT HIGHER ASSY. B-DD-M8043-0		

MR 1 MS#

8 7 6 5 4 3 2 1