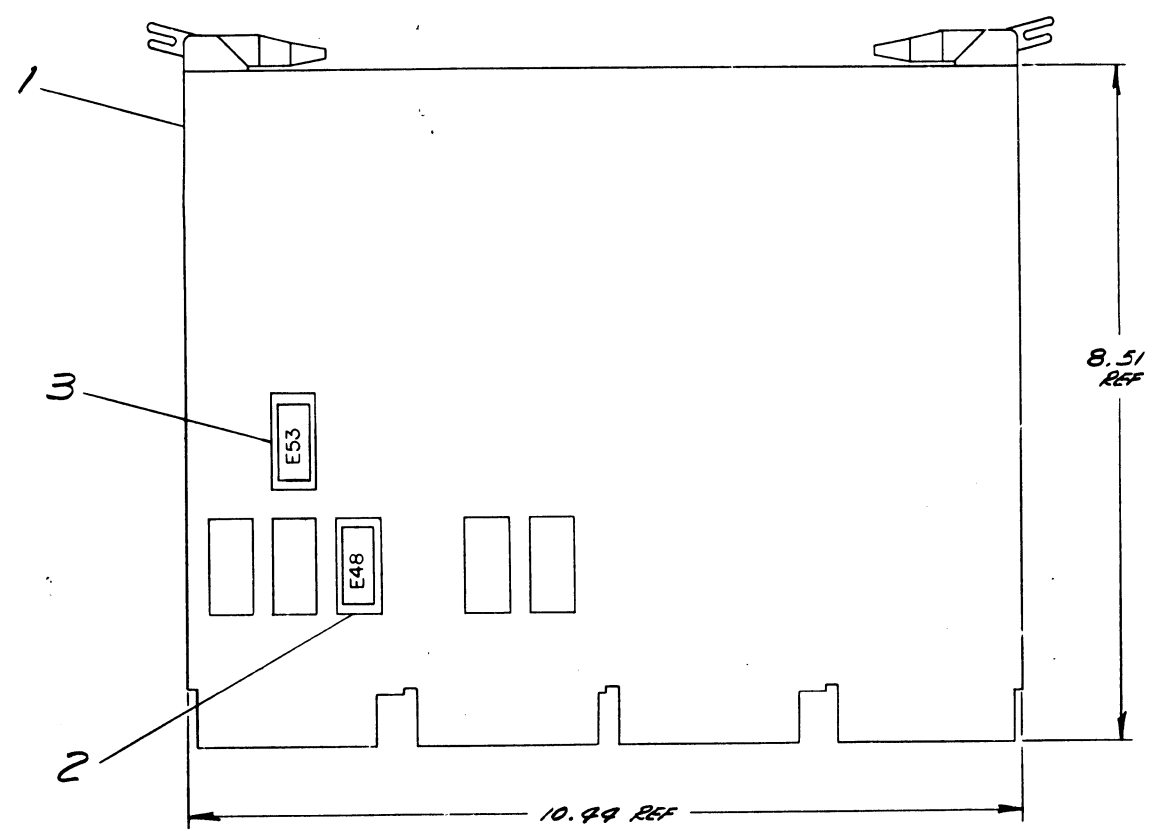


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NOTES:
 1. CHECK WORDS FOR BDVII-AA DIAGNOSTIC.
 017042, 020656, 065162, 161744, 124453, 113667, 066090, 044734



1	BDVII-A SHIPMENTS LIST	APR-BDVII-A	4
1	2K X 8 ROM	23046E2	3
1	2K X 8 ROM	23045E2	2
1	BOOT TERMINATOR AND DIAGNOSTIC ROM	D-UA-M8012-YA	1

DESCRIPTION	DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES
SURFACE QUALITY	(CHECK ONE)	OVER 0 TO 0.2 OVER 0.2 TO 0.4 OVER 0.4 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
QUANTITY & VARIATION	MEDIUM <input type="checkbox"/> ±.004 ±.008 ±.012 ±.016 ±.024 ±.04	
	PREFERRED <input type="checkbox"/> ±.012 ±.016 ±.026 ±.04 ±.063 ±.1	

THIRD ANGLE PROJECTION	13-5007	FIRST USED ON	BDVII	digital
REMOVE BURRS AND BREAK SHARP CORNERS	CHKD BY: [Signature]	DATE: 25 Oct 77	TITLE	
DO NOT SCALE DWG	PROJ. ENG. [Signature]	DATE: 10/1/77	UNIT ASSY (BDVII)	
MATERIAL	B-DD-BDVII-A	SIZE	D	CODE
FINISH	SCALE NONE	NUMBER	BDVII-A-0	REV. A
	SHEET 1 OF 1	DIST.		

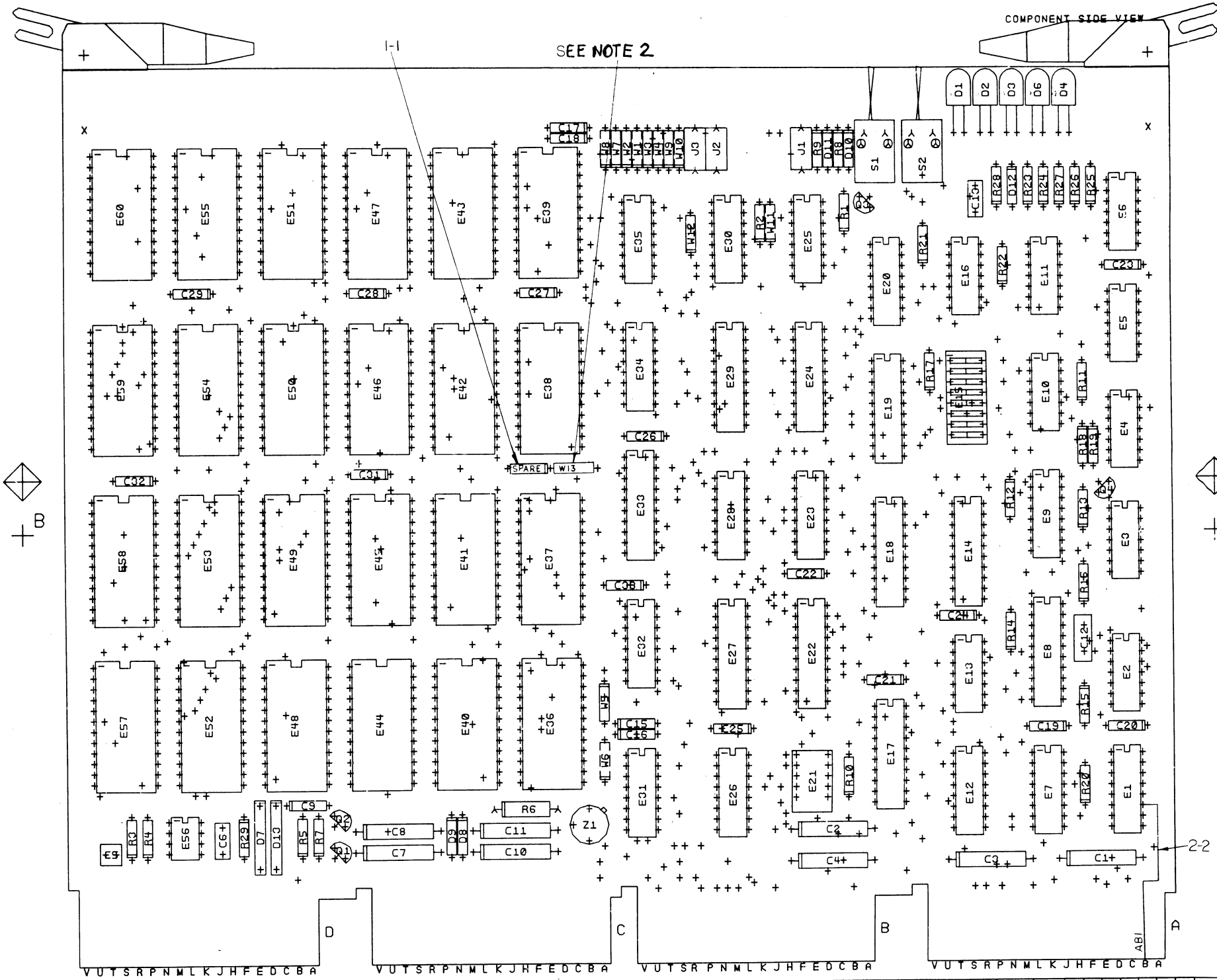
REV.	CHG.	CHANGE NO.	BY	DATE
A	1	00001	S. GOODRICH	10/1/77
			STEVE WITTE FOR [Signature]	10/1/77

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 COPYRIGHT © 1977

0-0-2103M DUA 2 1

COMPONENT SIDE VIEW

SEE NOTE 2



- NOTES:
- B HOLES .04x5 (+.000-.004) MAYNARD ONLY
 - W146, 810, 11 & 13 ARE OPTIONAL
DO NOT INSTALL
 - INSTALL SOCKETS FOR E36, E48, E40, E52, E53, & E57 ONLY

CHK	CHANGE NO	REV
	M8012-00001	C
	GOODRICH	
	M8012-M8012	D
	GOODRICH	

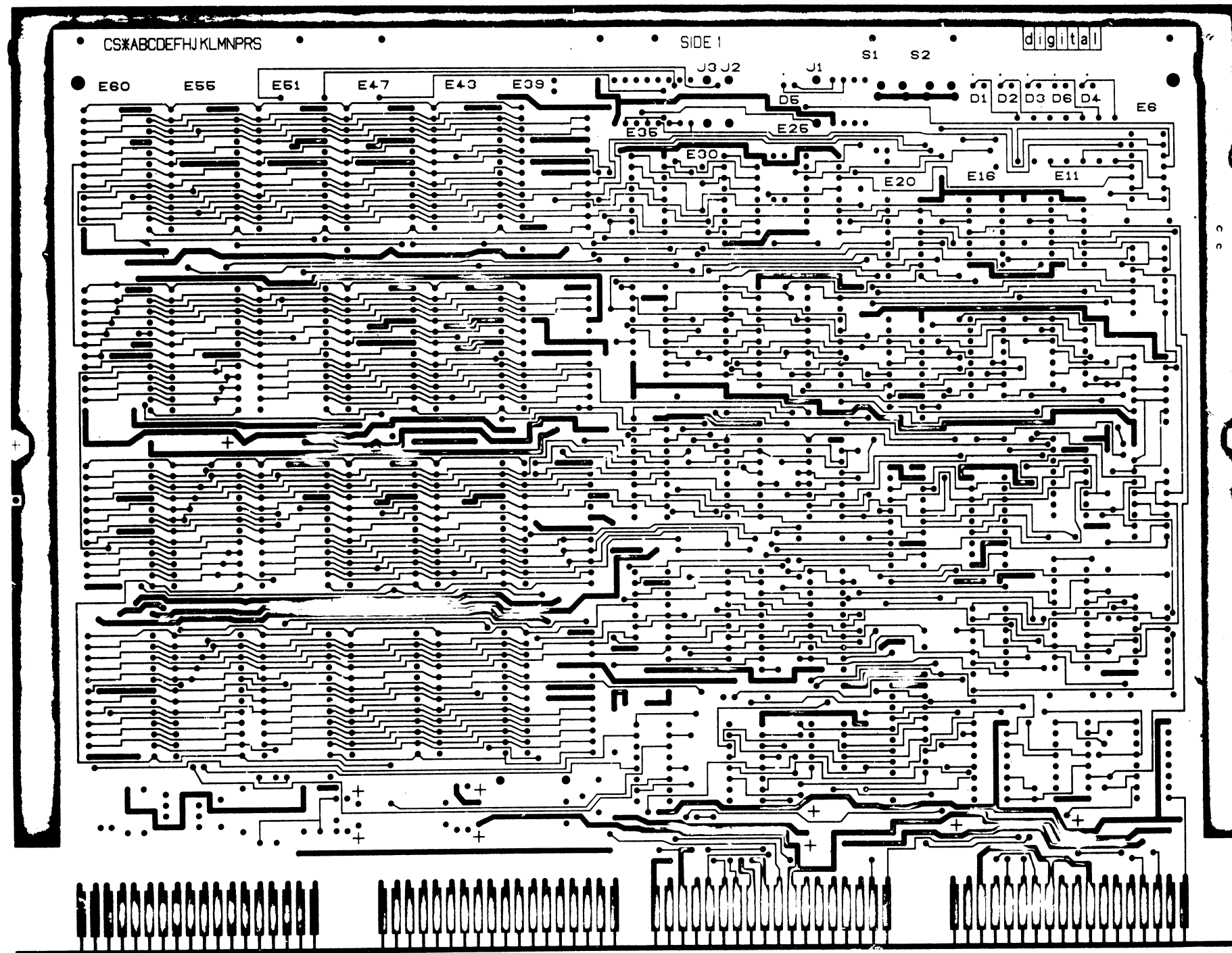
ETCH REV.	C
P.C. DESIGN DATA BASE REV.	C

SIGNATURES	DATE	TITLE
DRN <i>[Signature]</i>	4/24/77	BOOT TERMINATOR AND DIAGNOSTIC ROM
CHK'D. <i>[Signature]</i>	4/24/77	
ENG. <i>[Signature]</i>	8-4-77	
PROJ. ENG. <i>[Signature]</i>	8-7-77	
SCALE 2/1	SIZE CODE	NUMBER
SHT. 1 OF 4	D	U A M8012-0-0
NEXT HIGHER ASSY. B-DD-M8012-0		REV
		D

digital

1 MS#104054C

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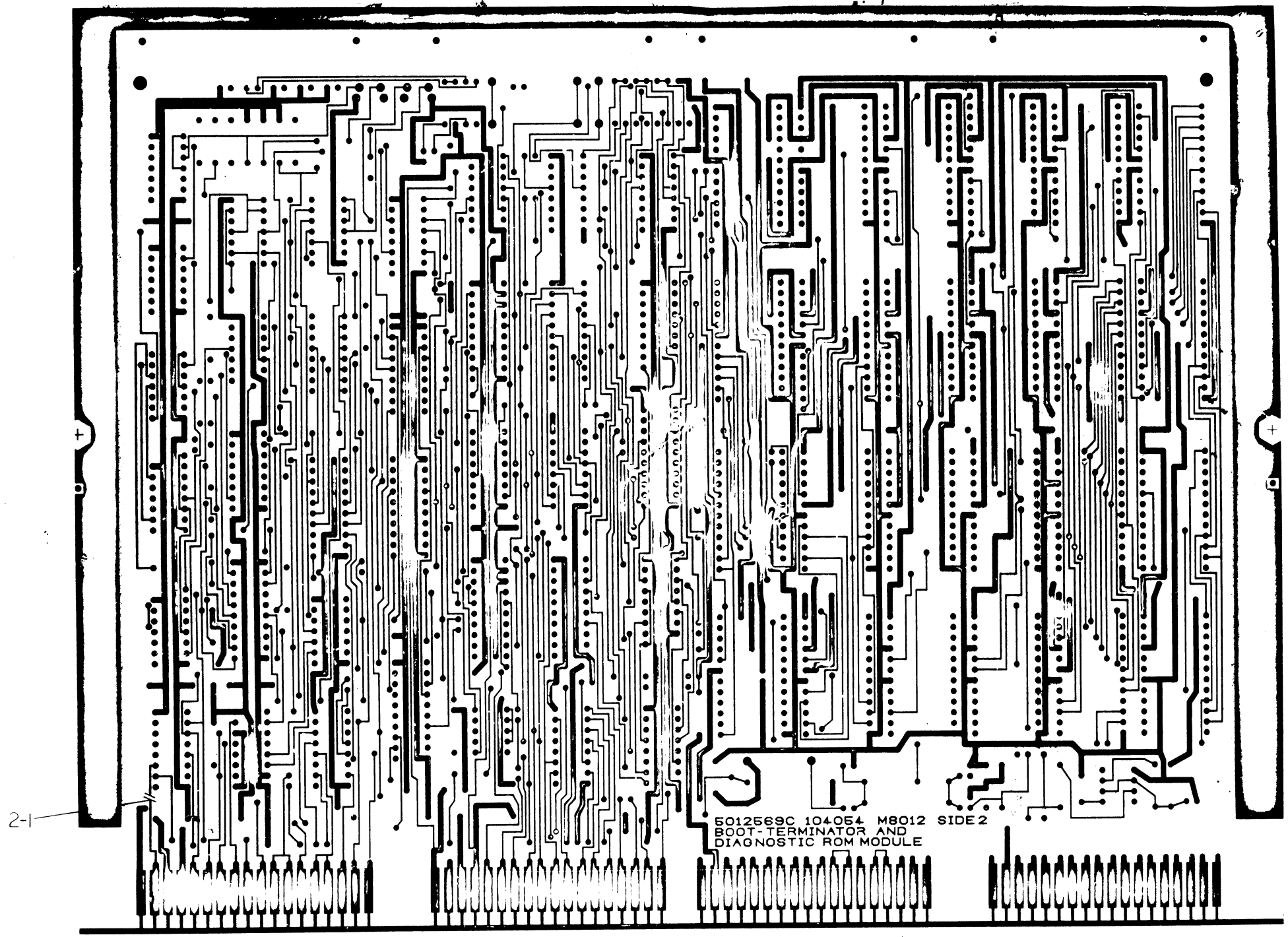


VIEWED FROM SIDE 1

REVISIONS		
CHK	CHANGE NO	REV

TITLE	BOOT TERMINATOR + DIAGNOSTIC ROM	SIZE CODE	D UA	DESIGNER	K. JASPER	REV.	D
SCALE	1:1	SHEET	2	OF	4	DIST.	
		DATE					

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VIEWED FROM SIDE 2

5012569C 104054 M8012 SIDE 2
 BOOT TERMINATOR AND
 DIAGNOSTIC ROM MODULE

REVISIONS		
CHK	CHANGE NO	REV

TITLE	BOOT TERMINATOR + DIAGNOSTIC ROM	SIZE CODE	D UA	NUMBER	M8012-0-0	REV	0
SCALE	1:1	SHEET	3	OF 4	DIST		

D
 C
 B
 A
 DUA M8012-0-0/1 D

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REWORK INSTRUCTIONS

ECO # 1

COMPONENT DELETES SIDE 1:

1-1. DELETE C30, .047 μ F (PIN 1012784)

COMPONENT ADDS SIDE 1:

ECO # 2

2-1 CUT ETCH SIDE 2 BETWEEN E ϕ 1
PIN 11 AND FINGER AB2

2-2 ADD WIRE SIDE 1 BETWEEN E ϕ 1
PIN 11 AND FINGER AB1

SIZE CODE D UA M8012-0-0 2

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	BOOT TERMINATOR AND DIAGNOSTIC ROM	SIZE CODE	D UA	NUMBER	M8012-0-0	REV.	D
SCALE	2/1	SHEET	4	OF	4	DIST.	

REV. D
NUMBER M8012-0-0
SIZE CODE D UA

LINE	ITEM	DOCUMENT NO.	PART NO.	DESCRIPTION	QTY	REFERENCE DESIGNATORS
1	1	D-UA-5012569-0-0	5012569-00	M8012	1	
2	2		1000024-00	470.0 MMF 100V 5%200PPM DM155 (10-00)	1	C12
3	3		1001610-01	.01 MFD 100V OR 50V Z50 DISC/800PF MIN	2	C6,C13
4	4		1004812-00	15 MFD 20V 10% 150D S.TA (10-00)	4	C7,C8,C10,C11
5	5		1005306-00	6.8MFD 35V 10% 150D S.TA (10-00)	4	C1-C4
6	6		1011740-00	5600.0 MMF 50V 10% CW15C CER.	1	C5
7	7		1012784-00	.047 MFD 50V X% CER.	19	C9,C15-C29,C31-C33
8	8		1103441-00	1N 756A VZ= 8.2 5% .40W P	1	D11
9	9		1104860-00	1N 746A VZ= 3.3 5%	1	D10
10	10		1105275-00	D 672 TR= 15NS PIV= 60V SP	3	D8,D9,D12
11	11		1109991-00	1N 754A VZ= 6.8 5% .40W	2	D7,D13
12	12		1110864-00	LED 2MCD@10MA	4	D1-D4
13	13		1114384-00	LED 105MW 35MA GREEN	1	D6
14	14		1210209-00	SW,TOG 1P.01A SUBMINI S	2	S1,S2
15	15		1215006-06	SOCKET 24PIN IC LOW PROFILE	0	
16	16		1211164-01	SW,DIP 1P 1A 5POS	1	E21
17	17		1211164-04	SW,DIP 1P 1A 8POS	1	E15
18	18		1213113-00	HANDLE,MODULE	1	
19	19		1213974-06	JACK 2LINE RED	1	J2
20	20		1213974-07	JACK 2LINE BLACK	1	J1
21	21		1213974-03	JACK 2LINE PURPLE	1	J3
22	22		1300271-00	220 1/4W 5% CC (13-00)	6	R5,R7,R25-R28
23	23		1300365-00	1 K 1/4W 5% CC (13-00)	14	R8,R11-R15,R17-R24
24	24		1300417-00	2.2 K 1/4W 5% CC (13-00)	1	R4
25	25		1301322-00	180 1/4W 5% CC (13-00)	1	R10
26	26		1301890-00	560 1/4W 5% CC (13-00)	2	R1,R2
27	27		1311003-01	R NETWORK 14-180 14-390 S	3	E1,E12,E26
28	28		1309444-00	2.7 1/2W 10% CC (13-00)	1	R6
29	29		1312930-00	5.1 K 1/4W 5% CC (13-00)	2	R3,R16
30	30		1300247-00	120 1/4W 5% CC (13-00)	1	R29

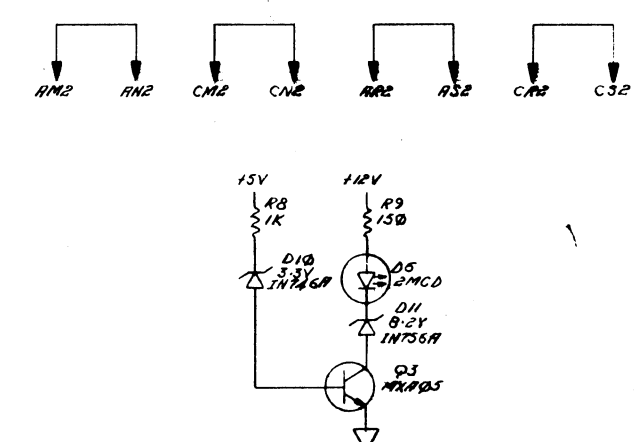
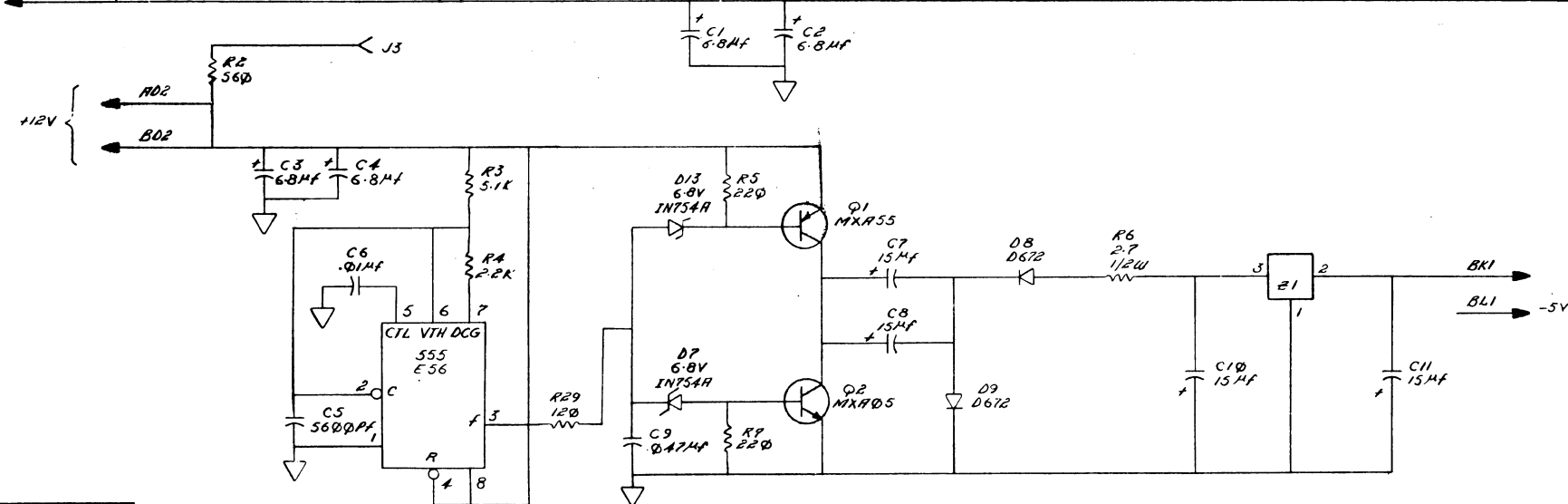
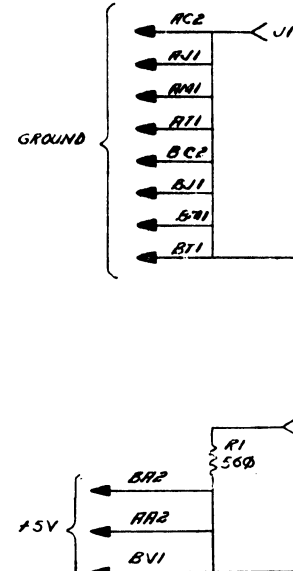
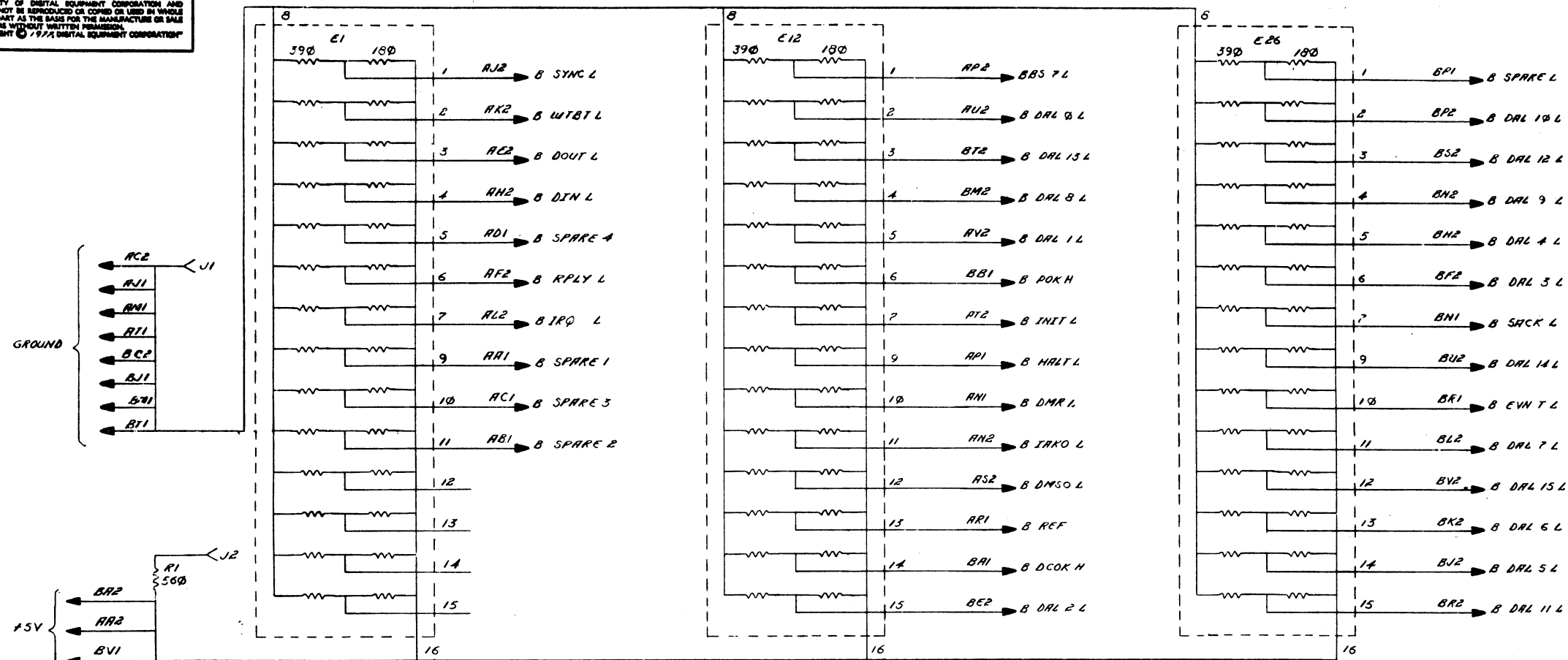
REVISION HISTORY			VARIATIONS FOR THIS ASSY.		FIRST USED ON:		DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
CHK	ECO NO	REV	00, YA	MADE BY:	DATE:	TITLE	SIZE	CODE	DOCUMENT NUMBER	REV
R,R	20001	C		A COLON	25-APR-78	PARTS LIST				
BHF	01002	D		R KOPPENAL	25-APR-78	BOOT-TERM & DIAGNOSTIC ROM				
				G GOODRICH	25-APR-78	(00 VARIATION)				
				R HAMILTON	25-APR-78		K	PL	M8012-0-DBP	D
				G GOODRICH	25-APR-78					EDIT 4
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LINE	ITEM	DOCUMENT NO.	PART NO.	DESCRIPTION	QTY	REFERENCE DESIGNATORS
31	31		1300250-00	150 1/4W 5% CC (13-00	1	R9
32	32		1510705-00	XA 05 NPN 500MW SI 60 50 P	3	Q2-Q4
33	33		1510706-00	XA 55 PNP 500MW SI 60 50 P	1	Q1
34	34		1910741-00	7406 INVERTER GATE=HEX 1IN,BUFFER,0	2	E6,E16
35	35		1911579-00	8641 TRANSCEIVER,BUS,QUAD,UNIBUS	1	E7
36	36		1911944-00	555CN TIMER,FUNCT,BLOCK	1	E56
37	37		1912541-00	VOLT,REG,FIX -5V .02A	1	Z1
38	38		1912647-00	LS257 MUX 1 OF 2 (QUAD) TRI=STA	6	E20,E23,E28,E31,E32,E34
39	39		1912729-00	DC 004 PROTOCOL,REG. SELECTOR	1	E8
40	40		1912803-00	LS04 INVERTER GATE=HEX 1IN	2	E5,E13
41	41		1912807-00	LS10 NAND GATE=TRIPLE 3IN	1	E11
42	42		1912813-00	LS27 NOR GATE=TRIFLE 3IN	3	E2-E4
43	43		1910544-00	74S74 FF=D DUAL,EDGE TRIGGER	1	E10
44	44		1912842-00	LS138 DECODER=THREE INPUT,16PIN	1	E35
45	45		1912843-00	LS139 DECODER, 2 OF 4(DUAL)& DEMUX	1	E30
46	46		1912853-00	LS175 FF=D QUAD	1	E25
47	47		1912863-00	LS273 FF=D OCTAL W/CLEAR	3	E27,E29,E33
48	48		1912868-00	LS299 SHIFT REG, 8-BIT UNIVERSAL	2	E22,E24
49	49		1913040-00	DC 005 TRANSCEIVER 4BIT	4	E14,E17-E19
50	50		23208A1-00	A1-03,A1-04,A1-05 PROM,	1	E9
51	51		9009185-00	JUMPER, WIRE, INSULATED, BLACK BAND	6	W2,W3,W5,W7,W9,W12
52	52		9000024-01	EYELET, ROLLED FLANGE, .121 OD X .196 LG	8	
53	53		1215006-06	SOCKET 24PIN IC LOW PROFILE	6	XE36,XE40,XE48,XE52,XE53,XE57
54	54		9107256-11	TUBING,THIN WALL,.027ID UL (91-00 A/R		
55	55		9105740-55	WIRE(WRAP)30AWG UL1423 (91-00 A/R		

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

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE PARTS LIST BOOT-TERM & DIAGNOSTIC ROM (00 VARIATION)	SIZE K	CODE PL	DOCUMENT NUMBER M8012-0-00P	REV D
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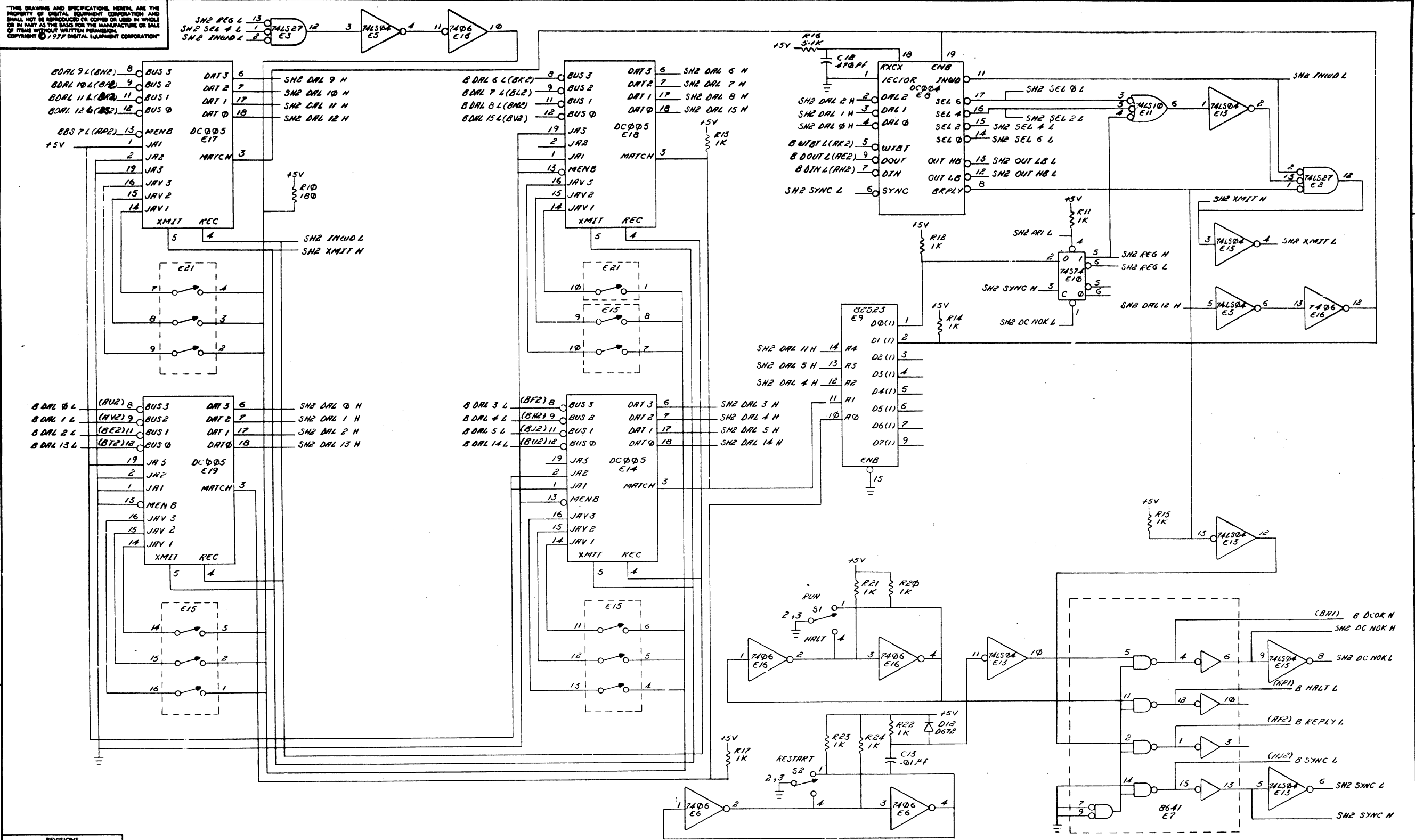
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REV.	CHANGE NO.	DATE	BY	CHKD.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

DRN. <i>[Signature]</i>	DATE: 5/25/77	FIRST USED ON	BDV11AA	digital
CHK'D. <i>[Signature]</i>	DATE: 6-27-77	TITLE	BOOT-TERMINATOR & DIAGNOSTIC ROM (SHI)	
ENG. <i>[Signature]</i>	DATE: 8-9-77	SCALE	NONE	REV. D
PROJ. ENG. <i>[Signature]</i>	DATE: 8-9-77	SIZE	CODE	NUMBER
PROD. <i>[Signature]</i>	DATE: 8-9-77	D-UA-M8012-0-0	D CS	M8012-0-1
NEXT HIGHER ASSY.		SHEET 1 OF 4		

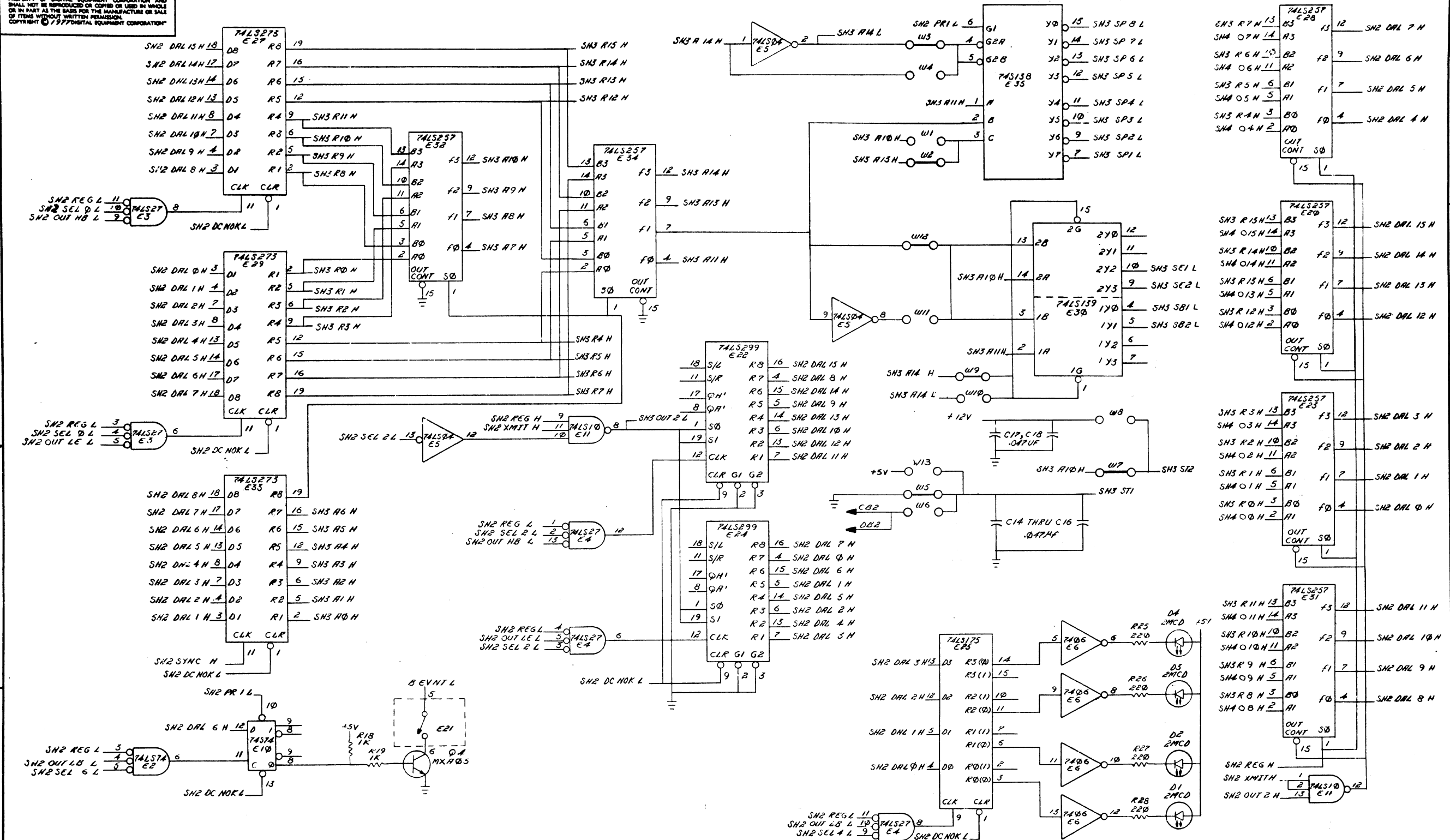
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: BOOT-TERMINATOR & DIAGNOSTIC ROM (SH2) SIZE CODE: DCS NUMBER: M8012-0-1 REV: D
 SCALE: NONE SHEET: 2 OF 4 DIST:

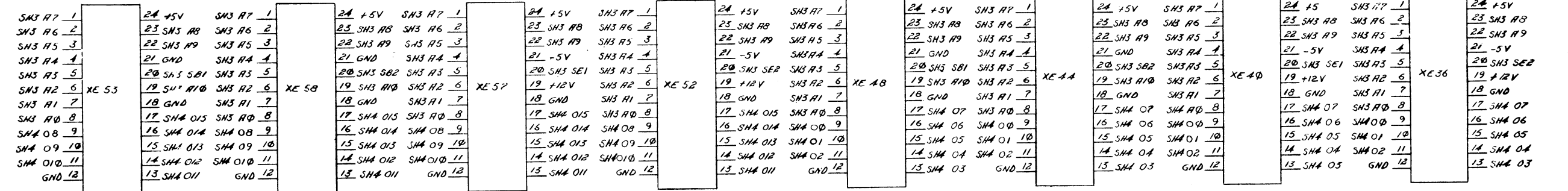
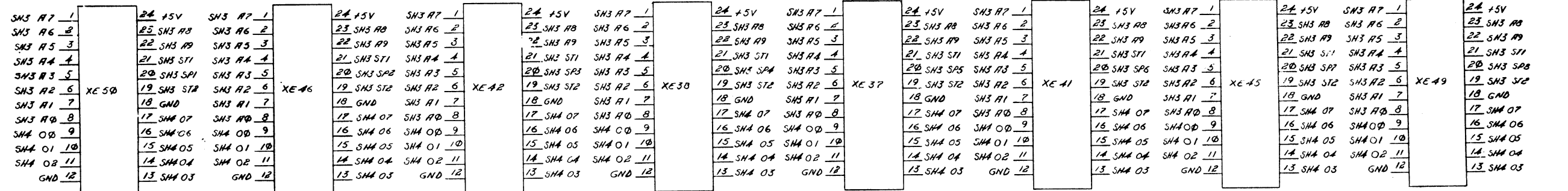
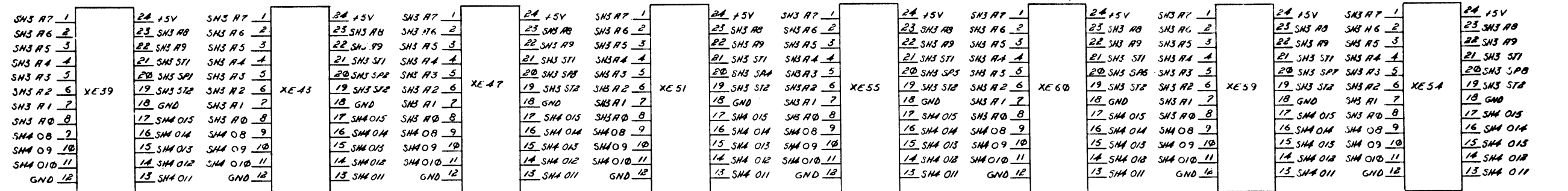
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REVISIONS			TITLE		SIZE CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.	BOOT-TERMINATOR & DIAGNOSTIC ROM(SH3)		D CS	M8012-0-1	D
			SCALE	NONE	SHEET	3 OF 4	

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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	D CS	NUMBER	M8012-0-1	REV.	D
SCALE	NONE	SHEET	4 OF 4	DIST.			

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>3/78</i>

ENG	<i>G. Goodrich</i>	APPD	<i>deya</i>	SIZE	CODE	NUMBER	REV
	G. Goodrich			A	SP	M8012-0-7	A

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

SHEET 1 OF 10

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ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE M8012 -- TERM, BOOT AND DIAGNOSTIC BOARD

TABLE OF CONTENTS

- 1.0 GENERAL DESCRIPTION
 - 1.1 GENERAL
 - 1.2 POWER REQUIREMENTS
- 2.0 ROM
 - 2.1 ROM
 - 2.2 ROM PAGES
- 3.0 BEVENT CLAMP (RTC DISABLE)
 - 3.1 GENERAL
 - 3.2 ADDRESS
- 4.0 MAINTENANCE REGISTERS
 - 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
 - 9.1 MASKED BOOT/DIAGNOSTIC ROM
 - 9.2 EPROM
 - 9.3 PROGRAM ROM
 - 9.4 ADDRESS JUMPERS
- 10.0 PROGRAM ROM/PROM JUMPERS

NOTE: THE LSI-11 BUS SPECIFICATION (DEC STD-160) IS REFERENCED BY AND SHALL BE CONSIDERED PART OF THIS SPECIFICATION

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

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

SHEET 2 OF 10

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	CODE	NUMBER	REV
A	SP	M8012-0-7	A

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

SHEET 3 OF 10

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

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

SHEET 4 OF 10

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)	A0= DAL1 (LATCHED)
A1= DAL2	A1= DAL2
A2= DAL3	A2= DAL3
A3= DAL4	A3= DAL4
A4= DAL5	A4= DAL5
A5= DAL6	A5= DAL6
A6= DAL7	A6= DAL7
A7= BIT0 (PAGE REG)	A7= BIT8 (PAGE REG)
A8= BIT1	A8= BIT9
A9= BIT2	A9= BIT10
A10= BIT3	A10= BIT11
A11= BIT4	A11= BIT12
A12= BIT5	A12= BIT13
A13= BIT6	A13= BIT14
A14= BIT7	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 CORRESPOND 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 CORRESPOND TO BITS 0-7 AND E21 SWITCHES 1-4 CORRESPOND 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-SS8 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	CODE	NUMBER	REV
A	SP	M8012-0-7	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 BYTE	CHIP ADDRESS
I I	I I	0-2K, (4K-6K)
I E53 I	I E48 I	BOOT/DIAG
I I	I I	[16K-18K], [20K-22K]

I I	I I	2K-4K, (6K-8K)
I E58 I	I E44 I	RESERVED
I I	I I	[18K-20K], [22K-24K]

9.2 EPROM SOCKETS (INTERNAL -5V POWER)

I I	I I	4K-5K, (0-1K)
I E57 I	I E40 I	[16K-17K], [20K-21K]

I I	I I	5K-6K, (1K-2K)
I E52 I	I E36 I	[17K-18K], [21K-22K]

9.3 PROGRAM ROM/EPROM

I I	I I	16K-18K, [16K-17K]
I E54 I	I E49 I	[0-2K], [4K-6K]

I I	I I	18K-20K, [18K-19K]
I E59 I	I E45 I	[2K-4K], [1K-2K]

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

ENGINEERING SPECIFICATION

0100101

CONTINUATION SHEET

TITLE M8012 -- TERM BOOT AND DIAGNOSTIC BOARD

9.2 PROGRAM ROM/EPROM CONTINUED

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

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

ENGINEERING SPECIFICATION

0100101

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 CODE NUMBER REV
A SP M8012-0-7 A

