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# FIELD MAINTENANCE PRINT SET

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UNIT VARIATIONS COVERED BY THIS PRINT SET
8A100
8A205
8A405
8A425
8A625

8A FAMILY (SEM I)  
**Field Maintenance  
Print Set**  
  
**Digital Equipment  
Corporation**

Print Set Part Number **MP-** 00415

REV. A  
NUMBER 8A-1-1  
SIZE CODE B TC

REVISION HISTORY	REV.	A	
	ECO NUMBER	8A-1-MK02C	
	DATE	4-81	
	DATE	4-81	
	DATE	4-81	
DRN.	M. P. DUGGAN	DATE	12-MAY-77
CHK'D.	L. NARHI <i>L.N.</i>	DATE	11-JUL-77
DES. ENG.	L. NARHI <i>L.N.</i>	DATE	11-JUL-77
RESP. ENG.	L. NARHI <i>L.N.</i>	DATE	11-JUL-77
FIELD SERVICE	B. EASH	DATE	11-JUL-77
NEXT HIGHER DOC.	B-DD-8A-1		
TITLE			digital
			8A SEMICONDUCTOR MEMORY FAMILY
DOCUMENT NUMBER			B TC      8A-1-1      A
			SHEET 1 OF 2

DRB 124A

MK

D-FD-M8315-Ø-24	FLOW DIAGRAM
D-FD-M8315-Ø-25	FLOW DIAGRAM
D-FD-M8315-Ø-26	FLOW DIAGRAM
D-FD-M8315-Ø-27	FLOW DIAGRAM
E-FD-PDP8/E-Ø-Ø6	PROCESSOR FLOW CHART
D-TD-PDP8/E-Ø-Ø5	TIMING (PDP8/E)
E-CS-M83ØØ-Ø-1	MAJOR REGISTERS
E-CS-M831Ø-Ø-1	MAJOR REGISTERS CONTROL
E-CS-M832Ø-Ø-1	BUS LOADS
E-CS-M833Ø-Ø-1	TIMING GENERATOR
A-SP-KM8-A-1	FIELD INSTALLATION AND ACCEPTANCE PROCEDURE
D-CS-M8317-Ø-1	OPTION BOARD #2
D-UA-M8317-Ø-Ø	UNIT ASSY
B-PL-M8317-Ø-Ø	PARTS LIST
D-TD-KM8-A-4	AUTO RESTART/BOOT SEQUENCE
D-TD-KM8-A-5	BOOTSTRAP TIMING
D-FD-KM8-A-6	FLOW CHART OPTION #2
A-SP-KM8-A-7	ROM PROG. INST.
A-SP-DKC8-A-1	FIELD INST. AND ACCEPTANCE PROCEDURE
D-CS-M8316-Ø-1	OPTION BOARD #1
D-UA-M8316-Ø-Ø	UNIT ASSY
B-PL-M8316-Ø-Ø	PARTS LIST
E-UA-KC9-A-Ø	BEZEL ASSY
D-AD-7010644-Ø-Ø	KEYBOARD ASSY
D-CS-5411241-Ø-1	INDICATOR DISPLAY
D-CS-5411316-Ø-1	REGISTERS AND CONTROL
A-SP-KT8-A	FIELD INSTALLATION AND ACCEPTANCE PROCEDURE
D-UA-M8416-Ø-Ø	KT8-A UNIT ASSY
B-PL-M8416-Ø-Ø	PARTS LIST
D-CS-M8416-Ø-1	MEMORY MANAGEMENT OPTION
D-CS-M9Ø2Ø-Ø-1	KT8-A TERMINATOR CARD
A-SP-MS8-C-Ø	FIELD INSTALLATION AND ACCEPTANCE PROCEDURE
D-CS-M8417-Ø-1	PDP-8 MOS MEMORY
D-UA-M8417-Ø-Ø	UNIT ASSY
B-PL-M8417-Ø-Ø	PARTS LIST
A-SP-MR8-F-2	FIELD INSTALLATION AND ACCEPTANCE PROCEDURE
D-CS-M8349-Ø-1	1K PROM
A-SP-MS8-A-1	FIELD INSTALLATION AND ACCEPTANCE PROCEDURE
D-CS-M8311-Ø-1	4K X 12 MOS MEMORY

TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SHEET 2 OF 2	SIZE	CODE	NUMBER	REV.
		2	B	TC	8A-1-1	A

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# DRAWING DIRECTORY

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FOR FIELD MAINTENANCE PRINT SET SEE

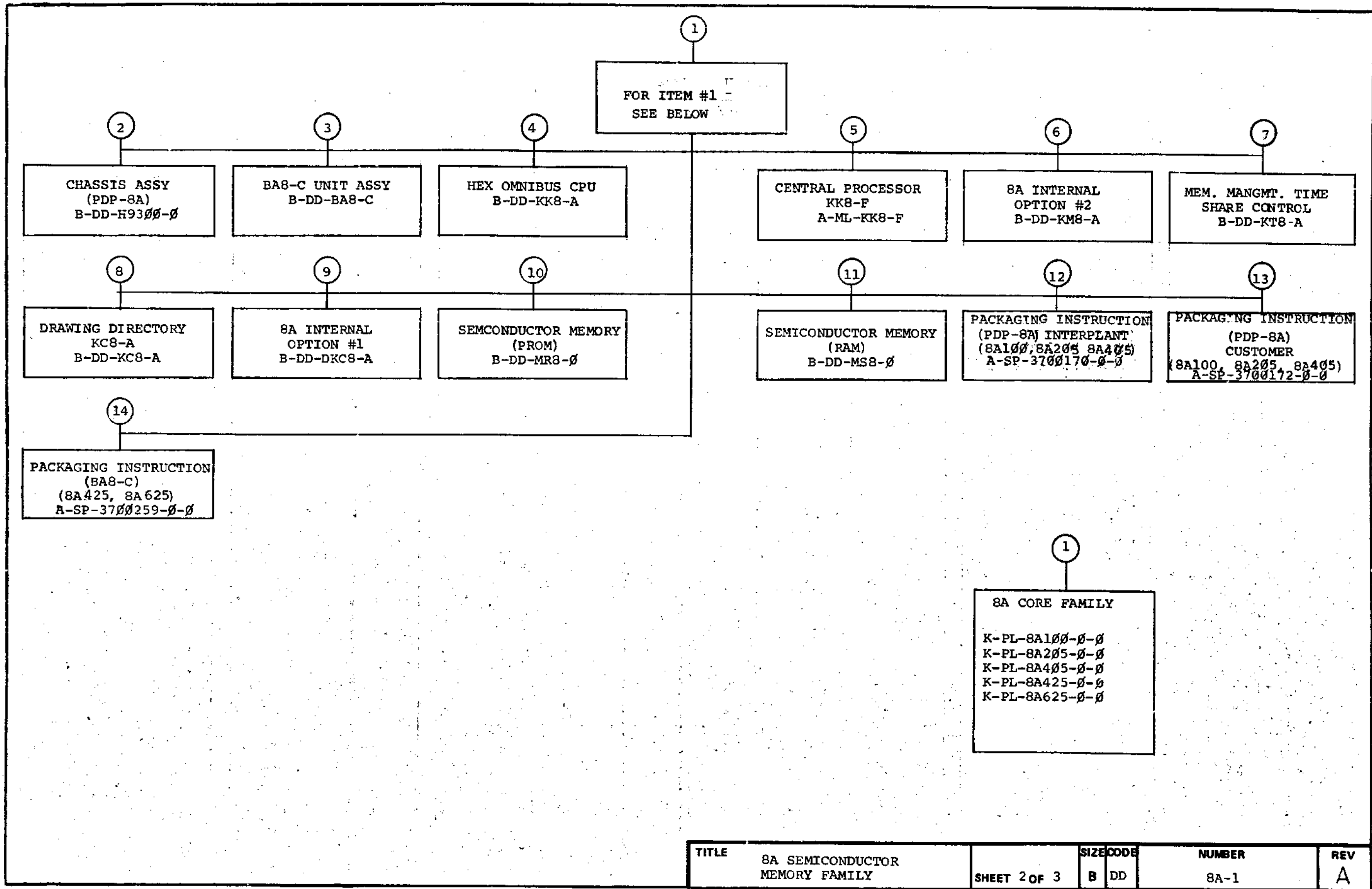
B-TC-8A-1-1

UNIT VARIATIONS	
VAR	TITLE
8A100	12 SLOT OMNIBUS W/KK8A CPU
8A205	12 SLOT OMNIBUS W/KK8A CPU OPTION #2 AND G8016 REGULATOR
8A405	12 SLOT OMNIBUS W/KK8A CPU OPTION #2 AND G8018 REGULATOR
8A425	20 SLOT OMNIBUS W/KK8A CPU AND OPTION #2
8A625	20 SLOT OMNIBUS W/KK8-F CPU AND OPTION #2

REVISIONS	REV.	A
	CHANGE NO.	8A-1-MK02C
	CHK	XX

USED ON OPTION/MODEL	DRN. M.P. DUGGAN	DATE 12 77 MAY
8A100	CHK'D. <i>Larry Nalio</i>	DATE 11- JUL-77
8A205	PROJ. ENG. <i>Larry Nalio</i>	DATE 11- JUL-77
8A405	PROB. <i>Jim Lane</i>	DATE 25-2-77
8A425		
8A625		
SHEET 1 OF 3		

TITLE			
digital			
8A SEMICONDUCTOR MEMORY FAMILY			
SIZE	CODE	NUMBER	REV
B	DD	8A-1	A
DIST.			



TITLE	SIZE CODE	NUMBER	REV
8A SEMICONDUCTOR MEMORY FAMILY	B DD	8A-1	A
SHEET 2 OF 3			

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP00415	FIELD MAINTENANCE PRINT SET (MP)	-	9	B-DD-DK8-A	8A INTERNAL OPTION #1	-
	B-TC-8A-1-1	FIELD MAINTENANCE PRINT SET (TC)	-				
	K-PL-8A100-0-0	8A SEMICONDUCTOR MEMORY FAMILY (8A100)	E/M				
	K-PL-8A205-0-0	8A CORE FAMILY (8A205)	E/M				
	K-PL-8A405-0-0	8A CORE FAMILY (8A405)	E/M				
	K-PL-8A425-0-0	8A CORE FAMILY (8A425)	E/M	10	B-DC-MR8-0	SEMICONDUCTOR MEMORY (PROM)	-
	K-PL-8A625-0-0	8A CORE FAMILY (8A625)	E/M				
2	B-DD-H9300	CHASSIS ASSY (PDP-8A)	-				
3	B-DD-BA8-C	BA8-C UNIT ASSY	-	11	B-DD-MS8-0	SEMICONDUCTOR MEMORY (RAM)	-
				12	A-SP-3700170-0-0	PACKAGING INSTRUCTION, INTERPLANT (PDP-8A)	-
4	B-DD-KK8-A	HEX OMNIBUS CPU	-				
				13	A-SP-3700172-0-0	PACKAGING INSTRUCTION, CUSTOMER (PDP-8A)	-
5	A-ML-KK8-F	CENTRAL PROCESSOR KK8-F	-				
				14	A-SP-3700259-0-0	PACKAGING INSTRUCTION, INTERPLANT W/CONSOLE (BA8-C)	-
6	B-DD-KM8-A	8A INTERNAL OPTION #2	-				
7	B-DD-KT3-A	MEM MANAGEMENT AND TIME SHARE CONTROL	-				
8	B-DD-KC8-A	DRAWING DIRECTORY KC8-A	-				

TYPE: E ELECTRICAL  
M MECHANICAL  
E/M ELECTRO/MECHANICAL



TITLE	SIZE	CODE	NUMBER	REV
8A SEMICONDUCTOR MEMORY FAMILY	B	DD	8A-1	A

SHEET 3 OF 3

DRB 108A

MK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION											
					AA	AB	AC	AD	AE	AF	AK	AL	AM	AN	AP	AR
1	1	D-UA-H9300-0-0	H9300-AA	CHASSIS ASSY 8/A W FANS 115V 60H	1	0	1	0	1	0	1	0	0	0	0	0
2	2	D-UA-H9300-0-0	H9300-AB	CHASSIS ASSY 8/A W FANS 230V 50H	0	1	0	1	0	1	0	1	0	0	0	0
3	3	D-UA-H9300-0-0	H9300-AC	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0	0	0	0	0	1	0	1	0
4	4	D-UA-H9300-0-0	H9300-AD	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0	0	0	0	0	0	1	0	1
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
12	12	A-PL-MSB-C-0	00MSB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
13	13	A-PL-MSB-A-0	00MSB-AA	PDP8A RAM 1K	0	0	1	1	0	0	0	0	0	0	1	1
14	14	A-PL-MSB-A-0	00MSB-AB	PDP8A RAM 2K	0	0	0	0	1	1	0	0	0	0	0	0
15	15	A-PL-MSB-A-0	00MSB-AD	PDP8A RAM 4K	0	0	0	0	0	0	1	1	0	0	0	0
16	16	C-UA-MRB-F-0	00MRB-FB	1KX12 CONTENT ALTERABLE ROM & 25	0	0	0	0	0	0	0	0	0	0	0	0
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
19	19	E-UA-KCB-A-0	00KCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-BA-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER PDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: BA100		DRN: M DUGGAN	DATE: 12-MAY-77	DBP	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF B	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE		PARTS LIST		
DF	BA-1-MK002B	B	SECTION, VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY		BA100		
			[A] AA,AB,AC,AD,AE,AF,AK,AL,AM,AN,AP,AR	RESP.ENG.: L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER				
			[B] AS,AT,AU,AV,FA,FB,FC,FD	MFG.ENG.: J V KANE	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV	
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	BA100-0-0	B	
			[D]		#B-DD-BA-1	FILE NAME:		EDIT #		
			[E]			MK0384.PLS		7		
			[F]							

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P A R T S L I S T

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				AA	AB	AC	AD	AE	AF	AK	AL	AM	AN	AP	AR		
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
33	33	A-PL-KM8-A-0	00KM8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION A OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							8A100			K	PL	8A100-0-0	B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION							
					AS	AT	AU	AV	FA	FB	FC	FD
1	1	D-UA-H9300-0-0	H9300-AA	CHASSIS ASSY 8/A W FANS 115V 60H	0	0	0	0	1	0	0	0
2	2	D-UA-H9300-0-0	H9300-AB	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0	0	1	0	0
3	3	D-UA-H9300-0-0	H9300-AC	CHASSIS ASSY 8/A W FANS 230V 50H	1	0	1	0	0	0	1	0
4	4	D-UA-H9300-0-0	H9300-AD	CHASSIS ASSY 8/A W FANS 230V 50H	0	1	0	1	0	0	0	1
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
9	9	A-FL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
11	11	A-FL-MSB-C-0	00MSB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
12	12	A-FL-MSB-C-0	00MSB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
13	13	A-FL-MSB-A-0	00MSB-AA	PDP8A RAM 1K	0	0	0	0	0	0	0	0
14	14	A-FL-MSB-A-0	00MSB-AB	PDP8A RAM 2K	1	1	0	0	0	0	0	0
15	15	A-FL-MSB-A-0	00MSB-AD	PDP8A RAM 4K	0	0	1	1	0	0	0	0
16	16	C-UA-MRB-F-0	00MRB-FB	1KX12 CONTENT ALTERABLE ROM 2 25	0	0	0	0	1	1	1	1
17	17	A-FL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
19	19	E-UA-KCB-A-0	00KCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
21	21	A-FL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER PDP8A CUSHION	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: 8A100		DRN: M DUGGAN	DATE: 12-MAY-77	DBP	D	I	G	I	T	A	L
ENG	ECO NUMBER	REV	SECTION B OF B	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE PARTS LIST							
DF	8A-1-MK002B	B	SECTION, VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY 8A100							
			[A] AA,AB,AC,AD,AE,AF,AK,AL,AM,AN,AP,AR			DOCUMENT NUMBER							
			[B] AS,AT,AU,AV,FA,FB,FC,FD	RESP.ENG.: L NARHI	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV				
			[C]			K	PL	8A100-0-0	B				
			[D]	MFG.ENG.: J V KANE	DATE: 8-NOV-77								
			[E]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #					
			[F]		#B-DD-8A-1	MK0384.PLS		7					

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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION								
				AS	AT	AU	AV	FA	FB	FC	FD	
31	31	A-PL-KMB-A-0	00KMB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
32	32	A-PL-KMB-A-0	00KMB-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-
33	33	A-PL-KMB-A-0	00KMB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-

DIGITAL				TITLE	SECTION B OF B	SIZE	CODE	DOCUMENT NUMBER	REV
				8A SEMICONDUCTOR MEMORY FAMILY					
				8A100					
						K	PL	8A100-0-0	B

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION											
				AA	AB	AC	AD	BM	BN	BP	BR	BS	BT	BU	BV
1	1	D-UA-H9300-0-0	H9300-AA	CHASSIS ASSY 8/A W FANS 115V 60H	1	0	0	0	1	0	1	0	0	0	0
2	2	D-UA-H9300-0-0	H9300-AB	CHASSIS ASSY 8/A W FANS 230V 50H	0	1	0	0	0	1	0	1	0	0	0
3	3	D-UA-H9300-0-0	H9300-AC	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	1	0	0	0	0	0	1	0	1
4	4	D-UA-H9300-0-0	H9300-AD	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	1	0	0	0	0	0	1	0
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	1	1	0	0	1	1	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	0	0	0	0	1	1	0	0	1
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
16	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	0	0	0	0	0	0	0	0	0	0	0
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	0	0	0	0	0	0	0	0	0	0	0
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER PDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: 8A205		DRN:	M DUGGAN	DATE: 12-MAY-77	DBP	DIGITAL			
ENG	ECO NUMBER	REV	SECTION A OF C	CHK'D:	L NARHI	DATE: 8-NOV-77	TITLE	PARTS LIST			
DF	BA-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.:	L NARHI <td>DATE: 8-NOV-77</td> <td>8A SEMICONDUCTOR MEMORY FAMILY</td> <td colspan="4">8A205</td>	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY	8A205			
			[A] AA,AB,AC,AD,BM,BN, BP,BR,BS,BT,BU,BV	RESP.ENG.:	L NARHI <td>DATE: 8-NOV-77</td> <td colspan="4">DOCUMENT NUMBER</td>	DATE: 8-NOV-77	DOCUMENT NUMBER				
			[B] CM,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR				SIZE	CODE	NUMBER	REV	
			[C] DS,DT,DU,DV	MFG.ENG.:	J V KANE <td>DATE: 8-NOV-77</td> <td>K</td> <td>PL</td> <td>8A205-0-0</td> <td>B</td>	DATE: 8-NOV-77	K	PL	8A205-0-0	B	
			[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #		
			[E]			#B-DD-8A-1	MK0385.PLS		5		
			[F]								

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MK

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION														
				CM	CN	CP	CR	CS	CT	CU	CV	DM	DN	DP	DR			
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KM8-A-0	00KM8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION B OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A205			K	PL	8A205-0-0	B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION			
					DS	DT	DU	DV
1	1	D-UA-H9300-0-0	H9300-AA	CHASSIS ASSY 8/A W FANS 115V 60H	0	0	0	0
2	2	D-UA-H9300-0-0	H9300-AB	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0
3	3	D-UA-H9300-0-0	H9300-AC	CHASSIS ASSY 8/A W FANS 230V 50H	1	0	1	0
4	4	D-UA-H9300-0-0	H9300-AD	CHASSIS ASSY 8/A W FANS 230V 50H	0	1	0	1
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-
9	9	A-FL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-
11	11	A-FL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	1	1	0	0
12	12	A-FL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	1	1
13	13	A-FL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-
14	14	A-FL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-
15	15	A-FL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-
17	17	A-FL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-
18	18	A-FL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	1	1	1	1
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	1	1	1	1
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-
21	21	A-FL-BA-1-2		SHIPPING LIST	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER PDP8A CUSHION	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	*** THIS ITEM IS NOT USED ***	-	-	-	-
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-

REVISION HISTORY		BASIC PART NO: 8A205		DRN:	M DUGGAN	DATE: 12-MAY-77	DBP	D I G I T A L		
ENG	ECD NUMBER	REV	SECTION C OF C	CHK'D:	L NARHI	DATE: 8-NOV-77	TITLE	PARTS LIST		
DF	BA-1-MK002B	B	SECTION. VARIATION INDEX				8A SEMICONDUCTOR MEMORY FAMILY			
			[A] AA,AB,AC,AD,BM,BN, BP,BR,BS,BT,BU,BV	DES.ENG.:	L NARHI	DATE: 8-NOV-77	8A205			
			[B] CM,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR	RESP.ENG.:	L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER			
			[C] DS,DT,DU,DV				SIZE	CODE	NUMBER	REV
			[D]	MFG.ENG.:	J V KANE	DATE: 8-NOV-77	K	PL	8A205-0-0	B
			[E]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
			[F]			#B-DD-8A-1	MK0385.PLS		5	

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					AA	AB	AC	AD	BM	BN	BP	BR	BS	BT	BU	BV	
31	31	A-PL-KMB-A-0	00KMB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KMB-A-0	00KMB-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KMB-A-0	00KMB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION A OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A205			K	PL	8A205-0-0	B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					CM	CN	CP	CR	CS	CT	CU	CV	DM	DN	DP	DR	
1	1	D-UA-H9300-0-0	H9300-AA	CHASSIS ASSY 8/A W FANS 115V 60H	1	0	1	0	0	0	0	0	0	1	0	1	0
2	2	D-UA-H9300-0-0	H9300-AB	CHASSIS ASSY 8/A W FANS 230V 50H	0	1	0	1	0	0	0	0	0	0	1	0	1
3	3	D-UA-H9300-0-0	H9300-AC	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0	1	0	1	0	0	0	0	0	0
4	4	D-UA-H9300-0-0	H9300-AD	CHASSIS ASSY 8/A W FANS 230V 50H	0	0	0	0	0	1	0	1	0	0	0	0	0
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	1	1	0	0	1	1	0	0	1	1	0	0	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	1	1	0	0	1	1	0	0	1	1	1
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	1	1	1	1	1	1	1	1	1	1	1	1	1
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	0	0	0	0	0	0	0	0	0	1	1	1	1
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-BA-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER FDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY			BASIC PART NO: BA205		DRN: M DUGGAN		DATE: 12-MAY-77		DBP		DIGITAL	
ENG	ECD NUMBER	REV	SECTION B OF C	CHK'D:	L NARHI	DATE:	8-NOV-77	TITLE		PARTS LIST		
DF	BA-1-MK002B	B	SECTION, VARIATION INDEX					8A SEMICONDUCTOR MEMORY FAMILY				
			[A] AA,AB,AC,AD,BM,BN, BP,BR,BS,BT,BU,BV					BA205				
			[B] CM,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR	DES.ENG.:	L NARHI	DATE:	8-NOV-77					
			[C] DS,DT,DU,DV	RESP.ENG.:	L NARHI	DATE:	8-NOV-77					
			[D]					SIZE	CODE	NUMBER	REV	
			[E]	MFG.ENG.:	J V KANE	DATE:	8-NOV-77	K	FL	BA205-0-0	B	
			[F]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #		
						#B-DD-8A-1		MK0385.PLS		5		

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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION			
				IS	DT	DU	DV
31	31	A-PL-KMB-A-0	00KMB-AB *** THIS ITEM IS NOT USED ***	-	-	-	-
32	32	A-PL-KMB-A-0	00KMB-AC 8A INTERNAL OPTION 2	1	1	1	1
33	33	A-PL-KMB-A-0	00KMB-AD *** THIS ITEM IS NOT USED ***	-	-	-	-

D	I	G	I	T	A	L	TITLE	SECTION C OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A SEMICONDUCTOR MEMORY FAMILY				8A205-0-0	B
							8A205		K	PL		

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION																			
				AA	AB	AC	AD	BM	BN	BP	BR	BS	BT	BU	BV								
1	1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KK8-A-0	00KK8-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KK8-F-0	00KK8-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MS8-C-0	00MS8-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	0	0	0
12	12	A-PL-MS8-C-0	00MS8-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
13	13	A-PL-MS8-A-0	00MS8-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MS8-A-0	00MS8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MS8-A-0	00MS8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MR8-F-0	00MR8-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KM8-A-0	00KM8-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1; SLU,XTAL CLOCK,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SF-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SF-3700172-0-0	3700172-00	INSTR PKG COMPUTER FDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SF-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SF-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SF-3700259-0-0	3700259-02	INSTR PKG COMPUTER 8A820	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	27	D-UA-H9300-0-0	H9300-BA	CHASSIS ASSY 8/A 8 AMP 115V 60HZ	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0
28	28	D-UA-H9300-0-0	H9300-BB	CHASSIS ASSY 8/A 4 AMP 230V 50HZ	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
29	29	D-UA-H9300-0-0	H9300-BH	H9300-AB EXCEPT G8018 230V 60HZ	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0
30	30	D-UA-H9300-0-0	H9300-BJ	H9300-AA EXCEPT G8018 115V 50HZ	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0

REVISION HISTORY			BASIC PART NO: BA405		DRN: M DUGGAN	DATE: 12-MAY-77	DBP	D	I	G	I	T	A	L
ENG	ECD NUMBER	REV	SECTION A OF C	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE		PARTS LIST						
DF	8A-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY		BA405						
			[A] AA,AB,AC,AD,BM,BN, BP,BR,BS,BT,BU,BV	RESP.ENG.: L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER								
			[B] CM,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR	MFG.ENG.: J V KANE	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV					
			[C] DS,DT,DU,DV,LM,LN, LP,LR,LS,LT,LU,LV	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	8A405-0-0	B					
			[D]		#B-DD-8A-1	FILE NAME:	EDIT #							
			[E]			MK0386.PLS	4							
			[F]											

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MK



PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
				AA	AB	AC	AD	BM	BN	BP	BR	BS	BT	BU	BV	
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KM8-A-0	00KM8-AD	KM8-AC W NO BOOTSTRAP ROMS	0	0	0	0	0	0	0	0	0	0	0	0

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION A OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A405			K	PL	8A405-0-0	B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					CM	CN	CP	CR	CS	CT	CU	CV	DM	DN	DP	DR	
1	1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	1	1	0	0	1	1	0	0	1	1	0	0	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	1	1	0	0	1	1	0	0	1	1	1
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	1	1	1	1	1	1	1	1	1	1	1	1	1
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	0	0	0	0	0	0	0	0	1	1	1	1	1
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER PDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER 8A820	0	0	0	0	0	0	0	0	0	0	0	0	0
27	27	D-UA-H9300-0-0	H9300-BA	CHASSIS ASSY 8/A 3 AMP 115V 60HZ	1	0	1	0	0	0	0	0	1	0	1	0	0
28	28	D-UA-H9300-0-0	H9300-BB	CHASSIS ASSY 8/A 4 AMP 230V 50HZ	0	1	0	1	0	0	0	0	0	1	0	1	0
29	29	D-UA-H9300-0-0	H9300-BH	H9300-AB EXCEPT GB018 230V 60HZ	0	0	0	0	1	0	1	0	0	0	0	0	0
30	30	D-UA-H9300-0-0	H9300-BJ	H9300-AA EXCEPT GB018 115V 50HZ	0	0	0	0	0	1	0	1	0	0	0	0	0

REVISION HISTORY			BASIC PART NO: 8A405			DRN: M DUGGAN			DATE: 12-MAY-77			DBP			D I G I T A L		
ENG	ECO NUMBER	REV	SECTION B OF C	CHK'D:	L NARHI	DATE:	8-NOV-77	TITLE	PARTS LIST								
DF	8A-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.:	L NARHI	DATE:	8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY	8A405								
			[A] AA,AB,AC,AD,BM,BN, BP, BR, BS, BT, BU, BV	RESP.ENG.:	L NARHI	DATE:	8-NOV-77	DOCUMENT NUMBER									
			[B] CM,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR	MFG.ENG.:	J V KANE	DATE:	8-NOV-77	SIZE:CODE: NUMBER	K	PL	8A405-0-0	REV	B				
			[C] DS,DT,DU,DV,LM,LN, LP,LR,LS,LT,LU,LV	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	#B-DD-8A-1	FILE NAME:	MK0386.PLS			EDIT #:	4				

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PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				CM	CN	CP	CR	CS	CT	CU	CV	DM	DN	DP	DR		
31	31	A-PL-KMB-A-0	00KMB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KMB-A-0	00KMB-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	
33	33	A-PL-KMB-A-0	00KMB-AD	KMB-AC W NO BOOTSTRAP ROMS	0	0	0	0	0	0	0	0	0	0	0	0	

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION B OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A405			K PL	8A405-0-0	B	

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				DS	DT	DU	DV	LM	LN	LP	LR	LS	LT	LU	LV		
1	1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	E-UA-BAB-C-0	00BAB-CA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	E-UA-BAB-C-0	00BAB-CB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	E-UA-BAB-C-0	00BAB-CH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
8	8	E-UA-BAB-C-0	00BAB-CJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	1	1	0	0	1	1	0	0	1	1	0	0	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	1	1	0	0	1	1	0	0	1	1	1
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRS-F-0	00MRS-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	1	1	1	1	1	1	1	1	1	1	1	1	1
19	19	E-UA-KCB-A-0	00KCB-AA	PROGRAMMER'S CONSOLE	1	1	1	1	0	0	0	0	0	0	0	0	0
20	20	D-UA-KTB-A-0	00KTB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
21	21	A-PL-BA-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	INSTR PKG COMPUTER 8A400,600,800	1	1	1	1	1	1	1	1	1	1	1	1	1
23	23	A-SP-3700172-0-0	3700172-00	INSTR PKG COMPUTER FDP8A CUSHION	1	1	1	1	1	1	1	1	1	1	1	1	1
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
26	26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER 8A820	0	0	0	0	0	0	0	0	0	0	0	0	0
27	27	D-UA-H9300-0-0	H9300-BA	CHASSIS ASSY 8/A 8 AMP 115V 60HZ	0	0	0	0	1	0	1	0	0	0	0	0	0
28	28	D-UA-H9300-0-0	H9300-BB	CHASSIS ASSY 8/A 4 AMP 230V 50HZ	0	0	0	0	0	1	0	1	0	0	0	0	0
29	29	D-UA-H9300-0-0	H9300-BH	H9300-AB EXCEPT GB01B 230V 60HZ	1	0	1	0	0	0	0	0	1	0	1	0	0
30	30	D-UA-H9300-0-0	H9300-BJ	H9300-AA EXCEPT GB01B 115V 50HZ	0	1	0	1	0	0	0	0	0	1	0	1	1

REVISION HISTORY		BASIC PART NO: 8A405		DRN: M DUGGAN	DATE: 12-MAY-77	DBP		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION C OF C	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE		PARTS LIST	
DF	8A-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY		8A405	
			[A] AA,AB,AC,AD,AM,BN, BP, BR, BS, BT, BU, BV	RESP.ENG.: L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER			
			[B] CH,CN,CP,CR,CS,CT, CU,CV,DM,DN,DP,DR	MFG.ENG.: J V KANE	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV
			[C] DS,DT,DU,DV,LM,LN, LP,LR,LS,LT,LU,LV	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	8A405-0-0	B
			[D]	#B-DD-8A-1	FILE NAME:	MK0386.PLS		EDIT #	
			[E]					4	

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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
				DS	DT	DU	DV	LM	LN	LP	LR	LS	LT	LU	LV	
31	31	A-PL-KMB-A-0	00KMB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KMB-A-0	00KMB-AC	8A INTERNAL OPTION 2	1	1	1	1	0	0	0	0	0	0	0	0
33	33	A-PL-KMB-A-0	00KMB-AD	KMB-AC W NO BOOTSTRAP ROMS	0	0	0	0	1	1	1	1	1	1	1	1

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION C OF C	SIZE	CODE	DOCUMENT NUMBER	REV
							8A405			K	PL	8A405-0-0	B

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
				AA	AB	AC	AD	BH	BJ	BK	BL	BM	BN	BP	BR	
1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	E-UA-BAB-C-0	00BAB-CA	20-SLOT OMNIBUS,10.5 X 21",2 GB0	1	0	0	0	1	0	0	0	0	1	0	1	0
6	E-UA-BAB-C-0	00BAB-CB	20-SLOT OMNIBUS,10.5 X 21",2 GB0	0	1	0	0	0	1	0	0	0	0	1	0	1
7	E-UA-BAB-C-0	00BAB-CH	SAME AS BAB-CB EXCEPT 240V 60HZ	0	0	1	0	0	0	1	0	0	0	0	0	0
8	E-UA-BAB-C-0	00BAB-CJ	SAME AS BAB-CA EXCEPT 120V 50HZ	0	0	0	1	0	0	0	1	0	0	0	0	0
9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1
10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	1	1	1	1	1	0	0	0	0
12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	0	0	0	0	0	0	0	1	1	2	2
13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	A-PL-NMB-A-0	00NMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	0	0	0	0	0	0	0	0	0	0	0	0	0
19	E-UA-KCB-A-0	00KCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
20	D-UA-KTB-A-0	00KTB-A	MEM MAN OPTION FOR KTB-A SYS	0	0	0	0	0	0	0	0	0	0	0	1	1
21	A-PL-BA-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	A-SP-3700170-0-0	3700170-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
23	A-SP-3700172-0-0	3700172-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	A-SP-3700259-0-0	3700259-01	INSTR PKG BAB-C CHASSIS ASSEMBLY	1	1	1	1	1	1	1	1	1	1	1	1	1
26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER BA920	1	1	1	1	1	1	1	1	1	1	1	1	1
27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: 9A425		DRN: M DUGGAN	DATE: 12-MAY-77	DBP	D	I	G	I	T	A	L
ENG	ECO NUMBER	REV	SECTION A OF B	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE		PARTS LIST					
DF	BA-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8 NOV-77	BA SEMICONDUCTOR MEMORY FAMILY		BA425					
			[A] AA,AB,AC,AD,BH,BJ, BK,BL,BM,BN,BP,BR	RESP.ENG.: L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER							
			[B] BS,BT,BU,BV,CM,CN, CP,CR,CS,CT,CU,CV	MFG.ENG.: J V KANE	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV				
			[C] [D] [E] [F]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	BA425-0-0	B				
					#B-DD-BA-1	FILE NAME:	MK0387.PLS		EDIT # 4				

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PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
				AA	AB	AC	AD	BH	BJ	BK	BL	BM	BN	BP	BR	
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KM8-A-0	00KM8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION A OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							8A425			K	PL	8A425-0-0	B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					BS	BT	BU	BV	CM	CN	CP	CR	CS	CT	CU	CV	
1	1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	E-UA-BAB-C-0	00BAB-CA	20-SLOT OMNIBUS,10.5 X 21",2 GB0	0	0	0	0	1	0	1	0	0	0	0	0	0
6	6	E-UA-BAB-C-0	00BAB-CB	20-SLOT OMNIBUS,10.5 X 21",2 GB0	0	0	0	0	0	1	0	1	0	0	0	0	0
7	7	E-UA-BAB-C-0	00BAB-CH	SAME AS BAB-CB EXCEPT 240V 60HZ	1	0	1	0	0	0	0	0	0	1	0	1	0
8	8	E-UA-BAB-C-0	00BAB-CJ	SAME AS BAB-CA EXCEPT 120V 50HZ	0	1	0	1	0	0	0	0	0	0	1	0	1
9	9	A-PL-KKB-A-0	00KKB-A	8A-CPU	1	1	1	1	1	1	1	1	1	1	1	1	1
10	10	D-UA-KKB-F-0	00KKB-F	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	0	0	0	0	0	0	0	0	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	1	1	2	2	1	1	2	2	1	1	2	2	2
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	0	0	0	0	1	1	1	1	1	1	1	1	1
19	19	E-UA-KCB-A-0	00KCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
20	20	D-UA-KTB-A-0	00KTB-A	MEM MAN OPTION FOR KTB-A SYS	0	0	1	1	0	0	1	1	0	0	1	1	1
21	21	A-PL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
23	23	A-SP-3700172-0-0	3700172-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	INSTR PKG BAB-C CHASSIS ASSEMBLY	1	1	1	1	1	1	1	1	1	1	1	1	1
26	26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER 8A820	1	1	1	1	1	1	1	1	1	1	1	1	1
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: 8A425		DRN: M DUGGAN	DATE: 12-MAY-77	DBP	D	I	G	I	T	A	L
ENG	ECC NUMBER	REV	SECTION B OF B	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE PARTS LIST							
DF	BA-1-MK002B	B	SECTION. VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8 NOV-77	8A SEMICONDUCTOR MEMORY FAMILY 8A425							
			[A] AA,AB,AC,AD,BH,BJ, BK,BL,BM,BN,BP,BR			DOCUMENT NUMBER							
			[B] BS,BT,BU,BV,CM,CN, CP,CR,CS,CT,CU,CV	RESP.ENG.: L NARHI	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV				
			[C]	MFG.ENG.: J V KANE	DATE: 8-NOV-77	K	PL	8A425-0-0	B				
			[D]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #:					
			[E]		#B-DD-8A-1	MK0387.PLS		4					
			[F]										

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AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET B2 OF B2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				RS	BT	BU	BV	CM	CN	CP	CR	CS	CT	CU	CV		
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KM8-A-0	00KM8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION B OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							8A425			K	PL	8A425-0-0	B

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				AA	AB	AC	AD	BH	BJ	BK	BL	BM	BN	BP	BR		
1	1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	E-UA-BAB-C-0	00BAB-CA	20-SLOT OMNIBUS,10.5 X 21",2 G80	1	0	0	0	1	0	0	0	1	0	1	0	0
6	6	E-UA-BAB-C-0	00BAB-CB	20-SLOT OMNIBUS,10.5 X 21",2 G80	0	1	0	0	0	1	0	0	0	1	0	1	0
7	7	E-UA-BAB-C-0	00BAB-CH	SAME AS BAB-CB EXCEPT 240V 60HZ	0	0	1	0	0	0	1	0	0	0	0	0	0
8	8	E-UA-BAB-C-0	00BAB-CJ	SAME AS BAB-CA EXCEPT 120V 50HZ	0	0	0	1	0	0	0	1	0	0	0	0	0
9	9	A-PL-KKB-A-0	00KKB-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
10	10	D-UA-KKB-F-0	00KKB-F	CENTRAL PROCESSOR [8E]	1	1	1	1	1	1	1	1	1	1	1	1	1
11	11	A-PL-MSB-C-0	00MSB-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	1	1	1	1	0	0	0	0	0
12	12	A-PL-MSB-C-0	00MSB-CB	32K 12 BIT MOS RAM 4K CHIPS	0	0	0	0	0	0	0	0	1	1	2	2	0
13	13	A-PL-MSB-A-0	00MSB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	14	A-PL-MSB-A-0	00MSB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	15	A-PL-MSB-A-0	00MSB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	16	C-UA-MRB-F-0	00MRB-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	17	A-PL-KMB-A-0	00KMB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	18	A-PL-DKCB-A-0	00DKCB-AA	OPTION BOARD #1: SLU,XTAL CLOCK,	0	0	0	0	0	0	0	0	0	0	0	0	0
19	19	E-UA-KCB-A-0	00KCB-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
20	20	D-UA-KTB-A-0	00KTB-A	MEM MAN OPTION FOR KTB-A SYS	0	0	0	0	0	0	0	0	0	0	1	1	0
21	21	A-PL-8A-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	22	A-SP-3700170-0-0	3700170-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
23	23	A-SP-3700172-0-0	3700172-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
24	24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	A-SP-3700259-0-0	3700259-01	INSTR PKG B8B-C CHASSIS ASSEMBLY	1	1	1	1	1	1	1	1	1	1	1	1	1
26	26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER B8B20	1	1	1	1	1	1	1	1	1	1	1	1	1
27	27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
28	28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
29	29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY		BASIC PART NO: 8A625		DRN: M DUGGAN	DATE: 12-MAY-77	DBP		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF B	CHK'D: L NARHI	DATE: 8-NOV-77	TITLE		PARTS LIST			
DF	8A-1-MK002B	B	SECTION, VARIATION INDEX	DES.ENG.: L NARHI	DATE: 8-NOV-77	8A SEMICONDUCTOR MEMORY FAMILY		8A625			
			[A] AA,AB,AC,AD,BH,BJ, BK,BL,BM,BN,BP,BR	RESP.ENG.: L NARHI	DATE: 8-NOV-77	DOCUMENT NUMBER					
			[B] BS,BT,BU,BV,CM,CN, CP,CR,CS,CT,CU,CV	MFG.ENG.: J V KANE	DATE: 8-NOV-77	SIZE	CODE	NUMBER	REV		
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	8A625-0-0	B	FILE NAME:	EDIT #
			[D]		#B-DD-8A-1					MK0388.PLS	6
			[E]								
			[F]								

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MK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					AA	AB	AC	AD	BH	BJ	BK	BL	BM	BN	BP	BR	
31	31	A-PL-KM8-A-0	00KM8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KM8-A-0	00KM8-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	1
33	33	A-PL-KM8-A-0	00KM8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION A OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							8A625			K	PL	8A625-0-0	B

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
				BS	BT	BU	BV	CM	CN	CP	CR	CS	CT	CU	CV	
1	D-UA-H9300-0-0	H9300-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
2	D-UA-H9300-0-0	H9300-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
3	D-UA-H9300-0-0	H9300-AC	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4	D-UA-H9300-0-0	H9300-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
5	E-UA-BAB-C-0	00BAB-CA	20-SLOT OMNIBUS, 10.5 X 21", 2 GB0	0	0	0	0	1	0	1	0	0	0	0	0	0
6	E-UA-BAB-C-0	00BAB-CB	20-SLOT OMNIBUS, 10.5 X 21", 2 GB0	0	0	0	0	0	0	1	0	1	0	0	0	0
7	E-UA-BAB-C-0	00BAB-CH	SAME AS BAB-CR EXCEPT 240V 60HZ	1	0	1	0	0	0	0	0	0	1	0	1	0
8	E-UA-BAB-C-0	00BAB-CJ	SAME AS BAB-CA EXCEPT 120V 50HZ	0	1	0	1	0	0	0	0	0	0	1	0	1
9	A-PL-KK8-A-0	00KK8-A	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
10	D-UA-KK8-F-0	00KK8-F	CENTRAL PROCESSOR [8E]	1	1	1	1	1	1	1	1	1	1	1	1	1
11	A-PL-MS8-C-0	00MS8-CA	16K 12BIT RAM, 4K CHIPS	0	0	0	0	0	0	0	0	0	0	0	0	0
12	A-PL-MS8-C-0	00MS8-CB	32K 12 BIT MOS RAM 4K CHIPS	1	1	2	2	1	1	2	2	1	1	2	2	2
13	A-PL-MS8-A-0	00MS8-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
14	A-PL-MS8-A-0	00MS8-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
15	A-PL-MS8-A-0	00MS8-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
16	C-UA-MR8-F-0	00MR8-FB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
17	A-PL-KM8-A-0	00KM8-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
18	A-PL-DK8-A-0	00DK8-AA	OPTION BOARD #1: SLU, XTAL CLOCK,	0	0	0	0	1	1	1	1	1	1	1	1	1
19	E-UA-KC8-A-0	00KC8-AA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
20	D-UA-KT8-A-0	00KT8-A	MEM MAN OPTION FOR KT8-A SYS	0	0	1	1	0	0	1	1	0	0	1	1	1
21	A-PL-BA-1-2		SHIPPING LIST	1	1	1	1	1	1	1	1	1	1	1	1	1
22	A-SP-3700170-0-0	3700170-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
23	A-SP-3700172-0-0	3700172-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
24	A-SP-3700259-0-0	3700259-00	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
25	A-SP-3700259-0-0	3700259-01	INSTR PKG BAB-C CHASSIS ASSEMBLY	1	1	1	1	1	1	1	1	1	1	1	1	1
26	A-SP-3700259-0-0	3700259-02	INSTR PKG COMPUTER BA820	1	1	1	1	1	1	1	1	1	1	1	1	1
27	D-UA-H9300-0-0	H9300-BA	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
28	D-UA-H9300-0-0	H9300-BB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
29	D-UA-H9300-0-0	H9300-BH	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
30	D-UA-H9300-0-0	H9300-BJ	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-

REVISION HISTORY			BASIC PART NO: 8A625			DRN: M DUGGAN			DATE: 12-MAY-77			DBP			D I G I T A L		
ENG	ECO NUMBER	REV	SECTION B OF B									TITLE			PARTS LIST		
DF	EA-1-MK002B	B	SECTION, VARIATION INDEX			CHK'D: L NARHI			DATE: 8-NOV-77			BA SEMICONDUCTOR MEMORY FAMILY			8A625		
			[A] AA, AB, AC, AD, BH, BJ, BK, BL, BM, BN, BP, BR			DES. ENG.: L NARHI			DATE: 8 NOV-77			DOCUMENT NUMBER					
			[B] BS, BT, BU, BV, CM, CN, CP, CR, CS, CT, CU, CV			RESP. ENG.: L NARHI			DATE: 8-NOV-77			SIZE			CODE		
			[C]			MFG. ENG.: J V KANE			DATE: 8-NOV-77			K			FL		
			[D]			ASSEMBLY NUMBER:			TOP DOCUMENT NUMBER:			FILE NAME:			EDIT #		
			[E]						#B-DD-BA-1			MK0388.PLS			6		
			[F]														

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PARTS LIST

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION												
					BS	BT	BU	BV	CM	CN	CP	CR	CS	CT	CU	CV	
31	31	A-PL-KMS-A-0	00KMB-AB	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32	A-PL-KMS-A-0	00KMB-AC	8A INTERNAL OPTION 2	1	1	1	1	1	1	1	1	1	1	1	1	
33	33	A-PL-KMS-A-0	00KMB-AD	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	

D	I	G	I	T	A	L	TITLE	8A SEMICONDUCTOR MEMORY FAMILY	SECTION B OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							8A625		K	PL	8A625-0-0	B	

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS PARTS LIST				QUANTITY VARIATION																						
MADE BY M. DUGGAN		CHECKED <i>Larry Harlie</i>		SECTION 1		8A100	8A205	8A405	8A425	8A625																
DATE 12 MAY 77		DATE 11-JUL-77																								
ENG <i>Larry Harlie</i>		PROD <i>Jim Kane</i>		ISSUED SECT. 1																						
DATE 11-JUL-77		DATE 25 OCT 77																								
ITEM NO.	DWG NO./PART NO.	DESCRIPTION																								
1	EK-8A002-OP	PDP-8A OPERATOR'S HANDBOOK				1	1	1	0	0																
2	MP00415	8A SEMICONDUCTOR FAMILY MAINTENANCE PRINT SET																								
3	A-PL-8A-1-3	8A SEMICONDUCTOR FAMILY SOFTWARE LIST				1	1	1	1	1																
4	EK-8A002-MM	PDP-8A USER'S MANUAL				1	1	1	1	0																
5	EK-H9300-IP	H9300 ILLUSTRATED PARTS BREAKDOWN				1	1	1	0	0																
6	EK-BA8C-IP	BA8-C ILLUSTRATED PARTS BREAKDOWN				0	0	0	1	1																
7	EK-KC8A-IP	KC8-A ILLUSTRATED PARTS BREAKDOWN				0	1	1	1	1																
TITLE		ASSY NO.		SIZE	CODE	NUMBER		REV	ECO NO.																	
SHIPPING LIST 8A SEMICONDUCTOR MEMORY FAMILY (8A100, 8A205, 8A405, 8A425, 8A625)		C-PL-8A-1-0		A	PL	8A-1-2																				
		SHEET 1 OF 1		DIST																						

DEC FORM  
ORA 110

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

MADE BY M. DUGGAN	CHECKED L. NARHI	SECTION 1
DATE 12-MAY-77	DATE 11-JUL-77	
ENG LARRY. NARHI	PROD J. KANE	ISSUED SECT.
DATE 11-JUL-77	DATE 25-OCT-77	

**QUANTITY / VARIATION**

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION																	
			8A100	8A205	8A405	8A425	8A625													
1	ZF006-RB	4K BASIC SOFTWARE	Ø	1	1	1	1													
2	ZF209-RB	4K OPTION #2 SOFTWARE	Ø	1	1	1	1													
3	ZF208-RB	4K OPTION #1 SOFTWARE	Ø	1	1	1	1													
4	ZF235-RB	MEMORY MANAGEMENT OPTION SOFTWARE	Ø	Ø	Ø	1	1													

TITLE SOFTWARE LIST 8A SEMICONDUCTOR MEMORY FAMILY ( 8A100, 8A205, 8A405, 8A425, 8A625 )	ASSY NO. B-DD-8A-1	SIZE CODE <b>A PL</b>	NUMBER 8A-1-3	REV. A	ECO NO. <del>8A-1</del> 171001
SHEET 1 OF 1		DIST.			

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

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			DATE 26-apr-77		
ENGINEERING SPECIFICATION					
TITLE 8A100, 205, 405, 425, 625 FIELD INSTALLATION AND ACCEPTANCE PROCEDURE					
REV	REVISIONS				
	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY

ENG <i>L. M. Nash</i>	APPD 11-24-77	SIZE 11-1/2	CODE A	NUMBER 8A-1-4	REV 1
DEC FORM NO EN-01022-12-N77(101) DRA 108					1 OF 5

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE 8A100, 205, 405, 425, 625 FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
I. GENERAL II. UNPACKING III. INSPECTION IV. INSTALLATION PROCEDURE V. ACCEPTANCE PROCEDURE			
		SIZE A	CODE SP
		NUMBER 8A-1-4	REV 2
		SHEET 2 OF 6	
DEC FORM NO EN-01022-12-N77(101) DRA 108			

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE 8A100, 205, 405, 425, 625 FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
I. GENERAL Installation of the basic 8A100, 205, 405, 425 and 625 computer requires no special tools or equipment. Normal hand tools are all that are required.			
II. UNPACKING Unpack and inspect the equipment using the procedure provided in the Operator's Handbook.			
III. INSPECTION After removing the equipment packing material, inspect the equipment. <ol style="list-style-type: none"> <li>Inspect the external surface of the chassis for surface, bezel, switch and light damage.</li> <li>Internally inspect the 8A enclosure and console for damage, loose nuts, bolts, screws, etc.</li> <li>Inventory all hardware against shipping list.</li> <li>Inventory all software against software list, if ordered.</li> <li>Inventory all prints against shipping list if ordered.</li> </ol>			
IV. INSTALLATION PROCEDURE Install the equipment using the following procedure: <ol style="list-style-type: none"> <li>Turn off the power switch of the Limited Function Console.               <p style="text-align: center;"><b>WARNING</b></p>               DO NOT TOUCH THE COMPUTER AFTER PLUGGING IT IN UNTIL IT IS CHECKED FOR THE PROPER GROUNDING.             </li> <li>Ensure that all power is received from the same source.</li> <li>Plug in the power cord.</li> </ol>			
		SIZE A	CODE SP
		NUMBER 8A-1-4	REV 3
		SHEET 3 OF 6	
DEC FORM NO EN-01022-12-N77(101) DRA 108			

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE 8A100, 205, 405, 425, 625 FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
4. Before touching the computer, check frame to ground to insure that no AC voltage is present.			
5. Unplug power cord.			
6. Turn "on" Power ON/OFF switch and set regulator circuit breaker to the "ON" position. (Behind the Limited Function Console on the 8A100, 8A205, and 8A405 or inside the rear panel on the 8A625 and 8A625.)			
7. Repeat Steps 3 and 4.			
8. Power should now be applied to the 8A; fans should be running, and the power light on the Limited Function Console should be "ON". The light labeled 'battery charging' should be illuminated on the 8A205 and 8A405 indicating that DC power is okay. <p>If none of the above occur, remove the Limited Function panel and check the Master/Slave switch located below the ON/OFF switch on the Limited Function Board.</p>			
9. The Run light should not be on. If it is, switch Power Off via the ON/OFF switch. <p>Remove the M8315 CPU module (on all except 8A625) and set switches as indicated below. Then insert CPU in the first slot in the OMIBUS and turn power back on. The Run light should remain off.</p> <p style="text-align: center;">S1-1 thru S1-6, S1-8 set to "OFF" position. S1-7 set to "ON" position.</p>			
10. Check modules to insure they are located in their proper position in the OMIBUS. Refer to the Operator's Handbook.			
11. Check the operation of the Programmer's Console.			
12. Manually load, deposit and examine to insure that memory modules are associated with the correct memory fields. If not, turn the unit off and reconfigure the memory modules to the correct fields.			
		SIZE A	CODE SP
		NUMBER 8A-1-4	REV 4
		SHEET 4 OF 6	
DEC FORM NO EN-01022-12-N77(101) DRA 108			



**ENGINEERING SPECIFICATION**

digital

CONTINUATION SHEET

TITLE 8A100,205,405,425,625 FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

V. ACCEPTANCE PROCEDURE

Perform the acceptance tests referred to in table A. If abnormal indications are encountered, refer to the diagnostic listings for error descriptions. Refer to the operators handbook and the diagnostic listings for instructions on loading diagnostics.

Equipment required

1. 8A100,205,405,425,625 with 1-32K of semiconductor memory.
2. Programmer's Console (KC8A and DKC8A)
3. Paper tape input device.
4. Diagnostics and listings.

NOTE: If programmer's panel and paper tape input device are not available as part of the system being installed, they must be provided by the customer in good working order. If semiconductor memory is 1K PROM only, refer to the MR8-F Engineering Spec.

Table A

Acceptance 8A100,205,405,425,625

<u>Program Name</u>	<u>MAINDEC #</u>	<u>Accept Time</u>
PDP8A Central Processor Test	08-DJKKA	20 Minutes
1-32K Random Exerciser	08-DJEXA	20 Minutes
MS8-A or MS8-C/D MOS Memory	Refer to Acceptance Procedure for MS8-C/D and MS8-A.	
KT8-A Memory Management Option	Refer to Acceptance Procedure for KT8-A.	

SIZE <b>A</b>	CODE Sp	NUMBER 8A-1-4	REV
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**ENGINEERING SPECIFICATION**

digital

CONTINUATION SHEET

TITLE 8A100,205,405,425,625 FIELD INSTALLATION ACCEPTANCE PROCEDURE

- |                  |  |
|------------------|--|
| DKC8A Option One | Refer to Acceptance Procedure for DKC8A. |
| KM8A Option Two  | Refer to Acceptance Procedure for KM8A.  |

SIZE <b>A</b>	CODE SP	NUMBER -8A-1-4	REV
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13-0-0000H UQ 2

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LEGEND	
NUMBER	VARIATION
H9300-AA	115V, 60HZ (MOS)
H9300-AB	230V, 50HZ (MOS)
H9300-BA	115V, 60HZ (CORE)
H9300-BB	230V, 50HZ (CORE)
H9300-AC	230V, 60HZ (MOS)
H9300-AD	115V, 50HZ (MOS)
H9300-BH	230V, 60HZ (CORE)
H9300-BJ	115V, 50HZ (CORE)

NOTES:		
MOUNTING HARDWARE VARIATIONS FOR ITEMS 13 (FANS) ARE AS FOLLOWS:		
FAN VARIATIONS FOR ITEMS 13 (FANS) ARE AS FOLLOWS:		
VARIATIONS (ITEM 13)		
MOUNTING HARDWARE	DESCRIPTION	DEC PIN
VARIABLE		
ITEM		

24 (QTY 10)  
25 (QTY 10)  
27 (QTY 3)  
22 (QTY 8)  
P1 (4.5)  
8  
SEE DETAIL "A"52  
55 (QTY 2)  
54 (QTY 8)  
49 (QTY 8)  
49 (QTY 6)  
G3 (TO LINE SET PLATE)  
G4 (TO XFMR)  
G2 (TO P1)  
G1 (TO LINE CORD)  
G52  
G51

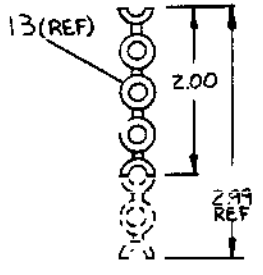
THIS AREA FAR SIDE

SEE DETAIL "C"

SEE DETAIL "E" #NOTE #8

28 (QTY 8)

40 OR 41  
SEE NOTE 9



DETAIL "E" CARD GUIDE (ITEM #13) RERWORK QTY OF 5 SCALE: 1:1

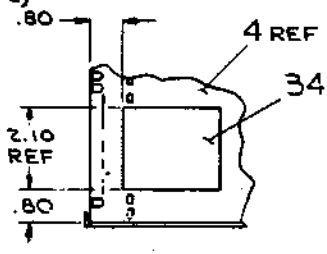
SEE DETAIL "B" (SHT 2)

19 RED STRIPE THIS SIDE

21 OR 45  
SEE NOTE #10

SEE DETAIL "D" (SHT 2)

NAMEPLATE (REF) (SEE NOTE #6)



DETAIL "A" SCALE: 1:1

DETAIL "C" CHASSIS GROUNDS SCALE: 1:1 (SECUREMENT OF GRN/YEL WIRES)

HEX BOARD REF SEE SHEET #3, NOTE #7 FOR PROPER MODULE SLOT ASSIGNMENTS

REV.	DESCRIPTION
1	ISSUED
2	CHANGED NO. 1-2
3	REVISED AND REDRAWN
4	REVISED AND REDRAWN
5	REVISED AND REDRAWN
6	REVISED AND REDRAWN
7	REVISED AND REDRAWN
8	REVISED AND REDRAWN
9	REVISED AND REDRAWN
10	REVISED AND REDRAWN
11	REVISED AND REDRAWN
12	REVISED AND REDRAWN
13	REVISED AND REDRAWN
14	REVISED AND REDRAWN
15	REVISED AND REDRAWN
16	REVISED AND REDRAWN
17	REVISED AND REDRAWN
18	REVISED AND REDRAWN
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76	REVISED AND REDRAWN
77	REVISED AND REDRAWN
78	REVISED AND REDRAWN
79	REVISED AND REDRAWN
80	REVISED AND REDRAWN

DESCRIPTION	DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLE ±30°	CLASS OF ACCURACY	CHECK ONE
SURFACE QUALITY	MEDIUM	PREFERRED
QUANTITY & VARIATION	DRN CHK ENG PROJ PROD	FIRST USED ON digital
MATERIAL SEE PARTS LIST	A-PL-8448-0-0	TITLE CHASSIS ASSY, H9300
FINISH	SCALE 1 OF 3	SIZE CODE D UA NUMBER H9300-0-0 REV. J

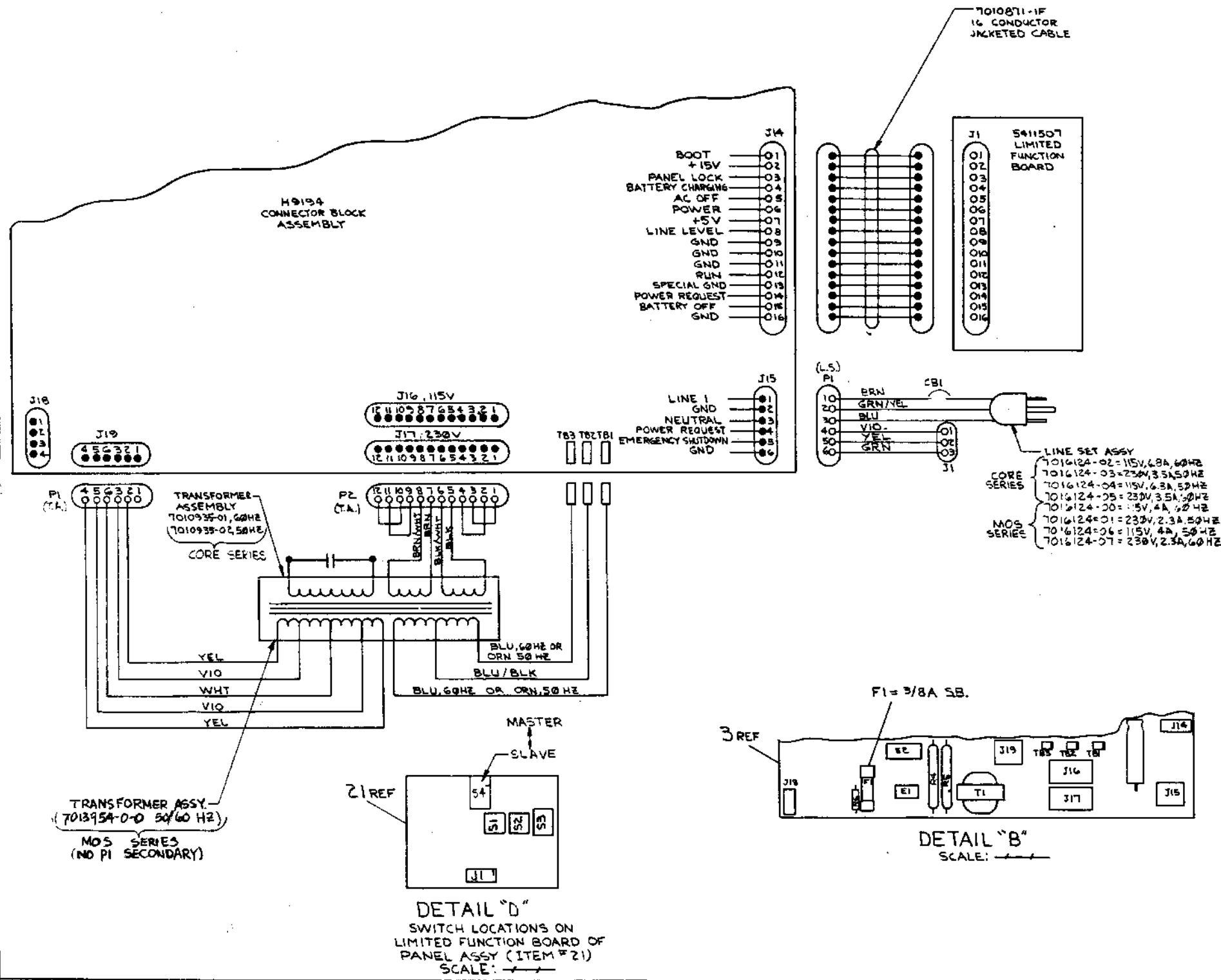
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### ASSEMBLY INSTRUCTIONS

- 1 OPERATIONS TO BE PERFORMED PER HARDWARE STANDARDS SP-7005099-0 AND/OR DEC WORKMANSHIP STANDARDS.
- 2 ATTACH FOAM TAPE (ITEM #34) TO CHASSIS (ITEM #4) AS SHOWN IN VIEW A-A.
- 3 INSTALL FAN HARNESS (ITEM #8) INTO CHASSIS AS SHOWN IN DETAIL "A".
- ~~4 ATTACH FILTER RETAINERS (ITEM #5) TO THE TWO FANS (ITEM #7) WITH #8-32 X .75 FLAT HEAD SCREWS (ITEM #33) AND THE APPROPRIATE MOUNTING HARDWARE (SEE NOTE #2) - FOUR PLACES EACH FAN.~~
- 5 PLUG FAN HARNESS CONNECTORS J1 & J2 (SEE DETAIL "A") ON TO THE FAN TERMINALS.
- 6 ATTACH FANS TO CHASSIS WITH #8-32 X .75 FLAT HEAD SCREWS (ITEM #22) AND THE APPROPRIATE MOUNTING HARDWARE FOUR PLACES EACH FAN.
- 7 REWORK FIVE CARD GUIDES (ITEM #12) AS SHOWN ON DETAIL "E".
- 8 INSTALL FULL LENGTH CARD GUIDES (ITEM #13) AND REWORKED CARD GUIDES AS SHOWN (10 PLACES).
- 9 INSTALL THE 1/4 TURN RECEPTACLES (ITEM #32) ON THE TWO TABS ON THE BOTTOM OF THE CHASSIS.
- 10 ATTACH THE H9194 CONNECTOR BLOCK ASSEMBLY (ITEM #3) TO THE REAR OF THE CHASSIS WITH #8-32 X .25 PAN HEAD SCREWS (ITEM #24) AND #8 EXTERNAL TOOTH LOCK WASHERS (ITEM #25) TEN PLACES.
- 11 PLUG P1 OF THE FAN HARNESS (4 PIN CONNECTOR) INTO J18 OF THE H9194 (SEE DETAIL "B", SHEET 2).
- 12 ATTACH THE LINE SET (ITEM #19) TO THE REAR OF THE CHASSIS WITH THREE #6-32 X .25 LG PAN HEAD SCREWS (ITEM #60) AND THREE #6 EXTERNAL TOOTH LOCK WASHERS (ITEM #27) AS SHOWN. SEE DETAIL "C" (SHEET 1) FOR PROPER GROUNDING.
- 13 PLUG P1 (8 PIN CONNECTOR) OF THE LINE SET INTO J15 OF THE H9194 (SEE DETAIL "B").
- 14 PLUG ONE END OF THE 18 CONDUCTOR CABLE (ITEM #18) INTO J14 OF THE H9194 AS SHOWN.
- ~~15 SET THE TRANSFORMER ASSEMBLY (ITEM #11 OR #10) IN THE CHASSIS AND FASTEN THE CREEP BARS TO THE CHASSIS WITH ONE #8-32 X .75 SCREW (ITEM #36), TWO #4 EXTERNAL TOOTH LOCK WASHERS (ITEM #37), ONE FLAT WASHER (ITEM #38) AND ONE #4-48 NUT (ITEM #39) AS SHOWN IN DETAIL "C".~~
- 16 PLACE THE TRANSFORMER ASSEMBLY IN POSITION (THE 18 CONDUCTOR CABLE SHOULD BE ROUTED UNDERNEATH THE TRANSFORMER) AND ATTACH TO THE CHASSIS WITH FOUR #10-32 X .50 PAN HEAD SCREWS (ITEM #30) AND #10 EXTERNAL TOOTH LOCK WASHERS (ITEM #31) AS SHOWN. SEE DETAIL "C" (SHEET 1) FOR PROPER GROUNDING.
- 17 PLUG P2 OF THE TRANSFORMER ASSEMBLY (12 PIN CONNECTOR) INTO EITHER J16 (115V) OR J17 (230V) OF THE H9194 (SEE DETAIL "B").
- 18 CONNECT THE THREE LARGE WIRES ON THE TRANSFORMER ASSEMBLY TO THE TABS TB1, TB2 AND TB3 (SEE DETAIL "B") ON THE H9194. THE BLU/BLK WIRE IS ALWAYS CONNECTED TO THE CENTER TAB (TB2).
- 19 PLUG P1 OF THE TRANSFORMER ASSEMBLY (8 PIN CONNECTOR) INTO J18 OF THE H9194 (SEE DETAIL "B").
- 20 PLUG THE 60010 REGULATOR BOARD (ITEM #2) INTO THE H9194 AS SHOWN, AND SECURE IN PLACE WITH THE TWO ATTACHED 1/4 TURN FASTENERS.
- 21 ATTACH THE LATCH HOLDINGS (ITEM #14) TO THE CHASSIS WITH #10-32 X .75 FLAT HEAD SCREWS (ITEM #29) AND SPEED NUTS (ITEM #28).
- 22 PLUG THE OTHER END OF THE 18 CONDUCTOR CABLE INTO J1 OF THE LIMITED FUNCTION PANEL (ITEM #21) SEE DETAIL "D".
- 23 ATTACH THE LIMITED FUNCTION PANEL TO THE CHASSIS.
- 24 ATTACH THE BLANK BEZEL ASSEMBLY (ITEM #20) TO THE CHASSIS.
- ~~25 SLIDE #11 TABS (ITEM #1) INTO FILTER RETAINERS.~~
- 26 ITEMS 14, 16, 22, 23 & 24 THIS INSTRUCTION SHEET REFER TO NOTE 9 AND 10 FOR CORRECTIONS.

D  
C  
B  
A

D  
C  
B  
A



REVISIONS		
CHK	CHANGE NO.	REV

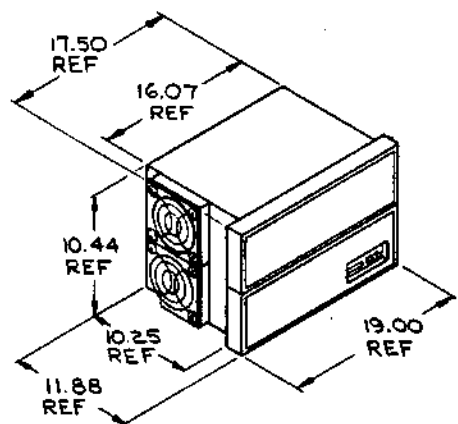
TITLE	CHASSIS ASSY, H9300	SIZE CODE	DUA	NUMBER	H9300-0-0	REV.	J
SCALE		SHEET	2 OF 3	DIST.			

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MODULE ASSIGNMENTS AND POWER REQUIREMENTS (SEE NOTES #7/8)

OPTION	DESCRIPTION	BOARD SIZE	NO. SLOTS USED	ASSIGNED SLOT NO.	CURRENT		
					+5V	+15V	-15V
C00-F	CARD RDR CONT.	QUAD	1	4-12	.55A	—	—
C00-F	CARD RDR CONT.	—	—	4-12	.95A	—	—
D00-EA	INTERPROC. BUFFER	—	—	2-12	—	—	.03A
D00-EC	RTC, CRYSTAL	—	—	2-12	.34A	—	—
D00-EP	RTC, PROG.	QUAD	2	2-12	1.43A	—	.07A
D00-A	OPTION #1	HEX	1	2-3	2.8A	.08A	.10A
D00-EA, -EB	MODERN INTERFACE	QUAD	2	2-12	1.08A	.05A	.11A
D00-EA	DIGITAL I/O	QUAD	1	2-12	2.25A	—	—
K00-E	POSITIVE I/O	QUAD	1	4-12	1.40A	—	—
K00-AA, -AB	PROG. CONSOLE	PHL. MT.	0	N.A.	2.5A	—	—
K00-E	DATA BREAK	QUAD	1	4-12	1.2A	—	—
K00-EA	REDUNDANCY CHECK	QUAD	1	4-12	.94A	—	—
K00-A	C.P.U.	HEX	1	1	5.8A	—	.04A
K00-JA	ASYNC. DATA CONT.	QUAD	1	2-12	1.1A	.05A	.18A
K00-M	MODERN CONTROL	QUAD	1	2-12	.48A	.04A	.04A
K00-A	OPTION #2	HEX	1	2-3	2.8A	—	—
K00-E	MEM. EXT. & T.S. CONT.	QUAD	1	4-12	1.0A	—	—
L00-XX	LINE PRINTER CONT.	QUAD	1	2-12	.35A	—	—
L00-F	LINE PRINTER CONT.	QUAD	1	2-12	.48A	—	—
M00-AA	8K CORE, OPERATING	HEX	2	4-8	2.5A	—	—
M00-AA	8K CORE, STANDBY	HEX	2	4-8	2.5A	—	—
M00-AB	16K CORE, OPERATING	HEX	2	4-8	2.5A	—	—
M00-AB	16K CORE, STANDBY	HEX	2	4-8	2.5A	—	—
M00-AA	1K RAM	QUAD	1	2-12	2.8A	—	—
M00-AB	2K RAM	—	—	2-12	3.0A	—	—
M00-AC	3K RAM	—	—	2-12	4.0A	—	—
M00-AD	4K RAM	—	—	2-12	5.8A	—	—
M00-FB	1K PROM	—	—	2-12	3.8A	—	.95A
M00-AA	1K RAM	—	—	4-12	1.4A	—	—
M00-AB	2K RAM	—	—	4-12	2.1A	—	—
M00-AC	3K RAM	—	—	4-12	2.8A	—	—
M00-AD	4K RAM	—	—	4-12	3.5A	—	—
P00-E, PR0-E	RDR/PUNCH CONTROL	—	—	4-12	.04A	—	.05A
R00-E	RDR CONTROL	—	—	4-8	1.5A	—	—
R00-EA	RDRS CONTROL	—	—	4-12	3.10A	—	—
T00-AA	TUBS CONTROL	—	—	2-12	2.08A	—	—
T00-EA, -FA	TUBS CONTROL	—	—	4-12	4.19A	—	—
Y00-E	DISPLAY CONTROL	—	—	2-12	.31A	—	—
Y00-E	DISPLAY CONTROL	—	—	4-12	3.78A	.09A	.13A
X00-E	PLUTTER CONTROL	QUAD	1	4-12	.42A	.01A	.03A
K00-E	M0300 MAJOR REG.	QUAD	1	12	1.7	—	—
	M0310 MAJOR REG. CONT.	QUAD	1	11	.6	—	—
	M0330 TIMING GEN.	QUAD	1	10	1.2	—	—
	M0320 BUS LOAD	QUAD	1	1	1.0	1.0	.53
M00-CA	16K MOS RAM	HEX	1	4-8	3.3A	—	.7A
M00-CP	32K MOS RAM	—	—	4-8	3.5A	—	.7A
K00-A	MEM. MANAGEMENT	—	—	4-8	3.6A	—	—
R00-A	RDR CONTROL	HEX	1	4-12	2.5A	.2A	.1A

AVAILABLE CURRENT - H9300-AA, AB -15V 2.2A +15V 1A SHARED -15V 2.5A 2A



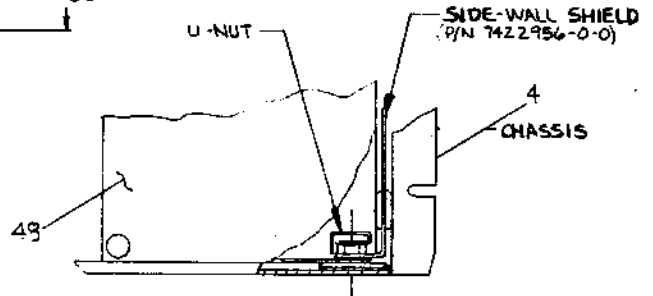
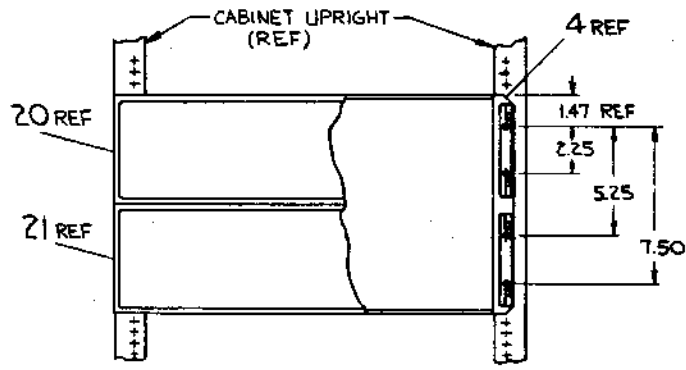
MAX. UNIT WEIGHT = 55 LB.

MOUNTING INSTRUCTIONS

- SEE DETAIL "F" FOR MTC DIM
- THE DIM FROM CENTER LINE OF RIGHT CAB UPRIGHT MOUNTING HOLE TO LEFT CAB UPRIGHT MOUNTING HOLE CENTER LINE IS 19.31.
- REMOVE THE BLANK BEZEL ASSY.
- REMOVE THE LIMITED FUNCTION PANEL AND DISCONNECT THE CABLE FROM THE LIMITED FUNCTION BO.
- REMOVE THE LATCH MOLDING (4 PLACES).
- REMOVE THE SPEED NUT, AND INSTALL ON CABINET POST, 8 PLACES PER MOUNTING DIMENSIONS.
- IF ANY BE NECESSARY TO REMOVE THE FILTER RETAINER AND THE FILTER IN ORDER TO MOUNT THE BOX IN A CABINET.
- WITH THE BOX IN PLACE, IN THE CABINET, REPLACE THE LATCH HOLDING AND SPACERS SO AS TO SECURE THE BOX TO THE CABINET.
- PLUG THE CABLE INTO THE LIMITED FUNCTION BO AND REPLACE LIMITED FUNCTION PANEL.
- REPLACE THE BLANK BEZEL ASSY; REINSTALL THE FILTER RETAINER AND THE FILTER.
- FOR MOUNTING INSTRUCTIONS #4 AND #9, SEE NOTES #9 AND #10.

NOTES:

- TO CREATE A H9300-00 VARIATION USE THE H9300-00 REPLACE THE LINE SET (ITEM #13) WITH A H9300-00 LINE SET (DEC 7422956-0-0) AND PUNCH THE PINS DOWN OF THE TRANSFORMER ASSEMBLY WITH THE PINS OF THE H9300-00.
- ALL H9300 POWER SUPPLY DC OUTPUTS ARE PROVIDED TO DRIVE LOGIC INTERNAL TO THE BASIC MACHINE ENCLOSURE. DIGITAL WILL NOT BE RESPONSIBLE FOR THE PERFORMANCE OF THE H9300 IF ANY DC POWER IS TAKEN OUTSIDE THE MACHINE.
- ENVIRONMENTAL CONDITIONS FOR H9300 ARE SPECIFIED IN DEC STD 102 CLASS "C" ENVIRONMENT.
- THIS ITEM (NAMEPLATE) IS SHOWN FOR REFERENCE ONLY. IT WILL BE ADDED ON A HIGHER LEVEL ASSEMBLY.
- INSTALL MODULES AS FOLLOWS: PLACEMENT OF HEX MODULES IS FROM SLOT #1(TOP OF BACKPLANE) DOWN. PLACEMENT OF QUAD MODULES IS FROM SLOT #12(BOTTOM OF BACKPLANE) UP.
- CARD GUIDES (ITEM #13) ARE PROVIDED FOR SLOTS #10. WHEN A QUAD MODULE WITH AN H8510R OR H8511 CONNECTOR BLOCK (M00-A, M00-A, ETC) ON THE "E" SET OF FINGERS IS INSTALLED, IT IS NECESSARY TO CLIP OFF THE FRONT-LEFT CARD GUIDE IN THOSE SLOTS SO THAT THE CONNECTOR BLOCK MAY BE PROPERLY SEATED (SEE DETAIL "E" FOR AN EXAMPLE OF CARD GUIDE REWORK).
- WHEN USED AS AN EXPANDER BOX THE BC00C (ITEM 40, OR THE BC00M CABLE ITEM 41 GOES INTO SLOT 1 OF THE H9300. ALSO THE 16 CONDUCTOR CABLE (ITEM 43 IS REMOVED IN EXPANDER BOX AND THE REMOTE SLAVE CIRCUIT (ITEM 44 IS INSTALLED IN J14 OF THE H9194 CONNECTOR BLOCK ASSEMBLY.
- ITEM 21 IS REPLACED BY ITEM 45 IN EXPANDER BOX AND ITEM 42 AND 43 ARE INCLUDED IN EXPANDER BOX VARIATIONS ITEM 43 IS TO BE USED WITH ITEM 42 WHEN EXPANDING TO BE. IN ALL OTHER EXPANSION VARIATIONS ITEM 42 IS USED ALONE.
- REMOVE GROUND WIRE (GRANDE OR GRN) FROM LINE SET #55, ITEM 50, H9300-00. THIS WIRE SHOULD NOT BE LEAD MAY A LEAD ON OF FREE. ATTACH THIS GROUND WIRE TO CHASSIS (SEE DETAIL "H") USING ITEMS 27, 48, 50 AND 51. NOTE: HOLE IN FRONT REAR SIDE MAY HAVE TO BE OPENED TO IS IN FOR SCREEN.
- FOR ITEM #45 WITH XFMR H9310 REV. B, A SPECIAL SIDE-WALL MAGNETIC SHIELD SHOULD BE INSTALLED (DEC 7422956-0-0) (SEE DETAIL "H"). U-NUTS ARE REMOVED FROM RIGHT SIDE OF ASSY AND PLACED ON SHIELD. SHIELD IS THEN POSITIONED FLUSH ALONG SIDE OF ASSY WITH U-NUTS ENTERING OVER MOUNTING HOLES OF ASSY. (ITEM 49, DATE CODED 79- )



CHK	CHANGE NO.	REV.

TITLE	CHASSIS ASSY, H9300	SIZE CODE	DUA	NUMBER	H9300-0-0	REV.	J
SCALE		SHEET	3 OF 3	DIST.			

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				AA	AB	AC	AD	BA	BB	BC	BD	BE	BF	BH	BJ		
1	D-CS-G8016-0-1	G8016-00	REGULATOR FOR H763	1	1	1	1	-	-	-	-	-	-	-	-	-	-
2	D-CS-G8018-0-1	G8018-00	H774 REGULATOR	-	-	-	-	1	1	1	1	1	1	1	1	1	1
3	D-AD-H9194-0-0	H9194-00	BUS CONN 8/A 8+4 SLOTS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	E-IA-7016715-0-0	7016715-00	CHASSIS WELDMENT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5		1209403-01	FAN,115CFM,SLEEVE BRNG	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	D-IA-7009755-0-0	7009755-00	HARNESS FAN (H763) PDF8A	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	D-AD-7016124-0-0	7016124-00	C.B. LINE SET ASSY	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10	D-AD-7016124-0-0	7016124-01	LINESET ASSY	-	1	-	-	-	-	-	-	-	-	-	-	-	-
11	D-AD-7016124-0-0	7016124-02	LINESET ASSY	-	-	-	-	1	-	1	-	1	-	1	-	-	-
12	D-AD-7016124-0-0	7016124-03	LINESET ASSY	-	-	-	-	-	1	-	1	-	1	-	1	-	-
13		1211630-00	CARD GUIDE	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14		1209224-00	LATCH, NORYL PLASTIC	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	D-IA-7010935-0-0	7010935-01	TRANSFORMER ASSY 60HZ	-	-	-	-	1	-	1	-	1	-	1	-	1	-
18	D-IA-7010935-0-0	7010935-02	TRANSFORMER ASSY 50HZ	-	-	-	-	-	1	-	1	-	1	-	1	-	1
19	C-IA-7010871-0-0	7010871-1F	CABLE KEY BOARD 8A	1	1	1	1	1	1	1	-	-	-	-	1	1	1
20	D-AD-7009978-0-0	7009978-00	BEZEL ASSY (H763)PDF8A	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	D-AD-7010039-0-0	7010039-04	PANEL LIMITED FUNCTION	1	1	1	1	1	1	-	-	-	-	-	1	1	1
22		9006026-02	SCREW,FLAT,PHIL, 6-32X 3/4	8	8	8	8	8	8	8	8	8	8	8	8	8	8
23	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		9006035-01	SCREW,PAN,PHIL 8-32X 1/4 SS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25		9008072-00	WASHER, LOCK, EXTERNAL TOOTH #8	10	10	10	10	10	10	10	10	10	10	10	10	10	10
26	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27		9007649-00	WASHER, LOCK, EXTERNAL TOOTH #6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
28		9007786-01	RETAINER, U-NUT, 10-32	8	8	8	8	8	8	8	8	8	8	8	8	8	8
29		9006075-02	SCREW,FLAT,PHIL, 10-32X 3/4	8	8	8	8	8	8	8	8	8	8	8	8	8	8
30		9006037-01	SCREW,PAN,PHIL 8-32X 3/8 SS	4	4	4	4	4	4	4	4	4	4	4	4	4	4

REVISION HISTORY		BASIC PART NO: H9300		DRN: D.SULLIVAN	DATE: 21-FEB-75	DBP	D	I	G	I	T	A	I	L
ENG	ECD NUMBER	REV	SECTION A OF B	CHK'D: <i>A. K...</i>	DATE: 13-JUL-81	TITLE	PARTS LIST							
DF	H9300-MK007	H	SECTION, VARIATION INDEX	CHK'D: P.GARDNER	DATE: 09-MAY-75	H9300 UNIT ASSEMBLY								
DF	H9300-MK008	J	[A] AA,AB,AC,AD,BA,BB, BC,BD,BE,BF,BH,BJ	DES.ENG.: P.GARDNER	DATE: 09-MAY-75									
			[B] BK,BL,BM,BN											
			[C]	RESP.ENG.: <i>Gary J Price</i>	DATE: 22-OCT-80	DOCUMENT NUMBER								
			[D]			SIZE	CODE	NUMBER	REV					
			[E]	MFG.ENG.: D.DEHOME	DATE: 09-MAY-75	K	PL	H9300-0-0	J					
			[F]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #						
				D-UA-H9300-0-0	#B-DD-H9300-0	MK0245.PLS		13						

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MK

PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				AA	AB	AC	AD	BA	BB	BC	BD	BE	BF	BH	BJ		
31	31	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	32		9008194-00	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33	33	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	34		9009087-00	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	35	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	36	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	37	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	38	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	39	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	40	D-UA-BC80C-0-0	BC80C-04	-	-	-	-	-	-	-	-	-	-	1	1	-	-
41	41	U-UA-BC08H-0-0	BC08H-1F	-	-	-	-	-	-	-	-	2	2	-	-	-	-
42	42	C-IA-7008288-0-0	7008288-3F	-	-	-	-	-	-	-	-	1	1	1	1	-	-
43	43	C-IA-7013953-0-0	7013953-01	-	-	-	-	-	-	-	-	-	-	1	1	-	-
44	44	D-UA-5413011-0-0	5413011-00	-	-	-	-	-	-	-	-	-	-	1	1	-	-
45	45	D-AD-7009978-0-0	7009978-01	-	-	-	-	-	-	-	-	1	1	1	1	-	-
46	46	D-AD-7016124-0-0	7016124-04	-	-	-	-	-	-	-	-	1	1	1	1	-	-
47	47	D-AD-7016124-0-0	7016124-05	-	-	-	-	-	-	-	-	-	-	-	-	1	-
48	48	D-IA-7013954-0-0	7013954-00	1	1	1	1	-	-	-	-	-	-	-	-	-	-
49	49		9008185-00	14	14	14	14	14	14	14	14	14	14	14	14	14	14
50	50	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	51	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	52	D-IA-7421088-0-0	7421088-00	1	1	1	1	1	1	1	1	1	1	1	1	1	1
53	53	C-MD-7421087-0-0	7421087-00	1	1	1	1	1	1	1	1	1	1	1	1	1	1
54	54		9006025-03	8	8	8	8	8	8	8	8	8	8	8	8	8	8
55	55		1210263-00	2	2	2	2	2	2	2	2	2	2	2	2	2	2
56	56	BLANK	*** THIS ITEM IS NOT USED ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	57		3613210-00	1	1	1	1	1	1	1	1	1	1	1	1	1	1
58	58	D-AD-7016124-0-0	7016124-06	-	-	-	1	-	-	-	-	-	-	-	-	-	-
59	59	D-AD-7016124-0-0	7016124-07	-	-	1	-	-	-	-	-	-	-	-	-	-	-
60	60		9006020-01	4	4	4	4	4	4	4	4	4	4	4	4	4	4
61	61		9007651-00	6	6	6	6	6	6	6	6	6	6	6	6	6	6
62	62		9006565-00	2	2	2	2	2	2	2	2	2	2	2	2	2	2
63	63		3612680-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1
64	64		3613211-00	1	1	1	1	1	1	1	1	1	1	1	1	1	1
65	65	A-DC-7416197-0-0	7416197-02	1	1	1	1	1	1	1	1	1	1	1	1	1	1
66	66	C-IA-7013952-0-0	7013952-00	-	-	-	-	-	-	-	-	1	1	1	1	-	-

D I G I T A L										TITLE										H9300 UNIT ASSEMBLY										SECTION A OF B										SIZE CODE										DOCUMENT NUMBER										REV																			
																																								K										FL										H9300-0-0										J									

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION			
					BK	BL	BM	BN
1	1	D-CS-G8016-0-1	G8016-00	*** THIS ITEM IS NOT USED ***	-	-	-	-
2	2	D-CS-G8018-0-1	G8018-00	H774 REGULATOR	1	1	1	1
3	3	D-AD-H9194-0-0	H9194-00	BUS CONN 8/A 8+4 SLOTS	1	1	1	1
4	4	E-IA-7016715-0-0	7016715-00	CHASSIS WELDMENT	1	1	1	1
5	5		1209403-01	FAN,115CFM,SLEEVE BRNG	2	2	2	2
6	6	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
7	7	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
8	8	D-IA-7009755-0-0	7009755-00	HARNESS FAN (H763) PDF8A	1	1	1	1
9	9	D-AD-7016124-0-0	7016124-00	*** THIS ITEM IS NOT USED ***	-	-	-	-
10	10	D-AD-7016124-0-0	7016124-01	*** THIS ITEM IS NOT USED ***	-	-	-	-
11	11	D-AD-7016124-0-0	7016124-02	*** THIS ITEM IS NOT USED ***	-	-	-	-
12	12	D-AD-7016124-0-0	7016124-03	*** THIS ITEM IS NOT USED ***	-	-	-	-
13	13		1211630-00	CARD GUIDE	10	10	10	10
14	14		1209224-00	LATCH, NORYL PLASTIC	4	4	4	4
15	15	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
16	16	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
17	17	D-IA-7010935-0-0	7010935-01	TRANSFORMER ASSY 60HZ	1	-	1	-
18	18	D-IA-7010935-0-0	7010935-02	TRANSFORMER ASSY 50HZ	-	1	-	1
19	19	C-IA-7010871-0-0	7010871-1F	*** THIS ITEM IS NOT USED ***	-	-	-	-
20	20	D-AD-7009978-0-0	7009978-00	BEZEL ASSY (H763)PDP8A	1	1	1	1
21	21	D-AD-7010039-0-0	7010039-04	*** THIS ITEM IS NOT USED ***	-	-	-	-
22	22		9006026-02	SCREW,FLAT,PHIL, 6-32X 3/4	8	8	8	8
23	23	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
24	24		9006035-01	SCREW,PAN,PHIL 8-32X 1/4 SS	10	10	10	10
25	25		9008072-00	WASHER, LOCK, EXTERNAL TOOTH #8	10	10	10	10
26	26	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
27	27		9007649-00	WASHER, LOCK, EXTERNAL TOOTH #6	4	4	4	4
28	28		9007786-01	RETAINER, U-NUT, 10-32	8	8	8	8
29	29		9006075-02	SCREW,FLAT,PHIL, 10-32X 3/4	8	8	8	8
30	30		9006037-01	SCREW,PAN,PHIL 8-32X 3/8 SS	4	4	4	4

REVISION HISTORY			BASIC PART NO: H9300		DRN:	D. SULLIVAN	DATE:	21-FEB-75	DBP	D	I	G	I	T	A	L
ENG	ECO NUMBER	REV	SECTION B OF B	CHK'D:	<i>A. Kaurich</i>		23-JUL-81	TITLE	PARTS LIST							
DF	H9300-MK007	H	SECTION, VARIATION INDEX		P. GARDNER		09-MAY-75	H9300 UNIT ASSEMBLY								
DF	H9300-MK008	J	[A] AA,AB,AC,AD,BA,BB, BC,BD,BE,BF,BH,BJ [B] BK,BL,BM,BN [C] [D] [E] [F]	DES.ENG.:	P. GARDNER		09-MAY-75	DOCUMENT NUMBER								
				RESP.ENG.:	<i>D. Prener</i> D. PRENIERE		22-OCT-80	SIZE	CODE	NUMBER	REV					
				MFG.ENG.:	D. DEHOME		09-MAY-75	K	PL	H9300-0-0	J					
				ASSEMBLY NUMBER:				TOP DOCUMENT NUMBER:		FILE NAME:	EDIT #					
				D-UA-H9300-0-0				#B-DD-H9300-0		MK0245.PLS	13					

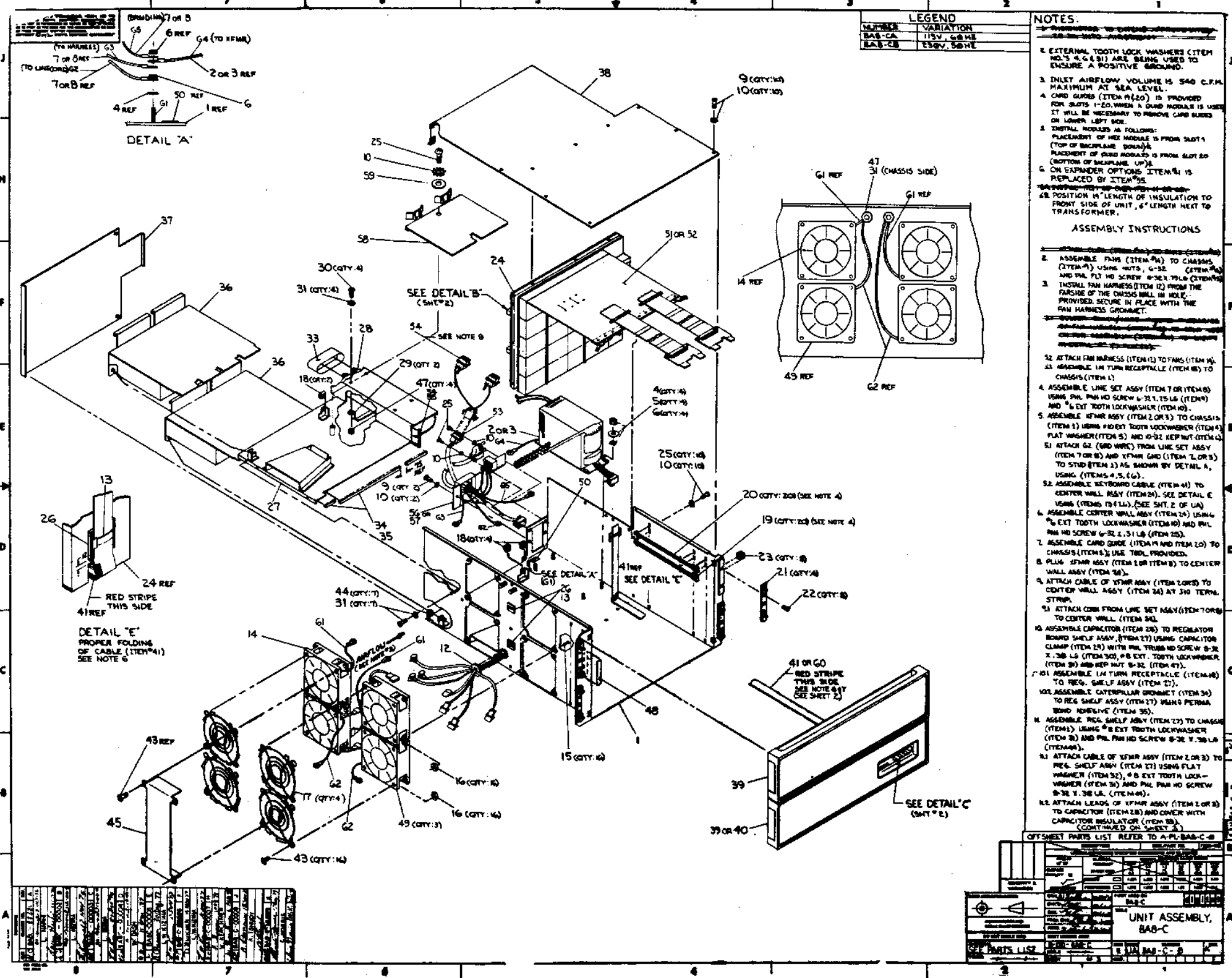
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MK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION			
					BK	BL	BM	BN
31	31	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
32	32		9008196-00	RECP, CLIP ON F/1/4 TURN FASTNR	2	2	2	2
33	33	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
34	34		9009087-00	FOAM, TAPE, SINGLE SIDED 1/8 THK	1	1	1	1
35	35	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
36	36	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
37	37	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
38	38	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
39	39	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
40	40	D-UA-BC80C-0-0	BC80C-04	BC80C CABLE	-	-	1	1
41	41	D-UA-BC08H-0-0	BC08H-1F	CABLE	2	2	-	-
42	42	C-IA-7008288-0-0	7008288-3F	CABLE ASSY	1	1	1	1
43	43	C-IA-7013953-0-0	7013953-01	BE POWER CONTROL ADAPTER CABLE	-	-	1	1
44	44	D-UA-5413011-0-0	5413011-00	H9300 REMOTE SLAVE CIRCUIT	1	1	1	1
45	45	D-AD-7009978-0-0	7009978-01	BLANK BEZEL ASSY	1	1	1	1
46	46	D-AD-7016124-0-0	7016124-04	LINESET ASSY	-	1	-	1
47	47	D-AD-7016124-0-0	7016124-05	LINESET ASSY	1	-	1	-
48	48	D-IA-7013954-0-0	7013954-00	*** THIS ITEM IS NOT USED ***	-	-	-	-
49	49		9008185-00	NUT,KEP 6-32X 1/4 AF	14	14	14	14
50	50	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
51	51	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
52	52	D-IA-7421088-0-0	7421088-00	COVER,FAN HARNESS	1	1	1	1
53	53	C-MD-7421087-0-0	7421087-00	ENCLOSURE PLATE	1	1	1	1
54	54		9006025-03	SCREW,TRUS,PHIL, 6-32X 5/8	8	8	8	8
55	55		1210263-00	GUARD,FINGER 4.125 X 4.125 MTG H	2	2	2	2
56	56	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	-
57	57		3613210-00	/REPLACED BY 36-17674-00	1	1	1	1
58	58	D-AD-7016124-0-0	7016124-06	*** THIS ITEM IS NOT USED ***	-	-	-	-
59	59	D-AD-7016124-0-0	7016124-07	*** THIS ITEM IS NOT USED ***	-	-	-	-
60	60		9006020-01	SCREW,PAN,PHIL 6-32X 1/4 SS	4	4	4	4
61	61		9007651-00	WASHER, LOCK, EXTERNAL TOOTH #10	6	6	6	6
62	62		9006565-00	NUT,KEP 10-32X 3/8 AF	2	2	2	2
63	63		3612680-01	DECAL, GROUND SIGN PER 396 *	1	1	1	1
64	64		3613211-00	DECAL,CLEAR PREPRINTED CSA 1-1/4	1	1	1	1
65	65	A-DC-7416197-0-0	7416197-02	DECAL-UL LISTED EDP	1	1	1	1
66	66	C-IA-7013952-0-0	7013952-00	REMOTE INTERLOCK JUMPER ASSY	1	1	1	1

D	I	G	I	T	A	L	TITLE	SECTION B OF B	SIZE	CODE	DOCUMENT NUMBER	REV
							H9300 UNIT ASSEMBLY		K	PL	H9300-0-0	J





NUMBER	VARIATION
BAB-CA	115V, 60 HZ
BAB-CB	230V, 50 HZ

**NOTES:**

- EXTERNAL TOOTH LOCK WASHERS (ITEM NO.'S 4, 6 & 8) ARE BEING USED TO ENSURE A POSITIVE GROUND.
- INLET AIRFLOW VOLUME IS 540 C.F.M. MAXIMUM AT SEA LEVEL.
- CARD GUIDES (ITEM #12) IS PROVIDED FOR SLOTS 1-20. WHEN A CARD MODULE IS USED IT WILL BE NECESSARY TO REMOVE CARD GUIDES ON LOWER LEFT SIDE.
- INSTALL MODULES AS FOLLOWS:
  - PLACEMENT OF HEX MODULE IS FROM SLOT 1 (TOP OF BACKPLANE DOWN).
  - PLACEMENT OF CARD MODULES IS FROM SLOT 20 (BOTTOM OF BACKPLANE UP).
- ON EXPANDER OPTIONS ITEM #1 IS REPLACED BY ITEM #2.
- POSITION & LENGTH OF INSULATION TO FRONT SIDE OF UNIT, 6" LENGTH NEXT TO TRANSFORMER.

**ASSEMBLY INSTRUCTIONS**

- ASSEMBLE FANS (ITEM #4) TO CHASSIS (ITEM #1) USING NUTS, G-32 (ITEM #4) AND PHIL PAN HD SCREW #3-32 X 1/2 (ITEM #4).
- INSTALL FAN HARNESS (ITEM #12) FROM THE REVERSE OF THE CHASSIS WALL IN HOLE. PROVIDED SECURE IN PLACE WITH THE FAN HARNESS GROMMET.
- ATTACH FAN HARNESS (ITEM #12) TO FANS (ITEM #4). ASSEMBLE IN TURN RECEPTACLE (ITEM #18) TO CHASSIS (ITEM #1).
- ASSEMBLE LINE SET ASSY (ITEM #7 OR ITEM #8) USING PHIL PAN HD SCREW #3-32 X 1/2 (ITEM #4) AND #6 EXT TOOTH LOCKWASHER (ITEM #6).
- ASSEMBLE XFMR ASSY (ITEM #2 OR #3) TO CHASSIS (ITEM #1) USING #10 EXT TOOTH LOCKWASHER (ITEM #6), FLAT WASHER (ITEM #5) AND #10-32 KEEP NUT (ITEM #4).
- ATTACH G2 (6RD WIRE) FROM LINE SET ASSY (ITEM #7 OR #8) AND XFMR CND (ITEM #2 OR #3) TO STUD ITEM #3 AS SHOWN BY DETAIL A, USING (ITEMS #5, 6).
- ASSEMBLE KEYBOARD CABLE (ITEM #11) TO CENTER WALL ASSY (ITEM #24). SEE DETAIL E USING (ITEMS #13, 14). (SEE SHT. 2 OF UA)
- ASSEMBLE CENTER WALL ASSY (ITEM #24) USING #6 EXT TOOTH LOCKWASHER (ITEM #6) AND PHIL PAN HD SCREW #3-32 X 1/2 (ITEM #4).
- ASSEMBLE CARD GUIDE (ITEM #14) AND ITEM #20 TO CHASSIS (ITEM #1). USE TOOL PROVIDED.
- PLUG XFMR ASSY (ITEM #2 OR ITEM #3) TO CENTER WALL ASSY (ITEM #24).
- ATTACH CABLE OF XFMR ASSY (ITEM #2 OR #3) TO CENTER WALL ASSY (ITEM #24) AT 3RD TERMINAL STRIP.
- ATTACH CBN FROM LINE SET ASSY (ITEM #7 OR #8) TO CENTER WALL (ITEM #24).
- ASSEMBLE CAPACITOR (ITEM #25) TO REGULATOR BOARD SHELF ASSY (ITEM #27) USING CAPACITOR CLAMP (ITEM #28) WITH PHIL TRUSS HD SCREW #3-32 X 3/8 LG (ITEM #30), #8 EXT TOOTH LOCKWASHER (ITEM #8) AND KEEP NUT #3-32 (ITEM #4).
- ASSEMBLE 1/4 TURN RECEPTACLE (ITEM #18) TO REG. SHELF ASSY (ITEM #27).
- ASSEMBLE CATERPILLAR GROMMET (ITEM #34) TO REG SHELF ASSY (ITEM #27) USING PERMA BOND ADHESIVE (ITEM #35).
- ASSEMBLE REG SHELF ASSY (ITEM #27) TO CHASSIS (ITEM #1) USING #8 EXT TOOTH LOCKWASHER (ITEM #8) AND PHIL PAN HD SCREW #3-32 X 3/8 LG (ITEM #4).
- ATTACH CABLE OF XFMR ASSY (ITEM #2 OR #3) TO REG. SHELF ASSY (ITEM #27) USING FLAT WASHER (ITEM #5), #8 EXT TOOTH LOCKWASHER (ITEM #8) AND PHIL PAN HD SCREW #3-32 X 3/8 LG (ITEM #4).
- ATTACH LEADS OF XFMR ASSY (ITEM #2 OR #3) TO CAPACITOR (ITEM #25) AND COVER WITH CAPACITOR INSULATOR (ITEM #28). (CONTINUED ON SHEET 2)

OFF-SHEET PARTS LIST REFER TO A-PL-BAB-C-B

ITEM #	DESCRIPTION	QTY
1	CHASSIS	1
2	XFMR ASSY	1
3	XFMR ASSY	1
4	FAN	4
5	FLAT WASHER	2
6	EXT TOOTH LOCKWASHER	6
7	LINE SET ASSY	1
8	EXT TOOTH LOCKWASHER	2
9	KEEP NUT	1
10	PHIL PAN HD SCREW	4
11	KEYBOARD CABLE	1
12	FAN HARNESS	1
13	SCREW	2
14	CARD GUIDE	1
15	PHIL TRUSS HD SCREW	1
16	PHIL PAN HD SCREW	4
17	REG SHELF ASSY	1
18	1/4 TURN RECEPTACLE	1
19	SCREW	2
20	CARD GUIDE	1
21	SCREW	2
22	SCREW	2
23	SCREW	2
24	CENTER WALL ASSY	1
25	CAPACITOR	1
26	SCREW	2
27	REG SHELF ASSY	1
28	CAPACITOR INSULATOR	1
29	SCREW	2
30	PHIL TRUSS HD SCREW	1
31	SCREW	2
32	SCREW	2
33	SCREW	2
34	CATERPILLAR GROMMET	1
35	ADHESIVE	1
36	PHIL PAN HD SCREW	4
37	PHIL PAN HD SCREW	4
38	CHASSIS	1
39	PHIL PAN HD SCREW	4
40	PHIL PAN HD SCREW	4
41	SCREW	2
42	SCREW	2
43	FAN	4
44	SCREW	2
45	PHIL PAN HD SCREW	4
46	SCREW	2
47	SCREW	2
48	SCREW	2
49	SCREW	2
50	SCREW	2
51	SCREW	2
52	SCREW	2
53	SCREW	2
54	SCREW	2
55	SCREW	2
56	SCREW	2
57	SCREW	2
58	SCREW	2
59	SCREW	2

ITEM #	DESCRIPTION	QTY
1	CHASSIS	1
2	XFMR ASSY	1
3	XFMR ASSY	1
4	FAN	4
5	FLAT WASHER	2
6	EXT TOOTH LOCKWASHER	6
7	LINE SET ASSY	1
8	EXT TOOTH LOCKWASHER	2
9	KEEP NUT	1
10	PHIL PAN HD SCREW	4
11	KEYBOARD CABLE	1
12	FAN HARNESS	1
13	SCREW	2
14	CARD GUIDE	1
15	PHIL TRUSS HD SCREW	1
16	PHIL PAN HD SCREW	4
17	REG SHELF ASSY	1
18	1/4 TURN RECEPTACLE	1
19	SCREW	2
20	CARD GUIDE	1
21	SCREW	2
22	SCREW	2
23	SCREW	2
24	CENTER WALL ASSY	1
25	CAPACITOR	1
26	SCREW	2
27	REG SHELF ASSY	1
28	CAPACITOR INSULATOR	1
29	SCREW	2
30	PHIL TRUSS HD SCREW	1
31	SCREW	2
32	SCREW	2
33	SCREW	2
34	CATERPILLAR GROMMET	1
35	ADHESIVE	1
36	PHIL PAN HD SCREW	4
37	PHIL PAN HD SCREW	4
38	CHASSIS	1
39	PHIL PAN HD SCREW	4
40	PHIL PAN HD SCREW	4
41	SCREW	2
42	SCREW	2
43	FAN	4
44	SCREW	2
45	PHIL PAN HD SCREW	4
46	SCREW	2
47	SCREW	2
48	SCREW	2
49	SCREW	2
50	SCREW	2
51	SCREW	2
52	SCREW	2
53	SCREW	2
54	SCREW	2
55	SCREW	2
56	SCREW	2
57	SCREW	2
58	SCREW	2
59	SCREW	2

UNIT ASSEMBLY, BAB-C

**MODULE ASSIGNMENT AND POWER REQUIREMENTS**

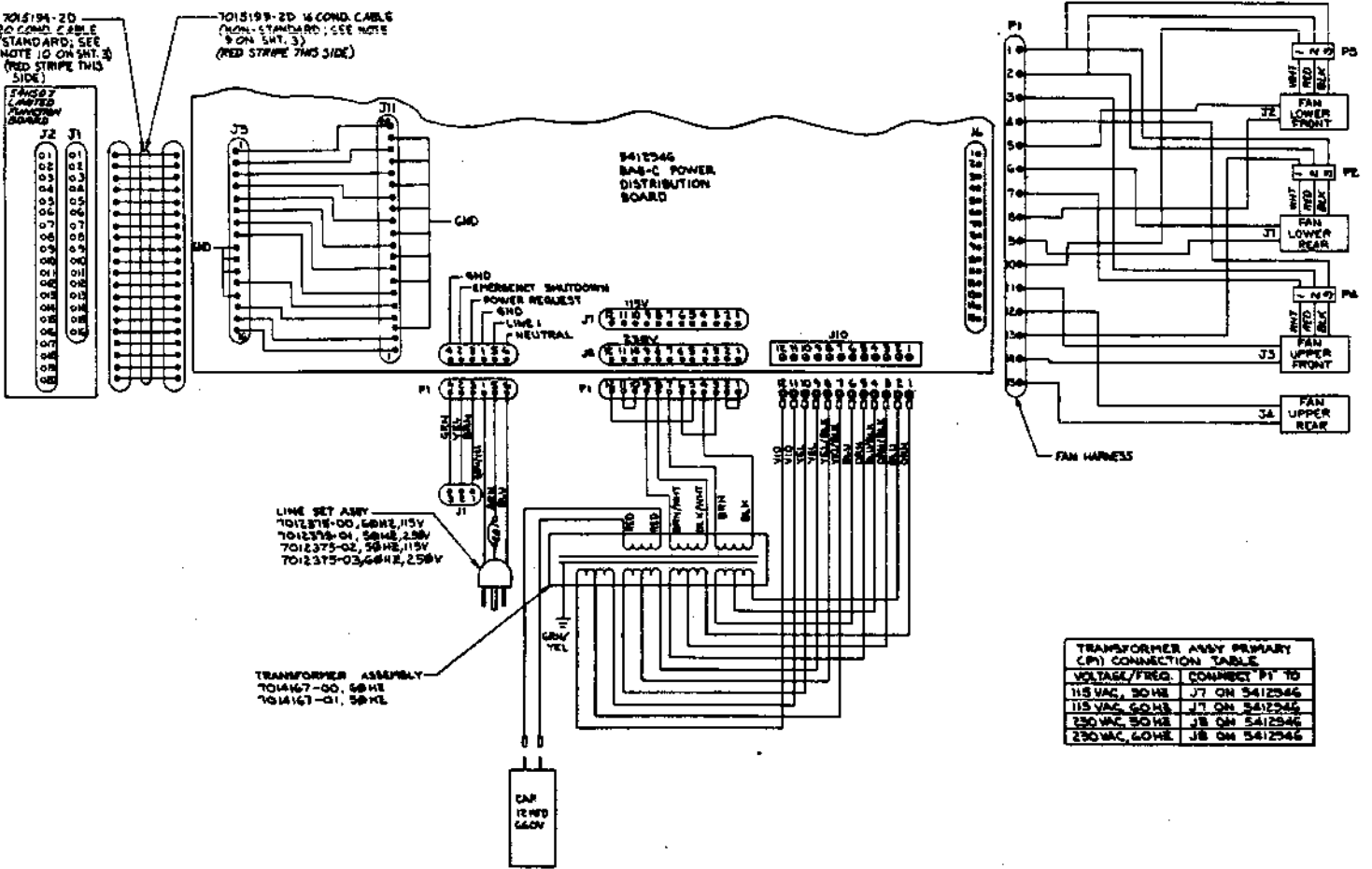
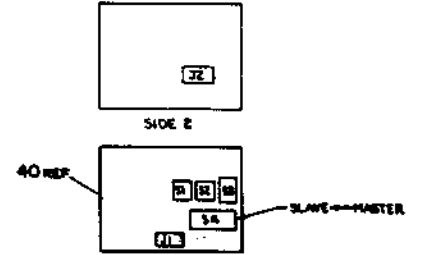
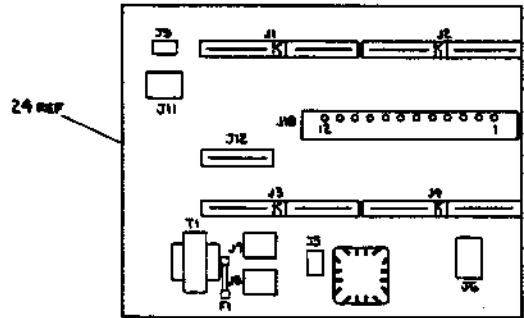
OPTION	DESCRIPTION	BOARD SIZE	NO. SLOTS USED	ASSIGNED SLOF NO.	1.5V	+5V	-15V
CMB-F	CARD RDR CONT.	QUAD	1	4-20	26A	---	---
CRR-F	CARD RDR CONT.	---	---	4-20	26A	---	---
DAB-EA	INTERPROC. BUFFER	---	---	2-20	26A	---	03A
DAB-EC	RTC CRYSTAL	---	---	2-20	34A	---	---
DAB-EP	RTC PROG.	QUAD	2	2-20	143A	---	07A
DACB-A	OPTION 1	HEX	1	2-3	20A	06A	1A
DPB-EA-EB	MODEM INTERFACE	QUAD	2	2-20	180A	06A	11A
DRE-EA	DIGITAL I/O	QUAD	1	2-20	225A	---	---
KAB-E	POSITIVE LOG	QUAD	1	4-20	190A	---	---
KCB-AA-AB	PROG. CONSOLE	PNL. MT.	0	N.A.	2.5A	---	---
KDB-E	DATA BREAK	QUAD	1	4-20	12A	---	---
KGB-EA	REUNDANCY CHECK	QUAD	1	4-20	94A	---	---
KKB-A	C.P.U.	HEX	1	1	30A	---	04A
MBB-JA	ASYN. DATA CONT.	QUAD	1	2-20	11A	05A	10A
KLB-M	MODEM CONTROL	QUAD	1	2-20	40A	04A	04A
KMB-AA DB-AB	OPTION 2	HEX	1	2-3	20A	---	---
KMB-E	MEM. EXT. & T. S. CONT.	QUAD	1	4-20	10A	---	---
LEB-XZ	LRPS CONTROL	QUAD	1	2-20	35A	---	---
LSB-F	LSBI CONTROL	QUAD	1	2-20	40A	---	---
MAB-AA	8K CORE, OPERATING	HEX	2	4-11	2.5A	---	---
MAB-AB	8K CORE, STANDBY	HEX	2	4-11	2.5A	---	---
MAB-AB	16K CORE, OPERATING	HEX	2	4-11	2.5A	---	---
MAB-AB	16K CORE, STANDBY	HEX	2	4-11	2.5A	---	---
MAB-AA	1K ROM	QUAD	1	2-20	2.0A	---	---
MAB-AB	2K ROM	---	---	2-20	3.0A	---	---
MAB-AC	3K ROM	---	---	2-20	4.0A	---	---
MAB-AD	4K ROM	---	---	2-20	5.0A	---	---
MAB-AB	1K PROM	---	---	2-20	3.8A	---	35A
MAB-AA	1K RAM	---	---	4-20	1.4A	---	---
MAB-AB	2K RAM	---	---	4-20	2.1A	---	---
MAB-AC	3K RAM	---	---	4-20	2.8A	---	---
MAB-AD	4K RAM	---	---	4-20	3.5A	---	---
PCB-E, PNB-E	PCBA CONTROL	---	---	4-20	84A	---	85A
RXB-E	RXB CONTROL	---	---	4-20	13A	---	---
RKB-EA	RKBS CONTROL	---	---	4-20	3.8A	---	---
TAB-AA	TU6B CONTROL	---	---	2-20	2.8A	---	---
TAB-EA-FA	TU6B CONTROL	---	---	4-20	4.8A	---	---
VCB-E	DISPLAY CONTROL	---	---	2-20	3.1A	---	---
VTB-E	DISPLAY CONTROL	---	---	4-20	3.78A	89A	13A
XTB-E	PLOTTER CONTROL	---	---	4-20	42A	81A	03A
KKB-E	MBSB MAJOR REG.	---	---	818	1.7A	---	---
	MBSB MAJOR REG. CONT.	---	---	819	50A	---	---
	MBSB TIMING GEN.	---	---	820	12A	---	---
	MBSB BUS LOAD	---	---	1	10A	10A	53A
ADB-A	A/D CONV.	QUAD	1	4-20	325A	---	---
FAPB-A	FLOATING POINT	HEX	2	4-20	88A	---	---
KDB-E	MBS40, EAC DR	---	---	819	1.6A	---	---
	MBS41, EAC REG	---	---	818	---	---	---
KLB-A	MSLU	HEX	1	4-20	25A	89A	825A
LAB-P	LAND CONT.	QUAD	1	4-20	10A	---	---
MIB-E	BOOT LOADER	QUAD	1	4-20	75A	---	05A
RHB-L	SPBS CONT.	QUAD	2	4-20	3.5A	---	---
YDB-E	TU6B CONT.	QUAD	1	4-20	1.5A	---	---
VMB-A	VNED DISPLAY CONT.	HEX	1	4-20	2.8A	---	---

WITH KEB-E OPTION, MBSB00 / MBSB01 MUST BE MOVED TO SLOTS 16 / 17 RESPECTIVELY. THE KEB-E OPTION PLUGS INTO SLOTS 16 / 17 (MBS41 / MBS40)

AVAILABLE CURRENT:

SLOTS 1 THRU 10  
 1.5V -15V +15V  
 25A 2A 2A  
 (MAX) (MAX) (MAX)

SLOTS 11 THRU 20  
 +5V -15V +15V  
 25A 2A 2A  
 (MAX) (MAX) (MAX)

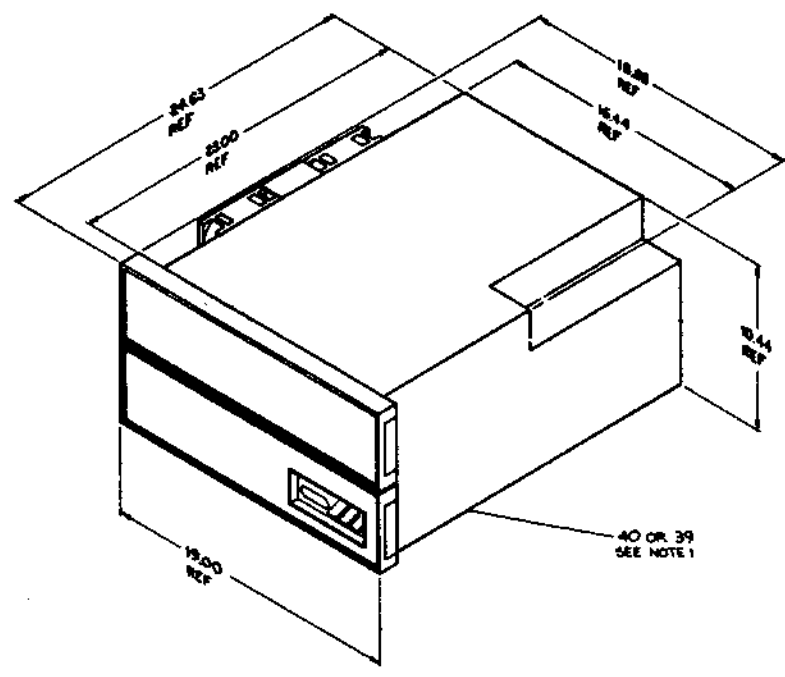


TRANSFORMER ASSY PRIMARY (P1) CONNECTION TABLE

VOLTAGE/FREQ.	CONNECT P1 TO
115VAC, 60HZ	J7 ON 8412346
115VAC, 60HZ	J7 ON 8412346
230VAC, 60HZ	J8 ON 8412346
230VAC, 60HZ	J8 ON 8412346

UNIT ASSEMBLY, BAB-C  
 PARTS LIST  
 SEE DRAWING FOR PARTS LIST

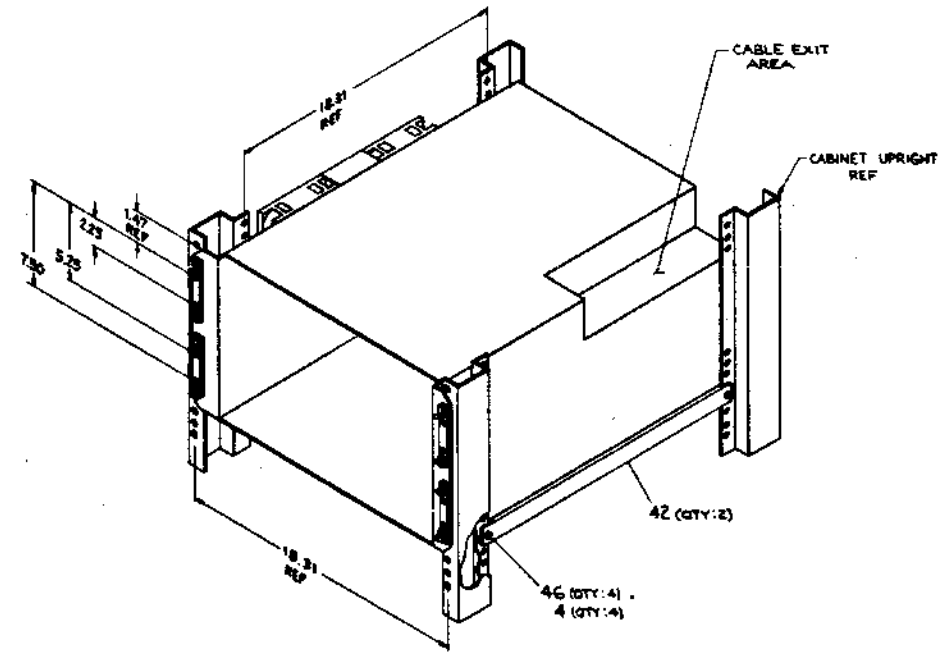
BAB-C TORQUE SPECIFICATIONS	
ITEM	TORQUE ± 2 IN/LBS
16	12
6	25
8	15
25	15
30	15
2 OR 3 (TERMS)	15
44	15
22	12
43	12
15	12



MAX. UNIT WEIGHT = 117 LBS.

**MOUNTING INSTRUCTIONS**

1. SEE DETAIL "D" FOR MOUNTING DIMENSIONS.
2. REMOVE THE BLANK BEZEL ASSEMBLY OR PROGRAMMER'S PANEL.
3. REMOVE THE LIMITED FUNCTION PANEL AND DISCONNECT THE CABLE FROM THE LIMITED FUNCTION BOARD.
4. REMOVE THE LATCH HOLDING (4 PLCS).
5. REMOVE THE SPEED NUT, AND INSTALL ON CAB UPRIGHT EIGHT PLACES PER MOUNTING DIMENSIONS.
6. IT MAY BE NECESSARY TO REMOVE THE FINGER GUARDS (4) AND HARNESS COVER IN ORDER TO MOUNT BOX IN CAB.
7. ATTACH MOUNTING RAILS USING SCREWS AND LOCK WASHERS TO LEFT AND RIGHT SIDE OF CABINET AS PER DETAIL "D".
8. WITH THE BOX IN PLACE, IN THE CABINET, REPLACE THE LATCH HOLDING, SO AS TO SECURE THE BOX TO THE CABINET.
9. PLUG THE CABLE INTO THE LIMITED FUNCTION PANEL AND REPLACE THE PANEL.
10. REPLACE BLANK BEZEL OR PROGRAMMER'S PANEL.
11. RE-INSTALL FINGER GUARDS AND HARNESS COVER.



DETAIL "D"  
 MOUNTING DIMENSIONS

- 11.3 INSERT COIL SPRING (ITEM 34) TO CENTER WALL ASSY (ITEM 34) USING PHL. PAN. HD. SCREW G-32 X .3125 (ITEM 23) AND INT. TOOTH LOCK WASHER (ITEM 10) AND FLAT WASHER (ITEM 92).
12. INSERT LOWER GROOVES (ITEM 36) TO CHASSIS (ITEM 1) AND CENTER WALL ASSY (ITEM 24).
- 12.1 INSERT UPPER GROOVES (ITEM 36) TO BEG. SHELF ASSY (ITEM 17) AND CENTER WALL ASSY (ITEM 24).
13. ADD 1/4 TURN RECEPTACLE (ITEM 46) TO TOP COVER (ITEM 38).
14. ASSEMBLE TOP COVER (ITEM 38) TO CHASSIS (ITEM 1) USING #6 EXT. TOOTH LOCK WASHER (ITEM 10) AND PHL. PAN. HD. SCREW G-32 X .75 LG. (ITEM 9).
15. ASSEMBLE REAR COVER (ITEM 37) TO CHASSIS (ITEM 1).
16. ASSEMBLE LATCH HOLDING (ITEM 21) TO CHASSIS (ITEM 1) USING 10-32 SPEED NUT (ITEM 23) AND PHL. FLAT HD. SCREW 10-32 X .75 LG. (ITEM 22).
17. ATTACH KEYBOARD CABLE (ITEM 41) TO LIMITED FUNCTION PANEL (ITEM 40). SEE NOTE 7.
18. ATTACH 5/16" BLANK BEZEL ASSY (ITEM 39) TO CHASSIS (ITEM 1). SEE NOTE 7.
19. ATTACH GND STRAP (ITEMS 54 + 56) TO FANS (ITEMS 1A + 43) WITH SCREW PROVIDED, THEN ATTACH GND STRAP TO CHASSIS STUDS (ITEM 1) WITH #8 REP. NUT (ITEM 4) + #8 EXT. TOOTH LOCK WASHER (ITEM 31).

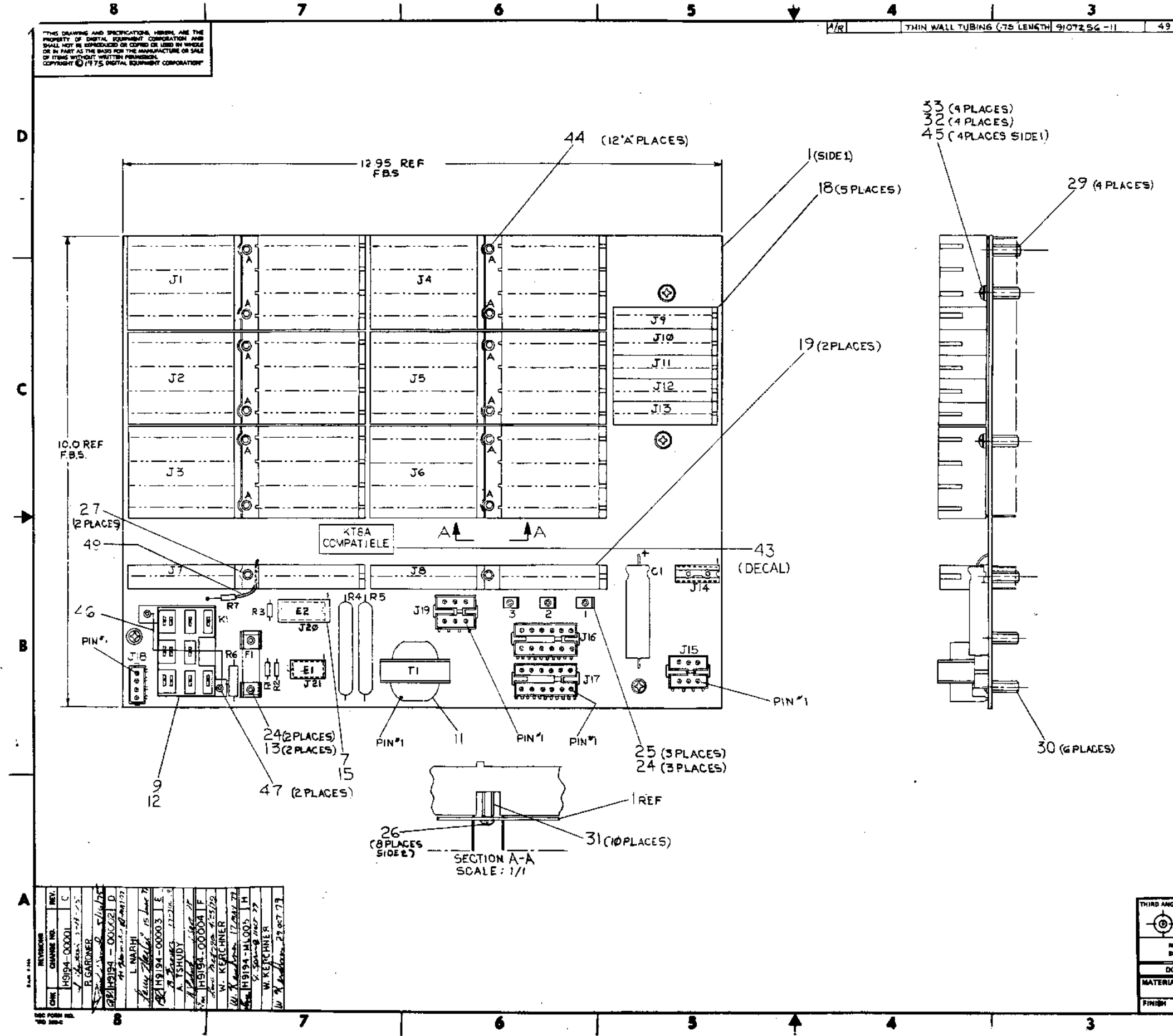
NOTES  
 7. IN EXPANSION OPTIONS KEYBOARD CABLE IS REPLACED BY REMOTE INTERLOCK JUMPER (ITEM 55). THIS JUMPER IS INSERTED INTO 28 ON THE 5412946 POWER DISTRIBUTION BOARD. ALSO EXPANDER BOXES DO NOT INCLUDE LIMITED FUNCTION PANELS (ITEM 40). IN THIS CASE THERE WILL BE TWO 3/4" BLANK BEZELS. THESE ARE TO BE MOUNTED ONE ON TOP OF THE OTHER ON THE CHASSIS FRONT.  
 8. ALL EXPANSION BOX VARIATIONS WILL CONTAIN ITEMS 53 AND 54. USE ITEMS 53 AND 54 WHEN EXPANDING TO 96 BOX. IN ALL OTHER EXPANSION VARIATIONS USE ONLY ITEM 53 AS POWER CONTROL CABLE.  
 9. THIS CABLE TO BE USED WITH LIMITED FUNCTION BOARD ETC. REV. B OR EARLIER. (C) REV. D OR EARLIER.  
 10. THIS CABLE TO BE USED WITH LIMITED FUNCTION BOARD ETC. REV. C AND LATER. (C) REV. E OR LATER.

**ASSEMBLY INSTRUCTIONS**

- 13A. ATTACH WIRES TO CABLE TIE MOUNT (ITEM 26) WITH CABLE TIE (ITEM 43).
- 13B. ASSEMBLE HARNESS COVER (ITEM 40) AND FINGER GUARD (ITEM 17) TO FANS (ITEM 14) USING KEYPAT G-32 (ITEM 16) AND PHL. PAN. HD. SCREW G-32 X .75 LG. (ITEM 43).



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QTY	DESCRIPTION	DWG. PART NO.	ITEM NO.
1	RES. 1K 1/4W 5%	1300365-00	46
2	EYELET	9000024-07	47
1	SPRING, RELAY HOLDDOWN	1216422-00	46
4	SCR. PHL PAN HD #8-32x 3/8	9006036-01	45
12	SCR SOCKET HD #8-32x 3/8	9006339-06	44
1	DECAL "KT8A COMPATIBLE"	3615653-00	43
A/R	WIRE 30AWG SOLID GRN	9105790-55	42
A/R	WIRE 18 AWG, STRANDED GRN	9107360-55	41
A/R	WIRE 22 AWG, STRANDED GRN	9107350-55	40
REF	"OMNIBUS" SPEC	A-5P-OMNIB-US	39
REF	MODULE ECO HISTORY	B-MB-H9194-0-0-6	38
REF	ASSY/DRILLING HOLE LAYOUT	D-AH-H9194-0-5	37
REF	X-Y COORDINATE HOLE LOCATION	X-CO-H9194-0-4	36
REF	CIRCUIT SCHEMATIC	D-CS-H9194-0-1	35
A/R	WIRE 22AWG GREEN	9107350-55	34
4	WASHER, FLAT #8	9006660	33
4	WASHER, INTL TOOTH #8	9006634	32
10	SPACER, #8-32x.25Ax.56	9009602	31
6	SPACER, #8-32x.25Ax.62	9009629	30
4	SPACER, #8-32x.25Ax.1.25	9009603	29
12	SCR. SOCKET #8-32x.01	9009070	28
2	SCR. SOC. HD #8-32x1.25	9008471-08	27
8	SCR. PHL PAN HD #8-32x.25	9006035-01	26
3	TERMINAL, SINGLE MALE TAB	9008219	25
5	EYELET	9009000	24
2	EYELET	9006746	23
1	J18 CONN, PC, 4 PIN	1211342-04	22
2	J15 J19 CONN, PC, 6 PIN	1211342-06	21
2	J16 J17 CONN, PC, 12 PIN	1211342-12	20
2	J7, J8 CONN BLK, 72 PIN SLTD	1211425-02	19
5	J9 -> J13 CONN BLK, 36 PIN SLTD	1211029	18
6	J1 -> J6 CONN BLK, 288 PIN SLTD	1210258-01	17
1	J21 SOCKET, IC, 14 PIN	1211813-01	16
2	J14, J20 SOCKET, IC, 16 PIN	1211813-02	15
6	CARD GUIDE, CENTER	1210698	14
2	CLIP, FUSE	9007203	13
1	SOCKET, RELAY	1210684	12
1	T1 TRANSFORMER	1611646	11
1	F1 FUSE, 3/8 A, S.B	9007207	10
1	K1 RELAY, 3 POLE, 6V, 10AMP	1210683-01	9
1	E1 QUAD CORE DRIVER 4011	1511102	8
1	E2 DIODE ARRAY GJA-7010866-0-0		7
1	R6 RES. 10 Ω, .2W, 10%	1300172	6
2	R4, R5 RES. 20 Ω, 10W, 1%	1305416	5
3	R1, R2, R3 RES. 2.2K 1/4W, 5%	1300417	4
1	C2 CAP. 0.2 μF, 100V, DUAL DISC	1010767	3
1	C1 CAP 930 pf 30V	1010509-00	2
1	ETCHED CIRCUIT BOARD	5011505	1

THIRD ANGLE PROJECTION	DRN: [Signature]	DATE: 1/20/75	FIRST USED ON: H9300
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D BY: [Signature]	DATE: 2-18-75	TITLE: CONNECTOR BLOCK ASS'Y
DO NOT SCALE DWG	ENG: [Signature]	DATE: 2-20-75	SIZE CODE: DAD
MATERIAL: ++	PROG. [Signature]	DATE: 2-27-75	NUMBER: H9194-0-0
FINISH: ++	PROD. [Signature]	DATE: 2-27-75	REV. H
	NEXT HIGHER ASSY.		
	B-DD-H9194-0		
	SCALE 1/1		
	SHEET 1 OF 1		

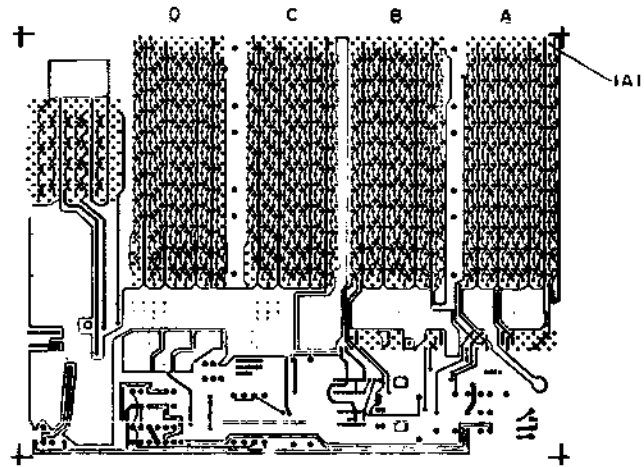
REV.	DATE	BY	CHK'D BY	DESCRIPTION
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H 1-0-6616H SCD 2

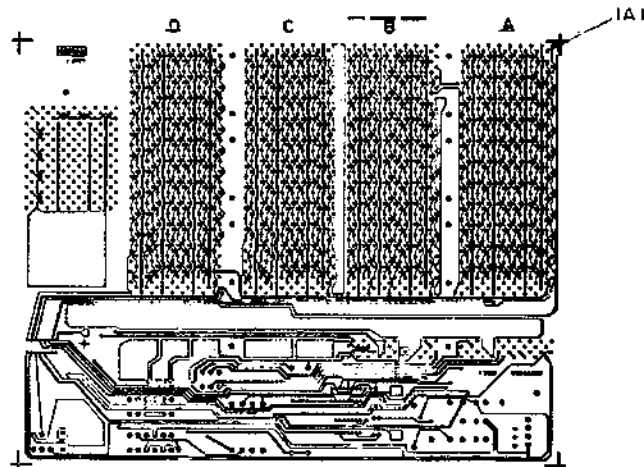
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NOTES:

REF	X-Y COORDINATE HOLE LOCATION	K-CO-H9194-0-4	1
REF	ASSY/DRILLING HOLE LAYOUT	E-AH-H9194-0-5	2
REF	MODULE ECO HISTORY	E-AH-H9194-0-6	3
REF	ETCHED CIRCUIT BOARD	SC41505	4
REF	CONNECTOR BLOCK ASSY	D-AD-H9194-0-0	5



SOLDER SIDE (SIDE 2)



BLOCK SIDE (SIDE 1) AS SEEN THRU, SIDE 2

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		
	ETCH BOARD REV. B			

FIRST USED ON OPTION MODEL PDP 8A		DATE 3-3-75			
DATE 3-4-75		DATE 3-4-75			
DATE 3-4-75		DATE 3-4-75			
DATE 3-4-75		DATE 3-4-75			
DATE 3-4-75		DATE 3-4-75		TITLE CONNECTOR BLOCK ASSY	
NEXT HIGHER ASSY H9300		SCALE		SIZE CODE DCS	
SEMICONDUCTOR CONVERSION CHART		SHEET 1 OF 2		NUMBER H9194-0-1	
REV. H		REV. H		REV. H	

CHK	CHANGE NO.	REV.	DESCRIPTION
			ORIGINAL
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE
			CHANGE

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

D

C

B

A

D

C

B

A

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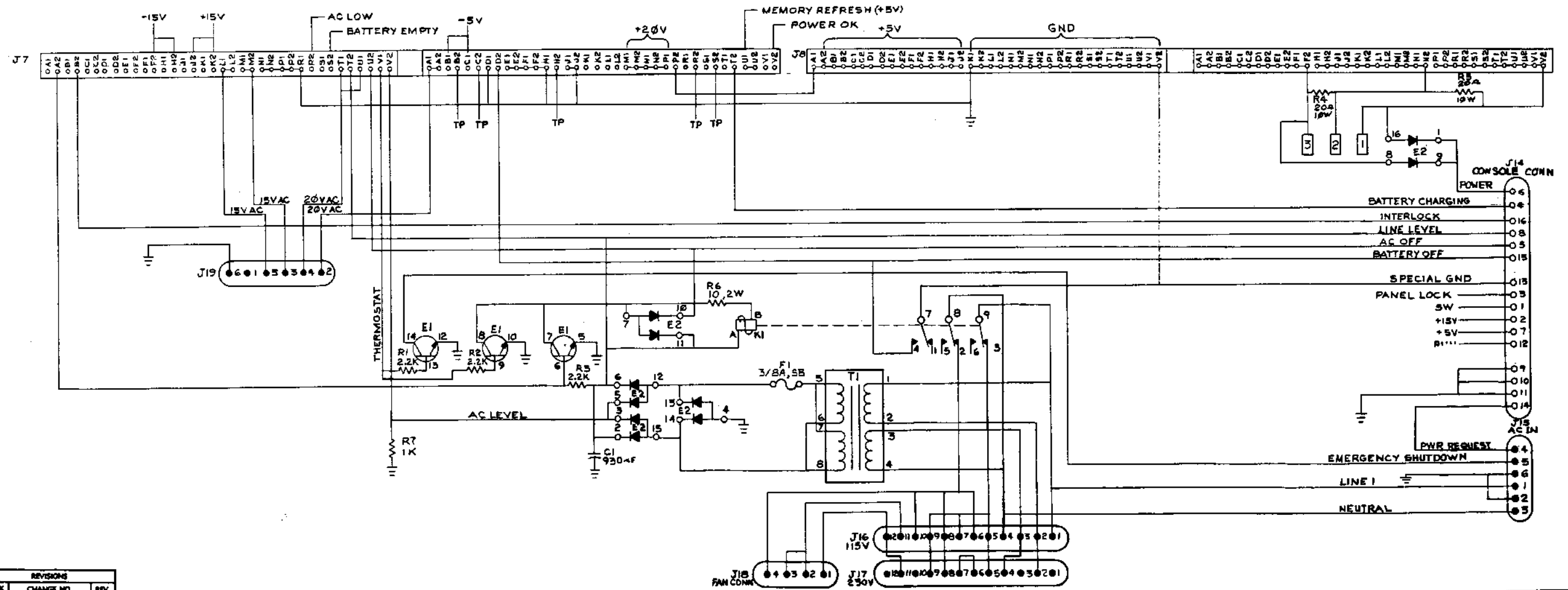
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2

1

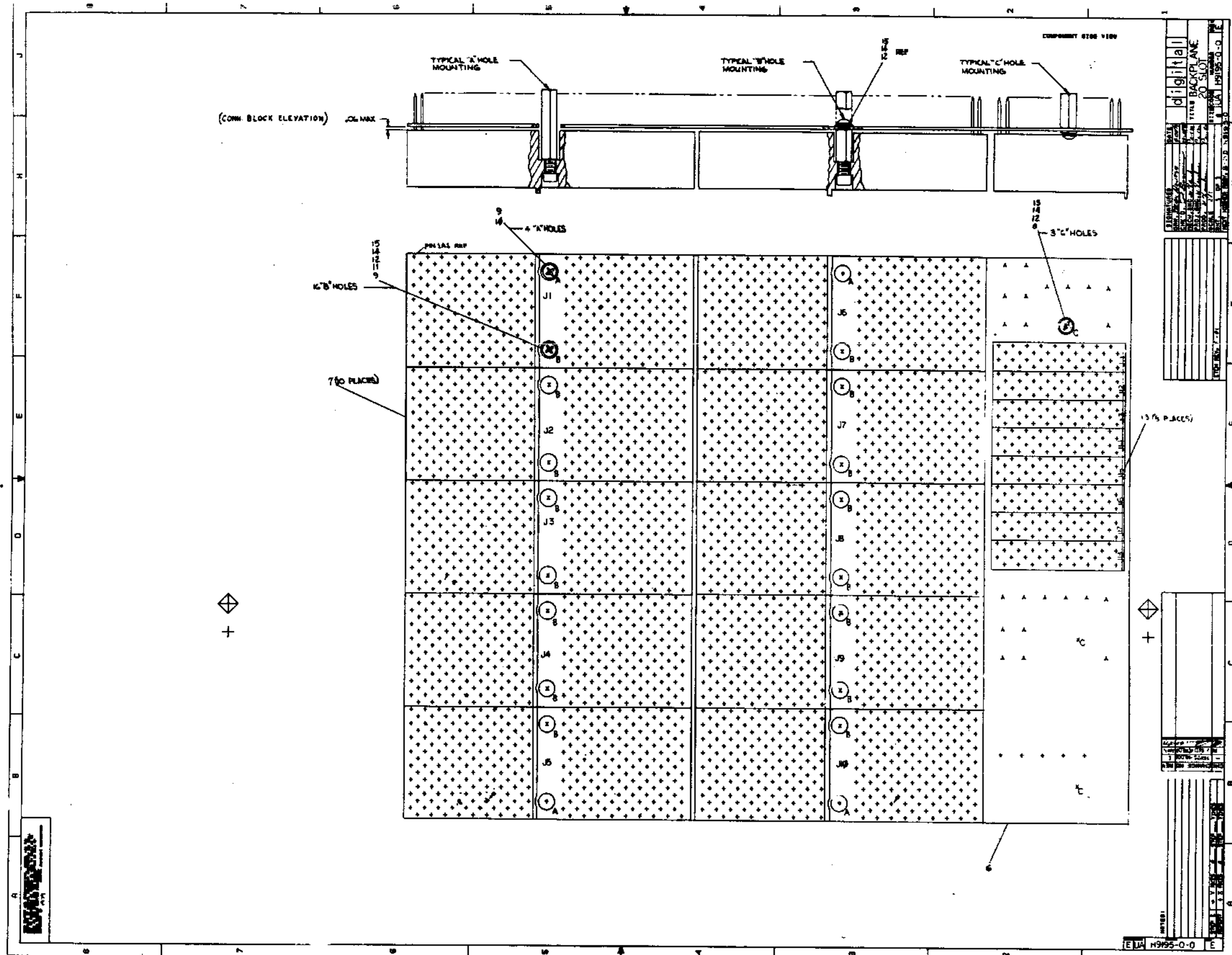
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PIN	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2
A	A01 = +5V ALL OTHERS = TP	+5V	B02 & B05 = BATTERY EMPTY, ALL OTHERS = TP	+5V	C01 = +5V ALL OTHERS = TP	+5V	D02 & D03 = PANEL LOCK, ALL OTHERS = TP	+15V	TEST POINT	+20V
B	TEST POINT	-15V	B02 & B05 = AC LOW, ALL OTHERS = TP	-15V	TEST POINT	-15V	TEST POINT	-15V	TEST POINT	BANK SEL 0
C	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
D	MA0 L	EMA0 L	MA4 L	INT STROBE H	I/O PAUSE L	TP1 H	NAB L	IR0 L	TEST POINT	BANK SEL 1
E	MA1 L	EMA1 L	MA5 L	BREAK IN PROG L	C0 L	TP2 H	MA9 L	IR1 L	TEST POINT	+20V
F	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
H	MA2 L	EMA2 L	MA6 L	MA, MS, LOAD CONT L	C1 L	TP3 H	MA10 L	IR2 L	TEST POINT	MEMORY REFRESH
J	MA3 L	MEM START L	MA7 L	OVERFLOW L	C2 L	TP4 H	MA11 L	F L	TEST POINT	MEMORY REFRESH
K	MD0 L	MDDIR L	MD4 L	BREAK DATA CONT L	BUS STROBE H	TS1 L	MD8 L	D L	TEST POINT	+20V
L	MD1 L	SOURCE H	MD5 L	BREAK CYCLE L	INTERNAL I/O L	TS2 L	MD9 L	E L	TEST POINT	BANK SEL 2
M	MD2 L	STROBE H	MD6 L	LOAD ADD ENABLE L	NOT LAST XFER L	TS3 L	MD10 L	USER MODEL	TEST POINT	-5V
N	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
P	MD3 L	INHIBIT H	MD7 L	INT IN PROG H	INT REQUEST L	TS4 L	MD11 L	F SET L	TEST POINT	+20V
R	DATA 0 L	RETURN H	DATA 4 L	NIS STALL L	INITIALIZE H	LINK DATA L	DATA 8 L	PULSE LAH	TEST POINT	BANK SEL 3
S	DATA 1 L	WRITE H	DATA 5 L	RES	SKIP L	LINK LOAD L	DATA 9 L	STOP L	UNUSED	UNUSED
T	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
U	DATA 2 L	ROM ADDRESS L	DATA 6 L	RUN L	CPMA DISABLE L	IND 1 L	DATA 10 L	KEY CONTROL L	JUMPER	UNUSED
V	DATA 3 L	LINK L	DATA 7 L	POWER OK H	MS, IR DISABLE L	IND 2 L	DATA 11 L	SW	UNUSED	UNUSED



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	CONN BLOCK ASSY	SIZE CODE	DCS	NUMBER	H9194-0-1	REV.	R
SCALE	1:1	SHEET	2 OF 2	DWT.			





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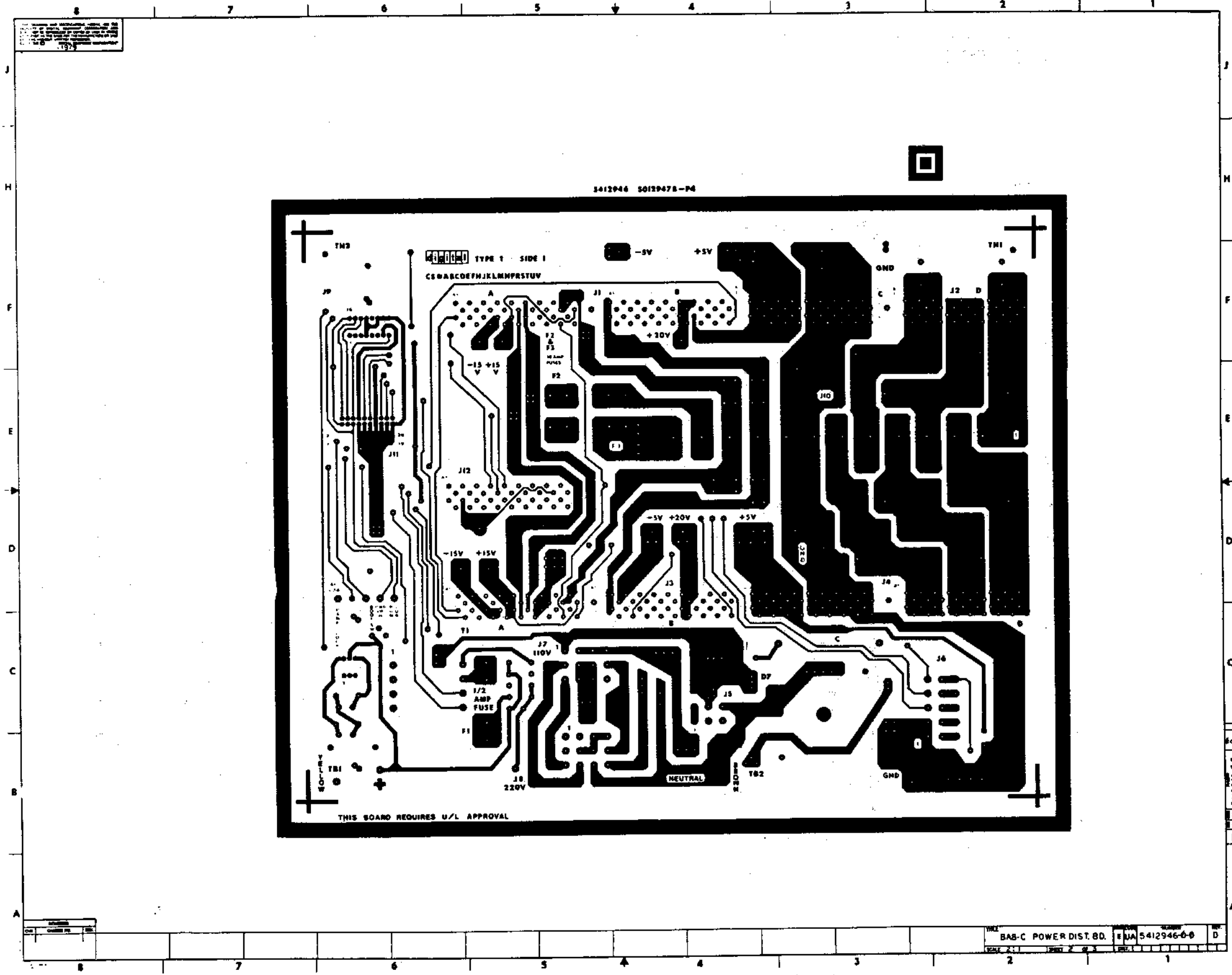
E 1-0-9616H SO 2

PIN	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2
A	A01 = +5V ALL OTHERS = TP	+5V	B02 & B03 = BATTERY EMPTY, ALL OTHERS = TP	+5V	C01 = +5V, ALL OTHERS = TP	+5V	D02 & D03 = PANEL LOCK, ALL OTHERS = TP	+15V	TEST POINT	+20V
B	TEST POINT	-15V	B02 & B03 = AC LOW, ALL OTHERS = TP	-15V	TEST POINT	-15V	TEST POINT	-15V	TEST POINT	BANK SEL 0
C	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
D	MA0 L	EMA0 L	MA4 L	INT STROBE H	I/O PAUSE L	TP 1 H	MA8 L	IR0 L	TEST POINT	BANK SEL 1
E	MA1 L	EMA1 L	MA5 L	BREAK IN PROG L	C0 L	TP 2 H	MA9 L	IR1 L	TEST POINT	+20V
F	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
H	MA2 L	EMA2 L	MAG L	MA, MS, LOAD CONT L	C1 L	TP 3 H	MA10 L	IR2 L	TEST POINT	MEMORY REFRESH
J	MA3 L	MEM START L	MAT L	OVERFLOW L	C2 L	TP 4 H	MA11 L	F L	TEST POINT	MEMORY REFRESH
K	MD0 L	MD DIR L	MD4 L	BREAK DATA CONT L	BUS STROBE L	TS 1 L	MD 8 L	D L	TEST POINT	+20V
L	MD1 L	SOURCE H	MDS L	BREAK CYCLE L	INTERNAL I/O L	TS 2 L	MD 9 L	E L	TEST POINT	BANK SEL 2
M	MD2 L	STROBE H	MD6 L	LOAD ADD ENABLE L	NOT LAST XFER L	TS 3 L	MD10 L	USER MODE L	TEST POINT	-5V
N	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND
P	MD3 L	INHIBIT H	MD7 L	INT IN PROG H	INT REQUEST L	TS 4 L	MD11 L	F SET L	TEST POINT	+20V
R	DATA 7 L	RETURN H	DATA 4 L	NTS STALL L	INITIALIZE H	LINK DATA L	DATA 8 L	PULSE LA H	TEST POINT	BANK SEL 3
S	DATA 1 L	WRITE H	DATA 5 L	RES 2	SKIP L	LINK LOAD L	DATA 9 L	STOP L	UNUSED	UNUSED
T	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	GROUND	JUMPER	GROUND
U	DATA 2 L	ROM ADDRESS L	DATA 6 L	RUN L	CPMA DISABLE L	IND 1 L	DATA 10 L	KEY CONTROL L		UNUSED
V	DATA 3 L	LINK L	DATA 7 L	POWER OK H	MS, IR DISABLE L	IND 2 L	DATA 11 L	SW	UNUSED	UNUSED

DATE: 11/15/76  
 CHANGE NO.:  
 DESIGNED BY: W. K. RICHNER  
 CHECKED BY: W. K. RICHNER  
 DATE: 11/15/76

ORIG. APPROVAL: [Signature]	FIRST USED ON: BAB-C
CHKD: [Signature]	TITLE: 20 SLOT BACK PLANE
ENG: [Signature]	SIZE: D
PROJ. ENG: [Signature]	CODE: CS
PROD: [Signature]	NUMBER: H9195-0-1
NEXT HIGHER ASSY:	REV: E
D-UR-H9195-0-0	SCALE: 1:1
SHEET: 1	OF: 1



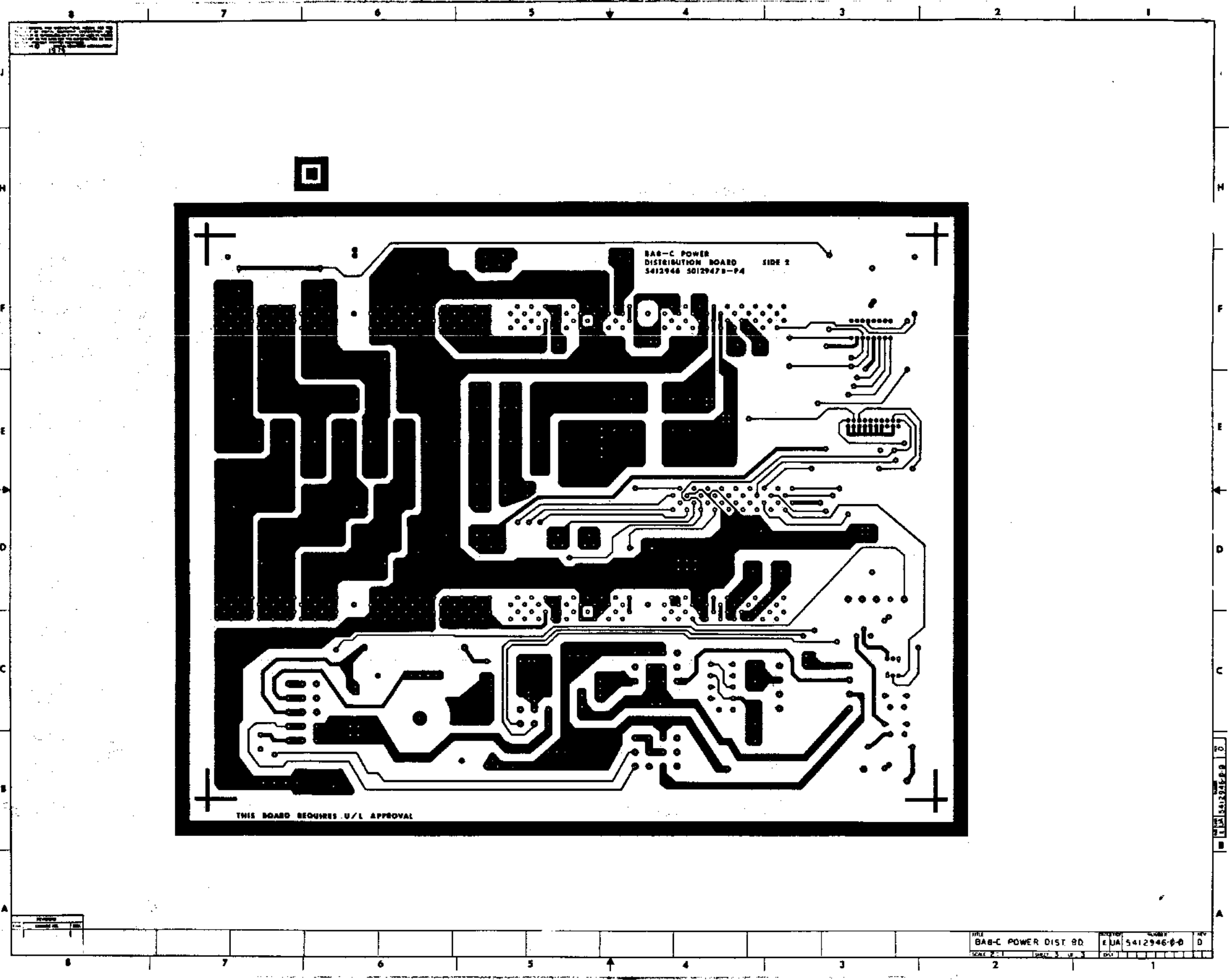


THIS BOARD REQUIRES U/L APPROVAL  
 5412946 5012947E-P4

TYPE 1 - SIDE 1  
 CSWABCDEFHJKLMRSTUV

THIS BOARD REQUIRES U/L APPROVAL

5412946 5012947E-P4  
 BA8-C POWER DIST. BD.  
 EJA 5412946-00  
 SCALE 2:1  
 SHEET 2 OF 3  
 REV. 1



BAB-C POWER  
DISTRIBUTION BOARD SIDE 2  
5412946 50129479-04

THIS BOARD REQUIRES U/L APPROVAL

DATE: 10/1/64  
BY: EJA  
CHECKED BY: [blank]

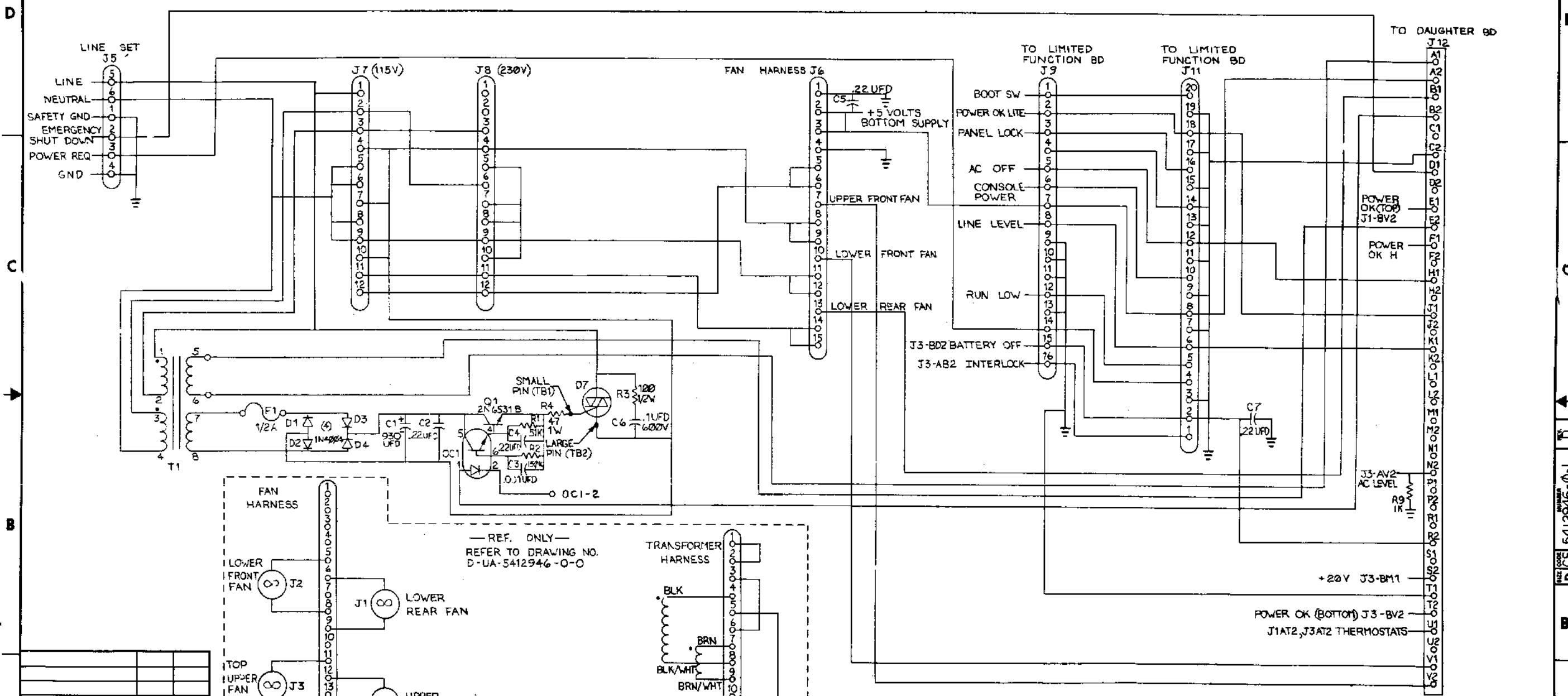
DATE: 10/1/64  
BY: EJA  
CHECKED BY: [blank]

FILE	BAB-C POWER DIST BD	DESIGNER	EJA	5412946-04	REV	D
SCALE	1:1	UNIT	IN	3	REV	1

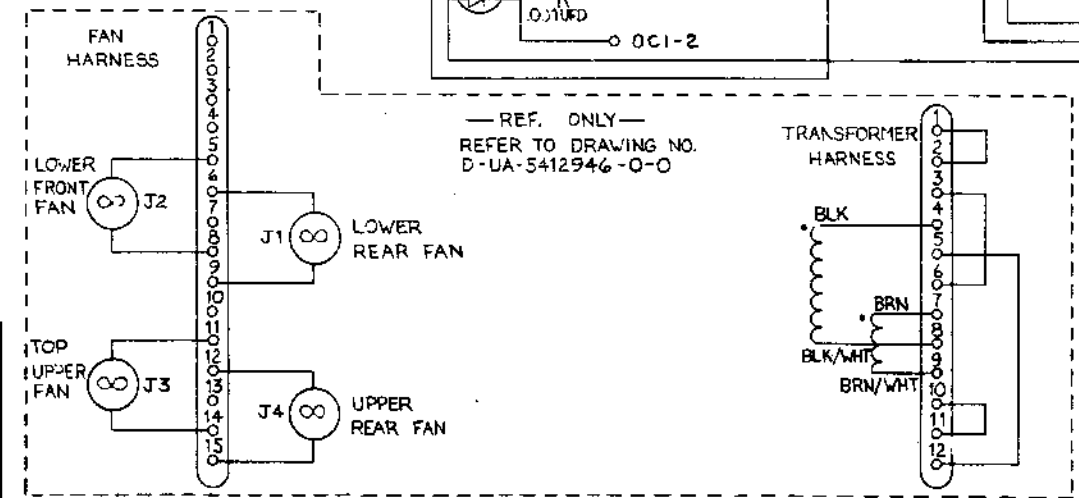
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**NOTES:**



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



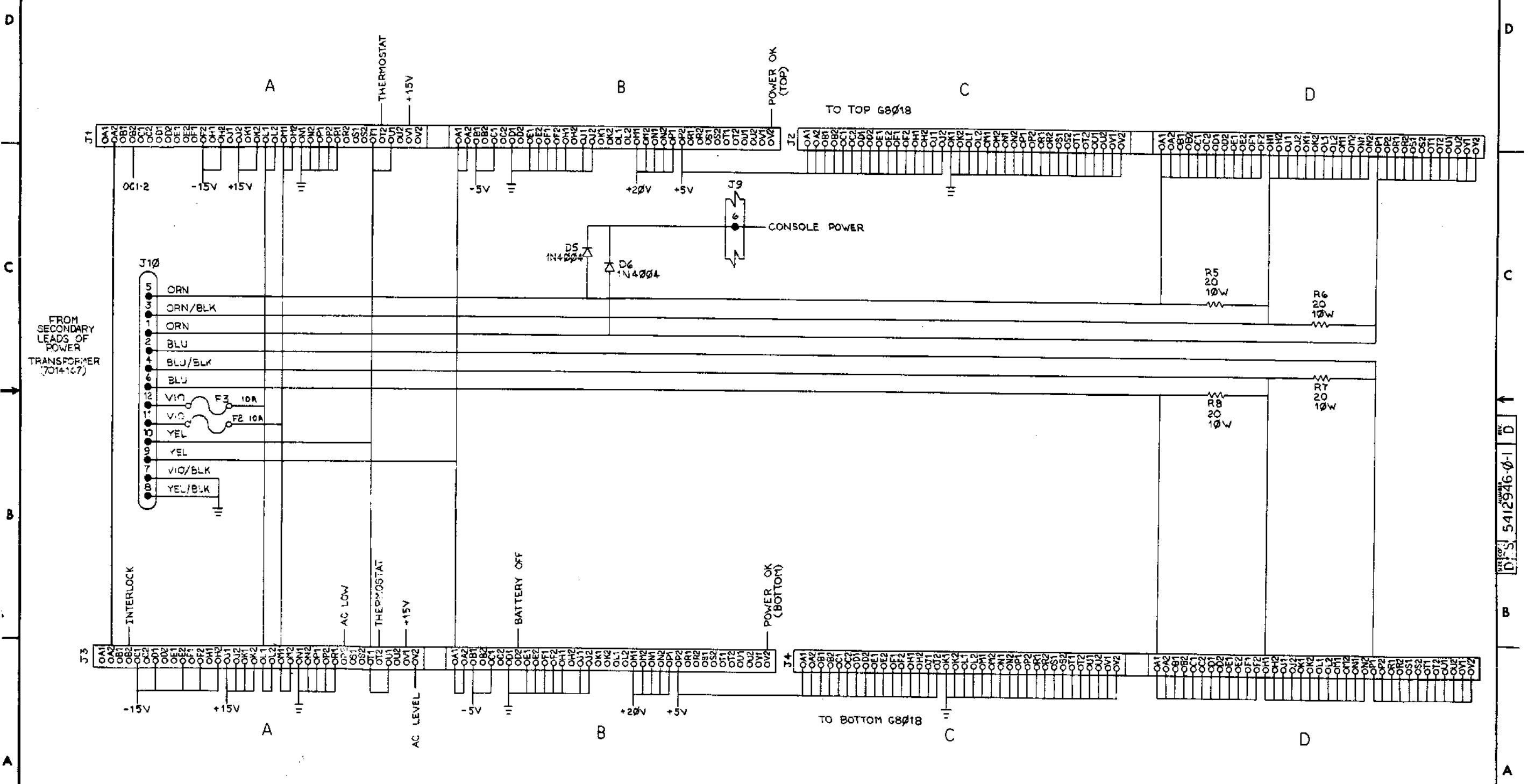
W. Kerchner 11/07/77	W. Kerchner	11/16/78	D
W. Kerchner	W. Kerchner	11/16/78	C
W. Kerchner	W. Kerchner	11/16/78	B
W. Kerchner	W. Kerchner	11/16/78	A

FIRST USED ON OPTION MODEL BA8-C		QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.										
PARTS LIST																
ETCH BOARD REV. B-P4																
<table border="1"> <tr> <td>DRN. D. Zwickler</td> <td>DATE 7-19-77</td> </tr> <tr> <td>CHKD. W. Kerchner</td> <td>DATE 11-11-77</td> </tr> <tr> <td>ENG. C. DeLuca</td> <td>DATE 5-1-77</td> </tr> <tr> <td>PROJ. ENG. A. DeLuca</td> <td>DATE 5-1-77</td> </tr> <tr> <td>PRG. J. J. Kerchner</td> <td>DATE 2-1-77</td> </tr> </table>							DRN. D. Zwickler	DATE 7-19-77	CHKD. W. Kerchner	DATE 11-11-77	ENG. C. DeLuca	DATE 5-1-77	PROJ. ENG. A. DeLuca	DATE 5-1-77	PRG. J. J. Kerchner	DATE 2-1-77
DRN. D. Zwickler	DATE 7-19-77															
CHKD. W. Kerchner	DATE 11-11-77															
ENG. C. DeLuca	DATE 5-1-77															
PROJ. ENG. A. DeLuca	DATE 5-1-77															
PRG. J. J. Kerchner	DATE 2-1-77															
NEXT HIGHER ASSY 5412946-0-0				TITLE BA8-C POWER DISTRIBUTION BOARD												
SCALE		SIZE CODE		NUMBER		REV.										
SHEET 1 OF 2		D CS		5412946-0-1		D										
SEMICONDUCTOR CONVERSION CHART																
DIST.																

REV. 001 D CS 5412946-0-1



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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	BAB-C POWER DISTRIBUTION BOARD	SIZE CODE	D CS	NUMBER	5412946-0-1	REV.	D
SCALE	H	SHEET	2 OF 2	DIST.			

D S 5412946-0-1 REV D

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1		E-MD-5012947-0-0	5012947-00	BASC POWER DISTRIBUTION BOARD	1	
2			1000043-00	1000.0 MHF 250V 20% Y5F DISC	1	C3
3			1000033-00	.1 MFD 600V 10% MYLR	1	C6
4			1010509-00	.930 MFD 30V +75-10% AL EL	1	C1
5			1105796-00	1N 4004 PIV=400 I= 1A D041 SP	6	D1-D6
6			1209941-04	HEADER RT ANGLE, RIGHT	1	
7			1211425-00	CONN, CARD 72PIN SLOTTED DOUBLE	4	J1-J4
8			1211029-00	CONN, CARD 36PIN SLOTTED	1	J12
9			1211813-02	SKT IC 16PIN DIP GOLD PLATE	1	J9
10			1209941-06	HEADER. 100 20POS RT ANGLE	1	J11
11			1211905-01	TERM BLOCK 12POS 7/16 SPACING	1	J10
12			1212297-09	MATE-N-LOK 15PIN UNIV HEADER	1	J6
13			1212297-05	MATE-N-LOK 6PIN UNIV HEADER	1	J5
14			1212297-08	MATE-N-LOK 12PIN UNIV HEADER	2	J7, J8
15			1209941-03	HEADER RT ANGLE LEFT L	1	
16			1302199-00	47.0 1.0 W 5.0 % CC	1	R4
17			1300228-00	100.0 .50 W 5.0 % CC	1	R3
18			1304839-00	51.0 K .25 W 5.0 % CC	1	R1
19			1305416-00	20.0 10.0 W 1.0 % WM	4	R5-R8
20			1509338-00	DEC6531B NPN 310MW SI 40 90 P	1	Q1
21			1914194-00	OPTP-COUPLED ISOLATOR	1	OC1
22			9006707-00	*** THIS ITEM IS NOT USED ***	-	
23			1613282-00	XFMR P=AB S=14.50.12A	1	T1
24			9006023-01	*** THIS ITEM IS NOT USED ***	-	
25			9008185-00	*** THIS ITEM IS NOT USED ***	-	
26			9007203-00	*** THIS ITEM IS NOT USED ***	-	
27			9007208-00	FUSE, REG BLO 1/2 A, 250V GLASS	1	F1
28			9009000-00	*** THIS ITEM IS NOT USED ***	-	
29			9008838-00	FUSE, REG BLO 10 A, 32V GLASS	2	F2, F3
30			9107560-01	*** THIS ITEM IS NOT USED ***	-	

REVISION HISTORY		BASIC PART NO: 5412946		ORN: W.E.	DATE: 09-JUN-78	D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J.P. LEPKOWSKI	DATE: 09-JUN-78	TITLE	PARTS LIST
ER	00003	C	SECTION VARIATION INDEX	DES. ENG: AL DELUCA	DATE: 09-JUN-78	B88-C POWER DISTRIBUTION BOARD	
WK	5412946-M1004	D	[A] 00	RESP. ENG.: AL DELUCA	DATE: 09-JUN-78	DOCUMENT NUMBER	
			[B]	MFG. ENG.: J.V. KANE	DATE: 09-JUN-78	SIZE	CODE
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	NUMBER	REV
			[D]	E-UA-5412946-0-0	B88-C	K PL	5412946-0-DBP
			[E]				D
			[F]				6
			[G]				
			[H]				
			[I]				
			[J]				
			[K]				
			[L]				
			[M]				
			[N]				

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AUTOMATED BY PRTLST.2D(16)

PARTS LIST

SHEET A2 OF A2

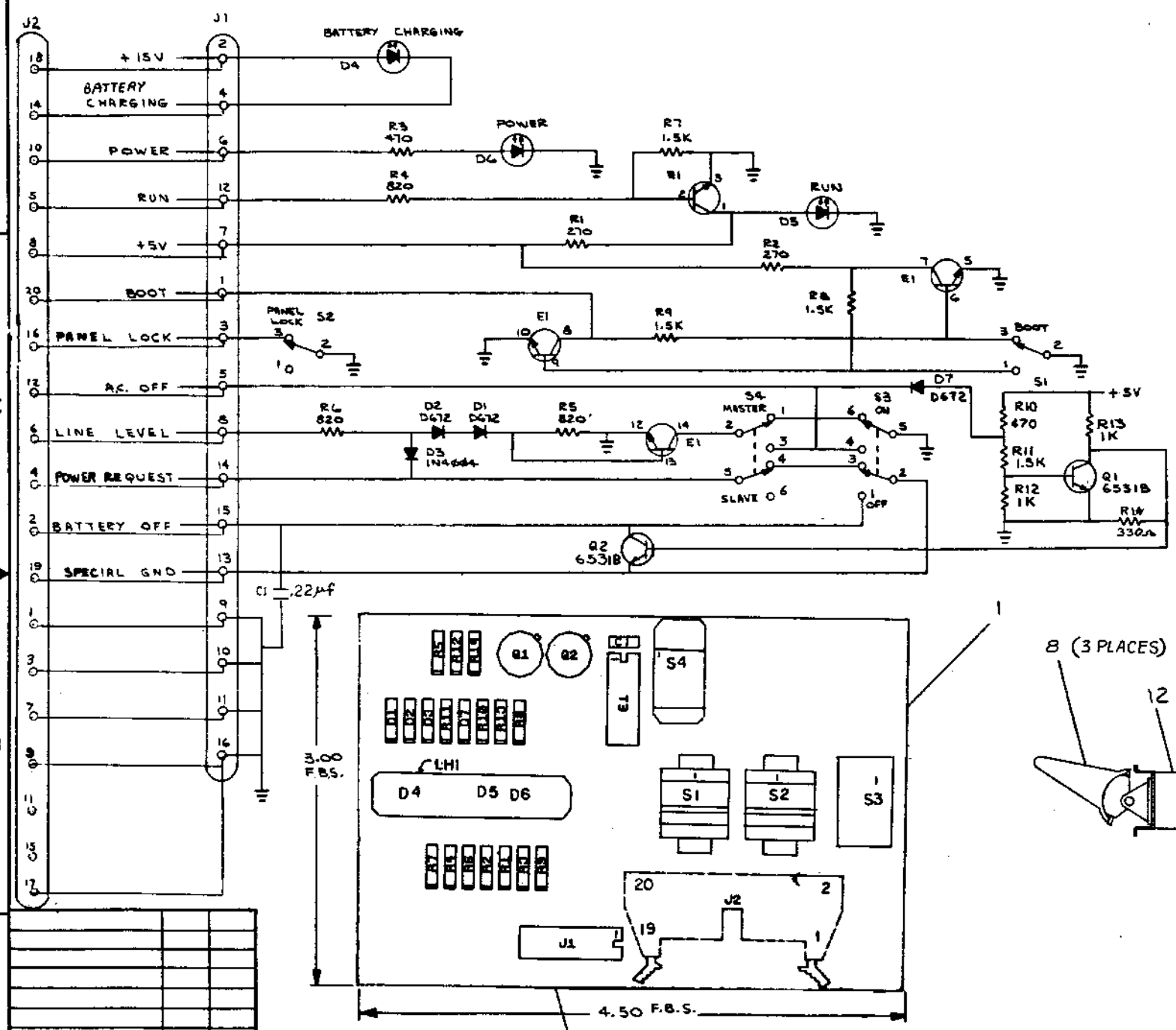
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31	31		1210929-01	*** THIS ITEM IS NOT USED ***	-	
32	32		1302396-00	150.0 K .25 W 5.0 % CC	1	R2
33	33		7014329-00	TRIAC ASSY	1	D7
34	34		1010274-00	.22 MFD 50V +80-20% Z5U CER	4	C2,C4,C5,C7
35	35		9105740-55	*** THIS ITEM IS NOT USED ***	-	
36	36		1300365-00	1.0 K .25 W 5.0 % CC	1	R9
37	37		9107256-11	*** THIS ITEM IS NOT USED ***	-	
38	38		7420187-00	PLATE LABEL	1	
39	39		9006431-0E	*** THIS ITEM IS NOT USED ***	-	
40	40		9007801-00	WASHER, LOCK, S.S. #6	2	
41	41		9006024-01	SCREW, PAN, PHIL 6-32X 1/2 SS	2	
42	42		9009513-03	CLIP, FUSE, WITH STOP, FOR PC BO	6	

D	I	G	I	T	A	L	TITLE	BAB-C POWER DISTRIBUTION BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5412946-0-DBP	D

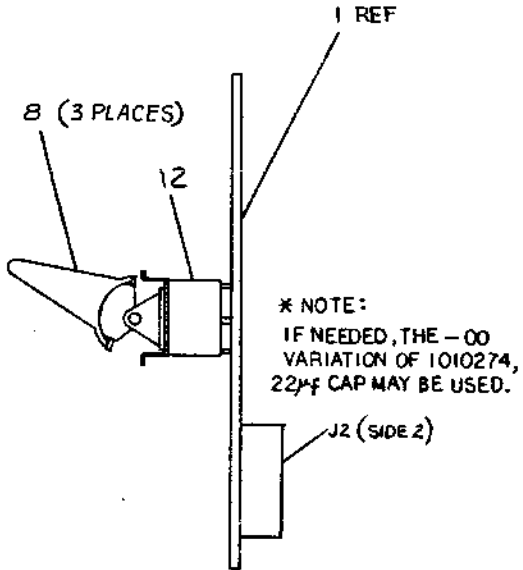


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**NOTES:**



**NOTE:** SEE AH DWG. FOR INSERTION



REF	X-Y COORDINATE HOLE LOCATION	K-00-5411507-0-4	1
REF	ASSY/DRILLING HOLE LAYOUT	D-M-5411507-0-5	2
REF	MODULE ECO HISTORY	B-MH-5411507-0-6	3
1	ETCHED CIRCUIT BOARD	5011506	4
3	D1, D2, D7	DIODE, D672	110 5275
1	D3	DIODE, 1N4004	110 5796
3	D4, D5, D6	DIODE, LIGHT EMITTING	1110 324
3		KNOB, DARK GRAY (#47)	1210786-01
2	S1, S2	SWITCH, TOGGLE, SPDT.	1210840
1	S4	SWITCH, SLIDE, DPST.	1210919
1	LH1	LED HOLDER, TRIPLE	1210940-02
1	S3	SWITCH, TOGGLE, D.P.D.T.	1212010
2	R3, R10	RES. 470, 1/4W 5%	1300316
4	R7, R8, R9, R11	RES. 1.5K, 1/4W 5%	1300391
3	R4, R5, R6	RES. 820, 1/4W, 5%	1301775
2	R1, R2	RES. 270, 1/4W, 5%	1301972
1	E1	QUAD CORE DRIVER, 4011	1511102-00
1	J1	SOCKET, 16 PIN	1211813-02
2		SCR, SLOTTED PAN HD, SELF THD #6-25	9008230-01
2	R12, R13	RES. 1K, 1/4W 5%	1300365
2	Q1, Q2	TRAN. DEC 6531B	1509338
1	R14	RES 330, 1/4W, 5%	1300295
2		WIRE, #22 GREEN SOLID	9006796
2		WIRE, #22 GREEN SOLID	9006796
1	J2	RT. ANGLE HEADER, 20 PIN	1209941-06
1		RT. ANGLE HEADER, LEFT LATCH	1209941-03
1		RT. ANGLE HEADER, RT. LATCH	1209941-04
1	C1	* CAP. .22µf, 50V, 20%	1010274-01

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				

IC TYPE	QND	+3V

QND AND 3V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

3.00 IN. H.S.

4.50 F.B.S.

19 (2 PLACES)

1 REF

B (3 PLACES)

12

J2 (SIDE 2)

\* NOTE: IF NEEDED, THE -00 VARIATION OF 1010274, 22µf CAP MAY BE USED.

FIRST USED ON OPTION MODEL H9300

REV	DATE	BY	CHKD
1	1-27-75	K. D.	
2	1-29-75		
3	2-2-75		
4	2-20-75		
5	3-2-75		

NEXT HIGHER ASSY: D-40-7610033-0-0

SCALE: 1 OF 1

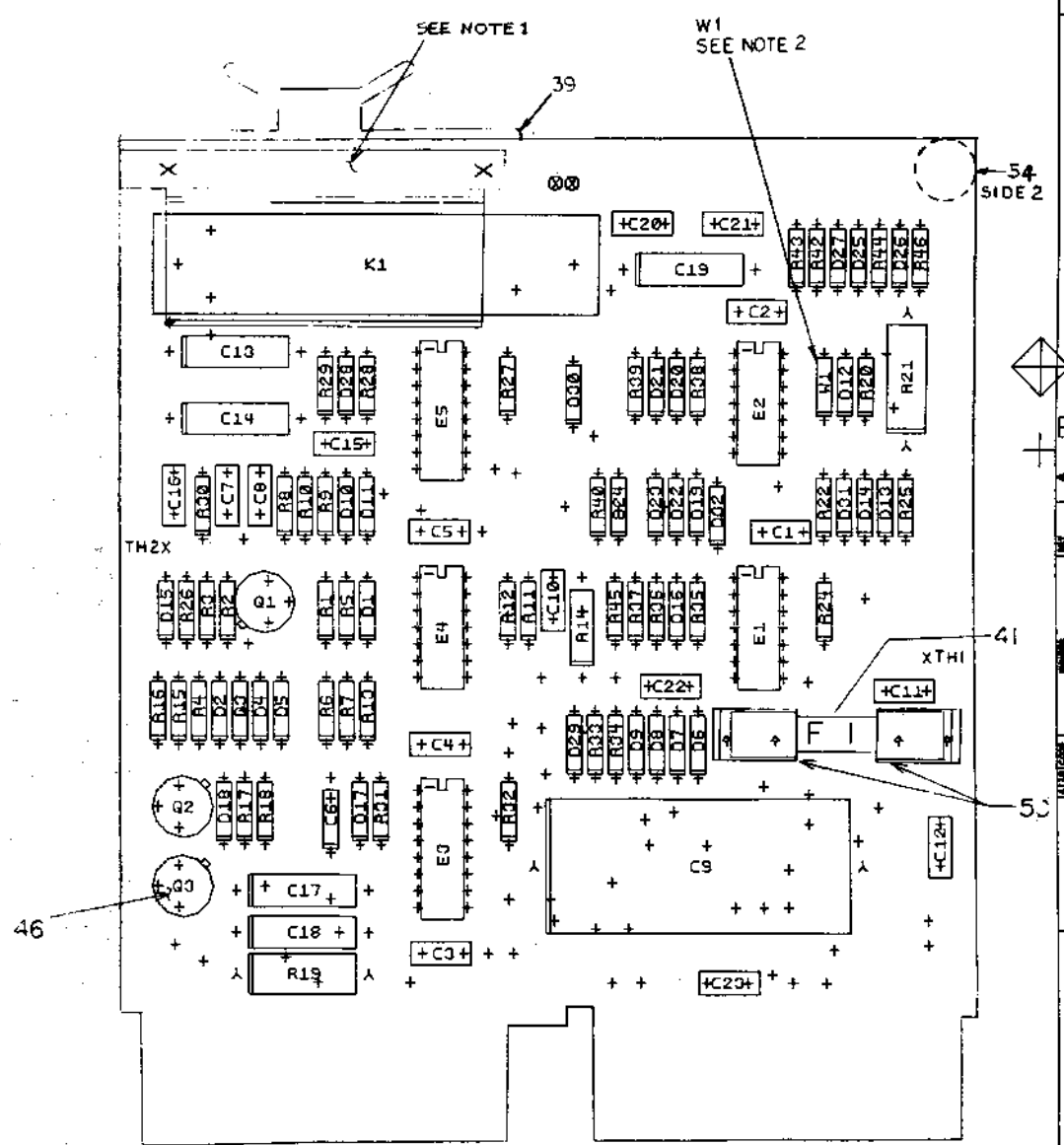
SEMICONDUCTOR CONVERSION CHART

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

DIGITAL			
TITLE LIMITED FUNCTION BOARD			
SIZE CODE	NUMBER	REV.	
DCS	5411507-0-1	F	
DATE			



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NOTES: 1. INSTALL A.F.C. BRACKET (7415122-02) USED TO SECURE RELAY K1 BY USING SCREWS (9026211-2-1), AND KEP NUTS (9006557-0-2) WASHERS (9026655-0-2). POWER JACK W1 IS ONLY REMOVED WHEN 36213 IS AN EXPANDED UNIT.

CHANGE NO	REV	DATE	BY
E			
F			
G			
H			
I			
J			
K			
L			
M			
N			
O			
P			
Q			
R			
S			
T			
U			
V			
W			
X			
Y			
Z			

ETCH REV. A-P1
P.C. DESIGN DATA BRD REV. B

SIGNATURES		DATE	digital
DRN. D. D. [Signature]		5-15-72	
CHK'D. [Signature]			
ENG. [Signature]			
PROJ. ENG. [Signature]			TITLE E18-C POWER DISTRIBUTION BOARD
PROD. [Signature]			CONTR. [Signature]
SCALE 2X			SIZE CODE NUMBER
SHT. 0F3			0 UA 68019-0-0
NEXT HIGHER ASSY. B-DD-68019-3			REV. [Signature]

8

7

6

5

4

3

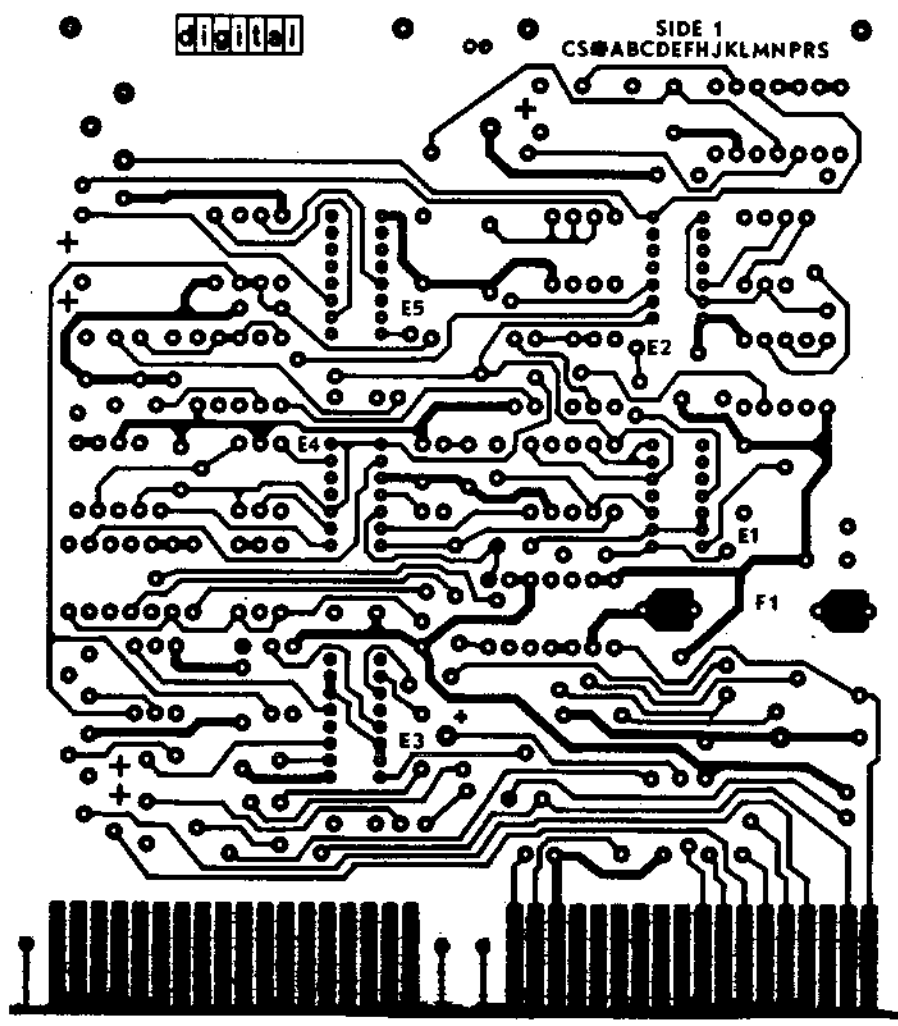
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1

DIA G8019-0-0 2

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G8019 5012948B-P1



D

C

B

A

D

C

B

A

DIA G8019-0-0

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	BAB-C POWER DISTRIBUTION BOARD CONTROL	SIZE/CODE	DIA G8019-0-0	NUMBER		REV.	F
SCALE	2 to 1	SHEET	2 OF 3	DIST.			

8

7

6

5

4

3

2

1

8

7

6

5

4

3

D U A G 8 0 1 9 - 2 2

1

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D

D

C

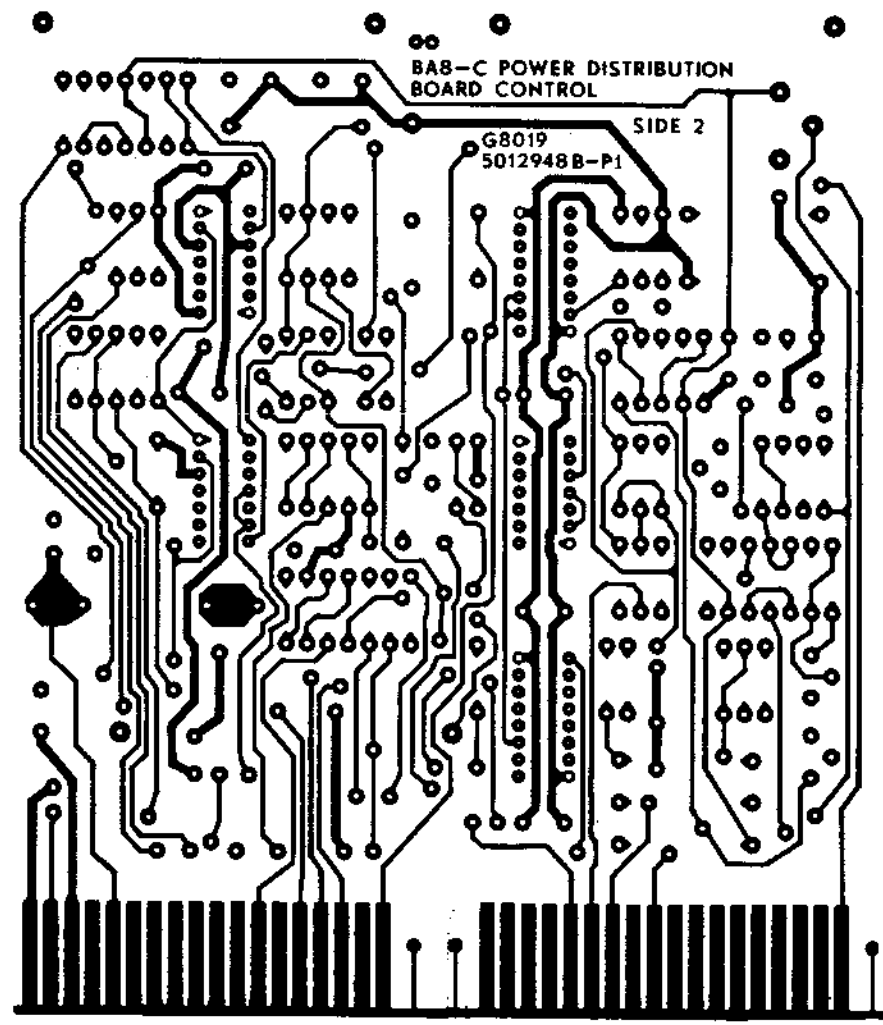
C

B

B

A

A



F

D I A G R 0 1 9 - 2 2 - 0

B

REV. SIONS		
CHK	CHANGE NO	REV

TITLE	BA8-C POWER DISTRIBUTION BOARD CONTROL	SIZE CODE	D U A G 8 0 1 9 - 2 2	NUMBER		REV.	F
SCALE	2+0:1	SHEET	3	OF	3	DIST.	

8

7

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3

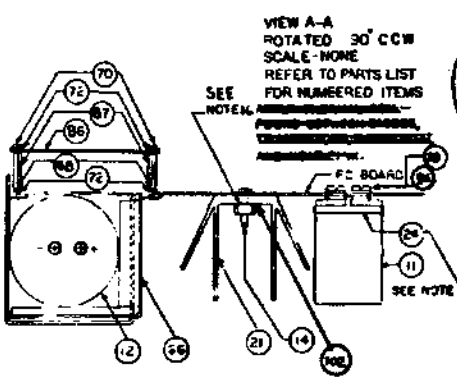
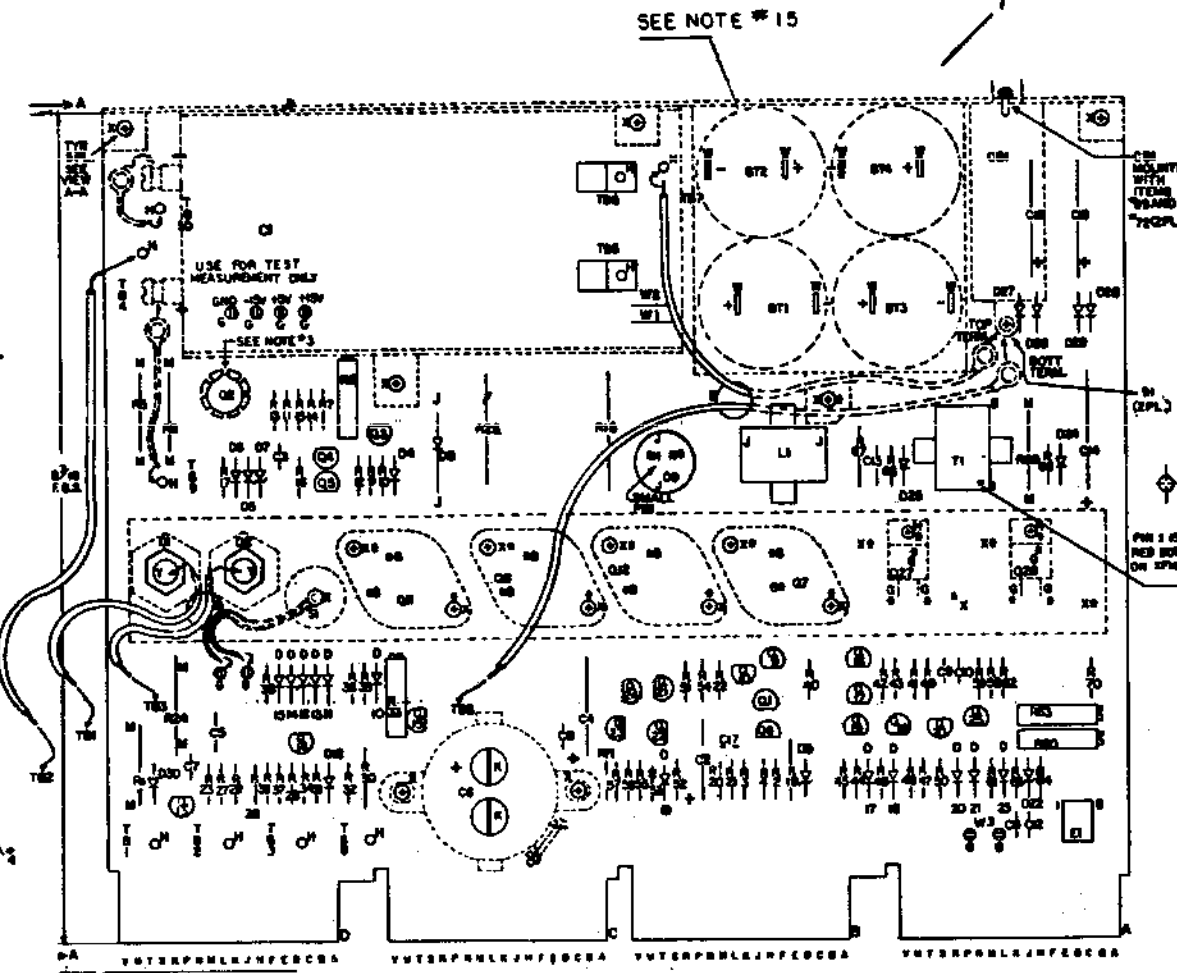
2

1

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**NOTES:**

1. TRANSISTOR DEC 2N5302, 1510196 MAY BE USED AS A SECOND SOURCE FOR ITEM # 62. TRANSISTOR DEC D44H8 1511654.
2. ALL COMPONENTS SHOWN BY A BROKEN LINE MOUNT ON SIDE 2.
3. TRANSISTOR PAD MOUNTS UNDER Q2, AND HEAT SINK MOUNTS ON Q2. REFER TO PARTS LIST, ITEM # 25 AND 27.
4. ITEM # 24 BRKT. IS MOUNTED ON BOARD WITH ITEM # 68, 73, AND 81 (2 PL).
5. Q6, Q7, Q11 AND Q12 ARE MOUNTED WITH ITEM # 73, 78, 81, 92 AND 101.
6. S1 MOUNTS WITH ITEM 73, 81 AND 92 (1 PLACE), Q26 AND Q27 ARE MOUNTED WITH ITEM # 67, 71, 74, 92 AND 103.
9. PHYSICAL IS MADE IN REVERSE, SIDE 1 IS LIGHT, SIDE 2 IS DARK.
10. INSERT JUMPER W3 FOR 50MHz. OPERATION.
11. JUMPERS W1, W2 SHOULD BE INSTALLED AFTER TEST.
12. SEE NOTE # 15.
13. SEE NOTE # 3.
14. SEE NOTE # 11.
15. FOR HANDLING AND SOLDERING REQUIREMENTS OF 1511670 LEAD ACID BATTERIES (ITEM # 13) SEE A-5P-766252-D-0.



16. APPLY THERMAL COMPOUND TO SIDES OF ALL THERMAL INSULATORS AND TO BOTTOM OF THERMOSTAT.

17. BELOW IS LISTED TORQUE VALUES TO BE USED IN ASSEMBLY:

SIZE OF SCREW	SECURING PC BOARD TO CHASSIS	INCH/LB
10-32 SCREWS	SECURING THE CRIMPS TO C1	14
10-32 SCREWS	SECURING THE CRIMPS TO C1	14
6-32 SCREWS	HOLDING PC BOARD TO THE CHASSIS	14
6-32 SCREWS	ON THE TRANSISTORS Q6, Q7, Q11, Q12	14
4-40 SCREWS	ON THE TRANSISTORS Q26, Q27	10
NUTS	HOLDING THE DIODES, D1 & D2	20
NUT	HOLDING THERMOSTAT, S1	10
6-32 SCREWS	HOLDING THE CIRCUIT BREAKER TO CHASSIS	14
6-32 SCREWS	HOLDING BATTERY SHIELD TO CHASSIS	14
SCREWS	HOLDING CRIMPS TO CIRCUIT BREAKER	14

**NOTE:**  
TO ACHIEVE TRUE TORQUE READINGS, ALWAYS USE A NUT DRIVER ON ONE SIDE AND A TORQUE DRIVER ON THE OTHER WHERE A SCREW AND A NUT ASSEMBLY IS INVOLVED.  
G.C. TOLERANCE: INSPECT TO MINUS (-) 2 MILS OF ASSEMBLED TORQUE VALUES.

**CAUTION:**  
OFF SHEET P/L DATA BASE PER 68016-NK006

REF	QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF			X-Y COORDINATE HOLE LOCATION	4-00-00016-0-1	A
REF			ASST/DRILLING HOLE LAYOUT	4-00-00016-0-0	2
REF			MIDDLE PCB HISTORY	0-00-00016-0-0	3
1			ETCHED CIRCUIT BOARD	4-00-00016-0-0	4
2	68, 69	C1, C2	CAP .4 UF 100V 20% B10C	1000030	5
7	64	C4	CAP 100 UF 50V 20% START	1000000	6
8	63, 68, 69, C11, C12	C3, C5, C6, C11, C12	CAP .01 UF 100V 20% B10C	1001610-01	7
3	614, 616, 618	C14, C15, C16	CAP 100 UF 25V -10% + 70% ELECT	1002701	8
1	62	C8	CAP 22 UF 50V 10% START	1000030	9
2	67, 68	C7, C9	CAP .22 UF 50V -20% + 50% CER	100274-00	10
1	68	C10	CAP 5000 UF 10V -10% + 70% ELECT	1001704	11
1	61	C1	CAP JIP 10V	1011370	12
2	66, 69, 611, 612, 613, 614, 615	D100, D002	DIODE 6002	1100110	13
2	61, 62	D1, D2	DIODE 1N1103	1111000	14
10	619, 617, 618, 619, 620, 621, 622, 624, 625, 630	D100, D072	DIODE 6072	1100270	15
5	64, 626, 627, 628, 629	D1000	DIODE 1N4004	1100700	16
1	66	D0	DIODE 60752	1110015	17
2	67, 622	D7, D22	DIODE 1N751A ZENER	1110004	18
2	63, 616	D3, D16	DIODE SCREENED 5.7V 2% ZENER	1111200	19
1	61	S1	THERMOSTAT	1211602	20
1			HEAT SINK	1211614	21
1	601	CIRCUIT BREAKER 25A	CIRCUIT BREAKER 25A	1211673	22
4	671, 672, 673, 674	BATTERY B-CELL	BATTERY B-CELL	1211670	23
1			BRACKET	1210420	24
1			HEAT SINK 1-00 TRANSISTOR MOUNTED	1211540	25
3	68, 69, 690	RES. 10 1/4 W 5%	RES. 10 1/4 W 5%	1300171	26
2	630, 642	RES. 47 1/4 W 5%	RES. 47 1/4 W 5%	1300202	27
1	61	RES. 100 1/4 W 5%	RES. 100 1/4 W 5%	1300232	28
7	671, 64, 627, 628, 630, 630, 607	RES. 100 1/4 W 5%	RES. 100 1/4 W 5%	1300229	29
2	612, 647	RES. 120 1/4 W 5%	RES. 120 1/4 W 5%	1300247	30
2	627, 643	RES. 450 1/4 W 5%	RES. 450 1/4 W 5%	1300250	31
4	618, 617, 620, 604	RES. 220 1/4 W 5%	RES. 220 1/4 W 5%	1300271	32
3	63, 619, 637, 604, 636	RES. 300 1/4 W 5%	RES. 300 1/4 W 5%	1300290	33
13	611, 613, 620, 621, 620, 640, 641, 640, 652, 650, 600, 600, 670	RES. 1K 1/4 W 5%	RES. 1K 1/4 W 5%	1300300	34
2	614, 600	RES. 1.5K 1/4 W 5%	RES. 1.5K 1/4 W 5%	1300301	35
6	623, 644, 645, 646, 601, 600	RES. 3.3K 1/4 W 5%	RES. 3.3K 1/4 W 5%	1300430	36
1	630	RES. 10 1/4 W 5%	RES. 10 1/4 W 5%	1301317	37
1	640	RES. 100 1/4 W 5%	RES. 100 1/4 W 5%	1301322	38
1	62	RES. 82 1/4 W 5%	RES. 82 1/4 W 5%	1301477	39
1	610	RES. 56 0/W 5%	RES. 56 0/W 5%	1301502	40
2	610, 603	RES. 511 1/4 W 1% WF	RES. 511 1/4 W 1% WF	1302411	41
1	624	RES. 50 20 5%	RES. 50 20 5%	1302830	42
1	604	RES. 100 1/4 W 1% WF	RES. 100 1/4 W 1% WF	1302950	43
1	607	RES. 1.21K 1/4 W 1% WF	RES. 1.21K 1/4 W 1% WF	1302971	44
1	631	RES. 100 1/4 W 1% WF	RES. 100 1/4 W 1% WF	1302950	45
1	650	RES. 404 1/4 W 1% WF	RES. 404 1/4 W 1% WF	1303047	46
2	610, 625	RES. 1 00 10% WF	RES. 1 00 10% WF	1303340	47
1	622	RES. 1.30K 1/4 W 1% WF	RES. 1.30K 1/4 W 1% WF	1304433	48
2	60, 601	RES. 303 1/4 W 1% WF	RES. 303 1/4 W 1% WF	1305125	49
1	633	RES. 27K 1/4 W 5%	RES. 27K 1/4 W 5%	1305340	50
1	60, 623, 600	RES. 100 3/4 W 10% POT 7% PR	RES. 100 3/4 W 10% POT 7% PR	1300143-04	51
1	603	RES. 5K 3/4 W 10% POT 7% PR	RES. 5K 3/4 W 10% POT 7% PR	1300143-00	52

IC TYPE	QTY	LOCATIONS
72741	4	7
GND AND V+ ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPT WHERE STATED ABOVE		
IC PIN LOCATIONS		

DESIGNER	CHECKED	DATE	REV
D. FAERLE			
J. GIBLIN			
A. DELUCA			

POPBA

ETCH BOARD REV E

digital EQUIPMENT CORPORATION

TITLE: H763 REGULATOR BOARD

SEMICONDUCTOR CONVERSION CHART

SCALE: 1 OF 3

DATE: MK 1

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H 1-0-91089 DCS 2

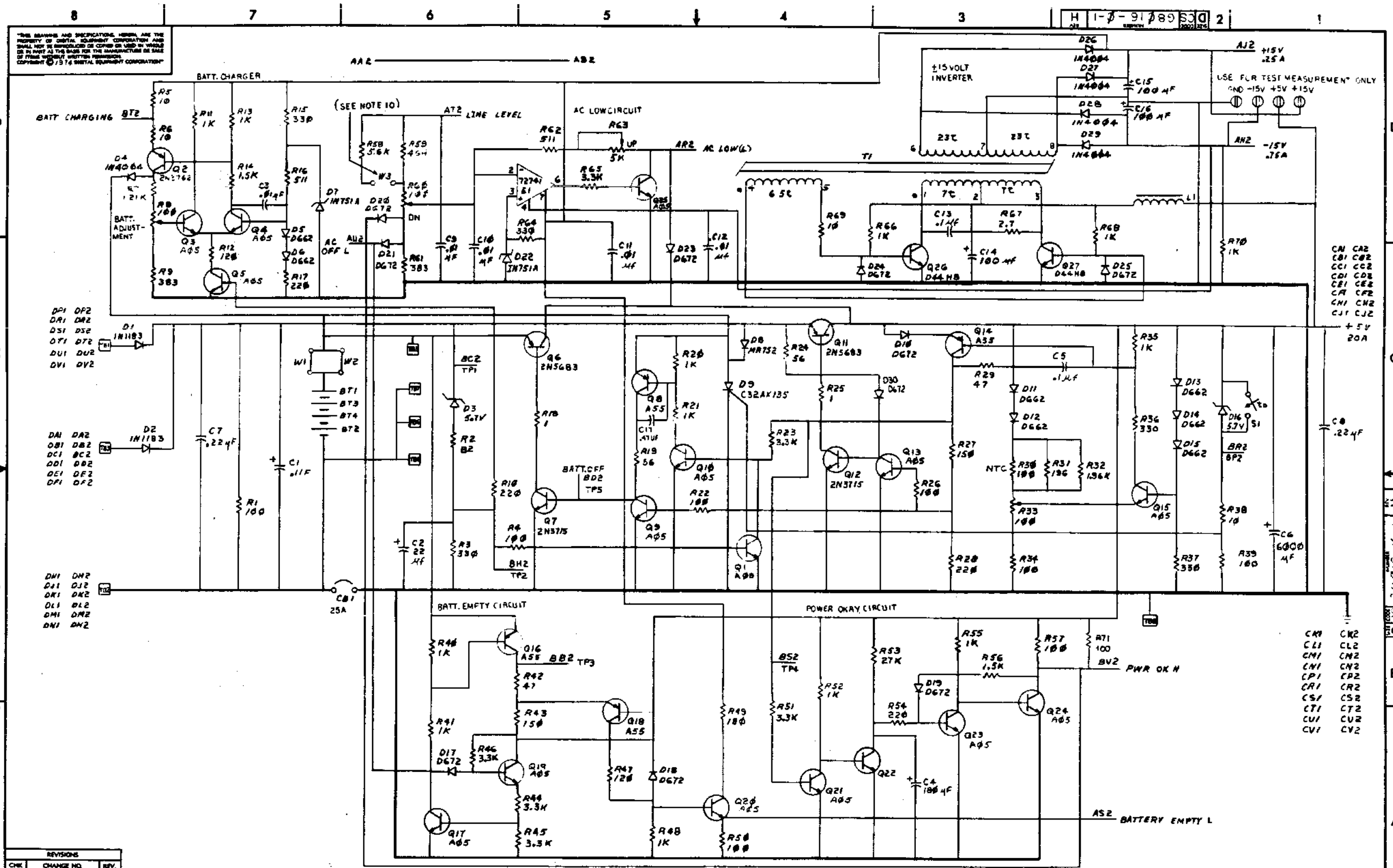
WIRE TABLE				
PART NO.	FROM	TO	TERMINATION	WIRE LENGTH
91-07380-22	TB1	D1	SOLDER AT D1 END. SOLDER AT TB1 END	5.00
91-07380-22	TB3	D2	SOLDER AT D2 END. TAB AT TB3 END	5.00
91-07380-00	TB2	TB4	SOLDER AT TB2 END SOLDER AT TB4 END	7.00
91-07380-00	+ TERMINAL OF C1	TB9 HOLE	SOLDER WIRE AT HOLE END TB9. SOLDERLESS CONNECTOR AT C1 END 90-07928	2.50
91-07380-00	- TERMINAL OF C1	TB10 HOLE	SOLDER WIRE AT HOLE END TB10. SOLDERLESS CONNECTOR AT C1 END 90-07926	1.25
91-07380-00	TB7	TOP TERMINAL OF CBI	SOLDER AT TB7 END. SOLDERLESS CONNECTOR AT CBI END 90-07926	7.00
91-07380-00	TB8	BOTTOM TERMINAL OF CBI	SOLDER AT TB8 END. SOLDERLESS CONNECTOR AT CBI END 90-07926	11.25
91-07350-22	S1	SPLIT LUG	SOLDER AT SPLIT LUG END	4.00
	S1	SPLIT LUG	SOLDER AT S1 END	4.00

QTY	REF	DESIGNATION	DESCRIPTION	PART NO.	ITEM
1	R36		RES. 100 1/2W 1/4W	1211760	51
1	R37		RES. 2.7 1/2W 10%	1300448	54
2	Q7, Q12		TRANS. DEC 2K3715	1503088	55
1	Q2		TRANS. 2K3702	1500640-01	56
10	Q1, Q3, Q4, Q5, Q6, Q10, Q13, Q14, Q17, Q18, Q20, Q21, Q22, Q23, Q24, Q25		TRANS. DEC 400	1510705	57
1	R38		RES. 5.6K, 1/4W, 5%	1301874	58
4	Q8, Q14, Q19, Q16		TRANS. DEC 455	1510705	59
1	Q9		DIODE SCR C32A136	1510925	60
2	Q8, Q11		TRANS. 2M5003	1511647	61
2	Q26, Q27		TRANS. D4400	160707-01	62
1	T1		TRANSFORMER	1811756	63
1	L1		CHOKER	1811759	64
1	E1		I.C. DEC 72741	1810200	65
1			BRACKET REG. B.D.	7411478	66
2			SCREW 4-40 x .50 PH	900013-1	67
4			SCREW 6-32 x .25 PH	900020-1	68
2			SCREW 6-32 x .31 PH	900021-1	69
3			SCREW 6-32 x .75 PH	900026-1	70
2			KEPHIT 4-40	900057	71
7			WASHER #8 INTERNAL	900053	72
8			WASHER #8 FLAT	900056	73
2			WASHER #8 FLAT	900072	74
8			SPLIT LUG	9000735	75
2	TB5, TB6		TAB FAST-ON (OFF SET)	9007112	76
1			TRANS. P.D. #10134	9007200	77
8			SCREW 6-32 x .56 PH	9007793-1	78
REF			GG216 REG. BOARD SPEC	GG216-0-E	79
4			SOLDERLESS CONNECTOR	9007920-01	80
11			KEPHIT 6-32	9008105	81
A/R			WIRE #12 AWG	9107380-00	82
A/R			WIRE #12 AWG	9107380-22	83
A/R	W3		BUS WIRE #22 AWG (SEE NOTE #10)	9107500-01	84
A/R	W1, W2		REEL JUMPER (SEE NOTE #11)	9107500	85
1			SHIELD BATTERY	7411693-0-0	86
3			SPACER #6 .30 LG.	9006801	87
2	TB5, TB6		EYELET	9009000	88
8	TB1, TB2, TB3, TB4, TB7, TB8, TB9, TB10		EYELET GS4-3	9007836	89
A/R			WIRE #22 AWG	9107350-22	90
2			WASHER #8 INTERNAL	9006634	91
A/R			THERMO COMPOUND	9008268	92
2			SCREW 10-32 x .31	9000070-01	93
2			WASHER #10 INTERNAL	9006645	94
1	C17		CAP .47UF 25V 20% CER.	1010275	95
					96
1			DECAL	A-DC-7413109-00	97
REF			FINAL INSP. PROC. FOR G8016	A-SP-G8016-e-9	98
REF			POWER SUPPLY TESTER	B-D-0-G8016-TA	99
1			PACKAGING INSTRUCTION	A-SP-3700175-00	100

REVISIONS		
CHK	CHANGE NO	REV

TITLE H763 REGULATOR BOARD SIZE CODE NUMBER REV. DCS G8016-0-1 H

SCALE SHEET 2 OF 3 DIST MK 1



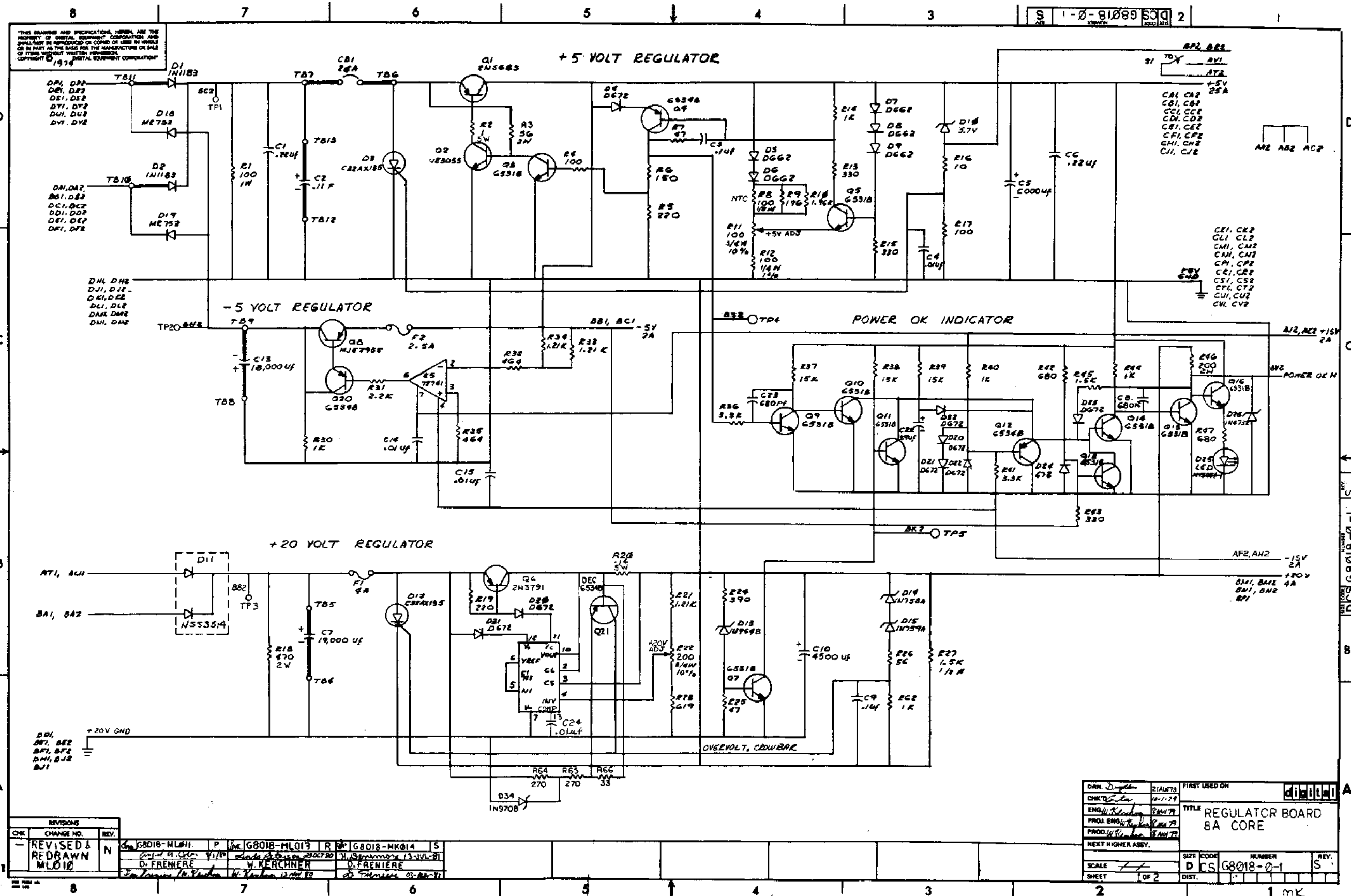
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	H763 REGULATOR BOARD	SIZE/DOC	DCS	NUMBER	38016-Q-1	REV.	H
SCALE	1:1	SHEET	3 OF 3	DIST.			

8 7 6 5 4 3 2 1 MK MK





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1-0-81089 50 2

CHK	CHANGE NO.	REV.
-	REVISED & REDRAWN MLO10	N

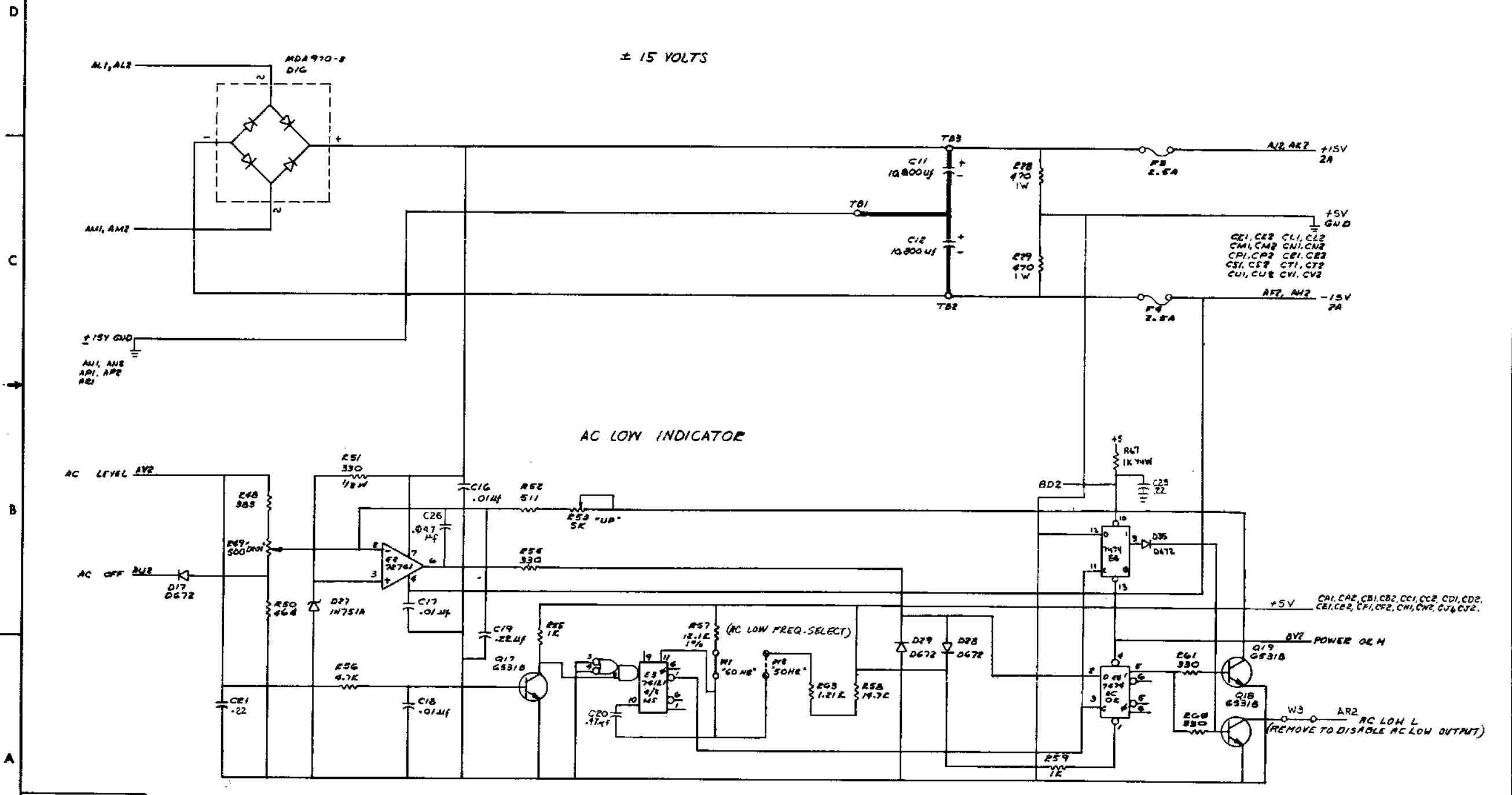
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G8018-MLO13	12/20/70	N. KERCHNER	D. FRENIERE	D. FRENIERE
G8018-MK014	13-JUL-81	D. FRENIERE	D. FRENIERE	D. FRENIERE

DRW.	DATE	FIRST USED ON
CHKD.	9/17/70	
ENG.	9/17/70	
PROD. ENG.	9/17/70	
PROD. MGR.	9/17/70	
NEXT HIGHER ASSY.		
SCALE	SIZE CODE	NUMBER
SHEET 1 OF 2	D CS	G8018-0-1
	DIET.	REV. S

REV. 13-0-81089-0-1-S

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DCS 68018-0-1 S 2



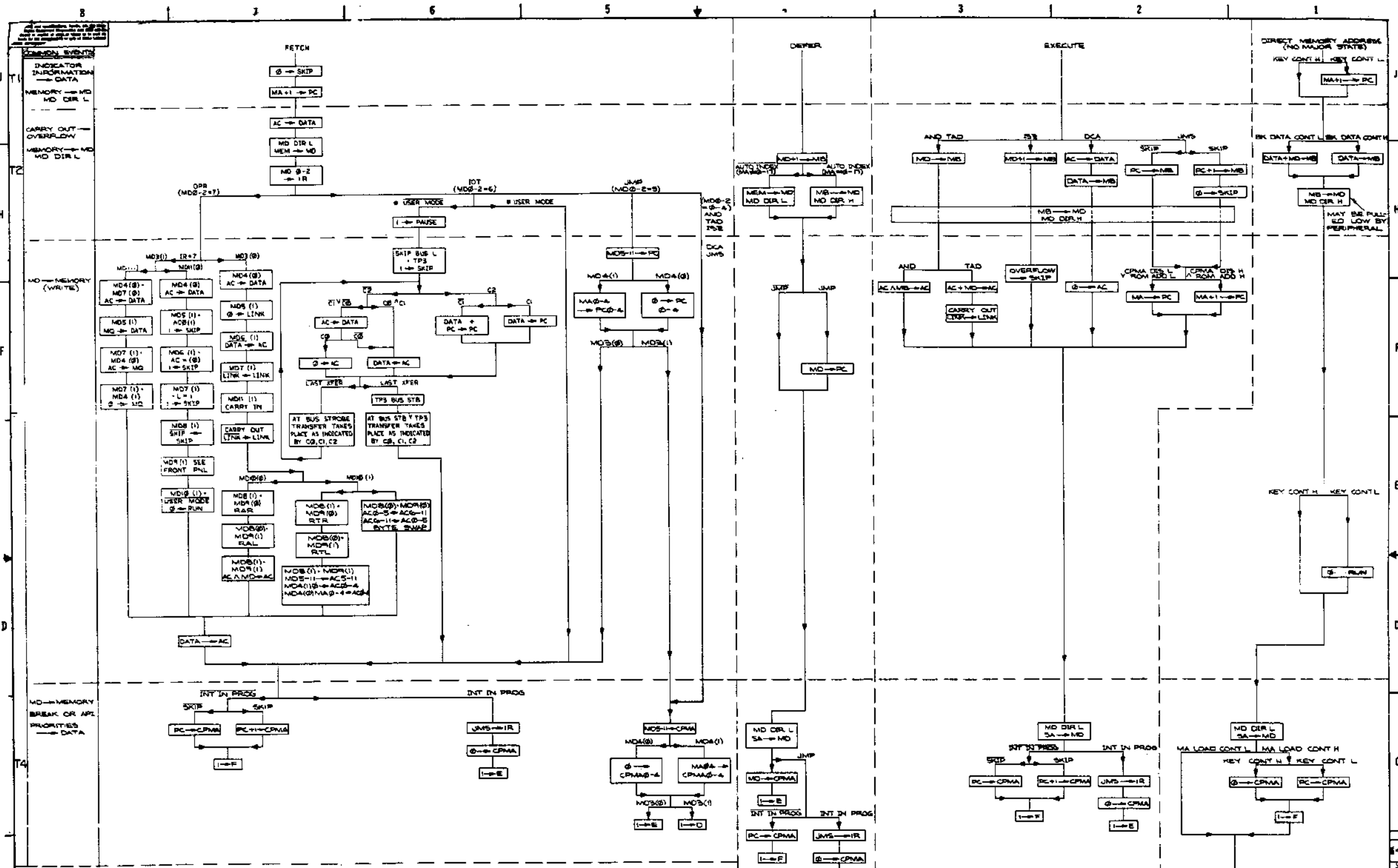
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE REGULATOR BOARD  
BA CORE

SIZE CODE DCS 68018-0-1 S

NUMBER 2 OF 2

SCALE 1 MK

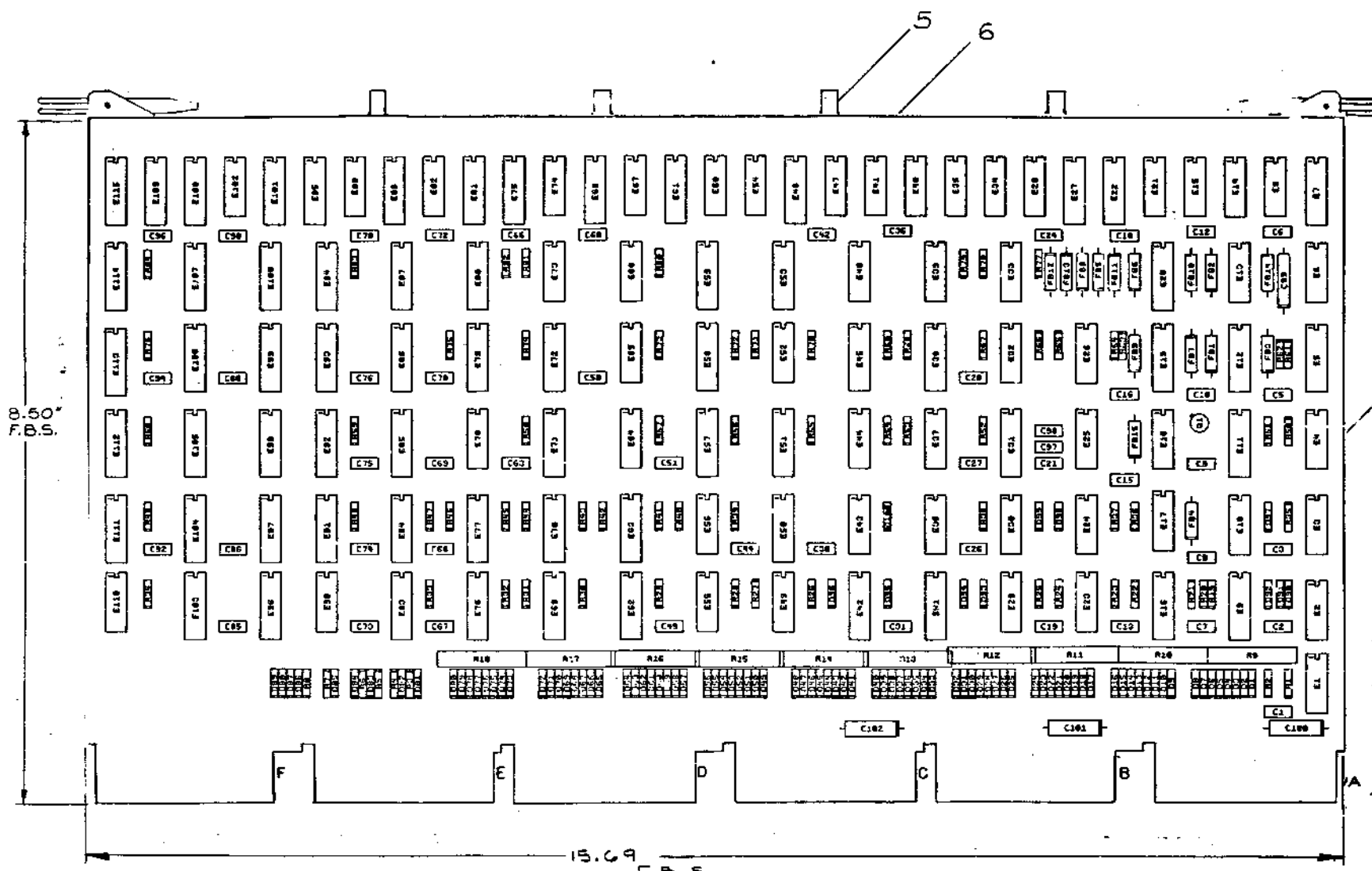


NOTES:  
 \* USER MODE IS USED BY THE TIME SHARING OPTION (SALT) TO INHIBIT HALT, OPR, LAS, & PAUSE

<p>POP/E</p> <p>DATE: 10/1/68</p> <p>DESIGNED BY: [Signature]</p> <p>CHECKED BY: [Signature]</p> <p>APPROVED BY: [Signature]</p> <p>REVISION: 1</p>	<p>DESCRIPTION: [Blank]</p> <p>PAGE NO.: [Blank]</p> <p>TOTAL PAGES: [Blank]</p>	<p>PARTS LIST</p> <p>QTY: [Blank]</p> <p>DESCRIPTION: [Blank]</p> <p>REF. NO.: [Blank]</p>	<p>EQUIPMENT CORPORATION</p> <p>MODEL: [Blank]</p> <p>PROCESSOR FLOW CHART</p> <p>FORM NO. EFD POP/E-0-06 A</p>
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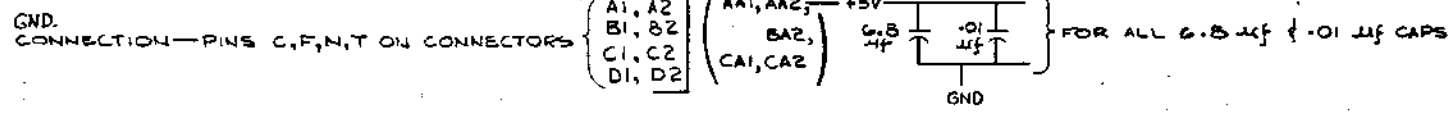
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**NOTES:**  
 1. ALL UNLABELED DIODES ARE DEC TYPE DGG4  
 2. +3V, +3VA AND +3VB GENERATION ON SHEET # 3  
 3. FOR ETCH CUTS REFER TO D-AN-M8315-0-1  
 4. DESIGN CUTS



REF	X-Y COORDINATE HOLE LOCATION	K-CD M8315-0-4	ITEM NO
REF	ASSY/DRILLING HOLE LAYOUT	D-AN-M8315-0-5	2
REF	MODULE ECO HISTORY	B-M8315-0-6	3
1	ETCHED CIRCUIT BOARD	5010432	4
1	HEX BOARD HANDLE ASSY	1210711-2	5
12	EYELETS	9008732	6
3	C100 THRU C102	CAP 0.047 35V 10%	7
2	C97, C98	CAP 0.047 18V DISC	8
1	C99	CAP 150V 20V 10%	9
48	C1 THRU C3, C5 THRU C10, C12, C13, C15, C18, C19, C21, C24, C26, C27, C28, C31, C36, C38, C42, C44, C49, C51, C58, C60, C63, C66 THRU C70, C72 THRU C76, C79, C85, C88, C89, C90, C92, C94, C96	CAP .01 100V DISC	10
8	D88 THRU D92, D91	DIODE D88Z	11
42	D1 THRU D85, D93 THRU D96, D98 THRU D100	DIODE D86A	12
1	SW1	DIP SWITCH PACKAGE	13
11	R2, R5, R6, R8, R19, R30, R62 THRU R68	RES 390 1/4W 5%	14
12	R1, R3, R4, R7, R20, R21, R23 THRU R26, R35, R37	RES 470 1/4W 5%	15
45	R22, R27, R29 THRU R34, R39 THRU R49, R52, R53, R55 THRU R60, R67 THRU R84	RES 1K 1/4W 5%	16
1	R28	RES 3.3K 1/4W 5%	17
1	R81	RES 22K 1/4W 5%	18
2	R50, R51	RES 27 1/4W 5%	19
5	R9, R10, R13, R14, R18	RES PACK 390 OHM	20
5	R11, R12, R15, R16, R17	RES PACK 470 OHM	21
2	R38, R54	RES 150 1/4W 5%	22
1	Q1	TRANSISTOR DEC 3009B	23
15	F81 THRU F815	FERRITE BEAD CHOKE	24
1	E2	20 MHZ X-TAL OSC	25
6	E1, E10, E17, E26, E29, E46	IC DEC 74500	26
1	E33	IC DEC 7402	27
9	E3, E23, E25, E40, E56, E78, E82, E89	IC DEC 74504	28
3	E47, E65, E74	IC DEC 7408	29
3	E24, E64, E90	IC DEC 74510	30
2	E13, E28	IC DEC 74511	31
1	E60	IC DEC 7412	32
3	E44, E49, E92	IC DEC 7417	33
2	E110, E102	IC DEC 74H21	34
1	E54	IC DEC 7430	35
3	E41, E43, E88	IC DEC 7432	36
1	E14	IC DEC 7437	37
2	E18, E32	IC DEC 74540	38
1	E71	IC DEC 7442	39
2	E4, E6	IC DEC 74551	40
4	E8, E15, E21, E34	IC DEC 74574	41
3	E85, E101, E113	IC DEC 7483	42
3	E19, E22, E27	IC DEC 74120	43
1	E7	IC DEC 74123	44
2	E20, E58	IC DEC 745139	45
2	E48, E59	IC DEC 74151	46
1	E45	IC DEC 74153	47

IC TYPE	QTY	DESCRIPTION	QTY	DESCRIPTION	
IC 74157	8	16			
745159	8	16			
74163	8	16			
745175	8	16			
745194	8	16	1024 BIT ROM	8	
380	1	8	7442	8	
8097	8	16	7483	12	
8235	8	16	74120	8	
8234	8	16	74123	8	
8271	8	16	745157	8	
74173-1	8	16	74151	8	
256 BIT ROM	8	16	74153	8	
IC TYPE	GND	+5V	IC TYPE	GND	+5V



REVISIONS

REV	CHANGE NO.	DESCRIPTION
1	00001	C
2	00002	D
3	00003	D
4	00004	E

SEMICONDUCTOR CONVERSION CHART

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

ETCH BOARD REV. E

DATE: 7/1/74  
 DATE: 7/1/74  
 DATE: 7/1/74  
 DATE: 7/1/74

digital

TITLE: HEX OMNIBUS CPU

SIZE CODE: DCS  
 NUMBER: M8315-0-1  
 REV: F

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 CONTRACT # 1730 - DIGITAL EQUIPMENT CORPORATION

REV. 2  
 DCS M8315-0-1

1	E81	IC DEC 74157	1910050	40
7	E80, E79, E88, E95, E107, E109, E115	IC DEC 745150	1910540	40
3	E75, E83, E94	IC DEC 74163	1911713	50
2	E9, E42	IC DEC 743175	1910067	51
0	E8, E11, E12, E18, E81, E88, E104, E114	IC DEC 745194	1910592	52
1	E30	IC DEC 300	1909485	53
2	E87, E73	IC DEC 0093	1910037	54
4	E77, E84, E104, E106	IC DEC 0007	1911327	55
3	E88, E86, E90	IC DEC 8254	1911315	56
3	E87, E87, E92	IC DEC 8230	1909035	57
1	E31	IC DEC 8271	1909815	58
5	E30, E35, E37, E39, E95	IC DEC 0001	1909795	59
11	E50, E82, E83, E91, E90, E87, E103, E100, E100, E111, E112	IC DEC 74173-1	1911330-01	60
1	E89	256 BIT ROM (A)	23878A1	61
1	E87	256 BIT ROM (B)	23877A1	62
1	E78	256 BIT ROM (C)	23876A1	63
1	E72	256 BIT ROM (D)	23875A1	64
1	E70	256 BIT ROM (E)	23874A1	65
1	E63	256 BIT ROM (H)	23873A1	66
1	E38	256 BIT ROM (J)	23870A1	67
1	E53	1024 BIT ROM (F)	23888A2	68

SWITCH SELECTION CHART  
 (FOR AUTO RESTART LOCATION)

SW-1	1	FIELD 7
	2	4000
	3	2000
	4	1000
	5	400
	6	200
	7	OFF (DISABLES AUTO RESTART)
	8	OFF FOR NORMAL OPERATION

ONLY ONE SWITCH MAY BE CLOSED AT A TIME

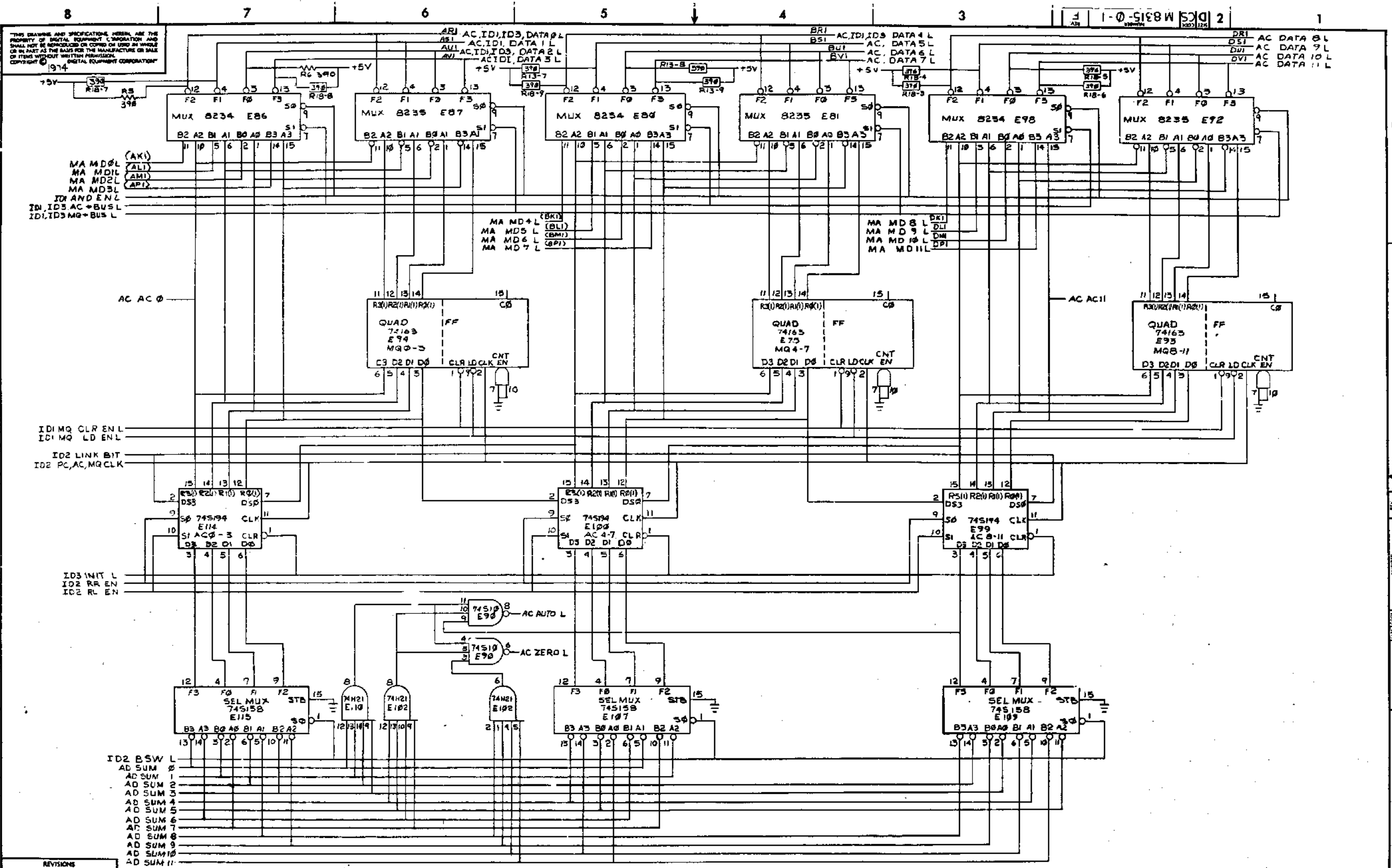
COMPONENT SUBSTITUTION CHART

PART CALLED FOR			SUBSTITUTE PART		
QTY	PART NO	DESC	QTY	PART NO	DESC
1	190485	IC 380	1	1710372	5280
			1	1704771	5280
			1	1710370	7380
			1	1711464	8640

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	HEX OMNIBUS CPU	SIZE CODE	DCS	NUMBER	M8315-0-1	REV.	F
SCALE		SHEET	2	OF 10			

REV. 2  
 DCS M8315-0-1



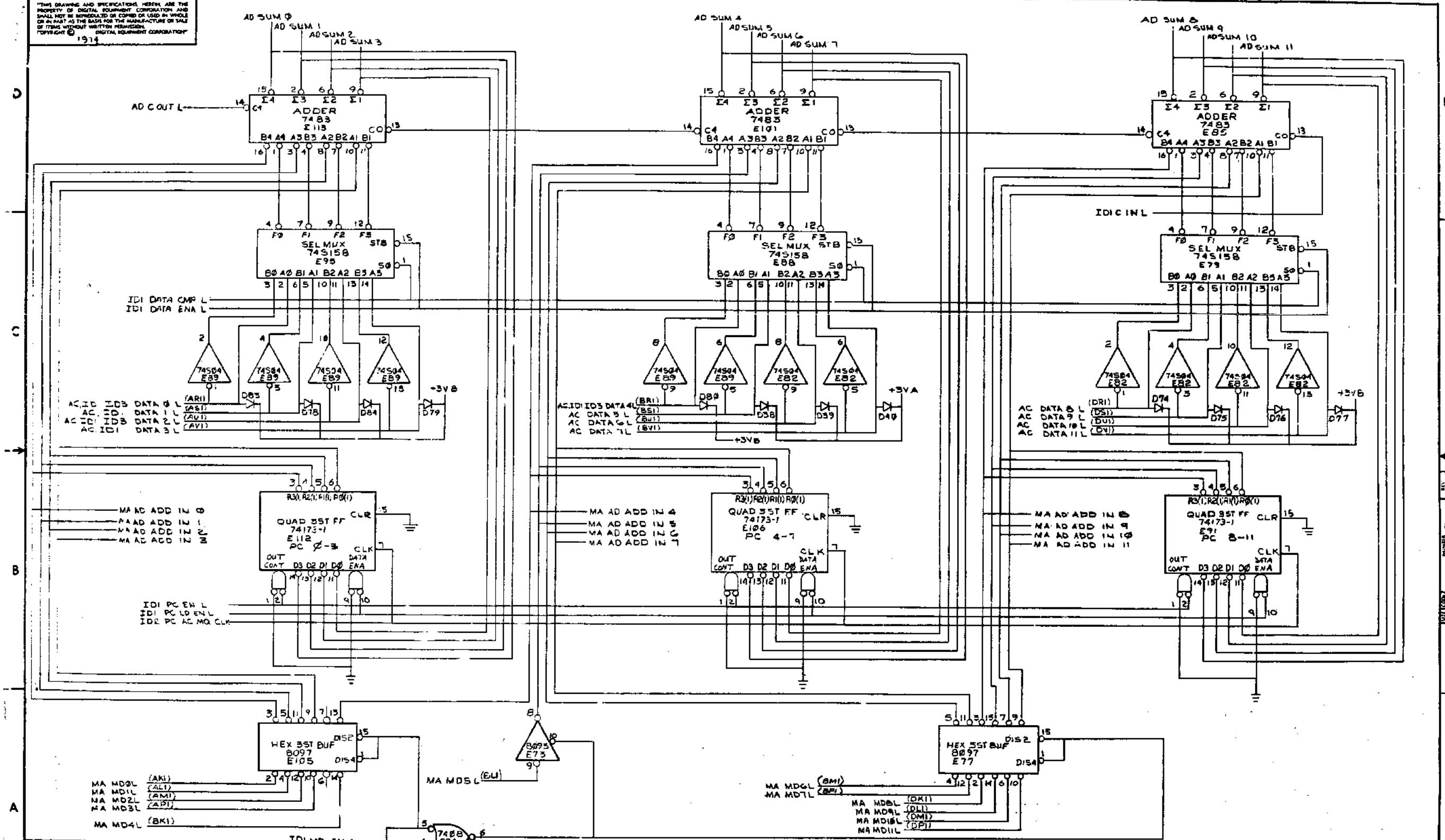
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8A CPU	SIZE CODE	(AC)	NUMBER	DCS M8315-0-1	REV.	F
SCALE		SHEET	3	OF	10	DIST.	

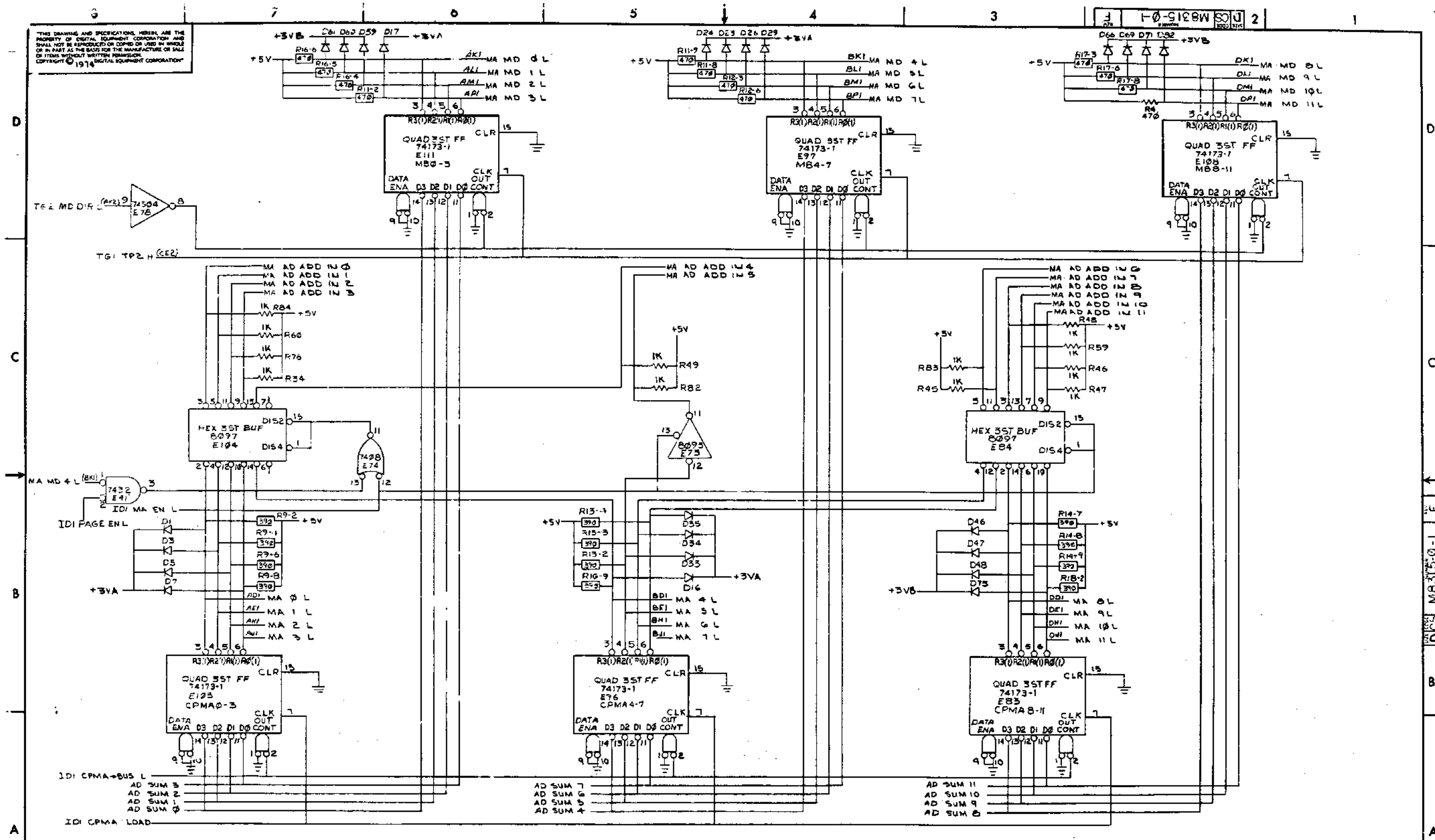
DCS M8315-0-1

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CHK	CHANGE NO.	REV.

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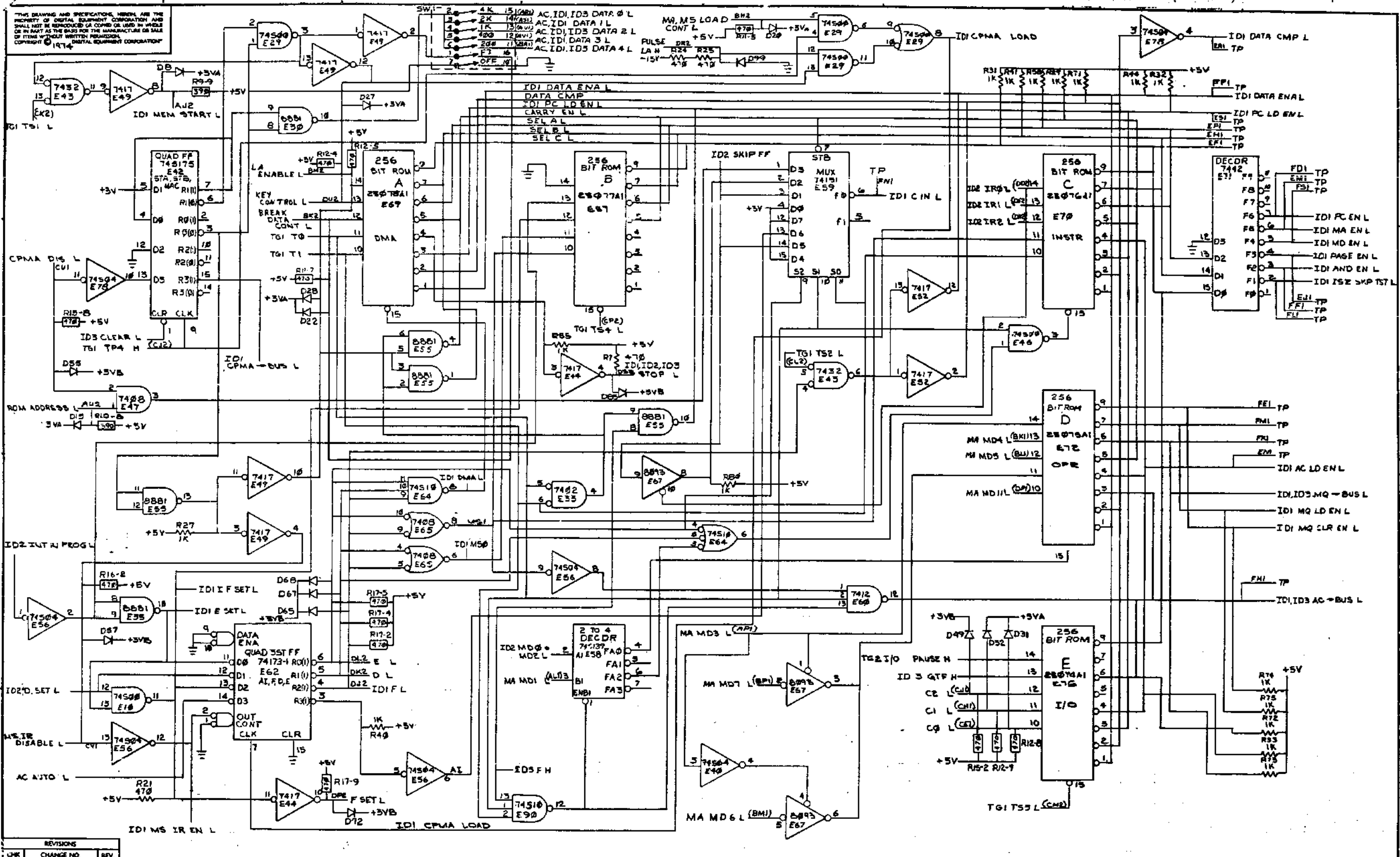


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE PDP-11 CPU (MA) SIZE CODE DCS NUMBER M8315-0-1 REV. F  
SCALE / / SHEET 5 OF 10 DIST.



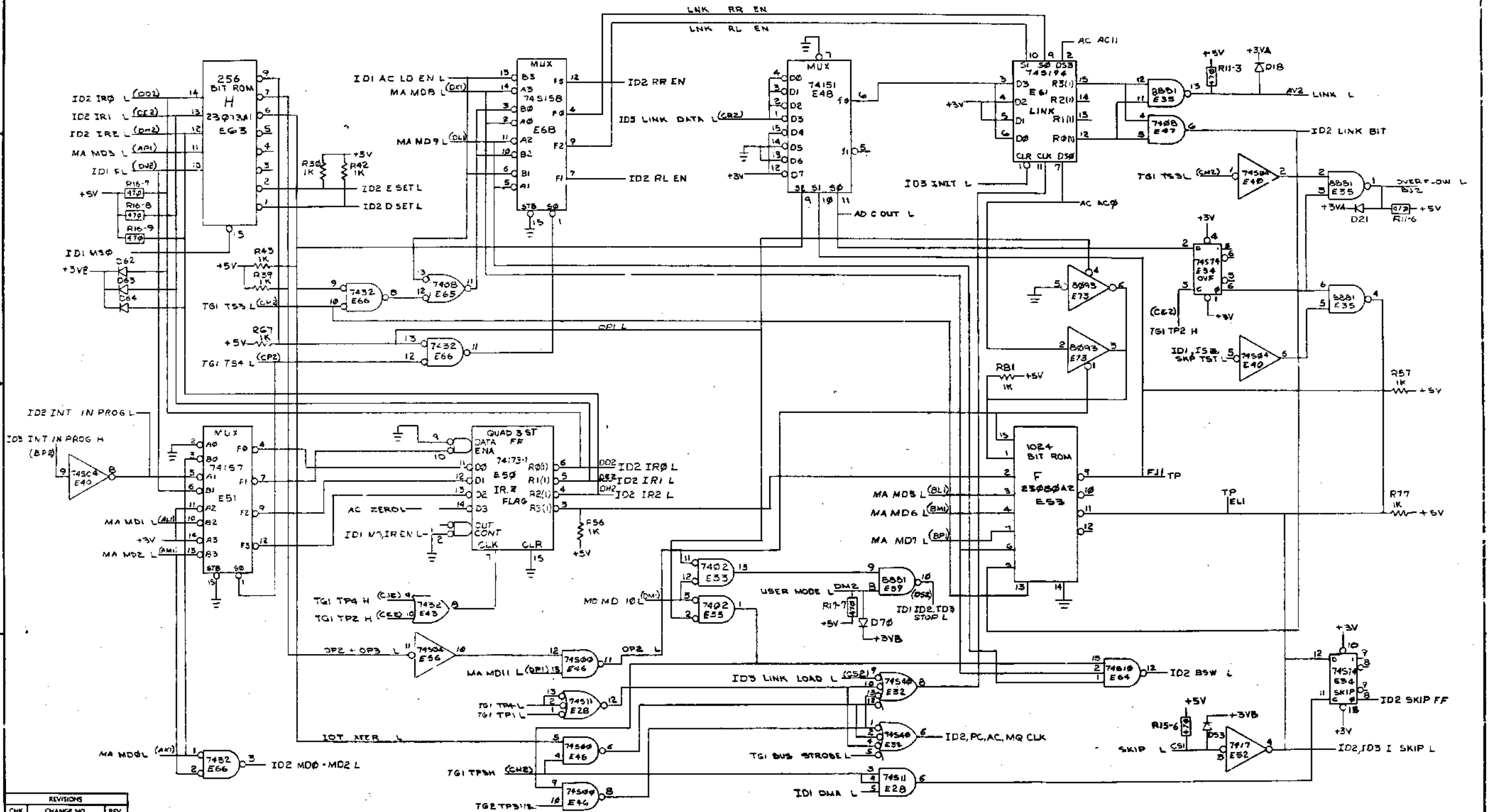
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8A CPU (DD)	SIZE CODE	D CS	NUMBER	M8315-0-1	REV.	F
SCALE		SHEET	6	OF	10	DIST.	

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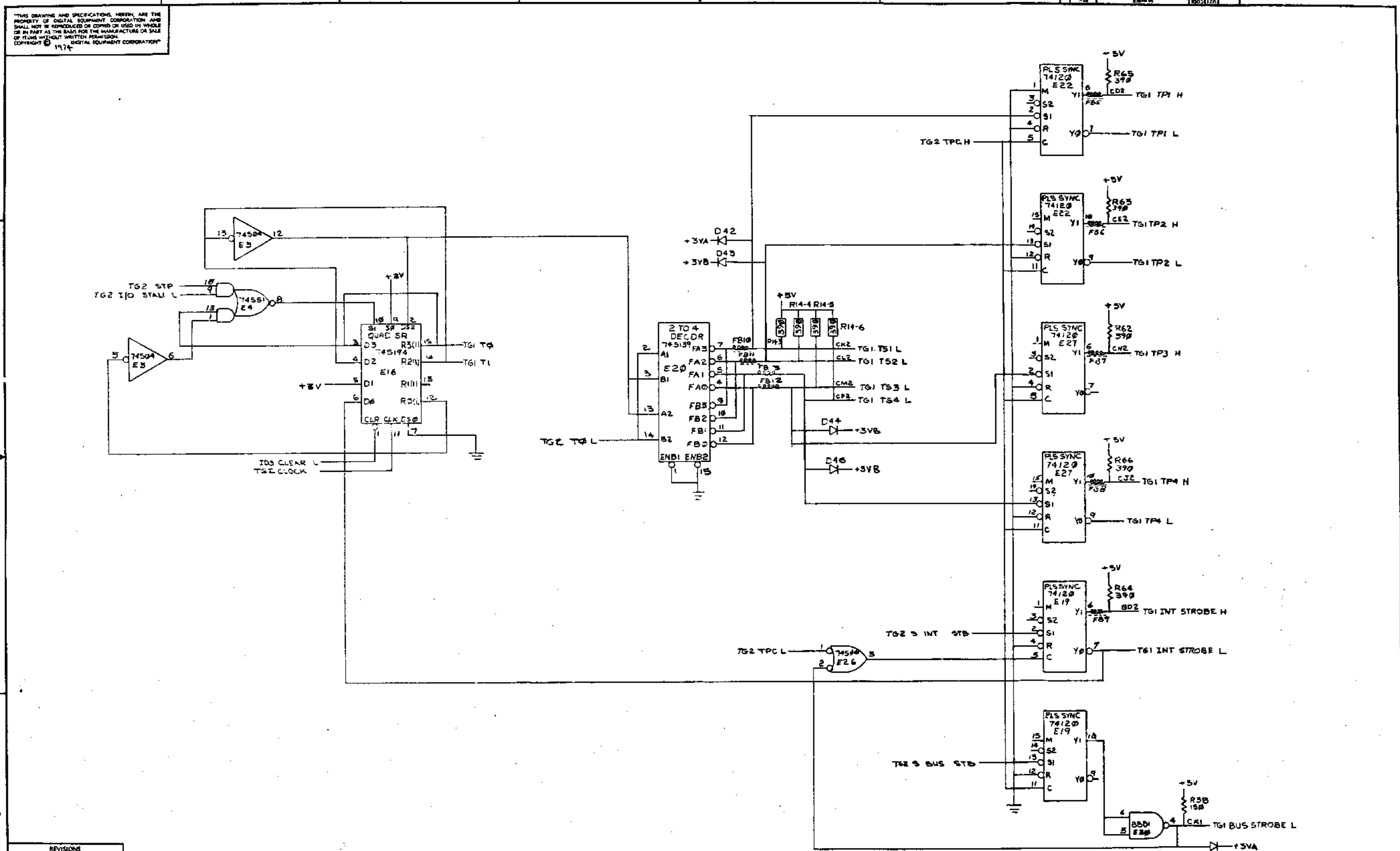


REVISIONS		
CHK	CHANGE NO	REV.

TITLE	PDP8A CPU (102)	SIZE CODE	D CS	NUMBER	M8315-0-1	REV.	F
SCALE	1:1	SHEET	7	OF 10	DIST.		



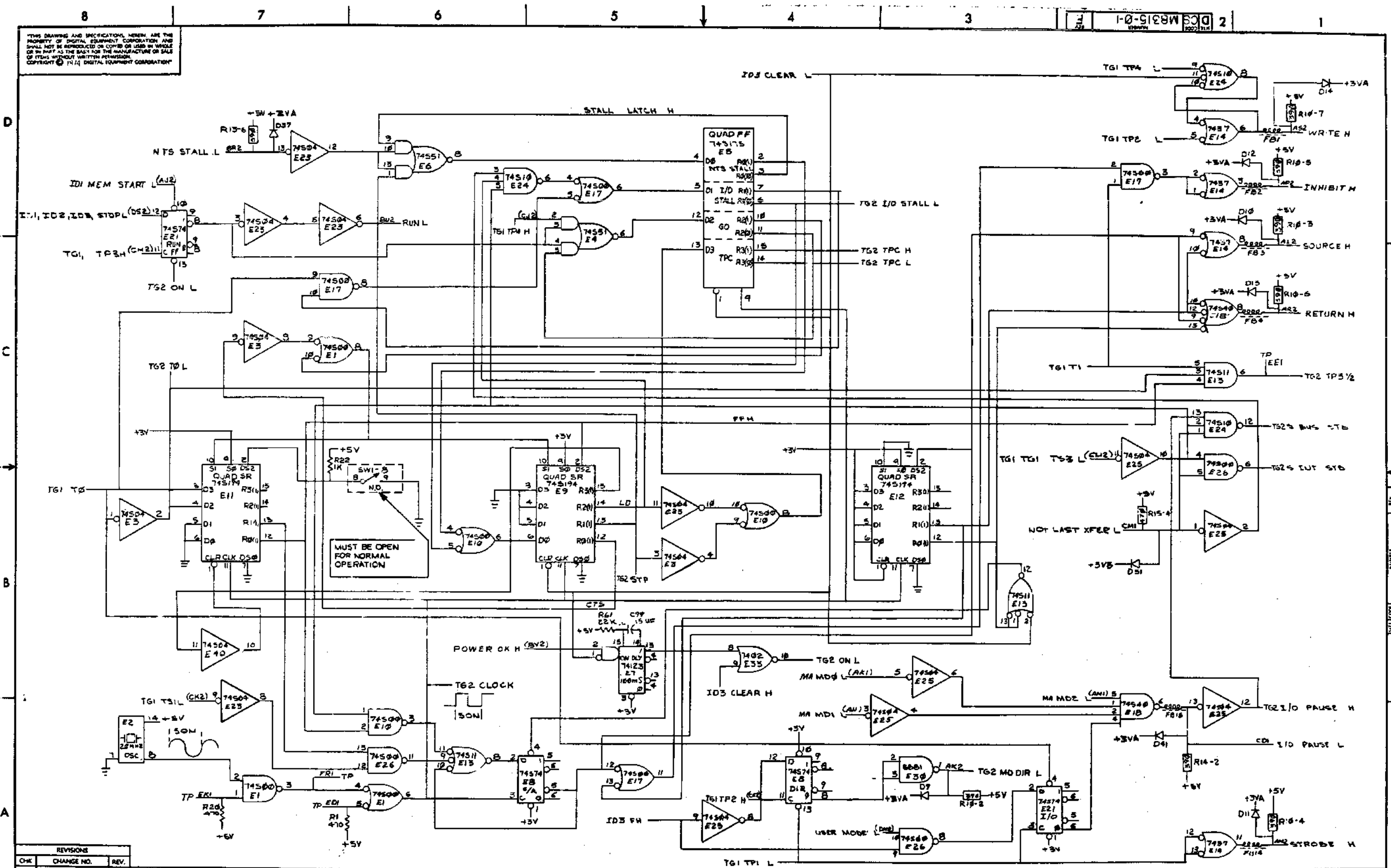
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8A CPU (TG)	SIZE CODE	DCS	NUMBER	MB315-0-1	REV.	F
SCALE		SHEET	9	OF 10	DIST.		

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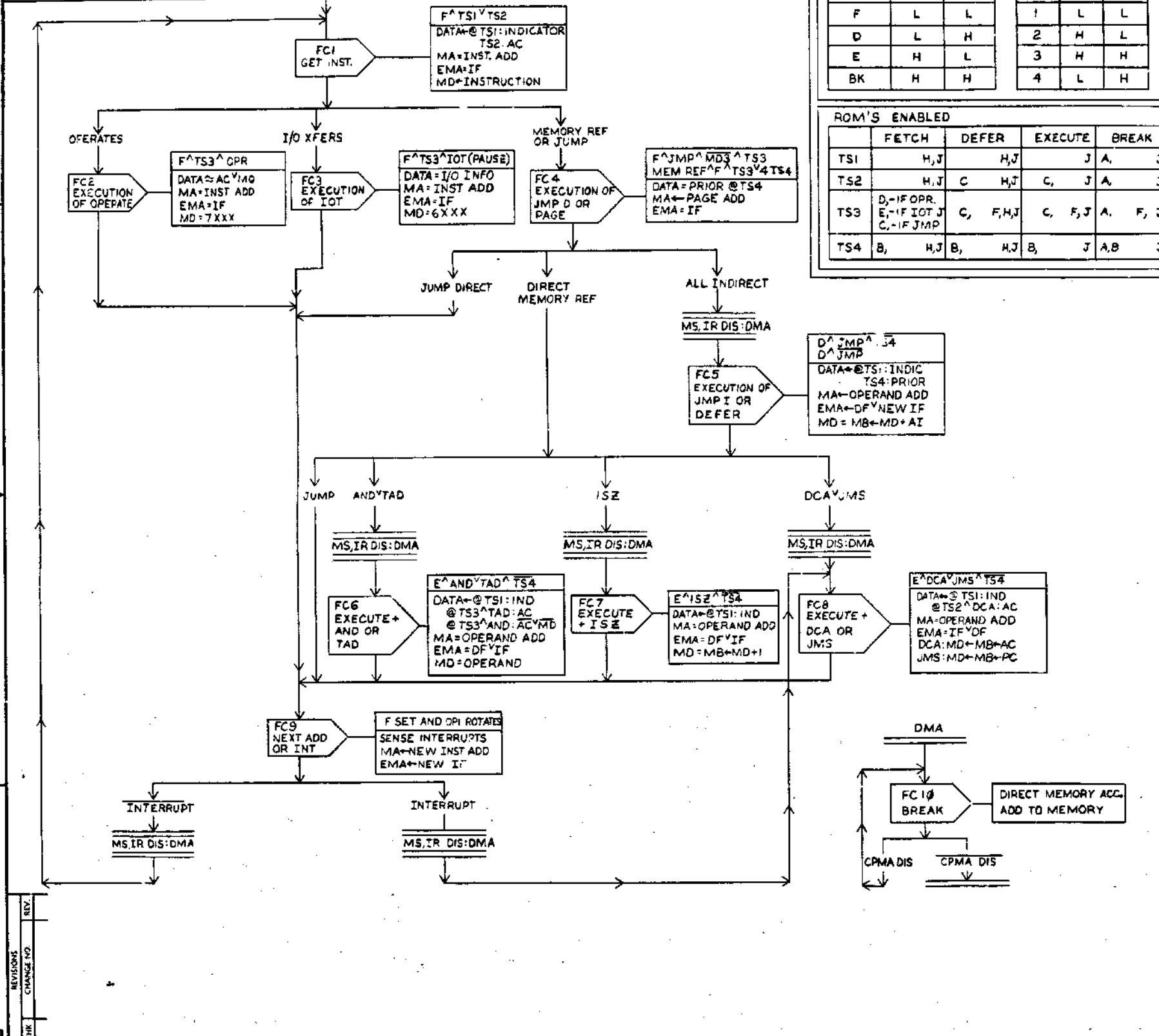


D E S M8315-0-1

REV.	CHANGE NO.	DATE

TITLE	PDP8A CPU (TG2)	SIZE CODE	D E S	NUMBER	M8315-0-1	REV.	F
SCALE		SHEET	10	OF	10	DIST.	

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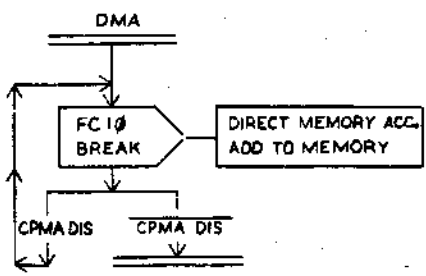
MAJOR STATE ENCODING			TIME STATE ENCODING		
STATE	MS $\emptyset$	MSI	TS	T $\emptyset$	TI
F	L	L	1	L	L
D	L	H	2	H	L
E	H	L	3	H	H
BK	H	H	4	L	H

ROM'S ENABLED					
	FETCH	DEFER	EXECUTE	BREAK	
TS1	H, J	H, J	J, A	J	
TS2	H, J	C, H, J	C, J, A	J	
TS3	D, -IF OPR. E, -IF IOT J C, -IF JMP	C, F, H, J	C, F, J, A	F, J	
TS4	B, H, J	B, H, J	J, A, B	J	

**NOTES:**  
 THIS IS AN INDEX TO THE BA FLOW CHARTS. THE FLOW CHART NUMBER THAT APPEARS WITHIN THE SYMBOL [FCX] REFERS TO ANOTHER FLOW WHICH DETAILS THE ACTION WHICH IS BRIEFLY DESCRIBED IN THE SYMBOL [ ].  
 OPTION FLOW CHARTS WILL USE THE SAME FCX TIME REFERENCE TO SHOW ITS RELATION TO THE CPU.  
 FLOWS WILL BE NUMBERED AS FOLLOWS:  
 M8315-FCX CPU FLOW FOR TIME 'X'  
 MABCD-FCX OPTION FLOW FOR CPU TIME 'X'

THE FOLLOWING IS A LIST OF MAJOR OMNIBUS SIGNALS AND THE FLOW CHARTS MOST PERTINENT THERETO.

BUS SIGNAL	FLOW CHARTS	MOST IMPORTANT LOGIC PRINTS
IR $\emptyset$ -2	FC1	ID2
F, D, E	(FC1, FC4), FC5, FC8	ID1
USER MODE	FC2, FC3	ID2, T62
FSET	FC8	ID1
PULSE LA	FC1 $\emptyset$	ID1
STOP	FC2, FC1 $\emptyset$	ID1, ID3, T62
KEY CONTROL	FC1 $\emptyset$	ID1
S/W	SEE M8317 TIMING & FLOW CHARTS	
I/O PAUSE	FC3	T62
C $\emptyset$ -2	FC3	ID1
BUS STB	FC3	ID2, TS1
NOT LAST XFER	FC3	T62
INT RQST	FC3	ID3
SKIP	FC7, FC8, FC9	ID2
INITIALIZE	FC3	ID3
CPMA DIS	FC4, FC3, FC9	ID1
MSIR DIS	FC1 $\emptyset$	ID1
LK LD $\emptyset$ DATA	FC3	ID2, ID3
INDI-2	FC1	ID3
MAM LD CTRL	FC4, FC9, FC1 $\emptyset$	ID1
OVERFLOW	FC7	ID2
BK DATA CTRL	FC1 $\emptyset$	ID1
LA ENABLE	FC1, FC1 $\emptyset$	ID1
INT IN PROG	FC9	ID2, ID3
RUN	FC2, FC1 $\emptyset$	T62
PWR OK	FC2, FC1 $\emptyset$	ID3
MEM START	FC1 $\emptyset$	ID1, T62



FIRST USED OR OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A				
PARTS LIST				
DIMENSIONAL TOLERANCE		DATE	11-18-78	
DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED		DATE	11/21/78	
MILLIMETERS		DATE	1/29/79	
INCHES		DATE	6-12-78	
ANGLES		DATE	1-25-79	
THIRD ANGLE PROJECTION		DATE	1-25-79	
REMOVE ROUNDS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE	1-25-79	
FINISH		DATE	1-25-79	
MATERIAL		DATE	1-25-79	
FINISH		DATE	1-25-79	

**digital**  
 TITLE  
 FLOW DIAGRAM  
 M8315 INDEX

SIZE CODE  
 B-DD-KK8A- $\emptyset$   
 NUMBER  
 DFD M8315- $\emptyset$ -16  
 SHEET 1 OF 1

M8315- $\emptyset$ -16

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MA+I IS ENABLED TO THE PC

A MEMORY READ IS STARTED (REFER TO TIMING)

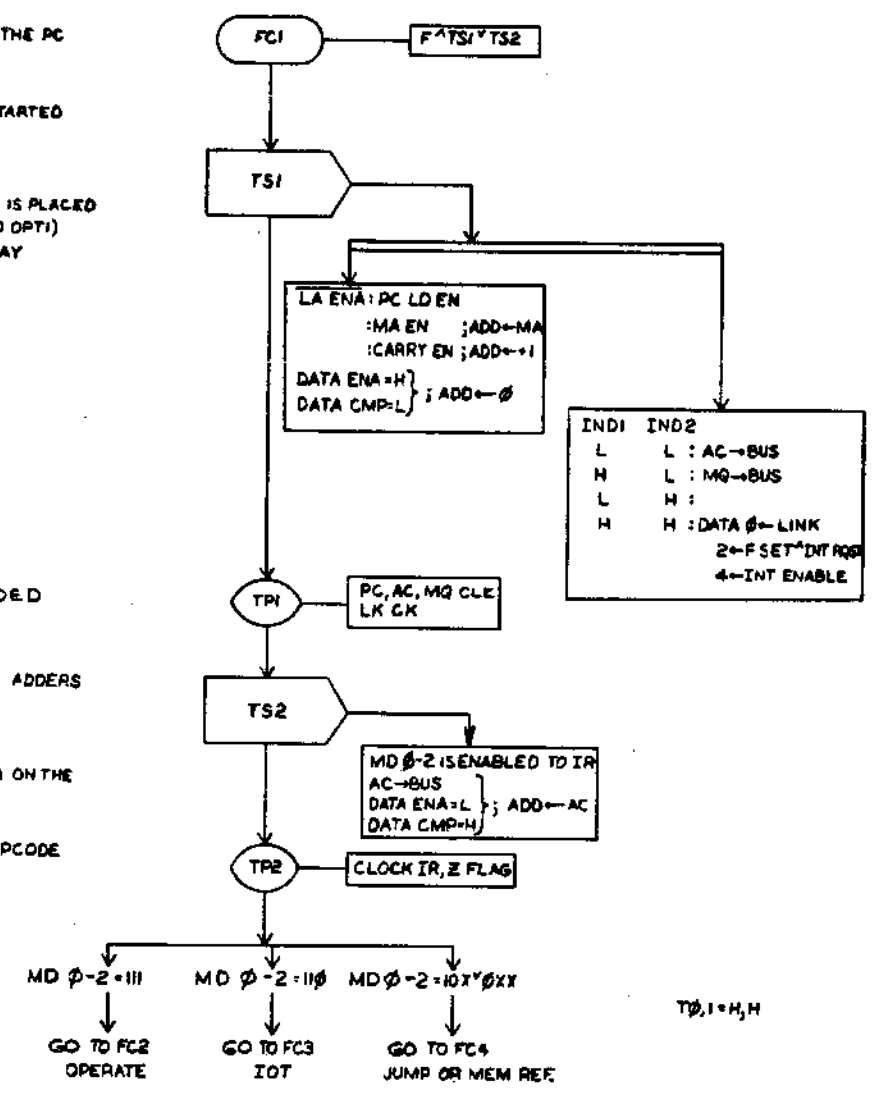
INDICATOR INFORMATION IS PLACED ON THE DATA BUS (REFER TO OPT1) FOR THE PANEL TO DISPLAY

THE PC IS LOADED

THE AC IS GATED THROUGH THE ADDERS TO SEE IF IT EQUALS 0

THE INSTRUCTION WILL APPEAR ON THE MD LINES FROM MEMORY

THE IR GETS LOADED WITH THE OP CODE AND THE Z FLAG IS ADJUSTED



MS0,1=L,L

T0,1=L,L

T0,1=H,L

THE INSTRUCTION IS DECODED AT THIS POINT AS FOLLOWS:

MD 0 1 2 3 4 5 6 7 8 9 10 11

AND 0 0 0 0

TAD 0 0 1

ISE 0 1 0

DCA 0 1 1

JMS 1 0 0

JMP 1 0 1

IOT 1 1 0

OPR 1 1 1

BITS 3-11

ARE NOT

IMPORTANT AT

THIS TIME

FIRST USED ON OPTION/MODEL				QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A							
DIMENSIONAL TOLERANCE				PARTS LIST			
DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED				digital			
MILLIMETERS	INCHES	ANGLES	DATE	DATE	TITLE		
±.01	±.0005	±.01	11-13-74	12-21-74	FLOW DIAGRAM		
±.02	±.001	±.02	1-24-75	1-24-75	M8315 FC1		
±.05	±.002	±.05	1-24-75	1-24-75	SIZE CODE		
±.10	±.005	±.10	1-24-75	1-24-75	NUMBER		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	NEXT HIGHER ASSY.	MATERIAL		REV.		
			B-DD-KK8A-0		DFD M8315-0-17		
			FINISH		SCALE		
			++		SHEET 1 OF 1		
					DIST.		

REVISIONS  
 CHANGE NO. REV.  
 1 1

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THE INSTRUCTION IS DECODED AT THIS POINT AS FOLLOWS  
 THE SEQUENCES OF OPERATION ARE LOGICAL NOT CHRONOLOGICAL  
 ALL OP2 & OP3 OCCUR AT TP3  
 ALL OPI EXCEPT ROTATE LEFT OR RIGHT OCCUR AT TP3  
 A SINGLE LEFT OR RIGHT ROTATE OCCURS AT TP4  
 A DOUBLE LEFT OR RIGHT ROTATE OCCURS AT TP3 1/2 AND 4 } SEE FLOW CHART 9 F SET

OPERATE GROUP 3

TO AC	TO MQ	X	X	X	X	X	X
0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0
0	1	0	0	0	0	0	0
0	1	1	0	0	0	0	0
1	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0
1	1	0	0	0	0	0	0
1	1	1	0	0	0	0	0

NO OPERATION  
 AC GOES TO THE MQ AND THE AC IS CLEARED  
 MQ "ORED" WITH THE AC GOES TO THE AC  
 AC & MQ SWAPS WITH MQ & AC  
 THE AC IS CLEARED  
 BOTH THE AC AND MQ ARE CLEARED  
 THE MQ GOES TO THE AC  
 THE MQ GOES TO THE AC AND THE MQ IS CLEARED

OPERATE GROUP 2

TO AC	SKIP IF AC=0	SKIP IF L=1	SKIP IF A=1	REVERSE SWITCH	GET	HALT
0	0	0	0	0	0	0
0	1	0	0	0	0	0
0	1	1	0	0	0	0
0	1	1	1	0	0	0
1	0	0	0	0	0	0
1	0	0	0	1	0	0
1	0	0	0	1	1	0
1	0	0	0	1	1	1

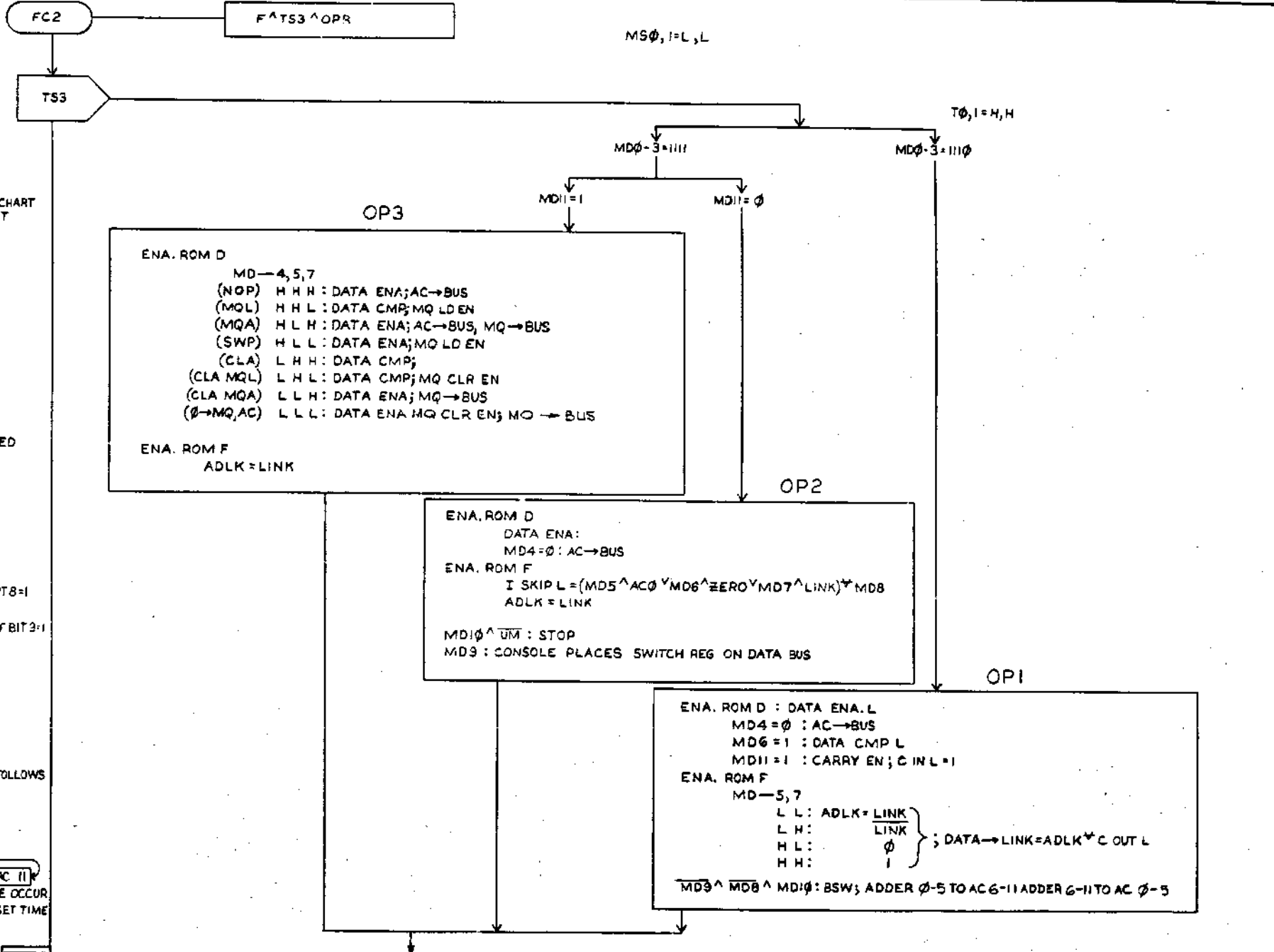
1ST MAKE A SKIP DECISION  
 THEN REVERSE THEN DECISION IF BIT 8=1  
 THEN CLEAR THE AC IF BIT 4=1  
 THEN "OR" THE AC WITH THE SWITCHES IF BIT 3=1  
 THEN STOP IF BIT 1=1

OPERATE GROUP 1

TO AC	TO LINK	AC TO LINK	LINK TO AC	ROTATE	++ TO AC
0	0	0	0	0	0
0	0	1	0	0	0
0	1	0	0	0	0
0	1	1	0	0	0
1	0	0	0	0	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	0	1	1	1

1ST CLEAR THE AC & LINK IF BITS=1  
 THEN COMPLEMENT IF BITS=1  
 THEN INCREMENT THE L, AC IF BIT 1=1  
 THEN ROTATE DEPENDENT UPON 0, 1, 0 AS FOLLOWS

MD 8 9 10  
 H H H NO ROTATE  
 H H L SWAP AC & LINK  
 H L H ROTATE LEFT ONCE  
 H L L ROTATE LEFT TWICE  
 L H H ROTATE RIGHT ONCE  
 L H L ROTATE RIGHT TWICE  
 L L X ILLEGAL



INTSTB TP3  
 GO TO FC9

PC, AC, MQ CLK  
 STOP: RUN = 0  
 I SKIP: I SEIP = 1  
 INT RST: INTSTB = 1

EXECUTION OF AN OPERATE			
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO. ITEM NO.
PDP8A			
PARTS LIST			
DIMENSIONAL TOLERANCE		DATE	DATE
DIMENSIONS ARE MILLIMETERS		11-7-74	12-11-74
UNLESS OTHERWISE SPECIFIED		INCHES	
MILLIMETERS	INCHES	ANGLES	
±.005	±.005	±.005	
±.008	±.008	±.008	
±.01	±.01	±.01	
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	NEXT HIGHER ASSY.	
MATERIAL	FINISH	B-DD-KK8A-0	SIZE CODE NUMBER REV.
		SCALE	DFD M8315-Q-18
SHEET 1	OF 1	DIST.	

REVISIONS  
 CHANGE NO. REV.

REV. 1  
 DFCM 8315-Q-18

digital  
 TITLE  
 FLOW DIAGRAM  
 M8315 FC2



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THE INSTRUCTION AT THIS POINT IS DECODED AS FOLLOWS: ONLY IF \*USER MODE IS NEGATED THIS ALLOWING PAUSE TO BE ASSERTED.

1	1	0	DEVICE CODE	COMMAND
---	---	---	-------------	---------

FOR DEVICE CODE 000 THE CPU TAKES CONTROL DEPENDING UPON THE COMMAND AS FOLLOWS:

MD-9	10	11	
SKON	0	0	0 SKIP IF INT ON, TURN IT OFF
ION	0	0	1 TURN INT SYS ON
IOF	0	1	0 TURN INT SYS OFF
SRO	0	1	1 SKIP IF INT RQST
*GTF	1	0	0 LINK, INT ON, INT RQST TO AC0,2,4
*RTF	1	0	1 AC0 TO LINK, TURN INT, SYS ON
NOP	1	1	0 NO OPERATION
CAF	1	1	1 GENERATE INITIALIZE.

\* ALSO SEE OPT 2

OTHER DEVICES SEND OR RECEIVE DATA DEPENDING UPON THE C LINES AS FOLLOWS:

CO	C1	C2	
AC=DEV	H	H	H THE DEVICE RECEIVES THE AC AT TP3
RELATIVE JUMP	H	H	L THE DATA LINES+THE PC GO TO PC AT BUS STB
INPUT OR TO AC	H	L	H THE AC=DEV WITH DATA LINES GOES TO THE AC BUS STB
ABSOLUTE JUMP	H	L	L THE DATA LINES GO TO THE PC AT BUS STB
AC=DEV @-AC	L	H	H THE DEVICE RECEIVES THE AC AT TP3 AND THE AC IS CLEARED
INPUT JAM TO AC	L	L	H THE DATA LINES GO TO THE AC BUS STB

NOTE ALL I/O XFERS TAKE PLACE OVER THE DATA LINES.

IN REALITY ALL XFERS TAKE PLACE ON THE LEADING EDGE OF BUS STB IN ACCORDANCE WITH THE "C" LINES AT THAT TIME. ASSERTING NOT LAST XFER CAUSES THE CPU TO WAIT FOR A BUS STROBE TO DO THE NEXT XFER. THE CPU WILL NOT ADVANCE TO TS4 UNTIL IT SEES A BUS STROBE WITH NOT LAST XFER NEGATED - THIS IN TURN CAUSES INTERRUPT STROBE.

LINK LOAD SHOULD BE GIVEN IN SYNC WITH BUS STROBE AND CAUSES LINK DATA TO GO TO THE LINK.

FC3 F^TS3^MD0-2=110

MS0,1=L,L

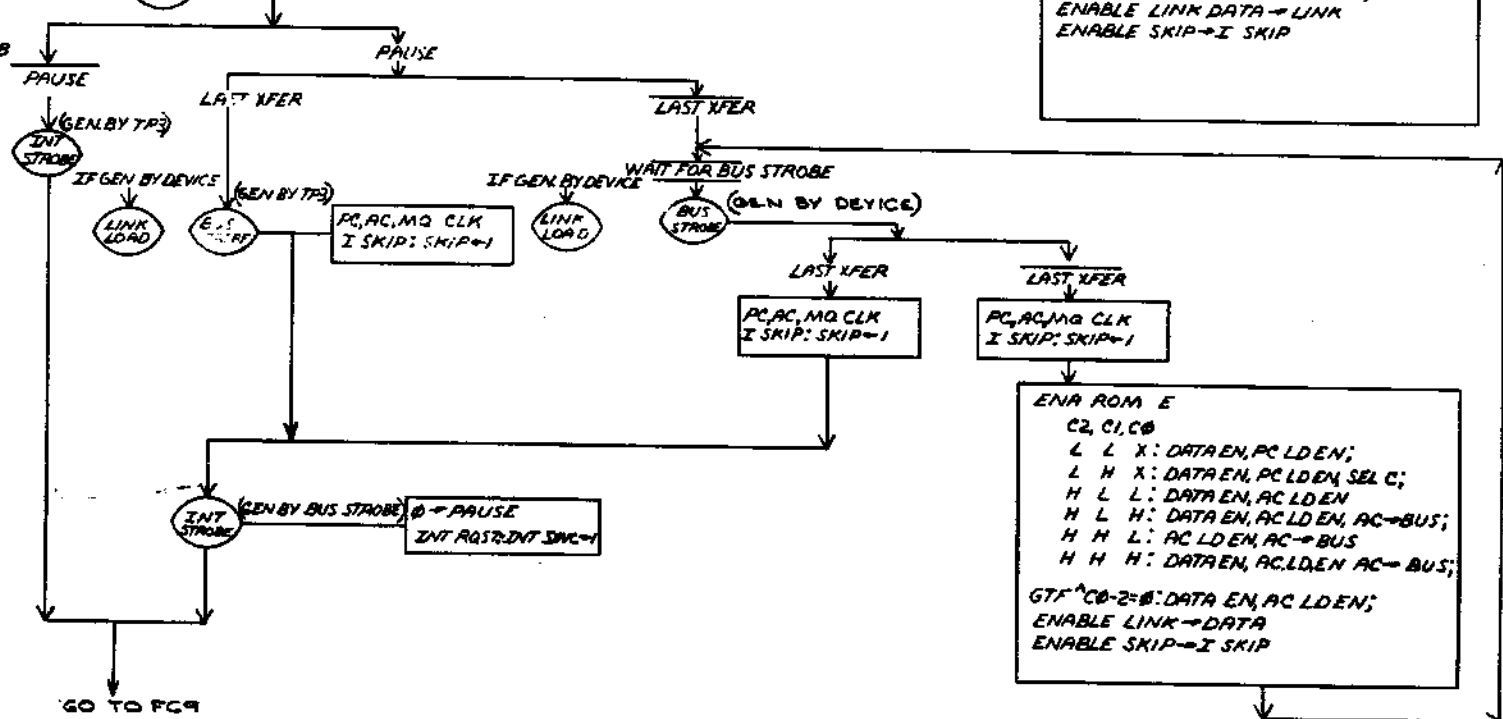
TS3

PAUSE  
DO NOTHING  
PAUSE

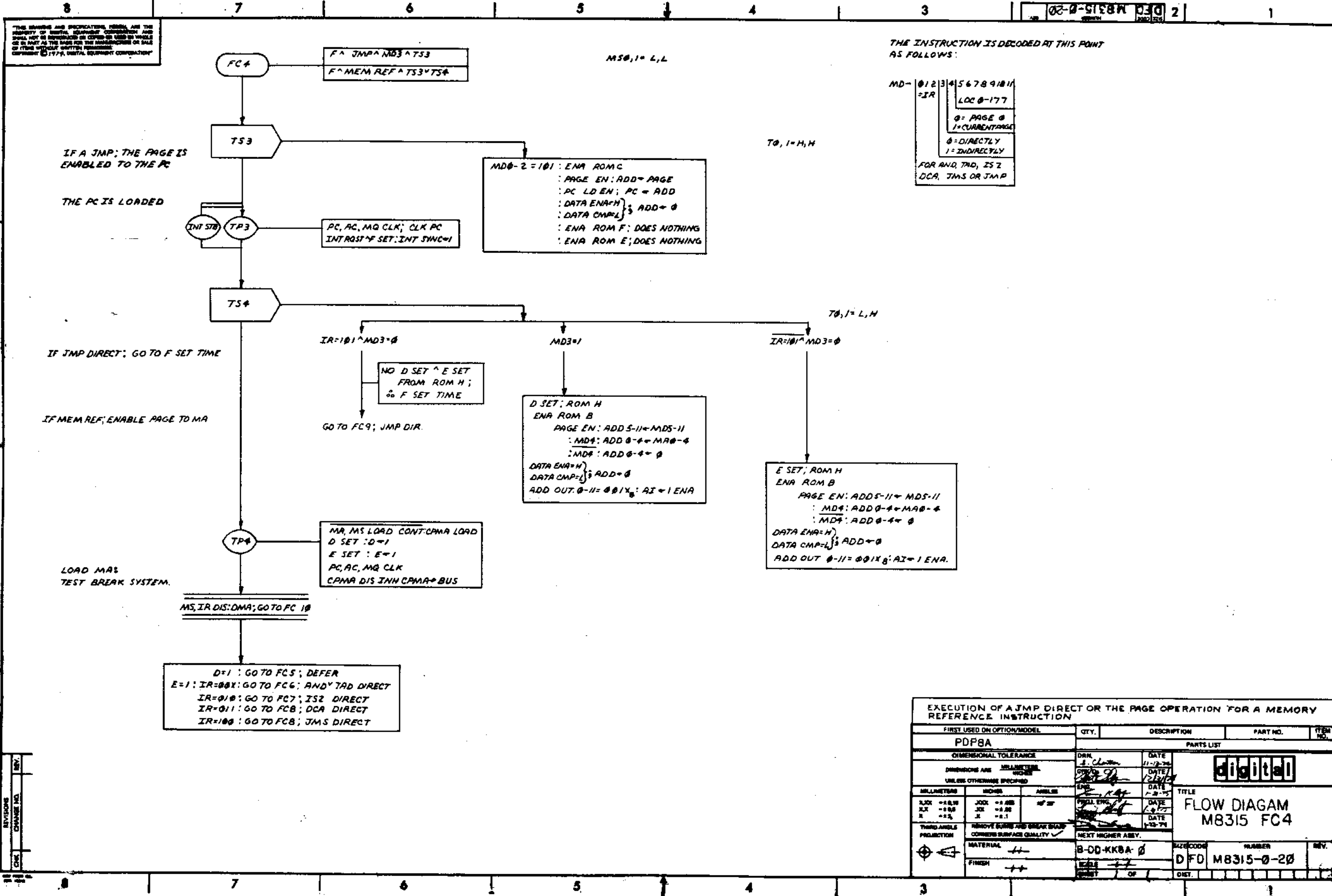
TP,1=H,H

ENA ROM J  
MD-9,10,11  
L L L: CAF=1; CAF  
L H L: LINK DATA=AC0, EN LNK LD, INT ENA=1; RTF  
L H H: DATA 4=INT ENA, DATA 2=INT RQST, DATA 0=LINK; GTF  
H L L: I SKIP=INT RQST; SRO  
H L H: INT DLY=0; IOF  
H H L: INT ENA=1; ION  
H H H: I SKIP=INT ENA, INT DLY=0; SKON

ENA ROM E  
C2, C1, C0  
L L X: DATA EN, PC LDEN;  
L H X: DATA EN, PC LDEN, SEL C;  
H L L: DATA EN, AC LDEN;  
H L H: DATA EN, AC LDEN, AC=BUS;  
H H L: AC LDEN, AC=BUS;  
H H H: DATA EN AC LDEN, AC=BUS;  
GTF^C0-2=0: DATA EN, AC LDEN;  
ENABLE LINK DATA=LINK  
ENABLE SKIP=I SKIP



FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A					
DIMENSIONAL TOLERANCE					
DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED					
MILLIMETERS					
FINISH	RICHES	ANGLES	DATE	PARTS LIST	
BLACK	JACK	W.P.	11-6-70	digital	
1/2	JR		12-11-70	TITLE	
2	J		1-21-71	FLOW DIAGRAM	
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	NEXT HIGHER ASSY.	1-23-71	M8315 FC3	
MATERIAL	FINISH	SCALE		SIZE CODE	NUMBER
				DFD	M8315-0-19
		SHEET	OF 1	DATE	REV.



EXECUTION OF A JMP DIRECT OR THE PAGE OPERATION FOR A MEMORY REFERENCE INSTRUCTION

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A				
DIMENSIONAL TOLERANCE				
DIMENSIONS ARE		MILLIMETERS	DATE	11-22-74
UNLESS OTHERWISE SPECIFIED		UNCES	DATE	12/1/74
MATERIAL				
FINISH		++	DATE	1-2-75
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		✓	DATE	1-9-75
NEXT HIGHER ASSEMBLY			DATE	1-22-74
MATERIAL		++	DATE	1-2-75
FINISH		++	DATE	1-22-74
MATERIAL		++	DATE	1-2-75
FINISH		++	DATE	1-22-74

DRK & Co. DATE 11-22-74  
 G. J. DATE 12/1/74  
 ENG. DATE 1-2-75  
 FINAL ENG. DATE 1-9-75  
 X DATE 1-22-74

TITLE  
**FLOW DIAGRAM**  
**M8315 FC4**

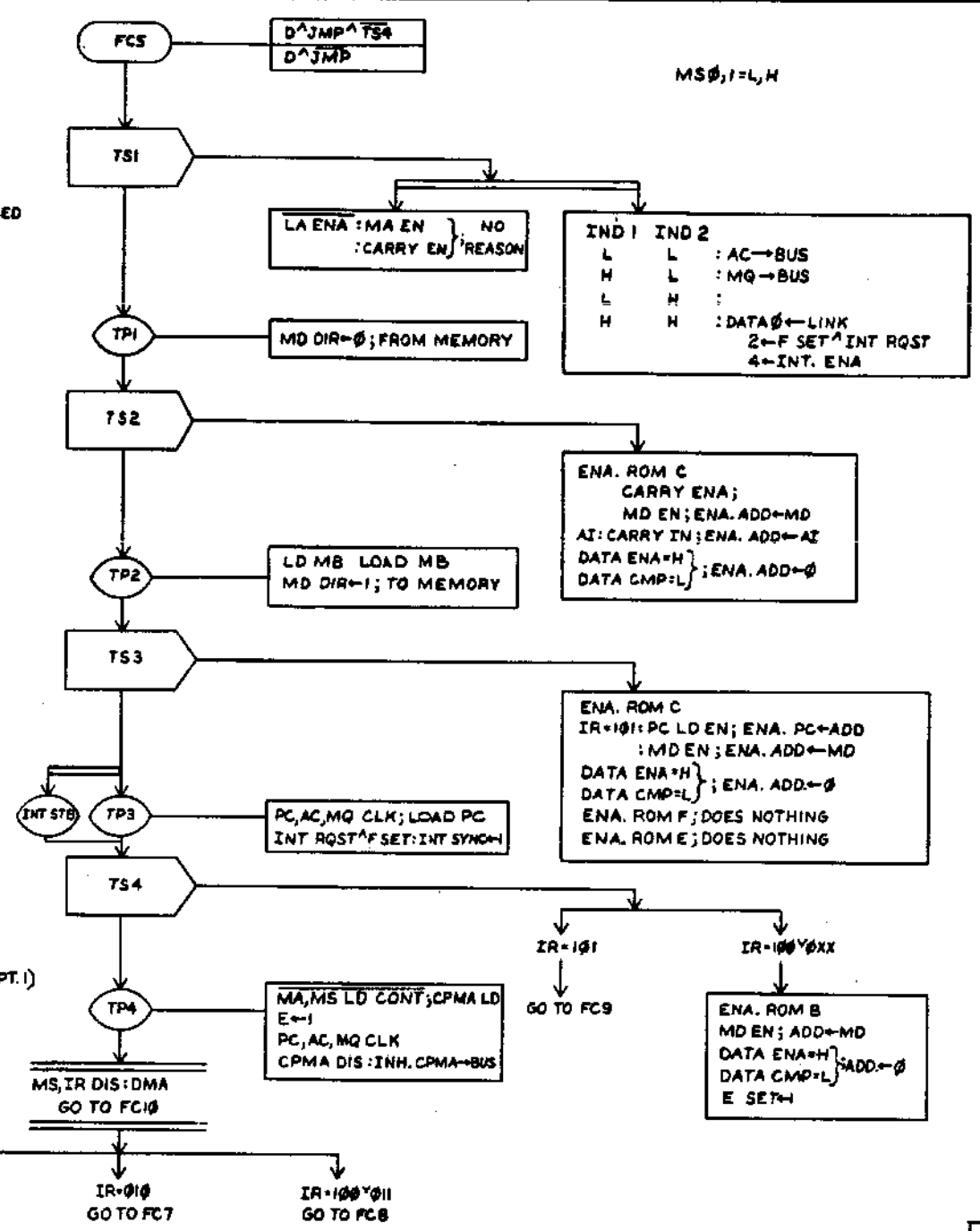
SIZE CODE NUMBER REV.  
 B-00-KKBA-0 DFD M8315-0-20

REVISIONS  
 CHANGE NO. REV.

ITEM M8315-0-20

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A MEMORY READ IS STARTED  
INDICATOR INFORMATION IS PLACED ON DATA BUS  
THE ADDRESS WILL APPEAR ON THE MD LINES  
MEMORY DATA+AI GOES TO MEMORY BUFFER (AI= ADDRESS 0000-0017)  
MEMORY BUFFER IS LOADED AND PLACED ON MD LINES  
A MEMORY WRITE IS STARTED  
IF JMP; ENABLE MD TO THE PC  
IF JMP; LOAD THE PC  
IF JMP; GO TO F SET TIME  
IF JMP; GO TO E SET  
MA←MD (PLACES THE OPERAND ADDRESS IN THE MA) (THE EMA LINES MAY HAVE CHANGED-SEE OPT.1)



MS0,1=L,H

T0,1=L,L

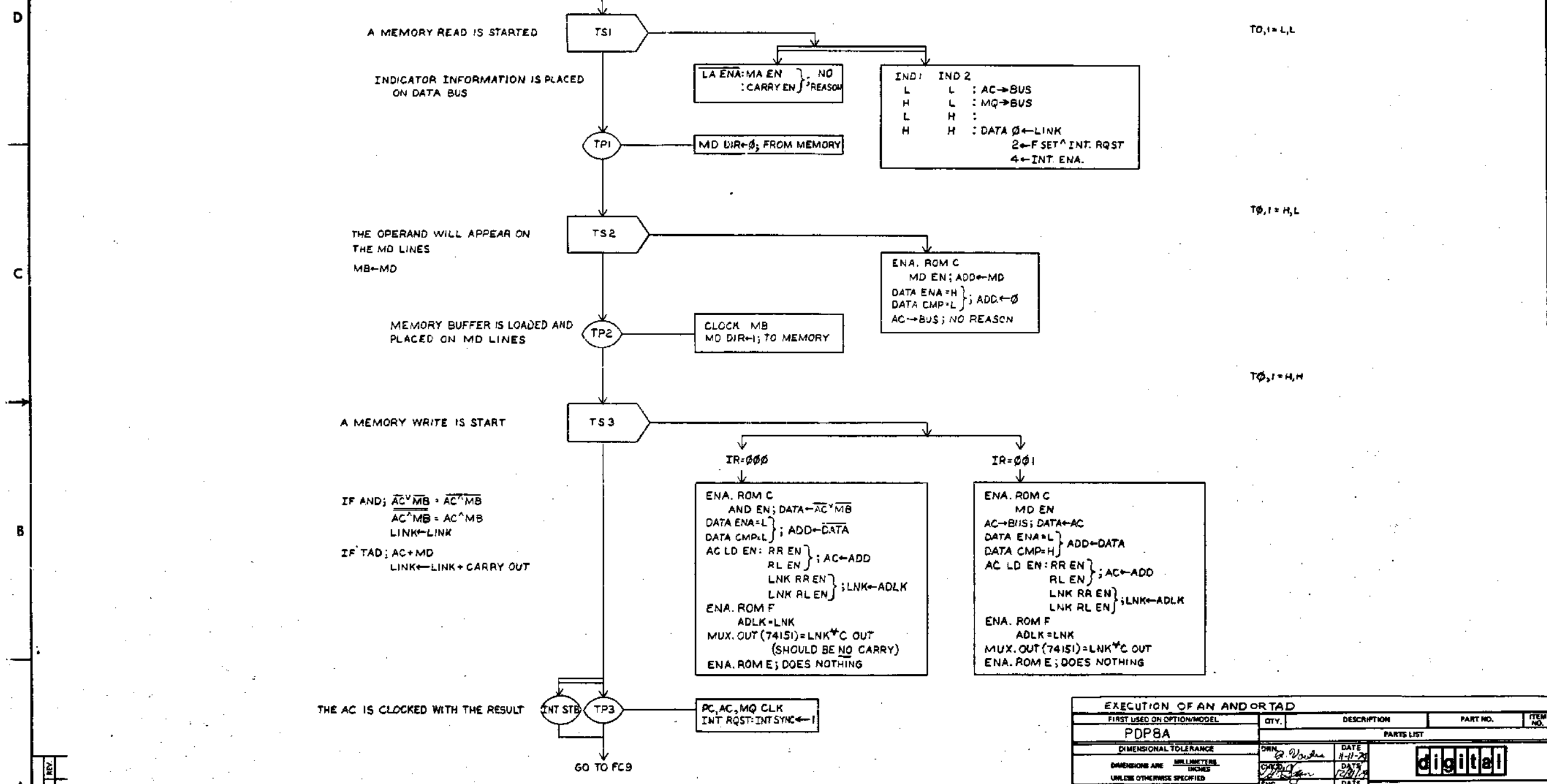
T0,1=N,L

T0,1=H,H

T0,1=L,H

EXECUTION OF A JUMP INDIRECT OR CALCULATING THE INDIRECT ADDRESS FOR AND, TAD, DCA, ISZ OR JMS			
FIRST USED ON OPTIC/MODEL	QTY.	DESCRIPTION	PART NO.
PDP8A			
PARTS LIST			
DIMENSIONAL TOLERANCE	DRN	DATE	
UNLESS OTHERWISE SPECIFIED			
			<b>digital</b>
TITLE	DATE	DATE	
FLOW DIAGRAM			
M8315 FC5			
MATERIAL	FINISH	SCALE	REV.
B-DD-KK8A-0		DFD	M8315-0-21

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REV.	
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A					
PARTS LIST					
DIMENSIONAL TOLERANCE		DRN	DATE	digital	
DIMENSIONS ARE MILLIMETERS		CHKD	DATE		
UNLESS OTHERWISE SPECIFIED		ENG	DATE		
MILLIMETERS	INCHES	ANGLS	DATE		
XJX = 0.10	JOX = 0.08	45° 30'	DATE		
XX = 0.05	JX = 0.02		DATE		
X = 0.2	X = 0.1		DATE		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK EDGES	PROJ. ENG.	DATE		
	CORNERS SURFACE QUALITY	PROD.	DATE		
	MATERIAL	FINISH	DATE		
	FINISH				
NEXT HIGHER ASSY.		B-DD-KK8A-0		SIZE CODE	NUMBER
		SCALE		DFD	M8315-0-22
		SHEET		OF	1

DFD M8315-0-22

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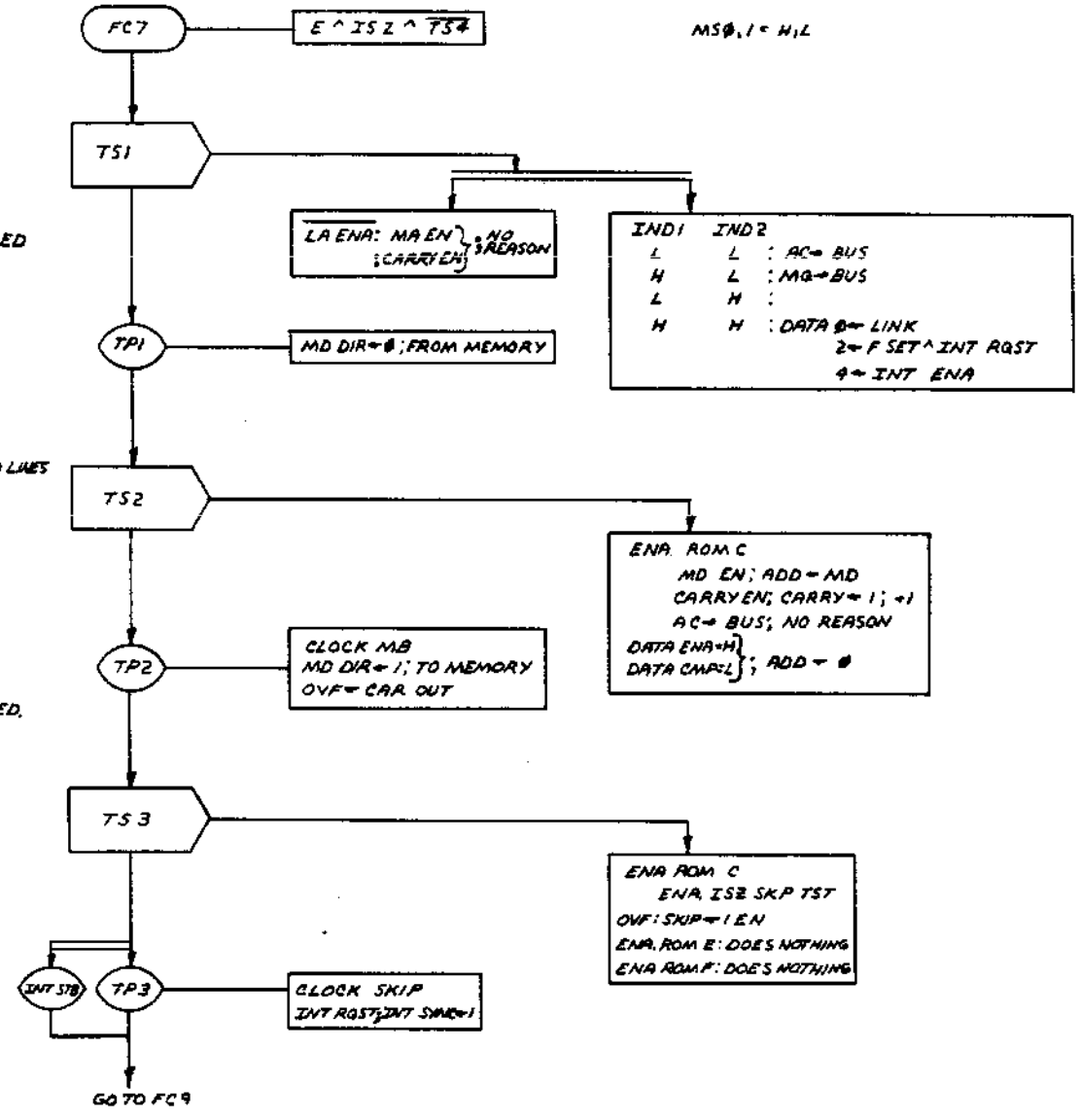
A MEMORY READ IS STARTED

INDICATOR INFORMATION IS PLACED ON DATA BUS

THE OPERAND WILL APPEAR ON THE MD LINES MB ← MD + 1

THE INCREMENTED MD IS SAVED IN THE MB AND PLACED ON THE MD LINES; THE CARRY IS SAVED.

SET SKIP = OVER FLOW



T0,1 = L, L

T0,1 = H, L

T0,1 = H, H

EXECUTION OF AN ISZ				QTY.	DESCRIPTION	PART NO.	ITEM NO.
FIRST USED ON OPTION/MODEL							
PDP8A							
DIMENSIONAL TOLERANCE				DRAL	DATE	PARTS LIST	
DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED				CHD	DATE	digital	
MILLIMETERS	INCHES	ANGLES		ENG	DATE	TITLE	
±0.00	±0.00	±0°00'		PROJ. ENG.	DATE	FLOW DIAGRAM	
±0.05	±0.00	±0°00'		PROJ.	DATE	M8315 FC7	
±0.1	±0.1	±0°00'			DATE		
THIRD ANGLE PROJECTION				NEXT HIGHER ASSY.			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY							
MATERIAL				B-DD-KK8A-0	SIZE CODE	NUMBER	REV.
FINISH					SCALE	D FD M8315-0-23	
				SHEET	OF	DIST.	

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

DFD M8315-0-23

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REV. 1  
D E D M 8315-0-24

D  
C  
B  
A

D  
C  
B  
A

A MEMORY READ IS STARTED

INDICATOR INFORMATION IS PLACED ON DATA BUS.

THE OPERAND WILL APPEAR ON THE MD LINES

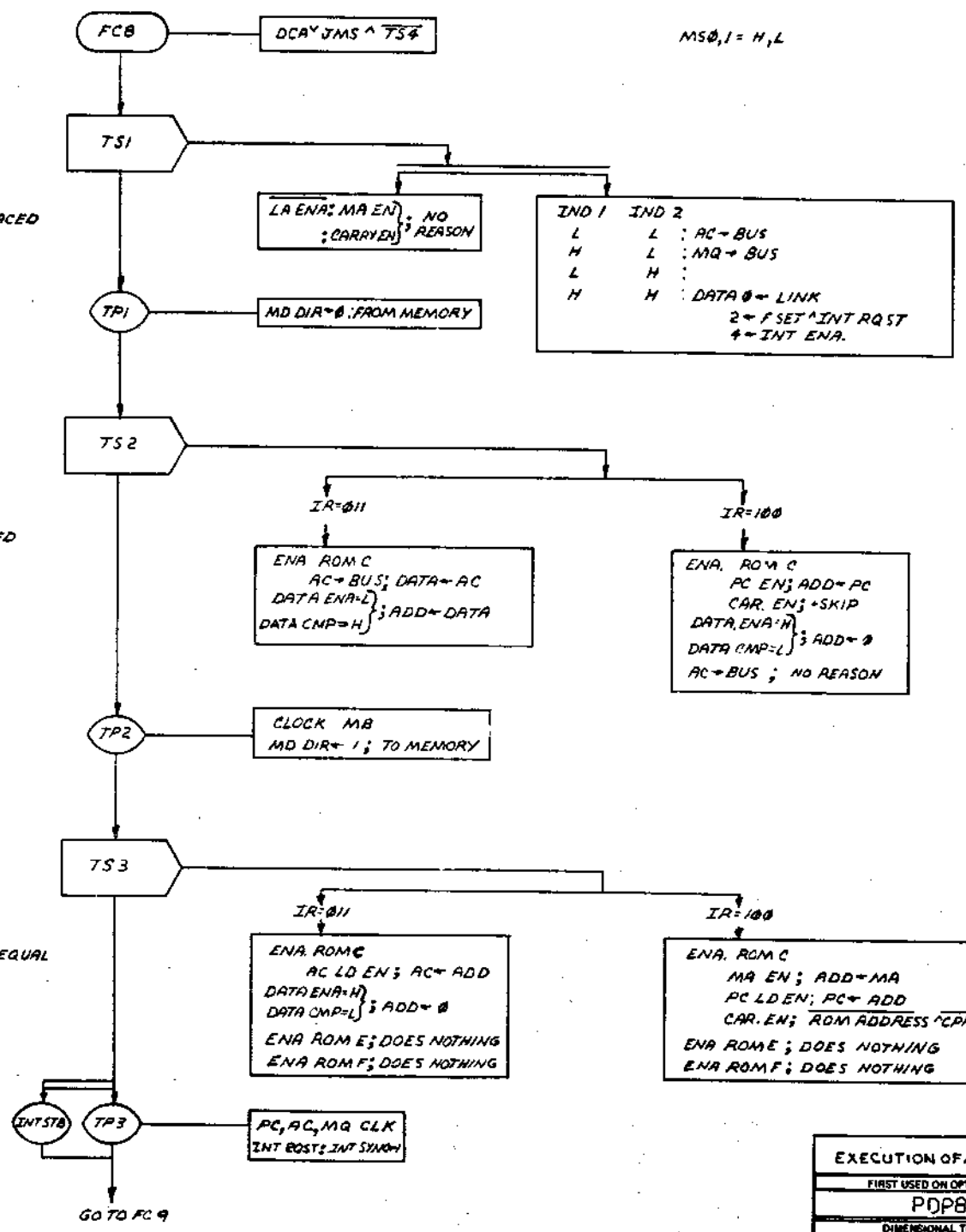
IF DCA; THE AC IS GATED TO THE MB  
IF JMS; THE PC + SKIP IS GATED TO THE MB.

MB IS CLOCKED AND PLACED ON MD LINES

A MEMORY WRITE IS STARTED

IF DCA; THE AC GETS CLEARED  
IF JMS; THE PC IS UPDATED TO EQUAL THE MA + ROM ADDRESS \* CPMA DIS (H IS NORMAL)

IF DCA; CLOCK AC TO ZERO IT  
IF JMS; CLOCK PC TO GET NEXT INST ADD.



MS0,1 = H,L

T0,1 = L,L

T0,1 = H,L

T0,1 = M,H

REV. 1  
D E D M 8315-0-24

EXECUTION OF A DCA OR JMS													
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.										
PDP8A													
DIMENSIONAL TOLERANCE		PARTS LIST											
DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED		<table border="1"> <tr> <td>DRY</td> <td>DATE</td> </tr> <tr> <td>CHECKED</td> <td>DATE</td> </tr> <tr> <td>ENG</td> <td>DATE</td> </tr> <tr> <td>PRD. ENG.</td> <td>DATE</td> </tr> <tr> <td>FRONT</td> <td>DATE</td> </tr> </table>		DRY	DATE	CHECKED	DATE	ENG	DATE	PRD. ENG.	DATE	FRONT	DATE
DRY	DATE												
CHECKED	DATE												
ENG	DATE												
PRD. ENG.	DATE												
FRONT	DATE												
THIRD ANGLE PROJECTION		NEXT HIGHER ASSY.											
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		SIZE CODE											
MATERIAL		NUMBER											
FINISH		SCALE											
SHEET 1 OF 1		DIST.											

TITLE  
FLOW DIAGRAM  
M8315 FC8

**digital**

SIZE CODE  
D FD M8315-0-24

REV. 1  
CHANGE NO.

8

7

6

5

4

3

2

1

8

7

6

5

4

3

2

1

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IF NO INTERRUPT, PREPARE TO GET NEXT INSTRUCTION  
 PC ← SKIP → MA  
 IF INTERRUPT, EXECUTE A JMS TO LOCATION 0

FC9 F SET TIME MS0,1=X,X

TS4 T0,1=L,H

ENA. ROM B  
 INT. IN PROG ^F^D^E : PC EN; ADD ← PC  
 : CAR. EN: SKIP; CAR ← 1; ADD ← SKIP  
 : F SET ← 1  
 INT. IN PROG : NO ENABLES; ADD ← 0  
 : JMS → IR ENA.  
 : E SET ← 1

IF OPI: ENABLE 74S158 ROTATE MUX;

MD	0	0	
	0	0	NOP
	0	1	RL EN ROTATE LEFT
	1	0	RR EN ROTATE RIGHT
	1	1	RR EN, RL EN LOAD; SHOULD NOT BE USED

TP3 1/2 OPI ^ MD0 : PC, AC, MQ CLK

MA, MS LOAD CONT: CPMA LOAD  
 F SET: F ← 1  
 E SET: E ← 1  
 : IR ← JMS; IR0-2 = 100  
 PC, AC, MQ CLK  
 CPMA DIS: INH CPMA → BUS

CLOCK THE MA

TP4

MS, IR DIS: DMA  
 GO TO FC10

F GO TO FC1

E GO TO FC8  
 AN INTERRUPT HAS BEEN ALLOWED

GETTING ADDRESS OF NEXT INSTRUCTION, OR ANSWERING INTERRUPT

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8A				
DIMENSIONAL TOLERANCE		PARTS LIST		
DIMENSIONS ARE IN MILLIMETERS		DATE 11-6-70		
UNLESS OTHERWISE SPECIFIED		DATE 1/2/71		
MILLIMETERS	INCHES	TITLE		
±.01	±.0005	FLOW DIAGM		
±.02	±.001	M8315 FC9		
±.05	±.002	DATE 11-6-70		
±.10	±.005	DATE 1/2/71		
±.15	±.0075	DATE 11-6-70		
±.20	±.008	DATE 1/2/71		
±.25	±.010	DATE 11-6-70		
±.30	±.012	DATE 1/2/71		
±.35	±.014	DATE 11-6-70		
±.40	±.016	DATE 1/2/71		
±.45	±.018	DATE 11-6-70		
±.50	±.020	DATE 1/2/71		
±.55	±.022	DATE 11-6-70		
±.60	±.024	DATE 1/2/71		
±.65	±.026	DATE 11-6-70		
±.70	±.028	DATE 1/2/71		
±.75	±.030	DATE 11-6-70		
±.80	±.032	DATE 1/2/71		
±.85	±.034	DATE 11-6-70		
±.90	±.036	DATE 1/2/71		
±.95	±.038	DATE 11-6-70		
±1.00	±.040	DATE 1/2/71		
THIRD ANGLE PROJECTION	RESUME DIMENSIONS UNLESS OTHERWISE SPECIFIED	NEXT HIGHER ASSY.		
MATERIAL	FINISH	QTY.	DESCRIPTION	PART NO.
		1	00-KK9A-	
			SCALE	
			SHEET	
			OF	
			NUMBER	
			DFD M8315-0-25	
			REV.	

DFD M8315-0-25

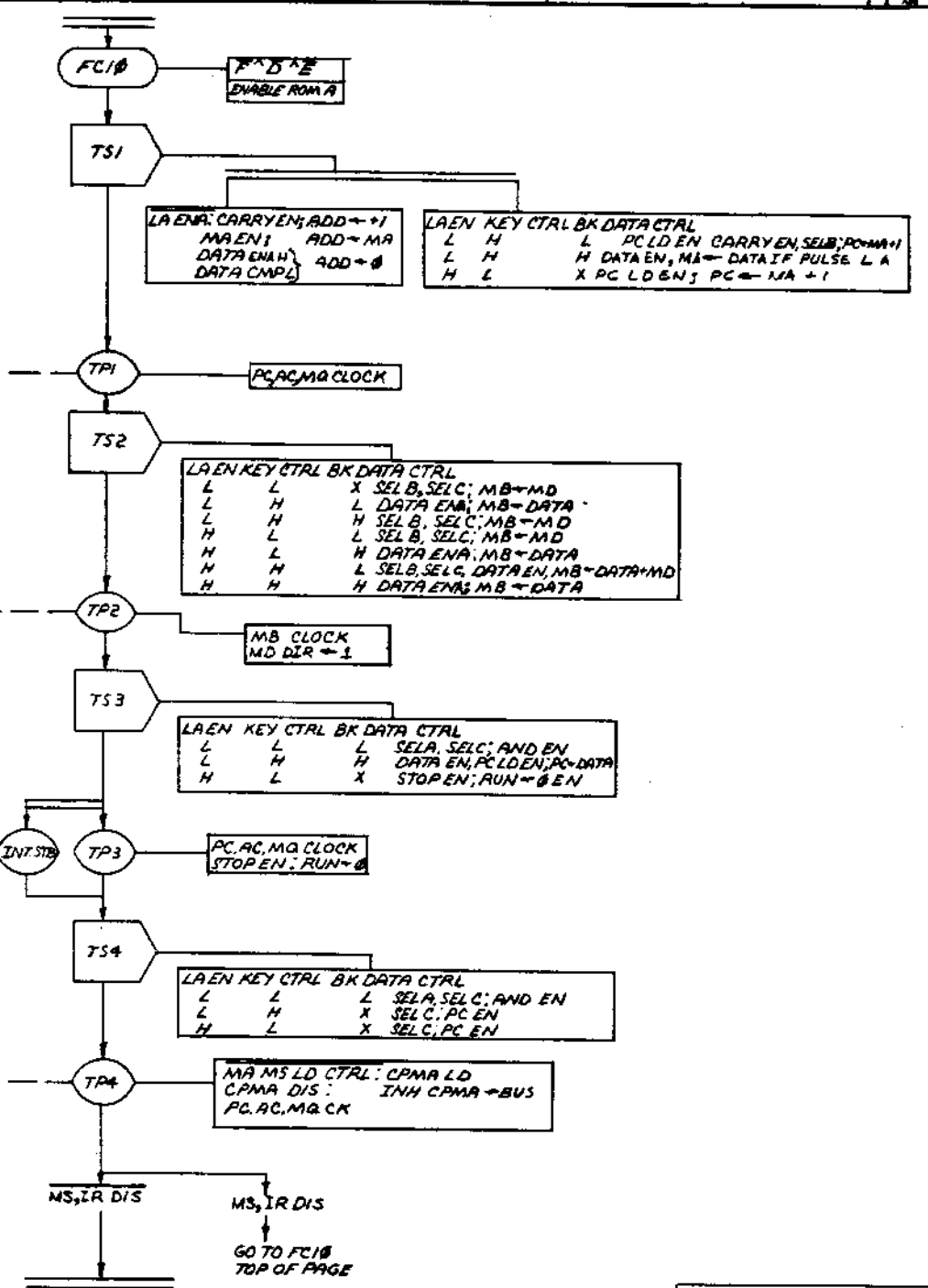
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THE BREAK CONTROL WORD (LA EN KEY CTRL BK DATA CTRL) IS NORMALLY SET UP AT THE BEGINNING OF THE DMA CYCLE AND REMAINS STABLE FOR THE ENTIRE CYCLE. IT DEFINES OPERATIONS AS FOLLOWS.

DATA TO MEM	ADD TO MEM	CON DEPOSIT	CON EXAMINE	LOAD ADD	BOOT DEPOSIT	LOAD FIELD 0	LOAD FIELD 7
LAEN	H H H	H L H	H L L	L H H	L H L	L L H	L L L
THE CONTENTS OF THE DATA LINES GO TO THE MB	THE CONTENTS OF THE MD LINES PLUS THE CONTENTS OF THE DATA LINES GO TO THE MB	THE CONTENTS OF THE DATA LINES GO TO THE MB	THE CONTENTS OF THE MD LINES GO TO THE MB	THE CONTENTS OF THE MD LINES GO TO THE MB	THE CONTENTS OF THE MD LINES GO TO THE MB	THE CONTENTS OF THE MD LINES GO TO THE MB	THE CONTENTS OF THE MD LINES GO TO THE MB
THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY	THE MB IS WRITTEN INTO MEMORY
		RUN IS CLEARED	RUN IS CLEARED	THE CONTENTS OF THE DATA LINES GO TO THE PC	CAUTION: "AND EN" CAUSES THE DATA BUS TO = 7777 THIS DEPENDS UPON THE PC = 0000. THE CONTENTS OF THE DATA LINES GOES TO THE MEMORY EXTENSION CONTROLS IS 18 DF AT TP3		
		THE PC GOES TO THE MA	THE PC GOES TO THE MA	THE PC GOES TO THE MA	THE PC GOES TO THE MA	AND IF AT TP4	AND IF AT TP4

TO DO A TRANSFER OF DATA TO A DEVICE DO AN ADD TO MEM WITH THE DATA LINES EQUAL TO 0 AND TAKE DATA FROM THE MD LINES AT TP3.

SWITCH SELECTED 1ST CYCLE OR 1ST CICLE  
 THESE ARE THE 1ST TWO CYCLES DURING A CPU AUTO RESTART



MS, IR DIS  
 T0,1 = L, L  
 T0,1 = H, L  
 T0,1 = H, H  
 T0,1 = L, H

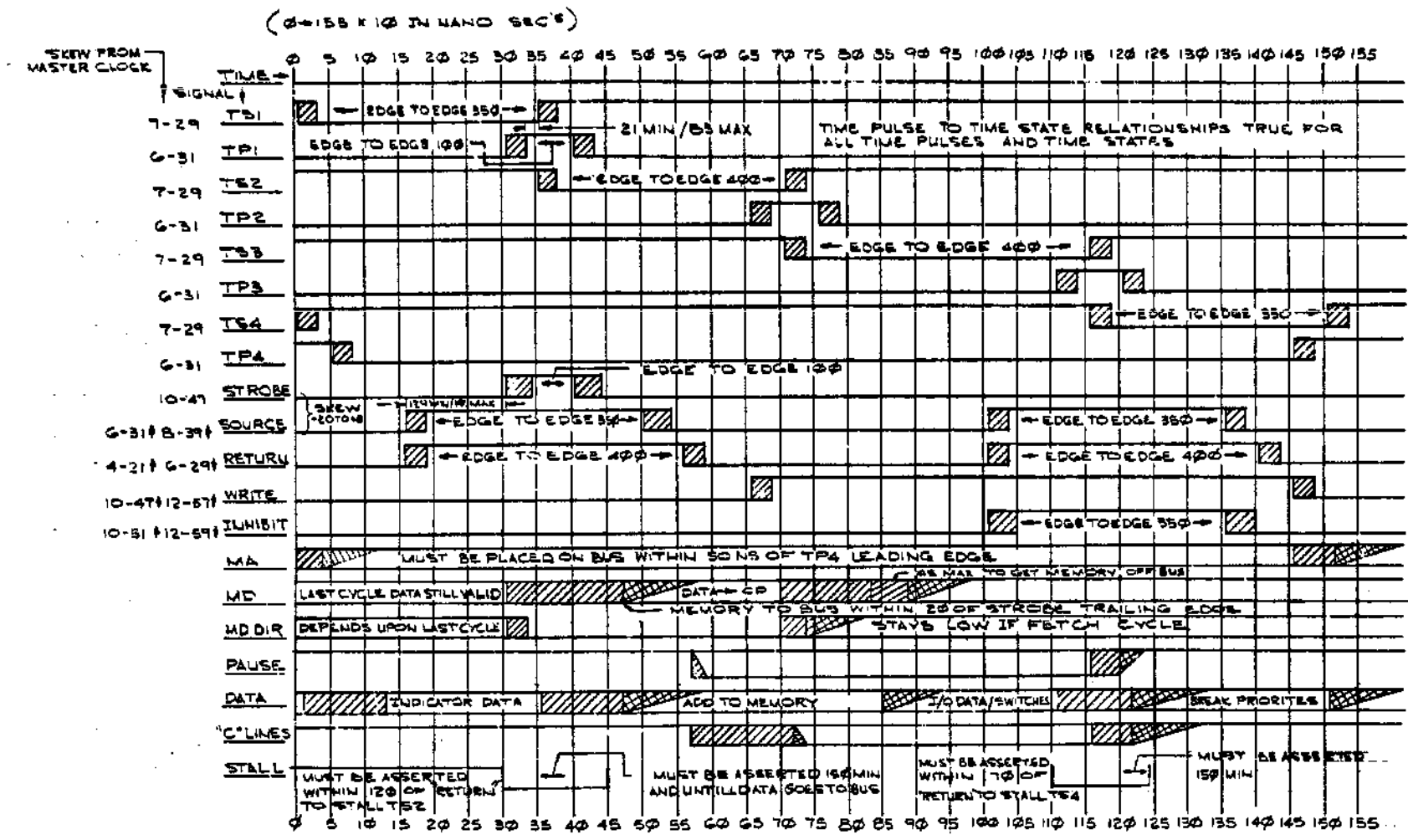
REV.	CHG.	DATE

DATA BREAK/CONSOLE OPERATIONS/AUTO RESTART			
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
PDP8A			
DIMENSIONAL TOLERANCE			
DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED			
MILLIMETERS	INCHES	ANGLES	
±0.10	±0.004	±0.1	
±0.25	±0.010	±0.5	
THIRD ANGLE PROJECTION		REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	
MATERIAL		NEXT HIGHER ASSY.	
FINISH		B DD KK8A-0	
SCALE		SIZE CODE	
SHEET 1 OF 1		NUMBER	
		D FD MB315-0-26	
		REV.	

D FD MB315-0-26



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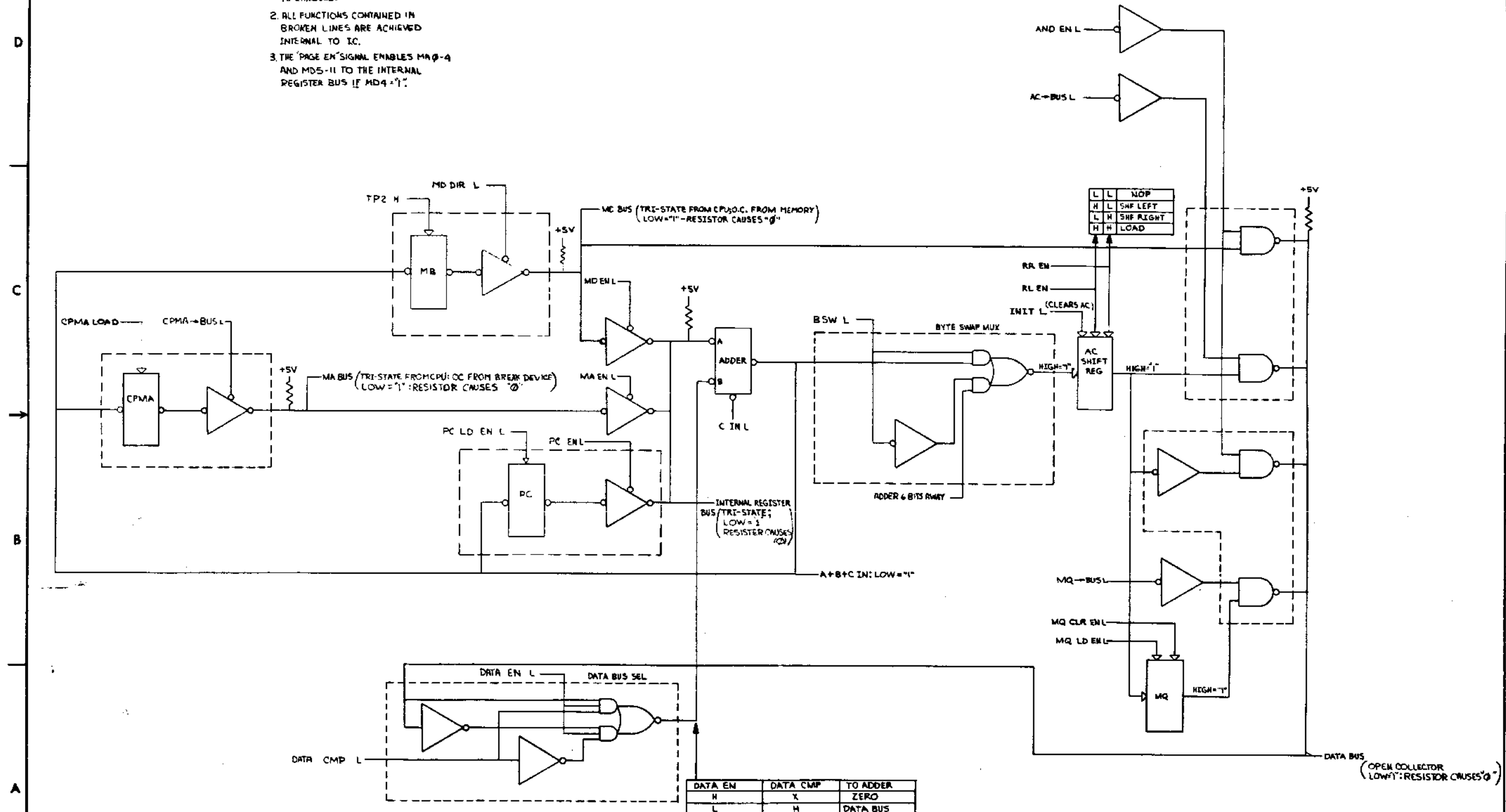


PDP-11 DATA PATH FUNCTION & TIMING			
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
PDP-11		PARTS LIST	
DIMENSIONAL TOLERANCE			
DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED			
MILLIMETERS	INCHES	ANGLES	
±0.10	±0.008	±0° 30'	
±0.5	±0.02		
±0.2	±0.1		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	NEXT HIGHER ASSY.	
MATERIAL	B-DD-KKBA-3	SIZE CODE	NUMBER
FINISH		SCALE	D FD M8315-0-27
		SHEET	1 OF 2
		DIST.	

REV.	CHANGE NO.	REVISIONS
1		

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- NOTES:
1. THE PC, AC AND MQ ARE LOADED BY PC, AC, MQ CLK IF THE LOAD IS ENABLED.
  2. ALL FUNCTIONS CONTAINED IN BROKEN LINES ARE ACHIEVED INTERNAL TO IC.
  3. THE PAGE EN SIGNAL ENABLES MA 0-4 AND MDS-11 TO THE INTERNAL REGISTER BUS IF MD4 = '1'.

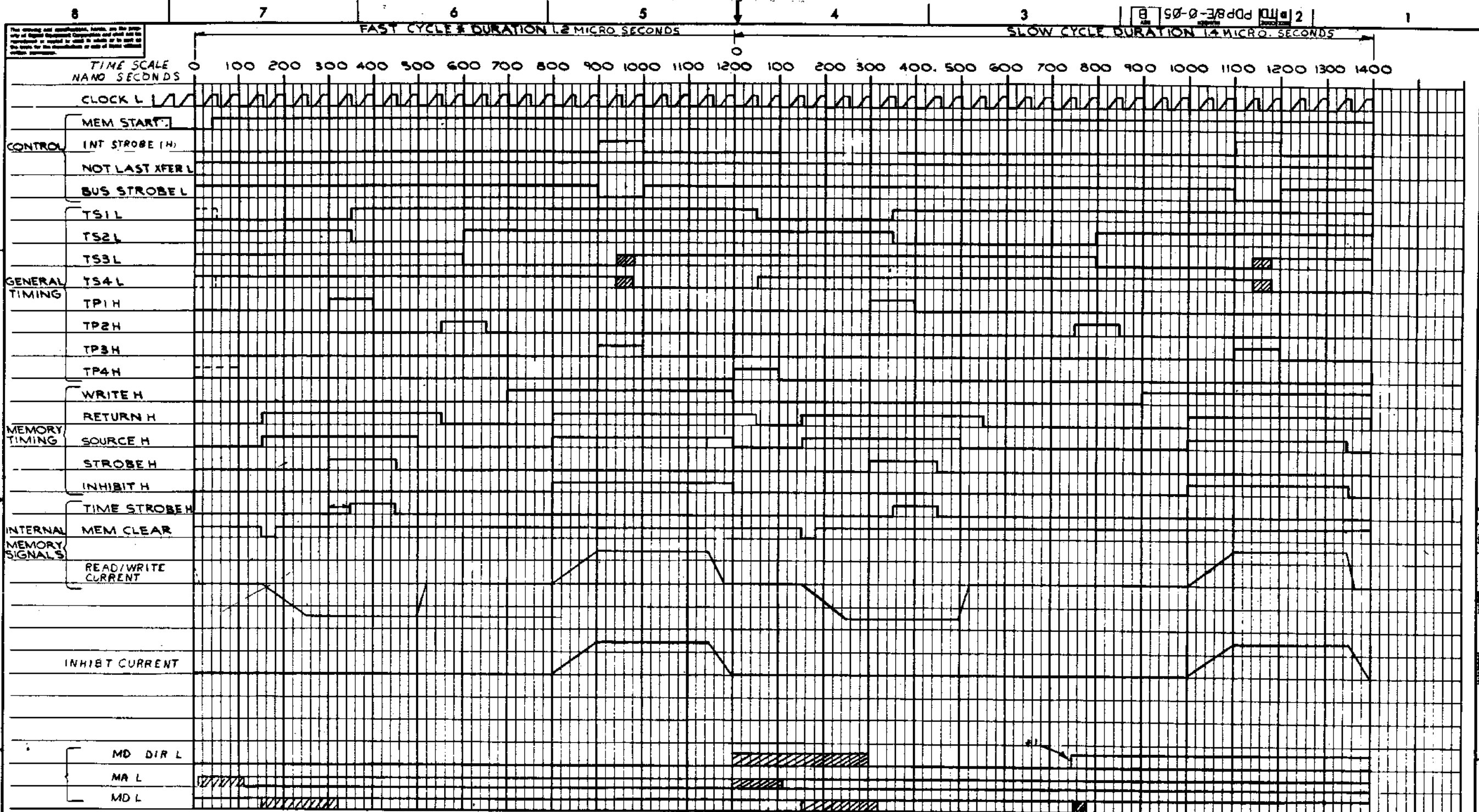


DATA EN	DATA CMP	TO ADDER
H	X	ZERO
L	H	DATA BUS
L	L	DATA BUS NOT

REVISIONS		
CHK	CHANGE NO.	REV.

DATA PATH FUNCTIONS			
TITLE	SIZE/DOOR	NUMBER	REV.
FLOW DIAGRAM M8315 BUS TIMING	DFD	M8315-0-27	
SCALE	SHEET 2 OF 2	DIST.	

DFD M8315-0-27



\*THIS PLOT SHOWS AN INITIAL FAST CYCLE  
 THE DOTTED LINES INDICATE A REGULAR CYCLE  
 #11 MD DIR GOES LOW ONLY IF \* [D-AUTOINDEX]

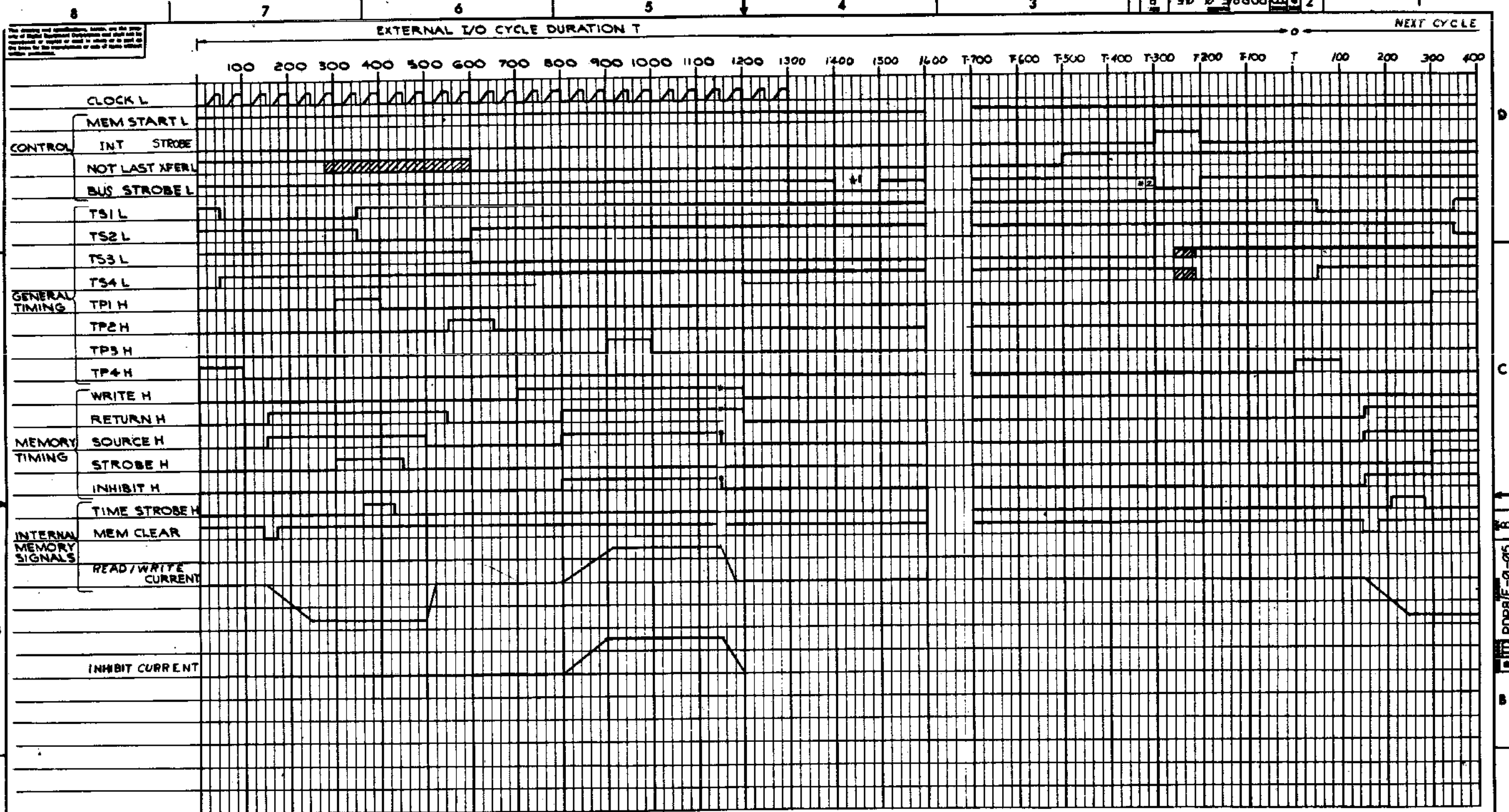
CIRCUIT DELAYS ARE NEGLECTED IN  
 THIS TIMING DIAGRAM

REV. NO.	REV.
1	A
2	B
3	C
4	D

CHANGE NO. BE-00017  
 NA R11  
 BE-00049  
 11-10-71  
 L-KLOTZ

FIRST USED ON OPT/MOD PDP8/E	QTY.	DESCRIPTION	PART NO.	ITEM NO.																																
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES HORIZONTAL FINISHES A: ASB B: 1/4" - 1/8" C: 1/16" - 1/32" D: 1/32" - 1/64" E: 1/64" - 1/128"																																				
MATERIALS		PARTS LIST																																		
FINISH		<table border="1"> <tr> <td colspan="2">digit</td> <td colspan="2">EQUIPMENT CORPORATION</td> </tr> <tr> <td colspan="4" style="text-align: center;">TITLE</td> </tr> <tr> <td colspan="4" style="text-align: center;">TIMING (PDP8/E)</td> </tr> <tr> <td>NO. IN STOCK</td> <td>NO. ORDERED</td> <td>NO. ON HAND</td> <td>NO. IN TRANSIT</td> </tr> <tr> <td>D/TD</td> <td>PDP8/E-0-05</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">REVISIONS</td> </tr> <tr> <td colspan="2"></td> <td>REV. NO.</td> <td></td> </tr> <tr> <td colspan="2"></td> <td>B</td> <td></td> </tr> </table>			digit		EQUIPMENT CORPORATION		TITLE				TIMING (PDP8/E)				NO. IN STOCK	NO. ORDERED	NO. ON HAND	NO. IN TRANSIT	D/TD	PDP8/E-0-05			REVISIONS						REV. NO.				B	
digit		EQUIPMENT CORPORATION																																		
TITLE																																				
TIMING (PDP8/E)																																				
NO. IN STOCK	NO. ORDERED	NO. ON HAND	NO. IN TRANSIT																																	
D/TD	PDP8/E-0-05																																			
REVISIONS																																				
		REV. NO.																																		
		B																																		

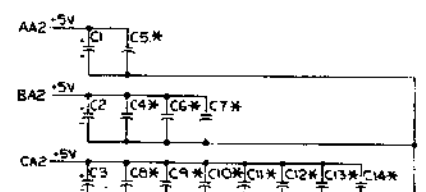
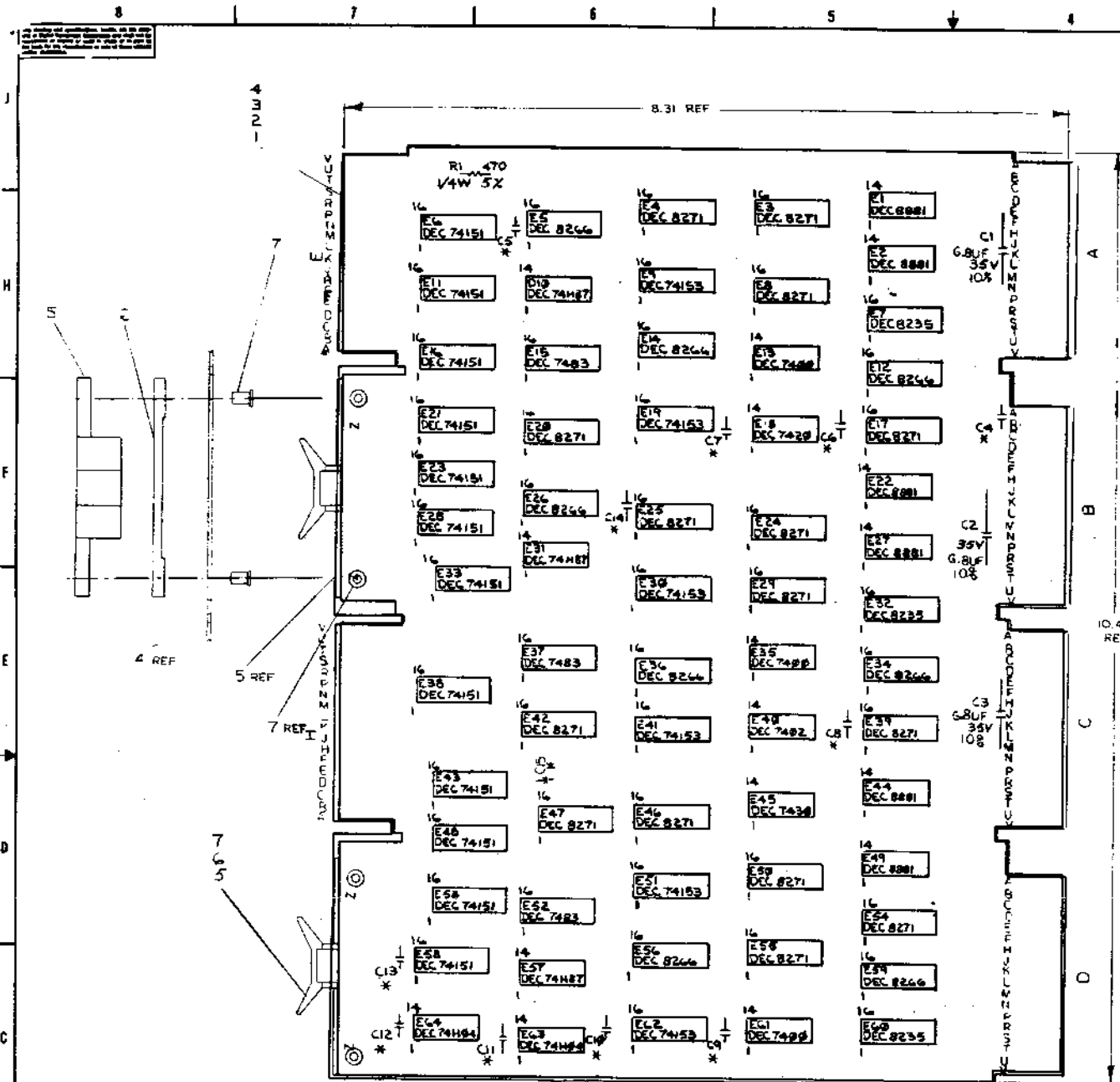
PDP8/E-0-05



NOTE: \* MEMORY SIGNALS TIME OUT, AS IN A FAST CYCLE  
 \* 1 GENERATED BY PERIPHERAL TO STROBE DATA  
 \* 2 GENERATED BY PERIPHERAL TO TERMINATE EXT. I/O CYCLE AND RESUME NORMAL OPERATION.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		
	EQUIPMENT CORPORATION		
	TITLE		
	TIMING (PDP8/E)		
	DRAWN		
	D.T.D. PDP8/E-0-05 B		
	SHEET 2 OF 2		

REV. 1  
 CHANGE NO. 1



AC2, AF1, AF2, AN1, AN2, AT1, AT2  
 BC1, BC2, BT1, BF2, BN1, BN2, BT1, BT2  
 CC1, CC2, CF1, CF2, CN1, CN2, CT1, CT2  
 DC1, DC2, DF1, DF2, DN1, DN2

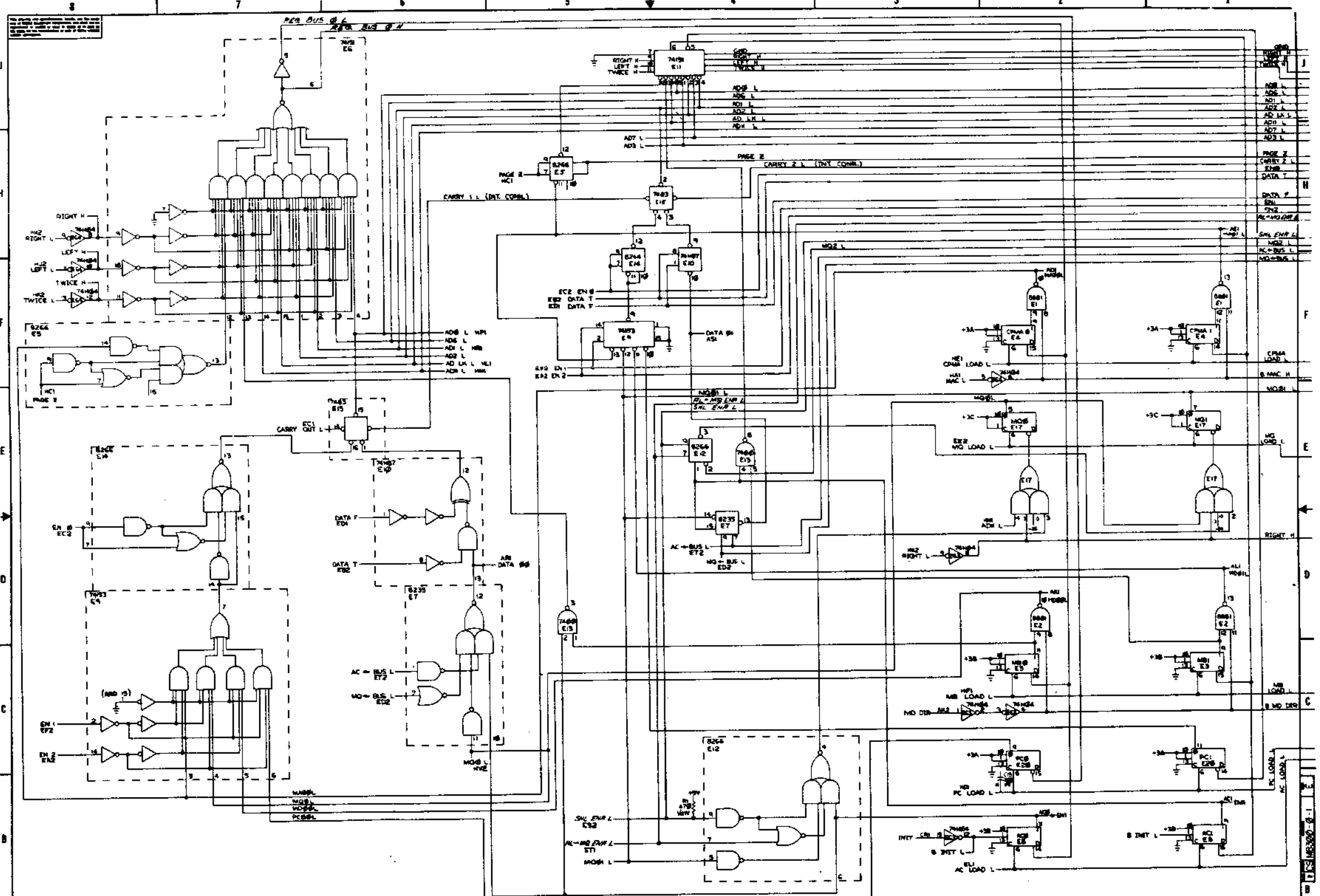
QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF
8	DEC 8235	B	16		
12	DEC 7483	12	8		
8	DEC 8271	B	16		
8	DEC 8266	B	16		
8	DEC 74151	B	16		

NOTES:  
 \* THESE COMPONENTS MUST BE ON M8300  
 IF KLB-A/M8313 IS USED ON SYSTEM.

REF	DESCRIPTION	QTY	DATE
1	C15	1	10/20/76
2	E1-E4, E16-E23, E27-E30, E33-E34, E36-E39	16	10/20/76
3	E5-E8, E10-E15, E17-E26, E28-E32, E35-E38	16	10/20/76
4	E9-E13	16	10/20/76
5	E14	1	10/20/76
6	E15	1	10/20/76
7	E18-E20	16	10/20/76
8	E21-E24	16	10/20/76
9	E25	1	10/20/76
10	E26	1	10/20/76
11	E29	1	10/20/76
12	E31	1	10/20/76
13	E32	1	10/20/76
14	E37	1	10/20/76
15	E38	1	10/20/76
16	E39	1	10/20/76

REV. 1 10/20/76  
 REV. 2 10/20/76  
 REV. 3 10/20/76  
 REV. 4 10/20/76  
 REV. 5 10/20/76  
 REV. 6 10/20/76  
 REV. 7 10/20/76  
 REV. 8 10/20/76  
 REV. 9 10/20/76  
 REV. 10 10/20/76  
 REV. 11 10/20/76  
 REV. 12 10/20/76  
 REV. 13 10/20/76  
 REV. 14 10/20/76  
 REV. 15 10/20/76  
 REV. 16 10/20/76

MAJOR REGISTERS  
 (KKB/E)



CARRY IN TO A 7405 ADDER IS PIN 13  
 CARRY OUT OF A 7405 ADDER IS PIN 14 THUS

--- 7400 7403 7405 7405 7405  
 CARRY 1 L (INT. CONN.) E18 E16 E17 E17

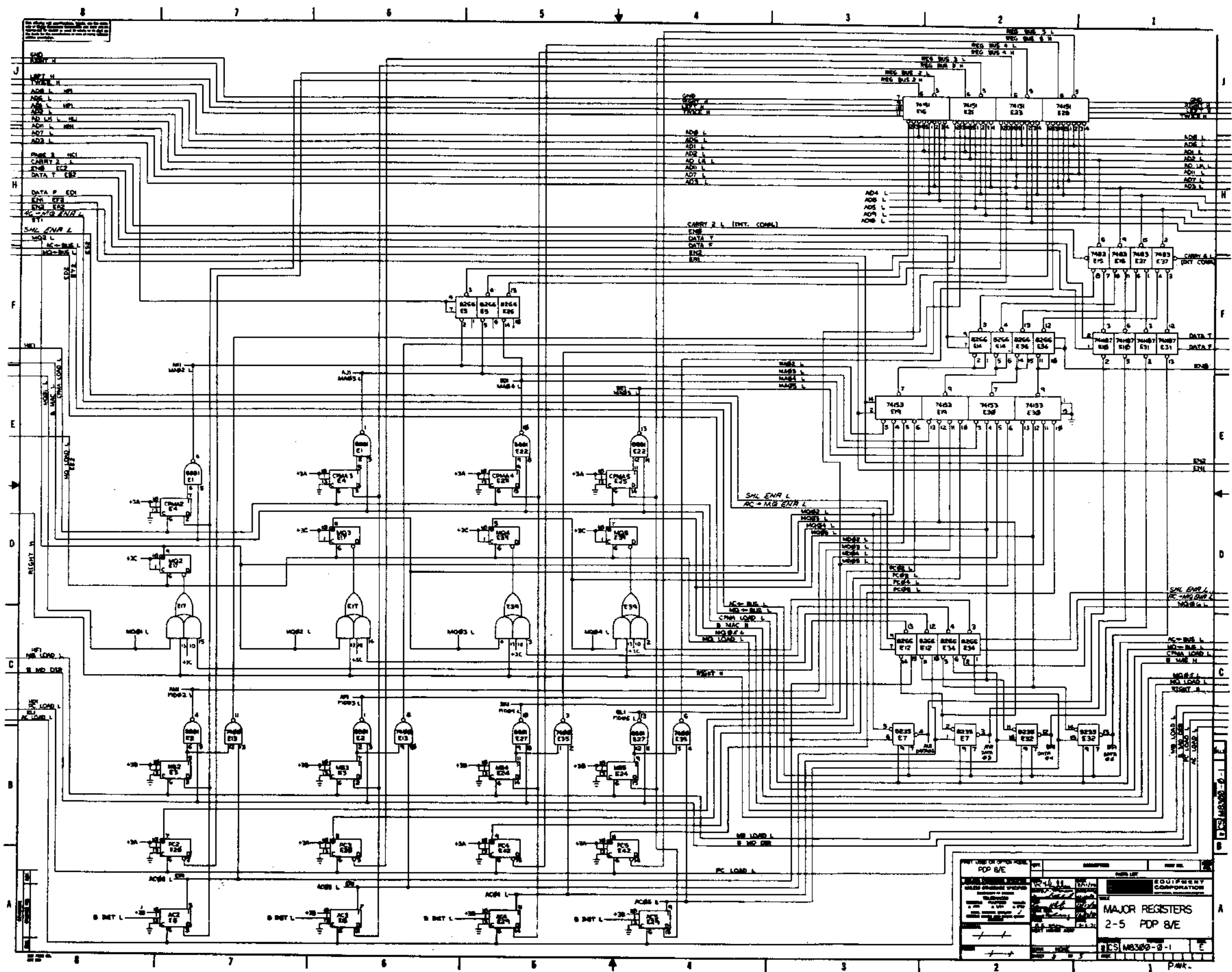
DENOTES CONN. BETWEEN E17 PIN 14 & E18 PIN 13  
 WHILE CARRY 2 L IS INTERNAL, NO E18  
 AND CARRY 2 L IS INTERNAL TO E18

FOR SIMPLICITY OF DRAWING THE FOLLOWING  
 PROCEDURES HAVE BEEN USED TO ELIMINATE LINES:

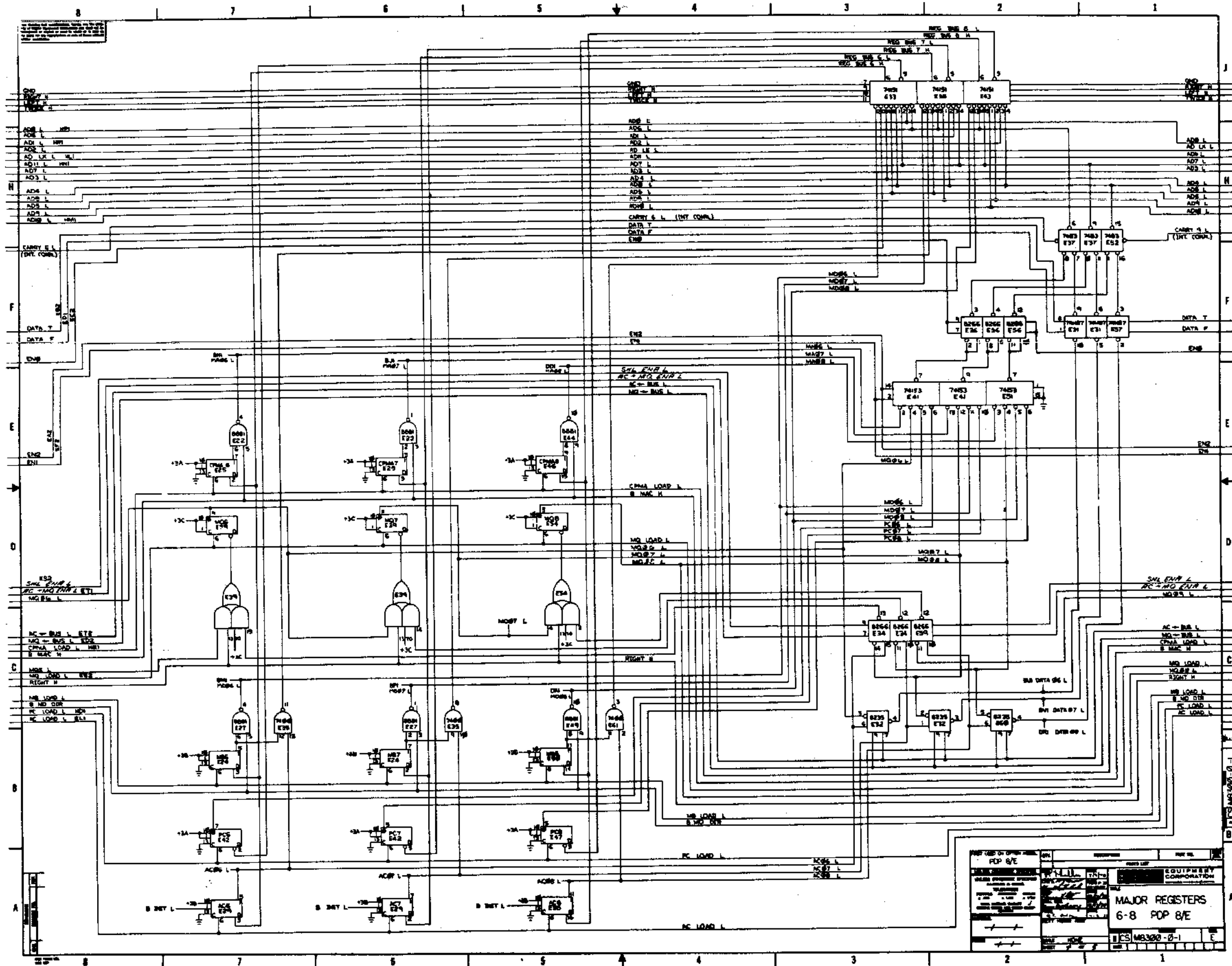
--- 7405 7405  
 E18 E18

THIS DENOTES A CONNECTION BETWEEN E18 PIN 14 AND  
 E18 PIN 14, E18 PIN 2 AND E18 PIN 2 (ALSO PINS  
 1 AND 16 ON EACH I.C.). THIS ALSO IS TRUE FOR  
 OTHER CASES SUCH AS E18E, 7405E, AND 7405E.

POP 8/E	EQUIPMENT CORPORATION
	MAJOR REGISTERS
	0 E 1 POP 8/E
	8ES MS300-0-1

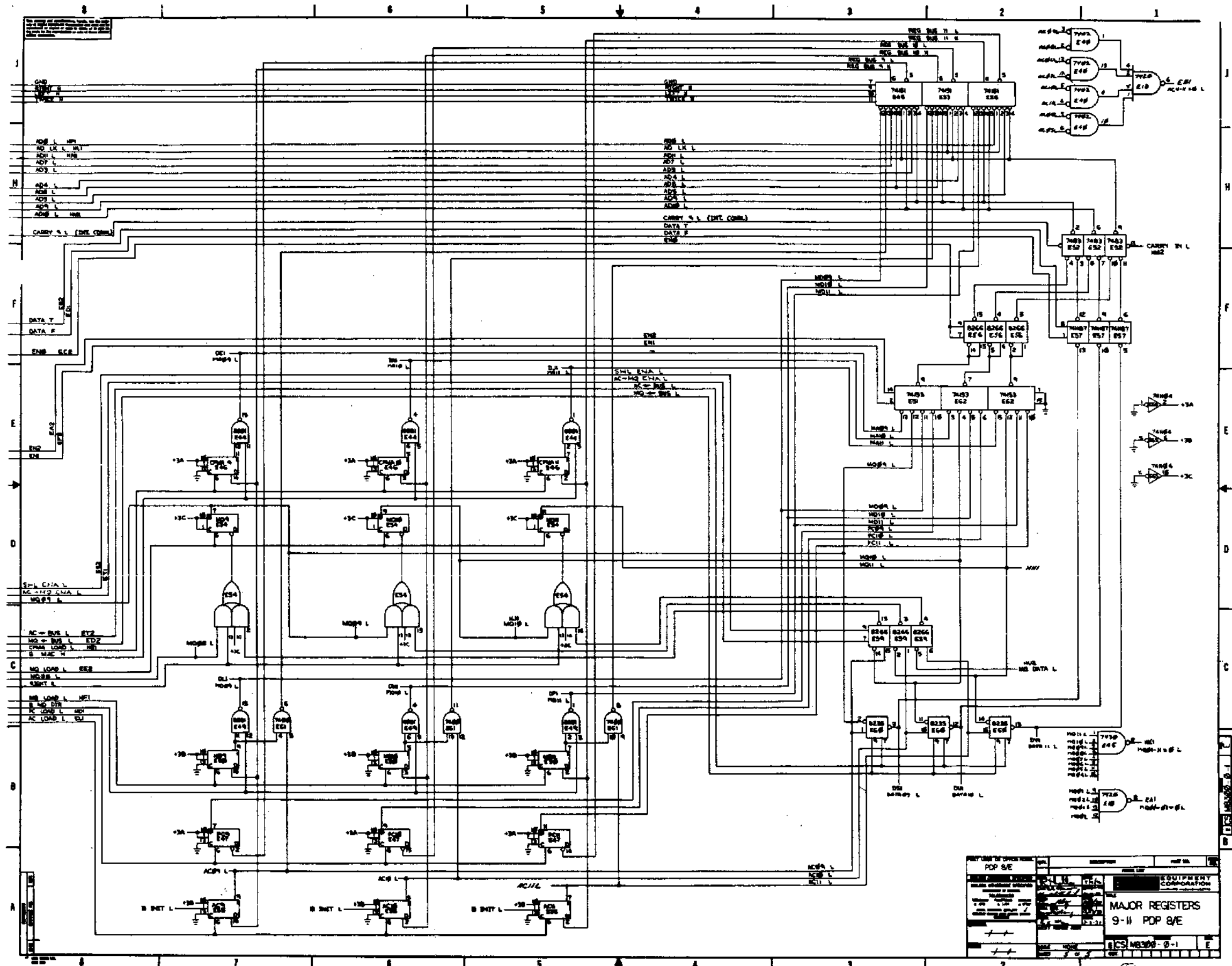


REV. 1	DATE	APPROVED	DESIGNED BY
1	11/11/68	[Signature]	[Signature]
PDP-8/E		EQUIPMENT CORPORATION	
MAJOR REGISTERS			
2-5 PDP-8/E			
8CS M8300-0-1			
Pkg. 1			

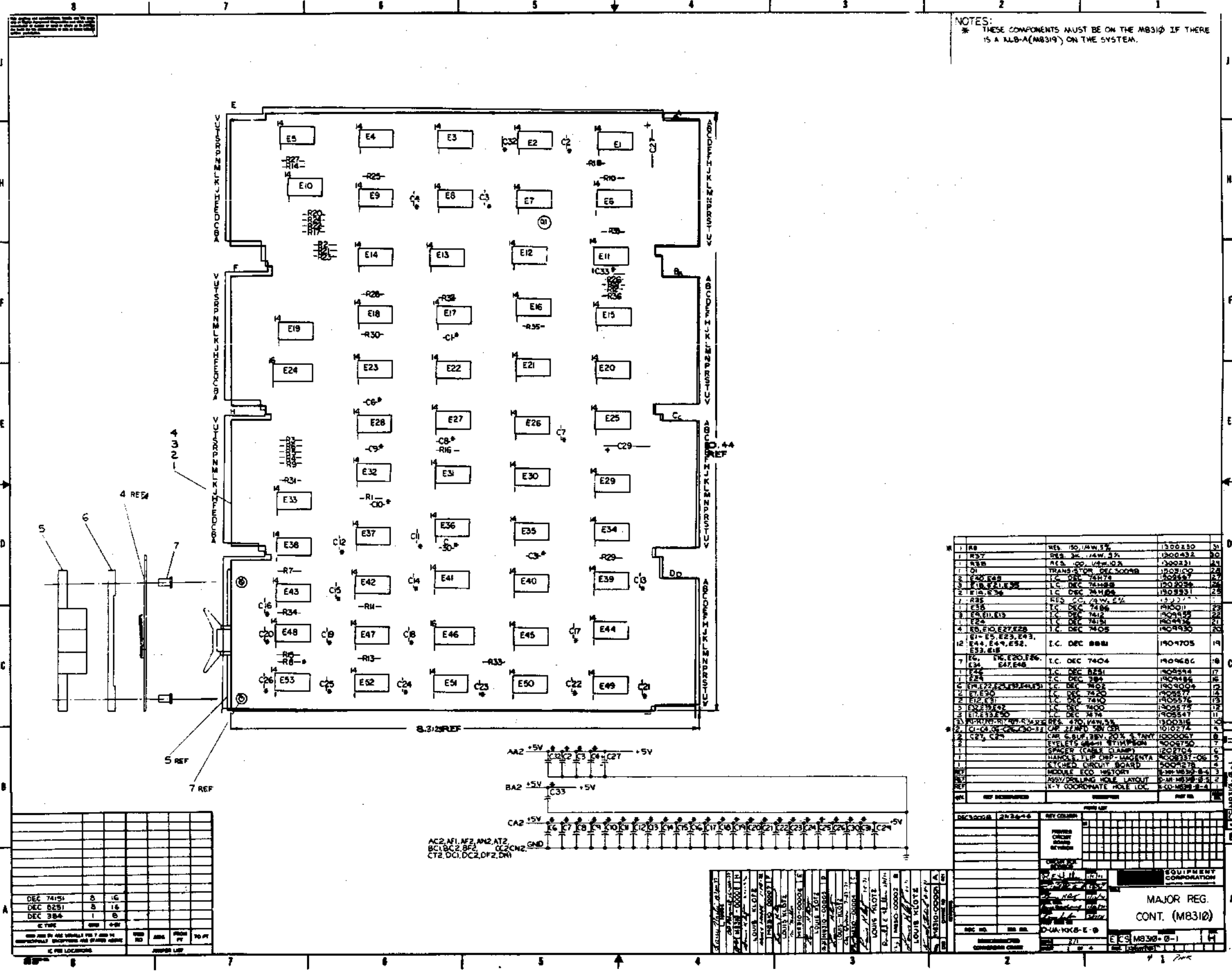


PDP 8/E  
 EQUIPMENT CORPORATION  
 MAJOR REGISTERS  
 6-8 PDP 8/E  
 ES-163300-0-1





ANY USE OF OTHER THAN <b>POP 8/E</b>		EQUIPMENT CORPORATION	
<b>MAJOR REGISTERS</b> 9-11 PDP 8/E			
ECS M3300-0-1		E	



NOTES:  
 \* THESE COMPONENTS MUST BE ON THE MB310 IF THERE IS A KLB-A(MB319) ON THE SYSTEM.

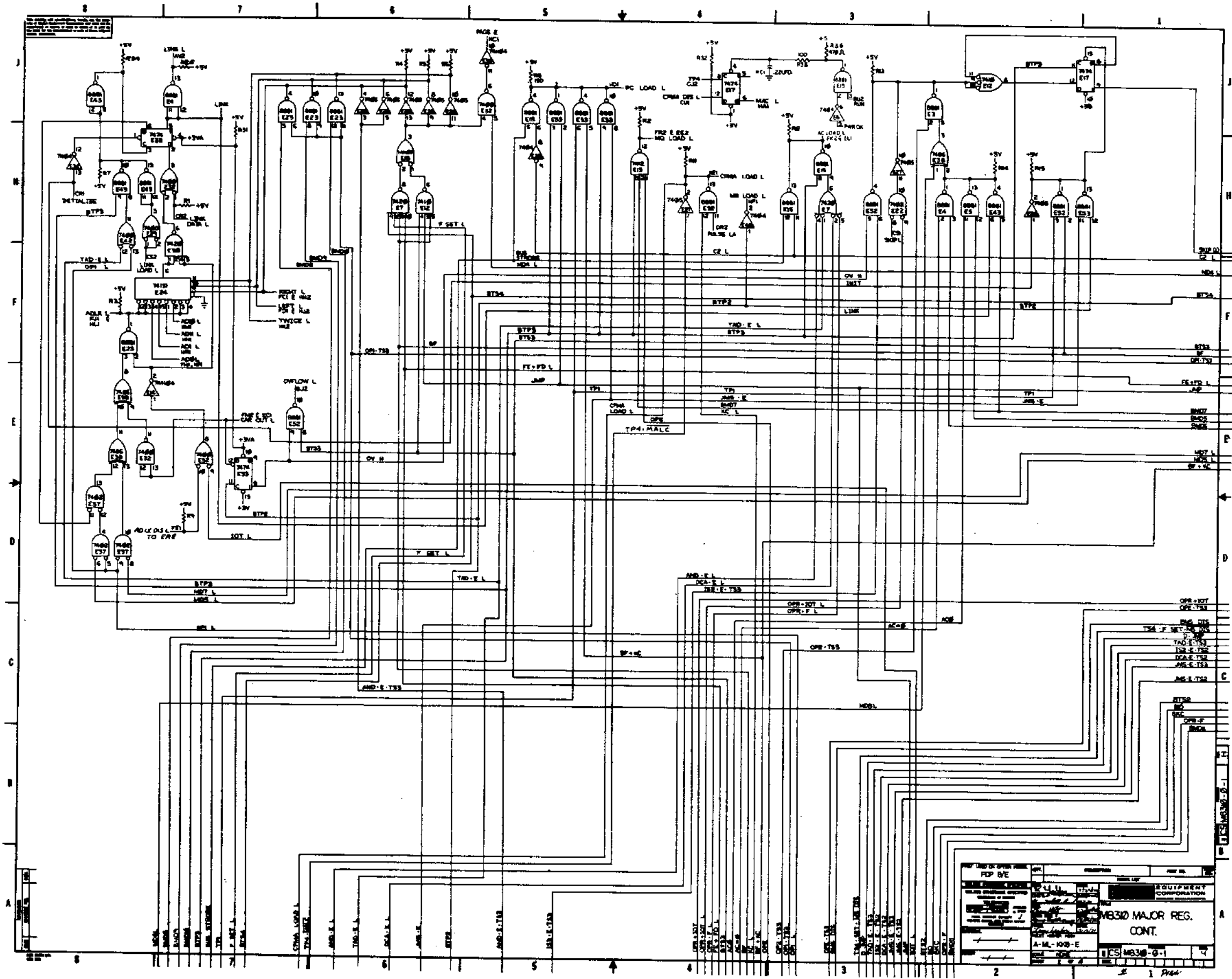
DATE	BY	REVISION	DESCRIPTION
DEC 74151	8	16	
DEC 8251	8	16	
DEC 384	1	8	

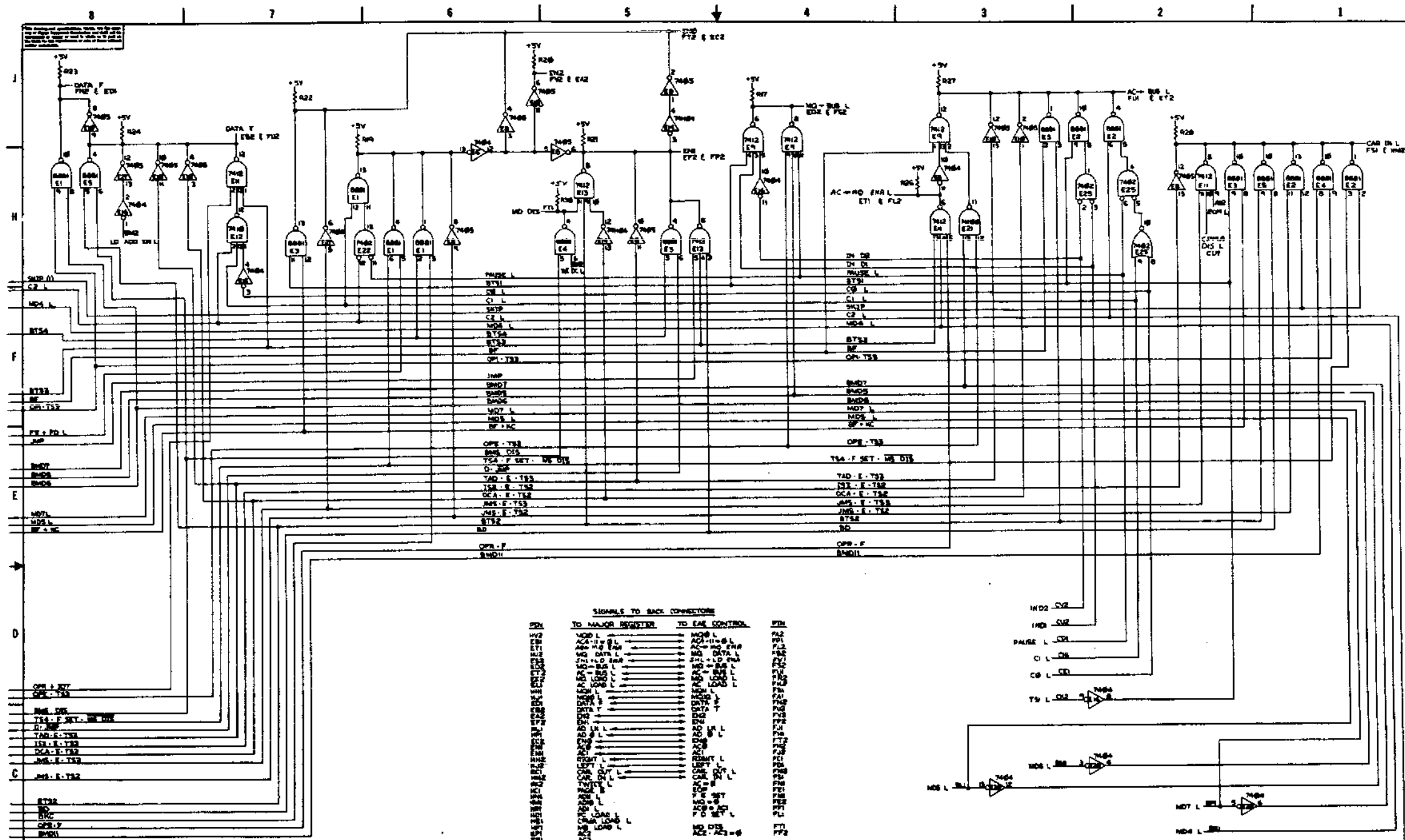
AC2 AF1 AF2 AN2 AT2  
 BC1 BC2 BC3 CC2 CM2  
 CT2 DC1 DC2 DF2 DM

REV	DESCRIPTION	DATE	BY
1	REV 150, 144W, 134	1306250	31
2	REV 25, 144W, 134	1306432	30
3	REV 30, 144W, 134	1306231	21
4	TRANS-OR DEC 3000B	1302100	28
5	T.C. DEC 74174	1302567	27
6	T.C. DEC 74188	1302528	26
7	T.C. DEC 74188	1302583	25
8	REV CC, 144W, 134	1302583	25
9	T.C. DEC 74188	1302583	25
10	T.C. DEC 74188	1302583	25
11	T.C. DEC 74188	1302583	25
12	T.C. DEC 74188	1302583	25
13	T.C. DEC 74188	1302583	25
14	T.C. DEC 74188	1302583	25
15	T.C. DEC 74188	1302583	25
16	T.C. DEC 74188	1302583	25
17	T.C. DEC 74188	1302583	25
18	T.C. DEC 74188	1302583	25
19	T.C. DEC 74188	1302583	25
20	T.C. DEC 74188	1302583	25
21	T.C. DEC 74188	1302583	25
22	T.C. DEC 74188	1302583	25
23	T.C. DEC 74188	1302583	25
24	T.C. DEC 74188	1302583	25
25	T.C. DEC 74188	1302583	25
26	T.C. DEC 74188	1302583	25
27	T.C. DEC 74188	1302583	25
28	T.C. DEC 74188	1302583	25
29	T.C. DEC 74188	1302583	25
30	T.C. DEC 74188	1302583	25
31	T.C. DEC 74188	1302583	25
32	T.C. DEC 74188	1302583	25
33	T.C. DEC 74188	1302583	25
34	T.C. DEC 74188	1302583	25
35	T.C. DEC 74188	1302583	25
36	T.C. DEC 74188	1302583	25
37	T.C. DEC 74188	1302583	25
38	T.C. DEC 74188	1302583	25
39	T.C. DEC 74188	1302583	25
40	T.C. DEC 74188	1302583	25
41	T.C. DEC 74188	1302583	25
42	T.C. DEC 74188	1302583	25
43	T.C. DEC 74188	1302583	25
44	T.C. DEC 74188	1302583	25
45	T.C. DEC 74188	1302583	25
46	T.C. DEC 74188	1302583	25
47	T.C. DEC 74188	1302583	25
48	T.C. DEC 74188	1302583	25
49	T.C. DEC 74188	1302583	25
50	T.C. DEC 74188	1302583	25

MAJOR REG.  
 CONT. (MB310)

ECS MB310-B-1





SIGNALS TO BACK CONNECTORS

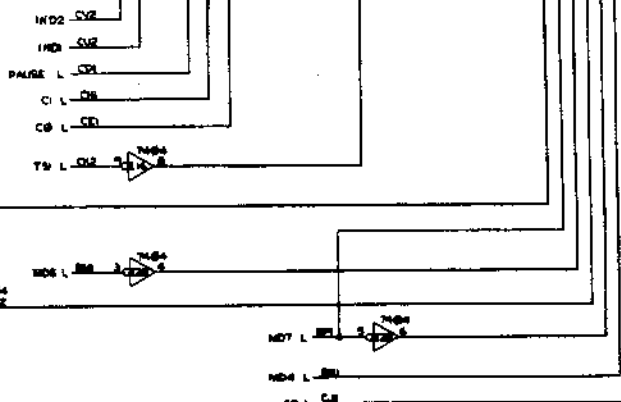
OP	TO MAJOR REGISTER	TO REG CONTROL	OP
OP 1	...	...	OP 32
OP 2	...	...	OP 33
OP 3	...	...	OP 34
OP 4	...	...	OP 35
OP 5	...	...	OP 36
OP 6	...	...	OP 37
OP 7	...	...	OP 38
OP 8	...	...	OP 39
OP 9	...	...	OP 40
OP 10	...	...	OP 41
OP 11	...	...	OP 42
OP 12	...	...	OP 43
OP 13	...	...	OP 44
OP 14	...	...	OP 45
OP 15	...	...	OP 46
OP 16	...	...	OP 47
OP 17	...	...	OP 48
OP 18	...	...	OP 49
OP 19	...	...	OP 50
OP 20	...	...	OP 51
OP 21	...	...	OP 52
OP 22	...	...	OP 53
OP 23	...	...	OP 54
OP 24	...	...	OP 55
OP 25	...	...	OP 56
OP 26	...	...	OP 57
OP 27	...	...	OP 58
OP 28	...	...	OP 59
OP 29	...	...	OP 60
OP 30	...	...	OP 61
OP 31	...	...	OP 62

RIGHT L	LEFT	THREE L	THREE R	DATA TO REGISTER	USE
L	L	L	L	MA - 8 - 3 MO - 8 - 3	BASE ADDRESSING
L	L	H	L	INDEX A ACT	AND
L	L	L	H	ADDRESS (1-2)	STN
L	L	L	H	ADDRESS (1-1)	OR
H	L	L	H	ADDRESS (1+2)	R/L
H	L	L	H	ADDRESS (1+3)	CALL
H	L	L	H	ADDRESS (1+4)	DATA BUS
H	L	L	H	ADDRESS 1	NO SHIP
H	L	L	H	ADDRESS 2	NO SHIP
H	L	L	H	ADDRESS 3	NO SHIP
H	L	L	H	ADDRESS 4	NO SHIP

OP	DATA	DATA F	INPUT TO ADDER
L	L	L	DATA BUS NOT
L	L	H	DATA BUS
L	H	L	MATH/ARITH. ZERO
L	H	H	ARITHMETIC ONE

BIT 8 OF THE REGISTER SELECTED HERE - IS ADDED TO - BIT 3 OF THE DATA BUS AS SELECTED HERE AND THE 8MA (ADDRESS 3) IS FED TO A MULTIPLEXER TO BE DECIDED AS ABOVE. THE OUTPUT OF THIS MULTIPLEXER IS LOADED INTO WHICHEVER REGISTER IS CLOCKED.

OP	DATA	DATA F	DATA	DATA	DATA	DATA
L	L	L	L	L	L	L
L	L	L	L	L	L	L
L	L	L	L	L	L	L
L	L	L	L	L	L	L



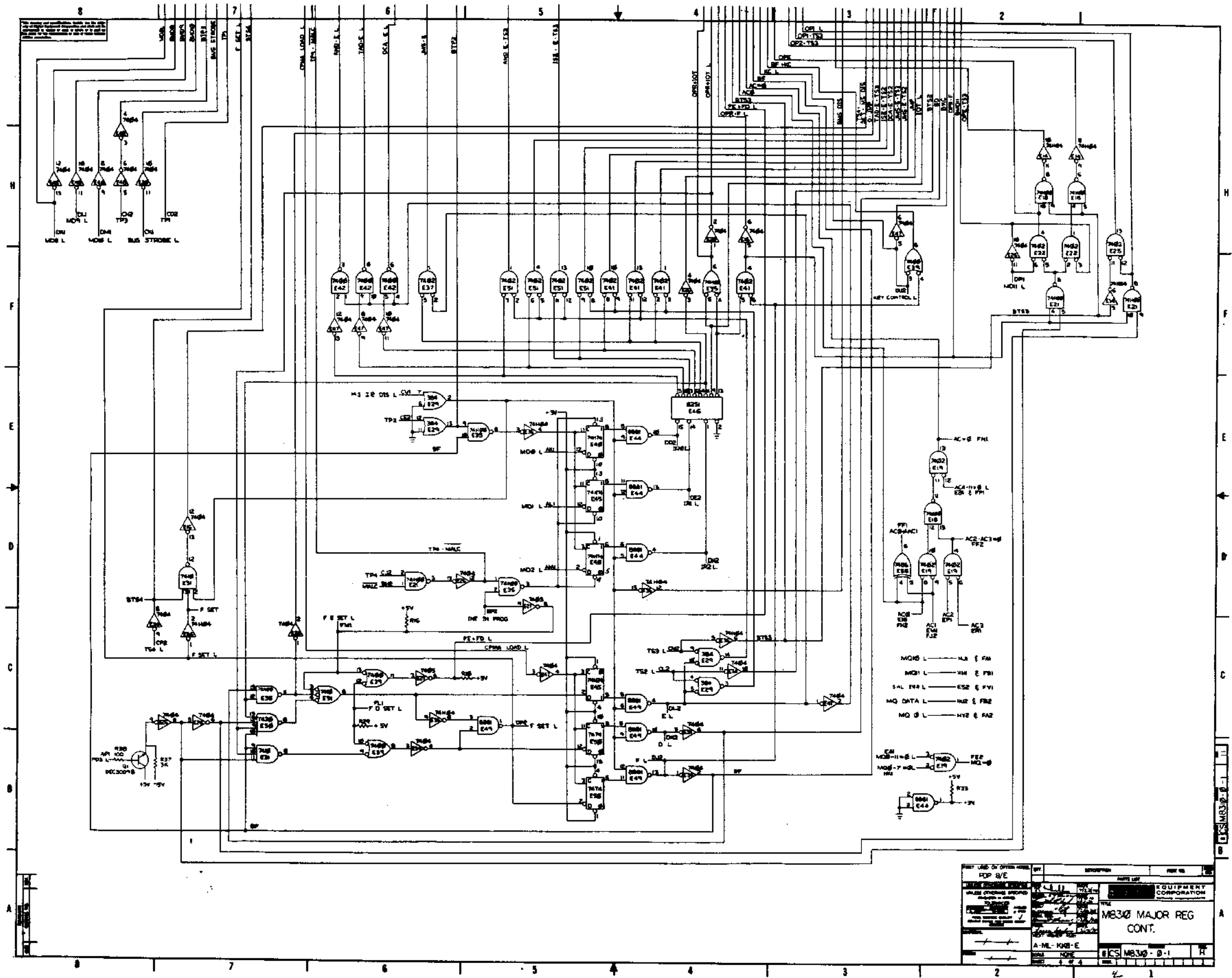
MS300 MAJOR REG. CONT

EQUIPMENT CORPORATION

A-ML-100-E

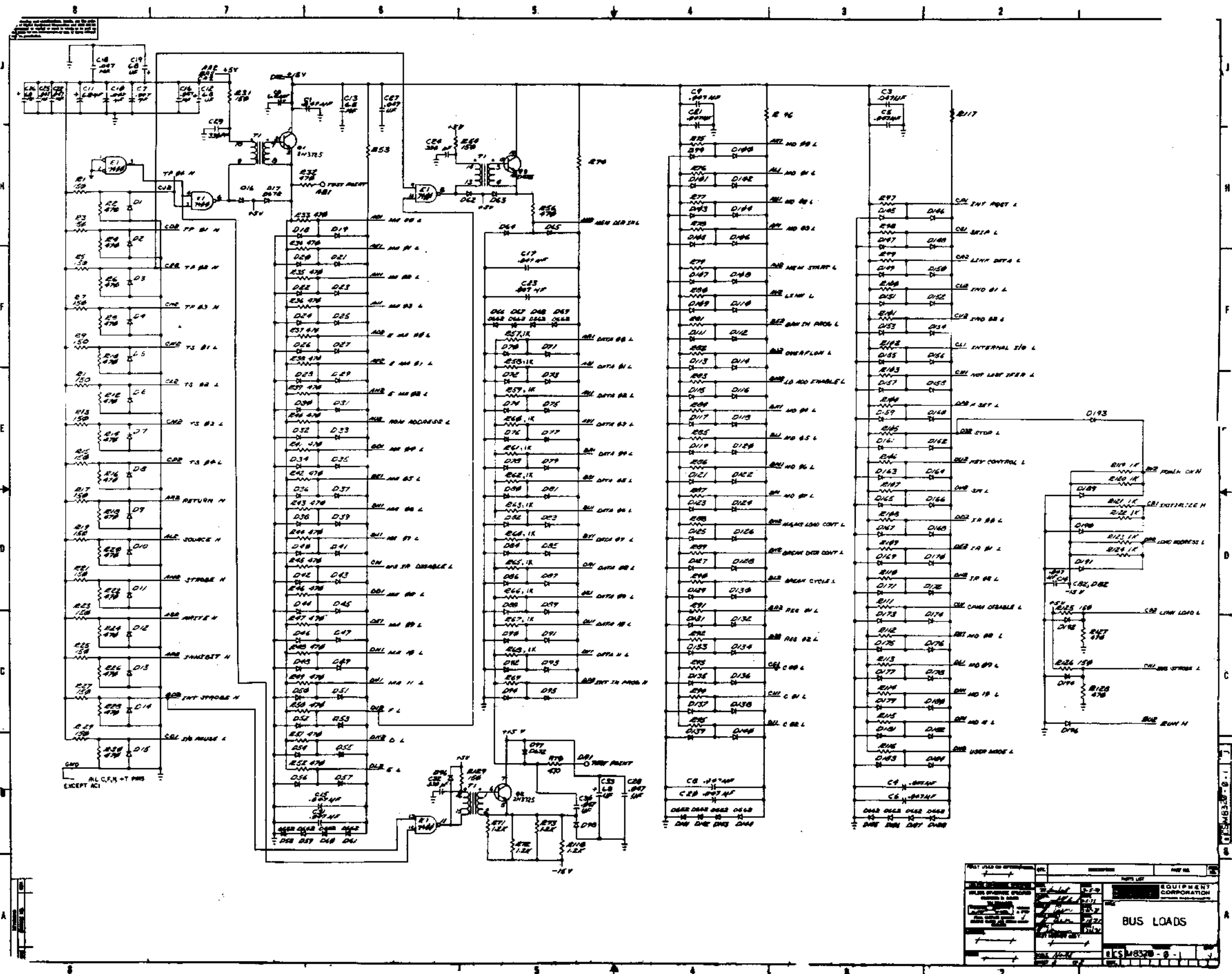
1/50

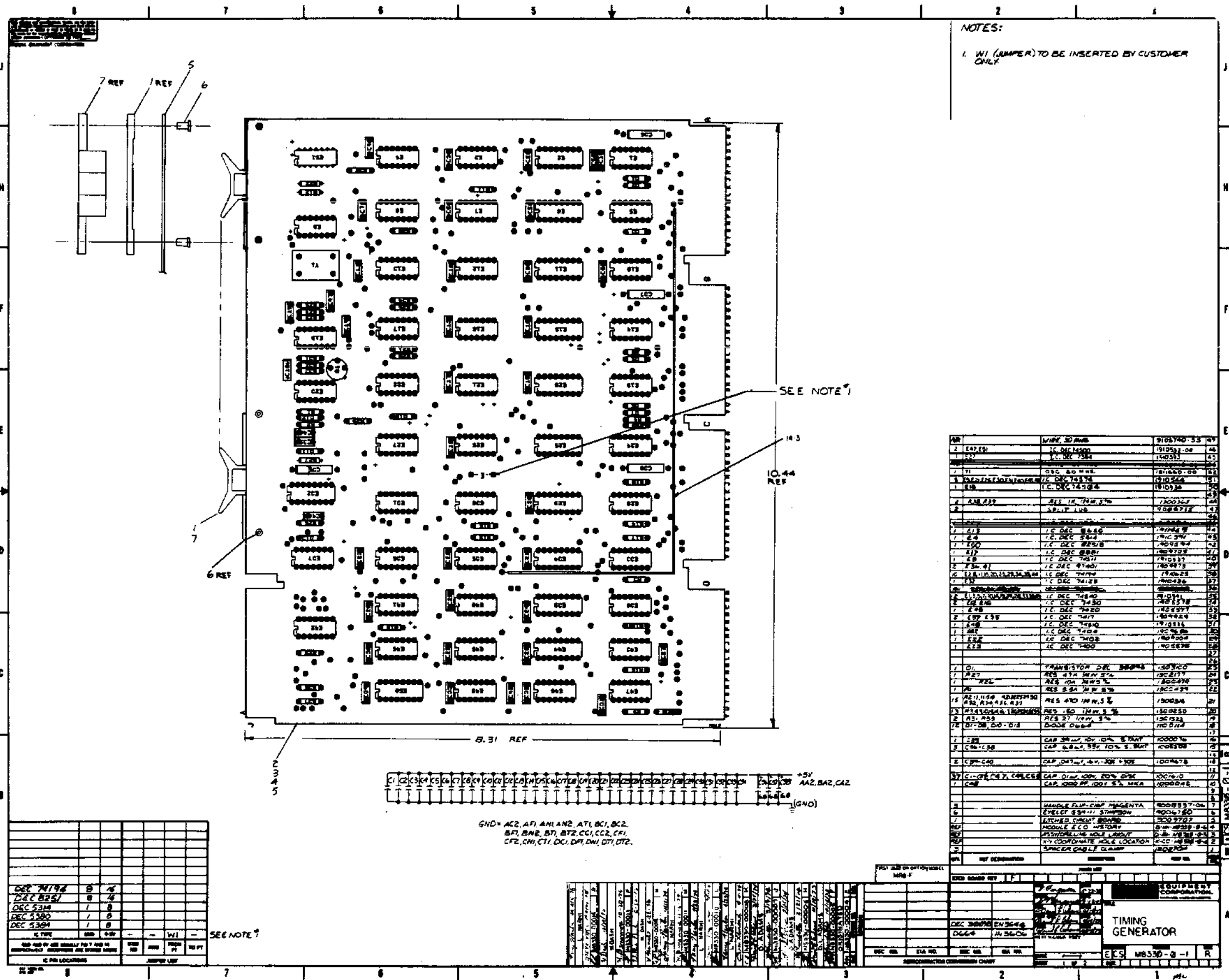
MS300-0-1



REV	DESCRIPTION	DATE	BY
1	MB30 MAJOR REG CONT.	1/1/68	...
2	...	...	...
3	...	...	...
4	...	...	...
5	...	...	...
6	...	...	...
7	...	...	...
8	...	...	...
9	...	...	...
10	...	...	...
11	...	...	...
12	...	...	...
13	...	...	...
14	...	...	...
15	...	...	...
16	...	...	...
17	...	...	...
18	...	...	...
19	...	...	...
20	...	...	...
21	...	...	...
22	...	...	...
23	...	...	...
24	...	...	...
25	...	...	...
26	...	...	...
27	...	...	...
28	...	...	...
29	...	...	...
30	...	...	...
31	...	...	...
32	...	...	...
33	...	...	...
34	...	...	...
35	...	...	...
36	...	...	...
37	...	...	...
38	...	...	...
39	...	...	...
40	...	...	...
41	...	...	...
42	...	...	...
43	...	...	...
44	...	...	...
45	...	...	...
46	...	...	...
47	...	...	...
48	...	...	...
49	...	...	...
50	...	...	...
51	...	...	...
52	...	...	...
53	...	...	...
54	...	...	...
55	...	...	...
56	...	...	...
57	...	...	...
58	...	...	...
59	...	...	...
60	...	...	...
61	...	...	...
62	...	...	...
63	...	...	...
64	...	...	...
65	...	...	...
66	...	...	...
67	...	...	...
68	...	...	...
69	...	...	...
70	...	...	...
71	...	...	...
72	...	...	...
73	...	...	...
74	...	...	...
75	...	...	...
76	...	...	...
77	...	...	...
78	...	...	...
79	...	...	...
80	...	...	...
81	...	...	...
82	...	...	...
83	...	...	...
84	...	...	...
85	...	...	...
86	...	...	...
87	...	...	...
88	...	...	...
89	...	...	...
90	...	...	...
91	...	...	...
92	...	...	...
93	...	...	...
94	...	...	...
95	...	...	...
96	...	...	...
97	...	...	...
98	...	...	...
99	...	...	...
100	...	...	...







NOTES:  
1. W1 (JUMPER) TO BE INSERTED BY CUSTOMER ONLY.

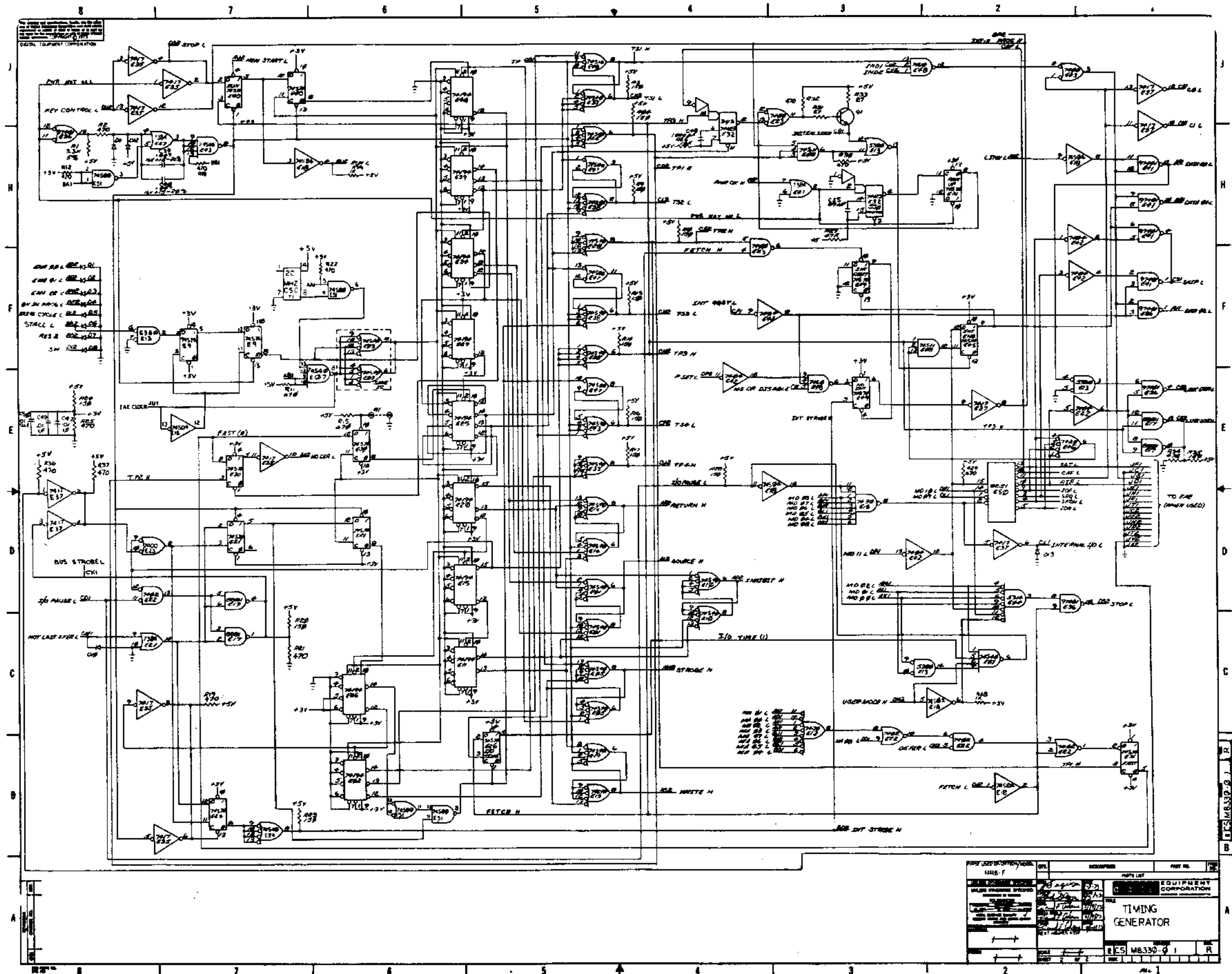
REF	DESCRIPTION	QTY	UNIT PRICE	TOTAL PRICE
1	RES 1A 700.5%	1	700.50	700.50
2	RES 1B 700.5%	1	700.50	700.50
3	RES 1C 700.5%	1	700.50	700.50
4	RES 1D 700.5%	1	700.50	700.50
5	RES 1E 700.5%	1	700.50	700.50
6	RES 1F 700.5%	1	700.50	700.50
7	RES 1G 700.5%	1	700.50	700.50
8	RES 1H 700.5%	1	700.50	700.50
9	RES 1I 700.5%	1	700.50	700.50
10	RES 1J 700.5%	1	700.50	700.50
11	RES 1K 700.5%	1	700.50	700.50
12	RES 1L 700.5%	1	700.50	700.50
13	RES 1M 700.5%	1	700.50	700.50
14	RES 1N 700.5%	1	700.50	700.50
15	RES 1O 700.5%	1	700.50	700.50
16	RES 1P 700.5%	1	700.50	700.50
17	RES 1Q 700.5%	1	700.50	700.50
18	RES 1R 700.5%	1	700.50	700.50
19	RES 1S 700.5%	1	700.50	700.50
20	RES 1T 700.5%	1	700.50	700.50
21	RES 1U 700.5%	1	700.50	700.50
22	RES 1V 700.5%	1	700.50	700.50
23	RES 1W 700.5%	1	700.50	700.50
24	RES 1X 700.5%	1	700.50	700.50
25	RES 1Y 700.5%	1	700.50	700.50
26	RES 1Z 700.5%	1	700.50	700.50
27	RES 2A 700.5%	1	700.50	700.50
28	RES 2B 700.5%	1	700.50	700.50
29	RES 2C 700.5%	1	700.50	700.50
30	RES 2D 700.5%	1	700.50	700.50
31	RES 2E 700.5%	1	700.50	700.50
32	RES 2F 700.5%	1	700.50	700.50
33	RES 2G 700.5%	1	700.50	700.50
34	RES 2H 700.5%	1	700.50	700.50
35	RES 2I 700.5%	1	700.50	700.50
36	RES 2J 700.5%	1	700.50	700.50
37	RES 2K 700.5%	1	700.50	700.50
38	RES 2L 700.5%	1	700.50	700.50
39	RES 2M 700.5%	1	700.50	700.50
40	RES 2N 700.5%	1	700.50	700.50
41	RES 2O 700.5%	1	700.50	700.50
42	RES 2P 700.5%	1	700.50	700.50
43	RES 2Q 700.5%	1	700.50	700.50
44	RES 2R 700.5%	1	700.50	700.50
45	RES 2S 700.5%	1	700.50	700.50
46	RES 2T 700.5%	1	700.50	700.50
47	RES 2U 700.5%	1	700.50	700.50
48	RES 2V 700.5%	1	700.50	700.50
49	RES 2W 700.5%	1	700.50	700.50
50	RES 2X 700.5%	1	700.50	700.50
51	RES 2Y 700.5%	1	700.50	700.50
52	RES 2Z 700.5%	1	700.50	700.50
53	RES 3A 700.5%	1	700.50	700.50
54	RES 3B 700.5%	1	700.50	700.50
55	RES 3C 700.5%	1	700.50	700.50
56	RES 3D 700.5%	1	700.50	700.50
57	RES 3E 700.5%	1	700.50	700.50
58	RES 3F 700.5%	1	700.50	700.50
59	RES 3G 700.5%	1	700.50	700.50
60	RES 3H 700.5%	1	700.50	700.50
61	RES 3I 700.5%	1	700.50	700.50
62	RES 3J 700.5%	1	700.50	700.50
63	RES 3K 700.5%	1	700.50	700.50
64	RES 3L 700.5%	1	700.50	700.50
65	RES 3M 700.5%	1	700.50	700.50
66	RES 3N 700.5%	1	700.50	700.50
67	RES 3O 700.5%	1	700.50	700.50
68	RES 3P 700.5%	1	700.50	700.50
69	RES 3Q 700.5%	1	700.50	700.50
70	RES 3R 700.5%	1	700.50	700.50
71	RES 3S 700.5%	1	700.50	700.50
72	RES 3T 700.5%	1	700.50	700.50
73	RES 3U 700.5%	1	700.50	700.50
74	RES 3V 700.5%	1	700.50	700.50
75	RES 3W 700.5%	1	700.50	700.50
76	RES 3X 700.5%	1	700.50	700.50
77	RES 3Y 700.5%	1	700.50	700.50
78	RES 3Z 700.5%	1	700.50	700.50
79	RES 4A 700.5%	1	700.50	700.50
80	RES 4B 700.5%	1	700.50	700.50
81	RES 4C 700.5%	1	700.50	700.50
82	RES 4D 700.5%	1	700.50	700.50
83	RES 4E 700.5%	1	700.50	700.50
84	RES 4F 700.5%	1	700.50	700.50
85	RES 4G 700.5%	1	700.50	700.50
86	RES 4H 700.5%	1	700.50	700.50
87	RES 4I 700.5%	1	700.50	700.50
88	RES 4J 700.5%	1	700.50	700.50
89	RES 4K 700.5%	1	700.50	700.50
90	RES 4L 700.5%	1	700.50	700.50
91	RES 4M 700.5%	1	700.50	700.50
92	RES 4N 700.5%	1	700.50	700.50
93	RES 4O 700.5%	1	700.50	700.50
94	RES 4P 700.5%	1	700.50	700.50
95	RES 4Q 700.5%	1	700.50	700.50
96	RES 4R 700.5%	1	700.50	700.50
97	RES 4S 700.5%	1	700.50	700.50
98	RES 4T 700.5%	1	700.50	700.50
99	RES 4U 700.5%	1	700.50	700.50
100	RES 4V 700.5%	1	700.50	700.50
101	RES 4W 700.5%	1	700.50	700.50
102	RES 4X 700.5%	1	700.50	700.50
103	RES 4Y 700.5%	1	700.50	700.50
104	RES 4Z 700.5%	1	700.50	700.50

DATE	REV	BY	CHKD	APP'D
DEC 7194	8	AE		
DEC 8257	9	AE		
DEC 5314	1	B		
DEC 5380	1	B		
DEC 5389	1	B		

GND = AC2, AF1, AN1, AN2, AT1, BC1, BC2, BF1, BN2, BT1, BT2, CC1, CC2, CF1, CF2, CN1, CT1, DC1, DP1, DN1, DT1, DT2.

EQUIPMENT CORPORATION  
TIMING GENERATOR  
EES MB330-Q-1 R





REV	DESCRIPTION	DATE	BY
1			
EQUIPMENT CORPORATION			
TIMING GENERATOR			
RCS MB330-01 R			

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<b>DIGITAL EQUIPMENT CORPORATION</b>						
MAYNARD, MASSACHUSETTS						
<b>ENGINEERING SPECIFICATION</b>					DATE 11/19/74	
TITLE FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR KM8-A						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG <i>Larry Naslin</i>	APPD <i>Carl Chio</i>	SIZE A	CODE SP	NUMBER KM8-A-1	REV
-------------------------	-----------------------	-----------	------------	-------------------	-----

DEC 16-(392)-1079-N971  
DRA 107

<b>ENGINEERING SPECIFICATION</b>	CONTINUATION SHEET				
TITLE FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR KM8-A					
<p>I GENERAL</p> <p>This procedure defines the performance standards required of the KM8A*, option board #2. This procedure refers to both system and add-on acceptance.</p> <p>NOTE: If KM8A was shipped as part of a PDP-8A system, then proceed to installation procedure.</p> <p>* Memory Extension &amp; Time Share Bootstrap Loaders Power Fail/Auto Restart</p> <p>II INSPECTION</p> <p>After removing the KM8A from the packing material, inspect the module for the following:</p> <ol style="list-style-type: none"> <li>1. Inventory hardware against shipping list.</li> <li>2. Inventory software against software list, if ordered.</li> <li>3. Inventory prints against shipping list, if ordered.</li> <li>4. Check module for loose or broken components.</li> </ol> <p>III INSTALLATION PROCEDURE</p> <p>Install the equipment using the following procedure:</p> <ol style="list-style-type: none"> <li>1. Set the switches as indicated by the diagnostic write up.</li> </ol> <p>NOTE: Refer to Operator's Handbook for switch setting descriptions.</p> <ol style="list-style-type: none"> <li>2. Insure that the PDP-8A power is removed from the Omnibus™.</li> <li>3. Insert the KM8A into the second or third slot of the Omnibus™.</li> <li>4. Turn the power back "ON".</li> </ol> <p>IV ACCEPTANCE PROCEDURE</p> <p>Perform the acceptance procedure defined in Table A. If abnormal indications are encountered, refer to the diagnostic listing for the type of error. Reference the diagnostic write ups and Operator's Manual for instructions for loading diagnostics.</p>					
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">SIZE A</td> <td style="width: 15%;">CODE SP</td> <td style="width: 20%;">NUMBER KM8-A-1</td> <td style="width: 50%;">REV</td> </tr> </table>	SIZE A	CODE SP	NUMBER KM8-A-1	REV
SIZE A	CODE SP	NUMBER KM8-A-1	REV		

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

**TITLE** FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR KM8-A

IV ACCEPTANCE PROCEDURE (continued)

Equipment required:

1. PDP-8A with 1K min. R/W Memory
2. Paper Tape Input Device
3. Diagnostic and Listings
4. Programmer's Console (KC8-A & DKC8-A)
5. W987 Quad Extender

NOTE: If the programmer's console and paper tape input device are not available as part of the system being used, they must be supplied in good working order by the customer.

TABLE A

Acceptance of KM8A with 4K of R/W Memory

<u>Program Name</u>	<u>Maindec #</u>	<u>Accept Time</u>	<u>Restrictions</u>
KM8A Option Test #2	08-DJKMA-PB	30 min	4K R/W Memory Min

Acceptance of KM8A with Less than 4K R/W Memory

KM8A Option Test #2 Segment #1 (RIM)	08-DJKMA -PM1	10 min	1K R/W memory min
KM8A Option Test #2 Segment #2 (RIM)	08-DJKMA -PM2	10 min	1K R/W Memory Min
KM8A Option Test #2 Segment #4 (RIM)	08-DJKMA -PM4	10 min	1K R/W Memory Min

SIZE	CODE	NUMBER	REV
A	SP	KM8-A-1	

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DIGITAL EQUIPMENT CORPORATION

1-81-1188W 330

BOOTSTRAP/AUTO RESTART FUNCTIONAL SWITCH SETTINGS							
DESIRED FUNCTION	ACTIVATING SIGNAL	SI-4	SI-5	SI-6	SI-7	SI-8	S2-1
BOOTSTRAP ENABLED	"BOOT" SW	*	SPARE	OFF	OFF	ON	N/A
AUTO-RESTART DISABLED	N/A	*		ON	ON	ON	N/A
BOOTSTRAP ENABLED	"BOOT" SW	*		ON	ON	OFF	N/A
AUTO-RESTART DISABLED	"AC LOW"	*		ON	OFF	OFF	N/A
BOOTSTRAP ENABLED	"AC LOW"	*		ON	OFF	OFF	N/A
AUTO-RESTART DISABLED	N/A	*	SPARE	ON	OFF	ON	N/A
TIME SHARE DISABLED	N/A	N/A	N/A	N/A	N/A	N/A	ON
TIME SHARE DISABLED	N/A	N/A	N/A	N/A	N/A	N/A	OFF

BOOTSTRAP SELECT SWITCH SETTINGS FOR 465A2/469A2 ROMS									
PROGRAM	S2-5	S2-6	S2-7	S2-8	SI-1	SI-2	SI-3	ROM ST ADD	MEM ST ADD
HI-LO PTR	ON	ON	ON	OFF	ON	ON	ON	20	7734
RKBE	ON	OFF	ON	OFF	ON	OFF	ON	124	24
RXBE	ON	OFF	OFF	ON	OFF	ON	ON	150	33
RLBA	OFF	ON	OFF	OFF	OFF	ON	OFF	272	1

\* RXBE BOOT FOR BOTH RX01 AND RX02

AUTO-RESTART SELECT SWITCH SETTINGS			
RESTART ADDRESS	S2-2	S2-3	S2-4
0	OFF	OFF	OFF
200	OFF	ON	OFF
2000	ON	OFF	OFF
4200	ON	ON	OFF

NOTES: \* SI-4 "OFF"-BOOTSTRAP CAN BE ACTIVATED BY "BOOT" SW EITHER IN THE RUN OR "RUN" STATE. SI-4 "ON"-BOOTSTRAP CAN BE ACTIVATED BY "BOOT" SW IN THE RUN STATE.

1. "AC LOW" WILL CAUSE AUTO-RESTART OR BOOTSTRAP DEPENDING ON SWITCH SETTINGS TO OCCUR ONLY IN THE "RUN" OR STOPPED STATE. SI-6,7,8 "OFF"-BOOTSTRAP AND AUTO-RESTART DISABLED.

2. E76 AND E61 ARE NOT ON THE YC VARIATION KMB-AD. ALL OTHER PARTS REMAIN THE SAME.

3. IF AUTO-RESTART IS ENABLED, THE AUTO-START FEATURE OF THE CPU (M0315) MUST BE DISABLED.

4. AUTO RESTART SELECT SWITCHES ARE DEFINED AS FOLLOWS:

A. ROM ADDRESS RANGE; 0-16.

B. ON=LOGIC 1 OR LOW; OFF=LOGIC 0 OR HIGH.

C. ORDER OF SIGNIFICANCE

$S_{22} = 2^3 = 10$   
 $S_{23} = 2^2 = 4$   
 $S_{24} = 2^1 = 2$

BOOTSTRAP SELECT SWITCH SETTINGS FOR 158A2/159A2 ROMS									
PROGRAM	S2-5	S2-6	S2-7	S2-8	SI-1	SI-2	SI-3	ROM ST ADD	MEM ADD START
HI-LO PTR	ON	ON	ON	OFF	ON	ON	ON	20	7734
RKBE	ON	OFF	ON	OFF	ON	OFF	ON	124	24
RXBE	ON	OFF	OFF	ON	OFF	ON	ON	150	33
RF06/DF320	OFF	ON	OFF	ON	OFF	ON	ON	252	7750
TABE	OFF	ON	OFF	OFF	OFF	ON	OFF	272	4000

5. TO CONFIGURE MODULE FOR USE WITH KTB-A OPTION, INSTALL JUMPERS AS SHOWN BELOW.

	W1	W2	W3	W4
NORMAL	IN	OUT	OUT	OUT
WITH KTB-A	OUT	IN	IN	IN

3. BOOTSTRAP SELECT SWITCHES ARE DEFINED AS FOLLOWS:

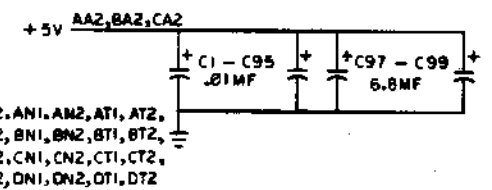
A. ROM ADDRESS RANGE; 0-377

B. ON=LOGIC 0 OR LOW; OFF=LOGIC 1 OR HIGH

C. ORDER OF SIGNIFICANCE

$S_{25} = 2^7 = 200$   
 $S_{26} = 2^6 = 100$   
 $S_{27} = 2^5 = 40$   
 $S_{28} = 2^4 = 20$   
 $S_{11} = 2^3 = 10$   
 $S_{12} = 2^2 = 4$   
 $S_{13} = 2^1 = 2$

THE USE OF ADDRESS IS CONTROLLED BY THE BOOTSTRAP/AUTO-RESTART LOGIC



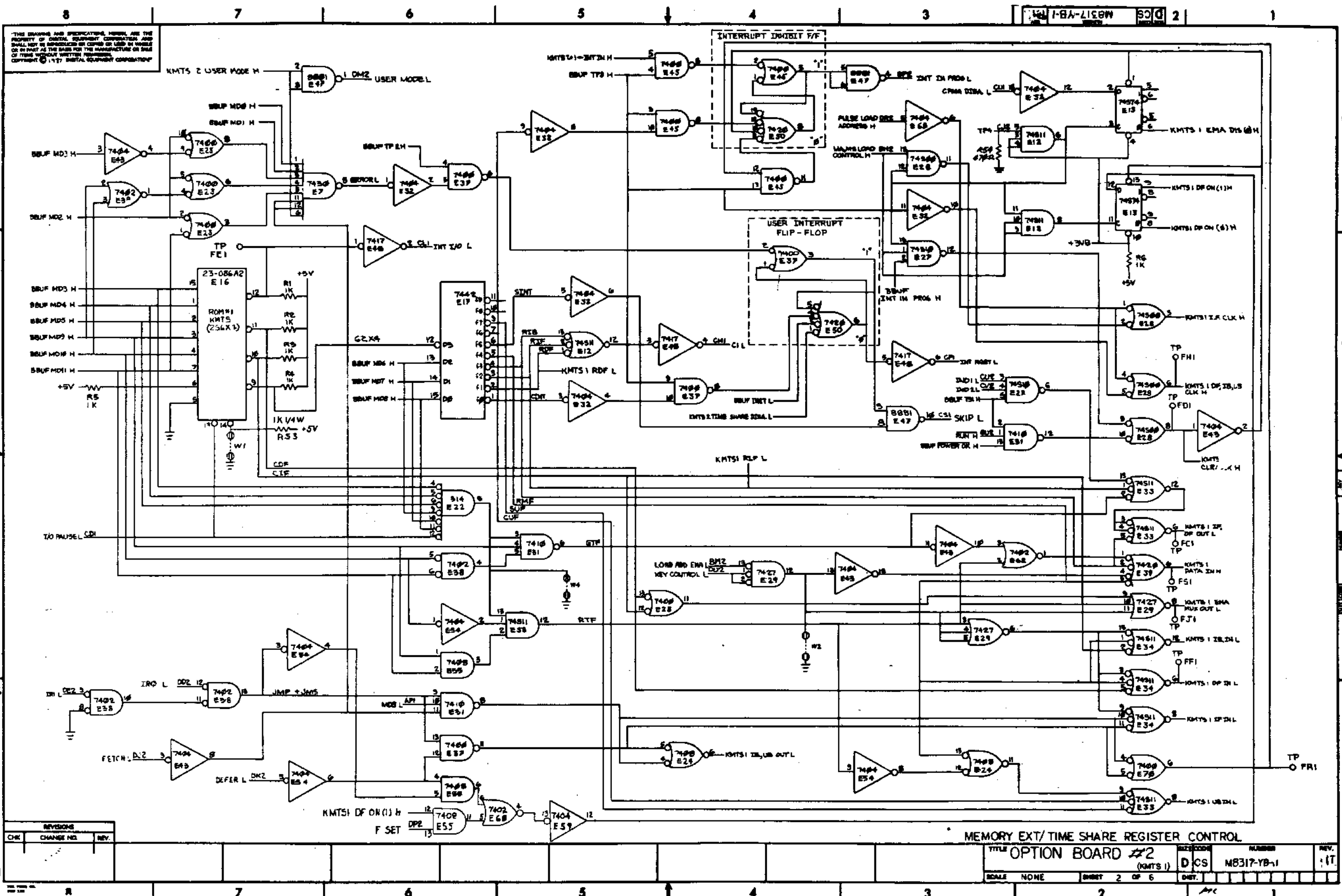
PART CALLED FOR				SUBSTITUTE PART			
QTY	PART NO	DESCRIPTION	QTY	PART NO	DESCRIPTION		
96	1001610-01	.01UF DISC	96	1001610-01	.01UF GLASS		
3	1503100	DEC 3009B	3	1503230	DEC 6531		
6	1911330	74173	6	1911711	8T1G		
1	1909704	314	1	1910391	7314		
			1	1909972	6314		
			1	1910389	7314		
6	1909705	6661	6	1909973	97401		
1	23158A2	RCM1 (E76)	1	23465A2	RCM1 (E76)		
1	23159A2	RCM2 (E61)	1	23469A2	RCM2 (E61)		

REV	DATE	BY	CHKD
1			
2			
3			
4			
5			

REV	DATE	BY	CHKD	TITLE
1	07/26/50			OPTICN BOARD #2
2	12-21-50			
3	2/10/51			
4	7/10/50			
5	7/10/50			

DOCUMENT NUMBER: DCS M8317-YB-1 T

DCS M8317-YB-1

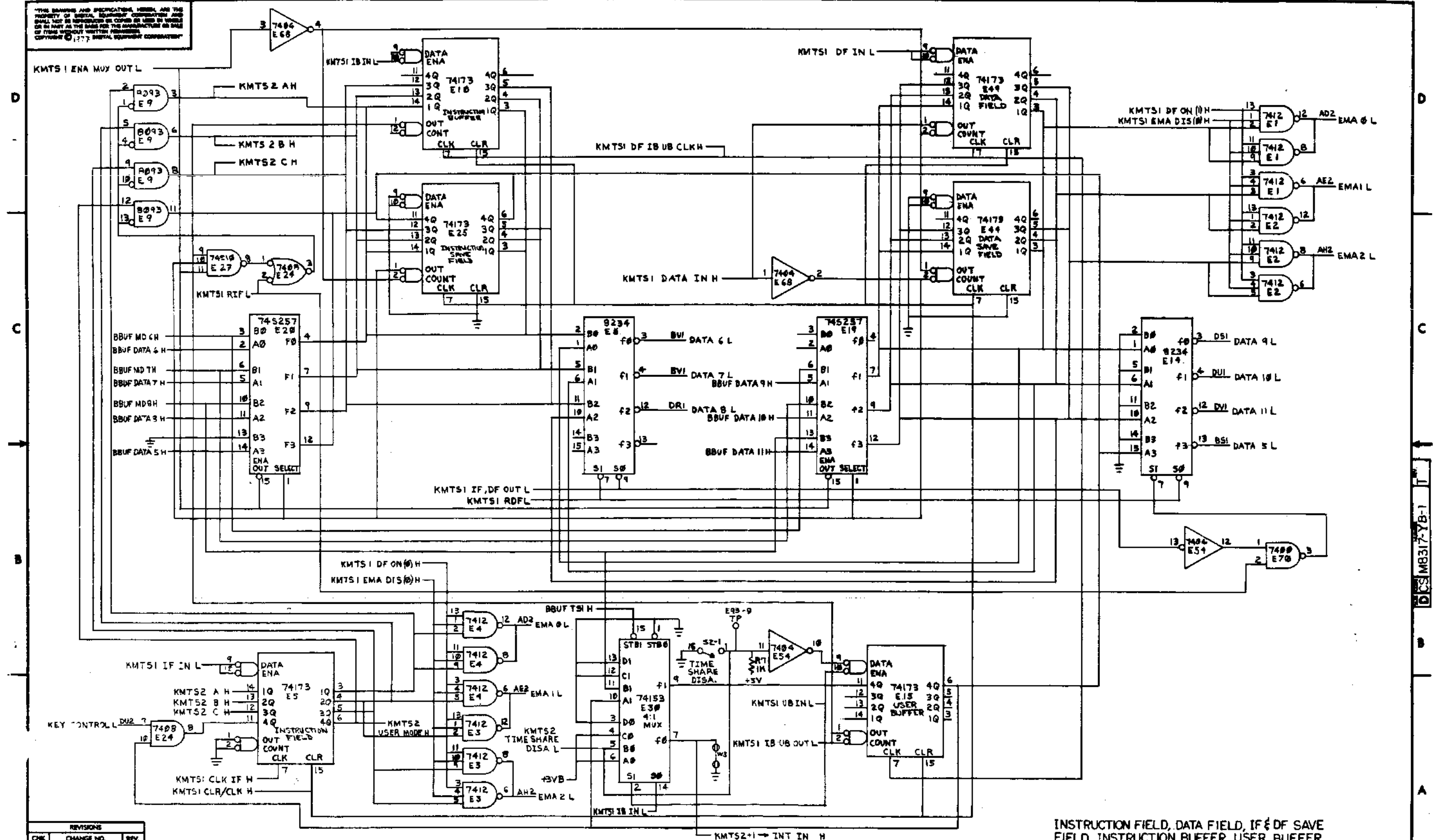


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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		NUMBER		REV.
OPTION BOARD #2		D CS		1
(KMTS 1)		M8317-YB-1		
SCALE	SHEET	DATE		
NONE	2 OF 6			

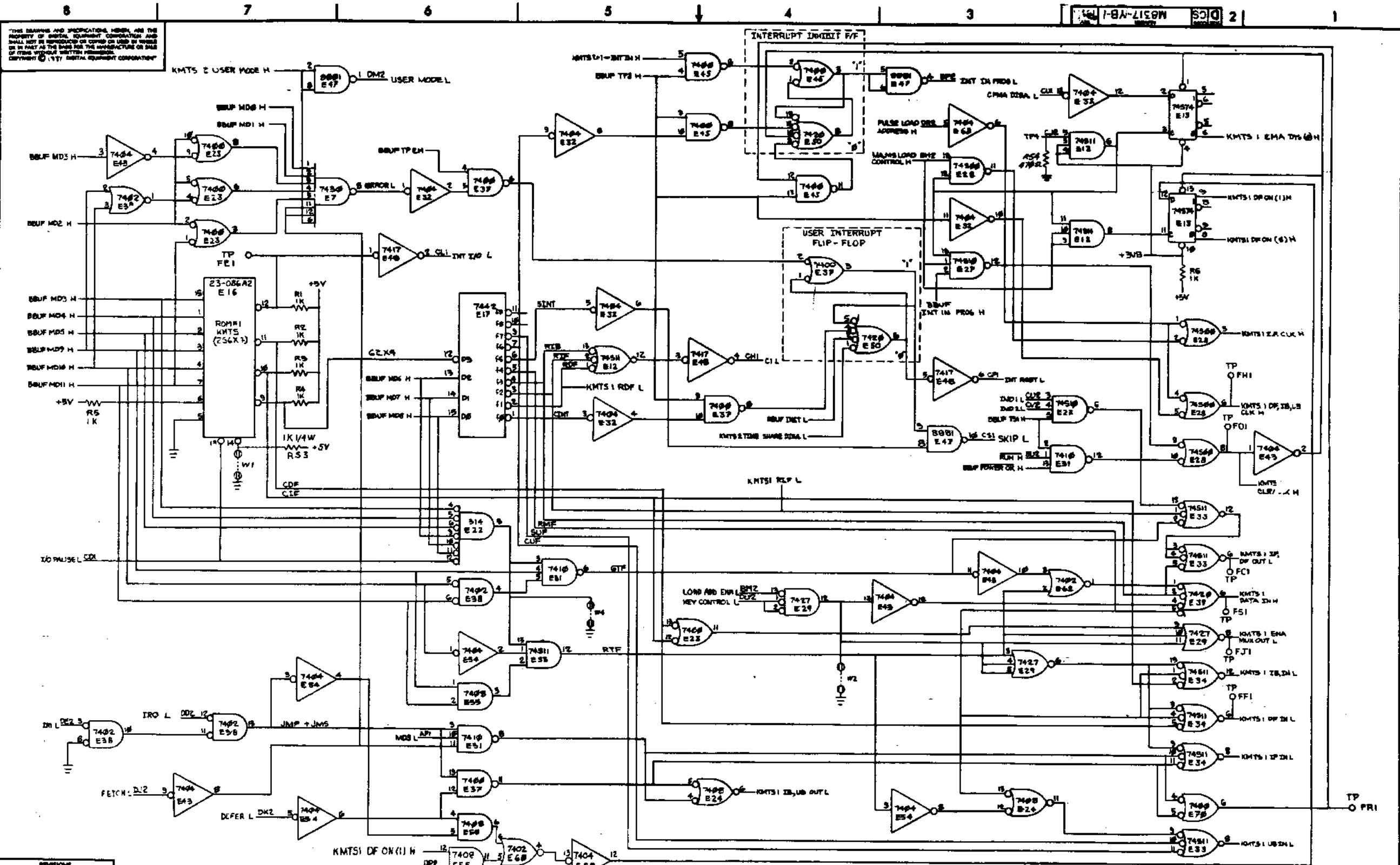
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REVISIONS		
CHK	CHANGE NO.	REV.

INSTRUCTION FIELD, DATA FIELD, IF & DF SAVE FIELD, INSTRUCTION BUFFER, USER BUFFER		TITLE		BOARD NUMBER		REV.	
OPTION BOARD #2 (KMTS2)		D CS		M8317-YB-1		T	
SCALE	NONE	SHEET	3 OF 6	DIST.			

D CS M8317-YB-1



REVISIONS		
CHK	CHANGE NO.	REV.

MEMORY EXT/TIME SHARE REGISTER CONTROL

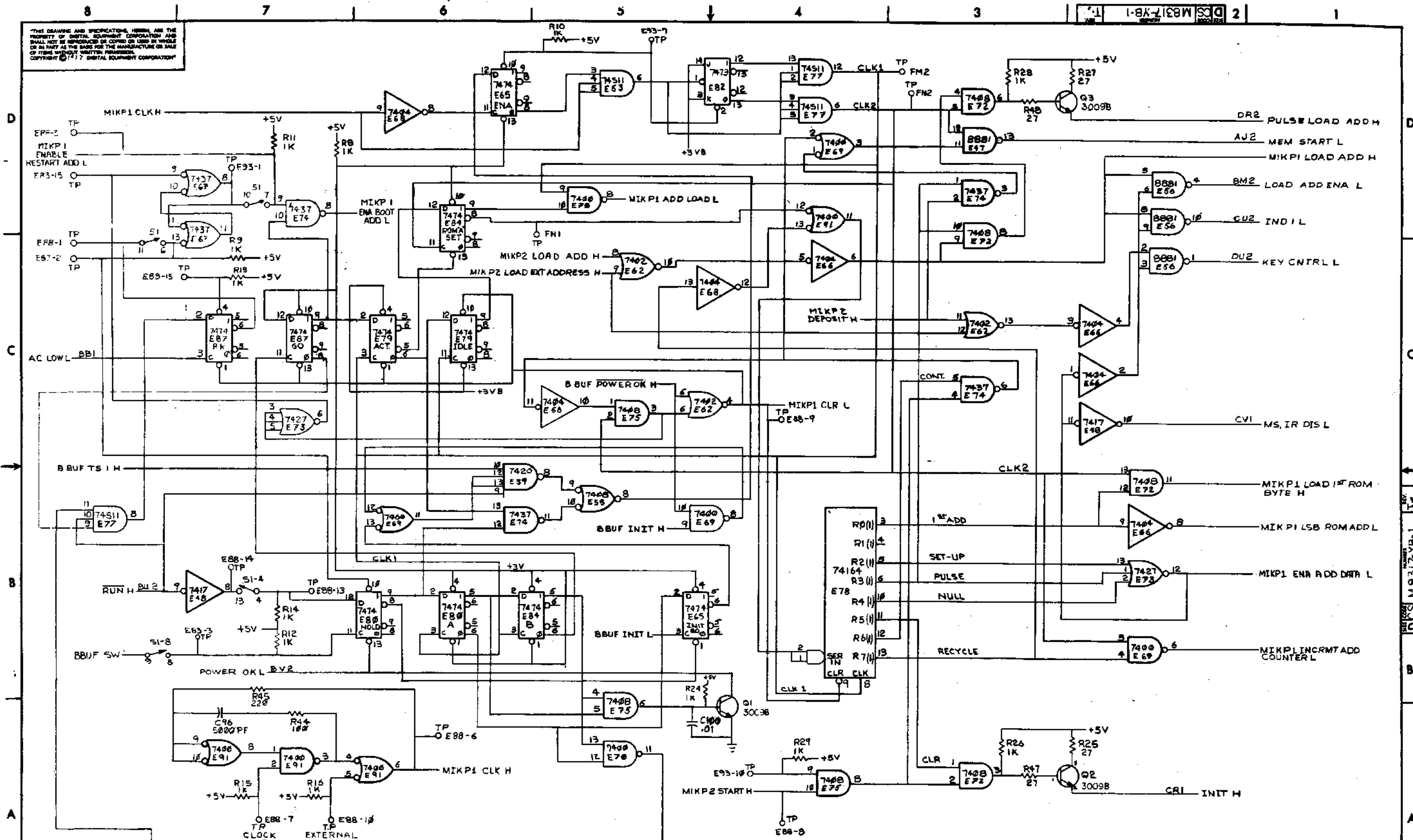
TITLE	OPTION BOARD #2 (KMTS 1)	REV.	1
SCALE	NONE	SHEET	2 OF 6
DATE			





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1-8X-2189W SC 2

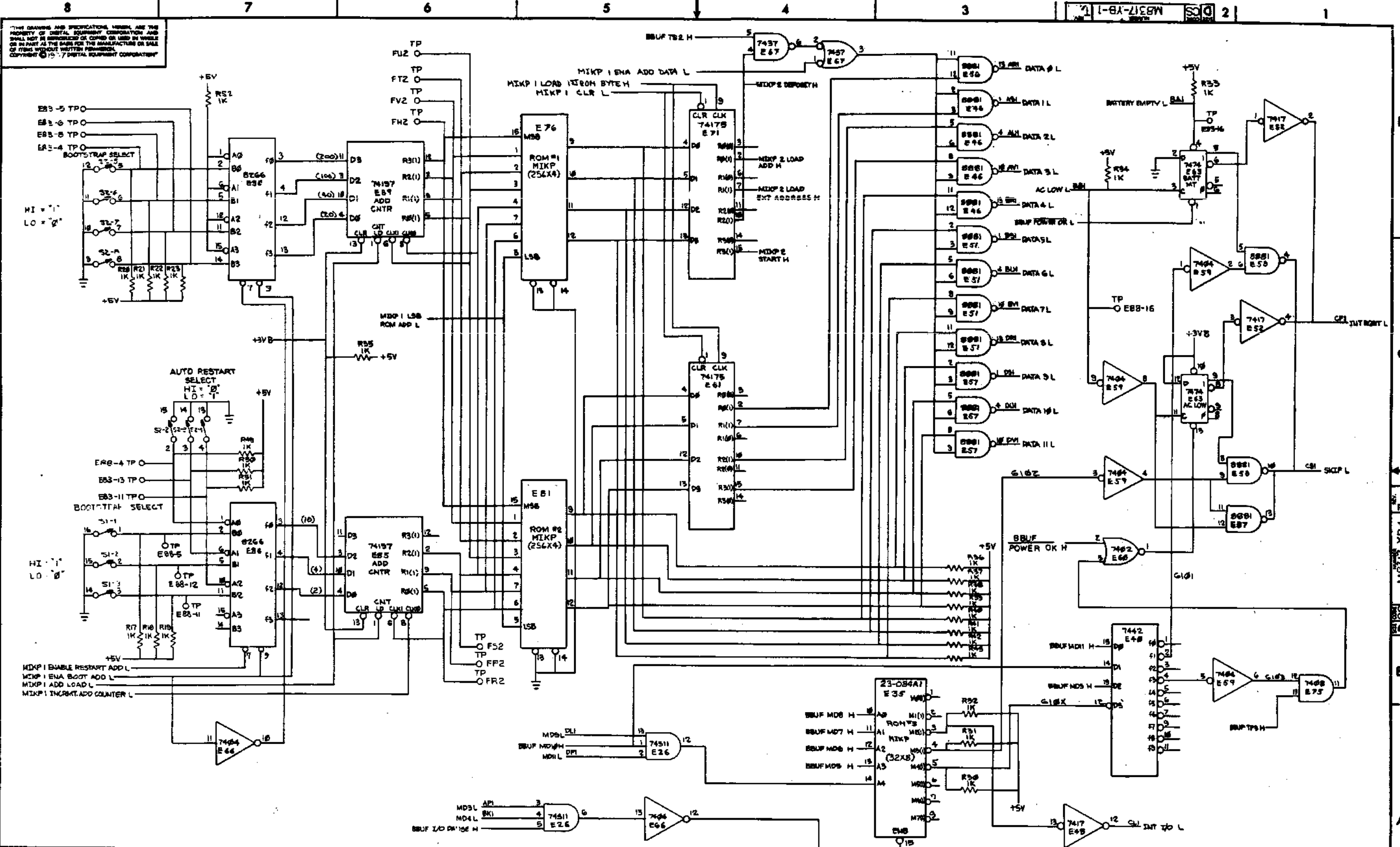


REVISIONS		
CHK	CHANGE NO.	REV.

BOOTSTRAP/AUTORESTART CONTROL		TITLE	DATE CODE	NUMBER	REV.
		OPTION BOARD # 2 (MIKP1)	D CS	M8317-YB-1	1
SCALE	SHEET	OP	ONY.		
	4	6			

DES M8317-YB-1

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REVISIONS		
CHK	CHANGE NO.	REV.

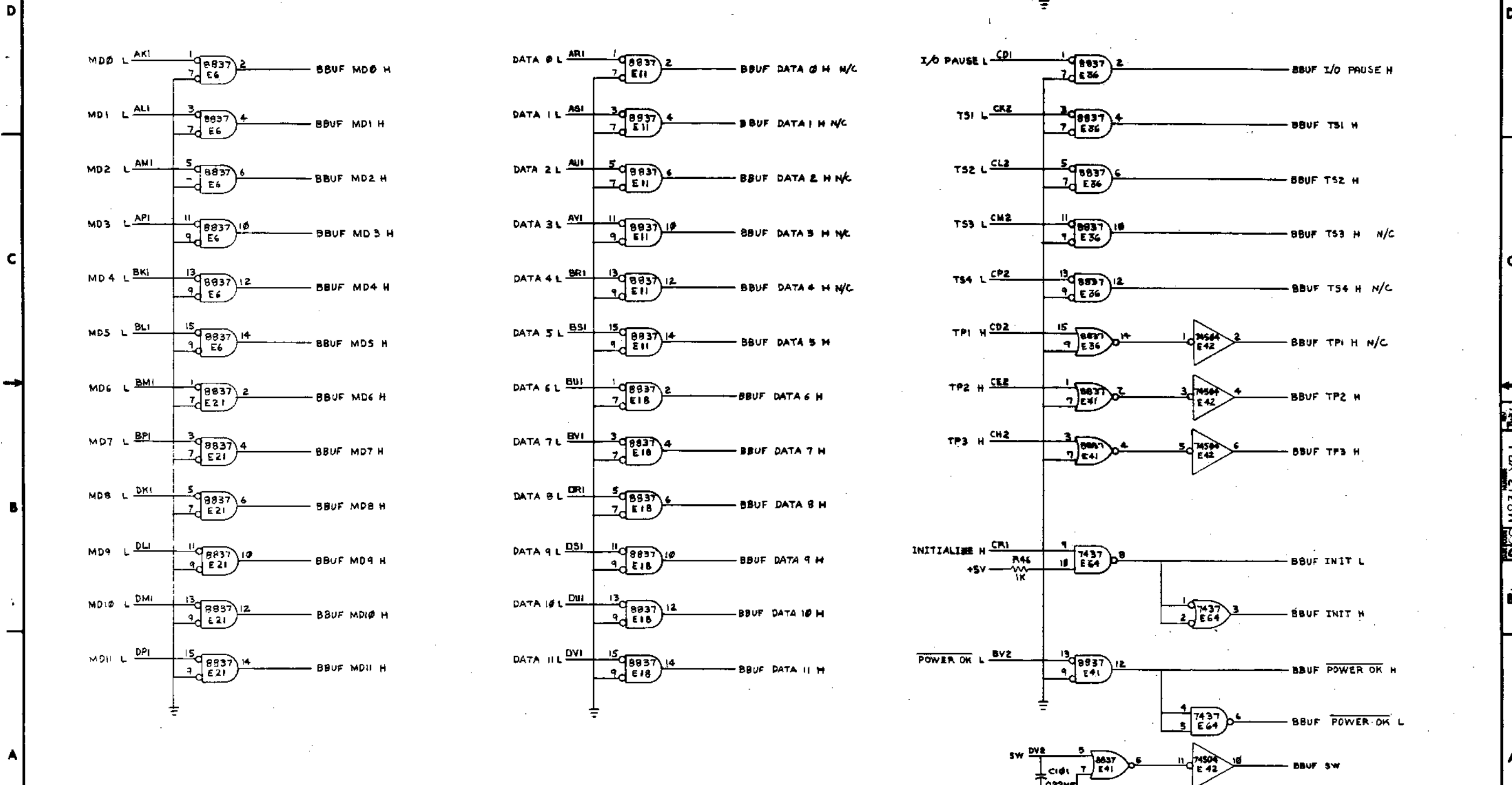
BOOTSTRAP/AUTO-RESTART ROMS AC LOW AND BATTERY EMPTY FLAGS

TITLE	OPTION BOARD #2 (M8317)	SIZE/COOR	D/CS	NUMBER	M8317-YB-1	REV.	1T
SCALE	NONE	SHEET	5 OF 6	DIST.			

D/CS M8317-YB-1 T.

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NOTE: SIGNALS WITH N/C HAVE NO CONNECTION



BUS BUFFERS

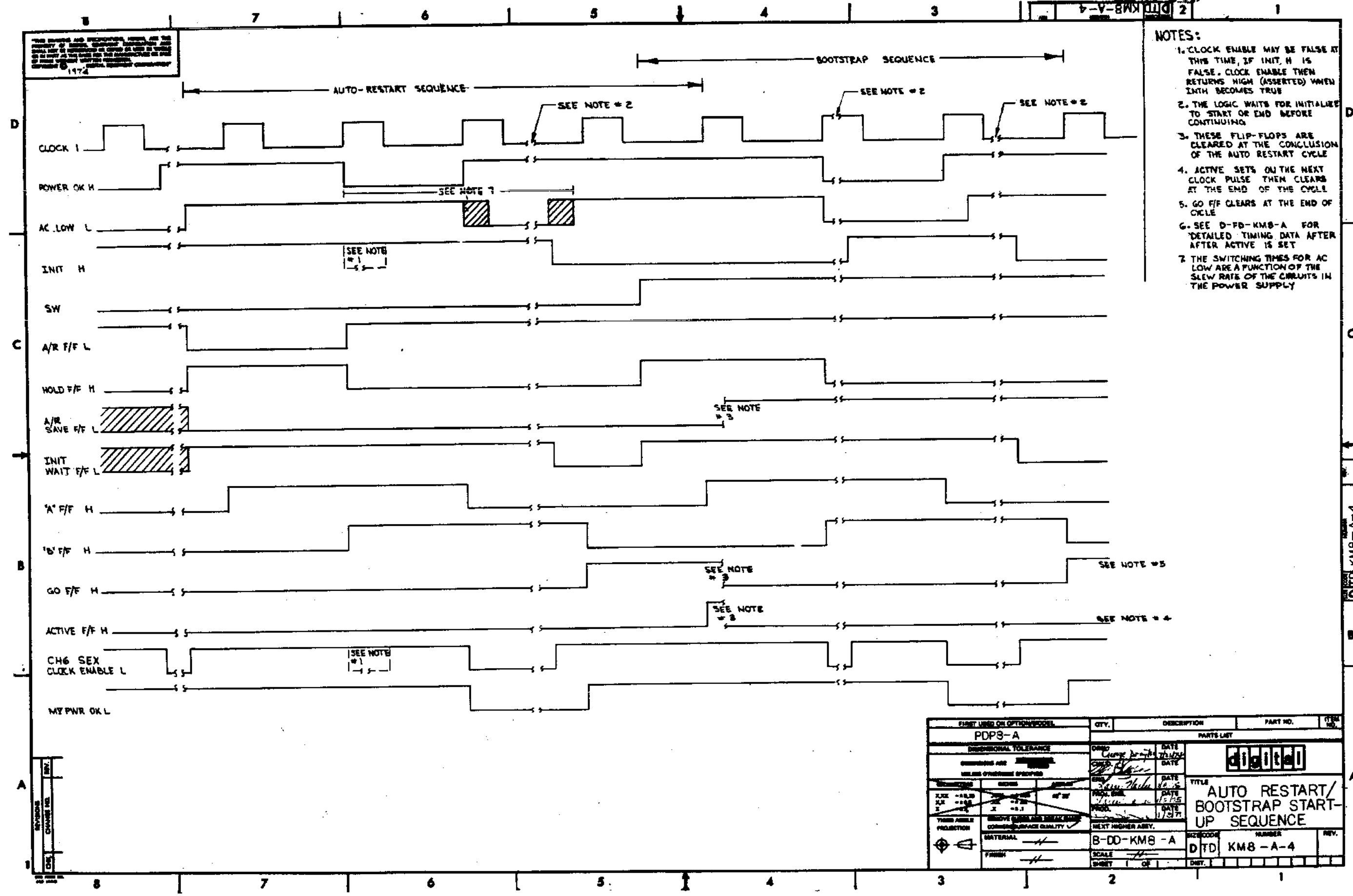
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	8/A INTERNAL OPTION #2 (BBUF)	NUMBER	DCS M8317-YB-1	REV.	1
SCALE	NONE	SHEET	6 OF 6	DATE	

DCS M8317-YB-1

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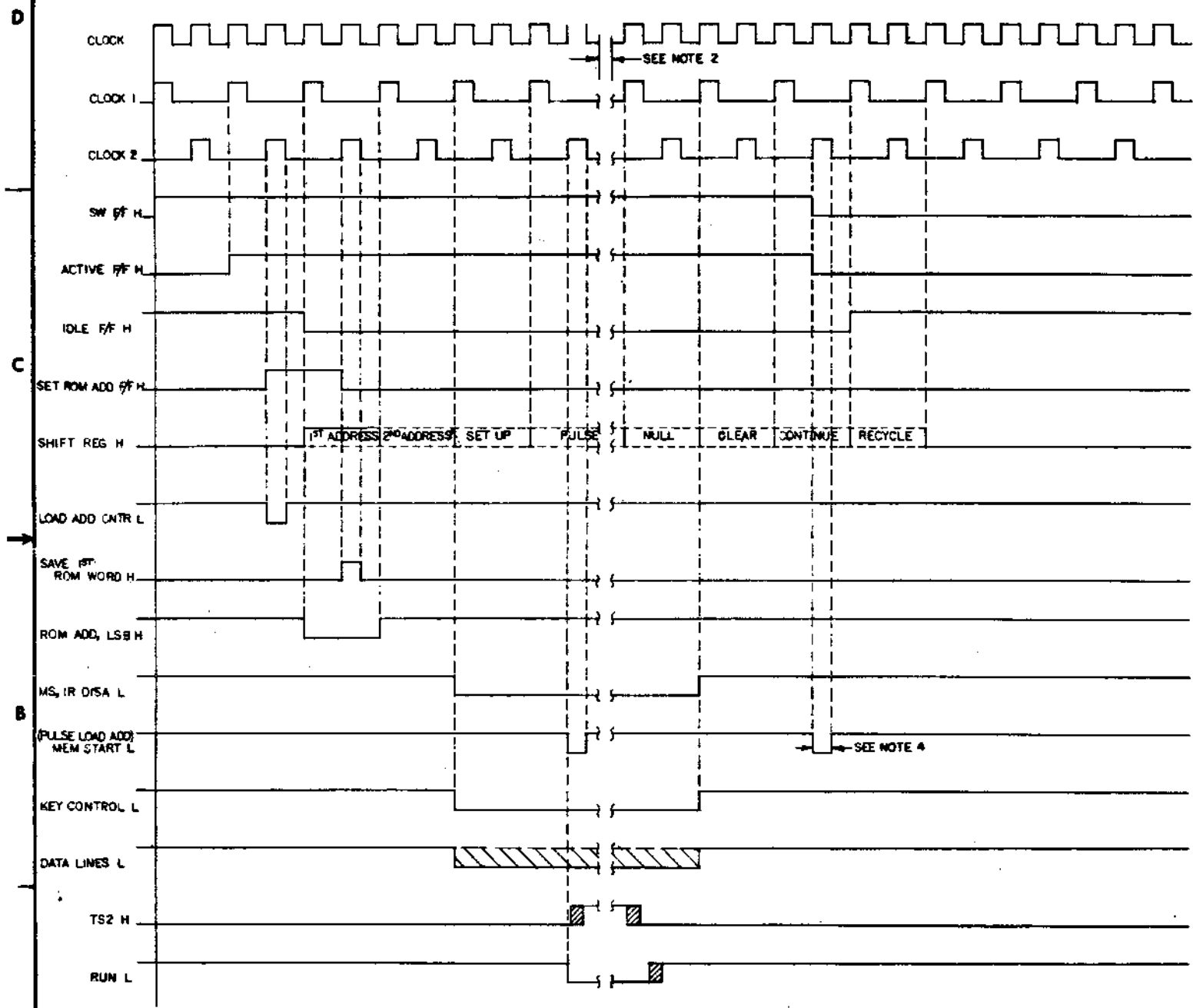
- NOTES:**
1. CLOCK ENABLE MAY BE FALSE AT THIS TIME, IF INIT. H IS FALSE. CLOCK ENABLE THEN RETURNS HIGH (ASSERTED) WHEN INTN BECOMES TRUE
  2. THE LOGIC WAITS FOR INITIALIZED TO START OR END BEFORE CONTINUING
  3. THESE FLIP-FLOPS ARE CLEARED AT THE CONCLUSION OF THE AUTO RESTART CYCLE
  4. ACTIVE SETS ON THE NEXT CLOCK PULSE THEN CLEARS AT THE END OF THE CYCLE
  5. GO F/F CLEARS AT THE END OF CYCLE
  6. SEE D-FB-KMB-A FOR DETAILED TIMING DATA AFTER ACTIVE IS SET
  7. THE SWITCHING TIMES FOR AC LOW ARE A FUNCTION OF THE SLEW RATE OF THE CIRCUITS IN THE POWER SUPPLY



FIRST LIST OR OPTION CODE		QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8-A					
DIMENSIONAL TOLERANCE		ORDG	DATE	PARTS LIST	
DIMENSIONS ARE		DATE		digital	
UNLESS OTHERWISE SPECIFIED		DATE			
DESIGNED BY	DATE	DATE	DATE	TITLE	
CHKD BY	DATE	DATE	DATE	AUTO RESTART/ BOOTSTRAP START- UP SEQUENCE	
APP'D BY	DATE	DATE	DATE	NUMBER	
THIRD ANGLE PROJECTION	REMOVE DIMENSIONS AND BREAK DIMENSIONS	NEXT HIGHER ARMY.		REV.	
MATERIAL	CONFORM TO MIL-SPEC QUALITY	B-DD-KMB-A	DTD	KMB-A-4	
FINISH		SCALE	SHEET	OF	

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5-V-88K DTD 2



- NOTES:
- ONE 'DEPOSIT' CYCLE IS SHOWN IN DIAGRAM.
  - WHEN 'RUN' IS TRUE (LOW) ALL TIMING IS HELD OFF UNTIL THE NEXT CLOCK PULSE AFTER 'RUN' GOES FALSE (HIGH).
  - FOR THE 'LOAD ADD' CYCLE SIGNALS REMAIN THE SAME AS SHOWN EXCEPT THAT 'PULSE LOAD ADD' REPLACES 'MEM START' AND 'KEY CONTROL' IS NEGATED. FOR 'EXT. LOAD ADD' KEY CONTROL IS TRUE.
  - MEM START APPEARS HERE ONLY FOR THE 'START' FUNCTION. THE EARLIER MEM START IS FOR 'DEPOSITS' ONLY.

REV.	DATE	BY	CHKD

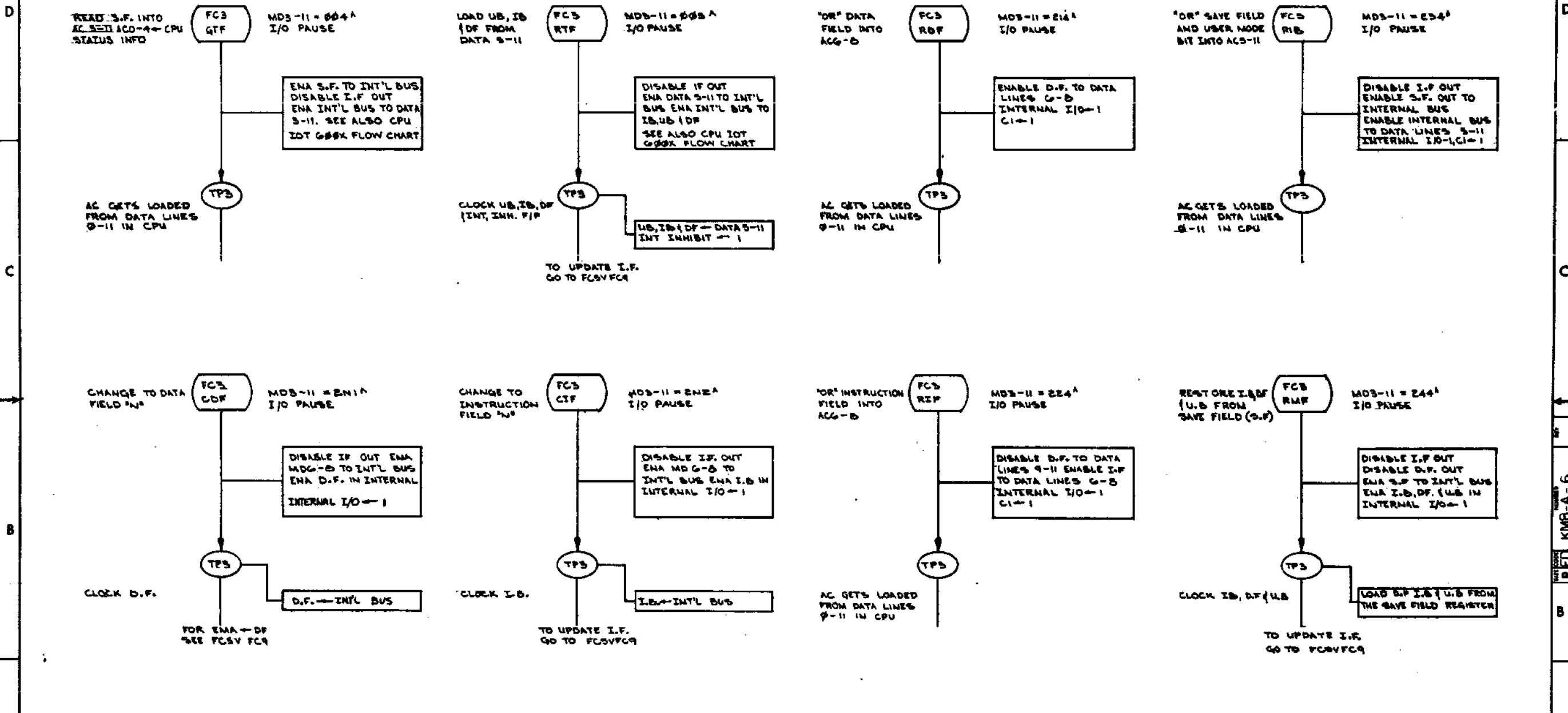
FIRST USED OR OPTION/MODEL PDP8-A	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
DIMENSIONAL TOLERANCE		DATE	DATE	
UNLESS OTHERWISE SPECIFIED		7-3-74	DATE	
MILLIMETERS	INCHES	DATE	DATE	
±.01	±.0005	1-8-75	DATE	
±.02	±.001	DATE	DATE	
±.05	±.002	DATE	DATE	
±.10	±.005	DATE	DATE	
±.15	±.01	DATE	DATE	
±.20	±.02	DATE	DATE	
±.25	±.03	DATE	DATE	
±.30	±.04	DATE	DATE	
±.35	±.05	DATE	DATE	
±.40	±.06	DATE	DATE	
±.45	±.07	DATE	DATE	
±.50	±.08	DATE	DATE	
±.55	±.09	DATE	DATE	
±.60	±.10	DATE	DATE	
±.65	±.11	DATE	DATE	
±.70	±.12	DATE	DATE	
±.75	±.13	DATE	DATE	
±.80	±.14	DATE	DATE	
±.85	±.15	DATE	DATE	
±.90	±.16	DATE	DATE	
±.95	±.17	DATE	DATE	
±1.00	±.18	DATE	DATE	
±1.05	±.19	DATE	DATE	
±1.10	±.20	DATE	DATE	
±1.15	±.21	DATE	DATE	
±1.20	±.22	DATE	DATE	
±1.25	±.23	DATE	DATE	
±1.30	±.24	DATE	DATE	
±1.35	±.25	DATE	DATE	
±1.40	±.26	DATE	DATE	
±1.45	±.27	DATE	DATE	
±1.50	±.28	DATE	DATE	
±1.55	±.29	DATE	DATE	
±1.60	±.30	DATE	DATE	
±1.65	±.31	DATE	DATE	
±1.70	±.32	DATE	DATE	
±1.75	±.33	DATE	DATE	
±1.80	±.34	DATE	DATE	
±1.85	±.35	DATE	DATE	
±1.90	±.36	DATE	DATE	
±1.95	±.37	DATE	DATE	
±2.00	±.38	DATE	DATE	
±2.05	±.39	DATE	DATE	
±2.10	±.40	DATE	DATE	
±2.15	±.41	DATE	DATE	
±2.20	±.42	DATE	DATE	
±2.25	±.43	DATE	DATE	
±2.30	±.44	DATE	DATE	
±2.35	±.45	DATE	DATE	
±2.40	±.46	DATE	DATE	
±2.45	±.47	DATE	DATE	
±2.50	±.48	DATE	DATE	
±2.55	±.49	DATE	DATE	
±2.60	±.50	DATE	DATE	
±2.65	±.51	DATE	DATE	
±2.70	±.52	DATE	DATE	
±2.75	±.53	DATE	DATE	
±2.80	±.54	DATE	DATE	
±2.85	±.55	DATE	DATE	
±2.90	±.56	DATE	DATE	
±2.95	±.57	DATE	DATE	
±3.00	±.58	DATE	DATE	
±3.05	±.59	DATE	DATE	
±3.10	±.60	DATE	DATE	
±3.15	±.61	DATE	DATE	
±3.20	±.62	DATE	DATE	
±3.25	±.63	DATE	DATE	
±3.30	±.64	DATE	DATE	
±3.35	±.65	DATE	DATE	
±3.40	±.66	DATE	DATE	
±3.45	±.67	DATE	DATE	
±3.50	±.68	DATE	DATE	
±3.55	±.69	DATE	DATE	
±3.60	±.70	DATE	DATE	
±3.65	±.71	DATE	DATE	
±3.70	±.72	DATE	DATE	
±3.75	±.73	DATE	DATE	
±3.80	±.74	DATE	DATE	
±3.85	±.75	DATE	DATE	
±3.90	±.76	DATE	DATE	
±3.95	±.77	DATE	DATE	
±4.00	±.78	DATE	DATE	
±4.05	±.79	DATE	DATE	
±4.10	±.80	DATE	DATE	
±4.15	±.81	DATE	DATE	
±4.20	±.82	DATE	DATE	
±4.25	±.83	DATE	DATE	
±4.30	±.84	DATE	DATE	
±4.35	±.85	DATE	DATE	
±4.40	±.86	DATE	DATE	
±4.45	±.87	DATE	DATE	
±4.50	±.88	DATE	DATE	
±4.55	±.89	DATE	DATE	
±4.60	±.90	DATE	DATE	
±4.65	±.91	DATE	DATE	
±4.70	±.92	DATE	DATE	
±4.75	±.93	DATE	DATE	
±4.80	±.94	DATE	DATE	
±4.85	±.95	DATE	DATE	
±4.90	±.96	DATE	DATE	
±4.95	±.97	DATE	DATE	
±5.00	±.98	DATE	DATE	
±5.05	±.99	DATE	DATE	
±5.10	±1.00	DATE	DATE	

**digital**  
TITLE  
BOOTSTRAP  
TIMING DIAGRAM

PART NO. B-DD-KMB-A  
SCALE NONE  
SHEET 2 OF 2

DIGITAL EQUIPMENT CORPORATION  
PDP8-A-5

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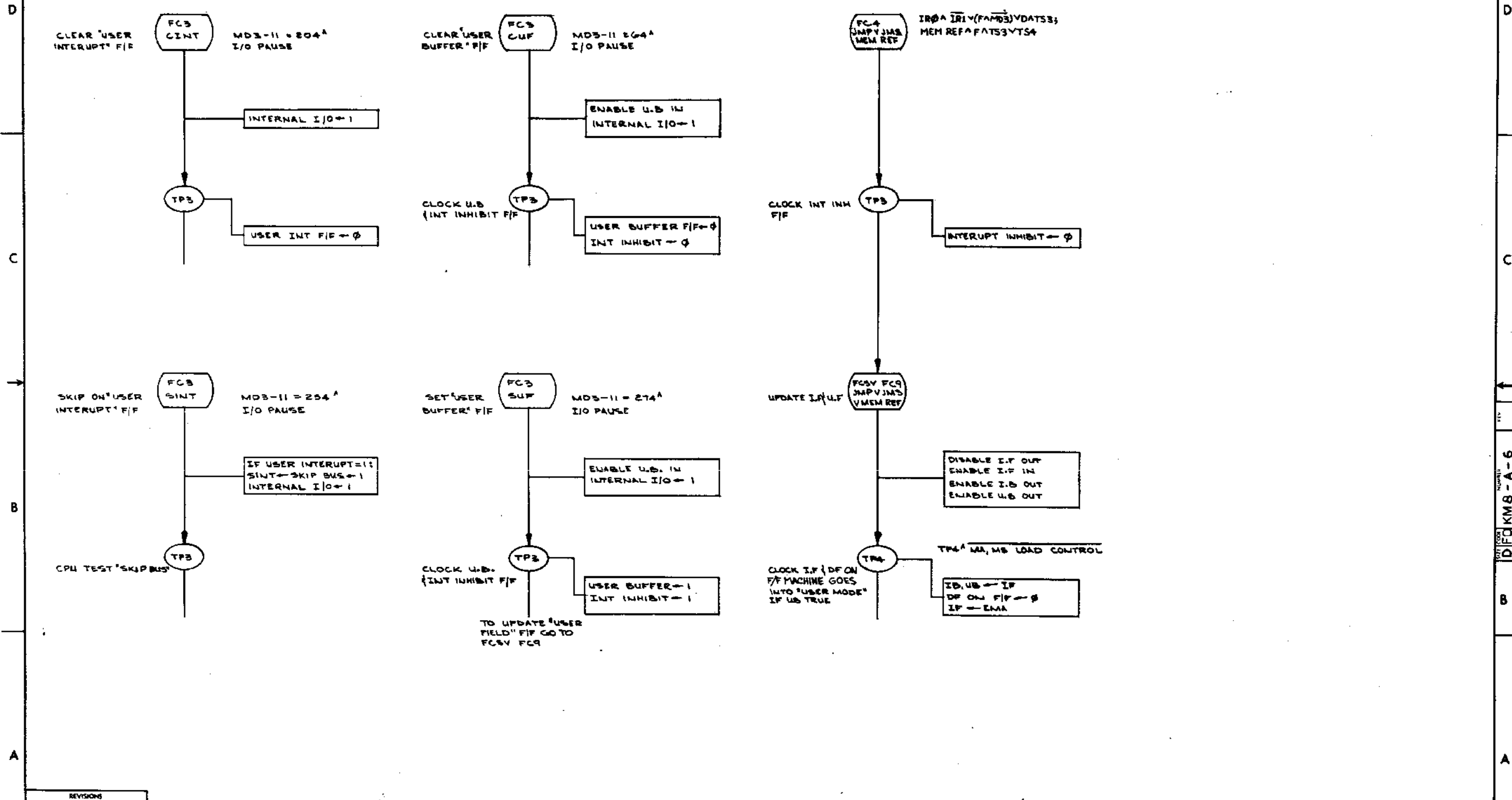


REV	
CHANGE NO	
CHK	

FIRST USED ON OPTION MODEL	QTY	DESCRIPTION	PART NO.	ITEM NO.
PDP8A				
UNLESS OTHERWISE SPECIFIED	KG			
UNLESS OTHERWISE SPECIFIED				
TOLERANCES				
DIMENALS	FRACTIONS	ANGLES		
X .000	X .001	X .002		
MATERIAL				
NEXT HIGHER ASSY				
B-00-KMB-A				
SCALE				
SHEET 1 OF 2				
TITLE			PART NO.	
FLOW CHART FOR OPTION BOARD #2 M8317			DFO KMB-A-6	
DRAWN			REV.	

PART NO. BFD KMB-A-6

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REVISIONS		
CHK	CHANGE NO	REV

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**DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS**

**ENGINEERING SPECIFICATION**

DATE 5/8/74

TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KM8-AD (M8317-YC)

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	E.C.O. CHANGE	00001	L.NARHI	14 MAY 76	<i>L. Narhi</i>	21-may
B	E.C.O. CHANGE	00002	L.NARHI	12-14-77	<i>L. Narhi</i>	5-jan-78

ENG Larry Narhi	APPD <i>Larry Narhi</i>	SIZE A	CODE SP	NUMBER KM8-A-7	REV B
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DEC FORM NO. DRA 107

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KM8-AD (M8317-YC)

1. Introduction

This document describes the organization of the two 256 x 4 ROMs, hereafter called ROM #1 and ROM #2, that control and supply data for the Auto-Restart and Bootstrap portions of Option Board #2.

This information is made available to help users program their own ROMs for their specific Auto-Restart and/or Bootstrap program(s).

2. Organization

The two ROMs are connected as follows: the address lines are connected in parallel; i.e., two corresponding address lines of each ROM are connected together, the outputs are arranged in serial fashion forming an 8 bit word, 4 outputs from each ROM. Because 12 bits are required for data/address information, two sequential addresses must be accessed from the ROMs to form a 16 bit word. Where the first 8 bits are temporarily stored in a register, then the next 8 bits are accessed from the ROMs. At this point the control then decides what to do with 12 of the 16 bits. There are four possible actions that can take place at this time:

- a) Load Address
- b) Load Extended Address, IF AND DF
- c) Deposit
- d) Start

The remaining 4 bits of the 16 actually tell the control which of the four actions are to take place. So the 16 bit word would look like the word in Figure 1.

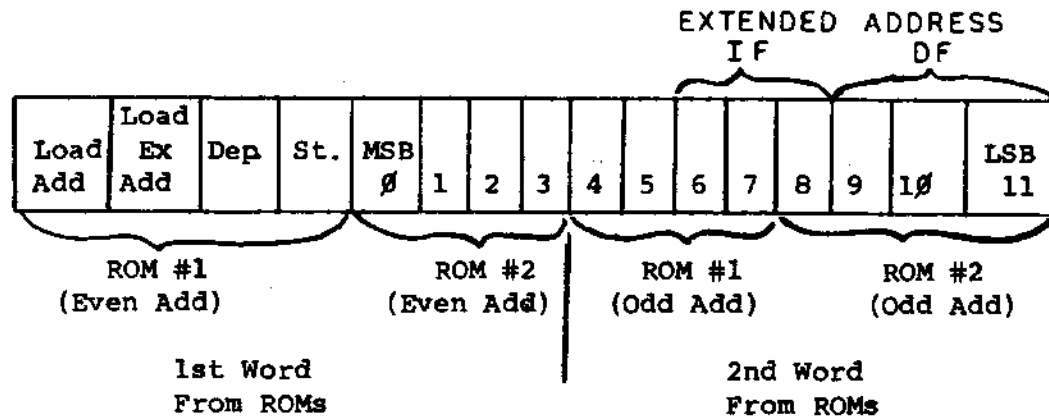
SIZE A	CODE SP	NUMBER KM8-A-7	REV B
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DEC FORM NO. DEC 16-(381)-1022-N370  
DRA 108



TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KMB-AD (M8317-YC)

Figure 1



The use of ROMs that have 256 addressable locations allows up to 128 words of ROM storage. These 128 locations may be used for Bootstrap and/or Auto-restart programs. Any Auto-restart or Bootstrap program may be located anywhere in the ROMs so long as the program starts in an even address in the ROM. If it is required that both Bootstrap and Auto-restart programs be accessible at the same time, activated by different signals; of course the Auto-restart program(s) must be located in addresses 0 through 15 in the ROMs. This is due to the addressing limits of the Auto-restart select switches.

3. Auto-Restart/Bootstrap Sequence

The following events should take place when an auto-restart is initiated:

- a) Load a 12 bit address
- b) LOAD THE IF AND DF AND START.

The following events should take place when the Bootstrap is initiated:

- a) Load a 12 bit initial address.
- b) Load the IF AND DF
- c) Deposit 12 bit data words repeating as required by length of program to be deposited.
- d) Load a 12 bit starting address and start.

SIZE	CODE	NUMBER	REV
A	SP	KMB-A-7	B

TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KMB-AD (M8317-YC)

The decision to do a Bootstrap or an auto-restart is directed by a set of switches on the module. The Bootstrap may be actuated by the transition of the signal AC Low from a logic low to a logic high or by a similar transition of the SW line on the OMNIBUS.

AN AUTO-RESTART MAY ONLY BE INITIATED BY THE AC LOW SIGNAL. IT SHOULD BE OBVIOUS THAT BOTH THE BOOTSTRAP OR AUTO-RESTART SHOULD NOT BE ACTIVATED BY THE SAME INITIALIZING SIGNAL.

4. ROM Programming Examples

Auto-restart example:

- a) Load address 0200
- b) Load field 0, start

Starting at ROM address 004

Bootstrap example:

- a) Load address 0023
- b) Load field 7 (BOTH IF AND DF)
- c) Deposit 2000
- d) Deposit 6745
- e) Deposit 0023
- f) Deposit 7650
- h) Deposit 5024
- j) Deposit 6733
- k) Deposit 5031
- l) Load address 0024 and start

Starting at ROM address 124.

SIZE	CODE	NUMBER	REV
A	SP	KMB-A-7	B

TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KM8-AD (M8317-YC)

Auto-Restart example:

Bit Add	ROM #1				ROM #2			
	4	3	2	1	4	3	2	1
4	1	0	0	0	0	0	0	0
5	1	0	0	0	0	0	0	0
6	0	1	0	1	0	0	0	0
7	0	0	0	0	0	0	0	0

Load Address  
0200  
Load Ext. Add 0  
and Start

NOTE: Logic one (1) = +3V

Bootstrap example:

Bit Add	ROM #1				ROM #2			
	4	3	2	1	4	3	2	1
124	1	0	0	0	0	0	0	0
125	0	0	0	1	0	0	1	1
126	0	1	0	0	0	0	0	0
127	0	0	1	1	1	1	1	1
130	0	0	1	0	0	1	0	0
131	0	0	0	0	0	0	0	0
132	0	0	1	0	1	1	0	1
133	1	1	1	0	0	1	0	1
134	0	0	1	0	0	0	0	0
135	0	0	0	1	0	0	1	1
136	0	0	1	0	1	1	1	1
137	1	0	1	0	1	0	0	0
140	0	0	1	0	1	0	1	0
141	0	0	0	1	0	1	0	0
142	0	0	1	0	1	1	0	1
143	1	1	0	1	1	0	1	1
144	0	0	1	0	1	0	1	0
145	0	0	0	1	1	0	0	1
146	1	0	0	1	0	0	0	0
147	0	0	0	1	0	1	0	0

Load Add 0023  
Load Ext Add 7  
Dep 2000  
Dep 6745  
Dep 0023  
Dep 7650  
Dep 5024  
Dep 6733  
Dep 5031  
Load Add 24 & Start

SIZE CODE NUMBER REV  
A SP KM8-A-7 B

TITLE ROM PROGRAMMING DIRECTIONS FOR 8A OPTION BOARD #2 KM8-AD (M8317-YC)

5. ROMs

Unprogrammed ROMs should be purchased by the user from Digital Equipment Corporation. The part number for an unprogrammed 256 x 4 ROM is 23-000A2.

SIZE CODE NUMBER REV  
A SP KM8-A-7 B

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**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**ENGINEERING SPECIFICATION** DATE 11/19/74

TITLE FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR DKC8-A

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG <i>S. Mark</i> 12/20/74	APPD <i>Carl</i>	SIZE <b>A</b>	CODE SP	NUMBER DKC8-A-1	REV
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DEC 16-(392)-1079-N971  
DRA 107

**ENGINEERING SPECIFICATION** CONTINUATION SHEET

TITLE FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR DKC8-A

**I GENERAL**

This procedure defines the performance standard required of the DKC8\*, option board #1. This procedure refers to both system acceptance and add-on acceptance.

NOTE: If DKC8 was shipped as part of a PDP-8A system, proceed to installation procedure.

- \* Serial Line Unit
- Real Time Clock
- Parallel I/O
- Programmer's Console Logic

**II INSPECTION**

After removing the DKC8 from the packing material, inspect the module for the following:

1. Inventory hardware against shipping list.
2. Inventory software against software list, if ordered.
3. Inventory prints against shipping list, if ordered.
4. Check hardware for loose or broken components.

**III INSTALLATION PROCEDURE**

Install the equipment using the following procedure:

1. Set up switches as indicated by the diagnostic write up.

S1-1 thru S1-3	"ON"	9600 baud
S1-4	"ON"	Normally "ON"
S1-5	"ON"	Real Time Clock Enable
S1-6	"ON"	Normally "ON"
S1-7	"ON"	One Stop Bit
S1-8	"OFF"	Disable TTY 20 MA Filter

NOTE: Reference Operator's Handbook for switch setting descriptions.

2. Insert TTY loop back cable (DEC Part #7008517) on DKC8.
3. Insert parallel I/O cable loop back cable (DEC Part # BC08R-1) on DKC8.

SIZE <b>A</b>	CODE SP	NUMBER DKC8-A-1	REV
---------------	---------	-----------------	-----

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

TITLE FIELD INSTALLATION AND ACCEPTANCE PROCEDURE FOR DKC8-A

III INSTALLATION PROCEDURE (continued)

4. Insert two programmer's console cables on DKC8.
5. Insure that the 8A Power is removed from the Omnibus™.
6. Insert DKC8 into the second or third slot of the Omnibus™.
7. Turn the power back "ON".
8. Check the operation of the programmer's console.

IV ACCEPTANCE PROCEDURE

Perform the acceptance procedure defined in Table A. If abnormal indications are encountered, refer to the diagnostic listing for type of error. Reference the diagnostic write ups and operator's manual for instructions on loading diagnostics.

Equipment Required:

1. PDP-8A with 1K or more R/W Memory
2. Paper Tape Input Device
3. Programmer's Console (KC8-A)
4. Diagnostic and Listings
5. TTY loop Back Cable
6. Parallel I/O Loop Back Cable
7. W987 Quad Extender

NOTE: If the programmer's console and paper tape input device are not available as part of the system being used, they must be supplied in good working order by the customer.

SIZE	CODE	NUMBER	REV
A	SP	DKC8-A-1	

TITLE FIELD INSTALLATION & ACCEPTANCE PROCEDURE FOR DKC8-A

TABLE A

Acceptance of DKC8 with 4K or More R/W Memory

Program Name	Maindec #	Accept Time	Restriction
DKC8-AA Option Test #1	08-DJDKA-PB	30 min	4K R/W Memory

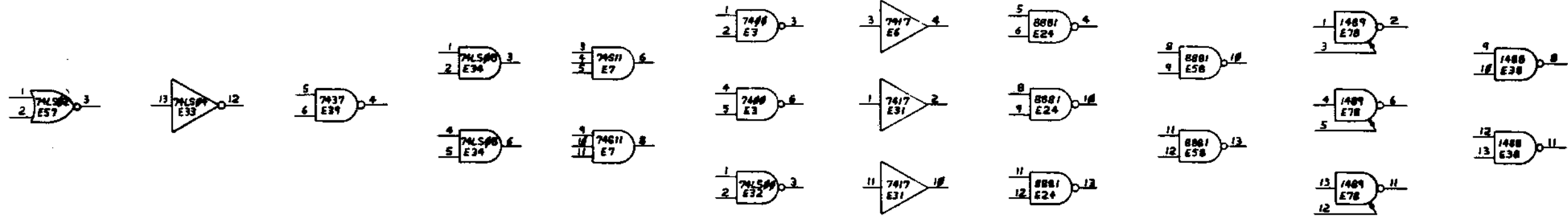
Acceptance of DKC8 with less than 1K of R/W Memory

DKC8-AA Opteion Test #1 Segment #1 (RIM)	08-DJDKA -PM1	10 min	1K R/W Memory
DKC8-AA Option Test #1 Segment #2 (RIM)	08-DJDKA -PM2	10 min	1K R/W Memory
DKC8-AA Option Test #1 Segment #3 (RIM)	08-DJDKA -PM3	10 min	1K R/W Memory
DKC8-AA Option Test #1 Segment #4 (RIM)	08-DJDKA -PM4	10 min	1K R/W Memory

SIZE	CODE	NUMBER	REV
A	SP	DKC8-A-1	

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SPARES



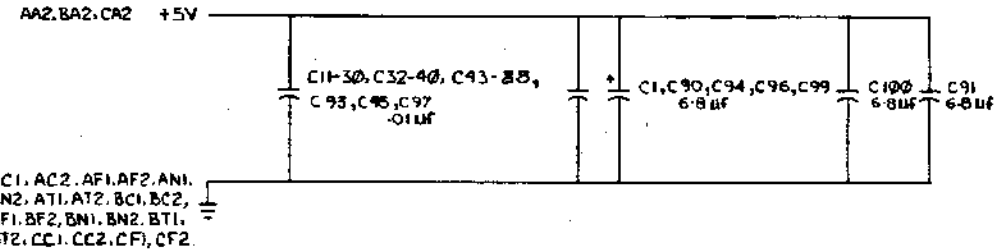
MSBIC SWITCH SETTINGS

- S1-1 } SERIAL LINE BAUD RATE (SEE CHART)
- S1-2 }
- S1-3 }
- S1-4 }
- S1-5 ON = REAL TIME CLOCK ENABLED  
OFF = REAL TIME CLOCK DISABLED
- S1-6 ON = TEST SWITCH (ALWAYS ON)
- S1-7 ON = 1 STOP BIT IN SLU CHARACTER  
OFF = 2 STOP BITS IN SLU CHARACTER
- S1-8 ON = ASR/KSR 33 DR35 FILTER IN (ACROSS SLU 20 MA REC'V LEADS)  
OFF = FILTER OUT
- S1-9 ON = TSI CLEARS "DATA AVAIL" F/F IN PARALLEL I/O SECTION  
OFF = "DATA AVAIL" NOT CLEARED BY TSI

SLU BAUD RATE SELECT CHART

SI-4	SI-3	SI-2	SI-1	BAUD RATE
ON	ON	ON	ON	50 BAUD
ON	ON	ON	OFF	75 BAUD
ON	ON	OFF	ON	110 BAUD
ON	ON	OFF	OFF	134.5 BAUD
ON	OFF	ON	ON	150 BAUD
ON	OFF	ON	OFF	300 BAUD
ON	OFF	OFF	ON	600 BAUD
ON	OFF	OFF	OFF	1200 BAUD
OFF	ON	ON	ON	1800 BAUD
OFF	ON	ON	OFF	2000 BAUD
OFF	ON	OFF	ON	2400 BAUD
OFF	ON	OFF	OFF	3600 BAUD
OFF	OFF	ON	ON	4800 BAUD
OFF	OFF	ON	OFF	7200 BAUD
OFF	OFF	OFF	ON	9600 BAUD
OFF	OFF	OFF	OFF	19.2 K BAUD

\* SERIAL LINE WILL NOT RUN AT THIS BAUD RATE. THIS SETTING IS NOT TO BE USED

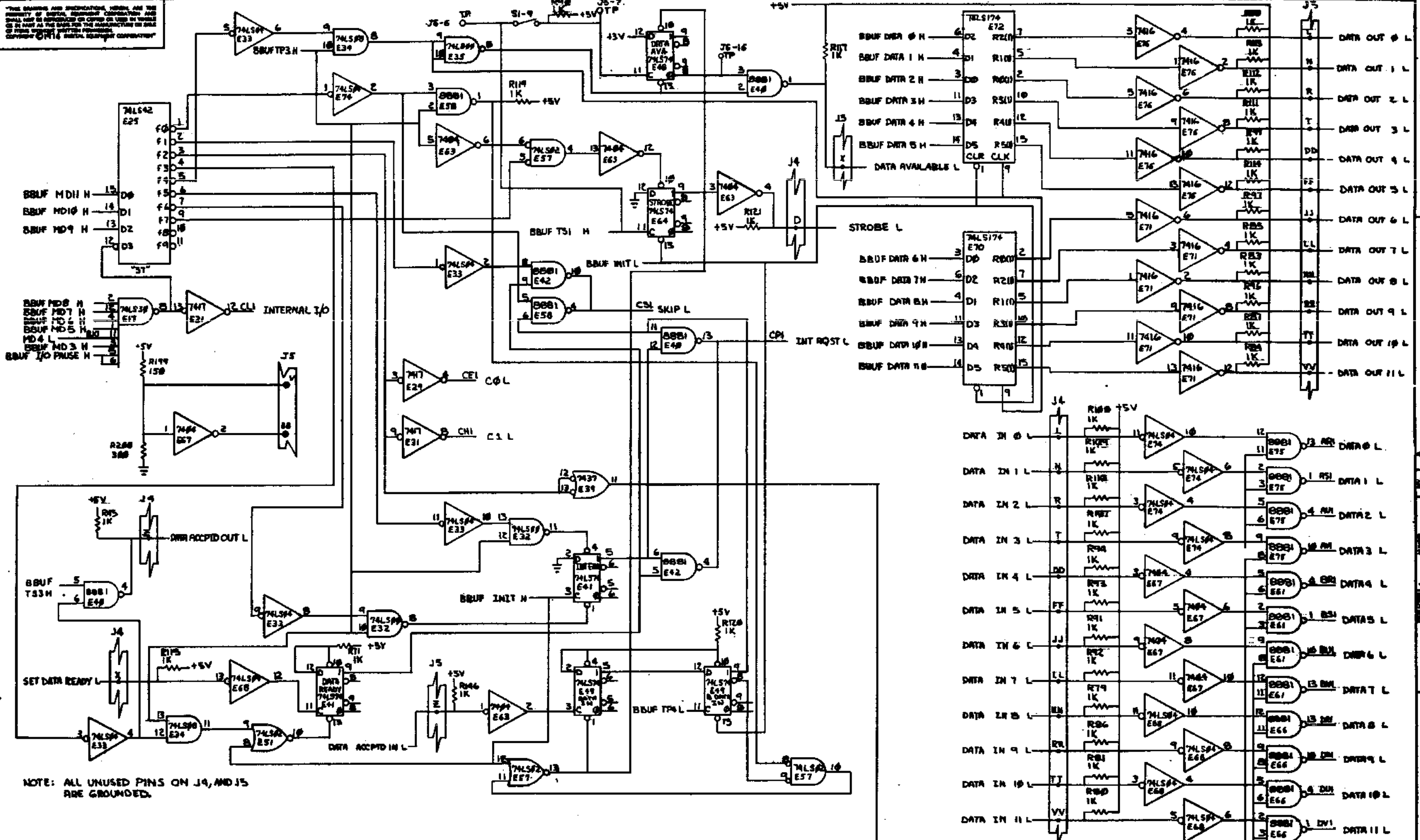


COMPONENT SUBSTITUTION CHART

PART CALLED P/N	DESCRIPTION	SUBSTITUTE PART P/N	DESCRIPTION
1001610-01	0.01µF DISC	1001610-00	0.01µF GLASS
1909705	8881	1909973	97401
		1910592	5380
1911469	8640	1909971	6380
		1910390	7380
		1911113	11380
1912824	74LS79	1905547	7474
1912799	74LS00	1905575	7400
1912807	74LS10	1905576	7410
1912815	74LS30	1905578	7430
1912801	74LS02	1909004	7402
1912803	74LS04	1909686	7404
1912819	74LS42	1910046	7442
1912805	74LS08	1910155	7408
1912853	74LS175	1910651	74175
1912697	74LS174	1910652	74174

REV	DATE	BY	CHKD
1	08/03/76	DKC	DKC
2	08/03/76	DKC	DKC
3	08/03/76	DKC	DKC
4	08/03/76	DKC	DKC
5	08/03/76	DKC	DKC
6	08/03/76	DKC	DKC
7	08/03/76	DKC	DKC
8	08/03/76	DKC	DKC

DESIGNED BY: DKC  
 CHECKED BY: DKC  
 ENGR: DKC  
 PROJ. ENG: DKC  
 PROD. ENGR: DKC  
 NEXT HIGHER ASBY: DKC  
 DATE: 8-9-76  
 TIME: 3:30 PM  
 TITLE: OPTION BD #1  
 D-1A-M8316-0-0  
 SCALE: 1:1  
 SHEET: 1 OF 1  
 PART USED ON: DKC BA  
 DCS M8316-0-1 H



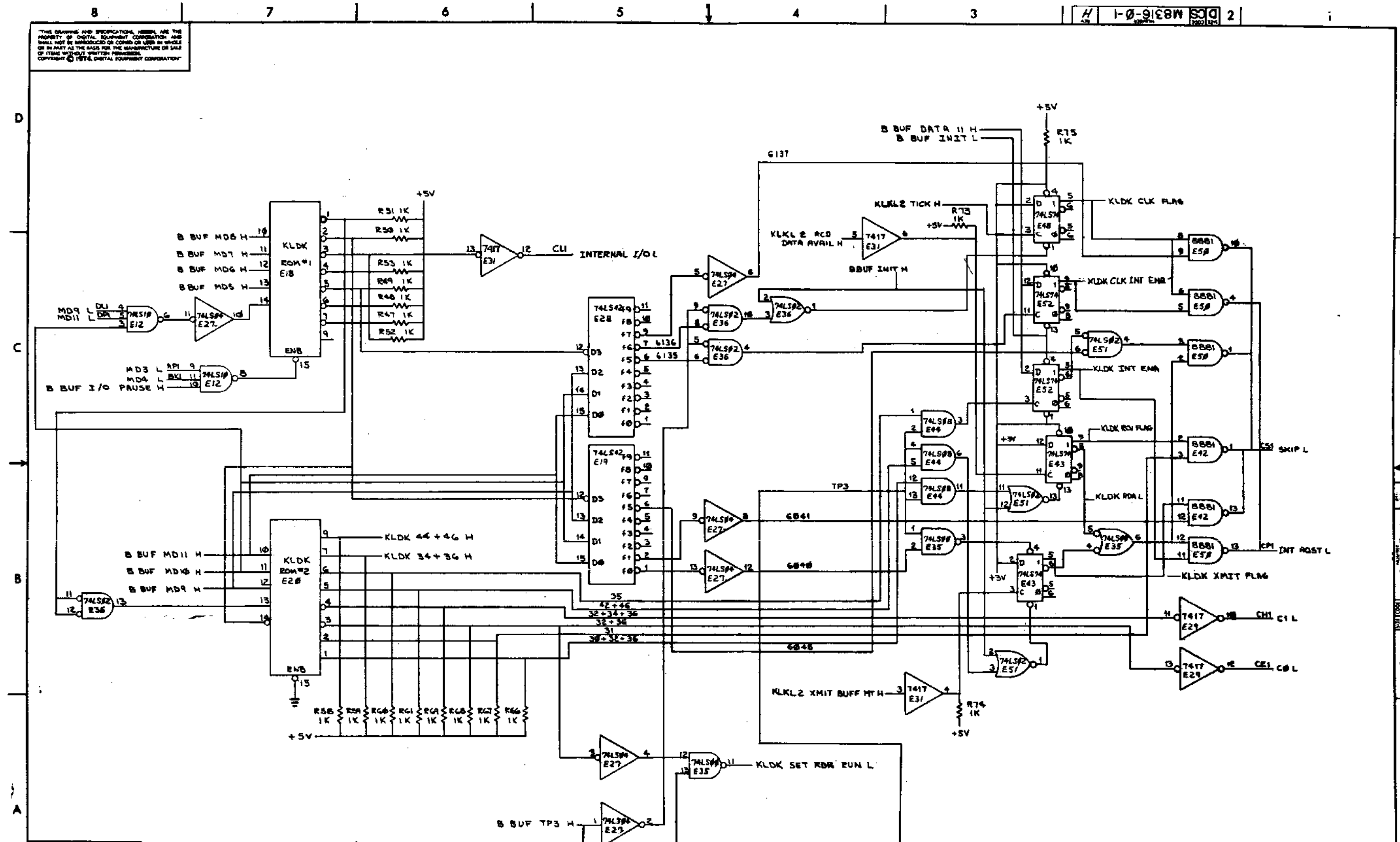
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NOTE: ALL UNUSED PINS ON J4, AND J5 ARE GROUNDING.

REV.	CHANGE NO.	DATE	TITLE	ISSUED BY	NUMBER	REV.
			OPTION BD #1		D CS M8316-0-1	H
			SCALE		SHEET 2 OF 8	

D CS M8316-0-1

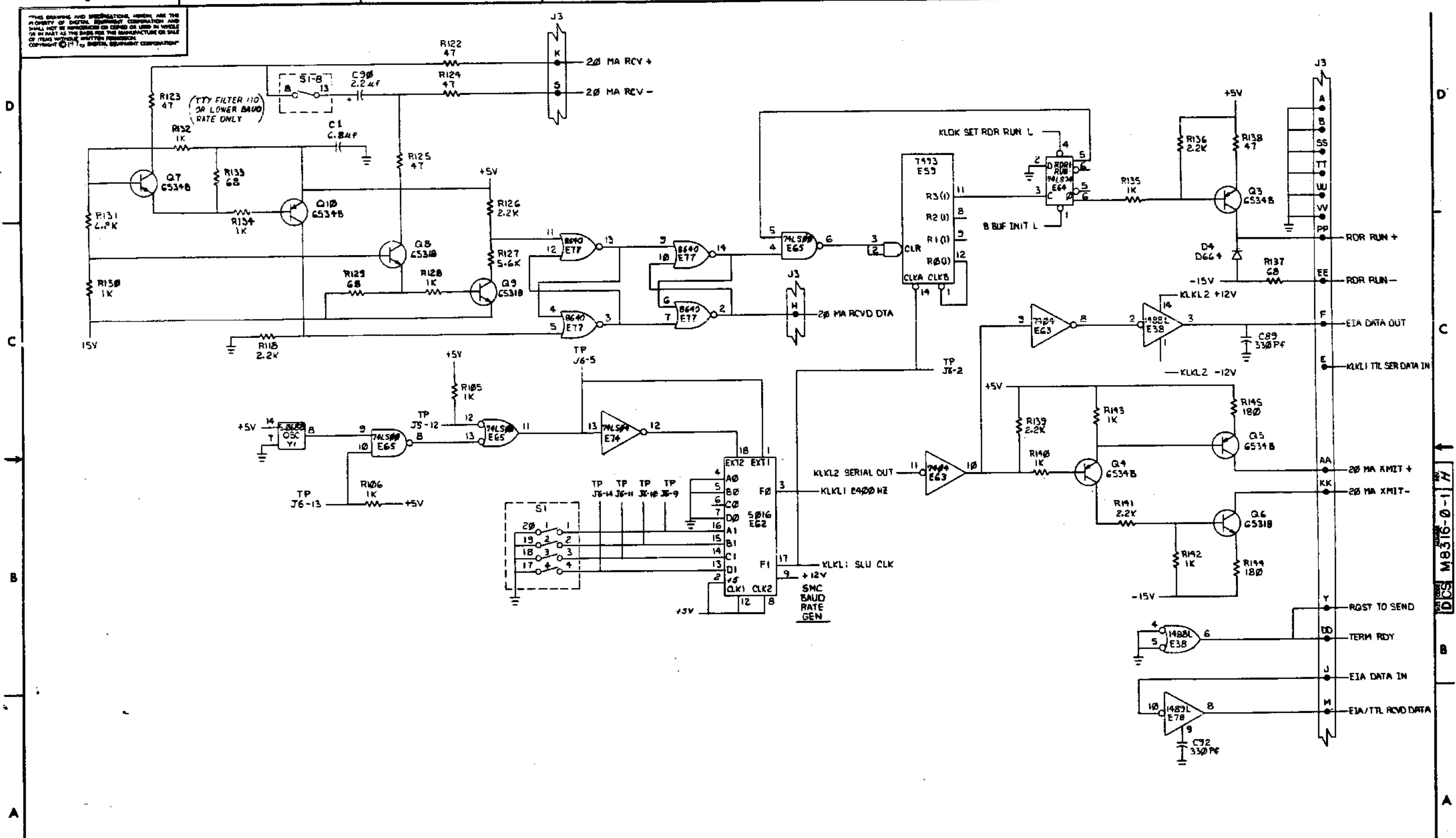
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		OPTION BD #1 (KLDK)	DATE	DCS	NUMBER	REV.
SCALE		1/1	SHEET	3	OF	8
DIST						

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REVISIONS		
CHK	CHANGE	REV.

(BAUD RATE GEN & 20 MA, EIA DRIVERS / RECEIVERS)

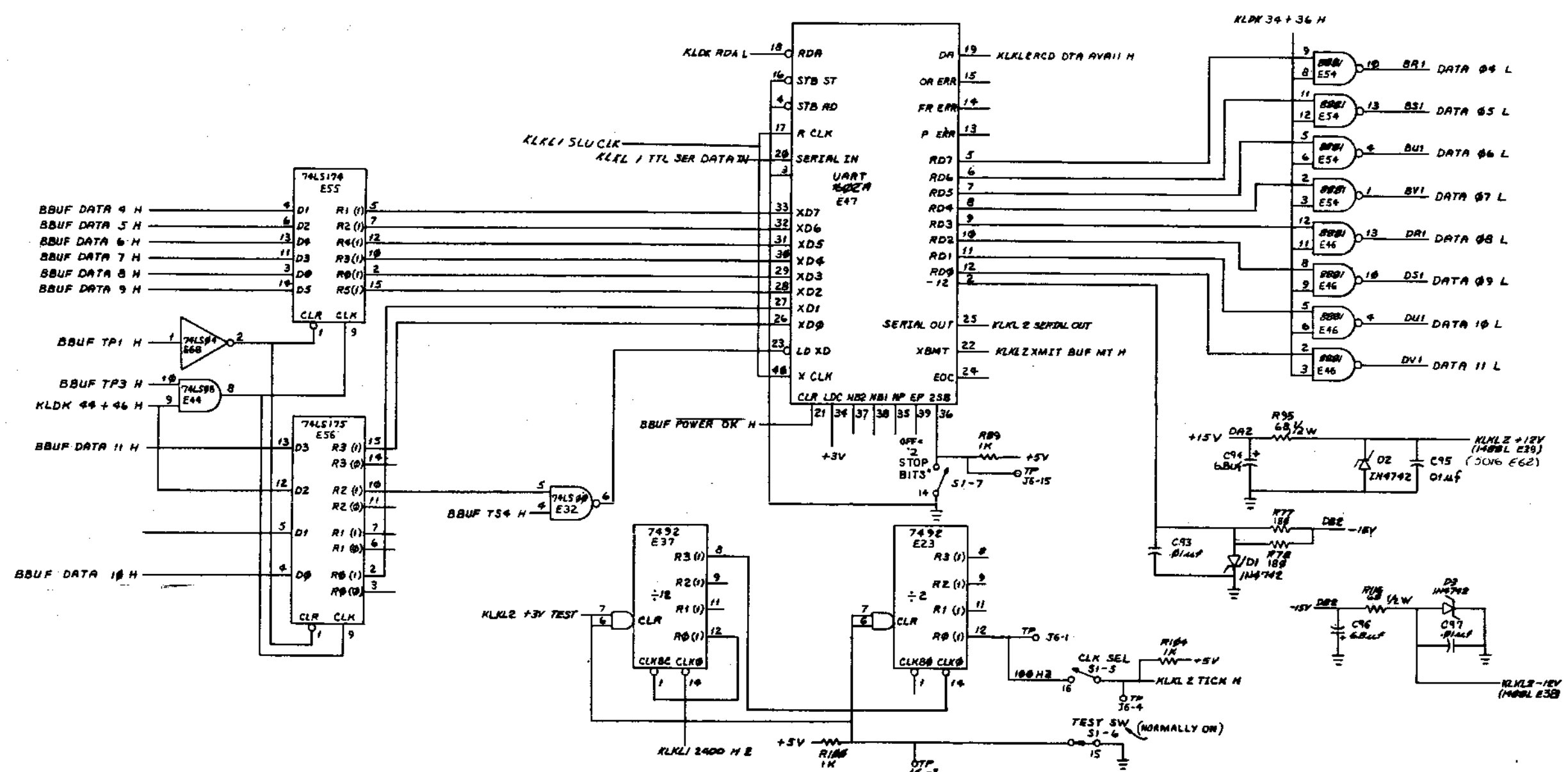
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SCALE		SHEET	4	OF	8	DIST.	

DCS M8316-0-1 H



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H 1-0-9138W SCD 2

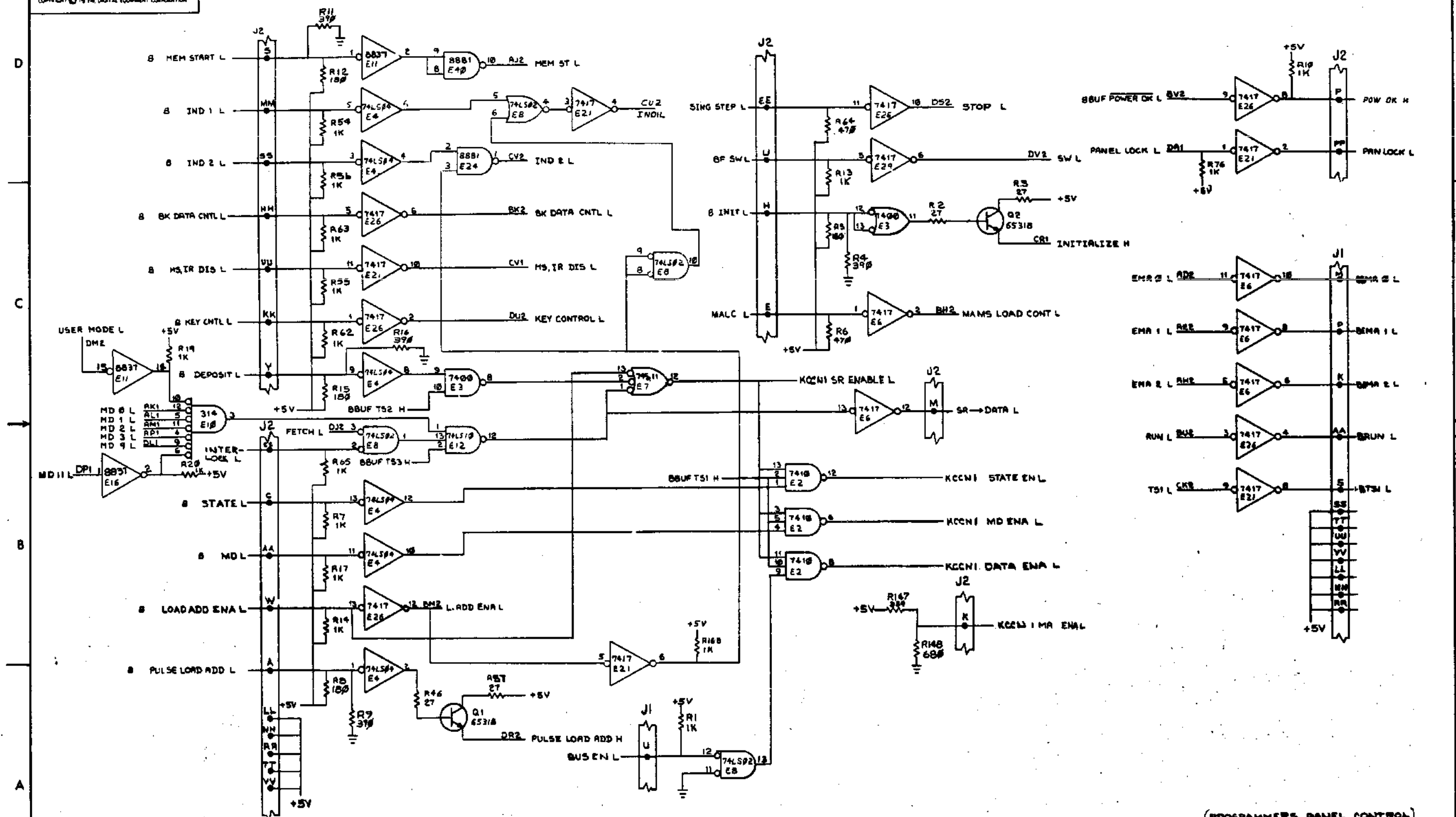


REV.	CHANGE NO.	REV.

(UART XTAL CLK FREQ SOURCE)

TITLE	OPTION BD #1 (KLK2)	SIZE CODE	DCS MB316-0-1	NUMBER	H
SCALE	1:1	SHEET	5 OF 8	DIST.	

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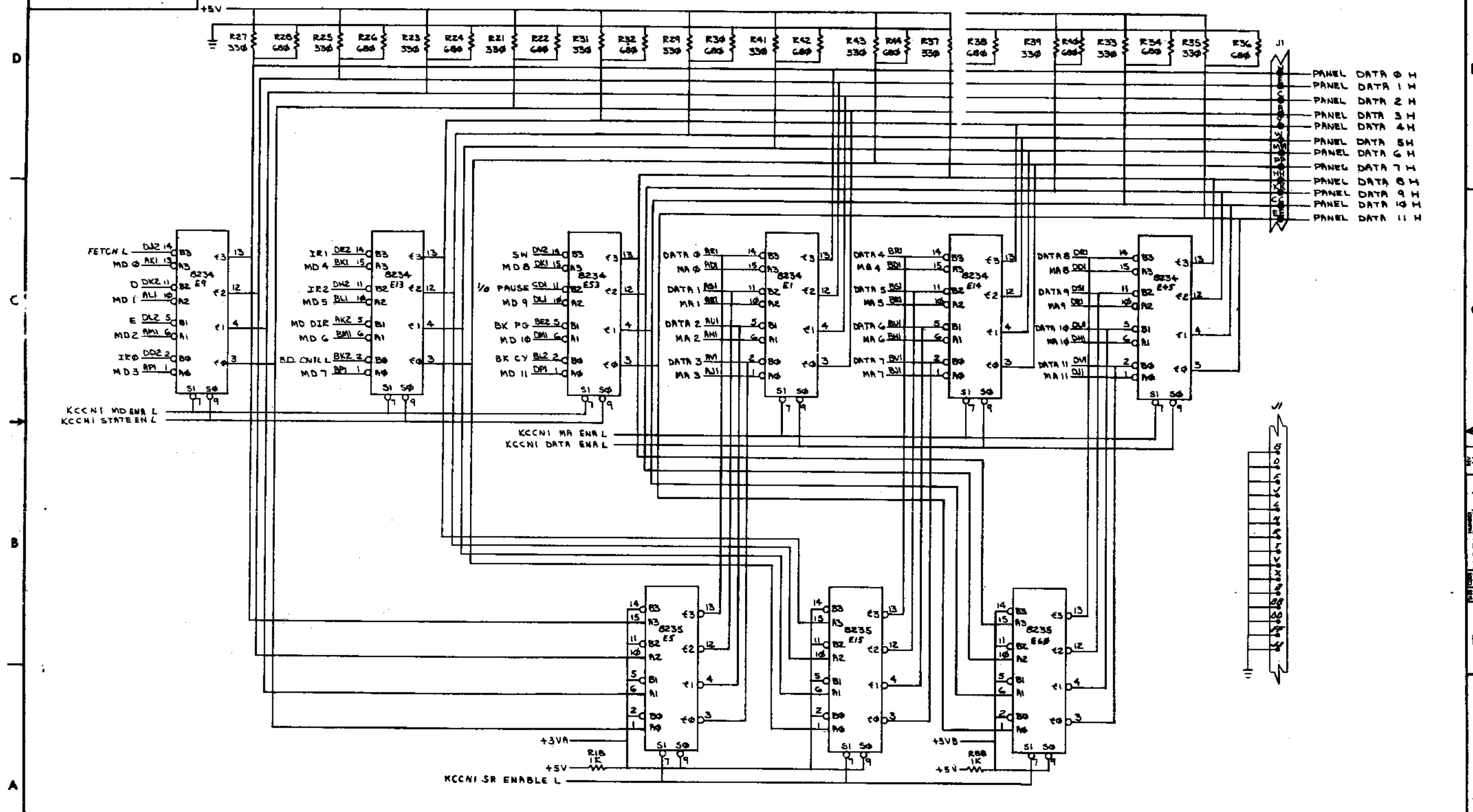


(PROGRAMMER'S PANEL CONTROL)

REVISIONS	
CHK	REV

TITLE	OPTION BD #1 (KCCN #1)	SIZE/DWG	D CS	NUMBER	M8316-0-1	REV.	H
SCALE		SHEET	5	OF	8	DET.	

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- PANEL DATA 0 H
- PANEL DATA 1 H
- PANEL DATA 2 H
- PANEL DATA 3 H
- PANEL DATA 4 H
- PANEL DATA 5 H
- PANEL DATA 6 H
- PANEL DATA 7 H
- PANEL DATA 8 H
- PANEL DATA 9 H
- PANEL DATA 10 H
- PANEL DATA 11 H

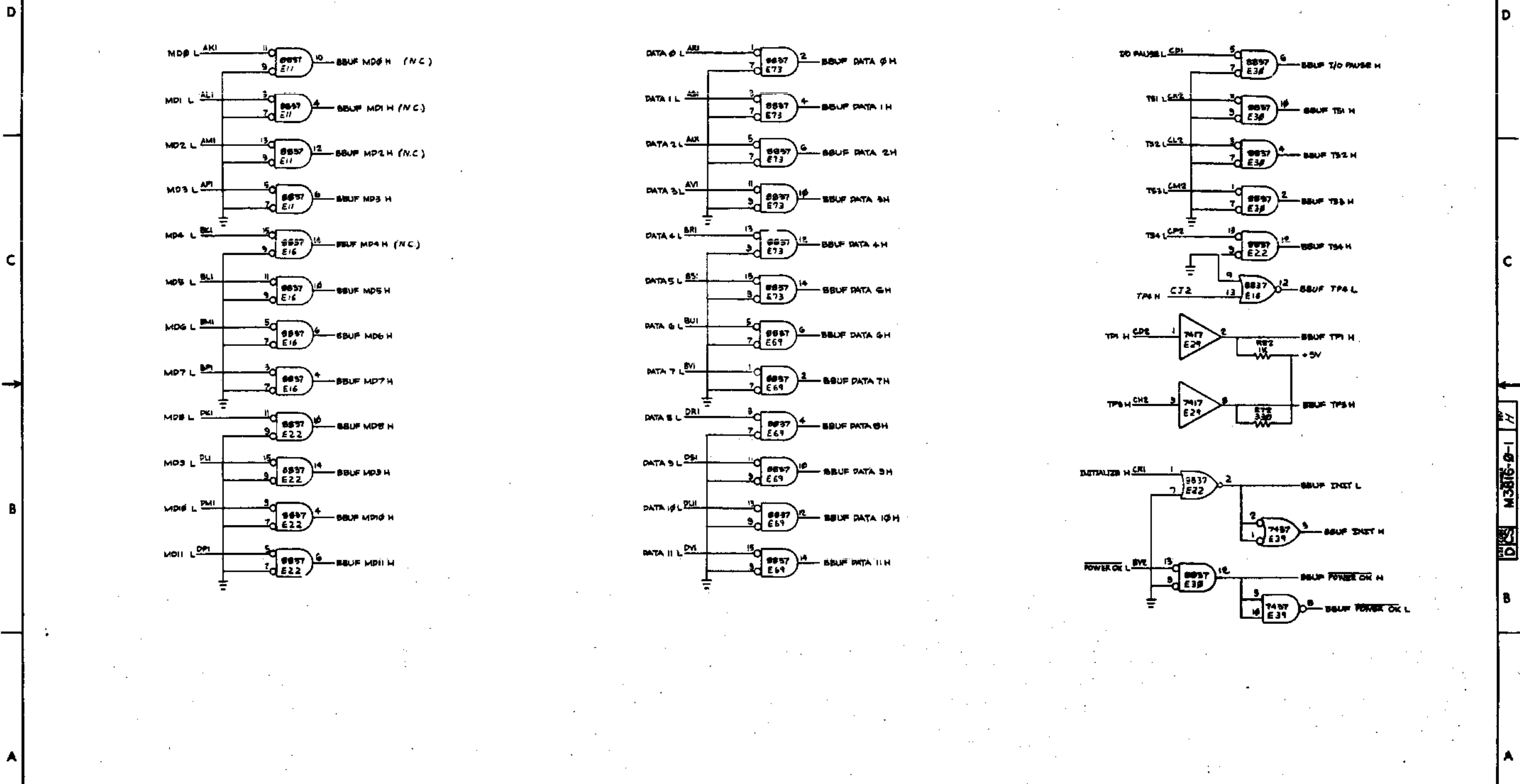
DCSM8316-0-1 H

REVISIONS		
CHK	CHANGE NO.	REV.

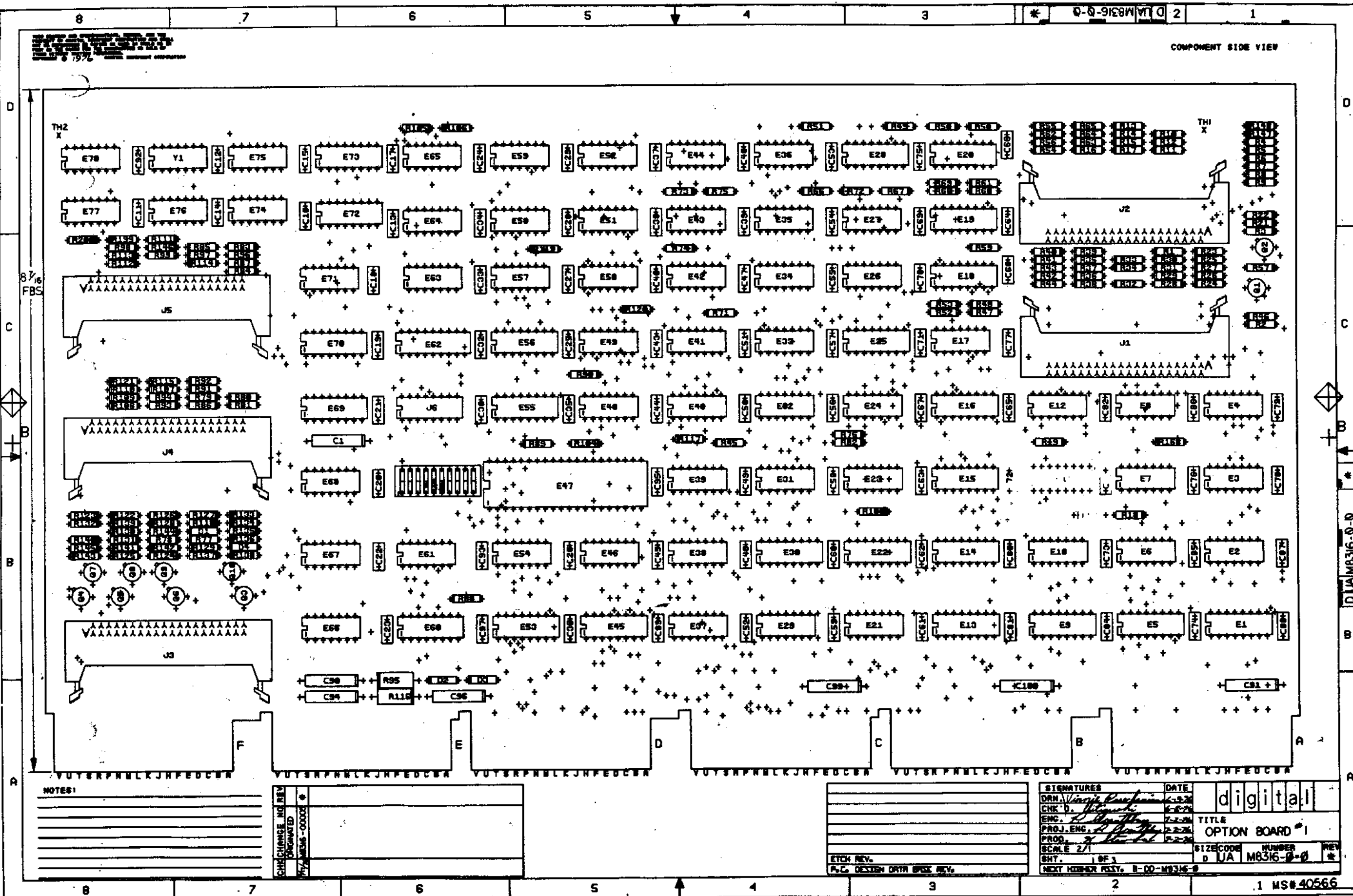
(PROGRAMMER'S PANEL MULTIPLEXERS)

TITLE	OPTION BOARD #1	SIZE CODE	NUMBER	REV.
	(KCGN)	DCSM8316-0-1	H	
SCALE	7-7	SHEET	7 OF 8	DIST.

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REVISIONS		
CHK	CHANGE NO.	REV.



NOTES:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

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6	1	10/1/76	WJ	WJ
7	1	10/1/76	WJ	WJ
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10	1	10/1/76	WJ	WJ

ETCH REV.	DATE	BY	CHKD.
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3	10/1/76	WJ	WJ
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6	10/1/76	WJ	WJ
7	10/1/76	WJ	WJ
8	10/1/76	WJ	WJ
9	10/1/76	WJ	WJ
10	10/1/76	WJ	WJ

SIGNATURES	DATE	TITLE
DRN. <i>W. J. [Signature]</i>	10-1-76	digital
ENR. <i>[Signature]</i>	10-1-76	
PROJ. ENG. <i>[Signature]</i>	10-1-76	
PROD. <i>[Signature]</i>	10-1-76	
SCALE 2/1		
SHT. 1 OF 3		
NEXT NUMBER PLSY. B-00-M8316-0		

TITLE: OPTION BOARD #1

SIZE CODE: D/LA

NUMBER: M8316-0-0

REV: \*

8

7

6

5

4

3

\*

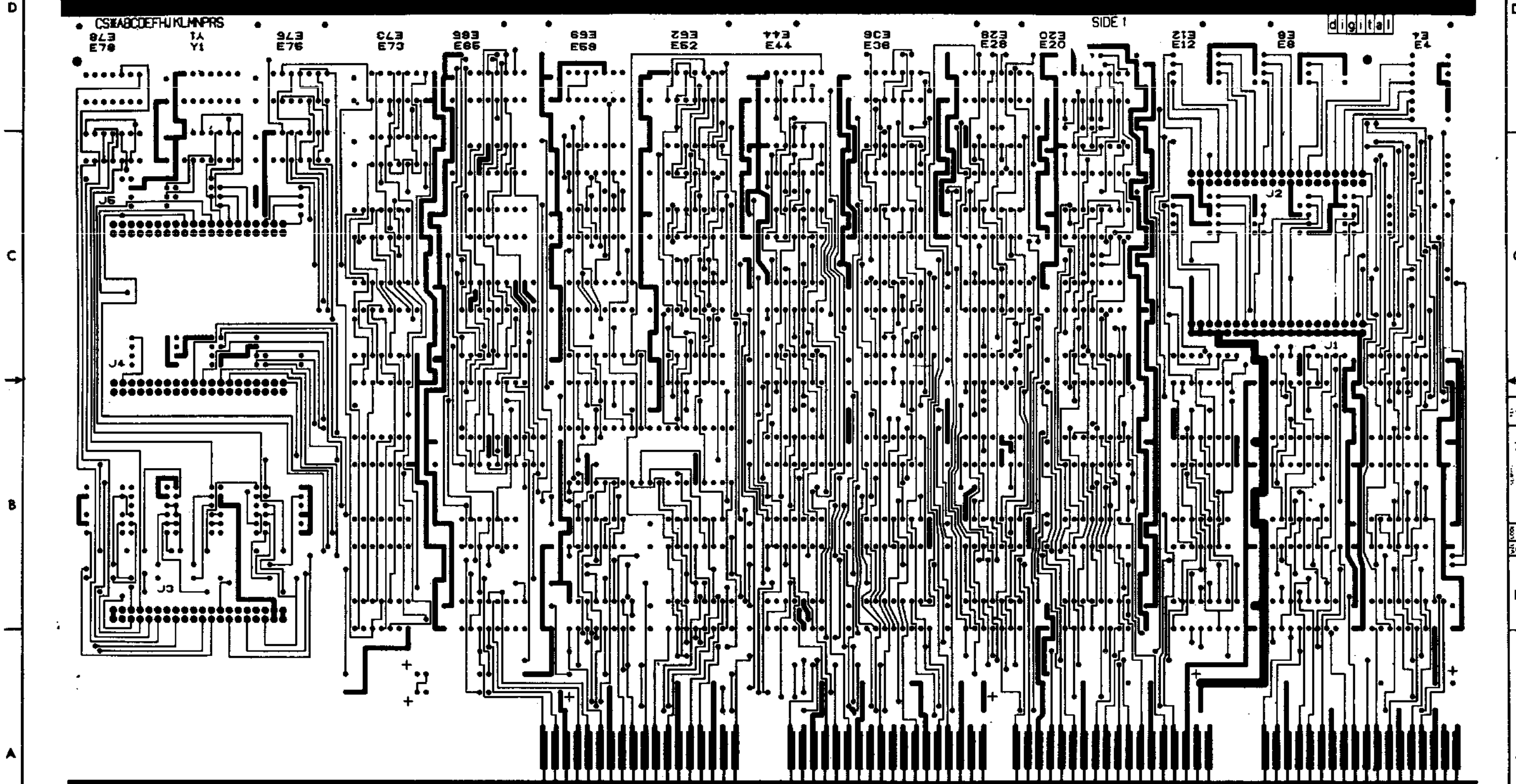
0-0-918W DUA 2

1

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L1

MS40588 M8316 5010900D P4



REVISIONS		
CHK	CHANGE NO	REV.

TITLE	OPTION BOARD *1	SIZE CODE	DUA	NUMBER	M8316-0-0	REV.	*
SCALE	2/1	SHEET	2 OF 3	DIST.			

\*  
 DUA M8316-0-0

8

7

6

5

4

3

2

1

8

7

6

5

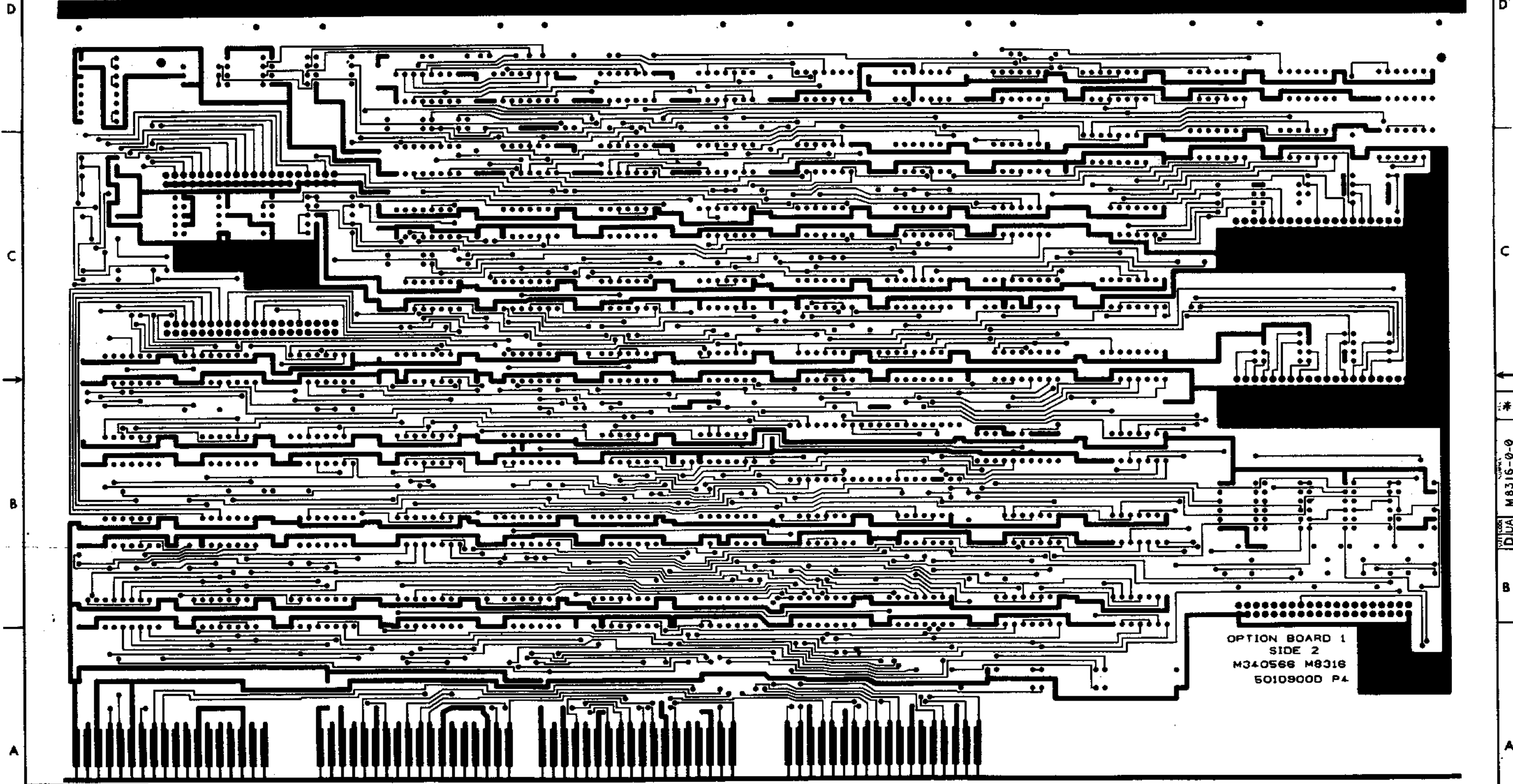
4

3

\* 0-0-9166W DUA 2

1

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OPTION BOARD 1  
SIDE 2  
M340566 M8316  
5010900 P4

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	OPTION BOARD *1	SIZE CODE	DUA	NUMBER	M8316-0-0	REV.	*
SCALE	2/1	SHEET	3 OF 3	DIST.			

8

7

6

5

4

3

2

1

DIGITAL EQUIPMENT CORPORATION				QUANTITY / VARIATION										NOTES:				
PARTS LIST																		
MADE BY BOB KOPPENAL		CHECKED <i>L. Kopp</i>																
DATE 3-31-76		DATE 3-30-76																
ENG <i>P. Anthony</i>		PROD <i>X Standard</i>																
DATE 7-2-76		DATE 7-2-76																
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	M8316- $\phi$ - $\phi$														REF DESIGNATION
1	D-MD-5010900-0-0	5010900	ETCHED CIRCUIT BOARD	1														
2		1001610-01	CAP, . $\phi$ 1 uf, 1 $\phi$ $\phi$ v, 10%	78														C11-C3 $\phi$ , C32-C4 $\phi$ , C43-C88, C93, C95, C97
3		1000023	CAP, 33 $\phi$ pf, 1 $\phi$ $\phi$ v, 5%	2														C89, C92
4		1002431	CAP, 2.2 UF, 35V, 10%	1														C9 $\phi$
5		1005306	CAP, 6.8 uf, 35V, 10%	3														C91, C94, C96, C99-C10 $\phi$ , C1,
6		1109502	DIODE, IN4742	3														D1-D3
7		1100114	DIODE, D664	1														D4
8		1211164-06	SWITCH PACK (1 $\phi$ POS DIP)	1														S1
9		1211813-02	IC SOCKET (16 PIN)	1														J6
10		1210711-02	HANDLE ASSY	1														
11		1209941-02	CONNECTOR 4 $\phi$ P. RT. ANG. HD	5														J1-J5
12		1209941-03	LATCH LEFT 4 $\phi$ P. RT. ANG. HD	5														
13		1209941-04	LATCH RIGHT 4 $\phi$ P RT. ANG. HD	5														
14		1300202	RES., 47, 1/4W, 5%	5														R122-R125, R138
15		1300219	RES., 68, 1/4W, 5%	3														R129, R133, R137
16		1301424	RES., 68 $\phi$ , 1/4W, 5%	13														R22, R24, R26, R28, R30, R32, R34, R36 R38, R40, R42, R44, R148
17		1300417	RES., 2.2K, 1/4W, 5%	5														R118, R126, R136, R139, R141
18		1301874	RES., 5.6K, 1/4W, 5%	1														R127
19		1301423	RES., 6.8K, 1/4W, 5%	1														R131
20		1301522	RES., 27, 1/4W, 5%	4														R2, R3, R46, R57

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EN-01140A-16-R276(325) DRB 125

TITLE: OPTION BOARD #1

ASSY NO.: D-UA-M8316- $\phi$ - $\phi$

SHEET 1 OF 4

SIZE: B CODE: PL NUMBER: M8316- $\phi$ - $\phi$  REV: \*

INSERTION PARTS LIST DATA BASE REV D



DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:				
MADE BY BOB KOPPENAL DATE 3-31-76		CHECKED DATE		SECTION 1										REF DESIGNATION				
ENG DATE		PROD DATE		ISSUED SECTION 1														
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	M8316- $\phi$ - $\phi$														
21		1301322	RES., 18 $\phi$ , 1/4W, 5%	8														R5, R8, R12, R15, R77, R78, R144, R145
22		1300295	RES., 33 $\phi$ , 1/4W, 5%	15														R21, R23, R25, R27, R29, R31, R33, R35, R37, R39, R41, R43, R147, R2 $\phi$ $\phi$ , R72
23		1300309	RES., 39 $\phi$ , 1/4W, 5%	4														R4, R9, R11, R16
24		1300316	RES., 47 $\phi$ , 1/4W, 5%	2														R6, R64
25		1300365	RES., 1K, 1/4W, 5%	83														R1, R7, R1 $\phi$ , R13, R14, R17-R20, R45, R47-R56, R71, R58-R63, R65-R69, R73-R76, R79-R81, R82-R94, R117, R96-R1 $\phi$ $\phi$ , R104-R115, R119-R121, R128, R13 $\phi$ , R132, R135, R14 $\phi$ , R142, R143, R146, R168, R134
26		1309405	RES., 68, 1/2W, 5%	2														R116, R95
27		1300250	RES., 15 $\phi$ , 1/4W, 5%	1														R199
28		1509338	TRANSISTOR, DEC 6531B	5														Q1, Q2, Q6, Q8, Q9
29		1503409-01	TRANSISTOR, DEC 6534B	5														Q3, Q4, Q5, Q7, Q1 $\phi$
30		1811660-02	CRYSTAL OSCILLATOR, 5. $\phi$ 688 MHZ	1														Y1
31		1912824	IC., 74LS74	6														E41, E43, E52, E64, E48, E49
32		1912799	IC., 74LS $\phi$ $\phi$	3														E32, E35, E65
33		1912807	IC., 74LS1 $\phi$	1														E12
34		1912815	IC., 74LS3 $\phi$	1														E17
35		1912801	IC., 74LS $\phi$ 2	4														E8, E36, E51, E57
36		1909053	IC., 7492	2														E23, E37
37		1909054	IC., 7493	1														E59
38		1910537	IC., 74S11	1														E7
39		1912803	IC., 74LS $\phi$ 4	5														E4, E27, E33, E74, E68,

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TITLE  
OPTION BOARD #1

ASSY NO.  
D-UA-M8316- $\phi$ - $\phi$

SHEET 2 OF 4

SIZE CODE NUMBER  
B PL M8316- $\phi$ - $\phi$

INSERTION PARTS LIST DATA BASE REV D

REV.  
\*

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION												NOTES:	
MADE BY BOB KOPPENAL		CHECKED		MB316-Ø-Ø													
DATE 4 NOV 76		DATE															
ENG		PROD															
DATE		DATE															
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION													REF DESIGNATION	
40		1909705	IC., 8881	10													E4Ø, E24, E54, E42, E46, E5Ø, E66, E61, E75, E58
41		1909928	IC., 7416	2													E71, E76
42		1909929	IC., 7417	5													E6, E26, E31, E29, E21
43		1909935	IC., 8235	3													E5, E15, E6Ø
44		1912Ø19	IC., 74LS42	3													E19, E2Ø, E25
45		1912805	IC., 74LSØØ	2													E34, E44
46		1910322	IC., 1488L	1													E38
47		1910323	IC., 1489L	1													E78
48		1909704	IC., 314A	1													E1Ø
49		1911469	IC., 8640	1													E77
50		1910459	IC., 16Ø2A (UART)	1													E47
51		1912853	IC., 74LS175	1													E56
52		1912697	IC., 74LS174	3													E55, E7Ø, E72
53		1910091	IC., 7437	1													E39
54		1911315	IC., 8234	6													E1, E9, E14, E13, E45, E53
55		1911116	IC., 8837	6													E11, E16, E3Ø, E22, E69, E73
56		2112623	IC., 5016 (BAUD RATE GEN.)	1													E62
57		23062A1	ROM #1 KLDK #1, 32 X8	1													E18
58		23063A1	ROM #2 KLDK #2, 32 X 8	1													E2Ø
59		1905575	IC., 7400	1													E3

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EN-01140A-16-R276(325) DRB 125						SHEET 3 OF 4			INSERTION PARTS LIST DATA BASE REV D					

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:			
MADE BY JACK MASON DATE 13 APRIL 76		CHECKED DATE		SECTION		MB316-0-0										REF DESIGNATION	
ENG DATE		PROD DATE		ISSUED SECTION													
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION														
60		1905576	IC. , 7410	1													E2
61		1909686	IC. , 7404	2													E63, E67
62		9006732	EYELET	12													

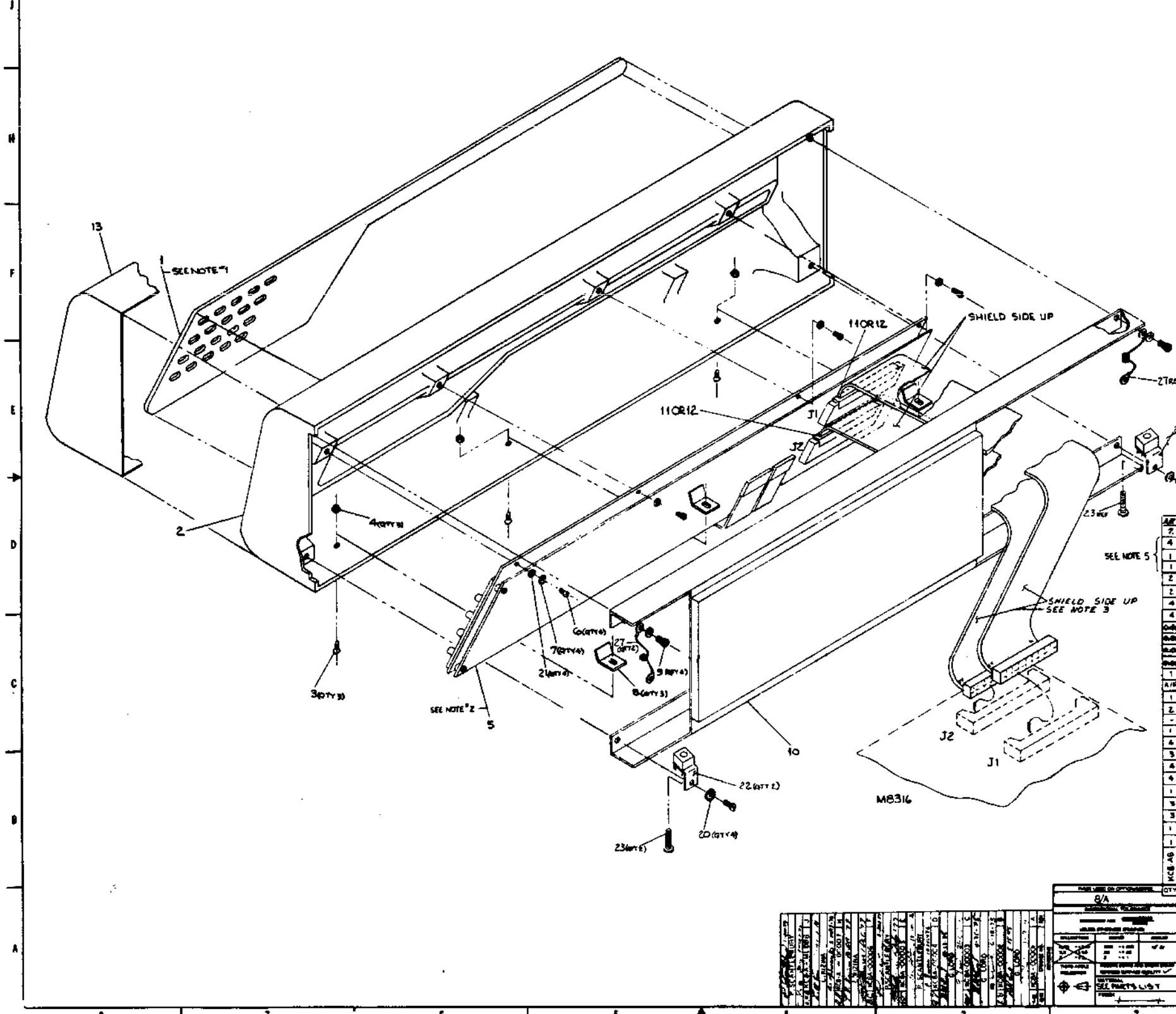
E.C.O. NO.

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EN-01140A-16-R276(325) DRB 125								SHEET 4 OF 4		INSERTION PARTS LIST DATA BASE REV D			

DO NOT SCALE DRAWING

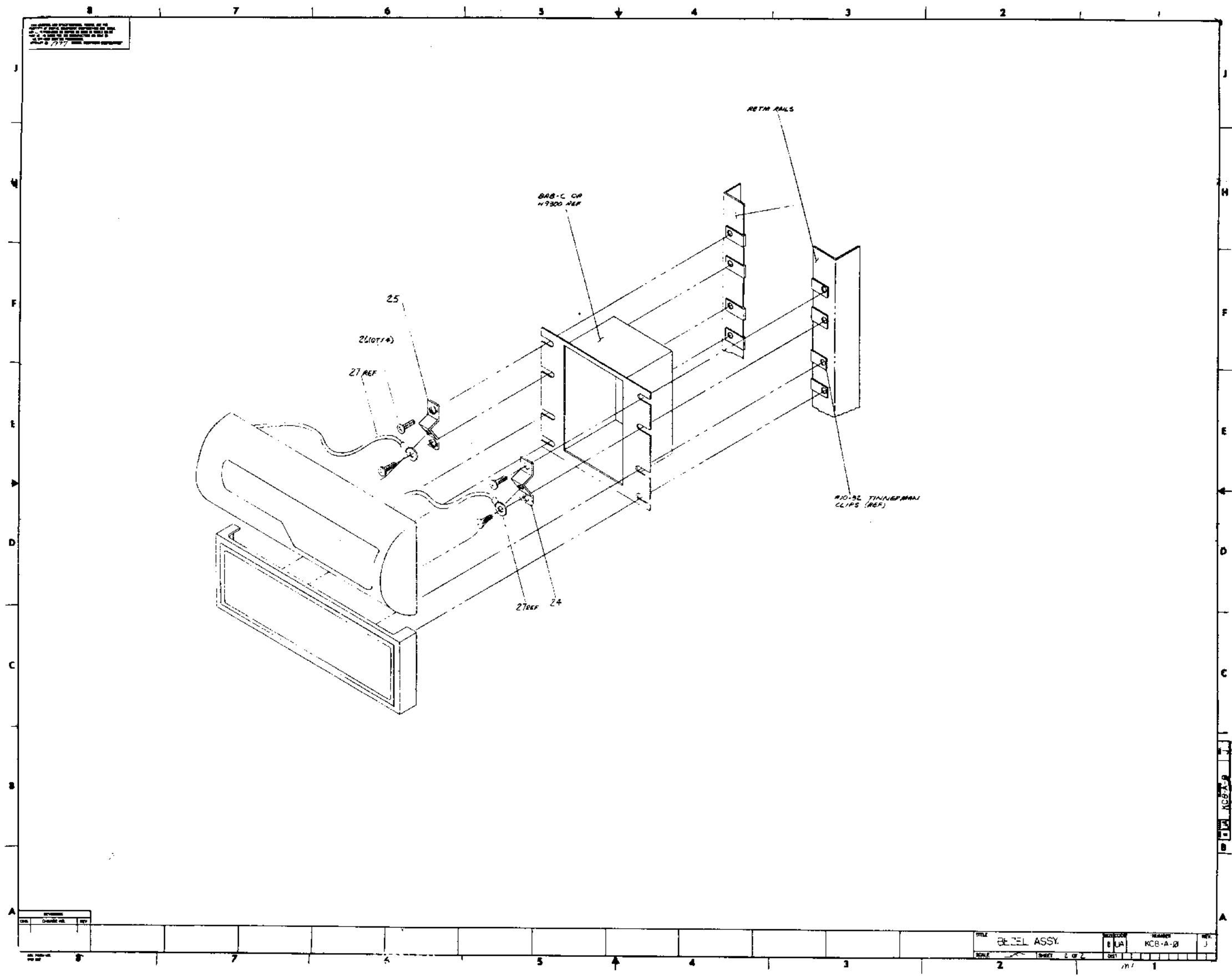
PART NO	VARIATION
KCB-A-A	PROB'S CONSOLE (M8314)
KCB-A-B	BEZEL PROB'S CONSOLE (M8314)

- NOTES:**
- ASSEMBLE ITEM #1 (PANEL) TO ITEM #2 (BEZEL) USING SILASTIC ADHESIVE ITEM #M.
  - FOR PROPER ALIGNMENT OF KEYPAD OF MODULE ASSEMBLY (ITEM #3) INTO BEZEL (ITEM #2), DO THE FOLLOWING:
    - PLACE MODULE ASSEMBLY (ITEM #3) INTO BEZEL (ITEM #2).
    - START MOUNTING HARDWARE, ITEMS 6, 7 AND 21 INTO BEZEL.
    - BEFORE TIGHTENING DOWN ITEMS 6, 7 AND 21, PUSH MODULE ASSEMBLY TOWARDS THE TOP OF BEZEL. THE KEYPAD, WHEN VIEWED FROM THE FRONT OF BEZEL, SHOULD JUST TOUCH THE TOP EDGE OF THE KEYPAD CUTOUTS IN BEZEL.
    - TIGHTEN ITEMS 6, 7 AND 21.
    - NOW SECURE MODULE ASSEMBLY BOTTOM TO BEZEL WITH ITEMS 3, 4 AND 8; BEING SURE THAT CLIPS (ITEM #8) ARE PRESSED FIRMLY AGAINST MODULE ASSEMBLY.
  - MATE SCORR CABLES J1 (KCB-A) TO J1 (M8314) J2 (KCB-A) TO J2 (M8314)
  - SEE SHEET 2 FOR INSTRUCTIONS OF MOUNTING BEZEL TO BOX AND CABINET
  - LOOSE SHIP ITEMS 23 & 24 WITH ASBY



QTY	DESCRIPTION	PROG	STOCK#	FB
2	CABLE ASSY. PLSA	121901-01	27	
4	SCR PPH 40-100-50	9006073-03	26	
1	BRKFT CABINET	7M1709-1	25	
1	BRKFT CABINET	7M1709-0	24	
2	SCR, SOC. HD. 10 3/16 L	9006550-08	23	
2	BRKT, BEZEL	C-1A 10M524	22	
4	WASHER FLAT	9006653	21	
4	WASH. EXT TOOTH LOCK	9008151	20	
1	SHIPPING LIST	A-PL KCB-A-2	18	
A/R	ADHESIVE, SILASTIC	9009158	16	
1	COVER PROTECTIVE BEZEL	D-AD-70106-1-0-0	13	
2	LD CABLE SCORR	C-1A SCORR-01	12	
1	BRACKET BEZEL	C-1A 7M1897-0-0	10	
4	SCR PH. HD. PAN 3/8 X 3/8	9006073-1	9	
3	CLIP	9006152-0-0	8	
4	WASH EXT TOOTH LOCK	9007649	7	
4	SCR PH. HD PAN 3/8 X 3/8	9006073-1	6	
1	KEYBOARD ASBY	D-AD-70106-44-00	5	
3	NUT KEPS #4-40	9006687	4	
3	SCR PH. HD FLAT 40 X 375	9006071-2	3	
1	BEZEL (M8314) DR	1M8314-3-0	2	
1	PANEL	D-1A-7M1799-1-0	1	

TITLE <b>BEZEL ASSY</b>		PART NO <b>KCB-A-0</b>	
DRAWN BY DATE		CHECKED BY DATE	
APPROVED BY DATE		RELEASED BY DATE	
MATERIALS LIST B-00-KCB-A SCALE: ASSEMBLY		PARTS LIST E-1A-KCB-A-0 UNIT: J	



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED  
 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED

REV	DATE	BY	CHKD

TITLE <b>BEZEL ASSY.</b>	DESIGNED BY <b>EJA</b>	DRAWN BY <b>KCB-A-0</b>	REV. <b>J</b>
SCALE <b>1:1</b>	SHEET <b>1</b>	OF <b>2</b>	DATE <b> </b>

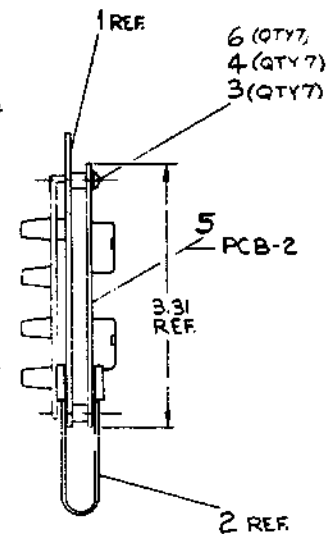
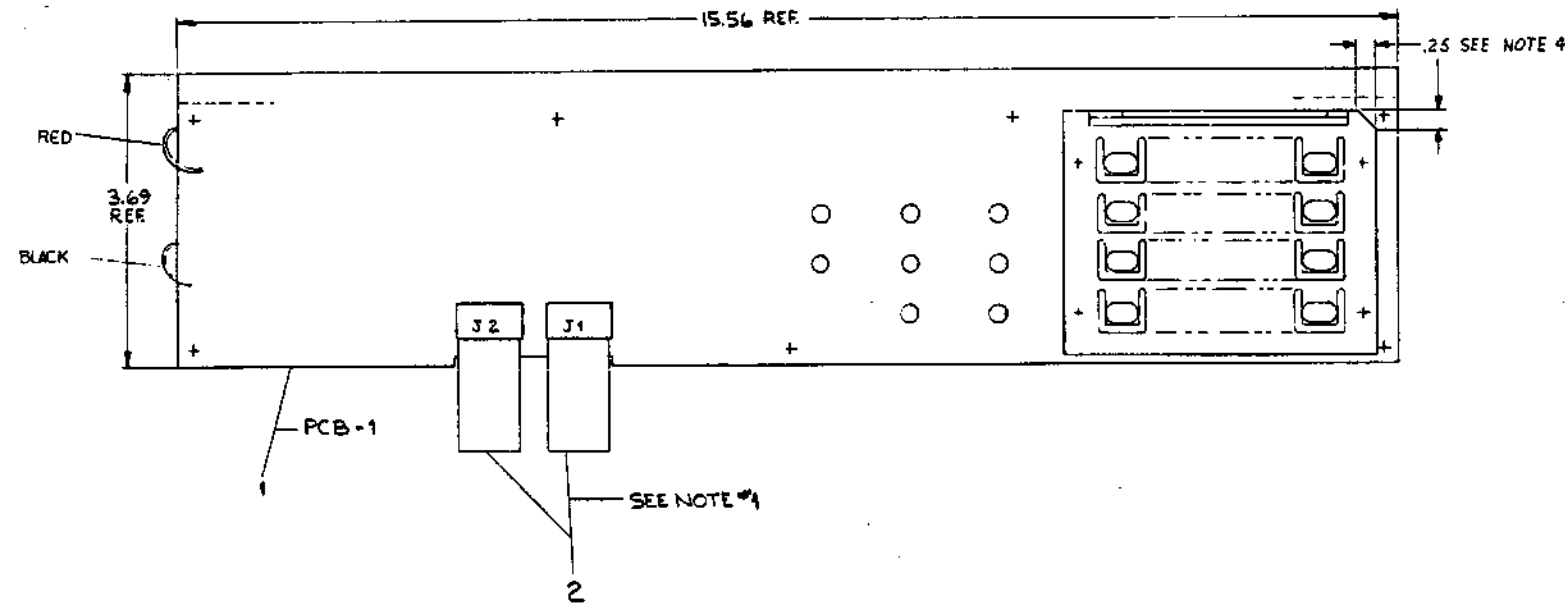
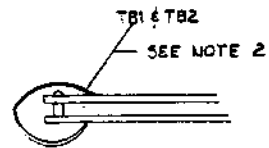
KCB-A-0  
 KCB-A-0  
 KCB-A-0

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DO NOT SCALE DRAWING

NOTES:

1. INSTALL ITEM #2 (CABLE) AS FOLLOWS.  
PCB-1-J1 TO PCB-2-J3  
PCB-1-J2 TO PCB-2-J4
2. CONNECT RED WIRE FROM PCB-1 TO TB1 ON PCB-2. CONNECT BLACK WIRE FROM PCB-1 TO TB2 ON PCB-2
3. ITEM #7 MAY BE RECYCLED WHEN USED FOR INTERPLANT SHIPMENT.
4. CLIP UPPER RIGHT HAND LIP OF KEYPAD OFF TO ALLOW PROPER ALIGNMENT INTO BEZEL.



ITEM NO.	DESCRIPTION	PART NO.	QTY.
1	PACKAGING INSTRUCTIONS	A-SP-3700/B5-0-0	7
7	WASHER, FLAT #4	9006635	6
1	REGISTERS AND CONTROL	D-C5-5411316-0-1	5
7	WASH INT LOCK #4	9006632	4
7	SCR PHL HD PAN #4-40X25	9008301-1	3
2	CABLE, KEYBOARD	C-1A-7008612-00	2
1	INDICATOR DISPLAY	D-C5-5411241-0-1	1

FIRST USED ON OPTION/MODEL 8/A		PARTS LIST	
DIMENSIONAL TOLERANCE DIMENSIONS ARE DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED		TITLE KEYBOARD ASSY.	
MILLIMETERS XX - 0.05 XX - 0.08 X - 0.1	INCHES XX - 0.005 XX - 0.008 X - 0.01	ANGLES 45° 30'	DATE 1-23-75
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK BURR CORNER SURFACE QUALITY	DATE 1-23-75	DATE 1-23-75
MATERIAL SEE PARTS LIST	FINISH	DATE 1-23-75	DATE 1-23-75
SCALE 1/1	FINISH	DATE 1-23-75	DATE 1-23-75
SHEET OF	FINISH	DATE 1-23-75	DATE 1-23-75

REV.	DATE	BY	CHKD
A	1-23-75	P. SCANTLEBURY	P. SCANTLEBURY
B	1-23-75	P. SCANTLEBURY	P. SCANTLEBURY
C	1-23-75	P. SCANTLEBURY	P. SCANTLEBURY

D/A 7010644-0-0 C

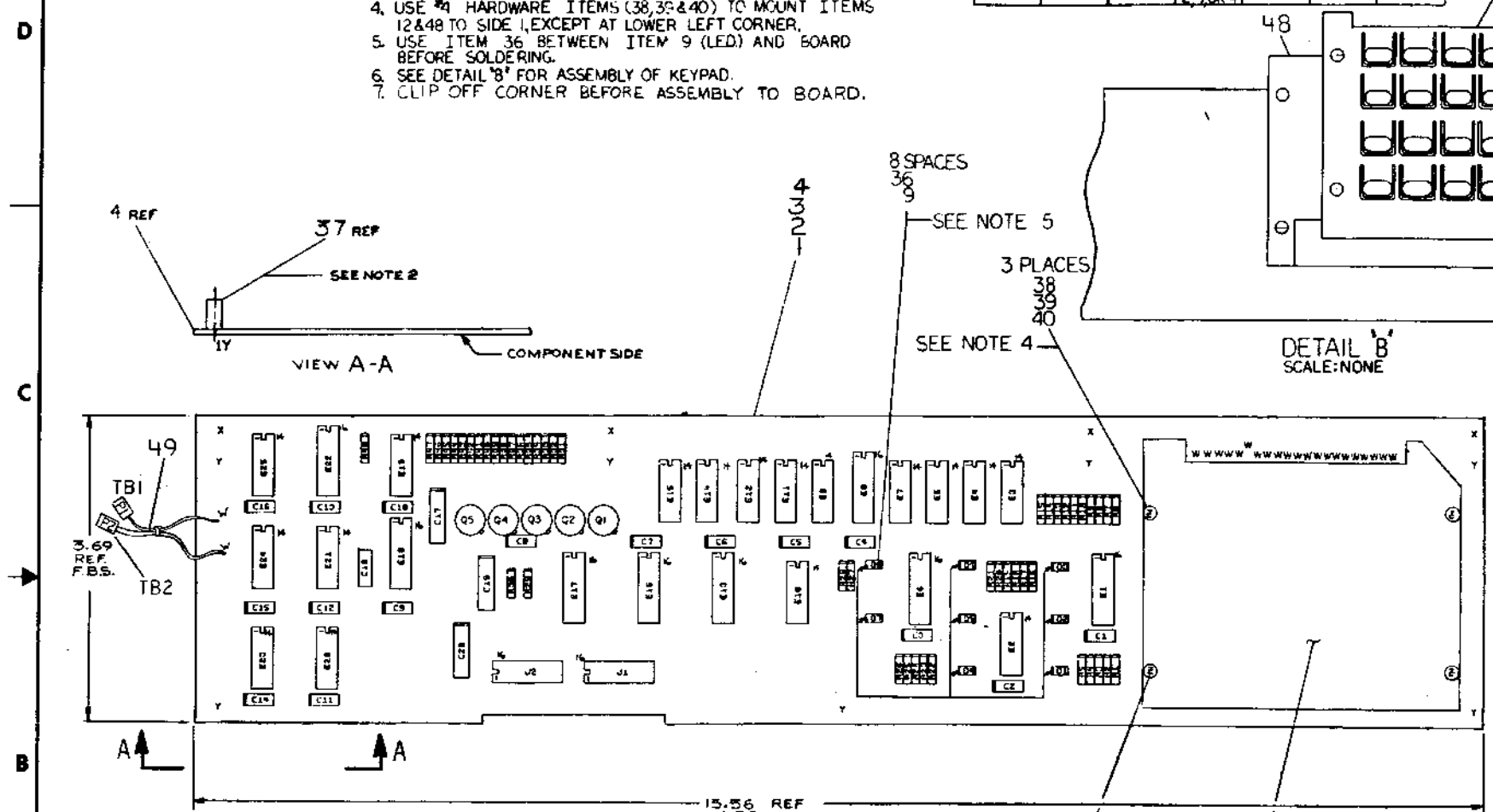
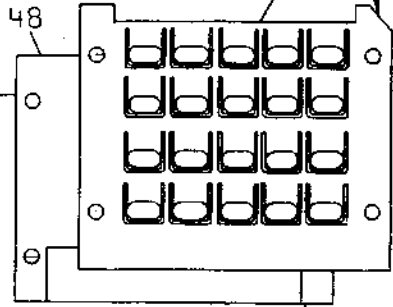
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**NOTES:**

- HAND INSERT KEYPAD AFTER WAVE SOLDERING
- MOUNT ITEM #37 (INSERTS) IN 7 HOLES, AFTER COMPONENTS HAVE BEEN MOUNTED.
- DEC PART NUMBER 1210054 MAY BE SUBSTITUTED FOR DEC 1211813-01 ON THIS BOARD.
- USE #4 HARDWARE ITEMS (38, 39 & 40) TO MOUNT ITEMS 12 & 48 TO SIDE 1, EXCEPT AT LOWER LEFT CORNER.
- USE ITEM 36 BETWEEN ITEM 9 (LED) AND BOARD BEFORE SOLDERING.
- SEE DETAIL 'B' FOR ASSEMBLY OF KEYPAD.
- CLIP OFF CORNER BEFORE ASSEMBLY TO BOARD.

**WIRE TABLE**

ITEM	FROM	WITH	TO	WITH	LENGTH	COLOR
49	TB1	SOLDER	ITEM 1, 2, 3 OR 4		3.0"	RED
	TB2	SOLDER	ITEM 1, 2, 3 OR 4		3.0"	BLK



REF	DESCRIPTION	PART NO.	ITEM NO.
REF	X-Y COORDINATE HOLE LOCATION	K-00-5411241-B-4	1
REF	ASSY/DRILLING HOLE LAYOUT	0-AM-5411241-B-5	2
REF	MODULE ECO HISTORY	8-AM-5411241-B-8	3
1	ETCHED CIRCUIT BOARD	5011240	4
1	C18	CAPACITOR, 82pF, 100V, 5%	1000015
10	C1 THRU C10	CAPACITOR, .01uF, 50V, AXIAL	1001610-00
1	C11	CAPACITOR, 1.0uF, 35V, 10%	1001776-00
2	C19, C20	CAPACITOR, 0.1uF, 35V, 10%	1005306
8	D1 THRU D8	LED	1110004
9	E3, E5, E7, E9, E11, E12, E14, E15, E4	14 PIN I.C. SOCKET	1211045-00
2	J1, J2	16 PIN I.C. SOCKET	1211045-00
1	KEYPAD ASSY.	1211045	12
1	R29	RESISTOR, 220, 1/4W, 5%	1300271
8	R10 THRU R21, R27, R28	RESISTOR, 330, 1/4W, 5%	1300295
5	R32, R35, R36, R41, R44	RESISTOR, 470, 1/4W, 5%	1300310
21	R1 THRU R15, R22 THRU R26, R46	RESISTOR, 1K, 1/4W, 5%	1300385
1	R44	RESISTOR, 10K, 1/4W, 5%	1300479
4	R36, R39, R42, R45	RESISTOR, 10, 1/4W, 5%	1301317
1	R30	RESISTOR, 750, 1/4W, 5%	1301481
8	R31, R33, R34, R37, R40, R43	RESISTOR, 27, 1/4W, 5%	1301522
1	R47	RESISTOR, 6.8K, 1/4W, 5%	1301423
5	Q1 THRU Q5	TRANSISTOR, MPS405	1510705
1	E23	I.C. DEC 7474	1905547
1	E21	I.C. DEC 7420	1905577
1	E25	I.C. DEC 7480	1905051
1	E24	I.C. DEC 7444	1905055
1	E22	I.C. DEC 8251	1905554
1	E20	I.C. DEC 7404	1905086
1	E19	I.C. DEC 7418	1905920
1	E17	I.C. DEC 74145	1910047
2	E2, E10	I.C. DEC 7406	1910158
1	E18	I.C. DEC 74129	1910438
2	E1, E8	I.C. DEC 9318	1910454
3	E9, E13, E16	I.C. DEC 7447A	1911295
9	E3, E4, E5, E7, E9, E11, E12, E14, E15	7 SEG. DISPLAY	1911297
8	WASHER, SHOULDER	9008518	36
7	INSERTS, PC BOARD	9009113-2	37
2	SCREW PHILIPS 4-40x7/8	9006014-01	38
1	NUT, KEP 4-40	9006557	39
1	WASHER, FLAT .312 X.125 ID X.027	9006655	40
1	SPACER, KEY-PAD	0-10-7413700-0	41
3	WIRE #22 AWG (RED)	9107350-02	42
3	WIRE #22 AWG (BLACK)	9107350-00	43
2	CONN, SOLDERLESS (RED)	9007970	44
4	SPACER, FIBER 4-40, 250X 3/16	9007983	45
1	RETAINER, KEYBOARD ASSY	E-1A-7013177-0-0	46
1	SPACER, HEX, NYLON 4-40 X 1/4	9009231	47

DEC I.C.	QTY	LOC
DEC I.C. 8251	8	10
DEC I.C. 7490	18	5
DEC I.C. 7414	8	18
DEC I.C. 7405	8	14
DEC I.C. 9318	8	16
DEC I.C. 74123	8	16
I.C. TYPE	QTY	+5V

QTY AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPT WHERE STATED ABOVE

I.C. PIN LOCATIONS

REV	DATE	BY	CHK	DESCRIPTION
1	11/15/74	Don Freniere		REVISED FOR 1210054
2	12/10/74	Don Freniere		REVISED FOR 1210054
3	12/10/74	Don Freniere		REVISED FOR 1210054
4	12/10/74	Don Freniere		REVISED FOR 1210054
5	12/10/74	Don Freniere		REVISED FOR 1210054
6	12/10/74	Don Freniere		REVISED FOR 1210054
7	12/10/74	Don Freniere		REVISED FOR 1210054
8	12/10/74	Don Freniere		REVISED FOR 1210054
9	12/10/74	Don Freniere		REVISED FOR 1210054
10	12/10/74	Don Freniere		REVISED FOR 1210054
11	12/10/74	Don Freniere		REVISED FOR 1210054
12	12/10/74	Don Freniere		REVISED FOR 1210054
13	12/10/74	Don Freniere		REVISED FOR 1210054
14	12/10/74	Don Freniere		REVISED FOR 1210054
15	12/10/74	Don Freniere		REVISED FOR 1210054
16	12/10/74	Don Freniere		REVISED FOR 1210054
17	12/10/74	Don Freniere		REVISED FOR 1210054
18	12/10/74	Don Freniere		REVISED FOR 1210054
19	12/10/74	Don Freniere		REVISED FOR 1210054
20	12/10/74	Don Freniere		REVISED FOR 1210054
21	12/10/74	Don Freniere		REVISED FOR 1210054
22	12/10/74	Don Freniere		REVISED FOR 1210054
23	12/10/74	Don Freniere		REVISED FOR 1210054
24	12/10/74	Don Freniere		REVISED FOR 1210054
25	12/10/74	Don Freniere		REVISED FOR 1210054
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27	12/10/74	Don Freniere		REVISED FOR 1210054
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46	12/10/74	Don Freniere		REVISED FOR 1210054
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FIRST USED ON OPTION MODEL: **KC8AA**

ETCH BOARD REV. **10**

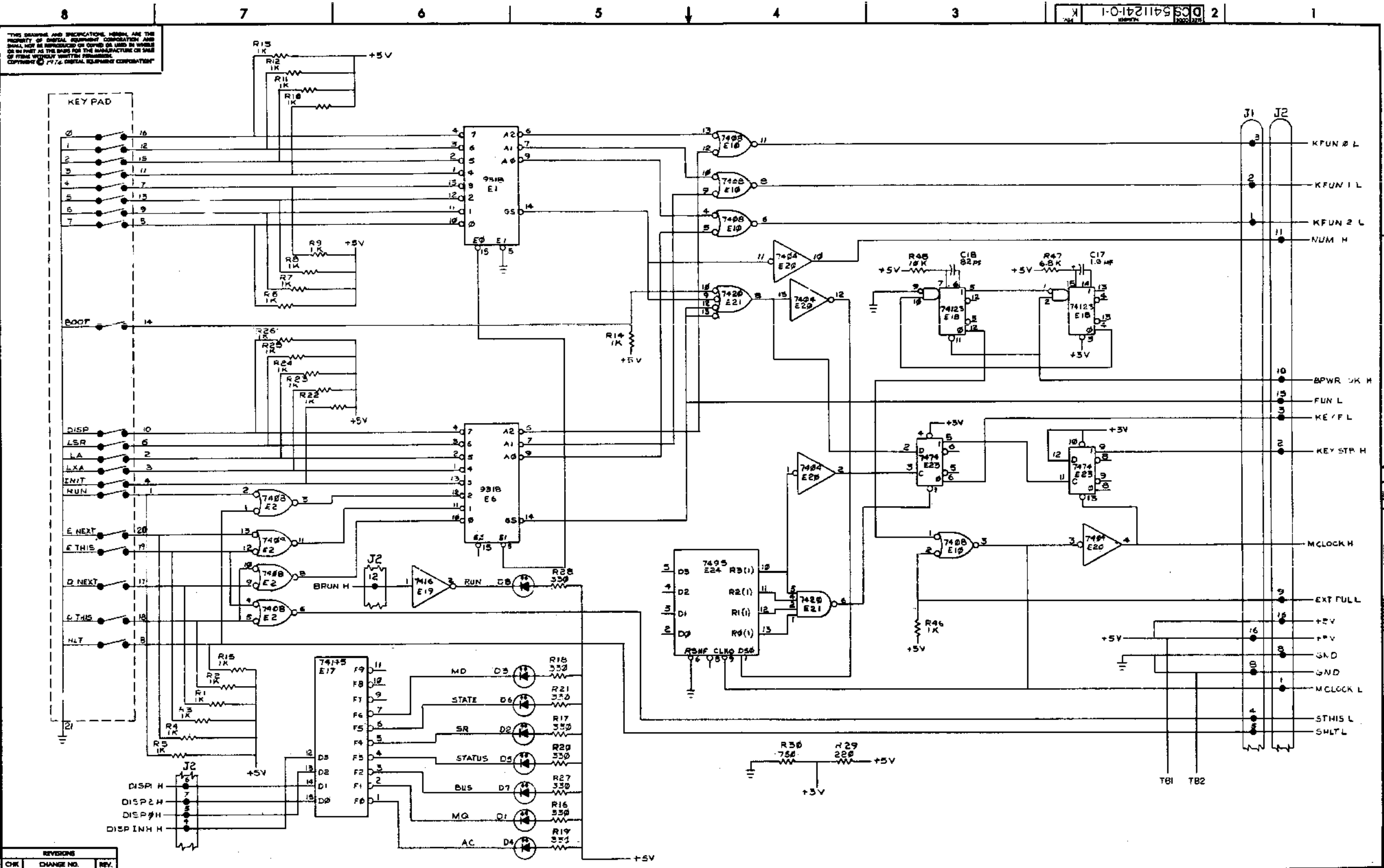
**digital**

INDICATOR DISPLAY

D-AD7010644-0-0

SCALE: 1 OF 3

SEMICONDUCTOR CONVERSION CHART



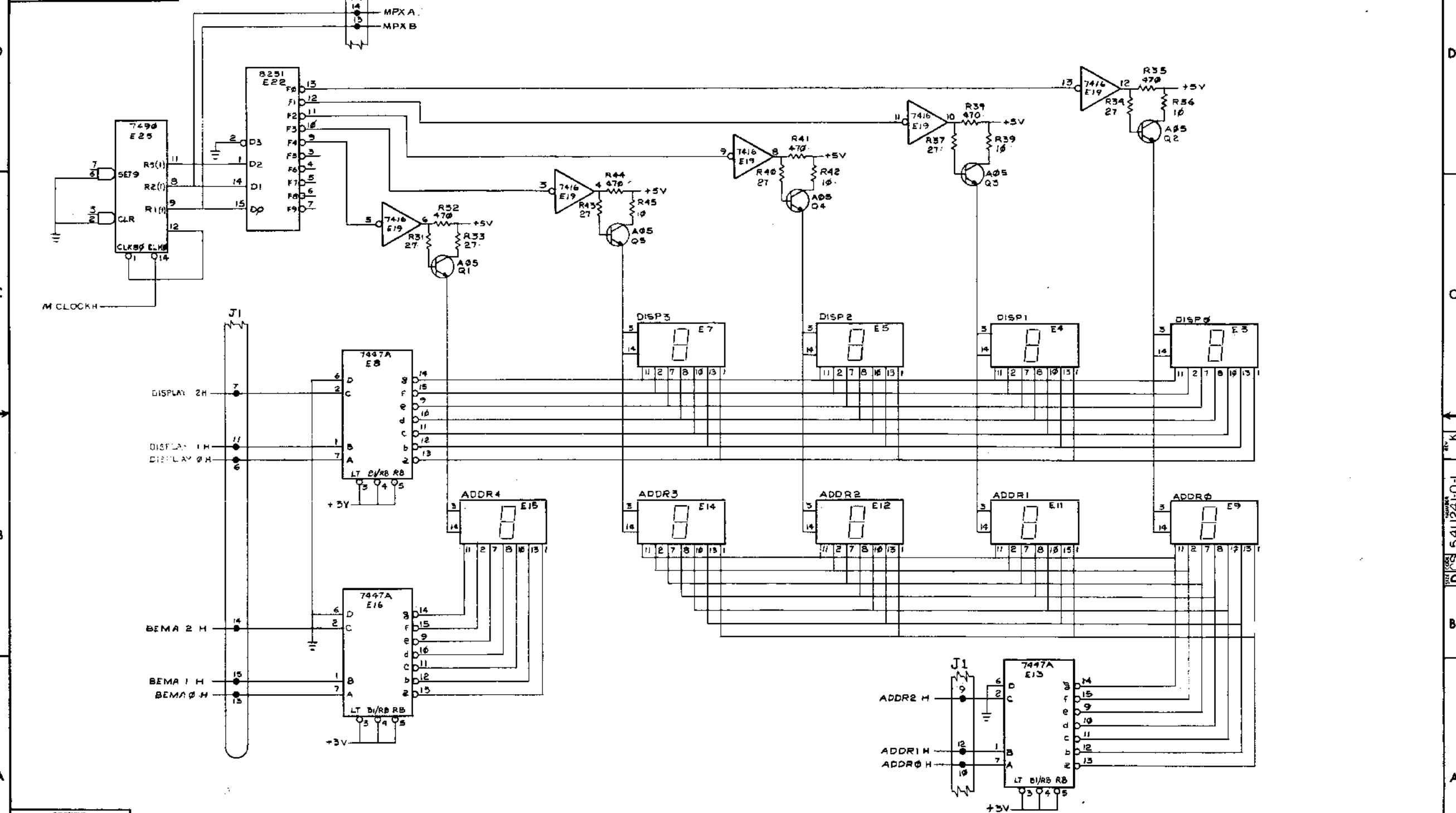
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	INDICATOR DISPLAY	SIZE	DOOR	NUMBER	REV.
SCALE	1:1	SHEET	2 OF 3	DCS 5411241-0-1	K



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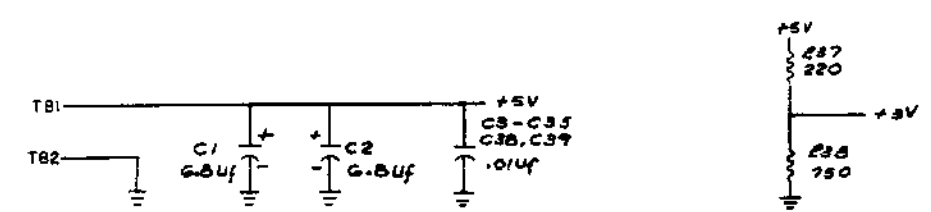
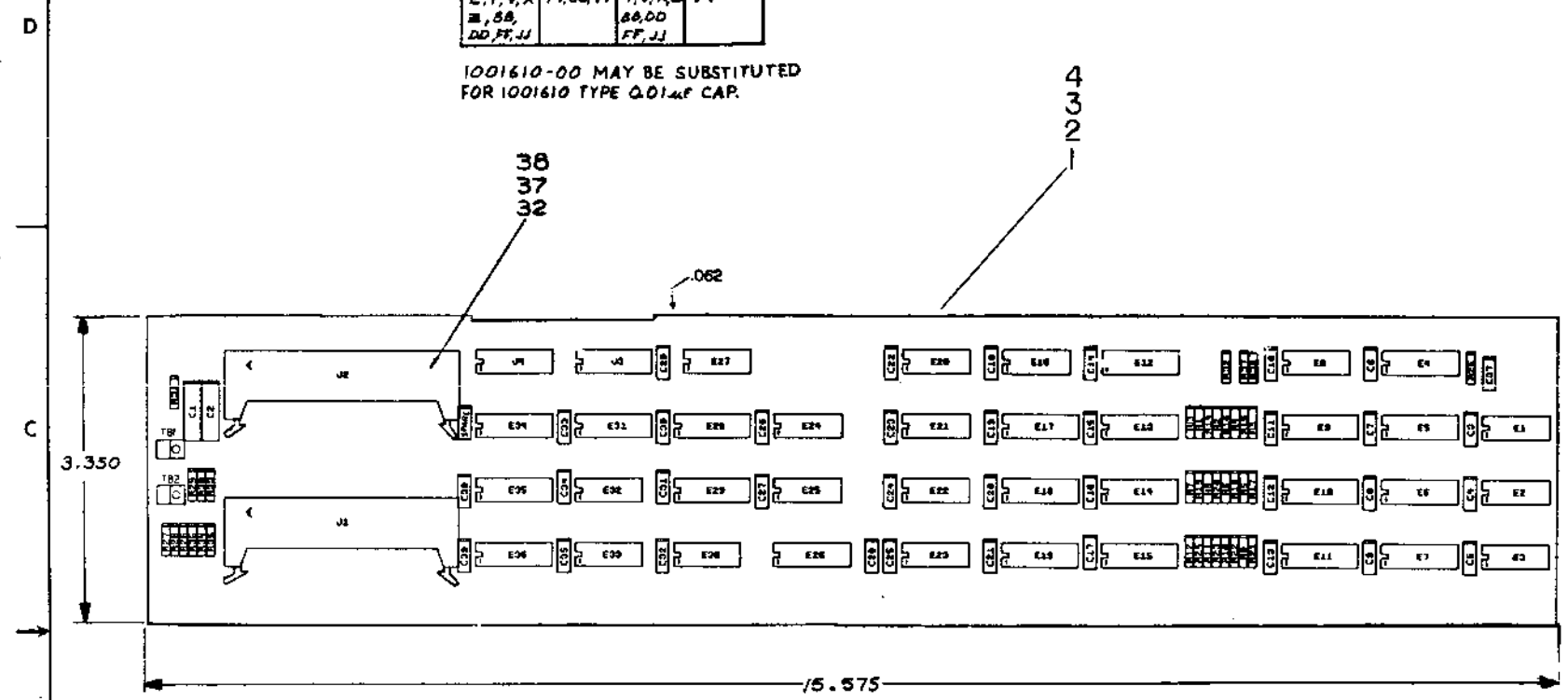
REVISIONS		
CHK	CHANGE NO.	REV.

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**NOTES:**

J1		J2	
GND	+5V	GND	+5V
B, D, F	LL, NN	B, D, F, J	LL, NN
J, L, N	RR, SS	L, N, R	RR, TT
E, T, V, X	TT, UU, VV	T, V, X, Z	VV
M, SS		AA, DD	
DD, FF, JJ		FF, JJ	

1001610-00 MAY BE SUBSTITUTED FOR 1001610 TYPE 0.01μF CAP.



IC TYPE	GND	+5V
I.C DEC 74174	B	16
I.C DEC 7475	18	5
I.C DEC 8251	B	16
I.C DEC 8235	B	16
I.C DEC 74153	B	16
I.C DEC 74123	B	16
I.C DEC 74175	B	16
I.C DEC 8097	B	16

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

IC PIN LOCATIONS

REVISIONS

CHK	CHANGE NO.	REV
P. SCANTLEBURY	00004	E
P. SCANTLEBURY	00003	E
G. LORD	00002	D
G. LORD	00001	C

REF	X-Y COORDINATE HOLE LOCATION	K-CO-5411316-0-1	1	
REF	ASSY/DRILLING HOLE LAYOUT	D-AH-5411316-0-5	2	
REF	MODULE ECO HISTORY	B-MH-5411316-0-6	3	
1	ETCHED CIRCUIT BOARD	5011315	4	
1	C37	CAP 5GMMF 100V	1000012	5
35	C3-C35, C38, C39	CAP .01UF 100V 20%	1001610-01	6
2	C1, C2	CAP 6.8UF 35V	1005306	7
2	E1G, E20	I.C DEC 7474	1905547	8
2	E8, E30	I.C DEC 7400	1905575	9
2	E22, E33	I.C DEC 7402	1909004	10
1	E26	I.C DEC 7475	1909051	11
3	E1, E2, E3	I.C DEC 7495	1909055	12
2	E29, E35	I.C DEC 8251	1909594	13
2	E24, E27	I.C DEC 7404	1909656	14
1	E23	I.C DEC 7416	1909928	15
3	E9, E10, E11	I.C DEC 8235	1909935	16
3	E17, E18, E19	I.C DEC 74153	1909937	17
1	E32	I.C DEC 7408	1910155	18
1	E4	I.C DEC 74123	1910436	19
3	E5, E6, E7	I.C DEC 74175	1910651	20
5	E12, E13, E14, E15, E36	I.C DEC 74174	1910652	21
2	E21, E25	I.C DEC 7427	1910878	22
3	E28, E31, E34	I.C DEC 8097	1911527	23
12	R5-R16	RES 330 1/4W 5%	1300295	24
1	R17	RES 220 1/4W 5%	1300271	25
2	R27, R30	RES 390 1/4W 5%	1300309	26
7	R28, R31-R36	RES 1K 1/4W 5%	1300365	27
2	R26, R29	RES 180 1/4W 5%	1301322	28
1	R38	RES 750 1/4W 5%	1301401	29
1	R25	RES 6.8K 1/4W 5%	1301423	30
12	R1-R4, R17-R24	RES 680 1/4W 5%	1301424	31
2	J1, J2	CONN 40 PIN	1209941-02	32
2	J3, J4	SOCKET I.C 16 PIN	1211813-02	33
NR	WIRE, #30AWG, GREEN	9105740-55	34	
2	TB1, TB2	TAB FASTON (OFFSET)	9007112	35
2	TB1, TB2	EYELET	9009000	36
2		LATCH, LEFT 40P. RT. ANG. HD.	1209941-03	37
2		LATCH, RIGHT 40P. RT. ANG. HD.	1209941-04	38

FIRST USED ON OPTION MODEL: KCS-AA

ETCH BOARD REV: B C

DATE: 1/10/79

DESIGNED BY: [Signature]

PROJ. ENG: [Signature]

SCALE: 1 OF 3

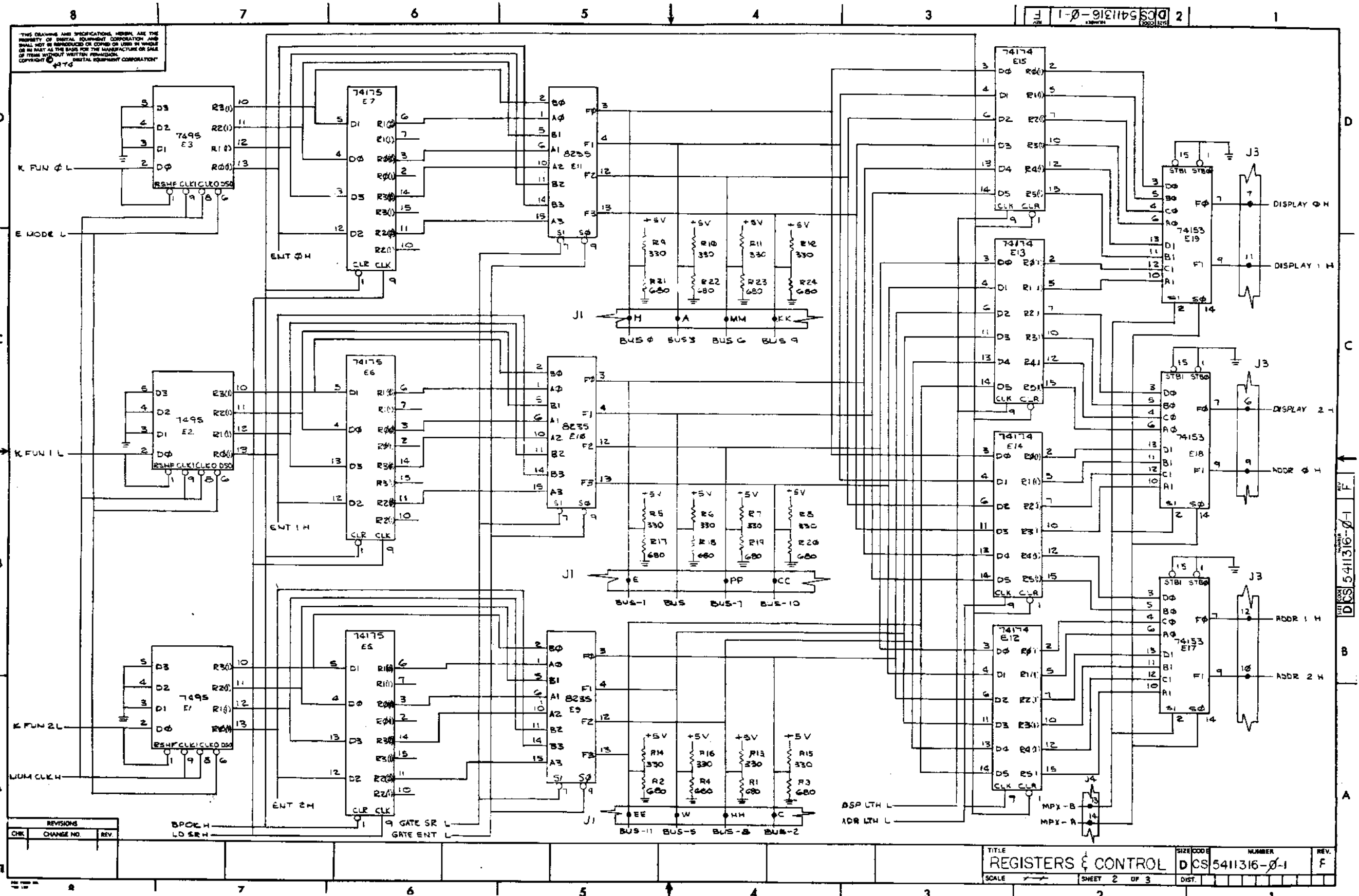
SEMICONDUCTOR CONVERSION CHART

REGISTERS & CONTROL

Digital Equipment Corporation

D-AD-7010644-0-0

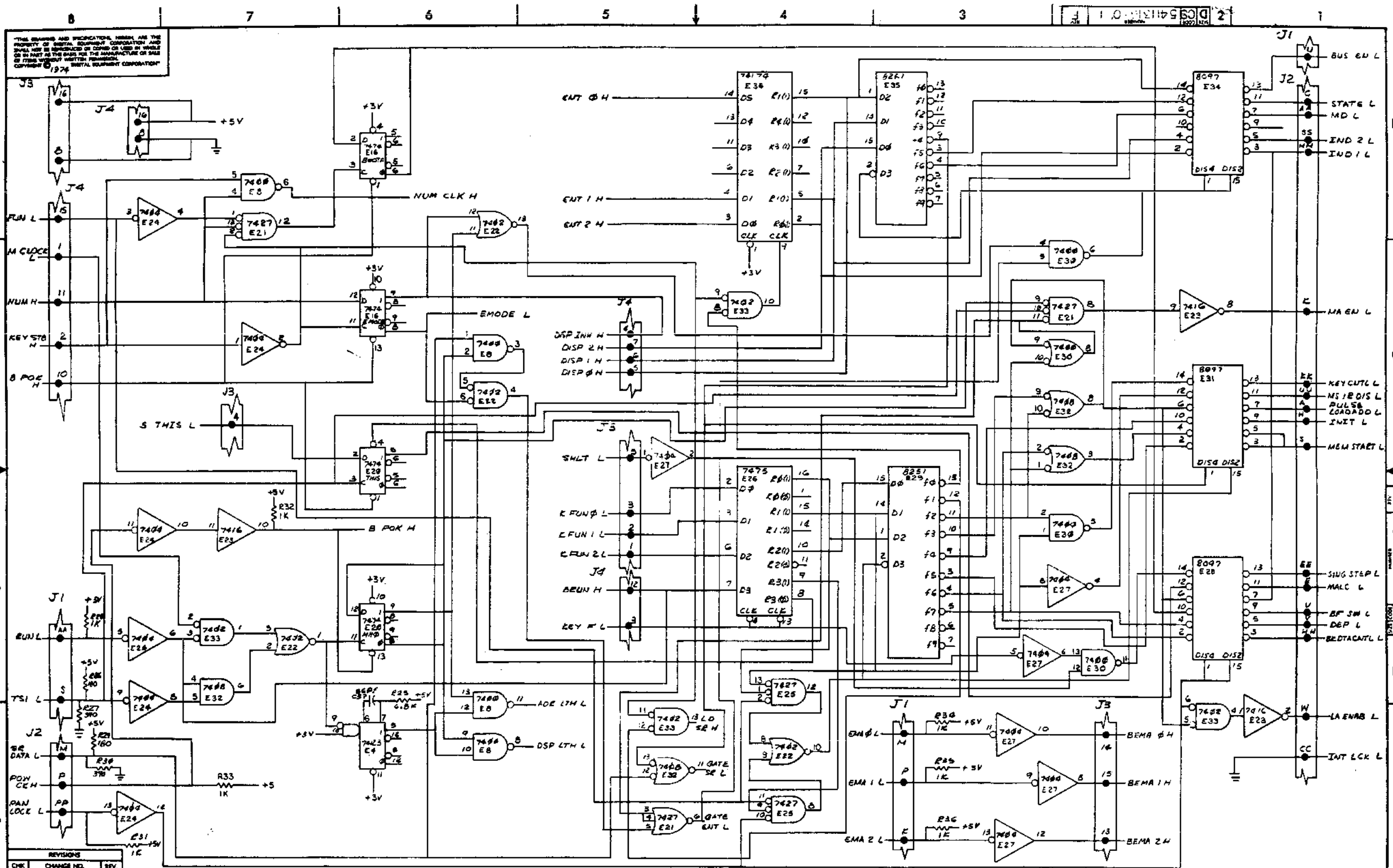
DCS 5411316-0-1



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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: REGISTERS & CONTROL  
 SIZE/COO: DIST.  
 NUMBER: DCS 5411316-0-1  
 SHEET: 2 OF 3  
 REV: F



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REV.	CHANGE NO.	DATE

TITLE	REGISTER CONTROL	SIZE CODE	D CS 5411316-0-1	NUMBER	F
SCALE	SHEET 3 OF 3	DIST.			

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		DATE 22 MARCH 78	
ENGINEERING SPECIFICATION			
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
REVISIONS		DATE	
REV	DESCRIPTION	CHG NO	DATE
A	ECO CHANGE	00001ATSHUDY	4-78
B	ECO CHANGE	ML002PCARDNER	12-78

ENG	APPR	SIZE	CODE	NUMBER	REV
<i>[Signature]</i>	<i>[Signature]</i>	A	SP	KT8A-3	B
M/L				SHEET 1 OF 12	

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
<p>I General</p> <p>This document will define the hardware requirements and tests to be performed for: (1) install, (2) configure and (3) accept a KT8-AA system or KT8-AB add-on to an existing system.</p> <p>Because the KT8-A Memory Management Options has several possible hardware configurations, the Hardware Rules/Restrictions (appendix A), General Configuration Guide (appendix B), and Configuration Examples (appendix C) should be referenced before installing this option.</p> <p>A. If the KT8-AA was shipped as part of a system, refer only to the Acceptance procedure.</p> <p>B. If the KT8-AB is an add-on installation to upgrade an existing system, then refer to the Installation and Acceptance Procedures.</p>			
<p>II Hardware</p> <p>This section defines the required hardware to install and accept a KT8-A and also defines the three hardware designations of the KT8-A option.</p> <p>A. The KT can be installed and accepted on any 8A/420 or 620 machine.</p> <p>B. The KCPA Programmer's Console is not required, as the KT Diagnostics have a console package.</p> <p>C. Program loading media is via: Paper tape, Floppy, or RM05.</p> <p>D. The Three Designations of the KT are as follows:</p> <ol style="list-style-type: none"> <li>KT8A-A - the KT Memory Management option shipped as part of a system configured by a DEC Manufacturing facility.</li> <li>KT8A-B - the required hardware to upgrade an 8A/420 or 8A/620 system. The RM8-AC (M0317YB or YC) is part of this option.</li> </ol>			
<p>DEC FORM NO. EN-01022-16 (4/70) (981)</p> <p>DRA 108</p>			

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
<p>3. KT8-EX - this option is required any time the memories are located in two separate boxes (ABC's). If required as part of an add-on, both the KT8-AB and KT8-EX must be ordered as separate line items.</p>			
<p>III Installation</p> <p>Before proceeding with your installation refer to Appendix A and B to familiarize yourself with the rules and configurations. Also refer to the configuration example that most represents your particular installation.</p> <ol style="list-style-type: none"> <li>Install all memory in the system, refer to Configuration guide (appendix B).</li> <li>Install the KT8-AB in any vacant OMNIBUS slot with an "E" connector.</li> <li>If the system is comprised of two (2) EASC boxes and memory will be located in each box than install the M9820 terminator module, in any available "E" connector of the box not containing the KT8-A (M8416). Now connect the cable (78-11411-1J) between the two berg connectors of the M8416 and M9820.</li> </ol>			
<p>DEC FORM NO. EN-01022-16 (4/70) (981)</p> <p>DRA 108</p>			

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
<p>IV Acceptance</p> <p>The time to accept a KT8-A configuration depends upon the amount of memory installed.</p> <ol style="list-style-type: none"> <li>Load and run the KT8-A Memory Management Diagnostic, Maindec 08-DJMTA-A, for five min. with NO errors.</li> <li>Load and run the Extended Address Test Maindec 08-DKMC-C, for one pass with NO errors.</li> <li>Load and run the Extended Memory Data and Checkerboard Test, Maindec 08-DHKMA-D, for one pass with NO errors.</li> <li>To insure system integrity, load and build a DEC/X8 program using version 2, which will exercise up to 128K of memory. It is important that the program is build using the latest DEC/X8 modules.</li> </ol> <p>NOTE: Reference should be made to the latest write-up for DEC/X8 (version 2) as further parameters must be inputted to support break devices.</p>			
<p>DEC FORM NO. EN-01022-16 (4/70) (981)</p> <p>DRA 108</p>			

# ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

## APPENDIX A

### HARDWARE RULES/RESTRICTIONS

1. Any OMNIBUS CPU (K88A or K88F) using a EABC box (28 slot box) is acceptable.
2. The KT8-A system can only be configured using any combination of M88AB (16K core) and M88C (16K or 32K MOS) memories.
3. NOTE: M88AA, M88A, M88B, M88E, M88J and M88F memories cannot be used to configure a KT8A system.

4. If the system is made up of M88C type memories (16K), then they must be modified per ECO M88AB #7, refer to table 1 for instructions.

5. The PDP/8E chassis cannot be used as part of a KT8-A system.

6. If Power Fail/Auto Restart and/or Bootstraps are required as part of the system, then a M88-AC (M8317YS or YC) must be used with the Memory Extension and Timeshare option disabled via the jumper configuration in table 3.

NOTE: The M8317 and M8317YA are incompatible with the KT8A system.

DEC FORM NO. EN-01022-16-N-370-1001	SIZE CODE A	SP	NUMBER KT8A-3	REV B
DNA 108	M/L		SHEET 5	OF 12

# ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

TABLE 1 M88-AB 16K CORE MEMORY CONNECTIONS

MEMORY		CONNECTIONS	
I BANK	I FIELD	I WIRE	I JUMPER
0	0-3 (0-16K)	AB1 to EB2	1-3, 3-4 in
	4-7 (16-32)	AB1 to EB2	2-8, 3-4 in
1	0-3 (32-48)	AB1 to ED2	1-3, 3-4 in
	4-7 (48-64)	AB1 to ED2	2-4, 3-4 in
2	0-3 (64-80)	AB1 to EL2	1-3, 3-4 in
	4-7 (80-96)	AB1 to EL2	2-8, 3-4 in
3	0-3 (96-112)	AB1 to ER2	1-3, 3-4 in
	4-7 (112-128)	AB1 to ER2	2-4, 3-4 in

TABLE 2A M88-CA 16K MOS MEMORY SWITCH SETTINGS

MEMORY		SWITCHES SET TO "OFF"	
I BANK	I FIELD	I	ALL OTHERS "ON"
0	0-3 (0-16K)	S1-1	
	4-7 (16-32K)	S1-2	
1	0-3 (32-48K)	S1-3	
	4-7 (48-64K)	S1-4	
2	0-3 (64-80K)	S1-5	
	4-7 (80-96K)	S1-6	
3	0-3 (96-112)	S1-7	
	4-7 (112-128)	S1-8	

DEC FORM NO. EN-01022-16-N-370-1001

DNA 108

SIZE CODE A	SP	NUMBER KT8A-3	REV B
M/L		SHEET 6	OF 12

# ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

TABLE 2B M88-CB 32K MOS MEMORY SWITCH SETTING

MEMORY		SWITCHES SET TO "OFF"	
I BANK	I FIELD	I	ALL OTHERS "ON"
0	0-7 (0-32K)	S1-1 and S1-2	
1	0-7 (32-64K)	S1-3 and S1-4	
2	0-7 (64-96K)	S1-5 and S1-6	
3	0-7 (96-128)	S1-7 and S1-8	

TABLE 3 JUMPER CONFIGURATION TO DISABLE MEMORY EXTENSION AND TIMESHARE

JUMPERS	OUT
W1	IN
W2	IN
W3	IN
W4	IN

# ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

## APPENDIX B

### General Configuration Rules

1. All memories must be physically located in the OMNIBUS where an "E" connector is present.
2. Remembering the above rule, place the memories as far away as possible from the CPU.
3. Direct Memory Address interfaces can only be located between the CPU and the first memory element. With one exception, in a two box system (2 BASC's) where memory is located in both boxes a DMA interface may be located in any vacant slot of the box containing the CPU.
4. Programmed I/O interfaces may be located in any vacant slot of the system.
5. When memories are located in two EABC chassis then the KT8-EX option must be used to extend the memory management option bank bits. The M9820 terminator card must be located in an "E" connector of the BASC not containing the M8416. The 70-1111-1J cable is then connected between the M9820 and the M8416.

DEC FORM NO. EN-01022-16-N-370-1001

DNA 108

SIZE CODE A	SP	NUMBER KT8A-3	REV B
M/L		SHEET 7	OF 12

<b>ENGINEERING SPECIFICATION</b>	<b>APPENDIX C</b>	<b>CONTINUATION SHEET</b>	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
APPENDIX C Configuration Examples			
Because the KT8-A is limited to use in the B8BC chassis (28 slot box) there are only four possible configurations.			
1. The entire system located in one B8BC with a KR8A CPU as shown below.			
SLOT OPTION	DEFINITION	SIZE CODE	NUMBER
1	KR8A CPU (#M8315)	A	KT8A-3
2	DKC8A OPTION ONE (#M8316), IF REQUIRED		
3	KR8-AC OPTION TWO (#M8317B or YC), IF REQUIRED		
4	KT8-A MEMORY MANAGEMENT OPTION (#M8416)		
5	DMA DEVICES CONFIGURED FROM THIS POINT TOWARD MEMORY		
6	-----		
7	-----		
8	-----		
9	-----		
10	-----		
11	MEMORY		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	-----		
19	-----		
20	-----		
	MEMORY CONFIGURED FROM THIS POINT TOWARD THE CPU ONLY I/O INTERFACES		
	-----		
	ONLY I/O INTERFACES		

DEC FORM NO. EN-01022-16-0170-0801  
DMA 1GB

#12 SHEET 9 OF 12

<b>ENGINEERING SPECIFICATION</b>	<b>APPENDIX C</b>	<b>CONTINUATION SHEET</b>	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
2. The entire system located in one B8BC with a KR8F CPU as shown below.			
SLOT OPTION	DEFINITION	SIZE CODE	NUMBER
1	KR8F TERMINATOR, #M828	A	KT8A-3
2	DKC8A OPTION ONE (#M8316), IF REQUIRED		
3	KR8-AC OPTION TWO (#M8317B or YC), IF REQUIRED		
4	KT8-A MEMORY MANAGEMENT OPTION (#M8416)		
5	MEMORY CONFIGURED FROM THIS POINT TOWARD CPU		
6	-----		
7	-----		
8	-----		
9	-----		
10	-----		
11	-----		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	KR8F CPU, #M310		
19	KR8F CPU, #M328		
20	KR8F CPU, #M330		
	DMA AND I/O INTERFACES CONFIGURED FROM THIS POINT TOWARD MEMORY		

DEC FORM NO. EN-01022-16-0170-0801  
DMA 1GB

#12 SHEET 10 OF 12

<b>ENGINEERING SPECIFICATION</b>	<b>APPENDIX C</b>	<b>CONTINUATION SHEET</b>	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
3. The KT8-A system made up of two B8BC boxes with the KR8F CPU in one box and all the memory located in the other box as shown below.			
SLOT OPTION	DEFINITION	SIZE CODE	NUMBER
1	KR8F TERMINATOR, #M828	A	KT8A-3
2	ANY I/O INTERFACE		
3	ANY I/O INTERFACE		
4	KT8-A MEMORY MANAGEMENT OPTION (#M8416)		
5	MEMORY CONFIGURED FROM THIS POINT TOWARD THE CPU		
6	-----		
7	-----		
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11	-----		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	-----		
19	-----		
20	BC88H-3 OMNIBUS EXPANDER CABLES		
	-----		
	*(BOTTOM B8BC)		
1	BC88H-3 OMNIBUS EXPANDER CABLES		
2	DKC8A OPTION ONE (#M8316), IF REQUIRED		
3	KR8-AC OPTION TWO (#M8317B or YC), IF REQUIRED		
4	-----		
5	-----		
6	-----		
7	-----		
8	-----		
9	-----		
10	-----		
11	-----		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	-----		
19	-----		
20	-----		
	DMA AND I/O INTERFACES CONFIGURED FROM THIS POINT TOWARD MEMORY		
18	KR8F CPU, #M310		
19	KR8F CPU, #M308		
20	KR8F CPU, #M330		

DEC FORM NO. EN-01022-16-0170-0801  
DMA 1GB

#12 SHEET 11 OF 12

<b>ENGINEERING SPECIFICATION</b>	<b>APPENDIX C</b>	<b>CONTINUATION SHEET</b>	
TITLE KT8A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
4. The KT8-A system made up of two B8BC boxes with a KR8F in one box and memories located in both boxes as shown below:			
SLOT OPTION	DEFINITION	SIZE CODE	NUMBER
1	KR8F TERMINATOR, #M828	A	KT8A-3
2	ANY I/O INTERFACE		
3	ANY I/O INTERFACE		
4	M828B KT8A TERMINATOR, LOCATE IN SLOT "E" OF OMNIBUS MEMORY CONFIGURED FROM THIS POINT TOWARD CPU		
5	-----		
6	-----		
7	-----		
8	-----		
9	-----		
10	-----		
11	-----		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	-----		
19	-----		
20	BC88H-3 OMNIBUS EXPANDER CABLES		
	-----		
	*(BOTTOM B8BC)		
1	BC88H-3 OMNIBUS EXPANDER CABLES		
2	DKC8A OPTION ONE (#M8316), IF REQUIRED		
3	KR8-AC OPTION TWO (#M8317B or YC), IF REQUIRED		
4	KT8-A MEMORY MANAGEMENT OPTION, #M816		
5	MEMORY CONFIGURED FROM THIS POINT TOWARD THE CPU		
6	-----		
7	-----		
8	-----		
9	-----		
10	-----		
11	-----		
12	-----		
13	-----		
14	-----		
15	-----		
16	-----		
17	-----		
18	-----		
19	-----		
20	-----		
	DMA AND I/O INTERFACES CONFIGURED FROM THIS POINT TOWARD MEMORY		
18	KR8F CPU, #M310		
19	KR8F CPU, #M308		
20	KR8F CPU, #M330		

DEC FORM NO. EN-01022-16-0170-0801  
DMA 1GB

#12 SHEET 12 OF 12

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21

COMPONENT SIDE VIEW



NOTE: MODULE REWORK AT RELEASE  
ETCH CUT SIDE 2 OF FEETWEEN  
DA2 & 2 FEEDTHRU NEAR C16

CHK	CHANGE NO	REV	DATE	BY
JA	0001	C	12/17/72	SKLIEN
		D	12/17/72	A. TONDUY

ETCH REV.	SIZE
P.C. DESIGN DATA BASE REV.	C

SIGNATURES	DATE
DRN. <i>Bob Kiley</i>	12/17/72
CHK'D. <i>Bob Kiley</i>	12/17/72
ENG. <i>P. D. Ryan</i>	12/17/72
PROJ. ENG. <i>P. D. Ryan</i>	12/17/72
PROD. <i>P. D. Ryan</i>	12/17/72

digital

TITLE PDP8 MEMORY  
MANAGEMENT BOARD

SCALE 2/1

SHT. 1 OF 6

NEXT HIGHER ASSY. KM88

SIZE CODE NUMBER REV  
D UA M8416-0-0 D

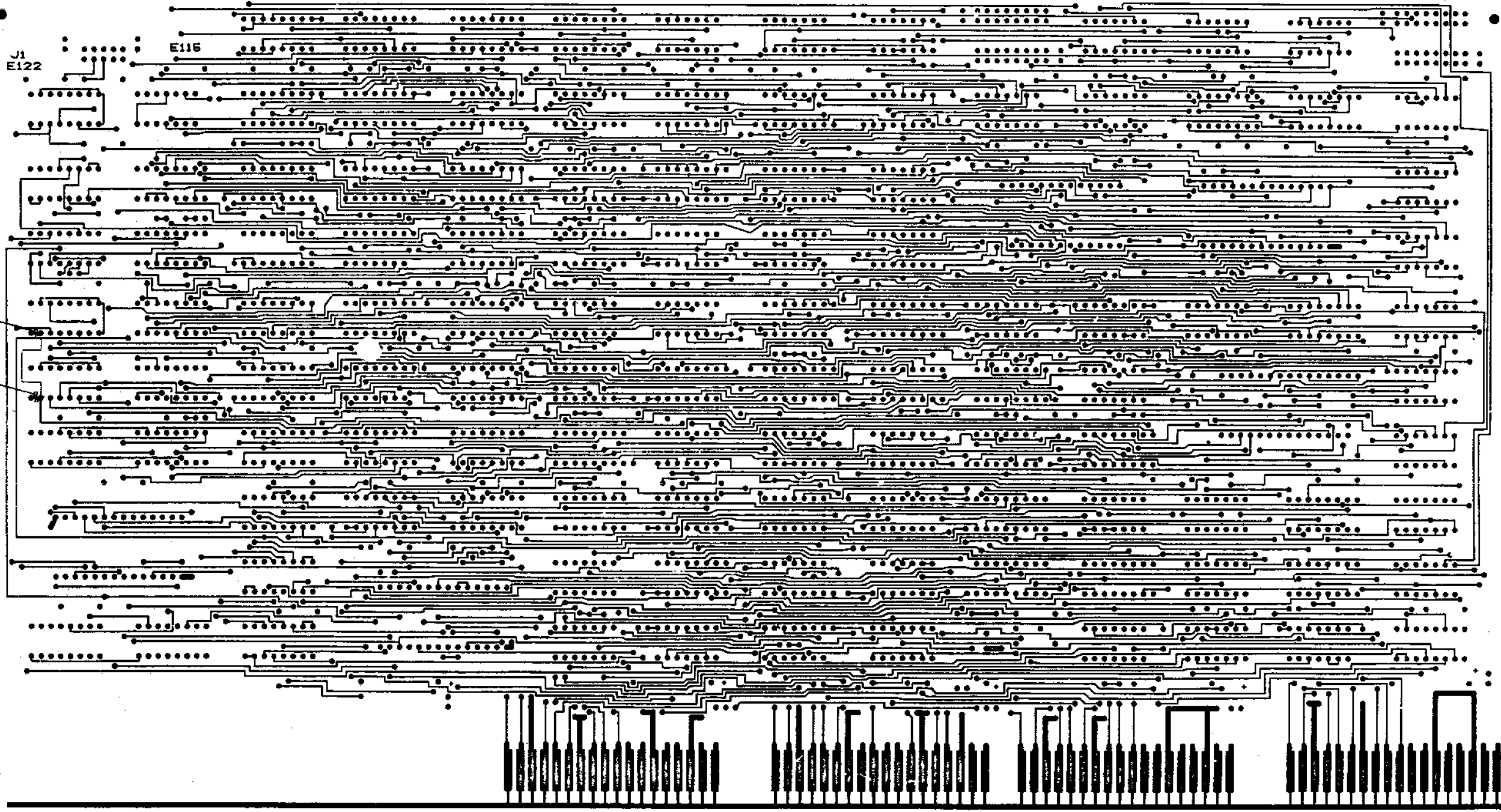


CS:ABCDEFGHIJKLMNPRS

E107 E97 E89 E80 E70 E60 E60 E40 E33 E24 E18 E10

SIDE 1

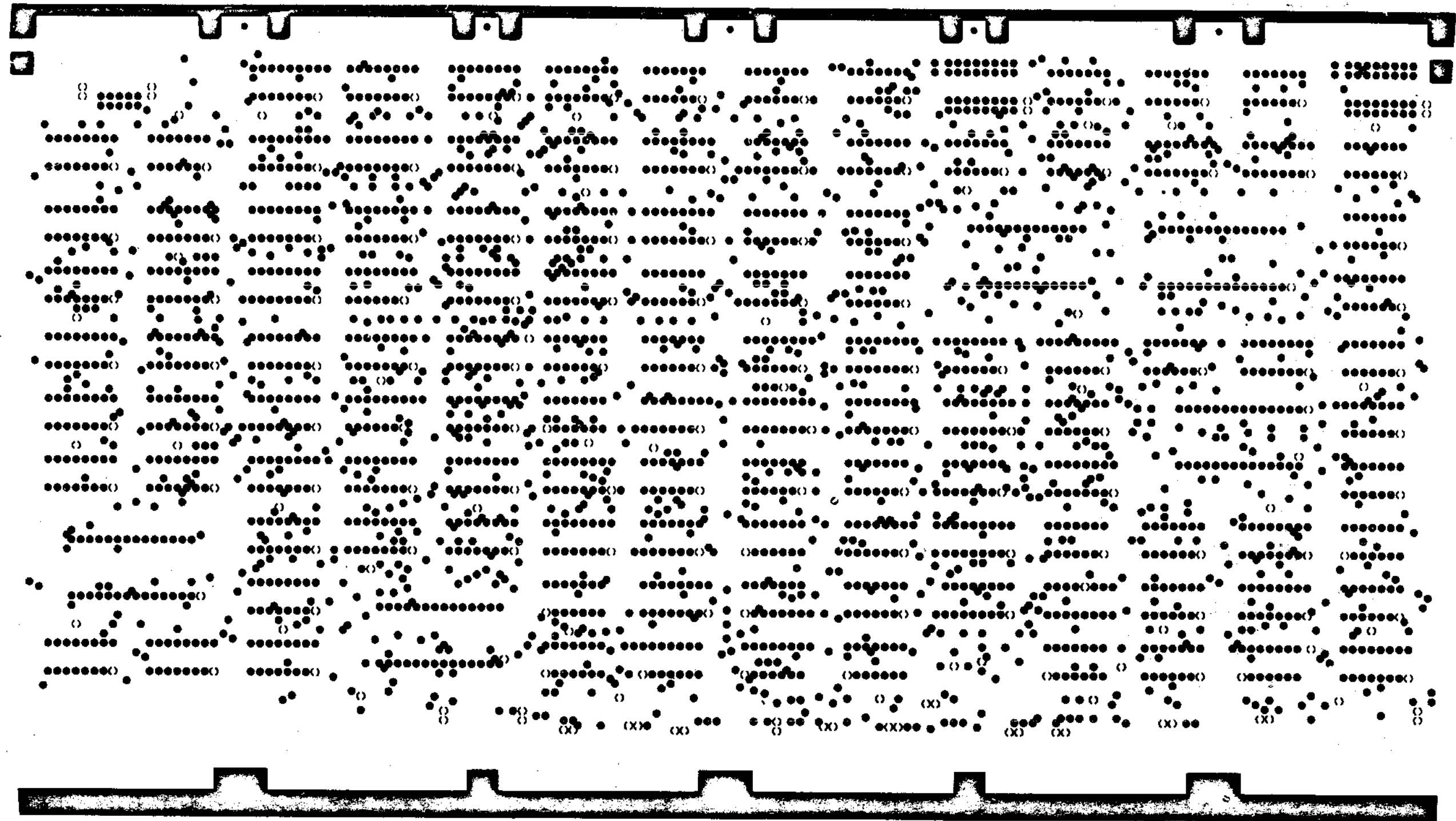
digital



VIEWED FROM SIDE 1

REVISIONS		
CHG	CHANGE NO	BY

TITLE	MANAGEMENT BOARD	SCALE	SHEET 2 OF 6	DATE	
DESIGNER		DIST			
PROJECT NO	M8416-0-0				



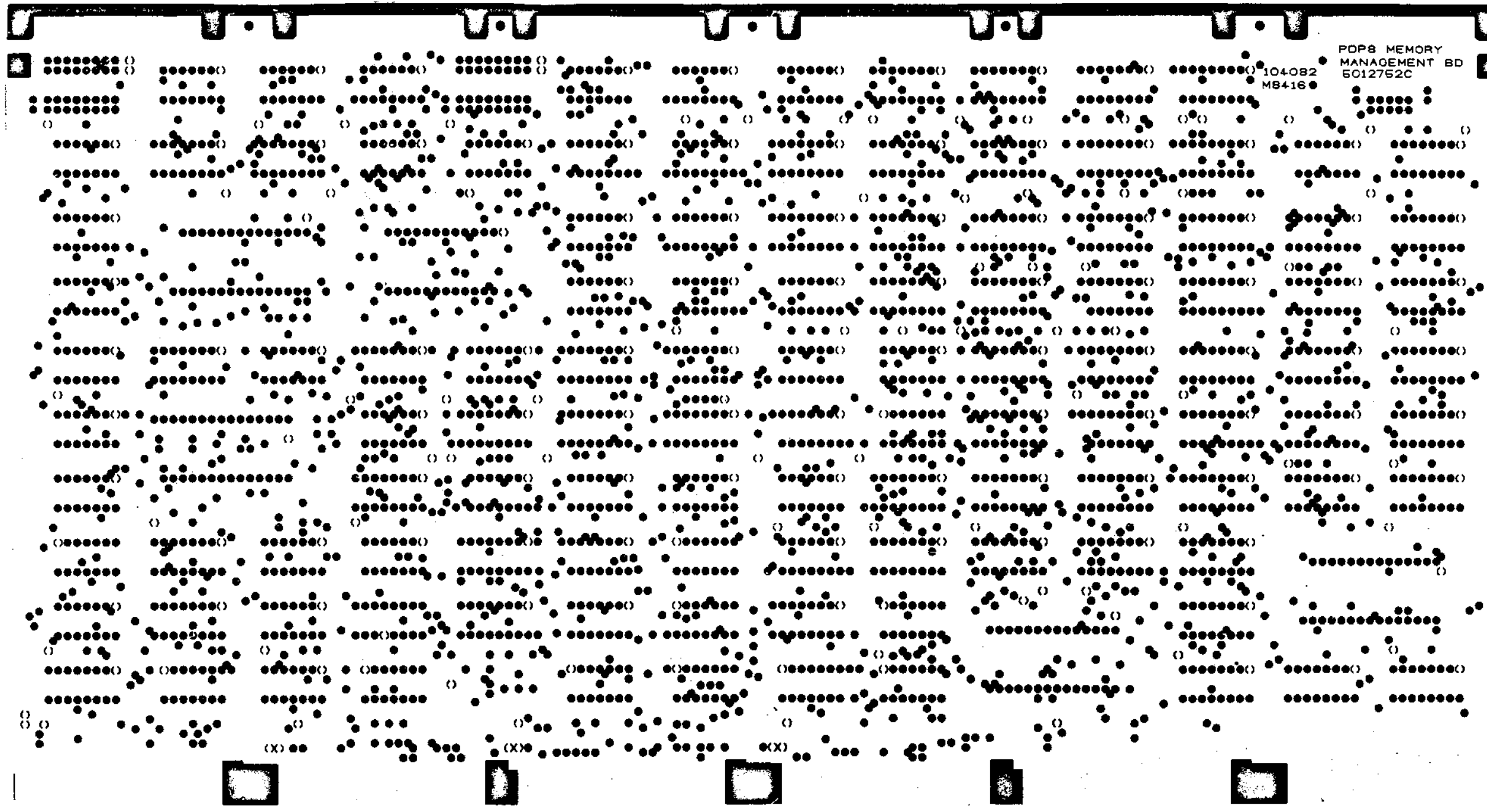
VIEWED FROM SIDE 1

REVISIONS																			
NO.	DESCRIPTION	DATE	BY	CHKD	APP'D	SCALE	SHEET	OF	TITLE	DATE	BY	CHKD	APP'D	SCALE	SHEET	OF	TITLE	DATE	BY
							3	6	MANUFACTURE										

DUA MS416-0-0 D

104082 MB416

POP8 MEMORY  
MANAGEMENT BD  
6012752C



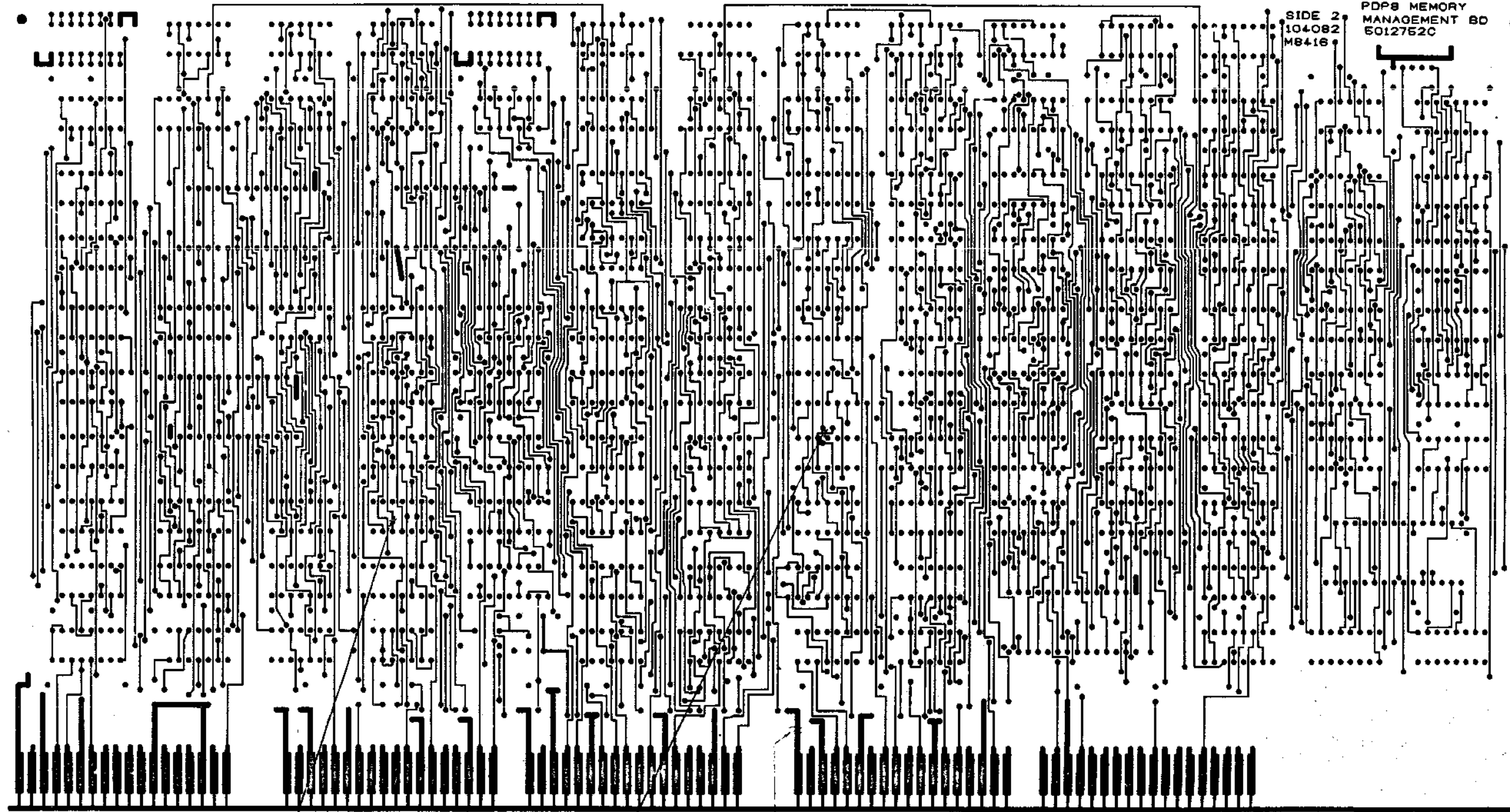
VIEWED FROM SIDE 2

REV. NO.	
DATE	

TITLE	POP8 MEMORY MANAGEMENT BOARD	DRAWN	M 8416 - 4-6
SCALE		SHEET	4 OF 6

PDP-8  
 MEMORY MANAGEMENT BOARD  
 SIDE 2

PDP8 MEMORY  
 MANAGEMENT BD  
 6012752C  
 SIDE 2  
 104082  
 M8416



2-2  
 LEAD FROM SIDE 2  
 1-3  
 0-1

REV. NO.		
CHG.	CHANGE NO.	REV.

TITLE	PDP-8 MEMORY MANAGEMENT BOARD	SIZE/CAGE	NUMBER	REV.
SCALE	1:1	SHEET	5 OF 6	DIST
		DUA	M8416	-C-C D

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REWORK INSTRUCTIONS

E.C.O. #1

ETCH CUTS SIDE 1

1-1: BETWEEN E118 PIN1 & E118 PIN2

1-2: BETWEEN E119 PIN1 & E119 PIN2

ETCH CUTS SIDE 2

1-3: BETWEEN E64 PIN10 & FEEDTHRU ABOVE AND BETWEEN E64 PINS 11,12

WIRE ADDS SIDE 1

1-4: FROM E118 PIN2 TO E119 PIN2

1-5: FROM E118 PIN1 TO E65 PIN5-7

1-6: FROM E63 PIN6 TO FEED THRU THAT WAS CUT FROM E64-10

E.C.O. #2:

ETCH CUTS SIDE 2

2-1: E27-5

WIRE ADDS SIDE 1

2-2: E33-11 TO E27-5

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD	SIZE/CD	D/UA	NUMBER	M8416-C-C	REV.	D
SCALE	1/1	SHEET	6 OF 6	DIST.			

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	REFERENCE DESIGNATOR
1	D-MD-5012752-0-0	5012752-00	M8416	1	
2		1000016-00	100.0 MWF 100V 5%200PPM DM15R	2	C12,C19
3		1005306-00	6.8MFD 35V 10% S.TANT	5	C1,C8,C14,C16,C24
4		1012784-00	.047 MFD 50V -20+80 CER	28	C2-C7,C9,C10,C11,C13,C15,C17,C18,C20-C23, CONT C25-C29,C31-C36
5		1110603-00	1N 5711 TR=100PS PIV= 70V HMB	1	D1
6		1209941-00	HEADER.100 10POS RT ANGLE	1	J1
7		1210711-00	HANDTE,MODULE,HEX	1	
8		1300316-00	470 1/4W 5% CC	1	R5
9		1300365-00	1 K 1/4W 5% CC	25	R1,R2,R3,R6-R10,R12,R14,R16,R17,R22-R29, CONT R31-R35
10		1300479-00	10 K 1/4W 5% CC	12	R4,R11,R13,R15,R18,R19,R21,R30,R36-R39
11		1302941-00	14.7 K 1/4W 1% PN550-F 100PPM	1	R20
12		1501999-00	DEC3009A NPN 300MW SI 20 25 M	1	Q1
13		1909701-00	74154 1 OF 16,BINA	1	E31
14		1909705-00	DEC 8881 NAND GATE-QUAD 2TN 0	4	E4,E8,E19,E42
15		1909934-00	8266 MUX 1 OF 2 (QUAD)	2	E69,E79
16		1910393-00	DEC 7384 OR GATE-QUAD 2TN,UTI	4	E52,E53,E72,E75
17		1910537-00	74811 AND GATE-TRIPLE 3INP	1	E27
18		1910544-00	74874 FF-D DUAL,EDGE TRIGG	3	E32,E63,E65
19		1911330-01	74173N FF-D QUAD,TRI-STATE	11	E1,F62,E73,E90,E97,E98,E99,E110,E119,E121, CONT E122
20		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	7	E3,E11,E25,E41,E51,F61,E71
21		1911527-00	8097 BUFFER GATE-HEX 2INP	10	E37,E55,E63,E84,E91,E100,E101,E104,E105, CONT E107
22		1911579-00	8641 TRANSCEIVER,BUS,QUA	3	E12,E13,E45
23		1911676-00	748139 DECODER-DUAL TWO-INP	1	E120
24		1912380-00	74802 NOR GATE-QUAD 2IN,PO	1	E64
25		1912649-00	LS75 LATCH 4BIT,BISTABLE	1	E26
26		1912661-00	748189 MEMORY READ/WRITE	1	E82

REVISION HISTORY			SECTION 1 OF 1	RESP. ENG. R. REGAN	DATE: 27-OCT-77	DIGITAL			
ENG	ECO NUMBER	REV	SECTION VARIATION INDEX	MADE BY: TED KELLEY	DATE: 29-AUG-77	PARTS LIST			
J.A.	00001	C				POP8 MEMORY MANAGEMENT BOARD			
A.T.	M8416-ML002	D	1.00						
			2.						
			3.						
			4.						
			5.						
			6.						
			7.						
			8.						
			9.						
			10.						
			11.						
			12.						
				DSN. ENG. R. REGAN	DATE: 14-NOV-77	SIZE: K	CODE: PL	DOCUMENT NUMBER: M8416-P-DBP	REV: D
				PROD. MELVIN SCHENKE	DATE: 14-NOV-77				
				ASSEMBLY NUMBER: D-UA-M8416-0-0		PART NUMBER: M8416	EDIT: 36		

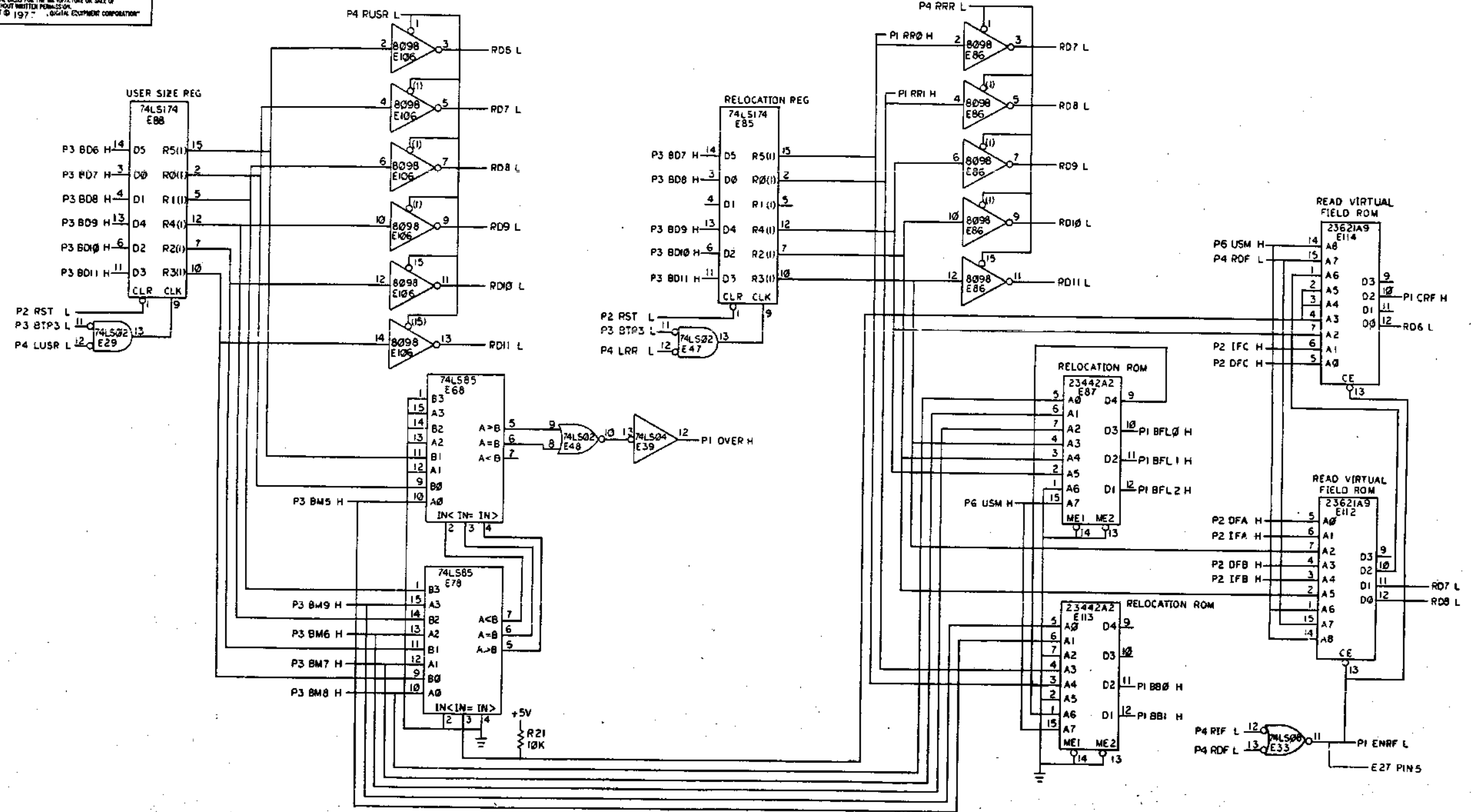
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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	REFERENCE DESIGNATOR
27	27		1912697-00	LS174 FF-D HEX W/CLEAR	5	E15,E17,E85,E88,E103
28	28		1912796-00	74148 EXCODER,PRIORITY,8 T	1	E89
29	29		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	8	E6,E18,E50,E54,E57,E66,E70,E94
30	30		1912800-00	LS01 NAND-GATE-QUAD 2IN,P	1	E20
31	31		1912801-00	LS02 NOR-GATE-QUAD 2IN	3	E29,E47,E48
32	32		1912803-00	LS04 INVERTER GATE-HEX 11	8	E2,E5,E7,E22,E39,E44,E50,E115
33	33		1912805-00	LS08 AND GATE-QUAD 2IN,PO	2	E33,E67
34	34		1912807-00	LS10 NAND GATE-TRIPLE 3TN	5	E21,E24,E49,E56,E92
35	35		1912810-00	LS20 NAND GATE-DUAL 4TN	3	E9,E36,E43
36	36		1912815-00	LS30 NAND GATE-SINGLE 8TN	1	E30
37	37		1912817-00	LS37 NAND GATE-QUAD 2IN,P	1	E38
38	38		1912819-00	LS42 DECODER,BCD-DECIMAL	1	E34
39	39		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	3	E59,E60,E76
40	40		1912828-00	LS85 COMPARATOR,4BIT MAGN	2	E68,E78
41	41		1912853-00	LS175 FF-D QUAD	8	E35,E46,E93,E102,E108,E110,E116,E117
42	42		1912858-00	LS221 ONE SHOT-DUAL,SCHMIT	1	E77
43	43		1912859-00	LS258 MUX 1 OF 2 (DUAL),	1	E23
44	44		1914087-00	8090 BUFFER GATE-HEX 2IN,	4	E86,E95,E96,E106
45	45		23211A1-00	A1-07	1	E80
46	46		23440A2-00	A2-05	1	E28
47	47		23441A2-00	A2-05	1	E74
48	48		23442A2-00	A2-05	2	E87,E113
49	49		23621A9-00	A9-01	3	E111,E112,E114
50	50		23007C6-00	C6-01	1	E14
51	51		23008C6-00	C6-01	1	E16
52	52		23009C6-00	C6-01	1	E81
53	53		23010C6-00	C6-01	1	E109
54	54		9000024-01	EYFLET, ROLLED FLANGE, .121 OD X	12	
55	55		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	

56 NOTE: LINE 18: PARTS SUBSTITUTION LIST  
 57 NOTE: ITEM #18 1910544-01 74574 FF-D DUAL (60 VERSION) QTY 3  
 58 NOTE: ITEM #18 1910950-00 74574 FF-D DUAL (45 VERSION) QTY 3

DIGITALL				TITLE	SECTION 1 OF 1	SIZE:CODE	DOCUMENT NUMBER	REV
				PUPR MEMORY MANAGEMENT BOARD		K PL	M8416-U-DSP	D

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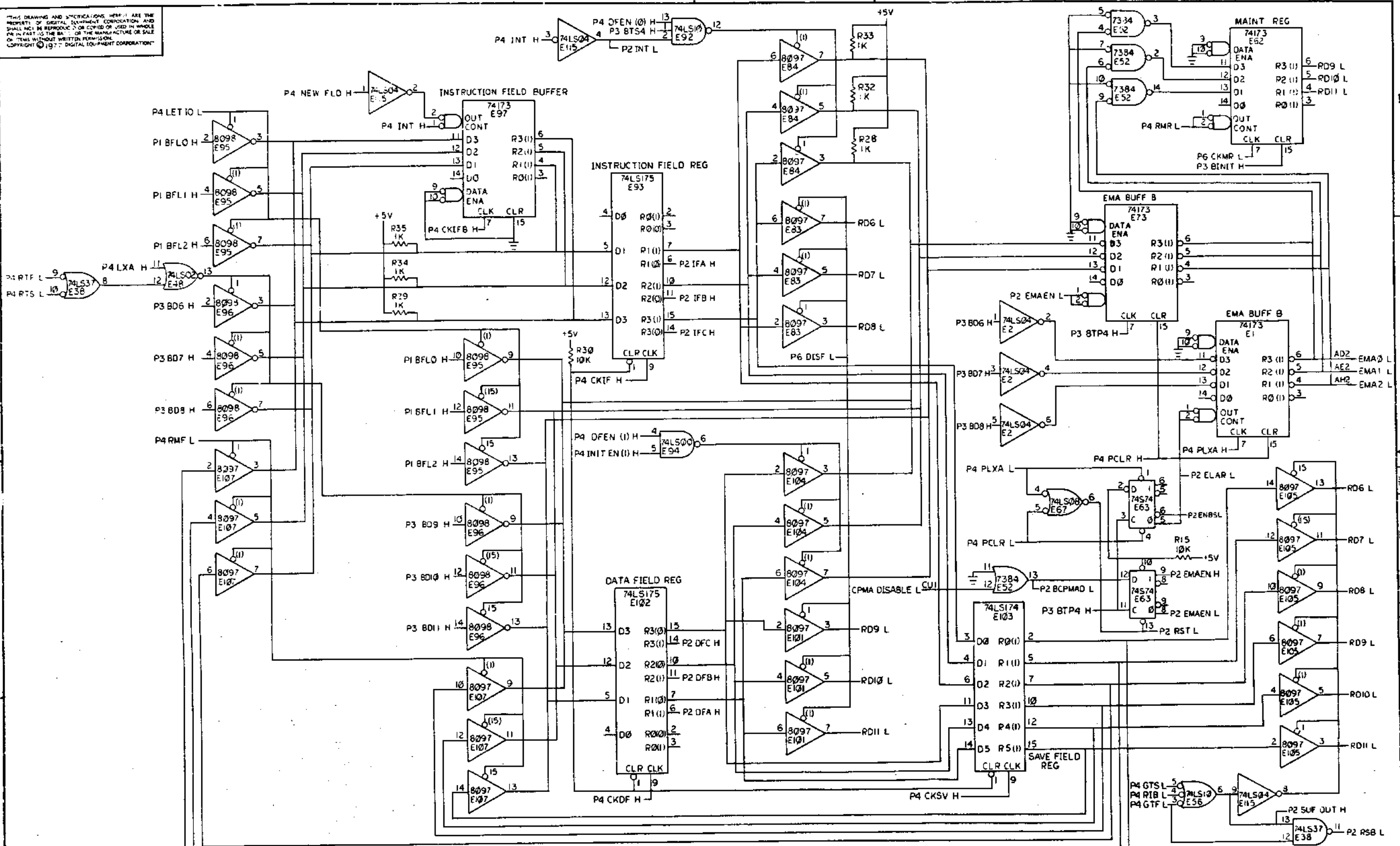


REV.	CHG.	BY	DATE
1	1A	MBG:CKC	11-17-77
2	1A	MBG:CKC	12-7-77
3	1A	MBG:CKC	12-7-77
4	1A	MBG:CKC	12-7-77
5	1A	MBG:CKC	12-7-77
6	1A	MBG:CKC	12-7-77
7	1A	MBG:CKC	12-7-77
8	1A	MBG:CKC	12-7-77
9	1A	MBG:CKC	12-7-77
10	1A	MBG:CKC	12-7-77

DRN. TEST	11-4-77	FIRST USED ON	KT8-A	Digital
CHK'D	12/1/77	TITLE	PDP8 MEMORY MANAGEMENT BOARD	
ENG.	12-7-77	NUMBER	M8416-0-1	REV. D
PRD. ENG.	12-7-77	SCALE	D CS	
PROD.	12-7-77	SHEET	1 OF 7	DIST.
NEXT HIGHER ASSY. (P1)				
D-UA-M8416-0-0				



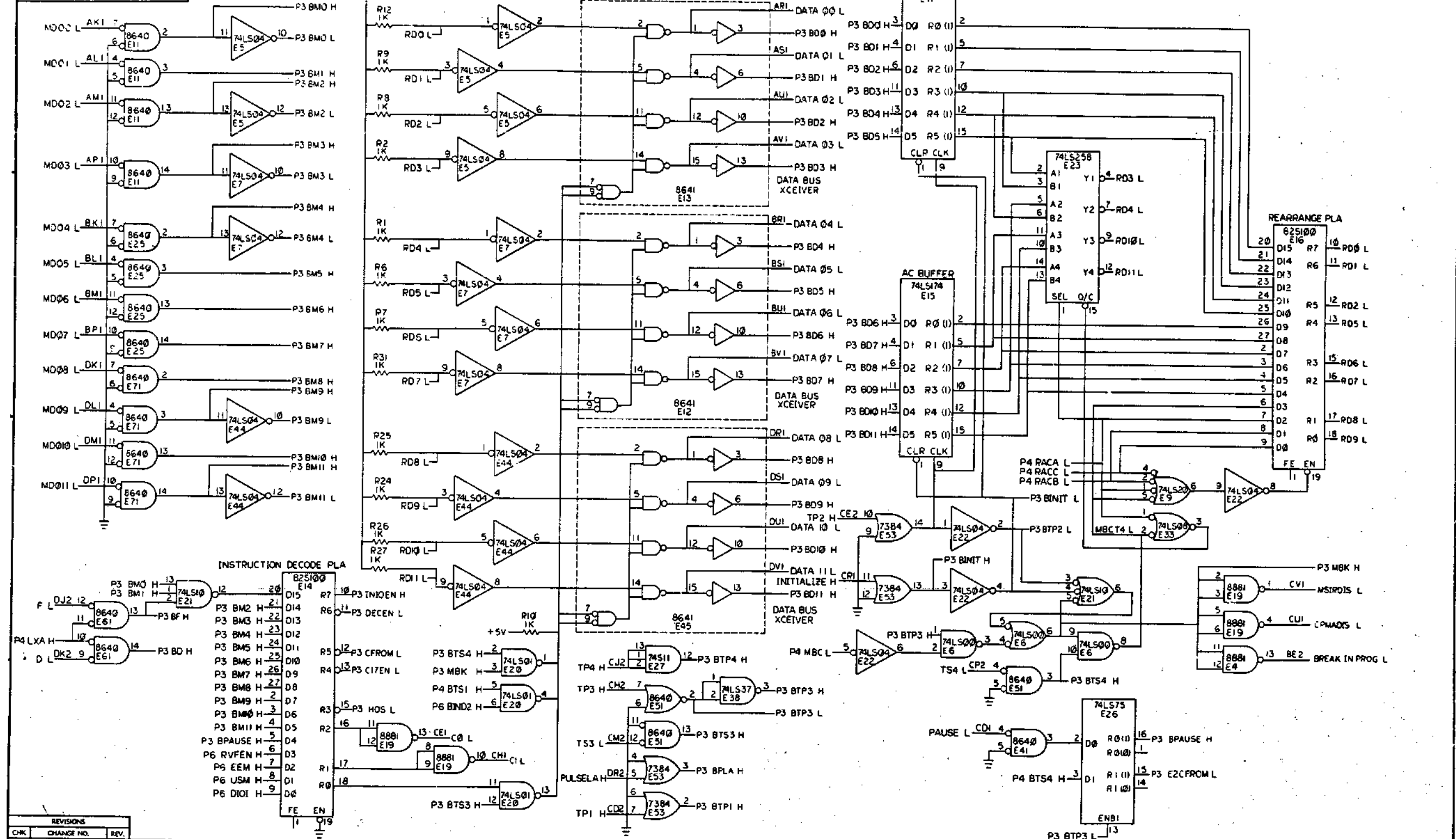
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD (P2)	SIZE CODE	DCS	NUMBER	M8416-0-1	REV.	D
SCALE		SHEET	2 OF 7	DIST.			

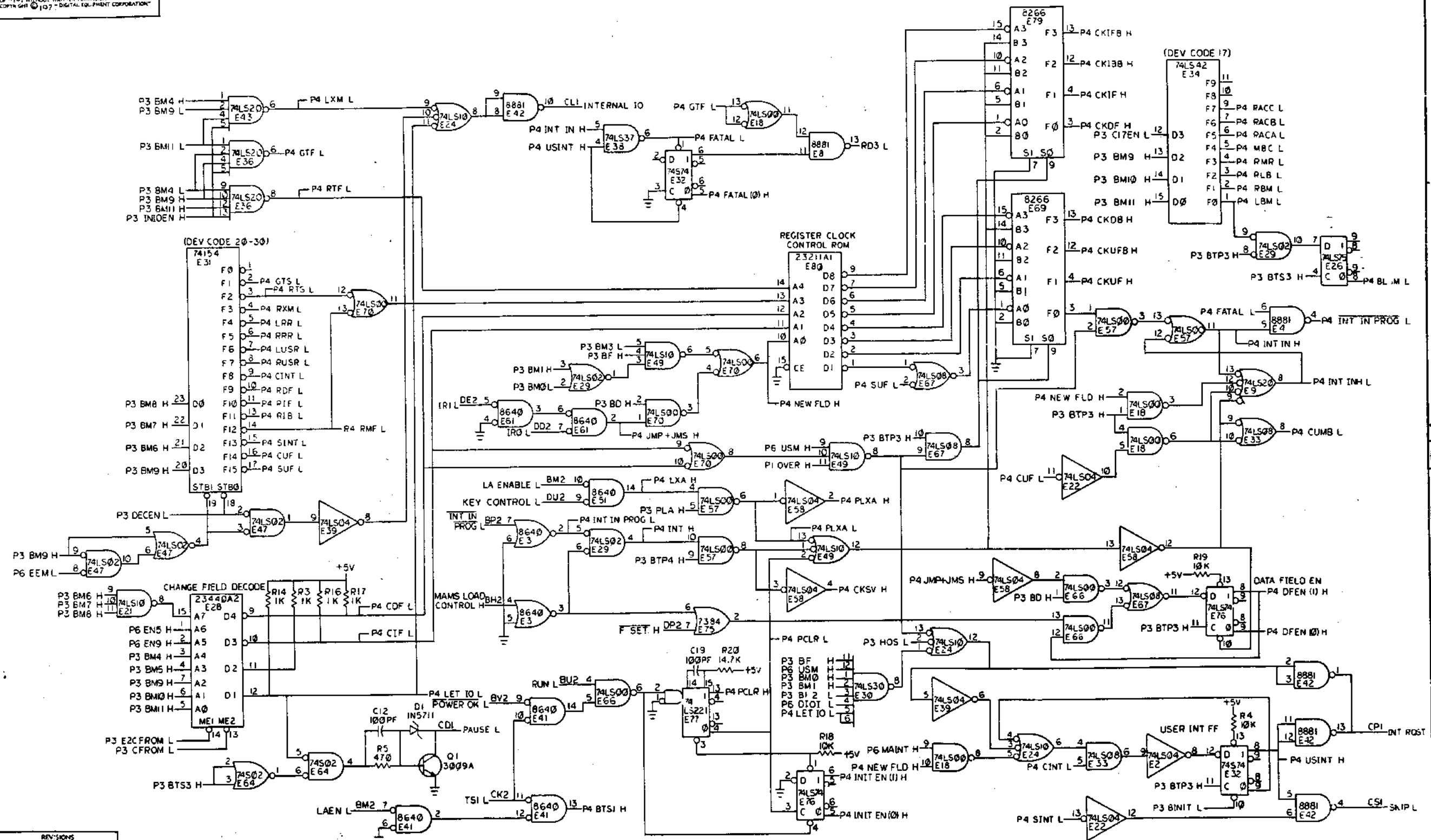
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
PDP8 MEMORY MANAGEMENT BOARD	(P3) DCS	M8416-0-1	D
SCALE	SHEET 3 OF 7	DIST.	

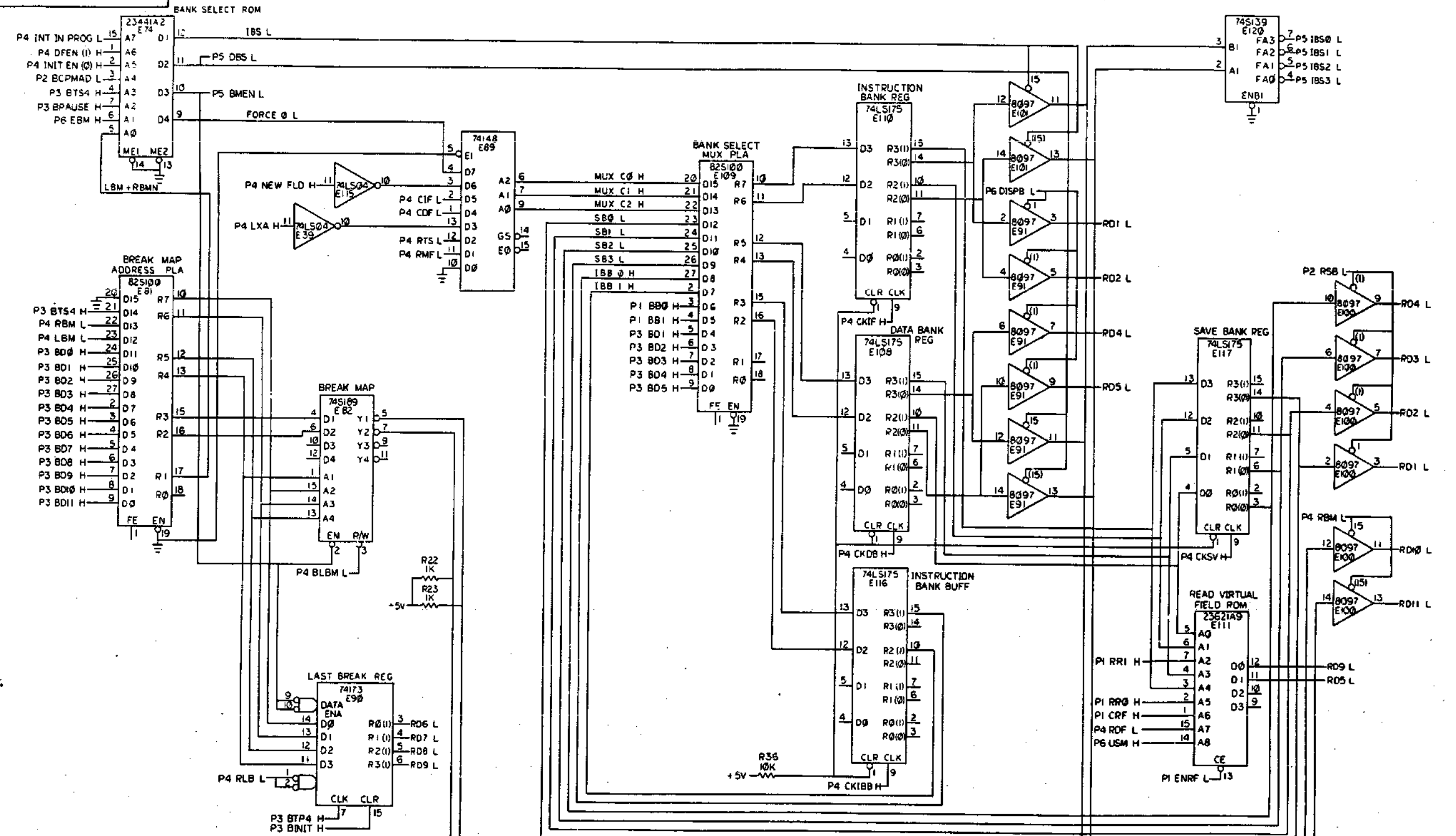
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD (P4)	SIZE CODE	D CS	NUMBER	M8416-0-1	REV.	1
SCALE	SHEET 4 OF 7		DIST.				

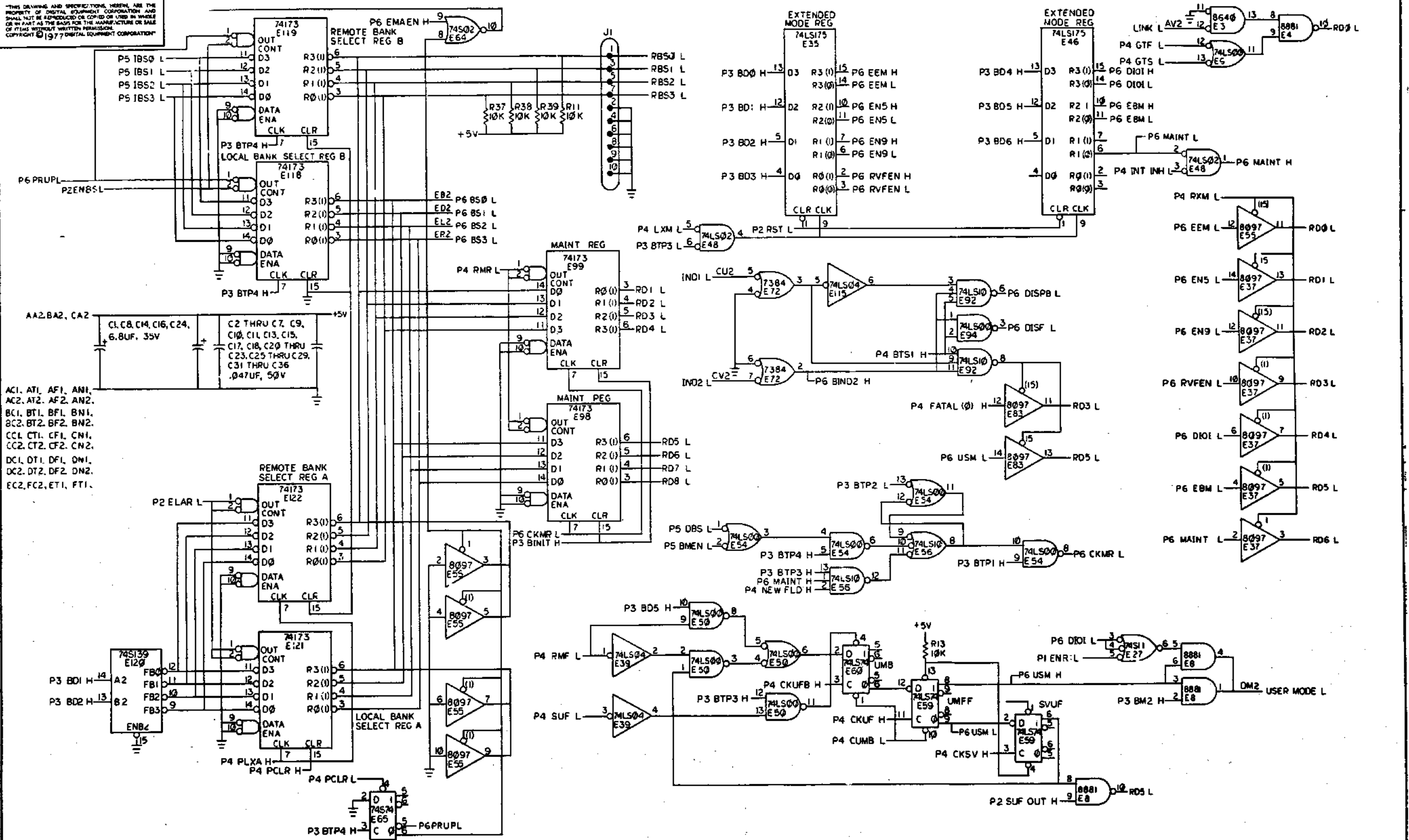
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD (P5)	SIZE CODE	DCS	NUMBER	M8416-0-1	REV.	D
SCALE	SHEET 5 OF 7		DIST.				

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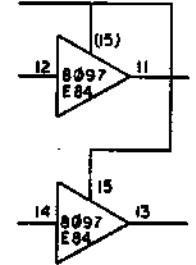
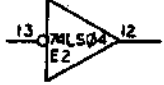
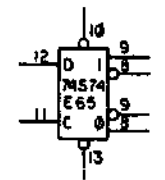
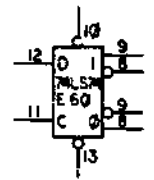
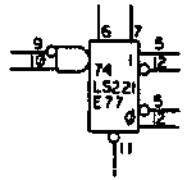
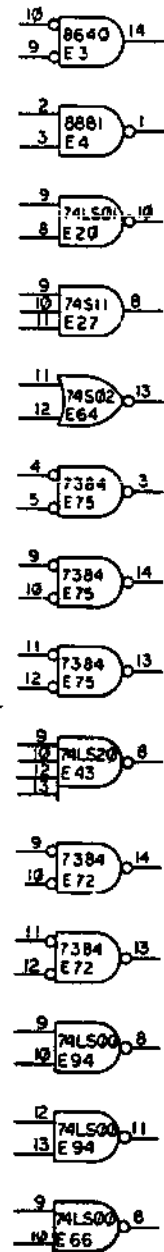


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD (P6)	SIZE CODE	D CS	NUMBER	M8416-0-1	REV.	D
SCALE	SHEET 6 OF 7			DIST.			

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SPARES



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MEMORY MANAGEMENT BOARD	SIZE/CODE	D CS	NUMBER	M8416-0-1	REV.	D
SCALE		SHEET	7 OF 7	DWT.			

8

7

6

5

4

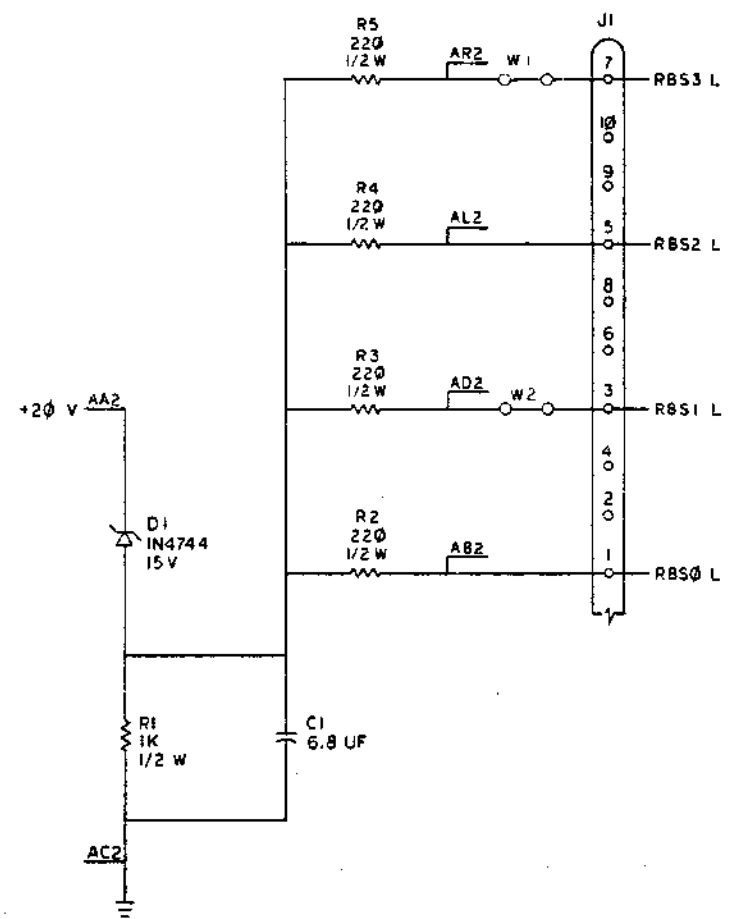
3

2

1

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1-0-0206W 2



REV.	
CHG	
CHG	
CHG	
CHG	

DRN.	11-9-77	FIRST USED ON	KT8-A
CHKD.	12-7-77	TITLE	KT8-A TERMINATOR
ENGR.	12-7-77		
PROD. ENGR.	12-7-77		
PROD.	12-7-77		
NEXT HIGHER ASSY.			
D-VA-M9020-0-0		SIZE CODE	D CS
SCALE		NUMBER	M9020-0-1
SHEET 1 OF 1		DIST.	

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**DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS**

**ENGINEERING SPECIFICATION**

DATE 14 JUNE 77

TITLE MS8C Field Installation and Acceptance Procedure

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG <i>Bill End</i> 8/24/77	APPD <i>J. Stora</i> 8/25/77	SIZE <b>A</b>	CODE SP	NUMBER MS8-C-3	REV
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DEC 16-(392)-1079A-R873  
DRA 107A

SHEET 1 OF 3

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE MS8C Field Installation and Acceptance Procedure

I. General

This procedure defines the performance standards required of the MS8CA and MS8CB Memories. The MS8C can be installed in any PDP8A series computers. The Memory may be an add-on to PDP8E systems if a BA8C expander is used.

II. Inspection Add-on

After removing the M8417 from the packing material, inspect the module for the following:

1. Loose or broken components.
2. Inventory against shipping lists.

III. Installation

1. Switch/Field Selection

MS8-CA (1) One switch (only) must be off.  
MS8-CB (2) Two switch (only) must be off.

Set-up switch as defined in the following table. Switches off are the enable.

	Address	Bank	Field
S1-1	0-16K	0	0-3
S1-2	16-32K	0	4-7
*S1-3	32-48K	1	0-3
*S1-4	48-64K	1	4-7
*S1-5	64-80K	2	0-3
*S1-6	80-96K	2	4-7
*S1-7	96-112K	3	0-3
*S1-8	112-128K	3	4-7

\*NOTE: KT8A must be installed for these settings. Refer to the KT8A Installation and Acceptance Procedures for KT8A systems acceptance.

2. Install

Ensure power to PDP8A is off.  
Insert the M8417 into slot 4 of the PDP8A.  
If two memories are to be installed, install the second in slot 5.

IV. Acceptance

Perform the acceptance test as indicated in the following table. If problems are encountered, refer to the diagnostic listings for the type of error and for information on how to read the error printouts.

SIZE <b>A</b>	CODE SP	NUMBER MS8-C-3	REV
---------------	---------	----------------	-----

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

SHEET 2 OF 3



**TITLE** MS8C Field Installation and Acceptance Procedure

Equipment Required:

1. 03,04 Console Terminal
2. PDP8A with MS8C Memory
- \*3. Input device, either paper tape or OS8.
4. Diagnostics and listings.

\*Programmers console is required to make Switch register settings on the paper tape version of the diagnostic.

<u>Program Name</u>	<u>Maindec #</u>	<u>Accept Time</u>
Extended Memory Address Test	08-DHKMA	30 Minutes
Extended Memory Checkerboard	08-DHKMC	30 Minutes

No Errors are Acceptable.

<b>SIZE</b> A	<b>CODE</b> SP	<b>NUMBER</b> MS8-C-3	<b>REV</b>
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MB417-AA (16K)  
X = SWITCH OPEN OR OFF

	E62-1	E62-2	E62-3	E62-4	E62-5	E62-6	E62-7	E62-8
0-16	X							
16-32		X						
32-48			X					
48-64				X				
64-80					X			
80-96						X		
96-112							X	
112-128								X

MB417-BA (32K)  
X = SWITCH OPEN OR OFF

	E62-1	E62-2	E62-3	E62-4	E62-5	E62-6	E62-7	E62-8
0-32	X	X						
16-48		X	X					
32-64			X	X				
48-80				X	X			
64-96					X	X		
80-112						X	X	
96-128							X	X

- NOTES:
- MODULE DESIGNATION: MB417-AA = MB417-AB, -AC, -AD, -AE, ETC.  
16K MOS MEMORY  
REFERENCE DESIGNATIONS NOT USED:  
E101 E201 E301 E401  
E103 E203 E303 E403  
E105 E205 E305 E405  
E107 E207 E307 E407  
E109 E209 E309 E409  
E111 E211 E311 E411  
E113 E213 E313 E413  
E115 E215 E315 E415  
E117 E217 E317 E417  
E119 E219 E319 E419  
E121 E221 E321 E421  
E123 E223 E323 E423
  - MODULE DESIGNATION: MB417-BA = MB417-BB, -BC, -BD, -BE, ETC.  
32K MOS MEMORY
  - ALL 8837's HAVE PINS 7 & 9 GROUNDED.
  - TIMING RESISTORS R87 AND R92 MAY BE REMOVED AT MODULE TEST FOR TIMING ADJUSTMENTS.
  - TIMING RESISTORS R88, R100, R140 MAY BE INSTALLED AT MODULE TEST FOR TIMING ADJUSTMENTS.

JUMPER CONFIGURATIONS

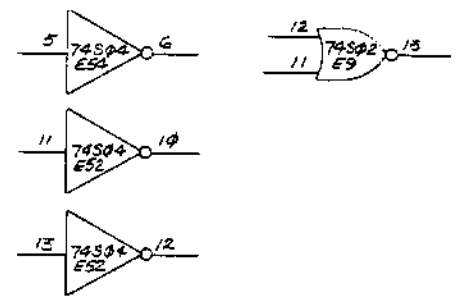
JUMPER	MB417-AA (16K)	MB417-BA (32K)
W2	X	X
W3	X	X
W4	X	X
W5	X	X
W10	X	X
W11	X	X

ALL JUMPERS ARE MACHINE INSERTABLE.  
THESE JUMPERS ARE REVISED:  
W1, W5, W6, W7, W8, W12, W13, W14, W15, W16  
X = JUMPER INSTALLATION

IC PIN LOCATIONS

IC TYPE	GND	+5	-5	+12
555	1	5		
7493	10	5		
74LS75	12	5		
2640	1	8		
75107B	7	14	13	
MK4027	16	9	1	8
OTHER 16 PIN IC'S	8	16		
OTHER 14 PIN IC'S	7	14		
75451	4	8		

SPARES

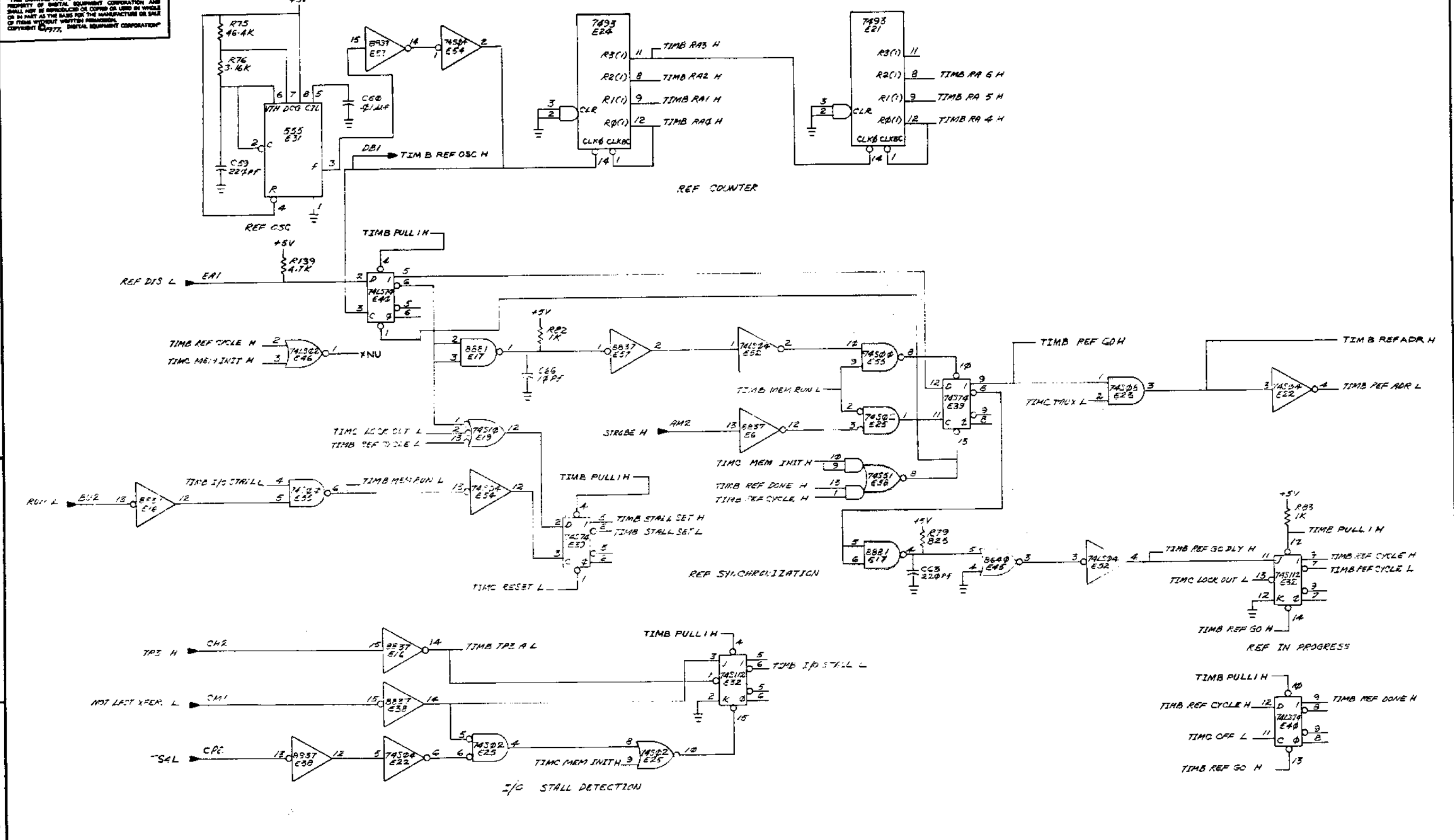


R88	3.16K	1/4W	1% MF	13-03045-00
R100	6040	1/4W	1% MF	13-13155-00
R140	1.21K	1/4W	1% MF	13-02571-00

REV.	DATE	BY	CHKD.
B	10/17/77	J. STEGEMAN	J. STEGEMAN
C	11/14/77	J. STEGEMAN	J. STEGEMAN
D	12/14/77	J. STEGEMAN	J. STEGEMAN
E	1/14/78	J. STEGEMAN	J. STEGEMAN
F	2/14/78	J. STEGEMAN	J. STEGEMAN
G	3/14/78	J. STEGEMAN	J. STEGEMAN
H	4/14/78	J. STEGEMAN	J. STEGEMAN
I	5/14/78	J. STEGEMAN	J. STEGEMAN
J	6/14/78	J. STEGEMAN	J. STEGEMAN
K	7/14/78	J. STEGEMAN	J. STEGEMAN
L	8/14/78	J. STEGEMAN	J. STEGEMAN
M	9/14/78	J. STEGEMAN	J. STEGEMAN
N	10/14/78	J. STEGEMAN	J. STEGEMAN
O	11/14/78	J. STEGEMAN	J. STEGEMAN
P	12/14/78	J. STEGEMAN	J. STEGEMAN
Q	1/14/79	J. STEGEMAN	J. STEGEMAN
R	2/14/79	J. STEGEMAN	J. STEGEMAN
S	3/14/79	J. STEGEMAN	J. STEGEMAN
T	4/14/79	J. STEGEMAN	J. STEGEMAN
U	5/14/79	J. STEGEMAN	J. STEGEMAN
V	6/14/79	J. STEGEMAN	J. STEGEMAN
W	7/14/79	J. STEGEMAN	J. STEGEMAN
X	8/14/79	J. STEGEMAN	J. STEGEMAN
Y	9/14/79	J. STEGEMAN	J. STEGEMAN
Z	10/14/79	J. STEGEMAN	J. STEGEMAN

DRN. ANGLE	420177	FIRST USED ON	MS8-C
CHKD.	J. STEGEMAN	TITLE	PDP8 MOS MEMORY
ENG.	J. STEGEMAN	SCALE	NCNE
PROJ. ENG.	J. STEGEMAN	SIZE	D CS
PROD.	J. STEGEMAN	NUMBER	MB417-0-1
NEXT HIGHER ASSY.		REV.	F
B-DD-MB417-0		SHEET	2 OF 14
SCALE	NCNE	DIST.	

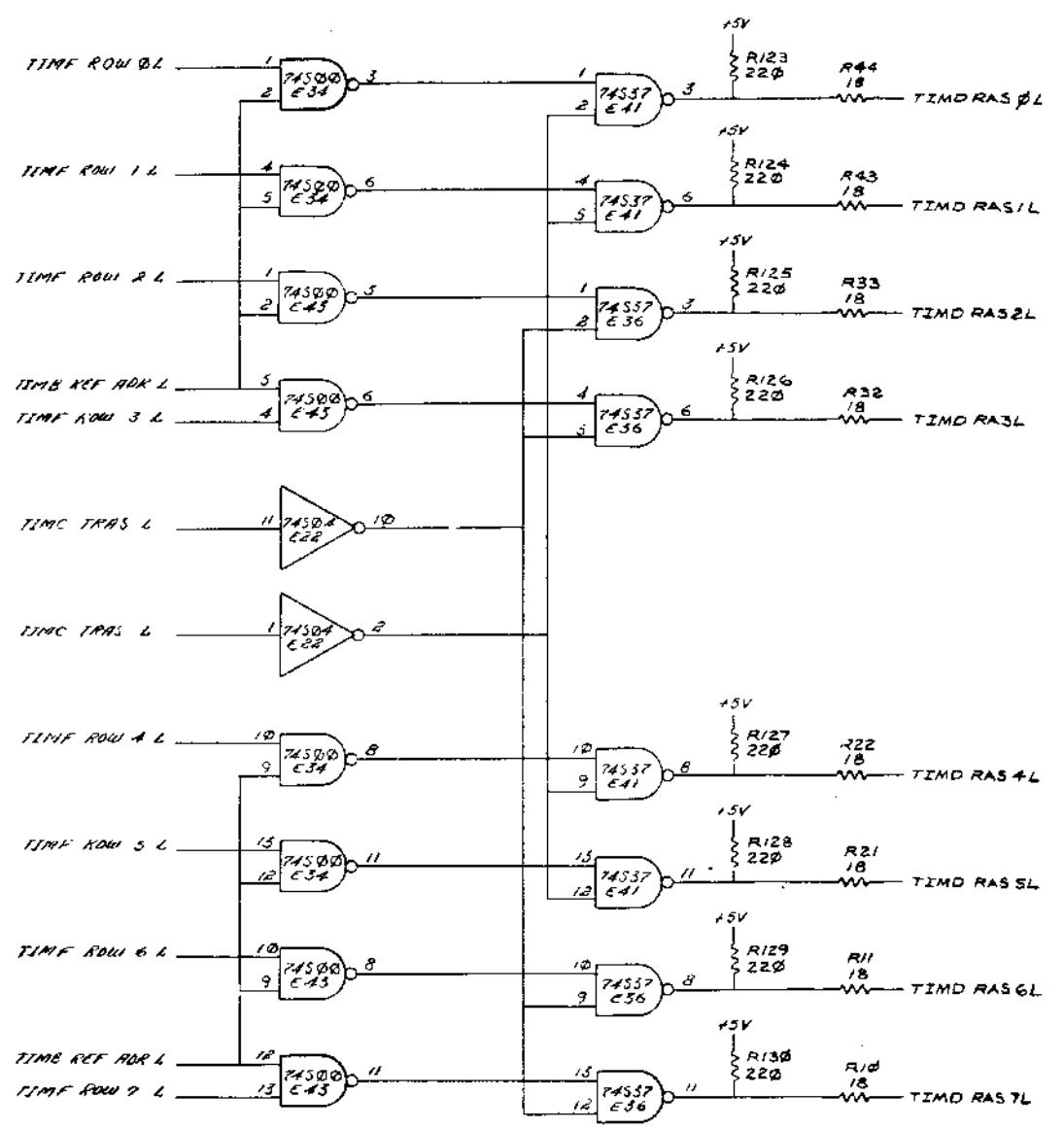
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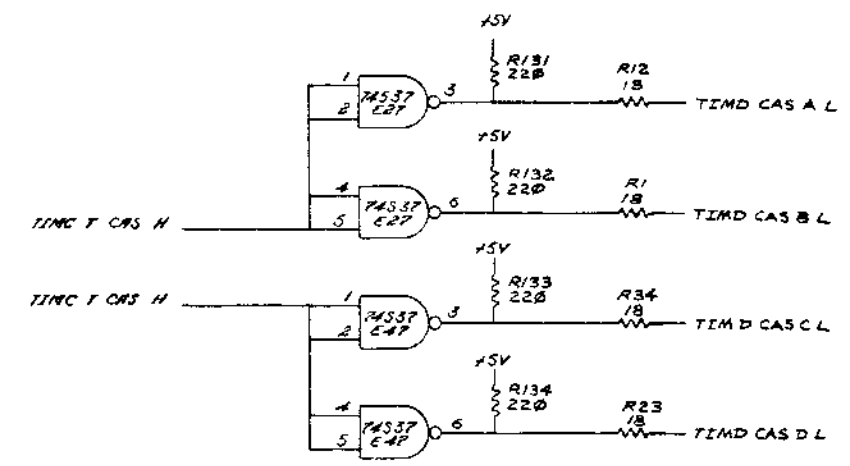
REVISIONS			TITLE		SIZE CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.	PDP8 MOS MEMORY (TIM B)		DCS	M8417-0-1	F
			SCALE	NONE	SHEET	2 OF 14	DIST.
8	7	6	5	4	3	2	1



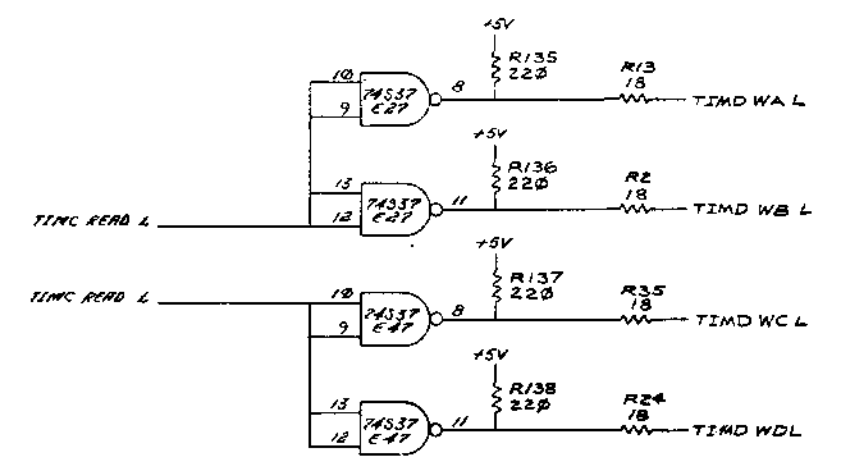
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RAS DRIVERS & SELECT



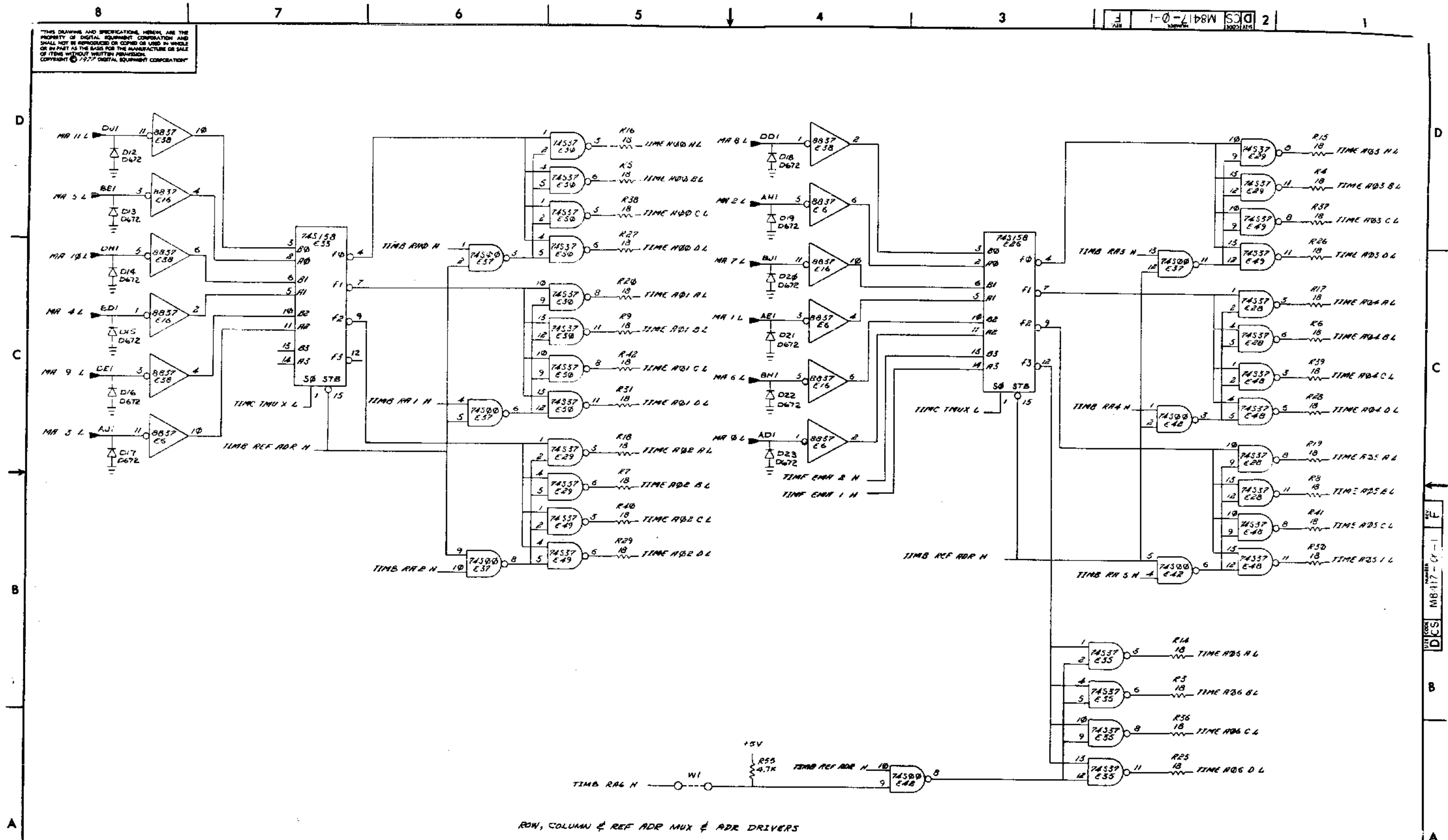
CAS DRIVERS



WRITE ENABLE DRIVERS

REVISIONS		
CHK	CHANGE NO.	REV.

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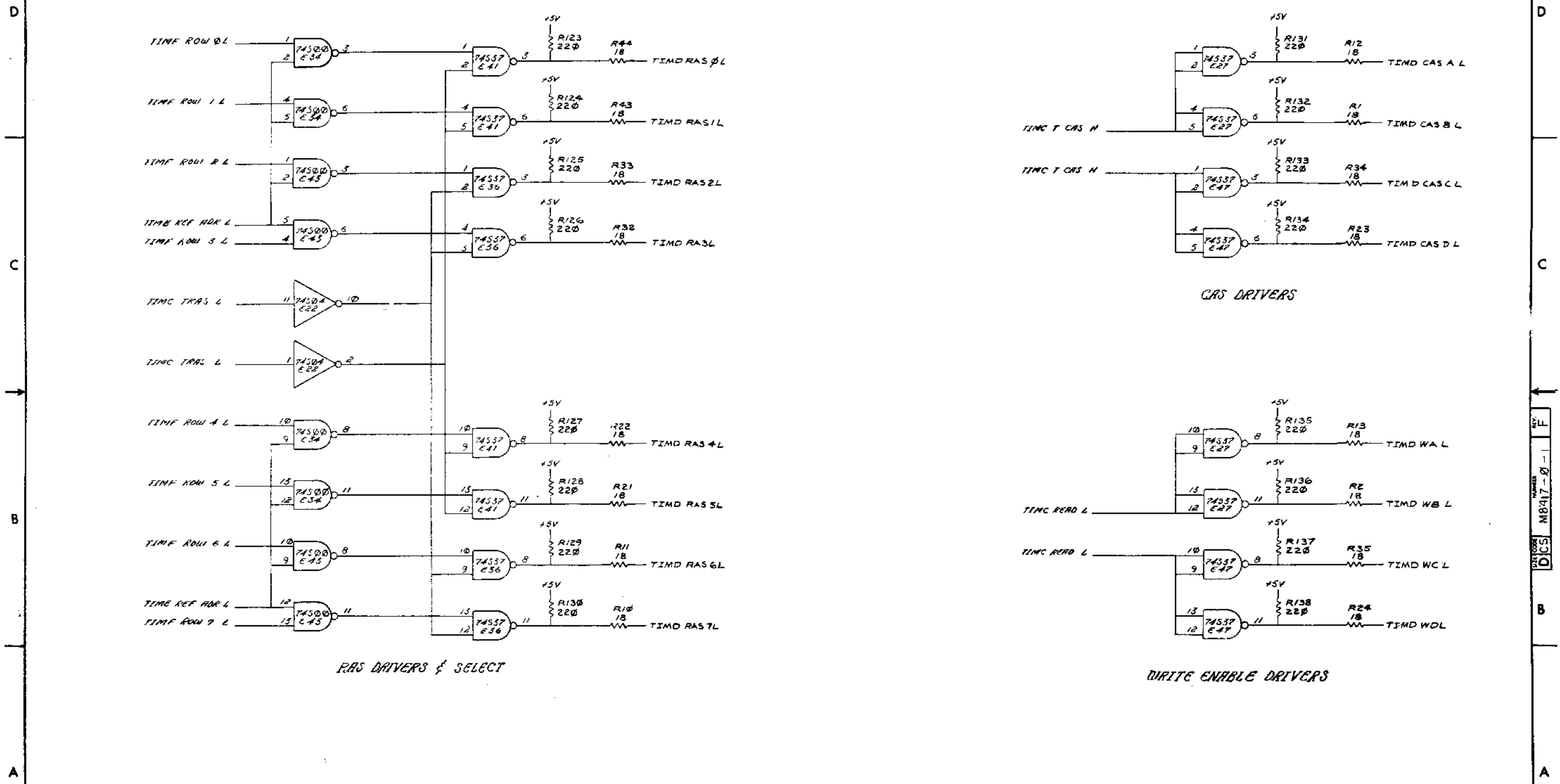


ROW, COLUMN & REF ADDR MUX & ADDR DRIVERS

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
PDP8 MOS MEMORY (TIME)	D	CS	M8417-0-1	F
SCALE	NONE	SHEET	5 OF 14	DIST.

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RAS DRIVERS & SELECT

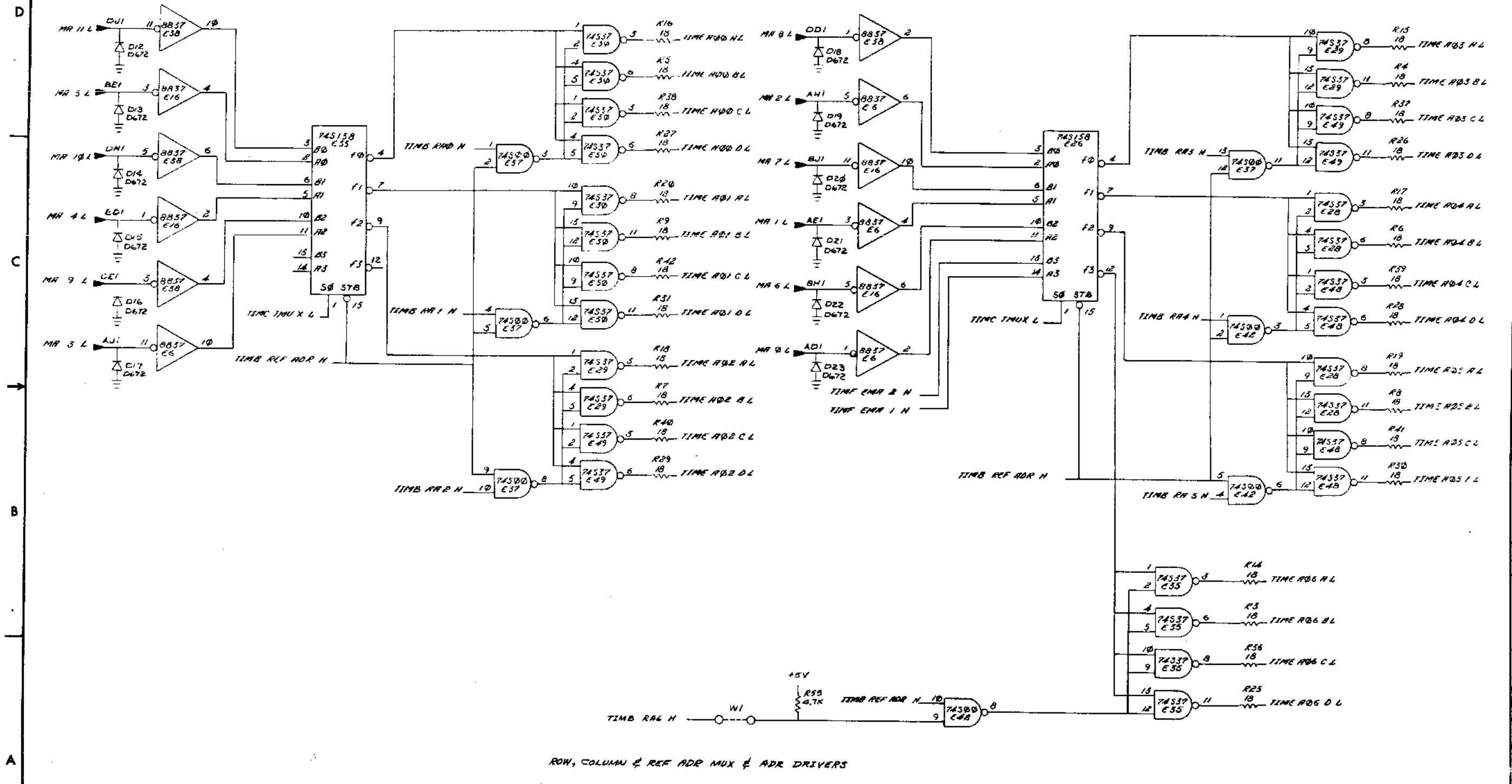
CAS DRIVERS

WRITE ENABLE DRIVERS

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	(TIMD)	SIZECODE	NUMBER	REV.
PDP8 MOS MEMORY	DCS	M8417-0-1	E	
SCALE	NONE	SHEET	4 OF 14	DIST.

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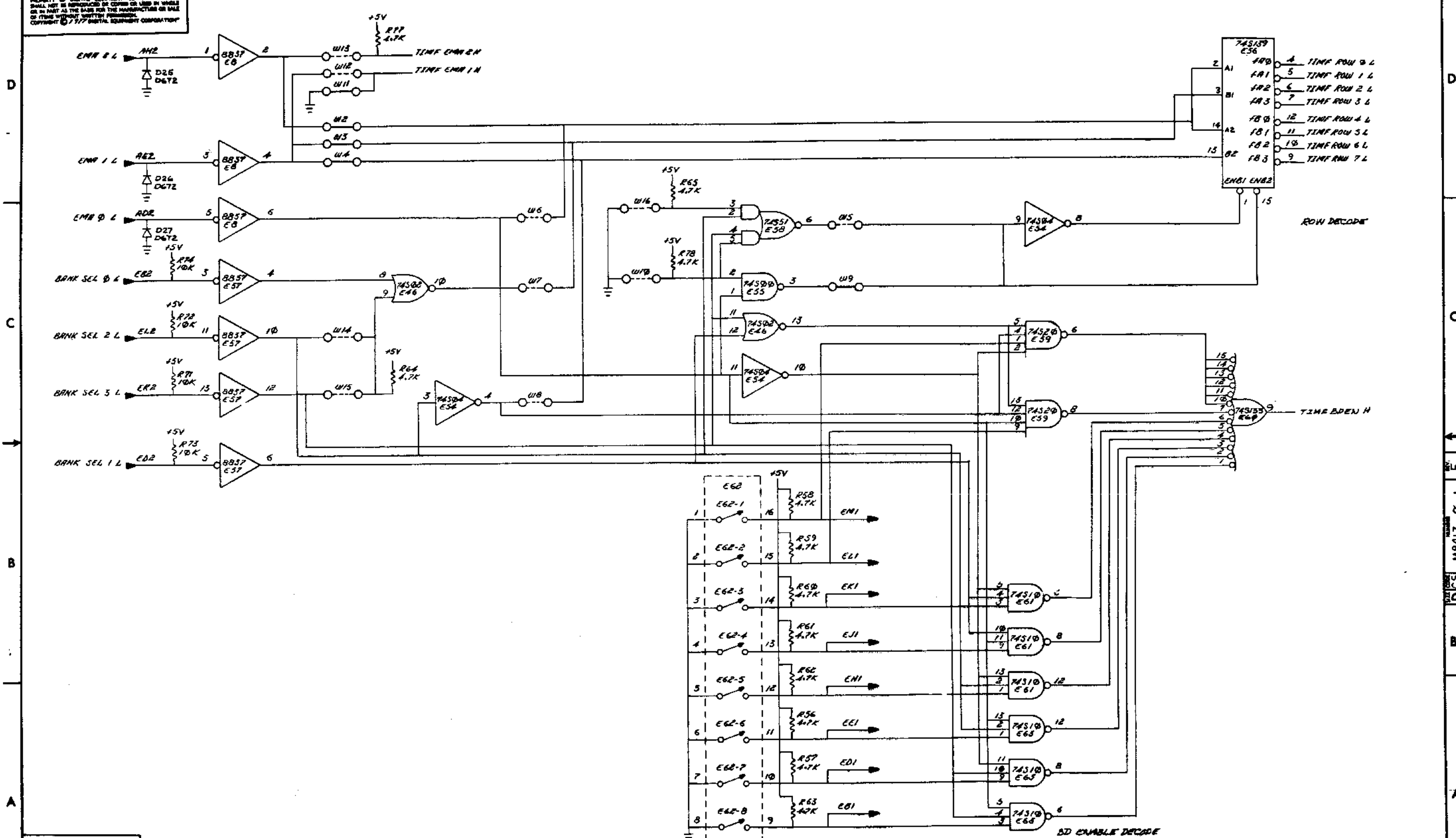
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE (TIME)		SIZE CODE	NUMBER	REV.
PDP8 MOS MEMORY		D CS	M8417-0-1	F
SCALE	NONE	SHEET	5 OF 14	DIST.

D CS M8417-0-1 F



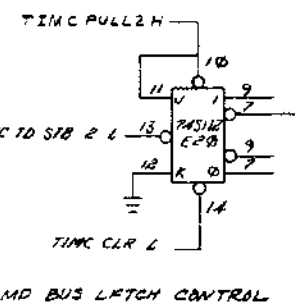
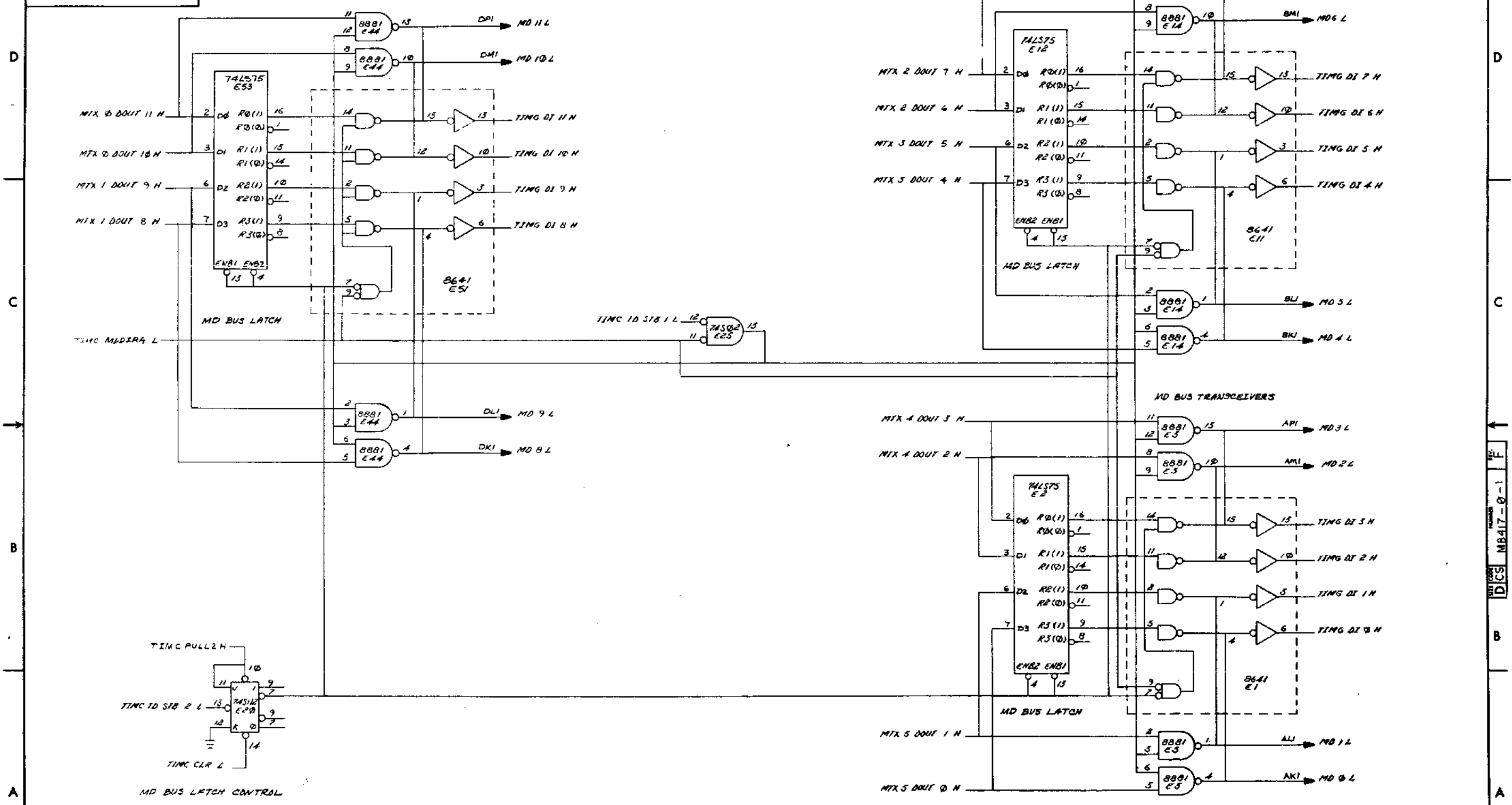
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REVISIONS		
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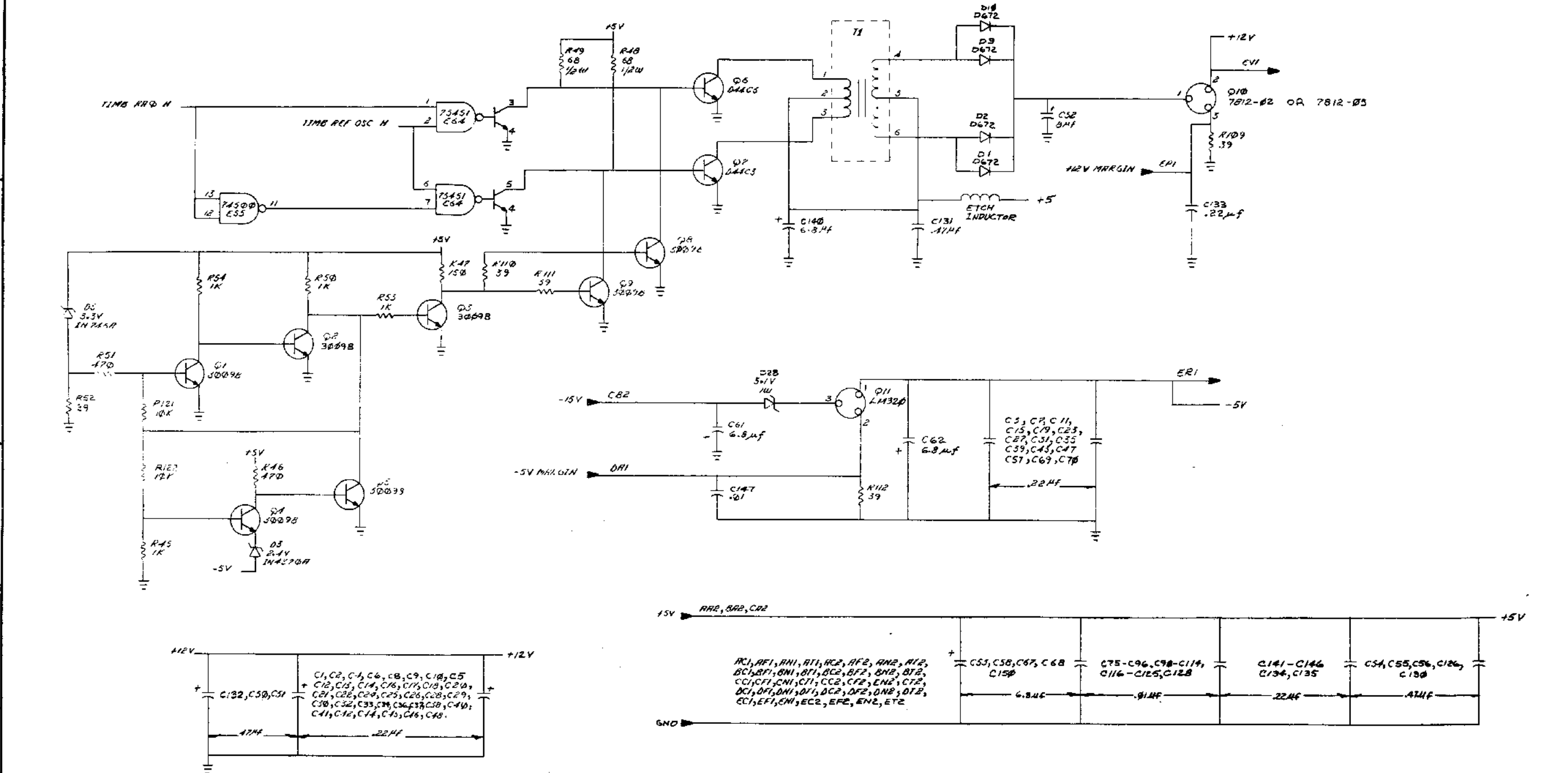
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MD BUS TRANSCIEVERS



REVISIONS		
CHK	CHANGE NO.	REV.

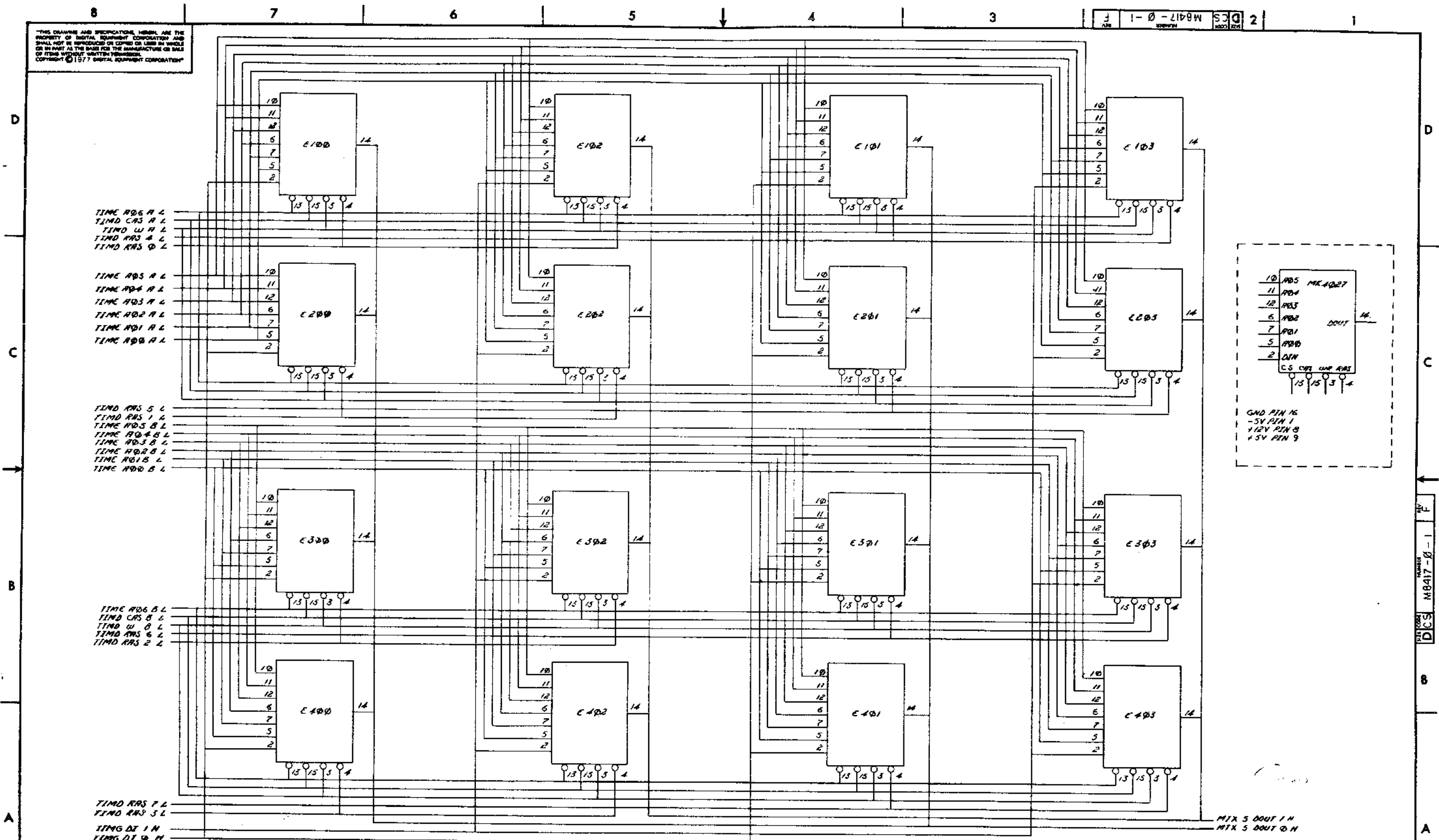
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REVISIONS		
CHK	CHANGE NO.	REV.

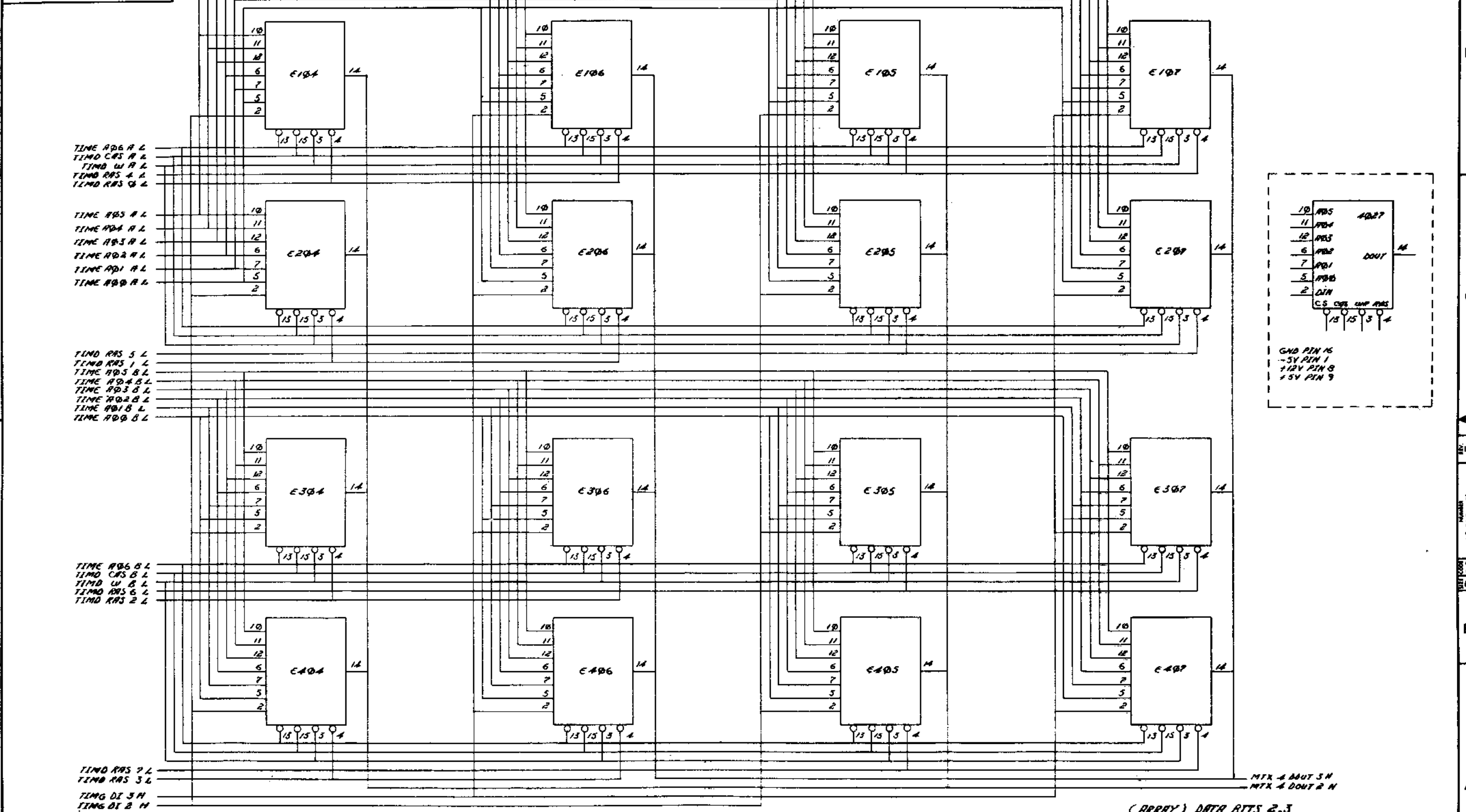
DCS MB417-0-1

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REVISIONS		
CHK	CHANGE NO.	REV.

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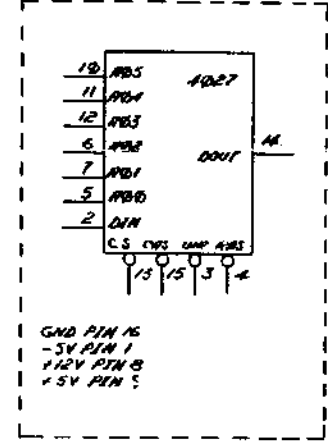
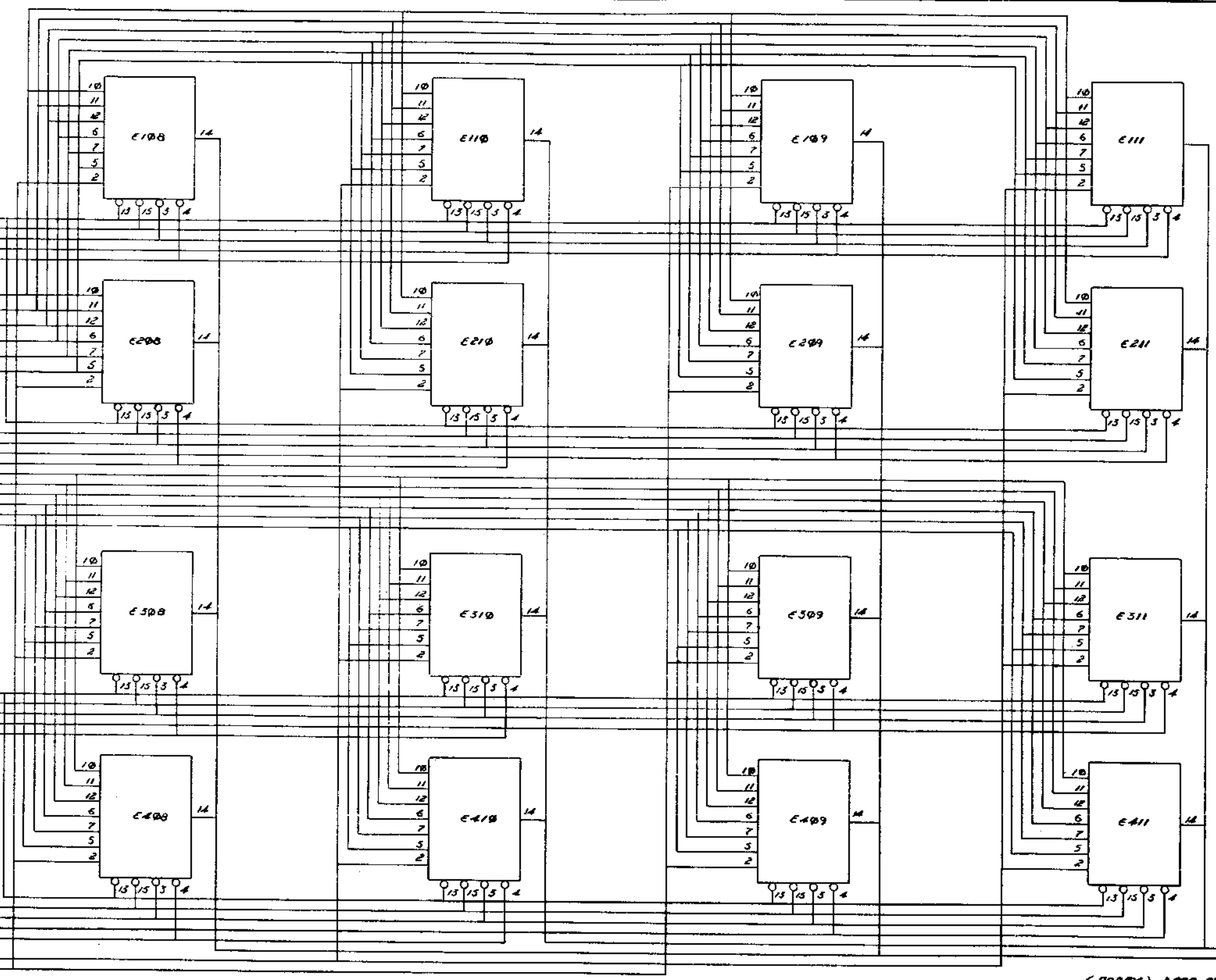


REVISIONS		
CHK	CHANGE NO.	REV.

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D  
C  
B  
A

TIME R06 A L  
TIME C05 A L  
TIME W A L  
TIME R05 A L  
TIME R05 B L  
  
TIME R05 A L  
TIME R04 A L  
TIME R03 A L  
TIME R02 A L  
TIME R01 A L  
TIME R00 A L  
  
TIME R05 S L  
TIME R05 I L  
TIME R05 B L  
TIME R04 B L  
TIME R03 B L  
TIME R02 B L  
TIME R01 B L  
TIME R00 B L  
  
TIME R06 B L  
TIME C05 B L  
TIME W B L  
TIME R05 B L  
TIME R05 A L  
  
TIME R03 T L  
TIME R03 S L  
TIME D1 S H  
TIME D1 A H



MTX 3 DOUT 5 H  
MTX 5 DOUT 4 H

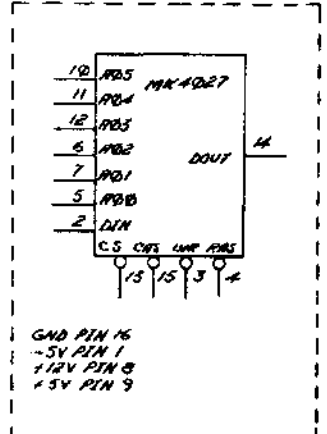
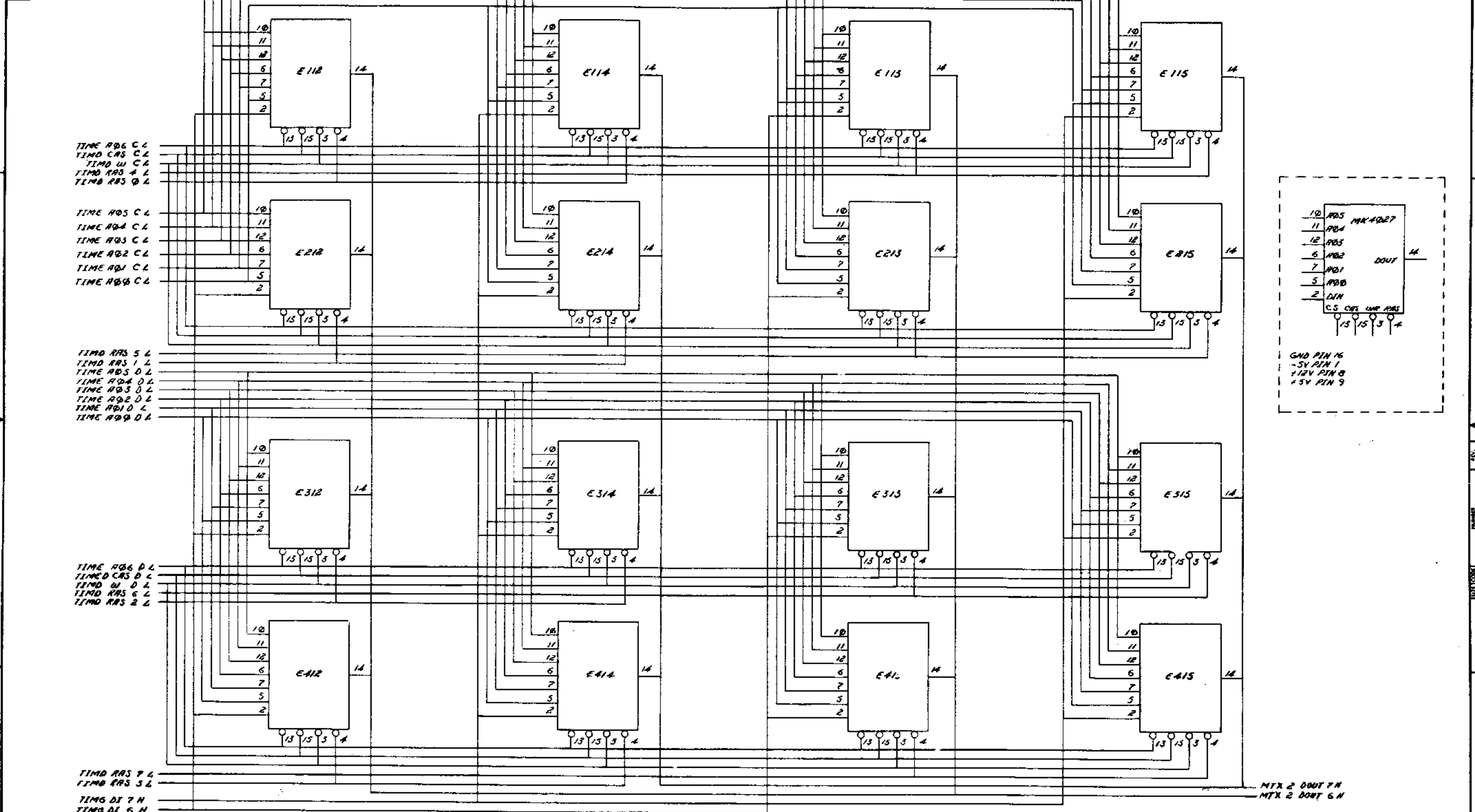
(BARRY) DATA BITS 4, 5  
MTX 5

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MOS MEMORY	DATE CODE	DCS	NUMBER	M8417-0-1	REV.	F
SCALE	NONE	SHEET	11	OF	13	DATE	

DCS M8417-0-1

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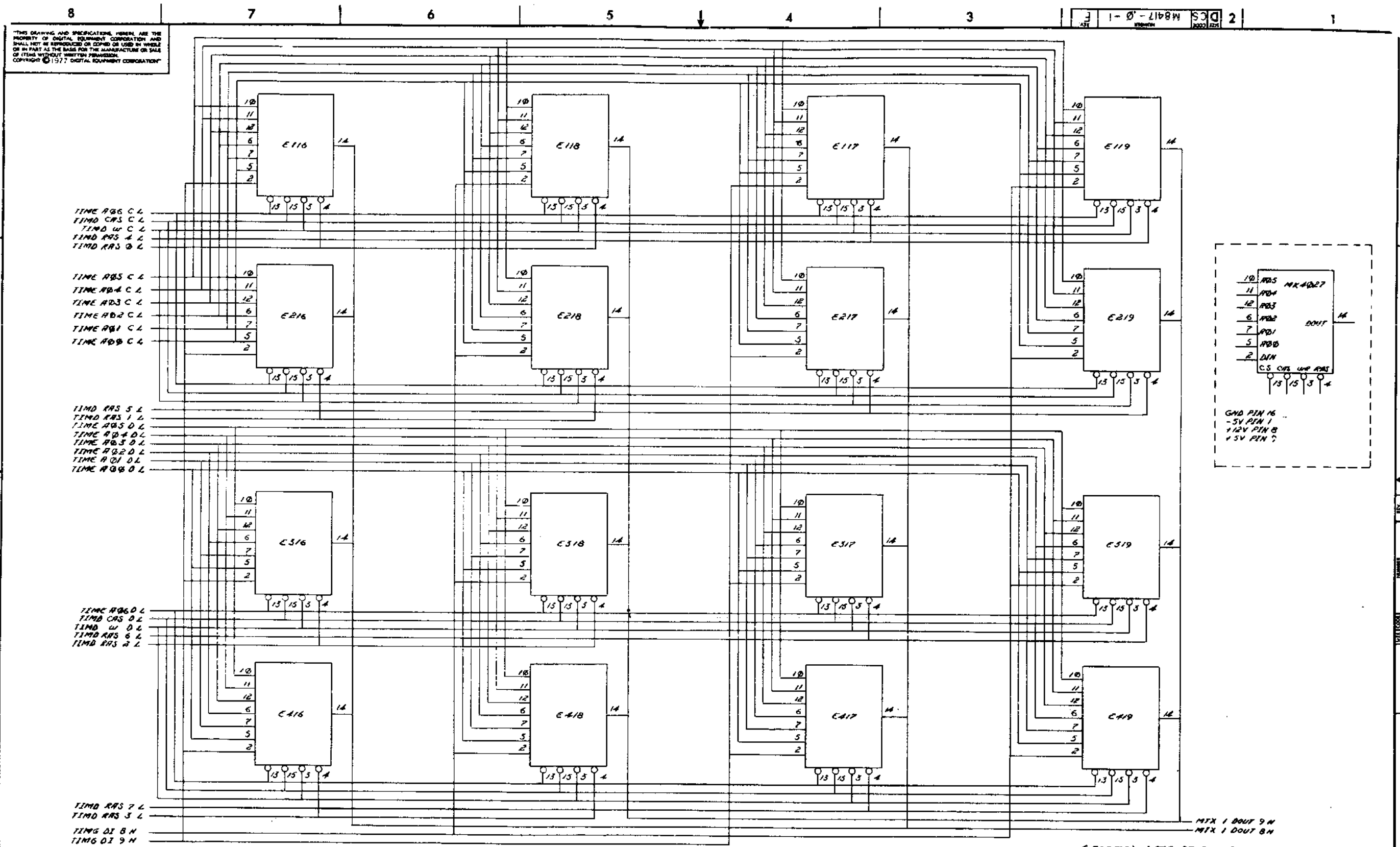


MTX 2 DOUT 7 H  
MTX 2 DOUT 6 H

(ARRAY) DATA BITS 6, 7  
MTX 2

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MOS MEMORY	SIZE CODE	DCS	NUMBER	M8417-0-1	REV.	F
SCALE	NONE	SHEET	12 OF 14	DIST.			

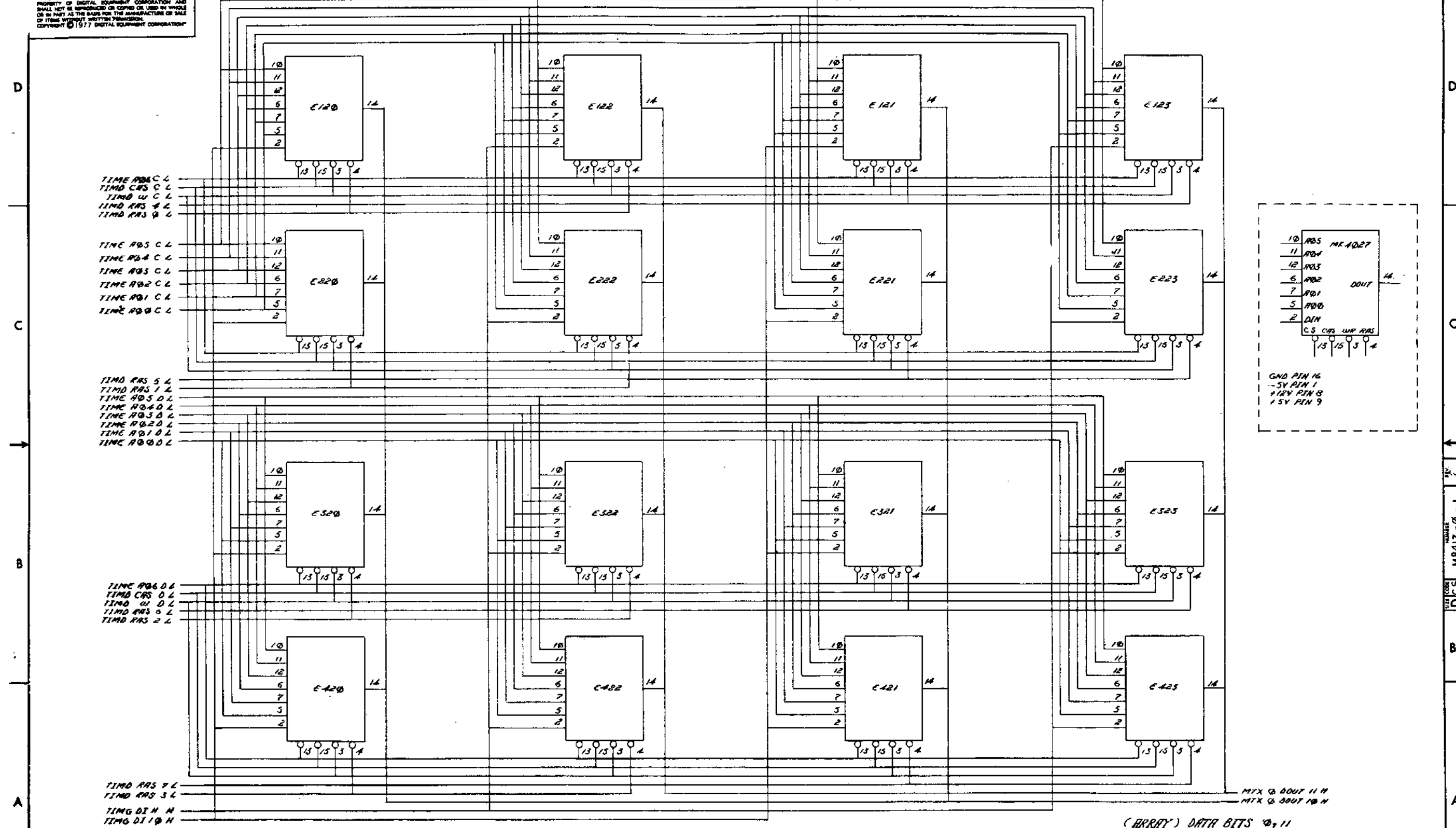


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PDP8 MOS MEMORY	SIZE CODE	DCS	NUMBER	M8417-0-1	REV.	F
SCALE	NONE	SHEET	13 OF 14	DATE			



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REVISIONS		
CHK	CHANGE NO.	REV.

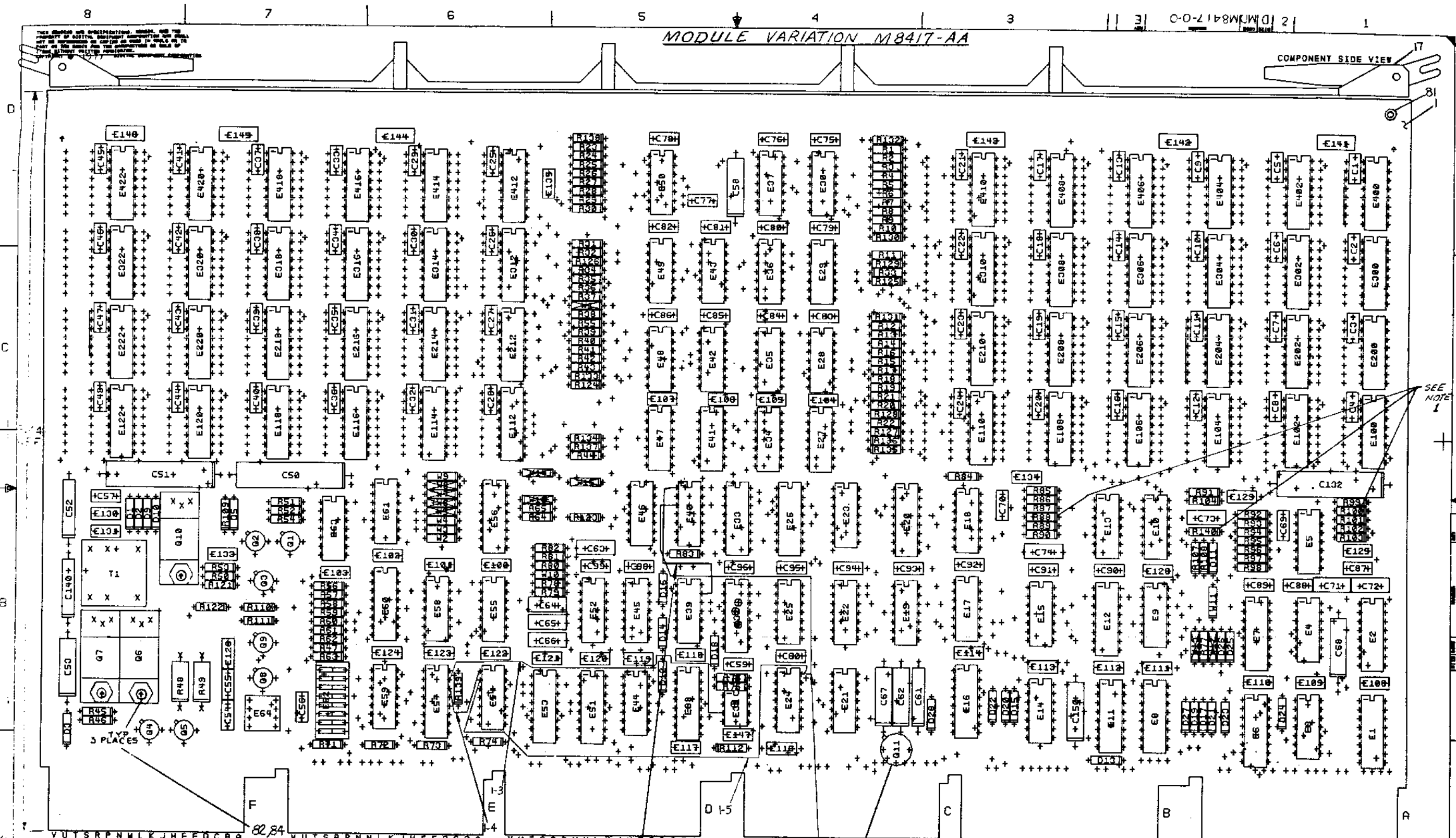
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SCALE	NONE	SHEET	11 OF 13	DIST.			

TITLE DCS NUMBER M8417-0-1 REV. F

MODULE VARIATION M8417-AA

2 DUA M8417-0-0

COMPONENT SIDE VIEW



SEE NOTE 1

NOTES: 1. R100, R140 & R88 WILL NOT BE INSTALLED AT ASSEMBLY, BUT AT MEMORY TEST, IF NEEDED.  
2. M8417-AA = M8417-PA, AC ETC. = (4KX12 BIT MEMORY).

CHANGE NO	REV	DATE	BY	CHK'D
01	B	5-19-77	J. STEGEMAN	J. STEGEMAN
02	C	5-19-77	J. STEGEMAN	J. STEGEMAN
03	D	5-19-77	J. STEGEMAN	J. STEGEMAN
04	E	5-19-77	J. STEGEMAN	J. STEGEMAN
05	F	5-19-77	J. STEGEMAN	J. STEGEMAN

FOR PARTS LIST, SEE B-PL-M8417-0-0

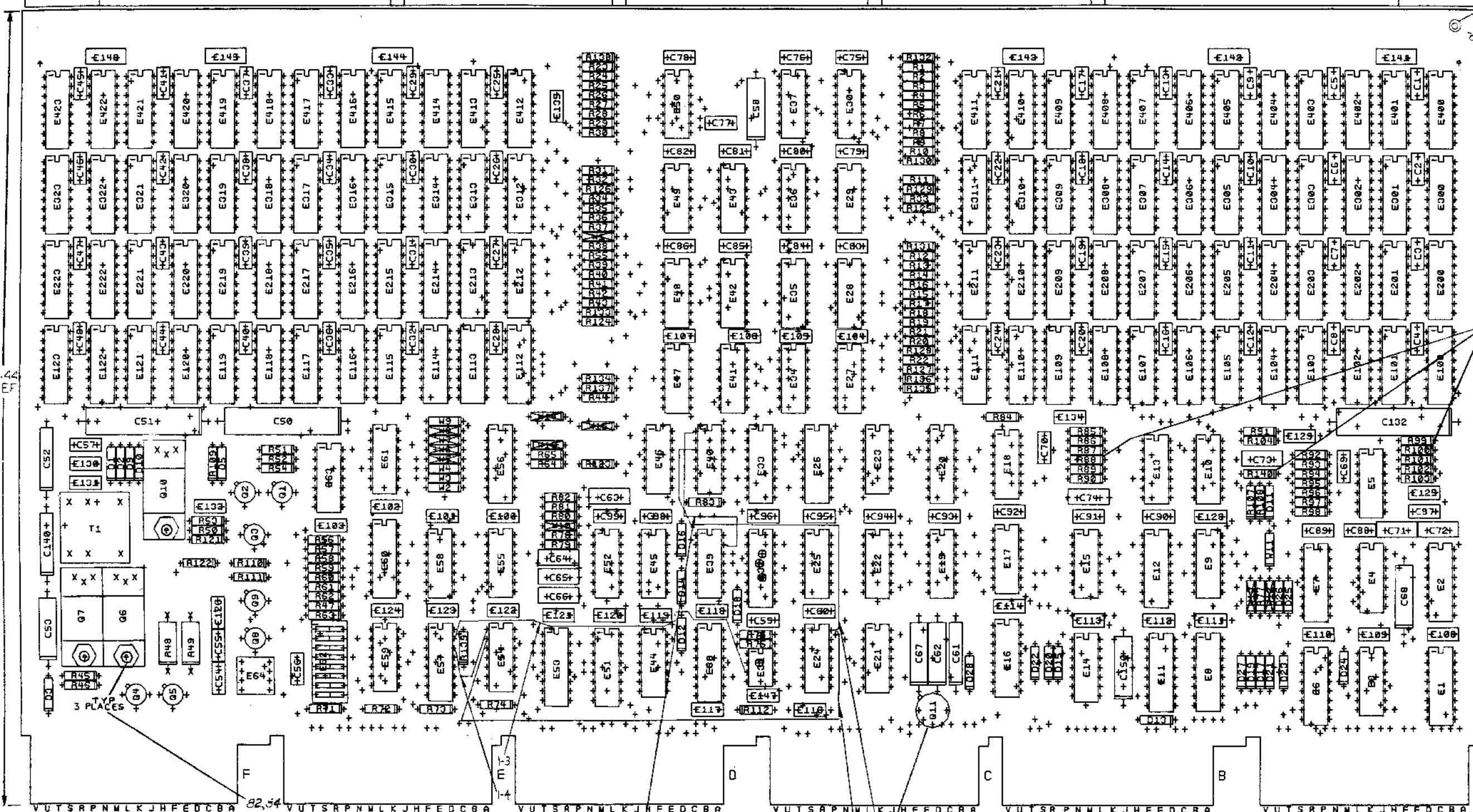
ETCH REV. B	P.C. DESIGN DATA BRSE. REV. B1
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SIGNATURES		DATE	digital
DRN. <i>A. Syllia</i>		5-19-77	
CHK'D. <i>J. Stegeman</i>		5-19-77	
PROJ. ENG. <i>J. Stegeman</i>		2-2-77	TITLE PDP 8 MOS MEMORY
PROD. <i>J. Stegeman</i>		2-3-77	SIZE CODE NUMBER REV
SCALE 2:1			D UA M8417-0-0 E
SHT. OF 3			
NEXT HIGHER ASSY. B-DD-M8417-0			

1 MS#104718

MODULE VARIATION M8417-BA

COMPONENT SIDE VIEW



NOTES: 1. R100, R140 & R88 WILL NOT BE INSTALLED AT ASSEMBLY, BUT AT MEMORY TEST, IF NEEDED.  
2. M8417-BA = M8417-0A, 0B, 0C ETC. (32K X 12 BIT MEMORY).

CHANGE NO	REV

FOR PARTS LIST  
SEE B-PL-M8417-0-0

ETCH REV. B
P.C. DESIGN DATA BASE REV. B1

SIGNATURES		DATE	digital
DRN. <i>[Signature]</i>		5-19-77	
CHK. D. <i>[Signature]</i>		7-17-77	
ENG. <i>[Signature]</i>		7-7-77	
PROJ. ENG. <i>[Signature]</i>		7-2-77	
PROD. <i>[Signature]</i>		7-8-77	
SCALE 2:1			
SHT. 2 OF 8			
NEXT HIGHER ASSY. D.D.M.8417-0			

TITLE PDP 8 MOS MEMORY  
SIZE CODE NUMBER REV  
D JA M8417-0-0 E

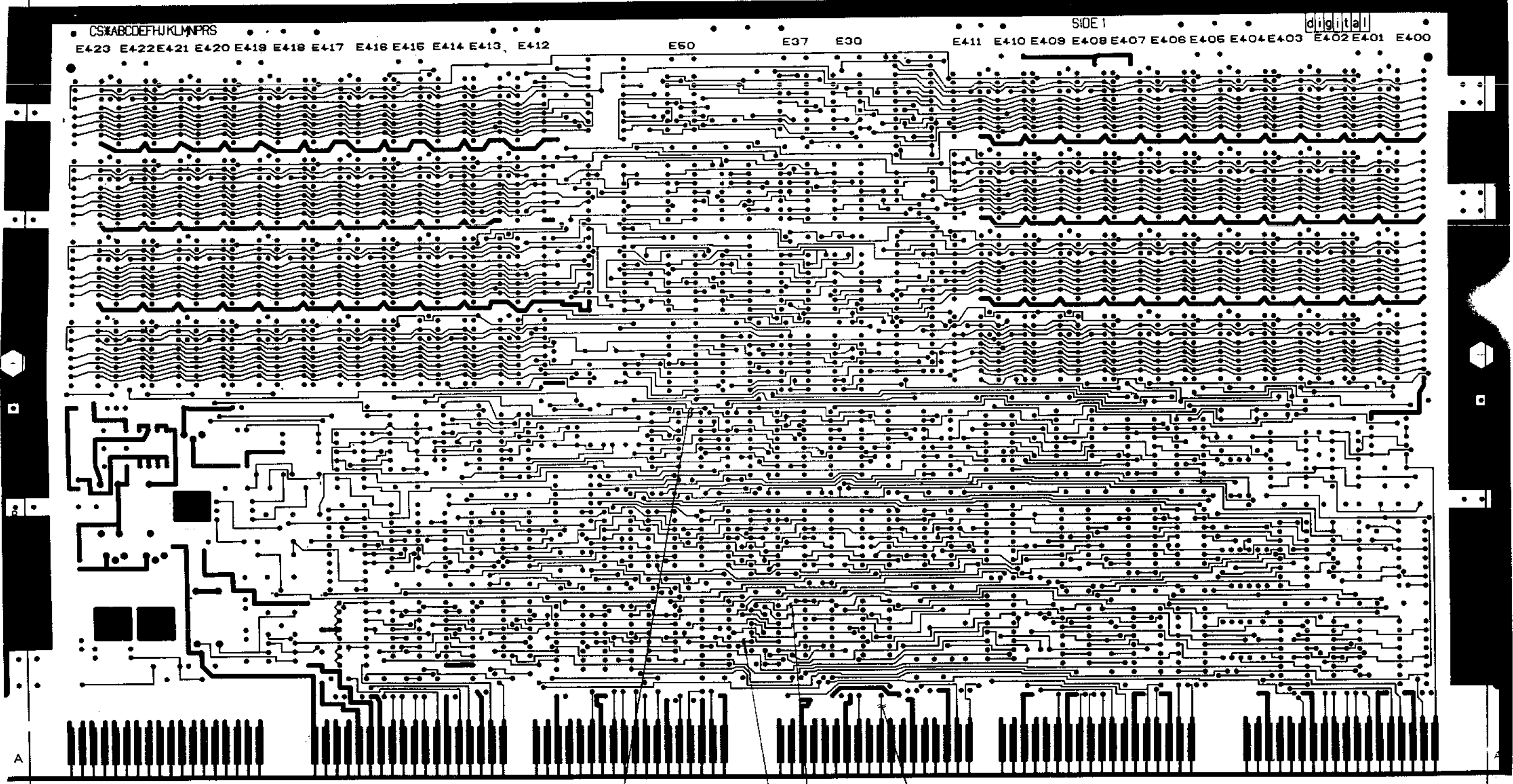
8 7 6 5 4 3 2 1

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M8417 LAYER 1 5012701B

CSABCDEFGHIJKLMNPRS E423 E422 E421 E420 E419 E418 E417 E416 E415 E414 E413 E412 E50 E37 E30 E411 E410 E409 E408 E407 E406 E405 E404 E403 E402 E401 E400

digital



CHK	CHANGE NO.	DATE	BY	REV.
TITLE		PDP8 MOS MEMORY		SIZE CODE
SCALE		2/1		D UA
SHEET		3 OF 3		NUMBER
DIST.				M8417-0-0
REV.				E

8 7 6 5 4 3 2 1

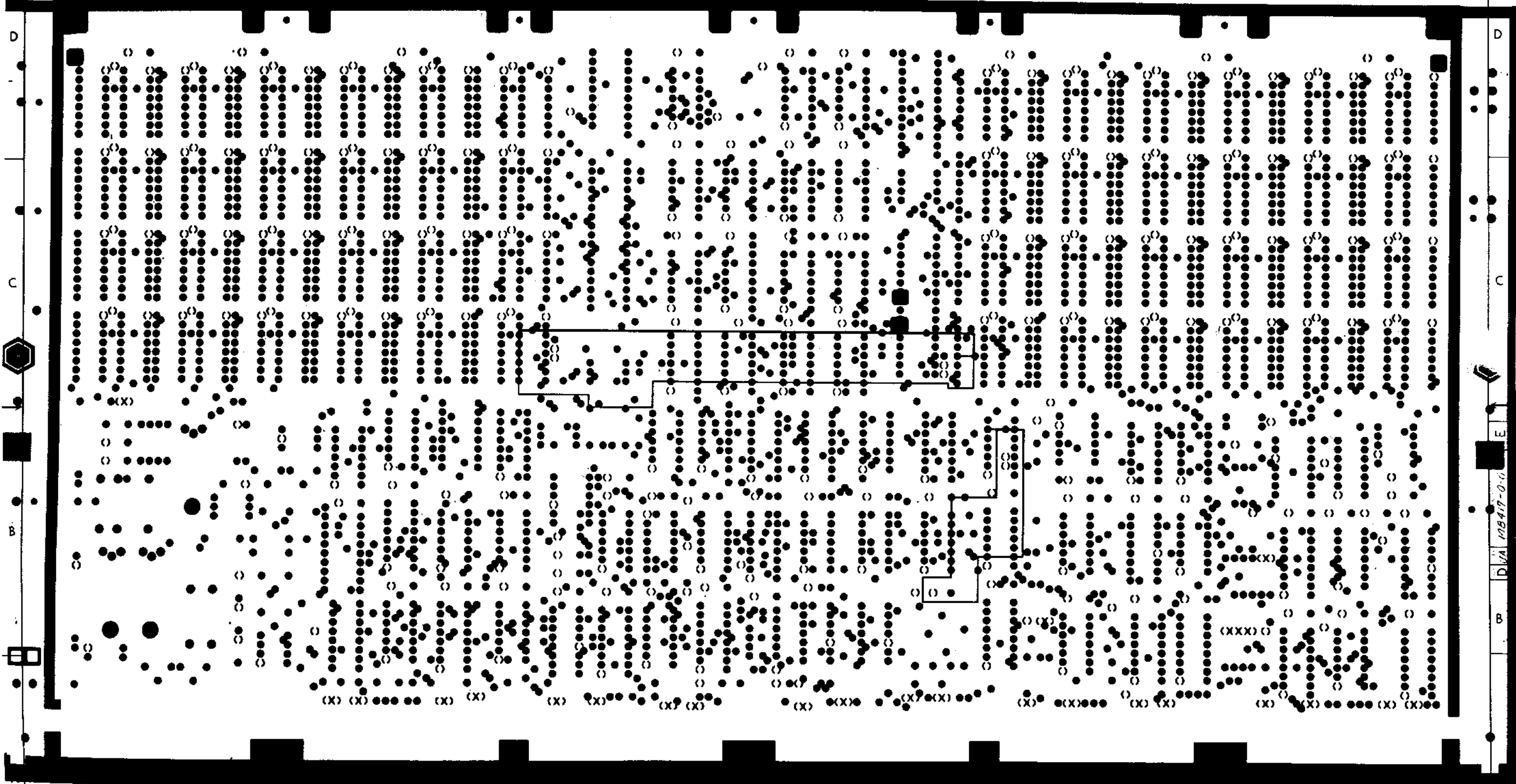
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L2 MB417B

MB417

LAYER 2  
 5012701B

3 0-0-1198W 4P DUA MB417-0-0 2 1



REVISIONS		
CHG	CHANGE NO	REV

TITLE	PDP8 MOS MEMORY	SIZE CODE	DUA	NUMBER	MB417-0-0	REV.	E
SCALE	2/1	SHEET	4 OF 8	DIST.			

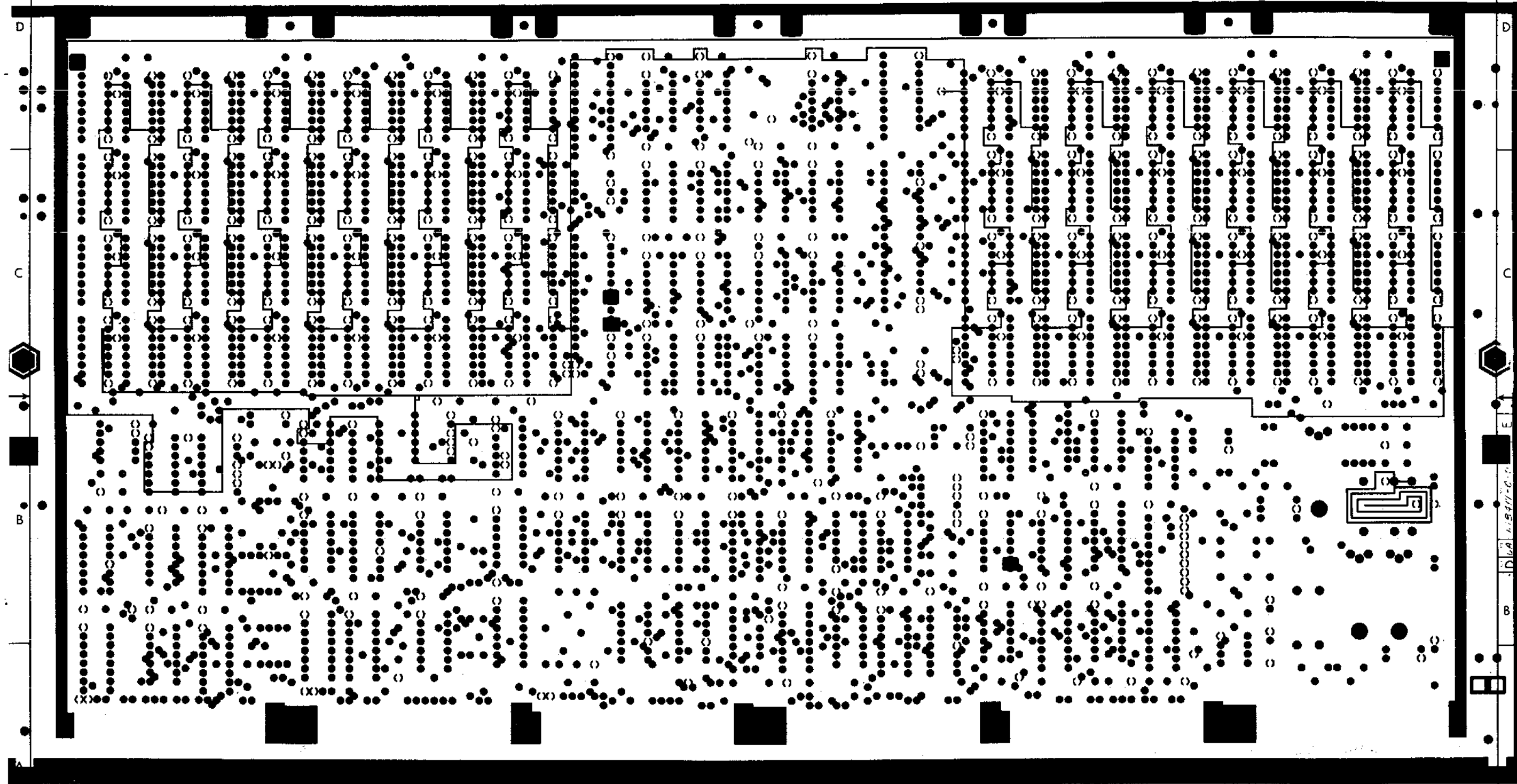
8 7 6 5 4 3 2 1

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E R34A J

DUA M8417-0-0 2

M8417B L3



REVISIONS		
CHK	CHANGE NO	REV

TITLE	PDP8 MDS MEMORY	SIZE/CD	D UA	NUMBER	M8417-0-0	REV.	E
SCALE	2/1	SHEET	5 OF 8	DIST			

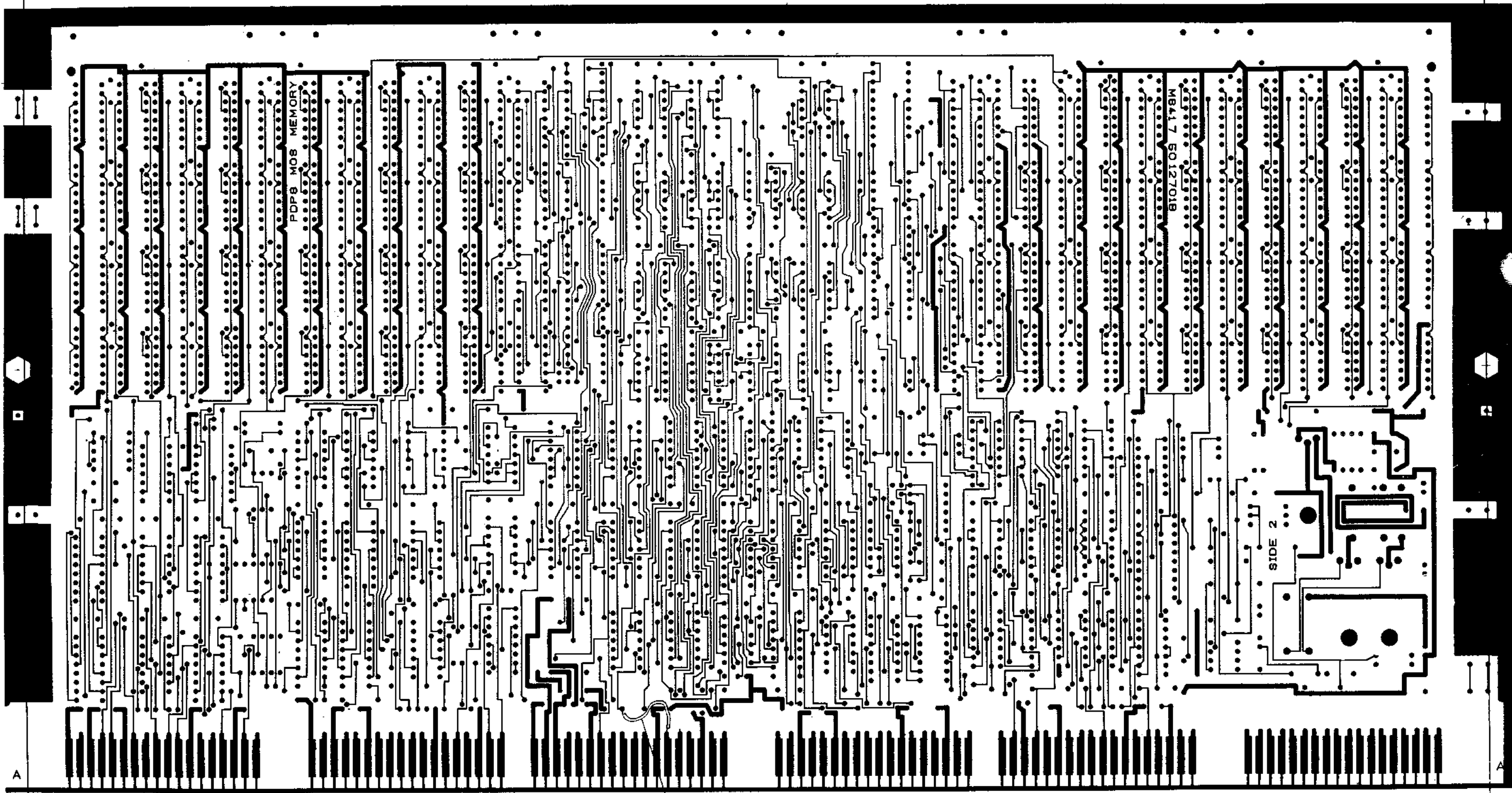
8 7 6 5 4 3 2 1



LAYER 4

L4

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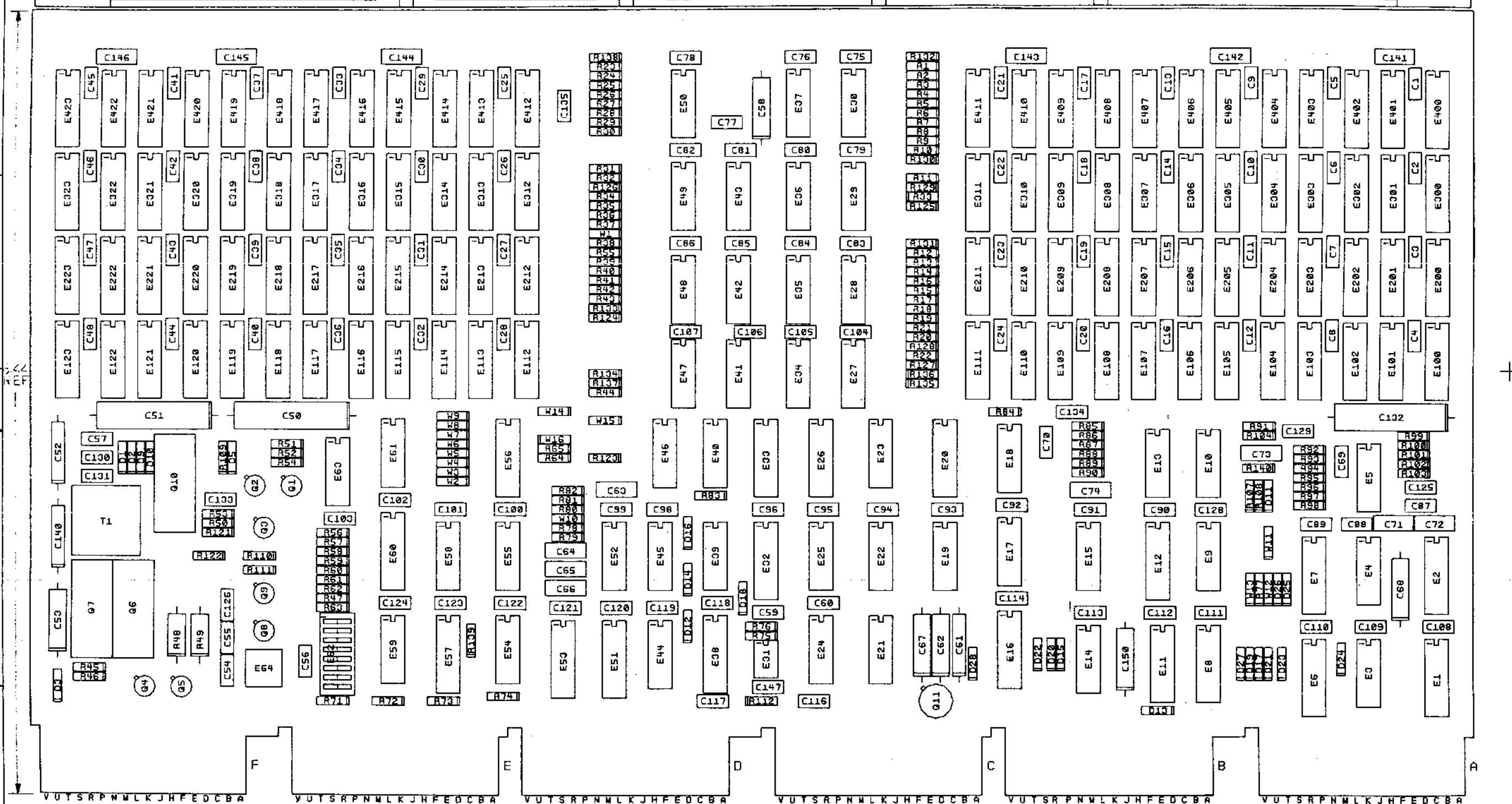
CHK	CHANGE NO	REV.

2-2

FILE	PDP8 MOB MEMORY	SIZE CODE	DUA	NUMBER	M8417-0-0	REV.	E
SCALE	2/1	SHEET	6	OF	8	DIST	

8 7 6 5 4 3 2 1

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NOTES:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

CHG	NO	REV

DWG - REF ONLY

SIGNATURES	DATE	TITLE	SIZE	CODE	NUMBER	REV
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CHK'D. <i>[Signature]</i>	5-19-77	PDP 8 MOS MEMORY	0	UL	M8417-0-0	E
ENC. <i>[Signature]</i>	7/8/77					
PROJ. ENG. <i>[Signature]</i>	7/8/77					
PROD. <i>[Signature]</i>	7-8-77					
SCALE 2:1						
SHT. 7 OF 8						
NEXT HIGH ASSY. E-D-M-8417-0						

DUPLICATE



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REWORK INSTRUCTIONS

ECO #1

- ETCH CUTS SIDE 1:  
 1-1 CUT ETCH TO FREE E31-3  
 1-2 CUT ETCH TO FREE E31-3  
 WIRE ADDS SIDE 1:  
 1-3 WIRE E31-3 TO E57-15  
 1-4 WIRE E57-14 TO E54-1  
 1-5 WIRE E54-2 TO E24-14  
 1-6 WIRE E24-14 TO E40-3

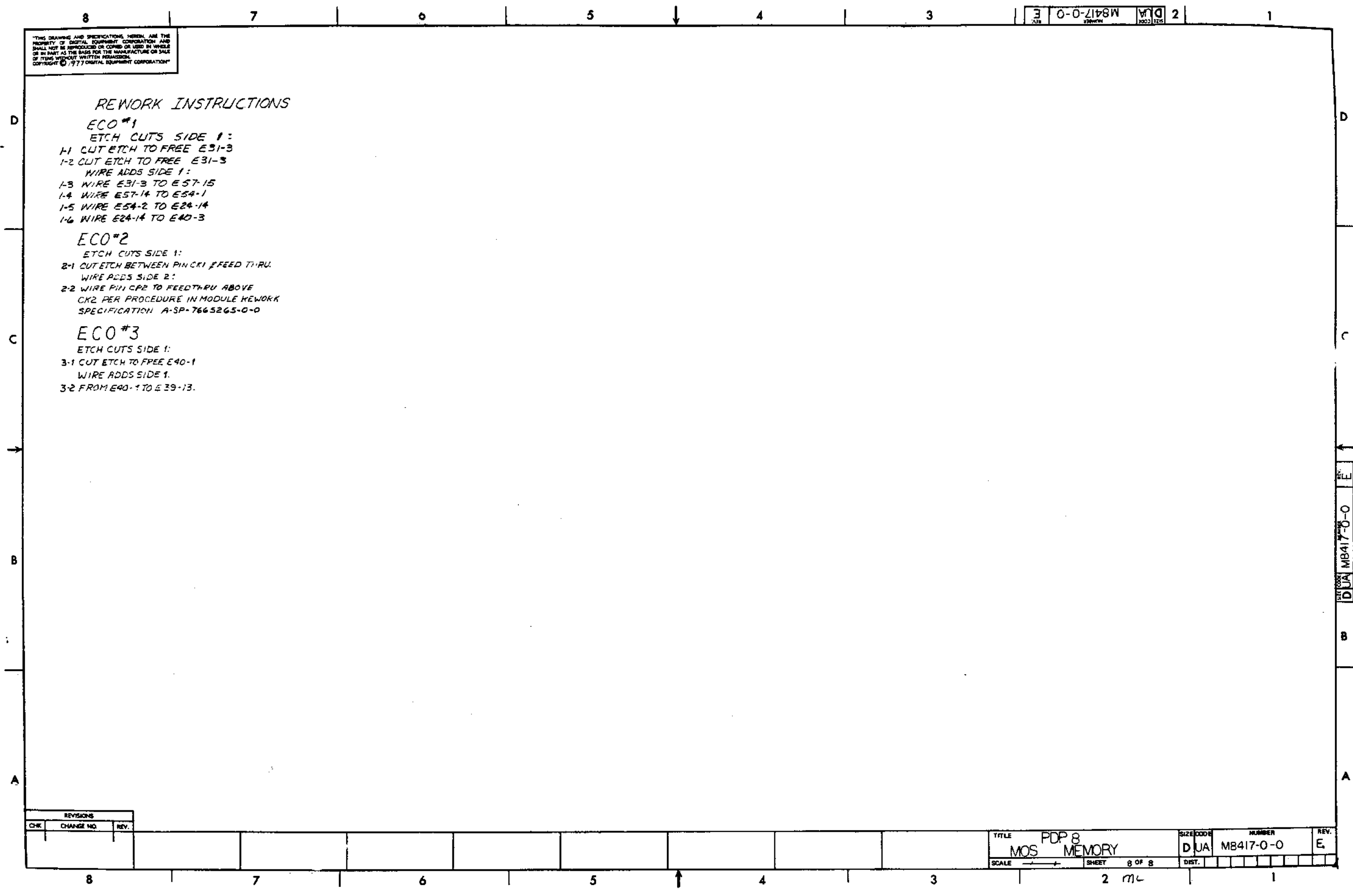
ECO #2

- ETCH CUTS SIDE 1:  
 2-1 CUT ETCH BETWEEN PIN CK1 & FEED THRU  
 WIRE ADDS SIDE 2:  
 2-2 WIRE PIN CP2 TO FEEDTHRU ABOVE  
 CK2 PER PROCEDURE IN MODULE REWORK  
 SPECIFICATION A-SP-7665265-0-0

ECO #3

- ETCH CUTS SIDE 1:  
 3-1 CUT ETCH TO FREE E40-1  
 WIRE ADDS SIDE 1:  
 3-2 FROM E40-1 TO E39-13.

REVISIONS		
CHK	CHANGE NO.	REV.



LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION				REFERENCE DESIGNATOR
					AB	AD	AC	AE	
1	1	D-UA-M8417-0-0		UNIT ASSY	REF	REF	REF	REF	
2	2	D-UA-M8417-0-0		UNIT ASSY	REF	-	-	-	
3	3		5012701-00	ETCH BOARD (M8418)	1	1	1	1	
4	4		1000006-00	10.0 MMF 100V 5%200PPM MICA	1	1	1	1	C66
5	5		1000016-00	100.0 MMF 100V 5%200PPM MICA	1	1	1	1	C64
6	6		1000042-00	1000.0 MMF 100V 5%200PPM MICA	1	1	1	1	C65
7	7		1001610-01	.01 MFDSO/100V +80-20% DISC	53	53	53	53	C60, C75-C96, C98-C114, C116-C125, C128, C129, C147
8	8		1005306-0C	6.8MFD 35V 10% S.TANT	8	8	8	8	C53, C58, C67, C61, C62, C68, C140, C150
9	9		1010274-00	.22 MFD 50V +80-20% Z5U CER	60	60	60	60	C1-C48, C57, C69, C70, C133-C135, C141-C146
10	10		1010279-00	.47 MFD 25V 20% CER	6	6	6	6	C54-C56, C126, C130, C131
11	11		1012084-01	8 MFD 25V +75-10% AL EL	1	1	1	1	C52
12	12		1012121-00	220.0 MMF 100V 1%200PPM MICA	6	6	6	6	C59, C63, C71-C74
13	13		1012219-00	47 MFD 30V +75-10% AL EL	3	3	3	3	C50, C51, C132
14	14		1101938-00	1N 4370A VZ= 2.4 5% .40W	1	1	1	1	D3
15	15		1104860-00	1N 746A VZ= 3.3 5%	1	1	1	1	D5
16	16		1105275-00	0.672 TR= 15NS PIV= 60V SI	21	21	21	21	D1, D2, D9-D27
17	17		1109943-00	1N 4733A VZ= 5.1 5% 1W Y	1	1	1	1	D28
18	18		1211164-04	SW DIP 1P 1A 8POS	1	1	1	1	E62
19	19		1210711-02	/REPLACED BY 12-16988-02	1	1	1	1	
20	20		1300250-00	150.0 .25 W 5.0 % CC	1	1	1	1	R47
21	21		1300271-00	220.0 .25 W 5.0 % CC	16	16	16	16	R123-R138
22	22		1300316-00	470.0 .25 W 5.0 % CC	2	2	2	2	R46, R51
23	23		1300365-00	1.0 K .25 W 5.0 % CC	9	9	9	9	R45, R50, R53, R54, R82-R84, R103, R104
24	24		1300447-00	4.70 K .25 W 5.0 % CC	15	15	15	15	R55-R65, R77, R78, R81, R139
25	25		1300479-00	10.0 K .25 W 5.0 % CC	6	6	6	6	R71-R74, R121, R122
26	26		1302124-00	18.0 .25 W 5.0 % CC	46	46	46	46	R1-R44, R90, R98

REVISION HISTORY			BASIC PART NO: M8417		DRN:	L. METZGER	DATE:	30-MAY-78	D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF C		CHK'D:	P. BOSSMAN	DATE:	30-MAY-78	TITLE			
E.R.	CJ003	D	SECTION VARIATION INDEX						PARTS LIST			
J.S.	M8417-ML004	E	[A]	AB, AD, AC, AE					PDFB MOS MEMORY			
J.S.	M8417-ML005	F	[B]	BB, BC, BD, BE								
J.S.	M8417-ML006	H	[C]	AF, BF	DES. ENG.:	J. STEGEMAN	DATE:	30-MAY-78				
			[D]						DOCUMENT NUMBER			
			[E]		RESP. ENG.:	J. STEGEMAN	DATE:	30-MAY-78				
			[F]						SIZE: CODE: NUMBER REV			
			[G]		MFG. ENG.:	C. TANNEK	DATE:	30-MAY-78	K	PL	M8417-0-DBP	H
			[H]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
			[I]		D-UA-M8417-0-0		M58-C		Z0189H.PLS		6	
			[J]									
			[K]									
			[L]									
			[M]									
			[N]									

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION				REFERENCE DESIGNATOR
					RB	AD	AC	AE	
27	27		1302377-00	39.0	.25 W 5.0 %	5	5	5	R52, R109-R112
28	28		1302859-00	5.76 K	.25 W 1.0 %	1	1	1	R96
29	29		1302871-00	1.21 K	.25 W 1.0 %	2	2	2	R80, R108
30	30		1302872-00	691.0	.25 W 1.0 %	1	1	1	R89
31	31		1302956-00	196.0	.25 W 1.0 %	1	1	1	R94
32	32		1302957-00	121.0	.25 W 1.0 %	1	1	1	R101
33	33		1303045-00	3.16 K	.25 W 1.0 %	1	1	1	R76
34	34		1303067-00	422.0	.25 W 1.0 %	1	1	1	R99
35	35		1303110-00	19.60	.25 W 1.0 %	1	1	1	R93
36	36		1303226-00	68.10	.25 W 1.0 %	1	1	1	R86
37	37		1303311-00	46.40 K	.25 W 1.0 %	1	1	1	R75
38	38		1303313-00	12.10 K	.25 W 1.0 %	1	1	1	R97
39	39		1304725-00	300.0	.25 W 1.0 %	1	1	1	R107
40	40	SEE NOTE 90	1304833-00	1.96 K	.25 W 1.0 %	1	1	1	R92
41	41		1305122-00	51.10	.25 W 1.0 %	1	1	1	R85
42	42		1305123-00	215.0	.25 W 1.0 %	2	2	2	R91, R102
43	43		1305143-00	825.0	.25 W 1.0 %	2	2	2	R95, R79
44	44	SEE NOTE 90	1305253-00	7.15 K	.25 W 1.0 %	1	1	1	R87
45	45		1309405-00	68.0	.50 W 5.0 %	2	2	2	R48, R49
46	46		1503100-00	DEC30098	NPN 200MW SI 20 25	7	7	7	Q1-Q5, Q8, Q9
47	47		1510171-00	D 4403	NPN 30WT SI 30 20 Y	2	2	2	Q6, Q7
48	48		1614234-00	XFMR,	CONVERTER, RATIO 1:3 300UH	1	1	1	T1
49	49		1909054-00	7493	COUNTER, ASYNCH UP, BI	2	2	2	E21, E24
50	50		1909705-00	DEC 8881	NAND GATE-QUAD 2IN 0	4	4	4	E3, E14, E17, E44
51	51		1910268-01	DEC 75107B-01	RECEIVER, LINE, DUA	3	3	3	E5, E10, E18
52	52		1910406-00	75451	DRIVER, PERIPH, DUAL,	1	1	1	E64
53	53		1910532-00	74500	NAND GATE-QUAD 2IN	6	6	6	E4, E34, E37, E42, E43, E55
54	54		1910533-00	74503	NAND GATE-QUAD 2IN 0	1	1	1	E13
55	55		1910534-00	74504	INVERTER GATE-HEX 1I	2	2	2	E22, E54
56	56		1910536-00	74510	NAND GATE-TRIPLE 3IN	3	3	3	E19, E61, E63
57	57		1910539-00	74520	NAND GATE-DUAL 4INPU	1	1	1	E59
58	58		1910542-00	74564	A-O-I GATE 4-2-3-2	1	1	1	E15
59	59		1910544-01	74574-60GG-D	DUAL, EDGE TRIG	1	1	1	E39
60	60		1910545-00	745112	FF-JK DUAL, EDGE TRIG	3	3	3	E7, E20, E32
61	61		1910549-00	745158	MUX 1 OF 2 (QUAD)	2	2	2	E26, E33
62	62		1911116-00	DEC 8837	RECEIVER, BUS, HEX, UN	5	5	5	E6, E8, E16, E38, E57
63	63		1911469-00	DEC 8640	RECEIVER, BUS, QUAD, U	1	1	1	E45
64	64		1911579-00	8641	TRANSCEIVER, BUS, QUA	3	3	3	E1, E11, E51
65	65		1911676-00	745139	DECODER-DUAL TWO-INP	1	1	1	E56
66	66		1911712-00	74551	AND-OR GATE-INVERT D	1	1	1	E58
67	67		1911944-00	555CN	TIMER, FUNCT. BLOCK	1	1	1	E31
68	68		1911983-00	745133	NAND GATE-POSITIVE 1	1	1	1	E60
69	69	SEE NOTE 93	1912048-06	DEC 7812	VOLT REG, FIX +12V	1	1	1	Q10
70	70		1912388-00	74502	NOR GATE-QUAD 2IN, PO	3	3	3	E9, E25, E46
71	71		1912389-00	74508	AND GATE-QUAD 2IN, PO	1	1	1	E23
72	72		1912541-00	79M05	VOLT REG, FIX -5V	1	1	1	Q11
73	73		1912649-00	LS75	LATCH 4BIT, BISTABLE	3	3	3	E2, E12, E53
74	74		1912746-00	DEC 74537	NAND GATE-QUAD 2IN	11	11	11	E27-E30, E35, E36, E41, E47-E50

D	I	G	I	T	A	L	TITLE	PDP8 MOS MEMORY	SECTION A OF C	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8417-0-DBP	H

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION				REFERENCE DESIGNATOR
					BB	BC	BD	BE	
1		D-UA-M8417-0-0		UNIT ASSY	REF	REF	REF	REF	
2		D-UA-M8417-0-0		*** THIS ITEM IS NOT USED ***	-	-	-	-	
3			5012701-00	ETCH BOARD (M8418)	1	1	1	1	
4			1000006-00	10.0 MMF 100V 5%200PPM MICA	1	1	1	1	C66
5			1000016-00	100.0 MMF 100V 5%200PPM MICA	1	1	1	1	C64
6			1000042-00	1000.0 MMF 100V 5%200PPM MICA	1	1	1	1	C65
7			1001610-01	.01 MFD50/100V +80-20% DISC	53	53	53	53	C60, C75-C96, C98-C114, C116-C125, C128, C129, C147
8			1005306-00	6.8MFD 35V 10% S.TANT	8	8	8	8	C53, C58, C67, C61, C62, C68, C140, C150
9			1010274-00	.22 MFD 50V +80-20% ZSU CER	60	60	60	60	C1-C48, C57, C69, C70, C133-C135, C141-C146
10			1010279-00	.47 MFD 25V 20% CER	6	6	6	6	C54-C56, C126, C130, C131
11			1012084-01	8 MFD 25V +75-10% AL EL	1	1	1	1	C52
12			1012121-00	220.0 MMF 100V 1%200PPM MICA	6	6	6	6	C59, C63, C71-C74
13			1012219-00	47 MFD 30V +75-10% AL EL	3	3	3	3	C50, C51, C132
14			1101938-00	1N 4370A VZ= 2.4 5% .40W	1	1	1	1	D3
15			1104860-00	1N 746A VZ= 3.3 5%	1	1	1	1	D5
16			1105275-00	D 672 TR= 15NS PIV= 60V SI	21	21	21	21	D1, D2, D9-D27
17			1109943-00	1N 4733A VZ= 5.1 5% 1W Y	1	1	1	1	D28
18			1211164-04	SW DIP 1P 1A 8POS	1	1	1	1	E62
19			1210711-02	/REPLACED BY 12-16988-02	1	1	1	1	
20			1300250-00	150.0 .25 W 5.0 % CC	1	1	1	1	R47
21			1300271-00	220.0 .25 W 5.0 % CC	16	16	16	16	R123-R138
22			1300316-00	470.0 .25 W 5.0 % CC	2	2	2	2	R46, R51
23			1300365-00	1.0 K .25 W 5.0 % CC	9	9	9	9	R45, R50, R53, R54, R82-R84, R103, R104
24			1300447-00	4.70 K .25 W 5.0 % CC	15	15	15	15	R55-R65, R77, R78, R81, R139
25			1300479-00	10.0 K .25 W 5.0 % CC	6	6	6	6	R71-R74, R121, R132
26			1302124-00	18.0 .25 W 5.0 % CC	46	46	46	46	R1-R44, R90, R98

REVISION HISTORY		BASIC PART NO: M8417		DRN:	L. METZGER	DATE:	30-MAY-78	D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION B OF C	CHK'D:	P. BOSSMAN	DATE:	30-MAY-78	TITLE	PARTS LIST
E.R.	CJ003	D	SECTION VARIATION INDEX	DES.ENG.:	J. STEGEMAN	DATE:	30-MAY-78	DOCUMENT NUMBER	
J.S.	M8417-ML004	E	[A] AB, AD, AC, AE	RESP.ENG.:	J. STEGEMAN	DATE:	30-MAY-78	SIZE: CODE: NUMBER	REV
J.S.	M8417-ML005	F	[B] BB, BC, BD, BE	MFG.ENG.:	C. TANNER	DATE:	30-MAY-78	K PL M8417-0-DBP	H
J.S.	M8417-ML006	H	[C] AF, BF	ASSEMBLY NUMBER:	D-UA-M8417-0-0	TOP DOCUMENT NUMBER:	MS8-C	FILE NAME:	Z0189H.PLS
			[D]						EDIT #
			[E]						6
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION				REFERENCE DESIGNATOR
					BB	BC	BD	BE	
27	27		1302377-00	39.0 .25 W 5.0 % CC	5	5	5	5	R52, R109-R112
28	28		1302859-00	5.76 K .25 W 1.0 % RN55D-F10	1	1	1	1	R96
29	29		1302871-00	1.21 K .25 W 1.0 % RN55D-F10	2	2	2	2	R80, R108
30	30		1302872-00	681.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R89
31	31		1302956-00	196.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R94
32	32		1302957-00	121.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R101
33	33		1303045-00	3.16 K .25 W 1.0 % RN55D-F10	1	1	1	1	R76
34	34		1303067-00	422.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R99
35	35		1303110-00	19.60 .25 W 1.0 % RN55D-F10	1	1	1	1	R93
36	36		1303226-00	68.10 .25 W 1.0 % RN55D-F10	1	1	1	1	R86
37	37		1303311-00	46.40 K .25 W 1.0 % RN55D-F10	1	1	1	1	R75
38	38		1303313-00	12.10 K .25 W 1.0 % RN55D-F10	1	1	1	1	R97
39	39		1304725-00	300.0 .25 W 1.0 % RN55D-F10	1	1	1	1	R107
40	40	SEE NOTE 90	1304833-00	1.96 K .25 W 1.0 % RN55D-F10	1	1	1	1	R92
41	41		1305122-00	51.10 .25 W 1.0 % RN55D-F10	1	1	1	1	R85
42	42		1305123-00	215.0 .25 W 1.0 % RN55D-F10	2	2	2	2	R91, R102
43	43		1305143-00	825.0 .25 W 1.0 % RN55D-F10	2	2	2	2	R95, R79
44	44	SEE NOTE 90	1305253-00	7.15 K .25 W 1.0 % RN55D-F10	1	1	1	1	R87
45	45		1309405-00	68.0 .50 W 5.0 % CC	2	2	2	2	R48, R49
46	46		1503100-00	DEC30098 NPN 200MW SI 20 25	7	7	7	7	Q1-Q5, Q8, Q9
47	47		1510171-00	D 44C3 NPN 30WT SI 30 20 Y	2	2	2	2	Q6, Q7
48	48		1614234-00	XFMR, CONVERTER, RATIO 1:3 300UH	1	1	1	1	T1
49	49		1909054-00	7493 COUNTER, ASYNCH UP, BI	2	2	2	2	E21, E24
50	50		1909705-00	DEC 8881 NAND GATE-QUAD 2IN 0	4	4	4	4	E3, E14, E17, E44
51	51		1910268-01	DEC 75107B-01 RECEIVER, LINE, DUA	3	3	3	3	E5, E10, E18
52	52		1910406-00	75451 DRIVER, PERIPH, DUAL,	1	1	1	1	E64
53	53		1910532-00	74500 NAND GATE-QUAD 2IN	6	6	6	6	E4, E34, E37, E42, E43, E55
54	54		1910533-00	74503 NAND GATE-QUAD 2IN, 0	1	1	1	1	E13
55	55		1910534-00	74504 INVERTER GATE-HEX 1I	2	2	2	2	E32, E54
56	56		1910536-00	74510 NAND GATE-TRIPLE 3IN	3	3	3	3	E19, E51, E63
57	57		1910539-00	74520 NAND GATE-DUAL 4INPU	1	1	1	1	E19
58	58		1910542-00	74564 A-0-I GATE 4-2-3-2	1	1	1	1	E15
59	59		1910544-01	74574-60GG-D DUAL, EDGE TRIG	1	1	1	1	E39
60	60		1910545-00	745112 FF-JK DUAL, EDGE TRIG	3	3	3	3	E7, E20, E32
61	61		1910549-00	745158 MUX 1 OF 2 (QUAD)	2	2	2	2	E26, E33
62	62		1911116-00	DEC 8837 RECEIVER, BUS, HEX, UN	5	5	5	5	E6, E8, E16, E38, E57
63	63		1911469-00	DEC 8640 RECEIVER, BUS, QUAD, U	1	1	1	1	E45
64	64		1911579-00	8641 TRANSCEIVER, BUS, QUA	3	3	3	3	E1, E11, E51
65	65		1911676-00	745139 DECODER-DUAL TWO-INP	1	1	1	1	E56
66	66		1911712-00	74551 AND-OR GATE-INVERT D	1	1	1	1	E58
67	67		1911944-00	555CN TIMER, FUNCT. BLOCK	1	1	1	1	E31
68	68		1911983-00	745133 NAND GATE-POSITIVE I	1	1	1	1	E60
69	69	SEE NOTE 93	1912048-06	DEC 7812 VOLT REG, FIX +12V	1	1	1	1	Q10
70	70		1912388-00	74502 NOR GATE-QUAD 2IN, PO	3	3	3	3	E9, E25, E46
71	71		1912389-00	74508 AND GATE-QUAD 2IN, PO	1	1	1	1	E23
72	72		1912541-00	79M05 VOLT REG, FIX -5V	1	1	1	1	Q11
73	73		1912649-00	L575 LATCH 4BIT, BISTABLE	3	3	3	3	E2, E12, E53
74	74		1912746-00	DEC 74537 NAND GATE-QUAD 2IN	11	11	11	11	E27-E30, E35, E36, E41, E47-E50

D	I	G	I	T	A	L	TITLE	PDP8 MOS MEMORY	SECTION B OF C	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8417-D-DBP	H

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION				REFERENCE DESIGNATOR
					BB	BC	BD	BE	
75	75		1912803-00	74LS04 INVERTER GATE, HEX	1	1	1	1	E52
76	76		1912824-00	LS74 FF-D DUAL EDGE TRIGG	1	1	1	1	E40
77	77		2113735-01	4K MOS RAM 200NS 1	96	-	-	-	E100-E123, E200-E223, E300-E323, E400-E423
78	78		2114114-01	4K MOS RAM 200NS 1	-	96	-	-	E100-E123, E200-E223, E300-E323, E400-E423
79	79		2113914-01	4K MOS RAM 200NS 1	-	-	96	-	E100-E123, E200-E223, E300-E323, E400-E423
80	80	SEE NOTE 91	2114475-01	4K MOS RAM 200NS 1	-	-	-	96	E100-E123, E200-E223, E300-E323, E400-E423
81	81		9000024-01	EYELET ROLL FLANGE .1210DX .192	12	12	12	12	
82	82	USE WITH Q6, Q7, Q10	9006557-00	NUT, KEP 4-40X 1/4 AF	3	3	3	3	
83	83	USE WITH Q11	9007254-00	TRANSIPADS #10146	1	1	1	1	
84	84	USE WITH Q6, Q7, Q10	9008301-01	SCREW, PAN, PHIL 4-40X 1/4 SS	3	3	3	3	
85	85		9009185-00	JUMPER, WIRE, INSULATED, BLACK 8	5	5	5	5	W2, W3, W4, W9, W11
86	86		9105740-55	WIRE (WRAP) 30AWG UL1423	A/R	A/R	A/R	A/R	
87	87		2113789-01	*** THIS ITEM IS NOT USED ***	-	-	-	-	

- 88 NOTE: M8417-AA=M8417-AB, AC, AD, AE, AF, (16KX12)
- 89 NOTE: M8417-BA=M8417-BB, BC, BD, BE, BF (32KX12)
- 90 NOTE: USED ON: OPTION/MODEL M58-CA, M58-CB
- 91 NOTE: R87, R92 MAY BE REMOVED AT MODULE TEST IF NEEDED.
- 92 NOTE: MIXING OF MOS RAMS IS NOT PERMITTED.
- 93 NOTE: REF ITEM #59 19-12048-05 ACCEPTABLE SUBSTITUTE FOR 19-12048-06.
- 94 NOTE: -----

D	I	G	I	T	A	L	TITLE	PDP8 MOS MEMORY	SECTION B OF C	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8417-Q-DBP	H

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	REFERENCE	REFERENCE
					AF	BF	DESIGNATOR	DESIGNATOR
1	1	D-UA-M8417-0-0		UNIT ASSY	REF	REF		
2	2	D-UA-M8417-0-0		UNIT ASSY	REF	REF		
3	3		5012701-00	ETCH BOARD (M8418)	1	1		
4	4		1000006-00	10.0 MMF 100V 5%200PPM MICA	1	1		C66
5	5		1000016-00	100.0 MMF 100V 5%200PPM MICA	1	1		C64
6	6		1000042-00	1000.0 MMF 100V 5%200PPM MICA	1	1		C65
7	7		1001610-01	.01 MFD50/100V +80-20% DISC	53	53		C60, C75-C96, C98-C114, C116-C125, C128, C129, C147
8	8		1005306-00	6.8MFD 35V 10% S.TANT	8	8	CONT	C53, C58, C67, C61, C62, C68, C140,
9	9		1010274-00	.22 MFD 50V +80-20% Z5U CER	60	60	CONT	C150
10	10		1010279-00	.47 MFD 25V 20% CER	6	6	CONT	C1-C48, C57, C69, C70, C133-C135, C141-C146
11	11		1012084-01	8 MFD 25V +75-10% AL EL	1	1		C54-C56, C126, C130, C131
12	12		1012121-00	220.0 MMF 100V 1%200PPM MICA	6	6		C52
13	13		1012219-00	47 MFD 30V +75-10% AL EL	3	3		C59, C63, C71-C74
14	14		1101938-00	1N 4370A VZ= 2.4 5% .40W	1	1		C50, C51, C132
15	15		1104860-00	1N 746A VZ= 3.3 5%	1	1		D3
16	16		1105275-00	D 672 TR= 15NS PIV= 60V SI	21	21		D5
17	17		1109943-00	1N 4733A VZ= 5.1 5% 1W Y	1	1		D1, D2, D9-D27
18	18		1211164-04	SW, DIP 1P 1A 8POS	1	1		D28
19	19		1210711-02	/REPLACED BY 12-16988-02	1	1		E62
20	20		1300250-00	150.0 .25 W 5.0 % CC	1	1		R47
21	21		1300271-00	220.0 .25 W 5.0 % CC	16	16		R123-R138
22	22		1300316-00	470.0 .25 W 5.0 % CC	2	2		R46, R51
23	23		1300365-00	1.0 K .25 W 5.0 % CC	9	9	CONT	R45, R50, R53, R54, R82-R84, R103, R104
24	24		1300447-00	4.70 K .25 W 5.0 % CC	15	15		R55-R65, R77, R78, R81, R139
25	25		1300479-00	10.0 K .25 W 5.0 % CC	6	6		R71-R74, R121, R122
26	26		1302124-00	18.0 .25 W 5.0 % CC	46	46		R1-R44, R90, R98

REVISION HISTORY		BASIC PART NO: M8417		DRN:	L. METZGER	DATE:	30-MAY-78	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION C OF C	CHK'D:	P. BOSSMAN	DATE:	30-MAY-78	TITLE PARTS LIST			
E.R.	00003	D	SECTION VARIATION INDEX	DES. ENG.:	J. STEGEMAN <td>DATE:</td> <td>30-MAY-78</td> <td colspan="4">DOCUMENT NUMBER</td>	DATE:	30-MAY-78	DOCUMENT NUMBER			
J.S.	M8417-ML004	E	[A] AB, AD, AC, AE	RESP. ENG.:	J. STEGEMAN <td>DATE:</td> <td>30-MAY-78</td> <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td>	DATE:	30-MAY-78	SIZE	CODE	NUMBER	REV
JS	M8417-ML005	F	[B] BB, BC, BD, BE	MFG. ENG.:	C. TANNER <td>DATE:</td> <td>30-MAY-78</td> <td>K</td> <td>PL</td> <td>M8417-0-DBP</td> <td>H</td>	DATE:	30-MAY-78	K	PL	M8417-0-DBP	H
JS	M8417-ML006	H	[C] AF, BF	ASSEMBLY NUMBER:	C-UA-M8417-0-0	TOP DOCUMENT NUMBER:	M84-C	FILE NAME:	Z0189H.PLS	EDIT #	6
			[D]								
			[E]								
			[F]								
			[G]								
			[H]								
			[I]								
			[J]								
			[K]								
			[L]								
			[M]								
			[N]								

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	VARIATION	REFERENCE DESIGNATOR				
					AF	BF						
27	27		1302377-00	39.0	.25	W	5.0 %	CC	5	5	R52,R109-R112	
28	28		1302859-00	5.76 K	.25	W	1.0 %	RN55D-F10	1	1	R96	
29	29		1302871-00	1.21 K	.25	W	1.0 %	RN55D-F10	2	2	R80,R108	
30	30		1302872-00	581.0	.25	W	1.0 %	RN55D-F1	1	1	R89	
31	31		1302956-00	196.0	.25	W	1.0 %	RN55D-F10	1	1	R94	
32	32		1302957-00	121.0	.25	W	1.0 %	RN55D-F10	1	1	R101	
33	33		1303045-00	3.16 K	.25	W	1.0 %	RN55D-F10	1	1	R76	
34	34		1303067-00	422.0	.25	W	1.0 %	RN55D-F10	1	1	R99	
35	35		1303110-00	19.60	.25	W	1.0 %	RN55D-F10	1	1	R93	
36	36		1303226-00	68.10	.25	W	1.0 %	RN55D-F10	1	1	R86	
37	37		1303311-00	46.40 K	.25	W	1.0 %	RN55D-F10	1	1	R75	
38	38		1303313-00	12.10 K	.25	W	1.0 %	RN55D-F10	1	1	R97	
39	39		1304725-00	300.0	.25	W	1.0 %	RN55D-F10	1	1	R107	
40	40	SEE NOTE 90	1304833-00	1.96 K	.25	W	1.0 %	RN55D-F10	1	1	R92	
41	41		1305122-00	51.10	.25	W	1.0 %	RN55D-F10	1	1	R85	
42	42		1305123-00	215.0	.25	W	1.0 %	RN55D-F10	2	2	R91,R102	
43	43		1305143-00	825.0	.25	W	1.0 %	RN55D-F10	2	2	R95,R79	
44	44	SEE NOTE 90	1305253-00	7.15 K	.25	W	1.0 %	RN55D-F10	1	1	R87	
45	45		1309405-00	68.0	.50	W	5.0 %	CC	2	2	R48,R49	
46	46		1503100-00	DEC3009B	NPN	200MW	SI	20 25	7	7	Q1-Q5,Q8,Q9	
47	47		1510171-00	D	44C3	NPN	3DWT	SI 3D 20 Y	2	2	Q6,Q7	
48	48		1614234-00	XFMR,	CONVERTER,	RATIO	1:3	300UH	1	1	T1	
49	49		1909054-00	7493	COUNTER,	ASYNCH	UP,	BI	2	2	E21,E24	
50	50		1909705-00	DEC	8881	NAND	GATE-QUAD	2IN 0	4	4	E3,E14,E17,E44	
51	51		1910268-01	DEC	75107B-01	RECEIVER,	LINE,	DUA	3	3	E5,E10,E18	
52	52		1910406-00	75451	DRIVER,	PERIPH,	DUAL,		1	1	E64	
53	53		1910532-00	74500	NAND	GATE-QUAD	2IN		6	6	E4,E34,E37,E42,E43,E55	
54	54		1910533-00	74503	NAND	GATE-QUAD	2IN 0		1	1	E13	
55	55		1910534-00	74504	INVERTER	GATE-HEX	1I		2	2	E22,E54	
56	56		1910536-00	74510	NAND	GATE-TRIPLE	3IN		3	3	E19,E61,E63	
57	57		1910539-00	74520	NAND	GATE-DUAL	4INPU		1	1	E59	
58	58		1910542-00	74564	A-0-I	GATE	4-2-3-2		1	1	E15	
59	59		1910544-01	74574-60GG-D	CUAL,	EDGE	TRIG		1	1	E39	
60	60		1910545-00	745112	FF-JK	DUAL,	EDGE	TRIG	3	3	E7,E20,E32	
61	61		1910549-00	745158	MUX	1 OF 2	(QUAD)		2	2	E26,E33	
62	62		1911116-00	DEC	8837	RECEIVER,	BUS,	HEX,	UN	5	5	E6,E8,E16,E38,E57
63	63		1911469-00	DEC	8640	RECEIVER,	BUS,	QUAD,	U	1	1	E45
64	64		1911579-00	8641	TRANSCEIVER,	BUS,	QUA		3	3	E1,E11,E51	
65	65		1911676-00	745139	DECODER-DUAL	TWO-INP			1	1	E56	
66	66		1911712-00	74551	AND-OR	GATE-INVERT	0		1	1	E58	
67	67		1911944-00	555CN	TIMER,	FUNCT.	BLOCK		1	1	E31	
68	68		1911983-00	745133	NAND	GATE-POSITIVE	1		1	1	E60	
69	69	SEE NOTE 93	1912048-06	DEC	7812	VOLT	REG, FIX	+12V	1	1	Q10	
70	70		1912388-00	74502	NOR	GATE-QUAD	2IN, PO		3	3	E9,E25,E46	
71	71		1912389-00	74508	AND	GATE-QUAD	2IN, PO		1	1	E23	
72	72		1912541-00	79M05	VOLT	REG, FIX	-5V		1	1	Q11	
73	73		1912649-00	LS75	LATCH	4BIT,	BISTABLE		3	3	E2,E12,E53	
74	74		1912746-00	DEC	74S37	NAND	GATE-QUAD	2IN	11	11	E27-E30,E35,E36,E41,E47-E50	

D	I	G	I	T	A	L	TITLE	PDP8 MOS MEMORY	SECTION C OF C	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8417-G-DBP	H



AUTOMATED BY PRTLST.2D(16)

PARTS LIST

SHEET C3 OF C3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	VARIATION	REFERENCE DESIGNATOR
					AF	BF		
75	75		1912803-00	74LS04 INVERTER GATE, HEX	1	1		E52
76	76		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1	1		E40
77	77		2113735-01	*** THIS ITEM IS NOT USED ***	-	-		
78	78		2114114-01	*** THIS ITEM IS NOT USED ***	-	-		
79	79		2113914-01	*** THIS ITEM IS NOT USED ***	-	-		
80	80	SEE NOTE 91	2114475-01	*** THIS ITEM IS NOT USED ***	-	-		
81	81		9000024-01	EYELET, ROLL FLANGE .12100X .192	12	12		
82	82	USE WITH Q6, Q7, Q10	9006557-00	NUT KEP 4-40X 1/4 AF	3	3		
83	83	USE WITH Q11	9007254-00	TRANSIPADS #10146	1	1		
84	84	USE WITH Q6, Q7, Q10	9008301-01	SCREW, PAN, PHIL 4-40X 1/4 SS	3	3		
85	85		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	6	6		W2, W3, W4, W9, W10, W11
86	86		9105740-55	WIRE(WRAP)30AWG ULI423	A/R	A/R		
87	87		2113789-01	4K MOS RAM 200NS 1	48	-		
			CONT		-	96		E100, E102, E104, E106, E108, E110, E112, E114, E116, E118, E120, E122, E200, E202, E204, E206, E208, E210, E212, E214, E216, E218, E220, E222, E300, E302, E304, E306, E308, E310, E312, E314, E316, E318, E320, E322, E400, E402, E404, E406, E408, E410, E412, E414, E416, E418, E420, E422, E100-E123, E200-E223, E300-E323, E400-E423

- 88 NOTE: M8417-AA=M8417-AB, AC, AD, AE, AF, (16KX12)
- 89 NOTE: M8417-BA=M8417-BB, BC, BD, BE, BF (32KX12)
- 90 NOTE: USED ON: OPTION/MODEL M58-CA, M58-CB
- 91 NOTE: R87, R92 MAY BE REMOVED AT MODULE TEST IF NEEDED.
- 92 NOTE: MIXING OF MOS RAMS IS NOT PERMITTED.
- 93 NOTE: REF ITEM #69 19-12048-05 ACCEPTABLE SUBSTITUTE FOR 19-12048-06.
- 94 NOTE: -----

D	I	G	I	T	A	L	TITLE	PDP8 MOS MEMORY	SECTION C OF C	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8417-0-DBP	H

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DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS						
ENGINEERING SPECIFICATION					DATE 10/3/73	
TITLE MR8-F FIELD INSTALLATION AND ACCEPTANCE PROCEDURE						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	MR8F-00001	ADAMS	1-74	<i>D. Adams</i>	2/27/74
B	UPDATE TO ADD PDP8A	MR8F-00004	REGAN	12-74	<i>R. Regan</i>	12/30/74

ENG	Richard Morris	APPD	<i>D. Adams</i>	10/11/73	SIZE	CODE	NUMBER	REV
					A	SP	MR8-F-2	B

DEC FORM NO. DRA 107

SHEET 1 OF 3

ENGINEERING SPECIFICATION		CONTINUATION SHEET	
TITLE MR8-F FIELD INSTALLATION AND ACCEPTANCE PROCEDURE			
<p>1. Shipping Hardware</p> <p>1.1 See A-PL-MR8-F-5 (Shipping List)</p> <p>2. Shipping Software</p> <p>2.1 See A-PL-MR8-F-6 (Software List)</p> <p>NOTE: Prom Diagnostics are not used in this Acceptance Procedure. These Maindecs are used to diagnose the MR8-FB after the MR8-FB has been programmed to the customers specifications.</p> <p>3. Equipment required for acceptance</p> <p>3.1 PDP8E, 8M, or 8A with a programmers console. If 4K of read/write memory is present, the system must have a KM8-E (M837), or KM8-A (M8317), extended memory control. All these options must be customer supplied.</p> <p>4. Unpacking and Installation</p> <p>4.1 Unpack and inspect the modules for physical damage.</p> <p>4.2 Make sure all four top edge connectors on the M8349 are fitted correctly.</p> <p>4.3 Turn power off in the PDP8E, 8M, 8F, or 8A.</p> <p>4.4 If the MR8-FB is a PDP8E, 8F, or 8M, add-on remove M8330 and insert the new M8330-YB in the same slot. The MR8-FB requires an M8330-YB in order to operate.</p> <p>4.5 Insert the M8349 in the OMNIBUS behind the RFI shield (M849) in the PDP8E, 8F, or 8M, and in the lowest available Omnibus slot in the PDP8A.</p> <p>4.6 Remove or disable all other options in PDP8E, 8M, 8F, or 8A that use the "SW" or "BOOT" switch option.</p>			
Sheet 2 of 3		SIZE	CODE
		A	SP
		NUMBER	REV
		MR8-F-2	B

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

**TITLE**

MR8-F FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

## 5. Acceptance

- 5.1 The MR8-FB is shipped with Prom Internal test Maindec-08-DHMRE programmed in the Prom chips.
- 5.2 Turn PDP8E, 8M, 8F, or 8A, power on.
- 5.3 If the MR8-FB is an add-on and an M8330-YB was installed, run all basic 8E diagnostics and EAE diagnostics if applicable.
- 5.4 Toggle "SW" or "BOOT" switch. The Prom Internal Test should be running. Refer to MAINDEC-08-DHMRE writeup if there are any errors. With the switch register = 0000 the test will halt in approx. 3 min. Repeat the test 4 times.
- 5.5 If no errors have occurred the MR8-FB is ready to be erased and reprogrammed by the customer.

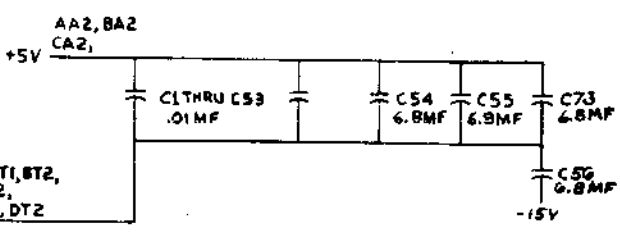
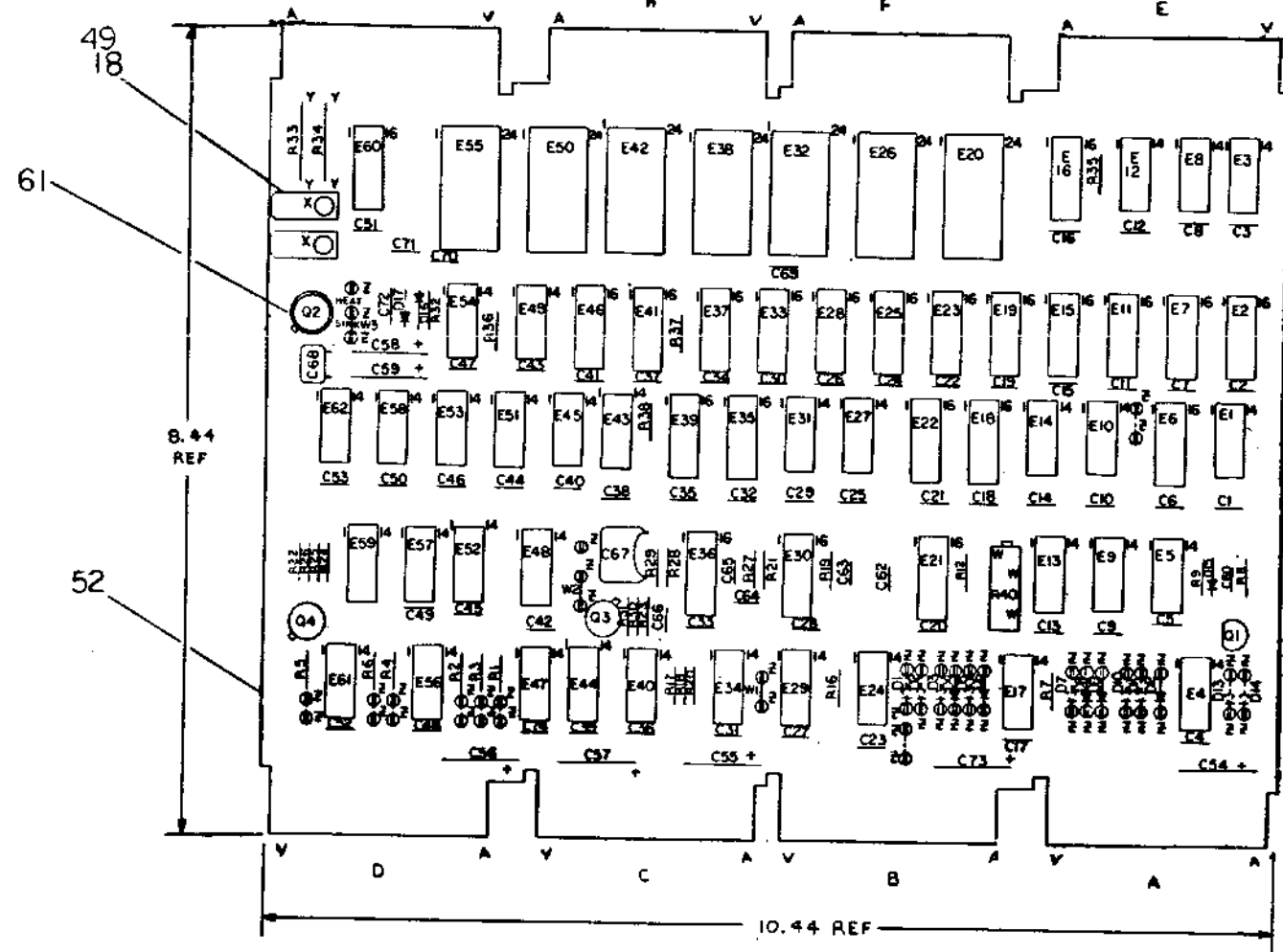
Sheet 3 of 3

SIZE  
ACODE  
SPNUMBER  
MR8-F-2REV  
B

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**NOTES:**

- JUMPERS IN FOR 9 OUT FOR 1
- DIODES ON OUTPUT OF INVERTERS ARE IN FOR 1. DIODES ON INPUT OF INVERTERS ARE IN FOR 3. SOME DIODES ARE INSTALLED IN PRODUCTION TO FACILITATE CHECKOUT. A CUSTOMER WILL RE-ARRANGE DIODES TO HIS REQUIREMENTS
- DELAY OUTPUT IS ADJUSTED TO 2.7 S + 50 NS.
- DIODES AND JUMPERS SHOWN IN DOTTED LINES ARE NOT PUT ON THE BOARD DURING MANUFACTURE. THEY ARE ADDED DURING CHECKOUT AS REQUIRED. SOLID LINE JUMPERS ARE PUT IN WHEN BOARD IS ASSEMBLED.
- UNLESS OTHERWISE NOTED RESISTANCE IS IN OHMS 1/4W 5%.
- YAT JUMPER (ROM ADDRESS) IS ONLY INSTALLED IF THE PROM ADDRESSES OVERLAY CORE MEMORY ADDRESSES.
- UNLESS OTHERWISE SPECIFIED ALL DELAY TIMES ARE + 20%.



IC PIN LOCATIONS	IC TYPE	GND	+5V
DEC 1702A	-	12	
DEC 5380	1	8	
DEC 7384	1	8	
DEC 74151	8	16	
DEC 74123	8	16	
DEC 74157	8	16	
DEC 74174	8	16	
DEC 74200	8	16	

**REVISIONS**

CHG	DESCRIPTION	DATE	BY
1	ORIGINATED	1-2-75	A
2	CHANGED NO. 1	1-16-75	B
3	CHANGED NO. 1	1-16-75	B
4	CHANGED NO. 1	1-16-75	B
5	CHANGED NO. 1	1-16-75	B
6	CHANGED NO. 1	1-16-75	B
7	CHANGED NO. 1	1-16-75	B
8	CHANGED NO. 1	1-16-75	B
9	CHANGED NO. 1	1-16-75	B
10	CHANGED NO. 1	1-16-75	B
11	CHANGED NO. 1	1-16-75	B
12	CHANGED NO. 1	1-16-75	B
13	CHANGED NO. 1	1-16-75	B
14	CHANGED NO. 1	1-16-75	B
15	CHANGED NO. 1	1-16-75	B
16	CHANGED NO. 1	1-16-75	B
17	CHANGED NO. 1	1-16-75	B
18	CHANGED NO. 1	1-16-75	B
19	CHANGED NO. 1	1-16-75	B
20	CHANGED NO. 1	1-16-75	B
21	CHANGED NO. 1	1-16-75	B
22	CHANGED NO. 1	1-16-75	B
23	CHANGED NO. 1	1-16-75	B
24	CHANGED NO. 1	1-16-75	B
25	CHANGED NO. 1	1-16-75	B
26	CHANGED NO. 1	1-16-75	B
27	CHANGED NO. 1	1-16-75	B
28	CHANGED NO. 1	1-16-75	B
29	CHANGED NO. 1	1-16-75	B
30	CHANGED NO. 1	1-16-75	B

QTY	QTY	QTY	QTY	QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	084				CAP 88 PF 100V 5% OM		1080014	5
1	C65				.047 CAP.		1009678	8
2	6	3	7		SEE Y VARIATION CHART	I.C. DEC 1702 A	2304144	7
1	C88				CAP 1000 PF 100V 5% OM		1000042	8
1	C87				CAP 38 MF 10V 16% S TANT		1000070	9
58	C1-C53, C69, C70, C71, C72, C74				CAP .01 MF 100V 20% DISC		1001610	10
1	C80				CAP 380 PF 100V 5% OM		1001831	11
1	C87				CAP 2700 PF 100V 5% OM		1001837	12
2	C83, C86				CAP 27 PF 100V 5% OM		1001739	13
6	C54, C56, C58, C59, C58, C73				CAP 8.8 MF 35V 10% S TANT		1005388	14
1	D15				DIODE 0862		1100113	15
6	D16, D19, D6, D8, D9, D12				DIODE 0864		1100114	16
1	D17				DIODE 1475 7A		1100880	17
2					FASTON TABS		9007112	18
2	R8, R28				RES 100 OHMS 1/4W 5%		1300228	19
1	R32				RES 220 OHMS 1/4W 5%		1300271	20
2	R24, R28				RES 470 OHMS 1/4W 5%		1300318	21
6	R7, R16, R17, R22, R36, R38				RES 1K OHMS 1/4W 5%		1300385	22
1	R35				RES 1.5K OHMS 1/4W 5%		1300391	23
1	R37				RES 2.2K OHMS 1/4W 5%		1300417	24
1	R10				RES 3K OHMS 1/4W 5%		1300432	25
1	R8				RES 3.3K OHMS 1/4W 5%		1300439	26
7	R1-R8, R12				RES 4.7K OHMS 1/4W 5%		1300447	27
3	R19, R21, R23				RES 10K OHMS 1/4W 5%		1300479	28
2	R26, R27				RES 15K OHMS 1/4W 5%		1300486	29
2	R25, R28				RES 27 OHMS 1/4W 10%		1301428	31
1	R27				RES 22K OHMS 1/4W 5%		1301880	32
1	R28				RES 270 OHMS 1/4W 5%		1301972	33
2	R33, R34				RES 4.7 OHMS 1/4W 5%		1301983	34
2	Q3, Q4				TRANSISTOR 30088		1503100	35
1	Q1				TRANSISTOR 8531B		1500336	37
1	Q2				TRANSISTOR 3762		1500840	38
2	E29, E30				I.C. DEC 7474		1800547	38
1	E57				I.C. DEC 7400		1800575	40
2	E48, E58				I.C. DEC 7402		1800804	41
1	E12				I.C. DEC 74100		1800828	42
1	E13				I.C. DEC 74010		1800957	43
2	E3, E32				I.C. DEC 74011		1800987	44
3	E14, E31, E44, E45, E47, E58, E61				I.C. DEC 8001		1800705	45
3	E1, E17, E46				I.C. DEC 74104		1800831	46
1	SEE Y VARIATION CHART				I.C. DEC 74157		1800836	47
3	E49, E53, E54				I.C. DEC 7400		1810125	48
2					EYELETS - 65-A2		9006732	49
5	E4, E32, E3, E5, E6				I.C. DEC 5380 (CAN USE 11380)		1810382 (1911113)	50
3	3	3	3		SEE Y VARIATION CHART	I.C. DEC 5384 (CAN USE 3847)	1810394 (1903444)	51
3	E21, E30, E38				SPLIT LUGS - 4-7		9006735	52
2	E22, E31				I.C. DEC 74123		1810428	53
3	W1, W2, W3				I.C. DEC 74174		1810882	54
					BUS WIRE #22 AWG		9107860-01	55

FIRST USED ON OPTION MODEL: MR8-F

**ETCH BOARD REV C**

REV	DESCRIPTION	DATE	BY
1	ORIGINATED	1-16-75	A
2	CHANGED NO. 1	1-16-75	B
3	CHANGED NO. 1	1-16-75	B
4	CHANGED NO. 1	1-16-75	B
5	CHANGED NO. 1	1-16-75	B
6	CHANGED NO. 1	1-16-75	B
7	CHANGED NO. 1	1-16-75	B
8	CHANGED NO. 1	1-16-75	B
9	CHANGED NO. 1	1-16-75	B
10	CHANGED NO. 1	1-16-75	B
11	CHANGED NO. 1	1-16-75	B
12	CHANGED NO. 1	1-16-75	B
13	CHANGED NO. 1	1-16-75	B
14	CHANGED NO. 1	1-16-75	B
15	CHANGED NO. 1	1-16-75	B
16	CHANGED NO. 1	1-16-75	B
17	CHANGED NO. 1	1-16-75	B
18	CHANGED NO. 1	1-16-75	B
19	CHANGED NO. 1	1-16-75	B
20	CHANGED NO. 1	1-16-75	B

**SEMICONDUCTOR CONVERSION CHART**

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

**PARTS LIST**

QTY	DESCRIPTION	REV	DATE	BY
3762	NONE		3-1-75	
6531B	NONE		7-1-75	
IN757A	NONE			
D664	IN 3606			
D662	IN 3645			

**digit equipment CORPORATION**

TITLE: **PROM IK**

SIZE CODE: **DKS M8349-0-1**

SHEET 1 OF 7

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QTY	QTY	QTY	QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
12				SEE Y VARIATION CHART	I.C. DEC 74200 (318)	1910010-2	56
4				B1, E18, E38, E80	I.C. DEC 74157	1910005	57
1				DEC	CAP SHIPP 100V 5%	1000020	58
1							59
1				RES	RES. 10K POT 3/4 W 10%	1309143-10	60
1					HEAT SINK: TRANSISTOR	1210001	61
REF					X-Y COORDINATE HOLE LOCATION	K-CO-M8349-0-4	62
REF					ASSY/DRILLING HOLE LAYOUT	D-AH-M8349-0-5	63
REF					ECO MODULE HISTORY	B-MH-M8349-0-6	64
1					ETCH CIRCUIT BOARD	5010426	65

M8349-YA  
M8349-YC  
M8349-YD

Y VARIATION CHART

COMPONENTS	M8349 YA	M8349 YC	M8349 YD	M8349
I.C. DEC 1702A	E26, E50	E26, E32, E38, E42, E50, E55	E26, E32, E50	E20, E26, E32, E38, E42, E50, E55
I.C. DEC 5384	E4, E24, E51	E4, E24, E51	E4, E24, E51	E4, E10, E24, E27, E43, E51
JUMPER YA1 SEE NOTE 6	IN	IN	IN	OUT
JUMPER YA2	IN	IN	IN	OUT
I.C. DEC 74151	0	0	0	E16
I.C. DEC 74200	0	0	0	E27, E11, E15, E19, E23, E25, E28, E33, E37, E41, E46

\* DIODE & JUMPER SETTINGS FOR ADDRESS DEFINITIONS

MEMORY FIELD SELECT	DIODE						
	D3	D4	D5	D6	D9	D10	
0	1	-	1	-	-	1	
1	-	1	1	-	-	1	
2	1	-	1	-	1	-	
3	-	1	1	-	1	-	
4	1	-	-	1	-	1	
5	-	1	-	1	-	1	
6	1	-	-	1	1	-	
7	-	1	-	1	1	-	

FIRST MEMORY ADDRESS	DIODE			
	D7	D8	D11	D12
0000	-	1	-	1
2000	1	-	-	1
4000	-	1	1	-
6000	1	-	1	-

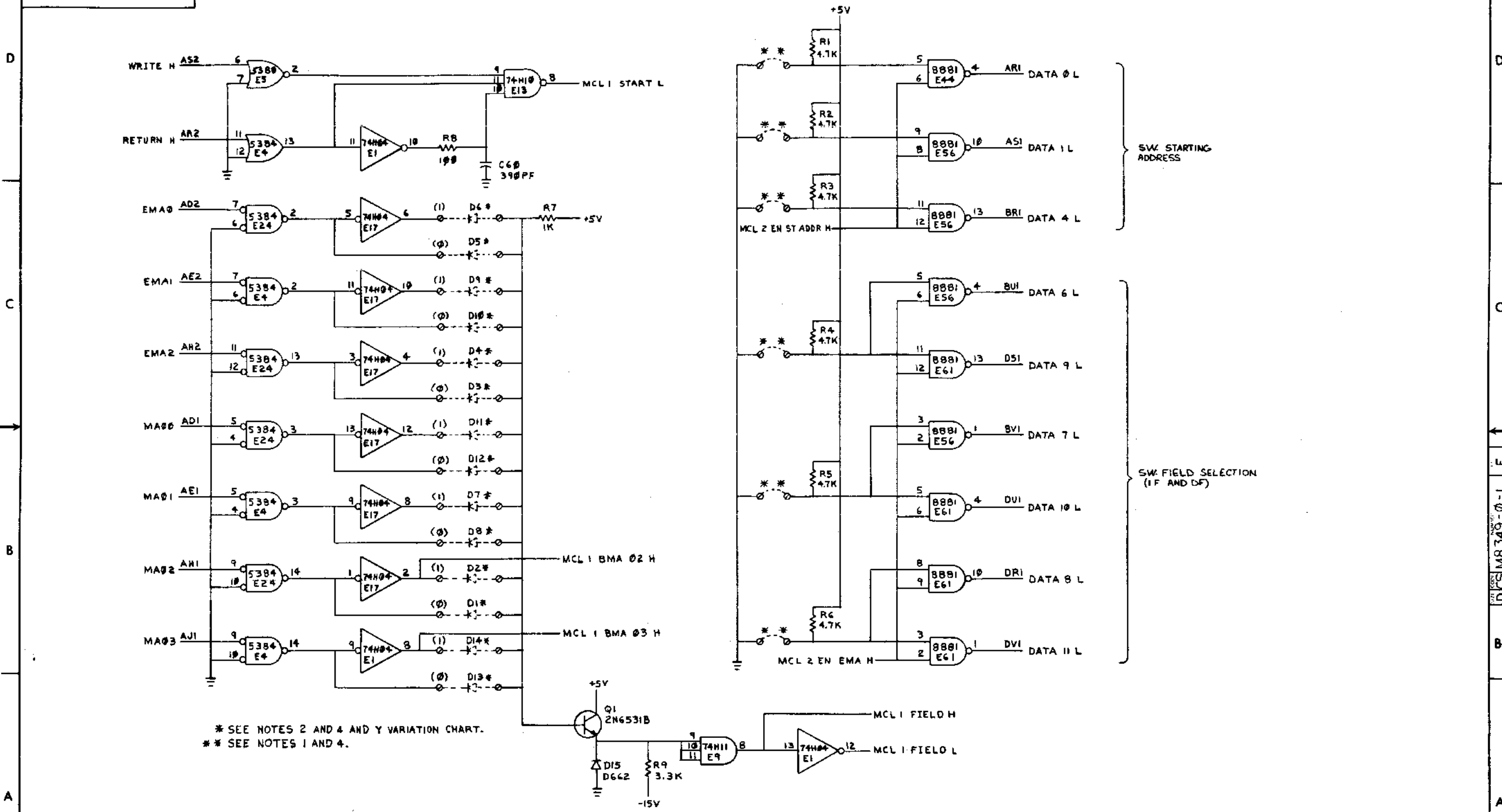
STARTING MEMORY ADDRESS	JUMPERS BELOW		
	R1	R2	R3
0000	1	1	1
0200	1	1	-
2000	1	-	1
2200	1	-	-
4000	-	1	1
4200	-	1	-
6000	-	-	1
6200	-	-	-

\* 1 = DIODE OR JUMPER IN  
- = DIODE OR JUMPER OUT

*SW OR *BOOT* FIELD SELECT	JUMPER BELOW		
	R4	R5	R6
0	1	1	1
1	1	1	-
2	1	-	1
3	1	-	-
4	-	1	1
5	-	1	-
6	-	-	1
7	-	-	-

REVISIONS		
CHK	CHANGE NO.	REV.

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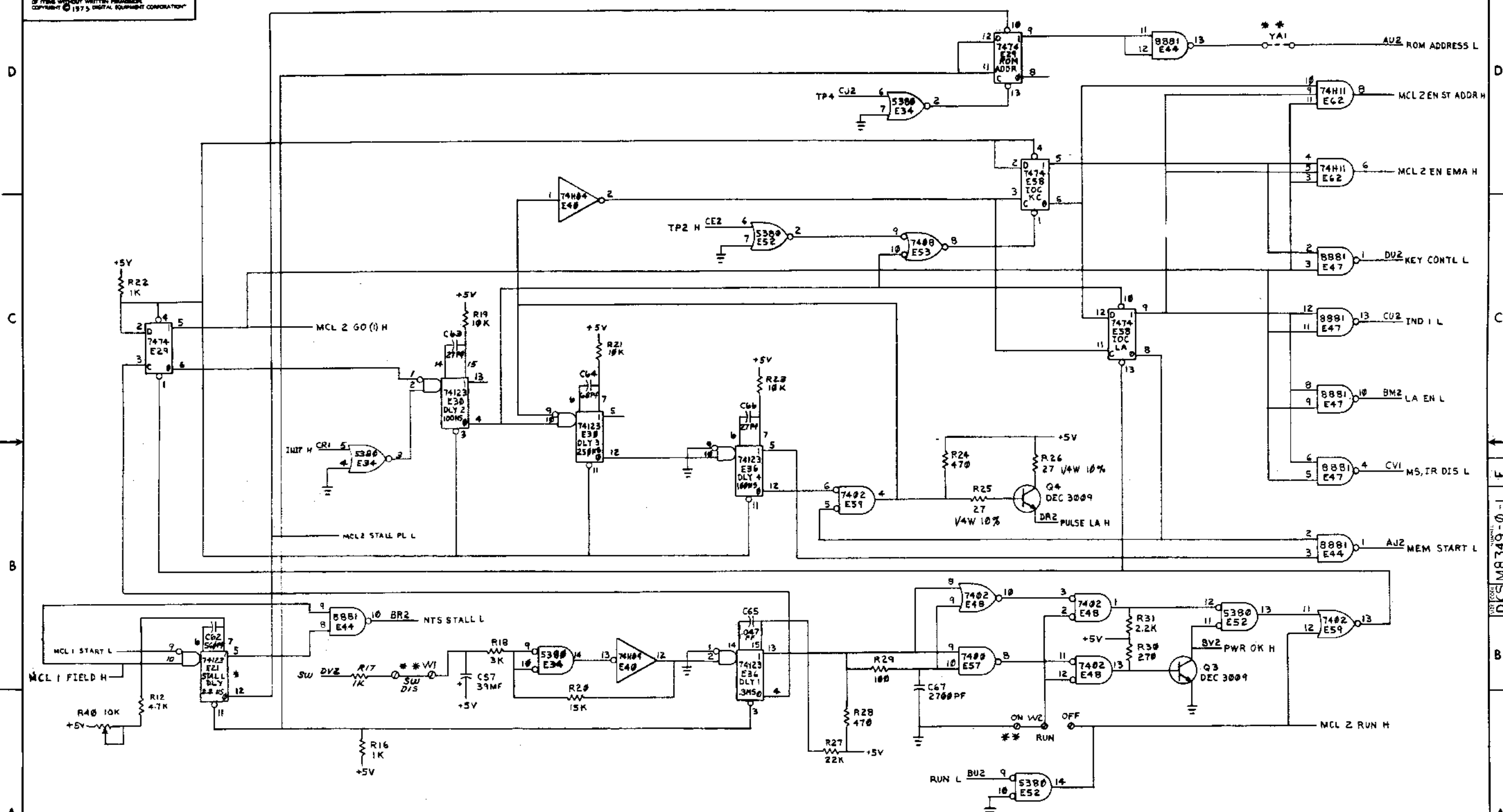


\* SEE NOTES 2 AND 4 AND Y VARIATION CHART.  
 \*\* SEE NOTES 1 AND 4.

TITLE		PROM 1K (MCL1)		SIZE CODE	NUMBER		REV.
SCALE		SHEET 3 OF 7		DIST.	D CS M8349-0-1		F

DCS M8349-0-1 F

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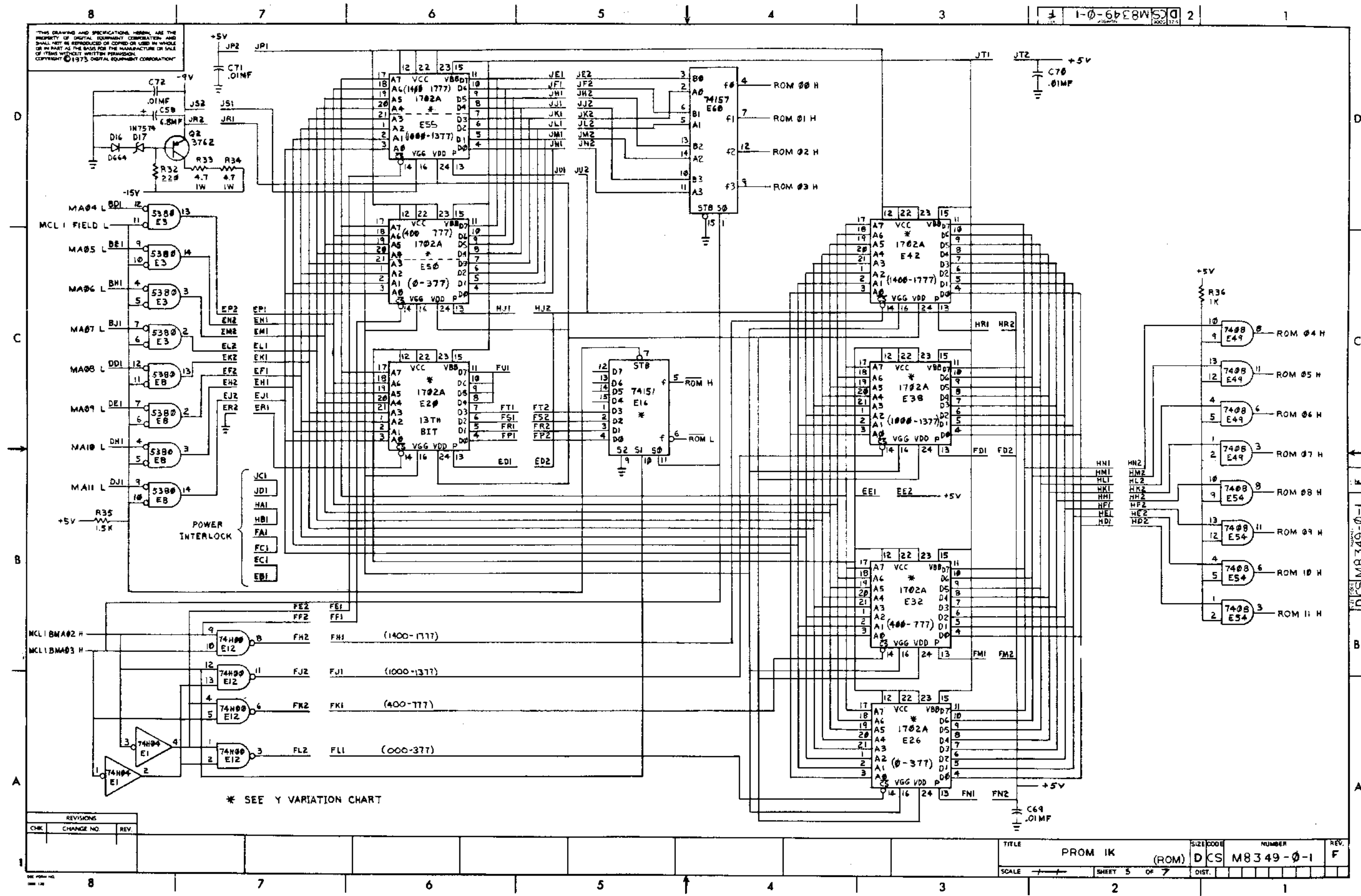


\* SEE NOTE 3  
 \*\* SEE NOTE 4

REVISIONS		
CHK	CHANGE NO.	REV

DCS M8349-0-1 F

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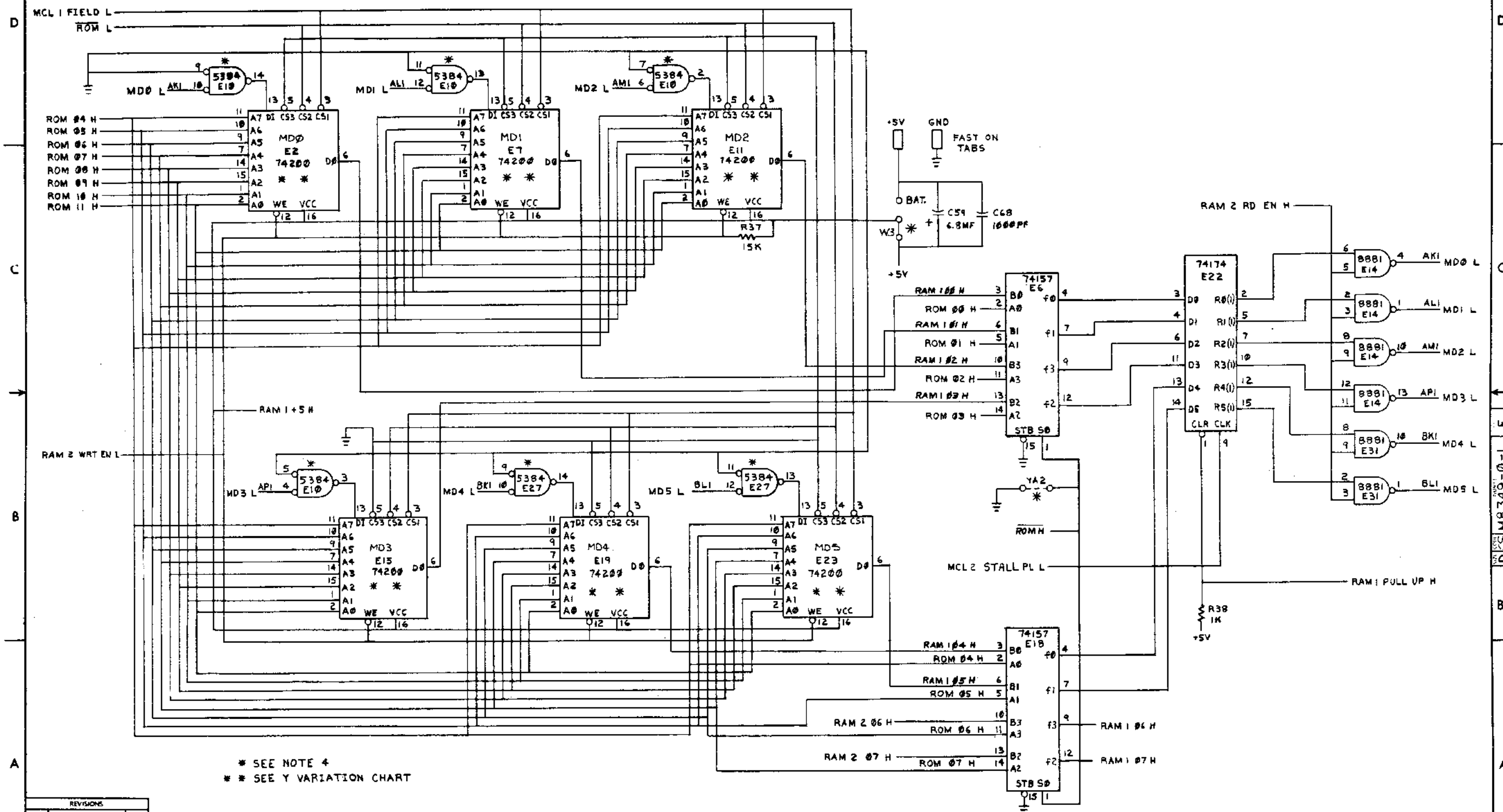
\* SEE Y VARIATION CHART

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PROM 1K (ROM)	SIZE CODE	DCS	NUMBER	M8349-0-1	REV.	F
SCALE	+	SHEET	5	OF	7	DIST.	



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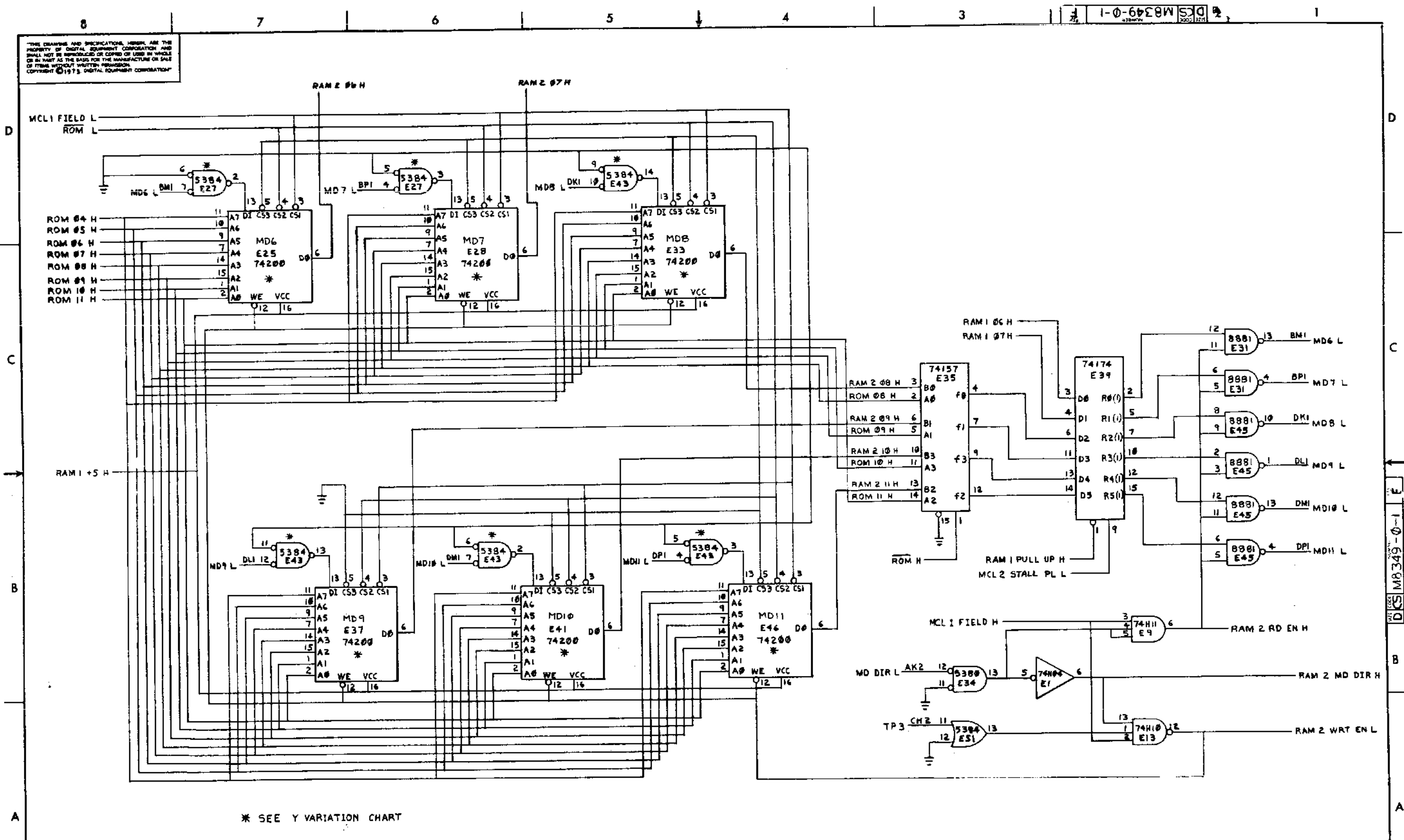


\* SEE NOTE 4  
 \*\* SEE Y VARIATION CHART

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	PROM I K (RAM I)	SIZE CODE	DCS	NUMBER	M8349-0-1	REV.	F
SCALE	1/1	SHEET	6	OF	7	DIST.	

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\* SEE Y VARIATION CHART

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	PROM 1K (RAM 2)	SIZE	FOOT	NUMBER	D CS M8349-0-1	REV.	1
SCALE	1/1	SHEET	1	OF	7	DIST	

D CS M8349-0-1 E

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				DATE 11/19/74			
ENGINEERING SPECIFICATION							
TITLE MS8-A FIELD INSTALLATION & ACCEPTANCE PROCEDURE							
REVISIONS							
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE	

ENG: *John Kil* APPD: *John Kil*  
 DEC FORM NO. DEC 15-1001-1002-N370  
 DRA 100

ENGINEERING SPECIFICATION				CONTINUATION SHEET			
TITLE MS8-A FIELD INSTALLATION & ACCEPTANCE PROCEDURE							
I GENERAL							
This procedure defines the performance standards required of an MS8A RAM memory.							
NOTE: If MS8A was shipped as part of a PDP-8A system, proceed to installation procedure.							
*MSRA (M8311YA) 1K Semiconductor Random Access Memory MS8AB (M8311YB) 2K Semiconductor Random Access Memory MS8AD (M8311YD) 4K Semiconductor Random Access Memory							
II INSPECTION							
After removing the MS8A from packing material, inspect the module for the following:							
1. Check for loose or broken components.							
2. Inventory software against software list, if ordered.							
3. Inventory prints against shipping list, if ordered.							
4. Inventory hardware against shipping list.							
III INSTALLATION PROCEDURE							
Install the equipment using the following procedure:							
1. Set up switches as indicated below for the particular variation being accepted.							
M8311YA 1K		M8311YB		M8311YD			
S1-1	ON	ON	ON	ON	ON	= field #	
S1-2	ON	ON	ON	ON	ON	= field #	
S1-3	ON	ON	ON	ON	ON	= field #	
S1-4	ON	ON	ON	ON	ON	ST Add	
S1-5	ON	ON	ON	ON	ON	ST Add	
S1-6	OFF	OFF	OFF	OFF	OFF	On for 4K	
S1-7	OFF	OFF	OFF	OFF	OFF	On for 2K	
S1-8	OFF	OFF	OFF	OFF	OFF	On for 1K	
S1-9	ON	ON	ON	ON	ON	Normally On	
S1-10	ON	ON	ON	ON	ON	Normally On	
NOTE: Reference Operator's Handbook for complete description of switch settings.							

DEC FORM NO. DEC 15-1001-1002-N370  
 DRA 100

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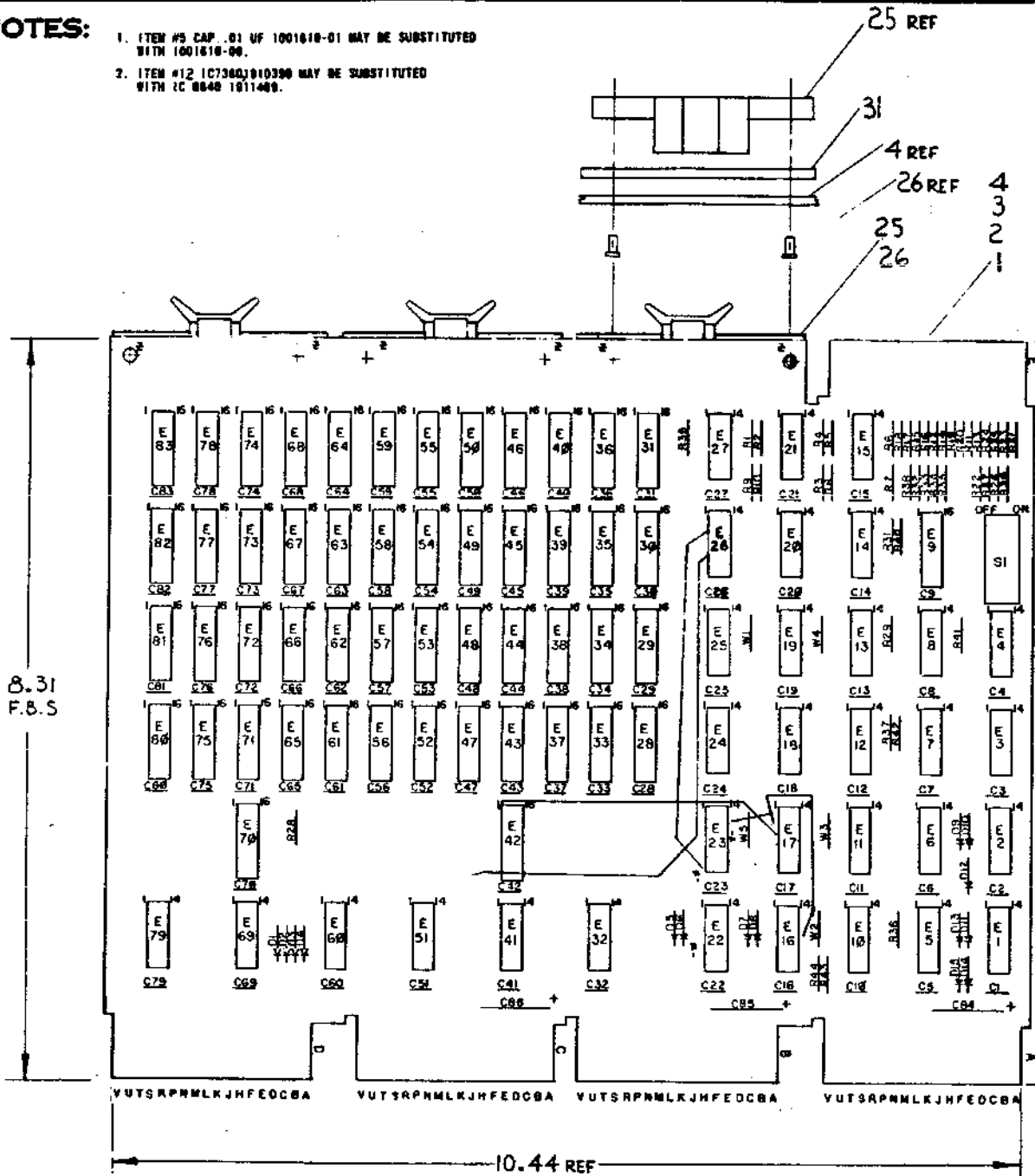
ENGINEERING SPECIFICATION				CONTINUATION SHEET			
TITLE MS8-A FIELD INSTALLATION & ACCEPTANCE PROCEDURE							
III INSTALLATION PROCEDURE (continued)							
2. Insure that the PDP-8A power is removed from the Omnibus TM.							
3. Insert the MS8A into the last slot vacant in the Omnibus TM.							
4. Turn power on.							
IV ACCEPTANCE PROCEDURE							
Perform the Acceptance Test as indicated in Table B. If problems are encountered, refer to the diagnostic listing for type of error. Reference Operator's Manual and Diagnostic Write-up for instructions on loading diagnostic.							
Equipment required:							
1. PDP-8A with MS8A R/W Memory							
2. Programmer's Console							
3. Paper Tape Input Device							
4. Diagnostic and Listings							
NOTE: If the Programmer's console and paper tape input device are not available as part of the system being used, they must be supplied in good working order by the customer.							
Table B							
Acceptance of MS8A: YA or YB							
Program Name	Maindec #	Accept Time	Restrictions				
1-4K MOS Memory Test (RIM)	08-DJMSA-PM	30 min	1K or 2K MS8A R/W Memory				
Acceptance of MS8A: YD							
1-4K MOS Memory Test	08-DJMSA-PM	15 min.	4K MS8A R/W Memory				
4-32K Memory Test	08-DJMMA-PB	15 min.	4K MS8A R/W Memory				

DEC FORM NO. DEC 15-1001-1002-N370  
 DRA 100

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**NOTES:**

- ITEM #5 CAP .01 UF 1001610-01 MAY BE SUBSTITUTED WITH 1001610-00.
- ITEM #12 IC7364J010390 MAY BE SUBSTITUTED WITH IC 8848 1011489.



REF	QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	1		X-Y COORDINATE HOLE LOCATION	K-CD-M8311-0-4	1
2	1		ASSY/DRILLING HOLE LAYOUT	D-AM-M8311-0-5	2
3	1		MODULE ECO HISTORY	8-WH-M8311-0-6	3
4	1		ETCHED CIRCUIT BOARD	5019586	4
5	47	C1-C27, C29-C32, C34-C36, C38-C42, C44-C46, C48-C51, C53-C55, C57-C60, C62-C64, C66-C70, C72, C74, C78-C79, C81-C83	CAP .01 UF 100V 20% (SEE NOTE #1)	1001610-01	5
6	15	D1-D15	DIODE 0684	1180114	6
7	71	R1-R10, R20	RES. 180 1/4W 5%	1301322	7
8	5	R30-R43	RES. 220 1/4W 5%	1300271	8
9	13	R11-R20, R30, R31, R37	RES. 2.2K 1/4W 5%	1300417	9
10	1	S1	SWITCH 10 POS	1211184-06	10
11	1	E7	IC 7482	1800884	11
12	6	E22, E23, E41, E68, E79, E1	IC 7388 (SEE NOTE #2)	1910388	12
13	4	E5, E32, E51, E69	IC 8801	1909705	13
14	3	E4, E6, E17	IC 7406	1905575	14
15	1	E19	IC 7418	1905578	15
16	1	E2	IC 8242	1908712	16
17	1	E13	IC 7418A	1810841	17
18	1	E18	IC 7486	1919158	18
19	5	E8, E18, E15, E21, E27	IC 7427	1910081	19
20	4	E3, E14, E28, E26	IC 7304	1910383	20
21	4	E11, E12, E16, E24	IC 7474	1905547	21
22	2	E42, E76	IC 74174	1910852	22
23	36	E28-E31, E34-E36, E38-E40, E44-E46, E48-E50, E53-E55, E57-E59, E82-E84, E86-E88, E72-E74, E78-E79, E81-E83	IC DEC 2102-0	2117316-0C	23
24	24	E30, E31, E35, E36, E39, E40, E45, E46, E48, E50, E54, E55, E58, E59, E60, E64, E67, E68, E73, E74, E77, E78, E82, E83	IC DEC 2102-1	2117318-01	24

8223	8	16
2102	9	18
74174	8	16
7364	1	8
7360	1	8
IC TYPE	QTY	+3V

ORIGINATED BY: B. TAPLEY  
DATE: 7/27/74  
CHANGED BY: B. TAPLEY  
DATE: 7/27/74  
ORIGINATED BY: B. TAPLEY  
DATE: 7/27/74

DATE: 7/27/74  
TIME: 10:30  
DRAWN BY: B. TAPLEY  
DATE: 7/27/74  
CHECKED BY: B. TAPLEY  
DATE: 7/27/74

TITLE  
4K X 12  
MOS. MEMORY

SCALE: NONE  
SHEET 1 OF 6

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DCSM8311-0-1 2

M8311-YA  
M8311-YB  
M8311-YC  
M8311-YD  
M8311-YE  
M8311-YF  
M8311-YH  
M8311-YJ

QTY	Y	QTY	Y	QTY	Y	QTY	Y	QTY	Y	QTY	Y	REF DESIGNATION	DESCRIPTION	PART NO	REV NO
-	-	-	-	-	-	-	-	-	-	-	-	E30, E31, E35, E36, E39, E40, E45, E46, E49, E50, E54, E55, E56, E59, E63, E64, E67, E68, E73, E74, E77, E78, E82, E83	1C DEC 2102-1	2111318-0-1	24
-	-	-	-	-	-	-	-	-	-	-	-	E31, E36, E48, E49, E50, E55, E59, E64, E68, E74, E78, E83			
3	3	3	3	3	3	3	3	3	3	3	3	WI-W5	HANDLE FLIP CHIP MASENTA	9008337-06	25
8	8	8	8	8	8	8	8	8	8	8	8		EYELET 654-7	9008756	26
1	1	1	1	1	1	1	1	1	1	1	1	E8	1C DEC 8223 OR EQUIVALENT	23083A1	27
5	5	5	5	5	5	5	5	5	5	5	5	WI-W5	INSULATED JUMPER	9008185	28
3	3	3	3	3	3	3	3	3	3	3	3	C64, C65, C66	CAP 0.05 MF 35% 10% TAPT	1C05306	29
14	14	14	14	14	14	14	14	14	14	14	14	R21-R29, R32-R35, R38	RES. 3.3K 1/4W 5%	1300430	30
3	3	3	3	3	3	3	3	3	3	3	3		SPACER (CABLE CLAMP)	1202704	31
1	1	1	1	1	1	1	1	1	1	1	1	R64	RES. 300 1/4W 5%	1300309	32
1	1	1	1	1	1	1	1	1	1	1	1	E25	CRYSTAL OSCILLATOR 10 MHZ	1811660-01	33

SWITCH DEFINITIONS

SWI	DEFINITION	DESCRIPTION
SWI-1	EMA2	FIELD SELECTION 'ON' IS 0
SWI-2	EMA1	
SWI-3	EMA0	
SWI-4	SEL0	STARTING ADDRESS SELECT 'ON' IS 0
SWI-5	SEL1	
SWI-6	4K	MEMORY SIZE SELECT CORRECT SIZE - 'ON' OTHERS - 'OFF'
SWI-7	3K	
SWI-8	2K	
SWI-9	1K	
SWI-10		USED FOR TEST ONLY, ALWAYS 'ON'

JUMPER CONFIGURATION

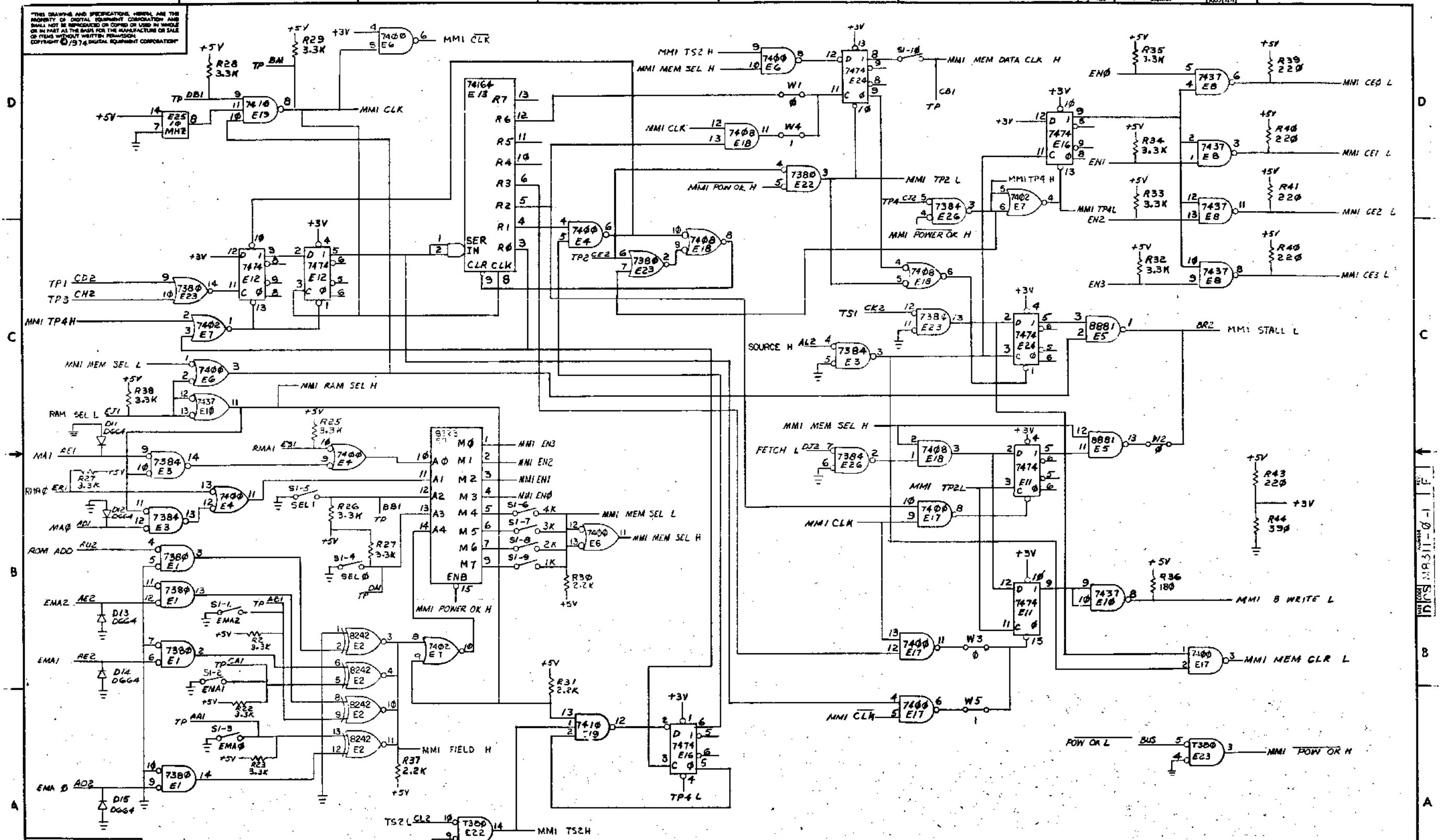
YA, YB, YC AND YD - W1, W2, W3 ARE IN	W4 AND W5 ARE OUT
YE, YF, YH AND YJ - W4 AND W5 ARE IN	W1, W2 AND W3 ARE OUT

REVISIONS		
CHK	CHANGE NO	REV

TITLE 4K X 12 MOS MEMORY  
 SIZE CODE DCSM8311-0-1  
 NUMBER 2 OF 6  
 SCALE NONE  
 SHEET 2 OF 6  
 DIST. 1  
 REV. F

DCSM8311-0-1

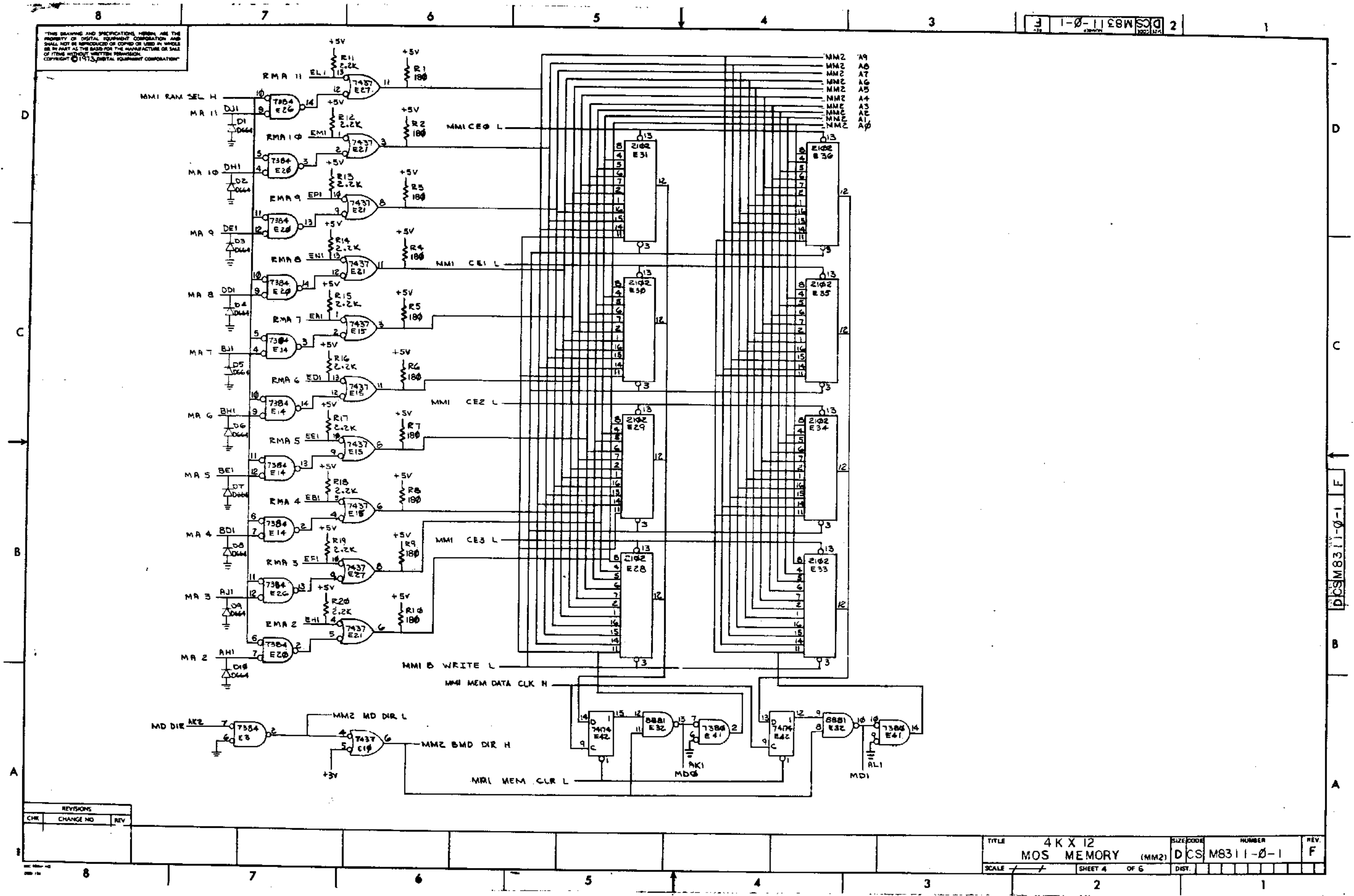
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE			SIZE CODE			NUMBER			REV.		
4K X12 MOS MEMORY (16M1)			DCS			M8311-0-1			F		
SCALE			SHEET 3			OF 6			DIST.		

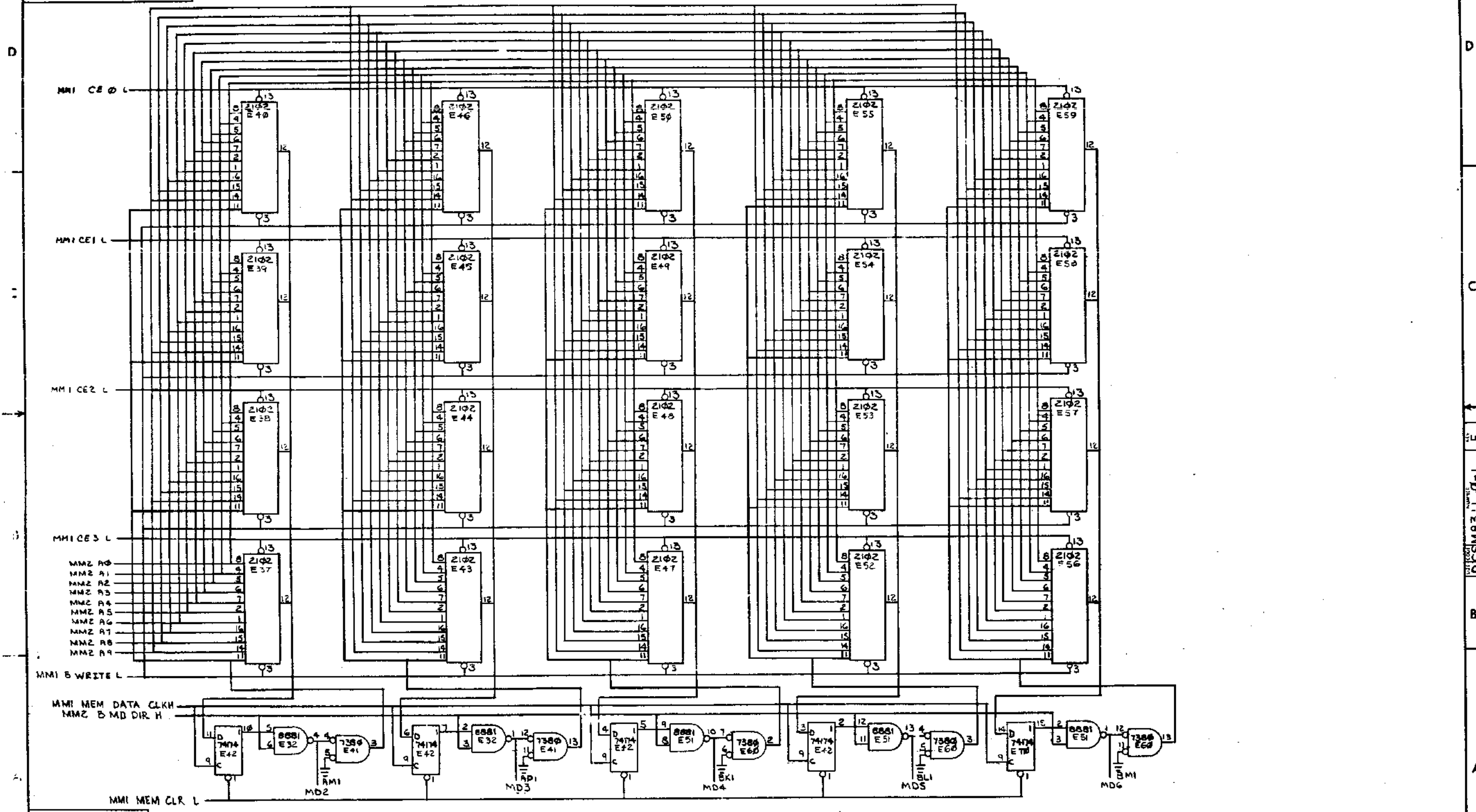
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REVISIONS		
CHR	CHANGE NO	REV

TITLE	4K X 12 MOS MEMORY (MM2)	SIZE CODE	NUMBER	REV
SCALE	SHEET 4 OF 6	DIST.	DCS M8311-0-1	F

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REVISIONS		
CHR	CHANGE NO	REV

TITLE	4K X 12 MOS MEMORY (MM3)	SIZE CODE	NUMBER	REV.
SCALE	NONE	SHEET	5 OF 6	F
DIST.				

DCS M8311-0-1 F 1