

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY
AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT
CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS
WHICH MAY APPEAR HEREIN."

FIELD MAINTENANCE PRINT SET

"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 MANU-
FACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT ©
DIGITAL EQUIPMENT CORPORATION." 1978

TABLE OF CONTENTS

B-TC-MNCAM-Ø-1	MNCAM FIELD MAINTENANCE PRINT S
TABLE OF CONTENTS	
B-DD-MNCAM-Ø	MNCAA UNIT ASSY
D-UA-A154-Ø-Ø	MNCAM MUX
A-PL-A154-Ø-Ø	MNCAM MUX
D-CS-A154-Ø-1	MNCAM MUX
A-PL-MNCAM-Ø-SII	SHIP LIST MNCAM
D-UA-MNCAM-Ø-Ø	MNCAM UNIT ASSY
B-PL-5412397-0-0	LED MOUNT
D-CS-5412397-0-1	LED MOUNT
D-UA-5412397-0-0	LED MOUNT
A-SP-MNCAM-Ø-4	INSTALLATION & ACCEPTANCE PROCEDURE

MNCAM

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.

MP00591

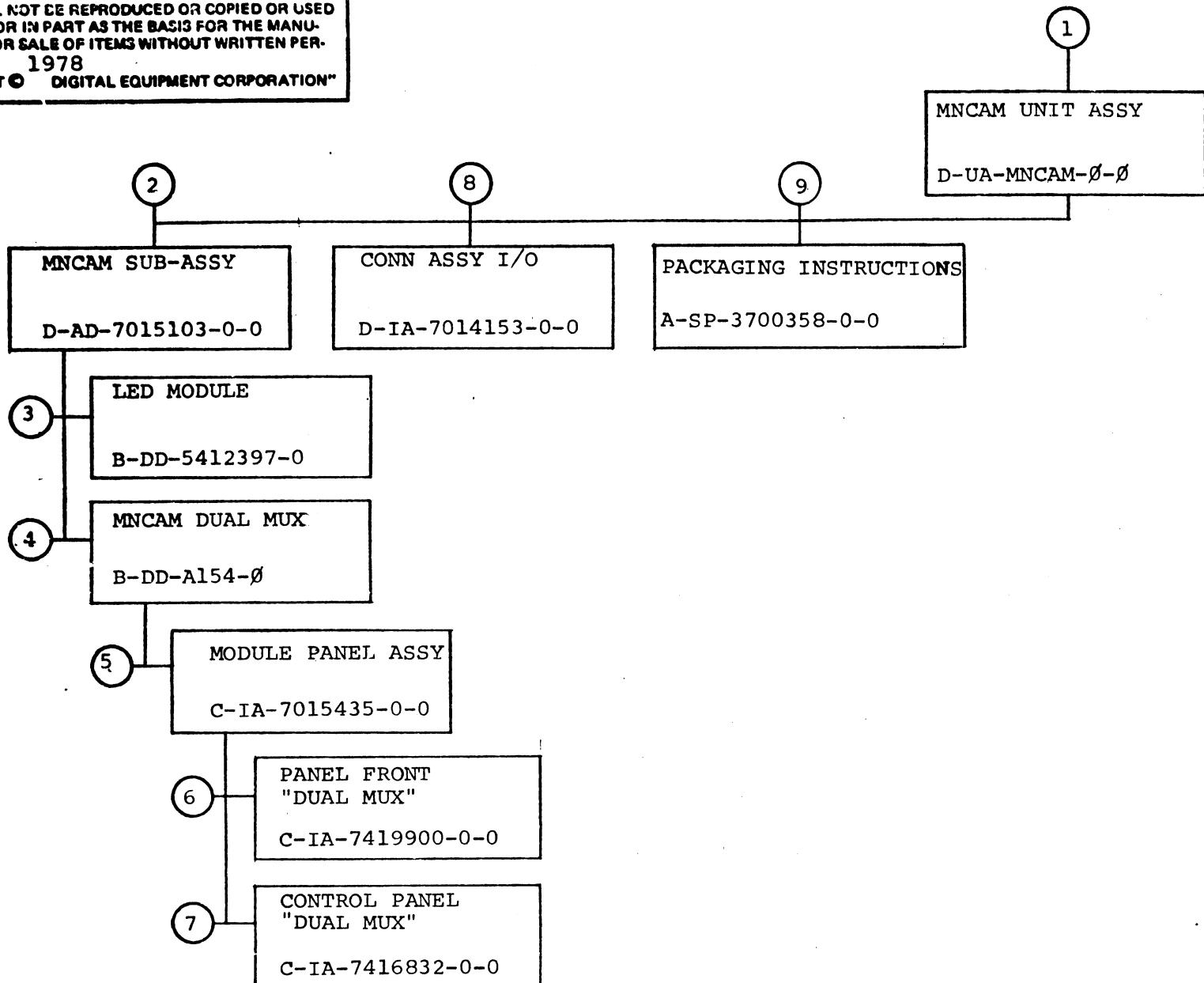
"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY
AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT
CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS
WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

"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 MANU-
FACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1978
DIGITAL EQUIPMENT CORPORATION.

UNIT VARIATIONS

"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 MANU-
FACTURE OR SALE OF ITEMS WITHOUT WRITTEN PER-
MISSION. 1978
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



TITLE	SIZE	CODE	NUMBER	REV
MNCAM UNIT ASSY	SHEET 2 OF 3	B DD	MNCAM-Ø	B

8

7

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS, HERINB, ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL
NOT BE COPIED OR USED IN WHOLE OR IN PART
WITHOUT THE WRITTEN CONSENT OF THE OWNER.

50(QTY 4) 47(QTY 2)

REWORK INSTRUCTIONS

ECO #2
COMPONENT DELETES SIDE 1:
2-1 J4
2-2 J5

ETCH CUTS SIDE 1 (AS SHOWN)
2-3 AT J1-10

2-4 AT J1-22

COMPONENT ADDS SIDE 1

2-5 F1
2-6 F2

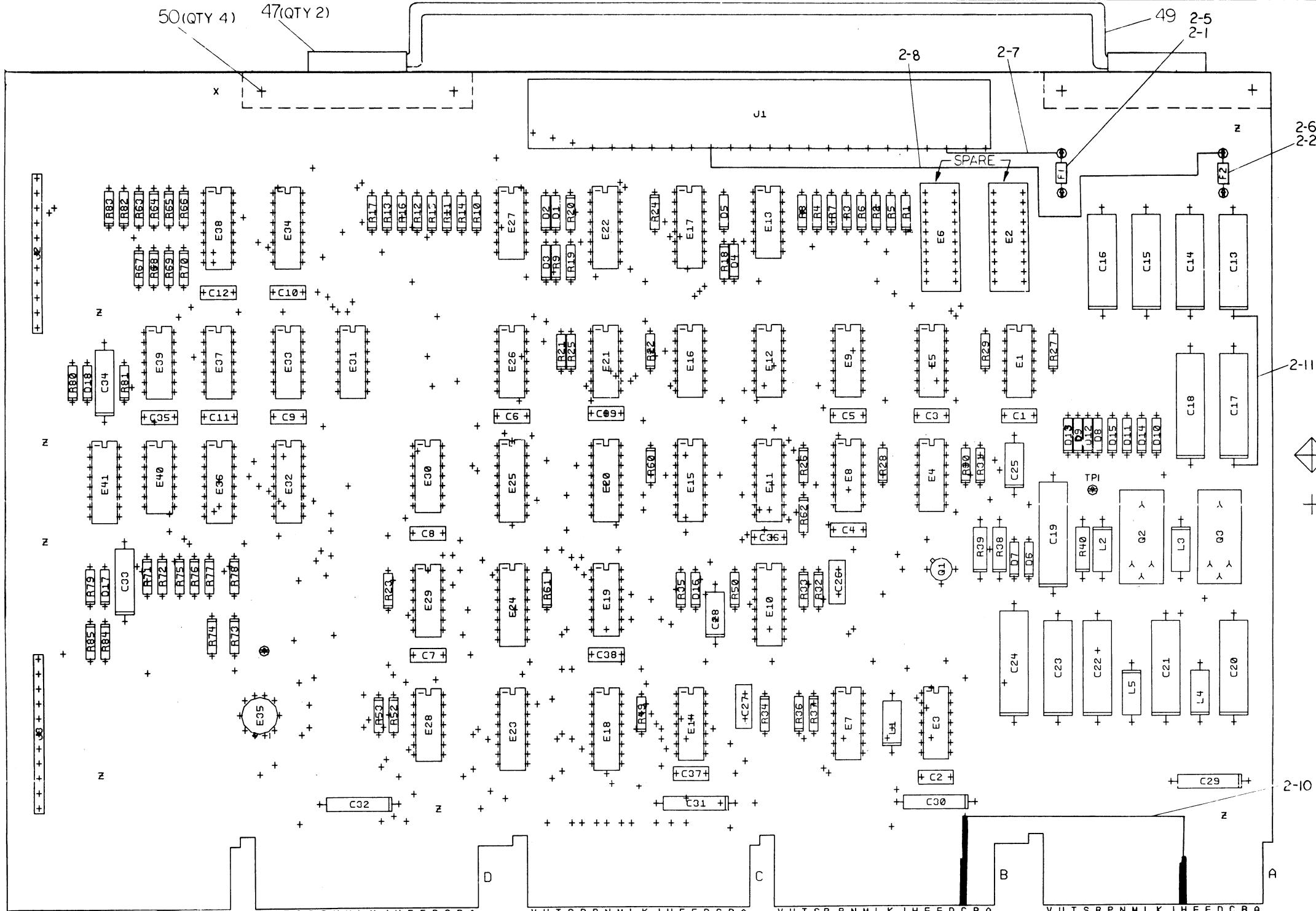
WIRE ADDS SIDE 1 (AS SHOWN)
2-7 FROM TOP LEAD OF F1 TO J1-22

2-8 FROM TOP LEAD OF F2 TO J1-10

ECO #2A
ETCH CUTS SIDE 1 (AS SHOWN)
2-9 BETWEEN J1-22 & C14

WIRE ADDS SIDE 1 (AS SHOWN)
2-10 FROM AHI TO BCI

2-11 FROM BOTTOM LEAD C13 TO BOTTOM LEAD
C17



NOTES: 1. J1 REPRESENTS FINGERS ON TOP OF
BOARD.
2 REMOVE '+-' SIGNS NEAR F1 & F2

CHG	CHANGE NO	REV
T	A154-MR001	E
A	R1-R80	77
B	F1-F2	5-10

SIGNATURES	DATE	digital
DRN.	9-10-77	
CHK'D. <i>R.W. Gantner</i>	9-10-77	
ENG. <i>E.P. Eustis</i>	9-10-77	
PROJ. ENG. <i>C.C. Foy</i>	20-9-77	TITLE MNCAM MUX
PROD. <i>W.L. O'Dell</i>	20-9-77	
ETCH REV.		SCALE 2/1
P.C. DESIGN DATA BASE REV.		SHT. 1 OF 4
		SIZE CODE D UA
		NUMBER A154-00
		REV F
		NEXT HIGHER ASSY. B-DD-A154-00

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 WITHOUT WRITTEN PERMISSION.
NOTA: DRAFT COPY FOR MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION
MURRAY HILL, MASSACHUSETTS, U.S.A.
© 1971 DIGITAL EQUIPMENT CORPORATION

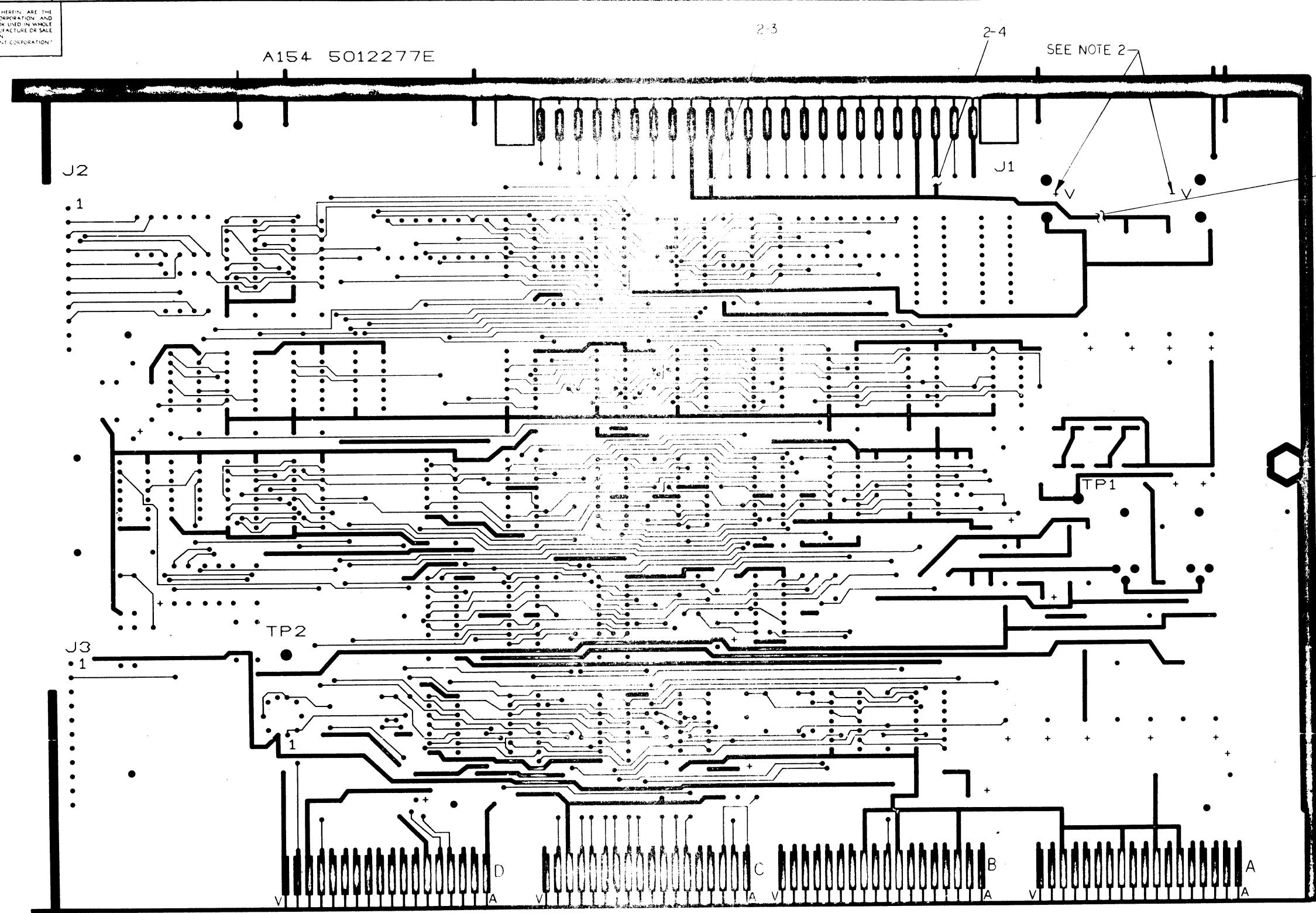
A154 5012277E

2-3

2-4

SEE NOTE 2

2-9



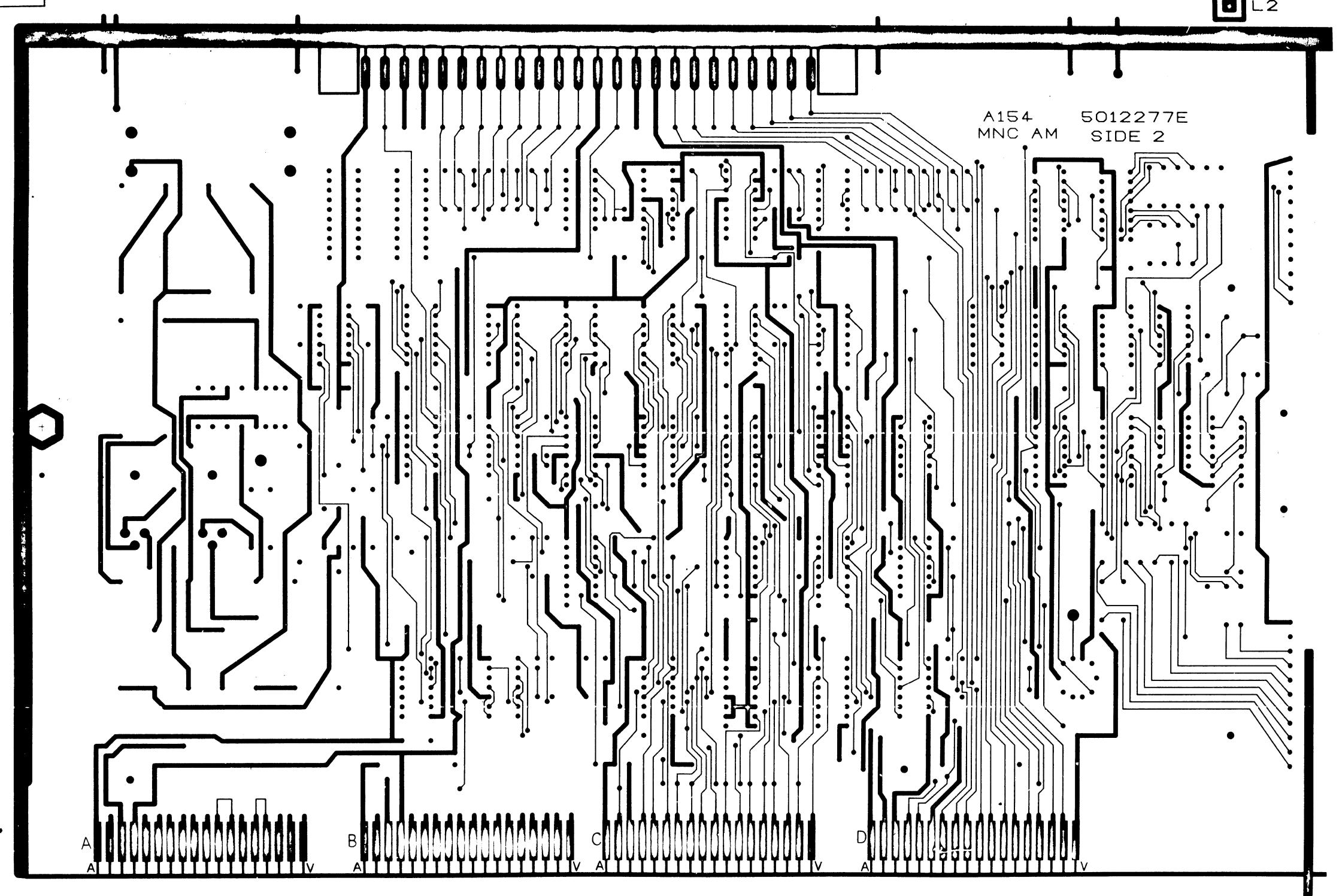
REVISIONS		
CHK	CHANGE NO	REV.

TITLE: MNCAM MUX
SCALE: 2/1 SHEET 2 OF 4 DIST:

SIZE CODE: D UA NUMBER: A154 - 0 - 0 REV: F

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND
ARE THE EXCLUSIVE PROPERTY OF THAT COMPANY.
ALL RIGHTS RESERVED. NO PART OF THIS DRAWING
OR SPECIFICATIONS MAY BE COPIED OR USED IN WHOLE
OR IN PART WITHOUT THE WRITTEN CONSENT OF
DIGITAL EQUIPMENT CORPORATION.

COPYRIGHT © 1971 DIGITAL EQUIPMENT CORPORATION

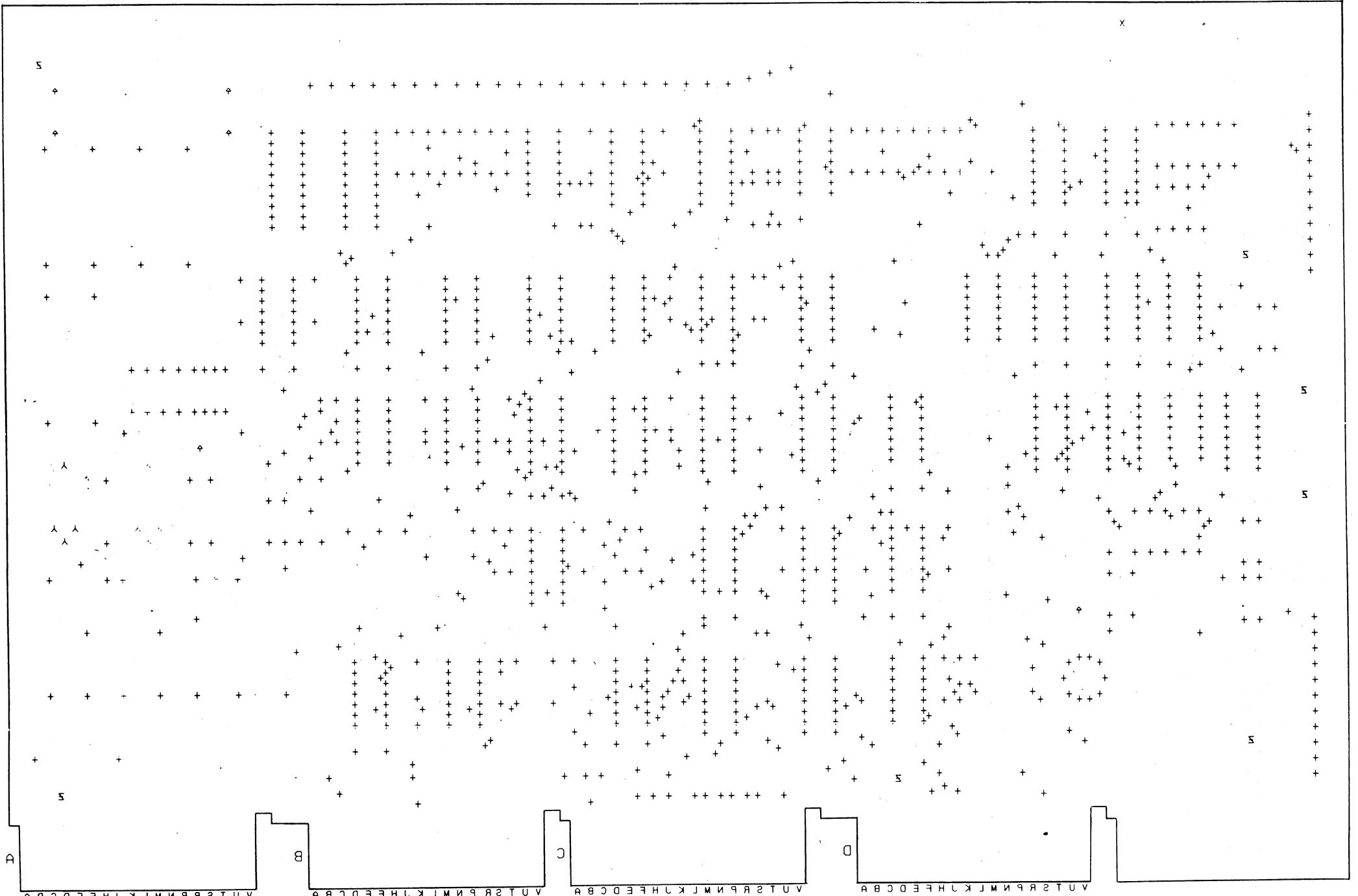


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE
MNCAM MUX
SCALE 2/1 SHEET 3 OF 4 DIST.

SIZE CODE D U A NUMBER A154-Ø-Ø REV. 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 © 1977 DIGITAL EQUIPMENT CORPORATION"



REVISIONS										TITLE		SIZE	CODE	NUMBER	REV.
CHK	CHANGE NO	REV.								MNCAM MUX		DUA	A154-0-0	F	
										SCALE 2/1	SHEET 4 OF 4		DIST.		

**DIGITAL EQUIPMENT CORPORATION
PARTS LIST**

MADE BY *S. Wilson*
DATE 7 OCT 77

ENG *H. F. Birney*
DATE 20 OCT 77

CHECKED RW Counter
DATE 10 Oct 77

PROD *Dane R. Duncan*
DATE 25 OCT 77

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION								NOTES: 1. SPARE LOCATIONS ARE: E2, E6
				1	2	3	4	5	6	7	8	
1	D-MD-5012277-0-0	5012277	ETCHED CIRCUIT BOARD	1								
2		1010274-01	CAP .22 UF 50V	17								C1 THRU C12,C35 THRU C39
3		1002433	CAP .22 UF 35V 20%	8								C13 THRU C16,C20 THRU C23
4		1005335	CAP .39 UF 20V 10%	4								C17,C18,C19,C24
5		1001776	CAP 1 UF 35V 10%	1								C25
6		1C00016	CAP 100 PF	1								C26
7		1000025	CAP 560PF, 100V	1								C27
8												
9		1004812	CAP 15 UF 20V 10%	7								C28 THRU C32 C33, C34
10		1105275	DIODE D672	17								D1,D2,D4 THRU D18
11		1109502	DIODE IN4742	1								D3
12		1212519-06	HOUSING POST 11 POS	2								J2,J3
13		1310881	RES 1K 1% 1/4W FUSIBLE	16								R1 THRU R8,R10 THRU R17
14		1300365	RES 1K 5% 1/4W	25								R9,R19 THRU R31,R33,R34,R35,R37,R49,R52, R53,R60,R61,R62,R81
15		1301425	RES 300 5% 1/4W	1								R18
16		1300488	RES 12K 5% 1/4W	1								R32
17		1300250	RES 150 5% 1/4W	1								R36
18		1300315	RES 470 5% 1/2W	2								R38,R39
19		1301781	RES 82 5% 1/2W	1								R40
20		1304838	RES 43K 5% 1/4W	3								R50,R79,R80

ECO NO.
MRO 01
A154-2

"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
MN CAM MUX

ASSY NO.
D-U-A154-0-0

SHEET 1 OF 3

SIZE B CODE PL NUMBER A154-0-0

REV. F

INSERTION PARTS LIST DATA BASE REV

**DIGITAL EQUIPMENT CORPORATION
PARTS LIST**

MADE BY *E. Wilson*
DATE 7 OCT 77

CHECKED R W Counter
DATE 10 OCT 77

SECTION
1

ENG *H. J. Siris*
DATE 20 OCT 77

PROD *Dana R. Danner*
DATE 25 OCT 77

ISSUED SECTION
1

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION								NOTES:
				1	2	3	4	5	6	7	8	
21		1301401	RES 750 5% 1/4W	20								R63 THRU R78, R82 THRU R85
22		1503409	TRANS DEC 6534D	1								Q1
23		1510414	TRANS D45C6	1								Q2
24		1510171	TRANS D44C3	1								Q3
25		1602254	INDUCTOR 22 UH	3								L1, L4, L5
26		1603377	INDUCTOR 1.22 UH	2								L2, L3
27		1912799	I.C. DEC 74LSØØ	4								E1, E9, E29, E33
28		1912803	I.C. DEC 74LSØ4	5								E3, E5, E8, E14, E28
29		1912805	I.C. DEC 74LSØ8	2								E4, E4Ø
30		1910741	I.C. DEC 7406	2								E7, E37
31		1912837	I.C. DEC 74LS123	2								E1Ø, E41
32		1912827	I.C. DEC 74LS83	5								E11, E15, E2Ø, E24, E25
33		1911521	I.C. DEC 7432	3								E12, E16, E31
34		1910010	I.C. DEC 2501	2								E13, E27
35		1911598	I.C. DEC DG501C	2								E17, E22
36		1911527	I.C. DEC 8097	1								E18
37		1912807	I.C. DEC 74LS1Ø	1								E19
38		1909712	I.C. DEC 8242	1								E21
39		1910652	I.C. DEC 74174	1								E23
40		1905580	I.C. DEC 7450	1								E26
41		1909705	I.C. DEC 8881	1								E3Ø
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

MNCAM MUX

ASSY NO.

D-UA-A154-Ø-Ø

SIZE
B

CODE
PL

NUMBER

A154-Ø-Ø

REV.

F

SHEET 2 OF 3

INSERTION PARTS LIST DATA BASE REV

DIGITAL EQUIPMENT CORPORATION
PARTS LIST

MADE BY *B. Wilson*
DATE *10 OCT 77*

CHECKED *R.W. Caunter*
DATE *10 OCT 77*

ENG *G.T. Service*
DATE *20 OCT 77*

PROD *Don R. Danan*
DATE *25 Oct 77*

SECTION
1

ISSUED SECTION
1

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION										NOTES:
42														
43		1910047	I.C. DEC 74145	4										E32, E34, E36, E38
44		2111285-02	I.C. DEC HI200-5	1										E35
45		19128C1	I.C. DEC 74LS02	1										E39
46														
47	C-MD-7420192-0-0	7420192	HANDLE, RETAINER	2										
48		9006735	SPLIT LUGS	2										TP1, TP2
49	C-MD-7420191-0-0	7420191	HANDLE	1										
50		9006732	EYELET	4										
51		9009122	FUSE .062A	2										F1, F2
52														

E.O.C.
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
MNCAM MUX

ASSY NO.
D-UA-A154-0-0

SIZE
B

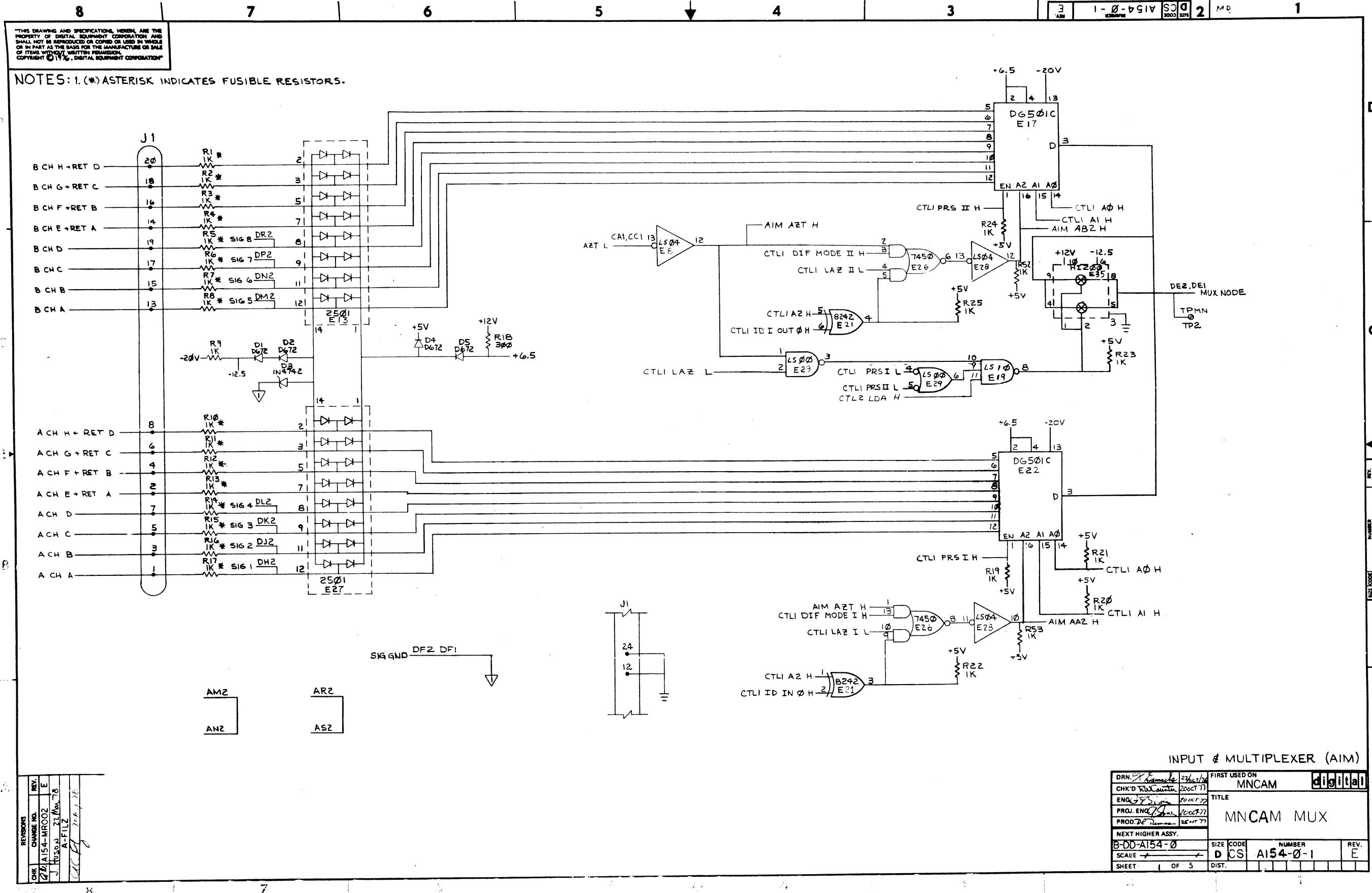
CODE
PL

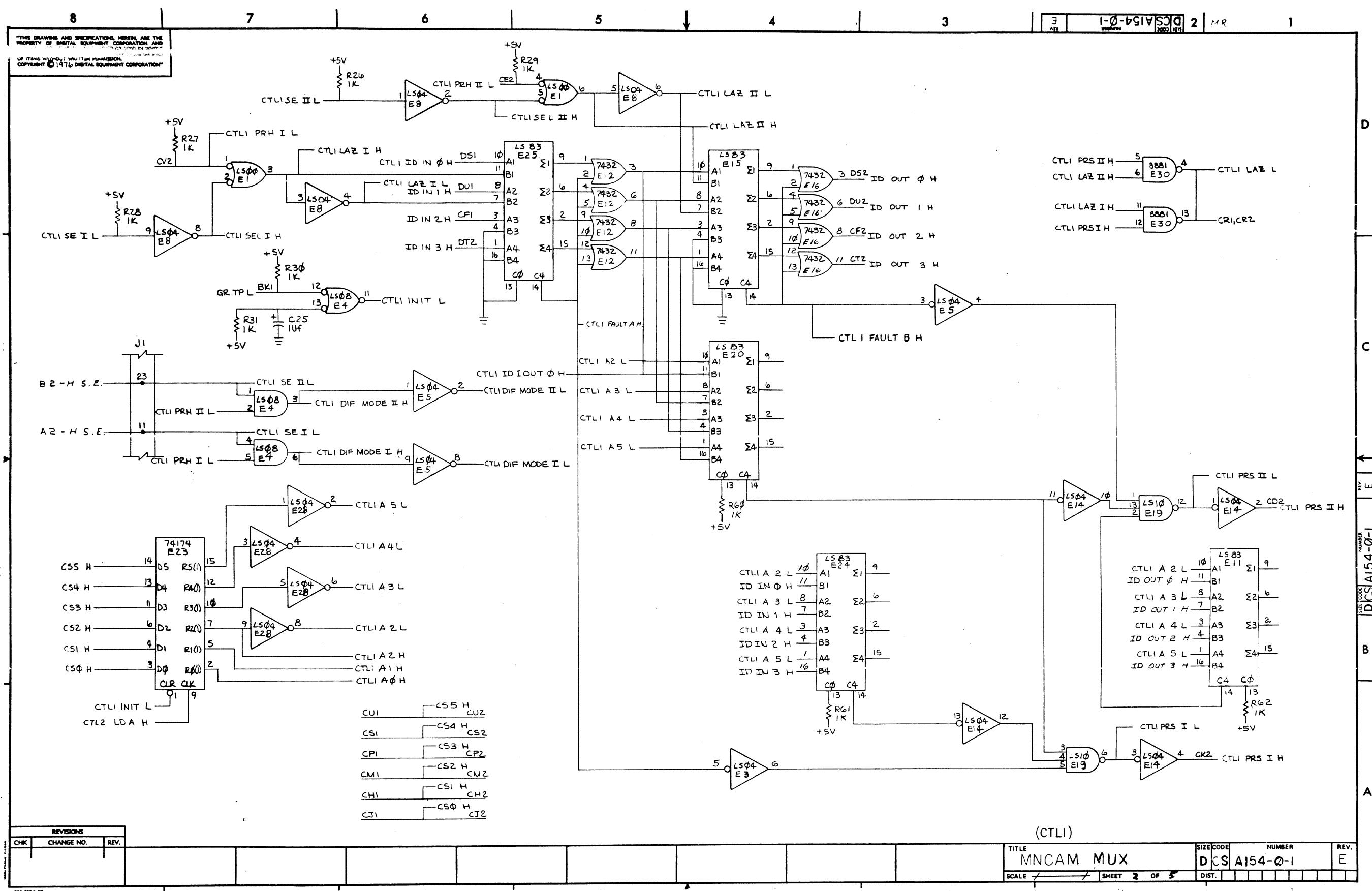
NUMBER
A154-0-0

REV.
F

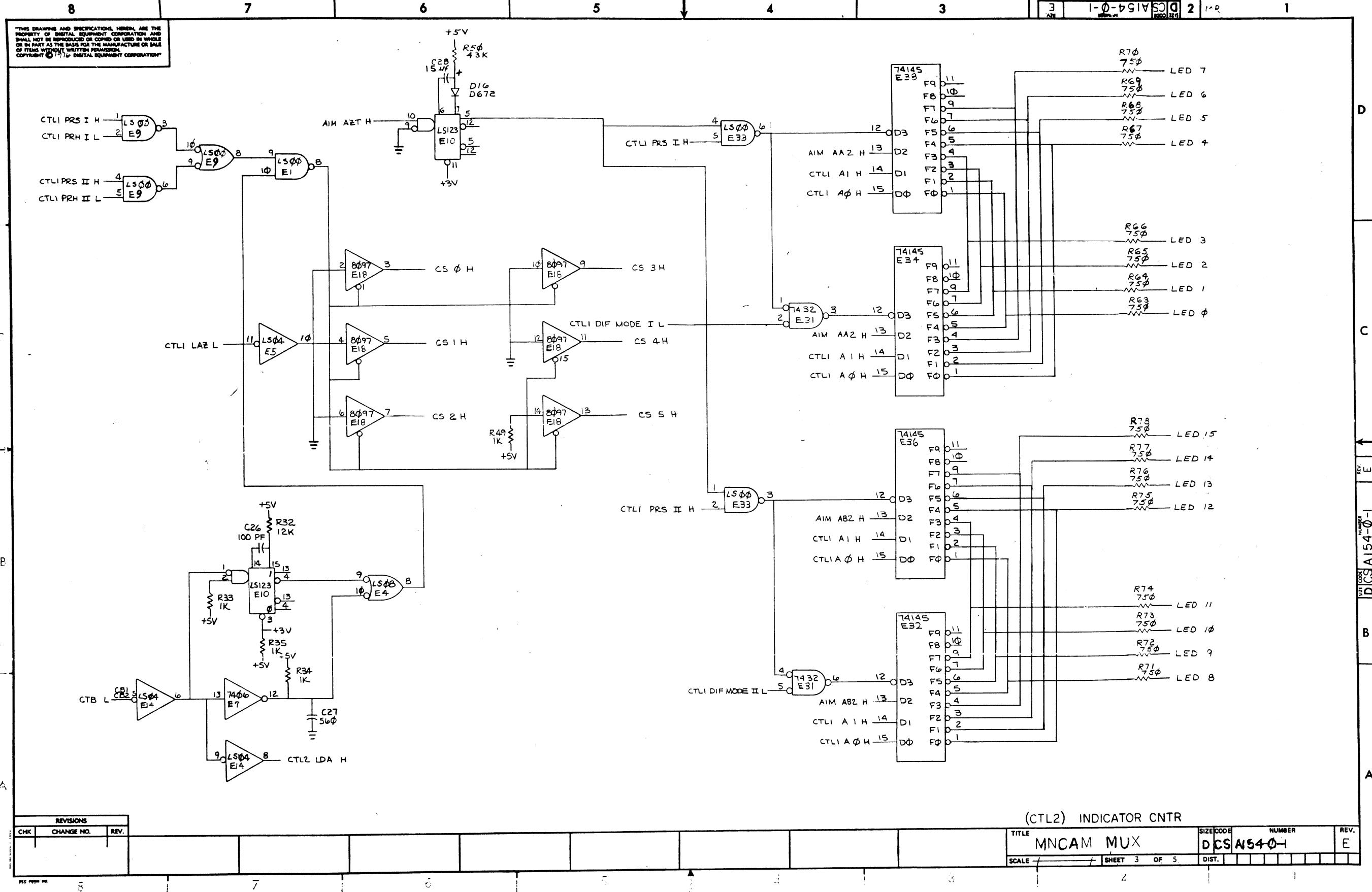
SHEET 3 OF 3

INSERTION PARTS LIST DATA BASE REV





REVISIONS



8

7

6

5

4

3

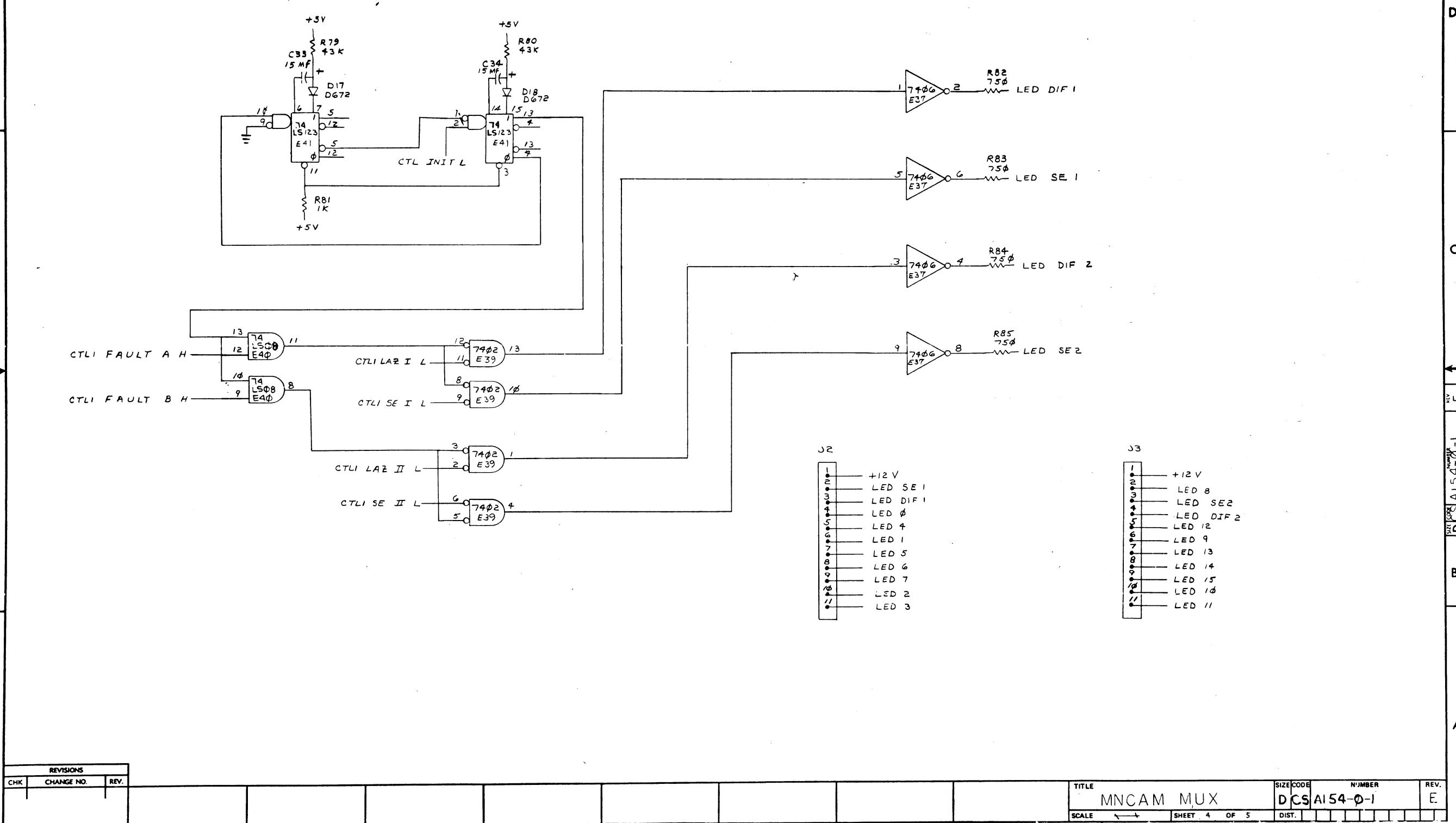
2

1

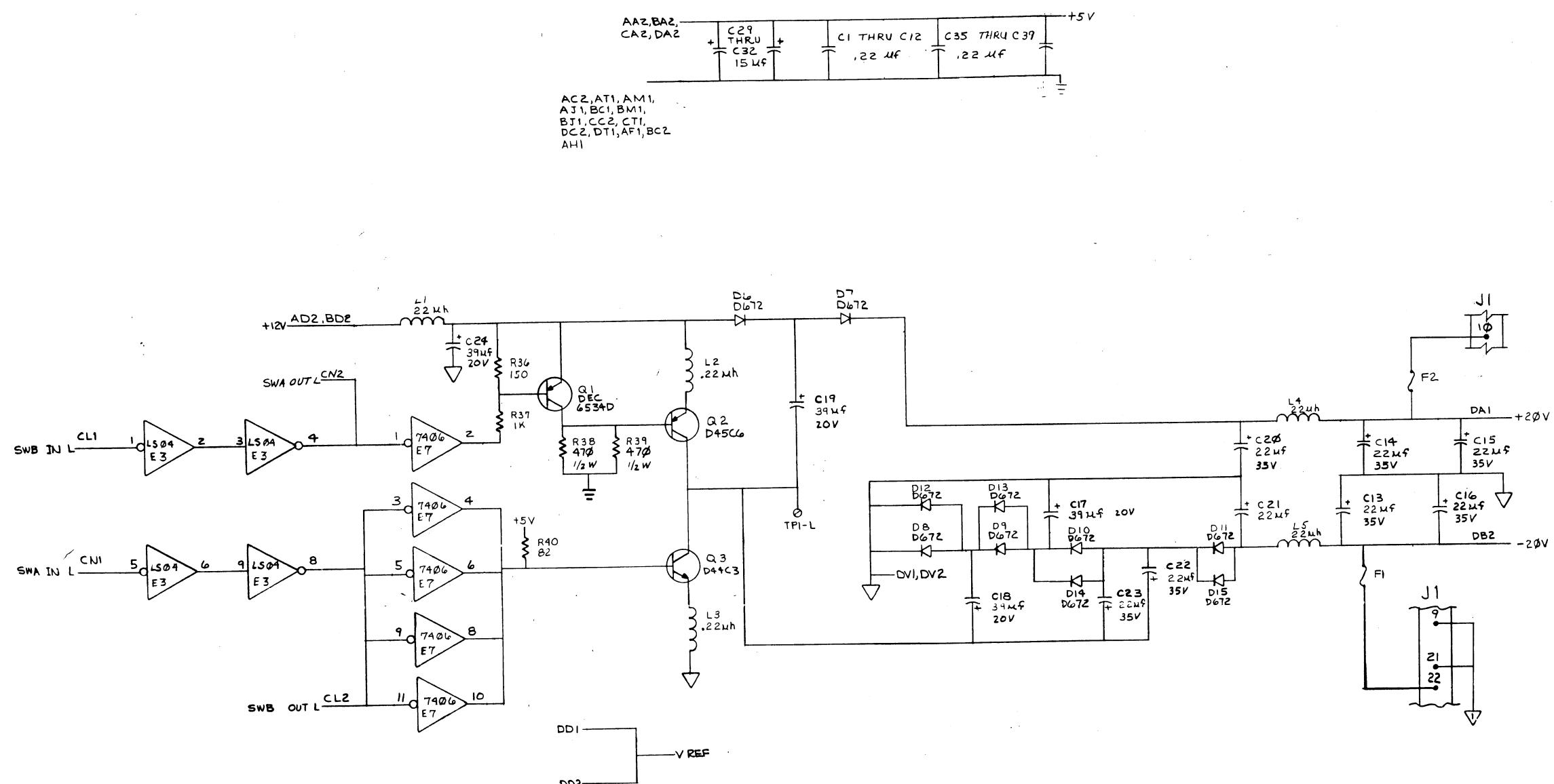
"THIS DRAWING AND SPECIFICATIONS, HEREBE, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION. THEY ARE TO BE USED IN WHOLE OR IN PART, FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1977 DIGITAL EQUIPMENT CORPORATION"

3

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 © 1976 DIGITAL EQUIPMENT CORPORATION"



POWER SUPPLY

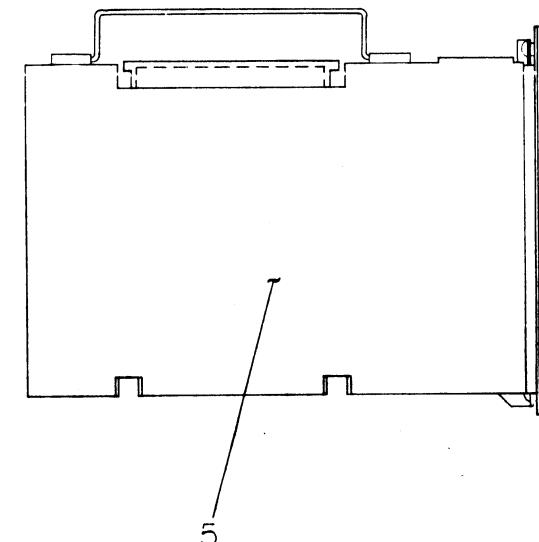
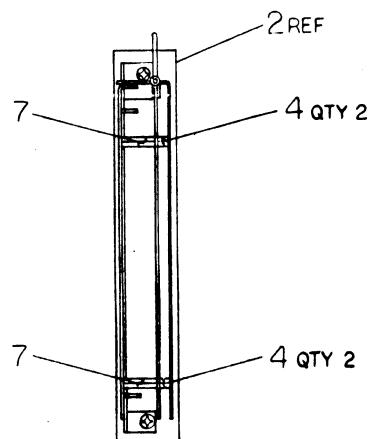
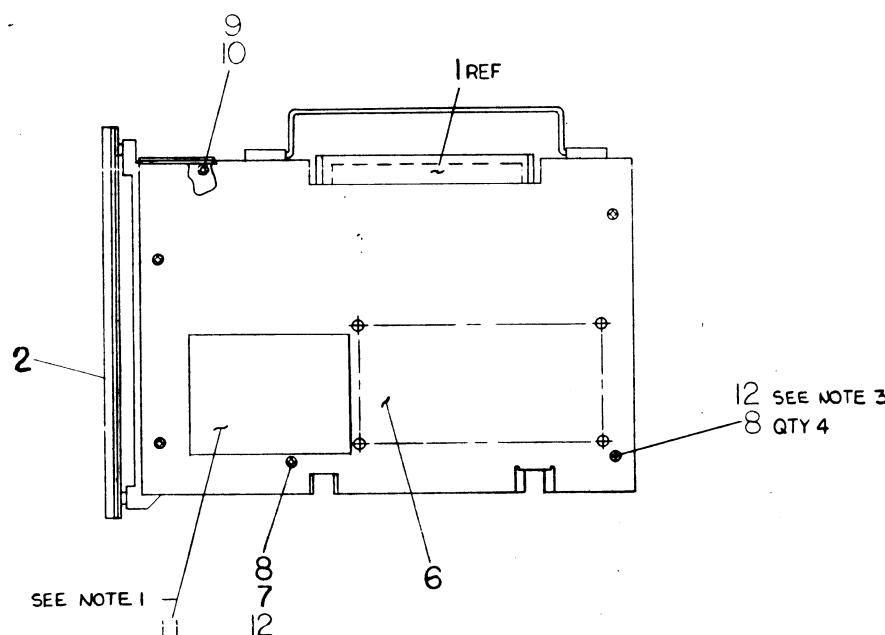
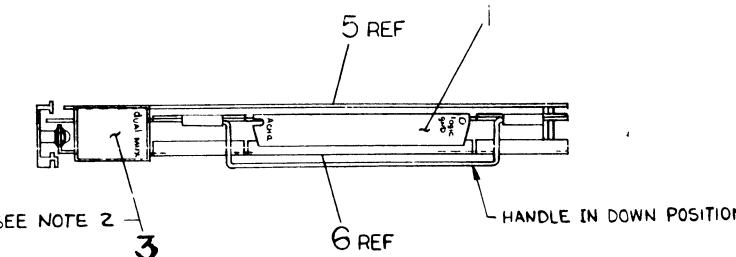
REVISIONS										TITLE	SIZE	CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.								MNCAM, MUX	D	CS	A154-0-1	E
										SCALE	✓	✓	SHEET 5 OF 5	DIST.

**DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST**

MADE BY	M. Archie	CHECKED	<i>O. Mandur</i>	SECTION
DATE	7 MARCH 78	DATE	<i>17 MAY 78</i>	1
ENG	<i>O.C.F.G.</i>	PROD	<i>B Cook</i>	ISSUED SEC
DATE	<i>23-May-78</i>	DATE	<i>23-May-78</i>	1

TITLE SHIP LIST MNCAM	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO.
	+ - +	A	PL	MNCAM-0-SH		
	SHEET 1	OF 1	DIST			

"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 © 1971, DIGITAL EQUIPMENT CORPORATION"



ITEM NO.	DESCRIPTION	DWG./PART NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLE 45° 30°	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES
SURFACE QUALITY IN MICROINCHES	OVER 0.2 0.2 1.2	OVER 0.2 0.2 4.0 1.2 12.0 40.0 OVER 0.8 0.8
MEDIUM	±.004	±.012
PREFERRED	±.016	±.024

DRN. H. Tuck	FIRST USED ON	MNCAM
CHK'D 1/1/78	1/1/78	TITLE
ENG. C.C.	1/1/78	
PPOL. E.M.	1/1/78	
PCBL. W.G.	1/21/78	
MNCAM UNIT ASSY		
NEXT HIGHER ASSY.		
B-00-MNCAM-Ø	SIZE CODE	NUMBER
SEE PARTS LIST	D UA	MNCAM-Ø-Ø
FINISH NONE	SHEET 1 OF 1	DIST.
REV. A		

REVISIONS	REV.	CHANGE NO.	REV.
CHK		RDP MNCAM - MRC021 A	
J Clark	1/20/78		
A	F ILZ	2-#6-28	
C.C.	G		

TY 12397.LST
AUTOMATED BY PRTLST 2E(3)

P A R T S L I S T

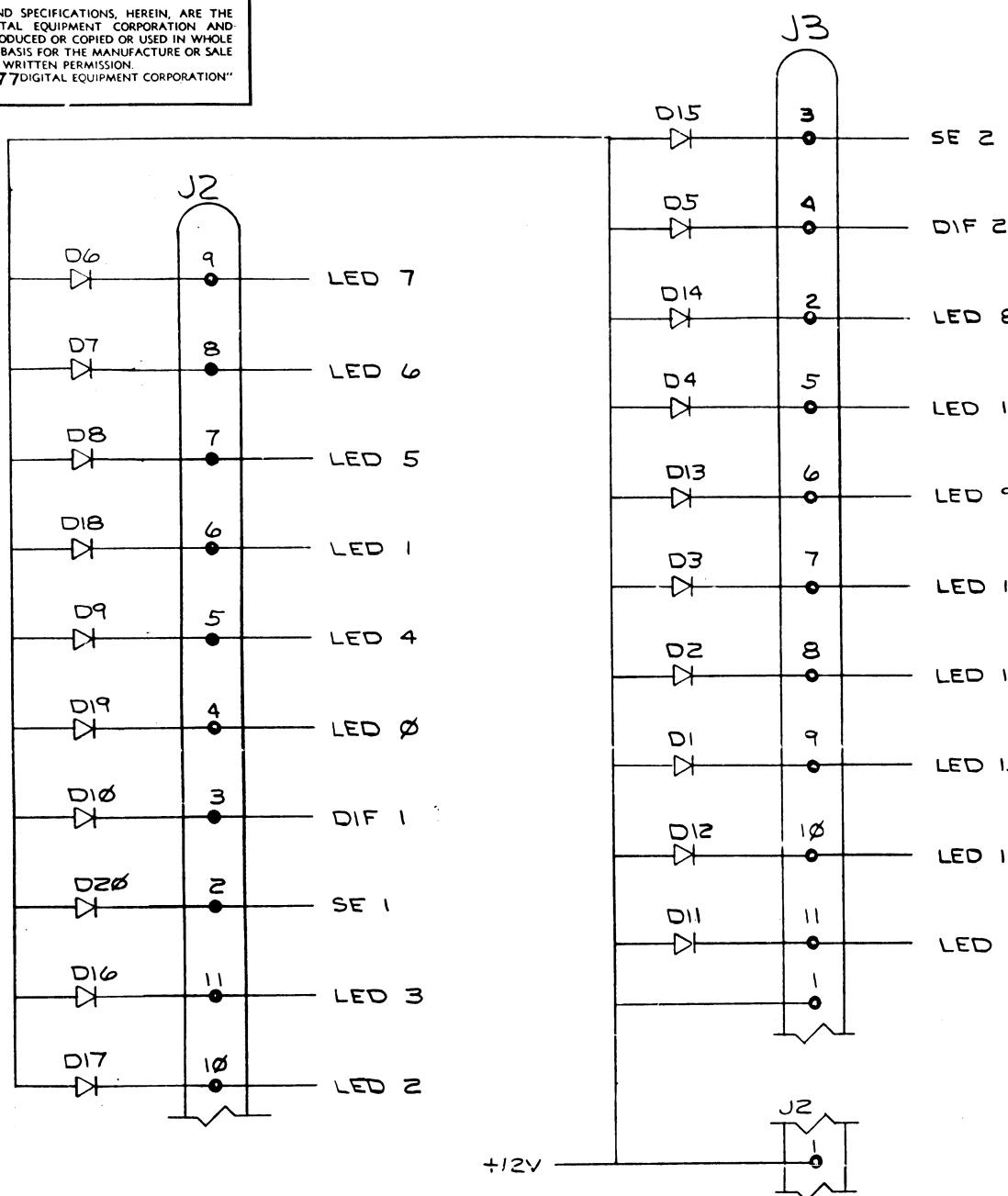
SHEET 1 OF 1

LINE ITEM	DOCUMENT NO.	PART NO.	DESCRIPTION	QTY	REFERENCE DESIGNATORS
1	1	D-MD-5012396-0-0	5012396-00	ETCH BOARD FOR 5412397	1
2	2		1211851-00	CONN .150 11POS SIDE ENTRY	2 J2,J3
3	3		1114494-00	LED 1.0MCID020MA	20 D1-D20
4	4	B-IA-7419858-0-0	7419858-00	BRACKET MODULE	1
5	5		1215266-00	HOLDER, MUX LED	4
6	6		9006010-01	SCREW,PAN ,PHIL, 4-40X 5/16 SS/PAS	2
7	7		9006632-00	WASHER,LOCK,INT,.2600D X .120ID X .015 THK	2
8	8		9006655-00	WASHER, FLAT, .312 O.D. X .125 ID X .025 T	2

! REVISION HISTORY ! VARIATIONS FOR THIS ASSY. !

CHK	ECO NO	REV	FIRST USED ON: MN CAM	DIGITAL EQUIPMENT CORPORATION
MN	00002	F	00	MAYNARD, MASSACHUSETTS
			MADE BY: E.WILSON	DATE: 7-OCT-77
				TITLE
				PARTS LIST
			CHECKED: R.W.CAUNTER	DATE: 7-OCT-77
				LED MOUNT
			DSN.ENG.: A.FILZ	DATE: 8-DEC-77
				SIZE!CODE! DOCUMENT NUMBER ! REV
			PROD.: D.R.DANA	DATE: 15-DEC-77 ! K ! PL ! 5412397-0-DBP ! F !
				EDIT#
			RESP.ENG.: A.FILZ	DATE: 8-DEC-77 ! ASSY.NO.: D-UA-5412397-0-0 ! 2 !
*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.				
COPRIGHT 1978, DIGITAL EQUIPMENT CORPORATION				

"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	CHANGE NO.	REV.
CHK		

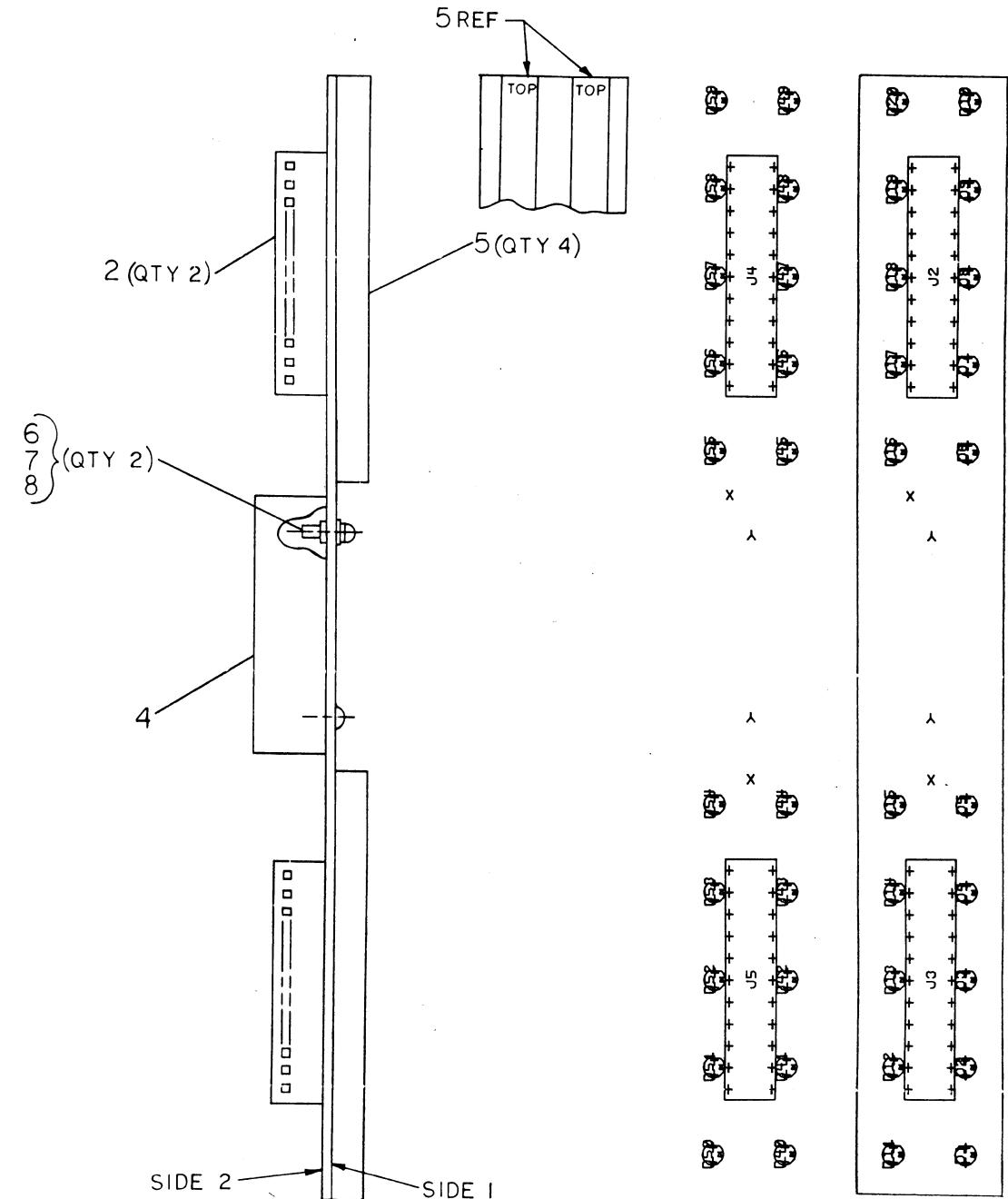
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11				
PARTS LIST				
DIMENSIONAL TOLERANCE				
DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED				
MILLIMETERS	INCHES	ANGLES		
X.XX = ±0.13	XXX = ±.005	XX = ±.02	DATE 8-Dec-77	
XX = ±0.5		X = ±.1	PHOT. ENG. C. Shire	
X = ±2,			PROD. D.R. MacLean	
THIRD ANGLE PROJECTION REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓				
NEXT HIGHER ASSY.				
MATERIAL 11 B-DD-5412397-Ø				
FINISH 11 SCALE 11				
SHEET 1 OF 1	DIST.	SIZE CODE C	NUMBER 5412397-Ø-1	REV. D

digital

LED MOUNT

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.
COPYRIGHT © 1978 DIGITAL EQUIPMENT CORPORATION

COMPONENT SIDE VIEW



+
B

NOTES:

CHANGE NO	REV
5412397-2	F
SOLARIA REV 78	
A. FILZ	ACG

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

SIGNATURES	DATE
DRN. [Signature]	9-12-78
CHK. [Signature]	10-12-78
ENG. [Signature]	10-12-78
PROJ. ENG. [Signature]	10-12-78
PROD. [Signature]	10-12-78
SCALE 2/1	
SHT. 1 OF 2	
NEXT HIGHER ASSY. B-DD-5412397-0	

digital	
TITLE LED MOUNT	
SIZE CODE	NUMBER
D	UA 5412397-0-F

THIS DRAWING AND SPECIFICATION HEREIN ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND
MAY 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
1978

L1

5012396F-P1
5412397



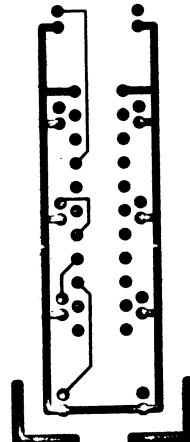
digital
SIDE 1

L2

TOP

5012396F-P1
5412397 SIDE 2

LED MOUNT



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE
LED MOUNT

SCALE 2/1 SHEET 2 OF 2 DIST

SIZE CODE NUMBER
D UA 5412397-0-0 F

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DATE 7/10/78

TITLE MNCAM INSTALLATION/ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG *Geo. Sivens* APPD *G. Sivens* 7-11-78 SIZE A CODE SP NUMBER MNCAM-0-4 REV

DEC FORM NO. DRA 107A

MR SHEET 1 OF 4

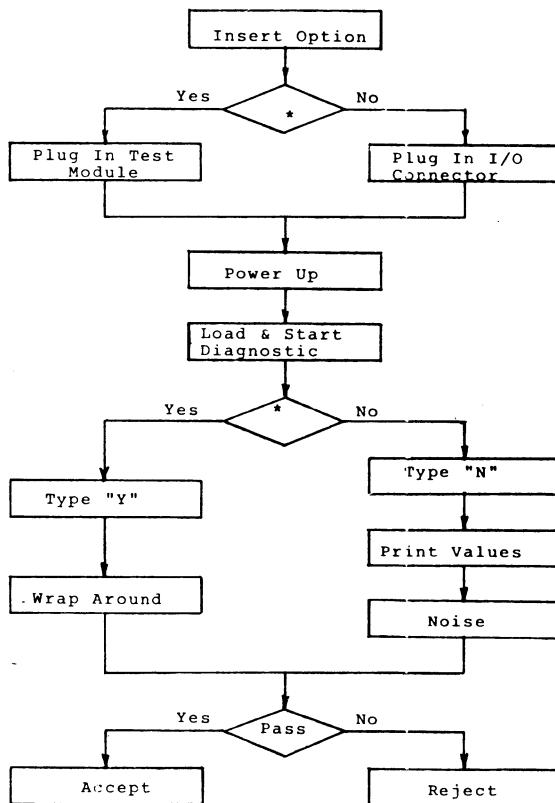
M

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE MNCAM INSTALLATION/ACCEPTANCE PROCEDURE

1.4 PROCEDURE



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

DRA 108

MR SHEET 3 OF 4

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE MNCAM INSTALLATION/ACCEPTANCE PROCEDURE

1.0 GENERAL

This document describes the procedures for the installation and field acceptance of the MNCAM (Analog Multiplexer) option for the MINC-11 system. This procedure will be used for in-house FA&T, field add-on and new system installation, and periodic verification testing.

1.2 EQUIPMENT

MINC-11	System
MNCAM-TA	Test Module (optional)
7014153-1-0	I/O Connector
MNCAD	A/D Option
REFERENCE	Precision Voltage Source (optional)

1.3 DOCUMENTATION

MD-11-DVMNA	MNCAD Diagnostic Program
D-CS-A154-0-1	Circuit Schematics
AA-D572A-TC	Manual - "Work with MINC Devices"
A-SP-MNCAD-0-4	MNCAD Installation/Acceptance Procedure

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

DRA 108

MR SHEET 2 OF 4

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE MNCAM INSTALLATION/ACCEPTANCE PROCEDURE

2.0 INSTALLATION

2.1 LOCATION

The MNCAM must be inserted into a slot that is to the left of the MNCAD (A/D option) and there must be no empty slots in-between. With power off, insert the MNCAM option(s) into the selected slot(s).

2.2 TEST MODULE

If the MNCAM-TA test module is available it should be plugged onto the I/O connector fingers on the top of the MNCAM at this point, before power to the System is applied. Both SE pins on the I/O connector should be tied to logic ground.

2.3 POWER UP

All other options to be tested and any of their test modules, should be mounted in the system, then power may be applied. Allow a 5 minute warm-up period before continuing.

2.4 DIAGNOSTIC

The MNCAD diagnostic is used to test the MNCAM option and should now be loaded into the processor and started at location 200. The diagnostic heading will be typed followed by:

"SWR = 000000 NEW = "

Type "RETURN". The program will ask if a test module is connected; type "N" for no if one is not present or "Y" for yes if one is present, followed by a "RETURN".

3.0 ACCEPTANCE

3.1 If the test module is present enter the wrap-around test (W) for only those channels to be tested. (Use "V" and SWR = 2000 for video graphics terminals; VT55 or VT105).

3.2 If no test module is present, input voltage through the I/O connector and enter the print values (P) routine, addressing only those channels to be tested, and then the noise test (N).

TABLE 3-1: INPUT VOLTAGE CODING

OCTAL CODE	INPUT (VOLTS)	
7777	+5.1175	+FS -1 LSB
7000	+3.8400	+3/4 FS
6000	+2.5600	+1/2 FS
5000	+1.2800	+1/4 FS
4000	0.0000	0
3000	-1.2800	-1/4 FS
2000	-2.5600	-1/2 FS
1000	-3.8400	-3/4 FS
0000	-5.1200	-FS

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

DRA 108

MR SHEET 4 OF 4