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# FIELD MAINTENANCE PRINT SET

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UNIT VARIATIONS COVERED BY THIS PRINT SET
DN87-AA
DN87-AB
DN87-DA
DN87-DB
DN81-EA
DN81-EB
DN81-EC
DN81-ED
DN81-EE
DN81-EF
DN81-H
DN81-J
DN81-FA
DN81-FB
DN81-FC
DN81-FD
DN81-FE
DN81-FF
DN81-FG

**DN87**  
**Field Maintenance**  
**Print Set**

**Digital Equipment**  
**Corporation**

PRINT SET ORDER NO.  
MPØØØ68

EN 0124 16 N675 (327)

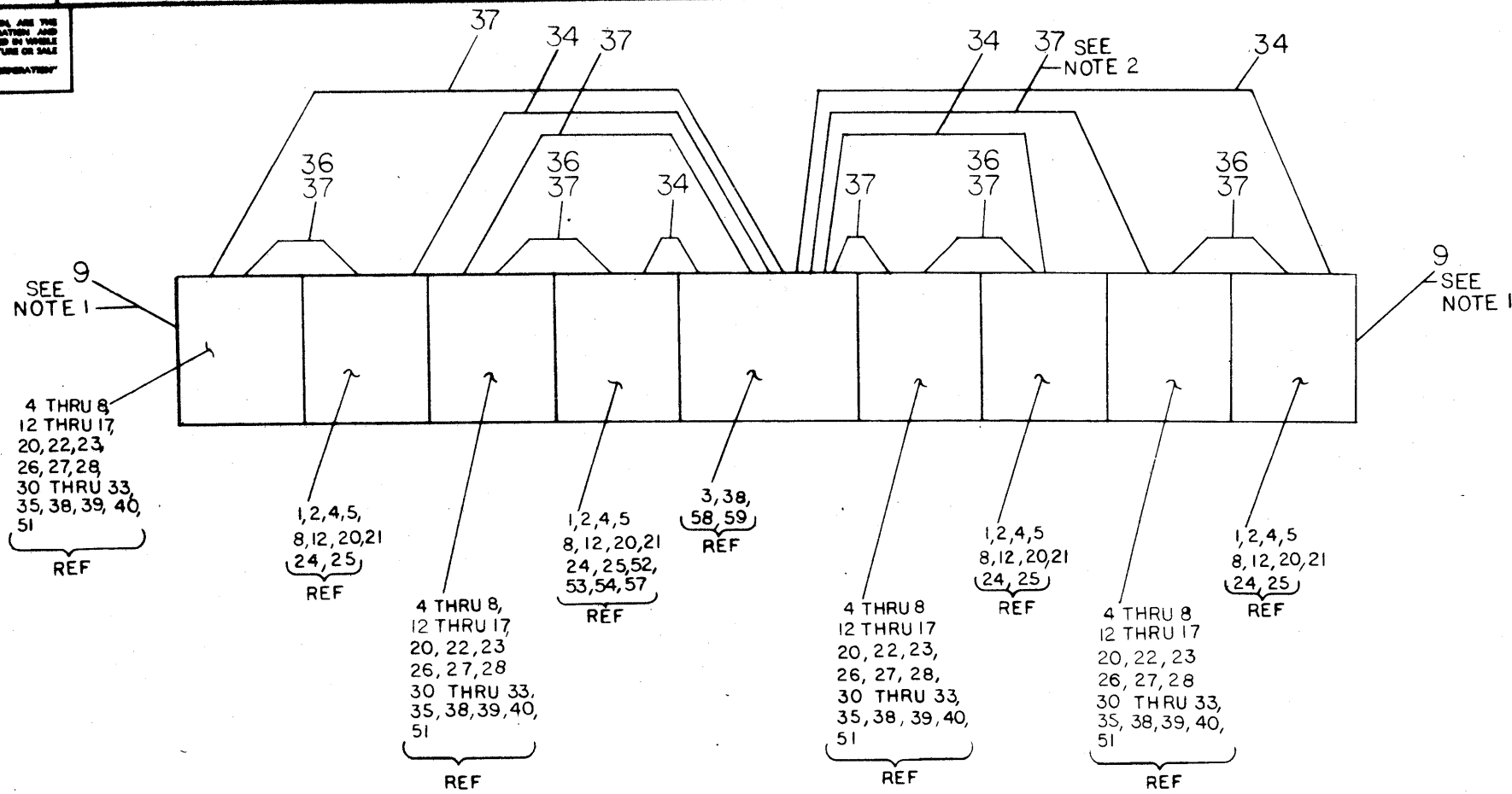
REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	DATE	<div style="border: 1px solid black; display: inline-block; padding: 2px;">digital</div>  TITLE:  UNIVERSAL COMM SYSTEM FRONT END								
	CHG. NO.		DN 87	E. DEVRIES	14 Jan 76									
	DATE			CHK'D										
				PRG. ENG.	24 Feb 76									
				FIELD SERV.	3 Mar 76									
			SHEET I OF <u>1</u>	H. L. ...	4 Mar 76	<table border="1" style="width: 100%; text-align: center; font-size: x-small;"> <tr> <td>SIZE <b>B</b></td> <td>CODE <b>TC</b></td> <td>NUMBER DN87-0-1</td> <td>REV.</td> </tr> <tr> <td>DIST.</td> <td></td> <td></td> <td></td> </tr> </table>	SIZE <b>B</b>	CODE <b>TC</b>	NUMBER DN87-0-1	REV.	DIST.			
SIZE <b>B</b>	CODE <b>TC</b>	NUMBER DN87-0-1	REV.											
DIST.														



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NOTES

- SUPPLY AND INSTALL END PANELS AS REQUIRED FOR SPECIFIC CUSTOMER INSTALLATION.
- THIS EQUIPMENT CONFIGURATION IS RECOMMENDED FOR ASYNC MODE OPERATION. IT MAY BE CHANGED PROVIDED DN87-D AND DN81-EA/EB CABINETS ARE ALWAYS BOLTED TOGETHER AS A CABINET PAIR ASSEMBLY, AND COMBINED UNIBUS CABLE LENGTHS DO NOT EXCEED 35 FEET. (SEE NOTE 1 OF C-PL-DN87-0-0.)
- BASIC ASYNC CONFIGURATION MUST CONSIST OF DLI0-A, DN87-D, DN81-EA/EB CABINETS BOLTED TOGETHER IN AN INTEGRAL ASSEMBLY



DN87-AA/AB							
PART OF: DN81-EA/EB (DH11-0) (DM11-BB-0)	PDP 10 11/40 A ASSY	PART OF: DN81-EA/EB (DH11-0) (DM11-BB-0)	PDP 10 11/40 A ASSY	DLI0 A DATA LINK UNIBUS PORT 0	PART OF: DN81-EA/EB (DH11-0) (DM11-BB-0)	PDP 10 11/40 A ASSY	PART OF: DN81-EA/EB (DH11-0) (DM11-BB-0)
DN81-EC/ED #1	D-AD-7009711-0-0 PORT 2	DN81-EC/ED #1	D-AD-7009711-0-0 PORT 0		DN81-EC/ED #1	D-AD-7009711-0-0 PORT 1	DN81-EC/ED #1 PORT 3
DN81-EC/ED #2	KG11-A	DN81-EC/ED #2	KG11-A	DLI0-C PORT 1 PART OF DN87-A #1	DN81-EC/ED #2	KG11-A	DN81-EC/ED #2
DN81-EC/ED #3		DN81 EC/ED #3		DLI0-C PORT 2 PART OF DN87-A #2	DN81 EC/ED #3		DN81-EC/ED #3
				DLI0-C PORT 3 PART OF DN87-A #3			
DN81-EA/EB DN87-DA/DB (CAB ASSY) (CAB ASSY)		DN81-EA/EB		DN81-EA/EB DN87-DA/DB (CAB ASSY) (CAB ASSY)		DN81-EA/EB DN87-DA/DB (CAB ASSY) (CAB ASSY)	

BASIC ASYNC SYSTEM CONFIGURATION

CAUTION OFF SHEET PARTS LIST  
C-PL-DN87-0-0

RECOMMENDED  
(ASYNC CONFIGURATION)

REV.	CHG. NO.	DATE
A	DN87-00001	7 MAR 77
M. DRUMM		

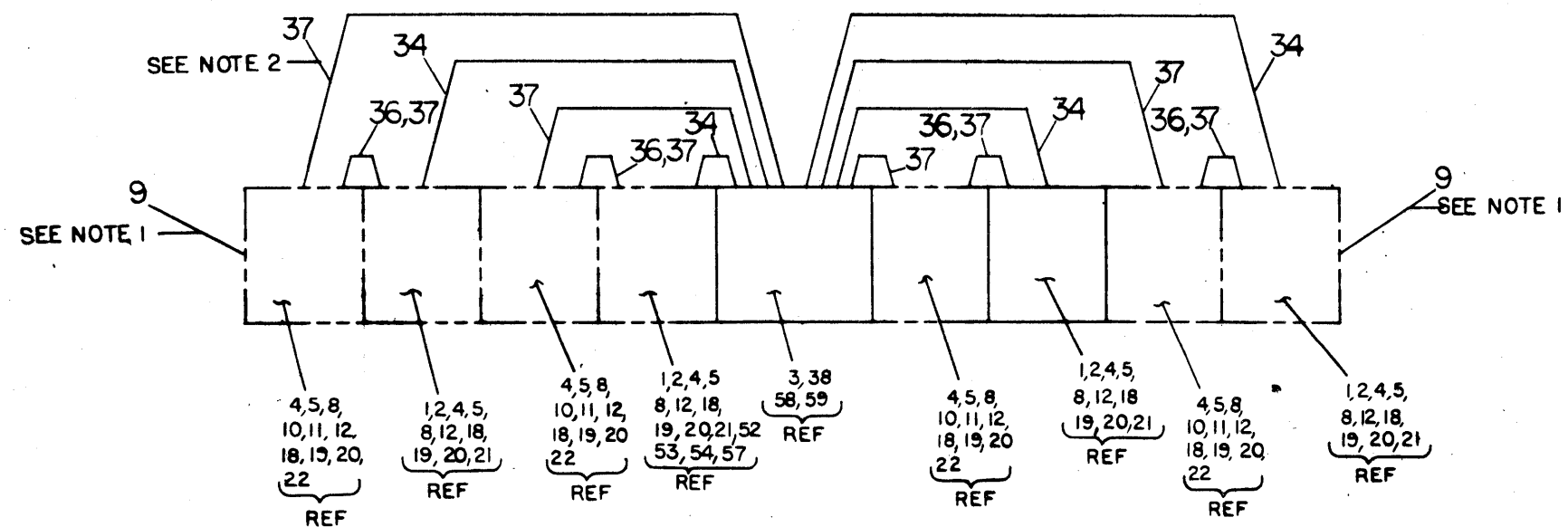
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87		PARTS LIST		
DIMENSIONAL TOLERANCE		DRN. E. DeKie	DATE 1/22/75	digital
DIMENSIONS ARE MILLIMETERS INCHES UNLESS OTHERWISE SPECIFIED		CHK'D. [Signature]	DATE 1/22/75	
MILLIMETERS INCHES ANGLES		ENG. [Signature]	DATE 3/10/76	
THIRD ANGLE PROJECTION		PROJ. ENG. [Signature]	DATE 3/10/76	TITLE UNIVERSAL COMM. SYSTEM FRONT END
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD. [Signature]	DATE 11/20/76	
MATERIAL		NEXT HIGHER ASSY.		SIZE CODE
FINISH		SCALE		NUMBER
		SHEET 1 OF 19		REV. A

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V 0 - 0 - 28NDM 2

NOTES

- SUPPLY AND INSTALL END PANELS AS REQUIRED FOR SPECIFIC CUSTOMER INSTALLATION.
- THIS EQUIPMENT CONFIGURATION IS RECOMMENDED FOR SYNC MODE OPERATION. IT MAY BE CHANGED PROVIDED THAT DN87-D AND DN81 EE/EF CABINETS ARE ALWAYS BOLTED TOGETHER AS A CABINET ASSEMBLY PAIR, AND COMBINED UNIBUS CABLE LENGTHS DO NOT EXCEED 35 FEET. (SEE NOTE 12 C-PL-DN87-0-0.)
- BASIC SYNC CONFIGURATION MUST CONSIST OF DLI0-A, DN87-D BOLTED TOGETHER AS AN INTEGRAL ASSEMBLY WHEN UP TO 4 SYNC LINES ARE INCLUDED IN CUSTOMER ORDER. IF MORE THAN 4 LINES ARE INCLUDED THEN DN81-EE/EF CABINET SHOULD BE MADE PART OF DLI0-A, DN87-D CABINET ASSEMBLY, (LINE EXPANSION BASIC SYSTEM).



DN87-AA/AB  
BASIC ASSY

PR. SYNC LINE CONT. SYSTEM (EXP. CAB)	PDPI0 1/40 A ASSY	PR. SYNC LINE CONT. SYSTEM (EXP. CAB)	PDPI0 1/40 A ASSY	DLI0-A DATA LINK W/PORT 0	PR. SYNC LINE CONT. SYSTEM (EXP. CAB)	PDPI0 1/40 A ASSY	PR. SYNC LINE CONT. SYSTEM (EXP. CAB)	PDPI0 1/40 A ASSY
DN81-H/J #4	D-AD-	DN81-H/J #4	D-AD-		DN81-H/J #4	D-AD-	DN81-H/J #4	D-AD-
DN81-H/J #5	7009711-0-0 PORT 2	DN81-H/J #5	7009711-0-0 PORT 0		DN81-H/J #5	7009711-0-0 PORT 1	DN81-H/J #5	7009711-0-0 PORT 3
DN81-H/J #6		DN81-H/J #6			DN81-H/J #6		DN81-H/J #6	
DN81-H/J #7	KG11-A	DN81-H/J #7	KG11-A		DN81-H/J #7	KG11-A	DN81-H/J #7	KG11-A
DN81-H/J #8		DN81-H/J #8			DN81-H/J #8		DN81-H/J #8	
DN81-H/J #9		DN81-H/J #9			DN81-H/J #9		DN81-H/J #9	
DN81-H/J #10		DN81-H/J #10			DN81-H/J #10		DN81-H/J #10	
DN81-H/J #11		DN81-H/J #11		DLI0-C PORT-1	DN81-H/J #11		DN81-H/J #11	
DN81-H/J #12		DN81-H/J #12		DLI0-C PORT-2	DN81-H/J #12		DN81-H/J #12	
DN81-H/J #13		DN81-H/J #13		DLI0-C PORT-3	DN81-H/J #13		DN81-H/J #13	

DN81-EE/EF (CAB ASSY)    DN87 DA/DB (CAB ASSY)    DN81-EE/EF (CAB ASSY)    BASIC SYNC CONFIG.    DN81-EE/EF (CAB ASSY)    DN87-DA/DB (CAB ASSY)    DN81-EE/EF (CAB ASSY)    DN87 DA/DB (CAB ASSY)

CAUTION OFF  
SHEET PARTS LIST  
C-PL-DN87-0-0

RECOMMENDED (SYNC CONFIGURATION)

DESCRIPTION	DWG./PART NO.	ITEM NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES							
ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES					
SURFACE QUALITY IN MICROINCHES	(CHECK ONE)	OVER 0 TO 0.2	0.2 TO 1.2	1.2 TO 4.0	4.0 TO 12.0	12.0 TO 40.0	40.0 TO 80.0
		±0.004	±0.008	±0.012	±0.016	±0.024	±0.04
QUANTITY & VARIATION	PREFERRED	±0.012    ±0.016    ±0.026    ±0.04    ±0.063    ±0.1					
THIRD ANGLE PROJECTION	DRN: P. [Signature] 9.8.75	FIRST USED ON DN87					
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D: [Signature]	TITLE UNIVERSAL COMM SYSTEM FRONT END					
DO NOT SCALE DWG	PROJ. ENG. [Signature] 3/24/76	SIZE CODE B-DD-DN87-0					
MATERIAL	PROD. [Signature] 3/24/76	SCALE 1/4" = 1"					
FINISH	NEXT HIGHER ASSY.	NUMBER DN87-0-0					
		REV. A					
		DIST.					

REV.	
CHG.	

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NOTES

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- THIS EQUIPMENT CONFIGURATION IS RECOMMENDED FOR SYNC/ASYNC MODE OPERATION. IT MAY BE CHANGED. PROVIDED DN87-D AND DN81-EA/EB CABINETS ARE ALWAYS BOLTED TOGETHER AS A CABINET PAIR ASSEMBLY. COMBINED UNIBUS CABLE LENGTHS DO NOT EXCEED 35 FEET.

SEE NOTE 1

SEE NOTE 1

4 THRU 8,  
12 THRU 17,  
20, 22, 23,  
26 THRU 28,  
30 THRU 33,  
35, 38, 39, 40,  
51  
REF

1, 2, 4, 5, 8, 12,  
18 THRU 21,  
24, 25  
REF

4 THRU 8,  
12 THRU 17,  
20, 22, 23,  
26 THRU 28,  
30 THRU 33,  
35, 38, 39, 40,  
51  
REF

1, 2, 4, 5, 8, 12,  
18 THRU 21,  
24, 25, 52, 53,  
54, 57  
REF

4 THRU 8,  
12 THRU 17,  
20, 22, 23,  
26 THRU 28,  
30 THRU 33,  
35, 38, 39, 40,  
51  
REF

1, 2, 4, 5, 8, 12,  
18 THRU 21,  
24, 25  
REF

4 THRU 8,  
12 THRU 17,  
20, 22, 23,  
26 THRU 28,  
30 THRU 33,  
35, 38, 39, 40,  
51  
REF

1, 2, 4, 5, 8, 12,  
18 THRU 21,  
24, 25  
REF

DN87-AA/AB							
PART OF DN81-EA/EB (DH11-#0) DM11-EB-#0	PDP11 11/40A ASSY	PART OF DN81-EA/EB (DH11-#0) DM11-EB-#0	PDP11 11/40A ASSY	DL10A DATA LINK UNIBUS AND PORT 0	PART OF DN81-EA/EB (DH11-#0) DM11-EB-#0	PDP11 11/40A ASSY	PART OF DN81-EA/EB (DH11-#0) DM11-EB-#0
DN81-EC/ED #1	D-AD-7009711-0-0 (PORT 2)	DN81-EC/ED #1	D-AD-7009711-0-0 (PORT 0)		DN81-EC/ED #1	D-AD-7009711-0-0 PORT 1	DN81-EC/ED #1
DN81-EC/ED #2	KG11-A	DN81-EC/ED #2	KG11-A		DN81-EC/ED #2	KG11-A	DN81-EC/ED #2
	DN81-H/J #0		DN81-H/J #0	DL10-C PORT 1		DN81-H/J #1	DN81-H/J #1
	DN81-H/J #1		DN81-H/J #1	DL10-C PORT 2		DN81-H/J #2	DN81-H/J #2
DN81-EC/ED #3	DN81-H/J #2	DN81-EC/ED #3	DN81-H/J #2	DL10-C PORT 3	DN81-EC/ED #3	DN81-H/J #2	DN81-EC/ED #3
	DN81-H/J #3		DN81-H/J #3			DN81-H/J #3	DN81-H/J #3

DN81-EA/EB (CAB ASSY) DN87-DA/DB (CAB ASSY) DN81-EA/EB (CAB ASSY) DN81-EA/EB (CAB ASSY) DN87-DA/DB (CAB ASSY) DN81-EA/EB (CAB ASSY) DN87-DA/DB (CAB ASSY)

BASIC SYNC/ASYNC (UNIVERSAL) CONFIGURATION

CAUTION OFF SHEET PARTS LIST C-FL-DN87-0-0

RECOMMENDED (SYNC/ASYNC CONFIGURATION)

DESCRIPTION		DWG./PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES 10' 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES		
SURFACE QUALITY IN	MEDIUM	OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0
QUANTITY & VARIATION	PREFERRED	±.004 ±.008 ±.012 ±.016 ±.024 ±.04	±.012 ±.016 ±.025 ±.04 ±.063 ±.1	
THIRD ANGLE PROJECTION	DRN: [Signature]	FIRST USED ON DN87		
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D: [Signature]	TITLE UNIVERSAL COMM SYSTEM FRONT END		
DO NOT SCALE DWG	PROJ. ENG: [Signature]	REV. A		
MATERIAL	PROD. R: [Signature]	NUMBER DN87-0-0		
FINISH	NEXT HIGHER ASSY.	SCALE B-DD-DN87-0		
		SHEET 3 OF 19		

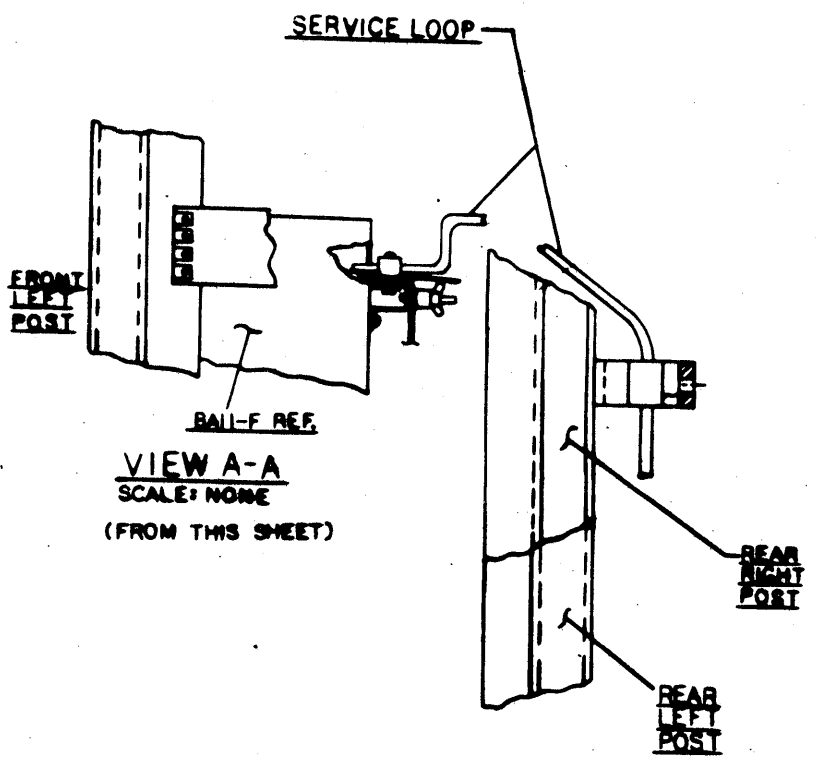
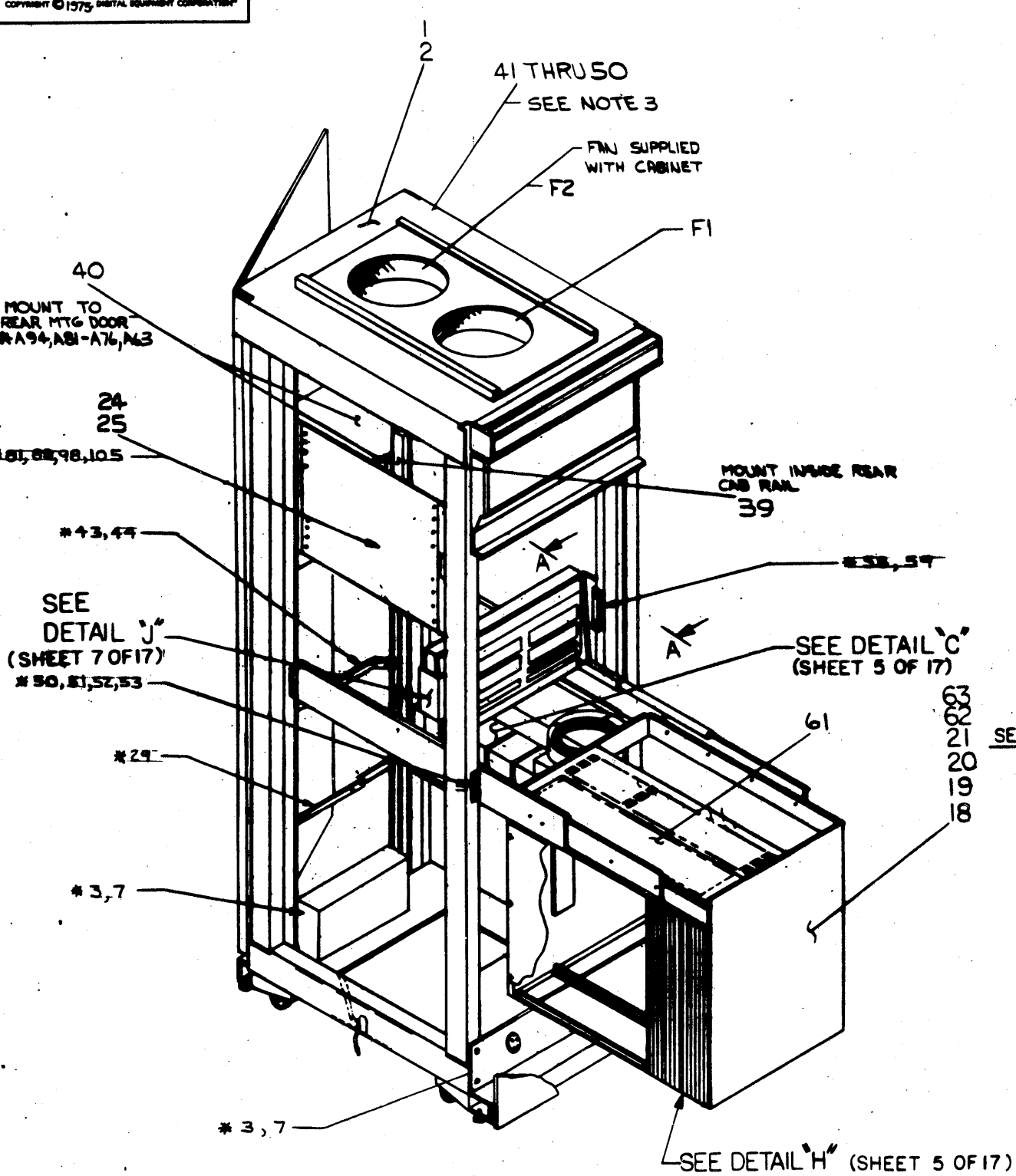
REV.	
CHANGE NO.	
CHK	

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DN87-0-0  
 2

NOTES:

1. INCLUDE ITEM 21 (KG11-A) WHEN DN87 IS EXPANDED FOR SYNCHRONOUS OR UNIVERSAL USE.
- 2.\* DENOTES TINNERMAN NUT LOCATIONS.
3. ITEMS 41 THRU 50 ARE MTG TYPE HARDWARE (NUTS, SCREWS, TIE WRAPS ETC.)



CAUTION OFF SHEET PARTS LIST  
 SEE C-PL-DN87-0-0

CPU AND NPR. SYNC. LINE CONTROL CAB.

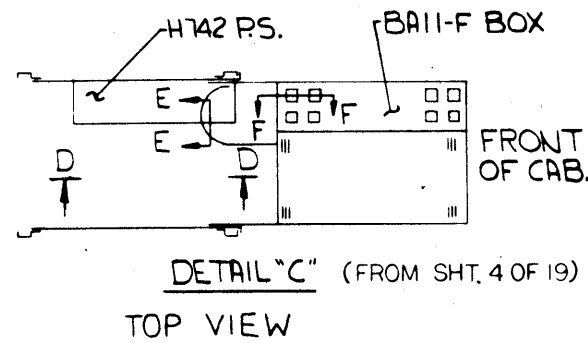
DESCRIPTION		DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES '0' '30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES	
SURFACE QUALITY IN	(CHECK ONE)	OVER	OVER
		TO	TO
QUANTITY & VARIATION	MEDIUM	0.004	0.008
THIRD ANGLE PROJECTION	PREFERRED	0.012	0.016
REMOVE BURRS AND BREAK SHARP CORNERS		0.025	0.04
DO NOT SCALE DWG		0.063	0.1
MATERIAL	B-DD-DN87-0	SIZE CODE	NUMBER
FINISH	SCALE	D U A DN87-0-0	REV. A
	SHEET	4 OF 12	DIST.

REV.	CHANGE NO.	DATE

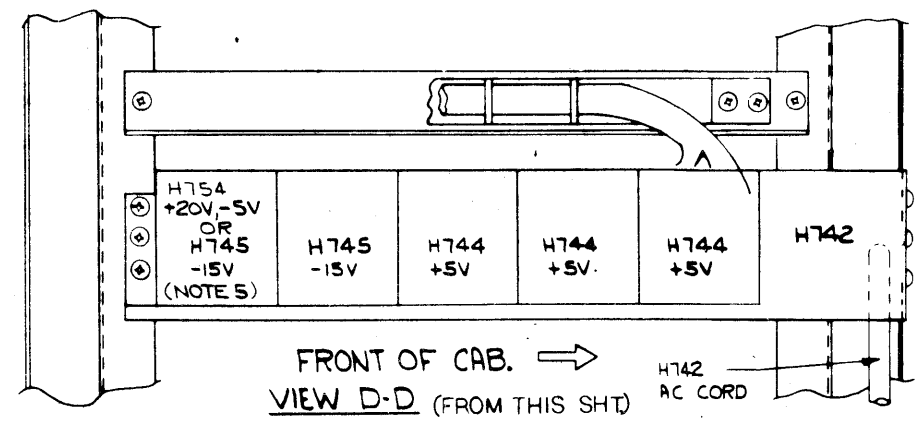
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DUA DN87-0-0

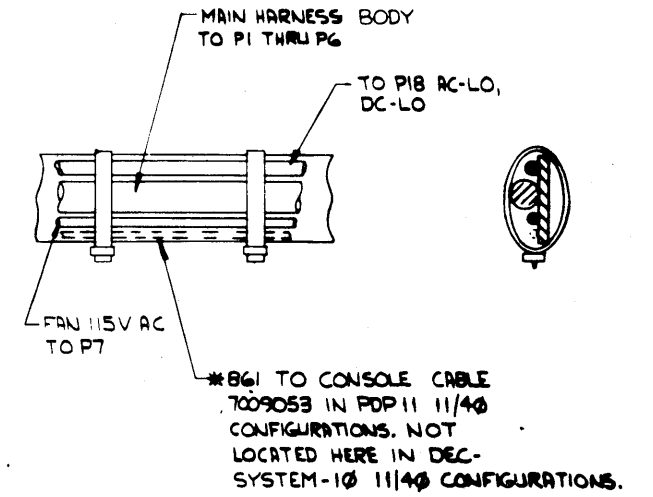
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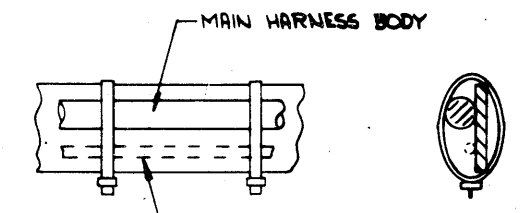
DETAIL "C" (FROM SHT. 4 OF 19)  
TOP VIEW



FRONT OF CAB. →  
VIEW D-D (FROM THIS SHT.)



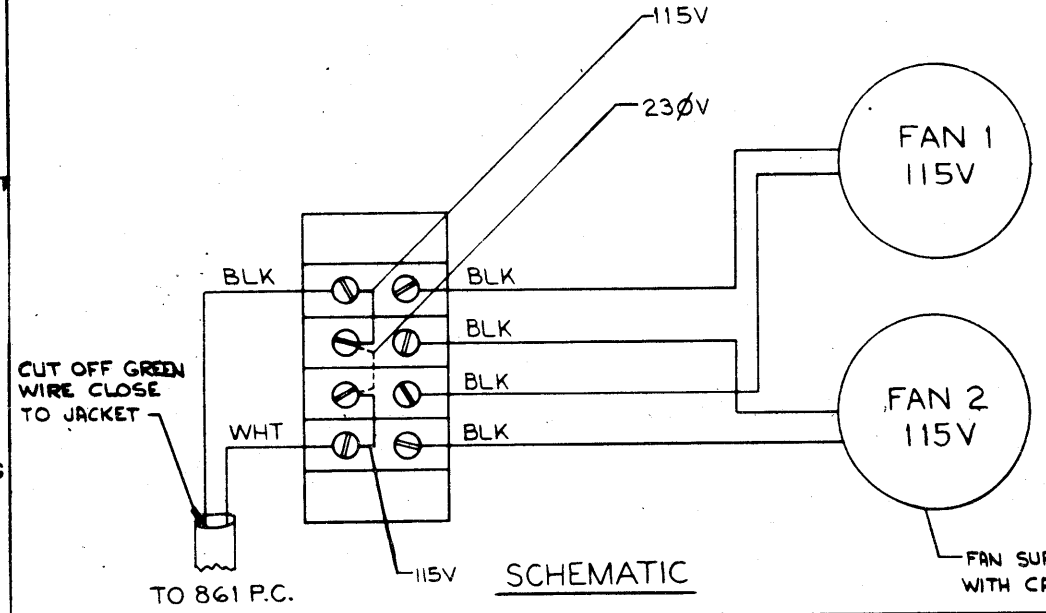
SECTION E-E  
(FROM THIS SHT.)



SECTION E-E  
(FROM THIS SHT.)

NOTES:

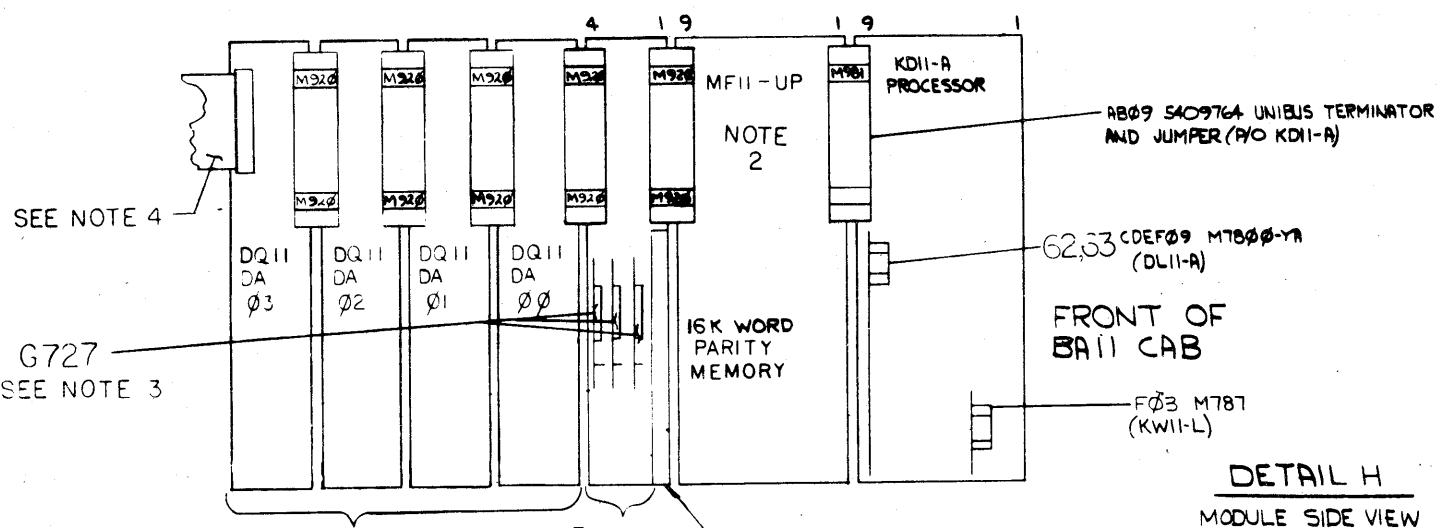
- EQUIPMENT SHOWN IN THIS DWG IS FOR EITHER SYNC OR SYNC/ASYNCH CONFIGURATIONS.
- REMOVE M930 UNIBUS TERMINATOR FROM AB09 OF THE MF11-UP. INSTALL AT THE END OF THE UNIBUS. UNIBUS ENDS AT DL10-C PORT LOGIC CAN BE IN DL10 SLOTS-AB CD, EFHJ-42 OR 43 (SEE DL10 DWG5 - DL10-MUAD, DL10-MUEJ (PART OF DL10 SCHEMATIC / CUSTOMER DWG SET.))
- GRANT CONTINUITY 6727 INSTALLED IN SLOTS 02, 03 AND 04 OF SPC. PANEL DD11-B. FOR ALL CONFIG. REPL. 6727 IN SLOT W/KG11-A.
- BC11-A-XX CABLE ASSY TO BE USED FOR CONNECTION TO DL10 UNIBUS PORT LOGIC OR OTHER PDP11 TYPE DEVICES INTERFACED TO UNIBUS. DEVICE LOADING MAY NOT EXCEED 15 UNIT LOADS. REPLACE WITH M930 IF NOT CONNECTED TO DEVICE ON UNIBUS OUTSIDE THIS CABINET ASSY. (FOR TESTING CHECK OUT PURPOSES ONLY.)
- H745 USED ONLY WHEN MF11-LP MEMORY IS USED IN PLACE OF MF11-UP MEMORY.



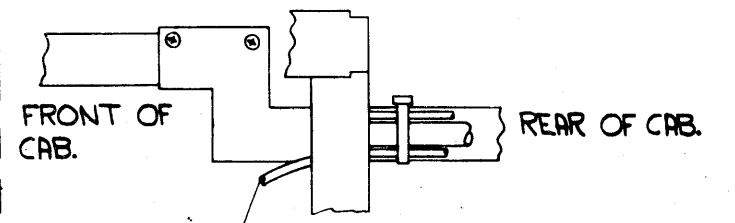
SCHEMATIC

IDENTIFY ENDS OF WIRE WITH BRADY MARKERS BEFORE PUTTING ON SLEEVING, FOR EASE OF WIRING.

DETAIL "B"  
(FROM SHT. 4 OF 17)



DETAIL H  
MODULE SIDE VIEW  
(FROM SHT. 4 OF 17)



SECTION F-F  
(FROM THIS SHT.)

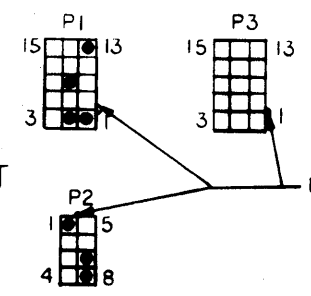
PDP10-11/40 CABINET ASSY  
(PWR. HARNESS AND MOD. PLACEMENT DETAILS)

CHK	CHANGE NO.

TITLE	UNIVERSAL COMM SYSTEM FRONT END	SIZE CODE	DUA	NUMBER	DN87-0-0	REV.	A
SCALE	1/1	SHEET	5 OF 19	DIST			

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KD11 POWER HARNESS PLUGS



KD11 POWER HARNESS

- 1. 1.5 TO 7.5A - RED P1-1
- 2. 1.5 TO 3.0A - GRAY P1-2
- 3. 1.5 TO 7.5A - GRAY P3-1
- 4. GND - BLK P1-8
- 5. -15V - BLU P1-13
- 6. LTC - BRN P2-2
- 7. GND - BLK P3-9
- 8. AC-LO - YEL P2-4
- 9. DC-LO - VIO P2-3

NOTE (STD SYSTEMS)  
 1. MAIN HARNESS HAS TWO (2) UNUSED 8-PIN PLUGS (P15 & P16). TO PREVENT DAMAGE TO REGULATORS INSERT AN EMPTY MATING CONNECTOR INTO THEM AND TIE THEM OUT OF THE WAY.  
 2. WHEN USING AN HT54 IN SLOT E USE P17 TRANSFER RED & WHT AC Wires FROM P15 TO P17 AND INSTALL OR REMOVE JUMPERS PER DWS # D-7A-7009566-0-1

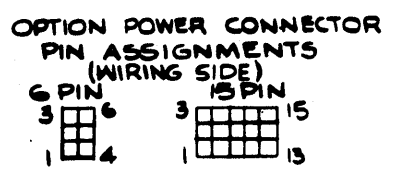
POWER DISTRIBUTION PNL D-MD-7411220-0-0

SYSTEM UNIT PWR. DISTRIBUTION 5410590

MF11-UP 1st MEMORY HARNESS D-1A-7009535-0-0

DD11-B & DQ11 PWR HARNESS D-1A-7009563-0-0

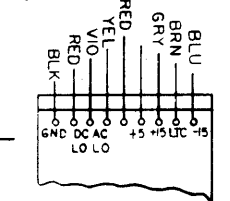
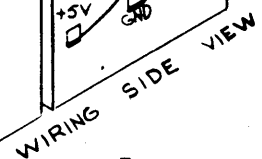
KD11-A PWR DIST HARNESS D-1A-7009594-0-0



- 1. LO GND-BLK
- 2. LINE CLOCK-BRN
- 3. DC LO-VIO
- 4. AC LO-YEL
- 5. SPARE 4
- 6. SPARE 5
- 7. GROUND - BLK
- 8. GROUND - BLK
- 9. GROUND - BLK
- 10. SPARE #2
- 11. GROUND - BLK
- 12. SPARE #3
- 13. -15V TO 10A-BLU
- 14. -5V TO 8A-BRN
- 15. SPARE #3
- 1. +5V TO 7.5A-RED
- 2. +5V TO 3.0A-GRY
- 3. +20V TO 8A-ORN
- 4. +5V TO 7.5A-RED
- 5. GROUND - BLK
- 6. SPARE #1

USE #14 WIRE FOR +5, GROUND, ALL OTHERS CAN BE #18. (EXCEPT ON MEMORIES)

FRONT OF BAIL-FI BOX



E-1A-7009566-0-0 BAIL-FI BOX HARNESS

TYP 4 PLACES DC PWR HARNESS FOR DQ11-DA, -EA, (D-1A-7009563-0-0)

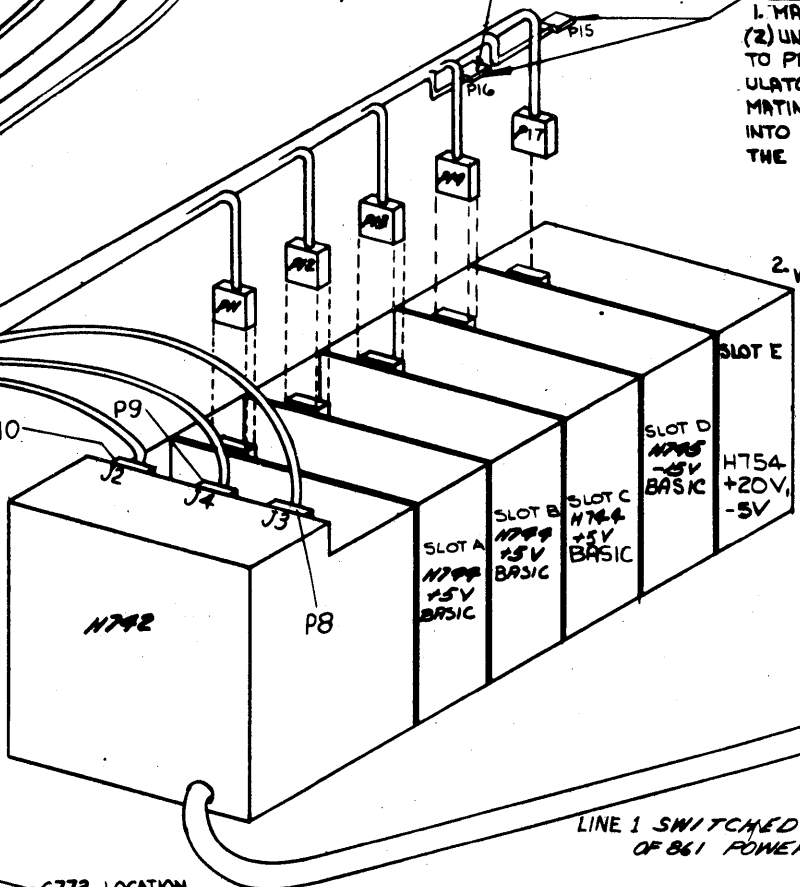
ROUTE CABLE IN SPACE BETWEEN SYSTEM UNITS

G772 LOCATION MAY VARY DEPENDING ON OPTION

G772 HARNESS LOOP TO BE BELOW B'ROW OF SYSTEM UNIT (TO CLEAR UNIBUS CABLE)

VIEW K-K (FROM THIS SHT.)

NEW PWR DISTRIBUTION VERSION FOR 11/40 SYSTEM SERIAL NUMBERS 6,000 AND GREATER



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DATE		
.XXX - .008	2° 30'	1/28/75		
.XX - .02		DATE		
.X - .1		1/28/75		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL				
NEXT HIGHER ASSY				
FINISH				
B-DD-DN87-0		SIZE CODE	NUMBER	REV.
		DUA	DN87-0-0	A
SHEET 6 OF 19		DIST.		

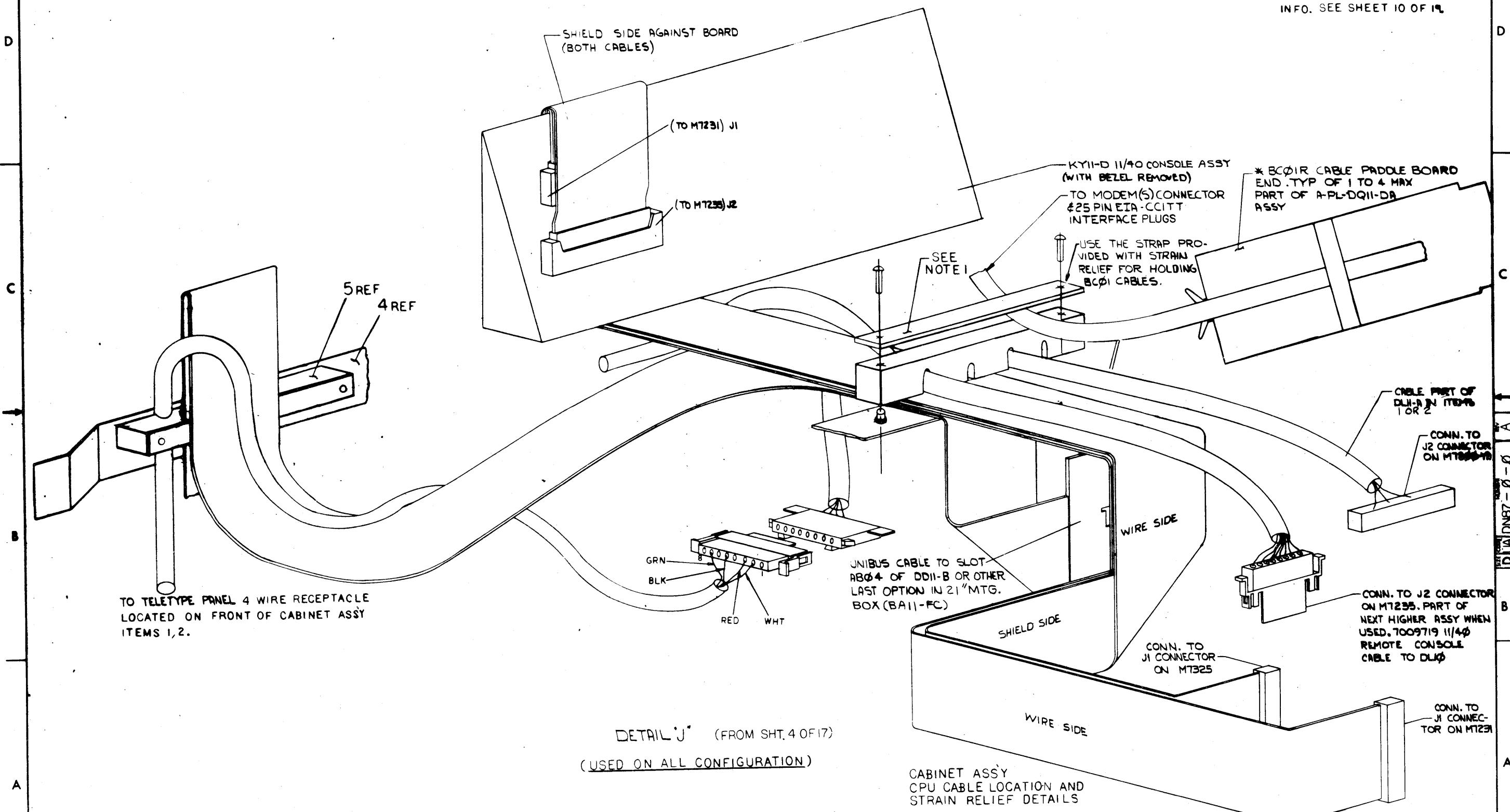
11/40 CAB & NPR SYNC CONTROL POWER HARNESS ASSY

LINE 1 SWITCHED OUTLET OF 861 POWER CONTROL

REVISIONS  
 CHANGE NO.  
 REV.

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NOTES:  
 1. USE EXISTING STRAIN RELIEF WHEN PLACING A BCØIW CABLE IN UNIT. FOR DETAIL INFO. SEE SHEET 10 OF 19.



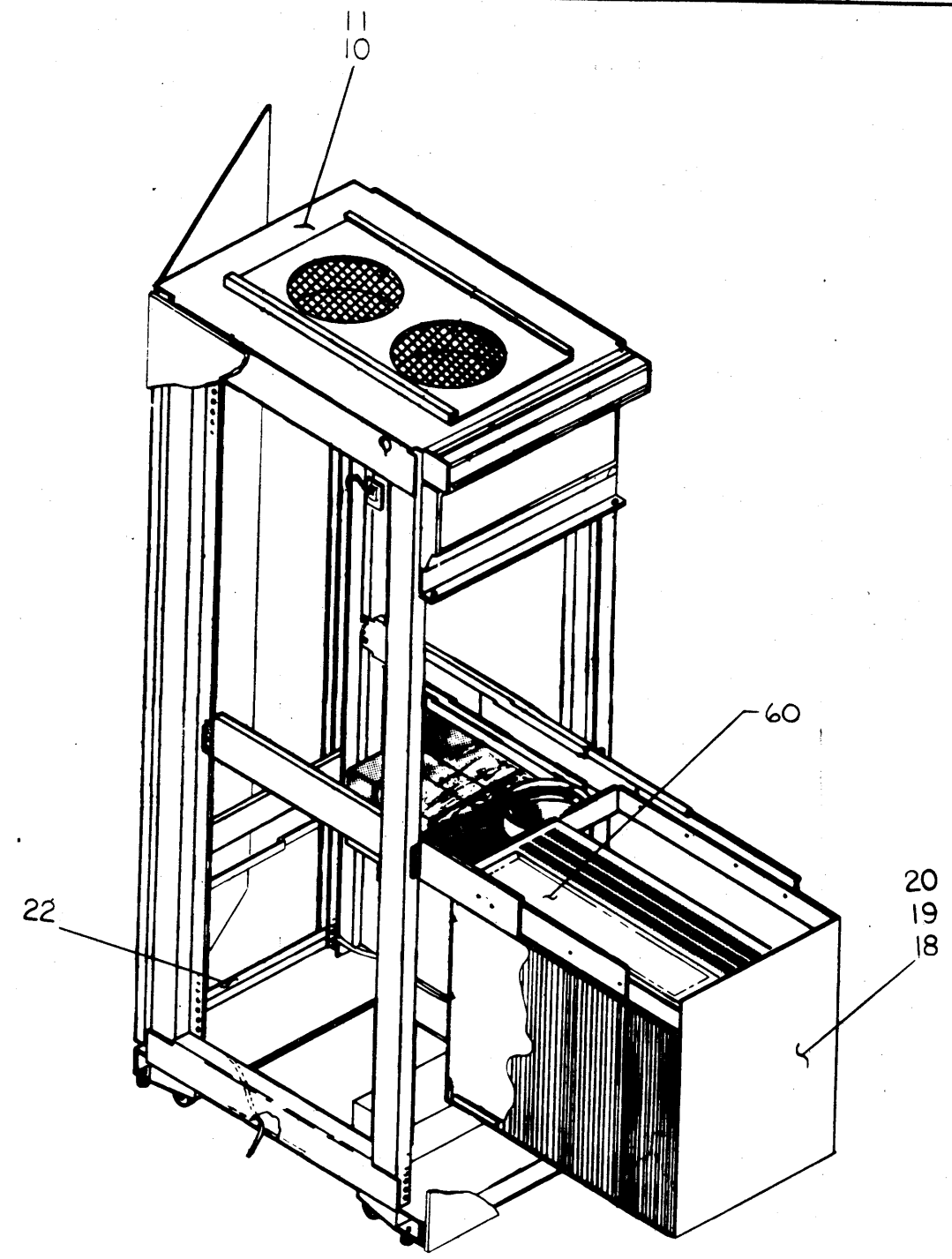
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	UNIVERSAL COMM SYSTEM FRONT END	SIZE CODE	D 1/4	NUMBER	DN87 - 0 - 0	REV.	A
SCALE		SHEET	7 OF 19	DIST.			

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DN87-0-0 2

NOTES:  
 1. THIS ASSY MADE FROM D-AD-7606874-0-0. SEE ASSY DETAILS ON THIS REF. DWG.



CAUTION OFF SHEET PARTS LIST C-PL-DN87-0-0

SYNCHRONOUS CONFIG.

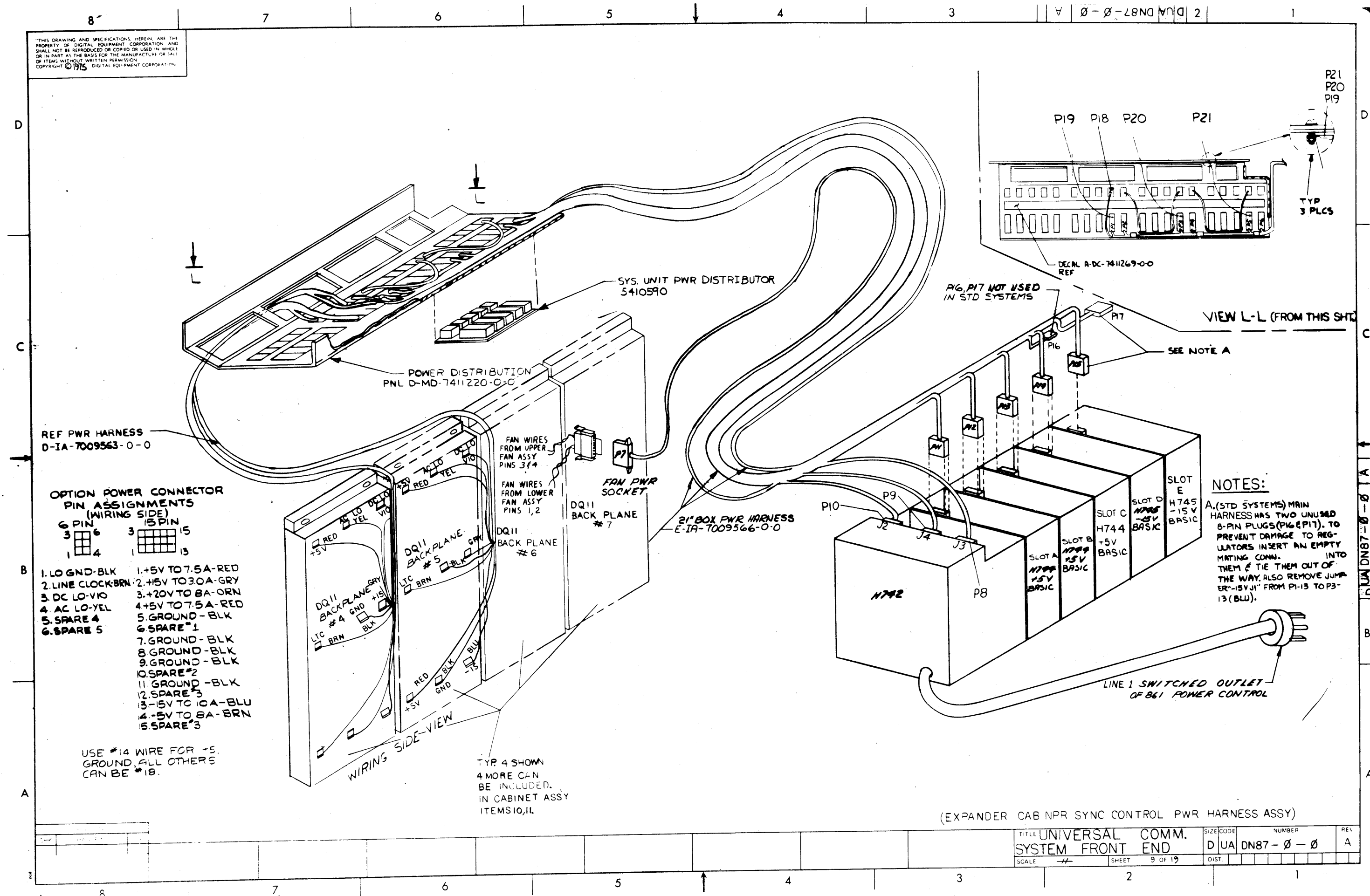
NPR SYNC LINE CONT EXPANSION CAB ASSY

DESCRIPTION	DWG./PART NO.	ITEM NO.						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES								
ANGLES 10°-30°	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES						
SURFACE QUALITY IN	(CHECK ONE)	OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0	
		±.004	±.008	±.012	±.016	±.024	±.04	
QUANTITY & VARIATION	MICROINCHES	PREFERRED	±.012	±.016	±.025	±.04	±.063	±0.1
THIRD ANGLE PROJECTION	DRN: D. V. RAO 12 Dec 75	FIRST USED ON DN87						
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D: [Signature]	TITLE: UNIVERSAL COMM. SYSTEM FRONT END						
DO NOT SCALE DWG	PROJ. ENG: [Signature]	SIZE: D						
MATERIAL	PROD: R. Yeager 3/20/76	SCALE: 1/1						
FINISH	NEXT HIGHER ASSY:	NUMBER: DN87-0-0						
		REV: A						
	SHEET 8 OF 19	DIST:						

REV. CHANGE NO. 1

8 7 6 5 4 3 2 1

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- OPTION POWER CONNECTOR PIN ASSIGNMENTS (WIRING SIDE)**
- |       |        |
|-------|--------|
| 6 PIN | 15 PIN |
| 3 6   | 3 15   |
| 1 4   | 1 13   |
1. LOGND-BLK
  2. LINE CLOCK-BRN
  3. DC LO-VIO
  4. AC LO-YEL
  5. SPARE 4
  6. SPARE 5
  1. +5V TO 7.5A-RED
  2. +5V TO 3.0A-GRY
  3. +20V TO 8A-ORN
  4. +5V TO 7.5A-RED
  5. GROUND-BLK
  6. SPARE #1
  7. GROUND-BLK
  8. GROUND-BLK
  9. GROUND-BLK
  10. SPARE #2
  11. GROUND-BLK
  12. SPARE #3
  13. -5V TO 10A-BLU
  14. -5V TO 8A-BRN
  15. SPARE #3

USE #14 WIRE FOR -5. GROUND, ALL OTHERS CAN BE #18.

TYP 4 SHOWN 4 MORE CAN BE INCLUDED. IN CABINET ASSY ITEMS 10, 11

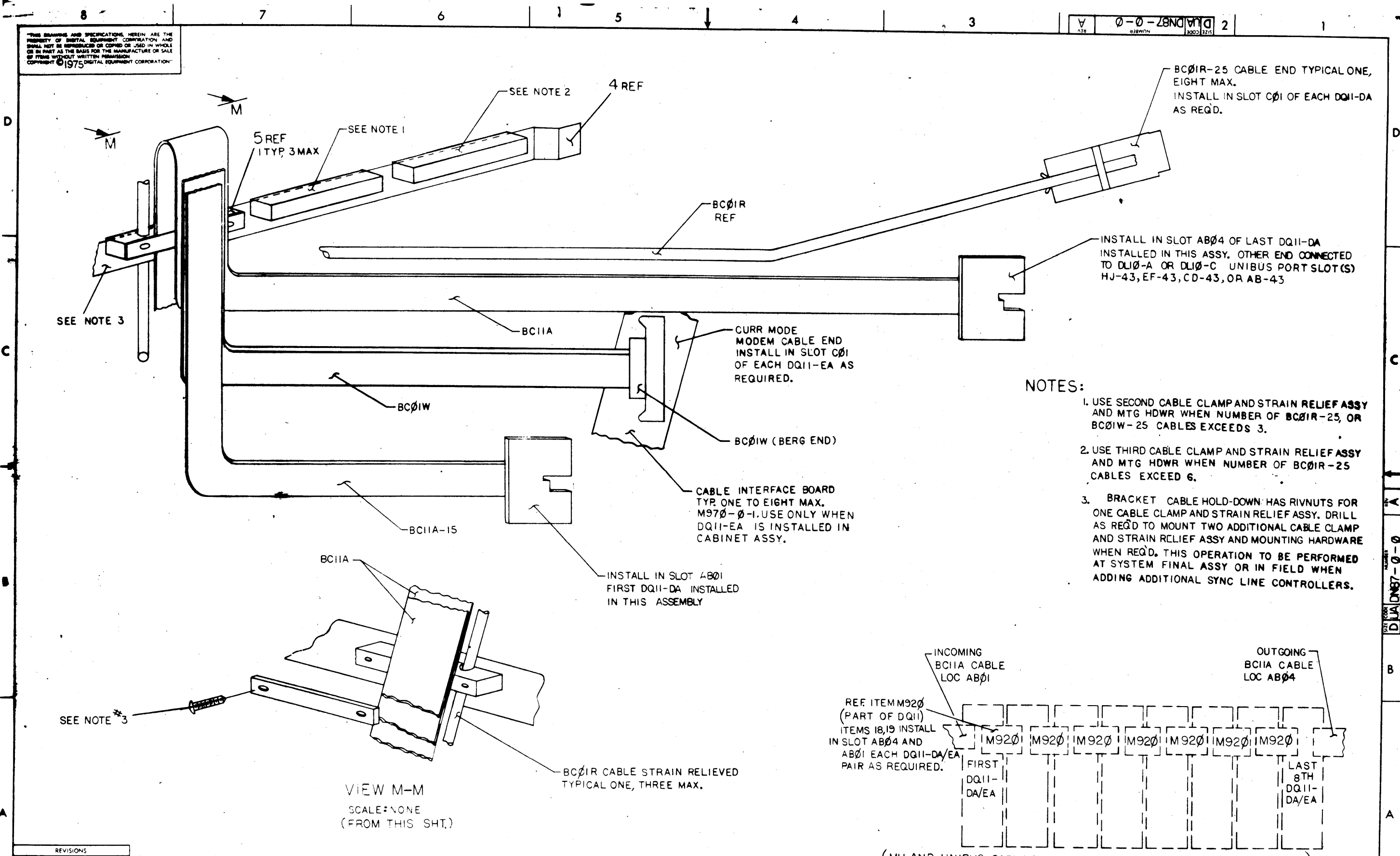
**NOTES:**  
 A. (STD SYSTEMS) MAIN HARNESS HAS TWO UNUSED 8-PIN PLUGS (P16 & P17). TO PREVENT DAMAGE TO REGULATORS INSERT AN EMPTY MATING CONN. INTO THEM & TIE THEM OUT OF THE WAY. ALSO REMOVE JUMPER "-15V J1" FROM P1-13 TO P3-13 (BLU).

TITLE UNIVERSAL COMM. SYSTEM FRONT END		SIZE CODE D UA DN87-0-0	NUMBER 9 OF 19	REV A
SCALE --	SHEET 9 OF 19	DIST		

(EXPANDER CAB NPR SYNC CONTROL PWR HARNESS ASSY)

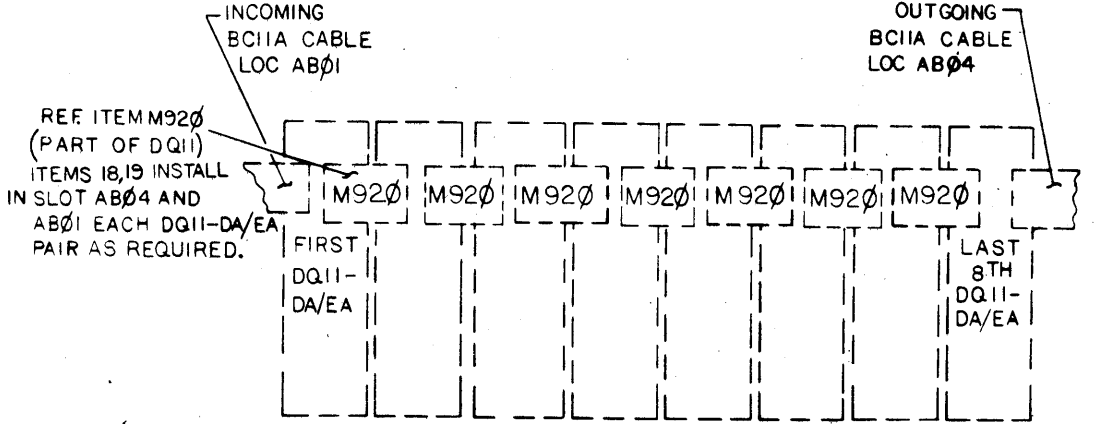
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0-0-28NDVYD 2



SEE NOTE 3

VIEW M-M  
SCALE: NONE  
(FROM THIS SHT.)



(MU AND UNIBUS CABLING NPR SYNC LINE CONT EXP. CAB. BACK PLANE)

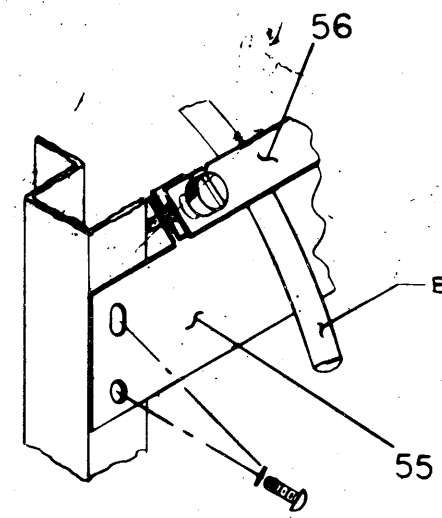
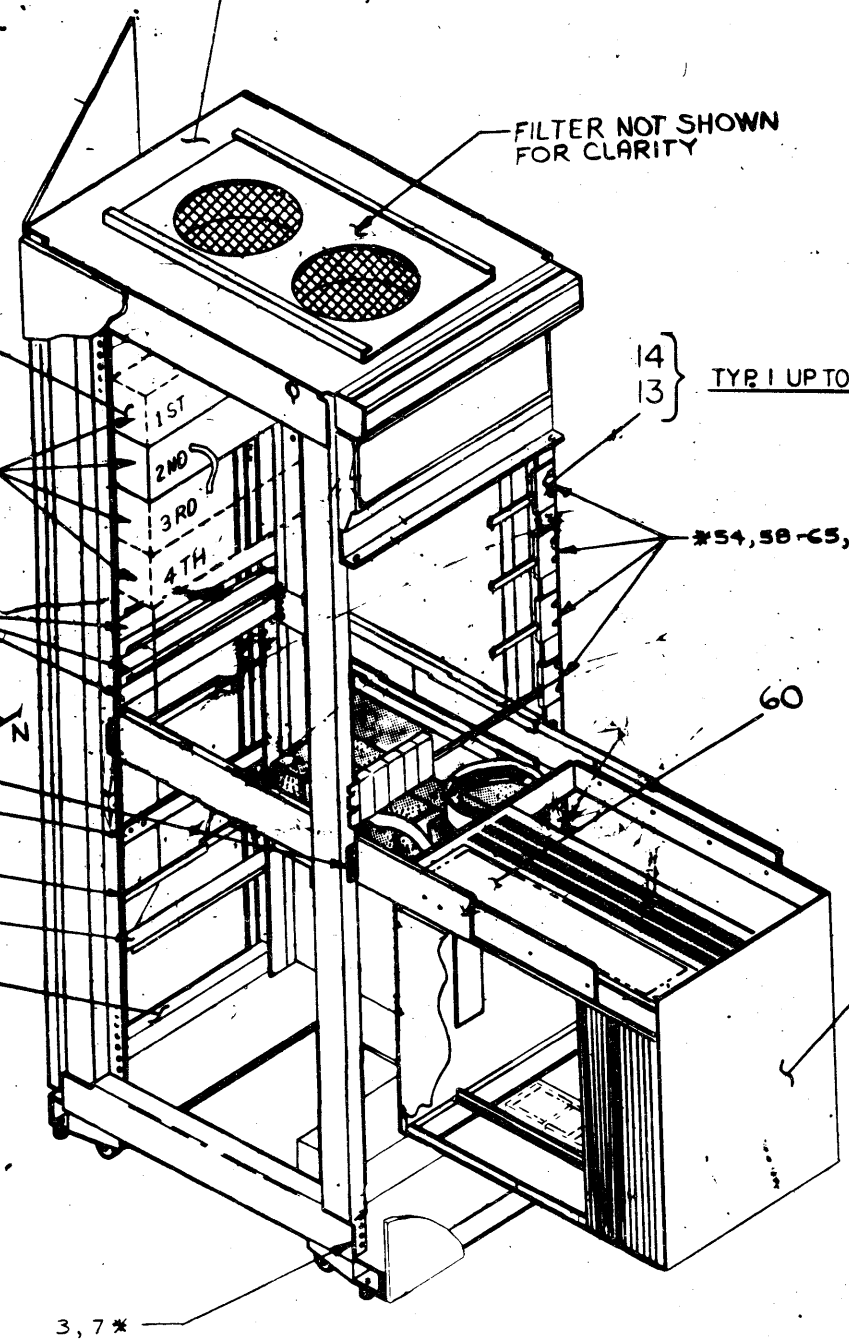
REVISIONS		
CHK	CHANGE NO	REV

TITLE	UNIVERSAL COMM. SYSTEM FRONT END	SIZE CODE	NUMBER	REV.
SCALE	NONE	SHEET	1 OF 19	A
DUA DN87-0-0		DIST.		

DUA DN87-0-0

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\*DENOTES TINNEMAN NUT LOCATIONS.



VIEW N-N  
SCALE: NONE  
(FROM THIS SH.T.)

REVISIONS		
CHK	CHANGE NO.	REV.

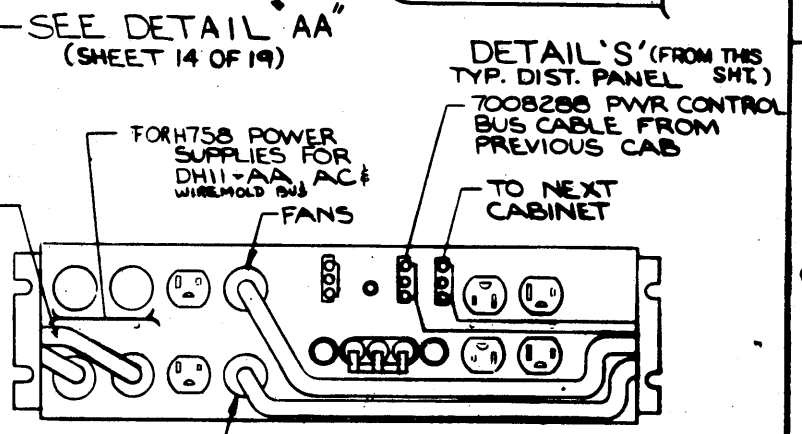
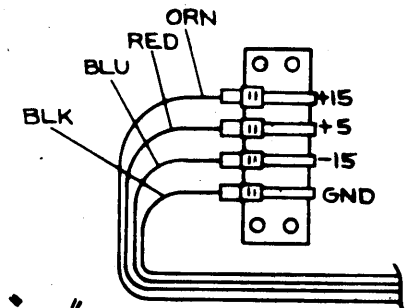
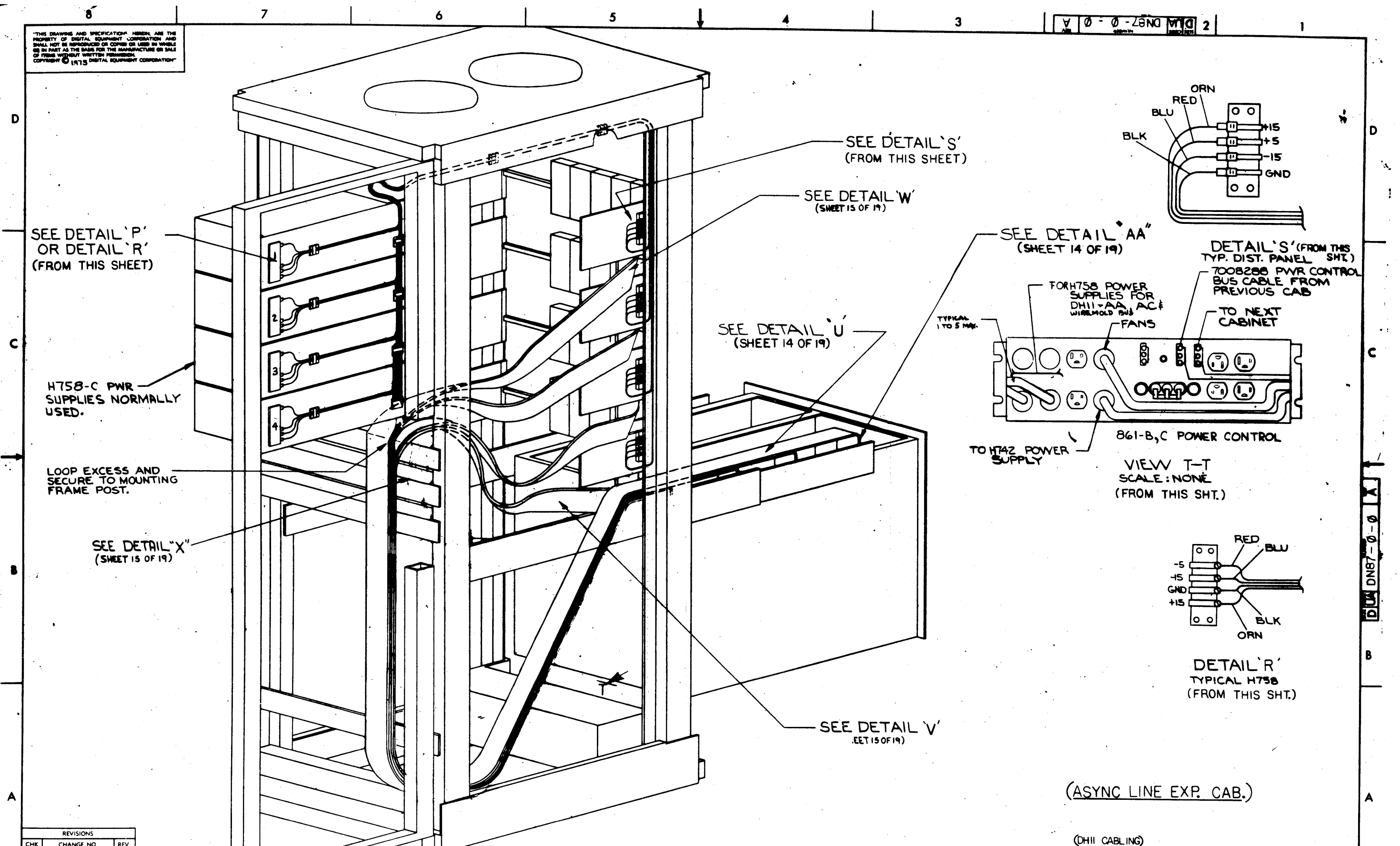
ASYNC LINE EXPANSION CAB  
EQUIPMENT LOCATION DETAILS

TITLE	UNIVERSAL COMM. SYSTEM FRONT END	SIZE CODE	DUA	NUMBER	DN87-0-0	REV.	A
SCALE	#	SHEET	11 OF 19	DIST.			

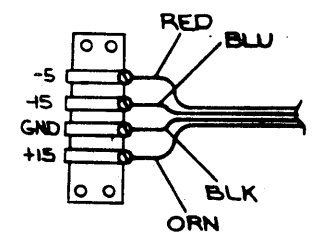
DUA DN87-0-0-0

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0-0-28ND 1111 2



VIEW T-T  
SCALE: NONE  
(FROM THIS SHT.)



DETAIL 'R'  
TYPICAL H758  
(FROM THIS SHT.)

(ASYNC LINE EXP. CAB.)

SEE DETAIL 'P'  
OR DETAIL 'R'  
(FROM THIS SHEET)

H758-C PWR  
SUPPLIES NORMALLY  
USED.

LOOP EXCESS AND  
SECURE TO MOUNTING  
FRAME POST.

SEE DETAIL 'X'  
(SHEET 15 OF 19)

SEE DETAIL 'S'  
(FROM THIS SHEET)

SEE DETAIL 'W'  
(SHEET 15 OF 19)

SEE DETAIL 'U'  
(SHEET 14 OF 19)

SEE DETAIL 'AA'  
(SHEET 14 OF 19)

SEE DETAIL 'V'  
(SHEET 15 OF 19)

REVISIONS		
CHK	CHANGE NO	REV

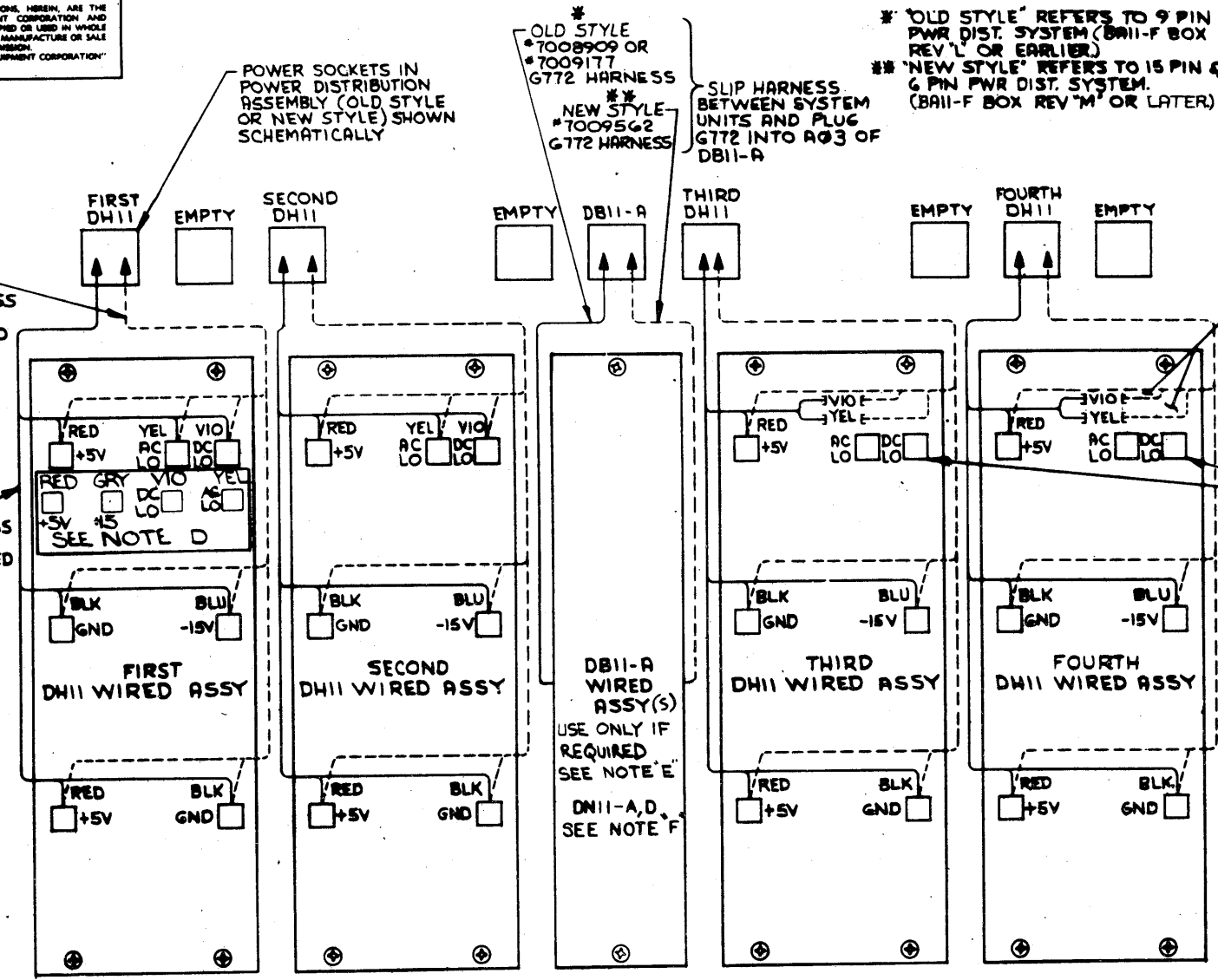
TITLE UNIVERSAL COMM SYSTEM FRONT END		SCALE NONE	SHEET 12 OF 19	DIST.	REV. A
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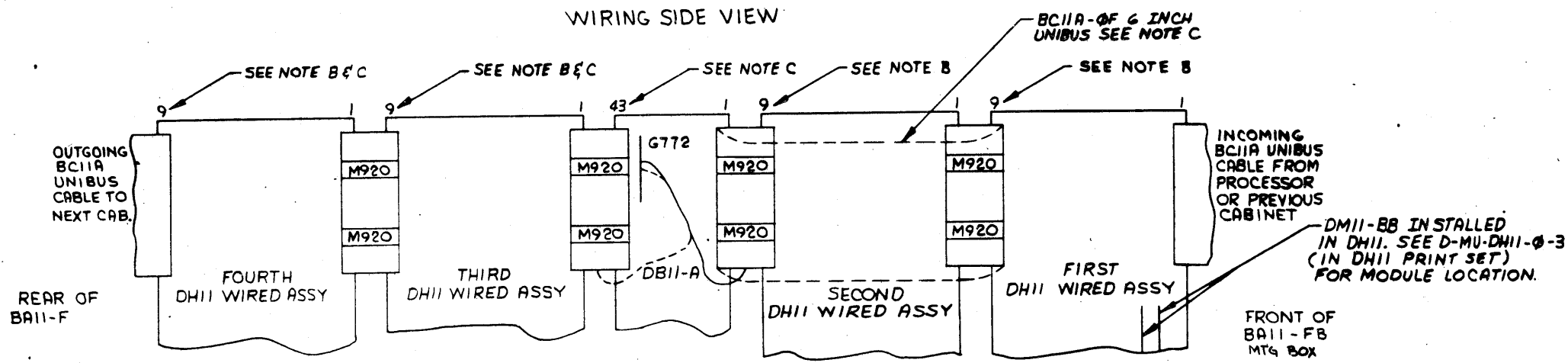
- NOTES:**
- A. ON THE THIRD & FOURTH DH11'S ONLY, DO NOT CONNECT AC LO (YEL) OR DC LO (VIO) WIRE. SLEEVE EACH WIRE WITH SHRINK SLEEVING
  - B. INSTALL UNIBUS TERMINATOR M930 (SUPPLIED WITH PROCESSOR) IN SLOT AB09 OF LAST DH11 IF THE UNIBUS ENDS IN THIS CABINET.
  - C. INSTALL OUTGOING UNIBUS CABLE BC11A IN SLOT AB09 OF THE THIRD OR FOURTH (LAST) DH11 OR SLOT AB04 OF THE DB11-A IF THE UNIBUS CONTINUES BEYOND THE CABINET. PROVIDE THE BC11A-OF UNIBUS JUMPER IF ONLY THE FIRST DH11 IS PROVIDED AND THE UNIBUS CONTINUES BEYOND THIS CABINET TO NEXT CABINET ASSY. (DN81-BA/EB)
  - D. ETCH ENCLPLANE 5410333 REV A OR LATER HAVE 4 TERMINALS IN TOP ROW,
 

+5	+15	DC LO	AC LO
----	-----	-------	-------

 NOTE NEW ARRANGMENT AND CONNECT HARNESS ACCORDINGLY IF REQUIRED.
  - E. USE DB11-A UNIBUS REPEATER IF MORE THAN 2 DH11-AA, AC'S ARE REQUIRED. OTHERWISE LEAVE SPACE BLANK.
  - F. INSTALL DN11-A (WIRED ASSY) IF REQUIRED. DN11-A IS USED IN NON-STANDARD SYSTEMS ONLY (OPTION CODES DN81-FF FG) IN THIS LOCATION IF DB11-A NOT USED, OTHERWISE LOCATE IN REMAINING SPACE OF BAI1-FB MT6 BOX (PART OF ITEMS 6,7).



WIRING SIDE VIEW



MODULE SIDE VIEW

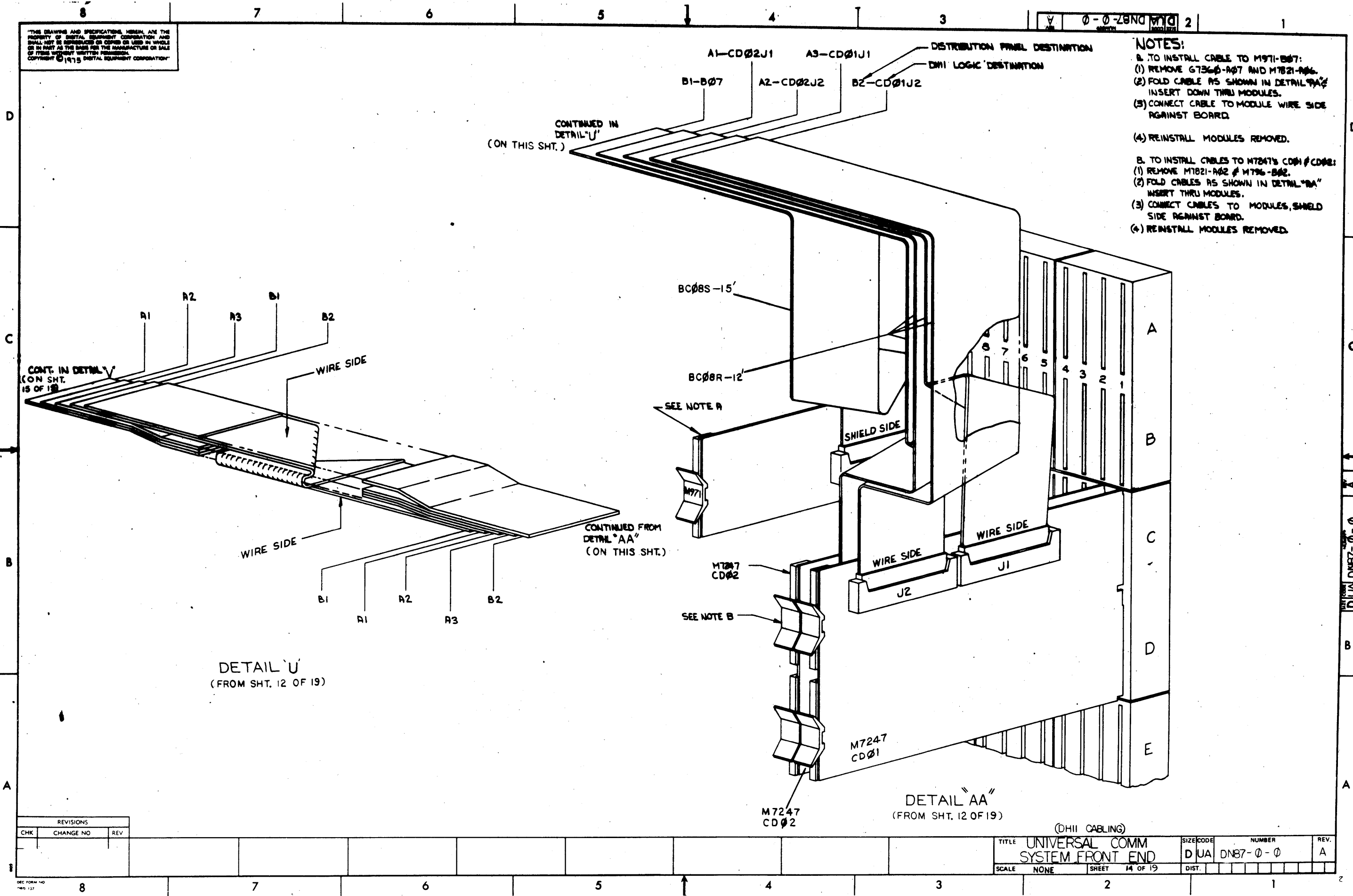
(ASYNC LINE EXP. CAB. BACK PLANE)

REVISIONS			TITLE	SIZE CODE	NUMBER	REV.
CHK	CHANGE NO	REV				
			UNIVERSAL COMM. SYSTEM FRONT END	DUA	DN87-0-0	A
			SCALE	SHEET	13 OF 19	DIST.

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0-0-28ND 17D 2

- NOTES:**
- A. TO INSTALL CABLE TO M771-B07:**
- (1) REMOVE G7360-A07 AND M7821-A06.
  - (2) FOLD CABLE AS SHOWN IN DETAIL "AA" INSERT DOWN THRU MODULES.
  - (3) CONNECT CABLE TO MODULE WIRE SIDE AGAINST BOARD.
  - (4) REINSTALL MODULES REMOVED.
- B. TO INSTALL CABLES TO M7247'S CD01 & CD02:**
- (1) REMOVE M7821-A02 & M796-B02.
  - (2) FOLD CABLES AS SHOWN IN DETAIL "AA" INSERT THRU MODULES.
  - (3) CONNECT CABLES TO MODULES, SHIELD SIDE AGAINST BOARD.
  - (4) REINSTALL MODULES REMOVED.

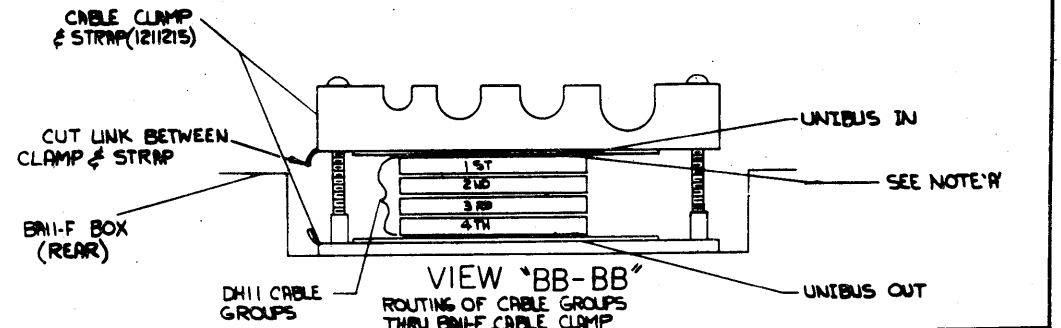
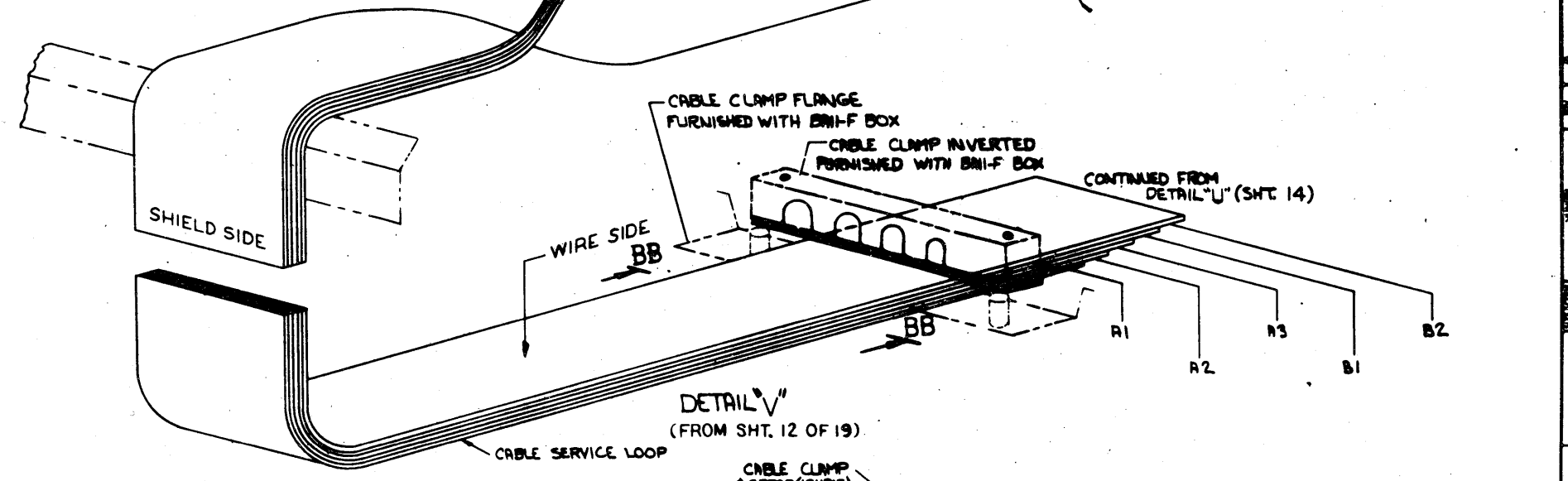
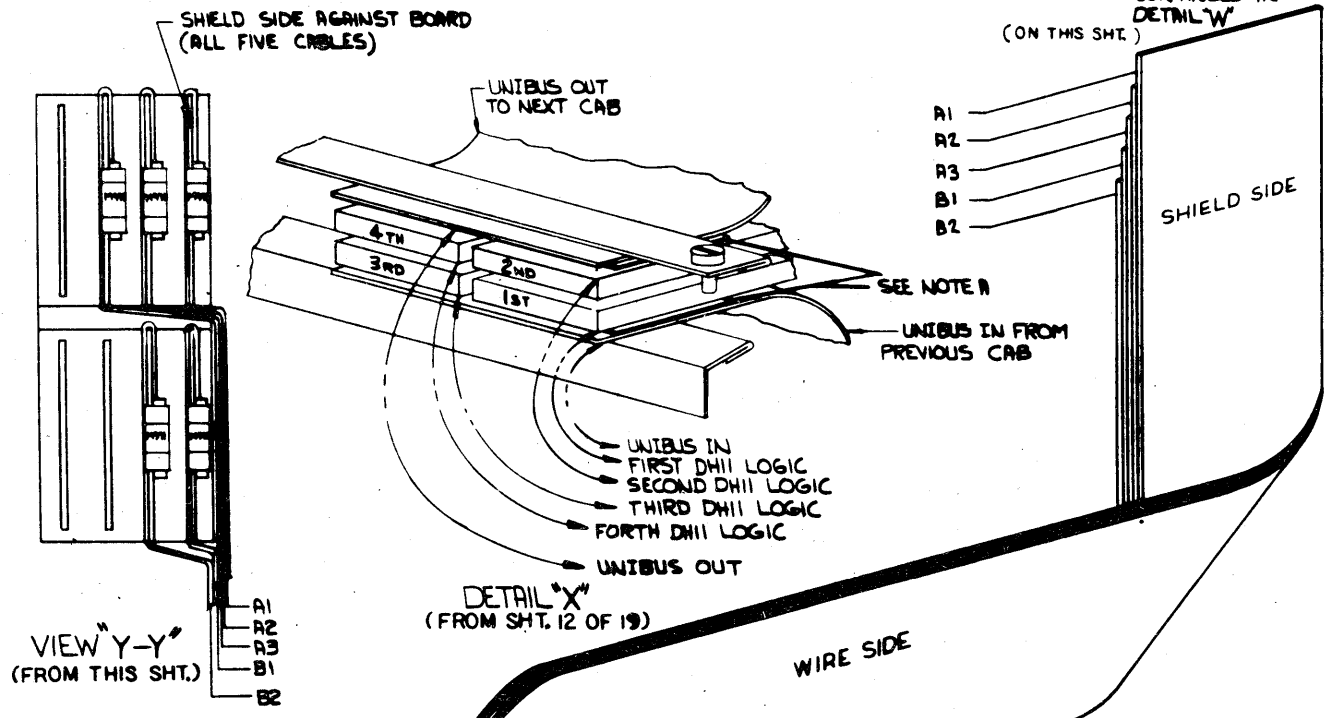
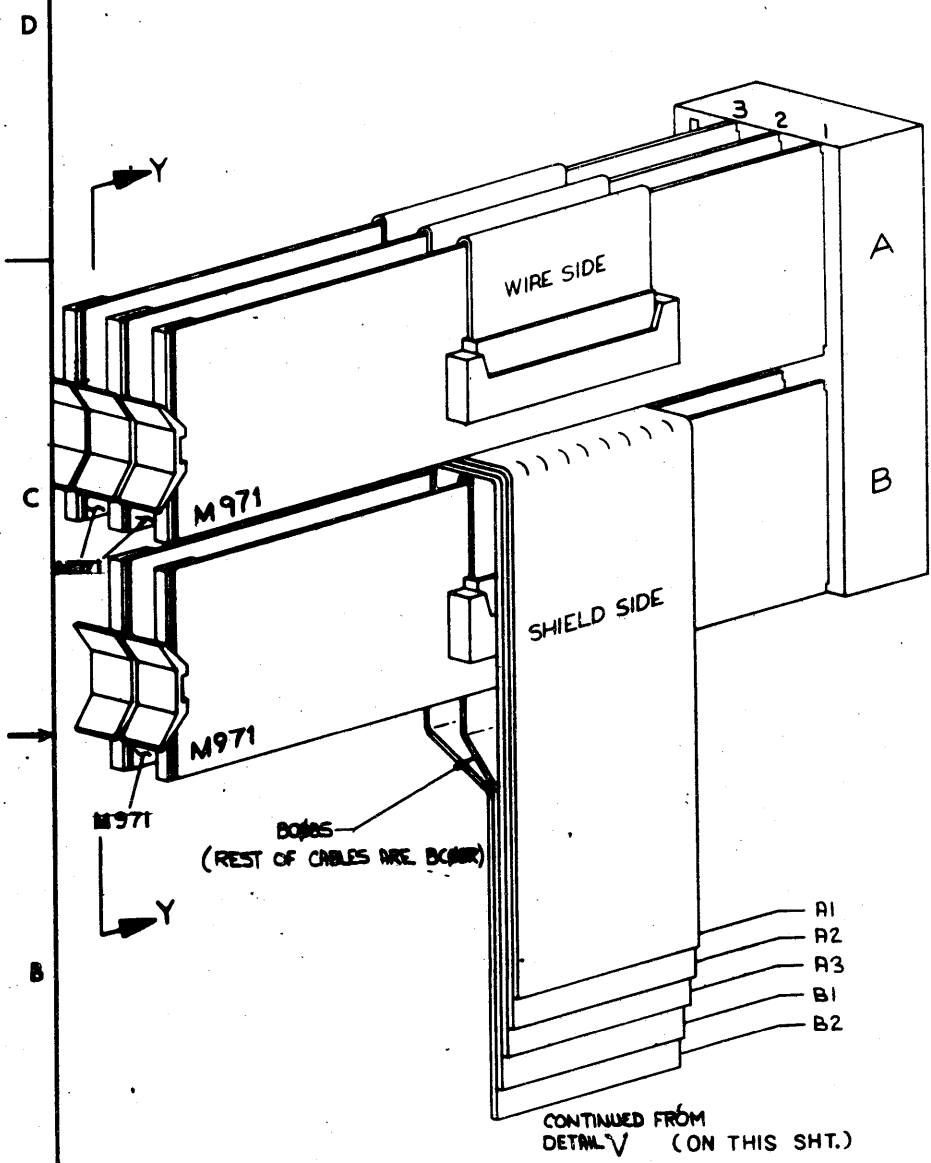


REVISIONS		
CHK	CHANGE NO	REV

TITLE UNIVERSAL COMM SYSTEM FRONT END		SIZE CODE DUA	NUMBER DN87-0-0	REV. A
SCALE NONE	SHEET 14 OF 19	DIST.		

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NOTES:  
A. INSTALL VINYL FORM BETWEEN UNIBUS & OTHER CABLES WHERE UNIBUS GOES THRU CABLE CLAMPS.



REVISIONS		
CHK	CHANGE NO	REV

TITLE	UNIVERSAL COMM SYSTEM FRONT END (DHII CABLING)	SIZE CODE	D UA	NUMBER	DN87-0-0	REV.	A
SCALE	NONE	SHEET	15 OF 19	DIST.			

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0-0-28NC MDC 2

M971	M971	M971	M594	M594																	M594	M594
CABLE DATA SET CNTRL LINES	CABLE DATA SET CNTRL LINES	CABLE DATA SET CNTRL LINES	** LINE 11	** LINE 15	LINE 0	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11	LINE 12	LINE 13	LINE 14	LINE 15	*** LINE 8	*** LINE 12
THRU 03	THRU 07	THRU 11	THRU 'C' SLOT	THRU 'C' SLOT	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	SLOT 'A'	THRU 'D' SLOT	THRU 'D' SLOT
M971	M971	M974	M594	M594																	M594	M594
CABLE DATA SET CNTRL LINES	CABLE DATA SET CNTRL LINES	▲▲ LOOP BACK TEST LINES	** LINE 3	** LINE 7	LINE 0	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11	LINE 12	LINE 13	LINE 14	LINE 15	*** LINE 0	*** LINE 4
THRU 15	THRU 15	THRU 15	THRU 'C' SLOT	THRU 'C' SLOT	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	SLOT 'B'	THRU 'D' SLOT	THRU 'D' SLOT

WIRING SIDE VIEW OF DISTRIBUTION PANEL (MODULE UTILIZATION)

- USED WHEN DF11-BB, DM11-DC (EIA FULL CONTROL) OR DF11-BA IS IMPLEMENTED
- DATA CABLE FROM DH11-A LOGIC
- ▲▲ LOOP BACK TEST CARD FOR DIAGNOSTICS REMOVE FOR NORMAL OPERATION
- X CAN USE M973 IN PLACE OF M973
- \*\* EIA LEVEL CONVERSION FOR DATA LEADS ONLY (SEE CHART)
- \*\*\* ACTIVE 20mA LEVEL CONVERSION (SEE CHART)

USAGE OF LINE	OPTION FOR 8 LINES EXC. AS NOTED	ORIG	NOTES:
0 LOOP BACK TEST			EMPTY DONT CARE EMPTY EMPTY — M974 IN B03. ALL LINES(0 THRU 15) AFFECTED.
1 20mA ACTIVE LOCAL	DN81-FA	DM11-DA	EMPTY M973 ‡ EMPTY M594 OR ITEM*23 — ALL 4 SLOTS IN EACH GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE, IF ANY ARE.
2 EIA LOCAL (DATA ONLY) ‡	DN81-FB	DM11-DB	W404 BC01R-25 M594 ITEM*23 ITEM*23 — ALL 4 SLOTS IN EACH GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE, IF ANY ARE.
3 EIA FULL CONTROL ‡	DN81-FC	DM11-DC (EIA)	M594 BC01R-25 EMPTY EMPTY — 4 SLOTS OF EACH 'A' GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE, IF ANY ARE.
4 INTEGRAL MODEM (ANS ONLY) ‡	DN81-FD	DF11-BB	M587 M587 EMPTY EMPTY — INCLUDES BC11-E CABLE AS PART OF OPTION. 4 SLOTS OF EACH 'A' GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE IF ANY ARE. CAN ONLY BE USED IN U.S. INSTALLATIONS W/ BELL SYSTEM, DAA CBS, CDT OR EQUIV.
5 FLOATING 20mA LOCAL (1 LINE)	SPECIAL (1 LINE)	DF11-K	M598 M973 ‡ EMPTY EMPTY — INCLUDES M973 CARD FOR LINES CONNECTIONS. 4 SLOTS OF EACH 'A' GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE IF ANY ARE.
6 INTEGRAL MODEM (ORIG ONLY) DN81-FE (2 LINES)		DF11-BA	M586 M586 EMPTY EMPTY — 4 SLOTS OF EACH 'A' GROUP(0-3,4-7,8-11,12-15) MUST BE IN THIS MODE IF ANY ARE. INCLUDES BC11-E CABLE

‡ AN-H312 NULL MODEM (ITEM\*37) IS ALSO SUPPLIED FOR EACH LINE.  
 SEE DWG NO D-ES-DN87-0-LFB FOR STRAP CONNECTIONS ON H312 NULL MODEM P.C. CARD  
 † FOR CONNECTIONS TO COMM FACILITIES IN UNITED KINGDOM/GPO (DATEL SERVICE)  
 ‡ USE BC99-XX IN PLACE OF BC01R-25 NORMALLY SUPPLIED FOR U.S. & CANADA

DM11-DH11 DISTRIBUTION PNL. MU.  
 (ASYNC LINE EXP. CAB ASSY)

REVISIONS		
CHK	CHANGE NO.	REV

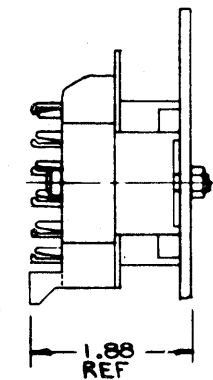
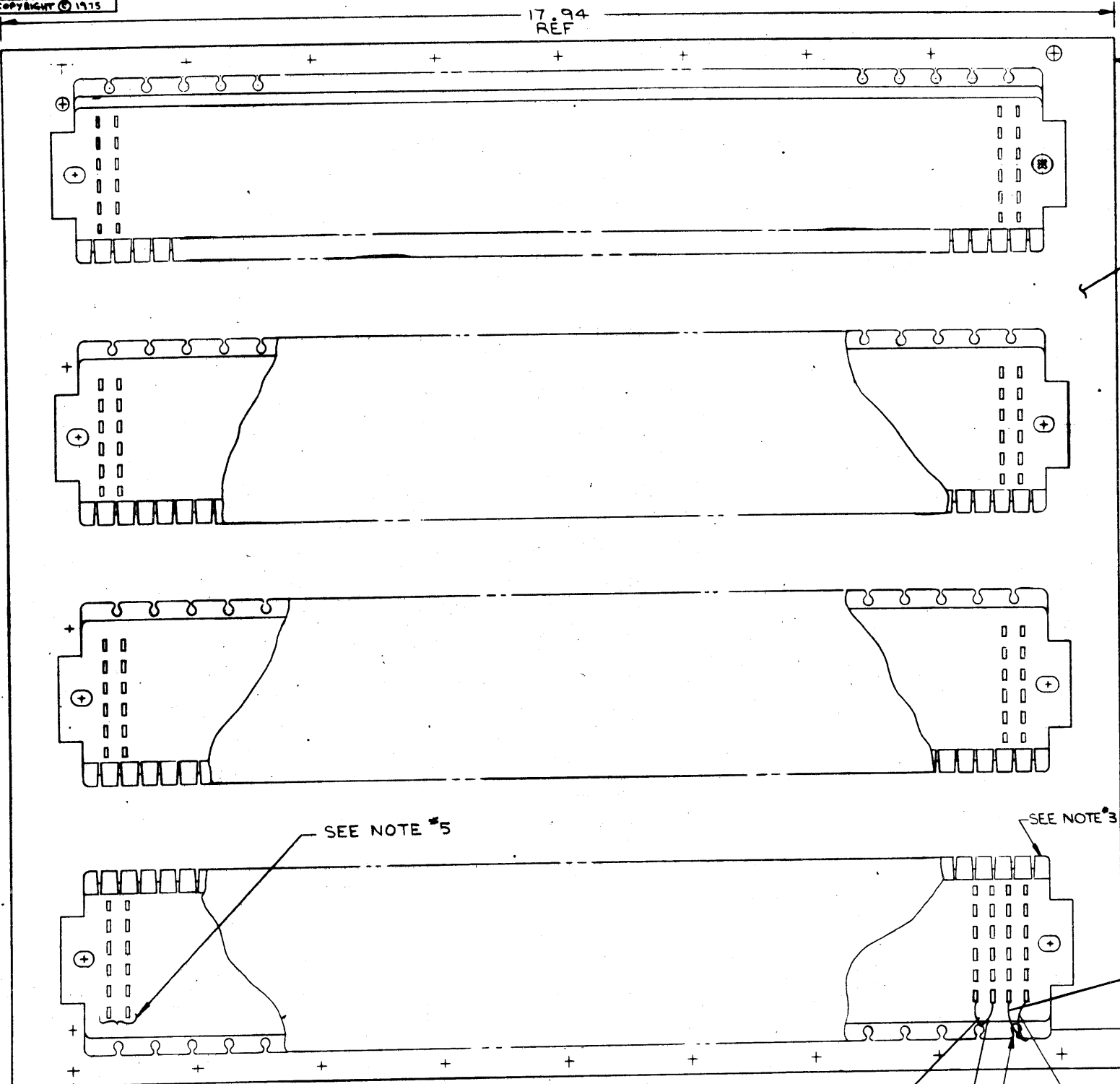
TITLE	UNIVERSAL COMM. SYSTEM FRONT END	SIZE CODE	DJA	NUMBER	DN87-0-0	REV.	A.
SCALE	---	SHEET	16 OF 19	DIST.			

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**NOTES:**

- M908 MAY BE USED IN PLACE OF M973, 1209340-01 AND 1209378-01.
- SEE DWG NO. D-AD-7005498-0-0 FOR MECH DETAILS OF MAT'L USED.
- STENCIL LINE NO. OR OTHER APPROPRIATE LEGEND ON TERM BLOCK WHEN EQUIPMENT IS INSTALLED AT CUSTOMER SITE.
- TIN SOLDER STRD WIRE ENDS BEFORE CONN IS MADE W/TOOL. THEN SOLDER WIRE TO TERMS ON BLOCK. (PART NUMBER 1205854-01.)
- DO NOT USE 24 TH & 25 TH ROW ON ER. 66A325 BLOCK. KEEP EACH SEND/RCV PAIR FOR ER. FD LOOP NEXT TO EACH OTHER.
- CONNECT REMOTE TERMINALS WITH 4 CONDUCTOR STATION WIRE, SIMILAR TO DEC P/N 9105856-04, OR WESTERN ELECTRIC D TYPE STATION WIRE AT-8378 OR EQUAL FOR FIELD INSTALLATION/TEST PURPOSES.



SEE NOTE #2

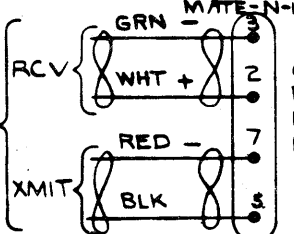
25  
24

16.62  
REF

M973 BOARD  
CONN.

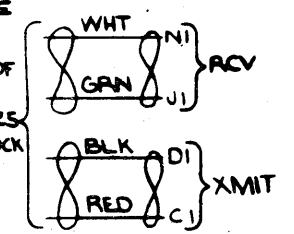
PI  
INSERT IN M973  
MATE-N-LOK RECEPTACLE

CONN TO #1 OF  
EACH 6 PIN  
ROW ON 66A325  
RELIABLE BLOCK

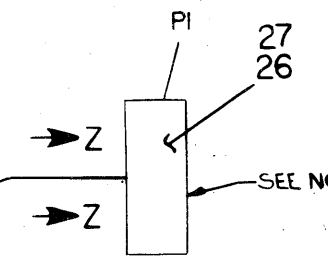


CONN TO #1 OF  
EACH 6 PIN  
ROW ON 66A325  
RELIABLE BLOCK

M908  
BOARD CONN



20 MA LINE DISTRIBUTION  
PANEL MECH. DETAILS OF  
DN81-FA OPTION/LINE WIRING  
ASYNC LINE EXP. CAB. ASSY



1 TYPICAL OF  
UP TO 96 MAX.  
LOOPS

- 1 - WHITE
- 2 - GREEN
- 3 - GREEN
- 4 - BLACK
- 5 - BLACK
- 6 - RED
- 7 - RED
- 8

VIEW Z-Z  
(PIN INSERTION SIDE) DN81-FA  
(20 MA FD WIRING)

QTY.	DESCRIPTION	PART NO.	REV.
PARTS LIST			
UNLESS OTHERWISE SPECIFIED		EQUIPMENT CORPORATION	
DIMENSIONS IN INCHES		MAYFIELD, MASSACHUSETTS	
TOLERANCES		TITLE	
DECIMALS	FRACTIONS	ANGLES	UNIVERSAL COMM. SYSTEM FRONT END
± .005	± 1/64	± .015	
FINAL SURFACE QUALITY			
REMOVE BURRS AND BREAK SHARP CORNERS			
MATERIAL		FIRST USED ON	
SEE PARTS LIST		DN87	
C-PL-DN87-0-0		DN87	
FINISH		SCALE 1/1	
11		SHEET 17 OF 19	
		DIA. DN87-0-0	
		REV. A	

REV.	CHANGE NO.

DEC FORM NO. 100

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**SYNC. CONFIGURATION**  
**FLOATING ADDRESS & FLOATING VECTOR VALUES FOR M105 (LOC F01) & M7021 (LOC G04)**  
 ASSUMES NO DP11'S, DN11'S, DL11'S (EXCEPT CTY), DC11'S, DM11-A'S, DM11-BB'S, DJ11'S, DJ11'S, LPS11'S, GT40'S & DN11'S EXCEPT AS NOTED BELOW\*

NUMBER OF DQ11'S		DQ11 CSR ADDRESSES & VECTOR VALUES											
		1	2	3	4	5	6	7	8	9	10	11	12
DQ11-DA #1		780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300	780030 300
2			780040 310	780040 310	780040 310	780040 310	780040 310	780040 310	780040 310	780040 310	780040 310	780040 310	780040 310
3				780050 320	780050 320	780050 320	780050 320	780050 320	780050 320	780050 320	780050 320	780050 320	780050 320
4					780060 330	780060 330	780060 330	780060 330	780060 330	780060 330	780060 330	780060 330	780060 330
5						780070 340	780070 340	780070 340	780070 340	780070 340	780070 340	780070 340	780070 340
6							780100 350	780100 350	780100 350	780100 350	780100 350	780100 350	780100 350
7								780110 360	780110 360	780110 360	780110 360	780110 360	780110 360
8									780120 370	780120 370	780120 370	780120 370	780120 370
9										780130 400	780130 400	780130 400	780130 400
10											780140 410	780140 410	780140 410
11												780150 420	780150 420
12													780160 430

\* IF A DM11-A OPTION IS INSTALLED ON UNIBUS, THEN INCREASE ALL ABOVE VECTOR VALUES BY (+10)<sub>B</sub>

CSR ADDRESS & VECTOR VALUES, JUMPER MODIFICATIONS; ASYNC & SYNC/ASYNC CONFIGURATIONS  
 FOR DM11-AA, DM11-BB; 115V, W/CAB OR DM11-AC, DM11-BB; 230V, W/CAB AND/OR ADDITIONAL DM11-AA, DM11-BB OR DM11-AC, DM11-BB ASYNC LINE MUX EXPANSIONS.  
 VECTOR & ADDRESS VALUES ASSUME THAT THERE ARE NO DP11'S, PAG11'S, DJ11'S, DV11-S DL11'S (EXCEPT CTY), DC11'S, DM11-A'S, DR11'S, DT11'S, DX11'S CONNECTED TO POP11 UNIBUS.

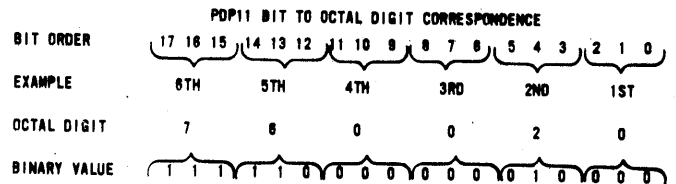
**DM11, DM11-BB ADDRESS & VECTOR VALUES**

NUMBER OF DM11-A'S & DM11-BB'S		DM11, DM11-BB ADDRESS & VECTOR VALUES							
		1	2	3	4	5	6	7	8
DM11-A #1		780 020 310	780 020 310	780 020 320	780 020 320	780 020 330	780 020 330	780 020 340	780 020 340
#2			780 040 320	780 040 330	780 040 330	780 040 340	780 040 340	780 040 350	780 040 350
ASYNC & SYNC/ASYNC CONFIGURATIONS ONLY									
#3				780 060 340	780 060 340	780 060 350	780 060 350	780 060 360	780 060 360
#4					780 100 350	780 100 360	780 100 360	780 100 370	780 100 370
#5						780 120 370	780 120 370	780 120 400	780 120 400
#6							780 140 400	780 140 410	780 140 410
#7								780 160 420	780 160 420
#8									780 200 430

ASYNC CONFIGURATIONS ONLY

**NUMBER OF DM11-A'S & DM11-BB'S**

		DM11, DM11-BB ADDRESS & VECTOR VALUES CONTINUED							
		1	2	3	4	5	6	7	8
DM11-BB #1		770 500 300	770 500 300	770 500 300	770 500 300	770 500 300	770 500 300	770 500 300	770 500 300
#2			770 510 304	770 510 304	770 510 304	770 510 304	770 510 304	770 510 304	770 510 304
ASYNC & SYNC/ASYNC CONFIGURATIONS ONLY									
#3				770 520 310	770 520 310	770 520 310	770 520 310	770 520 310	770 520 310
#4					770 530 314	770 530 314	770 530 314	770 530 314	770 530 314
#5						770 540 320	770 540 320	770 540 320	770 540 320
#6							770 550 324	770 550 324	770 550 324
#7								770 560 330	770 560 330
#8									770 570 334



**NOTES ON ADDRESS/VECTOR STRAPPING**

- DQ11 STRAPPING FOR ADDRESS/VECTOR ASSIGNMENTS ARE BASED ON THE NUMBER OF DM11'S INSTALLED. SEE SHEET FOR STANDARD ADDRESSES, VECTORS AND STRAPPING OF DQ11 FOR SYNC/ASYNC CONFIGURATIONS.
- DM11-BB VECTOR ADDRESSES SHOWN ARE FOR THOSE ORDER CONFIGURATIONS WITHOUT DM11'S INSTALLED. NOTE: IF ONE OR TWO DM11 OPTIONS ARE INSTALLED, THEN VECTOR ADDRESS VALUES SHOWN ABOVE (DM11, DM11-BB, DQ11) SHOULD BE INCREASED BY (+10)<sub>B</sub> FOR EACH DM11-AA OPTION INSTALLED.
- IN AN ASYNC CONFIGURATION, THE TOTAL NUMBER OF DM11-A & DM11-BB'S THAT CAN BE INSTALLED CAN NEVER EXCEED EIGHT (128 LINES).
- THE TOTAL NUMBER OF DQ11-DA OPTIONS THAT CAN BE INSTALLED IN A SYNC/ASYNC SYSTEM CAN NEVER EXCEED FOUR.
- THE TOTAL NUMBER OF DM11-A & DM11-BB OPTIONS THAT CAN BE INSTALLED IN A SYNC/ASYNC SYSTEM CAN NEVER EXCEED TWO (32 LINES).
- FOR CSR & VECTOR ADDRESS STRAPPING FOR DM11-A & DM11-BB, SEE SHEET

**DL11-A CONSOLE TERMINAL INTERFACE (M7800-YA) CDEF09 KD11 BACKPLANE**

JUMPER	STATE	JUMPER	STATE	2 STOP BITS	OPERATING SPEED
J1	EITHER	N1	IN	NO HARDWARE PARITY	110 BAUD TX
J2	OUT	N3	IN	EIGHT DATABITS	110 BAUD RX
J3	EITHER	A4	OUT	ADDRESS 777560	PRIORITY PLUG
J4	EITHER	A5	OUT	VECTOR 60	BR4
J5	OUT	A6	OUT		
J6	OUT	A7	IN		
J7	OUT	A8	OUT		
J8	OUT	A9	OUT		
J9	OUT	A10	OUT		
J10	IN	V3	OUT		
J11	OUT	V4	IN		
2SB	OUT	V5	IN		
NP	OUT	V6	OUT		
EPS	OUT	V7	OUT		
NP1	OUT	V8	OUT		
NP2	OUT				

THIRD ANGLE PROJECTION	DESCRIPTION	DWG./PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
REMOVE BURRS AND BREAK SHARP CORNERS	ANGLES 45° 30°	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES
	SURFACE QUALITY IN	MEDIUM	OVER 0 TO 0.25
DO NOT SCALE DWG	QUANTITY & VARIATION	PREFERRED	0.012 0.018 0.024 0.030 0.036 0.042 0.048 0.054 0.060 0.066 0.072 0.078 0.084 0.090 0.096 0.102 0.108 0.114 0.120 0.126 0.132 0.138 0.144 0.150 0.156 0.162 0.168 0.174 0.180 0.186 0.192 0.198 0.204 0.210 0.216 0.222 0.228 0.234 0.240 0.246 0.252 0.258 0.264 0.270 0.276 0.282 0.288 0.294 0.300
MATERIAL	FINISH	DRN. E. De... CHK'D... ENG. ... PROD. ...	FIRST USED ON DN87 TITLE UNIVERSAL COMM. SYSTEM FRONT END
			SIZE CODE D UA DN87-0-0
			NUMBER 18 OF 19
			REV. A

REVISIONS  
 CHANGE NO.  
 CHK  
 DATE

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DQ11 ADDRESS & VECTOR VALUES FOR UNIVERSAL (SYNC/ASYNC) CONFIGURATIONS ONLY

Table with columns for DQ11-DA/EA #1, #2, #3, #4 and DQ11 #1, #2, #3, #4. Rows show vector values for various configurations.

OCTAL TO JUMPER CONVERSIONS FOR DQ11 AND DQ11-DB

M7021 INTERRUPT MODULE

FOR DQ11-DB & DQ11-AA, AC MU LOC FOR DQ11-DB = F01; FOR DQ11-AA, AC = A00

JUMPER ETCH MARKS table for M7021 module with columns W6, W7, W8, W5, W4, W3, W2 and rows for octal values 300-430.

SEE SHEET FOR DQ11-DB & DQ11-AA, AC VECTOR VALUES OUT = 1 IN = 0

M7021 CONTROL

ALL JUMPERS ARE "DON'T CARE" (IN OR OUT)

M7021 SPEED UP

W0: IN

M7277: MU LOC ABCDEF04

DQ11-A: ADDRESS; OUT = 1 IN = 0 BITS 0, 9, 10, 11, 12 ARE ALL "ONES"

JUMPER ETCH MARKS table for M7277 module with columns Z7, Z6, Z5, Z4 and rows for octal values 700-200.

DQ11-A: G7360 PRIORITY SEL BOARD: LOC A07 BR LEVEL SEL PLUGS SHOULD BE P/N 540977A (LEVEL 5).

M705: MU LOC E01

DQ11-DB ADDRESS: OUT = 1 IN = 0 BITS 0, 8 & 12 ARE ALL OUT BITS 7, 9, 10 & 11 ARE ALL IN

JUMPER ETCH MARKS table for M705 module with columns W5, W4, W3 and rows for octal values 770-570.

DQ11-DA OCTAL TO JUMPER CONVERSION, VECTOR VALUES (SYNC/ASYNC CONFIG).

M7021 (LOC C04) W0-NPR LATENCY ALWAYS IN

JUMPER ETCH MARKS: OUT = 0 IN = 1 table with columns W6, W7, W8, W5, W4, W3, W2 and rows for octal values 320-470.

DQ11-DA/EA SWITCH/STRAP PROTOCOL & INTERFACE OPTIONS SELECTION SYNC, SYNC/ASYNC CONFIGURATION

(SYNC/ASYNC CONFIGURATIONS)

M7012 MODULE (MU LOC ABCDEF02) (CSR BUS SELECTORS & SHIFT REGISTERS (DQ11 DWG D4-3))

SWITCH PACKAGE S1

- SW1 ON (EXT CLOCK TO MPMEN INTERFACE)
SW2 OFF (SET -> 6CTE) ("ON" IF COMM. TO BELL 300 T1 CARRIER IS USED)
SW3 OFF (-10; USE WITH DQ11-KA OR DQ03 SYNC NULL MODEM; THEN SET TO ON)
SW4 OFF (-2; USE WITH DQ11-KA OR DQ03 SYNC NULL MODEM; THEN SET TO ON)
SW5 OFF (IF EXT CLOCK DQ11-KA OR DQ03 IS INSTALLED)
SET SW5 OFF IF DQ11-DA IS CONNECTED TO BELL 201 A/B MODE
SET SW5 ON WHEN USING FOR ALL OTHER CONDITIONS. MUST BE SET TO ON WHEN EXECUTING DIAGNOSTICS, M011-DZ00A THRU M011-DZ00F.
SET SW4 OFF OR ON: VRC NOT CHECKED FOR ODD/EVEN BITS/BYTES.

M7013 MODULE (MU LOC ABCDEF03) (CC/BA & SHIFT CONTROL (DQ11-DWG D5-7))

- SW1 ON (TWO OR MORE SYNC CHAR FOR FRAMING)
SW2 ON (RCVR ACTIVE AFTER FRAME)
SW4 OFF (ODD VRC CHAR)
ON (EVEN VRC CHAR)
INSTALL BR5 PRIORITY PLUG P/N 540977A

M7015 MODULE (MU LOC E01) (DATSET CONTROL (DQ11 DWG D2-1))

- W1 -> W4 NO CUTS
NO INTERRUPTS ON U013, U014
INHIBIT INIT RS AND DTR
INHIBIT INTERRUPTION RING APPEARANCE

M7019 MODULE (LOC EF04) (8 BIT ASCII, CHAR DETECT & INTERRUPT TRIGGER LOGIC (DQ11-DWG D6-1))

- S1 SW1 -> SW4 ON (CHAR 0, LO BYTE)
S2 SW9 -> SW16 ON (CHAR 1, LO BYTE)
S3 SW17 -> SW24 ON (CHAR 2, LO BYTE)
S4 SW25 -> SW32 OFF, ON, OFF, ON, ON, ON, ON, ON (CHAR 0, HI BYTE, ENQ #05)
S5 SW49 -> SW56 ON, ON, ON, ON, OFF, ON, ON, OFF (CHAR 1, HI BYTE, OLE 220)
S7 SW41 -> SW48 OFF, ON, ON, ON, ON, ON, ON, OFF (CHAR 2, HI BYTE, SOH 201)
S5 SW33 ON ENABLES HI BYTE CHAR 0
SW34 ON ENABLES HI BYTE CHAR 1
SW35 ON ENABLES HI BYTE CHAR 2
SW36 OFF DISABLES LO BYTE CHAR 0
SW37 OFF DISABLES LO BYTE CHAR 1
SW38 OFF DISABLES LO BYTE CHAR 2
SW39 OFF DISABLES SYNC COMPARE WHEN OFF
SW40 ON ALLOWS SPEC. CHAR AND SYNC COMPARE INTERRUPTS WHEN ON

- NOTES:
1. M7021 MODULE LOCATED IN SLOT C04 OF EACH DQ11 MAY BE MOVED IF ADDITIONAL DQ11'S ARE ADDED TO SYSTEM CONFIGURATION.
2. IF DQ11 INSTALLED, INCREASE ALL DQ11 & DQ11 VECTORS BY (+10)0.

MODULE JUMPER SHEETS SYNC/ASYNC OR ASYNC CONFIGURATIONS

Technical drawing header and title block containing dimensions, tolerances, and project information.

Revision table with columns for REV. and CHANGE NO.

DUA DN87-0-0

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ITEM NO.	PART NO.	DESCRIPTION	DN87-AA	DN87-AB	DN87-DA	DN87-DB	DN81-EA	DN81-EB	DN81-EC	DN81-ED	DN81-EE	DN81-EF	DN81-H	DN81-J	DN81-FA	DN81-FB	DN81-FC	DN81-FD	DN81-FE	DN81-FF	DN81-FG
1	D-AD-7009711-1-0	BASIC ASSY 11/40AK-PDP10 115V	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	D-AD-7009711-2-0	BASIC ASSY 11/40AL-PDP10 230V	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	A-PL-DL10-MUAR	UNIBUS PORT LOGIC (DL10-C OPTION)	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	C-IA-7410581-0-0	BRKT. CABLE HOLD-DOWN	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
5	C-PS-1211215-0-0	CABLE CLAMP & STRAP	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
6	D-AD-7009722-1-0	PDP10, 11 OPTION MTG CAB 115V	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	D-AD-7009722-2-0	PDP10, 11 OPTION MTG CAB 230V	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
8	D-UA-H950-BC-0	H950-B FULL LENGTH DOOR R.H. (BLAZI BLUE)	1	1	1	1	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-
9	D-UA-H952-AC-0	H952-A END PANEL (#68 GREY) (SEE NOTE 2)	1	1	1	1	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-
10	D-AD-7606874-1-0	NPR-SYNC LINE CONT. SYSTEM 115V	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
11	D-AD-7606874-2-0	NPR-SYNC LINE CONT. SYSTEM 230V	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
12	D-UA-H956-HJ-0	H956-H SHORT DOOR 57.75" HIGH (BLAZI BLUE)	1	1	1	1	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-
13	D-UA-DH11-AA-0	16 LINE MULTIPLEXOR 115V INCL. DIST. PNL	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
14	D-UA-DH11-AC-0	16 LINE MULTIPLEXOR 230V INCL. DIST. PNL	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
15	A-PL-DM11-BB-0	16 LINE MULTIPLEXOR	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
16	C-IA-BC08S-XX-0	CABLE SHIELDED RIBBON (SEE NOTE 3)	-	-	-	-	REF	REF	REF	REF	-	-	-	-	-	-	-	-	-	-	-
17	C-IA-BC08R-XX-0	CABLE SHIELDED RIBBON (SEE NOTE 3)	-	-	-	-	REF	REF	REF	REF	-	-	-	-	-	-	-	-	-	-	-
18	A-PL-DQ11-DA-0	NPR SYNC LINE CONT. (EIA/CCITT < 10KB)	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
19	A-PL-DQ11-EA-0	NPR SYNC LINE CONT. (BELL 303 INTERFACE ONLY) (SEE NOTE 8)	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
20	C-CS-M920-0-0	UNIBUS JUMPER (SEE NOTE 4)	REF	REF	REF	REF	-	-	REF	REF	-	-	-	-	-	-	-	-	-	-	-
21	A-PL-KG11A-0	X-OR & CRC OPTION	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	7413732-0-0	COUNTER WEIGHT (SEE NOTE 5)	-	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-
23	A-PL-DM11-DA-0	16 LINE MULTIPLEXOR (20MA F.D. LINE INTERFACE)	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
24	D-AD-7005498-0-0	PANEL TELEPHONE CONN BLOCK (PLAIN)	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
25	B-MD-7406831-0-0	BRACKET EXTENSION	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
26	1209340-01	MATE-N-LOK (MALE PLUG)	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-
27	1209370-01	PIN, MALE	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-
28	A-PL-DM11-DB-0	16 LINE MULTIPLEXOR (EIA/CCITT DATA ONLY)	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
29	D-UA-H312A-0	NULL MODEM	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-
30	A-PL-DM11-DC-0	16 LINE MULTIPLEXOR (EIA/CCITT FULL MODEM CONT.)	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
31	C-PL-DF11-BB-0	ASYNCH ANSWER MODEM (M587 & BC11-E DAA CABLE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-
32	C-PL-DF11-BA-0	ASYNCH ORIGINATE MODEM (M586 & BC11-E DAA CABLE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
33	DN11-AA	AUTO DIAL CONTROL (BASIC) (NOTE 6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
34	D-IA-7009719-0-0	DL10-11/40 REMOTE CABLE (SEE NOTE 1)	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	DN11-DA	AUTO DIAL CHAN MOD SET (1 CHAN) (SEE NOTE 6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-
36	C-IA-7008288-8F-0	POWER CONTROL BUS CABLE	-	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-

REV.	CHANGE NO.	DATE	BY
A	DN87-00001	7 MAR 77	M. DRUMM

DRN.E.DEVRIES	2 Jan 76	FIRST USED ON	DN87	<b>digital</b>
CHK'D	25 FEB 76	TITLE	UNIVERSAL COMM. SYSTEM FRONT END	
ENG.	3 MAR 76	SIZE CODE	C	PL
PROJ. ENG.	3 MAR 76	NUMBER	DN87-0-0	
PROD.	3 MAR 76	REV.	A	
NEXT HIGHER ASSY.	D-UA-DN87-0-0	SCALE	++	
SHEET	1 OF 3	DIST.		

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ITEM NO.	PART NO.	DESCRIPTION	DN87-AA		DN87-DA		DN87-EA		DN87-H		DN87-PA		DN87-FA		DN87-GA	
			DN87-AA	DN87-AB	DN87-DA	DN87-DB	DN87-EA	DN87-EB	DN87-H	DN87-J	DN87-PA	DN87-PB	DN87-PC	DN87-PD	DN87-PF	DN87-PG
37	D-UA-DC11A-XK- <del>8</del>	UNIBUS CABLE (SEE NOTE 1)	1	1	1	1	1	1								
38	C-CS-W93 <del>8</del> - <del>8</del>	UNIBUS TERMINATOR ASSY (SEE NOTE 7)	-	-	-	-	REF	REF								
39	D-AD-7008853-1-0	AC RECEPTACLE STRIP ASSY (SEE NOTE 8)	-	-	-	-	-	-					1	1	1	1
40	7402027-0-0	STANDARD PANEL (10 X 7/16 X 19) (SEE NOTE 9)	-	-	-	-	-	-					2	2	2	2
41	9007786	NUT, TINNED #10-32	125	125	125	125	-	-	60	60						
42	9006074-1	SCREW, PHL PAN HD #10-32 X .62 LG	125	125	125	125	-	-	60	60						
43	9007651	WASHER, EXT. TOOTH LOCK #10	125	125	125	125	-	-	60	60						
44	9008264	MOUNT, CABLE TIE ADHESIVE BACK	30	30	30	30	-	-	15	15						
45	9007880	CABLE TIES SST 1.5M	200	200	200	200	-	-	100	100						
46	9006077-1	SCREW, PHL PAN HD #10-32 X 1.0 LG	6	6	6	6	-	-	6							
47	9107685-09	WRT 1/2" SHRINK SLEEVING	-	-	-	-	-	-	1FT	1FT						
48	9006051-1	SCREW, PHL PAN HD #8-32 X 3.0 LG	2	2	2	2	-	-	2							
49	9007036	GROMMET CATERPILLAR	1FT	1FT	1FT	1FT	-	-	1FT							
50	9107253-09	SLEEVING WRT SHRINKABLE 1/4"	1FT	1FT	1FT	1FT	-	-	1FT	1FT						
51	DB11-A	UNIBUS REPEATER (SEE NOTE 10)	-	-	-	-	-	-	1	1						
52	A-PL-KM11- <del>8</del>	MAINTENANCE BOARD (SEE NOTE 11)	1	1	-	-	-	-								
53	B-CS-W982- <del>8</del> -1	MODULE EXTENDER (SINGLE HEIGHT) (SEE NOTE 11)	2	2	-	-	-	-								
54	C-CS-W988- <del>8</del> -1	MODULE EXTENDER (DOUBLE HEIGHT) (SEE NOTE 11)	3	3	-	-	-	-								
55	C-IA-7411632-0-0	STRAIN RELIEF	-	-	-	-	4	4								
56	C-IA-7411633-0-0	STRAIN RELIEF CLAMP	-	-	-	-	4	4								
57	C-88-5509081-12	PANEL LIGHT (KD11-A) (SEE NOTE 11)	1	1	-	-	-	-								
58	D-UA-DL18-AA	PDPI8, PDPI1 DATA LINE (115V, 60HZ)	1	-	-	-	-	-								
59	D-UA-DL18-AB	PDPI8, PDPI1 DATA LINE (230V, 50HZ)	-	1	-	-	-	-								
60	DEC3(378)1657 N573	STICKER (2.4" EXP. BOX CONFIG.)	-	-	-	-	1	1								
61	DEC3(378)1638 N573	STICKER (1.1/4" PROC. BOX CONFIG.)	1	1	1	1	-	-								
62	DL11-A	ASYNC. INTERFACE (CONSOLE)	1	1	1	1	-	-								
63	A-PS-1810245-01	CRYSTAL 844.8KHZ.	1	1	1	1	-	-								

REV.	
CHG	

DRN. E. DEVRIES	9 Jan 76	FIRST USED ON	DN87	<b>digital</b>
CHK'D	<i>[Signature]</i>	25 Feb 76	TITLE	
ENG.	<i>[Signature]</i>	5 Mar 76	UNIVERSAL COMM	
PROJ. ENG.	<i>[Signature]</i>	3 Mar 76	SYSTEM FRONT END	
PROD.	<i>[Signature]</i>	3 Mar 76	NEXT HIGHER ASSY.	
D-UA-DN87-0-0		SIZE	CODE	NUMBER
SCALE		C	PL	DN87-0-0
SHEET 2 OF 3		DIST.		REV. A

D  
 C  
 A  
 B  
 C  
 PL DN87-0-0  
 B

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NOTES:


1. UNIBUS CABLE LENGTHS FOR ITEMS #34 & 37 SHOULD BE USED IN ACCORDANCE WITH THE FOLLOWING TABLE AND SITE LAYOUTS:
  - A. BETWEEN DN07-AA/AB AND DN01-EA/EB (ASYNC UNIVERSAL MODE) AND DN01-EE/EF (SYNC MODE) CABINET ASSEMBLIES, USE BC11A-15 (ITEM 37).
  - B. BETWEEN DN07-AA CAB ASSY EQUIPPED WITH DA01-H/J SYNC LINE CONTROL EXPANSION IS BOLTED TO DL10-A CABINET, USE BC11A-15 UNIBUS CABLE AND 10 FT. LENGTH OF ITEM 34.
  - C. IF DN07-AA, DN01-EA/EB, DN01-EE/EF CABINET ASSEMBLIES ARE NOT BOLTED TO DL10-A CABINET ASSEMBLY, THEN USE APPROPRIATE UNIBUS AND DL10-11/40 REMOTE CABLE OF FOLLOWING LENGTHS, IF USING LAYOUTS SHOWN IN SHEETS 1, 2 OR 3 OF D-UA-DN07-0-0:

	D-1A-7009719-0-0 (ITEM 34) DL10-11/40 REMOTE CABLE	BC11A-XX (ITEM 37) UNIBUS CABLE
UNIBUS PORT 0	10 FEET	15 FEET
UNIBUS PORT 1	16 FEET	20 FEET
UNIBUS PORT 2	10 FEET	15 FEET
UNIBUS PORT 3	16 FEET	20 FEET

IF NOT USING LAYOUTS SHOWN IN SHEETS 1 THRU 3 OF D-UA-DN07-0-0, THEN ANY LENGTH OF EITHER ITEMS 34 OR 37 MAY BE USED PROVIDED THAT THE TOTAL UNIBUS CABLE LENGTH (ITEM 37) DOES NOT EXCEED 35 FEET AND DL10-11/40 REMOTE CABLE ITEM 34 DOES NOT EXCEED 25 FEET.

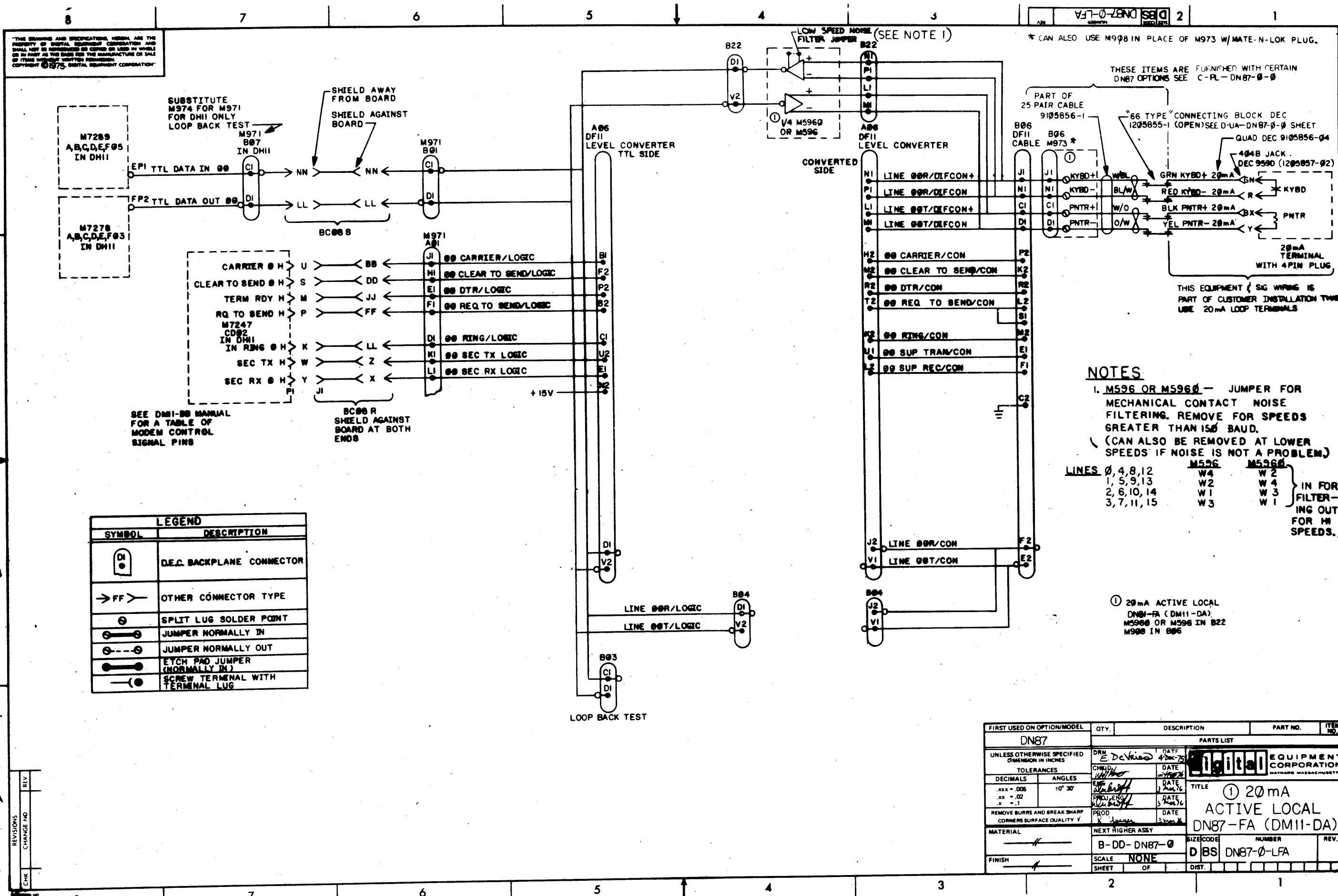
2. DO NOT SHIP ITEM 9 WHEN CUSTOMER SITE PLAN SHOWS DN07 BOLTED/ATTACHED TO EITHER A DL10-A, AN EXISTING DC76, DC75, DAS85, DC75 -A OR -D EQUIPMENT CONFIG. USE ITEM 9 ONLY WHEN FLOOR PLAN SHOWS THAT LAYOUT OF DELIVERED EQUIPMENT WILL REQUIRE AN ADDITIONAL PANEL.
3. PART OF DN01-EA/EB OR DN01-EC/ED ASYNCHRONOUS LINE MULTIPLEXORS (ITEMS 6,13 OR 7,14). FOLD AND TIE CABLES AS SHOWN IN DETAIL A ON SHEET 14 OF D-UA-DN07-0-0.
4. NORMALLY PROVIDED WITH POP11 OPTIONS THAT USE DD11-B MOUNTING PANEL. IF NOT INCLUDED WITH RECEIVED EQUIPMENT OPTION, THEN ORDER AND INSTALL AS REQUIRED AS SHOWN ON SHEETS 5 AND/OR 6 OF D-UA-DN07-0-0.
5. USE ITEM 22 WHEN DN01-EA/EB OR DN01-EE/EF CABINET ASSEMBLIES ARE NOT BOLTED TO A DL10-A CABINET ASSY THROUGH A DN07-D CABINET ASSEMBLY.
6. USEABLE IN CONTINENTAL U.S. AND CANADA ONLY. INTERFACE IS COMPATIBLE WITH BELL 801 AUTO CALLING UNIT (ACU) OR EQUIVALENT. MUST BE USED WITH TELEPHONE COMPANY SUPPLIED MODEMS OR DATA TRANSMISSION EQUIPMENT. CAN ONLY BE USED WITH DATA ACCESS ARRANGEMENTS, CBS CUSTOMER, OR DEC FURNISHED MODEMS (DN01-FE, (DF11-BA)) OR DN01-FD (DF11-BB).
7. NORMALLY SUPPLIED WITH ITEMS 1 OR 3. LOCATE AT LAST AB SLOT OF UNIBUS CABLING RUN. THIS WOULD BE EITHER SLOTS AB, CD, EF, OR HJ-42 OF DL10-A.
8. USED WHEN CUSTOMER PROVIDES 115 VOLTS, 60HZ POWER FOR TELCO INSTALLED, DATA ACCESS ARRANGEMENT (DAA). USED FOR MOUNTING AND POWERING (115V, 60HZ) BELL TELEPHONE POWER UNITS KS-20159-L8 OR EQUIVALENT FOR 1001-D, -F (DAA).
9. USED FOR MOUNTING TELEPHONE COMPANY 1001 DAA ASSEMBLIES WHERE LOCAL TELCO INSTALLATION PRACTICES PERMIT. DRILL HOLES FOR MOUNTING "DAA" IN ACCORDANCE WITH TELCO INSTALLER'S GUIDANCE. UP TO 8 DAA'S MAY BE MOUNTED IN PANEL SPACE AVAILABLE.
10. INCLUDE ITEM 51 (DB11-A) WHEN NUMBER OF DB11-A ASSEMBLIES INSTALLED IN EACH DN01-EA/EB CABINET EXCEEDS 2.
11. FURNISH ITEMS 52, 53, & 57 WHEN A DL10-A IS INCLUDED IN DN07 ORDER OR WHEN A DL10-A, ALREADY OWNED BY CUSTOMER FOR A DC75 SYSTEM, IS TO BE EXCHANGED OR MODIFIED TO OPERATE WITH A POP11/40-AK, -AL OR EQUIVALENT.

REV.	76/
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL DN87		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
DIMENSIONAL TOLERANCE		DRN. E. DEVRIES	DATE 9 JAN 76		
DIMENSIONS ARE MILLIMETERS INCHES UNLESS OTHERWISE SPECIFIED		CHK'D W. H. H.	DATE 25 FEB 76		
MILLIMETERS	INCHES	ANGLES	DATE 3 MAR 76		
X,XX = ±0.10 X,X = ±0.5 X = ±2	.XXX = ±.006 .XX = ±.02 .X = ±.1	±0° 30'	DATE 7 MAR 76		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROJ. ENG. R. Y. G.	DATE 3 MAR 76	TITLE UNIVERSAL COMM SYSTEM FRONT END	
MATERIAL	FINISH	D-UA-DN87-0-0		SIZE CODE C PL	NUMBER DN87-0-0
SCALE		SHEET 3 OF 3		DIST.	REV. A

REV. A  
 NUMBER  
 C PL DN87-0-0  
 SIZE CODE  
 B

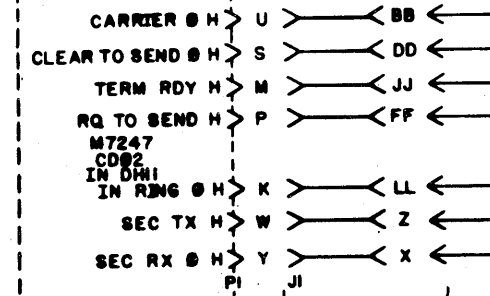
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M7209  
A,B,C,D,E,F05  
IN DH11

M7270  
A,B,C,D,E,F03  
IN DH11

SUBSTITUTE  
M974 FOR M971  
FOR DH11 ONLY  
LOOP BACK TEST



SEE DM11-00 MANUAL  
FOR A TABLE OF  
MODEM CONTROL  
SIGNAL PINS

LEGEND	
SYMBOL	DESCRIPTION
	D.E.C. BACKPLANE CONNECTOR
	OTHER CONNECTOR TYPE
	SPLIT LUG SOLDER POINT
	JUMPER NORMALLY IN
	JUMPER NORMALLY OUT
	ETCH PAD JUMPER (NORMALLY IN)
	SCREW TERMINAL WITH TERMINAL LUG

NOTES

- M596 OR M5960 - JUMPER FOR MECHANICAL CONTACT NOISE FILTERING. REMOVE FOR SPEEDS GREATER THAN 150 BAUD. (CAN ALSO BE REMOVED AT LOWER SPEEDS IF NOISE IS NOT A PROBLEM.)
- | LINES        | M596 | M5960 |
|--------------|------|-------|
| 0, 4, 8, 12  | W4   | W2    |
| 1, 5, 9, 13  | W2   | W4    |
| 2, 6, 10, 14 | W1   | W3    |
| 3, 7, 11, 15 | W3   | W1    |
- IN FOR FILTERING OUT FOR H SPEEDS.

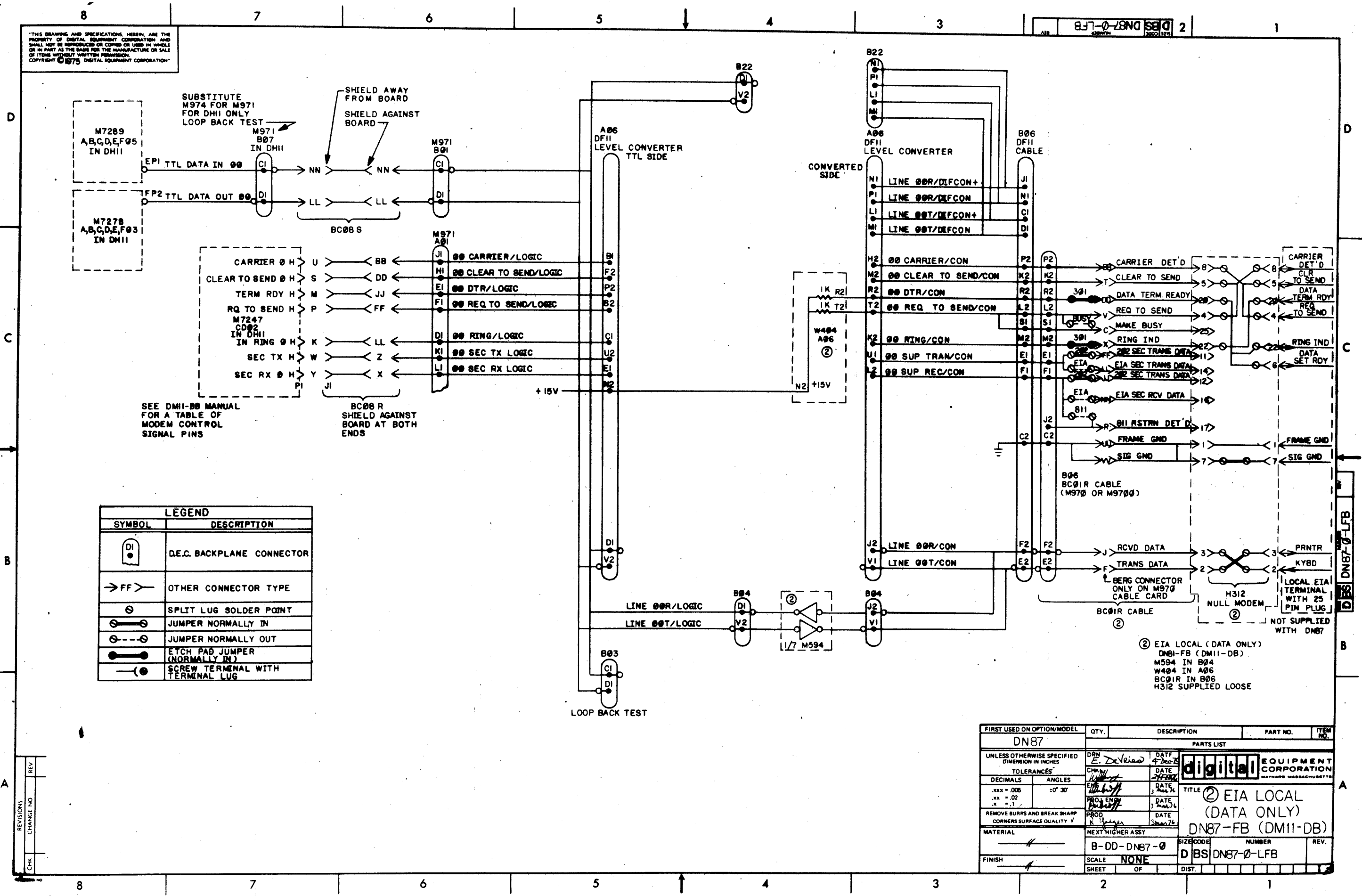
① 20mA ACTIVE LOCAL  
DN87-FA (DM11-DA)  
M5960 OR M596 IN B22  
M990 IN B06

REV	CHANGE NO

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES	DATE	EQUIPMENT CORPORATION	
.xxx = .005	:0° 30'	4/28/75	MAYNARD MASSACHUSETTS	
.xx = .02		DATE	TITLE	
.x = .1		3/20/76	① 20mA ACTIVE LOCAL	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V				
MATERIAL				
NEXT HIGHER ASSY				
B-DD-DN87-0				
FINISH				
SCALE NONE				
SHEET OF				
D BS DN87-0-LFA				

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DN87-0-LFB



LEGEND	
SYMBOL	DESCRIPTION
DI	D.E.C. BACKPLANE CONNECTOR
→ FF	OTHER CONNECTOR TYPE
⊙	SPLIT LUG SOLDER POINT
⊙---⊙	JUMPER NORMALLY IN
⊙---⊙	JUMPER NORMALLY OUT
⊙---⊙	ETCH PAD JUMPER (NORMALLY IN)
⊙	SCREW TERMINAL WITH TERMINAL LUG

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES			
.xxx = .005	∠ = 30°			
.xx = .02				
.x = .1				
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y				
MATERIAL				
NEXT HIGHER ASSY				
FINISH				
SCALE NONE				
SHEET OF				

PARTS LIST		REV.
DRN	E. DeVries	4-Dec-76
CHK		
EST		
PROJ ENGR		
PROD		

digital EQUIPMENT CORPORATION	
TITLE ② EIA LOCAL (DATA ONLY)	
DN87-FB (DM11-DB)	
SIZE CODE	NUMBER
B-DD-DN87-0	DN87-0-LFB
SCALE	REV.
NONE	
DIST.	

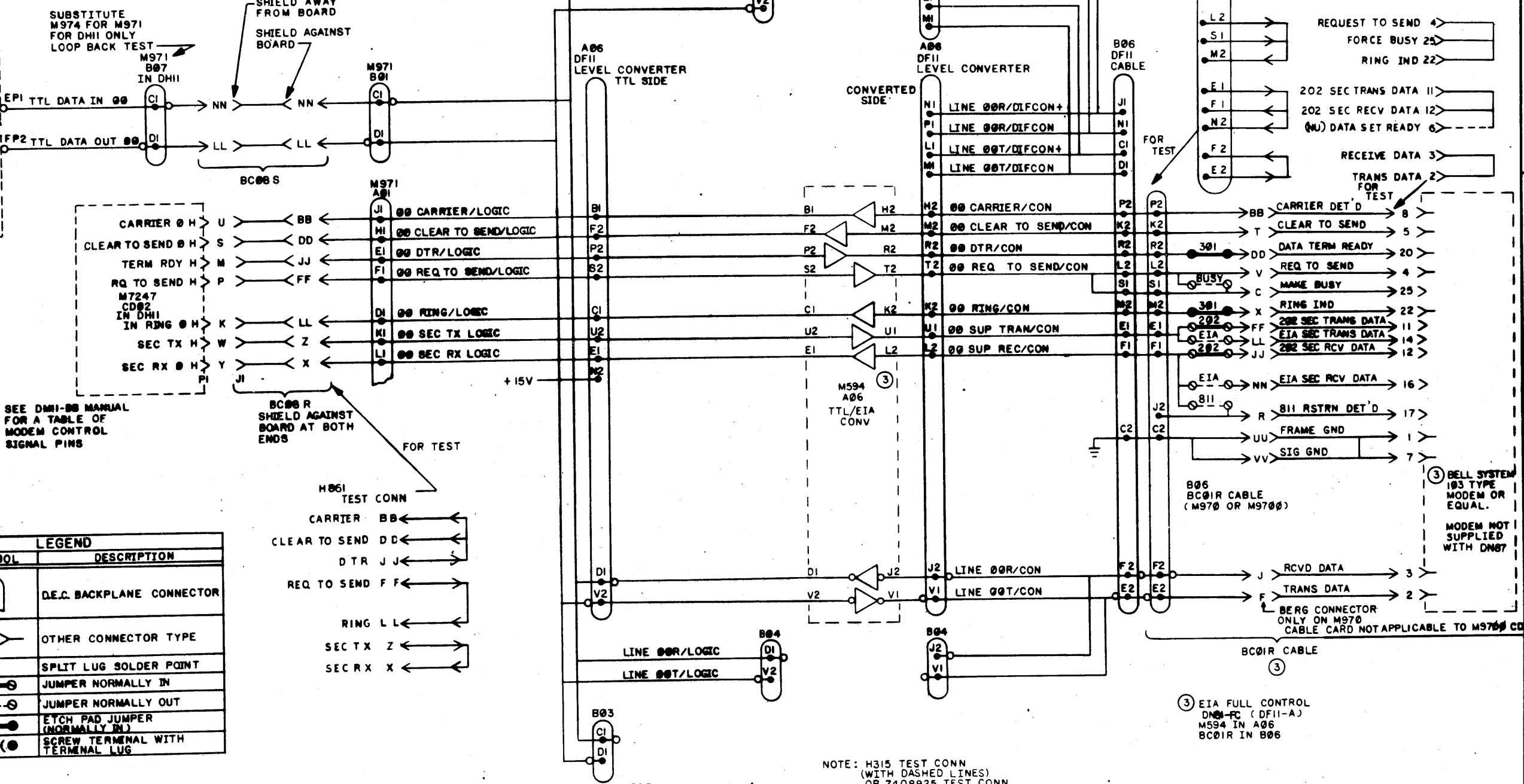
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M7289  
A,B,C,D,E,F,G5  
IN DM11

M7278  
A,B,C,D,E,F,G3  
IN DM11

SUBSTITUTE M974 FOR M971 FOR DM11 ONLY LOOP BACK TEST

SHIELD AWAY FROM BOARD  
SHIELD AGAINST BOARD

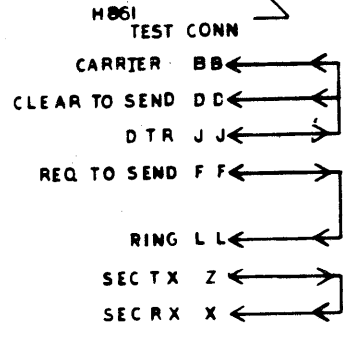


SEE DM11-88 MANUAL FOR A TABLE OF MODEM CONTROL SIGNAL PINS

BC06 R SHIELD AGAINST BOARD AT BOTH ENDS

FOR TEST

LEGEND	
SYMBOL	DESCRIPTION
	D.E.C. BACKPLANE CONNECTOR
	OTHER CONNECTOR TYPE
	SPLIT LUG SOLDER POINT
	JUMPER NORMALLY IN
	JUMPER NORMALLY OUT
	ETCH PAD JUMPER (NORMALLY IN)
	SCREW TERMINAL WITH TERMINAL LUG



LOOP BACK TEST

NOTE: H315 TEST CONN (WITH DASHED LINES)  
OR 7408925 TEST CONN (WITHOUT DASHED LINES)

③ EIA FULL CONTROL DM11-FC (DF11-A) M594 IN A06 BC01R IN B06

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES		TITLE ③ EIA FULL CONTROL DN87-FC (DF11-A)		
DECIMALS	ANGLES	SIZE CODE NUMBER REV.		
.xxx = .006	±0° 30'	D BS DN87-0-LFC		
.xx = .02		SCALE NONE		
.x = .1		SHEET 2 OF 2		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V		DIST		
MATERIAL		NEXT HIGHER ASSY		
FINISH		SCALE NONE		

DN87-0-LFC

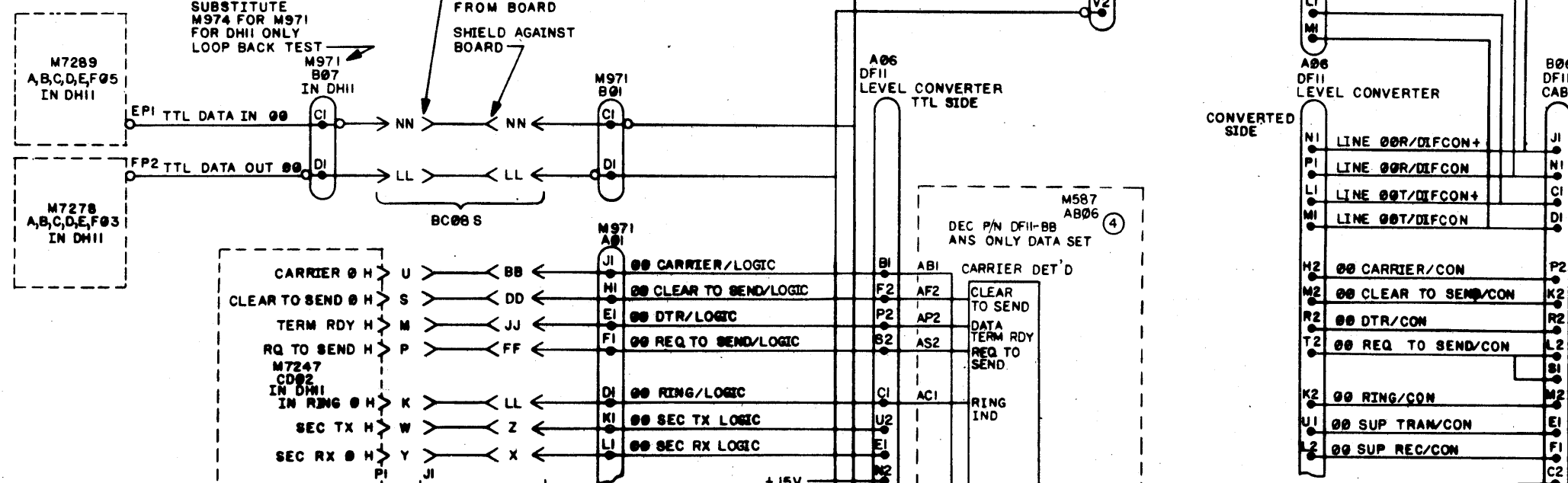
A

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8 7 6 5 4 3 2 1

SUBSTITUTE M974 FOR M971 FOR DH11 ONLY  
 LOOP BACK TEST

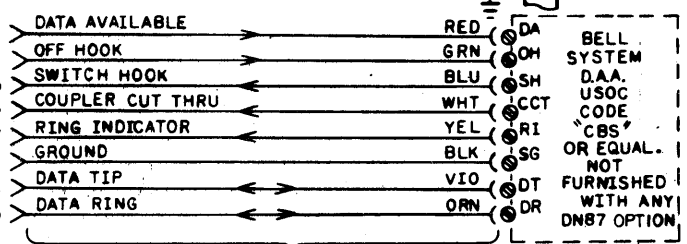
SHIELD AWAY FROM BOARD  
 SHIELD AGAINST BOARD



SEE DMI-BB MANUAL FOR A TABLE OF MODEM CONTROL SIGNAL PINS

BC08 R SHIELD AGAINST BOARD AT BOTH ENDS

LEGEND	
SYMBOL	DESCRIPTION
	D.E.C. BACKPLANE CONNECTOR
	OTHER CONNECTOR TYPE
	SPLIT LUG SOLDER POINT
	JUMPER NORMALLY IN
	JUMPER NORMALLY OUT
	ETCH PAD JUMPER (NORMALLY IN)
	SCREW TERMINAL WITH TERMINAL LUG



④ INTEGRAL MODEM (ANSWER ONLY)  
 DN87-FD (DF11-BB)  
 M587 IN AB06  
 BC11E CONN. TO M587

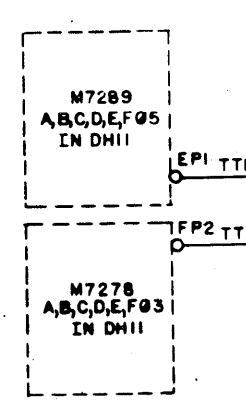
REVISIONS  
 CHANGE NO. REV.

8 7 6 5 4 3 2 1

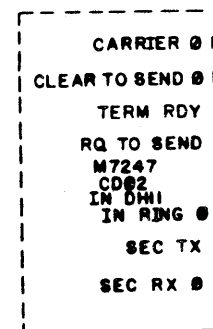
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DATE	DATE	
TOLERANCES		DATE	DATE	
DECIMALS	ANGLES	DATE	DATE	
.xxx = .006	:0° 30'	DATE	DATE	
.xx = .02		DATE	DATE	
.x = .1		DATE	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1				
MATERIAL	NEXT HIGHER ASSY.	TITLE		
	B-DD-DN87-0	④ INTEGRAL MODEM (ANSWER ONLY)		
FINISH	SCALE NONE	DN87-FD (DF11-BB)		
	SHEET OF	SIZE CODE	NUMBER	REV.
		D BS	DN87-0-LFD	

DN87-0-LFD

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SUBSTITUTE M974 FOR M971 FOR DH11 ONLY LOOP BACK TEST

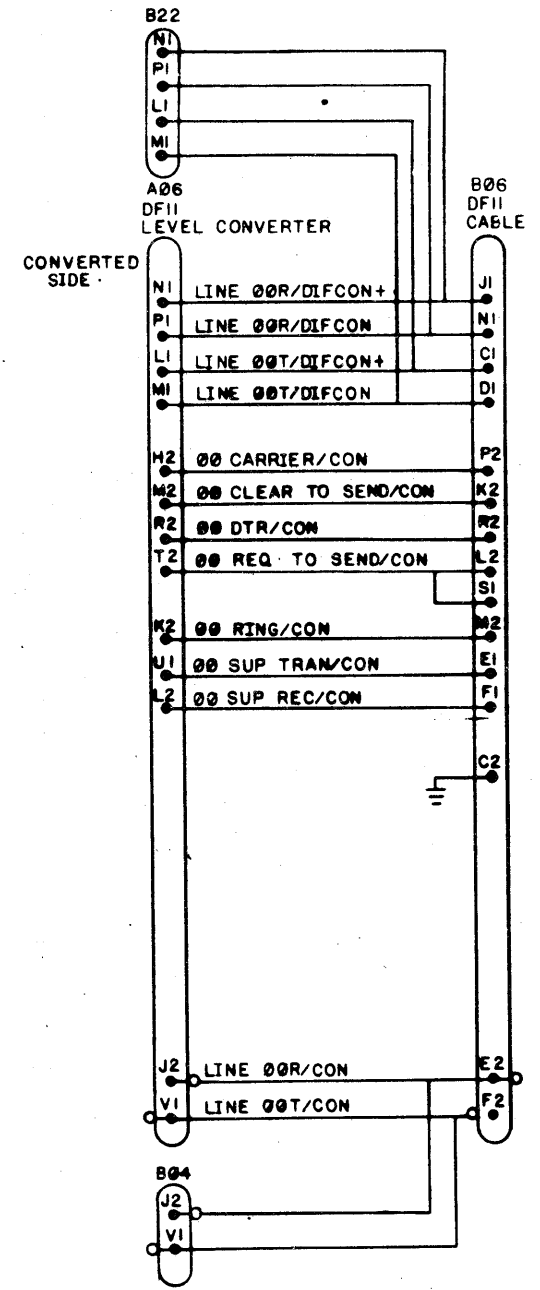


SEE DMI-00 MANUAL FOR A TABLE OF MODEM CONTROL SIGNAL PINS

BC00 R SHIELD AGAINST BOARD AT BOTH ENDS

LEGEND	
SYMBOL	DESCRIPTION
	D.E.C. BACKPLANE CONNECTOR
	OTHER CONNECTOR TYPE
	SPLIT LUG SOLDER POINT
	JUMPER NORMALLY IN
	JUMPER NORMALLY OUT
	ETCH PAD JUMPER (NORMALLY IN)
	SCREW TERMINAL WITH TERMINAL LUG

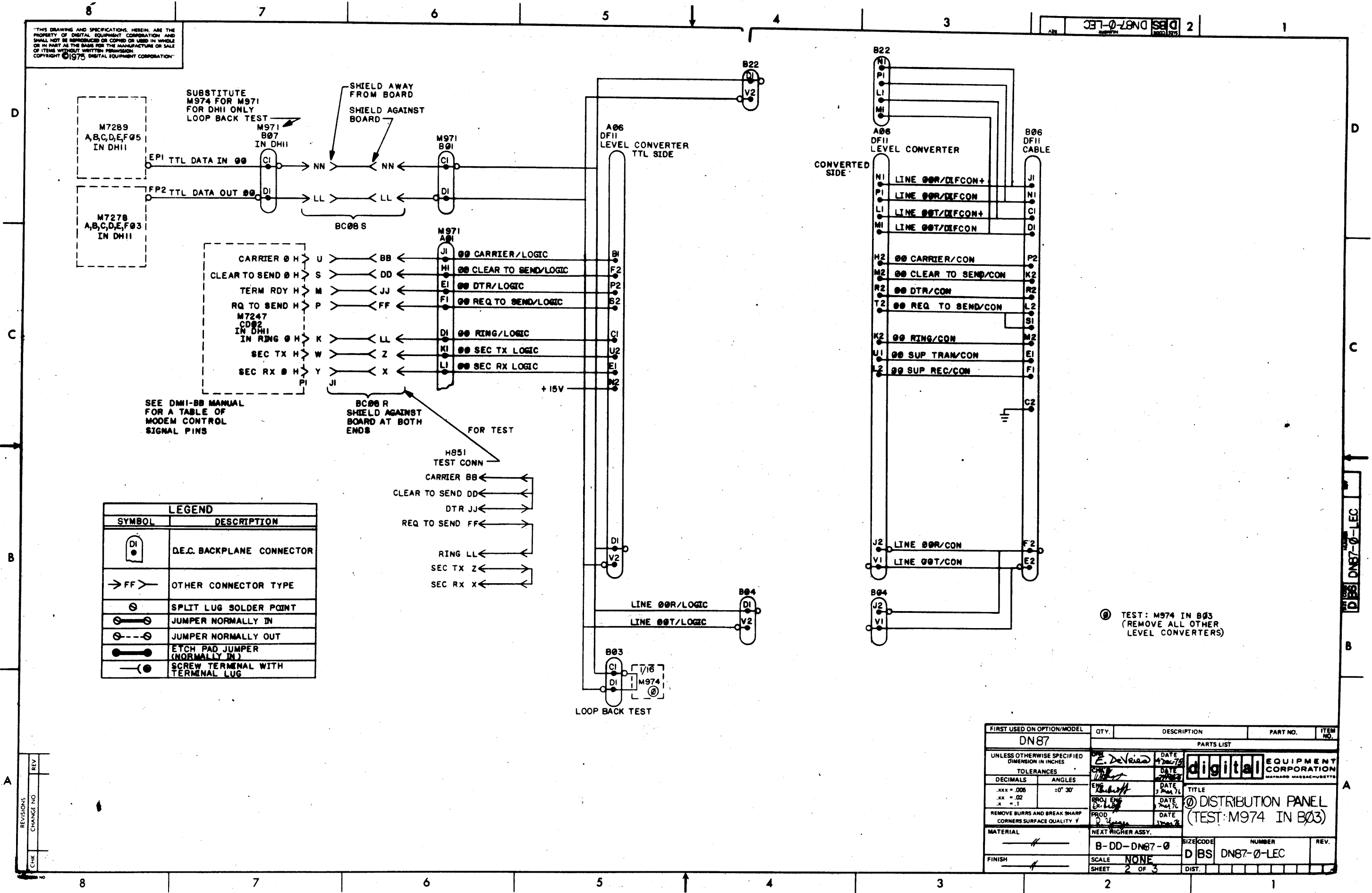
LOOP BACK TEST



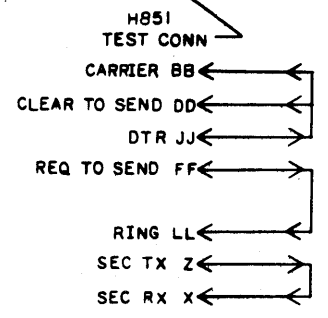
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
UNLESS OTHERWISE SPECIFIED, DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES	DATE	PARTS LIST	
.xxx = .005	+0° 30'	4-22-75		
.xx = .02		DATE		
.x = .1		DATE	TITLE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	PROD. R. Y...	DATE	(DM11) DISTRIBUTION PANEL (BASIC)	
MATERIAL	NEXT HIGHER ASSY	SCALE	SIZE CODE	NUMBER
	B-DD-DN87-0	NONE	D BS	DN87-0-LEC
FINISH		SHEET	OF	REV.
		3	1	

REV	CHANGE NO.	CHK

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LEGEND	
SYMBOL	DESCRIPTION
	D.E.C. BACKPLANE CONNECTOR
	OTHER CONNECTOR TYPE
	SPLIT LUG SOLDER POINT
	JUMPER NORMALLY IN
	JUMPER NORMALLY OUT
	ETCH PAD JUMPER (NORMALLY IN)
	SCREW TERMINAL WITH TERMINAL LUG

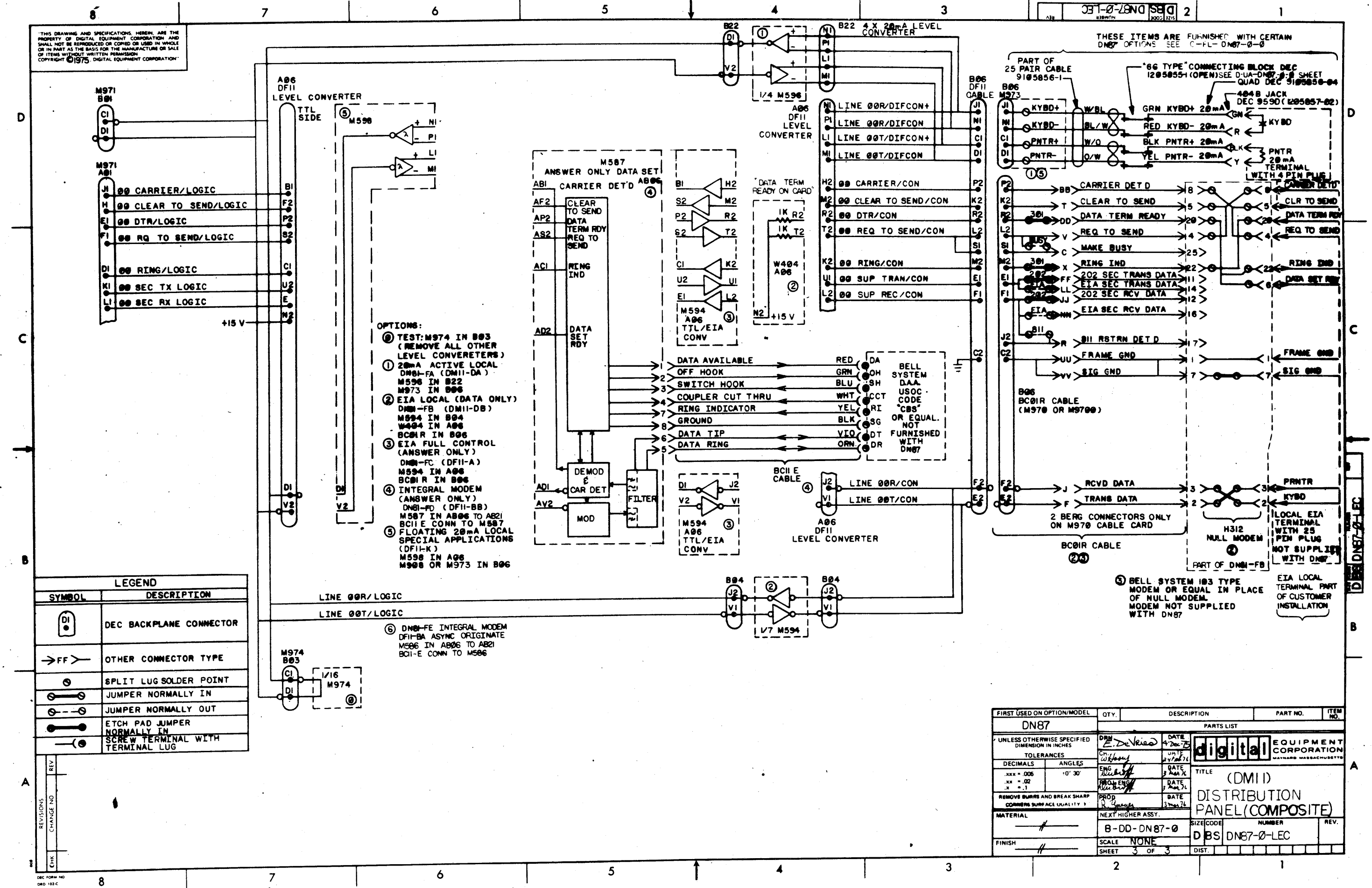


Ⓢ TEST: M974 IN B03 (REMOVE ALL OTHER LEVEL CONVERTERS)

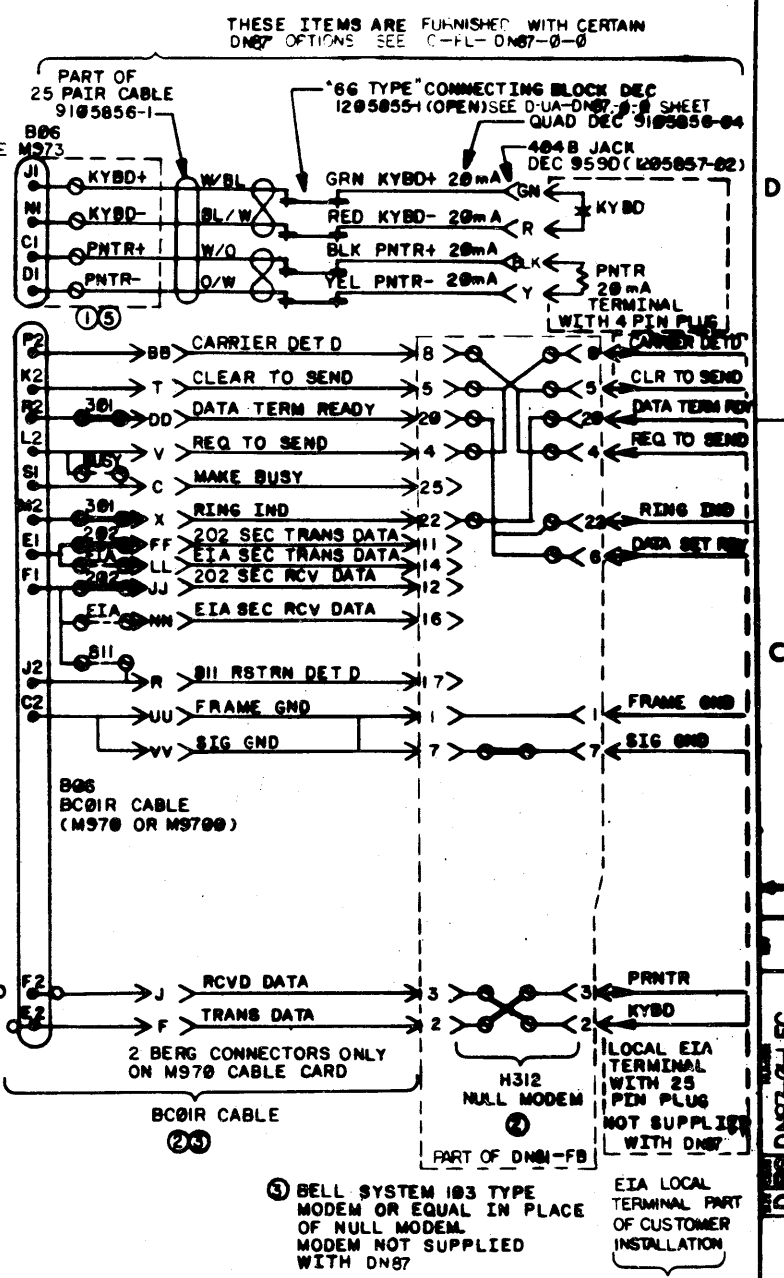
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES	DATE		
.XXX = .005	±0° 30'	DATE	PARTS LIST	
.XX = .02		DATE	digital EQUIPMENT CORPORATION	
.X = .1		DATE	MAYNARD, MASSACHUSETTS	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V				
MATERIAL				
NEXT HIGHER ASSY.				
FINISH				
SCALE NONE		SIZE CODE	NUMBER	REV.
SHEET 2 OF 3		D BS	DN87-0-LEC	

Ⓢ DISTRIBUTION PANEL (TEST: M974 IN B03)

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- OPTIONS:
- ① TEST: M974 IN B03 (REMOVE ALL OTHER LEVEL CONVERTERS)
  - ② 20mA ACTIVE LOCAL DMS-FA (DM11-DA) M596 IN B22 M973 IN B06
  - ③ EIA LOCAL (DATA ONLY) DM11-FB (DM11-DB) M594 IN B04 W404 IN A06 BC01R IN B06
  - ④ EIA FULL CONTROL (ANSWER ONLY) DM11-FC (DF11-A) M594 IN A06 BC01R IN B06
  - ⑤ INTEGRAL MODEM (ANSWER ONLY) DN81-FD (DF11-BB) M587 IN A06 TO A021 BC11-E CONN TO M587 FLOATING 20mA LOCAL SPECIAL APPLICATIONS (DF11-K) M598 IN A06 M908 OR M973 IN B06
  - ⑥ DN81-FE INTEGRAL MODEM DF11-BA ASYNC ORIGINATE M586 IN A06 TO A021 BC11-E CONN TO M586



LEGEND	
SYMBOL	DESCRIPTION
DI	DEC BACKPLANE CONNECTOR
→ FF	OTHER CONNECTOR TYPE
⊙	SPLIT LUG SOLDER POINT
⊙	JUMPER NORMALLY IN
⊙	JUMPER NORMALLY OUT
⊙	ETCH PAD JUMPER NORMALLY IN
⊙	SCREW TERMINAL WITH TERMINAL LUG

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DN87		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES		DATE		
DECIMALS	ANGLES	DATE	UNITS	
.xxx = .006	10' 30'	DATE	DATE	
.xx = .02		DATE	DATE	
.x = .1		DATE	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1				
NEXT HIGHER ASSY.				
MATERIAL		SIZE CODE		
FINISH		NUMBER		
SCALE		REV.		
SHEET 3 OF 3		DIST.		

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ITEM NO.	PART NO.	DESCRIPTION	DN87-AA	DN87-AB	DN87-DA	DN87-DB	DN87-EA	DN87-EB	DN87-EC	DN87-ED	DN87-EE	DN87-EF	DN87-FA	DN87-FB	DN87-FC	DN87-FD	DN87-FE	DN87-FF	DN87-FG	DN87-H	DN87-J		
1	EK-11/40-TM-002	PDP-11/40 SYSTEMS MANUAL	1	1	1	1																	
2	EK-DQ11-MM-002	DQ11 NPR SYNC LINE MAINTENANCE MANUAL									1	1									1	1	
3	EB-00973-2908	PDP11 PERIPHERALS HANDBOOK	1	1	1	1																	
4	EK-KD11A-MM-001	KD11 PROCESSOR MAINTENANCE MANUAL	1	1	1	1																	
5	EK-861AB-MM-002	861 POWER CONTROLLER MANUAL	1	1	1	1																	
6	EK-KG11A-TM-002	KG11A MAINTENANCE MANUAL	1	1	1	1																	
7	EK-MF11U-MM-003	MF11-U/UP MAINTENANCE MANUAL	1	1	1	1																	
8	B-DD-11/48-B	PDP-11/48 SYSTEM ENGINEERING DRAWINGS	1	1	1	1																	
9	B-DD-KD11-A	KD11-A ENGINEERING DRAWINGS	1	1	1	1																	
10	D-CS-M7251-B-1	KG11-A DRAWINGS	1	1	1	1																	
11	B-DD-DQ11-B	DQ11 DRAWINGS (CUSTOMER)										1	1									1	1
12	B-DD-7009711-0	BASIC ASSY (11/48-A) PDP-11	1	1	1	1																	
13	B-DD-7009722-0	PDP-11 OPT. MTG. CAB.					1	1	1	1													
14	B-DD-7606874-0	NPR-SYNC LINE CONF. SYS. (EXP. CAB)										1	1									1	1
15	B-DD-DN87-B	UNIVERSAL COMM. SYSTEM FRONT END	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1
16	B-DD-MF11-U/UP	MF11-U/UP DRAWINGS	1	1	1	1																	
17	ZP871-RB	PDP-11/40 BASIC LIB KIT	1	1	1	1																	
18	DF-11-DCKBR-B	11/40, 11/45 CPU PARITY TEST (LISTING)	1	1	1	1																	
19	DF-11-DCKBR-PB	11/40, 11/45 CPU PARITY TEST (BINARY TAPE)	1	1	1	1																	
20	DF-11-DZKWA-B	KW11-L LINE FREQ. CLOCK TEST (LISTING)	1	1	1	1																	
21	DF-11-DZKWA-PB	KW11-L LINE FREQ. CLOCK TEST (BINARY TAPE)	1	1	1	1																	
22	DF-11-DZKA-B	KG11-A COMM CRC TEST (LISTING)	1	1	1	1																	
23	DF-11-DZKA-PB	KG11-A COMM CRC TEST (BINARY TAPE)	1	1	1	1																	
24	ZJ122-RB	DQ11 BASIC LIB KIT										1	1									1	1
25	G727	GRANT CONTINUITY CARD (NOTE A)	3	3	3	3																	
26	H315	MODEM TEST CONNECTOR (NOTE B)										1	1									1	1
27	DF-11-DCMFA-B	PARITY TEST MEMORY (LISTING)	1	1	1	1																	
28	DF-11-DCMFA-PB	PARITY TEST MEMORY (BINARY TAPE)	1	1	1	1																	
29	DF-11-DBQEA-B	PDP11/48 CPU DIAG. (LISTING)	1	1	1	1																	
30	DF-11-DBQEA-PB	PDP11/48 CPU DIAG. (BINARY TAPE)	1	1	1	1																	
31	DF-11-DZQMC-B	8-28K PARITY MEM. TEST (LISTING)	1	1	1	1																	
32	DF-11-DZQMC-PB	8-28K PARITY MEM. TEST (BINARY TAPE)	1	1	1	1																	
33	B-DD-DD11-B	SMALL PERIPHERAL MTG. PANEL DRAWING SET	1	1	1	1																	
34	EK-861-IP-002	ILLUSTRATED PARTS BREAK (861 POWER CONTROLLER)	1	1	1	1																	
35	EK-KW11-L-TM-002	KW11-L LINE FREQ. MAINTENANCE MANUAL	1	1	1	1																	
36	EK-DL11-TM-002	DL11-A MAINTENANCE MANUAL	1	1	1	1																	
37	B-DD-DH11-B	DH11 CUSTOMER PRINT SET					1	1	1	1													
38	EK-DH11-MM-002	DH11 ASYNC. 16 LINE MULTIPLEXER MAINT. MANUAL					1	1	1	1													
39	ZJ114-RB	DH11 LIB KIT					1	1	1	1													
40	B-DD-DF11-B	DF11 CUSTOMER PRINT SET											1	1	1	1	1	1	1				
41	EK-DF11B-MM-002	DF11-BA, DF11-BB MODEM MAINZ. MANUAL																1	1				

D

C

B

A

D

C

B

A

REV. 03  
CPL DN87-0-3  
NUMBER  
B

REV.	CHG. NO.	CHK.

DRN. E. DEVRIS 14 JAN 76	FIRST USED ON	DN87	<b>digital</b>
CHK'D [Signature] 25 FEB 76	TITLE	DN87 ACCESSORY SHIP LIST	
ENG. [Signature] 3 MAR 76	SIZE	C	PL
PROJ. ENG. [Signature] 3 MAR 76	CODE	PL	NUMBER
PROD. [Signature] 3 MAR 76	DIST.	DN87-0-3	REV.
NEXT HIGHER ASSY.	SCALE	11	
B-DD-DN87-0	SHEET	1	OF 2

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A  
 B  
 C  
 D

ITEM NO.	PART NO.	DESCRIPTION	DN87-AA		DN87-AB		DN87-DA		DN87-DB		DN87-EA		DN87-EB		DN87-EC		DN87-ED		DN87-EE		DN87-EF		DN87-FA		DN87-FB		DN87-FC		DN87-FD		DN87-FE		DN87-FG		DN87-H		DN87-J	
			1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
42	B-DD-DN11-Ø	DN11 AUTO DIAL CONTROL PRINT SET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	EK-DN11-TM-002	DN11 AUTOMATIC CALLING UNIT INTERFACE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	ZJ12Ø-RB	DN11 DIAL EX LIB KIT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	B-DD-DM11-BB	DM11-BB CUSTOMER PRINT SET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	EK-DM11B-TM-002	DM11-BB MODEM CONTROL MAINT. MANUAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	ZJ119-RB	DM11-BB MODEM CONTROL LIB KIT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	ZJ129-RZ	DEC/X11 DOC KIT (ZJ129)	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	ZJ13Ø-RB	DEC/X11 LIB KIT (ZJ13Ø)	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	M974	DH11 TEST CARD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	H861C	DM11-BB TEST CARD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	B-DD-DB11-A	BUS REPEATER DRAWINGS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	DEC-11-HDBAA-Ø-D	BUS REPEATER MAINT. MANUAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	EK-LA36-CP-001	LA36 DEC WRITER II USER MANUAL	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	B-DD-LA36-Ø	LA36 DECWRITER II ENGINEERING DRAWINGS	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	ZJ183-RB	LA36 LIB KIT FOR PDP11 CONSOLE TERMINAL	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	MD-1Ø-DCZGA-UB	PDP-1Ø COMM DIAGNOSTICS (DEC TAPE)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	MD-1Ø-DCDLA-Ø-D	PDP-1Ø DLIØ COMM. SYSTEM DIAGNOSTIC	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	MD-1Ø-DCDLB-Ø-D	PDP-1Ø DLIØ DIAGNOSTIC #2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	MD-1Ø-DCDLD-Ø-D	PDP-1Ø DLIØ RELIABILITY TEST #1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	MD-1Ø-DCDLG-Ø-D	BOOTSTRAP AND DUMP PDP-11'S VIA DLIØ	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	MD-1Ø-DXDLC-Ø-D	DLIØ DIAG. #3 (FOR A PDP-11) (LISTING)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	MD-1Ø-DXDLC-Ø-PB	DLIØ DIAG. #3 (FOR A PDP-11) (BINARY TAPE)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	B-DD-DLIØ-Ø	DLIØ MAINT. MANUAL VOL. 2 (PRINT SET)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	EK-DLIØ-MØ-003	DLIØ MAINT. MANUAL	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	QØD-Ø7-DZ	SOFTWARE LICENSE DNØ7	1	1	-	-	#	#	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	QØØØ7-XD	DNØ7 SOURCE PROGRAM, 9 TRACK MAG TAPE	6	6	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	QØØØ7-XF	DNØ7 SOURCE PROGRAM, 7 TRACK MAG TAPE	6	6	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	QØØØ7-XC	DNØ7 SOURCE PROGRAM, DEC TAPE	6	6	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:  
 Ⓢ SHIP WHEN PART OF SYSTEM CONFIGURATION.  
 & SHIP DNØ7 SOURCE PROGRAM ON MEDIA COMPATIBLE WITH DEC SYSTEM IØ INPUT DEVICE. FURNISH ONLY WHEN ORDER IS TO BE USED TO UPGRADE AN INSTALLED SYSTEM MONITOR AT CUSTOMER'S SITE.  
 # SOFTWARE LICENSE REQUIRED WHEN CUSTOMER INSTALLATION ALREADY IS EQUIPPED WITH A DLIØ BASED COMM SYSTEM FRONT END SUCH AS DC75, DC76, DN7Ø, DNØ5 AND IS BEING UPGRADED TO INCLUDE A DNØ7-D

- REVISIONS  
 CHANGE NO. REV. CHK  
 A. INSTALL 3 G727 GRANT CONT. CARDS IN DD11-B SPC MTG PANEL IF THERE ARE ANY UNUSED SPC SLOTS.  
 B. NORMALLY SUPPLIED WITH ITEMS #10, #11 AND/OR #8 OF C-PL-DNØ7-Ø-Ø INCLUDE ONLY IF NOT FURNISHED WITH THESE ITEMS.

D  
 C  
 B  
 A  
 C-PL DN87-Ø-3

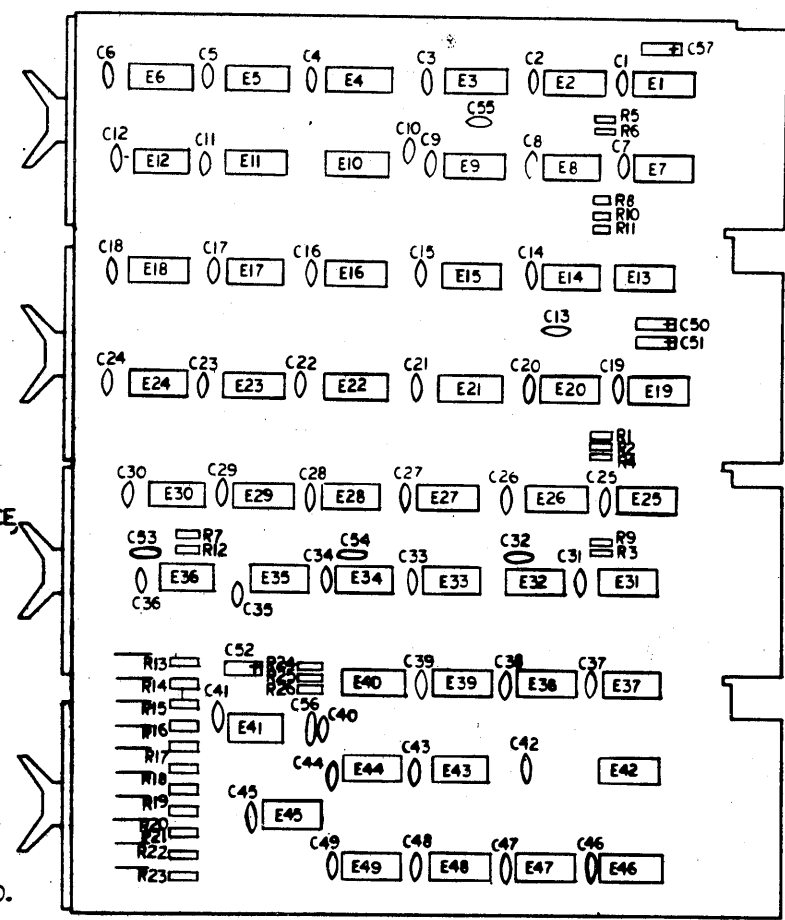
DRN. E. DEVRIES	14 JAN 76	FIRST USED ON	DN87	digital
CHK'D. R. H. HAY	25 FEB 76	TITLE	DN87 ACCESSORY SHIP LIST	
ENG. B. HUBBARD	3 MAR 76	PROD. R. HAY	3 MAR 76	
NEXT HIGHER ASSY.				
B-DD-DN87-Ø		SIZE	CODE	NUMBER
SCALE	-	C	PL	DN87-Ø-3
SHEET	2 OF 2	DIST.		

PARTS REFERENCE

COMPONENT PLACEMENT

PIN NOMENCLATURE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E6, E23, E34	IC DEC 74H50	1909060	3
2	E1, E4, E9, E10, E15, E16, E21, E22, E27	IC DEC 8640	1911469	10
3	E3, E4, E9, E10, E15, E16, E21, E22, E27	IC DEC 8271	1909615	9
4	E3	IC DEC 74H74	1909222	1
5	E1, E7, E13, E19, E23, E26, E41	IC DEC 8881	1909705	7
6	E40, E43, E49	IC DEC 8242	1909712	3
7	E46, E47, E48	IC DEC 8815	1909713	2
8	E49	IC DEC 7416	1909921	2
9	E5, E17, E23, E35	IC DEC 74H04	1909934	4
10	E11	IC DEC 8265	1909914	4
11	E12, E24	IC DEC 7488	9100011	2
12	E32	IC DEC 74197	9100015	1
13	E24	IC DEC 7482	1909925	1
14	E18, E31, E32	IC DEC 74H00	1909926	3
15	E18	IC DEC 74H00	1909927	1
16	C50, C54	CAP 100PF 100V 5%	1000018	2
17	C56	CAP 470PF 100V 5%	1000024	1
18	C50-C52, C57	CAP 5.1M 35V 20%	1000087	4
19	C1-C49, C55	CAP .01 MF 100V 20%	1001810	50
20	R5	RES 100 1/4W 5%	1300229	1
21	R7, R8	RES 220 1/4W 5%	1300271	2
22	R9, R9	RES 330 1/4W 5%	1300285	2
23	R13-R25	RES .1K 1/4W 5%	1300365	13
24	R1-R5, R8, R10, R11	RES 750 1/4W 5%	1301401	8



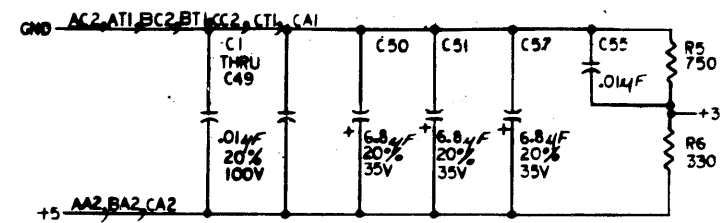
MODULE	LOGIC LOCATION
A	
B	
C	
D	

NOTES:

1. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
2. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 74H74	PIN 11	PIN 4
DEC 74H50	PIN 11	PIN 4
DEC 74H04	PIN 11	PIN 4
DEC 8271	PIN 8	PIN 16
DEC 8640	PIN 1	PIN 8

3. UNLESS OTHERWISE NOTED : RESISTANCE IS IN OHMS, CAPACITANCE IS IN PICO FARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.
4. DEC 8640 REPLACES OBSOLETE DEC 380



REV	DATE	BY	CHKD
D	6/28/73	R. LISEE	
E	7/8/73	R. LISEE	
F	10-29-73	R. LISEE	

FIRST USED ON OPTION/MODEL KG11 -A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± .020 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN M. Pierce DATE 10-29-73	CHKD R. LISEE DATE 10-29-73	PROJ. ENG. R. LISEE DATE 10-29-73	DATE 10-29-73
EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		TITLE X-OR & CRC BLOCK CHECK OPTION		
MATERIAL	SCALE NONE	DRAWING NO. DCS M7251-0-1		REV
FINISH	SHEET 1 OF 4	DATE 10-29-73		

**NOTES:**

1. FUNCTION (FUNCTION REG) DATA BITS

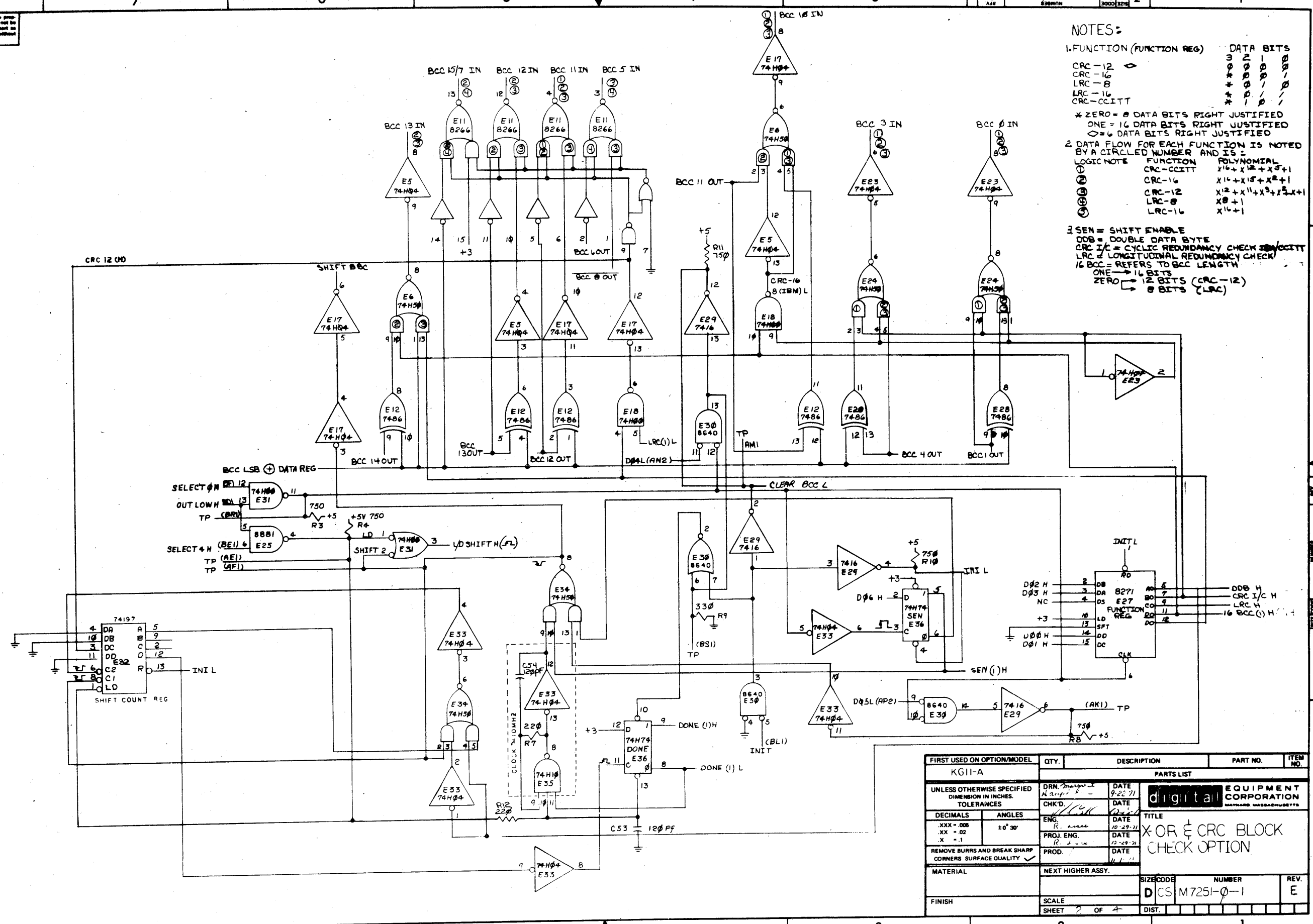
CRC-12	3	2	1	0
CRC-16	*	*	*	*
LRC-8	*	*	*	*
LRC-16	*	*	*	*
CRC-CCITT	*	*	*	*

\* ZERO = 0 DATA BITS RIGHT JUSTIFIED  
 ONE = 16 DATA BITS RIGHT JUSTIFIED  
 <math>0 = 6</math> DATA BITS RIGHT JUSTIFIED

2. DATA FLOW FOR EACH FUNCTION IS NOTED BY A CIRCLED NUMBER AND IS:

LOGIC NOTE	FUNCTION	POLYNOMIAL
①	CRC-CCITT	$x^{16} + x^{12} + x^5 + 1$
②	CRC-16	$x^{16} + x^{15} + x^2 + 1$
③	CRC-12	$x^{12} + x^{11} + x^3 + x^2 + 1$
④	LRC-8	$x^8 + 1$
⑤	LRC-16	$x^{16} + 1$

3. SEN = SHIFT ENABLE  
 DOB = DOUBLE DATA BYTE  
 CRC I/C = CYCLIC REDUNDANCY CHECK I/CCITT  
 LRC = LONGITUDINAL REDUNDANCY CHECK  
 16 BCC = REFERS TO BCC LENGTH  
 ONE → 16 BITS  
 ZERO → 12 BITS (CRC-12)  
 → 8 BITS (LRC)



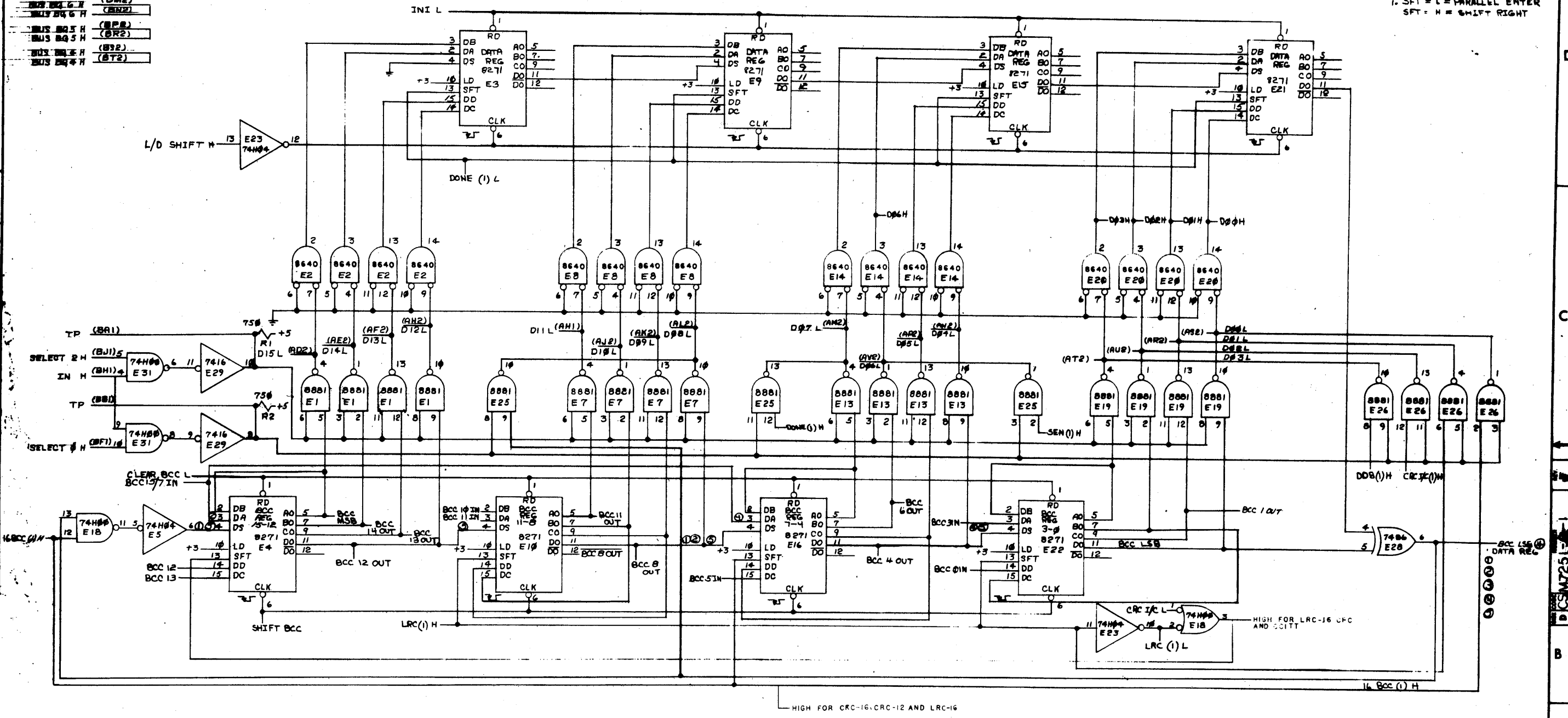
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
KG11-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN: <i>[Signature]</i> DATE: 9-22-71			
DECIMALS	CHK'D: <i>[Signature]</i> DATE: 10-29-71			
ANGLES	ENG: <i>[Signature]</i> DATE: 10-29-71			
.XXX - .005 .XX - .02 .X - .1	PROJ. ENG: <i>[Signature]</i> DATE: 10-29-71			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. DATE: 11-1-71	TITLE: X-OR & CRC BLOCK CHECK OPTION		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	SCALE	D	CS M7251-0-1	E
	SHEET ? OF 4	DIST.		

REV	
CHANGE NO.	
CHK	

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- WLS BQ 7 H (BK2)
- WLS BQ 7 H (BL2)
- WLS BQ 7 H (BM2)
- WLS BQ 6 H (BN2)
- WLS BQ 5 H (BP2)
- WLS BQ 5 H (BR2)
- WLS BQ 5 H (BS2)
- WLS BQ 4 H (BT2)

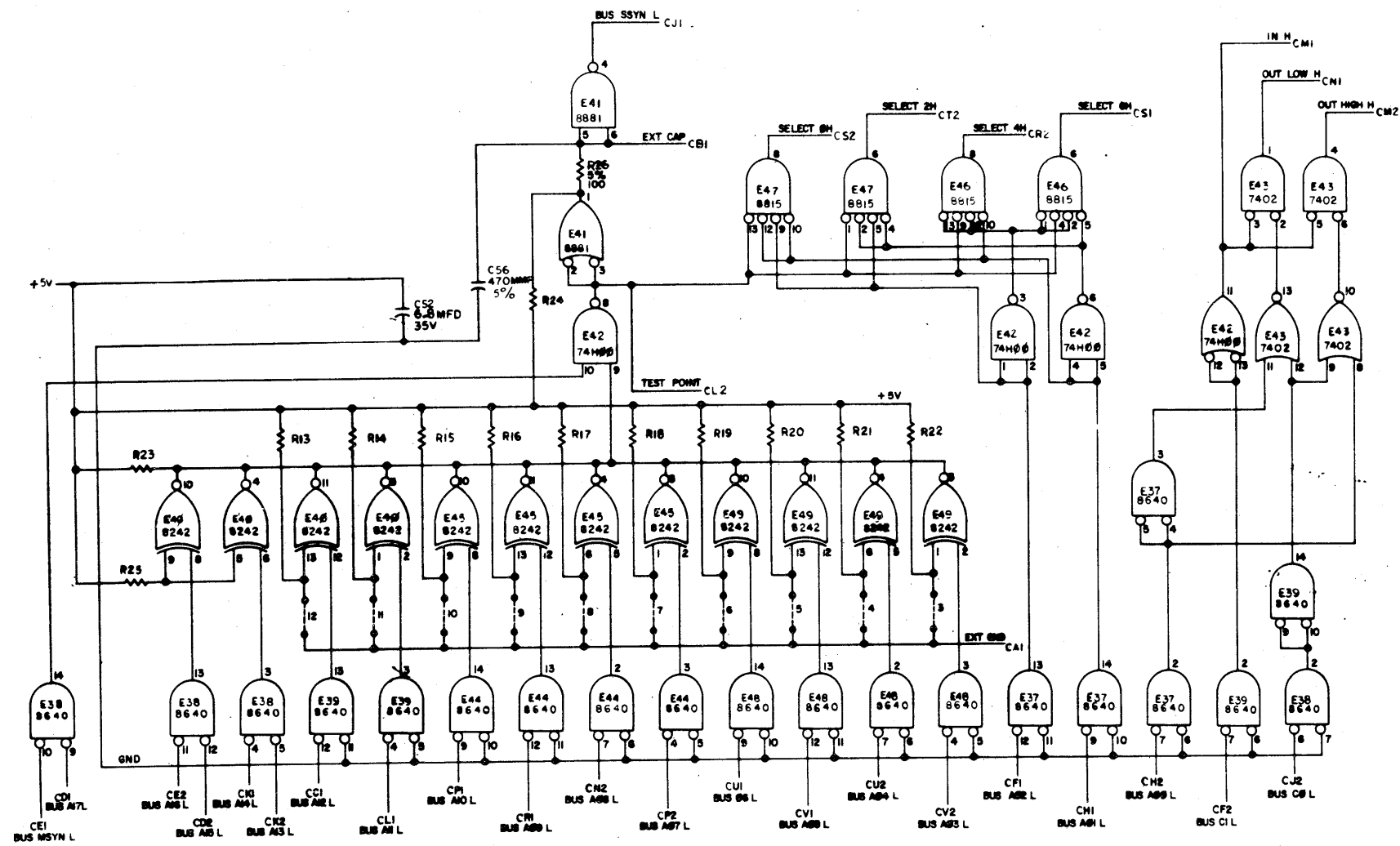
NOTES:  
 1. SFT = L = PARALLEL ENTER  
 SFT = R = SHIFT RIGHT



REVISIONS  
 CHANGE NO.  
 CHK

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
KG 11-A		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN. 9-22-71	DATE 9-22-71	DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	CHKD. 10/1/71	DATE 10-1-71	TITLE	
ANGLES	ENG. 10-27-71	DATE 10-27-71	X-OR & CRC BLOCK CHECK OPTION	
.XXX = .008	PROJ. ENG. 10-27-71	DATE 10-27-71	SIZE CODE	
.XX = .02	PROD. 10-27-71	DATE 10-27-71	NUMBER	
.X = .1			REV. E	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			DCS M7251-0-1	
MATERIAL	NEXT HIGHER ASSY.		SCALE	
FINISH			SHEET 3 OF 4	
			DIST.	

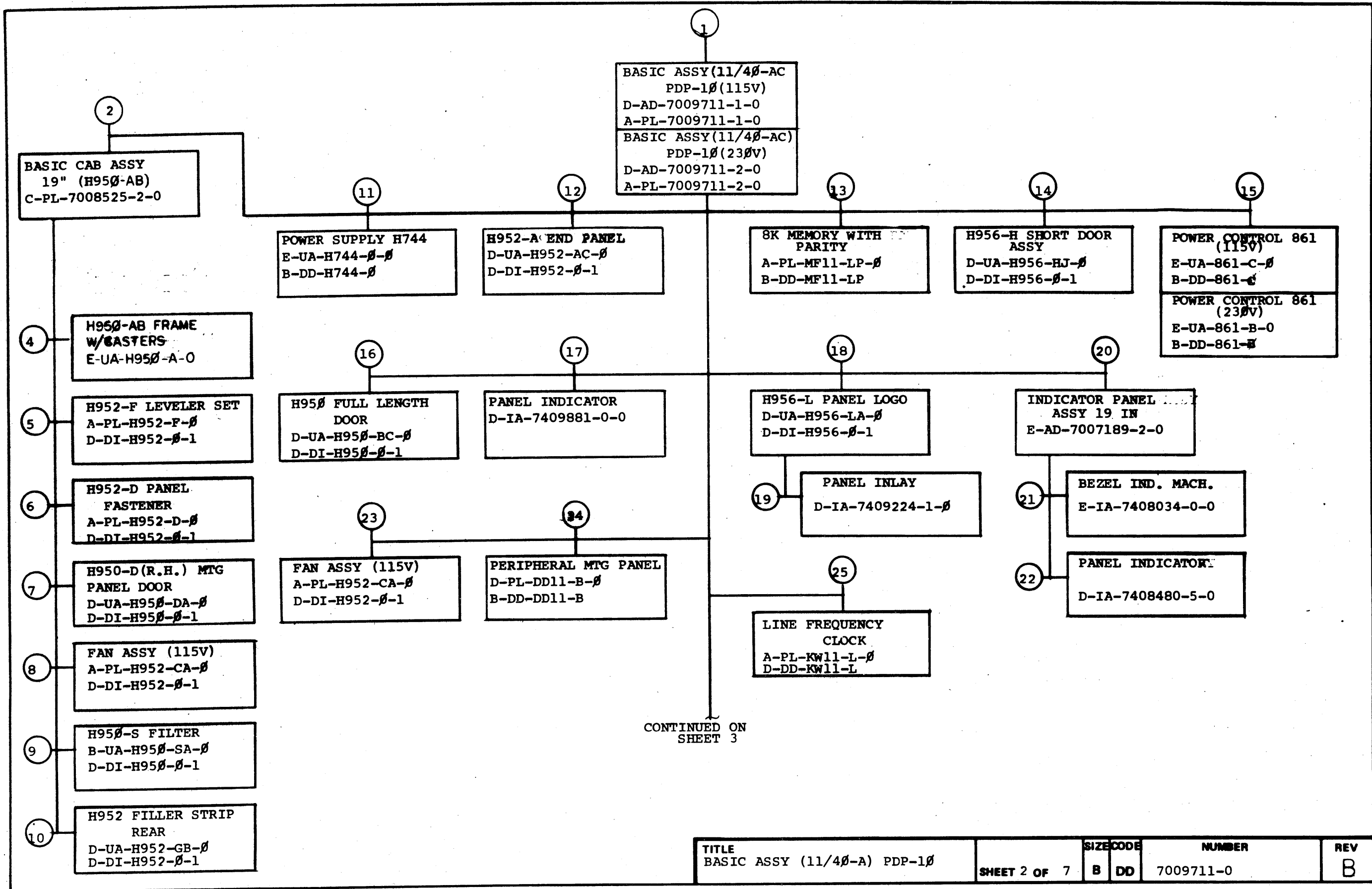
See drawing and specifications. Refer to the parts list for complete description and check for any changes or updates to this drawing or to the parts list for the manufacturer's name or other information.



REV	NO.	DATE
1		
2		
3		
4		
5		
6		
7		
8		

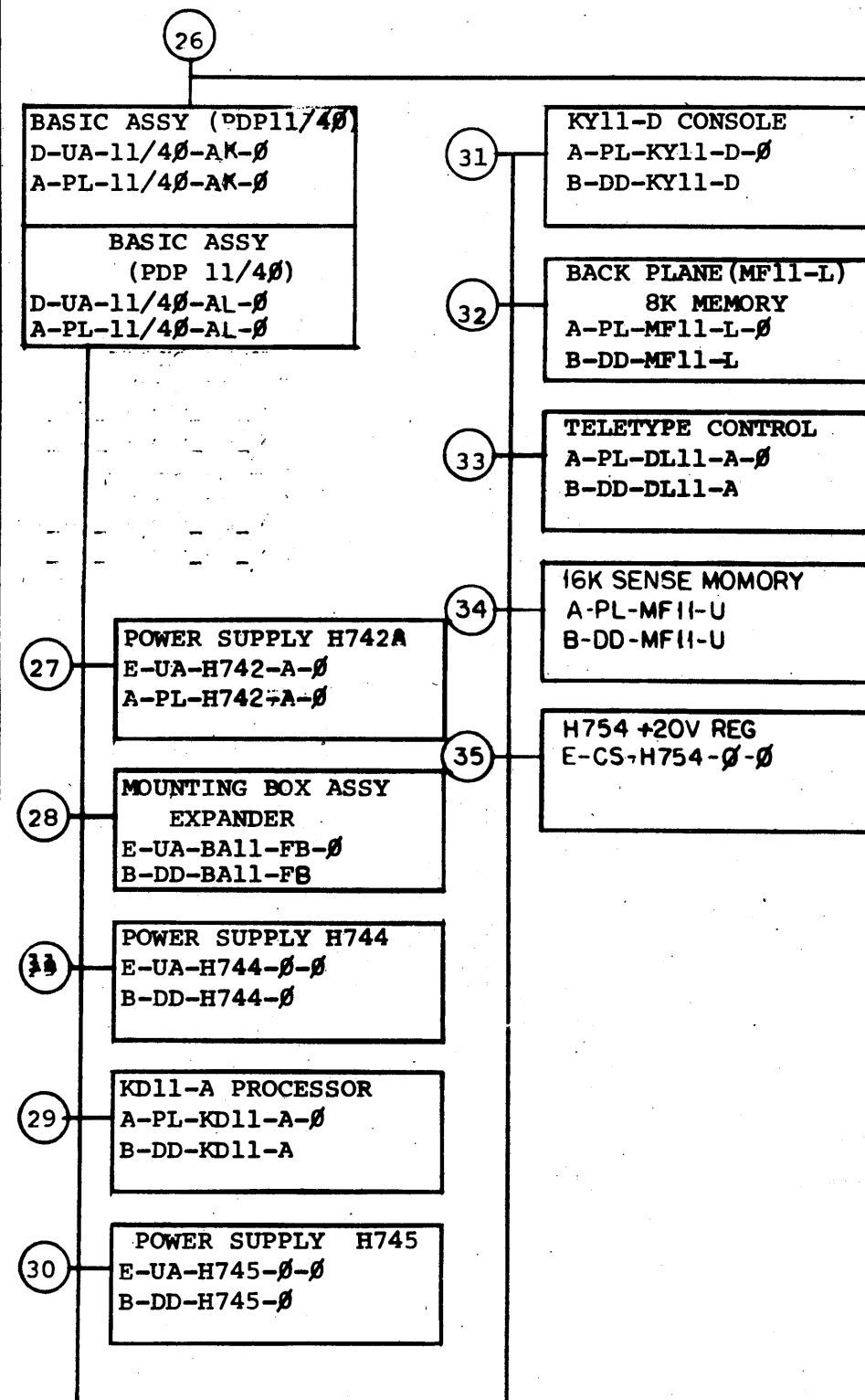
FIRST USED ON OPTION/MODEL KG11-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DO NOT SCALE DRAWING	PARTS LIST			
UNLESS OTHERWISE SPECIFIED	EQUIPMENT CORPORATION			
DRAWN IN INCHES	DATE	DATE	DATE	DATE
TOLERANCES	DATE	DATE	DATE	DATE
SHOULDER FINISHES	DATE	DATE	DATE	DATE
± .001	DATE	DATE	DATE	DATE
± 1/64	DATE	DATE	DATE	DATE
± 0.030	DATE	DATE	DATE	DATE
FINAL SURFACE QUALITY	DATE	DATE	DATE	DATE
REMOVE BURRS AND BREAK SHARP CORNERS	DATE	DATE	DATE	DATE
MATERIAL	NEXT HIGHER ASSY			
FINISH	SCALE			
	SHEET 2 OF 2			
	DICS M7251-0-1			





TITLE BASIC ASSY (11/40-A) PDP-10	SHEET 2 OF 7	SIZE CODE B DD	NUMBER 7009711-0	REV B
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CONTINUED FROM SHEET 2



TITLE	SHEET	SIZE	CODE	NUMBER	REV
BASIC ASSY (11/40-A) PDP-10	3 OF 7	B	DD	7009711-0	B

CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET		ELECTRICAL								
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	D-AD-7009711-1-0		4	BASIC ASSY(11/4ØA) PDP-10 115V				30	B-DD-H745-Ø		2	H745 DRAWING DIRECTORY			
			D-AD-7009711-2-0		4	BASIC ASSY(11/4ØA) PDP-10 230V											
		11	B-DD-H744-0		2	H744 DRAWING DIRECTORY				31	B-DD-KY11-D		3	KY11-D DRAWING DIRECTORY			
		13	B-DD-MF11-LP-Ø		3	MF11-LP DRAWING DIRECTORY				32	B-DD-MF11-L		3	MF11-L DRAWING DIRECTORY			
		15	B-DD-861-Ø		3	861 DRAWING DIRECTORY				33	B-DD-DL11-A		3	DL11-A DRAWING DIRECTORY			
		24	B-DD-DD11-B		3	DD11-B DRAWING DIRECTORY				34	B-DD-MF11-U		3	16K SENSE MEMORY			
		25	B-DD-KW11-L		3	KW11-L DRAWING DIRECTORY				35	E-CS-H754-Ø-Ø		2	H754-2ØV REGULATOR			
		26	D-UA-11/40-AC-Ø		6	BASIC ASSY 11/40 115V											
			D-UA-11/40-AD-Ø		6	BASIC ASSY 11/40 230V											
			D-UA-11/40-AE-Ø		6	BASIC ASSY 11/40 115V											
			D-UA-11/40-AF-Ø		6	BASIC ASSY 11/40 230V											
		27	C-CS-H742-Ø-1		1	CIRCUIT SCHEMATIC											
		28	B-DD-BA11-FB		3	BA11-F DRAWING DIRECTORY											
		29	B-DD-KD11-A		3	KD11-A DRAWING DIRECTORY											
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	BASIC ASSY(11/4Ø-A) PDP-1Ø		SIZE CODE	B DD		NUMBER	7009711-0		REV	B
								SHEET 4 OF 7									

DRB 108

DEC 16 (325)-1062-28-R972





CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET		MECHANICAL						
	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE		MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		23	A-PL-H952-CA-Ø		1	H952-C FAN (PL)				30	E-UA-H745-Ø-Ø		1	H745 POWER SUPPLY	
			D-DI-H952-Ø-1		1	H952 DRAWING INDEX LIST					B-DD-H745-Ø		2	H745 DRAWING DIRECTORY	
											A-SP-H745-Ø-8		2	MFG SPEC	
		24	A-PL-DD11-B-Ø		1	DD11-B PERIPHERAL MTG PANEL				31	A-PL-KY11-D-Ø		1	KY11-D CONSOLE (PL)	
			B-DD-DD11-B		3	DD11-B DRAWING DIRECTORY					B-DD-KY11-D		3	KY11-D DRAWING DIRECTORY	
		25	A-PL-KW11-L-Ø		1	LINE FREQ. CLOCK (PL)				32	D-UA-MF11-L-Ø		1	MF11-L MEMORY	
			B-DD-KW11-L		3	DRAWING DIRECTORY					A-PL-MF11-L-Ø		1	MF11-L BK. PLANE 8K MEM. PL	
											B-DD-MF11-L		3	MF11-L DRAWING DIRECTORY	
		26	E-IA-7008754-0-0		1	HARNESS POWER (EXPANDER)				33	A-PL-DL11-A-Ø		1	TELETYPE CONTROL (PL)	
			D-IA-7009103-0-0		1	FIRST MEMORY 11/4Ø POWER HARNESS					B-DD-DL11-A		3	DRAWING DIRECTORY	
			D-IA-7009046-0-0		1	11/4Ø PROC POWER HARNESS				34	D-MU-MF11-U		1	MODULE UTILIZATION (MF11-U)	
			C-IA-7009053-0-0		1	CONS TO POWER CONTROL HARNESS					B-DD-MF11-U		3	DRAWING DIRECTORY	
			D-UA-11/4Ø-AK-Ø		2	BASIC ASSY 11/4Ø 115V				35	E-CS-H754		2	+20V REGULATOR	
			A-PL-11/4Ø-AK-Ø		4	BASIC ASSY 11/4Ø (PL)									
			D-UA-11/4Ø-AL-Ø		6	BASIC ASSY 11/4Ø 230V									
			A-PL-11/4Ø-AL-Ø		4	BASIC ASSY 11/4Ø (PL)									
		27	E-UA-H742-A-Ø		3	H742-A POWER SUPPLY 115V									
			A-PL-H742-A-Ø		3	H742-A POWER SUPPLY (PL)									
		28	E-UA-BALL-FB-Ø			MTG BOX EXPANDER									
			B-DD-BALL-F		3	BALL-F DRAWING DIRECTORY									
		29	A-PL-KD11-A		1	KD11-A PROCESSOR (PL)									
			B-DD-KD11-A		3	KD11-A DRAWING DIRECTORY									
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		
							BASIC ASSY (11/4Ø-A) PDP-1Ø		B DD		7009711-0		B		
							SHEET 7 OF 7								

DRB 108

DEC 16-(325)-1062-2B-R972

# DRAWING DIRECTORY

## CUSTOMER PRINT SET INDEX

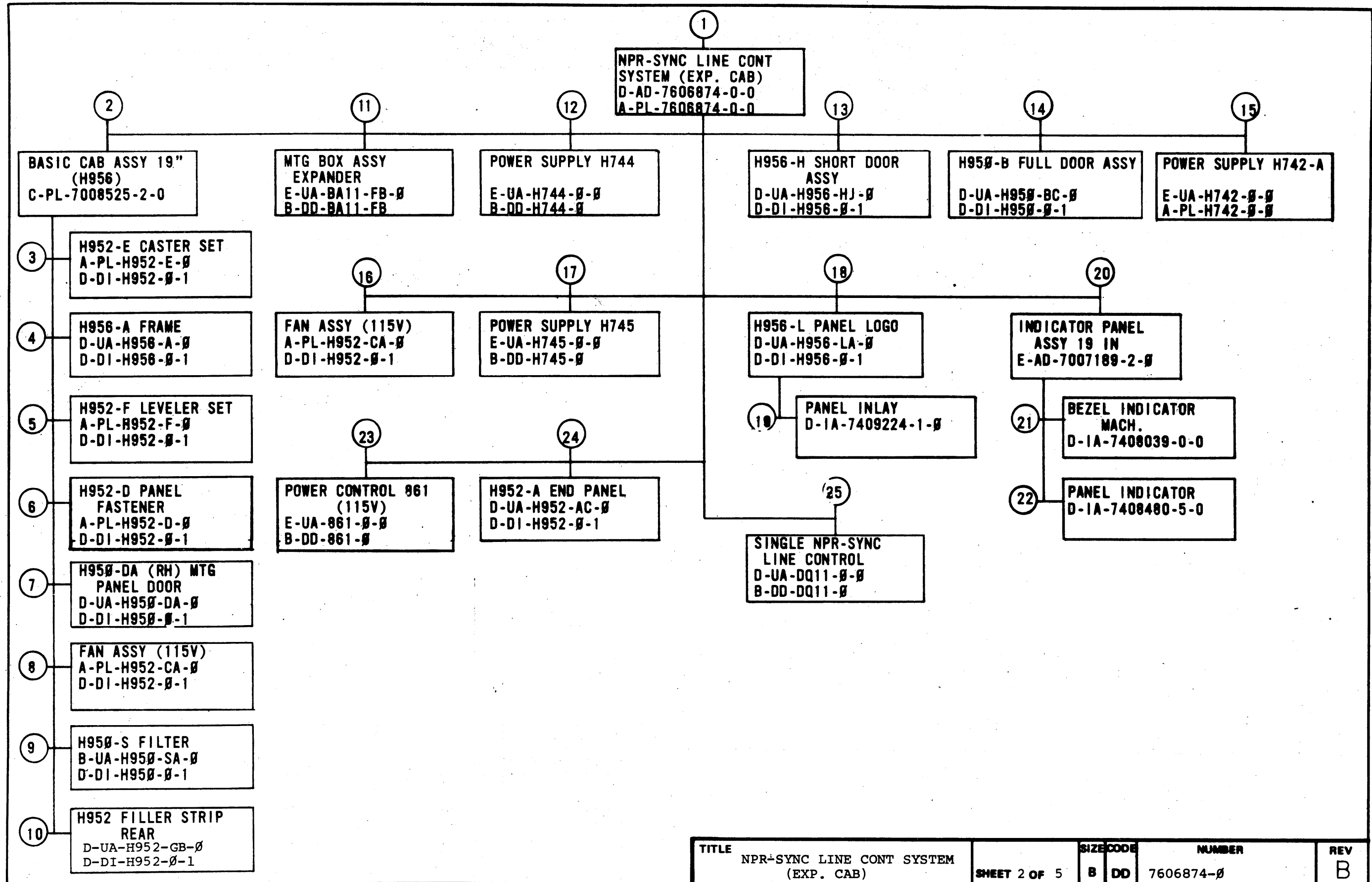
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SEQUENCE	┌	D-AD-7606874-0-0	└
NPR-SYNC LINE CONT SYSTEM (EXP. CAB)			
MTG BOX ASSY EXPANDER		B-DD-BA11-FB	
H744 DRAWING DIRECTORY		B-DD-H744-0	
H742-A P.S. (115)		E-UA-H742-0-0	
H742 CIRCUIT SCHEMATIC		D-CS-H742-0-0	
H745 DRAWING DIRECTORY		B-DD-H745-0	
861 DRAWING DIRECTORY		B-DD-861-0	
DQ11 DRAWING DIRECTORY		B-DD-DQ11-0	
ACCESSORY LIST		A-PL-7606847-0-1	

UNIT VARIATIONS		PRINT SET	
VAR	TITLE		
7606874-1-0	NPR-SYNC LINE CONT SYSTEM (EXP. CAB) 115V	X	
7606874-2-0	NPR-SYNC LINE CONT SYSTEM (EXP. CAB) 230V	X	

DEC 15-113251-1062-1A-R972

REVISIONS	REV	A	B									TITLE																					
	CHG. NO.	7606874-1	7606874-2																														
	DATE	2-75	10/81																														



TITLE	SIZE	CODE	NUMBER	REV
NPR-SYNC LINE CONT SYSTEM (EXP. CAB)	B	DD	7606874-Ø	B



CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET		MECHANICAL						
1	SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	1	SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		6	A-PL-H952-D-0 D-DI-H952-0-1		1 1	H952-D PANEL FASTENER (PL) H952 DWG INDEX LIST				14	D-UA-H950-BC-0 A-PL-H950-BC-0 D-DI-H950-0-1		1 1 1	H950-B FULL LENGTH DOOR H950-B FULL LENGTH DOOR (PL) H950 DWG INDEX LIST	
		7	D-UA-H950-DA-0 A-PL-H950-DA-0 D-DI-H950-0-1		1 1 1	H950-D MTG PANEL DOOR H950-D MTG PANEL DOOR (PL) H950 DWG INDEX LIST				15	E-UA-H742-0-0 A-PL-H742-0-0	#	3 3	H742-A POWER SUPPLY H742-A POWER SUPPLY (PL)	
		8	A-PL-H952-CA-0 D-DI-H952-0-1		1 1	H952-C FAN (PL) H952 DWG INDEX LIST				16	A-PL-H952-CA-0 D-DI-H952-0-1		1 1	H952-C FAN (PL) H952 DWG INDEX LIST	
		9	B-UA-H950-SA-0 D-DI-H950-0-1		1 1	H950-S FILTER H950 DWG INDEX LIST				17	E-UA-H745-0-0 B-DD-H745-0 A-SP-H745-0-0	#	1 2 2	H745 POWER SUPPLY H745 DWG DIRECTORY H745 MFG SPEC	
		10	D-UA-H952-GB-0 A-PL-H952-GB-0 D-DI-H952-0-1		1 1 1	H952-G FILLER STRIP REAR H952-G FILLER STRIP REAR (PL) H952 DWG INDEX LIST				18	D-UA-H956-LA-0 D-DI-H956-0-1		1 1	H956-L PANEL LOGO H956 DWG INDEX LIST	
		11	E-UA-BA11-FB-0 B-DD-BA11-FB	#	4	MTG BOX ASSY EXPANDER BA11-F DWG DIRECTORY				19	D-IA-7409224-1-0 C-SS-7409224-0-1	#	1 1	PANEL INLAY SILK SCREEN (BLUE)	
		12	E-UA-H744-0-0 B-DD-H744-0 A-SP-H744-0-B	#	1 2 2	H744 POWER SUPPLY H744 DWG DIRECTORY MFG SPEC				20	E-AD-7007189-2-0 A-PL-7007189-2-0 E-IA-7408429-0-0 C-MD-7407807-0-0 C-MD-7407820-2-0 D-MD-7408538-0-0	#	1 1 1 1 1 1	IND. PANEL ASSY 19 IN IND. PANEL ASSY 19 IN (PL) PLATE BEZEL MTG SLIDE SUPPORT SLIDE SUPPORT IND. PNL.	
		13	D-UA-H956-HJ-0 A-PL-H956-HJ-0 D-DI-H956-0-1		4 1 1	H956-H SHORT DOOR ASSY H956-H SHORT DOOR ASSY (PL) H956 DWG DIRECTORY									

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  
NPR-SYNC LINE CONT SYSTEM  
(EXP. CAB)

SIZE CODE NUMBER  
SHEET 4 OF 5 B DD 7606874-0

REV  
B

CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET								
1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE		MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		21	D-1A-7408034-0-0		1	BEZEL IND MACH									
			B-MD-7408028-0-0		1	HINGE IND BEZEL									
			D-SC-1209836-0-0		1	BEZEL IND CASTING									
		22	D-1A-7408480-5-0		1	PANEL INDICATOR									
			D-SS-7408480-0-5		1	SILK SCREEN (BLK)									
		23	E-UA-861-Ø-Ø		1	861 PWR CONTROL									
			B-DD-861-C		3	861 DWG DIRECTORY									
		24	D-UA-H952-AC-Ø		2	H952-A END PANEL									
			A-PL-H952-AC-Ø		1	H952-A END PANEL (PL)									
			D-DI-H952-Ø-1		1	H952 DWG INDEX LIST									
		25	D-UA-DQ11-Ø-Ø		1	NPR-SYNC LINE CONTROL									
			B-DD-DQ11-Ø		4	DWG DIRECTORY									

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 NPR-SYNC LINE CONT SYSTEM  
(EXP. CAB)

SHEET 5 OF 5  
SIZE CODE B DD  
NUMBER 7606874-Ø

REV B

# DRAWING DIRECTORY

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## CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE SEQUENCE

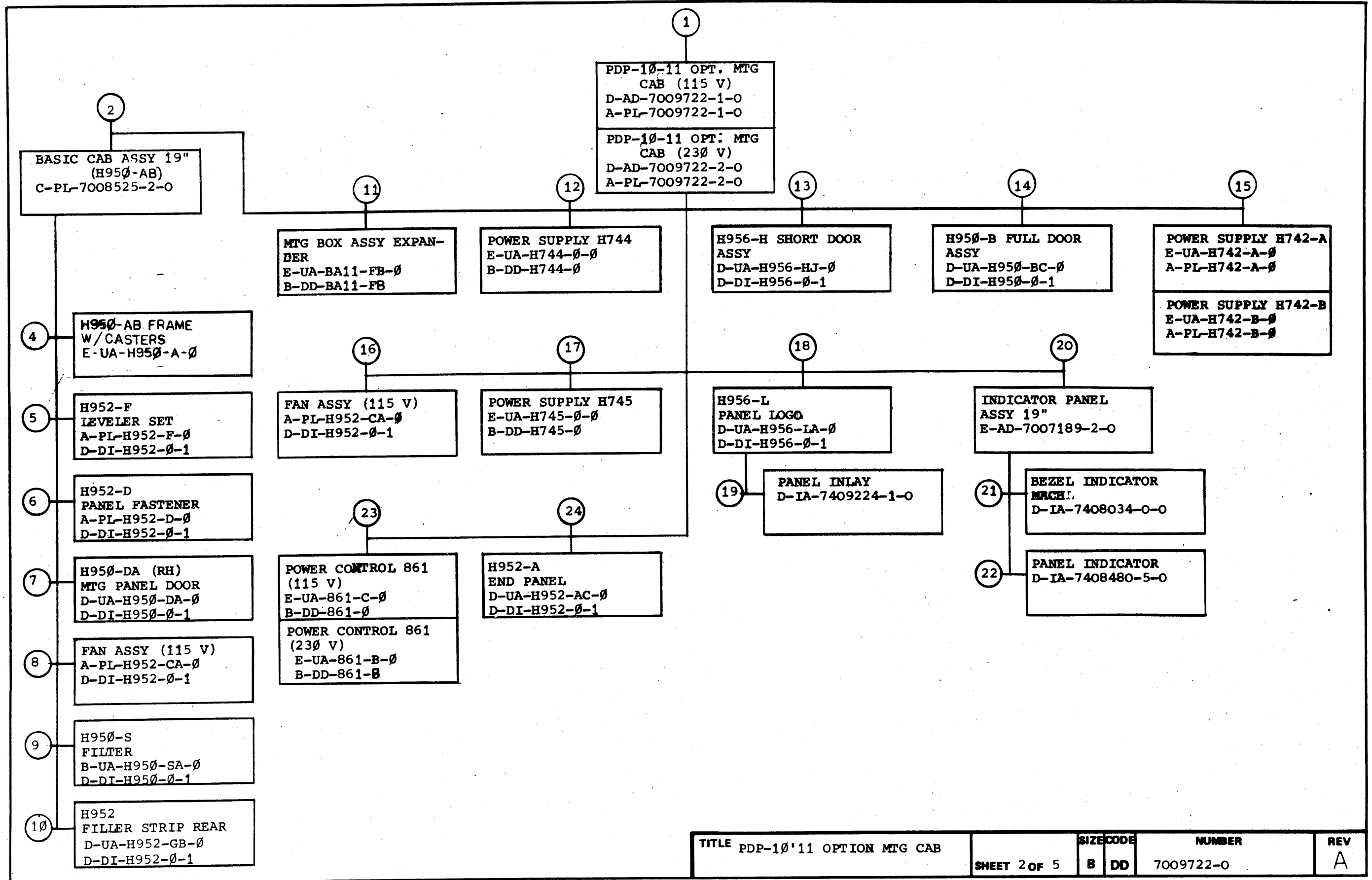
PDP-10'11 OPT MTG CAB	B-DD-7009722-0
PDP-10'11 OPT MTG CAB	D-AD-7009722-0-0
PDP-10'11 OPT MTG CAB (PL)	A-PL-7009722-0-0

VAR	TITLE	PRINT SET		
		1	2	3
7009722-1	PDP-10-11 OPT MTG CAB 115V	X		
7009722-2	PDP-10-11 OPT MTG CAB 230V	X		

NOTE: PRINT SETS AND MANUALS FOR THE OPTIONS WHICH ARE CALLED OUT HEREIN ARE PROVIDED WITH THE NEXT HIGHER ASSEMBLY

REVISIONS	DATE	4-23-75	CHG. NO.	DC76-2	REV	A	<i>Allen Kent 28 APR 75</i>	
	USED ON OPTION/MODEL							
		DC76-A TYPE	DRN. W. HOVEY	3-11-74	DATE	TITLE		
		DC76-D TYPE	CHK'D. D. HEALY	3/11-74	DATE	PDP-10'11 OPT MTG CAB		
		DC76-E TYPE	PROJ. ENG. <i>Allen Kent</i>	15 Mar 74	DATE			
SHEET 1 OF 5		PROD. <i>A. N. Welch</i>	3-5-74	DATE	SIZE CODE	NUMBER	REV	
		FIELD SERV. <i>M. Casper</i>	DATE		B DD	7009722-0	A	
				DIST				

DEC 16-13251-1062-1A-R972



TITLE PDP-10'11 OPTION MTG CAB	SHEET 2 OF 5	SIZE CODE B DD	NUMBER 7009722-0	REV A
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CUSTOMER PRINT SET		ELECTRICAL					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	D-AD-7009722-0-0		4	PDP-10-11 OPT MTG CAB 115/230V		X		1	D-AD-7009722-1-0	*	4	PDP-10-11 OPT MTG CAB 115V			
								X			A-PL-7009722-1-0	*	4	PDP-10-11 OPT MTG CAB (PL)			
											D-AD-7009722-2-0		4	PDP-10-11 OPT MTG CAB 230V			
											A-PL-7009722-2-0		4	PDP-10-11 OPT MTG CAB (PL)			
		11	B-DD-BA11-FB-0		4	MTG BOX ASSY EXPANDER					C-IA-7409870-0-0		1	BRKT SHIPPING IND PANEL			
											C-MD-7409312-0-0		1	BRKT SHIPPING (BA11-F)			
											C-MD-7407607-0-0		1	PLATE TERM STRIP MTG			
											C-MD-7408463-4-0		1	COVER TERM STRIP			
		12	B-DD-H744-0		2	H744 DWG DIRECTORY					D-MD-7409445-0-0		1	BRKT HARNESS SUPPORT			
											E-IA-7008754-0-0		1	HARNESS POWER EXPANDER			
		15	E-UA-H742-A-0		3	H742-A P.S. (115V)					E-IA-7009566-0-0		1	BOX, PWR HARN. 21"			
			D-CS-H742-A-0		1	CIRCUIT SCHEMATIC					D-IA-7409446-0-0		1	SUPPORT HARNESS			
		15	E-UA-H742-B-0		3	H742-B P.S. (230V)					B-MD-7409447-0-0		1	PLATE SUPPORT			
			D-CS-H742-B-0		1	CIRCUIT SCHEMATIC					D-IA-7009573-0-0		1	6 PIN JUMPER HARNESS			
		17	B-DD-H745-0		2	H745 DWG DIRECTORY											
		23	B-DD-861-C		3	861 DWG DIRECTORY (115V)				2	C-PL-7008525-2-0		1	BASIC CAB ASSY 19" (h956)			
		23	B-DD-861-B		3	861 DWG DIRECTORY (230V)											
										4	E-UA-H950-AB-0			H950-AB FRAME W/CASTERS			
										5	A-PL-H952-F-0		1	H952-F LEVELER SET			
											D-DI-H952-0-1		1	H952 DWG INDEX LIST			
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	PDP-10'11 OPTION MTG CAB		SIZE CODE	B DD		NUMBER	7009722-0		REV	A

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				
		6	A-PL-H952-D-0		1	H952-D PANEL FASTENER (PL)				13	D-UA-H956-HJ-0		4	H956-H SHORT DOOR ASSY					
			D-DI-H952-0-1		1	H952 DWG INDEX LIST					A-PL-H956-HJ-0		1	H956-H SHORT DOOR ASSY (PL)					
											D-DI-H956-0-1		1	H956 DWG INDEX LIST					
		7	D-UA-H950-DA-0		1	H950-D MTG PANEL DOOR				14	D-UA-H950-BC-0		1	H950-B FULL LENGTH DOOR					
			A-PL-H950-DA-0		1	H950-D MTG PANEL DOOR (PL)					A-PL-H950-BC-0		1	H950-B FULL LENGTH DOOR (PL)					
			D-DI-H950-0-1		1	H950 DWG INDEX LIST					D-DI-H950-0-1		1	H950 DWG INDEX LIST					
		8	A-PL-H952-CA-0		1	H952-C FAN (PL)				15	E-UA-H742-A-0		3	H742-A POWER SUPPLY (115 V)					
			D-DI-H952-0-1		1	H952 DWG INDEX LIST					A-PL-H742-A-0		3	H742-A POWER SUPPLY (PL)					
											E-UA-H742-B-0		3	H742-B POWER SUPPLY (230 V)					
											A-PL-H742-B-0		3	H742-B POWER SUPPLY (PL)					
		9	B-UA-H950-SA-0		1	H950-S FILTER													
			D-DI-H950-0-1		1	H950 DWG INDEX LIST													
		10	D-UA-H952-GB-0		1	H952-G FILLER STRIP REAR													
			A-PL-H952-GB-0		1	H952-G FILLER STRIP REAR (PL)													
			D-DI-H952-0-1		1	H952 DWG INDEX LIST													
		11	E-UA-BA11-FB-0			MTG BOX ASSY EXPANDER													
			B-DD-BA11-FB		4	BA11-F DWG DIRECTORY													
		12	E-UA-H744-0-0		1	H744 POWER SUPPLY													
			B-DD-H744-0		2	H744 DWG DIRECTORY													
			A-SP-H744-0-8		2	MFG SPEC													
		13	D-UA-H956-LA-0		1	H956-L PANEL LOGO													
			D-DI-H956-0-1		1	H956 DWG DIRECTORY													
		14	D-IA-7409224-1-0		1	PANEL INLAY													
			C-SS-7409224-0-1		1	SILK SCREEN (BLUE)													
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 PDP-10'11 OPTION MTG CAB								SIZE B	CODE DD	NUMBER 7009722-0	REV A						

CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET								
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
		20	E-AD-7007189-2-0		1	IND. PNL ASSY 19IN									
			A-PL-7007189-2-0		1	IND. PNL ASSY 19IN (PL)									
			E-IA-7408429-0-0		1	PLATE BEZEL MTG									
			C-MD-7407807-0-0		1	SLIDE									
			C-MD-7407820-2-0		1	SUPPORT, SLIDE									
			D-MD-7408538-0-0		1	SUPPORT, IND PNL									
		21	D-IA-7408034-0-0		1	BEZEL IND MACH.									
			B-MD-7408028-0-0		1	HINGE IND. BEZEL									
			D-SC-1209836-0-0		1	BEZEL, IND. CASTING									
		22	D-IA-7408480-5-0		1	PANEL, INDICATOR									
			D-SS-7408480-0-5		1	SILK SCREEN (BLK)									
		23	E-UA-861-C-0		1	861 PWR CONTROL (115V)									
			B-DD-861-C		3	861 DWG DIRECTORY									
			E-UA-861-B-0		1	861 PWR CONTROL (230V)									
			B-DD-861-B		3	861 DWG DIRECTORY									
		24	D-UA-H952-AC-0		2	H952-A END PANEL									
			A-PL-H952-AC-0		1	H952-A END PANEL (PL)									
			D-DI-H952-0-1		1	H952 DWG INDEX LIST									
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		
							PDP-10'11 OPTION MTG CAB		SHEET 5 OF 5 B DD		7009722-0		A		

DRB 108

DEC 16-(325)-1062-2B-R972

# DRAWING DIRECTORY

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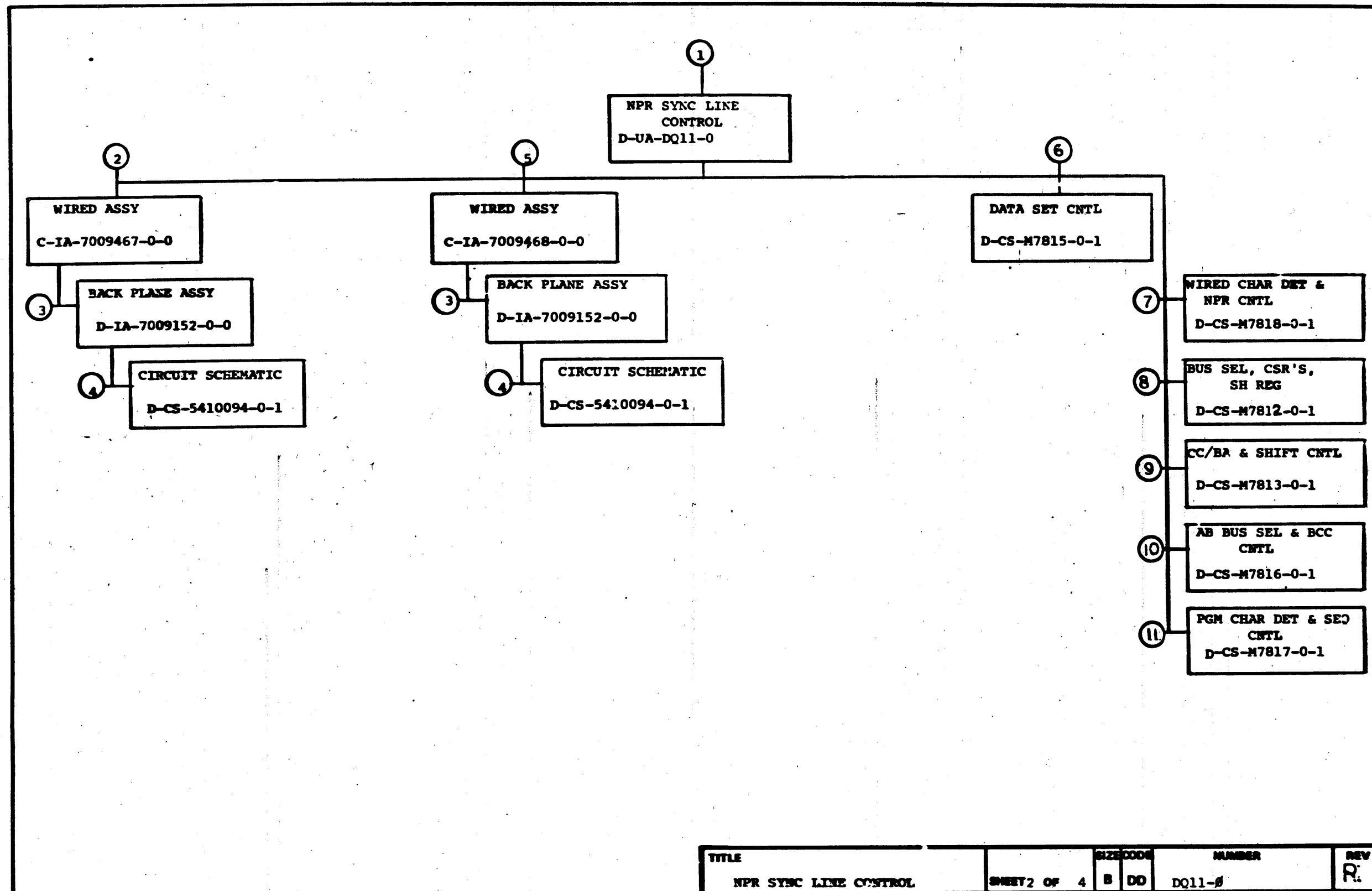
## CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

<b>SEQUENCE</b>	<b>SEQUENCE</b>
KPR-SYNC LINE CONTROL	B-DD-DQ11- <del>6</del>
NPR-SYNC LINE CONTROL	D-UA-DQ11- <del>6</del>
YPR-SYNC LINE CONTROL	A-PL-DQ11- <del>7</del>
MODULE UTILIZATION (AA)	D-MU-DQ11- <del>8</del> -1
MODULE UTILIZATION (AB)	D-MJ-DQ11- <del>8</del> -2
DF11 CONV CABLE (D1)	D-BD-DQ11- <del>8</del> -4
DATA SET CNTL (D2)	D-CS-M7815- <del>8</del> -1
ADDRESS INTERRUPT CLOCK (D3)	D-B5-DQ11- <del>8</del> -5
BUS SEL CSR'S, SH. REG (D4)	D-CS-M7812- <del>8</del> -1
CC/BA & SHIFT CNTL (D5)	D-CS-M7813- <del>8</del> -1
WIRED CHAR DET & NPR CNTL. (D6)	D-CS-M7818- <del>8</del> -1
DQ11-AA/DQ11-AB CONNECTIONS (D7)	D-IC-DQ11- <del>8</del> -7
PKG CHAR DET & SEQ CNTL (D8)	D-CS-M7817- <del>8</del> -1
AB BUS SEL & BCC CNTL (D9)	D-CS-M7816- <del>8</del> -1
UNIBUS CONNECTORS	D-IC-DQ11- <del>8</del> -6
ADDRESS SELECTOR	D-CS-M185- <del>8</del> -1
INTERRUPT CONTROL MODULE	D-CS-M7821- <del>8</del> -1
CRYSTAL CLOCK	D-CS-M4050- <del>8</del> -1
CABLE CONNECTOR	D-CS-M971- <del>8</del> -1
I/O CABLE ASSY	C-IA-BC88S- <del>8</del> -8
INTERNAL BUS CONV	D-CS-M928- <del>8</del> -1
WIRED ASSY (DQ11-AA)	C-IA-7009467- <del>8</del> -8
WIRE LIST (DQ11-AA)	K-WL-DQ11- <del>8</del> -12
BACK PLANE ASSY	D-IA-7009152- <del>8</del> -8
WIRED ASSY (DQ11-AB)	C-IA-7009468- <del>8</del> -8
WIRE LIST (DQ11-AB)	K-WL-DQ11- <del>8</del> -14
MODEM TEST CONNECTOR	D-CS-H315- <del>8</del> -1
LEVEL CONVERTERS & CABLES	B-DD-DF11- <del>8</del>
ACCESSORY LIST	A-AL-DQ11- <del>8</del> -3
POWER HARNESS	D-IA-7009563- <del>8</del> -8
AWT REVISION STATUS	A-WT-7009468-0

UNIT VARIATIONS		PRINT SET	
VAR	TITLE	DQ11-0	DQ11-KA
DQ11-AA	BASIC SYNC CONTROL	X	
DQ11-BA	DATA SET CONTROL	X	
DQ11-AB	BCC CONTROL	X	
DQ11-BB	PROTOCOL CONTROL	X	
DQ11-KA	CRYSTAL CLOCK (M4050)		X
DQ11-DA	DQ11-AA-BA-DF11-A	X	
DQ11-EA	DQ11-AA+BA+DF11-G	X	
DQ11-DE	DQ11-AA+AB+BA+BB+DF11-A	X	
DQ11-EE	DQ11-AA+AB+BA+BB+DF11-G	X	
DQ11-DD	DQ11-AA+AB+BA+DF11-A	X	
DQ11-ED	DQ11-AA+AB+BA+DF11-G	X	

210-11-0001-1001-01 200	<b>REVISIONS</b>				<b>USED ON OPTION MODEL</b>		<b>DATE</b> E. J. PETERSON 9/4/73		<b>TITLE</b> NPR SYNC LINE CONTROL			
	DATE	CHG. NO.	REV	DESCRIPTION	11/40		DATE	12/10/73	SIZE	CODE	NUMBER	REV
	2/74	DQ11AA-2	A		11/45		DATE	2-7-73	B	DD	DQ11-0	R
	3/74	DQ11AB-1	B				DATE					
	4/74	DQ11AB-2	C				DATE					
	4/74	DQ11-1	D				DATE					
	8/74	DQ11AB-3	E				DATE					
	3/75	DQ11AB-4	F				DATE					
	4/75	DQ11AA-3	H				DATE					
	6/75	DQ11-2	J				DATE					
	7/75	DQ11A-5	K				DATE					
	8/75	DQ11-3	L				DATE					
	12/75	DQ11AB-6	M				DATE					
	1/76	DQ11AA-4	N				DATE					
	2/76	DQ11AB-7	P				DATE					
7/77	DQ11-4	R				DATE						



TITLE	SHEET	OF	SIZE	CODE	NUMBER	REV
NPR SYNC LINE CONTROL	2	4	B	DD	DQ11-0	R

CUSTOMER PRINT SET		ELECTRICAL				CUSTOMER PRINT SET		ELECTRICAL									
DQ11-0	DQ11-MA	MFG. SET	FIND NO.	DRAWING NO.	REV. SHT	NO OF	DESCRIPTION	OPTION NO / FILE DATE	DQ11-0	DQ11-MA	MFG. SET	FIND NO.	DRAWING NO.	REV. SHT	NO OF	DESCRIPTION	OPTION NO / FILE DATE
X			1	D-UA-DQ11-C-0	A	1	NPR SYNC LINE CONTROL		X			5	C-IA-7009468-0-0	A	1	WIRED ASSY (DQ11-A5)	
X				A-PL-DQ11-E-0	A	1	NPR SYNC LINE CONTROL		C				K-WL-DQ11-0-14	H	1	WIRE LIST (DQ11-AB)	
X				D-MU-DQ11-0-1	*	1	MODULE UTILIZATION (AA)		X				A-WT-7009468-0	#	1	AWT STATUS REV	
X				D-MU-DQ11-0-2	*	1	MODULE UTILIZATION (AB)										
X				A-AL-DQ11-0-3	A	1	DQ11 ACCESSORY LIST										
C				B-DD-DF11-0	#	1	LEVEL CONVERTERS + CABLES										
X				D-BD-DQ11-0-4	*	1	DF11 CONV/CABLE										
X				D-E5-DQ11-E-5	*	1	ADDRESS INTERRUPT CLOCK										
X				D-IC-DQ11-0-6	*	1	UNIBUS CONNECTORS										
X				D-IC-DQ11-0-7	A	1	DQ11-AA/DQ11-AB CONNECTORS		X			6	D-CS-M7815-0-1	#	2	DATA SET CNTL	
				A-S2-DQ11-0-8	*	1	ENGINEERING SPEC						K-CO-M7815-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
				A-S2-DQ11-0-9	*	1	TEST PROCEDURE						D-AH-M7815-0-5	1	1	ASSY/HOLE LOCATION	
				A-S2-DQ11-0-10	*	1	ACCEPTANCE PROCEDURE						B-MH-M7815-0-6	1	1	MODULE ECO HISTORY	
X				D-CS-M022-0-1	#	1	INTERNAL BUS CONN										
X				D-CS-M105-0-1	#	1	ADDRESS SELECTOR										
X				D-CS-M7821-0-1	#	2	INTERRUPT CONTROL MODULE		X			7	D-CS-M7818-0-1	#	4	WIRED CHAR DET & NPR CNTL	
X	X			D-CS-M4050-0-1	#	1	CRYSTAL CLOCK						K-CO-M7818-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
X				D-CS-M315-0-1	#	1	MODEM TEST CONN						D-AH-M7818-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
													B-MH-M7818-0-6	1	1	MODULE ECO HISTORY	
									X			8	D-CS-M7812-0-1	#	10	BUS SEL CSR'S, SH REG	
X				C-IA-BC06S-0-0	#	1	I/O CABLE ASSY						K-CO-M7812-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
X				D-IA-7009553-0-0	#	1	DATA/DF11-B OPTION HARNESS						D-AH-M7812-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
X				D-CS-M971-0-1	#	1	CABLE CONNECTOR						B-MH-M7812-0-6	1	1	MODULE ECO HISTORY	
				A-SI-DQ11-0-11	*	1	SOFTWARE LIST										
				A-9P-DQ11-0-13	*	1	MODULE TEST PROCEDURE		X			9	D-CS-M7813-0-1	#	10	CC/BA & SHIFT CNTL	
													K-CO-M7813-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
													D-AH-M7813-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
													B-MH-M7813-0-6	1	1	MODULE ECO HISTORY	
X			2	C-IA-7009467-0-0	C	1	WIRED ASSY (DQ11-AA)		X			10	D-CS-M7816-0-1	#	7	AB BUS SEL & BCC CNTL	
C				K-WL-DQ11-0-12	E	1	WIRE LIST (DQ11-AA)						K-CO-M7816-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
				A-WT-7009467-0	#	1	AWT STATUS REV						D-AH-M7816-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
													B-MH-M7816-0-6	1	1	MODULE ECO HISTORY	
X			3	D-IA-7009152-0-0	#	1	BACK PLANE ASSY										
				C-SC-1209583-0-1	1	1	CASTING, THREE BLOCK										
			4	D-CS-5410094-0-1	1	1	CIRCUIT SCHEMATIC		X			11	D-CS-M7817-0-1	#	7	PGM CHAR DET & SEQ CNTL	
				K-CO-5410094-0-4	1	1	X-Y COORDINATE HOLE LOCATION						K-CO-M7817-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
				E-AH-5410094-0-5	1	1	ASSY/DRILLING HOLE LAYOUT						D-AH-M7817-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
				B-MH-5410094-0-6	1	1	MODULE ECO HISTORY						B-MH-M7817-0-6	1	1	MODULE ECO HISTORY	

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

TITLE  
 NPR-SYNC LINE CONTROL  
 SHEET 3 OF 4  
 SIZE CODE  
 B DD  
 NUMBER  
 DQ11-0  
 REV  
 R

CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET										
DQ11-6	DQ11-KA	MFG. SET	FIND NO.	DRAWING NO.	REV OF	DESCRIPTION	OPTION NO./FILE DATE	MFG. SET	FIND NO.	DRAWING NO.	REV OF	DESCRIPTION	OPTION NO./FILE DATE				
			1	D-UA-DQ11-2-3	A 1	NPR SYNC LINE CONTROL											
				A-PL-DQ11-2-2	A 1	NPR SYNC LINE CONTROL (PL)											
				D-UA-BC01R-0-2		MODEM CABLE											
				D-UA-BC01W-25-2		MODEM CABLE (301/303)											
			2	C-IA-7009467-0-0	C 1	WIRED ASSY (DQ11-AA)											
			3	D-IA-7009152-1-0	# 1	BACK PLANE ASSY											
				C-SC-1209583-0-1	1	CASTING THREE BLOCK											
			4	C-IA-7009468-0-0	A 1	WIRED ASSY (DQ11-AB)											
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 4 OF 4		SIZE CODE		NUMBER		REV	
								NPR - SYNC LINE CONTROL		B DD		DQ11-2		R			





## CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

**SEQUENCE**

DRAWING DIRECTORY  
CURRENT ADDR & ADDR SELECT  
REG & BYTE CNT  
FIFO BUFFER  
DH11 LINE PARAMETER CONTROL  
SYSTEM CNTL & RCV SCAN  
PRIORITY SELECTOR  
DH11 DC11 CLOCK  
INTERRUPT CONTROL  
UNIBUS MASTER CONTROL M796  
INTERNAL BUS CONN M920  
CABLE INTERFACE  
M CONNECTOR MODULE  
VARIABLE CLOCK M401  
DTR JUMPER  
CRYSTAL CLOCK M405  
EIA LEVEL CONVERTER  
TTY 20 MA CONVERTER  
POWER HARNESS  
DM11 MAINTENANCE JUMPER  
CIRCUIT SCHEMATIC (BACK PANEL)  
MULTIPLE UART CARD LINES 0-7  
MULTIPLE UART CARD LINES 8-15  
ENGINEERING SPEC  
WIRE LIST  
MODULE UTILIZATION  
DM11-BB BLOCK DIAGRAM  
DM11-DB TRANSMIT & RECEIVE  
DM11-DA CONNECTOR CARDS  
MODULE UTILIZATION (DIST PNL)  
WIRE LIST (DIST PNL)  
SOFTWARE LIST  
ACCESSORY LIST  
I/O CABLE ASSY  
INTERCONNECTION DH11  
H758 POWER SUPPLY  
MODULE UTILIZATION (PL)  
UNIT ASSY (DH11)  
DH11 UNIBUS INTERFACE  
GRANT CONTINUITY CARD  
DH11 MODULE TEST PROCEDURE  
WIRED ASSY (DH11)  
CABLE CARD ASSY

**SEQUENCE**

B-DD-DH11-0  
D-CS-M7277-0-1  
D-CS-M7278-0-1  
D-CS-M7279-0-1  
D-CS-M7288-0-1  
D-CS-M7289-0-1  
D-CS-G7360-0-1  
D-CS-M4540-0-1  
D-CS-M7821-0-1  
D-CS-M796-0-1  
C-CS-M920-0-1  
D-CS-M971-0-1  
C-CS-M973-0-1  
B-CS-M401-0-1  
C-CS-W404-0-1  
B-CS-M405-0-1  
C-CS-M594-0-1  
D-CS-M596-0-1  
D-IA-7008493-0-0  
B-CS-M974-0-1  
D-CS-5410333-0-1  
D-BS-DH11-0-8  
D-BS-DH11-0-9  
A-SP-DH11-0-5  
K-WL-DH11-0-2  
D-MU-DH11-0-3  
D-BD-DH11-0-4  
D-BS-DM11-A-08  
D-IC-DM11-A-09  
D-MU-DM11-A-3  
K-WL-DM11-A-5  
A-SL-DH11-0-7  
A-AL-DH11-0-6  
C-IA-BC08s-0-0  
C-IC-DH11-0-13  
E-UA-H758-0-0  
A-PL-DH11-0-3  
D-UA-DH11-0-0  
D-BD-DH11-0-12  
D-CS-G727-0-1  
A-SP-DH11-0-11  
D-IA-7009180-0-0  
D-UA-BC01R-0-0

**SEQUENCE**

INTERCONNECTION (DM11)  
LOGIC ASSY  
FIFO BUFFER (M7279)  
DH11 OPTION HARNESS  
MODEM CONTROL (LINES 0-07)  
MODEM CONTROL (LINES 8-15)  
EIA DATA LINE CONVERSION &  
PRIORITY  
H317-B CABLE BOX ASSY  
DJ11 EIA DIST PANEL  
MODEM CONTROL BLOCK DIAGRAM  
MODEM I/O CABLE ASSY  
H315 MODEM TEST CONNECTOR  
H816 TEST CONNECTOR  
H8611 TEST CONNECTOR  
CLOCK INSTALLATION PROCEDURE  
20MA TO TTL CONVERTER  
CASSETTE POWER SUPPLY

**SEQUENCE**

C-IC-DM11-A-4  
C-IA-7008456-0-0  
D-BS-DH11-0-15  
D-IA-7009561-0-0  
D-CS-M7808-0-1  
D-CS-M7807-0-1  
  
D-CS-M5906-0-1  
D-UA-H317-0-0  
D-CS-5410260-0-1  
D-BD-DH11-0-16  
C-IA-BC08R-0-0  
D-CS-H315-0-1  
D-CS-H861-0-1  
C-UA-H8611-0-0  
A-SP-DH11-0-17  
D-CS-M5960-0-1  
D-CS-5410131-0-1

MFG. PRINT SET

DH11 TEST PROCEDURE  
ACCEPTANCE PROCEDURE

A-SP-DH11-0-10  
A-AP-DH11-0-14

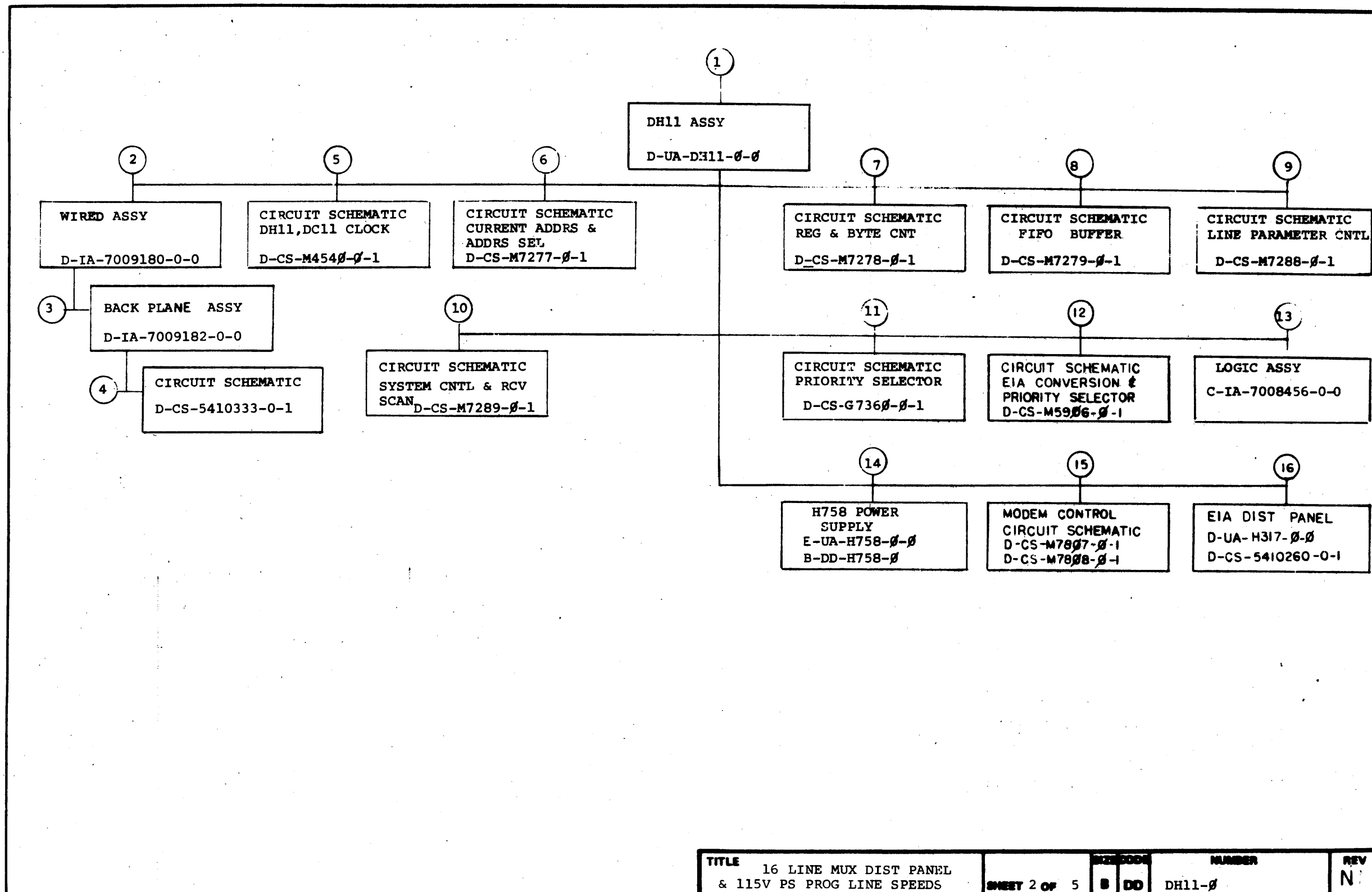
NOTE: CASSETTE POWER SUPPLY 5410131 IS USED IN H758 POWER SUPPLY.

### UNIT VARIATIONS

VAR	TITLE	PRINT SET	
		A	B
DH11-AA	16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS	X	
DH11-AB	16 LINE MUX	X	
DH11-AC	230V DH11 AA	X	
DH11-AD	16 LINE MUX. EIA DIST PANEL, MODEM CONTROL EIA LEVEL CONVERSION	X	
DH11-AE	DH11-AD WITHOUT MODEM CONTROL	X	

REVISIONS	DATE	CHG. NO.	REV																
			A	B	C	D	E	F	G	H	J	K	L	M	N				
	4/73	DH11-1																	
	7/73	DH11-2																	
	12/73	DH11-3																	
	2/74	DH11-4																	
	3/74	DH11-5																	
	6/74	DH11-6																	
	10/74	DH11-7																	
	12/74	DH11-8																	
	1/75	DH11-9																	
	2/75	7009180-3																	
	10/75	DH11-10																	
	7/76	DH11-11																	

USED ON OPTION/MODEL	DRW. R. PUDELKO	DATE 2-9-73	TITLE			
	CHK'D. K GLEEZEN	DATE 2-22-73	16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS			
	PROJ ENG. J. MCNAMARA	DATE 2-22-73				
	PROD. B. DIGREGORI	DATE 02-23-73	SIZE B	CODE DD	NUMBER DH11-0	REV N
	FIELD SERV. R. EVANS	DATE 2-23-	DIST			



TITLE	16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS	SHEET 2 OF 5	SIZE CODE B DO	NUMBER DH11-0	REV N
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CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET		ELECTRICAL						
A	B	MPG SET	DWG NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE	A	B	MPG SET	DWG NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
X	X		1	D-UA-DH11-0-0	E	14	UNIT ASSY (DH11)				3	D-IA-7009182-0-0	1	BACK PLANE ASSY	
X	X			D-BD-DH11-0-16	*	2	MODEM CONTROL BLOCK DIAGRAM								
X	X			D-MU-DH11-0-3	D	1	MODULE UTILAZATION								
X	X			A-PL-DH11-0-3	D	1	MODULE UTILIZATION (PL)								
X	X			D-BD-DH11-0-4	*	1	DM11-BB BLOCK DIAGRAM								
X	X			A-SP-DH11-0-5	B	25	ENGINEERING SPEC		X	X	4	D-CS-5410333-0-1	# 1	CIRCUIT SCHEMATIC (BACK PNL)	
X	X			A-AL-DH11-0-6	D	1	ACCESSORY LIST								
X	X			A-SL-DH11-0-7	A	2	SOFTWARE LIST								
X	X			D-BS-DH11-0-8	A	5	MULTIPLE UART CARD LINE 0-7								
X	X			D-BS-DH11-0-9	A	5	MULTIPLE UART CARD LINE 8-15								
X	X			D-MU-DM11-A-3	#	1	MODULE UTILIZATION (DIST PNL)								
X	X			C-IC-DM11-A-4	#	1	INTERCONNECTION (DM11)								
X	X			K-WL-DM11-A-5	#	1	WIRE LIST (DIST PNL)								
C				D-BS-DM11-A-8	#	2	DM11-DB TRANSMIT & RECEIVE								
X	X			D-IC DM11-A-9	#	2	DM11-DA CONNECTOR CARDS		X	X	6	D-CS-M7277-0-1	# 6	CIRCUIT SCHEMATIC (CURRENT ADDR)	
X	X			C-IA-BC08S-0-0	#	1	I/O CABLE ASSY								
X	X			D-IA-7008493-0-0	#	1	POWER HARNESS								
X	X			C-IA-BC08R-0-0	#	1	MODEM I/O CABLE ASSY.								
X	X			B-CS-M401-0-1	#	1	VARIABLE CLOCK (M401)								
X	X			C-CS-M404-0-1	#	1	DTR JUMPER								
X	X			B-CS-M405-0-1	#	1	CRYSTAL CLOCK (M405)								
X	X			C-CS-M594-0-1	#	1	EIA LEVEL CONVERTER								
X	X			D-CS-M596-0-1	#	2	TTY 20 MA CONVERTER		X	X	7	D-CS-M7278-0-1	# 8	CIRCUIT SCHEMATIC (REG&BYTE CNT)	
X	X			D-CS-M782I-0-1	#	1	INTERRUPT CONTROL								
X	X			D-CS-M796-0-1	#	1	UNIVUS MASTER CONTROL (M796)								
X	X			C-CS-M920-0-1	#	1	INTERNAL BUS CONN (M920)								
X	X			D-CS-M971-0-1	#	1	CABLE INTERFACE								
X	X			C-CS-M973-0-1	#	1	TTY CABLE CONNECTOR								
X	X			B-CS-M974-0-1	#	1	DM11 MAINTENANCE JUMPER								
X	X			D-CS-H861-0-1	#	1	H861 TEST CONNECTOR								
X	X		X	A-SP-DH11-0-10	B	40	DH11 TEST PROCEDURE								
X	X			A-SP-DH11-0-11	A	28	DH11 MODULE TEST PROCEDURE		X	X	8	D-CS-M7279-0-1	# 3	CIRCUIT SCHEMATIC (FIFO BUFFER)	
X	X			D-BD-DH11-0-12	C	3	DH11 UNIBUS INTERFACE								
X	X			C-IC-DH11-0-13	B	2	INTERCONNECTION DH11								
X	X			D-UA-BC01R-0-0	#	1	CABLE CARD ASSY								
X	X			D-CS-G727-0-1	#	1	GRANT CONTINUITY CARD								
X	X		X	A-AP-DH11-0-14	B	7	ACCEPTANCE PROCEDURE								
X	X			D-BS-DH11-0-15	*	2	FIFO BUFFER (M7279)								
X	X			D-IA-7009561-0-0	#	1	DH11 PWR HARNESS								
X	X			D-CS-H315-0-1	#	1	H315 MODEM TEST CONNECTOR								
X	X			C-AU-H861I	#	1	M5906 TEST CONNECTOR								
X	X		2	D-IA-7009180-0-0	#	1	WIRED ASSY (DH11)								
C	C			K-WL-DH11-0-2	C	1	WIRE LIST								
				A-WT-7009180-0	#	1	AWT REVISION STATUS								

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	16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS	SHEET	3 OF 5	SIZE	CODE	8	DD	NUMBER	DH11-0	REV	N
--------------------------	--	-------	---	-------	--------	------	------	---	----	--------	--------	-----	---

CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET										
A	E	MFG. SET	FIG. NO.	DRAWING NO.	REV	NO OF SHY	DESCRIPTION	OPTION NO / FILE DATE	A	B	MFG. SET	FIG. NO.	DRAWING NO.	REV	NO OF SHY	DESCRIPTION	OPTION NO / FILE DATE
X	X		9	D-CS-M7288- <del>0</del> -1	#	11	CIRCUIT SCHEMATIC (LINE PARAM)		X			15	D-CS-M7887- <del>0</del> -1	#	7	CIRCUIT SCHEMATIC (BUS CONTROL MUX)	
				K-CO-M7288- <del>0</del> -4		1	X-Y COORDINATE HOLE LOCATION						K-CO-M7887- <del>0</del> -4		1	X-Y COORDINATE HOLE LOCATION	
				D-AH-M7288- <del>0</del> -5		1	ASSY DRILLING HOLE LOCATION						D-AH-M7887- <del>0</del> -5		1	ASSY DRILLING HOLE LAYOUT	
				B-MH-M7288- <del>0</del> -6		1	MODULE ECO HISTORY						B-MH-M7887- <del>0</del> -6		1	MODULE HISTORY	
X	X		10	D-CS-M7289- <del>0</del> -1	#	6	CIRCUIT SCHEMATIC (SYSTEM CNTL)		X				D-CS-M7888- <del>0</del> -1	#	7	CIRCUIT SCHEMATIC (MODEM CONTROL)	
				K-CO-M7289- <del>0</del> -4		1	X-Y COORDINATE HOLE LOCATION						K-CO-M7888- <del>0</del> -4		1	X-Y COORDINATE HOLE LOCATION	
				D-AH-M7289- <del>0</del> -5		1	ASSY DRILLING HOLE LOCATION						D-AH-M7888- <del>0</del> -5		1	ASSY DRILLING HOLE LAYOUT	
				B-MH-M7289- <del>0</del> -6		1	MODULE ECO HISTORY		X				B-MH-M7888- <del>0</del> -6		1	MODULE HISTORY	
X			11	D-CS-G736 <del>0</del> - <del>0</del> -1	#	1	CIRCUIT SCHEMATIC (PRIORITY SEL)		X	X			A-SP-DH11-0-17			INSTALLATION OF ADDITIONAL DM11 CLOCKS	
				K-CO-G736 <del>0</del> - <del>0</del> -4		1	X-Y COORDINATE HOLE LOCATION		X				D-CS-M5960-0-1	#	2	20 MA TC TTL CONVERTER	
				D-AH-G736 <del>0</del> - <del>0</del> -5		1	ASSY DRILLING HOLE LOCATION										
				B-MH-G736 <del>0</del> - <del>0</del> -6		1	MODULE ECO HISTORY										
X			12	D-CS-M59 <del>0</del> 6- <del>0</del> -1	#	3	CIRCUIT SCHEMATIC (EIA LEVEL CONVERSION + PRIORITY SEL)										
				K-CO-M59 <del>0</del> 6- <del>0</del> -4	#	1	X-Y COORDINATE HOLE LOCATION										
				D-AH-M59 <del>0</del> 6- <del>0</del> -5	#	1	ASSY DRILLING HOLE										
				B-MH-M59 <del>0</del> 6- <del>0</del> -6	#	1	MODULE HISTORY										
				B-DD-9305931-0	#	2	M59 <del>0</del> 6 TESTER										
X			13	C-IA-7008456-0-0	#	1	LOGIC ASSY (DM11 PNL)										
				D-AD-7008443-0-0		1	WIRED ASSY (DM11)										
				A-PL-7008443-0-0		1	WIRED ASSY (DM11 PL)										
X			14	B-DD-H758-0		1	DRAWING DIRECTORY										
				E-UA-H758-0-0	#	2	UNIT ASSY (H758)										
X				D-CS-5410131-0-1	#	2	CASSETTE POWER SUPPLY										

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

TITLE 16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS

SHEET 4 OF 5

SIZE CODE B DD

NUMBER DH11-~~0~~

REV N

CUSTOMER PRINT SET		MECHANICAL					CUSTOMER PRINT SET		MECHANICAL									
A	B	MFG. SET FIG. NO.	DRAWING NO.	REV.	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE	A	B	MFG. SET FIG. NO.	DRAWING NO.	REV.	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE			
		1	D-UA-DH11- <del>g</del> - <del>g</del>	E	14	UNIT ASSY (DH11)				8	D-CS-M7279- <del>g</del> -1 K-CO-M7279- <del>g</del> -4 D-AH-M7279- <del>g</del> -5 B-MH-M7279- <del>g</del> -6	# 1 1 1	3 1 1 1	CIRCUIT SCHEMATIC (PIPO BUFFER) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				
		2	D-IA-7009180-0-0	*	1	WIRED ASSY (DH11)												
		3	D-IA-7009182-0-0		1	BACK PLANE ASSY				9	D-CS-M7288- <del>g</del> -1 K-CO-M7288- <del>g</del> -4 D-AH-M7288- <del>g</del> -5 B-MH-M7288- <del>g</del> -6	# 1 1 1	11 1 1 1	CIRCUIT SCHEMATIC (LINE PARA) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				
		4	D-CS-5410333-0-1 K-CO-5410333-0-4 D-AH-5410333-0-5 B-MH-5410333-0-6	# 1 1 1	1	CIRCUIT SCHEMATIC (BACK PANEL) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				10	D-CS-M7289- <del>g</del> -1 K-CO-M7289- <del>g</del> -4 D-AH-M7289- <del>g</del> -5 B-MH-M7289- <del>g</del> -6	# 1 1 1	6 1 1 1	CIRCUIT SCHEMATIC (SYSTEM CNTL) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				
X	X	5	D-CS-M454 <del>g</del> - <del>g</del> -1 K-CO-M454 <del>g</del> - <del>g</del> -4 D-AH-M454 <del>g</del> - <del>g</del> -5 B-MH-M454 <del>g</del> - <del>g</del> -6	# 1 1 1	2	CIRCUIT SCHEMATIC (DH11,DC11 CLOCK) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				11	D-CS-G7360- <del>g</del> -1 K-CO-G7360- <del>g</del> -4 D-AH-G7360- <del>g</del> -5 B-MH-G7360- <del>g</del> -6	# 1 1 1	1 1 1 1	CIRCUIT SCHEMATIC (PRIORITY SEL) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				
		6	D-CS-M7277- <del>g</del> -1 K-CO-M7277- <del>g</del> -4 D-AH-M7277- <del>g</del> -5 B-MH-M7277- <del>g</del> -6	# 1 1 1	6	CIRCUIT SCHEMATIC (CURRENT ADDRS) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				13	C-IA-7008456-0-0 D-AD-7008443-0-C A-PL-7008443-0-C	# 1 1 1	1 1 1	LOGIC ASSY (DM11 PNL) WIRE ASSY (DM11) WIRED ASSY (DM11 PL)				
		7	D-CS-M7278- <del>g</del> -1 K-CO-M7278- <del>g</del> -4 D-AH-M7278- <del>g</del> -5 B-MH-M7278- <del>g</del> -6	# 1 1 1	8	CIRCUIT SCHEMATIC (REG&BYTE CNT) X-Y COORDINATE HOLE LOCATION ASSY DRILLING HOLE LOCATION MODULE ECO HISTORY				14	B-CD-M758-0 E-UA-M758-0-0	# 1 2	1 2	DRAWING DIRECTORY UNIT ASSY (M758)				
										16D	UA-H317-0-0		1	H317 CABLE BOX 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		16 LINE MUX DIST PANEL & 115V PS PROG LINE SPEEDS		SHEET 5 OF 5		SIZE CODE	B DD	NUMBER	DM11-g	REV	N

# MASTER DRAWING LIST

MAINTENANCE MANUALS		UNIT VARIATIONS											
NO.	TITLE	DM11-A	DM11-AB	DM11-AC									
	DM11-A 16 LINE MULTIPLEXER	X	X	X									

USED ON OPTIONS	

REVISIONS		DATE			CHG. NO.	DATE				DWG. NO.	REV. NO. OF SHEETS	TITLE	OPTION NO.
APP'D.	DATE	12-74	00024	VB	A C	12-75	00002	VB	AD	12-76	00025	VF	

DRN. FLANDEKS	DATE 5-71	<b>digital</b> CORPORATION MAYNARD, MASSACHUSETTS
CHK'D. R COOK	DATE 6-71	
ENG. VBASTIANI	DATE 6-71	TITLE
PRO. VBASTIANI	DATE 6-71	16 LINE MULTIPLEXER
PROD. P FAZIO	DATE 6-71	

FIRST USED ON	PDP11	SIZE CODE	NUMBER	REV.
SCALE	1/4"	A ML	DM11-A	AE
SHEET	1	DIST.		

DRA 131

Dec 16--(325)--1048-N471

PRINT SET		DWG. NO.	REV. LET.	REV. NO. OF SHEETS	TITLE	OPTION NO.
X	DM11-A	D-DI-DM11-A-1	F	1	DRAWING INDEX LIST	
X		D-BS-DM11-A-07	A	2	DM11-DA TRANSMIT & RECEIVER	
X		D-BS-DM11-A-08		2	DM11-DB TRANSMIT & RECEIVER	
X		D-CS-M7240-0-1	#	4	DM11 CONTROL A	
X		D-CS-M7241-0-1	#	4	DM11 CONTROL B	
X		D-CS-M7242-0-1	#	3	DM11 CONTROL C	
X		D-CS-M7243-0-1	#	4	DM11 TRANSMITTER CARD	
X		D-CS-M7244-0-1	#	4	DM11 TRANSMITTER E	
X		D-CS-M7245-0-1	#	5	DM11 RECEIVER	
X		C-CS-M105-0-1	#	1	ADDRESS SELECTOR	
X		D-CS-M4050-0-1	#	1	CRYSTAL CLOCK	
X		C-CS-M920-0-1	#	1	UNIBUS CONNECTOR MODULE	
X		D-CS-M7821-0-1	#	1	INTERUPT CONTROL	
X		C-CS-714-0-1	#	1	POWER SUPPLY	
X		D-CS-M971-0-1	#	1	CABLE INTERFACE BOARD	
X		D-MU-DM11-A-2	H	1	MODULE UTILIZATION (CONTROL)	
X		D-MU-DM11-A-3	B	1	MODULE UTILIZATION (DISTRIBUTION PANEL)	
X		C-IC-DM11-A-4	C	1	INTERCONNECTION DM11	
X		D-IC-DM11-A-2	A	2	DM11-DA CONNECTOR CARDS	
X		D-IC-DM11-A-10		2	DM11-DB CONNECTOR CARDS	
X		C-IA-RC088-0-0	#	1	I/O CABLE ASSEMBLY	
X		D-IA-7008493-0-0		1	POWER HARNESS	
X		A-PL-DM11-A-2	H	1	MODULE UTILIZATION (CONTROL) (PL)	
X		A-AL-DM11-A-13	E	1	ACCESSORY LIST	
X		D-UA-DM11-A-0	D	1	16 LINE MULTIPLEXER	
X		A-PL-DM11-A-0	D	1	16 LINE MULTIPLEXER (PL)	

TITLE 16 LINE MULTIPLEXER			SHEET 2	OF 3	SIZE CODE A ML	NUMBER DM11-A	REV AE
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DRA 132

DEC 16 (325)-1048-1-N471

PRINT SET				DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.		
DM11-A										
X				D-AD-7008443-0-0	A	1	WIRED ASSY (DM11)			
X				A-PL-7008443-0-0	A	1	WIRED ASSY (DM11) (PL)			
X				D-AD-7008444-0-0	E	2	WIRED ASSY (CONTROL)			
X				A-PL-7008444-0-0	E	1	WIRED ASSY (CONTROL) (PL)			
				A-WT-7008444-0	#	1	AWT REVISION STATUS			
X				C-IA-7008456-0-0	#	1	LOGIC ASSY			
C				K-WL-DM11-A-5	E	1	WIRE LIST DISTRIBUTION PANEL			
C				K-WL-DM11-A-6	L	1	WIRE LIST CONTROL			
X				A-WT-7008443-0	#	1	AWT REVISION STATUS SHEET			
X				A-ML-DM11-D	#	2	LINE MODULE SET			
X				E-UA-H758-0-0	#	1	H758 POWER SUPPLY ASSY			
X				B-DD-H758-0	#	3	H758 POWER SUPPLY ASSY			
X				D-CS-5410131-0-1	#	2	CASSETTE POWER SUPPLY			
X				D-IA-7008423-0-0	#	1	CABLE ASSY (M972 TO 2 W077'S)			
X				A-PI-3700III-I-0	#	2	PACKAGING INSTRUCTIONS			
TITLE					16 LINE MULTIPLEXER		SHEET 3 OF 3	SIZE CODE	NUMBER	REV.
							AML	DM11-A	AE	

DRA 132  
DEC 16-(325)-1048-1-N471



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## MASTER DRAWING LIST

DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE
A-PL-DB11-A-0	E	1	DB11-A UA PL
D-AD-7009612-0-0	E	2	WIRED ASSY
A-WT-7009612-0	#	1	AWT REVISION STATUS
D-MU-DB11-A-01	E	1	MODULE UTILIZATION
A-PL-DB11-A-01	C	1	MODULE UTILIZATION PL
D-BS-DB11-A-02	B	1	BUS REPEATER DB11 UNIDIR LINES
D-BS-DB11-A-03	A	1	BUS REPEATER DATA LINES
D-IC-DB11-A-04	B	1	BUS AND POWER CONNECTIONS
D-BD-DB11-A-05	D	1	DB11 INTER CONNECTION DIAGRAM
K-WL-DB11-A-06	L	2	WIRE LIST (DB11-A) (COMPLETE)
A-SP-DB11-A-7	D	4	BUS REPEATER SPECIFICATION
A-AL-DB11-A-10		1	ACCESSORY LIST
D-IA-7009563-0-0	#	1	POWER HARNESS (DA11-F/DD11-B)
A-SP-DB11-A-8	REF	2	TEST PROCEDURE
A-SP-DB11-A-9	REF	2	IN HOUSE ACCEPTANCE TEST

REVISIONS				DRN. BISSONNETTE	DATE	digital	EQUIPMENT CORPORATION
REV.	DATE	CHG. NO.	APP'D.	CHK'D.	DATE		
A	5/71	DB11A-1	V.B.	MACKENZIE	3/3/71	TITLE  DB11-A BUS REPEATER  NUMBER DB11-A  W	
B	6/71	DB11A-2	V.B.				
C	9/71	DB11A-3	A.V.				
D	1/72	DB11A-4	V.B.				
E	2/72	DB11A-5	V.B.				
F	7-73	DB11A-6	V.B.				
H	10-73	DB11A-7	V.B.				
J	10-73	DB11A-8	T.R.				
K	12-73	DB11A-9	T.R.				
L	1-74	DB11A-10	V.B.				
M	1-74	DB11A-11	T.R.				
N	10-74	DB11A-12	V.P.				
				FIRST USED ON	DATE		
				PDP11	3/25/71		
				SCALE	7/7		
				SHEET	1 OF 2		

DEC FORM NO. 16-1033  
DRA 103

### ADDITIONAL CUSTOMER PRINTS DB11-A

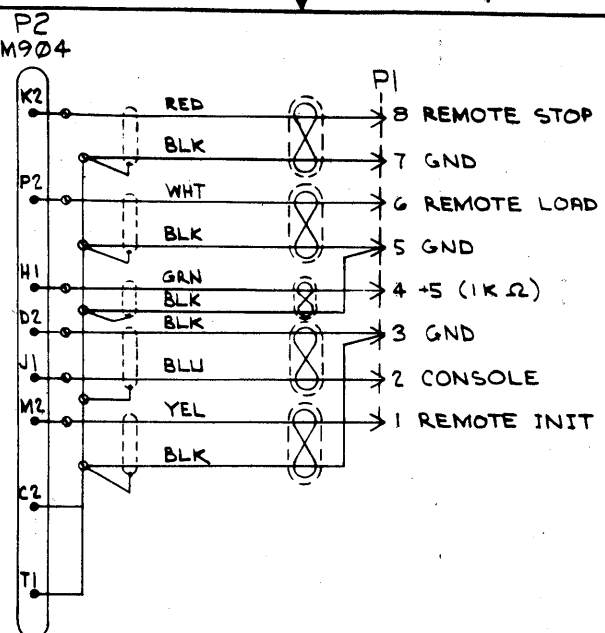
Drawing Number	Rev. Let.	Title
D-CS-M7212-0-1	#	A LINE REPEATER
D-CS-M7213-0-1	#	MASTER REPEATER
B-CS-M783-0-1	#	UNIBUS DRIVERS
B-CS-M784-0-1	#	UNIBUS RECEIVERS
B-CS-M785-0-1	#	UNIBUS TRANCEIVERS
C-CS-M930-0-1	#	BUS TERMINATOR
D-CS-M7248-0-1	#	UNIBUS REPEATER CARD

Rev.	Date	Change Number	
P	11-74	DB11A-00013	V. BISSONNETTE 2/23/71 Requested by _____ Date _____  <i>(Signature)</i> Authorized by _____ Date _____  A-ML-DB11-A SHEET 2 OF 2
R	3-75	DB11A-00014	
S	1-76	DB11A-00015	
T	2-76	DB11A-00016	
U	2-76	DB11A-00017	
V	7-76	DB11A-00018	
W	6-77	DB11A-00019	

RFV  
W

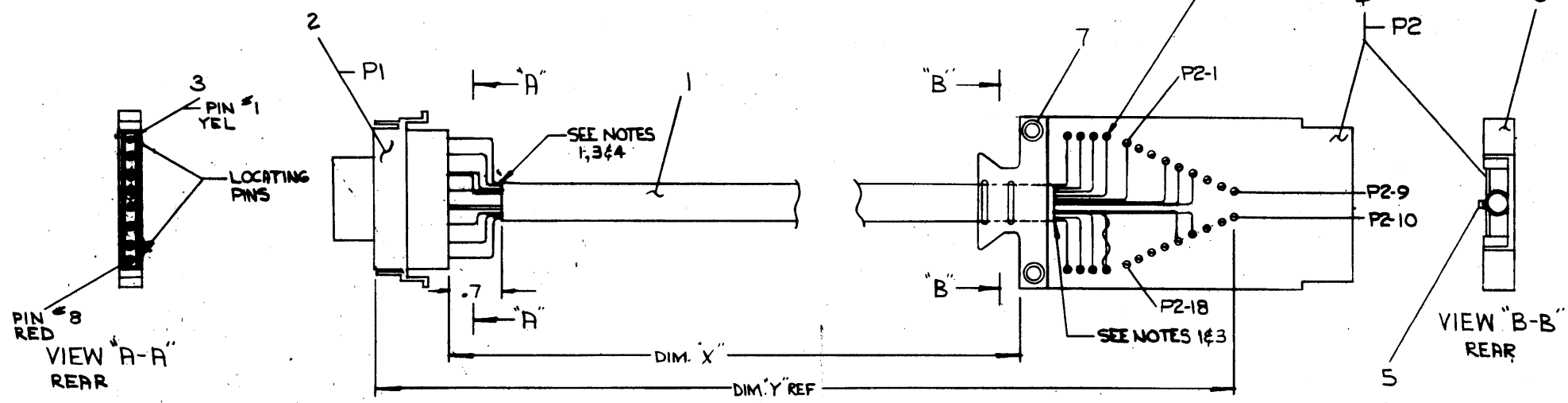
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WIRE TABLE						
ITEM NO.	DESCRIPTION	FROM	TO	CONNECTION WITH	CONNECTION WITH	REMARKS
1	#22 YEL	P1-1	3	P2-5	SOLD.	REMOTE INIT
	TWP BLK	P1-3	8	P2-GND		GND
	#22 BLK	P1-2	3	P2-14		CONSOLE H
	#22 GRN	P1-4	3	P2-13		+5 (1K 1/2)
	#22 BLK	P1-5	8	P2-GND		GND
	TWP WHT	P1-6	3	P2-6		REMOTE LOAD L
	#22 BLK	P1-7	3	P2-GND		GND
	TWP RED	P1-8	3	P2-4		REMOTE STOP L
	SHIELD			P2-GND		SHIELD GND
	SHIELD			P2-GND		SHIELD GND
	SHIELD			P2-GND		SHIELD GND
	SHIELD			P2-GND		SHIELD GND
	SHIELD			P2-GND	SOLD.	SHIELD GND



LEGEND		
NUMBER	DIM. 'X'	DIM. 'Y' REF
7009719-7	7 FEET	8 FEET
-10	10	11
-12	12	13
-14	14	15
-16	16	17
-20	20	21
7009719-25	25 FEET	26 FEET

- NOTES:
1. TERMINATE SHIELDS AS CLOSE TO CONNECTOR AS POSSIBLE WITHOUT CAUSING DANGER OF SHORT.
  2. ALL EIGHT SPLIT LUGS SHOWN AS ⊙ ARE GROUND AND WIRES SHOWN CAN BE ON ANY OF THEM.
  3. CUT OFF BRN/BLK PAIR CLOSE TO JACKET AT BOTH ENDS.
  4. CUT OFF DRAIN WIRES AS CLOSE AS POSSIBLE TO JACKET.



QTY.	DESCRIPTION	PART NO.	ITEM NO.
2	TERMINAL, PIN CONTACT (MALE)	1209378-01	8
2	EYELET	9007459	7
1	CLAMP	1202790	6
2	TIE WRAP, SST 1M 3/32 W.	9007031	5
1	MODULE	M904	4
6	TERMINAL, PIN CONTACT (MALE)	1209378-03	3
1	CONN, HSG 8 PIN	1209340-01	2
R/R	BELDEN CABLE	1700010	1

FIRST USED ON OPTION/MODEL DCT6 (DLIΦ)		PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DATE 12-13-77	DIGITAL EQUIPMENT CORPORATION	
DECIMALS .005	DATE 12-13-77	TITLE DLIΦ-11/40 REMOTE CONSOLE CABLE	
ANGLES ±0°30'	DATE 12-13-77	SIZE CODE DIA 7009719-0-0	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	DATE 12/13/77	REV. 1	
MATERIAL ++	NEXT HIGHER ASSY. R-PL-DLIΦ-A-MUWR	SCALE SHEET 1 OF 1	
FINISH ++	DATE 12/13/77	DIST.	

REVISIONS  
REV. NO. CHANGE NO.  
CHK. DATE

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### WIRE TABLE

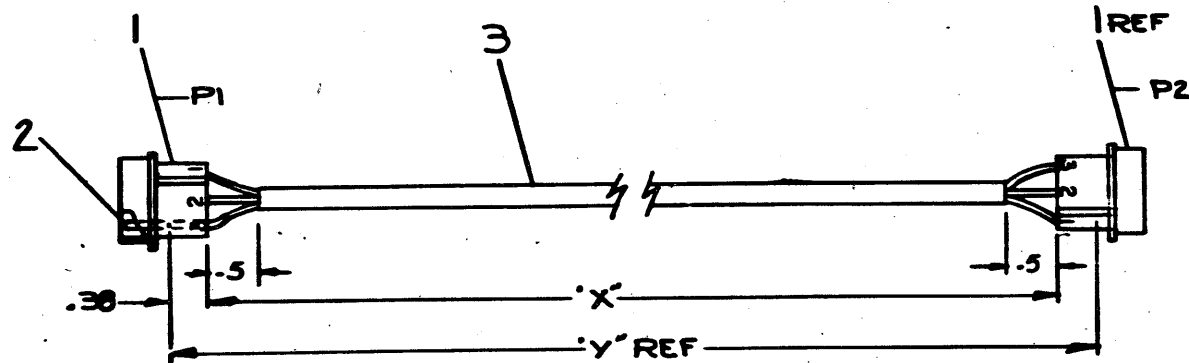
ITEM NO	DESCRIPTION	FROM		TO	
		AWG	COLOR CONNECTION	WITH CONNECTION	WITH CONNECTION
3	22	RED	P1-1	2	P2-1
3	22	BLK	P1-2	2	P2-2
3	22	GRN	P1-3	2	P2-3

### LEGEND

NUMBER	DIM X VARIATION	DIM Y (PRECUT) REF
7008288-3F	3FT. 6IN ± 1IN.	3FT. 6.8IN ± 1IN.
7008288-8F	8FT. 6IN ± 2IN.	8FT. 6.8IN ± 2IN.
7008288-06	6FT. ± 2IN.	6FT. 0.8IN ± 2IN.
7008288-12	12FT. ± 3IN.	12FT. 0.8IN ± 3IN.
7008288-05	5FT. ± 1IN.	5FT. 0.8IN ± 2IN.
7008288-10	10FT. ± 2IN.	10FT. 0.8IN ± 3IN.
7008288-15	15FT. ± 3IN.	15FT. 0.8IN ± 3IN.
7008288-08	8FT. ± 2IN.	8FT. 0.8IN ± 2IN.
7008288-30	30FT. ± 7IN.	30FT. 0.8IN ± 7IN.
7008288-40	40FT. ± 10IN.	40FT. 0.8IN ± 10IN.

### NOTES:

~~THE REMAINING CABLES TO BE CUT BACK AT JACKET (BOTH ENDS)~~



REV.	CHANGE NO.	REV.
A	00001	7/3/71
B	00002	8-15-71
C	00003	9-1-71
D	00004	3-28-75
E	00005	5-18-75
F	00006	5-MAR-76
G	00007	23-APR-76
H	00008	23-MAY-77

**PDP/11**

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS IN INCHES

TOLENCES  
FRACTIONS DECIMALS ANGLES  
± .010 ± .005 ± .010

FINE SURFACE QUALITY  
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL  
SEE PARTS LIST

FINISH  
#

QTY.	DESCRIPTION	PART NO.	ITEM NO.
3	WIRE, 3 COND #22AWG	9107756	3
2	PIN MALE #G0620-1	1209378-03	2
1	PIN HOUSING #1-480305-0	1209351-03	1

**PARTS LIST**

DRN. *[Signature]* DATE 3/24/71  
CHKD. *[Signature]* DATE 3-31-71  
ENGR. *[Signature]* DATE 3-31-71  
PROL. ENGR. *[Signature]* DATE 4-7-71  
PROD. *[Signature]* DATE 4-12-71

**EQUIPMENT CORPORATION**  
MILFORD, MASSACHUSETTS

TITLE  
**CABLE ASSY**

SCALE  
D-11A-RK02-0-0

SHEET 1 OF 1

DIST. G

C/A 7008288-0-0 H



## CUSTOMER PRINT SET INDEX

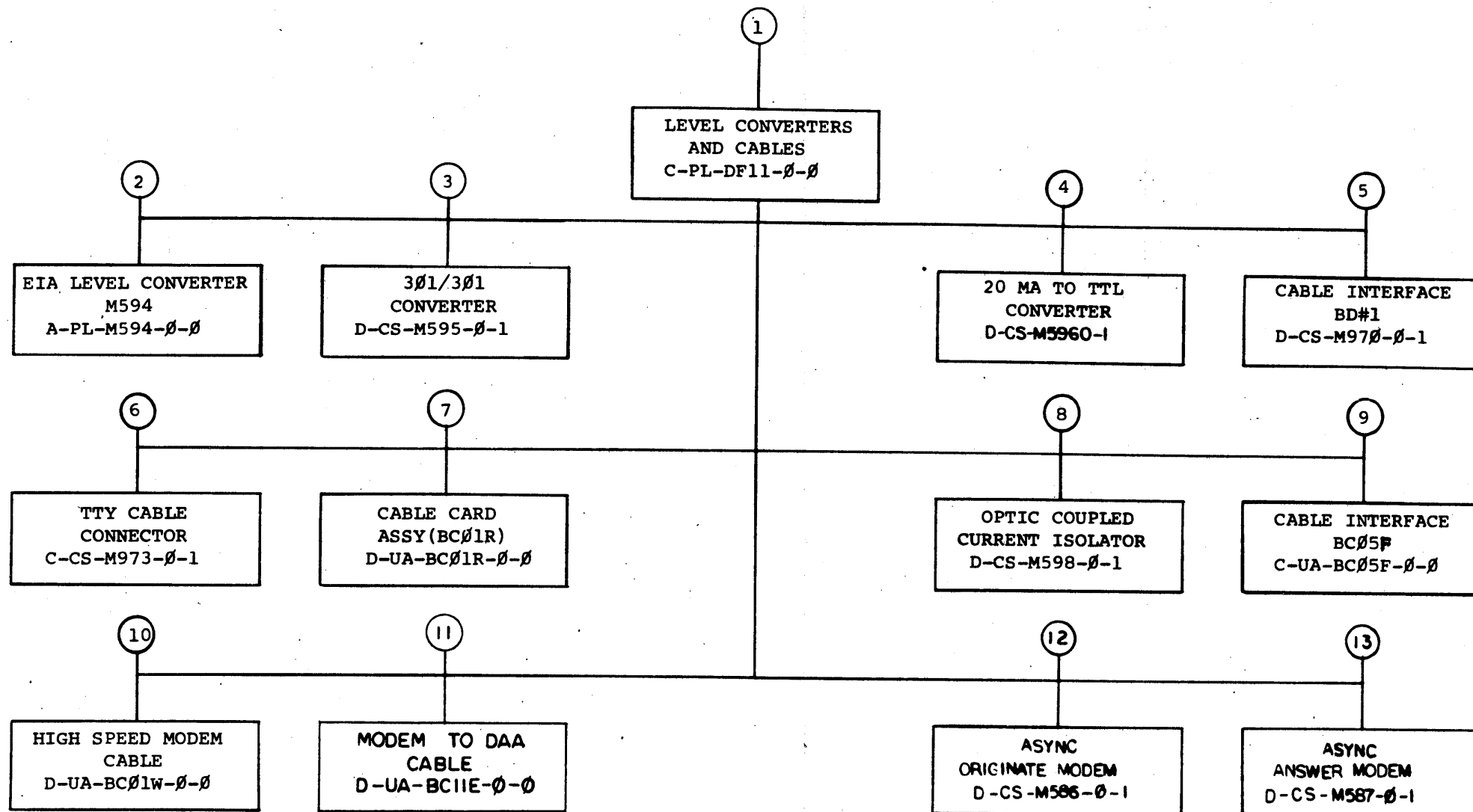
THIS IS PRINT SET

PRINT SET #1	SEQUENCE
DRAWING DIRECTORY	B-DD-DF11- $\beta$
ENGINEERING SPEC	A-SP-DF11- $\beta$ -1
EIA/LEVEL CONVERTER	A-PL-M594- $\beta$ - $\beta$
EIA/LEVEL CONVERTER	C-CS-M594- $\beta$ -1
3 $\beta$ 1/3 $\beta$ 3 CONVERTER	D-CS-M595- $\beta$ -1
20 MA TO TTL CONVERTER	D-CS-M596- $\beta$ -1
OPTIC COUPLED CURRENT ISOLATOR	D-CS-M598- $\beta$ -1
CABLE CARD ASSY (BC $\beta$ 1R)	D-UA-BC $\beta$ 1R- $\beta$ - $\beta$
CABLE INTERFACE (BC $\beta$ 5F)	C-UA-BC $\beta$ 5F- $\beta$ - $\beta$
HIGH SPEED MODEM CABLE	D-UA-BC $\beta$ 1W- $\beta$ - $\beta$
TTY CABLE CONNECTOR	C-CS-M973- $\beta$ -1
CABLE INTERFACE BD #1	D-CS-M97 $\beta$ - $\beta$ -1
LEVEL CONVERTERS & CABLES	C-PL-DF11- $\beta$ - $\beta$
MODEM TO DAA CABLE	D-UA-BC11E- $\beta$ - $\beta$
ASYNC ORIGINATE MODEM	D-CS-M586- $\beta$ -1
ASYNC ANSWER MODEM	D-CS-M587- $\beta$ -1

UNIT VARIATIONS		PRINT SET	
VAR	TITLE	DF11-1	
DF11-A	TTL TO EIA RS-232-C/CCITT V24	x	
DF11-BA	TTL TO AUDIO-ORIGINATE FREQ MODEM	x	
DF11-BB	TTL TO AUDIO-ANSWER FREQ MODEM	x	
DF11-F	TTL TO ACTIVE 20MA LOCAL TELEPRINTER	x	
DF11-G	TTL TO BELL SYSTEM 301 & 303	x	
DF11-K	TTL TO OPTICAL COUPLED 20 MA	x	

REVISIONS	DATE	CHG. NO.	REV
	3-73	DF11-6	A
	5-73	DF11-7	B
	9-73	DF11-8	C
	5-74	DF11-9	D
	9-75	DF11-10	E

USED ON OPTION/MODEL	DRN. G. FLANDERS	DATE 9/11/72	TITLE			
	CHK'D. J. CAHILL <td>DATE 10/13/72 <td colspan="4">LEVEL CONVERTERS AND CABLES</td> </td>	DATE 10/13/72 <td colspan="4">LEVEL CONVERTERS AND CABLES</td>	LEVEL CONVERTERS AND CABLES			
	PROJ. ENG. <i>[Signature]</i> <td>DATE 1-2-73 <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td> </td>	DATE 1-2-73 <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td>	SIZE	CODE	NUMBER	REV
	PRG. <i>[Signature]</i> <td>DATE 1-3-72 <td>B</td> <td>DD</td> <td>DF11-<math>\beta</math></td> <td>E</td> </td>	DATE 1-3-72 <td>B</td> <td>DD</td> <td>DF11-<math>\beta</math></td> <td>E</td>	B	DD	DF11- $\beta$	E
	FIELD <i>[Signature]</i> <td>DATE 1-3-72 <td>QST</td> <td></td> <td></td> <td></td> </td>	DATE 1-3-72 <td>QST</td> <td></td> <td></td> <td></td>	QST			
SHEET 1 OF 4						



TITLE	SIZE	CODE	NUMBER	REV
LEVEL CONVERTERS AND CABLES	B	DD	DF11-0	E
SHEET 2 OF 4				

CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET		ELECTRICAL						
DF11-1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	DF11-1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	C-PL-DF11-0-0	F	1	LEVEL CONVERTERS AND CABLES					D-AH-M973-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
X			A-SP-DF11-0-1	B	10	ENGINEERING SPEC					B-MH-M973-0-6	1	1	MODULE ECO HISTORY	
			A-SP-DF11-0-2	C	16	ACCEPTANCE PROCEDURE									
			A-SP-DF11-0-3	*	2	OPTION TEST PROCEDURE		X		7	D-UA-BC01R-0-0	#	1	CABLE CARD ASSY (BC01R)	
											C-CS-BC01R-0-2	1	1	BC01R-25	
											B-SP-BC01R-0-3	1	1	TEST PROCEDURE	
X		2	A-PL-M594-0-0	#	1	EIA LEVEL CONVERTER M594									
X			C-CS-M594-0-1	#	1	EIA LEVEL CONVERTER M594		X		8	D-CS-M598-0-1	#	1	OPTIC COUPLED CURRENT ISOLATOR	
			K-CO-M594-0-4		1	X-Y COORDINATE HOLE LOCATION					K-CO-M598-0-4	1	1	X-Y COORDINATE HOLE LOCATION	
			D-AH-M594-0-5		1	ASSY/DRILLING HOLE LAYOUT					D-AH-M598-0-5	1	1	ASSY/DRILLING HOLE LAYOUT	
			B-MH-M594-0-6		1	MODULE ECO HISTORY					B-MH-M598-0-6	1	1	MODULE ECO HISTORY	
			A-ML-M594-T		1	M594 TESTER					5009823	1	1	ETCHED CIRCUIT BOARD	
											A-ML-M598-T	1	1	M598 TESTER	
											A-SP-M598-0-8	9	9	M598 SPECIFICATIONS	
X		3	D-CS-M595-0-1	#	2	301/303 CONVERTER					B-CS-M598-0-2	1	1	M598 TESTER	
			K-CO-M595-0-4		1	X-Y COORDINATE HOLE LOCATION									
			D-AH-M595-0-5		1	ASSY/DRILLING HOLE LOCATION									
			B-MH-M595-0-6		1	MODULE ECO HISTORY									
			B-SP-M595-0-7		3	TEST PROCEDURE		X		9	C-UA-BC05F-0-0	#	1	CABLE INTERFACE BC05F	
											B-CS-BC05F-0-2	1	1	CIRCUIT SCHEMATIC	
											B-SP-BC05F-0-3	1	1	TEST PROCEDURE	
X		4	D-CS-M5960-0-1	#	2	20 MA TO TTL CONVERTER									
			K-CO-M5960-0-4		1	X-Y COORDINATE HOLE LOCATION									
			D-AH-M5960-0-5		1	ASSY/DRILLING HOLE LAYOUT		X		10	D-UA-BC01W-0-0	#	1	HIGH SPEED MODEM CABLE	
			B-MH-M5960-0-6		1	MODULE ECO HISTORY									
X		5	D-CS-M970-0-1	#	1	CABLE INTERFACE BD #1		X		11	D-UA-BC11E-0-0	#	1	MODEM TO DAA CABLE	
			K-CO-M970-0-4		1	X-Y COORDINATE HOLE LOCATION									
			D-AH-M970-0-5		1	ASSY/DRILLING HOLE LAYOUT									
			B-MH-M970-0-6		1	MODULE ECO HISTORY									
X		6	C-CS-M973-0-1	#	1	TTY CABLE CONNECTOR									
			K-CO-M973-0-4		1	X-Y COORDINATE HOLE LOCATION									

DRB 108  
DEC 16-(325)-1062-2B-R972

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 3 OF 4	SIZE CODE	NUMBER	REV
		LEVEL CONVERTERS AND CABLES		B DU	DF11-0	E

CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET							
DF11-1	MPG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	MPG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		12	A-PS-20M586-g-g		11	ORIGINATE FREQ MODEM								
			A-II-20M586-g-g		8	INCOMING INSPECTION PROCEDURE								
X			D-CS-M586-g-1	#	2	ASync ORIGINATE MODEM								
			B-MH-M586-g		1	MODULE HISTORY								
		13	A-PS-20M587-g-g		11	ANSWER FREQ MODEM								
			A-II-20M587-g-g		8	INCOMING INSPECTION PROCEDURE								
X			D-CS-M587-g-1	#	2	ASync ANSWER MODEM								
			B-MH-M587-g		1	MODULE HISTORY								
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	
							LEVEL CONVERTERS AND CABLES		SHEET 4 of 4		B DD		DF11-g E	

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<b>DIGITAL EQUIPMENT CORPORATION</b>						
MAYNARD, MASSACHUSETTS						
<b>ENGINEERING SPECIFICATION</b>					DATE June 30, 1972	
TITLE DF11 Serial Line Signal Conditioning Options						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	DF11-00005	McNAMARA	8/72	J. M. Namara	9/5/72
B	ECO CHANGE	DF11-00009	DIETER	4/74	J. M. Namara	6/5/74
ENG	APPD	SIZE	CODE	NUMBER	REV	
		A	SP	DF11-0-1	B	

DEC FORM NO. DRA 107

SHEET 1 OF 10

**ENGINEERING SPECIFICATION**

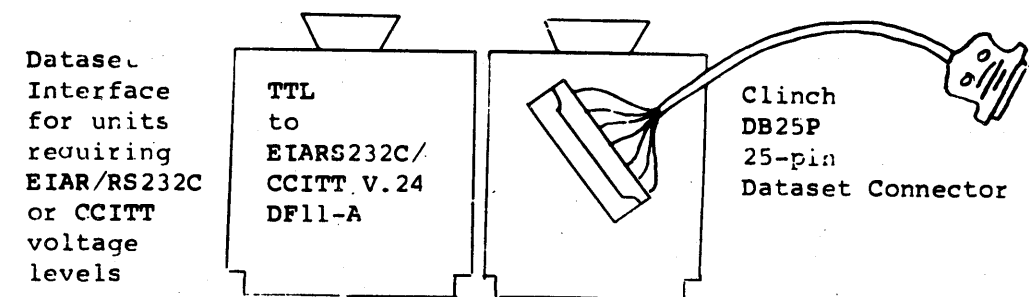
CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

I. General

Modern digital computers handle almost all data signals as Transistor-Transistor Logic (TTL) levels. These levels must then be converted to other voltage levels or current values to prepare them for application to communications media so that they can be transmitted to a distant processor or terminal. In addition to the need for level conversion, there is a requirement to have cables of various lengths equipped with a variety of specialized fittings for each communications medium serviced.

A DF11 unit will normally consist of two single height (8-1/2" by 3") modules. One module performs the electrical signal conditioning function of converting from TTL signal levels to the external signal levels required (e.g. EIA RS-232-C, 20 milliamper current loop, Bell System CBS or CDT Data Access Arrangements, etc.). The second module performs the physical interface function; i.e. furnishes a cable to connect the level-converted signals produced by the first module to the desired device or channel. In the case of the DF11-A RS-232-C/CCITT Recommendation V24 Interface, the second module provides a 25-conductor cable and plug to connect the level-converted signals on the back panel wires to the dataset.



DEC FORM NO. DEC 16-(381)-1022-N370  
DRA 108

SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

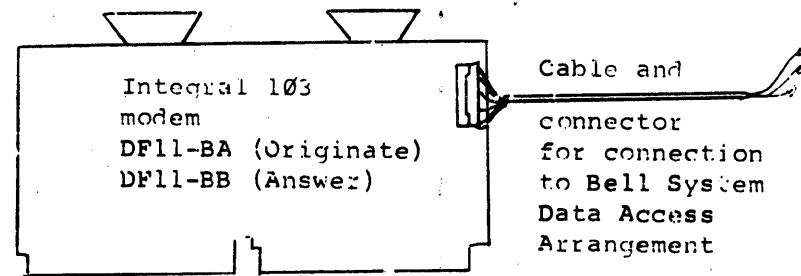
SHEET 2 OF 10

**ENGINEERING SPECIFICATION**

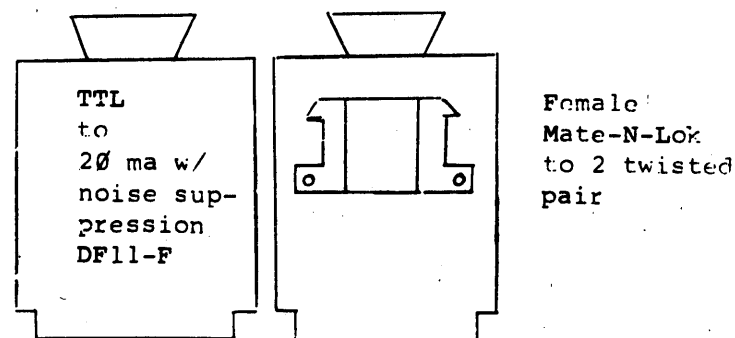
CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

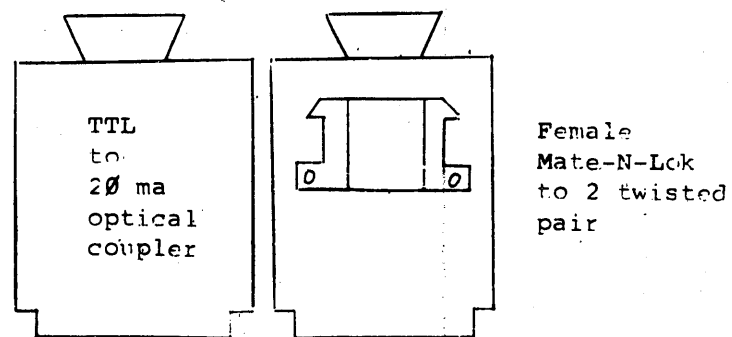
Integral Modem converts TTL to tone signals for transmission on voice-grade lines.



20 ma, local teleprinter (mechanical distributor, such as Teletype® Model 33, 35



20 ma optical coupler active or passive mode



® "Teletype" is a registered trademark of Teletype Corporation, Skokie, Illinois

SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

II. Variations

DF11-A TTL to EIA RS-232-C/CCITT V24

This option consists of an M594 module and a BC01R cable assembly. (A BC05C cable and M971 module may be supplied as equivalent to a BC01R).

DF11-BA TTL to audio frequency shift keyed tone signals.

This option consists of an M586 module (integral 103-type modem in the Originate-Only mode). Twenty-five foot cable and connector provided for connection with Bell System Data Access arrangement CDT or private wireline channels.

DF11-BB TTL to audio frequency shift keyed tone signals.

This option consists of an M587 module (integral 103-type modem in the Answer-Only mode). Twenty-five foot cable and connector provided for connection with Bell System Data Access arrangements CBS or CDT.

DF11-F TTL to 20 milliamper active local Teletype® loop.

This option consists of an M596 module and an M973. The M973 has an Amp Mate-N-Lok connector mounted on it for connection with customer supplied 22 AWG, 2 twisted pair cable to a local or remote Model 33 or 35 Teletype®. Reader Run control leads are not provided.

DF11-G TTL to Bell System 301/303 Dataset Interface. Signal levels, cable connector, and signal pinning compatible with the Bell 301/303 Datasets.

This option consists of an M595 module and a twenty-five foot coaxial cable.

DF11-K TTL to active or passive 4-wire current mode (20 ma) loop.

This option consists of an M598 optical coupler module and an M973 Mate-N-Lok module.

SIZE	CODE	NUMBER	REV
A	SF	DF11-0-1	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

**III. Specifications**

**Temperature:** All DF11 modules will operate from 10°C to 50°C with relative humidity from 20% to 95% (without condensation).

**Speed & Distance:**

**DF11-A** 9600 baud at 50 feet with DEC supplied cable.

**DF11-BA** 300 baud with 0 dbm to -50 dbm received signal level when used with CDT data access arrangement, 300 baud with 0 dbm to -50 dbm received signal level when used on private wires. Transmit level is 0 to -12 dbm pot adjustable.

**DF11-BB** 300 baud with 0 dbm to -50 dbm received signal level when used either with CBS, CDT,

SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

or private wires. Transmit level is 0 to -12 dbm pot adjustable.

**DF11-F** 110 baud at 5000 feet 22 AWG twisted pair telephone cable when inserted jumpers are in place (TTY noise filter). 2400 baud at 3000 feet with 22 AWG "QUAD" wire (DEC PN 9105856-4) and using the DF11-K (Passive transmit and receive) at the other end.

**DF11-G** 250K baud with DEC-supplied 25 foot cable.

**DF11-K** 2400 baud at 1500 feet of 22 AWG twisted pair telephone cable.

**NOTE:** The data rates and distances cited above are those warranted by Digital. They are applicable in electrically quiet environments and do not necessarily represent limiting values. Jumpers on M5960 (DF11-F) must be cut for speeds above 110 baud.

**IV. Applications:**

	DC11	DL11*	DM11	DP11	LA30S
DF11-A	YES	2	YES	YES	YES
DF11-BA	1	1	3	NO	YES
DF11-BB	1	1	YES	NO	3
DF11-F	YES	2	YES	4	5
DF11-G	NO	NO	NO	YES	NO
DF11-K	YES	YES	YES	4	YES

\* DL11 refers to DL11 in DD11B system unit or 11/05.

**NOTES:** 1. The DF11-BA and DF11-BB require +15 volts and -15 volts. They may be used with the DC11 and DL11 only if these voltages are available.

2. The DL11 contains its own active 20 ma and EIA interface circuits. While the DF11-A or DF11-F could be used, it would be a duplication of equipment.

SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

3. It is anticipated that the DF11-BA will be used in terminals such as the LA30S and the DF11-BB will be used in processor options such as the DM11. Technically, they could be used in the reverse order, but this would not be recommended, since the DF11-BA does not have auto-answer capability.
4. No applications have been found for the DF11-F and DF11-K with synchronous controls due to clocking problems.
5. The DF11-F is "active" only and hence would not typically be used in a terminal.

V. Connectivity:

	DF11-A	DF11-BA	DF11-BB	DF11-F	DF11-G	DF11-K
DF11-A	1	NO	NO	NO	NO	NO
DF11-BA	NO	NO	YES	NO	NO	NO
DF11-BB	NO	YES	NO	NO	NO	NO
DF11-F	NO	NO	NO	NO	NO	YES
DF11-G	NO	NO	NO	NO	NO	NO
DF11-K	NO	NO	NO	2	NO	2

- NOTES: 1. Null modem required (H312A)  
2. See "Active" vs. "Passive"

VI. "Active" vs. "Passive"

In 20 ma transmission, information is transmitted by means of switching on and off a current flow. To do this, a current source is used; a switch is used; and a current flow detector is required.

In the classical 20 ma device, the Model 33 or 35 Teletype<sup>®</sup>, the keyboard encoding mechanism contains the "switch" and the printer driver mechanism includes a "current detector". The typical computer console Teletype<sup>®</sup> control contains a source plus current detector in its receiver circuitry and a source plus switch in its transmitter circuitry. Since the receiver

SIZE A CODE SP NUMBER DF11-0-1 REV B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

contains the source, it is referred to as an "active" receiver. Since the transmitter contains a source, it too is referred to as "active". All DEC console teletype controls, and the DF11-F are "active" 20 ma interfaces.

The DF11-K, however, has its greatest volume of use in the LA30S, where it is necessary to simulate a Teletype<sup>®</sup> interface: i.e., a switch on the transmit leg and a detector on the receive leg. Since there are no sources, the DF11-K is referred to as a "passive" 20 ma interface. Jumpers are provided to connect sources into the receiver circuitry, the transmit circuitry, or both.

When used with a console teletype control or a DF11-F, the DF11-K should be left in passive transmit/passive receive mode. When two DF11-K's talk to each other, the active transmit/passive receive mode is recommended. Be sure to arrange the leads so that the receiver of one is connected to the transmitter of the other, etc.

VII. Pinning Assignments

The following pinning assignments apply to the DF11 series, although individual DF11 options may not use them all:

Cable Slot ("A" slot in DC11, 11/05) ("B" slot in(LA30,DM1,DMH))

- A1 Do Not Use
- B1 Do Not Use
- C1 Transmitted Data +
- D1 Transmitted Data -
- E1 Secondary Transmitted Data EIA
- F1 Secondary Received Data EIA
- H1 Transmit Signal Element Timing DTE EIA
- J1 Received Data +
- K1 Secondary Clear To Send\*
- L1 Secondary Request To Send\*
- M1 Signal Quality Detector\*
- N1 Received Data -
- P1 Secondary Receive Line Signal Detector\*
- R1
- S1 Force Busy EIA
- T1 Ground
- U1
- V1 UK Special Systems

SIZE A CODE SP NUMBER DF11-0-1 REV B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

- A2 Do Not Use
- B2 Do Not Use
- C2 Ground
- D2 DO NOT USE
- E2 Transmitted Data EIA
- F2 Received Data EIA
- H2 Transmit Signal Element Timing DCE EIA
- J2 Receive Signal Element Timing EIA
- K2 Clear To Send EIA
- L2 Request To Send EIA
- M2 Ring Indicator EIA
- N2 Data Set Ready EIA
- P2 Received Line Signal Detect EIA
- R2 Data Terminal Ready EIA
- S2 Data Signalling Rate Selector\*
- T2 Ground
- U2 Select Standby\*
- V2 UK Special Systems

\* Signals shown with an asterisk have no level conversion module pin assignments. If implemented, these signals would have to be level converted elsewhere.

Converter Slot ("B" slot in DC11, 11/05) ("A" slot in LA30, DM11, DM11)

- A1 Response Control for EIA Receivers
- B1 Carrier Detect TTL
- C1 Ring Indicator TTL
- D1 Received Data TTL
- E1 Secondary Received Data TTL
- F1 Received Signal Element Timing EIA
- H1 Receive Signal Element Timing TTL
- J1 Transmit Signal Element Timing DCE EIA
- K1 Transmit Signal Element Timing DCE TTL
- L1 Transmitted Data +
- M1 Transmitted Data -
- N1 Received Data +
- P1 Received Data -
- R1 Transmit Signal Element Timing DTE TTL
- S1 Transmit Signal Element Timing DTE EIA
- T1 Ground
- U1 Secondary Transmitted Data EIA
- V1 Transmitted Data EIA
  
- A2 +5 (250MA MAX)

SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE DF11 Serial Line Signal Conditioning Options

- B2 -15 (155MA MAX)
- C2 Ground
- D2 Data Set Ready TTL
- E2 Data Set Ready EIA
- F2 Clear To Send TTL
- H2 Carrier Detect EIA
- J2 Receive Data EIA
- K2 Ring Indicator EIA
- L2 Secondary Receive Data EIA
- M2 Clear To Send EIA
- N2 +15 (140MA MAX)
- P2 Data Terminal Ready TTL
- R2 Data Terminal Ready EIA
- S2 Request To Send TTL
- T2 Request To Send EIA
- U2 Secondary Transmitted Data TTL
- V2 Transmitted Data TTL

VIII. Notes:

- Caution should be exercised in ordering DF11 options as add-on's to systems using the DM11 distribution panel. In systems where the customer uses 20 ma or EIA without modem control, a single level conversion module serves four lines. If the customer desires some other type of level conversion, and orders a DF11 series device to do it, that DF11 device must be added in a four-line group for which level conversion is presently not implemented, or the four-line group into which it is introduced must be converted to per-line level conversion. This is necessary to prevent the new level converter and the old "one-per-four-lines" converter from trying to level convert the same line.

- The DF11 modules are located in the following locations in the following options:

Option	Converter Slot	Cable Slot
DC11 Line Unit 1	D01	C01
Line Unit 2	D04	C04
DP11	D04	C04
DM11 Distribution		
Line 00 - 15	A06 - A21	B06 - B21
LA30	A18	B18
11/05	B01	A01
DD11B	B02	A02
	B03	A03

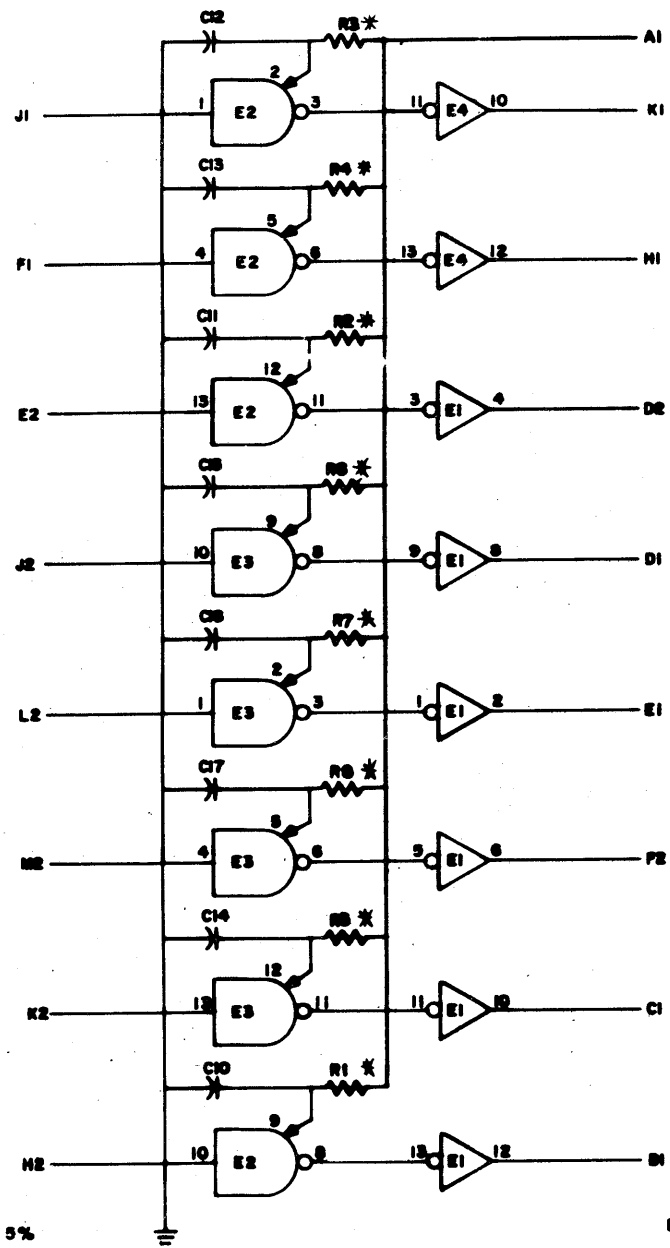
SIZE	CODE	NUMBER	REV
A	SP	DF11-0-1	B

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS <b>PARTS LIST</b>				QUANTITY / VARIATION																
MADE BY M.A. Gilbert		CHECKED R. Wald		SECTION																
DATE 3/12/71		DATE 3/12/71																		
ENG R. Lisie		PROD R. Silverman		ISSUED SECT.																
DATE 3/16/71		DATE 6/14/71																		
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION		M594	M594-YB															
1	C-CS-M594-0-1	CIRCUIT SCHEMATIC																		
2	K-CO-M594-0-4	X-Y COORDINATE HOLE LOCATION																		
3	D-AH-M594-0-5	ASSY/DRILLING HOLE LAYOUT																		
4	B-MH-M594-0-6	MODULE ECO HISTORY																		
5	5009443	ETCHED CIRCUIT BOARD		1	1															
6	1000024	CAP. 470PF 100v 5% D.M.		8	8	C10	C11	C12	C13	C14	C15	C16	C17							
7	1001610	CAP. .01UF 100v 20% DISC		11	11	C1	C2	C3	C4	C5	C6	C7	C8	C9	C18					C19
9	1210244-0	GRIPLET																		
10	1300510	RES. 33K 1/4W 10%		0	8	R1	R2	R3	R4	R5	R6	R7	R8							
11	1909686	I.C. DEC 7404		3	3	E1	E4	E6												
12	1910322	I.C. DEC 1488L		2	2	E5	E7													
13	1910323	I.C. DEC 1489L		2	2	E2	E3													
14	9006732	EYELET #GS4-7		2	2															
15	9008337-06	HANDLE FLIP CHIP - MAGENTA		1	1															
16	1100125	1N758A ZENER DIODE		2	2	D1	D2													
17	1300295	RES 330 1/4w 5%		2	2			R9	R10											
18	1002433	CAP. 22UF 35v 20% S.TANT		2	2	C20	C21													
19	15-1913	TRANSISTOR 2N2904A		1	1	Q1														
20	15-1881	TRANSISTOR DEC 2219		1	1	Q2														
21	9008351-0	TRANSISTOR CAP		2	2															
TITLE EIA LEVEL CONVERTER M594				ASSY NO.		SIZE CODE <b>A PL</b>		NUMBER M594-C-0				REV. D		ECO NO. 20004						
SHEET 1 OF 1				DIST.		324 434 435 2														

DEC FORM NO.16-1031  
DRA 110

④

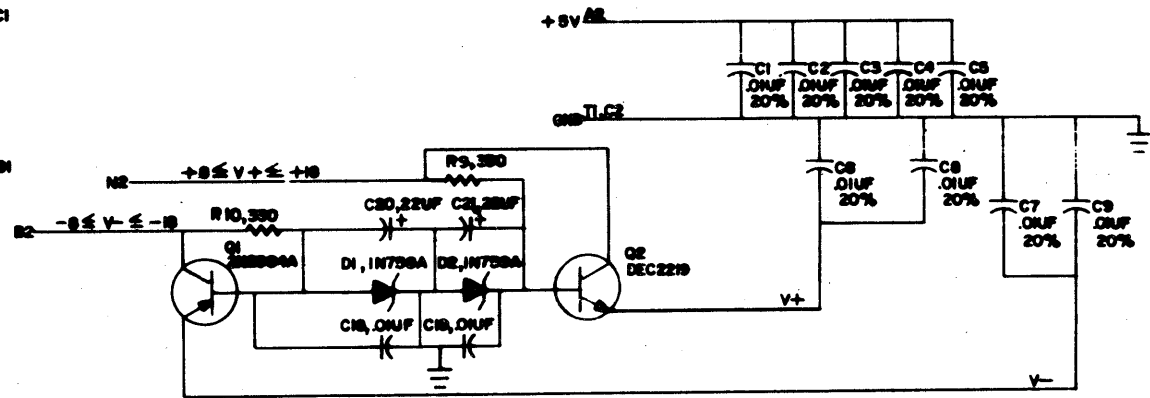
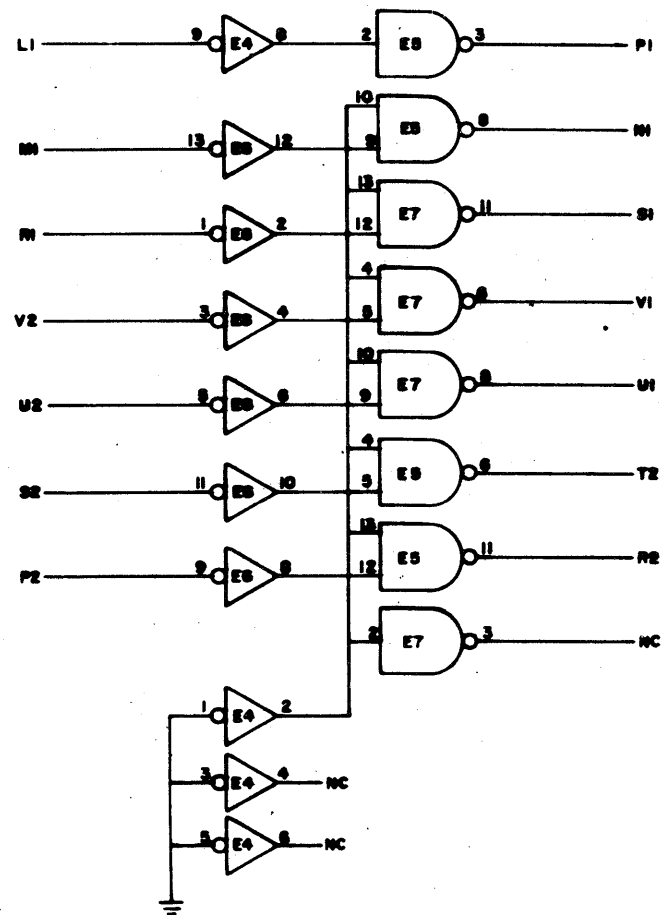
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UNLESS OTHERWISE INDICATED:  
CAPACITORS ARE 470 PF, 100V, 5%

E1, E4, E6 = DEC7404  
E5, E7 = DEC1488L  
E2, E3 = DEC1489L  
PIN 7 = GND ON E1-E4, E6  
PIN 14 = +5V ON E1-E4, E6  
PIN 1 = -V  
PIN 7 = GND ON E5, E7  
PIN 14 = +V

\* NOTE  
R1 → R8 INSERTED FOR YB VAR.  
A1 MUST BE TIED TO -15V FOR  
3V HYSTERESIS.



REV. NO.	REV. DATE	BY	CHKD	DATE
1	3/2/71	S. SHAMMA		
2	3/2/71	S. SHAMMA		
3	3/2/71	S. SHAMMA		
4	3/2/71	S. SHAMMA		
5	3/2/71	S. SHAMMA		
6	3/2/71	S. SHAMMA		
7	3/2/71	S. SHAMMA		
8	3/2/71	S. SHAMMA		
9	3/2/71	S. SHAMMA		
10	3/2/71	S. SHAMMA		
11	3/2/71	S. SHAMMA		
12	3/2/71	S. SHAMMA		
13	3/2/71	S. SHAMMA		
14	3/2/71	S. SHAMMA		
15	3/2/71	S. SHAMMA		
16	3/2/71	S. SHAMMA		
17	3/2/71	S. SHAMMA		
18	3/2/71	S. SHAMMA		
19	3/2/71	S. SHAMMA		
20	3/2/71	S. SHAMMA		

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA
IN750A	2N934		
IN750B	2N934		
IN750C	2N934		
IN750D	2N934		
IN750E	2N934		
IN750F	2N934		
IN750G	2N934		
IN750H	2N934		
IN750I	2N934		
IN750J	2N934		
IN750K	2N934		
IN750L	2N934		
IN750M	2N934		
IN750N	2N934		
IN750O	2N934		
IN750P	2N934		
IN750Q	2N934		
IN750R	2N934		
IN750S	2N934		
IN750T	2N934		
IN750U	2N934		
IN750V	2N934		
IN750W	2N934		
IN750X	2N934		
IN750Y	2N934		
IN750Z	2N934		

TITLE E1A LEVEL CONVERTER M594			
SIZE C	CODE CS	NUMBER M594-0-1	REV. D
EQUIPMENT CORPORATION BAYLOR, MASSACHUSETTS PRINTED CIRCUIT REV.			

DEC FORM NO.  
DRC 102

PINK

REV. D  
C CS M594-0-1

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NOTES:

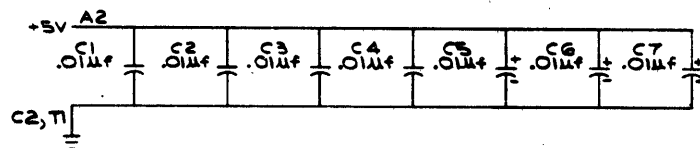
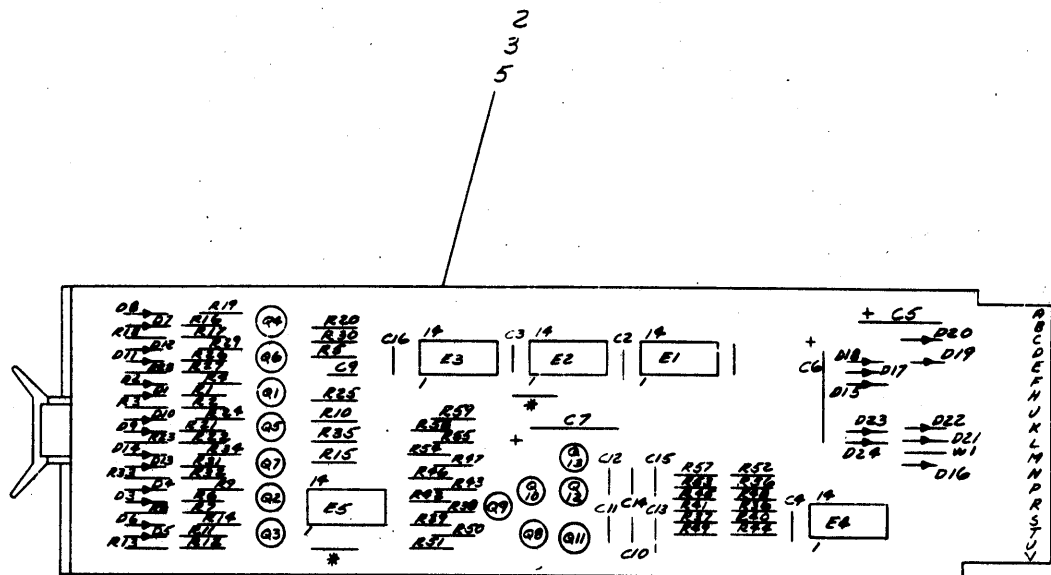
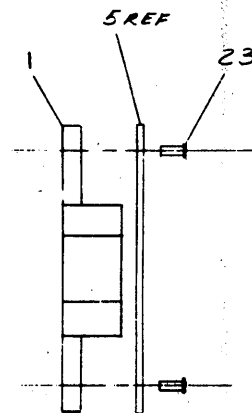
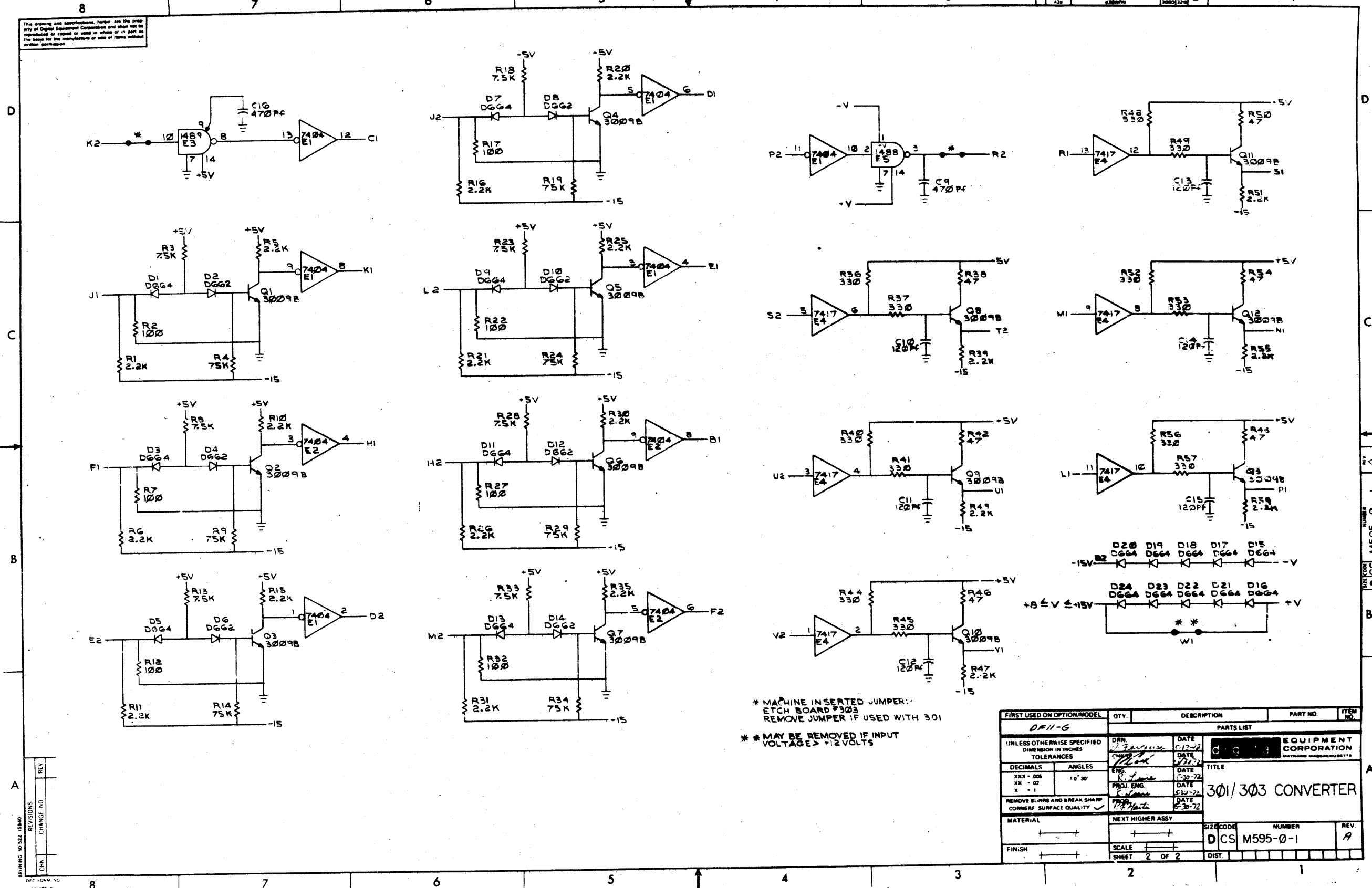


Table with 4 columns and 10 rows, likely for pin locations or component identification. The bottom row contains the text: "GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTS ARE STATED ABOVE" and "IC PIN LOCATIONS".

Table with 4 columns: QTY, REF DESIGNATION, DESCRIPTION, PART NO. It lists various components such as resistors (RES.), capacitors (CAP.), diodes (DIODE), and integrated circuits (IC). Part numbers include 1906732, 190722, 190727, 190733, 190736, 1300202, 1300273, 1304841, 1305422, 1300231, 1305417, 130013, 1100114, 1260018, 1000024, 1000027, 1001610, 3009872.

Administrative and identification section including: FIRST USED ON OPTION MODEL (DFH-G), PARTS LIST, SEMICONDUCTOR CONVERSION CHART, and EQUIPMENT CORPORATION logo. It also contains a title block with "301/303 CONVERTER" and a drawing number "DICS M595-0-1".

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\* MACHINE INSERTED JUMPER:  
ETCH BOARD #303  
REMOVE JUMPER IF USED WITH 301

\* \* MAY BE REMOVED IF INPUT  
VOLTAGE > +12 VOLTS

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DE11-G		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DATE	DATE	EQUIPMENT CORPORATION
DECIMALS	ANGLES	DATE	DATE	TITLE
XXX - 008	± 0° 30'	DATE	DATE	301/303 CONVERTER
XX - 02		DATE	DATE	
X - 1		DATE	DATE	
REMOVE BURRS AND BREAK SHARP CORNER SURFACE QUALITY		DATE	DATE	
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	SCALE	DCS	M595-0-1	A
	SHEET 2 OF 2	DIST.		

BRUNING 90 522 15840  
DEC 1970 REV. NO.  
RD 102-R

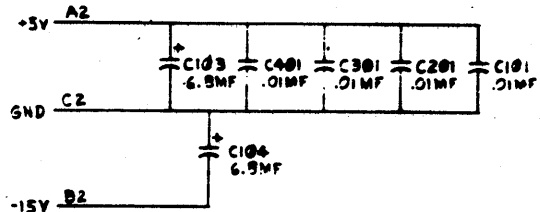
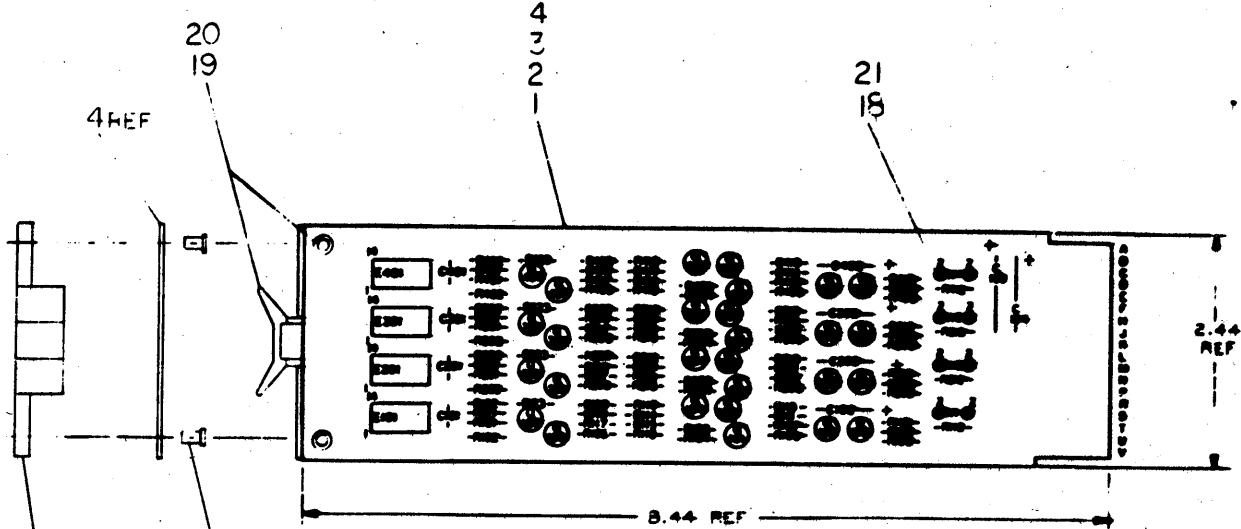
REVISIONS  
CHANGE NO. REV.

REV. A  
M595-0-1  
DCS

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**NOTES:**

1. UNLESS OTHERWISE STATED RESISTANCE IS IN OHMS.
2. WHEN THE M5960 IS USED IN APPLICATIONS OVER 110 BAUD JUMPERS W1-OUTPUT BI W2-OUTPUT DI W3-OUTPUT HI W4-OUTPUT KI MUST BE CUT OUT FOR THAT LINE.



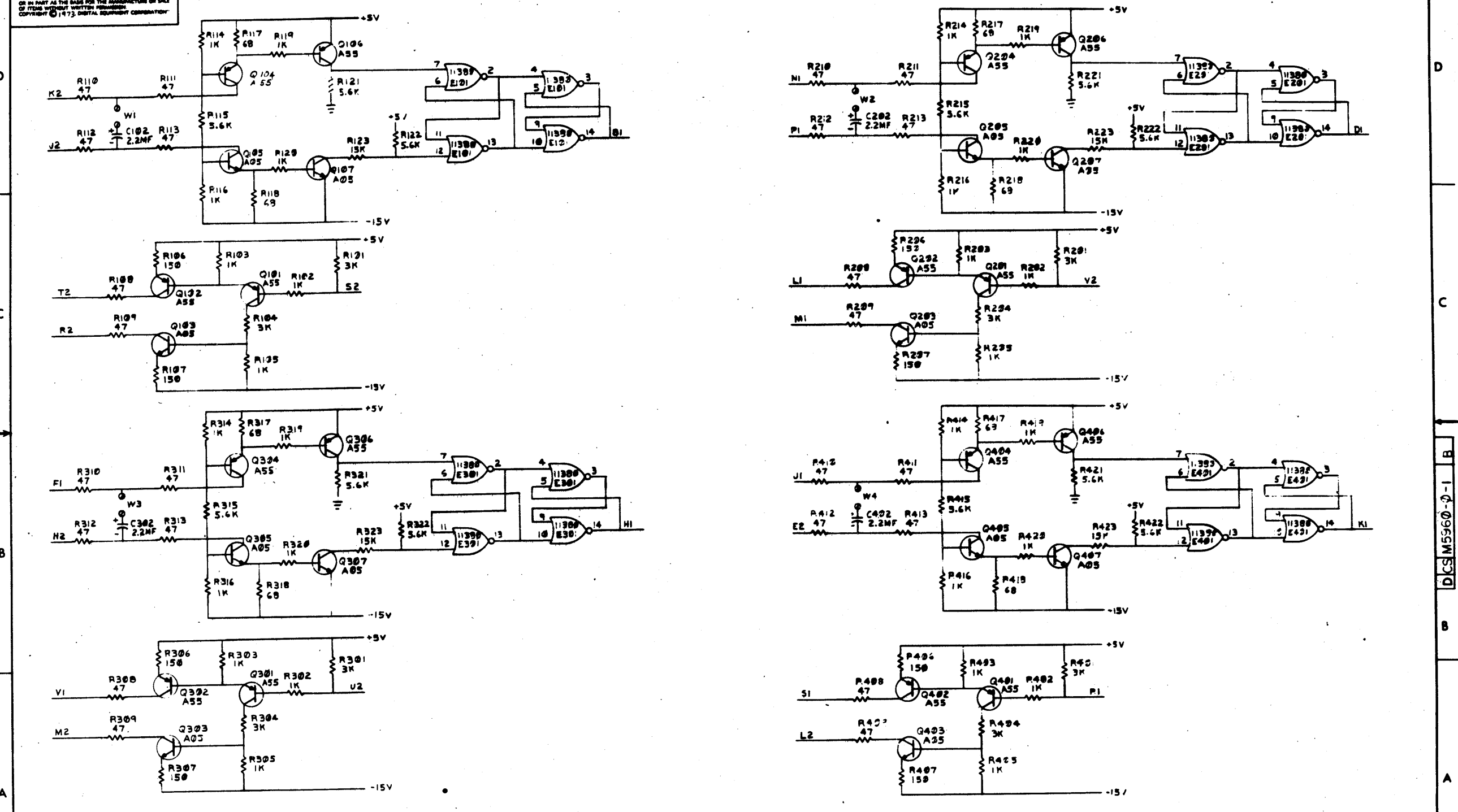
IC TYPE	GND	+5V
DEC 1380	1	8
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.		
<b>IC PIN LOCATIONS</b>		

REF	DESCRIPTION	PART NO.	ITEM NO.
	2-7 COMPONENTS NONE LOCATED	1-00-00000-0-4	1
	ASSEMBLY/SHIELDING NONE LOCATED	1-00-00000-0-0	2
	WELDED END DISTORTION	1-00-00000-0-0	3
1	ETCHING CIRCUIT BOARD	0010007	4
4	C101, C201, C301, C401	CAP .01 UF 100V 200 D10C	5
4	C102, C202, C302, C402	CAP 2.2 UF 20V 100 T10F	6
2	C103, C104	CAP 6.8 UF 20V 100 T10F	7
24	R101-R110, R201-R210, R301-R310, R401-R410	RES 47 OHMS 1/4W 5%	8
8	R111, R112, R211, R212, R311, R312, R411, R412	RES 50 OHMS 1/4W 5%	9
8	R113, R114, R213, R214, R313, R314, R413, R414	RES 100 OHMS 1/4W 5%	10
20	R115, R116, R215, R216, R315, R316, R415, R416	RES 15 OHMS 1/4W 5%	11
8	R117, R118, R217, R218, R317, R318, R417, R418	RES 20 OHMS 1/4W 5%	12
4	R119, R120, R219, R220, R319, R320, R419, R420	RES 100 OHMS 1/4W 5%	13
12	R121, R122, R221, R222, R321, R322, R421, R422	RES 5.0K OHMS 1/4W 5%	14
12	R123, R124, R223, R224, R323, R324, R423, R424	RES 5.0K OHMS 1/4W 5%	15
10	R125, R126, R225, R226, R325, R326, R425, R426	RES 5.0K OHMS 1/4W 5%	16
4	R127, R128, R227, R228, R327, R328, R427, R428	RES 100 OHMS 1/4W 5%	17
8	R129, R130, R229, R230, R329, R330, R429, R430	RES 100 OHMS 1/4W 5%	18
2	R131, R132, R231, R232, R331, R332, R431, R432	RES 5.0K OHMS 1/4W 5%	19
1	R133, R134, R233, R234, R333, R334, R433, R434	RES 5.0K OHMS 1/4W 5%	20
4	R135, R136, R235, R236, R335, R336, R435, R436	RES 100 OHMS 1/4W 5%	21

PARTS LIST			
QTY	REF DESIGNATOR	DESCRIPTION	PART NO.
DF11	ETCH BOARD REV B		
MPS A05		NA	
MPS A55		NA	
SEMICONDUCTOR CONVERSION CHART			
DEC NO.	EIA NO.	DEC NO.	EIA NO.
EQUIPMENT CORPORATION <b>20 MA TO TTL CONVERTER</b>			
D/CS M5960-0-1		B	

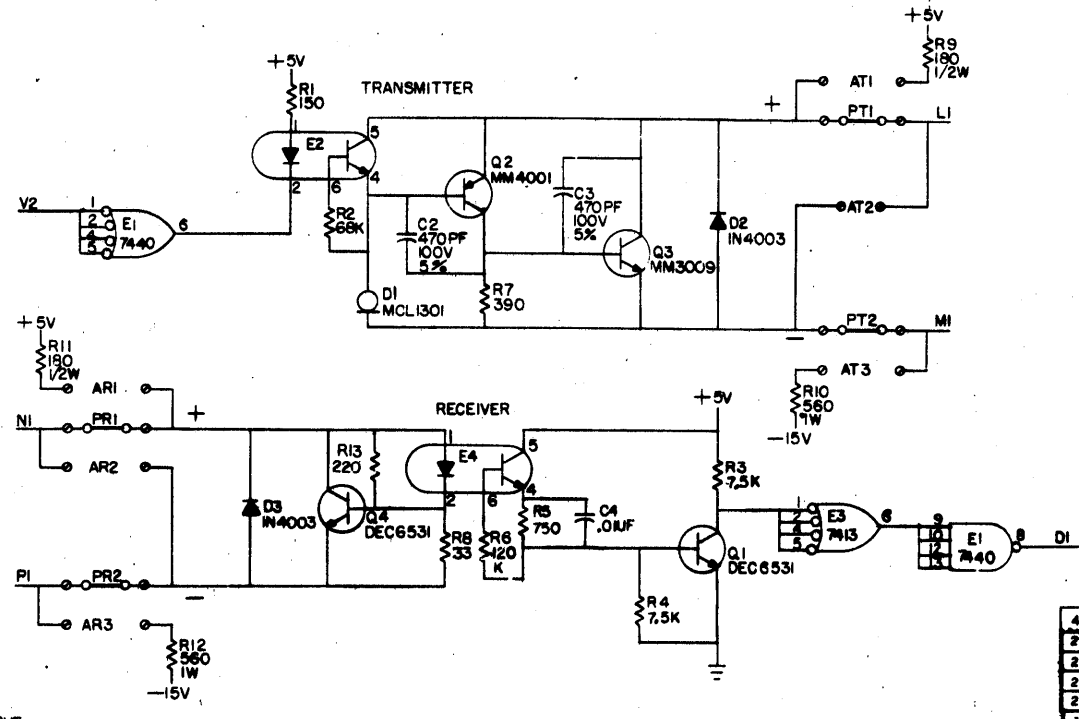
D/CS M5960-0-1 B

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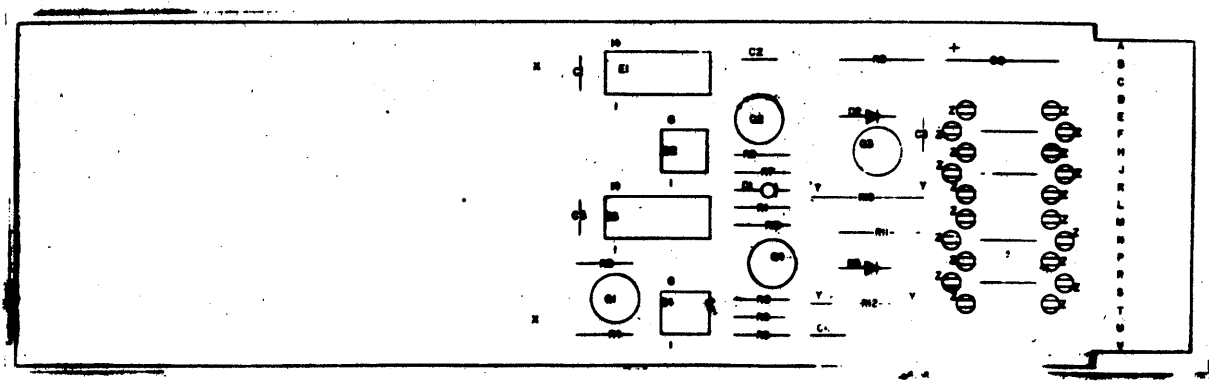
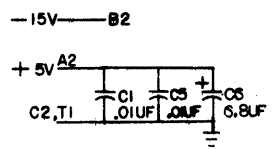


REVISIONS		
CHK	CHANGE NO	REV

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UNLESS OTHERWISE INDICATED:  
RESISTORS ARE 1/4W 5%  
PIN 14 = GND ON E1, E3  
PIN 7 = +5V  
NOTE:  
D1 IS A 1.0mA CONSTANT CURRENT DIODE



QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
4	PT1, PT2, PR1, PR2	WIRE, BUSS, #22 AWG	9107560-01	34
2		WIRE, BUSS #40 X 3/8	9000001	33
2		REINFORC SPACER #40 X 3/8	9000000	32
2		TRANSI PAD	9007200	31
2		PLASTIC TRANS CAP.	9000351-0	30
1	R6	RES, 120K 1/2W 5%	1300537	29
1	R5	RES, 750 OHM 5%	1301101	28
1	R3	I.C. 7413	1909989	27
1	R1	I.C. 7440	1909979	26
1		HANDLE, PLASTIC, MAGENTA	9000332-06	25
20		SPLITTING	9000215	24
2		STRIP	9000219	23
2	R2, R4	ISOLATOR OPTIC	1510721	22
1	Q1	TRANS, MN 3000	1510662	21
1	Q2	TRANS, MN 4001	1510581	20
2	Q1, Q4	TRANS, DEC 6531	1509132	19
2	R10, R12	RES, 560, 1/4W, 5%	1303008	18
1	R13	RES, 220 OHM 5%	1300271	17
1	R2	RES, 68K 1/4W 5%	1301327	16
2	R3, R8	RES, 7.5K 1/4W 5%	1301122	15
1	R7	RES, 300 OHM 5%	1300302	14
2	R9, R11	RES, 180 OHM 5%	1300260	13
1	R1	RES, 150 OHM 5%	1300250	12
1	R8	RES, 33 OHM 5%	1300187	11
N/A		DRIFLET	1220000	10
2	D1	DIODE MCL 1301	1180610	9
2	D2, D3	DIODE IN4003	1103000	8
1	C6	CAP, 6.8UF 35V 10%	1005306	7
3	C1, C4, C5	CAP, 0.01UF 100V 20% DKG	1001610	6
2	C2, C3	CAP, 470PF, 100V, 5% DM	1000028	5
1		ETCHED CIRCUIT BOARD	5009823	4
		ROUTER BDO HISTORY	D-M-8598-0-6	3
		ASSY/DRILLING HOLE LAYOUT	D-M-8598-0-5	2
		V-V COORDINATE HOLE LOCATION	E-CO-8598-0-1	1

PARTS LIST																							
ETCH BOARD REV	REV	DATE	BY																				
C		11-12-71	J. MOORE																				
<table border="1"> <tr> <td>DRN. BY</td> <td>J. MOORE</td> <td>DATE</td> <td>11-12-71</td> </tr> <tr> <td>CHKD. BY</td> <td>W. MOORE</td> <td>DATE</td> <td>11-12-71</td> </tr> <tr> <td>ENGR. BY</td> <td>R. F. FITCH</td> <td>DATE</td> <td>11-12-71</td> </tr> <tr> <td>PROJ. ENG. BY</td> <td>R. F. FITCH</td> <td>DATE</td> <td>11-12-71</td> </tr> <tr> <td>PROD. BY</td> <td>R. F. FITCH</td> <td>DATE</td> <td>11-12-71</td> </tr> </table>				DRN. BY	J. MOORE	DATE	11-12-71	CHKD. BY	W. MOORE	DATE	11-12-71	ENGR. BY	R. F. FITCH	DATE	11-12-71	PROJ. ENG. BY	R. F. FITCH	DATE	11-12-71	PROD. BY	R. F. FITCH	DATE	11-12-71
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PROD. BY	R. F. FITCH	DATE	11-12-71																				
TITLE		EQUIPMENT CORPORATION																					
TITLE		OPTIC COUPLED CURRENT ISOLATOR																					
NEXT HIGHER ASSY		DF 11 K																					
DEC NO.	EIA NO.	DEC NO.	EIA NO.																				
SEMICONDUCTOR CONVERSION CHART																							
SCALE	DIST.	SIZE CODE	NUMBER																				
		DCS	M598-0-1																				
			D																				

REV	DATE	BY
1	11-12-71	J. MOORE
2	11-12-71	W. MOORE
3	11-12-71	R. F. FITCH
4	11-12-71	R. F. FITCH
5	11-12-71	R. F. FITCH
6	11-12-71	R. F. FITCH
7	11-12-71	R. F. FITCH
8	11-12-71	R. F. FITCH
9	11-12-71	R. F. FITCH
10	11-12-71	R. F. FITCH

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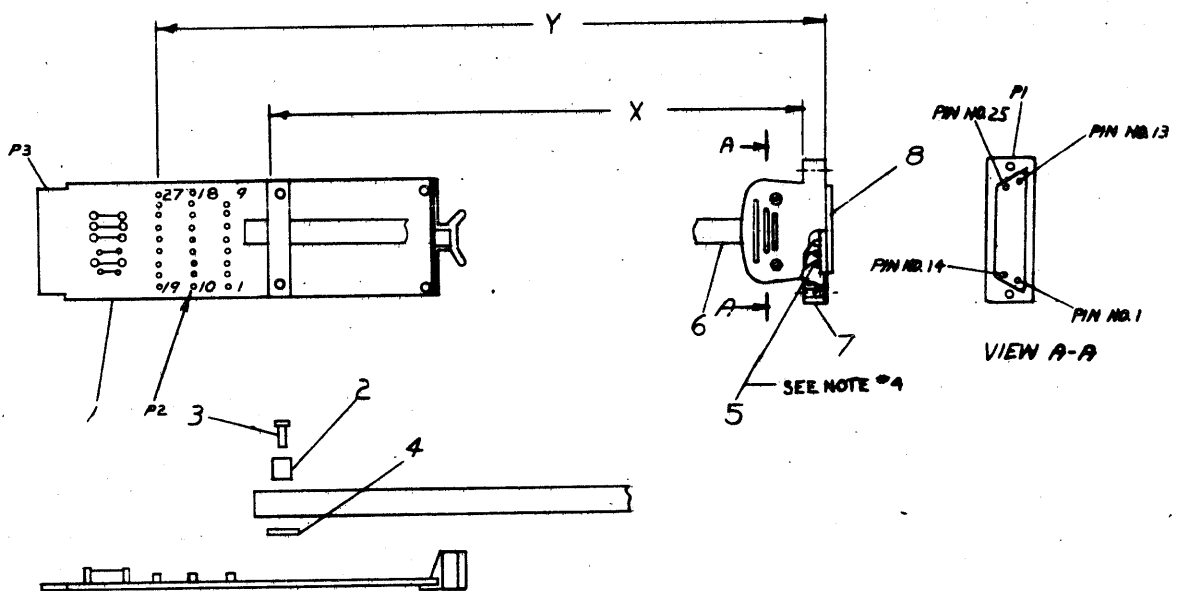
### M9700 JUMPER FUNCTIONS

**FUNCTIONS OF BONDING JUMPERS WHEN INSTALLED:**  
**A. EIA-SECONDARY TRANSMIT AND RECEIVE DATA LINES TO EIA PINS 14 AND 16**  
**B. 202-SECONDARY TRANSMIT AND RECEIVE DATA LINES TO EIA PINS 11-12**  
**C. BII-BELL 81B RESTRAINT FUNCTION IS MONITORED BY SECONDARY RECEIVE**  
**D. BUSY-BELL 103E FORCE BUSY FUNCTION DRIVEN BY REQUEST TO SEND**

LEGEND	
NUMBER	VARIATION
BC91A-25	25'±3" 25'±3"
BC91A-50	50'±2% 50'±3"

BC91R WIRE TABLE				
COLOR	PI-PIN	P2-LUG	SIGNAL NAME	P3-PIN
BLU-WHT	1	6	GROUND	C2
WHT-BLU	2	1	TRANSMITTED DATA	E2
ORN-WHT	3	2	RECEIVED DATA	F2
WHT-ORN	4	24	REQUEST TO SEND	L2
GRN-WHT	5	14	CLEAR TO SEND	K2
WHT-GRN	6	26	DATA SET READY	M2
BRN-WHT	7	7	GROUND	C2
WHT-BRN	8	18	CARRIER	P2
SLA-WHT	9	15	+POWER (NOT USED)	
WHT-SLA	10	16	-POWER (NOT USED)	
BLU-RED	11	19	BELL 202 SEC. TRANS. DATA	E1
RED-BLU	12	21	BELL 202 SEC. REC. DATA	F1
ORN-RED	13	11	SEC CLEAR TO SEND	K1
SLA-RED	14	20	EIA SECONDARY TRANS. DATA	E1
SLA-GRN	15	3	SERIAL CLOCK TRANS.	M2
RED-BRN	16	23	EIA SECONDARY REC. DATA	F1
SLA	17	22	SERIAL CLOCK REC. DATA	J2
RED-SLA	18	17	UNASSIGNED NOT USED	
BLU-BLK	19	12	SECONDARY REQUEST TO SEND	L1
ORN-BLK	20	9	DATA TERMINAL READY	R2
BLK-ORN	21	13	SIGNAL QUANTITY DETECT	M1
BLK-GRN	22	25	RING	M2
GRN-BLK	23	8	SIGNAL RATE SELECT	S2
BRN-RED	24	10	EXTERNAL CLOCK	H1
RED-ORN	25	27	FORCE BUSY	S1
SPECIAL				
SHIELD A	CUT	4	SHIELD A (GROUND)	C2
SHIELD B	CUT	5	SHIELD B (GROUND)	C2

**NOTES:**  
 1. IF USED FOR FOLLOWING OPTIONS CUT ALL JUMPER EXCEPT (DC1, DP11, DM11-DB, DS10, DG11 AND DS11) (2) 202 JUMPERS  
**REF. NOTE #6**  
 DN11 - (2) EIA JUMPERS  
 DM11-BC (DM11-BB12) 202 AND (7) 202 JUMPERS. FOR OTHER APPLICATIONS REFER TO CHART ON LEFT FOR M9700 JUMPER FUNCTIONS.  
 2. CIRCLED LETTERS ON RIGHT OF WIRE TABLE INDICATE THOSE PINS WHICH ARE DEPENDENT ON M9700 JUMPER FUNCTIONS AT LEFT.  
 3. BII JUMPER CONNECTS J2 TO F1  
 4. SOLDER #6 (CABLE) TO #1 (CONN. CARD), APPLY #4 (TAPE) AROUND #6 (CABLE), ASSEMBLE #2 (CABLE CLAMP) AND #3 (EYELETS) TO #1 (CONN. CARD) AFTER SOLDERING  
 5. EACH SOLDERED CONNECTION ON P1 SHALL BE INSULATED WITH A 1/4 INCH PIECE OF ITEM #5 (TUBING)  
 6. P1-15 AND P1-17 ARE SHIELDED LEADS  
 7. OLDER REV. BC91R CABLES HAD "SOT" JUMPERS (M9700+BC91SC-25). NEW REV. CABLES (M9700) HAVE THESE CONNECTIONS IN THE ETCH. DO NOT REMOVE BII JUMPERS ON OLD REV. CABLES.



QTY.	DESCRIPTION	PART NO.	REV.
1	CONN PLUG* DB25-P	1205886	8
1	HOOD, CINCH* DB51226-1	1205885	7
A/R	CABLE, 25 CONDUCTOR	9107736	6
A/R	SHRINKABLE TUBING	9107255	5
A/R	TAPE, DOUBLE SIDED 1/2"	9007834	4
2	EYELET A-94	9006741	3
1	CLAMP, CABLE	1202790-01	2
1	M9700 CABLE CONNECTOR	M9700	1

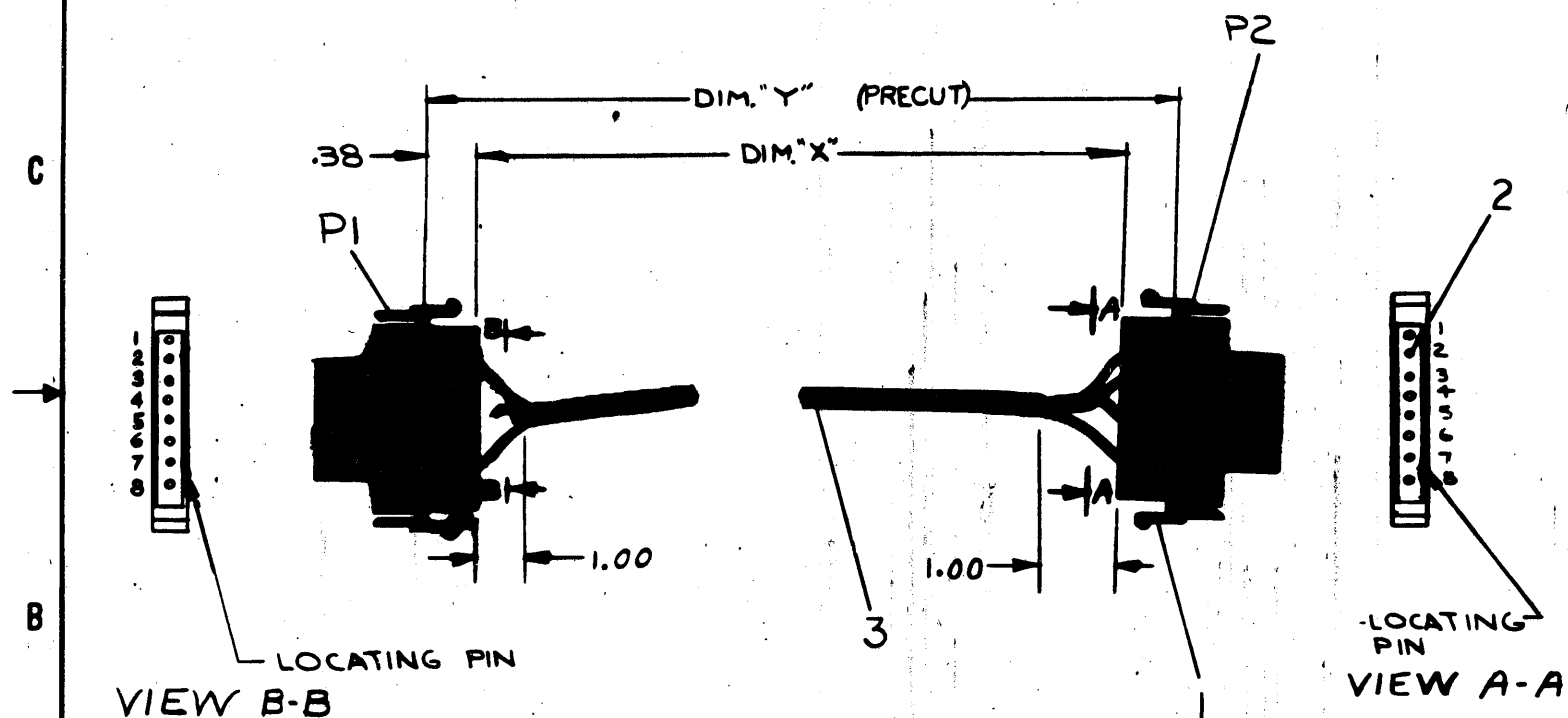
FIRST USED ON OPTION/MODEL <b>PDP 11</b>		DATE 10-12-73	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DATE 10-15-70	
TOLERANCES		DATE 10-16-73	
DECIMALS	ANGLES	DATE 10-19-70	
.XXX ± .005	± 30'	DATE 10-16-70	
.XX ± .02		DATE 10-16-70	
.X ± .1		DATE 10-16-70	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1		DATE 10-16-70	
MATERIAL		NEXT HIGHER ASSY.	
FINISH		SCALE	
		DIA BC91R-0-0	
		REV. E	

REV.	CHANGE NO.	BY
D	00003	J. MCINTIRE
C	00002	J. MCINTIRE
B	00001	J. MCINTIRE
A	00000	J. MCINTIRE

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LEGEND		
NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF
BC05F-15	15 FT. ± 3 IN.	15 FT. .75 IN. ± 3 IN.
BC05F-9	9 FT. ± 3 IN.	9 FT. .75 IN. ± 3 IN.

WIRE TABLE				
ITEM NO	AWG	COLOR	FROM CONNECTION	TO CONNECTION
3	22	BLK	P1-2	P2-3
3	22	RED	P1-3	P2-2
3	22	WHT	P1-5	P2-7
3	22	GRN	P1-7	P2-5



QTY.	DESCRIPTION	PART NO.	ITEM NO.
3	CABLE 4 CONDUCTOR	9107706	3
2	SOCKET (MALE)	1209378-03	2
1	MATE-N-LOCK (MALE)	1209340-01	1

REV.	CHANGE NO.	DATE	BY	CHKD.
A	BC05F-00001	11-8-71	R. FITCH	
B	LA36-00119	11-9-71	Robert Fitch	
C	BC05F-00002	7/18/75	J. BITTO	
			J. BITTO	
			J. BITTO	
			R. FITCH	
			R. FITCH	

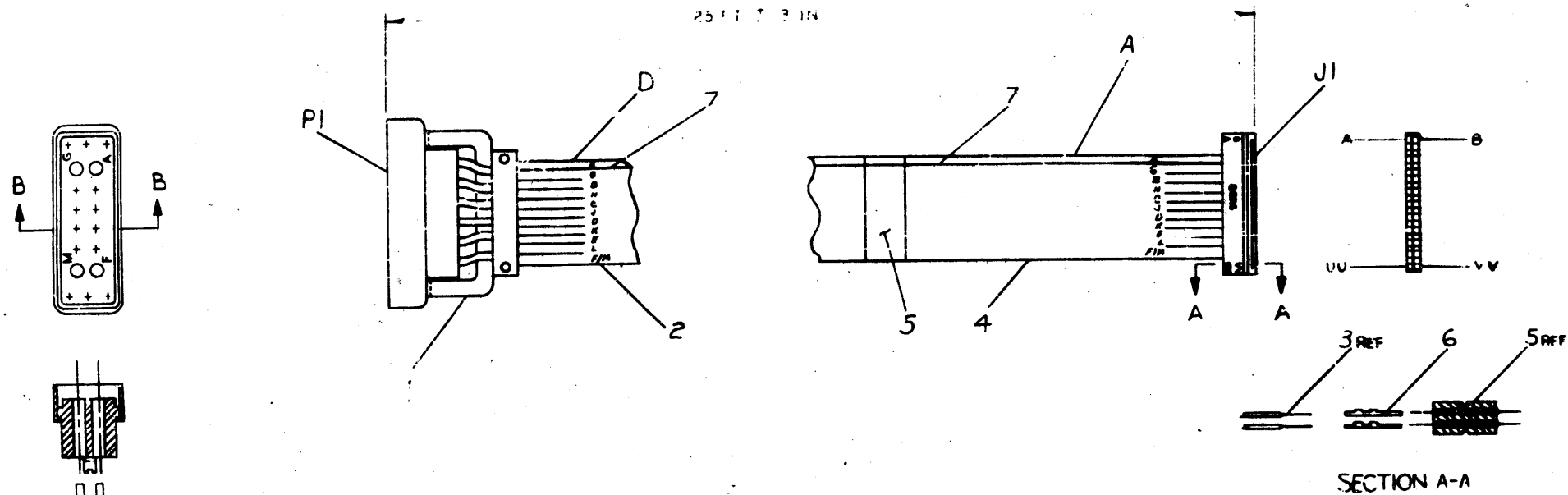
FIRST USED ON OPTION MODEL DF11		EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES DECIMALS ± .005 FRACTIONS ± 1/32 ANGLES ± 0°30'	DATE 10/28/71 DATE 10/19/71 DATE 10/19/71 DATE 10/26/71	TITLE <b>CABLE INTERFACE BC05F</b>	
MATERIAL	SCALE	SIZE CODE <b>CUABC05F-0-0</b>	REV. <b>C</b>
FINISH	SHEET 1 OF 1	DIST. <b>C</b>	

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FUNCTION	WIRE	FROM	TO
CLEAR TO SEND (CS)	C COND	PI-C	J1-T
SEND REQUEST (SR)	D COND	PI-D	J1-V
SEND DATA (SD)	E COND	PI-E	J1-F
DATA SET READY (DSR)	F COND	PI-F	J1-Z
RING INDICATOR (RI)	F SHIELD	PI-F	J1-X
LOCAL TEST (LT)	G COND	PI-G	J1-FF
SERIAL CLOCK TRANSMIT (SCT)	H COND	PI-H	J1-L
SERIAL CLOCK TRANSMIT (SCD)	J COND	PI-J	J1-N
RECEIVE DATA (RD)	K COND	PI-K	J1-U
SERIAL CLOCK RECEIVE (SCR)	L COND	PI-L	J1-R
AGC LOCK (AGC)	M COND	PI-M	J1-BB
DATA TERMINAL READY (DTR)	M SHIELD	PI-M	J1-DD
	C SHIELD	PI-C	J1-A
	D SHIELD	PI-D	J1-B
	E SHIELD	PI-E	J1-B
	G SHIELD	PI-G	J1-B
	H SHIELD	PI-H	J1-VV
	J SHIELD	PI-J	J1-VV
	K SHIELD	PI-K	J1-VU
	L SHIELD	PI-L	J1-VU
	A	PI-A	NC
	B	PI-B	NC

WIRE REFERENCE TABLE	
A TRACER	LOCATION OF WIRES IN WOVEN CABLE
G	
B	
H	
C	
J	
D	
K	
E	
L	
F	
M	

- NOTES:
- A TWISTED PAIR WIRE CABLES WILL BE ATTACHED TO EACH CONDUCTOR OF EACH WIRE (1 WIRE TO INNER CONDUCTOR, 1 WIRE TO THE SHIELD). THE WIRES WILL THEN BE CRIMPED TO THE BERG PINS AS INDICATED.
  - WHEN SUPPLIED BY A VENDOR THIS CABLE WILL BE FULLY TESTED BY VENDOR, TESTED AND INSPECTED BY INCOMING INSPECTION PRIOR TO ACCEPTANCE.
  - THIS IS THE CABLE DESCRIBED BY PURCHASE SPECIFICATION 11-0001. A COLORED TRACER WILL BE WOVEN INTO THE CABLE BETWEEN WIRES W AND S.
  - RG195 AU CAN BE USED TO DIRECTLY REPLACE RG 180U.
  - NO SUBSTITUTIONS, OTHER THAN THOSE SPECIFIED IN THIS PRINT, MAY BE MADE WITHOUT PRIOR APPROVAL.

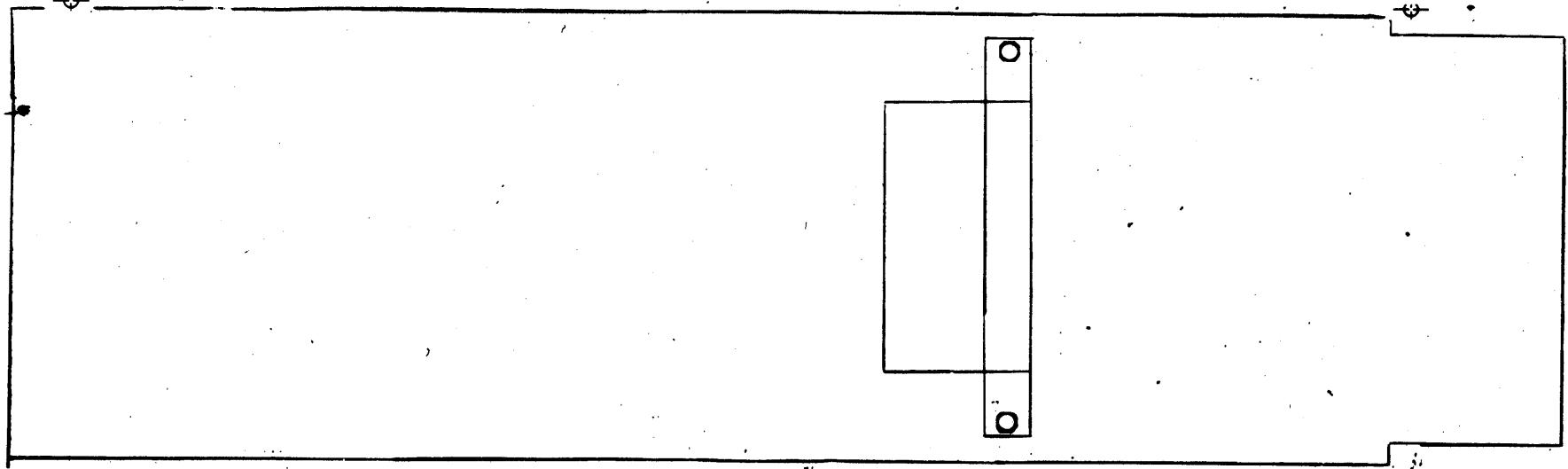


QTY.	DESCRIPTION	PART NO.	UNIT
A/R	COLOR TRACER		7
A/R	BERG PINS	12-10037-	6
A/R	INSULATION		5
A/R	WIRE 26/35 AWG TWP		4
1	CONN BERG	12-10090-00	3
A/R	CABLE COAX RG180 3/U		2
1	BURNDY MG12 MXP-17TC		1

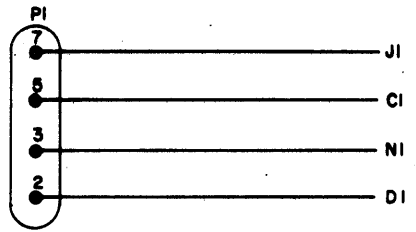
REV.	CHG.	NO.	DATE	BY	CHK.
1		1	7-11-72	SMITH	

UNLESS OTHERWISE SPECIFIED TOLERANCES:		EQUIPMENT CORPORATION	
DECIMALS	FRACTIONS	TITLE	
1/16 - .001	1/32 - .001	HIGH SPEED MODEM CABLE	
1/32 - .002	1/16 - .002	DUA BCOIW-0-0	
1/16 - .005	3/32 - .005	REV. A	
1/8 - .010	1/2 - .010	SCALE	
1/4 - .020	1 - .020	SHEET 1 OF 1	
1/2 - .050	2 - .050	DATE	
1 - .100	4 - .100	DWT. 12	

THIS SCHEMATIC IS FURNISHED ONLY FOR TEST AND MAINTENANCE PURPOSES. THE CIRCUITS ARE PROPRIETARY IN NATURE AND SHOULD BE TREATED ACCORDINGLY. COPYRIGHT [97] BY DIGITAL EQUIPMENT CORPORATION



A  
B  
C  
D  
E  
F  
H  
J  
K  
L  
M  
N  
P  
R  
S  
T  
U  
V



QTY.	REV DESIGNATION	DESCRIPTION	DEC PART NO.	
2		KEYS	9007866	33
2		SPACER	9000003	11
1		KEYS	9000002	2
1		KEYS	9000001	2
1		KEYS	9000000	2
1		KEYS, FLIP CHIP - MAGENTA	9000017-06	8
2		WASHER	9006732	7
4		PIPS	1200486-01	6
1		PIB MOUNTING	1200340-0-0	5
1		ETCHED CIRCUIT BOARD	5000007	4
		MODULE ECO HISTORY	B-MH-M973-0-6	3
		ASSY/DRILLING HOLE LAYOUT	B-AH-M973-0-5	2
		X-Y COORDINATE HOLE LOCATION	K-CO-M973-0-4	1
		PARTS LIST		

REV. NO.	REV. DATE	REV. BY
1	000001	A
2	000002	B

(3) *Handwritten notes:*  
 5/1/71  
 5/15/71  
 5/21/71

DESIGNATOR & QUOTE CONVERSION CHART	
DEC	SEA

**EQUIPMENT CORPORATION**  
 MAYFLEAD, MASSACHUSETTS

TITLE: **TTY CABLE CONNECTOR**  
 SIZE: C    CODE: CS    NUMBER: M973-0-1    REV: B  
 PRINTED CIRCUIT REV: A

M973-0-1  
 B  
 C CS

MSI347

(4) DIST. 324, USN, V38 2



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ITEM NO.	PART NO.	DESCRIPTION	DF11-A	DF11-BA	DF11-BB	DF11-F	DF11-G	DF11-K
1	A-PL-M584-0-0	EIA/CCITT CONVERTER	1					
2	B-SS-M585-0-1	CURRENT MODE CONVERTER BELL 301, 303						
3	D-CS-M5960-0-1	20 MA TO TTL CONVERTER				1		
4	A-PL-M970-0-0	85 FLIP CHIP/40 PIN HEADER				1		
5	A-PL-M973-0-0	85 FLIP CHIP/MATE-N-LOCK				1		1
6	D-UA-BC01R-25-0	BCOIR CABLE ASSEMBLY	1					
7	A-PL-M598-0-0	PASSIVE 20MA TO TTL						1
8	C-UA-BC05F-15-0	CABLE INTERFACE, BC05F-15						1
9	D-UA-BC01W-25-0	HIGH SPEED MODEM CABLE						
10	A-PS-20M586-0-0	ASYNCH MODEM 300 BAUD ORIG		1				
11	A-PS-20M587-0-0	ASYNCH MODEM 300 BAUD ANS		1				
12	D-UA-BC11E-0-0	MODEM TO DAA CABLE		1				

FIRST USED ON

DF11-BA  
LA30  
DF11/05  
DM11  
DF11-08  
LA30

REV.	CHANGE NO.	DESCRIPTION
A	DF11-00001	M'NAMARA
B	DF11-00002	MC NAMARA
C	DF11-00003	J. MCNAMARA
D	DF11-00004	J. MCNAMARA
E	DF11-00006	J. MCNAMARA
F	DF11-00005	J. MCNAMARA

FIRST USED ON OPTION/MODEL  
++

UNLESS OTHERWISE SPECIFIED  
DIMENSION IN INCHES  
TOLERANCES  
DECIMALS ± .008  
FRACTIONS ± 1/64  
ANGLES ± 0°30'

FINAL SURFACE QUALITY  
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL: ++  
FINISH: ++

UNLESS OTHERWISE SPECIFIED  
OWN: K. RUSS  
DATE: 3/18/71  
CHK'D: A. Raymond  
DATE: 3-22-71  
ENG: [Signature]  
DATE: 3-25-71  
PROJ. ENG: [Signature]  
DATE: 3-26-71  
FRONT: [Signature]

DATE: 3/18/71  
DATE: 3-22-71  
DATE: 3-25-71  
DATE: 3-26-71

NEXT HIGHER ASSY. ++

SCALE: ++  
SHEET 1 OF 1

**digital** EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

TITLE: LEVEL CONVERTERS AND CABLES

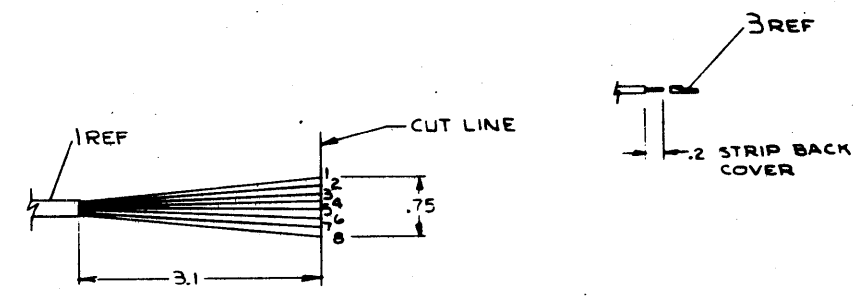
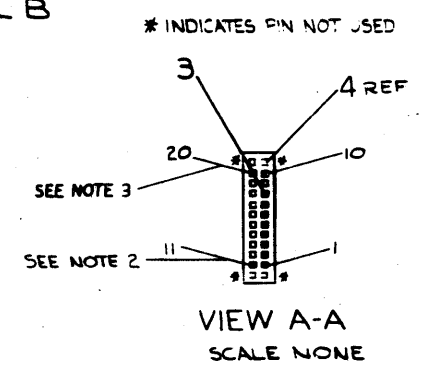
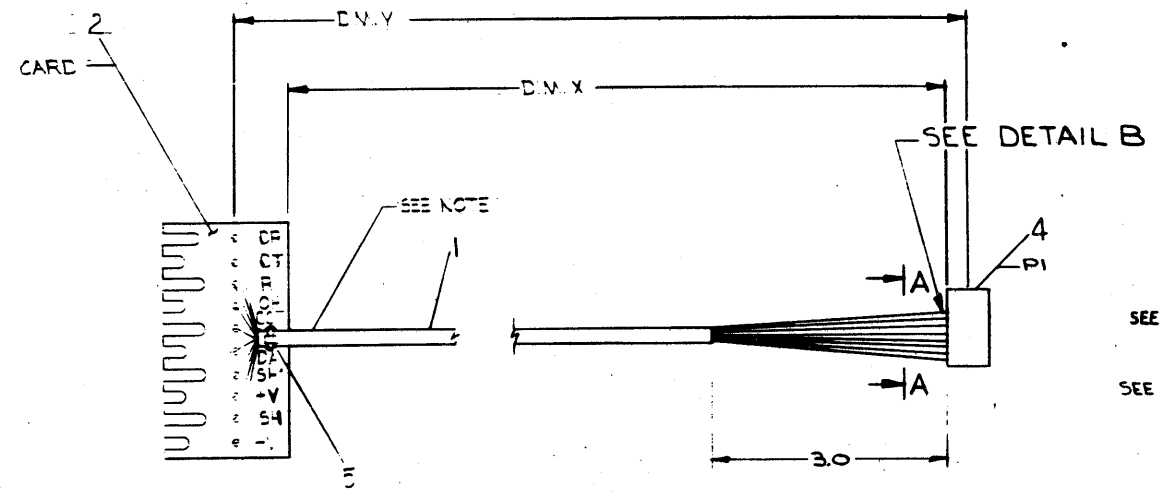
SIZE CODE: CPL  
NUMBER: DF11-0-0  
REV: F

8 7 6 5 4 3 2 1

WIRE TABLE							
ITEM NO	DESCRIPTION	FROM		TO		SIGNAL NAME	
		CONNECTION WITH	CONNECTION WITH	CONNECTION WITH	CONNECTION WITH		
1	#22 RED	PI-1	#223	CARD-DA	SOLDER	DA	
	GRN	PI-2		CARD-OH		OH	
	BLU	PI-3		CARD-SH		SH	
	WHT	PI-4		CARD-CC		CCT	
	CRN	PI-5		CARD-DR		DR	
	VIC	PI-6		CARD-D		DT	
	YEL	PI-7		CARD-R1		R1	
	#22 BLK	PI-8	#223	CARD-SH		SH	

LEGEND		
NUMBER	DIM X	DIM Y (PRELUT)
BC11E-25	25' ± 3"	28' 3" ± 3"

- NOTES:
- TWO WIRES (GRY, BRN) ARE TO BE CUT BACK AT INSULATION BOTH ENDS.
  - PI-11 IS A DUMMY PIN, USED FOR REFERENCE ONLY.
  - PI-20 IS TO BE NEXT TO ARROW ON CONNECTOR HOUSING ON MODEM WHEN PI IS PLUGGED IN.



REV	CHANGE NO.	DATE	BY	CHK
A	BC11E-00001	11-27-72	W. SMITH	W. SMITH
B	BC11E-00002	3-7-73	W. SMITH	W. SMITH
C	BC11E-00003	11-27-72	W. SMITH	W. SMITH

FIRST USED ON OPTION/MODEL  
DF11-BA#-BB

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS IN INCHES  
TOLERANCES  
FRACTIONS  
DECIMALS  
± .005 ± .002 ± .001  
FINISH  
NEXT HIGHER ASSY  
FINISH

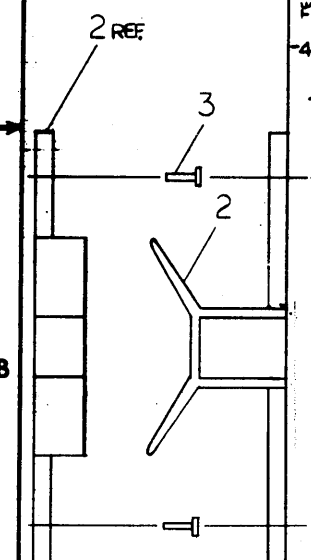
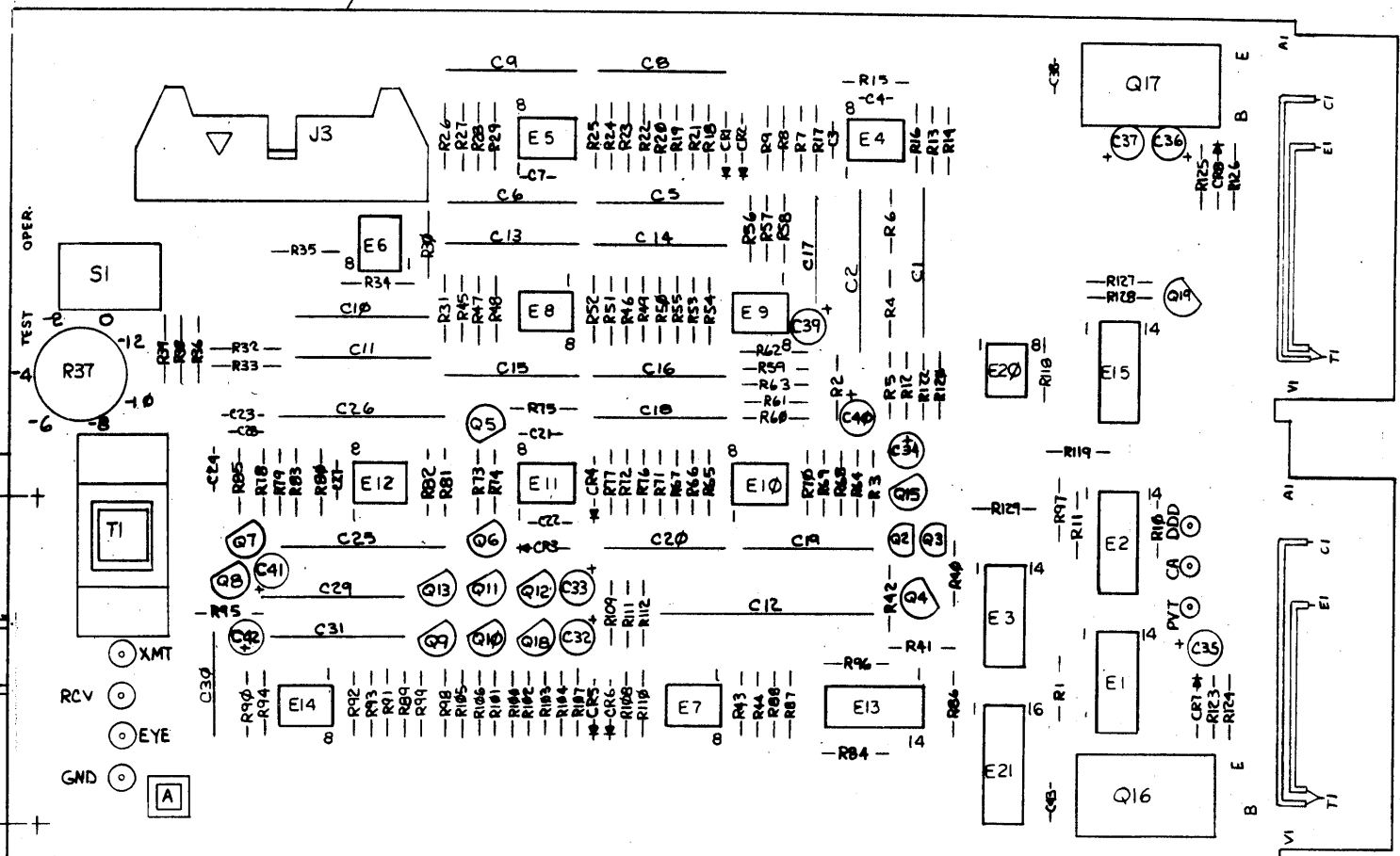
QTY.	DESCRIPTION	PART NO.	ITEM NO.
7	CABLE	3007031-20	5
1	RECEPTACLE 24 PIN	21093-15	4
9	MINI-TERMINAL #47785 BERG	1210089-6	3
1	CABLE TERMINATOR	5412775-0	2
1	CABLE 10 CONDUCTOR	9107623	1

EQUIPMENT CORPORATION  
TITLE: MODEM TO DAA CABLE (BC11E)  
PART NO: DJABCIIE-0-0  
SHEET 1 OF 1

8 7 6 5 4 3 2 1

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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		

DEC FORM NO DRP-135A

1-0-989W SC 2

1	ASYNC ORIGINATE MODEM (INTEL)	20M586	1
1	HANDLE FLIP-CHIP MAGENTA	9008337-06	2
2	EYELET	9006742	3

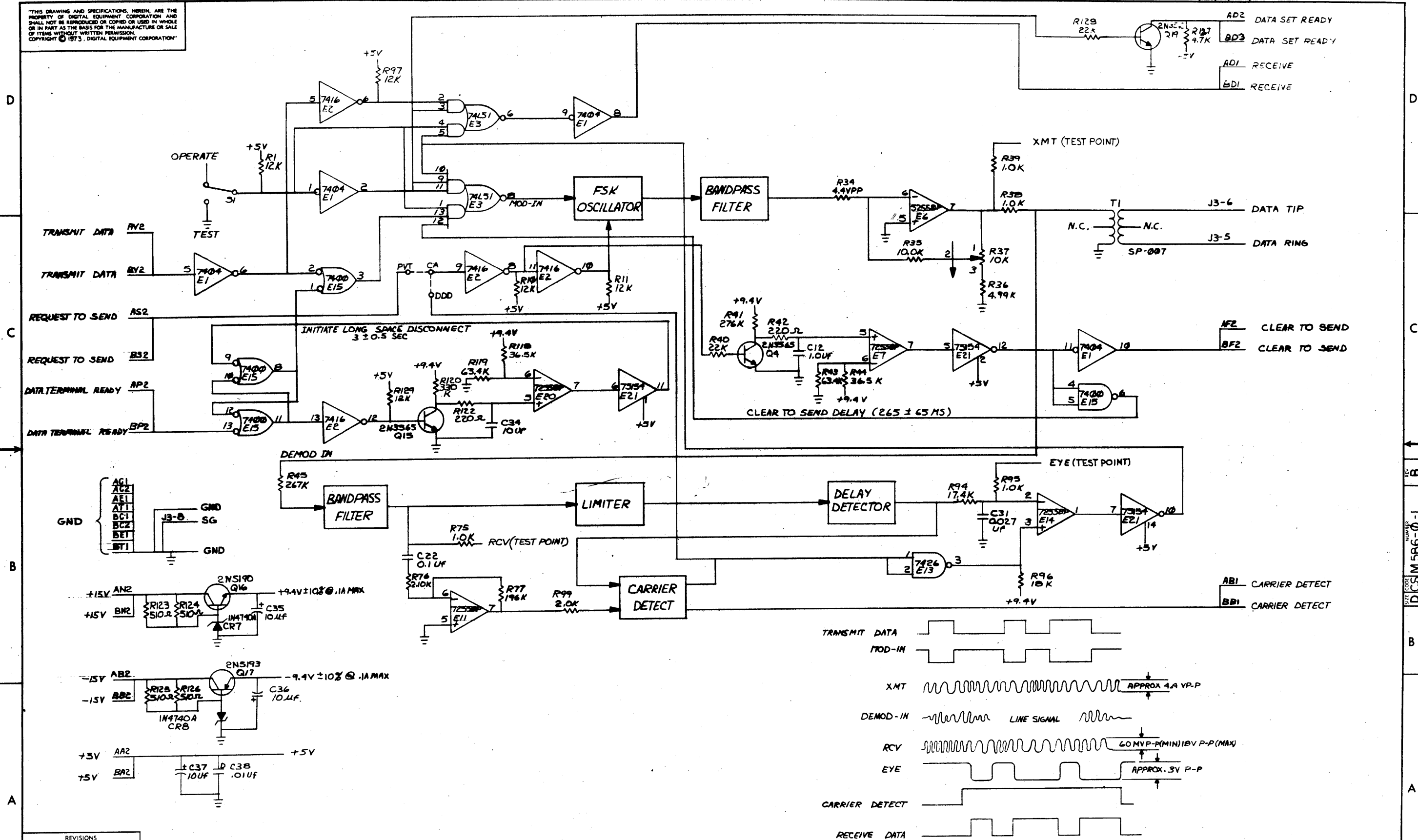
QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.																				
PARTS LIST																								
ETCH BOARD REV A																								
<table border="1"> <tr> <td>DATE</td> <td>7/14/73</td> <td>BY</td> <td>J. McNamara</td> </tr> <tr> <td>DATE</td> <td>8/14/73</td> <td>BY</td> <td>J. McNamara</td> </tr> <tr> <td>DATE</td> <td>8/14/73</td> <td>BY</td> <td>J. McNamara</td> </tr> <tr> <td>DATE</td> <td>8/14/73</td> <td>BY</td> <td>J. McNamara</td> </tr> <tr> <td>DATE</td> <td>8/14/73</td> <td>BY</td> <td>J. McNamara</td> </tr> </table>					DATE	7/14/73	BY	J. McNamara	DATE	8/14/73	BY	J. McNamara	DATE	8/14/73	BY	J. McNamara	DATE	8/14/73	BY	J. McNamara	DATE	8/14/73	BY	J. McNamara
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DATE	8/14/73	BY	J. McNamara																					
DATE	8/14/73	BY	J. McNamara																					
TITLE		ASYNC ORIGINATE MODEM																						
SIZE/SCALE	CODE	NUMBER	REV.																					
1 OF 2	D	M586-0-1	B																					

FIRST USED ON OPTION MODEL		DF11 - BA	
DEC NO.	EIA NO.	DEC NO.	EIA NO.
SEMICONDUCTOR CONVERSION CHART			

DESIGNED BY	J. McNamara
CHECKED BY	J. McNamara
DATE	3-21-74
REV	B
ORIGINATED	A
CHANGE NO.	

DRAWING NUMBER DCS M586-0-1

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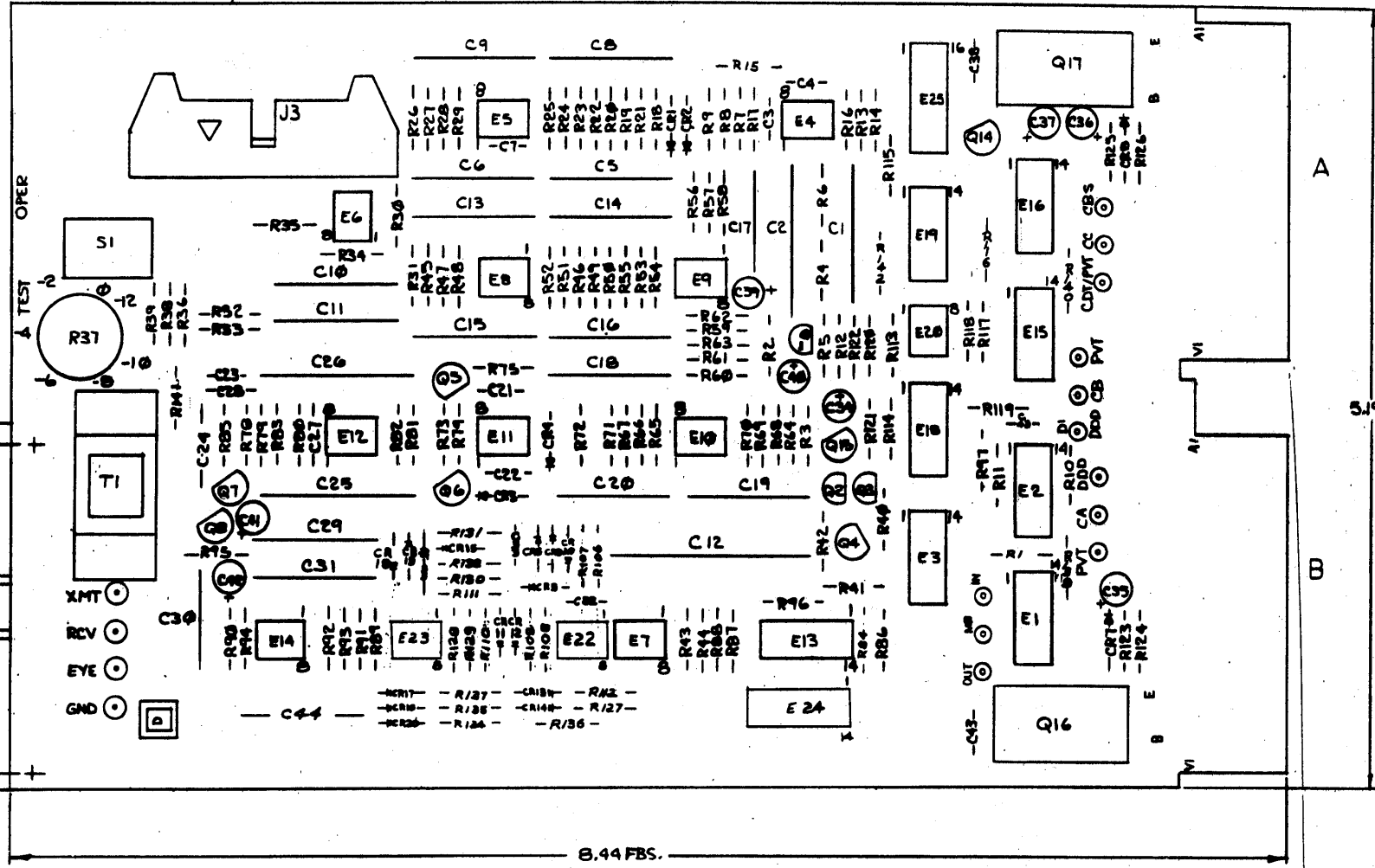
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	ASYNC ORIGINATE MODEM	SIZE CODE	D CS	NUMBER	M586-0-1	REV.	B
SCALE	+	SHEET	2	OF	2	DIST.	

REV. B  
NUMBER DCS M586-0-1  
SHEET 2 OF 2

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NOTES:



1	AS N ANSWER MODEM (INTERTEL)	20M587	1
1	HANDEL FLIPCHIP MAGENTA	9008337-06	2
2	EYELET	9006742	3

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

IC TYPE	GND	+5V	
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.			
IC PIN LOCATIONS			

DATE	7/25/72
CHKD	
ENG	
PRJ. ENG.	
DATE	8/14/72
DATE	8/14/72
DATE	8/14/72
DATE	8/14/72
DATE	8/14/72

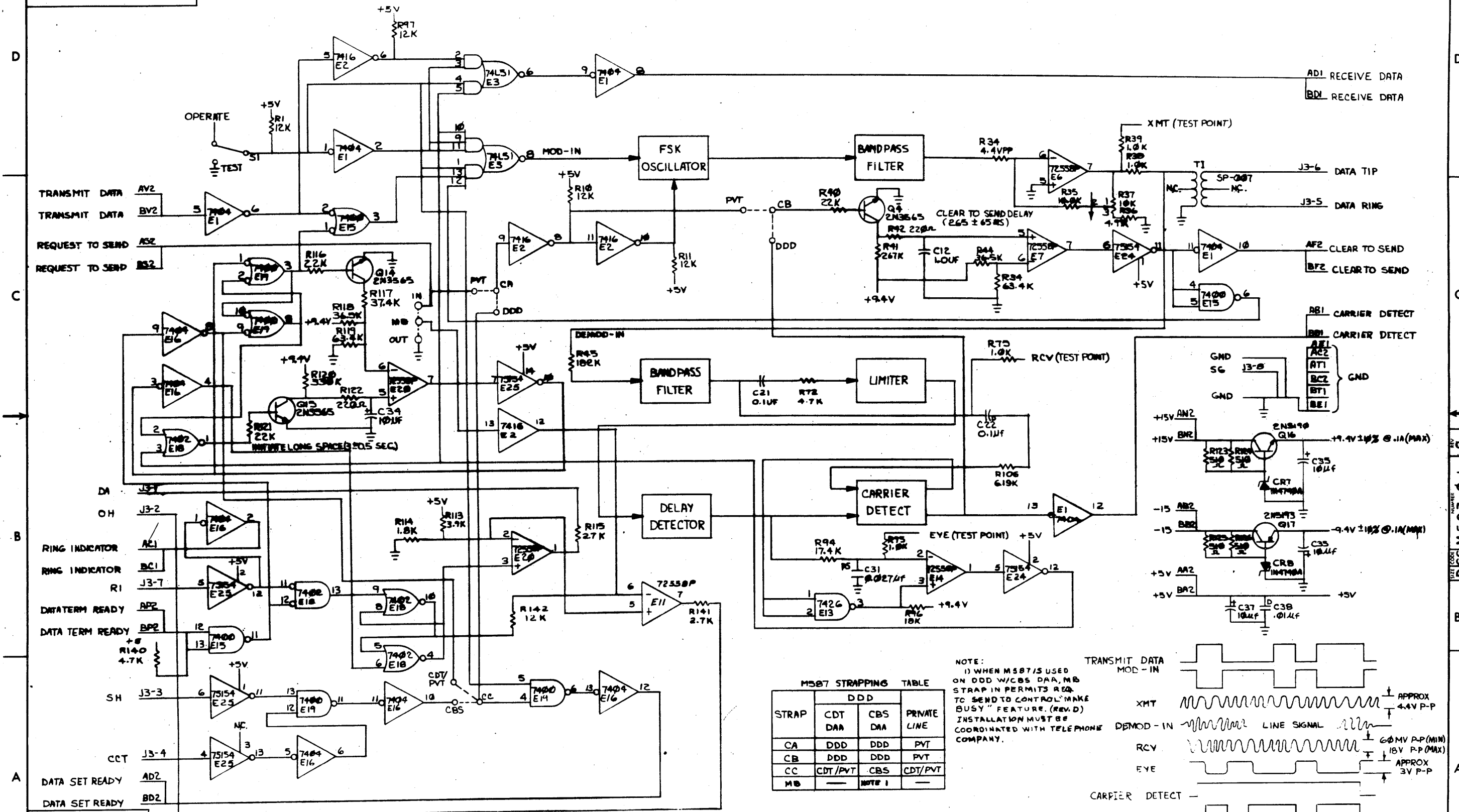
ORIGINATED	A	REV	
CHK		CHANGE NO.	
J. MCNAMARA			
J. VARGAS	3-14-74		
J. MCNAMARA			

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

SCALE	1	OF 2
SHEET	1	OF 2

 <b>EQUIPMENT CORPORATION</b> <small>BATHURST, MASSACHUSETTS</small>	<b>ASYNC ANSWER MODEM</b>								
<table border="1"> <tr> <td>SIZE CODE</td> <td>NUMBER</td> <td>REV.</td> </tr> <tr> <td>D</td> <td>M587-0-1</td> <td>C</td> </tr> </table>	SIZE CODE	NUMBER	REV.	D	M587-0-1	C	<table border="1"> <tr> <td>DIST.</td> <td></td> </tr> </table>	DIST.	
SIZE CODE	NUMBER	REV.							
D	M587-0-1	C							
DIST.									

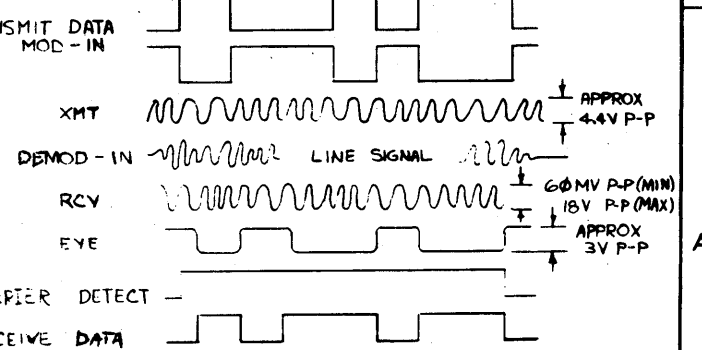
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M587 STRAPPING TABLE

STRAP	DDD			PRIVATE LINE
	CDT DAA	CBS DAA	PVT	
CA	DDD	DDD	PVT	
CB	DDD	DDD	PVT	
CC	CDT/PVT	CBS	CDT/PVT	
MB		NOTE 1		

NOTE:  
 1) WHEN M587/S USED ON ODD W/CBS DAA, MB STRAP IN PERMITS REQ. TO SEND TO CONTROL "MAKE BUSY" FEATURE. (REV.D) INSTALLATION MUST BE COORDINATED WITH TELEPHONE COMPANY.



REVISIONS

CHK	CHANGE NO.	REV.

# MASTER DRAWING LIST

MAINTENANCE MANUALS		UNIT VARIATIONS									
NO.	TITLE	DL10-AA	DL10-AB	DL10-AC	DL10-AD	DL10-AE	DL10-AF	DL10-AG	DL10-AH	DL10-AI	DL10-AJ
DL10	BASIC DR10	X	X								

**USED ON OPTIONS**

DL10-B	NOTES: REFER ALSO TO
DL10-C	1. THE DL10 MAINTENANCE MANUAL DEC-10-HOLA-D
	2. THE COMPLETE DL10 WIRELIST WRP&PIN LISTINGS (BOTH FURNISHED SEPARATELY WITH THE DL10)
	3. THE PDP10 MODULE PRINT SETS: B-MN-PDP10-0-MOD1 AND B-MN-PDP10-0-MOD2

REV. CHG. NO.	DATE	REV. NO.	DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	DATE	DRN.	SCALE	SHEET 1 OF 5	SIZE CODE	NUMBER	REV.
A	2-72	0001									A ML	DL10-A	V
B	5/72	0002											
C	7/72	0003											
D	8/72	0004											
E	10/72	0005											
F	2/73	0006											
H	5/73	0007											
J	3/74	0008											
K	5/74	DL10A-9 J.P.											
L	3/75	DL10A-10 L.K.											
M	4/75	KI10-49 AS											
N	6-75	DL10A-11 AS											
P	6-75	DL10A-12 7-12-75											
R	4-76	DL10A-13											
S	9-76	DL10A-14											
T	11-76	DL10A-15											
U	7-77	DL10A-16											
V	8-77	DL10A-17											

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**TITLE** PDP10, PDP-11, DATA LINK  
DL10

**SIZE CODE** A ML    **NUMBER** DL10-A    **REV.** V

DRA 131

Dec 16-(325)-1048-N471

PRINT SET	DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.
X	D-FD-DL10-A-CLKF	*	1	CLOCK FLOW	
X	D-FD-DL10-A-DPFL	*	1	DATA PATTERNS DRAM DATA	
X	D-FD-DL10-A-DPF2	*	1	DATA PATTERNS 10 MEMORY DATA	
X	D-FD-DL10-A-INTF	*	1	PDP-10 INTERRUPT FLOW	
X	D-FD-DL10-A-IOBF	*	1	I/O BUS INTERFACE FLOW	
X	D-FD-DL10-A-MRDM	*	1	MEMORY BUFFER & DATA MIXER	
X	D-FD-DL10-A-MCF	*	1	MEMORY CONTROL FLOW	
X	D-FD-DL10-A-RMG	B	1	REGISTER INTERCONNECTIONS	
X	D-FD-DL10-A-RSTF	*	1	RESET FLOW	
X	D-FD-DL10-A-TF1		1	TUNING FLOW #1	
X	D-FD-DL10-A-TF2		1	TUNING FLOW #2	
X	D-FD-DL10-A-TF3		1	TUNING FLOW #3	
X	D-FD-DL10-A-UBF		1	UNIBUS INTERFACE FLOW	
X	D-BS-DL10-A-ADR		1	ADDRESS REGISTER	
X	D-BS-DL10-A-BAG1		1	BASE & MASK REGISTER # & 1	
X	D-BS-DL10-A-BA23		1	BASE & MASK REGISTER 2 & 3	
X	D-BS-DL10-A-CLKC	C	1	CLOCK	
X	D-BS-DL10-A-COM		1	PDP-11 REMOTE CONSOLE COMMON LOGIC &c	
X	D-BS-DL10-A-COM1	C	1	PDP-11 #1 CONSOLE CONTROL	
X	D-BS-DL10-A-COM2	B	1	PDP-11 #2 CONSOLE CONTROL	
X	D-BS-DL10-A-COM3		1	PDP-11 #3 CONSOLE CONTROL	
X	D-BS-DL10-A-DIAG		1	DIAGNOSTIC CONTROL BITS	
X	D-BS-DL10-A-FF1		1	PORT # CONTROL FLIP FLOP	
X	D-BS-DL10-A-FF1		1	PORT 1 CONTROL FLIP FLOP	
X	D-BS-DL10-A-FF2		1	PORT 2 CONTROL FLIP FLOP	
X	D-BS-DL10-A-FF3		1	PORT 3 CONTROL FLIP FLOP	
X	D-BS-DL10-A-IOB	A	1	IOB SELECTION & CONTROL MIXER (WITHOUT DL10 ECO)	
X	D-BS-DL10-A-IOBF	A	1	IOB INTERFACE #	
X	D-BS-DL10-A-IOB1	A	1	IOB INTERFACE 1	
<b>TITLE</b>				DL10	
SHEET 2 OF 5				A ML	DL10-A
NUMBER					REV. V

DRA 132

DEC 16 (325)-1048-1-N471

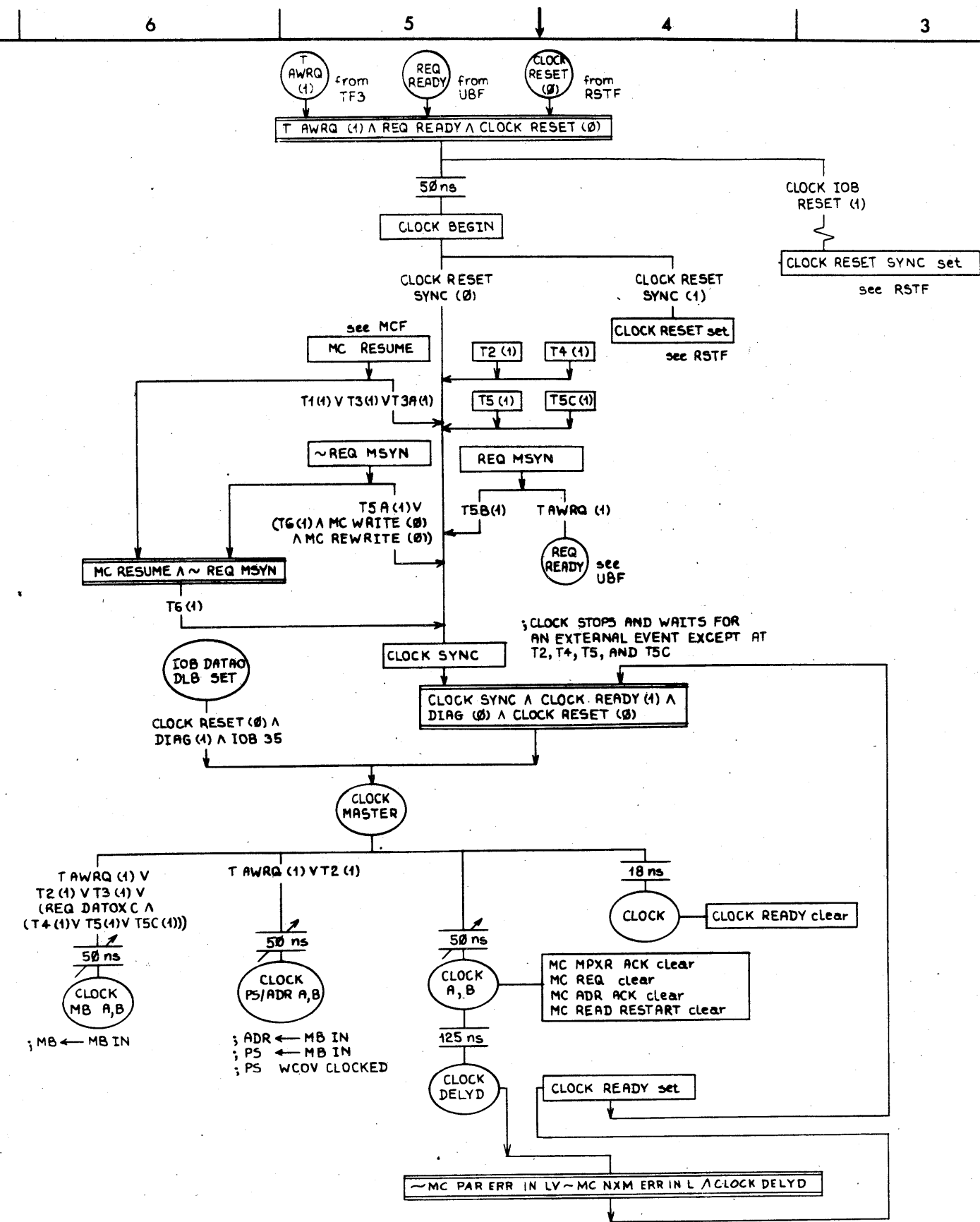


PRINT SET					DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.	
DL10										
X					D-MU-DL10-A-MUAD	A	1	MODULE UTILIZATION A-D		
X					D-MU-DL10-A-MUEJ	D	1	MODULE UTILIZATION E-J		
X					D-MU-DL10-A-MIKN	F	1	MODULE UTILIZATION K-N		
X					D-MU-DL10-A-MUPR	A	1	MODULE UTILIZATION P-R		
X					A-PL-DL10-A-MUAB	E	3	MODULE UTILIZATION (PL)		
X					E-IC-DL10-A-02	C	1	POWER WIRING AC-DC (DL10)		
X					E-AD-7006585-0-0	#	1	SERIES PASS ELEMENT ASSY		
					A-SP-DL10-A-MTP	D	13	MANUFACTURING TEST PROCEDURE		
X					A-SP-DL10-A-SAS	A	2	SYSTEM ACCEPTANCE SPECIFICATION		
X					A-PL-DL10-A-SHIP	A	1	DL10 SHIPPING LIST		
					A-WT-7008437-0	M	1	AWT REVISION STATUS		
X					K-WL-DL10-A-WL	K		WIRE LIST DL10-A (FACE SHEET) (SEE NOTE 2 ON SHEET 1)		
X					A-WL-DL10-A-SENS		1	DL10 REGULATOR SENSING		
					A-WL-DL10-A-WLB		5	GENERAL WIRING SHEETS DL10-B ECO		
X					D-UA-DL10-A-0	J	2	DL10 UNIT ASSY		
X					A-PL-DL10-A-0	J	3	DL10 UNIT ASSY (PL)		
X					D-DI-DL10-A-1	D	3	DRAWING INDEX LIST		
					C-AD-7013988-0-0			POWER CORD ASSY.	AA-AB	
					A-DC-7417095-0-0			CAUTION DECAL	AB	
X					D-AD-7008358-0-0	A	1	GROUND PLANE ASSY		
X					A-PL-7008358-0-0	A	1	GROUND PLANE ASSY (PL)		
X					E-AD-7008437-0-0	*	1	LOGIC ASSY		
X					K-AD-7008472-0-0	*	1	CABLE SET (DL10)		
X					A-PL-7008472-0-0	*	1	CABLE SET (DL10) (PL)		
X					D-UA-BC08J-0-0	#	1	I/O CABLE (BC08J)		
X					D-IA-7009719-0-0	#	1	11/40 REMOTE CONSOLE CABLE		
X					D-IA-7011900-0-0		1	DL10-B CONTROL PANEL		
					D-IA-7012783-0-0		1	MAINT. PANEL ASSY		
TITLE					DL10	SHEET 5 OF 5		SIZE CODE A ML	NUMBER DL10-A	REV. V

DRA 132

DEC 16-(325)-1048-1-N471

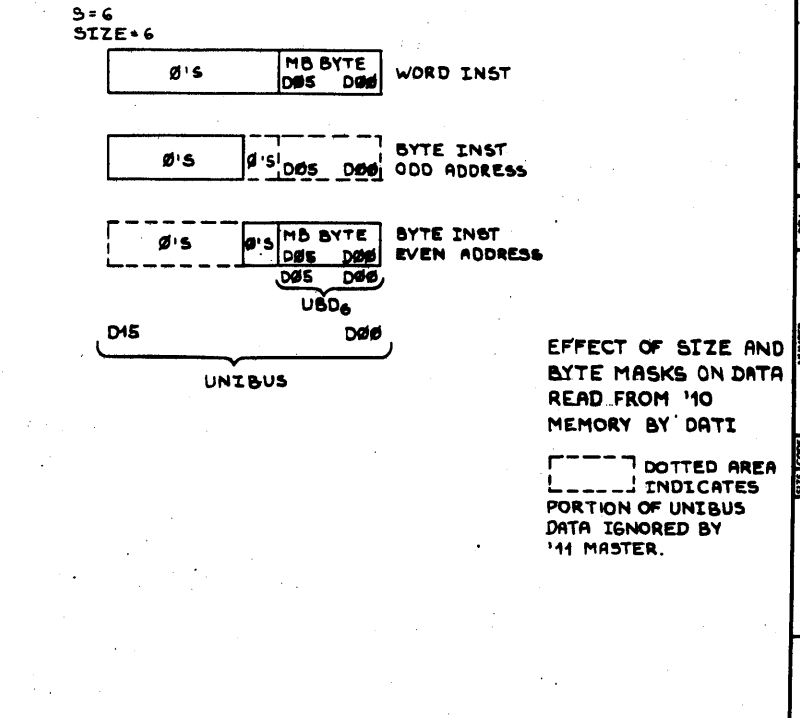
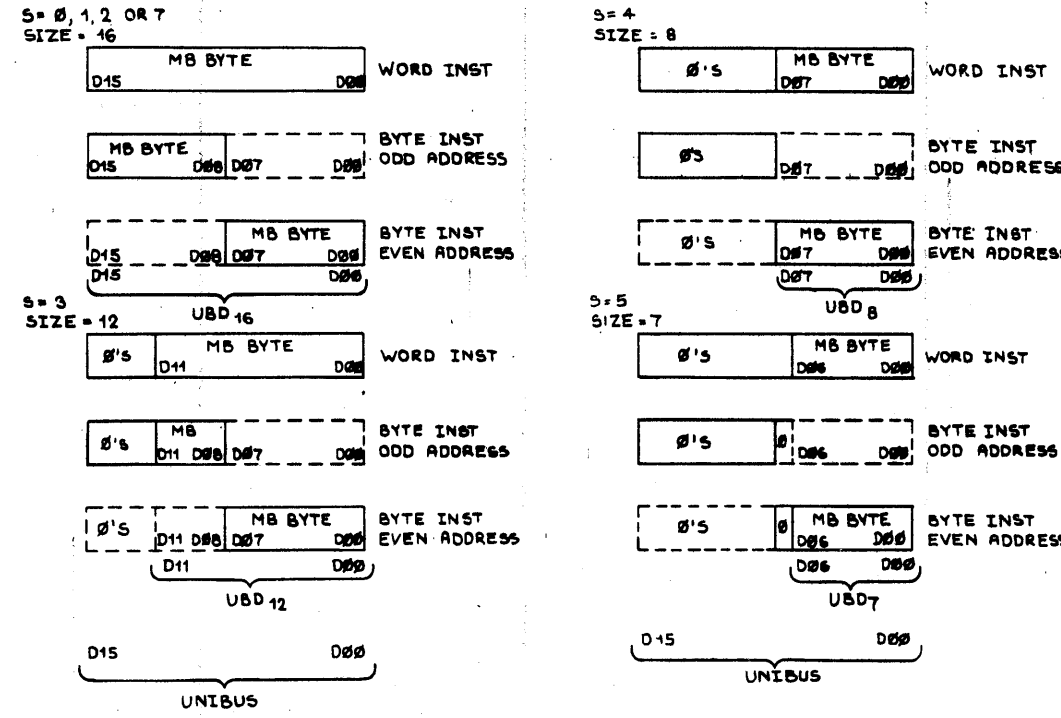
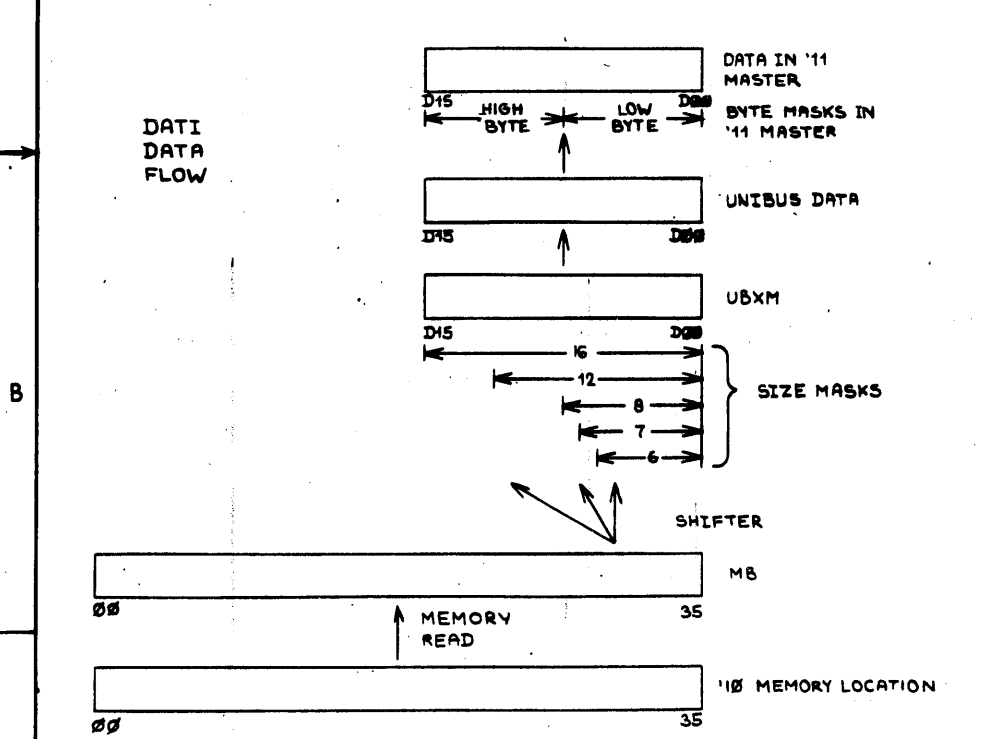
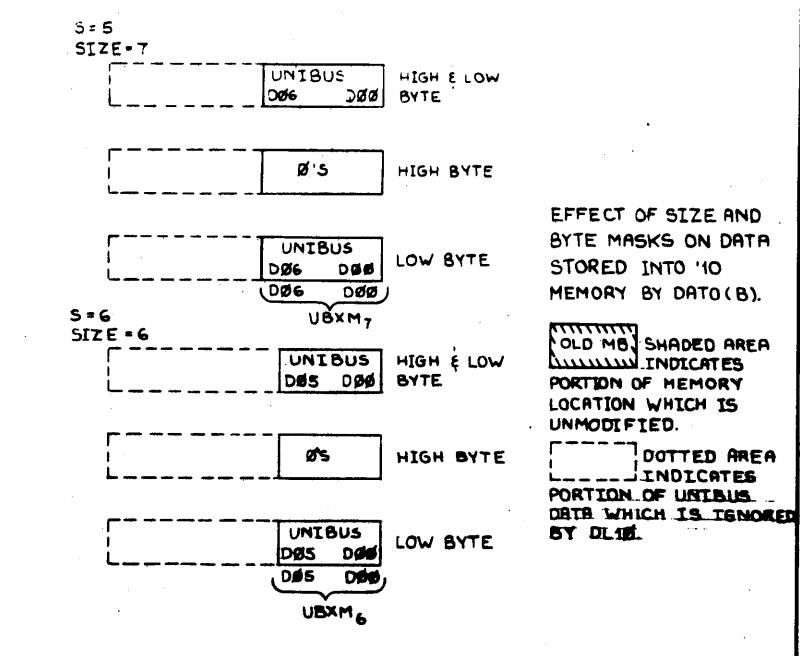
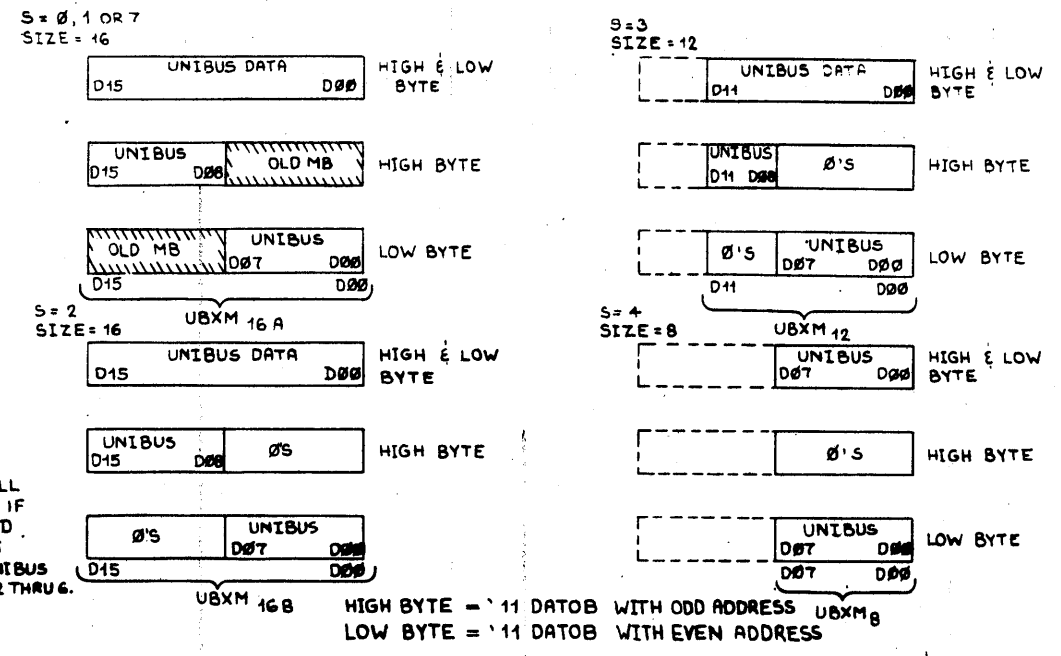
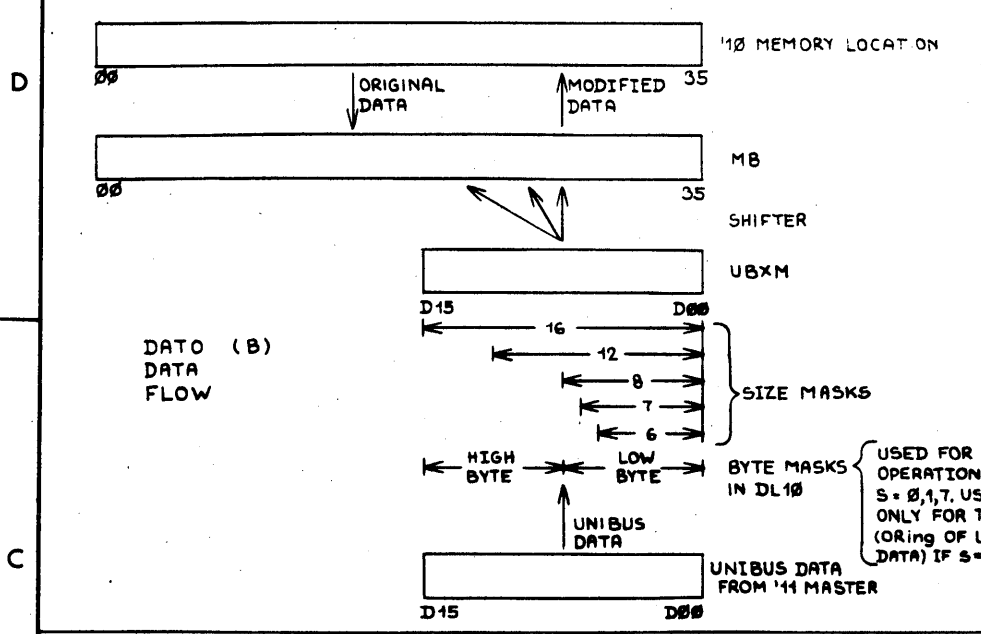
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REV	CHANGE NO.	ORIGINATED	DATE
1	DL10A-00008	P. J. HOLMES	27 SEPT 76
2	DL10A-00014	S. HOLMES	10-5-76

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN. R.F. Beasley	DATE 12-4-73	
TOLERANCES		CHK'D. Alan Kent	DATE	
DECIMALS .xxx = .005	ANGLES .0' 30'	ENG. Alan Kent	DATE	
.xx = .02		PROJ. ENG. Alan Kent	DATE	
.x = .1		PROD. Alan Kent	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y		TITLE		
MATERIAL		CLOCK FLOW		
NEXT HIGHER ASSY.		SIZE CODE	NUMBER	REV.
FINISH		B-DD-DL10-A	DL10-A-CLKF	A
SCALE NONE		DIST.		
SHEET 1 OF 1				

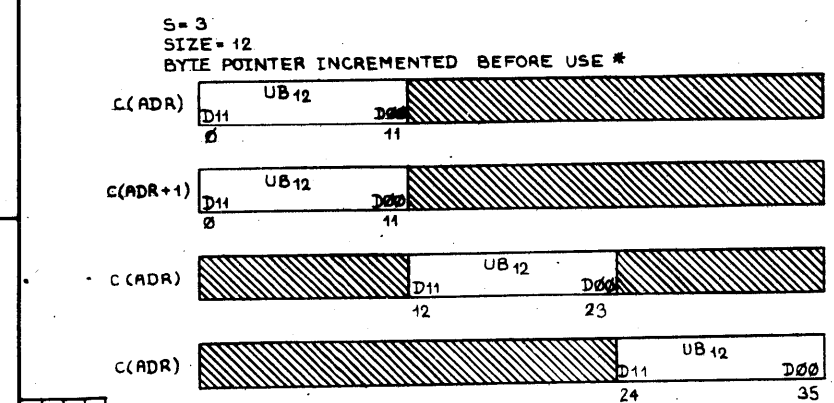
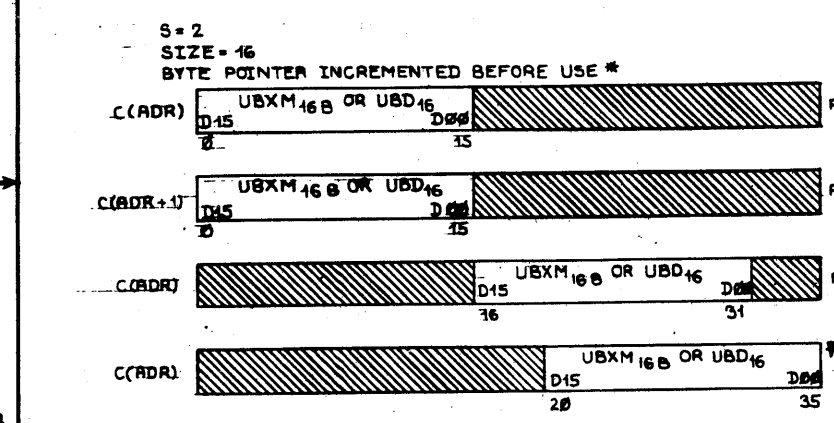
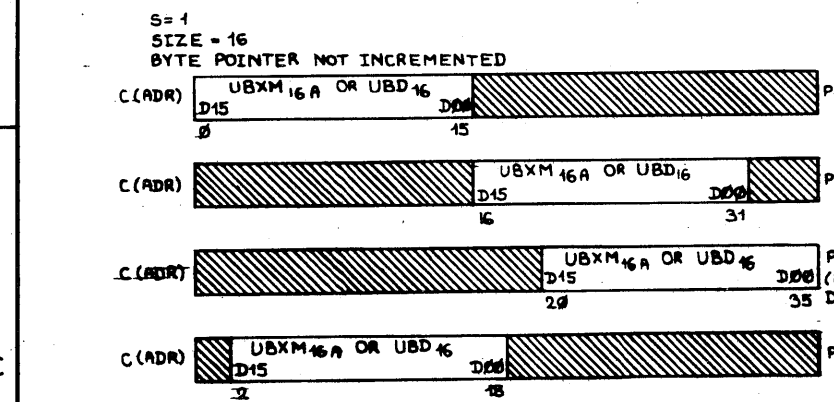
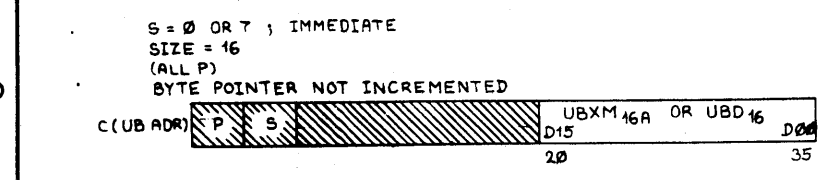
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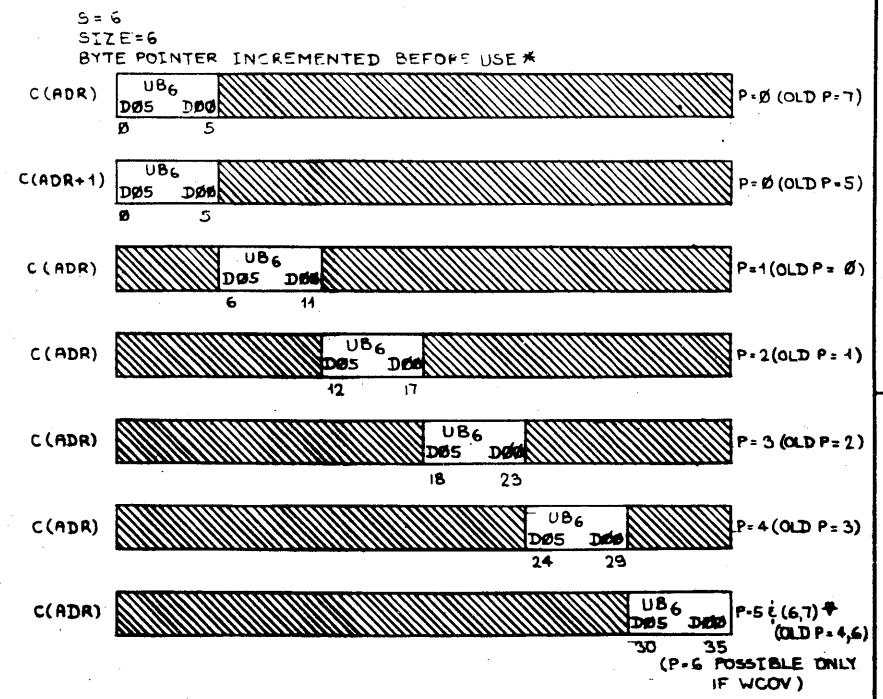
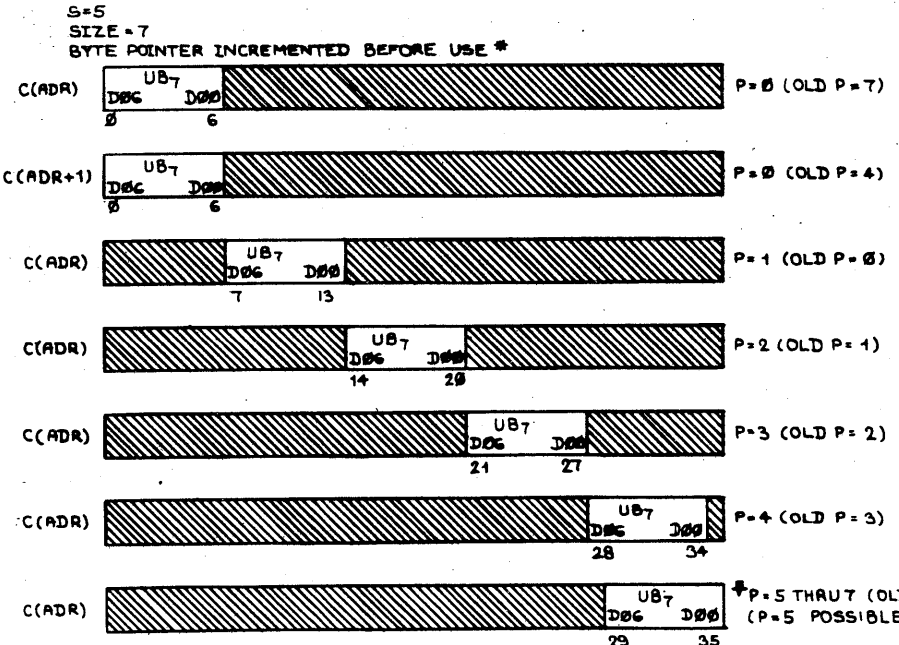
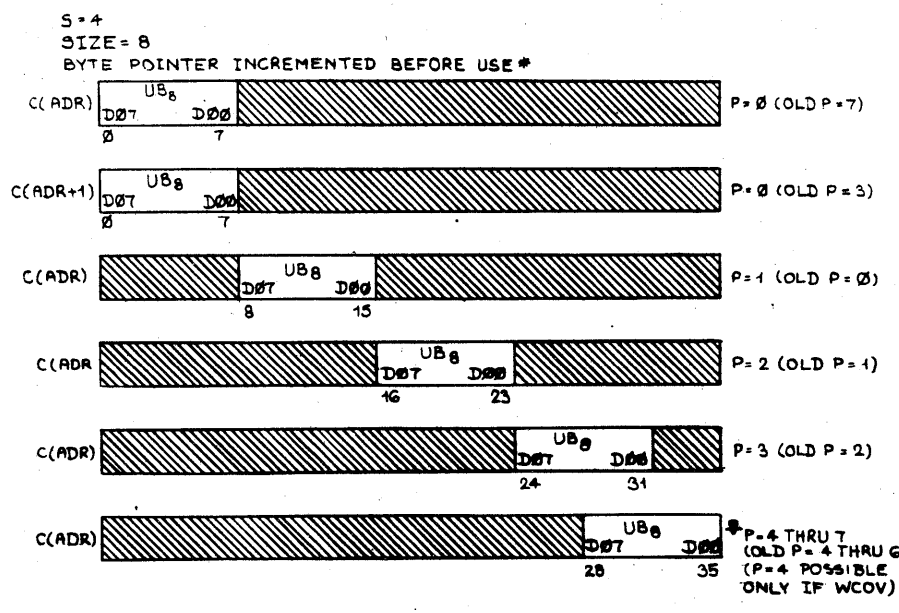
REV	CHANGE NO	ORIGINATED
1	DL10A-0000B	

FIRST USED ON OPTION/MODEL DL10-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. R. Sorsby	DATE 11/12/73	<b>digital</b> EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
TOLERANCES	CHK'D. Alan Kent	DATE 4/26/74		
DECIMALS .XXX = .006	ENG. Alan Kent	DATE 4/26/74	TITLE DATA PATTERNS UBXM DATA	
ANGLES ±0° 30'	PROJ. ENG. Alan Kent	DATE 4/26/74		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y	PRNT. B. W. W.	DATE 4/26/74		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	B-DD-DL10-A	D	DL10-A-DPF1	-
	SCALE NONE	SHEET	OF	DIST.

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REV	CHG	NO	ORIGINATED
1	DL10-A-0008		



\* EXCEPT THAT ON WCOV, BYTE POINTER IS NOT CHANGED.  
 WCOV = (P = S - 1 ^ WC = -1)  
 † NOT GUARANTEED, SUBJECT TO CHANGE WITHOUT NOTICE.  
 UBADR = BAS<sub>1</sub> + UNIBUS <A17: A00> AS DETERMINED BY BAM<sub>1</sub>  
 ADR = C(UBADR)<sub>RH</sub>

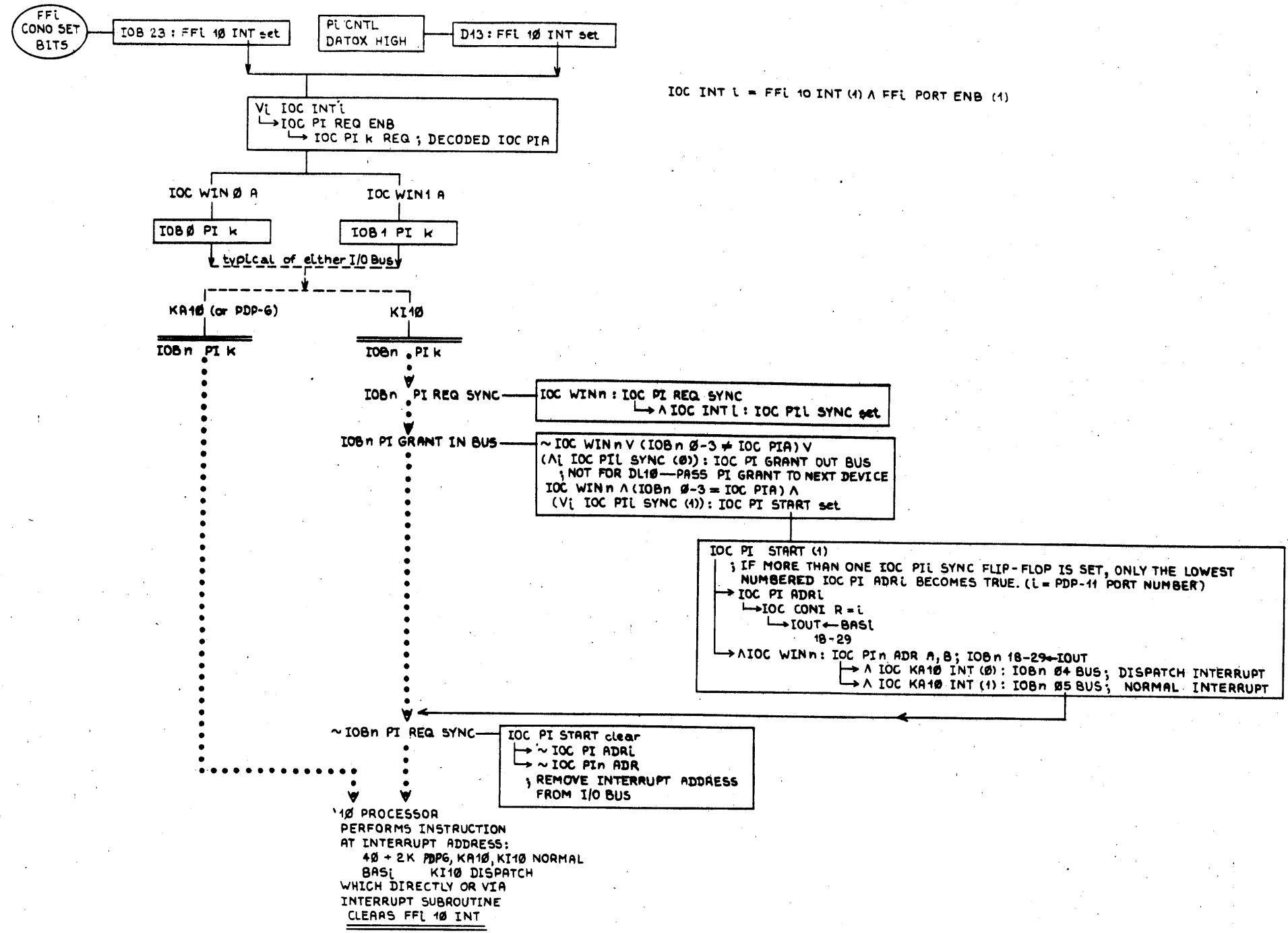
P	S	-WC	ADR
0	2 3	5 6	11 18 35

UB<sub>n</sub> = UBXM<sub>n</sub> (DATO (B)) OR UBD<sub>n</sub> (DATI)  
 SHADED AREA INDICATES PORTION OF MEMORY LOCATION WHICH IS UNMODIFIED BY DATO (B) AND UNREAD BY DATI.  
 SEE DPF1 FOR DETAILS OF UBXM<sub>n</sub> AND UBD<sub>n</sub>.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. R. Beasley	DATE 11/14/73	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TOLERANCES	CHKD. Allen Kent	DATE 11/21/73		
DECIMALS .xxx = .005	PROJ. ENG. Allen Kent	DATE 11/21/73	TITLE DATA PATTERNS 10 MEMORY DATA	
ANGLES '0' 30'	PROJ. ENGR. Allen Kent	DATE 11/21/73		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	PROJ. ENGR. B.W. Webb	DATE 11/21/73	MATERIAL	
			NEXT HIGHER ASSY.	
			B-0D-DL10-A	SIZE CODE
			SCALE NONE	NUMBER
			SHEET 1 OF 1	DIST.

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DL10-A-INTF 2



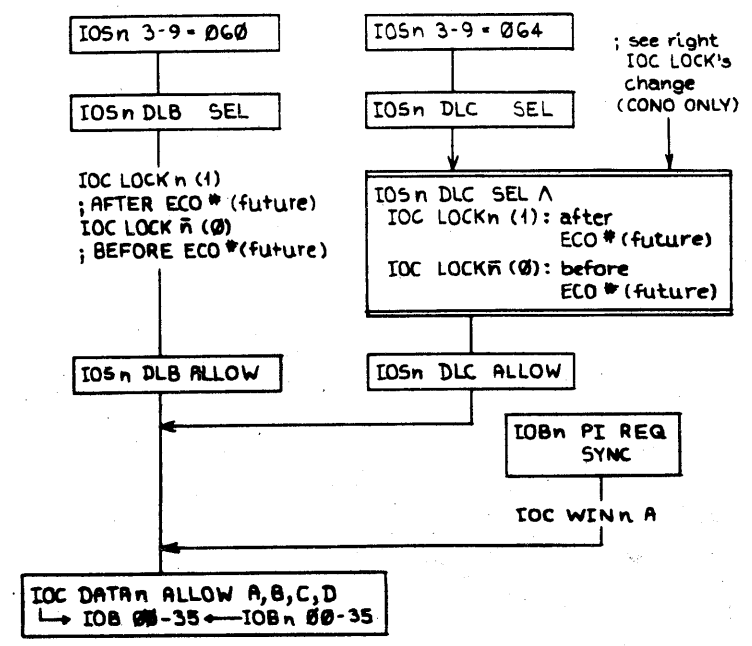
REVISIONS	CHANGE NO.	REV	DATE
DL10A-0000B	ORIGINATED		

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN. P.T. 3-2-73	DATE 12-4-73	<b>digital</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE PDP-10 INTERRUPT FLOW
TOLERANCES		CHK'D. Alan Kent	DATE 11/2/71	
DECIMALS .XXX = .005	ANGLES °0' 30"	ENG. Alan Kent	DATE 11/2/71	
.XX = .02		PROJ. ENG. Alan Kent	DATE 11/2/71	
.X = .1		PROJ. Alan Kent	DATE 11/2/71	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y		DATE 11/2/71		
MATERIAL	++	NEXT HIGHER ASSY.	B-DD-DL10-A	SIZE CODE D
FINISH	++	SCALE NONE	DL10-A-INTF	NUMBER
SHEET 1 OF 1		DIST.		REV. -

REV. DL10-A-INTF

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DEVICE SELECTION



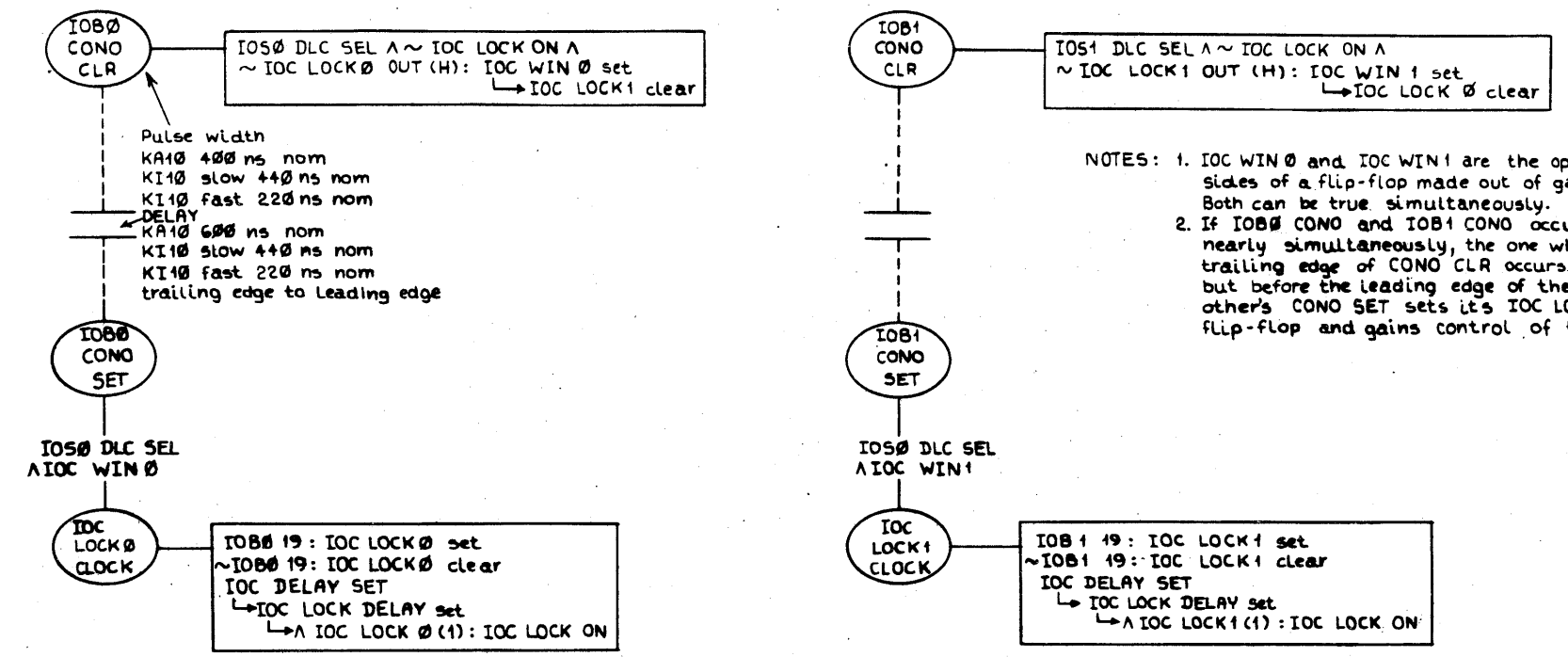
see right IOC LOCK's change (CONO ONLY)

IOC LOCK n (1)  
; AFTER ECO\* (future)  
IOC LOCK n (0)  
; BEFORE ECO\* (future)

IO5n DLC SEL A  
IOC LOCK n (1): after ECO\* (future)  
IOC LOCK n (0): before ECO\* (future)

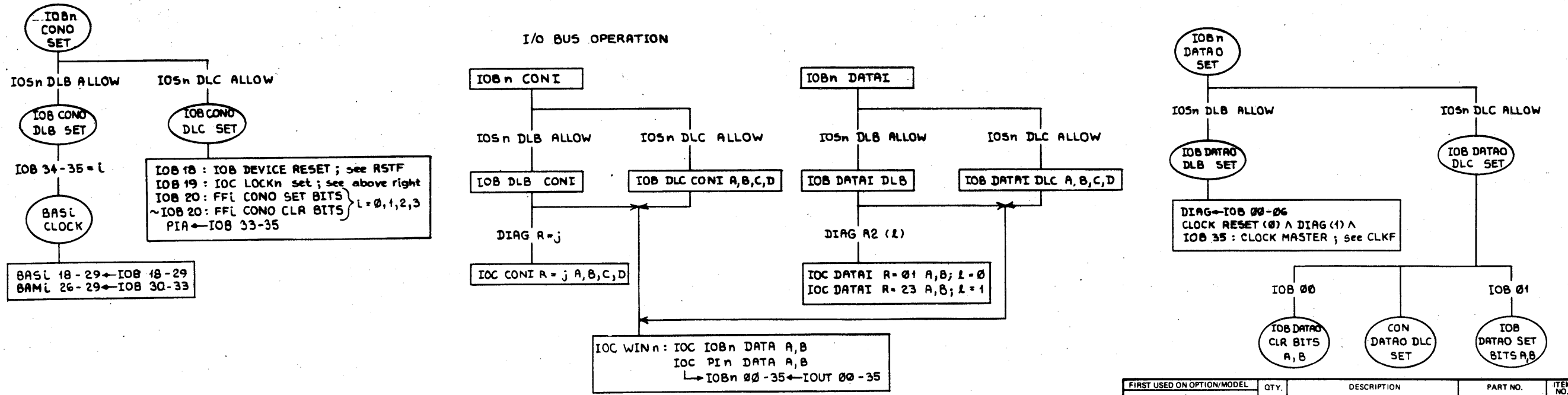
IOC DATAn ALLOW A,B,C,D  
↳ IOB 00-35 ← IOBn 00-35

I/O BUS CONTENTION



NOTES: 1. IOC WIN 0 and IOC WIN 1 are the opposite sides of a flip-flop made out of gates. Both can be true simultaneously.  
2. If IOB0 CONO and IOB1 CONO occur nearly simultaneously, the one whose trailing edge of CONO CLR occurs last but before the leading edge of the other's CONO SET sets its IOC LOCK flip-flop and gains control of the DL10.

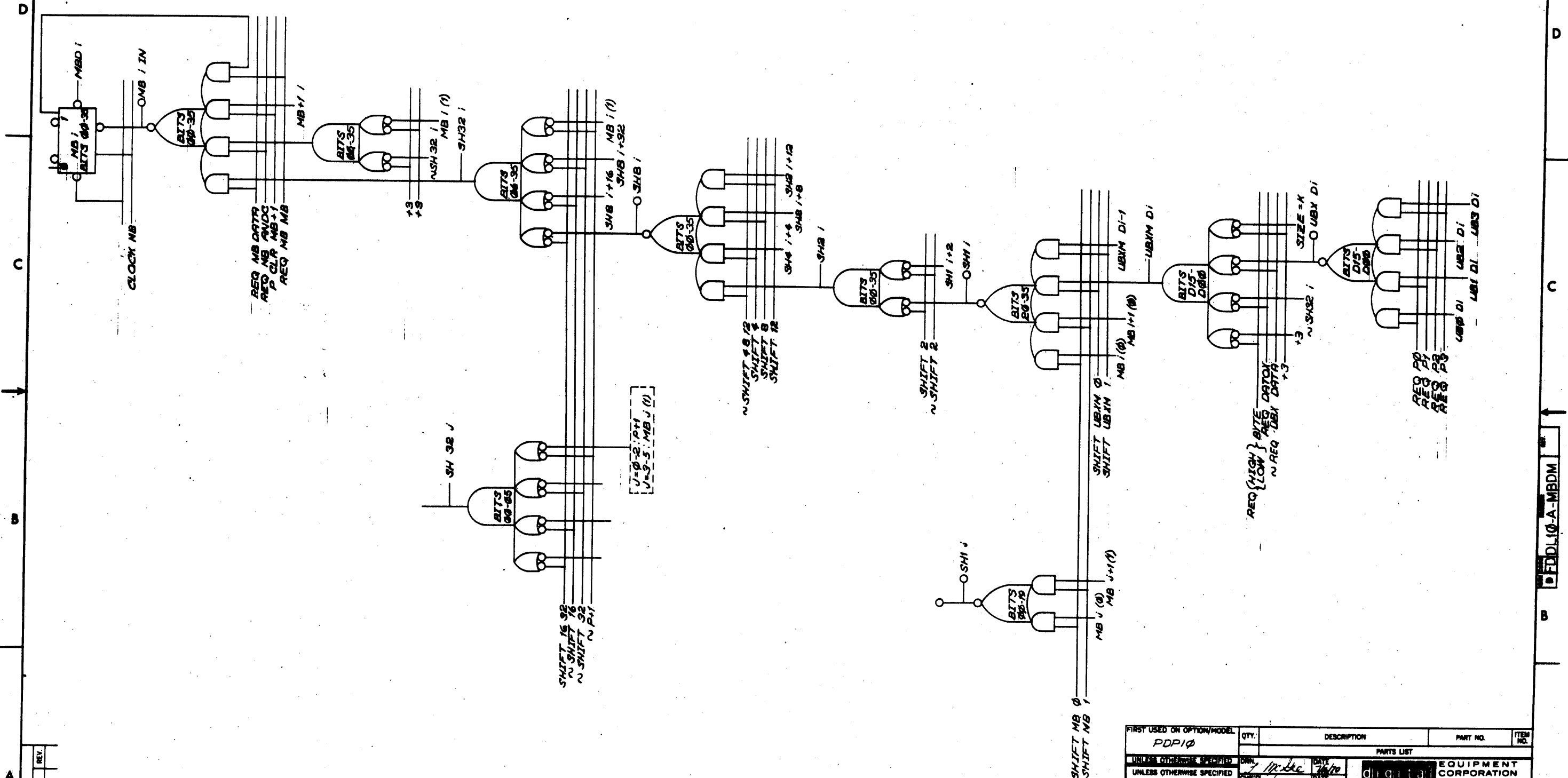
I/O BUS OPERATION



REV	CHG	NO	DATE
1	DL10-A-00008		
	DISCONTINUED		

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN: P.F. Beasley	DATE: 2-4-74	
TOLERANCES		CHK'D: Ken Kent	DATE: 1/26/74	
DECIMALS	ANGLES	ENG: Ken Kent	DATE: 1/22/74	
.XX = .02	±0' 30"	PROJ. ENG: Ken Kent	DATE: 1/22/74	
.X = .1		PROV: Ken Kent	DATE: 1/22/74	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y				
MATERIAL		NEXT HIGHER ASSY.		
FINISH		B-DD-DL10-A	SIZE CODE	NUMBER
		SCALE NONE	DL10-A-I0BF	REV.
SHEET OF		DIST.		

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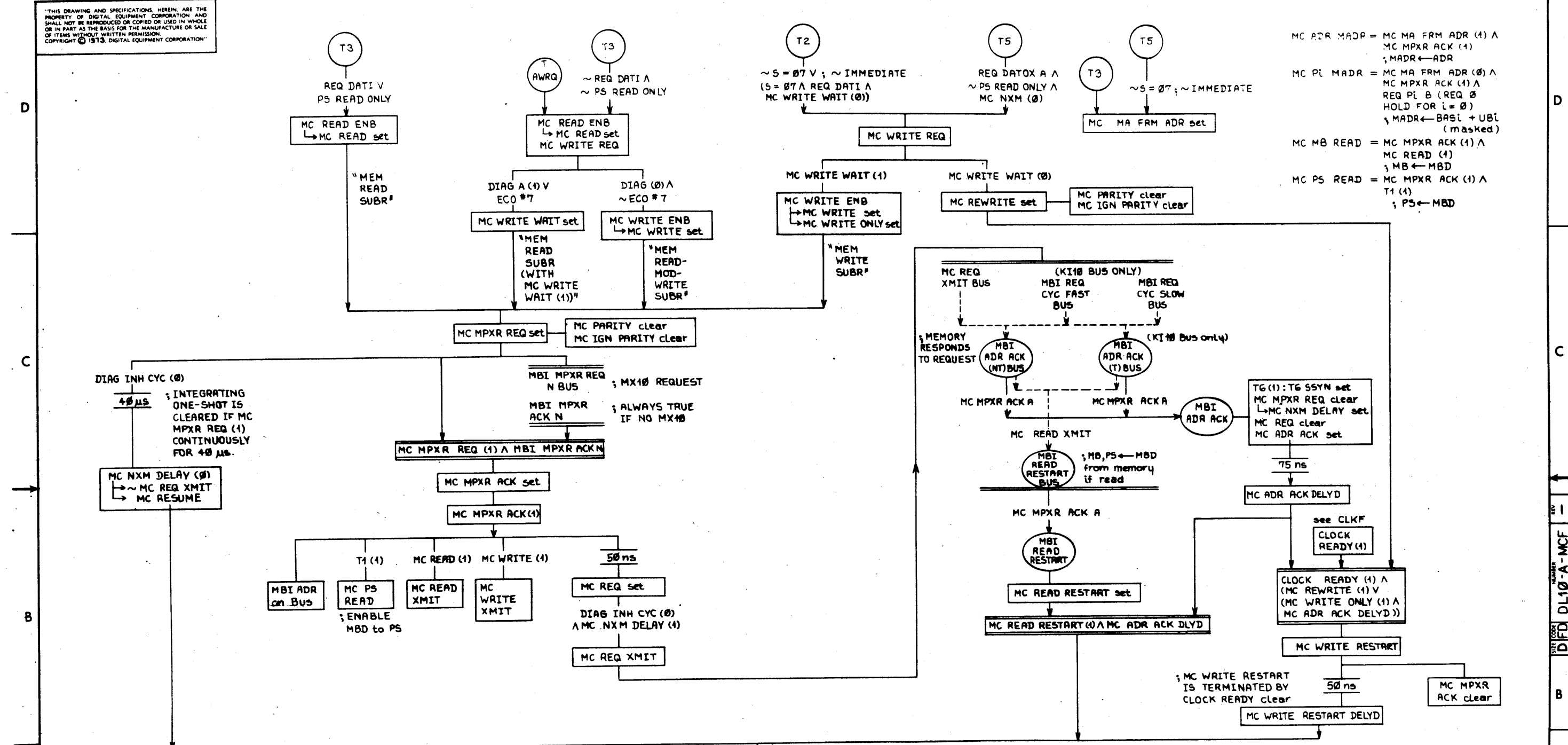
J=0-2, PH  
J=3-5, MB J (1)

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DATE 11/10/71	DATE 11/10/71	PARTS LIST	
TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°	DATE 11/10/71	DATE 11/10/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 11/10/71	DATE 11/10/71	TITLE MEMORY BUFFER & DATA MIXER	
MATERIAL	DATE 11/10/71	DATE 11/10/71	NEXT HIGHER ASSY A-ML-DL10-A	
FINISH	SCALE N/A/N/A	SCALE N/A/N/A	REV. DFDL10-A-MBDM	
	SHEET 1 OF 1	DIST.		

REVISIONS	REV.
CHK	CHANGE NO.

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MC ADR MADR = MC MA FRM ADR (1) A  
 MC MPXR ACK (1)  
 ; MADR ← ADR

MC PL MADR = MC MA FRM ADR (0) A  
 MC MPXR ACK (1) A  
 REQ PL B (REQ 0  
 HOLD FOR i = 0)  
 ; MADR ← BASI + UBI  
 (masked)

MC MB READ = MC MPXR ACK (1) A  
 MC READ (1)  
 ; MB ← MBD

MC PS READ = MC MPXR ACK (1) A  
 T1 (4)  
 ; PS ← MBD

DIAG INH CYC (0)  
 40 μs ; INTEGRATING ONE-SHOT IS CLEARED IF MC MPXR REQ (1) CONTINUOUSLY FOR 40 μs.

MC RESUME  
 see CLKF & main flows

CLOCK A, B

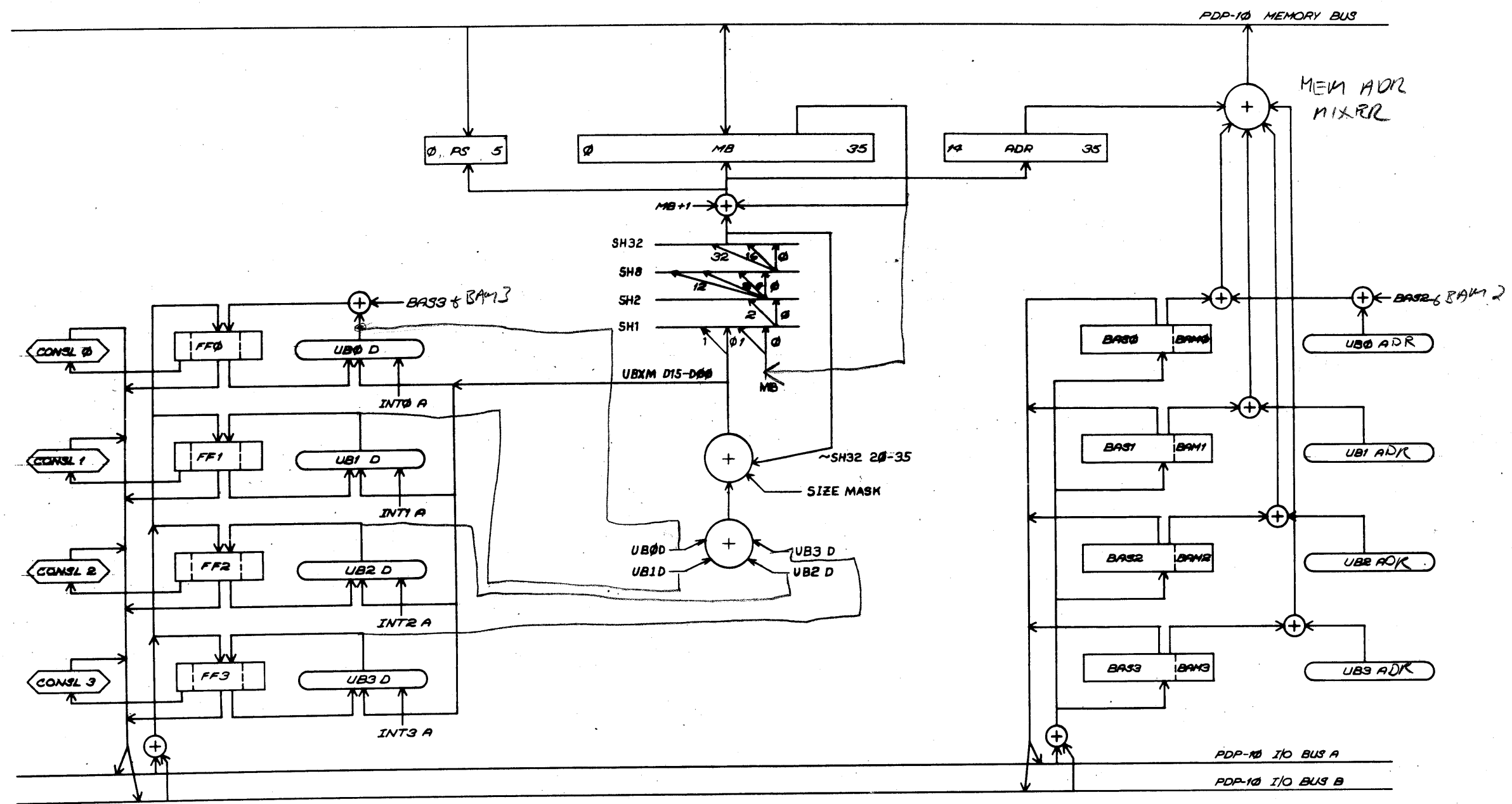
MC NXM DELAY (0) A  
 MC MPXR REQ (1) : MC NXM set  
 MC REQ clear  
 MC MPXR ACK clear  
 ~MC READ ENB A ~MC WRITE ENB  
 MC MPXR REQ clear  
 MC ADR ACK clear  
 MC READ RESTART clear

REV.	1
CHANGE NO.	DL10A-0008
ORIGINATED	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN. P. Beatty	DATE 12-3-73	digital EQUIPMENT CORPORATION MAYFORD MASSACHUSETTS
TOLERANCES		CHK'D. M. Kent	DATE 1/15/74	
DECIMALS .xxx = .006	ANGLES °' = 30'	ENG. M. Kent	DATE 1/15/74	TITLE MEMORY CONTROL FLOW
.xx = .02	.x = .1	PROJ. ENG. M. Kent	DATE 1/15/74	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROOF. M. Kent	DATE 1/15/74	MATERIAL ++
NEXT HIGHER ASSY.				
FINISH ++		B-DD-DL10-A		SIZE CODE D F D
		SCALE NONE		NUMBER DL10-A-MCF
		SHEET 1 OF 1		REV. -



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REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

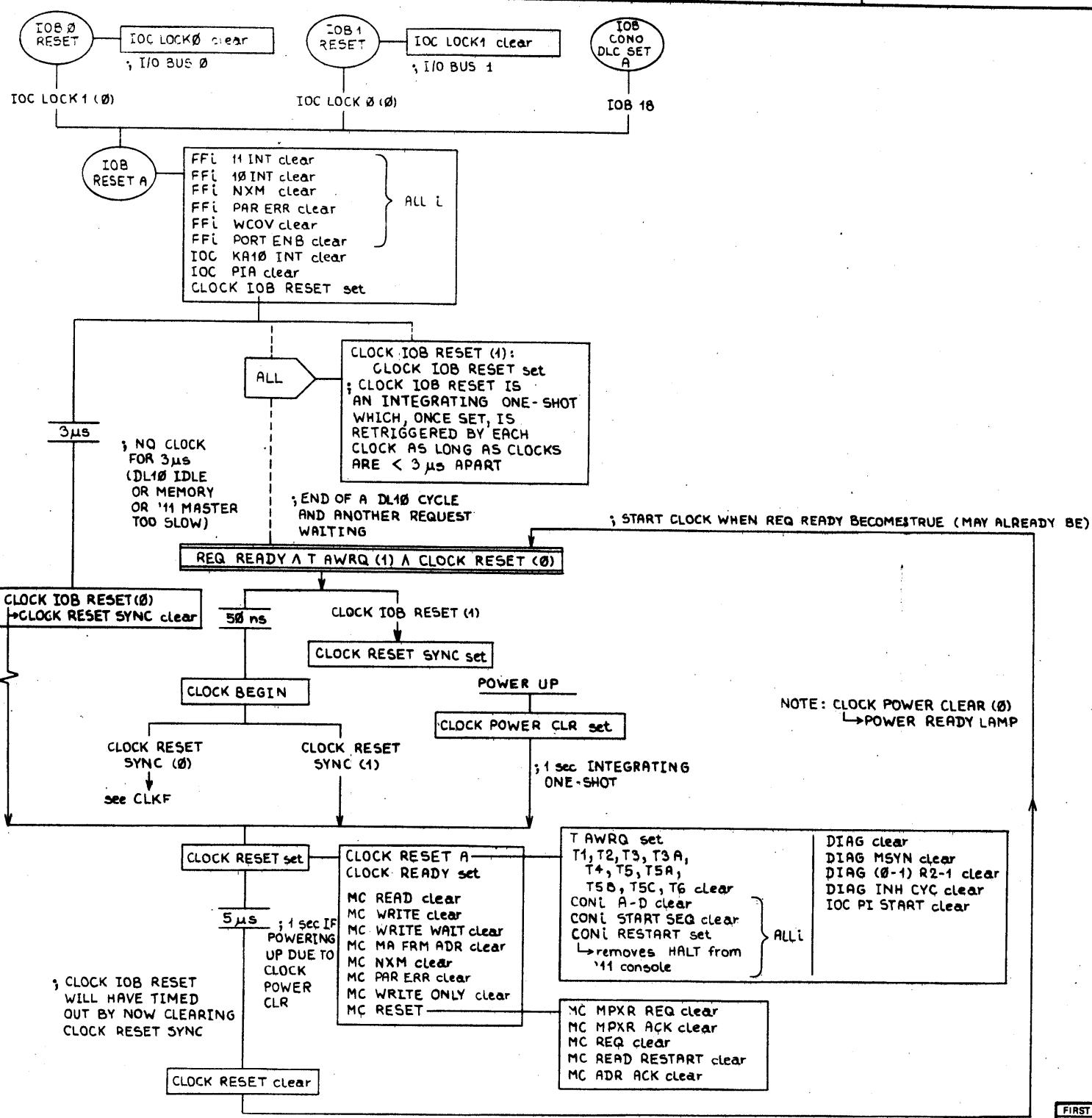
REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

REV	CHG	DATE	BY
1	DL10A-00003	7-24-72	B. WATSH
2	DL10A-00008	4-19-74	A. KENT
3			A. KENT

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DL10-A-RSTF 2



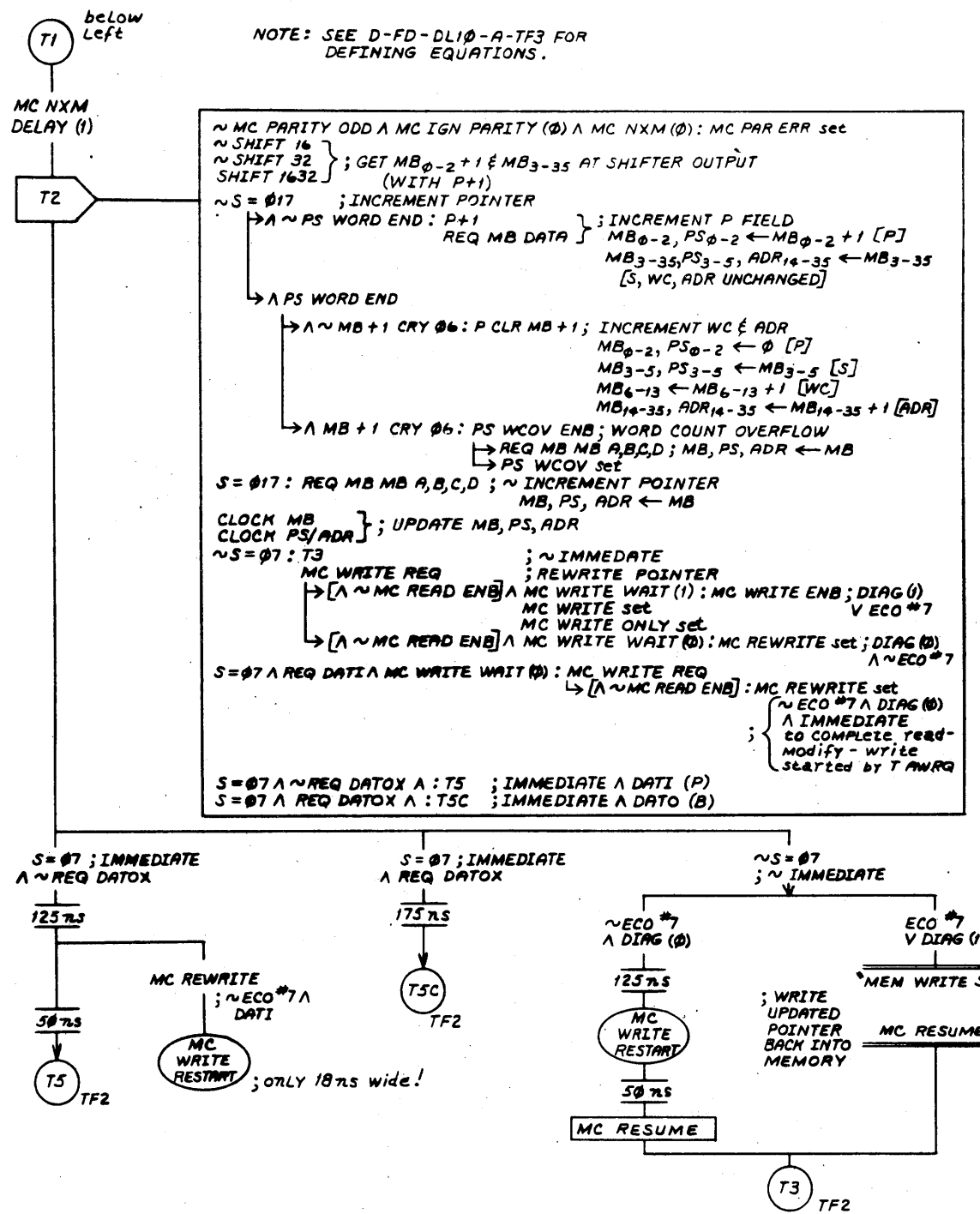
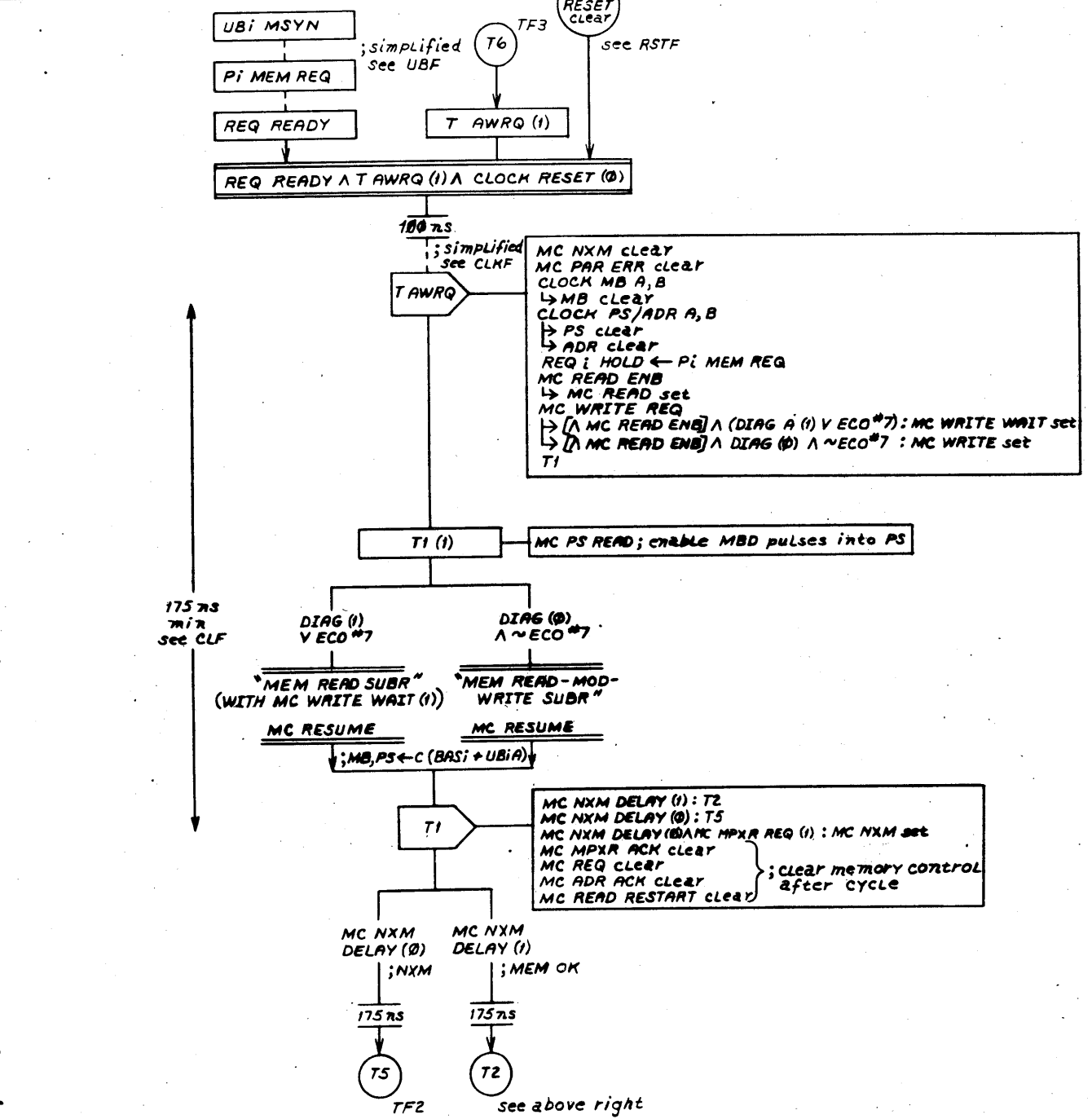
NOTE: CLOCK POWER CLEAR (0) → POWER READY LAMP

REV	CHG	NO	DATE
1		DL10A-0000B	
ORIGINATED			

FIRST USED ON OPTION/MODEL DL10-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN: R F Beasley	DATE: 12-4-73	<b>digital</b> EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
TOLERANCES		CHK'D: <i>Allen Kent</i>	DATE: 1/16/74	
DECIMALS .xxx = .006 .xx = .02 .x = .1	ANGLES ±0° 30'	ENG: <i>Allen Kent</i>	DATE: 1/16/74	TITLE RESET FLOW
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y		PROJ. ENG: <i>Allen Kent</i>	DATE: 1/16/74	
MATERIAL		DRW: <i>R. D. Weber</i>	DATE: 1/16/74	
FINISH		NEXT HIGHER ASSY.		
		B-DD-DL10-A	SIZE CODE: D FD	NUMBER: DL10-A-RSTF
		SCALE: NONE		REV.:
		SHEET 1 OF 4		

DL10-A-RSTF

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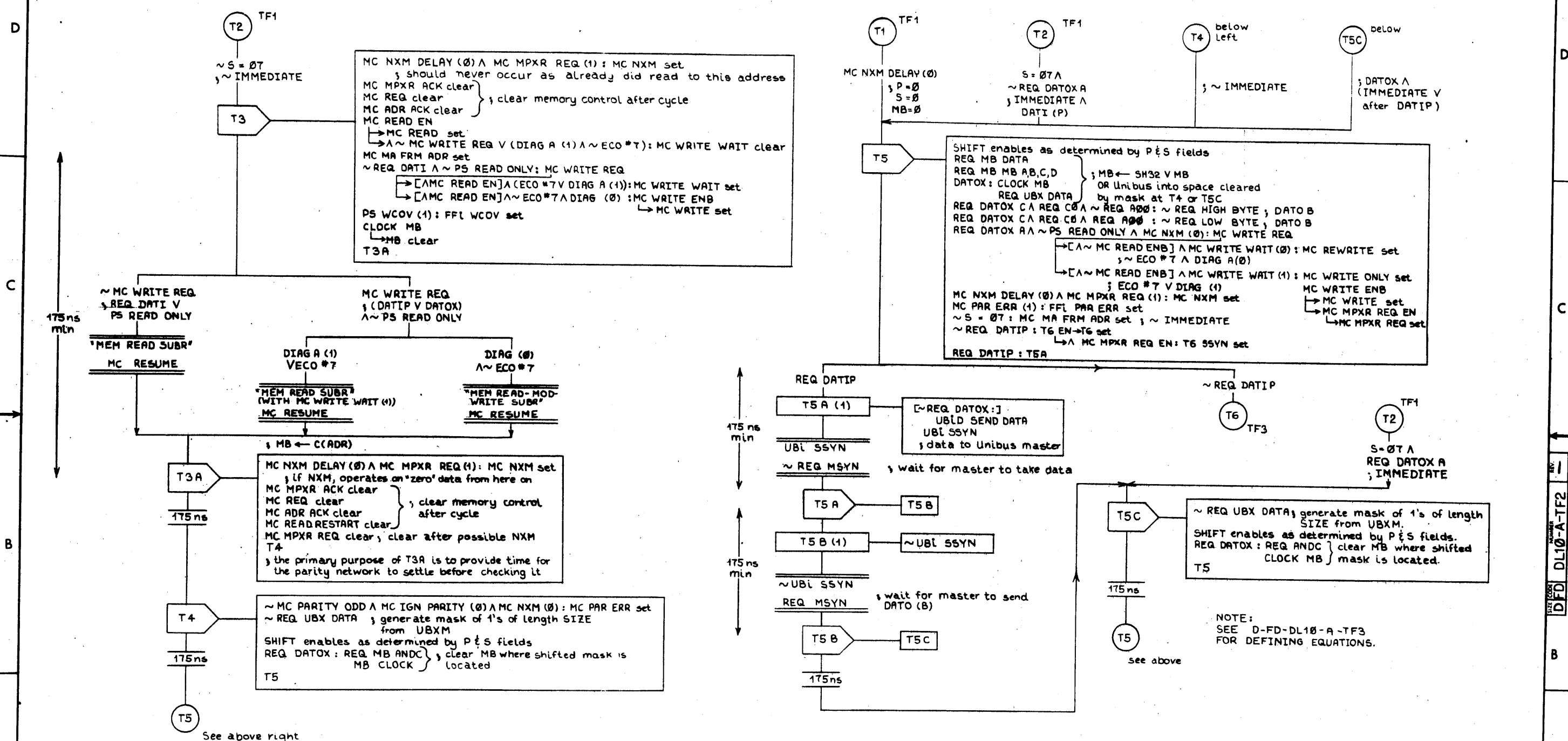
REV	1
CHANGE NO	DL10A-0000B
ORIGINATED	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. J. Vincent	DATE 11-5-73		
TOLERANCES	CHK'D. Alan Kent	DATE 11-7-74		
DECIMALS ANGLES	ENG. Alan Kent	DATE 11-16-74		
.xxx = .005 .xx = .02 .x = .1	PROJ. ENG. Alan Kent	DATE 11-16-74		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y	PROD. Bill W. Ho	DATE 11-16-74	TITLE	
MATERIAL	NEXT HIGHER ASSY.			
FINISH	B-DD-DL10-A	SCALE NONE	SIZE CODE DFD	NUMBER DL10-A-TF1
	SHEET 1 OF 1	DIST.		

DL10-A-TF1

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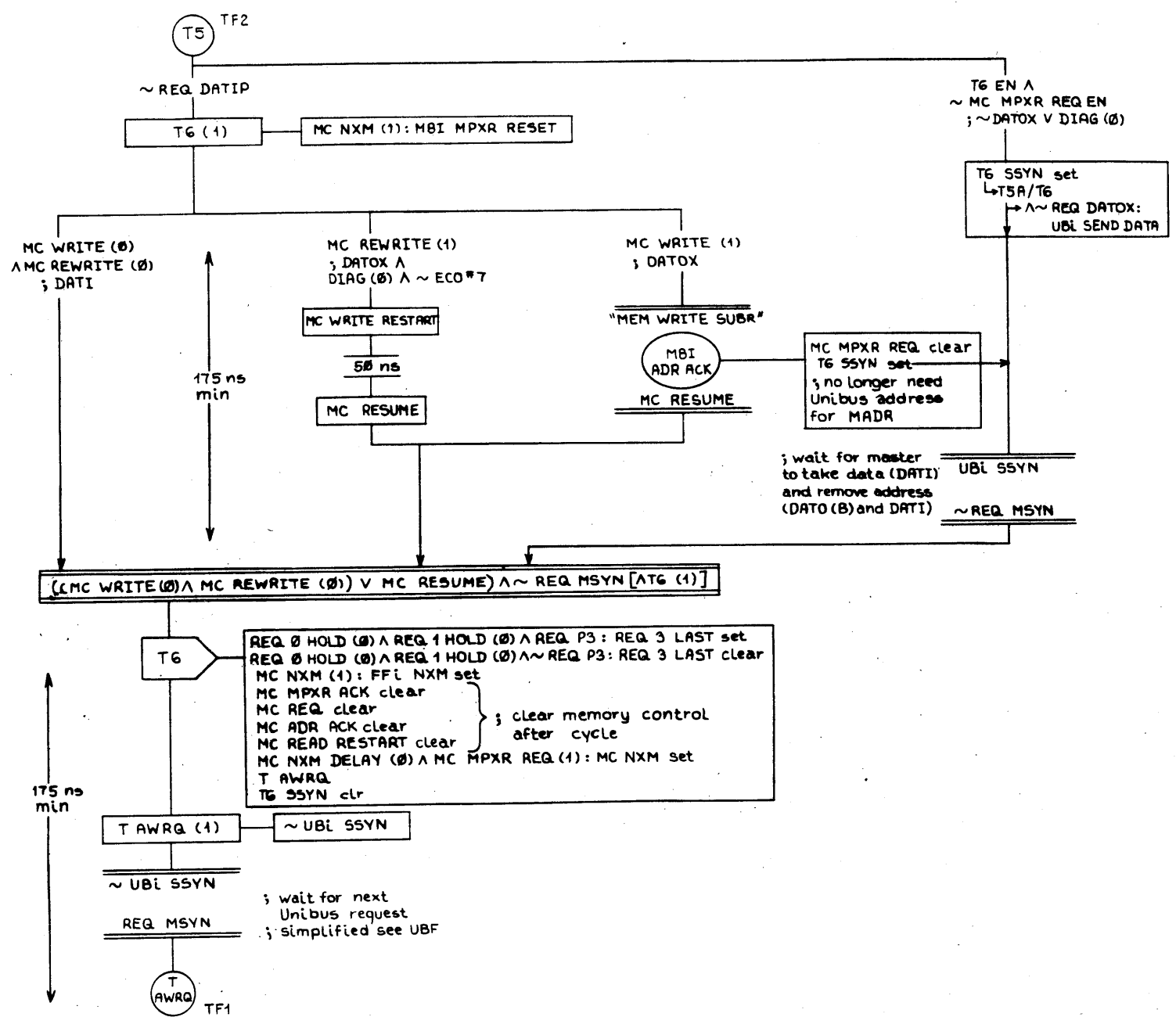
DL10-A-TF2 2



REV	1
CHANGE NO	DL10-A-0008
ORIGINATED	

FIRST USED ON OPTION/MODEL	DL10-A	QTY.		DESCRIPTION		PART NO.		ITEM NO.	
PARTS LIST									
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN	P. F. Brasley	DATE	11-16-73					
TOLERANCES	CHK'D	Allen Kent	DATE	11/16/73					
DECIMALS .xxx = .005	ANGLES	PROJ. ENG.	DATE	11/16/73					
.xx = .02	.x = .1	PROB.	DATE	11/16/73					
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	PROB.	Allen Kent	DATE	11/16/73	TITLE				
MATERIAL	++				TIMING FLOW #2				
FINISH	++				B-DD-DL10-A				
					SCALE NONE				
					SHEET 1 OF 1				
					D.F.D. DL10-A-TF2				

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$P \text{ CLR MB} + 1 = T2 (1) \wedge S = 017 \wedge P5 \text{ WORD END} \wedge \sim \text{MB} + 1 \text{ CRY } 06$   
 $P + 1 = T2 (1) \wedge S = 017 \wedge \sim P5 \text{ WORD END}$   
 $P5 \text{ WCOV} = T2 (1) \wedge S = 017 \wedge P5 \text{ WORD END} \wedge \text{MB} + 1 \text{ CRY } 06$   
 $P5 \text{ WORD END} = (S = P + 1)$   
 $PL \text{ MEM REQ} = PL \text{ ADR OK} \wedge \sim PL \text{ ADR} = 0 \wedge UBI \text{ MSYN} \wedge FFI \text{ PORT ENB} (1)$   
 $\sim \text{REQ HIGH BYTE} = \sim \text{REQ A}00 \wedge \text{REQ C}0 \wedge \text{REQ DATOX C}A (T5 (1) \vee S = 017)$   
 $\sim \text{REQ LOW BYTE} = \text{REQ A}00 \wedge \text{REQ C}0 \wedge \text{REQ DATOX C}A (T5 (1) \vee S = 017)$   
 $\text{REQ DATOX A, B, C, D, E} = V_i (\text{REQ PI B} \wedge UBI C1)$   
 $\text{REQ MB ANDC} = (T4 (1) \vee T5C (1)) \wedge \text{REQ DATOX A}$   
 $\text{REQ MB DATA} = T5 (1) B \vee P + 1$   
 $\text{REQ MB MB A, B, C, D} = T5 (1) B \vee P5 \text{ WCOV ENB} \vee \text{REQ MB MB}$   
 $\text{REQ MB MB} = T2 (1) \wedge S = 017$   
 $\text{REQ UBX DATA} = \text{REQ DATOX} \wedge T4 (0) \wedge T5C (0)$   
 $\text{REQ}_i = (T \text{ AWRQ} (1) \wedge PL \text{ MEM REQ}) \vee (\sim T \text{ AWRQ} (1) \wedge \text{REQ L HOLD} (1))$   
 $T5A/T6 = T5A (1) \vee (T6 (1) \wedge \text{MC MPXR REQ} (0))$   
 $UBI \text{ SEND DATA} = T5A/T6 \wedge \text{REQ PI} \wedge \sim \text{REQ DATOX}$   
 $UBI \text{ SSYN} = PL \text{ CNTL} \vee (\text{REQ PI} \wedge T5A/T6)$

REV	1
CHANGE NO	DL10A 00008
CHK	ORIGINATED

FIRST USED ON OPTION/MODEL	DL10-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. R. Beasley	DATE 11/21/78			
TOLERANCES	CHK'D. Allen Kent	DATE 1/2/79			
DECIMALS .xxx = .005	ENG. Allen Kent	DATE 1/2/79			
ANGLES :0' 30'	PROJ. ENG. Allen Kent	DATE 1/2/79			
.xx = .02	PROJ. Allen Kent	DATE 1/2/79			
.x = .1	PROJ. R. Beasley	DATE 1/2/79	TITLE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	NEXT HIGHER ASSY.			NUMBER	
MATERIAL	B-DD-DL10-A			SIZE CODE	REV.
FINISH	SCALE NONE			D	FD
SHEET	OF	DIST.		DL10-A-TF3	

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DL10-A-UBF 2

PDP-11 \*L INTERRUPT CYCLE

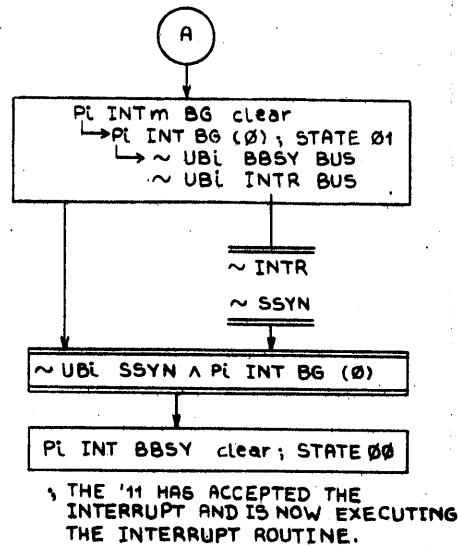
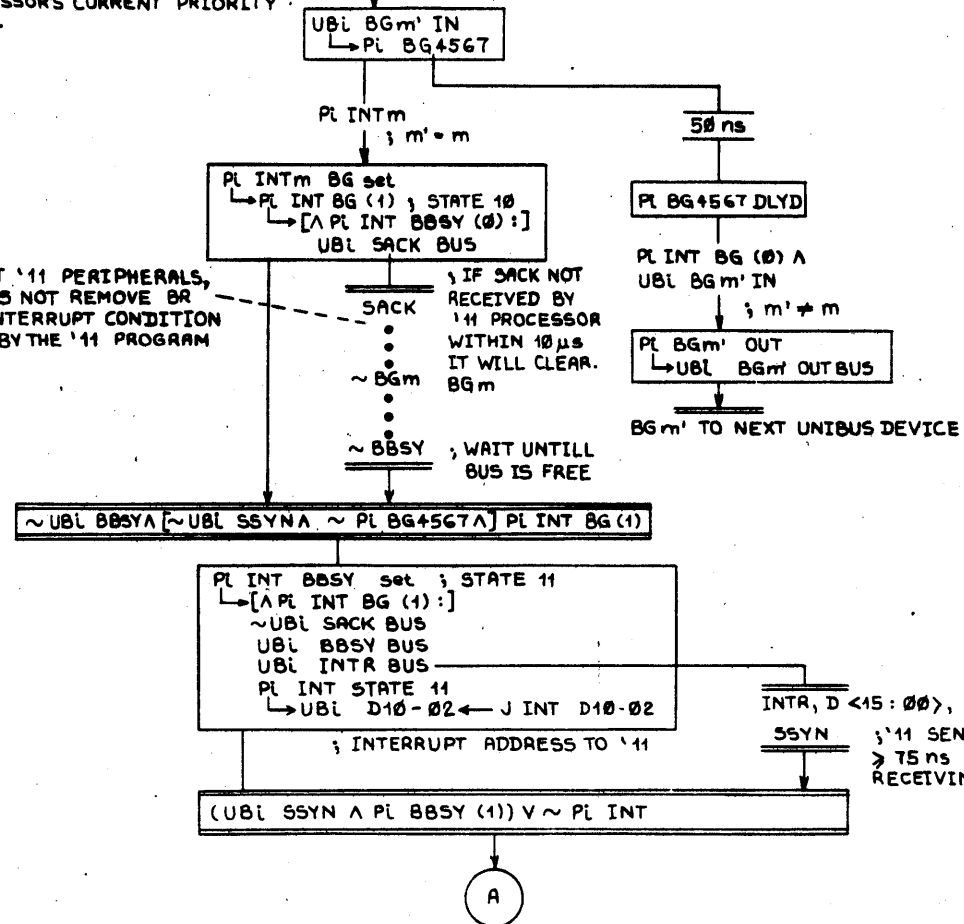
[FFL 11 INT (1) A FFL 11 INT ENB (1) V  
 [(FFL NXM (1) V FFL PAR ERR (1) V  
 FFL WCOV (1) A FFL ERR ENB (1)]:  
 PL INT

; ERROR CONDITION WHICH INITIATES INTERRUPT

PL INT A FFL PIA 0-1 : PL INT m	
PIA 1 0 'm'	UBI BRm BUS
0 0 4	
0 1 5	
1 0 6	
1 1 7	

; BUS REQUESTER A PRIORITY ARBITRATION SYSTEM IN THE '11 PROCESSOR WHICH COMPARES BR NUMBERS WITH THE '11 PROCESSOR'S CURRENT PRIORITY LEVEL.

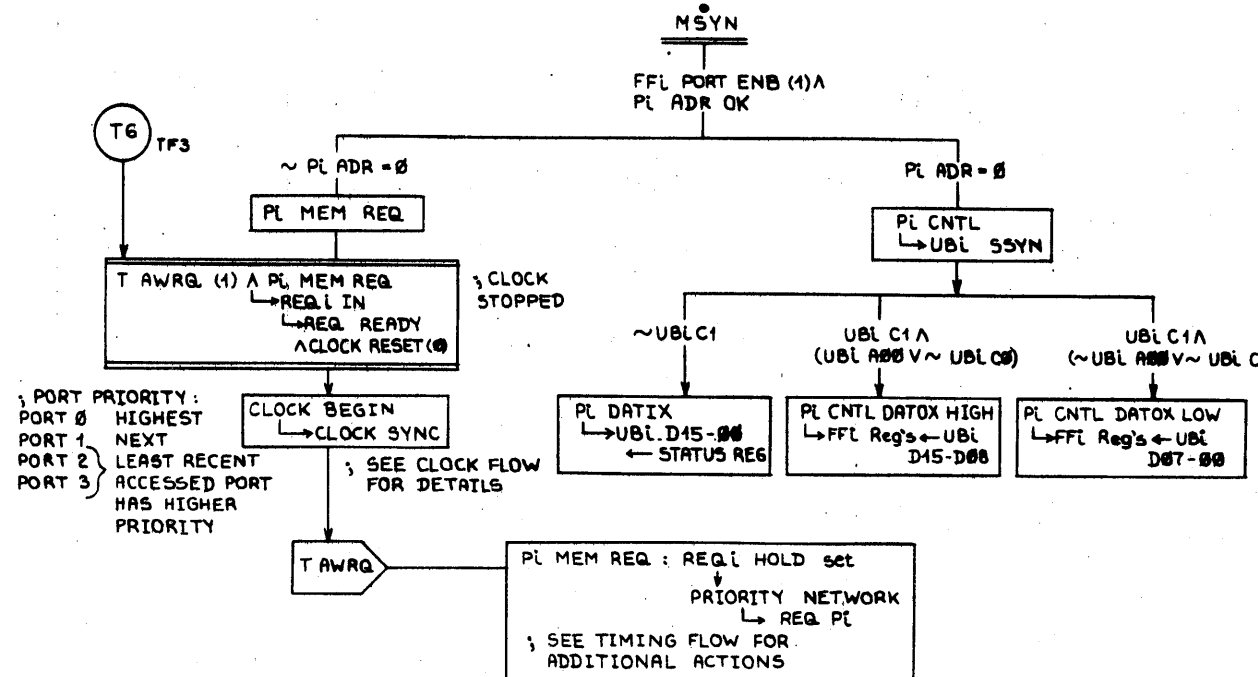
NOTE: UNLIKE MOST '11 PERIPHERALS, THE DL10 DOES NOT REMOVE BR UNTIL THE INTERRUPT CONDITION IS SERVICED BY THE '11 PROGRAM



NOTE: SEE D-BS-DL10-A-CON FOR PDP-11 REMOTE CONSOLE TIMING

PDP-11 \*L DATA CYCLES

A < 17:00 >, C < 1:0 >

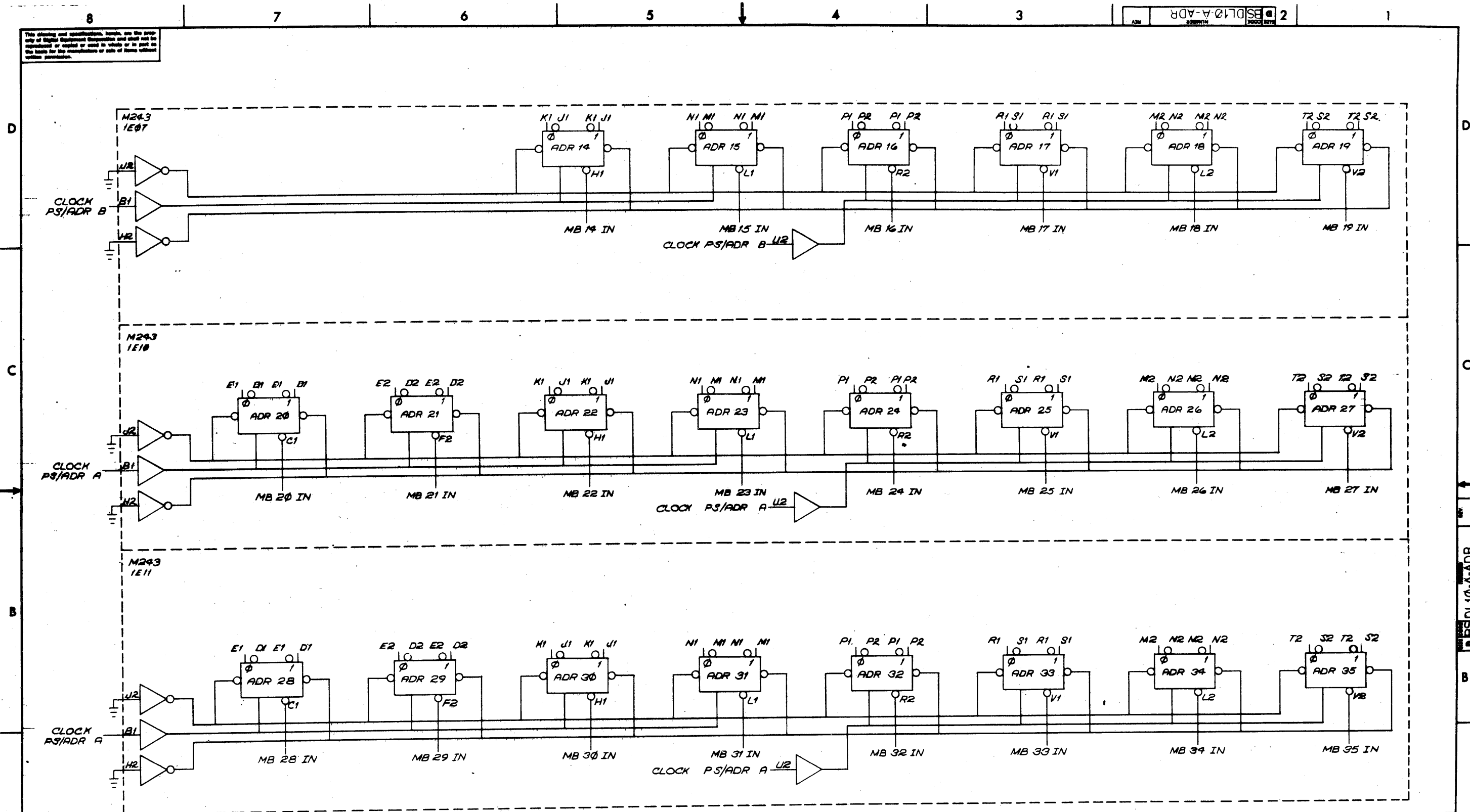


PL MEM REQ : REQ. HOLD set  
 ↓  
 PRIORITY NETWORK  
 ↓  
 REQ. PL  
 ; SEE TIMING FLOW FOR ADDITIONAL ACTIONS

REV	1
CHANGE NO	DL10-A-0008
ORIGINATED	

FIRST USED ON OPTION/MODEL	DL10-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. R. Donohue	DATE 11/26/73	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS		
TOLERANCES	CHKD. Blankenship	DATE 11/26/74	TITLE UNIBUS INTERFACE FLOW		
DECIMALS ANGLES	ENG. Allen Kent	DATE 11/26/74	SIZE CODE NUMBER REV. D FD DL10-A-UBF -		
.xxx = .005 .xx = .02 .x = .1	PROJ. ENG. Allen Kent	DATE 11/26/74	SCALE NONE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y	DRN. R. Donohue	DATE 11/26/73	SHEET 1 OF 1		
MATERIAL	NEXT HIGHER ASSY.		DIST.		
FINISH					

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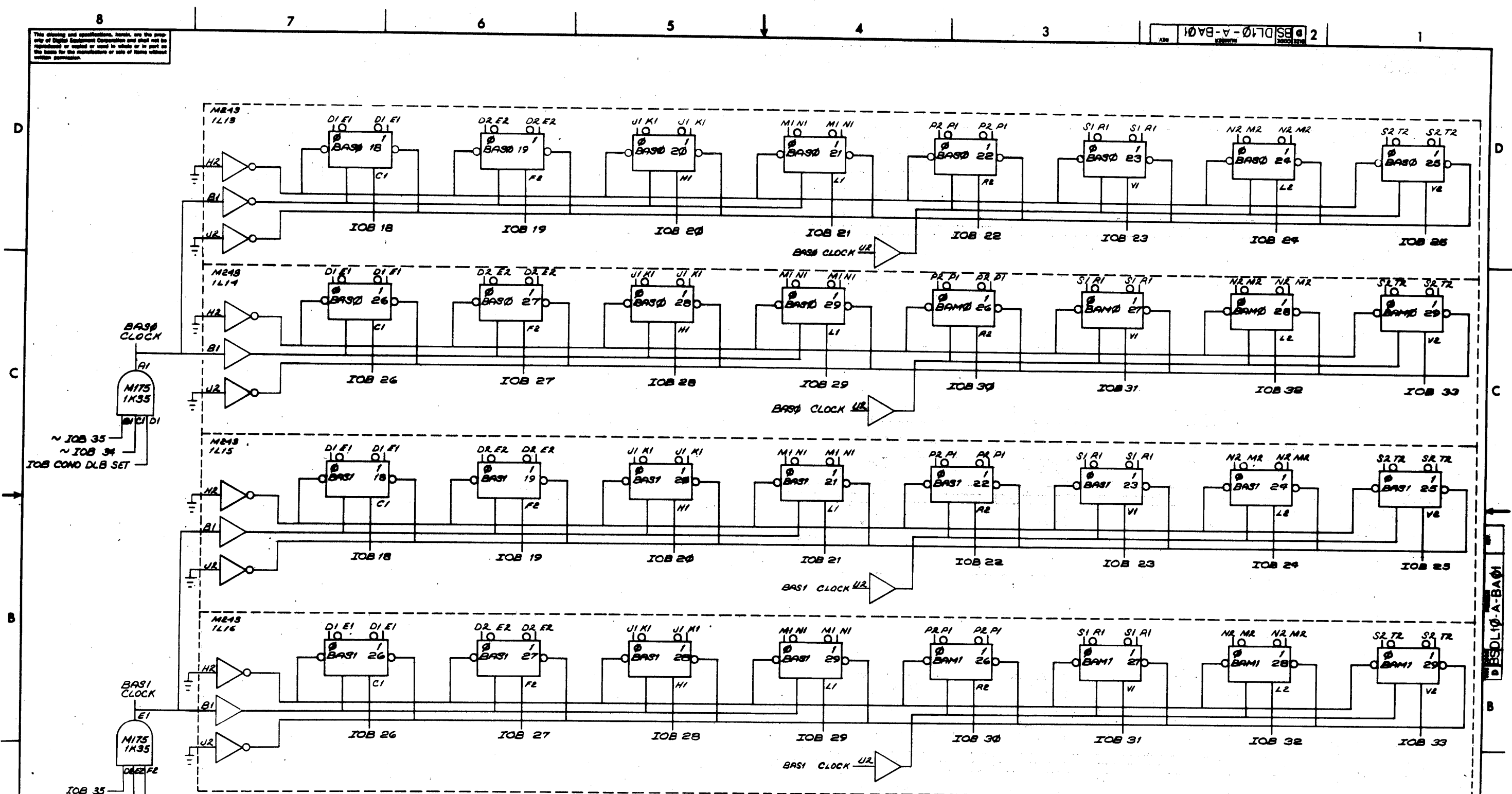
REV.	CHANGE NO.	REVISIONS

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES $\pm .008$ $\pm 1/64$ $\pm 0.25$ FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS	DATE 7/23/70 DATE 4/27/71 DATE 11/29/72 DATE 11/19/72 DATE 12/1/71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
TITLE ADDRESS REGISTER			SIZE CODE NUMBER DESDL10-A-ADR
MATERIAL FINISH			SCALE NONE SHEET 1 OF 1

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DBSIDL10-A-BA01

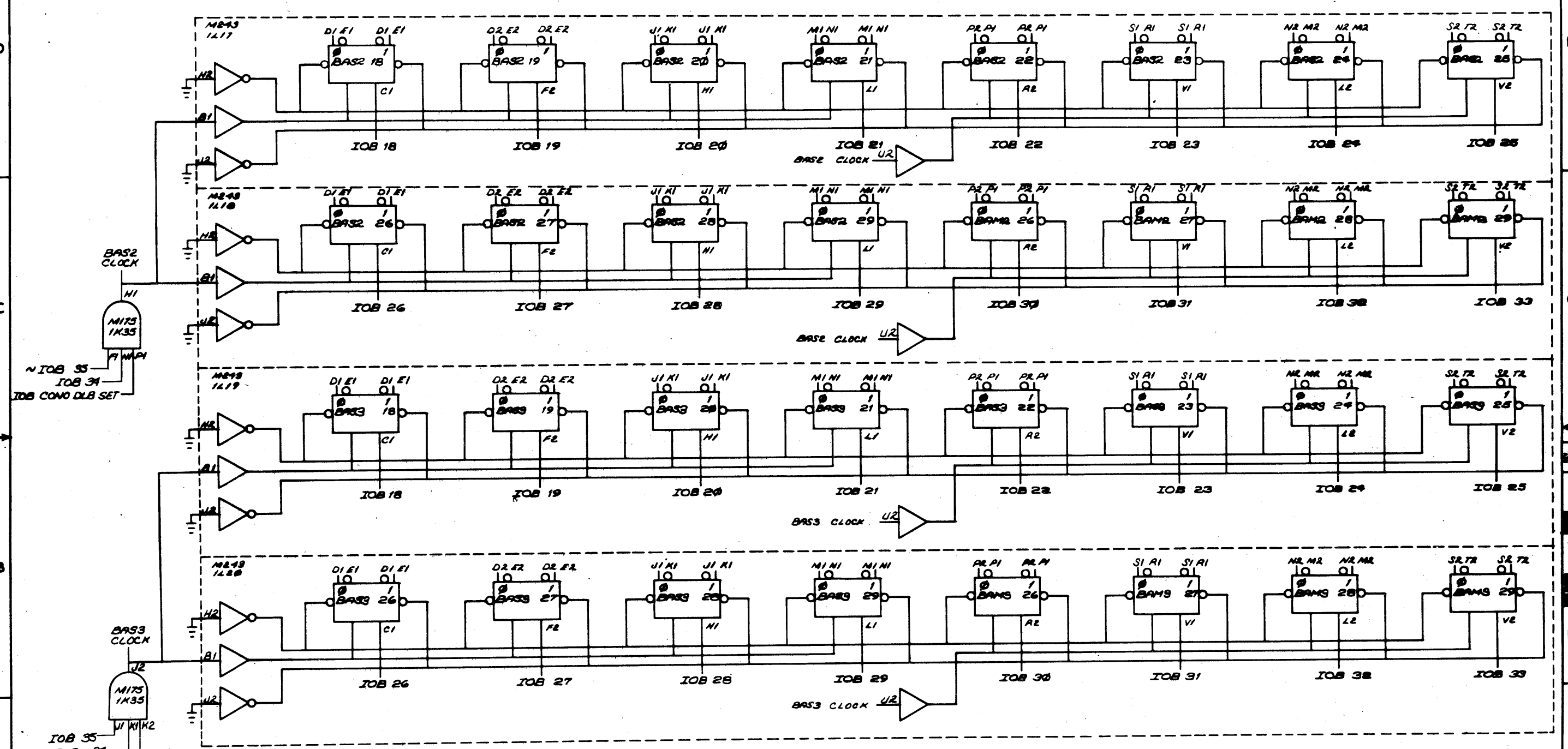


REV	CHANGE NO.

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .010 ± .015 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 6/19/70	DATE 6/19/70	DATE 6/19/70	DATE 6/19/70
MATERIAL 	SCALE 	SCALE 	SCALE 	SCALE 
FINISH 	SHEET 1 OF 1	DIST.		
DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		TITLE BASE AND MASK REGISTERS 0 AND 1		
SIZE CODE A-ML-DL10-C		NUMBER DBSIDL10-A-BA01		

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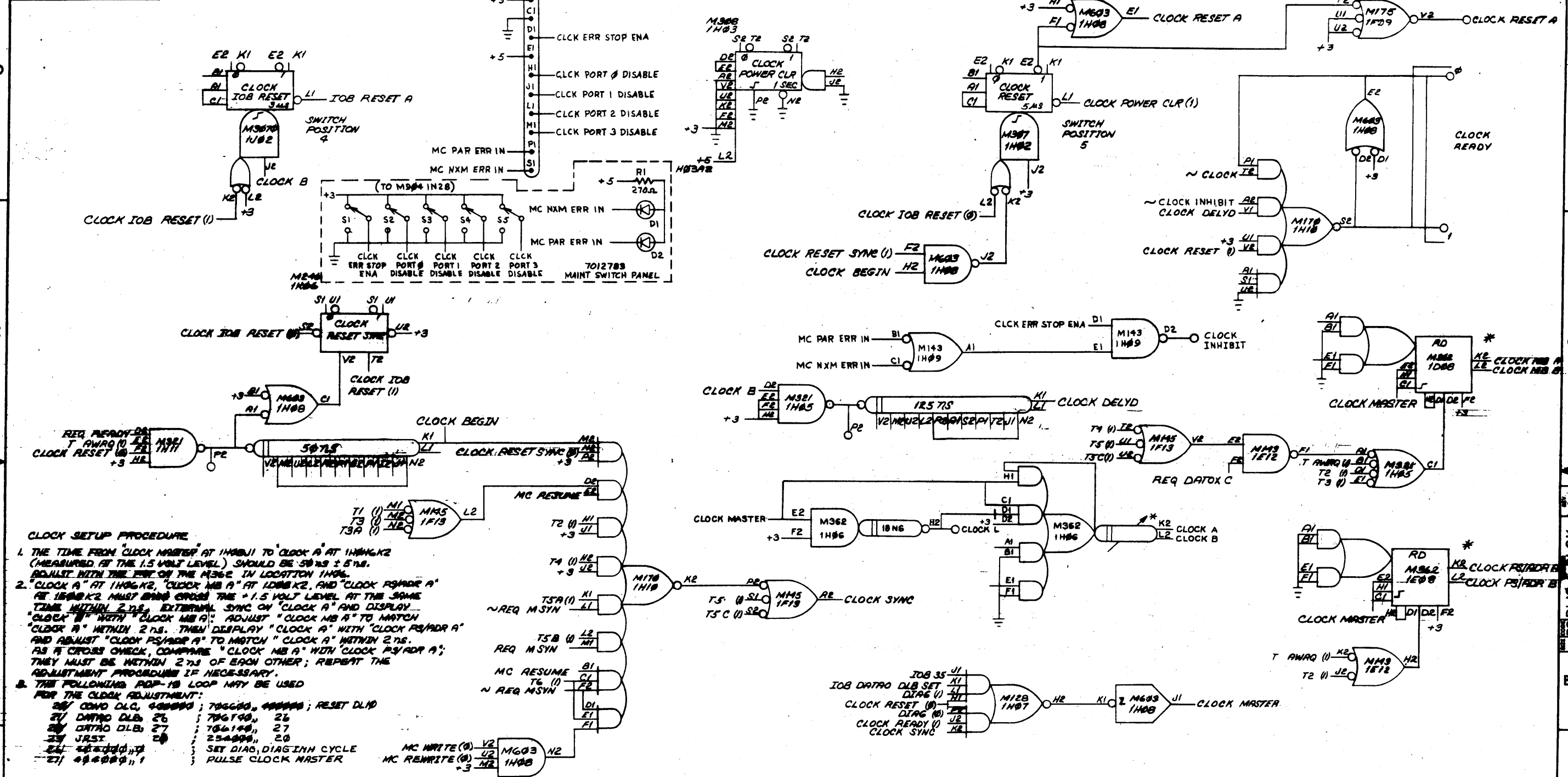
REV	
CHG	
REV	
CHG	

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED	DATE	DATE	PARTS LIST	
UNLESS OTHERWISE SPECIFIED	DATE	DATE	EQUIPMENT CORPORATION	
UNLESS OTHERWISE SPECIFIED	DATE	DATE	MAYNARD MASSACHUSETTS	
TOLERANCES	DATE	DATE	TITLE	
DECIMALS FRACTIONS ANGLES	DATE	DATE	BASE AND MASK	
± 0.05 ± 0.005 ± 0.0025	DATE	DATE	REGISTERS	
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS	DATE	DATE	2 AND 3	
MATERIAL	DATE	DATE	NEXT HIGHER ASSY.	
FINISH	DATE	DATE	A-ML-DL10-A	
	SCALE	SCALE	DBS DL10-A-BA23	
	SHEET 1 OF 1	SHEET	DISTRIBUTION	

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D 110-A-CLCK 8 2



**CLOCK SETUP PROCEDURE**

1. THE TIME FROM CLOCK MASTER AT 1H40J1 TO CLOCK A AT 1H40K2 (MEASURED AT THE 1.5 VOLT LEVEL) SHOULD BE 50 NS ± 5 NS. ADJUST WITH THE POT ON THE M362 IN LOCATION 1H40.
2. "CLOCK A" AT 1H40K2, "CLOCK MB A" AT 1D00K2, AND "CLOCK PS/ADR A" AT 1E00K2 MUST BRING CROSS THE +1.5 VOLT LEVEL AT THE SAME TIME WITHIN 2 NS. EXTERNAL SYNC ON "CLOCK A" AND DISPLAY "CLOCK B" WITH "CLOCK MB A". ADJUST "CLOCK MB A" TO MATCH "CLOCK A" WITHIN 2 NS. THEN DISPLAY "CLOCK A" WITH "CLOCK PS/ADR A" AND ADJUST "CLOCK PS/ADR A" TO MATCH "CLOCK A" WITHIN 2 NS. AS A CROSS CHECK, COMPARE "CLOCK MB A" WITH "CLOCK PS/ADR A"; THEY MUST BE WITHIN 2 NS OF EACH OTHER; REPEAT THE ADJUSTMENT PROCEDURE IF NECESSARY.

**THE FOLLOWING PDP-10 LOOP MAY BE USED FOR THE CLOCK ADJUSTMENT:**

25/	CONV D.L.C.	400000	706600	400000	RESET D.L.D
26/	DATRO DLB	26	706700	26	
27/	DATRO DLB	27	706100	27	
28/	J.A.S.T.	20	25-0000	20	
29/	40-0000	17			SET DIAG, DIAG INH CYCLE
27/	40-0000	17			PULSE CLOCK MASTER

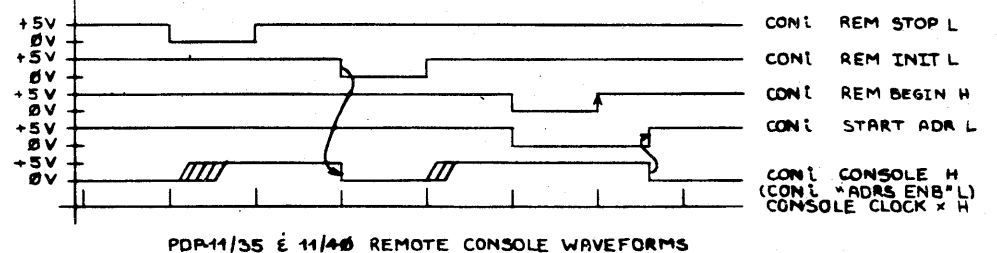
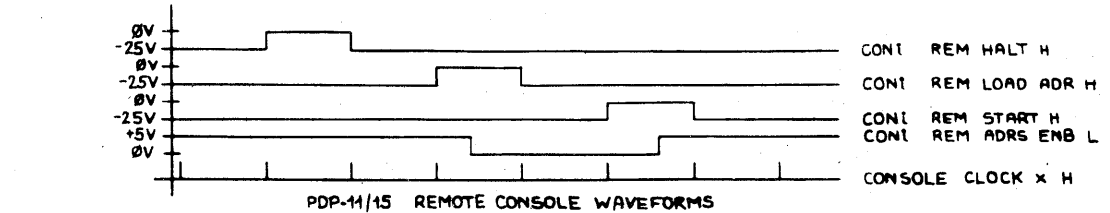
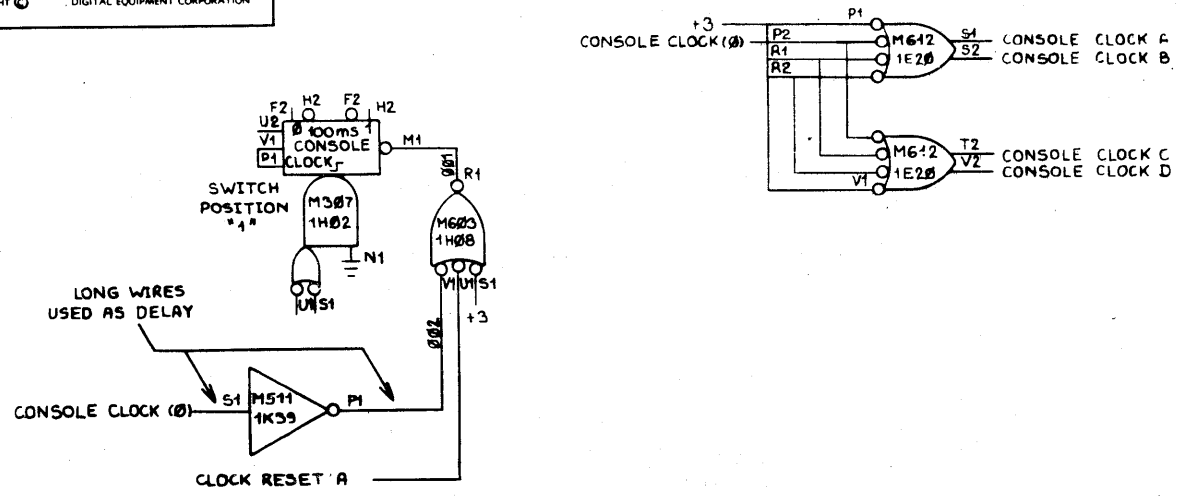
REVISIONS	CHK	CHANGE NO.	REV.	DATE
DL10A-00001	A	1	3/1/72	
DL10A-00002	B	2	3/1/72	
DL10A-00003	C	3	3/1/72	
DL10A-00004	D	4	3/1/72	
DL10A-00005	E	5	3/1/72	

\* ALL REGISTER DRIVER OUTPUTS MUST COINCIDE (± 2 NS) AT THE +1.5V OUTPUT LEVEL.

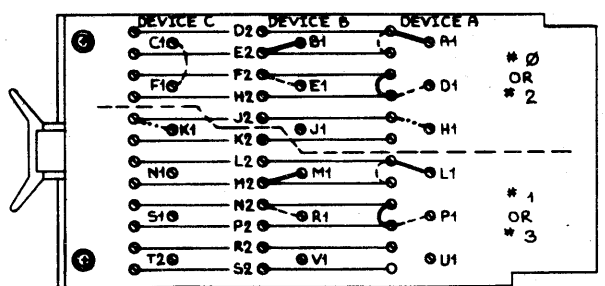
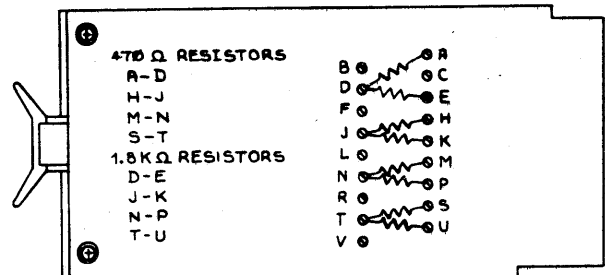
NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED OPTION/MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED				
DRN	DATE	PARTS LIST		
ENGR	DATE	digital EQUIPMENT CORPORATION NATYARD, MASSACHUSETTS		
TOLERANCES				
DECIMALS FRACTIONS	ANGLES	TITLE		
± .005 ± 1/64 ± .007	± .007	CLOCK		
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	DATE	NEXT HIGHER ASSY		
FINISH	DATE	A-ML-DL10-A		
SCALE NONE	DATE	SIZE CODE	NUMBER	REV
SHEET 1 OF 1	DATE	D1S	DL10-A-CLCK	D2

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STATE TABLE CON1					
A	B	C	D	11/15 FUNCTION	11/35 & 11/40 FUNCTION
Ø	Ø	Ø	Ø	IDLE	IDLE
1	Ø	Ø	Ø	SYNC	SYNC
1	Ø	Ø	1	HALT	STOP
1	1	1	Ø	DELAY	DELAY
Ø	1	1	1	LOAD ADDRESS	INIT
Ø	1	1	1	DELAY	DELAY
Ø	Ø	Ø	1	START	START
Ø	Ø	Ø	1	DELAY	DELAY
Ø	Ø	Ø	Ø	IDLE	IDLE



- PDP-11 \*Ø & \*1: 1L4Ø ○--○ INSTALL FOR PDP-11/15 CONSOLE
- PDP-11 \*2 & \*3: 1L33 ○--○ INSTALL FOR PDP-11/35 & 11/40 CONSOLE
- INSTALL WHEN NO REMOTE CONSOLE IS AVAILABLE (11/05-1Ø-1Ø-1Ø) OR IS NOT CONNECTED

- NOTES:
- ON KY11-C CONSOLE (11/15's & SPECIAL 11/20's) JUMPER J1 MUST BE REMOVED TO PREVENT THE CONSOLE SWITCHES FROM ORING WITH THE DL1Ø-PROVIDED START ADDRESS.
  - KY11-C CONSOLE MUST HAVE ECO 54Ø9235-ØØØØ5 INSTALLED FOR RELIABLE OPERATION.
  - TO USE AN KY11-C CONSOLE ON AN 11/2Ø THE FOLLOWING WIRES MUST BE ADDED TO THE 11/2Ø:  
FØ6N2 TO EØ1V1 K43-2 INIT H  
FØ1S1 TO EØ6J2 K13-4 CONSF (Ø) H  
AØ1E2 TO EØ1Ø1 -25V

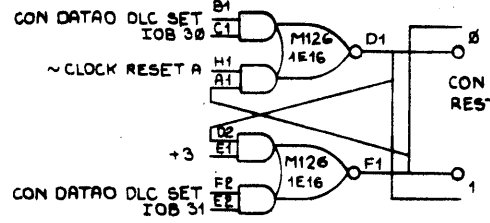
NOTE: ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "Ø" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY	DESCRIPTION	PART NO.	ITEM NO.
DL1Ø-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN. R. Beasley	DATE 11/12/7Ø	<p>TITLE PDP-11 REMOTE CONSOLE COMMON LOGIC &amp; C.</p>
TOLERANCES		CHK'D. Allen Kent	DATE 11/27/7Ø	
DECIMALS .xxx = .005	ANGLES :Ø' 30'	ENG. Allen Kent	DATE 11/27/7Ø	
.xx = .02	.x = .1	PROL ENG. Allen Kent	DATE 11/27/7Ø	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y		PRD. D. White	DATE 11/27/7Ø	
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	B-DD-DL1Ø-A		D BS	DL1Ø-A-CON
SCALE NONE		SHEET OF		REV. -

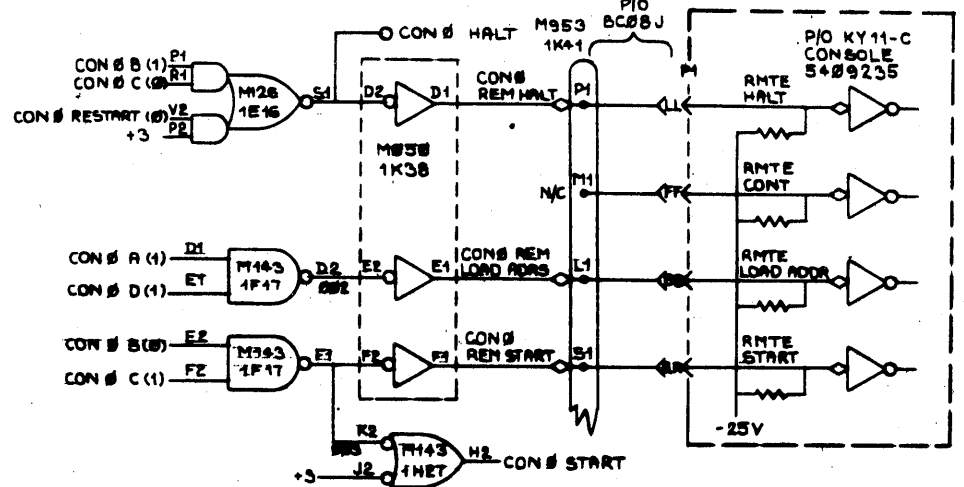
REVISIONS	CHANGE NO.	REV.
DL1ØA-000Ø8	1	1
ORIGINATED		

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DL10-A-CON0

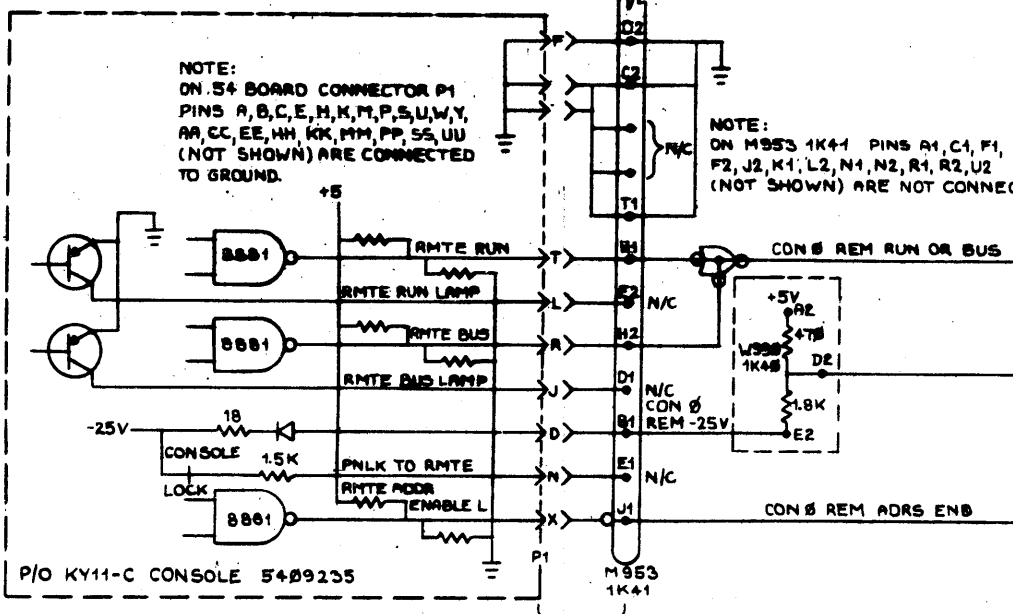


PDP-11/15 REMOTE CONSOLE INTERFACE

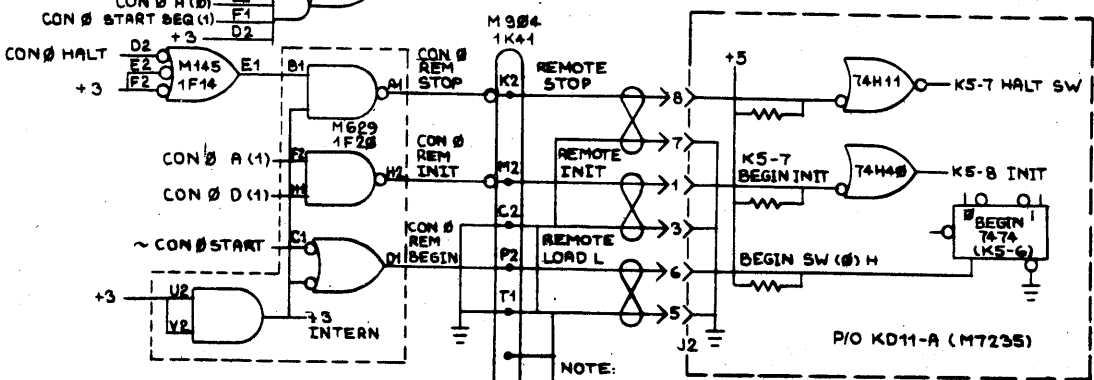


NOTE:  
ON 54 BOARD CONNECTOR P1  
PINS A, B, C, E, H, K, M, P, S, U, W, Y,  
AA, CC, EE, HH, KK, MM, PP, SS, UU  
(NOT SHOWN) ARE CONNECTED  
TO GROUND.

NOTE:  
ON M953 1K41 PINS A1, C1, F1,  
F2, J2, K1, L2, N1, N2, R1, R2, U2  
(NOT SHOWN) ARE NOT CONNECTED.

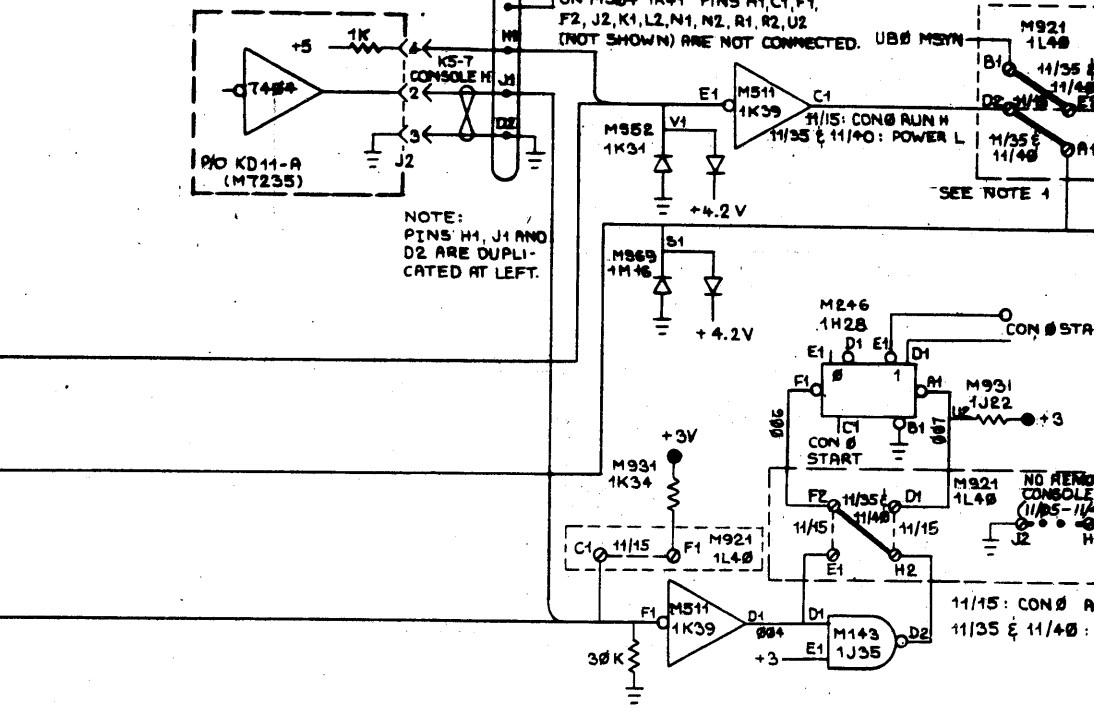


PDP-11/35 & -11/40 REMOTE CONSOLE INTERFACE



NOTE:  
ON M954 1K41 PINS A1, C1, F1,  
F2, J2, K1, L2, N1, N2, R1, R2, U2  
(NOT SHOWN) ARE NOT CONNECTED. UBB M53N

NOTE:  
PINS H1, J1 AND  
D2 ARE DUPLI-  
CATED AT LEFT.



ADJUST SO THAT  
REPEATED "INIT"  
INSTRUCTIONS IN THE  
POP-11 WILL KEEP THE  
DELAY IN THE  
"1" STATE.

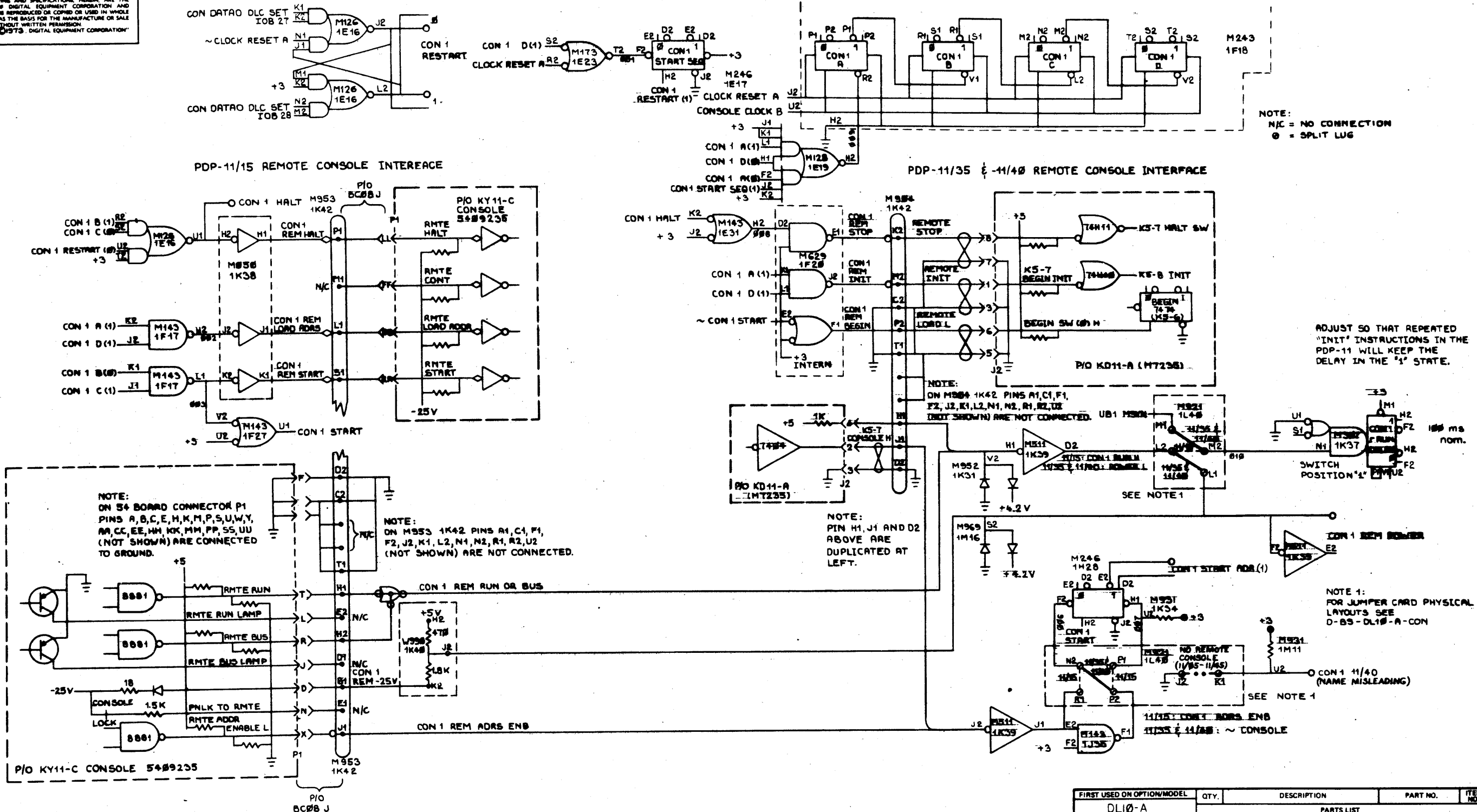
NOTE 1:  
FOR JUMPER CARDS PHYSICAL  
LAYOUT SEE D-85-DL10-A-CON

REV	CHANGE NO	ORIGINATED
1		DL10A-00008

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES	DATE		
.xxx = .005	.0° - 30°	44-5-73		
.xx = .02		DATE		
.x = .1		11/26/74		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY Y				
MATERIAL				
NEXT HIGHER ASSY.				
B-DD-DL10-A				
SCALE NONE				
SHEET 1 OF 1				
PARTS LIST		TITLE		
digital EQUIPMENT CORPORATION		PDP-11 # 0		
MAYFORD MASSACHUSETTS		CONSOLE CONTROL		
SIZE CODE		NUMBER		REV.
D BS		DL10-A-CON0		-
DIST.				

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NOTE:  
N/C = NO CONNECTION  
⊕ = SPLIT LUG

ADJUST SO THAT REPEATED 'INIT' INSTRUCTIONS IN THE PDP-11 WILL KEEP THE DELAY IN THE '1' STATE.

NOTE:  
ON M954 1K42 PINS A1, C1, F1, F2, J2, K1, L2, N1, N2, R1, R2, U2 (NOT SHOWN) ARE NOT CONNECTED.

NOTE:  
PIN H1, J1 AND D2 ABOVE ARE DUPLICATED AT LEFT.

NOTE:  
ON 54 BOARD CONNECTOR P1 PINS A, B, C, E, H, K, M, P, S, U, W, Y, AA, CC, EE, HH, KK, MM, PP, SS, UU (NOT SHOWN) ARE CONNECTED TO GROUND.

NOTE:  
ON M953 1K42 PINS A1, C1, F1, F2, J2, K1, L2, N1, N2, R1, R2, U2 (NOT SHOWN) ARE NOT CONNECTED.

NOTE 1:  
FOR JUMPER CARD PHYSICAL LAYOUTS SEE D-BS-DL10-A-CON

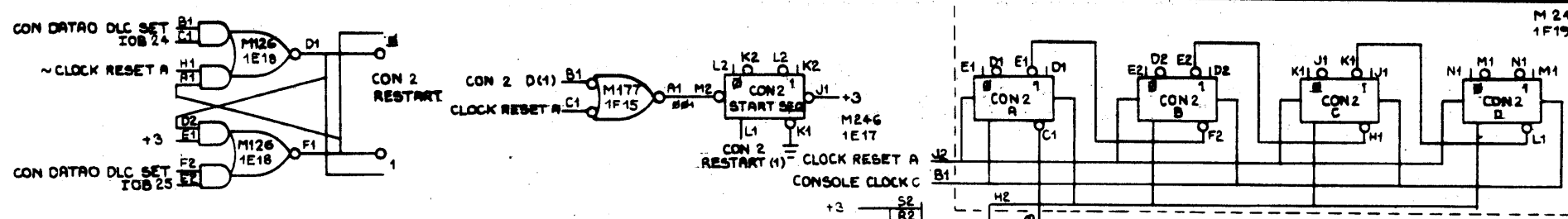
REVISIONS	CHANGE NO.	REV.
DL10-A-CON1	0008	C
REVISED & REDRAWN		
BY: [Signature]		
DATE: 4-17-74		
A. KENT		
[Signature]		

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES			
.XX - .005	10° 30'			
.X - .1				
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1				
MATERIAL				
NEXT HIGHER ASSY.				
FINISH				
SCALE NONE				
SHEET OF 1				
PARTS LIST		digital EQUIPMENT CORPORATION		
TITLE		PDP-11 # 1		
CONSOLE CONTROL		DL10-A-CON1		
REV. C				

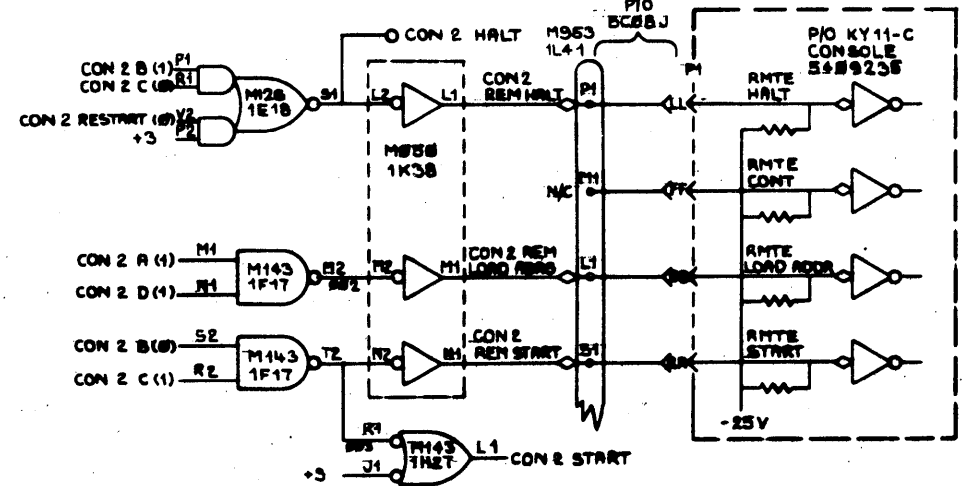
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DL10-A-CON2

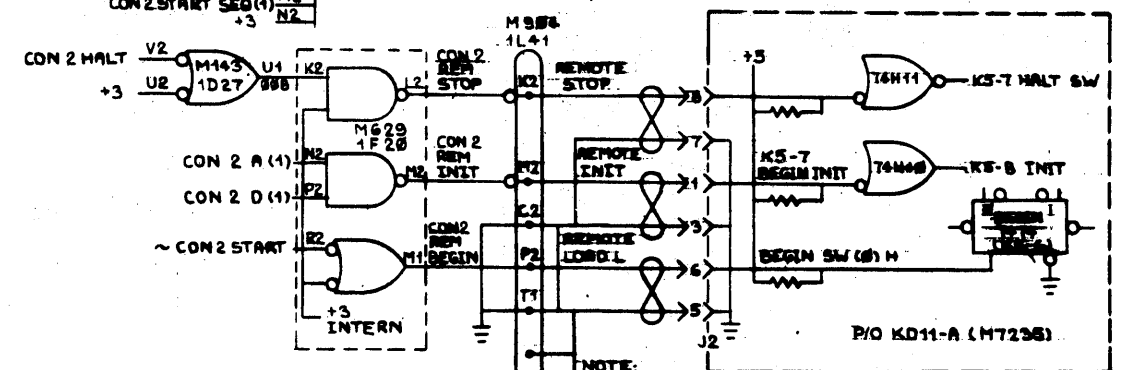


NOTE:  
 .N/C = NO CONNECTION  
 @ = SPLIT LUG

PDP-11/15 REMOTE CONSOLE INTERFACE



PDP-11/35 & -11/40 REMOTE CONSOLE INTERFACE

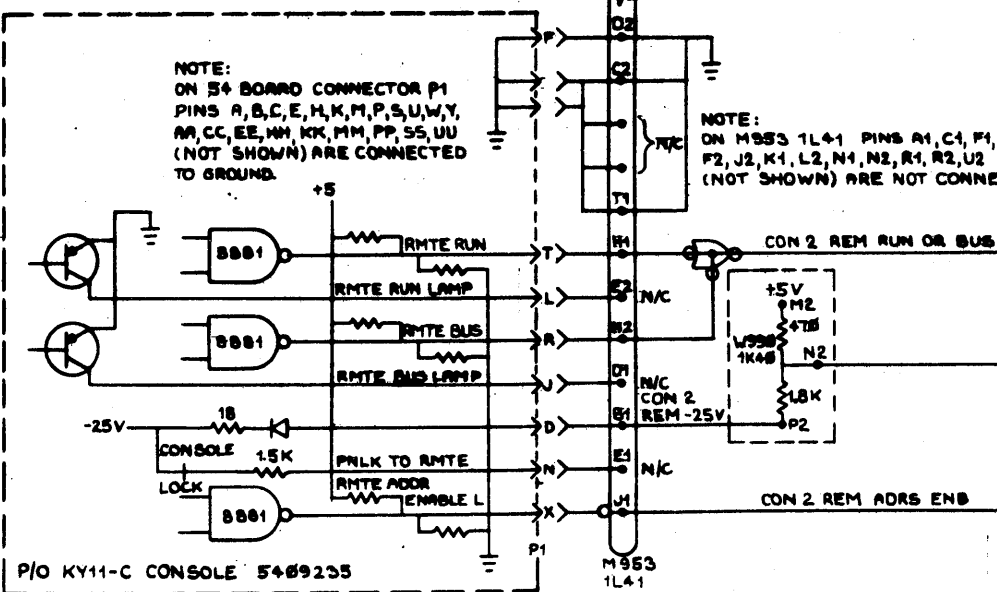


ADJUST SO THAT REPEATED "INIT" INSTRUCTIONS IN THE PDP-11 WILL KEEP THE DELAY IN THE "1" STATE.

NOTE:  
 ON S4 BOARD CONNECTOR P1 PINS A, B, C, E, H, K, M, P, S, U, W, Y, AA, CC, EE, HH, KK, MM, PP, SS, UU (NOT SHOWN) ARE CONNECTED TO GROUND.

NOTE:  
 ON M953 1L41 PINS A1, C1, F1, P2, J2, K1, L2, N1, N2, R1, R2, U2 (NOT SHOWN) ARE NOT CONNECTED.

NOTE:  
 PINS H1, J1 AND D2 ABOVE ARE DUPLICATED AT LEFT.



NOTE:  
 ON M969 1M35 PINS H1, J1 AND D2 ABOVE ARE DUPLICATED AT LEFT.

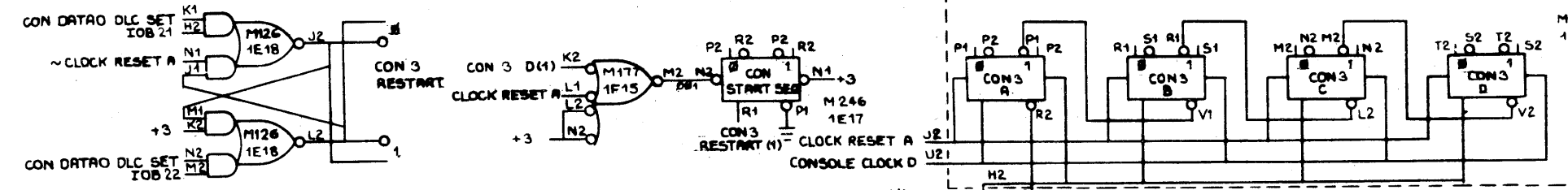
NOTE 1:  
 FOR JUMPER CARD PHYSICAL LAYOUT SEE D-B5-DL10-A-CON

REV	DATE	BY	CHK
B	11/27/70	A. KENT	Allen Kent
A	11/17/70	A. KENT	Allen Kent
REVISED & REDRAWN			
CHANGE NO			
DL10A-0000B			

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. P. B...	DATE 11-5-70		
TOLERANCES	CHK'D. Allen Kent	DATE 11/24/70		
DECIMALS ANGLES	ENG. Allen Kent	DATE 11/24/70		
.001 = .006 .002 = .02 .005 = .01	PROJ. ENG. Allen Kent	DATE 11/24/70		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	DATE 11/24/70		TITLE	
			PDP-11 # 2	
			CONSOLE CONTROL	
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	B-DD-DL10-A	D BS	DL10-A-CON2	B
	SCALE NONE			
	SHEET OF 1			

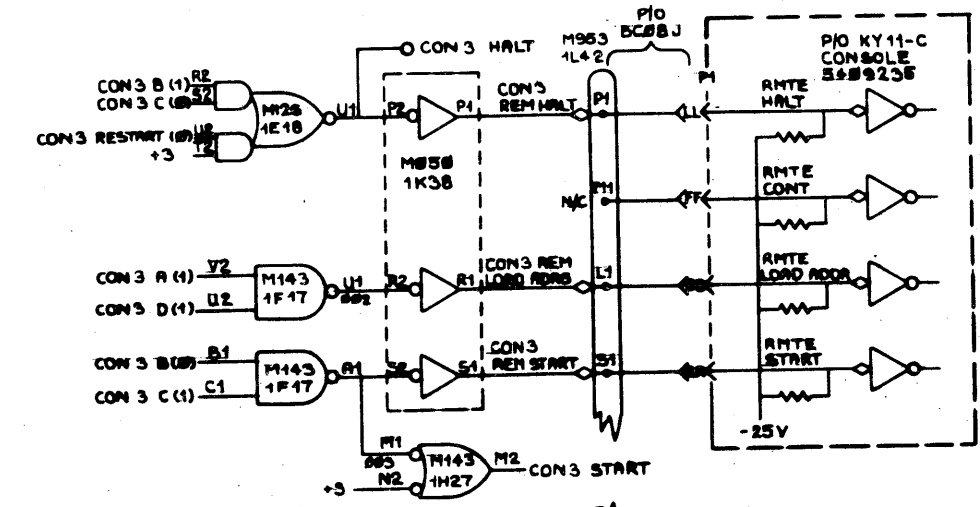
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

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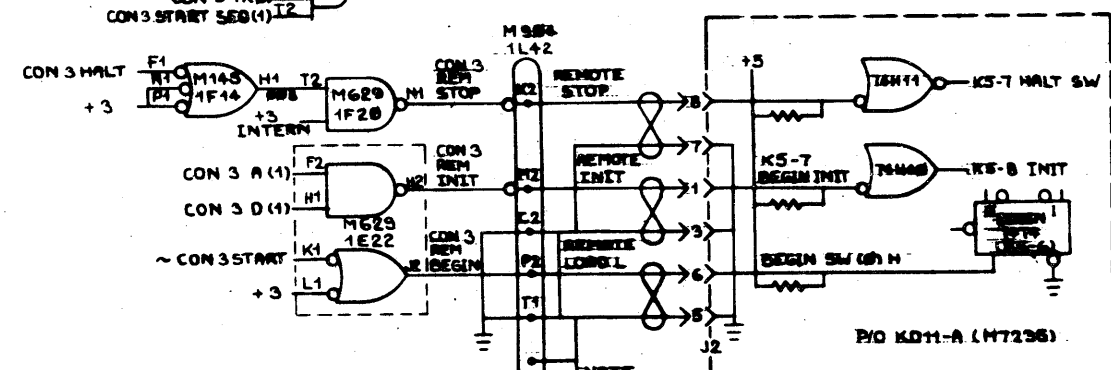


NOTE:  
.N/C = NO CONNECTION  
Ø = SPLIT LUG

PDP-11/15 REMOTE CONSOLE INTERFACE



PDP-11/35 & -11/40 REMOTE CONSOLE INTERFACE

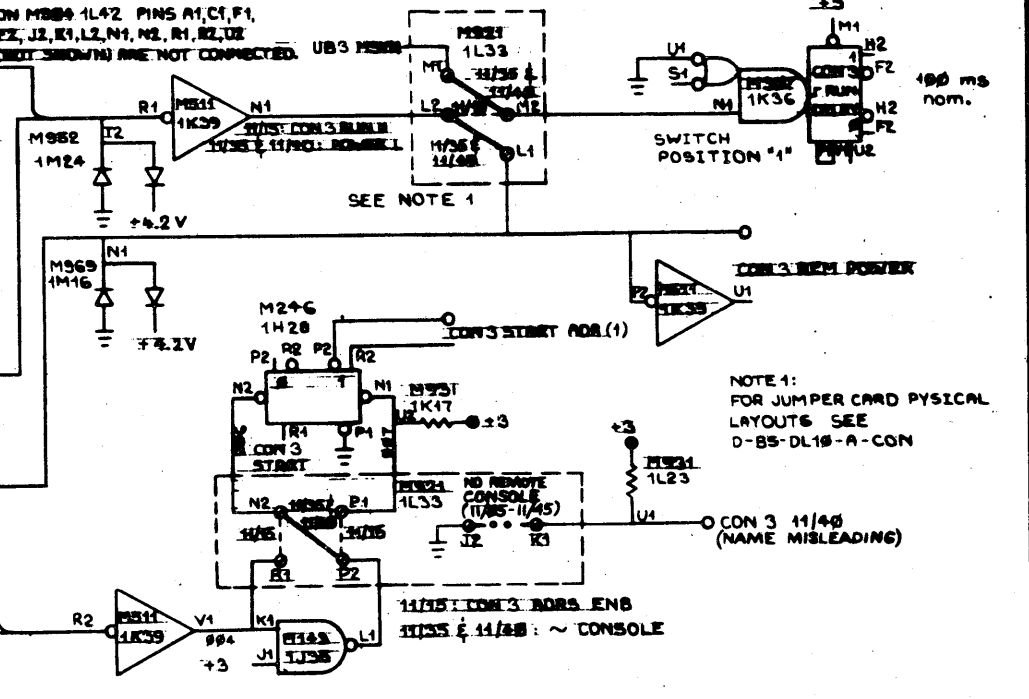
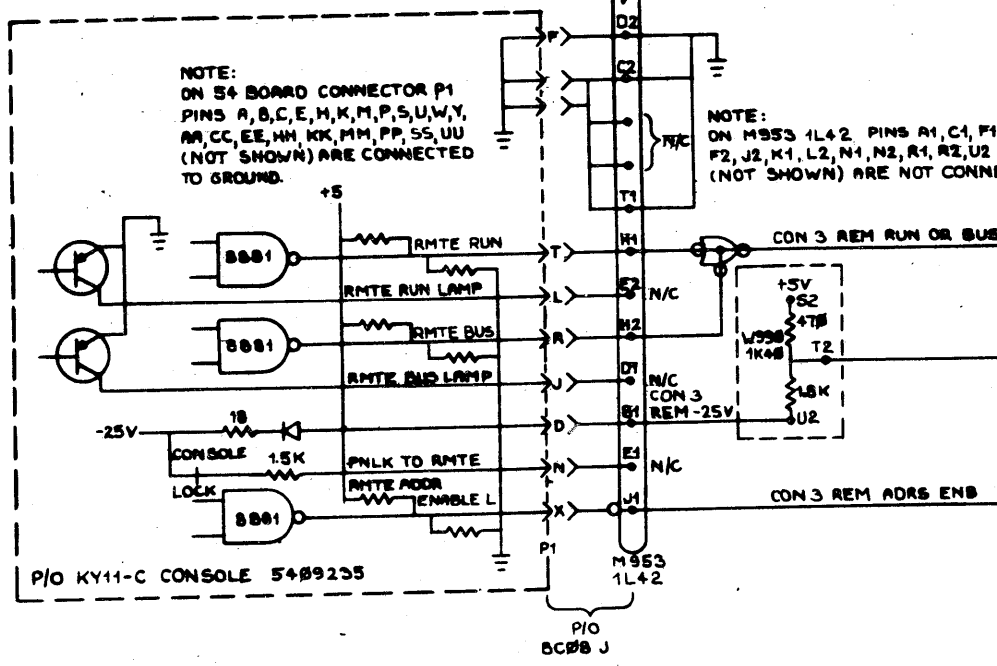


ADJUST SO THAT REPEATED 'INIT' INSTRUCTIONS IN THE PDP-11 WILL KEEP DELAY IN '1' STATE.

NOTE:  
ON S4 BOARD CONNECTOR P1 PINS A, B, C, E, H, K, M, P, S, U, W, Y, AA, CC, EE, HH, KK, MM, PP, SS, UU (NOT SHOWN) ARE CONNECTED TO GROUND.

NOTE:  
ON M953 1L42 PINS A1, C1, F1, F2, J2, K1, L2, N1, N2, R1, R2, U2 (NOT SHOWN) ARE NOT CONNECTED.

NOTE:  
PINS H1, J1 AND D2 ABOVE ARE DUPLICATED AT LEFT.



NOTE 1:  
FOR JUMPER CARD PHYSICAL LAYOUTS SEE D-85-DL10-A-CON

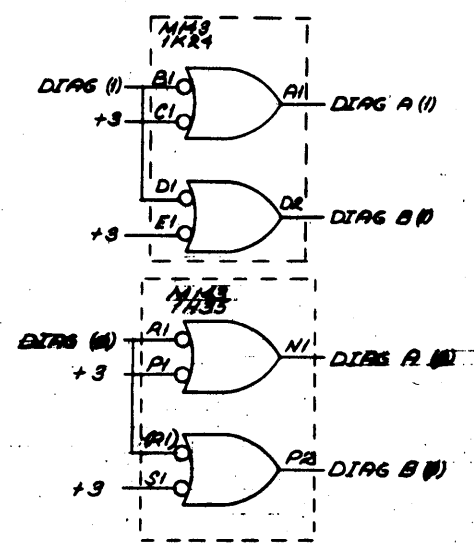
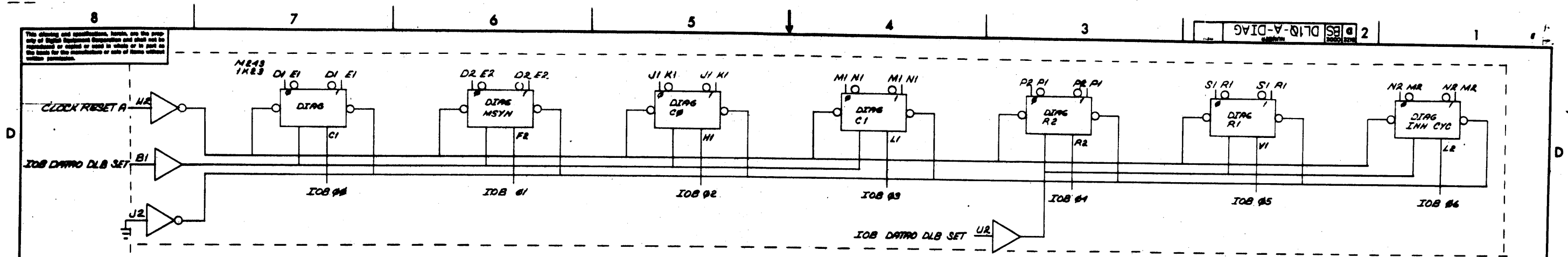
REV	CHG	ORIGINATED
1	DL10A-0000B	ORIGINATED

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. <i>E. D. Kent</i>	DATE 11-5-73	PARTS LIST	
TOLERANCES	CHK'D. <i>Allen Kent</i>	DATE 11 Feb 74	digital EQUIPMENT CORPORATION MAYFIELD MASSACHUSETTS	
DECIMALS ANGLES	ENG. <i>Allen Kent</i>	DATE 11 Feb 74		
.XXX = .005	PROJ. ENG. <i>Allen Kent</i>	DATE 11 Feb 74	TITLE	
.XX = .02	PRD. <i>Allen Kent</i>	DATE 11 Feb 74	PDP-11 #3	
.X = .1	PROOF. <i>Allen Kent</i>	DATE 11 Feb 74	CONSOLE CONTROL	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1				
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	B-DD-DL10-A		D BS	DL10-A-CON3
	SCALE NONE		SHEET	REV.

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DL10-A-DIAG 2

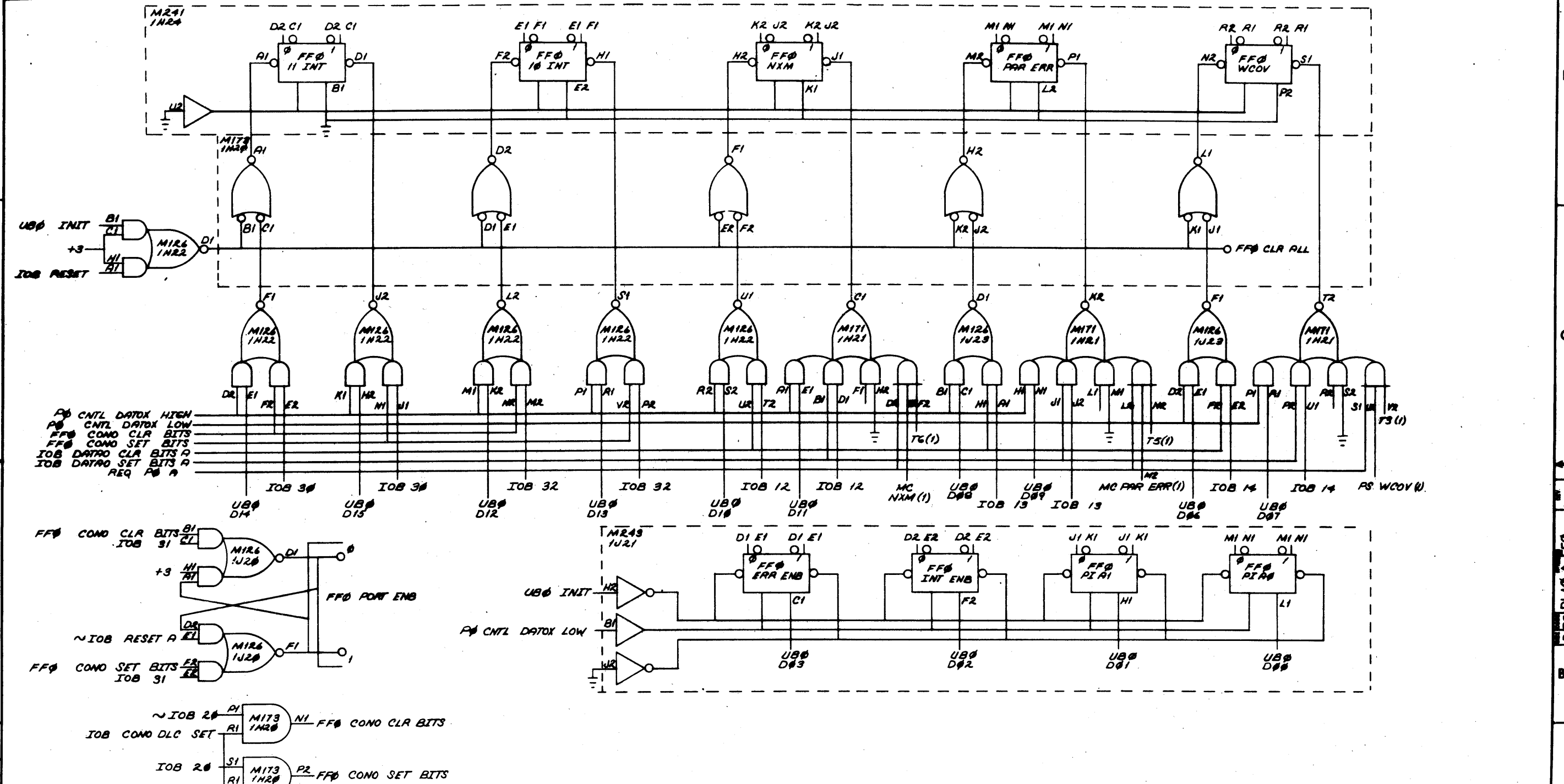


REV	
CHANGE NO.	
CHK	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON (PDP) MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED		DRN	DATE	
UNLESS OTHERWISE SPECIFIED		CHK'D	DATE	
DIMENSION IN INCHES		ENG	DATE	
TOLERANCES		PROL ENG	DATE	
DECIMALS FRACTIONS ANGLES		PROD	DATE	
± .008 ± 1/64 ± 0°30'				
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NEXT HIGHER ASSY			
FINISH	SCALE NONE			
SHEET 1 OF 1		DIBS DL10-A-DIAG		REV

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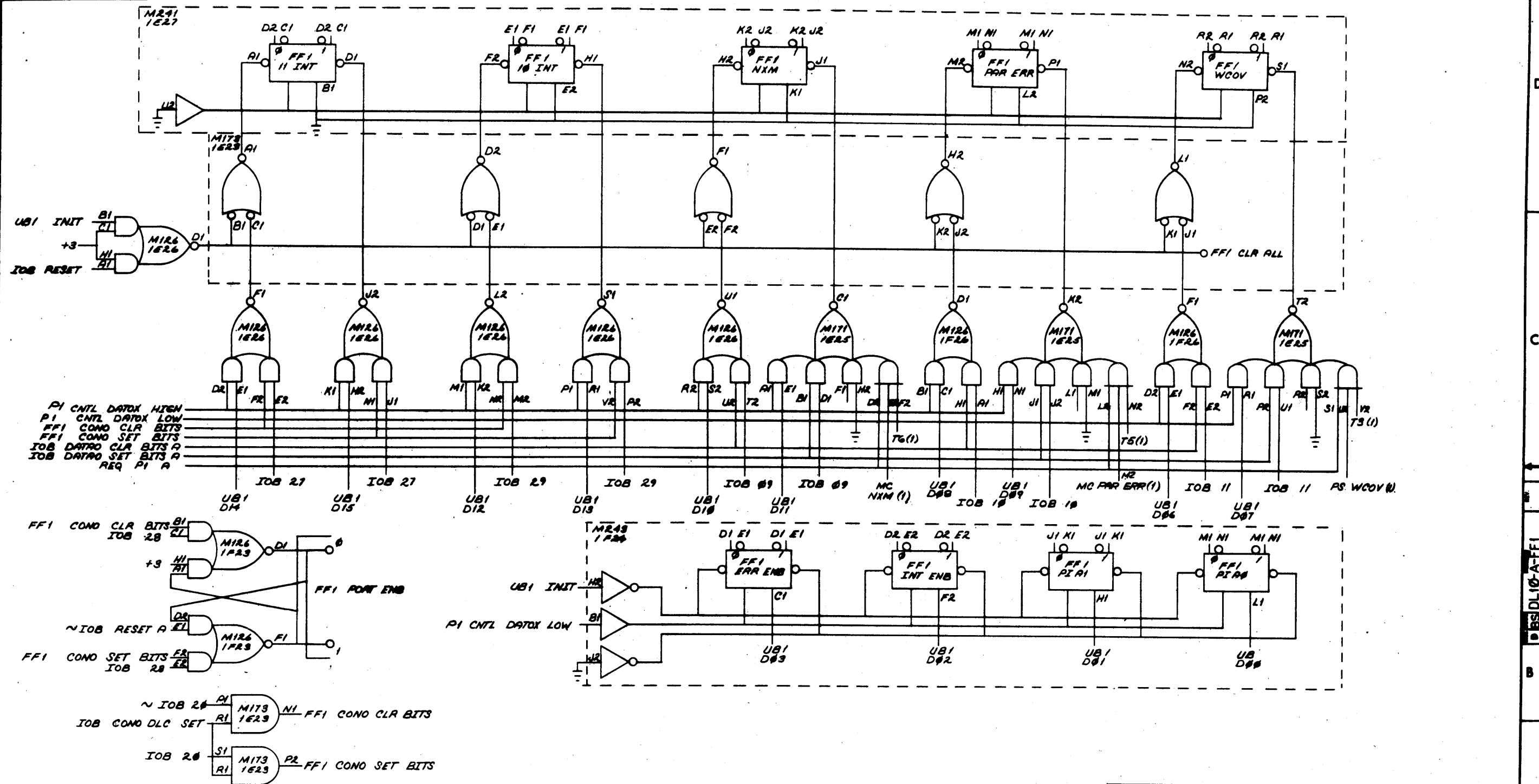


REV	NO
CHG	NO
CHK	NO

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTIMUM COEL PDP/0	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± 0.005 ± 1/64 ± 0°	DATE 12/17/71	DATE 11/19/71	DATE 11/19/71	DATE 12/17/71
PARTS LIST		TITLE PORT 0 CONTROL FLIP FLOP		
MATERIAL		NEXT HIGHER ASSY A-ML-DLI0-A		
FINISH		SCALE		
SHEET 1 OF 1		DIBS DLI0-A-FF0		

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REV	
CHG	
CHK	
DEC FORM NO	098 102 A

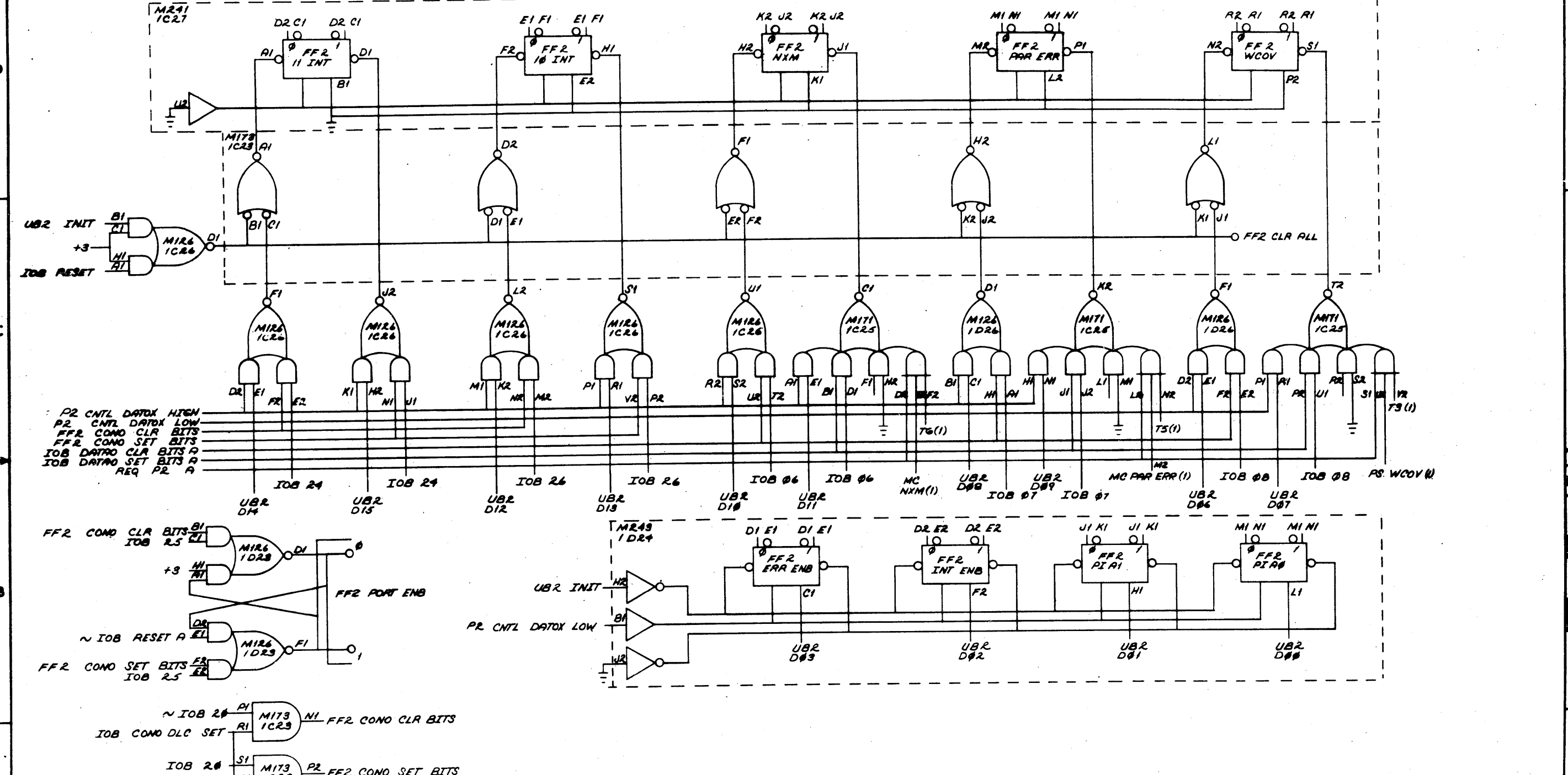
NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .005 ± .004 ± .030				
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL		DATE	DATE	DATE
FINISH		DATE	DATE	DATE
NEXT HIGHER ASSY				
A-ML-DL10-A				
SCALE				
SHEET 1 OF 1				
DIBS DL10-A-FF1				

TITLE  
PORT 1 CONTROL  
FLIP FLOP

SIZE CODE NUMBER  
DIBS DL10-A-FF1

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P2 CNTL DATOX HIGH  
P2 CNTL DATOX LOW  
FF2 CONO CLR BITS  
FF2 CONO SET BITS  
IOB DATOX CLR BITS A  
IOB DATOX SET BITS A  
REQ P2 A

FF2 CONO CLR BITS BI  
IOB 25 EI  
+3 HI  
MI  
FI  
FF2 PORT ENB  
~ IOB RESET A EI  
FF2 CONO SET BITS EI  
IOB 25 EI

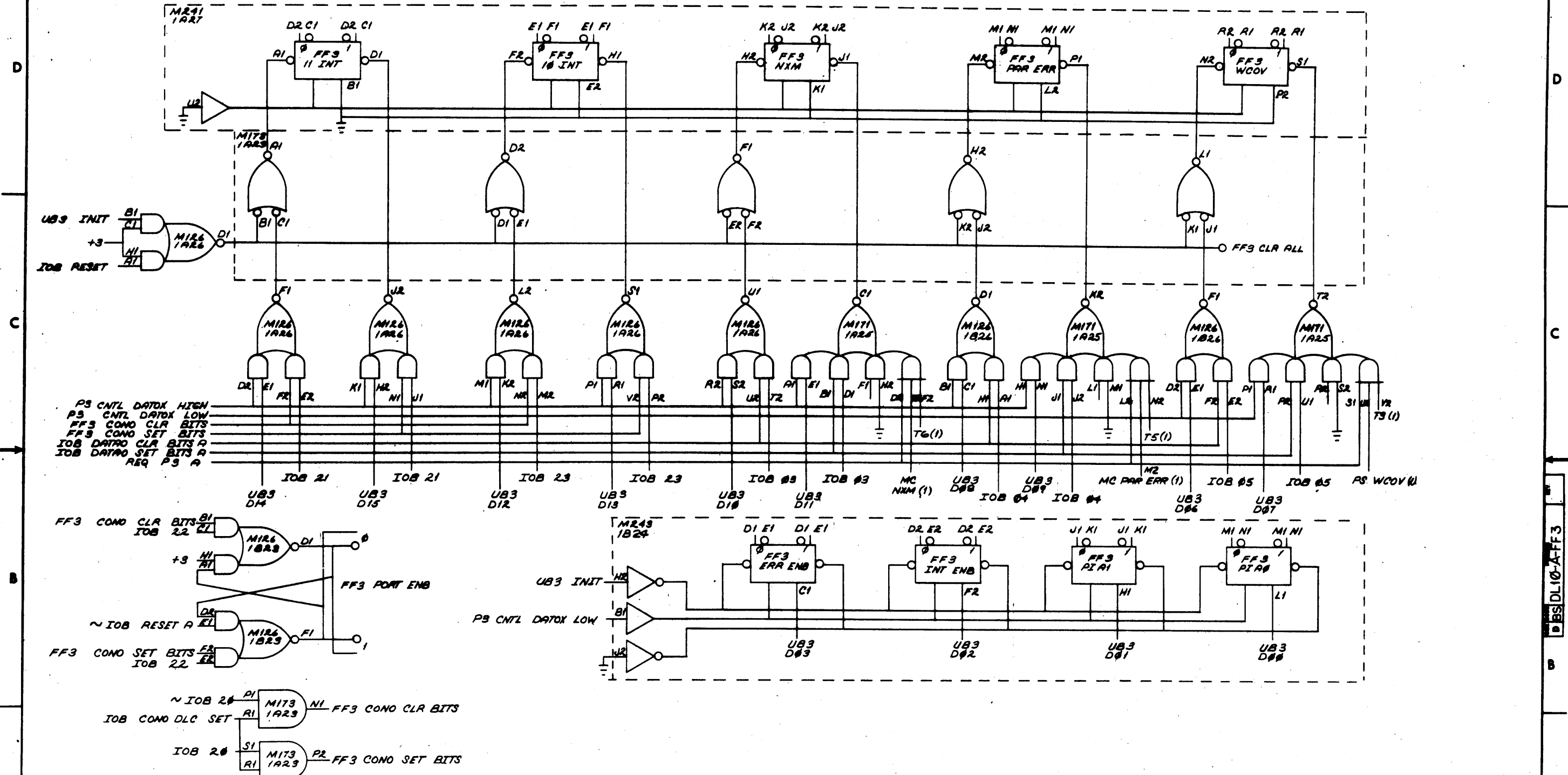
~ IOB 26 EI  
IOB CONO CLR SET RI  
MI  
FI  
FF2 CONO CLR BITS  
IOB 26 EI  
IOB 26 EI  
RI  
FI  
FF2 CONO SET BITS  
IOB 26 EI

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED	DRN	DATE	PARTS LIST	
UNLESS OTHERWISE SPECIFIED	DRN	DATE	EQUIPMENT CORPORATION	
DIMENSION IN INCHES	DRN	DATE	MAYNARD MASSACHUSETTS	
TOLERANCES	ENG	DATE	TITLE	
DECIMALS FRACTIONS ANGLES	ENG	DATE	PORT 2 CONTROL	
± 0.00 ± 1/64 ± 0°30'	ENG	DATE	FLIP FLOP	
FINAL SURFACE QUALITY	PROJ. ENG.	DATE	DRAWING NO.	
REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENG.	DATE	DIBS DL10-A-FF2	
MATERIAL	PROD.	DATE	SCALE	
	PROD.	DATE	SHEET 1 OF 1	
FINISH			DWT.	

REV.	CHG.	NO.

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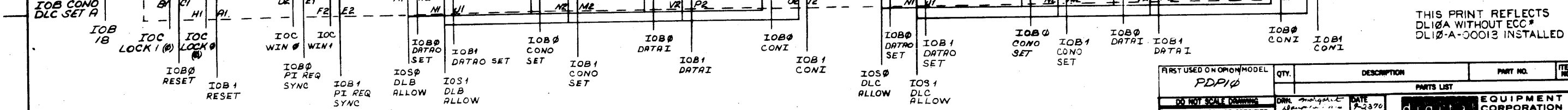
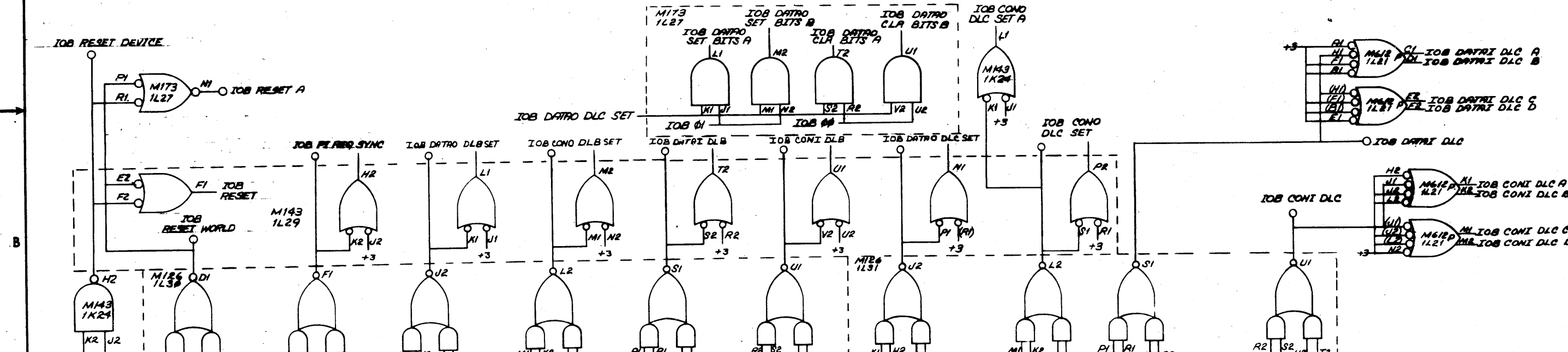
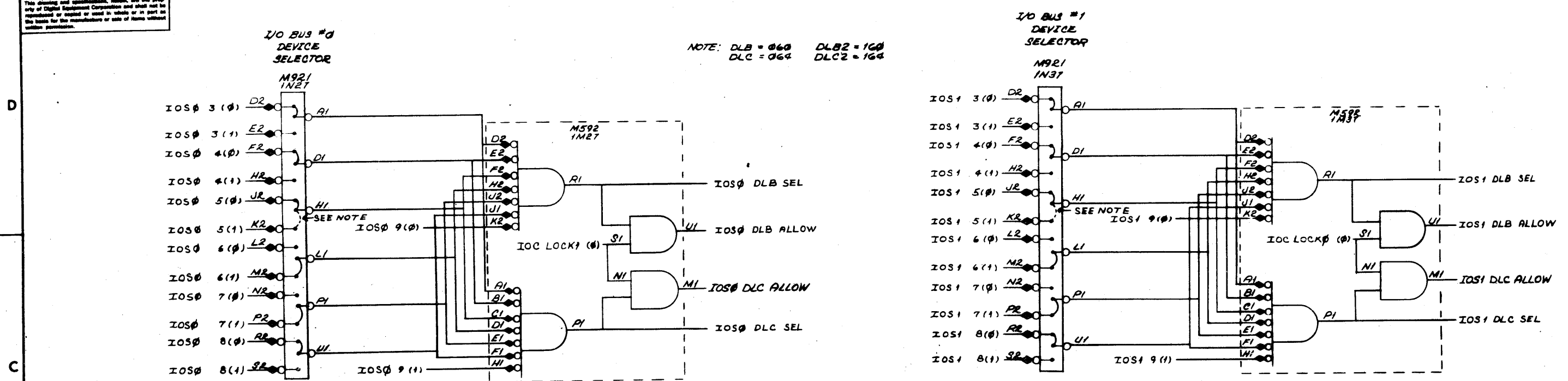
REV.	CHG.	NO.	DATE

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED OR OPTION MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .125 ± .005 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN <i>Wallace</i> DATE 2-2-71	DATE 11/18/71	<b>digit</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
MATERIAL	CHKD <i>W. Thompson</i> DATE 11/18/71	DATE 12/17/71		
FINISH	PRJ ENG <i>T. W. E.</i> DATE 11/18/71	DATE 12/17/71	TITLE <b>PORT 3 CONTROL FLIP FLOP</b>	
NEXT HIGHER ASSY <b>A-ML-DL10-A</b>			SIZE CODE <b>D</b>	NUMBER <b>BSI DL10-A-FF3</b>
SCALE			SHEET	OF

DL10-A-FF3

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REV	CHG	NO.	DATE
A	DL10A-00013	1	12/17/71
B	DL10A-00013	2	11/13/71
C	DL10A-00013	3	11/13/71
D	DL10A-00013	4	12/17/71

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

THIS PRINT REFLECTS DL10A WITHOUT ECC\* DL10A-00013 INSTALLED

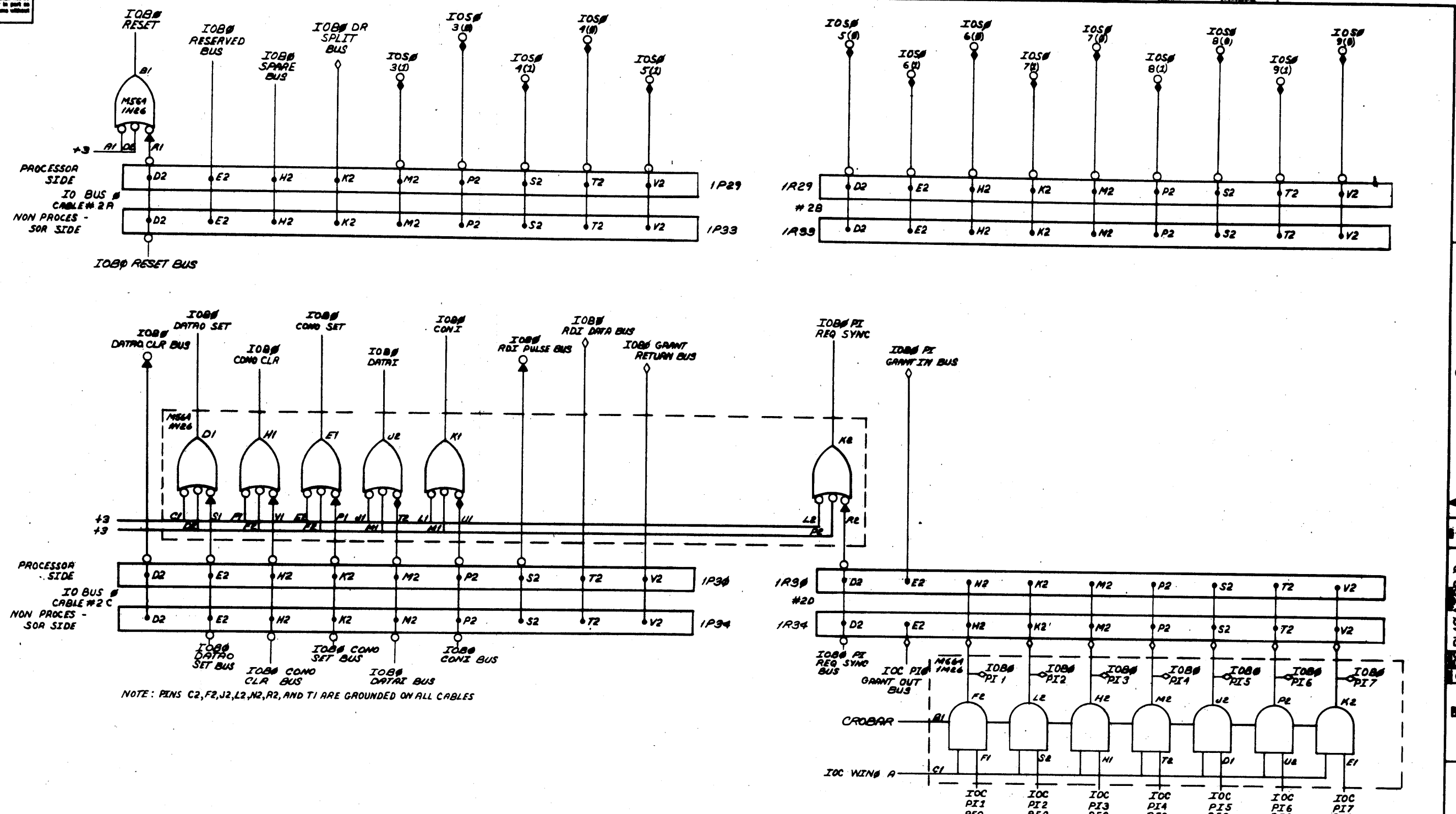
REV	CHG	NO.	DATE
A	DL10A-00013	1	12/17/71
B	DL10A-00013	2	11/13/71
C	DL10A-00013	3	11/13/71
D	DL10A-00013	4	12/17/71

REV	CHG	NO.	DATE
A	DL10A-00013	1	12/17/71
B	DL10A-00013	2	11/13/71
C	DL10A-00013	3	11/13/71
D	DL10A-00013	4	12/17/71

REV	CHG	NO.	DATE
A	DL10A-00013	1	12/17/71
B	DL10A-00013	2	11/13/71
C	DL10A-00013	3	11/13/71
D	DL10A-00013	4	12/17/71

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DBS DL10-A-IOB 2



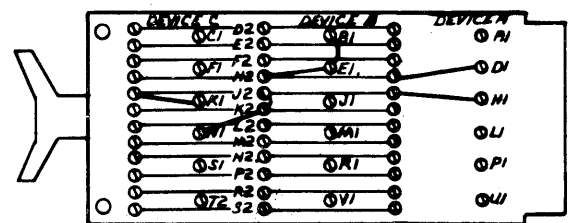
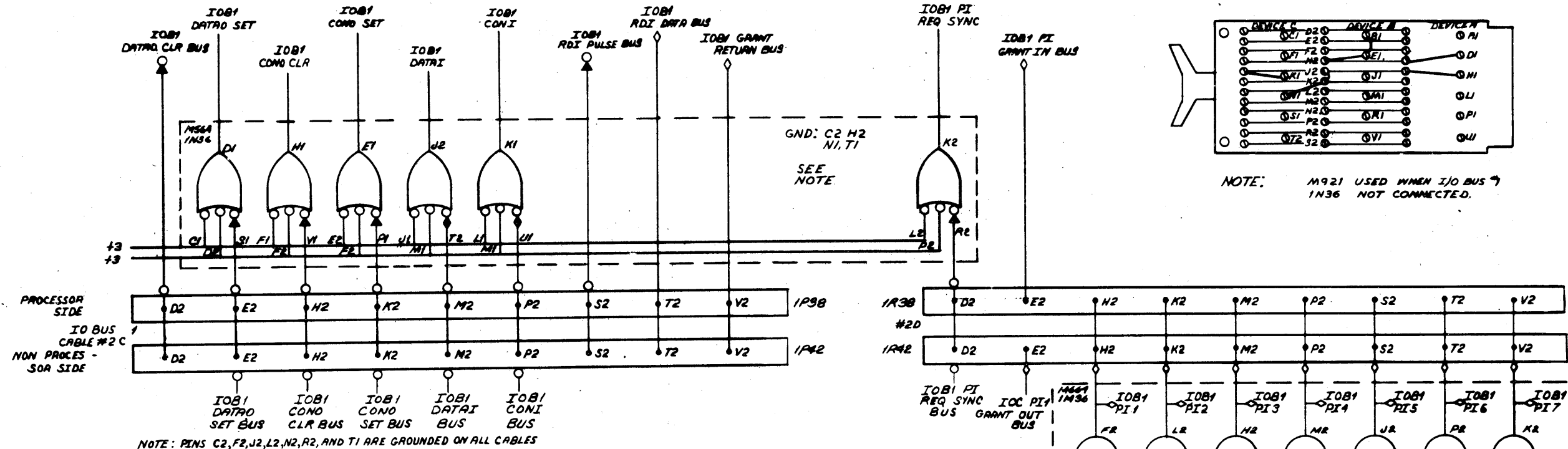
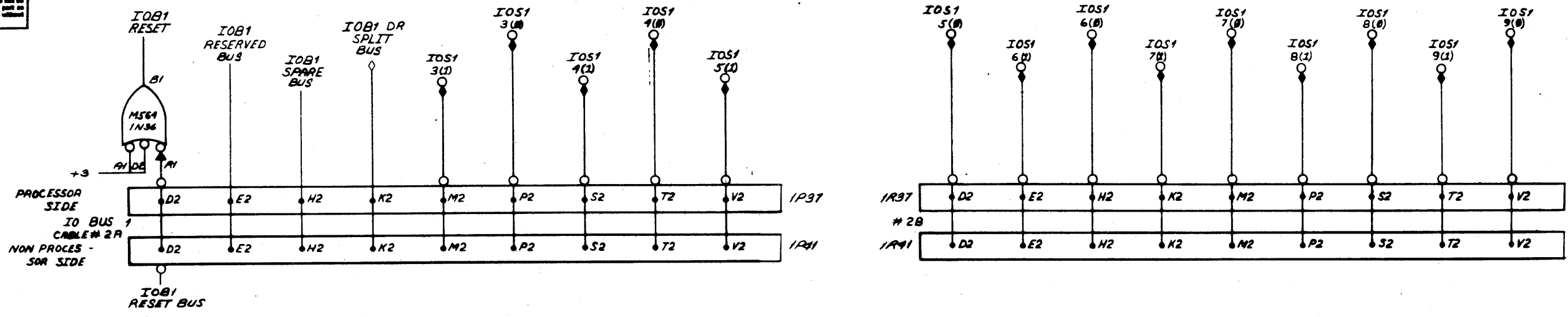
NOTE: PINS C2, F2, J2, L2, N2, R2, AND T1 ARE GROUNDED ON ALL CABLES

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

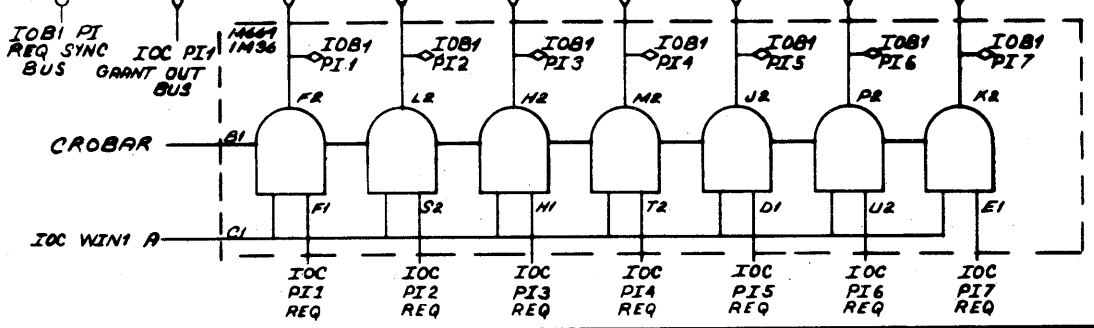
REV	A
CHANGE NO.	4-18-72
BY	A. KENT
CHK	C. J. BROWN
DATE	11/19/71

FIRST USED ON OTHER MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .005 ± 1/64 ± 0°				
FINISH SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
FINISH				
SCALE				
SHEET 1 OF 1				
PARTS LIST			EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TITLE			IOB INTERFACE 0	
DRAWN			DATE	
CHECKED			DATE	
ENGR.			DATE	
PROJ. ENGR.			DATE	
PROD. ENGR.			DATE	
NEXT REVISION			DATE	
A-ML-DL10-A				
DBS DL10-A-IOB 0			A	

This drawing and specifications, taken on the part of Buyer, represent the minimum requirements and shall not be interpreted as a warranty or used in whole or in part as the basis for the manufacture or sale of items without written permission.



NOTE: M921 USED WHEN I/O BUS 7 IN36 NOT CONNECTED.



REV	CHG	NO	DATE	BY	CHK
1	A	00008	11/17/70	KENT	
2	A	00008	11/17/70	KENT	

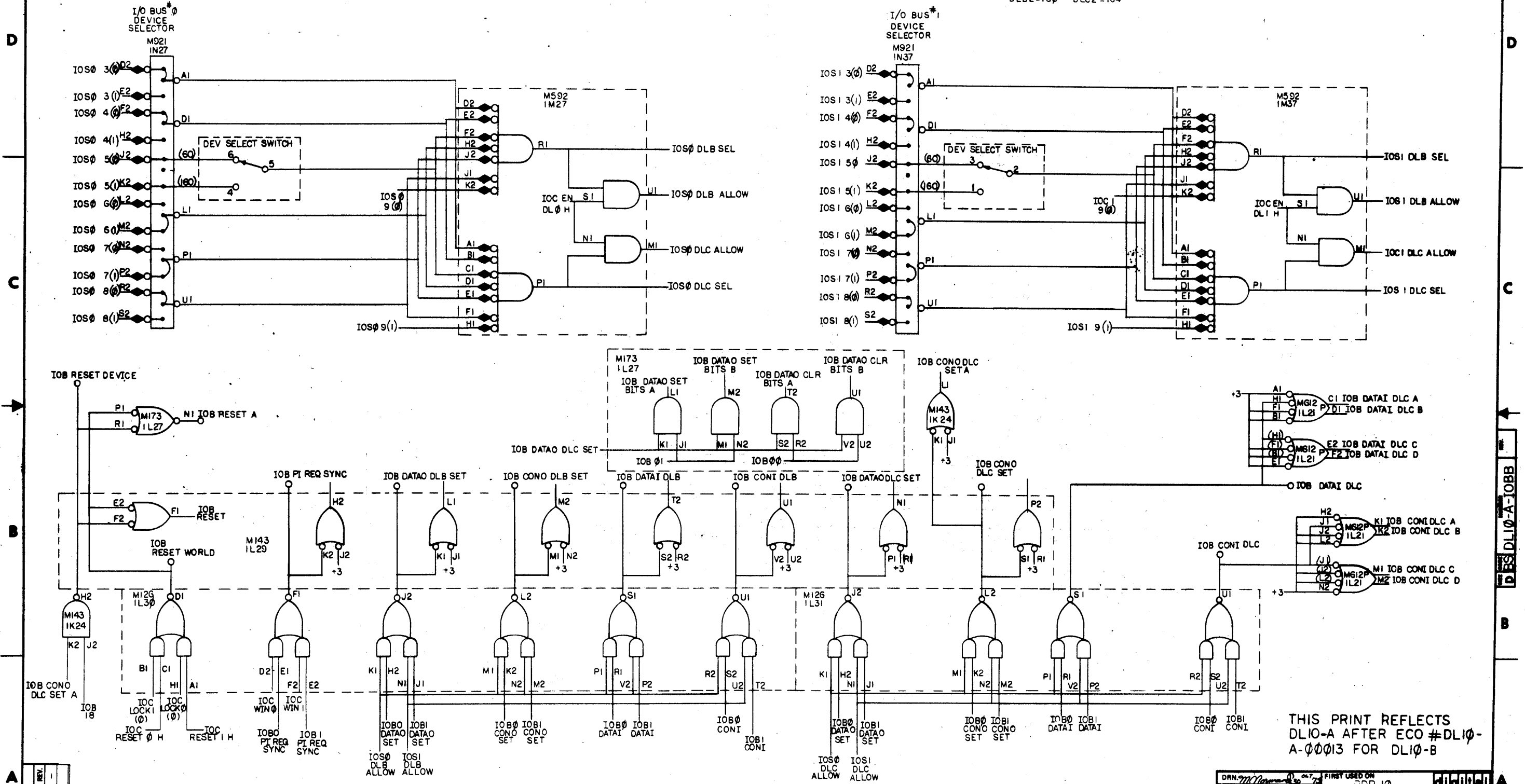
NOTE: ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTIUM MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED		PARTS LIST		
DIMENSIONS IN INCHES		EQUIPMENT CORPORATION		
TOLERANCES		TITLE		
DECIMALS FRACTIONS ANGLES		IOB INTERFACE 1		
± 0.01 ± 0.005 ± 0.005		SIZE CODE		
FINAL SURFACE QUALITY		DBS DL10-A-IOB1		
REMOVE BURRS AND BREAK SHARP CORNERS		REV		
MATERIAL		SHEET 1 OF 1		
FINISH		DWT.		

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88-11-A-0117 2

- NOTES:
1. DEVICE SELECT SWITCH IS DPDT MOUNTED ON FRONT PANEL.
  2. SWITCH IS SHOWN 060/064 POSITION.
  3. DLB=060 DLC=064  
DLB2=160 DLC2=164



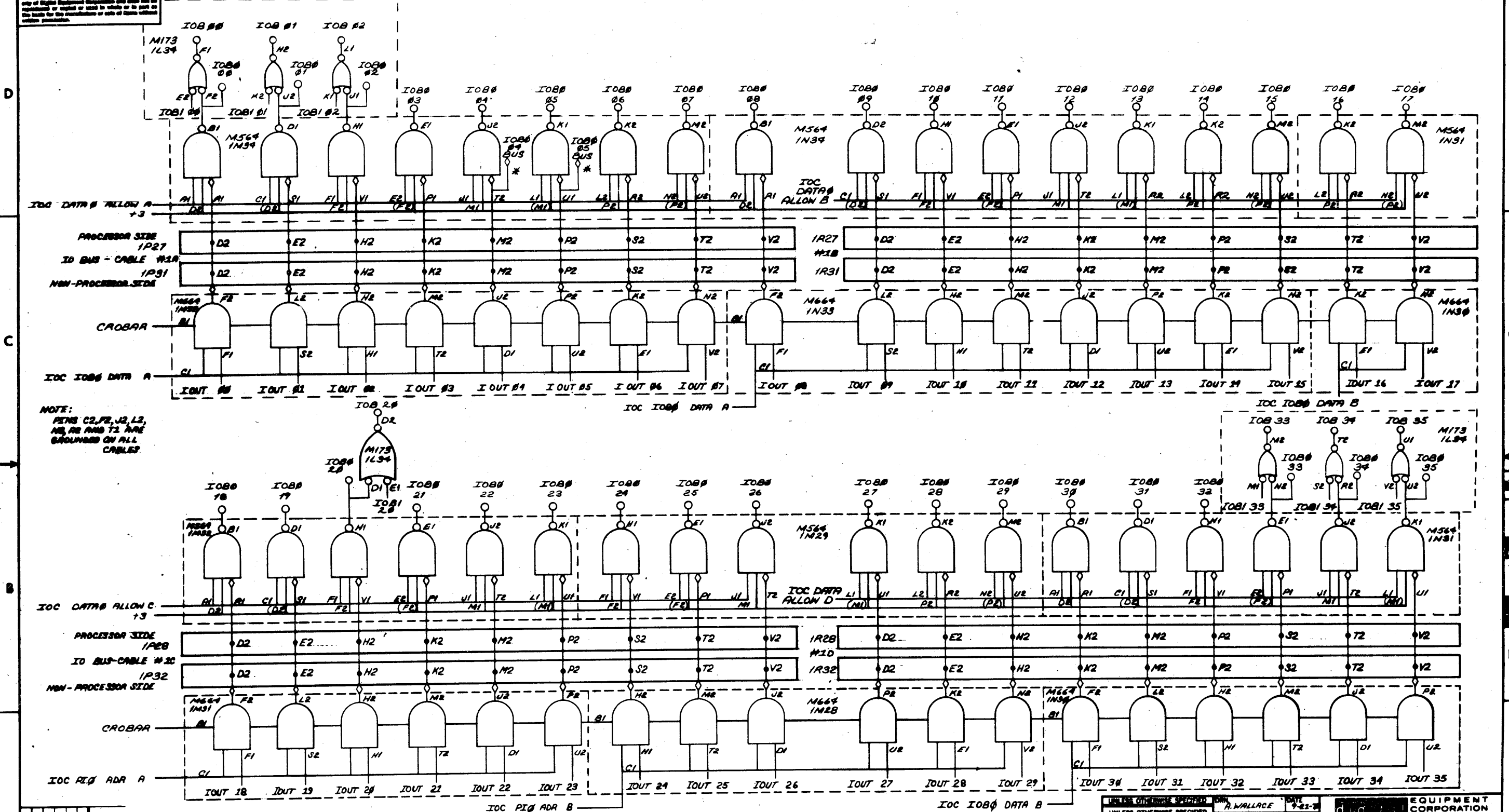
THIS PRINT REFLECTS DL10-A AFTER ECO #DL10-A-00013 FOR DL10-B

NOTE:  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES 'O' ARE AS IF SUFFIXED WITH 'L'. ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH 'H'.

DRN: <i>McNamee</i>	DATE: <i>10/7/75</i>	FIRST USED ON: PDP 10	REV: <i>1</i>
CHK'D: <i>Billings</i>	DATE: <i>10/20/75</i>	TITLE: IOB SELECTION & CONTROL (WITH DL10-B ECO)	REV: <i>1</i>
ENG: <i>D. Long</i>	DATE: <i>10/20/75</i>	SCALE: <i>NONE</i>	REV: <i>1</i>
PROJ: <i>PM 200</i>	DATE: <i>10/20/75</i>	SHEET: <i>1</i>	REV: <i>1</i>
PROD: <i>TR 200</i>	DATE: <i>10/20/75</i>	OF: <i>1</i>	REV: <i>1</i>
NEXT HIGHER ASSY:		SIZE: <i>D</i>	NUMBER: <i>DL10-A-10BB</i>
A-ML-CL10-A		SCALE: <i>NONE</i>	REV: <i>1</i>
SHEET: <i>1</i>		OF: <i>1</i>	REV: <i>1</i>

REV. NO.	REV.
1	1
CHANGE NO.	ORIGINATED
DL10-A-00013	
CHK	
1	

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NOTE:  
PINS C2, F2, J2, L2,  
M2, R2 AND T2 ARE  
GROUNDED ON ALL  
CABLES.

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION  
DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL  
NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION  
DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

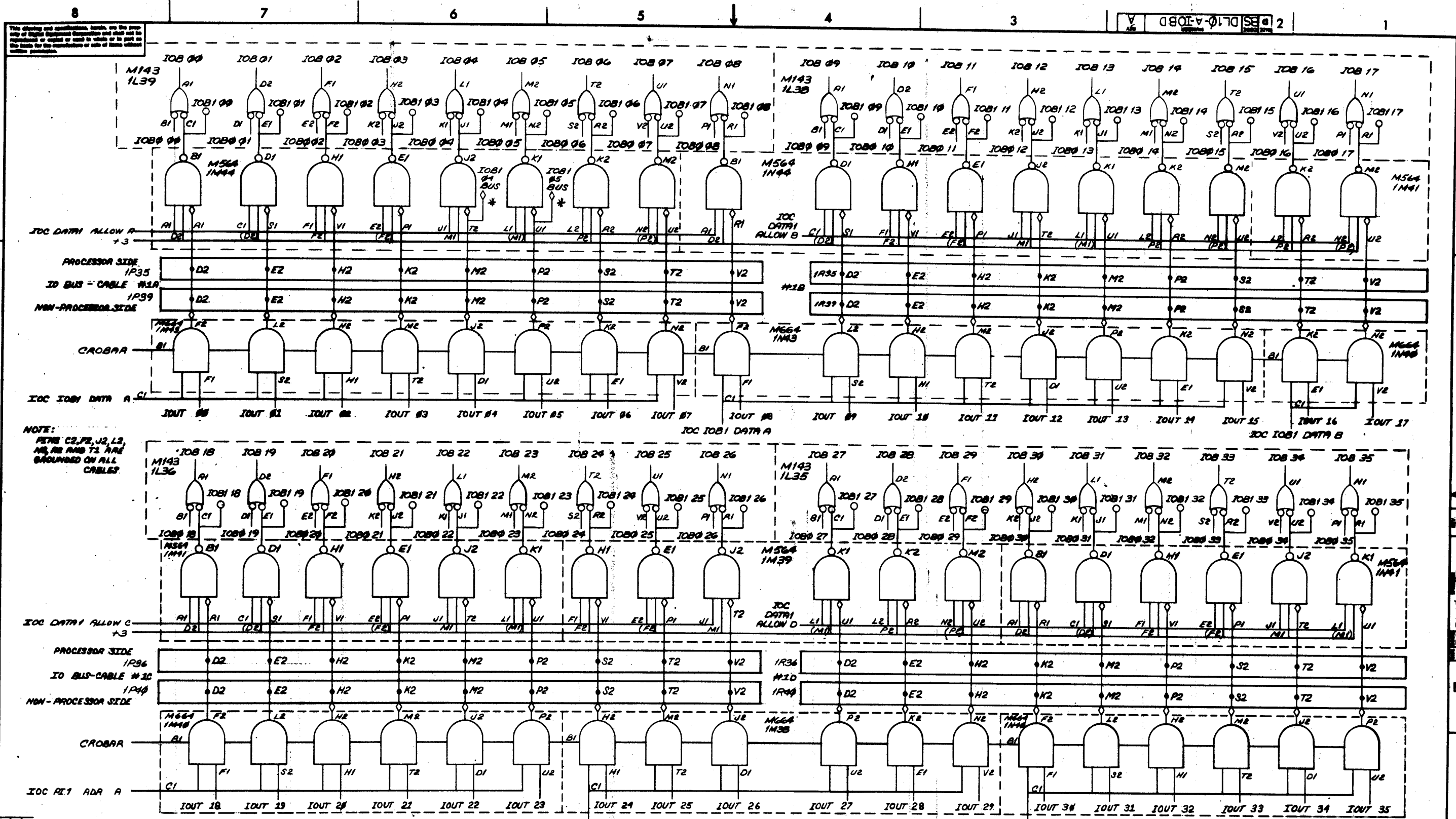
\* ALSO GENERATED ON  
PRINT IOC2

FIRST USED ON OPTION MODEL  
PDP10

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES		TOLERANCES	
DECIMALS	FRACTIONS	ANGLES	
± 0.05	± 1/64	± 0°30'	
FINAL SURFACE QUALITY		REMOVE BURRS AND BREAK SHARP CORNERS	
MATERIAL		NEXT HIGHER ASSY	
FINISH		SCALE	
SHEET 1 OF 2		DIST.	

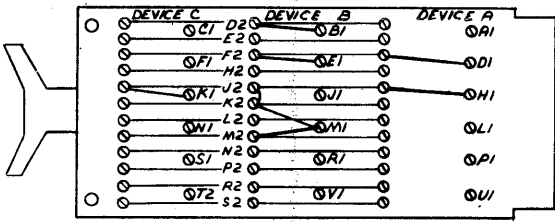
DESIGNED BY A. WALLACE	DATE 9-21-70	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHECKED BY C. J. STEPHENSON	DATE 11/17/71	
ENG. BY T. W. E.	DATE 11/17/71	
PROJ. ENG. Tom Egan	DATE 12/17/71	
TITLE I/O BUS DATA INTERFACE		SIZE CODE DL10-A-IOB-D
PART NUMBER A-ML-DL10-A		REVISION REV

REV	DATE	BY
A	4-18-74	A. KENT
CHG. NO. 0000B		
DL10-A-IOB-D		



NOTE:  
 PINS C2, F2, J2, L2,  
 M2, R2 AND T2 ARE  
 GROUND ON ALL  
 CABLES

M921  
 IM39, IM41  
 IM44, IN41  
 IN44 USED  
 WHEN I/O BUS  
 #1 NOT CONNECTED



NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION  
 DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL  
 NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION  
 DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

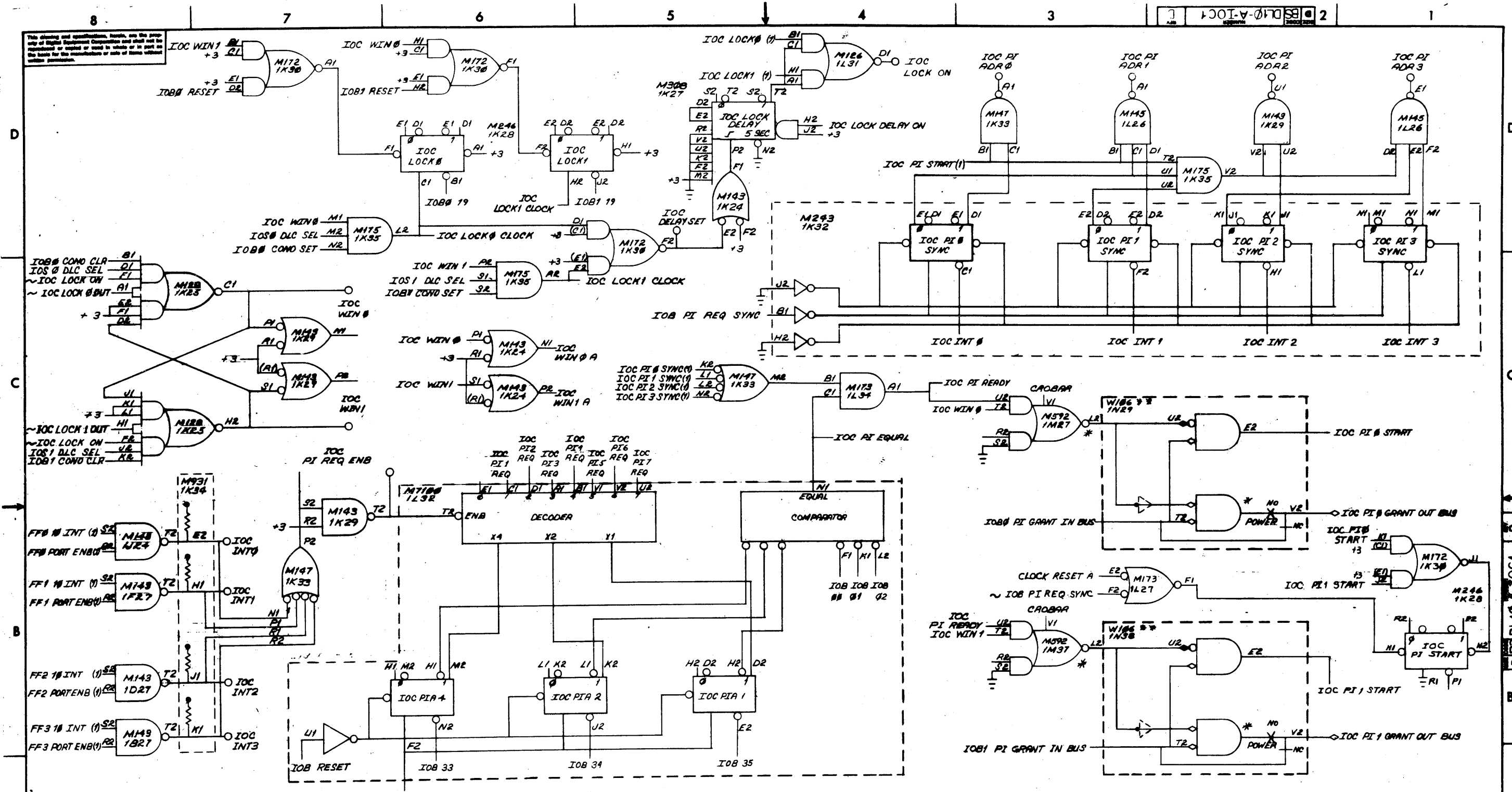
\* ALSO GENERATED ON  
 PRINT IOC2

FIRST USED ON OPTORY MODEL  
 PDP10

UNLESS OTHERWISE SPECIFIED		DATE	9-21-70
DIMENSION IN INCHES		DESIGNED BY	A. WALLACE
TOLERANCES		DATE	11/19/71
DECIMALS	FRACTIONS	ENG	TWC
± .005	± 1/32	DATE	11/19/71
FINAL SURFACE QUALITY		PROJ. ENGR.	Tom Egge
REMOVE BURRS AND BREAK SHARP CORNERS		DATE	12/10/71
MATERIAL		PROD.	R. Stenowski
NEXT HIGHER ASSY			
FINISH		A-ML-DL10-A	
SCALE		NONE	
SHEET		2 OF 2	

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TITLE I/O BUS 1 DATA INTERFACE	
DESIGNER	NUMBER
D/BS DL10-A-IOB-D	
DRST.	REV
	A

REV.	
CHG.	
NO.	



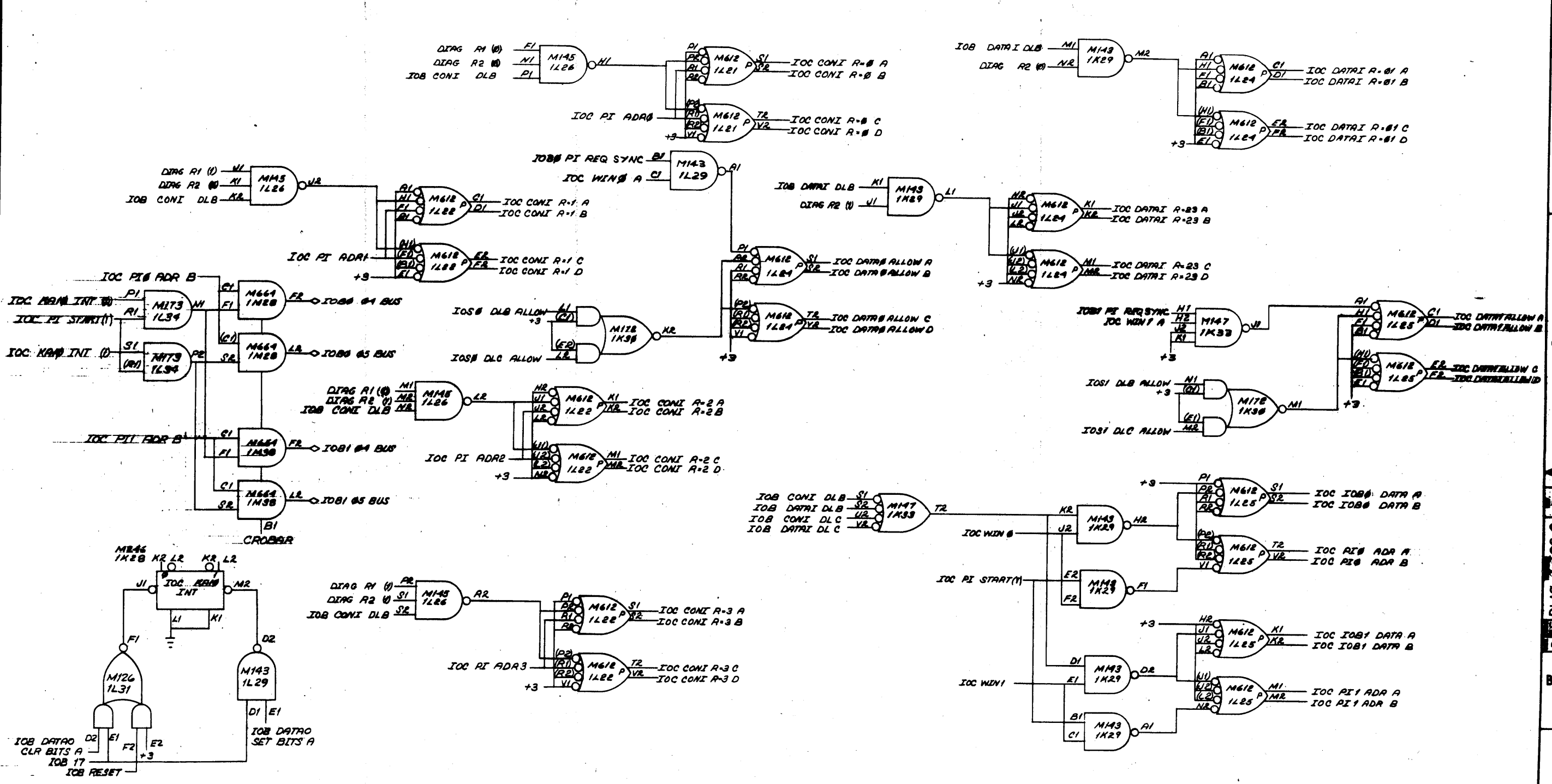
REV	CHANGE NO.	DATE	BY	CHKD
A	0001	1/1/72		
B	0004	10-23-72		
C	0005	9/6/72		
D	0003	10-23-72		

NOTE: \* OUTPUTS 0V AND -3V  
 \*\* THE W106 MUST BE REVISION "D" OR HIGHER.

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PPDI0				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED		EQUIPMENT CORPORATION		
DIMENSIONS IN INCHES		MAYNARD MASSACHUSETTS		
TOLERANCES		TITLE		
DECIMALS FRACTIONS ANGLES		I/O CONTROL		
± .008 ± .124 ± .075		SCALE		
FINAL SURFACE QUALITY		SHEET		
REMOVE BURRS AND BREAK SHARP CORNERS		1 OF 1		
MATERIAL		D.B.S. DL10-A-IOC1		
FINISH		REV		
		D		

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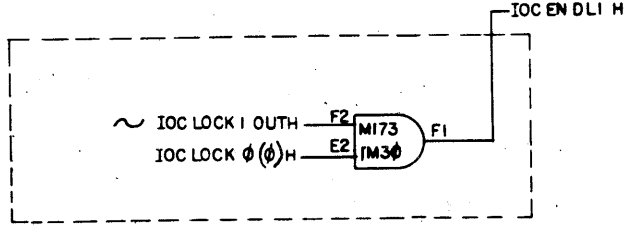
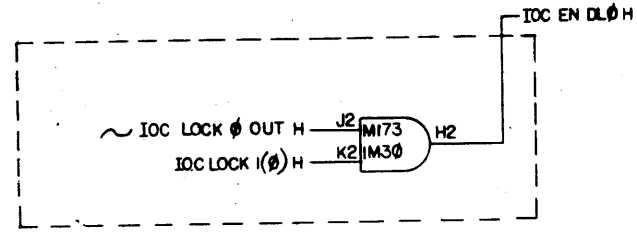
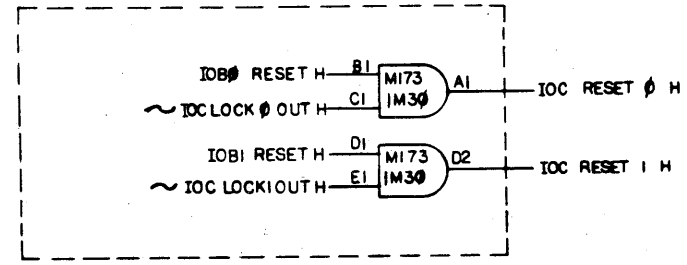
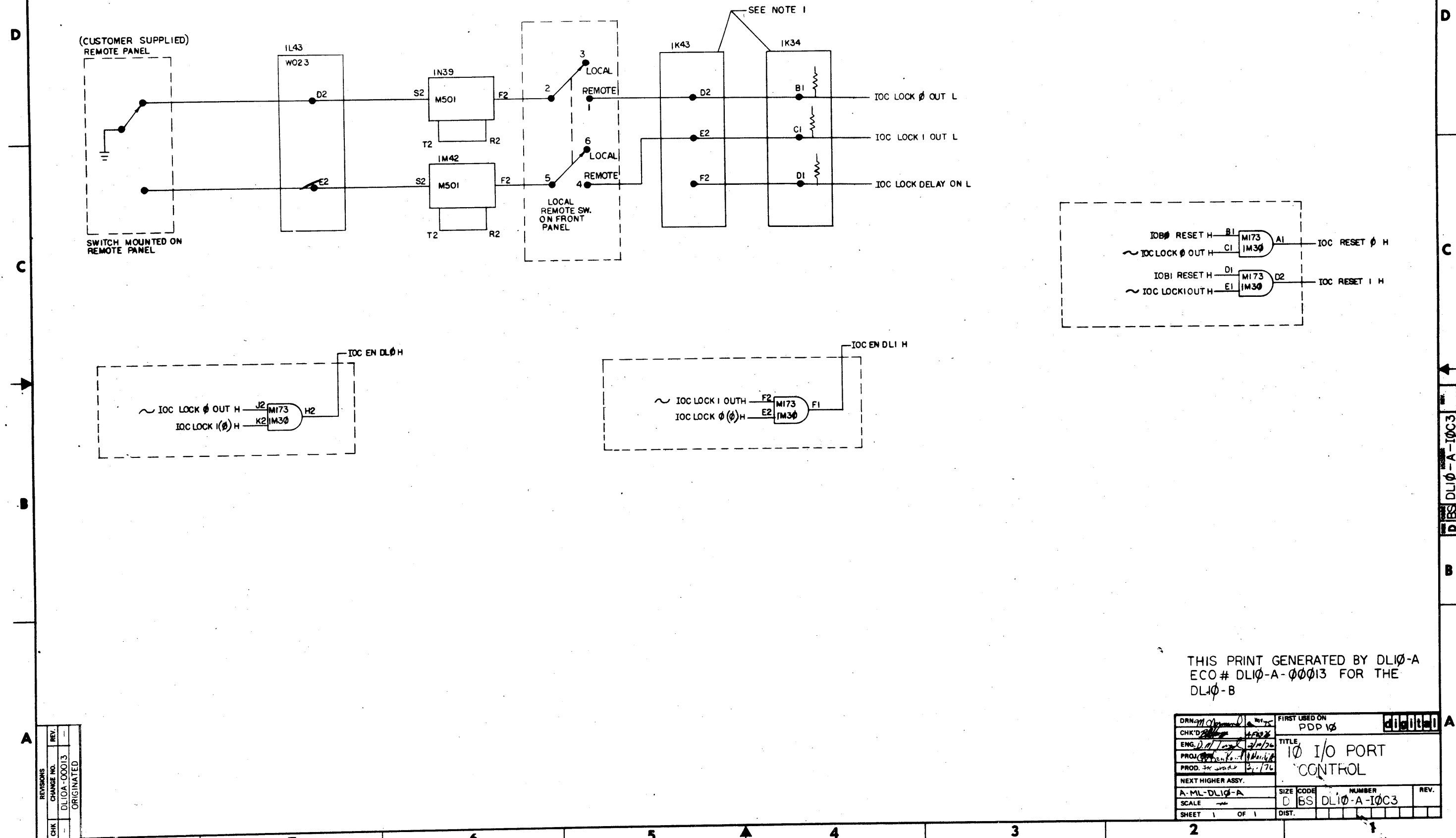
REV	DATE	BY	CHKD
1	10-70	A. WALLACE	
2	11/2/71	T. W. ...	
3	11/17/71	...	
4	11/17/71	...	
5	12/17/71	...	

NOTE:  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED		DATE	EQUIPMENT CORPORATION	
DIMENSION IN INCHES		10-70	MAYNARD, MASSACHUSETTS	
TOLERANCES			IOC CONTROL	
DECIMALS	FRACTIONS			
± 0.05	± 1/64			
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
NEXT HIGHER ASSY				
A-ML-DL10-A				
SCALE		SIZE CODE		NUMBER
SHEET / OF /		DBS DL10-A-IOC 2		REV B
		DIST.		

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NOTE:  
 1. THESE ITEMS PART OF DL10-A MOVED TO THIS PRINT & DELETED FROM PRINT D-BS-DL10-A-I0C1. ALL OTHER ITEMS ON THIS PRINT PART OF DL10-B ECO # DL10-A-00013.

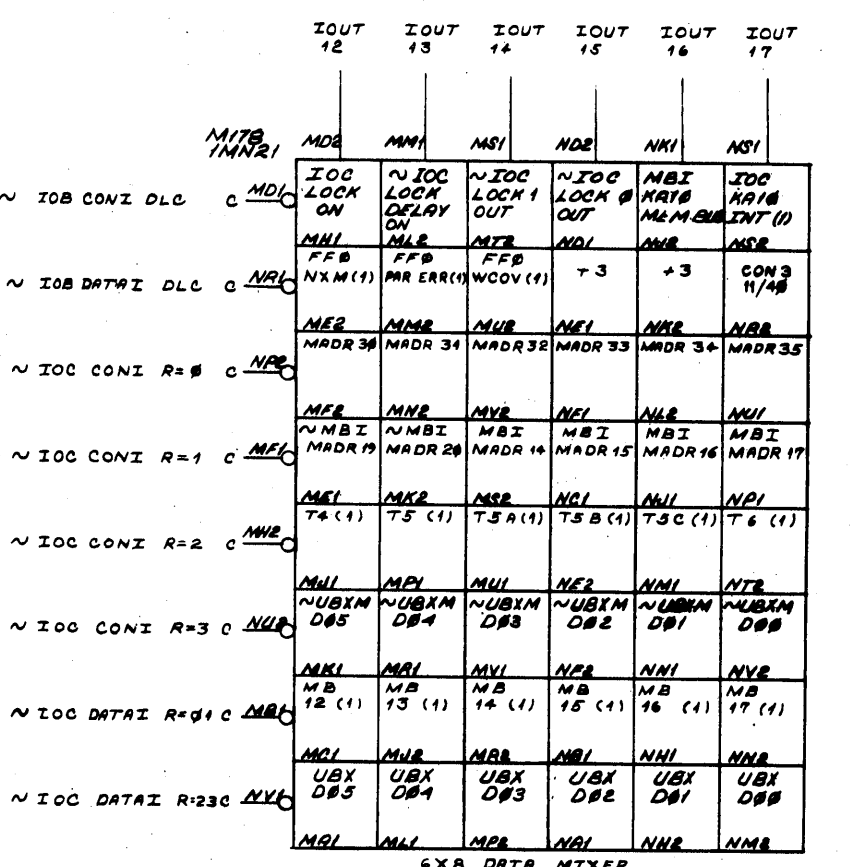
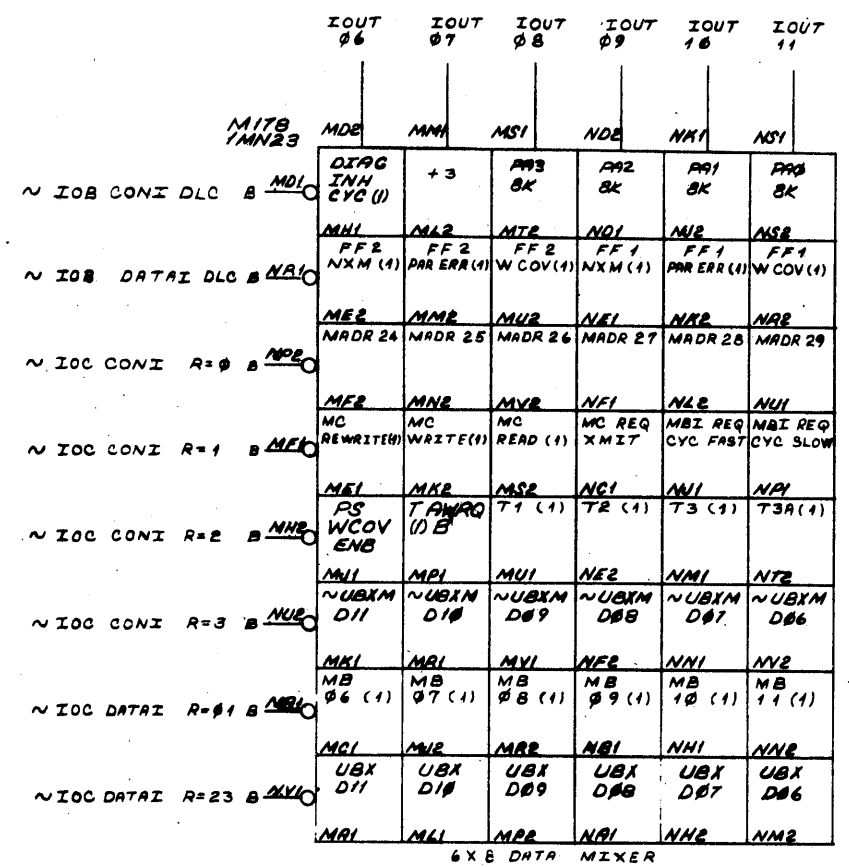
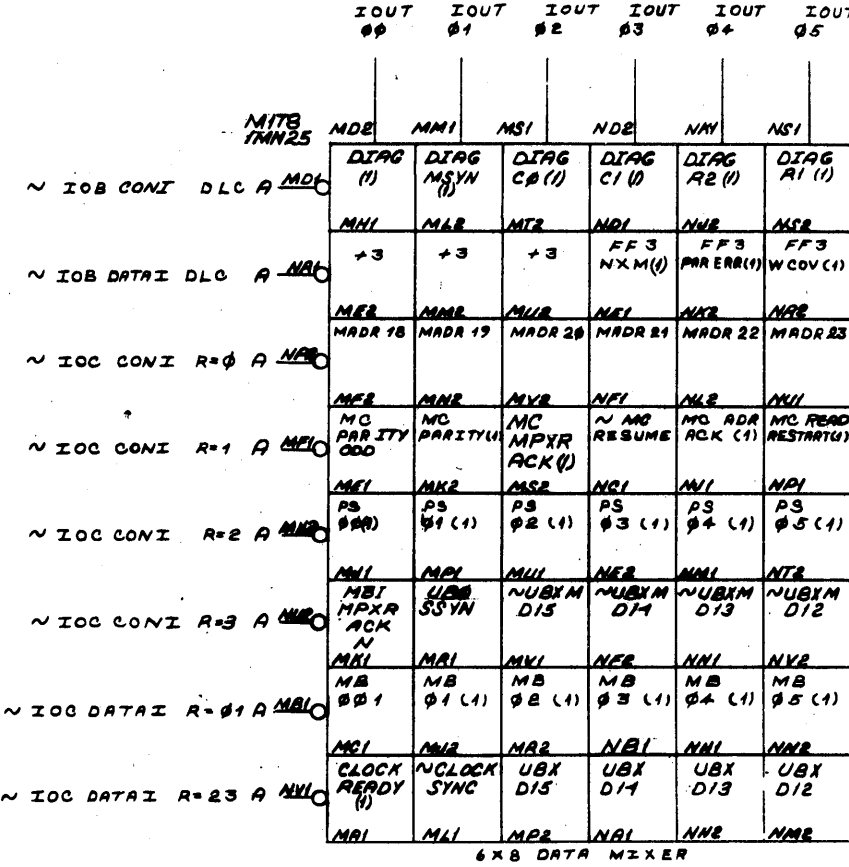


THIS PRINT GENERATED BY DL10-A  
 ECO # DL10-A-00013 FOR THE  
 DL10-B

DRN: <i>[Signature]</i>	FIRST USED ON	<b>digital</b>
CHK'D: <i>[Signature]</i>	PDP 10	
ENG: <i>[Signature]</i>	TITLE	<b>10 I/O PORT CONTROL</b>
PROD. IN: <i>[Signature]</i>	NUMBER	
NEXT HIGHER ASSY.	SIZE	CODE
A-ML-DL10-A	D	BS
SCALE	DL10-A-I0C3	REV.
SHEET 1 OF 1	DIST.	

REV.	CHANGE NO.	REVISIONS
1	DL10A-00013	ORIGINATED

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NOTE: ALL DATA INPUT SIGNALS (INSIDE THE BOXES) ARE ASSERTED AT LOW.

REV.	CHG.	NO.	DATE	BY
1	DL10A-00003	A	7-29-72	B. WALSH
2	DL10A-00008	B	4-18-74	A. KENT
3	DL10A-00012	C	2 May 74	A. KENT

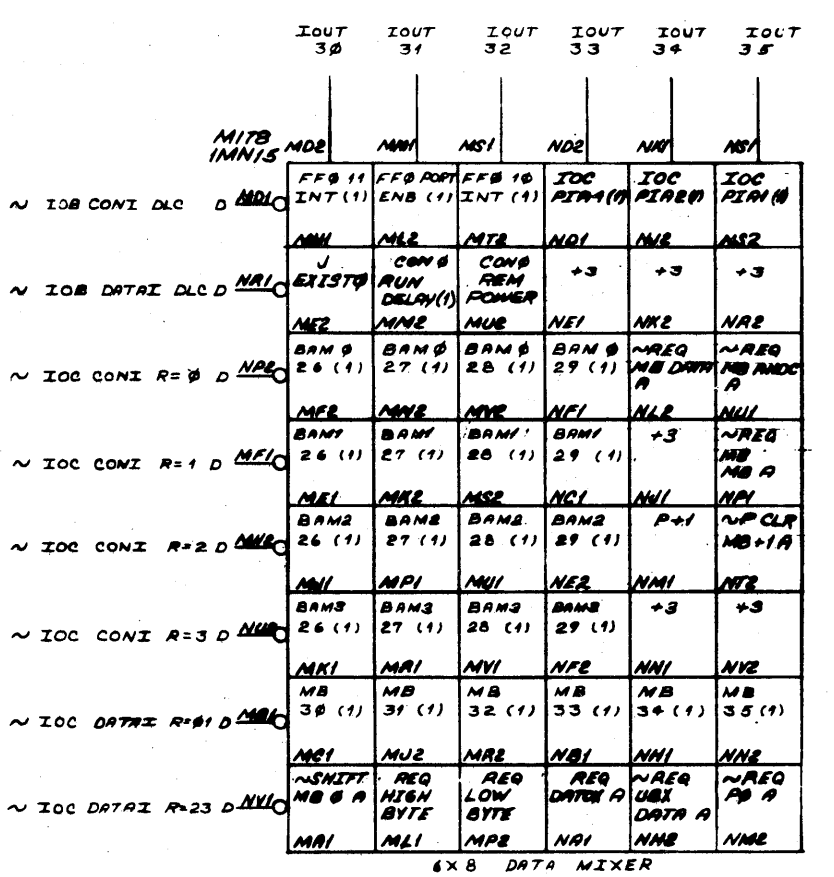
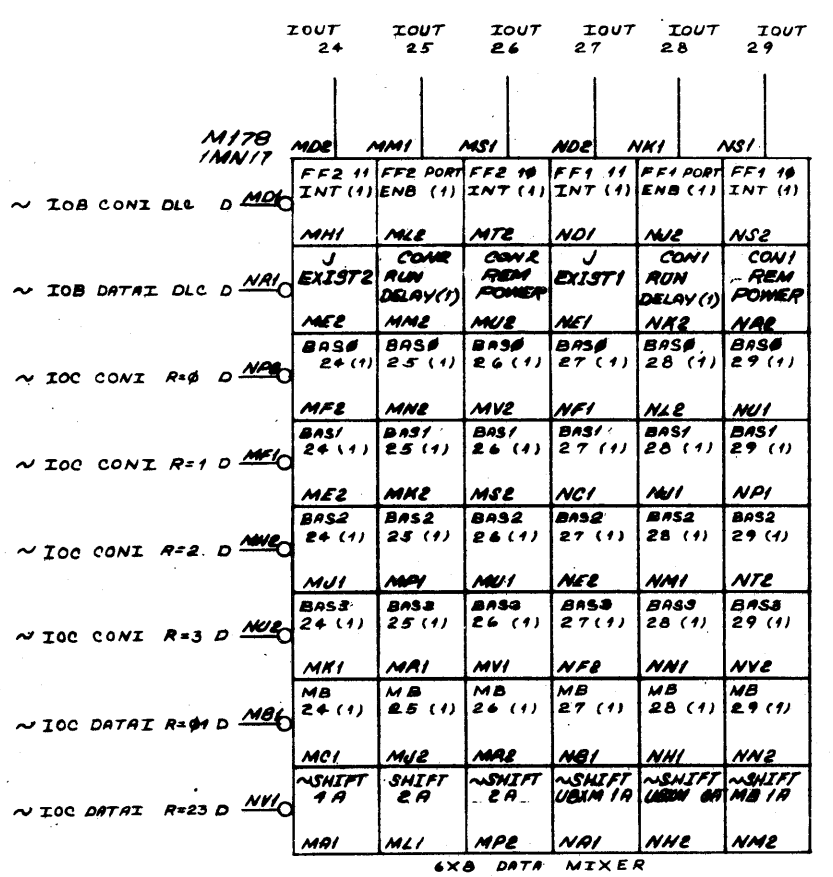
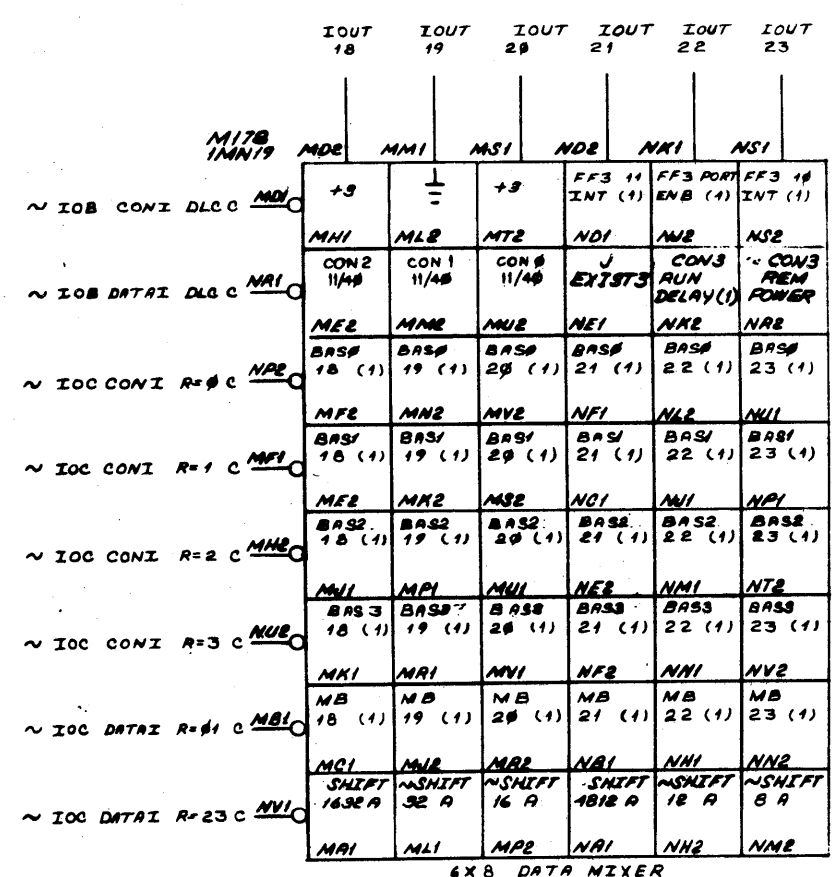
FIRST USED ON OPTION/MODEL PDPIØ

DO NOT SCALE DRAWING  
UNLESS OTHERWISE SPECIFIED  
DIMENSION IN INCHES  
TOLERANCES  
DECIMALS FRACTIONS ANGLES  
± .005 ± 1/64 ± 0°30'  
FINAL SURFACE QUALITY  
REMOVE BURRS AND BREAK SHARP CORNERS

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
	digital EQUIPMENT CORPORATION MAYFIELD, MASSACHUSETTS		
	TITLE: I/O BUS OUTPUT DATA		
	NEXT HIGHER ASSY: A-ML-DL1Ø-A		
	SCALE: 1 OF 2	SIZE CODE: DES DL1Ø-A-IOUT	NUMBER: B.
	SHEET: 1 OF 2	DIST.	

NOTE: ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

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NOTE: ALL DATA INPUT SIGNALS (INSIDE THE BOXES) ARE ASSERTED AT LOW.

REV	1
CHK	

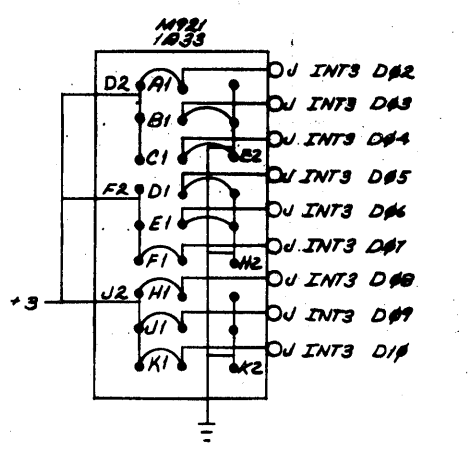
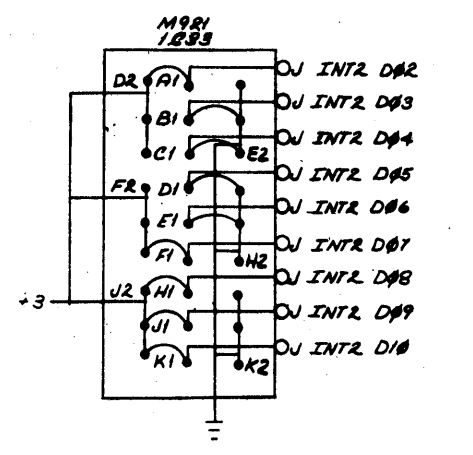
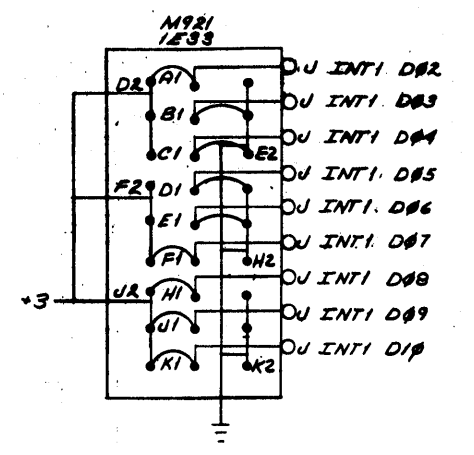
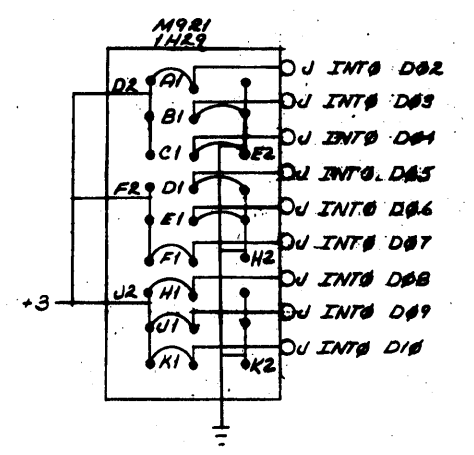
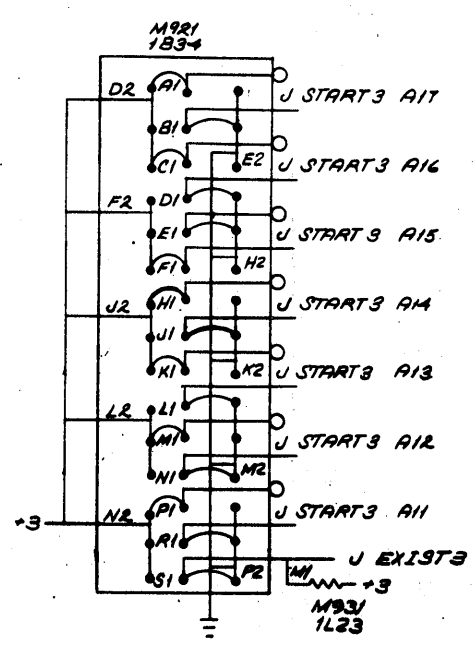
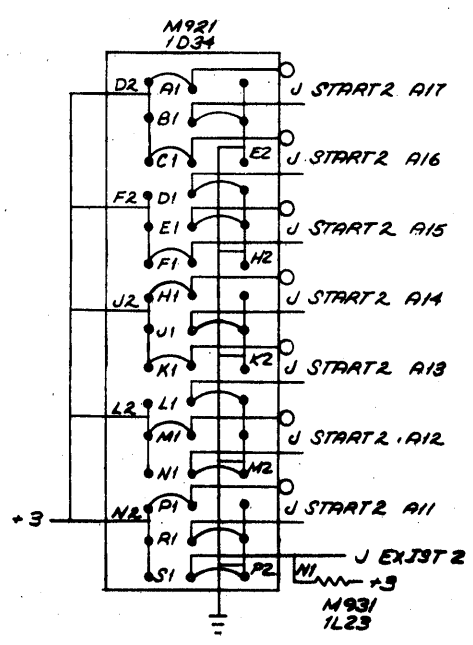
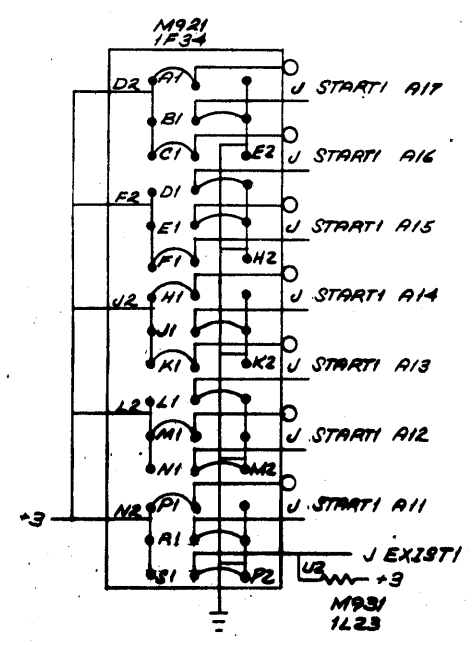
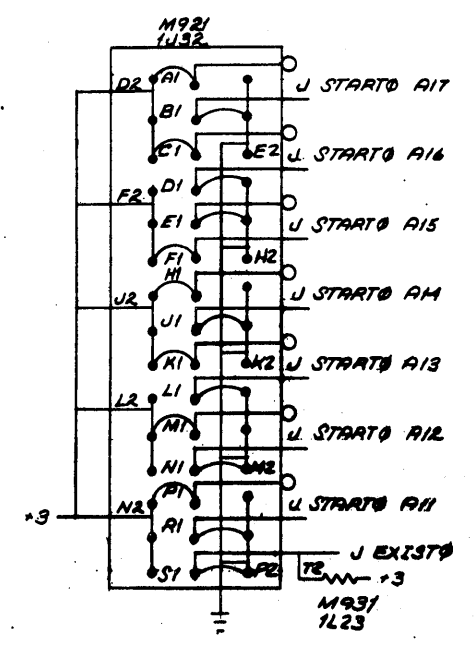
FIRST USED ON OPTION MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
EQUIPMENT CORPORATION BOSTON, MASSACHUSETTS				
TITLE I/O BUS OUTPUT DATA				
NEXT HIGHER ASSY A-ML-DLIQ-A				
SCALE SHEET 2 OF 2				
DESIGNATION DES DLIQ - A IOUT B				

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

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DL10-A-JUMP

- NOTES:**
- THE STANDARD ADDRESS IN PDP-11 MEMORY FOR THE DL10 CONTROL WORD IS 100000. THIS IMPLIES JUMPER:  
 J START A17: A1-D2 B1-E2  
 J START A16: C1-D2 D1-H2  
 J START A15: E1-H2 F1-F2  
 J START A14: H1-J2 J1-K2  
 J START A13: K1-J2 L1-M2  
 J START A12: M1-L2 N1-M2  
 J START A11: P1-N2 P1-P2
  - THE ADDRESS MUST BE A MULTIPLE OF 8K WORDS IF THE "8K" OPTION IS BEING USED. THIS IMPLIES BITS A13-A11 MUST BE 0 FOR THE 8K OPTION.
  - THE S1-P2 JUMPER GIVES A BIT TO THE PDP-10 PROGRAM THAT A PDP-11 PORT EXISTS. IF THE PORT DOES NOT EXIST, EITHER REMOVE THE M921 MODULE OR JUMPER S1-N2 INSTEAD.
  - THE STANDARD PDP-11 INTERRUPT VECTOR ADDRESS FOR THE DL10 IS LOCATION 170. THIS MEANS JUMPERS:  
 J INT D02: A1-D2  
 J INT D03: B1-E2  
 J INT D04: C1-H2  
 J INT D05: D1-A2  
 J INT D06: E1-H2  
 J INT D07: F1-F2  
 J INT D08: H1-J2  
 J INT D09: J1-J2  
 J INT D10: K1-J2
  - TO DISABLE AN UNUSED UNIBUS PORT, INSERT THE FOLLOWING JUMPERS ON THE M921 IN 1H29:  
 PORT 1: L1-M2  
 PORT 2: M1-M2  
 PORT 3: N1-M2
- SEE ALSO PR1, PR2, AND PR3.

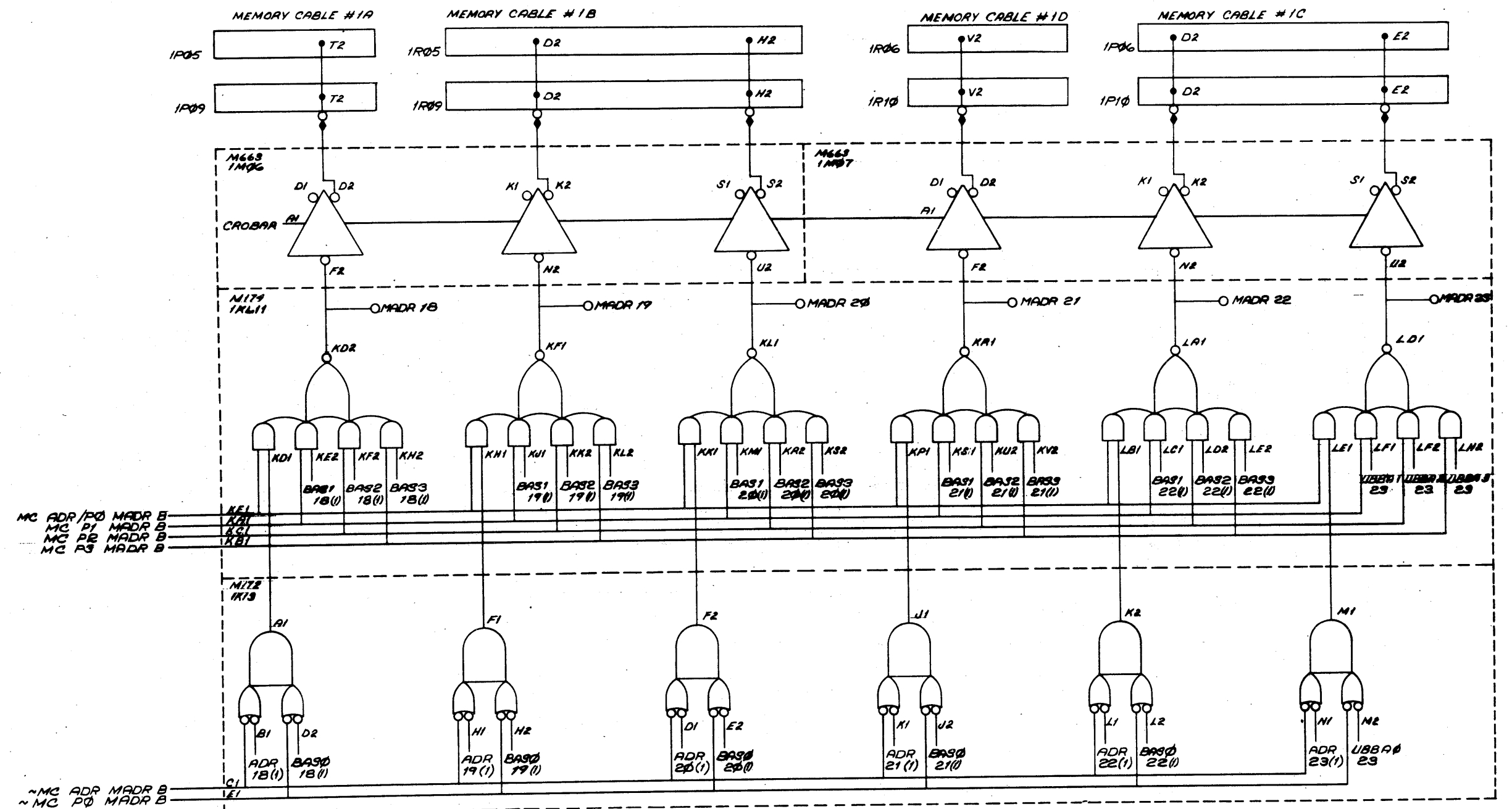


REV	CHANGE NO.	DATE
1	DL10A-00001	1/19/71
2	DL10A-00003	11/19/71
3	DL10A-00004	12/17/71

**NOTE**  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .008 ± 1/64 ± 0°30'	DATE 1-19-71	DATE 11/19/71	DATE 12/17/71	DATE
MATERIAL		FINISH		
SCALE NONE		SHEET 1 OF 1		
DIGITAL CORPORATION MAYNARD, MASSACHUSETTS		EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
TITLE JUMPERS		SIZE CODE DL10-A-JUMP		

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MC ADR/P0 MADR B  
 MC P1 MADR B  
 MC P2 MADR B  
 MC P3 MADR B

~MC ADR MADR B  
 ~MC P0 MADR B

NOTE: PINS C2, F2, J2, L2, N2, R2, U2, AND T1 ARE GROUNDED ON ALL CABLES

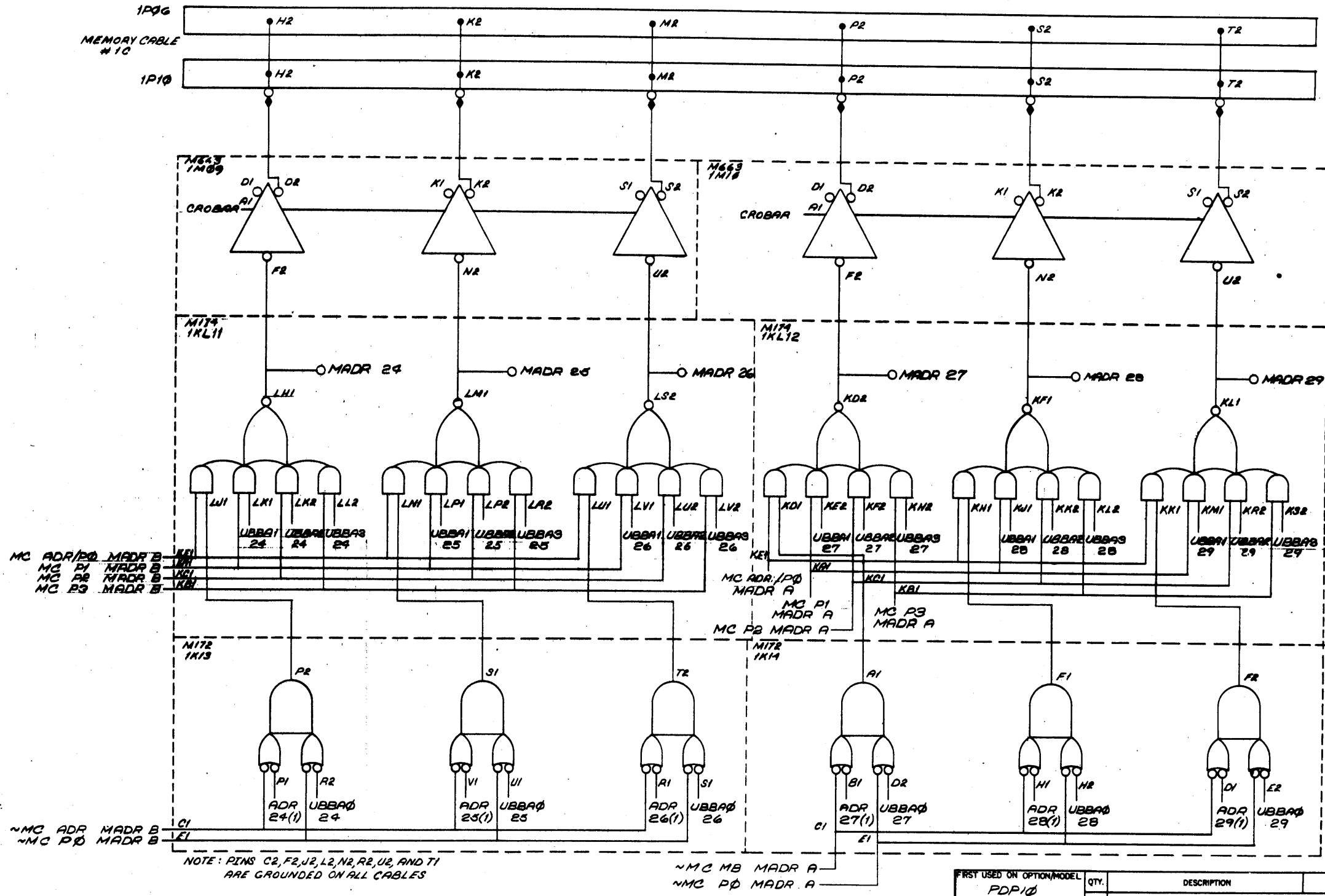
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
= .005 = 1/64 = 0°30'				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
FINISH				
UNLESS OTHERWISE SPECIFIED		DRN	DATE	
UNLESS OTHERWISE SPECIFIED		CHKD	DATE	
UNLESS OTHERWISE SPECIFIED		ENG.	DATE	
UNLESS OTHERWISE SPECIFIED		PROL. ENG.	DATE	
UNLESS OTHERWISE SPECIFIED		PROD.	DATE	
UNLESS OTHERWISE SPECIFIED		TEST.	DATE	
NEXT HIGHER ASSY.				
A-ML-DL10-A				
SCALE				
SHEET 1 OF 3				
TITLE		PARTS LIST		
MEMORY ADDRESS MIXER		EQUIPMENT CORPORATION		
(BITS 18-23)		MAYNARD MASSACHUSETTS		
SIZE CODE		NUMBER		
D B S D L 1 0 - A - M A D R		REV		

REV.	CHANGE NO.

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BS DL10-A-MADR 2



MC ADR/P0 MADR B  
MC P1 MADR B  
MC P2 MADR B  
MC P3 MADR B

MC ADR/P0 MADR A  
MC P1 MADR A  
MC P2 MADR A  
MC P3 MADR A

~MC ADR MADR B  
~MC P0 MADR B

~MC MB MADR A  
~MC P0 MADR A

NOTE: PINS C2, F2, J2, L2, N2, R2, U2, AND T1 ARE GROUNDED ON ALL CABLES

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

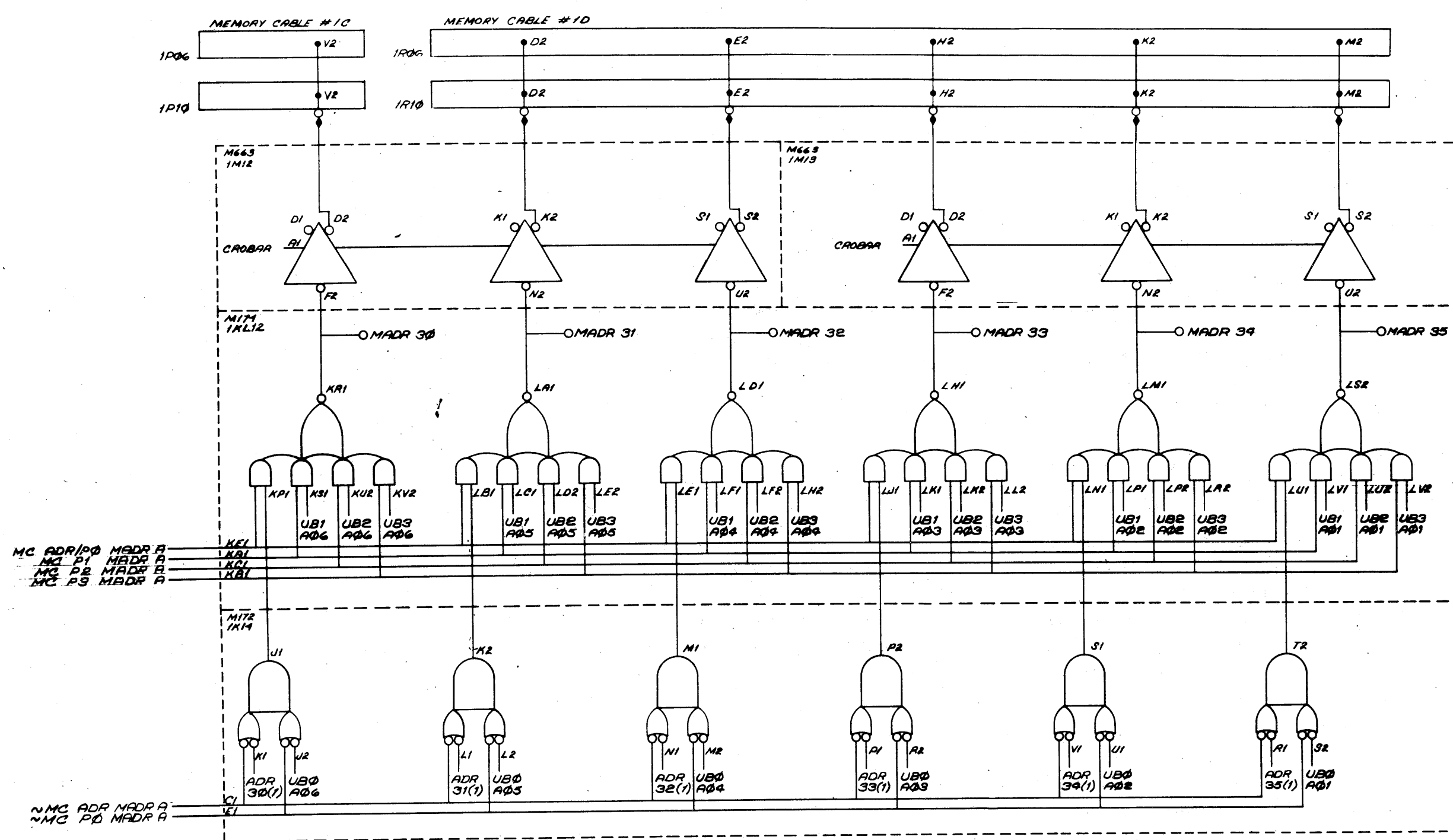
REV.	DATE	DESCRIPTION	PART NO.	ITEM NO.
1	11/19/71	MEMORY ADDRESS MIXER (BITS 24-29)	D/BS DL10-A-MADR	
2	12/10/71			

UNLESS OTHERWISE SPECIFIED	DRN	DATE	
DIMENSION IN INCHES	CHKD	DATE	
TOLERANCES	ENG	DATE	
DECIMALS FRACTIONS ANGLES	PROJ. ENG.	DATE	
± 0.05 ± 1/64 ± 0°	PROD.	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS	NEXT HIGHER ASSY.		
MATERIAL			
FINISH			

REV.	DATE
1	11/19/71
2	12/10/71

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MC ADR/P0 MADR A  
 MC P1 MADR A  
 MC P2 MADR A  
 MC P3 MADR A

~MC ADR MADR A  
 ~MC P0 MADR A

NOTE: PINS C2, F2, J2, L2, N2, R2, U2, AND T1, ARE GROUNDED ON ALL CABLES

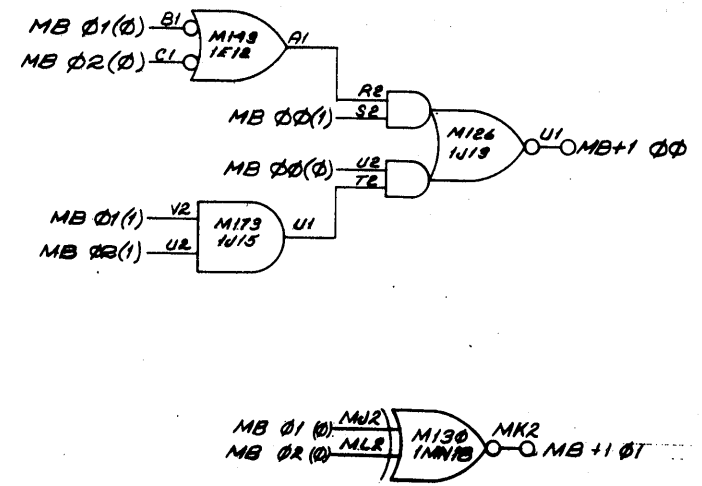
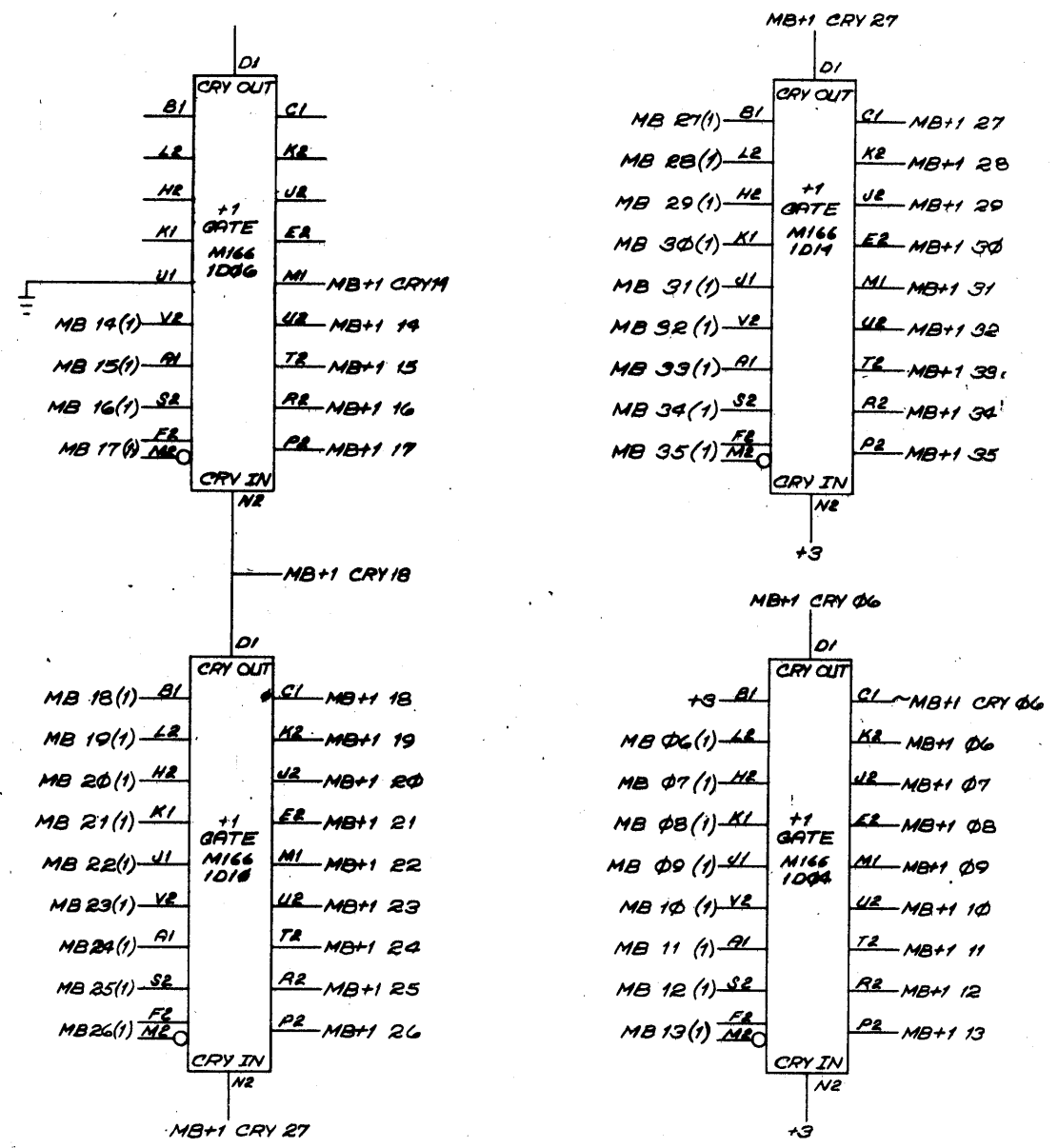
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DRN	DATE	digital EQUIPMENT CORPORATION		
5/21/70	5/21/70	MAYNARD, MASSACHUSETTS		
UNLESS OTHERWISE SPECIFIED	DATE	TITLE		
CH'D	DATE	MEMORY ADDRESS MIXER		
11/29/71	11/29/71	(BITS 30-35)		
UNLESS OTHERWISE SPECIFIED	DATE	SIZE CODE		
± .005	± 1/64	D BS DL10-A-MADR		
± .005	± 0.30°	NUMBER		
FINAL SURFACE QUALITY	REMOVE BURRS AND BREAK SHARP CORNERS	DIST.		
MATERIAL	PROD	A-ML-DL10-A		
FINISH	SCALE	SHEET 3 OF 3		
		REV		

REV	CHANGE NO.	CHK

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DBS DL10-A-MB+1 2



NOTES:  
MB 02(0) = MB+1 02

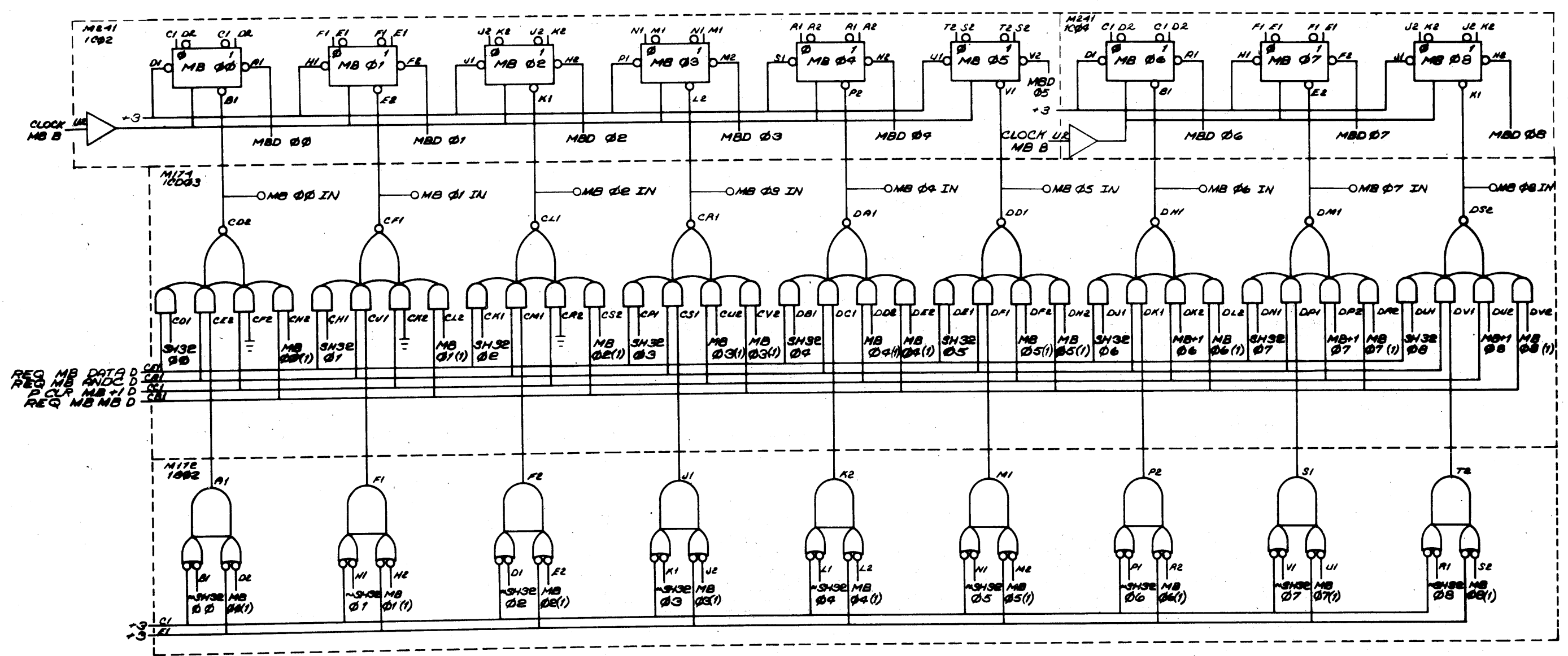
NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV.	
CHG.	
NO.	

FIRST USED ON OPTION MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .008	± 1/64	± 0°30'		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	DATE	DATE	TITLE	
	11/19/71	11/19/71	MB+1	
FINISH	SCALE	SCALE	SIZE CODE	NUMBER
	NONE	NONE	DBS	DL10-A-MB+1
	SHEET	1 OF 1	DIST.	

DBS DL10-A-MB+1

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REQ MB DATA D  
 REQ MB ANDC D  
 P CLR MB +1 D  
 REQ MB MB D

REV.	
CHG.	
CHK.	

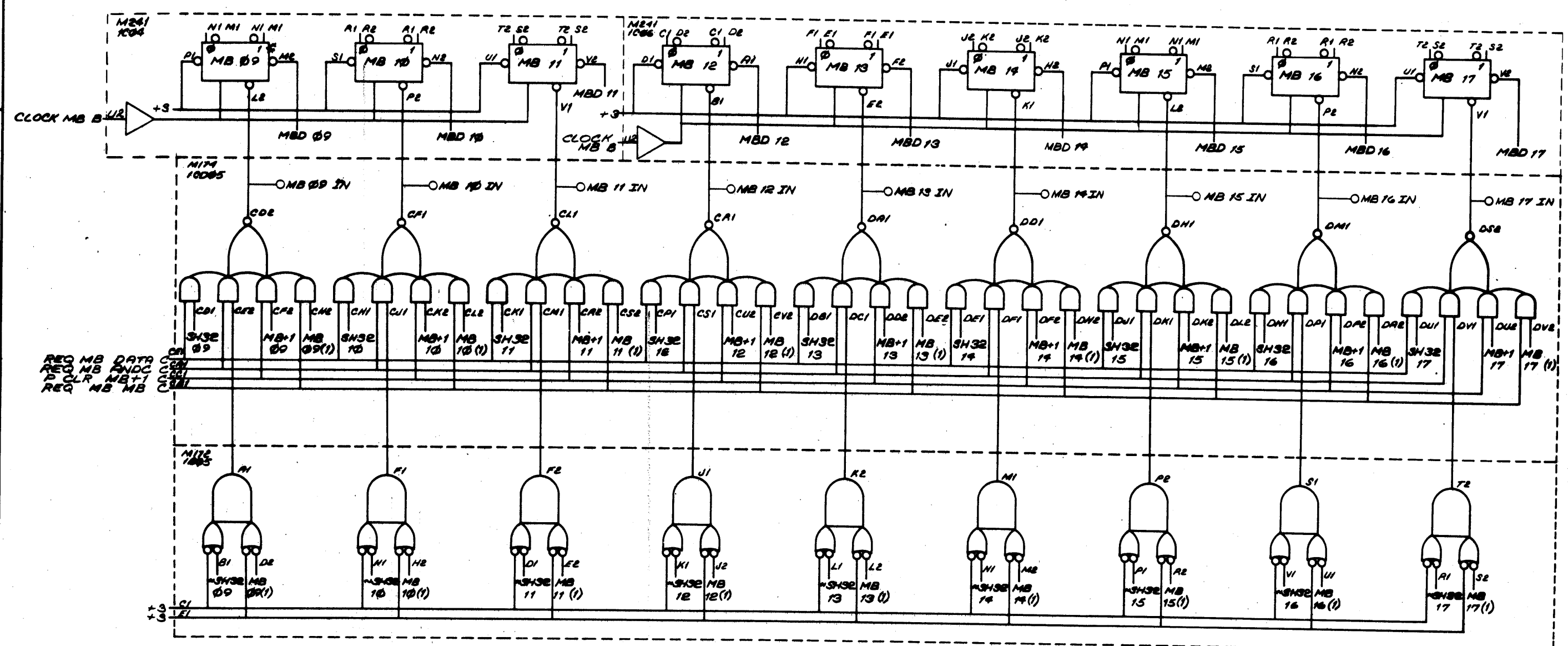
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL  
 PDP10

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	DO NOT SCALE DIMENSIONS
TOLERANCES DECIMALS FRACTIONS APPLICABLE	
±.005 ±.010 ±.015	
FULL SURFACE QUALITY / REMOVE BURRS AND SHARP CORNERS	
MATERIAL	---
FINISH	---

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
EQUIPMENT CORPORATION			
TITLE			
MEMORY BUFFER			
(BITS 00-08)			
A-ML-DL10-A			
DBS DL10-A-MB1			
SCALE 1/1			
SHEET 1 OF 1			

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REV.	
CHG.	
REV.	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

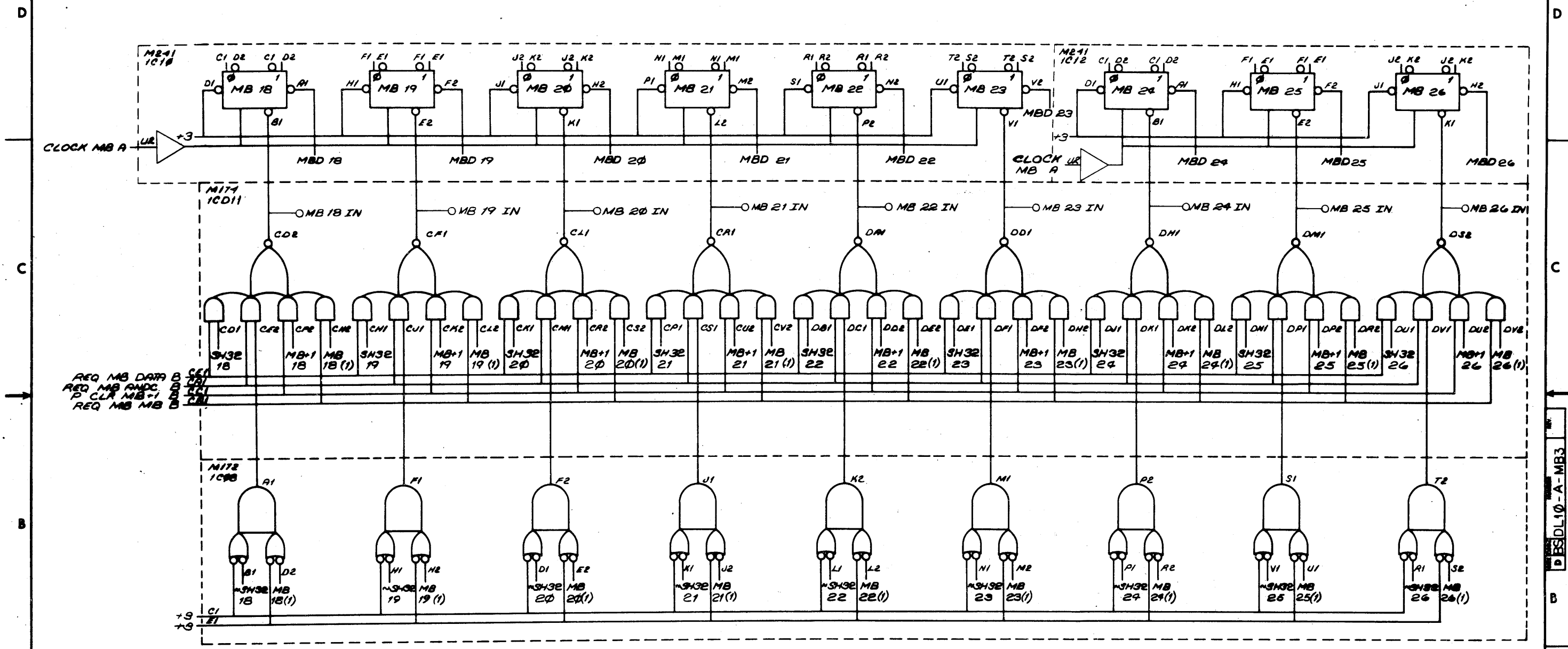
FIRST USED ON OPTION/MODEL  
 PDP-10

UNLESS OTHERWISE SPECIFIED	DATE
TOLERANCES	DATE
DIMENSIONS IN INCHES	DATE
DECIMAL FRACTIONS	DATE
ANGLES	DATE
± .001	DATE
FULL SURFACE QUALITY	DATE
REMOVE DIMS AND DIMS SHAD	DATE
FINISH	DATE

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
	DIGITAL EQUIPMENT CORPORATION MAYFIELD, MASSACHUSETTS		
	TITLE MEMORY BUFFER (BITS 09-17)		
	DRAWN: [Signature] DATE: 11/17/71		
	CHECKED: [Signature] DATE: 11/17/71		
	APPROVED: [Signature] DATE: 12/17/71		
	NEXT HIGHER ASSY A-ML-DL10-A		
	SCALE: 1/1		
	SHEET 1 OF 1		
	DWT.		

D B S D L 1 0 - A - M B 2

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REV.	CHG.	NO.

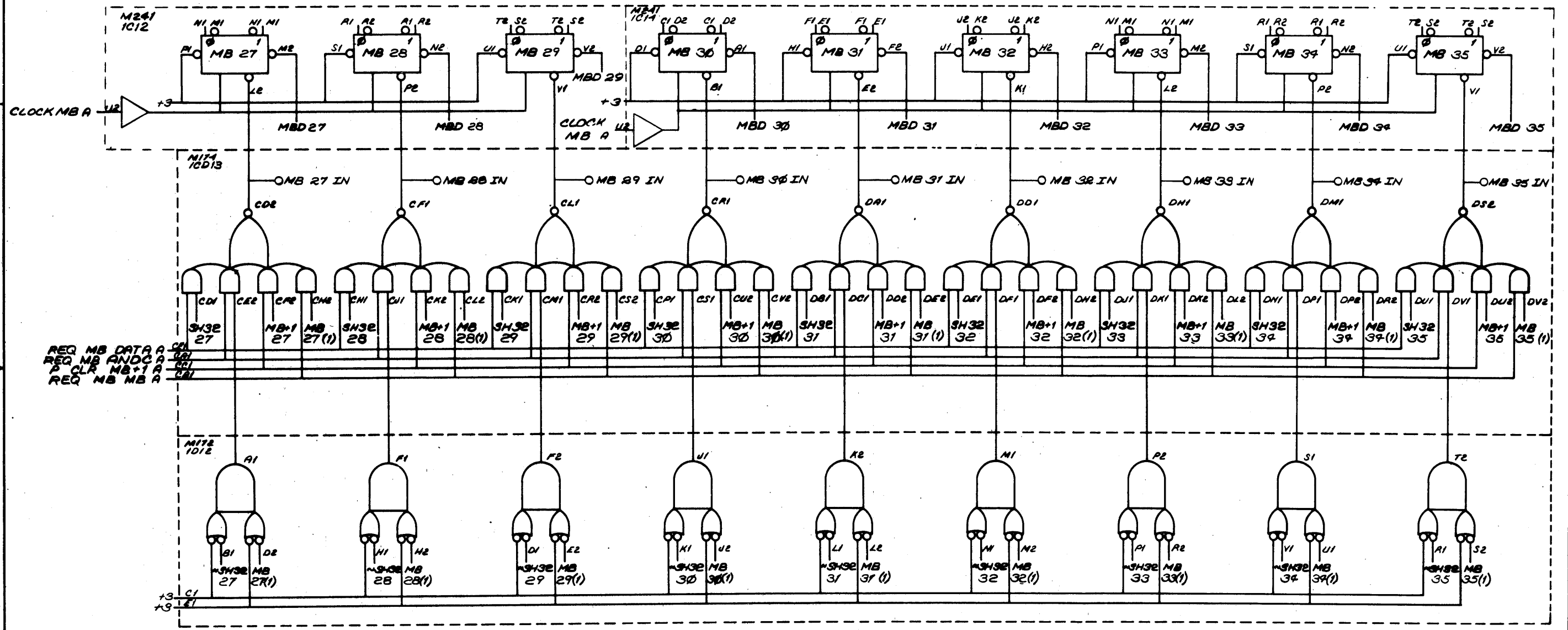
FIRST USED ON OPTION/MODEL  
 PDP10

DO NOT SCALE DRAWING  
 UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS IN INCHES  
 TOLERANCES  
 DECIMALS FRACTIONS ANGLES  
 ± .005 ± 1/64 ± 0°30'  
 FINISH SURFACE QUALITY  
 REMOVE BURRS AND BREAK SHARP CORNERS  
 MATERIAL  
 FINISH

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
	DRP	DATE	
	CHKD	DATE	
	ENG	DATE	
	PROJ. ENG.	DATE	
	PROD.	DATE	
	NEXT HIGHER ASSY		
	SCALE		
	SHEET	OF	
	EQUIPMENT CORPORATION BARTHELEME, MASSACHUSETTS		
	TITLE MEMORY BUFFER (BITS 18-26)		
	DBS DL10-A-MB3		

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REQ MB DATA A - C01  
 REQ MB AND C A - C01  
 P CLR MB+1 A - C01  
 REQ MB MB A - C01

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL  
 PDP10

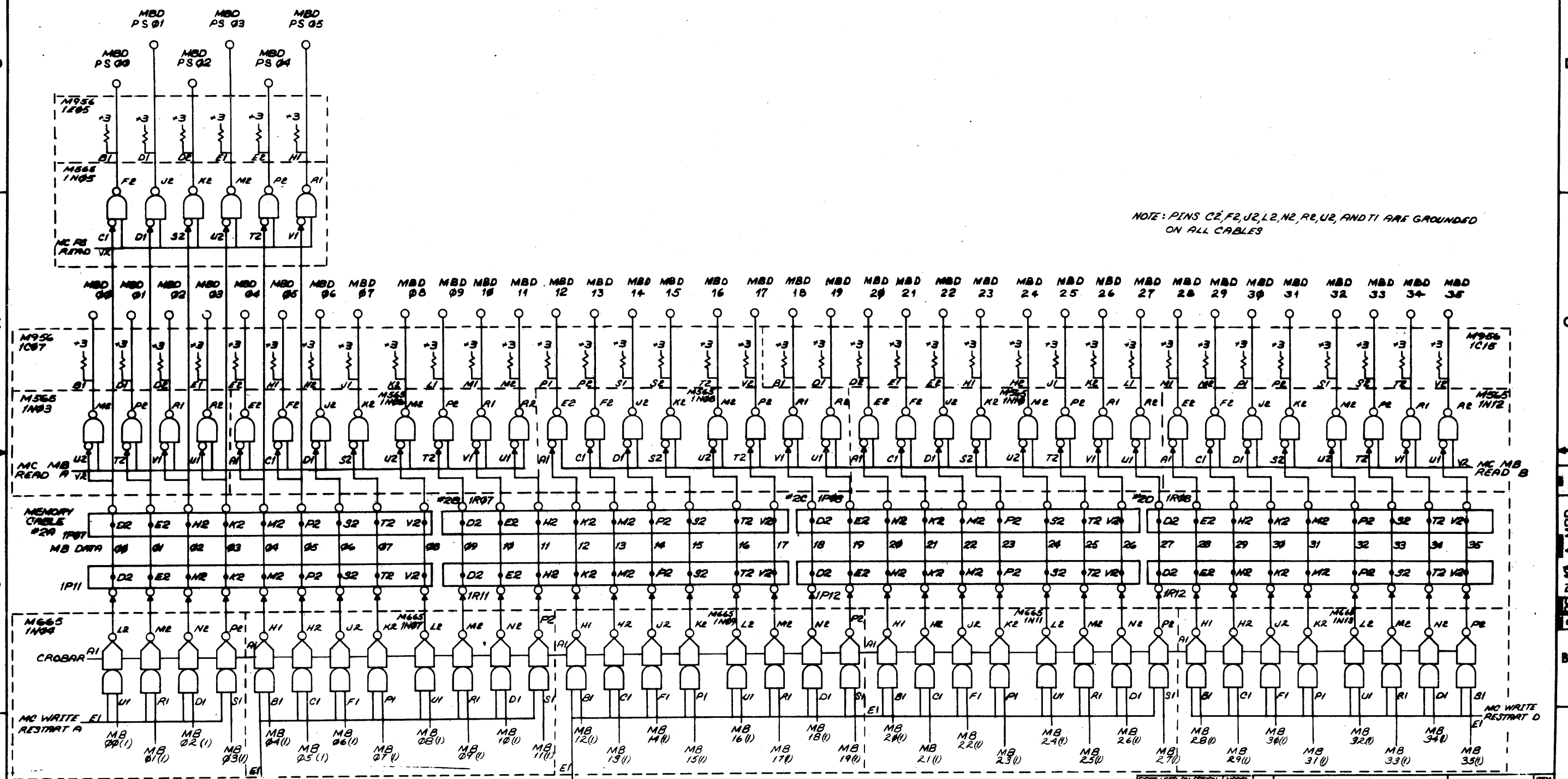
DO NOT SCALE DRAWING  
 UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS IN INCHES  
 TOLERANCES  
 DECIMALS FRACTIONS ANGLES  
 ± .005 ± .002 ± 1/16 ± 1/32  
 FINISH SURFACE QUALITY 1  
 REMOVE BURRS AND BREAK SHARP EDGES  
 MATERIAL  
 FINISH

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
	digital EQUIPMENT CORPORATION MAYFORD, MASSACHUSETTS		
	TITLE MEMORY BUFFER BITS 27-35		
	SIZE/CODE NUMBER D B S D L 1 0 - A - M B 4		
	SHEET 1 OF 1		

REV.	CHG. NO.	REVISIONS

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NOTE: PINS C2, F2, J2, L2, N2, R2, U2, AND T1 ARE GROUNDED ON ALL CABLES

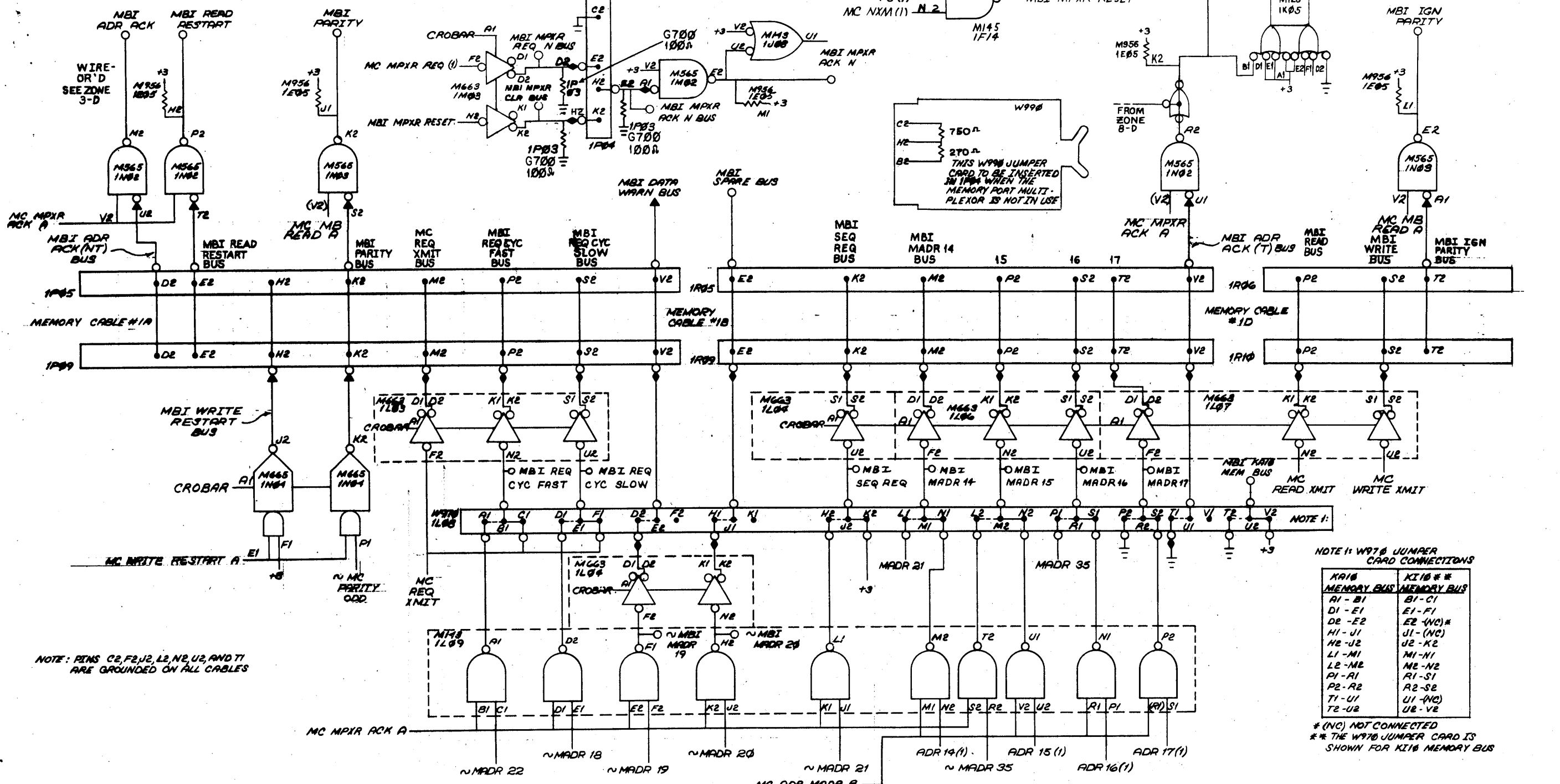


REV	DATE	BY	CHK
1	11/17/71	W. J. ...	...

NOTE: ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES 'O' ARE AS IF SUFFIXED WITH 'L'. ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH 'H'.

<p>FIRST USED ON OPTION / MODEL PDP10</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES</p> <p>TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± .075</p> <p>FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS</p> <p>MATERIAL</p> <p>FINISH</p>	<p>QTY.</p> <p>DESCRIPTION</p> <p>PARTS LIST</p> <p>EQUIPMENT CORPORATION MAYFIELD MASSACHUSETTS</p> <p>TITLE MEMORY BUS DATA</p> <p>NEXT HIGHER ASSY A-ML-DL 10-A</p> <p>SCALE NONE</p> <p>SHEET 1 OF 1</p>	<p>PART NO.</p> <p>ITEM NO.</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p> <p>DATE 11/17/71</p>
---	--	--

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NOTE: PINS C2, F2, J2, L2, N2, U2, AND T1 ARE GROUNDED ON ALL CABLES

NOTE 1: W978 JUMPER CARD CONNECTIONS

KR18 MEMORY BUS	KI18 ** MEMORY BUS
R1 - B1	B1 - C1
D1 - E1	E1 - F1
D2 - E2	E2 - (NC) *
H1 - J1	J1 - (NC)
H2 - J2	J2 - K2
L1 - M1	M1 - N1
L2 - M2	M2 - N2
P1 - R1	R1 - S1
P2 - R2	R2 - S2
T1 - U1	U1 - (NC)
T2 - U2	U2 - V2

\* (NC) NOT CONNECTED  
 \*\* THE W978 JUMPER CARD IS SHOWN FOR KI18 MEMORY BUS

REVISIONS

CHK	CHANGE NO.	REV.	DATE	BY
	DL10A-00007	A	11/11/73	EGGERS
	DL10A-00008	B	4-18-74	A. KENT
	DL10A-00010	C	2-5-75	A. KENT
	DL10A-00011	D	2-5-75	A. KENT
	DL10A-00012	E	13 Jun 75	A. KENT

NOTE ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

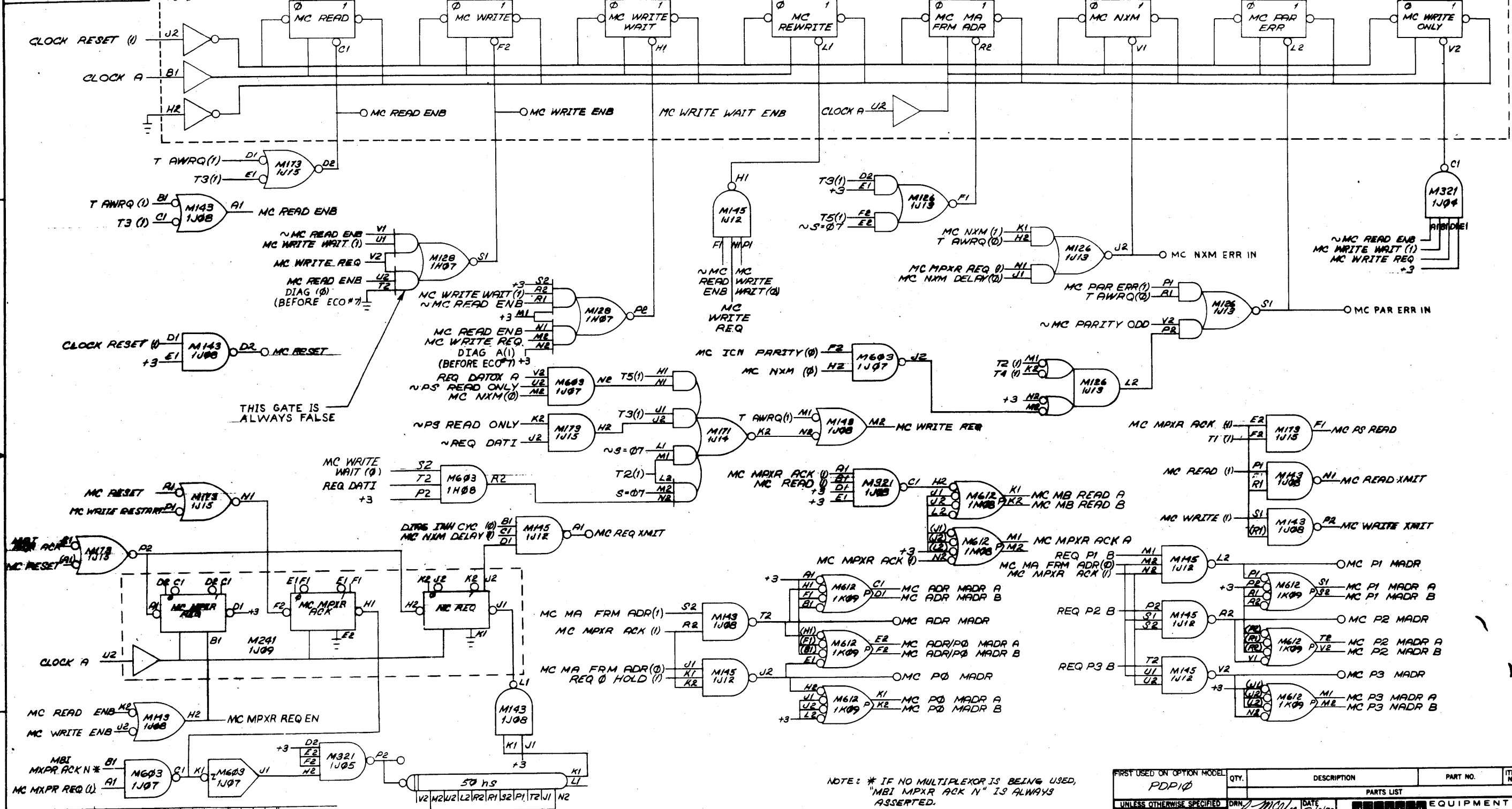
FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED	PARTS LIST			
UNLESS OTHERWISE SPECIFIED	DIMENSION IN INCHES			
TOLERANCES	DECIMALS FRACTIONS ANGLES			
	± .005 ± 1/64 ± 0°30'			
	FINAL SURFACE QUALITY			
	REMOVE BURRS AND BREAK SHARP CORNERS			
MATERIAL	NEXT HIGHER ASSY.			
FINISH	A-ML-DL10-A			
SCALE	D			
SHEET 1 OF 1	DST.			

digital EQUIPMENT CORPORATION  
 MEMPHIS, TENNESSEE 38119

MEMORY BUS INTERFACE

SIZE CODE NUMBER REV  
 DESDL10-A-MBI D

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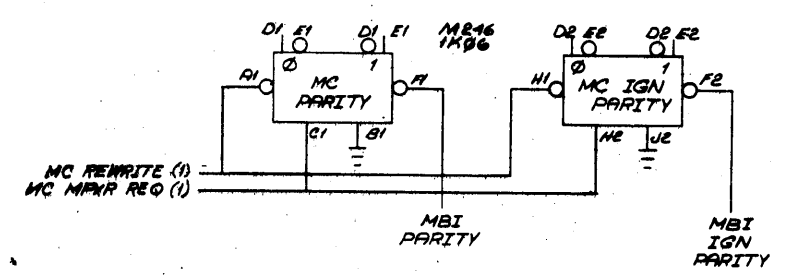
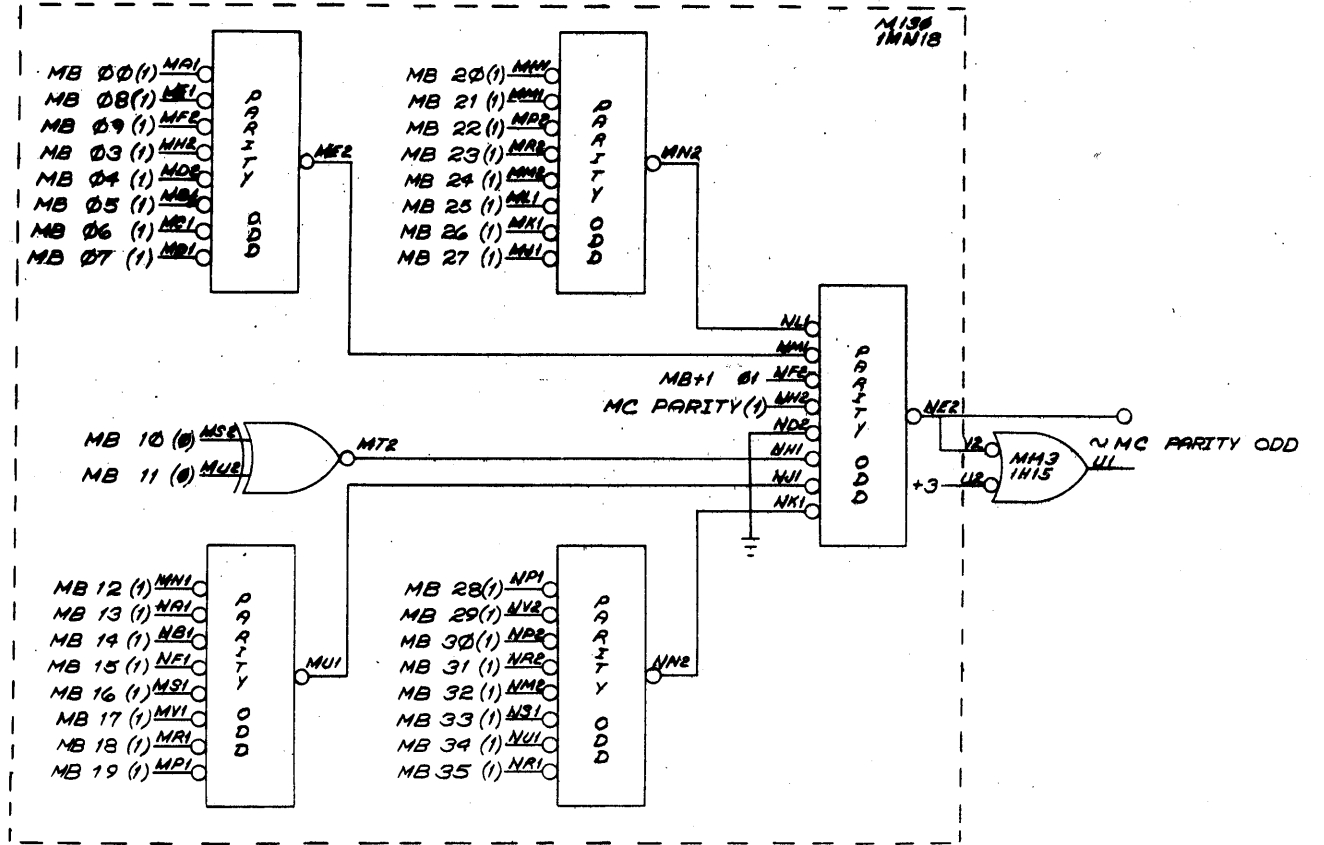
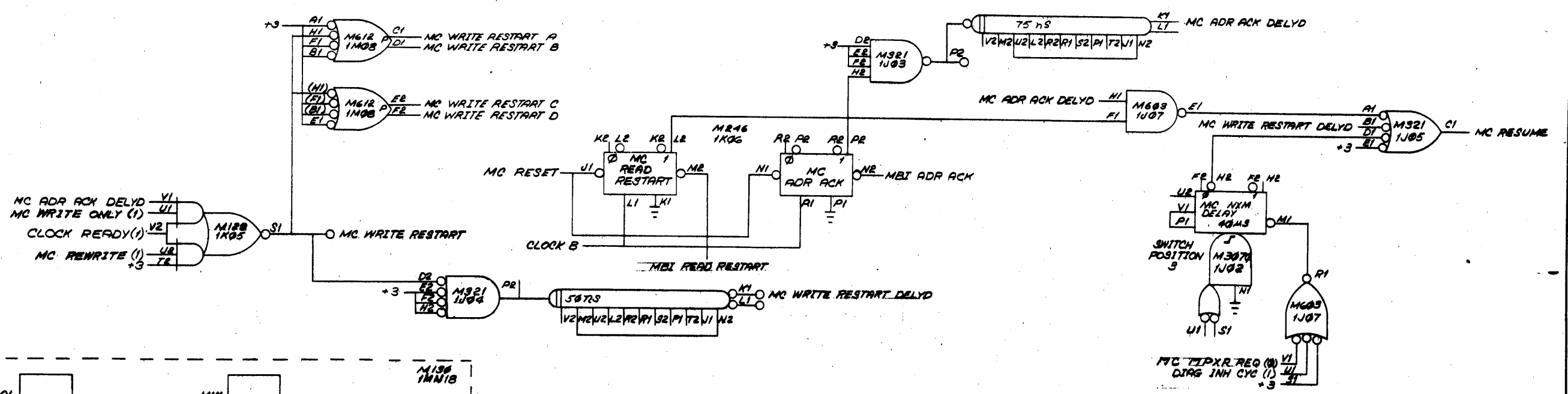
REV	CHANGE NO.	REV
1	DL10A-0001	A
2	DL10A-0003	B
3	DL10A-0007	C
4	DL10A-0008	D
5	DL10A-0014	E
6	DL10A-0014	E
7	DL10A-0014	E
8	DL10A-0014	E

NOTE: \* IF NO MULTIPLEXOR IS BEING USED, "MBI MPXR ACK N" IS ALWAYS ASSERTED.

NOTE: ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRN	DATE	EQUIPMENT	
UNLESS OTHERWISE SPECIFIED	CHRD	DATE	CORPORATION	
DIMENSION IN INCHES	ENG	DATE	MAYNARD, MASSACHUSETTS	
TOLERANCES	PROJ. ENG.	DATE	TITLE	
DECIMALS FRACTIONS ANGLES	PROJ. ENG.	DATE	MEMORY CONTROL	
± .008 ± 1/64 ± 0°30'	PROJ. ENG.	DATE		
FINAL SURFACE QUALITY	PROJ. ENG.	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENG.	DATE		
MATERIAL	NEXT HIGHER ASSY.			
FINISH	A-ML-DL10-A	SCALE	SIZE CODE	NUMBER
		SHEET 1 OF 1	DL10-A-MC1	REV. E

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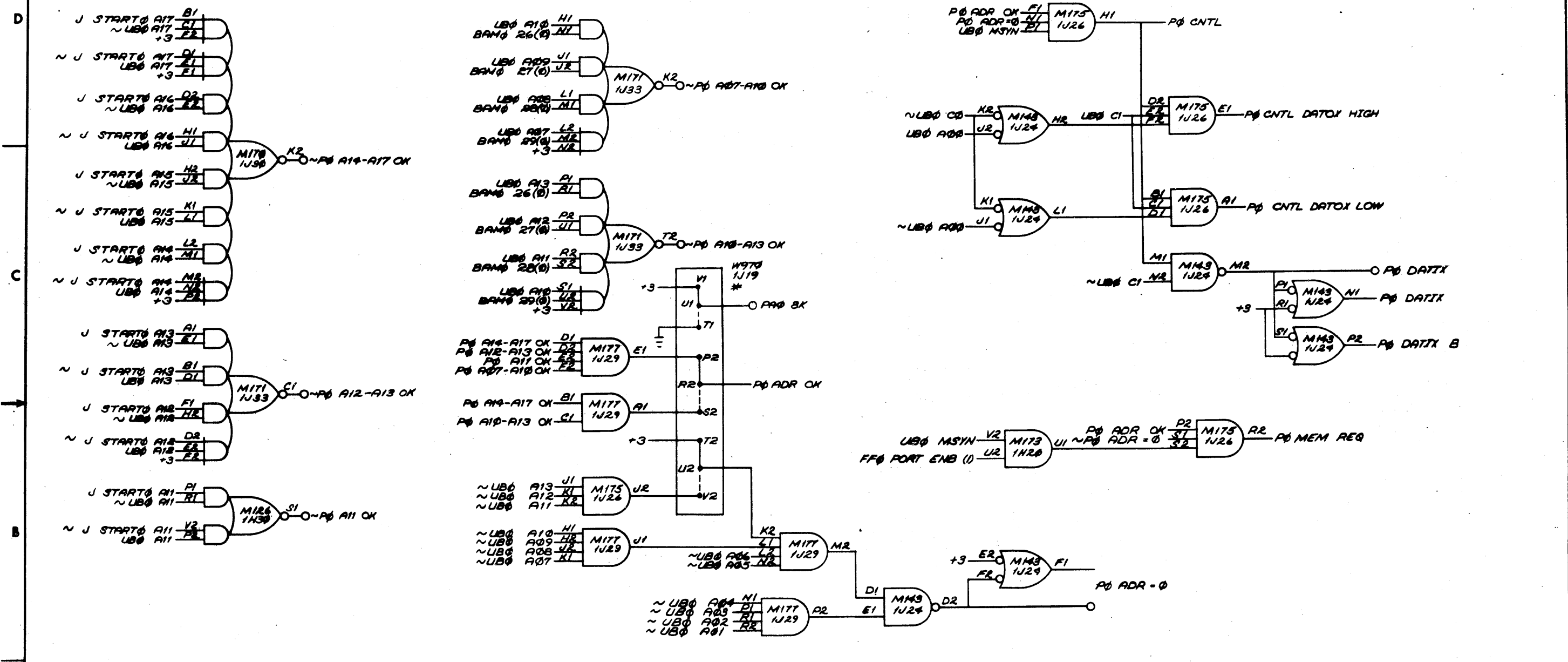


REV	CHG	NO	DATE	BY
1	A	0003	7-24-72	B. WALSH

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .005 ± 1/64 ± 0°30'				
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
NEXT HIGHER ASSY.				
A-ML-DL12-A				
FINISH				
SCALE				
SHEET OF				
DATE 7-9-70				
DRAWN M. Walsh				
CHECKED M. Walsh				
DATE 11/21/72				
ENG. TUE				
DATE 11/21/72				
PROJ. ENG.				
DATE 12/1/71				
PROD. M. Walsh				
DATE 12/1/71				
TITLE				
MEMORY CONTROL				
EQUIPMENT CORPORATION				
MAYNARD, MASSACHUSETTS				
SIZE CODE				
NUMBER				
REV.				
A				
DIST.				
DL12-A-MC2				

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NOTE: \* THE REST OF THIS JUMPER CARD IS SHOWN ON UBBA #1.

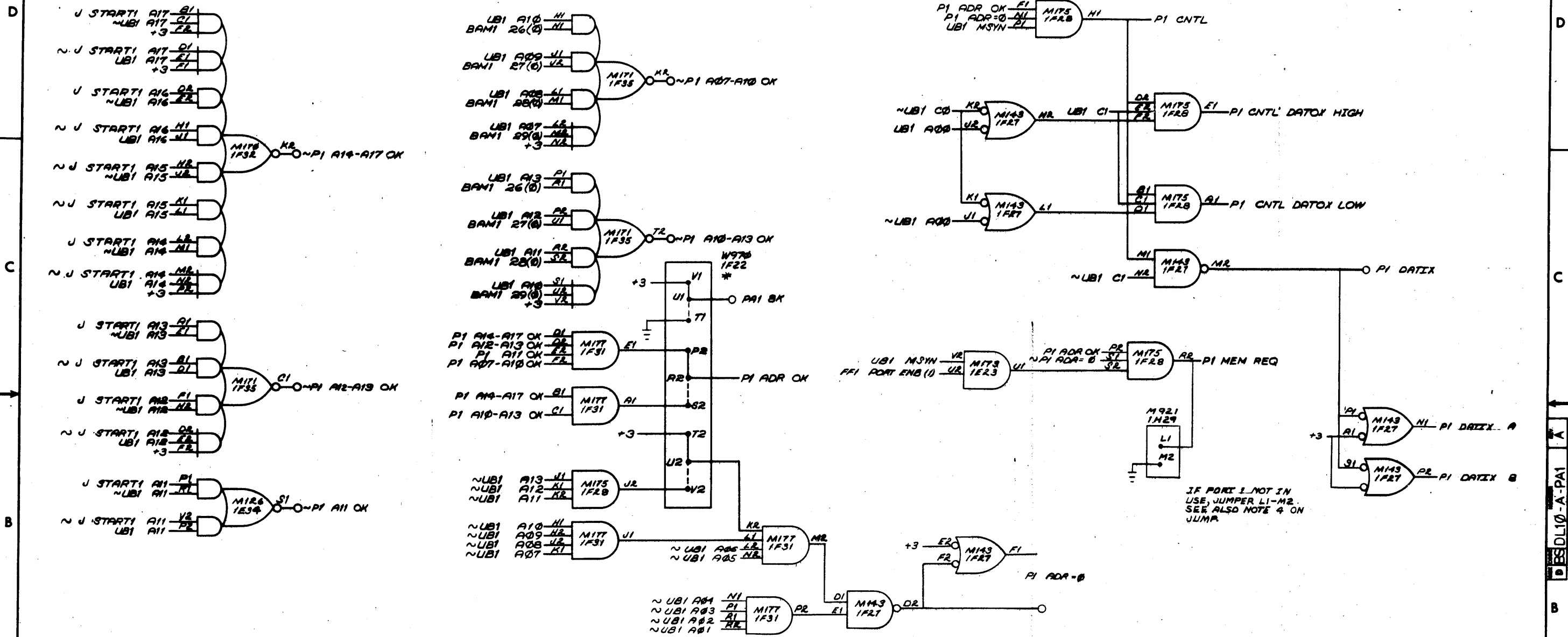
NOTE ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV	CHG	DATE

DEC FORM NO 080 102 A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± 0°30'		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NEXT HIGHER ASSY.			
FINISH	SCALE			
	SHEET 1 OF 1			
TITLE			REV	
UNIBUS PORT 0				
ADDRESS SELECTION				
PARTS LIST			REV	
DBS DL10-A-PA0				
DISTR.				

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IF PORK 1 NOT IN USE, JUMPER L1-M2. SEE ALSO NOTE 4 ON JUMPER.

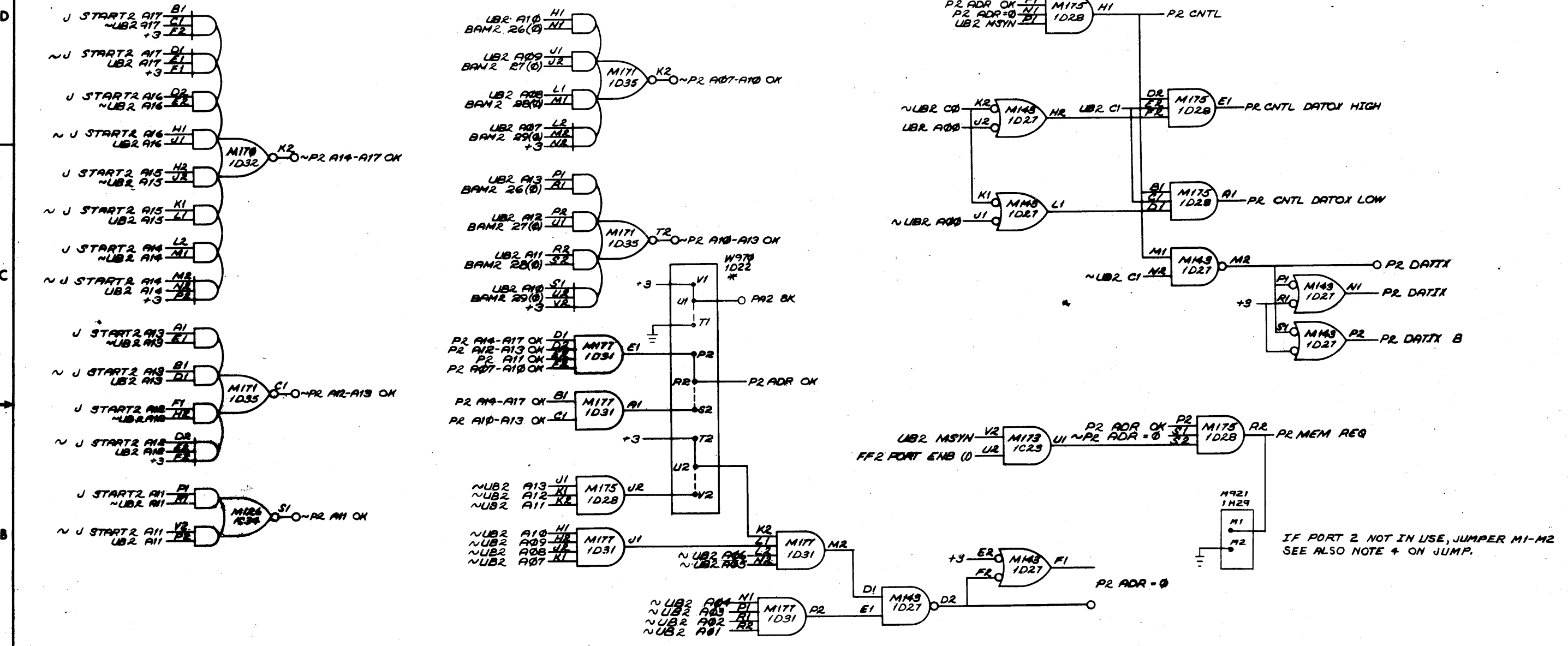
\* NOTE: THE REST OF THIS JUMPER CARD IS SHOWN ON UBB9 #1.

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV.	CHG. NO.	DATE
A	0001	11/17/71
B		
C		
D		

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
DIMENSIONS IN INCHES		DATE 11/17/71		
TOLERANCES		DATE 11/17/71		
DECIMALS	FRACTIONS	DATE 11/17/71		
± .005	± 1/64	DATE 11/17/71		
FINAL SURFACE QUALITY		DATE 11/17/71		
REMOVE BURRS AND BREAK SHARP CORNERS		DATE 11/17/71		
MATERIAL		DATE 11/17/71		
FINISH		DATE 11/17/71		
TITLE UNIBUS PORT 1 ADDRESS SELECTION				
SCALE SHEET 1 OF 1		REV. NO. A		
DIST.		PART NO. DBS DLI0-A-PA1		

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IF PORT 2 NOT IN USE, JUMPER M1-M2 SEE ALSO NOTE 4 ON JUMP.

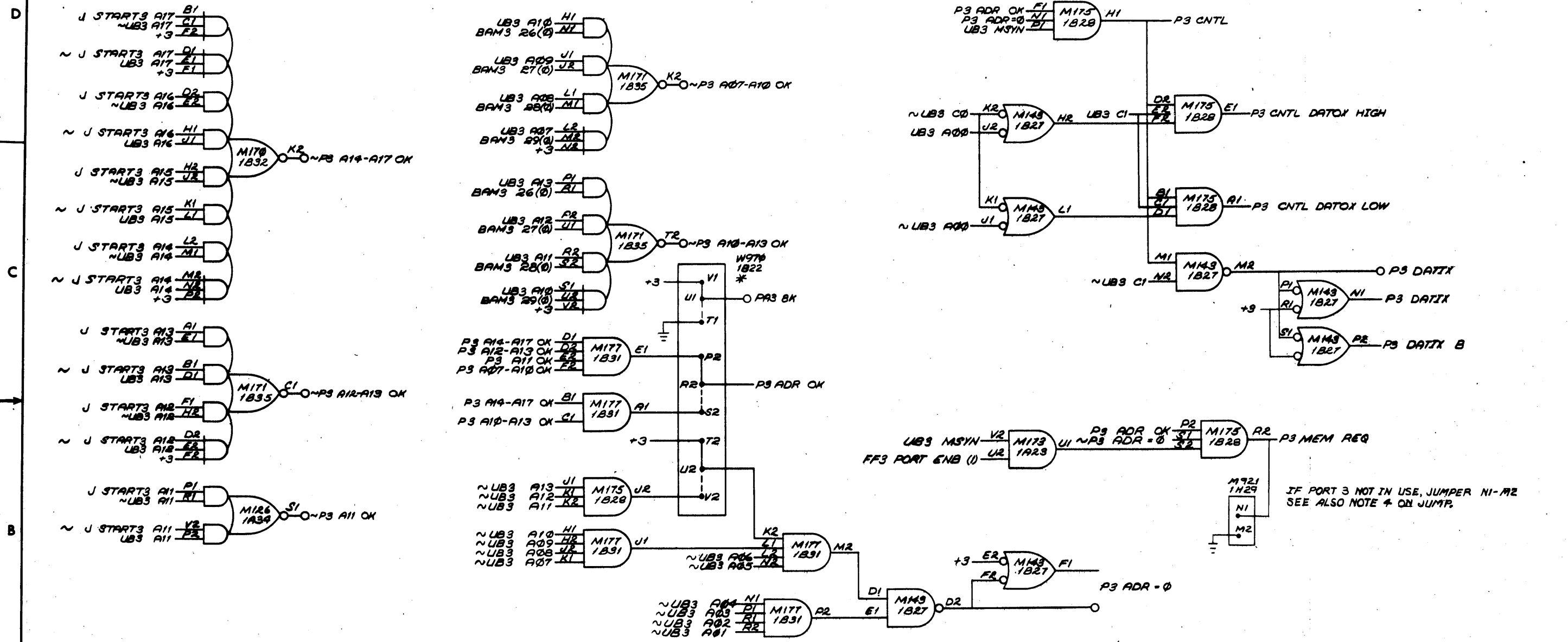
\* NOTE: THE REST OF THIS JUMPER CARD IS SHOWN ON UBBA #2.

NOTE ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV	DATE	BY
1	11/17/70	J. J. ...
2	11/19/70	...
3	11/19/70	...

FIRST USED ON OPTION/MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	PARTS LIST			
TOLERANCES ± .005 ± .010 ± .015 ± .020 ± .030	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	TITLE <b>UNIBUS PORT 2 ADDRESS SELECTION</b>			
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	DRAWING NUMBER <b>DL10-A-PA2</b>			
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	REVISION <b>A</b>			

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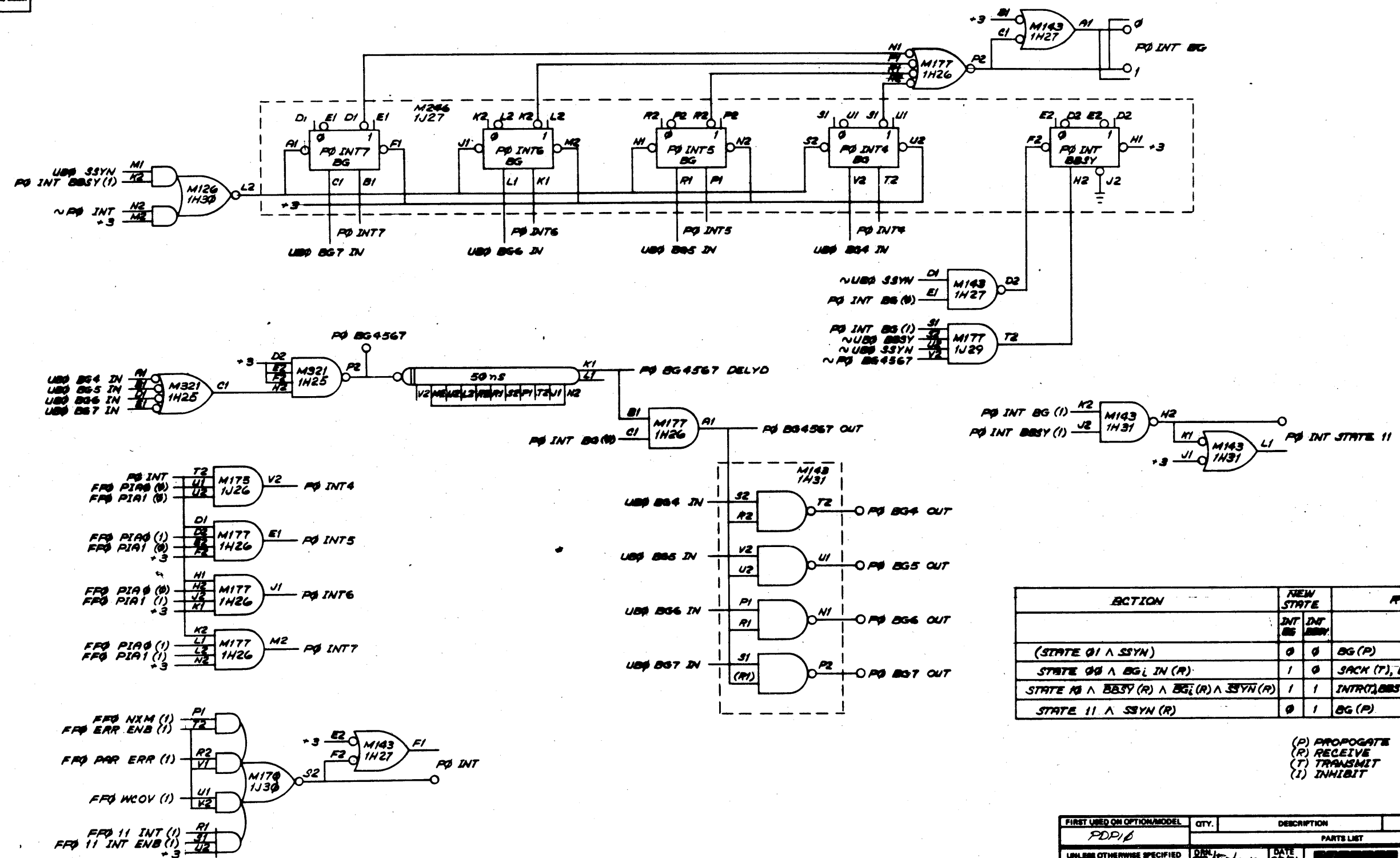
NOTE: \* THE REST OF THIS JUMPER CARD IS SHOWN ON UB8A #2.

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV.	CHG.	NO.	DATE	BY
1		DL10A-0001	4	
2		DL10A-0002	11/11/71	
3		DL10A-0003	11/11/71	

FIRST USED ON OPTION/MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST		
UNLESS OTHERWISE SPECIFIED		digital CORPORATION MAYFORD, MASSACHUSETTS		
DIMENSION IN INCHES		TITLE <b>UNIBUS PORT 3 ADDRESS SELECTION</b>		
DECIMALS FRACTIONS ANGLES		SIZE/CODE NUMBER <b>DBS DL10-A-PA3</b>		
TOLERANCES		SHEET 1 OF 1		
± .005 ± 1/64 ± 0°30'		DST.		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL		NEXT HIGHER ASSY. <b>A-ML-DL10-A</b>		
FINISH				

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ACTION	NEW STATE		RESULT
	INT BG	INT BB SY	
(STATE 01 $\wedge$ SSYN)	0	0	BG (P)
STATE 00 $\wedge$ BG <sub>i</sub> IN (R)	1	0	SACK (T), BS (I)
STATE 10 $\wedge$ BB SY (R) $\wedge$ BG <sub>i</sub> (R) $\wedge$ SSYN (R)	1	1	INTR (T), BB SY (T), DCT, BG <sub>i</sub> (I)
STATE 11 $\wedge$ SSYN (R)	0	1	BG (P)

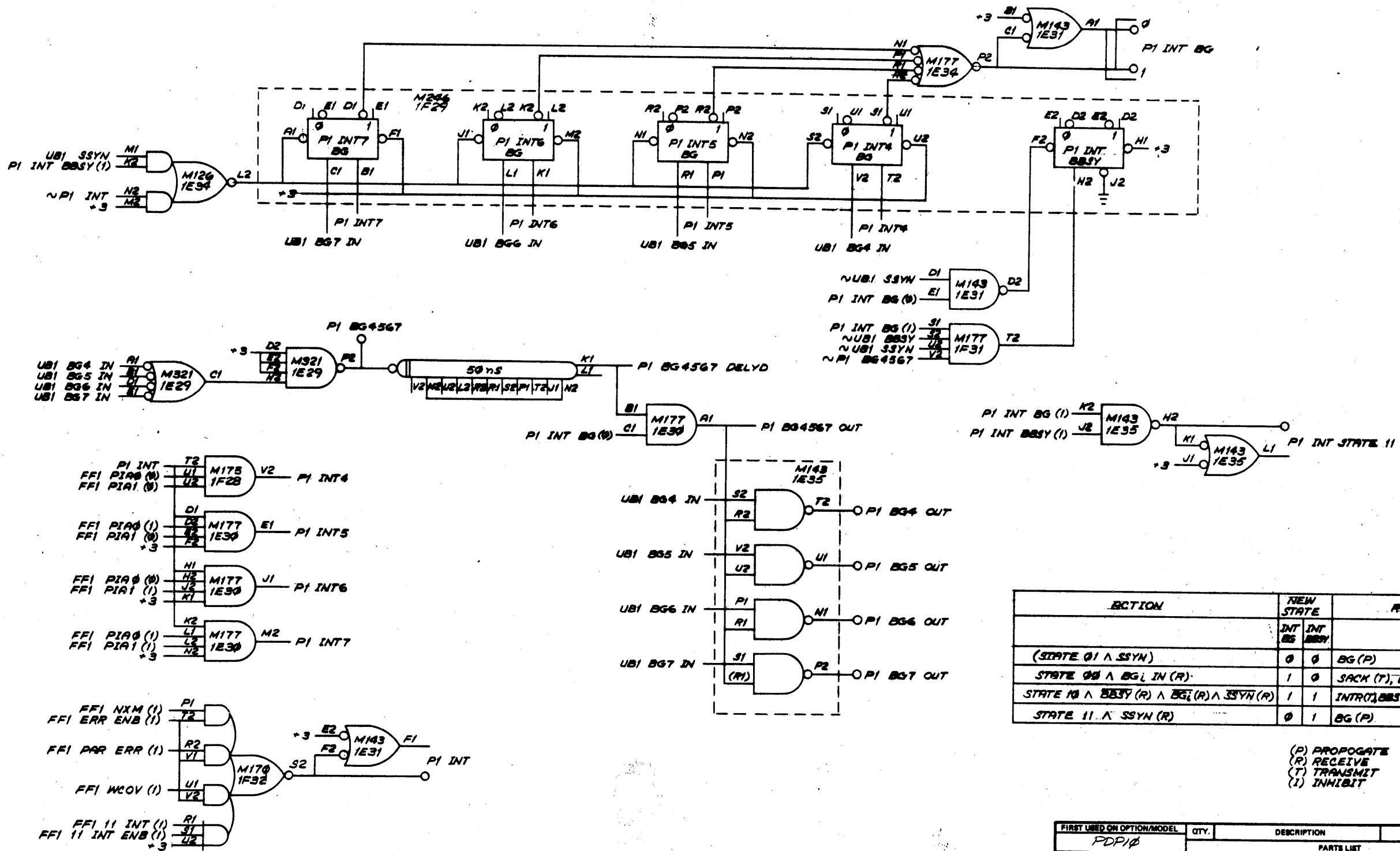
(P) PROPAGATE  
(R) RECEIVE  
(T) TRANSMIT  
(I) INHIBIT

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.		DATE 11/27/71	DIGITAL EQUIPMENT CORPORATION	
TOLERANCES	CHK'D 11/27/71	DATE 11/27/71	TITLE	
DECIMALS .XXX - .000	ENG. TWE	DATE 11/27/71	UNIBUS PORT 0 INTERRUPT LOGIC	
ANGLES .XX - .02	PROL. ENG. Tom Egan	DATE 11/27/71		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PRD. R. Thompson	DATE 12/17/71		
MATERIAL	NEXT HIGHER ASSY.			
FINISH	A-ML-DL10-A	SIZE CODE	NUMBER	REV.
	SCALE 1/8" = 1"	DBS DL10-A-PI0		
	SHEET 1 OF 1	DIST.		

REV	CHANGE NO	REVISIONS

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REV 2 3000 1278



ACTION	NEW STATE		RESULT
	INT BG	INT BUSY	
(STATE 01 & SSYN)	0	0	BG (P)
STATE 00 & BG IN (R)	1	0	SACK (T), BG (I)
STATE 10 & BUSY (R) & BG (R) & SSYN (R)	1	1	INTR (T), BUSY (T), DT, BG (T)
STATE 11 & SSYN (R)	0	1	BG (P)

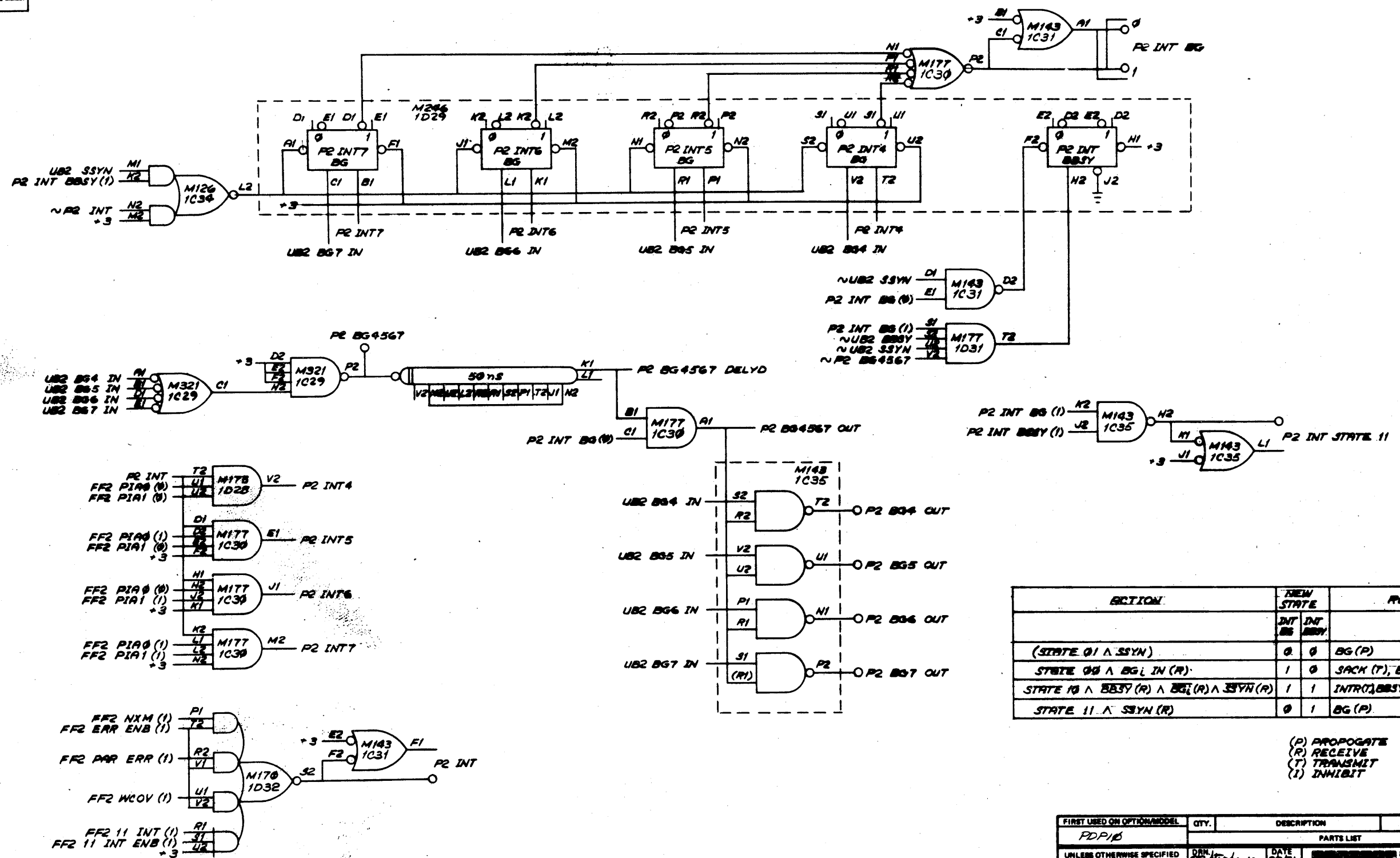
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.		DATE 11/19/71		
TOLERANCES		DATE 11/19/71		
DECIMALS	ANGLES	TITLE		
.XXX - .000	±0° 30'	UNIBUS PORT 1 INTERRUPT LOGIC		
.XX - .00		DATE 11/19/71		
.X - .1		DATE 12/7/71		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL		NEXT HIGHER ASSY.		
FINISH		A-ML-DL10-A		
		SCALE NONE		
		SHEET 1 OF 1		
		DST.		

REV	CHANGE NO

DEC FORM NO 080 102-B

DBS DL10-A-PI1

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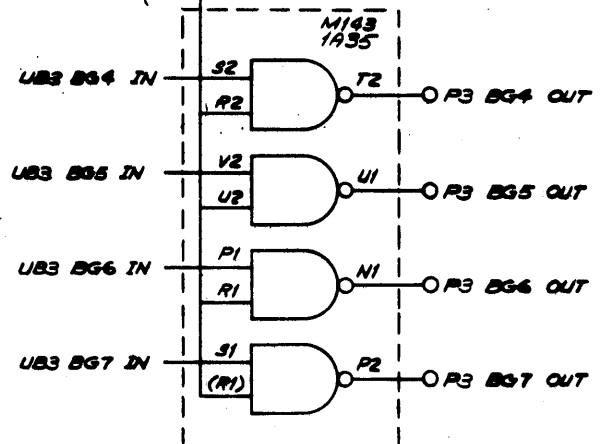
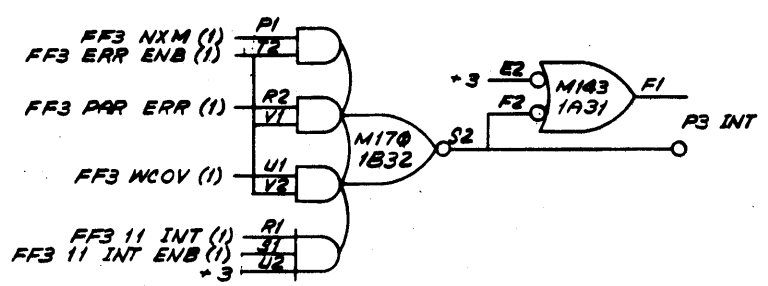
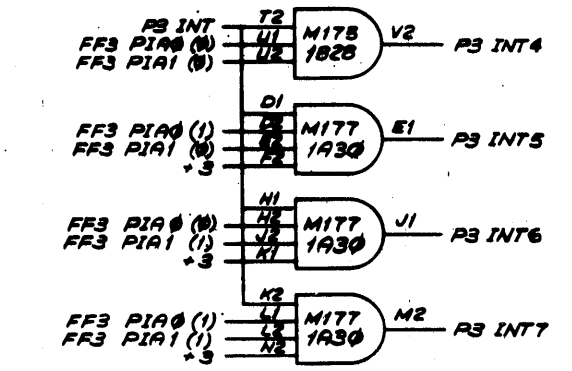
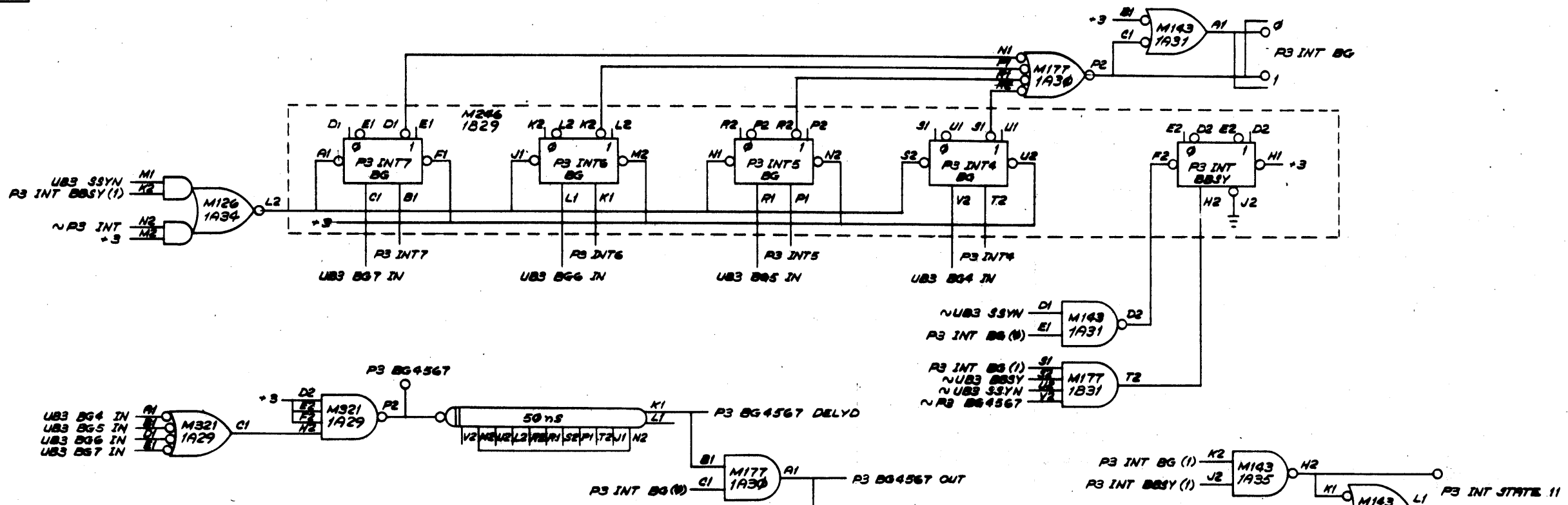
ACTION	NEW STATE		RESULT
	INT BG	INT BBSY	
(STATE 01 $\wedge$ SSYN)	0	0	BG (P)
STATE 00 $\wedge$ BG <sub>i</sub> IN (R)	1	0	SACK (T), BG (I)
STATE 10 $\wedge$ BBSY (R) $\wedge$ BG <sub>i</sub> (R) $\wedge$ SSYN (R)	1	1	INTRO, BBSY (T), D(T) BG <sub>i</sub> (I)
STATE 11 $\wedge$ SSYN (R)	0	1	BG (P)

(P) PROPAGATE  
(R) RECEIVE  
(T) TRANSMIT  
(I) INHIBIT

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN DATE CHK'D DATE	DATE DATE DATE DATE	PARTS LIST	
DECIMALS .000 INCHES .0001 ANGLES 30° 30'	ENG. DATE PROJ. ENG. DATE PROD. DATE	DATE DATE DATE DATE	TITLE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	EQUIPMENT CORPORATION			
MATERIAL	NEXT HIGHER ASSY.			
FINISH	SCALE 1/8" = 1"			
	SHEET 1 OF 1			
	DBS DL10-A-PI2			

REV.	CHANGE NO.	REVISIONS

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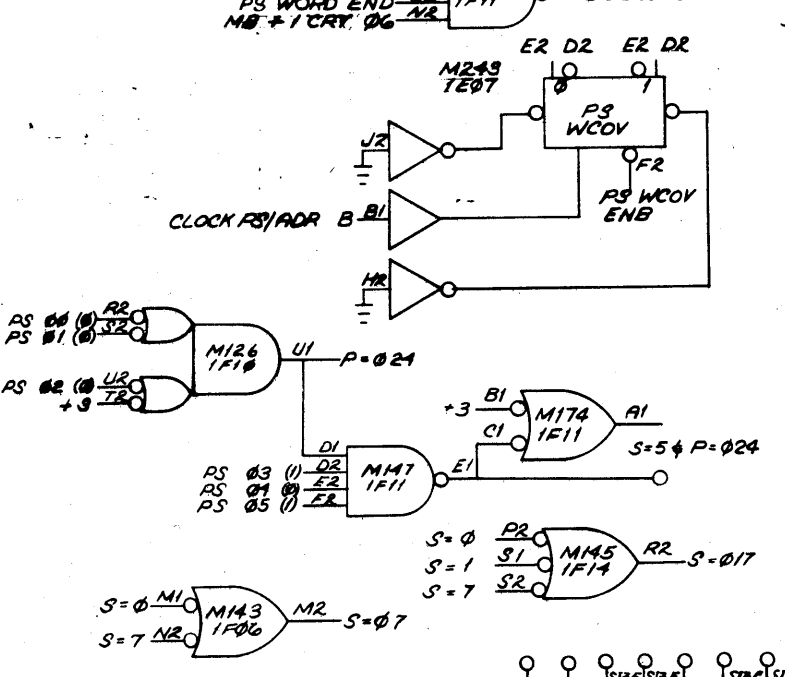
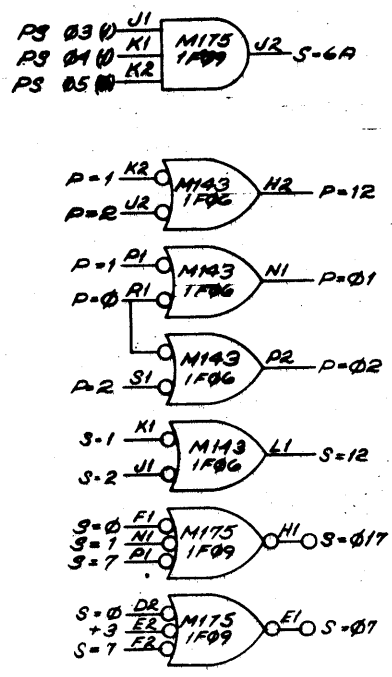
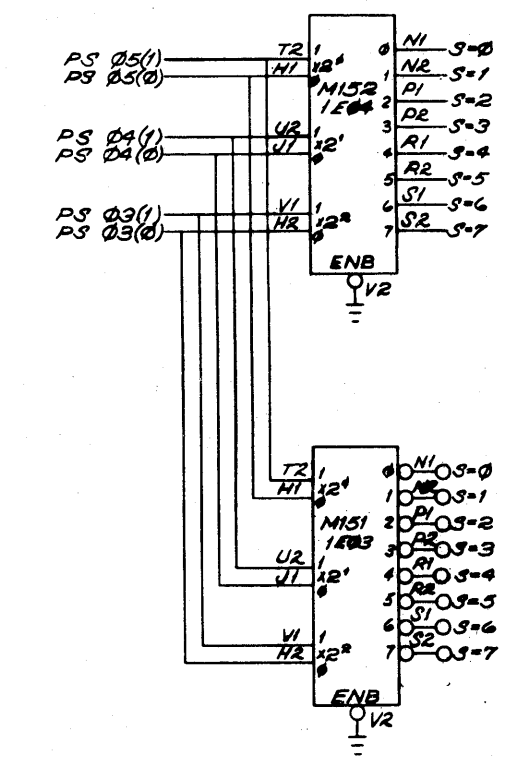
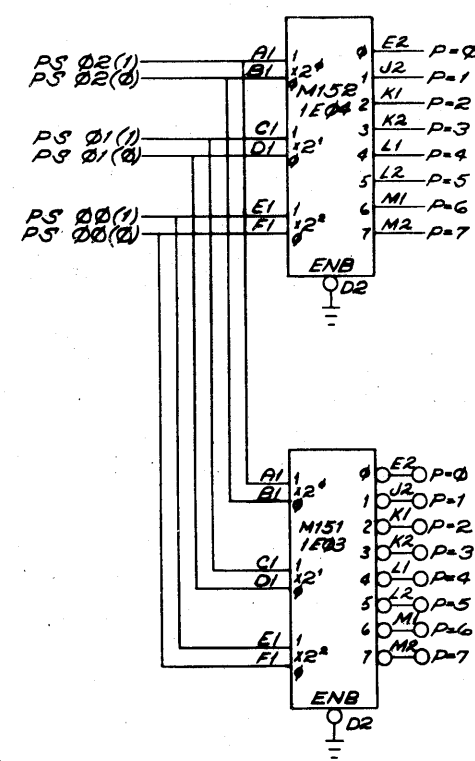
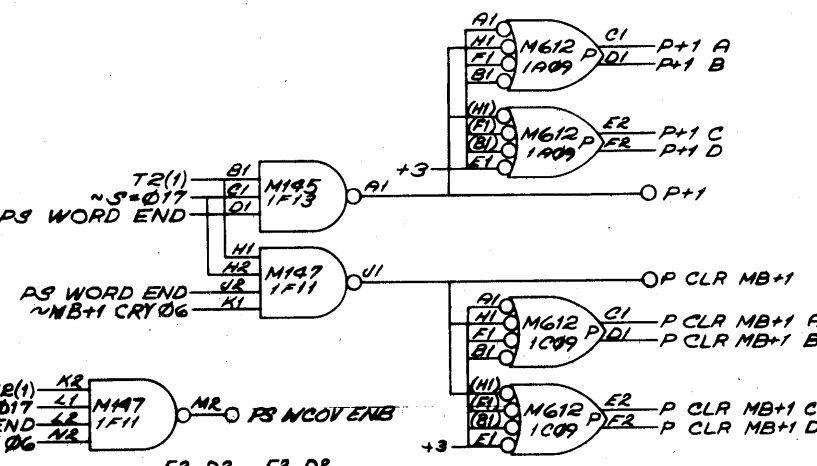
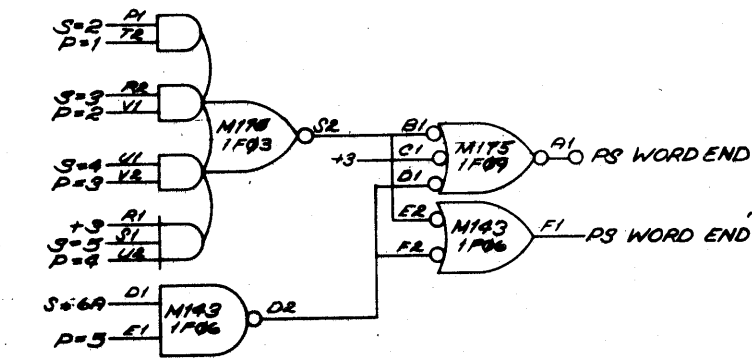
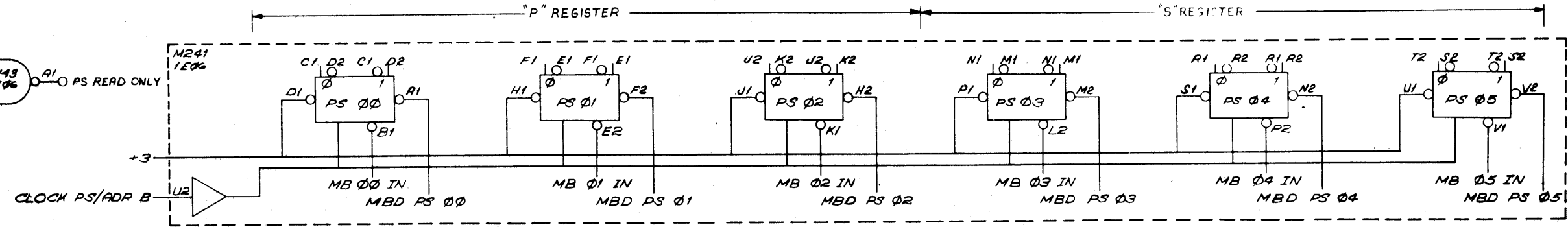
ACTION	NEW STATE		RESULT
	INT BG	INT BBY	
(STATE 01 $\wedge$ SSYN)	0	0	BG (P)
STATE 00 $\wedge$ BG <sub>L</sub> IN (R)	1	0	SACK (T), BG (L)
STATE 10 $\wedge$ BBY (R) $\wedge$ BG <sub>L</sub> (R) $\wedge$ SSYN (R)	1	1	INTR0, BBY (T), DCT, BG (L)
STATE 11 $\wedge$ SSYN (R)	0	1	BG (P)

(P) PROPAGATE  
(R) RECEIVE  
(T) TRANSMIT  
(I) INHIBIT

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		PARTS LIST		
DECIMALS	ANGLES	TITLE		
.XXX - .000	20° 30'	UNIBUS PORT 3 INTERRUPT LOGIC		
.XX - .02		REV.		
.X - .1		A-ML-DL10-A		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DBS DL10-A-P13		
MATERIAL	NEXT HIGHER ASSY.	SCALE	SHEET	OF
		1/8"	1	1
FINISH				

REV.	CHANGE NO.

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SIZE =

	16	12	8	7	6A,B
S=0,1,2,7	L	L	L	L	L
S=3	H	L	L	L	L
S=4	H	H	L	L	L
S=5	H	H	H	L	L
S=6	H	H	H	H	L

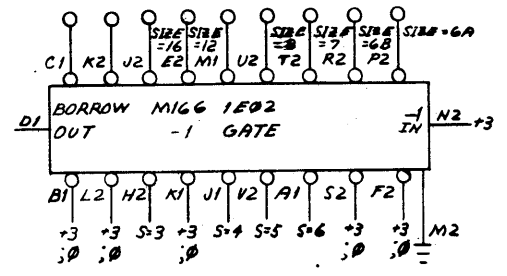
(L = ASSERTED)  
EACH BYTE SIZE IMPLIES ALL OF THE SMALLER BYTE SIZES.

S=0	S=1	S=2	S=3	S=4	S=5	S=6	S=7
P=0	I	M	P+1	P+1	P+1	P+1	I
P=1	I	M	CLR WCOV	P+1	P+1	P+1	I
P=2	I	M	Q	CLR WCOV	P+1	P+1	I
P=3	I	M	Q	Q	CLR WCOV	P+1	I
P=4	I	M	Q	Q	Q	CLR WCOV	I
P=5	I	M	Q	Q	Q	CLR WCOV	I
P=6	I	M	Q	Q	Q	Q	I
P=7	I	M	P+1	P+1	P+1	P+1	I

READ ONLY  
NEW P=0

P+1 INCREMENT P FIELD  
CLR WCOV: CLEAR P. FIELD  
~MB+1 CRY06: INCREMENT WC, ADR FIELDS  
MB+1 CRY06: SET WCOV

I IMMEDIATE DATA REFERENCE (NO BYTE INCREMENT)  
Q DON'T CARE CASES (TAKEN AS P+1)  
M MEMORY REFERENCE (NO BYTE INCREMENT)



NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REVISIONS

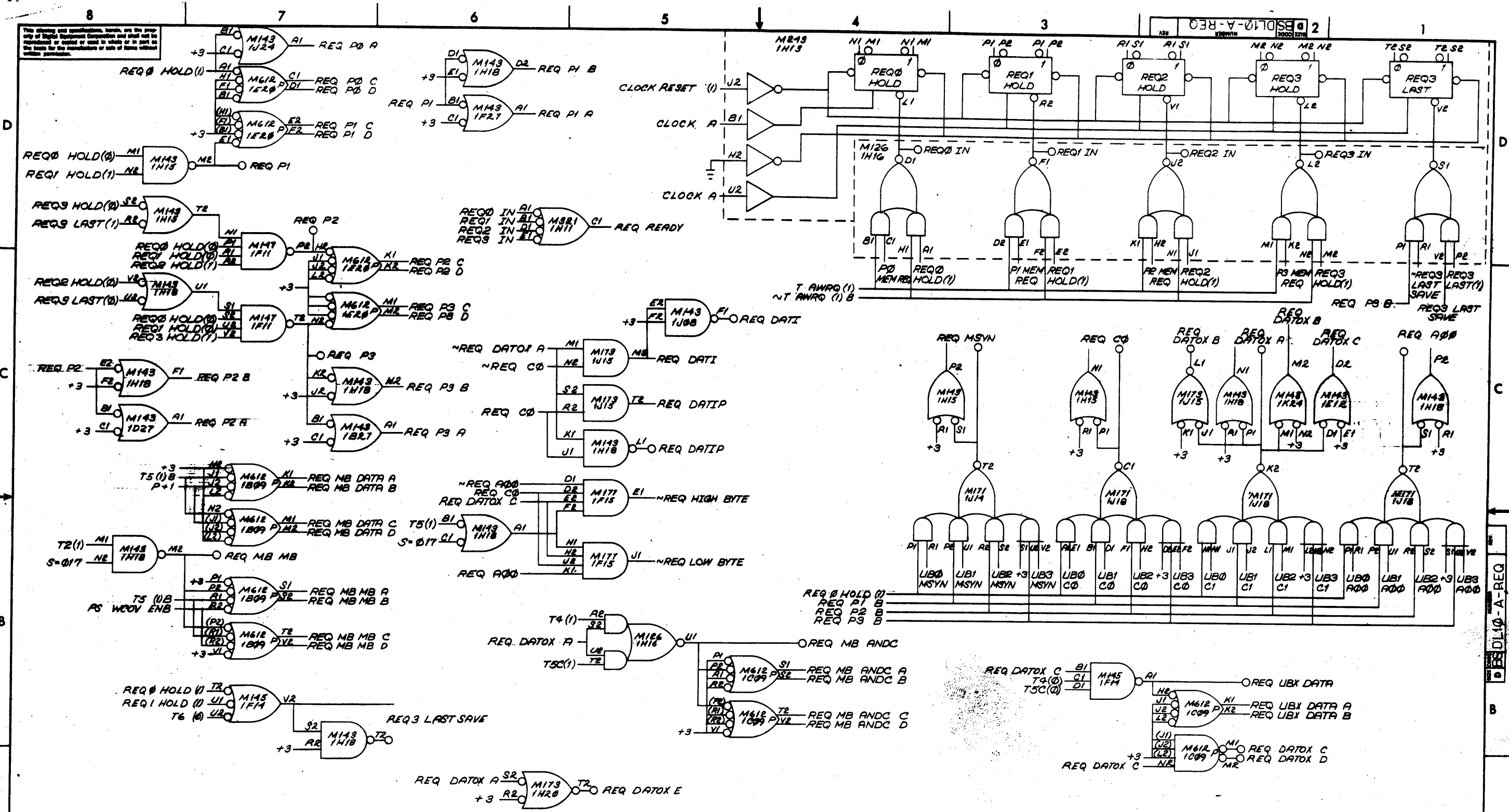
REV.	CHANGE NO.	DATE	BY	CHK'D
1	DL10A-00008	4-19-74	A. KENT	

FIRST USED ON OPTION MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .005 ± 1/64 ± 0°30'				
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
NEXT HIGHER ASSY				
A-ML-DL10-A				
FINISH				
SCALE NCNE				
SHEET 1 OF 1				

digital EQUIPMENT CORPORATION  
MAYNARD MASSACHUSETTS

TITLE  
**PS REGISTER AND DECODING**

SIZE CODE NUMBER REV  
DL10A-PS A



REV.	CHANGE NO.

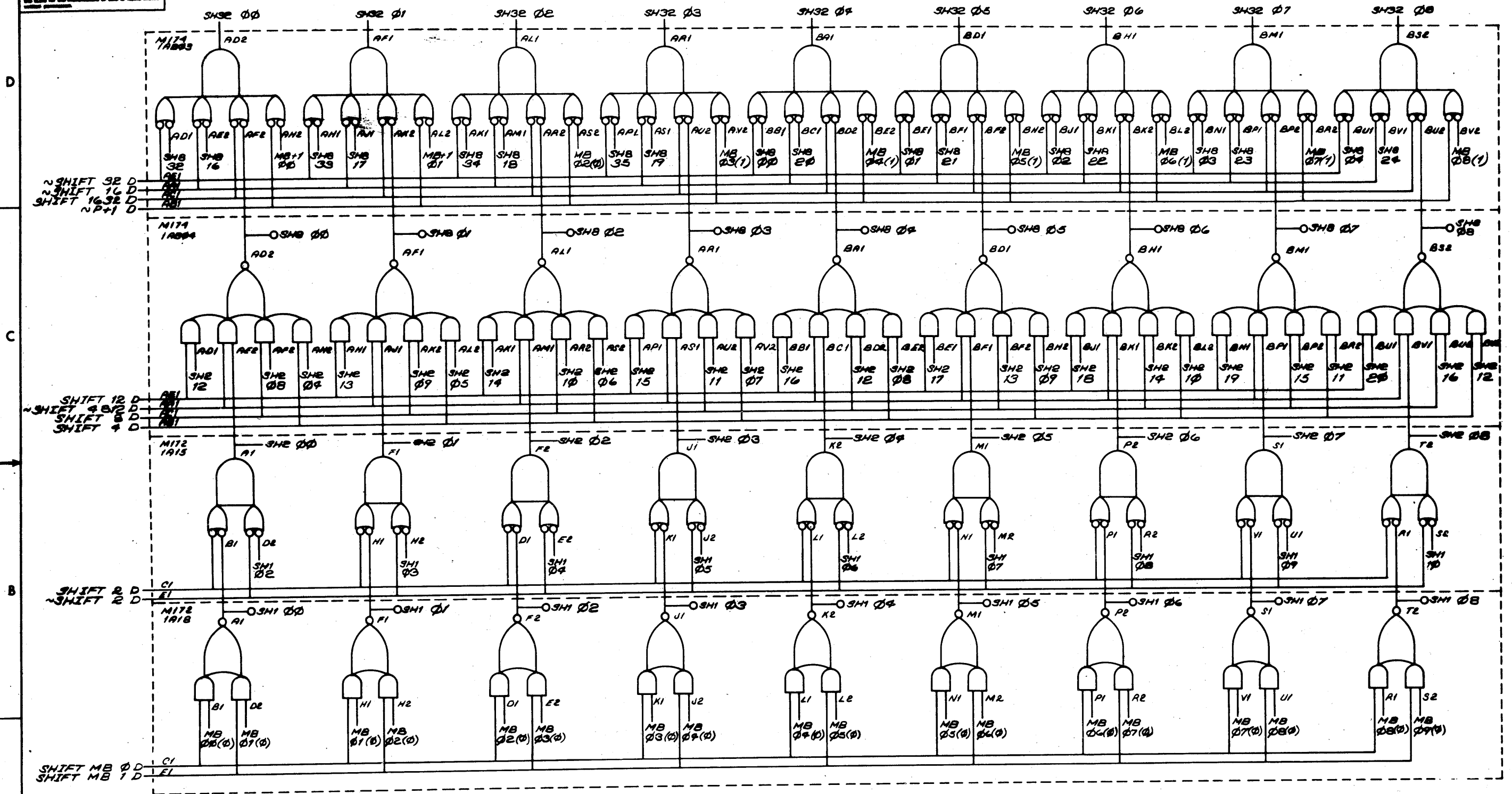
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .008 ± 1/64 ± 0°30'				
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NEXT HIGHER ASSY.			
FINISH	A-ML-DL10-A			
SCALE NONE		SIZE CODE		NUMBER
SHEET 1 OF 1		D85DL10-A-REQ		REV

**digital** EQUIPMENT CORPORATION  
 WATNAH MASSACHUSETTS

PRIORITY REQUEST LOGIC

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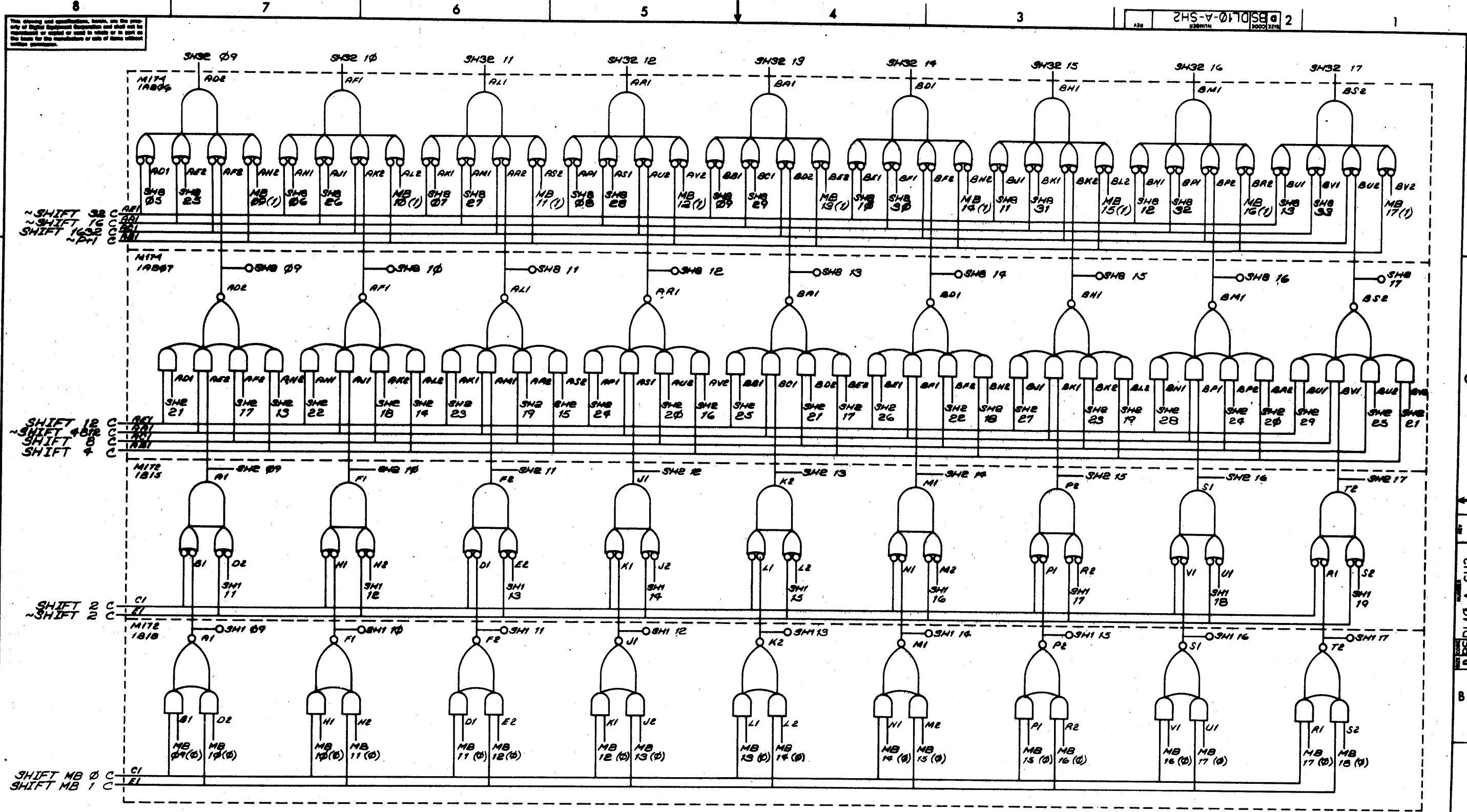
REV	CHANGE NO

FIRST USED ON OPTION/MODEL  
PDP10

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES = .005 = 1/64 = 0°30' FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS	DATE 5/2/70 DATE 4/27/71 DATE 11/17/71 DATE 2/7/71	DATE 5/2/70 DATE 4/27/71 DATE 11/17/71 DATE 2/7/71	DATE 5/2/70 DATE 4/27/71 DATE 11/17/71 DATE 2/7/71
MATERIAL — H —	FINISH — H —	SCALE 1	SHEET 1 OF 1

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	TITLE SHIFT MATRIX BITS 00-08	SIZE/CODE DBS1010-A-SH1	NUMBER 
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REV	NO	DATE

DEC FORM NO 1024

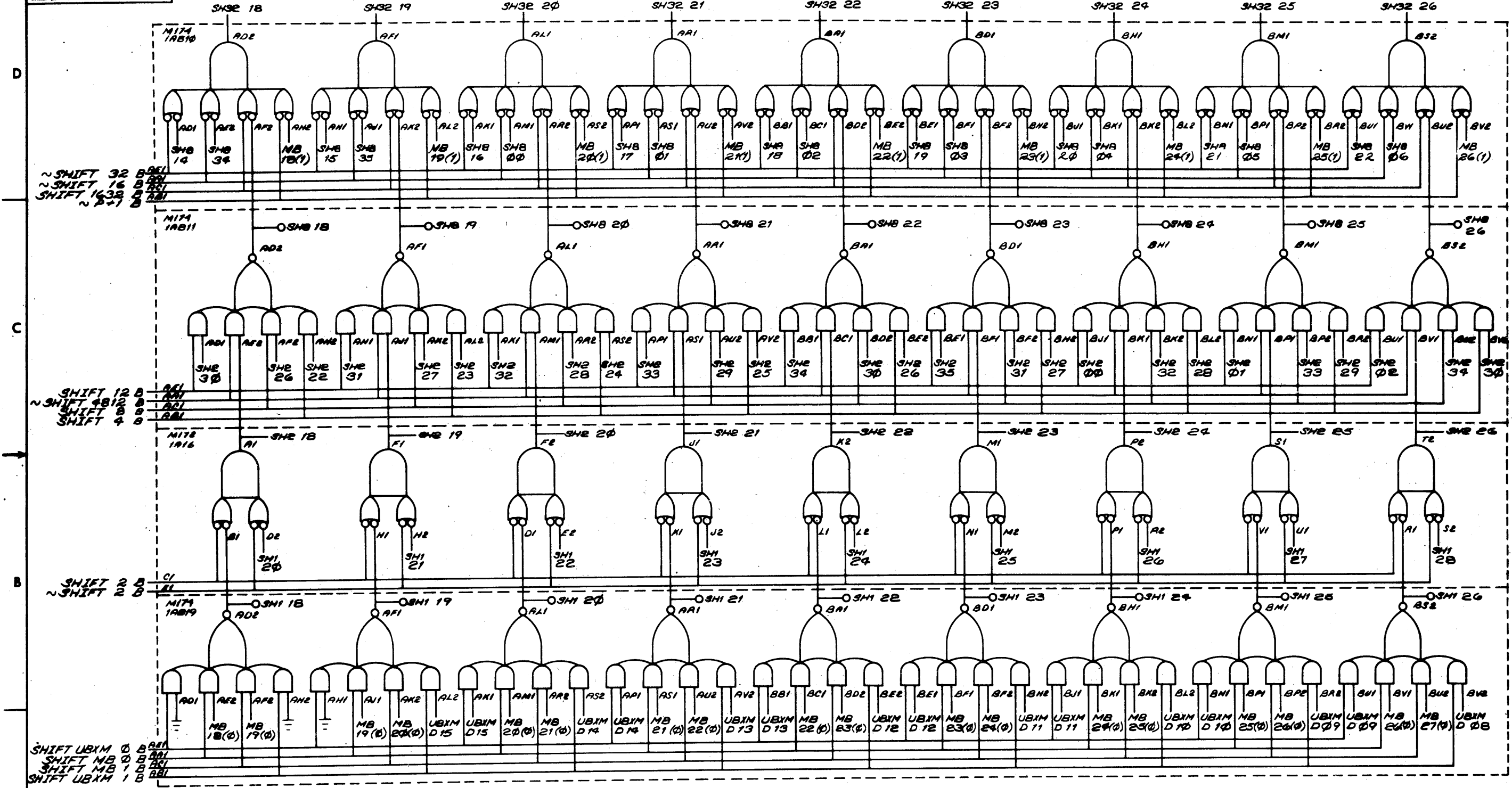
FIRST USED ON OPTION/MODEL  
PDP10

UNLESS OTHERWISE SPECIFIED	DRN	DATE
UNLESS OTHERWISE SPECIFIED	DATE	DATE
TOLERANCES		
DECIMALS FRACTIONS ANGLES		
± .005 ± .125 ± 0°30'		
FINAL SURFACE QUALITY		
REMOVE BURRS AND BREAK SHARP CORNERS		
MATERIAL		
FINISH		

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
TITLE	SHIFT MATRIX
TITLE	BITS 09-17
SCALE	1:1
SHEET	1 OF 1
DIST.	

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

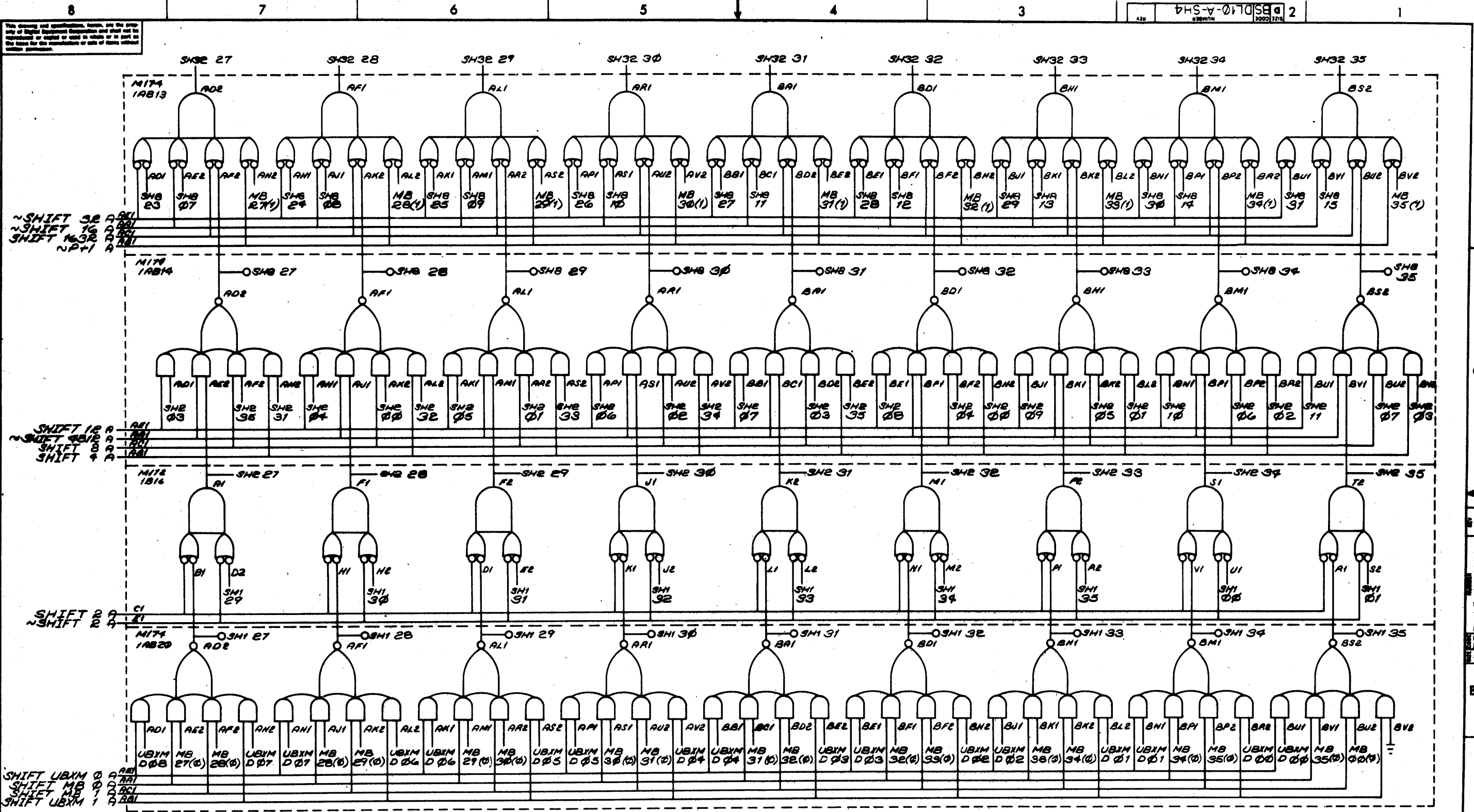
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REV	
CHANGE NO	
CHK	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± 0.00 ± 1/64 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN: <i>[Signature]</i> DATE: 5/2/70 CHK'D: <i>[Signature]</i> DATE: 11/17/71 ENG: TWE DATE: 11/19/71 PROJ. ENG: <i>[Signature]</i> DATE: 12/1/71 PROD: <i>[Signature]</i> DATE: 12/1/71 NEXT HIGHER ASSY.: A-ML-DL10-A SCALE: 1:1 SHEET 1 OF 1	EQUIPMENT CORPORATION WATRHAM, MASSACHUSETTS TITLE <b>SHIFT MATRIX</b> <b>BITS 18-26</b> SIZE CODE: DBS NUMBER: DL10-A-SH3 REV.
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REV	NO.

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN DATE CHK'D DATE ENG. DATE PROJ. ENG. DATE PROD. DATE NEXT HIGHER ASSY.	DATE 12/20/70 DATE 1/17/71 DATE 1/17/71 DATE 12/17/70		TITLE SHIFT MATRIX BITS 27-35
MATERIAL —H—	FINISH —H—	SCALE SHEET 1 OF 1	DIST.		SIZE/CODE D BS DL10-A-SH4

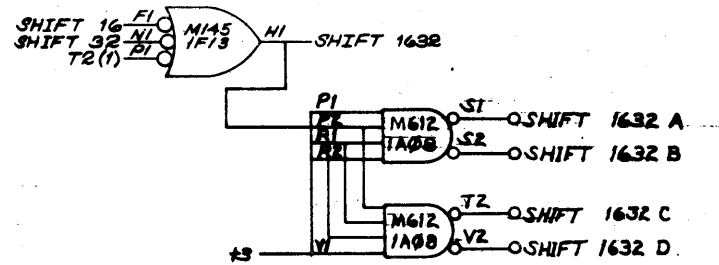
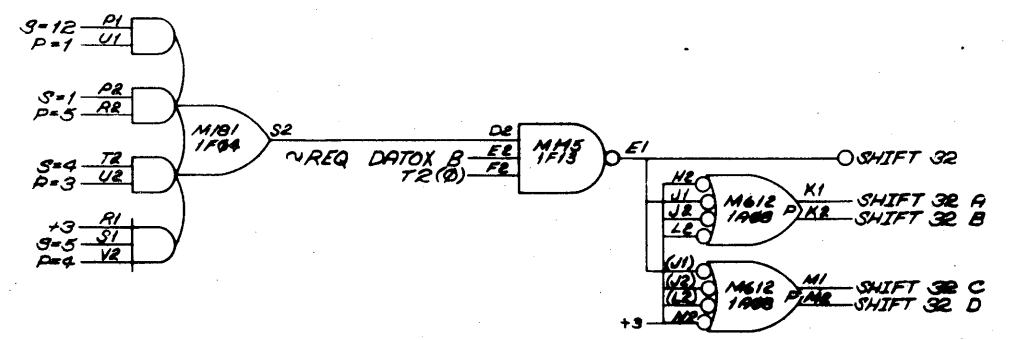
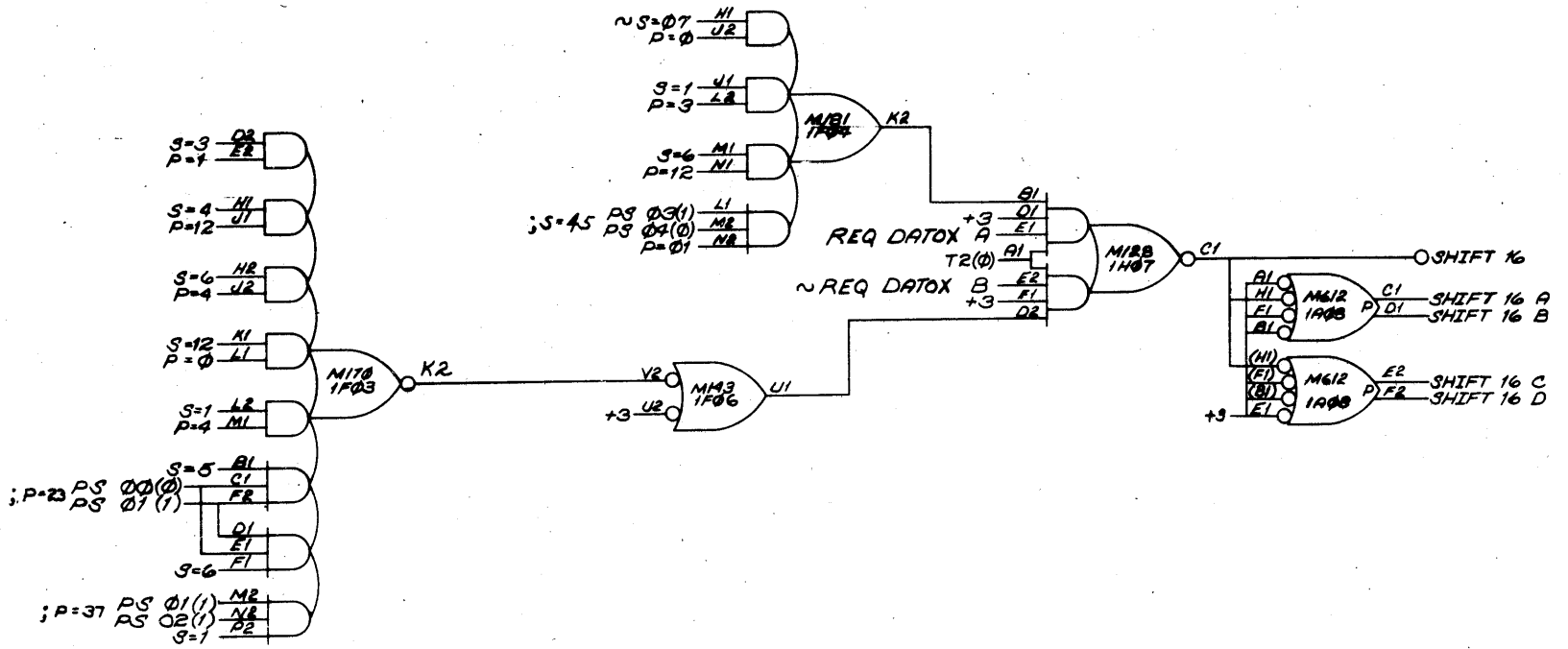
NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

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OUTPUT	DATOV DATOB								DATI V DATIP							
	S=0	S=1	S=2	S=3	S=4	S=5	S=6	S=7	S=0	S=1	S=2	S=3	S=4	S=5	S=6	S=7
SHIFT UBXM 0	ALL	ALL	ALL	ALL	ALL	13567	ALL	ALL								
SHIFT UBXM 1						024										
SHIFT MB 0									ALL	ALL	ALL	ALL	ALL	13567	ALL	ALL
SHIFT MB 1														024		
SHIFT 2		3				12	024			37				01	024	
SHIFT 4		01	01		13	1	4							02	0	
SHIFT 8				0		3	1					1	02		3	
SHIFT 12				1	02	02	03					0		13	1	4
SHIFT 16		03	0	0	01	01	02			037	0	1	12	23	23	4
SHIFT 32									15	1		3	4			

NOT DONE WHEN T2 (1).

SHIFT MATRIX TABLE  
 TABLE ENTRIES ARE THE VALUES OF P FOR WHICH THE PARTICULAR SHIFT SIGNAL IS TRUE. ALL SHIFTS ARE TO THE LEFT AND CIRCULAR.

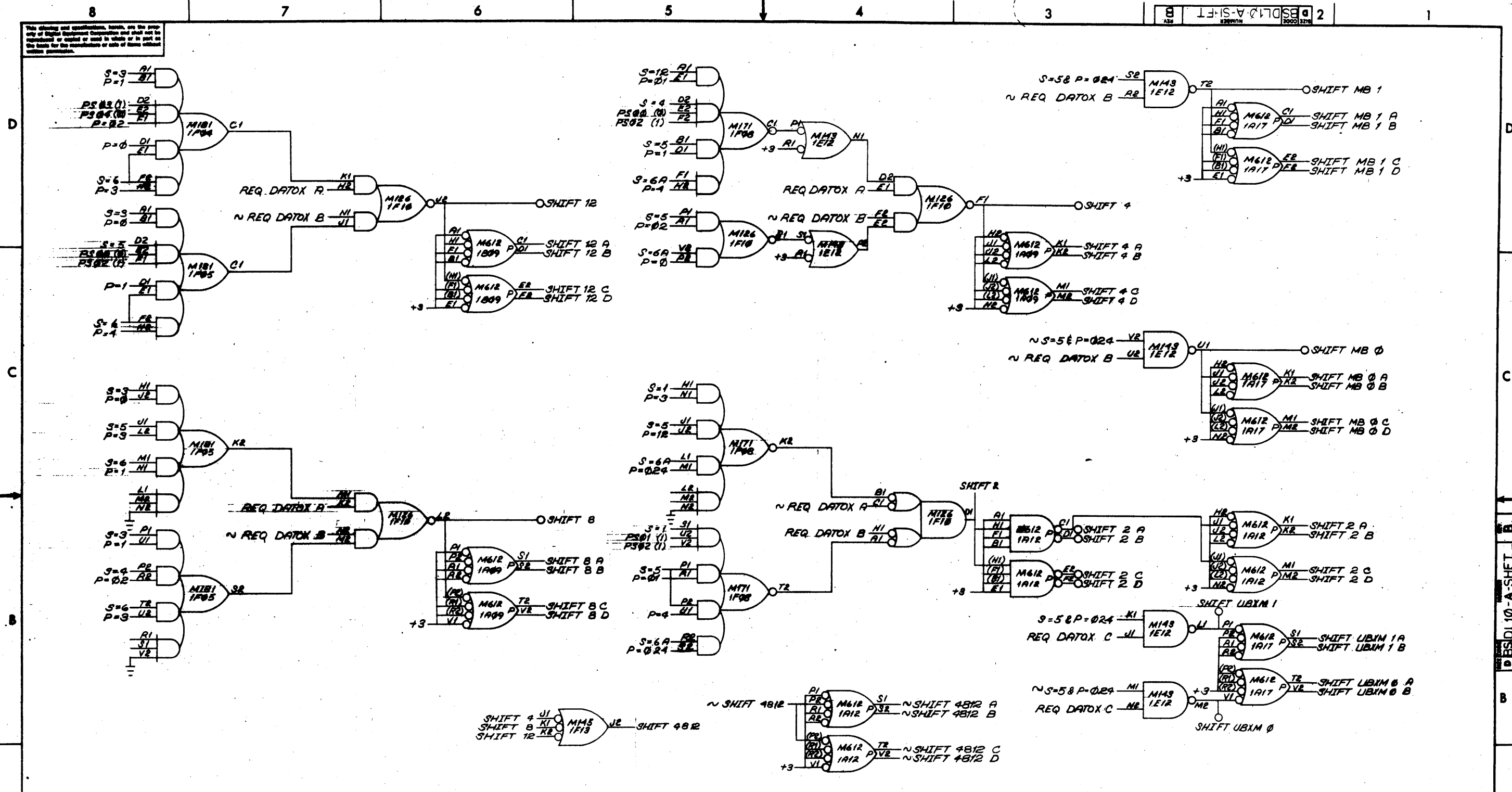


REV	CHG	NO	DATE	BY	APP
1		0001	1/1/77	W. J. ...	
2		0002	1/1/77	W. J. ...	
3		0003	1/1/77	W. J. ...	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED		PARTS LIST		
UNLESS OTHERWISE SPECIFIED		EQUIPMENT CORPORATION		
DIMENSION IN INCHES		MAYNARD, MASSACHUSETTS		
TOLERANCES		TITLE		
DECIMALS FRACTIONS ANGLES		SHIFT CONTROL		
± .008 ± 1/64 ± 0°30'		DATE		
FINAL SURFACE QUALITY		DATE		
REMOVE BURRS AND BREAK SHARP CORNERS		DATE		
MATERIAL		NEXT HIGHER ASSY		
A-ML-DL10-A		SIZE CODE		
FINISH		NUMBER		
SCALE NONE		D B S D L 10 - A - S H F T		
SHEET 1 OF 2		REV. B		

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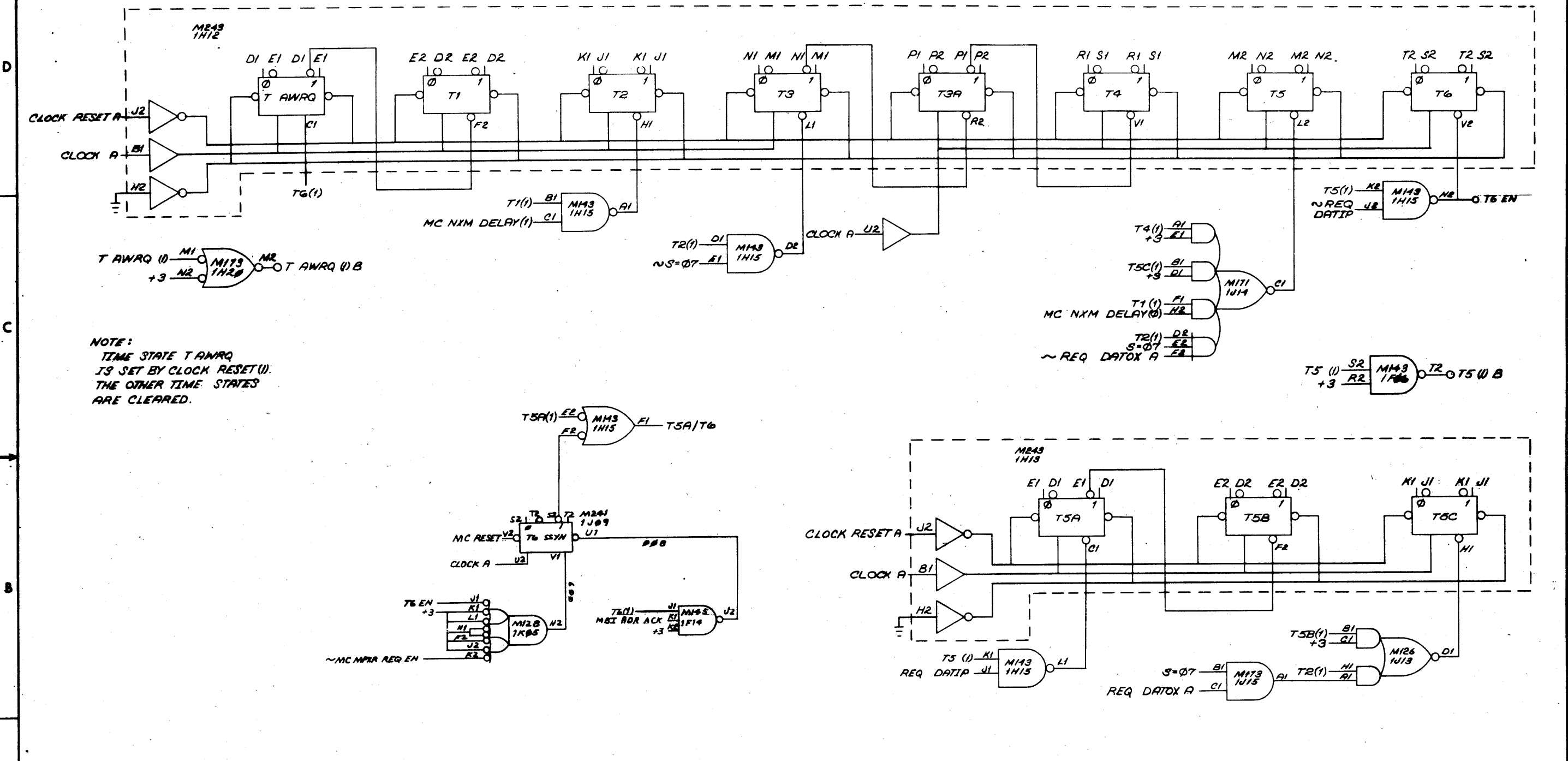


REV	NO	DATE
CHG	NO	DATE

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL <b>PDP10</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES = .005 ± .002 = 0°20' FINAL SURFACE QUALITY 7 REMOVE BURRS AND BREAK SHARP CORNERS	DRN <i>S. McCall</i>	DATE 6/26/70	PARTS LIST	
MATERIAL	CHAR'D <i>W. Thompson</i>	DATE 11/17/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
FINISH	ENG. TWE	DATE 11/17/71	TITLE <b>SHIFT CONTROL</b>	
	PROJ. ENG. T. Curran	DATE 11/17/71	NUMBER <b>D B S D L 1 0 - A - S H F T</b>	
	PROD. R. Thompson	DATE 12/17/71	REV <b>B</b>	
	NEXT HIGHER ASSY <b>A-ML-DL10-A</b>		SCALE <b>NGVE</b>	SHEET <b>2 OF 2</b>

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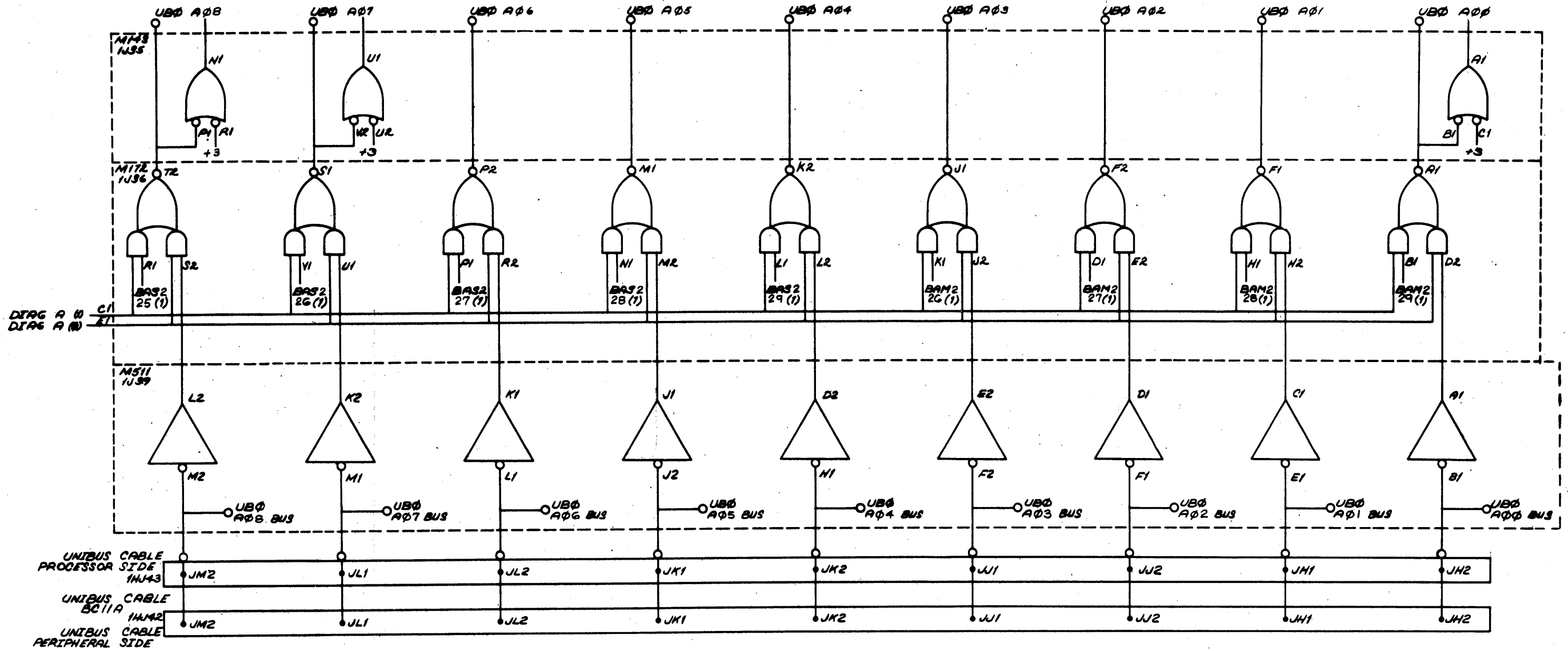
NOTE:  
 TIME STATE T AWRO  
 IS SET BY CLOCK RESET (1).  
 THE OTHER TIME STATES  
 ARE CLEARED.

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION  
 DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL  
 NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION  
 DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REV.	CHG. NO.	DATE	BY	CHK.
A	00001	6-5-72	J. CLARK	
B	00002	19 JUN 73	EGGERS	
C	00003	8-19-74	J. CLARK	
D	00004	2-10-74	KENT	
E	00005	2-10-74	Allen Kent	

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DDP10				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± .015°		
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
NEXT HIGHER ASSY.				
A-ML-DL10-A				
FINISH				
SCALE NONE				
SHEET 1 OF 1				

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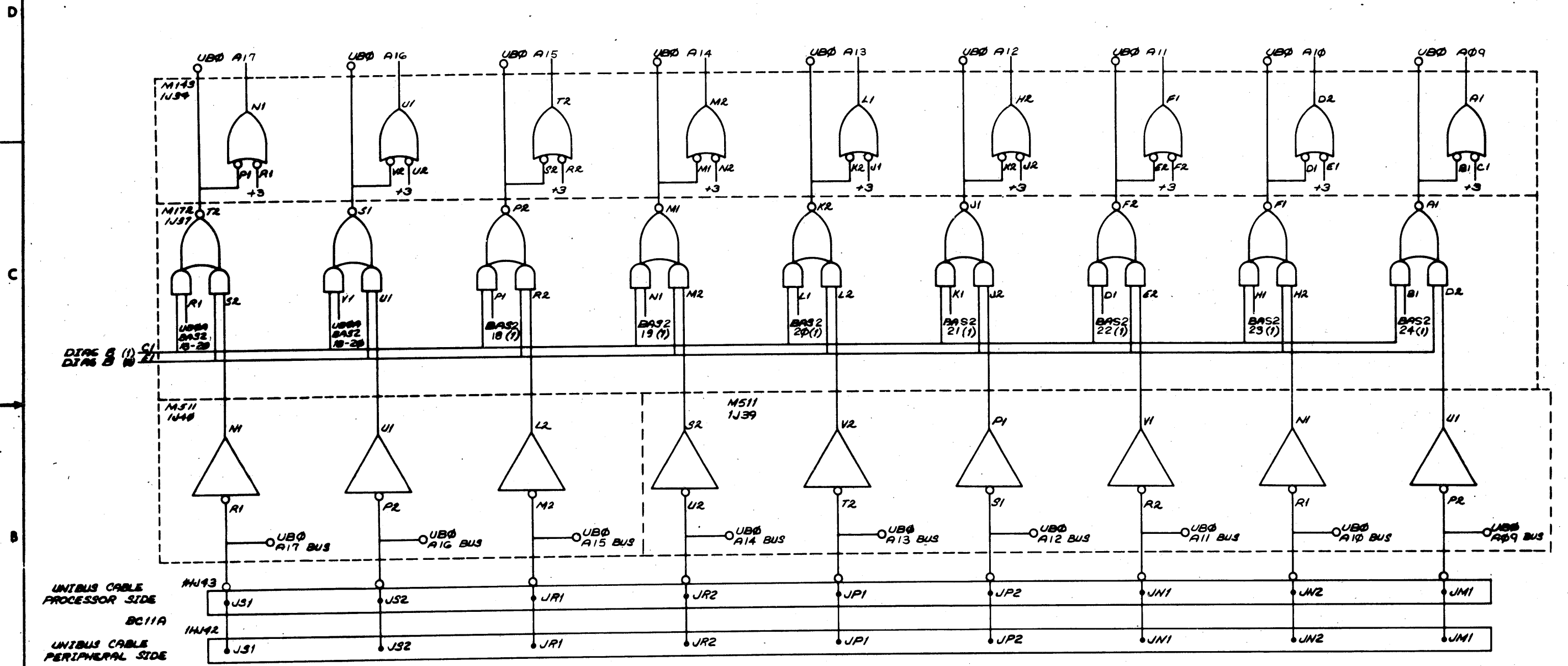
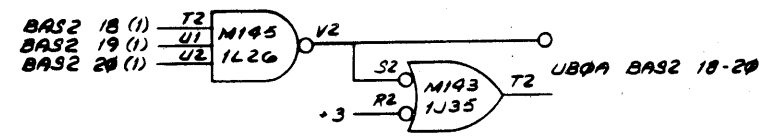


REV	
CHG	
NO.	

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± 0.00 ± 1/64 ± 0°00'	DATE 6/24/70	DATE 4/7/71	PARTS LIST	
DRAWN MCH	DATE 6/24/70	DATE 4/7/71	TITLE UNIBUS ADDRESS INTERFACE (BITS A00-A08)	
CHKD W. J. ...	DATE 11/10/71	DATE 12/17/71	NUMBER D85DL10-A-UB0A	
ENGR TWE	DATE 11/10/71	DATE 12/17/71	REV.	
PROJ. ENG. Tom Egge	DATE 11/10/71	DATE 12/17/71	SCALE NONE	
PROD. R. Thompson	DATE 11/10/71	DATE 12/17/71	SHEET 1 OF 2	
MATERIAL	NEXT HIGHER ASSY. A-ML-DL10-A	SIZE CODE	D85DL10-A-UB0A	
FINISH	SCALE	DIST.		

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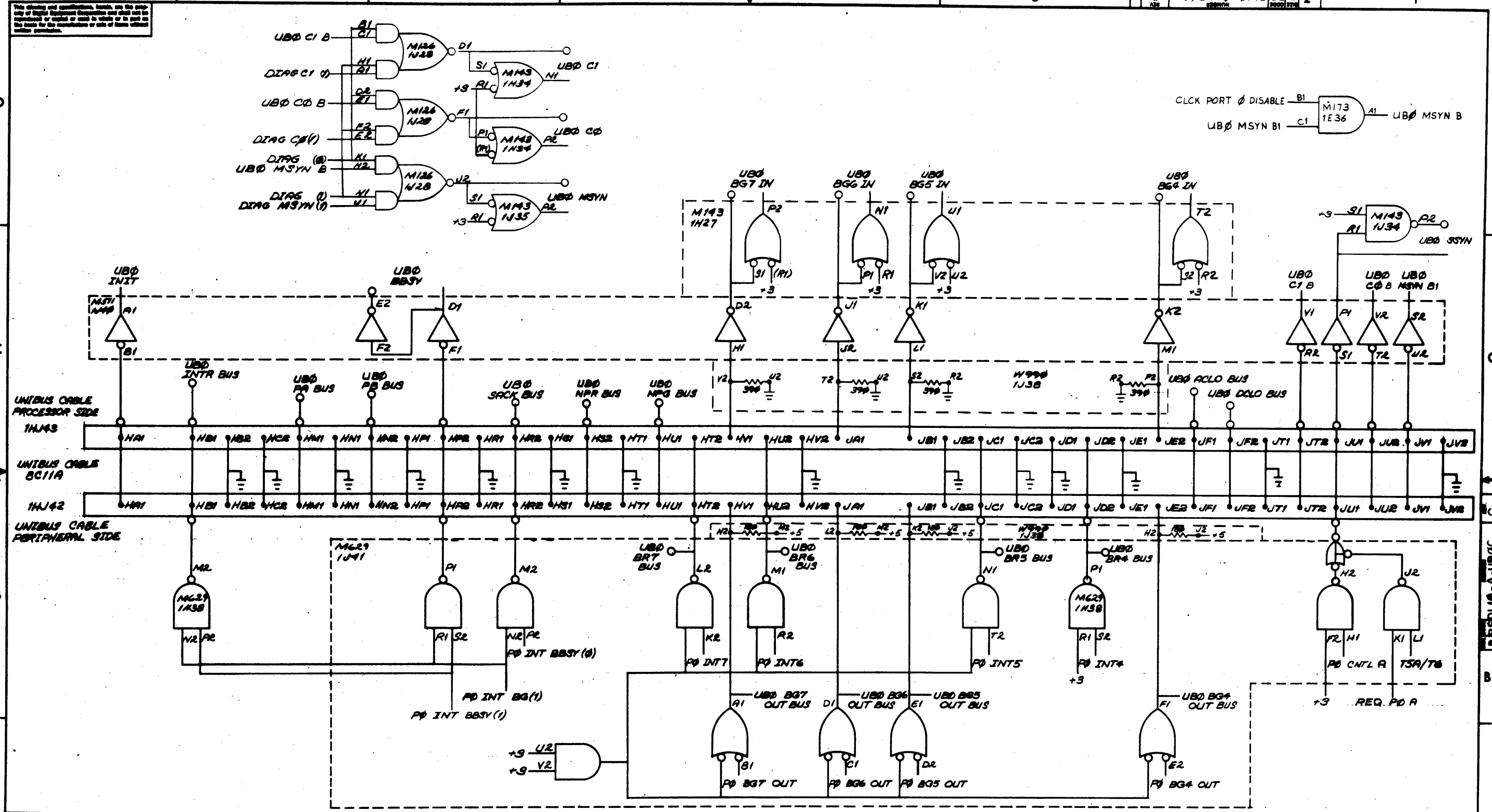


UNIBUS CABLE  
PROCESSOR SIDE  
BC11A  
UNIBUS CABLE  
PERIPHERAL SIDE

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DDA10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DATE	DATE	DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	DATE	DATE	TITLE	
DIMENSIONS IN INCHES	DATE	DATE	UNIBUS 0 ADDRESS	
TOLERANCES	DATE	DATE	INTERFACE	
DECIMALS FRACTIONS ANGLES	DATE	DATE	(BITS A09-A17)	
± .005 ± 1/64 ± 0°30'	DATE	DATE	NUMBER	
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS	DATE	DATE	DBS-DL10-A-UB0A	
MATERIAL	DATE	DATE	REV	
NEXT HIGHER ASSY.	DATE	DATE	2	
A-ML-DL10-A	DATE	DATE	2 OF 2	
FINISH	DATE	DATE	SHEET	
SCALE NONE	DATE	DATE	2 OF 2	
SHEET	DATE	DATE	SHEET	

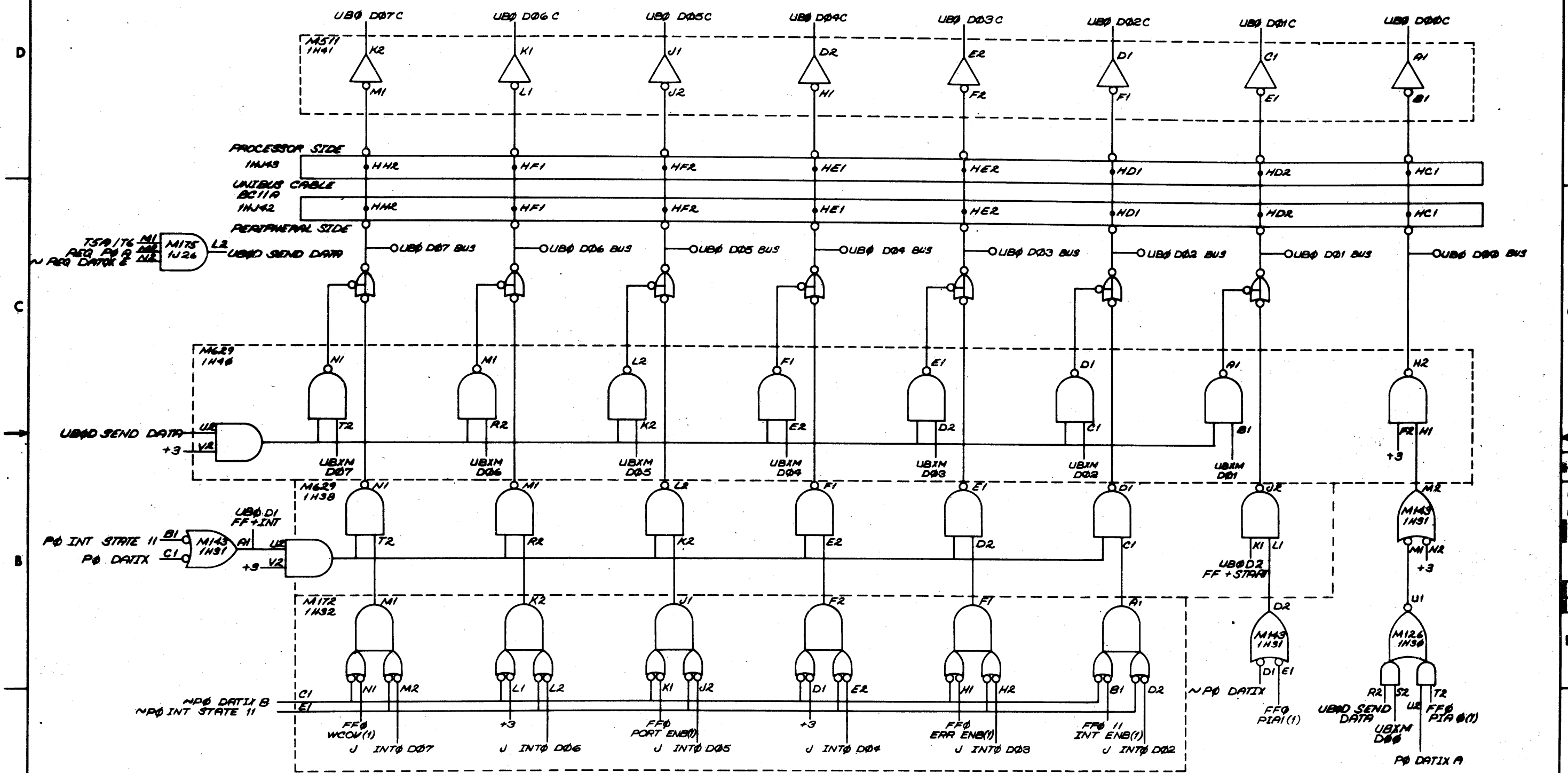
REV.	CHANGE NO.	DATE



NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	DATE 11/17/70 12/17/70 1/19/71 1/19/71 1/19/71 1/19/71	DATE 11/17/70 12/17/70 1/19/71 1/19/71 1/19/71 1/19/71	DATE 11/17/70 12/17/70 1/19/71 1/19/71 1/19/71 1/19/71	DATE 11/17/70 12/17/70 1/19/71 1/19/71 1/19/71 1/19/71
UNLESS OTHERWISE SPECIFIED FINISH		TITLE UNIBUS 0 CONTROL INTERFACE		EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
MATERIAL			NEXT HIGHER ASSY. A-M-L-DL10-A		
SCALE NOVE			SIZE/CODE DBSDL10-A-UB0C		
SHEET 1 OF 1			NUMBER C		

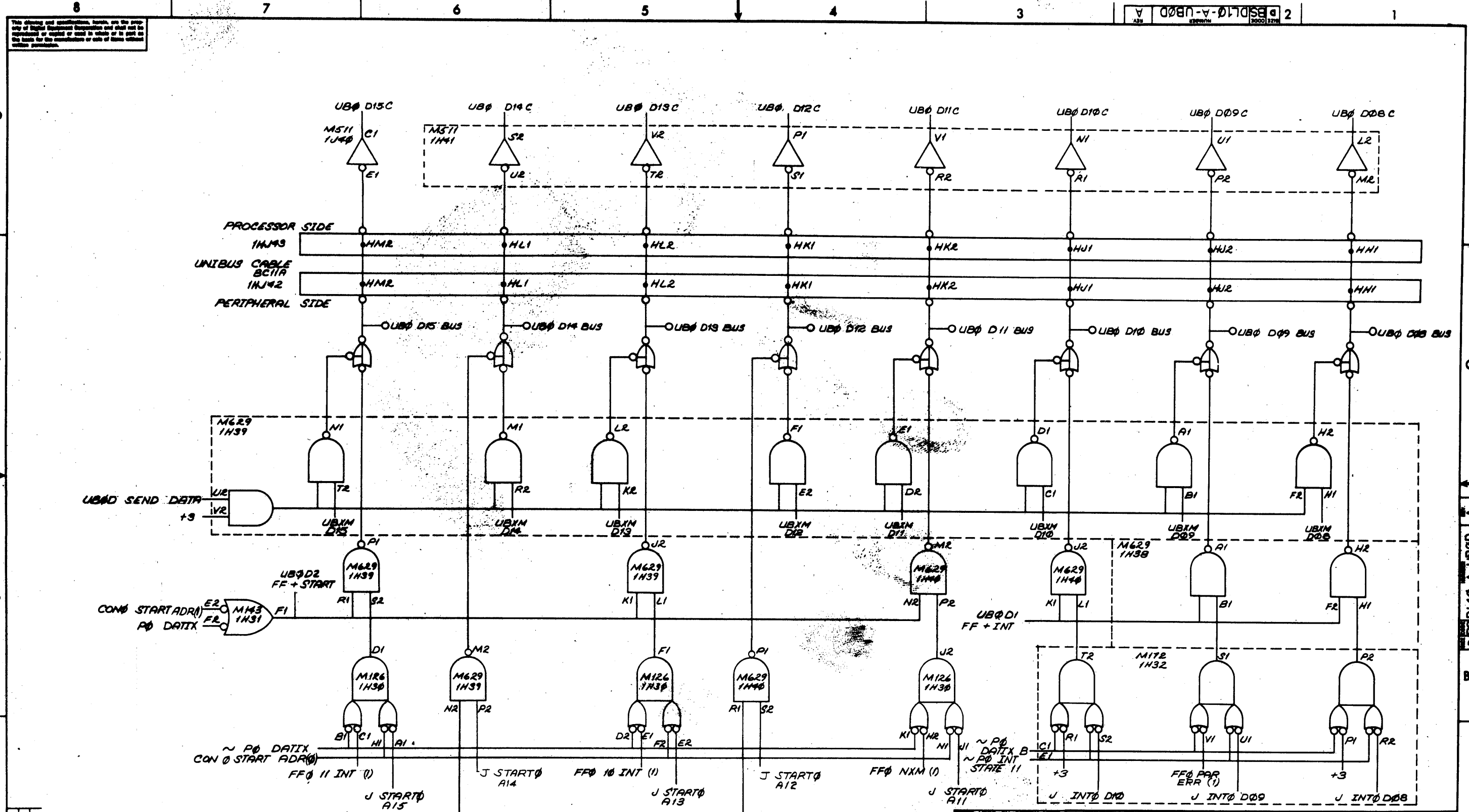
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REV.	CHG.	NO.	DATE
A	0000B	1	7-10-74
A. KENT J. KENT			

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74 DATE: 11/17/74	EQUIPMENT CORPORATION BOSTON MASSACHUSETTS TITLE: UNIBUS DATA INTERFACE (BITS D00-D07) NUMBER: DBS DL10-A-UB00 SHEET: 1 OF 3
---	---	--	--



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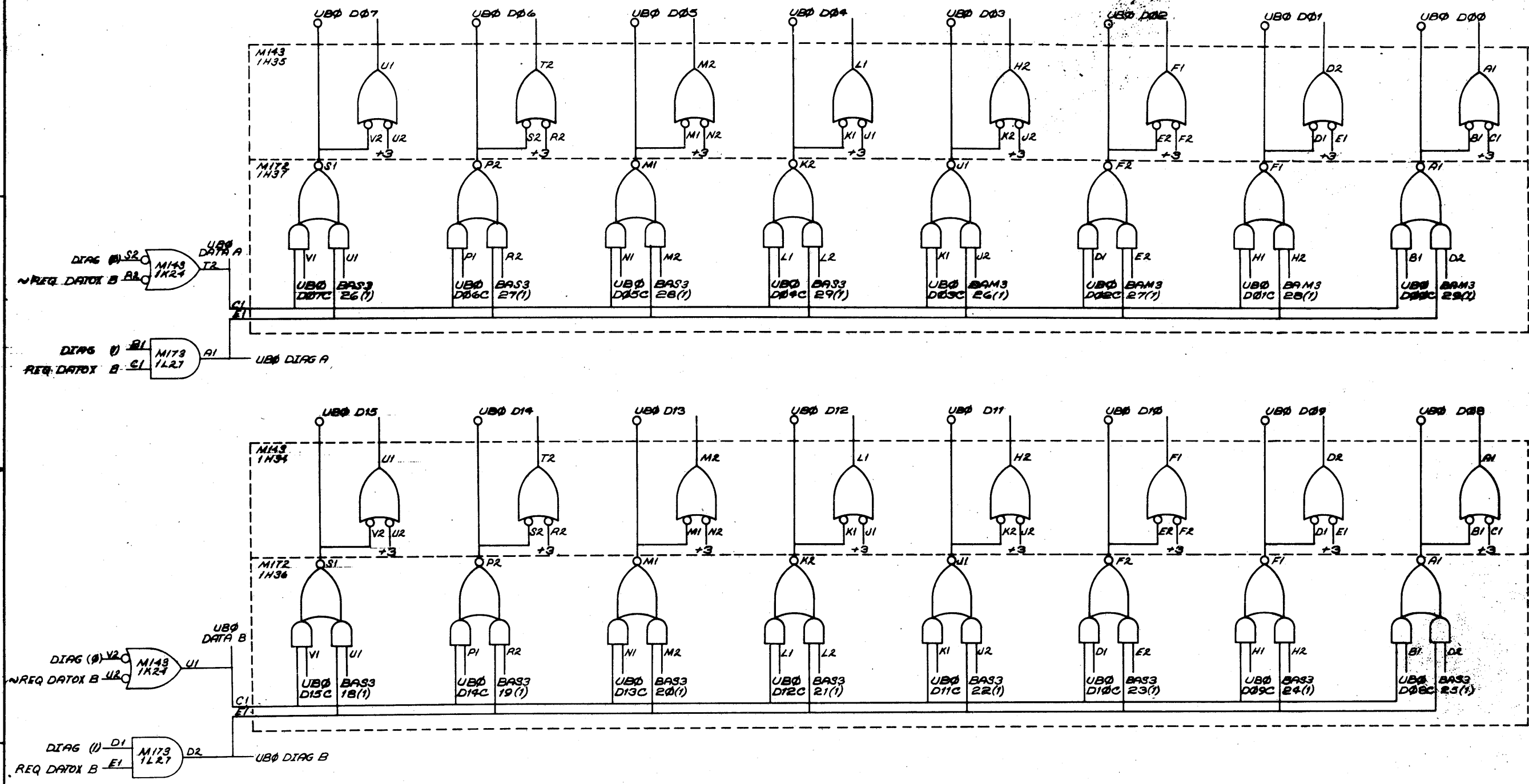
DBS DL10-A-UB00 2

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .005 .010 .020 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 11/17/71 DATE 11/17/71 DATE 11/17/71 DATE 11/17/71 DATE 11/17/71	<b>digital</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
MATERIAL ---	FINISH ---	NEXT HIGHER ASSY A-ML-DL10-A	TITLE <b>UNIBUS 0 DATA INTERFACE</b> <b>BITS 08-15</b>
SCALE ---	SHEET 2 OF 3	DIST.	DBS DL10-A-UB00 NUMBER A

REV.	
CHANGE NO.	
CHK	

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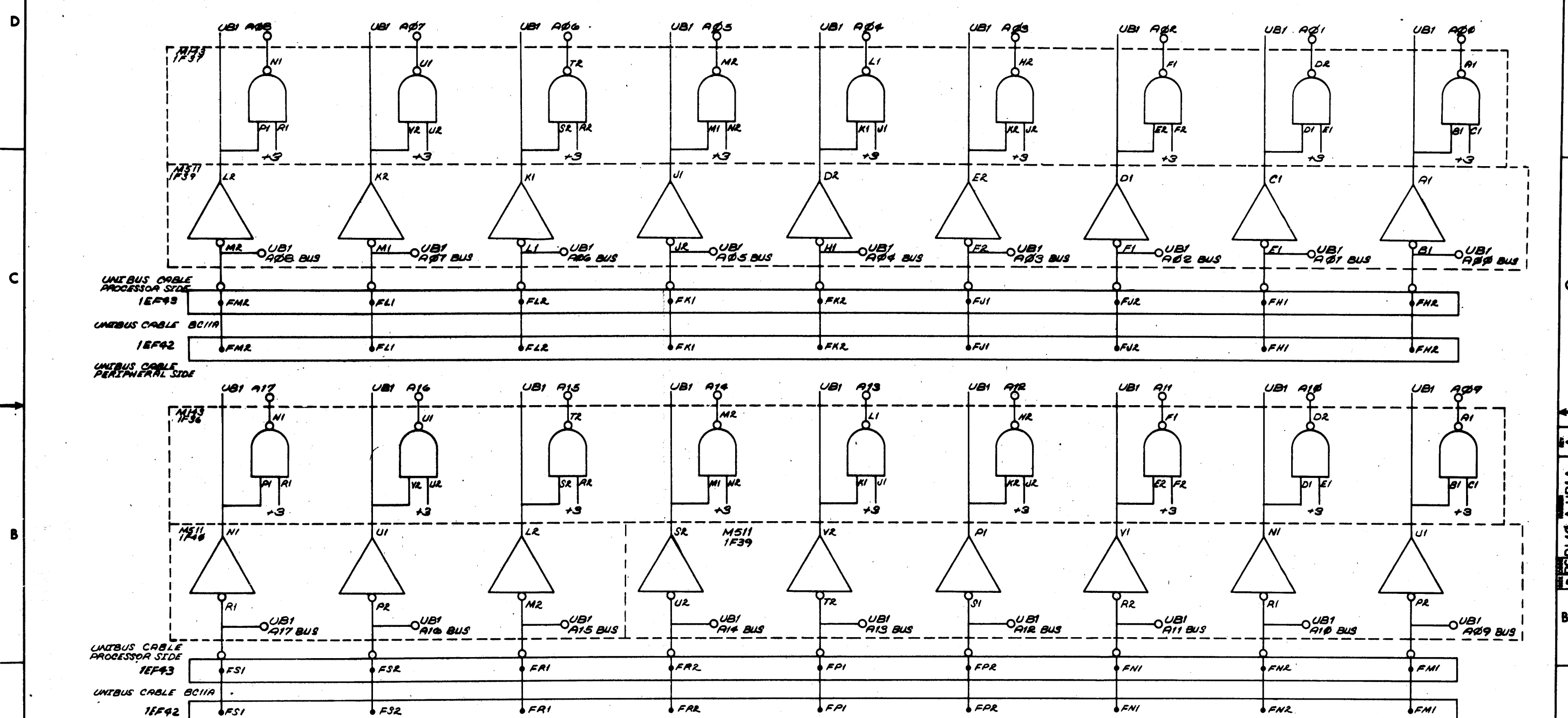


REV.	CHG.	NO.

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DATE 11/17/71	DATE 11/17/71	PARTS LIST	
TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°05'	DATE 11/17/71	DATE 11/17/71	TITLE UNIBUS 0 DATA INTERFACE (BITS D00-D15)	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 11/17/71	DATE 11/17/71	NEXT HIGHER ASSY. A-ML-DL10-A	
MATERIAL	DATE 11/17/71	DATE 11/17/71	SCALE NONE	
FINISH	DATE 11/17/71	DATE 11/17/71	SHEET 3 OF 3	
			DISTRIBUTION	

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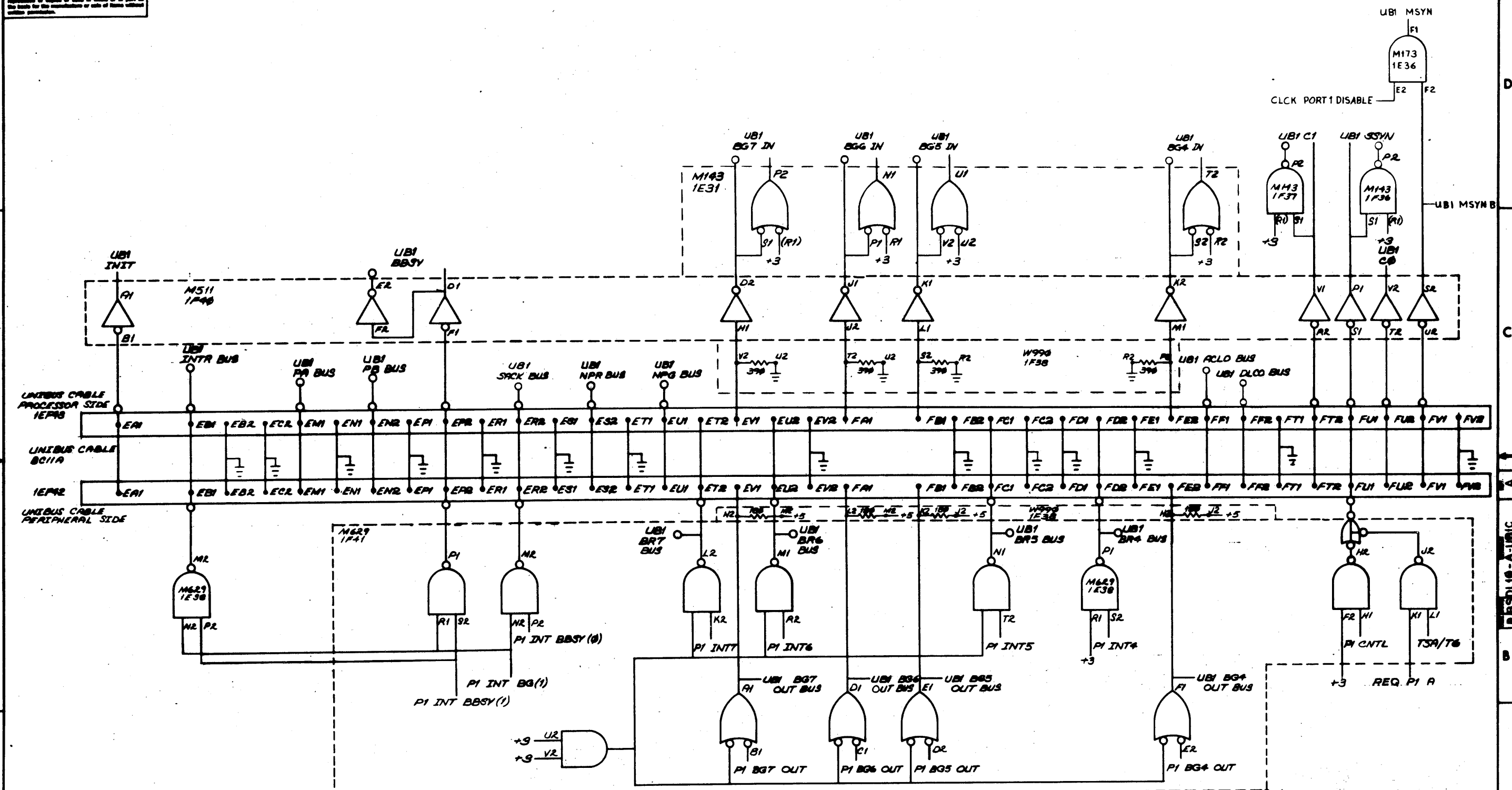


REV.	CHANGE NO.	DATE	BY
1	0003	7-24-72	B. WALSH

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
± .008 ± 1/64 ± 0°30'				
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
FINISH				
SHEET 1 OF 1				
PARTS LIST			EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TITLE			UNIBUS 1 ADDRESS INTERFACE (BITS 00-17)	
SIZE CODE			NUMBER	
A-ML-DL10-A			DBS DL10-A-UB1A	
SCALE NONE			REV. A	
DST.			A	

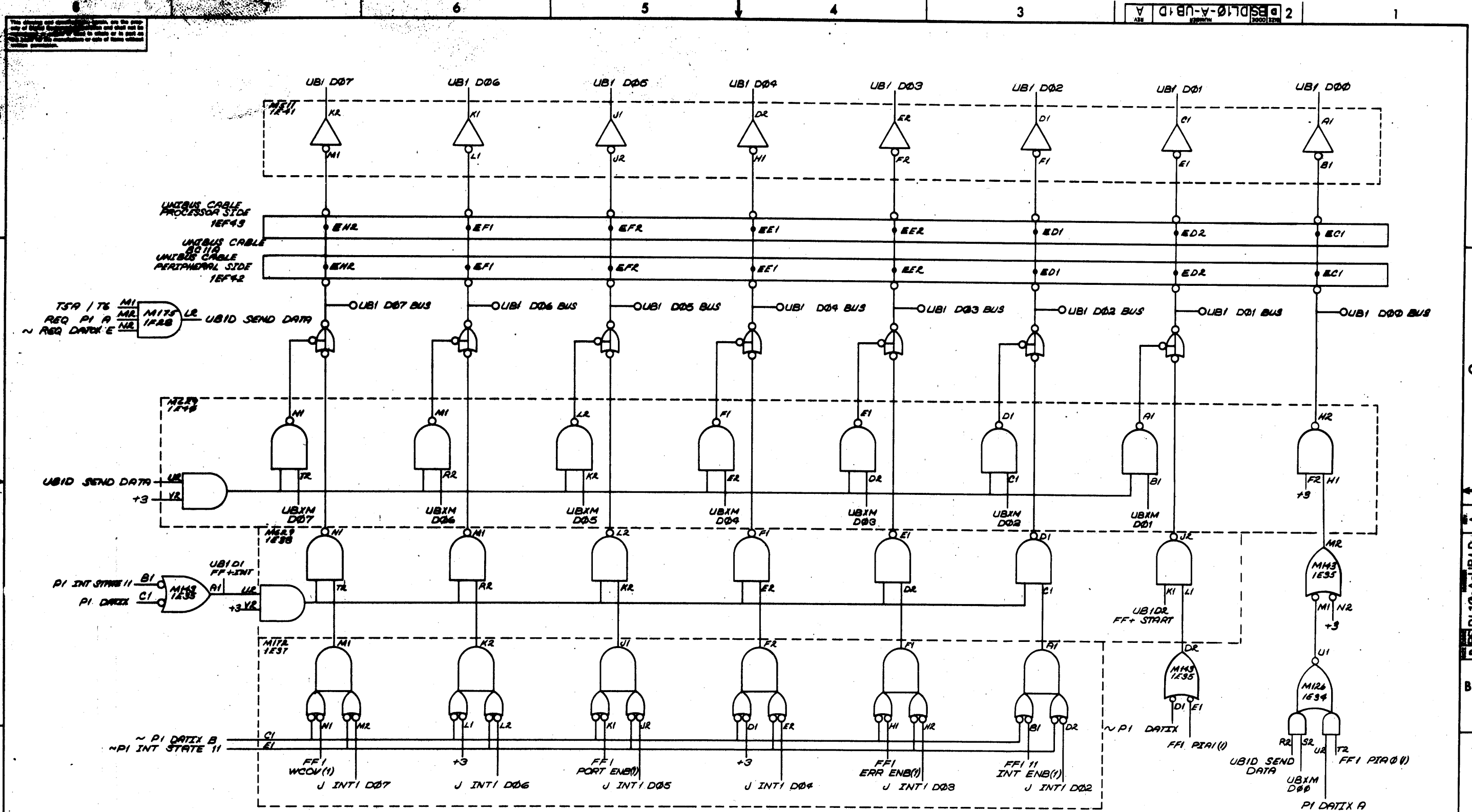
The drawing and specifications herein are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture of any item without written permission.



REV	DATE	BY
1	11/17/71	M. S. Holmes
2	12/17/71	A. M. L...
3	12/17/71	A. M. L...
4	12/17/71	A. M. L...
5	12/17/71	A. M. L...
6	12/17/71	A. M. L...
7	12/17/71	A. M. L...
8	12/17/71	A. M. L...

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFICED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFICED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ±.005 ±.002 ±.010 ±.015 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 11/17/71 BY M. S. Holmes CHECKED TWE DATE 11/17/71 NEXT HIGHER ASSY. A-M-L-D110-A	EQUIPMENT CORPORATION TITLE UNIBUS 1 CONTROL INTERFACE SCALE NONE SHEET 1 OF 1
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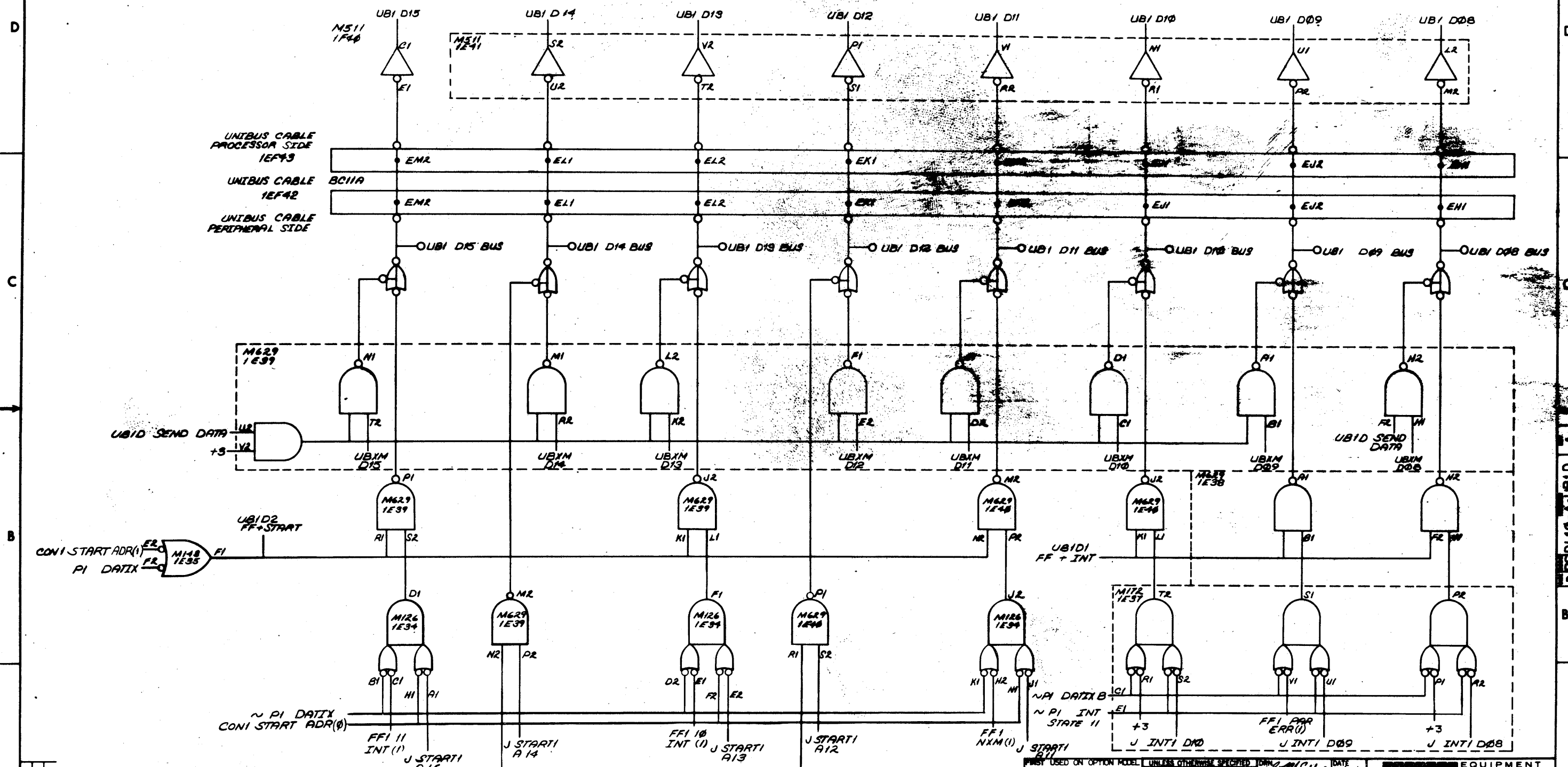


REV. NO.	REV.
DL10A-0008	A
DATE	4/16/71
BY	A KENT
CHKD	2/16/72

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	UNLESS OTHERWISE SPECIFIED TOLERANCES DECIMALS FRACTIONS ANGLES ± .010 ± .004 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 9/1/70 CHKD J. Thompson DATE 11/17/71 ENG. TUE DATE 11/17/71 PROJ. ENG. Tom Sargent DATE 12/7/71 PROD. P. Shamanski	digital EQUIPMENT CORPORATION MAYHARD MASSACHUSETTS
MATERIAL	FINISH	DATE 9/1/70 DATE 11/17/71 DATE 12/7/71	TITLE UNIBUS 1 DATA INTERFACE (BITS D00-D07)
SCALE	1 OF 2	SIZE CODE DBS	NUMBER DL10-A-UB1D
SHEET	1 OF 2	REV A	

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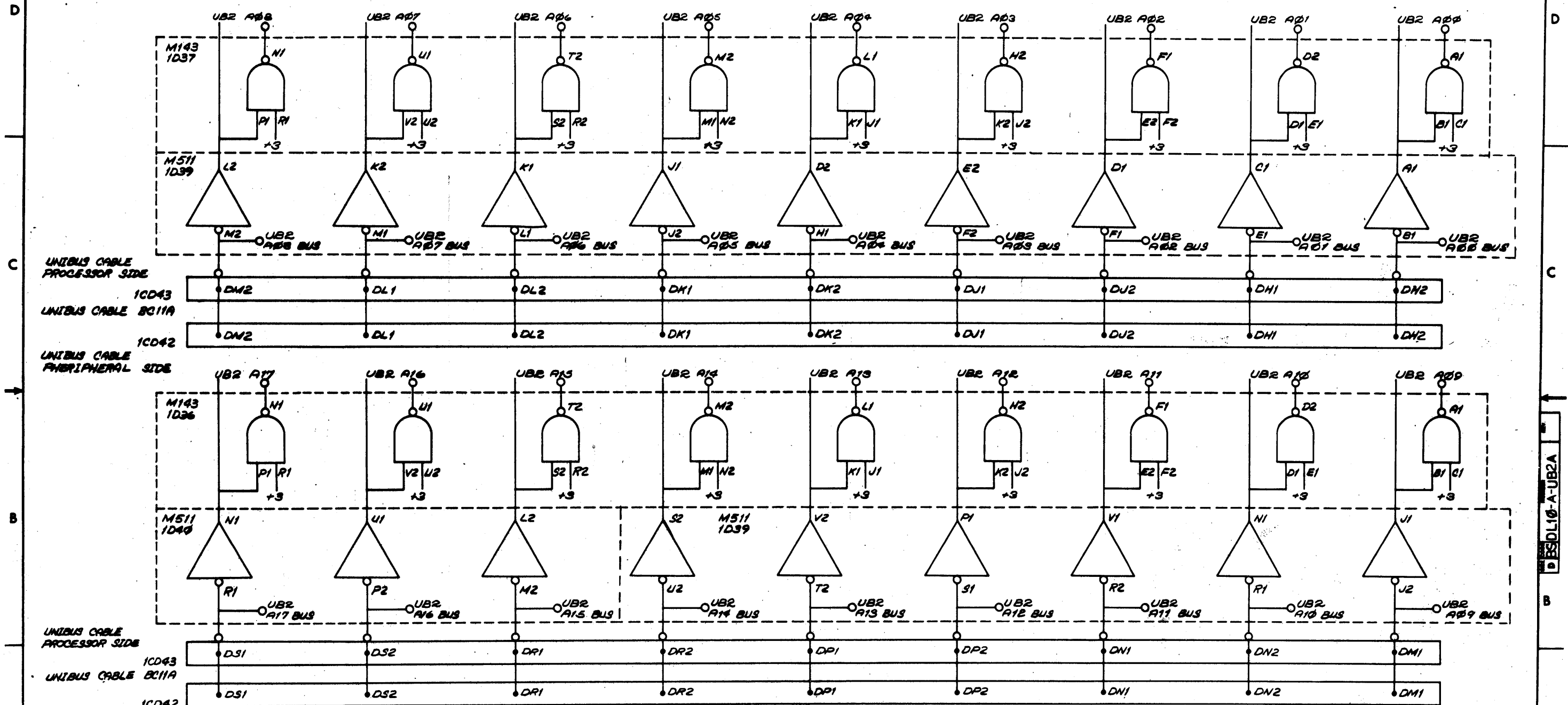


NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	DATE 3/20/70		TITLE UNIBUS 1 DATA INTERFACE (BITS 08-15)
DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	DATE 11/17/71 DATE 12/17/71		
MATERIAL + +	NEXT HIGHER ASSY A-ML-DL10-A	SCALE SHEET 2 OF 2	SIZE CODE DBS DL10-A-UB1D

REV	NO.	DATE

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REV.	
CHG.	
REV.	
CHG.	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

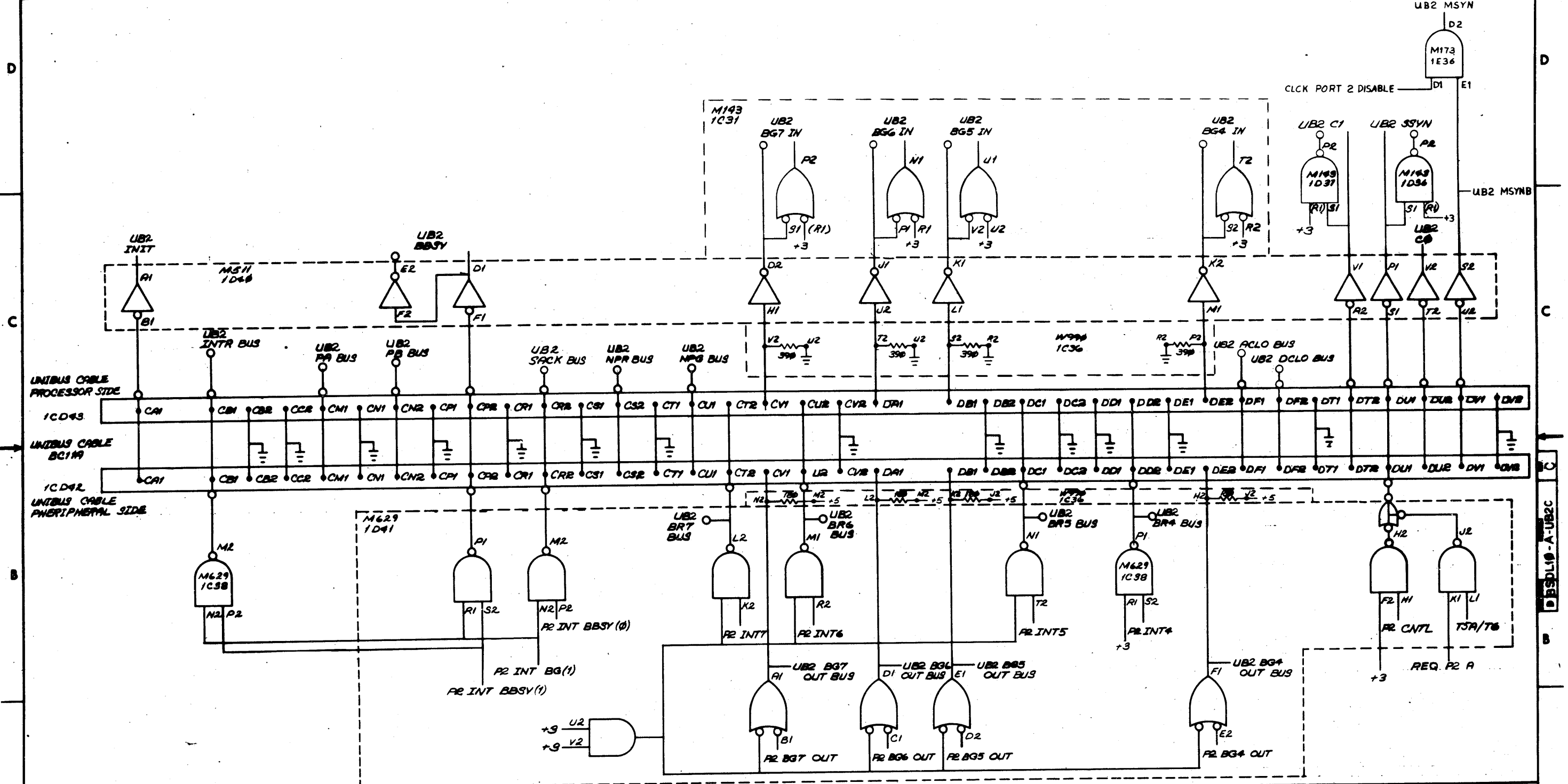
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± 0°30'		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	DATE	DATE	DATE	DATE
FINISH	SCALE	NUMBER	REV.	
	1 OF 1	1		

**digital** CORPORATION  
 MATTAPOISETT MASSACHUSETTS

TITLE  
**UNIBUS 2 ADDRESS INTERFACE (BITS 00-17)**

SIZE CODE  
**DBS DL10-A-UB2A**

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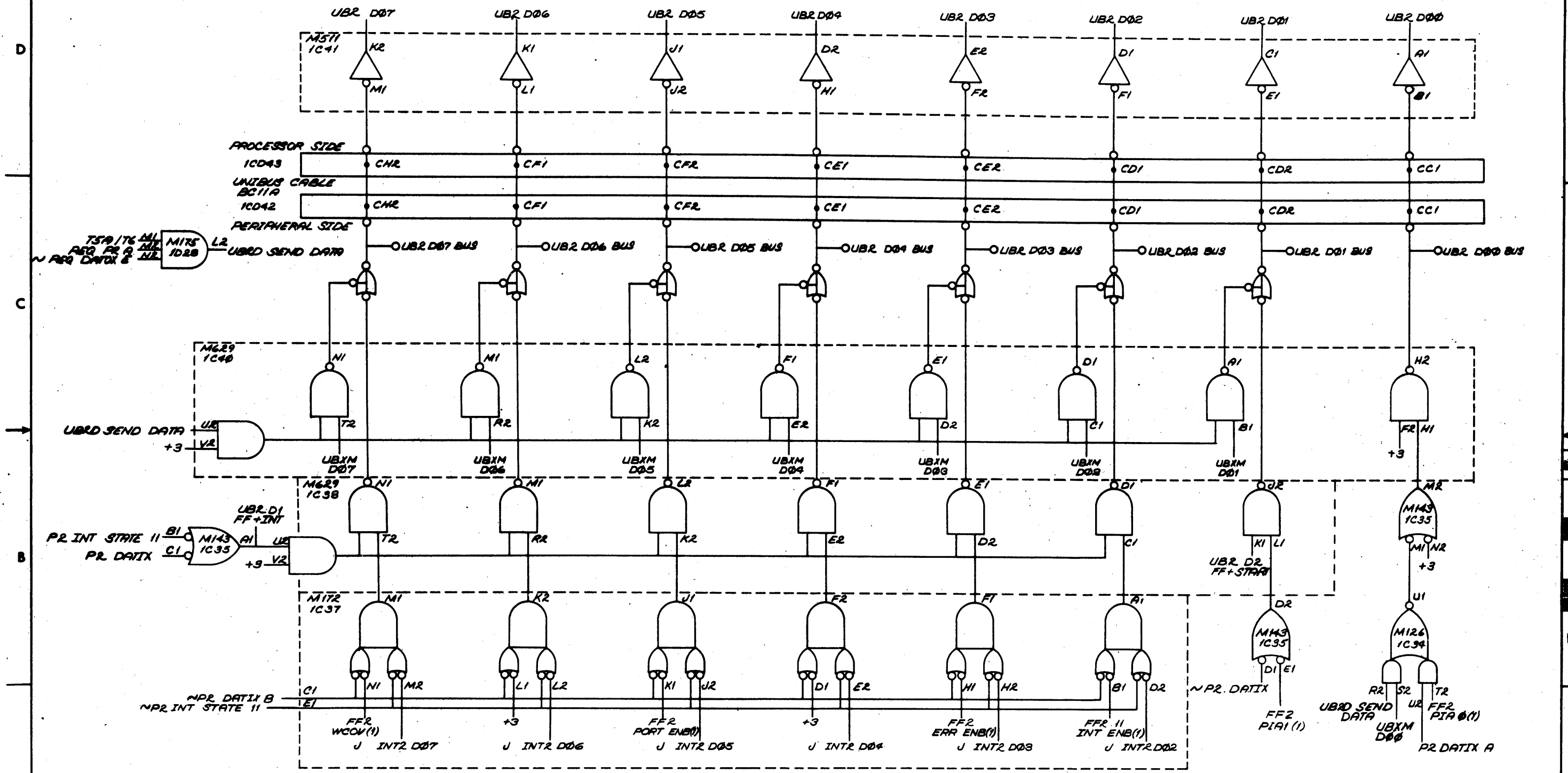


REV	REV	REV	REV	REV	REV	REV	REV	REV	REV
1	2	3	4	5	6	7	8	9	10
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
BY	BY	BY	BY	BY	BY	BY	BY	BY	BY
CHK	CHK	CHK	CHK	CHK	CHK	CHK	CHK	CHK	CHK
APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70
TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	ENGR TWE	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70
MATERIAL	FINISH	SCALE NONE	SHEET 1	OF 1	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70	DATE 7/7/70
TITLE UNIBUS 2 CONTROL INTERFACE			EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			NUMBER DBS DL10-A-UB2C			REV. C

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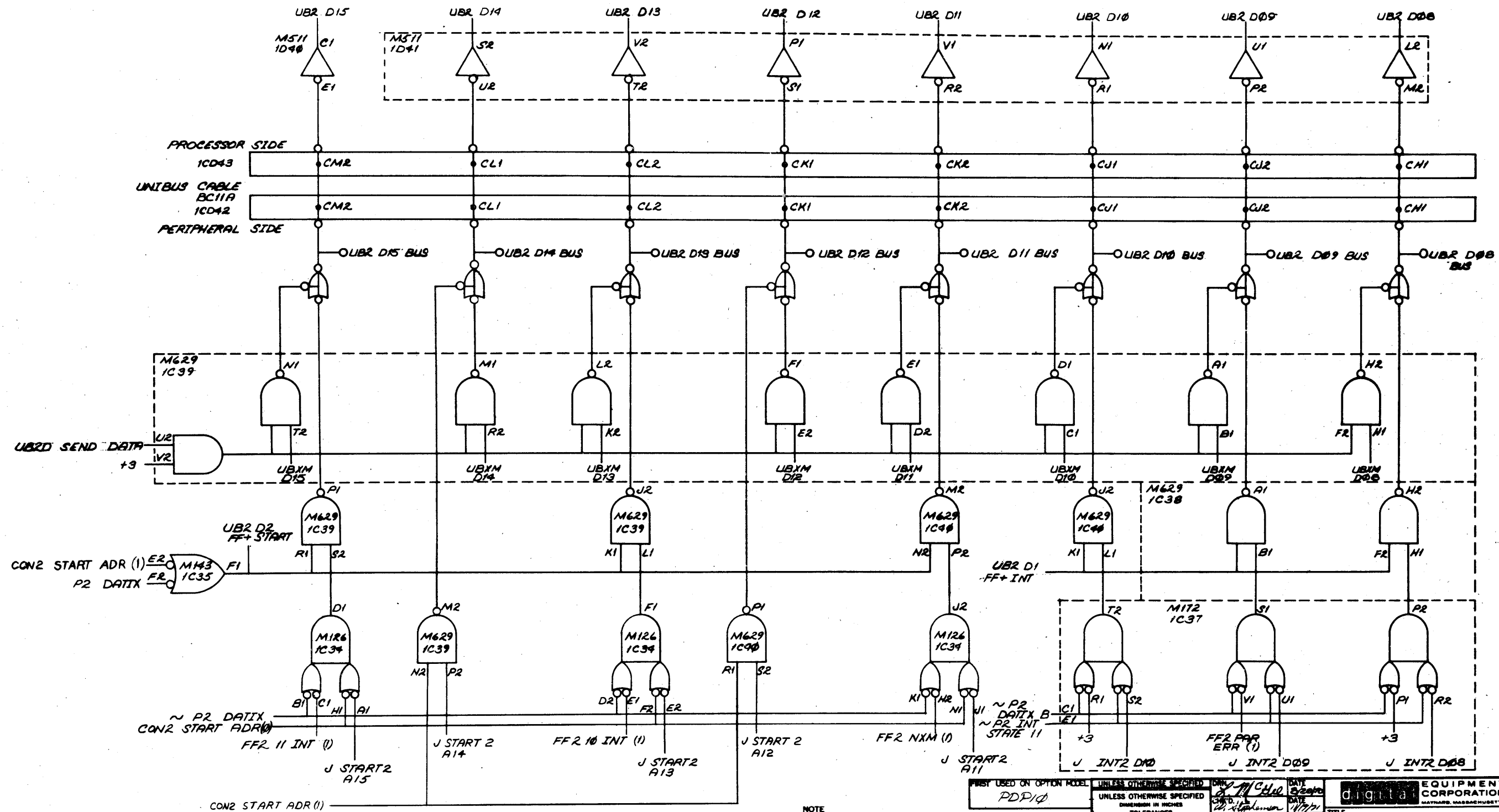


REVISIONS	REV.	DATE
CHANGE NO.	REV.	DATE
DL10A-0008	A	11/17/71
11/17/71		
A. KENT		
11/17/71		

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 8°	DATE 11/17/71 DATE 11/17/71 DATE 11/17/71 DATE 11/17/71	<p>digital EQUIPMENT CORPORATION          BATHING, MASSACHUSETTS</p>
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 8°	DATE 11/17/71 DATE 11/17/71 DATE 11/17/71 DATE 11/17/71	
<p>UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 8°</p>		<p>TITLE  <b>UNIBUS 2 DATA INTERFACE (BITS D00-D07)</b></p>
<p>UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 8°</p>		<p>SIZE CODE NUMBER  <b>DBS DL10-A-UB2D</b></p>

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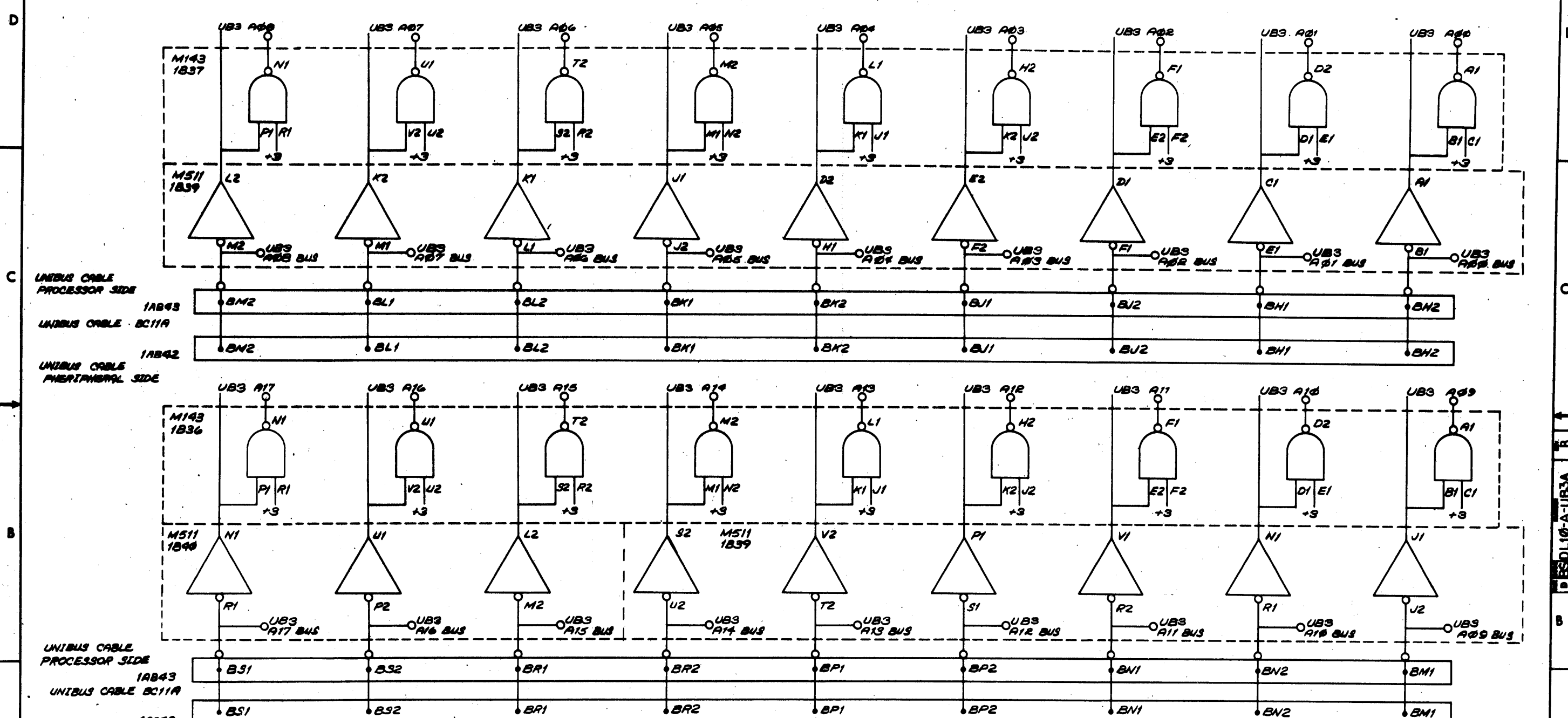


REVISIONS	REV.
CHANGE NO.	
CHK	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	UNLESS OTHERWISE SPECIFIED TOLERANCES	DATE 11/17/71	BY MCH
DECIMALS FRACTIONS ANGLES	± .005 ± 1/64 ± .075	DATE 11/17/71	DATE 11/17/71
FINAL SURFACE QUALITY REMOVE DIM. AND BREAK SHARP CORNERS		DATE 11/17/71	DATE 11/17/71
MATERIAL ---		DATE 11/17/71	DATE 11/17/71
FINISH ---		DATE 11/17/71	DATE 11/17/71
SCALE SHEET 2 OF 2		DATE 11/17/71	DATE 11/17/71
TITLE <b>UNIBUS 2 DATA INTERFACE (BITS 08-15)</b>		DIGITAL EQUIPMENT CORPORATION MAYFLEAD, MASSACHUSETTS	
PART NUMBER <b>DBS DL10-A-UB20</b>		REV. A	

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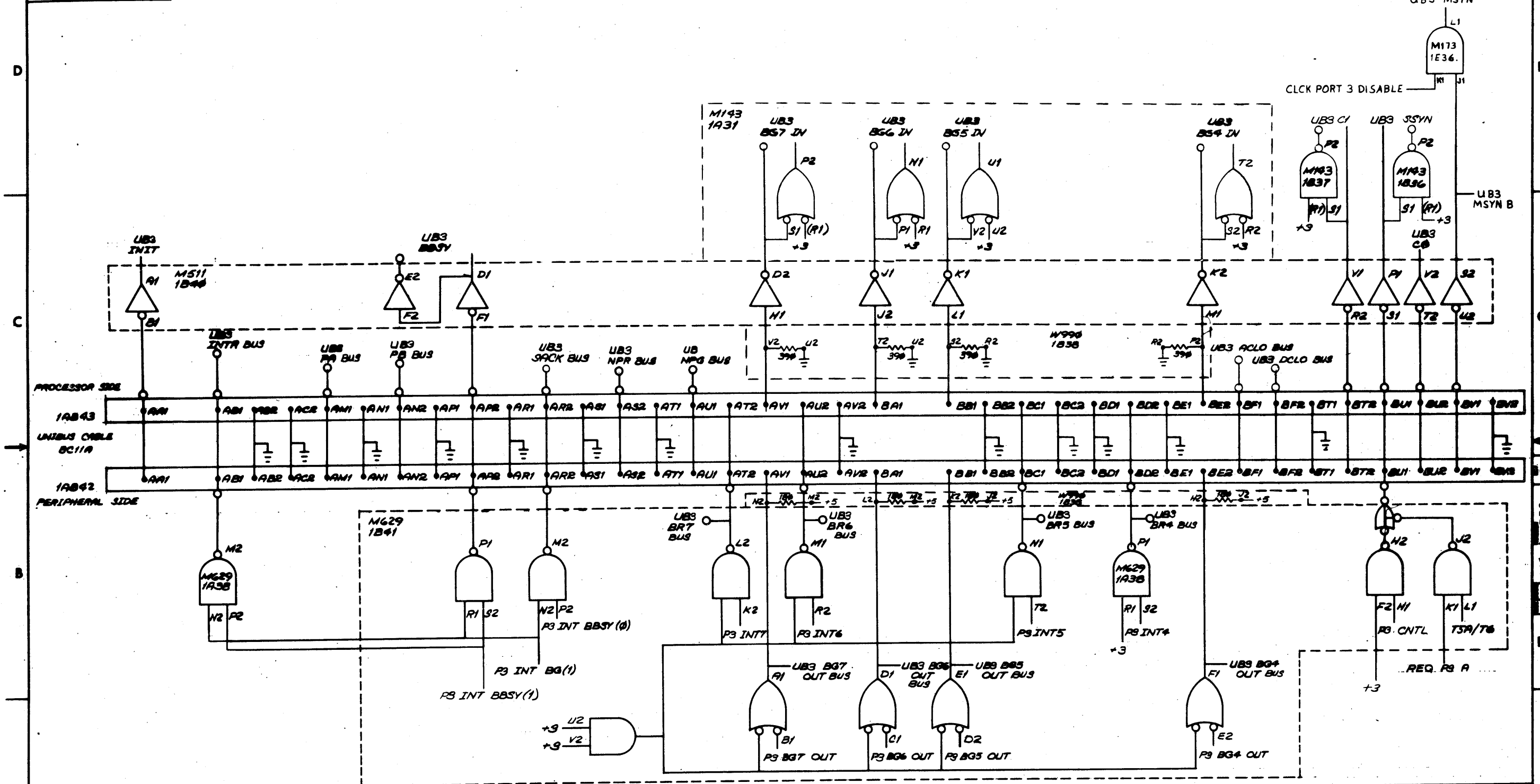


REV.	DATE	BY	CHKD.
1	11/17/71	VIC KU	B. WALSH
2	11/17/71	VIC KU	B. WALSH
3	11/17/71	VIC KU	B. WALSH
4	11/17/71	VIC KU	B. WALSH
5	11/17/71	VIC KU	B. WALSH
6	11/17/71	VIC KU	B. WALSH
7	11/17/71	VIC KU	B. WALSH
8	11/17/71	VIC KU	B. WALSH

NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP10	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 11/17/71	DATE 11/17/71	DATE 11/17/71	DATE 11/17/71
MATERIAL	PROJ. ENG. Tom Egard	DATE 11/17/71	DATE 11/17/71	DATE 11/17/71
FINISH	SCALE NONE	SHEET 1 OF 1	PARTS LIST	
TITLE UNIBUS 3 ADDRESS INTERFACE (BITS 00-17)			EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DRAWING NO. DBSD10-A-UB3A			NUMBER B	REV. B

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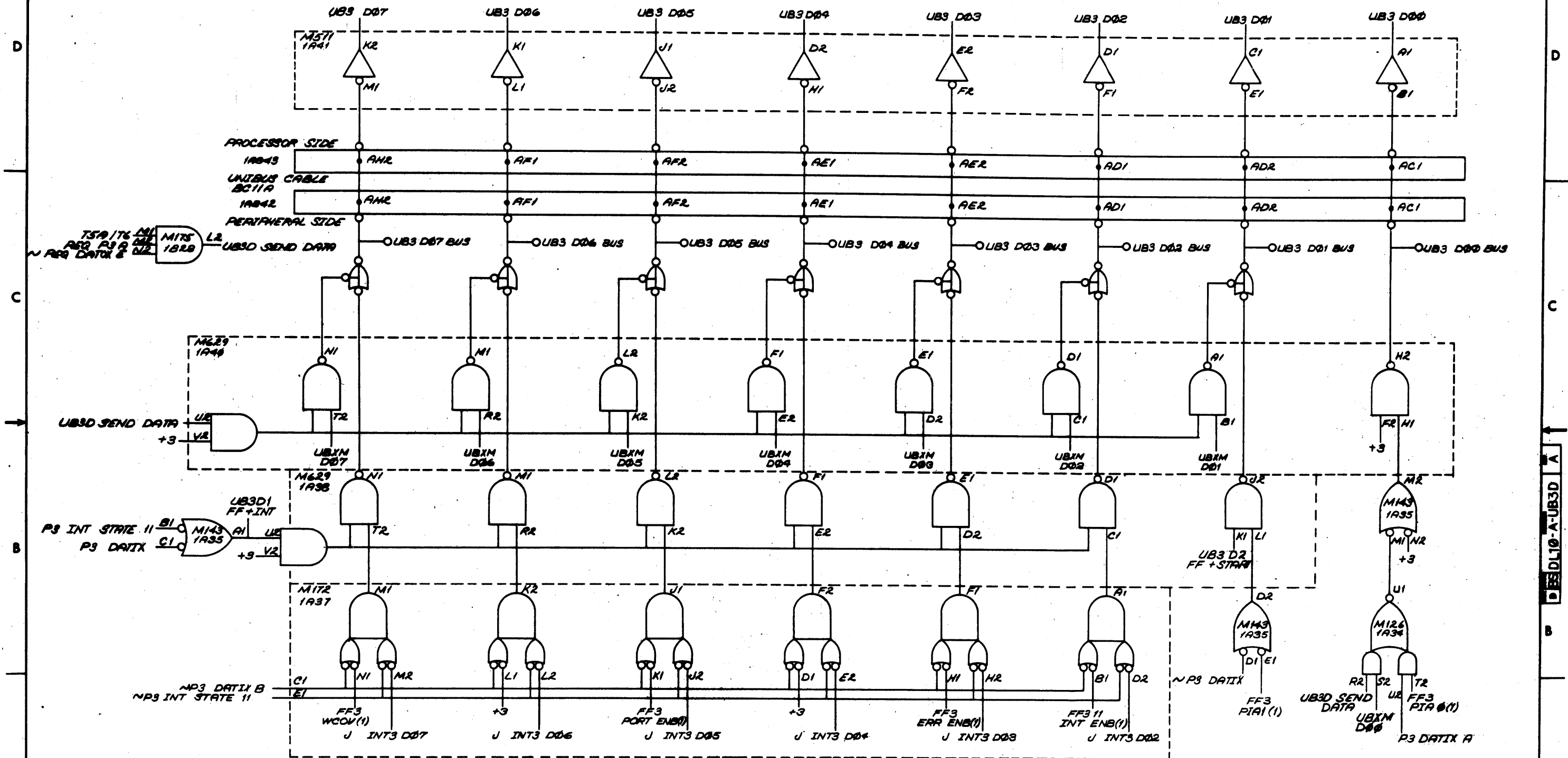


REV	DATE	BY	CHK
A	10-19-74	A. KENT	P. HOLMES
B	4-19-74	A. KENT	P. HOLMES
C	2 May 74	A. KENT	P. HOLMES
D	24 SEPT 76	P. HOLMES	P. HOLMES

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	DATE 12/1/77 BY M. C. [Signature] CHECKED [Signature] ENGR. TWE DATE 11/11/77 DESIGNED BY [Signature] DATE 12/1/77 NEXT HIGHER ASSY. A-ML-DL10-A	TITLE <b>UNIBUS 3 CONTROL INTERFACE</b>
MATERIAL	SCALE NONE	DBSDL10-A-UB3C
FINISH	SHEET 1 OF 1	DIST.

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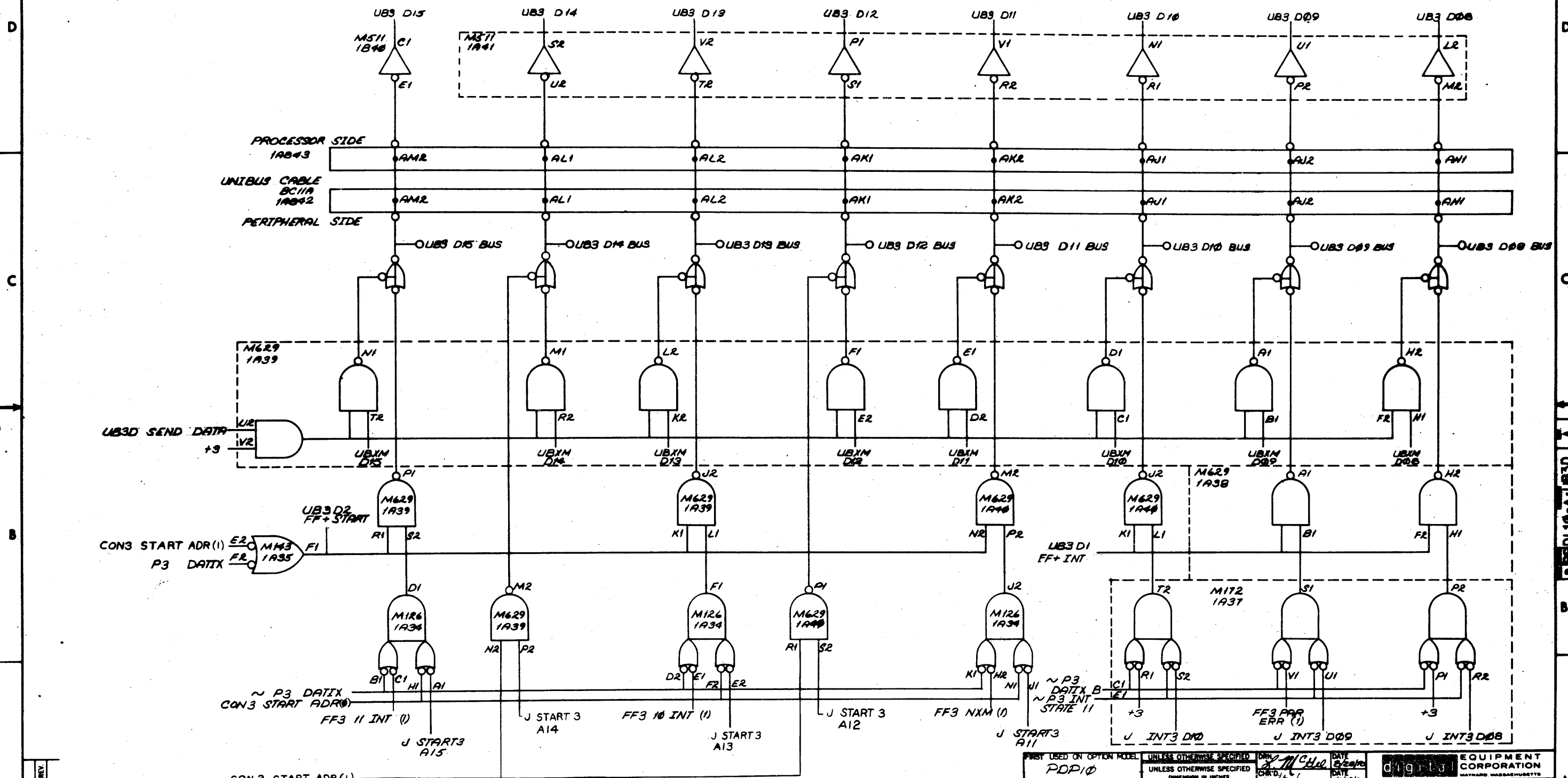


REV	A
CHANGE NO.	0006
CHK	DL
DATE	1-18-74
BY	A. KENT

UNLESS OTHERWISE SPECIFIED		DATE	1/18/74
DIMENSIONS IN INCHES		DRN	J. McNeil
TOLERANCES		CHKD	W. R. Haman
DECIMALS	FRACTIONS	ENGR	TWE
± .005	± 1/64	PROJ. ENGR	J. E. Egan
FINAL SURFACE QUALITY		DATE	1/18/74
REMOVE BURRS AND BREAK SHARP CORNERS		DATE	1/18/74
MATERIAL		PROJ. ENGR	R. Haman
FINISH		DATE	1/18/74
SCALE		SCALE	1 OF 2
SHEET		SHEET	1 OF 2
TITLE		UNIBUS 3 DATA INTERFACE (BITS D00-D07)	
EQUIPMENT CORPORATION		DESIGN-A-UB3D	

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

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NOTE  
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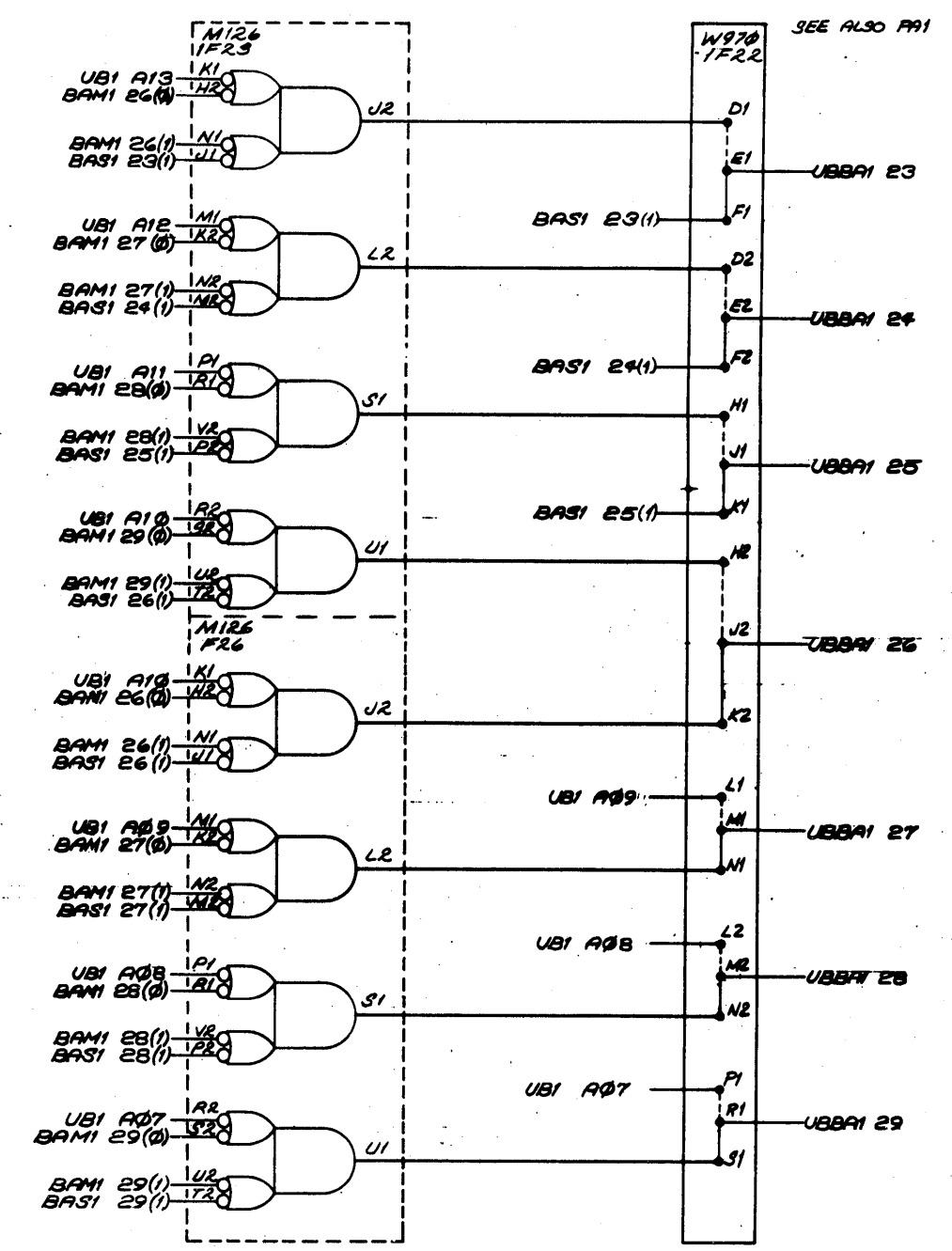
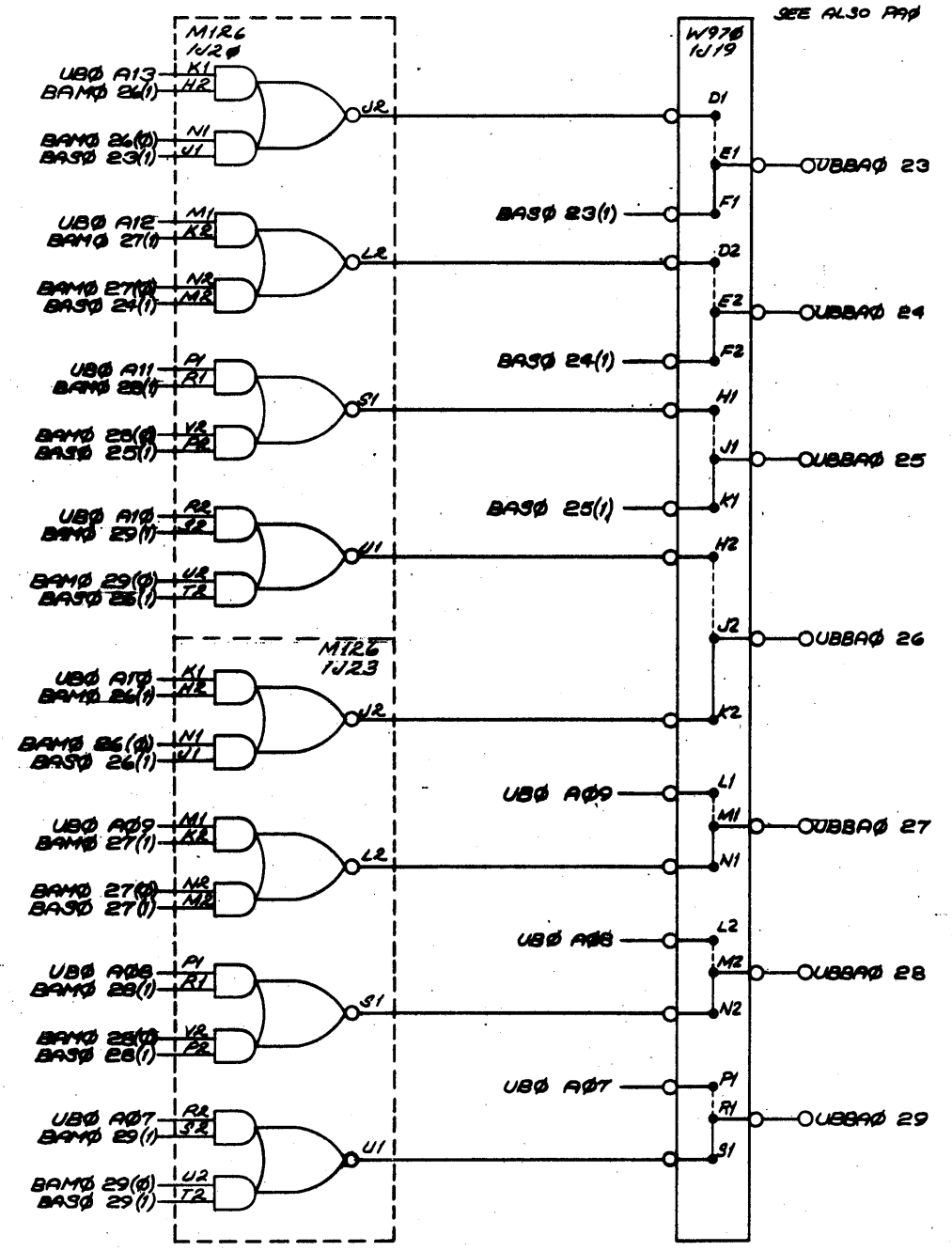
REVISIONS	REV.
CHANGE NO.	
CHK	

USED ON OPTION MODEL  
 PDP10

UNLESS OTHERWISE SPECIFIED		DATE	11/19/71
DIMENSIONS IN INCHES		DATE	11/19/71
TOLERANCES		DATE	11/19/71
DECIMALS	FRACTIONS	ANGLES	
± 0.005	± 1/64	± 0°30'	
FINAL SURFACE QUALITY		DATE	12/17/71
REMOVE BURRS AND BREAK SHARP CORNERS		DATE	
MATERIAL		NEXT HIGHER ASSY	
FINISH		A-ML-DL10-A	
SCALE		SCALE	
SHEET 2 OF 2		SHEET	

EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TITLE UNIBUS 3 DATA INTERFACE (BITS 08-15)	
DBS DL10-A-UB3D	NUMBER A
SCALE	DATE

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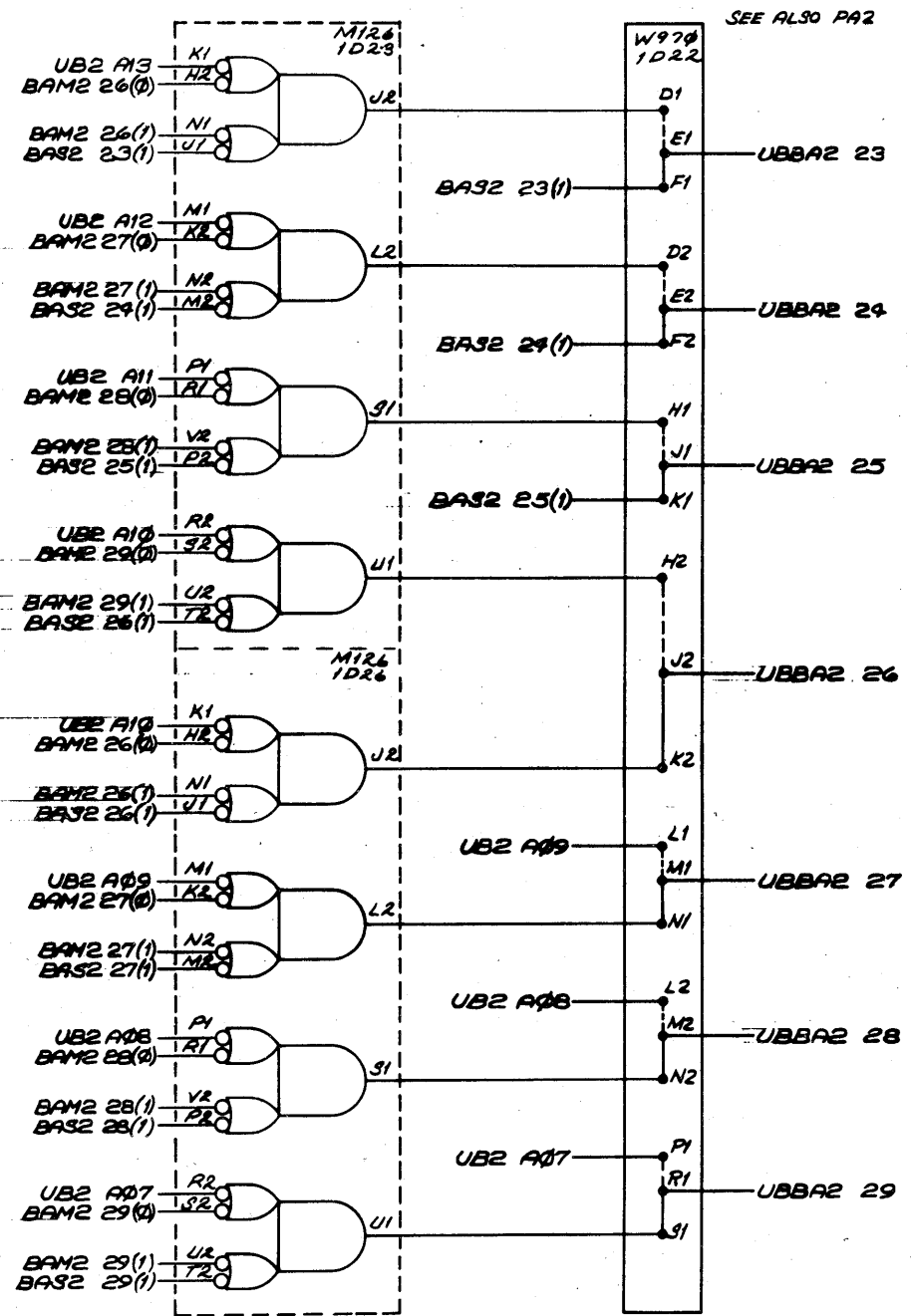


REV.	
CHANGE NO.	
CHK	

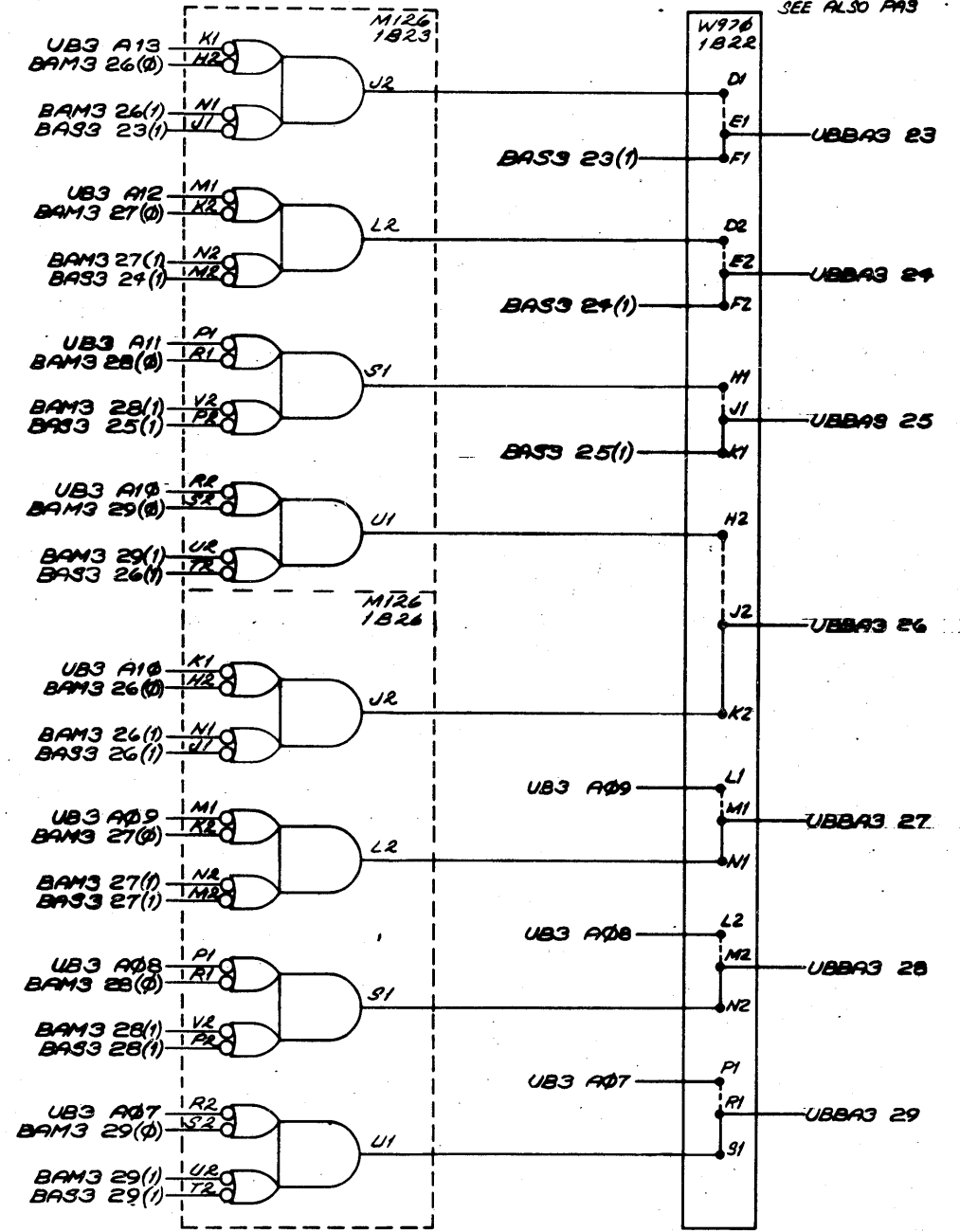
NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL PDP1Ø	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED	PARTS LIST			
UNLESS OTHERWISE SPECIFIED	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
DRAWN: <i>L. McNeil</i> DATE: 6/17/70	TITLE: UNIBUS BASE ADDRESS MIXERS			
CHAR. BY: <i>Williamson</i> DATE: 11/21/71	SIZE CODE: DBS DL10-A-UBBA			
ENG. DATE: 11/21/71	NUMBER			
PROJ. ENG. DATE: 11/21/71	REV.			
MATERIAL	NEXT HIGHER ASSY. A-ML-DL10-A			
FINISH	SCALE 1 OF 2			
SHEET		DIST.		

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SEE ALSO PA2



SEE ALSO PA3

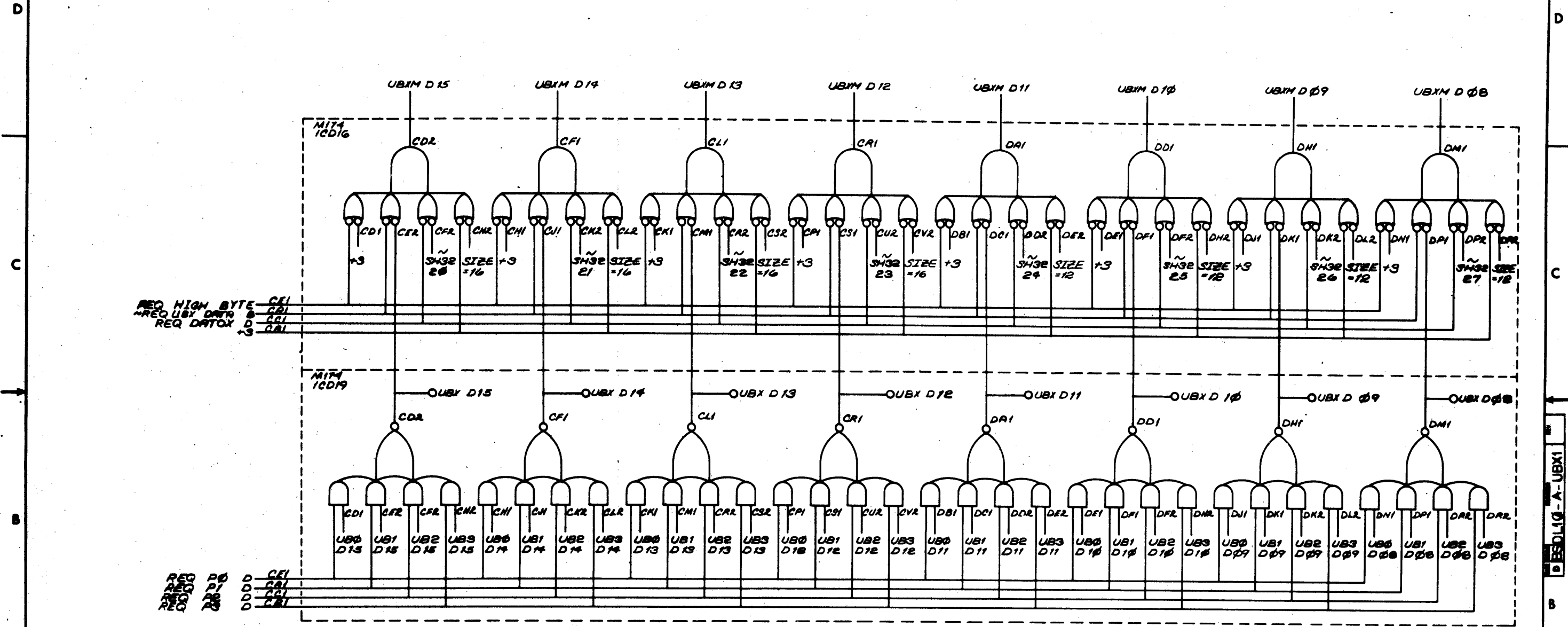
NOTE  
ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DATE	DATE	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	DATE	DATE	TITLE	
DIMENSIONS IN INCHES	DATE	DATE	UNIBUS BASE	
TOLERANCES	DATE	DATE	ADDRESS MIXERS	
DECIMALS FRACTIONS ANGLES	DATE	DATE	SCALE	REV.
± .008 ± 1/64 ± .030	DATE	DATE	2 OF 2	
FINAL SURFACE QUALITY	DATE	DATE	DBS/DL10-A-UBBA	
REMOVE BURRS AND BREAK SHARP CORNERS	DATE	DATE	SHEET	
MATERIAL	NEXT HIGHER ASSY.			
FINISH	A-ML-DL10-A			

REV.	CHANGE NO.	REVISIONS

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UBX1-0170-01-02

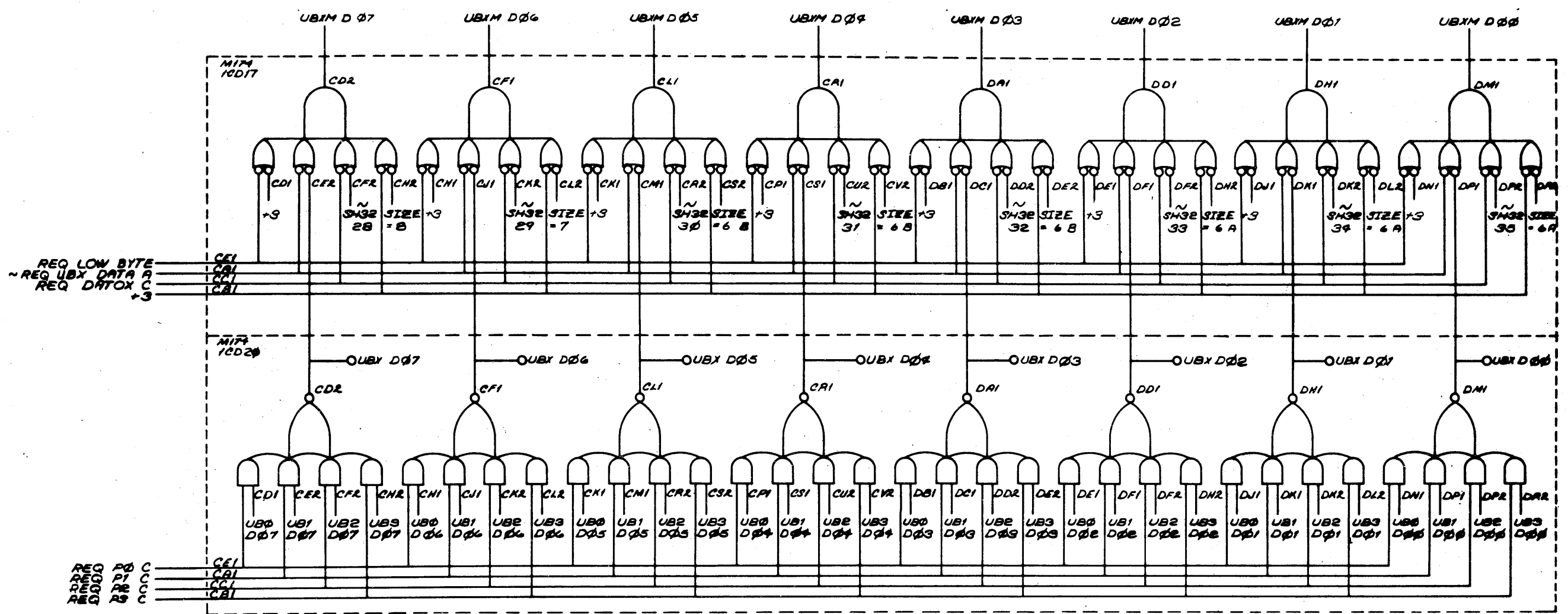


REV.	CHG.	NO.

NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "0" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .001 ± .010 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .001 ± .010 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .001 ± .010 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .001 ± .010 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71	DATE 5/8/72 DATE 4/11/72 DATE 11/19/71 DATE 12/17/71

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NOTE  
 ALL SIGNAL NAMES ON THIS SHEET CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES "O" ARE AS IF SUFFIXED WITH "L". ALL SIGNAL NAMES ON THIS SHEET NOT CONNECTED TO LOW ASSERTION DESIGNATION CIRCLES ARE AS IF SUFFIXED WITH "H".

REVISED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP10				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± 0.007		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NE X Y H R H E R A S S Y			
FINISH	A-ML-DL10-A			
SCALE		DIBS0110-A-UBX2		
SHEET 1 OF 1		REV.		

REV	CHG	NO.	DATE









DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. STEPHENSON  
DATE 8/3/71  
ENG Tom Egge  
DATE 23 Dec 1971  
CHECKED W. Stephenson  
DATE 12/23/71  
SECTION  
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
G830		POWER REGULATOR
M050		50 MA INDICATOR & RELAY DRIVER
M126		2 2 AND - NOR GATE
M128		4 4-AND - NOR GATE
M130		5-8 BIT PARITY CHECKER
M143		2 INPUT NAND GATE
M145		7 3 INPUT NAND GATE
M147		5 4 INPUT NAND GATE
M151		2X BINARY TO OCTAL DECODER
M152		2X BINARY TO OCTAL DECODER
M166		+1 GATE
M170		2 AS'T'D AND NOR
M171		4 2-2-2-3 AND-NOR GATE
M172		9X2 MIXER
M173		2 INPUT NAND GATE
M174		9X4 MIXER
M175		7 3 INPUT AND GATE
M177		5 4 INPUT AND GATE
M178		8X6 DATE MIXER
M181		2-2-2-3 AND-OR GATE
M241		6 D FLIP-FLOP
M243		8 D FLIP-FLOP

TITLE MODULE UTILIZATION  
(PARTS LIST)

ASSY NO.  
D-MU-DL10-A

SIZE CODE  
A PL

SHEET 1 OF 3

DIST.

DL10-A-MUAR  
NUMBER

REV. ECO NO.  
DL10A-H  
H COOIT

QUANTITY / VARIATION

DL10-A	DL10-B	2ND 1/2 BUS	DL10-C	UNIBUS PORT
12	1	1	1	
1				
11		5		
4				
1				
22		5		
4				
2				
1				
1				
5				
1			1	
8			2	
18			1	
5			1	
20				
3			1	
3			2	
6				
2				
9			1	
10			2	

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

DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. STEPHENSON  
DATE 8/3/71  
ENG Tom Egge  
DATE 23 Dec 1971  
CHECKED W. Stephenson  
DATE 12/23/71  
SECTION  
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
M246		5'D FLIP-FLOP
M307		DUAL TIMER
M308		GLITCHLESS TIMER
M321		TAPPED DELAY LINE
M362		LATCH REGISTER DRIVER
M511		POSITIVE BUS RECEIVER
M564		I/O BUS RECEIVER
M565		8 MEMORY BUS RECEIVERS
M592		I/O DEVICE SELECT
M603		PULSE AMPLIFIER
M612		POWER DRIVER
M629		BUS DRIVERS
M663		BUS ADDRESS DRIVER
M664		8 I/O BUS DRIVER
M665		8 MEMORY BUS TRANSMITTERS
M7100		I/O DEVICE CONTROL
M921		JUMPER BOARD
M931		LEVEL TERMINATOR
M948		24 LAMP DRIVERS
M952		27 TERMINATORS
M956		18 RESISTOR TERMINATORS
M969		LEVEL TERMINATOR

TITLE MODULE UTILIZATION  
(PARTS LIST)

ASSY NO.  
D-MU-DL10-A

SIZE CODE  
A PL

SHEET 2 OF 3

DIST.

DL10-A-MUAR  
NUMBER

REV. ECO NO.  
H  
H

QUANTITY / VARIATION

DL10-A	DL10-B	2ND 1/2 BUS	DL10-C	UNIBUS PORT
5			1	
2			1	
2				
6				
3				
4				3
6		6		
8				
1		1		
2				
13				
6				4
11				
6		6		
5				
1				
12				2
18				
10				
20				
3				
6				

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

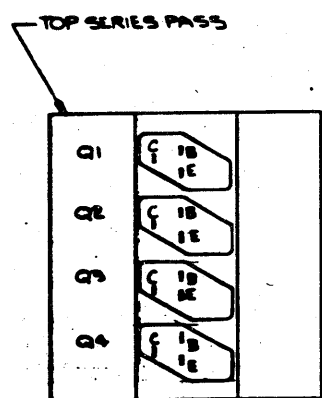
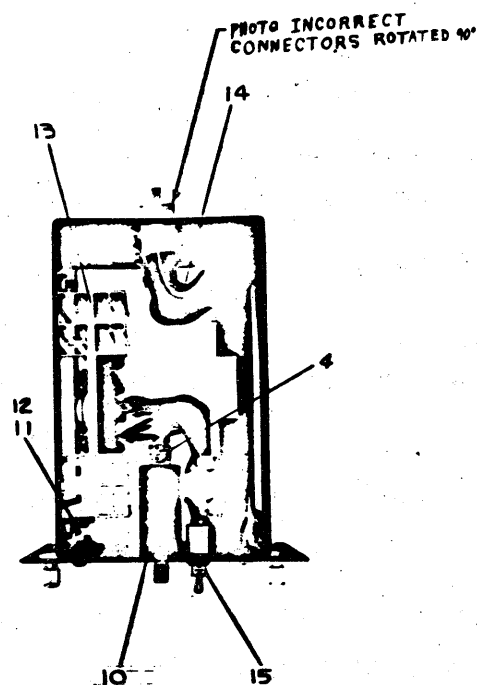
DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				QUANTITY / VARIATION									
PARTS LIST				DL10-A		DL10-B	2ND 1/0 BUS	DL10-C	UNIBUS PORT				
MADE BY	W. STEPHENSON	CHECKED	SECTION										
DATE	8/3/71	DATE	12/23/71	ISSUED SECT.									
ENG	Tom Eggert	PROD	P. Stravinski										
DATE	23 Dec 1971	DATE	12-23-71										
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION		DL10-A		DL10-B	2ND 1/0 BUS	DL10-C	UNIBUS PORT				
	M3070	DUAL TIMER		1		-		-					
	G700	TERMINATOR		1		-		-					
	W106	PRIORITY INTERRUPT GRANT (REV D OR HIGHER)		1		-		-					
	W990	BLANK MODULE		4		-		-					
	W990	BLANK MODULE		3		-		-					
	D-UA-BC11A-0-0	BC11A CABLE		1		-		-					
	D-UA-BC08J-0-0	BC08J CABLE * FOR 11/15 OR 11/20		1*		-		-					
	<del>D-UA-BC10A-0-0</del>	BC10A OR H CABLE (TWO ADDITIONAL CABLES REQUIRED IF MX10 USED)		2		2		-					
	G703	MEMORY BUS TERMINATORS (4 TO BE USED AT EACH END OF DL10 MEMORY BUS)		8		-		-					
	D-1A-7009719-0-0	11/40 DL10 CABLE # FOR 11/35 OR 11/40		1#		-		-					
	D-1A-7012783-0-0	MAINT. PANEL ASSY		1									
	1300316	RES. 470Ω 1/4W 5%		4		-		-					
	1300398	RES. 1.8KΩ 1/4W 5%		4		-		-					
	1300354	RES. 750Ω 1/2W 5%		1		-		-					
	1300287	RES. 270 1 W 10%		1		-		-					
	M501	SCHMITT TRIGGER		-		2		-					
	W023	CONNECTOR BOARD		-		1		-					
	1301322	RES. 180Ω 1/4W 5%		4		-		-					
	1300309	RES. 390Ω 1/4W 5%		4		-		-					
TITLE				ASSY NO.		SIZE CODE		NUMBER		REV.	ECO NO.		
MODULE UTILIZATION (PARTS LIST)				D-MU-DL10-A		A PL		DL10-A-MUAR		H			
				SHEET 3 OF 3		DIST.							



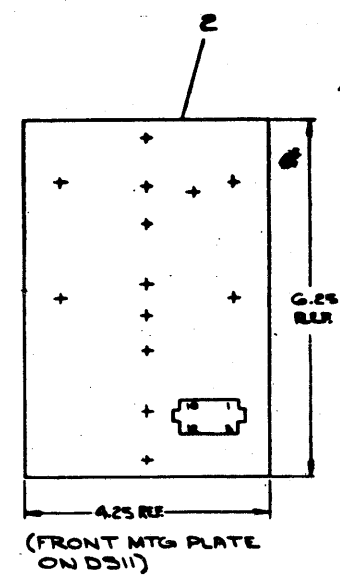
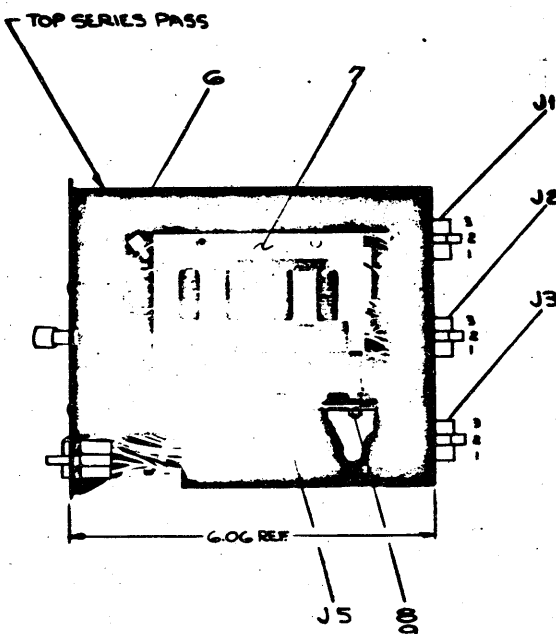
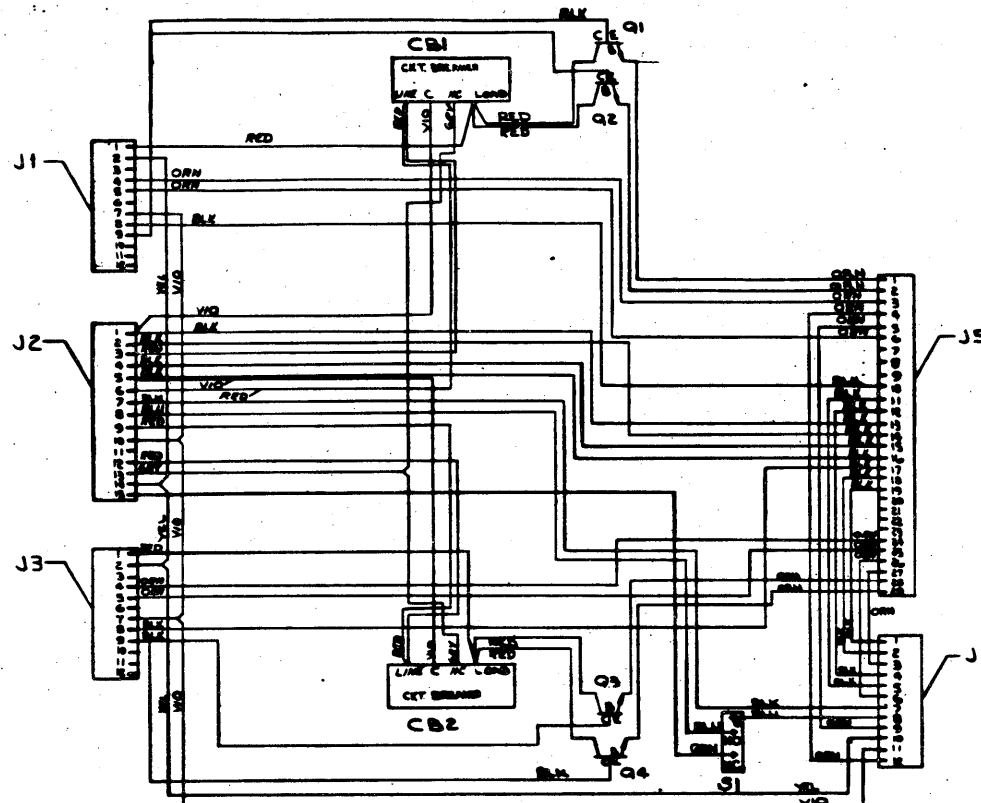
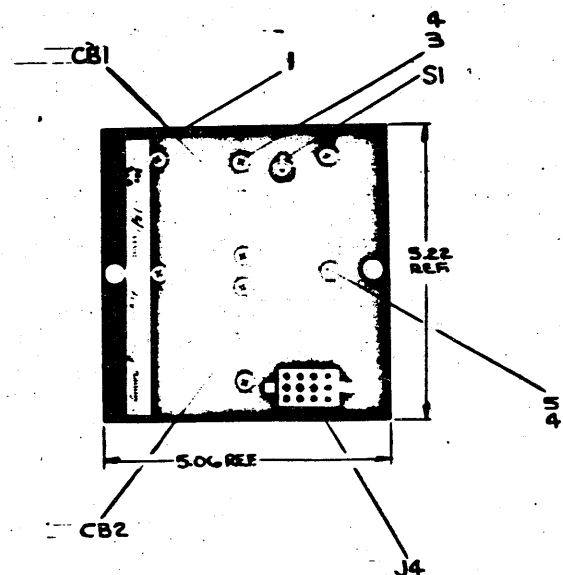
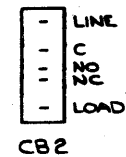
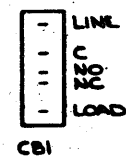
WIRE TABLE				
ITEM NO.	DESCRIPTION	FROM HARNESS POINT NO.	TO SERIES PASS ELEMENT LOCATION	REMARKS
18	BLK	23	Q4-B	SOLDER
19	RED	25	Q4-C	SOLDER
20	ORG	24	Q4-E	SOLDER
18	RED	27	CB2-LOAD	
20	VIO	26	CB2-LOAD	
20	VIO	21	CB2-C	
20	GRY	27	CB2-NC	
18	RED	16,17	CB2-LINE	
18	BLK	18	Q3-B	SOLDER
18	RED	19	Q3-C	
18	ORG	20	Q3-E	
18	ORG	12	Q2-E	
18	BLK	10	Q2-B	
18	RED	11	Q2-C	SOLDER
18	RED	13	CB1-LOAD	
18	RED	14	CB1-LOAD	
20	VIO	9	CB1-C	
20	GRY	13	CB1-NC	
18	RED	1,2	CB1-LINE	
18	ORG	8	Q1-E	SOLDER
18	BLK	6	Q1-B	SOLDER
18	RED	7	Q1-C	SOLDER

LEGEND	
7006585-1	K110
7006585-2	DS11

NOTES:  
 1. INSPECT PER A-71-7006585-0-0.



HEAT SINK



SEE: A-PL-7006585-0-0

DATE	BY	CHKD	APP'D
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		
11/10/77	W. H. HARRIS		

PART NO. K110 TITLE SERIES PASS ELEMENT ASSY DATE 11-29-77 DRAWN BY [Signature] CHECKED BY [Signature] APP'D BY [Signature]	EQUIPMENT CORPORATION 7006585-0-0 SHEET 1 OF 1
--	--

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<b>DIGITAL EQUIPMENT CORPORATION</b>						
MAYNARD, MASSACHUSETTS						
<b>ENGINEERING SPECIFICATION</b>				DATE 2/18/72		
TITLE DL10 SYSTEM ACCEPTANCE SPECIFICATION						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	DL10A-00008	A. K.	4-74	<i>D. Varoff for A.K.</i>	5/2/79
B	ECO CHANGE	DL10A-00014	J. MARTIN	9-76		
ENG	<i>W. V. [Signature]</i>	APPD	CODE	SIZE	NUMBER	REV
			SP	A	DL10-A-SAS	B

<b>ENGINEERING SPECIFICATION</b>	<b>CONTINUATION SHEET</b>		
TITLE DL10 SYSTEM ACCEPTANCE SPECIFICATION			
<p>1.0 Equipment Required</p> <p>1.1 KA10, K110, OR KL10 Central Processor</p> <p>1.11 a minimum of 16 K of memory</p> <p>1.12 Program Loading Device</p> <p>1.2 DL10</p> <p>1.21 A minimum of one DL10C</p> <p>1.3 A minimum of one PDP-11 processor</p> <p>1.31 KY11C console (11/15 OR 11/20) OR 11/35 OR 11/40</p> <p>1.32 Teletype and control (for Acceptance Test only)</p> <p>1.33 A minimum of 4K of memory</p> <p>2.0 Diagnostic Programs</p> <p>2.1 MAINDEC-10-DDDLA</p> <p>2.11 Run this program for a minimum of 20 minutes without any errors.</p> <p>2.12 Run tests 61 and 62 of this program without errors. (See Diagnostic Listing.)</p> <p>2.2 MAINDEC-10-DXDLC</p> <p>2.2.1 MAINDEC-10-DDDLB - Run this program with DXDLC for a minimum of 30 minutes without any errors.</p> <p>2.2.2 MAINDEC-10-DDDL D - Run this program with DXDLC for a minimum of 30 minutes for each PDP-11 connected without any errors. By moving 2nd PDP-11 from Port 1, run PDP-11 Ports 2 and 3. A PDP-11 must remain in Port 0 while checking the other ports.</p>			
SIZE	CODE	NUMBER	REV
A	SP	DL10-A-SAS	B

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			QUANTITY / VARIATION													
PARTS LIST			DL10-A	DL10-AB	DL10-B	DL10-C										
MADE BY <i>B. B. Lodgett</i>		CHECKED	SECTION													
DATE <i>2-20-73</i>		DATE <i>2-20-73</i>	ISSUED SECT.													
ENG T. EGGERS		PRODR STANINSKI														
DATE <i>12-23-71</i>		DATE <i>12-23-71</i>														
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION														
1	DEC-10-HDLA-D	DL10 MANUAL	1	1	-	-										
2	MAINDEC-10-DODLA	DIAGNOSTIC: PROGRAM, LISTING & WRITE UP	1	1	-	-										
3	MAINDEC-10-DODLB	DIAGNOSTIC; PROGRAM, LISTING & WRITE UP	1	1	-	-										
4	MAINDEC-10-DXDLC	DIAGNOSTIC: PROGRAM, LISTING & WRITE UP	1	1	-	-										
5	MAINDEC-10-DODLD	DIAGNOSTIC: PROGRAM, LISTING & WRITE UP	1	1	-	-										
6		DL10 PRINT SET	1	1	-	-										
7		CABLES PER SITE PLAN	<i>NR</i>	<i>NR</i>	<i>NR</i>	<i>NR</i>										
8		MEMORY BUS TERMINATORS PER SITE PLAN	<i>NR</i>	<i>NR</i>	-	-										
9	K-WL-DL10-A-WL	DL10 WIRELIST WRP & PIN SORT	1	1	-	-										
<del>10</del>	<del>MAINDEC-10-DCDLE</del>	<del>DIAGNOSTIC: PROGRAM, LISTING &amp; WRITE UP</del>	<del>1</del>	<del>1</del>	<del>-</del>	<del>-</del>										
11	MAINDEC-10-DCDLG	DIAGNOSTIC: PROGRAM, LISTING & WRITE UP	1	1	-	-										
		11 LOAD AND DUMP VIA PDP-10														
		<del>* THIS ITEM IS WAIVED EXCEPT FOR THREE (3)</del>														
		<del>OR FOUR (4) PROCESSOR SYSTEMS.</del>														
TITLE		ASSY NO.	SIZE	CODE	NUMBER			REV.	ECO NO.							
DL10 SHIPPING LIST		NONE	A	PL	DL10-0-SHIP			B	DL10A-00014							
SHEET		1 OF 1	DIST.													

K | DL10-A-WL | K | WL | 2 | 1 |

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NOTE: PRE-ORINATION HISTORY  
 INITIAL RELEASE: REV. "4"  
 ECO#DL10A-00001 REV. "5B"  
 ECO#DL10A-00003 REV. "5C"  
 ECO#DL10A-00005 REV. "5D"  
 ECO#DL10A-00007 REV. "5E"

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10-A				
PARTS LIST				
DRN.	G. Nowles	DATE	4-29-74	
CHK'D.	S. Remond	DATE	4-29-74	
ENG.	Allen Kent	DATE	2 May 74	
PROJ. ENG.	Allen Kent	DATE	2 May 74	
PROD.	Allen Kent	DATE	2 May 74	
NEXT HIGHER ASSEMBLY				
E-AD-7008437-0-0				
SCALE	1/1		SIZE CODE	K WL
SHEET	1	OF	1	DIST.
			NUMBER	DL10-A-WL
			REV.	K



TITLE  
 WIRE LIST  
 DL10-A

REVISIONS	CHANGE NO.	REV.
	DL10A-00008	F
ORIGINATED		
AA	DL10A-00010	H
Allen Kent 20 May 75		
S.C.	DL10A-00014	J
J.E.	DL10A-00015	K

4

3

2

1

4

3

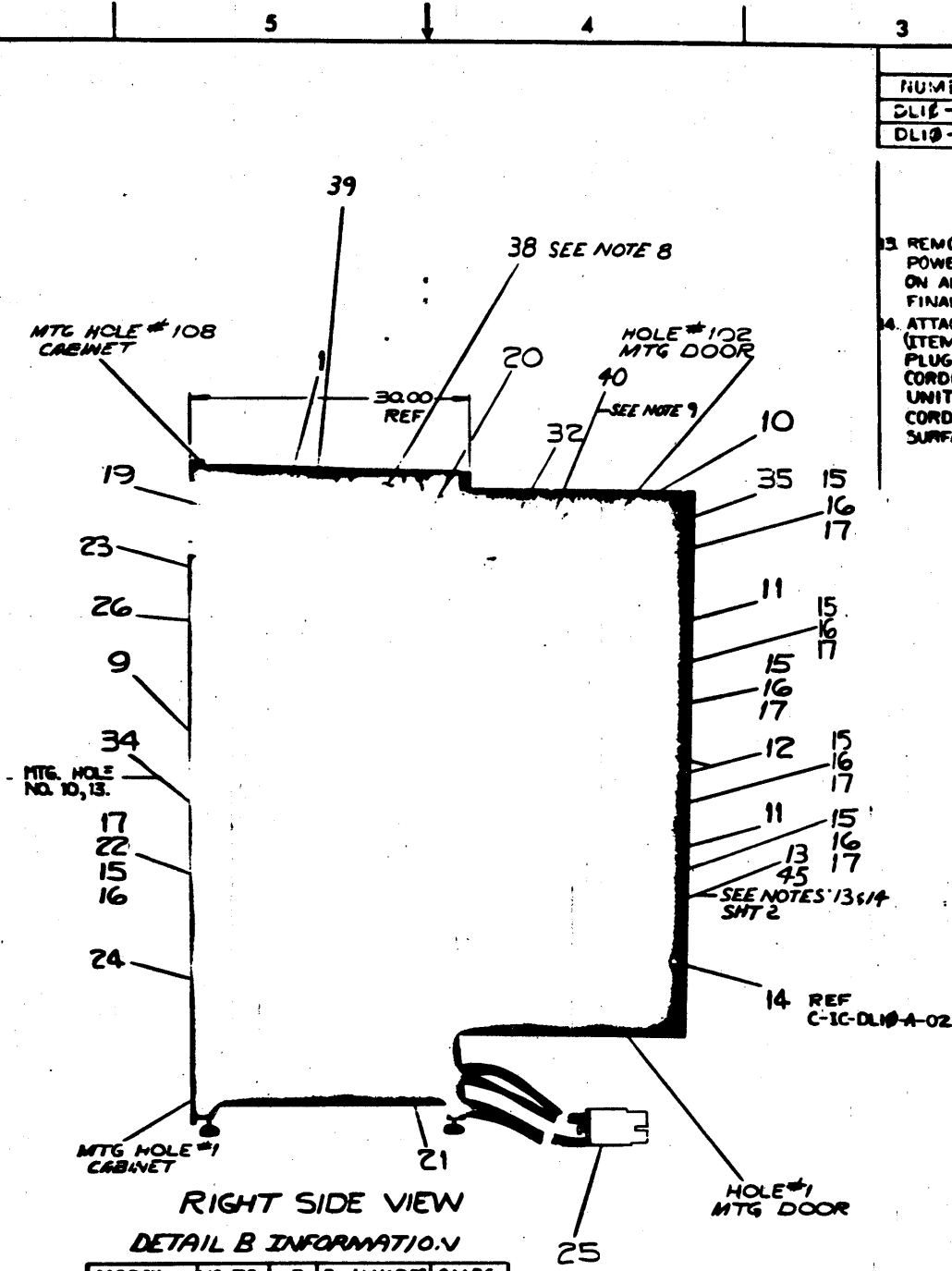
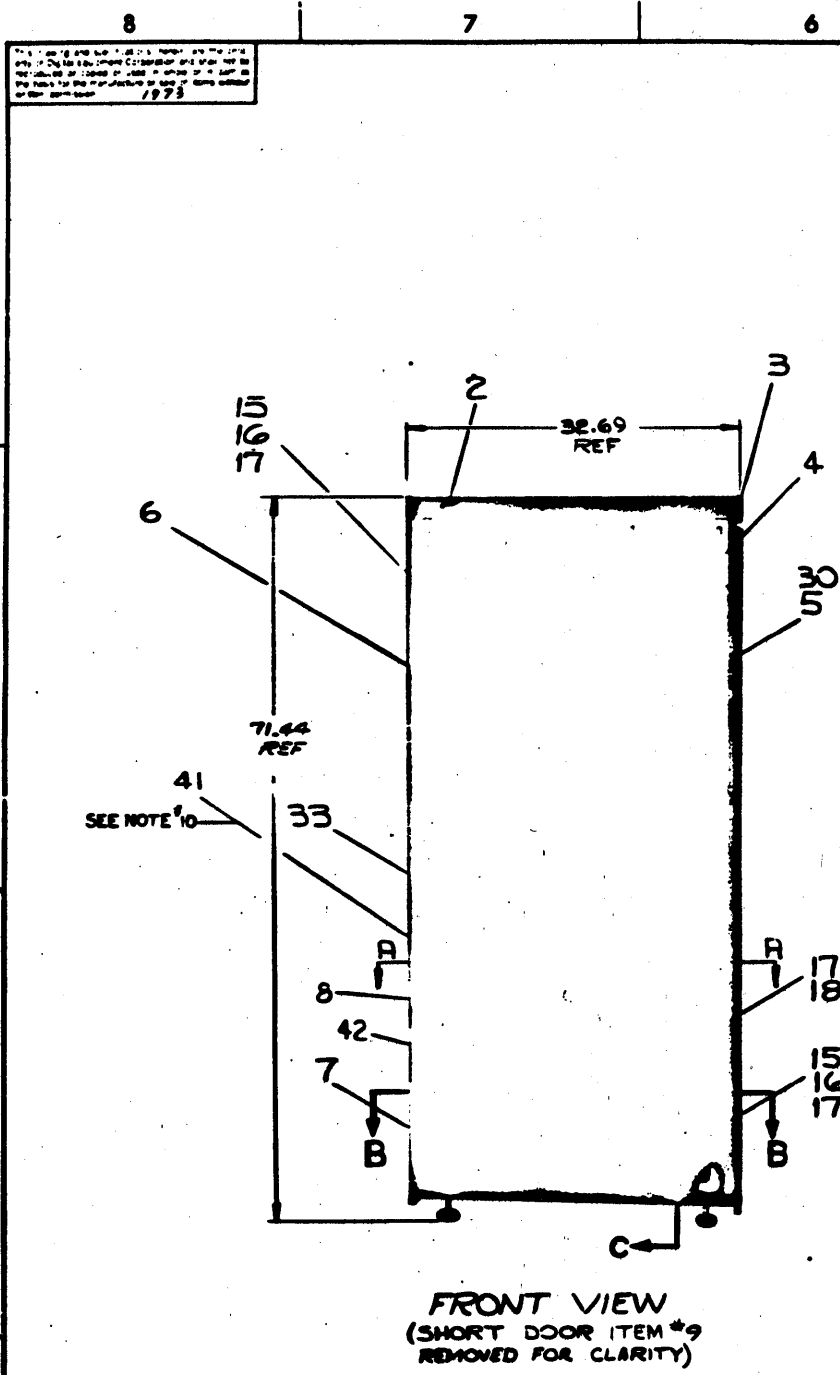
2

1

B

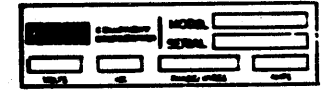
A





DETAIL B INFORMATION

MODEL	VOLTS	HZ	PH/WIRES	AMPS
DL10-AA	115	60	SINGLE	14.0
DL10-AB	230	50	SINGLE	7.0



LEGEND

NUMBER	VARIATION
DL10-AA	60 HZ 115VAC
DL10-AB	50 HZ 230VAC

- NOTES:
- FOR DRAWING INDEX LIST REFER TO D-01-DL10-0-1.
  - FOR ASSEMBLY INSTRUCTIONS REFER TO D-0C-N952-0-0, D-0C-N952-0-0, D-0C-N952-0-1.
  - REMOVE HANDLES FROM LOGIC ASSY ITEM #5 TOP & BOTTOM WHEN INSTALLING LOGIC TO COOLING MESH.
  - FOR AC-DC WIRING REFER TO D-1C-DL10-0-2.
  - BACK TESTER USED TO TEST ITEM #25 ECIOM CABLE.
  - REPLACE SCREWS IN 288 PIN BLOCK WITH ITEM #37.
  - ITEM 27 (NOT A PRODUCTION PART) THIS IS MTD AT REAR OF SERIES PASS ITEM #6.
  - LOCATE RATING AND U.L. DECAL ON CROSS-BAR FACING INSIDE OF CABINET AFTER INFO IN DETAIL B (PART 1) IS TYPED ON RATING DECAL (ITEM #38).
  - LOCATE LEAKAGE DECAL ON BLANK PANEL ON OUTSIDE OF PLENUM DOOR.
  - USE ONLY WHEN DL10B INSTALLED.
  - THESE DIMENSIONS LOCATE TWO RIVNUTS IN THE CABINET FLOOR THAT THE DRIP SCREEN MOUNTS TO. IF RIVNUTS ARE NOT PRESENT, REWORK CAB PER SECTION C-C & B-B.
  - MOUNT DRIP SCREEN TO CABINET FLOOR BY OPENING OR REMOVING, IF NECESSARY, THE TOP PART OF THE DRIP SCREEN AND INSTALLING TWO #10-32 X 3/4 SCREWS IN THE PAIR OF MOUNTING SLOTS (REAR) IN THE BOTTOM PART OF THE SCREEN. SEE SECTION C-C & B-B.

LOCATION OF SPEED NUTS ITEM NO. 15

LOCATE ALL NUTS BY COUNTING HOLES UP FROM BOTTOM OF CAB FRAME

FRONT HOLE NUMBERS	REAR HOLE NUMBERS
4, 10, 100, 103, 107	
LEFT SIDE	RIGHT SIDE
6, 9, 19, 20	

MOUNTING PANEL DOOR HOLE LOCATIONS

LEFT SIDE	RIGHT SIDE
16, 25, 30, 40, 45, 55, 60, 70, 75, 85, 90, 100	16, 25, 30, 40, 45, 55, 60, 70, 75, 85, 90, 100

FIRST USED ON OTHER MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL10				

UNLESS OTHERWISE SPECIFIED TOLERANCES

DECIMALS	ANGLES
0.005	10° ± 30'
0.001	

REWORK SURF'S AND BREAK SHARP CORNERS SURFACE QUALITY

MATERIAL: + + +

FINISH: + + +

DATE: 5-20-77

PROJ. ENG. DATE: 5/15/77

DATE: 5/15/77

EQUIPMENT CORPORATION

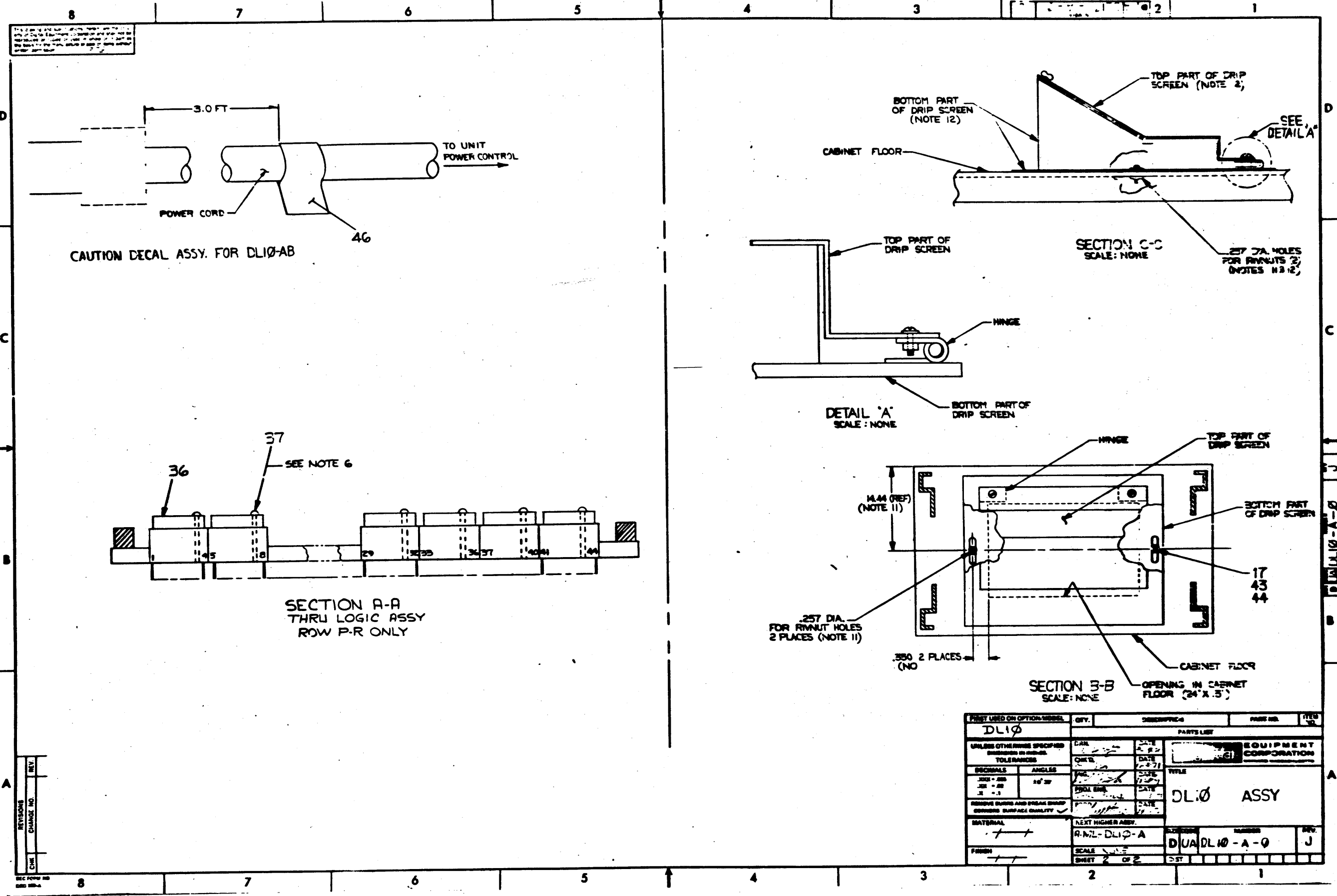
TITLE: DL10 ASSY

#-ML-DL10-A

SCALE: NONE

SHEET 1 OF 2

EXTENSIONS	REV	DATE	BY	CHKD
DL10A-00002	A			
DL10A-00003	B			
DL10A-00004	C			
DL10A-00005	D			
DL10A-00006	E			
DL10A-00007	F			
DL10A-00008	G			
DL10A-00009	H			
DL10A-00010	I			
DL10A-00011	J			



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CAUTION DECAL ASSY. FOR DL10-AB

SECTION A-A  
THRU LOGIC ASSY  
ROW P-R ONLY

SECTION C-C  
SCALE: NONE

SECTION B-B  
SCALE: NONE

PART USED ON OPTION/ISSUE		QTY.	DESCRIPTION	PART NO.	ITEM NO.
<b>DL10</b>					
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES		PARTS LIST			
TOLERANCES		QTY.	DATE	EQUIPMENT CORPORATION	
DECIMALS	ANGLES		DATE	TITLE	
.001 - .005	30° 30'		DATE	DL10 ASSY	
.005 - .010			DATE		
.010 - .020			DATE		
REMOVE BURRS AND BREAK SHARP EDGES SURFACE QUALITY			DATE		
MATERIAL		NEXT HIGHER ASSY.			
		RNL-DL10-A			
FINISH		SCALE	DRAWING NO.		
		DL10-A-0			J
		SHEET 2 OF 2			

REV.	CHANGE NO.	REVISIONS

DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. HOVEY  
DATE 8/27/71  
ENG. *[Signature]*  
DATE *[Signature]*  
CHECKED D. HEALY  
DATE 9/15/71  
SECTION 1  
ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION	REV. ECO NO.
1	E-AD-7008554-2-0	CABINET ASSY	1	
2	D-UA-H955-LA-0	LOGO (H955)	1	
3	D-UA-H952-AC-0	H952-A END PANEL	2	
4	E-AD-7006671-4-0	INDICATOR PANEL ASSY 30 IN	1	
5	E-AD-7008437-0-0	LOGIC FRAME ASSY	1	
6	E-AD-7006585-1-0	SERIES PASS ELEMENT ASSY	6	
7	D-MD-7409234-0-0	PANEL BLANK	1	
8	D-IA-7409231-0-0	PANEL BLANK SERIES PASS	1	
9	D-UA-H951-HJ-0	H951-H SHORT DOOR ASSY	1	
10	D-UA-H955-BA-0	H955-B FULL DOOR ASSY 30"	1	
11	D-UA-H725-0-0	POWER SUPPLY H725	2	
12	D-UA-H723-0-0	POWER SUPPLY H723	2	
13	D-UA-844-0-0	POWER CONTROL 844	1	
14	B-MD-7406831-0-0	BRKT EXTENSION	2	
15	9007786	SPEED NUT #C31758-1032-27 TINNEMAN	38	
16	9006074-3	SCR PHL HD TRUSS 10-32 X 5/8 LG SST	38	
17	9007651	WASH EXTERNAL TOOTH LOCK #10	48	
18	9006077-1	SCR PHL HD PAN 10-32 X 1" LG SST	8	
19	C-AD-7008472-0-0	CABLE SET DL10	1	
20	J-IA-7007180-0-0	HARNESS POWER WIRING TOP	1	
21	J-IA-7007181-0-0	HARNESS POWER WIRING BOTTOM	1	
22	D-AD-7005868-0-0	BRKT POWER CONN ASSY	1	
TITLE DL10 ASSY			SIZE CODE A PL	REV. ECO NO. J 00017
			NUMBER DL10-A-β	
			DIST. 1	OF 3

DEC FORM DEC 16 (325) 1031 NK70  
DRA 110

DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. HOVEY  
DATE 8-27-71  
ENG. *[Signature]*  
DATE *[Signature]*  
CHECKED D. HEALY  
DATE 9/15/71  
SECTION 1  
ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION	REV. ECO NO.
23	D-AD-7006741-0-0	FAN HOUSING TOP	1	
24	D-AD-7006742-0-0	FAN HOUSING BOTTOM	1	
25	D-UA-BC10H-0-0	BC10H CABLE ASSY LGTH SPEC BY SITE PLAN	2	
26	D-IA-7006897-0-0	WIRE HARNESS INTERCONN	6	
27	C-MD-7406113-0-0	PLATE SHIPPING (COOLING ASSY)	1	
28	9006022-1	SCR PHL HD PAN #8-32 X 3/8 SST	1	
29	9006033	WASH. EXTERNAL TOOTH LOCK #10	1	
30	A-PL-DL10-A-MUAR	MODULE UTILIZATION	X	
31	9005120	POWER CONN 1-60-WE	1	
32	B-DC-7409401-0-0	DECAL CABLE CHART DL10	1	
33	C-IA-7408408-0-0	HARNESS FRONT SERIES PASS TO LOGIC	6	
34	C-UA-BC10B-0-0	CABLE MARG CHK REM CONT LGTH SPEC BY SITE PLAN	1	
35	B-MD-5100	CHASSIS BLANK (E) DEC#7402017	1	
36	D-SC-1209850-0-0	BLOCK UNIVERSAL	6	
37	9006046-1	SCR PHL HD PAN #8-32 X 1 3/4 SST	6	
38	C-IA-7409402-0-0	SCR MODULE SHIPPING	12	
39	C-IA-7408330-10-0	WASH. EXTERNAL TOOTH LOCK #10	1	
38	36-12450	DECAL, RATING	1	
39	36-12449	DECAL, UL	1	
40	53-10919-2	DECAL, LEAKAGE	1	
41	D-IA-7011900-0-0	DL10 B CONTROL PANEL	1	
TITLE DL10 ASSY			SIZE CODE A PL	REV. ECO NO. J
			NUMBER DL10-A-β	
			DIST. 1	OF 3

DEC FORM DEC 16 (325) 1031 NK70  
DRA 110





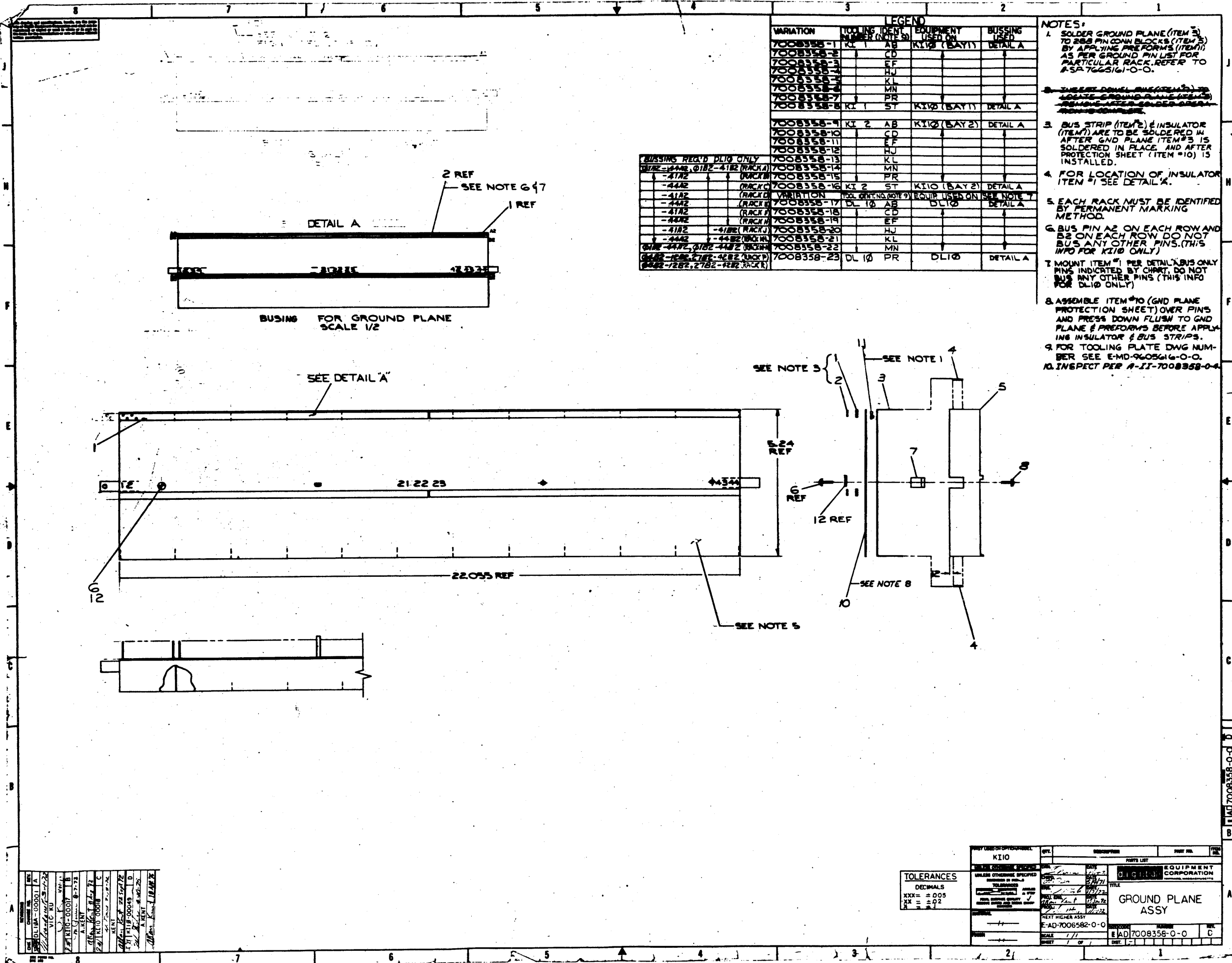
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MECHANICAL					DEPT USAGE					MECHANICAL					DEPT USAGE					MECHANICAL					DEPT USAGE																																																																																																																																																																												
FIND NO.	DESCRIPTION	PART NO.	PROD	CUST	F/C	FIND NO.	DESCRIPTION	PART NO.	PROD	CUST	F/C	FIND NO.	DESCRIPTION	PART NO.	PROD	CUST	F/C	FIND NO.	DESCRIPTION	PART NO.	PROD	CUST	F/C	FIND NO.	DESCRIPTION	PART NO.	PROD	CUST	F/C																																																																																																																																																																								
D 1.	DL1B-A ASSY DL1B UNIT ASSY CABLE SET (DL1B) CABLE SET (DL1B) (HARNESS POWER WIRING TOP) (HARNESS POWER WIRING BOTTOM) BRKT EXTENSION PANEL BLANK PANEL BLANK SERIES PASS WIRE HARNESS INTERCOM DC10A CABLE (LGTH SPEC BY ENG) PLATE SHIPPING COOLING ASSY DC10B REMOTE CONT MANG CWM (LGTH SPEC BY ENG) CHASSIS BLANK #7402017 DECAL CABLE CHART DL1B HARNESS FRONT SERIES PASS TO LOGIC BLOCK UNIVERSAL	D-UA-DL1B-A-B A-PL-DL1B-A-B C-AD-7008472-0-0 A-PL-7008472-0-0 J-IA-7007100-0-0 J-IA-7007101-0-0 D-MD-7400831-0-0 D-MD-7400234-0-0 D-IA-7400231-0-0 D-IA-7008097-0-0 D-UA-DC10A-B-B C-MD-7506H3-0-0 C-UA-DC10B-B-B D-MD-5100 D-DC-7009401-0-0 C-IA-7400400-0-0 D-SC-1209650-0-0				11.	H955-L LOGO H955-L LOGO (PL) H955 DWG INDEX LIST	D-UA-H955-LA-B A-PL-H955-LA-B D-01-H955-B-1				12.	LOGO INLAY LOGO INLAY (PL) SILK SCREEN BLUE	D-IA-7409224-2-0 A-PL-7409224-2-0 C-SS-7409224-0-2				13.	INDICATOR PNL ASSY 30IN INDICATOR PNL ASSY 30IN (PL) PLATE BEZEL MTG #1 SLIDE SUPPORT SLIDE SUPPORT 30" INDICATOR BRKT LOCKING DECAL, LAMP TEST	E-AD-7008071-4-0 A-PL-7008071-4-0 E-IA-7407810-0-0 C-MD-7407807-0-0 C-MD-7407820-0-0 E-MD-7400029-0-0 D-IA-7407822-0-0 A-DC-7407808-0-0				14.	PANEL FRONT SILK SCREEN (WHT) FRONT SILK SCREEN (BLK) REAR	E-IA-7407850-4-0 D-SS-7407850-0-5 D-SS-7407850-0-2				15.	BEZEL IND MACH 30IN HINGE IND BEZEL BEZEL IND CASTING	D-IA-7407821-0-0 C-MD-7400028-0-0 D-SC-1209900-0-0				16.	INDICATOR LIGHT BD 5409123 X-Y HOLE LOCATIONS MOD ECO HISTORY	D-CS-5409123-0-1 K-CO-5409123-0-4 D-MH-5409123-0-8				17.	ETCH CIRCUIT BOARD PRINTED CIRCUIT LAYOUT	E-IA-5008122-0-0 PC-5008122-0-1				18.	SERIES PASS ELEMENT ASSY SERIES PASS ELEMENT ASSY (PL) BRKT SUPPORT HEAT SINK WIRE HARNESS SERIES PASS	D-AD-7008585-1-0 A-PL-7008585-1-0 D-IA-7407722-0-0 E-IA-7008073-0-0				19.	PLATE SERIES PASS ELEMENT SILK SCREEN WHT LTRS	D-IA-7407721-0-0 D-SS-7407721-0-1				20.	HEAT SINK ASSY HEAT SINK ASSY (PL) HEAT SINK	D-AD-7008801-0-0 A-PL-7008801-0-0 D-SC-1201285-0-0				21.	ETCH BOARD SERIES PASS X-Y HOLE LOCATIONS MOD ECO HISTORY	C-CS-5408984-0-1 K-CO-5408984-0-4 D-MH-5408984-0-8				22.	ETCH CIRCUIT BOARD PRINTED CIRCUIT LAYOUT	E-IA-5008983-0-0 PC-5008983-0-1				23.	LOGIC FRAME ASSY (DL1B) LOGIC FRAME (PL) STIFFENER LOGIC FRAME (11 BLOCK) DECALS LOGIC FRAME BLK/CLR HANDLE SPACER WIRE WRAP	E-AD-7008437-0-0 A-PL-7008437-0-0 D-MD-7407456-0-0 D-DC-5308753-0-0 C-MD-7408507-0-0 D-IA-7409007-0-0				24.	LOGIC FRAME LOGIC FRAME (PL) BAR LOGIC FRAME END (11 BLOCK) BAR LOGIC FRAME (W BAR) PLATE MTS LOGIC FRAME	E-AD-7008800-0-0 A-PL-7008800-0-0 D-MD-7407884-0-0 D-MD-7407805-0-0 C-MD-7407802-0-0				25.	GROUND PLANE ASSY GROUND PLANE ASSY (PL) STRIP INSULATOR BAR MTG LOGIC FRAME GND PLANE PROT SHEET 11 BLOCK	D-AD-7008350-0-0 A-PL-7008350-0-0 D-MD-7408987-3-0 D-IA-7407750-0-0 D-MD-8009906-0-0				26.	GROUND PLANE ASSY GROUND PLANE SILK SCREEN	D-IA-5009785-1-0 D-SC-1210441-0-0 D-SS-5009785-0-1				27.	POWER SUPPLY H723 POWER SUPPLY H723 (PL)	D-UA-H723-B-B A-PL-H723-B-B				28.	POWER SUPPLY H725 POWER SUPPLY H725 (PL)	D-UA-H725-B-B A-PL-H725-B-B				29.	POWER CONTROL 844 POWER CONTROL 844 (PL)	D-UA-844-0-0 A-PL-844-0-0				30.	H952-A END PANEL H952-A END PANEL (PL) H952 DWG INDEX LIST	D-UA-H952-AC-0 A-PL-H952-AC-0 D-01-H952-0-1				31.	H951-H SHORT DOOR ASSY H951-H SHORT DOOR ASSY (PL) H951 DWG INDEX LIST	D-UA-H951-HJ-B A-PL-H951-HJ-B D-01-H951-0-1				32.	FAN HOUSING ASSY (TOP) FAN HOUSING ASSY (PL) DECAL 115V	D-AD-7008741-0-0 A-PL-7008741-0-0 A-DC-7409045-0-0				33.	FAN HOUSING TOP PLATE, FAN MTG	D-IA-7407930-0-0 D-MD-7407931-1-0				34.	FAN HOUSING ASSY (BOT) FAN HOUSING ASSY (PL) PLATE FAN MTG SCREEN FAN HOUSING DECAL 115V	D-AD-7008742-0-0 A-PL-7008742-0-0 D-IA-7407931-2-0 D-IA-7407928-0-0 A-DC-7409045-0-0				35.	H955-B FULL DOOR ASSY R.H. 11 H955-B FULL DOOR ASSY (PL) DOOR 30IN	D-UA-H955-BA-B A-PL-H955-BA-B D-IA-7408000-0-0				36.	BRKT POWER CONN ASSY BRKT PWR CONN ASSY (PL) BRKT PWR CONN	D-AD-7005000-0-0 A-PL-7005000-0-0 D-MD-7406720-0-0				37.	DL1B-B SERIES	A-PL-DL1B-A-MUAR				38.	DL1B-C SERIES	A-PL-DL1B-A-MUAR				39.	BC08J I/O CABLE	D-UA-BC08J-0-0				40.	11/40 REMOTE CONSOLE CABLE	D-IA-7008719-0-0				41.	DL1B-B CONTROL PANEL	D-IA-701900-0-0				42.	MAINT. PANEL ASSY	D-IA-7012783-0-0			

\* NOTE: NOT A PRODUCTION PART - USED FOR SHIPPING PURPOSES ONLY

A	REVISIONS	REV.	DATE	EQUIPMENT CORPORATION NATIONAL MANUFACTURING
	CHANGE NO.	NO.	DATE	
	CHK	BY	DATE	
FIRST USED ON OPTION/MODEL			DATE	DRAWING INDEX LIST (DL1B)
			DATE	
			DATE	
			DATE	
NEXT HIGHER ASSY				NUMBER
				D/DI/DLI/A-1
SCALE				DIST.
SHEET 2 OF 3				





BUSING REQ'D DLIO ONLY

DLIO - 4442, 0182-4182 (RACK A)	7008358-14
-4182 (RACK B)	7008358-15
-4442 (RACK C)	7008358-16
-4182 (RACK D)	7008358-17
-4442 (RACK E)	7008358-18
-4182 (RACK F)	7008358-19
-4442 (RACK G)	7008358-20
-4182 (RACK H)	7008358-21
DLIO - 4442, 0182-4482 (RACK I)	7008358-22
DLIO - 1282, 2182-4282 (RACK J)	7008358-23

VARIATION	TOOLING IDENT. NUMBER (NOTE 9)	EQUIPMENT USED ON	BUSING USED
7008358-1	KL 1	AB	KI10 (BAY 1)
7008358-2		CD	
7008358-3		EF	
7008358-4		HJ	
7008358-5		KL	
7008358-6		MN	
7008358-7		PR	
7008358-8	KL 1	ST	KI10 (BAY 1)
7008358-9	KI 2	AB	KI10 (BAY 2)
7008358-10		CD	
7008358-11		EF	
7008358-12		HJ	
7008358-13		KL	
7008358-14		MN	
7008358-15		PR	
7008358-16	KI 2	ST	KI10 (BAY 2)
7008358-17	DL 10	AB	DL10
7008358-18		CD	
7008358-19		EF	
7008358-20		HJ	
7008358-21		KL	
7008358-22		MN	
7008358-23	DL 10	PR	DL10

- NOTES:
- SOLDER GROUND PLANE (ITEM 3) TO 288 PIN CONN BLOCKS (ITEM 5) BY APPLYING PREFORMS (ITEM 7) AS PER GROUND PIN LIST FOR PARTICULAR RACK. REFER TO A-SP-7008358-0-0.
  - SEE DETAIL A FOR LOCATION OF INSULATOR (ITEM 1) & INSULATOR (ITEM 2) ARE TO BE SOLDERED IN AFTER GND PLANE (ITEM 3) IS SOLDERED IN PLACE AND AFTER PROTECTION SHEET (ITEM 10) IS INSTALLED.
  - FOR LOCATION OF INSULATOR ITEM #1 SEE DETAIL 'A'.
  - EACH RACK MUST BE IDENTIFIED BY PERMANENT MARKING METHOD.
  - BUS PIN A2 ON EACH ROW AND B2 ON EACH ROW DO NOT BUS ANY OTHER PINS. (THIS INFO FOR KI10 ONLY)
  - MOUNT ITEM #1 PER DETAIL 'A' BUS ONLY PINS INDICATED BY CHART. DO NOT BUS ANY OTHER PINS (THIS INFO FOR DL10 ONLY)
  - ASSEMBLE ITEM #10 (GND PLANE PROTECTION SHEET) OVER PINS AND PRESS DOWN FLUSH TO GND PLANE & PREFORMS BEFORE APPLYING INSULATOR & BUS STRIPS.
  - FOR TOOLING PLATE DWG NUMBER SEE E-MD-9605616-0-0.
  - INSPECT PER A-II-7008358-0-4

DLIO - 00001 A	1
DLIO - 00002 B	2
DLIO - 00003 C	3
DLIO - 00004 D	4
DLIO - 00005 E	5
DLIO - 00006 F	6
DLIO - 00007 G	7
DLIO - 00008 H	8
DLIO - 00009 I	9
DLIO - 00010 J	10

**TOLERANCES**

DECIMALS  
XXX = ±0.05  
XX = ±0.2

KI10	REV.	DESCRIPTION	DATE

**EQUIPMENT CORPORATION**

**GROUND PLANE ASSY**

E-AD-7008358-0-0

SCALE 7/1

SHEET 1 OF 1

DLIO 7008358-0-0-D

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS <b>PARTS LIST</b>				QUANTITY/VARIATION																				
MADE BY G.A. MARINI DATE 4/16/71		CHECKED D. HEALY DATE 4/30/71		SECTION 1		VARIATION 7008358-1 THRU 7008358-23 ARE MECH. THE SAME EXCEPT FOR THE AMOUNT OF PREFORMS ITEM #11 THAT ARE USED - SEE NOTE 1 & VARIATIONS ON ASS'Y E-AD-7008358-0-0																		
ENG <i>D. Marini</i> DATE <i>11/10/72</i>		PROD <i>M. Sullivan</i> DATE <i>11/21/72</i>		ISSUED SECT. 1																				
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION																						
1	C-MD-7408967-3-0	STRIP INSULATOR		2																				
2	1205541	BUS STRIP		A/R																				
3	D-IA-5009785-1-0	GROUND PLANE		1																				
4	9009172	TAPE		A/R																				
5	E-SC-1205348-0-0	288 PIN CONN BLOCK (H803)		11																				
6	9006034-1	SCR, PHILLIPS PAN HD #8-32 X 3/16		1																				
7	D-MD-7407758-0-0	BAR, MTG LOGIC FRAME		1																				
8	9006210-6	SCR, PHILLIPS FILLISTER 8-32 X 5/8		22																				
<del>9</del>	<del>9009881</del>	<del>PIN BUSH 1/8 DIA X 1-3/4 LG HARD STL.</del>		<del>4</del>																				
10	D-MD-5009956-0-0	GND, PLANE PROTECTION SHEET 11 BLOCKS		1																				
11	9008499	SOLDER PREFORMS		A/R																				
12	9006634	WASHER INT TOOTH #8		1																				
13	A-WT-7006582-0	AWT REVISION STATUS (KI10)		REF																				
14	A-WT-7008437-0	AWT REVISION STATUS (DL10)		REF																				
TITLE GROUND PLANE ASSY				ASSY NO. D-AD-7008358-0-0		SIZE CODE A PL		NUMBER 7008358-0-0				REV. D		ECO NO. K10 - OCC49										
SHEET 1 OF 1				DIST. 6																				



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P.L. ITEM NO.	MARK END	CONN TYPE	TO	CONN TYPE	MARK END	LENGTH	PART NO. DWG NO.
1	A44	M948		M947	A	3FT-60IN	7008405-3F
1	B44	M948		M947	B	3FT-60IN	7008405-3F
2	C44	M948		M947	C	4FT	7008405-04
2	D44	M948		M947	D	4FT	7008405-04
2	E44	M948		M947	E	4FT	7008405-04
1	F44	M948		M947	F	3FT-60IN	7008405-3F
1	H44	M948		M947	H	3FT-60IN	7008405-3F
1	J44	M948		M947	J	3FT-60IN	7008405-3F
2	K44	M948		M947	K	4FT	7008405-04
2	L44	M948		M947	L	4FT	7008405-04

**NOTES:**

1. CABLES TO BE IDENTIFIED BY TAGGING WITH BRADY MARKERS AT EACH END INDICATED BY CHART.

**INDICATOR PANEL (REAR)**

<u>F</u>	<u>A</u>
<u>H</u>	<u>B</u>
<u>J</u>	<u>C</u>
<u>K</u>	<u>D</u>
<u>L</u>	<u>E</u>

CAD 7008472-0-0

REV.	CHANGE NO.
CHK	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
<b>DLIØ</b>				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>W. Hovey</i>	DATE 5-27-71	<b>digital</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	CHK'D. <i>W. Hovey</i>	DATE 5-28-71		
ANGLES	ENG. <i>K. [Signature]</i>	DATE 11/17/71	TITLE <b>CABLE SET (DLIØ)</b>	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROJ. ENG. <i>Tom [Signature]</i>	DATE 11/5/71		
MATERIAL	PROD. <i>[Signature]</i>	DATE 11/17/71	SIZE CODE NUMBER <b>CAD 7008472-0-0</b>	
FINISH	NEXT HIGHER ASSY. D-1A-DLIØ-Ø-Ø			
	SCALE		DIST. <b>G</b>	
	SHEET / OF /			

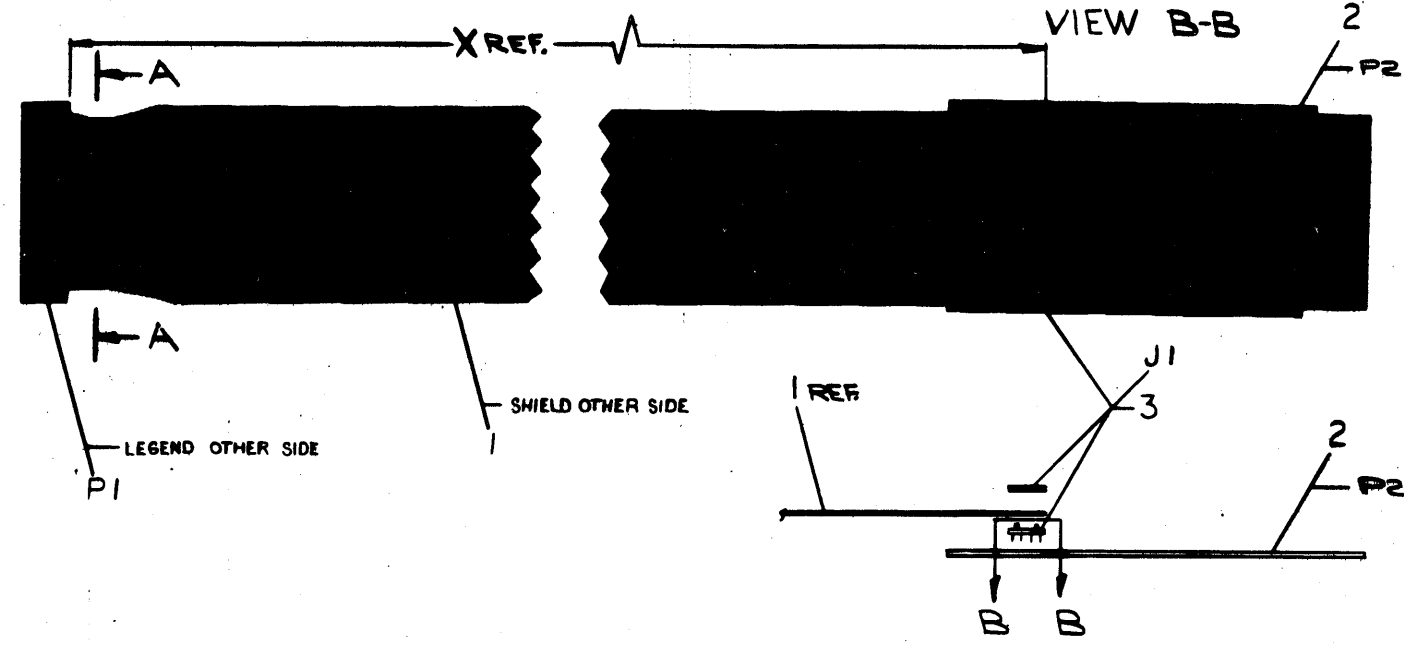
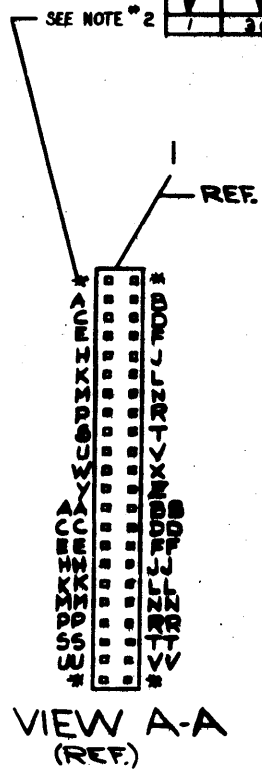
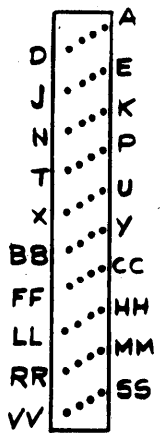


WIRE TABLE				
ITEM NO	DESCRIPTION	FROM	TO	REMARKS
1	30	GREY	P1 - D	P2 - B1
			P1 - J	P2 - D1
			P1 - F	P2 - D2
			P1 - N	P2 - E1
			P1 - L	P2 - E2
			P1 - T	P2 - H1
			P1 - R	P2 - H2
			P1 - X	P2 - J1
			P1 - V	P2 - K2
			P1 - BB	P2 - L1
			P1 - FF	P2 - M1
			P1 - LL	P2 - M2
			P1 - RR	P2 - P1
			P1 - DD	P2 - P2
			P1 - RR	P2 - S1
			P1 - JJ	P2 - S2
			P1 - NN	P2 - T2
1	30	GREY	P1 - TT	P2 - V2

LEGEND		
NUMBER	ITEM NO. 1	DIM. X'
BC08J-0-06	7007036-06	6 FT ± 2 IN
BC08J-0-10	7007036-10	10 FT ± 2 IN
BC08J-0-15	7007036-15	15 FT ± 3 IN
BC08J-0-25	7007036-25	25 FT ± 3 IN
BC08J-0-30	7007036-30	50 FT ± 1 FT

NOTES:

- CONNECTORS P1 AND J1 ARE TO BE WIRED POINT TO POINT P1-A TO J1 - A THRU P1-VV TO J1 - VV.
- \*ASTERISKS INDICATE CAVITIES NOT USED OR DESIGNATED BY LETTERS
- ALL P1 & P2 CONNECTIONS NOT LISTED ON THE WIRE TABLE ARE GROUNDED.



BC08J-00004 A	GARDNER	1-8-71
BC08J-00005 B	GARDNER	5/12/71
BC08J-00006 C	GARDNER	5-25-71

FIRST USED ON OPTION/MODEL  
BC08J

TOLERANCES  
DECIMALS  
XXX = ± .005  
XX = ± .02  
X = ± .1

DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES DECIMALS ANGLES UNLESS OTHERWISE SPECIFIED ± .010 FINE SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS MATERIAL FINISH

DATE 2-2-70  
DATE 2-2-70  
DATE 2-3-70  
DATE 2-3-70  
DATE 2-3-70

BY [Signature]  
BY [Signature]  
BY [Signature]  
BY [Signature]

SCALE NONE  
SHEET 1 OF 1

PARTS LIST	
1	ETCH BOARD CONNECTOR 1210075-0 3
1	M953 I/O CABLE BD M953-0-5 2
1	I/O CABLE SEE LEGEND 1
QTY.	DESCRIPTION PART NO. ITEM NO.
EQUIPMENT CORPORATION	
TITLE I/O CABLE (BC08J)	
SCALE CODE	NUMBER
DUA	BC08J-0-0
REV.	5

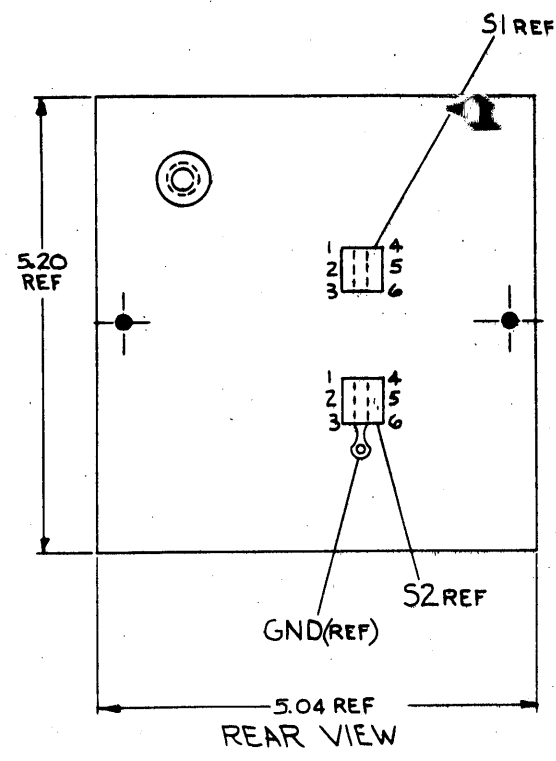
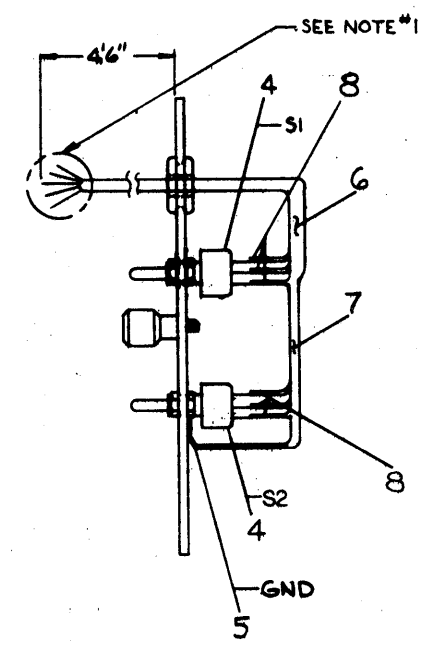
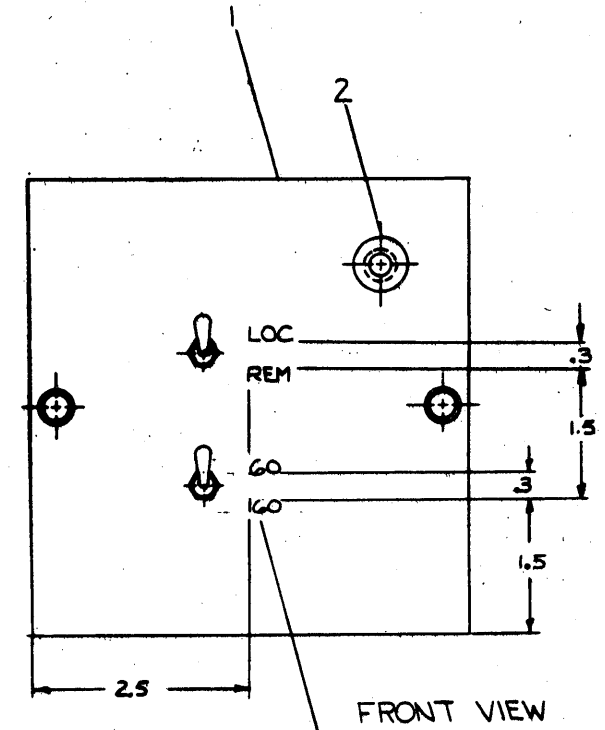


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0-0-0061102 **VIQ** 2

WIRE TABLE							
ITEM NO	DESCRIPTION	FROM	TO	DESTINATION LABELING			
	AWG	COLOR	CONN	WITH	CONN	WITH	
6	24	BLU	S1-2	SOLDER	1		N39F2
			S1-5		2		M42F2
			S1-1		3		K43D2
6	24	BLU	S1-4		5		K43E2
7	24	WHT	S2-5		7		IM27F2, (IM27C2 GND)
	TWP	BLK	GND		6		
		WHT	S2-2		7		IM37F2, (IM37C2 GND)
		BLK	GND		8		
		WHT	S2-6		10		IN27J2, (IN27C2 GND)
		BLK	GND		11		
		WHT	S2-3		11		IN37J2, (IN37C2 GND)
		BLK	GND		12		
		WHT	S2-4		13		IN27K2
		BLK	GND		14		(IN27T1 GND)
7	24	WHT	S2-1		15		IN37K2, (IN37T1 GND)
	TWP	BLK	GND	SOLDER	16		

NOTES:  
1. USE BRADY MARKERS TO IDENTIFY WIRE TERMINATIONS.



QTY	DESCRIPTION	DWG. PART NO.	ITEM NO.
1/2	SHRINK TUBING	9107256-0-0	8
1/2	24 AWG TWP BLK/WHT	9107592-09	7
1/2	24 AWG STRD BLU	9107450-66	6
1	GROUND LUG 1/4"	9006764	5
2	MY201 DPDT TOGGLE SW.	1209592	4
1	DECAL	A-DC-7414960-0-0	3
1	GROMMET	9007017	2
1	BLANK, SERIES PASS (REWORK)	C-MD-7414959-0-0	1

DESCRIPTION		DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES 30° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES	
SURFACE QUALITY IN MICROINCHES	CHECK ONE	0	0.2
		12.5	25
PREFERRED	CHECK ONE	±.004	±.012
		±.010	±.016
QUANTITY & VARIATION		FIRST USED ON	
THIRD ANGLE PROJECTION		DL10-B	
DRN. <i>[Signature]</i>		CHK'D <i>[Signature]</i>	
ENG. <i>[Signature]</i>		PROJ. ENG. <i>[Signature]</i>	
PROD. <i>[Signature]</i>		NEXT HIGHER ASSY.	
MATERIAL SEE PARTS LIST		SCALE 1/1	
FINISH		SHEET 1 OF 1	
TITLE		DL10-B CONTROL PANEL	
SIZE CODE		NUMBER	
D IA		7011900-0-0	
DIST.		REV.	

DL10A-00013  
ORIGINATED

DIA 7011900-0-0