

# **MASTER DRAWING LIST**

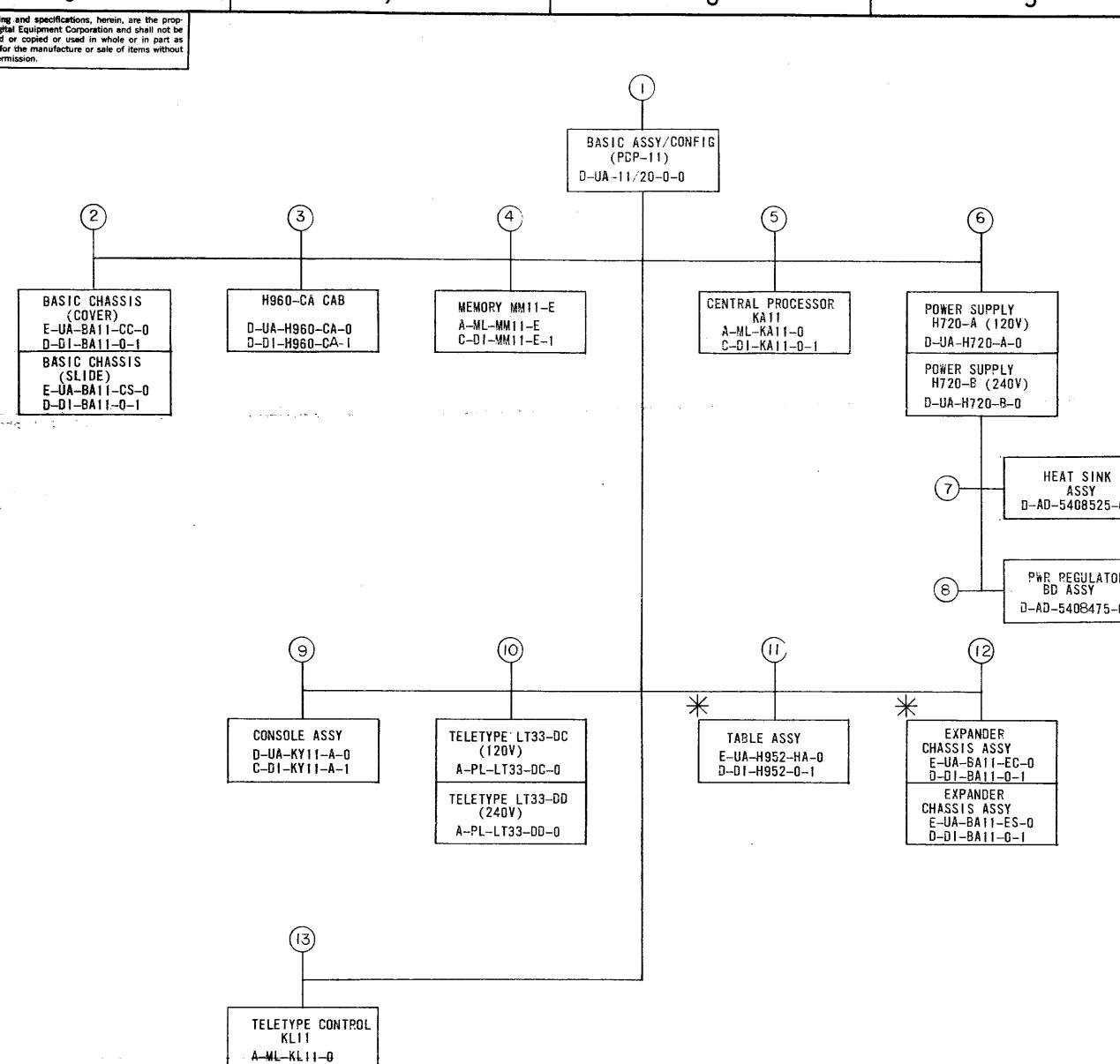
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~~ISSUED DA~~

REVISIONS				DRN. P. MARCOTTE	DATE 1-20-70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
REV.	DATE	CHG. NO.	APP'D.	CHK'D. K. RUSS	DATE 1-26-70	TITLE			
A	8/70	00005	J. I.	ENG. <i>Chapman</i>	DATE 1-30-70				
				PROJ. ENG. <i>Kerry</i>	DATE 1-30-70				
				PROJ. <i>Hannibal</i>	DATE 2/4/70				
				FIRST USED ON		PDP 11/20			
				SCALE		SIZE	CODE	NUMBER	REV.
				SHEET OF		A	ML	11/20-0	A
				DIST.					

DEC FORM NO. 16-103  
DRA 103

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\* (ASTERISK) INDICATES OPTION

REVISIONS	
CHK	CHANGE NO.
<i>[Signature]</i>	11/20-00005 A
	<i>[Signature]</i> 8-26-70
	LAWRENCE
	J.W. Lawrence 8-31-70

FIRST USED ON OPTION/MODE  
PDP-11

DO NOT SCALE DRAWING				PARTS LIST	
UNLESS OTHERWISE SPECIFIED		DRAWN BY <u>John S. Ladd</u>		DATE <u>11/1/70</u>	
DIMENSION IN INCHES		CHK'D BY <u>P. Ryan</u>		DATE <u>11/8/70</u>	
TOLERANCES		ENG'D BY <u>J. M. Ladd</u>		DATE <u>11/1/70</u>	
DECRIMENT <u>0.0000</u> ANGLES <u>0°</u> -0.005 <u>0.0000</u> ± 0.5° FINAL SURFACE QUALITY <u>C</u>		PROD. ENG'D BY <u>C. G.</u>		DATE <u>11/1/70</u>	
REMOVE BURRS AND BREAK SHARP CORNERS		PROD. BY <u>11/1/70</u>		DATE <u>11/1/70</u>	
MATERIAL	NEXT HIGHER ASSY D-UA-11/20-0-0				
FINISH	SCALE <u>NONE</u>	SHEET <u>1</u> OF <u>1</u>	DIST. <u>6</u>	NUMBER <u>11/20-0-1</u>	REF. <u>1A0</u>

## **MASTER DRAWING LIST**

DEC FORM NO.16-1033  
DRA 103

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

MADE BY AL PFYFFER	CHECKED AL PFYFFER	SECTION
DATE 3/11/70	DATE 3/11/70	1
ENG J. F. Doughtin	PROD <i>Hugh Donald</i>	ISSUED SECT
DATE 3-17-70	DATE 3/19/70	1

TITLE  CENTRAL PROCESSOR	ASSY NO.	SIZE CODE <b>A PL</b>	NUMBER <b>E411-0-0</b>	REV.	ECO NO.
	SHEET 1 OF 1	DIST. <b>G</b>			

DEC FORM NO.16-1031  
DRA 110

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MECHANICAL			USAGE		
FIND NO	DESCRIPTION	PART NO.	PROD CUST	FC	
1.	CENTRAL PROCESSOR MODULE UTILIZATION	A-PL-KA11-0-0 A-PL-KA11-0-MU			
2.	WIRED ASSY WIRED ASSY (PL) LOGIC SERIAL #DECAL	D-AD-7006537-0-0 A-PL-7006537-0-0 A-SS-7407846-0-0			
3.	LOGIC FRAME ASSY, TRIPLE LOGIC FRAME ASSY, TRIPLE STRAP, TRIPLE FRAME CONN BLOCK MTG FRAME	D-AD-7005884-0-0 A-PL-7005884-0-0 C-MD-7407513-0-0 D-IA-7407507-0-0			

ELECTRICAL			USAGE		
FIND NO	DESCRIPTION	PART NO.	PROD CUST	FC	
1.	CENTRAL PROCESSOR TIMING & STATES M728 STATE CNTL M727 PRIORITY M824 REGISTER CNTL M821 REGISTER M225 DATA PATH CNTL M820 DATA PATH 1 M224 DATA PATH 2 M224 BUS INTERFACE & IR M725 IR DECODE M726 CODES DATA M823 FLAG CNTL M822 BUS & CONSOLE CNTL M724 KA11 BUS & POWER CONNECTIONS PWR FAIL & CNTL M825 MODULE UTILIZATION	A-ML-KA11-0 D-CS-M728-0-1 D-CS-M727-0-1 D-CS-M824-0-1 K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15			
2.	BLOCK DIAG. CUT ACROSS 1 BIT INSTRUCTION FLOW DIAGRAM BUS FLOW WAVE FORMS KA11 BLOCK DIAGRAM	D-BD-KA11-0-DBCA D-FD-KA11-0-IFD D-FD-KA11-0-BF D-TD-KA11-0-WF D-BD-KA11-0-BD			
2.	WIRED ASSY WIRE LIST	D-AD-7C06537-0-0 K-WL-KA11-0-WL			

SIZE CODE: C | KA11-0-1 | NUMBER: A

B

A

FIRST USED ON OPTION/MODEL PDP-II		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
DRN. F. MARCOTTE DATE 10-19-69 UNLESS OTHERWISE SPECIFIED CHKD/ DATE 3-11-70 DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES $\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$ FINAL SURFACE QUALITY ✓ REMOVE BURRS AND BREAK SHARP CORNERS					
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE					
DRAWING INDEX (KA11)					
A-ML-KA11-0					
SIZE CODE: C   KA11-0-1   NUMBER: A					

REVISIONS	CHANGE NO.	REV.
CHK	KA11-00002	A
2028	5-7-70	
O'LOUGHLIN	5/26/70	
17064	5/26/70	

DEC FORM NO.  
DRC 100

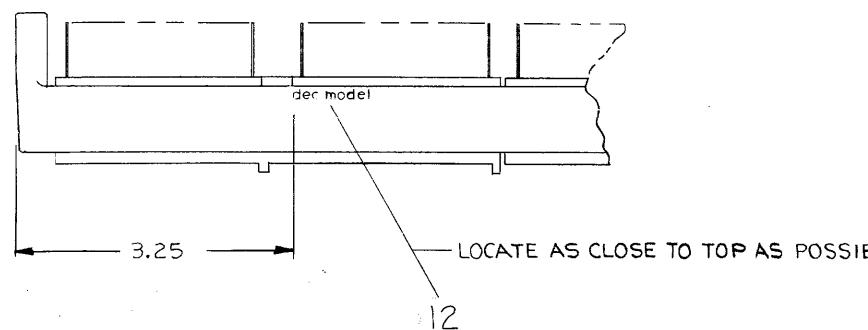
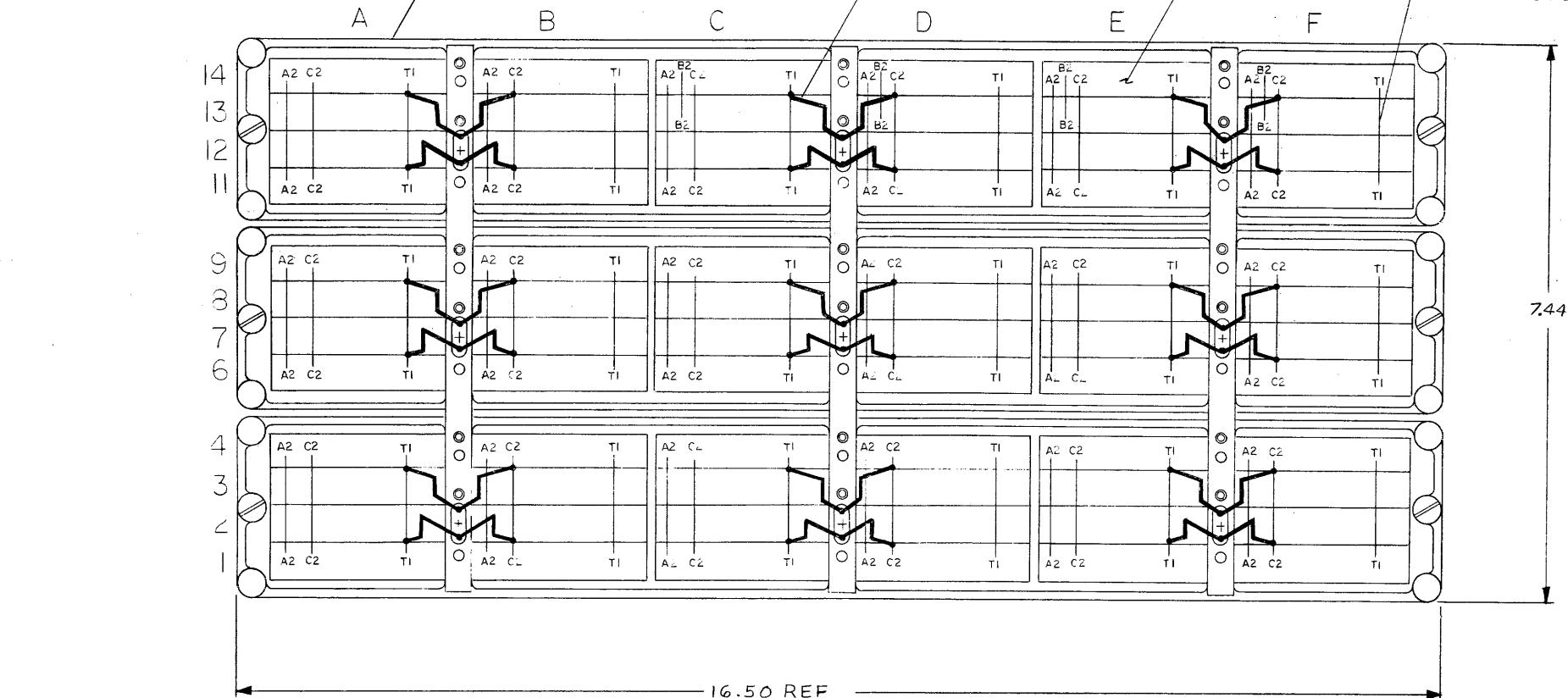
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REV.	CHANGE NO.	REV.
CHK	KAI1-00002	A
2	10/20/70	
	OLOUGHLIN	5/26/70

DEC FORM NO. DRD 100

8

7

6

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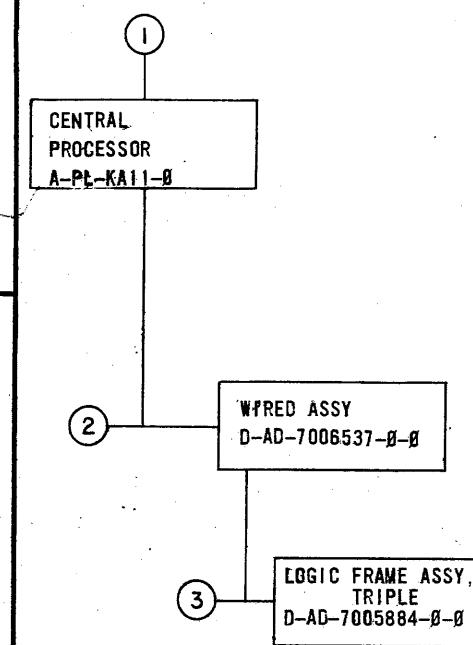
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### NOTES:

1. CONNECTIONS ON ITEMS 2 & 3 TO BE SOLDERED AND LOCATED AT MINIMUM PRACTICAL HEIGHT ABOVE BLOCKS.
2. CONNECTOR BLOCKS TO BE GROUNDED TO GROUND LUG AS SHOWN.
3. ALL VERTICAL HAND WIRING TO RUN OUTSIDE OF CONNECTOR BLOCKS.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN:	DATE	digital EQUIPMENT CORPORATION	
S. Maccato	10-3-69	MAINTENANCE	
CHK'D:	DATE	MAINTENANCE	
S. Ross	10-23-69	MANUFACTURE	
ENG:	DATE	MANUFACTURE	
J. Odeh	3-17-70	TEST	
PROF. ENG.	DATE	TEST	
J. Odeh	3-17-70	PROD.	
PROD:	DATE	PROD.	
M. Drabik	5/19/70	TEST	
WIRED ASSY (KAI1)			
FIRST USED ON OPTION/MODEL	KAI1	SIZE CODE	NUMBER
DO NOT SCALE DRAWING		DAD	7006537-0-0
UNLESS OTHERWISE SPECIFIED		REV.	A
DIMENSION IN INCHES			
TOLERANCES			
DECIMALS FRACTIONS ANGLES			
$\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$			
FINAL SURFACE QUALITY	/		
REMOVE BURRS AND BREAK SHARP CORNERS			
MATERIAL			
FINISH			
NEXT HIGHER ASSY			
A-ML-KAI1-0			
SCALE	1/1		
SHEET	1 OF 2	DIST.	

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MECHANICAL			USAGE			ELECTRICAL			USAGE		
FIND NO	DESCRIPTION	PART NO.	PROD	CUST	FC	FIND NO	DESCRIPTION	PART NO.	PROD	CUST	FC
1.	CENTRAL PROCESSOR MODULE UTILIZATION	A-PL-KA11-0-0 A-PL-KA11-0-MU				1.	CENTRAL PROCESSOR TIMING & STATES M728 STATE CNTL M727 PRIORITY M824 REGISTER CNTL M821 REGISTER M225 DATA PATH CNTL M820 DATA PATH 1 M224 DATA PATH 2 M224 BUS INTERFACE & IR M725 IR DECODE M726 CODES DATA M823 FLAG CNTL M822 BUS & CONSOLE CNTL M724 KA11 BUS & POWER CONNECTIONS PWR FAIL & CNTL M825 MODULE UTILIZATION	A-ML-KA11-0 D-CS-M728-0-1 D-CS-M727-0-1 D-CS-M824-0-1 D-CS-M821-0-1 D-CS-M820-0-1 D-CS-M224-0-1 D-CS-M725-0-1 D-CS-M726-0-1 D-CS-M823-0-1 D-CS-M822-0-1 D-CS-M724-0-T D-TC-KA11-0-BP D-CS-M825-0-1 D-MU-KA11-0-MU			
2.	WIRED ASSY WIRED ASSY (PL) LOGIC SERIAL #DECAL	D-AD-7006537-0-0 A-PL-7006537-0-0 A-SS-7487846-0-0				2.	WIRED ASSY WIRED ASSY BLOCK DIAG. CUT ACROSS 1 BIT INSTRUCTION FLOW DIAGRAM BUS FLOW WAVE FORMS KA11 BLOCK DIAGRAM	D-BD-KA11-0-DBCA D-FD-KA11-0-IFD D-FD-KA11-0-BF D-TD-KA11-0-WF D-BD-KA11-0-BD			
3.	LOGIC FRAME ASSY, TRIPLE LOGIC FRAME ASSY, TRIPLE STRAP, TRIPLE FRAME CONN BLOCK MTG FRAME	D-AD-7005884-0-0 A-PL-7005884-0-0 C-MD-7407513-0-0 D-IA-7407507-0-0					D-AD-7006537-0-0 K-WL-KA11-0-WL				

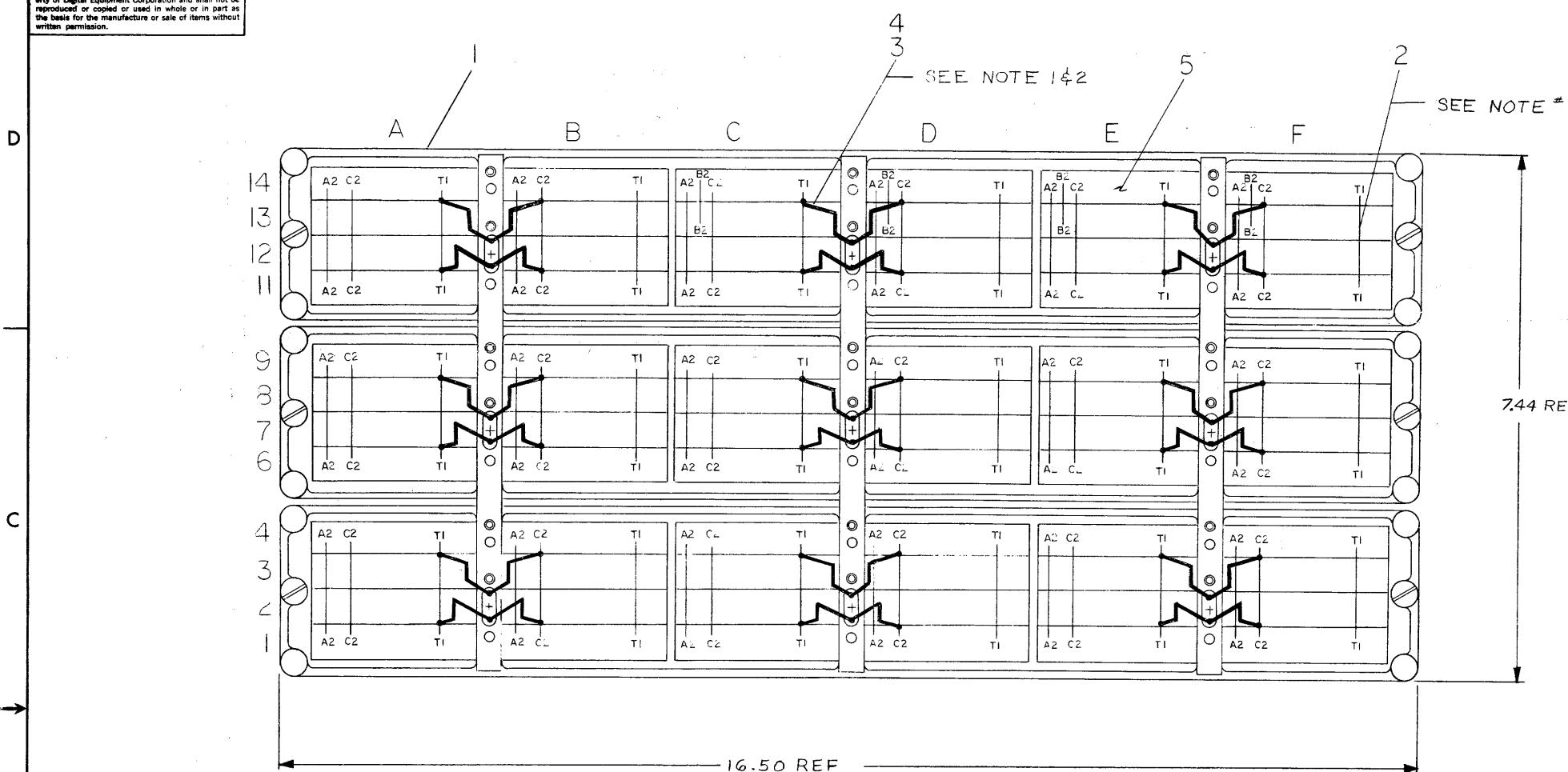
SIZE CODE NUMBER  
C D KA11-0-1 A

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP-II					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN.	DATE	EQUIPMENT CORPORATION	
UNLESS OTHERWISE SPECIFIED		P. MARCOTTE	10-19-69	digital EQUIPMENT CORPORATION	
DIMENSION IN INCHES		CHK'D	DATE	MAYNARD, MASSACHUSETTS	
TOLERANCES		<i>Al Hoffer</i>	3/11/70		
DECIMALS	FRACTIONS	ENG.	DATE		
± .005	± 1/64	<i>J. Cloughlin</i>	3-19-70		
FINAL SURFACE QUALITY ✓ REMOVE PURPS AND BREAK SHARP CORNERS					
MATERIALS					
NEXT HIGHER ASSY					
A-ML-KA11-0					
SIZE CODE		NUMBER	REV.		
C D KA11-0-1			A		

REVISIONS		CHANGE NO.	REV.
CHK		KA11-00002	A
2x-28		5-5-7-70	
T.B. 2/2		O'LOUGHLIN	
O'LOUGHLIN		5/20/70	
17 May 1970			

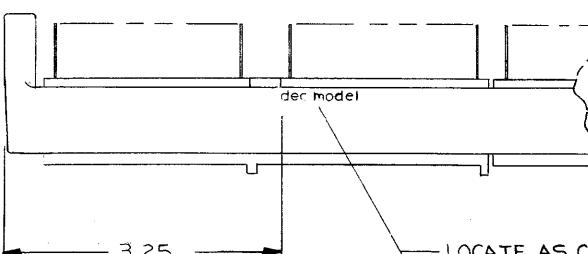
DEC FORM NO.  
DRC 100

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711 B

-16.50 RE



3.25 → LOCATE AS CLOSE TO TOP AS POSSIBLE

1

REVISIONS		CHANGE NO.	REV.
CHK	28	KAI-00002	A
		100	5/15/70
		010	5/16/70
		170	5/20/70

**NOTES:**

1. CONNECTIONS ON ITEMS 2 & 3 TO BE SOLDERED AND LOCATED AT MINIMUM PRACTICAL HEIGHT ABOVE BLOCKS.
  2. CONNECTOR BLOCKS TO BE GROUNDED TO GROUND LUG AS SHOWN.
  3. ALL VERTICAL HAND WIRING TO RUN OUTSIDE OF CONNECTOR BLOCKS.

FIRST USED ON OPTION / MODEL KAII	DO NOT SCALE DRAWING	QTY.	DESCRIPTION	PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS      FRACTIONS      ANGLES $\pm .005$ $\pm 1/64$ $\pm 30'$ FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN: <i>Marcus H. Lass</i>	DATE 10-3-69	PARTS LIST	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
MATERIAL + + +	CHK'D: <i>L. Lass</i>	DATE 10-3-69	TITLE		
FINISH / - - /	ENG: <i>J. Chaudhury</i>	DATE 3-17-70	WIRED ASSY (KAII)		
	PROJ. ENG: <i>J. Chaudhury</i>	DATE 3-17-70			
	PROB: <i>Hans Dink</i>	DATE 3/13/70			
	NEXT HIGHER ASSY A-ML-KAII-0				
SCALE 1/1	SIZE CODE D/A/D	NUMBER 7006537-0-0	REV. A		
SHEET 1 OF 2	DIST.				

# MASTER DRAWING LIST

DWG. NO.	REV.	NO. OF LET.	SHEETS	TITLE
A-PL-KA11-Ø-Ø			1	CENTRAL PROCESSOR
C-DI-KA11-Ø-1	A	1		DRAWING INDEX
D-AD-7006537-0-0	A	2		WIRED ASSY
A-PL-7006537-0-0	A	1		WIRED ASSY
D-BD-KA11-Ø-BD			1	KA11 BLOCK DIAGRAM
D-FD-KA11-Ø-IFD			1	INSTRUCTION FLOW DIAGRAM
D-FD-KA11-Ø-BF			1	BUS FLOW
D-TD-KA11-Ø-WF			1	WAVEFORMS
D-CS-M728-Ø-1	C	4		TIMING & STATES M728 K1
D-CS-M727-Ø-1	E	3		STATE CNTL M727 K2
D-CS-M824-Ø-1	C	3		PRIORITY M824 K3
D-CS-M821-Ø-1	B	3		REGISTER CNTL M821 K4
D-BS-KA11-Ø-REG	A	2		REGISTER M225 K5
D-CS-M820-Ø-1	B	5		DATA PATH CNTL M820 K6
D-BS-KA11-Ø-DP1	A	2		DATA PATHS 1 M224 K7
D-BS-KA11-Ø-DP2	A	2		DATA PATHS 2 M224 K8
D-CS-M725-Ø-1	B	5		BUS INTERFACE & IR M725 K9
D-CS-M726-Ø-1	A	4		IR DECODE M726 K10
D-CS-M823-Ø-1		2		CODES DATA M823 K11
D-CS-M822-Ø-1	B	3		FLAG CNTL M822 K12
D-CS-M724-Ø-1	C	4		BUS & CONSOLE CNTL M724 K13
D-IC-KA11-Ø-BP	A	1		KA11 BUS & POWER CONNECTIONS K14
D-CS-M825-Ø-1	B	2		PWR FAIL & CNTL M825 K15
A-ML-KY11-A	REF	1		KA11 CONSOLE
REVISIONS				DRN. AL. PFYFFER
REV.	DATE	CHG. NO.	APP'D.	DATE 3/9/70
A	4/70	00001	J.O'L	CHK'D. A. PFYFFER
B	4/70	00002	J.O'L	DATE 3/9/70
C	5/70	00003	J.O'L	ENG. 3-19-70
D	5/70	00005	J.O'L	PROJ. ENG. 3-19-70
E	8/70	00006	J.L.	GOOD. 3-19-70
F	8/70	00007	J.L.	FIRST USED ON PDP 11
				SIZE CODE NUMBER REV.
				A M L K A 1 1 - Ø F
				SCALE DIST.
				SHEET 1 OF 2

DEC FORM NO.16-1033  
DRA 103

**digital EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

TITLE  
CENTRAL  
PROCESSOR

NUMBER  
K A 1 1 - Ø

REV.  
F

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## WIRE TABLE

ITEM NO.	SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS	ITEM NO.	SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS
6	GND	A03D2 A03C2 A03E2 A03N1 A03R1 A03P1 A03U1 A03S1 A03F2	A03E2 A03D2 A03F2 A03P1 A03S1 A03R1 A03V1 A03U1 A03N1	BLACK		11	-15V	C13B2 D13B2 C13B2	D13B2 F13B2 A13L1	BLUE	WIRES MUST RUN PHYSICALLY TO RIGHT OF THE THIRD BLOCKS AND PINS
		A08D2 A08C2 A08E2 A08N1 A08R1 A08P1 A08U1 A08S1 A08F2	A08E2 A08D2 A08F2 A08P1 A08R1 A08S1 A08U1 A08N1			8	+8V	A03T2 A03U2 A03V2	A01K2 A03V2 A11J2	ORANGE ORANGE ORANGE	
		A13D2 A13C2 A13E2 A13N1 A13R1 A13P1 A13U1 A13S1 A13F2	A13E2 A13D2 A13F2 A13P1 A13S1 A13R1 A13V1 A13U1 A13N1			9	-20V	A03S2 A01D2	A01E2 A01F2	GREEN GREEN	
		A13D2 A13C2 A13E2 A13N1 A13R1 A13P1 A13U1 A13S1 A13F2	A13E2 A13D2 A13F2 A13P1 A13S1 A13R1 A13V1 A13U1 A13N1	BLACK		10	-15 PN'L LK	A03N2 E01P2	E01P2 E01R2	YELLOW YELLOW	
7	+5V	A03A2 B01A2 A03H2 A03J2 E01A2 A03K2	B02A2 C01A2 D01A2 E01A2 F01A2 B03A2	RED	WIRES MUST RUN PHYSICALLY TO LEFT OF THE FIRST BLOCKS AND PINS						
		B04A2 A03L2 A03M2 E04A2	C04A2 D04A2 E04A2 F04A2		WIRES MUST RUN PHYSICALLY TO RIGHT OF THE FIRST BLOCKS AND PINS						
		A08A2 B06A2 A08H2 A08J2 E06A2 F06A2 A08K2	B07A2 C06A2 D06A2 E06A2 F06A2 B08A2		WIRES MUST RUN PHYSICALLY TO LEFT OF THE SECOND BLOCKS AND PINS						
		B09A2 A06L2 A06M2 E09A2	C09A2 D09A2 E09A2 F09A2		WIRES MUST RUN PHYSICALLY TO RIGHT OF THE SECOND BLOCKS AND PINS						
		A13A2 B11A2 A13H2 A13J2 E11A2	B12A2 C11A2 D11A2 E11A2 F11A2		WIRES MUST RUN PHYSICALLY TO LEFT OF THE THIRD BLOCKS AND PINS						
		A13K2	B13A2		WIRES MUST RUN PHYSICALLY TO RIGHT OF THE THIRD BLOCKS AND PINS						
		B03A2 C03A2 D03A2 E03A2 F03A2	B07A2 C07A2 D07A2 E07A2 F07A2								
		B08A2 C08A2 D08A2 E08A2 F08A2	B11A2 C11A2 D11A2 E11A2 F11A2	RED							

FIRST USED ON OPTION / MODEL

KAI

DO NOT SCALE DRAWING

DRN:

DATE:

10-3-69

REV:

CHK'D:

DATE:

10-3-69

TITLE:

digital

EQUIPMENT

CORPORATION

MAYNARD MASS.

UNLESS OTHERWISE SPECIFIED

DIMENSIONS

INCHES

TOLERANCES

DECIMALS

FRACTIONS

ANGLES

± 0°

± 1/64

± 0°30'

± 0°15'

ENG:

DATE:

3-17-70

PROJ. ENG:

DATE:

3-17-70

REV:

MATERIALS:

DATE:

3-17-70

PRBD:

DATE:

3-17-70

NEXT HIGHER ASSY:

A-ML-KAI-Ø

FINISH:

SCALE:

NONE

SIZE CODE:

D

AD

7006537-0-0

REV:

A

NUMBER:

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DIST:

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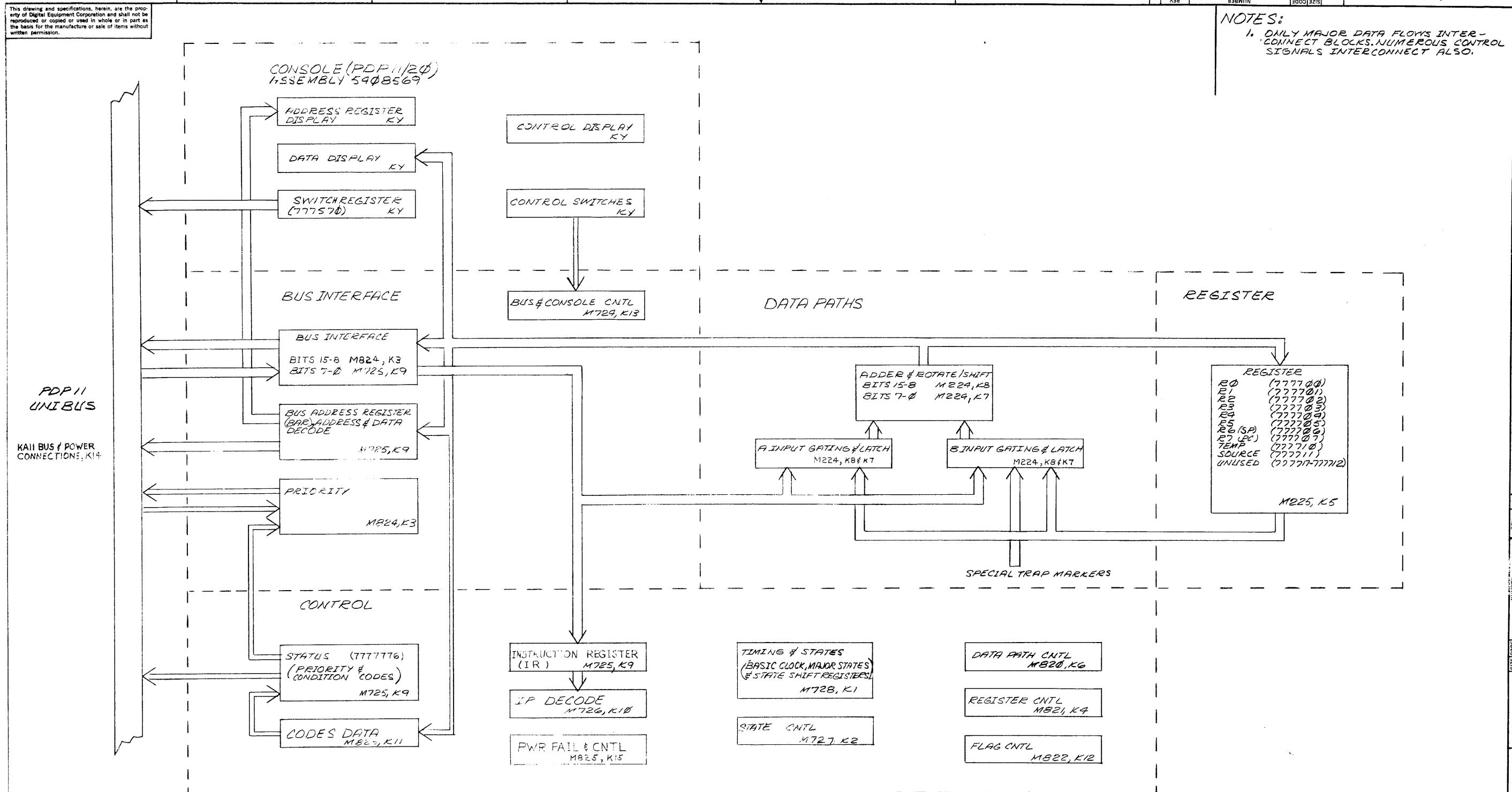
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DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			QUANTITY / VARIATION								
PARTS LIST											
MADE BY P. MARCOTTE	CHECKED K. RUSS	SECTION									
DATE 10/6/69	DATE 10/10/69	1									
ENG J. Coughlin	PROD MacPhail	ISSUED SECT.									
DATE 3-17-70	DATE 3/19/70	1									
ITEM NO.	DWG NO./ PART NO.	DESCRIPTION									
1	D-AD-7005884-0-0	LOGIC FRAME ASSY TRIPLE	1								
2	1205541	BUS STRIP	A/R								
3	9107560-01	#22 AWG BUS WIRE	A/R								
4	9107265-09	#22 TUBING TEFLON, WHITE	A/R								
5	9105740-44	#30 AWG SOLID KYNAR INS WIRE, YEL	A/R								
6	9107470-00	#24 AWG SOLID KYNAR INS WIRE, BLK	A/R								
7	9107470-22	#24 AWG SOLID KYNAR INS WIRE, RED	A/R								
8	9107470-33	#24 AWG SOLID KYNAR INS WIRE, ORN	A/R								
9	9107470-55	#24 AWG SOLID KYNAR INS WIRE, GRN	A/R								
10	9107470-44	#24 AWG SOLID KYNAR INS WIRE, YEL	A/R								
11	9107470-66	#24 AWG SOLID KYNAR INS WIRE, BLUE	A/R								
12	A-SS-7407846-0-0	LOGIC SERIAL # DECAL	1								
REF	K-WL-KA11-Ø-WL	WIRE LIST	1								
TITLE WIRED ASSY (KA11)			ASSY NO. D-AD-700653700-0	SIZE A	CODE PL	NUMBER 7006537-0-0		REV. A	ECO NO. KA11- 00002		
DEC FORM NO. DRA 110			SHEET 1 OF 1		DIST.						

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FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION		PART NO.	ITEM NO.
<b>PARTS LIST</b>						
<b>DO NOT SCALE DRAWING</b>		DRN	<i>J Marine</i>	DATE <i>2-26-69</i>	<b>EQUIPMENT CORPORATION</b>	
<b>UNLESS OTHERWISE SPECIFIED</b>		CHK'D	<i>22-2222en</i>	DATE <i>3/19/70</i>	<b>MAYNARD, MASSACHUSETTS</b>	
<b>DIMENSION IN INCHES</b>		ENG.	<i>100</i>	DATE <i>3-10-70</i>	<b>TITLE</b>	
<b>TOLERANCES</b>		FROG ENG.	<i>41</i>	DATE <i>3-10-70</i>	<b>KAI1 BLOCK DIAGRAM</b>	
DECIMALS	FRACTIONS	PHOD.	<i>100</i>	DATE <i>5/13/70</i>		
$\pm .005$	$\pm 1/64$	NEXT HIGHER ASSY				
<b>FINAL SURFACE QUALITY</b>		A-ML-KAI1-Ø	SIZE	CODE	NUMBER	REV.
<b>REMOVE BURS AND BREAK SHARP CORNERS</b>			D	BD	KAI1-Ø-BD	
<b>MATERIAL</b>		SCALE	NONE			
<b>FINISH</b>		SHEET	/ OF /			
		DIST.				

## KALI BLOCK DIAGRAM

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## PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E23	DEC 74H50N	I.C. 1009060	2
2	E12,E5,E10,E28,E37	DEC 7402N	I.C. 1009004	5
3	E13,E9	DEC 74H74N	I.C. 1009667	2
4	E4,E25,E26,E29,E38,E43,E50,E54	DEC 74H40N	I.C. 1005586	8
5	E7,E11,E19,E20,E31,E49	DEC 7400N	I.C. 1005575	6
6	E18	DEC 8881	I.C. 1009705	1
7	E12,E14,E18,E39,E40,E41,E42,E44,E53	DEC 74H00N	I.C. 1009056	9
8	E13,E15,E24,E34	DEC 74H10N	I.C. 1009057	4
9	E16	DEC 74H20N	I.C. 1005635	1
10	E17,E47,E48	DEC 74H30N	I.C. 1009059	3
11	E21,E51	DEC 7410N	I.C. 1005576	2
12	E22,E46	DEC 8215A	I.C. 1009713	2
13	E27,E30,E45	DEC 8271	I.C. 1009615	3
14	E32,E33,E35,E36	8251B	I.C. 1009594	4
15	E52	DEC 7420N	I.C. 1005577	1
16	C1-C10,C13,C15-C27,C29-C55,C59	.01 MFD, 100V, 20%	CAP. 1001610	52
17	C11,C60	330 MMFID, 100V, 5%	CAP. 1000023	2
18	C12	18 MMFID, 100V, 5%	CAP. 1002608	1
19	C14	150 MMFID, 100V, 5%	CAP. 1000019	1
20	C56-C58,C28	6.8 MFD, 35V, 20%	CAP. 1000067	4
21	R1	300, 1/4W, 5%	RES. 1301425	1
22	R2,R4,R7,R10	10000, 1/4W, 5%	RES. 1300365	4
23	R3	47, 1/4W, 5%	RES. 1300202	1
24	R5	470, 1/4W, 5%	RES. 1300316	1
25	R6,R9	220, 1/4W, 5%	RES. 1300271	2
26	R8	5000 OHM POTENTIOMETER	1305451	1
27	D1	D664 DIODE	1100114	1
28	D1	DEC 3009B TRANSISTOR	1503100	1

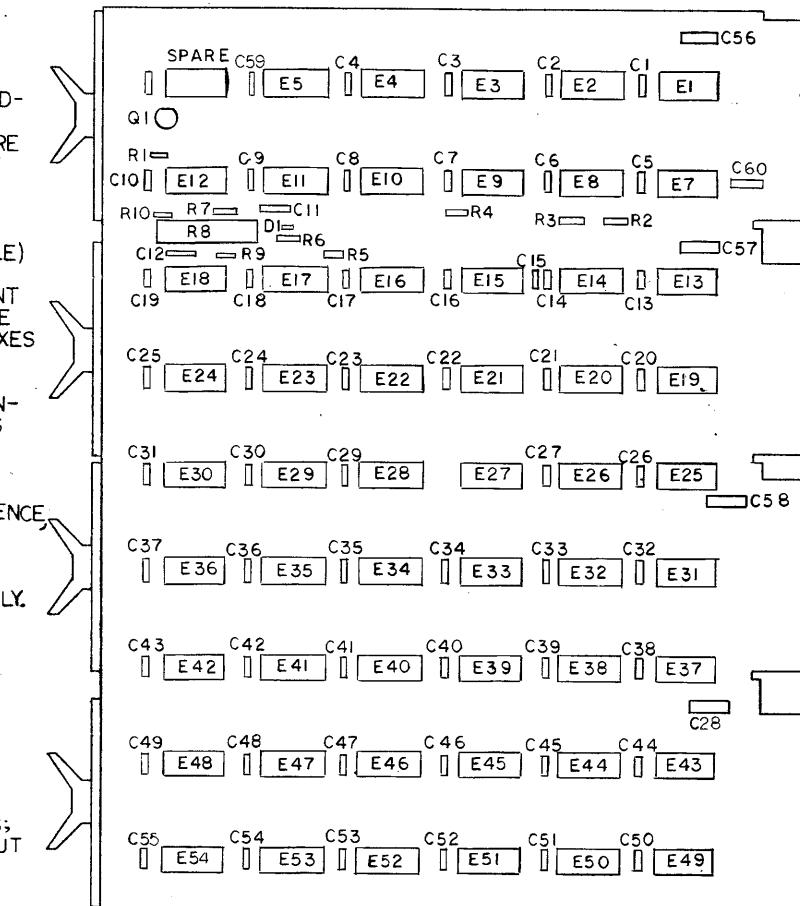
## NOTES:

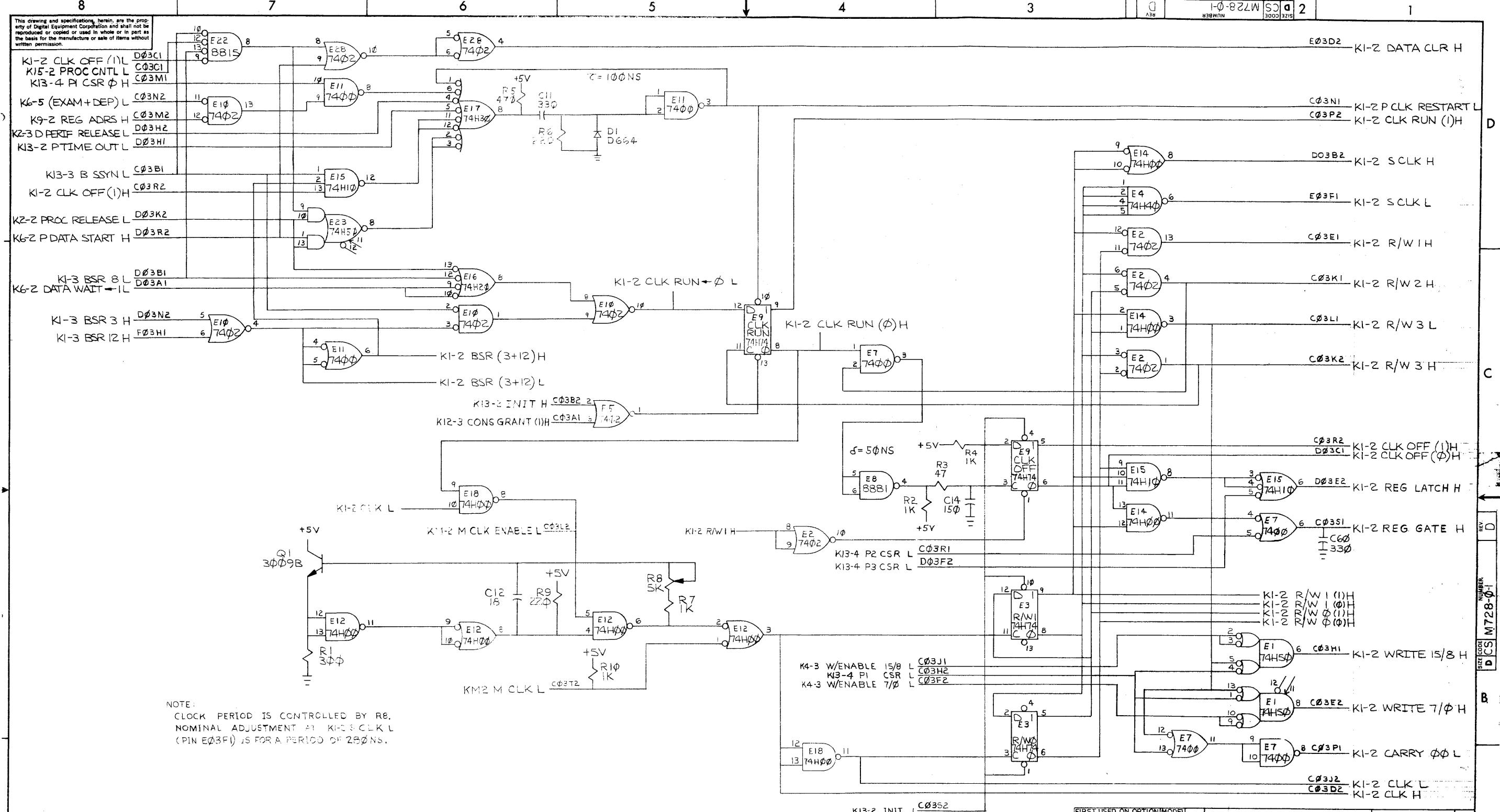
- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI Processor. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

- UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

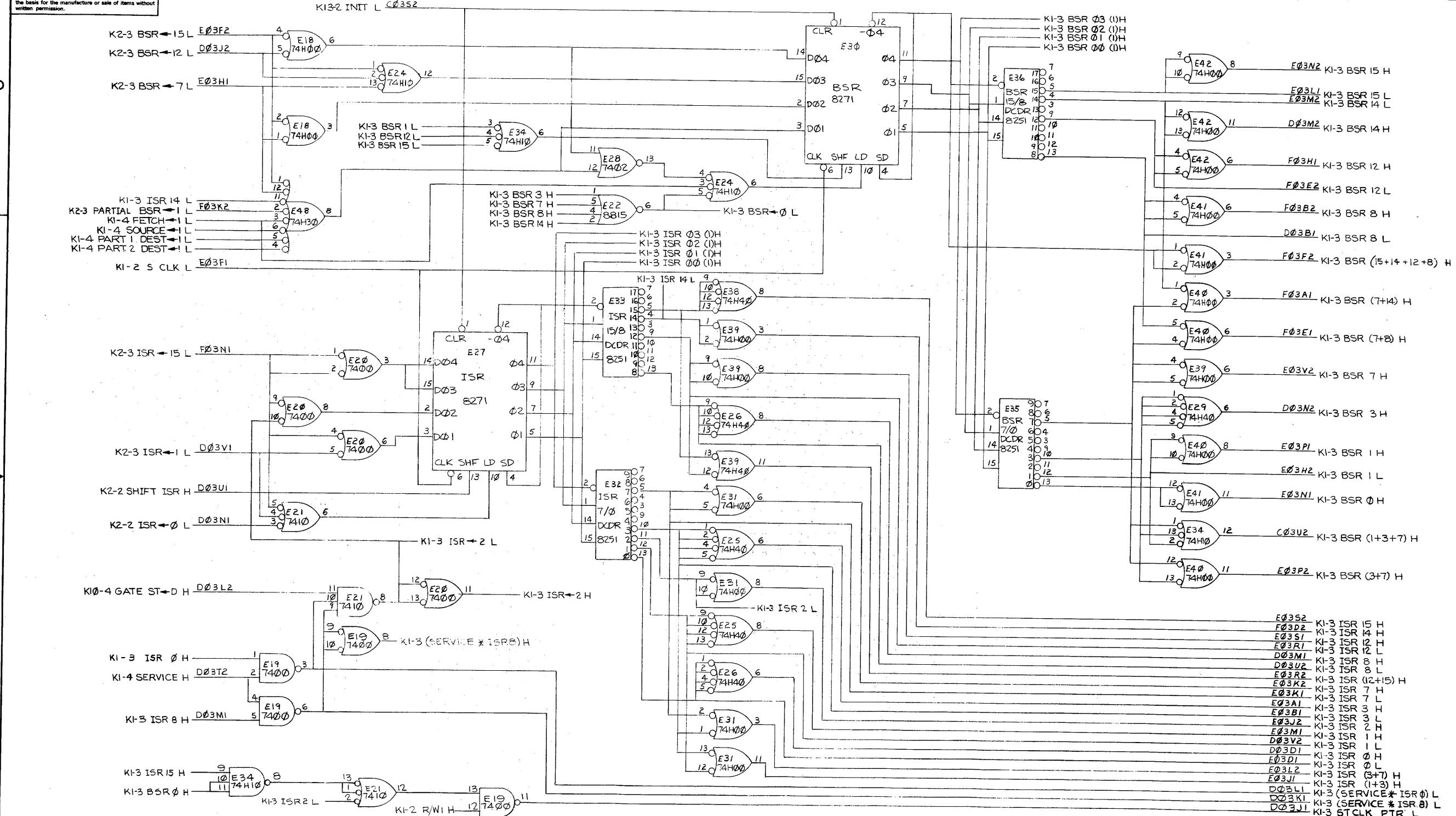
## COMPONENT PLACEMENT





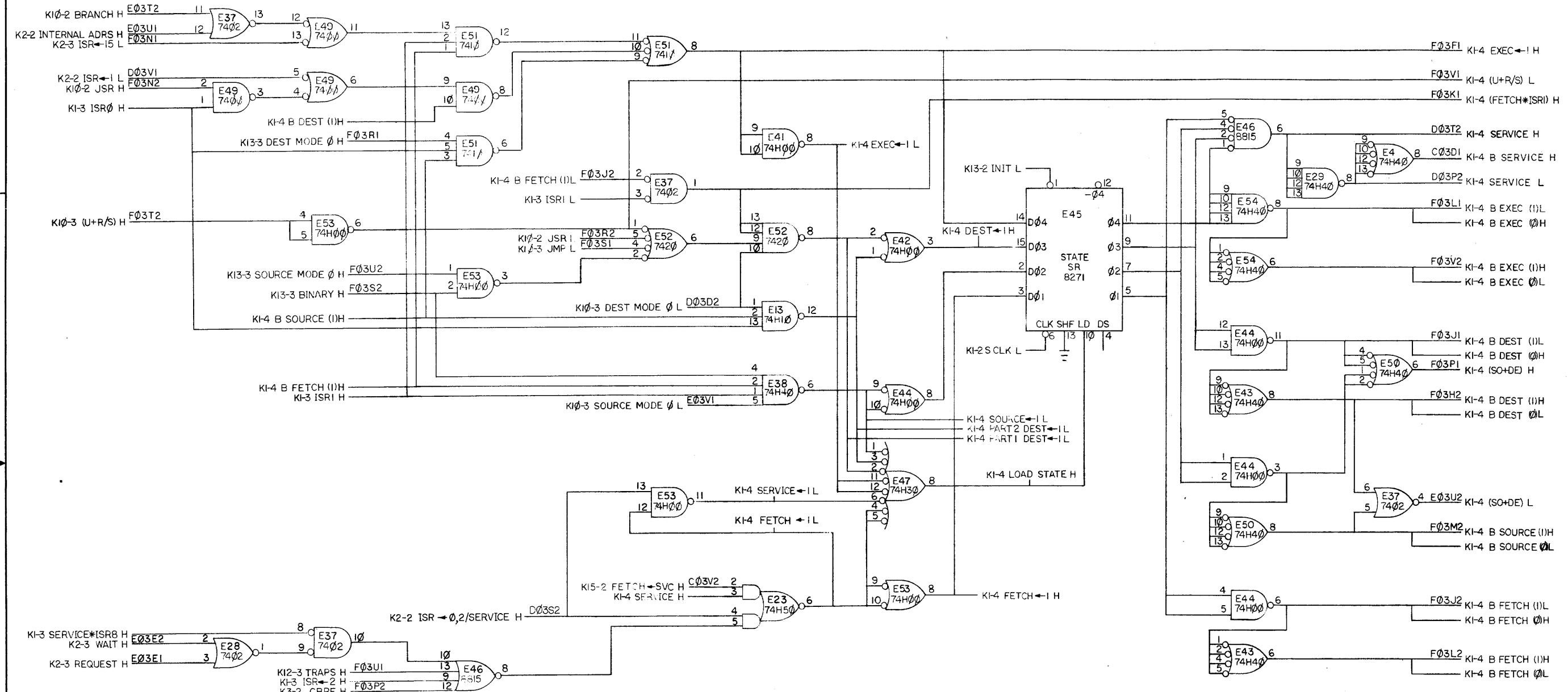
FIRST USED ON OPTION/MODEL PDPII	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRN. R. Rainard	DATE 12-12-69	EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	CHK'D. JL	DATE 5/18/70		
DIMENSION IN INCHES			TITLE	
TOLERANCES	DECIMALS      FRACTIONS      ANGLES	DATE 3-5-70	TIMING & STATES	
DELTAS      DOTS      = 174      0-30		DATE 3-5-70	M728 KI-2	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENGR. H. D. Dougherty	DATE 3-5-70		
MATERIAL	PROD.	DATE		
/ /	NEXT HIGHER ASSY A-ML-KAII-Ø			
FINISH	SCALE NONE		SIZE CODE D C S	NUMBER M728-Ø-1
/ /	SHEET 2 OF 4		REV. D I	
	DIST.			

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FIRST USED ON OPTION MODEL <b>PDPII</b>		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN <i>K. Hillman</i>	DATE 12-12-69	<b>digital EQUIPMENT CORPORATION</b> MAYNARD MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK# <i>A. T. Miller</i>	DATE 5-16-70	TITLE <b>TIMING &amp; STATES</b>	
TOLERANCES DECIMALS FRACTIONS ANGLES =.005 1/64 = .070°		ENG. <i>K. Goughlin</i>	DATE 3-5-70		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		PROJ. ENG. <i>K. Goughlin</i>	DATE 3-5-70	MATERIAL <i>X</i>	
		PROD. <i>K. Goughlin</i>	DATE		
NEXT HIGHER ASSY <b>A-ML-KAII-Ø</b>				M728	KI-3
FINISH <i>X</i>		SCALE NONE	SIZE CODE <b>D C S</b>	NUMBER <b>M 728-Ø-1</b>	REV. <b>D</b>
		SHEET <b>3</b> OF <b>4</b>	DIST.		

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REVISIONS		REV.
CHK	CHANGE NO.	

1

REVISIONS  
CHANGE NO.  
C/HK

REV.

FIRST USED ON OPTION/MODEL <b>PDP11</b>		QTY.	DESCRIPTION	PART NO.	ITEM NO.
* PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN: A- <i>Paridis</i>	DATE 12-11-69	<b>EQUIPMENT CORPORATION</b> <b>digital</b> MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK'D: <i>A-Paridis</i>	DATE 3/18/70	TITLE <i>TIMING &amp; STATES</i>	
TOLERANCES DECIMALS FRACTION ANGLES = .005      1/64      = 0°30'		ENG'D: <i>H. L. Wren</i>	DATE 3-5-70		
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS		PROL/ENG'D: <i>H. L. Wren</i>	DATE 3-5-70		
MATERIAL F		PROD:	DATE		
NEXT HIGHER ASSEMBLY A-ML-KAII-Ø		M728			
FINISH F		SCALE	SIZE CODE D C S	NUMBER M728-01	REV D
SHEET 4 OF 4		DIST.			

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### PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E9,E18	DEC 74H53N	IC 1909062	3
2	E2,E5,E9,E21,E25,E27,E31,E36,E39,E45,E47	DEC 7402N	IC 1909004	11
3	E3,E28,E34,E40,E42	DEC 8815A	IC 1909713	5
4	E4,E10,E11,E16,E22,E24,E26,E37,E44,E49	DEC 7400N	IC 1905575	10
5	E6,E32	DEC 7420N	IC 1905577	2
6	E7,E17	DEC 74160N	IC 1909064	2
7	E8,E29	DEC 7450N	IC 1905560	2
8	E2,E3,E14,E30,E35	DEC 7453N	IC 1905581	5
9	E5	DEC 7410N	IC 1905582	1
10	E33,E48	DEC 7410N	IC 1905576	2
11	E38	DEC 7474N	IC 1905547	1
12	E41	DEC 380	IC 1909485	1
13	E43	DEC 3601	IC 1909487	1
14	E46	DEC 8861	IC 1909705	1
15	C1-C39,C41,C43,C45-C47,C49-C51,C56	.01 MFD, 100V, 20%	CAP 10021610	48
16	C40	1000 MMF, 100V, 5%	CAP 1002344	1
17	C42	68 MMF, 100V, 5%	CAP 1000014	1
18	C44,C48	330 MMF, 100V, 5%	CAP 1000023	2
19	C52-C55	6.8 MFD, 35V, 20%	CAP 1000067	4
20	R1,R6	47, 1/4W, 5%	RES 1300202	2
21	R2	5.6 K, 1/4W, 5%	RES 1301874	1
22	R3,R7	470, 1/4W, 5%	RES 1300316	2
23	R4	220, 1/4W, 5%	RES 1300271	1
24	R5	1000, 1/4W, 5%	RES 1300365	1
25	DI	D664 DIODE	1100114	1

### NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAII PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.

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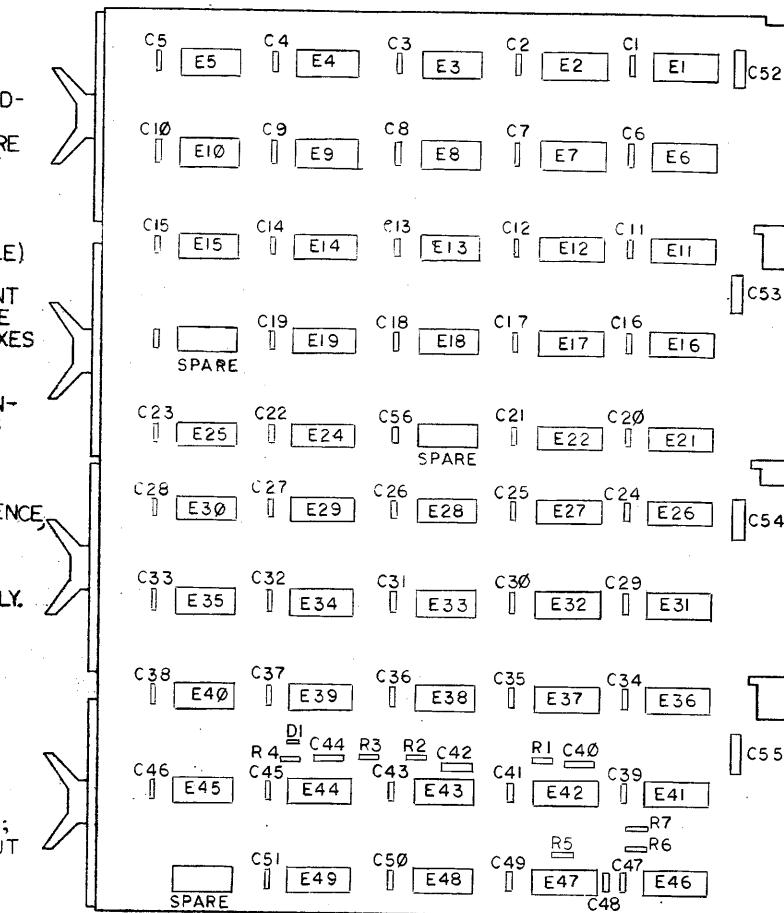
4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.

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DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

### COMPONENT PLACEMENT



### PIN NOMENCLATURE

MODULE PROCESSOR

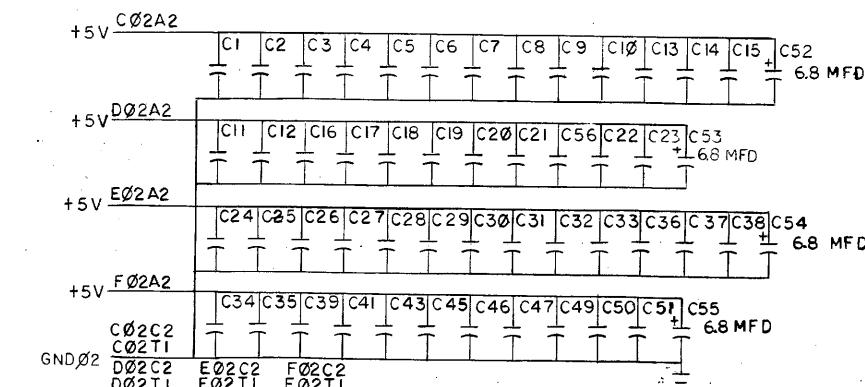
D C

A D

B D

C E

F F



ITEM NO	DESCRIPTION	PART NO.
PDP II	UNLESS OTHERWISE SPECIFIED	DRN 1-1, DATE 6/28/70
UNLESS OTHERWISE SPECIFIED	DIMENSION IN INCHES	CHKD 1-1, DATE 3/2/70
TOLERANCES	DECIMALS FRACTIONS ANGLES	ENG 1-1, DATE 3-6-70
= .005 ± 1/64 ± 0°30'	REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENG. J. Loughlin, DATE 3-6-70
FIRMLY SURFACE QUALITY		
MATERIAL		
NEXT HIGHER ASSY		
A-ML-KAII-0		
FINISH	SCALE	REV. E
SHEET	OF 3	ETCH REV B C D

digital EQUIPMENT CORPORATION  
MAYNARD MASSACHUSETTS

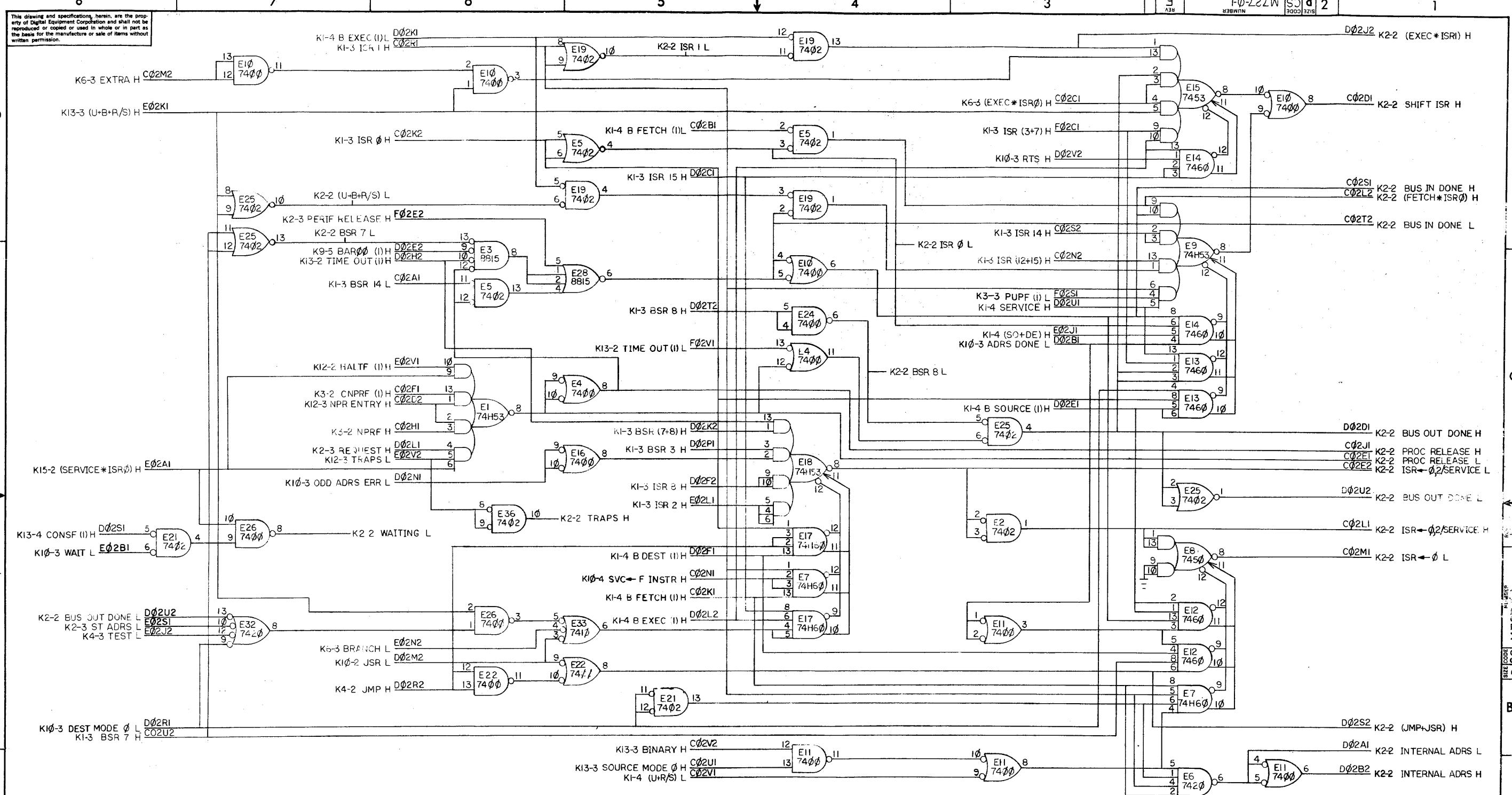
STATE CNTL

M727 K2-1

SIZE CODE NUMBER REV. E

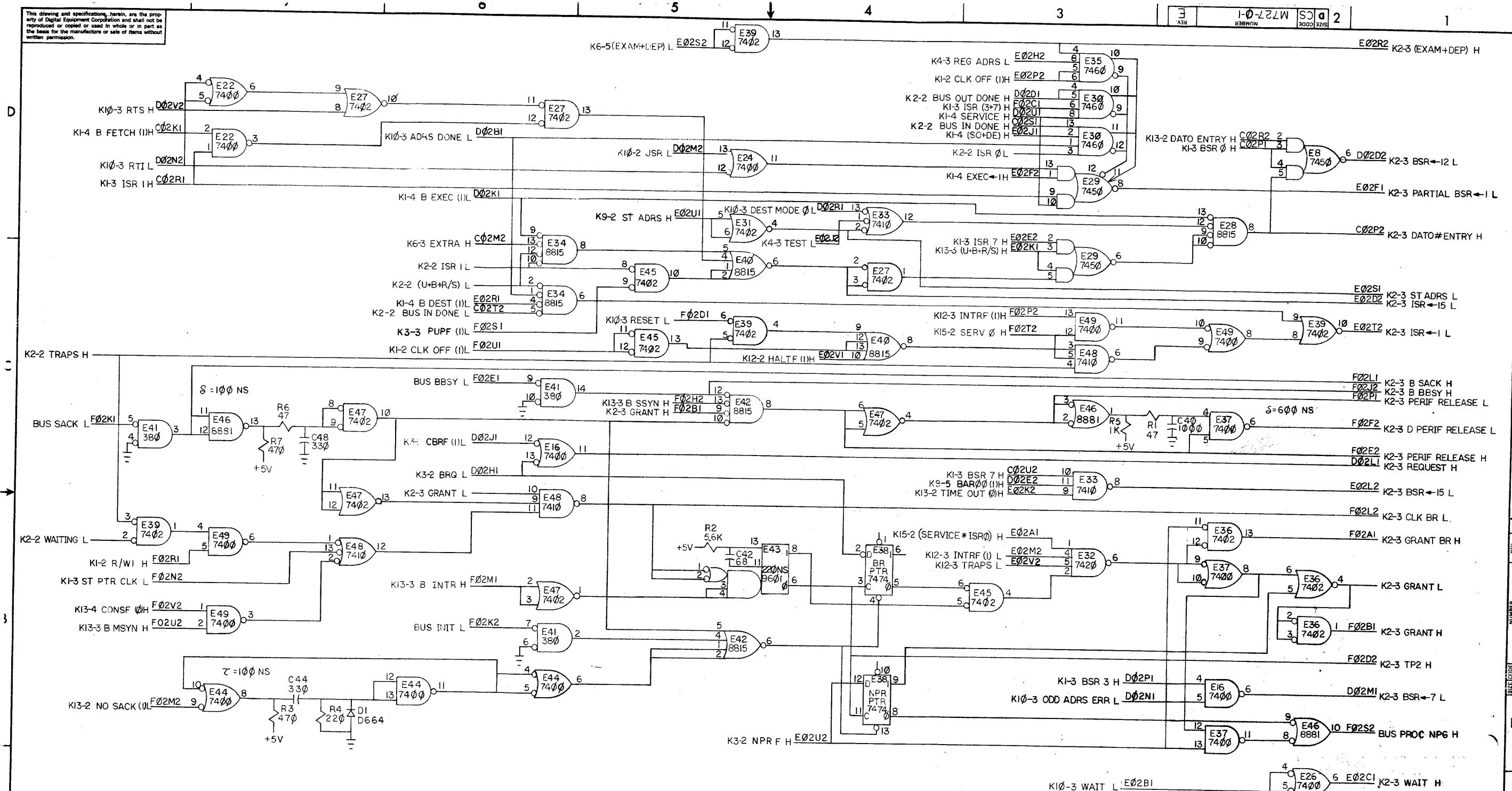
DCS M727-0-1

CHG	REVISION NO	REV
1	M727-00002	B
2	J. O'LOUGHLIN	1-2-2-70
3	J. O'LOUGHLIN	1-2-2-70
4	J. O'LOUGHLIN	4/23/70
5	J. O'LOUGHLIN	5/22/70
6	J. O'LOUGHLIN	6/24/70
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105	J. O'LOUGHLIN	6/24/70
106	J. O'LOUGHLIN	6/24/70
107	J. O'LOUGHLIN	6/24/70



FIRST USED ON OPTION/MODEL PDPII		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN	<i>J. Andris</i>	DATE <i>12-5-69</i>	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK'D	<i>AS</i>	DATE <i>3/18/70</i>	
TOLERANCES		ENCL	<i>70A</i>	DATE <i>3-3-70</i>	TITLE <i>STATE CNTL</i>
DECIMALS	FRACTIONS	PROBLEMS		DATE <i>3-3-70</i>	
$\pm .005$	$\pm 1/64$	PROD.		DATE	
FINAL SURFACE QUALITY					
REMOVE BURNS AND BREAK SHARP CORNERS					
MATERIAL		NEXT HIGHER ASSEMBLY A-ML-KAII-Ø			
FINISH		SCALE NONE			
		SHEET	2	OF	3
		DIST.			

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PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E6,E21	DEC 8881	IC 1909705	3
2	E2,E7	DEC 74H00N	IC 1909056	2
3	E3,E9,E18	DEC 7402N	IC 1909004	3
4	E4,E8	DEC 74H20N	IC 1909635	2
5	E6	DEC 74H10N	IC 1909057	1
6	E10	DEC 7450N	IC 1905580	1
7	E11,E17,E22,E25	DEC 380	IC 1909485	4
8	E12,E13,E14,E19	DEC 74H74N	IC 1909667	4
9	E15	DEC 74H50N	IC 1909060	1
10	E23	DEC 7410N	IC 1905576	1
11	E24	DEC 7400N	IC 1905575	1
12	C1-C24	.01 MFD, 100V, 20%	CAP 100160	24
13	C25,C26	6.8 MFD, 35V, 20%	CAP 1000067	2
14	E20	DEC 7474N	IC 1905547	1

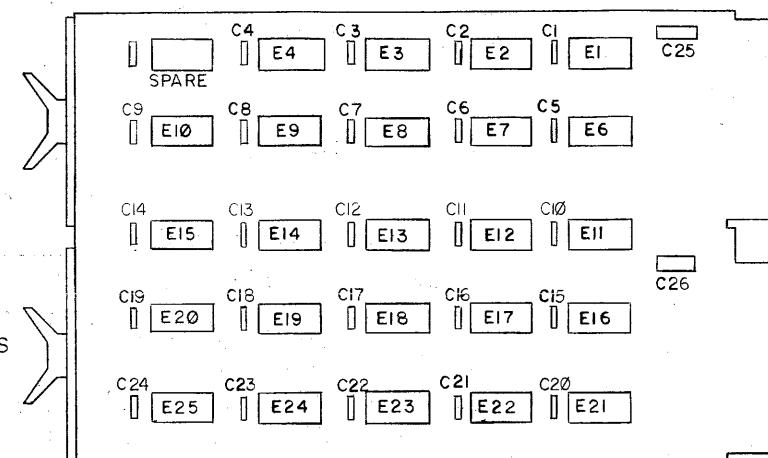
NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAII PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

6 UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

COMPONENT PLACEMENT



PIN NOMENCLATURE

MODULE PROCESSOR

D

C

D

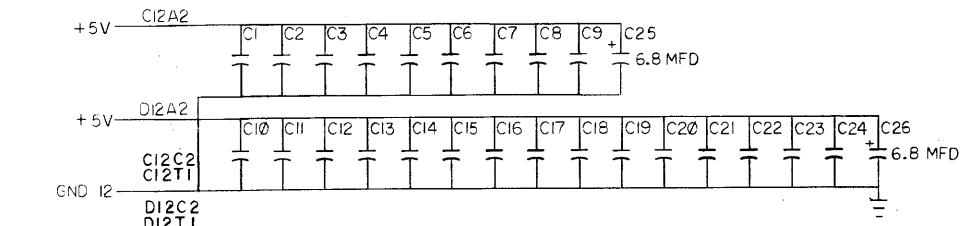
C

C

C

B

A

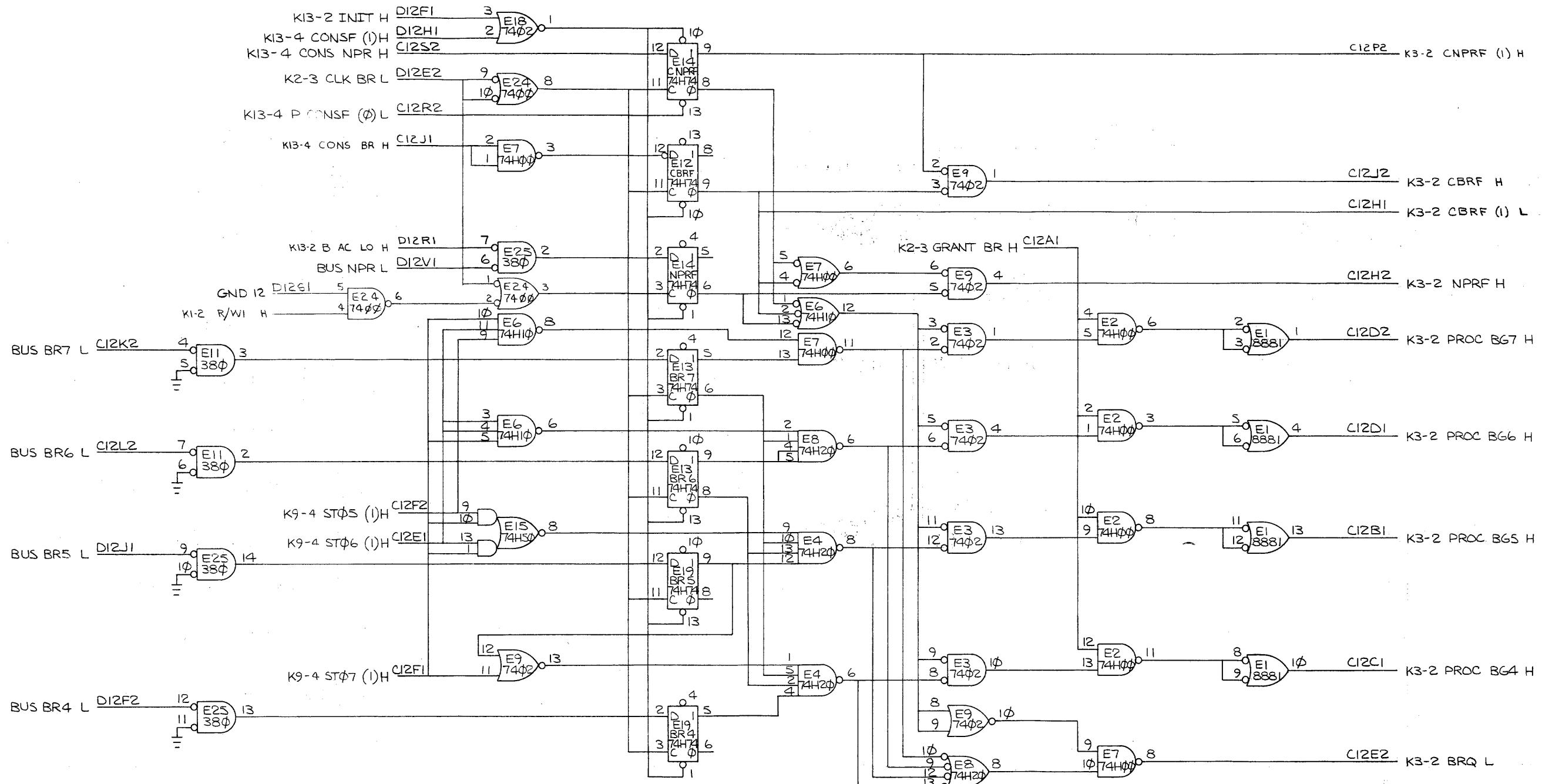


FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP 11				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRW. <i>J. C. Blaylock</i>	DATE 2-20-70	digital EQUIPMENT CORPORATION	
UNLESS OTHERWISE SPECIFIED	CHKD. <i>C. J. Blaylock</i>	DATE 3-2-70	MAYNARD MASSACHUSETTS	
TITLE				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± 1°30'		
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NEXT HIGHER ASSY			
	A-ML-KAII-0			
FINISH	SCALE	REV.	SIZE CODE	NUMBER
	/	C	D	M824-0-1
SHEET	1	OF 3	ETCH REV.	B C

PRIORITY  
M824 K3-1  
REV. C  
SIZE CODE NUMBER  
D CS M824-0-1  
REV. C  
DIST. 1 Pink Blue

REVISIONS	CHANGE NO	REV
1	M824-00001	B
2	101 Loughlin	4-2-70
3	101 Loughlin	4-2-70
4	M824-00002	C
5	101 Loughlin	4-2-70

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FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN. A.R. - De	DATE 12-9-69	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHKD <i>JKR</i>	DATE 3/1/70	TITLE	
TOLERANCES		ENG. <i>J. O'Halloran</i>	DATE 3-5-70	PRIORITY	
DECIMALS	FRACTIONS	PROJ. ENG. <i>J. O'Halloran</i>	DATE 3-5-70	M824	
$\pm .005$	$\pm 1/64$	PROD. <i>J. O'Halloran</i>	DATE	K3-2	
FINAL SURFACE QUALITY ✓ REMOVE BURRS AND BREAK SHARP CORNERS		NEXT HIGHER ASS'Y A-ML-KAII-Ø			
MATERIAL	SCALE NONE		SIZE CODE D C S	NUMBER M824-Ø-1	REV. C
FINISH	SHEET 2 OF 3		DIST.	1 P. circ 03	

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KY-3 HALT L D12H2  
K12-2 SVC CLR OVFLF H C12T2

K12-2 OVFLF (Φ) L C12K1

K1-4 SERVICE H D12T2  
K3-3 PUPF (Φ) H D12S2  
KI-3 ISR 14 H

K15-2 CLK PDNF H C12U2  
74H74

E18 74H52

E15 74H52

E23 74H10

E24 74H10

E12 74H10

E10 7450

E18 74H52

E20 74H74

E22 74H74

E21 74H74

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## PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1E6,E7,E21,E25	DEC 7400N	IC 1905575	5
2	E2,E4,E22	DEC 8815A	IC 1909713	3
3	E3,E1	DEC 7402N	IC 1909004	2
4	E5,E10,E30	DEC 7450N	IC 1905580	3
5	E6,E13,E16,E19,E27	DEC 7453N	IC 1905582	5
6	E9,E28	DEC 7410N	IC 1905576	2
7	E11,E12,E18,E23,E24,E26	DEC 7450N	IC 1905581	6
8	E15	DEC 7420N	IC 1905577	1
9	C1-C30	.01 MFD 100V 20%	CAP 1001610	30
10	C31,C32	6.8 MFD 35V 20%	CAP 1000067	2
11	E17	DEC 74H60N	IC 1909064	1
12	E20	DEC 74H00N	IC 1909056	1
13	E29	DEC 74H50N	IC 1909060	1

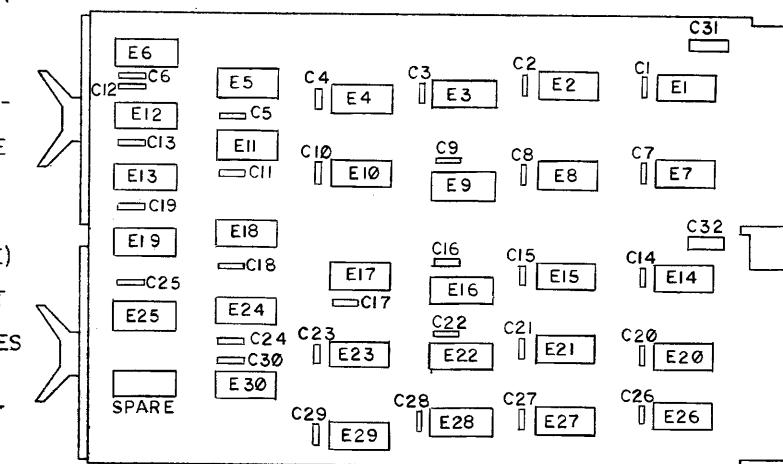
## NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE K41 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED, MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

- UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

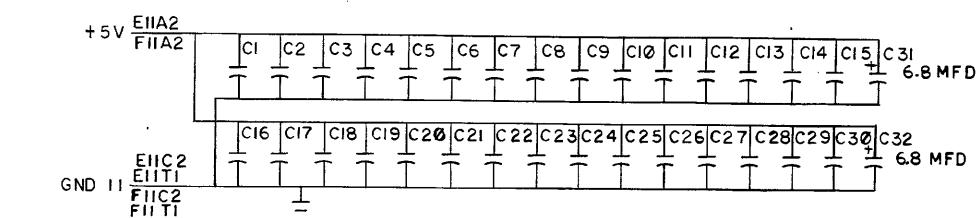
## COMPONENT PLACEMENT



## PIN NOMENCLATURE

MODULE	PROCESSOR
A	E
B	F
C	

REV B  
SIZE CODE DCS M821-0-1  
NUMBER



FIRST USED ON / OPTION / MODEL		QTY.	DESCRIPTION		PART NO.	ITEM NO.
PDP II						
UNLESS OTHERWISE SPECIFIED						
UNLESS OTHERWISE SPECIFIED						
DIMENSION IN INCHES						
TOLERANCES						
DECIMALS FROM 0.000 TO 1.000 ± .005 = 1/64      ± 0.30° = 0°30'						
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS						
MATERIAL						
NEXT HIGHER ASSY						
A-ML-K41-0						
FINISH						
SCALE						
SHEET 1 OF 3						
ETCH REV B C						
SIZE CODE DCS M821-0-1						
NUMBER						
REV. B						

digital EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

TITLE: REGISTER CNTL

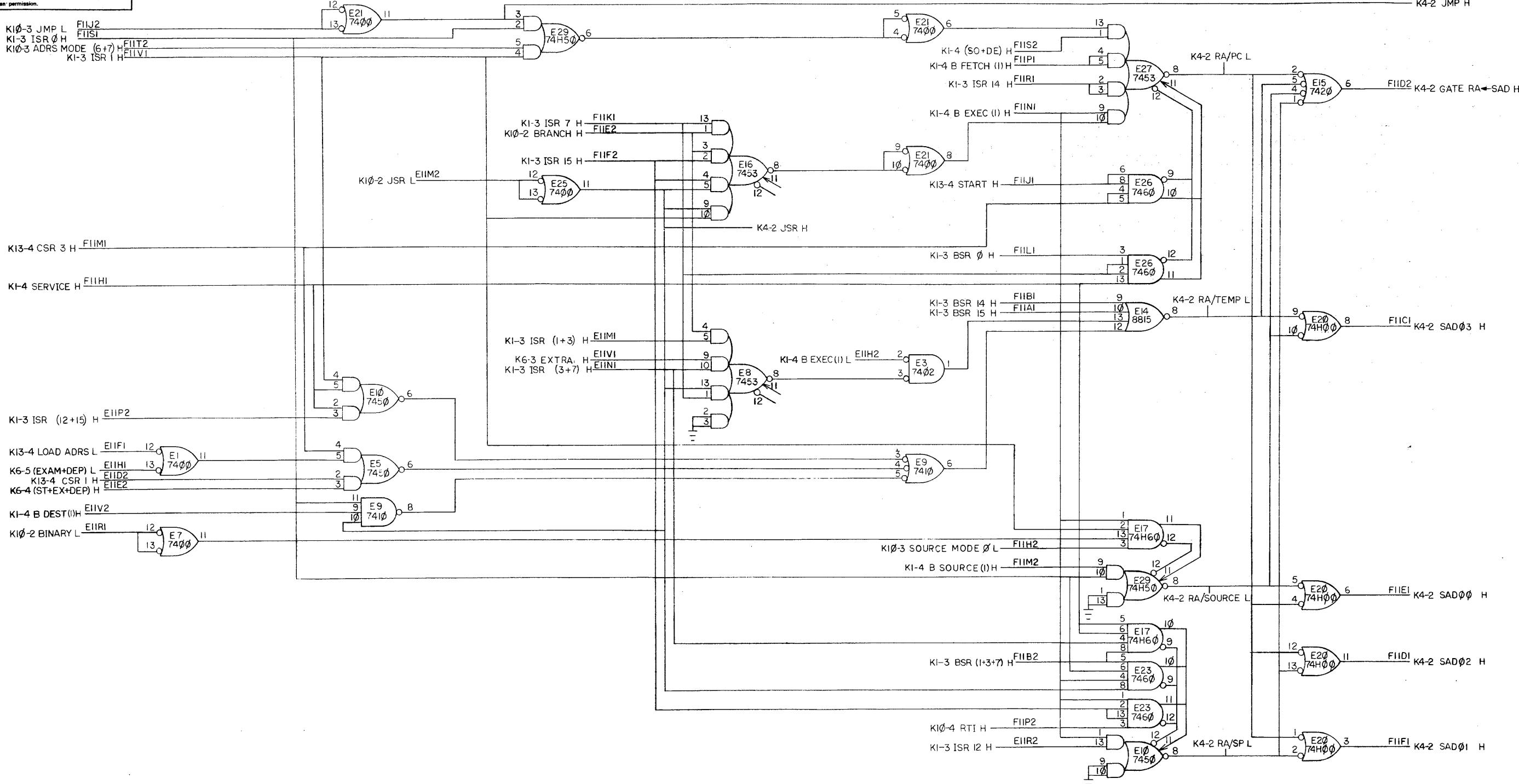
M821 K4-1

1 Print

REVISIONS	CHANGE NO.	REV
1	M821-00001	B
2	4/22/70	
3	J. O'LOUGHLIN	

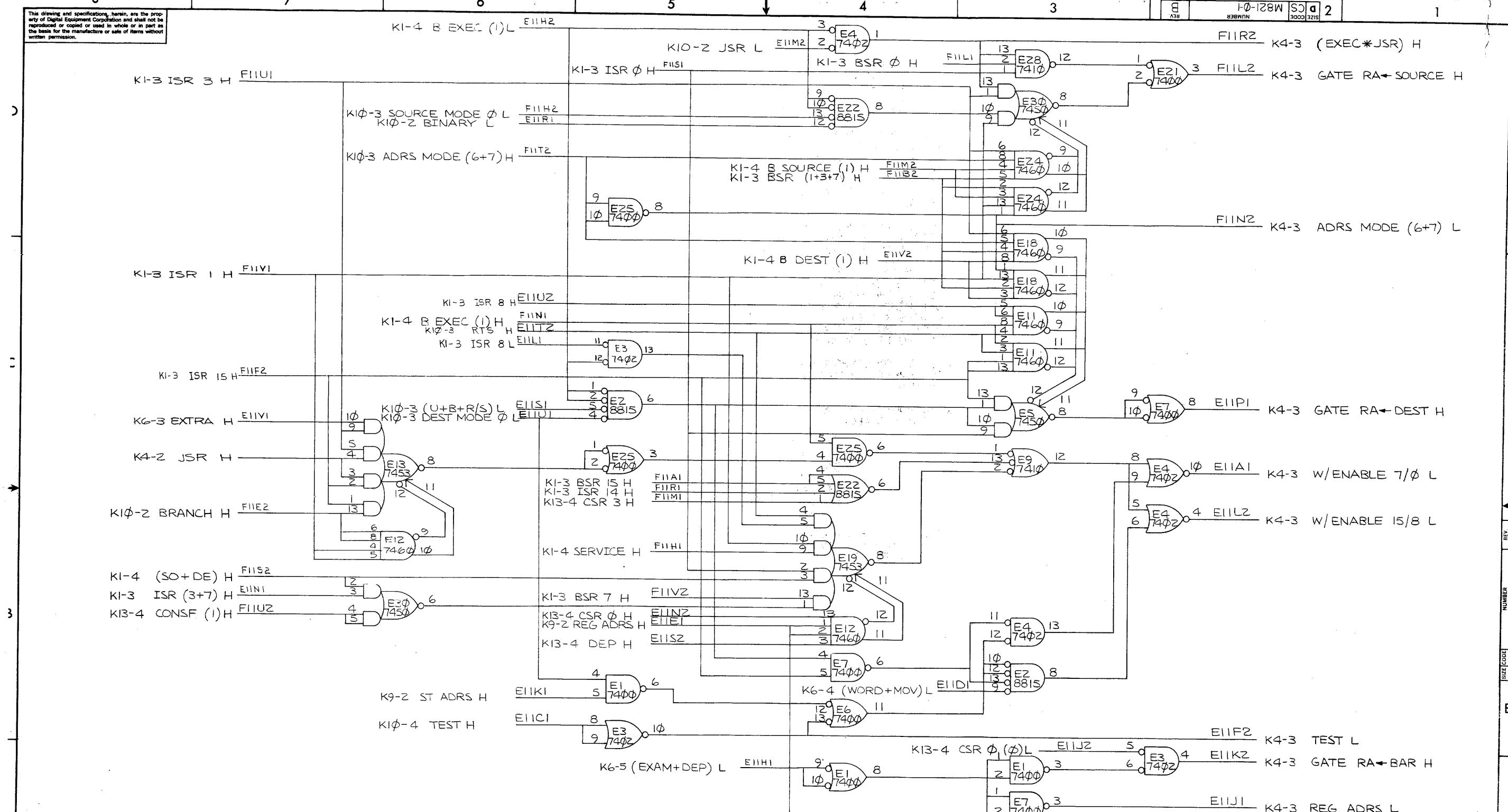
8 7 6 5 4 3 2 1

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FIRST USED ON OPTION/MODEL PDPII	QTY.	DESCRIPTION	PART NO.	ITEM NO.
				PARTS LIST
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRM	DATE 12-1-69	<b>digital</b>	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
TOLERANCES	CDK'D.	DATE 3/10/70	TITLE	
DECIMALS      INCHES      ANGLES $\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$	ENG'D.	DATE 3-5-70	REGISTER CNTL	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PROF. ENG'D.	DATE 3-5-70	M821	K4-2
MATERIAL	RIBBON	DATE 8/1/70	SIZE CODE D C S	NUMBER M821-0-1
+	NEXT HIGHER ASSEMBLY A-ML-KAII-Ø		REV. B	
FINISH	SCALE NONE	DIST.		
+	SHEET 2 OF 3			

REVISIONS	CHANGE NO.	REV.
CHNG		



FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN. <i>A. Raymond</i>	DATE 11-29-65	EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED		CHK'D <i>A. Raymond</i>	DATE 3/18/70		
DIMENSION IN INCHES		ENG. <i>F. Thompson</i>	DATE 3-5-70		
TOLERANCES		PROJ. ENG. <i>J. Thompson</i>	DATE 3-5-70		
DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'		PRND. <i>B. Miller</i>	DATE 11/17/70		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL	NEXT HIGHER ASSY A-ML-KAII-Ø				
FINISH	SCALE NONE				
	SHEET 3 OF 3				

**REGISTER CNTL**

K4-3

SIZE D	CODE CS	NUMBER M821-Ø-1	REV B
DIST.			

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## PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E2,E6,E9,E19,E20,E27,E28	DEC 7402N	I.C. 1909004	6
2	E3,E4,E5,E6,E12,E13,E14,E15,E23,E24,E25	7481N	I.C. 1909714	16
3	E26,E29,E30,E31,E32	DEC 74173N	I.C. 1909162	4
4	E10,E21	DEC 8881	I.C. 1909735	2
5	E16	DEC 74101	I.C. 1909356	1
6	E17	DEC 7440N	I.C. 1905579	1
7	Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8	DEC 3009B TRANSISTOR	1523100	8
8	R1 R4, R7, R10, R13, R16 R19 R22	330, 1/4W 5%	RES. 1300295	5
9	R3,R6,R9,R12,R15,R18,R21,R24	1.5 K 1/4W 5%	RES. 1300391	8
10	R25-R40	1 K 1/4 W 5%	RES. 1300365	16
11	R41-R56	3K, 1/4W 5%	RES. 1300432	16
12	C1-C40	.01 MFD, 100V, 20%	CAP. 1001E10	40
13	C41,C42	6.8 MFD, 35V, 20%	CAP. 1200067	2
14	R2,R5,R8,R11,R14,R17,R20,R23	100, 1/4W, 5%	RES. 1300229	8

## NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI1 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.

2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED, MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.

3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.

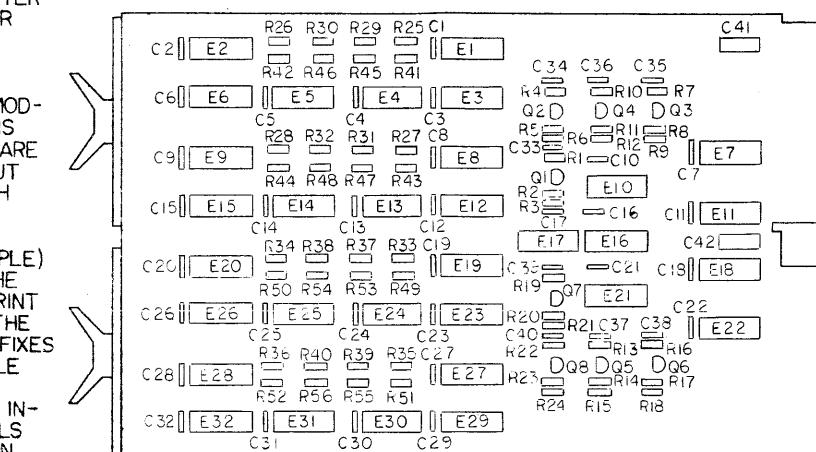
4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.

5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

6. UNLESS OTHERWISE NOTED RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

## COMPONENT PLACEMENT



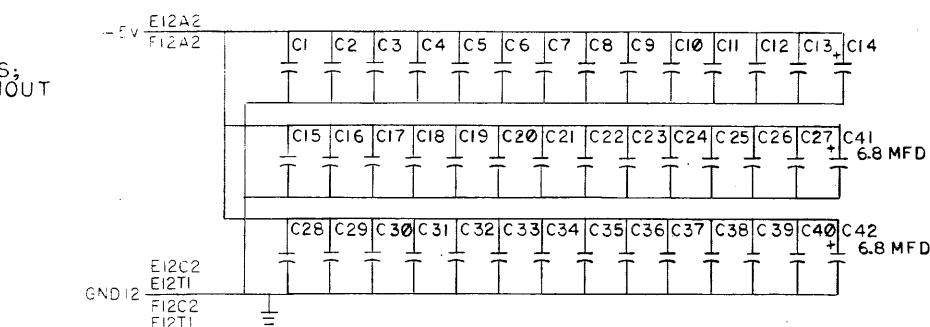
## PIN NOMENCLATURE

MODULE PROCESSOR

A E

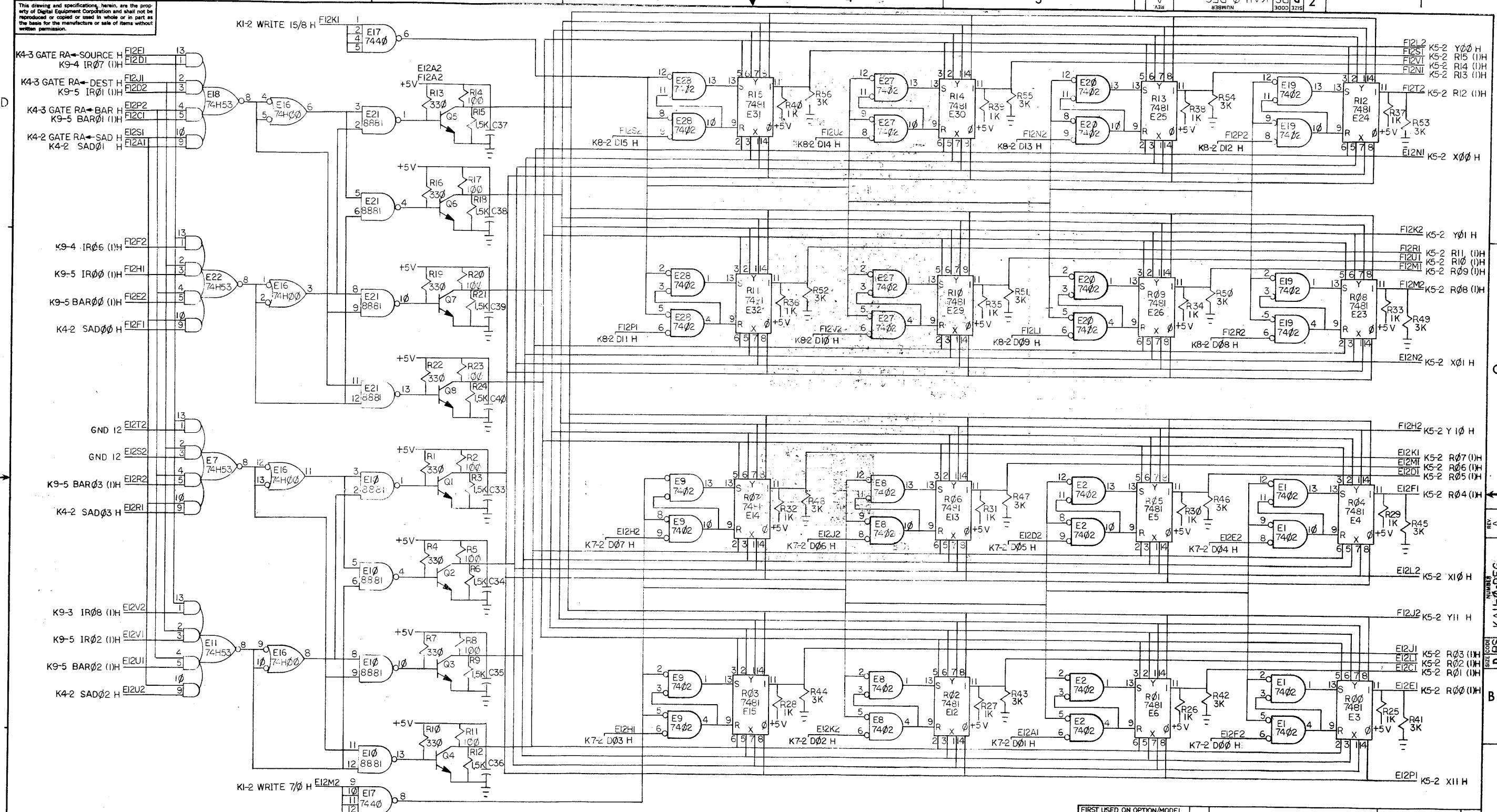
B F

REV A  
NUMBER KAI1-0-REG  
SIZE CODE D  
SIZE CODE D  
NUMBER KAI1-0-REG  
REV A  
NUMBER KAI1-0-REG  
SIZE CODE D  
SIZE CODE D



FIRST USED DATE	USED DATE	OPTION MODEL	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED	DATE 29-JAN-70	DPN 191-6844	digital EQUIPMENT CORPORATION		
UNLESS OTHERWISE SPECIFIED	DATE 3-6-70	CHKD C1	MAYNARD MASSACHUSETTS		
DIMENSION IN INCHES	DATE 3-6-70	ENG C1	TITLE		
TOLERANCES	DATE 3-6-70	PROJ. ENQ. C1	REGISTER		
DECIMALS FRACTIONS ANGLES	DATE 3-6-70	PROB. C1	M225 K5-1		
± .005 ± 1/64 ± 0°30'	DATE 3-6-70	NEXT HIGHER ASSY A-ML-KAI1-0	SIZE CODE D		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DATE 3-6-70	FINISH C1	NUMBER KAI1-0-REG		
MATERIAL C1	DATE 3-6-70	SCALE C1	REV A		
FINISH C1	DATE 3-6-70	SHEET 1 OF 2	DIST. C1		

REV	CHANGE NO	REV
A	KAI1-0-REG	
B	KAI1-0-REG	
C	KAI1-0-REG	
D	KAI1-0-REG	



## PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E16,E10,E16,E18,E22,E27,E34,E36,E39,E44	DEC 7400N	IC 1905575	14
2	E2,E17,E24,E25,E52,E54	DEC 7410N	IC 1905576	6
3	E3,E10,E37,E40,E42,E47,E49,E50	DEC 7450N	IC 1905580	8
4	E4,E5,E21,E61	DEC 8815A	IC 1905713	4
5	E5,E13,E17,E32,E33,E45,E53,E56	DEC 7402N	IC 1905004	8
6	E7,E23,E26,E57	DEC 7420N	IC 1905579	4
7	E9	DEC 7453N	IC 1905582	1
8	E11	DEC 7420N	IC 1905577	1
9	E14,E15,E38,E41,E43,E46,E48,E51	DEC 7460N	IC 1905581	8
10	E19	DEC 74H53N	IC 1905962	1
11	E20	DEC 74H00N	IC 1905956	1
12	E28,E29	DEC 7474N	IC 1905547	2
13	E31	DEC 7401N	IC 1905590	1
14	E35	DEC 74H30N	IC 1905959	1
15	E60	DEC 74H40N	IC 1905586	1
16	C1-C54	.01 MFD 100V 20 %	CAP 1001610	54
17	C55-C58	6.8 MFD 35V 20 %	CAP 1000067	4
18	C59	270 MMF 100V 5 %	CAP 1000022	1
19	C60,C61,C62	330 MMF 100V 5 %	CAP 1000023	3
20	R1	1000 OHMS 1/4W 5 %	RES 1300365	1
21	R2	47 OHMS 1/4W 5 %	RES 1300202	1
22	R3,R5	470 OHMS 1/4W 5 %	RES 1300316	2
23	R4,R6,R8	220 OHMS 1/4W 5 %	RES 1300271	3
24	R7	560 OHMS 1/4W 5 %	RES 1301890	1
25	D1,D2,D3	D664 DIODE	1100114	3

## NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE K411 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.

2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.

3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.

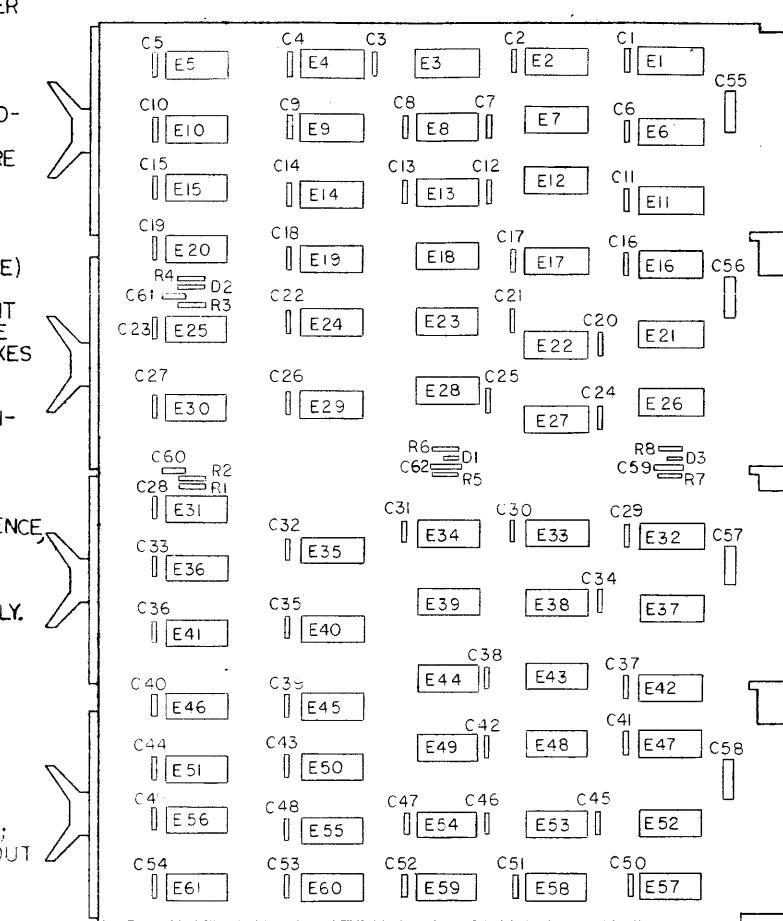
4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.

5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

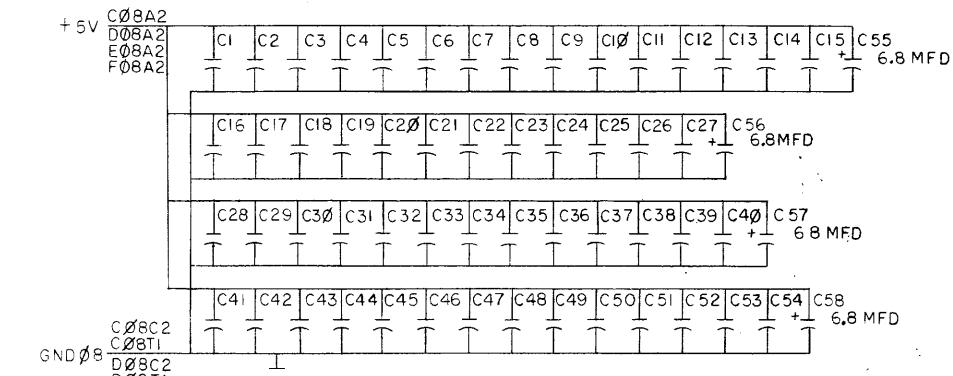
6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN FICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

## COMPONENT PLACEMENT



## PIN NOMENCLATURE

MODULE	PROCESSOR
A	C
B	D
C	E
D	F

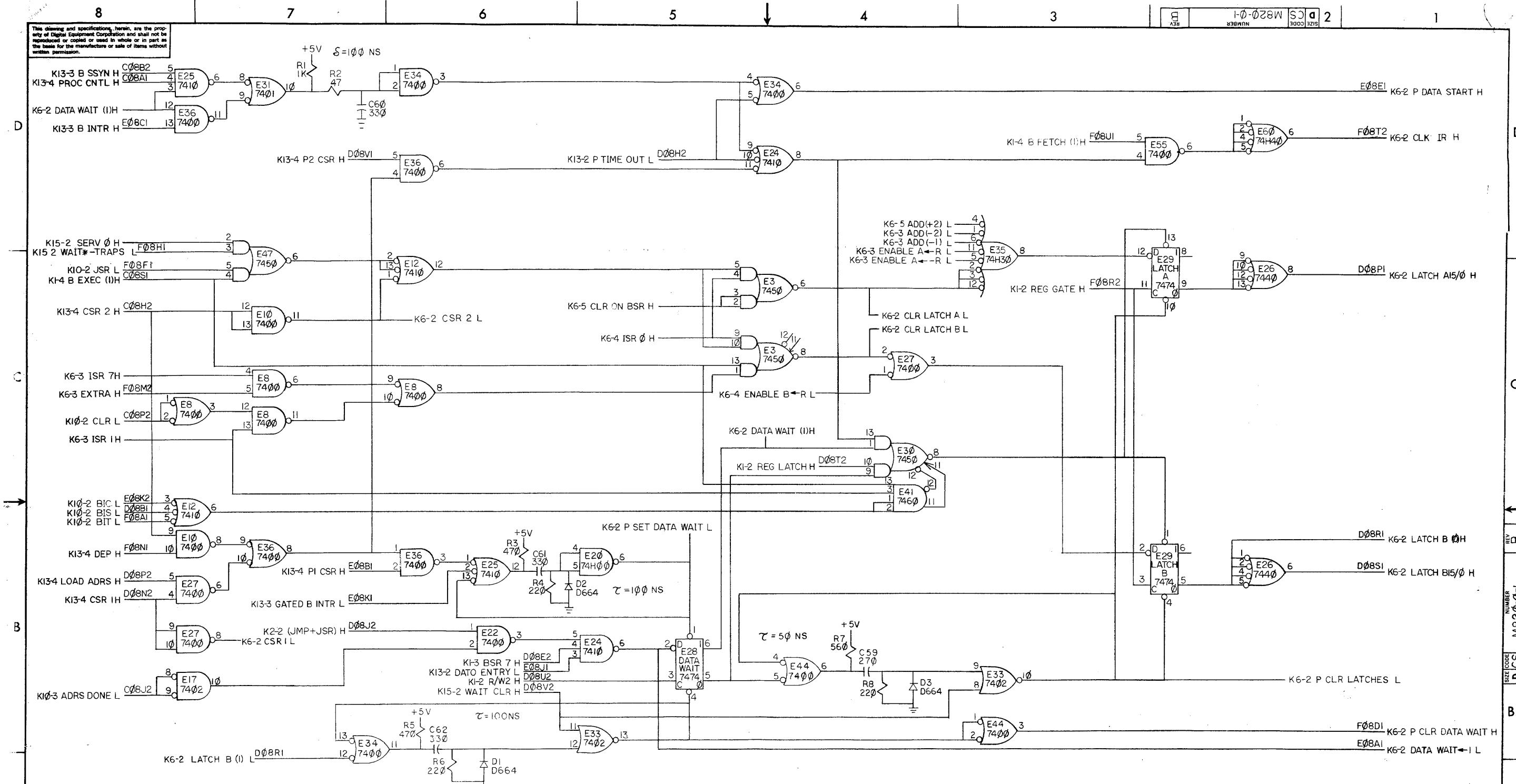


FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II					
UNLESS OTHERWISE SPECIFIED					
DIMENSION IN INCHES					
TOLERANCES					
DECIMALS FRACTIONS ANGLES					
$\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$					
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL					
NEXT HIGHER ASSY					
A-ML-K411-0					
FINISH					
SCALE	/	SHEET 1 OF 5	ETCH REV. B C	SIZE CODE DCS M820-0-1	REV. B

DATA PATH CNTL

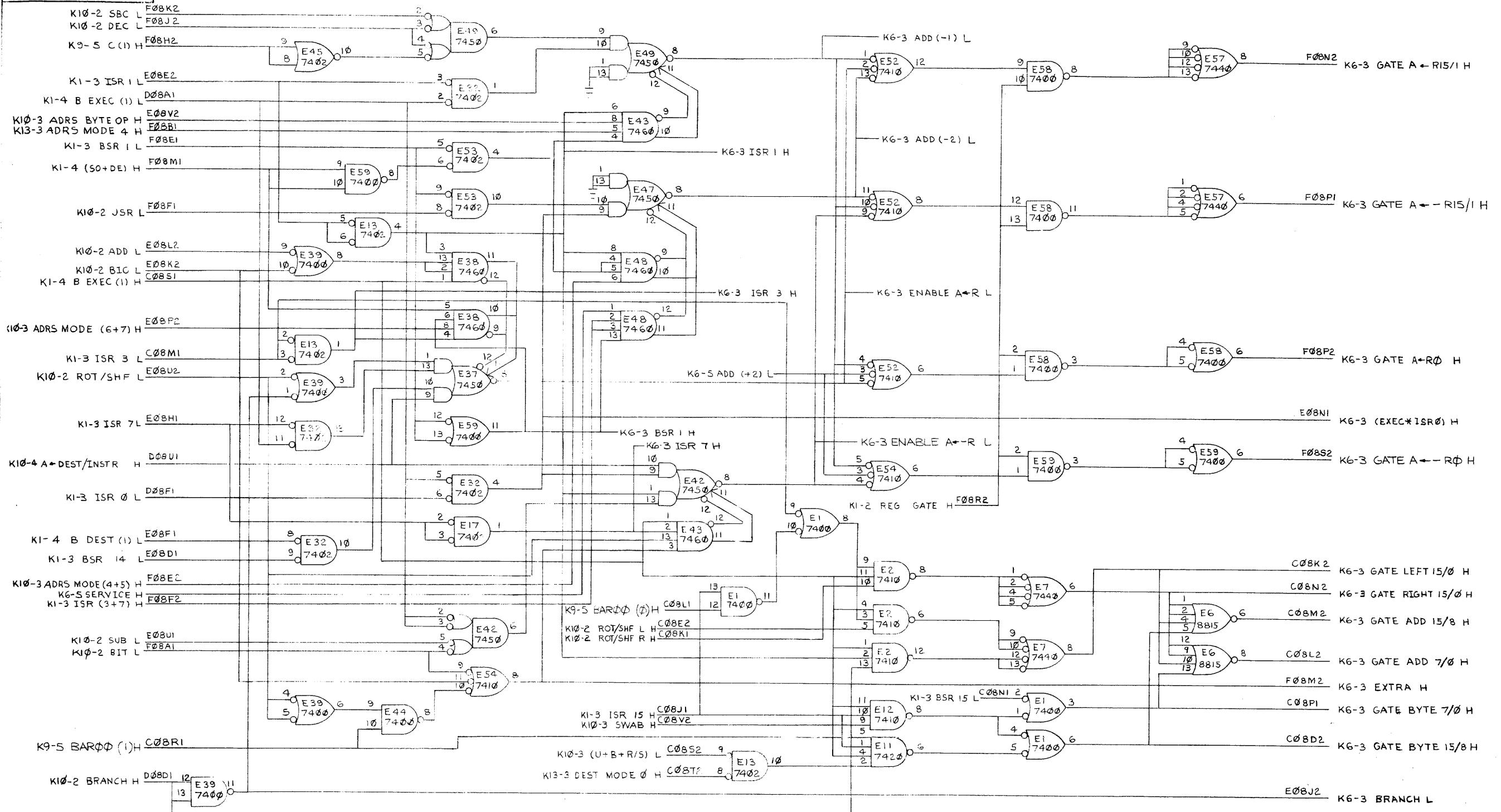
M820 K6-1

REVISIONS	CHANGE NO.	REV.
1	M820-0000	B
2	4-7-70	
3	J. OLOUGHIN	
4	4/23/70	



FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED					
UNLESS OTHERWISE SPECIFIED					
DIMENSION IN INCHES					
TOLERANCES					
DECIMALS FRACTIONS ANGLES					
$\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$					
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL					
NEXT HIGHEST ASSY A-ML-KAII-0					
FINISH SCALE NONE					
SIZE CODE DCS NUMBER M820-0-1 REV. B					
SHEET 2 OF 5 DIST. 1 Rank					

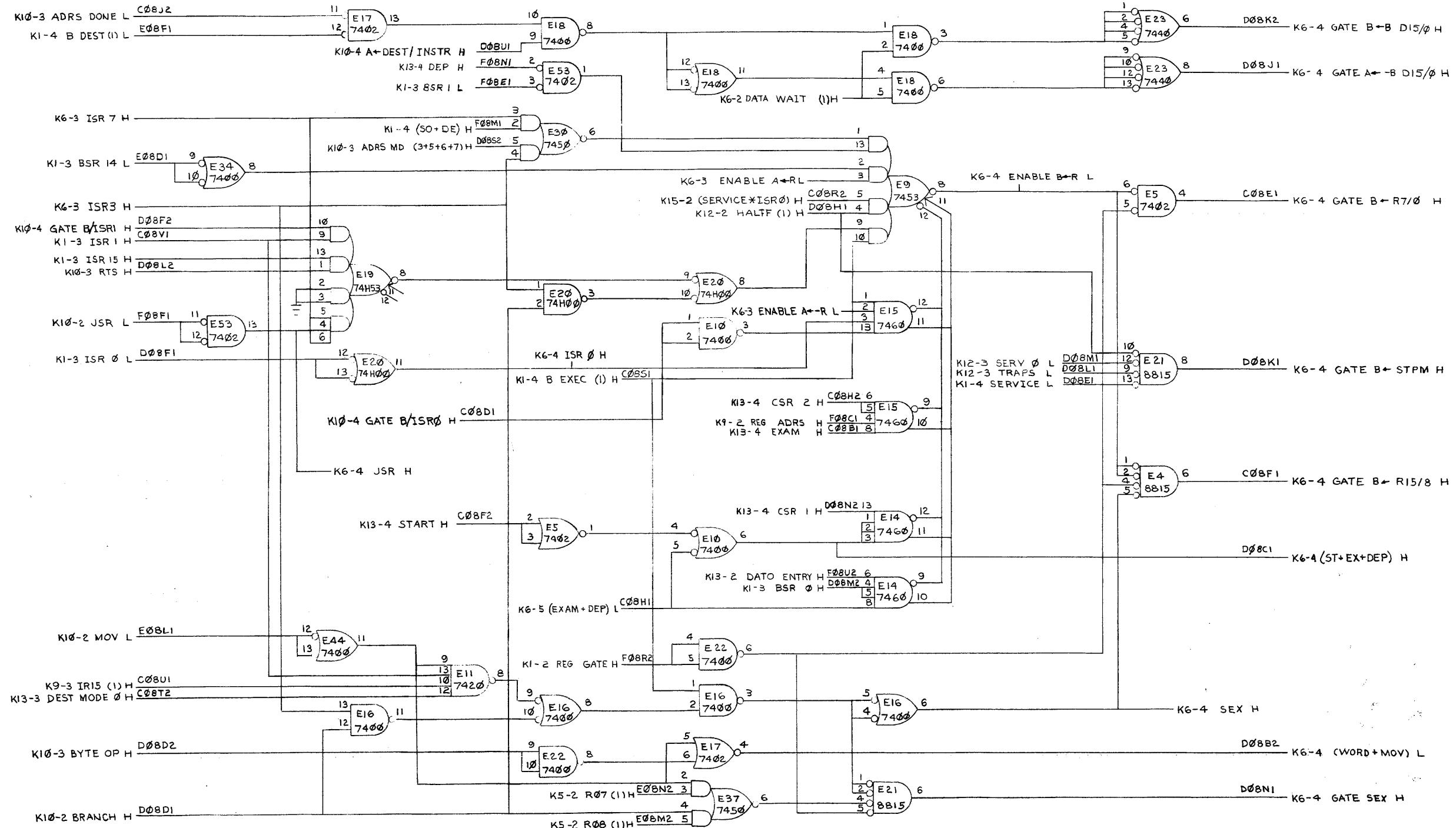
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FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN. <i>8 Measured</i>	DATE 30-Nov-62	<b>digital EQUIPMENT CORPORATION</b> MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED		CHKD. <i>John J. Vass</i>	DATE 3/8/70		
DIMENSION IN INCHES		ENG. <i>H. C. Goughlin</i>	DATE 3-5-70		
TOLERANCES		PROJ. ENG. <i>H. C. Goughlin</i>	DATE 3-5-70		
DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'		PRSD.	DATE		
FINAL SURFACE QUALITY ✓ REMOVE BURRS AND BREAK SHARP CORNERS		TITLE DATA PATH CNTL			
MATERIAL	/ /	M820 K6-3			
		NEXT HIGHER ASSY A-ML-KAII-Ø			
FINISH	/ /	SCALE NONE	SIZE CODE D C S		NUMBER M820-Ø-1
		SHEET 3 OF 5	DIST.	REV B	

CHK	CHANGE NO.	REV.
-----	------------	------

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FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION		PART NO.	ITEM NO.
PDP II			PARTS LIST			
UNLESS OTHERWISE SPECIFIED		DRN.		DATE		
UNLESS OTHERWISE SPECIFIED		2-12-69				
DIMENSION IN INCHES		CHK		DATE		
TOLERANCES		ACT		3/18/70		
DECIMALS FRACTIONS ANGLES		ENG		DATE		
$\pm .005$	$\pm 1/64$	$\pm 0^{\circ}30'$		PROJ ENGR		
FINAL SURFACE QUALITY				DATE		
REMOVE BURRS AND BREAK SHARP				3-5-70		
CORNERS				PROD.		
MATERIAL	++		NEXT HIGHER ASSY			
			A-ML-KAII-0			
FINISH	++		SCALE NONE			
			SHEET 4 OF 5			
			DIST.			

EQUIPMENT CORPORATION  
MAYNARD MASSACHUSETTS

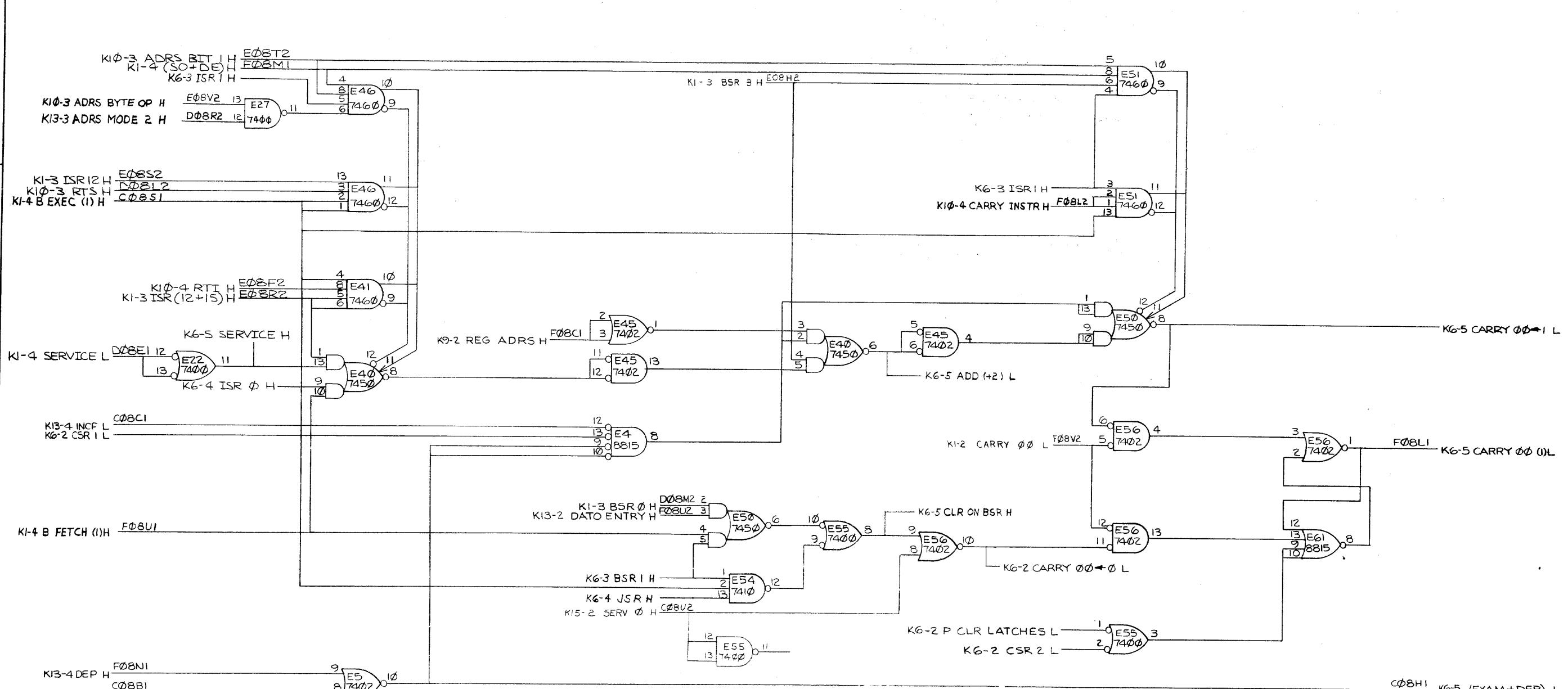
TITLE: DATA PATH CNTL

M820-01 K6-4

SIZE CODE: DCS NUMBER: M820-01 REV: B

REVISIONS	REV.
CHANGE NO.	
CMK	

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### PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E3-E7,E13,E15-E19,E21-E26,E31-E36	DEC 74H53N	IC 1909062	24
2	E2,E8,E14,E20	DEC 7482N	IC 1905584	4
3	E9-E12,E27-E30	DEC 74H00N	IC 1909056	8
4	C1-C36	.01 MFD, 100V, 20Z	CAP 1000610	36
5	C37,C38	6.8 MFD, 35V, 20Z	CAP 1000067	2

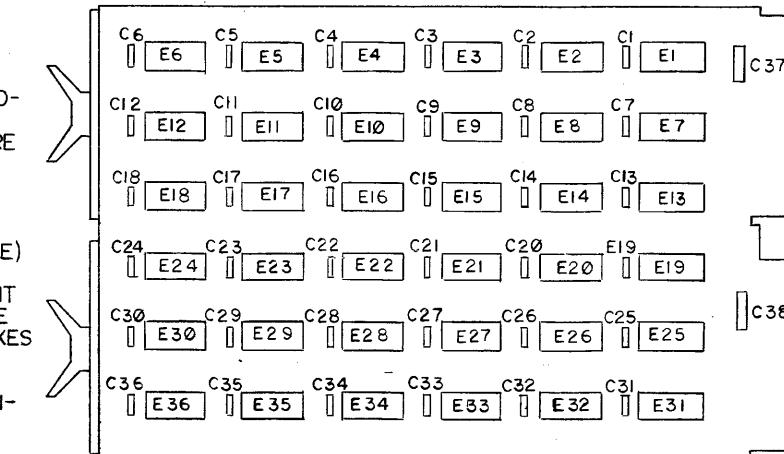
### NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI1 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. DATA FLOW IS FROM THE BOTTOM TO THE TOP.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

- 6 UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

### COMPONENT PLACEMENT



### PIN NOMENCLATURE

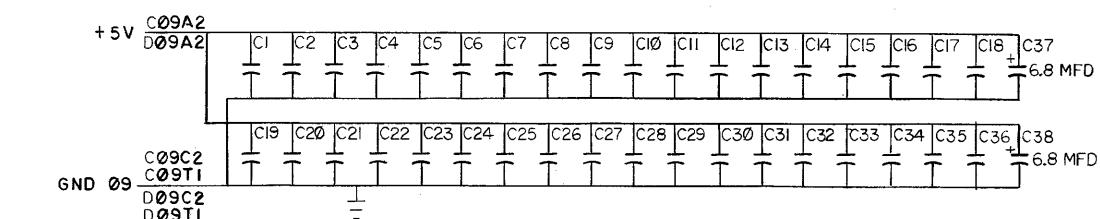
MODULE	PROCESSOR
A	C
B	D
C	

SIZE CODE: D BS KAI1-0-DPI REV: A

SIZE CODE: D BS KAI1-0-DPI REV: A

SIZE CODE: D BS KAI1-0-DPI REV: B

SIZE CODE: D BS KAI1-0-DPI REV: A



FIRST USED ON OPTION/ MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DBN: J. C. Blane	DATE: 30 Jan 70	digital EQUIPMENT CORPORATION	MAYNARD MASSACHUSETTS
UNLESS OTHERWISE SPECIFIED	CHM: J. C. Blane	DATE: 3-2-70		TITLE: DATA PATHS I
DIMENSION IN INCHES	ENG: J. C. Blane	DATE: 3-6-70		M224 K7-1
TOLERANCES	PROJ: J. C. Blane	DATE: 3-6-70		
DECIMALS    FRACTIONS    ANGLES	PRD: Mac Hall	DATE: 3/3/70		
$\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$	FINISH: Mac Hall	DATE: 3/3/70		
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
NEXT HIGHER ASSY				
A-ML-KAI1-0				
FINISH	SCALE: 1/1	SHEET 1 OF 2	DIST: 1	

REVISIONS	CHANGE NO.	REV.
CHN: KAI1-00003	A	
J. O. LOUGHLIN	6-2-70	
J. O. LOUGHLIN	6-2-70	
J. O. LOUGHLIN	6-2-70	

DEC FORM NO. DRD 102A

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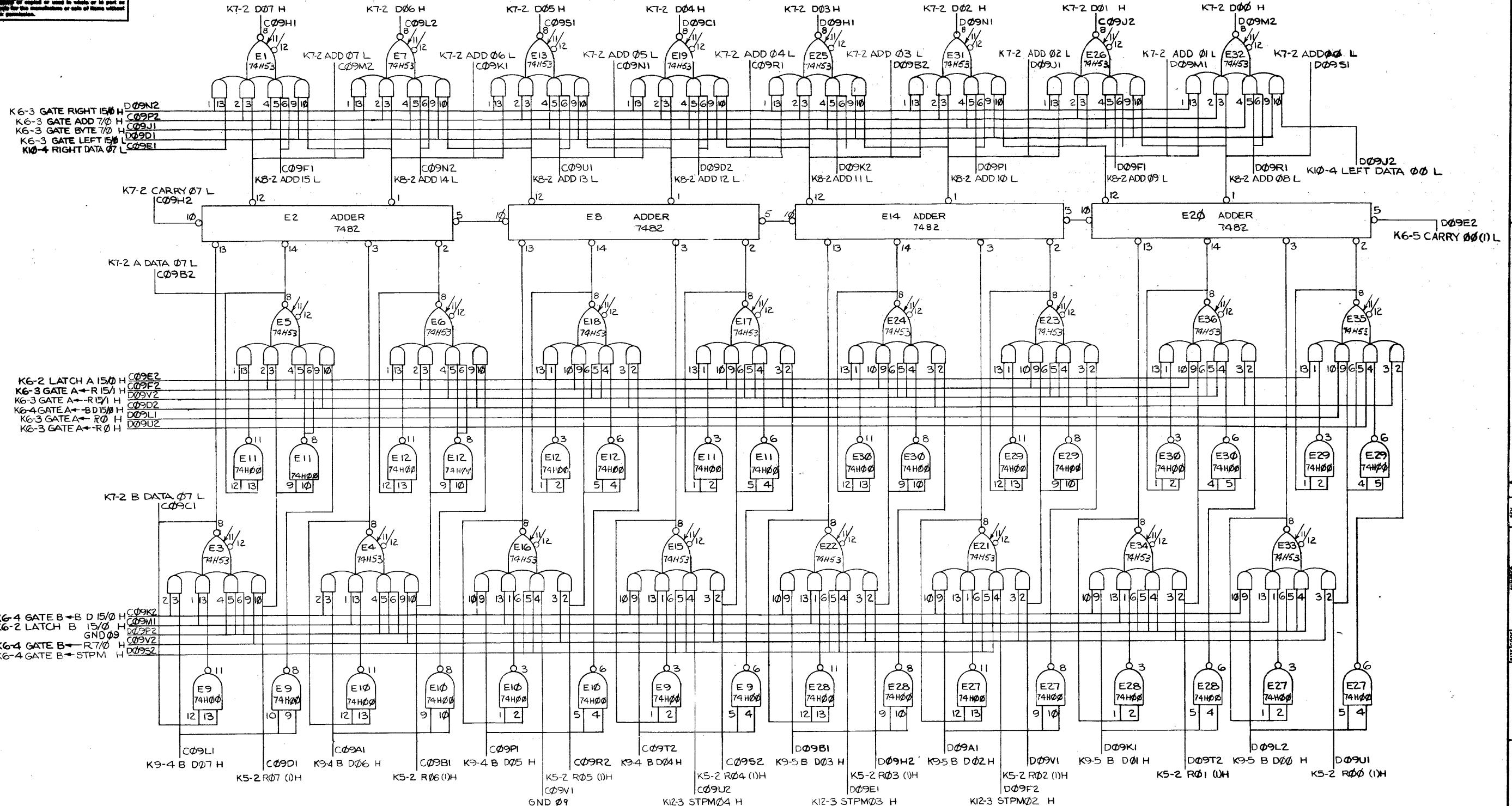
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1

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otherwise for the manufacture or sale of items without  
written permission.

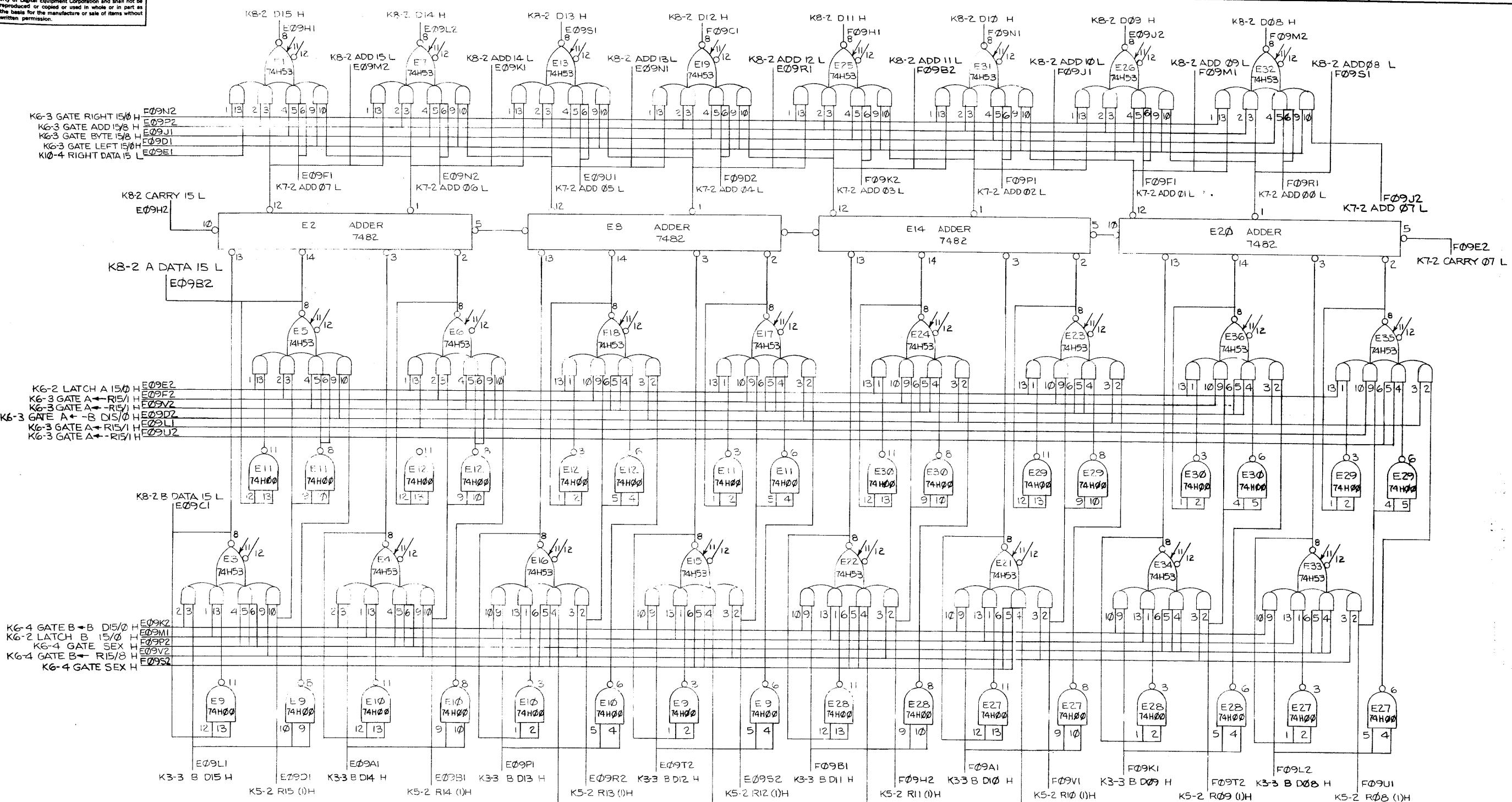


FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRA	DATE	12-10-69	
UNLESS OTHERWISE SPECIFIED	CHD	DATE	3/14/70	
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
$\pm .005$ $\pm 1/64$ $\pm 0.5^\circ$				
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
FINISH				
A-ML-KAII-0	SCALE NONE	SHEET	2 OF 2	
DIBS	NUMBER	REV.		
KAII-0-DPI				
DATA PATHS I				
M224				
K7-2				

REF ID	CHANGE NO.	REV.
C	1	A
DATE 12-21-69 K7-2		



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REVISIONS  
CHANGE NO.  
REV  
CHK

DEC FORM NO  
DPO 102A

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FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION	PART NO.	ITEM NO.
<b>PARTS LIST</b>					
UNLESS OTHERWISE SPECIFIED	R.D.	DATE 12-5-69	<b>digital</b> EQUIPMENT CORPORATION		
UNLESS OTHERWISE SPECIFIED	CHK	DATE 3/18/70	MAYNARD MASSACHUSETTS		
DIMENSIONS IN INCHES			TITLE		
TOLERANCES			DATA SHEET 3-7-70		
DECIMALS FRACTIONS ANGLES = .005 = 1/64 = 0°30'			PROJ. ENG. DATE 3-5-70		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS			PROD. ENG. DATE 3-5-70		
MATERIAL			NEXT HIGHER ASSY		
FINISH			A-ML-KAII-0		
SCALE NONE			SIZE CODE DBS KAI-0-DP2		
SHEET 2 OF 2			REV A		

DATA PATHS 2  
M224  
K8-2

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### PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,F1,E13,E19,E25,E31,E37,E43,E49	DEC 8881	IC 1909705	9
2	E2,E8,E9,E14,E15,E20,E21,E26,E27	DEC 7474N	IC 1905547	21
3	E30,E33,E34,E35,E36,E38,E39,E41,E44			
4	E45,E51,E52			
5	E3,E17,E22,E29	DEC 8815A	IC 1909713	4
6	E4,E24	DEC 7410N	IC 1905576	2
7	E5,E16,E53	DEC 7400N	IC 1905575	3
8	E10,E28	DEC 7430N	IC 1905578	2
9	E11,E23	DEC 7420N	IC 1905577	2
10	E12,E46,E47	DEC 7450N	IC 1905580	3
11	E18,E42,E48	DEC 7440N	IC 1905579	3
12	E32,E50	DEC 380	IC 1909485	2
13	E40	DEC 7402N	IC 1909004	1
14	C1-C5,C7-C53	0.01 MFD 100V 20%	CAP 1001610	52
15	C55-C57,C6	6.8 MFD 35V 20%	CAP 1000067	4

### NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAII PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

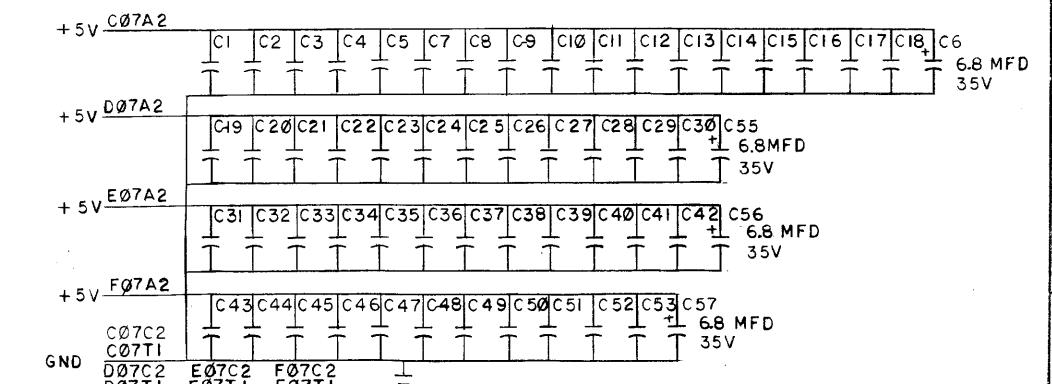
- UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

### COMPONENT PLACEMENT



### PIN NOMENCLATURE

MODULE	PROCESSOR
A	C
B	D
C	E
D	F



FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP 11					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED					
DIMENSION IN INCHES					
DECIMALS FRACTIONS ANGLES					
± 0.08 ± 1/64 ± 0°0'					
FINAL SURFACE QUALITY					
REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL					
NEXT HIGHER ASSY					
A-ML-KAII-Ø					
FINISH					
SCALE					
SHEET 1 OF 5					

digital EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

TITLE: BUS INTERFACE & IR

M725 K9-1

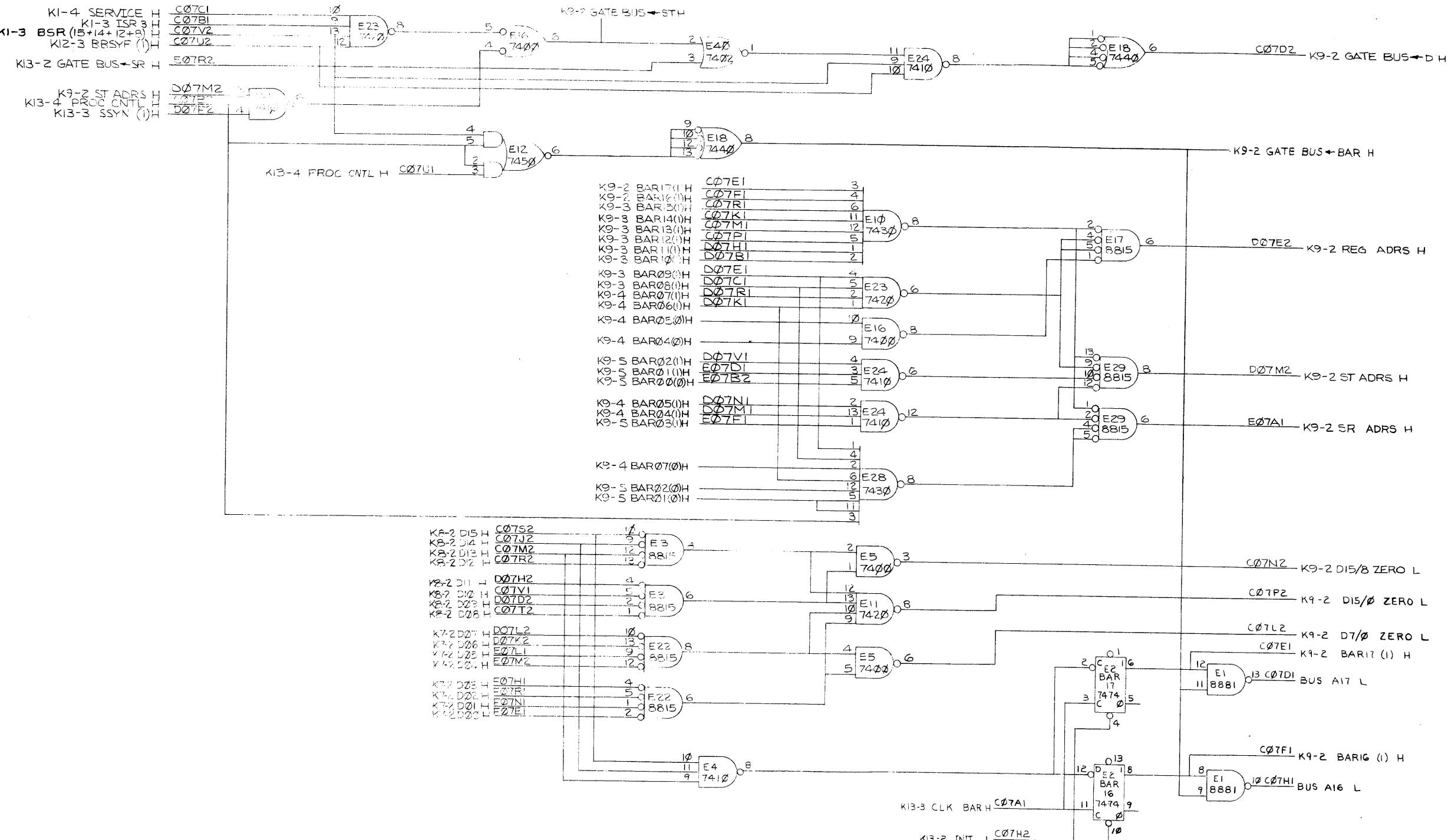
SIZE CODE: M725-0-1

NUMBER: M725-0-1

REV: B

REVISIONS	REV
J. O. LONGHORN	B
DATE: 10/22/70	10/22/70
CHG: 1	1

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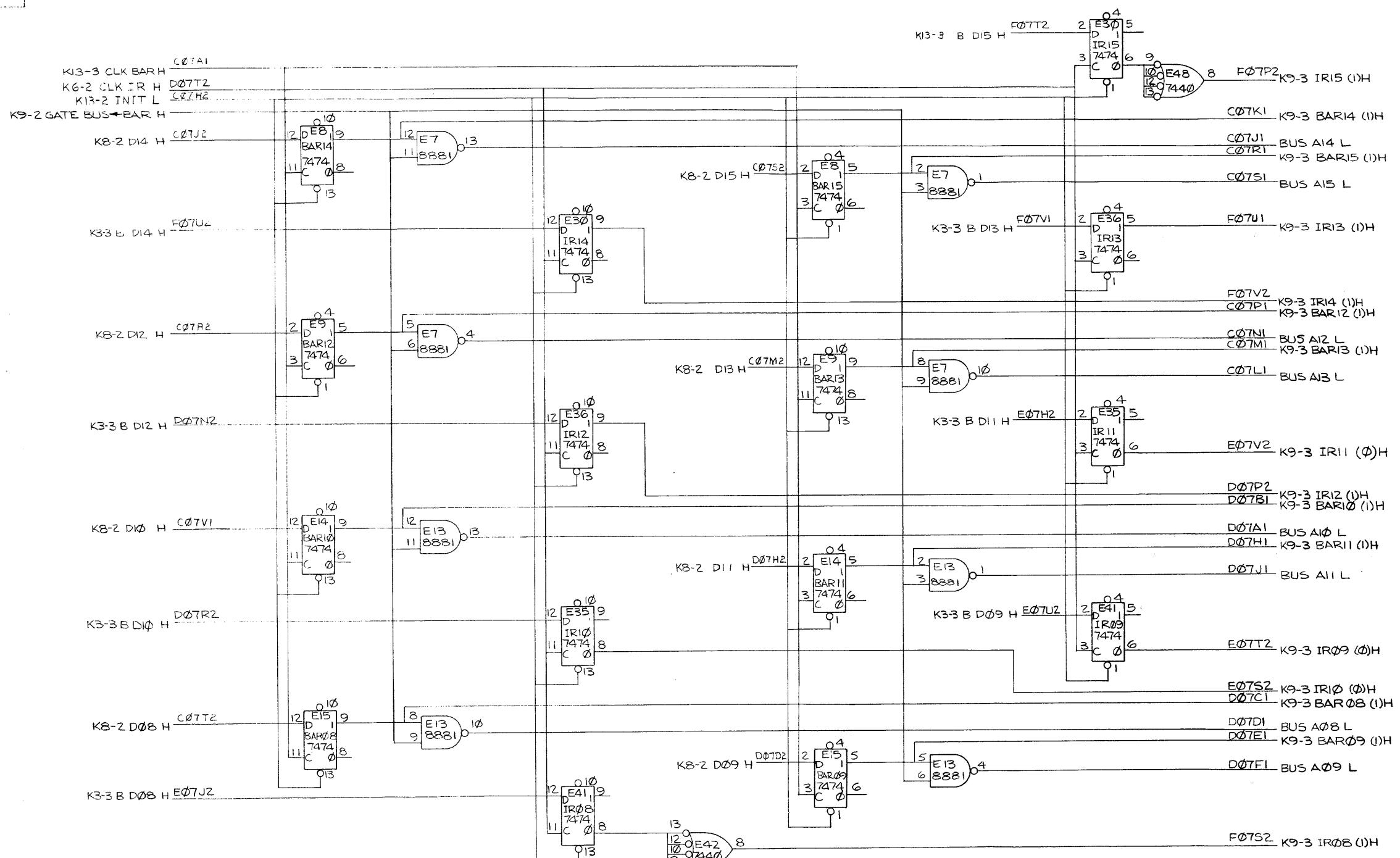


FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II					
UNLESS OTHERWISE SPECIFIED		DRN	K. Phillips	DATE	1/19/63
UNLESS OTHERWISE SPECIFIED		CHKD	A. F. [illegible]	DATE	3/19/70
DIMENSION IN INCHES		ENG	H. [illegible]	DATE	3-5-70
TOLERANCES		PROJ. ENG.	J. [illegible]	DATE	3-5-70
DECIMALS    FRACTIONS    ANGLES		PROD.	J. [illegible]	DATE	
$\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$					
FINAL SURFACE QUALITY ✓ REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL					
FINISH					
BUS INTERFACE & IR					
		M725		K9-2	
SIZE CODE		D/C/S		NUMBER	
		M725-0-1		REV	
		2		DIST.	
		SHEET 2 OF 5		1 Rev. B	

REVISIONS  
CHANGE NO  
REV  
CHK

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FIRST USED ON OPTION/MODEL PDII		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN. <i>K-101-10</i>	DATE <i>12-29-00</i>	<b>digital</b> EQUIPMENT CORPORATION <small>MAYNARD, MASSACHUSETTS</small> TITLE <b>BUS INTERFACE</b> $\&$ IR <b>M725</b> <b>K9-3</b>	
UNLESS OTHERWISE SPECIFIED		CHK'D. <i>C. J. T. - 1</i>	DATE <i>3/18/01</i>		
DIMENSION IN INCHES		ENG. <i>F. Tol. &amp; Sym.</i>	DATE <i>3-5-70</i>		
TOLERANCES		PROJ. ENG. <i>T. Coloum &amp; Lin</i>	DATE <i>3-5-70</i>		
DECIMALS FRACTIONS   ANGLES ± .005            ± 1/64          ± 0°30'		PROD. <i>J. Coloum</i>	DATE		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL	NEXT HIGHER ASSY <b>A-ML-KAII-Ø</b>				
FINISH	SCALE NONE		SIZE CODE <b>D C S</b>	NUMBER <b>M 725-Ø-1</b>	REV <b>B</b>
	SHEET <b>3</b> OF <b>5</b>		DIST.		

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M725-0-1

REV.

## K9-2 GATE BUS↔EAR H

K13-2 INIT L CΦ7H2

EΦ7P2

K9-2 GATE BUS↔D H CΦ7D2

K9-2 GATE BUS↔ST H

K7-2 DΦ7 H DΦ7L2

K7-2 DΦ6 H DΦ7K2

K7-2 DΦ5 H EΦ7J1

K7-2 DΦ4 H EΦ7M2

K13-3 CLK BAR H CΦ7A1

K6-2 CLK IR H DΦ7T2

DΦ7R1 K9-4 BARΦ7 (I)H

DΦ7S1 BUS AΦ7 L

EΦ7D2 K9-4 B DΦ7 H

EΦ7M1 BUS DΦ7 L

EΦ7N1 K9-4 STΦ7 (I)H

DΦ7K1 K9-4 BARΦ6 (I)H

DΦ7J2 BUS AΦ6 L

DΦ7V2 K9-4 B DΦ6 H

DΦ7U2 K9-4 IRΦ6 (I)H

EΦ7R1 BUS DΦ6 L

EΦ7P1 K9-4 STΦ6 (I)H

DΦ7N1 K9-4 BARΦ5 (I)H

DΦ7P1 BUS AΦ5 L

EΦ7E2 K9-4 B DΦ5 H

EΦ7K1 BUS DΦ5 L

EΦ7N2 K9-4 STΦ5 (I)H

DΦ7M1 K9-4 BARΦ4 (I)H

DΦ7L1 BUS AΦ4 L

DΦ7S2 K9-4 B DΦ4 H

EΦ7J1 BUS DΦ4 L

EΦ7S1 K9-4 T (I)H

PDP II	QTY.	DESCRIPTION	PART NO.	ITEM NO.
<b>PARTS LIST</b>				
UNLESS OTHERWISE SPECIFIED	DRN	J. Coloughlin	D-227-70	
UNLESS OTHERWISE SPECIFIED	CHK'D	J. Coloughlin	DATE 3/18/70	
DIMENSION INCHES	ENG'D	J. Coloughlin	DATE 3-6-70	
TOLERANCES	PROD. ENG'D	J. Coloughlin	DATE 3-6-70	
DECIMALS FRACTIONS ANGLES	PROD.	J. Coloughlin	DATE 3-6-70	
± .005 ± 1° ± 0.5°	FINAL SURFACE QUALITY			
REMOVE BURRS AND BREAK SHARP CORNERS	MATERIAL			
<b>NEXT HIGHER ASSY</b>				
A-ML-KAII-Ø	FINISH			
<b>BUS INTERFACE</b>				
<b>M725 K9-4</b>				
SHEET 4 OF 5	DIST.			

REVISIONS  
CHANGE NO.  
CHK

DEC FORM NO.  
DD FORM 102A

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1 Park Belan

NUMBER M725-0-1

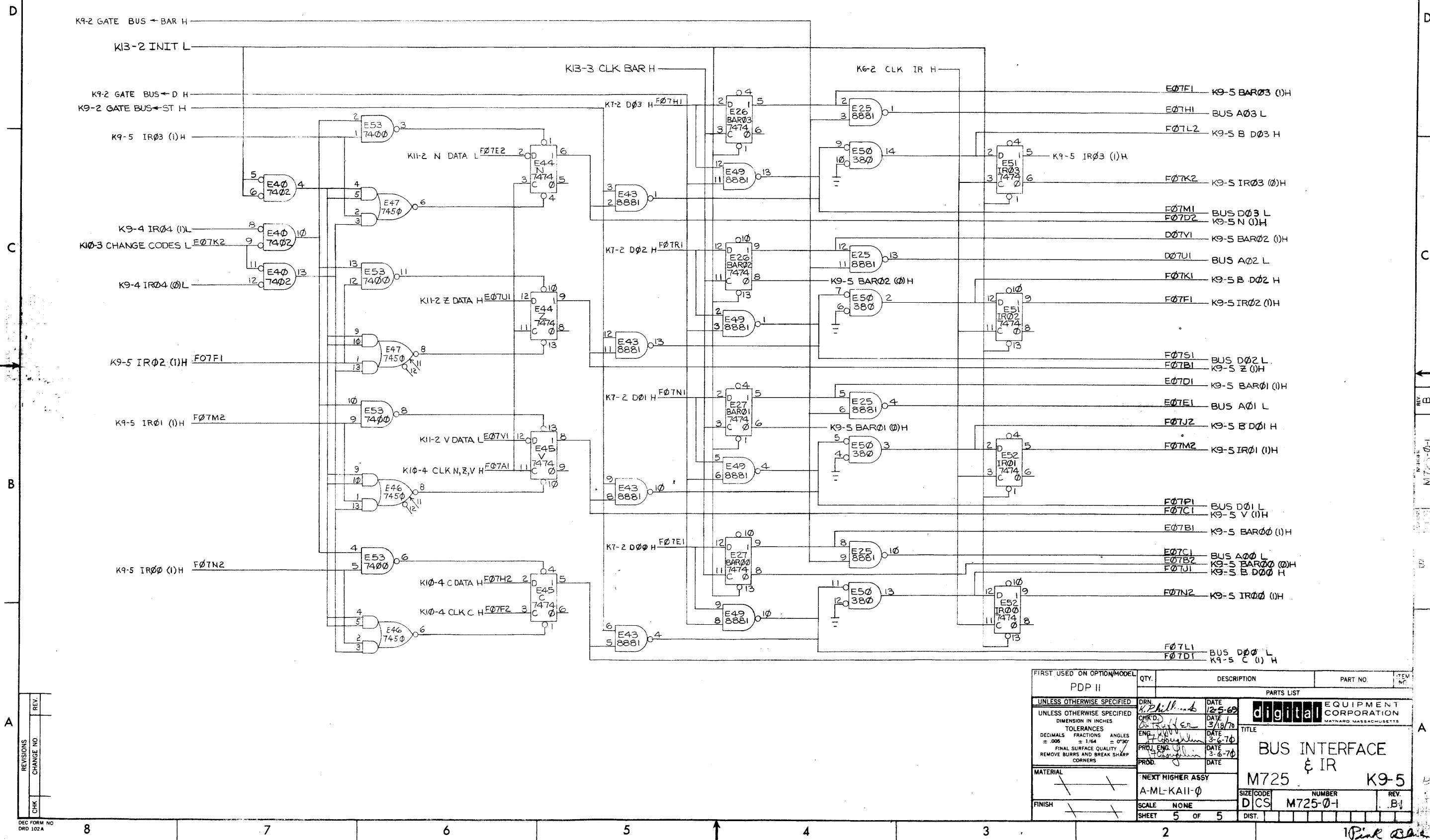
REV. B

REV. B

B

A

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## PARTS REFERENCE

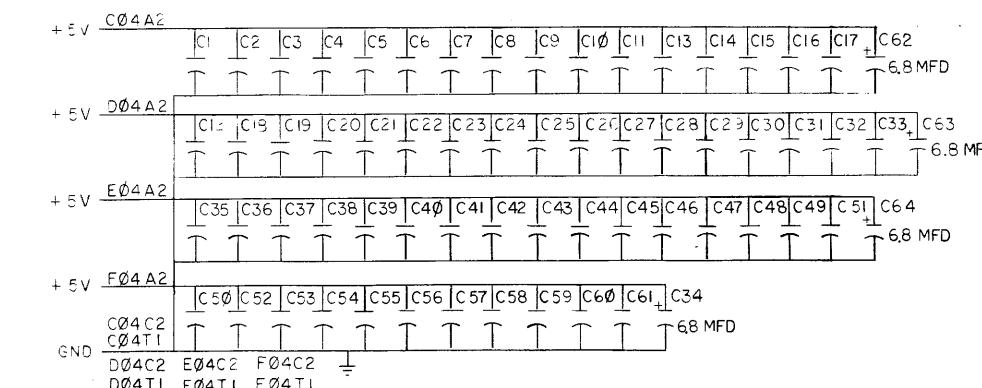
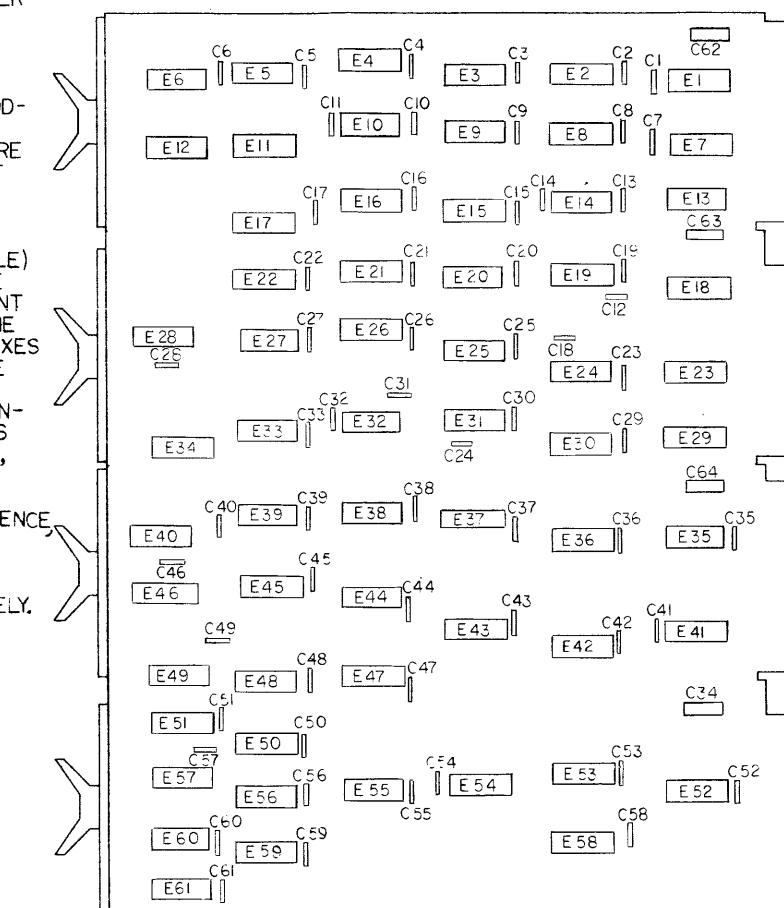
## NOTES

- I. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI1 PROCESSOR. MODULE REFERENCE ALONE OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
  2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
  3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIX COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
  4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCED. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
  5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS  
CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT  
ANY NOTED VALUES ARE OMITTED.

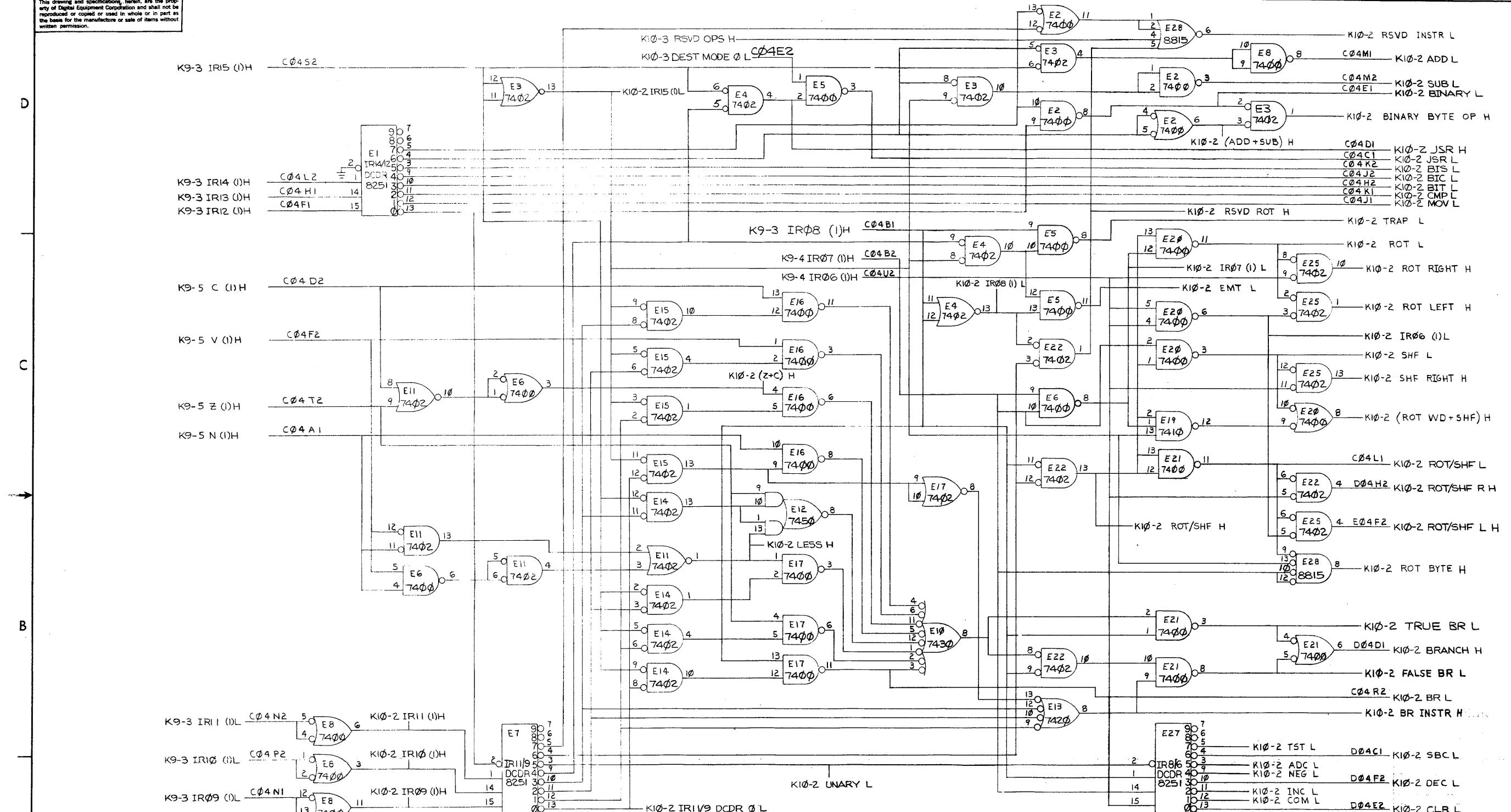
IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 10
DEC 8271	PIN 8	PIN 10
DEC 380	PIN 1	PIN 1
DEC 384	PIN 1	PIN 1

#### COMPONENT PLACEMENT



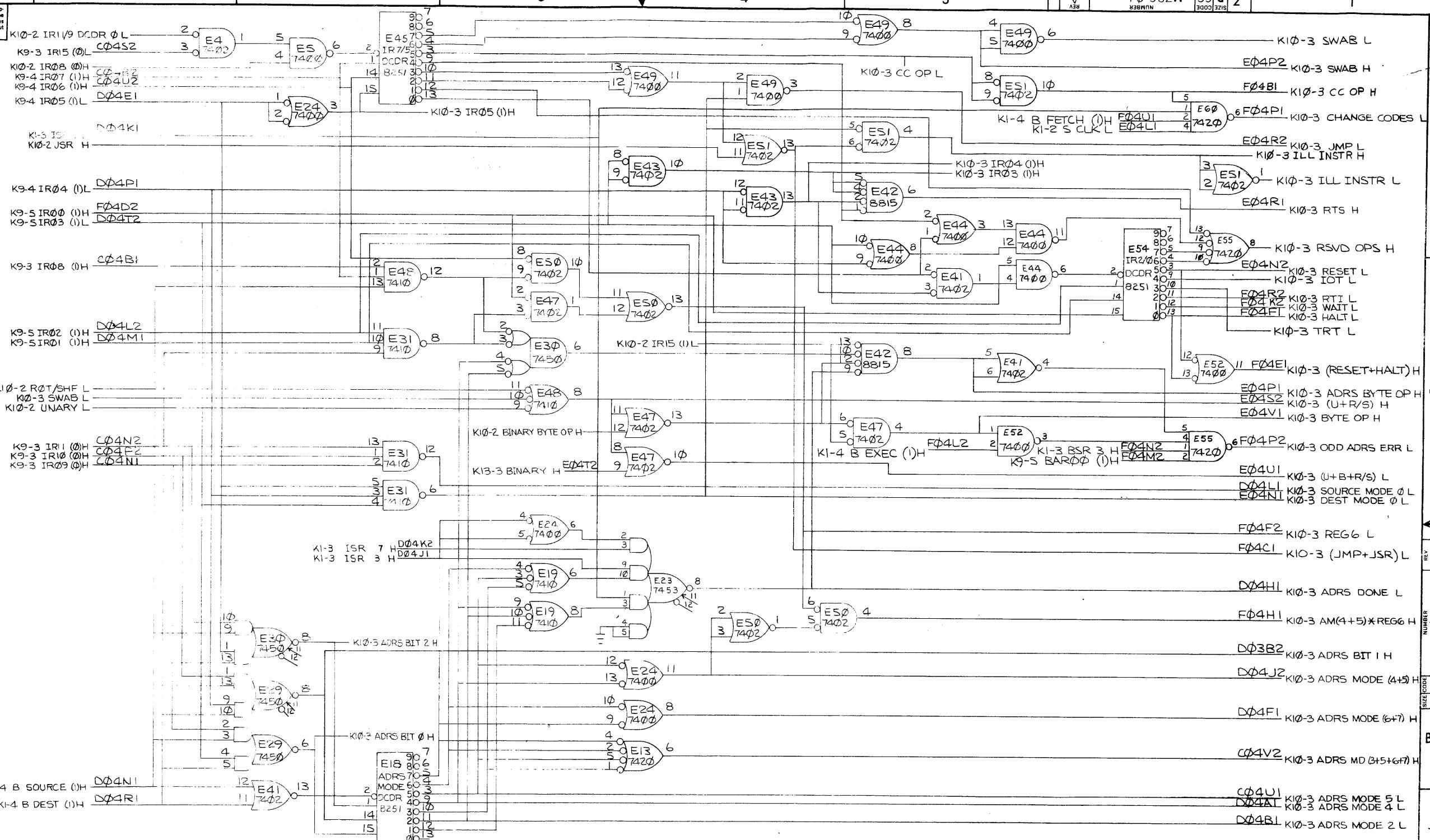
FIRST USED ON OPTION / MODEL <b>PDP 11</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
	<b>PARTS LIST</b>			
<b>UNLESS OTHERWISE SPECIFIED</b>	DRN. <i>Calco</i>	DATE <b>2-4-70</b>	<b>EQUIPMENT CORPORATION</b> MAYNARD MASSACHUSETTS	
<b>UNLESS OTHERWISE SPECIFIED</b> DIMENSION IN INCHES	CHK'D. <i>CD Taylor</i>	DATE <b>3/2/70</b>	<b>digital</b>	
<b>TOLERANCES</b> DECIMALS FRACTIONS ANGLES $\pm .005$ $\pm 1/64$ $\pm 3^\circ 30'$	ENG. <i>CD Taylor</i>	DATE <b>3-6-70</b>	TITLE	
<b>FINAL SURFACE QUALITY</b> REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENG. <i>F. Engleman</i>	DATE <b>3-6-70</b>	IR DECODE	
<b>MATERIAL</b> <u>//</u>	PROD. <i>F. Engleman</i>	DATE	M726 K1Ø-1	
	NEXT HIGHER ASSY <b>A-ML-KAII-Ø</b>		SIZE CODE <b>D C S</b>	NUMBER <b>M 726-Ø-1</b>
<b>FINISH</b> <u>//</u>	SCALE <u>//</u>	SHEET 1 OF 4	ETCH REV. <b>B</b>	REV. <b>A</b>

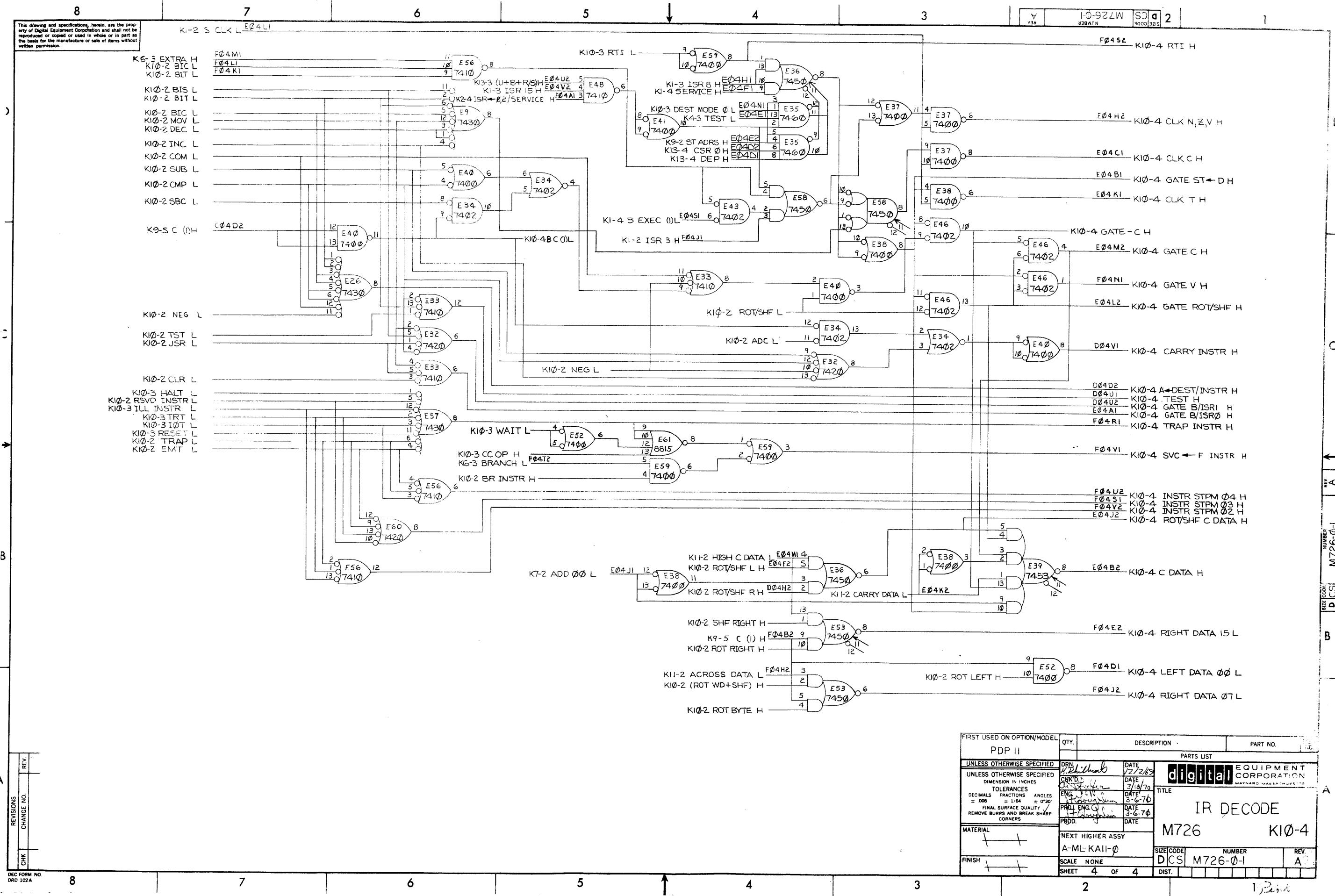
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FIRST USED ON OPTION/MODEL <b>PDP 11</b>		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED	DRN	DATE	<b>digital</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
	CHK'D	DATE			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	ENG	DATE	TITLE <b>IR DECODE</b>		
TOLERANCES DECIMALS FRACTIONS ANGLES $\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$	PROJ. ENG.	DATE			
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PROD.	DATE	<b>M726</b> <b>K10-2</b>		
MATERIAL	NEXT HIGHER ASSY <b>A-ML-KAII-Ø</b>				
FINISH	SCALE	SHEET 2 OF 4	SIZE/CODE	NUMBER	REV.
			D/C/S	M726-Ø-1	A
			DIST.		

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## PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E2	DEC 7450N	IC 19 05582	2
2	E3,E7,E8	DEC 7450N	IC 19 05580	3
3	E4,E5	DEC 7460N	IC 19 05581	2
4	E6	DEC 7402N	IC 19 09004	1
5	E9	DEC 8615A	IC 19 09713	1
6	E10	DEC 7400N	IC 19 05575	1
7	C1-C10	CAP 10 01610	CAP 10 00067	10
8	C11	6.8 MFD, 35V, 20%	CAP 10 00067	1

## NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE K111 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.

2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.

3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.

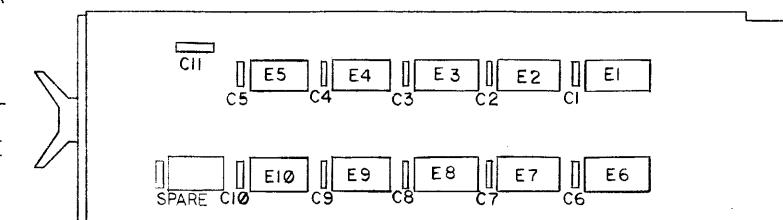
4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.

5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
DEC 8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

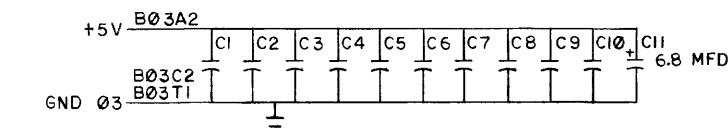
6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

## COMPONENT PLACEMENT



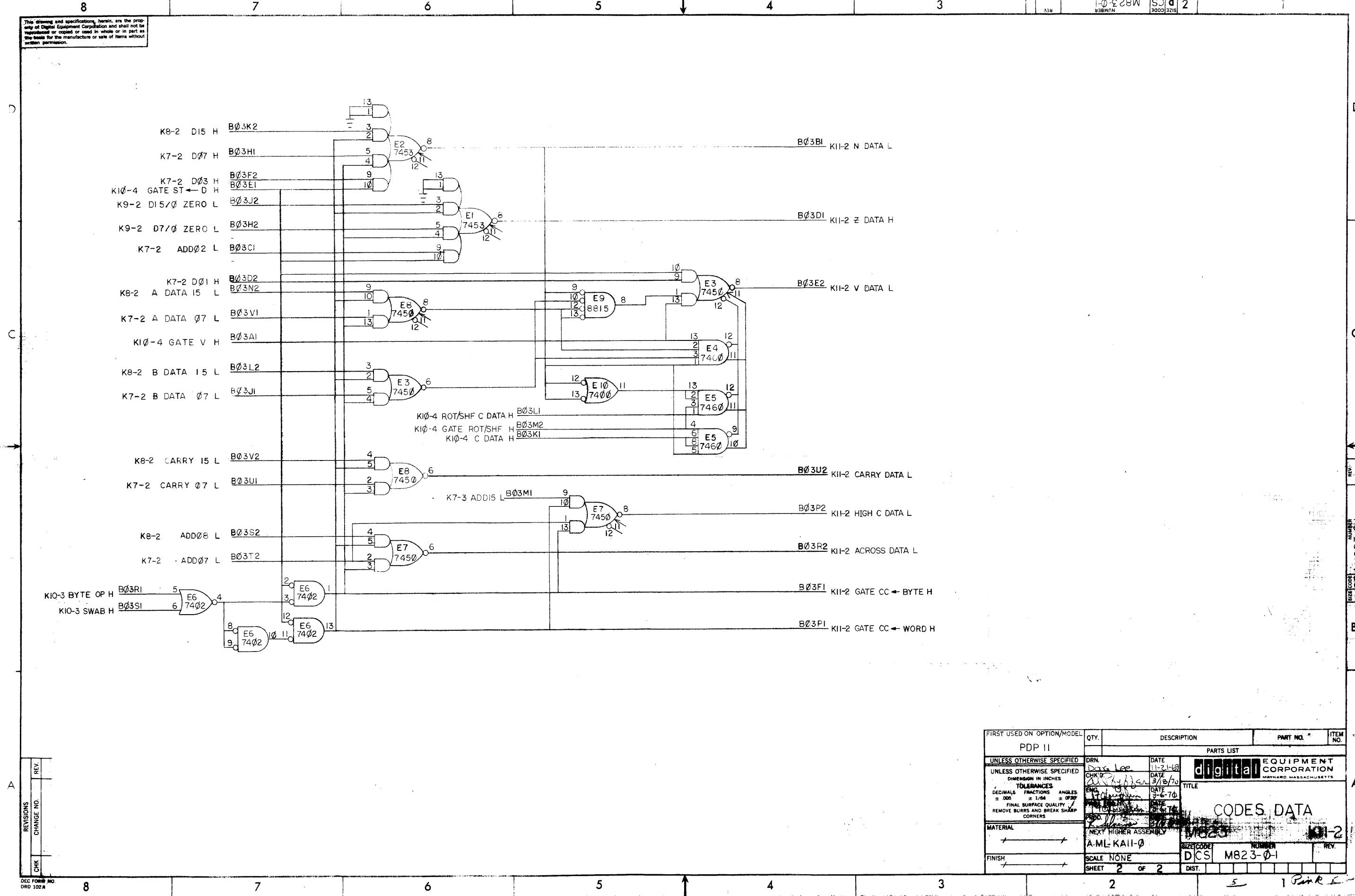
## PIN NOMENCLATURE

MODULE	PROCESSOR
A	B



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II				
PARTS LIST				
digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS				
TITLE: CODES DATA				
M823 K11-1				
SIZE/CODE DCS NUMBER REV.				
REV. A				

REVISIONS  
CHANGE NO.  
CHK



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## PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E3,E11,E19,E22,E27	DEC 7402N	I.C. 1909004	5
2	E4,E23,E26	DEC 7450N	I.C. 1905580	3
3	E5,E10	DEC 7453N	I.C. 1905582	2
4	E6	DEC 6215A	I.C. 1909713	1
5	E7,E15,E29,E20	DEC 74H74N	I.C. 1909677	4
6	E8,E18,E21,E28	DEC 74H74N	I.C. 1905575	4
7	E9	DEC 74H30N	I.C. 1909705	1
8	E13	DEC 74H30N	I.C. 1909709	1
9	E14,E24	DEC 7412N	I.C. 1905576	2
10	E16	DEC 74H00N	I.C. 1909056	1
11	E25	DEC 7460N	I.C. 1905581	1
12	E30	DEC 7420N	I.C. 1905577	1
13	C1-C26	.01 MFD, 100V, 20%	CAP. 100160	26
14	C27-C28	.008 MFD, .35V, 20%	CAP. 1000067	2

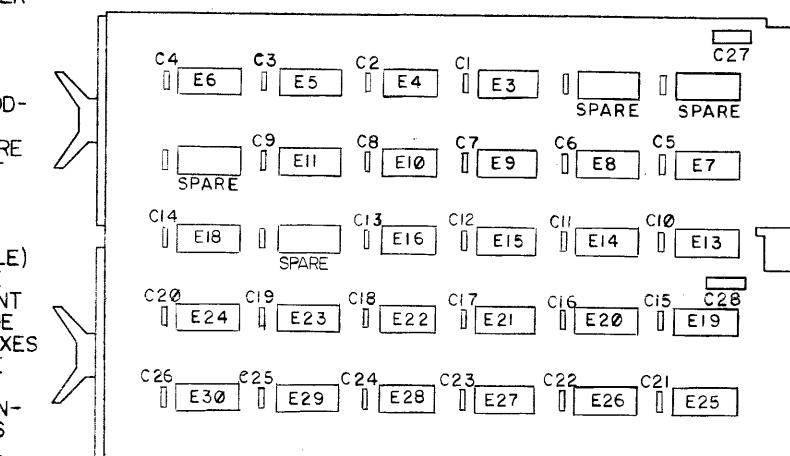
## NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI1 PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
- PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

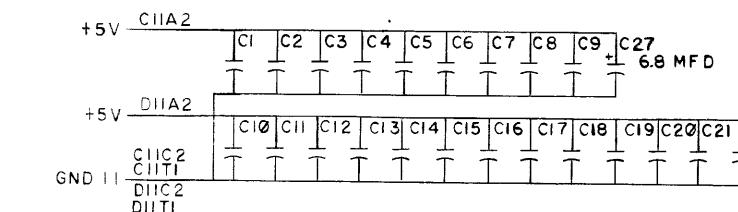
IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

- UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

## COMPONENT PLACEMENT



MODULE	PROCESSOR
A	C
B	D
C	
D	

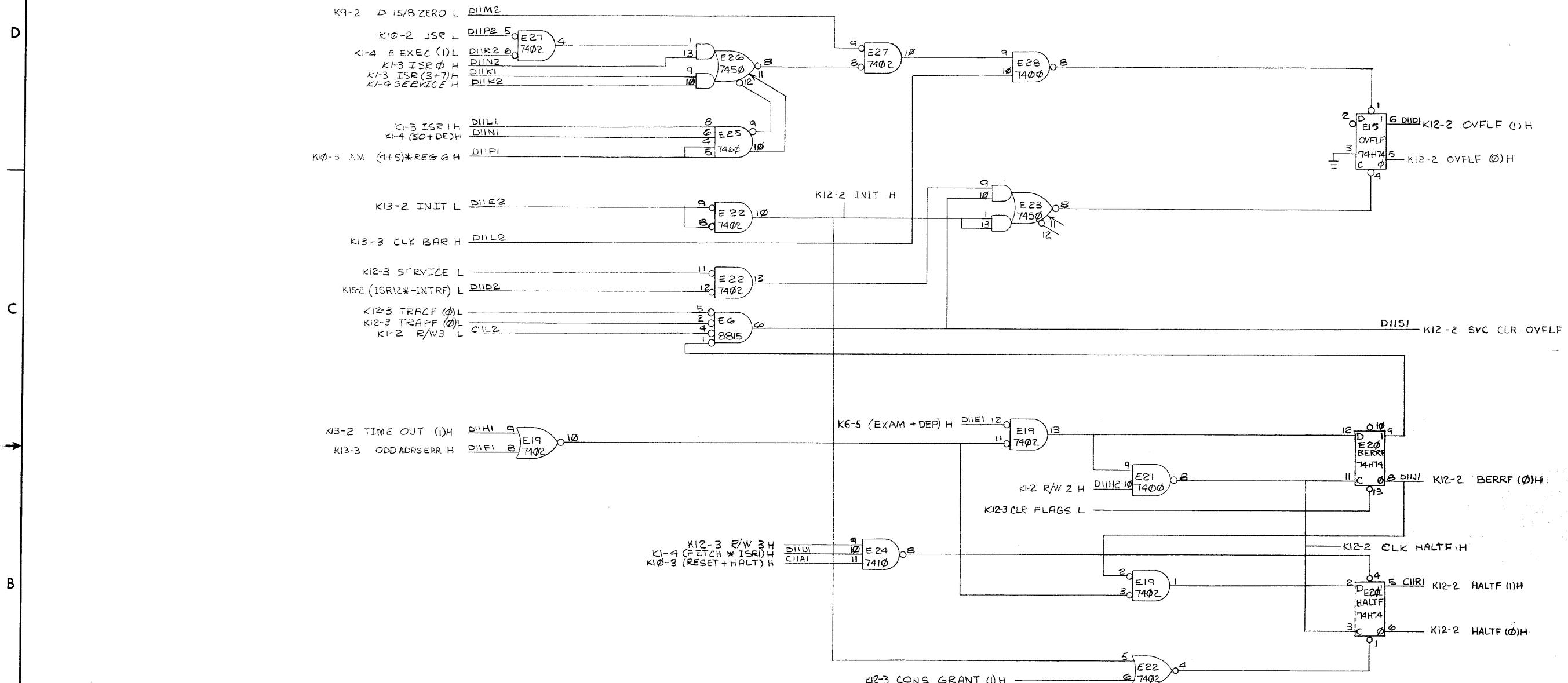


FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED				
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
$\pm .005$ $\pm 1/64$ $\pm 0^\circ 30'$				
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL				
NEXT HIGHER ASSY A-ML-KAI1-0				
FINISH				
SCALE				
SIZE CODE D CS M822-0-1 REV. B				
NUMBER M822-0-1 DIST. 1 Part				
SHEET 1 OF 3 ETCH REV. B				

FLAG CNTL  
M822 K12-1

REVISIONS	CHANGE NO	REV
CMW	M822-00001	B
AR	GRANT	
	FRANCIS	

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REVISIONS	CHANGE NO.	REV.

DEC FORM NO.  
DRD 102A

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1

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II				
UNLESS OTHERWISE SPECIFIED	DRND	DATE	12/16/69	PARTS LIST
UNLESS OTHERWISE SPECIFIED	DRND	DATE	3-6-70	digital EQUIPMENT CORPORATION
DIMENSION IN INCHES	DRND	DATE	3-6-70	MAYNARD, MASSACHUSETTS
TOLERANCES	DRND	DATE		TITLE
DECIMALS      PITCHES      ANGLES	DRND	DATE		
± .005      ± 1/64      ± 0°30'	DRND	DATE		
FINAL SURFACE QUALITY	DRND	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS	DRND	DATE		
MATERIAL	DRND	DATE		
NEXT HIGHER ASSY	DRND	DATE		
A-ML-KA11-0	DRND	DATE		
FINISH	DRND	DATE		
SCALE      NONE	DRND	DATE		
SHEET 2 OF 3	DRND	DATE		
REV. B	DRND	DATE		

FLAG CNTL  
M822 K12-2

SIZE CODE M822-0-1

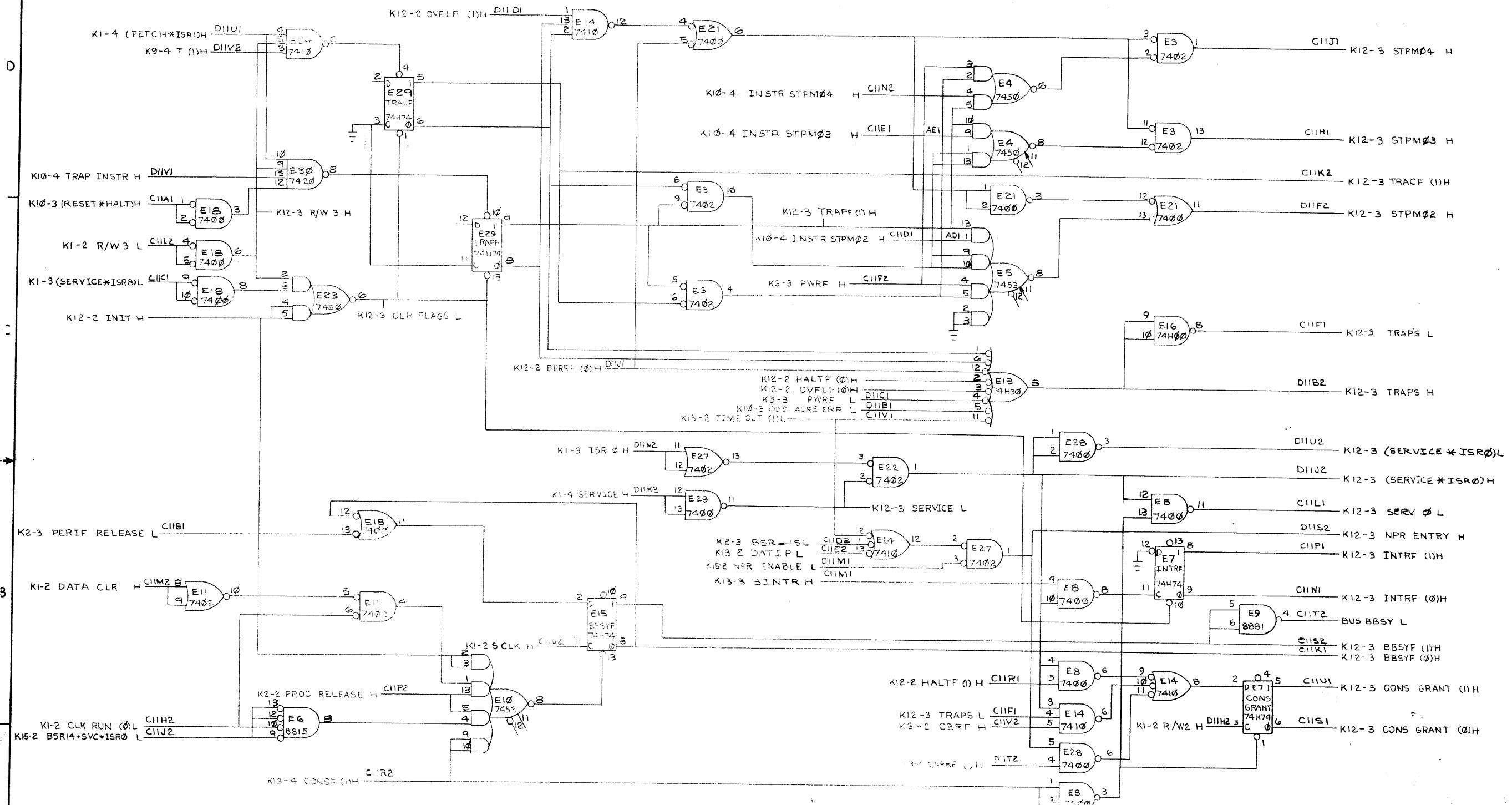
REV. B

SCOPE  
DCS M822-0-1

A

1 Pink

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REVISIONS		REV.
CHK	CHANGE NO.	

FIRST USED ON OPTION/MODEL PDP II		QTY.	DESCRIPTION		PART NO.	ITEM NO.
PARTS LIST						
UNLESS OTHERWISE SPECIFIED		DRN. <i>J. M. Lawrence</i>	DATE 12-11-68	<b>digital</b>		EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK'D <i>D. R. Pfeiffer</i>	DATE 3/19/68	TITLE FLAG CNTL		
TOLERANCES		ENG'D <i>T. G. Johnson</i>	DATE 3-6-70			
DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'		PRBL ENG <i>T. G. Johnson</i>	DATE 3-6-70			
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		PROD. <i>T. G. Johnson</i>	DATE			
MATERIAL <i>++</i>		NEXT HIGHER ASSY A-ML-KAI-Ø				
FINISH <i>++</i>		SCALE NONE	M822			K12-3
		SHEET 3 OF 3	SIZE CODE DICS	NUMBER M822-Ø-1	REV. <i>B</i>	DIST.

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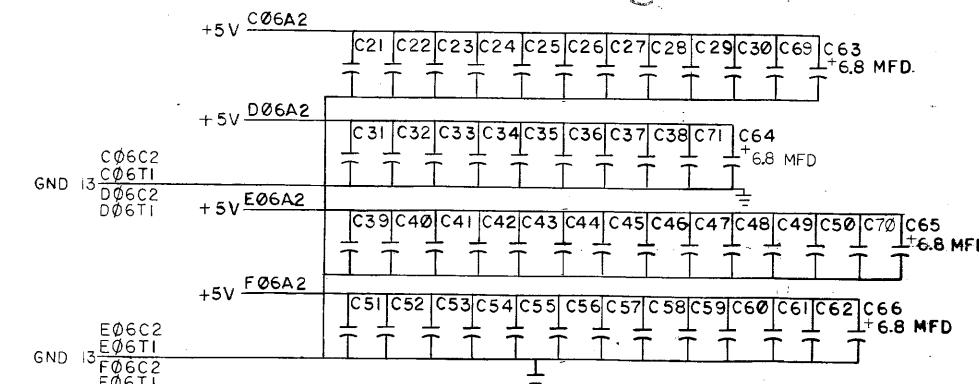
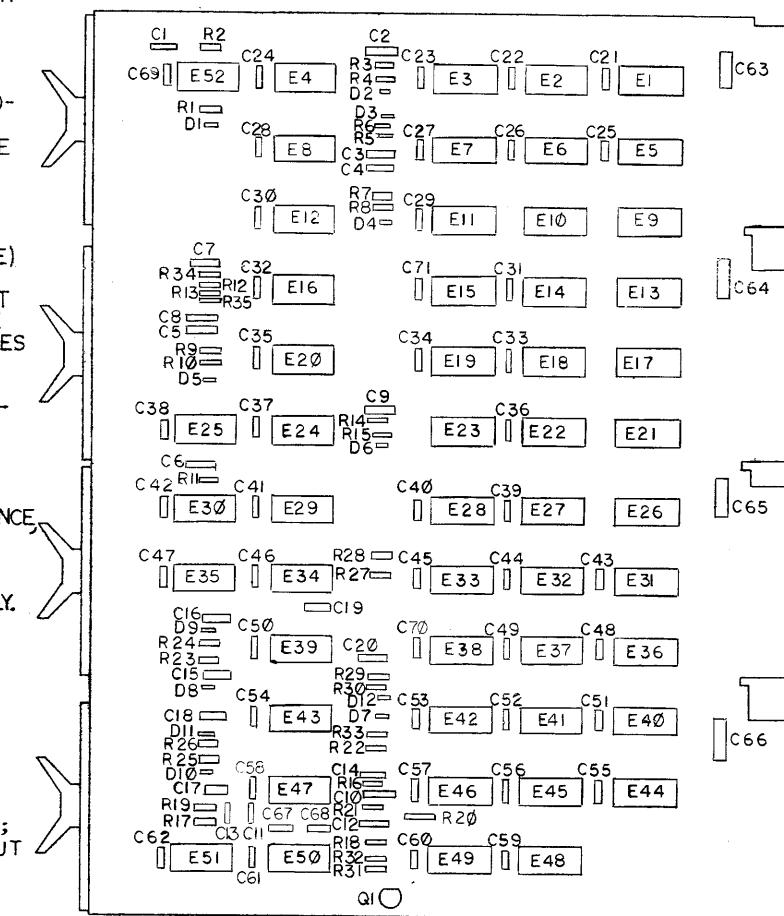
## PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1,E3,E5,E7,E9,E13,E15,E20,E23,E26,E27,E37, E39,E42	DEC 7400N	I.C.	1905575
2	E2,E38,E52	DEC 7410N	I.C.	1905576
3	E4,E33	DEC 350	I.C.	1905485
4	E6,E41	DEC 7420N	I.C.	1905577
5	E8,E45	DEC 8815A	I.C.	1909713
6	E10,E11,E14,E21,E24,E28	DEC 7402N	I.C.	1909004
7	E12,E18,E22,E29,E40,E46,E48	DEC 7474N	I.C.	1905547
8	E16,E44,E49	DEC 8881	I.C.	1905705
9	E17,E19,E32	DEC 7450N	I.C.	1905580
10	E25,E34,E35,E43,E47,E50,E51	DEC 9601	I.C.	1909487
11	E30	DEC 74H40N	I.C.	1905586
12	E31	DEC 7440N	I.C.	1905579
13	E36	DEC 7453N	I.C.	1905582
14	C1-C4,C7,C9,C14,C20	.330 MMF, 100V, 5%	CAP.	10000032
15	C5,C11,C13,C67	10.00 MMF, 100V, 5%	CAP.	10000042
16	C6	120 MMF, 100V, 5%	CAP.	1000018
17	C8,C10,C12,C68	470 MMF, 100V, 5%	CAP.	1000024
18	C15,C16, C19	1.0 MFD, 35V, 10%	CAP.	1001776
19	C17	2.2 MFD, 20V, 10%	CAP.	1002627
20	C21-C62,C69,C70,C71	.01 MFD, 100V, 20%	CAP.	1001610
21	C63-C66,C18	6.8 MFD, 35V	CAP.	1000067
22	R1,R4,R6,R8,R10,R15,R30,R33	220, 1/4 W, 5%	RES.	1300271
23	R2,R3,R5,R7,R9,R14,R22,R29	470, 1/4 W, 5%	RES.	1300316
24	R11	5600, 1/4W, 5%	RES.	1301874
25	R12,R13,R16,R18,R32	10000, 1/4W, 5%	RES.	1300365
26	R17,R19,R25,R26	30K, 1/4W, 5%	RES.	1302394
27	R20,R21,R34,R35	47, 1/4W, 5%	RES.	1300202
28	R23,R24,R27	15K, 1/4W, 5%	RES.	1300496
29	R28	10K, 1/4W, 5%	RES.	1300479
30	R31	3.9K, 1/4W, 5%	RES.	1300444
31	D1-D12	D664 DIODE		1100114
32	Q1	DEC 3009B	TRANSISTOR	1503100

## NOTES

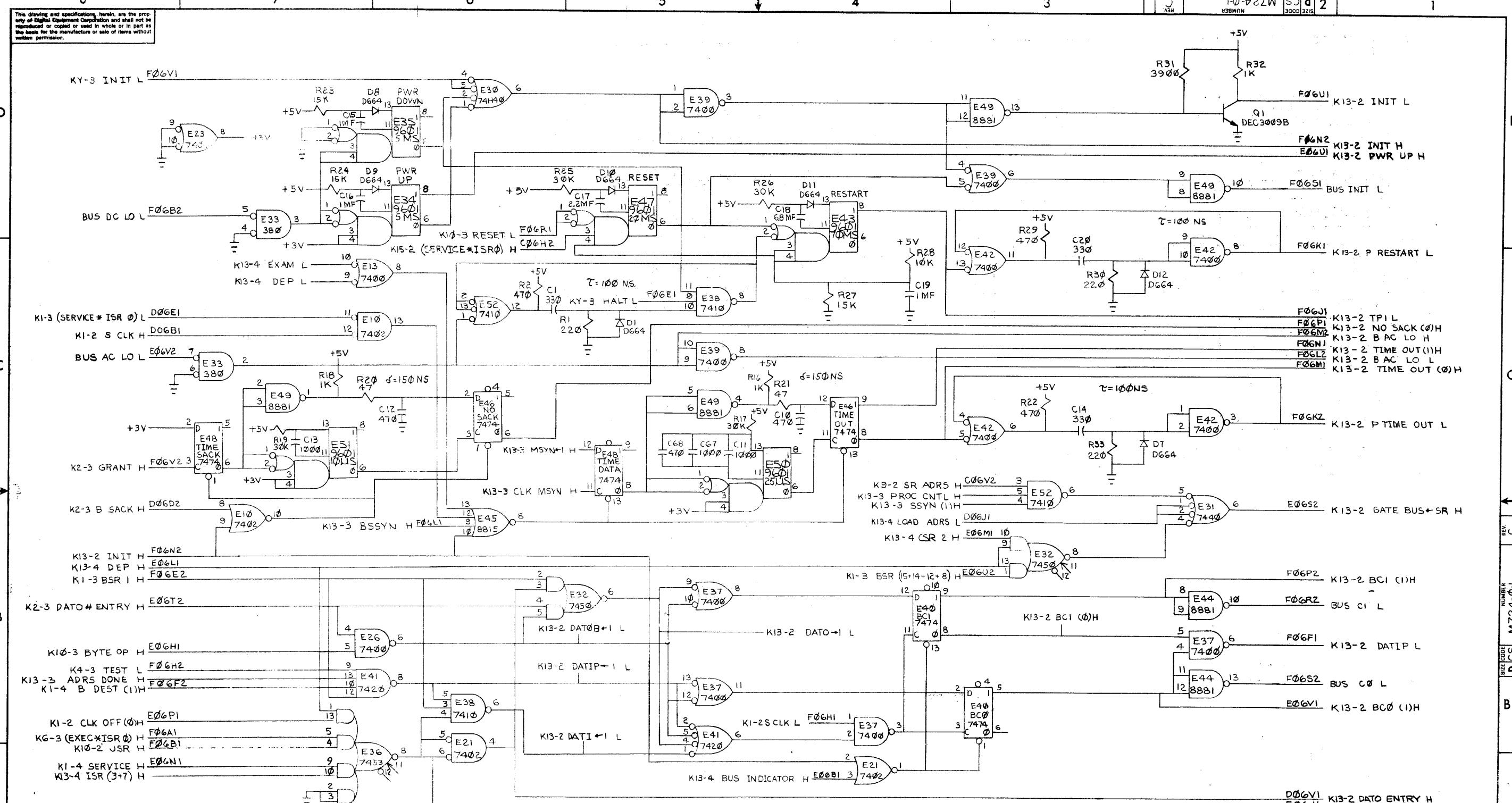
- I PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI Processor. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
  2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
  3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
  4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
  5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS;  
CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT  
ANY NOTED VALUES ARE OMITTED.

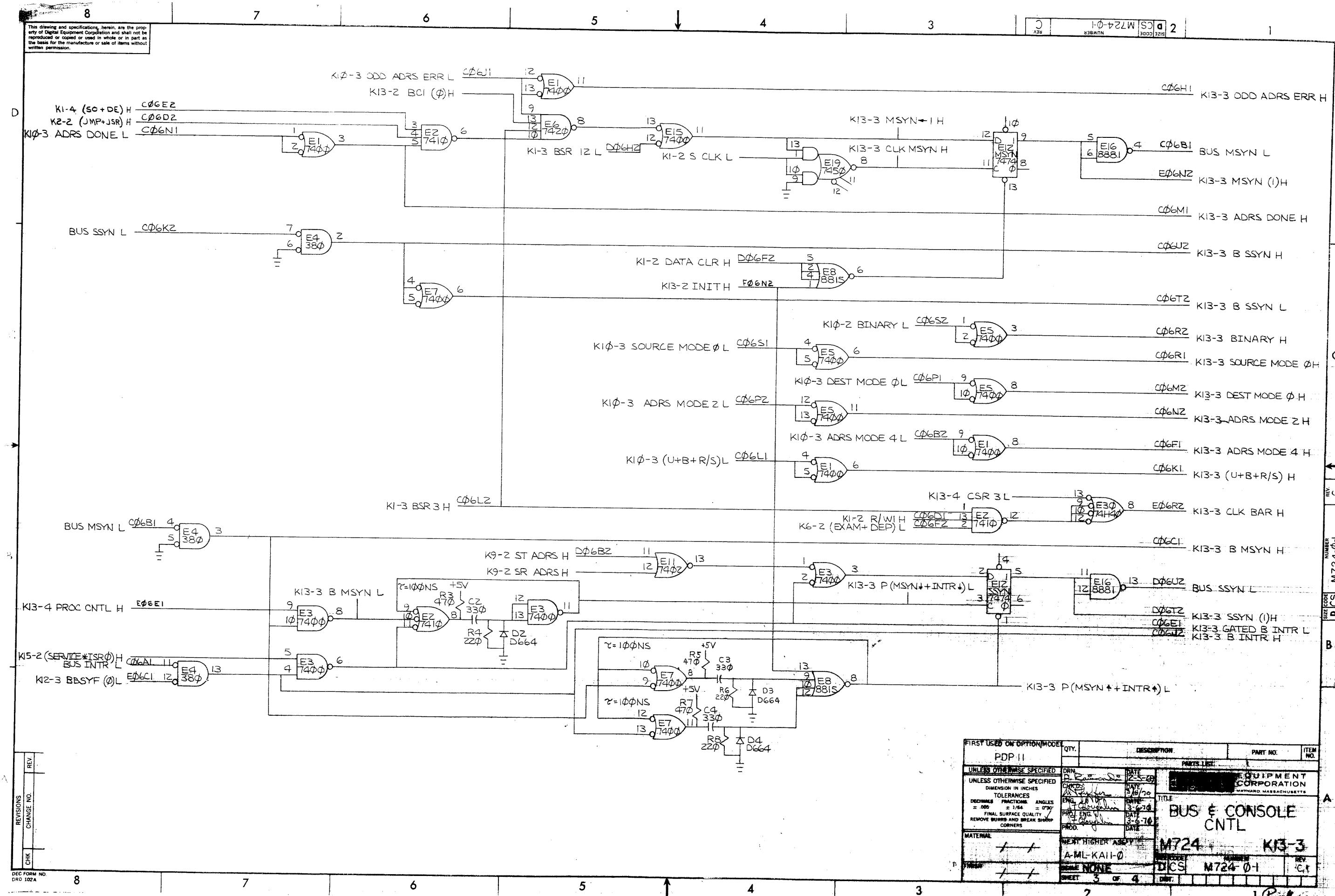


FIRST USED ON OPTION/MODEL PDP 11		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED		DRN <i>Rice Blane</i>	DATE 3/28/70	EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK'D <i>C. J. Taylor</i>	DATE 3-2-70	TITLE	
TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 = 1/64 ± 0°30'		ENG <i>T. H. Johnson</i>	DATE 3-6-70	BUS & CONSOLE CTL.	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		PRF. ENG <i>H. C. Langdon</i>	DATE 3-6-70		
MATERIAL H		PRD NEXT HIGHER ASSY A-ML-KAII-Ø	DATE	M724 KI3-1	
FINISH H		SCALE H	REVISION DCS	NUMBER M724-Ø-1	REV. C
		SHEET 1 OF 4	ETCH REV B C	DIST	

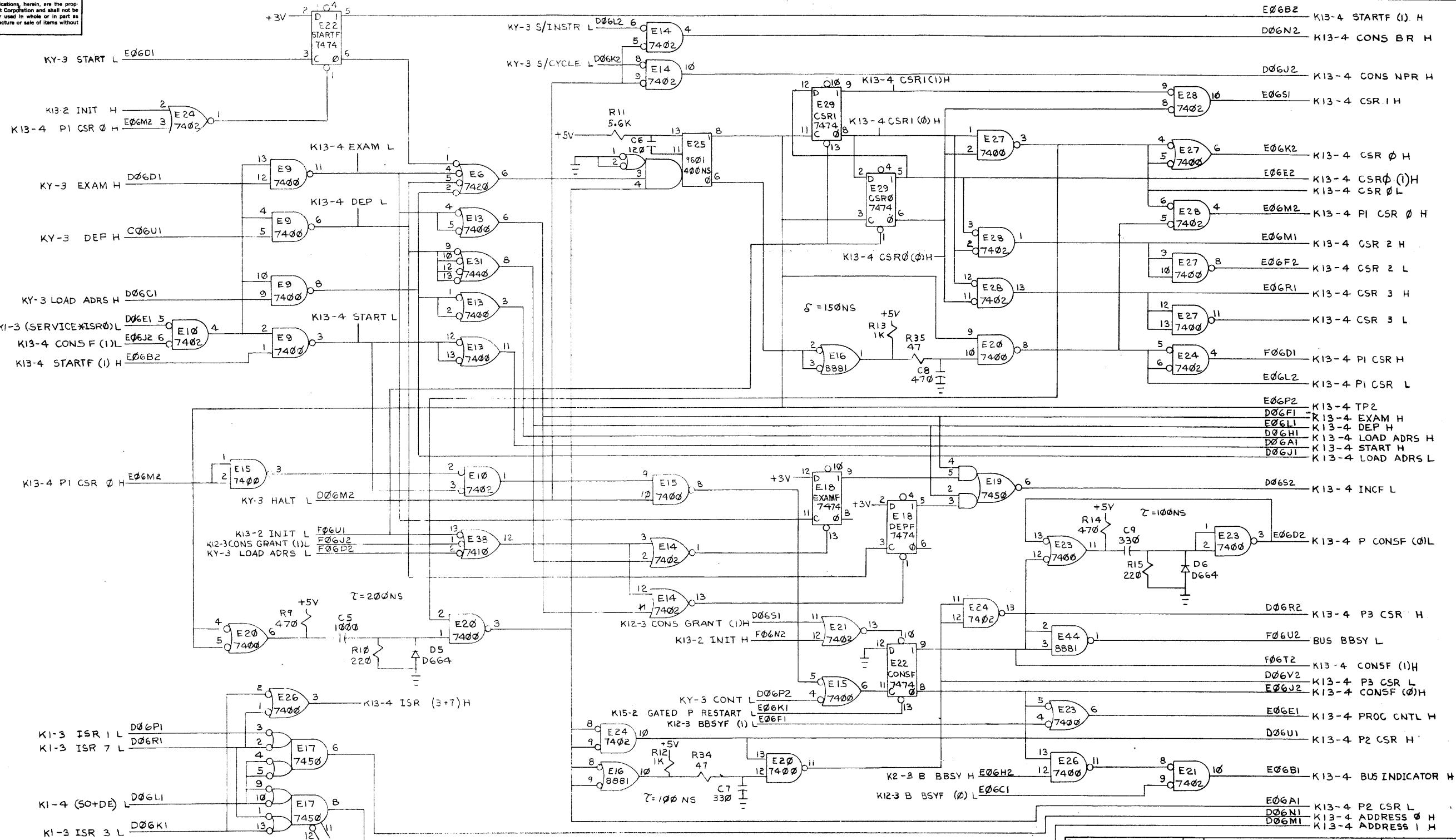
REVISIONS		
CHN	CHANGE NO.	REV
CHN	M724-00001	B
Signed: <i>J. D. O'Longhlin</i> 1-2-70		
J. D. O'LONGHLIN 4/23/70		
M724-00003 C		
M.F.M.C. 5/23/70		
J. D. O'LONGHLIN 5/28/70		



FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP II				PARTS LIST	
UNLESS OTHERWISE SPECIFIED		DRN. <i>B-100000</i>	DATE 12-5-69	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHNR. <i>A-100000</i>	DATE 5/18/70		
TOLERANCES		ENG. <i>J. Coughlin</i>	DATE 3-6-70	TITLE BUS & CONSOLE CNTL	
DECIMALS FRACTIONS ANGLES $\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$		PROJ. ENG. <i>J. Coughlin</i>	DATE 3-6-70		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		PROD. <i>J. Coughlin</i>	DATE		
MATERIAL	/	NEXT HIGHER ASSY A-ML-KAII-Ø		M724 K13-2	
FINISH	/	SCALE NONE	SIZE CODE DCS	NUMBER M724-Ø-1	REV C
		SHEET 2 OF 4	DIST.	1 Pink	

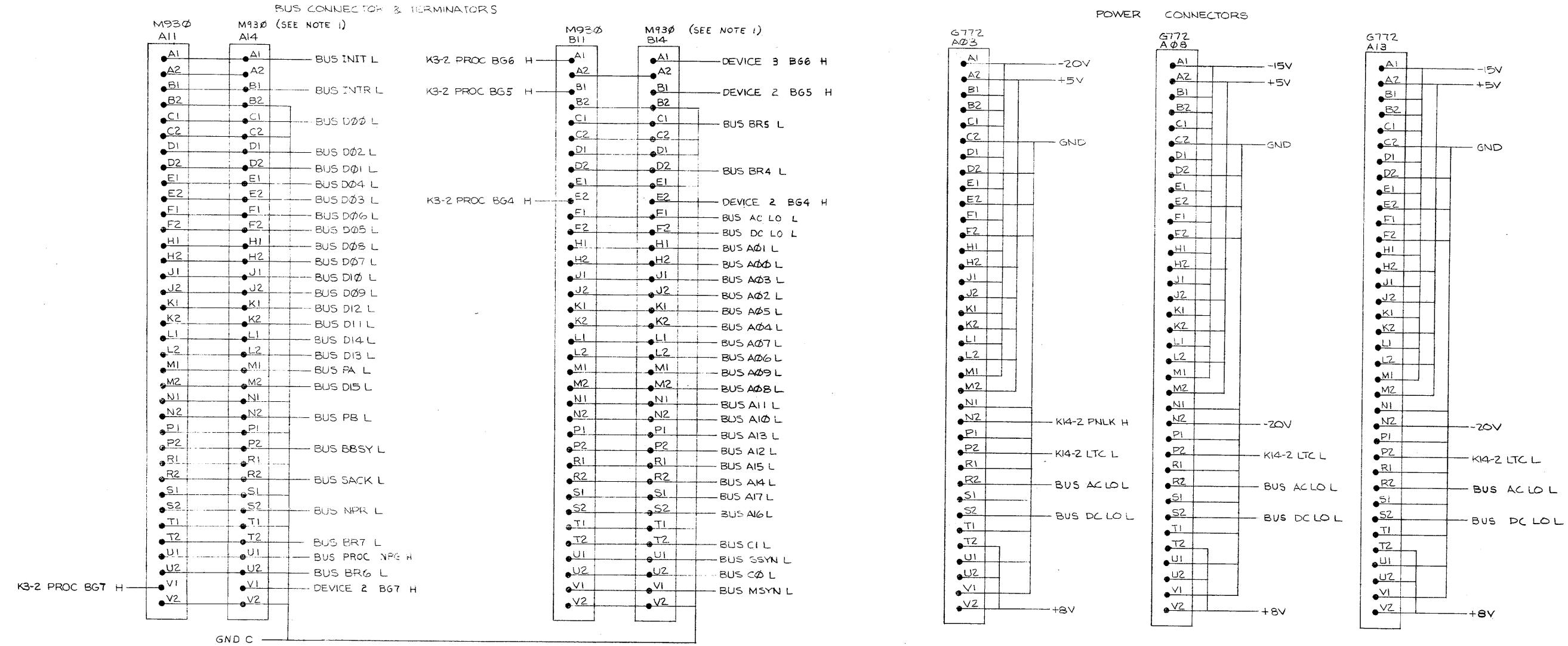


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FIRST USED ON OPTION/MODEL <b>PDP II</b>	QTY.	DESCRIPTION	PART NO.	ITEM NO.
				PARTS LIST
UNLESS OTHERWISE SPECIFIED	DRN. 3000000000	DATE 9-12-69	<b>digital EQUIPMENT CORPORATION</b> MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	CHKD A. L. [initials]	DATE 3/18/70	TITLE	
TOLERANCES DECIMALS FRACTIONS ANGLES $\pm .005$ $\pm 1/64$ $\pm 0^{\circ}30'$	ENG. F. C. [initials]	DATE 3-6-70	BUS & CONSOLE CTL	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PROJ. ENG. F. C. [initials]	DATE 3-6-70		
MATERIAL	PROD.	DATE		
NEXT HIGHER ASSY A-ML-KAII-Ø			M724 K13-4	
FINISH	SCALE NONE	SIZE CODE D CS	NUMBER M724-Ø-1	REV. C
SHEET 4 OF 4		DIST.		

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- NOTES:
- I. BEFORE THE KAI1 IS INTERCONNECTED TO OTHER SYSTEM UNITS, A M930 BUS TERMINATOR IS IN LOCATIONS AB14. THIS TERMINATOR IS MOVED TO THE END SYSTEM UNIT UPON INTERCONNECTION; AND A M920 INTERNAL BUS CONNECTOR IS IN LOCATIONS AB14.

REVISIONS		CHANGE NO	REV
CHK	KAI1-00007	A	
	J. OLOSHLIN	2-8-70	
	J. OLOSHLIN	2-8-70	

DEC FORM NO.  
DOD 102A

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FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
<b>PDP II</b>				
UNLESS OTHERWISE SPECIFIED	DRN	K. Phillips	DATE	
UNLESS OTHERWISE SPECIFIED	CHKD	3-14-70	DATE	
DIMENSION IN INCHES				
TOLERANCES				
DECIMALS FRACTIONS ANGLES				
= .005 = 1/64 = 0°30'				
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS				
PROJ. ENG. DATE				
PROD. ENG. DATE				
MATERIAL				
NEXT HIGHER ASSY				
A-ML-KAI1-0				
FINISH	SCALE			
SHEET 1 OF 1				
SIZE CODE	D	IC	KAI1-0-BP	REV. A
NUMBER				
DIST.				

**KAI1 BUS & POWER CONNECTIONS  
K14-2**

SIZE CODE NUMBER REV.  
**D IC KAI1-0-BP A**

D

C

B

A

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### PARTS REFERENCE

ITEM NO.	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	E1	DEC 8881	I.C. 1909705	1
2	E2, E8	DEC 7402N	I.C. 1909004	2
3	E3, E4, E5	DEC 9601	I.C. 1909487	3
4	E6	DEC 7400N	I.C. 1905575	1
5	E7	DEC 7420N	I.C. 1905577	1
6	E9	DEC 74H53	I.C. 1909062	1
7	E10	DEC 74H53N	I.C. 1909062	1
8	E11	DEC 8815A	I.C. 1909713	1
9	E12	DEC 7410N	I.C. 1905576	1
10	E13	DEC 7474N	I.C. 1905547	1
11	C1-C11	.01 MFD 100V, 20%	CAP 1001610	11
12	C13	6.8 MFD 35V, 20%	CAP 1000067	1
13	C14	2200 MMF 250V 20%	CAP 1000055	1
14	C15	3.9 MFD 10V, 10%	CAP 1000064	1
15	C16	1.0 MFD 35V 10%	CAP 1001776	1
16	C17	.47 MFD 35V, 10%	CAP 1005965	1
17	C18	330 MMF 100V, 5%	CAP 1000023	1
18	C19	680 MMF 100V 5%	CAP 1000026	1
19	R1, R3, R13	220 1/4W 5%	RES 130027	3
20	R2, R4, R7, R14, R15	470 1/4W 5%	RES 1300316	5
21	R5	10 K 1/4W 5%	RES 1300479	1
22	R6	22K 1/4W 5%	RES 1301608	1
23	R8, R11, R12	1K 1/4W 5%	RES 1300365	3
24	R10	2.2K 1/4W 5%	RES 1300417	1
25	D1-D6	D664 DIODE	1100114	6
26	Q1	DEC 3009B TRANSISTOR	1503100	1
27	R9	20K 1/4W 5%	RES 1302391	1

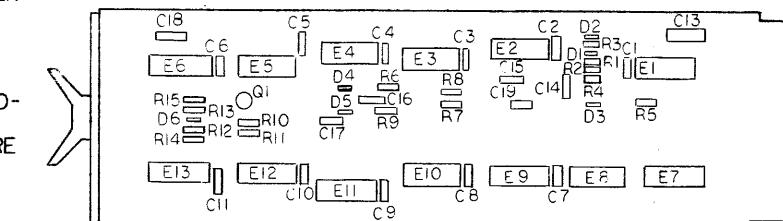
### NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI PROCESSOR. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.
3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE), THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK), THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.
4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.
5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 7481	PIN 10	PIN 4
DEC 7482	PIN 11	PIN 4
8251	PIN 8	PIN 16
DEC 8271	PIN 8	PIN 16
DEC 380	PIN 1	PIN 8
DEC 384	PIN 1	PIN 8

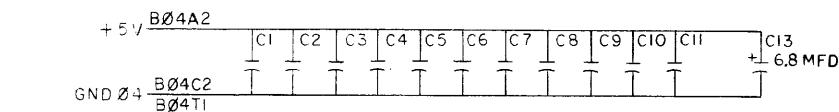
6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

### COMPONENT PLACEMENT



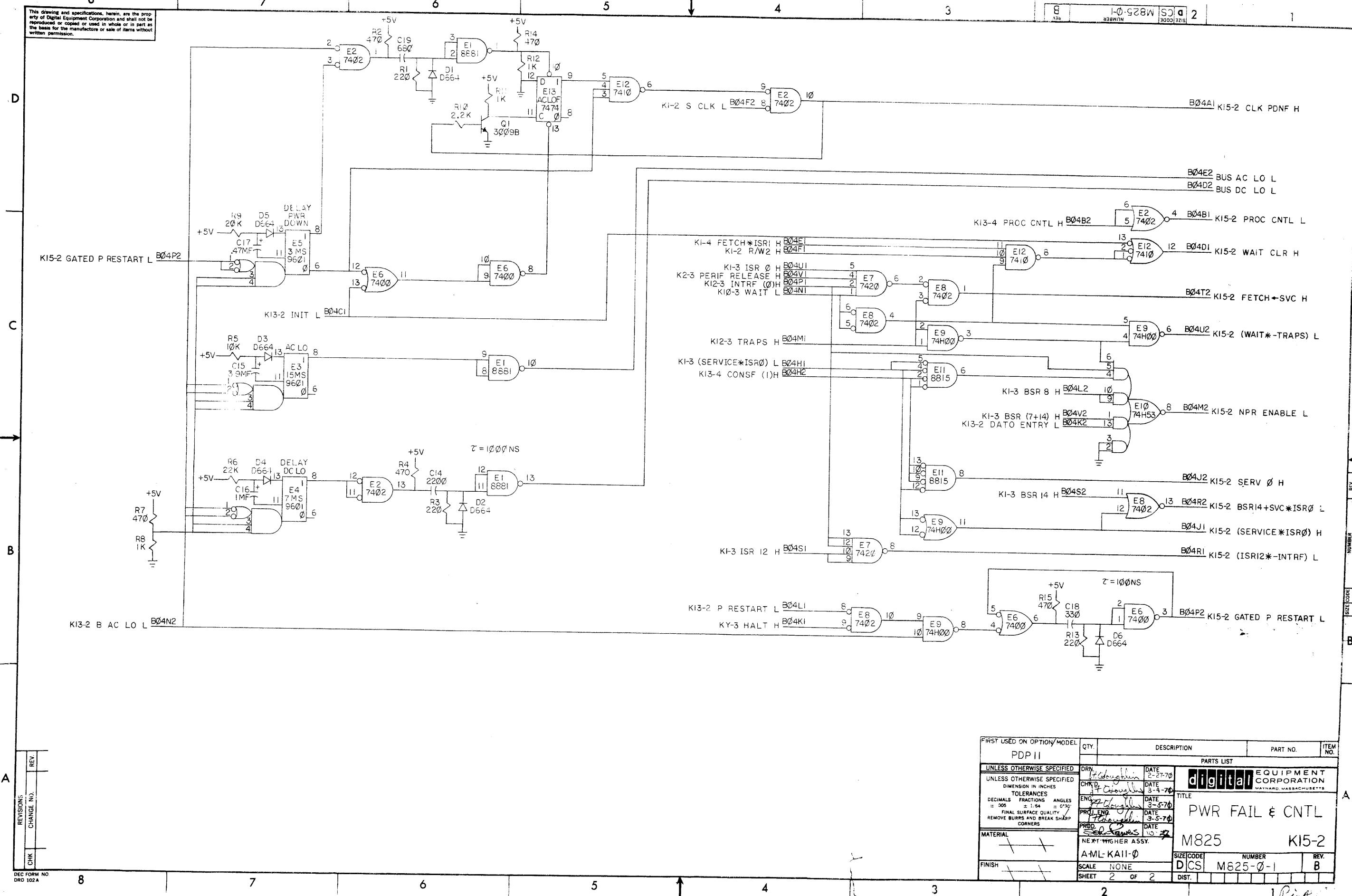
### PIN NOMENCLATURE

MODULE	PROCESSOR
A	B



FIRST USED ON	OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED	DRN.	DATE	EQUIPMENT CORPORATION		
UNLESS OTHERWISE SPECIFIED	CHK'D.	DATE	MAYNARD, MASSACHUSETTS		
TITLE					
POWER FAIL & CNTL					
M825 K15-1					
SIZE CODE	NUMBER	REV.			
DICS M825-0-1 B					
SHEET	1 OF 2	ETCH REV	A	B	C
DIST.	1 Rev				

REVISIONS	CHANGE NO.	REV.
1	M825-0-0002	B
2	J. F. O'LOUGHLIN	7-7-70
3	J. F. O'LOUGHLIN	7-7-70



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D

A

B

C

D

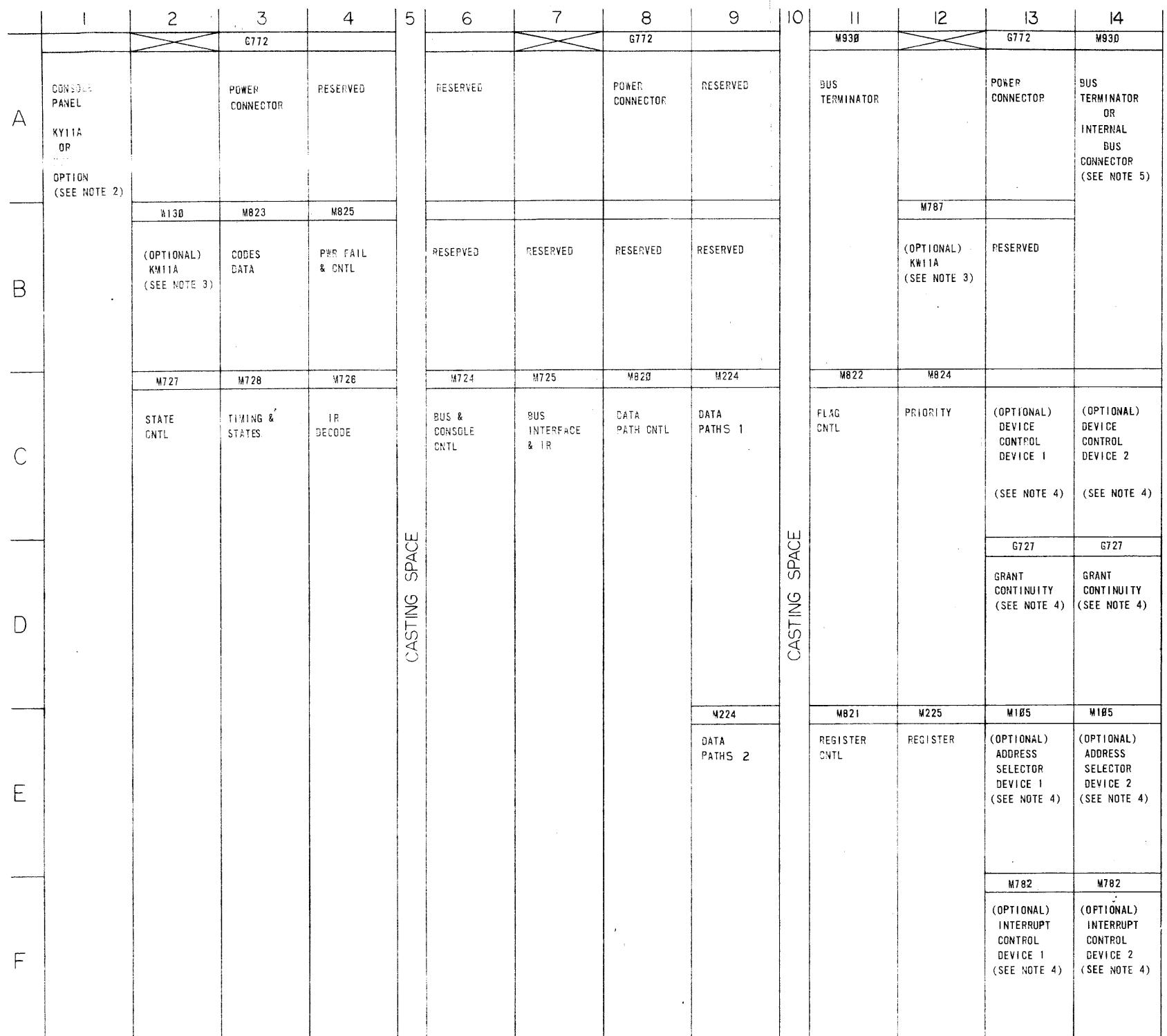
E

F

REVISIONS	CHANGE NO.	REV.
CHK	KAI-00002	A
	T2000	5-1-70
	O'LOUGHLIN	
	T2000	5/26/70

DEC FORM NO.  
DD FORM 100

8



- NOTES:**
1. SLOTS 5 AND 10 ARE CASTING SPACES. NO MODULES CAN BE INSERTED, BUT THE SLOTS ARE NUMBERED.
  2. A CONSOLE PANEL IS REQUIRED IN THE KAI-0. THE POP 11/20 SYSTEM UTILIZES THE KY11-A CONSOLE (5408560) IN LOCATIONS ABCDEF1. THE POP11/10 SYSTEM UTILIZES THE KY11-B CONSOLE ( ) IN LOCATIONS E/F1.
  3. PREWIRED MODULE SLOTS FOR NOTED OPTIONS.
  4. PREWIRED MODULE SLOTS FOR SMALL PERIPHERAL OPTIONS. WITH NO OPTIONS INSTALLED, BUS GRANT CONTINUITY IS PROVIDED BY THE G727 MODULE IN LOCATIONS D13 AND D14. THE G727 MODULE IS REMOVED WHEN A SMALL PERIPHERAL OPTION IS INSTALLED. SHOWN ARE THE USUAL OPTION CONFIGURATIONS OF DEVICE CONTROL IN LOCATIONS C AND D, ADDRESS SELECTOR IN LOCATION E, AND INTERRUPT CONTROL IN LOCATION F. IT IS POSSIBLE FOR OTHER MODULE CONFIGURATIONS TO UTILIZE THE STANDARD WIRING PROVIDED.
  5. BEFORE THE KAI-0 IS INTERCONNECTED TO OTHER SYSTEM UNITS, A M930 BUS TERMINATOR IS IN LOCATIONS AB14. THIS TERMINATOR IS MOVED TO THE END SYSTEM UNIT UPON INTERCONNECTION; AND A M920 INTERNAL BUS CONNECTOR IS IN LOCATIONS AB14

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DR. H. Bellan DATE 3/11/70			
UNLESS OTHERWISE SPECIFIED	DO NOT SCALE DRAWING	digital EQUIPMENT CORPORATION	
DIMENSION IN INCHES		MAYNARD, MASSACHUSETTS	
DECIMALS FRACTIONS ANGLES			
± .000 ± 1/64 ± 0°30'			
FINAL SURFACE QUALITY			
REMOVES BURRS AND BREAK SHARP CORNERS			
PROJ. ENGR. DATE 3-17-70			
PROD. ENGR. DATE 3-17-70			
MATERIAL			
FINISH			
SCALE NONE			
SHEET 1 OF 1			
DIST.			

FIRST USED ON OPTION / MODEL PDP 11

DO NOT SCALE DRAWING	DATE 3/11/70
UNLESS OTHERWISE SPECIFIED	DATE 3/12/70
DIMENSION IN INCHES	DATE 3-17-70
DECIMALS FRACTIONS ANGLES	DATE 3-17-70
± .000 ± 1/64 ± 0°30'	DATE 3-17-70
FINAL SURFACE QUALITY	DATE 3-17-70
REMOVES BURRS AND BREAK SHARP CORNERS	DATE 3-17-70
PROJ. ENGR. DATE 3-17-70	DATE 3-17-70
PROD. ENGR. DATE 3-17-70	DATE 3-17-70
MATERIAL	
FINISH	

EQUIPMENT CORPORATION  
digital MAYNARD, MASSACHUSETTS

TITLE  
MODULE UTILIZATION

SIZE CODE	NUMBER	REV.
D MU	KAI-0-MU	A