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8 0-8-1110KMI 2 1

LEGEND

NUMBER	DESCRIPTION
KDFII-BA	M8189-00 PLUS KTFII-AA & BOOT/DIAG. ROMS
KDFII-BB	M8189-00 PLUS KTFII-AA, KEFII-AA & BOOT/DIAG. ROMS
KDFII-BC	M8189-00 PLUS BOOT/DIAG. ROMS
KDFII-BD	M8189-00 PLUS KTFII-AA, KEFII-BB & BOOT/DIAG. ROMS

- NOTES:
1. WHEN INSTALLING ITEMS 2,3,8&9 MAKE SURE THAT PIN 1 IS LOCATED AS SHOWN.
 2. WHEN ITEMS 8 & 9 ARE MASKED ROMS CONNECT J23 TO J24 WITH J22 NOT CONNECTED. WHEN ITEMS 8 & 9 ARE EPROMS CONNECT J22 TO J23 WITH J24 NOT CONNECTED.
 3. BAUD RATE SELECTION. SEE D-CS-M8189-0-K11. SETTINGS SHOWN PRODUCE 9600 BAUD EACH LINE.
 4. KEFII-BB=CIS MICROCODE HYBRID. CONTAINS CIS MICROCODE TO IMPLEMENT THE COMMERCIAL INSTRUCTION SET.

TABLE 1. BOOT/DIAG. SELECTION GUIDE FOR SWITCH PACK E102

SWITCH	ON	OFF
S1	EXECUTE CPU TEST	SKIP CPU TEST
S2	EXECUTE MEMORY TEST	SKIP MEMORY TEST
S3	EXECUTE DECNET BOOT PROGRAM SELECTED BY S4-S7 PER TABLE 2.	EXECUTE STANDARD BOOT PROGRAM PER SWITCH S4
S4	EXECUTE DIALOGUE ROOT PROGRAM. OPERATOR RESPONDS WITH MNEMONIC PER TABLE 3.	EXECUTE AUTOMATIC (TURNKEY) BOOT PROGRAM SELECTED BY S5-S8 PER TABLE 3.

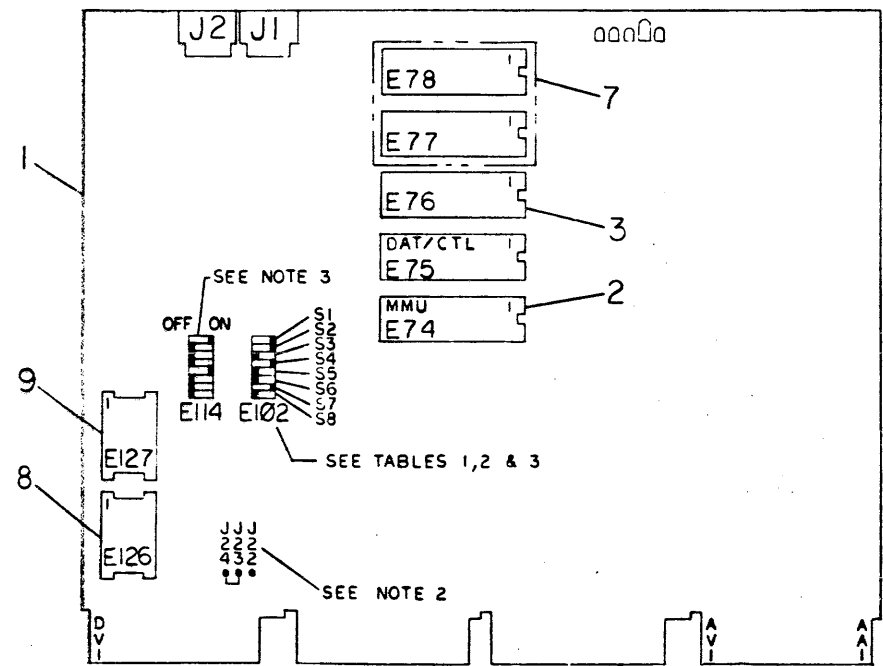
TABLE 2. DECNET BOOT DEVICE SELECTION (S3 ON)

S4	S5	S6	S7	DEVICE
ON	X	X	X	DUVII
OFF	ON	X	OFF	DLVII-E
OFF	ON	X	ON	DLVII-F

NOTE: X = DON'T CARE

TABLE 3. STANDARD BOOT DEVICE SELECTION (S3 OFF)

MNEMONIC	S5	S6	S7	S8	DEVICE
DKn; n<8	OFF	OFF	OFF	ON	RK05
DLn; n<4	OFF	OFF	ON	OFF	RLO1/RLO2
DDn; n<2	OFF	OFF	ON	ON	TU58
DXn; n<2	OFF	ON	OFF	OFF	RX01
DYn; n<2	OFF	ON	ON	OFF	RX02



CAUTION: OFF SHEET PARTS LIST EXISTS, SEE K-PL-KDFII-B-DBP

REV.	INITIAL	DATE
1	A	12-APR-82
2	B	12-APR-82
3	C	5-13-82

REVISIONS
C. VALENTINE
12-APR-82
12-APR-82
5-13-82

DESCRIPTION	DWG PART NO	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLES	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES
10° 30'	CHECK ONE:	0.000 - 0.009 0.010 - 0.019 0.020 - 0.029 0.030 - 0.039 0.040 - 0.049 0.050 - 0.059
SURFACE QUALITY	MEDIUM	0.004 - 0.008 0.012 - 0.016 0.024 - 0.048
QUANTITY & VARIATION	PREFERRED	0.012 - 0.016 0.024 - 0.048 0.096 - 0.192
THIRD ANGLE PROJECTION	DRN H. Cullison	FIRST USED ON 11/23-B digital
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D	
DO NOT SCALE DWG	ENG. [Signature]	
MATERIAL	PROJ ENG. [Signature]	
FINISH	PROD. [Signature]	
	NEXT HIGHER ASSY.	
	B 00 KDFII B	SIZE CODE NUMBER REV
	SCALE NONE	D UA KDFII-B 2 6
	SHEET 1 OF 1	DIST.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION		
					BA	BB	BC
1	1		M8189-00	KDF11-B QUAD HT CPU,0 AND 0-22 B	1	1	1
2	2		2115542-01	DC 304 F11 MMU,FLOAT PT REG	1	1	-
3	3		5700001-00	HYBRID ASSY FLOATING POINT	-	1	-
4	4		23244E2-00	E2-04	1	1	1
5	5		23245E2-00	E2-04	1	1	1
6	6		H3270-00	TEST CONNECTOR	1	1	1

7 NOTE: ITEM #6, THE WRAP-AROUND-TEST JUMPER FOR CONNECTOR J2, IS NOT SHOWN ON UA DWG.
 8 NOTE: FOR BULK INTERPLANT SHIPMENT OF MODULES REFER TO PACKAGING INSTRUCTION A-SP-3700053-0-0
 9 NOTE: FOR SHIPMENT OF INDIVIDUAL MODULES REFER TO PACKAGING INSTRUCTION A-SP-3700069-0-0

REVISION HISTORY		BASIC PART NO: KDF11		DRN: P. GROSNIHAN		DATE: 21-JAN-81		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	G. MARINI	DATE:	27-MAY-81	TITLE	PARTS LIST
	INITIAL	A	SECTION. VARIATION INDEX:					KDF11-B CPU UNIT ASSEMBLY	
			(A) BA, BB, BC						
			(B)	DES.ENG.:	C. VALENTINE	DATE:	21-JAN-81		
			(C)	RESP.ENG.:	C. VALENTINE	DATE:	21-JAN-81		DOCUMENT NUMBER
			(D)					SIZE:CODE:	NUMBER
			(E)	MFG.ENG.:	T. OLMO	DATE:	27-APR-81	K	PL
			(F)	ASSEMBLY NUMBER:	C-UA-KDF11-B-0	TOP DOCUMENT NUMBER:	#B-DD-KDF11-B	FILE NAME:	22423A.PLS
								EDIT #	4

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DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																			
				1	2	3	4	5	6	7	8	9	10	11	12								
		M8189-00	KDF11-B CPU MODULE																				
D-UA-M8189-0-0	2		KDF11-B CPU MODULE	A																			
K-PL-M8189-0-DBP	3		KDF11-B CPU MODULE	A																			
K-PC-M8189-0-DBI			P.C. DESIGN DATA BASE	C																			
		5014313-00	P.C. BOARD	C																			
D-MD-5014313-0-0	6		DRILL & ETCH DRAWING	A																			
D-EC-5014313-0-0	2		ETCH CUT DRAWING	A																			
K-CS-M8189-0-DBS			CIRCUIT DATA BASE	A																			
D-CS-M8189-0-K1	1		TIMING LOGIC & MIB DECODE	A																			
D-CS-M8189-0-K2	1		BUS CONTROL LOGIC	A																			
D-CS-M8189-0-K3	1		SERVICE, RESET & ODT LOGIC	A																			
D-CS-M8189-0-K4	1		F11 CHIPS & FIXED DATA	A																			
D-CS-M8189-0-K5	1		CDAL/BDAL INTERFACE	A																			
D-CS-M8189-0-K6	1		CDAL/IDAL INTERFACE	A																			
D-CS-M8189-0-K7	1		IDAL ADRS DECODE	A																			
D-CS-M8189-0-K8	1		BOOT & CLOCK LOGIC	A																			
D-CS-M8189-0-K9	1		CONSOLE & SECOND SLU	A																			
D-CS-M8189-0-K10	1		BAUD RATE & -12V	A																			
D-CS-M8189-0-K11	1		CONFIGURATION GUIDE	A																			

NOTES:

REVISIONS	CHG NO.	REV.	DATE																				
				1	2	3	4	5	6	7	8	9	10	11	12								

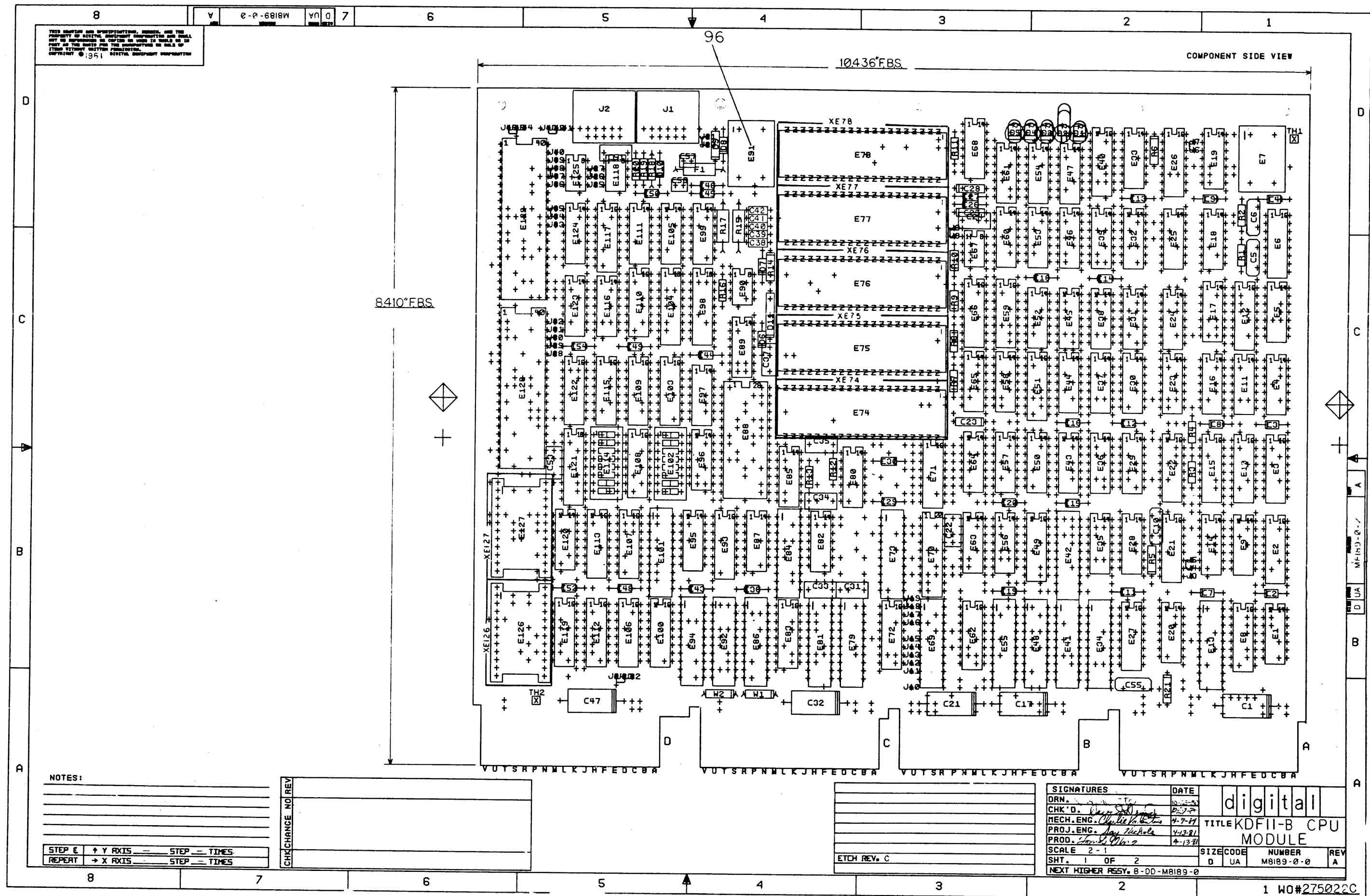
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USED ON OPTION/MODEL	DRN. R. BARILONE	22DEC80	TITLE				
KDF11-B	CHK'D D. DROZD	22JAN81	KDF11-B CPU MODULE				
	ENG. J. NICHOLS	13APR81	SIZE	CODE	NUMBER	REV.	
	PROD. T. OLMO	13APR81	B	DD	M8189-0	A	
			SHEET 1 OF 1				

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NOTES:

STEP E	↑ Y AXIS	— STEP	— TIMES
REPEAT	→ X AXIS	— STEP	— TIMES

CHK	CHANGE	NO	REV

ETCH REV. C

SIGNATURES		DATE
DRN.		
CHK'D.		
MECH. ENG.		
PROJ. ENG.		
PROD.		
SCALE 2-1		SIZE CODE
SHT. 1 OF 2		NUMBER
NEXT HIGHER REV. B-DD-M8189-0		REV

digital
TITLE KDFII-B CPU
MODULE

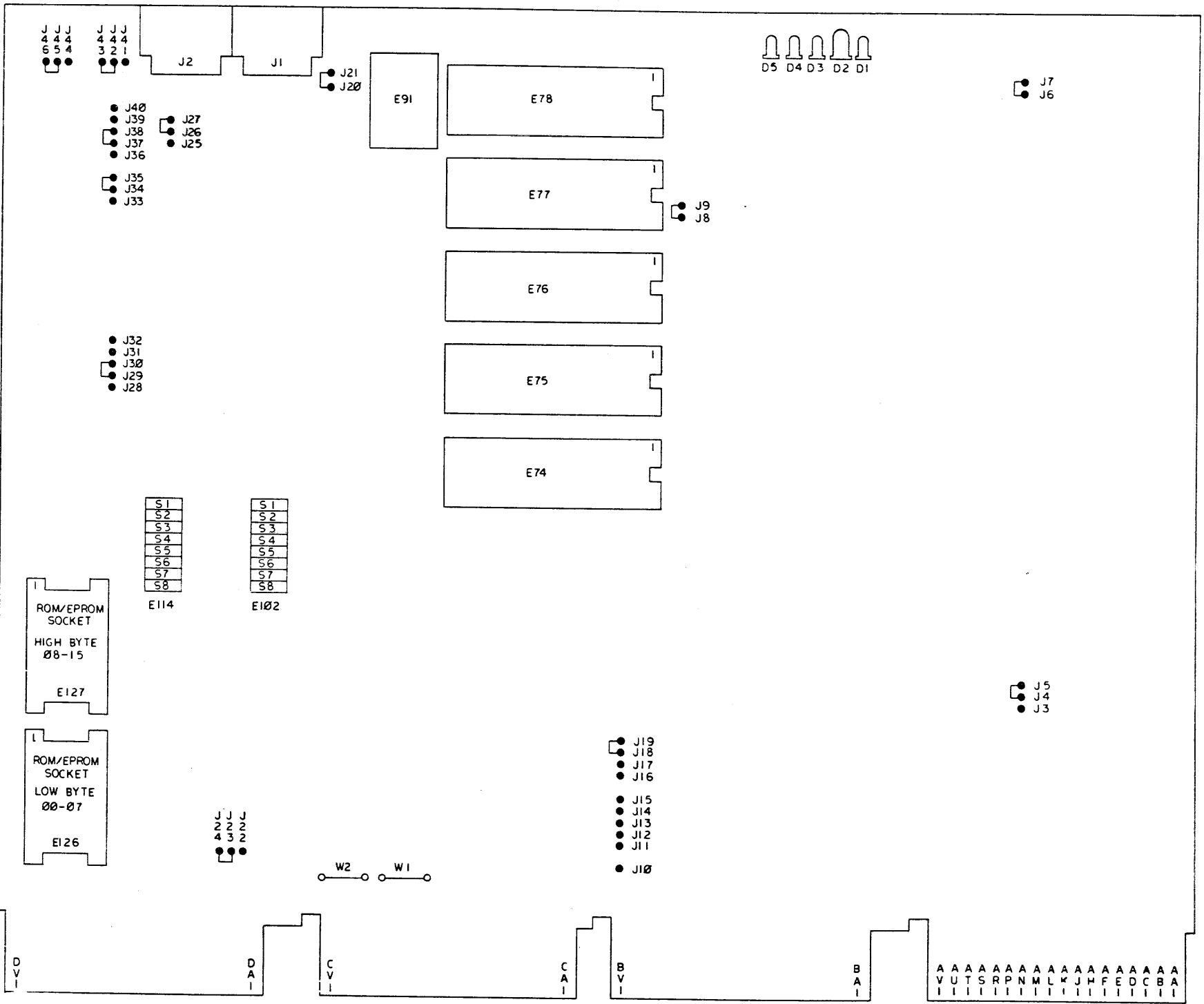
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U-0-68189-0-0

JUMPER TABLE			
ITEM NO	DESCRIPTION	FROM	TO
97	MINI JUMPER	J4	J5
		J6	J7
		J8	J9
		J18	J19
		J20	J21
		J23	J24
		J26	J27
		J29	J30
		J34	J35
		J37	J38
J42	J43		
J45	J46		

SEE NOTE 1

NOTES: 1. WHEN MASKED ROM'S ARE USED, CONNECT J24 TO J23, J22 IS NOT CONNECTED.
 WHEN EPROM'S ARE USED, CONNECT J22 TO J23, J24 IS NOT CONNECTED.



REVISION HISTORY		
DATE	ECO NUMBER	REV.

TITLE: KDF11-B CPU MODULE

DOCUMENT NUMBER		
SIZE CODE	NUMBER	REV.
DUA	M8189-0-0	A
SCALE		SHEET 2 OF 2

U-0-68189-0-0

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	D-MD-5014313-0-0	5014313-00	DRILL AND ETCH BD.	1		
2	2		1000022-00	270.0 MMF 100V 5%200PPM MICA	1		C10
3	3		1000024-00	470.0 MMF 100V 5%200PPM MICA	3		C5,C6,C53
4	4		1001610-00	.01 MFD 50V +80-20% 25U CER	3		C26,C27,C30
5	5		1012784-00	.047 MFD 50V +80-20% CER	29		C2-C4,C7-C9,C11-C16,C18-C20,C23, CONT C25,C28,C29,C36,C43-C46,C48-C50, CONT C52,C54
6	6		1016681-00	.47 MFD 50V +80-20% CER	14		C22,C24,C31,C33-C35,C37-C42,C51, CONT C53
7	7		1017472-00	10 MFD 35V +50-10% AL EL	5		C1,C17,C21,C32,C47
8	8		1011740-02	1800.0 MMF 50V 10% CER	2		C56,C57
9	9		1109977-00	1N 749A VZ= 4.3 5%	1		D9
10	10		1112689-00	LED .8MCD@16MA VF=5V	4		D1,D3-D5
11	11		1114384-00	LED 105MW 35MA GREEN	1		D2
12	12		1100114-00	D 664 QS\75PCB PIV= 25V SP	3		D6-D8
13	13		1110967-00	1N 4005 PIV=600 I= 1A D041 SI	1		D10
14	14		1105508-00	1N 823 VZ= 6.2 5% .40W Y	1		D11
15	15		1213506-04	HEADER 10POS RT ANGLE W/3 SI	2		J1,J2
16	16		1215006-06	SOCKET 24PIN IC LOW PROFILE	2		XE126,XE127
17	17		1216116-00	SOCKET 40PIN	5		XE74-XE78
18	18		1210929-02	FUSE, SUB-MINI 1.000A, 125V, A	1		F1
19	19		1211164-04	SW,DIP 1P 1A 8POS	2		E102,E114
20	20		1213113-01	HANDLE,MODULE,	1		
21	21		1300229-00	100.0 .25 W 5.0 % CC	1		R7
22	22		1300318-00	470.0 .25 W 5.0 % CC	3		R6,R12,R16
23	23		1300365-00	1.0 K .25 W 5.0 % CC	4		R3,R4,R8,R11
24	24		1300488-00	12.0 K .25 W 5.0 % CC	2		R19,R20
25	25		1301322-00	180.0 .25 W 5.0 % CC	1		R13
26	26		1301808-00	22.0 K .25 W 5.0 % CC	1		R18
27	27		1302177-00	47.0 K .25 W 5.0 % CC	2		R1,R2

REVISION HISTORY		BASIC PART NO: M8189		DRN:	R. BUREAU	DATE: 11-JUL-80	D I G I T A L			
ENGI	ECO NUMBER	REV	SECTION A OF A	CHK'D:	BOB BARILONE	DATE: 11-JUL-80	TITLE PARTS LIST			
	INITIAL	A	SECTION.VARIATION INDEX	CHK'D:	BOB BARILONE <td>DATE: 11-JUL-80</td> <td colspan="4">KDF11-B CPU MODULE</td>	DATE: 11-JUL-80	KDF11-B CPU MODULE			
			[A] 00	DES.ENG:	C.A. VALENTINE <td>DATE: 14-APR-81</td> <td colspan="4">DOCUMENT NUMBER</td>	DATE: 14-APR-81	DOCUMENT NUMBER			
			[B]	RESP.ENG.:	JAY NICHOLS <td>DATE: 14-APR-81</td> <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td>	DATE: 14-APR-81	SIZE	CODE	NUMBER	REV
			[C]	MFG.ENG.:	TOMAS OLMO <td>DATE: 14-APR-81</td> <td>K</td> <td>PL</td> <td>M8189-0-DBP</td> <td>A</td>	DATE: 14-APR-81	K	PL	M8189-0-DBP	A
			[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
			[E]	D-UA-M8189-0-0		B-DD-M8189-0-0	Z1037A.PLS		17	
			[F]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"						
			[G]							
			[H]							
			[I]							
			[J]							
			[K]							
			[L]							
			[M]							
			[N]							

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
28	28		1302602-00	56.0			
29	29		1309422-00	5.10			R5
30	30		1311003-01	R NETWORK 14-180			R9,R10
31	31		1301320-00	1.20 K			E8,E27,E62
32	32		1300005-03	R NETWORK 13-10K			R21
33	33		1300005-07	R NETWORK 15-4.7K			E123
34	34		1300228-00	100.0			E72,E108,E122
35	35		1303178-00	620.0			R15,R17
36	36		1811660-02	OSCILLATOR, XTAL			R14
37	37		1811660-20	OSCILLATOR, XTAL			E91
38	38		1910544-00	74S74			E7
39	39		1910548-00	74S157			E17,E19,E29,E30,E36,E38,E43,E50
40	40		1910550-00	74S174			E15
41	41		1910957-00	74S175			E3,E10,E21,E26,E51
42	42		1911117-00	DEC 8838			E12,E22,E40,E59
43	43		1911469-00	DEC 8640			E2
44	44		1909705-00	DEC 8881			E1,E20,E63
45	45		1911675-00	74S138			E9
46	46		1911712-00	74S51			E66
47	47		1912098-00	0026			E45
48	48		1912388-00	74S02			E90
49	49		1912389-00	74S08			E37,E52,E56
50	50		1912647-00	LS257			E11,E28,E39,E96
51	51		1912649-00	LS75			E83,E100,E106,E110,E113,E119
52	52		1912697-00	LS174			E49
53	53		1912730-00	DC 003			E93,E107,E112
54	54		1912746-00	DEC 74S37			E98,E104
55	55		1912801-00	LS02			E61
56	56		1912803-00	74LS04			E85
57	57		1912804-00	LS05			E89
58	58		1912805-00	LS08			E82,E87
59	59		1912807-00	LS10			E65
60	60		1912808-00	LS11			E25,E95
61	61		1912810-00	LS20			E14
62	62		1912816-00	LS32			E53,E60
63	63		1912824-00	LS74			E120,E124
64	64		1912846-00	LS155			E5,E80,E111,E64
65	65		1912853-00	LS175			E103,E109,E115
66	66		1912857-00	LS197			E117
67	67		1912858-00	LS221			E105
68	68		1912863-00	LS273			E6
69	69		1912868-00	LS299			E86
70	70		1913340-00	74S32			E92,E101
71	71		1913462-00	74S240			E4,E44,E97,E116
72	72		1913671-00	74S374			E42,E73,E79
73	73		1913777-00	LS240			E70
74	74		1914085-00	74S260			E94
75	75		1915218-00	LS245			E23
							E81,E84

D	I	G	I	T	A	L	TITLE	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							KDF11-B CPU MODULE			K	PL	M8189-0-DBP	A

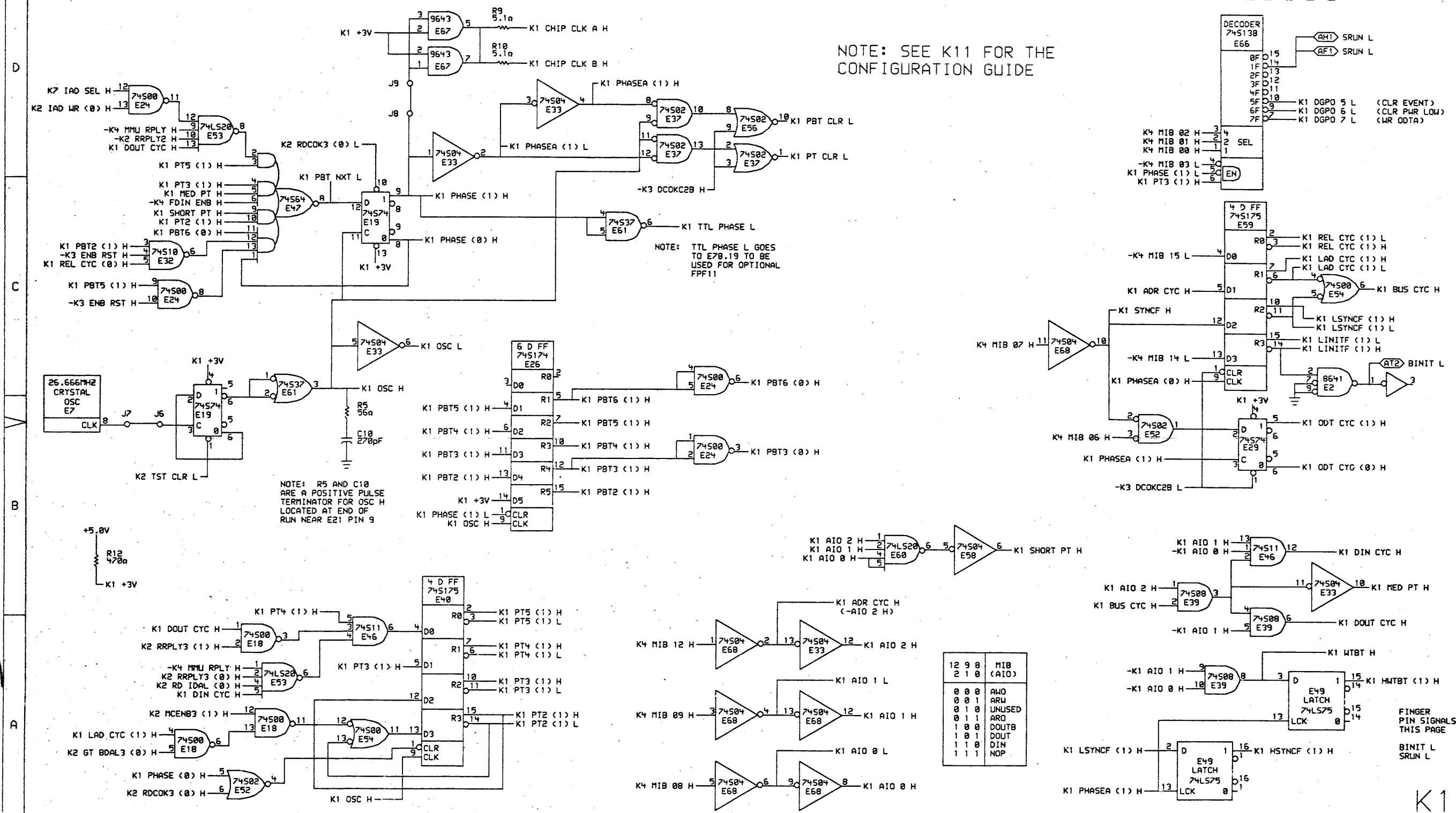
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
76	76		1915305-00	AM 2908 TRANSCEIVER,BUS,LATCH	6	E13,E34,E41,E48,E55,E69
77	77		1915415-00	9636 DRIVER,DUAL,EIA RS-	1	E118
78	78		1915416-00	9637 RECEIVER,DUAL,RS-42	1	E125
79	79		1916028-01	9643 DRIVER,TTL TO MOS,D	1	E67
80	80		1910532-00	74500 NAND GATE-QUAD 2IN	6	E16,E18,E24,E31,E35,E54
81	81		1910534-00	74504 INVERTER GATE-HEX 1I	4	E33,E58,E68,E99
82	82		1910535-00	74505 INVERTER GATE-HEX 1	1	E57
83	83		1910536-00	74510 NAND GATE-TRIPLE 3IN	1	E32
84	84		1910537-00	74511 AND GATE-TRIPLE 3INP	1	E46
85	85		1910542-00	74564 A-O-I GATE 4-2-3-2	1	E47
86	87		2112623-00	DUAL BAUD RATE GEN/PROG DIVIDER,	1	E121
87	88		2113937-01	6402-1 UART,UNIV.,ASYNCHRO	2	E128,E129
88	91		23061C6-00	C6-01	1	E88
89	92		5700000-01	DAT/CTL HYBRID ASSY W/FP,DCF11-A	1	E75
90	93		9009149-00	PIN, STAKING, P.C. BOARD, .025 X	44	J3-J46
91	94		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	W1,W2
92	95		9000024-01	EYELET,ROLL FLANGE .1210DX .192	6	
93	96		9010213-01	SPACER,14 PIN BLK/NYL .060THK.	1	
94	97		1218783-00	CONN .100 2POS JUMPER	12	

D	I	G	I	T	A	L	TITLE		SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							KDF11-B CPU MODULE			K	PL	M8189-0-DBP	A

BASE TIMING - MCLK CTL

MIB DECODE LOGIC

NOTE: SEE K11 FOR THE CONFIGURATION GUIDE



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REVISIONS		
CHK	CHANGE NO.	REV

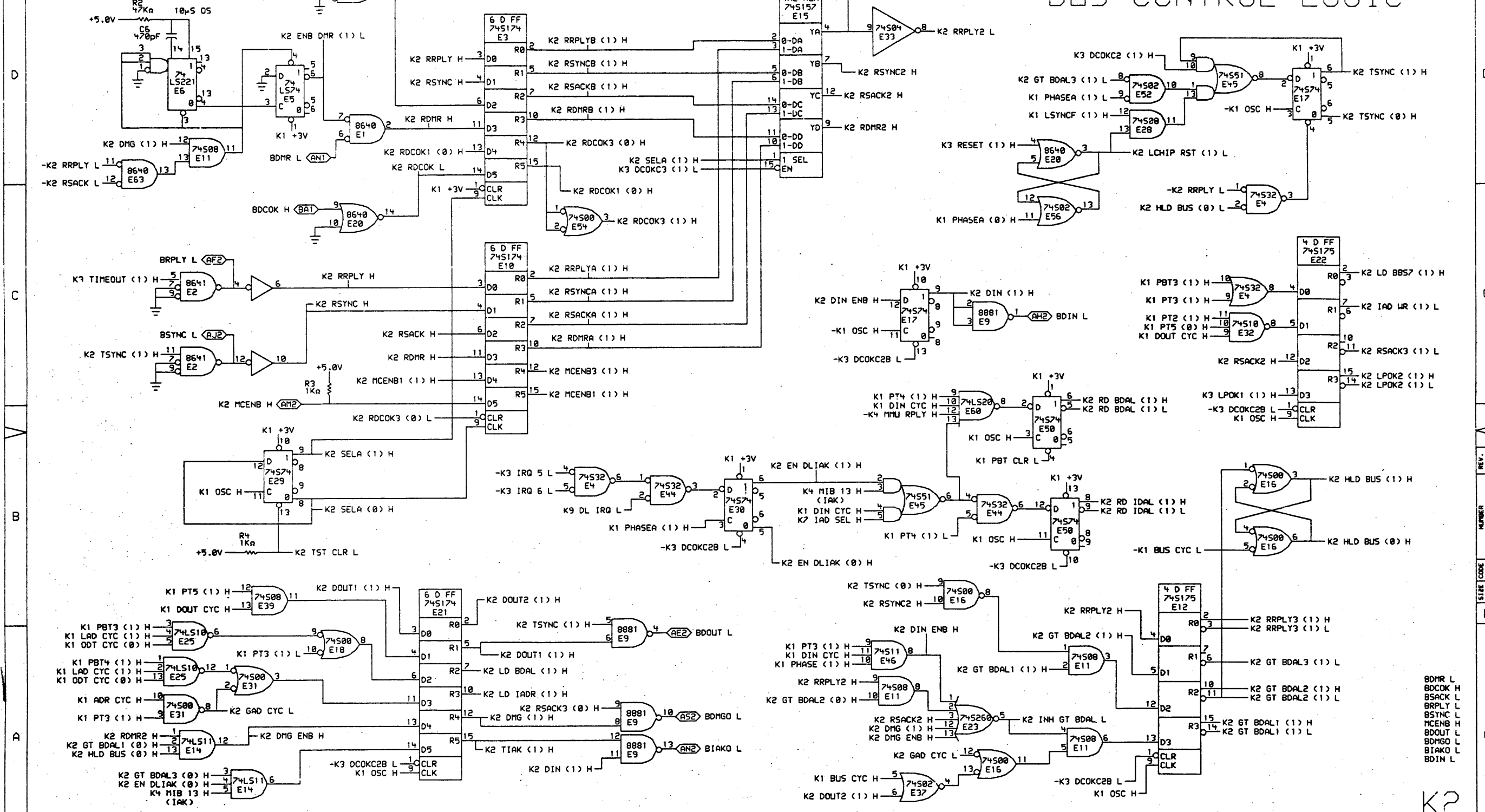
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	CHK: H. Hallinan	DATE: 9-13-81	BOARD LOCATION: [Signature]	DATE: 4-7-81

TITLE: TIMING LOGIC & MIB DECODE
 SIZE CODE: D CS
 NUMBER: M8189-0-K1
 REV: A

REV. A
 NUMBER M8189-0-K1
 SIZE CODE CS

QBUS SYNCHRONIZER

BUS CONTROL LOGIC



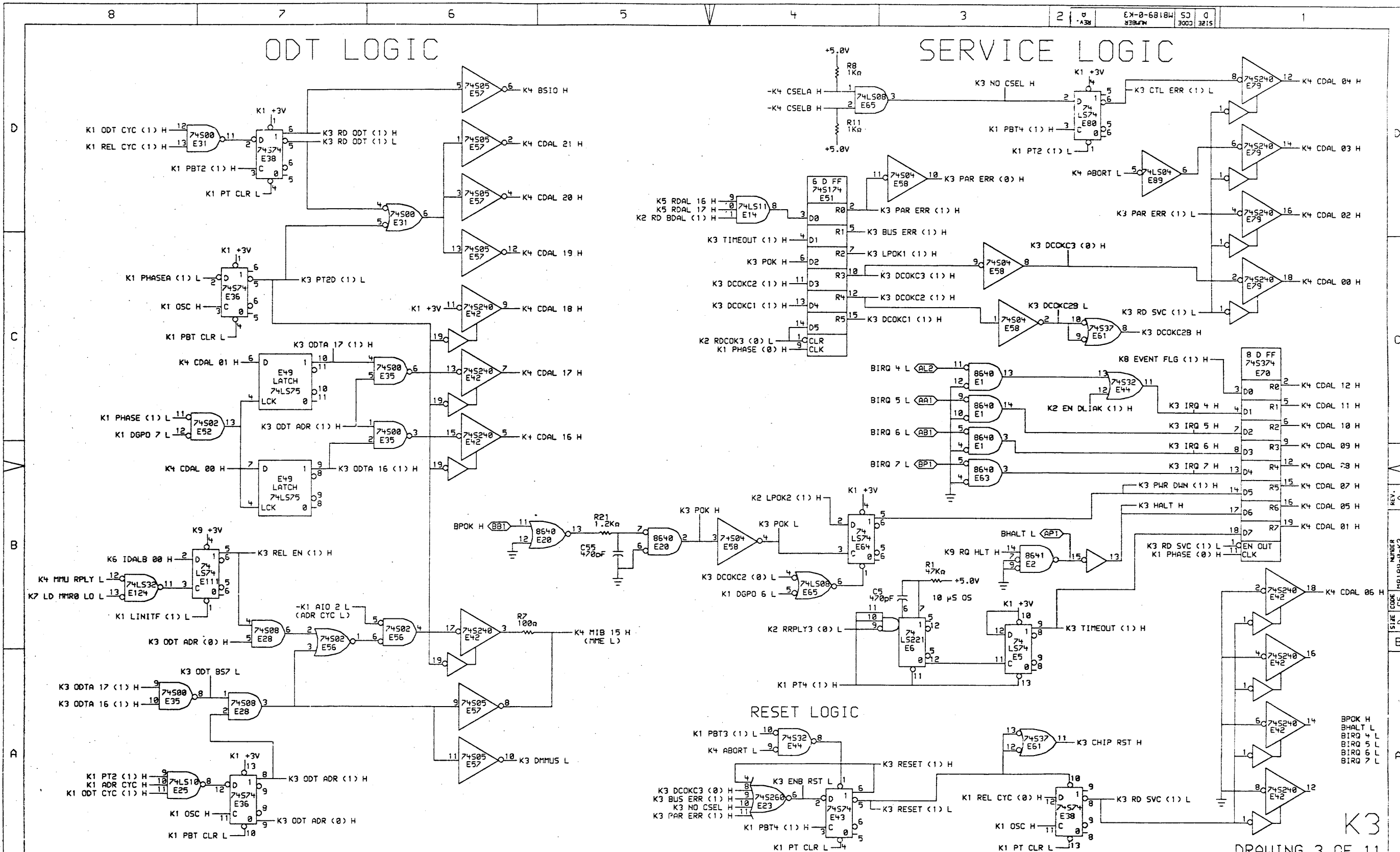
K2

DRAWING 2 OF 11.

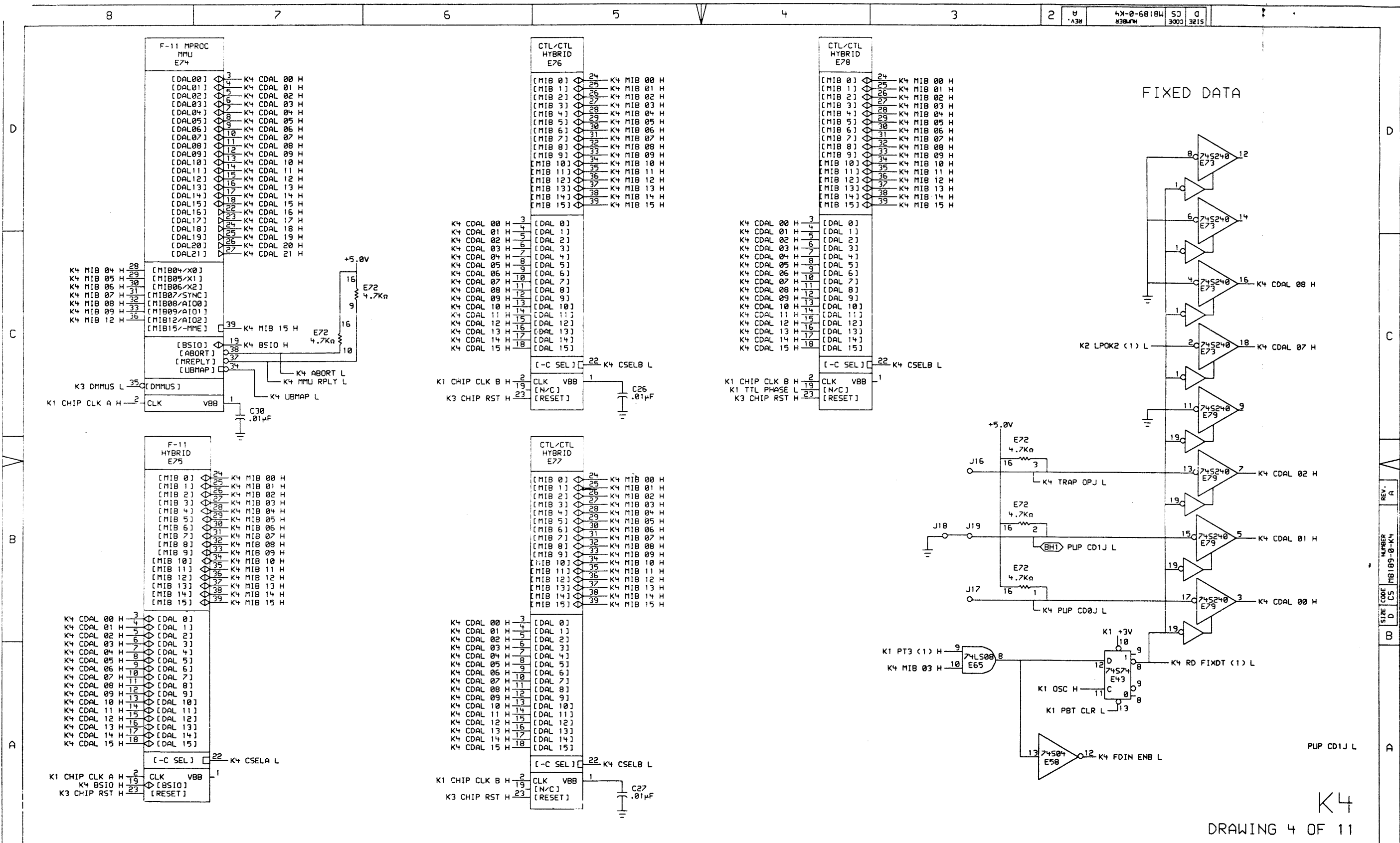
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REVISIONS	
CHK	CHANGE NO. REV

digit@l	DRN: H Callison	DATE: 02-MAR-81	ENG: P. K. K. K.	DATE: 4-10-81	TITLE: BUS CONTROL LOGIC
	CHK: D. Callison	DATE: 4-13-81	BOARD LOCATION:	SHEET: 1 OF 1	
FIRST USED ON OPTION/MODEL: KDF11-B		NEXT HIGHER ASSEMBLY: B-DD-M8189-0		SIZE CODE: D CS	NUMBER: M8189-0-K2
				REV: A	



REVISEMENTS		DATE		TITLE	
CHK	CHANGE NO.	ENG	DATE	NO.	REV.
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DIGITAL 365,3132 MB1893.DRW FIRST USED ON OPTION/MODEL: KDF11-B		DRN. H. Callinan DATE 03-28-81 DATE 4-13-81 NEXT HIGHER ASSEMBLY: B-DD-M8189-0		TITLE: SERVICE, RESET & ODT LOGIC SIZE CODE: D CS NUMBER: M8189-0-K3 REV.: A	



FIXED DATA

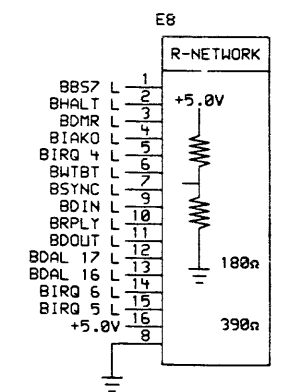
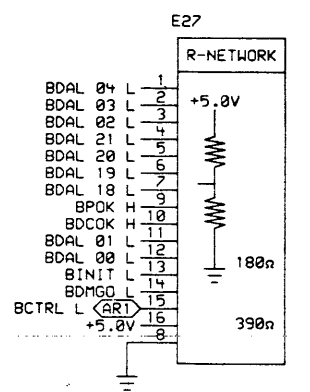
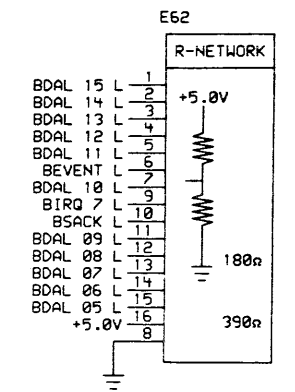
K4
 DRAWING 4 OF 11

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REVISIONS	
CHK	CHANGE NO. REV.

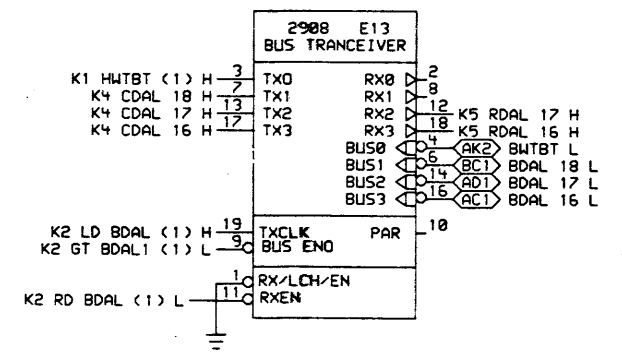
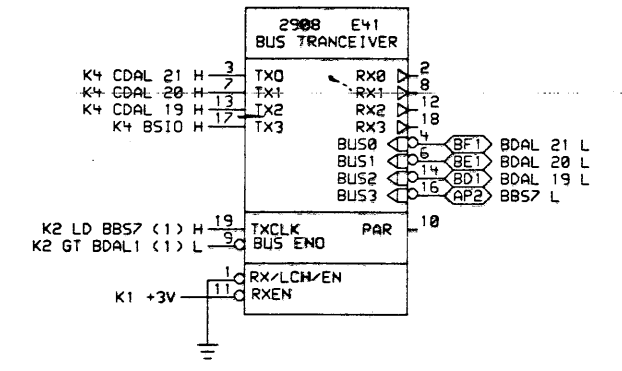
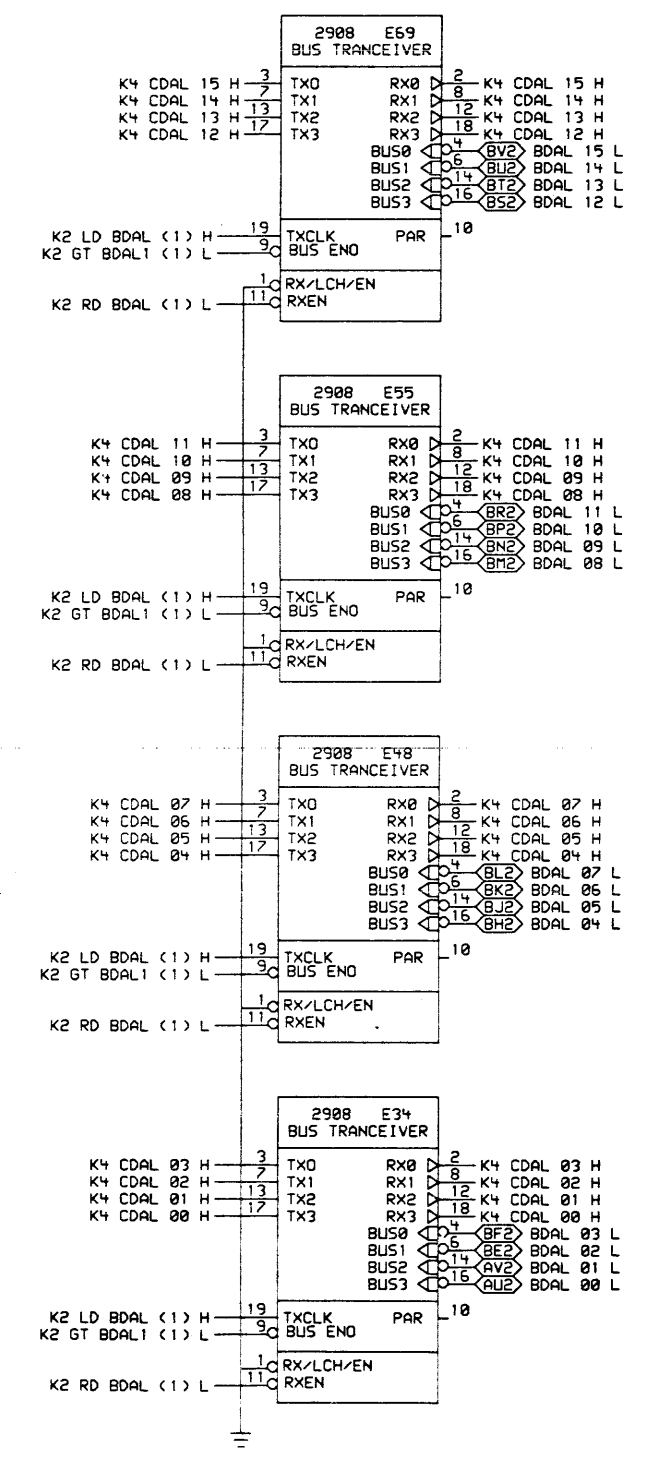
digital	DRN. <i>H. Plummer</i>	DATE 05-MAR-81	ENG. <i>Charles V. ...</i>	DATE 4-2-81	TITLE: F11 CHIPS & FIXED DATA
	CHK'D. <i>H. Plummer</i>	DATE 4-2-81	BOARD LOCATION: 4-2-81	SHEET 4 OF 11	
FIRST USED ON OPTION/MODEL: KDF11-B B-DD-M8189-0					SIZE CODE D CS
					NUMBER M8189-0-K4
					REV. A

QBUS
 TERMINATORS



BDAL 00 L
 TO
 BDAL 21 L
 BCTRL L
 BBS7 L
 BWTBT L

K5
 DRAWING 5 OF 11



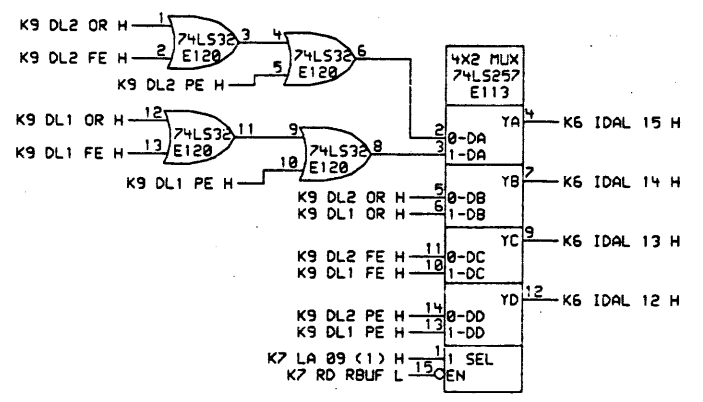
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REVISIONS	
CHK	CHANGE NO. REV

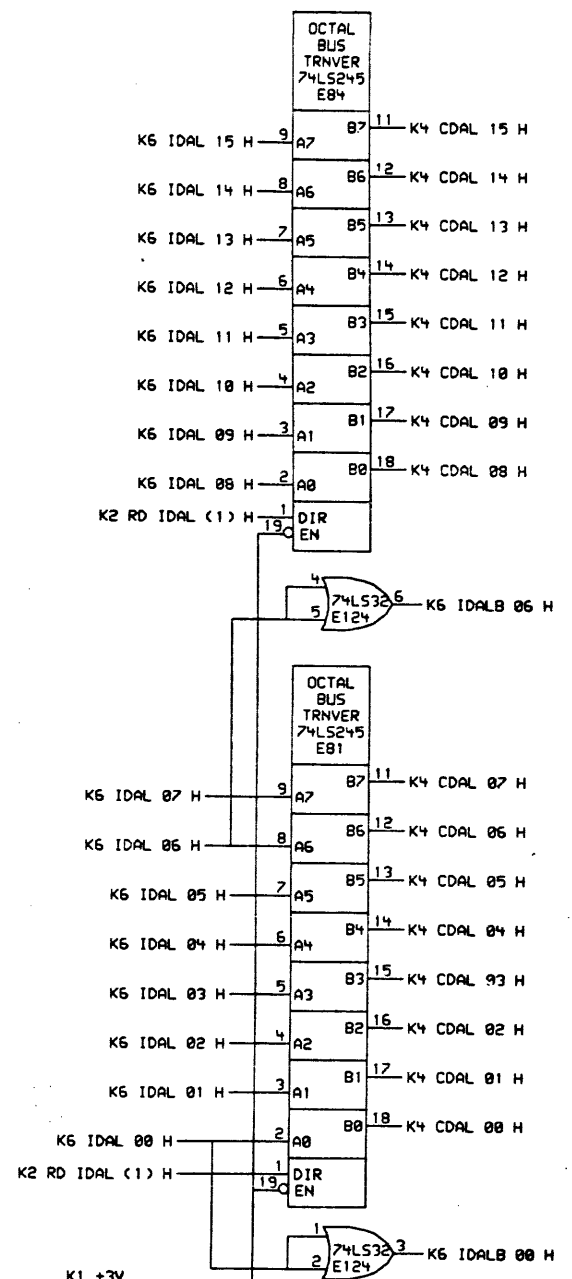
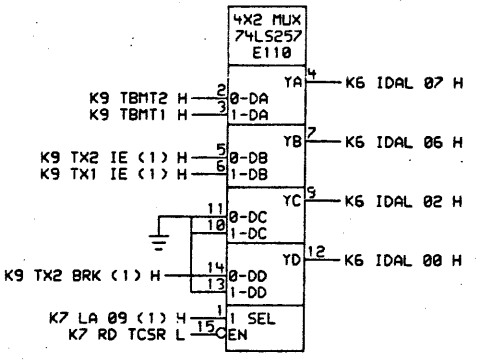
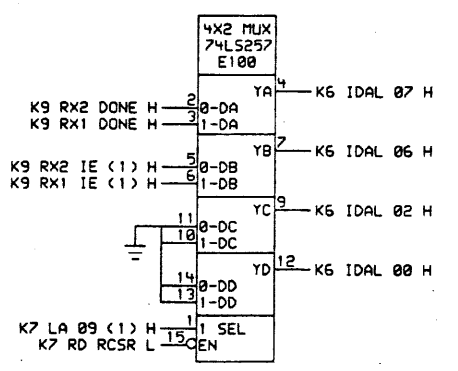
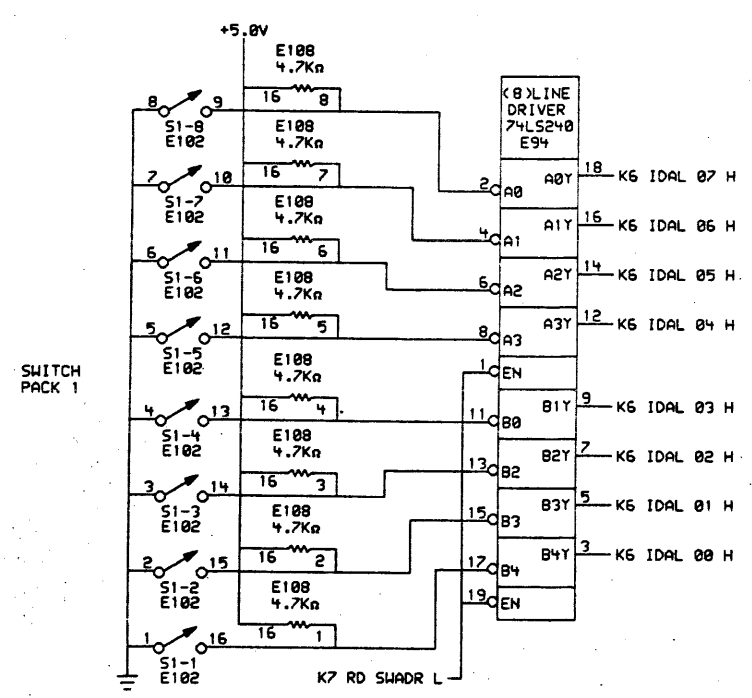
digital	DRN. H. H. H.	DATE 05-MAR-81	ENG. Charles Johnston	DATE 4-7-81	TITLE: CDAL/BDAL INTERFACE
	CHK. D. H.	DATE 4-17-81	BOARD LOCATION: 1 OF 1	SHEET 1 OF 1	SIZE CODE NUMBER REV. D CS M8189-0-K5 A
FIRST USED ON OPTION/MODEL: KDF11-B					365,3132 M81895.DRW 105-MAR-81 09:26 NEXT HIGHER ASSEMBLY: B-DD-M8189-0

CDAL/IDAL TRANSCEIVERS

SLU's READ STATUS



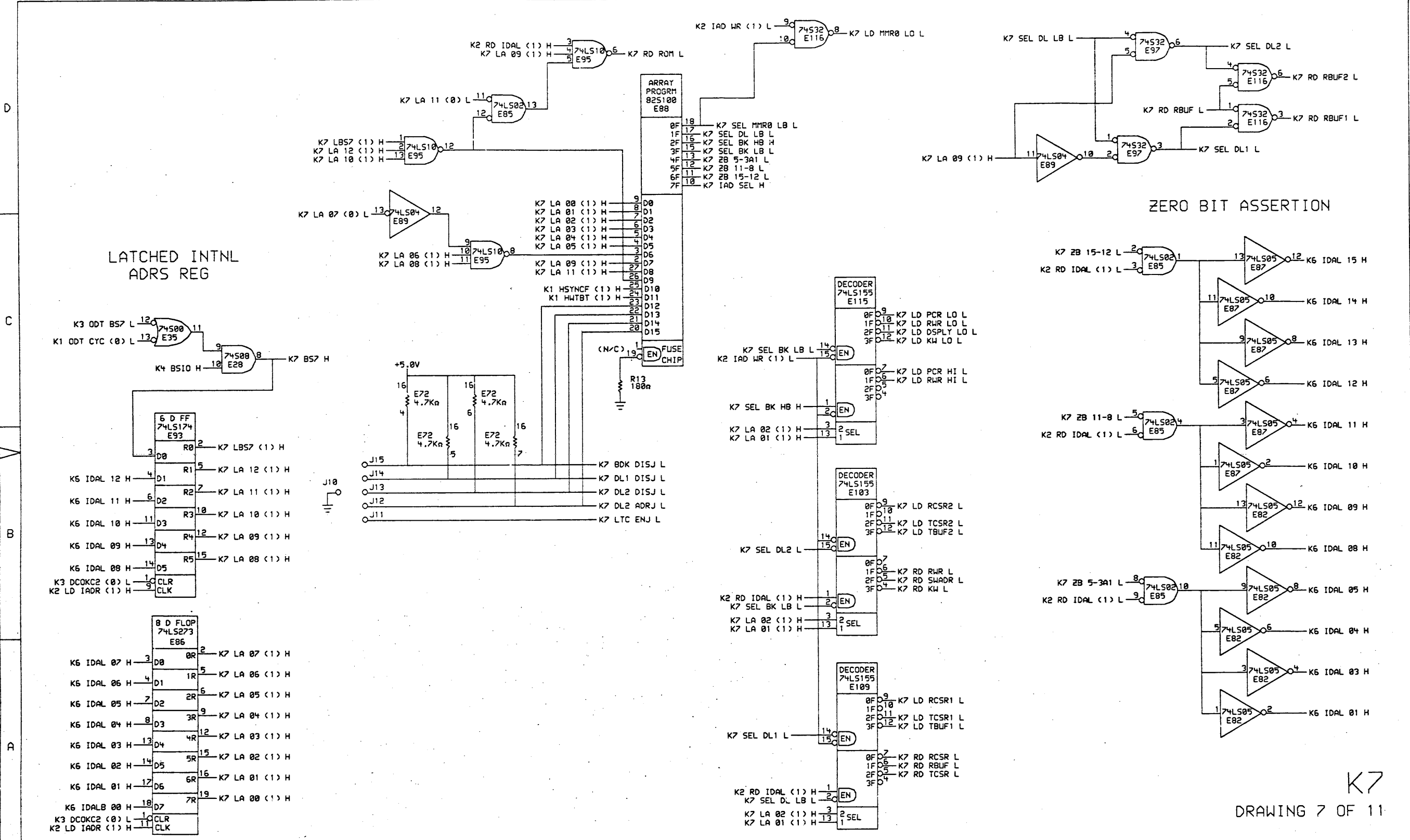
BOOT SWITCHES



K6
DRAWING 6 OF 11

REV.	CHG	NO.	REV.

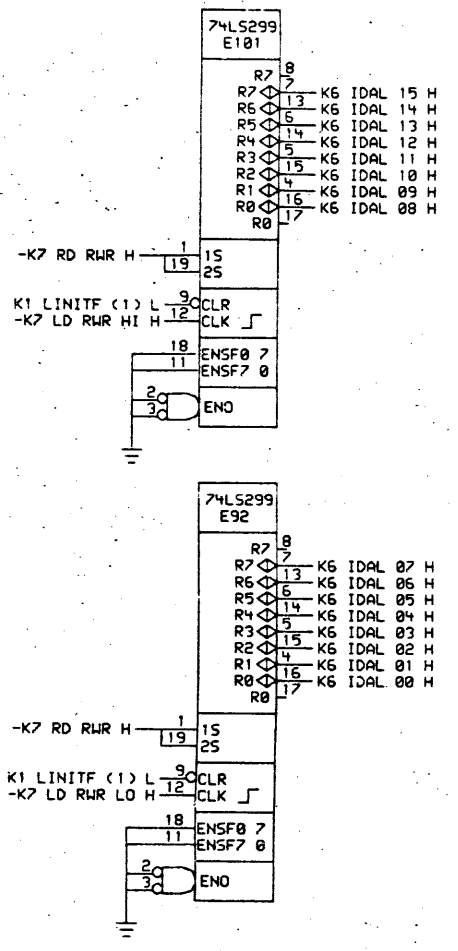
digital	DRN: <i>Hallinan</i>	DATE: 05-MAR-81	ENG: <i>Charles Valenti</i>	DATE: 4-2-81	TITLE: CDAL/IDAL INTERFACE
	CHK: <i>H. Callahan</i>	DATE: 4-11-81	BOARD LOCATION: 1	SHEET: 1	OF: 1
FIRST USED ON OPTION MODEL: KDF11-B					8-DD-M8189-0
SIZE	CODE	NUMBER	REV.		
D	CS	M8189-0-K6	A		



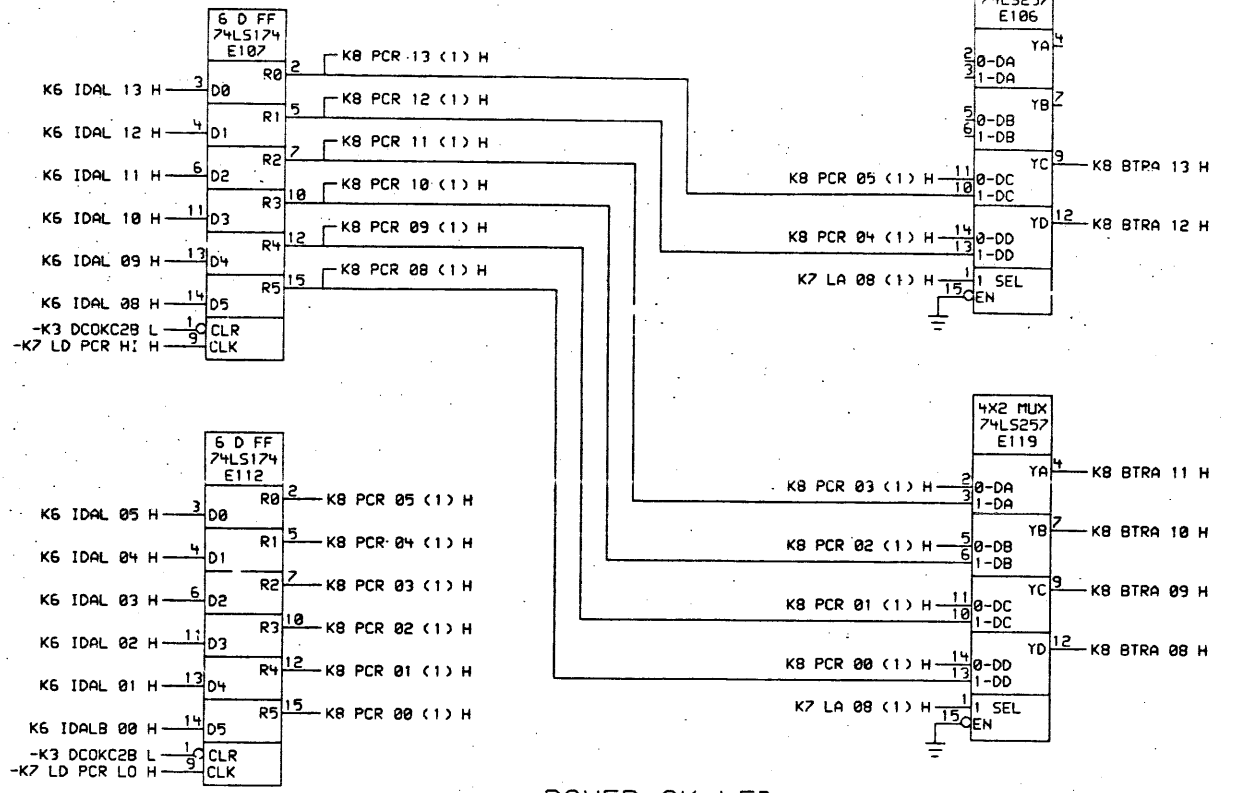
<small>THIS DRAWING AND SPECIFICATIONS HERIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981, DIGITAL EQUIPMENT CORPORATION.</small>	REVISIONS CHK CHANGE NO. REV		DRN. <i>H. Callahan</i> CHK'D. <i>H. Callahan</i> DATE 05-MAR-81 SHEET 1 OF 1 TITLE: IDAL ADRS DECODE	DATE 05-MAR-81 SHEET 1 OF 1 SIZE CODE D CS NUMBER M8189-0-K7 REV. A
	[355,3132]M81897.DRW 05-MAR-81 09:10 NEXT HIGHER ASSEMBLY: B-DD-M8189-0			
	FIRST USED ON OPTION/MODEL: KDF11-B			

K7
DRAWING 7 OF 11

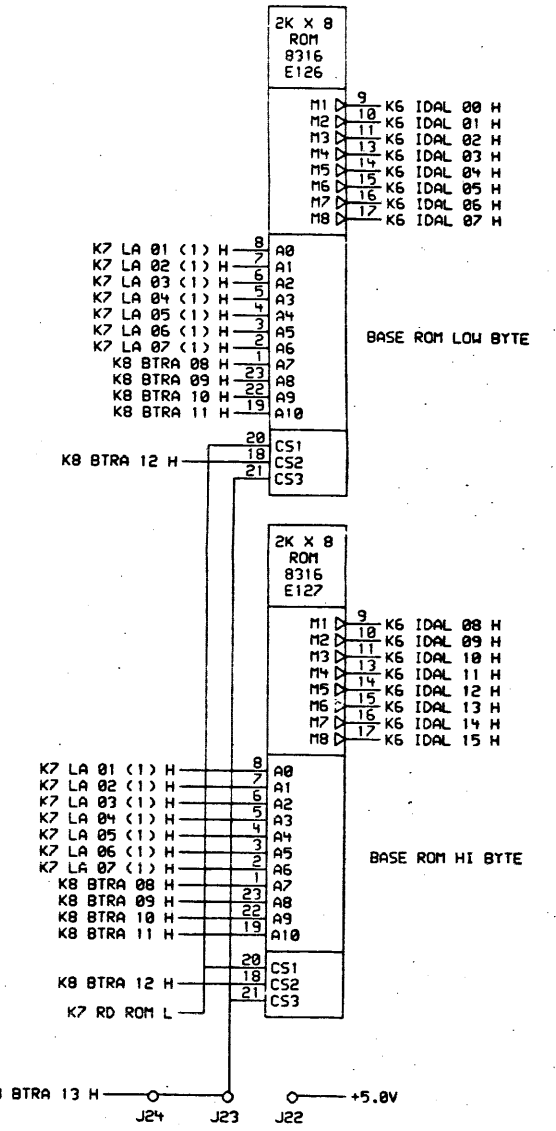
RDWR REG



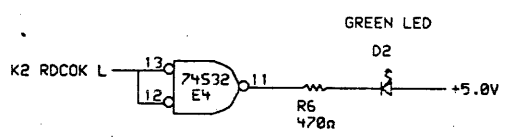
PAGE CTL REG & MUX



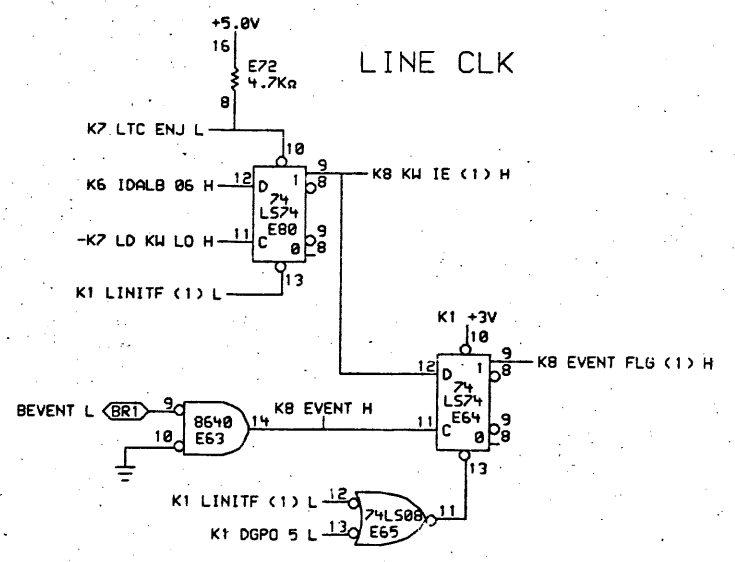
BOOT ROMS



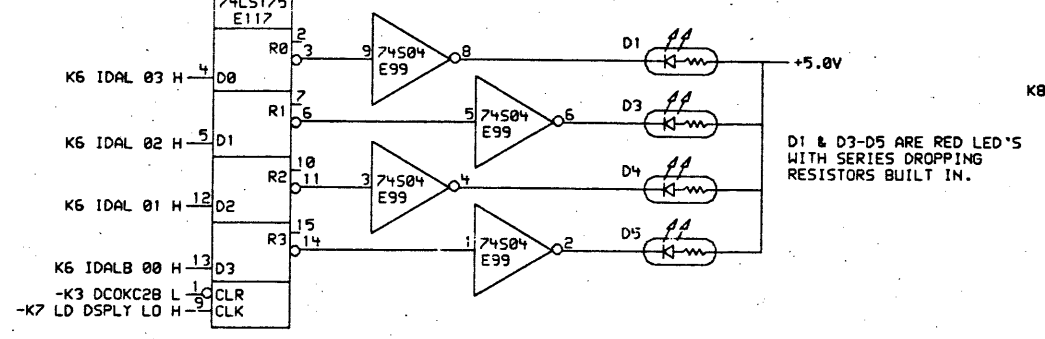
POWER OK LED



LINE CLK



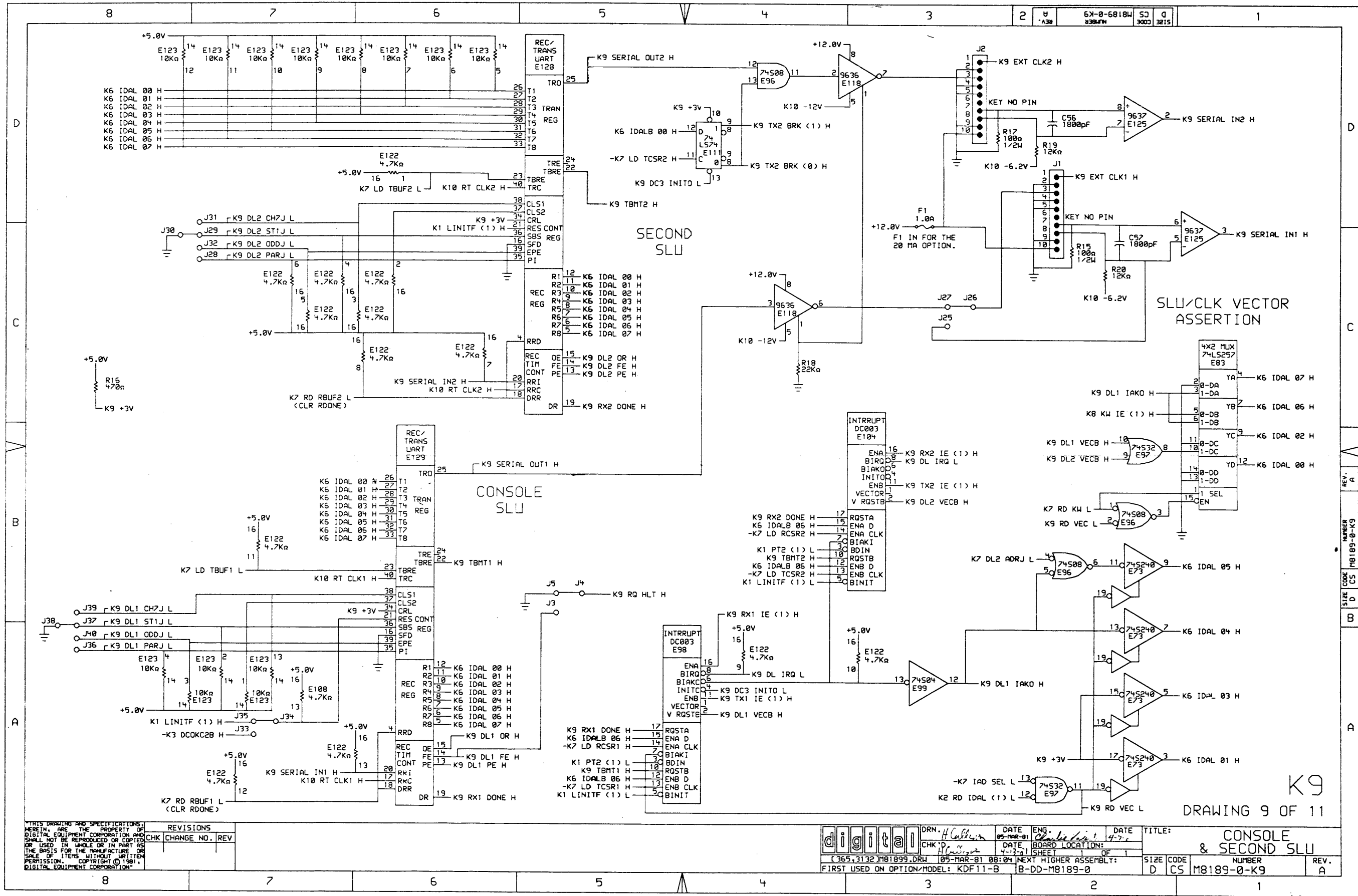
DISPLAY



K8 DRAWING 8 OF 11

Table with columns: REVISIONS, CHK, CHANGE NO., REV.

digital logo and project metadata including: DRN: H. Callison, DATE: 02-APR-81, TITLE: BOOT & CLOCK LOGIC, NUMBER: M8189-0-K8, REV: A.



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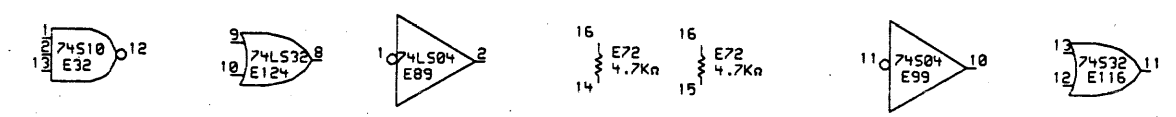
CHK	CHANGE NO.	REV

REVISIONS

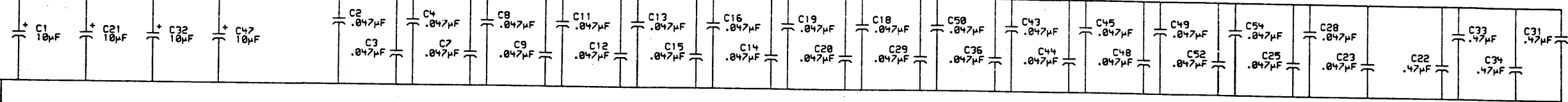
	DRN: H. Colburn	DATE: 05-MAR-81	ENG: Charles King	DATE: 4-7-	TITLE: CONSOLE & SECOND SLU
	CHK: D. ...	DATE: 4-7-81	BOARD LOCATION: 4-7-81	SHEET: OF 1	
L365,3132 M81899-DRW 05-MAR-81 08:04 NEXT HIGHER ASSEMBLY: B-DD-M8189-0		SIZE: D	CODE: CS	NUMBER: M8189-0-K9	REV: A

K9 DRAWING 9 OF 11

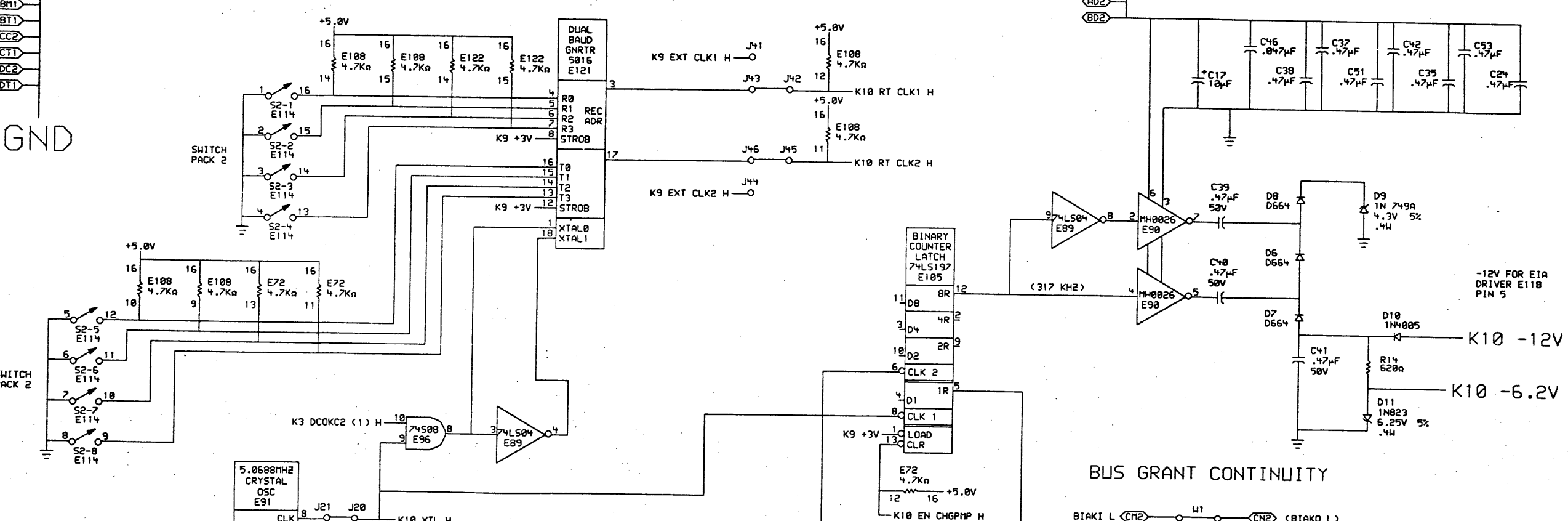
SPARE GATES



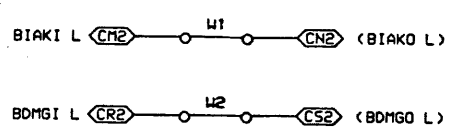
DECOUPLING CAPS



BAUD RATE GENERATOR



BUS GRANT CONTINUITY



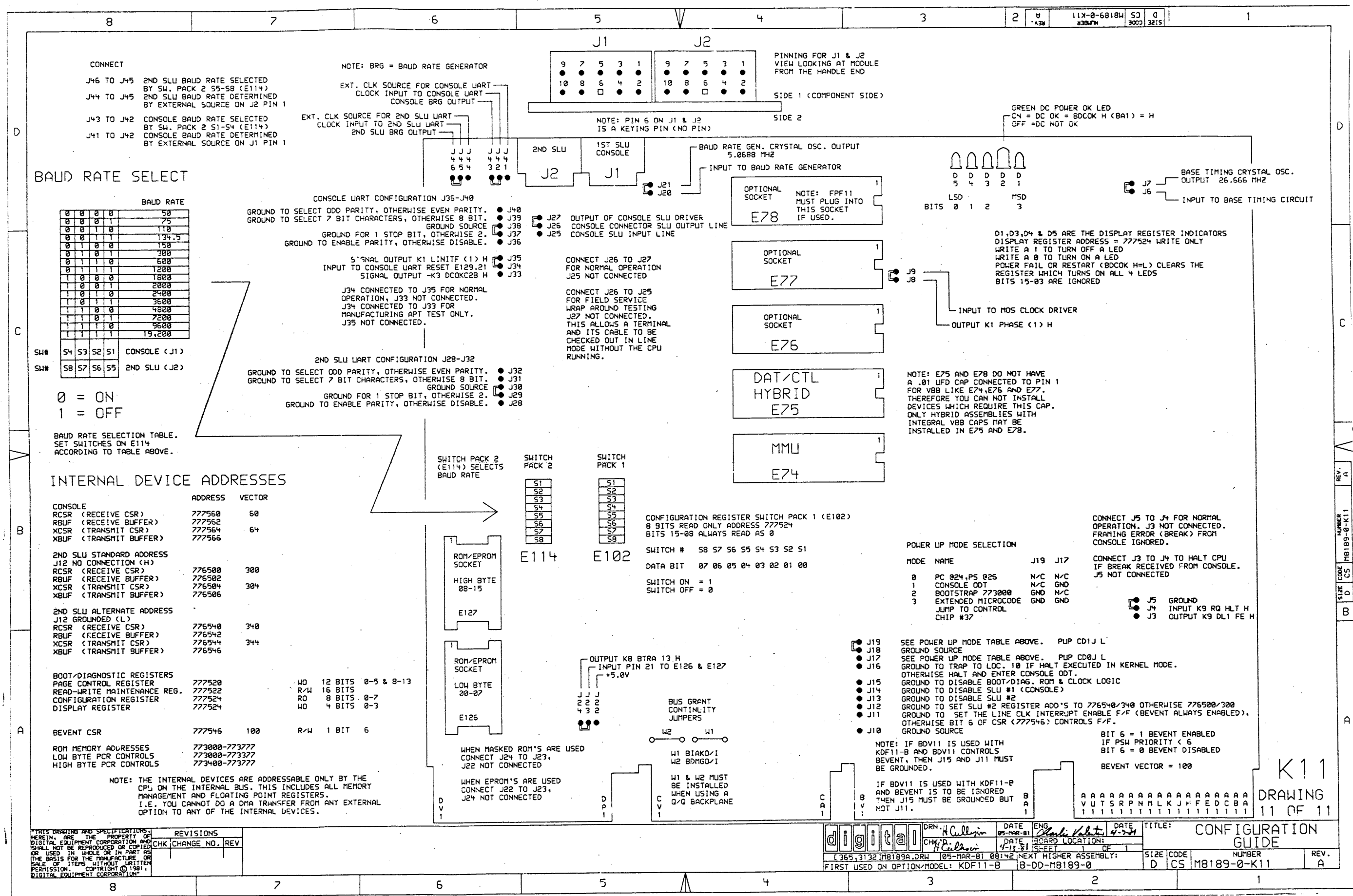
K10

DRAWING 10 OF 11

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REVISIONS	CHK	CHANGE NO.	REV.

digital	DRN: H. Collins	DATE: 05-03-81	ENG: H. Collins	DATE: 4-7-81	TITLE: BAUD RATE & -12V
	CHK: H. Collins	DATE: 4-13-81	SCHEMATIC LOCATION: 1 OF 1		
FIRST USED ON OPTION/MODEL: KDF11-B		NEXT HIGHER ASSEMBLY: B-DD-M8189-0		SIZE: D	CODE: CS
NUMBER: M8189-0-K10				REV.:	A



CONNECT

J46 TO J45 2ND SLU BAUD RATE SELECTED BY SW. PACK 2 55-58 (E114)

J44 TO J45 2ND SLU BAUD RATE DETERMINED BY EXTERNAL SOURCE ON J2 PIN 1

J43 TO J42 CONSOLE BAUD RATE SELECTED BY SW. PACK 2 51-54 (E114)

J41 TO J42 CONSOLE BAUD RATE DETERMINED BY EXTERNAL SOURCE ON J1 PIN 1

BAUD RATE SELECT

BAUD RATE				
0	0	0	0	50
0	0	0	1	75
0	0	1	0	110
0	0	1	1	134.5
0	1	0	0	150
0	1	0	1	300
0	1	1	0	600
0	1	1	1	1200
1	0	0	0	1800
1	0	0	1	2000
1	0	1	0	2400
1	0	1	1	3600
1	1	0	0	4800
1	1	0	1	7200
1	1	1	0	9600
1	1	1	1	19200

SW# 54 53 52 51 CONSOLE (J1)

SW# 58 57 56 55 2ND SLU (J2)

0 = ON
1 = OFF

BAUD RATE SELECTION TABLE. SET SWITCHES ON E114 ACCORDING TO TABLE ABOVE.

INTERNAL DEVICE ADDRESSES

CONSOLE	ADDRESS	VECTOR
RCSR (RECEIVE CSR)	777560	60
RBUF (RECEIVE BUFFER)	777562	
XCSR (TRANSMIT CSR)	777564	64
XBUF (TRANSMIT BUFFER)	777566	
2ND SLU STANDARD ADDRESS		
J12 NO CONNECTION (H)		
RCSR (RECEIVE CSR)	776500	300
RBUF (RECEIVE BUFFER)	776502	
XCSR (TRANSMIT CSR)	776504	304
XBUF (TRANSMIT BUFFER)	776506	
2ND SLU ALTERNATE ADDRESS		
J12 GROUNDED (L)		
RCSR (RECEIVE CSR)	776540	340
RBUF (RECEIVE BUFFER)	776542	
XCSR (TRANSMIT CSR)	776544	344
XBUF (TRANSMIT BUFFER)	776546	
BOOT/DIAGNOSTIC REGISTERS		
PAGE CONTROL REGISTER	777520	W0 12 BITS 0-5 & 8-13
READ-WRITE MAINTENANCE REG.	777522	R/W 16 BITS
CONFIGURATION REGISTER	777524	RO 8 BITS 0-7
DISPLAY REGISTER	777524	W0 4 BITS 0-3
BEVENT CSR		
	777546	100 R/W 1 BIT 6
ROM MEMORY ADDRESSES		
LOW BYTE PCR CONTROLS	773000-773777	
HIGH BYTE PCR CONTROLS	773400-773777	

NOTE: THE INTERNAL DEVICES ARE ADDRESSABLE ONLY BY THE CPU ON THE INTERNAL BUS. THIS INCLUDES ALL MEMORY MANAGEMENT AND FLOATING POINT REGISTERS. I.E. YOU CANNOT DO A DMA TRANSFER FROM ANY EXTERNAL OPTION TO ANY OF THE INTERNAL DEVICES.

REVISIONS	CHK	CHANGE NO.	REV

NOTE: BRG = BAUD RATE GENERATOR

EXT. CLK SOURCE FOR CONSOLE UART
CLOCK INPUT TO CONSOLE UART
CONSOLE BRG OUTPUT

EXT. CLK SOURCE FOR 2ND SLU UART
CLOCK INPUT TO 2ND SLU UART
2ND SLU BRG OUTPUT

CONSOLE UART CONFIGURATION J36-J40

GROUND TO SELECT ODD PARITY, OTHERWISE EVEN PARITY. ● J40

GROUND TO SELECT 7 BIT CHARACTERS, OTHERWISE 8 BIT. ● J39

GROUND SOURCE ● J38

GROUND FOR 1 STOP BIT, OTHERWISE 2. ● J37

GROUND TO ENABLE PARITY, OTHERWISE DISABLE. ● J36

SIGNAL OUTPUT K1 LINITF (1) H ● J35

INPUT TO CONSOLE UART RESET E129.21 ● J34

SIGNAL OUTPUT -K3 DCOKC2B H ● J33

J34 CONNECTED TO J35 FOR NORMAL OPERATION, J33 NOT CONNECTED.

J34 CONNECTED TO J33 FOR MANUFACTURING APT TEST ONLY.

J35 NOT CONNECTED.

2ND SLU UART CONFIGURATION J28-J32

GROUND TO SELECT ODD PARITY, OTHERWISE EVEN PARITY. ● J32

GROUND TO SELECT 7 BIT CHARACTERS, OTHERWISE 8 BIT. ● J31

GROUND SOURCE ● J30

GROUND FOR 1 STOP BIT, OTHERWISE 2. ● J29

GROUND TO ENABLE PARITY, OTHERWISE DISABLE. ● J28

SWITCH PACK 2 (E114) SELECTS BAUD RATE

- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8

- S1
- S2
- S3
- S4
- S5
- S6
- S7
- S8

CONFIGURATION REGISTER SWITCH PACK 1 (E102)

8 BITS READ ONLY ADDRESS 777524

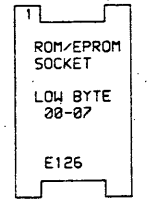
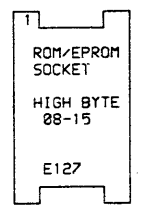
BITS 15-08 ALWAYS READ AS 0

SWITCH # 58 57 56 55 54 53 52 51

DATA BIT 07 06 05 04 03 02 01 00

SWITCH ON = 1

SWITCH OFF = 0



WHEN MASKED ROM'S ARE USED
CONNECT J24 TO J23,
J22 NOT CONNECTED

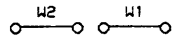
WHEN EPROM'S ARE USED
CONNECT J22 TO J23,
J24 NOT CONNECTED

OUTPUT K8 BTRA 13 H

INPUT PIN 21 TO E126 & E127

+5.0V

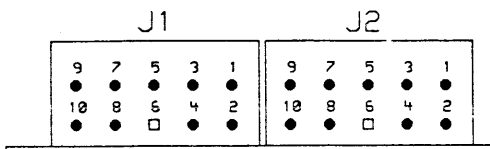
BUS GRANT CONTINUITY JUMPERS



W1 BIAKO/I

W2 BDMGO/I

W1 & W2 MUST BE INSTALLED WHEN USING A Q/Q BACKPLANE



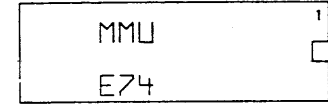
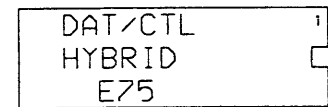
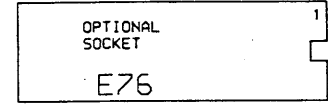
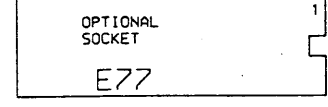
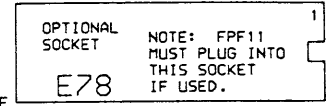
PINNING FOR J1 & J2
VIEW LOOKING AT MODULE FROM THE HANDLE END

SIDE 1 (COMPONENT SIDE)

NOTE: PIN 6 ON J1 & J2 IS A KEYING PIN (NO PIN)

BAUD RATE GEN. CRYSTAL OSC. OUTPUT 5.0688 MHZ

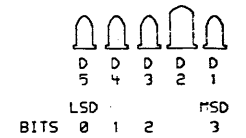
INPUT TO BAUD RATE GENERATOR



GREEN DC POWER OK LED

CN = DC OK = BDCOK H (BA1) = H

OFF = DC NOT OK



BASE TIMING CRYSTAL OSC. OUTPUT 26.666 MHZ

INPUT TO BASE TIMING CIRCUIT

D1, D3, D4 & D5 ARE THE DISPLAY REGISTER INDICATORS

DISPLAY REGISTER ADDRESS = 777524 WRITE ONLY

WRITE A 1 TO TURN OFF A LED

WRITE A 0 TO TURN ON A LED

POWER FAIL OR RESTART (BDCOK H=L) CLEARS THE REGISTER WHICH TURNS ON ALL 4 LEDS

BITS 15-03 ARE IGNORED

NOTE: E75 AND E78 DO NOT HAVE A .01 UFD CAP CONNECTED TO PIN 1 FOR V88 LIKE E74, E76 AND E77. THEREFORE YOU CAN NOT INSTALL DEVICES WHICH REQUIRE THIS CAP. ONLY HYBRID ASSEMBLIES WITH INTEGRAL V88 CAPS MAY BE INSTALLED IN E75 AND E78.

POWER UP MODE SELECTION

MODE	NAME	J19	J17
0	PC 024.PS 025	N/C	N/C
1	CONSOLE ODT	N/C	GND
2	BOOTSTRAP 773000	GND	N/C
3	EXTENDED MICROCODE JUMP TO CONTROL CHIP #37	GND	GND

CONNECT J5 TO J4 FOR NORMAL OPERATION. J3 NOT CONNECTED. FRAMING ERROR (BREAK) FROM CONSOLE IGNORED.

CONNECT J3 TO J4 TO HALT CPU IF BREAK RECEIVED FROM CONSOLE. J5 NOT CONNECTED

- J19 SEE POWER UP MODE TABLE ABOVE. PUP CD1J L
- J18 GROUND SOURCE
- J17 SEE POWER UP MODE TABLE ABOVE. PUP CD0J L
- J16 GROUND TO TRAP TO LOC. 10 IF HALT EXECUTED IN KERNEL MODE. OTHERWISE HALT AND ENTER CONSOLE ODT.
- J15 GROUND TO DISABLE BOOT/DIAG. ROM & CLOCK LOGIC
- J14 GROUND TO DISABLE SLU #1 (CONSOLE)
- J13 GROUND TO DISABLE SLU #2
- J12 GROUND TO SET SLU #2 REGISTER ADD'S TO 776540/340 OTHERWISE 776500/300
- J11 GROUND TO SET THE LINE CLK INTERRUPT ENABLE F/F (BEVENT ALWAYS ENABLED), OTHERWISE BIT 6 OF CSR (777546) CONTROLS F/F.
- J10 GROUND SOURCE

NOTE: IF BDV11 IS USED WITH KDF11-B AND BDV11 CONTROLS BEVENT, THEN J15 AND J11 MUST BE GROUNDED.

IF BDV11 IS USED WITH KDF11-B AND BEVENT 15 TO BE IGNORED THEN J15 MUST BE GROUNDED BUT NOT J11.

BIT 6 = 1 BEVENT ENABLED
IF PSW PRIORITY < 6
BIT 6 = 0 BEVENT DISABLED

BEVENT VECTOR = 100

AAAAAAAAAAAAAAAAAAAA
VUTSRPNMLKJHFEDCBA
11111111111111111111

K11
DRAWING
11 OF 11

digital	DRN: H. Callan	DATE: 05-02-81	ENG: Charlie Vahata	DATE: 4-2-81	TITLE: CONFIGURATION GUIDE
	CHK: H. Callan	DATE: 4-13-81	BOARD LOCATION: 1	SHEET: 1 OF 1	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KDF11-B					NUMBER: M8189-0-K11
NEXT HIGHER ASSEMBLY: B-DD-M8189-0					REV. A

