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FIELD MAINTENANCE PRINT SET

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UNIBUS TERMINATOR BOOT STRAP	D-CS-M93Ø1-Ø-1
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PRINT SET MM11-D (COMPLETE SET)	MPØØØ32
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CONSOLE CABLE	C-IA-7011411-0-0
CONSOLE POWER HARNESS	D-IA-7011992-0-0
SHIPPING LIST 11/34 (10.5)	A-PL-11/34-0-4
NO SACK TIMEOUT MODULE	D-CS-M8204-Ø-1

UNIT VARIATIONS COVERED BY THIS PRINT SET
11/34-LH
11/34-LJ
11/34-DH
11/34-DJ
11/34-MH
11/34-MJ
11/34-HH
11/34-HJ
11/34-LM
11/34-LN
11/34-DM
11/34-DN
11/34-MM
11/34-MN
11/34-HM
11/34-HN

11/34 VOL 2
Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MP00082

REVISIONS	REV.	CHG. NO.	DATE
	A	11/34-2	JUN 76
	B	11/34-3	SEP 76

USED ON OPTION/MODEL

SHEET 1 OF 1

DRN.	D. HEALY	DATE 25 FEB 76
CHK'D	D. HEALY	DATE 24 FEB 76
PROJ. ENG.	J. BLOEM	DATE 3 MAR 76
FIELD SERV.	E. EVANS	DATE 3 MAR 76

digital

TITLE: 11/34 FIELD MAINTENANCE PRINT SET (10.5)

SIZE	CODE	NUMBER	REV.
B	TC	11/34-Ø-2	B

DIST.

EN 01124-16-N675-(327)

DRB 124

3

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CONNECTS TO PWR. DIST. BD J11, J10 & J9

P2 P3 P4

PIN A01 A1

SEE NOTE 5

DD11-PK

26

52

SEE DETAIL D SHEET 3

8 OR KY11-LB

18 OR 19
16 OR 17

26

DD11-PK

DANGER HIGH VOLTAGE

(H754) SEE NOTE 10

(H744)

REG 2 (H744)

REG 1 (H745)

PIN A01 A1

TO M9301

F E D C B A

SEE NOTE 14

48 QTY 5

SEE NOTE 6

63

USE EXISTING HARDWARE ON H765 CHASSIS 2 PLACES

SEE NOTE 11

53

34

30

SEE NOTE 6

RED
BLK
BLU

J1 J2

BT SWTCH
BT ENABLE
+5V
GND
GND
ON

KY11-LA

SEE SHT #3 FOR KY11-LB WIRING DIAGRAM

8 REF

RED
BLK

TO J3 ON AC INPUT BOX

PWR DIST. BOARD

29

SHIELD

RED
BLK
SEE NOTE 12

TP3 TP2 TP1

M9381

2

WIRING DIAGRAM

56

SEE NOTE 11

24
25
QTY 6

21 (QTY 2)

52 REF

A
B

55

8 REF

31 (QTY 2)

41
46
QTY 4

A

76

24
27
QTY 4

24
36
(QTY 2)

22 (QTY 4)

34 REF

54 REF

51

49 (QTY 4)
SEE NOTE 13

47 (QTY 4)

54
QTY 2

SEE NOTE 9

32 (QTY 2)

47 (QTY 4)

VIEW A-A
SCALE: NONE

60
61
SEE NOTE 7 & 8

J8 J2 P15 P16 P13 P14 J7 J12 J11 J10 J9 J1 J6 J5 J4 J3

26

39
40
QTY 4

59

VIEW B-B
SCALE: NONE
ONLY TOP COVER SHOWN

NOTES:

1. CAUTION: OFF SHEET PARTS LIST EXISTS SEE A-PL-11/34-0.
2. SEE DD11-P MODULE UTILIZATION DRAWING FOR MODULE PLACEMENT INFORMATION.
3. FOR ADDITIONAL INFORMATION REFER TO E-UA-BA11-K-0.
4. TIGHTEN ALL SYSTEM UNIT MOUNTING SCREWS TO 13 IN LBS WITH A TORQUE SCREW DRIVER.
5. WHEN THE DD11-PK IS USED WITH A BA11-K EXPANSION BOX WITHOUT BATTERY BACK UP, INSTALL THE THREE JUMPERS SHOWN:
   1) -15 TO -15B
   2) +15 TO +15B
   3) +5 TO +5B
   USE # 20 INSULATED BUS WIRE ON SIDE 2. THIS WILL PROVIDE POWER TO THE MOS MEMORY VOLTAGE RAILS.
6. LOOP THE M9301 CABLE ITEM# 29 UNDER THE CABLE HOLD DOWN BAR. (SERVICE LOOP)
7. TIE DOWN P16, PART OF ITEM# 16, WITH TWO TIE WRAPS (ITEM#601) WHEN H754 IS NOT USED.
8. GROUND THE BLK CHASSIS GROUND UNDER THE H744 MOUNTING SCREW.
9. CUTOUT IN FILTER ITEM# 51 FOR ROUTING OF CABLES ITEM# 34 & 29.
10. H754 REGULATOR AVAILABLE ONLY IN CORE MEMORY SYSTEMS.
11. ITEM 53 AND 56 ARE INSTALLED AT F.A. AND T.
12. IN PDP 11/34 SYSTEMS WITHOUT BATTERY BACKUP (OPTION H775) THE TP1 CONNECTION TO THE M9301 WILL CAUSE BOOTS ON ALL POWER RESTARTS. IF BOOTS ON POWER RESTARTS ARE NOT DESIRED, REMOVE THE TP1 CONNECTION, INSULATE THE CABLE TERMINAL AND TIE IT BACK ON ITSELF WITH A TIE WRAP.
13. REPLACE FOAM STRIPS WITH ITEM 49. 2 PLACES & ADD 2 OUTSIDE STRIPS AS SHOWN.
14. AFTER INSERTING WIRE IN CLAMPS, HAND FLEX THE ADHESIVE BACK SECTIONS SUCH THAT THEY ARE AGAIN FLAT. HEAT CURE THE DESIGNATED AREAS USING A HEAT GUN AT A DISTANCE OF 6 INCHES FOR A PERIOD OF 10 SECONDS

10½" BOX (BA11-K)
OFF SHEET PARTS LIST EXISTS
SEE C-PL-11/34-0

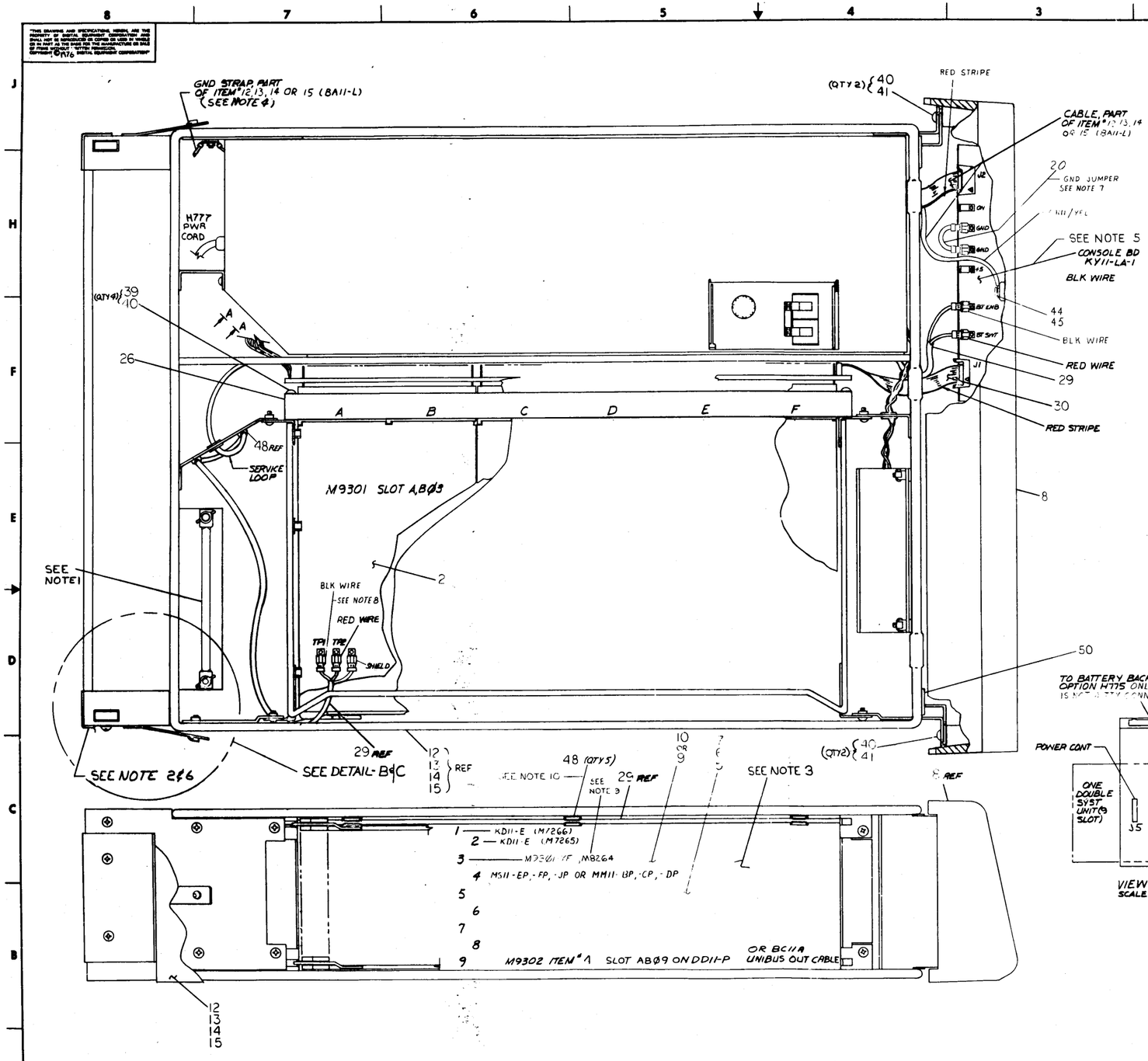
REV	CHANGE NO.	
A	11/34-00001	REVISED AND REDRAWN
B	11/34-00002	
C	11/34-00003	
D	11/34-00004	
E	11/34-00005	
F	11/34-00006	

DESCRIPTION	DWG./PART NO. / ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
ANGLES ± 30'	CLASS OF ACCURACY (CHECK ONE)
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐ PREFERRED ☐
NOMINAL DIMENSION RANGE INCHES	0 TO 6 / 6 TO 12 / 12 TO 24 / 24 TO 48 / 48 TO 96
	.005 / .010 / .015 / .020 / .030
	.010 / .010 / .025 / .03 / .05
QUANTITY & VARIATION	
THIRD ANGLE PROJECTION	
REMOVE BURRS AND BREAK SHARP CORNERS	
DO NOT SCALE DWG	
MATERIAL: SEE PARTS LIST	
FINISH	
DRAWN	3-4-76
CHK	3-4-76
ENG	3-4-76
PROJ. ENG	3-4-76
PROJ. SYS. ENG	4-12-76
NEXT HIGHER ASSY.	
B-00-11/34-0	
SCALE	
SHEET 1 OF 3	
FIRST USED ON	
TITLE: UNIT ASSY 11/34	
SIZE E	CODE UA
NUMBER 11/34-0-0	REV. F
DIST.	

MFL 11/34-0 E UA B

4

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LEGEND	
NUMBER	VARIATION
11/34-LC (115 V)	KDII-E, KYII-LA M9312, M7850, M9301-YA M5II-JP, DDII-PK, BAII-LC
11/34-LD (230 V)	KDII-E, KYII-LA M9312 M7850 M9301-YA M5II-JP DDII-PK, BAII-LD
11/34-MC (115 V)	KDII-E, KYII-LA M9312, M7850, M9301-YA, MMII-DP DDII-PK, BAII-L
11/34-MD (230 V)	KDII-E, KYII-LA, M9312, M7850, M9301-YA MMII-DP DDII-PK, BAII-LB

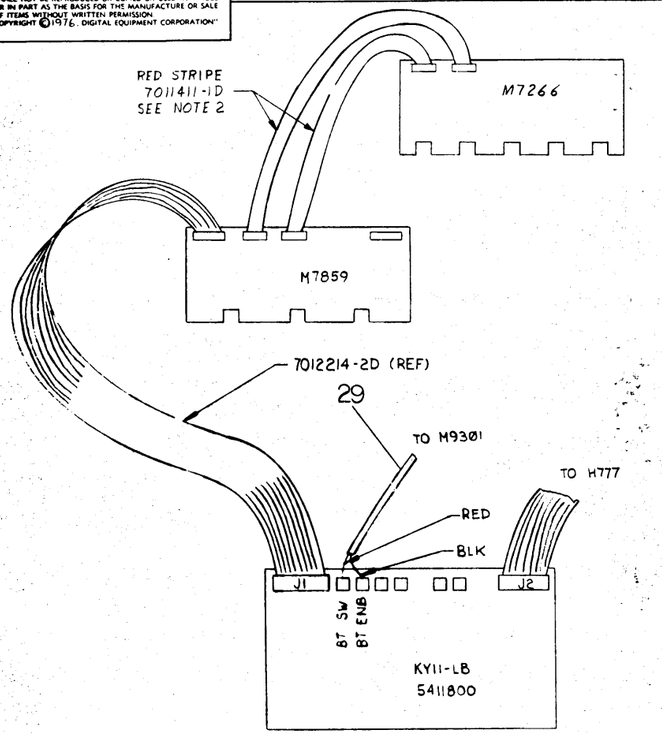
NOTES:

1. UNIBUS AND I/O CABLE HOLD DOWN BAR TO BE USED TO CLAMP ALL EXITING CABLES.
2. FOR RACK MOUNTING INSTRUCTION REFER TO DRAWING NO E-UA-BAII-L-0
3. FOR MODULE PLACEMENT RULES REFER TO DRAWING D-MU-DDII-P2
4. DISCONNECT WRAP AROUND GROUND WIRE BEFORE REMOVING FROM ENCLOSURE.
5. FOR WIRING INFORMATION OF KYII-LA (M9301-YA BANNER CONSOLE) SEE SHEET 3 OF 3.
6. FOR CAB MTG REMOVE SHIPPING BRKTS AND INSTALL AS SHOWN IN DETAIL "B" USING 2 #10-32 X .50 TRUSS HD SCREWS & 2 #10-32 KEP (TYP BOTH SIDES) PLUS EXSISTING HDW AS INDICATED IN DETAIL "B".
7. THIS JUMPER IS REQUIRED ON ALL CS-5411457 REV. E (KYIII-A CONSOLE) MODULES USED IN BAII-L BOXES.
8. IN PDP 1134 SYSTEMS WITHOUT BATTERY BACKUP (OPTION H775) THE TP1 CONNECTION TO THE M9301 WILL CAUSE BOOTS ON ALL POWER RESTARTS. IF BOOTS ON POWER RESTARTS ARE NOT DESIRED REMOVE THE TP1 CONNECTION, INSULATE THE CABLE TERMINAL AND TIE IT BACK ON ITSELF WITH A TIE WRAP.
9. AN M8264 NO SACK TIMEOUT MODULE MUST BE INCORPORATED IN ALL PDP 11/34 SYSTEMS CONTAINING AN MT266 REV. A THRU REV. E.
10. AFTER INSERTING WIRE IN CLAMPS HAND FLEX THE ADHESIVE BACKED SECTIONS SUCH THAT THEY ARE AGAIN FLAT. HEAT CURE THE CLAMP & WIRE ASSY ON TO THE DESIGNATED AREAS USING A HEAT GUN AT A DISTANCE OF 6 INCHES FOR A PERIOD OF 10 SECONDS.

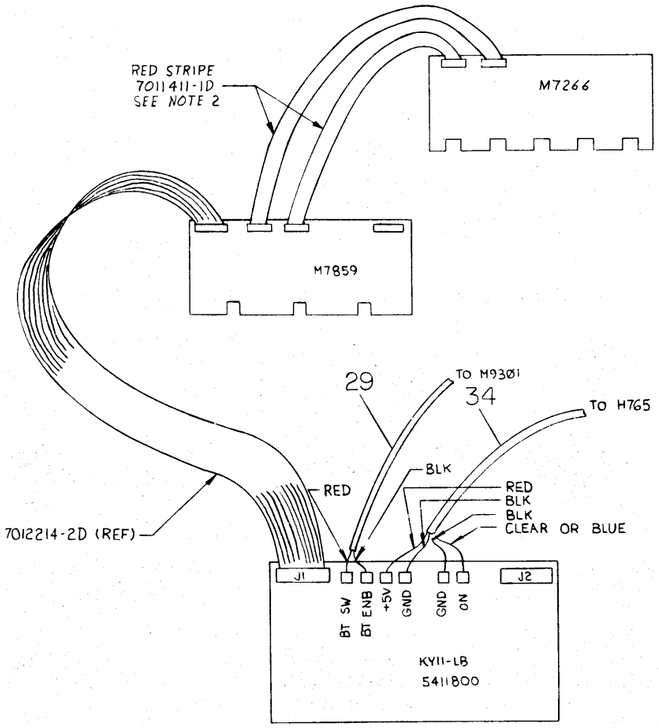
| | | |

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WIRING DIAGRAMS FOR KY11-LB

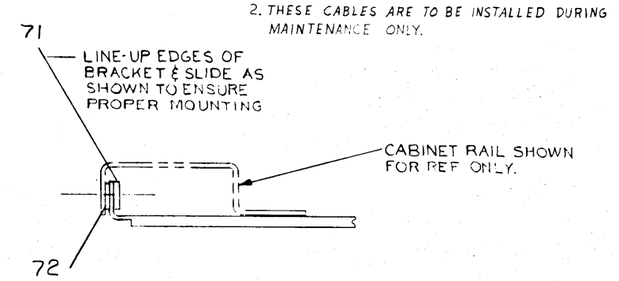


BA11-L
5 1/4" MTG BOX

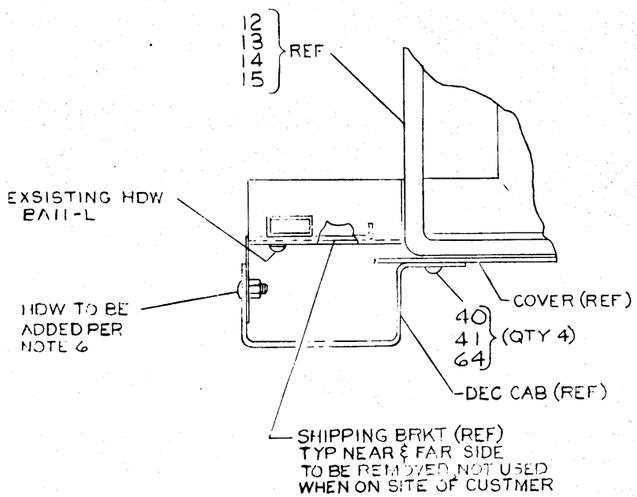


BA11-K
10½" MTG BOX

NOTES:
1. THE M7859 PROGRAMERS CONSOLE INTERFACE MODULE, WHEN USED, MUST BE INSTALLED IN THE CPU BACKPLANE. IT IS AN SPC MODULE.
2. THESE CABLES ARE TO BE INSTALLED DURING MAINTENANCE ONLY.



DETAIL D
SCALE 1/2
SHEET 1
(SEE NOTE 11)



DETAIL - B
(SEE NOTE 6)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
UNIT ASSY 11/34	D	UA	11/34-0-0	F
SCALE —#— SHEET 3 OF 3	DIST.			

DEC FORM NO DRD 137

6

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ITEM NO.	DRAWING NO.	DESCRIPTION	11/34-DC	11/34-DD	11/34-HC	11/34-HD	11/34-LC	11/34-LD	11/34-MC	11/34-MD	11/34-LH	11/34-LJ	11/34-DH	11/34-DJ	11/34-MH	11/34-MJ	11/34-HH	11/34-HJ	11/34-LM	11/34-LN	11/34-DM	11/34-DN	11/34-MM	11/34-MN	11/34-HM	11/34-HN
1	A-PL-FD11-E-Ø	11/34 CPU (M7266, M7265)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	D-CS-M93Ø1-YF-1	TERM/BOOT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
~~3~~	~~D-CS-M93Ø1-YB-1~~	~~TERM/BOOT (END USER)~~	~~-~~	~~-~~	~~-~~	~~-~~					~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	1	1	1	1	1	1	1	1
4	D-CS-M93Ø2-Ø-1	UNIBUS TERMINATOR / SACK TURN AROUND	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	B-CS-G727-Ø-1	GRANT CONTINUITY	6	6	6	6	5	5	5	5	5	5	6	6	5	5	6	6	4	4	5	5	4	4	5	5
6	A-PL-DL11-WA-0	SERIAL LINE/LINE CLOCK (DL11-W)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1
7	D-CS-M7850-Ø-1	PARITY, MEMORY MODULE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	D-UA-KY11-LA-Ø	CONSOLE, OPERATORS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	A-PL-MS11-JP-Ø	MEMORY, MOS 16K PARITY (M7847)	1	1	-	-	2	2	-	-	2	2	1	1	-	-	-	-	2	2	1	1	-	-	-	-
10	D-UA-MM11-DP-Ø	MEMORY, CORE 16K PARITY	-	-	1	1	-	-	2	2	-	-	-	-	2	2	1	1	-	-	-	-	2	2	1	1
11	D-CS-M8264-Ø-1	NO SACK TIMEOUT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	E-UA-BA11-LC-Ø	MTG. BOX 5.25, MOS ONLY 115V	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	E-UA-BA11-LD-Ø	MTG. BOX 5.25, MOS ONLY 230V	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	E-UA-BA11-LA-Ø	MTG. BOX 5.25, CORE/MOS 115V	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	E-UA-BA11-LB-Ø	MTG. BOX 5.25, CORE/MOS 230V	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	D-UA-BA11-KK-Ø	MOUNTING BOX 10 1/2, MOS ONLY 115V	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	-	1	-	-	-	-	-
17	D-UA-BA11-KL-Ø	MOUNTING BOX 10 1/2, MOS ONLY 230V	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	-	1	-	-	-	-
18	D-UA-BA11-KH-Ø	MOUNTING BOX 10 1/2, CORE ONLY 115V	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	-	1	-
19	D-UA-BA11-KJ-Ø	MOUNTING BOX 10 1/2, CORE ONLY 230V	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	-	1
20	C-IA-7012752-0-0	CABLE JUMPER (BA11-L)	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	D-IA-7009768-0-0	COVER, CHASSIS	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
22	9006020-3	SCREW, PHL TRUSS HD #6-32 x .25	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
~~23~~	~~9007801~~	~~WASHER LOCK #6~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
24	9006071-3	SCREW, PHL TRUSS HD #10-32 x .38	-	-	-	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
25	9007651	WASHER EXTERNAL TOOTH #10	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
26	A-PL-DD11-PK-Ø	BACKPLANE, 11/34 9 SLOT for L & K BOXES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	9006565	NUT, KEPS #10-32	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
28	B-MU-DD11-P-2	MODULE UTILIZATION (DD11P)	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
29	C-IA-7011413-3F-Ø	CABLE, EXTERNAL BOOT M93Ø1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	C-IA-7011411-BJ-Ø	CABLE, CONSOLE/(DD11PK for L or K BOX)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	B-MD-7417628-0-0	BRACKET. BEZEL	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
32	B-MD-7417627-0-0	BRACKET. BEZEL ADAPTER	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
34	D-IA-7011992-0-0	CONSOLE POWER HARNESS (K BOX)	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	~~B-IA-7008360-0-0~~	~~CABLE ASSY TT2 (20 MA)~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	1	1	1	1	1	1	1	1
36	9007651	WASHER EXTERNAL TOOTH #10	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
~~37~~	~~D-CA-7012185-1-0~~	~~MOUNTING BRACKET CONSOLE (K BOX LEFT)~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
~~38~~	~~B-IA-7012186-0-0~~	~~MOUNTING BRACKET CONSOLE (K BOX RIGHT)~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	9006043-3	SCR PHIL TRUSS HD 8-32 x 1.00	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
40	9008072	WASHER, EXT. TOOTH #8	12	12	12	12	12	12	12	12	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
41	9006037-3	SCR PHIL TRUSS HD 8-32 x .38	8	8	8	8	8	8	8	8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
~~43~~	~~9008185~~	~~NUT, KEP #6~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

BASIC 5¼ BASIC 5¼ BASIC 10½ BASIC 10½

REVISIONS	CHK	CHANGE NO.	REV.
REVISED AND REDRAWN	JB	11/34-00001	A
J. BLOEM 19 Mar 76			
	JB	11/34-00002	B
D. BARRY 14 JUNE 76			
	JC	11/34-00003	C
J. BLOEM 29-SEP-76			
	BM	11/34-00004	D
J. BLOEM 15 NOV 76			
	KF	11/34-00005	E
P. PORRECA 14 Jan 77			
	AB	11/34-00006	F
P. LORUSSO 1 April 77			

DEC FORM NO. DRC 110 A

DRN.	9 FEB 76	FIRST USED ON 11/34
CHK'D	23 FEB 76	digital
ENG.	3-9-76	TITLE
PROJ. ENG.	3-9-76	UNIT ASSY 11/34
PRODK	4 MAR 76	
NEXT HIGHER ASSY.		
D-UA-11/34-0-0	SIZE C	CODE PL
SCALE	NUMBER 11/34-0-0	REV. F
SHEET 1 OF 2	DIST.	

REV. F | NUMBER 11/34-0-0 | SIZE C | CODE PL

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ITEM NO.	DRAWING NO.	DESCRIPTION	11/34-DC	11/34-DD	11/34-HC	11/34-HD	11/34-LC	11/34-LD	11/34-MC	11/34-MD	11/34-LH	11/34-LJ	11/34-DH	11/34-DJ	11/34-MH	11/34-MJ	11/34-HH	11/34-HJ	11/34-LM	11/34-LN	11/34-DM	11/34-DN	11/34-MM	11/34-MN	11/34-HM	11/34-HN
44	9006658	WASHER, FLAT #6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9006022-1	SCR, PHL PAN HD #6-32 x 3/8	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9006634	WASHER, LOCK #8	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
47	9006070-2	SCR, PHL FLAT HD 10-32 x .31	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
48	9009771-0	CLAMP, CABLE	5	5	5	5	5	5	5	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
49	1211336-02	TAPE	-	-	-	-	-	-	-	-	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
50	1212707	AIR FILTER BA11-L	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	1212392-02	AIR FILTER BA11-K	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
52	D-UA-H95Ø-PB-Ø	COVER, 5 1/4" BEZEL	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
53	D-IA-7010059-0-0	SHIPPING BRACKET ASSY BA11-K	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
54	1209224	LATCH, MOLDING	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
55	A-DC-7409478-0-0	DECAL, PATENT	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
56	D-PS-1211825-0-0	SLIDE, 3 POS. TILT	-	-	-	-	-	-	-	-	IFR	IPR	IFR	IPR	IFR	IPR	IFR	IPR	IFR	IPR	IFR	IPR	IFR	IPR	IFR	IPR
~~57~~	~~A-DC-5309414-0-0~~	~~DECAL, UL~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
~~58~~	~~A-DC-5309413-0-0~~	~~DECAL, NFPA~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
59	B-DC-7414727-0-0	DECAL STICKER 11/34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
60	9007880	TIE WRAP	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
61	120934**0-00**	CONNECTOR, DUMMY	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	1	1	1	1	-	-	-	-
63	A-DC-7415501-0-0	MODULE DECAL	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
64	9006660	WASH, FL .38 O.D.X. .19 I.D.X .03	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	A-SP-3700197-0-0	INPLANT PKG. INSTRUCTIONS	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	A-SP-3700061-0-0	CUSTOM CUSHIONED PKG. INSTRUCTIONS	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	A-SP-3700134-0-0	CUSHION CONSOLIDATED LOAD ASSY	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	A-SP-3700235-0-0	INPLANT PKG. INSTRUCTIONS	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
69	A-SP-3700165-0-0	SKID LOAD PKG. INSTRUCTIONS	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
70	A-SP-3700169-0-0	CUSTOM CUSHIONED PKG. INSTRUCTIONS	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
71	B-MD-7417882-0-0	NUT PLATE	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
72	B-MD-7417883-0-0	PLATE SLIDE MOUNTING	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
73	9006071-2	SCR PHL FLAT HD 10-32 x .38	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
74	9006073-03	SCR PHIL TRUSS HD 10-32 x .50	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
75	9006664	WASHER, FLAT #10	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
76	A-PS-3613210-0-0	LABEL, ELECTRICAL DATA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

BASIC 5¼ | BASIC 5¼ | BASIC 10½ | BASIC 10½

REVISIONS | REV. | CHANGE NO. | CHK

DRN.		9 FEB 76
CHK'D.		24 FEB 76
ENG.		3-4-76
PROJ. ENG.		3-4-76
PROD.		4 MAR 76
NEXT HIGHER ASSY.	D-UA-11/34-0-0	
SCALE		
SHEET	2 OF 2	

FIRST USED ON: 11/34

digital

TITLE: UNIT ASSY 11/34

SIZE	CODE	NUMBER	REV.
C	PL	11/34-0-0	F

DIST.

REV. F | NUMBER 11/34-0-0 | SIZE C | CODE PL

DEC FORM NO. DRC 110 A

8

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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~~CUSTOMER PRINT SET INDEX~~

~~THIS IS PRINT SET~~

SEQUENCE

SEQUENCE

FOR FIELD MAINTENANCE
PRINT SET REFER TO
B-TC-11/34-Ø-1 (5.25)
B-TC-11/34-Ø-2 (10.50)

5.25 BOX (BA11-L)

10.50 BOX (BA11-K)

UNIT VARIATIONS

VAR	TITLE	PRINT SET
11/34-DC	KD11-E,MS11-JP,BA11-LC,M785Ø, M93Ø1-YF,115V	
11/34-DD	KD11-E,MS11-JP,BA11-LD,M785Ø, M93Ø1-YF,230V	
11/34-HC	KD11-E,MM11-DP,BA11-LA,M785Ø, M93Ø1-YF,115V	
11/34-HD	KD11-E,MM11-DP,BA11-LB,M785Ø, M93Ø1-YF,230V	
11/34-LC	11/34-DC & MS11-JP 115V	
11/34-LD	11/34-DD & MS11-JP 230V	
11/34-MC	11/34-HC & MM11-DP 115V	
11/34-MD	11/34-HD & MM11-DP 230V	
11/34-LH	11/34-DH & MS11-JP 115V	
11/34-LJ	11/34-DJ & MS11-JP 230V	
11/34-DH	KD11-E,MS11-JP,BA11-KK,M785Ø, M93Ø1-YF,115V	
11/34-DJ	KD11-E,MS11-JP,BA11-KL,M785Ø, M93Ø1-YF,230V	
11/34-MH	11/34-HH & MM11-DP 115V	
11/34-MJ	11/34-HJ & MM11-DP 230V	
11/34-HH	KD11-E,MM11-DP,BA11-KH,M785Ø, M93Ø1-YF, 115V	
11/34-HJ	KD11-E,MM11-DP,BA11-KJ,M785Ø, M93Ø1-YF,230V	
11/34-LM	11/34-DM & MS11-JP 115V	
11/34-LN	11/34-DN & MS11-JP 230V	
11/34-DM	KD11-E,MS11-JP,BA11-KK,M785Ø, M93Ø1-YF,DL11-W,115V	
11/34-DN	KD11-E,MS11-JP,BA11-KL,M785Ø, M93Ø1-YF,DL11-W,230V	

REVISIONS	DATE	CHG. NO.	REV
	3-76	11/34-1	—
	ORIGINATED		
	6-76	11/34-2	A
	11-76	11/34-4	B
	1-77	11/34-5	C
	3-77	11/34-6	L

DRB 106

EN-01062-1A-16-R92-(325)

USED ON OPTION/MODEL		DRN.	DATE	TITLE
		CHK'D.	DATE	UNIT ASSY 11/34
		PROJ ENG.	DATE	
		PROD. K.E. Worcester	DATE 4 MAR 76	SIZE B / CODE DD / NUMBER 11/34-0 / REV D
		~~FIELD SERV.~~	~~DATE~~	DIST
SHEET 1 OF 6				

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

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~~CUSTOMER PRINT SET INDEX~~

~~THIS IS PRINT SET~~

SEQUENCE SEQUENCE

FOR FIELD MAINTENANCE
PRINT SET REFER TO
B-TC-11/34-Ø-1 (5.25)
B-TC-11/34-Ø-2 (10.50)

10.50
BOX
(BA11-K)

UNIT VARIATIONS

VAR	TITLE	PRINT SET
11/34-MM	11/34-HM & MM11-DP 115V	
11/34-MN	11/34-HN,MM11-DP 230V	
11/34-HM	KD11-E,MM11-DP,BA11-KH,M785Ø, M93Ø1-YF,DL11-W,115V	
11/34-HN	KD11-E,MM11-DP,BA11-KJ,M785Ø, M93Ø1-YF,DL11-W,230V	

REVISIONS

REV	CHG. NO.	DATE

USED ON OPTION/MODEL

SHEET 2 OF 6

DRN.		DATE
CHK'D.		DATE
PROJ ENG.		DATE
PROD.	P.W. Wood C.A. Amato	DATE
FIELD SERV.		DATE

TITLE: UNIT ASSY 11/34

SIZE	CODE	NUMBER	REV
B	DD	11/34-0	

DIST

EN-01062-1A-16-R972-(325)

DRB 106

10

1 — UNIT ASSY 11/34
E/D-UA-11/34-0-0
C-PL-11/34-0-0

2 — 11/34 CPU
B-DD-KD11-E

3 — UNIBUS
TERM BOOT STRAP
B-DD-M9301-Ø

4 — UNIBUS TERM
SACK TURNAROUND
D-CS-M9302-Ø-1

5 — GRANT CONTINUITY
B-CS-G727-Ø-1

6 — SERIAL LINE
LINE CLOCK (DL11-W)
D-CS-M7856-Ø-1

7 — PARITY
MEMORY MODULE
D-CS-M7859-Ø-1

8 — CONSOLE OPERATORS
B-DD-KY11-LA

9 — MEMORY, MOS
16K PARITY
B-DD-MS11-E

10 — MTG BOX
10 1/2
B-DD-BA11-K

11 — BACK PLANE
11/34 9 SLOT
B-DD-DD11-P

12 — COVER PANEL
5 1/4 (H959Ø-P)
D-DT-H959Ø-Ø-1

14 — SHIPPING BRACKET
ASSY (BA11-K)
D-IA-7010059-0-0

15 — BOX, MTG 5.25
B-DD-BA11-L

16 — MEMORY CORE
16 K SENSE PARITY
B-DD-MM11-D

* 17 — INPLANT PKG.
INSTRUCTIONS
A-SP-3700197-0-0

* 18 — CUSTOM CUSHIONED
PKG. INSTR.
A-SP-3700061-0-0

* 19 — CUSHION CONSOLIDATED
LOAD ASSY
A-SP-3700134-0-0

** 20 — INPLANT PKG.
INSTRUCTIONS
A-SP-3700235-0-0

** 21 — SKID LOAD PKG.
INSTRUCTIONS
A-SP-3700165-0-0

** 22 — CUSTOM CUSHIONED
PKG. INSTR.
A-SP-3700169-0-0

* 23 — SHIPPING LIST
11/34 (5.25)
A-PL-11/34-0-3

* * 24 — SHIPPING LIST
11/34 (10.5)
A-PL-11/34-0-4

* Used for 5.25" (BA11-L) only
** Used for 10.5" (BA11-K) only

TITLE		SIZE	CODE	NUMBER	REV
UNIT ASSY 11/34	SHEET 3 OF 6	B	DD	11/34-Ø	D

11

DRB 107
DEC 16 - (325)-1062-3-N676

ELECTRICAL (SECTION 1)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		1	E/D-UA-11/34-0-0	F	1	UNIT ASSY 11/34	
			B-MU-DD11-P-2		REF	MODULE UTILIZATION (DD11-P)	
			D-IA-7008360-0-0		1	CABLE TTY	
			D-IA-7011992-0-0		1	CONSOLE POWER HARNESS	
			C-IA-7011413-0-0		1	CABLE, EXTERNAL BOOT	
			C-IA-7011411-0-0		1	CABLE, CONSOLE, BACKPLANE	
		2	B-DD-KD11-E		2	11/34 CPU	
		3	B-DD-M93Ø1-Ø			UNIBUS TERMINATOR BOOT STRAP	
		4	D-CS-M93Ø2-Ø-1		2	UNIBUS TERM. SACK TURN AROUND	
		5	B-CS-G727-Ø-1		1	GRANT CONTINUITY	

ELECTRICAL (SECTION 1)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		6	D-CS-M7856-Ø-1		9	SERIAL LINE/LINE CLOCK (DL11-W)	
		7	D-CS-M785Ø-Ø-1		3	PARITY MEMORY MODULE	
		8	B-DD-KY11-LA		2	CONSOLE OPERATORS	
		9	B-DD-MS11-E		2	MEMORY MOS 16K PARITY	
		10	B-DD-BA11-K		4	MTG BOX 10 1/2	
		11	B-DD-DD11-P		3	BACK PLANE 11/34 9 SLOT	
		15	B-DD-BA11-L		4	BOX, MTG 5.25	
		16	B-DD-MM11-D		2	MEM CORE, 16K SENSE PARITY	

CUSTOMER PRINT SET CODES
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
UNIT ASSY 11/3[illegible]	4 OF 6	B	DD	11/34-0	D

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MECHANICAL (SECTION 2)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		1	MPØØØ44		REF	PRINT SET ORDER NO. 5.25	
			B-TC-11/34-Ø-1		REF	FIELD MAINTENANCE PRINT SET 5.25	
			MPØØØ82		REF	PRINT SET ORDER NO. 10.50	
			B-TC-11/34-Ø-2		REF	FIELD MAINTENANCE PRINT SET 10.50	
			E/D-UA-11/34-Ø-Ø	F	3	UNIT ASSY 11/34	
			C-PL-11/34-Ø-Ø	F	2	UNIT ASSY 11/34 (PL)	
			D-IA-7011992-0-0		1	CONSOLE, POWER HARNESS	
			A-DC-7409478-0-0		1	DECAL, PATENT	
			B-DC-7414727-0-0		1	DECAL, STICKER 11/34	
			C-IA-7011413-0-0		1	CABLE, EXTERNAL BOOT M93Ø1	
			C-IA-7011414-0-0		1	CABLE, CONSOLE/BACKPLANE	
			D-IA-7008860-0-0		1	CABLE, TTY	
			A-DC-7415501-0-0		1	DECAL, MODULE	
			A-PS-3613210-0-0		2	LABEL, ELECTRICAL DATA	

MECHANICAL (SECTION 2)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		2	B-DD-KD11-E		2	11/34 CPU	
		3	B-DD-M93Ø1-Ø			UNIBUS TERMINATOR BOOT STRAP	
		4	D-CS-M93Ø2-Ø-1		2	UNIBUS TERM. SACK TURN AROUND	
			K-CO-M93Ø2-Ø-4		-	X-Y COORDINATE HOLE LOCATION	
			D-AH-M93Ø2-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
			B-MH-M93Ø2-Ø-6		1	MODULE ECO HISTORY	
			5011311		REF	ETCHED CIRCUIT BOARD	
		5	B-CS-G727-Ø-1		1	GRANT CONTINUITY	
		6	D-CS-M7856-Ø-1		9	SERIAL LINE/LINE CLOCK (DL11-W)	
			K-CO-M7856-Ø-4		-	X-Y COORDINATE HOLE LOCATION	
			D-AH-M7856-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
			B-MH-M7856-Ø-6		1	MODULE ECO HISTORY	
			5011464		REF	ETCHED CIRCUIT BOARD	
		7	D-CS-M785Ø-Ø-1		3	PARITY MEMORY MODULE	
			K-CO-M785Ø-Ø-4		-	X-Y COORDINATE HOLE LOCATION	
			D-AH-M785Ø-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
			B-MH-M785Ø-Ø-6		1	MODULE ECO HISTORY	
			5010651		REF	ETCHED CIRCUIT BOARD	
		8	B-DD-KY11-LA		2	CONSOLE OPERATORS	

CUSTOMER PRINT SET CODES
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE: UNIT ASSY 11/34

SHEET 5 OF 6 | SIZE: B | CODE: DD | NUMBER: 11/34-Ø | REV: D

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digital EN-01062-2B-16-R972-(325)

MECHANICAL (SECTION 2)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		9	B-DD-MS11-E		2	MEMORY MOS 16K PARITY	
		10	B-DD-BA11-K		4	MTG BOX 10 1/2	
		11	B-DD-DD11-P		3	BACK PLANE 11/34 9 SLOT	
		13	D-DI-H95Ø-Ø-1		1	COVER PANEL 5 1/4 (H95Ø-P)	
		14	D-IA-7010059-0-0		1	SHIPPING BRACKET ASSY (BA11-K)	
			C-MD-7412190-0-0		1	SHIPPING BRACKET PT1	
			D-MD-7412131-0-0		1	SHIPPING BRACKET PT2	
		15	B-DD-BA11-L		4	BOX, MTG 5.25	
		16	B-DD-MM11-F		2	MEMORY CORE 16K SENSE PARITY	

MECHANICAL (SECTION 2)

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		17	A-SP-3700235-0-0		3	INPLANT PKG. INSTRUCTIONS	
			A-PS-9905650-0-0		2	REGULAR SLOTTED CARTON	
			A-PS-9905889-0-0		2	BEZEL PROTECTOR	
			A-PS-9905644-0-0		2	REAR PAD	
			A-PS-9905323-0-0		2	LAMINATED SADDLE	
			A-PS-9905129-0-0		4	POLY BAG	
		18	A-SP-3700165-0-0		4	SKID LOAD PKG. INSTRUCTIONS	
			A-PS-1210568-01-0		2	CUSHIONED SKID	
			A-PS-9905445-0-0		2	HALF OVERLAP SLOTTED CARTON (TOP)	
			A-PS-9905419-0-0		2	FLANGED TUBE (BOTTOM)	
		19	A-SP-3700169-0-0		2	CUST. CUSHIONED PKG. INSTRUCTIONS	
			A-PS-9905645-0-0		2	FULL TELESCOPE	
			A-PS-9905642-0-0		2	FOAM, PAD	
			A-PS-9905643-0-0		2	FOAM/CORRUGATED SIDE WALL ASSY	
		20	A-SP-3700197-0-0		3	INPLANT PKG. INSTRUCTIONS	
			A-PS-9905418-0-0		2	REGULAR SLOTTED CARTON	
			A-PS-9905754-0-0		2	BEZEL PROTECTOR	
			A-PS-9905755-0-0		2	LAMINATED SADDLE	
			A-PS-9905129-0-0		2	POLY BAG	
			A-PS-9905729-0-0		2	TAPE	
		21	A-SP-3700061-0-0		4	CUSTOM CUSHIONED PKG. INSTR.	
		22	A-SP-3700134-0-0		4	CUSHION CONSOLIDATED LOAD ASSY	
		23	A-PL-11/34-0-3		1	SHIPPING LIST 11/34 (5.25)	
		24	A-PL-11/34-0-4		1	SHIPPING LIST 11/34 (10.5)	

CUSTOMER PRINT SET CODES
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
UNIT ASSY 11/34	6 OF 6	B	DD	11/34-0	D

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FIELD MAINTENANCE PRINT SET

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KD11-E CONTROL	D-CS-M7266-Ø-1

UNIT VARIATIONS COVERED BY THIS PRINT SET
KD11-E

KD11-E

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØØ43

REVISIONS	REV.	CHG. NO.	DATE

EN-01124-16-N675-(327)

DRB 124

USED ON OPTION/MODEL	
11/34	

SHEET I OF 1

DRN. D. HEALY	DATE 12/29/75	digital
CHK'D D. HEALY	DATE 12/29/75	TITLE: FIELD MAINTENANCE PRINT SET KD11-E
PROJ. ENG.	DATE 2/7	
FIELD SERV.	DATE 3/4/76	

SIZE	CODE	NUMBER	REV.
B	TC	KD11-E-3	
DIST.			

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I. R. (K2-6)
LOAD IR
IR DECODE (K2-6)
AUX ALU CONTROL (K2-5)
ALU <3:0>
M-BRANCH CONTROL (K2-6)
BUT DECODE (K2-3, K2-7)
CLOCK (K1-5)
PROC CLK
REG CLK
CONTROL STORE ROM (K2-8, K2-9)
CONTROL STORE REGISTER (K2-8, K2-9)
CONTROL SIGNALS
BUS CONTROL (K2-1, K2-2)
D/R

BX MODE <1:0>
B MODE <1:0>
BX REG (K1-1 → K1-4)
B REG (K1-1 → K1-4)
+1
+16
CC DATA
PSW MUX (K1-1, K1-4)
B MUX (K1-1 → K1-4)
SPM (K1-1 → K1-4)
AUX CONTROL
BLEG <1:0>
LOAD PSW
PSW (K1-1, K1-2, K1-4)
SPAM (K2-4)
PBA IRS IRD ROM
B
A
ALU (K1-1 → K1-4)
MODE
ALUS (3:0)
CIN
CONSTANTS
AMUX S<1:0>
AMUX (K1-1 → K1-4)
CC LOGIC (K1-1, K2-5)
CC DATA
SWAP
SEX
SS MUX (K1-1 → K1-4)
D/R

PDR (K1-7)
PSW VBA
ERROR LOGIC (K1-8)
VBA
SR2 (K1-9)
SR Ø (K1-8)
PAR (K1-7)
KT SRØ
PAR+PDR
MUX ENAB
KT MUX (K1-9)
VBA (K1-6)
+
H
L
S
BA (K1-6)
D/A
PBA
RELOCATE

UNIBUS

REVISIONS	REV.	CHANGE NO.	CHK.

DRN.		1-28-76
CHK'D		1-28-76
ENG.		
PROJ. ENG.		1-28-76
PROD.		1-28-76
NEXT HIGHER ASSY.		
SCALE		
SHEET	1 OF 1	

FIRST USED ON 20-08-0

TITLE: BLOCK DIAGRAM (KDII-E)

SIZE	CODE	NUMBER	REV.
D	BD	KDII-E-2	

DIST.

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KDII-E CONTROL WORD

E118				E117				E116				E115				E114				E96				E94				E95				E97				E112				E111				E113			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0

← INTEGRATED CIRCUIT DESIGNATION

← NORMAL CONDITION OF EACH BIT

- ROM SPA H (R17)
- FORCE KERNEL H (NOP)
- BUT SERVICE H (NOP)
- PREVIOUS MODE L (NOP)
- FORCE RS V I L (NOP)
- SPA DST SEL H (RBA)
- SPA SRC SEL H (ROM)
- BUT BITS (NOP)
- AMUX CONTROL H (ALU)
- SSMUX CONTROL H (STRT)
- B,BX,OVX,DBE CONTROL H (HOLD)
- ALU,BLEG CONTROL H (A)
- AUX CONTROL H (NOP)
- LONGCYCLE L (SHORT)
- LOAD BAR (NOP)
- ENAB MAINT H (NOP)
- BUS CONTROL H (DATI)
- DATA TRAN H (NO TRANS)
- MISCELLANEOUS CONTROL H (NOP)
- NEXT MPC ADDRESS H (NO DEFALT)

ROM SPA LINES

REG. SELECTED	ROM SPA 46	ROM SPA 45	ROM SPA 46	ROM SPA 47
R5	1	0	1	0
R6 (SP)	1	0	0	1
R7 (PC)	1	0	0	0
R10	0	1	1	1
R11	0	1	1	0
R12	0	1	0	1
R13	0	1	0	0
R14	0	0	1	1
R15	0	0	1	0
R16	0	0	0	1
R17	0	0	0	0

SPA DST SEL

FIELD SEL.	SPA DST SEL 38	SPA DST SEL 39
ROM	0	0
RS	0	1
RD	1	0
RBA	1	1

SPA SRC SEL

FIELD SEL.	SPA SRC SEL 36	SPA SRC SEL 37
ROM	0	0
RS	0	1
RD	1	0
RBA	1	1

BUT BITS

BRANCH COND.	BITS 32	BITS 33	BITS 34	BITS 35
NOP	0	0	0	0
N BIT	0	0	0	1
Z BIT	0	0	1	0
C05	0	0	1	1
IR9	0	1	0	0
BX02	0	1	0	1
BX01	0	1	1	0
COUT	0	1	1	1
SP15	1	0	0	0
NBIT + ZBIT	1	0	0	1
BX00 + SP15	1	0	1	0
BX01 + BX00	1	0	1	1
C05 + BX01 + BX02	1	1	0	0
NBIT + C05	1	1	0	1
BX00 + C05	1	1	1	0
ALL	1	1	1	1

AMUX CONTROL

SELECT	AMUX 30	AMUX 31
PSW	0	0
ALU	0	1
VECT	1	0
UBUS	1	1

SS MUX CONTROL

SELECT	SS 28	SS 29
STR	0	0
SEX	0	1
SWAB	1	0
EXTRNL	1	1

ALU/BLEG CONTROL

ALU FUNCTION	ALU/BLEG CNTRL 19	20	21	22	23
ZERO	0	0	0	0	0
ABAR	0	0	0	0	1
A+1	0	0	0	1	0
A-1	0	0	0	1	1
A-B	0	0	1	0	0
A	0	0	1	0	1
B	0	0	1	1	0
ONE BAR	0	0	1	1	1
A+B	0	1	0	0	0
A-B	0	1	0	0	1
ABAR-B	0	1	0	1	0
AVB	0	1	0	1	1
A*B	0	1	1	0	0
A-BBAR	0	1	1	0	1
A16	0	1	1	1	0
A+B+1	1	0	0	0	0
A+BX	1	0	0	0	1
A-BX	1	0	0	1	0
A-BX+1	1	0	0	1	1
A+2	1	0	1	0	0
A-2	1	0	1	0	1
A+A	1	0	1	1	0
BX	1	0	1	1	1
BBAR	1	1	0	0	0
BXBAR	1	1	0	0	1
A+A+1	1	1	0	1	0

B,BX,OVX,DBE CONTROL

OPERATION	B,BX CNTRL 24	25	26	27
HOLD	0	0	0	0
LOAD B	0	0	0	1
LOAD BX	0	0	1	0
SL(BX-0),LDB	0	0	1	1
SL(BX-COUT),LDB	0	1	0	0
SL(BX-1),LDB	0	1	0	1
SL(B-0)	0	1	1	0
SL(B-0),LDBX	0	1	1	1
SL(B-BX15)	1	0	0	0
SL(BX-0)	1	0	0	1
SL(BX-1)	1	0	1	0
SL(BX-OVX)	1	0	1	1
SL(BX-COUT)	1	1	0	0
SL(B-BX-0)	1	1	0	1
SR(BIS-B-BX)	1	1	1	0
ENAB DBE	1	1	1	1

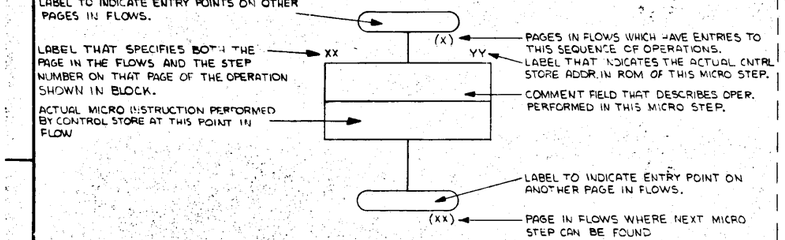
BUS CONTROL

OPERATION	CNTRL 13	CNTRL 14
DATI	0	0
DATIP	0	1
DATO	1	0
DATOB	1	1

MISC. CONTROL

OPERATION	MISC. 9	MISC. 10	MISC. 11
NOP	0	0	0
LOAD IR	0	0	1
LOAD PSW	0	1	0
LOAD CC	0	1	1
BUT DEST	1	0	0
ENABSTOV	1	0	1
LOAD CNT	1	1	0
COUNT	1	1	1

DEFINITION OF FLOW SYMBOLS



A "1" IN THE TABLES SHOWN INDICATES A LOGIC "1" ROM OUTPUT BETWEEN +2.4 VOLTS AND +5.0 VOLTS.
A "0" IN THE TABLES SHOWN INDICATES A LOGIC "0" ROM OUTPUT BETWEEN 0.0 VOLTS AND +0.4 VOLTS.
NOTE THAT ALL LEVELS SHOWN REPRESENT ACTUAL CONTROL STORE ROM OUTPUTS.

REVISIONS | REV | CHANGE NO. | CHK

DEC FORM NO. DRD 102-C

FIRST USED ON OPTION/MODEL

PARTS LIST | QTY. | DESCRIPTION | PART NO. | ITEM NO.

DIMENSIONAL TOLERANCE
DIMENSIONS ARE MILLIMETERS / INCHES
UNLESS OTHERWISE SPECIFIED

MILLIMETERS	INCHES	ANGLES
X.XX = ±0.10	.XXX = ±.005	±0° 30'
X.X = ±0.5	.XX = ±.02	
X = ±2.	.X = ±.1	

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL —

FINISH —

DRN.		DATE 11/6/75
CHK'D.		DATE 1-28-76
ENG.		DATE
PROJ. ENG.		DATE 1-28-76
PROD.		DATE 1-28-76

NEXT HIGHER ASSY.

SCALE —

SHEET 1 OF 26

digital

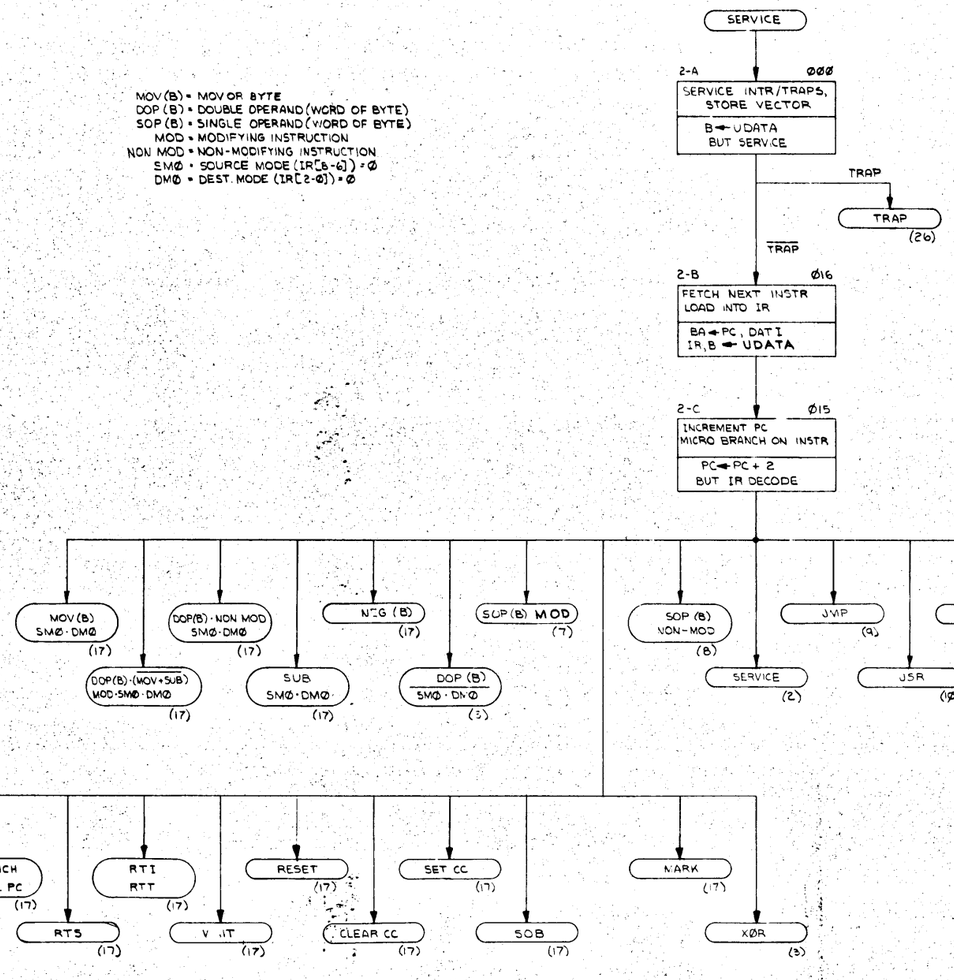
TITLE: KDII-E FLOW DIAGRAMS

SIZE	CODE	NUMBER	REV.
D	FD	KDII-E-1	

DIST.

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MOV(B) = MOV OR BYTE
DOP(B) = DOUBLE OPERAND (WORD OF BYTE)
SOP(B) = SINGLE OPERAND (WORD OF BYTE)
MOD = MODIFYING INSTRUCTION
NON MOD = NON-MODIFYING INSTRUCTION
SMØ = SOURCE MODE (IR[5-6]) = Ø
DMØ = DEST. MODE (IR[2-Ø]) = Ø



NOTE: SERVICE ALWAYS EXECUTED BEFORE FETCHING NEXT INSTRUCTION. VECTOR ALWAYS LOADED, ONLY USED WHEN TRAP SEQUENCE ENTERED.

REVISIONS		
CHK	CHANGE NO.	REV.

T.TLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 2 OF 26	DIST.		

DEC FORM NO. DRD 138

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DOP
SMØ, DMØ
(2)

SMØ | SM1 | SM4 | SM2 | SM3 | SM5 | SM6 | SM7

XOR
(2)

3-A 110
SOURCE OPERAND TO R12 AND BRFG
R12, B ← RS BUT DEST

IF BYTE INSTRUCTION & NOT R6 OR R7, DECREMENT RSRC BY ONE
IF NOT BYTE, DECREMENT RSRC BY TWO

3-C 114
DECREMENT RSRC
ENAB STACK OVERFLOW
RS ← RS − (2)
ENAB STOV

3-B 111
FETCH SOURCE OPERAND
BA ← RS, DATI
R12, B ← (UDATA)
BUT DEST

3D 112
FETCH SOURCE OPERAND
BA ← RS DATI
R12, B ← (UDATA)

3-E 205
INCREMENT RSRC
RS ← RS + (2)
BUT DEST

3F 113
FETCH SOURCE ADDRESS
BA ← RS, DATI
R12 ← UDATA

3G 206
INCREMENT RSRC
RS ← RS + 2

IF BYTE INSTRUCTION & NOT R6 OR R7, INCREMENT RSRC BY ONE. IF NOT BYTE, INCREMENT RSRC BY TWO.

3-H 115
DECREMENT RSRC
ENAB STACK OVERFLOW
RS ← RS − 2
ENAB STOV

3-I 207
FETCH SOURCE ADDR
BA ← R12, DATI
R12 ← UDATA

3-J 211
FETCH SOURCE OPERAND
BA ← R12, DATI
R12, B ← (UDATA)
BUT DEST

3-K 116
FETCH INDEX DATA
BA ← PC, DATI
B ← UDATA

3-L 212
INCREMENT PC
PC ← PC + 2

3M 213
DETERMINE SOURCE ADDR
R12 ← RS + B

3-N 117
FETCH INDEX DATA
BA ← PC, DATI
B ← UDATA

3-O 214
INCREMENT PC
PC ← PC + 2

3-P 215
DETERMINE ADDR OF SOURCE ADDR
R12 ← RS + B

3-Q 216
FETCH SOURCE ADDR
BA ← R12, DATI
R12 ← UDATA

MOV DEST
(SMØ•DMØ)
(4)

DOP DEST
MOD(8) • SUB
(5)

DOP DEST
NON MOD
(6)

REVISIONS
CHK | CHANGE NO. | REV.

TITLE: KDIIE FLOW DIAGRAMS
SIZE: D | CODE: FD | NUMBER: KDII-E-I | REV.
SCALE: —/— | SHEET 3 OF 26 | DIST.

DEC FORM NO. DRD 138

SIZE CODE DFD KDII-E-I REV.

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MOV - DEST
(SMØ·DMØ)
(2)

DMØ | DM1 | DM4 | DM2 | DM3 | DM5 | DM6 | DM7

DMØ AUX
(5,12)

4-A Ø50
OPERATE AND LOAD COND CODES
RD ← (R12 OP B)
LOAD CC

OPERATION PERFORMED DEPENDS ON INSTRUCTION

SERVICE
(2)

IF BYTE INSTRUCTION AND NOT R6 OR R7, DECREMENT RDEST BY ONE.
IF NOT BYTE DECREMENT RDEST BY TWO.

4-C Ø54
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - (2)
ENAB STOV

4-B Ø51
SET UP DEST ADDR
BA ← RD
MAINT

4-P Ø52
SET UP DEST ADDR
INCREMENT RDST
BA ← RD MAINT
RD ← RD + (2)

IF BYTE INSTRUCTION AND NOT R6 OR R7, INCREMENT RDST BY ONE.
IF NOT BYTE, INCREMENT RDEST BY TWO

4-F Ø53
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

4-G 141
INCREMENT RDST
RD ← RD + 2

4-H Ø55
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

4-I 142
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

4-Q 143
SET UP DEST ADDR
ENAB KT MAINT
BA ← R13
MAINT

4-J Ø56
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

4-K 144
INCREMENT PC
PC ← PC + 2

4-L 145
DETERMINE DEST ADDR
R13 ← RD + B

4-M Ø57
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

4-N 146
INCREMENT PC
PC ← PC + 2

4-O 147
DETERMINE ADDR OF DEST. ADDR
R13 ← RD + B

4-P 241
FETCH DEST ADDR
BA ← R13, DATI
R13 ← U DATA

4-E 2:7
GET DEST DATA AND STORE, ENAB KT MAINT
DATO(B)
UDATA ← (R12 OP B)
LOAD CC MAINT

OPERATION PERFORMED DEPENDS ON INSTRUCTION

WRITE, NO LOAD
(5,7,12,13,16)

SERVICE
(2)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE — / — SHEET 4 OF 26	DIST			

DEC FORM NO. DRD 138

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DOP DEST
MOD(B')·SUB
(3,7)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

5-N Ø77
FETCH INDEX DATA
BA←PC, DATI
B←UDATA

5-K Ø76
FETCH INDEX DATA
BA←PC, DATI
B←UDATA

5-O 661
INCREMENT PC
PC←PC+2

5-L 246
INCREMENT PC
PC←PC+2

5-P 261
DETERMINE ADDR OF DEST ADDR
R13←RD+B

5-F Ø73
FETCH DEST ADDR
BA←RD, DATI
R13←UDATA

5-H Ø75
DECREMENT RDST ENAB STACK OVERFLOW
RD←RD-2
ENAB STOV

5-M 247
DETERMINE DEST ADDR.
R13←RD+B

5-Q 262
FETCH DEST ADDR
BA←R13, DATI
R13←UDATA

5-G 243
INCREMENT RDST
RD←RD+2

5-I 244
FETCH DEST ADDR.
BA←RD, DATI
R13←UDATA

IF BYTE INSTRUCTION & NOT R6 OR R7, DECREMENT RDST BY ONE. IF NOT BYTE, DECREMENT BY TWO.

5-C Ø74
DECREMENT RDST ENAB STACK OVERFLOW
RD←RD-(2)
ENAB STOV

5-D Ø72
FETCH DEST. OPERAND
BA←RD, DATIP
R13,B←(UDATA)
MAINT

5-A Ø7Ø
DEST. OPERAND TO BREG
R13, B←RD

5-B Ø71
FETCH DEST. OPERAND
BA←RD, DATIP
R13, B←(UDATA)
MAINT

5-E 242
INCREMENT RDST
RD←RD+(2)

IF BYTE INSTRUCTION & NOT R6 OR R7, INCREMENT RDST BY ONE. IF NOT BYTE, INCREMENT BY TWO.

5-J 245
FETCH DEST OPERAND
BA←R13, DATIP
R13,B←(UDATA)
MAINT

DMØ AUX
(4)

WRITE, NO LOAD
(4)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 5 OF 26	DIST.		

DEC FORM NO. DRD 130

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DOP DEST NON MOD (3)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

IF BYTE INSTRUCTION AND NOT RG OR R7, DECREMENT RDST BY ONE.
IF NOT BYTE, DECREMENT BY TWO

6-A Ø60
DEST. OPERAND TO BREG
R13, B ← RD

6-B Ø61
FETCH DEST OPERAND
BA ← RD, DATI
R13, B ← (U DATA), MAINT

6-C Ø64
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - (2)
ENAB STOV

6-D Ø62
FETCH DEST OPERAND
BA ← RD, DATI
R13B ← (U DATA), MAINT

6-E 263
INCREMENT RDST
RD ← RD + (2)

IF BYTE INSTRUCTION AND NOT RG OR R7, INCREMENT RDST BY ONE.
IF NOT BYTE, INCREMENT BY TWO.

6-F Ø63
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

6-G 264
INCREMENT RDST
RD ← RD + 2

6-H 265
OPERATE AND LOAD COND CODES
R12 OP B
LOAD CC

OPERATION PERFORMED DEPENDS ON INSTRUCTION

NON MOD AUX (8)

SERVICE (2)

6-I Ø65
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

6-J 266
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

6-K 267
FETCH DEST. OPERAND
BA ← R13, DATI
R13B ← (U DATA), MAINT

6-L Ø66
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

6-M 662
INCREMENT PC
PC ← PC + 2

6-N 271
DETERMINE DEST. ADDR
R13 ← RD + B

6-O Ø67
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

6-P 272
INCREMENT PC
PC ← PC + 2

6-Q 273
DETERMINE ADDR OF DEST ADDR
R13 ← RD + B

6-R 274
FETCH DEST ADDR.
BA ← R13, DATI
R13 ← U DATA

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDII E FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 6 OF 26	DIST.		

DEC FORM NO. DRD 138

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SIZE D CODE FD NUMBER KDII-E-1 REV 2

SOP MOD (2)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

7-A 040
OPERATE AND LOAD COND CODES
RD ← (RD OP B) LOAD CC
OPERATION PERFORMED DEPENDS ON INSTRUCTION
SERVICE (2)

7-B 041
FETCH DEST OPERAND
BA ← RD, DATIP
R12 ← (U DATA) MAINT

7-C 044
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - (2) ENAB STOV

IF BYTE INSTRUCTION AND NOT RG OR R7, DECREMENT RDST BY ONE, IF NOT BYTE, DECREMENT BY TWO.

7-D 042
FETCH DEST OPERAND
BA ← RD, DATIP
R12 ← (U DATA), MAINT

7-E 275
INCREMENT RDST
RD ← RD + (2)

IF BYTE INSTRUCTION AND NOT RG OR R7, INCREMENT RDST BY ONE IF NOT BYTE, INCREMENT BY TWO

7-F 043
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

7-G 276
INCREMENT RDST
RD ← RD + 2

7-H 045
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - 2 ENAB STOV

7-I 277
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

7-J 300
FETCH DEST OPERAND
BA ← R12, DATIP
R12 ← (U DATA), MAINT

WRITE, NO LOAD (4)

7-K 046
FETCH INDEX DATA
BA ← PC, DATI
BX ← U DATA

7-L 301
INCREMENT PC
PC ← PC + 2

7-M 302
DETERMINE DEST ADDR
R12 ← RD + BX

7-M 047
FETCH INDEX DATA
BA ← PC, DATI
BX ← U DATA

7-O 303
INCREMENT PC
PC ← PC + 2

7-P 304
DETERMINE ADDR OF DEST. ADDR
R12 ← RD + BX

7-Q 305
FETCH DEST ADDR,
BA ← R12, DATI
R12 ← U DATA

REVISIONS

CHK	CHANGE NO.	REV.

DEC FORM NO. SBD 128

TITLE KDIIE FLOW DIAGRAMS
SCALE — SHEET 7 OF 26
SIZE D CODE FD NUMBER KDII-E-1 REV.
DIST.

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SOP NON-MOD (2)

DMØ DM1 DM4 DM2 DM3 DM5 DM6 DM7

8-A 160
OPERATE ON OPERAND LOAD COND CODES
RD OP B LOAD CC
← OPERATION IS DEPENDENT ON INSTRUCTION BEING PERFORMED
SERVICE (2)

IF BYTE INSTRUCTION AND NOT R6 OR R7, DECREMENT RDST BY ONE.
IF NOT BYTE, DECREMENT RDST BY TWO.

8-B 161
FETCH DEST OPERAND
BA ← RD, DATI
R12 ← (U DATA), MAINT

8-C 164
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - (2)
ENAB STOV

8-D 162
FETCH DEST OPERAND
BA ← RD, DATI
R12 ← (U DATA), MAINT

8-E 306
INCREMENT RDST
RD ← RD + (2)
← IF BYTE INSTRUCTION AND NOT R6 OR R7, INCREMENT RDST BY ONE. IF NOT BYTE, INCREMENT RDST BY TWO.

NON MOD AUX (6)

8-F 163
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

8-G 307
INCREMENT RDST
RD ← RD + 2

8-H 165
DECREMENT RDST ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

8-I 310
FETCH DEST ADDR,
BA ← RD, DATI
R12 ← U DATA

8-J 311
FETCH DEST OPERAND
BA ← R12, DATI
R12 ← (U DATA), MAINT

8-K 166
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

8-L 312
INCREMENT PC
PC ← PC + 2

8-M 313
DETERMINE DEST ADDR
R12 ← RD + B

8-N 167
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

8-O 314
INCREMENT PC
PC ← PC + 2

8-P 315
DETERMINE ADDR, OF DEST ADDR
R12 ← RD + B

8-Q 316
FETCH DEST ADDR
BA ← R12, DATI
R12 ← U DATA

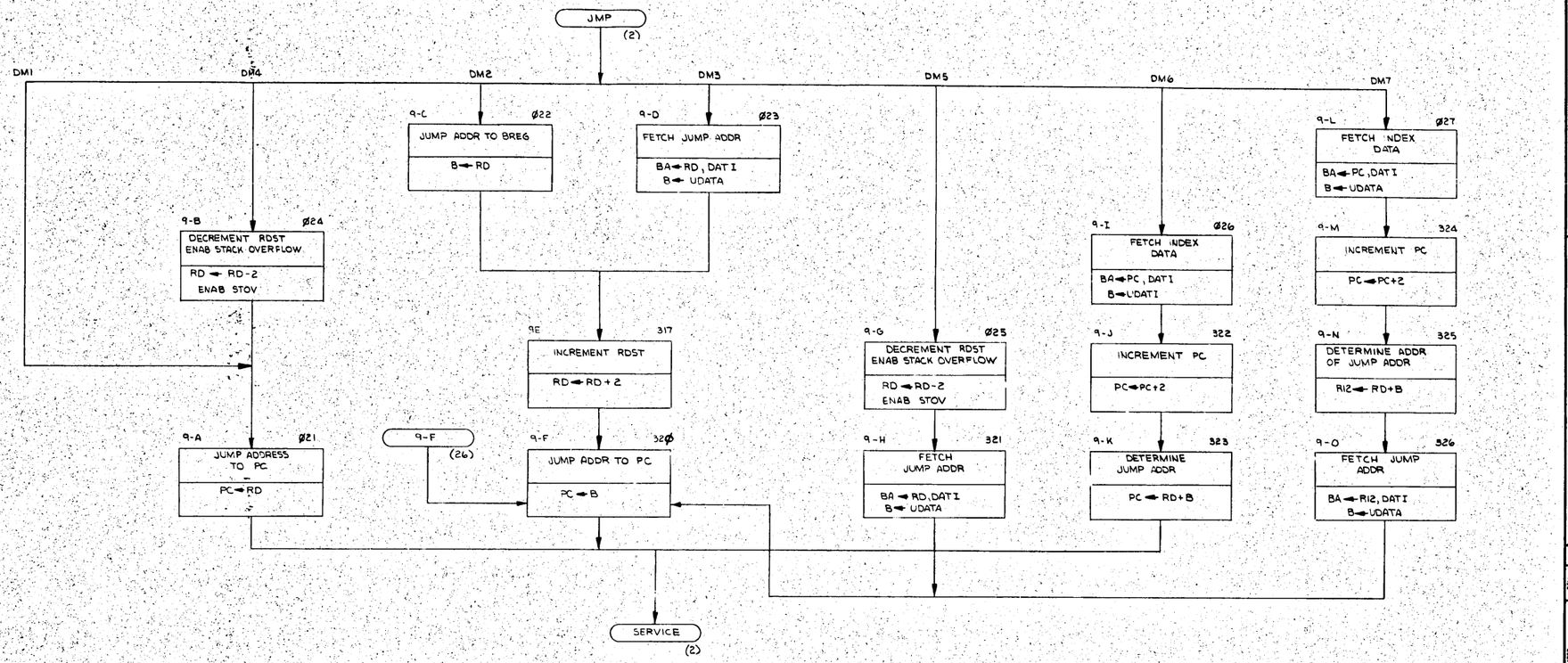
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDII E FLOW DIAGRAM	D	FD	KDII-E-1	
SCALE —	SHEET 8 OF 26	DIST.		

DEC FORM NO. DBD 139

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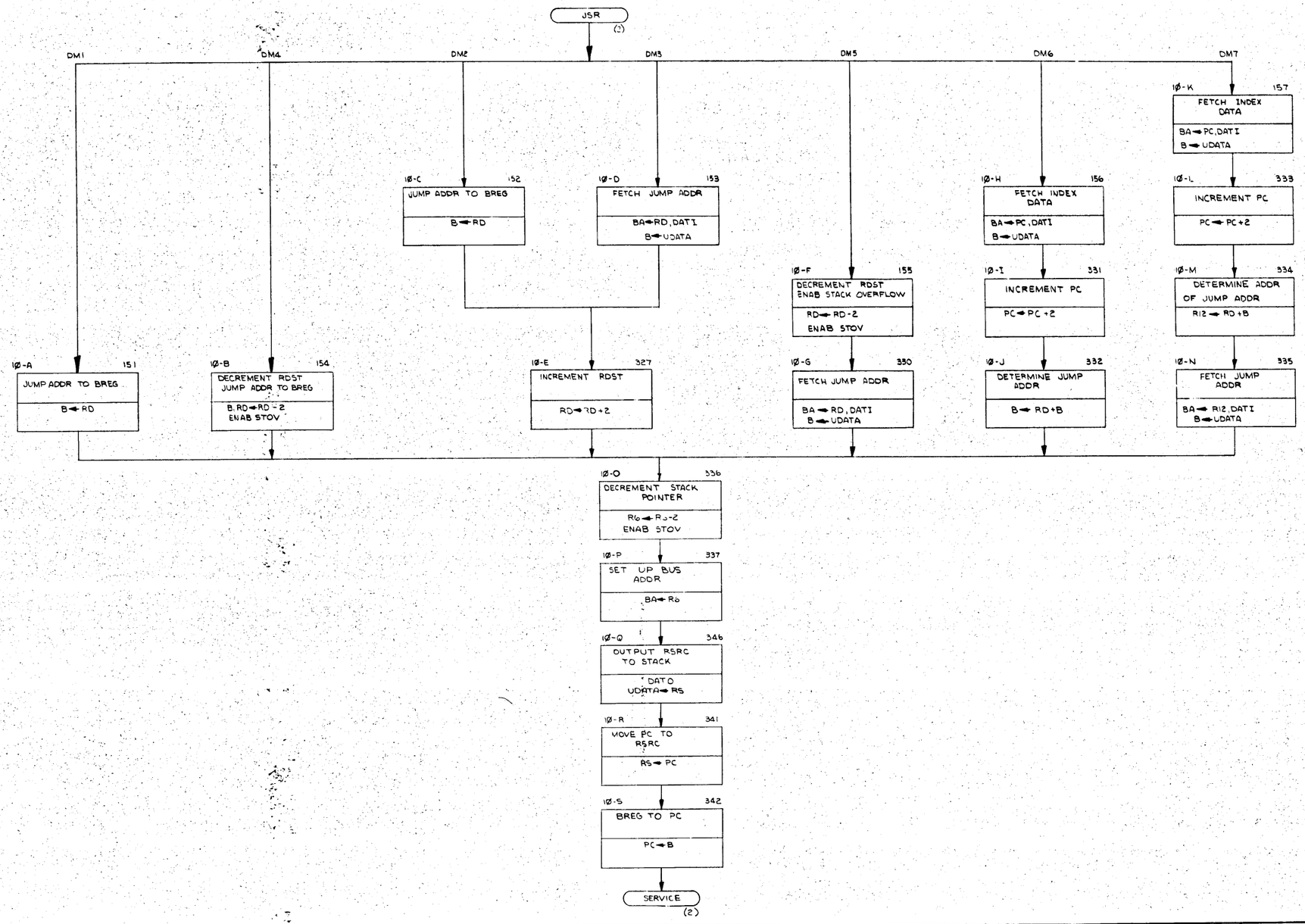
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 9 OF 26	DIST.		

DEC FORM NO. DRD 128

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-I	
SCALE —	SHEET 10 OF 26	DIST.		

DEC FORM NO. DRD 130

26

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SWAB (2)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

11-A 036
SWAPPED DEST OPERAND TO REG 12
R12 ← RD SWAB

11-B 343
LOAD COND CODES
RD ← R12 OP B
LOAD CC

SERVICE (2)

11-D 034
DECREMENT RDST
ENAB. STACK OVERFLOW
RD ← RD - 2
ENAB STOV

11-C 031
FETCH SWAPPED DEST OPERAND
BA ← RD, DATIP
R12 ← UDATA SWAB, MAINT

UPPER AND LOWER BYTES OF UNIBUS DATA ARE SWAPPED DURING INPUT

11-E 032
FETCH SWAPPED DEST OPERAND
BA ← RD, DATIP
R12 ← UDATA SWAB, MAINT

UPPER AND LOWER BYTES OF UNIBUS DATA ARE SWAPPED DURING INPUT

11-F 344
INCREMENT RDST
RD ← RD + 2

11-G 033
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

11-H 345
INCREMENT RDST
RD ← RD + 2

11-I 035
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

11-J 346
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

11-R 354
FETCH SWAPPED DEST OPERAND
BA ← R12 DATIP
R12 ← U DATA SWAB, MAINT

UPPER AND LOWER BYTES OF UNIBUS DATA ARE SWAPPED DURING INPUT

11-S 355
STORE DATA
LOAD COND CODES
DATO, MAINT
U DATA → R12 OP B
LOAD CC

SERVICE (2)

11-K 036
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

11-L 347
INCREMENT PC
PC ← PC + 2

11-M 350
DETERMINE DEST ADDR
R12 ← RD + B

11-N 037
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

11-O 351
INCREMENT PC
PC ← PC + 2

11-P 352
DETERMINE ADDR OF DEST. ADDR.
R12 ← RD + B

11-Q 353
FETCH DEST ADDR
BA ← R12, DATI
R12 ← U DATA

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KD11E FLOW DIAGRAMS	D	FD	KD11-E-1	
SCALE —	SHEET 11 OF 26	DIST.		

DEC FORM NO. DRD 138

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ROT SHIFT (2)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

12-A 170
DEST OPERAND TO BREG
B ← RD

12-B 356
SHIFT OPERAND
B ← B

DM0 AUX (4)

IF BYTE INSTRUCTION AND NOT R6 OR R7, DECREMENT RDST BY ONE
IF NOT BYTE, DECREMENT BY TWO

12-D 174
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD −(2)
ENAB STOV

12-C 171
FETCH DEST OPERAND
BA ← RD, DATIP
R12,B ← (U DATA), MAINT

12-E 172
FETCH DEST OPERAND
BA ← RD, DATIP
R12,B ← (U DATA) MAINT

12-F 375
INCREMENT RDST
RD ← RD + (2)

IF BYTE INSTRUCTION AND NOT R6 OR R7, INCREMENT RDST BY ONE, IF NOT BYTE, INCREMENT BY TWO

12-G 173
FETCH DEST, ADDR
BA ← RD, DATI
R11 ← U DATA

12-H 360
INCREMENT RDST
RD ← RD + 2

12-I 175
DECREMENT RDST
ENAB STACK OVER FLOW
RD ← RD − 2
ENAB STOV

12-J 361
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

12-K 362
FETCH DEST OPERAND
BA ← R12, DATIP
R12,B ← (U DATA) MAINT

12-L 176
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

12-M 363
INCREMENT PC
PC ← PC + 2

12-N 364
DETERMINE DEST ADDR
R12 ← RD + B

12-O 177
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

12-P 365
INCREMENT PC
PC ← PC + 2

12-Q 366
DETERMINE ADDR OF DEST ADDR
R12 ← RD + B

12-R 367
FETCH DEST ADDR
BA ← R12, DATI
R12 ← U DATA

12-S 370
SHIFT OPERAND
B ← B

WRITE, NO LOAD (4)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 12 OF 26	DIST.		

DEC FORM NO. DRD 128

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MFPI (D)
(2)

DM0 | DM1 | DM4 | DM2 | DM3 | DM5 | DM6 | DM7

13-A 100
DEST DATA TO R12
ENAB PREVIOUS MODE
R12 ← RD PREVIOUS

13-B 101
MOVE DEST ADDR TO R12
R12 ← RD

13-C 104
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

13-D 102
MOVE DEST ADDR TO R12
R12 ← RD

13-E 005
FETCH DEST DATA
ENAB PREVIOUS MODE
BA ← R12, DATI
R12,B ← U DATA PREVIOUS

13-F 371
INCREMENT RDST
RD ← RD + 2

13-G 103
FETCH DEST ADDR
BA ← RD, DATI
R12 ← V DATA

13-H 378
INCREMENT RDST
RD ← RD + 2

13-I 105
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

13-J 373
FETCH DEST ADDR
BA ← RD, DATI
R12 ← U DATA

13-K 106
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

13-L 374
INCREMENT PC
PC ← PC + 2

13-M 375
DETERMINE DEST ADDR
R12 ← RD + B

13-N 107
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

13-O 376
INCREMENT PC
PC ← PC + 2

13-P 377
DETERMINE ADDR OF DEST ADDR
R12 ← RD + B

13-Q 643
FETCH DEST ADDR
BA ← R12, DATI
R12 ← U DATA

13-R 455
FETCH DEST DATA
ENAB PREVIOUS MODE
BA ← R12, DATI
R12,B ← U DATA, PREVIOUS

13-S 463
DECREMENT STACK POINTER
RG ← RG - 2
ENAB STOV

13-T 472
SET UP BUS ADDR
PA ← RG
MAINT

WRITE, NOLOAD
(4)

NOTE: PREVIOUS INDICATES THAT THE PREVIOUS (PSW < 13-12>) MEMORY MANAGEMENT MODE IS FORCED.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: KD11E FLOW DIAGRAMS
SIZE: D | CODE: FD | NUMBER: KD11-E-1 | REV.
SCALE: —/—/— | SHEET 13 OF 26 | DIST.

DEC FORM NO. DRD 138

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MTPI (D) (2) 010

14-D
FETCH WORD FROM TOP OF STACK
BA ← R6, DATI
B ← UDATI

14-T 644
MOVE STACK DATA TO R12
R12 ← B

14-E 642
INCREMENT STACK POINTER
R6 ← R6 + 2
BUT DEST

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

14-A 250
MOVE DATA TO DEST REG
RD ← R12 OP B
LOAD CC, PREVIOUS
SERVICE (27)

14-C 254
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

14-B 251
MOVE DEST ADDR TO R13
R13 ← RD

14-F 252
MOVE DEST ADDR TO R 3
R13 ← RD

14-H 253
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

14-G 474
INCREMENT RDST
RD ← RD + 2

14-I 255
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD-2
ENAB STOV

14-J 475
FETCH DEST ADDR
BA ← RD, DATI
R13 ← U DATA

14-K 256
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

14-L 476
INCREMENT PC
PC ← PC+2

14-M 552
DETERMINE DEST ADDR
R13 ← RD + 2

14-N 257
FETCH INDEX DATA
BA ← PC, DATI
B ← U DATA

14-D 506
INCREMENT PC
PC ← PC+2

14-P 510
DETERMINE ADDR OF DEST ADDR
R13 ← RD+B

14-Q 514
FETCH DEST ADDR
BA ← R13, DATI
R13 ← U DATA

14-R 513
SET LP BUS ADDR
ENAB PREVIOUS MODE
BA ← R13
MAINT PREVIOUS

14-S 520
OUTPUT DATA TO DEST ADDR
DATO, UDATA ← R12OPB
LOAD CC
MAINT, PREVIOUS
SERVICE (2)

NOTE: PREVIOUS INDICATES THAT THE PREVIOUS (PSW<13-12>) MEMORY MANAGEMENT MODE IS FORCED

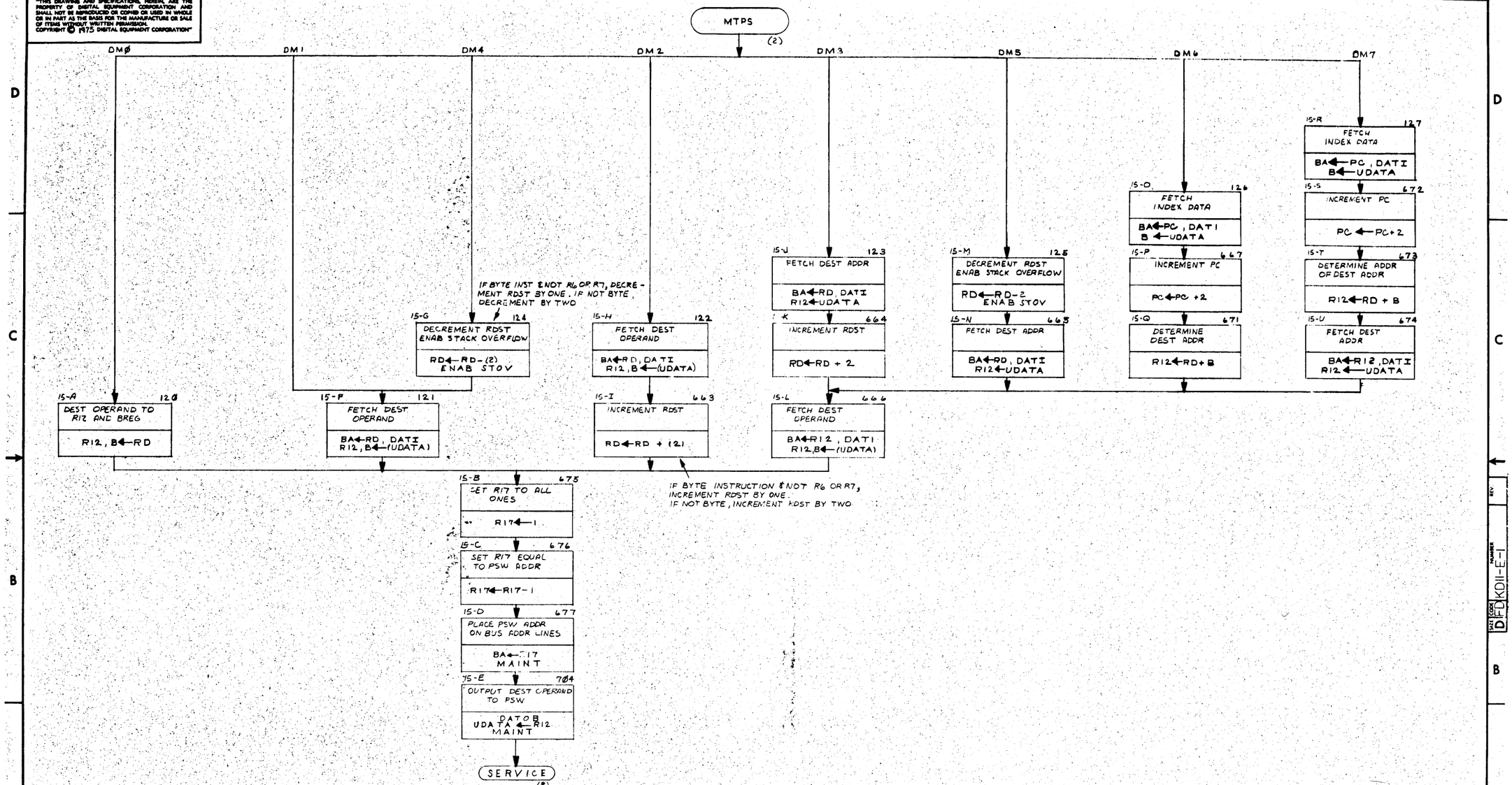
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 14 OF 26	DIST.		

DEC FORM NO. DRD 139

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 15 OF 26	DIST.		

DEC FORM NO. DRD 138

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MFPS (2)

DM0 DM1 DM4 DM2 DM3 DM5 DM6 DM7

16-A 130
PSW DATA TO R12
R12 ← PSW

16-B 705
MOVE R12 TO RDST
RD ← R12 OP B
LOAD CC

SERVICE (2)

16-E 134
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD - 2
ENAB STOV

16-C 131
PLACE DEST ADDR
ON BUS ADDR. LINES
BA ← RD
(MAINT)

16-D 706
MOVE PSW DATA
TO R12
R12 ← PSW

WRITE, NO LOAD (4)

16-F 132
DEST ADDR. TO BUS
INCREMENT RDST
BA ← RD, (MAINT)
RD ← RD+2

16-G 133
FETCH DEST
ADDR
BA ← RD, DATI
R13 ← U DATA

16-H 710
INCREMENT RDST
RD ← RD + 2

16-I 717
PLACE DEST ADDR
ON BUS ADDR LINES
BA ← R13
(MAINT)

16-J 135
DECREMENT RDST
ENAB STACK OVERFLOW
RD ← RD-2
ENAB STOV

16-K 711
FETCH DEST
ADDR
BA ← RD, DATI
R13 ← U DATA

16-L 136
FETCH INDEX
DATA
BA ← PC, DATI
B ← U DATA

16-M 712
INCREMENT PC
PC ← PC+2

16-N 713
DETERMINE
DEST ADDR
R13 ← RD + B

16-O 137
FETCH
INDEX DATA
BA ← PC, DATI
B ← U DATA

16-P 714
INCREMENT PC
PC ← PC+2

16-Q 715
DETERMINE ADDR
OF DEST ADDR
R13 ← RD + B

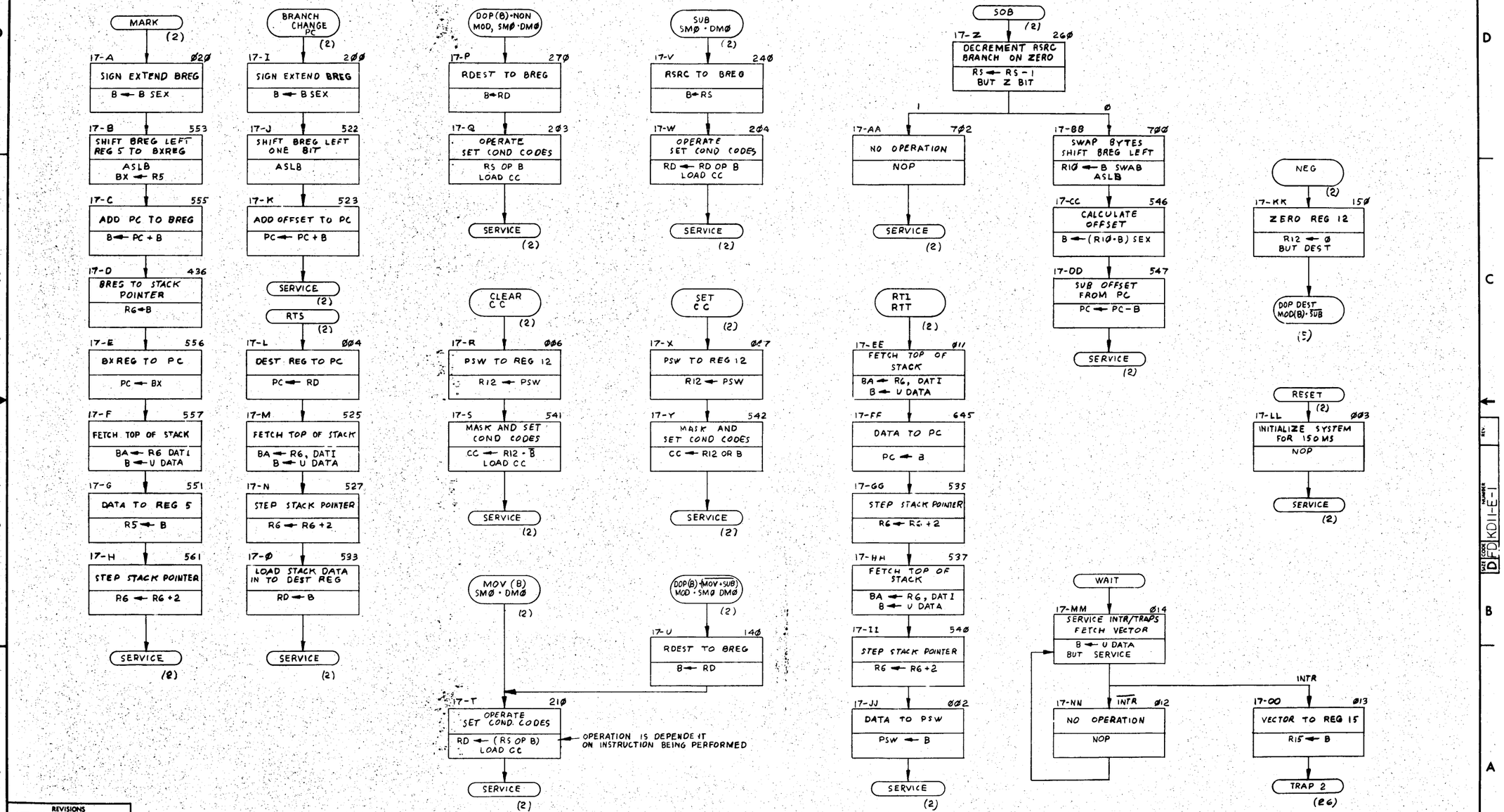
16-R 716
FETCH DEST
ADDR
BA ← R13, DATI
R13 ← U DATA

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 16 OF 26	DIST.		

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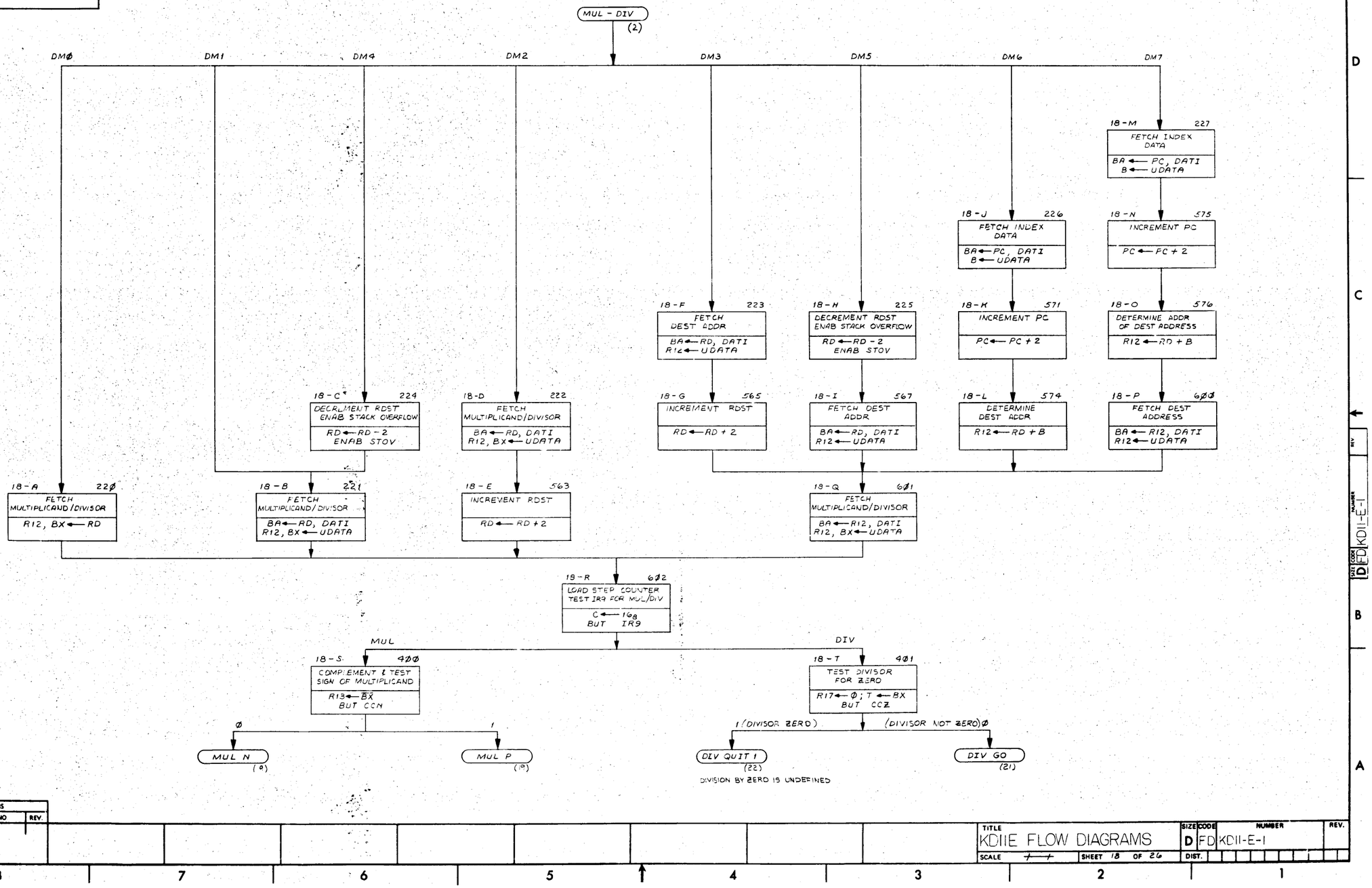


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KD11E FLOW DIAGRAMS	D	FD	KD11-E-1	
SCALE —	SHEET 17 OF 26	DIST.		

DEC FORM NO. DRD 138

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REVISIONS		
CHK	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE — SHEET 18 OF 26	DIST.			

DEC FORM NO. DRD 138

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MUL N (1B)

19-A 402
ZERO R17 AND B
TEST MULTIPLICAND
R17, B ← Ø, T ← R13 + 1 BUT CCN

IF THE TWO'S COMPLEMENT OF THE MULTIPLICAND (R13+1) IS ALSO NEG. THAN THE MULTIPLICAND IS THE MOST NEGATIVE NUMBER

MULTIPLICAND MOST NEG #

19-B 503
PUT MULTIPLIER IN R12 AND TEST SIGN
R12 ← RS BUT CCN

(NEG) 1 — (POS) Ø

19-C 505
PUT ONES COMPLEMENT OF MULTIPLIER IN R13
R13 ← $\overline{RS}$

19-D 405
PUT ONES COMPLEMENT OF MULTIPLIER IN R13
R13 ← $\overline{RS}$

SWAP AND TEST MULTIPLICER

19-E 603
TEST TWO'S COMPLEMENT OF MULTIPLIER
T ← R13 + 1 BUT CCN

19-F 507
SHIFT RIGHT (100000, 100000)
SR (B-BX)

19-G 604
LOAD B AND RS WITH (200 000) ← RS IS UPPER PRODUCT
B, RS ← BX

19-H 605
ZERO LOWER PRODUCT
RSv1 ← Ø

MULTIPLIER MOST NEG # GENERATE ANSWER

SET CC (2Ø)

NOTE THAT MULTIPLICAND IS ALREADY IN BX REG

MUL P (1B)

19-I 502
ZERO R17 AND B
R17, B ← Ø

MULTIPLICAND OK

Ø

19-J 403
PUT MULTIPLIER IN BX REG
BX ← RS

19-K 606
TEST LSB OF BX REG FOR FIRST MUL STEP
NOP BUT BXØØ

Ø — 1

19-L 427
SUB MULTIPLICAND FROM PARTIAL PRODUCT
B ← R13 + B + 1

19-U 407
SEE NOTE #1
SR (B-BX), COUNT BUT C5, BXØ1, BXØØ

19-M 413
SEE NOTE #1
SR (B-BX), COUNT BUT C5, BXØ1, BXØØ

19-N 473
SEE NOTE #1
SR (B-BX), COUNT BUT C5, BXØ1, BXØØ

01Ø	ØØØ	1ØØ	1Ø1	11Ø	111	Ø11	ØØ1
19-O 453		19-P 417	19-Q 437	19-R 457	19-S 477	19-T 433	
SUB MULTIPLICAND FROM PARTIAL PRODUCT		STORE UPPER PRODUCT	STORE UPPER PRODUCT	STORE UPPER PRODUCT	STORE UPPER PRODUCT	ADD MULTIPLICAND TO PARTIAL PRODUCT	
B ← R13 + B + 1		RS ← B	RS ← B	RS ← B	RS ← B	B ← R12 + B	

STORE LP (23)

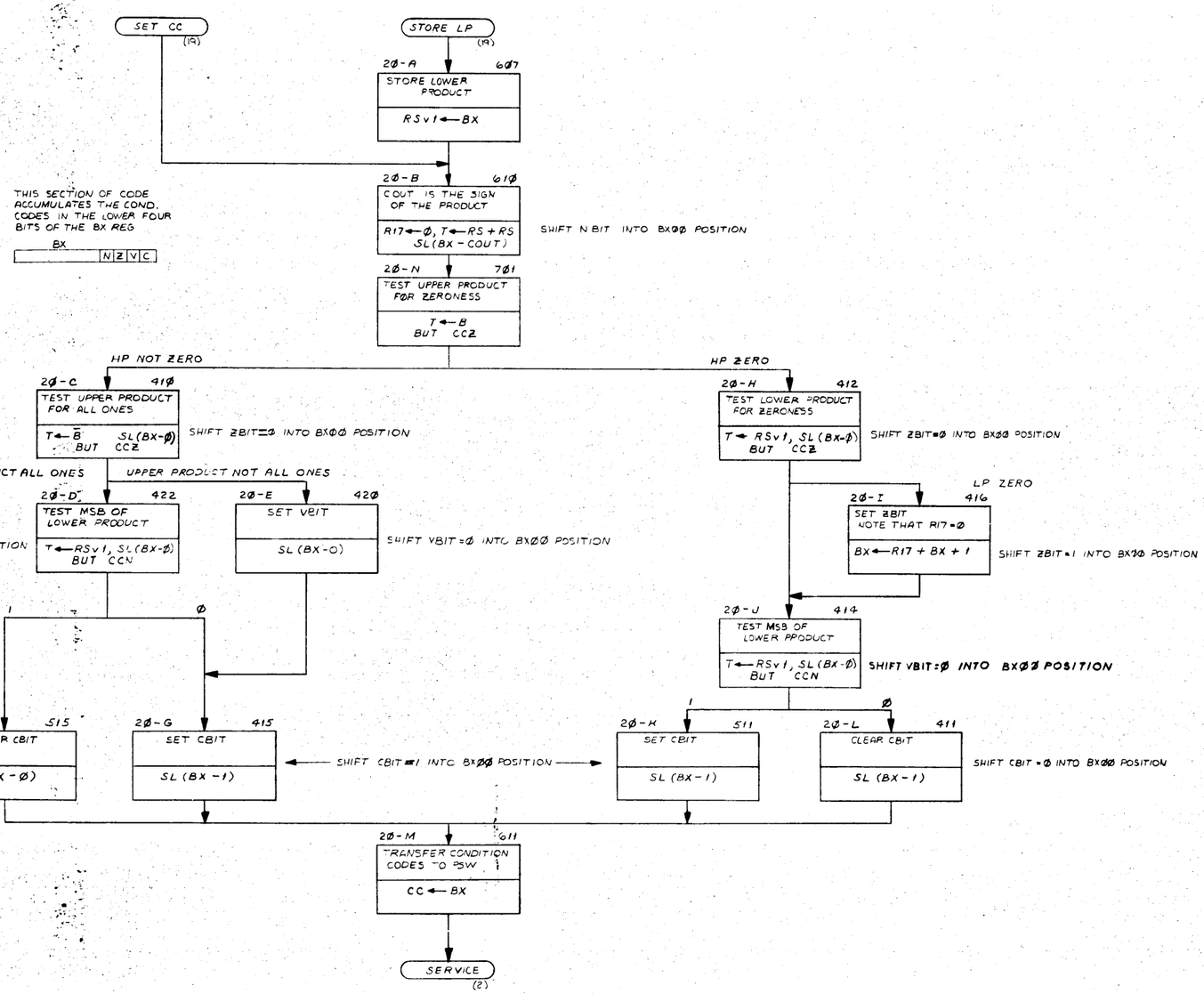
NOTE 1: SHIFT RIGHT (PARTIAL PRODUCT, MULTIPLIER) DECREMENT COUNTER
TEST LOWER BITS OF MULTIPLIER AND SIGN OF COUNTER TO DETERMINE NEXT OPERATION
NOTE THAT THE REDUNDENCY OF 19-U, 19-M AND 19-N IS NECESSARY DUE TO CONSTRAINTS OF MICRO BRANCHING.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 19 OF 26	DIST.		

DEC FORM NO. DRD 138

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 20 OF 26	DIST.		

DEC FORM NO. 8202 1/20

DFKDII-E-1

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DIV GO
(18)

21-A 4Ø4
PUT ONE'S COMPLEMENT OF DIVISOR IN R13
R13 ← B̄X

21-B 612
FETCH UPPER DIVIDEND AND TEST SIGN
B ← R5
BUT CCN

DIVIDEND NEGATIVE (1)

21-C 521
FETCH LOWER DIVIDEND
BX ← RSV 1

21-D 613
TAKE TWO'S COMPLEMENT OF LOWER DIVIDEND
BX ← R17 − BX
BUT COUT

NOTE THAT R17 IS ZERO

1

21-E 623
TAKE TWO'S COMPLIMENT OF UPPER DIVIDEND
B ← R17 − B
BUT CCN

DIVIDEND MOST NEG NUMBER

DIV QUIT 2
(22)

Ø

21-F 423
TAKE ONES COMPLEMENT OF UPPER DIVIDEND
B ← B̄

DIVIDEND POSITIVE Ø

21-L 421
FETCH LOWER DIVIDEND
BX ← RSV 1

DIVIDEND OK

21-M Ø24
SHIFT UPPER DIVIDEND LEFT-TEST SIGN OF DIVISOR
SL/B-BX15), T ← R12
BUT CCN

FIRST DIVIDE STEP

DIVISOR NEG

21-N 435
SUB DIVISOR FROM DIVIDEND, TEST REMAINDER
B ← B − R12, SL (BX, COUT)
BUT CCZ

DIVISOR POS

21-O 425
SUB DIVISOR FROM DIVIDEND-TEST REMAINDER
B ← B+R13+1, SL(BX-COUT)
BUT CCZ

EXECUTION WILL BE TERMINATED AFTER THE FIRST DIVIDE STEP, IF THE REMAINDER IS NOT ZERO AND THE FIRST QUOTIENT BIT IS A ONE.

1 1

Ø

21-P 44Ø
TEST FIRST QUOTIENT BIT
NOP
BUT BXØØ

DIV QUIT 3
(22)

Ø

IF BXØØ = 1 (LSB OF QUOTIENT) THAN THE REMAINDER IS POSITIVE AND THE DIVISOR IS SUBTRACTED

IF BXØØ = Ø (LSB OF QUOTIENT) THAN THE REMAINDER IS NEGATIVE AND THE DIVISOR IS ADDED

21-G 442
SHIFT REMAINDER LEFT
TEST SIGN OF DIVISOR
TEST LSB OF QUOTIENT
T ← R12, SL(B-BX15), COUNT
BUT BXØØ, CCN

1Ø 11 ØØ Ø1

21-H 66Ø
SUB DIVISOR FROM REMAINDER = TEST COUNTER SIGN
B ← B+R13+1, SL (BX-COUT)
BUT CØ5

21-I 67Ø
SUB DIVISOR FROM REMAINDER
TEST COUNTER SIGN
B ← B+R12, SL (BX-COUT)
BUT CØ5

21-J 64Ø
ADD DIVISOR TO REMAINDER
TEST COUNTER SIGN
B ← B+R12, SL (BX-COUT)
BUT CØ5

21-K 65Ø
ADD DIVISOR TO REMAINDER
TEST COUNTER SIGN
B ← B+R13+1, SL (BX-COUT)
BUT CØ5

DIVIDE LOOP

THE PROCESSOR WILL SEQUENCE THROUGH THIS LOOP 15 TIMES

1

CONTINUE
(22)

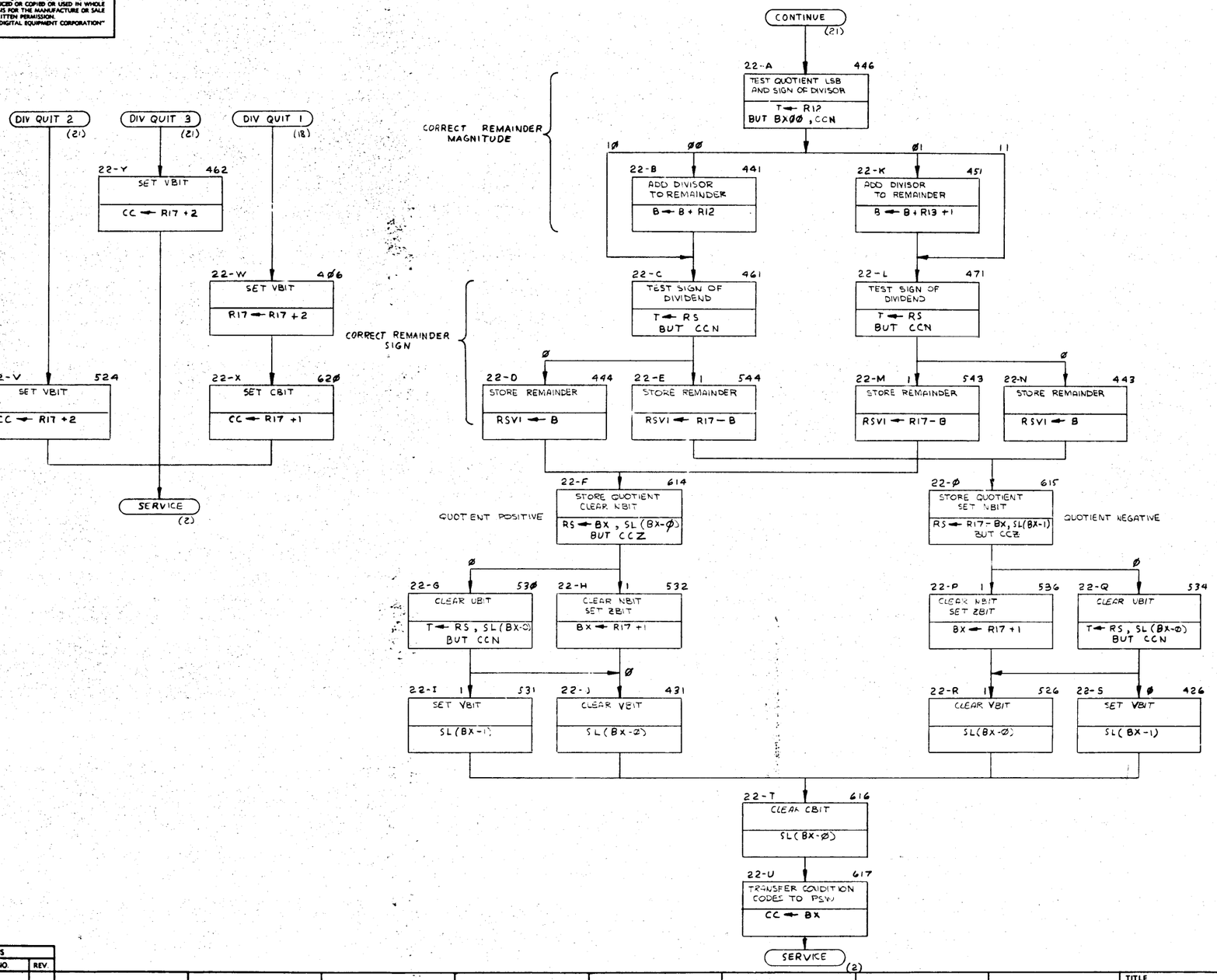
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 21 OF 26	DIST.		

BBI FORM NO. DRD 130

37

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REVISIONS

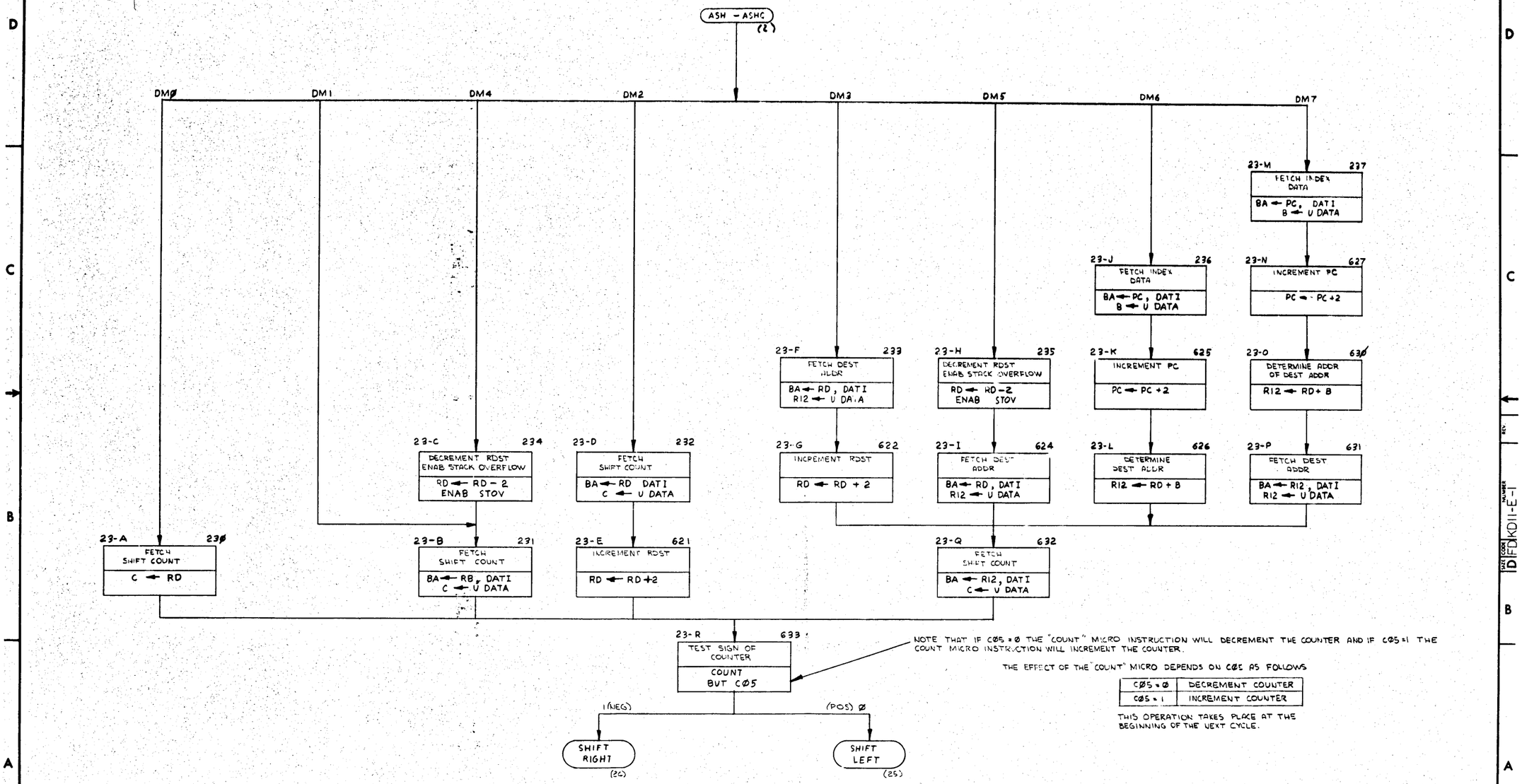
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE —	SHEET 22 OF 26	DIST.		

DEC FORM NO. 5100 120

38

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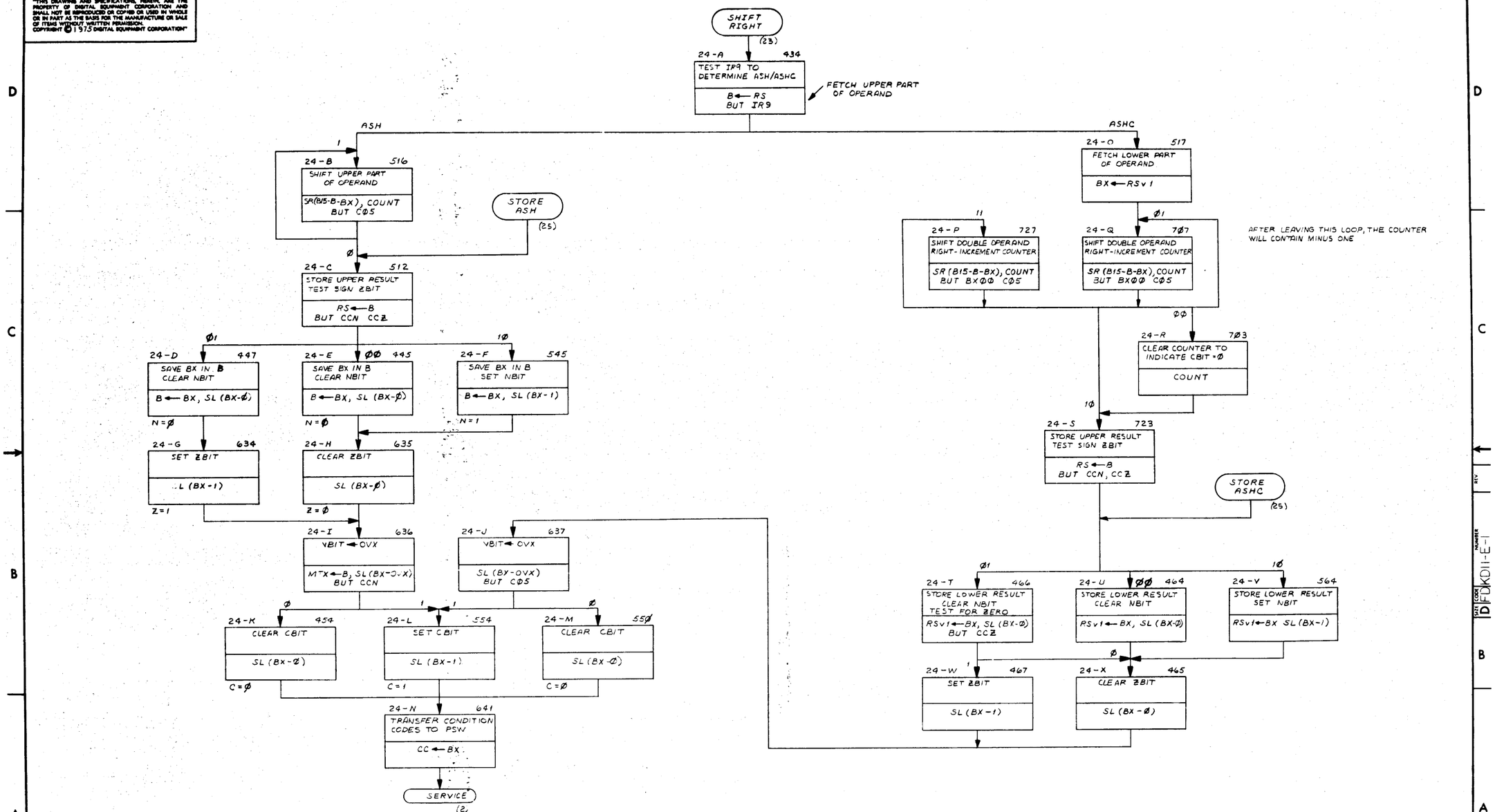


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 23 OF 26	DIST.		

DEC FORM NO. DRD 138

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 24 OF 26	DIST.		

DEC FORM NO. DRD 139

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SHIFT LEFT (23)

25-A 430
TEST COUNTER FOR ZERONESS
B ← RS, COUNT BUT C Ø 5

FETCH UPPER PART OF OPERAND

COUNTER ZERO - NO SHIFT

25-B 456
TEST IR9 TO DETERMINE ASH/ASHC
BX ← RSV I BUT IR9

FETCH LOWER PART OF OPERAND

ASH

ASHC

25-C 500
CLEAR BX TO INDICATE CBIT = Ø
BX ← Ø

STORE ASH (24)

25-M 501
NO OPERATION GO TO 25-N
NOP

{ COUNTER IS ZERO WHICH INDICATES CBIT = Ø WHEN ENTERING STORE ASHC }

25-D 452
TEST IR9 TO DETERMINE ASH/ASHC
BX ← RSVI BUT IR9

FETCH LOWER PART OF OPERAND

ASHC 1

Ø ASH

25-E 653
SHIFT DOUBLE OPERAND LEFT-DECREMENT COUNTER
RI7 ← B,SL(B-BX-Ø),COUNT BUT C Ø 5

AFTER LEAVING THIS LOOP THE COUNTER WILL BE ZERO AND RI7 BIT IS CONTAINS THE CARRY OUT OF THE LAST SHIFT

25-F 1 657
TEST RI7 TO DETERMINE CBIT
T ← RI7 BUT CCN

25-G 1 751
SET COUNTER TO INDICATE CBIT = 1
COUNT

25-N 651
STORE UPPER RESULT TEST SIGN 2BIT
RS ← B BUT CCN, CCZ

STORE ASHC (24)

25-H 652
ZERO BX SO THAT ZERO'S SHIFT INTO B
BX ← Ø

25-I 753
SHIFT SINGLE OPERAND LEFT-DECREMENT COUNTER
RI7 ← B,SL(B-BX-Ø) COUNT BUT C Ø 5

25-J 1 757
TEST RI7 TO DETERMINE CBIT
T ← RI7 BUT CCN

25-K Ø 655
CLEAR BX TO INDICATE CBIT = Ø
BX ← Ø

25-L 1 755
SET BX TO INDICATE CBIT = 1
BX ← MINUS 1

STORE ASH (24)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 25 OF 26	DIST.		

DEC FORM NO. DIND 138

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PWR UP

26-M 001
MOVE PC TO BREG
B ← PC

26-N 432
MOVE PC TO R5
R5 ← B

26-O 731
CLEAR THE PC
R7 ← Ø

26-P 733
TEST FOR ZERO PC
T ← R7 BUT ZBIT

Ø → 26-HH 720
CLEAR INSTR REG TO HALT PROCESSOR
IR ← Ø
ERR (26)

1 → 26-Q 722
PUT ALL ONES IN PC
R7 ← R7-1

26-R 734
TEST FOR ZERO PC
T ← R7 BUT ZBIT

1 → 26-II 726
CLEAR INSTR REG TO HALT PROCESSOR
IR ← Ø
ERR (26)

Ø → 26-S 724
MOVE ALL ONES TO BREG
B ← MINUS 1

26-T 735
EXCLUSIVE OR PC AND 1 REG
R7 ← R7 ⊕ B BUT ZBIT

Ø → 26-JJ 730
CLEAR INSTR REG TO HALT PROCESSOR
IR ← Ø
ERR (2G)

1 → 26-U 732
MOVE 16_8 TO COUNTER
C ← 16

26-V 736
CLEAR BREG
B ← R7 + B + 1

26-W 743
PUT $(ØØØØØ1)_8$ IN BREG
B ← R7 + B + 1

26-X 737
MOVE BREG TO BXREG
BX ← B

26-Y 742
ADD R7 AND BXREG DECREMENT COUNT
R7 ← R7 + BX COUNT BUT C05

WHEN COUNTER IS DECREMENTED 16 TIMES BRANCH OUT OF LOOP TO STEP 26-AA OTHERWISE CONTINUE IN LOOP 26-X,Y-Y AND 26-Z

Ø → 26-Z 721
SHIFT BREG LEFT ZERO LEAST SIG BREG,BIT
SL(B-Ø)

1 → 26-AA 725
INCREMENT PC BRANCH ON COUT
R7 ← R7 + 1 BUT COUT

Ø → 26-KK 540
CLEAR INST REG TO HALT PROCESSOR
IR ← Ø

ERR (26)

26-LL 741
NO OPERATION
NOP
SERVICE (2)

1 → BB 740
CLEAR R15
R15 ← Ø

CC 647
ADD TWO TO R15
R15 ← R15 + 2

DD 654
SET R15 EQUAL TO $(ØØØØ5)_8$
R15 ← R15 + R15 + 1

EE 656
SET R15 EQUAL TO $(ØØCØ13)_8$
R15 ← R15 + R15 + 1

FF 2Ø1
SET R15 EQUAL TO $(ØØCØ26)_8$
R15 ← R15 + R15

GG 2Ø2
FETCH NEW PS
BA ← R15, DATI
PSW ← UDATA

26-K 577
DECREMENT VECTOR ADDR
R15 ← R15-2

26-L 646
FETCH NEW PC
BA ← R15, DATI
B ← UDATA
KERNEL

9-F (9)

26-G 566
OUTPUT OLD PSW ENAB DOUBLE BUS ERRORS
DITO
UDATA ← B
ENAB DBE

26-H 570
DECREMENT SP ENAB STACK OVERFLOW
R6 ← R6-2
ENAB STOV

26-I 572
PLACE SP ADDR ON BUS ADDR LINES
BA ← R6

26-J 573
PUSH OLD PC ON STACK
DATO
UDATA ← PC

TRAP (2)

26-A Ø17
MOVE VECTOR TO R15
R15 ← B

TRAP 2 (17)

26-B 46Ø
MOVE PSW TO BREG
B ← PSW

26-C 477Ø
INCREMENT VECTOR ADDR
R15 ← R15-2

26-D 504
FETCH NEW PSW
BA ← R15, DATI
PSW ← UDATA
KERNAL

26-E 56Ø
R6 ← R6-2
ENAB STOV
DECREMENT SP
ENAB STACK OVERFLOW

26-F 562
PLACE SP ADDR ON BUS ADDR LINES
BA ← R6

REVISIONS		
CHK	CHANGE NO.	REV.

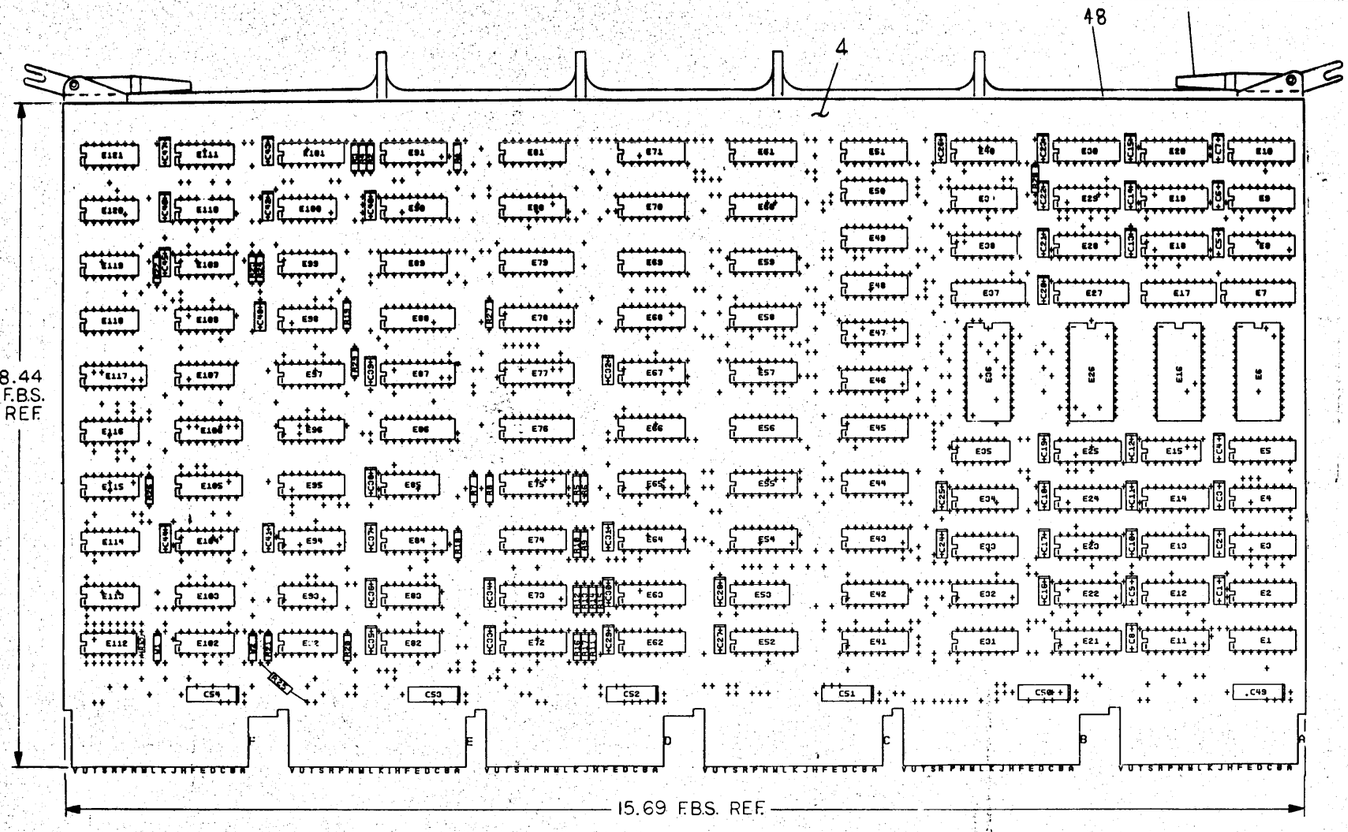
TITLE	SIZE	CODE	NUMBER	REV.
KDIIE FLOW DIAGRAMS	D	FD	KDII-E-1	
SCALE	SHEET 26 OF 26	DIST.		

DEC FORM NO. DRD 138

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NOTES:

2	E82, E83	IC DEC 74S37	1912746-00	51
1	E75	IC 256X4 BIT ROM OC	2316TA2	52
1	E81	IC 256X4 BIT ROM OC	2316SA2	53
1	E84	IC 256X4 BIT ROM OC	2316GA2	54
1	E105	IC 256X4 BIT ROM TS	2316YA2	55
A/R		WIRE, 30AWG GREEN	9105740-55	56
1	E112	IC DEC 74S64	1910542-00	57



REF				ITEM NO.
REF		X-Y COORDINATE HOLE LOCATION	K-CO-M7265-B-4	1
REF		ASSY DRILLING HOLE LAYOUT	D-AM-M7265-B-5	2
REF		MODULE ECO HISTORY	B-MM-M7265-B-6	3
1		ETCHED CIRCUIT BOARD	5011820	4
47	C1 THRU C47	CAPACITOR, .01uf, 100V, 20%	1001810-01	5
6	C49 THRU C54	CAPACITOR, 6.8uf, 35V, 10%	1005306	6
1	C48	CAPACITOR, 220pf, 100V, 5%	1000021	7
1		HANDLE, HEX MODULE	1210111-03	8
19	R1 THRU R19	RESISTOR, 470 OHM, 1/4W, 5%	1300318	9
8	R20 THRU R23, R26 THRU R29	RESISTOR, 1K, 1/4W, 5%	1300365	10
1	R24	RESISTOR, 47 OHM, 1/4W, 5%	1300202	11
2	R25, R30 (RETROFIT)	RESISTOR, 220 OHM, 1/4W, 5%	1300271	12
1	E102	DELAY LINE, 150 NS	1812483	13
1	E120	I.C. DEC 7432	1911521	14
1	E121	I.C. DEC 7410	1909578	15
2	E99, E100	I.C. DEC 7402	1909804	16
1	E115	I.C. DEC 7404	1909886	17
2	E104, E110	I.C. DEC 7408	1910155	18
1	E108	I.C. DEC 7400	1905575	19
1	E118	I.C. DEC 74132	1911637	20
2	E53, E85	I.C. DEC 7430	1905578	21
1	E114	I.C. DEC 7437	1910091	22
2	E98, E107	I.C. DEC 74S74	1910344	23
2	E80, E81	I.C. DEC 7485	1910284	24
1	E113	I.C. DEC 7408	1910011	25
9	E1, E11, E21, E31, E41, E42, E52, E82, E83	I.C. DEC 8641	1911579	26
2	E15, E35	I.C. DEC 8815	1909713	27
3	E5, E8, E117	I.C. DEC 74153	1909937	28
5	E18, E28, E38, E90, E91	I.C. DEC 74157	1910855	29
4	E49, E50, E51, E71	I.C. DEC 74174	1910852	30
3	E80, E97, E101	I.C. DEC 74175	1910851	31
9	E9, E10, E19, E20, E29, E30, E39, E40	I.C. DEC 74194	1910023	32
3	E44, E55, E85	I.C. DEC 7483-A	1909932-01	33
3	E43, E54, E84	I.C. DEC 74298	1911271	34
1	E109	I.C. DEC 74H01-1	1909849	35
3	E93, E111, E116	I.C. DEC 74S00	1910532	36
1	E103	I.C. DEC 74S04	1910534	37
10	E3, E4, E12, E13, E23, E24, E32, E33, E34, E45	I.C. DEC 74S153	1910547	38
8	E2, E14, E22, E70, E89, E94, E96, E106	I.C. DEC 74S157	1910548	39
3	E46, E47, E48	I.C. DEC 74S174	1910550	40
4	E6, E16, E26, E36	I.C. DEC 74S181	1910531	41
1	E25	I.C. DEC 74S182	1912097	42
8	E56, E57, E58, E59, E66, E67, E68, E69	I.C. DEC 74LS253	1912646	43
11	E7, E17, E27, E37, E76, E77, E78, E79, E86, E87, E88	I.C. DEC 85S68	1912586	44
2	E92, E119	I.C. DEC 74S10	1910538	45
1	E95	I.C. DEC 74S175	1910957	46
2	E72, E73,	I.C. 256 X 4 BIT ROM OC	2316MA2	47
12		EYELET (HANDLE)	9006732	48
2	W1, W2	WIRE, JUMPER (INSULATED)	9009185	49
1	E74	I.C. 256 X 4 BIT ROM OC	2316GA2	50
QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV. C

FIRST USED ON OPTION MODEL

I.C. DEC 74S181	12	24				
I.C. DEC 74S157	8	16				
I.C. DEC 74S153	8	16				
I.C. DEC 74S175	8	16				
I.C. DEC 85S68	8	16				
I.C. DEC 74187	8	16				
I.C. DEC 74194	8	16	I.C DEC 74S174	8	16	
I.C. DEC 74157	8	16	I.C DEC 74298	8	16	
I.C. DEC 74175	8	16	I.C DEC 74174	8	16	
I.C. DEC 74153	8	16	I.C. DEC 7483	12		5
I.C. DEC 7485	8	16	I.C. DEC 74S182	8	16	
I.C. DEC 8641	8	16	I.C. DEC 74LS253	8	16	
IC TYPE	GND	+5V	IC TYPE	GND	+5V	-5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REV.	REVISIONS	CHK	DATE
C	CHANGE NO. M7265-00001	EJE	2-AUG-76
D	CHANGE NO. M7265-00002	GAF	13-SEP-76

Rev Remarks 1-DEC-76 B. BERNSTEIN
J. BLOEM

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN. J. Vincent	DATE 10-23-75	digital
CHK'D	DATE 12-1-75	
ENG'D	DATE 12-1-75	TITLE KDIIE DATA PATH
MFG ENG.	DATE 12-1-75	
PROD.	DATE 12-1-75	
NEXT HIGHER ASSY		SIZE D CODE CS NUMBER M7265-0-1 REV. D
SCALE		DIST.
SHEET 1 OF 11		

DEC FORM NO. DRD 136.0

43

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K1-1Ø ENAB GR L
K1-5 TAP 3Ø H
K1-1Ø GEN REG L
74SØØ E93
K1-1 OUTPUT STORE L
K2-4 SP WRITE L
K1-5 REG CLK H
CLK WE OS OD
85S68 E7 SPM
K1-1 SSMUX Ø3 H
K1-1 SSMUX Ø2 H
K1-1 SSMUX Ø1 H
K1-1 SSMUX ØØ H
A3 A2 A1 A0
M3(1) M2(1) M1(1) MØ(1)
K1-1 SP Ø3 (1) H
K1-1 SP Ø2 (1) H
K1-1 SP Ø1 (1) H
K1-1 SP ØØ (1) H
K2-4 SPA Ø3 H
K2-4 SPA Ø2 H
K2-4 SPA Ø1 H
K2-4 SPA ØØ H
DD2 DL1 DB2 DF2
K1-2 BREG Ø4 (1) H
K2-8 BMODE ØØ L
K2-8 BMODE Ø1 L
DE1 CU2
S1 SØ DSR
74194 E9 BREG
D0 D1 D2 D3
R0(1) R1(1) R2(1) R3(1)
K1-1 BREG Ø3 (1) H
K1-1 BREG Ø2 H
K1-1 BREG Ø1 H
K1-1 BREG ØØ (1) H
DM1
CLR CLK DSL
+3VC
K1-5 PROC CLK L
K1-1Ø SHIFT IN B H
K1-2 BXREG Ø4 (1) H
K2-8 BXMODE ØØ L
K2-8 BXMODE Ø1 L
ER2 ES2
S1 SØ DSR
74194 E10 BX REG
K1-1 SSMUX Ø3 H
K1-1 SSMUX Ø2 H
K1-1 SSMUX Ø1 H
K1-1 SSMUX ØØ H
D0 D1 D2 D3
R0(1) R1(1) R2(1) R3(1)
K1-1 BXREG Ø3 (1) H
DF1 K1-1 BXREG Ø1 (1) H
CU1 K1-1 BXREG ØØ (1) H
CLR CLK DSL
+3VC
K1-5 PROC CLK L
K1-1Ø SHIFT IN BX H
B LEG

S1	SØ	F
Ø	Ø	B
Ø	1	BX
1	Ø	Ø
1	1	+1

STB1 STBØ
74153 E8 BMUX
C1 D1 B1 A1 CØ DØ BØ AØ
f1 fØ
S1 SØ
74153 E5 BMUX
K2-8 BLEG Ø1 H
K2-8 BLEG ØØ H
DN1 CV1 CS2 ER1
K2-4 DISABLE MSYN +1
K2-8 AUX CONTROL (1) L
7432 E12Ø
+3VA
7486 E113
K1-1Ø LOAD PS W LOW L
K1-1 ALU COUT 3 L
COUTX 74S182 CIN E23 CARRY GEN
K2-8 ALU CIN L
G0 P0
AB COUT4 G P
74S181 E6 ALU
A3 B3 A2 B2 A1 B1 A0 B0
f3 f2 f1 fØ
S3 S2 S1 SØ M CIN
K2-8 ALU S3 H
K2-8 ALU S2 H
K2-8 ALU S1 H
K2-8 ALU SØ H
K2-8 ALU MODE H
K2-8 ALU CIN L
EF2 EH1 DD1 CV2 CK2 CR2
8815 E15
K1-1 Ø-3 = Ø H
K1-1Ø CC N H
K1-1 SSMUX Ø3 H
K1-1Ø CC Z H
K1-1 SSMUX Ø2 H
K1-1Ø CC V H
K1-1 SSMUX Ø1 H
K1-1Ø CC C H
K1-1 SSMUX ØØ H
74S157 E97 PSW MUX
A0 B0 A1 B1 A2 B2 A3 B3
STB SØ
74S175 E95 PSW
D0 D1 D2 D3
R0(1) R0(Ø) R1(1) R1(Ø) R2(1) R2(Ø) R3(1) R3(Ø)
CLR CLK
EP2 K1-1 N BIT (1) H
EV1 K1-1 Z BIT (1) H
EU2 K1-1 V BIT (1) H
DV1 K1-1 C BIT (1) H
K2-2 PROC INIT L
FD2
K1-5 REG CLK L
7402 E1ØØ
K2-7 LOAD CC L
EF2
7408 E11Ø
K2-7 LOAD PSW L
EN2
7408 E11Ø
K1-1Ø LOAD PSW LOW L
74S157 E2 SSMUX
K1-3 AMUX 11 H
K1-3 AMUX 1Ø H
K1-3 AMUX Ø9 H
K1-3 AMUX Ø8 H
B0 A0 B3 A3 B1 A1 B2 A2
fØ f3 f1 f2
STB SØ
K1-1 SSMUX Ø3 H
K1-1 SSMUX Ø2 H
K1-1 SSMUX Ø1 H
K1-1 SSMUX ØØ H
ED1 ED2 EE1 EB2
K1-1Ø ENAB DATA L
K2-8 SWAP H
CP2
8641 E1
AE2 BUS DØ3 L
AD1 BUS DØ2 L
AD2 BUS DØ1 L
AC1 BUS DØØ L
STB1 STBØ
AMUX 74S153 E3
K2-3 C3 H
CS1
K2-3 C2 H
CL1
A0 C0 B0 A1 C1 D1 B1
K1-1 AMUX Ø3 H
K1-1 AMUX Ø2 H
AMUX 74S153 E4
K1-1 AMUX Ø1 H
K1-1 AMUX ØØ H
K1-1Ø AMUX S1 H
K1-1Ø AMUX SØ H

S1	SØ	F
Ø	Ø	UBUS
Ø	1	K
1	Ø	ALU
1	1	PSW

(DATA PATH Ø-3)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE KDIIE DATA PATH (K1-1)
SIZE D | CODE DCS | NUMBER M7265-Ø-1 | REV D
SCALE | SHEET 2 OF 11 | DIST

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K1-1Ø ENAB GA L
K1-1 OUTPUT STORE L
K2-4 SPWRITE L
K1-5 REG CLK H

85S68 E27 SPM
CLK WE OS OD
D3 D2 D1 DØ
M3(1) M2(1) M1(1) MØ(1)
A3 A2 A1 AØ

K1-2 SSMUX Ø7 H
K1-2 SSMUX Ø6 H
K1-2 SSMUX Ø5 H
K1-2 SSMUX Ø4 H

K1-2 SP Ø7 (1) H
K1-2 SP Ø6 (1) H
K1-2 SP Ø5 (1) H
K1-2 SP Ø4 (1) H

DD2 DL1 DB2 DF2
K2-4 SPA Ø3 H
K2-4 SPA Ø2 H
K2-4 SPA Ø1 H
K2-4 SPA ØØ H

K1-1Ø SHIFT IN Ø7 H
K2-8 BMODE ØØ L
K2-8 BMODE Ø1 L

DE1 CU2

74194 E29 BREG
S1 SØ DSR
DØ D1 D2 D3
RØ(1) R1(1) R2(1) R3(1)
CLR CLK DSL

K1-1 BREG Ø7 (1) H
K1-1 BREG Ø6 (1) H
K1-1 BREG Ø5 (1) H
K1-1 BREG Ø4 (1) H

+3VC
K1-5 PROC CLK L
K1-1 BREG Ø3 (1) H

K1-3 BXREG Ø8 (1) H
K2-8 BXMODE ØØ L
K2-8 BXMODE Ø1 L

ER2 ES2

74194 E30 BX REG
S1 SØ DSR
DØ D1 D2 D3
RØ(1) R1(1) R2(1) R3(1)
CLR CLK DSL

K1-1 BXREG Ø7 (1) H
K1-1 BXREG Ø6 (1) H
K1-1 BXREG Ø5 (1) H
K1-1 BXREG Ø4 (1) H

+3VC
K1-5 PROC CLK L
K1-1 BXREG Ø3 (1) H

K1-2 BLEG Ø7 H

74157 E28 BMUX
B2 A2 B1 A1 B3 A3 BØ AØ
f2 f1 f3 fØ
STB SØ

DN1 CV1
K2-8 BLEG Ø1 H
K2-8 BLEG ØØ H

K1-2 ALU COUT 7 L

COUTY 74S182 E25 CARRY GEN
G1 P1 G2 P2

74S181 E26 ALU
AB COUT4 G P
A3 B3 A2 B2 A1 B1 AØ BØ
f3 f2 f1 fØ
S3 S2 S1 SØ M CIN

K2-8 ALU S3 H
K2-8 ALU S2 H
K2-8 ALU S1 H
K2-8 ALU SØ H
K2-8 ALU MODE H
K1-1 ALU COUT 3 L

EF2 EH1 DD1 CV2 CK2

K1-2 ALU Ø7 H

8815 E35
K1-2 4-7=Ø H

74175 E97 PSW
DØ D1 D2 D3
RØ(1) RØ(Ø) R1(1) R1(Ø) R2(1) R2(Ø) R3(1) R3(Ø)
CLR CLK

EK2 K1-1 PSW Ø7 (1) H
EU1 K1-1 PSW Ø6 (1) H
ET2 K1-1 PSW Ø5 (1) H

K1-2 SSMUX Ø7 H
K1-2 SSMUX Ø6 H
K1-2 SSMUX Ø5 H

K2-2 PROC INIT L
FD2

K1-5 REG CLK L
7402 E100

K1-1Ø LOAD PSW LOW L
7408 E110

K2-6 DISABLE LOAD PSW H
K2-7 LOAD PSW L
FS2 EN2
7432 E120

K1-2 LOAD PSW 12-15 L

74S157 E22 SSMUX
BØ AØ B3 A3 B1 A1 B2 A2
fØ f3 f1 f2
STB SØ

K1-4 AMUX 15 H
K1-4 AMUX 14 H
K1-4 AMUX 13 H
K1-4 AMUX 12 H

K1-2 SSMUX Ø7 H CE2
K1-2 SSMUX Ø6 H CC1
K1-2 SSMUX Ø5 H EH2
K1-2 SSMUX Ø4 H CD1

CP2
K2-8 SWAP H

K1-1Ø ENAB DATA L

8641 E21

AH2 BUS DØ7 L
AF1 BUS DØ6 L
AF2 BUS DØ5 L
AE1 BUS DØ4 L

74S153 E23 AMUX
STB1 STBØ
AØ CØ DØ BØ A1 C1 D1 B1
fØ f1
S1 SØ

#CM2
K2-1 KTE (1) H
#CT2
K2-1 PE (1) H

K1-2 AMUX Ø7 H
K1-2 AMUX Ø6 H

74S153 E24 AMUX
STB1 STBØ
AØ CØ DØ BØ A1 C1 D1 B1
fØ f1
S1 SØ

K1-2 AMUX Ø5 H
K1-2 AMUX Ø4 H

CM2
K2-1 KTE (1) H
CN2
K2-3 C4 H

K1-1Ø AMUX S1 H
K1-1Ø AMUX SØ H

+3VD
K1-2 SSMUX Ø4 H
K1-5 REG CLK L
K2-7 LOAD PSW L
EN2
7402 E99

74S74 E107
D C
DK1
K1-2 TBIT (1) H

K2-2 PROC INIT L
FD2

(DATA PATH 4-7)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	KDIIE DATA PATH (K1-2)			REV. D
SCALE		SHEET 3 OF 11	SIZE D CODE CS NUMBER M7265-0-1	DIST.

DEC FORM NO. DRD 130

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K1-10 ENAB GR L
K1-1 OUTPUT STORE L
K2-4 SP WRITE L
K2-8 DISABLE UPPER BYTE WRITE H
K1-5 REG CLK H
7432 E120
K1-3 WRITE HIGH L

CLK WE OS OD
85S68 E17 SPM
D3 D2 D1 D0
M3(1) M2(1) M1(1) M0(1)
K1-3 SSMUX 11 H
K1-3 SSMUX 10 H
K1-3 SSMUX 09 H
K1-3 SSMUX 08 H
K1-3 SP 11 (1) H
K1-3 SP 10 (1) H
K1-3 SP 09 (1) H
K1-3 SP 08 (1) H
A3 A2 A1 A0
K2-4 SPA 03 H DD2
K2-4 SPA 02 H DD1
K2-4 SPA 01 H DB2
K2-4 SPA 00 H DB1

K1-4 BREG 12 (1) H
K2-8 BMODE 00 L DE1
K2-8 BMODE 01 L CU2
S1 S0 DSR
74194 E19 B REG
D0 D1 D2 D3
R0(1) R1(1) R2(1) R3(1)
K1-3 BREG 11 (1) H
K1-3 BREG 08 (1) H
CLR CLK DSL
+3VC
K1-5 PROC CLK L
K1-2 BREG 07 (1) H

K1-4 BXREG 12 (1) H
K2-8 BXMODE 00 L ER2
K2-8 BXMODE 01 L ES2
74194 E20 BX REG
K1-3 BXREG 11 (1) H
K1-3 BXREG 08 (1) H
K1-5 PROC CLK L
K1-2 BXREG 07 (1) H

74157 E18 BMUX
B2 A2 B1 A1 B3 A3 B0 A0
f2 f1 f3 f0
STB S0
K2-8 BLEG 01 H DN1
K2-8 BLEG 00 H CV1

K1-3 ALU COUT 11 L
COUT
74S182 E25 CARRY GEN
G2 P2
74S181 E16 ALU
AB COUT4 G P
A3 B3 A2 B2 A1 B1 A0 B0
f3 f2 f1 f0
S3 S2 S1 S0 M CIN
K2-8 ALU S3 H EF2
K2-8 ALU S2 H EH1
K2-8 ALU S1 H DD1
K2-8 ALU S0 H CV2
K2-8 ALU MODE H CK2
K1-2 ALU COUT 7 L

K1-10 LOAD PSW HIGH L
K1-2 LOAD PSW 12-15 L
7403 E110
K1-5 REG CLK L
7402 E99
K1-3 LOAD HPSW H

74S157 E14 AMUX
A0 B0 A3 B3 A1 B1 A2 B2
f0 f3 f1 f2
STB S0
K1-10 AMUX S0 H
K1-10 AMUX S1 H
K1-1 AMUX 03 H
8815 E15
K1-3 8-11=0 H
K1-1 AMUX 02 H
K1-1 AMUX 01 H
K1-4 AMUX 15 H
K1-2 AMUX 07 H
K1-1 AMUX 00 H
K2-8 SEX H CL2
K2-9 SWAP H CP2

K1-10 ENAB DATA L
8641 E11
AH2 BUS D11 L
AJ1 BUS D10 L
AJ2 BUS D09 L
AH1 BUS D09 L

STB1 STB0
D0 C0 B0 A0
SSMUX
f0 f1
74S153 E12
D1 C1 B1 A1
S1 S0
K1-3 AMUX 11 H
K1-3 AMUX 10 H
K1-3 AMUX 09 H
K1-3 AMUX 08 H
CF2 K1-3 SSMUX 11 H
CH2 K1-3 SSMUX 10 H
CJ2 K1-3 SSMUX 09 H
EN1 K1-3 SSMUX 08 H
74S153 E13

S1	S0	f
0	0	AMUX
0	1	AMUX SWAP
1	0	AMUX SEX
1	1	AMUX SWAP + SEX

(DATA PATH 8-11)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KD11E DATA PATH (K1-3)	D	CS	M7265-0-1	D
SCALE	SHEET 4 OF 11	DIST.		

DEC FORM NO. SBD 139

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K1-10 ENAB GR L
K1-1 OUTPUT STORE L
K1-3 WRITE HIGH L
K1-5 REG CLK H

85S68 E37 SPM
CLK WE OS OD
D3 D2 D1 D0 — M3(1) M2(1) M1(1) M0(1)
A3 A2 A1 A0
CN1
K1-4 SSMUX 15 H
K1-4 SSMUX 14 H
K1-4 SSMUX 13 H
K1-4 SSMUX 12 H
K1-4 SP 15 (1) H
K1-4 SP 14 (1) H
K1-4 SP 13 (1) H
K1-4 SP 12 (1) H
K2-4 SPA Ø3 H — DD2
K2-4 SPA Ø2 H — DL1
K2-4 SPA Ø1 H — DB2
K2-4 SPA ØØ H — DF2

K1-10 SHIFT IN B H
K2-8 BMODE ØØ L — DE1
K2-8 BMODE Ø1 L — CU2

74194 E39 B REG
S1 S0 DSR
D0 D1 D2 D3 — R0(1) R1(1) R2(1) R3(1)
CLR CLK DSL
K1-4 SSMUX 15 H
K1-4 SSMUX 14 H
K1-4 SSMUX 13 H
K1-4 SSMUX 12 H
K1-4 BREG 15 (1) H
K1-4 BREG 14 (1) H
K1-4 BREG 12 (1) H
+3VC
K1-5 PROC CLK L
K1-3 BREG 11 (1) H

K1-1 BREG ØØ (1) H
K2-8 BX MODE ØØ L — ER2
K2-8 BX MODE Ø1 L — ES2

74194 E40 BX REG
S1 S0 DSR
D0 D1 D2 D3 — R0(1) R1(1) R2(1) R3(1)
CLR CLK DSL
K1-4 SSMUX 15 H
K1-4 SSMUX 14 H
K1-4 SSMUX 13 H
K1-4 SSMUX 12 H
K1-4 BX REG 15 (1) H
K1-4 BX REG 12 (1) H
+3VC
K1-5 PROC CLK L
K1-3 BX REG 11 (1) H

K1-4 BLEG 15 H

74157 E38 BMUX
B2 A2 B1 A1 B3 A3 B0 A0 — f2 f1 f3 f0
STB S0
DN1
CV1
K2-8 BLEG Ø1 H
K2-8 BLEG ØØ H

+3VA
74S00 E116
FL2
K1-4 ALU COUT H

74S181 E36 ALU
A3 B3 A2 B2 A1 B1 A0 B0 — f3 f2 f1 f0
AB COUT G P
S3 S2 S1 S0 M CIN
K1-4 ALU 15 H
EF2
EH1
DD1
CV2
CK2
K2-8 ALU S3 H
K2-8 ALU S2 H
K2-8 ALU S1 H
K2-8 ALU S0 H
K2-8 ALU MODE H
K1-3 ALU COUT 11 L

8815 E35
K1-4 12-15=0 H

74175 E80 PSW
D0 D1 D2 D3 — R0(1) R0(0) R1(1) R1(0) R2(1) R2(0) R3(1) R3(0)
CLR CLK
K1-4 SSMUX 15 H
K1-4 SSMUX 14 H
EE2
K1-4 PSW 15 (1) H
K1-4 PSW 15 (1) L
K1-4 PSW 14 (1) H
K1-4 PSW 13 (1) H
K1-4 PSW 12 (1) H

74157 E90 PSW MUX
B3 A3 B2 A2 B1 A1 B0 A0 — f3 f2 f1 f0
STB S0
K1-4 PSW 15 (1) H
K1-4 SSMUX 13 H
K1-4 PSW 14 (1) H
K1-4 SSMUX 12 H
EK1
K2-9 FORCE KERNEL (1) H
FD2
K2-2 PROC INIT L
K1-3 LOAD HPSW H

8641 E31
K1-10 ENAB DATA L
AM2 B — BUS DI5 L
AL1 B — BUS DI4 L
AL2 B — BUS DI3 L
AK1 B — BUS DI2 L

74S153 E34 AMUX
STB1 STB0
D0 D1 C0 C1 B0 B1 A0 A1 — f0 f1
S1 S0
K1-4 AMUX 15 H
K1-4 AMUX 14 H

74S153 E32 SSMUX
K1-2 AMUX Ø7 H
K1-2 AMUX Ø6 H
CB2
K1-4 SSMUX 15 H
CH1
K1-4 SSMUX 14 H

74S153 E45 AMUX
K1-4 AMUX 13 H
K1-4 AMUX 12 H

74S153 E33 SSMUX
K1-10 AMUX S1 H
K1-10 AMUX S0 H
K1-2 AMUX Ø5 H
K1-2 AMUX Ø4 H
CD2
K1-4 SSMUX 13 H
CU1
K1-4 SSMUX 12 H
CL2
CP2
K2-8 SEX H
K2-8 SWAP H

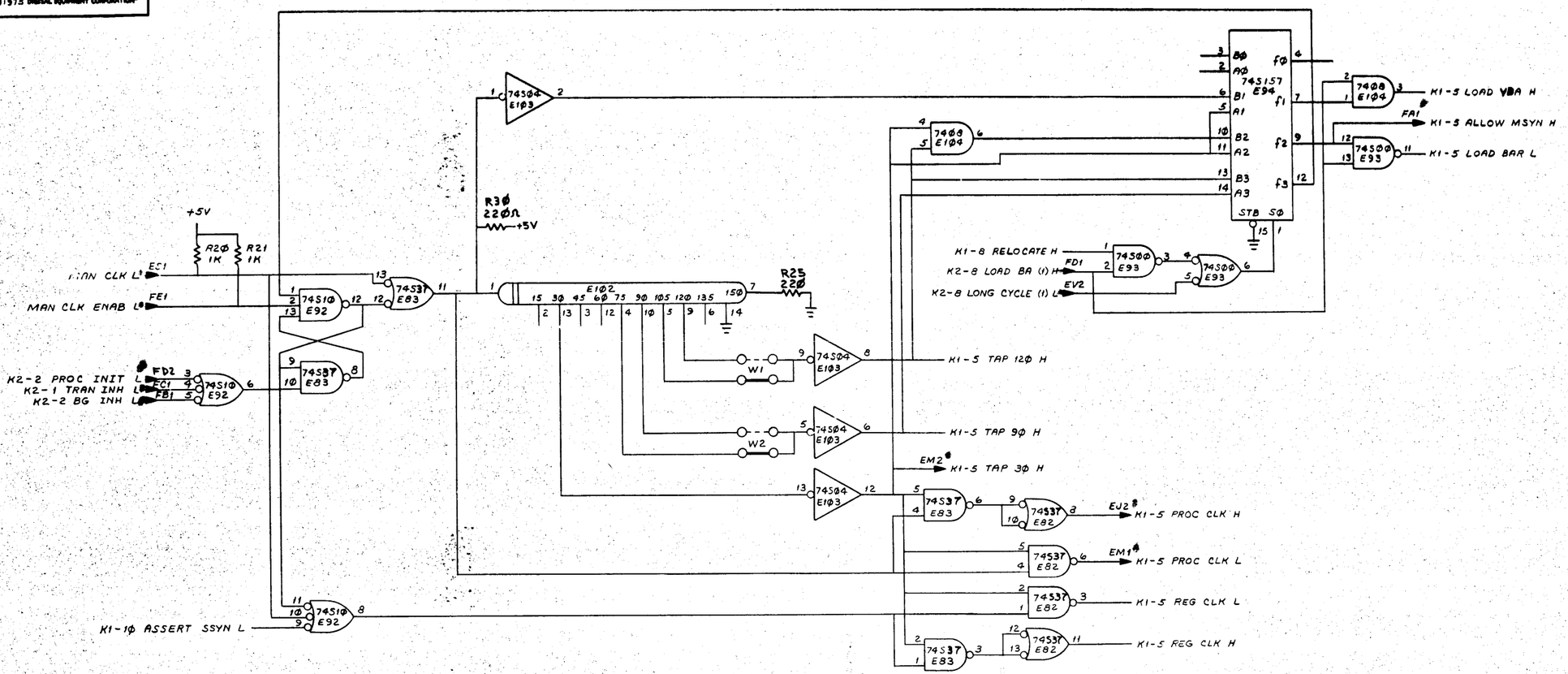
(DATA PATH 12-15)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE DATA PATH (K1-4)	D	CS	M7265-0-1	D
SCALE —	SHEET 5 OF 11	DIST.		

DEC FORM NO. DRD 128

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(CPU CLK)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	KD11E DATA PATH (K1-5)	
SIZE	D	
CODE	CS	
NUMBER	M7265-0-1	
REV.	D	
SCALE	—	
SHEET	6 OF 11	
DIST.		

DEC FORM NO. DRD 128

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74510 E119 — 74504 E103

74298 E43 (BA) — 74298 E54 (BA) — 74298 E64 (BA) — WS CLK

7483 E44 (ADDER) — 7483 E55 (ADDER) — 7483 E65 (ADDER) — C4 / C0

74S174 E48 (VBA) — 74S174 E47 (VBA) — 74S174 E46 (VBA) — CLR CLK

8641 E42 — 8641 E52 — 8641 E63 — 8641 E41 — 8641 E62

(UNIBUS ADDRESS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE DATA PATH (KI-6)	D	CS	M7265-0-1	D
SCALE —	SHEET 7 OF 11	DIST.		

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K1-1Ø LOAD PAR HIGH L
K1-5 REG CLK H
+3VB
85568 E78 PAR
K1-3 SSMUX 11 H
K1-3 SSMUX 1Ø H
K1-3 SSMUX Ø9 H
K1-3 SSMUX Ø8 H
K1-7 PAR 11 (1) H
K1-7 PAR 1Ø (1) H
K1-7 PAR Ø9 (1) H
K1-7 PAR Ø8 (1) H

K1-1Ø LOAD PDR HIGH L
K1-5 REG CLK H
+3VB
85568 E87 PDR
K1-4 SSMUX 14 H
K1-4 SSMUX 13 H
K1-4 SSMUX 12 H
K1-7 PDR 14 (1) H
K1-7 PDR 13 (1) H
K1-7 PDR 12 (1) H

K1-1Ø LOAD PAR LOW L
+3VB
85568 E77 PAR
K1-2 SSMUX Ø7 H
K1-2 SSMUX Ø6 H
K1-2 SSMUX Ø5 H
K1-2 SSMUX Ø4 H
K1-7 PAR Ø7 (1) H
K1-7 PAR Ø6 (1) H
K1-7 PAR Ø5 (1) H
K1-7 PAR Ø4 (1) H

+3VB
85568 E88 PDR
K1-3 SSMUX 11 H
K1-3 SSMUX 1Ø H
K1-3 SSMUX Ø9 H
K1-3 SSMUX Ø8 H
K1-7 PDR 11 (1) H
K1-7 PDR 1Ø (1) H
K1-7 PDR Ø9 (1) H
K1-7 PDR Ø8 (1) H

+3VB
85568 E76 PAR
K1-1 SSMUX Ø3 H
K1-1 SSMUX Ø2 H
K1-1 SSMUX Ø1 H
K1-1 SSMUX ØØ H
K1-7 PAR Ø3 (1) H
K1-7 PAR Ø2 (1) H
K1-7 PAR Ø1 (1) H
K1-7 PAR ØØ (1) H

K1-1Ø LOAD PDR LOW L
+3VB
85568 E86 PDR
K1-1 SSMUX Ø3 H
K1-1 SSMUX Ø2 H
K1-1 SSMUX Ø1 H
K1-7 ED (1) H
K1-7 ACF2 (1) H
K1-7 ACF1 (1) H

ED	DIRECTION
Ø	UP
1	DOWN

ACF2	ACF1	DESCRIPTION
Ø	Ø	NONRESIDENT
Ø	1	RESIDENT READ ONLY
1	Ø	ABORT ALL ACCESSES
1	1	RESIDENT READ/WRITE

74S157 E89 PAR/PDR ADRS MUX
K1-8 MODE Ø1 H
K1-6 PBA Ø8 H
K1-6 VBA 15 (1) H
K1-6 PBA Ø3 H
K1-6 VBA 14 (1) H
K1-6 PBA Ø2 H
K1-6 VBA 13 (1) H
K1-6 PBA Ø1 H
STB SØ
K1-1Ø PAR + PDR L

K1-1Ø PAR + PDR L
K2-1 MSYN (1) L
FK2
74ØØ E1Ø8
K1-6 C1 H

PAGE ADDRESS FIELD
PAR
PLF W ED ACF
PDR

LOAD WBIT L
85568 E79 WBIT

74Ø4 E115
K1-7 WBIT H
ENAB W L
K1-8 RELOCATE H
K2-1 DISABLE WBIT L
K1-1Ø KT MUX SØ L
FS1
741Ø E121
74ØØ E1Ø8
K1-1Ø PAR + PDR L

(PAR + PDR)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	KD11E DATA PATH (K1-7)	SIZE D	CODE CS	NUMBER M7265-Ø-1 REV. D
SCALE	—	SHEET 8 OF 11	DIST.	

DEC FORM NO. DRD 138

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+3VD
K1-1 SS MUX ØØ H
K1-1Ø LOAD SRØ LOW L
K1-5 REG CLK L
K2-2 RCD INIT L
74374 E98
74ØØ E1ØØ
74Ø2 E1ØØ
K1-8 RELOCATE ENB (1) H (SRØ ØØ)
K2-8 ENAB MAINT (1) H
74S2Ø E111
74S4Ø E111
K1-8 RELOCATE H
+5V
R1 R2 R3 R4 47Ø
K1-8 MODE Ø1 H
K1-8 MODE ØØ H
7486 E113
K2-1 UBUS C1 (1) H
K2-1 UBUS CØ (1) H
K2-8 DISABLE MSYN+H
256 X 4 Q.C. E81 23-165A2
DJ1
DH2
CS2
K1-7 PDR 14 (1) H
K1-6 VBA 12 (1) H
K1-7 PDR 13 (1) H
K1-6 VBA 11 (1) H
K1-7 PDR 12 (1) H
K1-6 VBA 1Ø (1) H
K1-7 PDR 11 (1) H
K1-6 VBA Ø9 (1) H
7485 EG1
A>B A=B A<B
IN> IN= IN<
K1-7 ACF2 (1) H
K1-7 ACF1 (1) H
K2-1 START TRANS H
K1-8 RELOCATE H
K2-1 MSYN (1) L
EA1
74S2Ø E111
K1-7 PDR 1Ø (1) H
K1-6 VBA Ø8 (1) H
K1-7 PDR Ø9 (1) H
K1-6 VBA Ø7 (1) H
K1-7 PDR Ø8 (1) H
K1-6 VBA Ø6 (1) H
7485 EG2
K1-7 ED (1) H
7404 E115
K1-3 SS MUX Ø8 H
K1-4 SS MUX 15 H
K1-4 SS MUX 14 H
K1-4 SS MUX 13 H
74157 EG1 SRØ MUX
B Ø A Ø B1 A1 B3 A3 B2 A2 SØ STB
f Ø f1 f3 f2
74175 E1Ø1 SRØ
D Ø R Ø (1) R Ø (Ø)
D1 R1 (1) R1 (Ø)
DE R2 (1) R2 (Ø)
D3 R3 (1) R3 (Ø)
CLR CLK
K1-8 MAINT (1) H (SRØ Ø8)
K1-8 NR (1) H (SRØ 15)
K1-8 PL (1) H (SRØ 14)
K1-8 RO (1) H (SRØ 13)
7410 E121
7432 E12Ø
K2-2 RCD INIT L
K1-5 REG CLK H
K1-1Ø LOAD SRØ HIGH L
7413Ø E118
7408 E154
FE2
FT2
K1-8 KT FAULT L
K1-8 ERROR H
74S157 E7Ø SRØ MUX
K1-4 PSW 15 (1) H
K1-4 PSW 13 (1) H
K1-4 PSW 14 (1) H
K1-4 PSW 12 (1) H
K1-8 MODE Ø1 H
K1-8 MODE ØØ H
K1-6 VBA 15 (1) H
K1-6 VBA 14 (1) H
K1-6 VBA 13 (1) H
74174 E71 SRØ
D1 R1(1) D4 R4(1) DØ RØ(1) D5 R5(1) D2 R2(1) D3 R3(1) CLK CLR
K1-8 SRØ Ø6 (1) H
K1-8 SRØ Ø5 (1) H
K1-8 SRØ Ø3 (1) H
K1-8 SRØ Ø2 (1) H
K1-8 SRØ Ø1 (1) H
K2-9 FORCE KERNEL (1) H
K2-9 PREVIOUS MODE (1) L
K1-8 RELOCATE H
K2-1 CLK MSYN H
K2-2 RCD INIT L
DJ2
(FV2)
(FE2)
74S2Ø E111
74Ø2 E1ØØ

15	13	12	9	8	7	6	5	4	3	2	1	Ø
ERROR			PHYS		MODE		PAGE M				ENAB	

SRØ

(SRØ AND KT ERROR)

REVISIONS
CHK | CHANGE NO. | REV.

TITLE: KDIIE DATA PATH (K1-8)
SIZE D | CODE CS | NUMBER M7265-Ø-1 | REV. D
SCALE | SHEET 8 OF 11 | DIST.

BSD FORM NO. BSD 128

51

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S1	S0	F
H	H	SR0
H	L	SR2
L	H	PAR
L	L	PDR

K1-10 ENAB KT MUX L

K1-8 NR (1) H
K1-8 PL (1) H
K1-7 PDR 14 (1) H
K1-4 SP 15(1) H
K1-4 SP 14 (1) H

K1-9 SR207 (1) H
K1-7 PAR07 (1) H
K1-8 SR006 (1) H
K1-9 SR206 (1) H
K1-7 PAR06 (1) H
K1-7 W BIT H
K1-2 SP07 (1) H
K1-2 SP06 (1) H

74174 E51 SR2

K1-6 VBA 15 (1) H
K1-6 VBA 14 (1) H
K1-6 VBA 13 (1) H
K1-6 VBA 12 (1) H
K1-6 VBA 11 (1) H
K1-6 VBA 10 (1) H

K1-8 R0 (1) H
K1-7 PDR 13 (1) H
K1-7 PDR 12 (1) H
K1-4 SP 13 (1) H
K1-4 SP 12 (1) H

K1-8 SR005 (1) H
K1-9 SR205 (1) H
K1-7 PAR05 (1) H
K1-9 SR204 (1) H
K1-9 PAR04 (1) H
K1-2 SP05 (1) H
K1-2 SP04 (1) H

74174 E50 SR2

K1-6 VBA09 (1) H
K1-6 VBA08 (1) H
K1-6 VBA07 (1) H
K1-6 VBA06 (1) H
K1-6 VBA05 (1) H
K1-6 VBA04 (1) H

K1-7 PAR 11 (1) H
K1-7 PDR 11 (1) H
K1-3 SP 11 (1) H

K1-8 SR003(1) H
K1-9 SR203(1) H
K1-7 PAR03 (1) H
K1-7 ED (1) H
K1-1 SP03 (1) H

K1-8 SR002 (1) H
K1-9 SR202 (1) H
K1-7 PAR02 (1) H
K1-7 ACF02 (1) H
K1-1 SP02 (1) H

74174 E9 SR2

K1-6 VBA 03 (1) H
K1-6 VBA 02 (1) H
K1-6 VBA 01 (1) H
K1-6 VBA 00 (1) H

K1-7 PAR 09 (1) H
K1-7 PDR 09 (1) H
K1-8 MAINT (1) H
K1-3 SP09 (1) H

K1-8 SR001 (1) H
K1-9 SR201 (1) H
K1-7 PAR 01 (1) H
K1-7 ACF1 (1) H
K1-1 SP01 (1) H

K1-7 PAR 10 (1) H
K1-7 PDR 10 (1) H
K1-3 SP 10 (1) H

K1-8 SR000 (1) H
K1-9 SR200 (1) H
K1-7 PAR00 (1) H
K1-1 SP00 (1) H

K1-8 RELOCATE ENB (1) H

S1	S0	F
0	0	PDR
0	1	PAR
1	0	SR2
1	1	SR0

K2-2 RCD INIT L
FE2
K2-5 LOAD IR H
FP2
74H4 E115
74H2 E99
LOAD SR2 H
K1-8 ERROR H

K1-10 PAR & PDR L
K1-10 KT MUX S0 L

(SR2 AND KT MUX)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: KD11E DATA PATH(KI-9)
SIZE: D | CODE: CS | NUMBER: M7265-0-1 | REV: D
SCALE: 1=1 | SHEET 10 OF 11 | DIST.

DEC FORM NO. DRD 138

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K1-5 PROC CLK L
K2-8 ENAB OVX L
K1-4 BREG 15 (1) H
K1-4 BREG 14 (1) H
7402 E99
74H01 E109
74S86 E113
+5V
R19 470
74S74 E98
K1-10 OVX (1) H
K2-5 LOAD IR H
K2-2 PROC INIT L
K1-4 12-15=0 H
K1-3 8-11=0 H
K2-5 BYTE L
74S00 E116
74S10 E119
FN2
K1-10 8-15=0 L
FL1
K1-2 4-7=0 H
K1-1 0-3=0 H
74S08 E116
FB2
K1-10 CC Z H

K1-3 BREG 08 (1) H
K2-5 SERIAL SHIFT H
K1-4 ALU 15 H
K1-2 ALU 07 H
K1-4 SP 15 (1) H
K1-2 SP 07 (1) H
K1-4 BLEG 15 H
K1-2 BLEG 07 H
K2-5 BYTE L
74S157 E106
BYTE MUX
STB S0
FN1
FL1
FJ2
K1-10 SHIFT IN 07 H
K1-10 CC N H

K1-4 BX REG 15 (1) H
K2-5 SERIAL SHIFT H
K1-4 B REG 15 (1) H
+3V D
K1-10 OVX (1) H
K1-4 ALU COUT H
K2-8 SHIFT MUX 01 L
K2-8 SHIFT MUX 00 L
74153 E117
STB1 STB0
SHIFT MUX
S1 S0
FN1
FP1
FM1
K1-10 SHIFT IN B H
K1-10 SHIFT IN Bx H

K1-6 C1 H
K1-6 C0 H
K1-6 PBA 00 H
K1-6 PBA 11 H
K1-6 PBA 09 H
K1-6 PBA 08 H
K1-6 PBA 06 H
K1-6 PBA 05 H
256X4 O.C. E75
23-167A2
7772XX
+5V
R5 470
R6 470
R7 470
R8 470
K1-10 LOAD PAR HIGH L
K1-10 LOAD PAR LOW L
K1-10 LOAD PDR HIGH L
K1-10 LOAD PDR LOW L

K1-6 PBA 04 H
K1-6 PBA 07 H
74S04 E103
74S00 E116
K1-10 ENAB DATA L
74S64 E112
K1-10 DATI (INT) H
K2-1 UBUS C1 (1) H
K1-5 TAP 30 H
K1-10 START TRAN H

256X4 O.C. E79
23-168A2
7772XX
R9 470
R10 470
R11 470
K1-10 PAR+PDR L
K1-10 INT DAT I L
K1-10 KT MUX S0 L

K2-5 ROT CBIT (1) H
K1-1 CBIT (1) H
K2-5 CC CODE 02 H
K2-5 CC CODE 01 H
K2-5 CC CODE 00 H
256X4 E105
23-164A2
C+V DECODE
FM1
FM2
FU1
K1-10 CC V H
K1-10 CC CH

K1-10 INT DATI L
K1-10 GEN REG L
7437 E114
7404 E115
K1-10 DATI (INT) H
K1-10 ENAB GR L

K2-1 INT MSYN H
K1-10 INT DAT I H
K1-10 ASSERT SSYN L
K1-10 EIIAB KT MUX L
DC1
74132 E118
74H01 E109
R23 1K
R24 47
C48 220
+5V
+3VD
74S74 E107
K1-10 INT SSYN L
K1-10 PAR+PDR L
K1-10 ASSERT SSYN H
FF1

K2-9 AMUX S1 (1) L
K1-10 INT DATI L
K1-10 AMUX S1 H
K2-3 INTR H
K2-9 AMUX S0 (1) L
K1-10 PSW DAT I L
K2-9 INT VECTOR L
K1-10 AMUX S0 H
74S10 E121
FV1
FU1

K2-1 START TRAN L
74S04 E115
74132 E118
74S08 E104
K1-10 START TRAN H
K2-1 UBUS C1 (1) L
K1-10 INT DATI L
(NOT USED)
EA1

K1-6 C1 H
K1-6 C0 H
K1-6 PBA 00 H
K1-6 PBA 11 H
K1-6 PBA 09 H
K1-6 PBA 08 H
K1-6 PBA 06 H
K1-6 PBA 05 H
256X4 O.C. E84
23-166A2
772X2X
+5V
R18 470
K2-2 SACK RET (1) H
K1-10 GEN REG L
K2-4 SP WRITE L
K1-10 INT DAT I L
K1-10 INT SSYN L

K2-1 INT MSYN H
K1-6 PBA 17 H
K1-6 PBA 16 H
K1-6 PBA 15 H
K1-6 PBA 14 H
K1-6 PBA 13 H
K1-6 PBA 12 H
K1-6 PBA 10 H
7430 E53
K1-6 PBA 11 H
K1-6 PBA 09 H
K1-6 PBA 08 H
K1-6 PBA 06 H
K1-6 PBA 05 H
K1-6 PBA 04 H
+3VB
7430 E85
772XXX
XX356X

K1-6 PBA 07 H
K1-6 PBA 03 H
K1-6 PBA 02 H
K1-6 PBA 01 H
256X4 E73
23-169A2
77756X
+5V
RI2 470
RI3 470
RI4 470
RI5 470
K1-10 LOAD PSW HIGH L
K1-10 LOAD PSW LOW L
K1-10 LOAD SR0 HIGH L
K1-10 LOAD SR0 LOW L

256X4 O.C. E72
23-169A2
77756X
+5V
R16 470
R17 470
K1-10 INT SSYN L
K1-10 PSW DATI L
+3VB

(CC DECODE, ADDR DET.)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE DATA PATH (KI-10)	D	CS	M7265-0-1	D
SCALE ++ SHEET 11 OF 11	DIST.			

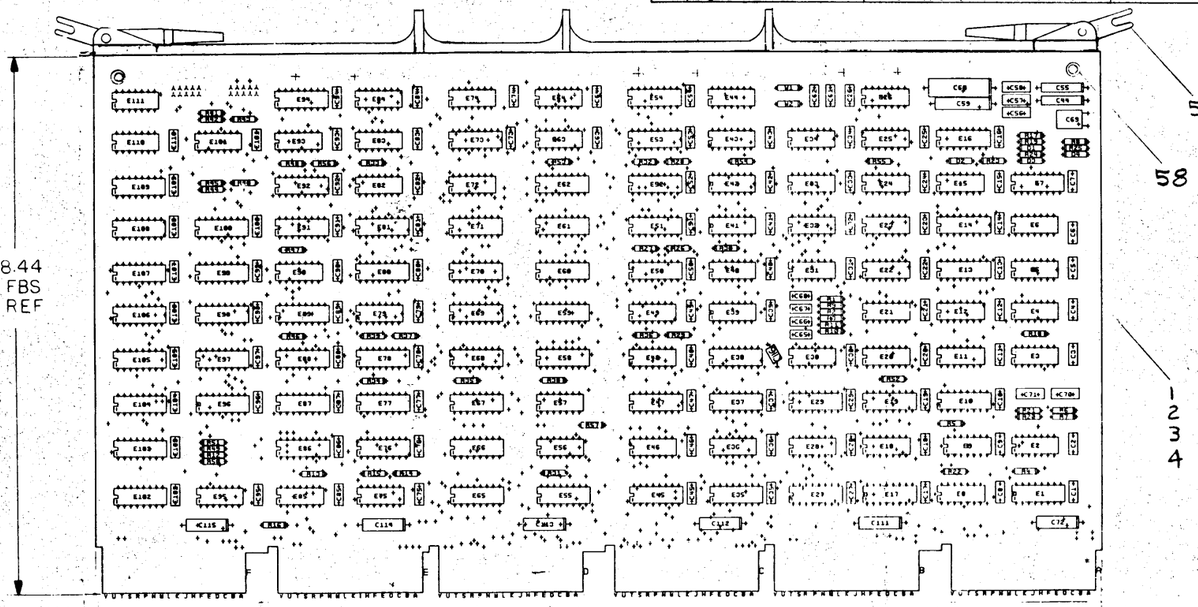
BSG FORM NO. BSG 136

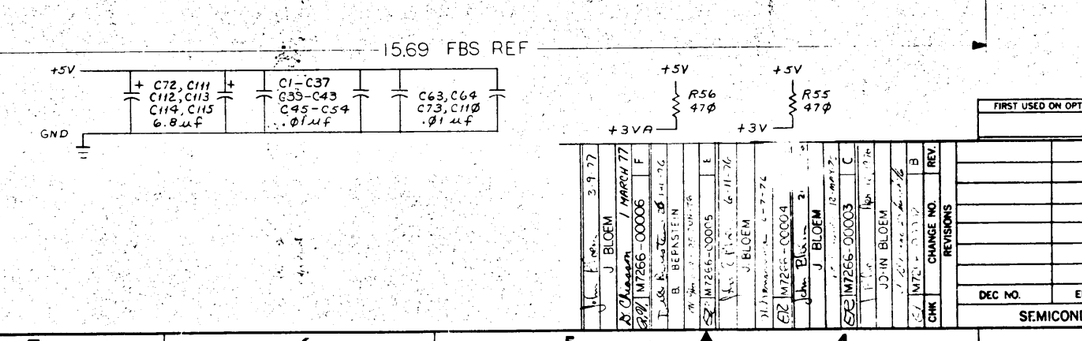
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1	E71	IC ROM 256X4 OC	23A22A2	74
1	E73	IC ROM 32X8 OC	23110A1	75
1	E78	IC ROM 256X4 TS	23163A2	76
1	E80	IC ROM 32X8 TS	23108A1	77
1	E81	IC ROM 32X8 TS	23107A1	78
2	E86, E94	IC ROM 32X8 TS	23109A1	79
1	E97	IC ROM 512X4 TS	23021A9	80
1	E98	IC ROM 512X4 TS	23022A9	81
1	E99	IC ROM 512X4 TS	23020A9	82
1	E100	IC ROM 512X4 TS	23023A9	83
1	E102	IC ROM 512X4 TS	23025A9	84
1	E103	IC ROM 512X4 TS	23024A9	85
1	E104	IC ROM 512X4 TS	23026A9	86
1	E105	IC ROM 512X4 TS	23019A9	87
1	E106	IC ROM 512X4 TS	23018A9	88
1	E107	IC ROM 512X4 TS	23017A9	89
1	E108	IC ROM 512X4 TS	23016A9	90
1	E109	IC ROM 512X4 TS	23015A9	91
A/R		WIRE(WRAP)30 AWG	9105740-55	92
1	E83	IC DEC 74S10	1910536	93

1	E26	IC DEC 74S37	1912746-00	52
2	E20, E95	IC DEC 74S02	1912388	53
1	E27	I.C. DEC 8641	1911579	54
2	E2, E41	I.C. DEC 74132	1911837	55
80		PIN WIRE WRAP	9009149	56
1		HANDLE ASSY	1210711-02	57
12		EYELET	9006732	58
1	W2	INSULATED JUMPER	9009185	59
2	E33, E48	IC DEC 74S74	1910544	60
1	E29	IC ROM 256X4 TS	23160A2	61
1	E50	IC ROM 32X8 TS	23106A1	62
1	E51	IC ROM 512X4 TS	23013A9	63
1	E52	IC ROM 256X4 OC	23175A2	64
1	E53	IC ROM 256X4 OC	23162A2	65
1	E58	IC ROM 256X4 OC	23174A2	66
1	E59	IC ROM 256X4 OC	23173A2	67
1	E60	IC ROM 256X4 TS	23161A2	68
1	E61	IC ROM 256X4 OC	23170A2	69
1	E62	IC ROM 256X4 OC	23176A2	70
1	E67	IC ROM 512X4 TS	23014A9	71
1	E68	IC ROM 256X4 OC	23172A2	72
1	E69	IC ROM 256X4 OC	23171A2	73

PEF		X-Y COORDINATE HOLE LOCATION	K-CO-M7266-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M7266-0-5	2
REF		MODULE ECO HISTORY	D-MH-M7266-0-6	3
1		ETCHED CIRCUIT BOARD	5011621	4
3	C68, C58, C67	CAPACITOR, 100pf, 100V, 5%	1000016	5
6	C65, C66, C61, C57, C71, C58	CAPACITOR, 470pf, 100V, 5%	1000024	6
1	C69	CAPACITOR, 220pf, 250V, 20%	1000055	7
1	C60	CAPACITOR, 10uf, 35V, 10%	1001478	8
92	C1 THRU C37, C39 THRU C43, C45 THRU C54, C63, C64, C73 THRU C110	CAPACITOR, .01uf, 100V DISC	1001610-01	9
1	C59	CAPACITOR, 15uf, 20V, 10%	1004812	10
6	C72, C111, C112, C113, C114, C115	CAPACITOR, 6.8uf, 35V, 10%	1005306	11
2	C44, C55	CAPACITOR, .Rouf, 35V, 10%	1009964	12
3	C62, C70, C116	CAPACITOR, 220pf, 100V, 5%	1000021	13
4	D1 THRU D4	DIODE, DR64	1100114	14
5	R4, R7, R11, R21, R3	RESISTOR, 47 OHM, 1/4W, 5%	1300202	15
5	R1, R10, R17, R18, R52	RESISTOR, 150 OHM, 1/4W, 5%	1300250	16
1	R54	RESISTOR, 220 OHM, 1/4W, 5%	1300271	17
9	P40 THRU R48	RESISTOR, 390 OHM, 1/4W, 5%	1300309	18
21	R26 THRU R31, R33 THRU R39, R9 R49, R50, R51, R53, R56, R55, R5	RESISTOR, 470 OHM, 1/4W, 5%	1300316	19
3	R12, R20, R32	RESISTOR, 1K, 1/4W, 5%	1300365	20
1	R24	RESISTOR, 10K, 1/4W, 5%	1300479	21
4	R8, R19, R23, R25	RESISTOR, 30K, 1/4W, 5%	1302394	22
5	R13 THRU R16, R22	RESISTOR, 178 OHM, 1/4W, 1%	1311422	23
2	R2, R6	RESISTOR, 750 OHM, 1/4W, 5%	1301401	24
5	E5, E31, E32, E34, E12.	I.C. DEC 7474	1905547	25
8	E3, E15, E18, E25, E28, , E43, E85, E6	I.C. DEC 7400	1905575	26
1	E39	I.C. DEC 7410	1905576	27
2	E24, E44	I.C. DEC 7473	1905587	28
4	E22, E23, E42, E72,	I.C. DEC 7402	1909004	29
2	E8, E75	I.C. DEC 8881	1909705	30
2	E4, E30	I.C. DEC 8815	1909713	31
5	E40, E83, E64, E84, E93	I.C. DEC 74H01-01	1909843	32
2	E90, E101	I.C. DEC 7405	1909930	33
2	E76, E77	I.C. DEC 74193	1910018	34
1	E89	I.C. DEC 7442	1910046	35
1	E79	I.C. DEC 7437	1910091	36
2	E11, E47	I.C. DEC 7408	1910155	37
3	E7, E14, E16	I.C. DEC 74123	1910436	38
3	E46, E36, E82	I.C. DEC 74S08	1910532	39
2	E110, E111	I.C. DEC 74S04	1910534	40
2	E56, E57	I.C. DEC 74S20	1910539	41
2	E35, E45	I.C. DEC 74S153	1910547	42
2	E38, E10	I.C. DEC 74S157	1910548	43
7	E37, E19, E70, E87, E89, E91, E96	I.C. DEC 74S174	1910550	44
3	E13, E54, E66	I.C. DEC 74175	1910651	45
3	E55, E65 E92	I.C. DEC 74174	1910652	46
1	E74	I.C. DEC 7427	1910878	47
1	E47	I.C. DEC 74S175	1910957	48
2	E1, E17	I.C. DEC 8837	1911118	49
1	E21	I.C. DEC 7414	1911324	50
1	E9	I.C. DEC 8640	1911469	51





IC DEC 8640	1	8
IC DEC 8837	8	16
IC DEC 74S175	8	16
IC DEC 74174	8	16
IC DEC 74175	8	16
IC DEC 74S174	8	16
IC DEC 74S157	8	16
IC DEC 74S153	8	16
IC DEC 74123	8	16
IC DEC 7442	8	16
IC DEC 74193	8	16
IC DEC 7473	11	9
IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

| | | | |

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K2-1 MSYN (1) L
K2-1 MSYN H
K2-2 SACK RET(1)H
7400 E6
7400 E6
CF2
K2-1 INT MSYN H

K1-10

K1-10 ASSERT SSYN H
EK2
R9 97
80 nS
C58 100
BU1
BUS SSYN L
K2-1 SSYN H
8641 E27

K2-1 DATIP (1) L
K2-1 DATIP (Ø) L
K2-1 BBSY H
K2-2 NPR H
K2-2 NPG (1) H
K2-2 NO SACK L
8815 E4
7402 E22
K2-1 BUS IN USE H

K2-1 UBUS CØ (1) L
K2-1 UBUS C1 (1) H
7402 E23
+3 VA
7474 E32
K2-1 DATIP (1) L
K2-1 DATIP (Ø) L
7400 E18
FB2
K2-1 ENAB ADDRS L

7474 E31
R1 150
40 nS
C68 100 pF
7413 2 E41
7400 E93
K2-7 CLR MPC L
7450 E36
R54 2.2 K
100 nS
C61 470 pF
+5V
R2 750
R3 47
17 nS
C66 470
7414 E21
7402 E22
AP2
BUS BBSY L
K2-1 BBSY H

K2-8 BUF DAT TRAN(1)H
DE2
K1-5 TAP 30 H
7400 E99
START TRAN H
7410 E39
7400 E90
+3VA
7474 E31
K2-1 MSYN (1) H
CH2
K2-1 MSYN (1) L
K2-1 MSYN (Ø) H
BW1
BUS MSYN L
K2-1 MSYN H
8641 E27

K2-1 SSYN H
7450 E36
K2-1 MSYN (Ø) H
K2-1 ALLOW MSYN H
EK2
CN2
K2-1 START TRAN L
K1-8
K2-1 CLK MSYN H
K1-7
C69 2200 PF
R8 30K
+5V

BUS PB L
AN2
BUS PA L
AN1
8837 E1
8640 E9
DET PE H
74132 E2
8837 E1
RS 470
74S157 E10
B Ø
A Ø
B3
A3
B1
A1
B2
A2
STB SØ
F Ø
F3
F1
F2
K2-8 DISABLE MSYN+IL
DD2
74132 E91
K1-8 KT FAULT L
K2-1 PARITY ERROR H
K2-1 ABORT RESTART L
EOT L
7418 E39
CK2
K2-1 TRAN IN L
K1-5
74175 E13
DI
D3
DØ
D2
CLR CLK
R1(1)
R1(Ø)
R3(1)
R3(Ø)
RØ(1)
RØ(Ø)
R2(1)
R2(Ø)
CB2
K2-1 UBUS CØ (1) H
K2-1 UBUS CØ (1) L
CC1
K2-1 UBUS C1 (1) H
K2-2 PROC INIT L

74123 E16
22 nS
+3VA
7474 E32
K2-1 SSYN H
K2-1 TO (1) H
K2-1 TO (1) L
K2-1 MSYN (1) H

+5V
R6 750
R7 47
8837 E1
74132 E2
ENAB EOT H
8881 E8
8881 E8
K2-1 SSYN H
K2-1 MSYN (1) H
C70 220 PF
80 nS

+5V
R9 470
R10 150
175 nS
C65 470 PF
7419 E21
K2-1 ABORT RESTART L
ENAB ABORT H
7410 E39
7401 E90
K2-1 TO (1) H
7402 E23
K2-1 ABORT H
7400 E99
DFE
K2-1 DISABLE WBIT L
K1-7
R11 97
30 nS
C67 100 PF
7414 E21
K2-1 SET BE L
K2-1 ABORT H
74132 E91
K2-1 TO (1) L
7404 E33
K2-1 BE (1) H
K2-1 BE (1) L
K2-2 BUT SERVICE L
K2-2 PROC INIT L
7400 E93
7400 E93
7474 E39
CT2
K2-1 PE (1) H
W1
W2
7400 E93
7474 E39
EJ2
K2-1 KTE (1) H

K2-5 BYTE H
K2-8 BUF CØ (1) H
K2-8 BUF C1 (1) H
7400 E99

(DAT TRAN)

REVISIONS
CHK | CHANGE NO. | REV.

TITLE: KDIIE CONTROL (K2-1)
SIZE D | CODE CS | NUMBER M7266-Ø-1 | REV. F
SCALE: —/— | SHEET 2 OF 12 | DIST.

DEC FORM NO. DRD 128

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BUS BR7 L
BUS BR6 L
BUS BR5 L
BUS BR4 L
HLT RQST L
K2-3 PFAIL H
K2-2 SACK RET(1) L
K2-9 BUT SERVICE (1) H
8837 E17
8837 E1
79S174 E19
K1-2 PSW Ø7(1) H
K1-2 PSW Ø6(1) H
K1-2 PSW Ø5(1) H
-HLT RQST (1) H
K2-2 PFAIL (1) H
23-160A2 256 x 4 T.S. E29
BG7 H
BG6 H
BG5 H
BG4 H
8815 E30
K2-3 ENAB GRANTS H
BG ENAB H
7400 E18
7408 E11
7402 E22
K2-2 BUT SERVICE L
CLK BG H
CLK
HALT
+3V
7474 E12
ALLOW BG H
K2-2 RESET (1) H
8815 E9
K2-2 HLT GRANT H
K2-2 BG IN H L
K2-2 SACK RET(1) H
K2-2 SACK RET(1) L
+5V
RN13 178
RN14 178
RN15 178
RN16 178
7400 E28
8881 E75
BUS BG7 H
BUS BG6 H
BUS BG5 H
BUS BG4 H
7402 E72
K2-2 BUT SERVICE L
K2-2 NPG (1) H
7474 E5
R17 150
R18 150
200pfs
C67 470
C66 470
7419 E21
NPG ENAB H
K2-2 NPR H
8640 E9
K2-2 PROC INIT H
K2-2 RCD INIT H
CE2
K2-2 RCD INIT L
AS2
BUS NPR L
K2-2 NPG (1) H
R22 178
CAL CB1
BUS NPG H
BUS SACK L
AR2
8837 E1
8881 E8
R20 1K
R21 47
180pfs
C71 470
7432 E2
NOSACK H
K2-2 RCD INIT L
7400 E15
K2-2 NO SACK L
C68 10mf
R19 30K
100 ms
D1
K2-2 RESET (1) H
7413 E16
K2-3 START PDWN (1) L
K2-6 START RESET H
7474 E59
K1-5 PROC CLK L
K2-2 PROC INIT L
CPI
HLT RQST L
K2-3 PWR CLR L
7400 E25
7400 E26
7437 E26
EU1
K2-2 PROC INIT L
K2-2 PROC INIT H
BUS INIT L
R2-2 RCD INIT H
8641 E641
(PRIORITY ARB)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-2)	D	CS	M7266-0-1	F
SCALE	SHEET 3 OF 11	DIST.		

DEC FORM NO. SMD 138

DCS M7266-0-1 REV F

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AC POWER
+5 VOLTS
BUS DC LO L
BUS AC LO L

BUS AC LO L — BF1 — 8837 E17

BUS DC LO L — BF2 — 8837 E17

C59 .15μf, R23 30K, +5V, 150 ms, D2 — 74123 E19 — +3V

C55 .68μf, R24 10K, +5V, 2.2 ms, D3 — 74123 E7 — +3V

C55 .68μf, R25 30K, +5V, D4 6.6 ms — 74123 E7

FP2 — 7473 E24 — K1-5 PROC CLK H

7400 E15 — K2-3 PWR CLR L

74H01 E40 — K2-7 MPC ØØ L

K2-3 START PDWN(1) L

7402 E23 — K2-3 PFAIL H

K2-1 SET BE L, K2-8 ENAB DBE L — 7402 E92 — K2-3 DBE H

K2-1 BE (1) H, K1-4 PSW 15 (1) L — 7402 E92 — K2-3 USER MODE H

FP2 — 7473 E94 — K1-5 PROC CLK H

K2-2 PROC INIT L

K1-2 TBIT (1) H, K2-6 ENAB TBIT H — 7408 E99

K1-5 PROC CLK L, K2-3 USER MODE H — 74S02 E20

K2-4 SPA Ø2 H, K2-4 SPA Ø1 H — 74S08 E36 — K2-3 R6+7 L

K2-4 SPA ØØ H, K2-7 ENAB STOV L, K1-16 B-15 = Ø L — 8815 E30 — 7473 E26

K2-9 BUT SERVICE (1) H, K1-5 PROC CLK H, K2-3 STOV SERV H, K2-2 PROC INIT L — FP2 — 7473 E49

+5V — R26 470Ω, R27 470Ω, R28 470Ω, R29 470Ω

23-Ø13A9 5/12 x 4 E51:
K2-1 BE (1) H
K2-1 PE (1) H
K2-1 KTE (1) H
K2-2 PFAIL (1) H
K2-6 IR CODE Ø2 L
K2-6 IR CODE Ø1 L
K2-6 IR CODE ØØ L
K2-6 BUT SERVICE L

23-106A1 32 x 8 T.S. E50:
K2-3 PFAIL SERV H
K2-3 STOV SERV H
CU1 — K2-3 C4 H
CV1 — K2-3 C3 H
DB2 — K2-3 C2 H
K2-3 ENAB GRANTS H

K2-9 BUT SERVICE (1) H, K2-2 PROC INIT H — 74S02 E20 — R52 150Ω, C62 220pF — 74S02 E20 — K2-3 SERV IR H

7400 E25 — K2-3 SERV IR (1) L

K2-9 BUT SERVICE (1) H

BUS INTR L — AB1 — 8837 E1 — CV2 — K2-3 INTR H

7400 E3 — 74H01 E40 — K2-7 MPC ØØ L

7400 E3 — DK1 — K2-3 INT VECTOR L

(PFAIL/AUTO REST BUT SERV)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-3)	D	CS	M7266-Ø-1	F
SCALE —	SHEET 4 OF 11	DIST.		

DEC FORM NO. DRD 130

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K1-8 MODE Ø1 H
K2-1Ø ROM SPA Ø2 (1) H
K2-1Ø ROM SPA Ø1 (1) H
K2-1Ø ROM SPA ØØ (1) L
K2-1Ø ROM SPA Ø3 (1) L
74S2Ø E57
74S1Ø E96

K2-5 IR Ø8 (1) H
K2-5 IR Ø7 (1) H
K2-5 IR Ø6 (1) L
74S2Ø E56
74S1Ø E96

K2-5 IR Ø2 (1) H
K2-5 IR Ø1 (1) H
K2-5 IR ØØ (1) L
74S2Ø E56
74S1Ø E96

USER MODE SELECTS R16
KERNAL MODE SELECTS R6

K1-6 PBA Ø3 H DM1
K1-6 PBA Ø2 H EE2
K2-1Ø ROM SPA Ø2 (1) H
K2-5 IR Ø8 (1) H
K2-5 IR Ø2 (1) H
STB1 STBØ
DØ SPAM AØ BØ CØ
74S153 E95
1Ø SØ 31 SØ
FØ → 7 CU2 → K2-9 SPA Ø3 H
F1 → 9 CS1 → K2-9 SPA Ø2 H

K1-6 PBA Ø1 H CH1
K2-1Ø ROM SPA Ø1 (1) H
K2-5 IR Ø7 (1) H
K2-5 IR Ø1 (1) H
K1-6 PBA ØØ H CU2
K2-1Ø ROM SPA ØØ (1) H
K2-5 IR Ø ØØ (1) H
K2-5 IR Ø6 (1) L
K2-9 FORCE RS+1 (1) L
74S1Ø E96
STB1 STBØ
DØ SPAM AØ BØ CØ
74S153 E35
1Ø SØ 31 SØ
FØ → 7 CN1 → K2-9 SPA Ø1 H
F1 → 9 CD2 → K2-9 SPA ØØ H

S1	SØ	f
L	L	ROM
L	H	RS
H	L	RD
H	H	BA

K2-9 SPA DST SEL1 (1) H
K2-9 SPA SRC SEL1 (1) H
K2-9 SPA DST SELØ (1) H
K2-9 SPA SRC SELØ (1) H
K2-3 RG+7 L
74S157 E38
B3 A3 BØ AØ B2 A2 B1 A1
STB SØ
f3 fØ f2 f1
K1-5 TAP 30 H DE2
R57 1/4 W OPTIONAL RESISTOR +5V
C116 220 pf

K2-8 BUF DAT TRAN (1) H
74SØ2 E95
K2-8 DISAB MSYN L
74SØ2 E2Ø
74S04 E111
EM1 → K2-4 DISABLE MSYN +1 L

K2-9 SPA DST SELØ (1) H
K2-9 SPA DST SEL 1 (1) H
74SØ8 E36
74S05 E9Ø
+5V R51 470
FY2 → K2-9 SP WRITE L

(SPA MUX)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-4)	D	CS	M7266-Ø-1	F
SCALE —	SHEET 5 OF 11		DIST.	

DEC FORM NO. BMD 130

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K2-3 SERV IR L
KI-9 SS MUX 15 H
CD1
74Ø2 E92
74179 E65
KI-9 SS MUX 14 H — EP2 — K2-5 IR 14 (1) H
KI-9 SS MUX 13 H — DV2 — K2-5 IR 13 (1) H
KI-9 SS MUX 12 H — EB2 — K2-5 IR 12 (1) H
KI-9 SS MUX 1Ø H — DV1 — K2-5 IR 1Ø (1) H
KI-9 SS MUX Ø9 H — EM2 — K2-5 IR Ø9 (1) H
K2-3 DBE H
K2-3 SERV IR H
7402 E78
CLR CLK
74179 E55
KI-2 SS MUX Ø7 H — DJ2 — K2-5 IR Ø7 (1) H
KI-2 SS MUX Ø5 H — EE1 — K2-5 IR Ø5 (1) H
KI-2 SS MUX Ø4 H — DH2 — K2-5 IR Ø4 (1) H
KI-2 SS MUX Ø3 H — DE1 — K2-5 IR Ø3 (1) H
KI-2 SS MUX Ø2 H — EB1 — K2-5 IR Ø2 (1) H
KI-2 SS MUX Ø1 H — DH1 — K2-5 IR Ø1 (1) H
74175 E66
KI-2 SS MUX 11 H — EA1 — K2-5 IR 11 (1) H / L
KI-2 SS MUX Ø8 H — EN2 — K2-5 IR Ø8 (1) H / L
KI-2 SS MUX Ø6 H — EK1 — K2-5 IR Ø6 (1) H / L
KI-2 SS MUX ØØ H — FF1 — K2-5 IR ØØ (1) H / L
K2-7 LOAD IR L
KI-5 PROC CLK L
ERI
7402 E72
EB2 — K2-5 LOAD IR H

K2-6 IR DECODE (1) L
7401 E43
+5V
R53 470Ω
K2-5 BYTE H
5/2 x 9 E47 23-Ø14A9
K2-5 IR 15 (1) H
K2-5 IR 14 (1) H
K2-5 IR 13 (1) H
K2-5 IR 12 (1) H
K2-5 IR 1Ø (1) H
K2-5 IR Ø9 (1) H
K2-5 IR Ø8 (1) H
K2-5 IR Ø7 (1) H
K2-5 IR Ø6 (1) H
EM2 — K2-5 BYTE L
EC1 — K2-5 CC CODE Ø2 H
EV2 — K2-5 CC CODE Ø1 H
EB1 — K2-5 CC CODE ØØ H
23-1Ø7A1 32 x 8 T.S. DOP E81
K2-5 IR 15 (1) H
K2-5 IR 14 (1) H
K2-5 IR 13 (1) H
K2-5 IR 12 (1) H
K2-8 FUNC CODE Ø3 H
K2-8 FUNC CODE Ø2 H
K2-8 FUNC CODE Ø1 H
K2-8 FUNC CODE ØØ H
K2-8 AUX SET UP H
7450 E82
23-161A2 SOP 256 x 4 T.S. E6Ø
K2-5 IR 1Ø (1) H
K2-5 IR Ø9 (1) H
K2-5 IR Ø8 (1) H
K2-5 IR Ø7 (1) H
K2-5 IR Ø6 (1) H
KI-1 CBIT (1) H — DU2
KI-1 NBIT (1) H — DL1
K2-5 IR 15 (1) H
K2-8 AUX SET UP H
K2-5 IR 14 (1) H
K2-5 IR 13 (1) H
K2-5 IR 12 (1) H
7427 E79
7450Ø E82
K2-5 IR 12-19=Ø H
+5V
23-17ØA2 ROT 256 x 4 O.C. E61
K2-5 IR 1Ø (1) H
K2-5 IR Ø9 (1) H
K2-5 IR Ø8 (1) H
K2-5 IR Ø7 (1) H
K2-5 IR Ø6 (1) H
KI-1 BREG ØØ (1) H — DN1
KI-1 CBIT (1) H — DU2
KI-1Ø CC N H — FT2
R30 470 R31 470
K2-8 B MODE Ø1 L
K2-8 B MODE ØØ L
EF2 — K2-5 SERIAL SHIFT H
FR1 — K2-5 ROT CBIT (1) H
74175 E59
KI-5 PROC CLR L — ERI
K2-2 PROC INIT L
(IR, AUX CNTRL, CC CODE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-5)	D	CS	M7266-Ø-1	F
SCALE —	SHEET 6 OF 11		DIST.	

DEC FORM NO. DRD 128

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23-110A1 DOP 32 X 8 OC E73
R33 470 +5V
K2-6 DEST L
K2-6 IR CODE ØØ
K2-7 MPC Ø7 L
K2-7 MPC Ø6 L
K2-7 MPC Ø5 L
K2-7 MPC Ø4 L
K2-7 MPC Ø3 L
R32 1K +5V
K2-6 IR DECODE (1) H
K2-7 LOAD IR L
74H01 E64
D 74175 E59 C
K2-6 IR DECODE(1) L
K1-5 PROC CLK
K2-2 PROC INIT L
74S20 E57
K2-5 IR 14 (1) H
K2-5 IR 13 (1) H
K2-5 IR 12 (1) H
K2-5 IR 11 (1) H
K2-5 IR 10(1) H
K2-5 IR Ø9(1) H
K2-5 IR 15(1) H

23-171A2 DOP 256 X 4 OC E69
K2-5 IR 14 (1) H
K2-5 IR 13 (1) H
K2-5 IR 12 (1) H
K2-7 BUT DEST L
K2-6 IR DECODE(1) L
K2-5 IR 11 (1) H
K2-5 IR 10 (1) H
K2-5 IR Ø9(1) H
7427 E79
K2-6 SM Ø H

23-172A2 DOP 256 X 4 OC E68
K2-5 IR Ø5(1) H
K2-5 IR Ø4 (1) H
K2-5 IR Ø3 (1) H
7427 E79
K2-6 DM Ø H
R34 470 +5V
K2-6 MOV L
R35 470 +5V
K2-6 SRC H

23-173A2 256 X 4 OC E59
K2-5 IR 11 (1) H
K2-5 IR 10 (1) H
K2-5 IR Ø9 (1) H
K2-5 IR Ø8(1) H
K2-5 IR Ø7(1) H
K2-5 IR Ø6(1) H
K2-5 IR DECODE(1) L

23-174A2 256 X 4 OC E58
R36 470 +5V
K2-6 IR CODE Ø2 L
R37 470 +5V
K2-6 IR CODE Ø1 L
R38 470 +5V
K2-6 IR CODE ØØ L
R39 470 +5V
74S00 E82
K2-5 IR 12-14= Ø H
74S10 E83
K2-6 IR DECODE(1)H
74S10 E82
K2-6 DEST L
K2-7 BUT DEST L
K2-5 IR Ø4 (1) H

K1-1 N BIT (1) H
K1-1 Z BIT (1) H
K1-1 V BIT (1) H
K1-1 C BIT (1) H
DL1
FF2
ED1
DU2
BRANCH 256 X 4 OC E71
K2-5 IR 15 (1) H
K2-5 IR 10(1) H
K2-5 IR Ø9(1) H
K2-5 IR Ø8(1) H
23-A22A2
K2-5 IR 12-14=Ø H
K2-5 IR 11 (1) L
74S00 E82
K2-6 IR DECODE (1) L

K1-4 PSW 15 (1) L
DJ1
K2-5 IR Ø7 (1) H
K2-6 DM Ø H
K2-5 IR Ø2 (1) H
K2-5 IR Ø1 (1) H
K2-5 IR ØØ(1) H
K2-5 IR Ø6 (1) H
23-162A2 256 X 4 T.S. E53
K2-6 START RESET H
K2-6 ENAB TBIT H (RTT H)
DC1
K2-6 DISABLE LOAD PSW H
K2-5 IR 12-14 = Ø H
K2-6 SM Ø H
74S10 E83
K2-5 IR Ø8 (1) H
K2-5 IR 15 (1) H
7402 E72

K2-5 IR Ø7 (1) H
K2-5 IR Ø5(1) H
K2-3 USER MODE H
K2-5 IR Ø4 (1) H
K2-5 IR Ø3 (1) H
23-175A2 256 X 4 O.C. E52
HALT RQST L
K2-6 IR CODE Ø2 L
K2-6 IR CODE Ø1 L
K2-6 IR CODE ØØ L
K2-5 IR Ø6 (1) H
74H01 E64
74H01 E64
74H01 E64
74H01 E63
74H01 E63
74H01 E63
23-176A2 256 X 4 O.C. E62
K2-7 MPC Ø2 L
K2-7 MPC Ø1 L
K2-7 MPC ØØ L
K2-5 IR Ø5(1) H
K2-5 IR Ø4 (1) H
K2-5 IR Ø3 (1) H
K2-5 IR 11 (1) H
K2-5 IR 10 (1) H
K2-5 IR Ø9 (1) H
K2-6 IR DECODE (1) L

(IR DECODE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-6)	D	DCS	M7266-0-1	F
SCALE	SHEET 7 OF 11	DIST.		

DEC FORM NO. DRD 139

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K2-7 MPC Ø8 H
K2-7 MPC Ø7 H
K2-7 MPC Ø6 H
K2-7 MPC Ø5 H
K2-7 MPC Ø4 H
K2-7 MPC Ø3 H
K2-7 MPC Ø2 H
K2-7 MPC Ø1 H
K2-7 MPC ØØ H

512 X 4 E1Ø9 23-Ø15A9
512 X 4 E1Ø8 23-Ø16A9
512 X 4 E1Ø7 23-Ø17A9

74S174 E91
74S174 E84

+5V
R4Ø 39Ø
R41 39Ø
R42 39Ø
R43 39Ø
R49 39Ø
R45 39Ø
R46 39Ø
R47 39Ø
R48 39Ø

7405 E1Ø1
7405 E9Ø
7404 E11Ø
7404 E111

K2-7 MPC Ø8 L
K2-7 MPC Ø7 L
K2-7 MPC Ø6 L
K2-7 MPC Ø5 L
K2-7 MPC Ø4 L
K2-7 MPC Ø3 L
K2-7 MPC Ø2 L
K2-7 MPC Ø1 L
K2-7 MPC ØØ L

K2-7 MPC Ø8 H
K2-7 MPC Ø7 H
K2-7 MPC Ø6 H
K2-7 MPC Ø5 H
K2-7 MPC Ø4 H
K2-7 MPC Ø3 H
K2-7 MPC Ø2 H
K2-7 MPC Ø1 H
K2-7 MPC ØØ H

7442 E88

K2-7 LOAD IR L
K2-7 LOAD PSW L
K2-7 LOAD CC L
K2-7 BUT DEST L
K2-7 ENAB STOV L
K2-7 LOAD COUNT L
K2-7 CLK COUNT L

J1
K2-7 MPC Ø4 L
K2-7 MPC Ø1 L
K2-7 MPC Ø2 L
K2-7 MPC Ø3 L
MAN CLK ENAB L
K2-7 MPC ØØ L
K2-7 MPC Ø5 L
K2-7 MPC Ø6 L
K2-7 MPC Ø7 L
MAN CLK L

J2
K2-7 MPC Ø8 L

7402 E42
K2-2 PROC INIT H
K2-1 ABORT H
K1-5 PROC CLK L
K2-7 CLR MPC L

(MPC BUT FIELD)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	KDIIE CONTROL (K2-7)	SIZE D CODE CS NUMBER M7266-Ø-1	REV. F
SCALE	SHEET 8 OF 11	DIST.	

DEC FORM NO. BRD 130

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K2-7 MPC Ø8 H
K2-7 MPC Ø7 H
K2-7 MPC Ø6 H
K2-7 MPC Ø5 H
K2-7 MPC Ø4 H
K2-7 MPC Ø3 H
K2-7 MPC Ø2 H
K2-7 MPC Ø1 H
K2-7 MPC ØØ H

23-Ø18A9 512 X 4 E1Ø6
23-Ø19A9 512 X 4 E1Ø5
23-Ø2ØA9 512 X 4 E99
23-Ø21A9 512 X 4 E97

K2-8 AUX SETUP H

K2-8 FUNC CODE Ø3 H
K2-8 FUNC CODE Ø2 H
K2-8 FUNC CODE Ø1 H
K2-8 FUNC CODE ØØ H

K2-9 SS Ø1 H
K2-9 SS ØØ H

K2-2 PROC INIT L
K1-5 PROC CLK L

74S174 E96
74S174 E7Ø
74S174 E87

CLR CLK

K2-8 BUF DAT TRAN (1) H
K2-8 BUF C1 (1) H
K2-8 BUF CØ (1) H
FS2 K2-8 ENAB MAINT (1) H
FD1 K2-8 LOAD BA (1) H
FV1 K2-8 LONG CYCLE (1) L

74175 E59

K2-8 AUX CONTROL (1) H
DD1 K2-8 AUX CONTROL (1) L

23-1Ø8A1 32 X 8 T.S. E8Ø
23-1Ø9A1 32 X 8 T.S. E86

7437 E79
ER2 K2-8 ALU S3 H
EF1 K2-8 ALU S2 H
EH1 K2-8 ALU S1 H
FB1 K2-8 ALU SØ H
FJ1 K2-8 ALU MODE H
FE2 K2-8 ALU CIN L
FM2 K2-8 BLEG Ø1 H
FC1 K2-8 BLEG ØØ H

7405 E9Ø
R49 47Ø +5V FU2 K2-8 B MODE Ø1 L
R5Ø 47Ø +5V FL2 K2-8 B MODE ØØ L

FL1 K2-8 BX MODE Ø1 L
ES1 K2-8 BX MODE ØØ L
FU1 K2-8 SHIFT MUX Ø1 L
FK2 K2-8 SHIFT MUX ØØ L
EU1 K2-8 ENAB OVX L
K2-8 ENAB DBE L

23-163A2 256 X 4 E78

K2-8 BUF DAT TRAN(1) H
K2-8 AUX CONTROL(1) H
K2-5 BYTE H
K2-6 MOV L

ES2 K2-8 SWAP H
EJ1 K2-8 SEX H
K2-8 DISAB MSYN L
EP1 K2-8 DISABLE UPPER BYTE WRITE H

K1-6 VBAØØ (1) H
K2-8 BUF DAT TRAN(1) H
7400 E6

(MICRO STORE)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-8)	D	CS	M7266 Ø 1	F
SCALE	SHEET 9 OF 11	DIST.		

DEC FORM NO. DRD 138

62

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K2-7 MPC Ø8 H
K2-7 MPC Ø7 H
K2-7 MPC Ø6 H
K2-7 MPC Ø5 H
K2-7 MPC Ø4 H
K2-7 MPC Ø3 H
K2-7 MPC Ø2 H
K2-7 MPC Ø1 H
K2-7 MPC ØØ H

K2-9 SS Ø1 H
K2-9 SS ØØ H

23-Ø22A9 512 X 4 E98
23-Ø23A9 512 X 4 E1ØØ
23-Ø24A9 512 X 4 E1Ø3
23-Ø25A9 512 X 4 E1Ø2

74174 E92
D5 D0 D3 D2 D4 D1 CLR CLK
R5(1) R0(1) R3(1) R2(1) R4(1) R1(1)

FH1 K2-9 AMUX S1 (1) L
FD2 K2-9 AMUX S0 (1) L

23-1Ø9A1 32 X 8 T.S. E97
+3VA

K1-4 ALU COUT H EV1
K1-1Ø CC N H FT2
K1-1 BX REG Ø1 (1) H FA1
K1-1 BX REG ØØ (1) H FK1
K1-4 SP15 (1) H FE1
K2-1Ø COUNT Ø5 (1) H
K1-1Ø CC Z H EL1
K2-5 IR Ø9 (1) H

74H01 E93 / 74H01 E84 / 74HØ E93

K2-7 MPC Ø7 L
K2-7 MPC Ø6 L
K2-7 MPC Ø5 L
K2-7 MPC Ø4 L
K2-7 MPC Ø3 L
K2-7 MPC Ø2 L
K2-7 MPC Ø1 L
K2-7 MPC ØØ L

+3VA
74S74 E48
K2-9 SPA SRC SEL 1 (1) H

74S74 E98
K1-5 PROC CLK H EP2
K2-9 SPA SRC SEL Ø (1) H

74S174 E37
D4 D0 D5 D1 D2 D3 CLR CLK
R4(1) R0(1) R5(1) R1(1) R2(1) R3(1)

K2-9 SPA DST SEL 1 (1) H
K2-9 SPA DST SEL Ø (1) H
K2-9 FORCE RS+1 (1) L
K2-9 PREVIOUS MODE (1) L CS2
K2-9 BUT SERVICE (1) H
K2-9 FORCE KERNEL (1) H CLI

K2-2 PROC INIT L
K1-5 PROC CLK L ER1

(MICRO CODE)

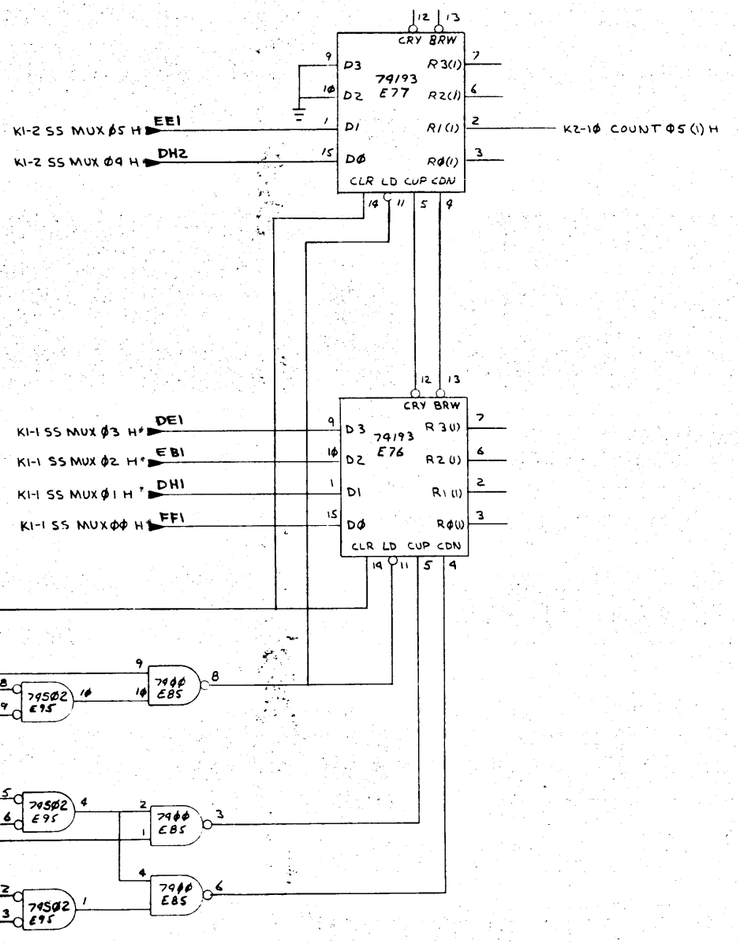
REVISIONS		
CHK	CHANGE NO.	REV.

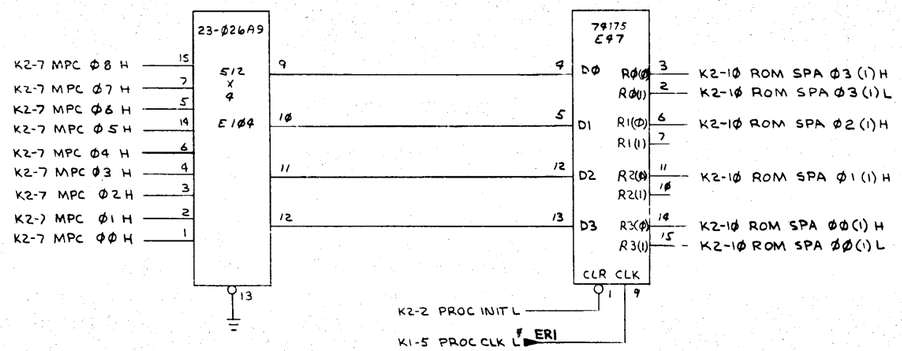
TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-9)	D	CS	M7266-Ø-1	F
SCALE —	SHEET 10 OF 11	DIST.		

DEC FORM NO. DRD 130

63

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(ROM SPA COUNTER)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KDIIE CONTROL (K2-10)	D	CS	M7266-Ø-1	F
SCALE	SHEET 11 OF 11	DIST.		

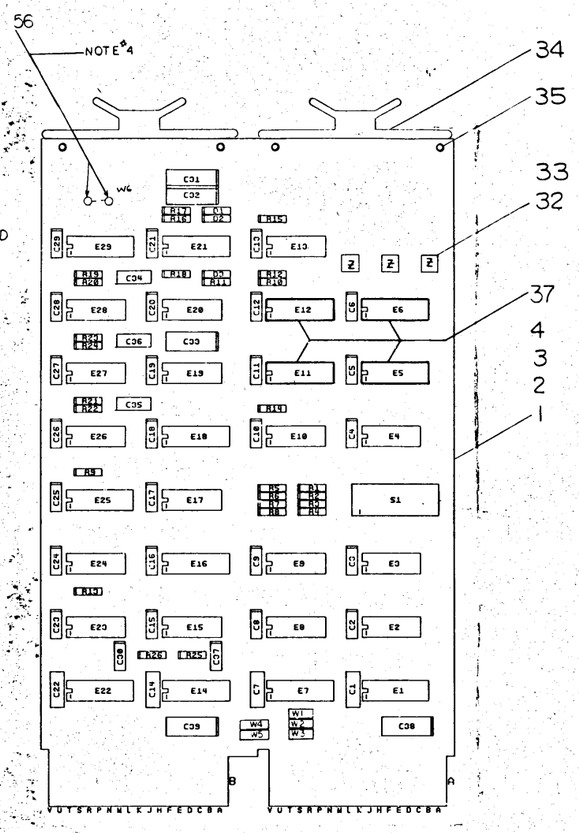
DSG FORM NO. DSD 105

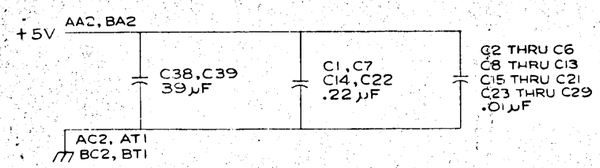
64

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NOTES:

1. IN PDP11/04, 11/09 AND PDP11/34, 11/39 SYSTEMS WITHOUT BATTERY BACKUP, TP1 SHOULD NOT BE CONNECTED TO THE POWER SUPPLY BATTERY STATUS SIGNAL UNLESS BOOTS ON ALL POWER RESTARTS ARE DESIRED.
2. IN ALL PDP11 SYSTEM WHOSE PROCESSOR MODULE DOES NOT CONTAIN GRANT PULL-UP RESISTORS, EITHER THE M9301 MUST BE POSITIONED IN THE TERMINATOR SLOT AT THE END OF THE UNIBUS FURTHEST FROM THE PROCESSOR OR JUMPERS W1 THRU W5 MUST BE INSTALLED, SO THE M9301 CAN BE INSERTED IN THE TERMINATOR SLOT NEXT TO THE PROCESSOR.
3. ON PDP11 SYSTEMS CONTAINING A BUS REPEATER OPTION, THE M9301 MUST BE INSTALLED ON THE PROCESSOR SIDE OF THE REPEATER SEE NOTE 2 FOR OTHER RESTRICTIONS.
4. JUMPER W6 SHOULD ONLY BE INSTALLED IN 11/55 AND 11/70 COMPUTERS WHOSE BACKPLANES HAVE BEEN MODIFIED FOR THIS MODULE. CONNECTOR PIN BD1 IN THESE MODIFIED BACKPLANES WILL NOT BE TIED TO GROUND.
5. EARLIER VERSIONS USED PLASTIC SWITCH COVER (PN 1211184-06) TO PREVENT INADVERTENT PROGRAMMING OF S1.
6. 11/40'S WITH RK06 REQUIRE CS REVISION P OR LATER.





IC TYPE	GND	+5V
I.C. DEC 314	1	8
I.C. DEC 7476	13	5
I.C. DEC 8640	1	8
I.C. DEC 8837	8	16
I.C. DEC 9602	8	16

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
		X-Y COORDINATE HOLE LOCATION	K-CO-M9301-0-4	1
		ASSY/DRILLING HOLE LAYOUT	D-AH-M9301-0-5	2
		MODULE ECO HISTORY	B-MH-M9301-0-6	3
1	1	ETCHED CIRCUIT BOARD	5011208	4
4	C1, C7, C14, C22	CAP .22 µF 50V	1010274-01	5
25	C2 THRU C6, C8 THRU C13 C15 THRU C21, C23 THRU C29	CAP .01 µF 100V 20%	1001610-01	6
2	C30, C37	CAP .001 µF 250V 20%	1000043	7
4	C32, C33, C38, C39	CAP 39 µF 10V 10%	1000076	8
3	C34, C35, C36	CAP 270 pF 100V 5%	1000022	9
3	D1, D2, D3	DIODE DG64 IN3606	1100114	10
8	R1 THRU R8	RES 10K 1/4W 5%	1300179	11
2	R9, R12	RES 1K 1/4W 5%	1300365	12
4	R11, R13, R14, R18	RES 4.7K 1/4W 5%	1300447	13
2	R16, R17	RES 30K 1/4W 5%	1302394	14
3	R19, R21, R23	RES 47 Ω 1/4W 5%	1300202	15
3	R20, R22, R24	RES 2K 1/4W 5%	1302388	16
2	R25, R26	RES 383 Ω 1/4W 5%	1305125	17
2	E1, E22	28 RES DIVIDER NETWORK	13-12628-00	18
2	E7, E14	25 RES DIVIDER NETWORK	13-12628-01	19
8	E2, E3, E8, E9 E15, E23, E27, E28	I.C. DEC 8881	1909705	20
2	E4, E10	I.C. DEC 7402	1909004	21
1	E13	I.C. DEC 7474	1905547	22
3	E16, E18, E25	I.C. DEC 8837	1911116	23
1	E17	I.C. DEC 7420	1905577	24
2	E19, E24	I.C. DEC 314A	1909704	25
1	E20	I.C. DEC 8640	1911469	26
1	E21	I.C. DEC 9602	1910955	27
1	E26	I.C. DEC 7437	1910091	28
1	E29	I.C. DEC 7476	1905585	29
1	S1	SWITCH, DIP, 10 POLE	1211164-06	30
		~~SWITCH COVER~~	~~1211184-03~~	31
3		EYELET (FASTON)	9009000	32
3	TP1, TP2, TP3	TAB (FASTON)	9007112	33
2		HANDLE FLIP/CHIP MAGENTA	9008337-00	34
4		EYELET	9006732	35
1	C31	CAP 1 µF 35V 10%	1001776	36

M9301-YJ, M9301-YE, M9301-YH, M9301-YF, M9301-YD, M9301-YC, M9301-YB, M9301-YA, M9301

FIRST USED ON OPTION MODEL: 11/04

ETCH BOARD REV. F

PARTS LIST

REV.	CHANGE NO.	DATE	BY
F	REDESIGN-06002	6/23/75	J. BLOEM
E	M9301-00004	12-1-75	J. BLOEM
D	M9301-00005	12-1-75	J. BLOEM
C	M9301-00006	29-AUG-76	J. BLOEM
B	M9301-00007	7-SEP-76	J. BLOEM
A	M9301-00008	4-OCT-76	J. BLOEM
01	M9301-00009	1-FEB-77	R. GRUDA
02	M9301-00010	4-MAR-77	R. GRUDA

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN. J. VINCENT	DATE 4/9/75	digital
CHK'D. R. COOK	DATE 5/28/76	
ENG. T. DUBANIEUR	DATE 6/23/75	TITLE UNIBUS TERMINATOR/ BOOTSTRAP
PROJ. ENG. J. BLOEM	DATE 6/19/75	
PROD. R. PETERSON	DATE 6/20/75	
NEXT HIGHER ASSY		SIZE D CODE CS NUMBER M9301-0-1 REV. S
SCALE —/—		DIST.
SHEET 1 OF 5		

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QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO
4 4 4 4 4 4 4 1 Ø	E5, E6, E11, E12	SOCKET, 16 PIN, I.C.	1211813	37
Ø Ø Ø Ø Ø Ø Ø 1 Ø	E5	I.C. DEC. TRI-STATE 2Ø48 ROM	23Ø34A9	38
Ø Ø Ø Ø Ø Ø Ø 1 Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø35A9	39
Ø Ø Ø Ø Ø Ø Ø 1 Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø36A9	40
Ø Ø Ø Ø Ø Ø Ø 1 Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø37A9	41
Ø Ø Ø Ø Ø Ø 1 Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø38A9	42
Ø Ø Ø Ø Ø Ø 1 Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø39A9	43
Ø Ø Ø Ø Ø Ø 1 Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø4ØA9	44
Ø Ø Ø Ø Ø Ø 1 Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø41A9	45
Ø Ø Ø Ø Ø 1 Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø42A9	46
Ø Ø Ø Ø Ø 1 Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø43A9	47
Ø Ø Ø Ø Ø 1 Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø44A9	48
Ø Ø Ø Ø Ø 1 Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø45A9	49
Ø Ø Ø Ø 1 Ø Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø46A9	50
Ø Ø Ø Ø 1 Ø Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø47A9	51
Ø Ø Ø Ø 1 Ø Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	2312 3A9	52
Ø Ø Ø Ø 1 Ø Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23Ø49A9	53
Ø Ø 5 Ø Ø 5 Ø Ø Ø	W1 THRU W5	JUMPER, WIRE, WHITE INSULATION	9ØØ9185	54
2 2 2 2 2 2 2 2 2	R10, R15	RES 220Ω, 1/4W, 5%	1300271	55
2 2 2 2 2 2 2 2 2		SPLIT LUG	9006735	56
Ø Ø Ø 1 Ø Ø Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	2349ØA9	57
Ø Ø Ø 1 Ø Ø Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23481A9	58
Ø Ø Ø 1 Ø Ø Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23482A9	59
Ø Ø Ø 1 Ø Ø Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23483A9	60
Ø Ø 1 Ø Ø Ø Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23332A9	61
Ø Ø 1 Ø Ø Ø Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23333A9	62
Ø Ø 1 Ø Ø Ø Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23334A9	63
Ø Ø 1 Ø Ø Ø Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23335A9	64
Ø 1 Ø Ø Ø Ø Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23538A9	65
Ø 1 Ø Ø Ø Ø Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23539A9	66
Ø 1 Ø Ø Ø Ø Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23540A9	67
Ø 1 Ø Ø Ø Ø Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23541A9	68
1 Ø Ø Ø Ø Ø Ø Ø Ø	E5	I.C. DEC TRI-STATE 2Ø48 ROM	23520A9	69
1 Ø Ø Ø Ø Ø Ø Ø Ø	E6	I.C. DEC TRI-STATE 2Ø48 ROM	23521A9	70
1 Ø Ø Ø Ø Ø Ø Ø Ø	E11	I.C. DEC TRI-STATE 2Ø48 ROM	23522A9	71
1 Ø Ø Ø Ø Ø Ø Ø Ø	E12	I.C. DEC TRI-STATE 2Ø48 ROM	23523A9	72

M9301-YJ
M9301-YE
M9301-YH
M9301-YF
M9301-YD
M9301-YC
M9301-YB
M9301-YA
M9301

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS TERMINATOR/BOOTSTRAP	D	CS	M9301-Ø-1	S
SCALE —	SHEET 2 OF 5	DIST.		

DEC FORM NO. BMD 13B

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R17 30K +5V — C32 39 µF — D1 DG64 — WG — 6D1 ENB BOOT ADRS L ***

+5V — R12 1K

9602 E21 3 MS

8640 E20 — 7474 E13 — 8881 E28 — 10 BF1 — BUS AC LO L

BUS DC LO L BF2 — 8837 E25 — DC LO H

7437 E26

7476 E29 — ENAB DATA H

+5V — R16 30K — C31 1 µF — D2 DG64 — R15 220Ω — TP2 — TP3 — ** EXTERNAL BOOT SWITCH

PWR UP CLR L

BUS AC LO L BF1 — 8640 E20 — +5V — R10 220Ω — TP1 — S1-2 POWER UP REBOOT ENABLE

R20 2K — +5V — R19 47Ω — C34 270pF 150NS — R22 2K — R21 47Ω — C35 270 pF 150NS — 8881 E27 — 8881 E28 — BU1 — BUS SSYN L

+5V — R24 2K — R23 47Ω — C36 270 pF — 8881 E28 — 8640 E20 — 8837 E25 — DC LO H

BUS INIT L AA1 — 8640 E20 — 8881 E28 — +5V — R11 4.7K — PWR UP CLR L

+5V — R18 4.7K — C33 39 µF — D3 DG64

BUS A17 L BS1 — BUS A16 L BS2 — BUS A15 L BR1 — BUS A14 L BR2 — BUS A13 L BP1 — BUS MSYN L BV1 — 314 E24

BUS CI L BT2 — 8837 E25

+5V — R14 4.7K — ENAB DATA L — R13 4.7K — +5V — ENAB DATA H

8881 E27 — 8881 E27

BUS A12 L BP2 — BUS A11 L BN1 — BUS A10 L BN2 — BUS A09 L BM1 — 8837 E16 — 8837 E25

+5V — R9 1K — SI-1 LOW ROM ENABLE — 7420 E17 — * 765XXXL — * 773XXX L

BUS A06 L BL2 — BUS A08 L BM2 — BUS A04 L BK2 — BUS A05 L BK1 — BUS A03 L BJ1 — BUS A01 L BH1 — BUS A02 L BJ2 — BUS A07 L BL1 — 8837 E18 — E25-4 DC LO H

A08 H — A07 H — A06 H — A05 H — A04 H — A03 H — A02 H — A01 H

314 E19 — 7437 E26 — ENAB JUMP L — 765XXX L

BUS A17 L RS1 — BUS A16 L BS2 — BUS A15 L BR1 — BUS A14 L BR2 — BUS A13 L BP1 — BUS A12 L BP2 — BUS A10 L BN2 — BUS A09 L BM1 — 8881 E23 — 8881 E15

* ADRESS BITS A13-A17 ARE DECODED BY E24

** CAUTION SHOULD BE TAKEN TO GUARANTEE PROPER NOISE FILTERING & LOGIC LEVELS ON THESE INPUTS

*** JUMPER W6 SHOULD ONLY BE INSTALLED IN 11/55 AND 11/70 COMPUTERS WHOSE BACKPLANES HAVE BEEN MODIFIED FOR THIS MODULE.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS TERMINATOR/ BOOTSTRAP	D	CS	M9301-0-1	S
SCALE —	SHEET 3 OF 5		DIST.	

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765XXXL
A06 H
A07 H
A06 H
A05 H
A04 H
A03 H
A02 H
A01 H

E12 TRI-STATE D — 04 03 02 01 — ME1
ROM DI5 H
ROM DI4 H
ROM DI3 H
ROM DI2 H

E11 * TRI-STATE C — 04 03 02 01 — ME1
ROM DI1 H
ROM DIØ H
ROM DØ9 H
ROM DØ8 L

E6 * TRI-STATE B — 04 03 02 01 — ME1
ROM DØ7 L
ROM DØ6 L
ROM DØ5 L
ROM DØ4 L

E5 * TRI-STATE A — 04 03 02 01 — ME1
ROM DØ3 L
ROM DØ2 L
ROM DØ1 L
ROM DØØ H

* SEE PARTS LIST FOR PART NO.

TOP VIEW

ADRESS A6	1	G	16	V_{CC} SUPPLY VOLTAGE
ADRESS A5	2	F	15	A_7 ADRESS
ADRESS A4	3	E	14	A_8 ADRESS
ADRESS A3	4	D	13	$\overline{CE}$ CHIP ENABLE
ADRESS A0	5	A	12	O1 OUTPUT
ADRESS A1	6	B	11	O2 OUTPUT
ADRESS A2	7	C	10	O3 OUTPUT
GND	8		9	O4 OUTPUT

H, I

23-ØØØA9Ø1

3. BLANK PROMS HAVE DEC PART NO. 23-ØØØA9Ø1
4. BIPOLAR 2048 (512 X 4) BIT PROMS PIN COMPATIBLE MAY BE USED WITH TRI-STATE OUTPUTS AND ACCESS TIME < 70 ns @ 70°C (INTERSIL 5624, MMI 6306, SIGNETICS 82S131, ETC)

ADRESS RANGE	
765000 - 765776	LOW ROM
773000 - 773776	HIGH ROM

ROM DI5 H → 8881 E8 pin 11 → pin 13 AM2 → BUS DI5 L
ROM DI4 H → 8881 E9 pin 2 → pin 1 AL1 → BUS DI4 L
ROM DI3 H → 8881 E9 pin 5 → pin 4 AL2 → BUS DI3 L
ROM DI2 H → 8881 E8 pin 2 → pin 1 AK1 → BUS DI2 L
ROM DI1 H → 8881 E9 pin 8 → pin 10 AK2 → BUS DI1 L
ROM DIØ H → 8881 E9 pin 11 → pin 13 AJ1 → BUS DIØ L
ROM DØ9 H → 8881 E8 pin 8 → pin 10 AJ2 → BUS DØ9 L

+5V

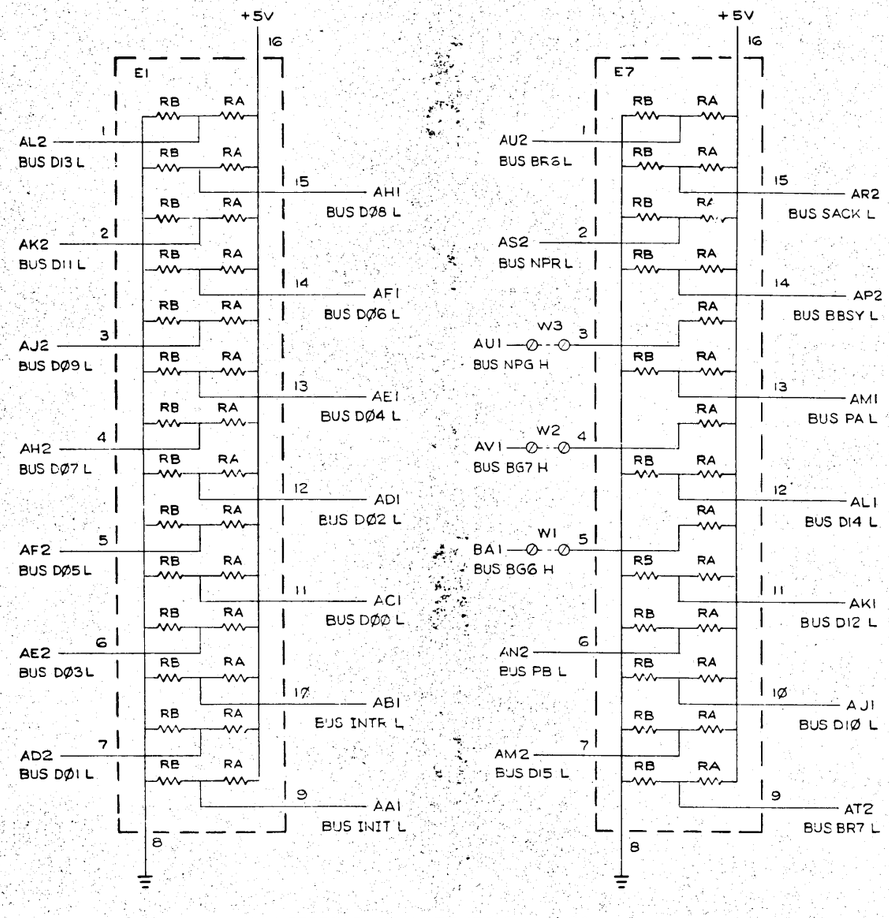
ROM DØ8 L → 74Ø2 E1Ø pin 8 → pin 10 → S1-3 (18 3) → R8 10K → 8881 E3 pin 2 → pin 1 AH1 → BUS DØ8 L
ROM DØ7 L → 74Ø2 E1Ø pin 2 → pin 1 → S1-4 (17 4) → R4 10K → 8881 E2 pin 2 → pin 1 AH2 → BUS DØ7 L
ROM DØ6 L → 74Ø2 E1Ø pin 11 → pin 13 → S1-5 (16 5) → R3 10K → 8881 E2 pin 12 → pin 13 AF1 → BUS DØ6 L
ROM DØ5 L → 74Ø2 E1Ø pin 5 → pin 4 → S1-6 (15 6) → R7 10K → 8881 E3 pin 12 → pin 13 AF2 → BUS DØ5 L
ROM DØ4 L → 74Ø2 E4 pin 5 → pin 4 → S1-7 (14 7) → R6 10K → 8881 E3 pin 6 → pin 4 AE1 → BUS DØ4 L
ROM DØ3 L → 74Ø2 E4 pin 11 → pin 13 → S1-8 (13 8) → R5 10K → 8881 E2 pin 6 → pin 4 AE2 → BUS DØ3 L
ROM DØ2 L → 74Ø2 E4 pin 8 → pin 10 → S1-9 (12 9) → R1 10K → 8881 E2 pin 8 → pin 10 AD1 → BUS DØ2 L
ROM DØ1 L → 74Ø2 E4 pin 2 → pin 1 → S1-10 (11 10) → R2 10K → 8881 E3 pin 8 → pin 10 AD2 → BUS DØ1 L
ENAB DATA L
ENAB JUMP L
ENAB DATA H
ROM DØØ H → 8881 E8 pin 6 → pin 4 AC1 → BUS DØØ L

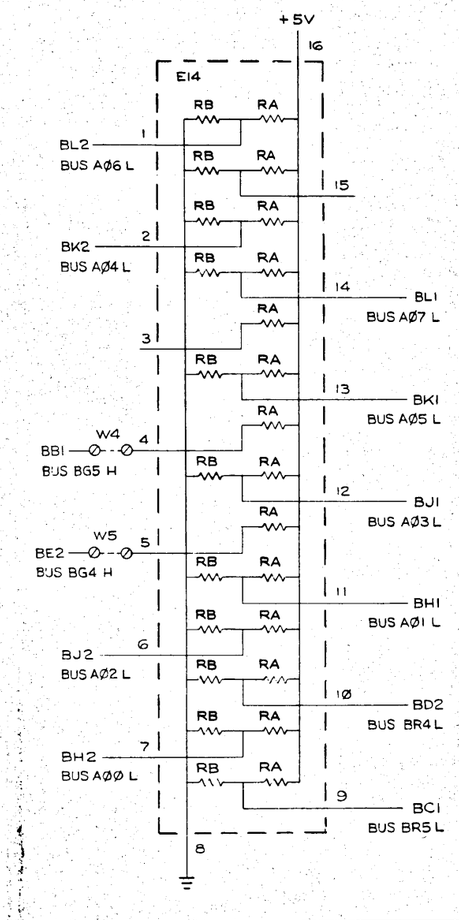
REVISIONS		
CHK	CHANGE NO.	REV.

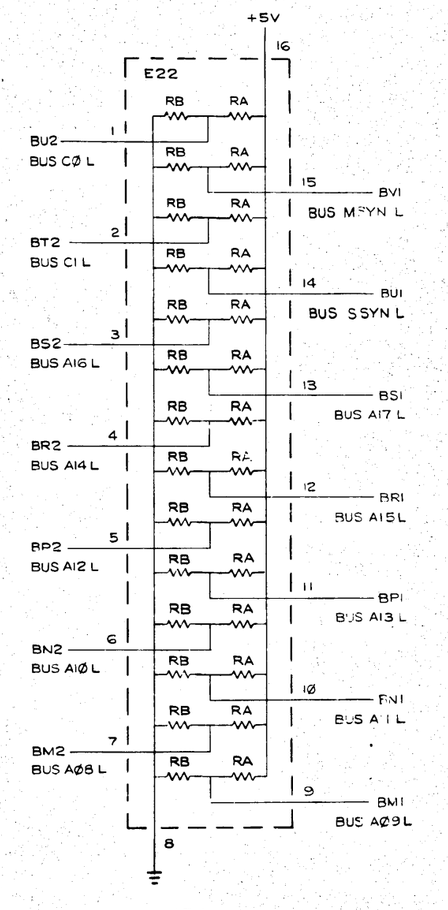
TITLE	UNIBUS TERMINATOR/BOOTSTRAP	SIZE	CODE	NUMBER	REV.
		D	CS	M9301-Ø-1	S
SCALE	-/-	SHEET 4 OF 5		DIST.	

68

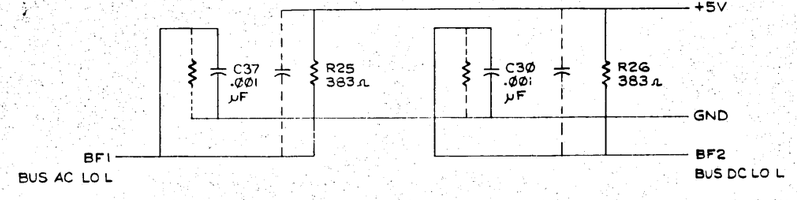
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NOTES:
1. ALL RA RESISTORS SHOWN ARE 176.5Ω, ±2%
2. ALL RB RESISTORS SHOWN ARE 375Ω, ±2%
3. JUMPERS W1 THRU W5 ARE ONLY INSERTED ON THE M93Ø1-YC AND M93Ø1-YH IF USED IN AN 11/7Ø COMPUTER.



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS TERMINATOR/BOOTSTRAP	D	CS	M93Ø1-Ø-1	S
SCALE —H—	SHEET 5 OF 5		DIST.	

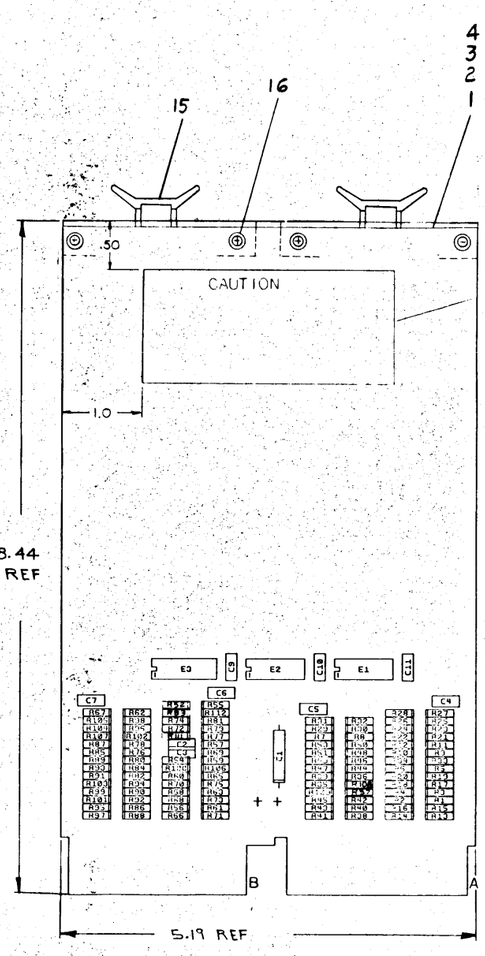
DEC FORM NO. DRB 130

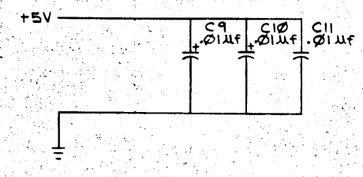
M93Ø1-Ø-1 S D CS

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NOTES:

1.) THE FOLLOWING REFERENCE DESIGNATIONS ARE NOT USED: C8, R44, AND R110.





REF		X-Y HOLE COORDINATE HOLE LOCATION	K-CO-M9302-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M9302-0-5	2
REF		MODULE ECO HISTORY	B-WH-M9302-0-6	3
1		ETCHED CIRCUIT BOARD	5011311	4
3	C9,C10,C11	CAP .01 uf 100V 20% DISC	1001810-01	5
1	C1	CAP 39 uf 10V 10%	1000076	6
~~1~~	~~C8~~	~~CAP 0.8 uf 35V 10%~~	~~1005306~~	~~7~~
4	C4 THRU C7	CAP .22 uf 50V X%	1010274-01	8
2	C2,C3	CAP .001 uf 250V 20% DISC	1000043	9
56	R2,R4,R6,R8,R10,R12,R14,R16 R18,R20,R22,R24,R26,R28,R30 R32,R34,R36,R38,R40,R42,R44 R46,R48,R50,R54,R58,R58,R60 R62,R66,R69,R70,R72,R74,R76 R78,R80,R82,R84,R86,R88,R90 R92,R94,R96,R98,R100,R102,R57,R66,R37,R52,R93,R108,R111	RES 383 OHM 1/4W 1%	1305125	10
54	R1,R3,R5,R7,R9,R11,R13,R15 R17,R19,R21,R23,R25,R27,R29 R31,R33,R35,R39,R41,R43,R45 R47,R49,R51,R53,R55, ,R59 R61,R63,R65,R67, ,R71,R73 R75,R77,R79,R81,R85,R87,R89 R91,R93,R95,R97,R99,R101, R103 THRU R107,R109,R112	RES 178 OH 1/4W 1%	1311422	11
1	E2	I.C. DEC 7430	1905578	12
1	E1	I.C. DEC 8881	1909705	13
1	E3	I.C. DEC 8837	1911116	14
2		HANDLE, FLIP-CHIP (MAGENTA)	9008337-6	15
4		EYELETS	9006732	16
1		DECAL	B-DC-7416791-0-0	17

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV B

FIRST USED ON OPTION MODEL

IC DEC 8837	8	16
IC TYPE	GND	+ 5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

REV	CHANGE NO	C.K
B	M9302-00001	
C	M9302-00002	

R Barry 14 June 76
H. BARRY
T. DURANIEWICZ

DRN. J Nagle DATE 10/1/74
CHK'D. DATE
ENG. T. Duraniewicz DATE 1-25-75
PROJ. ENG. T. Duraniewicz DATE 2-25-75
PROD. R.V. Peterson DATE 3/3/75
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: UNIBUS TERMINATOR

SIZE D | CODE CS | NUMBER M9302-0-1 | REV. C

DIST.

DCS M9302-0-1 C

DEC FORM NO DRD 135 B

30

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+5V

GND

AA2, BA2

C4 THRU C7 .22μF

C1 39μF 10V 10%

AB2, AC2, AN1, AP1
AR1, AS1, AT1, AV2
BB2, BC2, BD1
BE1, BT1, BV2

R1 178 / R2 383 — BUS DØ5 L — AF2
R3 178 / R4 383 — BUS DØ7 L — AH2
R5 178 / R6 383 — BUS DØ9 L — AJ2
R7 178 / R8 383 — BUS DI1 L — AK2
R9 178 / RIØ 383 — BUS DØ3 L — AE2
R11 178 / R12 383 — BUS DØ1 L — AD2
R13 178 / R14 383 — BUS DØ4 L — AE1
R15 178 / R16 383 — BUS DØ6 L — AF1
R17 178 / R18 383 — BUS DØ8 L — AH1
R19 178 / R2Ø 383 — BUS DIØ L — AJ1
R21 178 / R22 383 — BUS DØ2 L — AD1
R23 178 / R24 383 — BUS DØØ L — AC1
R25 178 / R26 383 — BUS INTR L — AB1
R27 178 / R28 383 — BUS INIT L — AA1
R29 178 / R3Ø 383 — BUS PA L — AM1
R31 178 / R32 383 — BUS DI4 L — AL1
R33 178 / R34 383 — BUS DI2 L — AK1
R35 178 / RIØ8 383 — BUS NPG H — AU1
RIØ9 178 / R37 383 — BUS BG7 H — AV1
R39 178 / R36 383 — BUS SACK L — AR2
R41 178 / R38 383 — BUS NPR L — AS2
R43 178 / R4Ø 383 — BUS BR7 L — AT2
R45 178 / R42 383 — BUS BR6 L — AU2
R47 178 / R44 383 — BUS BBSY L — AP2
R49 178 / R46 383 — BUS PB L — AN2
R51 178 / R48 383 — BUS DI5 L — AM2
R53 178 / R5Ø 383 — BUS DI3 L — AL2
R55 178 / R52 383 — BUS BG6 H — BA1

BF1 BH1 BJ1 BK1 BL1 BM1 BF2 BH2 BJ2 BK2 BE2 BD2 BC1 BB1 BP2 BP1 BR1 BS1 BR2 BS2 BT2 BU2 BU1 BV1 BN2 BM2 BL2 BN1

R57 383 / C2 .ØØ1 μF — BUS AC LO L — AF1
R59 178 / R54 383 — BUS AØ1 L — AH1
R61 178 / R56 383 — BUS AØ3 L — AJ1
R63 178 / R58 383 — BUS AØ5 L — AK1
R65 178 / R6Ø 383 — BUS AØ7 L — AE1
R67 178 / R62 383 — BUS AØ9 L — AD1
R69 383 / C3 .ØØ1 μF — BUS DC LO L — AF2
R71 178 / R66 383 — BUS AØØ L — AH2
R73 178 / R68 383 — BUS AØ2 L — AJ2
R75 178 / R7Ø 383 — BUS AØ4 L — AK2
R77 178 / RIII 383 — BUS BG4 H — BA1
R79 178 / R72 383 — BUS BR4 L — AE2
R81 178 / R74 383 — BUS BR5 L — AD2
RII2 178 / R83 383 — BUS BG5 H — AE1
P85 178 / R76 383 — BUS AI2 L — AF1
R87 178 / R78 383 — BUS AI3 L — AH1
R89 178 / R8Ø 383 — BUS AI5 L — AJ1
R91 178 / R82 383 — BUS AI7 L — AK1
R93 178 / R84 383 — BUS AI4 L — AE1
R95 178 / R86 383 — BUS AI6 L — AD1
R97 178 / R88 383 — BUS C1 L — AF2
R99 178 / R9Ø 383 — BUS CØ L — AH2
RIØ1 178 / R92 383 — BUS SSYN L — AJ2
RIØ3 178 / R94 383 — BUS MSYN L — AK2
RIØ4 178 / R96 383 — BUS AIØ L — AE2
RIØ5 178 / R98 383 — BUS AØ8 L — AD2
RIØ6 178 / RIØØ 383 — BUS AØ6 L — AF1
RIØ7 178 / RIØ2 383 — BUS AI1 L — AH1

SPARES

E1 8881 — pins 5, 6, 4
E1 8881 — pins 8, 9, 10
E1 8881 — pins 11, 12, 13
E3 8837 — pins 11, 10

BUS NPG H — AU1 — E3 8837 pins 13, 9, 12
BUS BG7 H — AV1 — E3 8837 pins 5, 7, 6
BUS BG6 H — BA1 — E3 8837 pins 3, 4
BUS BG5 H — BE2 — E3 8837 pins 15, 14
BUS BG4 H — BB1 — E3 8837 pins 1, 2

E2 7430 pins 11, 12, 2, 6, 5, 3, 4, 8

E1 8881 pins 2, 3, 1 — AR2 — BUS SACK H

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS TERMINATOR	D	CS	M93Ø2-Ø-1	C
SCALE — / — SHEET 2 OF 2	DIST.			

DEC FORM 40 SBD 137

M9302-0-1 C

71

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FIELD MAINTENANCE PRINT SET

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B-TC-MM11-DP-3

TABLE OF CONTENTS

MM11-DP PRINT SET
TABLE OF CONTENTS

B-DD-MM11-DP	DRAWING DIRECTORY
D-CS-G652-Ø-1	16K X 18 BIT CORE MEMORY
D-TD-MM11-DP-2	TIMING DIAGRAM
D-UA-MM11-DP-Ø	MM11-DP MEMORY MODULE ASSY
B-DD-H222-Ø	DRAWING DIRECTORY
D-CS-5411554-Ø-1	H222 STACK BOARD
D-UA-H222-A-Ø	H222 CORE MEMORY STACK ASSY
D-CS-M785Ø-0-1	PARITY CONTROLLER
D-UA-5411554-0-0	16K MEMORY STACK
A-PL-5411554-0-0	16K MEM STK PARTS LIST

UNIT VARIATIONS COVERED BY THIS PRINT SET
MM11-DP
MM11-E

MM11-DP

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MP 00032

REVISIONS		
REV.	CHG. NO.	DATE
A	MM11DP-1	MAY-76
B	MM11DP-2	FEB-77

USED ON OPTION/MODEL

SHEET I OF 1

DRN.	W. LUFKIN	DATE 24/OCT/75
CHK'D	W. Lufkin	DATE 24/OCT/75
PROJ. ENG.	D. Amelan	DATE 10/28/75
FIELD SERV.		DATE 10/29/75

digital

TITLE: MM11-DP MEMORY MODULE

SIZE	CODE	NUMBER	REV.
B	TC	MM11-DP-3	B

DIST.

72

EK-0112A-B-MN-76-(127)

DRB 124

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

SEQUENCE

SEQUENCE

NOTE: FOR FIELD MAINTENANCE PRINT SET SEE:

B-TC-MM11-DP-3

THIS IS PRINT SET

UNIT VARIATIONS

VAR	TITLE	PRINT SET
MM11-DP	16K X 18 BIT MEMORY/MODULE	
MM11-D	16K X 16 BIT MEMORY/MODULE	

REVISIONS		
REV	CHG. NO.	DATE
A	MM11DP-1	MAY-76
B	MM11DP-2	FEB-77

USED ON OPTION/MODEL

SHEET 1 OF 2

DRN. W. LUFKIN	DATE 24 OCT 75	TITLE: MM11-DP MEMORY MODULE
CH'K'D. W. Lufkin	DATE 24 OCT 75	
PROJ ENG. D. Schneider	DATE 10/28/75	
PROD. R.A. Hill	DATE 10/29/75	SIZE B · CODE DD · NUMBER MM11-DP · REV B
FIELD SERV. C.M. Crane	DATE 11/4/75	DIST

DEC 16-12351-1062-1A-8972

DRB 106

93

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			ELECTRICAL				
			B-TC-MM11-DP -3	#		MM11-DP FIELD MAINT. PRINT SET	
			MPØØØ32			MM11-DP PRINT SET	
			B-DD-MM11-DP			MM11-DP DRAWING DIRECTORY	
			D-TD-MM11-DP-2		2	MM11-DP TIMING DIAGRAM	
			D-CS-G652-Ø-1			16K X 18 BIT CORE MEMORY	
			MECHANICAL				
			D-UA-MM11-DP-Ø		1	MM11-DP MEMORY MODULE ASSY	
			D-UA-H222-A-Ø		1	H222 MEMORY STACK ASSY	

CUSTOMER PRINT SET CODES	
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
	C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
	S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
MM11-DP MEMORY MODULE	2 OF 2	B	DD	MM11-DP	B

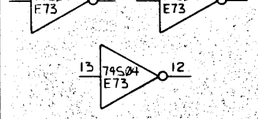
74

digital EN-01062-2B-16-R972-(325)

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BANK SELECTION						
INTERLEAVED / NON-INTERLEAVED	S.A.	EA+1	W1	W2	W3	W4
—	Ø	16K	OUT	OUT	OUT	IN
—	8K	24K	OUT	OUT	IN	OUT
Ø	16K	32K	OUT	OUT	IN	IN
8K	24K	40K	OUT	IN	OUT	OUT
16K	32K	48K	OUT	IN	OUT	IN
24K	40K	56K	OUT	IN	IN	OUT
32K	48K	64K	OUT	IN	IN	IN
40K	56K	72K	IN	OUT	OUT	OUT
48K	64K	80K	IN	OUT	OUT	IN
56K	72K	88K	IN	OUT	IN	OUT
64K	80K	96K	IN	OUT	IN	IN
72K	88K	104K	IN	IN	OUT	OUT
80K	96K	112K	IN	IN	OUT	IN
88K	104K	120K	IN	IN	IN	OUT
96K	112K	124K	IN	IN	IN	IN

SPARES:



J180-1	+5V
J180-2	STROBE
J180-3	GND
J180-4	VTH
J180-5	STACK XY HI
J180-6	GND
J180-7	STACK XY LO

NOTES:

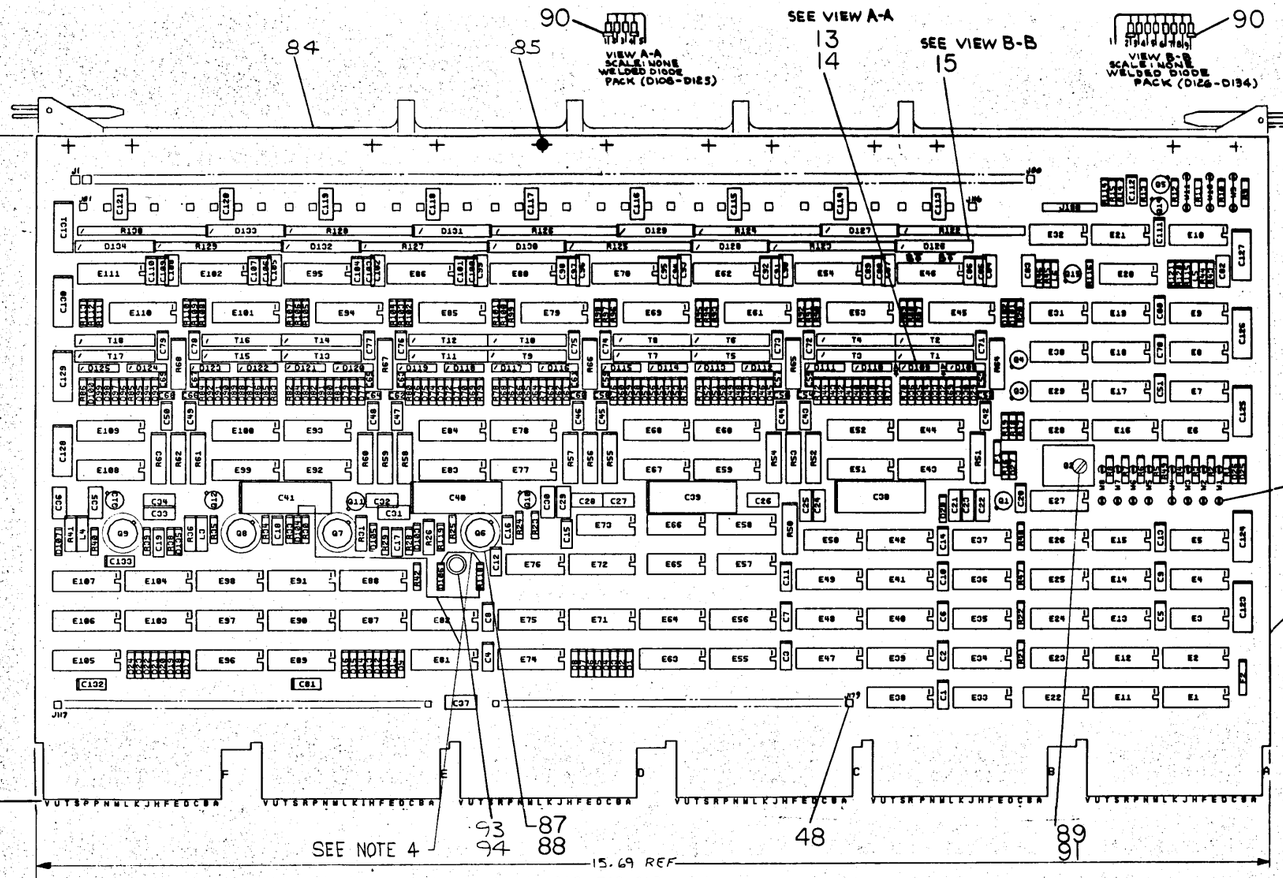
1. INTERLEAVE CONTROL IS ACHIEVED AS FOLLOWS:
   (A) NON-INTERLEAVED
   W5.W6 OUT
   (B) INTERLEAVED
   W5 IN, W6 OUT } ONE MEMORY
   W5 OUT, W6 IN } THE OTHER MEMORY
   (C) ADDRESS JUMPERS FOR THE COMBINED INTERLEAVED MEMORY ARE NOT THE SAME AS FOR THE NON-INTERLEAVED CASE (W1 THRU W4 MUST BE CUT THE SAME FOR BOTH INTERLEAVED MEMORIES). SEE BANK SELECTION CHART AT LEFT FOR BOTH INTERLEAVED AND NON-INTERLEAVED CASES.
2. UNDER NORMAL CONDITIONS (W8 OUT) THE MEMORY WILL NOT RESPOND TO ADDRESSES BETWEEN 124K AND 128K, BECAUSE THESE ADDRESSES ARE RESERVED FOR PERIPHERAL DEVICES ON THE UNIBUS. FOR SPECIAL APPLICATIONS WHERE THE RANGE OF PERIPHERAL ADDRESSES IS MORE RESTRICTED THAN THIS 4K RANGE THE MEMORY CAN BE CONFIGURED TO INCLUDE THE ADDITIONAL UNIBUS ADDRESSES AS FOLLOWS:
   W8 IN, W7 OUT } 124K TO 126K
   W8 IN, W7 IN } 124K TO 127K
   NOTE THAT FOR SYSTEMS WITHOUT MEMORY MANAGEMENT THIS MEANS THE USEFUL VIRTUAL ADDRESS SPACE FOR MEMORY CAN BE EXTENDED FROM 28K TO 30K OR 31K, BY SACRIFICING SOME PERIPHERAL SPACE.

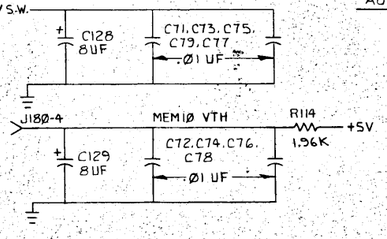
CAUTION

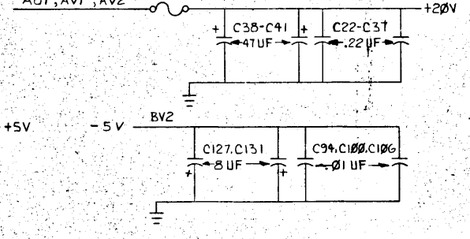
SOME DIGITAL SOFTWARE MAY NOT BE COMPATABLE WITH THE REDUCED PERIPHERAL ADDRESS SPACE. TO ASSURE COMPATIBILITY W8 MUST BE OUT.

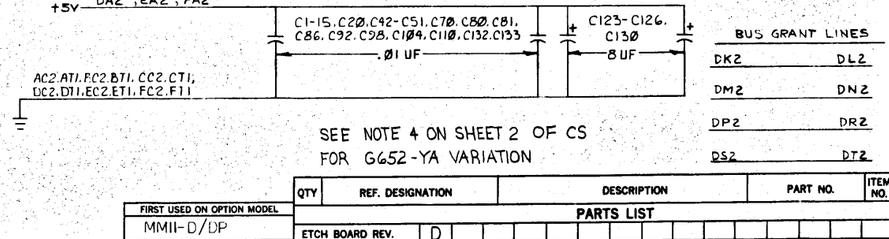
3. SCHEMATIC FOR H222 MEMORY STACK IS SHOWN ON CS 5411554-0-1.
   NOTES CONTINUED ON SHEET 2

MEMØ BIT 16 E17 LOCK OUT	J18	
BB2	J152	STACK XY
J180-7	J179	STACK XY LO
J180-5	J180	STACK XY HI
+2ØV	J153	
+5V	J155	
MEM1 X STACK CHG H	J149	
MEM2 Y STACK CHG H	J150	
CE1	J151	STACK V REF
GND	J9 J60	GND
GND	J26 J77	GND
GND	J43 J154	GND









BUS GRANT LINES	
DK2	DL2
DM2	DN2
DP2	DR2
DS2	DT2

SEE NOTE 4 ON SHEET 2 OF CS FOR G652-YA VARIATION

IC TYPE	GND	+5V	+2ØVSW
8641	1	8	
8641	8	16	
75325	8	9	16
7520	9	16	
74157	8	16	
74153	8	16	
7483	12	5	
7475	12	5	
7442	8	16	

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REVISIONS				
REV.	CHANGE NO.			
C	G652-00001	D. SMELSER	10-13-75	
D	G652-00002	D. SMELSER	3/9/76	
E	G652-00003	D. SMELSER	11-FEB-77	

FIRST USED ON OPTION MODEL	
MMII-D/DP	
ETCH BOARD REV.	D

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN.	Robert Kapperal	DATE 6-9-75
CHK'D.		DATE 7/7/75
ENG.		DATE 7/31/75
PROJ. ENG.		DATE 7/31/75
PROD.	H222	DATE 7/31/75

NEXT HIGHER ASSY

SCALE

SHEET 1 OF 11

digital

TITLE: 16K X 18 MEMORY ELECTRONICS

SIZE	CODE	NUMBER	REV.
D	CS	G652-Ø-1	E

DIST.

DEC FORM NO. ORD 139.0
8 7 6 5 4 3 2 1
D C B A
SIZE D CODE CS NUMBER G652-Ø-1 REV. E

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PARTS LIST

QTY	QTY	REF. DESIGNATIONS	DESCRIPTION	PART NO.	ITEM NO.
REF	REF		ASSY/DRILLING HOLE LAYOUT	D-AH-G652-B-5	1
REF	REF		MODULE ECO HISTORY	B-MH-G652-B-6	2
1	1		ETCHED CIRCUIT BOARD	5011492	3
2	2	C82,C83	CAPACITOR, 82 pf, 100V, 5%, DM	1000015-00	4
1	1	C111	CAPACITOR, 22 pf, 100V, 5%, DM	1005820-00	5
22	22	C16 THRU C19,C84,C87,C90,C93 C96,C99,C102,C105,C108,C113 THRU C121	CAPACITOR, 120 pf, 100V, 5%, DM	1000018-00	6
18	18	C52 THRU C69	CAPACITOR, 5600 pf, 50V, 10%, CER	1011740-00	7
4	4	C38 THRU C41	CAPACITOR, 47 uf, 30V, AL EL	1012219-00	8
60	60	C1 THRU C15,C20,C21,C42 THRU C51,C70 THRU C81,C86,C88,C89 C91,C92,C94,C95,C97,C98,C100 C101,C103,C104,C106,C107,C85, C109,C110,C112,C132,C133	CAPACITOR, .01 uf, 50V, 20%, CER	1001610-00	9
16	16	C22 THRU C37	CAPACITOR, .22 uf, 50V +80%, -20%, CER	1010274-00	10
9	9	C123 THRU C131	CAPACITOR, 8 uf, 25V, AL EL	1012084-01	11
1	1	D28	DIODE ZENER IN751A 5.1V, 5%	1110994-00	12
9	9	D109,D111,D113,D115,D117, D119,D121,D123,D125	DIODE PACK COMMON CATHODE	7010918-0-0	13
9	9	D108,D110,D112,D114,D116, D118,D120,D122,D124	DIODE PACK COMMON ANODE	7010918-0-1	14
9	9	D126 THRU D134	DIODE PACK COMMON CATHODE	7010918-0-2	15
105	105	D1 THRU D27,D29 THRU D104, D107, D135	DIODE D872	1105275-00	16
1	1	D106	DIODE ZENER IN758A, 8.2V, 5%	1103441-00	17
1	1	D105	DIODE ZENER IN4742, 12V, 10%, 1W	1109502-00	18
18	18	R51 THRU R68	RESISTOR, 21, 3W, 1% WW	1311738-01	19
2	2	R16,R17	RESISTOR, 75, 1/4W, 5%	1302379-00	20
6	6	R25,R30,R35,R40,R43,R48	RESISTOR, 100, 1/4W, 5%	1300229-00	21
1	1	R50	RESISTOR, 220, 3W, 1%, WW	1312123-00	22
24	24	R23,R26,R33,R36,R87,R88,R91 THRU R94,R97 THRU R100,R103 THRU R106,R109 THRU R112, R115,R118	RESISTOR, 1K, 1/4W, 5%	1300365-00	23
1	1	R114	RESISTOR, 1.96K, 1/4W, 1%	1304833-00	24
1	1	R47	RESISTOR, 3.16K, 1/8W, 1%	1303045-00	25
1	1	R49	RESISTOR, 3.3K, 1/4W, 5%	1300439-00	26
1	1	R19	RESISTOR, 4.7K, 1/4W, 5%	1300447-00	27
1	1	R46	RESISTOR, 4.99K, 1/8W, 1%	1305324-00	28
9	9	P89,R90,R95,R98,R101,R102, R107,R108,R113	RESISTOR, 9.09K, 1/8W, 1%	1304855-00	29
16	16	R1 THRU R8,R18,R20,R21,R22 R24,R29,R34,R39	RESISTOR, 10K, 1/4W, 5%	1300479-00	30
2	2	R13,R14	RESISTOR, 14.7K, 1/8W, 1%	1302941-00	31
1	1	R10	RESISTOR, 27K, 1/4W, 5%	1305346-00	32
1	1	R9	RESISTOR, 56K, 1/4W, 5%	1302395-00	33
1	1	R15	RESISTOR, 120K, 1/4W, 5%	1300539-00	34
1	1	R11	RESISTOR, 15K, 1/4W, 5%	1300496-00	35
18	18	R89 THRU R86	RESISTOR, 150, 1/4W, 5%	1300250-00	36
3	3	R45,R44,R119	RESISTOR, 47, 1/4W, 5%	1300202-00	37
2	2	R120,R121	RESISTOR, 56, 1/4W, 5%	1302602-00	38
1	1	R31	RESISTOR, 13, 1W, 1% WW	1312466-03	39
~~–~~	~~1~~	~~R118~~	~~RESISTOR, 750, 1/4W, 5%~~	~~1301401-00~~	40
1	1	R42	RESISTOR, 30, 1/4W, 5%	1302751-00	41
1	1	R12	RESISTOR, 4.64K, 1/8W, 1%	1304656-00	42
1	1	R28	RESISTOR, 11, 1W WW	1312466-01	43
1	1	R36	RESISTOR, 12, 1W WW	1312466-02	44
9	9	R122 THRU R130	RESISTOR PACK, 100, 1/8W, 1%	1311741-00	45
1	1	F1	FUSE, PICO 1 AMPERE	1210929-02	46
1	1	F2	FUSE, PICO 5 AMPERE	1205747-00	47
G652-YA	G652				

PARTS LIST

QTY	QTY	REF. DESIGNATIONS	DESCRIPTION	PART NO.	ITEM NO.
179	179	J1 THRU J179	RECEPTACLE, SINGLE	1211728-00	48
1	1	J180	CONNECTOR, 7 PIN	1212104-00	49
2	2	Q14,Q15	TRANSISTOR, 3009B	1503100-00	50
2	2	Q3,Q4	TRANSISTOR, 6534B	1503409-01	51
5	5	Q5, Q10 THRU Q13	TRANSISTOR, 4258	1505321-00	52
1	1	Q1	TRANSISTOR, 6531B	1509338-00	53
4	4	Q6 THRU Q9	TRANSISTOR, 3762	1509649-01	54
1	1	Q2	TRANSISTOR, MJE 3055	1510555-00	55
18	18	T1 THRU T18	TRANSFORMER, INHIBIT DUAL	1612119-00	56
2	2	L3,L4	INDUCTOR, 0.47 uh, 10%	1610999-00	57
2	2	L5,L6	INDUCTOR, 100 uh	1610862-00	58
2	2	E9,E31	DELAY LINE, 250 NS	1611243-00	59
2	2	E26,E37	I.C. DEC 7400	1905575-00	60
1	1	E76	I.C. DEC 7406	1910741-00	61
1	1	E50	I.C. DEC 7427	1910878-00	62
1	1	E7	I.C. DEC 7430	1905578-00	63
2	2	E32,E65	I.C. DEC 7437	1910091-00	64
5	5	E49,E64,E82,E88,E97	I.C. DEC 7442	1910046-00	65
4	4	E39 THRU E42	I.C. DEC 7475	1909050-00	66
1	1	E6	I.C. DEC 7483	1909932-00	67
1	1	E10	I.C. DEC 74121	1910230-00	68
3	3	E8,E30,E66	I.C. DEC 74128	1912068-00	69
1	1	E16	I.C. DEC 74153	1909937-00	70
1	1	E72	I.C. DEC 74157	1910855-00	71
1	1	E19	I.C. DEC 74H50	1909060-00	72
3	3	E18,E27,E57	I.C. DEC 74S00	1910532-00	73
5	5	E3,E4,E13,E14,E23	I.C. DEC 74S03	1910533-00	74
6	6	E5,E15,E17,E20,E24,E73	I.C. DEC 74S04	1910534-00	75
1	1	E21	I.C. DEC 74S10	1910536-00	76
1	1	E28	I.C. DEC 74S20	1910539-00	77
1	1	E58	I.C. DEC 74S74	1910544-00	78
18	18	E45,E48,E53,E54,E81,E82,E89 E70,E79,E80,E85,E86,E94,E95 E101,E102,E110,E111	I.C. DEC 7520	1911748-00	79
38	38	E43,E44,E47,E46,E51,E52,E55 E56,E59,E60,E83,E87,E98,E71 E74,E75,E77,E78,E81,E83,E84 E87,E89 THRU E93,E96,E98 THRU E100,E103 THRU E109	I.C. DEC 75325	1910960-00	80
5	5	E25,E33 THRU E36	I.C. DEC 8640	1911469-00	81
6	6	E1,E2,E11,E12,E22,E38	I.C. DEC 8641	1911579-00	82
1	1	E29	I.C. DEC 8885	1910849-00	83
1	1		HANDLE	1210711-02	84
12	12		EYELET (HANDLE)	9006732-00	85
22	22		EYELET (SPLIT LUGS)	9008735-00	86
4	4	(USE WITH Q6 THRU Q9)	HEAT SINK, RED	1210001-00	87
4	4	(USE WITH Q6 THRU Q9)	TRANSIPAD	9007201-00	88
1	1		SCREW PPH #4-40 x 3/8	9008011-01	89
54	54		DIODE ASSEMBLY SPACER	9107771-00	90
1	1		NUT, KEP #4-40	9006557-00	91
		(SEE NOTES AND CHART SHEET #1)	WIRE, #22 AWG (SOLID)	9007580-01	92
1	1		SPACER, THD, ROUND #4-40 X 3/8	9006968-00	93
1	1		SCREW, NYLON, BINDER -D #4-40 X 3/8	9006401-34	94
–	1	R118	RESISTOR 750 1/4W 5%	1301401-00	95
1	–	R118	RESISTOR 22 1/4W 5%	1301969-00	96
A/R	–		WIRE #30 AWG GRN	9105740-55	97
	1	R41	RESISTOR 11, 1W, 1%	1312466-01	98
1		R41	RESISTOR 12, 1W, 1%	1312466-02	99
G652-YA	G652				

NOTES:
4. G652-YA VARIATION:
ETCH CUT #1 SIDE 1 BETWEEN BOTTOM OF R118 AND FEEDTHRU.
ETCH CUT #2 SIDE 2 BETWEEN TOP OF R118 AND E76 PIN 10.
ETCH CUT #3 SIDE 2 BETWEEN CATHODE OF DIØ4 AND CATHODE OF DIØ5.
COMPONENT CHANGE, RESISTOR, R118 CHANGED FROM 750Ω TO 22Ω 1/4 W 5%.
RESISTOR, R41 CHANGED FROM 11Ω TO 12Ω 1W, 1%.
JUMPER #1 FROM CATHODE OF DIØ4 TO BOTTOM OF R118
JUMPER #2 FROM CATHODE OF DIØ6 TO TOP OF R118
JUMPER WIRE PART # 30 AWG GRY 9105740-55
5. G652-YA WILL NOT OPERATE WITH H222-A'S & B'S
G652 WILL NOT OPERATE WITH H222-YA'S & YB'S

TITLE	16K X 18 MEMORY ELECTRONICS	SIZE	CODE	NUMBER	REV.
SCALE	— // —	SHEET 2 OF 11	DIST.	D	DCS	G652-Ø-1	E

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MEM2 RAW A12 H
MEM2 RAW A11 H
MEM1 A17 H
MEM1 A15 H
MEM2 RAW A13 H
MEM2 RAW A14 H
MEM1 A16 H
MEM1 SSYN L
MEM1 MSYN H
MEM1 NOT BUSY H
BANK SEL H
MEM1 RØ H
MEM1 RØ L
READ
WRITE
MEM1 X READ SOURCE T L
MEM1 READ SINK T L
MEM1 X READ I SOURCE T H
MEM1 STROBE EN L
MEM2 WR BYTEØ L
MEM2 WR BYTE1 L
MEM1 INPUT MDR1 H
MEM1 CLR MDRL
MEM1 SSYN H
MEM1 SSYN L
MEM1 OUTPUT EN L
MEM1 MSYN H
MEM1 INH TØ L
MEM1 INH T1 L
MEM1 X WRITE SINK T L
MEM1 X WRITE I SOURCE H
MEM1 X STACK CHG H
MEM1 X WRITE SOURCE T L
MEM1 INH RT L
MEM1 NOT BUSY H
MEM1 LOCK MAR H
MEM1 LOCK MAR1 L
MEM1 LOCK MAR2 L
MEM1 A16 H
MEM1 A17 H
MEM1 A15 H
MEM2 RAW A14 H
MEM1 RAW AØ1 H
MEM1 RAW AØ1 L
MEM1 A15 H
MEM1 LEAST BIT H
INTERLEAVE
BUS A17 L
BUS A16 L
BUS A15 L
BUS AØ1 L
BUS DCLØ L
BUS MSYN L
MEM1 A17 H
MEM1 A16 H
MEM1 A15 H
MEM1 RAW AØ1 H
MEM1 RAW AØ1 L
+3V
+5V
+2ØV
+5V Z
+2ØV SW
1 AMP
J18Ø-2
J149

REVISIONS		
CHK	CHANGE NO.	REV.

(TIMING & CONTROL)

TITLE 16K X18 MEMORY ELECTRONICS (MEM1)
SCALE
SHEET 3 OF 11
SIZE D | CODE CS | NUMBER G652-Ø-1 | REV. E
DIST.

DEC FORM NO. DRD 130

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MEM1 LEAST BIT H
BUS A04 L
BUS A03 L
BUS A02 L
MEM1 OUTPUT EN L
BUS A08 L
BUS A06 L
BUS A05 L
BUS A07 L
MEM1 LOCK MAR 1 L
MEM2 RAW 12 H
BUS A12 L
BUS A09 L
BUS A10 L
BUS A11 L
MEM2 RAW 11 H
MEM2 RAW A0 H
MEM2 RAW C0 H
MEM2 RAW C1 H
BUS A14 L
BUS A13 L
MEM2 RAW 14 H
MEM2 RAW 13 H
MEM1 LOCK MAR 2 L

MEM2 A01 H
MEM2 A04 H
MEM2 A03 H
MEM2 A02 H
MEM2 A08 H
MEM2 A06 H
MEM2 A05 H
MEM2 A07 H
MEM2 A12 H
MEM2 A09 H
MEM2 A10 H
MEM2 A11 H
MEM2 WR BYTE 0 L
MEM2 WR BYTE 1 L
MEM2 A14 B0 L
MEM2 A14 B1 L
MEM2 A14 B0 H
MEM2 A14 B1 H
MEM2 A13 H
MEM2 A13 L

MEM1 X WRITE SINK T L
MEM1 X READ SINK T L
MEM1 X WRITE SOURCE T L
MEM1 X READ SOURCE T L
MEM2 A14 B0 H
MEM2 Y I SOURCE DIODE END T H
MEM2 Y STACK CHG H
MEM2 Y COMMON SINK T L
MEM2 Y DIODE SOURCE T L
MEM2 Y I SOURCE COMMON END T H
MEM2 Y DIODE SINK T L
MEM2 Y COMMON SOURCE T L

BUS SSYN L
MEM1 SSYN H
BUS C0 L
BUS C1 L
BUS A0 L
MEM2 RAW C0 H
MEM2 RAW C1 H
MEM2 RAW A0 H
PARITY DETECT L
INT SSYN L

MEM1 X READ I SOURCE T H
MEM2 Y I SOURCE COMMON END T H
MEM1 X WRITE I SOURCE T H
MEM2 Y I SOURCE DIODE END T H
MEM1 X READ I SOURCE T H
+3V
+20V
R38 1K
C19 120PF
R39 10K
R40 100
R41 SEE NOTE 4 1W
L4 0.47 UH
Q13 4258
99 2N3762
D107 D672
X-READ I.G.
R42 30
R23 1K
C16 120PF
R24 10K
R25 100
R26 11 1W
Q10 4258
Q6 2N3762
D103 D672
Y-COMMON END I.G.
R33 1K
C18 120PF
R34 10K
R35 100
R36 12 1W
L3 0.47UH
Q12 4258
Q8 2N3762
D135 D672
X-WRITE I.G.
C37 0.22 UF
J151
CE1
STACK V REF
R28 1K
C17 120PF
R29 10K
R30 100
R31 13 1W
Q11 4258
Q7 2N3762
D104 D672
Y-DIODE END I.G.
CUT ETCH
ADD JUMPER
R118
R119 47
D105 1N4742 12V
D106 1N756A 8.2V
FOR YA VARIATION SEE NOTE 4

(MAR & CURRENT SOURCES)

REVISIONS

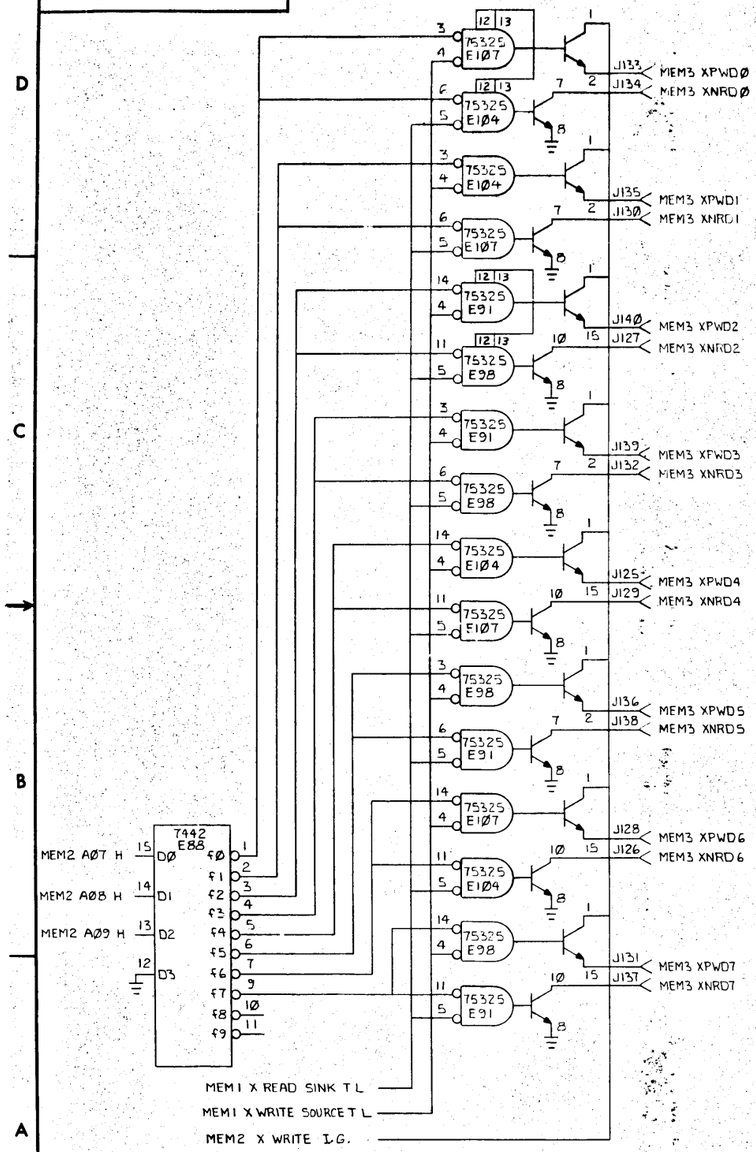
CHK	CHANGE NO.	REV.

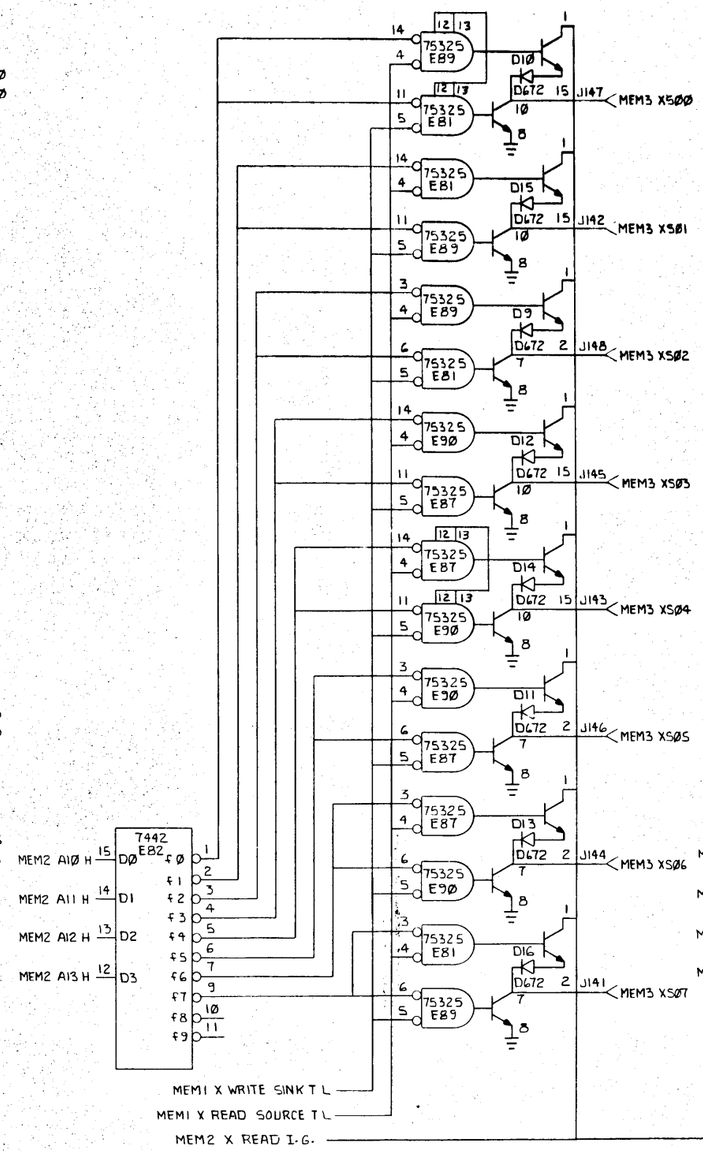
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16K x 18 MEMORY ELECTRONICS (MEM2)	D	CS	G652-0-1	E
SCALE —	SHEET 4 OF 11	DIST.		

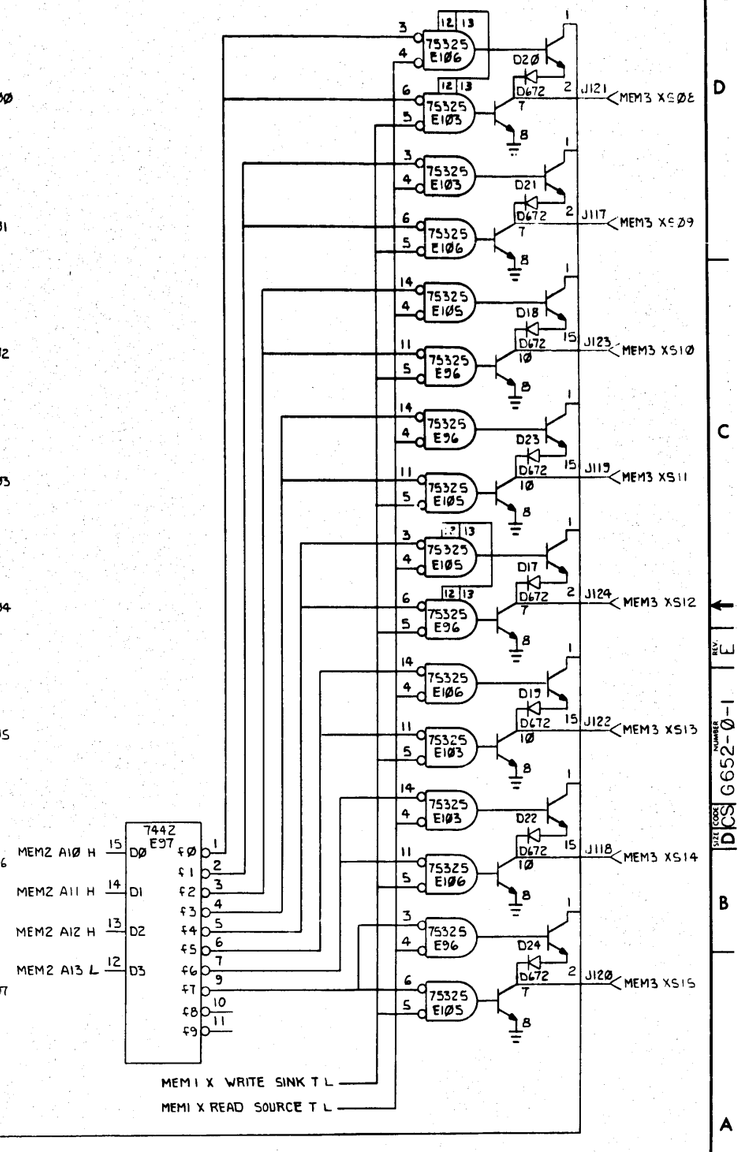
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18

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REVISIONS		
CHK	CHANGE NO.	REV.

(X DRIVE)

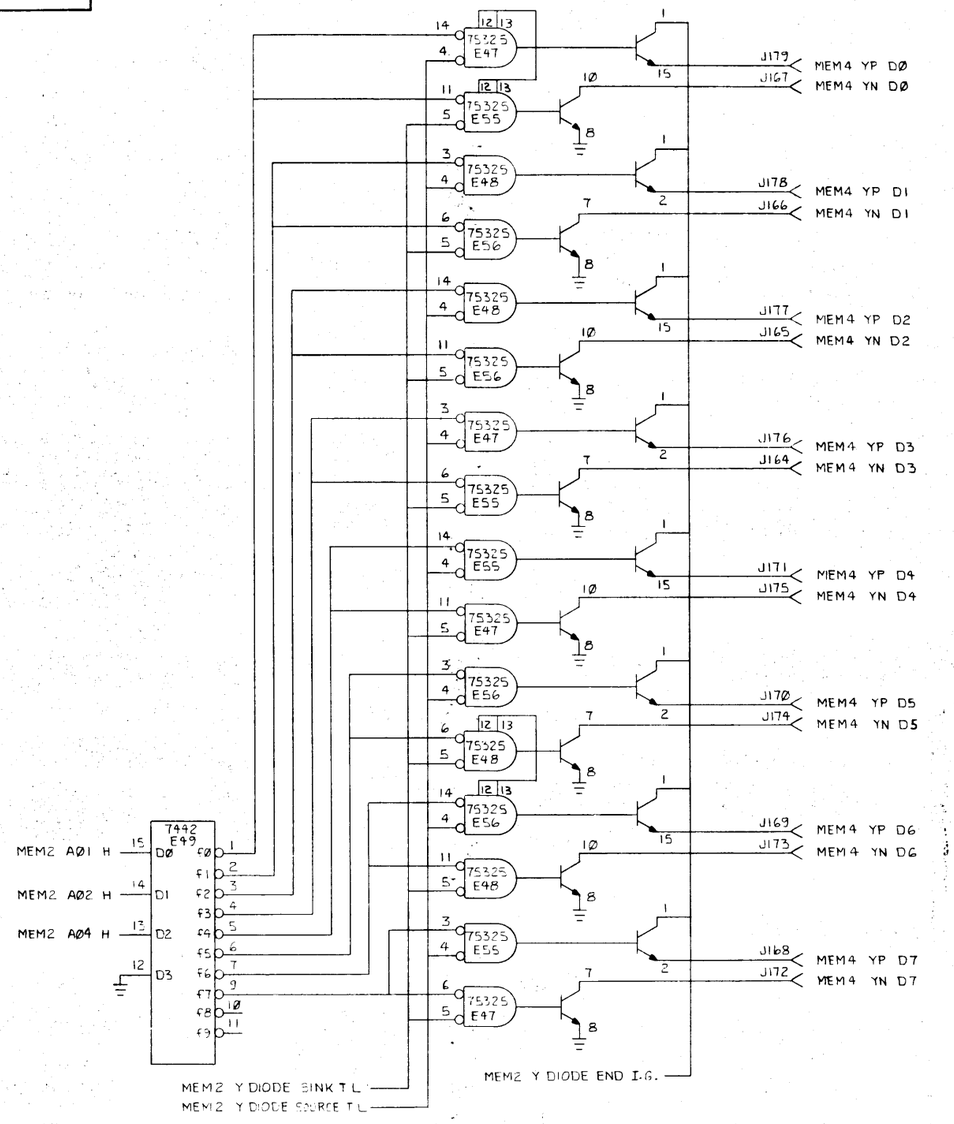
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SCALE —	SHEET 5 OF 11	DIST.		

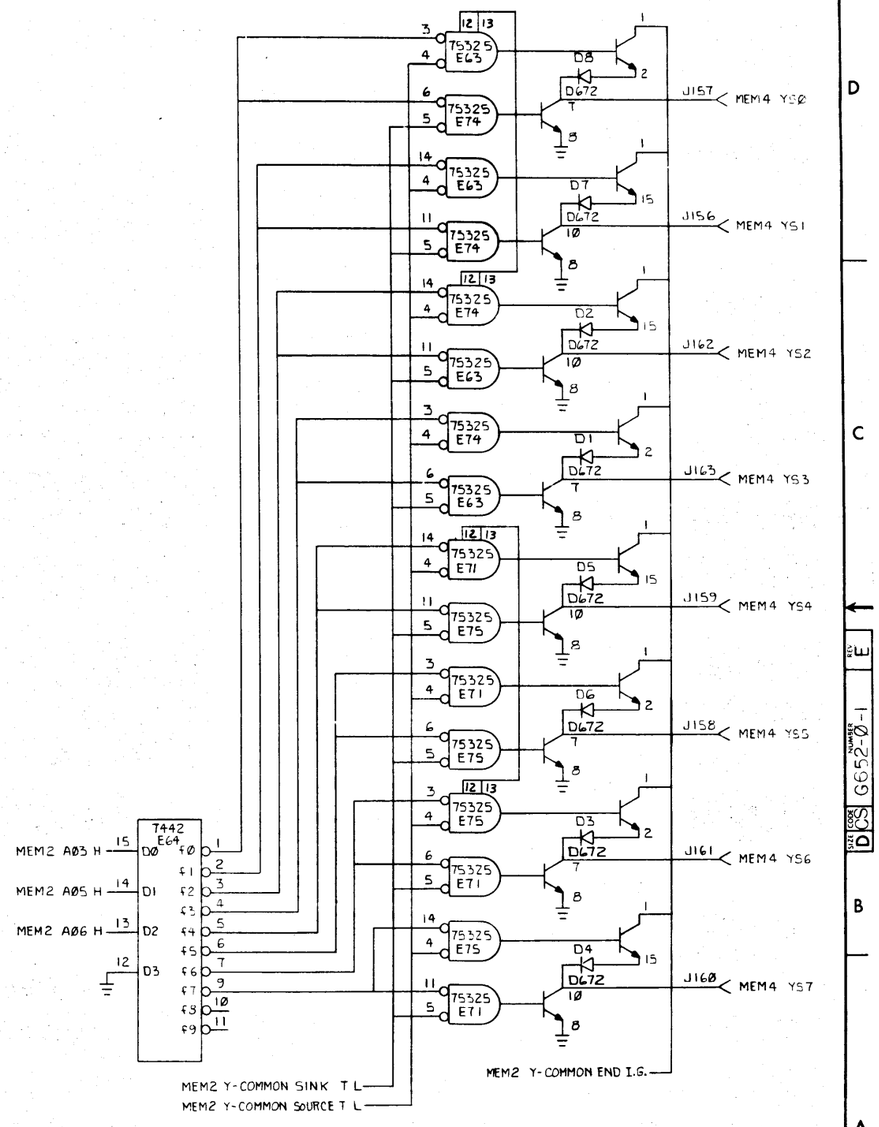
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G652-Ø-1 REV E

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REVISIONS		
CHK	CHANGE NO.	REV.

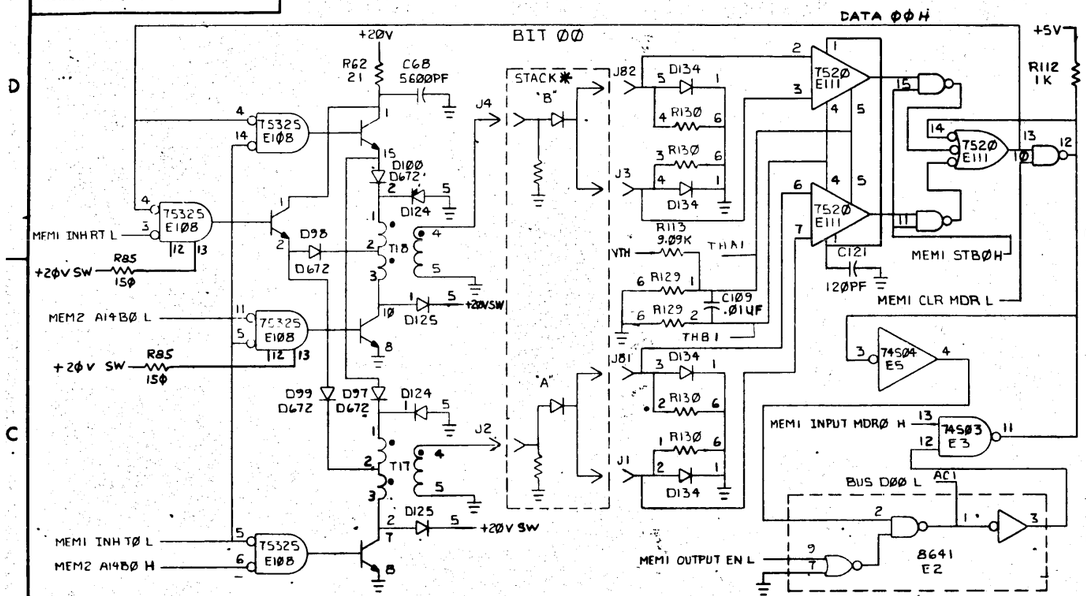
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TITLE	SIZE	CODE	NUMBER	REV.
16K x 18 MEMORY ELECTRONICS (MEM4)	D	CS	G652-0-1	E
SCALE —	SHEET 6 OF 11	DIST.		

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REVISIONS

CHK	CHANGE NO.	REV.

(SENSE & INHIBIT BITS Ø-3)

TITLE	SIZE	CODE	NUMBER	REV.
16K x 18 MEMORY ELECTRONICS (MEM3)	D	CS	G652-Ø-1	E
SCALE	SHEET 7 OF 11	DIST.		

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BIT Ø4 — DATA Ø4 H

BIT Ø6 — DATA Ø6 H

BIT Ø5 — DATA Ø5 H

BIT Ø7 — DATA Ø7 H

(SENSE/INHIBIT BITS 4-7)

REVISIONS		
ONK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
16K x 18 MEMORY ELECTRONICS (MEM8)	D	CS	G652-Ø-1	E

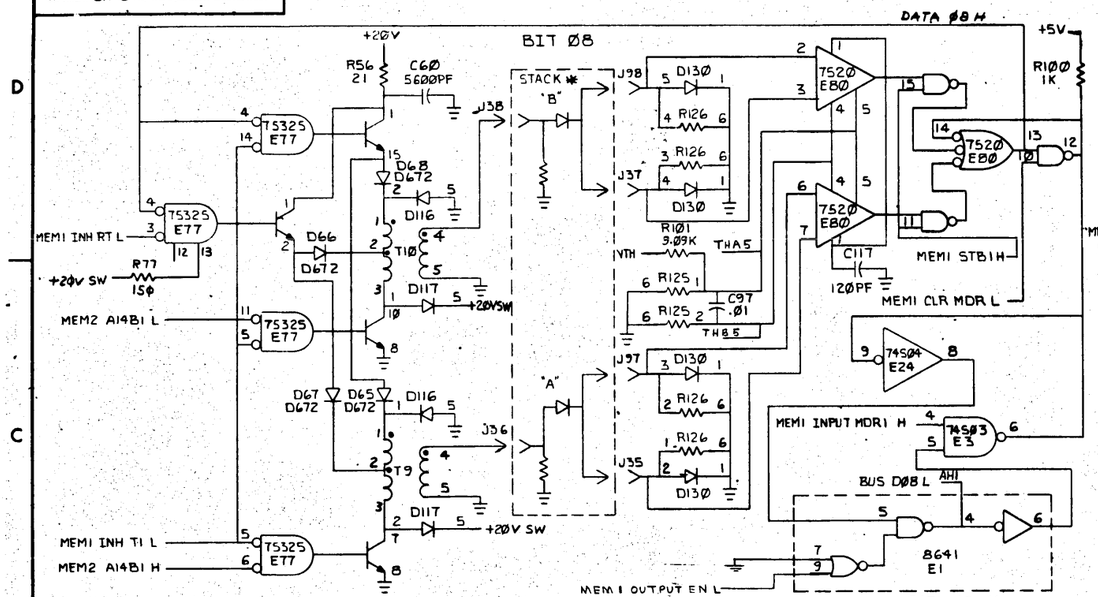
SCALE — SHEET 3 OF 11 — DIST.

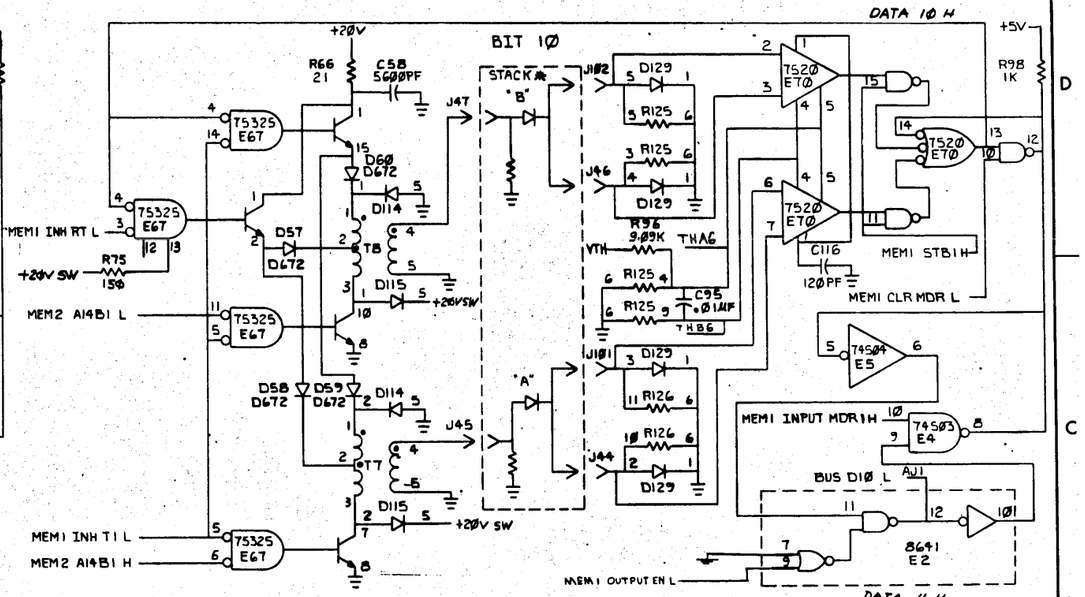
DCS G652-Ø-1 REV E

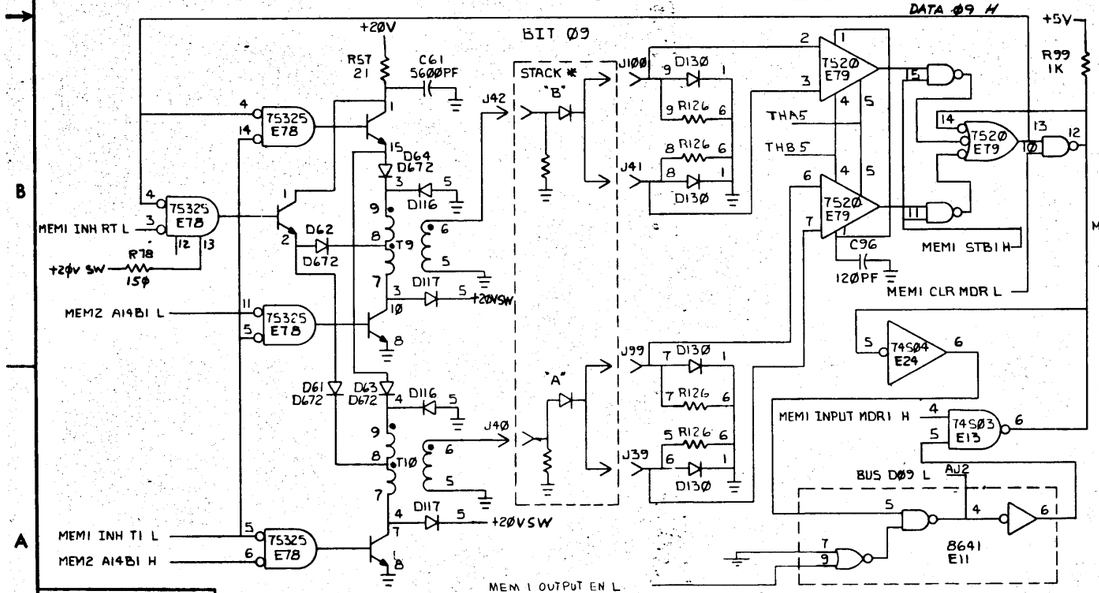
82

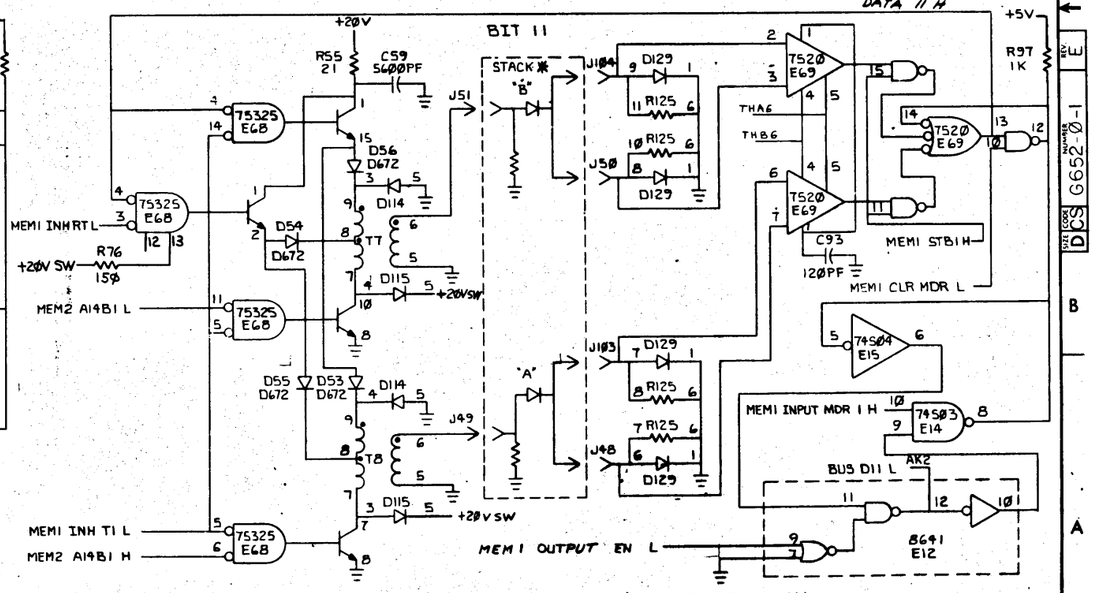
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(SENSE & INHIBIT BITS 8-11)

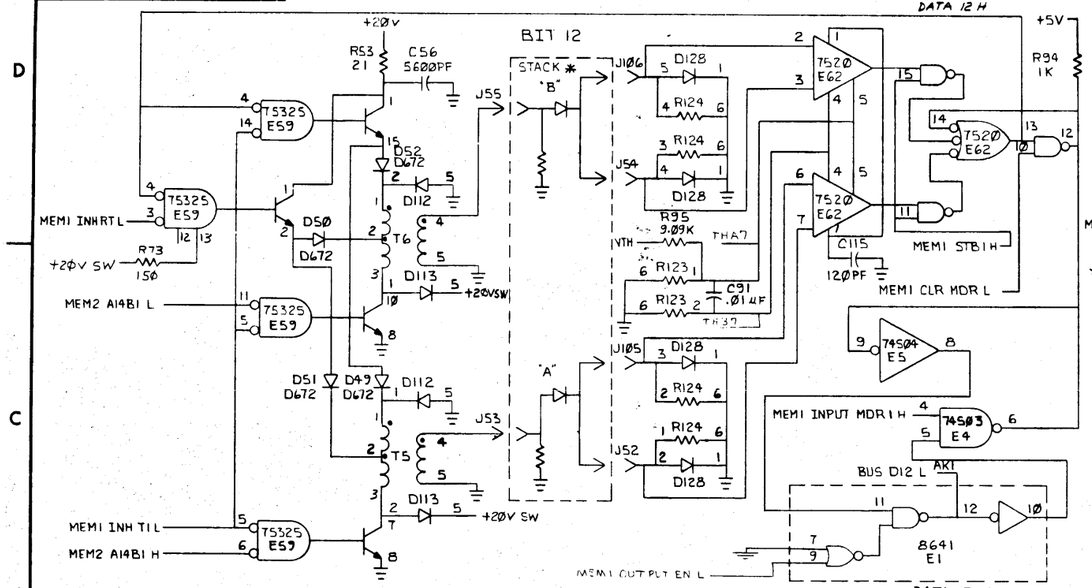
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE 6K x 18 MEMORY ELECTRONICS (MEM7)
SIZE D CODE DCS NUMBER G652-0-1 REV. E
SCALE — SHEET 5 OF 11 DIST.

93

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* MOUNTED ON H222 BD



REVISIONS		
CHK	CHANGE NO.	REV.

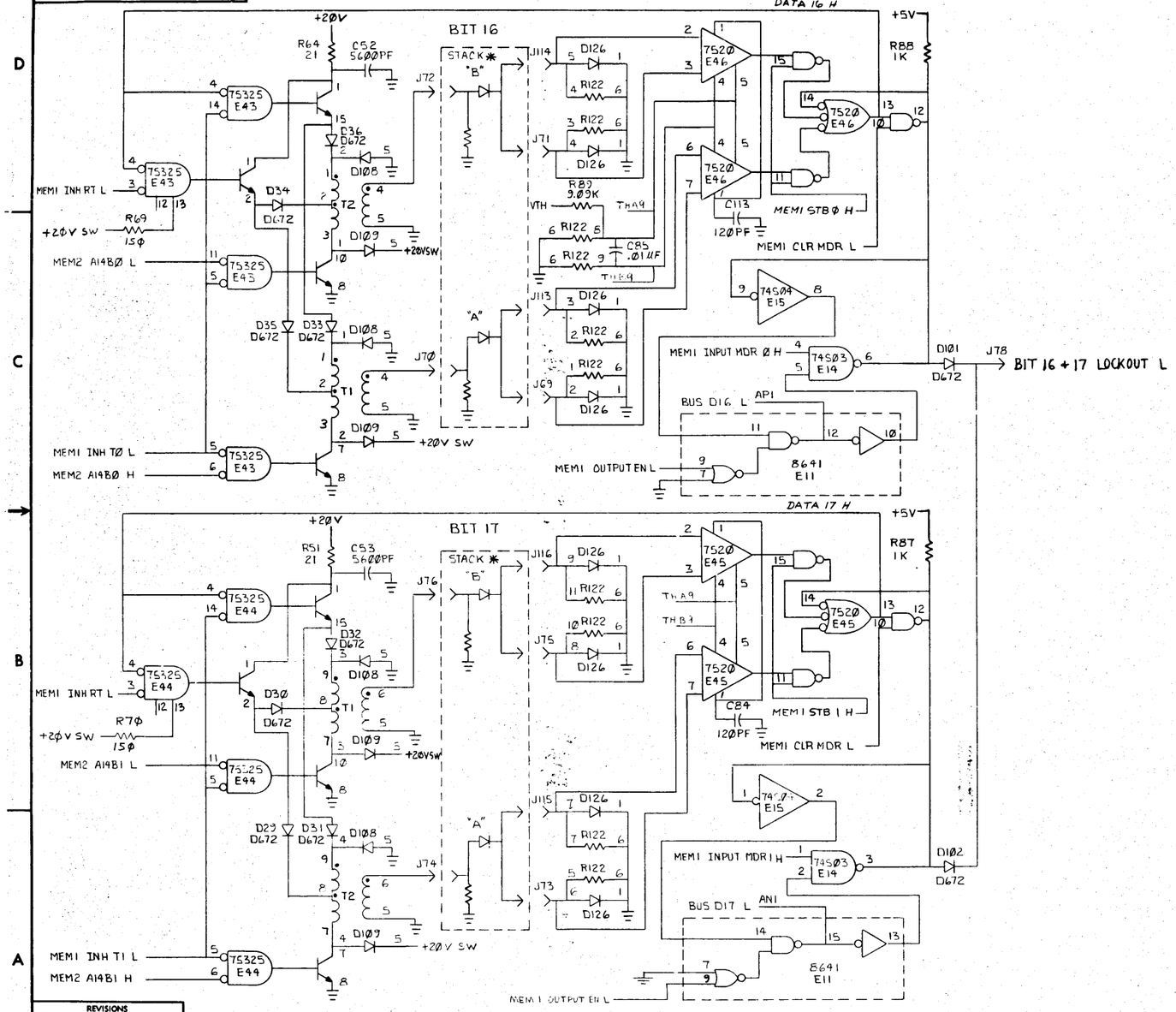
(SENSE & INHIBIT BITS 12-15)

TITLE	SIZE	CODE	NUMBER	REV.
16K x 18 MEMORY ELECTRONICS (MEM18)	D	CS	G652-0-1	E

SCALE — | SHEET 10 OF 11 | DIST.

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(SENSE & INHIBIT BITS 16 & 17)

REVISIONS		
CHK	CHANGE NO.	REV.

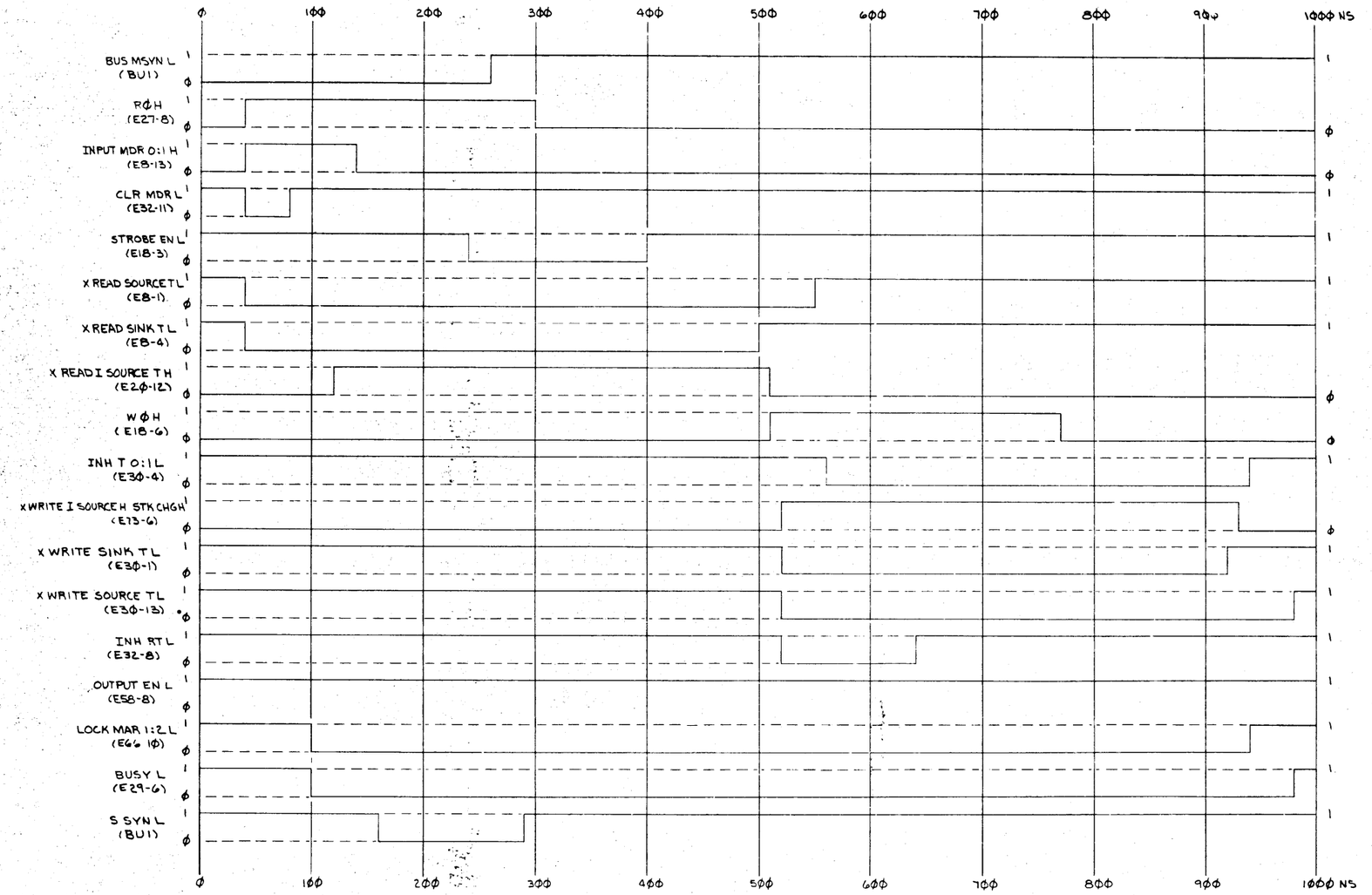
TITLE	SIZE	CODE	NUMBER	REV.
16K x 18 MEMORY ELECTRONICS (MEM9)	D	CS	G652-Ø-1	E
SCALE —	SHEET 1 OF 11	DIST.		

DEC FORM NO. D60 138

95

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DAT O



DRN. W. LUFKIN	4SEP75	FIRST USED ON	digital
CHK'D	20OCT75	MMII-DP	
ENG.	10/22/75	TITLE	
PROJ. ENG	10/24/75	MMII-DP	
PROD EQ	22 OCT 75	TIMING DIAGRAM	
NEXT HIGHER ASSY.		SIZE D / CODE TD / NUMBER MMII-DP-2 / REV.	
B-DD-MMII-DP		DIST.	
SCALE			
SHEET 1 OF 2			

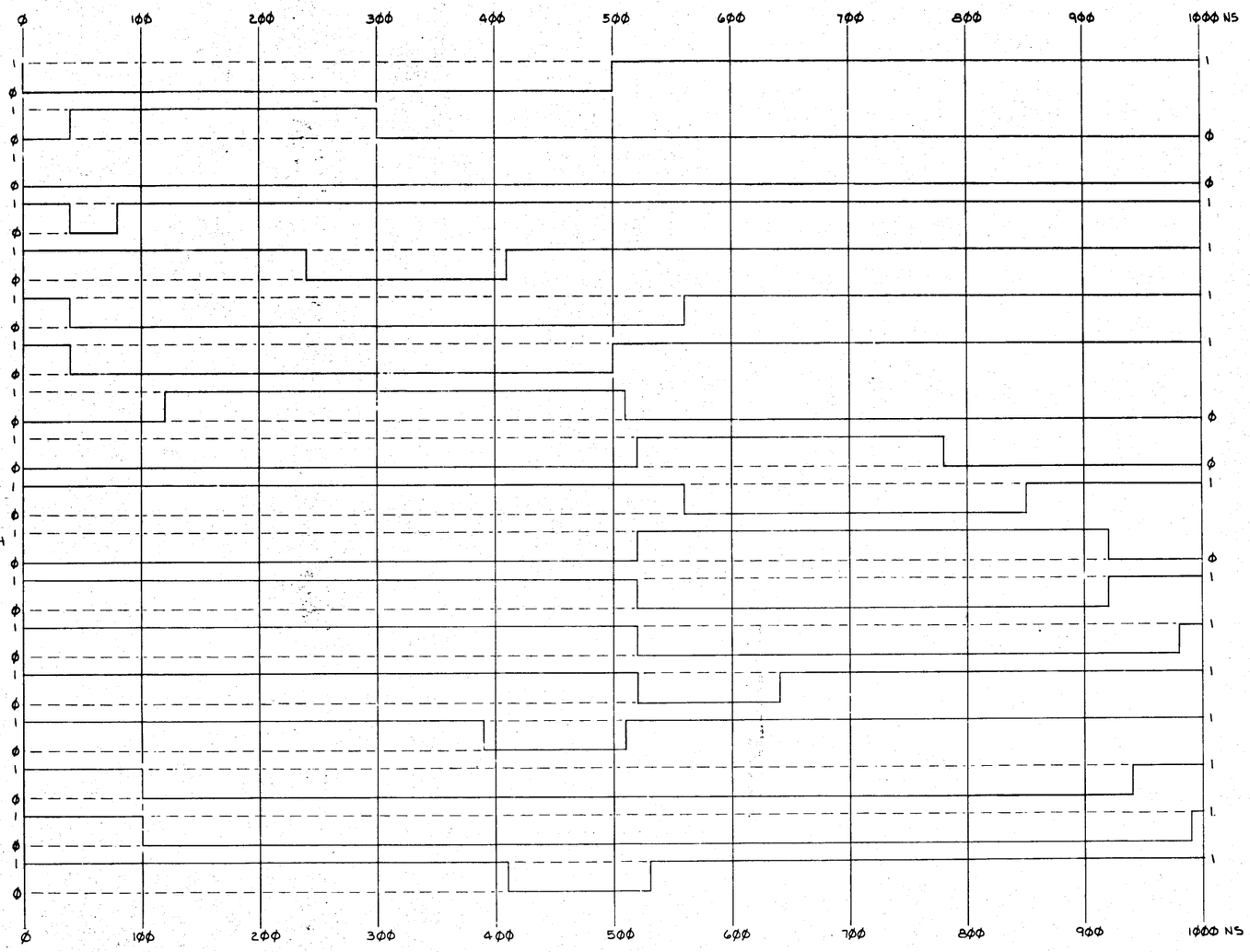
REVISIONS | REV. | CHANGE NO. | CHK.

DEC FORM NO. DBD 102-0

86

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DAT I



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MMII-DP TIMING DIAGRAM	D	TD	MMII-DP-2	
SCALE	SHEET 2 OF 2	DIST.		

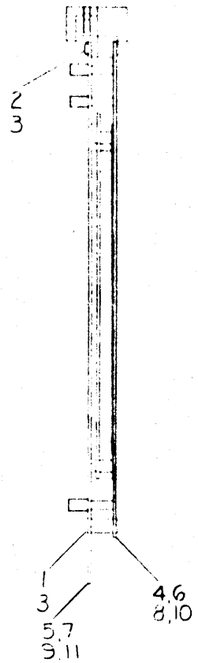
DEC FORM NO. DSD 138

8)

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LEGEND			
VARIATION		DESCRIPTION	DWG. NUMBER
MM11-D WILL INCLUDE MODULE COMBINATION C OR D	D	G652 YA 16K x 18 CORE MEM	D-CS-G652-0-1
		H222 YB STACK BOARD (16 BIT)	D-UA-H222-B-0
	C	G652 16K x 18 CORE MEM	D-CS-G652-0-1
		H222-B STACK BOARD (16BIT)	D-UA-H222-B-0
MM11-DP WILL INCLUDE MODULE COMBINATION A OR B	B	G652 YA 16K x 18 CORE MEM	D-CS-G652-0-1
		H222-YA STACK BOARD (18 BIT)	D-UA-H222-A-0
	A	G652 16K x YB CORE MEM	D-CS-G652-0-1
		H222-A STACK BOARD (18 BIT)	D-UA-H222-A-0

NOTE :
1. MM11-DP MEMORY MODULE ASSEMBLY (16K X 18 BIT) MAY BE SUBSTITUTED FOR MM11-D MODULE ASSEMBLY (16K x 16 BIT)
2. G652-YA'S WILL NOT OPERATE WITH H222'S.
3. H222-YA'S & YB'S WILL NOT OPERATE WITH G652'S



4	4	WASHER LOCK #2 INT TOOTH	90066 31-00	6
2	2	SCR PHL PAN HD 55°2-56x.31 LG	90060 02-01	5
2	2	SCR PHL PAN HD 55°2-56 x .19	90060 00-01	4
1	1	16K x 18 CORE MEMORY (G652)	D-CS-G652-0-1	3
1		H222 STACK BOARD (16 BIT)	D-UA-H222-B-0	2
1		H222 STACK BOARD (18 BIT)	D-UA-H222-A-0	1
		DESCRIPTION	DWG /PART NO	ITEM NO

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES					
		OVER 0 TO 3	OVER 3 TO 6	OVER 6 TO 12	OVER 12 TO 24	OVER 24 TO 48	OVER 48 TO 96
SURFACE QUALITY 125 MICROINCHES	MEDIUM ☐	±.004	±.005	±.012	±.016	±.024	±.06
	PREFERRED ☐	±.012	±.016	±.025	±.06	±.093	±0.1

MM11-D / MM11-DP — QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH

DRN	W. LUFKIN	7/15/75
CHK'D		8/21/75
ENG.		8/26/75
PROJ. ENG.		8/26/75
PROD		8/26/75

NEXT HIGHER ASSY: B-DD-MM11-DP

SCALE 1/1

SHEET 1 OF 1

FIRST USED ON: MM11-DP

TITLE: MM11-DP MEMORY MODULE ASSEMBLY

SIZE	CODE	NUMBER	REV
D	UA	MM11-DP-0	A

DIST

REVISIONS			
ZONE	CHANGE NO		REV
1	UNRELEASED	6 Jan 77	

88

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

SEQUENCE

SEQUENCE

THIS IS PRINT SET

UNIT VARIATIONS		PRINT SET
VAR	TITLE	
H222-A	16K X 18 BIT DEC	
H222-B	16K X 16 BIT DEC	
H222-YA	16K X 18 BIT CONTROL DATA	
H222-YB	16K X 16 BIT CONTROL DATA	

REVISIONS		
DATE	CHG. NO.	REV
5-76	H222-1	A
2-77	H222-2	B

DEC 1-6323-1062-2-A-69/2

USED ON OPTION/MODEL

SHEET 1 OF 2

DRN.		DATE
CHK'D		DATE
PROJ ENG.		DATE
PROD.		DATE
FIELD SERV.		DATE

TITLE: H222 MEMORY STACK

SIZE	CODE	NUMBER	REV
B	DD	H222-Ø	B

DIST

DRB 106

89

ELECTRICAL

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			B-DD-H222-Ø		2	DRAWING DIRECTORY	
			D-CS-5411554-0-1			H222 STACK BOARD	
			E-IA-7011661-0-0		2	CORE PLANE WIRING ASSEMBLY	

MECHANICAL

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			D-UA-H222-A-0		1	H222 CORE MEMORY STACK ASSY	
			D-PA-1211725-0-0		1	STIFFENER, FINGER END	
			D-PS-1211726-0-0		1	STIFFENER, HANDLE END	
			D-MD-5511796-0-0		1	CORE SUPPORT (16K x 16/18 BIT)	
			D-MD-5511797-0-0		1	COVER (16K X 16/18 BIT)	
			A-PL-5411554-C-C			PARTS LIST	
			D-AH-5411554-C-5			MEMORY STACK SUB	

CUSTOMER PRINT SET CODES

X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE		SIZE	CODE	NUMBER	REV
H222 MEMORY STACK	SHEET 2 OF 2	B	DD	H222-Ø	B

90

digital EN-01062-2B-16-R972-(325)

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NOTE:
PREFIX FOR J156-J179 IS MEM4.

"Y" DIODE MATRIX

J160 YS7 · J161 YS6 · J158 YS5 · J159 YS4 · J163 YS3 · J162 YS2 · J156 YS1 · J157 YS0

D18 · D52 · D60 · D54 · D62 · D56 · D64 · D58 · D66 · D16

J179 YP D0 · YN D0 J167
J178 YP D1 · YN D1 J166
J177 YP D2 · YN D2 J165
J176 YP D3 · YN D3 J164
J171 YP D4 · YN D4 J175
J170 YP D5 · YN D5 J174
J169 YP D6 · YN D6 J173
J168 YP D7 · YN D7 J172

C8 .22 μF 50V · D19 D672 · R56 82 1/2 W · +5V

R57 · R58

+20V J153 · C4 .22 μF · Q2 3736 · L1 100 μH · R54 47 · J155 +5V · D2 D672 · C9 .01 μF · W4 · D6 D672 · D4 D672 · D74 D672

PULL UP H · J158 · 74S140 E2 · R15 100 · Q3 3736 · C5 680 PF · MEMORY STACK CHG H

REVISIONS			
CHK	CHANGE NO.	REV.	
	5411554-00001	C	4/14/76
	5411554-00002	D	3/30/77

DRN A. Thomas 6-26-75 · CHK'D 7/14/75 · ENG. 7/14/76 · PROJ. ENG. 7/14/76 · PROD. RA 7/14/76 · NEXT HIGHER ASSY. D-UA-H222-0 · SCALE — · SHEET 1 OF 3

FIRST USED ON MM11D/DP

digital

TITLE 16K X 15, 18 MEMORY STACK

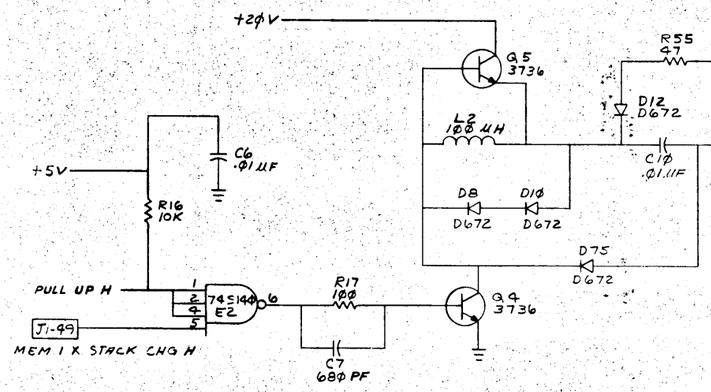
SIZE D · CODE CS · NUMBER 5411554-0-1 · REV. D · DIST.

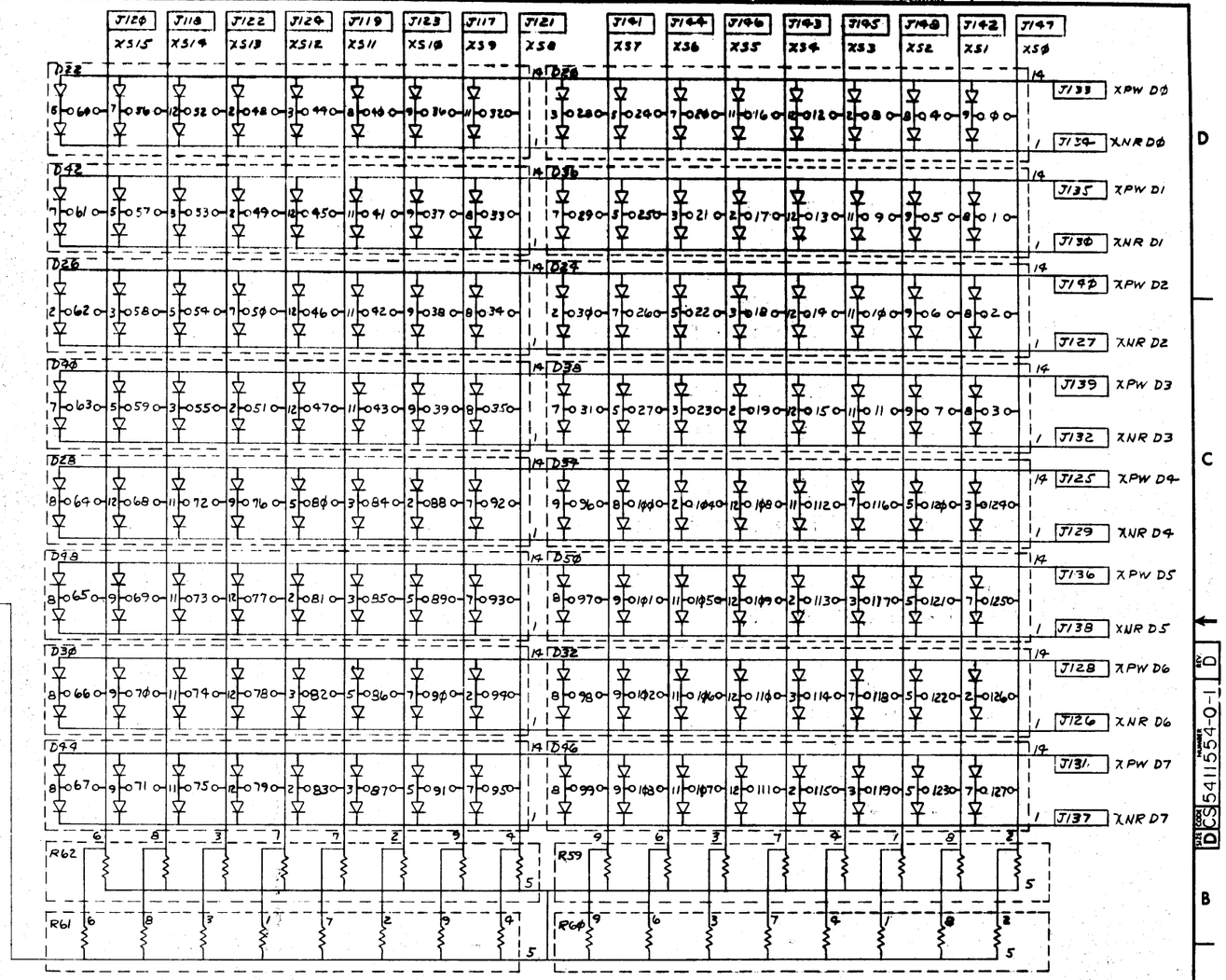
DEC FORM NO. DRD 102-0

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"X" DIODE MATRIX

NOTE:
PREFIX FOR J117-J148 IS MEM9.





REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
16K X 16, 18 MEMORY STACK	D	DCS	5411554-0-1	D
SCALE — SHEET 2 OF 3	DIST.			

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NOTES:
1. R18 THRU R53 ARE 1K, 1/4W ±5%.
2. UNLESS OTHERWISE SPECIFIED: ALL DIODES ARE DG72.
3. W3 MUST BE INSTALLED FOR A 16 BIT MEMORY -- H222B, OR H222A USED WITHOUT A PARITY CONTROLLER (M7850).
4. W1 & W2 ARE USED TO ADJUST VREF

J1 SBØØA, J81 SAØØA, J2 IØØA } BIT ØØA — R53 — D73
J3 SBØØB, J82 SAØØB, J4 IØØB } BIT ØØB — R52 — D71
J5 SBØ1A, J83 SAØ1A, J6 IØ1A } BIT Ø1A — R51 — D69
J7 SBØ1B, J84 SAØ1B, J8 IØ1B } BIT Ø1B — R50 — D67
J10 SBØ2A, J85 SAØ2A, J11 IØ2A } BIT Ø2A — R49 — D65
J12 SBØ2B, J86 SAØ2B, J13 IØ2B } BIT Ø2B — R48 — D63

J14 SBØ3A, J87 SAØ3A, J15 IØ3A } BIT Ø3A — R47 — D61
J16 SBØ3B, J88 SAØ3B, J17 IØ3B } BIT Ø3B — R46 — D59
J18 SBØ4A, J89 SAØ4A, J19 IØ4A } BIT Ø4A — R45 — D57
J20 SBØ4B, J90 SAØ4B, J21 IØ4B } BIT Ø4B — R44 — D55
J22 SBØ5A, J91 SAØ5A, J23 IØ5A } BIT Ø5A — R43 — D53
J24 SBØ5B, J92 SAØ5B, J25 IØ5B } BIT Ø5B — R42 — D51

J27 SBØ6A, J93 SAØ6A, J28 IØ6A } BIT Ø6A — R41 — D49
J29 SBØ6B, J94 SAØ6B, J30 IØ6B } BIT Ø6B — R40 — D47
J31 SBØ7A, J95 SAØ7A, J32 IØ7A } BIT Ø7A — R39 — D45
J33 SBØ7B, J96 SAØ7B, J34 IØ7B } BIT Ø7B — R38 — D43
J35 SBØ8A, J97 SAØ8A, J36 IØ8A } BIT Ø8A — R37 — D41
J37 SBØ8B, J98 SAØ8B, J39 IØ8B } BIT Ø8B — R36 — D39

J39 SBØ9A, J99 SAØ9A, J40 IØ9A } BIT Ø9A — R35 — D37
J41 SBØ9B, J100 SAØ9B, J42 IØ9B } BIT Ø9B — R34 — D35
J44 SB10A, J101 SA10A, J45 I10A } BIT 10A — R33 — D33
J46 SB10B, J102 SA10B, J47 I10B } BIT 10B — R32 — D31
J48 SB11A, J103 SA11A, J49 I11A } BIT 11A — R31 — D29
J50 SB11B, J104 SA11B, J51 I11B } BIT 11B — R30 — D27

J52 SB12A, J105 SA12A, J53 I12A } BIT 12A — R29 — D25
J54 SB12B, J106 SA12B, J55 I12B } BIT 12B — R28 — D23
J56 SB13A, J107 SA13A, J57 I13A } BIT 13A — R27 — D21
J58 SB13B, J108 SA13B, J59 I13B } BIT 13B — R26 — D19
J61 SB14A, J109 SA14A, J62 I14A } BIT 14A — R25 — D17
J63 SB14B, J110 SA14B, J64 I14B } BIT 14B — R24 — D15

J65 SB15A, J111 SA15A, J66 I15A } BIT 15A — R23 — D13
J67 SB15B, J112 SA15B, J68 I15B } BIT 15B — R22 — D11
J69 SB16A, J113 SA16A, J70 I16A } BIT 16A — R21 — D9
J71 SB16B, J114 SA16B, J72 I16B } BIT 16B — R20 — D7
J73 SB17A, J115 SA17A, J74 I17A } BIT 17A — R19 — D5
J75 SB17B, J116 SA17B, J76 I17B } BIT 17B — R18 — D3

W3 — J78 BIT 16&17 LOCK OUT (SEE NOTE 3)

J9, J26, J43, J60, J77, J159

+20 — D1 IN757A 9.1V — R3 1.21K — R4 1.62K — R14 1K (T) — R5 10K — R6 21.5K — W1 — W2 (SEE NOTE 4) — R2 3.16K — R1 82Ø — R7 1K — XY J152

C1 .01 MF — R10 3.48K — R8 1.5ØK — XY LO J79 — R9 1.5ØK — XY HI J8Ø

C2 .22 MF — R13 1ØØ — 7Z741 E1 — R11 47Ø — C3 .01 MF — R12 1.96K — Q1 6534B — J151 V REF

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
16K X 16, 18 MEMORY STACK	D	CS	5411554-0-1	D
SCALE —	SHEET 3 OF 3		DIST.	

DCS 5411554-0-1 D

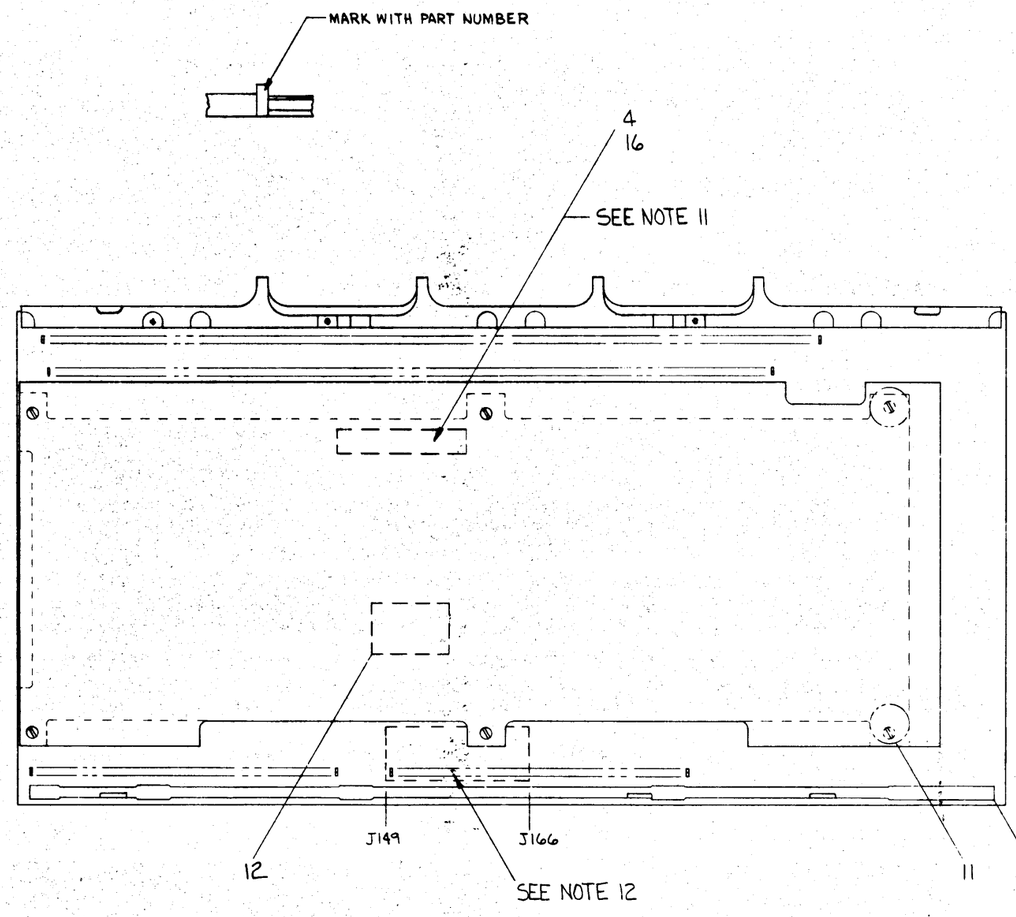
93

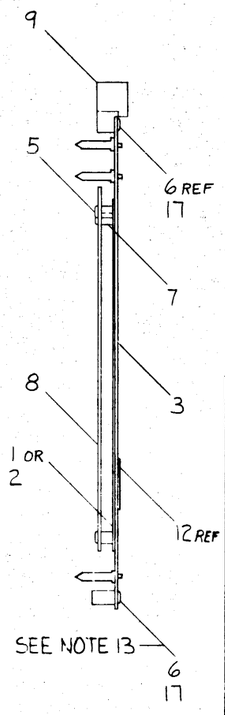
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LEGEND			
NUMBER	NUMBER	VARIATION	USED ON
H222-YA	H222 A	16K X 18 BIT	MM11-DP
H222-YB	H222 B	16K X 16 BIT	MM11-D

NOTES:

1. BOND ITEM 1 (CORE PLANE) TO ITEM 3 (STACK BOARD) WITH ITEM 14 (ADHESIVE).
2. SWAGE ITEM 1 (CORE PLANE) AND ITEM 3 (STACK BOARD) TOGETHER WITH ITEM 7 (STANDOFF).
3. USE ITEM 15 (PROTECTIVE COATING) TO COAT ALL MAGNETIC WIRE TERMINATIONS AFTER ELECTRICAL TEST. (REF E-IA-7011661-0-0)
4. BOND TWISTED CABLES TO ITEM 1 (CORE PLANE) WITH ITEM 13 (ADHESIVE). SEE E-IA-7011661-0-0.
5. BOND X & Y DRIVE LOOPS IN PLACE WITH ITEM 13 (ADHESIVE). SEE E-IA-7011661-0-0 NOTES
6. REFER TO E-IA-7011661-0-0 WHEN SOLDERING WIRE TERMINATIONS TO ITEM 3 (STACK BOARD).
7. ASSEMBLE ITEMS 9 & 10 (STIFFENERS) TO ITEM 3 (STACK BOARD) USING ITEMS 6 & 17 .
8. ATTACH ITEM 8 (COVER) TO ITEM 3 (STACK BOARD) USING ITEM 5 (NYLON SCREW).
9. APPLY ITEM 11 (WARRANTY SEAL) WHERE SHOWN.
10. APPLY ITEM 12 (NAME PLATE) TO SIDE 2 OF ITEM 3 (STACK BOARD) AS SHOWN.
11. MARK ITEM 3 (STACK BOARD) ON SIDE 2 WITH DEC PART NUMBER, SEQUENTIAL SERIAL NUMBER, AND CIRCUIT SCHEMATIC REVISION USING ITEM 4 (INK) AND ITEM 16 (EPOXY). EXAMPLE: H222-A-001-CS-B.
12. TRIM AMP POSTS AND COMPONENT LEADS TO BE .05 IN THIS AREA OF SIDE 2.
13. INSTALL ITEM 17 (LOCKWASHER) "TORQUE HAND TIGHT".





1	—	—	—	CORE PLANE WIRING ASSY.	E-IA-7011661-3-0	19
1	1	—	—	CORE PLANE WIRING ASSY.	E-IA-7011661-2-0	18
8	8	8	8	WASHER, LOCK #2 INT TOOTH	9006631-00	17
A/R	A/R	A/R	A/R	EPOXY	4901082-00	16
A/R	A/R	A/R	A/R	PROTECTIVE COATING (F145)	4901083-00	15
A/R	A/R	A/R	A/R	ADHESIVE (RTV 3145)	4901086-00	14
A/R	A/R	A/R	A/R	ADHESIVE (RTV 3140)	4901085-00	13
1	1	1	1	NAME PLATE	~~9009238-00~~	12
2	2	2	2	WARRANTY SEAL		11
1	1	1	1	STIFFENER, FINGER END	D-PS-1211725-0-0	10
1	1	1	1	STIFFENER, HANDLE END	D-PS-1211726-0-0	9
1	1	1	1	COVER	D-MD-5511797-0-0	8
6	6	6	6	STANDOFF .25 DIA X .19 LG	9009677-00	7
8	8	8	8	SCR, PHL PAN HD SS #2-56 X .19	9006000-01	6
6	6	6	6	SCR, SLT BNDR HD NYLON #4-40 X .19	9009233-04	5
A/R	A/R	A/R	A/R	INK, BLACK	4901084-00	4
1	1	1	1	H222 STACK BOARD	5411554	3
—	—	1	—	CORE PLANE WIRING ASSY	E-IA-7011661-1-0	2
—	—	—	1	CORE PLANE WIRING ASSY	E-IA-7011661-0-0	1
H222-YB	H222-YA	H222B	H222A	DESCRIPTION	DWG./PART NO.	ITEM NO.

QUANTITY & VARIATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES					
		OVER 0 TO 0.7	OVER 0.7 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
BURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.018	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.020	±.04	±.063	±0.1

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN. W. LUPRIN	7/17/75	FIRST USED ON MM11-DP
CHK'D	8/21/75	digital
ENG.	8/23/75	TITLE H222 CORE MEMORY STACK ASSEMBLY
PROJ. ENG.	8/22/75	
PROD.	8/25/75	
NEXT HIGHER ASSY.		
D-UA-MM11-DP-Ø		SIZE D | CODE UA | NUMBER H222-Ø-0 | REV. A
SCALE 1/1		
SHEET 1 OF 1		DIST.

REVISIONS			
CHK	CHANGE NO.	REV.	
RLS	H-222-00002	A	ECO Released MM11-DP D.SMELSER 7/24/75

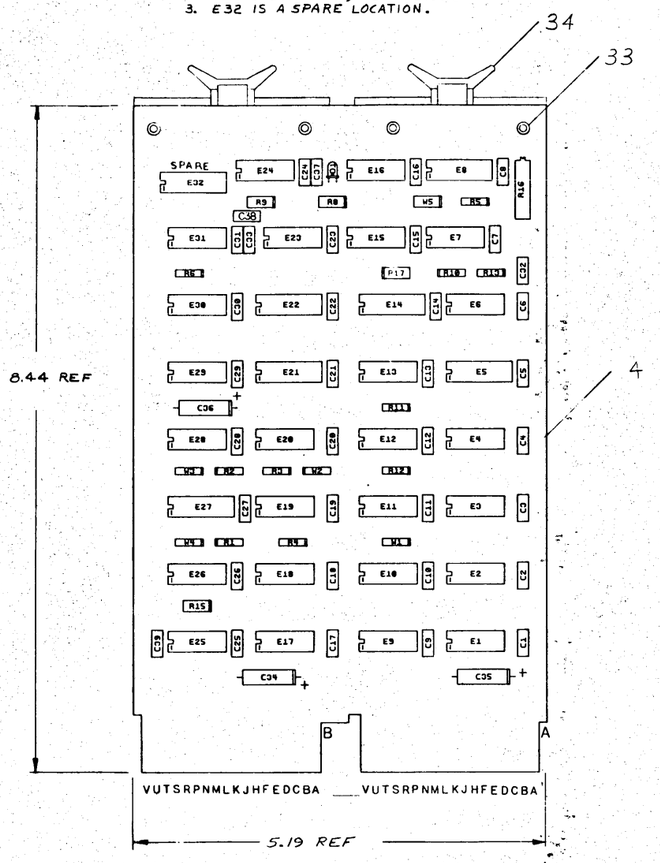
DEC FORM NO. 1090

94

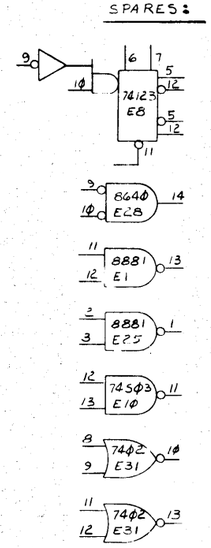
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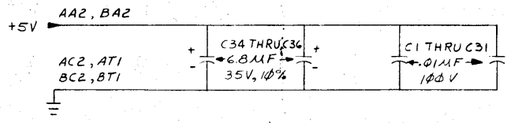
NOTES:

1. ALL RESISTORS 1/4 W, 5% UNLESS OTHERWISE NOTED.
   ALL CAPACITORS ARE 100 V, 20 % UNLESS OTHERWISE NOTED.
2. JUMPER CONTROL OPERATIONS AS FOLLOWS:
   W1 THRU W4 SELECT CSR ADDRESS, W5 CAPACITOR FOR S SYN DLY, NOT USED.
3. E32 IS A SPARE LOCATION.



SPARES:





8640	1	8
8266	8	16
74157	8	16
74174	8	16
74123	8	16
7485	8	16
3144	1	8
IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF		CIRCUIT SCHEMATIC	D-CS-M7850-0-1	REF
REF		X-Y COORDINATE HOLE LOCATION	X-CO-M7850-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M7850-0-5	2
REF		MODULE ECO HISTORY	B-MH-M7850-0-6	3
1		ETCHED CIRCUIT BOARD	5C10651-00	4
1	C39	CAP 470 PF, 100V, 5% (DM)	1000024-00	5
2	C33, C37	CAP 330 PF, 100V, 5% (DM)	1000023-00	6
32	C1 THRU C32	CAP .01 MF, 100 V, 20% DISC	1001610-01	7
3	C34, C35, C36	CAP 6.8 MF, 35 V, 10 % STANT	1005306-00	8
1	D1	DIODE, L.E.D.	1110324-00	9
5	R1 THRU R5	RES 4.7K 1/4W 5%	1302447-00	10
3	R8, R9, R15	RES 100 1/4W 5%	1300229-00	11
5	R6, R10, R11, R12, R17	RES 470 1/4W 5%	1300316-00	12
1	R13	RES 1K 1/4W 5%	1300365-00	13
1	R16	RES 10K 3/4W 2% (1% PREFD)	1309143-10	14
1	E24	I.C. 7400	1905575-00	15
1	E30	I.C. 7430	1905578-00	16
1	E31	I.C. 7402	1909004-00	17
1	E19	IC. 314A	1909704-00	18
1	E23	IC. 7408	1910155-00	19
4	E1, E9, E17, E25	IC. 8881	1909705-00	20
1	E16	I.C. 74H04	1909931-00	21
1	E27	I.C. 7485	1910224-00	22
1	E8	I.C. 74123	1910436-00	23
1	E10	I.C. 74S03	1910533-00	24
1	E15	I.C. 74S74	1910544-00	25
1	E21	I.C. 74174	1910652-00	26
2	E5, E22	I.C. 74157	1910655-00	27
9	E2, E3, E11, E12, E18 E20, E26, E28, E29	I.C. 8640	1911469-00	28
2	E4, E13	I.C. 74S280	1911573-00	29
1	E14	I.C. 8266	1909934-00	30
2	E6, E7	I.C. 7474	1905547-00	31
4	W1 THRU W4	INSULATED JUMPER	9009185-00	32
4		EYELET	9006732-00	33
2		HANDLE, FLIP-CHIP (MAGENTA)	9008337-6	34

PARTS LIST

FIRST USED ON OPTION MODEL

ETCH BOARD REV. B

REV.	CHANGE NO.	CHK	DATE
B	M7850-0-0001	JM	5/13/75

J MANTON 5/15/75

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN.	W. LUFKIN	DATE 2-5-75
CHK'D.		DATE 2/17/75
ENG.		DATE 2/19/75
PROJ. ENG.		DATE 2/19/75
PROD.		DATE 2/19/75

NEXT HIGHER ASSY

SCALE

SHEET 1 OF 3

digital

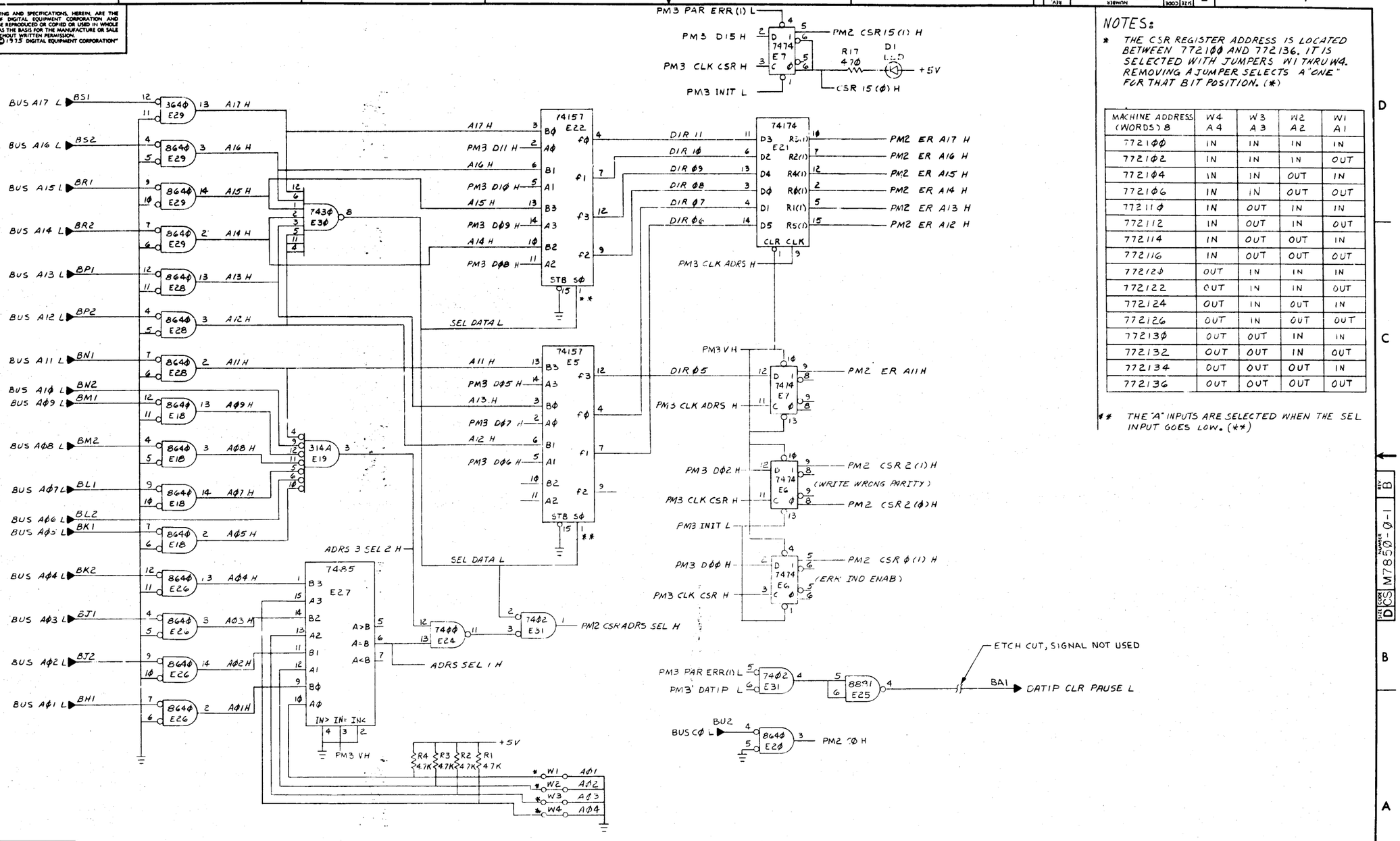
TITLE: PARITY MODULE

SIZE	CODE	NUMBER	REV.
D	CS	M7850-0-1	B

DIST.

95

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NOTES:

* THE CSR REGISTER ADDRESS IS LOCATED BETWEEN 772100 AND 772136. IT IS SELECTED WITH JUMPERS W1 THRU W4. REMOVING A JUMPER SELECTS A "ONE" FOR THAT BIT POSITION. (*)

MACHINE ADDRESS (WORDS) 8	W4 A4	W3 A3	W2 A2	W1 A1
772100	IN	IN	IN	IN
772102	IN	IN	IN	OUT
772104	IN	IN	OUT	IN
772106	IN	IN	OUT	OUT
772110	IN	OUT	IN	IN
772112	IN	OUT	IN	OUT
772114	IN	OUT	OUT	IN
772116	IN	OUT	OUT	OUT
772120	OUT	IN	IN	IN
772122	OUT	IN	IN	OUT
772124	OUT	IN	OUT	IN
772126	OUT	IN	OUT	OUT
772130	OUT	OUT	IN	IN
772132	OUT	OUT	IN	OUT
772134	OUT	OUT	OUT	IN
772136	OUT	OUT	OUT	OUT

** THE "A" INPUTS ARE SELECTED WHEN THE SEL INPUT GOES LOW. (**)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PARITY MODULE (PM2)	D	CS	M7850-Ø-1	B
SCALE	SHEET 2 OF 3	DIST.		

DEC FORM NO. 640 138

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SIZE D | CODE DCS | NUMBER M7850-0-1 | REV B

NOTES:

* B INPUTS SELECTED WHEN SEL IS LOW (*)

** SET R16 TO 110 NSEC. ± 10 NS FROM SIGNAL ON PIN BE1 GOING LOW TO SIGNAL ON PIN BB2 GOING HIGH. (@ 1.5V LEVEL) (* *)

PM2 CSR 15 (1) H
BUS DI4 L
BUS DI3 L
BUS DI2 L
PM2 ER A17 H
PM2 ER A16 H
PM2 ER A15 H
PM2 ER A14 H
PM2 ER A13 H
PM2 ER A12 H
PM2 ER A11 H
BUS DØ4 L
BUS DØ3 L
PM2 CSR 2(1) H
BUS DØ1 L
PM2 CSR Ø (1) H
PM3 READ SEL H

8881 E9 · 8881 E17 · 8881 E1

AM2 BUS DI5 L · AL1 BUS DI4 L · AL2 BUS DI3 L · AK1 BUS DI2 L · AK2 BUS DI1 L · AJ1 BUS DIØ L · AJ2 BUS DØ9 L · AH1 BUS DØ8 L · AH2 BUS DØ7 L · AF1 BUS DØ6 L · AF2 BUS DØ5 L · AE1 · AE2 · AD1 BUS DØ2 L · AD2 · AC1 BUS DØØ L

8640 E12 · 8640 E11 · 8640 E2 · 8640 E3

PM3 DI5 H · DI4 H · DI3 H · DI2 H · PM3 DI1 H · PM3 DIØ H · PM3 DØ9 H · PM3 DØ8 H

74S280 E13

PM3 8 BIT GEN H

74S280 E4

PM3 DØ7 H · DØ4 H · DØ3 H · DØ1 H · PM3 DØ6 H · PM3 DØ5 H · PM3 DØ2 H · PM3 DØØ H

BUS M SYN L · BV1 · 8640 E20

PM3 C1 H

74S03 E10 · 74S03 E10 · 74S03 E10

AN1 INT BUS PI L · AP1 INT BUS PØ L · PM3 PAR ERR H

R12 470 · R11 470 · R10 470 · +5V

8266 E14

PM2 CSR 2(Ø) H

PM3 B BIT GEN H · PM3 A BIT GEN H · PM3 DATIP L · *PM3 C1 L

PM3 VH · PM2 CØH

RG 4.7Ø · +5V · MI14A E1G · 1Ø · PM3 INT SSYN H

R5 4.7K · +5V · ** · R16 10K · (T.P.) · BB2 S SYN DLY (Ø) H

INT BUS SSYN L · BE1 · PM3 C1 L

74123 E8 · PM3 INIT L

R13 1K · +5V · PM3 VH

C32 .Ø1UF

PM3 PAR ERR(1) H · PM3 PAR ERR(1) L

74S74 E15 · PM2 CSR Ø(1) H

8881 E1 · AN2 · BUS PB L

PM3 INT SSYN H · PM3 M SYN PULSE L · PM3 PAR ERR H

74S74 E15 · 8881 E25 · BU1 · BUS SSYN L

PM3 PAR ERR(1) H · R8 100 · C37 330 PF 5% · 74H04 E16 · 1400 E24 · ERRCLR INH L

7408 E23 · S SYNC INH Ø H

BE2 INT BUS PAR MOD DET L

BUS INIT L · AA1 · 8640 E20 · INIT H · 74H04 E16 · PM3 INIT L

BUS C1 L · BT2 · 8640 E20 · 74H04 E16 · PM3 C1 H · PM3 C1 L

R9 100 · C33 330PF 5% · 74H04 E16 · 7408 E24 · PM3 M SYN PULSE L

C39 470 PF 5% · R15 100 · PM3 C1 L · 7408 E23 · PM3 READ SEL H

PM2 CSR ADRS SEL H · 7408 E23

7408 E23 · PM3 CLK CSR H · 74H04 E16 · CLK CSR L · 7400 E24 · PM3 CLK ADRS H

PM3 C1 H · PM3 PAR ERR(1) L

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PARITY MODULE (PM3)	D	DCS	M7850-0-1	B
SCALE	SHEET 3 OF 3	DIST.		

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D50 D48 D46 D44 D42 D40 D38 D36 D34 D32 D30 D28 D26 D24 D22 D20

D75 D8 D10 D12 Q5 Q4 R17 C7 R55 E26 C6 Q3 Q2 D74 D4 D6 C9

D66 D64 D62 D60 D58 D56 D54 D52 D16 R64 R56

R62 R61 W5 C10 L2 R60 R59 R15 R16 R54 C5 C8 D14 C4 D2 L1 R58 R57 D18

E19 Q1 C3 R1 D1

NOTES:

CHK	CHANGE NO	REV
SME	5411554-0002	D
	D. SMELSER	

SIGNATURES	DATE
DRN. C. Ezell	7/9/75
CHK'D	7/9/75
ENG.	7/9/75
PROJ.ENG.	7/9/75
PROD.	
SCALE 2/1	
SHT. 1 OF 1	
ETCH REV C	FIRST USED ON

digital

TITLE 16K X 16,18
MEMORY STACK

SIZE	CODE	NUMBER	REV
D		UA5411554-0-0	D

MS# 80577

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY M. Poirier	CHECKED K. Manoogian	SECTION	QUANTITY/VARIATION
DATE 7/7/75	DATE 7/7/75		
ENG D. Lineker	PROD R A Hill	ISSUED SECT.	
DATE 7/14/75	DATE 7/14/75		

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QTY	REFERENCE DESIGNATIONS
1	D-CS-5411554-0-1	CIRCUIT SCHEMATIC	REF	
2	D-AH-5411554-0-5	ASSY/DRILLING HOLE LAYOUT	REF	
3	B-MH-5411554-0-6	MODULE ECO HISTORY	REF	
4	5011493	ETCHED CIRCUIT BOARD	1	
5	1000026-00	CAP 680 PF 100V 5% DM	2	C5,C7
6	1001610-01	CAP .01UF 100V CER	5	C1,C3,C6,C9,C10
7	1010274-00	CAP .22UF 50V CER	3	C4,C8,C2
8	1105275-00	DIODE D672	44	D2-D15,D17,D19,D21,D23,D25,D27
				D29,D31,D33,D35,D37,D39,D41,
				D43,D45,D47,D49,D51,D53,D55,D59
				D61,D63,D65,D67,D69,D71,D73,D74
				D75
9	1109990-00	DIODE,ZENER 1N757A 9.1V 5%	1	D1
10	7010918-3-0	DIODE NETWORK	2	D16,D18
11	1910010-00	DIODE PACK 2501	24	D20,D22,D24,D26,D28,D30,D32,D34
				D36,D38,D40,D42,D44,D46,D48,D50
				D52,D54,D56,D58,D60,D62,D64,D66
12	1300229-00	RES 100 1/4W 5%	3	R13,R15,R17
13	1301775-00	RES 820 1/4W 5%	1	R1
14	1304862-00	RES 1.62K 1/8W 1%	1	R4
15	1302871-00	RES 1.21K 1/8W 1%	1	R3
16	1304833-00	RES 1.96K 1/8W 1%	1	R12,

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
16K x 16, 18 MEMORY STACK	D-UA-5411554-0-0	A	PL	5411554-0-0	D	00002
	SHEET 1 OF 2	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY M. Poirier	CHECKED K. Manoogian	SECTION	QUANTITY/VARIATION
DATE 7/7/75	DATE 7/7/75		
ENG D. Lineker	PROD R A Hill	ISSUED SECT.	
DATE 7/14/75	DATE 7/14/75		

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QTY	REFERENCE DESIGNATIONS
17	1303045-00	RES 3.16K 1/4W 1%	1	R2
18	1300479-00	RES 10K 1/4W 5%	1	R16
19	1303312-00	RES 10K 1/8W 1%	1	R5
20	1300316-00	RES 470 1/4W 5%	1	R11
21	1303155-00	RES 21.5K 1/8W 1%	1	R6
22	1302396-00	RES 150K 1/4W 5%	2	R8,R9
23	1301781-00	RES 82 1/2W 5%	1	R56
24	1300202-00	RES 47 1/4W 5%	2	R54,R55
25	1300365-00	RES 1K 1/4W 5%	37	R18-R53,R7
26	1310071-00	RES 1K 1% THERMISTER	1	R14
27	1311742-00	RES NETWORK 220 1/4W 1%	6	R57-R62
28	1503366-00	TRANS 2N3736	4	Q2-Q5
29	1503409-01	TRANS 6534B	1	Q1
30	1610662-00	INDUCTOR 100UH	2	L1,L2
31	1910298-00	I.C. 72741	1	E1
32	1910546-00	I.C. 74S140	1	E2
33	1211727-00	CONTACT, MALE	179	J1-J179
34	9009185-00	JUMPER, INSULATED (.4 LONG)	1	W5
35	9107560-01	JUMPER, BUSS WIRE (#22 AWG)	4	W1-W4 (OPTIONAL)
36	9006735-00	EYELET (SPLIT LUG)	4	
37	1305114-00	RES 3.48K 1/8W 1%	1	R10

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
16K x 16, 18 MEMORY STACK	D-UA-5411554-0-0	A	PL	5411554-0-0	D	
	SHEET 2 OF 2	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA

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FIELD MAINTENANCE PRINT SET

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TABLE OF CONTENTS

FIELD MAINT. PRINT SET MS11-E	B-TC-MS11-E-1
MOS RAM (MS11-E)	A-PL-MS11-E-Ø
UNIBUS MOS MEMORY	D-CS-M7847-Ø-1

UNIT VARIATIONS COVERED BY THIS PRINT SET
MS11-E
MS11-EP
MS11-F
MS11-FP
MS11-
MS11-JP

MS11-E

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØØ21

REVISIONS	REV.	CHG. NO.	DATE

USED ON OPTION/MODEL		
11/Ø4-AA	11/Ø4-DC	
11/Ø4-AB	11/Ø4-DD	
11/Ø4-AC	11/Ø4-EC	
11/Ø4-AD	11/Ø4-ED	
11/Ø4-BA		
11/Ø4-BB		
11/Ø4-BC		
11/Ø4-BD		

SHEET 1 OF 1

DRN.	D. HEALY	DATE 10/1/75
CHK'D	D. HEALY	DATE 10/1/75
PROJ. ENG.		DATE
FIELD SERV.		DATE

digital

TITLE: FIELD SERVICE MAINTENANCE PRINT SET MS11-E

SIZE	CODE	NUMBER	REV.
B	TC	MS11-E-1	

DIST.

EN 01124 16-N675 (321)

DRB 124

100

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY D. HEALY	CHECKED D. HEALY	SECTION 1
DATE 10/6/75	DATE 10/6/75	
ENG R. BARRY R Barry	PROD R K Pitts	ISSUED SECT. 1
DATE 10-22-75	DATE 10/22/75	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION											
			MS11-E	MS11-EP	MS11-F	MS11-FP	MS11-J	MS11-JP						
	D-CS-M7847-AA-1	UNIBUS MOS MEM	1	-	-	-	-	-						
	D-CS-M7847-AB-1	UNIBUS MOS MEM	-	1	-	-	-	-						
	D-CS-M7847-AC-1	UNIBUS MOS MEM	-	-	1	-	-	-						
	D-CS-M7847-AD-1	UNIBUS MOS MEM	-	-	-	1	-	-						
	D-CS-M7847-AH-1	UNIBUS MOS MEM	-	-	-	-	1	-						
	D-CS-M7847-AJ-1	UNIBUS MOS MEM	-	-	-	-	-	1						

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
MOS RAM (MS11-E)	NONE	A	PL	MS11-E-Ø	A	MS11-E-00001
	SHEET 1 OF 1	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

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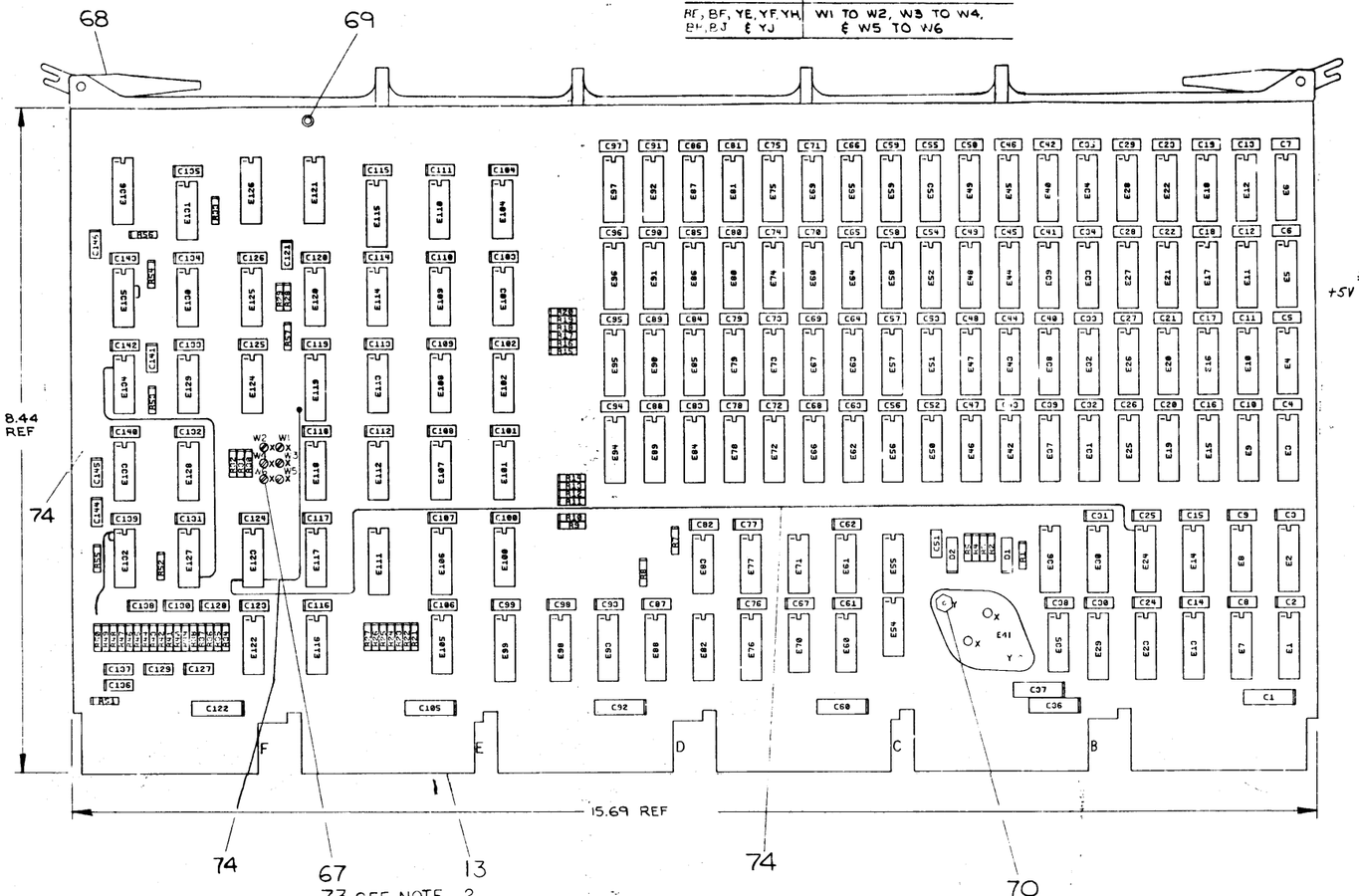
NOTES:

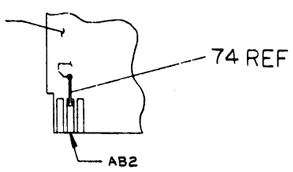
1. THERMAL COMPOUND (ITEM NO. 72) TO BE PLACED UNDER E41.

2. JUMPERS TO BE CONNECTED FOR EACH VARIATION AS FOLLOWS:

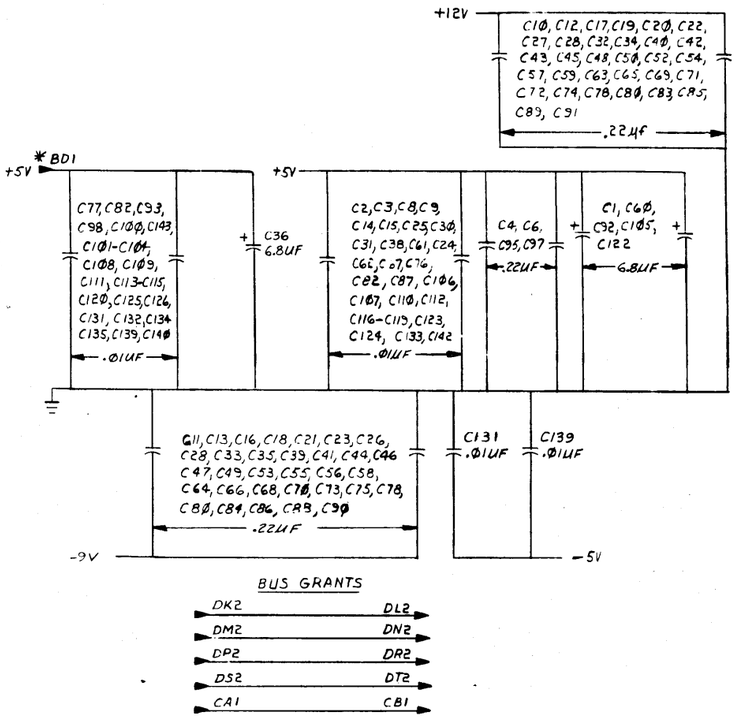
EA, BE, YA & YB	W3 TO W4
BC, BD, YC & YD	W1 TO W2 & W3 TO W4
BF, BF, YE, YF, YH, BH, BJ & YJ	W1 TO W2, W3 TO W4, & W5 TO W6

2.(CONT) CONNECTIONS TO BE MADE USING BUS WIRE (ITEM NO. 73).





VIEW OF SIDE 2 SHOWING JUMPER CONNECTION



BUS GRANTS

DK2	DL2
DM2	DN2
DP2	DR2
DS2	DT2
CA1	CB1

7475	12	5	—
74S153	8	16	—
7S107	7	14	13
74174	8	16	—
8641	8	16	—
8640	1	8	—
7483	12	5	—
IC TYPE	GND	+5V	−5V

GND AND +5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REV.	CHANGE NO.	CHK	DESCRIPTION
E	M7847-00003	J. MANTON	8-11-75
F	M7847-00003		10-13-75
D	M7847-00001	J. MANTON	12-9-75
E	M7847-00002	J. MANTON	4-12-76

REVISIONS

FIRST USED ON OPTION MODEL

FOR PARTS LIST REFER TO SHEETS 2 & 3

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV. D

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN		DATE 4/14/75
CHK		DATE 6/18/75
ENG		DATE 6/18/75
PROJ. ENG		DATE 6/18/75
PROD.		DATE 6-12-75

NEXT HIGHER ASSY

SCALE

SHEET 1 OF 16

digital

TITLE
UNIBUS MOS MEMORY

SIZE	CODE	NUMBER	REV.
D	CS	M7847-0-1	F

DIST.

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NOTES:
1. DEC PART NO. 1001610-00 IS AN ACCEPTABLE REPLACEMENT FOR DEC PART NO. 1001610-01 (ITEM 14).
2. VARIATIONS YA THRU YJ, ITEM 21; DI DIODE, ZENER 1N757A, 9.1V 5% (1109990-00)
   ITEM 26; R2 RES 270, 1/4W, 5%, CC (1301972-00)
   VARIATIONS BA THRU BJ DI DIODE, ZENER 1N751A, 5.1V 5% (1110994-00)
   R2 560Ω, 1/4W 5% CC (1301890-00)
   VARIATIONS YA THRU YJ ITEM 65; 4K16 PIN MOS RAM VBB = -9V (21-11749-00)
   VARIATIONS BA THRU BJ ITEM 65; 4K16 PIN MOS RAM VBB = -5V (21-12726-00)

PARTS LIST

BJ M7847-YJ-1 QTY	BH M7847-YH-1 QTY	BF M7847-YF-1 QTY	BE M7847-YE-1 QTY	BD M7847-YD-1 QTY	BC M7847-YC-1 QTY	BB M7847-YB-1 QTY	BA M7847-YA-1 QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO
1	1	1	1	1	1	1	1		DATA BASE TAPE	5011215-0-0	1
-	-	-	-	-	-	-	1		DATA BASE TAPE	M7847-YA-0	2
-	-	-	-	-	-	1	-		DATA BASE TAPE	M7847-YB-0	3
-	-	-	-	-	1	-	-		DATA BASE TAPE	M7847-YC-0	4
-	-	-	-	1	-	-	-		DATA BASE TAPE	M7847-YD-0	5
-	-	-	1	-	-	-	-		DATA BASE TAPE	M7847-YE-0	6
-	-	1	-	-	-	-	-		DATA BASE TAPE	M7847-YF-0	7
-	1	-	-	-	-	-	-		DATA BASE TAPE	M7847-YH-0	8
1	-	-	-	-	-	-	-		DATA BASE TAPE	M7847-YJ-0	9
REF	REF	REF	REF	REF	REF	REF	REF		ASSY LAYOUT	D-AH-M7847-0-5	10
REF	REF	REF	REF	REF	REF	REF	REF		DRILLING HOLE LAYOUT	D-AH-5011215-0-5	11
REF	REF	REF	REF	REF	REF	REF	REF		MODULE ECO HISTORY	B-MH-M7847-0-6	12
1	1	1	1	1	1	1	1		ETCHED CIRCUIT BOARD	5011215	13
57	57	57	57	57	57	57	57	C2,C3,C8,C9,C14,C15,C24,C25,C30,C31,C38,C61,C82,C87,C76,C77,C82,C87,C93,C98-C104,C108 – C120,C123-C127,C131-C137,C139,C140,C142,C143	CAP .01UF, 100V, 20% DISC	1001610-01(SEE NOTE)	14
-	-	-	-	37	37	37	37	C6,C7,C12,C13,C18,C19,C22,C23 C28,C29,C34,C35,C41,C42,C45 C46,C48-C51,C54,C55,C58,C59 C65,C66,C70,C74,C75,C89,C81 C85,C86,C90,C91,C97,C71,C96	CAP .22UF,50V CER	1010274-01	15
73	73	73	73	-	-	-	-	C4-C7,C10-C13,C16-C23,C26-C29 C32-C35,C39-C59,C63-C66, C68-C75,C78-C81,C83-C86,C88-C91,C94-C97			
7	7	7	7	7	7	7	7	C1,C36,C37,C69,C92,C105,C122	CAP 6.8UF, 35V, 10% S.TANT	1005306-00	16
2	2	2	2	2	2	2	2	C141,C146	CAP 47PF, 100V .5% DM	1000011-00	17
4	4	4	4	4	4	4	4	C128 - C130,C138	CAP 220PF,100V, 1% DM	1012121-00	18
1	1	1	1	1	1	1	1	C121	CAP 22PF, 100V, 5% DM	1000021-00	19
2	2	2	2	2	2	2	2	C144,C145	CAP 560PF, 100V.5% DM	1000025-00	20
1	1	1	1	1	1	1	1	D1	SEE NOTE*2		21
1	1	1	1	1	1	1	1	D2	DIODE,ZENER 1N751A,5.1V, 5%	1110994-00	22
13	13	13	13	13	13	13	13	R9-R20, R57	RES 10, 1/4W, 5%, CC	1302124-00	23
16	16	16	16	16	16	16	16	R7,R8,R21-R27,R30-R33,R52, R54,R55	RES 1K, 1/4W, 5%, CC	1300365-00	24
5	5	5	5	5	5	5	5	R3-R5,R28,R29	RES 560, 1/4W, 5%, CC	1301890-00	25
1	1	1	1	1	1	1	1	R2	SEE NOTE*2		26
1	1	1	1	1	1	1	1	R53	RES 390, 1/4W, 5%, CC	1300309-00	27
1	1	1	1	1	1	1	1	R1	RES 10K, 1/4W, 5%, CC	1300479-00	28
1	1	1	1	1	1	1	1	R48	RES 30K, 1/4W, 5%, CC	1302394-00	29
7	7	7	7	7	7	7	7	R37,R38,R41,R45,R47,R49,R50	RES 1K, 1/4W, 1%, MF	1303114-00	30
1	1	1	1	1	1	1	1	R34	RES 681, 1/4W, 1%, MF	1302872-00	31
3	3	3	3	3	3	3	3	R36,R46,R51	RES 4.7K, 1/4W, 5%, CC	1300447-00	32
1	1	1	1	1	1	1	1	R56	RES 100, 1/4W, 5%, CC	1300229-00	33
1	1	1	1	1	1	1	1	R43	RES 1.54K, 1/4W, 1%, MF	1312480-00	34
1	1	1	1	1	1	1	1	R40	RES 1.05K, 1/4W, 1%, MF	1312479-00	35
1	1	1	1	1	1	1	1	R35	RES 2.7K, 1/4W, 5%, CC	1300426-00	36
1	1	1	1	1	1	1	1	R39	RES 6.8K, 1/4W, 5%, CC	1301423-00	37
1	1	1	1	1	1	1	1	R44	RES 12K, 1/4W, 5%, CC	1300488-00	38
1	1	1	1	1	1	1	1	R42	RES 4.3K 1/4W, 5%, CC	1302389-00	39
6	6	6	6	6	6	6	6	E2,E8,E14,E24,E30,E36	IC 74174	1910652-00	40
5	5	5	5	5	5	5	5	E1,E7,E13,E23,E29	IC 8641	1910679-00	41

PARTS LIST

BJ M7847-YJ-1 QTY	BH M7847-YH-1 QTY	BF M7847-YF-1 QTY	BE M7847-YE-1 QTY	BD M7847-YD-1 QTY	BC M7847-YC-1 QTY	BB M7847-YB-1 QTY	BA M7847-YA-1 QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO
1	1	1	1	1	1	1	1	E35	IC 8881	1909705-00	42
6	6	6	6	6	6	6	6	E54,E55,E60,E61,E70,E71	IC 8648	1911469-00	43
2	2	2	2	2	2	2	2	E77,E135	IC 7474	1905547-00	44
1	1	1	1	1	1	1	1	E83	IC 74197	1910035-00	45
5	5	5	5	5	5	5	5	E76,E82,E88,E115,E119	IC 7475	1909050-00	46
3	3	3	3	3	3	3	3	E93,E98,E99	IC 74S153	1910547-00	47
6	6	6	6	6	6	6	6	E100-E103,E107,E109	IC 74S148	1910546-00	48
2	2	2	2	2	2	2	2	E104,E105	IC 7428	1905577-00	49
1	1	1	1	1	1	1	1	E106	IC 7483	1909932-00	50
3	3	3	3	3	3	3	3	E110,E113,E131	IC 7486	1905575-00	51
3	3	3	3	3	3	3	3	E112,E118,E123	IC 74S20	1910539-00	52
1	1	1	1	1	1	1	1	E117	IC 7485	1910011-00	53
1	1	1	1	1	1	1	1	E124	IC 74S04	1910534-00	54
1	1	1	1	1	1	1	1	E125	IC 74S03	1910533-00	55
3	3	3	3	3	3	3	3	E127,E132,E133	IC 75107	1910268-00	56
1	1	1	1	1	1	1	1	E128	IC 74S05	1910535-00	57
1	1	1	1	1	1	1	1	E129	IC 7404	1909886-00	58
3	3	3	3	3	3	3	3	E114,E120,E122	IC 7440	1905579-00	59
1	1	1	1	1	1	1	1	E116	IC 74S11	1910537-00	60
1	1	1	1	1	1	1	1	E108	IC 7437	1910091-00	61
1	1	1	1	1	1	1	1	E41	IC 7812	1912048-01	62
1	1	1	1	1	1	1	1	E134	IC 74S18	1910536-00	63
1	1	1	1	1	1	1	1	E139	IC 74S74	1910544-00	64
-	-	-	-	-	-	-	18	,E12,E18,E22,E28,E34,E48, E45,E49,E59,E65,E69,E75,E81, E87,E92,E97	SEE NOTE*2		
-	-	-	-	-	-	18	-	E8,E12,E18,E22,E28,E34,E48, E45,E49,E53,E59,E65,E69,E75, E81,E87,E92,E97			
-	-	-	-	-	32	-	-	,E11,E12,E17,E18,E21,E22 E27,E28,E33,E34,E39,E40,E44, E45,E48,E49,E59,E58,E64,E65, E68,E69,E74,E75,E88,E81,E86, E87,E91,E92,E96,E97			
-	-	-	-	86	-	-	-	E5,E6,E11,E12,E17,E18,E21,E22 E27,E28,E33,E34,E39,E40,E44, E45,E48,E49,E52,E53,E58,E59, E64,E65,E68,E69,E74,E75,E88, E81,E86,E87,E91,E92,E98,E97			
-	-	-	48	-	-	-	-	,E10-E12,E16-E18,E20-E22 E26-E28,E32-E34,E38-E40,E43-E45,E47-E49,E57-E69,E63-E85, E67-E69,E73-E75,E79-E81,E85-E87,E90-E92,E95-E97			
-	-	54	-	-	-	-	-	E4-E6,E10-E12,E16-E18,E20-E22 E26-E28,E32-E34,E38-E40,E43-E45,E47-E49,E51-E53,E57-E59, E63-E65,E67-E69,E73-E75,E79-E81,E85-E87,E90-E92,E95-E97			
-	64	-	-	-	-	-	-	,E9-E12,E15-E22,E25-E28, E31-E34,E37-E40,E42-E49,E94-E97,E56-E59,E62-E69,E72-E75, E78-E81,E84-E87,E89-E92			
72	-	-	-	-	-	-	-	E3-E8,E9-E12,E15-E22,E25-E28, E31-E34,E37-E40,E42-E53,E56-E59,E62-E69,E72-E75,E78-E81, E84-E87,E89-E92,E94-E97			

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY	D	CS	M7847-Ø-1	F
SCALE — SHEET 2 OF 16	DIST.			

DEC FORM NO. BRD 130

SIZE D CODE CS NUMBER M7847-Ø-1 REV F

10

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W7847-YJ-1 RJ	W7847-YH-1 BH	W7847-YF-1 BF	W7847-YE-1 BF	W7847-YD-1 BD	W7847-YC-1 BC	W7847-YB-1 BB	W7847-YA-1 BA	PARTS LIST			
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	1	1	1	1	1	1	1	E111	DIP SWITCH	1211164-04	66
6	6	6	6	6	6	6	6		SPLIT LUGS	9006735-00	67
1	1	1	1	1	1	1	1		HANDLE, ASSY	1210711-02	68
12	12	12	12	12	12	12	12		EYELET	9006732-00	69
2	2	2	2	2	2	2	2		NUT, KEP #4-40	9006557-00	70
2	2	2	2	2	2	2	2		SCR, PPH, #4-40 X .31	9006010-01	71
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R		THERMAL COMPOUND	9006268-00	72
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R		WIRE, #22 AWG BUS	9107560-01	73
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R		WIRE, #30 AWG WIRE WRAP	9105740-55	74

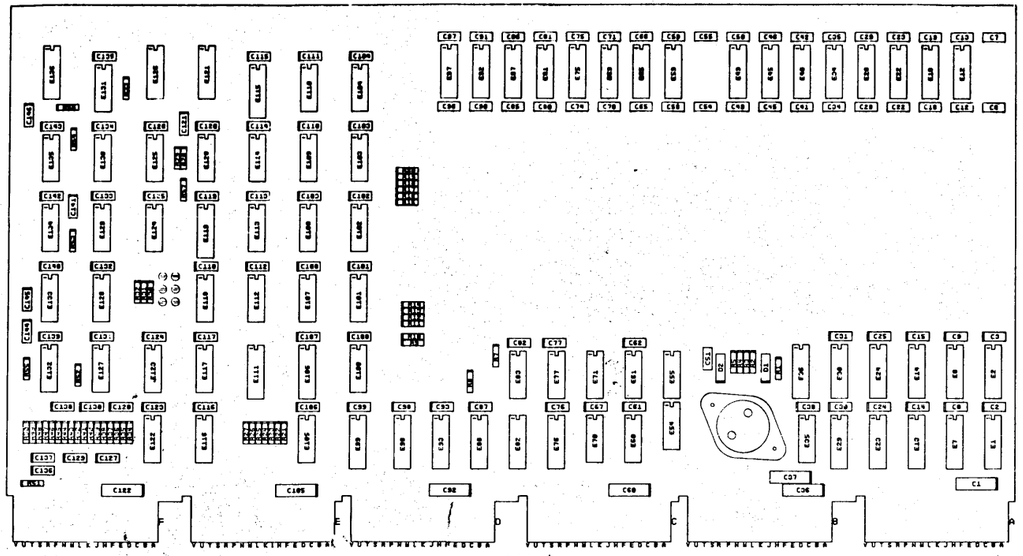
REVISIONS		
CHK	CHANGE NO.	REV.

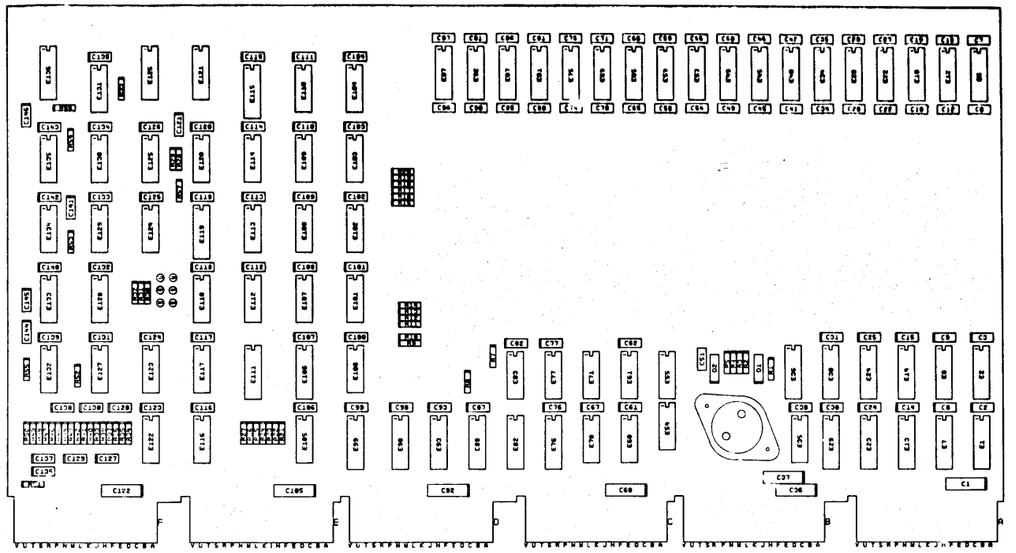
TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY	D	CS	M7847-0-1	F
SCALE —	SHEET 3 OF 16	DIST.		

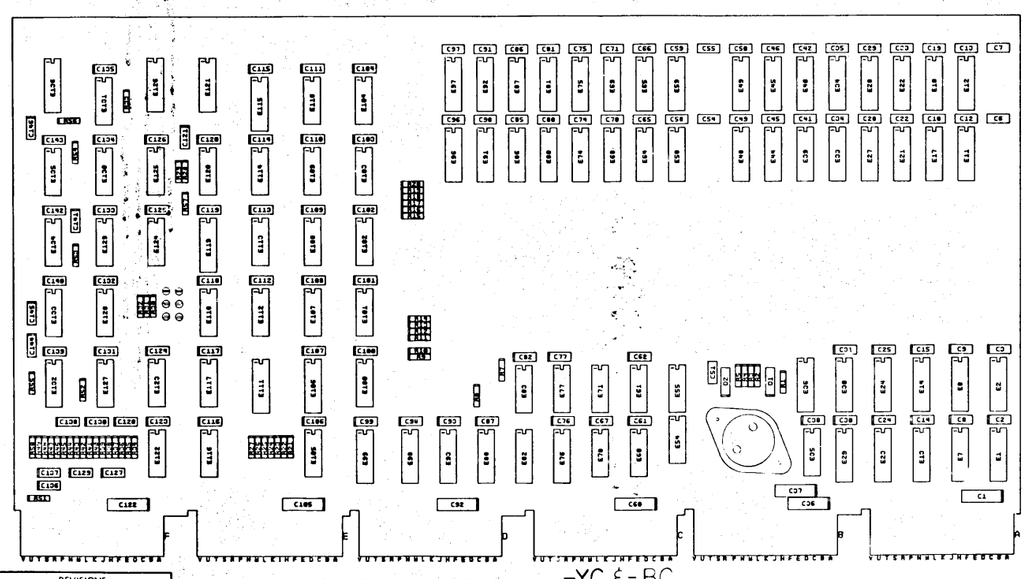
SIZE D CODE CS NUMBER M7847-0-1 REV F

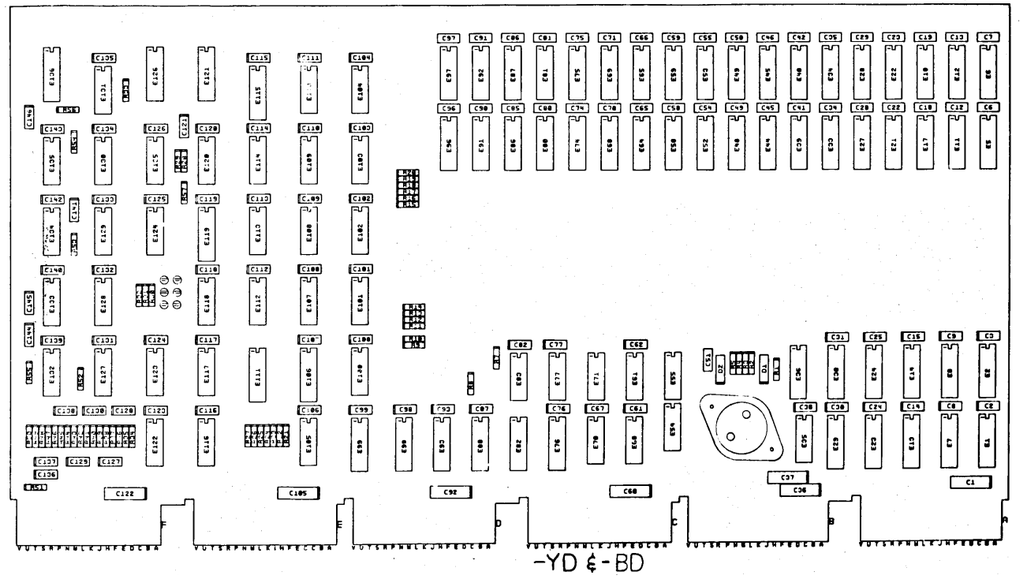
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NOTE:
THESE OVERLAYS ONLY TO INDICATE POSITIONS FOR 4K MOS MEMORY IC'S & .22UF CAPS.









REVISIONS		
CHK	CHANGE NO	REV.

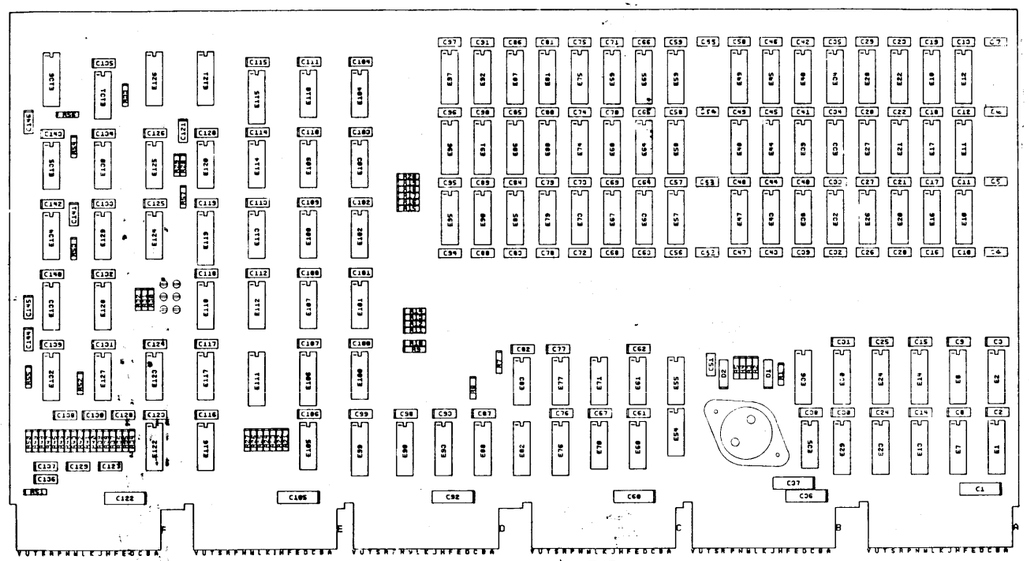
TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY	D	CS	M7847-0-1	F
SCALE — / — SHEET 4 OF 16	DIST.			

DEC FORM NO DRD 137

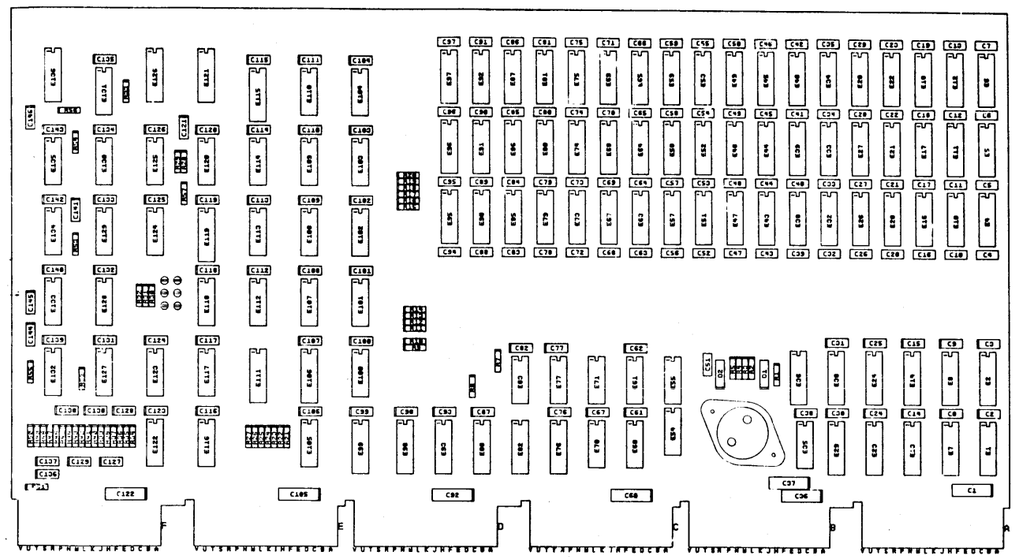
105

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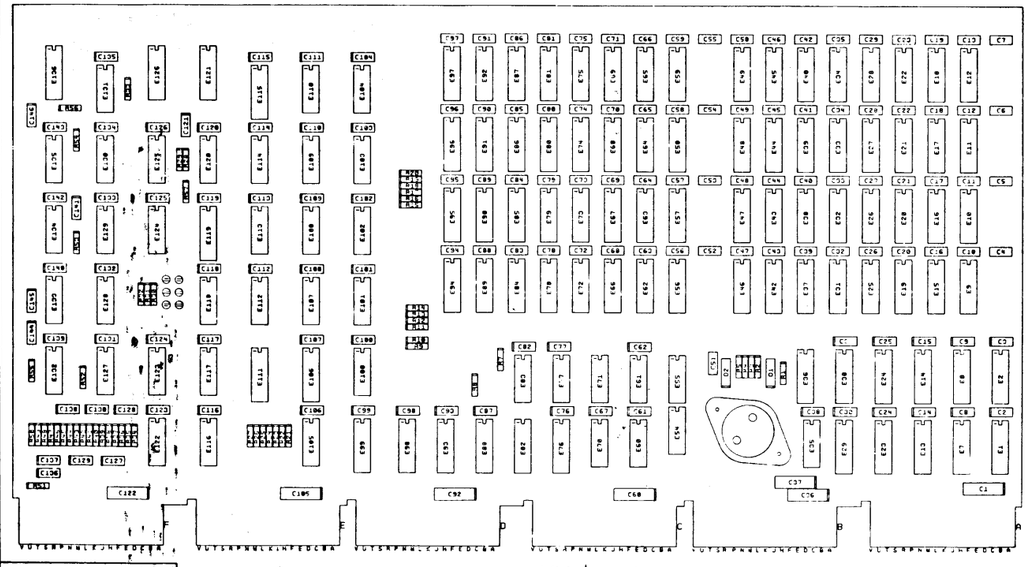
NOTE:
THESE OVERLAYS ONLY TO INDICATE POSITIONS FOR 4K MOS MEMORY IC'S AND .22UF CAPS.



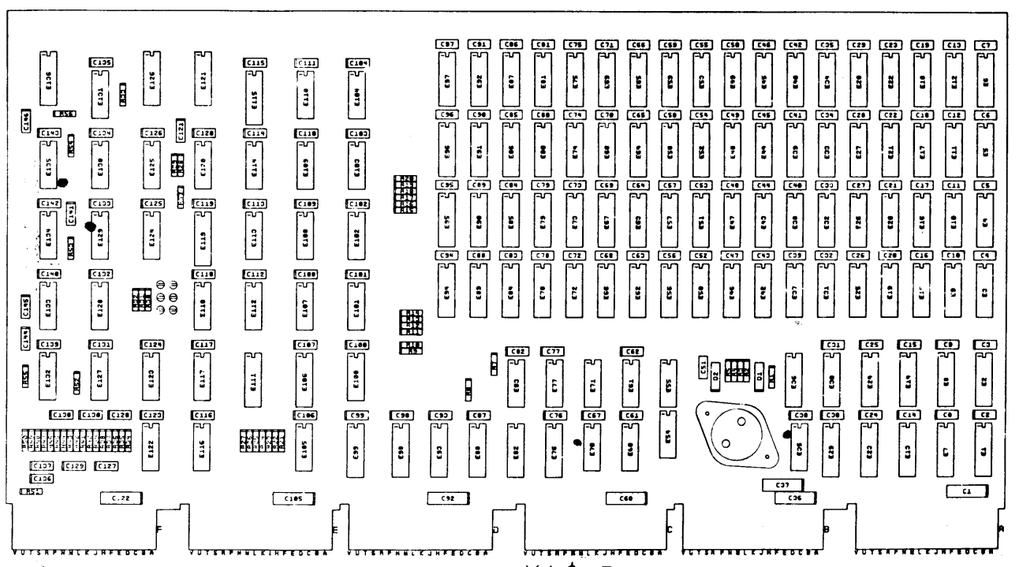
-YE & -BE



-YF & -BF



-YH & -BH



-YJ & -BJ

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY	D	CS	M7847-Ø-1	F
SCALE	SHEET 5 OF 16		DIST.	

DEC FORM 105
DRD 137

DEC/CS M7847-Ø-1 F

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NOTE:
JUMPERS CONNECTED AS FOLLOWS.

BA, BB, YA, YB	W3 - W4
BC, BD, YC, YD	W1 - W2, W3 - W4
BE, BF, YE, YF	W1 - W2, W3 - W4, W5 - W6
BH, BJ, YH, YJ	W1 - W2, W3 - W4, W5 - W6

SW DIP E111 A B C D E F H J

R21 R22 R23 R27 R24 1K +5V

7486 E117 7483 E106 7451 E116 7404 E129 7420 E105 7404 E129

BUS A17 BS1 8640 E70
BUS A16 BS2 8640 E71
BUS A15 BR1 8640 E71
BUS A14 BR2 8640 E61
BUS A13 BP1 8640 E61
BUS C0 L BU2 8640 E70 — ADG C0 H [DR9]
BUS MSYN L BV1 8640 E70 — ADG MSYN H [TC7]
8640 E71 — ADG CI L [TC7]
BUS BC LO L BF2 8640 E55 — DC LO H
BUS CI L BT2 8640 E70 — ADG CI H [DR9]
BUS A00 L BH2 8640 E54 — ADG A0 H [DR9]

AM8 A12 H, AM8-A11 H — SW DIP E111 — 7420 E105 — R26 1K +5V

BANK A BANK B BANK C BANK D — 7452 E112 7452 E118 — W3 W4 W1 W2 W5 W6

R31 R30 R32 1K +5V — R25 1K +5V — 7452 E129 — ADG ADDR PRESENT H [TC7]

7475 E119 — ADG RSA L [DR9], ADG RSB L [DR9], ADG RSC L [DR9], ADG RSD L [DR9]

AM8 BFADSTR L

ASSY VARIATION	F	H	J
BA, BB, YA, YB, YC, YD, BC, BD, BE, BF, YE, YF	OFF	OFF	OFF
BH, BJ, YH, YJ, NORMAL OPERATION	OFF	ON	OFF
BH, BJ, YH, YJ * 2K I/O PAGE	OFF	ON	ON
BH, BJ, YH, YJ * 3K I/O PAGE	ON	ON	ON

* A-E MUST BE SET FOR STARTING ADDRESS OF 100 000.

SWITCH SETTINGS

STARTING ADDRESS	SWITCH A	B	C	D	E	STARTING ADDRESS	SWITCH A	B	C	D	E	STARTING ADDRESS	SWITCH A	B	C	D	E	STARTING ADDRESS	SWITCH A	B	C	D	E
0	1	1	1	0	0	200 000	1	0	1	0	0	400,000	0	1	1	0	0	600,000	0	0	1	0	0
20 000	1	1	0	1	1	220 000	1	0	0	1	1	420,000	0	1	0	1	1	620,000	0	0	0	1	1
40 000	1	1	0	1	0	240 000	1	0	0	1	0	440,000	0	1	0	1	0	640,000	0	0	0	1	0
60 000	1	1	0	0	1	260 000	1	0	0	0	1	460,000	0	1	0	0	1	660,000	0	0	0	0	1
100,000	1	1	0	0	0	300 000	1	0	0	0	0	500,000	0	1	0	0	0	700,000	0	0	0	0	0
120 000	1	0	1	1	1	320,000	0	1	1	1	1	520,000	0	0	1	1	1	720,000	1	1	1	1	1
140, 000	1	0	1	1	0	340,000	0	1	1	1	0	540,000	0	0	1	1	0	740, 000	1	1	1	1	0
160,000	1	0	1	0	1	360,000	0	1	1	0	1	560 000	0	0	1	0	1						

0 = ON
1 = OFF

*Note SW. H on for 16 K Bus Only

REVISIONS		
CHK	CHANGE NO.	REV.

(ADDRESS DECODE)

TITLE UNIBUS MOS MEMORY (AD6)
SIZE D CODE DCS NUMBER M7847-0-1 REV F
SCALE — SHEET 6 OF 16 DIST.

DEC Y100 NO. DRD 132

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BB +5V
R29 560
R28 560
R57 18
C121 220PF
74S03 E125
74S03 E125
SRT CLK
REF REQ
*HI
10
TC7 REF WARN L
74S01 E129
7400 E131
TC7 RFCY (1) H [TC7, AM8]
TC7 RFCY (1) L [DR9]
74S74 E130
TC7 RFCY (0) H [TC7, DR9]
TC7 BUSY L
TC7 SSYN (0) H
AD6 MSYN H
74S20 E123
7400 E131
R33 1K
BB+5V
E24 PIN 1
AD6 ADDR PRESENT L
AD6 CI L
7440 E120
TC7 ENBUS [DPI0, DPI1]
R56 100
C146 47PF
7404 E129
7400 E131
7400 E110
7440 E120
TC7 ADSTR H [TC7, AM8, DR9]
74S04 E124
74S04 E124
TC7 RAS H [TC7, DR9]
TP1
DB1
R36 4.7K
C27 .01UF
R37 1K
R38 1K
BB +5V
R34 681 1%
R35 2.7K
74S05 E128
C128 220PF
BB +5V
R40 1.05K 1%
R39 6.2K
74S05 E128
C130 220 PF
*HI
*75107 E127
TC7 COLAD H [TC7, AM8, DR9]
TC7 CAS H [TC7, DR9]
REF RST L
BB+5V
R41 1K 1%
R42 4.3K
TC7 RAS H
74S03 E128
C129 220PF
*75107 E133
TC7 REF WARN L [TC7]
REF CLK L
*HI
74S04 E124
TC7 REFINC H [AM8]
BB+5V
R48 30K
TC7 RFCY (1) H
TC7 COLAD H
7400 E131
7404 E129
74S05 E128
C144 560PF
C145 560PF
BB +5V
R45 1K 1%
R46 4.7K
TP2
DR1
C137 .014F
R47 1K 1%
BB+5V
R43 1.54K 1%
R44 12K
C138 220PF
TC7 CAS H
74S04 E124
74S05 E128
*75107 E132
CLR STR H
*HI
DR9 LC1 (0) H
TC7 RFCY (0) H
74S10 E134
LC1 H
TC7 COLAD H
74S10 E134
74S10 E134
TC7 DLS H [DPI0, DPI1]
*HI
R53 390
C141 47PF
AD6 MSYN H
74S74 E135
TC7 SSYN (0) H [TC7]
PARITY DETECT
8881 E35
BE1
INT SSYN
8881 E35
BE2
BUS SSYN
R1 10K
+5V
TP3
DU1
R51 4.7K
C136 .014F
R50 1K 1%
R49 1K 1%
BB +5V
TP4
DS1
R55 1K
*+5V
BB +5V
R54 1K
R8 1K
TC7 *HI [TC7, AM8]
TP5
DPI
74S74 E135
TC7 REF WARN L [TC7]
REF CLK L

NOTES:
1. ALL SIGNAL NAMES WITHOUT PREFIX HAVE AN ASSUMED PREFIX OF TC7.
2. AN IC MARKED WITH AN * INDICATES THAT THE IC IS ON THE BB+5 VOLTAGE BUS.

Don't put B... on 301 ... System will Hang

Note

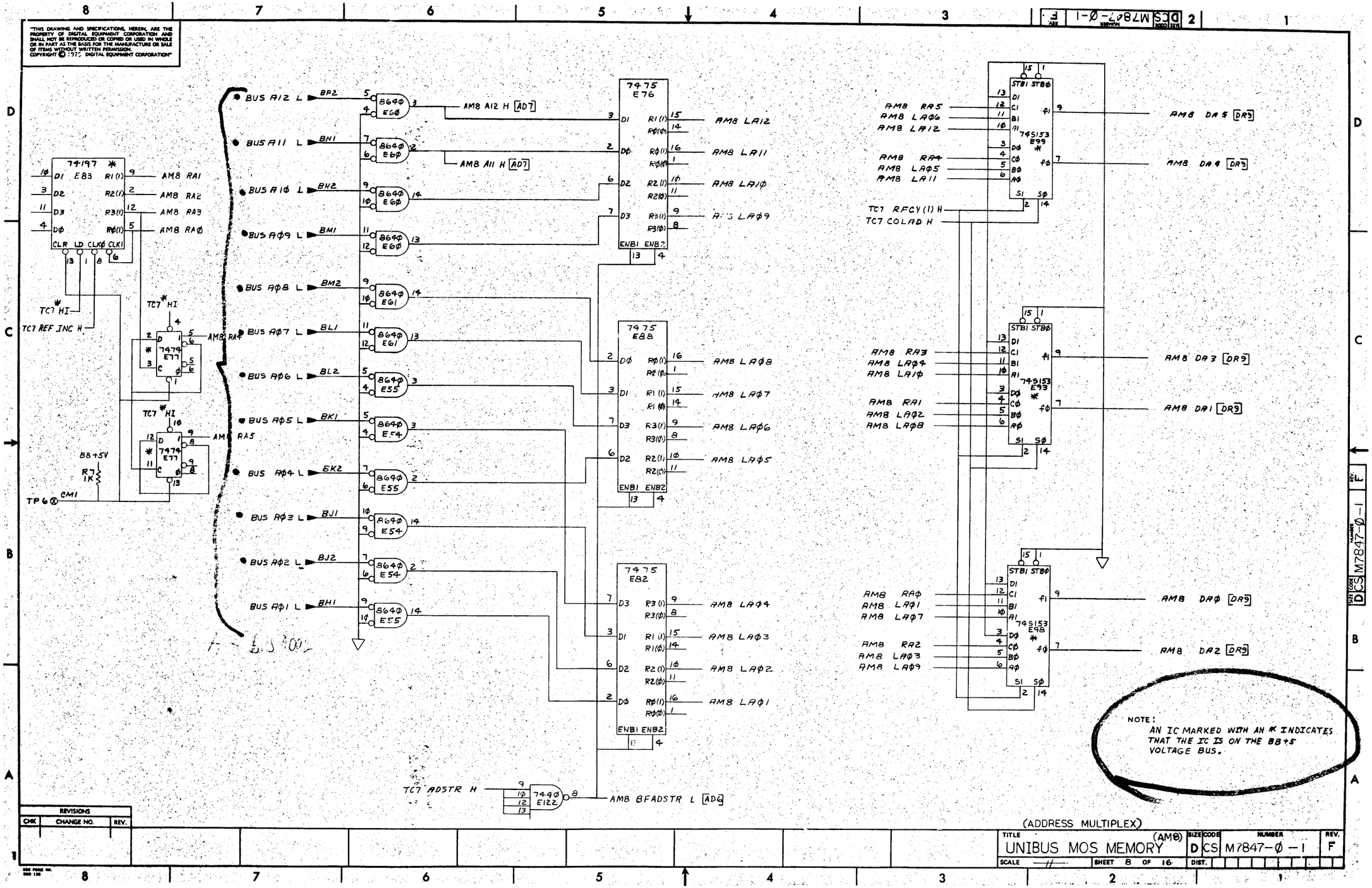
REVISIONS		
CHK	CHANGE NO.	REV.

(TIMING CHAIN)

TITLE UNIBUS MOS MEMORY (TC7)
SCALE ++ SHEET 7 OF
SIZE D | CODE CS | NUMBER M7847-0-1 | REV F
DIST.

DCS M7847-0-1 REV F

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NOTE:
AN IC MARKED WITH AN * INDICATES THAT THE IC IS ON THE BB+5 VOLTAGE BUS.

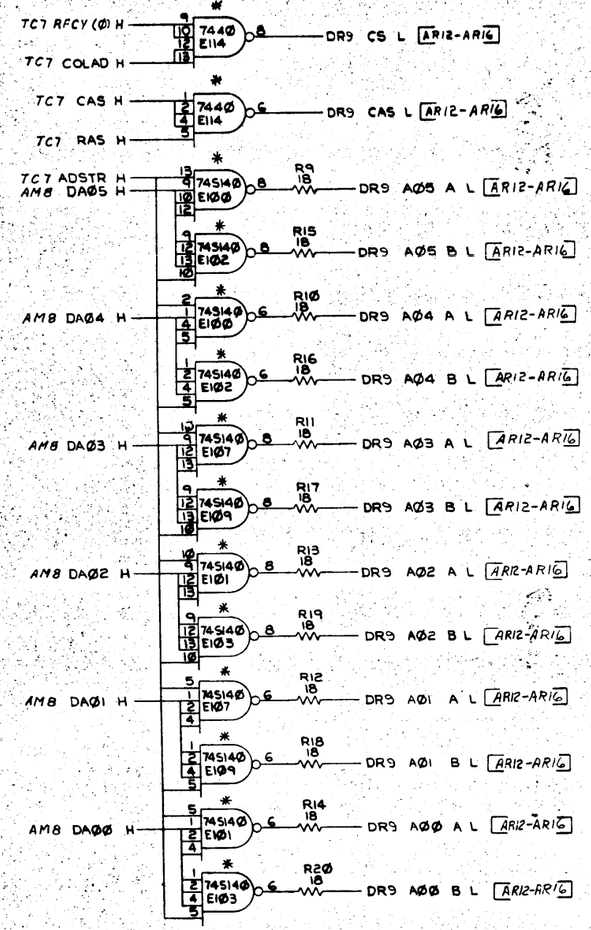
REVISIONS		
CHK	CHANGE NO.	REV.

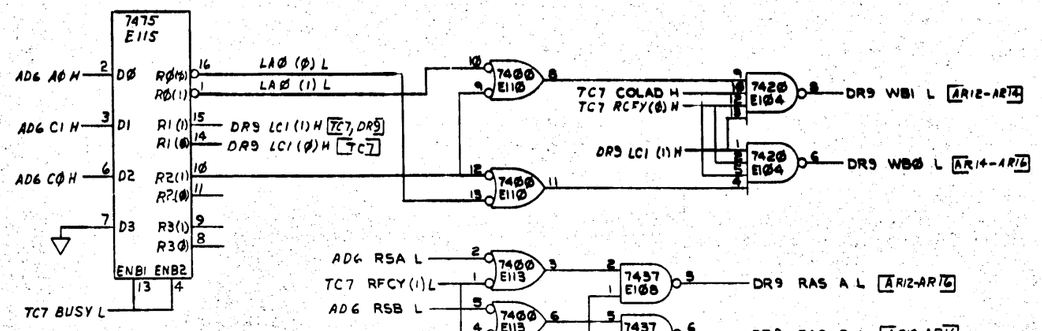
(ADDRESS MULTIPLEX)

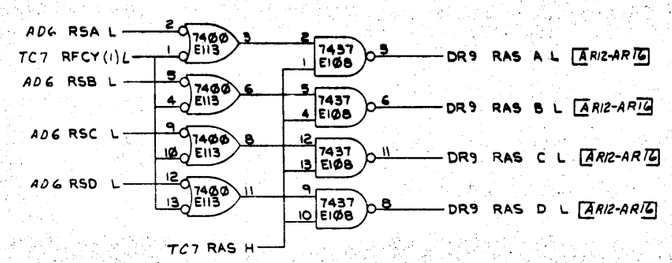
TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY (AM8)	D	CS	M7847-0-1	F
SCALE —	SHEET 8 OF 16		DIST.	

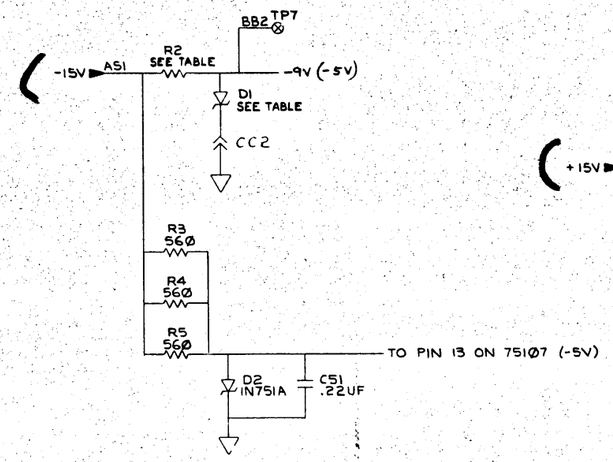
DEC M7847-0-1 REV F

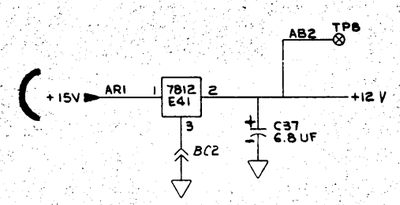
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VARIATION	R2 VALUE	D1 VALUE
YA, YB, YC, YD YE, YF, YH, YJ	27Ø	IN 757 A 9V
BA, BB, BC, BD, BE, BF BH, EJ	56Ø Ω	IN 751 A 5V

Note without -15 you can't +15 you can't examin that memory Loc that pertains to AD6 ... Be sure ... to also ... cc

Note without -15 you can't examin Address that pertains to the memory Loc ... missing from ... 15 ...

(DRIVERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY (DR9)	D	CS	M7847-Ø-1	F
SCALE	SHEET 9 OF 16	DIST.		

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74174 E36
AR12 DO 15 H
AR12 DO 14 H
AR12 DO 13 H
D1 R1(1)
D5 R5(1)
D3 R3(1)
CLR CLK

8641 E29
AM2 BUS DI5
AL1 BUS DI4

74174 E36
D2 R2(1) DPIØ DI 15 H [AR12]
DØ RØ(1) DPIØ DI 14 H [AR12]
D4 R4(1) DPIØ DI 13 H [AR12]

74174 E3Ø
AR12 DO 12 H
AR13 DO 11 H
AR13 DO 1Ø H

8641 E23
AL2 BUS DI3
AK1 BUS DI2
AK2 BUS DI1
AJ1 BUS DI0

74174 E3Ø
D2 R2(1) DPIØ DI 12 H [AR12]
DØ RØ(1) DPIØ DI 11 H [AR13]
D4 R4(1) DPIØ DI 1Ø H [AR13]

74174 E24
AR13 DO Ø9 H
AR13 DO Ø8 H
AR14 DO PI H

8641 E13
AJ2 BUS DØ9
AH1 BUS DØ8
AN1 PI
TC7 ENBUS L

74174 E24
D2 R2(1) DPIØ DI Ø9 H [AR13]
DØ RØ(1) DPIØ DI Ø8 H [AR13]
D4 R4(1) DPIØ DI PI H [AR14]

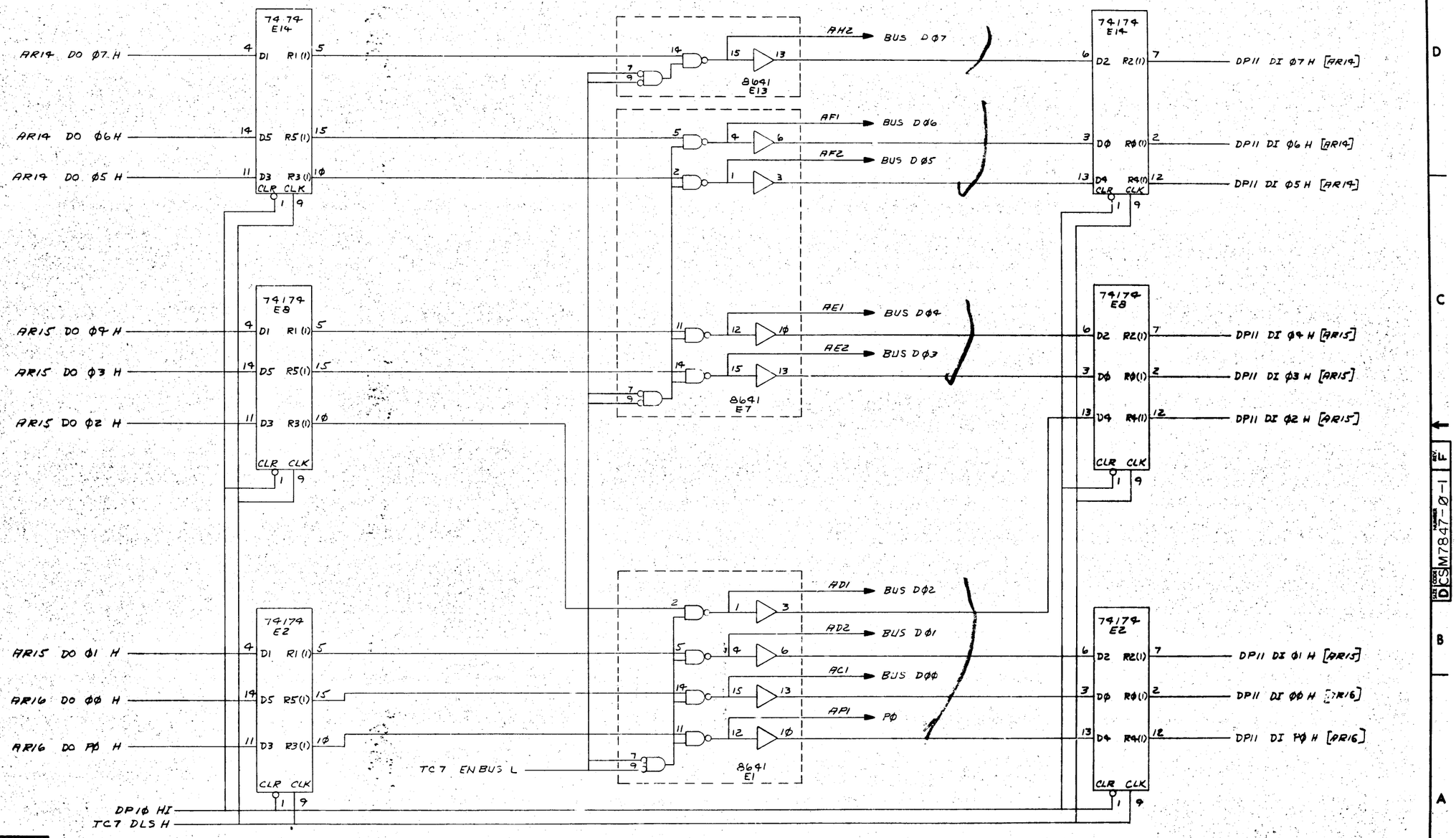
E123 PIN 6
TC7 DLS H
DPIØ HI [DPI1]

REVISIONS		
CHK	CHANGE NO.	REV.

(DATA PATH)

TITLE UNIBUS MOS MEMORY (DPIØ)
SIZE D CODE CS NUMBER M7847-Ø-1 REV F
SCALE // SHEET 10 OF 16 DIST.

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REVISIONS		
CHK	CHANGE NO.	REV.

(DATA PATH)

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY (DP11)	D	CS	M7847-Ø-1	F
SCALE —	SHEET 11 OF 16	DIST.		

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DR9 A05 B L
DR9 A04 B L
DR9 A03 B L
DR9 A02 B L
DR9 A01 B L
DR9 A00 B L

4096 E97 — DP10 DI 14 H
4096 E92 — DP10 DI 13 H
4096 E87 — DP10 DI 12 H
4096 E81

DP10 DI 15 H

DR9 CS L
DR9 CAS L
DR9 WB I L
DR9 RAS A L

4096 E96
4096 E91
4096 E86
4096 E80

DR9 RAS B L
DR9 A05 A L
DR9 A04 A L
DR9 A03 A L
DR9 A02 A L
DR9 A01 A L
DR9 A00 A L

4096 E95
4096 E90
4096 E85
4096 E79

DR9 RAS C L

4096 E94
4096 E89
4096 E84
4096 E78

AR12 DO 12 H [DP10]

AR12 DO 15 H [DP10]
AR12 DO 14 H [DP10]
AR12 DO 13 H [DP10]

DR9 RAS D L

4096 EXX
10 A05
11 A04
12 A03
6 A02
7 A01
5 A00
2 DIN
DOUT 14
CS CAS WR RAS
13 15 3 4

GND PIN 16
(-5V) -9V PIN 1
+12V PIN 8
+5V PIN 9

NOTE:
1. SOME IC'S ARE OMITTED ON VARIOUS ASSEMBLY VERSIONS, SEE PARTS LIST FOR EXACT DETAILS.

REVISIONS		
CHK	CHANGE NO.	REV.

(ARRAY)

TITLE UNIBUS MOS MEMORY (AR12)
SIZE D CODE CS NUMBER M7847-0-1 REV. F
SCALE --++-- SHEET 12 OF 16 DIST.

SIZE CODE DCS NUMBER M7847-0-1 REV F

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DR9 AØ5 B L
DR9 AØ4 B L
DR9 AØ3 B L
DR9 AØ2 B L
DR9 AØ1 B L
DR9 AØØ B L

DPIØ DI 11H

DR9 CS L
DR9 CAS L
DR9 WBI L
DR9 RAS A L

DR9 RAS B L
DR9 AØ5 A L
DR9 WØ4 A L
DR9 AØ3 A L
DR9 AØ2 A L
DR9 AØ1 A L
DR9 AØØ A L

DR9 RAS C L

DR9 RAS D L

4096 E75 — DPIØ DI 1ØH
4096 E69 — DPIØ DI Ø9H
4096 E65 — DPIØ DI Ø8H
4096 E59
4096 E74
4096 E68
4096 E64
4096 E58
4096 E73
4096 E67
4096 E63
4096 E57
4096 E72 — AR13 DO 11H [DPIØ]
4096 E66 — AR13 DO 1ØH [DPIØ]
4096 E62 — AR13 DO Ø9H [DPIØ]
4096 E56 — AR13 DO Ø8H [DPIØ]

4096 EXX
10 AØ5
11 AØ4
12 AØ3
6 AØ2
7 AØ1
5 AØØ
2 DIN
14 DOUT
CS CAS WR RAS
13 15 3 4

PIN 16 GND
PIN 1 -9V (-5V)
PIN 8 +12V
PIN 9 +5V

NOTES:
1. SOME IC'S ARE OMITTED ON VARIOUS ASSEMBLY VERSIONS, SEE PARTS LIST FOR EXACT DETAILS.

REVISIONS		
CHK	CHANGE NO.	REV.

(ARRAY)

TITLE	SIZE	CODE	NUMBER	REV.
UNIBUS MOS MEMORY (AR13)	D	DCS	M7847-Ø-1	F
SCALE — SHEET 13 OF 16	DIST.			

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DR9 AØ5 B L
DR9 AØ4 B L
DR9 AØ3 B L
DR9 AØ2 B L
DR9 AØ1 B L
DR9 AØØ B L

DPIØ DI PI H
DR9 CS L
DR9 CAS L
DR9 WBI L
DR9 RAS A L

DR9 RAS B L
DR9 AØ5 A L
DR9 AØ4 A L
DR9 AØ3 A L
DR9 AØ2 A L
DR9 AØ1 A L
DR9 AØØ A L

DR9 RAS C L

DR9 RAS D L

4Ø96 E53 — DPII DI Ø7H
4Ø96 E49 — DPII DI Ø6 H
4Ø96 E95 — DPII DI Ø5 H
4Ø96 E4Ø
4Ø96 E52
4Ø96 E48
4Ø96 E44
4Ø96 E39
4Ø96 E51
4Ø96 E47
4Ø96 E43
4Ø96 E38
4Ø96 E5Ø
4Ø96 E46
4Ø96 E42
4Ø96 E37

AR14 DO PI H [DPIØ]
AR14 DO Ø7 H [DPII]
AR14 Ø6 H [DPII]
AR14 DO Ø5 H [DPII]

DR9 WB Ø L

4Ø96 EXY
10 AØ5
11 AØ4
12 AØ3
6 AØ2
7 AØ1
5 AØØ
2 DIN
CS CLS WR RAS
13 15 3 17
14 DOUT

GND PIN 16
(-5V) -9V PIN 1
+12V PIN 8
+5V PIN 9

NOTE:
SOME IC'S ARE OMITTED ON VARIOUS ASSEMBLY VERSIONS. SEE PARTS LIST FOR EXACT DETAILS.

REVISIONS		
CHK	CHANGE NO.	REV.

(ARRAY)
TITLE UNIBUS MOS MEMORY (AR14)
SIZE D CODE CS NUMBER M7847-Ø-1 REV. F
SCALE — SHEET 14 OF 16 DIST.

SIZE CODE DCS NUMBER M7847-Ø-1 REV F

115

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NOTE:
SOME IC'S ARE OMITTED ON VARIOUS ASSEMBLY VERSIONS. SEE PARTS LIST FOR EXACT DETAILS.

DR9 AØ5 B L
DR9 AØ4 B L
DR9 AØ3 B L
DR9 AØ2 B L
DR9 AØ1 B L
DR9 AØØ B L

DPII DI Ø4 H
DPII DI Ø3 H
DPII DI Ø2 H
DPII DI Ø1 H

DR9 CS L
DR9 CAS L
DR9 WBØ L
DR9 RAS A L

DR9 RAS B L
DR9 RØ5 A L
DR9 AØ4 A L
DR9 AØ3 A L
DR9 AØ2 A L
DR9 AØ1 A L
DR9 AØØ A L

DR9 RAS C L

DR9 RAS D L

4ØØ6 E34
4ØØ6 E33
4ØØ6 E32
4ØØ6 E31
4ØØ6 E28
4ØØ6 E27
4ØØ6 E26
4ØØ6 E25
4ØØ6 E22
4ØØ6 E21
4ØØ6 E2Ø
4ØØ6 E19
4ØØ6 E18
4ØØ6 E17
4ØØ6 E16
4ØØ6 E15

ARIS DO Ø4 H [DPII]
ARIS DO Ø3 H [DPII]
ARIS DO Ø2 H [DPII]
ARIS DO Ø1 H [DPII]

4ØØ6 EXX
10 AØ5
11 AØ4
12 AØ3
6 AØ2
7 AØ1
5 AØØ
2 DIN
D OUT 14
CS CAS WR RAS
13 15 3 4

GND PIN 16
(-5V) -9V PIN 1
+12V PIN 8
+5V PIN 9

REVISIONS

CHK	CHANGE NO	REV

(ARRAY)

TITLE: UNIBUS MOS MEMORY (ARIS)
SIZE: D | CODE: CS | NUMBER: M7847-Ø-1 | REV.: F
SCALE: — | SHEET 15 OF 16 | DIST.

DEC FORM NO. DRD 137

M7847-Ø-1 F

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DR9 A05 A L
DR9 A04 B L
DR9 A03 B L
DR9 A02 B L
DR9 A01 B L
DR9 A00 B L

4096 E12
4096 E6
4096 E11
4096 E5
4096 E10
4096 E4
4096 E9
4096 E3

DPI1 DI 00 H
DPI1 DI P0 H
DR9 CS L
DR9 CAS L
DR9 WB0 L
DR9 RAS A L
DR9 RAS B L
DR9 A05 A L
DR9 A04 A L
DR9 A03 A L
DR9 A02 A L
DR9 A01 A L
DR9 A00 A L
DR9 RAS C L
DR9 RAS D L

AR16 DO 00 H [DPI1]
AR16 DO P0 H [DPI1]

4096 EXX
10 A05
11 A04
12 A03
6 A02
7 A01
5 A00
2 DIN
DOUT 14
CS CLS WR RAS
13 15 3 4

GND PIN 16
(-5V) -9V PIN 1
+12V PIN 8
+5V PIN 9

NOTE:
SOME IC'S ARE OMITTED ON VARIOUS ASSEMBLY VERSIONS. SEE PARTS LIST FOR EXACT DETAILS.

REVISIONS		
CHK	CHANGE NO	REV

(ARRAY)
(AR16)
TITLE: UNIBUS MOS MEMORY
SIZE D | CODE CS | NUMBER M7847-0-1 | REV. F
SCALE: -/- | SHEET 16 OF 16 | DIST.

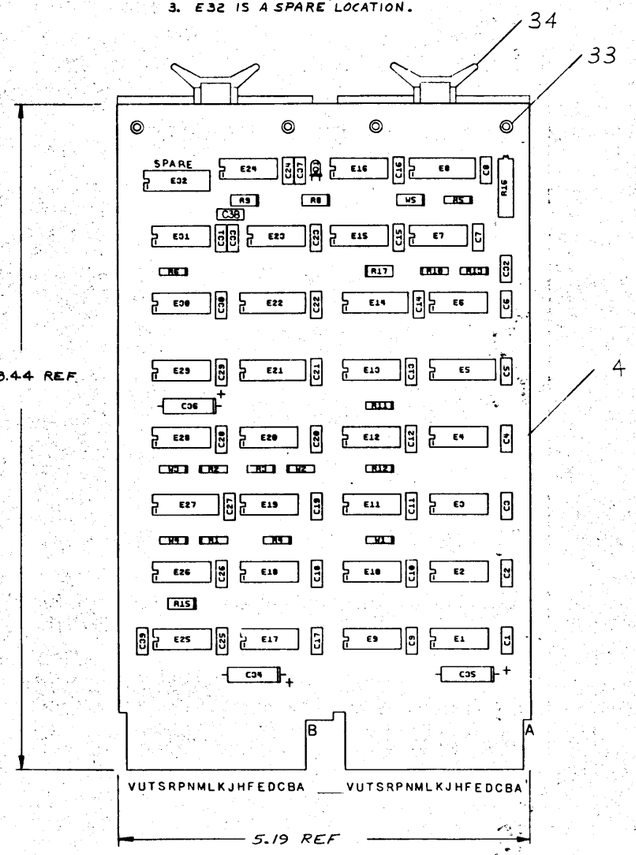
DEC FORM NO 1132

DCS M7807-0-1 F
DCS M7847-0-1 F

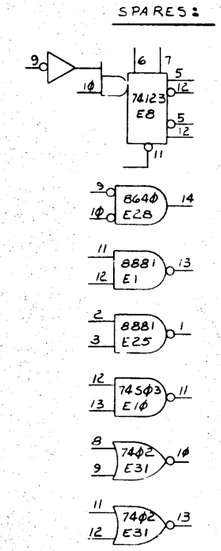
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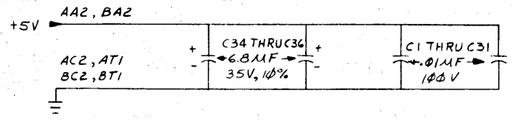
NOTES:

1. ALL RESISTORS 1/4 W, 5% UNLESS OTHERWISE NOTED.
   ALL CAPACITORS ARE 100V, 20% UNLESS OTHERWISE NOTED.
2. JUMPER CONTROL OPERATIONS AS FOLLOWS:
   W1 THRU W4 SELECT CSR ADDRESS, W5 CAPACITOR FOR 5 SYN DLY, NOT USED.
3. E32 IS A SPARE LOCATION.



SPARES:





REF				
REF		CIRCUIT SCHEMATIC	D-CS-M7850-0-1	REF
REF		X-Y COORDINATE HOLE LOCATION	K-CO-M7850-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M7850-0-5	2
REF		MODULE ECO HISTORY	B-MH-M7850-0-6	3
1		ETCHED CIRCUIT BOARD	5010651-00	4
1	C39	CAP 470 PF, 100V, 5% (DM)	1000024-00	5
2	C33, C37	CAP 330 PF, 100V, 5% (DM)	1000023-00	6
32	C1 THRU C32	CAP .01 MF, 100 V, 20% DISC	1001610-01	7
3	C34, C35, C36	CAP 6.8 MF, 35 V, 10% S.TANT	1005306-00	8
1	D1	DIODE, L.E.D.	1110324-00	9
5	R1 THRU R5	RES 4.7K 1/4W 5%	1300447-00	10
3	R8, R9, R15	RES 100 1/4W 5%	1300229-00	11
5	R6, R10, R11, R12, R17	RES 470 1/4W 5%	1300316-00	12
1	R13	RES 1K 1/4W 5%	1300365-00	13
1	R16	RES 10K 3/4W 20% (1% PR RN)	1309143-10	14
1	E24	I.C. 7400	1905575-00	15
1	E30	I.C. 7430	1905578-00	16
1	E31	I.C. 7402	1909004-00	17
1	E19	IC. 314A	1909704-00	18
1	E23	IC. 7408	1910155-00	19
4	E1, E9, E17, E25	IC. 8881	1909705-00	20
1	E16	I.C. 74H04	1909931-00	21
1	E27	I.C. 7485	1910224-00	22
1	E8	I.C. 74123	1910436-00	23
1	E10	I.C. 74S03	1910533-00	24
1	E15	I.C. 74S74	1910544-00	25
1	E21	I.C. 74174	1910652-00	26
2	E5, E22	I.C. 74157	1910655-00	27
9	E2, E3, E11, E12, E18 E20, E26, E28, E29	I.C. 8640	1911469-00	28
2	E4, E13	I.C. 74S280	1911573-00	29
1	E14	I.C. 8266	1909934-00	30
2	E6, E7	I.C. 7474	1905547-00	31
4	W1 THRU W4	INSULATED JUMPER	9009185-00	32
4		EYELET	9006732-00	33
2		HANDLE, FLIP-CHIP (MAGENTA)	9008337-6	34

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV. B

FIRST USED ON OPTION MODEL

8640	1	8
8266	8	16
74157	8	16
74174	8	16
74123	8	16
7485	8	16
314A	1	8
IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REV.	CHANGE NO.	CHK	DATE
B	0001	J. McVEIGH	5/13/75

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN.	W. LUFKIN	DATE 2-5-75
CHK'D.		DATE 2/17/75
ENG.	G. Martin	DATE 2/19/75
PROJ. ENG.	L.B. Winston	DATE 2/19/75
PROD.	Ed Hill	DATE 2/19/75

NEXT HIGHER ASSY

SCALE

SHEET 1 OF 3

digital

TITLE: PARITY MODULE

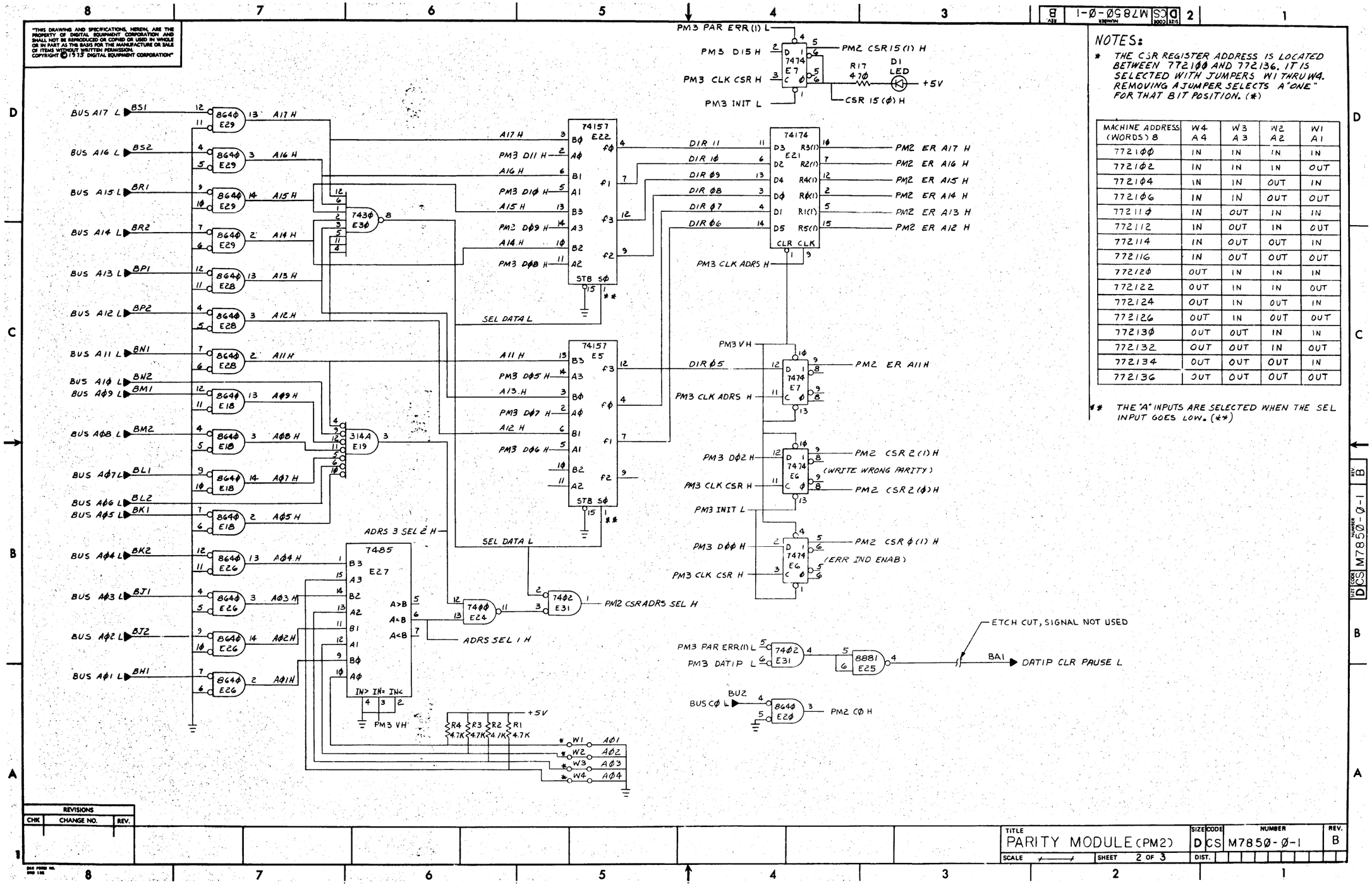
SIZE	CODE	NUMBER	REV.
D	CS	M7850-0-1	B

DIST.

REV. B | NUMBER M7850-0-1 | CODE DCS | SIZE D

118

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NOTES:

* THE CSR REGISTER ADDRESS IS LOCATED BETWEEN 772100 AND 772136. IT IS SELECTED WITH JUMPERS W1 THRU W4. REMOVING A JUMPER SELECTS A "ONE" FOR THAT BIT POSITION. (*)

MACHINE ADDRESS (WORDS) 8	W4 A4	W3 A3	W2 A2	W1 A1
772100	IN	IN	IN	IN
772102	IN	IN	IN	OUT
772104	IN	IN	OUT	IN
772106	IN	IN	OUT	OUT
772110	IN	OUT	IN	IN
772112	IN	OUT	IN	OUT
772114	IN	OUT	OUT	IN
772116	IN	OUT	OUT	OUT
772120	OUT	IN	IN	IN
772122	OUT	IN	IN	OUT
772124	OUT	IN	OUT	IN
772126	OUT	IN	OUT	OUT
772130	OUT	OUT	IN	IN
772132	OUT	OUT	IN	OUT
772134	OUT	OUT	OUT	IN
772136	OUT	OUT	OUT	OUT

** THE "A" INPUTS ARE SELECTED WHEN THE SEL INPUT GOES LOW. (**)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PARITY MODULE (PM2)	D	CS	M7850-Ø-1	B
SCALE	SHEET 2 OF 3	DIST.		

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NOTES:
* B INPUTS SELECTED WHEN SEL IS LOW (*)
** SET R/S TO 110 NSEC. ± 10 NS FROM SIGNAL ON PIN BE1 GOING LOW TO SIGNAL ON PIN BB2 GOING HIGH. (@ 1.5V LEVEL) (**)

PM2 CSR 15 (1) H
BUS DI4 L
BUS DI3 L
BUS DI2 L
PM2 ER A17 H
PM2 ER A16 H
PM2 ER A15 H
PM2 ER A14 H
PM2 ER A13 H
PM2 ER A12 H
PM2 ER A11 H
BUS DØ4 L
BUS DØ3 L
PM2 CSR 2(1) H
BUS DØ1 L
PM2 CSR Ø(1) H
PM3 READ SEL H

8881 E9 · 8881 E17 · 8881 E1 · AM2 · AL1 · AL2 · AK1 · AK2 · AJ1 · AJ2 · AH1 · AH2 · AF1 · AF2 · AE1 · AE2 · AD1 · AD2 · AC1

BUS DI5 L · BUS DI4 L · BUS DI3 L · BUS DI2 L · BUS DI1 L · BUS DIØ L · BUS DØ9 L · BUS DØ8 L · BUS DØ7 L · BUS DØ6 L · BUS DØ5 L · BUS DØ4 L · BUS DØ3 L · BUS DØ2 L · BUS DØ1 L · BUS DØØ L

8640 E12 · 8640 E11 · 8640 E2 · 8640 E3

PM3 DI5H · DI4H · DI3H · DI2H · PM3 DI1H · PM3 DIØH · PM3 DØ9H · PM3 DØ8H · PM3 8 BIT GEN H

74S280 E13 · 74S280 E4 (G H B I C D E F A; ODD 6; EVEN 5)

PM3 DØ7H · DØ4H · DØ3H · DØ1H · PM3 DØ6H · PM3 DØ5H · PM3 A BIT GEN H · PM3 DØ2H · PM3 DØØH

PM3 C1H

74S03 E10 (1,2,3 / 4,5,6 / 9,10,8)

AN1 INT BUS PI L
AP1 INT BUS PØ L
PM3 PAR ERR H

R12 470 · R11 470 · R10 470 · +5V

8266 E14 (B3 A3 B2 A2 B1 A1 B0 A0 S1 S0; F3 F2 F1 F0)

PM2 CSR 2(Ø) H
PM3 VH
PM2 CØH
PM3 B BIT GEN H
PM3 A BIT GEN H
PM3 DATIP L
*PM3 C1L

R6 470 +5V · MH04 E16 · PM3 INT SSYN H

R5 4.7K +5V · R16 10K · R13 1K +5V PM3 VH

(T.P.) · BB2 S SYN DLY (Ø) H · C32 .01UF

INT BUS SSYN L · BE1 · PM3 C1 L · 74123 E8 Ø · PM3 INIT L

PM3 PAR ERR(1) H · PM3 PAR ERR(1) L · PM2 CSR Ø(1) H · 74S74 E15 C Ø · 8881 E1 · AN2 · BUS PB L

PM3 INT SSYN H · PM3 M SYN PULSE L · PM3 PAR ERR H · 8881 E25 · BU1 · BUS SSYN L

S SYNC INH Ø H · 7408 E23

BE2 INT BUS PAR MOD DET L

PM3 PAR ERR(1) H · R8 100 · C37 330 PF 5% · 74H04 E16 · 74Ø4 E24 · ERRCLR INH L

BUS INIT L · AA1 · 8640 E2Ø · INIT H · PM3 INIT L

BUS C1 L · BT2 · PM3 C1 H

R9 100 · C33 330PF 5% · PM3 M SYN PULSE L

BUS M SYN L · BV1 · PM2 CSR ADRS SEL H · R15 100 · C39 470 PF 5% · PM3 C1 L · 7408 E23 · PM3 READ SEL H

CLK CSR L · PM3 CLK CSR H · 74H04 E16 · 74 10 E24 · PM3 CLK ADRS H · PM3 C1 H · PM3 PAR ERR(1) L

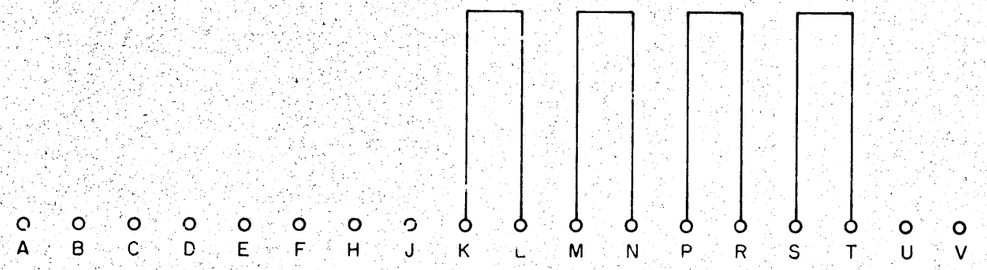
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: PARITY MODULE (PM3)
SIZE DCS · NUMBER M7850-0-1 · REV. B
SCALE · SHEET 3 OF 3 · DIST.

120

SIZE	CODE	NUMBER	REV
B	CS	G727-0-1	

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REVISIONS	REV	CHK	CHG NO

DRN.	BUTLER	DATE	11-19-69
CHK'D		DATE	
ENG.		DATE	
PROD		DATE	

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: GRANT CONTINUITY G727

SIZE	CODE	NUMBER	REV
B	CS	G727-0-1	

PRINTED CIRCUIT REV: A

DEC FORM NO
DRB 10.2

121

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WIRE TABLE

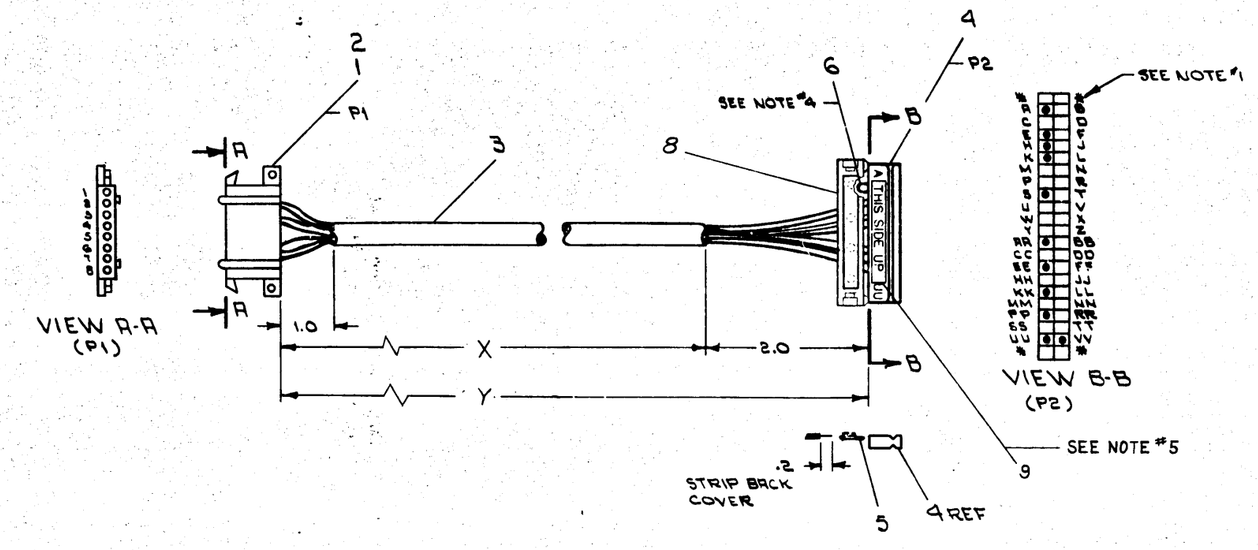
ITEM NO.	DESCRIPTION AWG	COLOR	PAIR NO.	FROM CONNECTION	WITH	TO CONNECTION	WITH
3	22	BLK	1	P1-2	2	P2-KK	5
3	↓	RED	↓	P1-3	2	P2-S	↓
3,7		SHIELD		SEE NOTE #2	—	P2-A(NOTE #3)	
3		BLK	2	P1-4	2	P2-EE	
3		WHT	↓	P1-5	2	P2-RR	
3,7		SHIELD		SEE NOTE #2	—	P2-UU(NOTE #3)	
3		BLK	3	P1-6	2	P2-PP	
3		GRN	↓	P1-7	2	P2-K	
3,7	↓	SHIELD		SEE NOTE #2	—	P2-VV(NOTE #3)	↓
6	22	BLK	—	P2-E	5	P2-H	5

LEGEND

VARIATION	LENGTH X	LENGTH Y
7008360-0	25IN±1.0	27IN±1.0
7008360-1	46IN±1.0	48IN±1.0
7008360-9	9FT±2IN	9FT2IN±2IN

NOTES:

1. * ASTERISKS INDICATE CAVITIES NOT USED OR DESIGNATED BY LETTERS.
2. DRAIN WIRES TO BE CUT BACK TO OUTER INSULATION ON P1 END OF CABLE ONLY. SHIELDS TO BE CUT BACK TO OUTER INSULATION ON BOTH ENDS OF CABLES.
3. DRAIN WIRES ON P2 END OF CABLE TO BE EACH ENCLOSED WITH ITEM #7 (TUBING) FROM END OF CABLE JACKET TO POINT WHERE THEY ENTER P2 CONNECTOR.
4. ITEM #6 (WIRE) TO BE APPROXIMATELY ONE(1) INCH LONG.
5. PLACE ITEM #9 ("THIS SIDE UP" STICKER) ON LETTERED SIDE OF ITEM #4 (BERG HOUSING) AS SHOWN.



1	LABEL, THIS SIDE UP	3611567	9
1	STRAIN RELIEF	1211166	8
A/R	TUB. #18 TEF. THINWALL WHT	9107278-11	7
A/R	WIRE #22 AWG STRD TEF BLK	9107350-00	6
11	SOCKET, CRIMP# 47216	1210088-07	5
1	HOUSING, BERG #65043-015	1210918-15	4
A/R	CABLE, BELDEN #8777-3PR SHLD	9107228-0	3
6	CONTACT MATE-N-LOCK (FEMALE)	1209379-03	2
1	CONN. MATE-N-LOCK (FEMALE)	1209340-00	1
QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

REVISIONS	CHANGE NO.	REV.
CHK	KL8E-00002	A
	KL8E-00005	B
	7008360-00003	E
	7008360-00002	D
	8095M-00001	F
	7008360-00041	H

FIRST USED ON OPTION / MODEL: PDP-8E

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES .XX ± .01 .XXX ± .005 ANGLES ± 0°30'
FINAL SURFACE QUALITY 63 REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL: SEE PARTS LIST
FINISH:

DRN.	J. LEBLANC	DATE 7/27/71
CHK'D.		DATE 8-8-71
ENG.		DATE 8-8-71
PROJ. ENG.		DATE 8-2-71
PROD.		DATE 8/9/71

NEXT HIGHER ASSY: A-ML-KL8-E-0
SCALE: NONE
SHEET: OF

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: CABLE ASSEMBLY (KL8E)

SIZE CODE: D IA | NUMBER: 7008360-0-0 | REV: H

DIST.

EC FORM NO. 10300

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FIELD MAINTENANCE PRINT SET

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FIELD MAINTENANCE PRINT SET DL11-W	B-TC-DL11-W-1
SERIAL LINE/LINE CLOCK	A-PL-DL11-W-Ø
SLU/RTC OPTION	D-CS-M7856-Ø-1
SLU/RTC OPTION	K-CS-M7856-Ø-9
CABLE ASSY (KL8-E)	D-IA-7008360-0-0
CABLE MODEM BCØ5C	D-UA-BCØ5C-Ø-Ø
CABLE ASSY	D-UA-BC03L-0-0

UNIT VARIATIONS COVERED BY THIS PRINT SET
DL11-W
DL11-WA
DL11-WB
DL11-WC

DL11-W

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØ1Ø6

REVISIONS	REV.	CHG. NO.	DATE
	A	DL11W-1	NOV-76

USED ON OPTION/MODEL

SHEET I OF 1

		DATE
DRN.	D. Neary	26MAR76
CHK'D	D. Neary	26MAR76
PROJ. ENG.	R.E. Pratt	29-MAR-1976
FIELD SERV.	J. Mc Cann	14-April 1976

digital

TITLE:
FIELD MAINTENANCE PRINT SET
DL11-W

SIZE	CODE	NUMBER	REV.
B	TC	DL11-W-1	A

DIST.

EN-01124-16-N675-(327)

DRB 124

123

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY D. HEALY	CHECKED D. HEALY	SECTION 1
DATE 25 MAR 76	DATE 25 MAR 76	
ENG RE Draft	PROD K N. MacDonald	ISSUED SECT. 1
DATE 1-APR-76	DATE 7 APR 76	

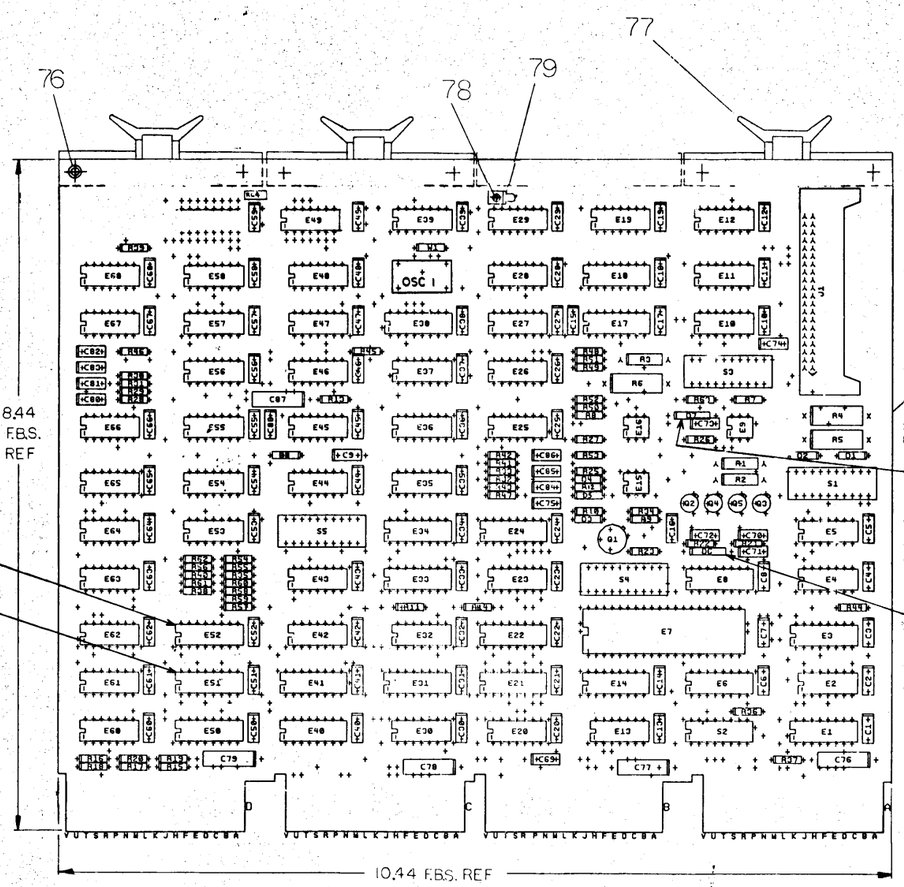
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION											
			DL11-W	DL11-WA	DL11-WB	DL11-WC								
1	D-CS-M7856-Ø-1	SLU/RTC OPTION	1	1	1	1								
2	D-IA-7008360-1-0	CABLE ASSY (KL8-E)	-	1	-	-								
3	D-UA-BCØ5C-25-0	CABLE MODEM BCØ5C	-	-	1	-								
4	D-UA-BC03L-10-0	CABLE ASSY	-	-	-	1								

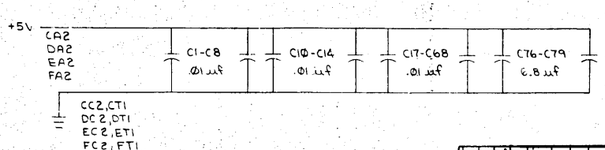
TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO
SERIAL LINE/LINE CLOCK DL11-W	NONE	A	PL	DL11-W-Ø	A	DL11W 00001
	SHEET 1 OF 1	DIST.				

DEC FORM DEC 16 (325) 1031 N870
DRA 110

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NOTES:





REF		X-Y COORDINATE HOLE LOCATION	K-CO-M7856-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M7856-0-5	2
REF		MODULE ECO HISTORY	B-MH-M7856-0-6	3
1		ETCHED CIRCUIT BOARD	5011464	4
67	C1 THRU C8,C10 THRU C15, C17 THRU C68,C88	CAPACITOR, .01uf, 100V, 20%	1001610-01	5
7	C9,C69 THRU C74	CAPACITOR, 470pf, 100V, 5%	1000024	6
1	C75	CAPACITOR, 330pf, 100V, 5%	1000023	7
6	C80 THRU C85	CAPACITOR, 82pf, 100V, 5%	1000015	8
1	C86	CAPACITOR, 150pf, 100V, 5%	1000019	9
1	C87	CAPACITOR, 2.2uf, 20V, 10%	1002627	10
4	C76,C77,C78,C79	CAPACITOR, 6.8uf, 35V, 10%	1005306	11
1	C16	CAPACITOR, 5000pf, 100V, 20%	1001765	12
3	D1,D2,D3	DIODE, IN4004	1105796	13
1	D4	DIODE, ZENER IN4742	1109502	14
2	D6,D7	DIODE, CURRENT LIMITER MCL1301	1105810	15
1	D8	DIODE, D664	1100114	16
4	S1,S3,S4,S5	SWITCH, 10 POSITION	1211164-06	17
1	S2	SWITCH, 8 POSITION	1211164-04	18
				19
				20
1	J1	CONNECTOR, 40 PIN	1209941	21
1	R83	RESISTOR, 330, 1/4W, 5%	1300295	22
3	R1,R2,R3	RESISTOR, 180 OHM, 1/2W, 5%	1300280	23
3	R4,R5,R6	RESISTOR, 560 OHM, 1W, 5%	1303048	24
2	R7,R8	RESISTOR, 68K, 1/4W, 5%	1301327	25
1	R9	RESISTOR, 33 OHM, 1/4W, 5%	1300197	26
1	R10	RESISTOR, 120K, 1/4W, 5%	1300539	27
1	R12	RESISTOR, 680, 1/4W, 5%	1301424	28
1	R25	RESISTOR, 82 OHM, 1/4W, 5%	1300219	29
2	R13,R14	RESISTOR, 100 OHM, 1/4W, 5%	1300229	30
4	R15,R16,R17,R18	RESISTOR, 180 OHM, 1/4W, 5%	1301322	31
4	R19,R20,R21,R22	RESISTOR, 390 OHM, 1/4W, 5%	1300309	32
1	R23	RESISTOR, 7.5K, 1/4W, 5%	1301422	33
2	R27, R26	RESISTOR, 150 OHM, 1/4W, 5%	1300250	34
6	R28 THRU R33	RESISTOR, 270 OHM, 1/4W, 5%	1301972	35
27	R35,R36,R37,R39 THRU R62	RESISTOR, 10K, 1/4W, 5%	1300479	36
3	R11,R64,R38,	RESISTOR, 1K, 1/4W, 5%	1300365	37
1	R34	RESISTOR, 220 OHM, 1/4W, 5%	1300271	38
1	Q1	TRANSISTOR, DEC 8531B	1509396	39
2	Q3,Q4	TRANSISTOR, A05	1510705	40
2	Q2,Q5	TRANSISTOR, A55	1510706	41
2	E9,E16	OPTICALLY COUPLED ISOLATOR	1510727-1	42
1	OSC 1	OSCILLATOR 50688 MHZ	1811680-82	43
1	E15	I.C. DEC 4N26	1911998	44
3	E1,E6,E14	I.C. DEC 8641	1911579	45
6	E2,E13,E20,E60,E61,E49	I.C. DEC 8881	1909705	46
1	E3	I.C. DEC 8097	1911527	47
3	E4,E44,E64	I.C. DEC 7408	1910155	48
7	E5,E35,E37,E55,E57,E63,E68	I.C. DEC 7474	1905547	49
1	E7	I.C. DEC UART(1808)	1910459-01	50
1	E8	I.C. DEC 74175	1910851	51
1	E10	I.C. DEC 1489L	1910323	52
1	E11	I.C. DEC 1488L	1910322	53
2	E17,E18	I.C. DEC 74151	1909936	54
QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

IC 384	1	8
IC 8837	8	16
IC 314A	1	8
IC 74123	8	16
IC 74157	8	16
IC 74153	8	16
IC 7493	10	5
IC 7492	10	5
IC 74151	8	16
IC 74175	8	16
IC UART	1	3
IC 8097	8	16
IC 8641	8	16
IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL

ETCH BOARD REV. D

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

REV.	REVISIONS	CHANGE NO.	CHK
D	ECO M7856-0000		B. PRATT 5-3-76
E	ECO M7856 - 0000 2		B. PRATT 2-10-76

DRN. J. Paddon 9/2/75
CHK'D. [illegible] 9-4-75
ENG. R.B. Pratt 11-24-75
PROJ. ENG. R.B. Pratt 11-24-75
PROD. K.G. Van Osdol 11/25/75
NEXT HIGHER ASSY

SCALE
SHEET 1 OF 9

digital

TITLE: SLU/RTC OPTION

SIZE D | CODE CS | NUMBER M7856-0-1 | REV. E

DIST.

DEC FORM NO. DRD 135.8

125

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1	E12	I.C. DEC 7492	1909053	55
5	E19,E29,E27,E28,E39	I.C. DEC 7493	1909054	56
1	E21	I.C. DEC 74153	1909037	57
2	E22,E38	I.C. DEC 74157	1910055	58
5	E23,E53,E58,E62,E36	I.C. DEC 7402	1909004	59
1	E24	I.C. DEC 74123	1910038	60
1	E25	I.C. DEC 7437	1910091	61
1	E26	I.C. DEC 7486	1910011	62
1	E30	I.C. DEC 314A	1909704	63
4	E31,E40,E41,E50	I.C. DEC 8837	1911118	64
1	E32	I.C. DEC 7410	1905576	65
2	E42,E43	I.C. DEC 8242	1909712	66
2	E45,E66	I.C. DEC 7414	1911324	67
4	E46,E54,E65,E67	I.C. DEC 7400	1905575	68
1	E47	I.C. DEC 74197	1910035	69
1	E48	I.C. DEC 384	1909488	70
1	E56	I.C. DEC 7404	1909686	71
1	E59	I.C. SPARE		72
1	E33	32 x 8 PROM	23095A1	73
1	E34	32 x 8 PROM	23094A1	74
1	W1	JUMPER, INSULATED	9009185	75
6		EYELET (HANDLE)	9006732	76
3		HANDLE, FLIP-CHIP (MAGENTA)	9008337-6	77
1		EYELET GS4-5	9009000	78
1		FASTON TAB (OFFSET)	9007112	79
1		TERMINAL	9007791	80
1	D5	DIODE IN746A	1104860	81

REVISIONS

CHK	CHANGE NO.	REV

TITLE: SLU/RTC OPTION
SCALE: -/-/- SHEET 2 OF 9 DIST.
SIZE D CODE CS NUMBER M7856-0-1 REV. E

DEC FORM NO DRD 137

DCS M7856-0-1 E

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+5V
R45 10K
DL-4 BBD 6 H
DL-4 RCSR CLK H
DL-4 B INIT L
7474 E37
7474 E35
DL-1 RDR ENB (1) L
DL-4 BBD Ø H
DL-1 RCVR BUSY (1) H
DL-4 SEL 2L
7408 E44
74197 E47
D3 D2 D1 DØ
R3(1) R2(1) R1(1) RØ(1)
LD CLR CLKØ CLK1
7402 E58
DL-4 B INIT H
+5V -12V
CLR R DONE
STB STATUS
STB RD
R CLK
SERIAL IN
U ART E7
DL-4 BBD 7 H — XD7
DL-4 BBD 6 H — XD6
DL-4 BBD 5 H — XD5
DL-4 BBD 4 H — XD4
DL-4 BBD 3 H — XD3
DL-4 BBD 2 H — XD2
DL-4 BBD 1 H — XD1
DL-4 BBD Ø H — XDØ
DL-4 LD X DEL L — LD XD
X CLK
CLR LDC NB2 NB1 NP EP 25B
SERIAL OUT
DL-4 B INIT H
S4-4 S4-3 S4-2 S4-1
R DONE
RD7 RD6 RD5 RD4 RD3 RD2 RD1 RDØ
DL-1 RDØ7 H … DL-1 RDØØ H
OR ERR
FR ERR
P ERR
EOC
X RDY
8Ø97 E3
DL-1 RCVR INTR RQST H
DL-3 RCVR SEL H
DL-3 MASTER H
7408 E46
DL-1 RCVR INTR ENB (1) H
DL-1 RCVR DONE H
DL-1 OR ERR H
DL-1 ERROR H
DL-1 FR ERR H
DL-1 P ERR H
DL-1 XMIT RDY H
384 E48
+5V
R47 10K
R32 270
R33 270
C84 82PF
C85 82PF
7414 E45
XMIT INTR ENBØ) L
7402 E36
DL-1 XMIT INTR RQST H
DL-6 XMIT CLK H
DL-6 RCVR CLK H
DL-5 TTL SERIAL DATA IN
DL-5 SERIAL OUT H
FR ERR H
RCVR DONE H
74157 E38
AØ BØ A1 B1 A2 B2 A3 B3 SØ STB
fØ f1 f2 f3
7437 E25
8881 E49
TB-1
BOOT SW L
(FASTON TAB)
74175 E8
D3 D1 DØ D2
R3(1) R3(Ø) R1(1) R1(Ø) RØ(1) RØ(Ø) R2(1) R2(Ø)
CLK CLR
DL-4 BBD 6 H
DL-4 BBD Ø H
DL-4 BBD 2 H
XMIT INTR ENB (1) L
S4-1
DL-1 MAINT (1) H
DL-1 MAINT (1) L
DL-1 XMIT INTR ENB (1) H
DL-1 SERIAL OUT L
DL-1 BREAK (1) H
R46 10K
+5V
DL-4 XCSR CLK H
DL-4 B INIT L
DL-3 XMIT SEL H
DL-4 LD X DEL L
1488L E11
1489L E10
7414 E66
8837 E41
SPARE LOGIC

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
SLU/RTC OPTION (DL-1)	D	CS	M7856-Ø-1	E
SCALE —	SHEET 3 OF 9	DIST.		

BSD FORM NO. BSD 128

12)

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36

110000

60

+5V
R39 10K
DL-4 BBD Ø6 H
DL-2 LTC BIT Ø6 H
DL-4 BM SYN DEL L
DL-4 LTC IN L
7402 E58
7474 E68
DL-4 BINIT L
DL-2 LTC BIT Ø7 H
7474 E57
DB D664
R43 330
BUS LTC L
C01
C88 .01µf
C87 2.2µf
7414 E45
7474 E57
DL-4 RBD 7H
7404 E56
7410 E32
7400 E67
7402 E58
DL-4 BSSYN L

BUS SSYN L EJ1
BUS NPR L DM2
BUS BGG IN H DM2
BUS BGG OUT H DN2
BUS SACK L FT2
E51
+5V
MASTER CLEAR H
DL-4 B INIT H
RTC MASTER L
FD1 BUS BUSY L
DE2 BUS BRG L
ENGR OPTION - DO NOT INSERT

DP2 BUS BGS IN H
DR2 BUS BGS OUT H
DM2 BUS BGT IN H
DL2 BUS BGT OUT H

* NOTE: PARTITION THESE COMPONENTS WITH THOSE ON SHT 5

7474 E55
R30 270
R31 270
C82 82 Pf
C83 82 Pf
7414 E66
7414 E66
7400 E65
7400 E54
8881 E60
DE2 BUS BRG L
7400 E65
8881 E60
+5
R18 180
DN2 BUS BGG OUT H
8881 E60
FT2 BUS SACK L
7402 E62
8881 E60
FD1 BUS BUSY L

+5V
R17 180
DM2
BUS BGG IN H
R20 390
8837 E50
8837 E50
7400 E54
DL-4 B INIT H
7402 E53
+5V
R40 10K
7474 E63
7402 E62

BUS BUSY L FD1
BUS SSYN L EJ1
8837 E50
8837 E50
DL-2 B BUS BUSY H
DL-2 B BUS SSYN H
7402 E53
7408 E64
7408 E64

DL-2 RTC MASTER L
7404 E56
MASTER CLEAR H
8881 E20
FM1 BUS INTR L

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
SLU/RTC OPTION (DL-2)	D	CS	M7856-0-1	E
SCALE	SHEET 4 OF 9	DIST.		

DEC FORM NO. DRD 128

128

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BUS SACK L — FT2 — 7
BUS BG4 OUT H — DT2 — 6
BUS BG4 IN H — DS2 — 5
BUS NPR L — FJ1 — 4
BUS SSYN L — EJ1 — 2
E52 — 8, 1, 3, 15
9 DH2 BUS BR4 L
10 FD1 BUS BUSY L
11 MASTER L
12 SACK H
13 DL-4 B INIT H
14 MASTER H
16 +5V
ENGR OPTION DO NOT INSERT

*NOTE: PARTITION THESE COMPONENTS WITH THOSE NOTED ON SHT. 4

DL-1 XMIT INTR RQST H
DL-1 RCVR INTR RQST H
3B4 E48
7404 E56
7400 E65
7474 E55
R28 270
R29 270
C80 82pF
C81 82pF
7414 E66
7414 E66
7414 E66
+5V
R15 180
R19 300
BUS BG4 IN H
DS2
8837 E50
8837 E50
7400 E65
7400 E54
7400 E54
DL-4 B INIT H
7402 E53
7402 E62
+5V
R35 10K
7474 E63
DL-2 BBUS BUSY H
BBUS SSYN H
7402 E53
7408 E64
7408 E64
7402 E62
8881 E61
8881 E61
8881 E61
8881 E61
+5V
R16 180
DH2 BUS BR4 L
DT2 BUS BG4 OUT H
FT2 BUS SACK L
FD1 BUS BUSY L
8881 E2
8881 E2
8881 E2
8881 E2
S2-4 *
S2-7 *
S2-8 *
CT2 BUS DØ3 L
CM2 BUS DØ7 L
CL2 BUS DØ8 L
CV2 BUS DØ6 L
+5V
R37 0K
S2-5 *
DL-2 RTC MASTER L
R36 2K
+5V
8881 E2
8881 E20
MASTER L
7404 E56
DL-3 MASTER H
8881 E13
8881 E13
8881 E13
8881 E13
FM1 BUS INTR L
S2-3 *
S2-6 *
CP2 BUS DØ5 L
CN2 BUS DØ4 L
CV2 BUS DØ2 L
SACK H
7400 E67
7400 E67
7474 E68
DL-3 RCVR SEL H
DL-3 XMIT SEL H

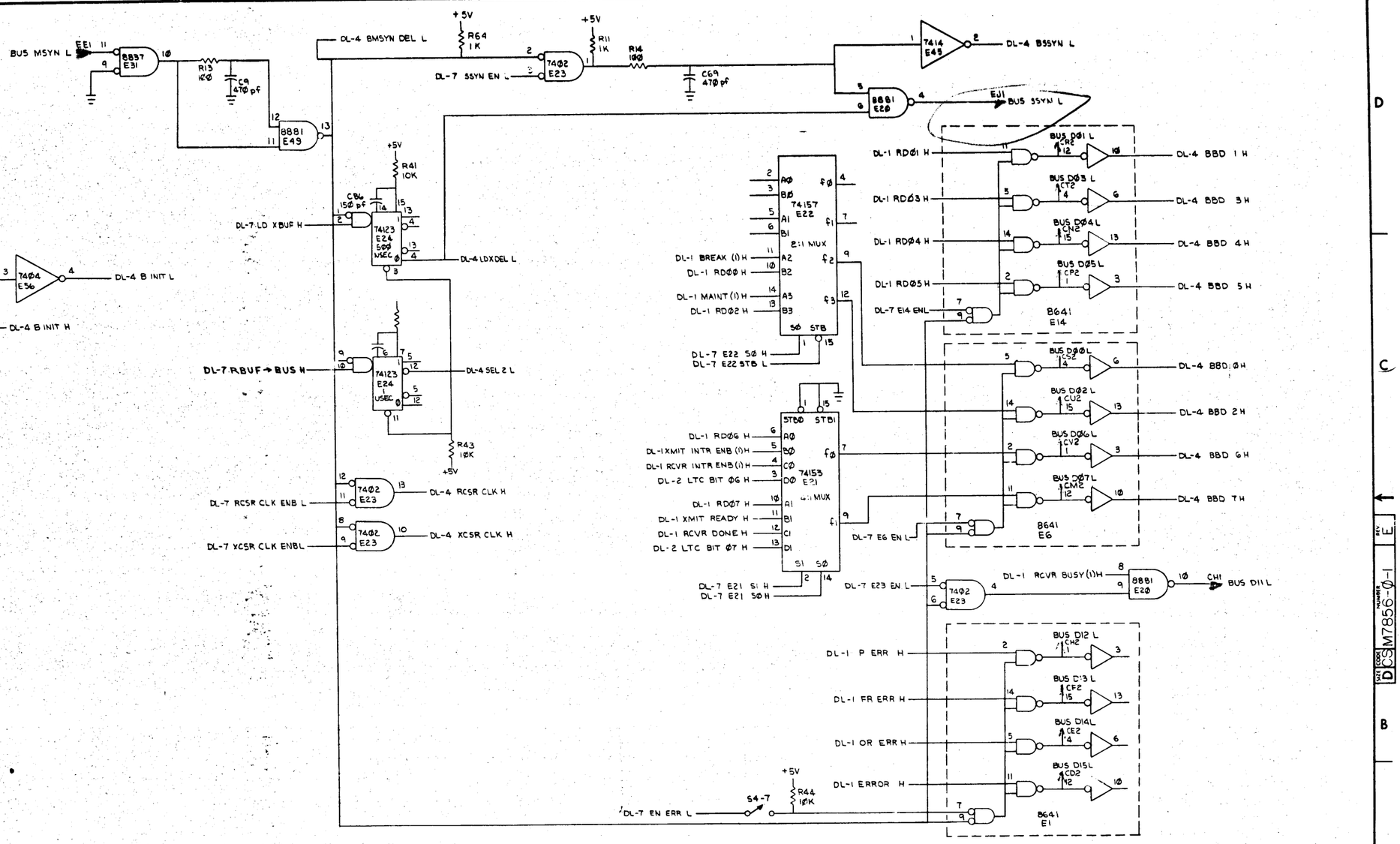
* VECTOR ADDRESS SWITCHES - ON=1 OFF=Ø

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: SLU/RTC OPTION (DL-3)
SIZE D CODE DCS NUMBER M7856-Ø-1 REV E
SCALE — SHEET 5 OF 9 DIST.
DEC FORM NO. DRD 138

129

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
SLU/RTC OPTION (DL-4)	D	CS	M7856-Ø-1	E
SCALE	SHEET 6 OF 9	DIST.		

DEC FORM NO. DRD 130

130

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NOTE:
1. SWITCHES ARE SHOWN IN ACTIVE MODE.
2. D7, D6 ARE MCLI301 1 MA CONSTANT CURRENT DIODES.

DL-1 RDR ENB (I)L
DL-1 MAINT (I)L
SERIAL OUT L
DL-5 SERIAL OUT H
DL-5 TTL SERIAL DATA IN
DATA TERMINAL READY
RQST TO SEND
+12/E11 PIN 14
-12/E11 PIN 1
20 MIL CABLE
RS232
SERIAL IN
+ TO PIN 5 E38

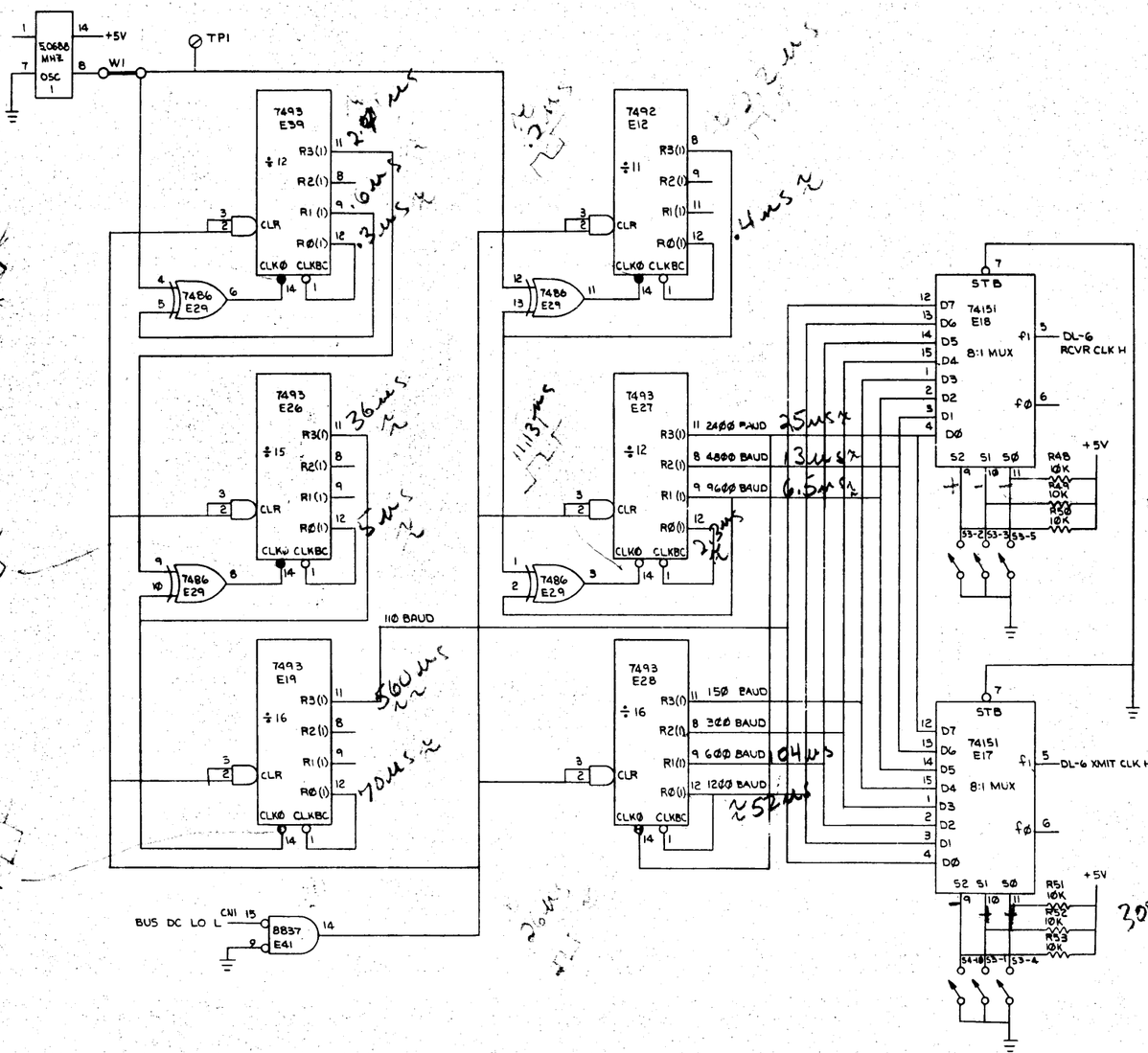
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: SLU/RTC OPTION (DL-5)
SIZE: D | CODE: CS | NUMBER: M7856-Ø-1 | REV: E
SCALE: — | SHEET 7 OF 9 | DIST.

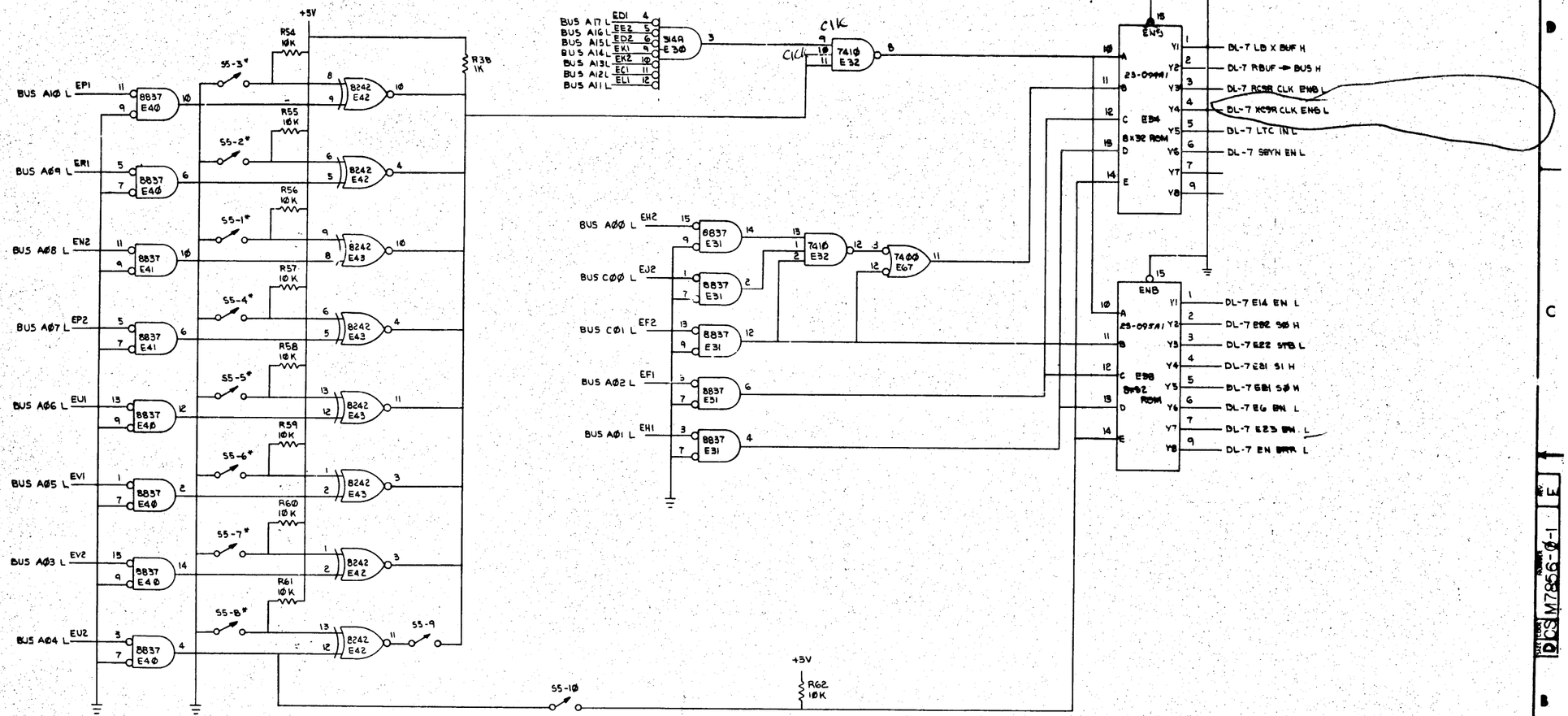
DEC FORM NO. 5960 328

131

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5.0688 MHZ OSC 1
+5V
W1
TP1
7493 E39
÷12
7493 E26
÷15
7493 E19
÷16
7492 E12
÷11
7493 E27
÷12
7493 E28
÷16
7486 E29
CLR
CLK0 CLKBC
R3(1)
R2(1)
R1(1)
R0(1)
2.4MS
3.6MS
5.0MS
9.6MS
.3MS
.4MS
.2MS
.2MS
.2

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*ADDRESS SELECTION SWITCHES - OFF=1 ON=Ø

REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO. DRD 130

TITLE: SLU/RTC OPTION (DL-7)
SIZE: D | CODE: DCS M7856-Ø-1 | REV: E
SCALE: — | SHEET 1 OF 1

DCS M7856-Ø-1 REV E

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REV.	NUMBER	SIZE	CODE
	M7856-0-9	K	CS

(FOR 23094AI-A07 & 23095AI-A07)

DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES					
		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
SURFACE QUALITY IN ✓ MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL

FINISH

DRN. J. [illegible] 9-[illegible]

CHK'D [illegible]

ENG. [illegible] 9-[illegible]

PROJ. ENG. [illegible]

PROD. [illegible] 9-26

NEXT HIGHER ASSY. D-CS-M7856-0-1

SCALE

SHEET 1 OF 3

FIRST USED ON DL11-W

digital

TITLE ROM LISTING

SIZE	CODE	NUMBER	REV.
K	CS	M7856-0-9	

DIST.

REVISIONS		
CHK	CHANGE NO.	REV.

DEC 16-(325)-1080-1B-R275
DRB 100A

DEC PART NUMB: 23094A1-A07
ORIGINATOR: BOB PRATT
DATE OF ORIGIN: 2/28/75

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
0	00	00111100	074
1	01	00111100	074
2	02	00111100	074
3	03	00111100	074
4	04	00111100	074
5	05	00111100	074
6	06	00111100	074
7	07	00111100	074
8	10	00111100	074
9	11	00111100	074
10	12	00111100	074
11	13	00111100	074
12	14	00001100	014
13	15	00111100	074
14	16	00011100	034
15	17	00111100	074
16	20	00011000	030
17	21	00111100	074
18	22	00011100	034
19	23	00111100	074
20	24	00010100	024
21	25	00111100	074
22	26	00011100	034
23	27	00111100	074
24	30	00011100	034
25	31	00111100	074
26	32	00011110	036
27	33	00111100	074
28	34	00011101	035
29	35	00111100	074
30	36	00011100	034
31	37	00111100	074

ISI

DEC PART NUMB: 23-095A1-A07
ORIGINATOR: BOB PRATT
DATE OF ORIGIN: 2/28/75

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
0	00	11111111	377
1	01	11111111	377
2	02	11111111	377
3	03	11111111	377
4	04	11111111	377
5	05	11111111	377
6	06	11111111	377
7	07	11111111	377
8	10	11111111	377
9	11	11111111	377
10	12	11111111	377
11	13	11111111	377
12	14	11011111	337
13	15	11111111	377
14	16	11111111	377
15	17	11111111	377
16	20	10001111	217
17	21	11111111	377
18	22	11111111	377
19	23	11111111	377
20	24	11010001	321
21	25	11111111	377
22	26	11111111	377
23	27	11111111	377
24	30	01000010	102
25	31	11111111	377
26	32	11111111	377
27	33	11111111	377
28	34	11111111	377
29	35	11111111	377
30	36	11111111	377
31	37	11111111	377

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WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH
1	26	BLU/WHT	P1 1 *	SOLDER	J1-VV	7
		WHT/BLU	P1-2		J1-F	
		ORN/WHT	P1-3		J1-J	
		WHT/ORN	P1-4		J1-V	
		GRN/WHT	P1-5		J1-T	
		WHT/GRN	P1-6		J1-Z	
		BRN/WHT	P1-7 **		J1-UU	
		WHT/BRN	P1-8		J1-BB	
		SLA/WHT	P1-9		J1-Y	
		WHT/SLA	P1-10		J1-W	
		BLU/RED	P1-11		J1-FF	
		RED/BLU	P1-12		J1-JJ	
		ORN/RED	P1-13		J1-D	
		SLA/RED	P1-14		J1-LL	
1	26	SLA/GRN	P1-15	SOLDER	J1-N	7

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH
1	26	RED/BRN	P1-16	SOLDER	J1-NN	7
		SLA	P1-17		J1-R	
		RED/SLA	P1-18		J1-U	
		BLU/BLK	P1-19		J1-P	
		BLK/BLU	P1-20		J1-DD	
		ORN/BLK	P1-21		J1-MM	
		BLK/ORN	P1-22		J1-X	
		GRN/BLK	P1-23		J1-RR	
		BRN/RED	P1-24		J1-L	
		RED/ORN	P1-25		J1-C	
		SHIELD	P1-1 *		J1-A	
1		SHIELD	P1-7 **		J1-B	7
3		BLK	P1-1 *	SOLDER	P1-7 **	SOLDER
2	26	RED	J1-E	7	J1-M	7

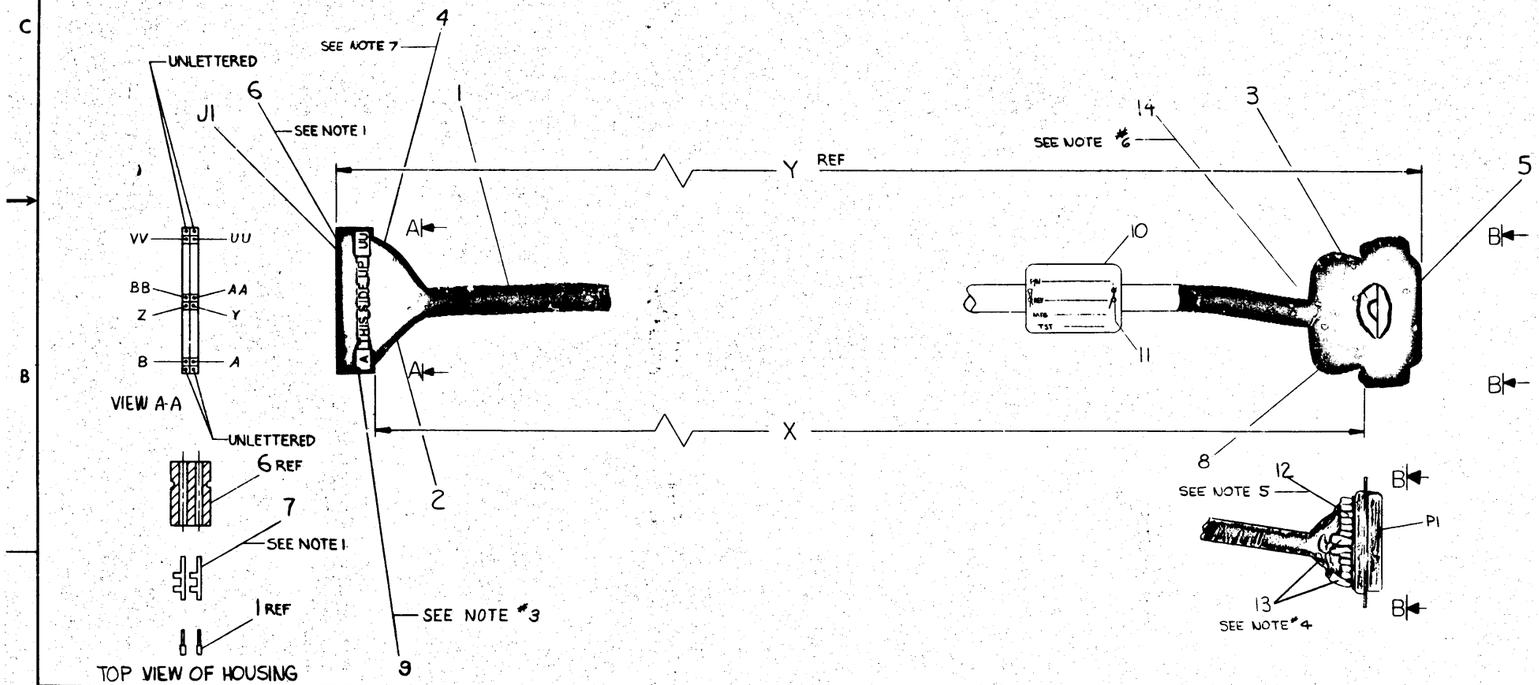
N.B
* DENOTES THREE WIRES ARE SOLDERED INTO THE P1-1 SOLDER CUP
** DENOTES THREE WIRES ARE SOLDERED INTO THE P1-7 SOLDER CUP

LEGEND

NUMBER	VARIATION DIM X	VARIATION DIM Y (PRECUT)
BCØ5C-25	25'±3"	25'1.8"
BCØ5C-50	50'±2%	50'1.8"
BCØ5C-ØS	9'±3"	9'1.8"

NOTES:

1. MANUFACTURING SHOULD USE MACHINE CRIMPER TOOL FOR CRIMPING PINS (ITEM #7) MUST BE HT68 FROM BERG ELECT
2. ONLY DEC PART # 12100900-0-0 MAY BE USED AS J1.
3. PLACE ITEM #9 ("THIS SIDE UP" STICKER) ON LETTERED SIDE OF ITEM #6 (BERG HOUSING) AS SHOWN.
4. USE ITEM #13 (9107302-11) IN TWO PLACES (P1-1, P1-7) TO PREVENT SHORTING
5. USE ITEM #12 (9107295-11) ON ALL REMAINING SOLDER CUPS TO PREVENT SHORTING.
6. DUE TO ± TOLERANCES WITH DIFFERENT VENDORS THE HOOD (ITEM #8) MAY VARY IN OUTSIDE DIAMETER. CAUSING POTENTIAL STRAIN RELIEF GRIPPING PROBLEM. SHOULD THIS CONDITION BE PRESENT USE ITEM #14 (9107834) AT JUNCTION OF CABLE AND HOOD.
7. PLACE ITEM #4 (9107256) OVER SHIELD WIRE J1-A, J1-B, P1-1, P1-7.



A/R	TAPE, DOUBLE SIDED	9007834	14
A/R	TUBING, 10 AWG, CLEAR	9107302-11	13
A/R	TUBING, 14 AWG, CLEAR	9107295-11	12
2	TIE WRAPS	9007031	11
1	CABLE, LABEL	9009532	10
1	LABEL, THIS SIDE UP	3611567	9
1	HOOD, #DB51226-1 CINCH	1205885	8
29	SOCKET, #HT-68	1210089-5	7
1	HOUSING, #20383 BERG	121ØØ9Ø-ØØ	6
1	PLUG, #DB-25P CINCH	1205866	5
A/R	TUBING, #22 AWG TEF BLK	9107256-ØØ	4
A/R	WIRE, #26 AWG STRD TEF BLK	9107636-ØØ	3
A/R	WIRE, #26 AWG STRD TEF RED	9107636-22	2
A/R	CABLE, 25 CONDUCTOR #26 AWG	9107736	1
QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

REVISIONS REV	CHANGE NO	CHK	
A	BCØ5C-ØØØ1	SMITH	2-14-78
B	BCØ5C-ØØØØ2	G. ALLEN	10-20-78
C	BCØ5C-ØØ3Ø3	B. REGAN	4-9-79
D	BCØ5C-ØØØ4	V. BASTINANI	1/10/80
		R. SMITH	12-30-80
		R. SMITH	8-9-76

DEC FORM NO DRD 180-4

FIRST USED ON OPTION/MODEL	DN11
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	
DECIMALS	ANGLES
.XXX - .005 .XX - .02 .X - .1	±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	
MATERIAL	
FINISH	

DRN S. Roberts 11/7/77
CHK [illegible] 11/7/77
ENG [illegible] 11/7/77
R. ENG [illegible] 11/7/77
PROJ [illegible] 11/7/77
NEAT HIGHEST ASY.

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE
CABLE, MODEM
BCØ5C

SIZE CODE D UA | NUMBER BCØ5C-Ø-Ø | REV D

SCALE

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WIRE TABLE

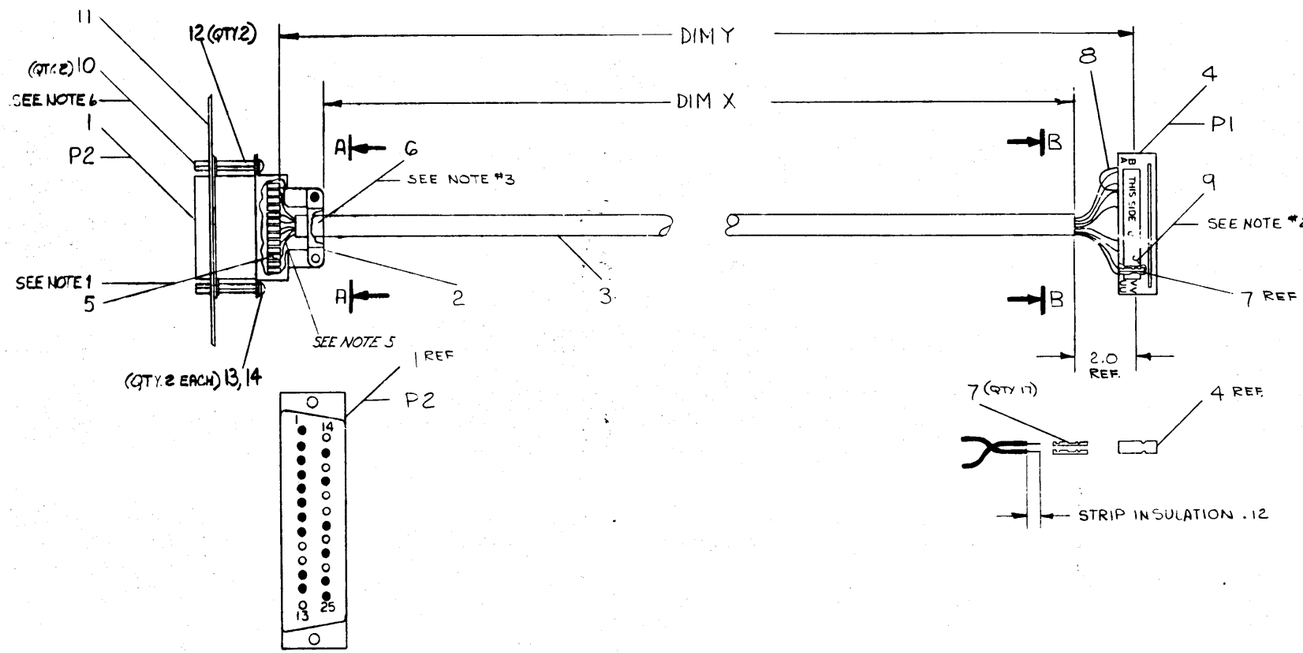
ITEM NO	DESCRIPTION AWG	COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH
3	22	BLK	P1-VV	7	P2-7	SOLDER
		GRN/WHT	P1-C		P2-25	
		GRN/BLK	P1-JJ		P2-12	
		ORN/BLK	P1-FF		P2-11	
		RED	P1-DD		P2-20	
		GRN	P1-BB		P2-8	
		BLU/WHT	P1-Z		P2-6	
		ORN	P1-X		P2-22	
		BLU	P1-V		P2-4	
		WHT	P1-T		P2-5	
		BLU/BLK	P1-R		P2-17	
		BLK/WHT	P1-N		P2-15	
		RED/WHT	P1-L		P2-24	
		WHT/BLK	P1-J		P2-3	
3		RED/BLK	P1-F		P2-2	SOLDER
8		BLK	P1-E	7	P1-M	7
8	22	BLK	P2-1	SOLDER	P2-7	SOLDER

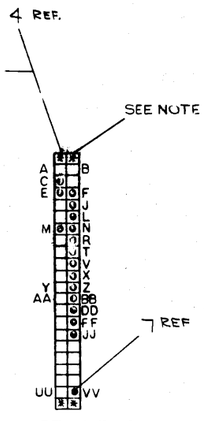
LEGEND

NUMBER	VARIATION DIM "X"	VARIATION DIM "Y" PRECUT
BCØ3L-1Ø	1ØFT ± 2IN	1ØFT, 5IN
BCØ3L-5	5FT ± 2IN	5FT, 5IN
BCØ3L-1K	1FT 9IN ± 1IN	2FT

NOTES:

1. EACH SOLDERED CONN ON P2 SHALL BE INSULATED WITH A .25 PIECE OF SHRINK TUBING (ITEM #5)
2. PLACE ITEM #9 (THIS SIDE UP STICKER) ON LETTERED SIDE OF ITEM #4 (CONN HOUSING) AS SHOWN.
3. FOR STRAIN RELIEF WRAP 2 TURNS OF TAPE (ITEM #6) AROUND CABLE (ITEM #3) AS SHOWN.
4. PINS MARKED * IN VIEW B-B ARE NOT USEABLE
5. WIRES COMING FROM CENTER OF PLUG CONN. SHOULD BE 5/8" LG., ALL OTHERS SHOULD BE CONFINED INTO HOOD OF CONN. SO THAT THEY'RE NOT BUNCHED.
6. PLACE LOCKWASHER (SUPPLIED WITH ITEM #10) BETWEEN SPACER AND CONNECTOR FLANGE. DISCARD NUT (QTY. 2) SUPPLIED WITH ITEM #10.





2	WASHER, LOCK #4	9006688	14
2	SCR, PHL PAN HD #4-40 X .25	9008301-1	13
2	SPACER, THREADED, HEX	9008833	12
1	PLATE, CONN. MTG.	BMD-7414072-0-0	11
2	SCREW LOCK ASSY	9008451-00	10
1	LABEL (THIS SIDE UP)	3611567	9
3IN	WIRE, STRANDED #22 AWG IPVC (BLK)	9107350-00	8
17	SOCKET, CRIMP	1210089-07	7
A/R	TAPE, DOUBLE SIDED .50 W.D.	9007834	6
16	TUBING, HEAT SHRINK .12	9107255-09	5
1	CONN, 44 POS, HSG.	1210918-15	4
A/R	CABLE, 15 COND, 22 AWG.	9107672-00	3
1	HOOD, CONN.	1212516-00	2
1	CONNECTOR, PLUG, FILTERED	1214031-00	1

REVISIONS CHK	CHANGE NO.	REV.
	BCØ3L-00002	A
	BCØ3L-00003	B
	BCØ3L-00004	C
	BCØ3L-00005	D

B. SAMPSON 10-13-75 — BCØ3L-00003 B — M.E. LEWANDOWSKI 11-5-75
R. SAMPSON 5-Nov-76 — BCØ3L-00004 C — R. Sampson 11-Nov-76
BCØ3L-00005 D — T. ORR 11-Nov-76

DEC FORM NO. DRD 100-C

QUANTITY & VARIATION	
THIRD ANGLE PROJECTION	
REMOVE BURRS AND BREAK SHARP CORNERS	
DO NOT SCALE DWG	NEXT HIGHER ASSY.
MATERIAL SEE PARTS LIST	SCALE 1/1
FINISH	SHEET 1 OF 1

DESCRIPTION — DWG./PART NO. — ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.6	OVER 0.6 TO 1.2	OVER 1.2 TO 2.0	OVER 2.0 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.018	±.024	±.04	
	PREFERRED ☐	±.012	±.018	±.025	±.04	±.063	±0.1	

DR — FIRST USED ON 8-Oct-80
CHK D. Kelly
ENG
PROJ
PROD

TITLE: FILTERED CABLE ASSY. BCØ3L

SIZE D — CODE UA — NUMBER BCØ3L-Ø-Ø — REV. D

DIST.

REV. D — BCØ3L-Ø-Ø — CODE UA — SIZE D

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FIELD MAINTENANCE PRINT SET

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TABLE OF CONTENTS

FIELD MAINT. PRINT SET KY11-LA B-TC-KY11-LA-1
CONSOLE OPER. ASSY D-UA-KY11-LA-Ø
CIRCUIT ETCH BOARD KY11-LA D-CS-5411497-0-1

UNIT VARIATIONS COVERED BY THIS PRINT SET
KY11-LA

KY11-LA

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØØ17

REVISIONS	REV.	CHG. NO.	DATE

USED ON OPTION/MODEL		
11/Ø4-AA	11/Ø1-DC	
11/Ø4-AB	11/Ø4-DD	
11/Ø1-AC	11/Ø4-EC	
11/Ø4-AD	11/Ø4-ED	
11/Ø4-BA		
11/Ø4-BB		
11/Ø4-BC		
11/Ø4-BD		

SHEET 1 OF 1

DRN. D. HEALY	DATE 9/29/75	digital
CHK'D D. HEALY	DATE 9/29/75	TITLE: FIELD MAINTENANCE PRINT SET KY11-LA
PROJ. ENG. R. Bazz	DATE 10-22-75	
FIELD SERV	DATE	

SIZE	CODE	NUMBER	REV.
B	TC	KY11-LA-1	
DIST.			

EN-01124-16-NG75-1327

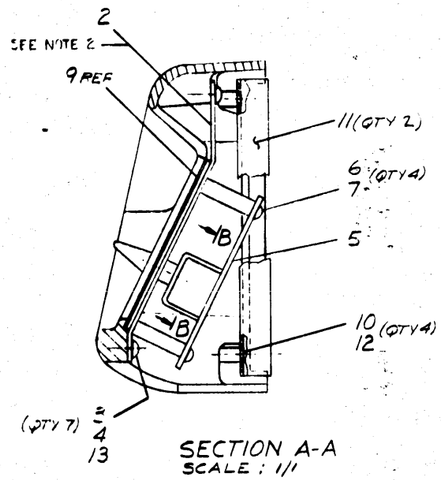
DRB 124

139

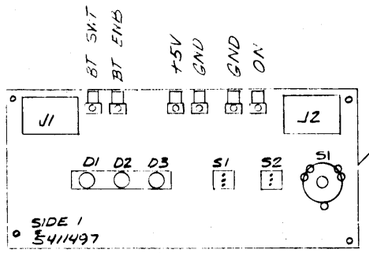
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NOTES

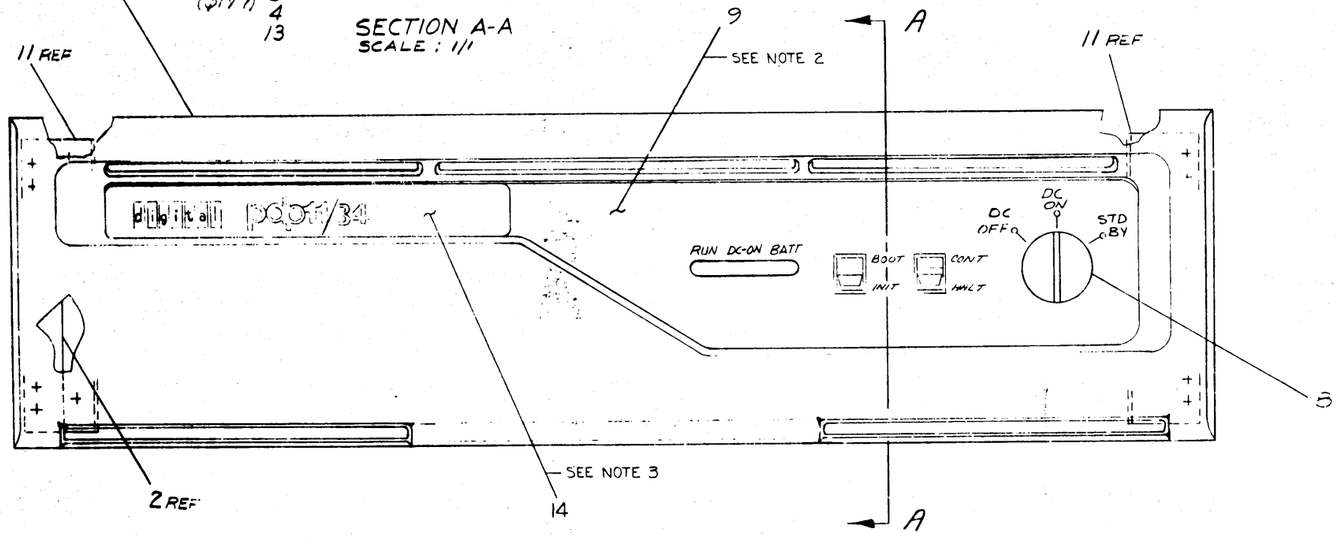
1. PART NO. 7413657-1-0 MAY BE USED IF 7415559 IS NOT AVAILABLE.
2. PRIOR TO ASSY OF CONTROL PANEL TO FRONT PANEL, CLEAN ITEM 2 THOROUGHLY. AFTER CLEANING, APPLY AN EVEN COAT OF 3M #8001 AEROSOL ADHESIVE #7 TO ITEM 2 ONLY TO AVOID ATTACKING THE SILK SCREENING. POSITION ITEM 2 IN PLACE AND HAND APPLY PRESSURE FOR A PERIOD OF 15-30 SECONDS.
3. OVERLAY DECAL TO BE SHIPPED LOOSE & PLACE WITH THE UNIT AND ADDED AS SHOWN IF REQUIRED AT F.A.T.



SECTION A-A
SCALE: 1/1



VIEW B-B
SCALE: NONE



ITEM NO.	DESCRIPTION	DWG./PART NO.	QTY.
1	OVERLAY, DECAL 11/34	A-PS-7613359-0-1	14
7	WASHER, FLAT .375 x .187 x .036	90-06660	13
4	SPACER, HEX 1/4 x .38 LG	9006802	12
2	BRKT, FILTER SUPPORT	G-ND-7414962-0-0	11
4	SCR, PHIL FL HD 8-32 x .62	9006040-2	10
1	PANEL, CONTROL, CONSOLE	D-IA-7413502-0-0	9
1	KNOB, ROTARY SWITCH	12125-70	5
4	SCR, PHIL HD PAN 8-32 x .38	90-06022-1	7
4	SPACER #6-32 x .87	90-06201	6
1	CIRCUIT ETCH BD KY11-LA	D-ES-5411497-0-1	5
7	SCR FILL HD PAN 8-32 x .31	90-09799-36	4
7	WASHER SPRING LOCK #8	90-06670	3
1	SUPPORT, PANEL	D-MD-7413501-0-0	2
1	BEZEL 11/04	E-MD-7415559-1-0	1

NOTE 1

DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.3	OVER 0.3 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 60.0	OVER 60.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM	±.004	±.008	±.017	±.018	±.034	±.04
	PREFERRED	±.012	±.016	±.026	±.04	±.063	±.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN: J. Chasson 11/04/77
CHK'D: Bruce 11/09/77
ENG.
PROJ. ENG.
PROD.
NEXT HIGHER ASSY. D-DD-KY11-LA
SCALE FULL
SHEET 1 OF 1

FIRST USED ON 11/04

TITLE
CONSOLE, OPER, ASSEMBLY

SIZE D | CODE UA | NUMBER KY11-L-0 | REV. C

REVISIONS	CHANGE NO.	REV.
ENG.	KY11-LA-03301	A
B. COURTEMANCHE		
	KY11-LA-03302	B
J. Chasson 4 Jan 77		
P. PORRECA		
Paul Porreca 5 Jan 77		
	KY11B-00003	C
J. Chasson 5 April 77		
P. LORUSSO		
Paul Porreca 8 April 77		

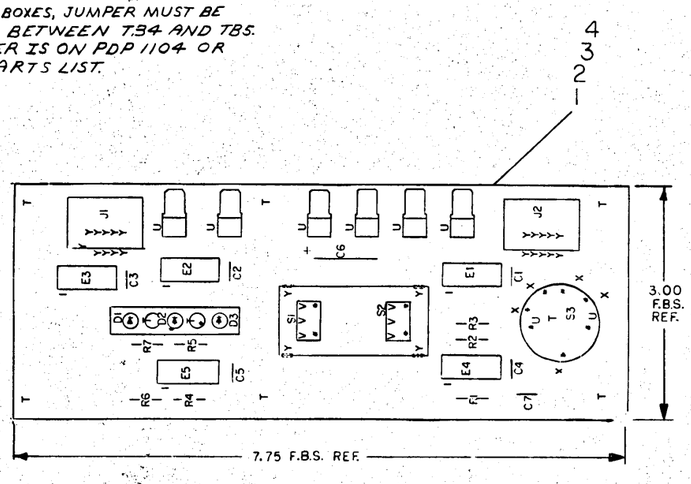
DEC FORM NO. 3105 3-76

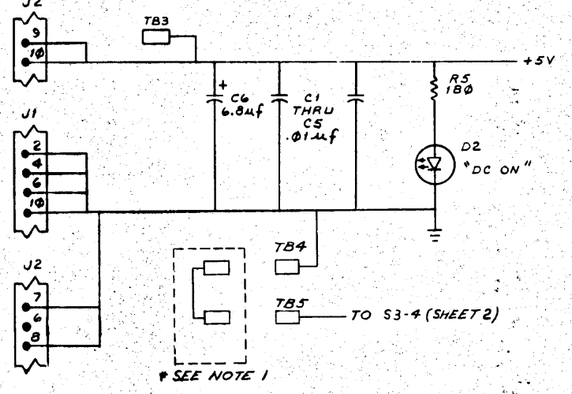
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NOTES:

1. IN BA11-L BOXES, JUMPER MUST BE INSTALLED BETWEEN T34 AND TB5. THE JUMPER IS ON PDP 1104 OR PDP 1134 PARTS LIST.





QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF		X-Y COORDINATE HOLE LOCATION	X-CO-5411497-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411497-0-5	2
REF		MODULE ECO HISTORY	B-MH-5411497-0-6	3
1		ETCHED CIRCUIT BOARD	5011496	4
5	C1 THRU C5	CAPACITOR, .01μf, 100V	1001610-01	5
1	C6	CAPACITOR, 6.8μf, 35V, 10%	1005306	6
1	C7	CAPACITOR, 1000PF, 100V	1000042	7
3	D1, D2, D3	DIODE, LIGHT EMITTING	1110864	8
1	S2	SWITCH, TOGGLE	1210840	9
1	S1	SWITCH, MOMENTARY	1210841	10
1	S3	SWITCH, ROTARY	1212560	11
1		HOLDER, TRIPLE L.E.D.	1210940-02	12
2	J1, J2	CONNECTOR, 10 PIN	1209941-05	13
2	R4, R6	RESISTOR, 1K, 1/4W, 5%	1300365	14
3	R1, R5, R7	RESISTOR, 180Ω, 1/4W, 5%	1301322	15
1	E5	I.C. DEC 7474	1905547	16
1	E3	I.C. DEC 8640	1911469	17
2	E1, E2	I.C. DEC 8881	1909705	18
1	E4	I.C. DEC 7402	1909004	19
6		TERMINAL, QUICK DISCONNECT	9007112	20
6		EYELET	9009000	21
2		SCREW, SELF-TAPING, #4-40X .31 LG	9009236	22
1		PLATE, SWITCH MTG.	7413505-0-0	23
2	(S1), (S2)	KNOB	1210786	24
				25
				26
2	R2, R3	RESISTOR 33Ω 1/4W, 5%	1300295	27
A/R		WIRE, BUS #20	9107560-02	28
A/R		TUBING, CLEAR #20	9107267-10	29

PARTS LIST

ETCH BOARD REV. E

FIRST USED ON OPTION MODEL 11/04

I.C. DEC 8640	1	8
IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.

Richard Barry 25-JAN-76
R BARRY

REV.	CHANGE NO.	REVISIONS
CK	5411497-0001	

DESIGNED J. Vincent 4-23-75
CHECKED W. Fontaine 5-15-75
ENG. Richard P. Batt 8/17/75
PROJ. ENG. Richard P. Batt 8/17/75
PROD. DATE
NEXT HIGHER ASSY

digital

TITLE KY11-LA

SIZE D | CODE CS | NUMBER 5411497-0-1 | REV. E

SCALE —/— | SHEET 1 OF 2 | DIST.

DCS 5411497-0-1 E

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R3 330
R1 180
"INIT" 1
+5V 2 S1
"BOOT" 3
R2 330
7402 E4
C7 1000PF
+5V
R4 1K
"CONT" 3
S2
"HALT" 2 1
7474 E5
R6 1K
J1
HALT GRANT H 5
BUS INIT L 1
BUS DC LO L 9
8640 E3
7402 E4
J2
BATT MON. 2
D3
8881 E2
8881 E1
D1 "RUN"
R7 180 +5V
J1
BUS AC LO L 7
TB1 BOOT SW L
HALT REQUEST L 8
BUS SACK L 3
J2
"OFF" 3
"ON" 5
"STANBY" 4
TB2 BOOT ENB L
TB5
S3
TB6

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
KY11-LA	D	CS	5411497-0-1	E
SCALE	SHEET 2 OF 2	DIST.		

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

SEQUENCE	SEQUENCE
DRAWING DIRECTORY (DD11-P)	B-DD-DD11-P
RACK PLANE ASSY (DD11PK)	C-AD-7011523-0-0
BACK PLANE ASSY (DD11PF)	C-AD-7012307-0-0
MODULE UTILIZATION (DD11-P)	D-MU-DD11-P-2
POWER HARNESS (BA11-K,BA11-L)	D-IA-7011108-0-0
POWER HARNESS (BA11F,BA11-P)	D-IA-7011109-0-0
CIRCUIT SCHEMATIC (DD11-P)	D-CS-5411660-0-1
WIRE LIST (COMPLETE)	K-WL-DD11-P-1

NOTE: DD11PK ASSEMBLIES ARE ELECTRICALLY INCOMPATIBLE WITH DD11PF ASSEMBLIES. A DD11PK WILL WORK IN BA11-L AND BA11-K BOXES ONLY. A DD11PF WILL WORK IN BA11-F AND BA11-P BOXES ONLY

THIS IS PRINT SET

UNIT VARIATIONS

VAR	TITLE	PRINT SET 1
DD11-PK	BACK PLANE ASSY (BA11L, BA11K)	X
DD11-PF	BACK PLANE ASSY (BA11F, BA11P)	X

REVISIONS	DATE	CHG. NO.	REV
	2-76	DD11P-2	A
	2-3-76 R Barry		
	9-76	DD11P-3	B
	12-76	DD11P-4	C
	2-77	DD11P-5	D

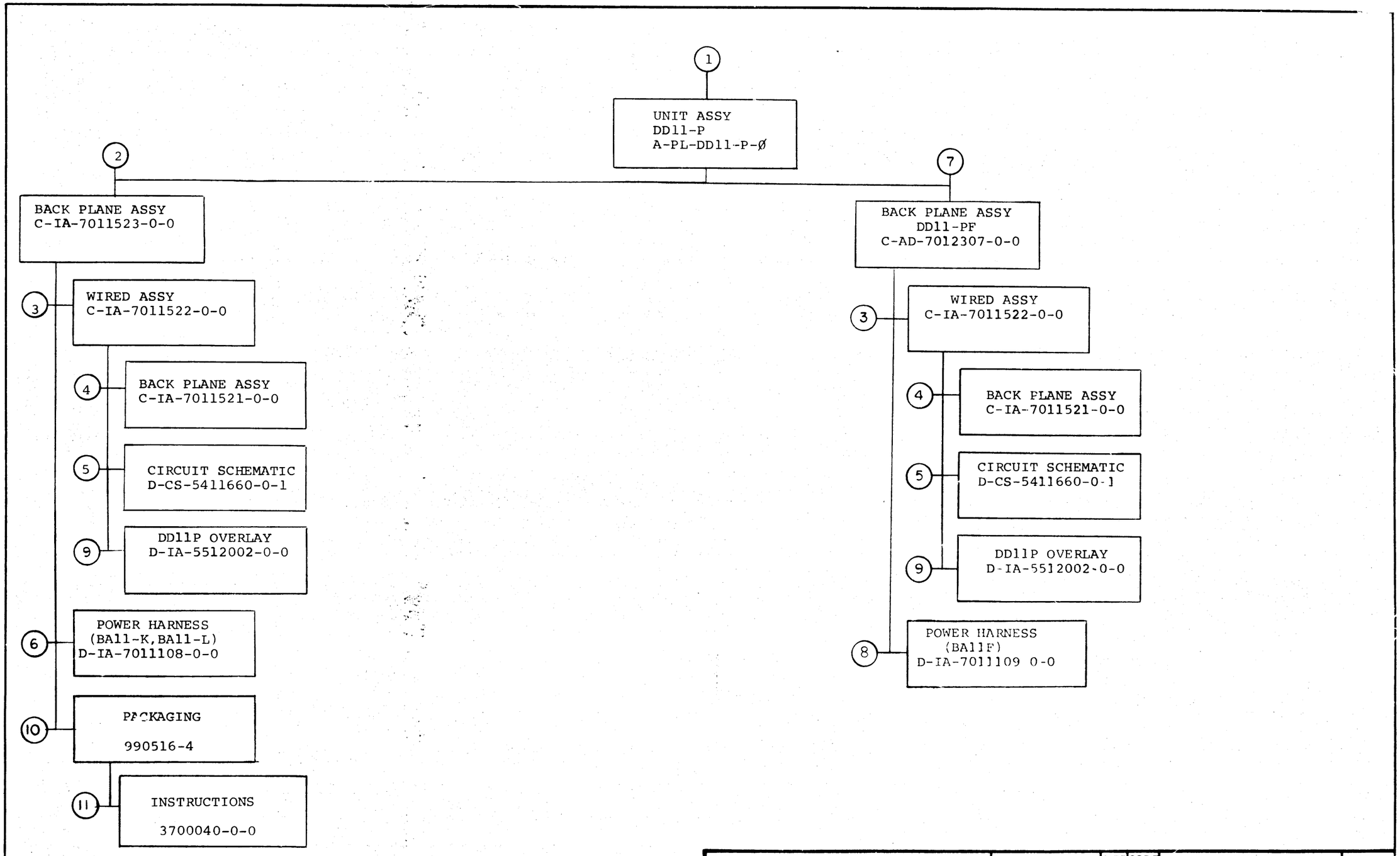
USED ON OPTION/MODEL

SHEET 1 OF 3

DRN. D. HEALY	DATE 6/19/75	TITLE: DRAWING DIRECTORY DD11-P
CHK'D. [illegible]	DATE 6/30/75	
PROJ ENG. R Barry	DATE 7-2-75	
PROD. [illegible]	DATE 7/2/75	SIZE B · CODE DD · NUMBER DD11-P · REV D
FIELD SERV. [illegible]	DATE 7-2-75	DIST

DEC-16-(231)-1062-14-M972

DRB 106



TITLE		SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY DD11-P	SHEET 2 OF 3	B	DD	DD11-P	D

DRB 107
DEC 16—(325)—1062—3—N871

ELECTRICAL

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		1	A-PL-DD11-P-Ø		1	UNIT ASSY DD11-P	
X			D-MU-DD11-P-2		1	MODULE UTILIZATION	
X		2	C-IA-7011523-0-0		1	BACK PLANE ASSY DD11-PK	
		3	C-IA-7011522-0-0		1	WIRED ASSY	
X			K-WL-DD11-P-1	C	1	WIRE LIST	
			A-WT-7011522-0		1	AWT REV STATUS	
X		5	D-CS-5411660-0-1		1	CIRCUIT SCHEMATIC	
X		6	D-IA-7011108-0-0		1	POWER HARNESS (BA11-K,BA11-L)	
X		7	C-AD-7012307-0-0		1	BACK PLANE ASSY DD11-PF	
X		8	D-IA-7011109-0-0		1	POWER HARNESS(BA11-F,BA11-P)	

MECHANICAL

CUSTOMER PRINT SET 1	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		1	A-PL-DD11-P-Ø		1	UNIT ASSY DD11-P	
		2	C-IA-7011523-0-0		1	BACK PLANE ASSY DD11-PK	
		3	C-IA-7011522-0-0		1	WIRED ASSY	
			B-DC-5308753-0-0		1	DECAL 21 POINT (LTR)	
			A-DC-7411881-0-0		1	LABEL, AWT REV STATUS	
		4	D-IA-7011521-0-0		1	BACK PLANE ASSY	
		5	D-CS-5411660-0-1			CIRCUTI SCHEMATIC	
			D-AH-5411660-0-4			ASSY/DRILLING HOLE LAYOUT	
			K-CO-5411660-0-5			X-Y COORDINATE HOLE LOCATION	
			B-MH-5411660-0-6			MODULE ECO HISTORY	
			5011659			ETCH CIRCUIT BOARD	
		6	D-IA-7011108-0-0		1	POWER HARNESS (BA11-K.BA11-L)	
		7	C-AD-7012307-0-0		1	BACKPLANE ASSY DD11-PF	
		8	D-IA-7011109-0-0		1	POWER HARNESS (BA11-F,BA11-P)	
		9	D-IA-5512002-0-0		1	OVERLAY, WIRING	
		10	990516			PACKAGING	
		11	3700040-0-0			PACKAGING INSTRUCTIONS	

CUSTOMER PRINT SET CODES

X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE: DRAWING DIRECTORY DD11-P

SHEET 3 OF 3 | SIZE: B | CODE: DD | NUMBER: DD11-P | REV: D

DRB 108

DEC 16-(325)-1062-2B-B972

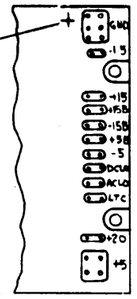
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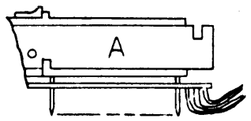
WIRE TABLE

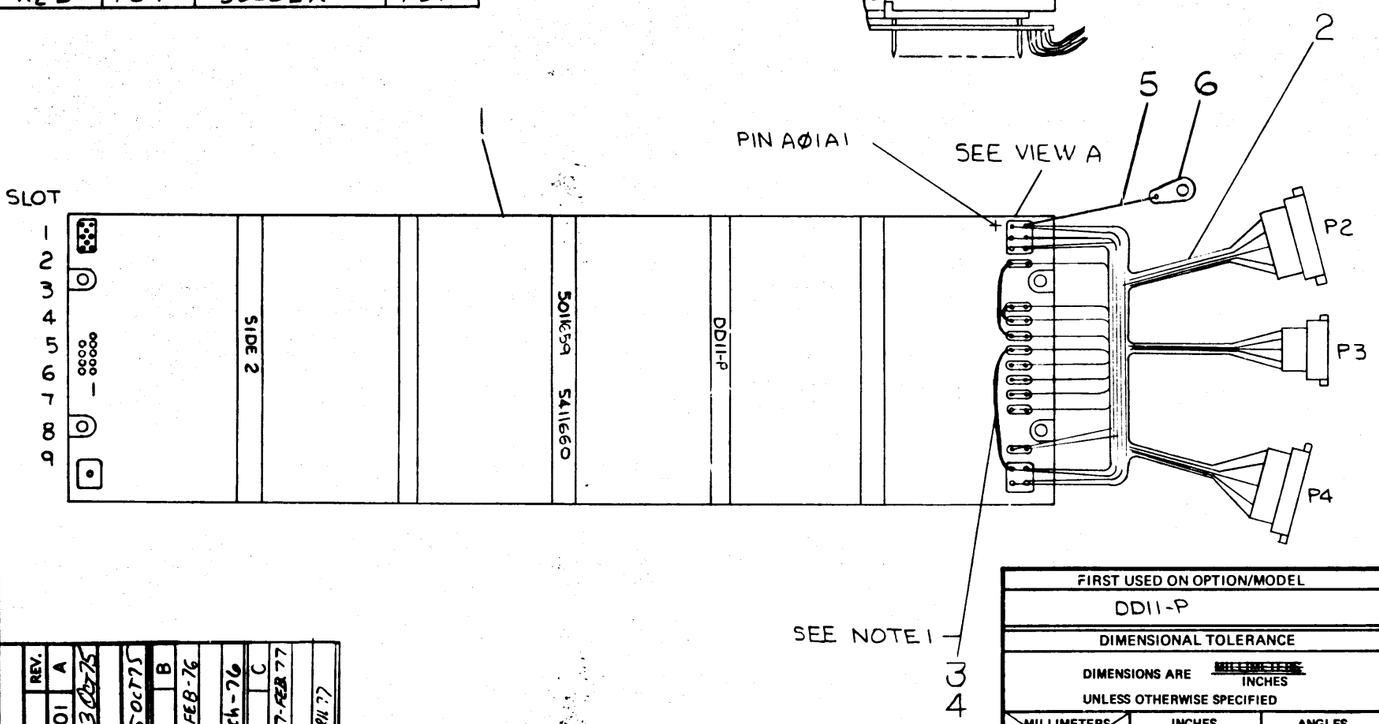
FROM			TO	FROM			TO
COLOR	POINT	CONNECTION	SIGNAL	COLOR	POINT	CONNECTION	SIGNAL
BLUE	P4-13	SOLDER	-15V	BRN	P2-14	SOLDER	-5V
RED	P4-4	↑	+5V	BLK	P2-8	↑	GND
RED	P4-1	↑	+5V	GRAY	P2-2	↑	+15
BLK	P4-8	↑	GND	ORG	P2-3	↑	+20
ORG	P4-3	↑	+20V	BLK	P2-9	↓	GND
BLK	P4-9	↑	GND	RED	P2-12	SOLDER	+5B
WHT	P4-6	↑	+15B	ITEM 5	ITEM 6	SOLDER	GND
GRN	P4-15	↑	-15B				
YEL	P3-4	↑	ACLO				
BLK	P3-1	↑	GND				
BRN	P3-2	↑	LTC				
VIO	P3-3	↓	DCLO				
RED	P2-4	↓	+5V				
RED	P2-1	SOLDER	+5V				

PIN AØ1A1



VIEW A





NOTES:

1. WHEN THE DD11-PK1S USED WITH A BA11-K EXPANSION BOX WITHOUT BATTERY BACK UP, INSTALL THE THREE JUMPERS SHOWN:
   1) -15 TO -15B
   2) +15 TO +15B
   3) +5 TO +5B
   USE *22 SHIELDED BUS WIRE ON SIDE 2. THIS WILL PROVIDE POWER TO THE MOS MEMORY VOLTAGE RAILS.
2. INSTALL ITEM# 6 UNDER LOGIC FRAME MOUNTING SCREW TO TIE LOGIC GROUND TO CHASSIS GROUND.

ITEM NO.	PARTS LIST		QTY.
1	WIRED ASSY DD11-P	C-IA-7011522-0-0	1
2	POWER HARNESS (BA11-K, BA11-L)	D-IA-7011108-0-0	1
3	WIRE BUS #22	9107560-01	6"
4	TUBING #22 (BLUE)	9107256-06	6"
5	TERMINAL, SOLDER	9008150	2"
6	WIRE, BLK, STRD #14	9107370-00	2"
7	PACKAGING INSTRUCTIONS	3700040-0-0	REF.
8	COPRESS-O-CARTON	9905016-4	A/R

REVISIONS			
REV.	CHANGE NO.	CHK	
A	7011523-00001	BD	13 OCT 75
B	DD11P-00002	JY	24-FEB-76
C	DD11-P-00005	JC	17-FEB 77

R. BARRY
R. BARRY
R. BARRY
D. BARRY

FIRST USED ON OPTION/MODEL: DD11-P

DIMENSIONAL TOLERANCE
DIMENSIONS ARE INCHES UNLESS OTHERWISE SPECIFIED

MILLIMETERS	INCHES	ANGLES
X,XX = ±0,10	.XXX = ± .005	±0° 30'
X,X = ±0,5	.XX = ± .02	
X = ±2,	.X = ± .1	

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL: SEE PARTS LIST
FINISH: + +

DRN.	L Heller	DATE 5/20/75
CHK'D	D. Neary	DATE 7/1/75
ENG.	R Barry	DATE 7-2-75
PROJ. ENG	R Barry	DATE 7-2-75
PROD.	R.K. Peterson	DATE 7/14/75

NEXT HIGHER ASSY.: A-PL-DD11-P -0
SCALE: + +
SHEET 1 OF 1

digital

TITLE: BACKPLANE ASS'Y (DD11-PK)

SIZE	CODE	NUMBER	REV.
C	IA	7011523-0-0	C

DIST.

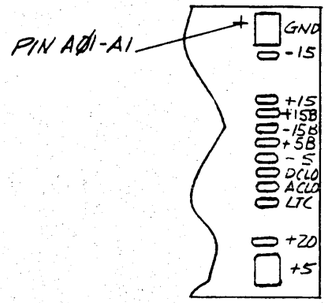
SIZE C CODE IA NUMBER 7011523-0-0 REV. C

B

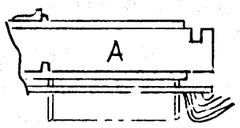
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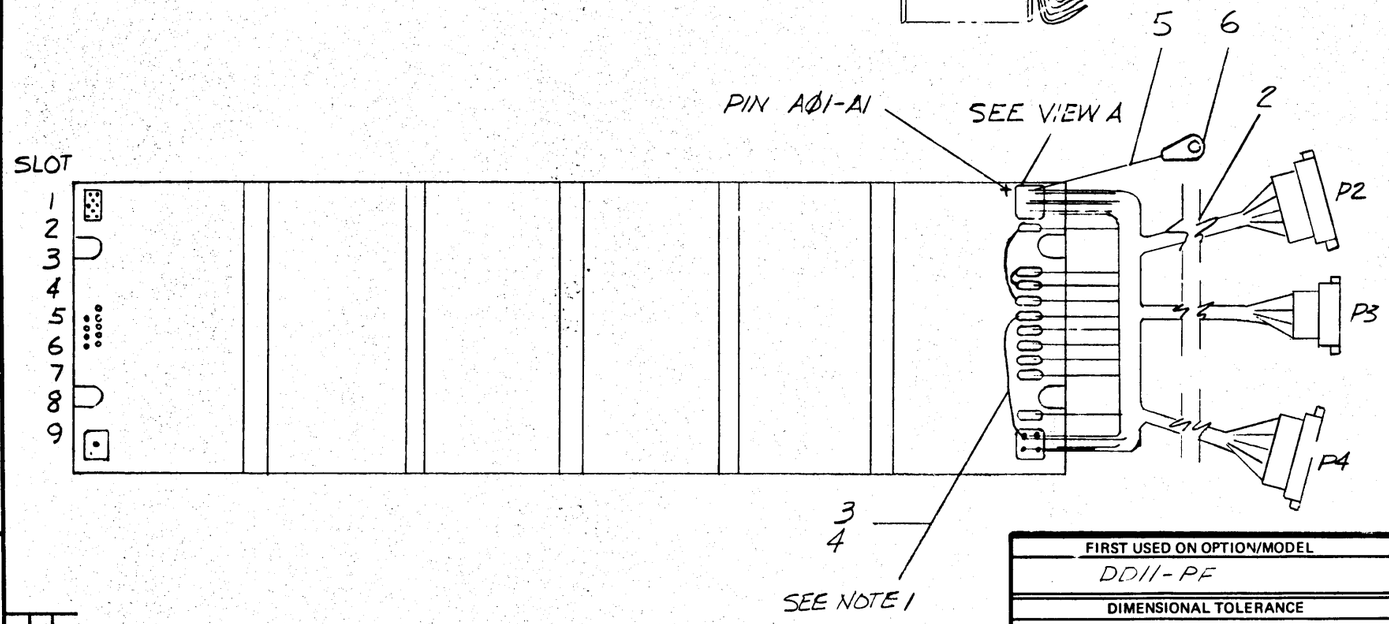
WIRE TABLE

FROM			TO	FROM			TO
COLOR	POINT	CONNECTION	SIGNAL	COLOR	POINT	CONNECTION	SIGNAL
BLU	P4-13	SOLDER	-15V	BRN	P2-14	SOLDER	-5V
RED	P4-4	↕	+5V	BLK	P2-8	↕	GND
RED	P4-1	↕	+5V	GRAY	P2-2	↕	+15
BLK	P4-8	↕	GND	ORN	P2-3	↕	+20
ORN	P4-3	↕	+20V	BLK	P2-9	↕	GND
BLK	P4-9	↕	GND	RED	P2-10	SOLDER	+5B
WHT	P4-6	↕	+15B	ITEM#5	ITEM#6	SOLDER	GND
GRN	P4-15	↕	-15B				
YEL	P3-4	↕	ACLO				
BLK	P3-1	↕	GND				
BRN	P3-2	↕	LTC				
VIO	P3-3	↕	DCLO				
RED	P2-4	↕	+5V				
RED	P2-1	SOLDER	+5V				



VIEW "A"





NOTES:

1. WHEN DD11-PF IS USED WITH A BA11-F EXP BOX WITHOUT BATTERY BACK UP INSTALL THE THREE JUMPERS SHOWN:
   1) -15 TO -15B
   2) +15 TO +15B
   3) +5 TO +5B
   USE #20 INSULATED BUS WIRE ON SIDE 2 THIS WILL PROVIDE POWER TO THE MOS MEM VOLTAGE RAILS.
2. INSTALL ITEM #6 UNDER LOGIC FRAME MOUNTING SCREW TO TIE LOGIC GROUND TO CHASSIS GROUND.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
1	TERMINAL, SOLDER	9008150	6
A/R	WIRE, BLK STRD #14	9107370-00	5
A/R	TUBING, #20 (CLEAR)	9107267-10	4
A/R	WIRE, BUS #20	9107560-02	3
1	POWER HARNESS BA11-F	D-7A-7011109-0-0	2
1	WIRED ASSY DD11-P	C-7A-7011522-0-0	1

FIRST USED ON OPTION/MODEL: DD11-PF

DIMENSIONAL TOLERANCE
DIMENSIONS ARE ~~MILLIMETERS~~ INCHES
UNLESS OTHERWISE SPECIFIED

MILLIMETERS	INCHES	ANGLES
X,XX = ±0,10	.XXX = ±.005	±0° 30'
X,X = ±0,5	.XX = ±.02	
X = ±2,	.X = ±.1	

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL: SEE PARTS LIST

FINISH: —

DRN		DATE 10/29/75
CHK'D	D Pisacane	DATE 12/18/75
ENG.	R Barry	DATE 12/18/75
PROJ. ENG.	R Barry	DATE 12/18/75
PROD.	K Gin Del	DATE 12-18-75

NEXT HIGHER ASSY: A-PL-DD11-PF-Ø

SCALE: NONE

SHEET 1 OF 1

digital

TITLE: BACK PLANE ASSY (DD11-PF)

SIZE	CODE	NUMBER	REV.
C	AD	7012307-0-0	

DIST.

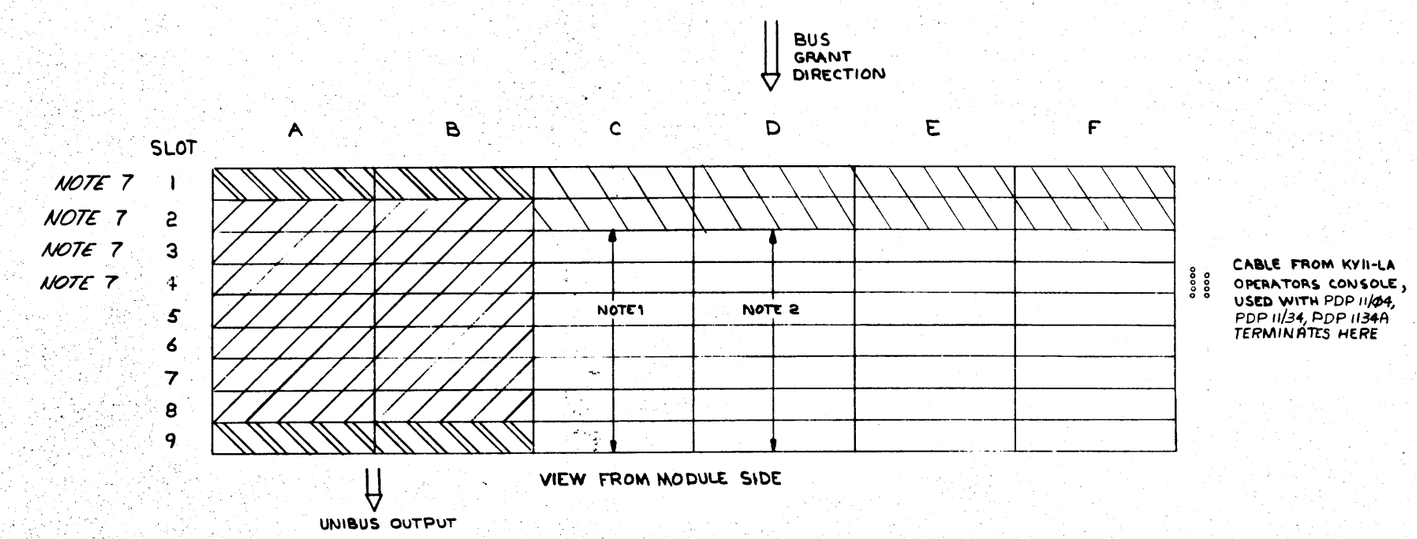
REVISIONS

REV.	CHANGE NO.	CHK

DEC FORM NO. DNG 111

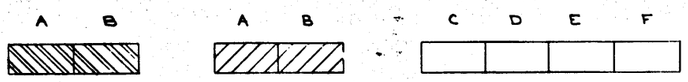
SIZE C AD NUMBER 7012307-0-0 REV.

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NOTES:

1. REMOVE CA1 TO CB1 WIRE WRAP JUMPER TO INSTALL AN NPR OPTION IN ANY SPC SLOT.
2. G727 REQUIRED IN ANY UNUSED SPC SLOT TO PROVIDE BUS GRANT CONTINUITY.
3. GRANT DIRECTION IS SLOT 1 TO SLOT 9.
4. USE M9202 TO INTERCONNECT SYSTEM UNITS INSTEAD OF M920. M9202 IS A 2 FT. UNIBUS JUMPER CABLE USED TO DISTRIBUTE UNIBUS LOADING.
5. M9302 (SACK/TERM) AND M930 (TERM) MUST NEVER BE INSTALLED IN ANY SLOT OTHER THAN SLOT 9 (A & B). POWER SUPPLY VOLTAGES WILL BE SHORTED OUT IF THESE TERMINATORS ARE MOUNTED IN THE MODIFIED UNIBUS SLOTS.
6. MODIFIED UNIBUS SECTION CARRIES CORE AND MOS MEMORY VOLTAGE RAILS AND MEMORY PARITY CONTROL SIGNALS INSTEAD OF BUS GRANT AND SOME GND SIGNALS THAT ARE CONTAINED IN STANDARD UNIBUS SLOTS.
7. REFER TO NEXT PAGE FOR RECOMMENDED UTILIZATION OF THIS SLOT IN STANDARD SYSTEM.



STANDARD UNIBUS
(SLOTS 1 & 9)

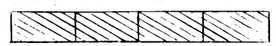
DUAL MODULES WHICH PLUG INTO STANDARD UNIBUS SLOTS ONLY:
BC11A UNIBUS CABLE
M9302 SACK/TERM (NOTE5)
M920 (NOTE4)
M930 (NOTE5)
M9202 (NOTE4)
SLOT 9 (A&B) IS EITHER THE TERMINATION OF THE UNIBUS OR THE OUTPUT CABLE (BC11A)

MODIFIED UNIBUS
(SLOTS 2-8)

DUAL MODULES WHICH PLUG INTO THE MODIFIED UNIBUS ONLY:
M9301 BOOT/TERM.
M9306 TERM.
M7850 PARITY CONT.

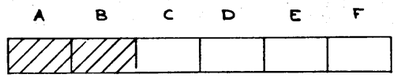
SMALL PERIPHERAL CONTROLLER
(SLOTS 3-9)

ANY S.P.C. OPTION



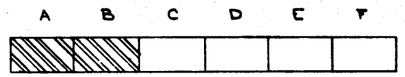
CPU BUS
(SLOTS 1 & 2)

PROCESSOR INTERCONNESS FOR KD11-E AND KD11-EA



HEX MODULE WITH MODIFIED UNIBUS SIGNALS
(SLOTS 2-8)

HEX MODULES THAT PLUG INTO MODIFIED UNIBUS ONLY:
M7847 MOS MEMORY (MS11)



HEX MODULE WITH STANDARD UNIBUS SIGNALS
SLOT 1 ONLY

M7263 PDP11/04 CPU MODULE OR M7266 PDP1134 CONTROL MODULE
M7266 KD11-E (PDP 11/34) CONTROL MODULE
M8266 KD11-AE (PDP 1134A) CONTROL MODULE

GENERAL

ANY HEX MODULE THAT MEETS EITHER OF THE FOLLOWING REQUIREMENTS CAN BE MOUNTED IN THESE SLOTS.

1.) THOSE PINNED TO TAKE SIGNALS FROM MODIFIED UNIBUS (A&B) WITH THE BUS GRANTS TAKEN FROM SPC SLOTS 1 & 2 ABOVE
2.) THOSE PINNED TO TAKE SIGNALS FROM STANDARD SPC PINNING WITH THE EXCEPTION OF POWER FROM (A&B). ie: SPECIAL OPTIONS

REVISIONS		
ORIG	CHANGE NO.	REV.
JL	DDII-P-0000S	A

Engineering 4-FEB-77
D.BARRY
Manufacturing 7-MAR-77
Robert Barry

DESCRIPTION	DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 6	OVER 6 TO 30	OVER 30 TO 120	OVER 120 TO 315	OVER 315 TO 1000
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.005	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☑	±.010	±.016	±.025	±.04	±.060	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL

FINISH

DRN. DBM 1/31/75
CHK'D D. Kang 2/1/75
ENG. RBarry 2-25-75
PROJ. ENG. RBarry 2-25-75
PROD. R K Pierce 3/1/75
NEXT HIGHER ASSY.
B-DD-DDII-P
SCALE
SHEET 1 OF 2

FIRST USED ON

digital

TITLE
MODULE UTILIZATION
(DDII-P)

SIZE	CODE	NUMBER	REV.
D	MU	DDII-P-2	A

DIST.

REV.	A
NUMBER	DDII-P-2
SIZE CODE	D MU

148

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RECOMMENDED SLOT UTILIZATION IN STANDARD SYSTEMS

KD11-D w/M9301 & MS11-JP(FP) — PDP-11/04

SLOT 1	M7263
2	MS11-JP(FP)
3	M9301
4	
5	
6	
7	
8	
SLOT 9	

KD11-E w/M9301 — PDP-11/34

SLOT 1	M7266
2	M7265
3	M9301
4	
5	
6	
7	
8	
SLOT 9	

KD11-D w/M9301 & MM11-DP — PDP-11/04

SLOT 1	M7263
2	MM11-DP
3	
4	M9301
5	
6	
7	
8	
SLOT 9	

KD11-EA w/M9301 FP11-A — PDP-1134A

SLOT 1	M8266
2	M8265
3	M8267
4	M9301
5	
6	
7	
8	
SLOT 9	

KD11-D W/M9301 & MM11-CP — PDP-11/04

SLOT 1	M7263
2	MM11-CP
3	M9301
4	
5	
6	
7	
8	
SLOT 9	

SLOT 1	
2	
3	
4	
5	
6	
7	
8	
SLOT 9	

KD11-EA W/M9301 — PDP-1134A

SLOT 1	M8266
2	M8265
3	M9301
4	
5	
6	
7	
8	
SLOT 9	

SLOT 1	
2	
3	
4	
5	
6	
7	
8	
SLOT 9	

REVISIONS		
CHK	CHANGE NO.	REV.

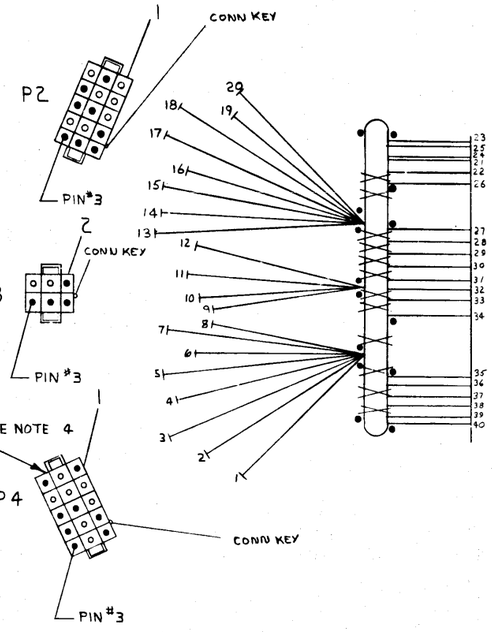
TITLE	SIZE	CODE	NUMBER	REV.
MODULE UTILIZATION (DD11-P)	D	MU	DD11-P-2	
SCALE	SHEET 2 OF 2		DIST.	

149

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WIRING TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT	FROM CONNECTION	FROM WITH	TO POINT	TO CONNECTION	SIGNAL	LENGTH
9	#18	BLUE	1	P4-13	3	26	SOLDER	-15V	7
5	14	RED	2	P4-4	↑	37	↑	+5V	5
5	14	RED	3	P4-1	↑	38	↑	+5V	5
6	14	BLK	4	P4-8	↑	21	↑	GND	7.75
7	14	ORN	5	P4-3	↑	35	↑	+20V	5
6	14	BLK	6	P4-9	↑	22	↑	GND	8
13	18	WHT	7	P4-6	↑	28	↑	+15B	6.15
14	18	GRN	8	P4-15	↑	29	↑	-15B	6
12	18	YEL	9	P3-4	↑	33	↑	ACLO	4.25
6	14	BLK	10	P3-1	↑	23	↑	GND	6
10	18	BRN	11	P3-2	↑	34	↑	LTC	4.25
11	18	VIO	12	P3-3	↑	32	↑	DCLO	4.25
5	14	RED	13	P2-4	↑	39	↑	+5V	7.50
5	14	RED	14	P2-1	↑	40	↑	+5V	7.25
10	18	BRN	15	P2-14	↑	31	↑	-5V	5
6	14	BLK	16	P2-8	↑	24	↑	GND	5
8	18	GREY	17	P2-2	↑	27	↑	+15	4.75
7	14	ORN	18	P2-3	↑	30	↑	+20	6.75
6	14	BLK	19	P2-9	↓	25	↓	GND	5.15
5	14	RED	20	P2-12	3	30	SOLDER	+5B	5



NOTES:
1. USE TIE WRAPS (X) ITEM #4 AT BREAKOUT POINTS SHOWN
2. DOT (•) INDICATES NAIL LOCATION FOR ASS'Y USE ONLY. COVER NAILS WITH SHINK TUBING TO PREVENT CUTTING HARNESS.
3. WIRE LENGTH TOLERANCES WILL BE +1/8, -0 INCHES.
4. ALL CONN. SHOWN FROM WIRING SIDE.

FOR WIRE LENGTHS SEE WIRING TABLE

1	POWER HARNESS DECALS	7409872-2-0	15
A/R	WIRE #18 AWG, GRN	9107360-55	14
A/R	WIRE #18 AWG, WHT	9107360-99	13
A/R	WIRE #18 AWG, YEL	9107360-44	12
A/R	WIRE #18 AWG, VIO	9107360-77	11
A/R	WIRE #18 AWG, BRN	9107360-11	10
A/R	WIRE #18 AWG, BLUE	9107360-66	9
A/R	WIRE #18 AWG, GREY	9107360-88	8
A/R	WIRE #14 AWG, ORN	9107370-33	7
A/R	WIRE #14 AWG, BLK	9107370-00	6
A/R	WIRE #14 AWG, RED	9107370-22	5
12	TIE WRAP	9007031	4
20	PIN MALE	1209378-01	3
1	CONN. 6 PIN HOUSING	1209351-06	2
2	CONN. 15 PIN HOUSING	1209351-15	1
	DESCRIPTION	DWG./PART NO.	ITEM NO.

DO NOT REDUCE
SCALE
0 IN 6 IN 12 IN
FOR MANUFACTURING PURPOSES ONLY

REVISIONS	CHK	CHANGE NO.	REV.
		7011108-00001	A
		7011108-00002	B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.2	OVER 0.2 TO 1.0	OVER 1.0 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES (CHECK ONE)	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.002	±.016	±.026	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN. J. Porrea 9/11/75
CHK'D D. Barat 9/11/75
ENG. S. Rounds 9/11/75
PROJ. ENG. [illegible] 9/11/75
PROD. [illegible] 9/11/75
NEXT HIGHER ASSY. C-AD-7011164-0-0
SCALE 1/1
SHEET 1 OF 1

FIRST USED ON DD11-D

digital

TITLE
POWER HARNESS
(BAII-K, BAII-L)

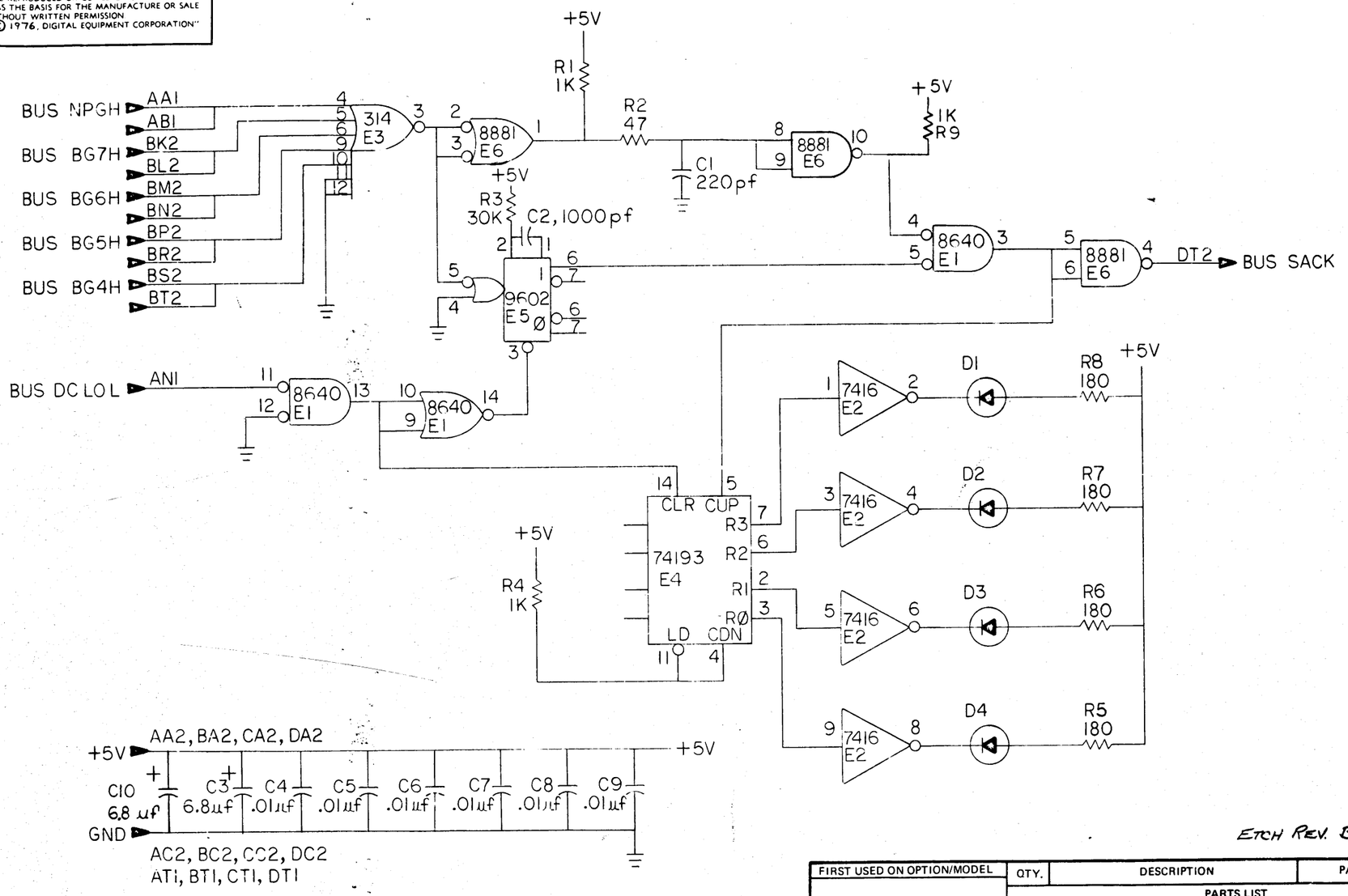
SIZE D | CODE IA | NUMBER 7011108-0-0 | REV. B

DIST.

DEC FORM NO. CMD 100-C

150

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NOTES:
1. ALL DIODES ARE 1110324 DEC NUMBER
2. E7, E8, ARE SPARE IC LOCATIONS

ETCH REV. B

REVISIONS	REV.	CHANGE NO	CHK
	A		

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS: .xxx = .005, .xx = .02, .x = .1
ANGLES: ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY √
MATERIAL
FINISH

DRN. Carol Alston	DATE 7/3/76	
CHK'D. Mike Fato	DATE 8-12-76	
ENG. Bill Bruster	DATE 8-12-76	
PROJ. ENG. Bill Bruster	DATE 8-12-76	
PROD. Kullar Sood	DATE 8-12-76	
NEXT HIGHER ASSY.		
SCALE		
SHEET OF		

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
NO SACK TIMEOUT MODULE

SIZE	CODE	NUMBER	REV.
C	CS	M8264-0-1	A

DIST.

SIZE C CODE CS NUMBER M8264-0-1 REV A

DEC FORM NO. DRC 111

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY D. Healy	CHECKED D. Healy	SECTION 1
DATE 12 May 76	DATE 12 May 76	
ENG Richard Barry	PROD R.B. Barry	ISSUED SECT. 1
DATE MAY 17 1976	DATE May 19 1976	

ITEM NO	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION DH,DJ,LH,LJ	DM,DN,LM,LN	HH,HJ,MH,MJ	HM,HN,MM,MN
	EK-11/Ø34-OP-PRE	USERS MANUAL	1	1	1	1
	ZJØ1Ø-RB	SOFTWARE LIB KIT (PAPER TAPE KIT)	1	1	1	1
	MPØØØ82	PRINT SET 11/34 VOL. 2	1	1	1	1
	EK-KD11-E-TM-PRE	KD11-E TECHNICAL MANUAL *	1	1	1	1
	EK-MS11E-MM-ØØ1	MS11-E-J MAINTENANCE MANUAL *	1	1	-	-
	EK-MM11D-TM-PRE	MM11-D,DP TECHNICAL MANUAL *	-	-	1	1
	EK-BA11K-MM-ØØ2	BA11-K MAINTENANCE MANUAL *	1	1	1	1
	EK-M785Ø-MM-PRE	M785Ø MAINTENANCE MANUAL *	1	1	1	1
	EK-DL11W-MM-PRE	DL11-W MAINTENANCE MANUAL *	-	1	-	1
	EK-M93Ø1-MM-PRE	M93Ø1 MAINTENANCE MANUAL *	1	1	1	1
	7008360-1	CABLE ASSY (20 MA) DL11-WA	-	1	-	1
	BCØ5C-25	CABLE MODEM (EIA) DL11-WB	-	-	-	-
	1211825	CHASSIS TRACKS & MTG HDW.	1	1	1	1
	7010059	SHIPPING BRACKET	1	1	1	1

* Do not ship to OEM customers.

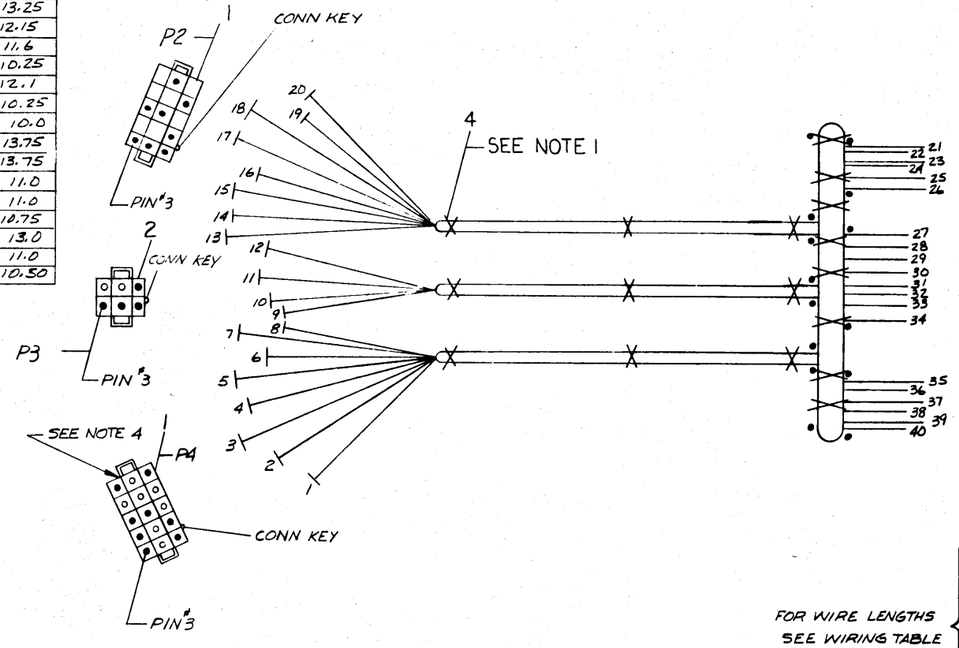
TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
SHIPPING LIST 11/34 (10 1/2" BA11-K)	NONE	A	PL	11/34-Ø-4		
	SHEET 1 OF 1	DIST				

DEC FORM DEC 16 (325) 1031-N870
DRA 110

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WIRING TABLE

ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT	FROM CONNECTION	WITH	TO POINT	TO CONNECTION	SIGNAL	LENGTH
9	18	BLU	1	P4-13	3	26	SOLDER	-15V	12.75
5	14	RED	2	P4-4		37		+5V	11
5	14	RED	3	P4-1		38		+5V	11.25
6	14	BLK	4	P4-8		21		GND	13.75
7	14	ORN	5	P4-3		35		+20V	11.0
6	14	BLK	6	P4-9		22		GND	13.25
13	18	WHT	7	P4-6		28		+15B	12.15
14	18	GRN	8	P4-15		29		-15B	11.6
12	18	YEL	9	P3-4		33		ACLO	10.25
6	14	BLK	10	P3-1		23		GND	12.1
10	18	BRN	11	P3-2		34		LTC	10.25
11	18	VIO	12	P3-3		32		DCLO	10.0
5	14	RED	13	P2-4		39		+5V	13.75
5	14	RED	14	P2-1		40		+5V	13.75
15	14	BRN	15	P2-14		31		-5V	11.0
6	14	BLK	16	P2-8		24		GND	11.0
8	18	GRY	17	P2-2		27		+15	10.75
7	14	ORN	18	P2-3		36		+20	13.0
6	14	BLK	19	P2-9		25		GND	11.0
5	14	RED	20	P2-10	3	30	SOLDER	+5B	10.50



NOTES:
1. USE TIE WRAPS (X) ITEM #4 AT BREAKOUT POINTS SHOWN.
2. DOT (•) INDICATES NAIL LOCATION FOR ASSY USE ONLY. COVER NAILS WITH SHRINK TUBING.
3. WIRE LENGTH TOL WILL BE ± .12 IN
4. ALL CONN SHOWN FROM WIRING SIDE.
5. STRIP 1/8" INSULATION FROM POINTS 21 THRU 40 AND FULL TIN POINTS 21 THRU 40.

1	POWER HARNESS DECAL	7409872-2	16
AR	WIRE #14 AWG (BRN)	9107370-11	15
AR	WIRE #18 AWG, (GRN)	9107360-55	14
AR	WIRE #18 AWG, (WHT)	9107360-99	13
AR	WIRE #18 AWG (YEL)	9107360-44	12
AR	WIRE #18 AWG, (VIO)	9107360-77	11
AR	WIRE #18 AWG, (BRN)	9107360-11	10
AR	WIRE #18 AWG, (BLU)	9107360-66	9
AR	WIRE #18 AWG, (GRY)	9107360-88	8
AR	WIRE #14 AWG, (ORN)	9107370-33	7
AR	WIRE #14 AWG, (BLK)	9107370-00	6
AR	WIRE #14 AWG, (RED)	9107370-22	5
17	TIE WRAP	9007031	4
20	PIN MALE	1209378-01	3
1	CONN 6 PIN HOUSING	1209351-06	2
2	CONN 15 PIN HOUSING	1209351-15	1
	DESCRIPTION	DWG./PART NO.	ITEM NO.

FOR WIRE LENGTHS SEE WIRING TABLE

DO NOT REDUCE
SCALE
0 IN — 6 IN — 12 IN
FOR MANUFACTURING PURPOSES ONLY

REVISIONS	CHANGE NO.	REV.
CHK		
K.T.	7011109-00001	A
P. Blanco 15 FEB 77		
D. BARRY		
D. Barry 16 Feb 77	7011109-00002	B
P. Blanco 21 MAR 77		
P. PORRECA		
Paul Porreca 24 MAR 77		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 2.3	OVER 2.3 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024 ±.04
	PREFERRED ☐	±.012	±.016	±.020	±.04	±.06 ±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH

DRN	K. Tyrrell	11/3/75
CHK'D	D. Barry	12/8/75
ENG	R. Blanco	12/8/75
PROJ. ENG	R. Blanco	12/17/75
PROD	K. Tyrrell	12-18-75

NEXT HIGHER ASSY.: CAD-7012307-0-0

SCALE: 1/1

SHEET 1 OF 1

FIRST USED ON: DD11-DF, PF

digital

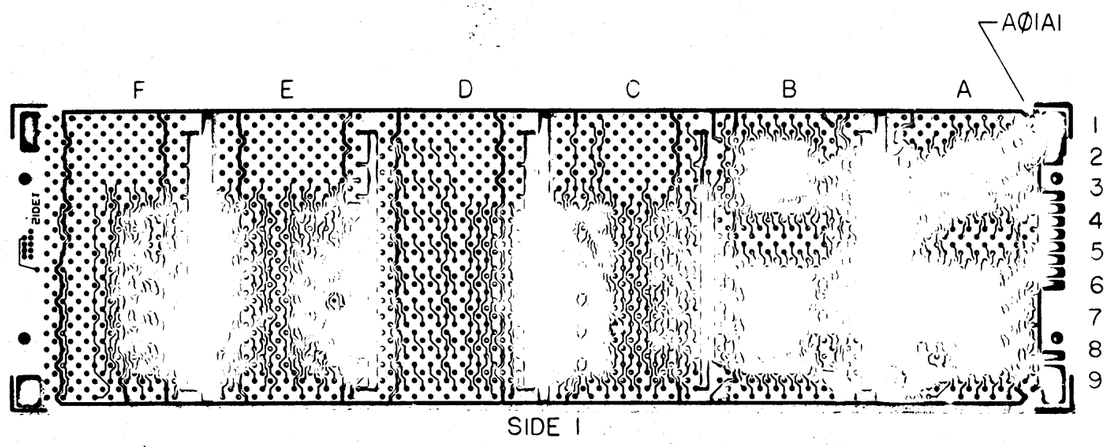
TITLE: POWER HARNESS (BA11-F)

SIZE D | CODE IA | NUMBER 7011109-0-0 | REV. B | DIST.

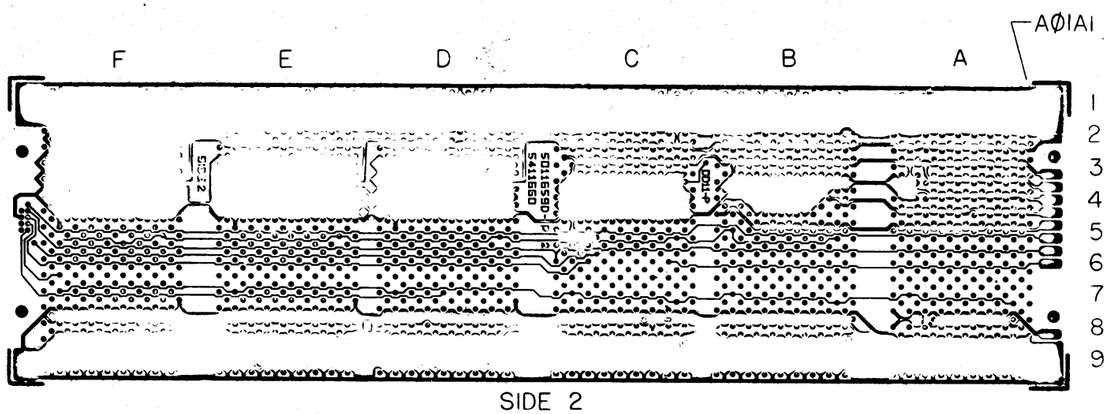
DEC FORM NO. DRD 100-C

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NOTES:



SIDE 1



SIDE 2

REF		AWT REV STATUS	A-WT-7011522-0	5
REF		MODULE ECO HISTORY	B-MH-5411660-0-6	4
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411660-0-5	3
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411660-0-4	2
1		ETCHED CIRCUIT BOARD	5011659 .	1
QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION MODEL

ETCH BOARD REV. D

REV.	CHANGE NO.	CHK	REVISIONS
C	5411660-00001	R. Barry	R. Barry 9-11-75
D	5411660-00002	R. Barry	R. Barry 9/24/75
E	5411660-00003	D. Barry	D. Barry 22-JUL-76

DRN.	DATE
R. Blodgett	6-20-75
CHK'D K. Hong	7/1/75
E'NG R. Barry	DATE 7-3-75
P.C.D.L. R. Barry	DATE 7-3-75
PROD.	DATE
NEXT HIGHER ASSY C-1A-7011521-0-0	
SCALE 1/1	
SHEET 1 OF 1	

digital

TITLE
CIRCUIT SCHEMATIC

SIZE	CODE	NUMBER	REV.
D	CS	5411660-0-1	E

DIST.

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

DEC FORM NO. DRD 130.8

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REV.	NUMBER	SIZE	CODE
C	DD11-P-1	K	WL

REVISIONS			
REV.	CHANGE NO.	CHK	
A	DD11P-00001	RTB	
B	DD11P-00003	RTB	
C	DD11P-00004	RTB	

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DD11-P		PARTS LIST		

DRN.	DATE 6/30/75
CHK'D	DATE 6/30/75
ENG. R Barry	DATE 7-2-75
PROJ. ENG.	DATE 7/2/75
PROD.	DATE 7/2/75
NEXT HIGHER ASSEMBLY	B-DD-DD11-P
SCALE	
SHEET 1 OF 1	

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE

WIRE LIST DD11-P

SIZE	CODE	NUMBER	REV.
K	WL	DD11-P-1	C

DIST.

DEC FORM NO.
DRB 109

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAT - ORDER	O	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH EXCEPTIONS	RUN NUMBER
+15/+8V		C#3U1		1-#1 *	P						2		1		1
+15/+8V		C#4U1		1-#2 *	P						1		1		1
+15/+8V		C#5U1		1-#3 *	P						2		1		1
+15/+8V		C#6U1		1-#4 *	P						1		1		1
+15/+8V		C#7U1		1-#5 *	P						2		1		1
+15/+8V		C#8U1		1-#6 *	P						1		1		1
+15/+8V		C#9U1		1-#7 *	P										1
+15/+8V				!										6-#/8 1400000000	1
+20V		A#2U1		1-#1 *	P						1			#-1/8	2
+20V		A#2V1		1-#2 *	P						2			#-4/8	2
+20V		A#2V2		1-#3 *	P						1			#-1/8	2
+20V		A#3U1		1-#4 *	P						2			#-1/8	2
+20V		A#3V1		1-#5 *	P						1			#-4/8	2
+20V		A#3V2		1-#6 *	P						2			#-1/8	2
+20V		A#4U1		1-#7 *	P						1			#-1/8	2
+20V		A#4V1		1-#8 *	P						2			#-4/8	2
+20V		A#4V2		1-#9 *	P						1			#-1/8	2
+20V		A#5U1		1-1# *	P						2			#-1/8	2
+20V		A#5V1		1-11 *	P						1			#-4/8	2
+20V		A#5V2		1-12 *	P						2			#-1/8	2
+20V		A#6U1		1-13 *	P						1			#-1/8	2
+20V		A#6V1		1-14 *	P						2			#-4/8	2
+20V		A#6V2		1-15 *	P						1			#-1/8	2
+20V		A#7U1		1-16 *	P						2			#-1/8	2
+20V		A#7V1		1-17 *	P						1			#-4/8	2
+20V		A#7V2		1-18 *	P						2			#-1/8	2
+20V		A#8U1		1-19 *	P						1			#-1/8	2
+20V		A#8V1		1-20 *	P						2			#-4/8	2
+20V		A#8V2		1-21 *	P										2
+20V				!										5-1/8 1400000000	2

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
+5V		A01A2		1-01 *	P						2		1	3
+5V		A02A2		1-02 *	P						1		1	3
+5V		A03A2		1-03 *	P						2		1	3
+5V		A04A2		1-04 *	P						1		1	3
+5V		A05A2		1-05 *	P						2		1	3
+5V		A06A2		1-06 *	P						1		1	3
+5V		A07A2		1-07 *	P						2		1	3
+5V		A08A2		1-08 *	P						1		1	3
+5V		A09A2		1-09 *	P						2		3-2/8	3
+5V		B09A2		1-10 *	P						1		1	3
+5V		B08A2		1-11 *	P						2		1	3
+5V		B07A2		1-12 *	P						1		1	3
+5V		B06A2		1-13 *	P						2		1	3
+5V		B05A2		1-14 *	P						1		1	3
+5V		B04A2		1-15 *	P						2		1	3
+5V		B03A2		1-16 *	P						1		1	3
+5V		B02A2		1-17 *	P						2		1	3
+5V		B01A2		1-18 *	P						1		3	3
+5V		C01A2		1-19 *	P						2		1	3
+5V		C02A2		1-20 *	P						1		1	3
+5V		C03A2		1-21 *	P						2		1	3
+5V		C04A2		1-22 *	P						1		1	3
+5V		C05A2		1-23 *	P						2		1	3
+5V		C06A2		1-24 *	P						1		1	3
+5V		C07A2		1-25 *	P						2		1	3
+5V		C08A2		1-26 *	P						1		1	3
+5V		C09A2		1-27 *	P						2		3-2/8	3
+5V		D09A2		1-28 *	P						1		1	3
+5V		D08A2		1-29 *	P						2		1	3
+5V		D07A2		1-30 *	P						1		1	3
+5V		D06A2		1-31 *	P						2		1	3
+5V		D05A2		1-32 *	P						1		1	3
+5V		D04A2		1-33 *	P						2		1	3
+5V		D03A2		1-34 *	P						1		1	3
+5V		D02A2		1-35 *	P						2		1	3
+5V		D01A2		1-36 *	P						1		3	3
+5V		E01A2		1-37 *	P						2		1	3
+5V		E02A2		1-38 *	P						1		1	3
+5V		E03A2		1-39 *	P						2		1	3
+5V		E04A2		1-40 *	P						1		1	3
+5V		E05A2		1-41 *	P						2		1	3
+5V		E06A2		1-42 *	P						1		1	3
+5V		E07A2		1-43 *	P						2		1	3
+5V		E08A2		1-44 *	P						1		1	3
+5V		E09A2		1-45 *	P						2		3-2/8	3
+5V		E09A2		1-46 *	P						1		1	3
+5V		E08A2		1-47 *	P						2		1	3
+5V		E07A2		1-48 *	P						1		1	3
+5V		F06A2		1-49 *	P						2		1	3
+5V		E05A2		1-50 *	P						1		1	3
+5V		F04A2		1-51 *	P						2		1	3
+5V		F03A2		1-52 *	P						1		1	3
+5V		F02A2		1-53 *	P						2		1	3
+5V		F01A2		1-54 *	P						1			3
+5V				1									63-6/8 1400000000	3

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
-15V		C03B2		1-01 *	P						2		1	4
-15V		C04B2		1-02 *	P						1		1	4
-15V		C05B2		1-03 *	P						2		1	4
-15V		C06B2		1-04 *	P						1		1	4
-15V		C07B2		1-05 *	P						2		1	4
-15V		C08B2		1-06 *	P						1		1	4
-15V		C09B2		1-07 *	P						2		3-2/8	4
-15V		D09B2		1-08 *	P						1		1	4
-15V		D08B2		1-09 *	P						2		1	4
-15V		D07B2		1-10 *	P						1		1	4
-15V		D06B2		1-11 *	P						2		1	4
-15V		D05B2		1-12 *	P						1		1	4
-15V		D04B2		1-13 *	P						2		1	4
-15V		D03B2		1-14 *	P						1		3	4
-15V		E03B2		1-15 *	P						2		1	4
-15V		E04B2		1-16 *	P						1		1	4
-15V		E05B2		1-17 *	P						2		1	4
-15V		E06B2		1-18 *	P						1		1	4
-15V		E07B2		1-19 *	P						2		1	4
-15V		E08B2		1-20 *	P						1		1	4
-15V		E09B2		1-21 *	P						2		3-2/8	4
-15V		F09B2		1-22 *	P						1		1	4
-15V		F08B2		1-23 *	P						2		1	4
-15V		F07B2		1-24 *	P						1		1	4
-15V		F06B2		1-25 *	P						2		1	4
-15V		F05B2		1-26 *	P						1		1	4
-15V		F04B2		1-27 *	P						2		1	4
-15V		F03B2		1-28 *	P									4
-15V				1									33-4/8 1400000000	4
-5V		B02V2		1-01 *	P						2		1	5
-5V		B03V2		1-02 *	P						1		1	5
-5V		B04V2		1-03 *	P						2		1	5
-5V		B05V2		1-04 *	P						1		1	5
-5V		B06V2		1-05 *	P						2		1	5
-5V		B07V2		1-06 *	P						1		1	5
-5V		B08V2		1-07 *	P									5
-5V				1									6-0/8 1400000000	5
AC LO L		B01F1		1-01 *	P						1		1	6
AC LO L		B02F1		1-02 *	P						2		1	6
AC LO L		B03F1		1-03 *	P						1		1	6
AC LO L		B04F1		1-04 *							2		4-7/8	5
AC LO L		C03V1		1-05 *	P						1		1	6
AC LO L		C04V1		1-06 *	P						2		1	6
AC LO L		C05V1		1-07 *	P						1		1	6
AC LO L		C06V1		1-08 *	P						2		1	6
AC LO L		C07V1		1-09 *	P						1		1	6
AC LO L		C08V1		1-10 *	P						2		1	6
AC LO L		C09V1		1-11 *							1		6-3/8	6
AC LO L		B05F1		1-12 *	P						2		1	6
AC LO L		B06F1		1-13 *	P						1		1	6
AC LO L		B07F1		1-14 *	P						2		1	6
AC LO L		B08F1		1-15 *	P						1		1	6
AC LO L		B09F1		1-16 *	P									6
AC LO L				1									24-2/8 1400000000	6

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BB+15		A02R1		1-01 *	P						2		1	7
BB+15		A03R1		1-02 *	P						1		1	7
BB+15		A04R1		1-03 *	P						2		1	7
BB+15		A05R1		1-04 *	P						1		1	7
BB+15		A06R1		1-05 *	P						2		1	7
BB+15		A07R1		1-06 *	P						1		1	7
BB+15		A08R1		1-07 *	P									7
BB+15				1									6-0/8 1400000000	7
BB+5		B02D1		1-01 *	P						2		1	8
BB+5		B03D1		1-02 *	P						1		1	8
BB+5		B04D1		1-03 *	P						2		1	8
BB+5		B05D1		1-04 *	P						1		1	8
BB+5		B06D1		1-05 *	P						2		1	8
BB+5		B07D1		1-06 *	P						1		1	8
BB+5		B08D1		1-07 *	P									8
BB+5				1									6-0/8 1400000000	8
BB-15		A02S1		1-01 *	P						2		1	9
BB-15		A03S1		1-02 *	P						1		1	9
BB-15		A04S1		1-03 *	P						2		1	9
BB-15		A05S1		1-04 *	P						1		1	9
BB-15		A06S1		1-05 *	P						2		1	9
BB-15		A07S1		1-06 *	P						1		1	9
BB-15		A08S1		1-07 *	P									9
BB-15				1									6-0/8 1400000000	9
BBSY L		A01P2		1-01 *	P						2		1	10
BBSY L		A02P2		1-02 *	P						1		1	10
BBSY L		A03P2		1-03 *	P						2		1	10
BBSY L		A04P2		1-04 *	H						1	TWP	13-1/8	10
BBSY L		F03D1		1-05 *	P						2		1	10
BBSY L		F04D1		1-06 *	H						1	2" TWP	1	10
BBSY L		F05D1		1-07 *	P						2		1	10
BBSY L		F06D1		1-08 *	P						1		1	10
BBSY L		F07D1		1-09 *	P						2		1	10
BBSY L		F08D1		1-10 *	P						1		1	10
BBSY L		F09D1		1-11 *	H						2	TWP	14-3/8	10
BBSY L		A05P2		1-12 *	P						1		1	10
BBSY L		A06P2		1-13 *	P						2		1	10
BBSY L		A07P2		1-14 *	P						1		1	10
BBSY L		A08P2		1-15 *							2		1	10
BBSY L		A09P2		1-16 *										10
BBSY L				1									40-4/8 1100000000	10
BG4 A		B01E2		1-01 *	H						1	TWP	7	11
BG4 A		D01S2		1-02 *										11
BG4 A				1									7-0/8 1400000000	11
BG4 B		D01T2		1-01 *	P						1		0-5/8	12
BG4 B		D02S2		1-02 *	P									12
BG4 B				1									0-5/8 1400000000	12

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BG4 C		D02T2		1-01 *	P						1		0-5/8	13
BG4 C		D03S2		1-02 *	P									13
BG4 C				1									0-5/8 1400000000	13
BG4 D		D03T2		1-01 *	P						1		0-5/8	14
BG4 D		D04S2		1-02 *	P									14
BG4 D				1									0-5/8 1400000000	14
BG4 E		D04T2		1-01 *	P						1		0-5/8	15
BG4 E		D05S2		1-02 *	P									15
BG4 E				1									0-5/8 1400000000	15
BG4 F		D05T2		1-01 *	P						1		0-5/8	16
BG4 F		D06S2		1-02 *	P									16
BG4 F				1									0-5/8 1400000000	16
BG4 H		D06T2		1-01 *	P						1		0-5/8	17
BG4 H		D07S2		1-02 *	P									17
BG4 H				1									0-5/8 1400000000	17
BG4 J		D07T2		1-01 *	P						1		0-5/8	18
BG4 J		D08S2		1-02 *	P									18
BG4 J				1									0-5/8 1400000000	18
BG4 K		D08T2		1-01 *	P						1		0-5/8	19
BG4 K		D09S2		1-02 *	P									19
BG4 K				1									0-5/8 1400000000	19
BG4 L		B09E2		1-01 *	H						1	TWP	7-1/8	20
BG4 L		D09T2		1-02 *	X									20
BG4 L				1									7-1/8 1400000000	20
BG5 A		B01B1		1-01 *	H						1	TWP	7-1/8	21
BG5 A		D01P2		1-02 *	X									21
BG5 A				1									7-1/8 1400000000	21
BG5 B		D01R2		1-01 *	P						1		0-5/8	22
BG5 B		D02P2		1-02 *	P									22
BG5 B				1									0-5/8 1400000000	22
BG5 C		D02R2		1-01 *	P						1		0-5/8	23
BG5 C		D03P2		1-02 *	P									23
BG5 C				1									0-5/8 1400000000	23
BG5 D		D03R2		1-01 *	P						1		0-5/8	24
BG5 D		D04P2		1-02 *	P									24
BG5 D				1									0-5/8 1400000000	24
BG5 E		D04R2		1-01 *	P						1		0-5/8	25
BG5 E		D05P2		1-02 *	P									25
BG5 E				1									0-5/8 1400000000	25
BG5 F		D05R2		1-01 *	P						1		0-5/8	26
BG5 F		D06P2		1-02 *	P									26
BG5 F				1									0-5/8 1400000000	26

RUN	NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH FLAG	EXCEPTIONS	RUN NUMBER
BG5	H		D06R2		1-01 *	P						1		0-5/8		27
BG5	H		D07P2		1-02 *	P										27
BG5	H				1									0-5/8	1400000000	27
BG5	J		D07R2		1-01 *	P						1		0-5/8		28
BG5	J		D08P2		1-02 *	P										28
BG5	J				1									0-5/8	1400000000	28
BG5	K		D08R2		1-01 *	P						1		0-5/8		29
BG5	K		D09P2		1-02 *	P										29
BG5	K				1									0-5/8	1400000000	29
BG5	L		B09B1		1-01 *	H						1	TWP	7-3/8		30
BG5	L		D09R2		1-02 *	X										30
BG5	L				1									7-3/8	1400000000	30
BG6	A		B01A1		1-01 *	H						1	TWP	7-1/8		31
BG6	A		D01M2		1-02 *	X										31
BG6	A				1									7-1/8	1400000000	31
BG6	B		D01N2		1-01 *	P						1		0-5/8		32
BG6	B		D02M2		1-02 *	P										32
BG6	B				1									0-5/8	1400000000	32
BG6	C		D02N2		1-01 *	P						1		0-5/8		33
BG6	C		D03M2		1-02 *	P										33
BG6	C				1									0-5/8	1400000000	33
BG6	D		D03N2		1-01 *	P						1		0-5/8		34
BG6	D		D04M2		1-02 *	P										34
BG6	D				1									0-5/8	1400000000	34
BG6	E		D04N2		1-01 *	P						1		0-5/8		35
BG6	E		D05M2		1-02 *	P										35
BG6	E				1									0-5/8	1400000000	35
BG6	F		D05N2		1-01 *	P						1		0-5/8		36
BG6	F		D06M2		1-02 *	P										36
BG6	F				1									0-5/8	1400000000	36
BG6	H		D06N2		1-01 *	P						1		0-5/8		37
BG6	H		D07M2		1-02 *	P										37
BG6	H				1									0-5/8	1400000000	37
BG6	J		D07N2		1-01 *	P						1		0-5/8		38
BG6	J		D08M2		1-02 *	P										38
BG6	J				1									0-5/8	1400000000	38
BG6	K		D08N2		1-01 *	P						1		0-5/8		39
BG6	K		D09M2		1-02 *	P										39
BG6	K				1									0-5/8	1400000000	39
BG6	L		B09A1		1-01 *	H						1	TWP	7-3/8		40
BG6	L		D09N2		1-02 *	X										40
BG6	L				1									7-3/8	1400000000	40

RUN	NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH FLAG	EXCEPTIONS	RUN NUMBER
BG7	A		A01V1		1-01 *	H						1	TWP	7-3/8		41
BG7	A		D01K2		1-02 *	X										41
BG7	A				1									7-3/8	1400000000	41
BG7	B		D01L2		1-01 *	P						1		0-5/8		42
BG7	B		D02K2		1-02 *	P										42
BG7	B				1									0-5/8	1400000000	42
BG7	C		D02L2		1-01 *	P						1		0-5/8		43
BG7	C		D03K2		1-02 *	P										43
BG7	C				1									0-5/8	1400002000	43
BG7	D		D03L2		1-01 *	P						1		0-5/8		44
BG7	D		D04K2		1-02 *	P										44
BG7	D				1									0-5/8	1400000000	44
BG7	E		D04L2		1-01 *	P						1		0-5/8		45
BG7	E		D05K2		1-02 *	P										45
BG7	E				1									0-5/8	1400000000	45
BG7	F		D05L2		1-01 *	P						1		0-5/8		46
BG7	F		D06K2		1-02 *	P										46
BG7	F				1									0-5/8	1400000000	46
BG7	H		D06L2		1-01 *	P						1		0-5/8		47
BG7	H		D07K2		1-02 *	X										47
BG7	H				1									0-5/8	1400000000	47
BG7	J		D07L2		1-01 *	P						1		0-5/8		48
BG7	J		D08K2		1-02 *	P										48
BG7	J				1									0-5/8	1400000000	48
BG7	K		D08L2		1-01 *	P						1		0-5/8		49
BG7	K		D09K2		1-02 *	P										49
BG7	K				1									0-5/8	1400000000	49
BG7	L		A09V1		1-01 *	H						1	TWP	7-5/8		50
BG7	L		D09L2		1-02 *	X										50
BG7	L				1									7-5/8	1400000000	50

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BR4 L		B01D2		1-01 *							2		1	51
BR4 L		B02D2		1-02 *							1		1	51
BR4 L		B03D2		1-03 *							2		1	51
BR4 L		B04D2		1-04 *							1		6-5/8	51
BR4 L		D03H2		1-05 *	P						2		1	51
BR4 L		D04H2		1-06 *	P						1		1	51
BR4 L		D05H2		1-07 *	P						2		1	51
BR4 L		D06H2		1-08 *	P						1		1	51
BR4 L		D07H2		1-09 *	P						2		1	51
BR4 L		D08H2		1-10 *	P						1		1	51
BR4 L		D09H2		1-11 *							2		7-7/8	51
BR4 L		B05D2		1-12 *							1		1	51
BR4 L		B06D2		1-13 *							2		1	51
BR4 L		B07D2		1-14 *							1		1	51
BR4 L		B08D2		1-15 *							2		1	51
BR4 L		B09D2		1-16 *										51
BR4 L				1									27-4/8 1400000000	51
BR5 L		B01C1		1-01 *	P						1		1	52
BR5 L		B02C1		1-02 *	P						2		1	52
BR5 L		B03C1		1-03 *	P						1		1	52
BR5 L		B04C1		1-04 *							2		6-1/8	52
BR5 L		D03F2		1-05 *	P						1		1	52
BR5 L		D04F2		1-06 *	P						2		1	52
BR5 L		D05F2		1-07 *	P						1		1	52
BR5 L		D06F2		1-08 *	P						2		1	52
BR5 L		D07F2		1-09 *	P						1		1	52
BR5 L		D08F2		1-10 *	P						2		1	52
BR5 L		D09F2		1-11 *							1		8-3/8	52
BR5 L		B05C1		1-12 *	P						2		1	52
BR5 L		B06C1		1-13 *	P						1		1	52
BR5 L		B07C1		1-14 *	P						2		1	52
BR5 L		B08C1		1-15 *	P						1		1	52
BR5 L		B09C1		1-16 *	P									52
BR5 L				1									27-4/8 1400000000	52
BR6 L		A01U2		1-01 *							2		1	53
BR6 L		A02U2		1-02 *							1		1	53
BR6 L		A03U2		1-03 *							2		1	53
BR6 L		A04U2		1-04 *							1		7-3/8	53
BR6 L		D03E2		1-05 *	P						2		1	53
BR6 L		D04E2		1-06 *	P						1		1	53
BR6 L		D05E2		1-07 *	P						2		1	53
BR6 L		D06E2		1-08 *	P						1		1	53
BR6 L		D07E2		1-09 *	P						2		1	53
BR6 L		D08E2		1-10 *	P						1		1	53
BR6 L		D09E2		1-11 *							2		8-7/8	53
BR6 L		A05U2		1-12 *							1		1	53
BR6 L		A06U2		1-13 *							2		1	53
BR6 L		A07U2		1-14 *							1		1	53
BR6 L		A08U2		1-15 *							2		1	53
BR6 L		A09U2		1-16 *										53
BR6 L				1									29-2/8 1400000000	53

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BR7 L		A01T2		1-01 *	P						2		1	54
BR7 L		A02T2		1-02 *	P						1		1	54
BR7 L		A03T2		1-03 *	P						2		1	54
BR7 L		A04T2		1-04 *							1		7-3/8	54
BR7 L		D03D2		1-05 *	P						2		1	54
BR7 L		D04D2		1-06 *	P						1		1	54
BR7 L		D05D2		1-07 *	P						2		1	54
BR7 L		D06D2		1-08 *	P						1		1	54
BR7 L		D07D2		1-09 *	P						2		1	54
BR7 L		D08D2		1-10 *	P						1		1	54
BR7 L		D09D2		1-11 *							2		8-7/8	54
BR7 L		A05T2		1-12 *	P						1		1	54
BR7 L		A06T2		1-13 *	P						2		1	54
BR7 L		A07T2		1-14 *	P						1		1	54
BR7 L		A08T2		1-15 *							2		1	54
BR7 L		A09T2		1-16 *										54
BR7 L				1									29-2/8 1400000000	54
BUS A00 L		B01H2		1-01 *	P						2		1	55
BUS A00 L		B02H2		1-02 *	P						1		1	55
BUS A00 L		B03H2		1-03 *	P						2		1	55
BUS A00 L		B04H2		1-04 *							1		8-5/8	55
BUS A00 L		E03H2		1-05 *							2		1	55
BUS A00 L		E04H2		1-06 *							1		1	55
BUS A00 L		E05H2		1-07 *							2		1	55
BUS A00 L		E06H2		1-08 *							1		1	55
BUS A00 L		E07H2		1-09 *							2		1	55
BUS A00 L		E08H2		1-10 *							1		1	55
BUS A00 L		E09H2		1-11 *							2		10-1/8	55
BUS A00 L		B05H2		1-12 *	P						1		1	55
BUS A00 L		B06H2		1-13 *	P						2		1	55
BUS A00 L		B07H2		1-14 *	P						1		1	55
BUS A00 L		B08H2		1-15 *	P						2		1	55
BUS A00 L		B09H2		1-16 *	P									55
BUS A00 L				1									31-6/8 1400000000	55
BUS A01 L		B01H1		1-01 *	P						2		1	56
BUS A01 L		B02H1		1-02 *	P						1		1	56
BUS A01 L		B03H1		1-03 *	P						2		1	56
BUS A01 L		B04H1		1-04 *							1		8-5/8	56
BUS A01 L		E03H1		1-05 *	P						2		1	56
BUS A01 L		E04H1		1-06 *	P						1		1	56
BUS A01 L		E05H1		1-07 *	P						2		1	56
BUS A01 L		E06H1		1-08 *	P						1		1	56
BUS A01 L		E07H1		1-09 *	P						2		1	56
BUS A01 L		E08H1		1-10 *	P						1		1	56
BUS A01 L		E09H1		1-11 *							2		10-1/8	56
BUS A01 L		B05H1		1-12 *	P						1		1	56
BUS A01 L		B06H1		1-13 *	P						2		1	56
BUS A01 L		B07H1		1-14 *	P						1		1	56
BUS A01 L		B08H1		1-15 *	P						2		1	56
BUS A01 L		B09H1		1-16 *	P									56
BUS A01 L				1									31-6/8 1400000000	56

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS A02 L		B01J2		1-01 *	P						2		1	57
BUS A02 L		B02J2		1-02 *	P						1		1	57
BUS A02 L		B03J2		1-03 *	P						2		1	57
BUS A02 L		B04J2		1-04 *							1		8-5/8	57
BUS A02 L		E03F1		1-05 *	P						2		1	57
BUS A02 L		E04F1		1-06 *	P						1		1	57
BUS A02 L		E05F1		1-07 *	P						2		1	57
BUS A02 L		E06F1		1-08 *	P						1		1	57
BUS A02 L		E07F1		1-09 *	P						2		1	57
BUS A02 L		E08F1		1-10 *	P						1		1	57
BUS A02 L		E09F1		1-11 *							2		9-5/8	57
BUS A02 L		B05J2		1-12 *	P						1		1	57
BUS A02 L		B06J2		1-13 *	P						2		1	57
BUS A02 L		B07J2		1-14 *	P						1		1	57
BUS A02 L		B08J2		1-15 *	P						2		1	57
BUS A02 L		B09J2		1-16 *	P									57
BUS A02 L				1									31-2/8 1400000000	57
BUS A03 L		B01J1		1-01 *	P						1		1	58
BUS A03 L		B02J1		1-02 *	P						2		1	58
BUS A03 L		B03J1		1-03 *	P						1		1	58
BUS A03 L		B04J1		1-04 *							2		9-5/8	58
BUS A03 L		E03V2		1-05 *	P						1		1	58
BUS A03 L		E04V2		1-06 *	P						2		1	58
BUS A03 L		E05V2		1-07 *	P						1		1	58
BUS A03 L		E06V2		1-08 *	P						2		1	58
BUS A03 L		E07V2		1-09 *	P						1		1	58
BUS A03 L		E08V2		1-10 *	P						2		1	58
BUS A03 L		E09V2		1-11 *							1		11-5/8	58
BUS A03 L		B05J1		1-12 *	P						2		1	58
BUS A03 L		B06J1		1-13 *	P						1		1	58
BUS A03 L		B07J1		1-14 *	P						2		1	58
BUS A03 L		B08J1		1-15 *	P						1		1	58
BUS A03 L		B09J1		1-16 *	P									58
BUS A03 L				1									34-2/8 1400000000	58
BUS A04 L		B01K2		1-01 *	P						2		1	59
BUS A04 L		B02K2		1-02 *	P						1		1	59
BUS A04 L		B03K2		1-03 *	P						2		1	59
BUS A04 L		B04K2		1-04 *							1		9-5/8	59
BUS A04 L		E03U2		1-05 *	P						2		1	59
BUS A04 L		E04U2		1-06 *	P						1		1	59
BUS A04 L		E05U2		1-07 *	P						2		1	59
BUS A04 L		E06U2		1-08 *	P						1		1	59
BUS A04 L		E07U2		1-09 *	P						2		1	59
BUS A04 L		E08U2		1-10 *	P						1		1	59
BUS A04 L		E09U2		1-11 *							2		11-1/8	59
BUS A04 L		B05K2		1-12 *	P						1		1	59
BUS A04 L		B06K2		1-13 *	P						2		1	59
BUS A04 L		B07K2		1-14 *	P						1		1	59
BUS A04 L		B08K2		1-15 *	P						2		1	59
BUS A04 L		B09K2		1-16 *	P									59
BUS A04 L				1									33-6/8 1400000000	59

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS A05 L		B01K1		1-01 *	P						1		1	60
BUS A05 L		B02K1		1-02 *	P						2		1	60
BUS A05 L		B03K1		1-03 *	P						1		1	60
BUS A05 L		B04K1		1-04 *							2		9-5/8	60
BUS A05 L		E03V1		1-05 *	P						1		1	60
BUS A05 L		E04V1		1-06 *	P						2		1	60
BUS A05 L		E05V1		1-07 *	P						1		1	60
BUS A05 L		E06V1		1-08 *	P						2		1	60
BUS A05 L		E07V1		1-09 *	P						1		1	60
BUS A05 L		E08V1		1-10 *	P						2		1	60
BUS A05 L		E09V1		1-11 *							1		11-3/8	60
BUS A05 L		B05K1		1-12 *	P						2		1	60
BUS A05 L		B06K1		1-13 *	P						1		1	60
BUS A05 L		B07K1		1-14 *	P						2		1	60
BUS A05 L		B08K1		1-15 *	P						1		1	60
BUS A05 L		B09K1		1-16 *	P									60
BUS A05 L				1									34-0/8 1400000000	60
BUS A06 L		B01L2		1-01 *	P						2		1	61
BUS A06 L		B02L2		1-02 *	P						1		1	61
BUS A06 L		B03L2		1-03 *	P						2		1	61
BUS A06 L		B04L2		1-04 *							1		9-7/8	61
BUS A06 L		E03U1		1-05 *	P						2		1	61
BUS A06 L		E04U1		1-06 *	P						1		1	61
BUS A06 L		E05U1		1-07 *	P						2		1	61
BUS A06 L		E06U1		1-08 *	P						1		1	61
BUS A06 L		E07U1		1-09 *	P						2		1	61
BUS A06 L		E08U1		1-10 *	P						1		1	61
BUS A06 L		E09U1		1-11 *							2		10-5/8	61
BUS A06 L		B05L2		1-12 *	P						1		1	61
BUS A06 L		B06L2		1-13 *	P						2		1	61
BUS A06 L		B07L2		1-14 *	P						1		1	61
BUS A06 L		B08L2		1-15 *	P						2		1	61
BUS A06 L		B09L2		1-16 *	P									61
BUS A06 L				1									33-4/8 1400000000	61
BUS A07 L		B01L1		1-01 *	P						1		1	62
BUS A07 L		B02L1		1-02 *	P						2		1	62
BUS A07 L		B03L1		1-03 *	P						1		1	62
BUS A07 L		B04L1		1-04 *							2		8-7/8	62
BUS A07 L		E03P2		1-05 *	P						1		1	62
BUS A07 L		E04P2		1-06 *	P						2		1	62
BUS A07 L		E05P2		1-07 *	P						1		1	62
BUS A07 L		E06P2		1-08 *	P						2		1	62
BUS A07 L		E07P2		1-09 *	P						1		1	62
BUS A07 L		E08P2		1-10 *	P						2		1	62
BUS A07 L		E09P2		1-11 *							1		10-5/8	62
BUS A07 L		B05L1		1-12 *	P						2		1	62
BUS A07 L		B06L1		1-13 *	P						1		1	62
BUS A07 L		B07L1		1-14 *	P						2		1	62
BUS A07 L		B08L1		1-15 *	P						1		1	62
BUS A07 L		B09L1		1-16 *	P									62
BUS A07 L				1									32-4/8 1400000000	62

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH EXCEPTIONS	RUN NUMBER
BUS A08 L		B01M2		1-01 *	P						1		1		63
BUS A08 L		B02M2		1-02 *	P						2		1		63
BUS A08 L		B03M2		1-03 *	P						1		1		63
BUS A08 L		B04M2		1-04 *							2		8-5/8		63
BUS A08 L		E03N2		1-05 *	P						1		1		63
BUS A08 L		E04N2		1-06 *	P						2		1		63
BUS A08 L		E05N2		1-07 *	P						1		1		63
BUS A08 L		E06N2		1-08 *	P						2		1		63
BUS A08 L		E07N2		1-09 *	P						1		1		63
BUS A08 L		E08N2		1-10 *	P						2		1		63
BUS A08 L		E09N2		1-11 *							1		10-3/8		63
BUS A08 L		B05M2		1-12 *	P						2		1		63
BUS A08 L		B06M2		1-13 *	P						1		1		63
BUS A08 L		B07M2		1-14 *	P						2		1		63
BUS A08 L		B08M2		1-15 *	P						1		1		63
BUS A08 L		B09M2		1-16 *	P										63
BUS A08 L				1									32-0/8	1400000000	63
BUS A09 L		B01M1		1-01 *	P						1		1		64
BUS A09 L		B02M1		1-02 *	P						2		1		64
BUS A09 L		B03M1		1-03 *	P						1		1		64
BUS A09 L		B04M1		1-04 *							2		8-7/8		64
BUS A09 L		E03R1		1-05 *	P						1		1		64
BUS A09 L		E04R1		1-06 *	P						2		1		64
BUS A09 L		E05R1		1-07 *	P						1		1		64
BUS A09 L		E06R1		1-08 *	P						2		1		64
BUS A09 L		E07R1		1-09 *	P						1		1		64
BUS A09 L		E08R1		1-10 *	P						2		1		64
BUS A09 L		E09R1		1-11 *							1		10-5/8		64
BUS A09 L		B05M1		1-12 *	P						2		1		64
BUS A09 L		B06M1		1-13 *	P						1		1		64
BUS A09 L		B07M1		1-14 *	P						2		1		64
BUS A09 L		B08M1		1-15 *	P						1		1		64
BUS A09 L		B09M1		1-16 *	P										64
BUS A09 L				1									32-4/8	1400000000	64
BUS A10 L		B01N2		1-01 *	P						2		1		65
BUS A10 L		B02N2		1-02 *	P						1		1		65
BUS A10 L		B03N2		1-03 *	P						2		1		65
BUS A10 L		B04N2		1-04 *							1		9-1/8		65
BUS A10 L		E03P1		1-05 *	P						2		1		65
BUS A10 L		E04P1		1-06 *	P						1		1		65
BUS A10 L		E05P1		1-07 *	P						2		1		65
BUS A10 L		E06P1		1-08 *	P						1		1		65
BUS A10 L		E07P1		1-09 *	P						2		1		65
BUS A10 L		E08P1		1-10 *	P						1		1		65
BUS A10 L		E09P1		1-11 *							2		9-7/8		65
BUS A10 L		B05N2		1-12 *	P						1		1		65
BUS A10 L		B06N2		1-13 *	P						2		1		65
BUS A10 L		B07N2		1-14 *	P						1		1		65
BUS A10 L		B08N2		1-15 *	P						2		1		65
BUS A10 L		B09N2		1-16 *	P										65
BUS A10 L				1									32-0/8	1400000000	65

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH EXCEPTIONS	RUN NUMBER
BUS A11 L		B01N1		1-01 *	P						2		1		66
BUS A11 L		B02N1		1-02 *	P						1		1		66
BUS A11 L		B03N1		1-03 *	P						2		1		66
BUS A11 L		B04N1		1-04 *							1		8-3/8		66
BUS A11 L		E03L1		1-05 *	P						2		1		66
BUS A11 L		E04L1		1-06 *	P						1		1		66
BUS A11 L		E05L1		1-07 *	P						2		1		66
BUS A11 L		E06L1		1-08 *	P						1		1		66
BUS A11 L		E07L1		1-09 *	P						2		1		66
BUS A11 L		E08L1		1-10 *	P						1		1		66
BUS A11 L		E09L1		1-11 *							2		9-7/8		66
BUS A11 L		B05N1		1-12 *	P						1		1		66
BUS A11 L		B06N1		1-13 *	P						2		1		66
BUS A11 L		B07N1		1-14 *	P						1		1		66
BUS A11 L		B08N1		1-15 *	P						2		1		66
BUS A11 L		B09N1		1-16 *	P										66
BUS A11 L				1									31-2/8	1400000000	66
BUS A12 L		B01P2		1-01 *	P						2		1		67
BUS A12 L		B02P2		1-02 *	P						1		1		67
BUS A12 L		B03P2		1-03 *	P						2		1		67
BUS A12 L		B04P2		1-04 *							1		7-5/8		67
BUS A12 L		E03C1		1-05 *	P						2		1		67
BUS A12 L		E04C1		1-06 *	P						1		1		67
BUS A12 L		E05C1		1-07 *	P						2		1		67
BUS A12 L		E06C1		1-08 *	P						1		1		67
BUS A12 L		E07C1		1-09 *	P						2		1		67
BUS A12 L		E08C1		1-10 *	P						1		1		67
BUS A12 L		E09C1		1-11 *							2		8-5/8		67
BUS A12 L		B05P2		1-12 *	P						1		1		67
BUS A12 L		B06P2		1-13 *	P						2		1		67
BUS A12 L		B07P2		1-14 *	P						1		1		67
BUS A12 L		B08P2		1-15 *	P						2		1		67
BUS A12 L		B09P2		1-16 *	P										67
BUS A12 L				1									29-2/8	1400000000	67
BUS A13 L		B01P1		1-01 *	P						1		1		68
BUS A13 L		B02P1		1-02 *	P						2		1		68
BUS A13 L		B03P1		1-03 *	P						1		1		68
BUS A13 L		B04P1		1-04 *							2		7-7/8		68
BUS A13 L		E03K2		1-05 *	P						1		1		68
BUS A13 L		E04K2		1-06 *	P						2		1		68
BUS A13 L		E05K2		1-07 *	P						1		1		68
BUS A13 L		E06K2		1-08 *	P						2		1		68
BUS A13 L		E07K2		1-09 *	P						1		1		68
BUS A13 L		E08K2		1-10 *	P						2		1		68
BUS A13 L		E09K2		1-11 *							1		9-7/8		68
BUS A13 L		B05P1		1-12 *	P						2		1		68
BUS A13 L		B06P1		1-13 *	P						1		1		68
BUS A13 L		B07P1		1-14 *	P						2		1		68
BUS A13 L		B08P1		1-15 *	P						1		1		68
BUS A13 L		B09P1		1-16 *	P										68
BUS A13 L				1									30-6/8	1400000000	68

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS A14 L		B01R2		1-01 *	P						2		1	69
BUS A14 L		B02R2		1-02 *	P						1		1	69
BUS A14 L		B03R2		1-03 *	P						2		1	69
BUS A14 L		B04R2		1-04 *							1		8-3/8	69
BUS A14 L		E03K1		1-05 *	P						2		1	69
BUS A14 L		E04K1		1-06 *	P						1		1	69
BUS A14 L		E05K1		1-07 *	P						2		1	69
BUS A14 L		E06K1		1-08 *	P						1		1	69
BUS A14 L		E07K1		1-09 *	P						2		1	69
BUS A14 L		E08K1		1-10 *	P						1		1	69
BUS A14 L		E09K1		1-11 *							2		9-1/8	69
BUS A14 L		B05R2		1-12 *	P						1		1	69
BUS A14 L		B06R2		1-13 *	P						2		1	69
BUS A14 L		B07R2		1-14 *	P						1		1	69
BUS A14 L		B08R2		1-15 *	P						2		1	69
BUS A14 L		B09R2		1-16 *	P									69
BUS A14 L				1									30-4/8 1400000000	69
BUS A15 L		B01R1		1-01 *	P						1		1	70
BUS A15 L		B02R1		1-02 *	P						2		1	70
BUS A15 L		B03R1		1-03 *	P						1		1	70
BUS A15 L		B04R1		1-04 *							2		7-1/8	70
BUS A15 L		E03D2		1-05 *							1		1	70
BUS A15 L		E04D2		1-06 *							2		1	70
BUS A15 L		E05D2		1-07 *							1		1	70
BUS A15 L		E06D2		1-08 *							2		1	70
BUS A15 L		E07D2		1-09 *							1		1	70
BUS A15 L		E08D2		1-10 *							2		1	70
BUS A15 L		E09D2		1-11 *							1		9-1/8	70
BUS A15 L		B05R1		1-12 *	P						2		1	70
BUS A15 L		B06R1		1-13 *	P						1		1	70
BUS A15 L		B07R1		1-14 *	P						2		1	70
BUS A15 L		B08R1		1-15 *	P						1		1	70
BUS A15 L		B09R1		1-16 *	P									70
BUS A15 L				1									29-2/8 1400000000	70
BUS A16 L		B01S2		1-01 *	P						2		1	71
BUS A16 L		B02S2		1-02 *	P						1		1	71
BUS A16 L		B03S2		1-03 *	P						2		1	71
BUS A16 L		B04S2		1-04 *							1		7-3/8	71
BUS A16 L		E03E2		1-05 *	P						2		1	71
BUS A16 L		E04E2		1-06 *	P						1		1	71
BUS A16 L		E05E2		1-07 *	P						2		1	71
BUS A16 L		E06E2		1-08 *	P						1		1	71
BUS A16 L		E07E2		1-09 *	P						2		1	71
BUS A16 L		E08E2		1-10 *	P						1		1	71
BUS A16 L		E09E2		1-11 *							2		8-7/8	71
BUS A16 L		B05S2		1-12 *	P						1		1	71
BUS A16 L		B06S2		1-13 *	P						2		1	71
BUS A16 L		B07S2		1-14 *	P						1		1	71
BUS A16 L		B08S2		1-15 *	P						2		1	71
BUS A16 L		B09S2		1-16 *	P									71
BUS A16 L				1									29-2/8 1400000000	71

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS A17 L		B01S1		1-01 *	P						1		1	72
BUS A17 L		B02S1		1-02 *	P						2		1	72
BUS A17 L		B03S1		1-03 *	P						1		1	72
BUS A17 L		B04S1		1-04 *							2		7-1/8	72
BUS A17 L		E03D1		1-05 *	P						1		1	72
BUS A17 L		E04D1		1-06 *	P						2		1	72
BUS A17 L		E05D1		1-07 *	P						1		1	72
BUS A17 L		E06D1		1-08 *	P						2		1	72
BUS A17 L		E07D1		1-09 *	P						1		1	72
BUS A17 L		E08D1		1-10 *	P						2		1	72
BUS A17 L		E09D1		1-11 *							1		8-7/8	72
BUS A17 L		B05S1		1-12 *	P						2		1	72
BUS A17 L		B06S1		1-13 *	P						1		1	72
BUS A17 L		B07S1		1-14 *	P						2		1	72
BUS A17 L		B08S1		1-15 *	P						1		1	72
BUS A17 L		B09S1		1-16 *	P									72
BUS A17 L				1									29-0/8 1400000000	72
BUS D00 L		A01C1		1-01 *	P						1		1	73
BUS D00 L		A02C1		1-02 *							2		1	73
BUS D00 L		A03C1		1-03 *							1		1	73
BUS D00 L		A04C1		1-04 *							2		7-3/8	73
BUS D00 L		C03S2		1-05 *							1		1	73
BUS D00 L		C04S2		1-06 *							2		1	73
BUS D00 L		C05S2		1-07 *							1		1	73
BUS D00 L		C06S2		1-08 *							2		1	73
BUS D00 L		C07S2		1-09 *							1		1	73
BUS D00 L		C08S2		1-10 *							2		1	73
BUS D00 L		C09S2		1-11 *							1		9-3/8	73
BUS D00 L		A05C1		1-12 *							2		1	73
BUS D00 L		A06C1		1-13 *							1		1	73
BUS D00 L		A07C1		1-14 *							2		1	73
BUS D00 L		A08C1		1-15 *							1		1	73
BUS D00 L		A09C1		1-16 *										73
BUS D00 L				1									29-6/8 1400000000	73
BUS D01 L		A01D2		1-01 *	P						2		1	74
BUS D01 L		A02D2		1-02 *	P						1		1	74
BUS D01 L		A03D2		1-03 *	P						2		1	74
BUS D01 L		A04D2		1-04 *							1		7-3/8	74
BUS D01 L		C03R2		1-05 *	P						2		1	74
BUS D01 L		C04R2		1-06 *	P						1		1	74
BUS D01 L		C05R2		1-07 *	P						2		1	74
BUS D01 L		C06R2		1-08 *	P						1		1	74
BUS D01 L		C07R2		1-09 *	P						2		1	74
BUS D01 L		C08R2		1-10 *	P						1		1	74
BUS D01 L		C09R2		1-11 *							2		8-7/8	74
BUS D01 L		A05D2		1-12 *	P						1		1	74
BUS D01 L		A06D2		1-13 *	P						2		1	74
BUS D01 L		A07D2		1-14 *	P						1		1	74
BUS D01 L		A08D2		1-15 *	P						2		1	74
BUS D01 L		A09D2		1-16 *	P									74
BUS D01 L				1									29-2/8 1400000000	74

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D02 L		A01D1		1-01 *	P						1		1	75
BUS D02 L		A02D1		1-02 *	P						2		1	75
BUS D02 L		A03D1		1-03 *	P						1		1	75
BUS D02 L		A04D1		1-04 *							2		7-5/8	75
BUS D02 L		C03U2		1-05 *	P						1		1	75
BUS D02 L		C04U2		1-06 *	P						2		1	75
BUS D02 L		C05U2		1-07 *							1		7	75
BUS D02 L		F05E2		1-08 *	P						1		1-4/8	75
BUS D02 L		F03E2		1-09 *	P						1		1	75
BUS D02 L		F04E2		1-10 *	P						2		1-4/8	75
BUS D02 L		F06E2		1-11 *	P						2		1	75
BUS D02 L		F07E2		1-12 *	P						1		1	75
BUS D02 L		F08E2		1-13 *	P						2		1	75
BUS D02 L		F09E2		1-14 *							1		8-3/8	75
BUS D02 L		C06U2		1-15 *	P						2		1	75
BUS D02 L		C07U2		1-16 *	P						1		1	75
BUS D02 L		C08U2		1-17 *	P						2		1	75
BUS D02 L		C09U2		1-18 *							1		9-3/8	75
BUS D02 L		A05D1		1-19 *	P						2		1	75
BUS D02 L		A06D1		1-20 *	P						1		1	75
BUS D02 L		A07D1		1-21 *	P						2		1	75
BUS D02 L		A08D1		1-22 *	P						1		1	75
BUS D02 L		A09D1		1-23 *										75
BUS D02 L				1									51-3/8 1400000000	75
BUS D03 L		A01E2		1-01 *	P						1		1	76
BUS D03 L		A02E2		1-02 *	P						2		1	76
BUS D03 L		A03E2		1-03 *	P						1		1	76
BUS D03 L		A04E2		1-04 *							2		7-3/8	76
BUS D03 L		C03T2		1-05 *	P						1		1	76
BUS D03 L		C04T2		1-06 *	P						2		1	76
BUS D03 L		C05T2		1-07 *							1		7-7/8	76
BUS D03 L		F05L1		1-08 *	P						1		1-4/8	76
BUS D03 L		F03L1		1-09 *	P						1		1	76
BUS D03 L		F04L1		1-10 *	P						2		1-4/8	76
BUS D03 L		F06L1		1-11 *	P						2		1	76
BUS D03 L		F07L1		1-12 *	P						1		1	76
BUS D03 L		F08L1		1-13 *	P						2		1	76
BUS D03 L		F09L1		1-14 *							1		8-7/8	76
BUS D03 L		C06T2		1-15 *	P						2		1	76
BUS D03 L		C07T2		1-16 *	P						1		1	76
BUS D03 L		C08T2		1-17 *	P						2		1	76
BUS D03 L		C09T2		1-18 *							1		9-1/8	76
BUS D03 L		A05F2		1-19 *	P						2		1	76
BUS D03 L		A06E2		1-20 *	P						1		1	76
BUS D03 L		A07E2		1-21 *	P						2		1	76
BUS D03 L		A08E2		1-22 *	P						1		1	76
BUS D03 L		A09E2		1-23 *										76
BUS D03 L				1									52-2/8 1400000000	76

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D04 L		A01E1		1-01 *	P						1		1	77
BUS D04 L		A02E1		1-02 *	P						2		1	77
BUS D04 L		A03E1		1-03 *	P						1		1	77
BUS D04 L		A04E1		1-04 *							2		6-5/8	77
BUS D04 L		C03N2		1-05 *	P						1		1	77
BUS D04 L		C04N2		1-06 *	P						2		1	77
BUS D04 L		C05N2		1-07 *							1		8-4/8	77
BUS D04 L		F05N2		1-08 *	P						1		1-4/8	77
BUS D04 L		F03N2		1-09 *	P						1		1	77
BUS D04 L		F04N2		1-10 *	P						2		1-4/8	77
BUS D04 L		F06N2		1-11 *	P						2		1	77
BUS D04 L		F07N2		1-12 *	P						1		1	77
BUS D04 L		F08N2		1-13 *	P						2		1	77
BUS D04 L		F09N2		1-14 *							1		9-7/8	77
BUS D04 L		C06N2		1-15 *	P						2		1	77
BUS D04 L		C07N2		1-16 *	P						1		1	77
BUS D04 L		C08N2		1-17 *	P						2		1	77
BUS D04 L		C09N2		1-18 *							1		8-7/8	77
BUS D04 L		A05E1		1-19 *	P						2		1	77
BUS D04 L		A06E1		1-20 *	P						1		1	77
BUS D04 L		A07E1		1-21 *	P						2		1	77
BUS D04 L		A08E1		1-22 *	P						1		1	77
BUS D04 L		A09E1		1-23 *										77
BUS D04 L				1									52-7/8 1400000000	77
BUS D05 L		A01F2		1-01 *	P						2		1	78
BUS D05 L		A02F2		1-02 *	P						1		1	78
BUS D05 L		A03F2		1-03 *	P						2		1	78
BUS D05 L		A04F2		1-04 *							1		7-1/8	78
BUS D05 L		C03P2		1-05 *	P						2		1	78
BUS D05 L		C04P2		1-06 *	P						1		1	78
BUS D05 L		C05P2		1-07 *							2		7-5/8	78
BUS D05 L		F05F1		1-08 *	P						2		1-4/8	78
BUS D05 L		F03F1		1-09 *	P						1		1	78
BUS D05 L		F04F1		1-10 *	P						1		1-4/8	78
BUS D05 L		F06F1		1-11 *	P						1		1	78
BUS D05 L		F07F1		1-12 *	P						2		1	78
BUS D05 L		F08F1		1-13 *	P						1		1	78
BUS D05 L		F09F1		1-14 *							1		8-7/8	78
BUS D05 L		C06P2		1-15 *	P						1		1	78
BUS D05 L		C07P2		1-16 *	P						2		1	78
BUS D05 L		C08P2		1-17 *	P						1		1	78
BUS D05 L		C09P2		1-18 *							2		8-3/8	78
BUS D05 L		A05F2		1-19 *	P						1		1	78
BUS D05 L		A06F2		1-20 *	P						2		1	78
BUS D05 L		A07F2		1-21 *	P						1		1	78
BUS D05 L		A08F2		1-22 *	P						2		1	78
BUS D05 L		A09F2		1-23 *										78
BUS D05 L				1									51-0/8 1400000000	78

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D06 L		A01F1		1-01 *	P						1		1	79
BUS D06 L		A02F1		1-02 *	P						2		1	79
BUS D06 L		A03F1		1-03 *	P						1		1	79
BUS D06 L		A04F1		1-04 *							2		7-3/8	79
BUS D06 L		C03V2		1-05 *	P						1		1	79
BUS D06 L		C04V2		1-06 *	P						2		1	79
BUS D06 L		C05V2		1-07 *							1		7	79
BUS D06 L		F05F2		1-08 *	P						1		1-4/8	79
BUS D06 L		F03F2		1-09 *	P						1		1	79
BUS D06 L		F04F2		1-10 *	P						2		1-4/8	79
BUS D06 L		F06F2		1-11 *	P						2		1	79
BUS D06 L		F07F2		1-12 *	P						1		1	79
BUS D06 L		F08F2		1-13 *	P						2		1	79
BUS D06 L		F09F2		1-14 *							1		8-3/8	79
BUS D06 L		C06V2		1-15 *	P						2		1	79
BUS D06 L		C07V2		1-16 *	P						1		1	79
BUS D06 L		C08V2		1-17 *	P						2		1	79
BUS D06 L		C09V2		1-18 *							1		9-3/8	79
BUS D06 L		A05F1		1-19 *	P						2		1	79
BUS D06 L		A06F1		1-20 *	P						1		1	79
BUS D06 L		A07F1		1-21 *	P						2		1	79
BUS D06 L		A08F1		1-22 *	P						1		1	79
BUS D06 L		A09F1		1-23 *										79
BUS D06 L				1									51-1/8 1400000000	79
BUS D07 L		A01H2		1-01 *	P						1		1	80
BUS D07 L		A02H2		1-02 *	P						2		1	80
BUS D07 L		A03H2		1-03 *	P						1		1	80
BUS D07 L		A04H2		1-04 *							2		6-5/8	80
BUS D07 L		C03M2		1-05 *	P						1		1	80
BUS D07 L		C04M2		1-06 *	P						2		1	80
BUS D07 L		C05M2		1-07 *							1		8-1/8	80
BUS D07 L		F05H1		1-08 *	P						1		1-4/8	80
BUS D07 L		F03H1		1-09 *	P						1		1	80
BUS D07 L		F04H1		1-10 *	P						2		1-4/8	80
BUS D07 L		F06H1		1-11 *	P						2		1	80
BUS D07 L		F07H1		1-12 *	P						1		1	80
BUS D07 L		F08H1		1-13 *	P						2		1	80
BUS D07 L		F09H1		1-14 *							1		9-1/8	80
BUS D07 L		C06M2		1-15 *	P						2		1	80
BUS D07 L		C07M2		1-16 *	P						1		1	80
BUS D07 L		C08M2		1-17 *	P						2		1	80
BUS D07 L		C09M2		1-18 *							1		8-1/8	80
BUS D07 L		A05H2		1-19 *	P						2		1	80
BUS D07 L		A06H2		1-20 *	P						1		1	80
BUS D07 L		A07H2		1-21 *	P						2		1	80
BUS D07 L		A08H2		1-22 *	P						1		1	80
BUS D07 L		A09H2		1-23 *										80
BUS D07 L				1									51-0/8 1400000000	80

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D08 L		A01H1		1-01 *	P						1		1	81
BUS D08 L		A02H1		1-02 *	P						2		1	81
BUS D08 L		A03H1		1-03 *	P						1		1	81
BUS D08 L		A04H1		1-04 *							2		6-1/8	81
BUS D08 L		C03L2		1-05 *	P						1		1	81
BUS D08 L		C04L2		1-06 *	P						2		1	81
BUS D08 L		C05L2		1-07 *							1		8-5/8	81
BUS D08 L		F05K1		1-08 *	P						1		1-4/8	81
BUS D08 L		F03K1		1-09 *	P						1		1	81
BUS D08 L		F04K1		1-10 *	P						2		1-4/8	81
BUS D08 L		F06K1		1-11 *	P						2		1	81
BUS D08 L		F07K1		1-12 *	P						1		1	81
BUS D08 L		F08K1		1-13 *	P						2		1	81
BUS D08 L		F09K1		1-14 *							1		9-3/8	81
BUS D08 L		C06L2		1-15 *	P						2		1	81
BUS D08 L		C07L2		1-16 *	P						1		1	81
BUS D08 L		C08L2		1-17 *	P						2		1	81
BUS D08 L		C09L2		1-18 *							1		8-3/8	81
BUS D08 L		A05H1		1-19 *	P						2		1	81
BUS D08 L		A06H1		1-20 *	P						1		1	81
BUS D08 L		A07H1		1-21 *	P						2		1	81
BUS D08 L		A08H1		1-22 *	P						1		1	81
BUS D08 L		A09H1		1-23 *										81
BUS D08 L				1									51-4/8 1400000000	81
BUS D09 L		A01J2		1-01 *	P						2		1	82
BUS D09 L		A02J2		1-02 *	P						1		1	82
BUS D09 L		A03J2		1-03 *	P						2		1	82
BUS D09 L		A04J2		1-04 *							1		6-3/8	82
BUS D09 L		C03K2		1-05 *	P						2		1	82
BUS D09 L		C04K2		1-06 *	P						1		1	82
BUS D09 L		C05K2		1-07 *	P						2		1	82
BUS D09 L		C06K2		1-08 *	P						1		1	82
BUS D09 L		C07K2		1-09 *	P						2		1	82
BUS D09 L		C08K2		1-10 *	P						1		1	82
BUS D09 L		C09K2		1-11 *							2		7-5/8	82
BUS D09 L		A05J2		1-12 *	P						1		1	82
BUS D09 L		A06J2		1-13 *	P						2		1	82
BUS D09 L		A07J2		1-14 *	P						1		1	82
BUS D09 L		A08J2		1-15 *	P						2		1	82
BUS D09 L		A09J2		1-16 *	P									82
BUS D09 L				1									27-0/8 1400000000	82

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D10 L		A01J1		1-01 *	P						1		1	83
BUS D10 L		A02J1		1-02 *	P						2		1	83
BUS D10 L		A03J1		1-03 *	P						1		1	83
BUS D10 L		A04J1		1-04 *							2		5-7/8	83
BUS D10 L		C03J2		1-05 *	P						1		1	83
BUS D10 L		C04J2		1-06 *	P						2		1	83
BUS D10 L		C05J2		1-07 *	P						1		1	83
BUS D10 L		C06J2		1-08 *	P						2		1	83
BUS D10 L		C07J2		1-09 *	P						1		1	83
BUS D10 L		C08J2		1-10 *	P						2		1	83
BUS D10 L		C09J2		1-11 *							1		7-7/8	83
BUS D10 L		A05J1		1-12 *	P						2		1	83
BUS D10 L		A06J1		1-13 *	P						1		1	83
BUS D10 L		A07J1		1-14 *	P						2		1	83
BUS D10 L		A08J1		1-15 *	P						1		1	83
BUS D10 L		A09J1		1-16 *	P									83
BUS D10 L				1									26-6/8 1400000000	83
BUS D11 L		A01K2		1-01 *	P						2		1	84
BUS D11 L		A02K2		1-02 *	P						1		1	84
BUS D11 L		A03K2		1-03 *	P						2		1	84
BUS D11 L		A04K2		1-04 *							1		6-1/8	84
BUS D11 L		C03H1		1-05 *	P						2		1	84
BUS D11 L		C04H1		1-06 *	P						1		1	84
BUS D11 L		C05H1		1-07 *	P						2		1	84
BUS D11 L		C06H1		1-08 *	P						1		1	84
BUS D11 L		C07H1		1-09 *	P						2		1	84
BUS D11 L		C08H1		1-10 *	P						1		1	84
BUS D11 L		C09H1		1-11 *							2		7-1/8	84
BUS D11 L		A05K2		1-12 *	P						1		1	84
BUS D11 L		A06K2		1-13 *	P						2		1	84
BUS D11 L		A07K2		1-14 *	P						1		1	84
BUS D11 L		A08K2		1-15 *	P						2		1	84
BUS D11 L		A09K2		1-16 *	P									84
BUS D11 L				1									26-2/8 1400000000	84
BUS D12 L		A01K1		1-01 *	P						1		1	85
BUS D12 L		A02K1		1-02 *	P						2		1	85
BUS D12 L		A03K1		1-03 *	P						1		1	85
BUS D12 L		A04K1		1-04 *							2		5-5/8	85
BUS D12 L		C03H2		1-05 *	P						1		1	85
BUS D12 L		C04H2		1-06 *	P						2		1	85
BUS D12 L		C05H2		1-07 *	P						1		1	85
BUS D12 L		C06H2		1-08 *	P						2		1	85
BUS D12 L		C07H2		1-09 *	P						1		1	85
BUS D12 L		C08H2		1-10 *	P						2		1	85
BUS D12 L		C09H2		1-11 *							1		7-5/8	85
BUS D12 L		A05K1		1-12 *	P						2		1	85
BUS D12 L		A06K1		1-13 *	P						1		1	85
BUS D12 L		A07K1		1-14 *	P						2		1	85
BUS D12 L		A08K1		1-15 *	P						1		1	85
BUS D12 L		A09K1		1-16 *	P									85
BUS D12 L				1									26-2/8 1400000000	85

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS D13 L		A01L2		1-01 *	P						1		1	86
BUS D13 L		A02L2		1-02 *	P						2		1	86
BUS D13 L		A03L2		1-03 *	P						1		1	86
BUS D13 L		A04L2		1-04 *							2		5-5/8	86
BUS D13 L		C03F2		1-05 *	P						1		1	86
BUS D13 L		C04F2		1-06 *	P						2		1	86
BUS D13 L		C05F2		1-07 *	P						1		1	86
BUS D13 L		C06F2		1-08 *	P						2		1	86
BUS D13 L		C07F2		1-09 *	P						1		1	86
BUS D13 L		C08F2		1-10 *	P						2		1	86
BUS D13 L		C09F2		1-11 *							1		7-1/8	86
BUS D13 L		A05L2		1-12 *	P						2		1	86
BUS D13 L		A06L2		1-13 *	P						1		1	86
BUS D13 L		A07L2		1-14 *	P						2		1	86
BUS D13 L		A08L2		1-15 *	P						1		1	86
BUS D13 L		A09L2		1-16 *	P									86
BUS D13 L				1									25-6/8 1400000000	86
BUS D14 L		A01L1		1-01 *	P						1		1	87
BUS D14 L		A02L1		1-02 *	P						2		1	87
BUS D14 L		A03L1		1-03 *	P						1		1	87
BUS D14 L		A04L1		1-04 *							2		5-3/8	87
BUS D14 L		C03E2		1-05 *	P						1		1	87
BUS D14 L		C04E2		1-06 *	P						2		1	87
BUS D14 L		C05E2		1-07 *	P						1		1	87
BUS D14 L		C06E2		1-08 *	P						2		1	87
BUS D14 L		C07E2		1-09 *	P						1		1	87
BUS D14 L		C08E2		1-10 *	P						2		1	87
BUS D14 L		C09E2		1-11 *							1		7-1/8	87
BUS D14 L		A05L1		1-12 *	P						2		1	87
BUS D14 L		A06L1		1-13 *	P						1		1	87
BUS D14 L		A07L1		1-14 *	P						2		1	87
BUS D14 L		A08L1		1-15 *	P						1		1	87
BUS D14 L		A09L1		1-16 *	P									87
BUS D14 L				1									25-4/8 1400000000	87
BUS D15 L		A01M2		1-01 *	P						1		1	88
BUS D15 L		A02M2		1-02 *	P						2		1	88
BUS D15 L		A03M2		1-03 *	P						1		1	88
BUS D15 L		A04M2		1-04 *							2		5-1/8	88
BUS D15 L		C03D2		1-05 *							1		1	88
BUS D15 L		C04D2		1-06 *							2		1	88
BUS D15 L		C05D2		1-07 *							1		1	88
BUS D15 L		C06D2		1-08 *							2		1	88
BUS D15 L		C07D2		1-09 *							1		1	88
BUS D15 L		C08D2		1-10 *							2		1	88
BUS D15 L		C09D2		1-11 *							1		6-7/8	88
BUS D15 L		A05M2		1-12 *	P						2		1	88
BUS D15 L		A06M2		1-13 *	P						1		1	88
BUS D15 L		A07M2		1-14 *	P						2		1	88
BUS D15 L		A08M2		1-15 *	P						1		1	88
BUS D15 L		A09M2		1-16 *	P									88
BUS D15 L				1									25-0/8 1400000000	88

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
C BG IN		D03U2		1-01 *							1			3-7/8		89
C BG IN		F03B1		1-02 *												89
C BG IN				1										3-7/8	1400000000	89
C BG OUT		D03V2		1-01 *							1			3-7/8		90
C BG OUT		F03A1		1-02 *												90
C BG OUT				1										3-7/8	1400000000	90
C BR OUT		D03J2		1-01 *							1			6-5/8		91
C BR OUT		F03P1		1-02 *							2			1		91
C BR OUT		F03U2		1-03 *												91
C BR OUT				1										7-5/8	1400000000	91
C IN		D03H1		1-01 *							1			3-4/8		92
C IN		E03M1		1-02 *												92
C IN				1										3-4/8	1400000000	92
C INT A		D03N1		1-01 *							1			6-3/8		93
C INT A		F03U1		1-02 *												93
C INT A				1										6-3/8	1400000000	93
C INT B		C03J1		1-01 *							1			8-5/8		94
C INT B		F03K2		1-02 *												94
C INT B				1										8-5/8	1400000000	94
C INT ENB A		D03M1		1-01 *							1			6-5/8		95
C INT ENB A		F03V1		1-02 *												95
C INT ENB A				1										6-5/8	1400000000	95
C INT ENB B		C03L1		1-01 *							1			8-1/8		96
C INT ENB B		F03H2		1-02 *												96
C INT ENB B				1										8-1/8	1400000000	96
C OUT HIGH		D03K1		1-01 *							1			3-3/8		97
C OUT HIGH		E03M2		1-02 *												97
C OUT HIGH				1										3-3/8	1400000000	97
C OUT LOW		D03D1		1-01 *							1			4		98
C OUT LOW		E03N1		1-02 *												98
C OUT LOW				1										4-0/8	1400000000	98
C SEL 0		D03F1		1-01 *							1			4-1/8		99
C SEL 0		F03S2		1-02 *												99
C SEL 0				1										4-1/8	1400000000	99
C SEL 4		D03E1		1-01 *							1			4-3/8		100
C SEL 4		E03R2		1-02 *												100
C SEL 4				1										4-3/8	1400000000	100
C SEL 6		D03C1		1-01 *							1			4-4/8		101
C SEL 6		E03S1		1-02 *												101
C SEL 6				1										4-4/8	1400000000	101
C SER 2		D03J1		1-01 *							1			4-1/8		102
C SER 2		E03T2		1-02 *												102
C SER 2				1										4-1/8	1400000000	102

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
C SSYN IN H		D03V1		1-01 *							1			1		103
C SSYN IN H		E03B1		1-02 *												103
C SSYN IN H				1										1-0/8	1400000000	103
C0 L		B01U2		1-01 *							1			1		104
C0 L		B02U2		1-02 *							2			1		104
C0 L		E03U2		1-03 *							1			1		104
C0 L		B04U2		1-04 *							2			7-3/8		104
C0 L		E03J2		1-05 *	P						1			1		104
C0 L		E04J2		1-06 *	P						2			1		104
C0 L		E05J2		1-07 *	P						1			1		104
C0 L		E06J2		1-08 *	P						2			1		104
C0 L		E07J2		1-09 *	P						1			1		104
C0 L		E08J2		1-10 *	P						2			1		104
C0 L		E09J2		1-11 *							1			9-1/8		104
C0 L		B05U2		1-12 *							2			1		104
C0 L		B06U2		1-13 *							1			1		104
C0 L		B07U2		1-14 *							2			1		104
C0 L		B08U2		1-15 *							1			1		104
C0 L		B09U2		1-16 *												104
C0 L				1										29-4/8	1400000000	104
C1 L		B01T2		1-01 *							2			1		105
C1 L		B02T2		1-02 *							1			1		105
C1 L		B03T2		1-03 *							2			1		105
C1 L		B04T2		1-04 *							1			7-3/8		105
C1 L		E03F2		1-05 *	P						2			1		105
C1 L		E04F2		1-06 *	P						1			1		105
C1 L		E05F2		1-07 *	P						2			1		105
C1 L		E06F2		1-08 *	P						1			1		105
C1 L		E07F2		1-09 *	P						2			1		105
C1 L		E08F2		1-10 *	P						1			1		105
C1 L		E09F2		1-11 *							2			8-7/8		105
C1 L		B05T2		1-12 *							1			1		105
C1 L		B06T2		1-13 *							2			1		105
C1 L		B07T2		1-14 *							1			1		105
C1 L		B08T2		1-15 *							2			1		105
C1 L		B09T2		1-16 *												105
C1 L				1										29-2/8	1400000000	105
D BG IN		D04U2		1-01 *							1			3-7/8		106
D BG IN		F04B1		1-02 *												106
D BG IN				1										3-7/8	1400000000	106
D BG OUT		D04V2		1-01 *							1			3-7/8		107
D BG OUT		F04A1		1-02 *												107
D BG OUT				1										3-7/8	1400000000	107
D BR OUT		D04J2		1-01 *							1			6-5/8		108
D BR OUT		F04P1		1-02 *							2			1		108
D BR OUT		F04U2		1-03 *												108
D BR OUT				1										7-5/8	1400000000	108

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
D IN		D04H1		1-01 *							1			3-4/8		109
D IN		E04M1		1-02 *												109
D IN				1										3-4/8	1400000000	109
D INT A		D04N1		1-01 *							1			6-3/8		110
D INT A		F04U1		1-02 *												110
D INT A				1										6-3/8	1400000000	110
D INT B		C04J1		1-01 *							1			8-5/8		111
D INT B		F04K2		1-02 *												111
D INT B				1										8-5/8	1400000000	111
D INT ENB A		D04M1		1-01 *							1			6-5/8		112
D INT ENB A		F04V1		1-02 *												112
D INT ENB A				1										6-5/8	1400000000	112
D INT ENB B		C04L1		1-01 *							1			8-1/8		113
D INT ENB B		F04H2		1-02 *												113
D INT ENB B				1										8-1/8	1400000000	113
D OUT HIGH		D04K1		1-01 *							1			3-3/8		114
D OUT HIGH		E04M2		1-02 *												114
D OUT HIGH				1										3-3/8	1400000000	114
D OUT LOW		D04D1		1-01 *							1			4		115
D OUT LOW		E04N1		1-02 *												115
D OUT LOW				1										4-0/8	1400000000	115
D SEL 0		D04F1		1-01 *							1			4-1/8		116
D SEL 0		E04S2		1-02 *												116
D SEL 0				1										4-1/8	1400000000	116
D SEL 4		D04E1		1-01 *							1			4-3/8		117
D SEL 4		E04R2		1-02 *												117
D SEL 4				1										4-3/8	1400000000	117
D SEL 6		D04C1		1-01 *							1			4-4/8		118
D SEL 6		E04S1		1-02 *												118
D SEL 6				1										4-4/8	1400000000	118
D SER 2		D04J1		1-01 *							1			4-1/8		119
D SER 2		E04T2		1-02 *												119
D SER 2				1										4-1/8	1400000000	119
D SSYN IN H		D04V1		1-01 *							1			1		120
D SSYN IN H		E04B1		1-02 *												120
D SSYN IN H				1										1-0/8	1400000000	120

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
DC L		B01F2		1-01 *	P						2			1		121
DC L		B02F2		1-02 *	P						1			1		121
DC L		B03F2		1-03 *	P						2			1		121
DC L		B04F2		1-04 *							1			4-3/8		121
DC L		C03N1		1-05 *	P						2			1		121
DC L		C04N1		1-06 *	P						1			1		121
DC L		C05N1		1-07 *	P						2			1		121
DC L		C06N1		1-08 *	P						1			1		121
DC L		C07N1		1-09 *	P						2			1		121
DC L		C08N1		1-10 *	P						1			1		121
DC L		C09N1		1-11 *							2			5-3/8		121
DC L		B05F2		1-12 *	P						1			1		121
DC L		B06F2		1-13 *	P						2			1		121
DC L		B07F2		1-14 *	P						1			1		121
DC L		B08F2		1-15 *	P						2			1		121
DC L		B09F2		1-16 *	P											121
DC L				1										22-6/8	1400000000	121
E BG IN		D05U2		1-01 *							1			3-7/8		122
E BG IN		F05B1		1-02 *												122
E BG IN				1										3-7/8	1400000000	122
E BG OUT		D05V2		1-01 *							1			3-7/8		123
E BG OUT		F05A1		1-02 *												123
E BG OUT				1										3-7/8	1400000000	123
E BR OUT		D05J2		1-01 *							1			6-5/8		124
E BR OUT		F05P1		1-02 *							2			1		124
E BR OUT		F05U2		1-03 *												124
E BR OUT				1										7-5/8	1400000000	124
E IN		D05H1		1-01 *							1			3-4/8		125
E IN		E05M1		1-02 *												125
E IN				1										3-4/8	1400000000	125
E INT A		D05N1		1-01 *							1			6-3/8		126
E INT A		F05U1		1-02 *												126
E INT A				1										6-3/8	1400000000	126
E INT B		C05J1		1-01 *							1			8-5/8		127
E INT B		F05K2		1-02 *												127
E INT B				1										8-5/8	1400000000	127
E INT ENB A		D05M1		1-01 *							1			6-5/8		128
E INT ENB A		F05V1		1-02 *												128
E INT ENB A				1										6-5/8	1400000000	128
E INT ENB B		C05L1		1-01 *							1			8-1/8		129
E INT ENB B		F05H2		1-02 *												129
E INT ENB B				1										8-1/8	1400000000	129
E OUT HIGH		D05K1		1-01 *							1			3-3/8		130
E OUT HIGH		E05M2		1-02 *												130
E OUT HIGH				1										3-3/8	1400000000	130

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
E OUT LOW		D05D1		1-01 *							1		4	131
E OUT LOW		E05N1		1-02 *										131
E OUT LOW				1									4-0/8 1400000000	131
E SEL 0		D05F1		1-01 *							1		4-1/8	132
E SEL 0		E05S2		1-02 *										132
E SEL 0				1									4-1/8 1400000000	132
E SEL 4		D05E1		1-01 *							1		4-3/8	133
E SEL 4		E05R2		1-02 *										133
E SEL 4				1									4-3/8 1400000000	133
E SEL 6		D05C1		1-01 *							1		4-4/8	134
E SEL 6		E05S1		1-02 *										134
E SEL 6				1									4-4/8 1400000000	134
E SER 2		D05J1		1-01 *							1		4-1/8	135
E SER 2		E05T2		1-02 *										135
E SER 2				1									4-1/8 1400000000	135
E SSYN IN H		D05V1		1-01 *							1		1	136
E SSYN IN H		E05B1		1-02 *										136
E SSYN IN H				1									1-0/8 1400000000	136
F BG IN		D06U2		1-01 *							1		3-7/8	137
F BG IN		F06B1		1-02 *										137
F BG IN				1									3-7/8 1400000000	137
F BG OUT		D06V2		1-01 *							1		3-7/8	138
F BG OUT		F06A1		1-02 *										138
F BG OUT				1									3-7/8 1400000000	138
F BR OUT		D06J2		1-01 *							1		6-5/8	139
F BR OUT		F06P1		1-02 *							2		1	139
F BR OUT		F06U2		1-03 *										139
F BR OUT				1									7-5/8 1400000000	139
F IN		D06H1		1-01 *							1		3-4/8	140
F IN		F06M1		1-02 *										140
F IN				1									3-4/8 1400000000	140
F INT A		D06N1		1-01 *							1		6-3/8	141
F INT A		F06U1		1-02 *										141
F INT A				1									6-3/8 1400000000	141
F INT B		C06J1		1-01 *							1		8-5/8	142
F INT B		F06K2		1-02 *										142
F INT B				1									8-5/8 1400000000	142
F INT ENB A		D06M1		1-01 *							1		6-5/8	143
F INT ENB A		F06V1		1-02 *										143
F INT ENB A				1									6-5/8 1400000000	143
F INT ENB B		C06L1		1-01 *							1		8-1/8	144
F INT ENB B		F06H2		1-02 *										144
F INT ENB B				1									8-1/8 1400000000	144

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
F OUT HIGH		D06K1		1-01 *							1		3-3/8	145
F OUT HIGH		E06M2		1-02 *										145
F OUT HIGH				1									3-3/8 1400000000	145
F OUT LOW		D06D1		1-01 *							1		4	146
F OUT LOW		E06N1		1-02 *										146
F OUT LOW				1									4-0/8 1400000000	146
F SEL 0		D06F1		1-01 *							1		4-1/8	147
F SEL 0		E06S2		1-02 *										147
F SEL 0				1									4-1/8 1400000000	147
F SEL 4		D06E1		1-01 *							1		4-3/8	148
F SEL 4		E06R2		1-02 *										148
F SEL 4				1									4-3/8 1400000000	148
F SEL 6		D06C1		1-01 *							1		4-4/8	149
F SEL 6		E06S1		1-02 *										149
F SEL 6				1									4-4/8 1400000000	149
F SER 2		D06J1		1-01 *							1		4-1/8	150
F SER 2		E06T2		1-02 *										150
F SER 2				1									4-1/8 1400000000	150
F SSYN IN H		D06V1		1-01 *							1		1	151
F SSYN IN H		E06B1		1-02 *										151
F SSYN IN H				1									1-0/8 1400000000	151
F03D2		F03D2		1-01 *							2		1-6/8	152
F03D2		F03R2		1-02 *							1		0-4/8	152
F03D2		F03N1		1-03 *										152
F03D2				1									2-2/8 1400000000	152
F03E1		F03E1		1-01 *							1		2-3/8	153
F03E1		F03V2		1-02 *										153
F03E1				1									2-3/8 1400000000	153
F03L2		F03L2		1-01 *							1		1	154
F03L2		F03R1		1-02 *										154
F03L2				1									1-0/8 1400000000	154
F03M2		F03M2		1-01 *							1		1	155
F03M2		F03S1		1-02 *										155
F03M2				1									1-0/8 1400000000	155
F03P2		F03P2		1-01 *							1		0-4/8	156
F03P2		F03S2		1-02 *										156
F03P2				1									0-4/8 1400000000	156
F04D2		F04D2		1-01 *							2		1-6/8	157
F04D2		F04R2		1-02 *							1		0-4/8	157
F04D2		F04N1		1-03 *										157
F04D2				1									2-2/8 1400000000	157

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
F04E1		F04E1		1-01 *							1			2-3/8		158
F04E1		F04V2		1-02 *												158
F04E1				1										2-3/8	1400000000	158
F04L2		F04L2		1-01 *							1			1		159
F04L2		F04R1		1-02 *												159
F04L2				1										1-0/8	1400000000	159
F04M2		F04M2		1-01 *							1			1		160
F04M2		F04S1		1-02 *												160
F04M2				1										1-0/8	1400000000	160
F04P2		F04P2		1-01 *							1			0-4/8		161
F04P2		F04S2		1-02 *												161
F04P2				1										0-4/8	1400000000	161
F05D2		F05D2		1-01 *							2			1-6/8		162
F05D2		F05R2		1-02 *							1			0-4/8		162
F05D2		F05N1		1-03 *												162
F05D2				1										2-2/8	1400000000	162
F05E1		F05E1		1-01 *							1			2-3/8		163
F05E1		F05V2		1-02 *												163
F05E1				1										2-3/8	1400000000	163
F05L2		F05L2		1-01 *							1			1		164
F05L2		F05R1		1-02 *												164
F05L2				1										1-0/8	1400000000	164
F05M2		F05M2		1-01 *							1			1		165
F05M2		F05S1		1-02 *												165
F05M2				1										1-0/8	1400000000	165
F05P2		F05P2		1-01 *							1			0-4/8		166
F05P2		F05S2		1-02 *												166
F05P2				1										0-4/8	1400000000	166
F06D2		F06D2		1-01 *							2			1-6/8		167
F06D2		F06R2		1-02 *							1			0-4/8		167
F06D2		F06N1		1-03 *												167
F06D2				1										2-2/8	1400000000	167
F06E1		F06E1		1-01 *							1			2-3/8		168
F06E1		F06V2		1-02 *												168
F06E1				1										2-3/8	1400000000	168
F06L2		F06L2		1-01 *							1			1		169
F06L2		F06R1		1-02 *												169
F06L2				1										1-0/8	1400000000	169
F06M2		F06M2		1-01 *							1			1		170
F06M2		F06S1		1-02 *												170
F06M2				1										1-0/8	1400000000	170

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
F06P2		F06P2		1-01 *							1			0-4/8		171
F06P2		F06S2		1-02 *												171
F06P2				1										0-4/8	1400000000	171
F07D2		F07D2		1-01 *							2			1-6/8		172
F07D2		F07R2		1-02 *							1			0-4/8		172
F07D2		F07N1		1-03 *												172
F07D2				1										2-2/8	1400000000	172
F07E1		F07E1		1-01 *							1			2-3/8		173
F07E1		F07V2		1-02 *												173
F07E1				1										2-3/8	1400000000	173
F07L2		F07L2		1-01 *							1			1		174
F07L2		F07R1		1-02 *												174
F07L2				1										1-0/8	1400000000	174
F07M2		F07M2		1-01 *							1			1		175
F07M2		F07S1		1-02 *												175
F07M2				1										1-0/8	1400000000	175
F07P2		F07P2		1-01 *							1			0-4/8		176
F07P2		F07S2		1-02 *												176
F07P2				1										0-4/8	1400000000	176
F08D2		F08D2		1-01 *							2			1-6/8		177
F08D2		F08R2		1-02 *							1			0-4/8		177
F08D2		F08N1		1-03 *												177
F08D2				1										2-2/8	1400000000	177
F08E1		F08E1		1-01 *							1			2-3/8		178
F08E1		F08V2		1-02 *												178
F08E1				1										2-3/8	1400000000	178
F08L2		F08L2		1-01 *							1			1		179
F08L2		F08R1		1-02 *												179
F08L2				1										1-0/8	1400000000	179
F08M2		F08M2		1-01 *							1			1		180
F08M2		F08S1		1-02 *												180
F08M2				1										1-0/8	1400000000	180
F08P2		F08P2		1-01 *							1			0-4/8		181
F08P2		F08S2		1-02 *												181
F08P2				1										0-4/8	1400000000	181
F09D2		F09D2		1-01 *							2			1-6/8		182
F09D2		F09R2		1-02 *							1			0-4/8		182
F09D2		F09N1		1-03 *												182
F09D2				1										2-2/8	1400000000	182
F09E1		F09E1		1-01 *							1			2-3/8		183
F09E1		F09V2		1-02 *												183
F09E1				1										2-3/8	1400000000	183

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
F09L2		F09L2		1-01 *							1		1	184
F09L2		F09R1		1-02 *										184
F09L2				1									1-0/8 1400000000	184
F09M2		F09M2		1-01 *							1		1	185
F09M2		F09S1		1-02 *										185
F09M2				1									1-0/8 1400000000	185
F09P2		F09P2		1-01 *							1		0-4/8	186
F09P2		F09S2		1-02 *										186
F09P2				1									0-4/8 1400000000	186
GND (01)		A01C2		1-01 *	P						1		1	187
GND (01)		A02C2		1-02 *	P						2		1	187
GND (01)		A03C2		1-03 *	P						1		1	187
GND (01)		A04C2		1-04 *	P						2		1	187
GND (01)		A05C2		1-05 *	P						1		1	187
GND (01)		A06C2		1-06 *	P						2		1	187
GND (01)		A07C2		1-07 *	P						1		1	187
GND (01)		A08C2		1-08 *	P						2		1	187
GND (01)		A09C2		1-09 *	P						1		2-1/8	187
GND (01)		A09T1		1-10 *	P						2		1	187
GND (01)		A08T1		1-11 *	P						1		1	187
GND (01)		A07T1		1-12 *	P						2		1	187
GND (01)		A06T1		1-13 *	P						1		1	187
GND (01)		A05T1		1-14 *	P						2		1	187
GND (01)		A04T1		1-15 *	P						1		1	187
GND (01)		A03T1		1-16 *	P						2		1	187
GND (01)		A02T1		1-17 *	P						1		1	187
GND (01)		A01T1		1-18 *	P						2		1-5/8	187
GND (01)		B01C2		1-19 *	P						1		1	187
GND (01)		B02C2		1-20 *	P						2		1	187
GND (01)		B03C2		1-21 *	P						1		1	187
GND (01)		B04C2		1-22 *	P						2		1	187
GND (01)		B05C2		1-23 *	P						1		1	187
GND (01)		B06C2		1-24 *	P						2		1	187
GND (01)		B07C2		1-25 *	P						1		1	187
GND (01)		B08C2		1-26 *	P						2		1	187
GND (01)		B09C2		1-27 *	P						1		2-1/8	187
GND (01)		B09T1		1-28 *	P						2		1	187
GND (01)		B08T1		1-29 *	P						1		1	187
GND (01)		B07T1		1-30 *	P						2		1	187
GND (01)		B06T1		1-31 *	P						1		1	187
GND (01)		B05T1		1-32 *	P						2		1	187
GND (01)		B04T1		1-33 *	P						1		1	187
GND (01)		B03T1		1-34 *	P						2		1	187
GND (01)		B02T1		1-35 *	P						1		1	187
GND (01)		B01T1		1-36 *	P						2		1-3/8	187
GND (01)		C01C2		1-37 *	P						1		1	187
GND (01)		C02C2		1-38 *	P						2		1	187
GND (01)		C03C2		1-39 *	P						1		1	187
GND (01)		C04C2		1-40 *	P						2		1	187
GND (01)		C05C2		1-41 *	P						1		1	187
GND (01)		C06C2		1-42 *	P						2		1	187
GND (01)		C07C2		1-43 *	P						1		1	187
GND (01)		C08C2		1-44 *	P						2		1	187

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
GND (01)		C09C2		1-45 *	P						1		2-1/8	187
GND (01)		C09T1		1-46 *	P						2		1	187
GND (01)		C08T1		1-47 *	P						1		1	187
GND (01)		C07T1		1-48 *	P						2		1	187
GND (01)		C06T1		1-49 *	P						1		1	187
GND (01)		C05T1		1-50 *	P						2		1	187
GND (01)		C04T1		1-51 *	P						1		1	187
GND (01)		C03T1		1-52 *	P						2		1	187
GND (01)		C02T1		1-53 *	P						1		1	187
GND (01)		C01T1		1-54 *	P									187
GND (01)				J									57-3/8 1400000000	187
GND (02)		D01C2		1-01 *	P						1		1	188
GND (02)		D02C2		1-02 *	P						2		1	188
GND (02)		D03C2		1-03 *	P						1		1	188
GND (02)		D04C2		1-04 *	P						2		1	188
GND (02)		D05C2		1-05 *	P						1		1	188
GND (02)		D06C2		1-06 *	P						2		1	188
GND (02)		D07C2		1-07 *	P						1		1	188
GND (02)		D08C2		1-08 *	P						2		1	188
GND (02)		D09C2		1-09 *	P						1		2-1/8	188
GND (02)		D09T1		1-10 *	P						2		1	188
GND (02)		D08T1		1-11 *	P						1		1	188
GND (02)		D07T1		1-12 *	P						2		1	188
GND (02)		D06T1		1-13 *	P						1		1	188
GND (02)		D05T1		1-14 *	P						2		1	188
GND (02)		D04T1		1-15 *	P						1		1	188
GND (02)		D03T1		1-16 *	P						2		1	188
GND (02)		D02T1		1-17 *	P						1		1	188
GND (02)		D01T1		1-18 *	P						2		1-3/8	188
GND (02)		E01C2		1-19 *	P						1		1	188
GND (02)		E02C2		1-20 *	P						2		1	188
GND (02)		E03C2		1-21 *	P						1		1	188
GND (02)		E04C2		1-22 *	P						2		1	188
GND (02)		E05C2		1-23 *	P						1		1	188
GND (02)		E06C2		1-24 *	P						2		1	188
GND (02)		E07C2		1-25 *	P						1		1	188
GND (02)		E08C2		1-26 *	P						2		1	188
GND (02)		E09C2		1-27 *	P						1		2-1/8	188
GND (02)		E09T1		1-28 *	P						2		1	188
GND (02)		E08T1		1-29 *	P						1		1	188
GND (02)		E07T1		1-30 *	P						2		1	188
GND (02)		F06T1		1-31 *	P						1		1	188
GND (02)		E05T1		1-32 *	P						2		1	188
GND (02)		E04T1		1-33 *	P						1		1	188
GND (02)		E03T1		1-34 *	P						2		1	188
GND (02)		E02T1		1-35 *	P						1		1	188
GND (02)		E01T1		1-36 *	P						2		1-5/8	188
GND (02)		F01C2		1-37 *	P						1		1	188
GND (02)		F02C2		1-38 *	P						2		1	188
GND (02)		F03C2		1-39 *	P						1		1	188
GND (02)		F04C2		1-40 *	P						2		1	188
GND (02)		F05C2		1-41 *	P						1		1	188
GND (02)		F06C2		1-42 *	P						2		1	188
GND (02)		F07C2		1-43 *	P						1		1	188
GND (02)		F08C2		1-44 *	P						2		1	188

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
GND (Ø2)		F09C2		1-45 *	P						1		2-1/8	188
GND (Ø2)		FØ9T1		1-46 *	P						2		1	188
GND (Ø2)		F08T1		1-47 *	P						1		1	188
GND (Ø2)		FØ7T1		1-48 *	P						2		1	188
GND (Ø2)		F06T1		1-49 *	P						1		1	188
GND (Ø2)		FØ5T1		1-5Ø *	P						2		1	188
GND (Ø2)		F04T1		1-51 *	P						1		1	188
GND (Ø2)		F03T1		1-52 *	P						2		1	188
GND (Ø2)		F02T1		1-53 *	P						1		1	188
GND (Ø2)		F01T1		1-54 *	P									188
GND (Ø2)				1									57-3/8 1400000000	188
GND (Ø3)		B09V2		1-01 *	P						2		2-3/8	189
GND (Ø3)		B09E1		1-02 *	P						1		Ø-1/8	189
GND (Ø3)		B09D1		1-Ø3 *	P						2		Ø-4/8	189
GND (Ø3)		B09R2		1-Ø4 *	P						1		1-2/8	189
GND (Ø3)		AØ9V2		1-Ø5 *	P						2		Ø-5/8	189
GND (Ø3)		AØ9S1		1-Ø6 *	P						1		Ø-1/8	189
GND (Ø3)		AØ9R1		1-Ø7 *	P						2		Ø-1/8	189
GND (Ø3)		AØ9P1		1-Ø8 *	P						1		Ø-1/8	189
GND (Ø3)		AØ9N1		1-Ø9 *	P						2		1-7/8	189
GND (Ø3)		AØ9R2		1-1Ø *	P						1		4-4/8	189
GND (Ø3)		A01B2		1-11 *	P						2		1-7/8	189
GND (Ø3)		AØ1N1		1-12 *	P						1		Ø-1/8	189
GND (Ø3)		AØ1P1		1-13 *	P						2		Ø-1/8	189
GND (Ø3)		A01R1		1-14 *	P						1		Ø-1/8	189
GND (Ø3)		A01S1		1-15 *	P						2		Ø-5/8	189
GND (Ø3)		AØ1V2		1-16 *	P						1		1-2/8	189
GND (Ø3)		B01B2		1-17 *	P						2		Ø-4/8	189
GND (Ø3)		B01D1		1-18 *	P						1		Ø-1/8	189
GND (Ø3)		B01E1		1-19 *	P						2		2-3/8	189
GND (Ø3)		BØ1V2		1-2Ø *	P						1		6-5/8	189
GND (Ø3)		E03A1		1-21 *	P						2		1	189
GND (Ø3)		E04A1		1-22 *	P						1		1	189
GND (Ø3)		E05A1		1-23 *	P						2		1	189
GND (Ø3)		E06A1		1-24 *	P						1		1	189
GND (Ø3)		E07A1		1-25 *	P						2		1	189
GND (Ø3)		E08A1		1-26 *	P						1		1	189
GND (Ø3)		E09A1		1-27 *	P						2		4-3/8	189
GND (Ø3)		F09J2		1-28 *	P						1		1	189
GND (Ø3)		F08J2		1-29 *	P						2		1	189
GND (Ø3)		FØ7J2		1-3Ø *	P						1		1	189
GND (Ø3)		F06J2		1-31 *	P						2		1	189
GND (Ø3)		F05J2		1-32 *	P						1		1	189
GND (Ø3)		F04J2		1-33 *	P						2		1	189
GND (Ø3)		F03J2		1-34 *	P									189
GND (Ø3)				1									41-6/8 1400000000	189
H BG IN		D07J2		1-Ø1 *							1		3-7/8	190
H BG IN		F07B1		1-Ø2 *										190
H BG IN				1									3-7/8 1400000000	190
H BG OUT		D07V2		1-Ø1 *							1		3-7/8	191
H BG OUT		F07A1		1-Ø2 *										191
H BG OUT				1									3-7/8 1400000000	191

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
H BR OUT		D07J2		1-Ø1 *							1		6-5/8	192
H BR OUT		F07P1		1-Ø2 *							2		1	192
H BR OUT		F07U2		1-Ø3 *										192
H BR OUT				1									7-5/8 1400000000	192
H IN		D07H1		1-Ø1 *							1		3-4/8	193
H IN		E07M1		1-Ø2 *										193
H IN				1									3-4/8 1400000000	193
H INT A		D07N1		1-Ø1 *							1		6-3/8	194
H INT A		F07U1		1-Ø2 *										194
H INT A				1									6-3/8 1400000000	194
H INT B		C07J1		1-Ø1 *							1		8-5/8	195
H INT B		F07K2		1-Ø2 *										195
H INT B				1									8-5/8 1400000000	195
H INT ENB A		D07M1		1-Ø1 *							1		6-5/8	196
H INT ENB A		F07V1		1-Ø2 *										196
H INT ENB A				1									6-5/8 1400000000	196
H INT ENB B		C07L1		1-Ø1 *							1		8-1/8	197
H INT ENB B		F07H2		1-Ø2 *										197
H INT ENB B				1									8-1/8 1400000000	197
H OUT HIGH		D07K1		1-Ø1 *							1		3-3/8	198
H OUT HIGH		E07M2		1-Ø2 *										198
H OUT HIGH				1									3-3/8 1400000000	198
H OUT LOW		D07D1		1-Ø1 *							1		4	199
H OUT LOW		E07N1		1-Ø2 *										199
H OUT LOW				1									4-Ø/8 1400000000	199
H SEL Ø		D07F1		1-Ø1 *							1		4-1/8	200
H SEL Ø		E07S2		1-Ø2 *										200
H SEL Ø				1									4-1/8 1400000000	200
H SEL 4		D07E1		1-Ø1 *							1		4-3/8	201
H SEL 4		E07R2		1-Ø2 *										201
H SEL 4				1									4-3/8 1400000000	201
H SEL 6		D07C1		1-Ø1 *							1		4-4/8	202
H SEL 6		E07S1		1-Ø2 *										202
H SEL 6				1									4-4/8 1400000000	202
H SER 2		D07J1		1-Ø1 *							1		4-1/8	203
H SER 2		E07T2		1-Ø2 *										203
H SER 2				1									4-1/8 1400000000	203
H SSYN IN H		D07V1		1-Ø1 *							1		1	204
H SSYN IN H		E07B1		1-Ø2 *										204
H SSYN IN H				1									1-Ø/8 1400000000	204

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
HALT GRANT		C01R1		1-01 *	P						2		1	205
HALT GRANT		C02R1		1-02 *	P						1		1	205
HALT GRANT		C03R1		1-03 *	P						2		1	205
HALT GRANT		C04R1		1-04 *	P						1		1	205
HALT GRANT		C05R1		1-05 *	P						2		1	205
HALT GRANT		C06R1		1-06 *	P						1		1	205
HALT GRANT		C07R1		1-07 *	P						2		1	205
HALT GRANT		C08R1		1-08 *	P						1		1	205
HALT GRANT		C09R1		1-09 *	P									205
HALT GRANT				1									0-0/8 1400000000	205
HALT REQ		C01P1		1-01 *	P						2		1	206
HALT REQ		C02P1		1-02 *	P						1		1	206
HALT REQ		C03P1		1-03 *	P						2		1	206
HALT REQ		C04P1		1-04 *	P						1		1	206
HALT REQ		C05P1		1-05 *	P						2		1	206
HALT REQ		C06P1		1-06 *	P						1		1	206
HALT REQ		C07P1		1-07 *	P						2		1	206
HALT REQ		C08P1		1-08 *	P						1		1	206
HALT REQ		C09P1		1-09 *	P									206
HALT REQ				1									0-0/8 1400000000	206
INIT L		A01A1		1-01 *	P						1		1	207
INIT L		A02A1		1-02 *	P						2		1	207
INIT L		A03A1	A04A1	1-03 *	P						1		1	207
INIT L		A04A1		1-04 *	H						2	TWPR	9-7/8	207
INIT L		D03L1		1-05 *	P						1		1	207
INIT L		D04L1		1-06 *	P						2		1	207
INIT L		D05L1		1-07 *	P						1		1	207
INIT L		D06L1		1-08 *	P						2		1	207
INIT L		D07L1		1-09 *	P						1		1	207
INIT L		D08L1	D09L1	1-10 *	P						2		1	207
INIT L		D09L1		1-11 *	H						1	TWPR	11-5/8	207
INIT L		A05A1		1-12 *	P						2		1	207
INIT L		A06A1		1-13 *	P						1		1	207
INIT L		A07A1		1-14 *	P						2		1	207
INIT L		A08A1		1-15 *	P						1		1	207
INIT L		A09A1		1-16 *	P									207
INIT L				1									34-4/8 1400000000	207
INT SSYN		B02E1		1-01 *	P						2		1	208
INT SSYN		B03E1		1-02 *	P						1		1	208
INT SSYN		B04E1		1-03 *	P						2		1	208
INT SSYN		B05E1		1-04 *	P						1		1	208
INT SSYN		B06E1		1-05 *	P						2		1	208
INT SSYN		B07E1		1-06 *	P						1		1	208
INT SSYN		B08E1		1-07 *	P									208
INT SSYN				1									6-0/8 1400000000	208

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
INTR L		A01B1		1-01 *	P						2		1	209
INTR L		A02B1		1-02 *	P						1		1	209
INTR L		A03B1		1-03 *	P						2		1	209
INTR L		A04B1		1-04 *							1		15-3/8	209
INTR L		F03M1		1-05 *	P						2		1	209
INTR L		F04M1		1-06 *							1		1	209
INTR L		F05M1		1-07 *	P						2		1	209
INTR L		F06M1		1-08 *	P						1		1	209
INTR L		F07M1		1-09 *	P						2		1	209
INTR L		F08M1		1-10 *	P						1		1	209
INTR L		F09M1		1-11 *							2		16-5/8	209
INTR L		A05B1		1-12 *	P						1		1	209
INTR L		A06B1		1-13 *	P						2		1	209
INTR L		A07B1		1-14 *	P						1		1	209
INTR L		A08B1		1-15 *	P						2		1	209
INTR L		A09B1		1-16 *	P									209
INTR L				1									45-0/8 1400000000	209
J A IN		D08H1		1-01 *							1		3-4/8	210
J A IN		E06M1		1-02 *										210
J A IN				1									3-4/8 1400000000	210
J BG IN		D08U2		1-01 *							1		3-7/8	211
J BG IN		F08B1		1-02 *										211
J BG IN				1									3-7/8 1400000000	211
J BG OUT		D08V2		1-01 *							1		3-7/8	212
J BG OUT		F08A1		1-02 *										212
J BG OUT				1									3-7/8 1400000000	212
J BR OUT		D08J2		1-01 *							1		6-5/8	213
J BR OUT		F08P1		1-02 *							2		1	213
J BR OUT		F08U2		1-03 *										213
J BR OUT				1									7-5/8 1400000000	213
J INT A		D06N1		1-01 *							1		6-3/8	214
J INT A		F08U1		1-02 *										214
J INT A				1									6-3/8 1400000000	214
J INT B		C08J1		1-01 *							1		8-5/8	215
J INT B		F08K2		1-02 *										215
J INT B				1									8-5/8 1400000000	215
J INT ENB A		D08M1		1-01 *							1		6-5/8	216
J INT ENB A		F08V1		1-02 *										216
J INT ENB A				1									6-5/8 1400000000	216
J INT ENB B		C08L1		1-01 *							1		8-1/8	217
J INT ENB B		F08N2		1-02 *										217
J INT ENB B				1									8-1/8 1400000000	217
J OUT HIGH		D08K1		1-01 *							1		3-3/8	218
J OUT HIGH		E08M2		1-02 *										218
J OUT HIGH				1									3-3/8 1400000000	218

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
J OUT LOW		D08D1		1-01 *							1			4		219
J OUT LOW		E08N1		1-02 *												219
J OUT LOW				1										4-0/8	1400000000	219
J SEL 0		D08F1		1-01 *							1			4-1/8		220
J SEL 0		E08S2		1-02 *												220
J SEL 0				1										4-1/8	1400000000	220
J SEL 4		D08E1		1-01 *							1			4-3/8		221
J SEL 4		E08R2		1-02 *												221
J SEL 4				1										4-3/8	1400000000	221
J SEL 6		D08C1		1-01 *							1			4-4/8		222
J SEL 6		E08S1		1-02 *												222
J SEL 6				1										4-4/8	1400000000	222
J SER 2		D08J1		1-01 *							1			4-1/8		223
J SER 2		E08T2		1-02 *												223
J SER 2				1										4-1/8	1400000000	223
J SSYN IN H		D08V1		1-01 *							1			1		224
J SSYN IN H		E08B1		1-02 *												224
J SSYN IN H				1										1-0/8	1400000000	224
K A IN		D09H1		1-01 *							1			3-4/8		225
K A IN		E09M1		1-02 *												225
K A IN				1										3-4/8	1400000000	225
K BG IN		D09U2		1-01 *							1			3-7/8		226
K BG IN		F09B1		1-02 *												226
K BG IN				1										3-7/8	1400000000	226
K BG OUT		D09V2		1-01 *							1			3-7/8		227
K BG OUT		F09A1		1-02 *												227
K BG OUT				1										3-7/8	1400000000	227
K BR OUT		D09J2		1-01 *							1			6-5/8		228
K BR OUT		F09P1		1-02 *							2			1		228
K BR OUT		F09U2		1-03 *												228
K BR OUT				1										7-5/8	1400000000	228
K INT A		D09N1		1-01 *							1			6-3/8		229
K INT A		F09U1		1-02 *												229
K INT A				1										6-3/8	1400000000	229
K INT B		C09J1		1-01 *							1			8-5/8		230
K INT B		F09K2		1-02 *												230
K INT B				1										8-5/8	1400000000	230
K INT ENB A		D09M1		1-01 *							1			6-5/8		231
K INT ENB A		F09V1		1-02 *												231
K INT ENB A				1										6-5/8	1400000000	231
K INT ENB B		C09L1		1-01 *							1			8-1/8		232
K INT ENB B		F09H2		1-02 *												232
K INT ENB B				1										8-1/8	1400000000	232

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
K OUT HIGH		D09K1		1-01 *							1			3-3/8		233
K OUT HIGH		F09M2		1-02 *												233
K OUT HIGH				1										3-3/8	1400000000	233
K OUT LOW		D09D1		1-01 *							1			4		234
K OUT LOW		E09N1		1-02 *												234
K OUT LOW				1										4-0/8	1400000000	234
K SEL 0		D09F1		1-01 *							1			4-1/8		235
K SEL 0		E09S2		1-02 *												235
K SEL 0				1										4-1/8	1400000000	235
K SEL 4		D09E1		1-01 *							1			4-3/8		236
K SEL 4		E09R2		1-02 *												236
K SEL 4				1										4-3/8	1400000000	236
K SEL 6		D09C1		1-01 *							1			4-4/8		237
K SEL 6		E09S1		1-02 *												237
K SEL 6				1										4-4/8	1400000000	237
K SER 2		D09J1		1-01 *							1			4-1/8		238
K SER 2		E09T2		1-02 *												238
K SER 2				1										4-1/8	1400000000	238
K SSYN IN H		D09V1		1-01 *							1			1		239
K SSYN IN H		E09B1		1-02 *												239
K SSYN IN H				1										1-0/8	1400000000	239
K1-1 BERG 00(1) H		D01N1		1-01 *							1			0-5/8		240
K1-1 BERG 00(1) H		D02M1		1-02 *												240
K1-1 BERG 00(1) H				1										0-5/8	1400000000	240
K1-1 BXREG 00(1) H		C02U1		1-01 *							1			7-7/8		241
K1-1 BXREG 00(1) H		F01K1		1-02 *												241
K1-1 BXREG 00(1) H				1										7-7/8	1400000000	241
K1-1 BXREG 01(1) H		D02F1		1-01 *							1			5-5/8		242
K1-1 BXREG 01(1) H		F01A1		1-02 *												242
K1-1 BXREG 01(1) H				1										5-5/8	1400000000	242
K1-1 CBIT(1) H		D01U2		1-01 *							1			0-5/8		243
K1-1 CBIT(1) H		D02V1		1-02 *												243
K1-1 CBIT(1) H				1										0-5/8	1400000000	243
K1-1 NBIT(1) H		D01L1		1-01 *							1			3-7/8		244
K1-1 NBIT(1) H		E02P2		1-02 *												244
K1-1 NBIT(1) H				1										3-7/8	1400000000	244
K1-1 SSMUX 00 H		E02B2		1-01 *							1			4-3/8		245
K1-1 SSMUX 00 H		F01F1		1-02 *												245
K1-1 SSMUX 00 H				1										4-3/8	1400000000	245
K1-1 SSMUX 01 H		D01H1		1-01 *							1			3-1/8		246
K1-1 SSMUX 01 H		E02E1		1-02 *												246
K1-1 SSMUX 01 H				1										3-1/8	1400000000	246

RUN NAME	A/P PIN NAME	ORDER PIN	BAY - ORDER	G	DRAW	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
K1-1 SSMUX 02 H	E01B1	1-01 *										1	1-3/8		247
	E02D2	1-02 *													247
K1-1 SSMUX 03 H	D01E1	1-01 *										1	3-3/8		248
	E02D1	1-02 *													248
K1-1 SSMUX 04 H														1400000000	248
K1-1 VBIT(1) H	E01D1	1-01 *										1	2-5/8		249
	E02U2	1-02 *													249
K1-1 VBIT(1) H														1400000000	249
K1-1 ZBIT(1) H	E02V1	1-01 *										1	1-7/8		250
	FN1F2	1-02 *													250
K1-1 ZBIT(1) H														1400000000	250
K1-10 8-15=0 L	CN1J2	1-01 *										1	9-3/8		251
	F02N2	1-02 *													251
K1-10 8-15=0 L														1400000000	251
K1-10 ASSERT SSYN H	E01K2	1-01 *										1	3-1/8		252
K1-10 ASSERT SSYN H	F02F1	1-02 *													252
K1-10 ASSERT SSYN H														1400000000	252
K1-10 CCN H	F01T2	1-01 *										1	1-7/8		253
K1-10 CCN H	F02J2	1-02 *													253
K1-10 CCN H														1400000000	253
K1-10 CCZ H	E01L1	1-01 *										1	2-7/8		254
K1-10 CCZ H	F02H2	1-02 *													254
K1-10 CCZ H														1400000000	254
K1-2 PSW 05(1) H	C01P2	1-01 *										1	6-5/8		255
K1-2 PSW 05(1) H	E02I2	1-02 *													255
K1-2 PSW 05(1) H														1400000000	255
K1-2 PSW 06(1) H	C01M2	1-01 *										1	6-5/8		256
K1-2 PSW 06(1) H	E02U1	1-02 *													256
K1-2 PSW 06(1) H														1400000000	256
K1-2 PSW 07(1) H	E02K2	1-01 *										1	3-3/8		257
K1-2 PSW 07(1) H	F01H2	1-02 *													257
K1-2 PSW 07(1) H														1400000000	257
K1-2 SSMUX 04 H	C02D1	1-01 *										1	3-7/8		258
K1-2 SSMUX 04 H	D01H2	1-02 *													258
K1-2 SSMUX 04 H														1400000000	258
K1-2 SSMUX 05 H	F01F1	1-01 *										1	1-3/8		259
K1-2 SSMUX 05 H	E02H2	1-02 *													259
K1-2 SSMUX 05 H														1400000000	259
K1-2 SSMUX 06 H	C02C1	1-01 *										1	6-7/8		260
K1-2 SSMUX 06 H	F01K1	1-02 *													260
K1-2 SSMUX 06 H														1400000000	260
K1-2 SSMUX 07 H	C02E2	1-01 *										1	3-7/8		261
K1-2 SSMUX 07 H	D01J2	1-02 *													261
K1-2 SSMUX 07 H														1400000000	261
K1-2 TBIT(1) H	D01F1	1-01 *										1	0-5/8		262
K1-2 TBIT(1) H	D02K1	1-02 *													262
K1-2 TBIT(1) H														1400000000	262
K1-3 SSMUX 08 H	F01N2	1-01 *										1	0-4/8		263
K1-3 SSMUX 08 H	F02N1	1-02 *													263
K1-3 SSMUX 08 H														1400000000	263
K1-3 SSMUX 09 H	C02J2	1-01 *										1	6-5/8		264
K1-3 SSMUX 09 H	E01M2	1-02 *													264
K1-3 SSMUX 09 H														1400000000	264
K1-3 SSMUX 10 H	C02H2	1-01 *										1	5-1/8		265
K1-3 SSMUX 10 H	D01V1	1-02 *													265
K1-3 SSMUX 10 H														1400000000	265
K1-3 SSMUX 11 H	C02F2	1-01 *										1	5-7/8		266
K1-3 SSMUX 11 H	E01A1	1-02 *													266
K1-3 SSMUX 11 H														1400000000	266
K1-4 ALU COUT H	E01V1	1-01 *										1	2-7/8		267
K1-4 ALU COUT H	F02L2	1-02 *													267
K1-4 ALU COUT H														1400000000	267
K1-4 PSW 15(1) L	D01J1	1-01 *										1	3-1/8		268
K1-4 PSW 15(1) L	E02E2	1-02 *													268
K1-4 PSW 15(1) L														1400000000	268
K1-4 SP15(1) H	C02N1	1-01 *	H								TWP	1	8-1/8		269
K1-4 SP15(1) H	F01E1	1-02 *	X								TWP				269
K1-4 SP15(1) H														1400000000	269
K1-4 SSMUX 12 H	C02J1	1-01 *										1	5-1/8		270
K1-4 SSMUX 12 H	E01B2	1-02 *													270
K1-4 SSMUX 12 H														1400000000	270
K1-4 SSMUX 13 H	C02D2	1-01 *										1	5-3/8		271
K1-4 SSMUX 13 H	D01V2	1-02 *													271
K1-4 SSMUX 13 H														1400000000	271
K1-4 SSMUX 14 H	C02H1	1-01 *										1	6-5/8		272
K1-4 SSMUX 14 H	E01P2	1-02 *													272
K1-4 SSMUX 14 H														1400000000	272
K1-4 SSMUX 15 H	C01D1	1-01 *										1	1-3/8		273
K1-4 SSMUX 15 H	C02B2	1-02 *													273
K1-4 SSMUX 15 H														1400000000	273
K1-5 ALLOW MSYN H	E01V2	1-01 *										1	1-1/8		274
K1-5 ALLOW MSYN H	F02A1	1-02 *													274
K1-5 ALLOW MSYN H														1400000000	274

RUN NAME	A/P PIN NAME	ORDER PIN	BAY - ORDER	G	DRAW	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
K1-2 SSMUX 07 H	C02E2	1-01 *										1	3-7/8		261
K1-2 SSMUX 07 H	D01J2	1-02 *													261
K1-2 SSMUX 07 H														1400000000	261
K1-2 TBIT(1) H	D01F1	1-01 *										1	0-5/8		262
K1-2 TBIT(1) H	D02K1	1-02 *													262
K1-2 TBIT(1) H														1400000000	262
K1-2 SSMUX 08 H	F01N2	1-01 *										1	0-4/8		263
K1-2 SSMUX 08 H	F02N1	1-02 *													263
K1-2 SSMUX 08 H														1400000000	263
K1-2 SSMUX 09 H	C02J2	1-01 *										1	6-5/8		264
K1-2 SSMUX 09 H	E01M2	1-02 *													264
K1-2 SSMUX 09 H														1400000000	264
K1-2 PSW 05(1) H	C01P2	1-01 *										1	6-5/8		255
K1-2 PSW 05(1) H	E02I2	1-02 *													255
K1-2 PSW 05(1) H														1400000000	255
K1-2 PSW 06(1) H	C01M2	1-01 *										1	6-5/8		256
K1-2 PSW 06(1) H	E02U1	1-02 *													256
K1-2 PSW 06(1) H														1400000000	256
K1-2 PSW 07(1) H	E02K2	1-01 *										1	3-3/8		257
K1-2 PSW 07(1) H	F01H2	1-02 *													257
K1-2 PSW 07(1) H														1400000000	257
K1-2 SSMUX 04 H	C02D1	1-01 *										1	3-7/8		258
K1-2 SSMUX 04 H	D01H2	1-02 *													258
K1-2 SSMUX 04 H														1400000000	258
K1-2 SSMUX 05 H	F01F1	1-01 *										1	1-3/8		259
K1-2 SSMUX 05 H	E02H2	1-02 *													259
K1-2 SSMUX 05 H														1400000000	259
K1-2 SSMUX 06 H	C02C1	1-01 *										1	6-7/8		260
K1-2 SSMUX 06 H	F01K1	1-02 *													260
K1-2 SSMUX 06 H														1400000000	260
K1-2 SSMUX 07 H	C02E2	1-01 *										1	3-7/8		261
K1-2 SSMUX 07 H	D01J2	1-02 *													261
K1-2 SSMUX 07 H														1400000000	261
K1-2 TBIT(1) H	D01F1	1-01 *										1	0-5/8		262
K1-2 TBIT(1) H	D02K1	1-02 *													262
K1-2 TBIT(1) H														1400000000	262
K1-2 SSMUX 08 H	F01N2	1-01 *										1	0-4/8		263
K1-2 SSMUX 08 H	F02N1	1-02 *													263
K1-2 SSMUX 08 H														1400000000	263
K1-2 SSMUX 09 H	C02J2	1-01 *										1	6-5/8		264
K1-2 SSMUX 09 H	E01M2	1-02 *													264
K1-2 SSMUX 09 H														1400000000	264
K1-2 PSW 05(1) H	C01P2	1-01 *										1	6-5/8		255
K1-2 PSW 05(1) H	E02I2	1-02 *													255
K1-2 PSW 05(1) H														1400000000	255
K1-2 PSW 06(1) H	C01M2	1-01 *										1	6-5/8		256
K1-2 PSW 06(1) H	E02U1	1-02 *													256
K1-2 PSW 06(1) H														1400000000	256
K1-2 PSW 07(1) H	E02K2	1-01 *										1	3-3/8		257
K1-2 PSW 07(1) H	F01H2	1-02 *													257
K1-2 PSW 07(1) H														1400000000	257
K1-2 SSMUX 04 H	C02D1	1-01 *										1	3-7/8		258
K1-2 SSMUX 04 H	D01H2	1-02 *													258
K1-2 SSMUX 04 H														1400000000	258
K1-2 SSMUX 05 H	F01F1	1-01 *										1	1-3/8		259
K1-2 SSMUX 05 H	E02H2	1-02 *													259
K1-2 SSMUX 05 H														1400000000	259
K1-2 SSMUX 06 H	C02C1	1-01 *										1	6-7/8		260
K1-2 SSMUX 06 H	F01K1	1-02 *													260
K1-2 SSMUX 06 H														1400000000	260

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
K1-5 MAN CLK ENAB L		F01M1		1-01 *							1			1-3/8		275
K1-5 MAN CLK ENAB L		F02E1		1-02 *												275
K1-5 MAN CLK ENAB L				1										1-3/8	1400000000	275
K1-5 MAN CLK L		E02S1		1-01 *							1			3-3/8		276
K1-5 MAN CLK L		F01P1		1-02 *												276
K1-5 MAN CLK L				1										3-3/8	1400000000	276
K1-5 PROC CLK H		E02J2		1-01 *		H					1	TWP		4-3/8		277
K1-5 PROC CLK H		F01P2		1-02 *		X						TWP				277
K1-5 PROC CLK H				1										4-3/8	1400000000	277
K1-5 PROC CLK L		E01R1		1-01 *							1			0-5/8		278
K1-5 PROC CLK L		E02M1		1-02 *												278
K1-5 PROC CLK L				1										0-5/8	1400000000	278
K1-5 TAP 30 H		D01E2		1-01 *		H					1	TWP		4-1/8		279
K1-5 TAP 30 H		E02M2		1-02 *		X						TWP				279
K1-5 TAP 30 H				1										4-1/8	1400000000	279
K1-6 PBA 00 H		C01L2		1-01 *							1			4-7/8		280
K1-6 PBA 00 H		E02C1		1-02 *												280
K1-6 PBA 00 H				1										4-7/8	1400000000	280
K1-6 PBA 01 H		C01H1		1-01 *							1			5-3/8		281
K1-6 PBA 01 H		D02V2		1-02 *												281
K1-6 PBA 01 H				1										5-3/8	1400000000	281
K1-6 PBA 02 H		D02U2		1-01 *							1			1-7/8		282
K1-6 PBA 02 H		F01E2		1-02 *												282
K1-6 PBA 02 H				1										1-7/8	1400000000	282
K1-6 PBA 03 H		D01M1		1-01 *							1			2-3/8		283
K1-6 PBA 03 H		E02B1		1-02 *												283
K1-6 PBA 03 H				1										2-3/8	1400000000	283
K1-6 VBA 00(1) H		D02H1		1-01 *							1			4-1/8		284
K1-6 VBA 00(1) H		E01T2		1-02 *												284
K1-6 VBA 00(1) H				1										4-1/8	1400000000	284
K1-8 KT FAULT L		D01D2		1-01 *							1			7-5/8		285
K1-8 KT FAULT L		F02T2		1-02 *												285
K1-8 KT FAULT L				1										7-5/8	1400000000	285
K2-1 CLK MSYN H		C01J1		1-01 *							1			10-3/8		286
K2-1 CLK MSYN H		F02V2		1-02 *												286
K2-1 CLK MSYN H				1										10-3/8	1400000000	286
K2-1 DISABLE WBIT L		D01F2		1-01 *							1			6-7/8		287
K2-1 DISABLE WBIT L		F02S1		1-02 *												287
K2-1 DISABLE WBIT L				1										6-7/8	1400000000	287
K2-1 ENAB ADDR5 L		D02E2		1-01 *							1			5-5/8		288
K2-1 ENAB ADDR5 L		F01B2		1-02 *												288
K2-1 ENAB ADDR5 L				1										5-5/8	1400000000	288

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH	EXCEPTIONS	RUN NUMBER
K2-1 INT MSYN H		C01F2		1-01 *							1			2-7/8		289
K2-1 INT MSYN H		D02C1		1-02 *												289
K2-1 INT MSYN H				1										2-7/8	1400000000	289
K2-1 KTE(1) H		C02M2		1-01 *							1			5-5/8		290
K2-1 KTE(1) H		E01J2		1-02 *												290
K2-1 KTE(1) H				1										5-5/8	1400000000	290
K2-1 MSYN(1) L		C01H2		1-01 *							1			9-1/8		291
K2-1 MSYN(1) L		F02K2		1-02 *												291
K2-1 MSYN(1) L				1										9-1/8	1400000000	291
K2-1 PE(1) H		C01T2		1-01 *							1			1		292
K2-1 PE(1) H		C02T2		1-02 *												292
K2-1 PE(1) H				1										1-0/8	1400000000	292
K2-1 START TRAN L		C01N2		1-01 *							1			4-3/8		293
K2-1 START TRAN L		E02A1		1-02 *												293
K2-1 START TRAN L				1										4-3/8	1400000000	293
K2-1 TRAN INH L		C01K2		1-01 *							1			7-7/8		294
K2-1 TRAN INH L		F02C1		1-02 *												294
K2-1 TRAN INH L				1										7-7/8	1400000000	294
K2-1 UBUS C0(1) H		C01B2		1-01 *							1			4-1/8		295
K2-1 UBUS C0(1) H		D02H2		1-02 *												295
K2-1 UBUS C0(1) H				1										4-1/8	1400000000	295
K2-1 UBUS C1(1) H		C01C1		1-01 *							1			4-3/8		296
K2-1 UBUS C1(1) H		D02J1		1-02 *												296
K2-1 UBUS C1(1) H				1										4-3/8	1400000000	296
K2-2 BG INH L		F01R2		1-01 *							1			2-1/8		297
K2-2 BG INH L		F02B1		1-02 *												297
K2-2 BG INH L				1										2-1/8	1400000000	297
K2-2 PROC INIT L		E01U1		1-01 *							1			1-7/8		298
K2-2 PROC INIT L		F02D2		1-02 *												298
K2-2 PROC INIT L				1										1-7/8	1400000000	298
K2-2 RCD INIT L		C01E2		1-01 *							1			8-7/8		299
K2-2 RCD INIT L		F02E2		1-02 *												299
K2-2 RCD INIT L				1										8-7/8	1400000000	299
K2-2 SACK RET(1) H		C01R2		1-01 *							1			5-3/8		300
K2-2 SACK RET(1) H		E02L1		1-02 *												300
K2-2 SACK RET(1) H				1										5-3/8	1400000000	300
K2-3 C2 H		C02L1		1-01 *							1			2-3/8		301
K2-3 C2 H		D01B2		1-02 *												301
K2-3 C2 H				1										2-3/8	1400000000	301
K2-3 C3 H		C01V1		1-01 *							1			0-5/8		302
K2-3 C3 H		C02S1		1-02 *												302
K2-3 C3 H				1										0-5/8	1400000000	302

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
K2-3 C4 H		C01U1		1-01 *							1		1-5/8	303
K2-3 C4 H		C02N2		1-02 *										303
K2-3 C4 H				1									1-5/8 1400000000	303
K2-3 INT VECTOR L		D01K1		1-01 *							1		7-1/8	304
K2-3 INT VECTOR L		F02U1		1-02 *										304
K2-3 INT VECTOR L				1									7-1/8 1400000000	304
K2-3 INTR H		C01V2		1-01 *							1		7-1/8	305
K2-3 INTR H		F02H1		1-02 *										305
K2-3 INTR H				1									7-1/8 1400000000	305
K2-4 SP WRITE L		E02F1		1-01 *							1		4-7/8	306
K2-4 SP WRITE L		F01V2		1-02 *										306
K2-4 SP WRITE L				1									4-7/8 1400000000	306
K2-4 SPA 00 H		C01D2		1-01 *	H						1	TWP	3-7/8	307
K2-4 SPA 00 H		D02F2		1-02 *	X							TWP		307
K2-4 SPA 00 H				1									3-7/8 1400000000	307
K2-4 SPA 01 H		C01N1		1-01 *	H						1	TWP	2-5/8	308
K2-4 SPA 01 H		D02B2		1-02 *	X							TWP		308
K2-4 SPA 01 H				1									2-5/8 1400000000	308
K2-4 SPA 02 H		C01S1		1-01 *	H						1	TWP	3-1/8	309
K2-4 SPA 02 H		D02L1		1-02 *	X							TWP		309
K2-4 SPA 02 H				1									3-1/8 1400000000	309
K2-4 SPA 03 H		C01U2		1-01 *	H						1	TWP	2	310
K2-4 SPA 03 H		D02D2		1-02 *	X							TWP		310
K2-4 SPA 03 H				1									2-0/8 1400000000	310
K2-5 BYTE L		E01H2		1-01 *							1		3-7/8	311
K2-5 BYTE L		F02L1		1-02 *										311
K2-5 BYTE L				1									3-7/8 1400000000	311
K2-5 CC CODE 00 H		F01S1		1-01 *							1		1-5/8	312
K2-5 CC CODE 00 H		F02J1		1-02 *										312
K2-5 CC CODE 00 H				1									1-5/8 1400000000	312
K2-5 CC CODE 01 H		E01U2		1-01 *							1		2-3/8	313
K2-5 CC CODE 01 H		F02H2		1-02 *										313
K2-5 CC CODE 01 H				1									2-3/8 1400000000	313
K2-5 CC CODE 02 H		F01C1		1-01 *							1		4-7/8	314
K2-5 CC CODE 02 H		F02M2		1-02 *										314
K2-5 CC CODE 02 H				1									4-7/8 1400000000	314
K2-5 LOAD IR H		E01D2		1-01 *							1		4-5/8	315
K2-5 LOAD IR H		F02P2		1-02 *										315
K2-5 LOAD IR H				1									4-5/8 1400000000	315
K2-5 POT CBIT(1) H		F01R1		1-01 *							1		1-2/8	316
K2-5 POT CBIT(1) H		F02K1		1-02 *										316
K2-5 POT CBIT(1) H				1									1-2/8 1400000000	316

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
K2-5 SERIAL SHIFT H		E01F2		1-01 *							1		4-1/8	317
K2-5 SERIAL SHIFT H		F02N1		1-02 *										317
K2-5 SERIAL SHIFT H				1									4-1/8 1400000000	317
K2-6 DISAB LOAD PSW H		D01C1		1-01 *							1		7-7/8	318
K2-6 DISAB LOAD PSW H		F02S2		1-02 *										318
K2-6 DISAB LOAD PSW H				1									7-7/8 1400000000	318
K2-7 LOAD CC L		F01N1		1-01 *							1		1-4/8	319
K2-7 LOAD CC L		F02F2		1-02 *										319
K2-7 LOAD CC L				1									1-4/8 1400000000	319
K2-7 LOAD PSW L		E02N2		1-01 *							1		3-1/8	320
K2-7 LOAD PSW L		F01J2		1-02 *										320
K2-7 LOAD PSW L				1									3-1/8 1400000000	320
K2-8 ALU CIN L		C02R2		1-01 *							1		7-7/8	321
K2-8 ALU CIN L		F01E2		1-02 *										321
K2-8 ALU CIN L				1									7-7/8 1400000000	321
K2-8 ALU MODE H		C02K2		1-01 *							1		8-7/8	322
K2-8 ALU MODE H		F01J1		1-02 *										322
K2-8 ALU MODE H				1									8-7/8 1400000000	322
K2-8 ALU S0 H		C02V2		1-01 *							1		7-1/8	323
K2-8 ALU S0 H		F01B1		1-02 *										323
K2-8 ALU S0 H				1									7-1/8 1400000000	323
K2-8 ALU S1 H		D02D1		1-01 *							1		3-7/8	324
K2-8 ALU S1 H		E01H1		1-02 *										324
K2-8 ALU S1 H				1									3-7/8 1400000000	324
K2-8 ALU S2 H		E01F1		1-01 *							1		0-5/8	325
K2-8 ALU S2 H		E02H1		1-02 *										325
K2-8 ALU S2 H				1									0-5/8 1400000000	325
K2-8 ALU S3 H		E01R2		1-01 *							1		1-7/8	326
K2-8 ALU S3 H		E02F2		1-02 *										326
K2-8 ALU S3 H				1									1-7/8 1400000000	326
K2-8 AUX CONTROL(1) L		D01D1		1-01 *							1		4-5/8	327
K2-8 AUX CONTROL(1) L		E02F1		1-02 *										327
K2-8 AUX CONTROL(1) L				1									4-5/8 1400000000	327
K2-8 BLEG 00 H		C02V1		1-01 *							1		7-1/8	328
K2-8 BLEG 00 H		F01C1		1-02 *										328
K2-8 BLEG 00 H				1									7-1/8 1400000000	328
K2-8 BLEG 01 H		D02N1		1-01 *							1		5-7/8	329
K2-8 BLEG 01 H		F01M2		1-02 *										329
K2-8 BLEG 01 H				1									5-7/8 1400000000	329
K2-8 BMODE 00 L		D02E1		1-01 *							1		6-3/8	330
K2-8 BMODE 00 L		F01L2		1-02 *										330
K2-8 BMODE 00 L				1									6-3/8 1400000000	330

J5

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	RV	RG	Y	X	Z	REMARKS	NC	LENGTH	EXCEPTIONS FLAG	RUN NUMBER
<2-8 BMODE 01 L		C02U2	1-01 *								1			8-7/8		331
K2-8 BMODE 01 L		F01U2	1-02 *													331
K2-8 BMODE 00 L		E01S1	1-01 *								1			1-3/8		332
K2-8 BXMODE 00 L		E02H2	1-02 *													332
K2-8 BXMODE 01 L		E02S2	1-01 *								1			3-1/8		333
K2-8 BXMODE 01 L		F01L1	1-02 *													333
K2-8 DIS UPR BTWRT H		E01P1	1-01 *								1			3-7/8		334
K2-8 DIS UPR BTWRT H		F02R1	1-02 *													334
K2-8 DISABLE MSYN+1 L		C02S2	1-01 *								1			5-7/8		335
K2-8 DISABLE MSYN+1 L		F01M1	1-02 *													335
K2-8 ENAH MAINT(1) H		F01S2	1-01 *								1			1		336
K2-8 ENAH MAINT(1) H		F02U2	1-02 *													336
K2-8 ENAH MAINT(1) H			1											1-0/8	1400000000	336
K2-8 ENAB OVX L		E01N1	1-01 *								1			1-1/8		337
K2-8 ENAB OVX L		E02J1	1-02 *													337
K2-8 ENAB OVX L			1											1-1/8	1400000000	337
K2-8 LOAD BA(1) H		F01D1	1-01 *								1			1		338
K2-8 LOAD BA(1) H		F02D1	1-02 *													338
K2-8 LOAD BA(1) H			1											1-0/8	1400000000	338
K2-8 LONG CYCLE(1) L		F02V2	1-01 *								1			3-7/8		339
K2-8 LONG CYCLE(1) L		F01V1	1-02 *													339
K2-8 LONG CYCLE(1) L			1											3-7/8	1400000000	339
K2-8 MODE 01 H		E02P1	1-01 *								1			3-1/8		340
K2-8 MODE 01 H		F01N2	1-02 *													340
K2-8 MODE 01 H			1											3-1/8	1400000000	340
K2-8 SEX H		C02L2	1-01 *								1			6-1/8		341
K2-8 SEX H		E01J1	1-02 *													341
K2-8 SEX H			1											6-1/8	1400000000	341
K2-8 SHIFT MUX 00 L		F01K2	1-01 *								1			0-4/8		342
K2-8 SHIFT MUX 00 L		F02M1	1-02 *													342
K2-8 SHIFT MUX 00 L			1											0-4/8	1400000000	342
K2-8 SHIFT MUX 01 L		F01U1	1-01 *								1			1-1/8		343
K2-8 SHIFT MUX 01 L		F02P1	1-02 *													343
K2-8 SHIFT MUX 01 L			1											1-1/8	1400000000	343
K2-8 SWAP H		C02P2	1-01 *								1			6-3/8		344
K2-8 SWAP H		E01S2	1-02 *													344
K2-8 SWAP H			1											6-3/8	1400000000	344
K2-9 AMUX SA(1) L		F01D2	1-01 *								1			2-3/8		345
K2-9 AMUX SA(1) L		F02V1	1-02 *													345
K2-9 AMUX SA(1) L			1											2-3/8	1400000000	345
K2-9 AMUX SI(1) L		F01M1	1-01 *								1			1-6/8		346
K2-9 AMUX SI(1) L		F02M2	1-02 *													346
K2-9 AMUX SI(1) L			1											1-6/8	1400000000	346
K2-9 FORC KERNEL(1) H		C01I1	1-01 *								1			5-7/8		347
K2-9 FORC KERNEL(1) H		F02K1	1-02 *													347
K2-9 FORC KERNEL(1) H			1											5-7/8	1400000000	347
K2-9 PREV MODE(1) L		C01S2	1-01 *								1			2-7/8		348
K2-9 PREV MODE(1) L		D02J2	1-02 *													348
K2-9 PREV MODE(1) L			1											2-7/8	1400000000	348
LIC		C03D1	1-01 *	P							2			1		349
LIC		C04D1	1-02 *	P							1			1		349
LIC		C05D1	1-03 *	P							2			1		349
LIC		C06D1	1-04 *	P							1			1		349
LIC		C07D1	1-05 *	P							2			1		349
LIC		C08D1	1-06 *	P							1			1		349
LIC		C09D1	1-07 *	P												349
LIC			1											6-0/8	1400000000	349
MSYN L (1)		R01V1	1-01 *								2			1		350
MSYN L (1)		R02V1	1-02 *								1			1		350
MSYN L (1)		R03V1	1-03 *								2			1		350
MSYN L (1)		B04V1	1-04 *	H							1	TWP		7-1/8		350
MSYN L (1)		E03E1	1-05 *	P							2			1		350
MSYN L (1)		F04F1	1-06 *								1			1		350
MSYN L (1)		E05E1	1-07 *	P							2			1		350
MSYN L (1)		E06E1	1-08 *	P							1			1		350
MSYN L (1)		E07E1	1-09 *	P							2			1		350
MSYN L (1)		E08E1	1-10 *	P												350
MSYN L (1)			1											15-1/8	1400000000	350
MSYN L (2)		E09E1	1-01 *	H							1	TWP		8-3/8		351
MSYN L (2)		B05V1	1-02 *								2			1		351
MSYN L (2)		R06V1	1-03 *								1			1		351
MSYN L (2)		B07V1	1-04 *								2			1		351
MSYN L (2)		B08V1	1-05 *								1			1		351
MSYN L (2)		B09V1	1-06 *													351
MSYN L (2)			1											12-3/8	1400000000	351
MSYN L JMP		E08E1	1-01 *	P							1			1		352
MSYN L JMP		E09E1	1-02 *													352
MSYN L JMP			1											1-0/8	1400000000	352

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH EXCEPTIONS	RUN NUMBER
NPG L		A01U1		1-01 *							1		3-6/8		353
NPG L		C01A1		1-02 *							2		0-1/8		353
NPG L		C01B1		1-03 *	P						2		0-5/8		353
NPG L		C02A1		1-04 *							1		0-1/8		353
NPG L		C02B1		1-05 *	P						2		0-5/8		353
NPG L		C03A1		1-06 *							1		0-1/8		353
NPG L		C03B1		1-07 *	P						2		0-5/8		353
NPG L		C04A1		1-08 *							1		0-1/8		353
NPG L		C04B1		1-09 *	P						2		0-5/8		353
NPG L		C05A1		1-10 *							1		0-1/8		353
NPG L		C05B1		1-11 *	P						2		0-5/8		353
NPG L		C06A1		1-12 *							1		0-1/8		353
NPG L		C06B1		1-13 *	P						2		0-5/8		353
NPG L		C07A1		1-14 *							1		0-1/8		353
NPG L		C07B1		1-15 *	P						2		0-5/8		353
NPG L		C08A1		1-16 *							1		0-1/8		353
NPG L		C08B1		1-17 *	P						2		0-5/8		353
NPG L		C09A1		1-18 *							1		0-1/8		353
NPG L		C09B1		1-19 *							2		3-7/8		353
NPG L		A09U1		1-20 *											353
NPG L				1									13-6/8	1400000000	353
NPR L		A01S2		1-01 *							2		1		354
NPR L		A02S2		1-02 *							1		1		354
NPR L		A03S2	A04S2	1-03 *							2		1		354
NPR L		A04S2		1-04 *	H						1	TWPR	13-3/8		354
NPR L		F03J1		1-05 *	P						2		1		354
NPR L		F04J1		1-06 *	P						1		1		354
NPR L		F05J1		1-07 *	P						2		1		354
NPR L		F06J1		1-08 *	P						1		1		354
NPR L		F07J1		1-09 *	P						2		1		354
NPR L		F08J1	F09J1	1-10 *	P						1		1		354
NPR L		F09J1		1-11 *	H						2	TWPR	14-5/8		354
NPR L		A05S2		1-12 *							1		1		354
NPR L		A06S2		1-13 *							2		1		354
NPR L		A07S2		1-14 *							1		1		354
NPR L		A08S2		1-15 *							2		1		354
NPR L		A09S2		1-16 *											354
NPR L				1									41-0/8	1400000000	354

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC FLAG	LENGTH EXCEPTIONS	RUN NUMBER
PA L		A01M1		1-01 *	P						1		1		355
PA L		A02M1		1-02 *	P						2		1		355
PA L		A03M1		1-03 *	P						1		1		355
PA L		A04M1		1-04 *							2		5-1/8		355
PA L		C03C1		1-05 *							1		1		355
PA L		C04C1		1-06 *							2		1		355
PA L		C05C1		1-07 *							1		1		355
PA L		C06C1		1-08 *							2		1		355
PA L		C07C1		1-09 *							1		1		355
PA L		C08C1		1-10 *							2		1		355
PA L		C09C1		1-11 *							1		6-5/8		355
PA L		A05M1		1-12 *	P						2		1		355
PA L		A06M1		1-13 *	P						1		1		355
PA L		A07M1		1-14 *	P						2		1		355
PA L		A08M1		1-15 *	P						1		1		355
PA L		A09M1		1-16 *	P										355
PA L				1									24-6/8	1400000000	355
PAR DET		B02E2		1-01 *							2		1		356
PAR DET		B03E2		1-02 *							1		1		356
PAR DET		B04E2		1-03 *							2		1		356
PAR DET		B05E2		1-04 *							1		1		356
PAR DET		B06E2		1-05 *							2		1		356
PAR DET		B07E2		1-06 *							1		1		356
PAR DET		B09E2		1-07 *											356
PAR DET				1									6-0/8	1400000000	356
PAR P0		A02P1		1-01 *	P						2		1		357
PAR P0		A03P1		1-02 *	P						1		1		357
PAR P0		A04P1		1-03 *	P						2		1		357
PAR P0		A05P1		1-04 *	P						1		1		357
PAR P0		A06P1		1-05 *	P						2		1		357
PAR P0		A07P1		1-06 *	P						1		1		357
PAR P0		A08P1		1-07 *	P										357
PAR P0				1									6-0/8	1400000000	357
PAR P1		A02N1		1-01 *	P						2		1		358
PAR P1		A03N1		1-02 *	P						1		1		358
PAR P1		A04N1		1-03 *	P						2		1		358
PAR P1		A05N1		1-04 *	P						1		1		358
PAR P1		A06N1		1-05 *	P						2		1		358
PAR P1		A07N1		1-06 *	P						1		1		358
PAR P1		A08N1		1-07 *	P										358
PAR P1				1									6-0/8	1400000000	358

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
PB L		A01N2		1-01 *	P						2		1	359
PB L		A02N2		1-02 *	P						1		1	359
PB L		A03N2		1-03 *	P						2		1	359
PB L		A04N2		1-04 *							1		6-7/8	359
PB L		C03S1		1-05 *	P						2		1	359
PB L		C04S1		1-06 *	P						1		1	359
PB L		C05S1		1-07 *	P						2		1	359
PB L		C06S1		1-08 *	P						1		1	359
PB L		C07S1		1-09 *	P						2		1	359
PB L		C08S1		1-10 *	P						1		1	359
PB L		C09S1		1-11 *							2		7-5/8	359
PB L		A05N2		1-12 *	P						1		1	359
PB L		A06N2		1-13 *	P						2		1	359
PB L		A07N2		1-14 *	P						1		1	359
PB L		A08N2		1-15 *							2		1	359
PB L		A09N2		1-16 *										359
PB L				1									27-4/8 1400000000	359
RESERVED M BUS		C01E1		1-01 *							1		3-7/8	360
RESERVED M BUS		B02A1		1-02 *	P						2		1	360
RESERVED M BUS		B03A1		1-03 *	P						1		1	360
RESERVED M BUS		B04A1		1-04 *	P						2		1	360
RESERVED M BUS		B05A1		1-05 *	P						1		1	360
RESERVED M BUS		B06A1		1-06 *	P						2		1	360
RESERVED M BUS		B07A1		1-07 *	P						1		1	360
RESERVED M BUS		B08A1		1-08 *	P									360
PESERVED M BUS				1									9-7/8 1400000000	360
SACK L		A01R2		1-01 *	P						2		1	361
SACK L		A02R2		1-02 *	P						1		1	361
SACK L		A03R2		1-03 *	P						2		1	361
SACK L		A04R2		1-04 *							1		14-3/8	361
SACK L		F03T2		1-05 *	P						2		1	361
SACK L		F04T2		1-06 *	H						1	2" TWP	1	361
SACK L		F05T2		1-07 *	P						2		1	361
SACK L		F06T2		1-08 *	P						1		1	361
SACK L		F07T2		1-09 *	P						2		1	361
SACK L		F08T2		1-10 *	P						1		1	361
SACK L		F09T2		1-11 *							2		15-7/8	361
SACK L		A05R2		1-12 *	P						1		1	361
SACK L		A06R2		1-13 *	P						2		1	361
SACK L		A07R2		1-14 *	P						1		1	361
SACK L		A08R2		1-15 *	P						2		1	361
SACK L		A09R2		1-16 *	P									361
SACK L				1									43-2/8 1400000000	361
SSYN L (1)		B01U1		1-01 *	P						1		1	362
SSYN L (1)		F02U1		1-02 *	P						2		1	362
SSYN L (1)		B03U1		1-03 *	P						1		1	362
SSYN L (1)		B04U1		1-04 *	H						2	TWP	7-3/8	362
SSYN L (1)		F03J1		1-05 *	P						1		1	362
SSYN L (1)		F04J1		1-06 *							2		2-5/8	362
SSYN L (1)		F04C1		1-07 *	P						2		1	362
SSYN L (1)		F03C1		1-08 *	P									362
SSYN L (1)				1									15-0/8 1400000000	362

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
SSYN L (2)		B09U1		1-01 *	P						1		1	363
SSYN L (2)		B08U1		1-02 *	P						1		1	363
SSYN L (2)		B07U1		1-03 *	P						2		1	363
SSYN L (2)		B06U1		1-04 *	P						1		1	363
SSYN L (2)		B05U1		1-05 *	H						2	TWP	9-1/8	363
SSYN L (2)		E09J1		1-06 *	P						1		1	363
SSYN L (2)		E08J1		1-07 *	P						2		1	363
SSYN L (2)		E07J1		1-08 *	P						1		1	363
SSYN L (2)		E06J1		1-09 *	P						2		1	363
SSYN L (2)		F05J1		1-10 *							1		2-5/8	363
SSYN L (2)		F05C1		1-11 *	P						1		1	363
SSYN L (2)		F06C1		1-12 *	P						2		1	363
SSYN L (2)		F07C1		1-13 *	P						1		1	363
SSYN L (2)		F08C1		1-14 *	P						2		1	363
SSYN L (2)		F09C1		1-15 *	P									363
SSYN L (2)				1									23-6/8 1400000000	363
SSYN L JMP		F05C1		1-01 *	H						1	2" TWP	1	364
SSYN L JMP		F04C1		1-02 *										364
SSYN L JMP				1									1-0/8 1400000000	364

8 C 1

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PRINT SET H777-B	MPØØØ16
CONSOLE ASSY. EXPANSION BOX	D-AD-7012540-0-0
INSTALLATION AID	E-AD-7012588-0-0
DRAWING DIRECTORY BA11-L	B-DD-BA11-L

UNIT VARIATIONS COVERED BY THIS PRINT SET	
BA11-LA	MANUFACTURING USE ONLY
BA11-LB	
BA11-LC	
BA11-LD	
BA11-LE	EXPANSION BOX
BA11-LF	
BA11-LH	
BA11-LJ	
BA11-LK	MANUFACTURING USE ONLY
BA11-LL	
BA11-LM	
BA11-LN	

BA11-L
Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØØ18

REVISIONS		
REV.	CHG. NO.	DATE
A	BA11-L-4	APR-76
B	BA11-L-6	OCT-76
C	BA11-L-8	MAR-77
D	BA11-L-9	APR-77

USED ON OPTION/MODEL	
11/Ø4	
11/34	

SHEET I OF 1

DRN. D. HEALY	DATE 9/30/75	digital
CHK'D D. HEALY	DATE 9/30/75	TITLE: FIELD MAINTENANCE PRINT SET BA11-L
PROJ. ENG. R.Barry	DATE 10-22-75	SIZE B / CODE TC / NUMBER BA11-L-1 / REV D
FIELD SERV.	DATE	DIST.

EK-0101Z-NG-76-1 (2271)

DRB 124

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12 13 } (QTY-1) (BOTTOM)
31 (QTY-1) (TOP)
GND STUD
31 (QTY-1) BOTTOM
24 (QTY-1) TOP
POWER SUPPLY CORD PART OF ITEM 1 OR 2 OR 25 OR 26
46 OR 47 OR 48 OR 49 1 OR 2 OR 25 OR 26
32 13 12 } QTY 2
12 27 (BOTH SIDES)
33 (QTY 2)
28 SEE NOTE #5
CABLE FROM 5V REG PART OF H777 PS.
44 (QTY 3)
23 (QTY 3)
VIEW A-A SCALE 1/1
2 REF OR 1 REF
3 REF
12 13 32
CONNECT BLK/WHT TWP FROM H777 TO FAN
19 REF
21
18 REF
17
22
(QTY) 12 13
57+58
SEE VIEW D-D
15.76 ±.015
55
8
12 13 (QTY 2)
SEE NOTE #3
SERVICE LOOP
17
15
16 (QTY 2)
A A
1.5
SEE NOTE 8
CAB FRAME REF
54
5 REF
53
31 (QTY 2)
SEE VIEW A-A
6
B B
17 REF
36 37 (QTY 2)
2.38 REF
35 21 (QTY 4)
19 (QTY 2)
65 REF
54 REF
88 REF
12 13 (QTY 2)
35 21 (QTY 2) SEE NOTE 7
POSITION #1 REF
CAB FRAME REF
5
35 34 SEE NOTE 7
28 REF
4
20
13 12 } (QTY 2)
7
AIR FLOW
9 (QTY 4)
11 (QTY 4)
29 30 SEE NOTE #6
12 13 (QTY 2)
VIEW D-D SCALE 1/2 ROTATED AS SHOWN
NFPA TYPE II
3.19 REF
.91 REF
.67 REF
.88 REF
2.38 REF
5 REF
3 REF
5 REF
32 (2 REQ)
38 37
39 40 41
SECTION B-B SCALE: NONE
USE EXISTING HARDWARE ON SHIPPING BRACKET
AC POWER CORD REF
56
VIEW C-C SEE NOTE 9

NOTES:

~~1. CUT ITEM #25 AS INDICATED BY VIEW A. ATTACH TIE OF ITEM #23. WILL MAKE TWO PIECES TYP 6 PLACES. TWO ITEM #16 REQD.~~

~~2. USE ITEM #23 AS IS. NO REWORK IS REQD. TYP 6. ITEM #23 REQD.~~

3. ITEM #17 SERVICE LOOP SHOULD BE 24 INCHES.
4. BA11-LA, LB, LC, LD, LK, LL, LM AND LN (MANUFACTURING USE ONLY). BA11-LE, LF, LH AND LJ (CABLE EXPANSION BOX).
5. ADD CONSOLE FOR EXPANSION BOX ONLY.
6. ALTERNATE COLORS: POSITIONS 1, 3, 5, 7 & 9 TO HAVE MAGENTA. POSITIONS 2, 4, 6, & 8 TO HAVE NATURAL.
7. HARDWARE FOR MOUNTING ITEM 5 (ENCLOSURE ASSEMBLY) TO CABINET.
8. ITEM #54 TO BE USED A/R TO TAKE UP ANY GAP PRESENT BETWEEN ENCLOSURE AND CABINET UPRIGHTS.
9. STRAIN RELIEF POWER CORD, ON VARIATIONS THAT HAVE REMOVABLE A.C. CORD, AS SHOWN.
10. EXPANDER BOX VERSIONS BA11-LE, LF, LH & LJ CANNOT BE CONFIGURED WITH 4 OF 9 SLOT BACKPLANES THAT HAVE POWER HARNESS ROUTED ALONG BOTTOM (SLOT 9). A WIRE STRIPPING HAZARD WOULD EXIST IF THESE COMBINATIONS WERE CONFIGURED AS SUCH. EXAMPLES OF PROBLEMATIC BACKPLANE CONFIGURATIONS ARE: SKII-DQ11-AA, DA11-F, TMB11, DD11-B, DQ11-AB, RH11, DH11, DB11-A, DJ11, VT48 & VT11.

LEGEND

PART NO.	VARIATION
BA11-LA	5.25 BOX + H777-AA 115V CORE MOS
BA11-LB	5.25 BOX + H777-AB 230V
BA11-LC	5.25 BOX + H777-BA 115V MOS ONLY
BA11-LD	5.25 BOX + H777-BB 230V MOS ONLY
BA11-LE	5.25 BOX + H777-CA 115V + CONSOLE (CORE + MOS)
BA11-LF	5.25 BOX + H777-CB 230V + CONSOLE (CORE + MOS)
BA11-LH	5.25 BOX + H777-DA 115V + CONSOLE (MOS ONLY)
BA11-LJ	5.25 BOX + H777-DB 230V + CONSOLE (MOS ONLY)
BA11-LK	5.25 BOX + H777-CA 115V CORE MOS
BA11-LL	5.25 BOX + H777-CB 230V CORE + MOS
BA11-LM	5.25 BOX + H777-DA 115V MOS ONLY
BA11-LN	5.25 BOX + H777-DB 230V MOS ONLY

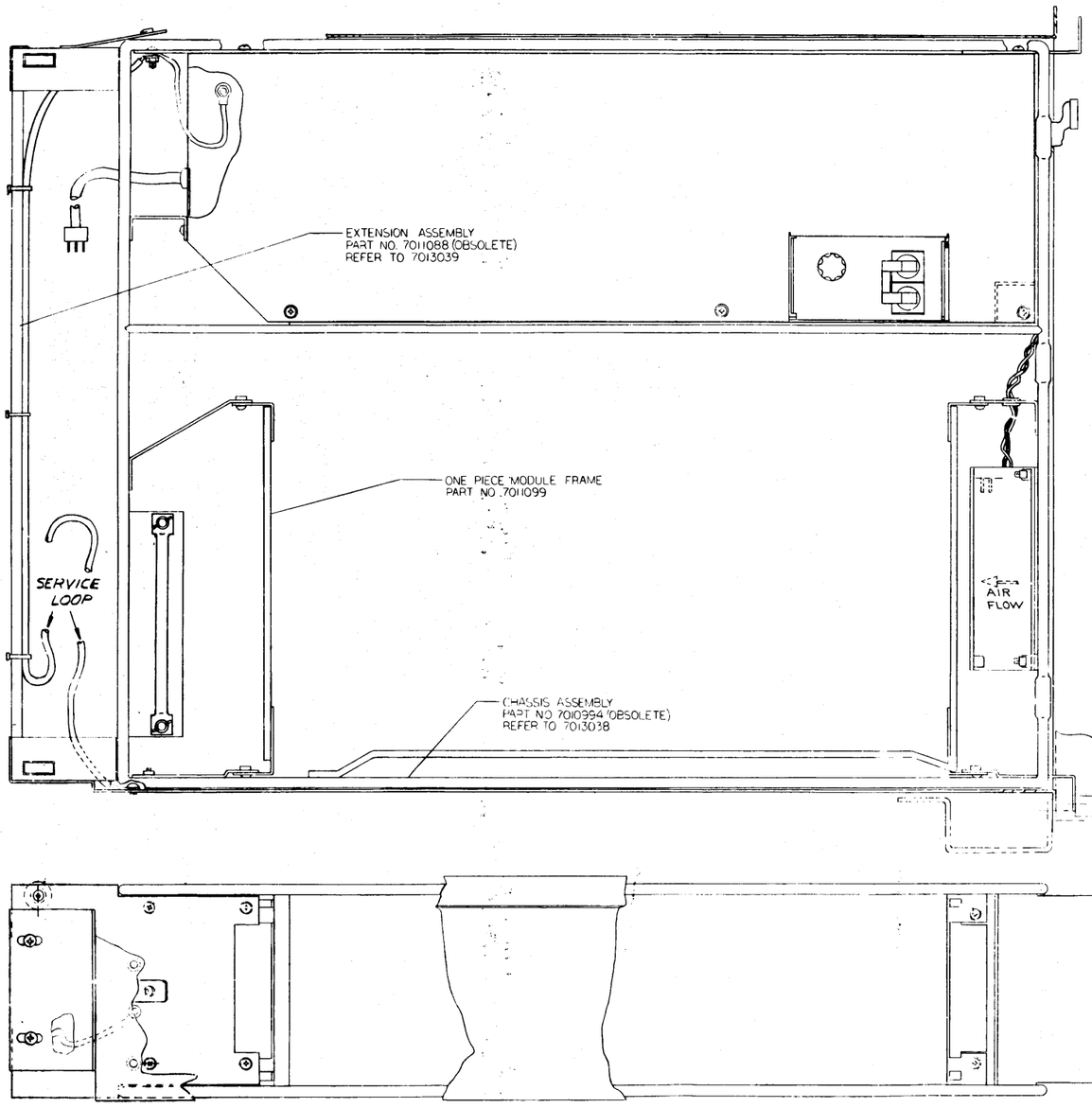
SEE NOTE #10

FOR PARTS LIST SEE A-PL-BA11-L-0

QUANTITY & VARIATION
THIRD ANGLE PROJECTION
TITLE: BOX 5.25 BA11-L (230V/115V)
BA11-L
SIZE A
REV A
SHEET 1 OF 1

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DRN G. MARINI	9-3-75	FIRST USED ON 11104	
CHK'D D. HEALY	9-30-75	TITLE BOX 5.25 BA11-L (230V/115V)	
ENG			
PROJ. ENG.			
PROG			
NEXT HIGHER ASSY. B-BO-BA11-L		SIZE E	CODE UA BA11-Ø
SCALE 1/1		DIST.	REV. K
SHEET 2 OF 2			

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY G. MARINI	CHECKED D. HEALY	SECTION
DATE 3-SEP-75	DATE 30-SEP-75	
ENG R. BARRY	PROD R.K. PETERSON	ISSUED SECT.
DATE 2-OCT-75	DATE 2-OCT-75	

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	BA11-LA	BA11-LB	BA11-LC	BA11-LD	BA11-LE	BA11-LF	BA11-LH	BA11-LJ	BA11-LK	BA11-LL	BA11-LM	BA11-LN
			QUANTITY/VARIATION											
1	E-UA-H777-DA-0	POWER SUPPLY H777(115V)	-	-	-	-	-	-	1	-	-	-	1	-
2	E-UA-H777-DB-0	POWER SUPPLY H777(230V)	-	-	-	-	-	-	-	1	-	-	-	1
3	E-IA-7013038-0-0	CHASSIS ASSY	1	1	1	1	1	1	1	1	1	1	1	1
4	C-IA-7012653-0-0	MODULE FRAME, RIGHT SIDE	1	1	1	1	1	1	1	1	1	1	1	1
5	D-AD-7011132-0-0	ENCLOSURE ASSY	1	1	1	1	1	1	1	1	1	1	1	1
6	D-IA-7013039-0-0	EXTENSION CHASSIS ASSY	1	1	1	1	1	1	1	1	1	1	1	1
7	1213013-0-0	FAN (115V) 50/60HZ	1	1	1	1	1	1	1	1	1	1	1	1
8	C-IA-7012846-0-0	MODULE FRAME, LEFT SIDE	1	1	1	1	1	1	1	1	1	1	1	1
9	9006025-2	SCR, PHL FLAT HD 6-32 .62L	4	4	4	4	4	4	4	4	4	4	4	4
~~10~~	~~9006633~~	~~WASHER INT. TOOTH LOCK #6~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~-~~	~~-~~	~~-~~	~~-~~
11	9009165	CLIP MTG #6-32	4	4	4	4	4	4	4	4	4	4	4	4
12	9006037-3	SCR PHL HD TRUSS #8-32 x .38L	17	17	17	17	18	18	18	18	13	13	13	13
13	9006634	WASHER INT TOOTH LOCK #8	13	13	13	13	13	13	13	13	13	13	13	13
~~14~~	~~9006038-1~~	~~SCR, PHL HD PAN #6-32 x .25~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~				
15	B-MD-7413846-0-0	BAR, CABLE STRAIN REL	1	1	1	1	1	1	1	1	1	1	1	1
16	9009711	NUT, WING #6-32	2	2	2	2	2	2	2	2	2	2	2	2
17	C-IA-7011412-03-0	CABLE, CHASSIS GND	1	1	1	1	1	1	1	1	1	1	1	1
18	C-IA-7011412-0F-0	CABLE CHASSIS GND	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
19	C-MD-7414963-0-0	BRKT, SHIPPING & CAB MT	2	2	2	2	2	2	2	2	2	2	2	2
20	9007023	GROMMET .31 ID x .62 O.D.	1	1	1	1	1	1	1	1	1	1	1	1
21	9006565	NUT, KEPS #10-32	7	7	7	7	7	7	7	7	7	7	7	7
22	9007031	TIE WRAP	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
BOX 5.25 BA11-L (230V/115V)	E-UA-BA11-L-Ø	A	PL	BA11-L-Ø	K	BA11-1 00009
	SHEET 1 OF 3	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY G. MARINI	CHECKED D. HEALY	SECTION
DATE 3-SEP-75	DATE 30-SEP-75	
ENG R. BARRY	PROD R.K. PETERSON	ISSUED SECT.
DATE 2-OCT-75	DATE 2-OCT-75	

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	BA11-LA	BA11-LB	BA11-LC	BA11-LD	BA11-LE	BA11-LF	BA11-LH	BA11-LJ	BA11-LK	BA11-LL	BA11-LM	BA11-LN
			QUANTITY/VARIATION											
23	1211630-0	CENTER CARD GUIDE	3	3	3	3	3	3	3	3	3	3	3	3
24	9009836-0	SCREW PHL TRUSS HD #8-32 x .25L LOCKING	1	1	1	1	1	1	1	1	1	1	1	1
25	E-UA-H777-CA-0	POWER SUPPLY H777 (115V)	-	-	-	-	1	-	-	-	1	-	-	-
26	E-UA-H777-CB-0	POWER SUPPLY H777(230V)	-	-	-	-	-	1	-	-	-	1	-	-
27	9008072	WASHER, EXT. TOOTH #8	2	2	2	2	7	7	7	7	2	2	2	2
28	D-AD-7012540-0-0	CONSOLE ASSY	-	-	-	-	1	1	1	1	-	-	-	-
29	1212405-4	CARD GUIDE, SINGLE	4	4	4	4	4	4	4	4	4	4	4	4
30	1212405-5	CARD GUIDE, SINGLE	5	5	5	5	5	5	5	5	5	5	5	5
31	9009836-1	SCR.,PHL.HD. TRUSS #8-32 x .38 (LOCKING)	4	4	4	4	4	4	4	4	4	4	4	4
32	9006666	WASHER, FLAT #8	5	5	5	5	5	5	5	5	5	5	5	5
33	9006664	WASHER, FLAT	-	-	-	-	4	4	4	4	-	-	-	-
34	9007786	NUT-10-32 SELF RETAINING	4	4	4	4	4	4	4	4	4	4	4	4
35	9006071-03	SCR.,PHL. TRUSS HD. #10-32 x .38	10	10	10	10	10	10	10	10	10	10	10	10
36	9006035-3	SCR.,PHL. TRUSS HD. #8-32 x .25	2	2	2	2	2	2	2	2	2	2	2	2
37	B-MD-7417606	SLEEVE, ROLLER	2	2	2	2	2	2	2	2	2	2	2	2
38	B-MD-7417607	ROLLER	2	2	2	2	2	2	2	2	2	2	2	2
39	9009483-03	SCR.,PHL. TRUSS HD. #8-32 x .75	2	2	2	2	2	2	2	2	2	2	2	2
40	9006690	WASHER, SPLIT LOCK #8	2	2	2	2	2	2	2	2	2	2	2	2
41	9006561	NUT, HEX #8-32	2	2	2	2	2	2	2	2	2	2	2	2
42	3700061	CUST. SHIPPING PKG.	-	-	-	-	1	1	1	1	-	-	-	-
43	3700133	INPLANT PACKAGING	-	-	-	-	1	1	1	1	-	-	-	-
~~44~~	~~1212405-10~~	~~CARD GUIDE, SINGLE MATING~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~				

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
BOX 5.25 BA11-L (230V/115V)	E-UA-BA11-L-Ø	A	PL	BA11-L-Ø	K	
	SHEET 2 OF 3	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY G. MARINI	CHECKED D. HEALY	SECTION
DATE 3-SEP-75	DATE 30-SEP-75	
ENG R. BARRY	PROD R.K. PETERSON	ISSUED SECT.
DATE 2-OCT-75	DATE 2-OCT-75	

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	BA11-LA	BA11-LB	BA11-LC	BA11-LD	BA11-LE	BA11-LF	BA11-LH	BA11-LJ	BA11-LK	BA11-LL	BA11-LM	BA11-LN
			QUANTITY/VARIATION											
44	C-MD-7418077	CARD GUIDE CENTER	3	3	3	3	3	3	3	3	3	3	3	3
~~45~~	~~1209403-01~~	~~FAN (115V) 50/60 HZ~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
46	E-UA-H777-BA-0	POWER SUPPLY H777 (115V)	-	-	1	-	-	-	-	-	-	-	-	-
47	E-UA-H777-BB-0	POWER SUPPLY H777 (230V)	-	-	-	1	-	-	-	-	-	-	-	-
48	E-UA-H777-AA-0	POWER SUPPLY H777 (115V)	1	-	-	-	-	-	-	-	-	-	-	-
49	E-UA-H777-AB-0	POWER SUPPLY H777 (230V)	-	1	-	-	-	-	-	-	-	-	-	-
~~50~~	~~B-IA-7010994-0-0~~	~~CHASSIS ASSY~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~51~~	~~D-IA-7011099-0-0~~	~~FRAME MODULE~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~52~~	~~D-IA-7011088-0-0~~	~~CHASSIS ASSY EXTENSION~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
53	B-IA-7418258	STRAP, GROUND	1	1	1	1	1	1	1	1	1	1	1	1
54	B-MD-7418259	SPACER. ENCLOSURE	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
55	9007035	GROMMET CATERPILLAR	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
56	9007083	CLAMP,CABLE	-	-	-	-	1	1	1	1	1	1	1	1
57	A-DC-5309413-0-0	DECAL, NFPA	1	1	1	1	1	1	1	1	1	1	1	1
58	A-DC-5309414-0-0	DECAL, UL	1	1	1	1	1	1	1	1	1	1	1	1

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
BOX 5.25 BA11-L (230V/115V)	E-UA-BA11-L-Ø	A	PL	BA11-L-Ø	K	
	SHEET 3 OF 3	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

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BOARD, POWER DISTRIBUTION H777	D-CS-5411586-0-1
H777 +5V REGULATOR	D-CS-5411597-0-1
AC INPUT ASSY	D-AD-7011075-0-0
MOS REGULATOR H777	D-CS-5411601-0-1
CORE REGULATOR H777	D-CS-5411599-0-1
POWER SUPPLY H777-0 (PL)	A-PL-H777-0-0

UNIT VARIATIONS COVERED BY THIS PRINT SET
H777-BA (MOS ONLY)
H777-BB (MOS ONLY)
H777 AA (CORE/MOS)
H777-AB (CORE/MOS)

H777-0 VOL.1

Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MP00016

REVISIONS			
REV.	CHG. NO.	DATE	
D	H777-2	JAN-77	REVISED & REDRAWN

USED ON OPTION/MODEL	
BA11-LA	
BA11-LB	
BA11-LC	
BA11-LD	
BA11-LE	
BA11-LF	
BA11-LH	
BA11-LJ	

SHEET I OF 1

DRN.	D. HEALY	DATE 9/20/75
CHK'D	D. HEALY	DATE 9/20/75
PROJ. ENG.	R. BARRT	DATE 10/22/75
FIELD SERV.		DATE

digital

TITLE: FIELD MAINTENANCE SET H777-0

SIZE	CODE	NUMBER	REV.
B	TC	H777-0-1	D

DIST.

EN-01124-16-NOTS-(227)

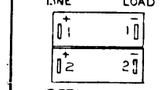
DRB 124

(83)

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CB-1

LINE LOAD



DETAIL-A
WIRING SIDE OF CKT BREAKER PART OF ITEM #10

WIRE TABLE

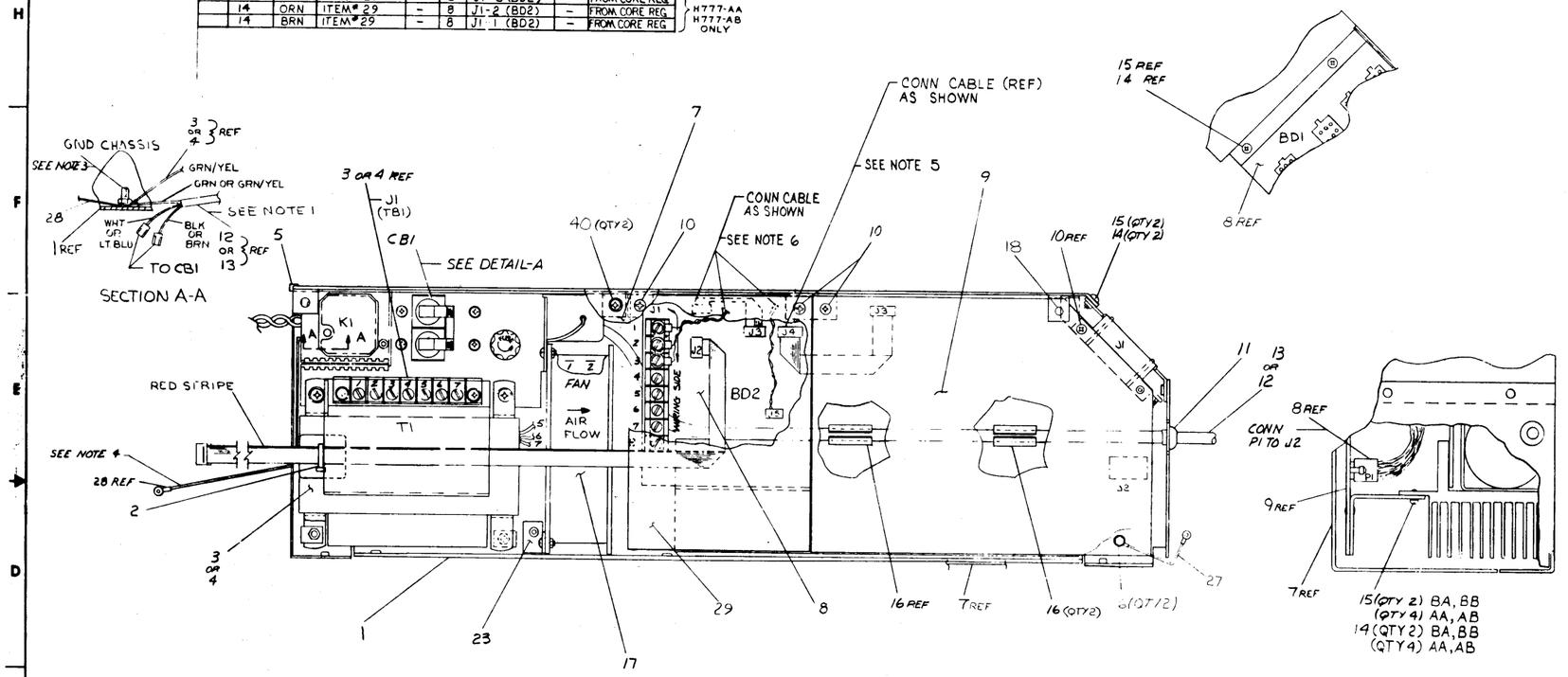
ITEM NO	DESCRIPTION AWG	COLOR	FROM CONNECTION	WITH	TO ITEM	TO CONNECTION	WITH	REMARKS
	12 OR 13	14	BLK	—	—	3 OR 4	CB1-(+) LINE	—	
		14	WHT	—	—	3 OR 4	CB1-2(+) LINE	—	
	13	14	GRN	—	—	1	GND CHASSIS	6	
	4 OR 3	14 TRPL TW	BLU BLU/BLK	T1-5 T1-6 T1-7	— — —	8 8 8	J1-7 (BD2) J1-6 (BD2) J1-8 (BD2)	— — —	
	3 OR 4	18 TWP	GRY BLK	— —	— —	8 8	J1-4 (BD1) J1-5 (BD1)	— —	
	3 OR 4	18 TWP	WHT BLK	— —	— —	4 4	FAN-1 FAN-2	— —	
	3 OR 4	14	GRN/YEL	EMI-3 (REF)	—	8	GND CHASSIS	6	
	28	14	GRN/YEL	GND CHASSIS	6				CONSOLE GND
	27	14	GRN/YEL	GND CHASSIS	6				CHASSIS, GND
		14	BLK	ITEM # 29	—	8	J1-3 (BD2)	—	FROM CORE REG
		14	ORN	ITEM # 29	—	8	J1-2 (BD2)	—	FROM CORE REG
		14	BRN	ITEM # 29	—	8	J1-1 (BD2)	—	FROM CORE REG

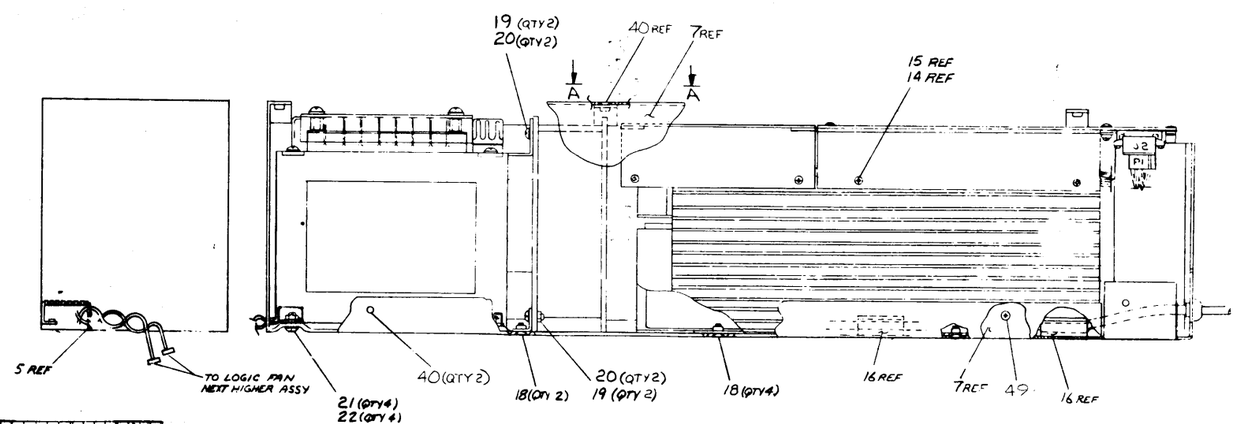
H777-AA, H777-AB ONLY

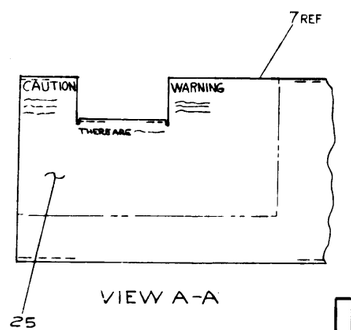
LEGEND

PART NO	VARIATION
H777-BA	P.S. MOS ONLY 115V
H777-BB	P.S. MOS ONLY 230V
H777-AA	P.S. CORE/MOS 115V
H777-AB	P.S. CORE/MOS 230V

NOTES:
1. MAKE 5 INCH SERVICE LOOP AT HOOK UP END.
2. APPLY SELF STICK INS SHEET (ITEM #24) TO UNDER SIDE OF POWER SUPPLY COVER IN AREA OF HEAT SINKS (CORE & MOS REGS).
3. APPLY SELF STICK ITEM 26 BESIDE THIS GND STUD.
4. ITEM 28 IS A GND CABLE TO GND THE FRONT PANEL CASTINGS FOR MOS AND CORE REGULATORS.
5. CABLE PART OF ITEM #9.
6. CABLE & WIRES ARE PART OF ITEM #29.







VIEW A-A

CAUTION:
UNIT ASSEMBLY FOR OPTIONS AA, AB, BA, AND BB ONLY

SEE SHEET 2 FOR OPTIONS CA, CB, DA, AND DB

SEE A-PL-H777-0 FOR PARTS LIST

DRAWN	D. Cox	11/4/77	PRINT ULID OR BA11-L
CHK'D	D. Knapp	11/14/77	
ENG'G	R. Rancourt	11/14/77	TITLE POWER SUPPLY ASS'Y (H777)
PROJ. ENG'R		11/15/77	
PROD'N		11/15/77	NEXT HIGHER ASS'Y
MATERIAL	SEE PARTS LIST		SIZE E CODE 03432 DWG NO H777-0-0 REV A
FINISH			SCALE NONE SHEET 1 OF 2

THIRD ANGLE PROJECTION
REMOVE BURRS AND BREAK SHARP CORNERS
DO NOT SCALE DWG

DESCRIPTION | DWG/PART NO. | ITEM NO

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ± 30' | SURFACE QUALITY 125 MICROINCHES | QUANTITY & VARIATION | DECIMALS ± TOP ACCUMULATIVE (CHECK ONE) | MACHINED ☐ | COMPOSED ☐

.X	.XX	.XXX	FRACT	.XXXX
± .1	± .03	± .010	± 1/64	± .005
± .01	± .010	± .005	± 1/32	± .001
± .005	± .005	± .001	± 1/64	± .0005

H777-0

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CBI

LINE LOAD

DETAIL-A
WIRING SIDE OF CKT BREAKER PART OF ITEM#10

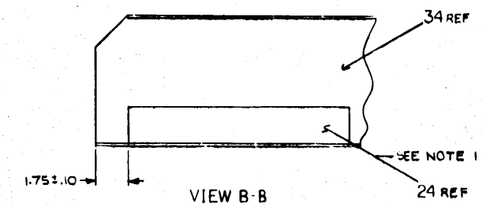
WIRE TABLE

ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO ITEM	TO CONNECTION	TO WITH	REMARKS
53	14	BLU	ITEM 35	SLDR	26	EMI LINE -1	—	AC LINE CORD
52	14	BRN	ITEM 35	SLDR	34	EMI LINE -2	—	AC LINE CORD
54	14	GRN/YEL	ITEM 35	SLDR	31	AC GND/CHASSIS	—	AC LINE CORD
4 OR 3	14 TRPL TW	BLU BLU/BLK BLU	T1-5 T1-6 T1-7	— — —	8 8 8	J1-7 (BD2) J1-6 (BD2) J1-8 (BD2)	— — —	SEC VOLTAGE
8 OR 4	18 TWP	GRY BLK	— —	— —	8 8	J1-4 (BD1) J1-5 (BD1)	— —	TO RELAY COIL
3 OR 4	18 TWP	WHT BLK	— —	— —	4 4	FAN-1 FAN-2	— —	POWER SUPPLY FAN POWER
28	14	GRN/YEL	GND CHASSIS#2	G	—	—	—	CONSOLE GND
27	14	GRN/YEL	GND CHASSIS#1	G	—	—	—	CHASSIS, GND
	14	BLK	ITEM#29	—	8	J1-3 (BD2)	—	FROM CORE REG
	14	ORN	ITEM#29	—	8	J1-2 (BD2)	—	FROM CORE REG
	14	BRN	ITEM#29	—	8	J1-1 (BD2)	—	FROM CORE REG
42	14 TWP	BRN BLU	EMI-2 LOAD EMI-1 LOAD	41 41		CB(+2) LINE CB(+1) LINE	41 41	

H777-CA H777-CB ONLY

LEGEND

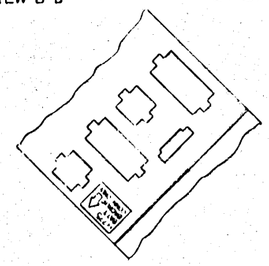
PART NO	VARIATION
H777-DA	P.S. MOS ONLY 115V
H777-DB	P.S. MOS ONLY 230V
H777-CA	P.S. CORE/MOS 115V
H777-CB	P.S. CORE/MOS 230V

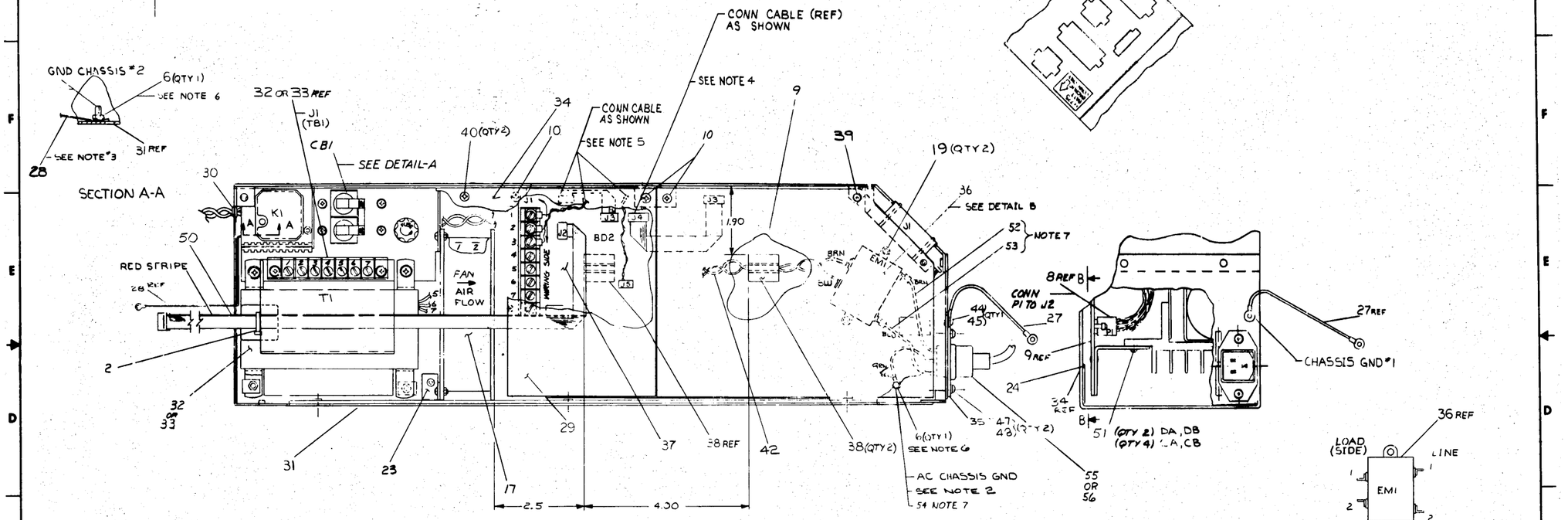


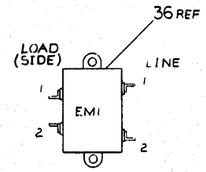
VIEW B-B

NOTES:

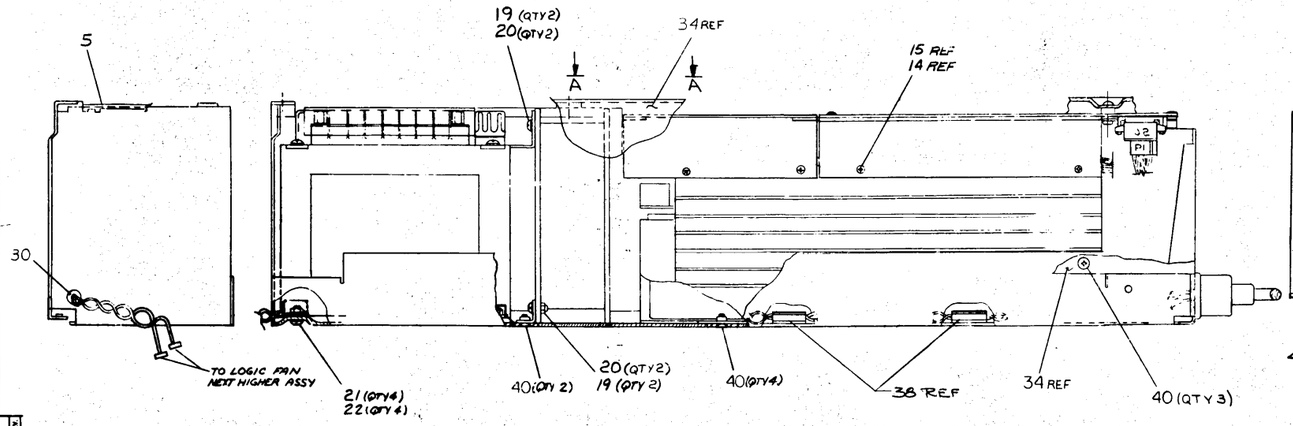
1. APPLY SELF STICK MS SHEET (ITEM#28) TO UNDER SIDE OF POWER SUPPLY COVER IN AREA OF HEAT SINKS (CORE & MOS REGS).
2. APPLY SELF STICK ITEM 26 BESIDE THIS GND STUD.
3. ITEM 28 IS A GND CABLE TO GND THE FRONT PANEL CASTINGS FOR MOS AND CORE REGULATORS.
4. CABLE PART OF ITEM#9.
5. CABLE & WIRES ARE PART OF ITEM#29.
6. ITEM#6 (METRIC NUT M4) CAN BE USED AS A REPLACEMENT IN FIELD IF NECESSARY.
7. INSTALL ITEM 41 OVER SOLDER ENDS PRIOR TO SOLDERING

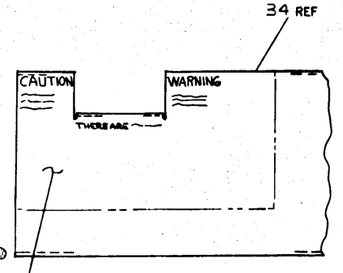






DETAIL B





VIEW A-A

CAUTION

UNIT ASSEMBLY FOR OPTIONS: CA, CB, DA, AND DB ONLY.

SEE SHEET 1 FOR OPTIONS AA, AB, BA, AND BB.

OFF SHEET PARTS LIST SEE: A-A-H777-0-0

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES, DECIMALS AND ANGLES
FRACTIONS ±1/32
SURFACE QUALITY 125 MICROINCHES
THIRD ANGLE PROJECTION
REMOVE BURRS AND BREAK SHARP CORNERS
DO NOT SCALE DWG
MATERIAL SEE PARTS LIST
FINISH

DRAWN	BAII-L	27-JUL-72
CHK'D		28-JUL-72
ENG'D		31-JUL-72
PROJ. ENG		1-AUG-72
PROD.		1-AUG-72
NEXT HIGHER ASSY.	B-DD-H777-0	
SCALE	NONE	
SHEET	2 OF 2	

FIRST USED ON: BAII-L

TITLE: POWER SUPPLY ASSY (H777)

SIZE E CODE UA NUMBER H777-0-0 REV K

H777-0-0

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WIRE CHART

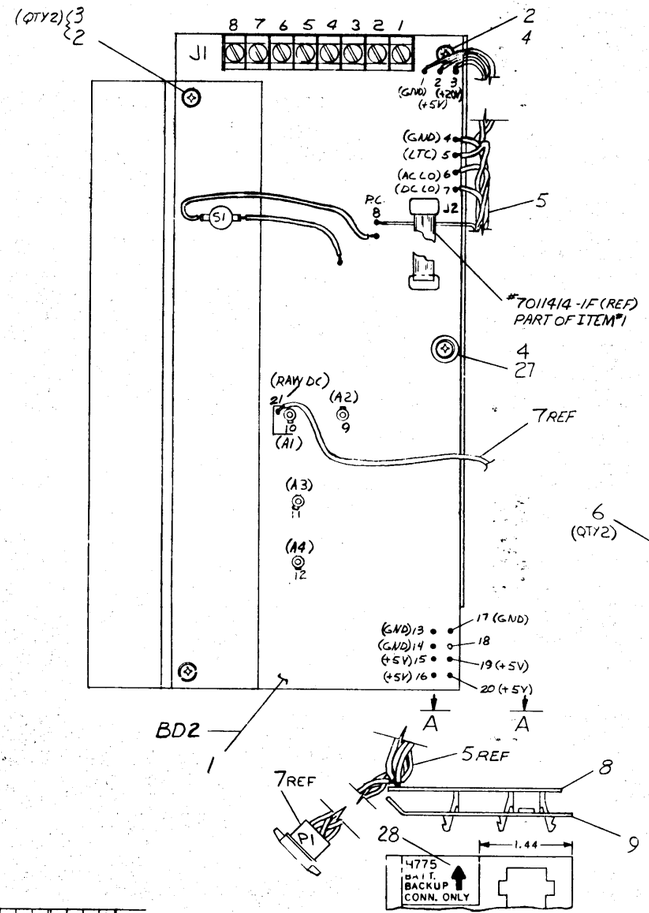
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT NO	FROM CONN	TO POINT NO	TO CONN
5	20	WHT	1	BD2-8	18	BD1-15
	14	BRN	2	2	9	1
	14	BLK	3	1	12	5
	14	ORN	4	3	13	7
	20	BRN	5	5	19	14
	20	BLK	6	4	20	16
	20	YEL	7	6	16	12
	20	VIO	8	7	17	13
	14	BLK	30	BD2-17	10	BD1-3

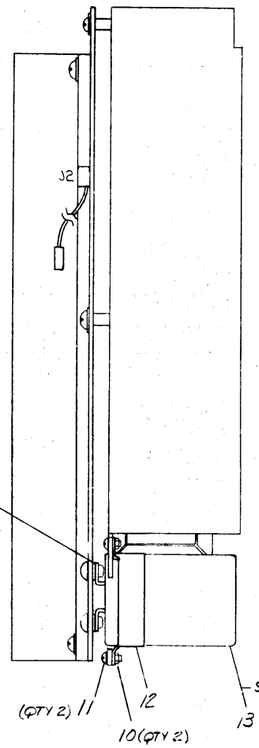
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT NO	FROM CONN	TO POINT NO	TO CONN
5	14	BLK	28	BD2-13	11	BD1-4
		RED	29	15	14	9
		RED	26	19	15	10
		BLK	25	14	21	17
		RED	24	16	22	19
	14	RED	27	BD2-20	23	BD1-20
7	18	BLU	1	BD1-21	* 11	—
	14	BLK	2	BD1-18	* 8	—
	18	RED	3	BD1-11	* 14	—

ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT NO	FROM CONN	TO POINT NO	TO CONN
7	18	GRY	4	BD1-8	* 9	—
	18	WHT	5	BD1-6	* 10	—
	14	RED	6	BD2-21	* 13	—
	18	GRN	7	BD1-2	12	—
25	14	GRN	—	C1(+)	—	C2(+)
25	14	GRN	—	C1(-)	—	C2(-)
23	14	RED	—	BD2-10	—	C1(+)
24	14	BLK	—	BD2-9	—	C1(-)
22	—	BARE	—	—	—	BD2-11
22	—	BARE	—	—	—	BD2-12

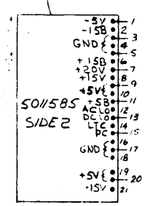
NOTES:

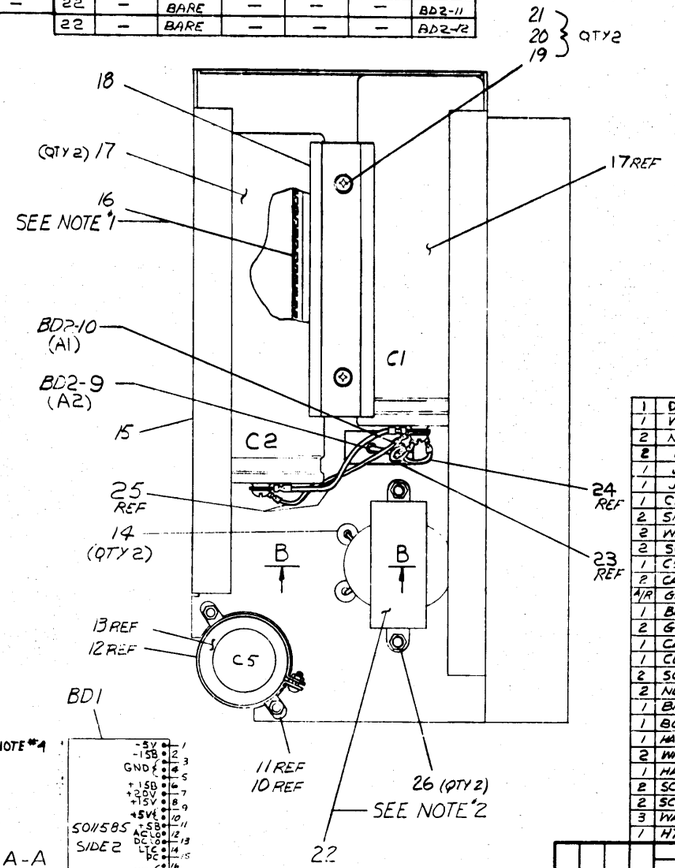
1. USE ITEM #16 (GROMMET) TO COVER RAW METAL EDGES UNDER CAPACITORS.
2. LEADS FROM ITEMS #22, 23 & 24 ARE TO BE CUT FLUSH WITH TOP OF CLAMPS ON ITEM #1. A1, A2, A3 & A4
3. * ASTERISK INDICATES THAT THESE CONN. ALREADY HAVE BEEN MADE ON PLUG P1 ON HARNESS D-IA-7011560-0-0 THEY ARE SHOW FOR REF ONLY.
4. ITEMS #17 & #13 ARE TO HAVE THEIR ELECTRICAL CONNECTIONS TORQUED TO 12 IN-LBS (-0, +10) IN-LBS.

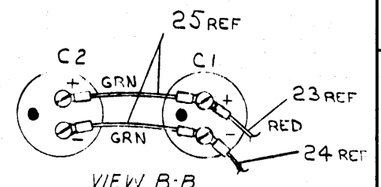




VIEW A-A
SCALE: NONE







VIEW B-B
SCALE: NONE
SEE NOTE 4

ITEM NO	DESCRIPTION	DWG./PART NO.	QTY
1	DECAL	A-DC-7416911-0-0	28
1	WASHER NYLON #6	9006107	27
2	NUT KEPS #8-32	9006563	26
2	JUMPER (GRN)	B-IA-7011B04-0-0	25
1	JUMPER (BLK)	B-IA-7011B02-0-0	24
1	JUMPER (RED)	B-IA-7011B01-0-0	23
1	CHOKE	1612584	22
2	SPACER HEX #8-32 X 1.38L	9008258	21
2	WASHER INT TOOTH LOCK #8	9006634	20
2	SCR PHIL HD PAN 8-32 X .50L	9006037-1	19
1	CLAMP CAPACITOR	C-MD-74M021-0-0	18
2	CAPACITOR 20 MF 50V	1010702	17
A/R	GROMMET CATERPILLAR	9007035	16
1	BRACKET CAPACITOR	E IA-7413743-0-0	15
2	GROMMET RUBBER	9007017	14
1	CAPACITOR 3900 MF/8.0V (GS)	1012790	13
1	CLAMP CAPACITOR	9009052	12
2	SCR PHIL PAN HD 6-32 X .25L	9006020-1	11
2	NUT KEPS #6-32	9008185	10
1	BRACKET CONN	D-IA-7413752-0-0	9
1	BOARD, PWR DISTR. H777	DCS-5911586-0-1	8
1	HARNESS BD MOS REG PWR DST	D-IA-7011560-0-0	7
2	WASH, .375 O.D. X .167 ID X .036	9006660	6
1	HARNESS H777 +5V REG	D-IA-7011415-0-0	5
2	SCR PHIL HD PAN #6-32 X .31L	9006021-1	4
2	SCR PHIL HD PAN #6-32 X .50L	9006024-1	3
3	WASHER, INT TOOTH LOCK #6	9006633	2
1	H777 +5V REGULATOR	DCS-5911597-0-1	1

REVISIONS	CHK	CHANGE NO.	REV.
		7011073-00001	A
		7011073-00002	B
			C

R. BARRY 11-25-75
B. COURTEMANCHE 12-1-75
B. COURTEMANCHE 12-31-75

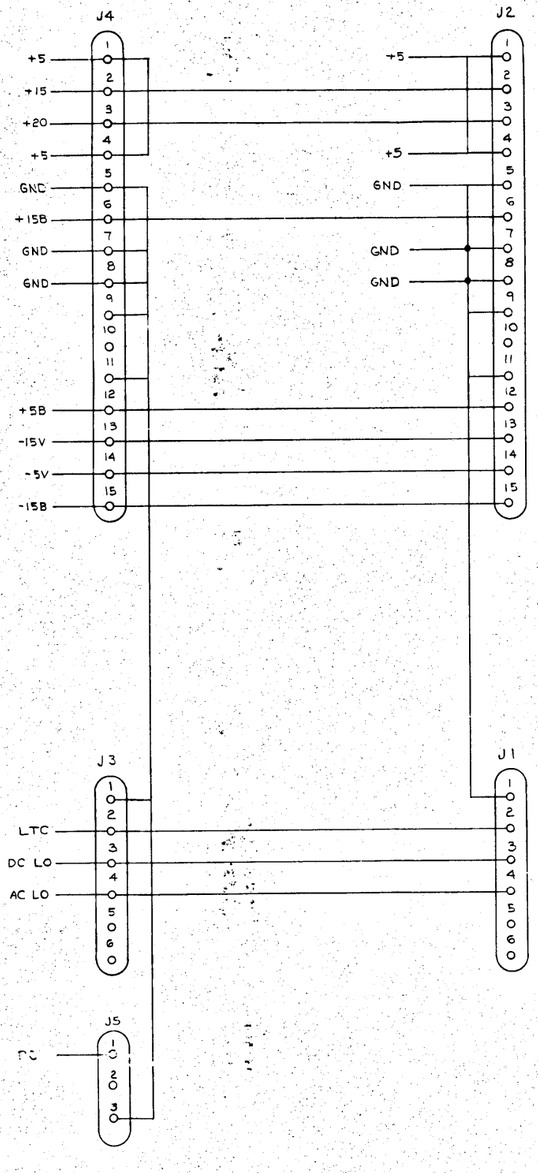
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)
SURFACE QUALITY IN MICROINCHES	MEDIUM ±.004 ±.008 ±.012 ±.016 ±.024 ±.04
	PREFERRED ±.012 ±.016 ±.020 ±.04 ±.063 ±0.1
NOMINAL DIMENSION RANGE INCHES	OVER 0 TO 0.3 · OVER 0.3 TO 1.2 · OVER 1.2 TO 4.0 · OVER 4.0 TO 12.0 · OVER 12.0 TO 40.0 · OVER 40.0 TO 80.0
QUANTITY & VARIATION	
THIRD ANGLE PROJECTION	DRN R. Barry 11/20/75
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D D. Kenly 11-26-75
DO NOT SCALE DWG	ENG R. Barry 11-25-75
MATERIAL —	PROJ. ENG R. Barry 12-3-75
FINISH —	PROD. J. Hebert 12-16-75
	NEXT HIGHER ASSY. D-IA-H777-0-0
	SCALE —
	SHEET / OF /
FIRST USED ON H777	digital
TITLE +5V REG ASSY	
SIZE D · CODE AD · NUMBER 7011073-0-0 · REV. C	
DIST.	

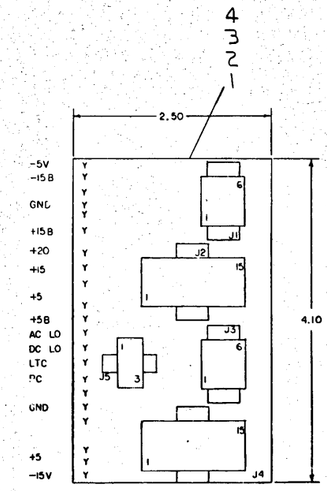
DEC FORM NO. DRD 700-0

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NOTES:





REF				
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411586-0-4	1
REF		ASSY DRILLING HOLE LAYOUT	D-AH-5411586-0-5	2
REF		MODULE ECO HISTORY	B-MH-5411586-0-6	3
1		ETCHED CIRCUIT BOARD	5011585	4
2	J2,J4	CONN.,MATE-N-LOCK,15 PIN HOUSING	1209350-15	5
2	J1,J3	CONN.,MATE-N-LOCK,6 PIN HOUSING	1209350-06	6
45		PIN,CONTACT,MATE-N-LOCK	1209456-01	7
1	J5	CONN.,MATE-N-LOCK,3 PIN HOUSING	1209350-03	8

IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO

PARTS LIST

FIRST USED ON OPTION MODEL: 1104 PWR. SUPPLY

ETCH BOARD REV: D

REV	CHANGE NO	DEC NO.	EIA NO.

REVISIONS

CHK

SEMICONDUCTOR CONVERSION CHART

		DEC NO.	EIA NO.

DRN D Miller DATE 12/2/75
CHK'D J Gleason DATE 2-23-75
ENG R Bigras DATE 2-27-75
PROJ ENG R Bigras DATE 2-27-75
PROD. DATE

NEXT HIGHER ASSY

SCALE NONE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: BOARD, POWER DISTRIBUTION H777

SIZE D | CODE CS | NUMBER 5411586-0-1 | REV. C

DIST.

DCS5411586-0-1 C

DCS5411583-0-1 C

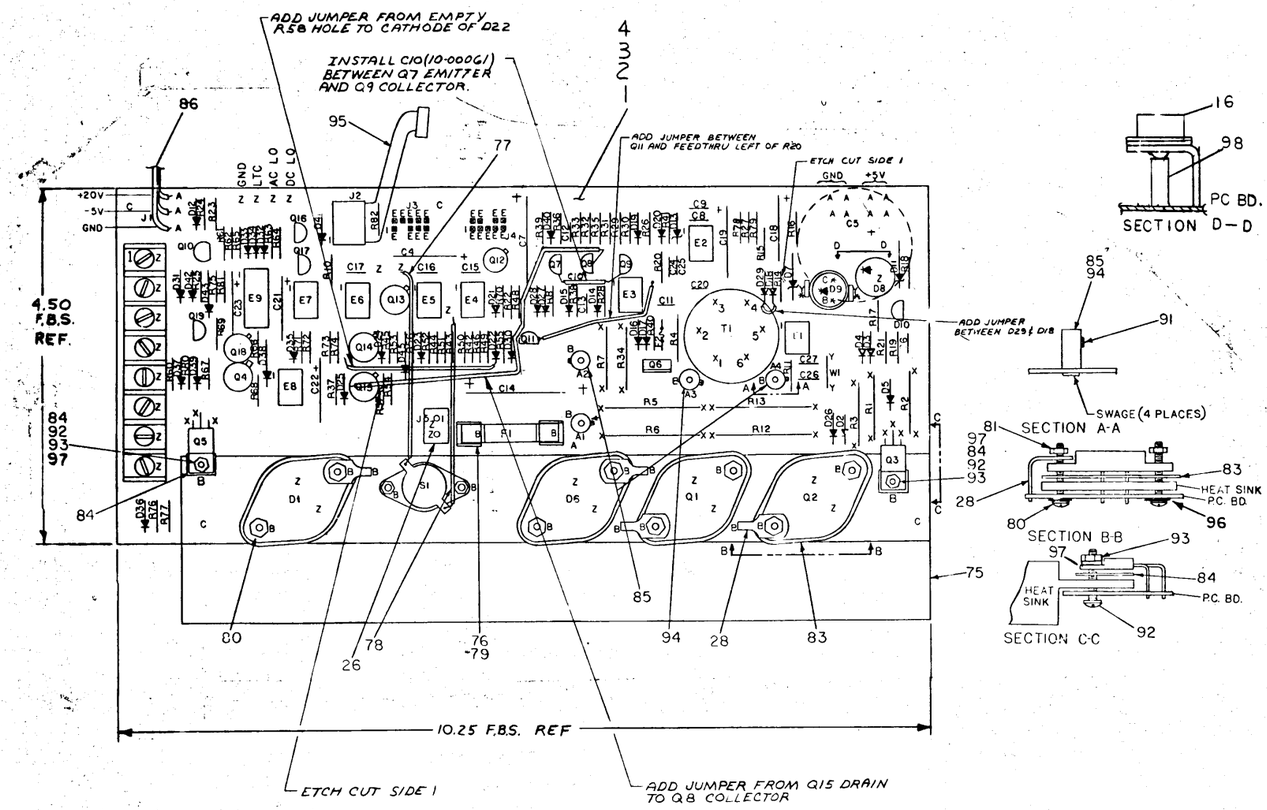
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NOTES:

1. HARDWARE ON D1,Q1,Q2,D6,S1,C5 MUST BE TORQUED TO 12 IN-LBS (-0,+1)

QTY	REF DESIGNATION	SUBSTITUTION LIST DESCRIPTION	PART NO.	ITEM NO.
1	C19	CAPACITOR, 1.5mf, 50V, POLYCARB	1010031-08	12
1	D1	DIODE	1112723-01	23



REF		DESCRIPTION	PART NO.	ITEM NO.
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411597-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411597-0-5	2
REF		MODULE ECO HISTORY	B-MH-5411597-0-8	3
1		ETCHED CIRCUIT BOARD	5011598	4
1	C12	CAPACITOR, 100pf, 100V, 5% DM	1000018	5
1	C13	CAPACITOR, 470pf, 100V, 5% DM	1000024	6
1	C14	CAPACITOR, 50mf, 50V, AL.EL	1000080	7
8	C6,C9,C11,C20,C24-C27	CAPACITOR .01mf, 100V DISC	1001810-01	8
2	C22,C23	CAPACITOR, 1mf, 35V, 10% TANT	1001778	9
3	C15,C16,C17	CAPACITOR, 5pf, 100V, 5% DM	1002425	10
				11
1	C19	CAPACITOR, 1.5mf, 35V, 10% TANT	1009725	12
2	C4,C18	CAPACITOR, 2.2mf, 20V, 10% TANT	1002827	13
2	C7, C21	CAPACITOR, 10mf, 20V, 10% TANT	1004813	14
1	D11	DIODE IN752A	1102808	15
1	D8	DIODE MR1033B	1103341	16
28	D3,D4,D12,D14 THRU D20,D22 THRU D25,D27,D30 THRU D37 D40,D42,D5,D39,D28	DIODE D872	1105275	17
3	D21,D41,D29	DIODE IN4004	1105796	18
1	D13	DIODE,ZENER,5.1V,2% IZT = 5ma	1110713	19
1	D6	DIODE,T03	1110715	20
1	D10	DIODE 2N5062	1110968	21
3	D7,D43,D45	DIODE IN751A	1110994	22
1	D1	DIODE,DUAL,T03	1112723-00	23
2	D2,D26	DIODE A114B	1112595-01	24
1	D38	DIODE,ZENER 13V IN9648	1109988	25
1	J5	CONNECTOR 2 PIN MATE-IN-LOC	1211342-2	26
1	J1	TERMINAL BOARD 8 STATION	1212484-01	27
4		SOLDER LUG	9009676	28
18		PINS, STAKING	9009149	29
1	F2	FUSE 5A	1209070	30
2	R18,R19	RESISTOR, 100, 1/4W, 5%	1300229	31
1	R10	RESISTOR, 150, 1/4W, 5%	1300250	32
1	R2	RESISTOR, 150, 1W, 5%	1300255	33
1	R34	RESISTOR, 220, 1W, 10%	1300277	34
2	R78,R81	RESISTOR, 390, 1/4W, 5%	1300309	35
2	R29,R16	RESISTOR, 470, 1/4W, 5%	1300316	36
7	R82,R28,R38,R50,R69,R52,R54	RESISTOR, 1K, 1/4W, 5%	1300365	37
2	R8, R88	RESISTOR, 2.7K, 1/4W, 5%	1300420	38
7	R31,R80,R82,R85,R86,R15,R39	RESISTOR, 4.7K, 1/4W, 5%	1300447	39
18	R63,R25,R32,R35,R36,R37,R80 R55 THRU R57,R87,R10,R77	RESISTOR, 10K, 1/4W, 5%	1300470	40
1	R24,	RESISTOR, 12, 1/4W, 10%	1301430	41
1	R4	RESISTOR, 47, 1/2W, 5%	1301895	42
6	R11,R23,R48,R40,R84,R75	RESISTOR, 270, 1/4W, 5%	1301972	43
2	R72,R74	RESISTOR, 620K, 1/4W, 5%	1302996	44
2	R26,R81,	RESISTOR, 2K, 1/4W, 5%	1302336	45
4	R22,R71,R41,R73	RESISTOR, 90K, 1/4W, 5%	1302394	46
3	R49,R51,R53	RESISTOR, 68K, 1/4W, 5%	1302395	47
1	R27	RESISTOR, 100K, 1/4W, 5%	1302466	48
2	R17,R21,	RESISTOR, 30, 1/4W, 5%	1302751	49
2	R43,R44	RESISTOR, 1.21K, 1/4W, 1%	1302871	50
1	R48	RESISTOR, 1K, 1/4W, 1%	1303114	51
2	R33,R14	RESISTOR, 8.2K, 1/4W, 5%	1303179	52
1	R45	RESISTOR, 10K, 1/8W, 1%	1303312	53

PARTS LIST

XC 856	1	8
L TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL

ETCH BOARD REV. E

REV.	REVISIONS	CHANGE NO.	CHK.
E		5411597-00001	J. SOFIO 12-2-75
F		5411597-00002	R. BARRY 12-19-75
H		5411597-00003	G. POTTER 1-6-76

DEC NO. | EIA NO. | DEC NO. | EIA NO.

SEMICONDUCTOR CONVERSION CHART

DWN.	J. Vincent	DATE 6-30-75
CHK.	R. Barry	DATE 12-19-75
ENG.		DATE
		DATE
		DATE

NEXT HIGHER ASSY

SCALE

SHEET 1 OF 4

TITLE: H777 +5V REGULATOR

SIZE	CODE	NUMBER	REV.
D	CS	5411597-0-1	H

DIST.

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1	R76	RESISTOR, [illegible], 1/4W, 5%	130[illegible]	54
1	R78	RESISTOR, [illegible] 1/4W, 5%	130[illegible]	55
1	R42	RESISTOR, 34.8K, 1/4W, 1%	1303156	56
2	R1,R7	RESISTOR, .39, 2W, 3%	1310690	57
2	R12,R13	RESISTOR, .02, 5W, 3%	1310978	58
2	R5,R6	RESISTOR, .04, 5W,	1311362	59
1	R3	RESISTOR, 3, 3W, 5%	1312682	60
2	Q1,Q2	TRANSISTOR, 2N5302	1510196	61
3	Q7,Q8,Q10	TRANSISTOR, A05	1510705	62
5	Q9,Q11,Q16,Q17,Q18	TRANSISTOR, A55	1510706	63
2	Q3,Q5	TRANSISTOR, D45H8	1510708	64
5	Q4,Q12 THRU Q15	TRANSISTOR, 2N5433	1511686	65
1	Q19	TRANSISTOR, 2N6026	1510877	66
1	Q6	TRANSISTOR, D44C11	1512790	67
1	D9	TRANSISTOR, C32AX135	1510928	68
1	T1	TRANSFORMER PULSE	1612592	69
1	E9	I.C. DEC 7410	1905576	70
5	E1,E2,E4,E5,E6	I.C. DEC 301A	1910282	71
3	E3,E7,E8	I.C. DEC LM555	1911944	72
1	F1	FUSE 15A, 32V	9007226	73
1	S1	THERMOSTAT (ELMWOOD)	1212787	74
1		HEAT SINK	7414238	75
2		EYELET	9009000	76
3		WIRE, #22 AWG STRANDED (WHITE)	9107350-99	77
3		WIRE, #22 AWG STRANDED (WHITE)	9107350-88	78
2		FUSECLIP	9007203	79
10		SCREW, #4-40 x 7/16 lg PHILLIPS HD	9006012-1	80
10		NUT, KEP #4-40	9006557	81
A/R		COMPOUND, THERMAL	9008268	82
4		INSULATOR, TO3	9008419	83
2		INSULATOR, THERMA-FILM	9009597	84
5	A1,A2,A4	STANDOFF	7414048-0-[illegible]	85
REF		ASSY, HARNESS	7011415-0-0	86
A/R	W1	WIRE #18 AWG	9107360-99	87
1	C10	CAPACITOR 8200 PF 100V MYLAR	1000061	88
1	C8	CAPACITOR, 33PF, 100V, 5% D.M.	1000009	89
				90
4		SET SCREW #6-32 X 1/8 LG.	9006290-10	91
2		SCREW NYLON #4-40 X 1/2 LG.	9006402-4	92
2		NUT NYLON #4-40	9007992	93
1	A3	STANDOFF	7414048-1F	94
1	J2	CONTROL CABLE (CONSOLE)	7011414-1F	95
8		WASHER, FLAT	9008172	96
2		WASHER, INT, LOK #4	9006632	97
1		SPACER, INSULATOR	9007615	98
1	R30	RES 220 , 1/4W, 5%	1300271	99
1	R20	RES, 3.[illegible]K, 1/4W, 5%	1300439	100

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: H777+5V REGULATOR
SIZE: D | CODE: CS | NUMBER: 5411597-0-1 | REV: H
SCALE: [illegible] | SHEET 2 OF 4 | DIST.

DEC FORM NO. 1317

DCS 5411597-0-1 H

189

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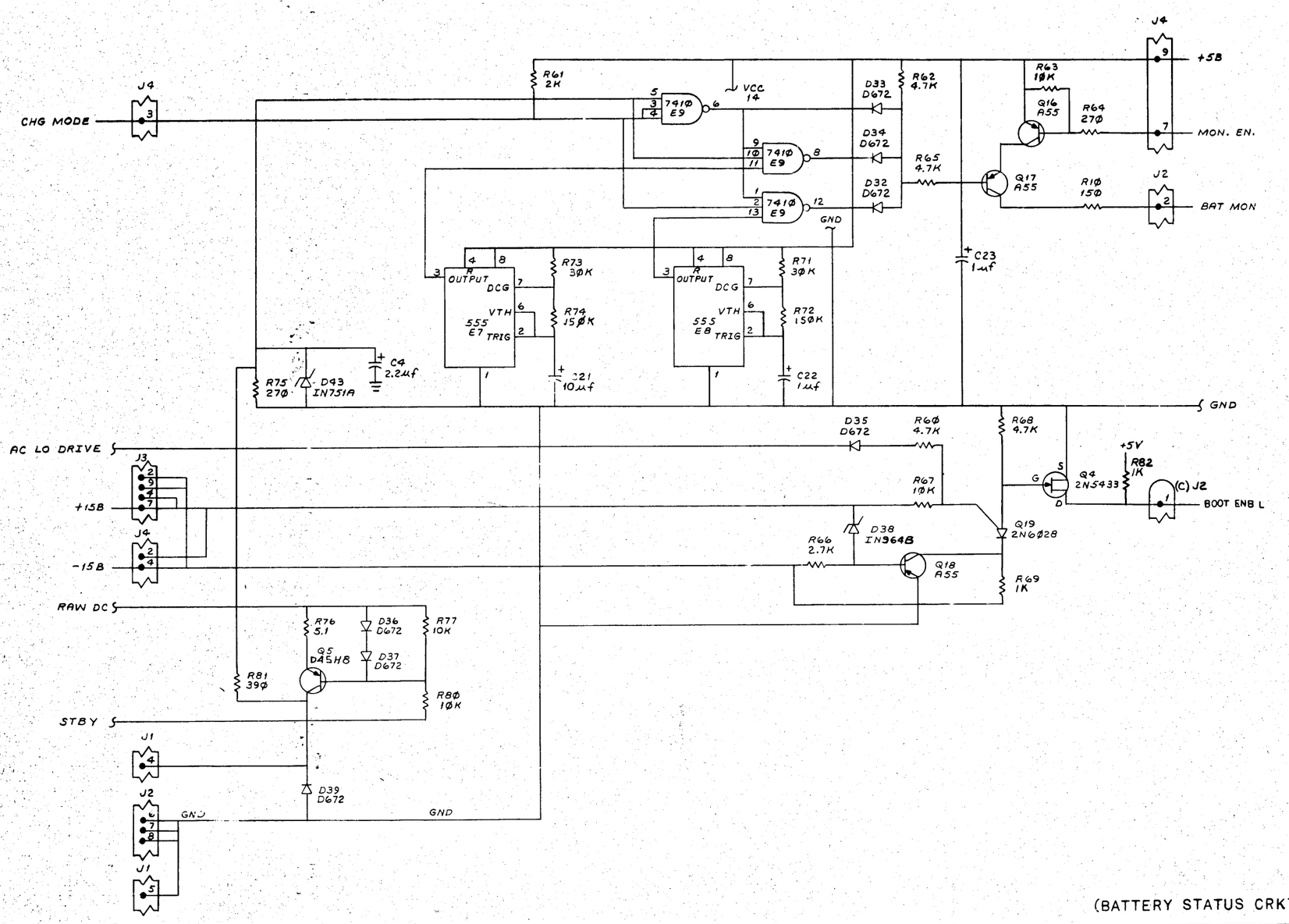
J5 RAW DC
J4 +5V
J2
J1
J5 GND
LTC
J3 CLOCK, +15B, -15B, +20 OFF
J4 CLK OFF
DC LO
AC LO
GND
CLOCK
J1 (TB1) AC, AC, CT GND
F1
F2 5A
T1
L1 SEE NOTE 1
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D15 D16 D17 D18 D19 D20 D21 D22 D23 D25 D26 D28 D29 D30 D31 D41 D42 D45
Q1 2N5302 Q2 2N5302 Q3 D45H8 Q4 D44C11 Q5 A05 Q7 A05 Q8 A05 Q9 A55 Q10 A05 Q11 A55 Q12 2N5433 Q13 2N5433 Q14 2N5433 Q15 2N5433
R1 .39 R2 150 R3 3 R4 47 R5 .04 R6 .04 R7 .39 R8 2.7K R9 27Ø R10 10K R11 27Ø R12 .02 R13 .02 R14 8.2K R15 4.7K R16 47Ø R17 3Ø R18 100 R19 100 R20 3.3K R21 3Ø R22 30K R23 27Ø R24 12 R25 10K R27 100K R28 1K R29 47Ø R30 22Ø R31 4.7K R34 22Ø R35 10K R36 10K R37 10K R38 1K R39 47K R40 27Ø R41 30K R42 34.8K 1% R43 1.21K R44 1.21K R45 10K R46 1K R48 270 R49 56K R50 1K R51 56K R52 1K R53 56K R54 1K R55 10K R56 10K R57 10K R70 10K R76 2K R78 390
C1 24K C2 24K C6 .01µf C7 10µf C8 38pf C9 .01µf C10 8200pf C11 .01µf C12 100pf C13 470pf C14 50µf C15 5pf C16 5pf C17 5pf C18 2.2µf C19 1.5µf C20 .01µf C24 .01µf C25 .01µf C26 .01µf C27 .01µf C33 8.2K C5 3900µf
555 E3 TRIG VTH CTL R OUTPUT VCC DCG
3Ø1A E1 E2 E4 E5 E6
+15B CKG MOD DC
+5B
MON EN
BAT MON
BAT LO
RLI
STBY
AC LO DRIVE
BATTERY STATUS
(C) J2
STANDBY
ON
PC
S1

NOTES:
1.) COMPONENTS WITHIN THE BROKEN LINES ARE MOUNTED TO THE BOARD ON NEXT HIGHER ASS'Y.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
H777 +5V REGULATOR	D	CS	5411597-Ø-1	H
SCALE —	SHEET 3 OF 4		DIST.	

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(BATTERY STATUS CRKT'S)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
H777 +5V REGULATOR	D	CS	5411597-0-1	H
SCALE	SHEET 4 OF 4	DIST.		

DEC FORM NO. 12-1 199

DCS5411597-0-1 H

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LEGEND	
PART NO	VARIATION
7011075-0	120 V
7011075-1	230 V

WIRE CHART

ITEM NO	DESCRP AWG	DESCRP COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS
22	18	WHT	K1-4	SOLD,31	*TB2-4S	SOLD	5 1/2" L
23	18	BLK	K1-6		*TB2-1S	SOLD	5" L
24	18	BRN	K1-7		TB2-5H	25,43	6 1/2" L
26	18	BLU	K1-9		TB2-6H	25,43	7 1/2" L
SEE NOTE #2 27	18	GRY	K1-A		—	25	
	TWP	BLK	K1-B	SOLD,31	—	25	
26	18	BLU	G2	SOLD	*TB2-6S	SOLD	6" L
23	18	BLK	F1-1	SOLD,31	*TB2-1S	SOLD	5" L
SEE NOTE #1 #2. 15	18	BRN	EMI-2 LOAD	—	*TB2-4S	SOLD	6" L
	TWP	BLU	EMI-1 LOAD	—	*TB2-6S	SOLD	6" L
22	18	WHT	EMI-2	SOLD,31	CB1-2 LOAD	28,41	5" L
23	18	BLK	EMI-1	SOLD,31	CB1-1 LOAD	28,41	5" L
SEE NOTE #2 SEE DETAIL 'C' 45	18	WHT	*TB2-6S	SOLD	J2-1	30,32	6 1/2" L
	TWP	BLK	*TB2-2S	SOLD	J2-2	30,32	6 1/2" L
45	18	WHT	*TB2-5S	SOLD	J3-1	30,32	15 1/2" L
	TWP	BLK	*TB2-2S	SOLD	J3-2	30,32	15 1/2" L

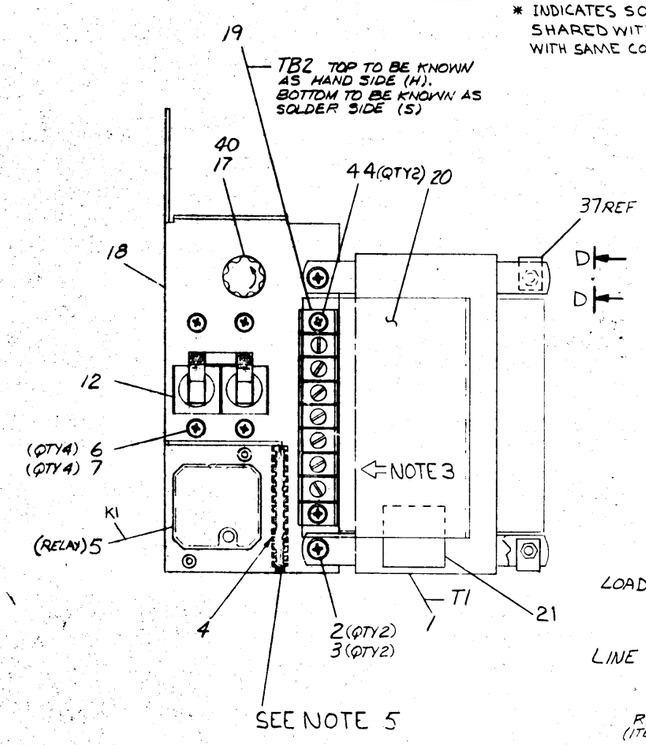
ITEM NO	DESCRP AWG	DESCRP COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS
1	14	BLK	T1	43	TB2-1H	—	—
	TWP	BK/WH			TB2-3H	—	—
	14	RED			TB2-2H	—	—
	TWP	RD/WH	T1		TB2-4H	—	—
23	18	BLK	G3	SOLD	F1-2	SOLD,31	4"L
34	14	GRN/YEL	EMI-3	SOLD,31	—	42	8"L
35	18	BLK	TB2-1H	—	TB2-2H	—	120V
36	18	WHT	TB2-3H	—	TB2-4H	—	120V
35	18	BLK	TB2-2H	—	TB2-3H	—	230V
13	22	BARE	R1-A	—	G3	SOLD,33	
13	22	BARE	R1-B	—	G2	SOLD,33	

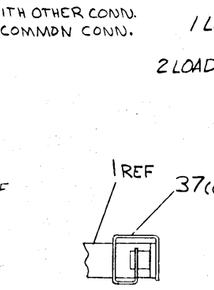
7011075-0	120V
7011075-1	230V

* INDICATES SOLDER CONN. SHARED WITH OTHER CONN. WITH SAME COMMON CONN.

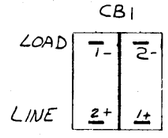
NOTES:

1. SECOND SOURCE FOR ITEM #16 (LINE FILTER) WILL HAVE WHT & BLK LEADS. SUBSTITUTE WHT FOR BRN AND BLK FOR BLU.
2. TWISTED PAIR WIRE TO HAVE A MIN OF 4 TWIST PER INCH AS PER WIRE CHART.
3. ALL CONNECTIONS TO TB2 ARE TO BE MADE FROM SIDE INDICATED BY ARROW.
4. USE TIE WRAPS (ITEM #38) AS NEEDED.
5. T1 PRIMARY WIRES TO TB2 MUST BE ROUTED BY ITEM 4
6. COVER, ITEM #28 WITH ITEM #41 TO COVER EXPOSED PART OF TERMINAL.

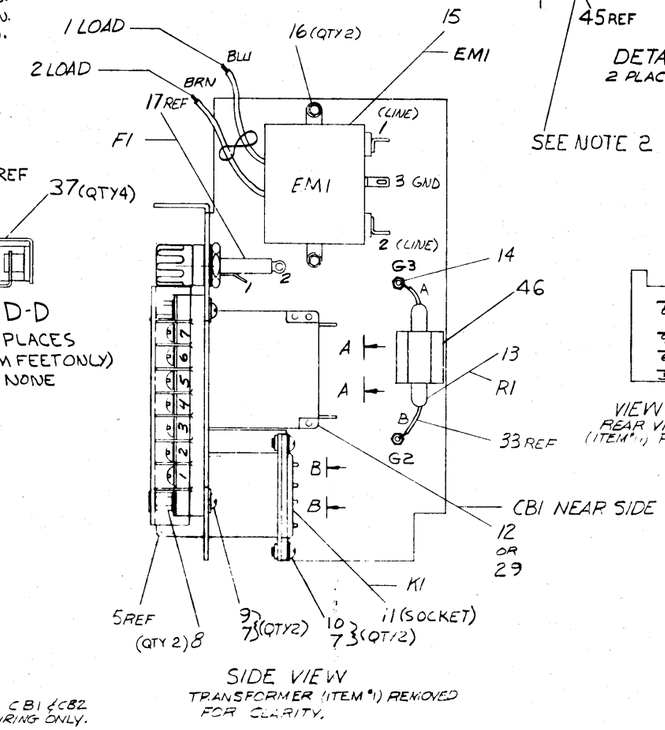




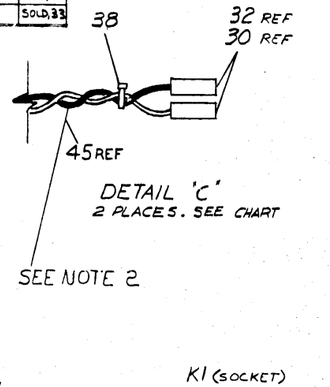
VIEW D-D
TYP-4 PLACES
(BOTTOM FEETONLY)
SCALE: NONE



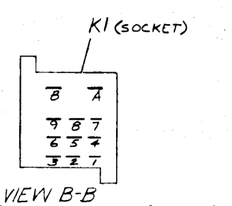
VIEW A-A
REAR VIEW OF CB1 & CB2 (ITEM #, 2) FOR WIRING ONLY.



SIDE VIEW
TRANSFORMER (ITEM #1) REMOVED FOR CLARITY.



DETAIL 'C'
2 PLACES. SEE CHART



VIEW B-B
REAR VIEW OF K1 (SOCKET) (ITEM #1) FOR WIRING ONLY.

CONT ON SHEET 2 of 2

—	1	JUMPER ASSY (WHT 2")	B-A-7011798-0-0	36
1	1	JUMPER ASSY (BLK 2")	B-A-7011797-0-0	35
A/R	A/R	WIRE #18 AWG TRACER (GRN/YEL)	9107777-54	34
A/R	A/R	TUBING INS (RED)	9107278-02	33
4	4	HOUSING SOCKET FASTAB	1210820-1	32
A/R	A/R	TUBING SHRINK (RED)	9107302-02	31
4	4	HOUSING TERM FASTAB	1210820-2	30
1	—	CIRCUIT BREAKER, 5A	1210191-1	29
2	2	CONN FASTON (RED INS)	9007917	28
A/R	A/R	WIRE 18 AWG INS (GRY/BLK)	9107430-08	27
A/R	A/R	WIRE 18AWG INS (BLU)	9107360-66	26
2	2	RING CRIMP (RED INS)	9007929	25
A/R	A/R	WIRE 18 AWG INS (BRN)	9107360-11	24
A/R	A/R	WIRE 18 AWG INS (BLK)	9107360-00	23
A/R	A/R	WIRE #18 AWG INS (WHT)	9107360-99	22
1	1	MOUNT TIE WRAP	9008264	21
1	1	SHIELD TERM	C-1A-7414743-0-0	20
1	1	TERMINAL 7 POS	1212788	19
1	1	BRACKET COMPONENT	D-1A-7413769-0-0	18
1	1	HOLDER, FUSE	9007242-0	17
2	2	NUT KEPS #6-32	9009243	16
1	1	FILTER LINE (EMI)	1212748	15
2	2	TERMINAL TURRET INS	9006966	14
1	1	RESISTOR 10Ω, 10W	1300173	13
—	1	CIRCUIT BREAKER, 10A	1210191-0	12
1	1	SOCKET, RELAY	1212789	11
2	2	SCR PHIL HD PAN #6-32X.25	9006021-01	10
2	2	SCR PHIL HD PAN #6-32 X.62	9006026-01	9
2	2	SPACER HEX #6-32 X .19	9006842	8
8	8	WASHER INT TOOTH LOCK #6	9006633	7
4	4	SCR PHIL HD PAN #6-32X.19	9006020-01	6
1	1	RELAY 6E12V 3P 10A	1210683	5
A/R	A/R	GROMMET CATERPILLAR	9007035	4
2	2	WASHER INT TOOTH LOCK #8	9006634	3
2	2	SCR PHIL PAN HD #8-32X.44	9006038-1	2
1	1	TRANSFORMER ASSY	C-1A-7011805-0-0	1

7011075-1	7011075-0	DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES					
		OVER 0 TO 0.3	OVER 0.3 TO 1.3	OVER 1.3 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.06	±.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL —

FINISH —

DRN	Thompson	2/14/75
CHK'D	[illegible]	2/14/75
ENG	[illegible]	2-25-75
PROJ. ENG	[illegible]	2-25-75
PROD.	[illegible]	2-26-75

FIRST USED ON H777

NEXT HIGHER ASSY. D-UA-H777-0-0

SCALE 1/1

SHEET 1 OF 2

TITLE: A/C INPUT ASSY (120V/230V)

SIZE	CODE	NUMBER	REV.
D	AD	7011075-0-0	B

L.ST.

REVISIONS	CHANGE NO.	REV.
CHK #3	7011075-00001	A
CHK #4	7011075-00001	B

Changed to 12-23-75 R. BARRY

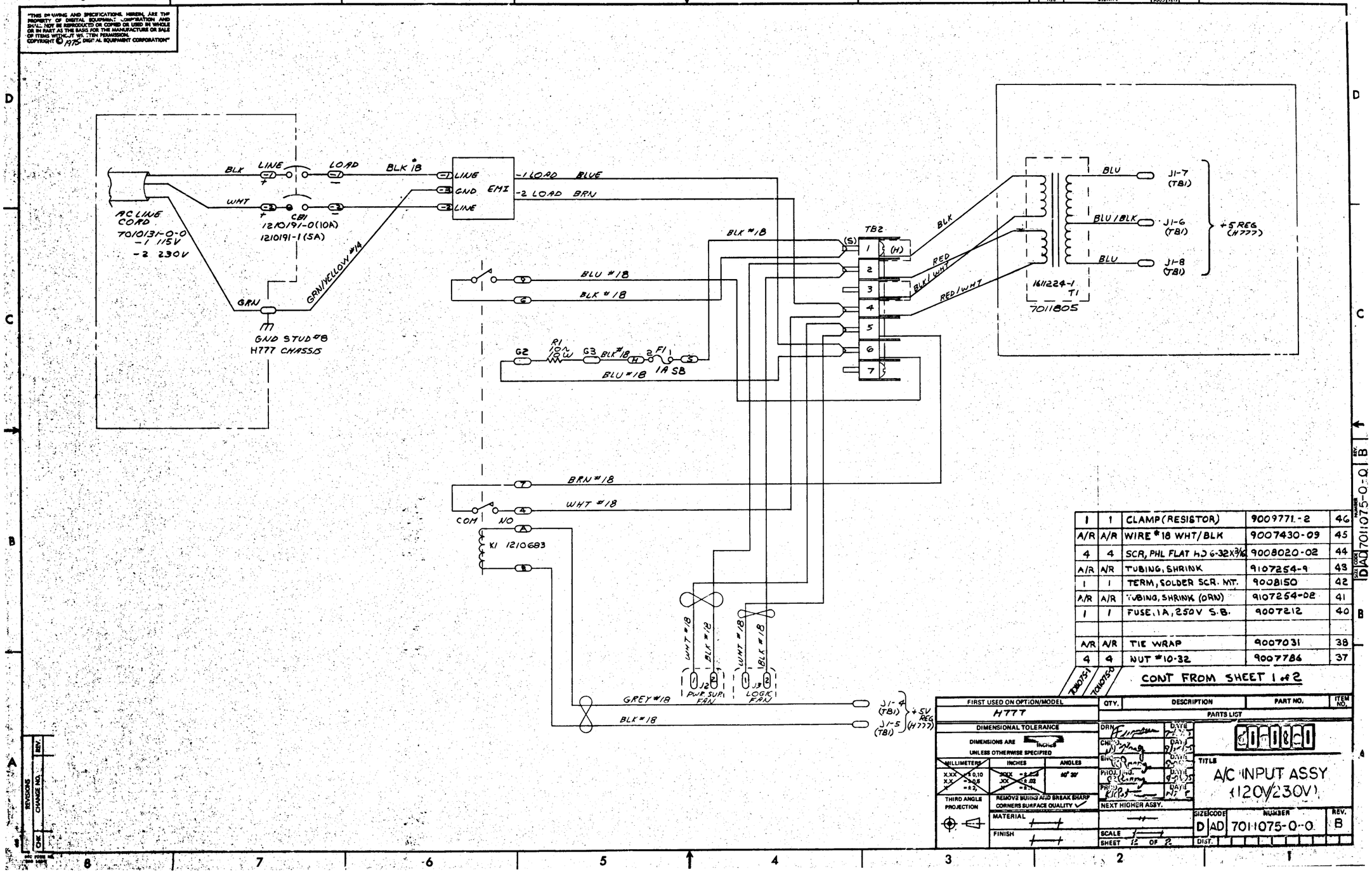
Changed to 2-26-75 R. BARRY

Changed to 2-25-75 R. BARRY

DEC FORM NO. SMD 100-0

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1	1	CLAMP (RESISTOR)	9009771-2	46
A/R	A/R	WIRE #18 WHT/BLK	9007430-09	45
4	4	SCR, PHL FLAT HD 6-32X3/16	9008020-02	44
A/R	A/R	TUBING, SHRINK	9107254-9	43
1	1	TERM, SOLDER SCR. MT.	9008150	42
A/R	A/R	TUBING, SHRINK (GRN)	9107254-02	41
1	1	FUSE, 1A, 250V S.B.	9007212	40
A/R	A/R	TIE WRAP	9007031	38
4	4	NUT #10-32	9007786	37

7010751 7010750

CONT FROM SHEET 1 of 2

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION/MODEL: H777

DIMENSIONAL TOLERANCE

DIMENSIONS ARE INCHES UNLESS OTHERWISE SPECIFIED

MILLIMETERS	INCHES	ANGLES
X.XX ± 0.10	XXX ± .005	±0° 30'
X.X ± 0.5	XX ± .02	
X ± 2.	X ± .1	

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL

FINISH

	NAME	DATE
DRN	F. Lippman	7-1-75
CHK	[illegible]	8-1-75
ENG	[illegible]	8-5-75
PROJ. ENG.	[illegible]	8-25-75
PROJ. MGR.	[illegible]	9-2-75

NEXT HIGHER ASSY.

SCALE

SHEET 1 OF 2

70-0&O

TITLE: A/C INPUT ASSY (120V/230V)

SIZE	CODE	NUMBER	REV.
D	AD	7011075-0-0	B

DIST.

DAD 7011075-0-0 B

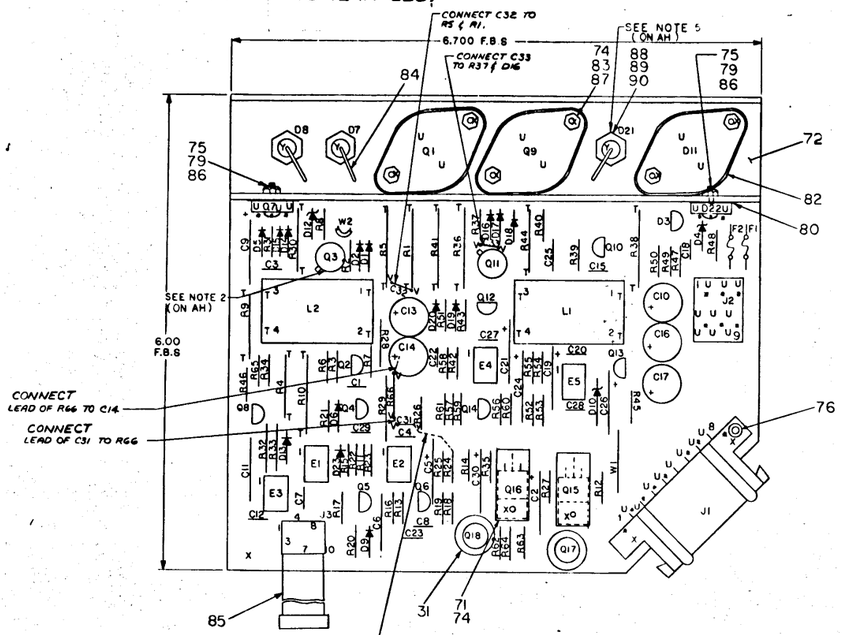
REVISIONS: REV. | CHANGE NO. | CHK

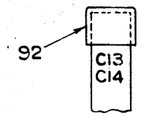
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NOTES:

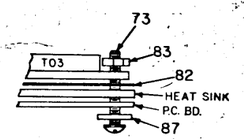
1. ITEMS 88,89,90 & 91 ARE PACKAGED WITH THE DIODES. SUBSTITUTE PACKAGED WASHER FOR ITEM #88.

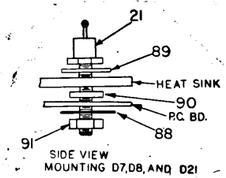
3. TORQUE Q1, Q9, D7, D8, D11, & D21 HARDWARE. TO 12 IN-LBS.





SIDE VIEW C13 & C14
APPLY ITEM 92 WITH
SUITABLE ADHESIVE





SIDE VIEW
MOUNTING D7,D8, AND D21

IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

ITEM NO.	QTY	REF. DESIGNATION	DESCRIPTION	PART NO.
1	1	R18	RESISTOR, 8.2K, 1/4W, 5%	1303179
2	1	R28	RESISTOR, 4.99K, 1/4W, 1% MF	1305324
3	2	R1,R38	RESISTOR, 1, 2W, 1%, WW	1305428
4	1	R55	RESISTOR, 5/1, 1/4W, 5%	1309422
5	2	R5,R38	RESISTOR, .15, 2W, 10%	1310147
6	2	R32,R33	RESISTOR, 2.21K, 1/4W, 1%	1310631
7	1	D22	DIODE 2N4441 SCR	1505867
8	3	Q3,Q11,Q17	TRANSISTOR, 2N4036	1509700
9	1	Q18	TRANSISTOR, DEC 3734	1510062
10	1	Q7	TRANSISTOR, MJE3055	1510555
11	7	Q4,Q5,Q6,Q8,Q12 THRU Q14	TRANSISTOR, XA05	1510705
12	2	Q2,Q10	TRANSISTOR, XA55	1510706
13	1	Q16	TRANSISTOR, D45H8	1510708
14	2	Q1,Q9	TRANSISTOR, 2N5038	1510969
15	1	Q15	TRANSISTOR, D44H5	1512722
16	2	L1,L2	INDUCTOR, 500uh	1612593
17	2	E2,E5	I.C. L.M. 301A	1910282
18	3	E1,E3,E4	I.C. L.M. 555	1911944
19	1	C22	CAPACITOR, 470pf, 100V, 5%	1000024
20	11	D1,D2,D6,D13 THRU D17,D19, D20,D23	DIODE D672	1105275
21	2		HEAT SINK	7414765
22	1		HEAT SINK	7413842
23	2		SCREW #4-40 x 5/16 LG.	9006010-1
24	8		SCREW #4/40 x 7/16 LG.	9006012-1
25	2		SCREW, NYLON #4/40 x 1/2 LG.	9006402-4
26	1		EYELET	9006745
27	2		TRANSIPAD	9007201
28	A/R		TUBING	9107267-09
29	2		NUT, NYLON #4/40	9007992
30	2		WASHER, THERMAFILM	9008225
31	A/R		THERMAL COMPOUND	9008268
32	3		INSULATOR	9008419
33	6		NUT, KEP #4/40	9006557
34	A/R		WIRE #20 AWG STRANDED	9107460-68
35	1	J3	CONTROL CABLE	7011414-D
36	2		WASHER, LOCK, INTERNAL TOOTH #4	9006632
37	6		WASHER, FLAT	9008172
38	3		WASHER, FLAT	9006660
39	3		WASHER THERMAFILM	9008424
40	3		BUSHING, NYLON	9006711
41	3		NUT, HEX #10-32	9009005
42	2		INSULATOR, CAPACITOR	9009731-03
43	AR	W1, W2	WIRE, #20 AWG, SOLID	9107560-02
44	REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411601-0-4
45	REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411601-0-5
46	REF		MODULE ECO HISTORY	B-MH-5411601-0-6
47	1		ETCHED CIRCUIT BOARD	5011600
48	2	C20,C4	CAPACITOR, 33pf, 100V, 5%	1000009
49	1	C8	CAPACITOR, 100pf, 100V, 5%	1000018
50	2	C7,C23	CAPACITOR, 220pf, 100V, 5%	1000021
51	1	C25	CAPACITOR, .1mf, 100V, 20% DISC	1000030
52	9	C1,C3,C12,C15,C18,C27,C28, C32,C33	CAPACITOR, .01mf, 100V, DISC	1001610-01
53	8	C2,C5,C9,C19,C26,C30	CAPACITOR, 1mf, 35V, 10%	1001776
54	2	C29,C31	CAPACITOR, .47mf, 25V, 20%	1010279
55	1	C24	CAPACITOR, 10mf, 20V, 10%	1004813
56	2	C6,C21	CAPACITOR, .01mf, 100V, 10% MYLAR	1005784
57	1	C11	CAPACITOR, .015mf, 50V, 2% POLYC	1010646
58	2	C13,C14	CAPACITOR, 560mf, 20V	1012607
59	1	C17	CAPACITOR, 1200mf, 6.3V	1012607-01
60	2	C10,C16	CAPACITOR, 180mf, 50V	1012607-02
61	1	D4	DIODE IN752A	1102808
62	1	D9	DIODE IN4004	1105796
63	3	D7,D8,D21	DIODE, IN3880	1109440
64	1	D12	DIODE IN4742	1109502
65	1	D10	DIODE Izt 5ma 5.1V, 2%	1110713
66	1	D3	DIODE 2N5062	1110988
67	2	D5,D18	DIODE A114B	1112595-01
68	1	D11	DIODE DUAL	1112723-00
69	2	F1,F2	FUSE 5A	1209070
70	1	J1	CONN. 8 PIN MATE-N-LOC	1209340-00
71	1	J2	CONN. 9 PIN MATE-N-LOC	1209350-09
72	17		PINS	1209458-01
73	1	-	HEAT SINK	1210001
74	5	R2,R3,R37,R47,R50	RESISTOR, 33, 1/4W, 5%	1300197
75	2	R12,R14	RESISTOR, 47, 1/4W, 5%	1300202
76	8	R6,R27,R35,R39,R48,R49,R63, R64	RESISTOR, 100, 1/4W, 5%	1300229
77	2	R9,R44	RESISTOR, 100, 1W, 5%	1300232
78	1	R52	RESISTOR, 390, 1/4W, 5%	1300309
79	7	R19,R20,R54,R59,R60,R62,R25	RESISTOR, 1K, 1/4W, 5%	1300365
80	1	R45	RESISTOR, 1.5K, 1/4W, 5%	1300391
81	1	R29	RESISTOR, 2.49K, 3/4W, 1%	1300424
82	3	R11,R43,R61	RESISTOR 2.7K, 1/4W, 5%	1300426
83	2	R7,R65	RESISTOR, 4.7K, 1/4W, 5%	1300447
84	2	R23,R58	RESISTOR, 5.62K, 1/4W, 1%	1305128
85	11	R13,R15,R16,R17,R21,R22,R42 R46,R51,R57,R58	RESISTOR, 10K, 1/4W, 5%	1300479
86	2	R53,R24	RESISTOR, 100K, 1/4W, 5%	1302466
87	3	R8,R31,R40	RESISTOR, 10, 1/4W, 5%	1301317
88	2	R10,R41	RESISTOR, 330, 2W, 10%	1301981
89	2	R26,R34	RESISTOR, 2K, 1/4W, 5%	1302588
90	1	R66	RESISTOR, 180, 1/4W, 5%	1301322
91	1	R4	RESISTOR, 1.2K, 1W, 10%	1302950
92	1	R30	RESISTOR, 1.8K, 1W, 5%	1303122

FIRST USED ON OPTION MODEL

ETCH BOARD REV. D

PARTS LIST

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

REV.	CHANGE NO.	
J	5411601-00004	R. DAY 3 MAR 77
H	5411601-00003	G. POTTER 6-1-76
F	5411601-00002	RICHARD BARRY 12-10-75
E	5411601-00001	John Carter 12.6.75

DRN. D. Padgett DATE 8-28-75
CHKD. DATE
ENG. DATE 9/22/75
PROJ. ENG. R. Barry DATE 9/22/75
MOD. R.K. Peterson DATE 12/4/75
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 3

digital

TITLE MOS REGULATOR H777

SIZE	CODE	NUMBER	REV.
D	CS	5411601-0-1	J

DIST.

194

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RAW DC
F1 5A
F2 5A
BAT IN
GND
CLOCK OFF
CHG. MOD
MON EN
+5B
CLOCK
TRIG
V REF
+15
CLK
+5B SECTION
RAW DC
GND
-15B
L2
VTH DCG CLT
555 E3
DCG VTH CTL
555 E1
Q1 2N3638
Q2 A55
Q3 2N4036
Q4 A85
Q5 A85
Q6 A85
Q7 MJE3055
Q8 A85
Q15 D44H5
Q16 D45H8
Q17 2N4036
Q18 DEC 3734
301A E2
D1 D672
D2 D672
D5 A1148
D6 D672
D7 IN3880
D8 IN3880
D9 IN4004
D10 5.1V 2%
D11
D12 IN4742
D13 D672
D14 D672
D15 D672
D23 D672
R1 1Ω 2W
R2 330Ω
R4 1.2K 1W
R5 .15Ω 2W
R6 100Ω
R7 4.7K
R8 10Ω
R9 100Ω
R10 330Ω 2W
R11 2.7K
R12 47Ω
R13 10K
R14 47Ω
R15 10K
R16 10K
R17 10K
R18 8.2K
R19 1K
R20 1K
R21 10K
R22 10K
R23 5.62K
R24 100K
R25 1K
R26 2K
R27 100Ω
R28 4.99K 1/4 W
R29 2.49K 3/4 W 1%
R30 1.8K 1W
R31 100Ω
R32 2.21K 1/2W
R33 2.21K 1/2W
R34 2K
R35 100Ω
R46 10K
R62 1K
R63 100Ω
R64 100Ω
R65 4.7K
R66 180
C1 .01μF
C2 1μF
C4 33PF
C5 1μF
C6 .01μF
C7 220PF
C8 100PF
C9 .01μF
C9 1μF
C10 180μF
C11 .015μF
C12 .01μF
C13 560μF
C14 560μF
C29 0.47 μF
C30 1μF
C31 .47μF
C32 .01μF
W2

REVISIONS
CHK | CHANGE NO. | REV.

TITLE: MOS REGULATOR H777
SIZE D | CODE CS | NUMBER 5411601-0-1 | REV. J
SCALE | SHEET 2 OF 3 | DIST.

DEC FORM NO. BMD 138

DCS 5411601-0-1 J

195

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+ RAW DC
+15V
TRIG
CLOCK
GND
V REF
D16 D672
D17 D672
R36 1Ω 2W
C35 .01μF
Q10 A05
C15 .01μF
R38 .15Ω 2W
Q9 2N5038
R39 100Ω
R40 10Ω
Q11 2N4036
R37 33Ω
C16 180μF
R42 10K
R41 230Ω 2W
Q12 A05
R43 2.7K
D19 D672
C25 .1μF
D18 A114B
R44 100Ω 1W
L1
D21 IN3880
Q13 A05
R45 1.5K
C17 1200μF
R47 33Ω
D3 2N5062
D4 IN752A
D22 2N4441
R49 100Ω
R48 100Ω
C18 .01μF
R50 33Ω
C27 .01μF
C26 +1μF
R52 390Ω
R53 100K
C19 1μF
C24 10μF
R54 1K
R55 5.1Ω
D20 D672
C22 470PF
R56 5.62K
R58 10K
3Ø1A E5
C29 5PF
555 .E4
CTL VTH DCG
R51 10K
R57 10K
C21 .01μF
C28 .01μF
R59 1K
C23 220 PF
R61 2.7K
Q14 A05
R60 1K

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MOS REGULATOR H777	D	CS	5411601-0-1	J
SCALE	SHEET 3 OF 3	DIST.		

DEC FORM NO. DRD 128

196

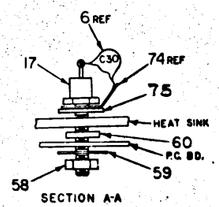
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NOTES:

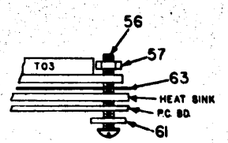
USE TRANSIPAD DEC# 9007201 UNDER Q1&Q8

1		HEAT SINK	7416236-0-0	55	
6		SCREW, #4-40 x 1/2 lg PH HD	9006013-1	56	
6		NUT, KEP #4-40	9006557	57	
1		NUT, HEX #10-32	9006584	58	
1		WASHER, FLAT	9006682	59	
1		BUSHING, NYLON	9008440	60	
6		WASHER, FLAT	9008172	61	
A/R		COMPOUND, THERMAL	9008288	62	
3		INSULATOR, TO 3	1213071-02	63	
~~1~~		~~WASHER, THERMAFILM~~	~~8008424~~	~~64~~	
2		TRANSIPAD	9007201	65	
A/R		WIRE #18 AWG, TWISTED PAIR	9107430-02	66	
1	C29	CAPACITOR 2.2UF 20V	1002627	67	
1	R47	RESISTOR 200, 1/4W, 5%	1311522	68	
1		HARNESS (THREE WIRE)	C-IA 7012547-0-0	69	
1		HARNESS (TWO WIRE)	C-IA 7012546-0-0	70	
1	C12	CAPACITOR, 10uf, 20V, 10%, TANT	1004813	71	
1	DZ3	DIODE, IN753A	1102421	72	
1	C26	CAPACITOR, .47uf, 25V, 20%, CER	1010279	73	
1		SOLDER, TERM., SCREW MTG.	90C7815	74	
1		SIL PAD .800 .190 I.D.	1213071-05	75	
1	C32	CAP. 1UF 50V CER.	1010274-02	76	

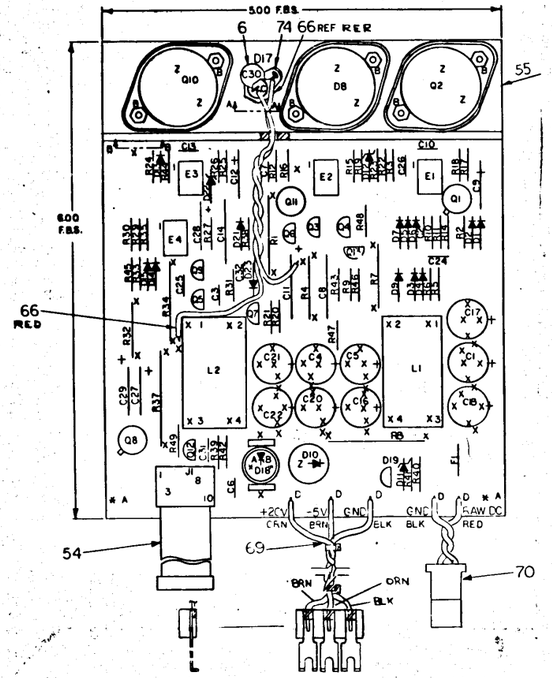
QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411599-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411599-0-5	2
REF		MODULE ECO HISTORY	B-MH-5411599-0-8	3
1		ETCHED CIRCUIT BOARD	5011598	4
1	C7	CAPACITOR, 100PF, 100V, 5%	1000016	5
6	C2,C3,C6,C30,C24,C25	CAPACITOR .01uf, 100V DISC	1001810-01	6
3	C9, C27, C28	CAPACITOR, 1uf, 35V, 10% TANT	1001776	7
2	C10,C13	CAPACITOR, 33pf, 100V DM	1000009	8
1	C11	CAPACITOR, 1.5uf, 35V, 10% TANT	1009725	9
2	C8,C14	CAPACITOR, .01uf, 100V, 10% MYLAR	1005784	10
1	C31	CAPACITOR, 220pf, 100V, 5%	1000021	11
2	C5,C16	CAPACITOR, 1200uf, 63V	1012607-01	12
7	C1,C17,C18,C4,C20,C21,C22	CAPACITOR, 180uf, 50V	1012607-02	13
1	D22	DIODE, IN4742	1109502	14
1	D10	DIODE, MR1033B	1103341	15
10	D1 THRU D7, D14, D15, D21	DIODE, D872	1105275	16
1	D17	DIODE, 1N3880	1109440	17
2	D12,D13	DIODE, IN751, 5.1V 2%	1110713	18
1	D8	DIODE	1110715	19
1	D11	DIODE, IN978B	1110858	20
1	D19	DIODE, 2N5982	1110968	21
1	D9,	DIODE, A114B	1112595-01	22
1	F1	FUSE, 1¼A, PICO	1210929	23
1	R46	RESISTOR, 18K, 1/4W, 5%	1302465	24
6	R9,R39,R40,R41,R43,R49	RESISTOR, 100, 1/4W, 5%	1300229	25
1	R7,	RESISTOR, 100, 1W, 5%	1300232	26
3	R11, ,R2,R33	RESISTOR, 390, 1/4W, 5%	1300309	27
6	R8,R12,R23,R31,R17,R48	RESISTOR, 1K, 1/4W, 5%	1300365	28
3	R10, ,R14, ,R30	RESISTOR, 2.7K, 1/4W, 5%	1300426	29
4	R42,R44, R15,R27	RESISTOR, 4.7K, 1/4W, 5%	1300447	30
1	R4	RESISTOR, 1K, 1W, 5%	1300368	31
3	R16, ,R29,R38,	RESISTOR, 10K, 1/4W, 5%	1300479	32
2	R3,R35	RESISTOR, 10, 1/4W, 5%	1301317	33
1	,R45	RESISTOR, 470, 1/4W, 5%	1300316	34
1	R5	RESISTOR, 27, 1/4W, 5%	1301522	35
1	,R34	RESISTOR, 330, 2W, 10%	1301961	36
1	R19	RESISTOR, 2K, 1/4W, 5%	1302388	37
2	R18,R28	RESISTOR, 100K, 1/4W, 5%	1302468	38
1	R22	RESISTOR, 2.74K, 1/4W, 1%	1304888	39
2	R1,R32	RESISTOR, 1, 2W, 5% WW	1305428	40
2	R24, R25	RESISTOR, 1.5K, 1/4W 5%	1300391	41
1	R21	RESISTOR, 8.25K, 1/4W, 1%	1309420	42
2	R6,R37	RESISTOR, .08, 5W, 3% WW	1311803	43
1	R20	RESISTOR, 56, 1/4W, 5%	1302602	44
2	Q1,Q8	TRANSISTOR, 2N4838	1539700	45
7	Q3,Q5,Q6,Q7,Q9,QIZ,Q13	TRANSISTOR, XA85	1510705	46
1	Q4	TRANSISTOR, XA55	1510706	47
1	D18	TRANSISTOR, C32AX139	1510928	48
2	Q2,Q10	TRANSISTOR, 2N5038	1510969	49
1	Q11	TRANSISTOR, 2N5433	1511686	50
2	L1,L2	INDUCTOR, 400uh	1612693	51
2	E1,E3	I.C. DEC 301A	1910282	52
2	E2,E4	I.C. DEC 555	1911944	53
1	J1	CABLE ASSY	7011414-0E	54



SECTION A-A



SECTION B-B



IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL

ETCH BOARD REV. D

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.

PARTS LIST

REV	CHANGE NO.	DIVISIONS	DATE
J	5411599-00003	J. SOFIO 2-9-77	
H	5411599-00002	B. COURTEMANCHE 7 JAN 77	
F	5411599-00001	G. POTTER 8 AUG 76	

D. Marinette 11/17/75
CHK
ENGR
PROJ
MFG QA
NEXT HIGHER ASSY E-UA-H777-0-0
SCALE
SHEET 1 OF 2

DIGITAL

TITLE +20V REGULATOR/H777

SIZE D | CODE DCS | NUMBER 5411599-0-1 | REV. U

DIST.

197

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RAW DC
F1 15A
GND
+15V
CLK
-15V
+20 V
GND
-15V
+20V OFF
-5V
L1
5W
Q8
R8
C17 2200uF
C18 1800 UF
C1 1800UF
D1 DG72
D2 DG72
R1 1 2W
R2 390
C24 .01UF
Q2 2N5038
Q1 2N4036
R3 10
D8
C2 .01UF
R9 100
C3 .01UF
Q5 A05
R10 2.7K
R11 330
R46 18K
Q4 A55
C4 1800UF
C21 1800UF
C20 1800UF
C22 1800UF
D10 MR4138
R43 100
D19 2N5062
R39 100
D11 IN3768
D18 C32AX135
R40 100
C6 .01UF
R41 100
D7 DG72
R4 1K 1W
R5 27
A3 A05
R6 1K
D3 DG72
D4 DG72
D5 DG72
D6 DG72
D9 A1148
R7 100 1W
J1
C27 1UF
Q13 A05
R48 1K
C26 .47UF
C8 .01UF
R15 4.7K
R16 100K
DCS VTH CTL
555 E2
VCC
TRIG
OUT
GND
R14 2.7K
R17 1K
C9 1UF
R19 2K
R19' 100K
R22' 56
C11 1.5UF
R21 8.25K 1%
R22 2.74K 1%
321A E1
R23 1K
C10 .33MF
Q6 A05
D12 5.1V 2%
R38 10K
C30 .01UF
R12 1K
C7 100pf
R24 1.5K
C12 10UF
R25 1.5K
R26 100K
301A E3
D22 IN4742
R44 4.7K
D13 5.1V 2%
C28 1 UF
C29 2.2UF 20V
R45 470
C13 33pf
R27 4.7K
C14 .01uF
CTL VTH DCG
VCC GND
TRIG 555 E4
OUT
D14 DG72
D15 DG72
R33 390
R34 330 1W
C15 .01UF
Q10 A05
Q11 A05
R29 10K
R30 2.7K
D23 IN753A
Q7 A05
C32 1UF
R92 4.7K
R31 1K
L2
C31 220 pf
R49 120 1/2W
R37 5K
Q12 A05
R47 200 1/4W
C5 1000UF

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
+20V REGULATOR/H777	D	CS	5411599-0-1	J
SCALE	SHEET 2 OF 2	DIST.		

DEC FORM NO. BRD 138

198

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY A. Rocko DATE 19 Nov 76 | CHECKED D. HEALY DATE 29 JUL 76 | SECTION 1
ENG R. Barry DATE 26 Aug 76 | PROD RB King DATE 26 Aug 76 | ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	H777-AA	H777-AB	H777-BA	H777-BB	H777-CA	H777-CB	H777-DA	H777-DB
1	D-IA-7011248-0-0	CHASSIS ASSY P.S.	1	1	1	1	-	-	-	-
2	9007031	TIE WRAP	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
3	D-AD-7011075-0-0	A/C INPUT ASSY (120V)	1	-	1	-	-	-	-	-
4	D-AD-7011075-1-0	A/C INPUT ASSY (230V)	-	1	-	1	-	-	-	-
5	9007035	GROMMET CAT.	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
6	9006563	NUT, KEPS #8 - 32	2	2	2	2	2	2	2	2
7	E-MD-7413825-0-0	COVER, POWER SUPPLY	1	1	1	1	-	-	-	-
8	D-AD-7011073-0-0	+5V REGULATOR ASSY	1	1	1	1	-	-	-	-
9	D-CS-5411601-0-1	MOS. REG. H777	1	1	1	1	1	1	1	1
10	9006020-1	SCR. PHL HD PAN #6 - 32 x .25	4	4	2	2	3	3	1	1
11	9008509	STRAIN RELIEF	1	1	1	1	-	-	-	-
12	D-IA-7012320-0	POWER CORD (115V)	1	-	1	-	-	-	-	-
13	D-IA-7012320-1	POWER CORD (230V)	-	1	-	1	-	-	-	-
14	9006022-1	SCR, PHIL HD PAN #6-32 x .38	6	6	2	2	-	-	-	-
15	9006633	WASHER, INT. TOOTH #6	6	6	2	2	-	-	-	-
16	9009771-02	CLAMP	2	2	2	2	-	-	-	-
17	1209403-01	FAN, BOXER 115V, 50/60 HZ	1	1	1	1	1	1	1	1
18	9006020-2	SCR, PHIL FLAT HD #6 - 32 x .25	7	7	7	7	-	-	-	-
19	9008185	NUT, KEPS #6 - 32	4	4	4	4	6	6	6	6
20	9006023-1	SCR., PHIL HD PAN #6 - 32 x .44	4	4	4	4	4	4	4	4
21	9006074-3	SCR., PHIL TRUSS #10 - 32 x .62	4	4	4	4	4	4	4	4
22	9007651	WASHER, EXT. TOOTH #10	4	4	4	4	4	4	4	4

TITLE: POWER SUPPLY ASSY (H777) | ASSY NO. E-UA-H777-0-0 | SHEET 1 OF 3 | SIZE A | CODE PL | NUMBER H777-0-0 | REV. K | ECO NO H777-00003 | DIST.

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY A. Rocko DATE 19 Nov 76 | CHECKED D. HEALY DATE 29 JUL 76 | SECTION 1
ENG R. Barry DATE 26 Aug 76 | PROD RB King DATE 26 Aug 76 | ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	H777-AA	H777-AB	H777-BA	H777-BB	H777-CA	H777-CB	H777-DA	H777-DB
23	C-IA-7413773-0-0	BRACKET, FAN	2	2	2	2	2	2	2	2
24	1210984	INS SHEET 9.0±.1 X 1.5 ±.1	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
25	B-DC-7414744-0-0	DECAL H777 P.S.	1	1	1	1	-	-	-	-
26	A-PS-3612680-0-0	DECAL, CHASSIS GROUND	1	1	1	1	1	1	1	1
27	C-IA-7011412-0F	CABLE, CHASSIS GROUND	1	1	1	1	1	1	1	1
28	C-IA-7011412-1H	CABLE, CONSOLE GROUND	1	1	1	1	1	1	1	1
29	D-CS-5411599-0-1	CORE REG. H777	1	1	-	-	1	1	-	-
30	9007015	GROMMET	-	-	-	-	1	1	1	1
31	D-IA-7417407-0-0	CHASSIS P.S.	-	-	-	-	1	1	1	1
32	D-AD-7012910-0-0	A/C INPUT ASSY (120V)	-	-	-	-	1	-	1	-
33	D-AD-7012910-1-0	A/C INPUT ASSY (230V)	-	-	-	-	-	1	-	1
34	E-IA-7417018-0-0	COVER, POWER SUPPLY	-	-	-	-	1	1	1	1
35	A-PS-1213773-0-0	AC RECEPTACLE	-	-	-	-	1	1	1	1
36	A-PS-1212877-0-0	FILTER	-	-	-	-	1	1	1	1
37	D-AD-7012909-0-0	+5V REGULATOR ASSY	-	-	-	-	1	1	1	1
38	9009771-1-0	CABLE CLAMP	-	-	-	-	2	2	2	2
39	9006024-01	SCREW, PAN #6 - 32 x .50	-	-	-	-	1	1	1	1
40	9008404-2	SCR PHL FLAT HD #6 - 32 x .31	4	4	4	4	11	11	11	11
41	9107258-02	TUBING, SHRINK (ORN)	-	-	-	-	A/R	A/R	A/R	A/R
42	C-IA-7417288-0-0	WIRE A.C. CONN. HARNESS	-	-	-	-	1	1	1	1
43	B-DC-7414744-1-0	DECAL H777 P.S.	-	-	-	-	1	1	1	1
44	9006037-1	SCR, PHIL PAN HD #8 - 32 x .38	-	-	-	-	1	1	1	1

TITLE: POWER SUPPLY ASSY (H777) | ASSY NO. E-UA-H777-0-0 | SHEET 2 OF 3 | SIZE A | CODE PL | NUMBER H777-0-0 | REV. K | ECO NO. | DIST.

DEC FORM DEC 16 (325) 1031 N870

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY DATE | CHECKED D. HEALY DATE 29 JUL 76 | SECTION 1
ENG R. Barry 26 Aug 76 DATE | PROD RB King DATE 26 Aug 76 | ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	H777-AA	H777-AB	H777-BA	H777-BB	H777-CA	H777-CB	H777-DA	H777-DB
45	9006634	WASHER INT. TOOTH LOCK #8	-	-	-	-	1	1	1	1
~~46~~	~~B-IA-7013938-1~~	~~AC POWER CORD ASSEMBLY #30~~	-	-	-	-	-	-	-	-
47	9006011-1	SCR PH HD PAN #4 - 40 x .38	-	-	-	-	2	2	2	2
48	9006632	WASHER INT. TOOTH LOCK #4	-	-	-	-	2	2	2	2
49	9008020-02	SCR, PHIL FLAT HD. #6-32 x .18	1	1	1	1	-	-	-	-
50	7011411-1L	CABLE, CONSOLE CONTROL	-	-	-	-	1	1	1	1
51	9006022-03	SCR. PHIL. TRUSS #6-32 x .38	-	-	-	-	4	4	2	2
52	C-IA-7013938-1	CABLE JUMPER	-	-	-	-	1	1	1	1
53	C-IA-7013938-0	CABLE JUMPER	-	-	-	-	1	1	1	1
54	C-IA-7013939-0	CABLE GROUNDING	-	-	-	-	1	1	1	1
55	A-PS-1700083-05	AC POWER CORD (115V)	-	-	-	-	1	-	1	-
56	A-PS-1700083-04	AC POWER CORD (230V)	-	-	-	-	-	1	-	1

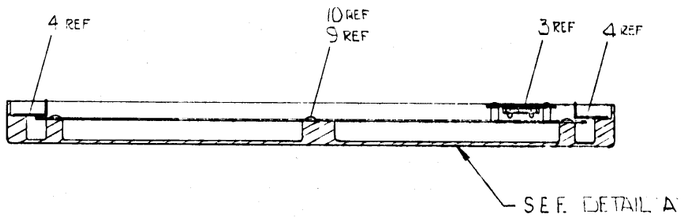
TITLE: POWER SUPPLY ASSY (H777) | ASSY NO. E-UA-H777-0-0 | SHEET 3 OF 3 | SIZE A | CODE PL | NUMBER H777-0-0 | REV. K | ECO NO. | DIST.

DEC FORM DEC 16 (325) 1031 N870
DRA 110

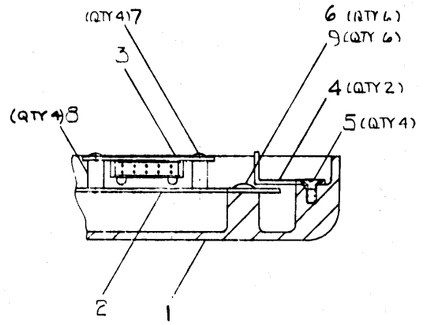
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NOTES:

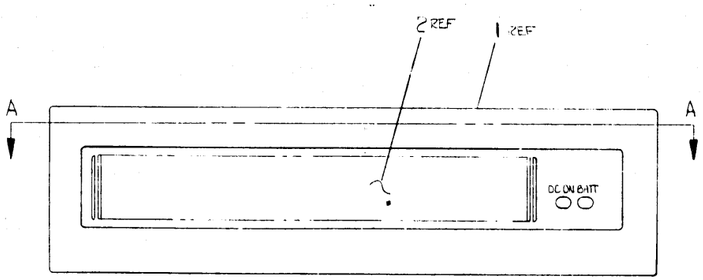
1. TO SELECT STAND BY/MODE, ON MODE OR OFF MODE SEE D-CS-5411501-0-1.



SECTION A-A



DETAIL 'A'
SCALE 1/1



6	SCREW, PAN HD. PHIL #8-32 x .31 LG	9006036-1	9
4	SPACER, .25 D, Y 8-32 X .44 LG	9009835	8
4	SCREW, PAN HD. PHIL 6-32 X .19 LG	9008020-1	7
6	WASHER, INT. TOOTH #8	9006634	6
4	SCR FLAT HD PHIL #8-32 X .38	9006037-2	5
2	BRACKET SUPPORT FILTER	C-MD-7414962-1-0	4
1	CONT. EXP. BOX (BAIL-L)	D-UA-5411501-0-0	3
1	PANEL, EXPANDER BOX	B-IA-7017321-0-0	2
1	BEZEL	E-MD-7416747-0-0	1
	DESCRIPTION	C.I.S./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	Basic 0 TO 0.3	Over 0.3 TO 1.2	Over 1.2 TO 3.9	Over 3.9 TO 12.0	Over 12.0 TO 48.0	Over 48.0 TO 120.0
SURFACE QUALITY IN ✓ MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.002	±.004	±.008	±.012	±.020	±.04

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH

DRN

CHK'D

ENG

PROJ. ENGR

PROD.

NEXT HIGHER ASSY.

E-MD-7011-L-0

SCALE 1/2

SHEET 1 OF 1

FIRST USED ON: 1104

COMMENTS

TITLE: CONSOLE ASSY EXPANDER BOX

SIZE: D | CODE: AD | NUMBER: 7012540-0-0 | REV.

DIST.

REVISIONS	REV.
CHANGE NO.	
CHK	

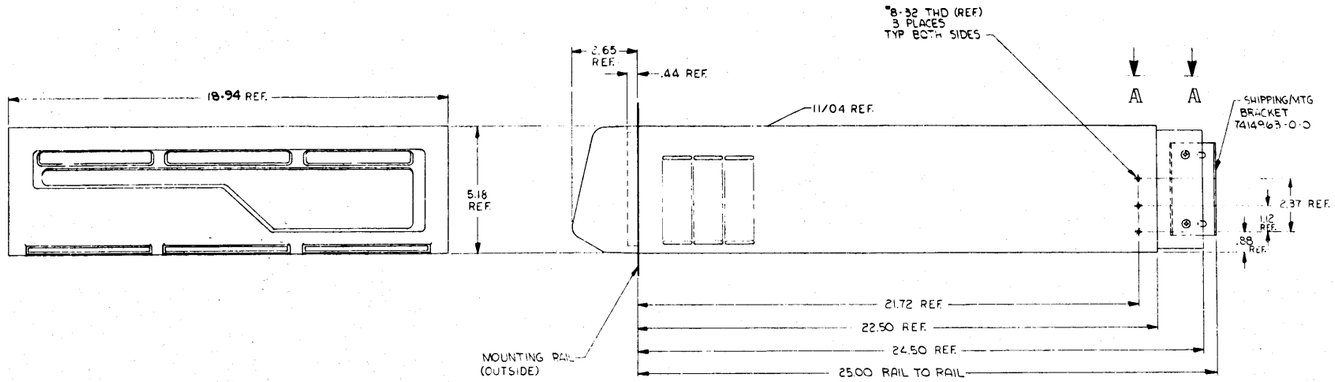
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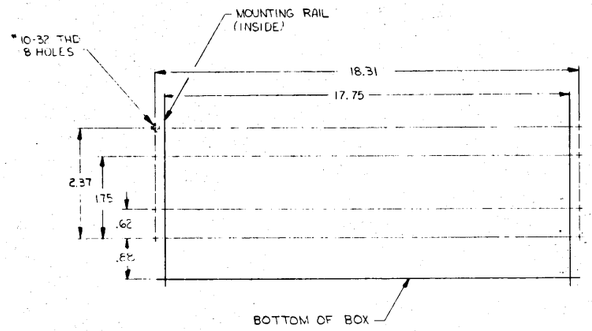
200

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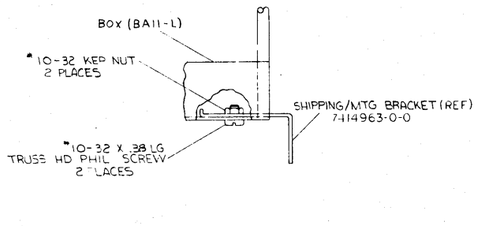
NOTES:

1. SHOWN IN MTG BRACKET POSITION. ALSO SHOWN ISOMETRIC OF BKT IN MTG POSITION & SHIPPING POSITION.
2. BECAUSE OF U.L. REQUIREMENTS THE REAR OF THE POWER SUPPLY MUST BE COVERED. THE GUARD SHOWN IS TO BE INSTALLED ON UNITS THAT DON'T HAVE THE NEW PWR SUPPLY WITH CLOSED ENDS. THERE SHOULD BE APPROX. 500 UNITS THAT WILL REQUIRE THIS RETROFIT.

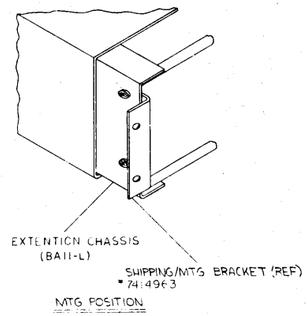


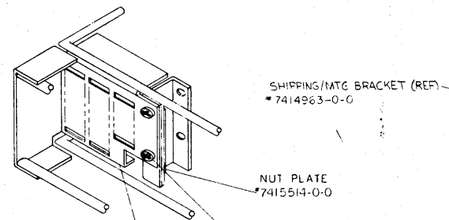


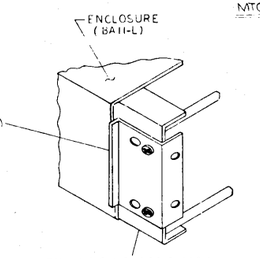
HOLE PATTERN REQ'D



VIEW A-A
NO SCALE
SEE NOTE 1







DESCRIPTION		DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 6 / OVER 6 TO 30 / OVER 30 TO 120 / OVER 120 TO 315 / OVER 315 TO 1000	
SURFACE QUALITY IN MICROINCHES	MEDIUM	±.004 / ±.008 / ±.012 / ±.016 / ±.024 / ±.04	
	PREFERRED	±.012 / ±.016 / ±.025 / ±.04 / ±.063 / ±0.1	
QUANTITY & VARIATION			
THIRD ANGLE PROJECTION	DRWG	27 FEB 74	FIRST USED ON 11/04
REMOVE BURRS AND BREAK SHARP CORNERS	CHECK	28 FEB 74	TITLE: INSTALLATION AID
	ENGR	28 JAN 74	
	PROJ. ENGR	28 FEB 74	
DO NOT SCALE DWG	PROD	28 FEB 74	
MATERIAL	NEXT HIGHER ASSY.		SIZE F / CODE AD / NUMBER 7012588-0-0 / REV.
FINISH	E-UA-BA11-L		
	SCALE NO SCALE		
	SHEET 1 OF 1		CUST.

7012588-0-0 X01

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digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

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~~CUSTOMER PRINT SET INDEX~~

~~THIS IS PRINT SET~~

SEQUENCE SEQUENCE

NOTE:
FOR FIELD MAINTENANCE
PRINT SET REFER TO
B-TC-BA11-L-1

UNIT VARIATIONS

PRINT SET

VAR	TITLE
BA11-LA	5.25 BOX, H777-AA P.S. 115V
BA11-LB	5.25 BOX, H777-AB P.S. 230V
BA11-LC	5.25 BOX, H777-BA P.S. 115V
BA11-LD	5.25 BOX, H777-BB P.S. 230V
BA11-LE	5.25 EXPANDER BOX, H777-CA P.S. 115V
BA11-LF	5.25 EXPANDER BOX, H777-CB P.S. 230V
BA11-LH	5.25 EXPANDER BOX, H777-DA P.S. 115V
BA11-LJ	5.25 EXPANDER BOX, H777-DB P.S. 230V
BA11-LK	5.25 BOX & H777CA 115V CORE & MOS
BA11-LL	5 25 BOX & H777CB 230V CORE & MOS
BA11-LM	5.25 BOX & H777DA 115V MOS ONLY
BA11-LN	5 25 BOX & H777DB 230V MOS ONLY

REV	CHG. NO.	DATE
A	BA11-L-4	4-76
B	BA11-L-6	10-76
C	BA11-L-7	1-77
D	BA11-L-8	3-77
E	BA11-L-9	4-77

REVISIONS

USED ON OPTION/MODEL
11/04
11/34

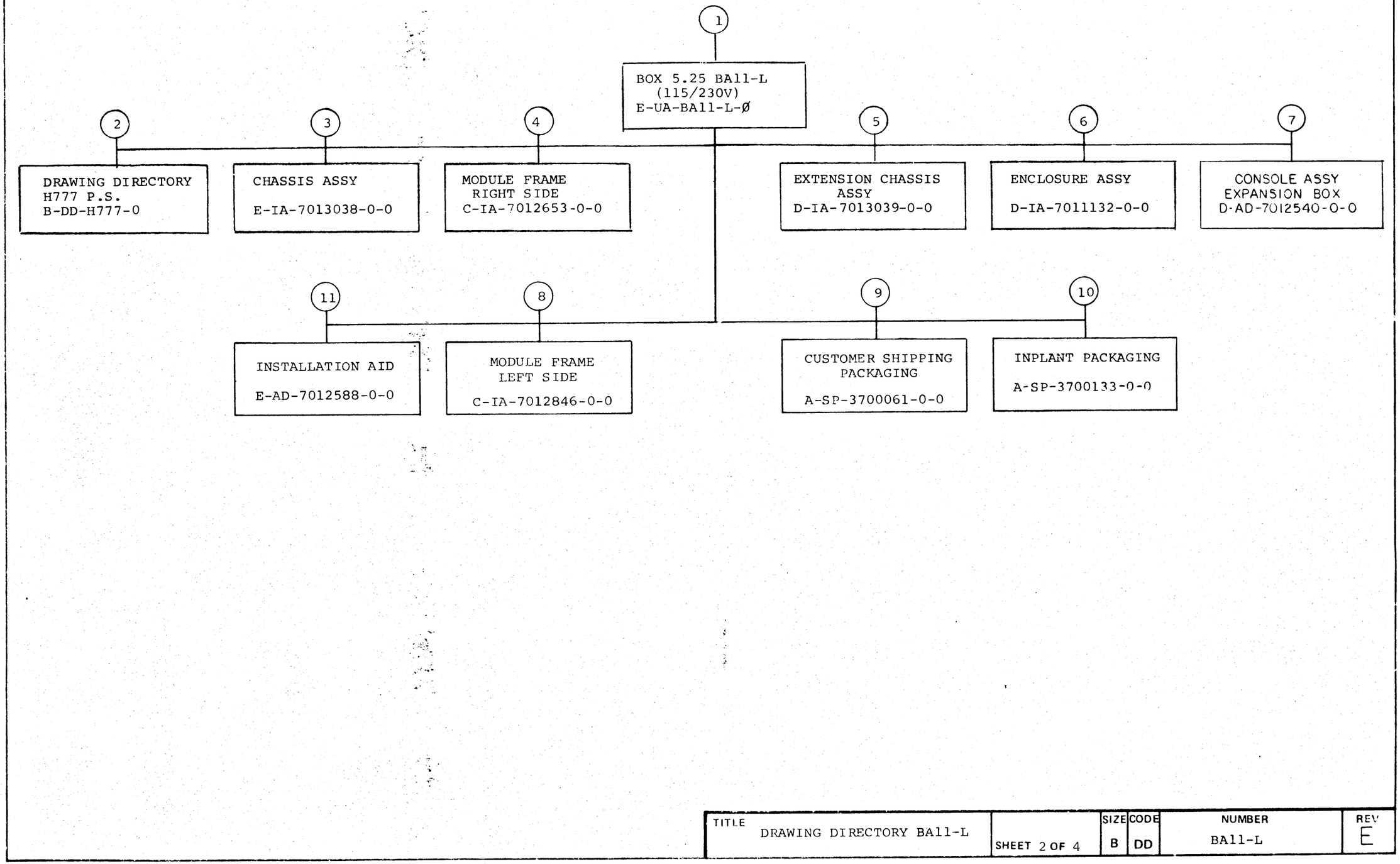
SHEET 1 OF 4

DRN. G. MARINI	DATE 9/3/75	TITLE: DRAWING DIRECTORY BA11-L
CHK'D. D. HEALY	DATE 9/30/75	
PROJ ENG. R Barry	DATE 10-22-75	
PROD. RK Peterson	DATE 10/22/75	SIZE B · CODE DD · NUMBER BA11-L · REV E
~~FIELD SERV.~~	~~DATE~~	DIST

EN-01062-1A-16-R972-(325)

DRB 106

202



TITLE		SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY BA11-L	SHEET 2 OF 4	B	DD	BA11-L	E

DRB 107
DEC 16-(325)-1052-3-N871

ELECTRICAL (SECTION 1)

CUSTOMER PRINT SET	CUST FURN	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		1	E-UA-BA11-L-Ø		1	BOX 5.25 BA11-L 115/230V	
			A-PL-BA11-L-Ø		3	BOX 5.25 BA11-L 115/230V (PL)	
		2	B-DD-H777-B		4	DRAWING DIRECTORY H777	
		7	D-AD-7012-4C-0-0		1	CONSOLE ASSY, EXPANSION BOX	
			D-CS-5411501-0-0		1	BA11-L EXP. BOX CONTROL	

MECHANICAL (SECTION 2)

CUSTOMER PRINT SET	CUST FURN	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
		1	E-UA-BA11-L-Ø		1	BOX 5.25 BA11-L (115/230V)	
			B-MD-7413846-0-0		1	BAR, CABLE STRAIN RELIEF	
			C-IA-7011412-0-0		1	CABLE, CHASSIS GND	
			C-MD-7414963-0-0		1	BRKT., SHIPPING AND CAB MOUNT	
			A-PL-BA11-L-Ø		3	BOX 5.25 BA11-L 115/230V (PL)	
			A-DC-5309413-0-0		1	DECAL NFPA	
			A-DC-5309414-0-0		1	DECAL UL	
		2	B-DD-H777-B		4	DRAWING DIRECTORY H777 P.S.	
		3	E-IA-7013038-0-0		1	CHASSIS ASSY	
			C-MD-7414236-0-0		1	FRAME, CHASSIS	
			C-MD-7413855-0-0		1	BRACKET MTG (LH)	
			C-MD-7413852-0-0		1	BRACKET MTG (RH)	
			C-MD-7413853-0-0		1	BRACKET, FRAME	
			C-IA-7414442-0-0		1	BRACKET LOGIC SUPPORT (BOT)	
			C-IA-7414441-0-0		1	BRACKET LOGIC SUPPORT (BOT)	
			C-MD-7413857-0-0		1	BRACKET MAIN SUPPORT	
			C-MD-7413858-0-0		1	BRACKET, SUPPORT	
			B-MD-7414237-0-0		1	ROD CONNECTING CHASSIS	
			B-MD-7413856-0-0		1	BRACKET, FAN MOUNTING	
			B-MD-7414235-0-0		1	SUPPORT DIAGONAL ROD	
			C-MD-7413854-0-0		1	BRACKET POWER SUPPLY SUPPORT	
			B-IA-7414443-0-0		1	CLAMP PLATE CABLE	
			C-MD-7417221-0-0		1	ROD MODULE RETAINER	
		4	C-IA-7012653-0-0		1	MODULE FRAME RIGHT HAND	
			C-MD-7414084-0-0		1	BRACKET EJECTOR (MODULE FRAME)	
			C-MD-7414082-0-0		1	BRACKET BACKPLANE (MODULE FRAME)	
			C-MD-7416516-0-0			ROD, MODULE FRAME	
			C-MD-7416517-0-0			BRACKET, CARD GUIDE	

CUSTOMER PRINT SET CODES
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL FABRIS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY BA11-L	3 OF 4	B	DD	BA11-L	E

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DRB 108

digital EN-01062-2B-16-R972-(325)

CUSTOMER PRINT SET	SEL	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			MECHANICAL (SECTION 2)				
		5	D-IA-7013039-0-0		1	EXTENSION CHASSIS ASSY	
			B-MD-7414086-0-0		1	ROD EXTENSION FRAME	
			C-MD-7417220-0-0			PLATE END RIGHT HAND	
			C-MD-7417239-0-0			PLATE END LEFT HAND	
		6	D-IA-7011132-0-0		1	ENCLOSURE ASSY	
			D-IA-7013868-0-0		1	ENCLOSURE BOTTOM	
			D-MD-7413869-0-0		1	ENCLOSURE TOP	
		7	D-AD-7412540-0-0		1	CONSOLE ASSY, EXPANSION BOX	
		8	C-IA-7012846-0-0			MODULE FRAME LEFT SIDE	
			C-MD-7414084-0-0			BRKT. EJECTOR L.H.	
			C-MD-7416517-0-0			BRKT. CARD GUIDE	
			C-MD-7414082-0-0			BRKT. BACKPLANE L.H.	
			C-MD-7416516-0-0			ROD	
		9	A-SP-3700061-0-0			PACKAGING INSTRUCTIONS CUST.	
			A-PS-9905647-0-0			FULL-TELESCOPE CAP	
			A-PS-9905648-0-0			FOAM PAD	
			A-PS-9905646-0-0			FOAM WITH CORRUGATED SIDEWALL ASSEMBLY	
			A-PS-9905734-0-0			STRAPPING (STEEL OR PLASTIC)	

CUSTOMER PRINT SET	SEL	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			MECHANICAL (SECTION 2)				
		10	A-SP-3700133-0-0			PACKAGING IN PLANT	
			A-PS-9905271-0-0			LAMINATED BUILDUPS SADDLE	
			A-PS-9905184-0-0			BEZEL PROTECTOR	
			A-PS-9905418-0-0			REGULAR SLOTTED CARTON	
			A-PS-9905129-7			POLY BAG	
			A-PS-9905729-0-0			3 IN. WIDE GLASFLEX TAPE	
		11	E-AD-7012588-0-0			INSTALLATION AID	

CUSTOMER PRINT SET CODES
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C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE: DRAWING DIRECTORY BA11-L

SHEET 4 OF 4 | SIZE: B | CODE: DD | NUMBER: BA11-L | REV: E

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digital EN-01062-2B-16-R972-(325)

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

SEQUENCE	
DRAWING DIRECTORY BA11-K	B-DD-BA11-K
UNIT ASSY BA11-K	E-UA-BA11-K-Ø
UNIT ASSY BA11-K P.L.	A-PL-BA11-K-Ø
DRAWING DIRECTORY H765	B-DD-H765-Ø
UNIT ASSY BC11A	D-UA-BC11A-1Ø-Ø
BC11A UNIBUS CABLE, M919	B-CS-M919-0-1
BC11A UNIBUS CABLE, M929	B-CS-M929-0-1

SEQUENCE	
MFG. PRINT SET	
IN PLANT PACK. INST.	A-SP-3700167-0-0
SKID LOAD PACK. INST.	A-SP-3700165-0-0
CUST. CUSHIONED PACK. INST.	A-SP-3700169-0-0

THIS IS PRINT SET ☐☐☐☐

UNIT VARIATIONS

VAR	TITLE	PRINT SET 1
BA11-KE	115 VAC 50/60 HZ	X
BA11-KF	230 VAC 50/60 HZ	X
BA11-KH	115 VAC 50/60 HZ (MANUF. ONLY)	X
BA11-KJ	230 VAC 50/60 HZ (MANUF. ONLY)	X
BA11-KK	115VAC 50/60 HZ (NO H754) (MANUF ONLY)	X
BA11-KL	230 VAC 50/60 HZ (NO H754) (MANUF ONLY)	X
BA11-KA	NO POWER SUPPLY (MANUF ONLY)	X

REVISIONS		
DATE	CHG. NO.	REV
E.A.	BA11K-4	A
E.A.	BA11K-5	B
WRH	BA11K-7	C
B.M.	BA11K-8	D
RJ	BA11K-9	E
RJB	BA11K-10	F
RR	BA11K-11	H
R.I.P.	BA11K-12	J
R.I.P.	BA11K-13	K
3-77	BA11K-14	L

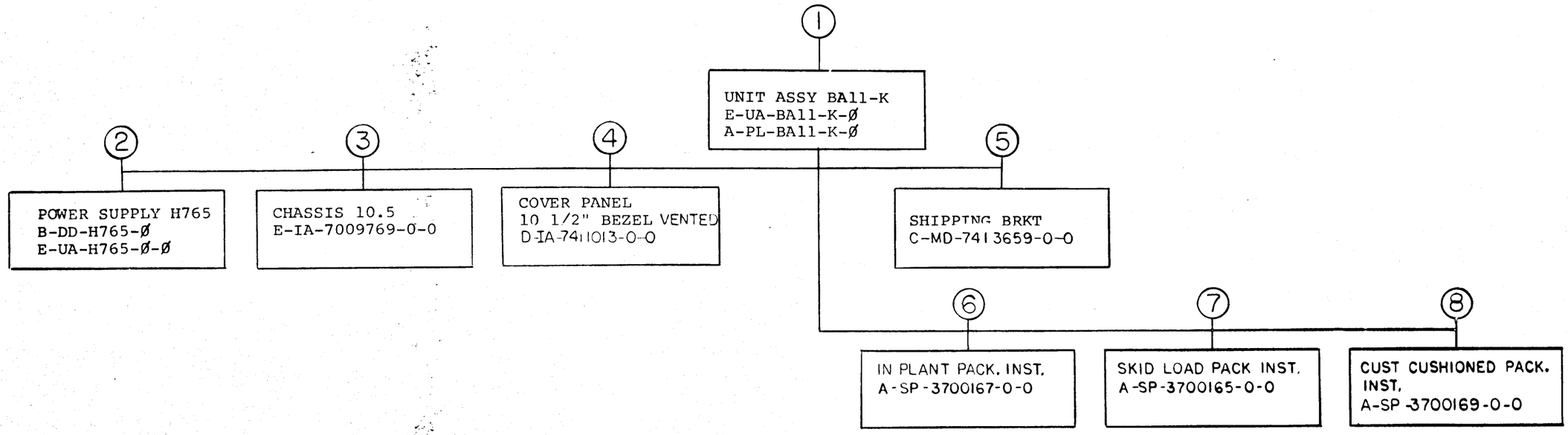
USED ON OPTION/MODEL	
11/05-S	
11/35-S	
SHEET 1 OF 4	

DRN. J. FERGUSEN	DATE 6/22/74	TITLE DRAWING DIRECTORY BA11-K
CHK'D. D. HEALY	DATE 7/3/74	
PROJ ENG. E. Anton	DATE 9/4/74	
PROD. R. Peterson	DATE 10/1/74	SIZE B · CODE DD · NUMBER BA11-K · REV L
FIELD SERV. R.L. Gates	DATE 9/13/74	DIST

DEC 16-12591-1-902-1A-R-1902

DRB 106

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TITLE		SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY BA11-K	SHEET 2 OF 4	B	DD	BA11-K	L

DRB 107
DEC 16-(325)--1062-3-N871

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			ELECTRICAL				
X		1	E-UA-BA11-K-Ø	L	2	UNIT ASSY BA11-K	
X			A-PL-BA11-K-Ø	L	2	UNIT ASSY BA11-K PL	
			A-SP-BA11-K-6		8	BA11-K BASIC CHECKOUT AND ACCEPTANCE PROCEDURE	
			A-SP-BA11-K-7		10	BA11-K BASIC ASSEMBLY PROCEDURE	
C		2	B-DD-H765-Ø	**	5	POWER SUPPLY H765	

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			ELECTRICAL				

CUSTOMER PRINT SET CODES	
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
	C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
	S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY BA11-K	3 OF 4	B	DD	BA11-K	L

MECHANICAL

CUSTOMER PRINT SET 1	SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		1	E-UA-BA11-K-Ø	L	2	UNIT ASSY BA11-K	
			A-PL-BA11-K-Ø	L	2	UNIT ASSY BA11-K PL	
			D-IA-7009768-0-0		1	COVER, CHASSIS	
			D-PS-1211825-0-0		3	SLIDE, 3 POS TILT	
			D-MD-7412184-0-0		1	CABLE, TROUGH CHASSIS	
X			D-UA-BC11A-10-Ø		1	UNIBUS, CABLE, 10 FT	
X			B-CS-M919-Ø-1	#	1	BUS CONNECTOR M919	
X			B-CS-M929-0-1	#	1	BUS CONNECTOR M929	
			D-PS-1212405-00		1	CARD GUIDE	
			A-DC-5309414-0		1	DECAL UL	
			A-DC-5309413-0		1	DECAL NFPA	
			A-PS-3613281-0-0		1	DECAL	
		2	B-DD-H765-Ø		5	DWG DIRECTORY H765	
			E-UA-H765-Ø-Ø		2	POWER SUPPLY H765	
		3	E-IA-7009769-0-0		1	CHASSIS, 10.5	
			E-IA-7411703-0-0		1	CHASSIS, FRONT	
			E-IA-7411707-0-0		1	CHASSIS, SIDE	
			D-MD-7411706-0-0		1	BRACKET, HAT	
			D-MD-7411705-0-0		1	BRACKET, CARD GUIDE	
			C-MD-7412185-0-0		1	PLATE CABLE	
		4	D-IA-7411013-0-0		1	COVER PANEL 10 1/2 PEZEL	
		5	C-MD-7413659-0-0		1	SHIPPING BRKT	

MECHANICAL

CUSTOMER PRINT SET 1	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
	X	6	A-SP-3700167-0-0	-	3	IN PLANT PACK. INST.	
			A-PS-9905650-0-0	-	2	REGULAR SLOTTED CARTON	
			A-PS-9905335-0-0	-	2	BEZEL PROTECTOR	
			A-PS-9905644-0-0	-	2	REAR PROTECTOR	
			A-PS-9905323-0-0	A	2	SIDE PROTECTOR	
			A-PS-9905129-0-0	A	4	POLY BAG 20 x 13 x 40in 1-1/2 mil.	
	X	7	A-SP-3700165-0-0	-	4	SKID LOAD PACK. INST.	
			A-PS-1210568-0-0	-	2	CUSHIONED SKID	
			A-PS-9905445-0-0	-	2	HALF OVERLAP SLOTTED CARTON (TOP)	
			A-PS-9905419-0-0	-	2	FLANGED TUBE (BOTTOM)	
	X	8	A-SP-3700169-0-0	-	2	CUST. CUSHIONED PACK. INST.	
			A-PS-9905645-0-0	-	2	FULL TELESCOPE CAP	
			A-PS-9905642-0-0	-	2	FOAM PAD	
			A-PS-9905643-0-0	-	2	FOAM WITH CORRUGATED SIDE WALL ASSEMBLY	

CUSTOMER PRINT SET CODES
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TITLE		SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY BA11-K	SHEET 4 OF 4	B	DD	BA11-K	L

DRB 108
DEC 16-(325)-1062-2B-R972

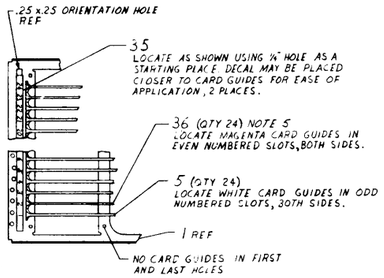
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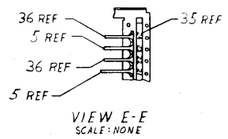
FOR MFG USE ONLY

LEGEND	
NUMBER	VARIATION
BA11-KE	115V 50/60 HZ
BA11-KF	230V 50/60 HZ
BA11-KH *	115V 50/60 HZ
BA11-KJ *	230V 50/60 HZ
BA11-KK *	115V 50/60 HZ
BA11-KL *	230V 50/60 HZ
BA11-KA *	NO POWER SUPPLY

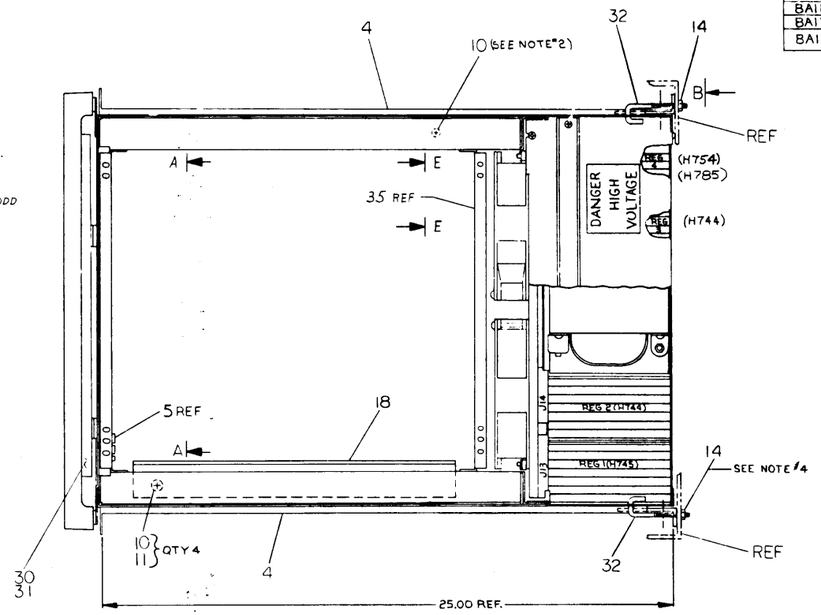
NOTES:
1. CAUTION: OFF SHEEET PARTS LISTS EXISTS SEE A-PL-BA11-K-Ø
2. GROUND LUG OF PWR. DISTRIBUTION BD. ATTACHES TO SCREW ON CHASSIS.
3. TIGHTEN ALL SYSTEM UNIT MOUNTING SCREWS TO 13 IN.-LBS WITH A TORQUE SCREW DRIVER
4. ATTACH SHIPPING BRACKETS TO POWER SUPPLY AND BOLT THROUGH HOLE IN CABINET RAILS.
5. INSTALL CARD GUIDES, ITEM NOS. 5 & 36 USING TOOL NO. 9412610-2.
6. ASSEMBLE ITEM NO. 37 USING EXISTING HARDWARE.



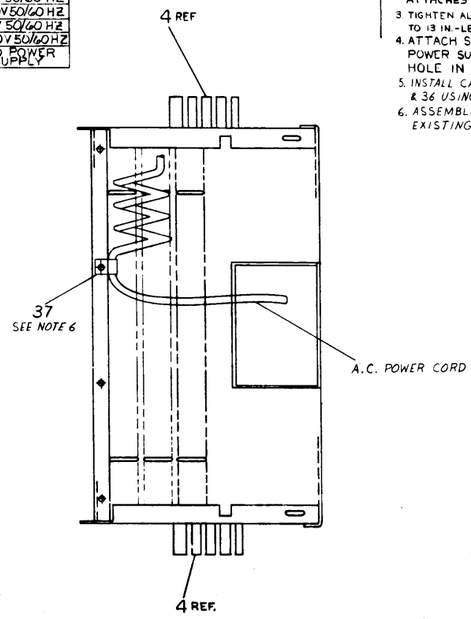
VIEW A-A
SCALE: NONE



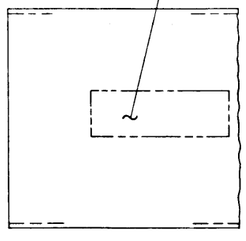
VIEW E-F
SCALE: NONE



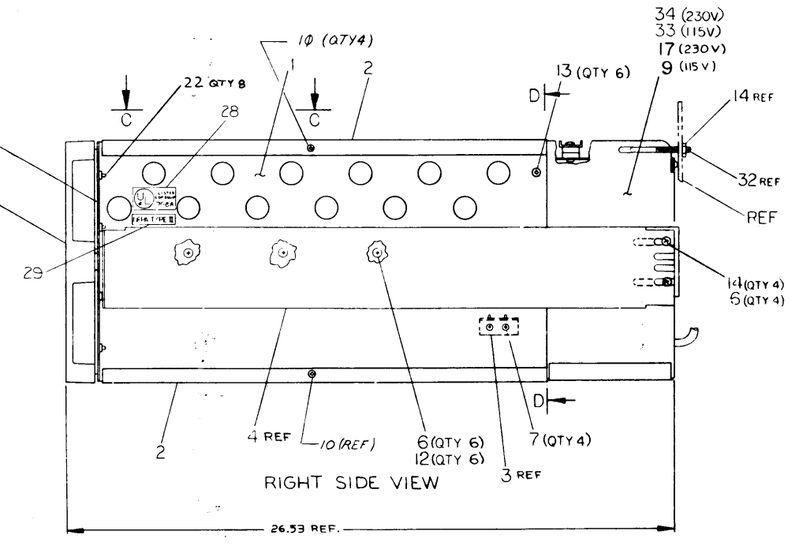
TOP VIEW
(CHASSIS COVER REMOVED)



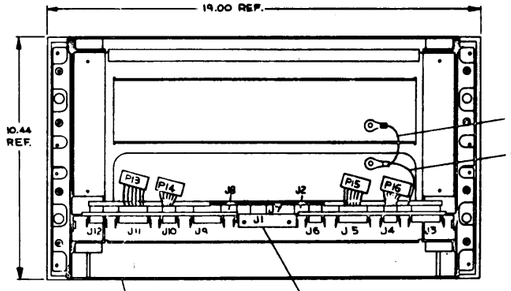
VIEW B-B



VIEW C-C
SCALE: NONE
ONLY TOP COVER ITEM #2 SHOWN



RIGHT SIDE VIEW



VIEW D-D
REAR VIEW
(POWER SUPPLY AND CHASSIS SLIDES REMOVED)

QTY.	DESCRIPTION	PART NO.
	PARTS LIST	

BA11-K

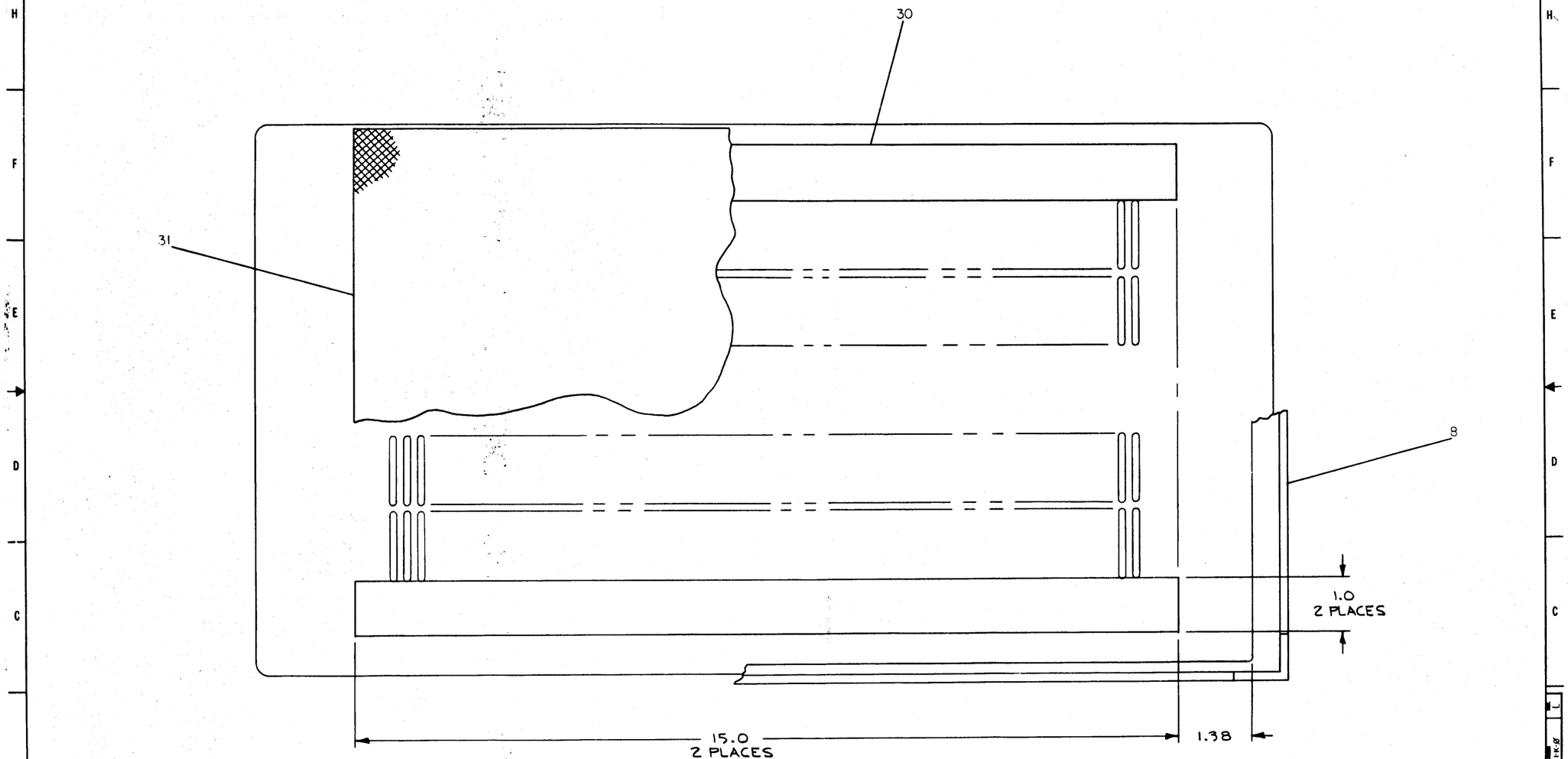
20-00620

TITLE
UNIT ASSY
BA11-K

A-DD-BA11-K

E UA BA11-K-Ø L

BA11-K-Ø



REAR VIEW

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE/CODE	NUMBER	REV.
UNIT ASSY BAII-K-Ø	E UA	BAII-K-Ø	L
SCALE — SHEET 2 OF 2	DIST.		

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY BILL BLODGET	CHECKED D. HEALY	SECTION 1
DATE 6/26/74	DATE 6/27/74	
ENG P. E. JANSON	PROD W. LUCAS	ISSUED SECT. 1
DATE 8-23-74	DATE 8-23-74	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION BA11-KE	BA11-KF	BA11-KH	BA11-KJ	BA11-KK	BA11-KL	BA11-KA
1	E-IA-7009769-0-0	CHASSIS 10.5	1	1	1	1	1	1	1
2	D-IA-7009768-0-0	COVER, CHASSIS	2	2	–	–	–	–	–
3	D-CS-5410864-C-1	POWER DISTRIBUTION BOARD	REF	REF	REF	REF	REF	REF	–
4	D-PS-1211825-0-0	SLIDE, 3 POS TILT	1pr	1pr	–	–	–	–	–
5	D-PS-1212405-0	CARD GUIDE, SINGLE	24	24	24	24	24	24	24
6	9006071-3	SCREW, PHL TRUSS HD #10-32 X .38	10	10	–	–	–	–	–
7	9006020-2	SCREW, PHL FLAT HD #6-32 X .25	4	4	4	4	4	4	–
8	D-IA-7411013-0-0	COVER, PANEL 10 1/2 BEZEL (SNAP-ON VENTED)	1	1	–	–	–	–	–
9	B-DD-H765-A	POWER SUPPLY H765-A 115V 50/60 HZ	1	–	1	–	–	–	–
10	9006020-3	SCREW, PHL. TRUSS HD #6-32 X .25	9	9	5	5	5	5	5
~~11~~	~~9006633~~	~~WASHER INTERNAL TOOTH LOCK #6~~	~~4~~	~~4~~	~~4~~	~~4~~	–	–	
12	9007651	WASHER EXTERNAL TOOTH #10	6	6	–	–	–	–	–
13	9009599	SCREW, PHL FLAT HD (SPECIAL)	6	6	6	6	6	6	–
14	9006565	NUT, KEPS, #10-32	6	6	–	–	–	–	–
15	DEC-3-(374)-1825 N1174	STICKER, "CONFIGURATION"	1	1	–	–	–	–	–
~~16~~	~~D-IA-7010059-0-0~~	~~SHIPPING BRKT, ASSY~~	~~1~~	~~1~~	–	–	–	–	
17	B-DD-H765-B	POWER SUPPLY H765-B, 230V 50/60 HZ	–	1	–	1	–	–	–
18	D-MD-7412184-0-0	CABLE TROUGH CHASSIS	–	–	1	1	1	1	1
19	9008408-1	SCR, PH. HD SELF TAP #6-32 X .25	1	1	5	5	–	–	–
20	D-UA-BC11A-10-0	UNIBUS CABLE, 10 FT	1	1	–	–	–	–	–
21	1209224	LATCH MOLDING	4	4	–	–	–	–	–
22	9008007-2	SCR PH HD FLT #10-32 X .25	8	8	–	–	–	–	–

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
UNIT ASSY BA11-K	E-UA-BA11-K-Ø	A	PL	BA11-K-Ø	L	BA11-K 00314
	SHEET 1 OF 2	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY BILL BLODGET	CHECKED D. HEALY	SECTION 1
DATE 6/26/74	DATE 6/27/74	
ENG P. E. JANSON	PROD W. LUCAS	ISSUED SECT. 1
DATE 8-23-74	DATE 8-23-74	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION BA11-KE	BA11-KF	BA11-KH	BA11-KJ	BA11-KK	BA11-KL	BA11-KA
23	A-SP-3700167-0-0	IN PLANT PACK. INST.	REF	REF	REF	REF	REF	REF	REF
24	A-SP-3700165-0-0	SKID LOAD PACK INST.	REF	REF	REF	REF	REF	REF	REF
25	A-SP-3700169-0-0	CUST. CUSHIONED PACK. INST.	REF	REF	REF	REF	REF	REF	REF
26	A-SP-BA11-K-6	BA11-K BASIC CHECKOUT AND ACCEPTANCE							
		PROCEDURE	REF	REF	REF	REF	REF	REF	REF
27	A-SP-BA11-K-7	BA11-K BASIC ASSEMBLY PROCEDURE	REF	REF	REF	REF	REF	REF	REF
28	A-DC-5309414-0	DECAL, UL	1	1	–	–	–	–	–
29	A-DC-5309413-0	DECAL, NFPA	1	1	–	–	–	–	–
30	1211336-02	TAPE	A/R	A/R	–	–	–	–	–
31	1211255-0-0	PRE FILTER	1	1	–	–	–	–	–
32	C-MD-7413659-0-0	SHIPPING BRACKET	2	2	–	–	–	–	–
33	B-DD-H765-C	POWER SUPPLY H765-C 115VAC 50/60HZ NO H754	–	–	–	–	1	–	–
34	B-DD-H765-D	POWER SUPPLY H765-D 230VAC 50/60HZ NO H754	–	–	–	–	–	1	–
35	A-PS-3613281-00	DECAL, ADHESIVE BACKED, BA11-K	2	2	2	2	2	2	2
36	D-PS-1212405-1	CARD GUIDE, SINGLE	24	24	24	24	24	24	24
37	9007086-00	CLAMP, CABLE	1	1	1	1	1	1	–

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
UNIT ASSY BA11-K	E-UA-BA11-K-Ø	A	PL	BA11-K-Ø	L	
	SHEET 2 OF 2	DIST.				

DEC FORM DEC 16-(325)-1031-N870
DRA 110

JJC

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

	SEQUENCE
DRAWING DIRECTORY H765	B-DD-H765-Ø
UNIT ASSY H765	E-UA-H765-Ø-Ø
AC INPUT BOX ASSY	D-AD-7009811-0-Ø
AC PWR CONTROL BOARD	D-CS-5410993-0-1
DRAWING DIRECTORY H744	B-DD-H744-Ø
DRAWING DIRECTORY H745	B-DD-H745-Ø
DRAWING DIRECTORY H754	B-DD-H754-Ø
PWR DISTRIBUTION BOARD	D-CS-5410864-0-1
AC POWER CORD	D-AD-7012500-0-0
PWR LINE MONITOR/15V REG	D-CS-5411086-0-1
TRANSFORMER ASSEMBLY	E-AD-7011486-0-0

	SEQUENCE
MFG. PRINT SET	
PACKAGING INSTRUCTIONS	A-SP-3700174-0-0

UNIT VARIATIONS

VAR	TITLE	PRINT SET 1
H765-A	120V 50/60 HZ	X
H765-B	240V 50/60 HZ	X
H765-C	120V 50/60 HZ NO H754 NO B.B.	X
H765-D	240V 50/60 HZ NO H754 NO B.B.	X
H765-P	120V 50/60 HZ NO REG	X
H765-R	240V 50/60 HZ NO REG.	X

REVISIONS		
DATE	CHG. NO.	REV
[illegible]	H765-3	A
[illegible]	H765-4	B
[illegible]	H765-[illegible]	C
[illegible]	H765-7	D
[illegible]	H765-8	E
[illegible]	H765-9	F
[illegible]	H765-10	H
[illegible]	H765-11	J
[illegible]	H765-12	K
[illegible]	H765-13	L
[illegible]	H765-14	M

USED ON OPTION/MODEL	
All-K	
11/35-B	
SHEET 1 OF 1	

DRN. J. FERGUSON	DATE 6/25/74	TITLE: DRAWING DIRECTORY POWER SUPPLY H765
CHK'D. D. EALY	DATE 7/3/74	
PROJ ENG. [illegible]	DATE 8/4/74	
PROD. [illegible]	DATE [illegible]	SIZE B · CODE DD · NUMBER H765-Ø · REV M
FIELD SERV R. [illegible]	DATE 8/13/74	DIST

DEC 16-13251-1 2-14-8872

DRB 106

213

1 — POWER SUPPLY
H765
E-UA-H765-Ø-Ø

2 — CHASSIS
POWER SUPPLY
E-IA-7009752-0-0

3 — TRANSFORMER
ASSY
E-AD-7011486-0-0

4 — AC INPUT
BOX ASSY
D-AD-7009811-0-0

14 — PWR LINE MONITOR
15V REG
D-CS-5411086-0-1

8 — +5V REGULATOR
B-DD-H744-Ø

9 — -15V REGULATOR
B-DD-H746-Ø

15 — CAP MOV BOARD
ASSEMBLY
D-IA-7011751-0-0

16 — CAP MOV
ASSEMBLY
D-CS-5411689-0-1

5 — CHASSIS
COMPONENT MTG
D-IA-7009812-0-0

6 — AC PWR CONTROL
BOARD
D-CS-5410993-0-1

13 — PACKAGING
INSTRUCTIONS
A-SP-3700174-0-0

10 — +20V, -5V REGULATOR
B-DD-H754-Ø

11 — COVER, P. SUPPLY
D-IA-7009949-0-0

12 — POWER DISTRIBUTION
BOARD ASSY
D-CS-5410864-0-1

TITLE			SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY POWER SUPPLY H765	SHEET 2 OF 5		B	DD	H765-Ø	M

DRB 107
DEC 16 (325) 1562-3 8871

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			ELECTRICAL				
X		1	E-UA-H765-Ø-Ø	R	2	POWER SUPPLY H765	
			A-SP-H765-0-9			H765 POWER SUPPLY ASSEMBLY PROCEDURE	
X		3	E-AD-7011486-0-0	#		TRANSFORMER ASSY	
			A-SP-7010014-0-8	A		TEST PROCEDURE	
			A-CS-7010014-TA-1	A		TESTER C.S.	
			A-UA-7010014-TA-0			TESTER U.A.	
			A-PL-7010014-TA-0	A		TESTER P.L.	
			A-SP-7011486-0-9			TRANSFORMER ASSY PROCEDURE	
X		4	D-AD-7009811-0-0	#	2	AC INPUT BOX ASSY	
			A-SP-7009811-0-8			TEST PROCEDURE	
			A-CS-7009811-TA-1			TESTER C.S.	
			A-UA-7009811-TA-0			TESTER U. A.	
			A-PL-7009811-TA-0			TESTER P.L.	
			A-SP-7009811-0-9			AC INPUT BOX ASSY PROCEDURE	
X		6	D-CS-5410993-0-1	#	1	AC POWER CONTROL BD	
			A-SP-5410993-0-8			TEST PROCEDURE	
			A-CS-5410993-TA-1			TESTER C. S.	
			A-UA-5410993-TA-0			TESTER U.A.	
			A-PL-5410993-TA-0			TESTER P.L.	
C		8	B-DD-H744-0	#	2	DRAWING DIRECTORY H744	
C		9	B-DD-H745-0	#	2	DRAWING DIRECTORY H745	
C		10	B-DD-H754-0	#	3	DRAWING DIRECTORY H754	

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
			ELECTRICAL				
X		12	D-CS-5410864-0-1	#	3	POWER DIST. BD. ASSY	
			D-IA-5010863-0-0	#	1	ETCHED CIRCUIT BOARD	
			A-SP-5410864-0-8			TEST PROCEDURE	
			A-SP-5410864-0-9			ASSEMBLY PROCEDURE	
X		14	D-CS-5411086-0-1	#	4	PWR LINE MONITOR/15V REG	
			A-SP-11/45-TA-2			TEST PROCEDURE	
			A-SP-5411086-0-3			ENGINEERING SPECIFICATION	
			D-IA-7010138-0-0			HARNESS INTERCONNECTION	
		15	D-IA-7011751-0-0			CAP MOV BOARD ASSY	
		16	D-CS-5411689-0-1			CAP MOV ASSY	

CUSTOMER PRINT SET CODES		TITLE	SHEET	SIZE	CODE	NUMBER	REV
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED		DRAWING DIRECTORY POWER SUPPLY H765	SHEET 3 OF 5	B	DD	H765-Ø	M

DRB 108

DEC 16-(325)-1062-2B-R972

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CUSTOMER PRINT SET					MECHANICAL							CUSTOMER PRINT SET					MECHANICAL					
1				MFG SET	FIND NO	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE		1				MFG SET	FIND NO	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
					1	E-DA-H765-Ø-Ø	R		POWER SUPPLY H765								6	D-CS-5410993-0-1		1	AC PWR CONTROL BD.	
																		K-CO-5410993-0-4		1	X-Y COORDINATE HOLE LOC.	
																		D-AH-5410993-0-5		1	ASSY/DRILLING HOLE LAYOUT	
						D-IA-7009950-0-0		1	THROUGH WIRE									B-MH-5410993-0-6		1	MODULE ECO HISTORY	
																		5010992		REF	ETCH CIRCUIT BOARD	
					2	E-IA-7009752-0-0		1	CHASSIS, POWER SUPPLY													
						E-IA-7411682-0-0		1	CHASSIS, POWER SUPPLY													
						D-MD-7411685-0-0		1	SIDE, POWER SUPPLY													
						D-MD-7411684-0-0		1	HOUSING COMP. CHASSIS													
					3	E-AD-7011486-0-0		2	TRANSFORMER ASSY								8	B-DD-H744-Ø		2	DRAWING DIRECTORY H744	
						C-MD-7414301-0-0		1	COVER													
																	9	B-DD-H745-Ø		2	DRAWING DIRECTORY H745	
					4	D-AD-7009811-0-0		2	AC INPUT BOX ASSY													
						A-DC-7412303-0-0		1	DECAL 115V													
X						D-AD-7012500-0-0		1	POWER CORD								10	B-DD-H754-Ø		3	DRAWING DIRECTORY H754	
						A-DC-7412380-0-0		1	DECAL 230V													
						D-IA-7010302-0-0		1	POWER CONTROL HARN.													
						D-IA-7010301-0-0		1	POWER JUMPER													
						C-IA-7010300-0-0		1	VARISTOR ASSY								11	D-IA-7009949-0-0		1	COVER, POWER SUPPLY	
						A-DC-7409873-0-0		1	DECAL (PLUG NUMBERS)									C-MD-7412473-0-0		1	STRIP, CLAMP	
					5	D-IA-7009812-0-0	A	1	CHASSIS COMPONENT MTG.													
						D-IA-7411765-0-0		1	PLATE SWITCH													
						D-IA-7411766-0-0	B	1	PLATE COMPONENT MTG.													

CUSTOMER PRINT SET CODES		TITLE		SIZE	CODE	NUMBER	REV
	x = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED	DRAWING DIRECTORY POWER SUPPLY H765	SHEET 4 OF 5	B	DD	H765-Ø	M

DRB 108

DEC 16 (325) 1062-28-H972

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MECHANICAL

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		12	D-CS-5410864-0-1		3	POWER DIST. BD. ASSY	
			C-MD-7412192-0-0		1	SHIELD	
			D-MD-7411704-0-0		1	BRACKET, CONN. MTG.	
			C-IA-9305937-0-0			MATE-N-LOK FIXTURES	
			D-IA-5010863-0-0		1	ETCHED CIRCUIT BD.	
			K-CO-5410864-0-4			X-Y COORDINATE HOLE LOC.	
			D-AH-5410864-0-5		1	ASSY DRILLING HOLE LAYOUT	
			B-MH-5410864-0-6		1	MODULE ECO HISTORY	
			5010863		REF	ETCH CIRCUIT BOARD	
	X	13	A-SP-3700174-0-0	-	2	PACKAGING INSTRUCTIONS	
			A-PS-9905664-0-0	-	2	REGULAR SLOTTED CARTON	
			A-PS-9905665-0-0	-	2	LAMINATED BUILDUP	
		14	D-AH-5411086-0-5		1	ASSY DRILLING HOLE LAYOUT	
			B-MH-5411086-0-6		1	MODULE ECO HISTORY	
		15	D-AD-7011486-0-0		1	ASSEMBLY DRAWING	
		16	D-AH-5411689-0-5		1	ASSY DRILLING HOLE LAYOUT	
			D-MH-5411689-0-6		1	MODULE ECO HISTORY	

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE

CUSTOMER PRINT SET CODES

X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE: DRAWING DIRECTORY
POWER SUPPLY H765

SHEET 5 OF 5

SIZE	CODE	NUMBER	REV
B	DD	H765-Ø	M

2.17

DPB 108

DEC 16(325)-1062-2B-R972

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LEGEND	
NUMBER	VARIATION
H765-A	120 V 50/60 HZ
H765-B	240 V 50/60 HZ
H765-C	120 V 50/60 HZ NO H754
H765-D	240 V 50/60 HZ NO H754
H765-P	120 V 50/60 HZ NO REG
H765-R	240 V 50/60 HZ NO REG

NOTES

~~1. SEE TRANSFORMER ASSY E-AD-7010CA-0 SHEET 2 FOR ISOMETRIC ORIENTATION OF CLAMP & PLUG WIRES.~~

2. TIGHTEN FAN SCREWS TO 10 IN-LBS WITH A TORQUE SCREW DRIVER.

~~3. USE #7154-1 BAR IN PLACE OF ITEM #22 WHEN USING ACTION FANS.~~

4. INSTALL A.B.S. VINYL, VIEW B-B ITEM #42 AND #43, CENTER 1/4 INCH FROM BOTTOM AND SIDES ON INSIDE WALL.

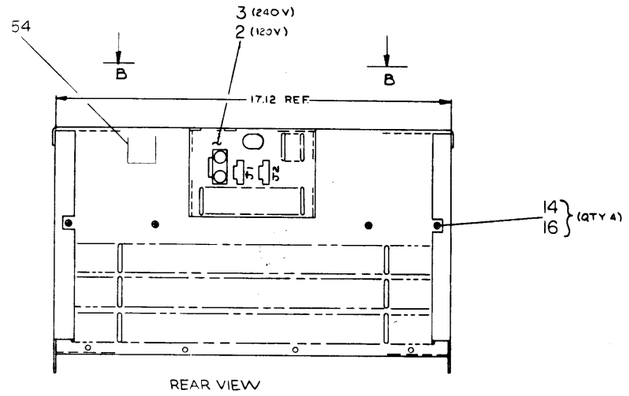
~~5. USE EXTERNAL TOOTH WASHER UNDER MOUNTING SCREW HEAD OF REG'D TRANSFORMERS ONLY.~~

~~6. GREEN/YEL GROUND WIRE FROM TRANSFORMERS TO BE FASTENED UNDER REGULATOR MOUNTING SCREW.~~

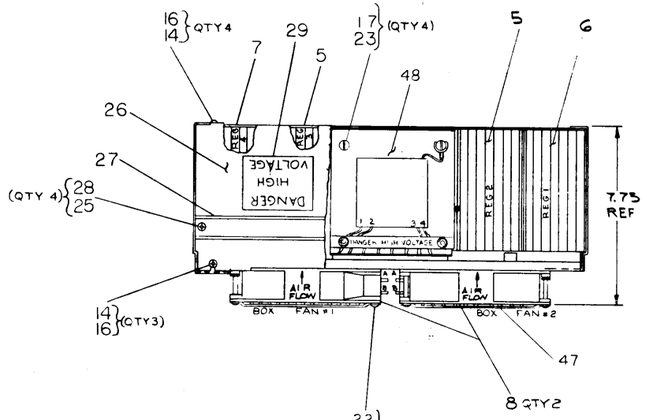
~~7. IN EARLIER VERSIONS OF THE TRANSFORMER ASSEMBLY A CABLE CLAMP WAS USED IN PLACE OF THE 5 TIE WRAPS TO DRESS THE TRANSFORMER WIRES ALONG THE TRANSFORMER BODY.~~

8. ITEM 7 - H754 IS NOT USED IN VARIATIONS C & D.

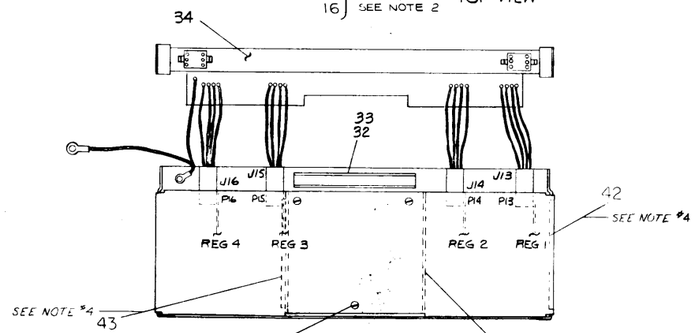
9. ITEM 53 IS TO BE USED TO PREVENT CORROSION OF CHASSIS AT GROUND STUD.



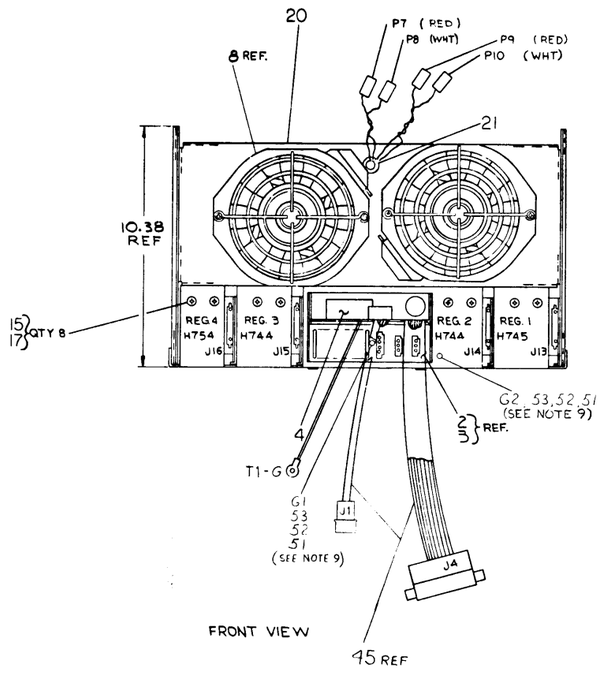
REAR VIEW



TOP VIEW



VIEW B-B
BOTTOM VIEW
FANS REMOVED FOR CLARITY



FRONT VIEW

H765-R	H765-P	H765-D	H765-C	H765-B	H765-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
1	1	–	–	–	–		DECAL	A-DC-7916261-00	54
A/R	A/R	A/R	A/R	A/R	A/R		GREASE CONDUCTOR	4901173-01	53
2	2	2	2	2	2		WASHER LOCK EXT TOOTH #8 32	9008072	52
2	2	2	2	2	2		NUT, KEP #8-32	9006563	51
2	2	2	2	2	2		TERMINAL, RING BLUE	9007928	50
A/R	A/R	A/R	A/R	A/R	A/R		WIRE, 14AWG GRN/YEL	4107777-54	49
1	1	1	1	1	1		TRANSFORMER ASSEMBLY	E-AD-7011486-0-0	48
2	2	2	2	2	2		FAN GUARD	121361	47
–	–	–	–	~~1~~	~~1~~		~~KEYS AWS #10-32~~	~~9006345~~	~~46~~
1	1	1	1	1	1		HARNESS INTERCONN.	D-IA-7010138-0-0	45
–	–	–	–	REF	REF		WASH EXT TOOTH #10	9007681	~~44~~
1	1	1	1	1	1		A.B.S. VINYL 4.75 X 3.5	1210984-03	43
1	1	1	1	1	–		A.B.S. VINYL 4.75 X 6	1210984-04	42
–	–	–	–	REF	REF		~~SCR, PH HD 6-32 X 2.25~~	~~9007018~~	~~41~~
REF	REF	REF	REF	REF	REF		TEST PROCEDURE	A-SP-H765-0-1	40
REF	REF	REF	REF	REF	REF		TESTER C.S.	A-CS-H765-TA-1	39
REF	REF	REF	REF	REF	REF		TESTER U.A.	E-UA-H765-TA-1	38
REF	REF	REF	REF	REF	REF		TESTER P.L.	A-PL-H765-TA-0	37
REF	REF	REF	REF	REF	REF		H765 POWER SUPPLY ASSEMBLY PROCEDURE	A-SP-H765-0-9	36
REF	REF	REF	REF	REF	REF		PACKAGING INSTRUCTIONS	A-SP-3700174-00	35
–	–	1	1	1	1		PWR DISTRIBUTION BD	D-CS-5410864-1-1	34
A/R	A/R	A/R	A/R	A/R	A/R		PERMA BOND	9009157	33
A/R	A/R	A/R	A/R	A/R	A/R		GROMMET STRIP	9008291	32
4	4	4	4	4	4		TIE WRAP 1/8 W	9007880	31
3	3	3	3	3	3		WASH, C'SK #6	9008270	30
1	1	–	–	1	1		STICKER DANGER HIGH VOLTAGE	3610267	29
4	4	4	4	4	4		WASH, INT TOOTHLOCK #8	9006634	28
1	1	–	–	1	1		TROUGH, WIRE	D-IA-7009950-0-0	27
1	1	–	–	1	1		COVER, POWER SUPPLY	D-IA-7009949-0-0	26
4	4	4	4	4	4		SCR. PH HD TRUSS #8-32 X .62	9006040-3	25
–	–	–	–	~~4~~	~~4~~		~~HEX NUTS #10-32~~	~~9006565~~	~~24~~
4	4	4	4	4	4		SCR PH HD TRUSS 10-32 X .50	9006073-3	23
4	4	4	4	4	4		SCR PH HD TRUSS 6-32 X 1.75	9006031-3	22
1	1	1	1	1	1		GROMMET .501 D	9007016	21
1	1	1	1	1	1		CHASSIS, POWER SUPPLY	E-IA-7009752-0-0	20
–	–	–	–	REF	REF		CLAMP, CABLE	9-IA-7128530-0-0	~~19~~
–	–	–	–	~~2~~	~~2~~		~~SCR PH HD TRUSS #8 X 10X .50~~	~~9006013-3~~	~~18~~
–	–	10	10	12	12		WASH INT TOOTH #10	9006635	17
7	7	13	13	13	13		WASH INT TOOTH #6	9006633	16
–	–	6	6	8	8		SCR PH HD TRUSS 10-32 X .25	9008027-3	15
7	7	11	11	11	11		SCR PH HD TRUSS 6-32 X .25	9006020-3	14
–	–	–	–	~~1~~	~~1~~		~~DECAL NEPA~~	~~E-DC-7009413-0-0~~	~~13~~
–	–	–	–	~~1~~	~~1~~		~~CLIP, UL~~	~~A-CS-7009005-0-0~~	~~12~~
–	–	–	–	~~2~~	~~2~~		~~SCR, PHIL FLT HD #6-32 X .31~~	~~9008404-2~~	~~11~~
3	3	3	3	3	3		SCR, PHIL FLT HD #6-32 X .31	9008404-2	10
–	–	–	–	~~2~~	~~2~~		~~MTG. CLIP~~	~~9009186~~	~~9~~
2	2	2	2	2	2		FAN, 115 VAC 50/60HZ	121714	8
–	–	–	–	1	1		+20V REGULATOR (H784)	B-DD-H754-0	7
–	–	1	1	1	1		-15 V REGULATOR (H745)	B-DD-H745-0	6
–	–	2	2	2	2		+5 V REGULATOR (H744)	B-DD-H744-0	5
–	–	1	1	1	1		PWR. BD 11/45 (+15V REG)	E-IA-5411086	4
1	–	1	–	1	–		AC INPUT BOX ASSY 230V	D-AD-7009811-2-0	3
–	1	–	1	–	1		AC INPUT BOX ASSY 115V	D-AD-7009811-1-0	2
–	–	–	–	~~1~~	~~1~~		~~TRANSFORMER ASSY~~	~~D-AD-7010014-00~~	~~1~~

UA H765-0-0

FIRST USED ON OPTION/MODEL: BAII-K

PARTS LIST

DIMENSIONAL TOLERANCE UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE: MILLIMETERS XX ±0.8, XXX ±0.25; INCHES XX ±.03, XXX ±.010; ANGLES ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS
SURFACE FINISH
THIRD ANGLE PROJECTION
MATERIAL: SEE PARTS LIST
FINISH

DRN: A Benjamin 6/16/76
CHK: J Healy 7/1/76
ENG: [illegible] 7/1/76
PROD: [illegible] DATE

NEXT HIGHER ASSY: B-DD-H765-0
SCALE: NONE
SHEET: 1 OF 2

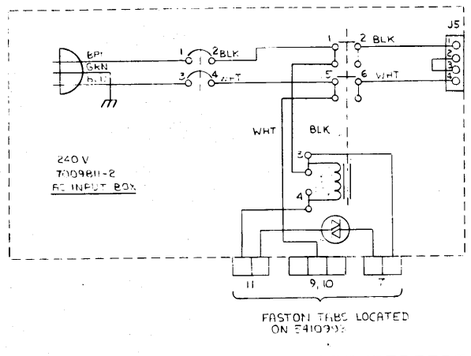
digital
TITLE: POWER SUPPLY, H765
SIZE: E | CODE: UA | NUMBER: H765-0-0 | REV:
DIST:

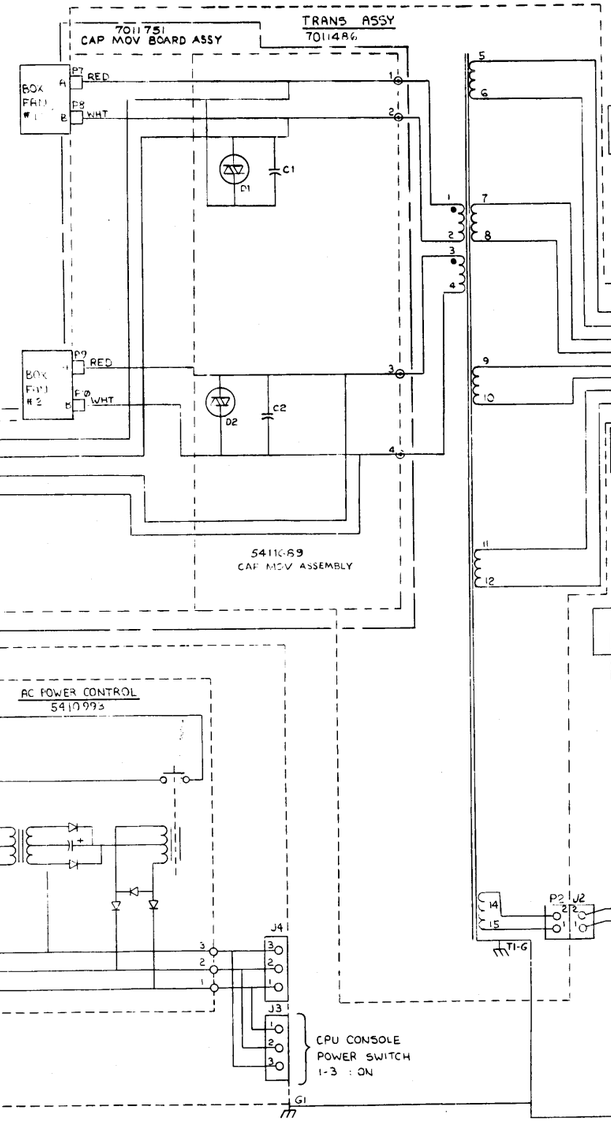
218

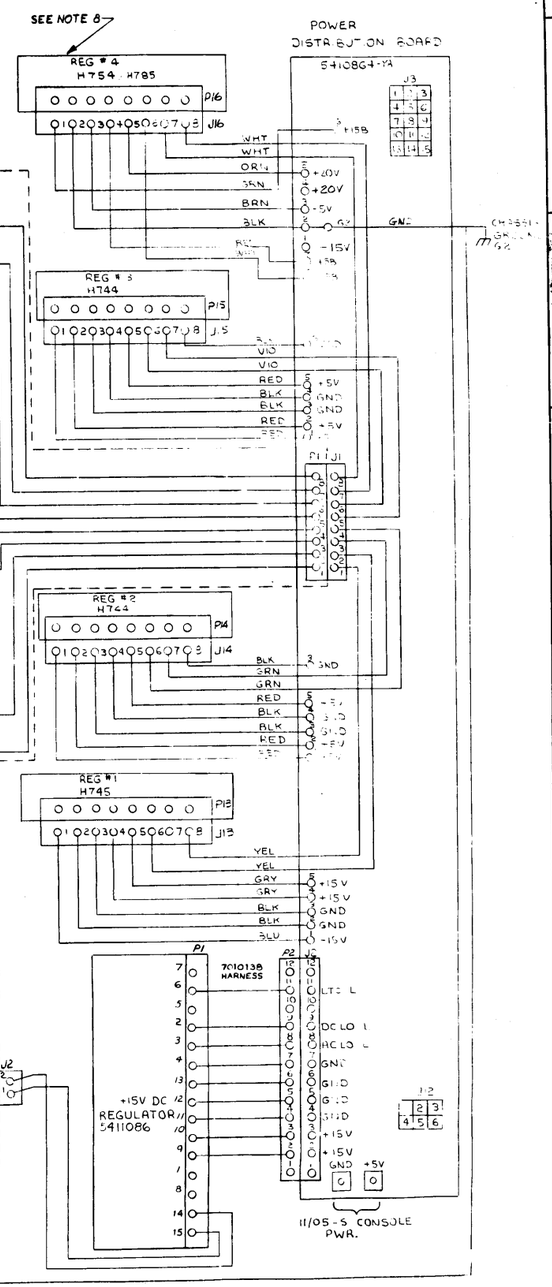
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CONNECTION TABLE		
FROM CONNECTION	TO CONNECTION	SIGNALS
P2 FROM TRANS. ASSY	J2 FROM +15V REG.	28 VAC
J16 FROM PWR. DIST. BD.	P16 LOCATED ON REG.#4 (H754)	GND, -5V, +20V 28 VAC
J15 FROM PWR. DIST. BD	P15 LOCATED ON REG.#3 (H744)	GND, +5V, 28 VAC
J14 FROM PWR DIST. BD	P14 LOCATED ON REG.#2 (H744)	GND, +5V, 28 VAC
J13 FROM PWR DIST. BD	P13 LOCATED ON REG.#1 (H745)	GND, +15V, -15V 28 VAC
GND LUG LOCATED ON PWR. DIST. BD. G3	G1 YEL LUG	SAFTY GROUND
P1 FROM TRANS ASSY	J1 LOCATED ON PWR DIST. BD	28 VAC

CONNECTION TABLE		
FROM CONNECTION	TO CONNECTION	SIGNALS
P4 FROM +15V REG.	J2 LOCATED ON PWR DIST BD	-15V, LTC L, AC LO L, DC LO L, GND
P5 FROM TRANS. ASSY	J5 LOCATED ON AC INPUT BOX	120/240 VAC
P7 (RED)	FAN #1-A	120 VAC - HOT
P8 (WHT)	FAN #1-B	120 VAC - NEUTRAL
P9 (RED)	FAN #2-A	120 VAC - HOT
P10 (WHT)	FAN #2-B	120 VAC - NEUTRAL
T1-G	G1	SAFETY GROUND
G1	G2	SAFETY GROUND, 5" ITEM 19 WITH 2 ITEM 20







COMMON SIGNAL NAMES FOR 6-PIN AND 15-PIN MATE-N-LOKS ON POWER DISTRIBUTION BOARD

6-PIN	15 PIN
1 - GND	1 - +5V
2 - LTC L	2 - +15V
3 - DC LO L	3 - +20V
4 - AC LO L	4 - +5V
5 - SPARE 4	5 - GND
6 - SPARE 5	6 - SPARE 1
	7 - GND
	8 - GND
	9 - GND
	10 - SPARE 2
	11 - GND
	12 - SPARE 3
	13 - -15V
	14 - -5V
	15 - SPARE 3

REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO. FMC 108

TITLE: POWER SUPPLY H765		SIZE/CODE: E UA	NUMBER: H765-0-0	REV: R
SCALE	SHEET OF	DIST.		

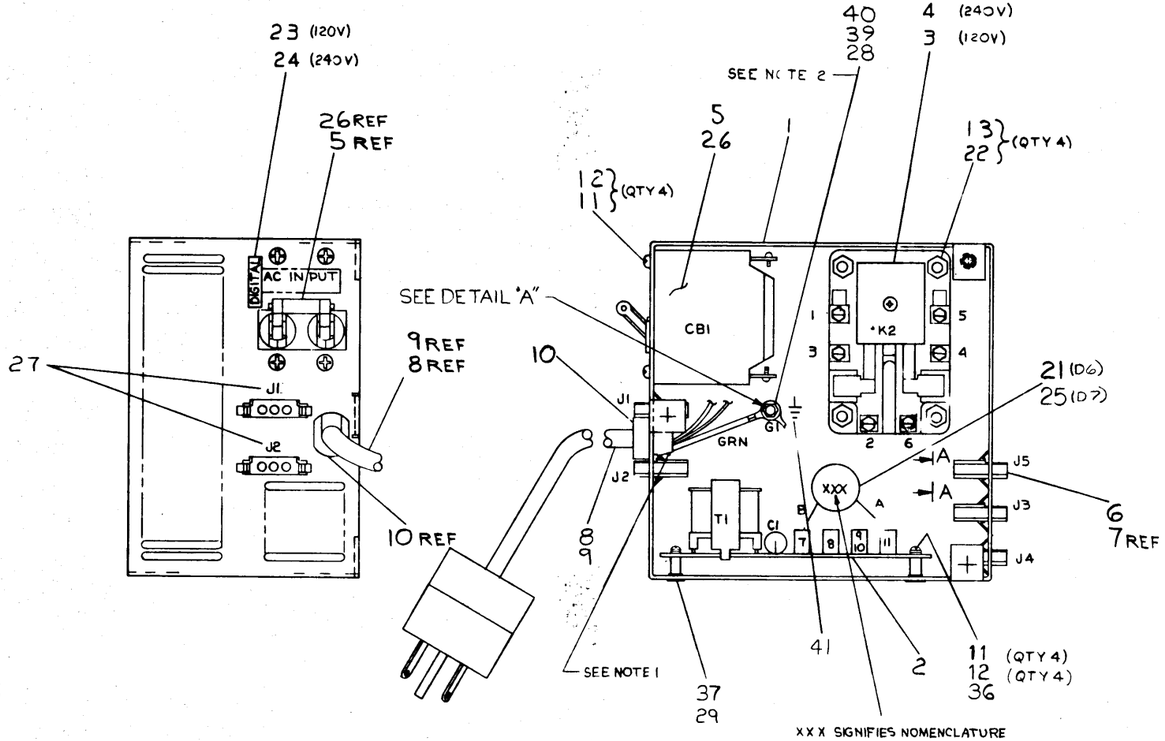
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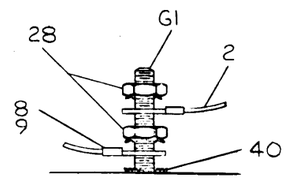
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NOTES:

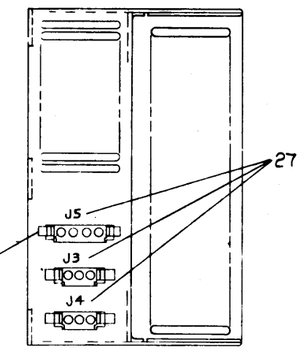
1. LEAVE .5 IN ±.2 IN OF OUTER INSULATION OF LINE CORD INSIDE BOX.
2. REMOVE PAINT MASK FROM G1 ONLY AND APPLY CONDUCTIVE GREASE TO AREA AROUND STUD G1 BEFORE INSTALLING ITEMS 40 (LOCKWASHER), LUG ON GRN/YEL WIRE, AND 28 (KEPNUT).
3. ENSURE THAT LUG CONNECTED TO GRN/YEL WIRE FROM LINE CORD, WASHER ITEM 40, AND KEPNUT ITEM 28 ARE THE FIRST ITEMS INSTALLED ON G1. SEE DETAIL A.

LEGEND	
NUMBER	VARIATION
7009811-1	120V 47-63HZ 12A
7009811-2	240V 47-63HZ 6A





DETAIL "A"
SEE NOTE 3



7009811-2	7009811-1				
1	1	DECAL, SAFTY GROUND	A-DC-3612680-01	41	
1	1	WASHER, EXT TOOTH #8	9008072	40	D
A/R	A/R	GREASE, CONDUCTIVE	4901173-01	39	
1	-	JUMPER, POWER (WHT)	7010301-8	38	
4	4	SCR. PH. FL HD. 6-32x1/4	9006020-02	37	
4	4	WASHER, FLAT	9006653	36	
F_F	REF	A.C. INPUT BOX ASSEMBLY PROCEDURE	A-SP-7009311-0-9	35	
REF	REF	TESTER PARTS LIST	A-PL-7009311-TA-0	34	
REF	REF	TESTER TEST PROCEDURE	A-SP-7009311-0-8	33	
REF	REF	TESTER U.A.	A-UA-7009311-0-8	32	
REF	REF	TESTER C.S.	A-CS-7009311-0-8	31	
4	4	SPACER 6-32x 3/8"	9006844	29	
3	3	NUT, KEPS #8-32	9006583	28	
1	1	DECAL	A-DC-7409873-0-0	27	C
1	-	CIRCUIT BRK 10A	1212124-03	26	
1	-	VARISTOR (D7) ASSY	C-IA-7010300-2-0	25	
1	-	DECAL 230V 47-63HZ 6A	A-DC-7410933-0-0	24	
-	1	DECAL 115V 47-63HZ 12A	A-DC-7410933-0-0	23	
4	4	SCR PH FL HD *6-32 X 50	9006024-2	22	
-	1	VARISTOR (D6) ASSY	C-IA-7010300-1-0	21	
2	-	POWER JUMPER (BLK)	D-IA-7010301-2-0	20	
1	1	POWER JUMPER (BLK)	D-IA-7010301-3-0	19	
-	2	POWER JUMPER (BLK)	D-IA-7010301-4-0	18	
-	1	POWER JUMPER (WHT)	D-IA-7010301-5-0	17	
2	-	POWER JUMPER (WHT)	D-IA-7010301-6-0	16	
1	1	POWER JUMPER (BRN)	D-IA-7010301-7-0	15	
1	1	POWER JUMPER (BLK)	D-IA-7010301-1-0	14	
4	4	NUT KEPS #6-32	9008185	13	
8	8	WASHER, INT TOOTH #6	9006633	12	
8	8	SCR PHL PAN HD #6-32X25	9006020-1	11	
1	1	STRAIN RELIEF	9008509	10	
1	-	POWER CORD 240V	D-AD-7012500-1	9	
-	1	POWER CORD 120V	D-AD-7012500-0	8	
1	-	PWR CONTROL HARN. 240V	D-IA-7010302-2-0	7	
-	1	PWR CONTROL HARN 120V	D-IA-7010302-1-0	6	
-	1	CIRCUIT BREAK 20A	1212124-05	5	
1	-	RELAY 240V	1211222-02	4	
-	1	RELAY 120V	1211222-01	3	
1	1	AC PWR CONTR BOARD	D-CS-5410993-0-1	2	
1	1	CHASSIS, COMP. MTG.	D-IA-7009312-0-0	1	
QTY.		DESCRIPTION	PART NO.	ITEM NO.	

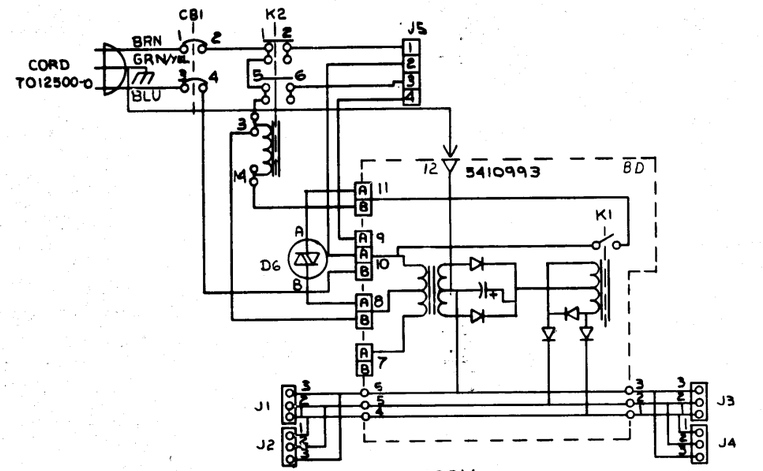
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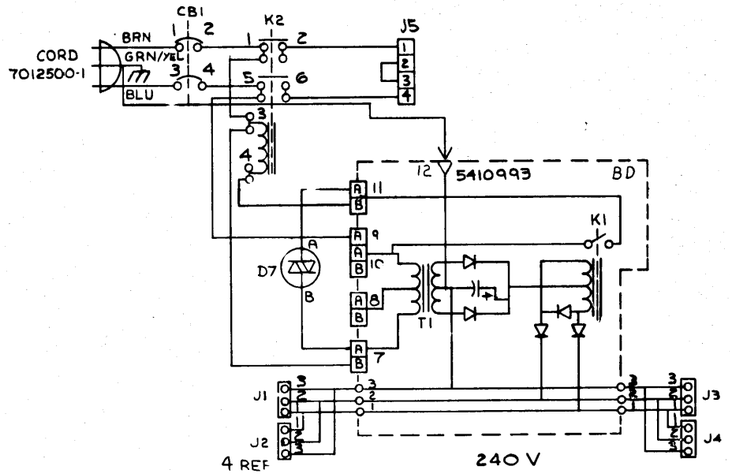
REVISIONS				
DASH NO.	CHANGE NO.	REV.		
-1	H765-00003	A	C. NAVEDONSKY	1-10-75
-2	7009811-00001	B	R. WOLF	1-10-75
-3	7009811-00002	C	R. WOLF	2-10-75
-4	7009811-00003	D	B. MINOR	11-18-76
-5	H765-00010	E	P. PORRECA	6/6/76
-6	7009811-00004	F	R. WOLF	6/16/76
-7	7009811-00005	H	R. WOLF	8 SEP 76
-8	7009811-00006	J	P. LORUSSO	2-NOV-76

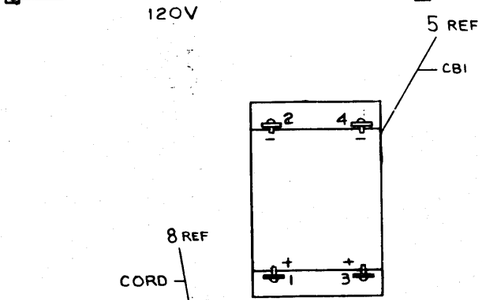
FIRST USED ON OPTION/MODEL	BA11-K		
DIMENSIONAL TOLERANCE	DECIMALS ARE	UNLESS OTHERWISE SPECIFIED	
TOLERANCES	DECIMALS	ANGLES	
XXX ±0.10, XX ±0.05, X ±0.2	XXX ±0.25, XX ±0.1, X ±0.1	45°	
THIRD ANGLE PROJECTION			
MATERIAL	SEE PARTS LIST		
FINISH			
DRAWN		DATE 6 FEB 74	
CHECKED		DATE 7-10-74	
ENGINEER		DATE 7-10-74	
MFG		DATE 8-11-74	
QUALITY		DATE	
COMMENTS			
TITLE	AC INPUT BOX ASS'Y.		
SIZE	D	NUMBER	AD 7009811-0-0
REV.	J		
NEXT ASSY		USED ON	
APPLICATION			
DO NOT SCALE DRAWING		SHEET 1 OF 3	

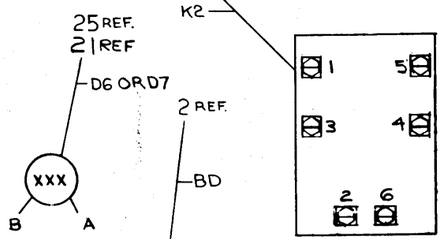
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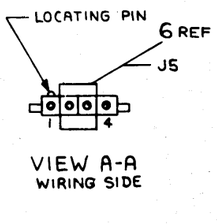
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	AC INPUT BOX ASS'Y.		
SIZE	CODE	NUMBER	REV.
D	AD	7009311-0-0	J
SCALE	NONE	SHEET 2 OF 3	DIST.

DEC FORM NO. DRD 127

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WIRE TABLE (120V)

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	CONNECTION FROM	CONNECTION WITH	CONNECTION TO	CONNECTION WITH	REMARKS
8	14	BRN	CORD	—	CB1-1(+)	—	
8		BLU	CORD	—	CB1-3(+)	—	
14		BLK	CB1-2(-)	—	K2-1	—	
18		BLK	K2-5	—		—	
18		BLK		—	K2-3	—	
19		BLK	BD-8B	—		—	
17		WHT	CB1-4(-)	—	BD-10B	—	
6		WHT	BD-10A	—	J5-2(REF)	—	
6		WHT	BD-9A	—	J5-4(REF)	—	
15		BRN	K2-4	—	BD-11B	—	
6		BLK	K2-6	—	J5-3(REF)	—	
6	14	BLK	K2-2	—	J5-1(REF)	—	
21	22	RED	D6-A	—	BD-11A	—	
21	22	RED	D6-B	—	BD-8A	—	
8	14	GRN/YEL	CORD	—	G1	—	SEE NOTE 2
2	14	GRN/YEL	BD-12	—	G1	—	SEE DETAIL A AND NOTE 2+3

WIRE TABLE (240V)

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	CONNECTION FROM	CONNECTION WITH	CONNECTION TO	CONNECTION WITH	REMARKS
8	14	BRN	CORD	—	CB1-1(+)	—	
8		BLU	CORD	—	CB1-3(+)	—	
14		BLK	CB1-2	—	K2-1	—	
20		BLK	K2-3	—		—	
19		BLK		—	BD-7B	—	
38		WHT	K2-5	—	CB1-4(-)	—	
16		WHT		—	BD-9A	—	
15		BRN	K2-4	—	BD-11B	—	
7		BLK	K2-2	—	J5-1(REF)	—	
7		BLK	J5-2(REF)	—	J5-3(REF)	—	
7	14	WHT	K2-6	—	J5-4(REF)	—	
25	22	RED	D7-A	—	BD-11A	—	
25	22	RED	D7-B	—	BD-7A	—	
8	14	GRN/YEL	CORD	—	G1	—	SEE NOTE 2
2	14	GRN/YEL	BD-12	—	G1	—	SEE DETAIL A AND NOTE 2+3

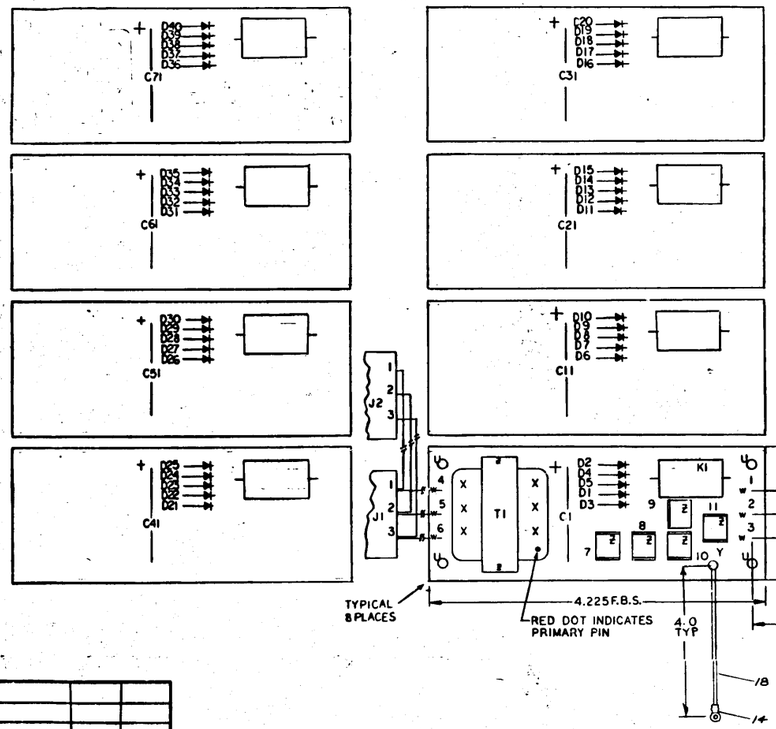
REVISIONS		
CHK	CHANGE NO.	REV.

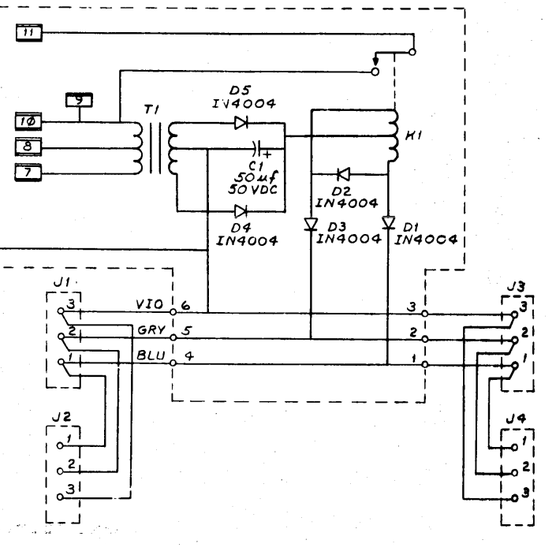
TITLE	SIZE	CODE	NUMBER	REV.
AC INPUT BOX ASSY	D	AD	7009811-0-0	J
SCALE NONE	SHEET 3 OF 3		DIST.	

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NOTES:





IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REF				
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5410993-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5410993-0-5	2
REF		MODULE ECO HISTORY	B-MH-5410993-0-6	3
1		ETCHED CIRCUIT BOARD	5010992	4
1	C1	CAP. 50 µf 50 VDC	1000080	5
5	D1 THRU D5	DIODE IN4004	1105796	6
1	K1	REED RELAY	1211179	7
4	J1 THRU J4	CONNECTOR, MATE-N-LOCK, 3 SKT	1209350-03	8
12		PIN, MATE-N-LOCK SKT, FEMALE	1209379-00	9
1	T1	TRANSFORMER	1611178	10
4	7, 8, 10, 11	FASTON TAB, DUEL	9007113	11
1	9	FASTON TAB, SINGLE	9008219	12
5		EYELET	9009000	13
1		RING TERMINAL BLUE	9007928	14
A/R		WIRE, #18 AWG, BLUE	9107360-66	15
A/R		WIRE, #18 AWG, VIOLET	9107360-77	16
A/R		WIRE, #18 AWG, GRAY	9107360-88	17
A/R		WIRE #14 AWG GRN/YEL	9107777-54	18

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION MODEL: H765

ETCH BOARD REV. D

REVISIONS				
CHK	CHANGE NO.		REV	
X	ORIGINATED		A	
	5410993-0001		B	
	5410993-0002		C	

R. KENNEDY 30NOV74 C
B. KENNEDY 1-27-75

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

APPROVALS	DATE	
	7-30-74	
	7/31/74	
	7/31/74	
	7/31/74	
	7/31/74	
MANUFACTURING		
D-AD-7009811-0-0		
NEXT HIGHER ASSY NONE		
CONTRACT NO.	OF 1	

TITLE: AC POWER CONTROL BOARD

SIZE D | CAGE CODE CS | NUMBER 5410993-0-1 | REV C

SCALE | SHT

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DRAWING DIRECTORY

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CUSTOMER PRINT SET

DRAWING DIRECTORY	B-DD-H744-0
CIRCUIT SCHEMATIC	D-CS-H744-0-1
UNIT ASSY	E-UA-H744-0-0

MFG SET

TEST PROCEDURE	A-SP-H744-0-3
MFG SPEC	A-SP-H744-0-8
PACKAGING INST	A-PI-3700074-0-0

UNIT VARIATIONS

VAR	TITLE
H744	+5V REGULATOR

REVISIONS		
REV	CHANGE NO.	CHK
R	00019	

USED ON OPTION/MODEL	
11/45	
SHEET 1 OF 4	

DRN. D.FONTAINE	DATE 2-4-72	TITLE +5V REGULATOR	digital
CHK'D. D.FONTAINE	DATE 2-4-72		
PROJ. ENG. G.POTTER	DATE 2-24-72		
PROD. A.HIRSCH	DATE 2-24-72		

SIZE	CODE	NUMBER	REV
B	DD	H744-0	R

DIST.

DRB 106A

SIZE	CODE	NUMBER	REV.
B	DD	H744-Ø	R

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS
D-AH-H744-Ø-5			ASSY DRILLING/HOLE LAYOUT	Y Y
E-UA-H744-Ø-Ø	1		UNIT ASSY	Y Z
D-CS-H744-Ø-1	1		CIRCUIT SCHEMATIC	Y Y
B-MH-H744-Ø-6	4		MODULE ECO HISTORY	AD AE
		5009725	ETCHED BOARD	H H
A-SP-H744-Ø-3			TEST PROCEDURE	REF
A-SP-H744-Ø-8			MFG SPEC	REF
D-PS-1210737-Ø-Ø	1		HEAT SINK	REF
D-IA-5309756-Ø-Ø	1		REGULATOR BRK'T	REF
C-IA-5309760-Ø-Ø	1		COMPONENT COVER	REF
C-MD-5309759-Ø-Ø	1		CAPACITOR STRAP	REF
A-PI-3700074-Ø-Ø	2		PACKAGING INSTRUCTION	REF
A-PS-9905211-Ø-Ø	2		OUTER CARTON	REF
A-PS-9905212-Ø-Ø	2		INNER PACKAGING	REF
C-IA-7412388-Ø-Ø			2.5 CAP HOLDER	REF

NOTES:

REVISIONS		
REV	CHG NO	DATE
R	00019	2-77
	00018	

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digital

USED ON OPTION/MODEL	
11/45	

DRN.	D. FONTAINE	2-4-72
CHK'D	D. FONTAINE	2-4-72
ENG.	G. POTTER	2-24-72
PROD.	A. HIRSCH	2-24-72

TITLE
+5V REGULATOR

SIZE	CODE	NUMBER	REV.
B	DD	H744-Ø	R

SHEET 2 OF 4

SIZE	CODE	NUMBER	REV.
B	DD	H744-Ø	R

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS
D-AH-H744-Ø-5			ASSY DRILLING/HOLE LAYOUT	Y Y
E-UA-H744-Ø-Ø	1		UNIT ASSY	W W1
D-CS-H744-Ø-1	1		CIRCUIT SCHEMATIC	W W1
B-MH-H744-Ø-6	4		MODULE ECO HISTORY	AC AE
		5009725	ETCHED BOARD	H H
A-SP-H744-Ø-3			TEST PROCEDURE	REF
A-SP-H744-Ø-8			MFG SPEC	REF
D-PS-1210737-Ø-Ø	1		HEAT SINK	REF
D-IA-5309756-Ø-Ø	1		REGULATOR BRK'T	REF
C-IA-5309760-Ø-Ø	1		COMPONENT COVER	REF
C-MD-5309759-Ø-Ø	1		CAPACITOR STRAP	REF
A-PI-3700074-Ø-Ø	2		PACKAGING INSTRUCTION	REF
A-PS-9905211-Ø-Ø	2		OUTER CARTON	REF
A-PS-9905212-Ø-Ø	2		INNER PACKAGING	REF
C-IA-7412388-Ø-Ø			2.5 CAP HOLDER	REF

NOTES:

REVISIONS	REV	CHG NO	DATE
	R	00019	2-77
		00017	

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digital

USED ON OPTION/MODEL
11/45

DRN. D. FONTAINE	2-4-72	TITLE +5V REGULATOR
CHK'D D. FONTAINE	2-4-72	
ENG. G. POTTER	2-24-72	SIZE B CODE DD NUMBER H744-Ø REV. R
PROD. A. HIRSCH	2-24-72	SHEET 3 OF 4

SIZE	CODE	NUMBER	REV.
B	DD	H744-Ø	R

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS
D-AH-H744-Ø-5			ASSY DRILLING/HOLE LAYOUT	Y Y
E-UA-H744-Ø-Ø	1		UNIT ASSY	V V1
D-CS-H744-Ø-1	1		CIRCUIT SCHEMATIC	W W1
B-MH-H744-Ø-6	4		MODULE ECO HISTORY	AB AE
		5009725	ETCHED BOARD	H H
A-SP-H744-Ø-3			TEST PROCEDURE	REF
A-SP-H744-Ø-8			MFG SPEC	REF
D-PS-1210737-Ø-Ø	1		HEAT SINK	REF
D-IA-5309756-Ø-Ø	1		REGULATOR BRK'T	REF
C-IA-5309760-Ø-Ø	1		COMPONENT COVER	REF
C-MD-5309759-Ø-Ø	1		CAPACITOR STRAP	REF
A-PI-3700074-Ø-Ø	2		PACKAGING INSTRUCTION	REF
A-PS-9905211-Ø-Ø	2		OUTER CARTON	REF
A-PS-9905212-Ø-Ø	2		INNER PACKAGING	REF
C-IA-7412388-Ø-Ø			2.5 CAP HOLDER	REF

NOTES:

REVISIONS			
REV		R	
CHG NO	00016	00019	
DATE		2-77	

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USED ON OPTION/MODEL	
11/45	

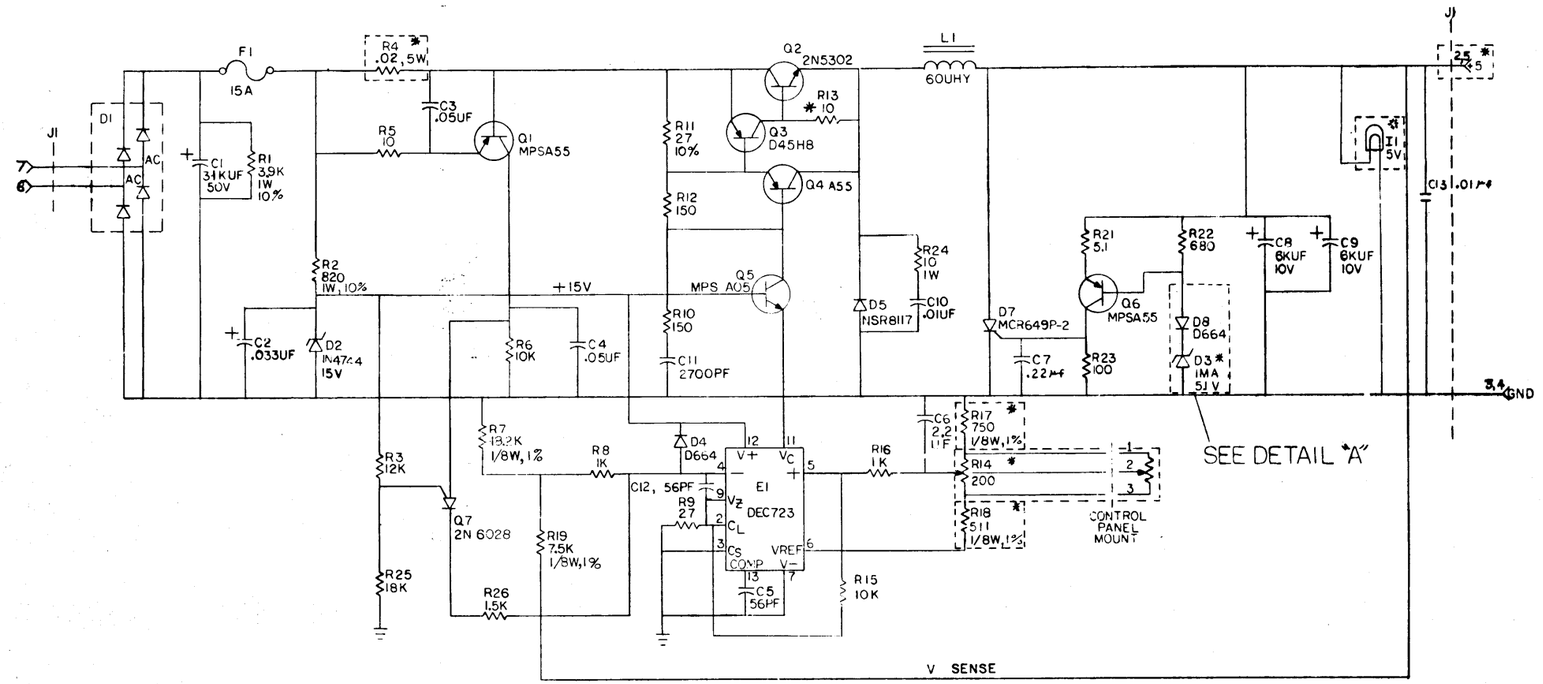
DRN.	D. FONTAINE	2-4-72
CHK'D	D. FONTAINE	2-4-72
ENG.	G. POTTER	2-24-72
PROD.	A. HIRSCH	2-24-72

TITLE: +5V REGULATOR

SIZE	CODE	NUMBER	REV.
B	DD	H744-Ø	R

SHEET 4 OF 4

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*FUSIBLE RESISTOR

D9 * D664
D8 D664
D3 IN754

DETAIL A
FOR YA VARIATION ONLY

[*] FOR YA VARIATION COMPONENT VALUES ARE AS FOLLOWS:
R4 - .06 5W
R14 - 1K 10 TURN
R17 - 300 1/8W 1%
R19 - 150 1/4W 5%
D3 - IN754
I1 - 15V
J1-2,5 - +20-80V

* D9 - D664 ADDED FOR YA VARIATION ONLY

UNLESS OTHERWISE INDICATED:

RESISTORS ARE 1/4W, 5%

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		
	ETCH BOARD DEV			

SEMICONDUCTOR CONVERSION CHART			
DEC NO.	EIA NO.	DEC NO.	EIA NO.
IN964A	SAME	MPSA55	
D004	IN3606	2N5302	
MCR649P-2		D45H8	
IN754A	SAME	MPSA05	
IN4744	SAME		
NSR8117			
2N6028			

REVISIONS	CHANGE NO.	CHK	REV
H744-00013			Y
H744-00016			W
H744-00015			V
H744-00013			T
H744-00012			S
H744-00011			R
H744-00010			P
H744-00009			N
H744-00008			M
H744-00005			K
H744-00006			L
H744-00003			H
H744-00002			F
H744-00001			E

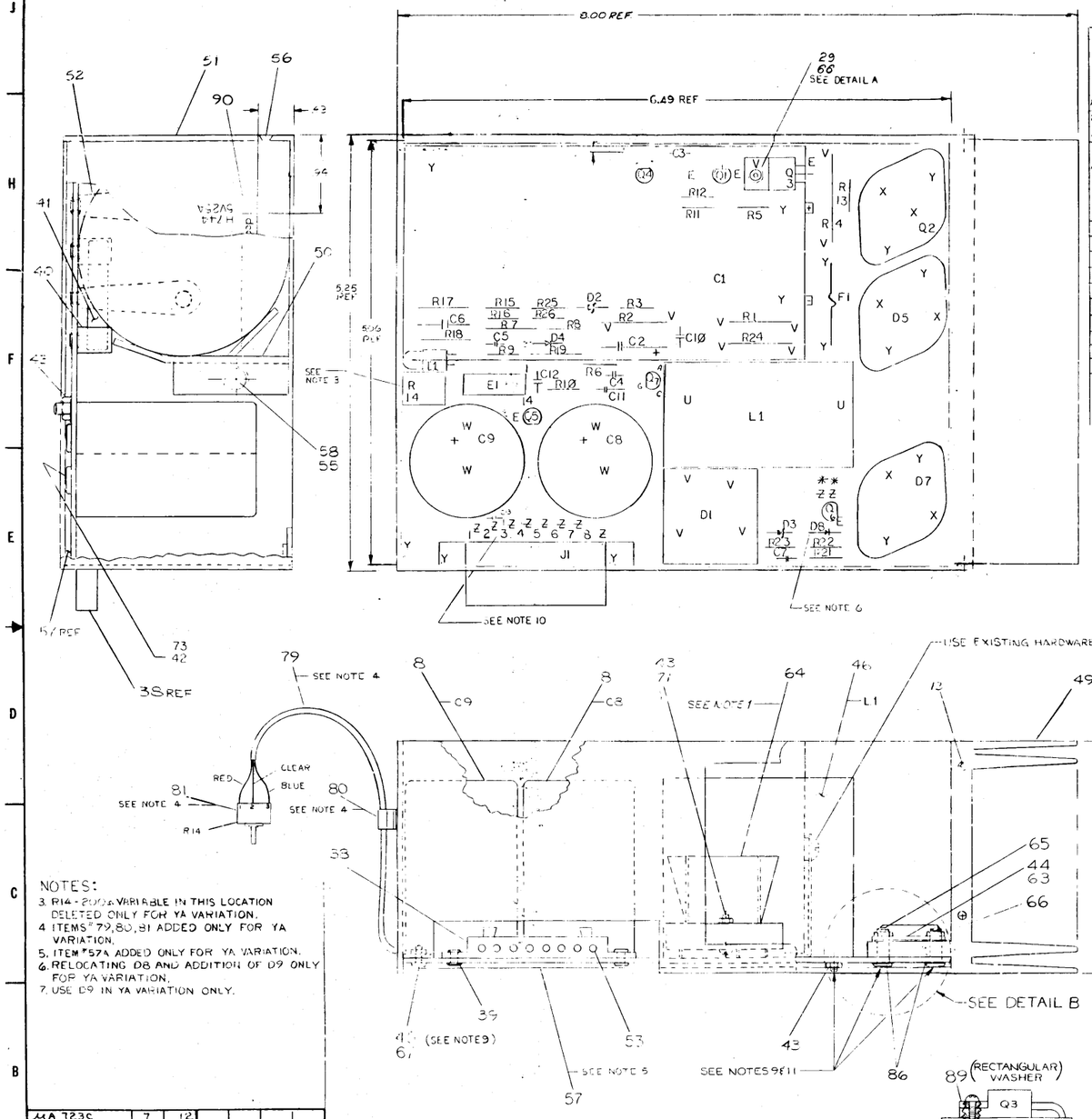
Next Higher Assy

DIGITAL EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

5V REGULATOR

SIZE D | CODE CS | NUMBER H744-0-1 | REV Y

SIZE D | CODE CS | NUMBER H744-0-1 | REV Y



1	1	R22	RES 49Ω 1/4W 5%	1301424	69	0	1	11	5 WATT 1 AMP	68
1	1		PACKING INSTRUCTIONS	API 3700074-0070	70	2	2		L WASHER #4	9006632	67
1	1		SCR, PHL PAN HD 8-32 x 5/8 LG	9006025-1	71	7	7		NUT KEPS #4-40	9006557	66
1	Ø	I1	15 VOLT LAMP	1209169	72	6	6		SCR PHL PAN HD #4-40 x 3/16	9008033-165
4	4		LOCKWASHER #10 INT	9006635	73	1	1		HEAT SINK BRIDGE	1210907	64
A/R	A/R		SILICONE COMPOUND	9004182	74	A/R	A/R		COMPOUND THERMAL JOINT	9008268	63
~~A/R~~	~~A/R~~		~~TFE TUBING~~	~~9107302-11~~	75	1	1	R26	RESISTOR 1.5K 1/4 W 5%	1300381	62
~~A/R~~	~~A/R~~		~~TFE TUBING~~	~~9107220-11~~	76	1	1	R19	RESISTOR 7.5K 1/4W 1%	1303322	61
1	1	Q4	TRANSISTOR 2N4235	~~1805555~~	77	1	1	R3	RESISTOR 12K 1/4W 5%	1300488	60
~~A/R~~	~~A/R~~		~~SHRINK SLEEVING~~	~~9107252-09~~	78	1	1	Q7	TRANSISTOR, UNIJUNCTION 2N6028	1510877	59
1	Ø	(2 IN)	WIRE, MICRODOT	1700014	79	1	1		SCR PHL PAN HD #6-32 x 1/4 LG	9006220-1	58
1	Ø		CLAMP, CABLE	9007079	80	2			~~COVER~~	CMD-5309760-0002	57
1	Ø	R14	POT, 10 TURN, 1KΩ	1309532-04	81	1	1		SCR PHL FLT HD #6-32 x 3/16 LG	9001320-2	56
1	Ø	R17	RES, 300Ω 1/4W 5%	1301425	82	1	1		WASHER, LOCK #6	9006633	55
1	Ø	R18	RES, 150Ω 1/4W 5%	1300250	83	4	4		~~SCR PHL FLT HD #2-56 x 1/4 LG~~	~~9002320-2~~	54
1	Ø	R4	RES, 06Ω 5W 3%	1310876-02	84	8	8		CONTACT FEMALE	1209956	53
1	Ø	D3	DIODE ZENER 1N754	1109991	85	2	2		STRAP, CAPACITOR	CMD-5309759-0002	52
6	6	-	WASHER, INT TOOTH #4	9006632	86	1	1		BRACKET, REGULATOR	D-BA-5309756-0	51
1	1	C7	CAP .22μf 50V	1010274	87	1	1		HOLDER, CAPACITOR 2.5	C-BA-12258	50
1	1	R13	RES 10 1/4W 5% FUSIBLE	1312496	88	1	1		HEAT SINK REGULATOR	D-PS-1207315-0	49
1	1	-	WASHER, RECTANGULAR	9009769	89	2	2	C8, C12	CAP 56 PF	1000012	48
1	1	-	DECAL (H744)	ADC-7416945-1-0	90	1	1	R24	RESISTOR 10 1W	1300171	47
1	1	-	JUMPER	1214074	91	1	1	L1	REACTOR 60 μHY MMD 3.5-7	1610850	46
						2	2		SCR, PHL PAN HD #4-40 1/4 LG	9008321-1	45
						3	3		WASHER, INSULATOR	9006721	44
						3	3		NUT, KEPS 6-32	9008155	43
						4	4		SCR 10-32 x 3/8 SLOTTED PAN HD	9009659-0	42
						1	1	F1	FUSE 15 AMP	1213237-01	41
						2	2		FUSE CLIP	9007203	40
						6	6		EYELET 6.6-4.5	9000002	39
						1	1	J1	MATE-N-LOK CONN, 6 PIN	1209340	38
						1	1	E1	INTEGRATED CIRCUIT DEL-230	1910415	37
						1	1	Q5	TRANSISTOR A05	151..705	36
						1	1	Q3	TRANSISTOR DA5H8	1510708-1	35
						3	3	Q1, Q6, Q4	TRANSISTOR MPSA55 MOT	1510706	34
						1	1	Q2	TRANSISTOR 2N5302	1510196	33
						Ø	1	R14	RES VARIABLE 200	1310852	32
						1	1	R21	RES 5.1 1/4W 5%	1309422	31
						1	1	R23	RES 100 1/4W 5%	1300229	30
						1	1		SCR, HEX HD #4-40 x 1/8	9006011-1	29
						1	1	R11	RES 27 1/4W 10%	1301420	28
						Ø	1	R17	RES 7.50 1/8W 1%	1302955	27
						1	1	R9	RES 27 1/4W 5%	1301523	26
						1	1	R7	RES 18.2K 1/8W 1%	1313412	25
						2	2	R8, R16	RES 1K 1/4W 5%	1300305	24
						Ø	1	R18	RES 511 1/8W 1%	1302411	23
						1	1	R25	RES 18 K 1/4W 5%	1302465	22
						2	2	R6, R15	RES 10 K 1/4W 5%	1300479	21
						Ø	1	R4	RES .02 5W 3%	1310076	20
						1	1	R2	RES 820 1W 10%	1300358	19
						1	1	R1	RES 3.9K 1W 10%	1302927	18
						1	1	R5	RES 10 1/4W 5%	1301317	17
						2	2	R12, R10	RES 150 1/4W 5%	1300250	16
						Ø	1	D3	DIODE ZENER 1 MA. 5.1V	1110925	15
						1	1	D7	SCR MCR 6491-2	1109465	14
						4	4		SCR, PFN #4 X 5/16 SST/TIN	9003141	13
						1	1	D5	DIODE PWR NSR 8117	1110715	12
						3	2	D4, D8 D9*	DIODE PWR D664	1100114	11
						1	1	D2	DIODE ZENER IN4744	1105648	10
						1	1	D1	DIODE BRIDGE	1110714	9
						2	2	C8, C9	CAP 6 KMF 10V	1100704	8
						1	1	C1	CAP 31 KMF 50V	1010858	7
						2	2	C4, C3	CAP .08 MF 25 V	1001774	6
						1	1	C2	CAP .033 μf 100V 10%	1000050	5
						1	1	C11	CAP 2700PF 100V 5% DM	1001837	4
						2	2	C10, C13	CAP .01 MF 100V 20% DISC	1001810	3
						1	1	C6	CAP 2.2 UF, 20% ICA	1002627	2
						1	1		ETCHED CIRCUIT BOARD	5009729	1
									ASSY/DRILLING HOLE LAYOUT	D-AH-H744-0-5	
									X-Y COORDINATE HOLE LOCATION	X-Y-H744-0-9	REF
									MODULE ECO HISTORY	D-MH-H744-0-0	REF
									CIRCUIT SCHEMATIC	D-SE-H744-0-1	REF
QTY	QTY	REF DESIGNATION						DESCRIPTION		PART NO.	

NOTES:

1. APPLY ITEM #63 (COMPOUND) BETWEEN TRANSISTOR (Q2), DIODES (D5, D7) AND ITEM #44 (WASHER). ALSO BETWEEN ITEM #44 (WASHER) AND HEAT SINK (ITEM #42). ALSO APPLY ITEM #63 (COMPOUND) BETWEEN ITEM #9 (DIODE BRIDGE) AND ITEM #64 (HEAT SINK BRIDGE).

NOTES CONT:

NOTE 8:
(1) Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO CKT. BOARD BEFORE SOLDERING.

NOTE 9: TORQUE APPLICATION
(1) APPLY 12 INCH LBS. OF TORQUE TO THE SCREWHEAD OF #4 HARDWARE EXCEPT Q3.
(2) APPLY 12 INCH LBS. OF TORQUE TO #6 HARDWARE ON L1.
(3) APPLY 16 INCH LBS. OF TORQUE TO ALL #6 AND #10 HARDWARE EXCEPT ON L1.
(4) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.

NOTE 10:
INSERT C13 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS, 2-3.

NOTE 11:
MIN. TORQUE REQUIRED FOR QC INSPECTION:
8 INCH LBS. FOR #4 HARDWARE;
12 INCH LBS. FOR #6 AND #10 HARDWARE.

*SEE NOTE 7

NOTES:

3. R14 - 200Ω VARIABLE IN THIS LOCATION DELETED ONLY FOR YA VARIATION.
4. ITEMS 79, 80, 81 ADDED ONLY FOR YA VARIATION.
5. ITEM #57A ADDED ONLY FOR YA VARIATION.
6. RELOCATING D8 AND ADDITION OF D9 ONLY FOR YA VARIATION.
7. USE D9 IN YA VARIATION ONLY.

DETAIL A
SEE NOTE 8

DETAIL B
SCALE 2/1

MA 723C	7	12
IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTFULLY. EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

ITEM NO	AWG	FROM PT	TO PT
JUMPER LIST			

FIRST USED ON OPTIMOD D-UA-H742A-0-0	
D664	IN3606
IN4749	

VALUE NO.	EIA NO.
DEC NO.	EIA NO.
SEMICONDUCTOR CONVERSION CHART	

ETCH BOARD REV H

PARTS LIST

EQUIPMENT CORPORATION

TITLE: 5V REGULATOR

SIZE A | NO. D-H744-0-A | REV Z

SCALE 1:1 | WEIGHT | SHEET 1 OF 1

D-H744-0-A Z

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DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE	
DRAWING DIRECTORY	B-DD-H745-Ø
CIRCUIT SCHEMATIC	D-CS-H745-Ø-1
UNIT ASS'Y	E-UA-H745-Ø-Ø

MFG. SET

SEQUENCE	
TEST PROCEDURE	A-SP-11/45 TA 2
MFG. SPEC.	A-SP-H745 Ø 8
PACKAGING INSTRUCTION	A-PI-3700074 0-0

UNIT VARIATIONS

VAR	TITLE	PRINT SET
H745	-15V REGULATOR	X

REVISIONS		
DATE	CHG. NO.	REV
	H745-16	K
	H745-17	L
	H745-18	M
9-76	H745-19	N
10-76	H745-20	P

USED ON OPTION/MODEL	
11/45	

SHEET 1 OF 2

DRN. F. FONTAINE	DATE 2 7 72	TITLE -15V REGULATOR
CHK'D. J GAUDETTE	DATE 2 17 72	
PROJ ENG. G DUTTER	DATE 2 25 72	
PROD. A HUSCH	DATE 2 25 72	SIZE B / CODE DD / NUMBER H745-Ø / REV P
FIELD SERV. A ZINS	DATE 2 25 72	DIST

DEC 14-12231-1DR2-14-8972

DRB 106

ELECTRICAL

CUSTOMER PRINT SET H745-1	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
X		1	D-CS-H745-Ø-1	Y	1	CIRCUIT SCHEMATIC	H745
	X		A-SP-11/45-TA-2			TEST PROCEDURE	H745
	X		A-SP-H745-Ø-8			MFG SPEC	H745
			D-AH-H745-0-5				
			B-MH-H745-0-6				

MECHANICAL

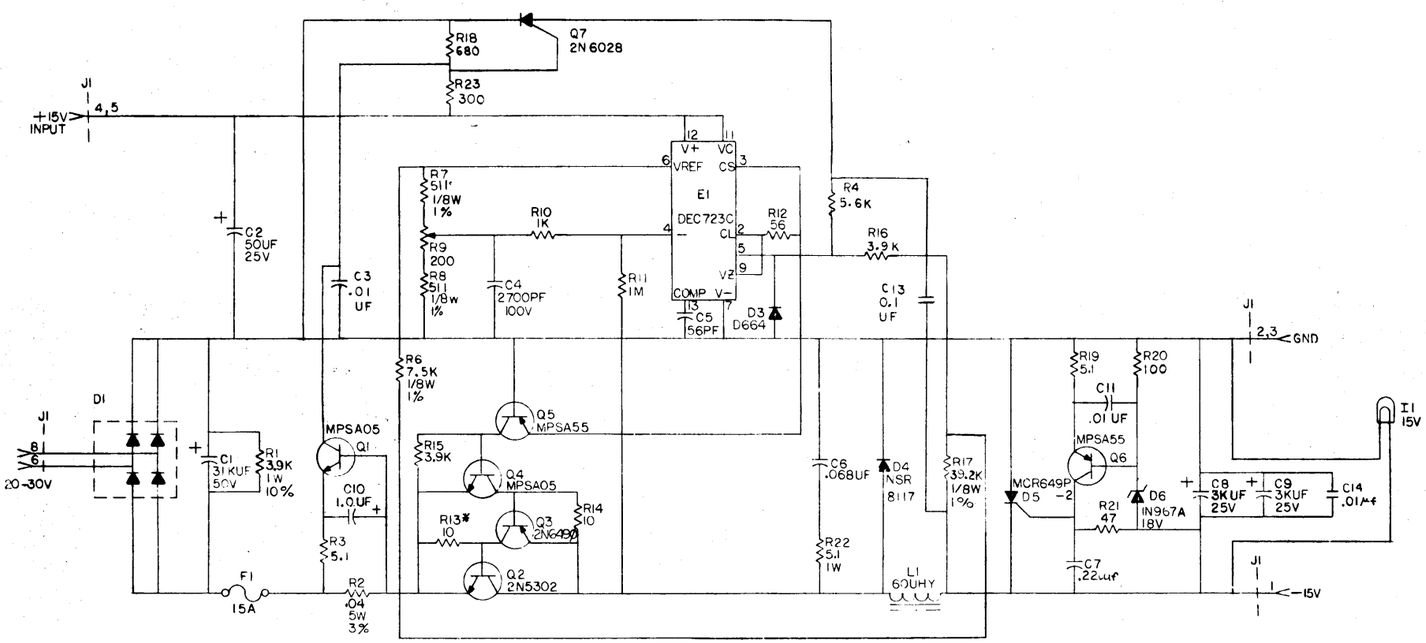
CUSTOMER PRINT SET H745-1	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
X		1	E-UA-H745-Ø-Ø	Y	1	UNIT ASSY	H745
			D-PS-1210727-0-0		1	HEAT SINK	H745
			D-IA-5309756-0-0		1	REGULATOR BRKT	H745
			D-IA-5309761-0-0		1	2 - 5 CAP BRKT	H745
			C-MD-5309759-0-0		1	CAPACITOR STRAP	H745
		2	A-PI-3700074-0-0	-	2	PACKAGING INSTRUCTIONS	H745
			A-PS-9905211-0-0	-	2	OUTER CARTON	H745
			A-PS-9905212-0-0	-	2	INNER PACKAGE	H745

TITLE		SIZE	CODE	NUMBER	REV
-15V REGULATOR	SHEET 2 OF 2	B	DD	H745-Ø	P

DRB 108

DEC 16-(325)-1062-2-N871

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* FUSIBLE

UNLESS OTHERWISE INDICATED:

RESISTORS = 1/4W, 5%

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV E

D664	IN 3606	D45H8	
NSR 8117		2N 6028	
MCR 649P – 2			
IN 967A	SAME		
2N 5302			
MPS A05			
MPS A55			
DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

REVISIONS: REV E; CHANGE NO. H745 – 00021; CHK A. BARON 6-JAN-72

DRN. Roger L Roberts 11-4-71
CHK'D. NANCY MOORE 1-9-71
ENG. [illegible] 1/10/72
PROJ. [illegible] 1/10/72
PRG. [illegible] 1/13/72
NEXT HIGHER ASSY

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: -15V REG.

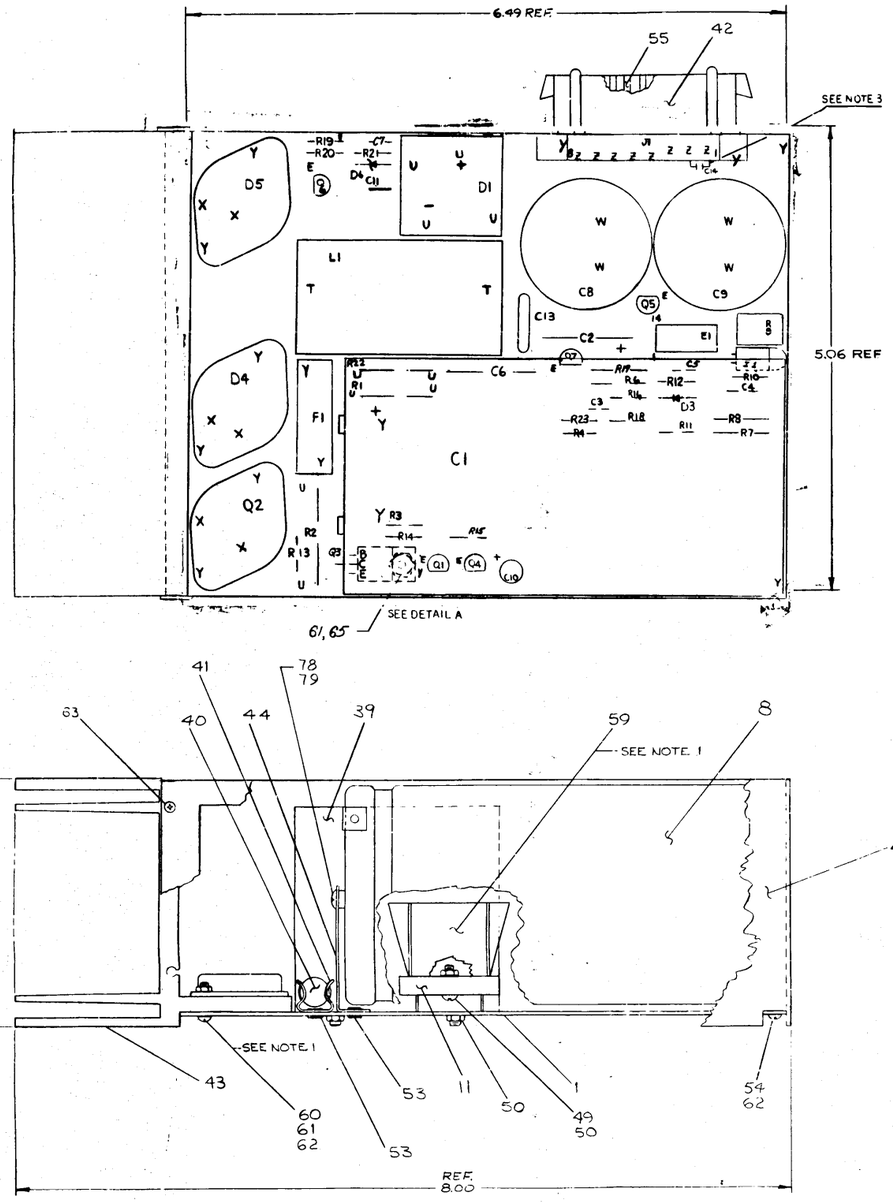
SIZE D | CODE CS | NUMBER H745-0-1 | REV F

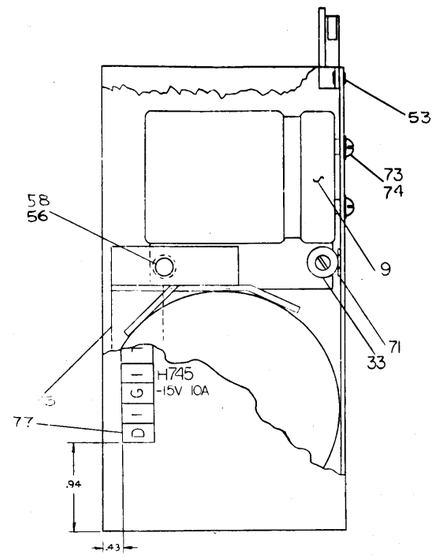
SCALE

SHEET 1 OF 1

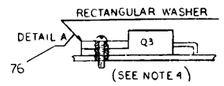
DIST.

DEC FORM NO. DRD-118





NOTE:
3. INSERT C14 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS 1-2.



NOTE 4:
Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO CKT. BOARD BEFORE SOLDERING.

NOTE 5: TORQUE APPLICATION:
(1) APPLY 12 INCH LBS. OF TORQUE TO ALL #4 HARDWARE EXCEPT Q3.
(2) APPLY 16 INCH LBS. OF TORQUE TO ALL #6 AND #10 HARDWARE.
(3) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.

NOTE:
APPLY ITEM #51 (THERMAL COMPOUND) BETWEEN TRANSISTOR AND INSULATOR, WASHER (ITEM #52) ALSO BETWEEN WASHER & HEAT SINK FOR Q2, Q4 & C5. ALSO APPLY ITEM #51 (COMPOUND) BETWEEN ITEM #11 (DIODE BRIDGE AND ITEM #59 (HEAT SINK).
2. 1010681 MAY BE SUBSTITUTED FOR C13 (1000030).

		ASSY/DRILLING HOLE LAYOUT	D-811-H745-0-5	70
1		PACKING INSTRUCTIONS	API-37C0074-0-0	69
1	R18	RES. 680 1/4W 5%	1301424	68
1	R23	RES.300 1/4W 5%	1301420	67
1	C13 (SEE NOTE 2)	CAP.0.1UF 100V 20%	1000010	66
1		BCR PH #4-40 X 5/16 LG	9000010-1	65
1	I1	LAMP 15V	1209109	64
4		SCR, PPH #4-40 X 5/16 LG., SELF TAPPING	9009442	63
8		L. WASHER #4	9004532	62
7		NUT KEPS #4-40	9007557	61
8		SCR PHL PAN HD #4-40 X 1/4 LG	9002033-1	60
1		HEAT SINK BRIDGE RECT	1210807	59
1		SCR PHL PAN HD #8-32 X 1/2 LG	9008029-1	58
1		SCR PHL FLT HD #8-32 X 1/4 LG	9004022-02	57
1		WASHER LOCK #8	9004033	56
8		CONTACT FEMALE	1209458	55
2		SCR PHL PAN HD#4-40 X 1/4 LG	9003011-1	54
8		EYELET 03-4-7	4004000	53
3		INSULATOR WASHER	9009721	52
A/R		THERMAL COMPOUND	9009268	51
3		NUT KEPS 8-32	9003185	50
1		SCREW PHL PAN HD 8-32 X 5/8 LG	9006025-01	49
4		SCREW PHL FLT HD #4-3 X 4-40 LG	4004008-2	48
1		COVER-TOP	0404-0709-0-0	47
1		REGULATOR BRKT	D-1A-830758-0-0	46
1		2.5 HOLDER CAPACITOR	C-1A-741388-1-0	45
2		STRAP CAPACITOR	C-BP-5997758-0-0	44
1		HEAT SINK	D-PS-1210737-0-0	43
1	J1	CONN. MATE-N-LOCK 8 PIN	1209248	42
2		FUSE CLIP	9007270	41
1	F1	3.5	1213237-01	40
1	L1	REACTOR 80 UHY	1810950	39
1	E1	INTEGRATED CIRCUIT UA723C	1810415	38
1	Q3	TRANSISTOR 2N4898	1512652-01	37
2	Q5, Q6	TRANSISTOR A55	1510708	36
2	Q1, Q4	TRANSISTOR A85	1510705	35
1	Q2	TRANSISTOR 2N3702	1510194	34
1	R9	RES VARIABLE 200 Ω 20%	1310852	33
1	R20	RES 10Ω 1/2W 5%	1305229	32
1	R11	RES 1 MEG 1/8 5%	1305454	31
1	R4	RES. 5.6 K 1/4 W 5%	1301474	30
2	R15, R16	RES 3 8K 1/8 5%	1305444	29
2	R18, R3	RES 5 1 1/8 5%	1305422	28
1	R12	RES 56 1/8 5%	1302802	27
1	R21	RES 47 1/8 5%	1302702	26
1	R17	RES 28.7K 1/8W 1%	1305265	25
1	R10	RES 1K 1/8 5%	1303855	24
1	R14	RES 10 1/8 5%	1301317	23
1	R6	RES 7.5K 1/8W 1%	1305322	22
2	R7, R8	RES.911 1/8 1%	1305911	21
1	R22	RES 5 1 1/8 5%	1302138	20
1	R24	RES 27Ω 1/8 5%	1302705	19
1	R2	RES .04 5W 3%	1311362-00	18
1	R1	RES 3 8K 1/8 1%	1307727	17
1	CR	BRIDGE (IP78)	1110708	16
1	Q5	SCR MCR649P-2	1108455	15
1	D4	DIODE MDT5117	1110715	14
1	D3	DIODE D814	1109114	13
1	Q7	THERISTOR (NO JUNCTION) 2N5029	1510777	12
1	D1	DIODE BRIDGE	1110714	11
1	R25	VDR MV13-200 10%	1305712	10
2	C8, C9	CAP 3.0K UF 25V	1010778	9
1	C1	CAP 31K UF 50V	1010779	8
1	C10	CAP 1.0 UF 25V	1010866-01	7
1	C2	CAP 50 UF 25V -10+75%	1010758	6
1	C6	CAP .0CB UF 100V 10%	1000052	5
1	D4	CAP 270PF 100V 5%	1011483	4
3	C11, C3, C14	CAP .22 UF 50V 20%	1010274	3
1				2
1				1
QTY.	REF DESIGNATION		PART NO.	ITEM NO.

1		DECAL (H745)	7416945-02	80
2		WASHER INT. TOOTH #10	9006635	79
2		SCREW PAN 10-32 x 5/16 LG.	9009669-01	78
1	C7	CAP .22 UF 50V	1010274	77
1		WASHER, RECTANGULAR	9009769	76
1	R13	RES 10Ω/4W, FUSIBLE	1312496-00	75
4		LOCKWASHER #10 INT	9006635	74
4		SCR #10-32X.31 SLOTTED PIN HD.	9009669-01	73
				72
1		TRANSIPAD	9008206	71

PRINTED WIRING BOARD REV. F

-15 REGULATOR

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

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CUSTOMER PRINT SET INDEX

SEQUENCE		SEQUENCE	
DRAWING DIRECTORY	B-DD-H754-Ø		
+20 VOLT REGULATOR	E-CS-H754-0-1		

THIS IS PRINT SET ☐☐☐☐

UNIT VARIATIONS		PRINT SET
VAR	TITLE	1
H754-0	+20 VOLT REGULATOR	X

REVISIONS			
DATE	CHG. NO.	REV	
10-75	H754-9	A	
11-3	H754-10	B	

USED ON OPTION/MODEL		DRN.	DATE	TITLE
		J. Fleming	2/21/74	+20 VOLT REGULATOR
		CHK'D. J. Fleming	DATE 2/21/74	
		PROJ ENG.	DATE	
		PROD.	DATE	SIZE B / CODE DD / NUMBER H754-Ø / REV B
		FIELD SERV.	DATE 7/25/74	DIST
SHEET 1 OF 3				

DRB 106

334

ELECTRICAL

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	B-DD-H754-Ø	#	3	DRAWING DIRECTORY	
X			E-CS-H754-Ø-1	#	2	+20 VOLT REGULATOR	
			K-CO-H754-Ø-4		-	X-Y COORDINATE HOLE LOCATION	
			D-AH-H754-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
			B-MH-H754-Ø-6		1	MODULE ECO HISTORY	
			5010531		-	ETCHED CIRCUIT BOARD	
			A-SP-H754-Ø-8		3	MANUFACTURING SPEC	

MECHANICAL

CUSTOMER PRINT SET 1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	E-CS-H754-0-1	#	2	+20 VOLT REGULATOR	
			D-PS-1210737-0-0		1	HEAT SINK REGULATOR	
			C-IA-5309758-0-0		1	CAPACITOR BRACKET	
		2	D-IA-5409756-0-0		1	BRACKET REGULATOR	
			A-SS-5309756-0-1		1	SILK SCREEN	
			A-SS-5309756-0-2		1	SILK SCREEN	
			A-SS-5309756-0-3		1	SILK SCREEN	

CUSTOMER PRINT SET CODES

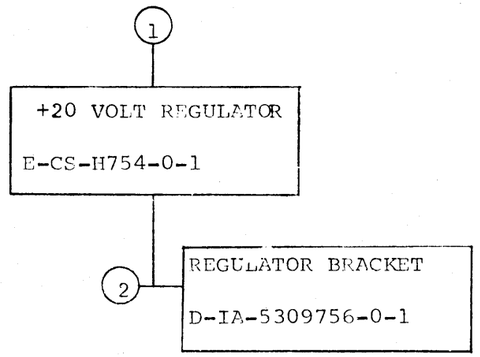
X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
+20 VOLT REGULATOR	2 OF 3	B	DD	H754-Ø	B

DRB 108

DEC 16-(325)-1062-2B-R972

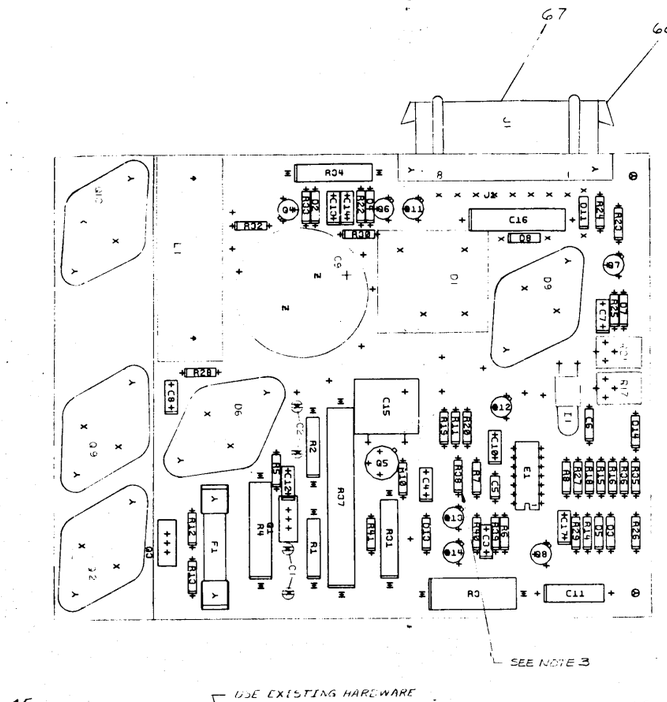
335

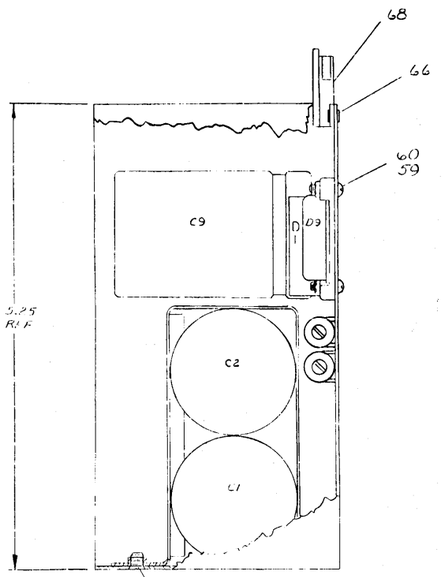


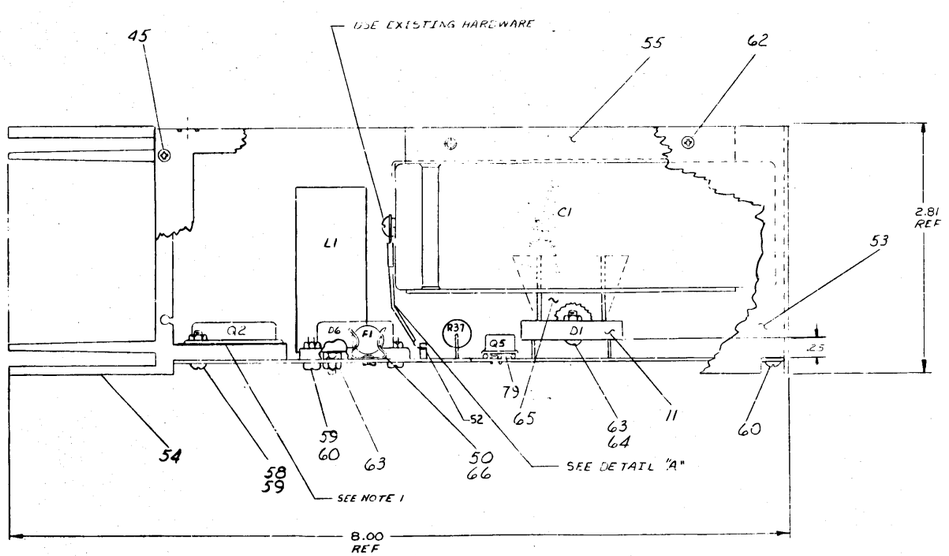
TITLE		SIZE	CODE	NUMBER	REV
+20 VOLT REGULATOR	SHEET 3 OF 3	B	DD	H754-Ø	B

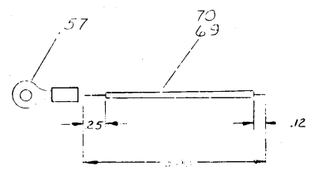
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NOTES:
1. APPLY ITEM #71 (COMPOUND) ON BOTH SIDES OF ITEM #72 (INSULATOR WASHER) FOR Q8, Q9, Q10. ALSO APPLY BETWEEN ITEM #11 (DIODE BRIDGE D1), AND ITEM #65 (HEAT SINK, BRIDGE RECT)
2. UNLESS OTHERWISE INDICATED: RESISTORS ARE 1/4W, 5%. CAPACITORS ARE 100V, 10%.
3. ADD INSULATION (9107256-11) TO BOTH LEADS OF R38 TO AVOID SHORT TO ETCH.









DETAIL "A"
SCALE: NONE
RED WIRE GOES TO POSITIVE TERMINAL
BLK WIRE GOES TO NEGATIVE TERMINAL

DELETED COMPONENTS	
TESTERS	R9
DIODES	D10,12

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		
1	CT	CAP .22 uF 50V	1010274	93
1	Q1	TRANSISTOR 2N5670-1	1509605-1	92
1	R13	RES.27Ω 1W 5% FUSIBLE	1324900	91
A/R		INSULATION	9107256-11	90
1	R39	RES 220 1/4W 5%	1300271	89
1	R37	RES. .1 10W 1%	1309108	88
1	R38	RES.1K 1% THERMISTOR	1310071	87
1	C16	CAP 100uF 25V	1002781	86
1	Q10	TRANSISTOR MJ4660	1507716	85
1	Q9	TRANSISTOR MJ3660	1511349	84
1	C13	CAP 100 uF 100V 15% DM	1020016	83
2	Q6, Q14	TRANSISTOR MPS A05	1510153	82
1	D2	DIODE 24B	1100100	81
2	(UNDER QT PAD)	TRANSIPAD	9017203	80
1	R31	RES .15Ω 2W 10%	1310147	79
2	C14, C17	CAP, 1000 PF, 100V, 5% DM	1000042	78
1	R32	RES 133Ω 1/2W 1%	1325122	77
2	R35, R8	RES 178K 1/8W 1%	1302612	76
1	R11	RES 15K 1/4W 5%	1300496	75
1	R20	RES 470Ω 1/4W 5%	1300316	74
				73
3		WASHER INSULATOR	9008121	72
A/R		COMPOUND THERMAL	9006258	71
A/R		WIPE MFRNG.STK. (1% IN3 (16.4	9107360-00	70
A/R		WIPE MFRNG.STK. (1% IN3 (16.4	9107360-22	69
1	J1	MATE-N-LOCK CONN 8 PIN	1203340	68
8		CONTACTS, MAIN (LOW	1209456	67
4		EYELET .125 x .1	9006132	66
1		HEAT SINK BRIDGE RECTIFIER	1210007	65
1		SCR PHL PAN HD 6-32 X 1	9008024 1	64
5		KEPS NUT 6-32	9008185	63
2		SCR PHL FLAT HD, 6-32 X 5/16	9008021 2	62
4		SCR PHL FLAT HD 4-40 X 3/8	9008009-1	61
10		SCR PHL PAN HD 4-40 X 3/8	9008011 1	60
10		KEPS NUT 4-40	9008057	59
6		SCR PHL PAN HD 4-40 X 1/4	9008013 1	58
4		TERMINAL SOLDERLESS #10	9107330	57
1		COVER, COMP	C-1A-5300756-0-0	56
1		3.5 CAP BRKT	C-1A-5300758-0-0	55
1		HEAT SINK, REGULATOR	D-PS-2210314-0-0	54
1		BRACKET REG	D-1A-5300756-4	53
4		SPLIT LUG	9006135	52
1	Q8	TRANSISTOR 2N6078	15 10877	51
2		FUSE CLIP	9007203	50
1	F1	FUSE 10 AMP	1213237-10	49
1	L1	REACTOR 175 UHY	16 10945	48
1	U1	INTEGRATED CIRCUIT 723	15 10706	47
6	Q1,Q6,Q11,Q12, Q13	TRANSISTOR MPS A05	15 10706	46
4		SCR PHL FLAT HD #4-40 X 1/4	9008142-03	45
1	Q5	TRANSISTOR D ECG 309	15 03709	44
1	Q7	TRANSISTOR 2N6038	15 10869	43
1	Q3	TRANSISTOR 2N6491	1513704	42
1	R17, R21	RES VARIABLE 200Ω ±20% POT	13 10852	41
2	R23, R36	RES 5.1 1/8 5%	13 09422	40
1	R18	RES .237 1/8W 1%	1304857	39
				38
2	R14, R5	RES 1 1/8 5% 27	13 01527	37
1	R10	RES 150 1/8 5%	13 00250	36
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-H754-0-5	35
2	R1, R40	RES 2K 1/4W 5%	1322368	34
2	R6, R19	RES 12K 1/8 5%	13 00488	33
6	R15 R25 R30, R24, R35, P41	RES 100 1/8 5%	13 00229	32
1	R12	RES 68Ω 1/4W 5% FUSIBLE	131.494.2	31
				30
1	R27	RES 10K 1/8W 1%	1303712	29
1	R32	RES 9K 1/8W 1%	13 00444	28
1	R16	RES 887Ω 1/8W 1%	13 05104	27
1	R22	RES 10K 1/8 5%	13 02465	26
1	C11	CAP 2.2 UF 35V 10% TANT	10 07431	25
1	P4	RES 5K T .03 Ω	1310876-1	24
1	R3	RES 1.5K 5W 5%	13 01897	23
1	R34	RES A7 2W 5%	13 07516	22
1	R28	RES 1.5K 1/8 5%	13 00351	21
2	R1 R2	RES 3.9K 1/8 10%	13 02927	20
1	R26	RES 12Ω 1/4W 5%	1701317	19
2	D11 D8	DIODE IN5624	1110420	18
				17
1	D16	DIODE 75ZA ZENER	1102808	16
1	D9	DIODE MCR 649 P-2	11 09469	15
1	D7	DIODE IN5708 24 V	11 10856	14
1	D6	DIODE 20AMP FAST REC	11 10715	13
1	D3	DIODE 1N4744 ZENER, 15V	11 09648	12
1	D1	DIODE MDS 3514	11 10114	11
3	D5 D13 D4	DIODE D664	11 10114	10
1	C15	CAP .1UF 100V 20% DISC	1CCC030	9
1	C9	CAP 2.2K UF 30V 63% AL EL	10 10C59	8
4	C3,C8 C4,C10	CAP .01UF 50V 20% DISC	10 01612-01	7
1	C5	CAP 2700PF 100V 5% DM	10 01637	6
1	C2	CAP .1UF 100V 5% DM	10 00012	5
1	I1	LAMP 6.8V 40 MA	12-11239	4
1	C12	CAP .05UF 25V DISC	10 01774	3
2	C1 C7	CAP 5.8KUF 50V 63% AL EL	10-11362	2
1		ETCHED CIRCUIT BOARD	5010531	1
		MODULE ECO HISTORY	M-AH-H754-0-6	REF
		X Y COORDINATE HOLE LOCATION	X-CO-H754-0-4	REF

ETCH BOARD REV J

D664 IN3606

IC TYPE	GND	+ 5V
GND AND 5V ACE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ACE STATED ABOVE		

IC PIN LOCATIONS

ITEM NO.	AWG	FROM PT	TO PT

JUMPER LIST

REV	CHANGE NO.	DATE	REVISIONS
A	H754-00001	6/13/73	
B	H754-00005	9/20/73	
C	H754-00002	11/30/73	
D	H754-00003	12/18/73	
E	H754-00004	1/3/74	
F	H754-00006	1/10/74	
G	H754-00007	1/17/74	
H	H754-00008	1/18/74	
J	H754-00009	2/1/74	
K	H754-00010	2/8/74	
L	H754-00011	2/15/74	
M	H754-00012	2/22/74	
N	H754-00013	3/1/74	
P	H754-00014	3/8/74	
R	H754-00015	4/1/74	
S	H754-00016	4/12/74	

DEC NO.	ECA NO.

SEMICONDUCTOR CONVERSION CHART

DEC NO.	ECA NO.

DRAWN 2/5/73
CHECKED 2/27/73
ENGR 2/27/73
MFG 2/27/73
QUAL 2/27/73
HEAT SHRINK ASSY
TITLE
SIZE E
CS H754-0-1
REV T
SCALE
SHEET 1 OF 2

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
+ 20 VOLT REGULATOR

H754-0-1

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F1 10A

D1 NSS 3514

C1 5800UF 50V

C2 5800UF 50V

R1 3.9K 1W 10%

R2 3.9K 1W 10%

J1-8

J1-7

R4 .03Ω 5W, 3%

R5 27Ω

R3 1.5K 5W, 5%

C12 .05UF 25V

Q1 2N4920-1

Q2 2N5038

R13 * 27Ω

Q3 2NG491

R12 * 68Ω

L1 170 UHY

R28 10Ω

C8 .01UF 20% 50V

D6 20AMP

D11 1N5624

J1-5 +20V

R23 5.1Ω

R24 100Ω

C16 100UF 25V

Q7 MPSA55

C9 2200UF 30V

I1

R33 1.78K 1/8W 1%

C13 100PF

R34 .47Ω 2W 5%

Q11 MPS A55

Q10 MJ900

R32 3.9K

MPS A05 Q4

D2 D003

R31 .15Ω 2W 10%

D4 D664

MPS A55 Q6

C14 1000PF

R22 383Ω 1/8W 1%

R30 100Ω

Q9 MJ3000

R21 200Ω 20% 1/2W

D13 D664

Q5 DEC 3500

Q14 MPS A05

R41 100Ω

R37 .1 10W 1%

D9 MCR 649P-2

C7 .22uf 50V

R25 100Ω

J1-3 -5V

C3 .01UF

R39 220Ω

R40 2K

C11 2.2UF 35V 10%

D3 1N4744 15V

R6 12K

Q13 MPS A55

Q8 2N6028

R7 2K

R38 1K THERM.

1000PF 100V C17

R29 18K

R10 150Ω

C4 .01UF 50V 20%

C15 .1uf 20%

R11 15K

R20 47Ω

Q12 MPSA55

D14 752A

R36 5.1Ω

R35 100Ω

D8 1N5624

D7 1N970B 24V

J1-2 GND

R26 1.5K

D5 D664

R8 1.78K Ω 1/8W, 1%

R27 10K 1/8W, 1%

R19 12K

C10 .01UF 20% 50V

C6 2700 PF

R18 237Ω 1/8W 1%

R15 100Ω

R17 200Ω 20% 1/2W

R14 27Ω

R16 287Ω 1/8W 1%

DEC 723C

C5 56PF

* FUSIBLE RESISTOR

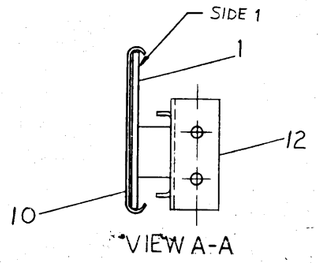
DRN V. BISSONNETTE	8-29-72	FIRST USED ON H754
CHK'D R. VOWLES	12-17-72	
ENG. R. BURTON	5-7-73	TITLE +20 VOLT REGULATOR
PROJ. ENG. R. BURTON	5-7-73	
PROD. L. BAPTISTE	5-9-73	
NEXT HIGHER ASSY.		SIZE D CODE CS NUMBER H754-0-1 REV. T
SCALE		
SHEET 2 OF 2		DIST.

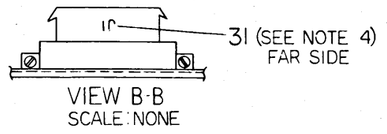
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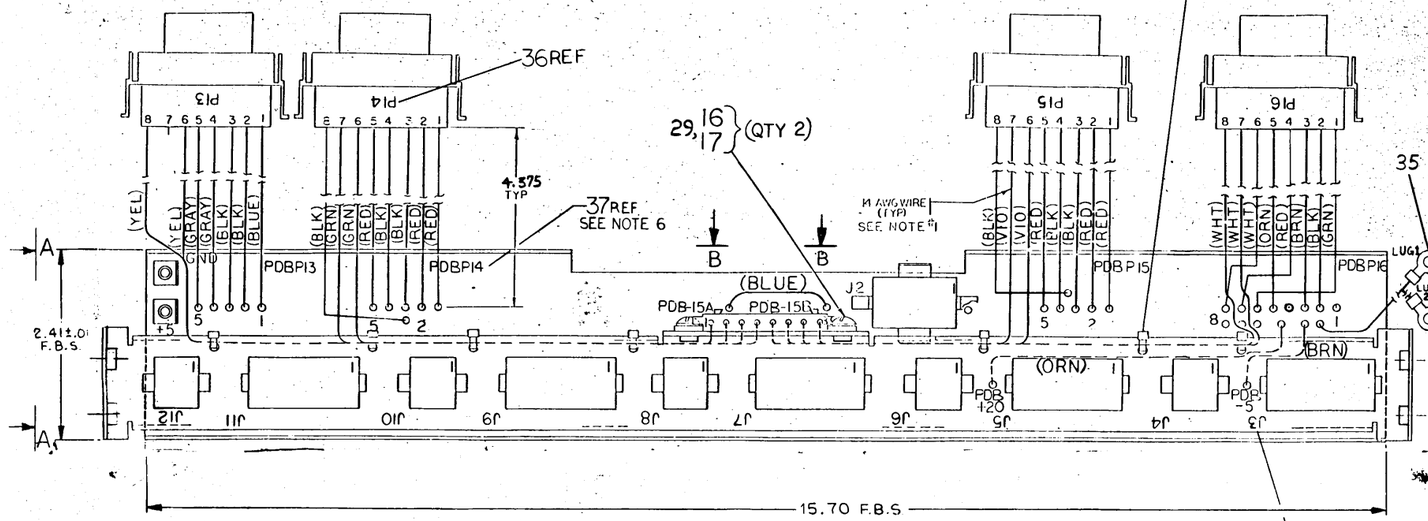
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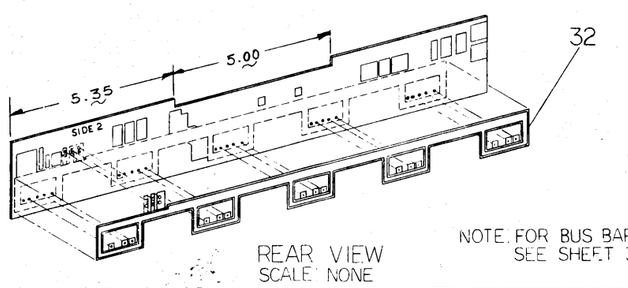
NOTES:

1. FOR HAND WIRING INFORMATION SEE WIRE TABLE ON SHEET 3.
2. MATE-N-LOK FIXTURES (ITEM 28) MUST BE USED DURING WAVE SOLDERING OF J2, J3-J12
3. WIRE JUMPERS ON CIRCUIT BOARD ARE PART OF SIGNAL PATHS. THEY ARE NOT FOR OPTIONS
4. PLACE DECALS (ITEM 30, 31 & 36) APPROX. AS SHOWN.
5. POWER DIST. BOARD WITH 7 #14 AWG WIRES AND BUS BAR IS THE YA VARIATION.
6. PLACE DECAL (ITEM 34) COVERING BOARD ETCH APPROX. AS SHOWN.









NOTE: FOR BUS BAR CONNECTIONS SEE SHEET 3 OF 3

IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

QTY	QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	1		ETCHED CIRCUIT BOARD	D-UA-5410863-0-0	1
5	5	J4, J6, J8, J10, J12	CONN, 6 PIN MATE-N-LOK (FEMALE)	1209350-06	2
1	1	J1	CONN, 8 PIN MATE-N-LOK (FEMALE)	1209340-00	3
5	5	J3, J5, J7, J9, J11	CONN, 15 PIN MATE-N-LOK (FEMALE)	1209350-15	4
1	1	J2	CONN, 12 PIN MATE-N-LOK (FEMALE)	1209350-12	5
4	4	P13 THRU P16	CONN, 8 PIN MATE-N-LOK (MALE)	1209340-01	6
31	24	(P13 THRU P16)	PIN, MATE-N-LOK	1209378-01	7
8	8	(J1)	PIN, MATE-N-LOK	1209379-01	8
117	117		PIN, MATE-N-LOK PC MOUNT	1209456	9
1	1		SHIELD	C-MD-7412142-0-0	10
~~2~~	~~2~~		~~GROUND LUG~~	~~9008153~~	11
1	1		BRACKET, CONN MTG	D-MD-7411704-0-0	12
2	2		EYELET	9009000	13
2	2		FASTON TAB	9008219-0	14
7	7		CABLE TIE .12 WIDE	9007880	15
2	2		SCREW, PHHD TRUSS 6-32 x .3125	9006021-03	16
2	2		WASHER, INT TOOTH #6	9006633	17
A/R	A/R		WIRE #14 AWG STRD (ORN)	9107370-33	18
A/R	A/R		WIRE #14 AWG STRD (BRN)	9107370-11	19
A/R	A/R		WIRE #14 AWG STRD (RED)	9107370-22	20
A/R	A/R		WIRE #14 AWG STRD (GRY)	9107370-88	21
A/R	A/R		WIRE #14 AWG STRD (BLK)	9107370-00	22
A/R	A/R		WIRE #14 AWG STRD (BLU)	9107370-66	23
A/R	A/R		WIRE #14 AWG STRD (YEL)	9107370-44	24
A/R	A/R		WIRE #14 AWG STRD (GRN)	9107370-55	25
A/R	A/R		WIRE #14 AWG STRD (VIO)	9107370-77	26
A/R	A/R		WIRE #14 AWG STRD (WHT)	9107370-99	27
REF	REF		MATE-N-LOK FIXTURES	C-1A-9305937-0-0	28
2	2		FLAT WASHER #6	9006656	29
A/R	A/R	J3 THRU J12	DECAL, PWR CONN.	A-DC-7409873-01	30
A/R	A/R	J1	DECAL, PWR CONN.	A-DC-7409873-02	31
1	-		BAR, BUS, BATTERY BACKUP	1213497	32
A/R	A/R		WIRE #14 AWG GRN/YEL	3107717-54	33
1	1		TERMINAL, RING BLU	9007928	34
1	1		TERMINAL, RING YEL	9007926-01	35
A/R	A/R	P13 THRU P16	DECAL, PWR CONN.	A-DC-7409872-2	36
A/R	A/R	P13 THRU P16	DECAL, PWR BOARD	A-DC-7417391-0-0	37

5410864-YA | 5410864

FIRST USED ON OPTION MODEL: BAII-K

PARTS LIST

ETCH BOARD REV. D

REV.	CHANGE NO.	REVISIONS
K	5410864-0001	R.WOLF 3-JAN-77
J	5410864-00007	G. POTTER 2-AUG-76
H	5410864-00006	B. MINOR 2 FEB 76
G	5410864-00004	ECO 6-NOV-75
F	5410864-0003	M. Cervantes 10-JAN-74
E		M. CARRAFIELLO
D	5410864-1	
C	ORIGINATED	

DEC NO. | EIA NO. | DEC NO. | EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN. P. Beasley DATE 6/14/74
CHK DATE 7/1
ENG. M. Carvalho DATE 7/25/74
PROJ. ENG. DATE 7/30/74
PROD. DATE 7/30/74
NEXT HIGHER ASSY D-UA-BAII-K-Ø
SCALE NONE
SHEET 1 OF 3

digital

TITLE: POWER DISTRIBUTION BOARD

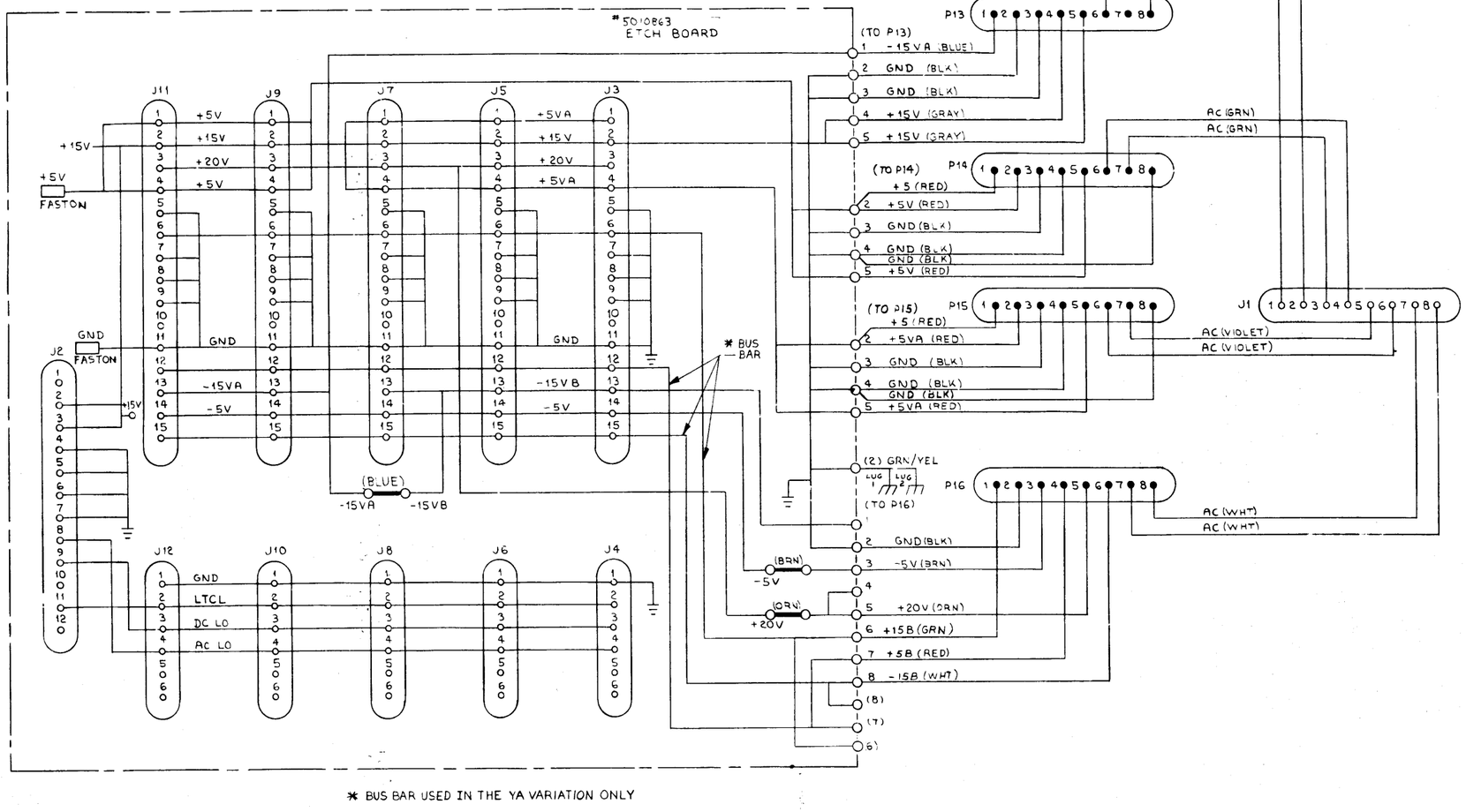
SIZE D | CODE CS | NUMBER 5410864-0-1 | REV. K

DIST.

DEC FORM NO. 880 130.0

239

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* BUS BAR USED IN THE YA VARIATION ONLY

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PWR DIST BOARD	D	CS	5410864-0-1	K
SCALE NONE	SHEET 2 OF 3		DIST.	

DCS 5410864-0-1 REV K

240

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WIRE TABLE

ITEM NO	DESCRIPTION AWG	COLOR	FROM CONNECTION	WITH	TO CONNECTION	WITH	LENGTH	SIGNAL NAME
24	14	YEL	J1-1	8	P13-8	7	12.5"	AC/H745
24		YEL	J1-2		P13-6		12.5"	AC/H745
25		GRN	J1-3		P14-7		11"	AC/H744-1
25		GRN	J1-4		P14-6		11"	AC/H744-1
26		VIO	J1-5		P15-7		8.75"	AC/H744-2
26		VIO	J1-6		P15-6		8.75"	AC/H744-2
27		WHT	J1-7		P16-8		11.25"	AC/H754
27		WHT	J1-8	8	P16-7		11.25"	AC/H754
23		BLU	PDBP13-1	SOLDER	P13-1		5"	-15V
22		BLK	PDBP13-2		P13-2			GND
22		BLK	PDBP13-3		P13-3			GND
21		GRY	PDBP13-4		P13-4			+15V
21		GRY	PDBP13-5		P13-5			+15V
20		RED	PDBP14-2		P14-2			+5V
22		BLK	PDBP14-3		P14-3			GND
22		BLK	PDBP14-4		P14-4			GND
20		RED	PDBP14-5		P14-5			+5V
20		RED	PDBP15-2		P15-2			+5V
22		BLK	PDBP15-3		P15-3			GND
22		BLK	PDBP15-4		P15-4			GND
20		RED	PDBP15-5		P15-5			+5V
22		BLK	PDBP16-2		P16-2			GND
19		BRN	PDBP16-3		P16-3			-5V
18		ORN	PDBP16-5		P16-5	7	5"	+20V
23		BLU	PDP-15A		PDB-15B	SOLDER	1.75	-15V
18		ORN	PDBP16-5		PDB + 20V		5"	+20V
19		BRN	PDBP16-3	SOLDER	PDB - 5V		2"	-5V
33		GRN/YEL	LUG 1	35	PDBP16-2	SOLDER	11"	SAFETY GND
33					LUG 2	34	15"	SAFETY GND
20		RED	PDBP16-7	SOLDER	P16-4	7	5.5"	+5B
20		RED	PDBP15-1		P15-1		5"	+5V
20		RED	PDBP14-1		P14-1		5"	+5V
22		BLK	PDBP15-4		P15-8		5.5"	GND
22		BLK	PDBP14-4		P14-8			GND
25		GRN	PDBP16-6		P16-1			+15B
27	14	WHT	PDBP16-8	SOLDER	P16-6	7	5.5"	-15B

YA VARIATION ONLY.

BUS BAR CONNECTIONS FOR YA VARIATION

LEVEL A	PDBP16-6 J11, J9, J7, J5, J3 ALL PIN #6	+15V.B
LEVEL B	PDBP16-7 J11, J9, J7, J5, J3 ALL PIN #12	+5V
LEVEL C	PDBP16-8 J11, J9, J7, J5, J3 ALL PIN #15	-15V.B

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
PWR DIST BOARD	D	CS	5410864-0-1	K
SCALE NONE SHEET 3 OF 3	DIST.			

DEC FORM NO 1127

DCS 5410864-0-1 K

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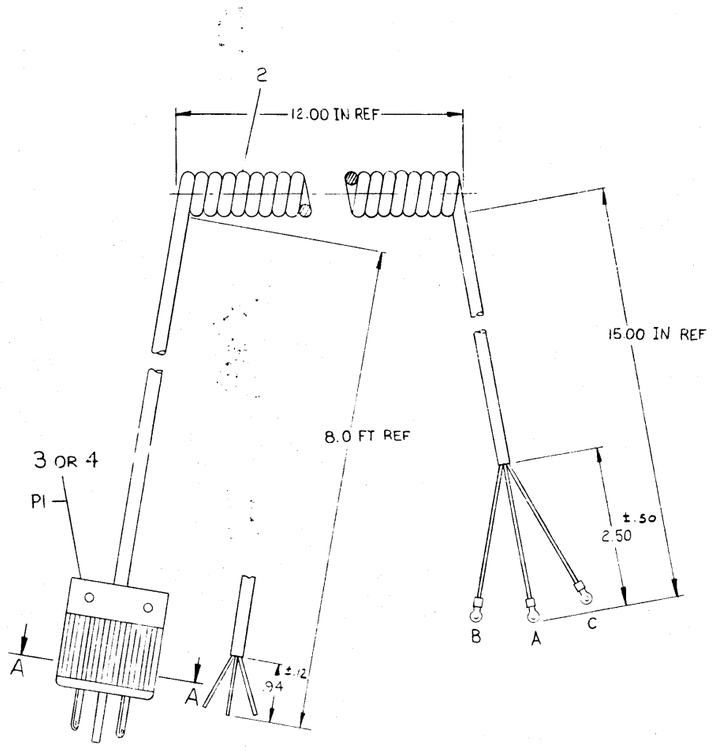
LEGEND	
NUMBER	VARIATION
7012500-0	120V
7012500-1	240V

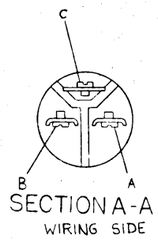
WIRE TABLE (7012500-0)

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH	REMARKS
2	14	BRN	P1-B	—	B	6	AC LINE
2	14	LT BLU	P1-A	—	A	6	AC NEUTRAL
2	14	GRN/YEL	P1-C	—	C	6	AC SAFETY GND

WIRE TABLE (7012500-1)

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH	REMARKS
2	14	BRN	P1-B	—	B	6	LINE
2	14	LT BLU	P1-A	—	A	6	NEUTRAL
2	14	GRN/YEL	P1-C	—	C	6	AC SAFETY GND





SECTION A-A
WIRING SIDE

ITEM	QTY	DESCRIPTION	DWG./PART NO.	ITEM NO.
3	3	TERMINAL, RING TONGUE	9007928	6
~~2~~	~~2~~	~~TERMINAL, QUICK CONNECT~~	~~9007919-0~~	5
1	-	PLUG, 240 V	9008853	4
-	1	PLUG, 120 V	9008938	3
1	1	POWER CORD	1700065-0	2
~~1~~	~~1~~	~~POWER CORD~~	~~1700065-1~~	1

7012500-1 / 7012500-0 — QUANTITY & VARIATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.7	OVER 0.7 TO 2.5	OVER 2.5 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.015	±.024	±.04
	PREFERRED ☐	±.012	±.018	±.025	±.03	±.05	±0.1

THIRD ANGLE PROJECTION
REMOVE BURRS AND BREAK SHARP CORNERS
DO NOT SCALE DWG
MATERIAL SEE PARTS LIST
FINISH —

DRN. R Beasley 2-27-76
CHK'D [illegible] 3/29/76
ENG. [illegible] 3 May 76
PROJ. ENG. [illegible] 5 May 76
PROD. [illegible]

FIRST USED ON 8A11-K

TITLE
POWER CORD
120V 240V

NEXT HIGHER ASSY.

SCALE NONE
SHEET 1 OF 1

SIZE D | CODE IA | NUMBER 7012500-0-0 | REV. A
DIST.

REVISIONS	CHK	CHANGE NO.	REV.
	R WOLF	7009811-00004	A

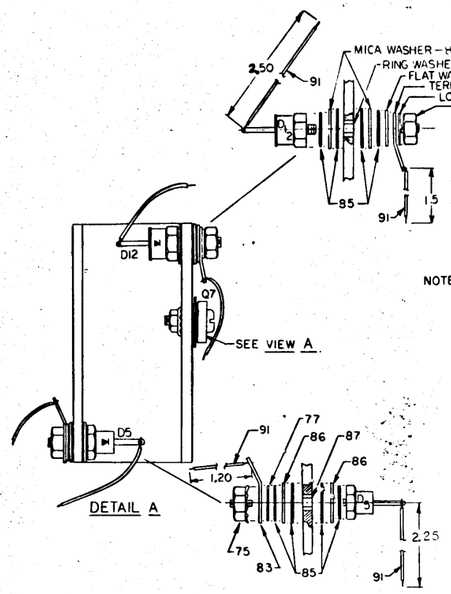
11 Dec 1978

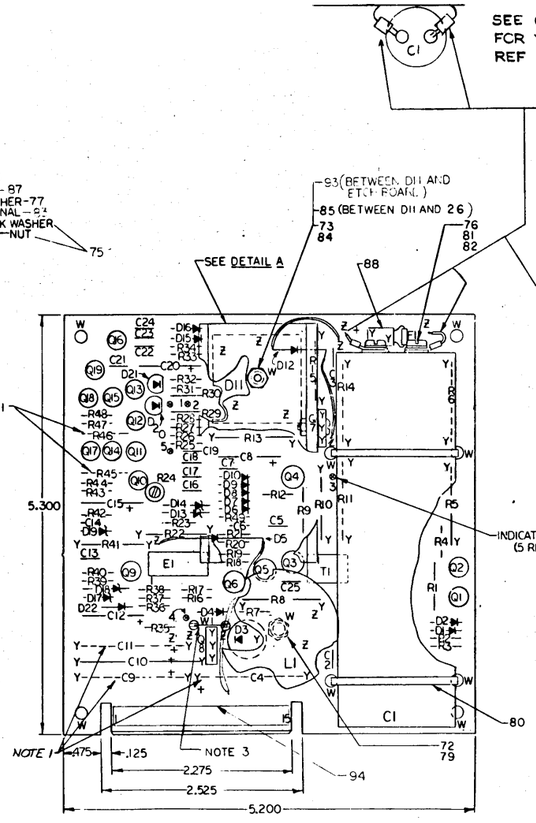
SIZE D | CODE IA | NUMBER 7012500-0-0 | REV. A

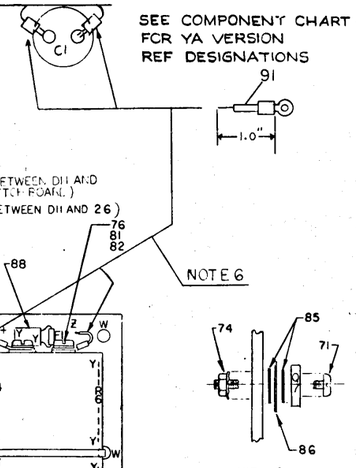
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NOTES:

1. R45,R46,C4,C9,&C11 ARE NOT USED ON BASIC 5411086 BUT ARE RESERVED FOR PLANNED FUTURE MODULE VARIATIONS.
2. ** TOTAL +15V AND +8V CURRENT NOT TO EXCEED 4.0 AMPERES.
3. W1 (TEST JUMPER) MAYBE TEMPORARILY REMOVED WHILE TROUBLE-SHOOTING TO DETERMINE IF LOSS OF 15V IS DUE TO CROW-BAR CIRCUITRY. BUT MUST BE IN THE BOARD FOR NORMAL OPERATION.
4. ~~NON-ITEMIZED PARTS SUPPLIED WITH D12.~~
4. YA VERSION DOES NOT CONTAIN +15VDC REG.
5. A) FOR STANDARD VERSION USE SHEETS 1,2,3,&4 OF THIS DWG.
   B) FOR YA VERSION USE SHEETS 1,2,&3 OF THIS DWG.
6. WIRES MUST NOT EXTEND BEYOND THE DIMENSIONS OF THE BOARD.







REF	REF				
REF	REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411086-0-4	1
REF	REF		ASSY/DRILLING HOLE LAYCUT	D-AH-5411086-0-5	2
REF	REF		MODULE ECO HISTORY	B-MH-5411086-0-6	3
1	1		ETCHED CIRCUIT BOARD	5011085	4
0	1	C2	CAPACITOR 58PF 100V 5%	1000012	5
4	4	C16,C17,C18,C21	CAPACITOR 330PF 100V 5%	1000023	6
3	5	C3,C13,C19,C22,C23	CAPACITOR .01uf 100V 20%	1001810-01	7
1	3	C8,C12,C15	CAPACITOR 2.2uf 35V 10%	1002431	8
2	2	C6,C25	CAPACITOR 18PF 100V 5%	1002608	9
1	1	C20	CAPACITOR 1.5uf 35V 10%	1009725	10
4	4	C5,C7,C14,C24	CAPACITOR .22uf 50V -20% +80%	1010274-01	11
0	1	C10	CAPACITOR 100uf 25V -10% +75%	1010509-01	12
1	1	C1	CAPACITOR 8400uf 50V -10% +75%	1010851	13
1	2	D2,D19	DIODE 1N748A	1100122	14
0	1	D5	DIODE 1N2978B	1100134	15
0	1	D3	DIODE MR1833B	1103341	16
7	8	D1,D6,D7,D8,D9,D15,D16,D22	DIODE D672	1105275	17
1	2	D10,D17	DIODE 1N4744	1105648	18
0	1	D4	DIODE 1N4864	1105798	19
0	1	D12	DIODE 1N3880	1109440	20
0	1	D18	DIODE 1N967A	1110068	21
2	2	D20,D21	DIODE MV5054-1 (LIGHT EMITTING)	1110324	22
1	1	D11	DIODE BRIDGE 200V 2A	1110714	23
2	2	D13,D14	DIODE 1TTZ429	1110925	24
0	1	F1	FUSE PICO 5A	1205747	25
0	1		HEAT SINK	1211986	26
0	1	R23	RESISTOR 47 1/4W 5%	1300202	27
0	2	R7,R40	RESISTOR 100 1/4W 5%	1300229	28
0	1	R41	RESISTOR 100 1W 5%	1300232	29
1	3	R4,R12,R49	RESISTOR 220 1/4W 5%	1300271	30
0	1	R14	RESISTOR 220 2W 10%	1300278	31
0	1	R11	RESISTOR 850 2W 5%	1300348	32
2	2	R18,R20	RESISTOR 1K 1/4W 5%	1300365	33
0	1	R1	RESISTOR 1.5K 1/2W 5%	1300394	34
0	1	R10	RESISTOR 2.2K 1W 10%	1300420	35
1	1	R15	RESISTOR 3.3K 1W 10%	1300437	36
0	1	R3	RESISTOR 3.3K 1/4W 5%	1300439	37
2	2	R43,R47	RESISTOR 10K 1/4W 5%	1300479	38
0	1	R37	RESISTOR 10 1/4W 5%	1301317	39
2	3	R2,R44,R48	RESISTOR 750 1/4W 5%	1301401	40
0	1	R38	RESISTOR 680 1/4W 5%	1301424	41
0	1	R16	RESISTOR 22K 1/4W 5%	1301808	42
1	1	R13	RESISTOR 1K 2W 5%	1301952	43
0	1	R9	RESISTOR 27 1/2W 5%	1302253	44
2	2	R19,R21	RESISTOR 30K 1/4W 5%	1302394	45
0	1	R36	RESISTOR 511 1/4W 1%	1302411	46
0	1	R39	RESISTOR 909 1/4W 1%	1302685	47
1	1	R25	RESISTOR 3.16K 1/4W 1%	1303045	48
1	1	R8	RESISTOR 470 2W 5%	1303082	49
1	2	R17,R28	RESISTOR 1K 1/4W 1%	1303114	50
1	1	R31	RESISTOR 2.61K 1/4W 1%	1303303	51
0	1	R42	RESISTOR 10K 1/4W 1%	1303312	52
2	2	R33,R34	RESISTOR 5.11K 1/4W 1%	1304854	53
1	1	R30	RESISTOR 9.09K 1/4W 1%	1304855	54
YA	QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

COMPONENT CHART - YA VERSION		
3	C19,C22,C23	7
1	C8	8
1	D19	14
7	D6,D7,D8,D9,D15,D16,D22	17
1	D10	18
1	R49	30
2	R44,R48	40
1	R28	50
4	Q3,Q5,Q10,Q19	63
4	Q11,Q12,Q13,Q16	66
QTY	REF. DESIGNATION	ITEM

IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REV.	CHANGE NO.	CHK	ORIGINATED	
J	5411086-00001	V.BOAEN	V.BOAEN	4-6-75
H	5411086-00004	V BOAEN	V BOAEN	4-11-75
F	5411086-00003	V BOAEN	V BOAEN	4-2-75
E	5411086-00002	V.BOAEN	V.BOAEN	3-31-75
D		F.LOYA	F.LOYA	31JAN75
C		W.Wojnowska	W.Wojnowska	2-JAN-75

FIRST USED ON OPTION MODEL

ETCH BOARD REV. D

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.

NEXT HIGHER ASSY

SCALE —

SHEET 1 OF 4

DRN.	J Vincent	DATE 10-9-74
CHK'D.		DATE
ENG.		DATE
PROJ. ENG.		DATE
PROD.		DATE

digital

TITLE: PWR. LINE MONITOR/15V REG.

SIZE	CODE	NUMBER	REV.
D	CS	5411086-0-1	J

DIST.

DEC FORM NO. DOD 1.25.0

243

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NOTES:

YA	QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO
1	1	R29	RESISTOR 3.48K 1/4W 1%	1305114	55
1	1	R28	RESISTOR 5.62K 1/4W 1%	1305128	56
1	1	R27	RESISTOR 4.99K 1/4W 1%	1305324	57
0	1	R35	RESISTOR 24.9K 1/4W 1%	1305405	58
0	1	R24	RESISTOR 200 20% 62PR	1309150-10	59
1	1	R32	RESISTOR 18.2K 1/4W 1%	1309412	60
0	2	R5,R6	RESISTOR .2 5W 5% WW	1309884	61
0	1	Q7	TRANSISTOR MJE3055	1510555	62
4	6	Q2,Q3,Q5,Q6,Q18,Q19	TRANSISTOR MPSA05	1510705	63
0	2	Q4,Q9	TRANSISTOR MPS A55	1510706	64
0	1	Q8	TRANSISTOR 2N 4441	1505887	65
4	5	Q1,Q11,Q12,Q13,Q16	TRANSISTOR 2N 4250	1509142	66
4	4	Q14,Q15,Q17,Q18	TRANSISTOR 2N 5433	1511686	67
0	1	L1	INDUCTOR, 500 uh	1811868	68
1	1	T1	TRANSFORMER	1812026	69
0	1	E1	I.C. DEC 723	1910415	70
0	1		SCREW, PHM #4-40 X 7/16 LG.	9006012-1	71
0	1		SCREW, PHM #8-32 X 1/4 LG.	9006020-1	72
0	1		SCREW, PHM #6-32 X 7/8 LG.	9006027-1	73
0	1		KEP NUT #4-40	9006557	74
0	2		KEP NUT #10-32	9006565	75
2	2		WASHER, ITTLKWR #10	9006635	76
0	2		WASHER, FLAT	9006688	77
0	2	(W1)	SPLIT LUG	9006851	78
0	1		SPACER, 1/4AF X 1/2	9006844	79
4	4		CABLE TIE	9007880	80
2	2		TERMINAL	9007930	81
2	2		SCREW, PHM #10-32 X 1/4 LG.	9008007-1	82
0	2		TERMINAL	9008150	83
0	1		KEP NUT #6-32	9008185	84
0	A/R		COMPOUND, THERMAL JOINT	9008268	85
0	5		WASHER, MICA	9008424	86
0	2		WASHER, RING	9008440	87
0	1		FUSE HOLDER	9009141	88
1	1	R22	RESISTOR, 390, 2W 10%	1301880	89
0	1	W1	JUMPER	9009185	90
2	12		WIRE #18 STRANDED BLK	9107380-0-0	91
REF	REF		MODULE TEST PROCEDURE	A-SP-1145-TA-2	92
1	/		WASHER, RING	9006713	93
1	/		.010 INCH SHIM	7413721-0-0	94
REF	REF		ENG. SPEC-AND TEST PROC.	A-SP-5411086-0-3	95

FIRST USED ON OPTION MODEL

PARTS LIST

ETCH BOARD REV D

IC TYPE	GND	+ 5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

REVISIONS

REV	CHANGE NO	DEC NO	EIA NO	DEC NO	EIA NO

SEMICONDUCTOR CONVERSION CHART

DRN. J. Vincent DATE 10-9-74
CHK'D. [illegible] DATE 10/9/74
ENG. Paul Boom DATE 10/9/74
PROJ. ENG. Paul Boom DATE 10/9/74
PROD. [illegible] DATE 10/9/74
NEXT HIGHER ASSY

SCALE
SHEET 2 OF 4

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE PWR. LINE MONITOR/15V REG.

SIZE	CODE	NUMBER	REV.
D	CS	5411086-0-1	J

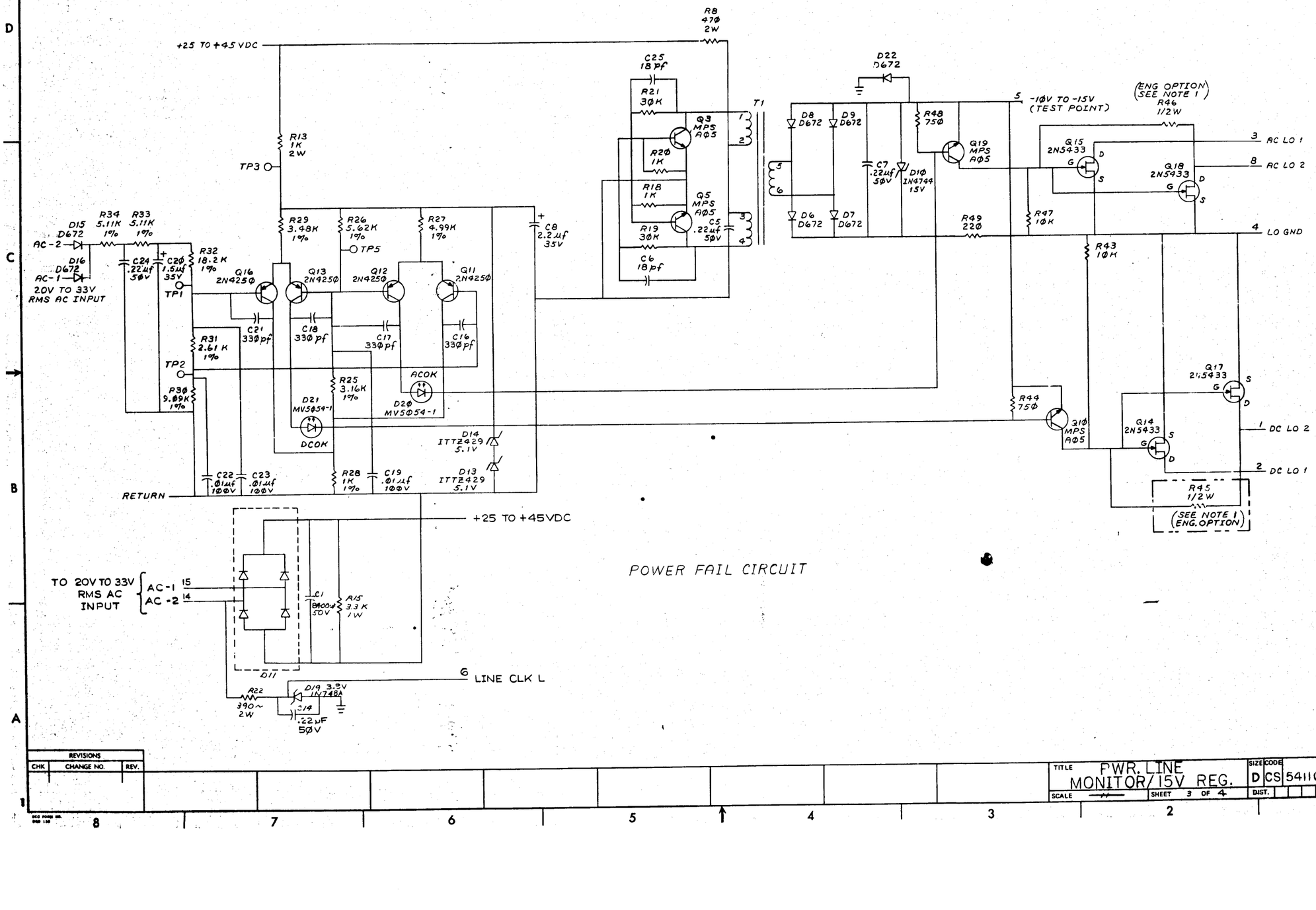
DIST.

DCS5411086-0-1 J

DEC FORM NO DRD 13' E

2.44

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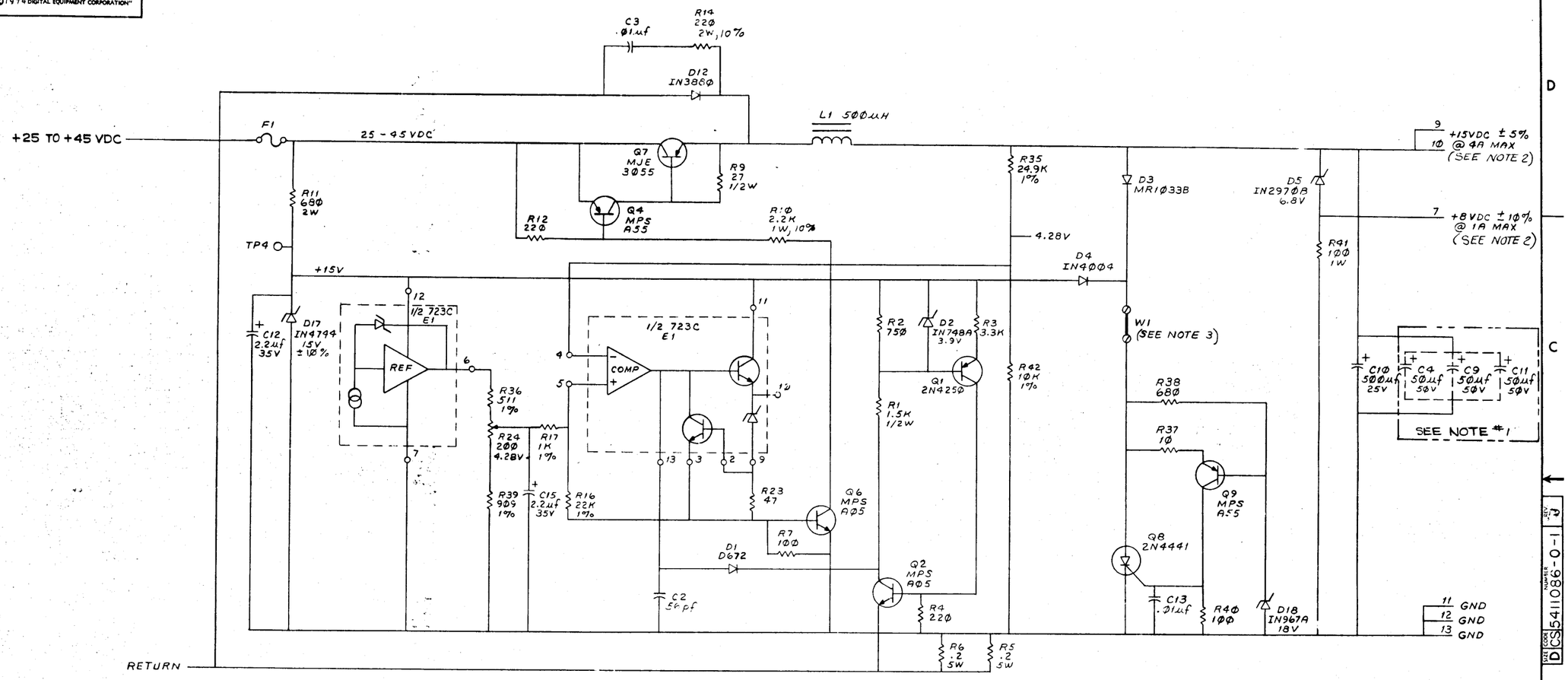


POWER FAIL CIRCUIT

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PWR. LINE MONITOR/15V REG.	D	CS	5411086-0-1	J
SCALE —	SHEET 3 OF 4	DIST.		

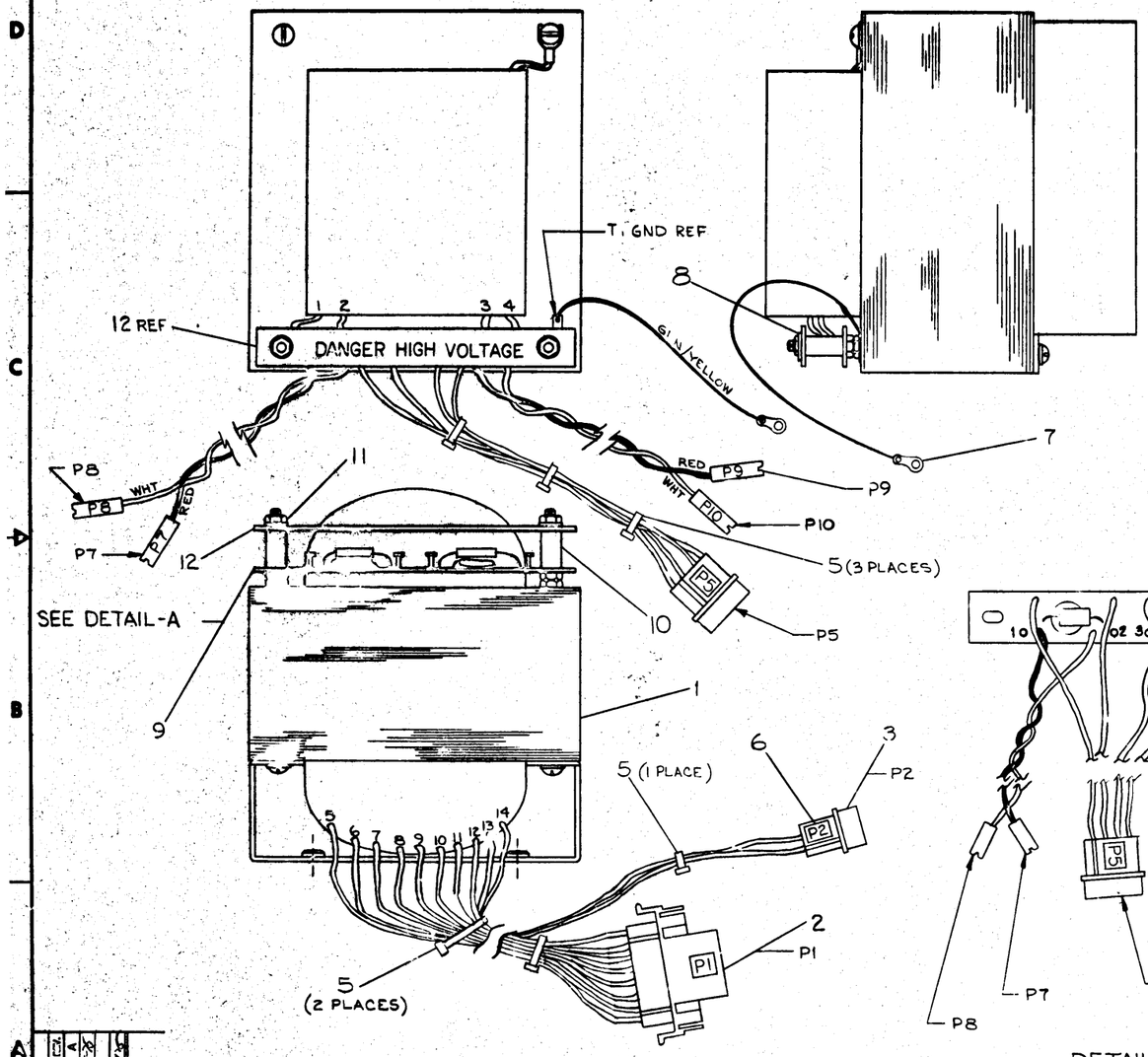
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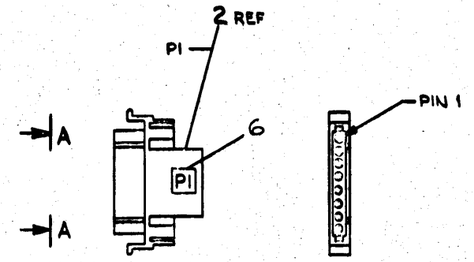


15V REGULATOR
(SEE NOTE #4)

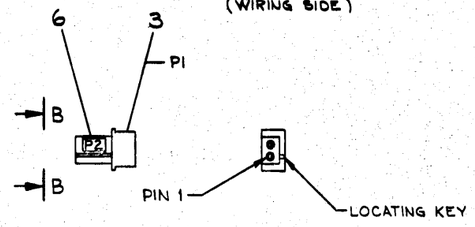
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PWR. LINE MONITOR/15V REG.	D	CS	5411086-0-1	J
SCALE —//— SHEET 4 OF 4	DIST.			

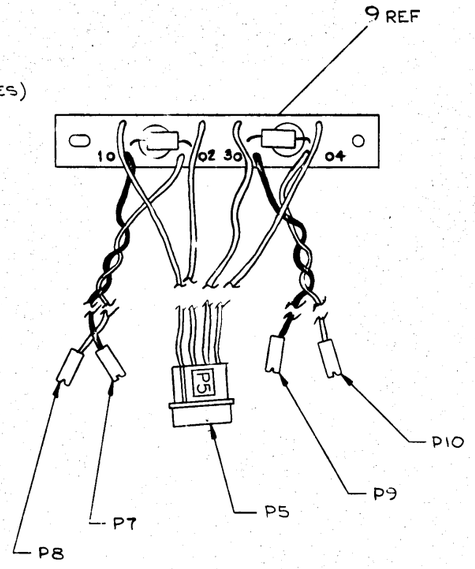




VIEW A-A
(WIRING SIDE)



VIEW B-B
(WIRING SIDE)



DETAIL-A
ITEM- 9

REF	TRANSFORMER ASSY PROCEDURE	A-SP-7011486-0-9	13
1	COVER	C-IA-7414301-0-0	12
2	NUT, KEP #10-32	9006565	11
2	SPACER, 3/8 OD x 1/2 LG	9007831	10
1	CAP MOV BOARD ASSY	D-IA-7011751-0-0	9
2	WASHER, FLAT .437 X .218 ID	9006664	8
1	GROUND LUG	9008150	7
1	DECAL	A-DC-7409872-0-0	6
A/R	CABLE TIES 5 1/4 L x 1/8 W	9007880	5
10	PIN, MALE	1209370-1	4
1	CONN., 2 PIN	1210822-2	3
1	CONN., 6 PIN	1209940-01	2
1	TRANSFORMER	1610069	1
	DESCRIPTION	CUSTOMER NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRAWN

CHECKED

ENG APPR

MFG APPR

QUALITY APPR

ENGINEER ASSY.

D-IA-H782-0-0

SCALE 1/1

SHEET 1 OF 2

FIRST USED ON H782

TITLE TRANSFORMER ASSY

SIZE D | CODE AD | NUMBER 7011486-0-0 | REV. A

LIST

7011486-0-01 REV A

347.0

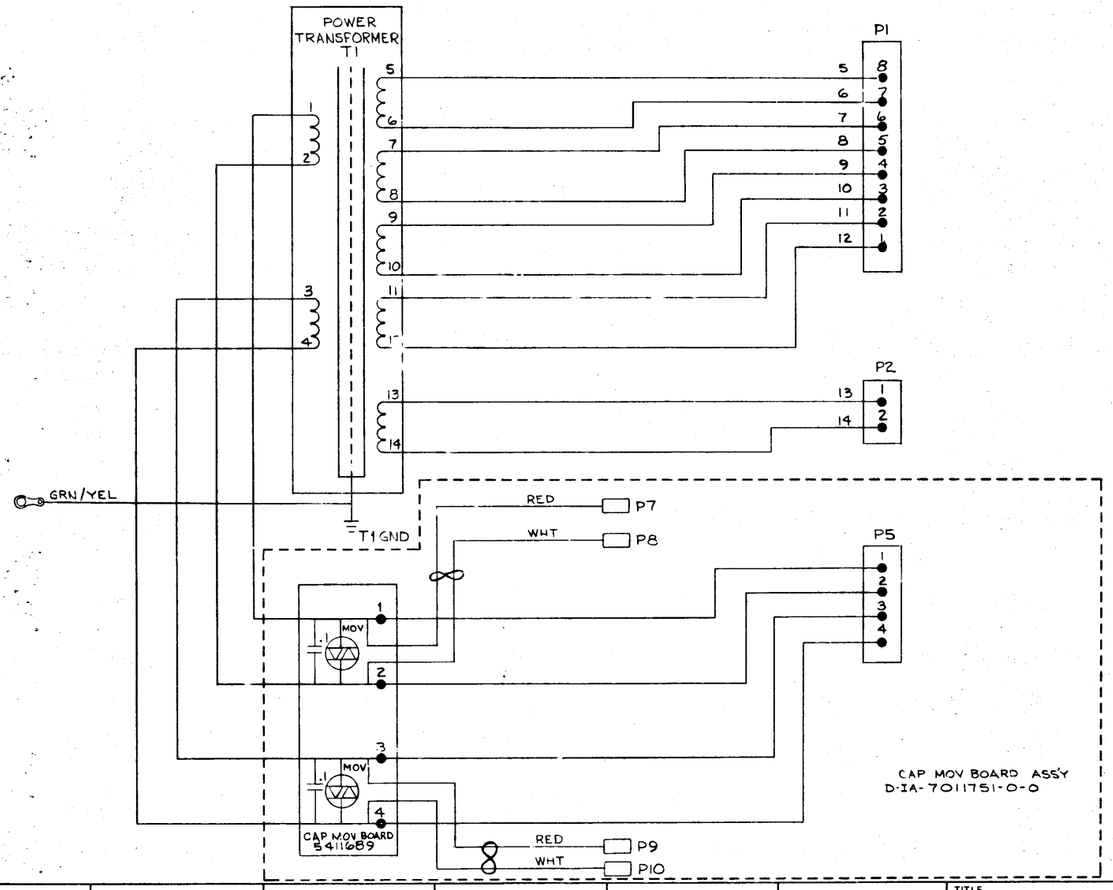
243

241

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WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH	WIRE LENGTH
1	14	BLK	T1-1	—	CAP MOV BD-1	SOLDER	1.5 IN
↑	↑	↑	T1-2	—	CAP MOV BD-2	SOLDER	2.0 IN
			T1-3	—	CAP MOV BD-3	SOLDER	2.0 IN
			T1-4	—	CAP MOV BD-4	SOLDER	1.5 IN
			T1-5	—	P1-8	ITEM 4	12.0 IN
			T1-6	—	P1-7	↑	↑
			T1-7	—	P1-6		
			T1-8	—	P1-5		
			T1-9	—	P1-4		
			T1-10	—	P1-3		
			T1-11	—	P1-2		
			T1-12	—	P1-1	ITEM4	
↓	↓	↓	T1-13	—	P2-1	ITEM4	↓
1	14	BLK	T1-14	—	P2-2	ITEM 4	12.0 IN
1	14	GRN/YEL	T1-GND	—	GND LUG (ITEM 7)	SOLDER	14.0 IN



REVISIONS

CHK	CHAN E NO	REV

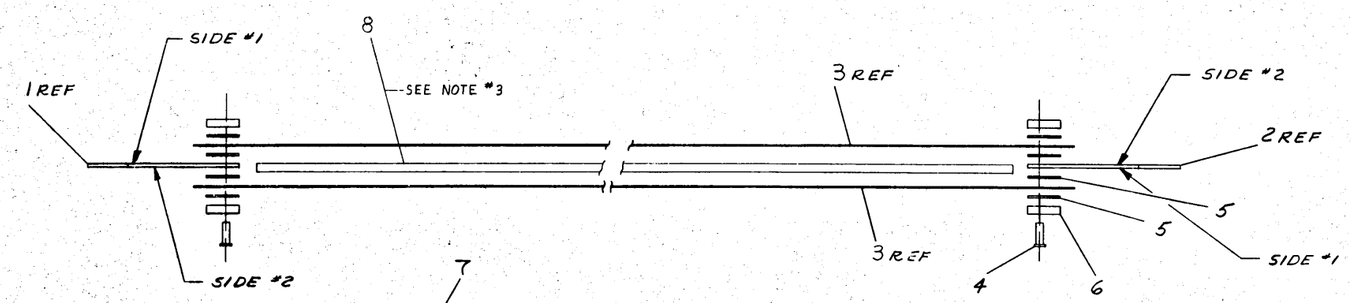
TITLE	SIZE	CODE	NUMBER	REV.
TRANSFORMER ASSY	D	AD	7011486-0-0	A
SCALE —	SHEET 2 OF 2	DIST.		

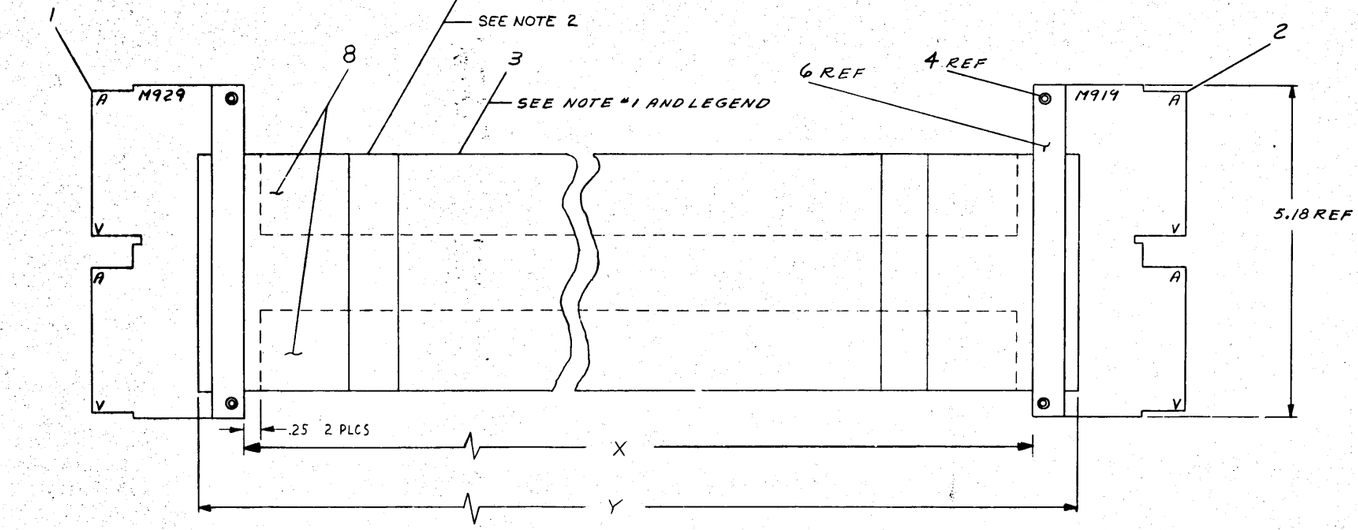
DEC FORM 1-05 1269 1267

DIAD 7011486-0-0 REV A

2.48

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NOTES:

1. VARIATIONS AND LENGTHS SHOWN IN LEGEND ARE STANDARD. OTHER THAN STANDARD VARIATIONS WILL BE SPECIFIED BY ALPHANUMERIC DESIGNATION. FOR LENGTHS OTHER THAN FOOT INCREMENTS FROM ONE (1) FOOT THRU NINE (9) FEET, ELEVEN (11) INCHES.

A = 1"	G = 7"
B = 2"	H = 8"
C = 3"	J = 9"
D = 4"	K = 10"
E = 5"	L = 11"
F = 6"	

EXAMPLE: BC11A-3D = 3'4".
LENGTHS WILL BE IN FOOT INCREMENTS FROM TEN (10) FEET ON, AND WILL BE SPECIFIED BY THE CORRESPONDING NUMERICAL DESIGNATION.
EXAMPLE: BC11A-11 = 11 FEET.
THE TOLERANCE ON DIMENSION "A" WILL BE 2% OF THE FOOT INCREMENT.

2. FLEXPRINTS TO BE BOUND TOGETHER BY WRAPPING WITH BLACK ELECTRICAL TAPE (ITEM 7) EVERY 18 INCHES.

3. INSTALL 2 PIECES OF FOAM TAPE (ITEM 8) BETWEEN FLEX PRINT CABLES AS SHOWN.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	GRAY FOAM	9008881	8
A/R	DLK ELECTRICAL TAPE	9009260	7
4	CLAMP, CABLE	C-SC-1207X8000	6
A/R	TAPE #4032 1/2 W X 3 11/16 LG	9007834	5
4	EYELET GS-4-11 STIMSON	9006750.	4
2	CABLE, "FLEXPRINT"	17000202-01	3
1	EXT. BUS CONN	A-PL-M919-0-0	2
1	BUS CONN	A-PL-M929-0-0	1

PARTS LIST

REVISIONS	CHANGE NO.	REV.	
	BC11A-00001	A	Chuck Sapp BLASI
for	BC11A-00002	B	M. Quinn 6-1-71 BLASI
in	BC11A-00003	C	C. Blasi 8-3-72 BLASI
for	BC11A-00004	D	D. POITER 6-12-73
per	BC11A-00005	E	D. POITER 9-18-74
per	BC11A-00006	F	C.R. BLASI 11-7-75

FIRST USED ON OPTION/MODEL	PDP11
DO NOT SCALE DRAWING	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°15' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP
MATERIAL	
FINISH	
NEXT HIGHER ASSY	D-UA-111120-00
SCALE	1/1
SHEET	1 OF 2

DRWN C.R. BLASI 11-7-75
CHK
ENGR
MFG
QA

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: CABLE ASSY (BC11A)

SIZE D | CODE UA | NUMBER BC11A-0-0 | REV F

249

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LEGEND

NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF.
BC11A-02	2'0" ± 0.5"	2'1.5"
BC11A-03	3'0" ± 1.0"	3'1.5"
BC11A-04	4'0" ± 1.0"	4'1.5"
BC11A-05	5'0" ± 1.0"	5'1.5"
BC11A-06	6'0" ± 1.0"	6'1.5"
BC11A-07	7'0" ± 2.0"	7'1.5"
BC11A-08	8'0" ± 2.0"	8'1.5"
BC11A-09	9.0" ± 2.0"	9'1.5"
BC11A-10	10'0" ± 2.0"	10'1.5"
BC11A-11	11'0" ± 3.0"	11'1.5"
BC11A-12	12'0" ± 3.0"	12'1.5"
BC11A-13	13'0" ± 3.0"	13'1.5"
BC11A-14	14'0" ± 3.0"	14'1.5"
BC11A-15	15'0" ± 4.0"	15'1.5"
BC11A-16	16'0" ± 4.0"	16'1.5"
BC11A-17	17'0" ± 4.0"	17'1.5"
BC11A-18	18'0" ± 4.0"	18'1.5"
BC11A-19	19'0" ± 5.0"	19'1.5"
BC11A-20	20'0" ± 5.0"	20'1.5"
BC11A-21	21'0" ± 5.0"	21'1.5"
BC11A-22	22'0" ± 5.0"	22'1.5"
BC11A-23	23'0" ± 6.0"	23'1.5"
BC11A-24	24'0" ± 6.0"	24'1.5"
BC11A-25	25'0" ± 6.0"	25'1.5"
BC11A-0F	0'6" ± 0.5"	0'7.5"
BC11A-8F	8'6" ± 2.0"	8'7.5"

REVISIONS

CHK	CHANGE NO.	REV.

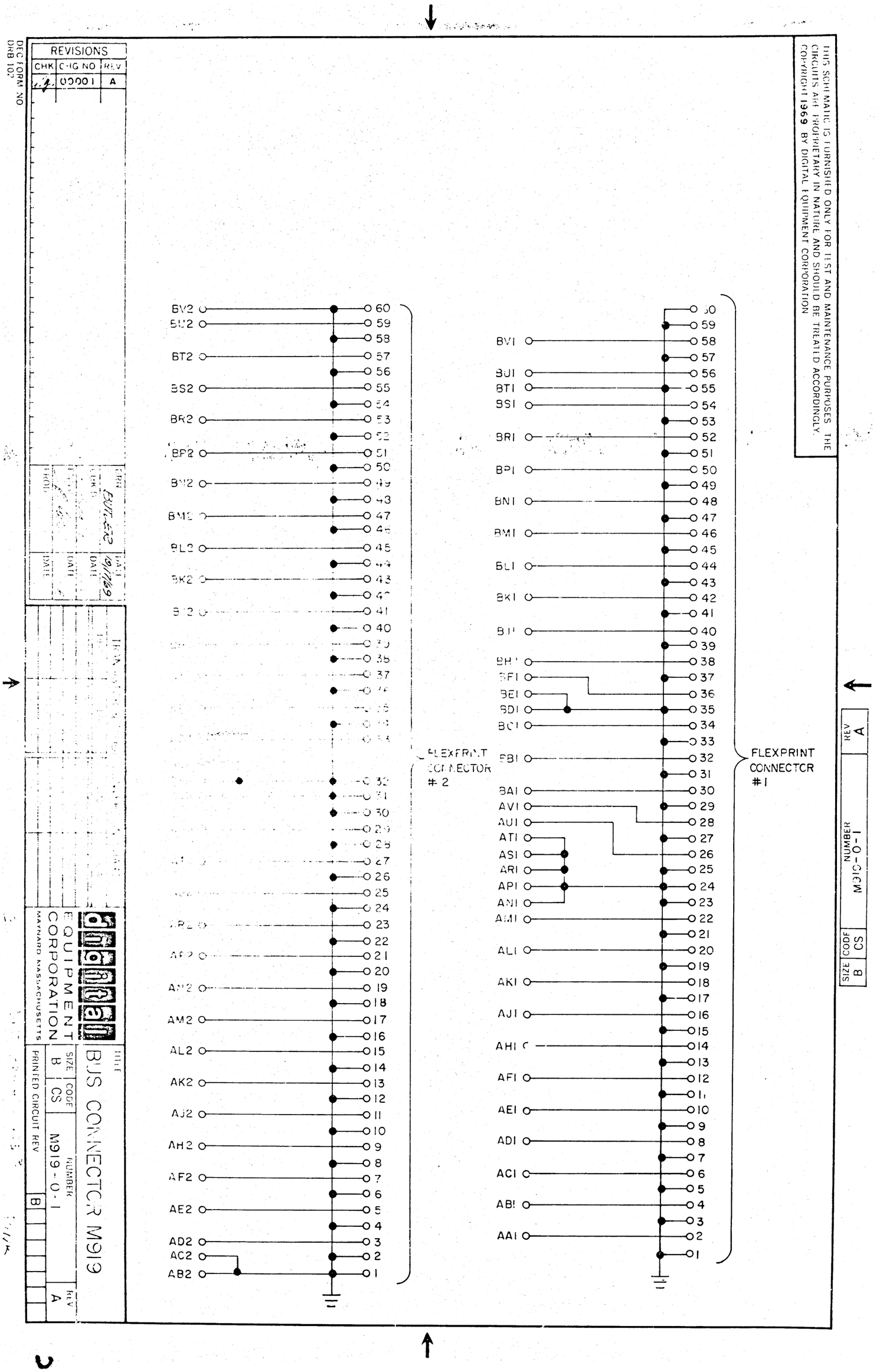
TITLE: CABLE ASSY (BC11A)

SIZE: D | CODE: UA | NUMBER: BC11A-0-0 | REV: F

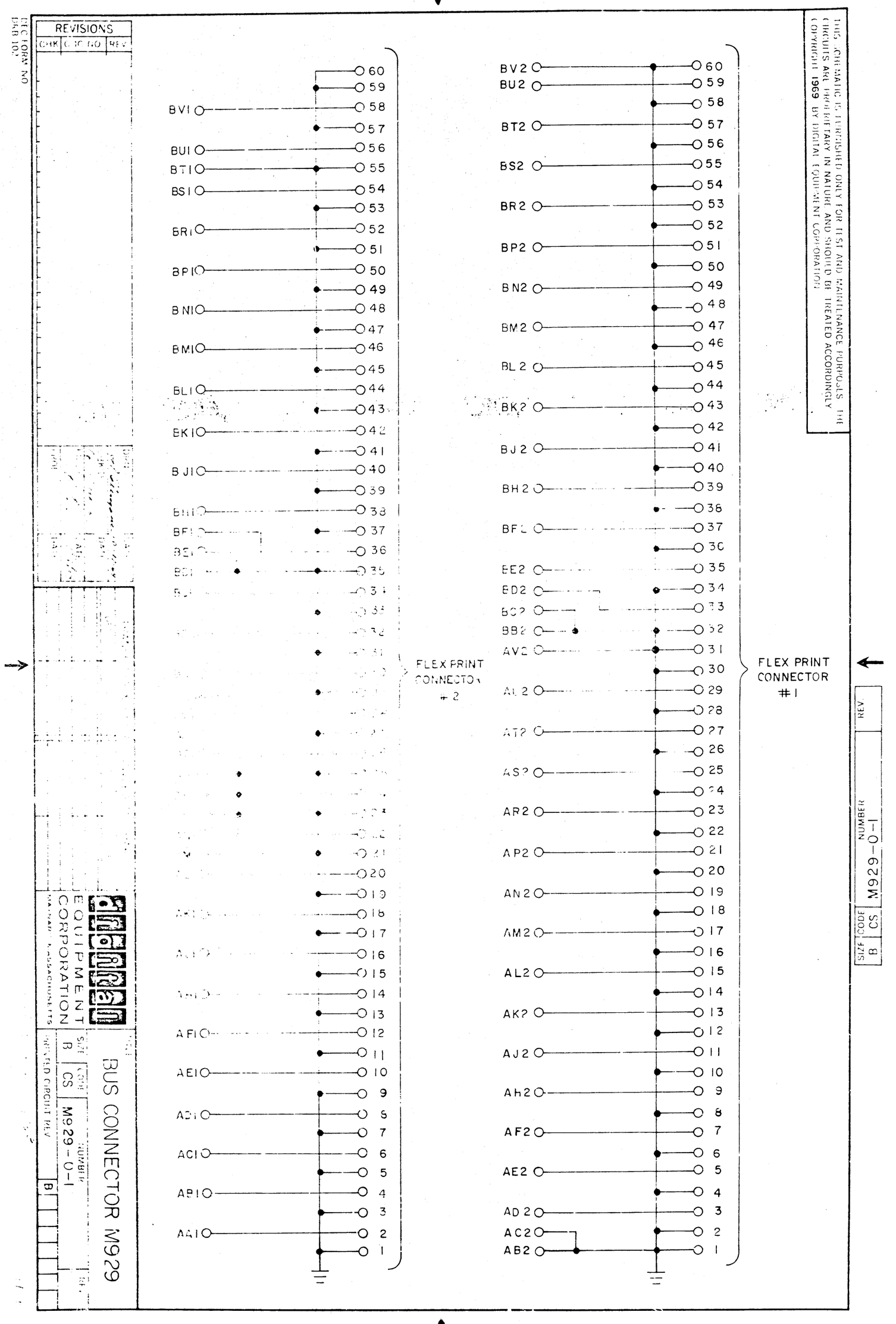
SCALE: -/-/- | SHEET 2 OF 2 | DIST.

DEC FORM NO. DRD 137

250


REVISIONS
CHK CHG NO REV
00001 A
DEC FORM NO DMB 107
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DRAWN
CHKD
ENGR
DATE
DATE
DATE
DATE
9/1/69
digital
EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS
TITLE
BUS CONNECTOR M919
SIZE B
CODE CS
NUMBER M919-0-1
REV A
PRINTED CIRCUIT REV B
SIZE B CODE CS NUMBER M919-0-1 REV A
BV2 60
BU2 59
58
BT2 57
56
BS2 55
54
BR2 53
52
BP2 51
50
BN2 49
48
BM2 47
46
BL2 45
44
BK2 43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
AD2
AC2
AB2
FLEXPRINT CONNECTOR #2
BVI 60
59
58
BUI 57
56
BTI 55
BSI 54
53
BRI 52
51
BPI 50
49
BNI 48
47
BMI 46
45
BLI 44
43
BKI 42
41
BJI 40
39
BHI 38
BFI 37
BEI 36
BDI 35
BCI 34
33
BBI 32
31
BAI 30
AVI 29
AUI 28
ATI 27
ASI 26
ARI 25
API 24
ANI 23
AMI 22
21
ALI 20
19
AKI 18
17
AJI 16
15
AHI 14
13
AFI 12
11
AEI 10
9
ADI 8
7
ACI 6
5
ABI 4
3
AAI 2
1
FLEXPRINT CONNECTOR #1

151

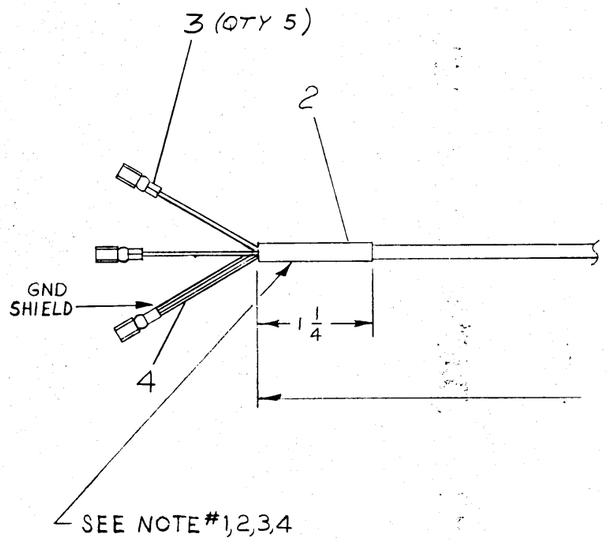

REVISIONS
ECO NO.
DAB 10.
BVI
BUI
BTI
BSI
BRI
BPI
BNI
BMI
BLI
BKI
BJI
BHI
BFI
BEI
BDI
BCI
BBI
AVI
AUI
ATI
ASI
ARI
API
ANI
AMI
ALI
AKI
AJI
AHI
AFI
AEI
ADI
ACI
ABI
AAI
FLEX PRINT CONNECTOR #2
BV2
BU2
BT2
BS2
BR2
BP2
BN2
BM2
BL2
BK2
BJ2
BH2
BF2
BE2
BD2
BC2
BB2
AV2
AU2
AT2
AS2
AR2
AP2
AN2
AM2
AL2
AK2
AJ2
AH2
AF2
AE2
AD2
AC2
AB2
FLEX PRINT CONNECTOR #1
BUS CONNECTOR M929
DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
SIZE B
CODE CS
NUMBER M929-0-1
PRINTED CIRCUIT REV B
REV
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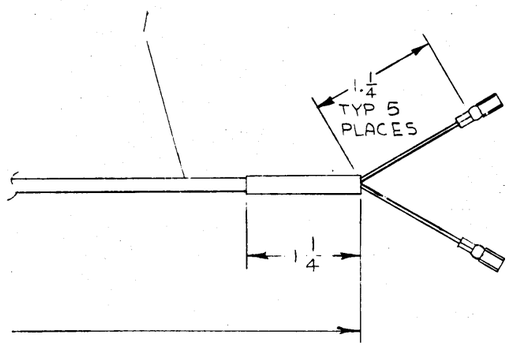
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LEGEND		
NUMBER	DIM "X"	USED ON
7011413-3F	3FT 6IN ± 1IN	BA11-L OR K
7011413-7	7FT ± 2 IN	H9280
7011413-10	10FT 0IN ± 1IN	1104/34-TA

NOTES:

1. AFTER STRIPING OUTSIDE COVERING (1-1/4 IN.) FOLD BACK THE GROUND WIRE. (BARE ONE) AND REMOVE THE WRAPPER
2. COVER THE FOLDED BACK BARE WIRE. WITH ITEM #2 AND SHRINK (ON BOTH ENDS).
3. ADD ITEM #4 (CLEAR TUBING) OVER ITEM #1 (SHIELD) ON ONE END.
4. STAKE ITEM #3 (5 PLACES) ONTO ITEM #1





REVISIONS				
CHK	CHANGE NO.	REV.		
RB	7011413-00001	A	R BARRY	
RB	7011413-00002	B	Richard Barry 9-2-75	
			R. BARRY	
D.C.	7011413-00003	C	Richard Barry 11-25-75	
R. Barry	16 AUG 76		R. BARRY	
D.C.	7011413-00004	D	D. Chasson 9 Sept 76	
			D. BARRY	
R. Barry	23 Sept 76		R. Barry 23 Sept 76	

FIRST USED ON OPTION/MODEL			
SEE LEGEND			
DIMENSIONAL TOLERANCE			
DIMENSIONS ARE ~~MILLIMETERS~~ / INCHES UNLESS OTHERWISE SPECIFIED			
~~MILLIMETERS~~	INCHES	ANGLES	
X,XX = ± 0,10	.XXX = ± .005	±0° 30'	
X,X = ± 0,5	.XX = ± .02		
X = ± 2,	.X = ± .1		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓		
	MATERIAL SEE PARTS LIST		
	FINISH +/-		

A/R	CLEAR TUBING	9107278-11	4
5	TERMINAL LUG FAST-ON (RED)	9007917-00	3
A/R	TUBING SHRINK WHT 3/32	91-07254-09	2
A/R	WIRE SHIELDED #22 AWG	91-07703	1
QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

DRN. S. Shellon	DATE 6/11/75	digital
CHK'D. D. Hoag	DATE 6/13/75	
ENG. R Barry	DATE 6/16/75	TITLE CABLE, EXTERNAL BOOT, M9301
PROJ. ENG. R Barry	DATE 6/16/75	
PROD. R Barry	DATE 6/16/75	
NEXT HIGHER ASSY.		SIZE C CODE IA NUMBER 7011413-0-0 REV. D
SCALE NONE		
SHEET 1 OF 1		DIST.

DEC FORM NO. DRC 100-B

253

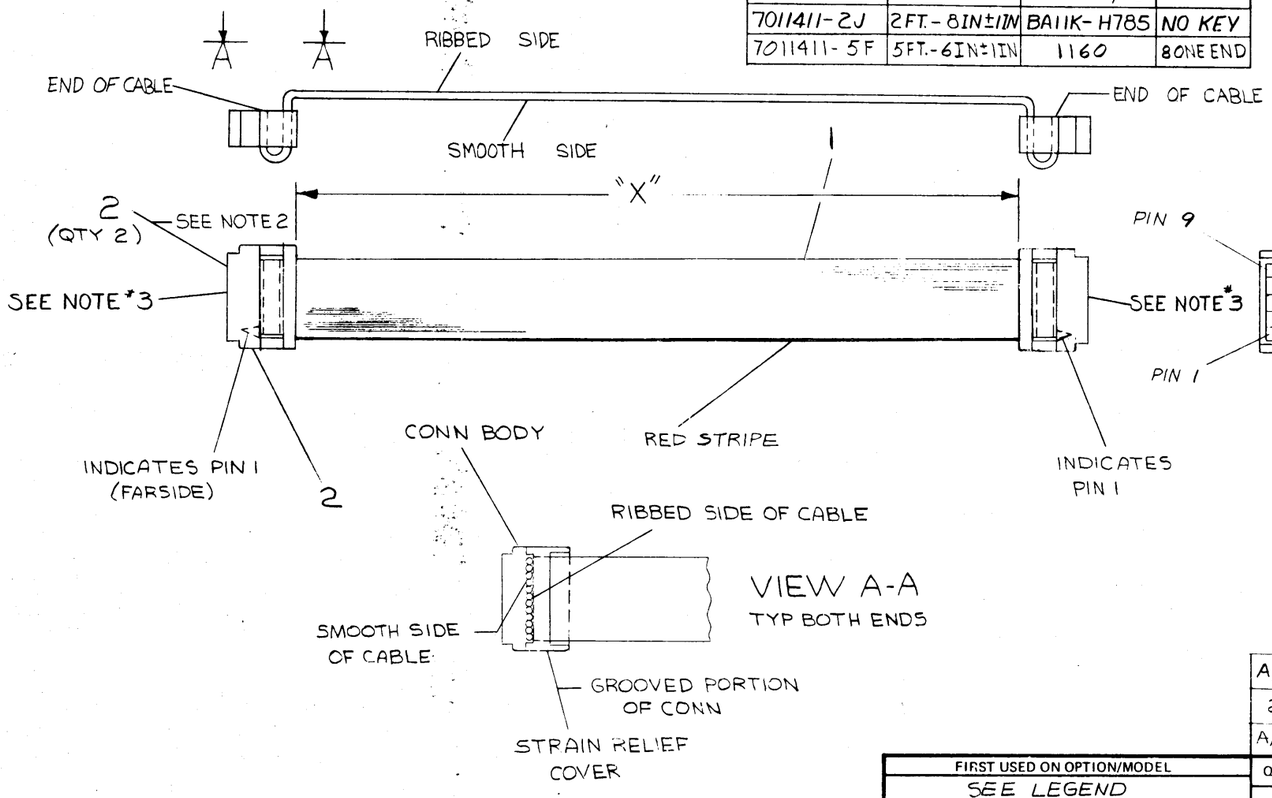
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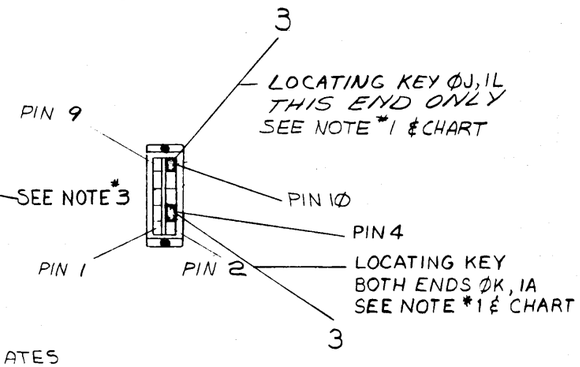
LEGEND

NUMBER	DIM "X" VARIATION	USED ON	KEY PIN
7011411-ØJ	8IN ± .5 IN	BA11-L OR K	10 ONE END
7011411-ØK	9IN ± .5IN	LSI-11	4 BOTH ENDS
7011411-1D	1FT-4IN ± 1IN	KY11-LB	
7011411-2D	2FT-4IN ± 1IN	BA11-F/DD11PF	10 ONE END
7011411-ØH	7IN ± .5IN	H79Ø,1,2,3	
7011411-1J	1FT-8IN ± 1IN	11/34 [illegible] TA	
7011411-1L	1FT-10IN ± 1IN	BA11-L, H777	PIN 3 1 END
7011411-1A	1FT-11N ± 1IN	H787	4 BOTH ENDS
7011411-3J	3FT-8IN ± 1IN	BA11-K, H785	
7011411-2J	2FT-8IN ± 1IN	BA11K-H785	NO KEY
7011411-5F	5FT-6IN ± 1IN	1160	8 ONE END

NOTES:

1. INSERT KEY IN PROPER CONNECTOR PIN AND BREAK OFF TAB.
2. USE CRIMP PRESS 3M* 3440 OR 3445 AND LOCATOR GUIDE PLATE 3M* 3443-9 TO CRIMP ITEM *2.
3. FOR ITEM (2) DWG 15 SHOWING 3M CONN.





| REVISIONS | | |

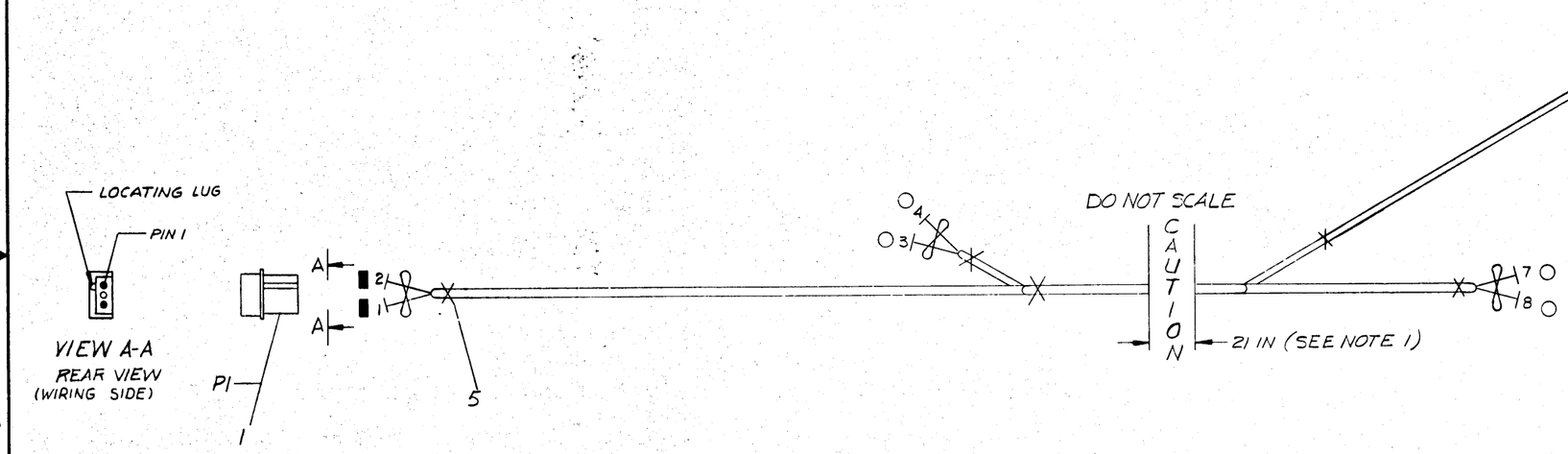
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WIRE TABLE

ITEM NO	DESCRIPTION AWG	COLOR	FROM POINT	FROM CONNECTION	FROM WITH	TO POINT	TO CONNECTION	TO WITH	SIGNAL
5	18	BLU	2	P1-1	2	7	--	4	
	TWP	BLK	1	P1-3	2	8	—	4	
6	18	RED	3	—	4	6	—	4	+5
	TWP	BLK	4	—	4	5	—	4	END

NOTES:

1. APPLY TIE WRAP (ITEM 3) EVERY 4 IN.



DO NOT REDUCE

SCALE

0 IN — 6 IN — 12 IN

FOR MANUFACTURING PURPOSES ONLY

	A/R	WIRE 18 AWG TWP BLK/RED	9107430-02	6
	A/R	WIRE 18 AWG TWP BLK/BLU	9107430-06	5
○	4	CONN SOLDERLESS (RED)	9007917	4
X	12	TIE WRAP 1 M	9007031	3
■	2	PIN MALE	1209378-01	2
	1	HOUSING, 3 PIN	12 09351-03	1
SYMBOL		DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES OVER 0 TO 0.5	OVER 0.5 TO 1.5	OVER 1.5 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH —

DRN P Thomson 11/3/75
CHK'D B Marin 11/3/75
ENG. P Barry NOV 3 75
PROJ. ENG. P Barry NOV 3 75
PROD. —
NEXT HIGHER ASSY. E-UA-1134-0-0
SCALE —
SHEET 1 OF 1

FIRST USED ON 1134

digital

TITLE PDP1104/1134 CONSOLE POWER HARNESS

SIZE D | CODE IA | NUMBER 7011992-0-0 | REV.

DIST.

REVISIONS REV.	CHANGE NO.	CHK.

DEC FORM NO. DRD 100-C

7011992-0-0 IA D

255

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY D. Healy	CHECKED D. Healy	SECTION 1
DATE 12 May 76	DATE 12 May 76	
ENG Initial Survey	PROD R.B.King	ISSUED SECT. 1
DATE 12/17/1976	DATE May [illegible]	

ITEM NO	DWG NO. / PART NO.	DESCRIPTION	QUANTITY/VARIATION DD,DC,LC,LD	HC,HD,MC,MD
	EK-11Ø34-OP-PRE	USERS MANUAL	1	1
	ZJØ10-RB	SOFTWARE LIB KIT (PAPER TAPE KIT)	1	1
	MPØØØ44	PRINT SET 11/34 VOL.1	1	1
	EK-KD11E-TM-PRE	KD11-E TECHNICAL MANUAL *	1	1
	EK-MS11E-MM-ØØ1	MS11-E-J MAINTENANCE MANUAL *	1	-
	EK-MM11D-TM-PRE	MM11-D,DP TECHNICAL MANUAL *	-	1
	EK-BA11L-MM-PRE	BA11-L MAINTENANCE MANUAL *	1	1
	EK-M785Ø-MM-PRE	M785Ø MAINTENANCE MANUAL *	1	1
	EK-DL11W-MM-PRE	DL11-W MAINTENANCE MANUAL *	-	-
	EK-M93Ø1-MM-PRE	M93Ø1 MAINTENANCE MANUAL *	1	1
	7008360-1	CABLE ASSY (20 MA) (DL11-WA)	1	1
	BCØ5C-25	CABLE MODEM (EIA) (DL11-WB)	-	-
		* Do not ship to OEM customers.		

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
SHIPPING LIST 11/34 (5 1/4" BA11-L)	NONE	A	PL	11/34-Ø-3		
	SHEET 1 OF 1	DIST.				

DEC FORM DEC 16 (325) 1031 N870
DRA 110