





FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1		11780 MEMORY ASSY (MS780-H)	-	5	B-DD-H7103-0	POWER REGULATOR H7103	
	B-TC-MS780-H-1	11780 MEMORY ASSY (MS780-H)	-				
	E-UA-MS780-H-0	11780 MEMORY ASSY (MS780-H)	E/M				
	K-PL-MS780-H-DBP	11780 MEMORY ASSY (MS780-H)	E/M				
	B-IA-7418724-0-0	PLATE STUD P.C. BOARD	M	6	B-DD-H7107-0	E MEMORY REGULATOR	
	B-MD-7418738-0-0	PLATE P.C. BOARD	M				
	B-MD-7419484-0-0	COVER MEMORY	E/M				
	D-IA-7019586-0-0	CABLE +5B	E/M				
	D-IA-7014212-0-0	CABLE AC DC LO	E/M	7	B-DD-M8374-AA	1M X 39 BIT MOS MEMORY	
	D-IA-7014529-0-0	CABLE +5 MEMORY (RED)	E/M				
	D-IA-7014250-0-0	CABLE POWER RTR MEMORY (BLACK)	E/M				
	D-IA-11780-0-1	11780 SYS POWER DIAGRAM	E				
	D-IC-11780-0-2	1178- SYS INTERCONNECT DIAGRAM	E/M	8	B-DD-M8375-0	MEMORY CONTROLLER	
	D-IC-11780-0-3	11780 SUB SYS INTERCONNECT	E/M				
	D-MU-MS780-H-2	MS780-H MODULE UTILIZATION	E/M				
	D-BD-MS780-H-3	MS780-H MEMORY BLOCK DIAGRAM	E				
	D-TD-MS780-H-4	MS780-H MEMORY TIMING DIAGRAM	E	9	B-DD-M8376-0	SBI INTERFACE	
	D-FD-MS780-H-5	MS780-H MEMORY FLOW DIAGRAM	E				
	D-IA-14213-0-0	CABLE OVER TEMP	E/M				
	E-IA-7018759-0-0	SUPPLY +5V MEMORY OPTION	E/M				
				10	D-IA-7014103-0-0	BLANK MODULE ASSY	
					E-MD-7418172-0-0	BLANK MODULE	
2	E-IA-7013711-0-0	CARD CAGE (MEMORY)	M				
	C-MD-7417930-0-0	MOUNTING BAR VERTICAL	M				
	C-MD-7417910-0-0	BRACKET CARD GUIDE	M				
	C-MD-7417912-0-0	BRACKET BOTTOM CARD GUIDE	M				
	C-MD-7427911-0-0	BRACKET TOP CARD GUIDE	M				
	C-MD-7417942-0-0	HANDLE CARD CAGE	M				
	C-MD-7418194-0-0	STIFFENER	M				
	C-MD-7418181-0-0	STIFFENER CORNER	M				
	C-MD-7417913-0-0	BRACKET TOP REAR	M				
3	E-IA-7019729-0-0	BACKPLANE ASSY (MS780-H)	E/M				
	E-MD-5015031-0-0	ETCH CIRCUIT BOARD	E/M				
	C-MD-7417867-0-0	BAR MOUNTING	M				
	A-SP-7019729-0-0	PROCESS SPEC	E/M				
	K-WL-7019729-0-1	WIRE LIST (MEM)					
	A-DC-7411881-0-0	DECAL AWT REV STATUS					
4	B-DD-H7100-0	POWER SUPPLY (H7100)					

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

digital

TITLE 11780 MEMORY ASSY (MS780-H)

SHEET 2 OF 3

SIZE CODE  
B DD

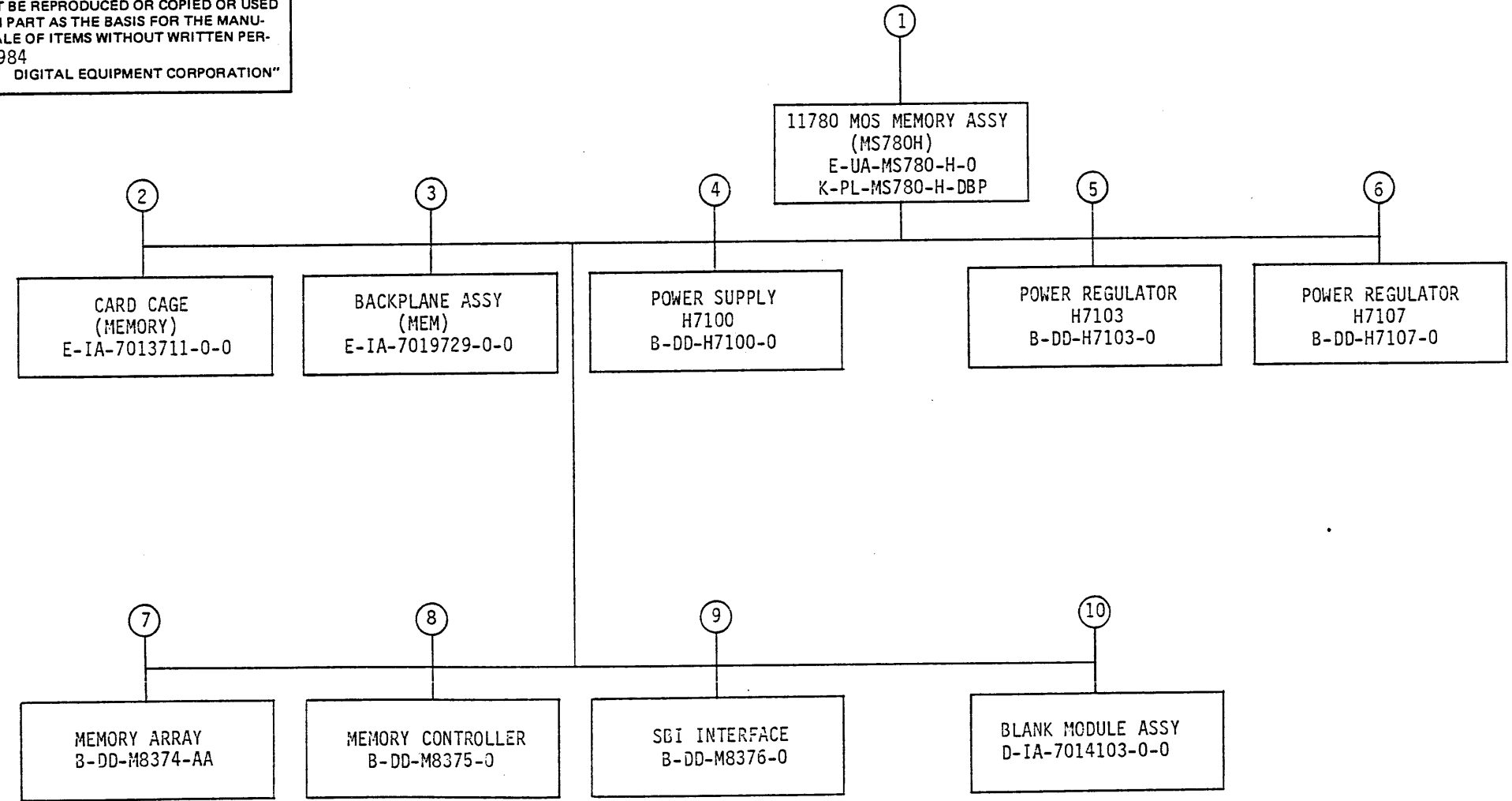
NUMBER  
MS780-H

REV  
A

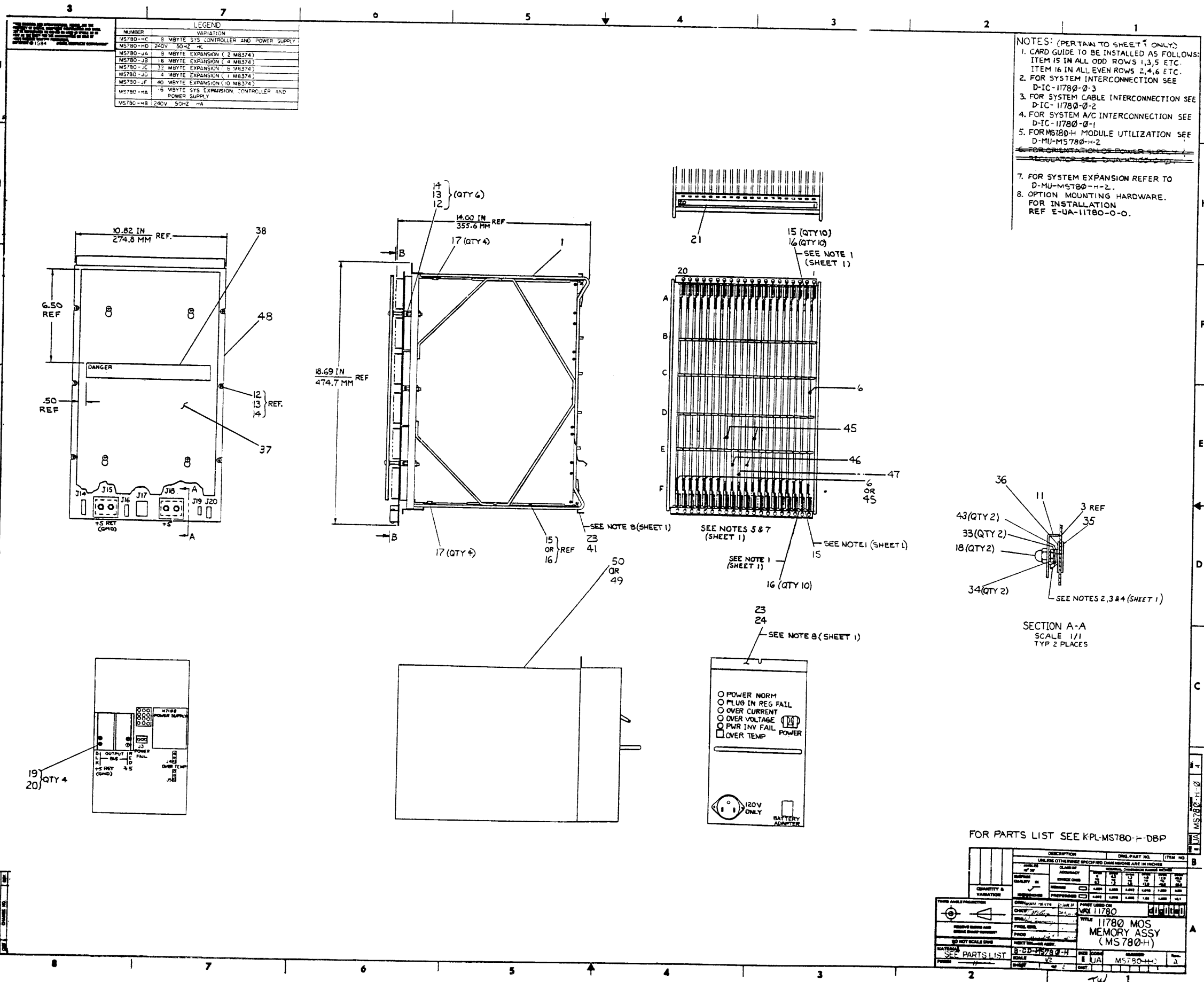
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TW

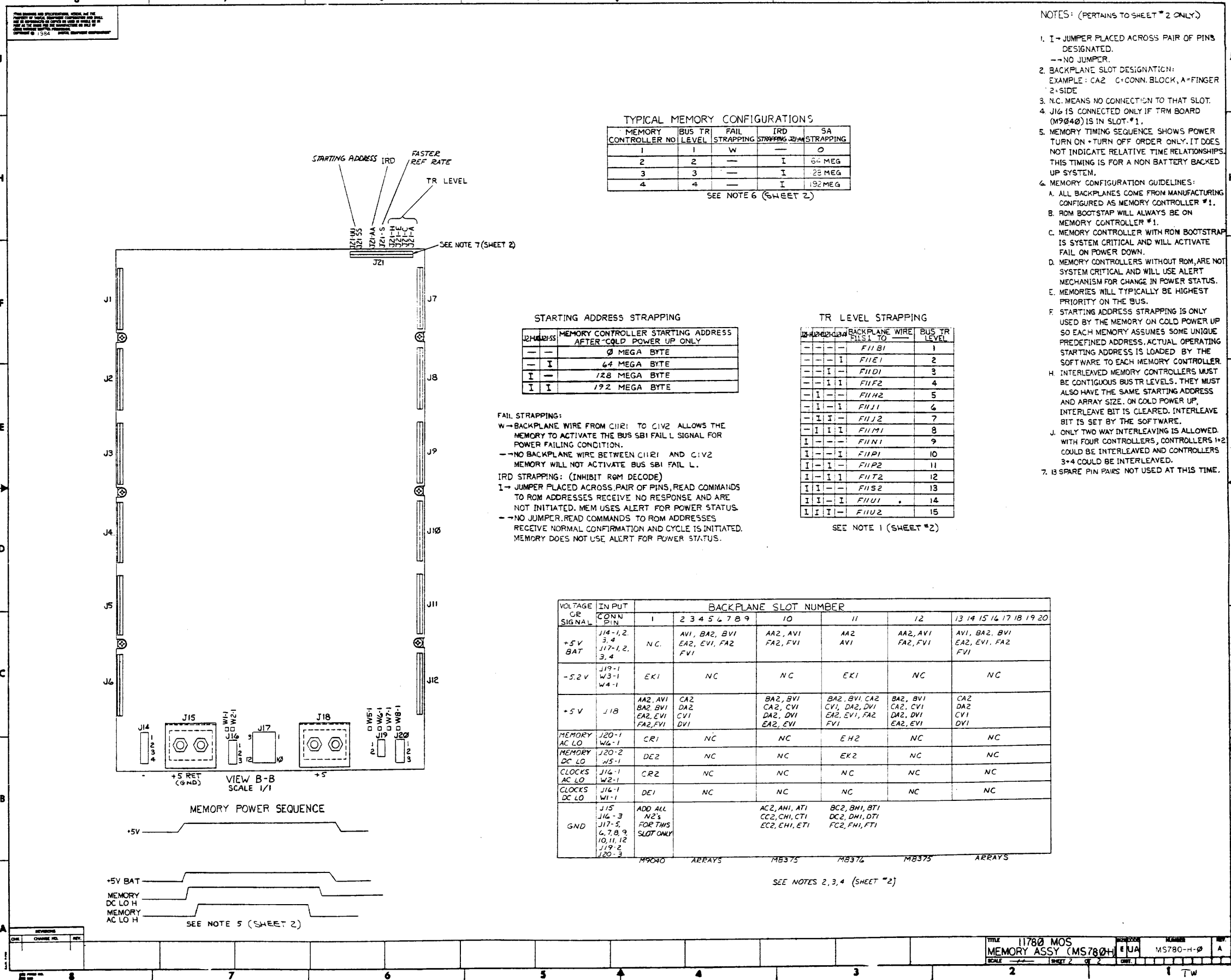
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DESCRIPTION	QTY	UNIT	ITEM NO.
11780 MOS MEMORY ASSY (MS780-H)	1	EA	1
15 (QTY 10)	10	EA	15
16 (QTY 10)	10	EA	16
17 (QTY 4)	4	EA	17
18 (QTY 2)	2	EA	18
19 (QTY 4)	4	EA	19
20 (QTY 4)	4	EA	20
23	1	EA	23
24	1	EA	24
33 (QTY 2)	2	EA	33
34 (QTY 2)	2	EA	34
35	1	EA	35
36	1	EA	36
43 (QTY 2)	2	EA	43
45	1	EA	45
46	1	EA	46
47	1	EA	47
50 OR 49	1	EA	50



TYPICAL MEMORY CONFIGURATIONS

MEMORY CONTROLLER NO	BUS TR LEVEL	FAIL STRAPPING	IRD STRAPPING	SA
1	1	W	—	0
2	2	—	I	64 MEG
3	3	—	I	28 MEG
4	4	—	I	192 MEG

SEE NOTE 6 (SHEET 2)

STARTING ADDRESS STRAPPING

MEMORY CONTROLLER	STARTING ADDRESS AFTER COLD POWER UP ONLY
—	0 MEGA BYTE
I	64 MEGA BYTE
I	128 MEGA BYTE
I I	192 MEGA BYTE

TR LEVEL STRAPPING

BACKPLANE WIRE	BUS TR LEVEL
FI1B1	1
FI1E1	2
FI1D1	3
FI1F2	4
FI1H2	5
FI1J1	6
FI1J2	7
FI1M1	8
FI1N1	9
FI1P1	10
FI1P2	11
FI1T2	12
FI1S2	13
FI1U1	14
FI1U2	15

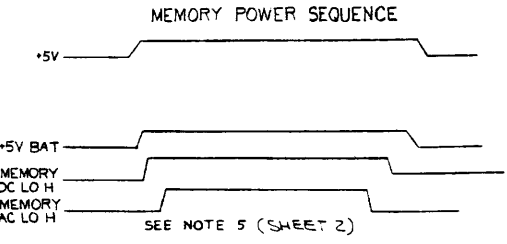
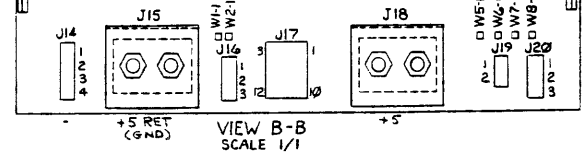
SEE NOTE 1 (SHEET 2)

**FAIL STRAPPING:**  
 W → BACKPLANE WIRE FROM C11R1 TO C1V2 ALLOWS THE MEMORY TO ACTIVATE THE BUS SBI FAIL L SIGNAL FOR POWER FAILING CONDITION.  
 — → NO BACKPLANE WIRE BETWEEN C11R1 AND C1V2 MEMORY WILL NOT ACTIVATE BUS SBI FAIL L.  
**IRD STRAPPING: (INHIBIT ROM DECODE)**  
 I → JUMPER PLACED ACROSS PAIR OF PINS, READ COMMANDS TO ROM ADDRESSES RECEIVE NO RESPONSE AND ARE NOT INITIATED. MEM USES ALERT FOR POWER STATUS.  
 — → NO JUMPER, READ COMMANDS TO ROM ADDRESSES RECEIVE NORMAL CONFIRMATION AND CYCLE IS INITIATED. MEMORY DOES NOT USE ALERT FOR POWER STATUS.

- NOTES: (PERTAINS TO SHEET #2 ONLY)
- I → JUMPER PLACED ACROSS PAIR OF PINS DESIGNATED.  
 — → NO JUMPER.
  - BACKPLANE SLOT DESIGNATION:  
 EXAMPLE: CA2 C1 CONN. BLOCK, A → FINGER 2 → SIDE
  - N.C. MEANS NO CONNECTION TO THAT SLOT.
  - J16 IS CONNECTED ONLY IF TRM BOARD (M9840) IS IN SLOT #1.
  - MEMORY TIMING SEQUENCE SHOWS POWER TURN ON + TURN OFF ORDER ONLY. IT DOES NOT INDICATE RELATIVE TIME RELATIONSHIPS. THIS TIMING IS FOR A NON BATTERY BACKED UP SYSTEM.
  - MEMORY CONFIGURATION GUIDELINES:
    - ALL BACKPLANES COME FROM MANUFACTURING CONFIGURED AS MEMORY CONTROLLER #1.
    - ROM BOOTSTRAP WILL ALWAYS BE ON MEMORY CONTROLLER #1.
    - MEMORY CONTROLLER WITH ROM BOOTSTRAP IS SYSTEM CRITICAL AND WILL ACTIVATE FAIL ON POWER DOWN.
    - MEMORY CONTROLLERS WITHOUT ROM, ARE NOT SYSTEM CRITICAL AND WILL USE ALERT MECHANISM FOR CHANGE IN POWER STATUS.
    - MEMORIES WILL TYPICALLY BE HIGHEST PRIORITY ON THE BUS.
    - STARTING ADDRESS STRAPPING IS ONLY USED BY THE MEMORY ON COLD POWER UP SO EACH MEMORY ASSUMES SOME UNIQUE PREDEFINED ADDRESS. ACTUAL OPERATING STARTING ADDRESS IS LOADED BY THE SOFTWARE TO EACH MEMORY CONTROLLER.
    - INTERLEAVED MEMORY CONTROLLERS MUST BE CONTIGUOUS BUS TR LEVELS. THEY MUST ALSO HAVE THE SAME STARTING ADDRESS AND ARRAY SIZE. ON COLD POWER UP, INTERLEAVE BIT IS CLEARED. INTERLEAVE BIT IS SET BY THE SOFTWARE.
    - ONLY TWO WAY INTERLEAVING IS ALLOWED. WITH FOUR CONTROLLERS, CONTROLLERS 1+2 COULD BE INTERLEAVED AND CONTROLLERS 3+4 COULD BE INTERLEAVED.
  - 13 SPARE PIN PAIRS NOT USED AT THIS TIME.

VOLTAGE OR SIGNAL	INPUT CONN PIN	BACKPLANE SLOT NUMBER																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
+5V BAT	J14-1,2,3,4 J17-1,2,3,4	N.C.	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI	EA2, EVI, FA2, FVI
-5.2V	J19-1, W3-1, W4-1	EK1	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
+5V	J18	AA2, AVI, BA2, BV1, EA2, EVI, FA2, FVI	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1	CA2, DA2, CV1, DV1
MEMORY AC LO	J20-1, W6-1	CR1	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
MEMORY DC LO	J20-2, H5-1	DE2	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
CLOCKS AC LO	J14-1, W2-1	CR2	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
CLOCKS DC LO	J14-1, W1-1	DE1	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
GND	J15, J16-3, J17-5, 6, 7, 8, 9, 10, 11, 12, J19-2, J20-3	ADD ALL N2'S FOR THIS SLOT ONLY								AC2, AH1, AT1, CC2, CH1, CT1, EC2, CH1, ET1										

SEE NOTES 2, 3, 4 (SHEET #2)



LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION									
						HA	HB	HC	HD	JA	JB	JC	JD	JF	
						A1	A1	A1	A1	A1	A1	A1	A1	A1	
1	1	E-UA-7013711-0-0	7013711-00		CARD CAGE MEM	1	1	1	1	-	-	-	-	-	
2	2		3614746-02		LABEL,MOD.UTILIZATION,MS780-H	1	1	1	1	-	-	-	-	-	
3	6	D-IA-7014103-0-0	7014103-00		BLANK MODULE ASSY	13	13	15	15	-	-	-	-	-	
4	11	E-MD-7419484-0-0	7419484-00		COVER, BUS BAR CPU	2	2	2	2	-	-	-	-	-	
5	12		9006043-01		SCREW,MACH PAN PHIL 8-	6	6	6	6	-	-	-	-	-	
6	13		9006660-00		WASHER,FLAT SST	6	6	6	6	-	-	-	-	-	
7	14		9006563-00		NUT,HEX EXT TOOTH LCKWSHR 8-32	6	6	6	6	-	-	-	-	-	
8	15		1212405-00		GUIDE,CARD ,NYLON ,NATURAL	20	20	20	20	-	-	-	-	-	
9	16		1212405-01		GUIDE,CARD ,NYLON ,MAGNETA	20	20	20	20	-	-	-	-	-	
10	17		1211630-00		GUIDE,CARD ,POLMIDE,NATURAL	8	8	8	8	-	-	-	-	-	
11	18		9006611-00		NUT,RELOCK 1/4-20X .438AF NYLO	4	4	4	4	-	-	-	-	-	
12	19		9006071-01		SCREW,MACH PAN PHIL 10-	4	4	4	4	-	-	-	-	-	
13	20		9007906-00		WASHER,HELICAL SPLIT STEEL	4	4	4	4	-	-	-	-	-	
14	21		3613281-04		LABEL,ADHESIVE BACK FOR BA11-K	2	2	2	2	-	-	-	-	-	
15	22		3614744-00		LABEL,WARNING SWITCH OFF MEMORY	1	1	1	1	-	-	-	-	-	
16	23		9006037-03		SCREW,MACH TRUSS PHIL 8-	7	7	7	7	-	-	-	-	-	
17	24		9006634-00		WASHER,LOCK INTERNAL STEEL	1	1	1	1	-	-	-	-	-	
18	29	D-IA-7014212-1C-0	7014212-1C		CABLE AC,DC,LOW	1	1	1	1	-	-	-	-	-	
19	30	D-IA-7014529-0K-0	7014529-0K		CABLE MEMORY	2	2	2	2	-	-	-	-	-	
20	31	D-IA-7014250-0K-0	7014250-0K		CABLE MEMORY POWER	2	2	2	2	-	-	-	-	-	
21	32		1214314-00		CONN,P+S 02SKT(1X02).100CC JUM	5	5	5	5	-	-	-	-	-	
22	33		9007797-00		WASHER,HELICAL SPLIT SST	4	4	4	4	-	-	-	-	-	
23	34		9006566-00		NUT,HEX 1/4-20X .431AF CS/C	4	4	4	4	-	-	-	-	-	
24	35	E-IA-7418724-0-0	7418724-00		STUD PLATE, PC BD	2	2	2	2	-	-	-	-	-	
25	36	B-MD-7418738-0-0	7418738-00		PLATE PC BD	2	2	2	2	-	-	-	-	-	
26	37	C-MD-7419454-0-0	7419454-00		COVER MEMORY BACKPLANE	1	1	1	1	-	-	-	-	-	
27	38		3615087-02		LABEL,"DANGER-HIGH CURRENT"	1	1	1	1	-	-	-	-	-	
28	39		1700087-00		CABLE,RIBBON,20 COND. ASSY FLAT	6	6	6	6	-	-	-	-	-	
29	40		7014213-0K		CAB OVER TEMP	1	1	1	1	-	-	-	-	-	
30	41		9008072-00		WASHER,LOCK EXTERNAL STEEL	6	6	6	6	-	-	-	-	-	

REVISION HISTORY		BASIC PART NO: MS780		DRN:	B. PELLICCIA	DATE:	20-JUN-84	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	T. MCCULLOUGH	DATE:	20-JUN-84	TITLE PARTS LIST			
	INITIAL	A	SECTION,VARIATION INDEX					11780 MEMORY ASSY (MS780-H)			
			(A)HA,HB,HC,HD,JA,JB, JC,JD,JF	DES.ENG:	M. GAGLIARDO	DATE:	20-JUN-84	DOCUMENT NUMBER			
			(B)	RESP.ENG.:	P. GREENAWAY	DATE:	20-JUN-84	SIZE	CODE	NUMBER	REV
			(C)					K	PL	MS780-H-DBP	A
			(D)	MFG.ENG.:	J. LEFORT	DATE:	20-JUN-84	RELEASE DATE: 19-DEC-84			
			(E)	ASSEMBLY NUMBER:	E-UA-MS780-0-0	TOP DOCUMENT NUMBER:	B-DD-MS780-H-0	FILE NAME:	Z9624A.PLS	EDIT #	9
			(F)								

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P A R T S L I - S T

SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION									
						HA	HB	HC	HD	JA	JB	JC	JD	JF	
						A1	A1	A1	A1	A1	A1	A1	A1	A1	
31	43		9006646-00		WASHER,FLAT	2	2	2	2	-	-	-	-	-	
32	44		3614743-00		LABEL,MEMORY POWER SUPPLY	1	1	1	1	-	-	-	-	-	
33	45		M8374-AA		1M X 39BIT MOS MEM ARRAY,=M8374-	4	4	2	2	2	4	8	1	10	
34	46		M8375-00		MEMORY CONTROL,4-LAYER HEX.12	2	2	2	2	-	-	-	-	-	
35	47		M8376-00		SBI INTERFACE,4-LAYER HEX.12	1	1	1	1	-	-	-	-	-	
36	48		7019729-00		BACKPLANE ASSY MEMORY	1	1	1	1	-	-	-	-	-	
37	49		7018759-00		SUPPLY +5V MEMORY OPT	1	-	1	-	-	-	-	-	-	
38	50		7018759-01		SUPPLY +5V MEMORY OPT	-	1	-	1	-	-	-	-	-	
39	51		7019586-1E		CABLE +5B	1	1	1	1	-	-	-	-	-	
40	52		3700402-00		PKG KIT OPTION MS780-CA/-E CUSTO	1	1	1	1	1	1	1	1	1	
41	53		7022126-01		MS780-E SHIPPING LIST	1	1	1	1	1	1	1	1	1	

D	I	G	I	T	A	L	TITLE	11780 MEMORY ASSY (MS780-H)	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	MS780-H-DBP	A



8

DMU MS780-H-2

6

5

4

3

2

1

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NOTES:

- 1.  $\Delta$  ONLY USE WHEN NO SFT ON FAR END OF BUS OTHERWISE USE BLANK BOARD.
- 2.  $\Delta$  BASE SYSTEM USES 8M BYTES OR (2M8374 BOARDS SLOTS 9-13). THE BALANCE OF SLOTS SHOULD BE BLANK BOARDS. (7014103) FOR LARGER MEMORY, REPLACE BLANK BOARDS WITH M8374'S IN 8M BYTE INCREMENTS SLOTS 8+14, 7+15, ETC. OUT TO SLOTS 2+20, FOR A MAXIMUM MEMORY SIZE OF 64M BYTES.
- 3. \* = OR BLANK BOARD. (7014103)

PIN SIDE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	M9040	M8374	M8374	M8374	M8374	M8374	M8374	M8374	M8374	M8375	M8376	M8375	M8374	M8374	M8374	M8374	M8374	M8374	M8374	M8374
A	TRM * $\Delta$	MAY	MAY	MAY	MAY	MAY	MAY	MAY	MAY $\Delta$	MCN	MSB	MCN	MAY $\Delta$	MAY	MAY	MAY	MAY	MAY	MAY	MAY
B																				
C																				
D																				
E																				
F																				

8M BYTES

64 M BYTES WHEN BACKPLANE FULLY POPULATED

REVISION HISTORY	REV.
ECO NUMBER	
DATE	

DESIGNED BY Barbara Pelliccio	DATE 25 June 74	TITLE digital
CHECKED BY T. W. ...	DATE ...	MS780-H MODULE UTILIZATION
DRAWN BY ...	DATE ...	
APP. BY ...	DATE ...	DOCUMENT NUMBER
DATE ...	DATE 4/23/84	D MU MS780-H-2 A

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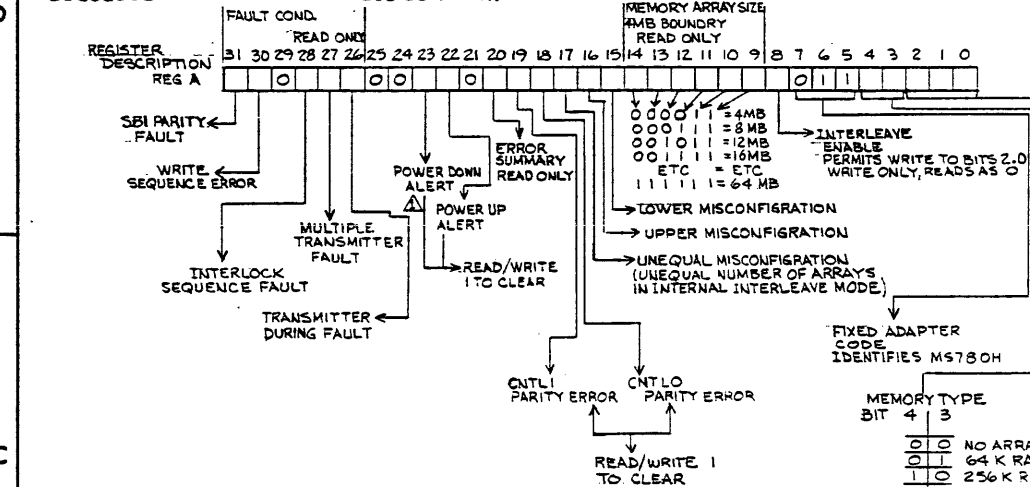
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1

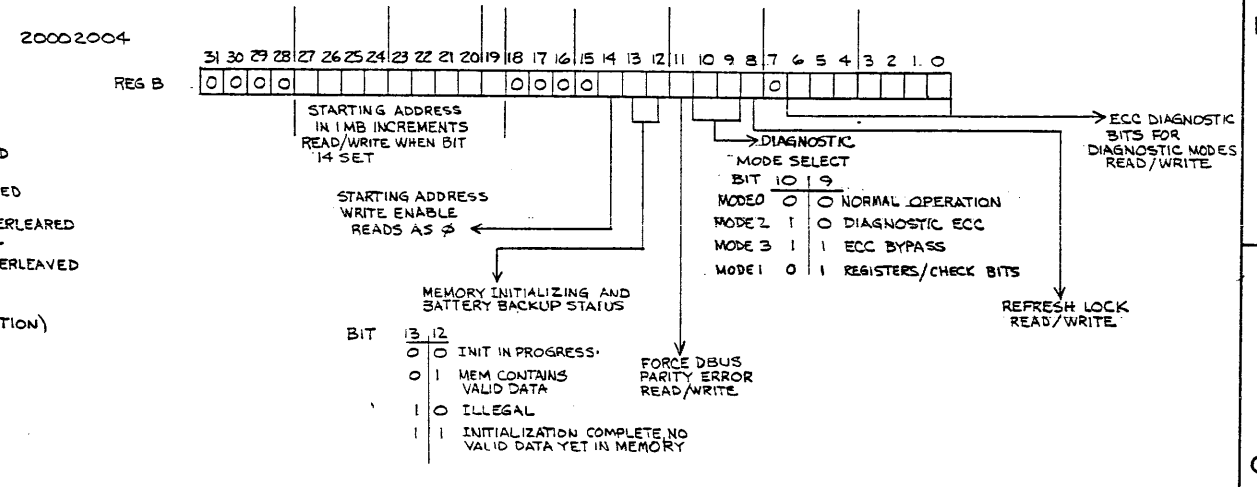
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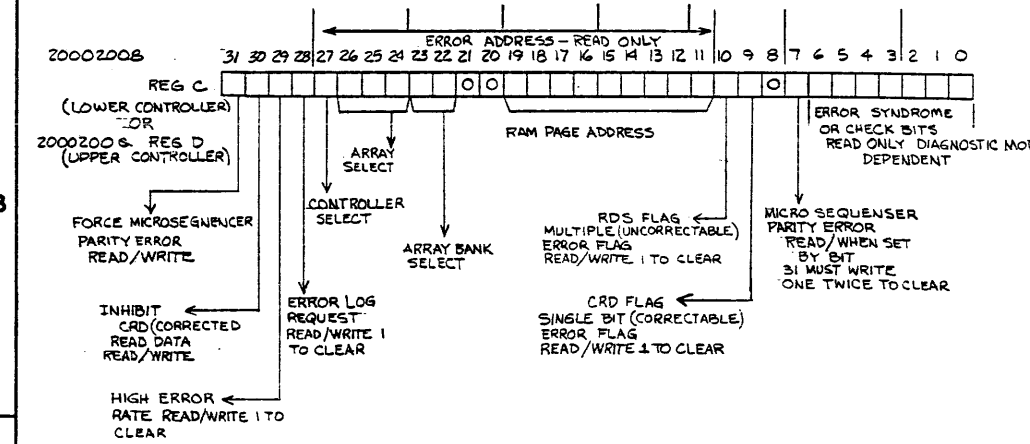
**REGISTERS**  
 MS780H INCORPORATES SIX ADDRESSABLE REGISTERS. THEY ARE ADDRESSED AT ADJACENT LONGWORD LOCATIONS BEGINNING AT HEX CONSOLE ADDRESS 20002000, WHERE 'X' IS 2 IF THE MEMORY IS BACKPLANE-JUMPED TO TR LEVEL 1, 4 FOR TR LEVEL 2, 6 FOR TR LEVEL 3, AND SO ON. IN ADDITION, THE FOLLOWING 2 LOCATIONS CAN BE "WRITTEN" WITHOUT AFFECTING MEMORY STATUS. THESE ARE NONEXISTENT REGISTERS BUT ACCESS RESULTS IN NORMAL BUS BEHAVIOR.



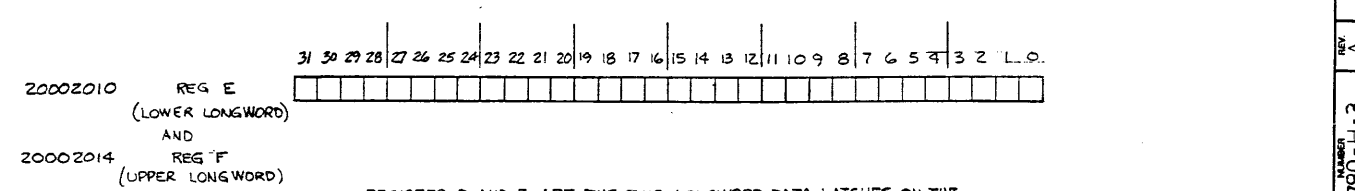
REGISTER A IS LOCATED ON THE SBI INTERFACE. ITS FUNCTION IS PRIMARILY FAULT AND STATUS INFORMATION. IN ADDITION, IT REPORTS MEMORY SIZE, RAM TYPE, AND INTERLEAVE MODE. INTERLEAVE MODE IS ON BATTERY BACKUP.



REGISTER B IS PARTLY ON THE INTERFACE AND PARTLY ON THE TWO CONTROLLERS. THE UPPER HALF, ON THE INTERFACE, STORES STARTING ADDRESS OF THE SYSTEM. THESE BITS ARE ALSO ON BATTERY BACKUP-A "WARM START" SHOULD NOT REQUIRE REWRITING THEM. THE LOWER HALF OF B IS DUPLICATED ON THE TWO CONTROLLERS. WRITING THESE BITS WILL WRITE THE SAME INFORMATION IN BOTH CONTROLLERS.



REGISTER C IS ON THE LOWER (0) CONTROLLER AND REGISTER D ON THE UPPER (1) CONTROLLER. THEY ARE IDENTICAL IN BIT ASSIGNMENTS. MOST BITS ARE FOR ECC STATUS OR DIAGNOSTICS.



NOTE: ⚠ THESE BITS ARE USED ONLY BY MEMORY CONTROLLERS WITHOUT ROM BOOT STRAP.

(MEMORY CONTROLLER CONFIGURATION REGISTERS.)

REVISION HISTORY

REV.	DATE	ECO NUMBER

DESIGNED BY: Barbara Pelliccia	DATE: 25 JUNE 84	TITLE: digital
CHECKED BY: [Signature]	DATE: 30 JUNE 84	MS780-H MEMORY BLOCK DIAG.
DRAWN BY: [Signature]	DATE: 16 JUL 84	DOCUMENT NUMBER:
INSTR. BY: [Signature]	DATE: 13 SEP 84	SIZE CODE: D
WFO. BY: [Signature]	DATE: 2/3/84	NUMBER: MS780-H-3
NEXT HIGH DOC:		REV. A

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REV A  
DIBD MS780-H-3

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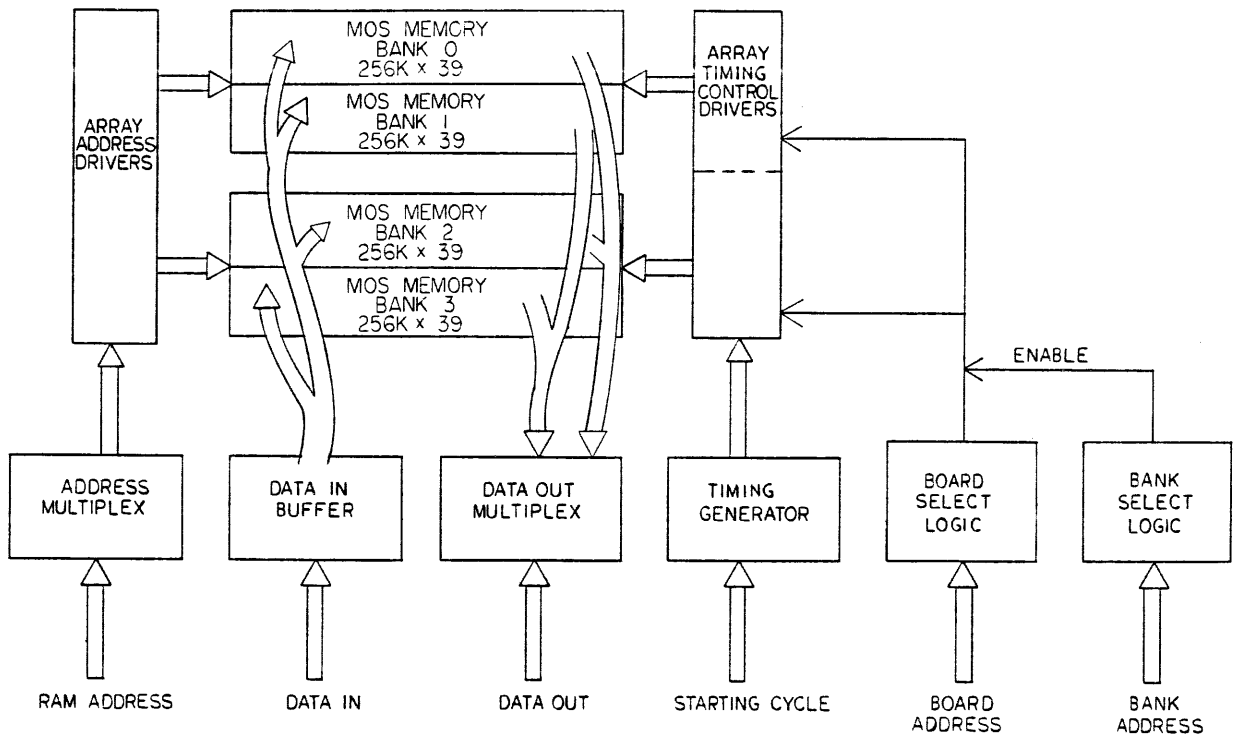
MS 780H/J SYNDROME DECODE TO BIT-IN-ERROR

ERROR SYNDROME BIT	DO6	0	1	0	1	0	1	0	1	0	1
	DO5	0	0	1	1	0	0	1	1	1	1
	DO4	0	0	0	0	0	1	1	1	1	1
	DO3										
	DO2										
	DO1										
	DO0										

0	0	0	0	*	C16	C8	T	C4	T	T	30
0	0	0	1		C2	T	T	27	T	5	M
0	0	1	0		C1	T	T	25	T	3	15
0	0	1	1		T	M	13	T	23	T	M
0	1	0	0		CO	T	T	24	T	2	M
0	1	0	1		T	I	12	T	22	F	T
0	1	1	0		T	M	10	T	20	T	M
0	1	1	1		16	T	T	M	T	M	M
1	0	0	0		CX	T	T	M	T	M	14
1	0	0	1		T	M	11	T	21	T	M
1	0	1	0		T	M	9	T	19	T	31
1	0	1	1		M	T	T	29	T	7	M
1	1	0	0		T	M	8	T	18	T	M
1	1	0	1		17	T	T	28	T	6	M
1	1	1	0		M	T	T	26	T	4	M
1	1	1	1		T	Ø	M	T	M	T	M

\* - NO ERRORS DETECTED  
NUMBERS - NUMBER OF THE SINGLE BIT-IN-ERROR  
T - TWO ERRORS DETECTED  
M - THREE OR MORE ERRORS DETECTED



ARRAY MODULE BLOCK DIAG.

REVISION HISTORY	REV.	A
ECO NUMBER	INT	R.E.L.
DATE		

DATE	DATE	TITLE	digital
CHKD.	DATE	MS780-H MEMORY BLOCK DIAG.	
DES. ENL.	DATE	DOCUMENT NUMBER	
PREP. ENL.	DATE	SIZE	CODE
APP. ENL.	DATE	D	BD
NEXT NUMBER DOC.	DATE	MS780-H-3	REV A
		SCALE	SHEET 2 OF 3

REV A  
DIBD MS780-H-3

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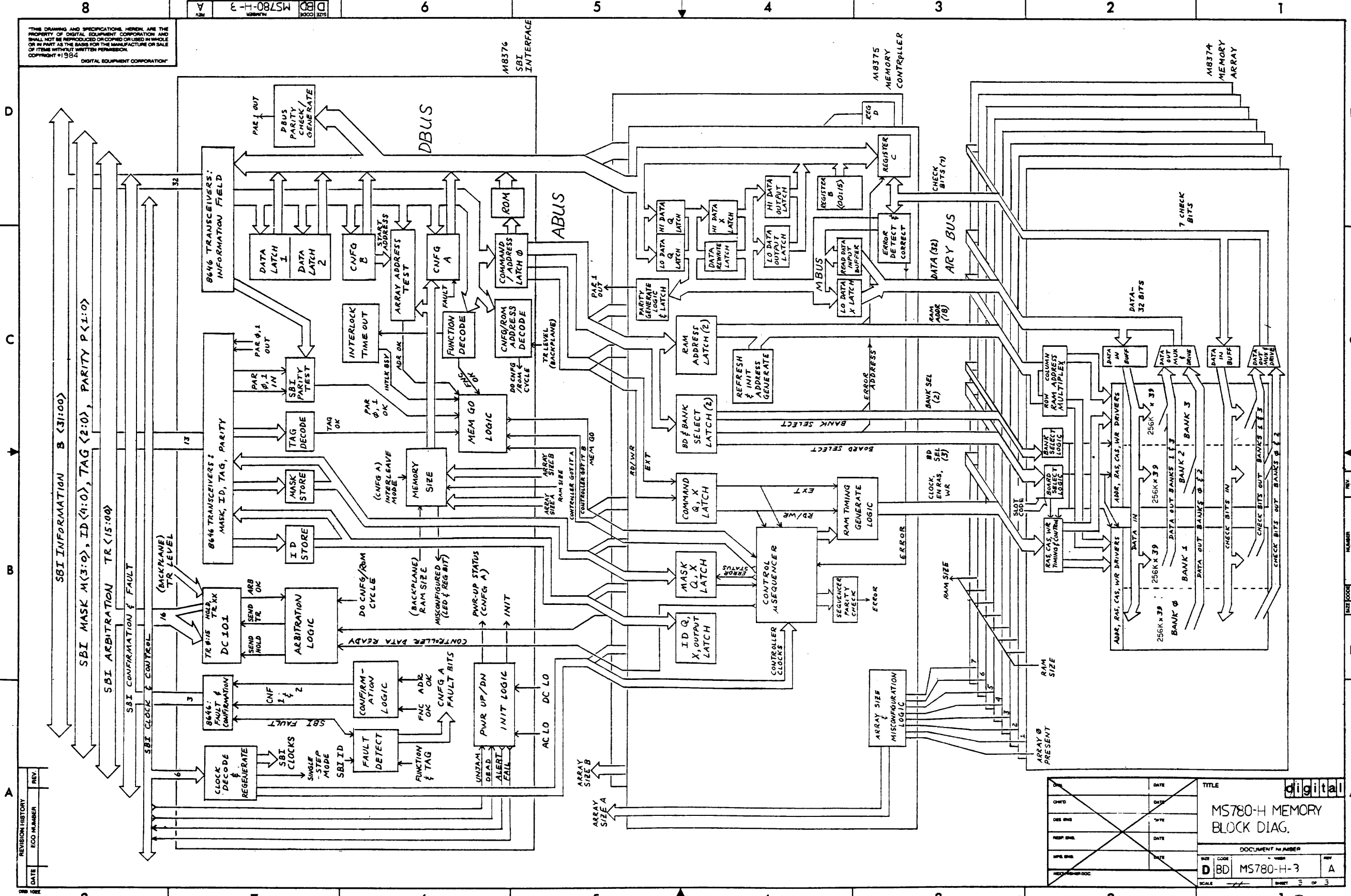
3

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TW

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REVISION HISTORY	
DATE	REV

DATE		DATE		TITLE	digital
				MS780-H MEMORY	
				BLOCK DIAG.	
				DOCUMENT NUMBER	
				D BD MS780-H-3	A
				SCALE	
				SHEET	3 of 3

REV A	NUMBER 7019729-0-0	CODE DD	SIZE B
----------	-----------------------	------------	-----------

DRAWING NO.	NO OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																					
E-IA-7019729-0-0	1		BACKPLANE ASSY (MEM)	A																					
K-PL-7019729-0-DBP	2		BACKPLANE ASSY (MEM)	A																					
K-WL-7019729-0-i	1		WIRE LIST (MEMORY)	A																					
		5015031	DRILL & ETCH BOARD	C																					
D-MD-5015031-0-0	5		DRILL & ETCH DRAWING	A																					
D-EC-5015031-0-0	2		ETCH CUT DRAWING	A																					

**NOTES:**

REVISION HISTORY			DATE	ECO NO.	REV.

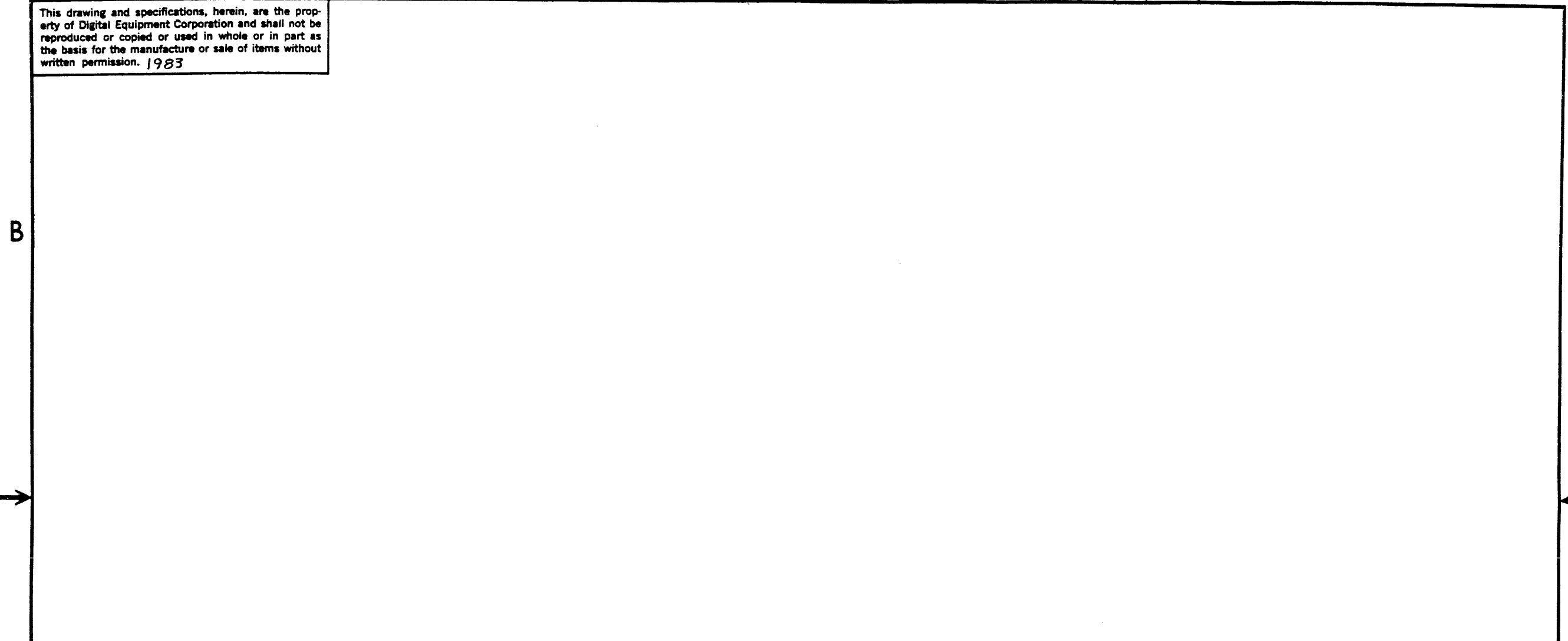
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USED ON OPTION/MODEL		MS780-E	DRN A.RUSZCZYK	DATE	TITLE	DOCUMENT NUMBER		
			CHK'D T.McCULLOUGH	DATE	BACKPLANE ASSY (MS780-E MEMORY)	SIZE	CODE	NUMBER
			DES. ENG. <i>[Signature]</i>	DATE 1-19-83		B	DD	7019729-0-0
			RESP. ENG. <i>[Signature]</i>	DATE 1-18-83				
			MFG. ENG. <i>[Signature]</i>	DATE 1-26-83				
						REV. A	SHEET 1 OF 1	

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REV. A NUMBER 7019729-0-1 SIZE CODE K WL 2 1



FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
MS780-E				
PARTS LIST				
DRN. <i>Thors 11</i>	DATE 9/2/82	 <b>digital</b> EQUIPMENT CORPORATION <small>MAYNARD, MASSACHUSETTS</small>		
CHK'D <i>M. Baptista</i>	DATE 10/2/82			
ENG. <i>Am. St. Ind.</i>	DATE			
PROJ. ENG. <i>J. St. Ind.</i>	DATE			
PROD. <i>Ed Ball</i>	DATE 1-19-83			
NEXT HIGHER ASSEMBLY		TITLE <b>WIRE LIST (MEMORY)</b>		
E-IA-7019729-0-0				
SCALE <i>1:1</i>				
SHEET   OF		SIZE CODE K WL	NUMBER 7019729-0-1	REV. A
		DIST.		

REVISIONS	REV.
	CHANGE NO.
	CHK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	E-MD-5015031-0-0	5015031-00	DRILL & ETCH BD	1
2	2	C-MD-7417867-0-0	7417867-00	MEM MOUNTING BAR	3
3	3	D-MD-7409259-0-0	7409259-00	SUPPORT, LOGIC FRAME SIDE	REF
4	4	K-WL-7019729-0-1	7019729-00	BACKPLANE ASSY MEMORY	REF
5	5	BLANK		*** THIS ITEM IS NOT USED ***	-
6	6		1210258-01	CONN,CARD 288PIN SLOTTED OPEN EN	15
7	7		1214315-00	PCB,HEADER 20PIN(1X20).100CC STR	2
8	8		1212297-01	MATE-N-LOK 04PIN(1X04).250CC HDR	1
9	9		1212297-06	MATE-N-LOK 12PIN(2X06).250CC HDR	1
10	10		1212297-00	MATE-N-LOK 02PIN(1X02).250CC HDR	1
11	11		1212297-03	MATE-N-LOK 03PIN(1X03).250CC HDR	2
12	12		9009149-00	PIN,STAKNG 0.0250DX0.345LG SQUAR	6
13	13		9006210-06	SCREW,MACH FILL PHIL	8- 30
14	14	BLANK		*** THIS ITEM IS NOT USED ***	-
15	15	BLANK		*** THIS ITEM IS NOT USED ***	-
16	16	BLANK		*** THIS ITEM IS NOT USED ***	-
17	17	BLANK		*** THIS ITEM IS NOT USED ***	-
18	18	BLANK		*** THIS ITEM IS NOT USED ***	-
19	19	BLANK		*** THIS ITEM IS NOT USED ***	-
20	20		9105740-44	WIRE(WRAP) 30AWG KYNAR UL14	A/R
21	21	A-DC-7411881-0-0	7411881-01	DECAL	1
22	22	BLANK		*** THIS ITEM IS NOT USED ***	-
23	23	BLANK		*** THIS ITEM IS NOT USED ***	-
24	24		9000001-07	STANDOFF,MALE/FEMALE HEX	8-32 4
25	25	B-MD-7420279-0-0	7420279-00	SLEEVE,INSULATOR	4
26	26		9006713-00	WASHER,FLAT NYLON	8
27	27		9006037-01	SCREW,MACH PAN PHIL	8- 4
28	28		9009321-00	LOCK TITE, SCREW LOCK, 10CC PER	A/R
29	29	BLANK		*** THIS ITEM IS NOT USED ***	-
30	30		1218396-00	PCB,HEADER 40PIN(2X20).100CC STR	12

REVISION HISTORY		BASIC PART NO: 7019729		DRN:	A.RUSZCZYK	DATE:	13-AUG-82	D I G I T A L			
ENG	ECC NUMBER	REV	SECTION A OF A	CHK'D:	T.MCCULLOUGH	DATE:	13-AUG-82	TITLE PARTS LIST			
	INITIAL	A	SECTION VARIATION INDEX					BACKPLANE ASSY (MS780-E MEMORY)			
			[A] 00	DES.ENG.:	L.DERENNE	DATE:	13-AUG-82	DOCUMENT NUMBER			
			[B]	RESP.ENG.:	J.OBARD	DATE:	13-AUG-82	SIZE	CODE	NUMBER	REV
			[C]	MFG.ENG.:	E.BALL	DATE:	26-JAN-83	K	PL	7019729-0-DBP	A
			[D]	ASSEMBLY NUMBER:	E-IA-7019729-0-0	TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
			[E]					Z4503A.PLS		15	
			[F]								

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AUTOMATED BY PRTLST.3P(44)

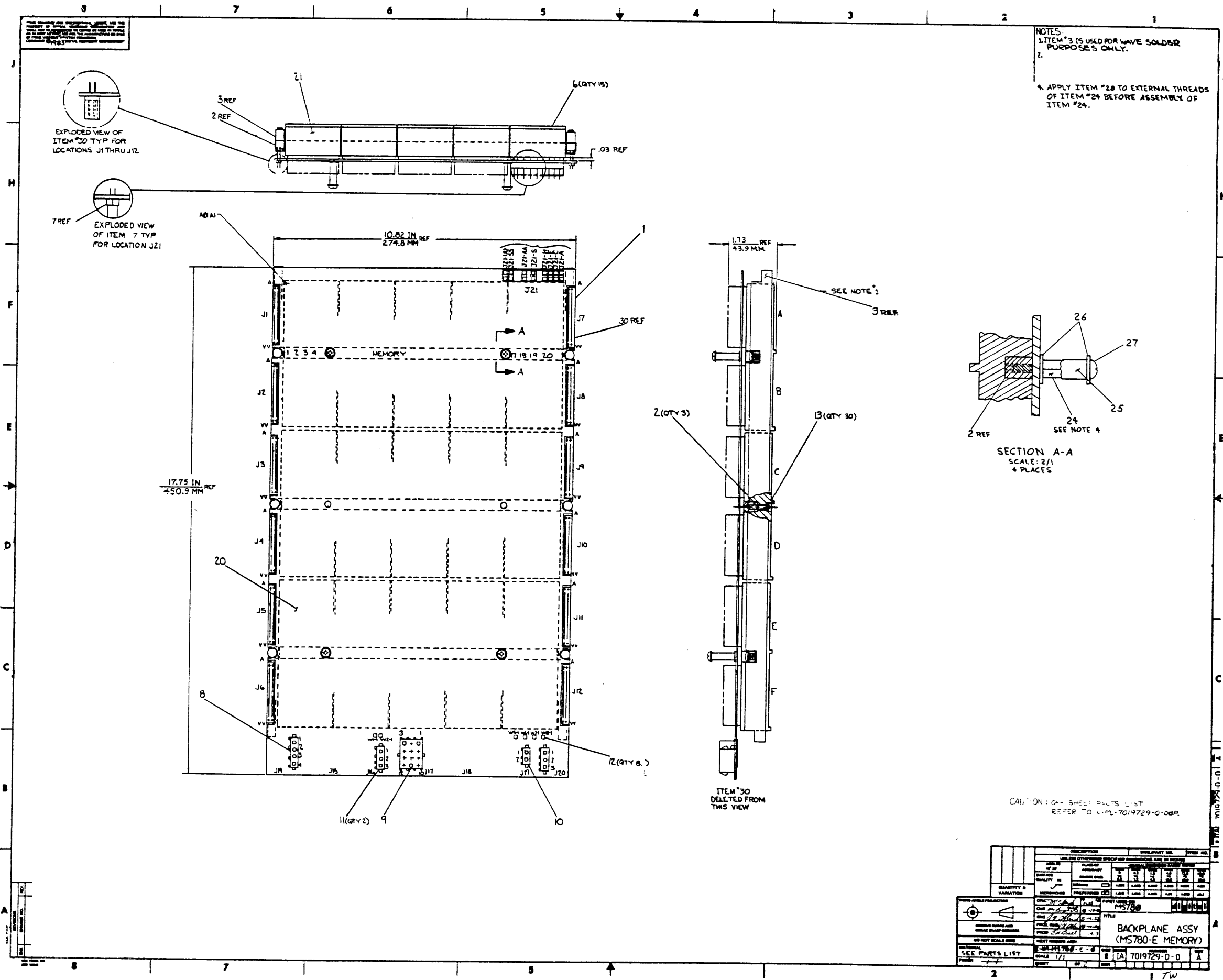
P A R T S L I S T

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
31	31		9905016-04	FOLDER,DIE CUT,SELF LOCK W/FOAM	1
32	32		9107450-66	WIRE, 24AWG( 07/32)IPVC 150V	2

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							BACKPLANE ASSY (MS780-E MEMORY)		K	PL	7019729-0-DBP	A





NOTES:  
 1. ITEM #3 IS USED FOR WAVE SOLDER PURPOSES ONLY.  
 2.  
 4. APPLY ITEM #23 TO EXTERNAL THREADS OF ITEM #24 BEFORE ASSEMBLY OF ITEM #24.

EXPLODED VIEW OF ITEM #30 TYP FOR LOCATIONS J1 THRU J12

EXPLODED VIEW OF ITEM #7 TYP FOR LOCATION J21

SECTION A-A  
 SCALE: 2/1  
 4 PLACES

ITEM #30 DELETED FROM THIS VIEW

CAUTION: OFF SHEET PARTS LIST REFER TO 7019729-0-08A

QUANTITY & VARIATION		DESCRIPTION		PART NO.		ITEM NO.	
1		BACKPLANE ASSY	7019729-0-0	1			
1		(MS780-E MEMORY)					
NATIONAL		SEE PARTS LIST		SCALE 1/1		REV A	
DATE		BY		CHKD		APP'D	

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7 0-0-622610Z [v] [a]

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REWORK INSTRUCTIONS  
WIRE ADDS SIDE 1  
0-1 FROM W51 TO E000K1 24 GA.  
0-2 FROM W61 TO E011K1 24 GA.  
0-3 FROM J021A TO F011L1 30 GA.

J

J

H

H

F

F

E

E

D

D

C

C

B

B

A

A

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE BACKPLANE ASSY  
(MS780-E MEMORY)

DOCUMENT NUMBER		
REV	ECO	DATE
E	IA	7019729-0-0

SCALE 1 T W

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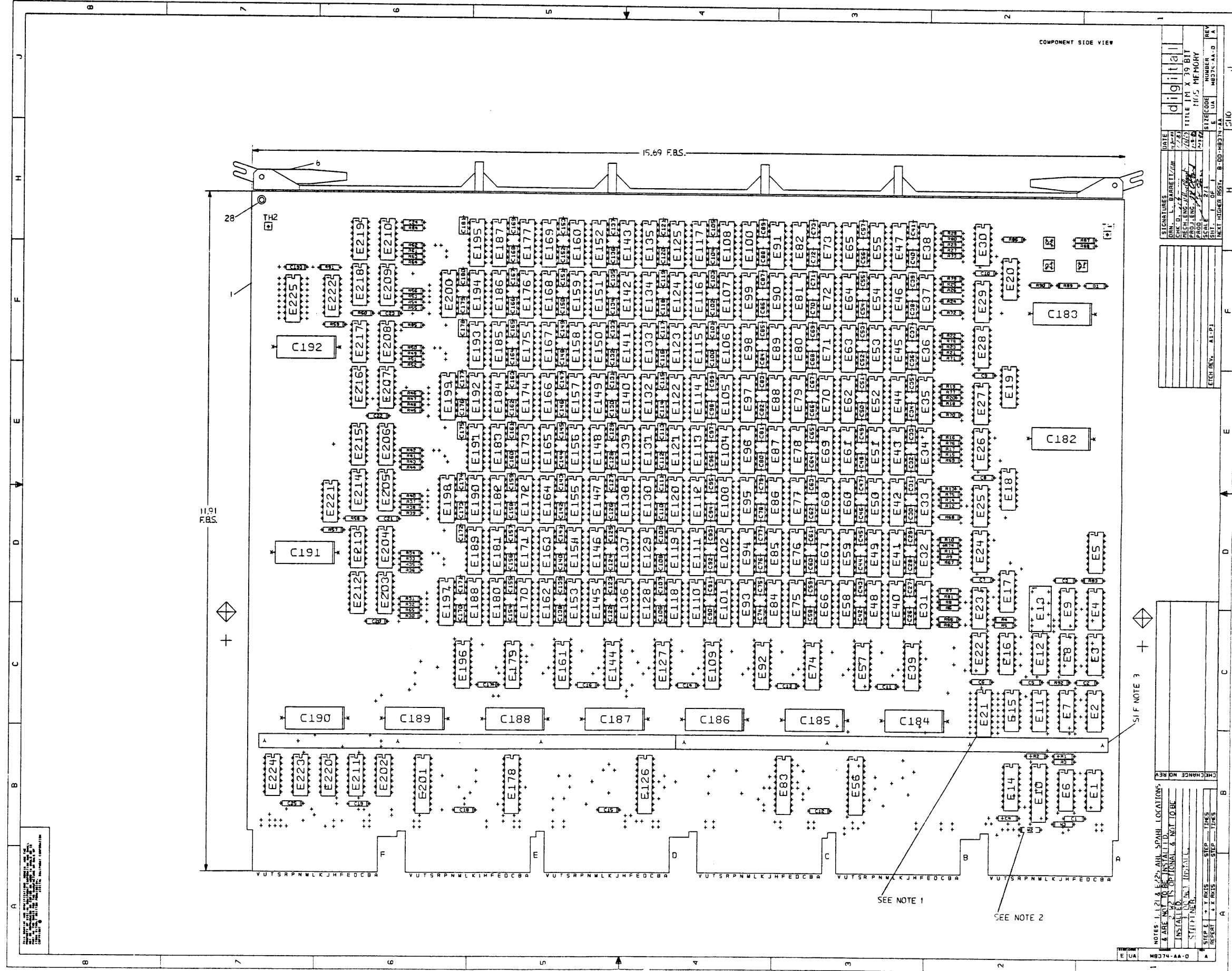
1

T W

7019729-0-0

E IA

A



SIGNATURES

DATE	2/2/64
CHK'D BY	L. BARRETT/JON
DESIGNED BY	L. BARRETT/JON
DATE	2/2/64
CHK'D BY	L. BARRETT/JON
DESIGNED BY	L. BARRETT/JON
DATE	2/2/64
CHK'D BY	L. BARRETT/JON
DESIGNED BY	L. BARRETT/JON

REV. 1 OF 1

REV. 1 OF 1

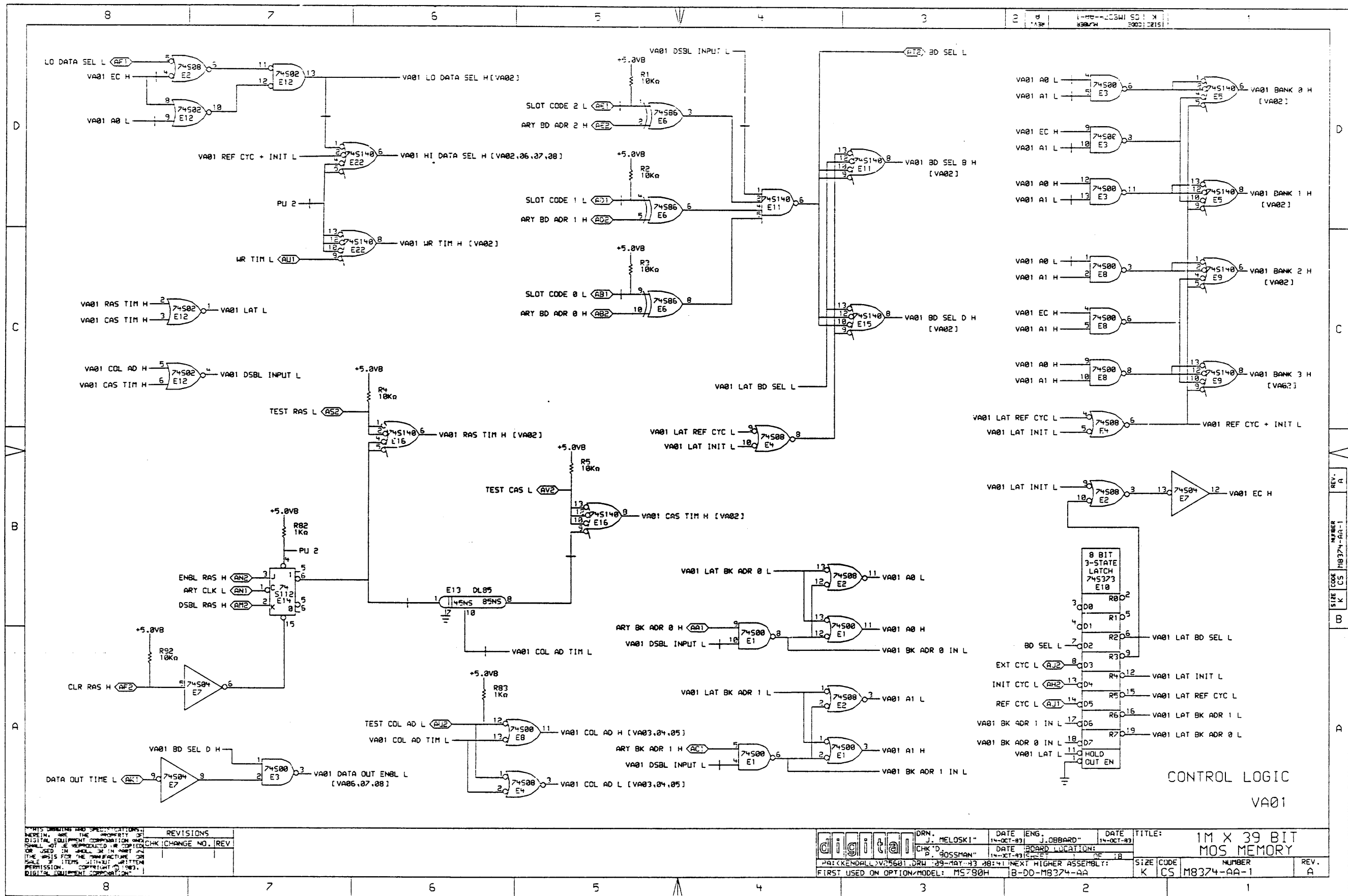
REV. 1 OF 1

TITLE	digital
TITLE	1M X 39 BIT
NUMBER	MB274-AA-D
SIZE CODE	E UA
REV	A

SI F NOTE 3

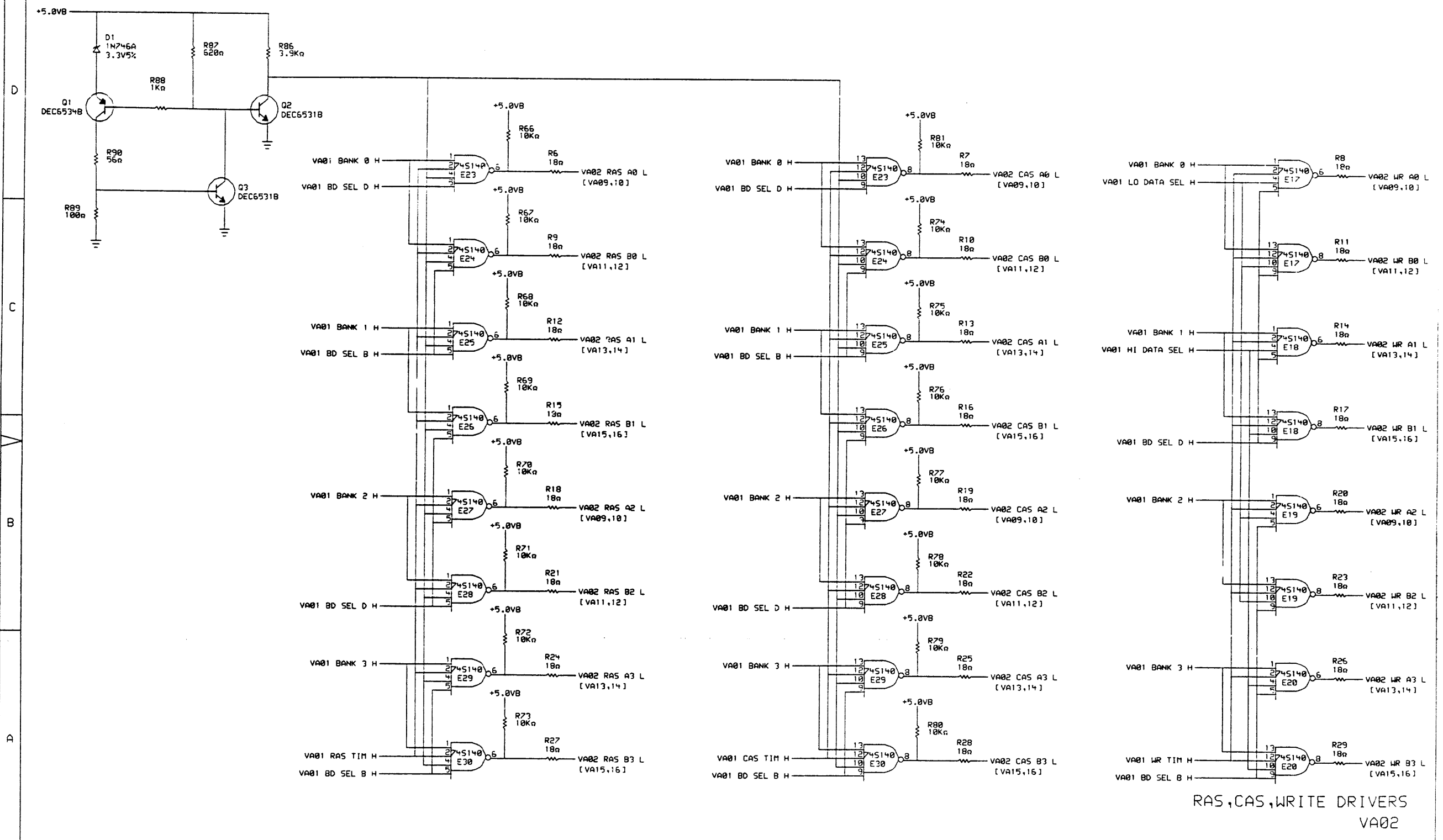
STEP	TIMES
REPORT	TIMES
X	
Y	
R	
S	
Z	
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	

NOTES: 1. 1, 2, & 3 ARE SPARE LOCATIONS.  
 2. ARE NOT TO BE INSTALLED.  
 3. USE ONLY INSTALLED.  
 4. USE ONLY INSTALLED.  
 5. USE ONLY INSTALLED.



REV. NO.	DESCRIPTION
1	INITIAL DESIGN
2	REVISIONS
3	CHK CHANGE NO. REV

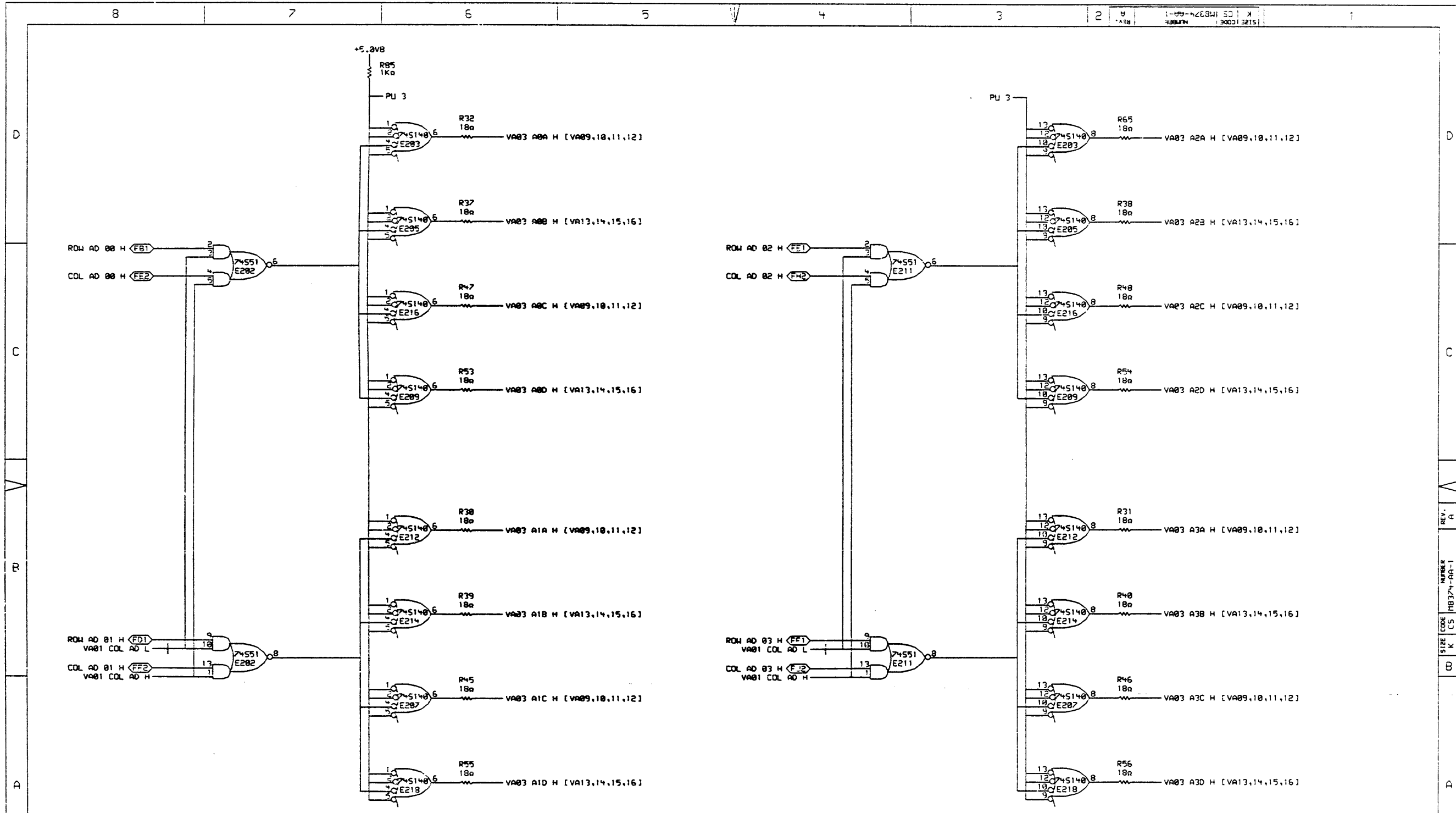
DRN. J. MELOSKI	DATE ENG. 14-OCT-83	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
CHK'D P. BOSSMAN	DATE BOARD LOCATION: 14-OCT-83	DATE 14-OCT-83	
FIRST USED ON OPTION/MODEL: MS790H	14-OCT-83	NEXT HIGHER ASSEMBLY: B-00-M8374-AA	
SIZE CODE K CS	NUMBER M8374-AA-1	REV. A	



RAS, CAS, WRITE DRIVERS  
VA02

REVISIONS	
CHK	CHANGE NO. REV

	DRN. J. MELOSKI	DATE 11-OCT-83	ENG. J. OSBARD	DATE 11-OCT-83	TITLE:
	CHK'D. P. BOSSMAN	DATE 11-OCT-83	BOARD LOCATION:	DF 19	1M X 39 BIT MOS MEMORY
P01:KENDALL JV25502 DRW 09-MAY-83 08:44 NEXT HIGHER ASSEMBLY:		B-DD-MB374-AA		SIZE CODE	NUMBER
FIRST USED ON OPTION MODEL: MS780H		B-DD-MB374-AA		K CS	M8374-AA-1
					REV. A



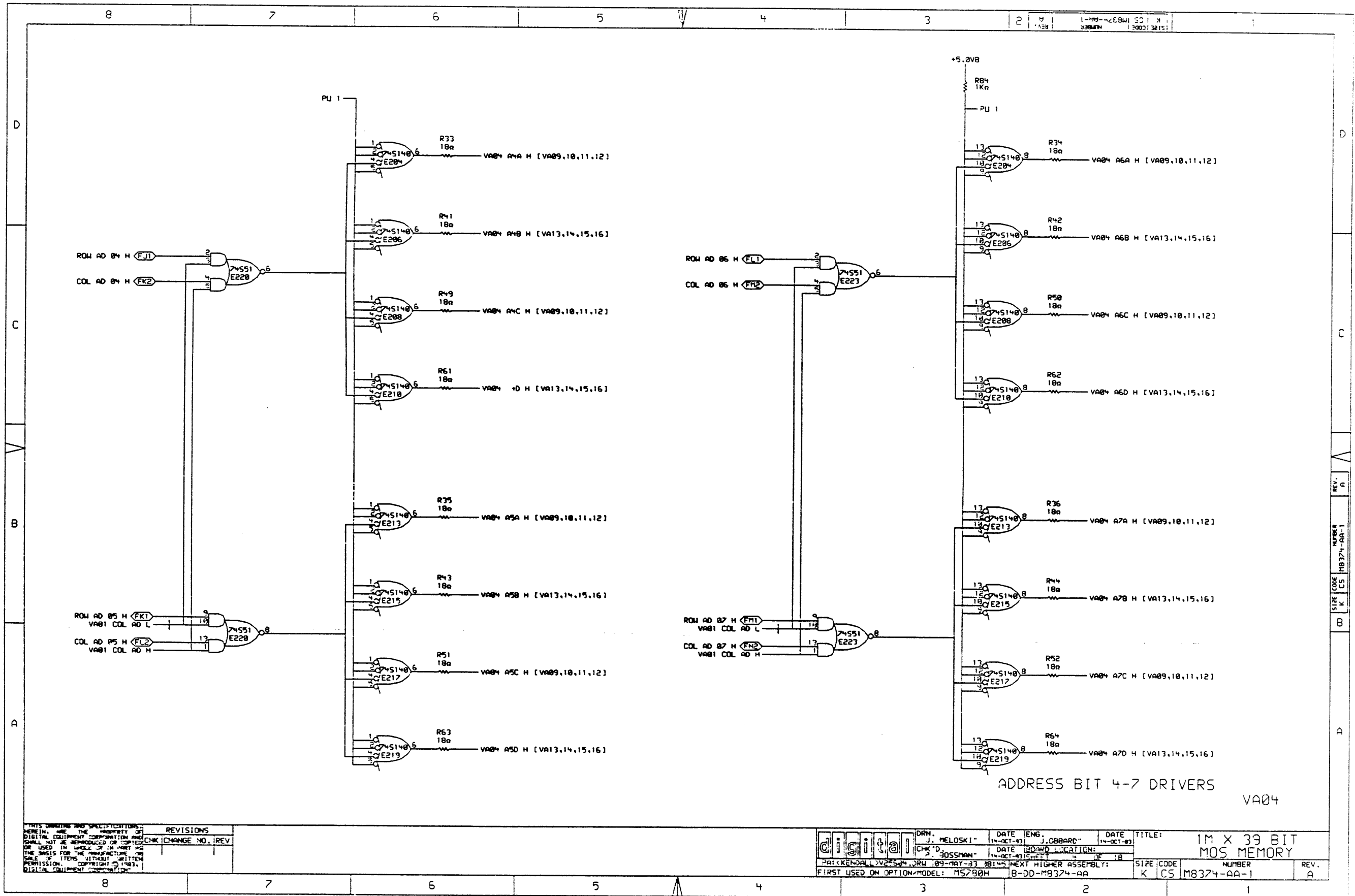
ADDRESS BIT 0-3 DRIVERS

VA03

REVISIONS  
 CHK CHANGE NO. REV

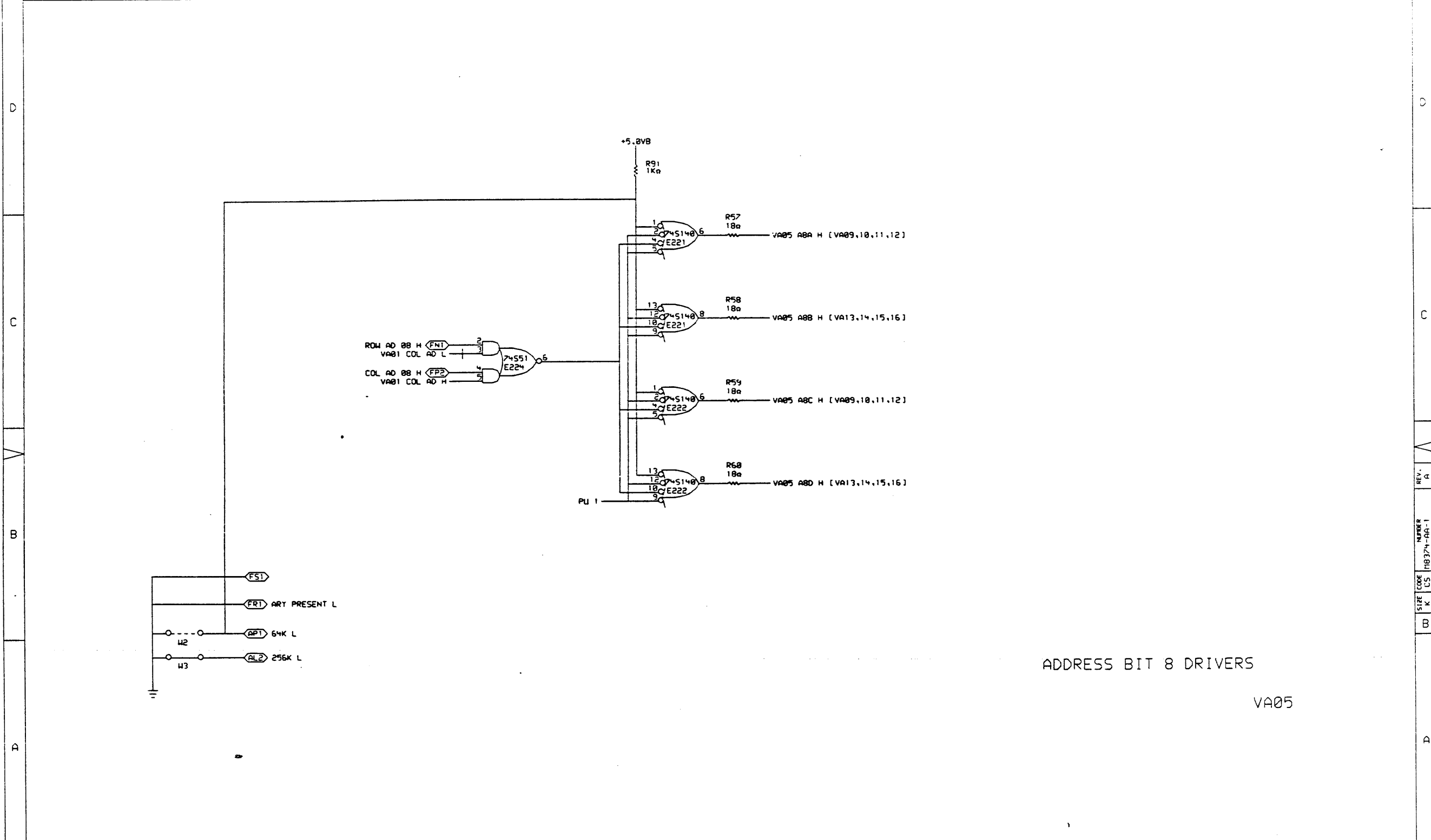
DRN. J. MELOSKI  
 DATE 14-OCT-93  
 ENG. J. OSBARD  
 DATE 14-OCT-93  
 TITLE: 1M X 39 BIT MOS MEMORY

PACK MODEL 2V2503, ROW 109-MAY-93 38:44 NEXT HIGHER ASSEMBLY:  
 FIRST USED ON OPTION/MODEL: M5790H 1B-DD-M8374-AA  
 SIZE CODE NUMBER REV.  
 K CS M8374-AA-1 A



REVISIONS	
1	INITIAL DESIGN
2	REVISED FOR MANUFACTURE
3	REVISED FOR MANUFACTURE
4	REVISED FOR MANUFACTURE
5	REVISED FOR MANUFACTURE
6	REVISED FOR MANUFACTURE
7	REVISED FOR MANUFACTURE
8	REVISED FOR MANUFACTURE

DRN.	J. MELOSKI	DATE	14-OCT-83	ENG.	J. COBBARD	DATE	14-OCT-83	TITLE	1M X 39 BIT MOS MEMORY
CHK'D.	P. BOSSMAN	DATE	14-OCT-83	BOARD LOCATION	DE 1B	SIZE CODE	K CS	NUMBER	M8374-AA-1
FIRST USED ON OPTION/MODEL:		MS290H		NEXT HIGHER ASSEMBLY:		B-DD-M8374-AA		REV.	A

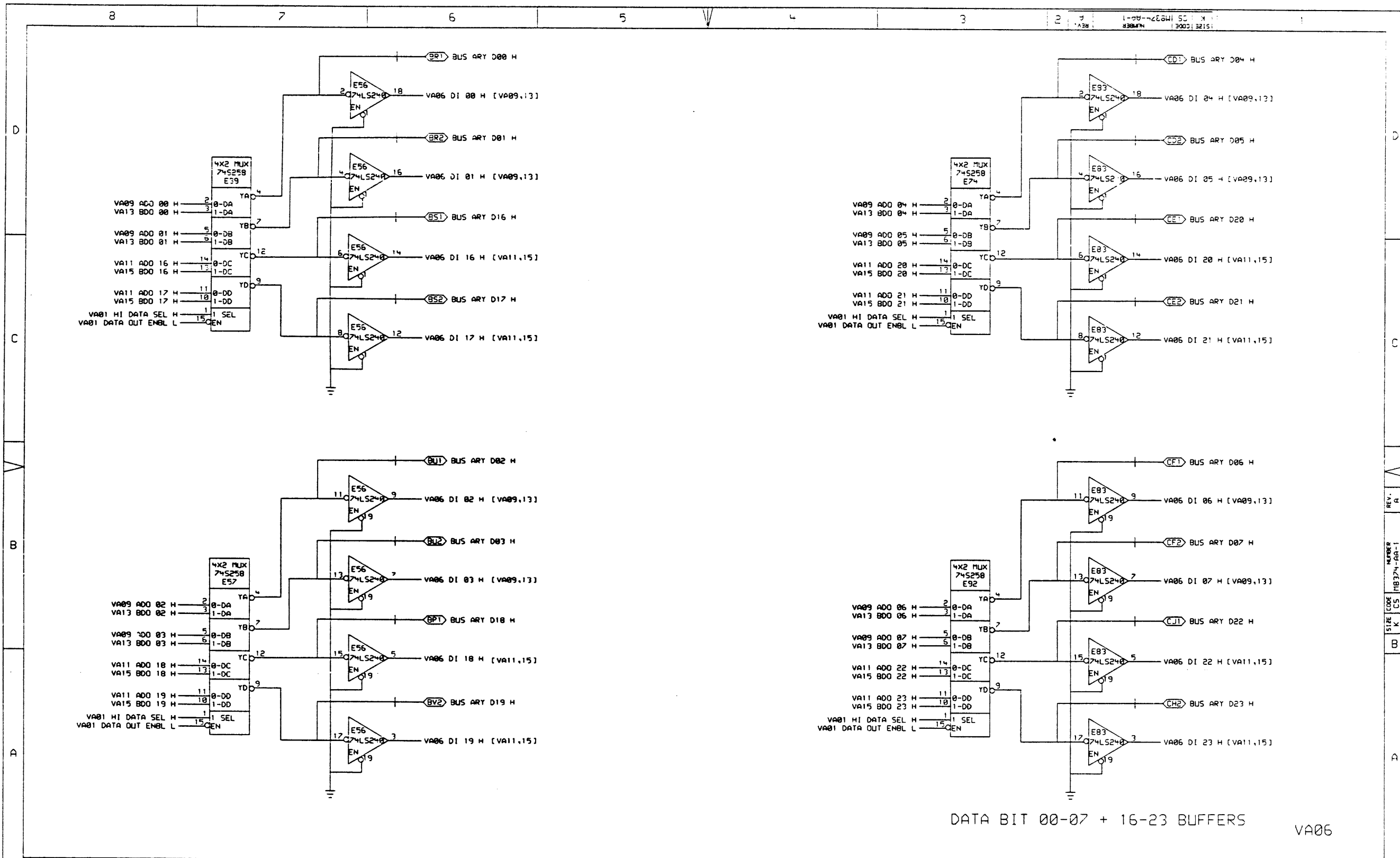


ADDRESS BIT 8 DRIVERS

VA05

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	PAICKENDALL 2/25/85 DRW 109-MAY-83 13:31 NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER REV. K CS M8374-AA-1 A		
	FIRST USED ON OPTION/MODEL: MS780H B-DD-M8374-AA			





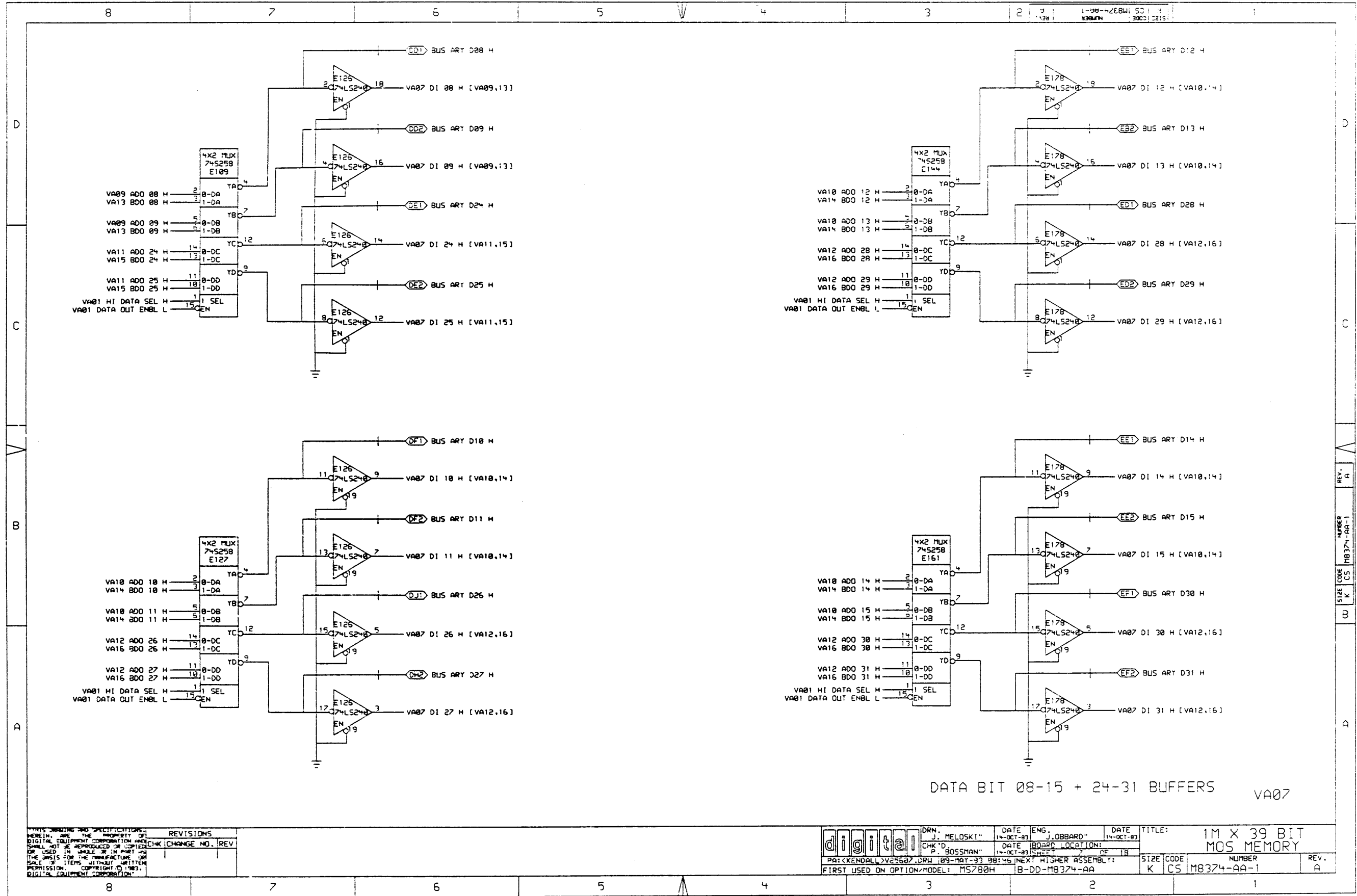
DATA BIT 00-07 + 16-23 BUFFERS VA06

REV.	CHG	NO.	REV.

REV.	CHG	NO.	REV.

	DRN.	J. MELOSKI	DATE	14-OCT-83	ENG.	J. OBBARD	DATE	14-OCT-83	TITLE:	1M X 39 BIT MOS MEMORY
	CHK'D	P. BOSSMAN	DATE	14-OCT-83	BOARD LOCATION:	5 OF 8		SIZE	CODE	NUMBER
DR: KENDALL 2/25/86 DRH 109-MAY-83 08:46 NEXT HIGHER ASSEMBLY:		FIRST USED ON OPTION/MODEL: MS700H		B-DD-M8374-AA		SIZE	CODE	NUMBER	REV.	A

REV. A  
 NUMBER M8374-AA-1  
 SIZE CODE CS  
 K CS M8374-AA-1

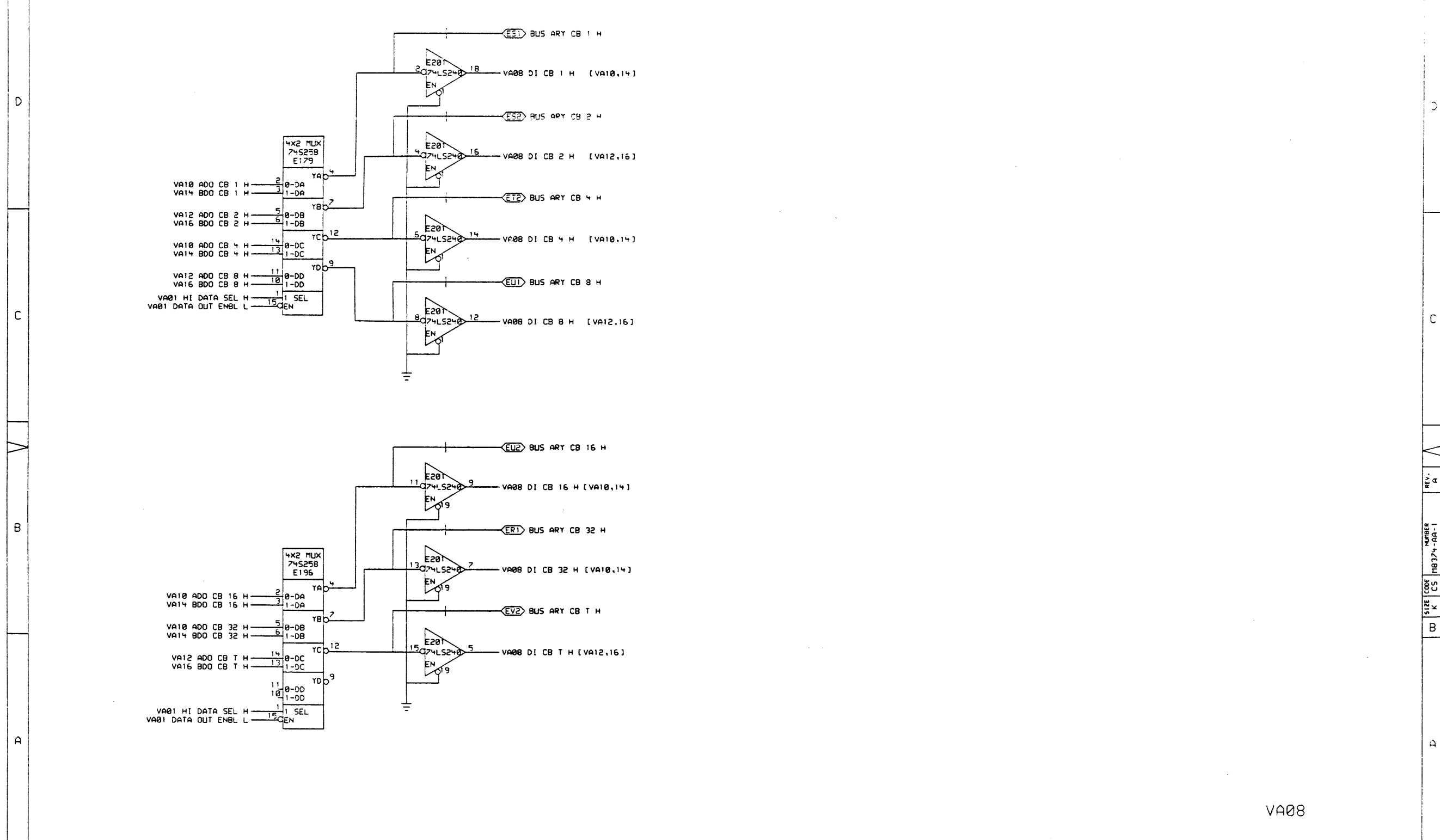


DATA BIT 08-15 + 24-31 BUFFERS VA07

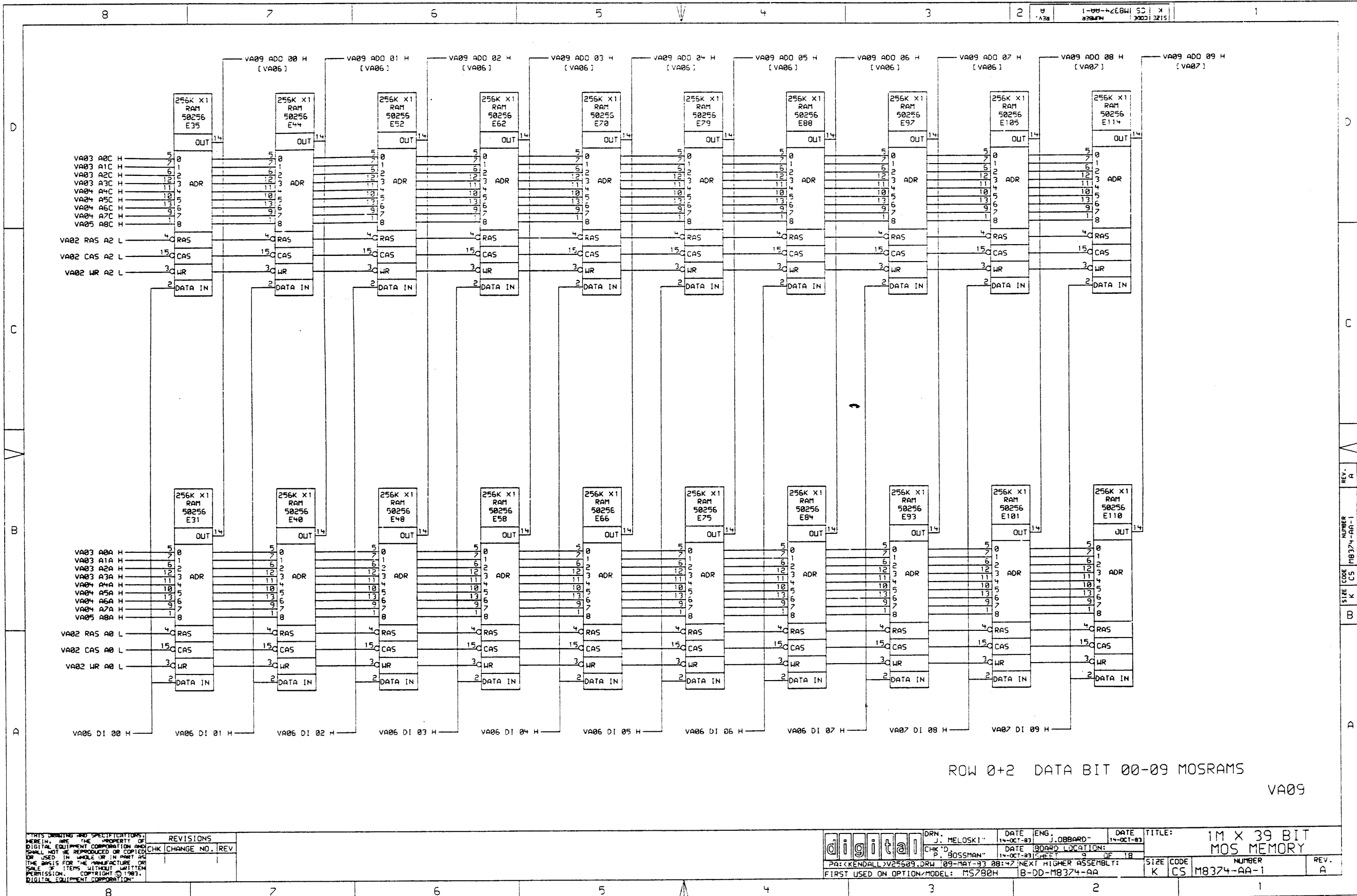
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REVISIONS	
CHK	CHANGE NO. / REV

	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D P. BOSSMAN	DATE 14-OCT-83	BOSSMAN	DATE 14-OCT-83	
FIRST USED ON OPTION/MODEL: MS780H / B-DD-M8374-AA					SIZE CODE K CS NUMBER M8374-AA-1 REV. A



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PA: KENDALL, V25608, DRU 09-MAY-83 08:46 NEXT HIGHER ASSEMBLY: B-DD-M8374-AA						SIZE CODE K CS		NUMBER M8374-AA-1		REV. A	



ROW 0+2 DATA BIT 00-09 MOSRAMS

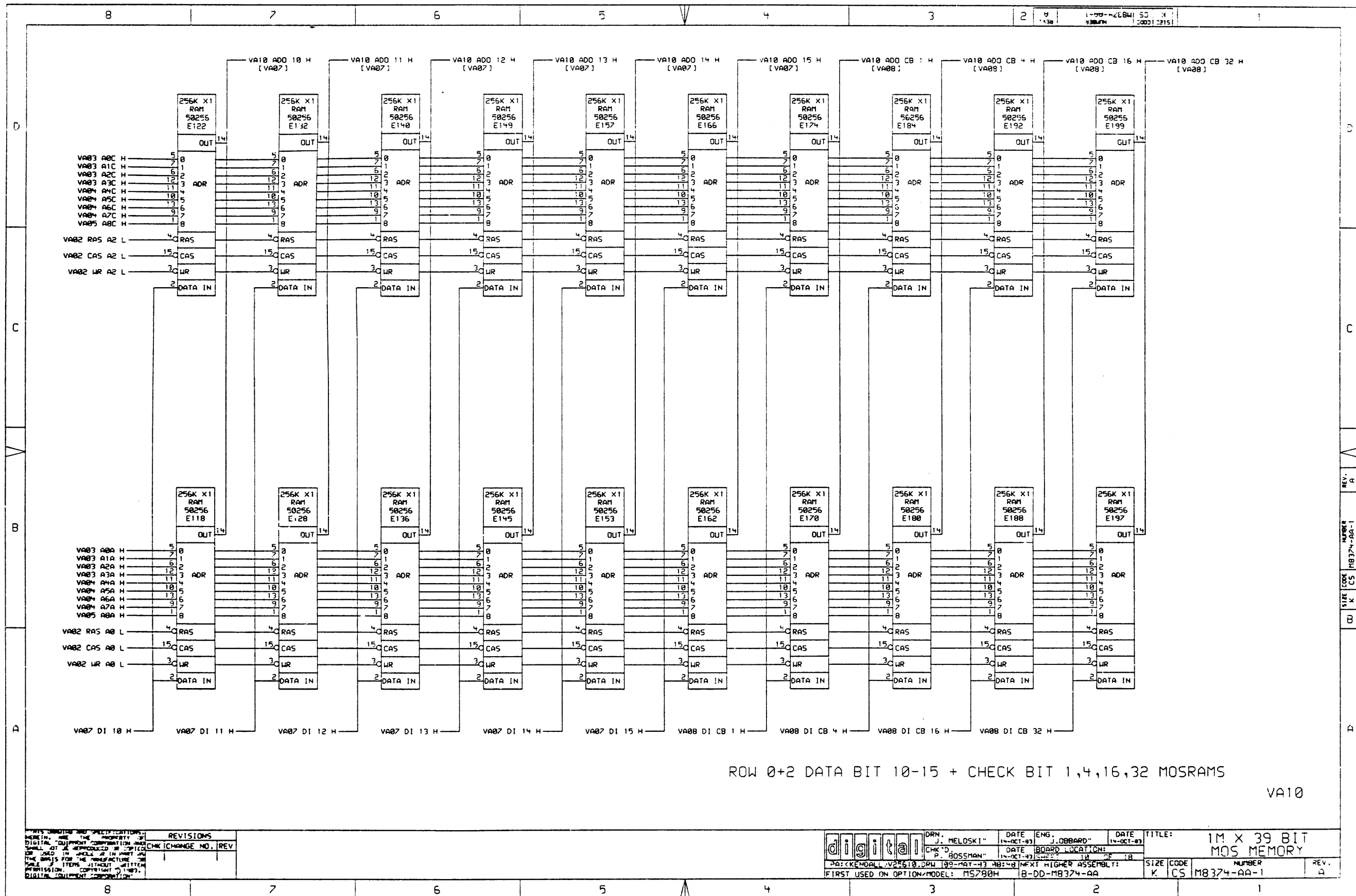
VA09

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REVISIONS	
CHK	CHANGE NO. REV

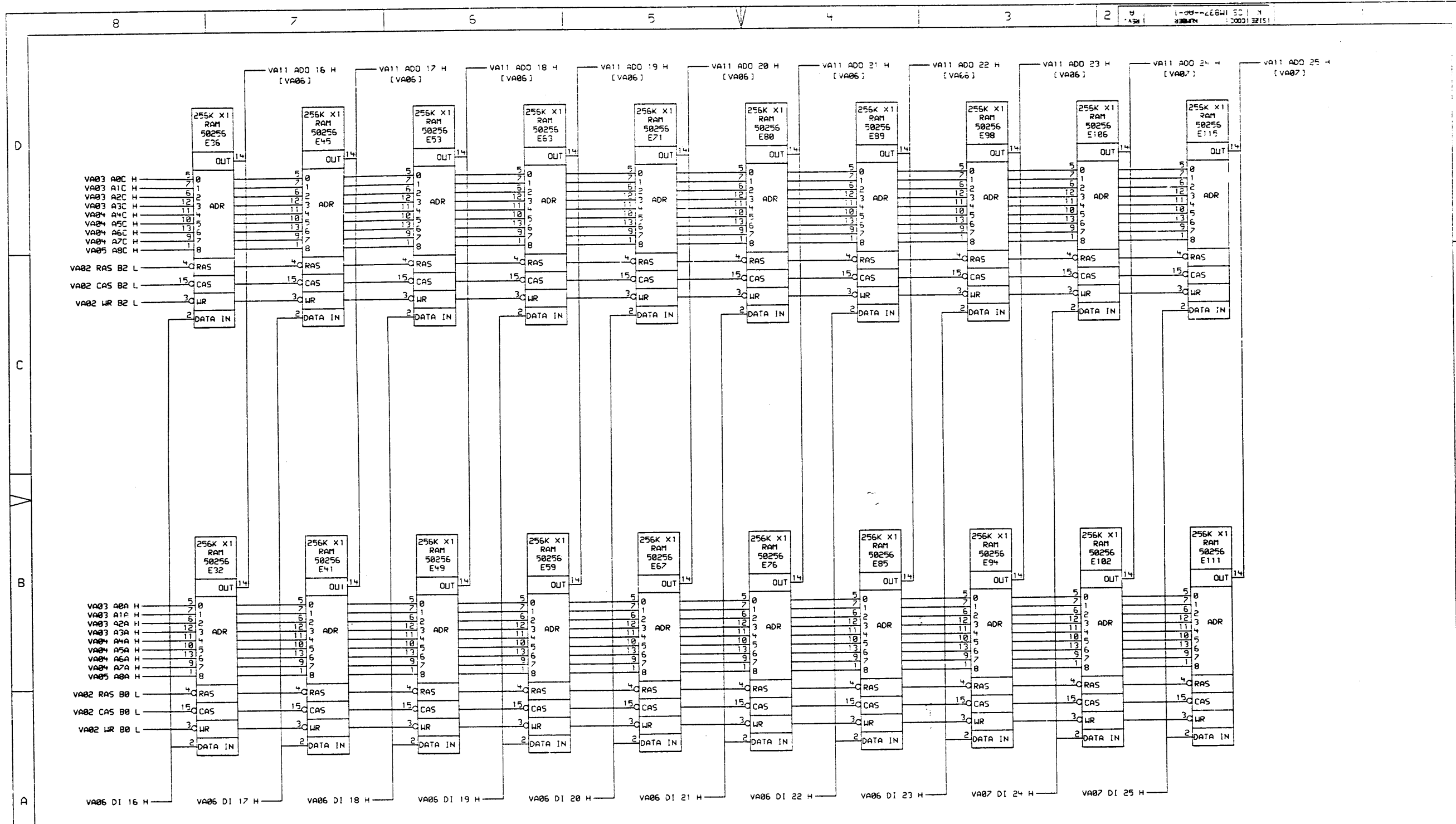
digital	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D. P. BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 9 OF 18		
PART: <<KENDALL>>V2509.DRW 09-MAY-83 08:47 NEXT HIGHER ASSEMBLY: 18-DD-M8374-AA					SIZE CODE NUMBER REV. K CS M8374-AA-1 A

REV. A  
NUMBER M8374-AA-1  
SIZE CODE CS K  
B



REV.	CHK	CHANGE NO.	REV.

	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D. P. BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 1A	REV. 1A	
PA: KENDALL, V25610, DRW 89-MAT-33, 88-148, INEXT HIGHER ASSEMBLY: 18-DD-M8374-AA					SIZE CODE K CS NUMBER M8374-AA-1 REV. A



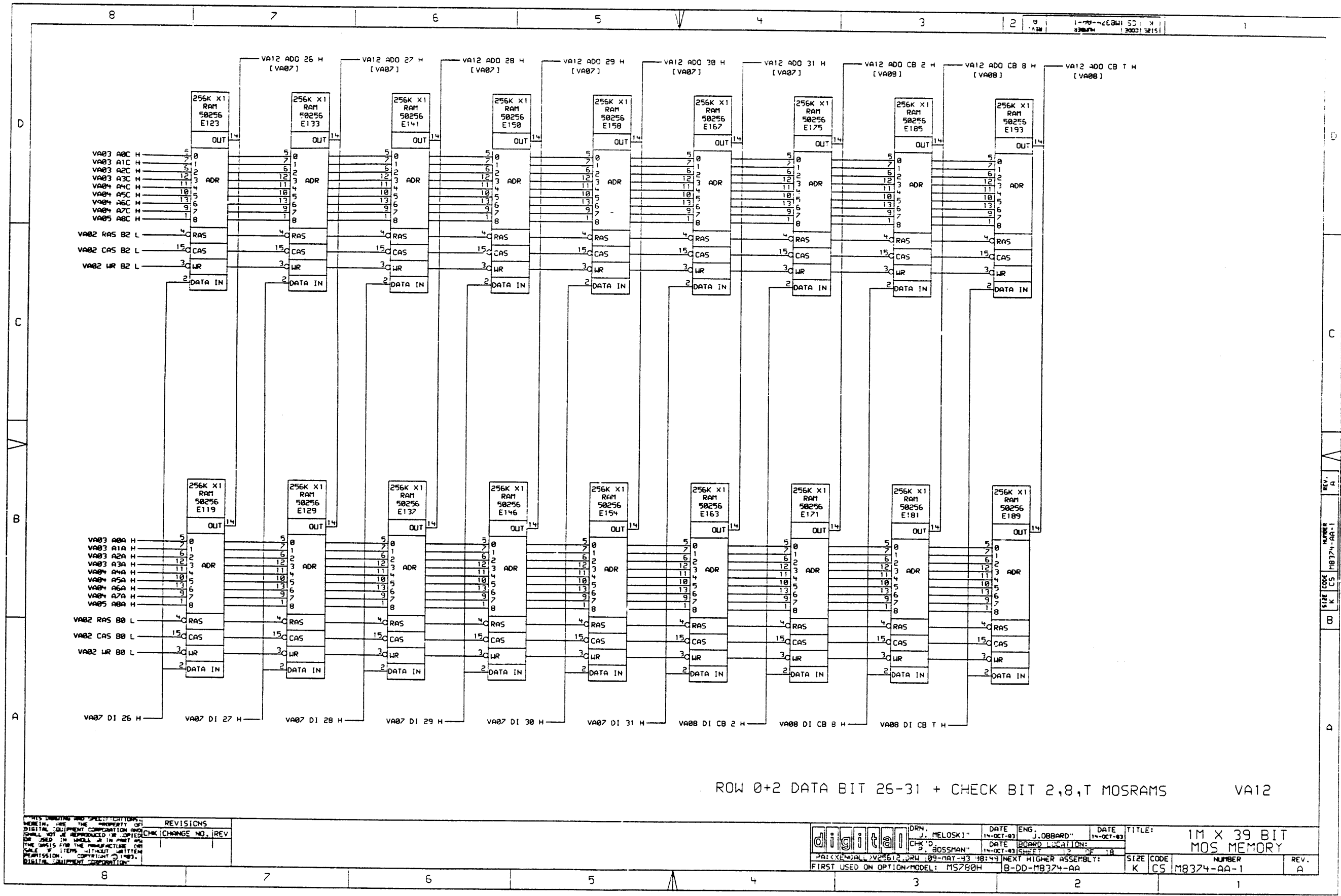
ROW 0+2 DATA BIT 16-25 MOSRAMS

VA11

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REV.	CHG	CHANGE NO.	REV.

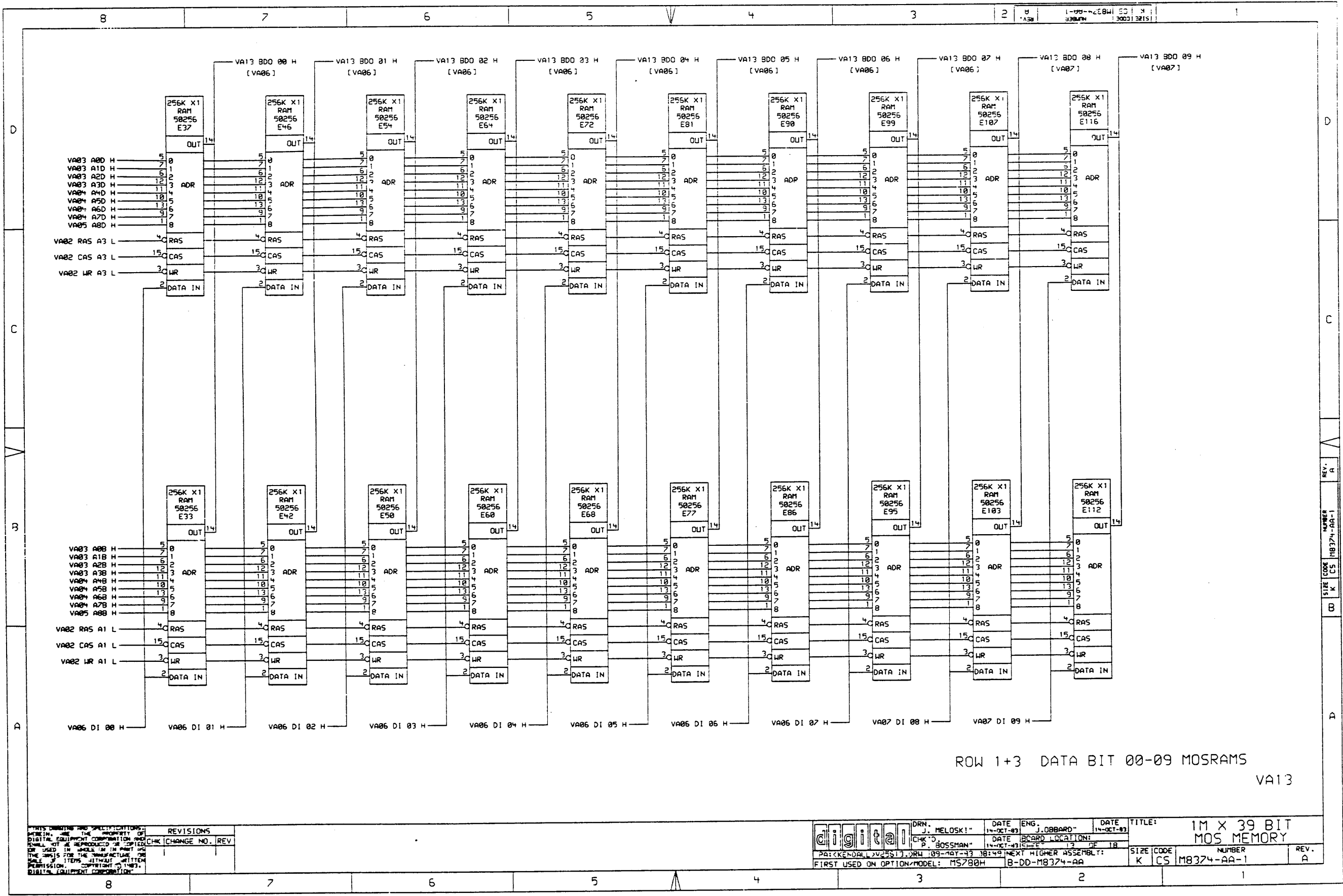
digital	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OGBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D P. BOSSMAN	DATE 14-OCT-83	DATE 14-OCT-83	DATE 14-OCT-83	DATE 14-OCT-83
PA: KENDALL V25611.DRW 189-MAY-83 38:48 INEXT HIGH ASSEMBLY:					SIZE CODE K CS
FIRST USED ON OPTION/MODEL: MS780H					NUMBER M8374-AA-1
					REV. A



ROW 0+2 DATA BIT 25-31 + CHECK BIT 2,8,T MOSRAMS VA12

REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D P. BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 1A	SHEET 12 OF 18	SIZE CODE K CS M8374-AA-1
FIRST USED ON OPTION/MODEL: MS780H		NEXT HIGHER ASSEMBLY: B-DD-M8374-AA		NUMBER	REV. A



ROW 1+3 DATA BIT 00-09 MOSRAMS

VA13

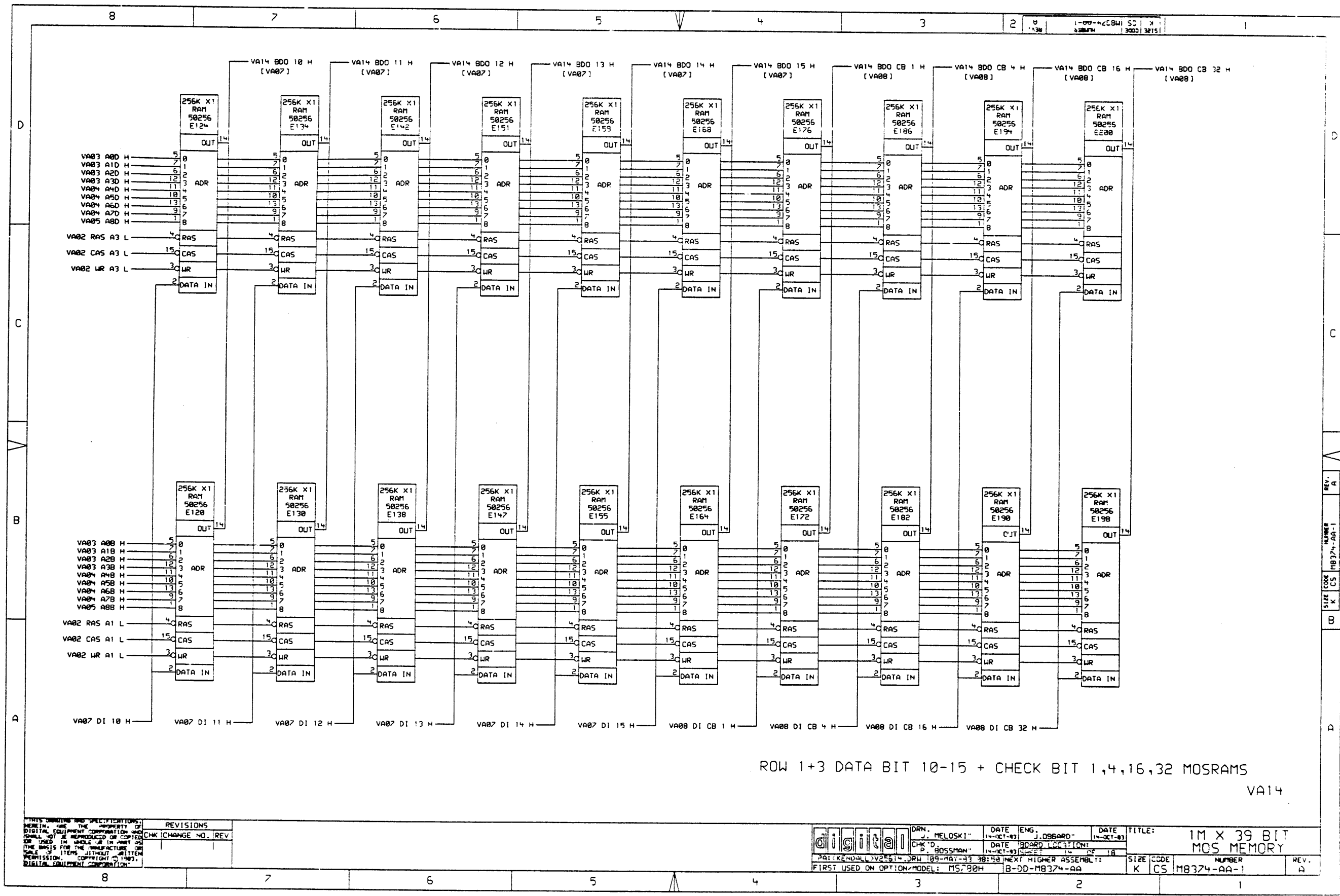
REV.	CHG.	DATE	BY	DESCRIPTION
1		14-OCT-83	J. OBBERD	...

REV.	CHG.	DATE	BY	DESCRIPTION
1		14-OCT-83	J. OBBERD	...

1M X 39 BIT MOS MEMORY	SIZE CODE K CS	NUMBER M8374-AA-1	REV. A
------------------------	----------------	-------------------	--------

REV. A  
NUMBER M8374-AA-1  
SIZE CODE K CS





ROW 1+3 DATA BIT 10-15 + CHECK BIT 1,4,16,32 MOSRAMS

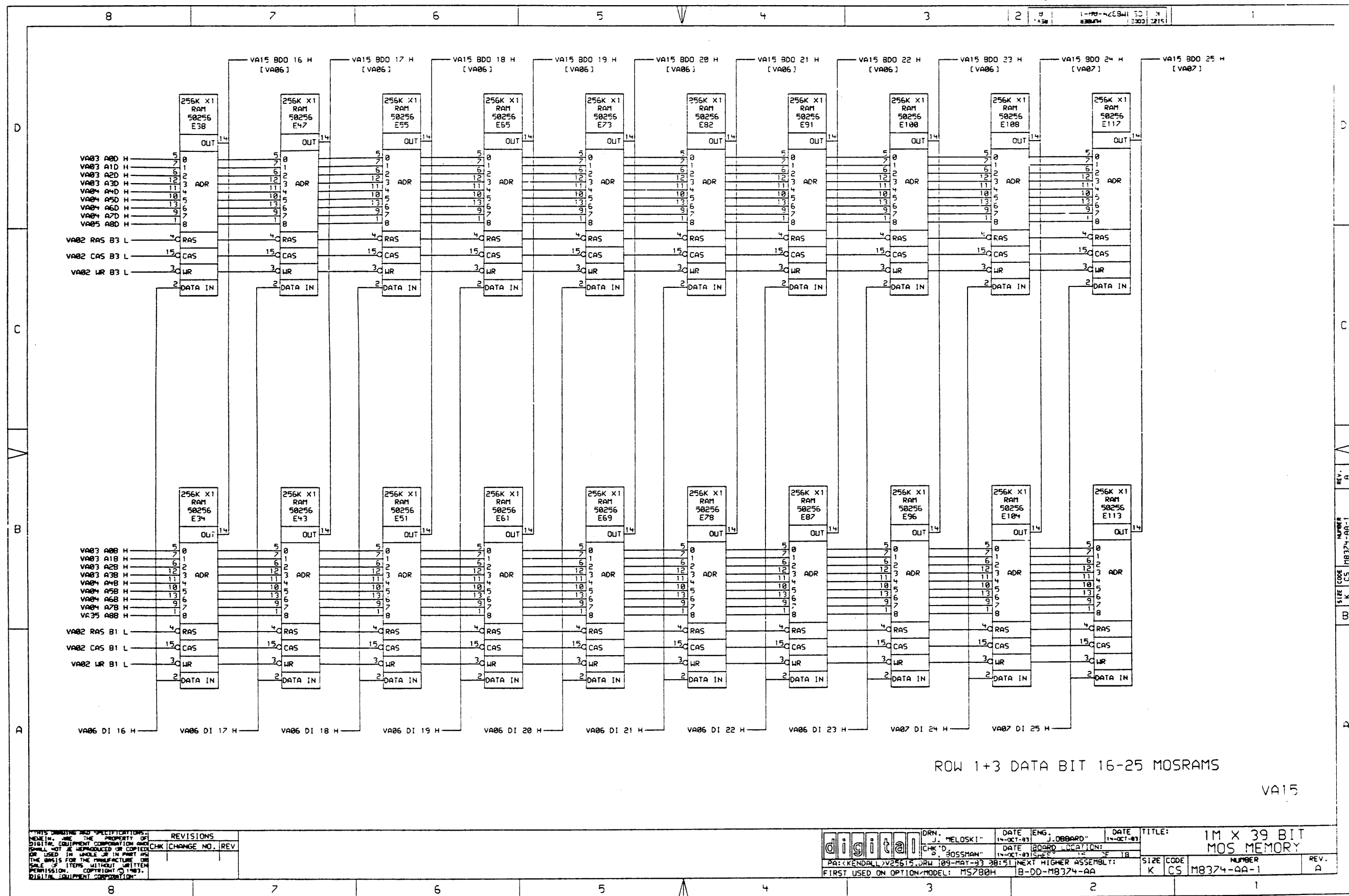
VA14

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REVISIONS	
CHK	CHANGE NO. REV

	DRN. J. MELOSKI	DATE ENG. J. OSBARD	DATE	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D P. BOSSMAN	DATE BOARD LOCATION: 14-OCT-83	14-OCT-83	
FIRST USED ON OPTION/MODEL: MS700H				SIZE CODE NUMBER K CS M8374-AA-1

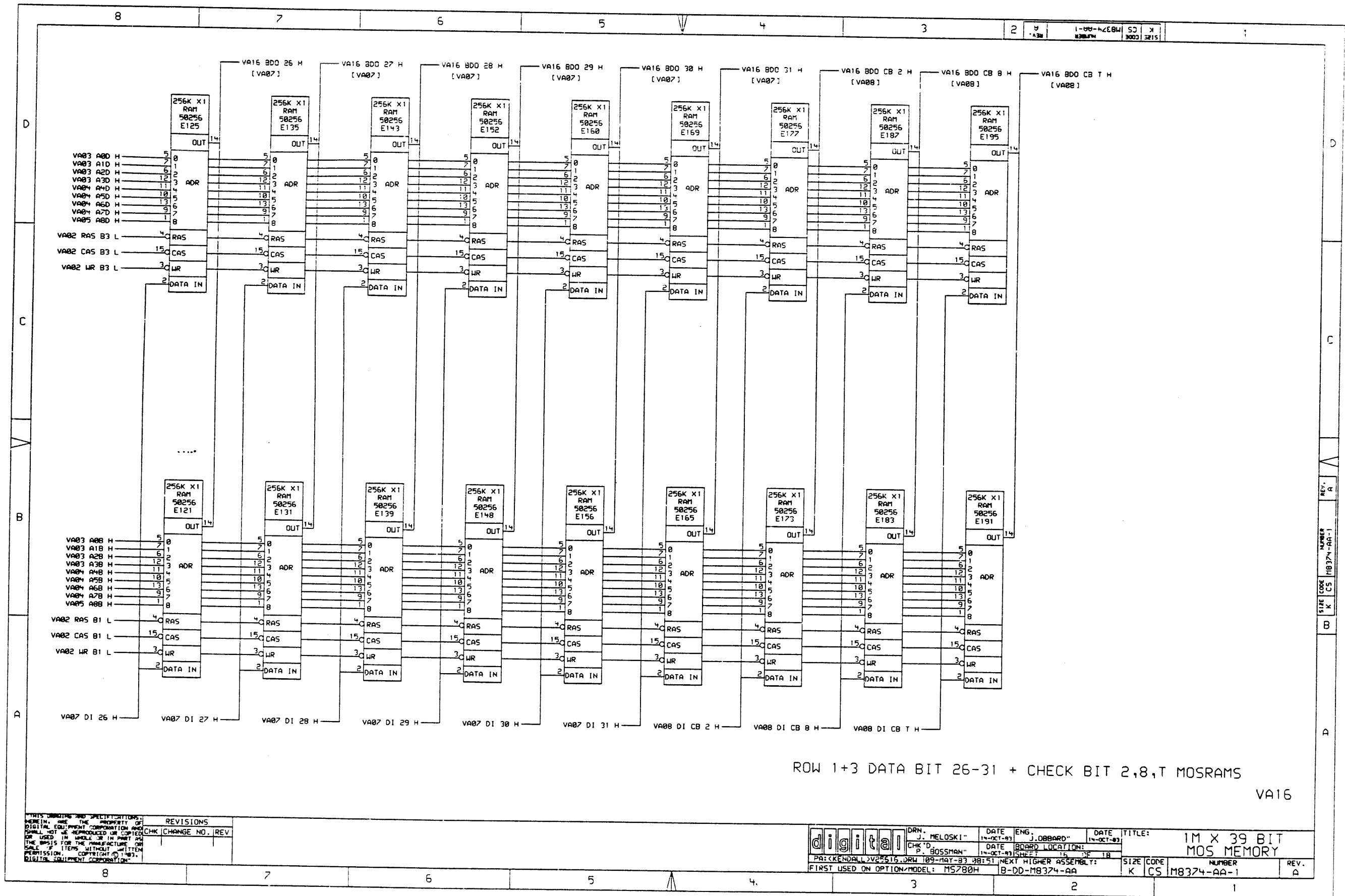
REV. A



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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 1B	SIZE CODE K CS	NUMBER M8374-AA-1
FIRST USED ON OPTION/MODEL: MS280H		NEXT HIGHER ASSEMBLY: B-DD-M8374-AA		REV. A	



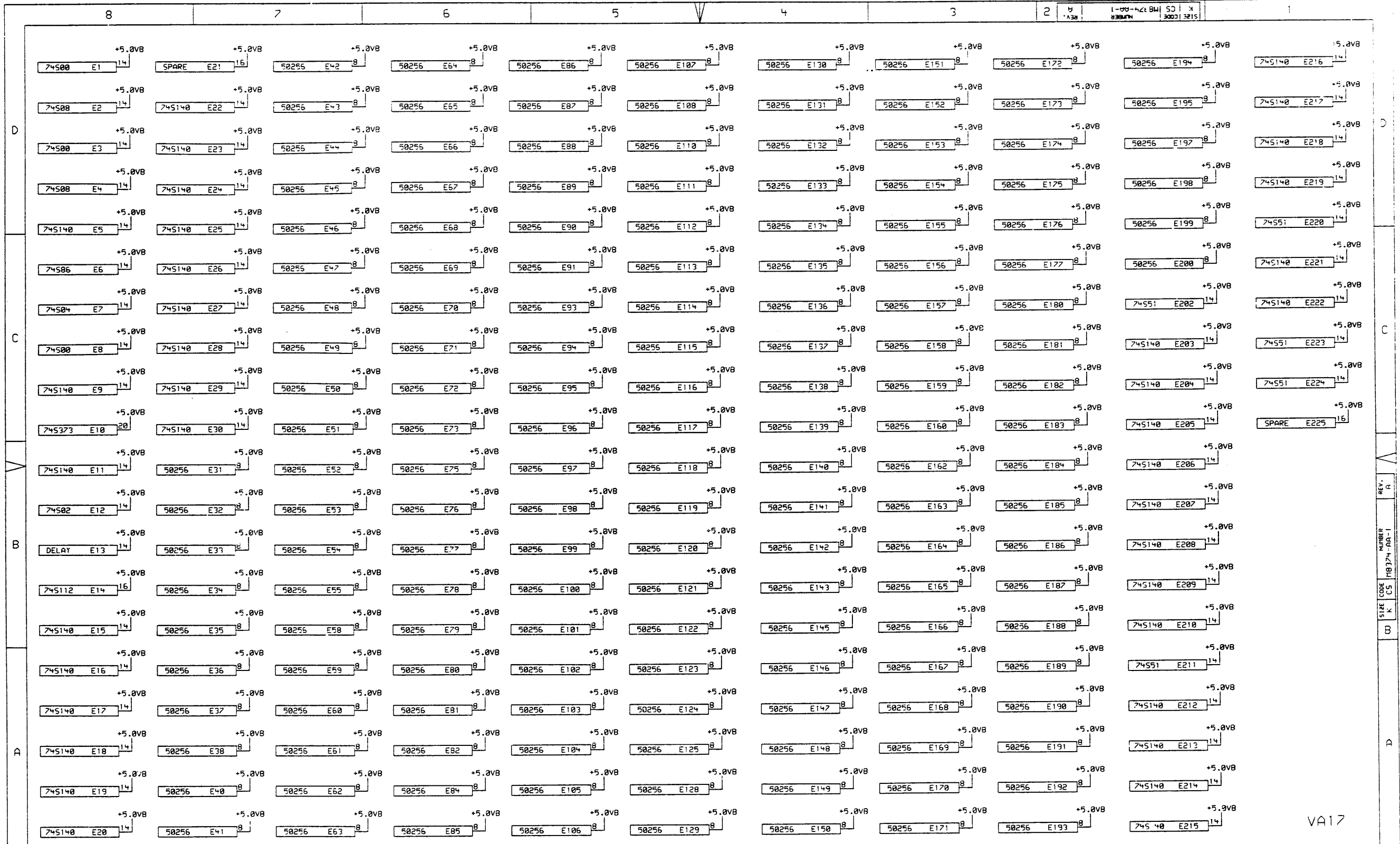
ROW 1+3 DATA BIT 26-31 + CHECK BIT 2,8,T MOSRAMS

VA16

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REVISIONS	
CHK	CHANGE NO. REV.

<b>digital</b>	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D P. BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 1A DE 1B	SIZE CODE K CS	NUMBER M8374-AA-1
PA:CKENDALL V22515.DRW 109-NAT-83 38:51 NEXT HIGHER ASSEMBLY: B-DD-M8374-AA					REV. A



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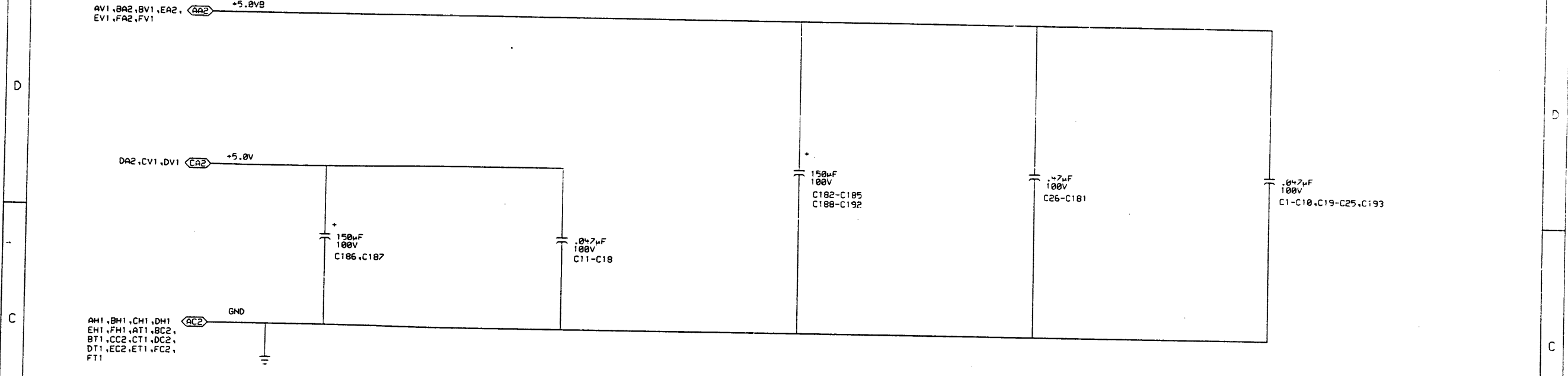
REVISIONS		
CHK	CHANGE NO.	REV

**digital** DRN. J. MELOSKI" DATE 14-OCT-83  
CHK'D. P. BOSSMAN" DATE 14-OCT-83  
PA: KENDALL V25617.DRW 109-MAY-83 08:51 NEXT HIGHER ASSEMBLY: B-DD-M8374-AA  
FIRST USED ON OPTION MODEL: MS780H

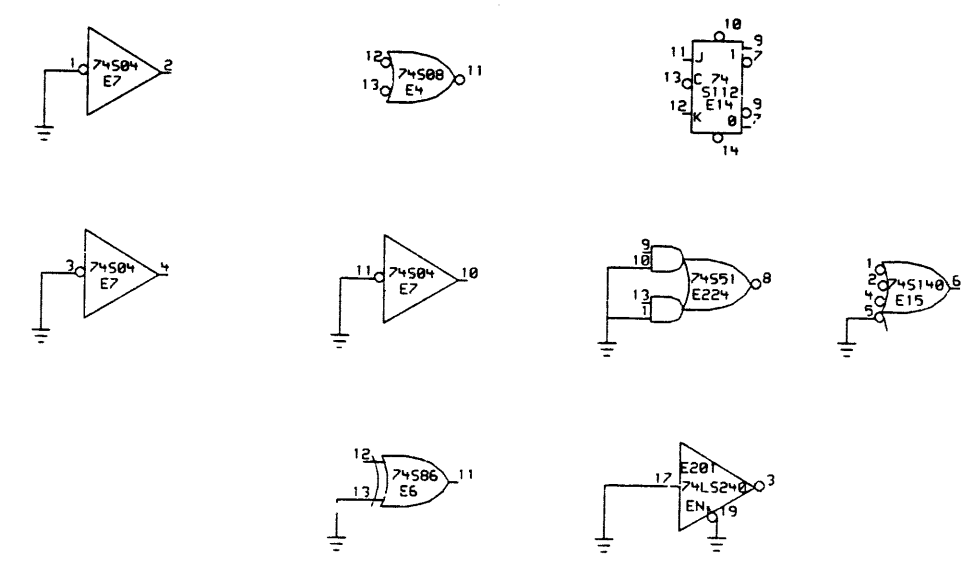
ENG. J. LOBBARD" DATE 14-OCT-83  
BOARD LOCATION: 17 OF 18 SHEET  
TITLE: 1M X 39 BIT MOS MEMORY  
SIZE CODE NUMBER  
K CS M8374-AA-1  
REV. A

VA17

REV. R  
NUMBER 1M8374-AA-1  
SIZE CS  
K  
D



SPARES



POWER SUPPLY BYPASSING + SPARES

VA18

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. J. MELOSKI	DATE 14-OCT-83	ENG. J. OBBARD	DATE 14-OCT-83	TITLE: 1M X 39 BIT MOS MEMORY
	CHK'D. S. BOSSMAN	DATE 14-OCT-83	BOARD LOCATION: 1A	SHEET 1A OF 1A	
PA: KENDALL 2/25/83		DRW 09-MAY-83 08:52	NEXT HIGHER ASSEMBLY: B-DD-M8374-AA		SIZE CODE K C5
FIRST USED ON OPTION/MODEL: M5780H				NUMBER M8374-AA-1	REV. A

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION			REFERENCE DESIGNATOR
						AC	AF	AH	
1	1	B-DD-5016221-0	5016221-00		CIRCUIT DRILL & ETCH	1	1	1	
2	2		1010279-01		.47 MFD 25V 20% CER	156	156	156	C26-C181
3	3		1012084-03		150 MFD 15V +75-10% AL EL	11	11	11	C182-C192
4	4		1012784-00		.047 MFD 50V +80-20% CER	26	26	26	C1-C25,C193
5	5		1104860-00		VZ= 3.3 5% 400 MW 1N746A	1	1	1	D1
6	6		1216988-02		HANDLE,MODULE,HEX TWO EJECTORS	1	1	1	
7	7		1300229-00		100.0 .25 W 5.0 % CF	1	1	1	R89
8	8		1300365-00		1.0 K .25 W 5.0 % CF	6	6	6	R82-R85,R88,R91
9	9		1300444-00		3.90 K .25 W 5.0 % CF	1	1	1	R86
10	10		1300479-00		10.0 K .25 W 5.0 % CF	22	22	22	R1-R5,R66-R81,R92
11	11		1302124-00		18.0 .25 W 5.0 % CF	60	60	60	R6-R65
12	12		1302602-00		56.0 .25 W 5.0 % CF	1	1	1	R90
13	13		1303178-00		620.0 .25 W 5.0 % CF	1	1	1	R87
14	14		1503409-00		DEC6534D PNP 310MW SI 40 90	1	1	1	Q1
15	15		1509338-00		DEC6531B NPN 310MW SI 40 90 P	2	2	2	Q2,Q3
16	16		1619656-01		DELAY= 45NS,2TAPS	1	1	1	E13
17	17		1910532-00		74S00 NAND GATE-QUAD 2IN	3	3	3	E1,E3,E8
18	18		1910534-00		74S04 INVERTER GATE-HEX 1I	1	1	1	E7
19	19		1910545-00		74S112 FF-JK DUAL,EDGE TRIG	1	1	1	E14
20	20		1910546-00		74S140 NAND GATE-DUAL 4INPU	36	36	36	E5,E9,E11,E203-E210,E212-E219, CONT E221,E222,E15-E20,E22-E30
21	21		1911712-00		74S51 AND-OR GATE-INVERT D	5	5	5	E202,E211,E220,E223,E224
22	22		1912096-00		DEC 74S86 XOR GATE,QUAD 2IN	1	1	1	E6
23	23		1912388-00		74S02 NOR GATE-QUAD 2IN,PO	1	1	1	E12
24	24		1912389-00		74S08 AND GATE-QUAD 2IN,PO	2	2	2	E2,E4
25	25		1913670-00		74S373 LATCH,8BIT TRANS TRI	1	1	1	E10
26	26		1913777-00		LS240 DRIVER,LINE,OCTAL,T	5	5	5	E56,E83,E126,E178,E201
27	27		1913887-00		74S258 MUX 1 OF 2(QUAD)TRI	10	10	10	E39,E57,E74,E92,E109,E127,E144, CONT E161,E179,E196
28	28		9000024-01		EYELET,ROLLED 0.1210DX0.192	12	12	12	

REVISION HISTORY		BASIC PART NO: M8374		DRN: L.BARRETT	DATE: 06-MAY-83	D I G I T A L		
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: P.BOSSMAN	DATE: 06-MAY-83	TITLE PARTS LIST		
J.O.	INITIAL	A	SECTION VARIATION INDEX	DES.ENG: J.OBBARD	DATE: 06-MAY-83	1M X 39 BIT MOS MEMORY		
N.R.	M8374-AA-SH001	B	(A) AC,AF,AH	RESP.ENG.: J.OBBARD	DATE: 06-MAY-83	DOCUMENT NUMBER		
			(B)	MFG.ENG.: R.EISNER	DATE: 06-MAY-83	SIZE:CODE: NUMBER	REV	
			(C)	ASSEMBLY NUMBER: E-UA-M8374-AA-0	TOP DOCUMENT NUMBER: #B-DD-M8374-AA	K PL M8374-AA-DBP	B	
			(D)			RELEASE DATE: 29-MAY-84		
			(E)			FILE NAME: Z6998B.PLS	EDIT #	9
			(F)					
			(G)					
			(H)					
			(I)					
			(J)					
			(K)					
			(L)					
			(M)					
			(N)					

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AUTOMATED BY PRTLST.4Q(50)

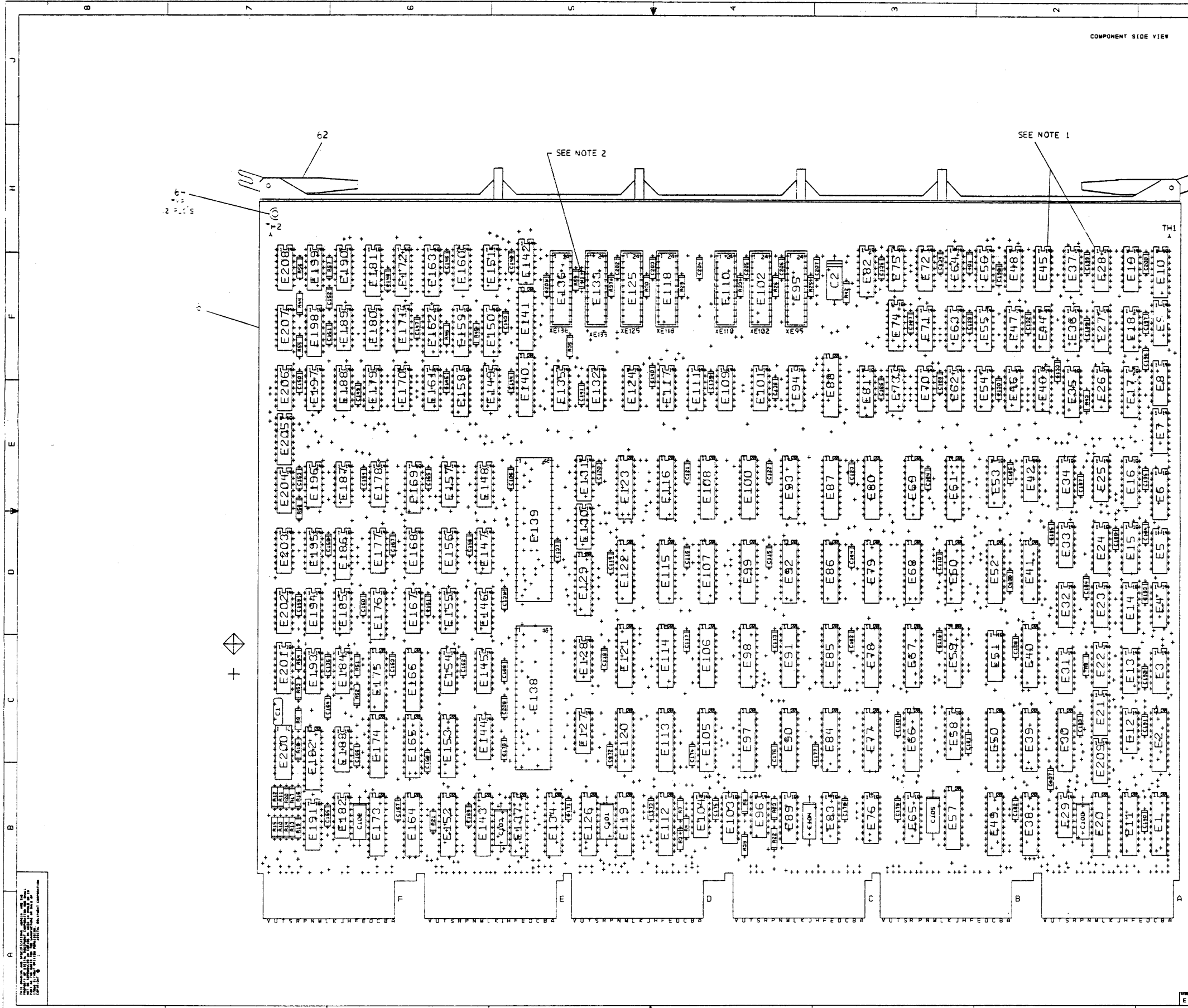
PARTS LIST

SHEET A2 OF A2

LINE	ITEM	TOP DOCUMENT	PART NUMBER	MIN REV	DESCRIPTION	QTY PER VARIATION			REFERENCE DESIGNATOR
						AC	AF	AH	
29	29		9009185-00		JUMPER, WIRE, INSULATED, BLACK B	1	1	1	W3
30	30		9105740-55		WIRE(WRAP) 30AWG KYNAR UL14	A/R	A/R	A/R	
31	31		2121415-02		81256-15 RAM 256KX1,DYNAMIC 1	156	-	-	E31-E38,E40-E55,E58-E73,E75-E82, E84-E91,E93-E108,E110-E125, CONT E128-E143,E145-E160,E162-E177, CONT E180-E195,E197-E200
32	32		2121414-02		50256 RAM 256KX1,DYNAMIC 1	-	156	-	E31-E38,E40-E55,E58-E73,E75-E82, E84-E91,E93-E108,E110-E125, CONT E128-E143,E145-E160,E162-E177, CONT E180-E195,E197-E200
33	33		7419276-00		*** THIS ITEM IS NOT USED ***	-	-	-	
34	34		2121413-02		41256 RAM 256KX1,DYNAMIC 1	-	-	156	E31-E38,E40-E55,E58-E73,E75-E82, E84-E91,E93-E108,E110-E125, CONT E128-E143,E145-E160,E162-E177, CONT E180-E195,E197-E200

- 35 NOTE: 1. M8374-AA IS THE PRIMARY VARIATION OF THE 1M X 39 BIT SYSTEM (NOT A MODULE TYPE).
- 36 NOTE: 2. M8374-AC IS A MODULE TYPE USING FUJITSU 256K MOS DEVICES.
- 37 NOTE: 3. M8374-AF IS A MODULE TYPE USING HITACHI 256K MOS DEVICES.
- 38 NOTE: 4. M8374-AR IS A MODULE TYPE USING WESTERN ELECTRIC 256K MOS DEVICES.
- 39 NOTE: 5. THIS ASSEMBLY CONTAINS DEVICES SENSITIVE TO ELECTROSTATIC DISCHARGE.
- 40 NOTE: MAINTAIN ANTI-STATIC PROTECTION PROCEDURES PER DEC STD 067.
- 41 NOTE: 6. M8374-AH IS A MODULE TYPE USING NEC 256K MOS DEVICES.
- 42 NOTE: THIS IS REPLACING M8374-AR VARIATION.

D	I	G	I	T	A	L	TITLE	1M X 39 BIT MOS MEMORY	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
											K	PL	M8374-AA-DBP	B



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NOTES: 1. E45, E28 ARE SHARE I.C. LOCATIONS. 2. DO NOT INSTALL JUMPER WI.	
DATE	digital
DRN	010101
CHK'D	
DESIGNED BY	
DRN	
PROJ	
SCALE	
SHEET	
REV	
EUA MB375-0-0	

DATE	digital
DRN	010101
CHK'D	
DESIGNED BY	
DRN	
PROJ	
SCALE	
SHEET	
REV	
EUA MB375-0-0	

DATE	digital
DRN	010101
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DESIGNED BY	
DRN	
PROJ	
SCALE	
SHEET	
REV	
EUA MB375-0-0	

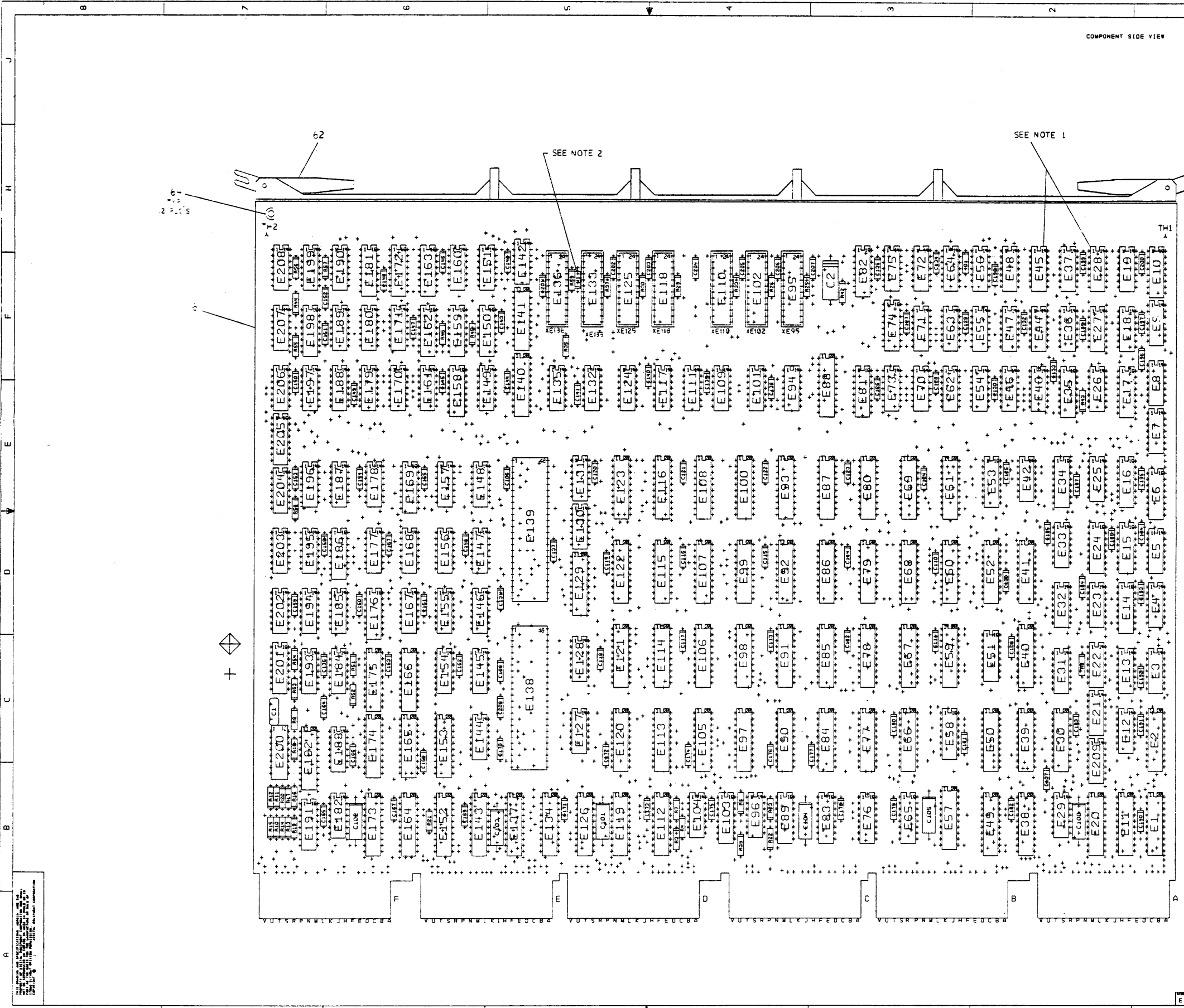


SEE NOTE 1

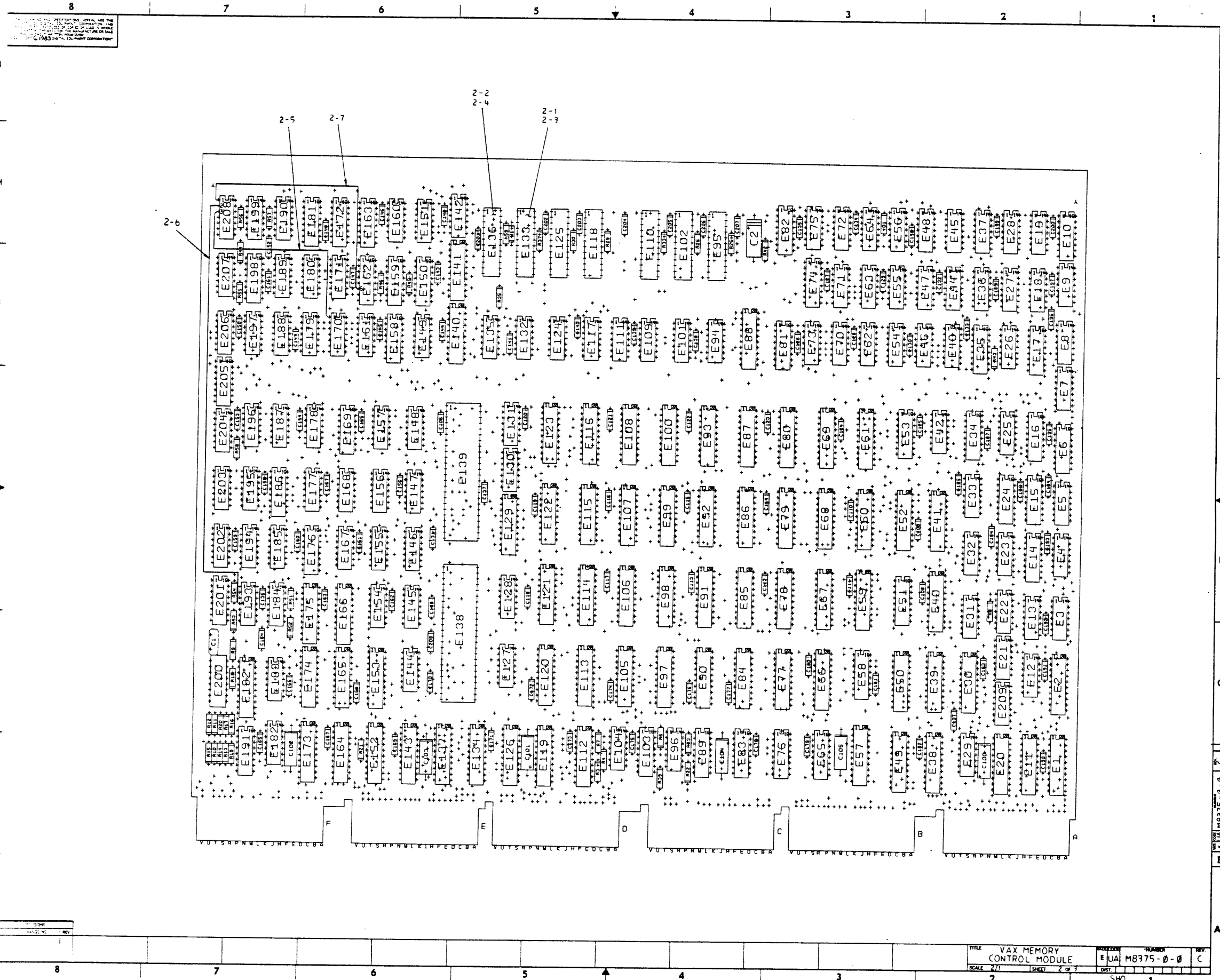
SEE NOTE 2

62

COMPONENT SIDE VIEW

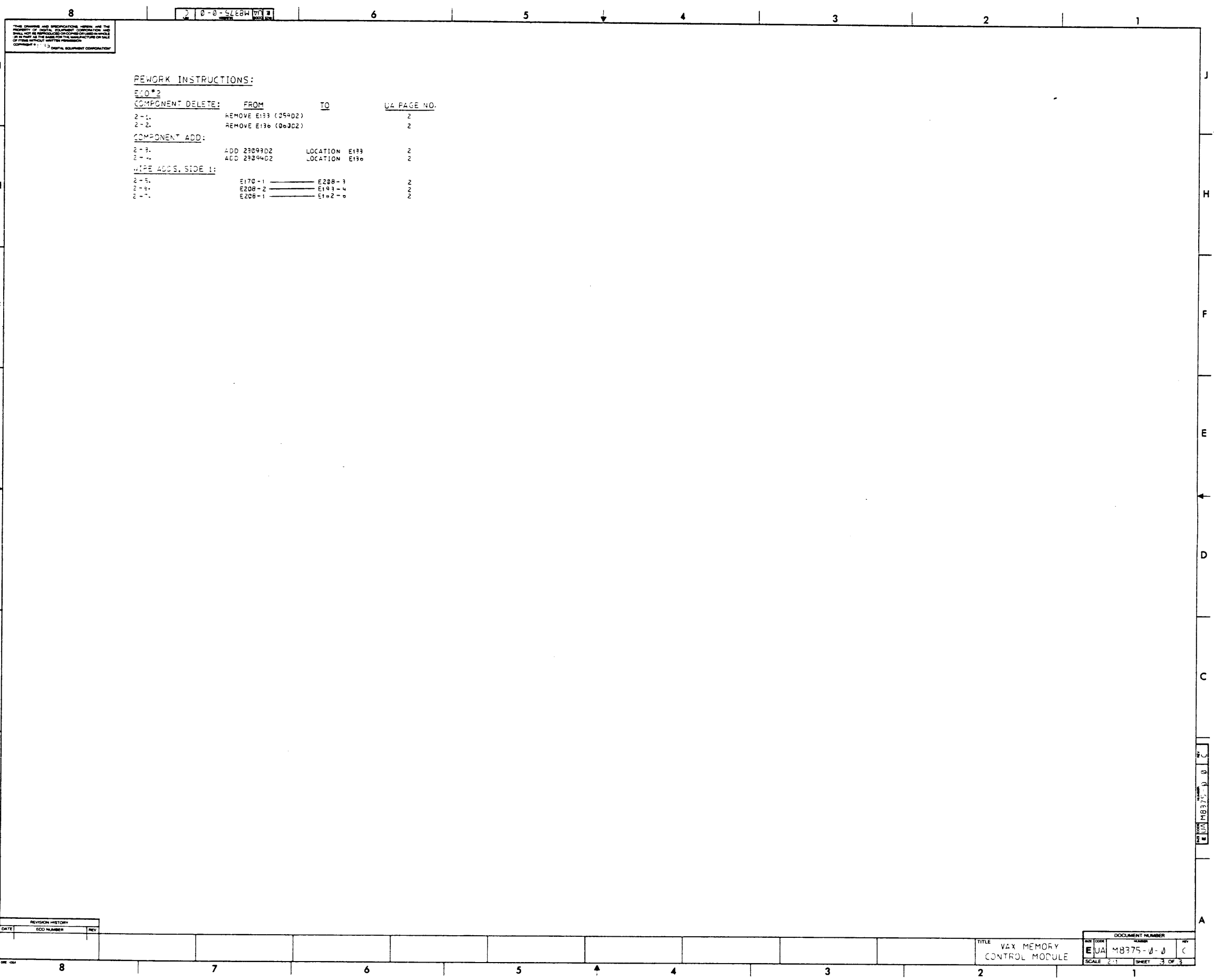






DATE	REV
11/22/80	1

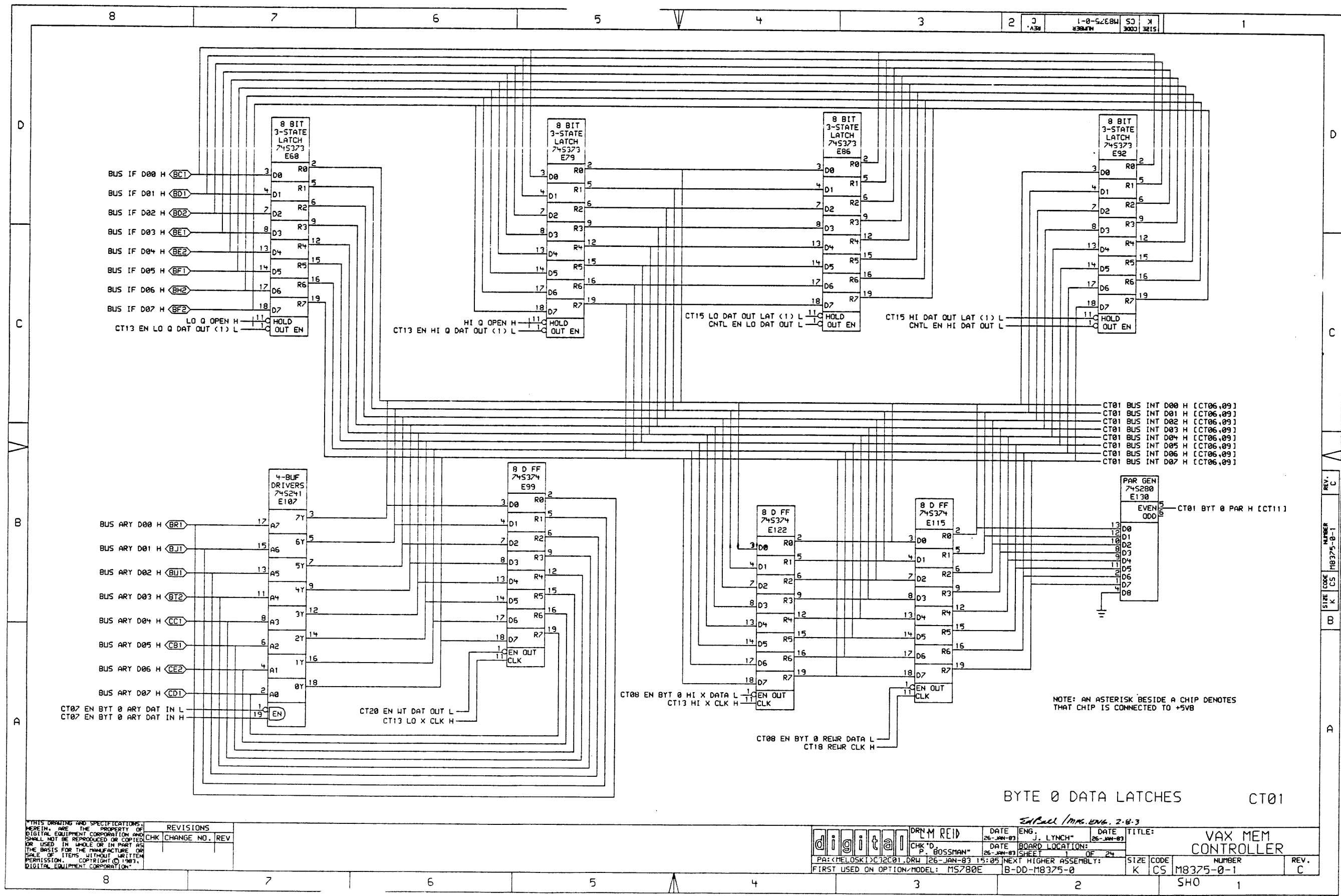
TITLE: VAX MEMORY CONTROL MODULE  
 PART NUMBER: E1UA M8375-0-0  
 SCALE: 2/1 SHEET: 2 OF 3 DATE: SHO REV: C



REWORK INSTRUCTIONS:  
 ECU\*2  
 COMPONENT DELETE: FROM TO UA PAGE NO.  
 2-1. REMOVE E133 (059D2) 2  
 2-2. REMOVE E136 (063D2) 2  
 COMPONENT ADD:  
 2-3. ADD 23093D2 LOCATION E133 2  
 2-4. ADD 23094D2 LOCATION E136 2  
 WIPE ADDS, SIDE 1:  
 2-5. E170-1 \_\_\_\_\_ E208-3 2  
 2-6. E208-2 \_\_\_\_\_ E193-4 2  
 2-7. E208-1 \_\_\_\_\_ E1+2-0 2

REVISION HISTORY		
DATE	ECC NUMBER	REV

TITLE		DOCUMENT NUMBER	
VAX MEMORY CONTROL MODULE		EUA M8375-0-0 C	
SCALE	SHEET	OF	
2:1	3	3	



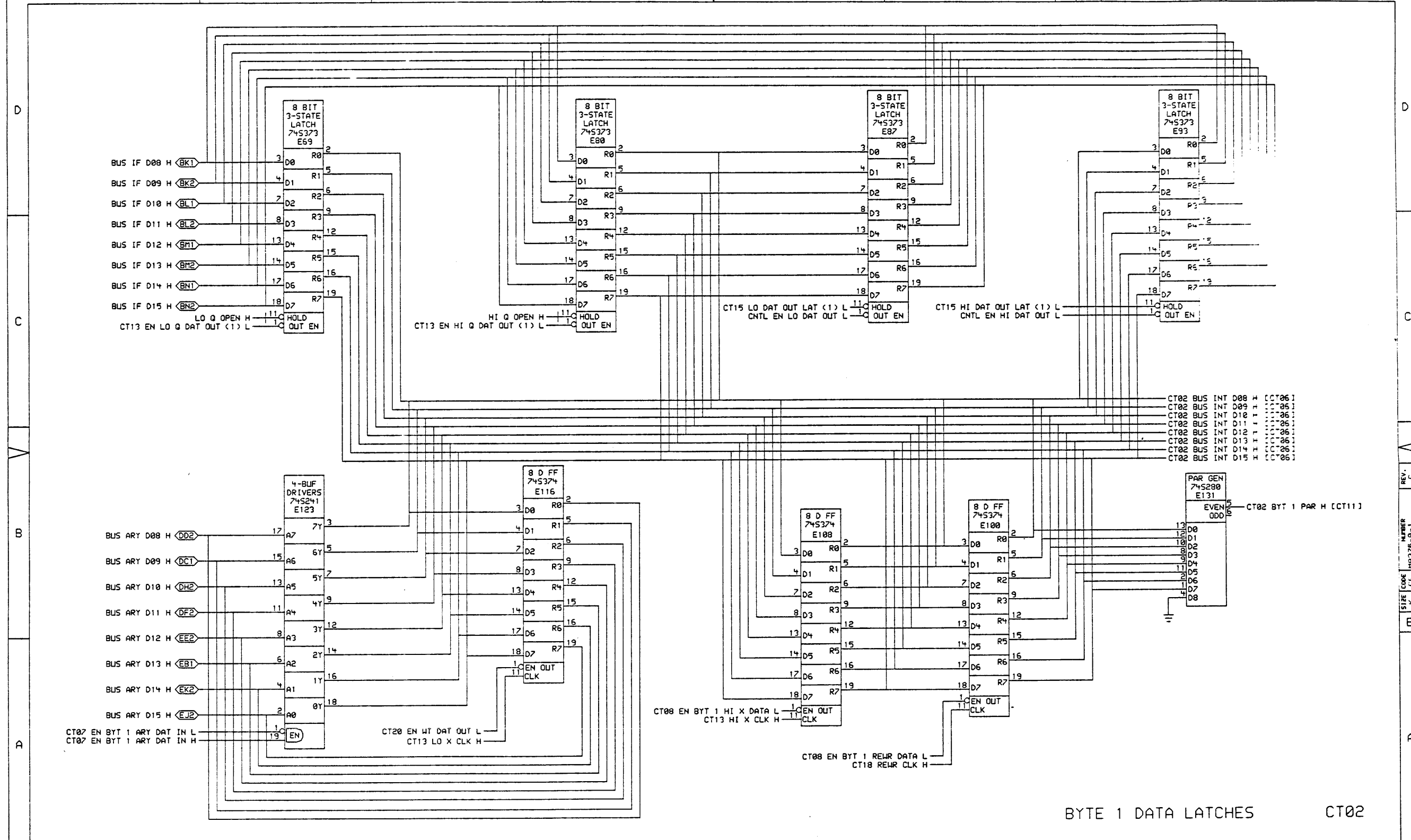
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REVISIONS	
CHK	CHANGE NO. REV

*SAPCALL/MMS.ENG. 2-8-3*

digital	DRM REID	DATE	ENG.	DATE	TITLE:
	CHK'D P. BOSSMAN*	26-JAN-83	J. LYNCH*	26-JAN-83	VAX MEM CONTROLLER
PAK(MELOSKI)C32C01.DRW		26-JAN-83 15:05	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: MS780E		B-DD-M8375-0		K	CS

NUMBER M8375-0-1 REV. C

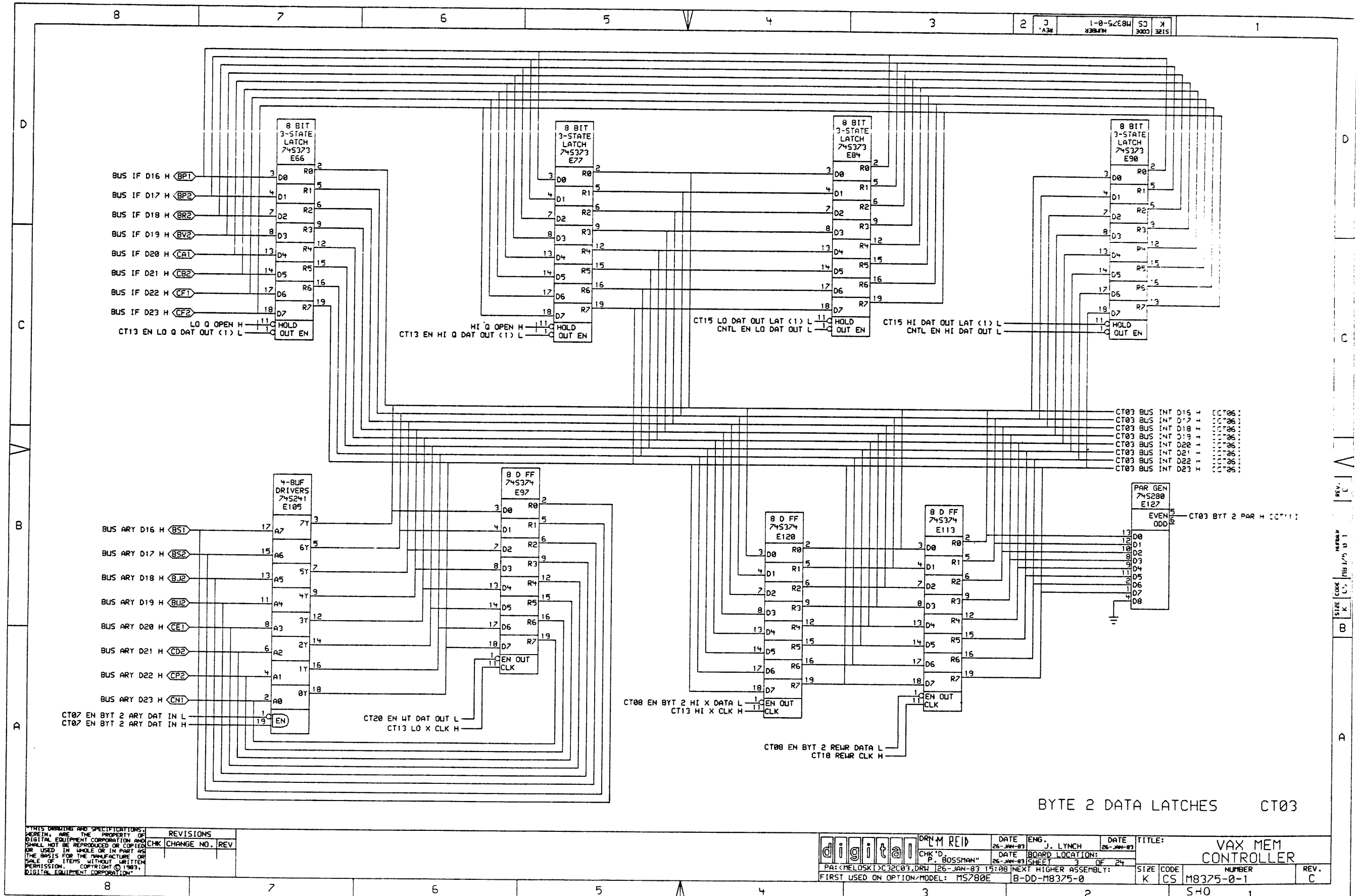


BYTE 1 DATA LATCHES CT02

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REVISIONS	CHK	CHANGE NO.	REV

	DRN M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 2	SHEET 24	SIZE CODE NUMBER REV. K CS M8375-0-1 C
FIRST USED ON OPTION/MODEL: MS780E		NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SHO 1	



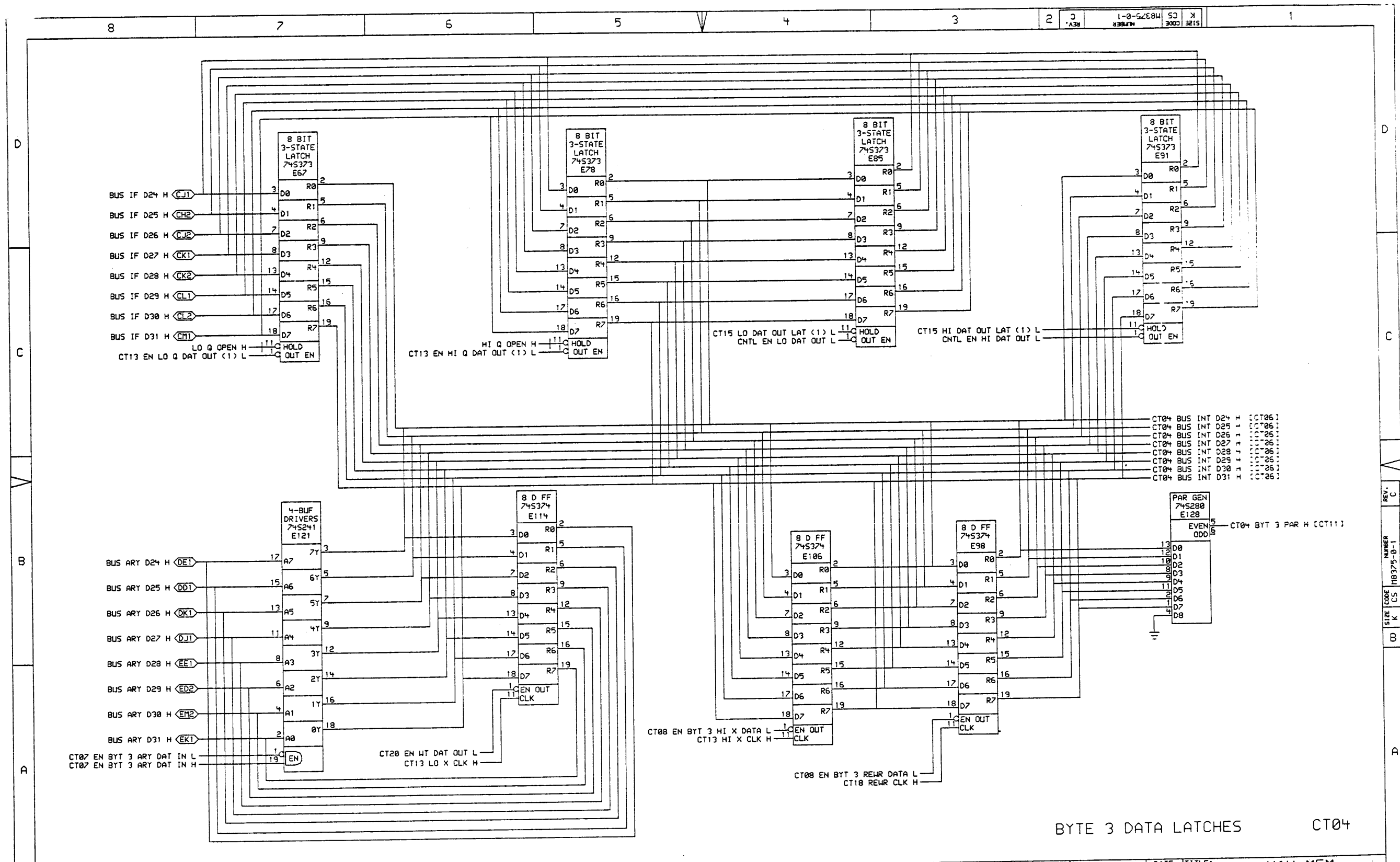
BYTE 2 DATA LATCHES CT03

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REVISIONS	
CHK	CHANGE NO. REV

	DRN: M REID	DATE: 26-JAN-83	ENG.: J. LYNCH	DATE: 26-JAN-83	TITLE:
	CHK'D: P. BOSSMAN	DATE: 26-JAN-83	BOARD LOCATION:	SHEET: 3 OF 24	VAX MEM CONTROLLER
PA: (MELOSK1)C32C03.DRW 126-JAN-83 15:08 NEXT HIGHER ASSEMBLY: B-DD-M8375-0					SIZE CODE NUMBER REV. K CS M8375-0-1 C

REV. C  
 SIZE CODE K CS M8375-0-1  
 SHEET 3 OF 24



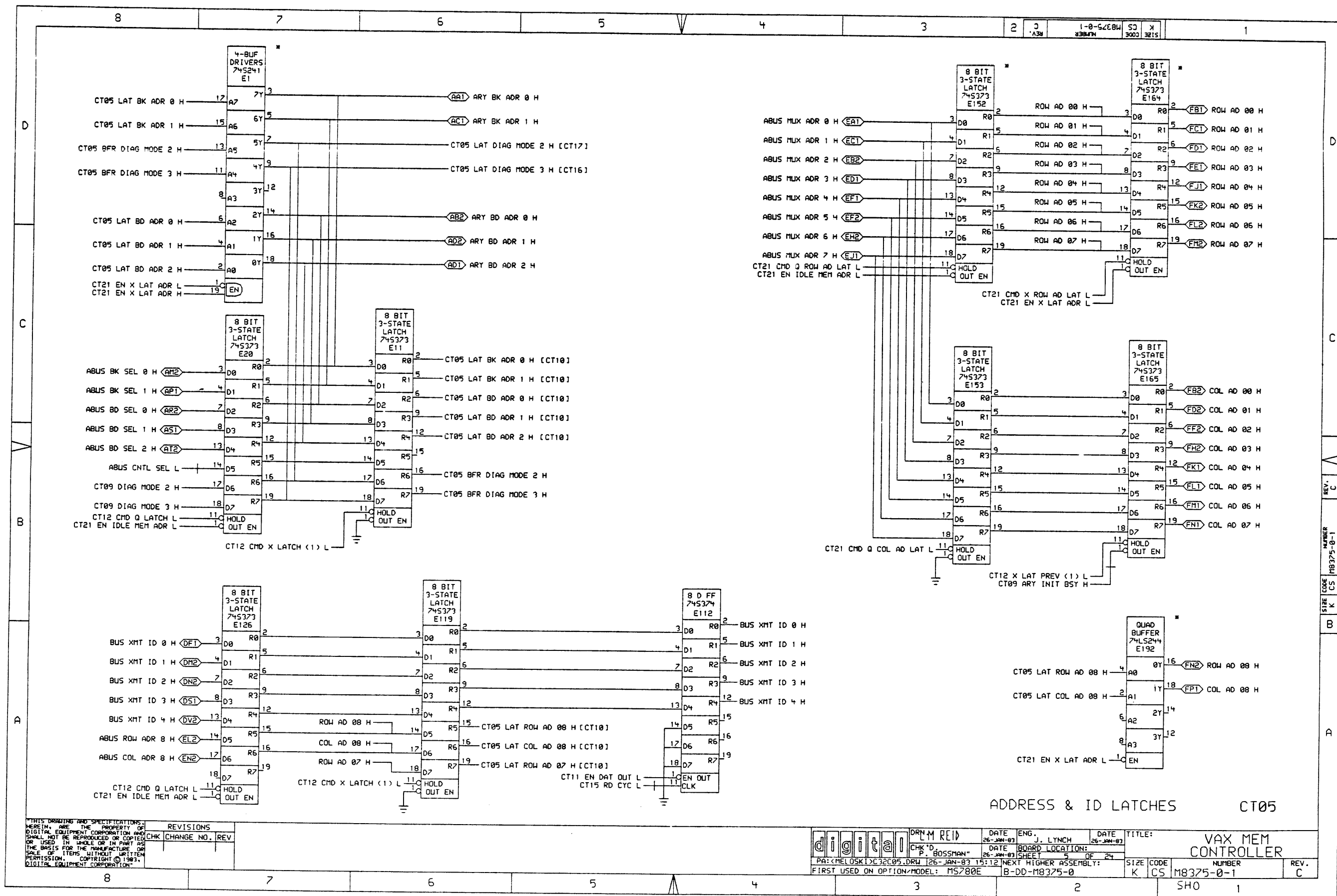
BYTE 3 DATA LATCHES CT04

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REVISIONS	
CHK	CHANGE NO. REV

	DRM REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 4 OF 24	SHEET 4 OF 24	SIZE CODE K CS
PA: <MELOSKI>C32C04.DRW 126-JAN-83 15:09 NEXT HIGHER ASSEMBLY: B-DD-M8375-0			NUMBER M8375-0-1		REV. C
FIRST USED ON OPTION/MODEL: MS780E					SHO 1

REV. C  
 SIZE CODE K CS  
 NUMBER M8375-0-1

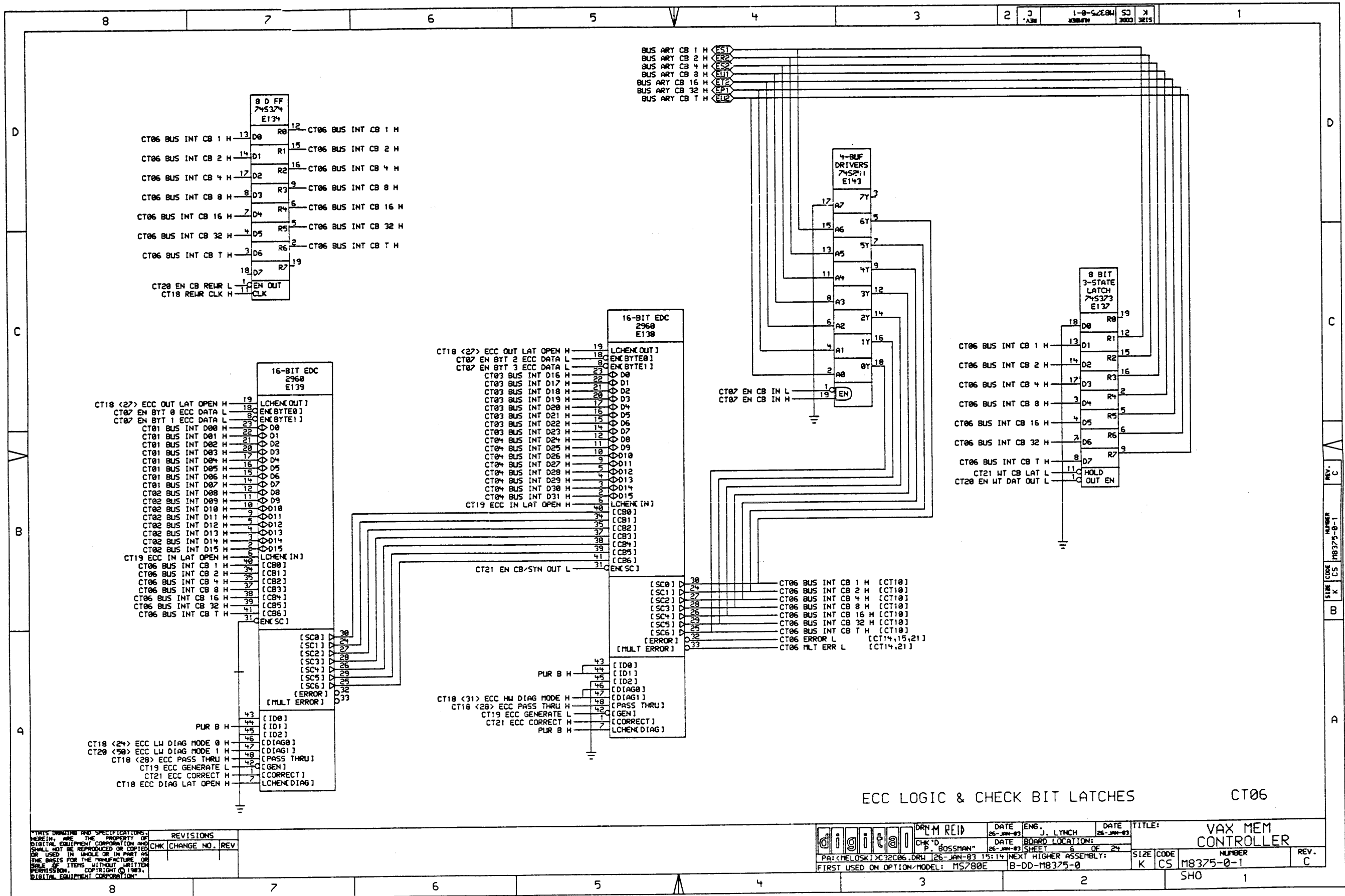


ADDRESS & ID LATCHES CT05

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REV.	CHG	CHANGE NO.	REV

digital	DRM REID	DATE	ENG.	DATE	TITLE:
	CHK'D P. BOSSMAN	26-JAN-83	J. LYNCH	26-JAN-83	VAX MEM CONTROLLER
PA:CMEL05K1>C32C05.DRW I26-JAN-83 15:12		NEXT HIGHER ASSEMBLY:		SIZE	CODE
FIRST USED ON OPTION/MODEL: M5780E		B-DD-M8375-0		K	CS
				NUMBER	REV.
				M8375-0-1	C



BUS ARY CB 1 H [E1]  
 BUS ARY CB 2 H [E2]  
 BUS ARY CB 4 H [E3]  
 BUS ARY CB 8 H [E4]  
 BUS ARY CB 16 H [E5]  
 BUS ARY CB 32 H [E6]  
 BUS ARY CB T H [E7]

8 D FF  
 745374  
 E134

12 CT06 BUS INT CB 1 H  
 15 CT06 BUS INT CB 2 H  
 16 CT06 BUS INT CB 4 H  
 9 CT06 BUS INT CB 8 H  
 6 CT06 BUS INT CB 16 H  
 5 CT06 BUS INT CB 32 H  
 2 CT06 BUS INT CB T H

18 D7  
 19 R7

1 CT20 EN CB REWR L  
 1 CT18 REWR CLK H

16-BIT EDC  
 2960  
 E138

19 LCHEN[OUT]  
 18 EN[BYTE0]  
 8 EN[BYTE1]

CT07 EN BYT 2 ECC DATA L  
 CT07 EN BYT 3 ECC DATA L

CT01 BUS INT D00 H  
 CT01 BUS INT D01 H  
 CT01 BUS INT D02 H  
 CT01 BUS INT D03 H  
 CT01 BUS INT D04 H  
 CT01 BUS INT D05 H  
 CT01 BUS INT D06 H  
 CT01 BUS INT D07 H  
 CT02 BUS INT D08 H  
 CT02 BUS INT D09 H  
 CT02 BUS INT D10 H  
 CT02 BUS INT D11 H  
 CT02 BUS INT D12 H  
 CT02 BUS INT D13 H  
 CT02 BUS INT D14 H  
 CT02 BUS INT D15 H

CT19 ECC IN LAT OPEN H  
 CT06 BUS INT CB 1 H  
 CT06 BUS INT CB 2 H  
 CT06 BUS INT CB 4 H  
 CT06 BUS INT CB 8 H  
 CT06 BUS INT CB 16 H  
 CT06 BUS INT CB 32 H  
 CT06 BUS INT CB T H

19 LCHEN[IN]  
 34 [CB0]  
 35 [CB1]  
 37 [CB2]  
 38 [CB3]  
 39 [CB4]  
 41 [CB5]  
 31 [CB6]  
 31 EN[SC]

[SC0]  
 [SC1]  
 [SC2]  
 [SC3]  
 [SC4]  
 [SC5]  
 [SC6]  
 [MULT ERROR]

43 [ID0]  
 44 [ID1]  
 45 [ID2]  
 46 [DIAG0]  
 47 [DIAG1]  
 48 [PASS THRU]  
 42 [GEN]  
 1 [CORRECT]  
 7 LCHEN[DIAG]

16-BIT EDC  
 2960  
 E138

19 LCHEN[OUT]  
 18 EN[BYTE0]  
 8 EN[BYTE1]

CT07 EN BYT 2 ECC DATA L  
 CT07 EN BYT 3 ECC DATA L

CT03 BUS INT D16 H  
 CT03 BUS INT D17 H  
 CT03 BUS INT D18 H  
 CT03 BUS INT D19 H  
 CT03 BUS INT D20 H  
 CT03 BUS INT D21 H  
 CT03 BUS INT D22 H  
 CT03 BUS INT D23 H  
 CT04 BUS INT D24 H  
 CT04 BUS INT D25 H  
 CT04 BUS INT D26 H  
 CT04 BUS INT D27 H  
 CT04 BUS INT D28 H  
 CT04 BUS INT D29 H  
 CT04 BUS INT D30 H  
 CT04 BUS INT D31 H

CT19 ECC IN LAT OPEN H  
 CT06 BUS INT CB 1 H  
 CT06 BUS INT CB 2 H  
 CT06 BUS INT CB 4 H  
 CT06 BUS INT CB 8 H  
 CT06 BUS INT CB 16 H  
 CT06 BUS INT CB 32 H  
 CT06 BUS INT CB T H

19 LCHEN[IN]  
 34 [CB0]  
 35 [CB1]  
 37 [CB2]  
 38 [CB3]  
 39 [CB4]  
 41 [CB5]  
 31 [CB6]  
 31 EN[SC]

[SC0]  
 [SC1]  
 [SC2]  
 [SC3]  
 [SC4]  
 [SC5]  
 [SC6]  
 [MULT ERROR]

[ID0]  
 [ID1]  
 [ID2]  
 [DIAG0]  
 [DIAG1]  
 [PASS THRU]  
 [GEN]  
 [CORRECT]  
 LCHEN[DIAG]

4-BUF  
 DRIVERS  
 745211  
 E143

17 A7 7Y 3  
 15 A6 6Y 5  
 13 A5 5Y 2  
 11 A4 4Y 9  
 8 A3 3Y 12  
 6 A2 2Y 14  
 4 A1 1Y 16  
 2 A0 0Y 18

CT07 EN CB IN L  
 CT07 EN CB IN H

8 BIT  
 3-STATE  
 LATCH  
 745373  
 E137

18 D8 R8  
 15 D2 R2  
 16 D3 R3  
 2 D4 R4  
 5 D5 R5  
 6 D6 R6  
 9 D7 R7

13 D1 R1  
 14 D2 R2  
 17 D3 R3  
 3 D4 R4  
 4 D5 R5  
 7 D6 R6  
 8 D7 R7

11 HOLD  
 10 OUT EN

CT06 BUS INT CB 1 H  
 CT06 BUS INT CB 2 H  
 CT06 BUS INT CB 4 H  
 CT06 BUS INT CB 8 H  
 CT06 BUS INT CB 16 H  
 CT06 BUS INT CB 32 H  
 CT06 BUS INT CB T H  
 CT21 WT CB LAT L  
 CT20 EN WT DAT OUT L

ECC LOGIC & CHECK BIT LATCHES CT06

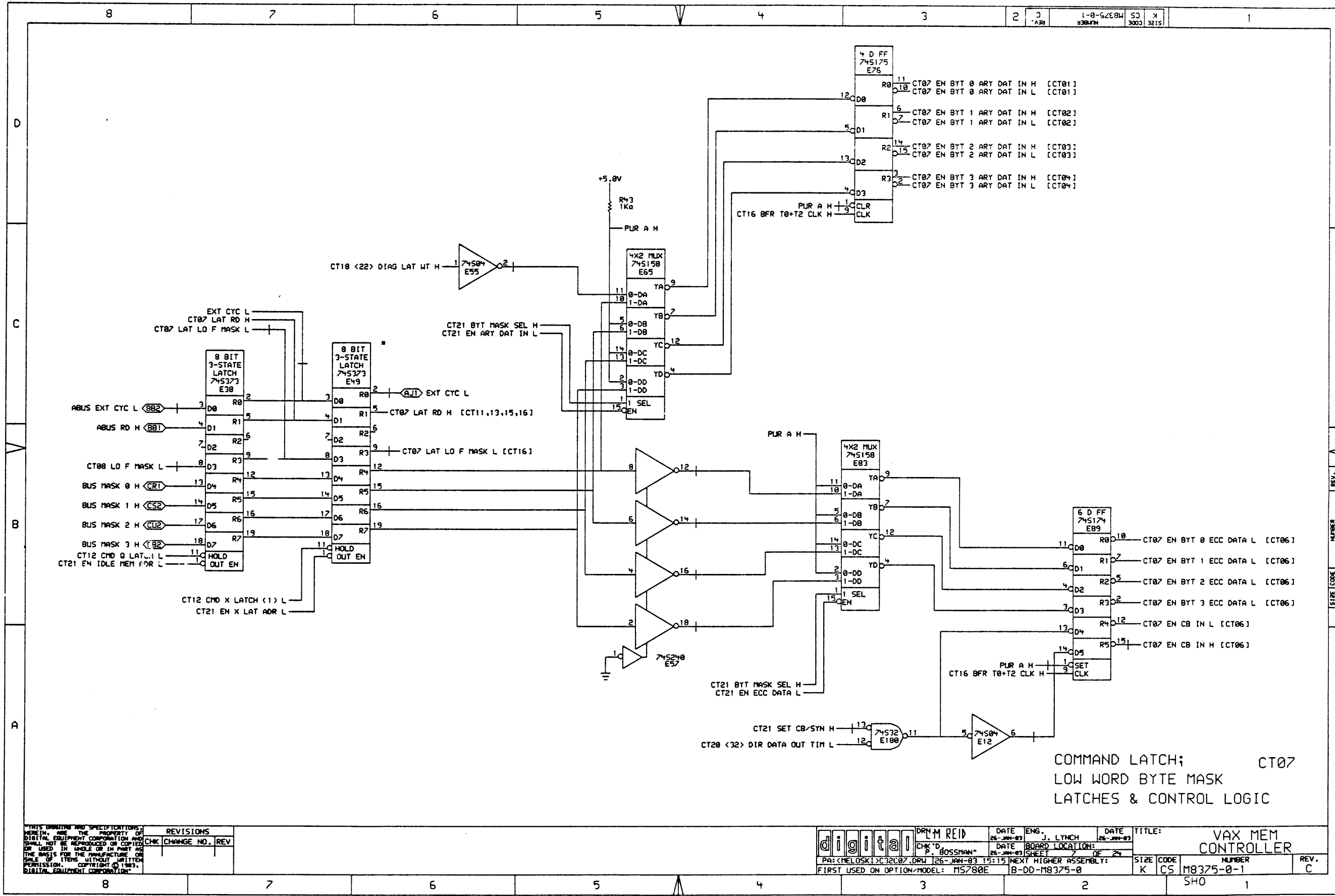
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REV.	CHG	CHANGE NO.	REV.

digital	DRN M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
CHK'D P. BOSSMAN	DATE BOARD LOCATION:	26-JAN-83	SHEET 6 OF 24	SIZE CODE K CS	NUMBER M8375-0-1
FIRST USED ON OPTION MODEL: MS780E				B-DD-M8375-0	REV. C

SHO	1
-----	---

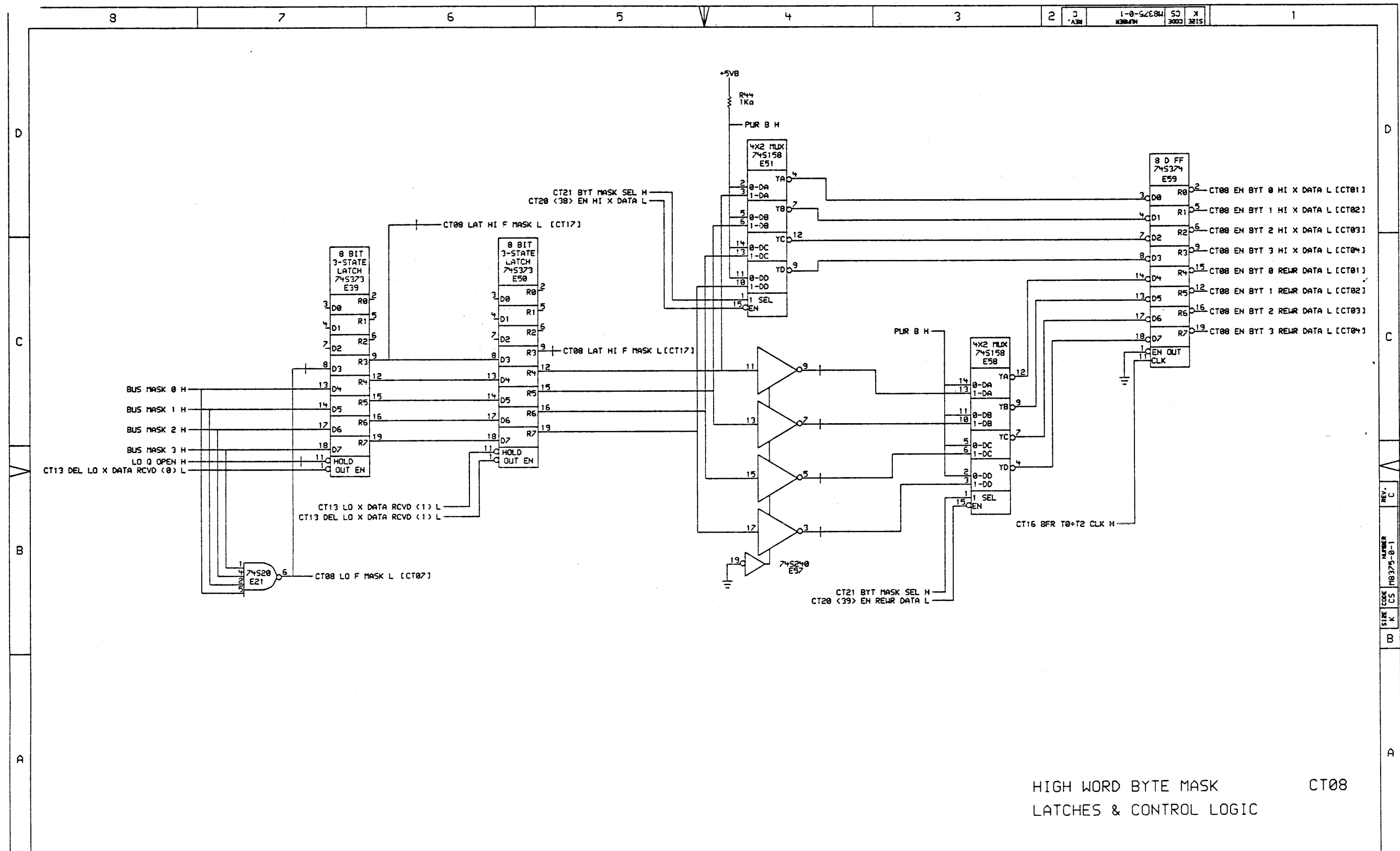




COMMAND LATCH; CT07  
LOW WORD BYTE MASK  
LATCHES & CONTROL LOGIC

REVISIONS		
CHK	CHANGE NO.	REV

TITLE: VAX MEM CONTROLLER SIZE CODE: K CS NUMBER: M8375-0-1 REV. C	PA: (MELOSKI)C32C07.DRW 26-JAN-83 15:15 NEXT HIGHER ASSEMBLY: B-DD-M8375-0 FIRST USED ON OPTION/MODEL: MS780E	DRN: M REID ENG. J. LYNCH DATE 26-JAN-83 CHK'D: P. BOSSMAN DATE 26-JAN-83 SHEET 7 OF 24 BOARD LOCATION:	DATE 26-JAN-83 DATE 26-JAN-83 DATE 26-JAN-83
---	--	--	--



HIGH WORD BYTE MASK CT08  
LATCHES & CONTROL LOGIC

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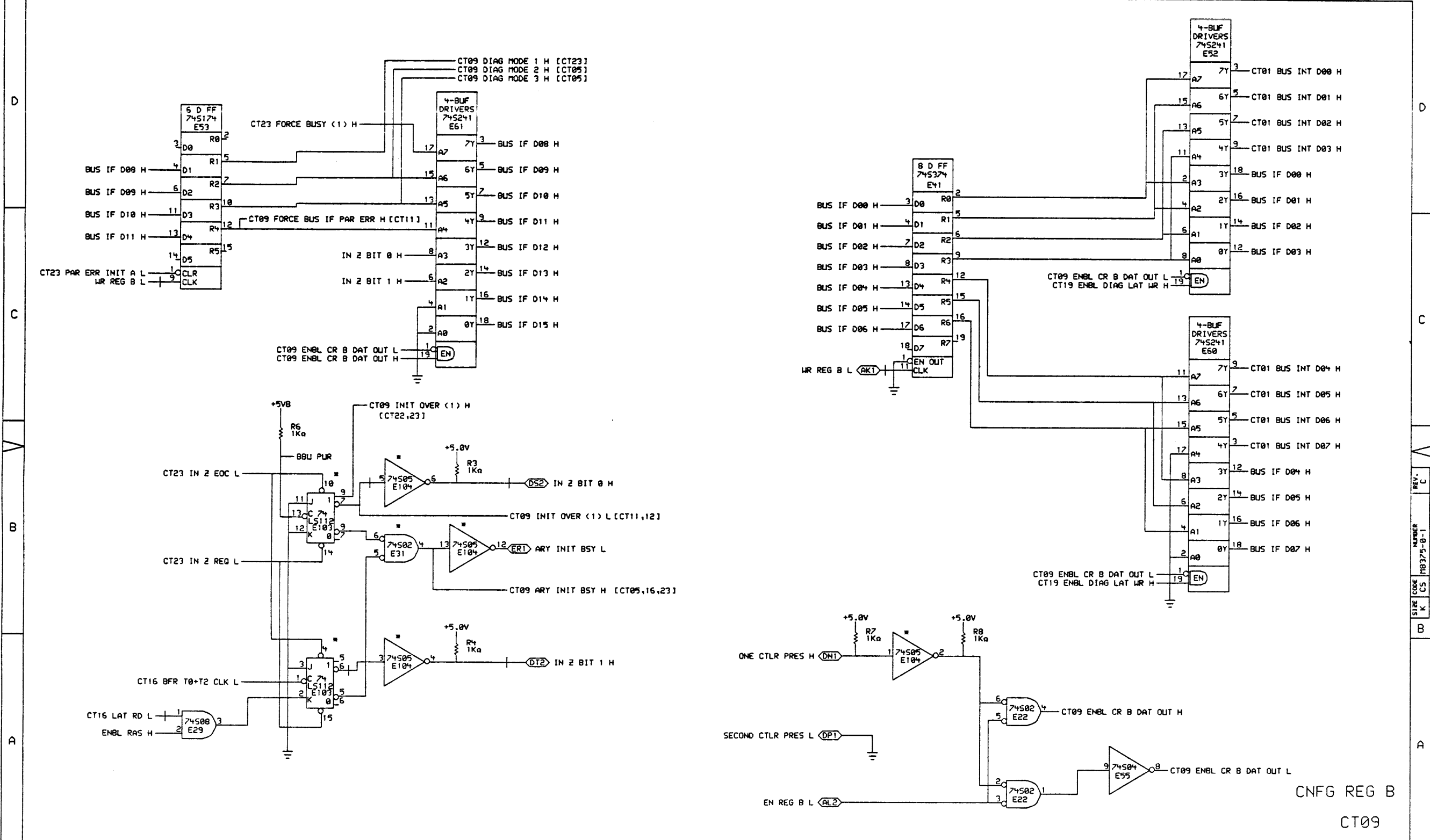
REV.	CHK	CHANGE NO.

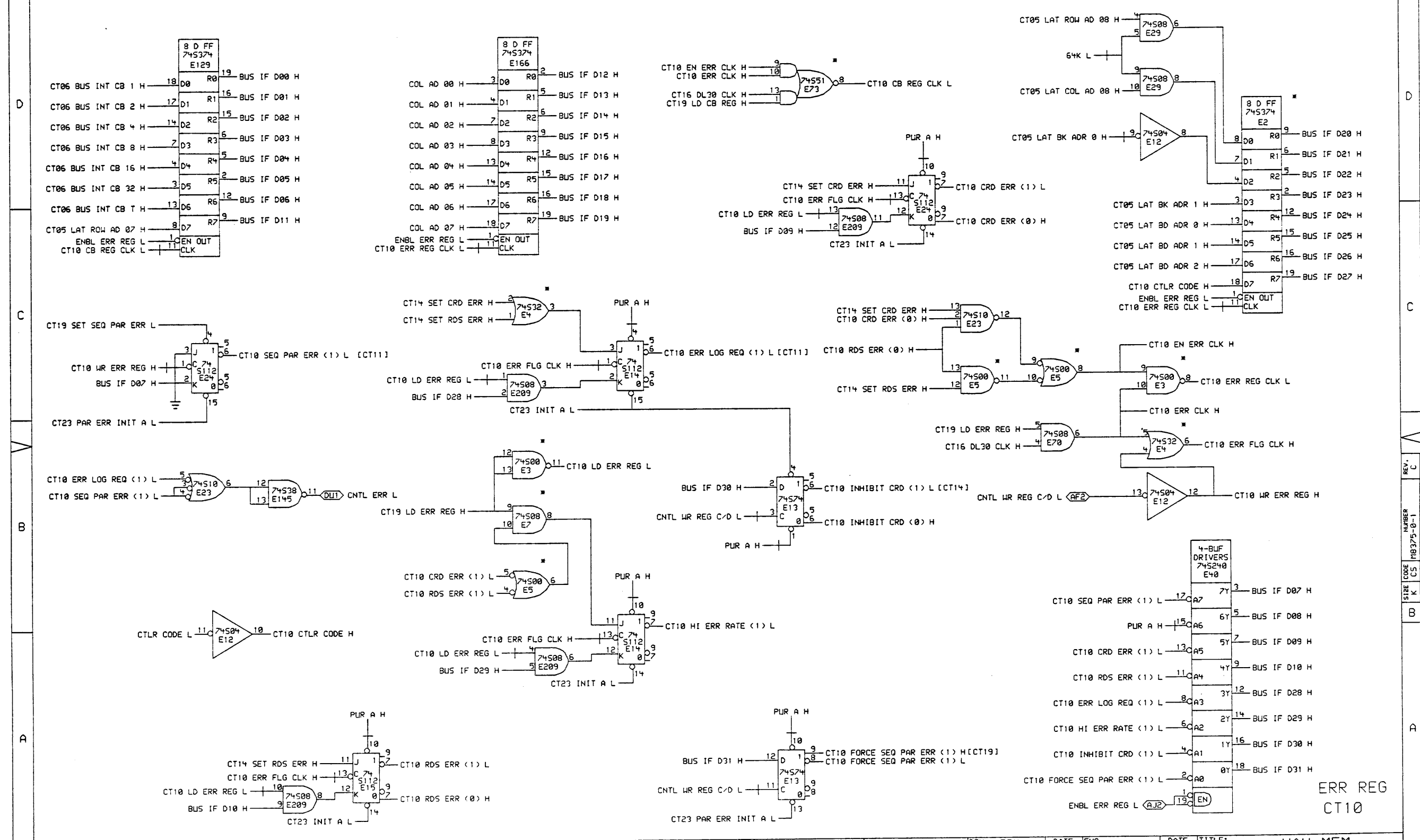
DATE	ENG.	DATE	TITLE:
26-JAN-83	J. LYNCH	26-JAN-83	VAX MEM CONTROLLER

PA: MELOSKI 203208.DRW 26-JAN-83 15:17 NEXT HIGHER ASSEMBLY: B-DD-M8375-0

SIZE	CODE	NUMBER	REV.
K	CS	M8375-0-1	C

REV. C  
NUMBER M8375-0-1  
SIZE K CS

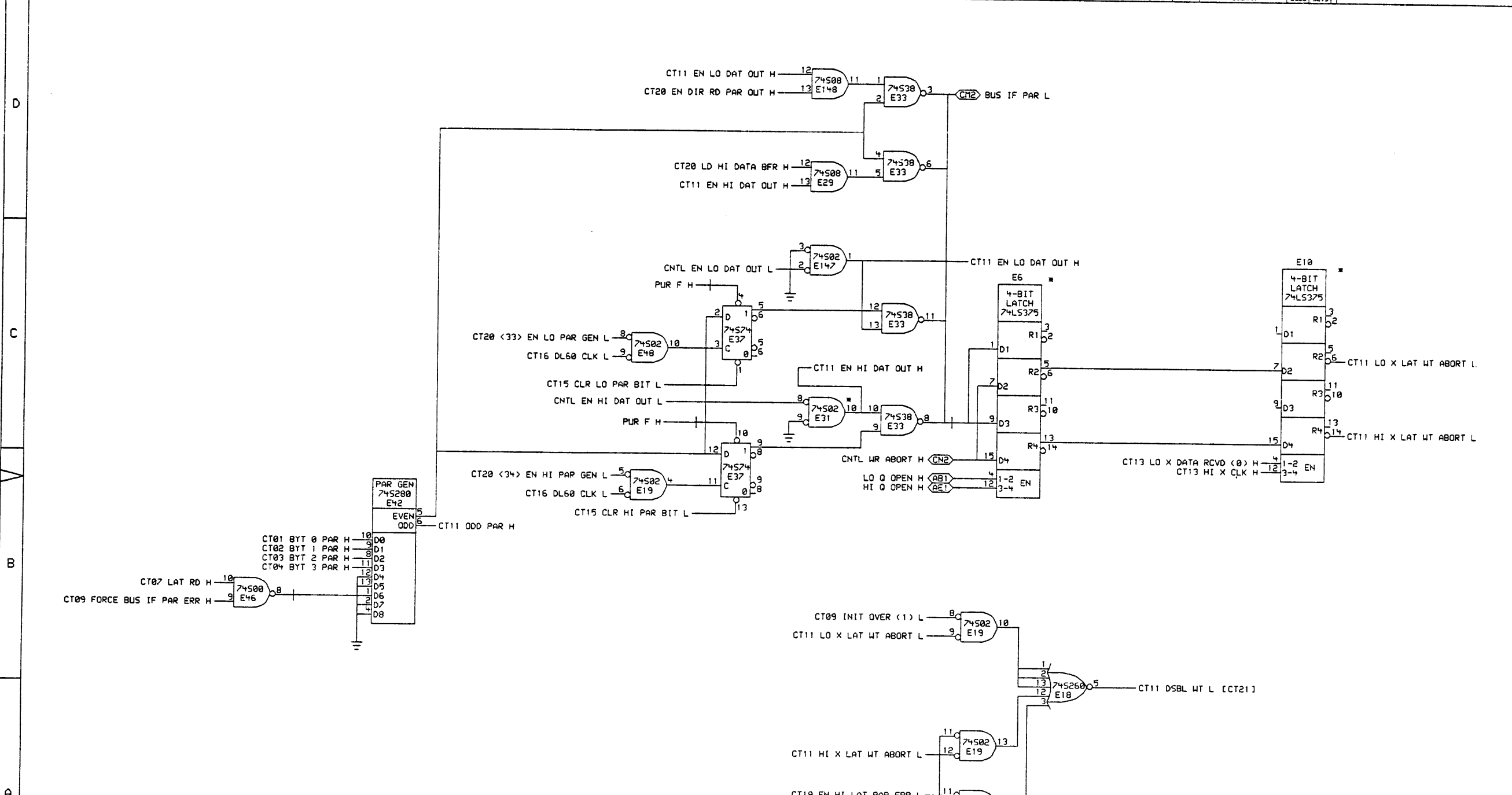




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REVISIONS	
CHK	CHANGE NO. REV

DRM REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 10	OF 24	SIZE CODE NUMBER REV. K CS M8375-0-1 C
FIRST USED ON OPTION/MODEL: MS780E		NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SH0 1

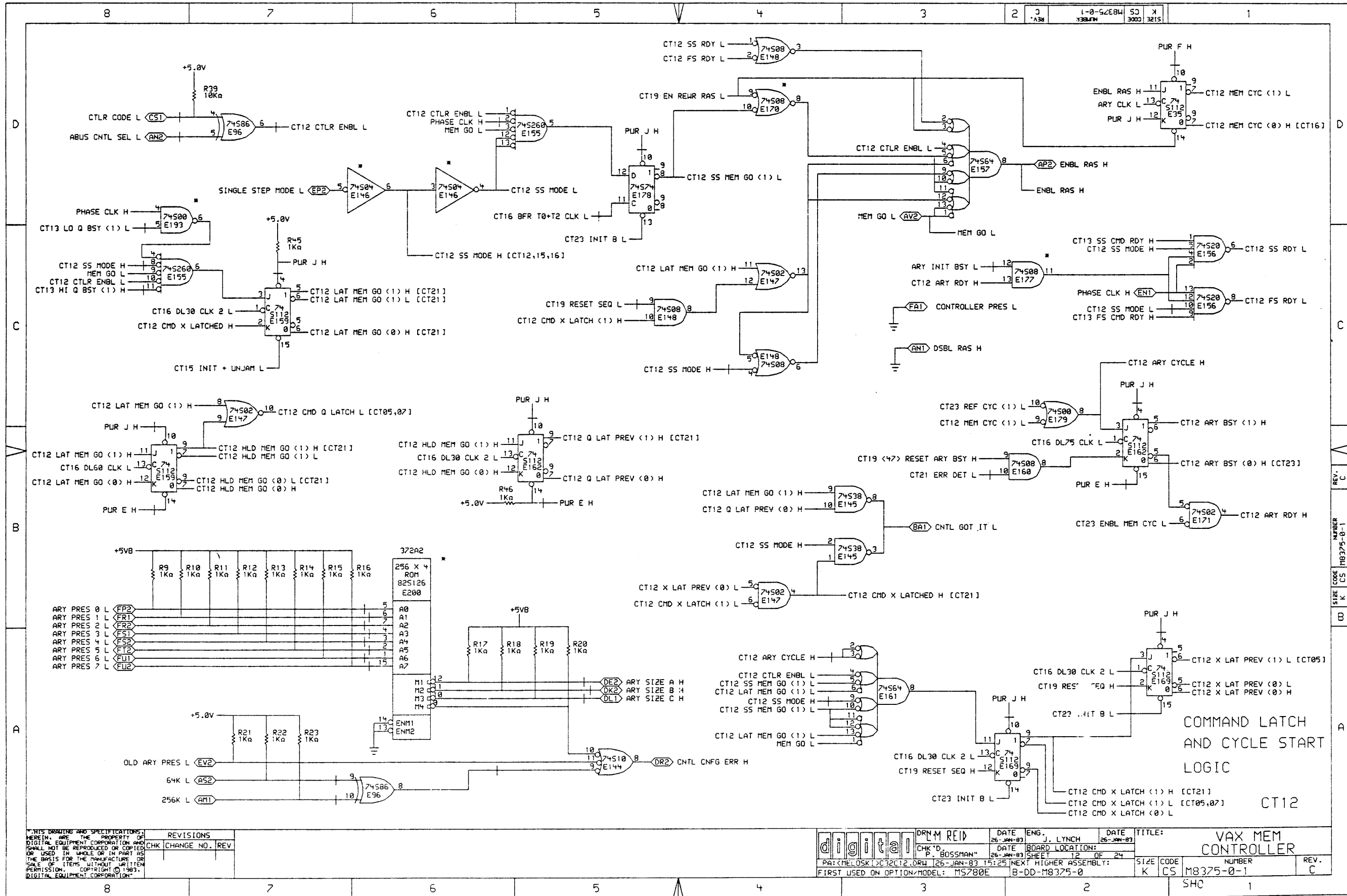


READ PARITY GENERATION AND WRITE ABORT LOGIC CT11

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN-M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 25-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: SHEET 11 OF 24		
PAR: MELOSKI\C32C11.DRW 126-JAN-83 15:23		NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SIZE CODE K CS	NUMBER M8375-0-1
FIRST USED ON OPTION/MODEL: M5780E					REV. C



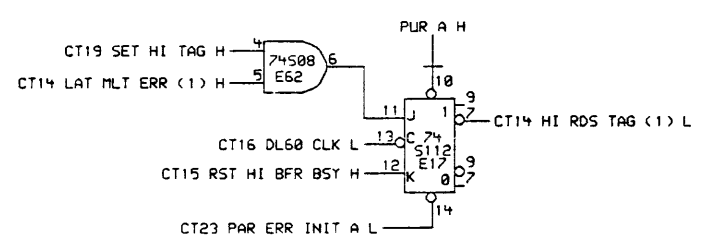
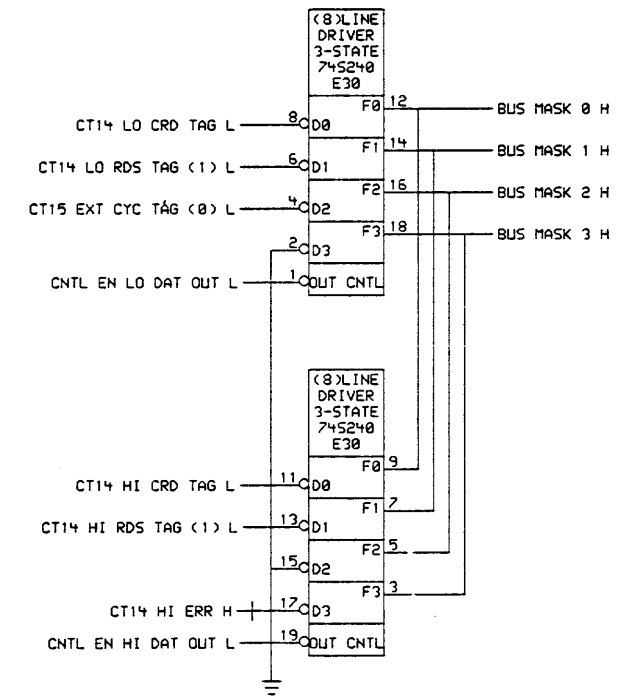
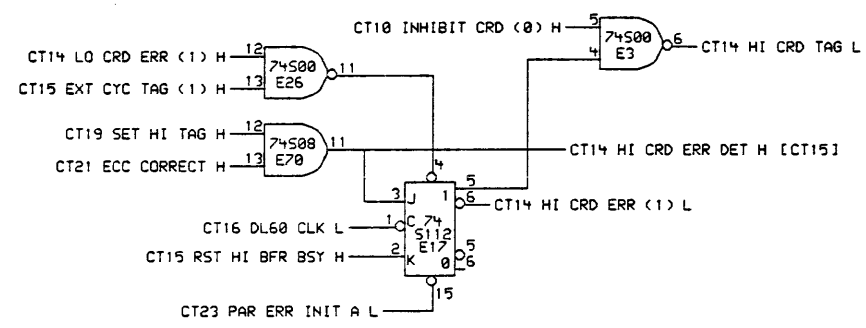
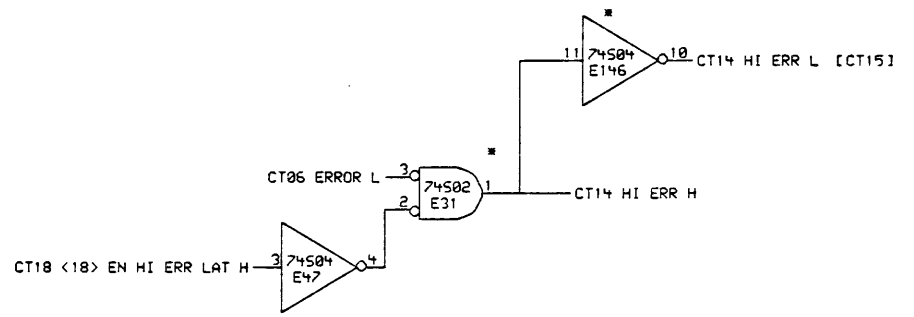
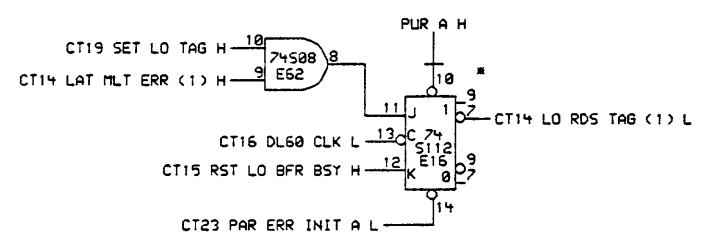
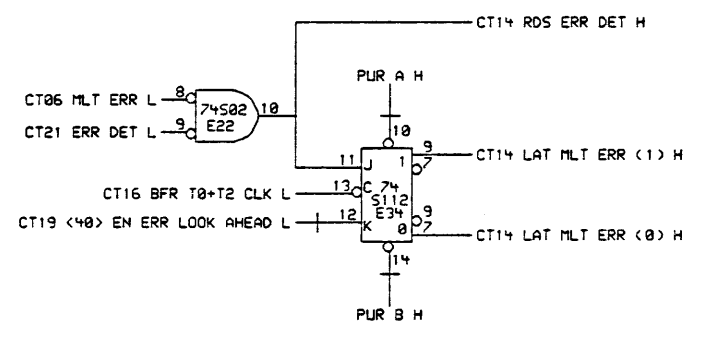
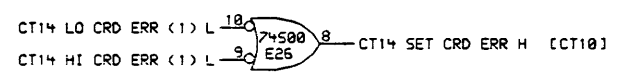
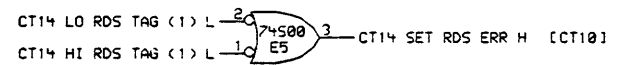
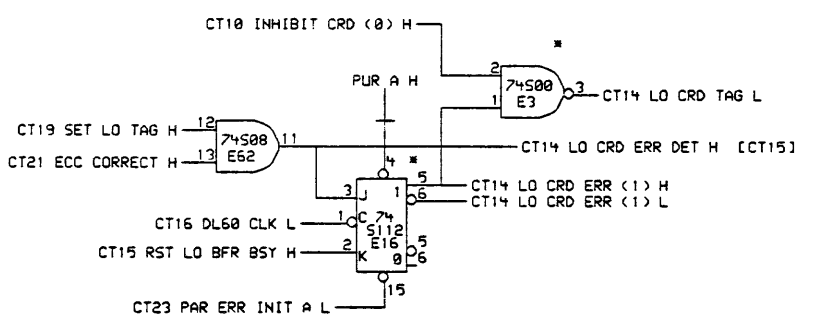
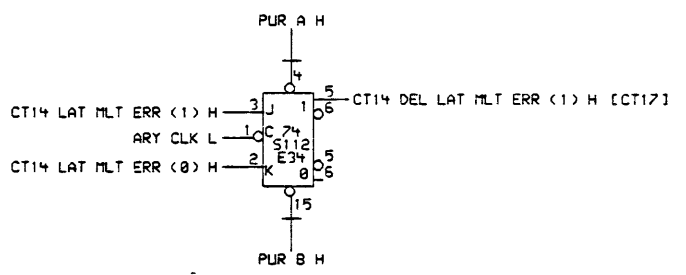
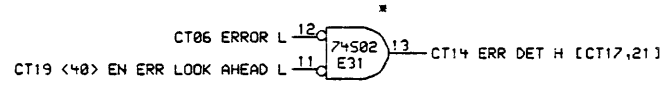
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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN M REID	DATE 26-JAN-83	ENG J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK D. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 12 OF 24	SHEET 12 OF 24	NUMBER
FIRST USED ON OPTION/MODEL: MS280E		B-DD-M8375-0		SIZE CODE K CS M8375-0-1	REV. C

REV. C  
SIZE CODE K CS M8375-0-1





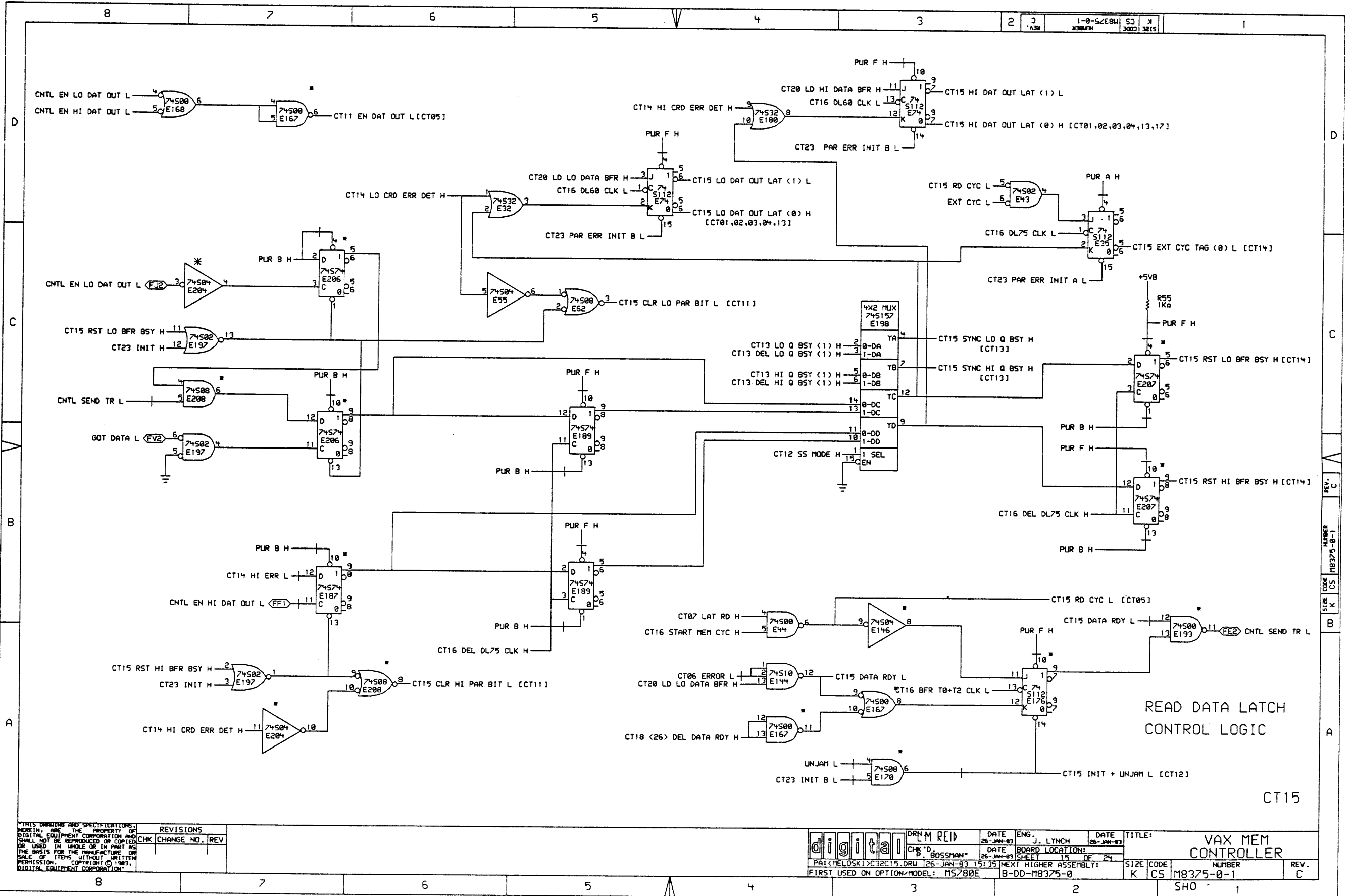
READ DATA TAG GENERATION LOGIC

CT14

REVISIONS	
CHK	CHANGE NO. REV

digital	DRN M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: SHEET 14 OF 24	SIZE CODE NUMBER REV. K CS M8375-0-1 C	
FIRST USED ON OPTION MODEL: MS780E					SHO 1



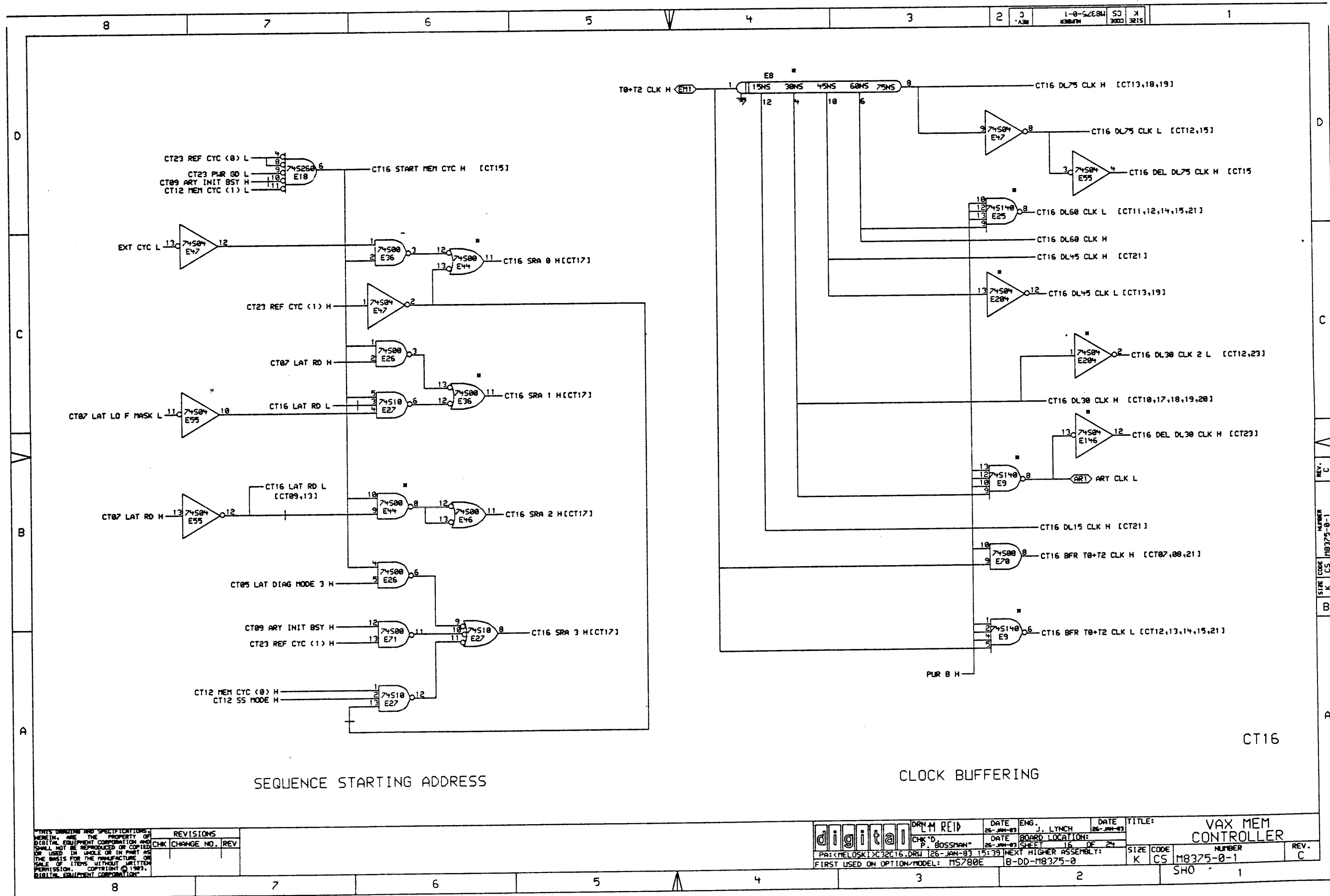


CT15

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REVISIONS		
CHK	CHANGE NO.	REV

<b>digital</b>	DRM REID	DATE ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	P. BOSSMAN	DATE BOARD LOCATION: 15	DATE SHEET 24	SIZE CODE NUMBER REV. K CS M8375-0-1 C
PA: <MELOSKI>C32C15.DRW		NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SHO 1
FIRST USED ON OPTION/MODEL: MS780E				

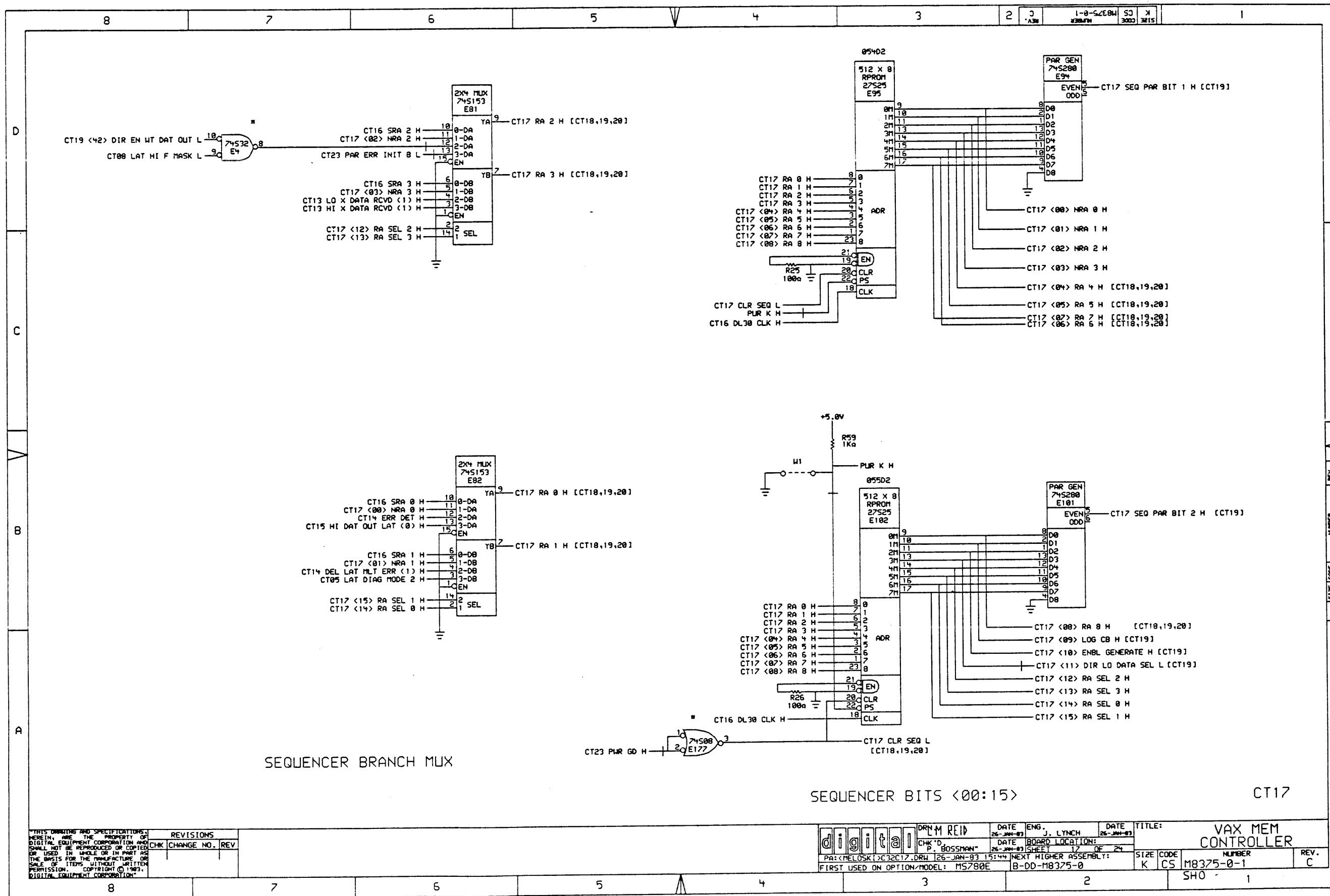


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REVISIONS	
CHK	CHANGE NO. REV

digital	DRY-M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: SHEET 16 OF 24		
			NEXT HIGHER ASSEMBLY: B-DD-M8375-0		
	FIRST USED ON OPTION/MODEL: MS780E				

SIZE	CODE	NUMBER	REV.
K	CS	M8375-0-1	C
		SHO	1

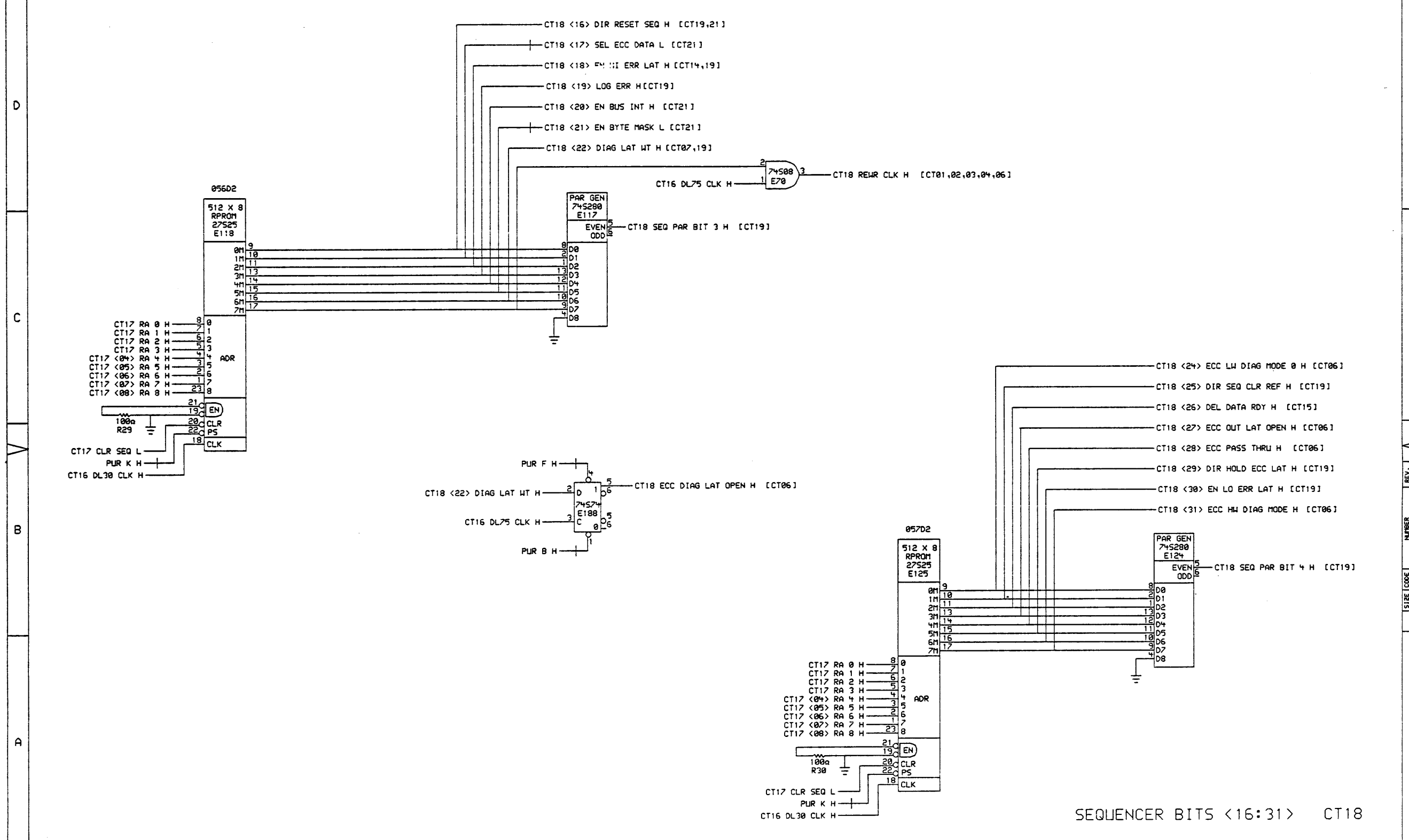


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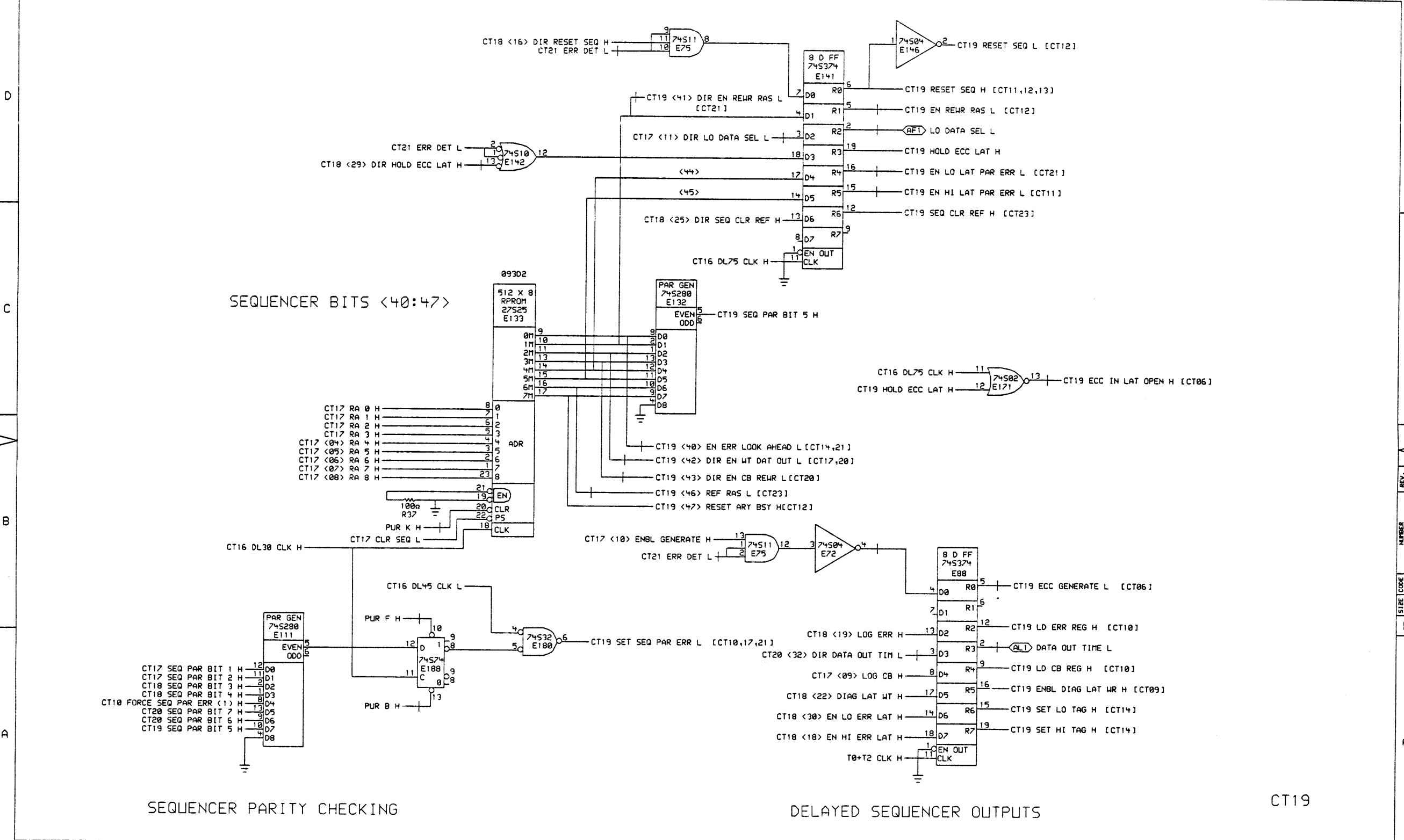
REVISIONS	
CHK	CHANGE NO. REV

digital	DRN: M REID	DATE: 26-JAN-83	ENG: J. LYNCH	DATE: 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK: P. BOSSMAN	DATE: 26-JAN-83	BOARD LOCATION: SHEET 17 OF 24	SIZE: K	CODE: CS
PA: MELOSKI \C32C17.DRW [26-JAN-83 15:44] NEXT HIGHER ASSEMBLY: B-DD-M8375-0				NUMBER: M8375-0-1	REV: C
FIRST USED ON OPTION/MODEL: MS780E					SHO: 1

REV. C  
M8375-0-1  
CS  
K  
B  
A



SEQUENCER BITS <16:31> CT18



CT17 RA 0 H  
CT17 RA 1 H  
CT17 RA 2 H  
CT17 RA 3 H  
CT17 <04> RA 4 H  
CT17 <05> RA 5 H  
CT17 <06> RA 6 H  
CT17 <07> RA 7 H  
CT17 <08> RA 8 H

CT17 SEQ PAR BIT 1 H  
CT17 SEQ PAR BIT 2 H  
CT18 SEQ PAR BIT 3 H  
CT18 SEQ PAR BIT 4 H  
CT10 FORCE SEQ PAR ERR (1) H  
CT20 SEQ PAR BIT 7 H  
CT20 SEQ PAR BIT 6 H  
CT19 SEQ PAR BIT 5 H

SEQUENCER PARITY CHECKING

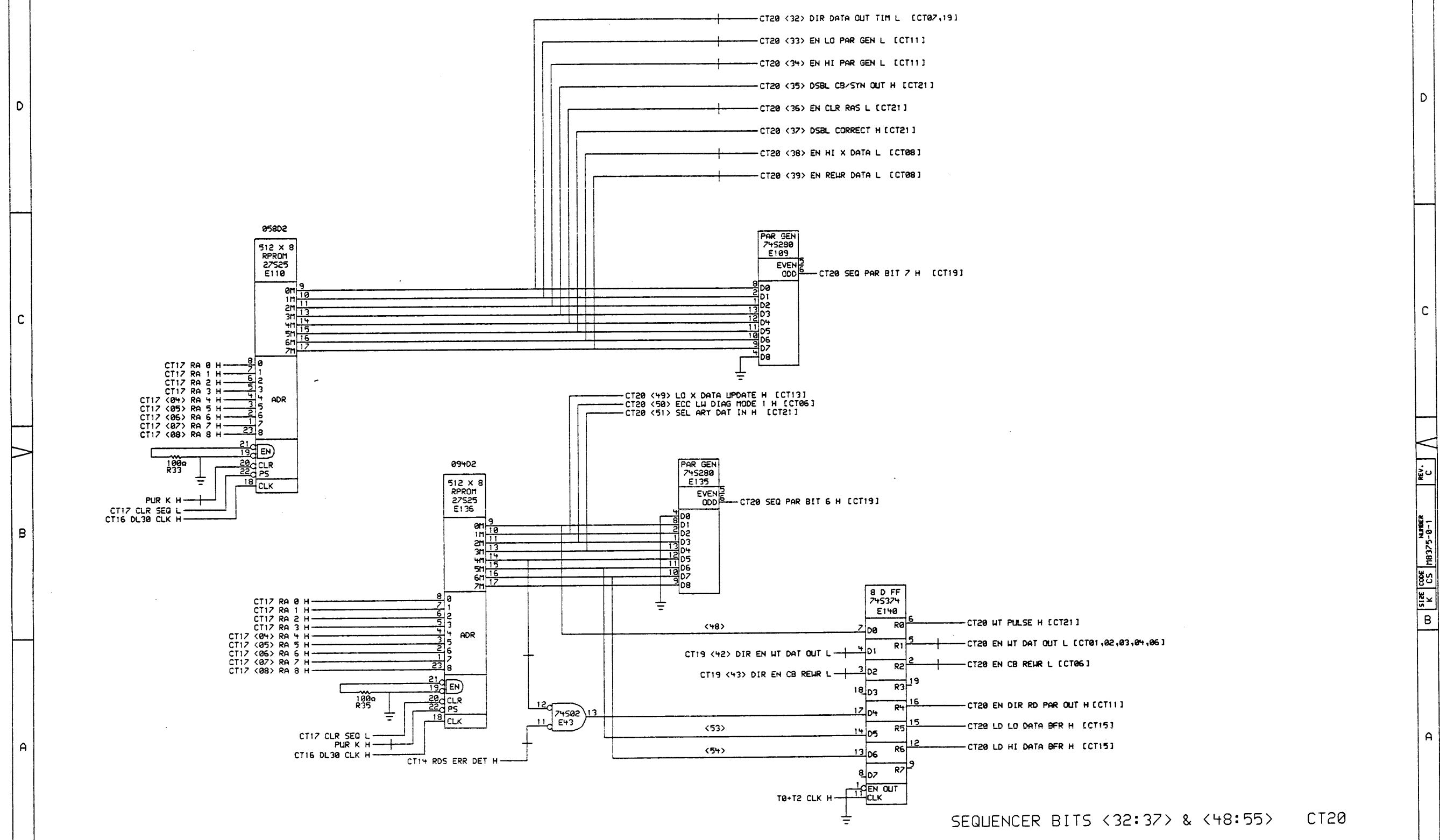
DELAYED SEQUENCER OUTPUTS

CT19

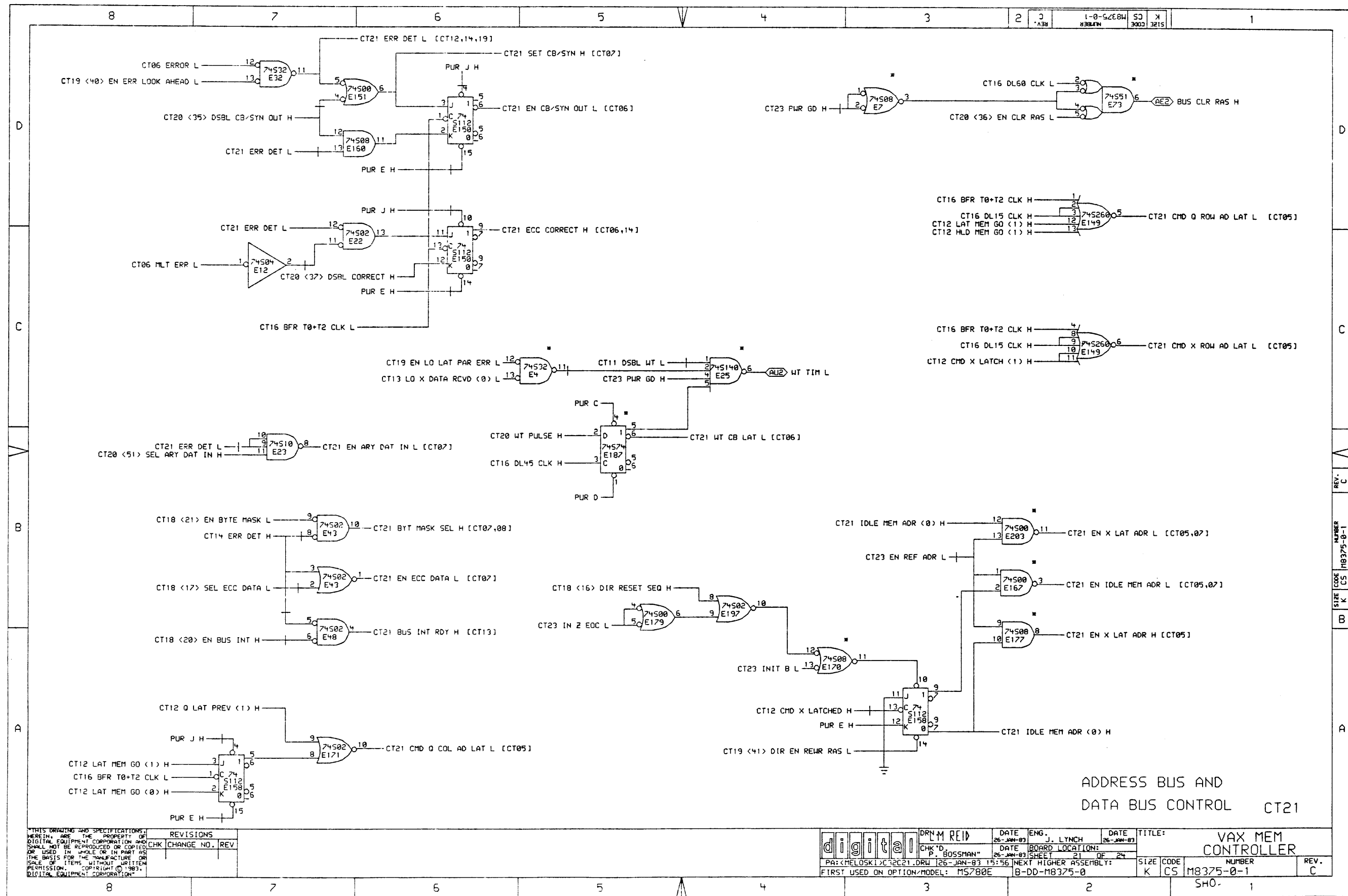
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REV.	CHG	NO.	REV.

digital	DRN L M REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 19	SHEET 19 OF 24	
PA: <MELOSKI>C32C19.DRW		26-JAN-83 15:50	NEXT HIGHER ASSEMBLY: B-DD-M8375-0	SIZE CODE K CS	NUMBER M8375-0-1
FIRST USED ON OPTION-MODEL: MS780E				REV. C	SHO 1



SEQUENCER BITS <32:37> & <48:55> CT20

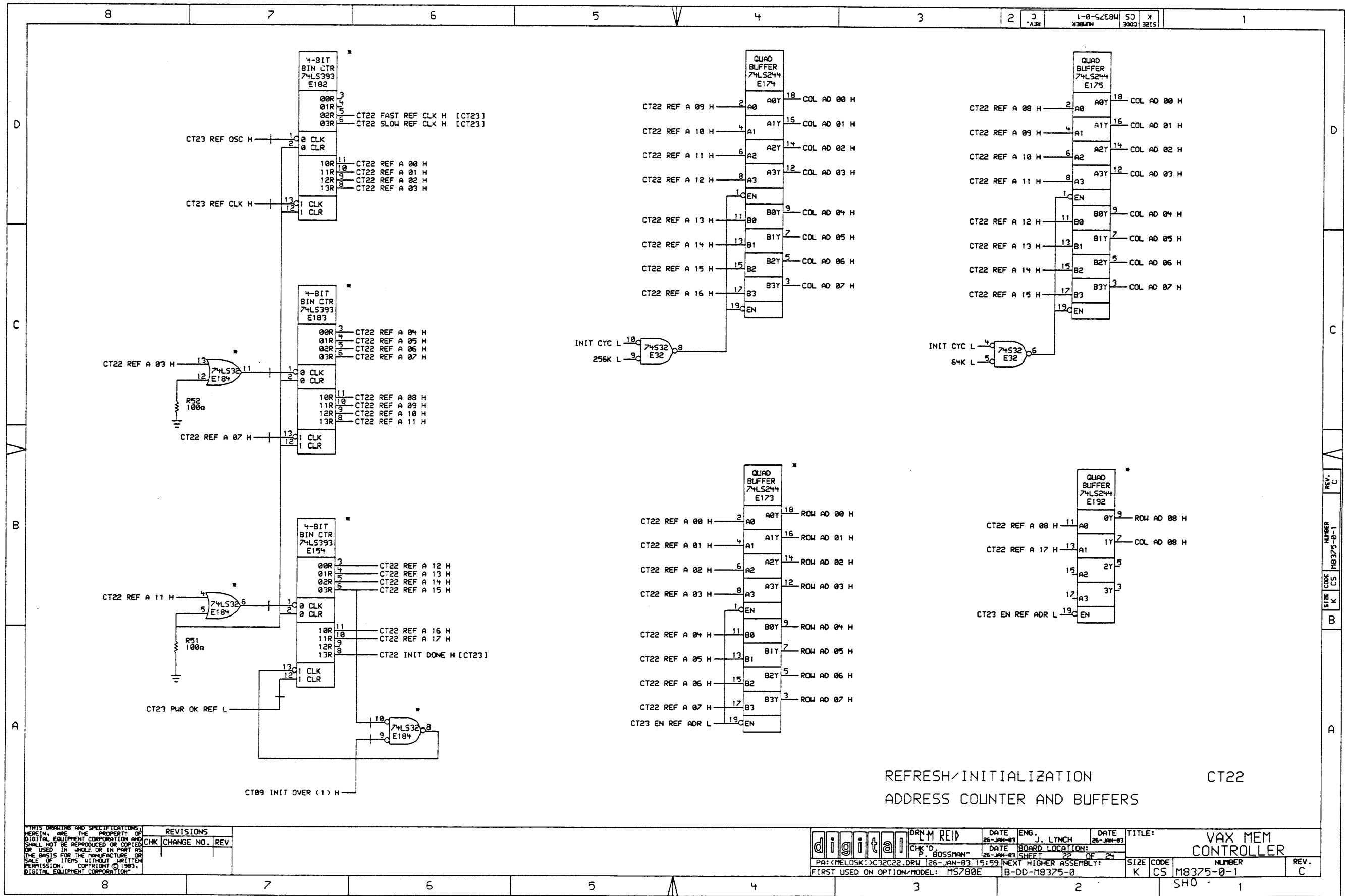


ADDRESS BUS AND  
DATA BUS CONTROL CT21

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRM REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 21	SHEET 21 OF 24	NUMBER 1
PA: <MELOSKI> JC32C21.DRW 126-JAN-83 15:56		NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SIZE CODE K CS	NUMBER M8375-0-1
FIRST USED ON OPTION/MODEL: M5780E				REV. C	SHO-1

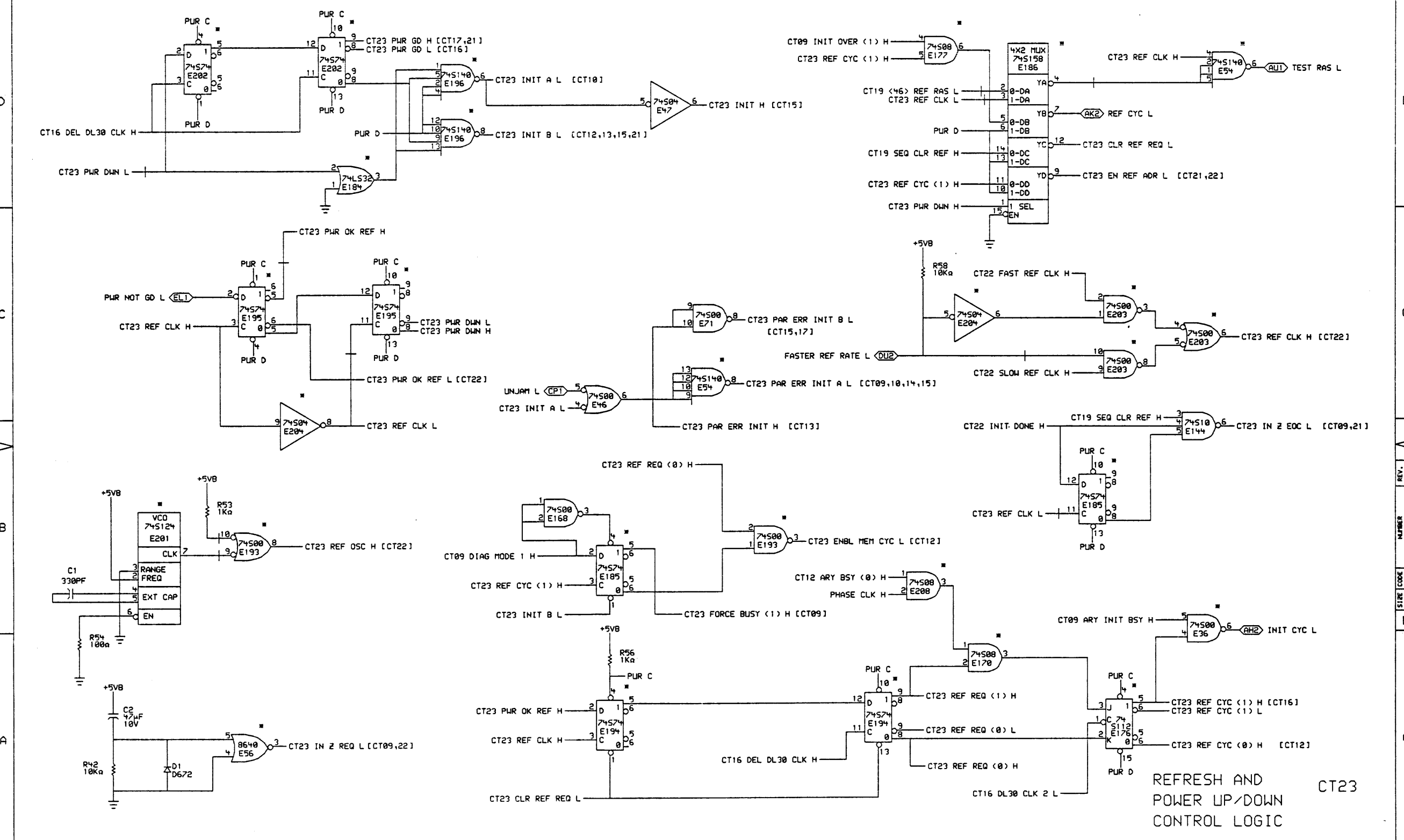


REVISIONS	
CHK	CHANGE NO. REV.

digital	DRM REID	DATE 26-JAN-83	ENG. J. LYNCH	DATE 26-JAN-83	TITLE: VAX MEM CONTROLLER
	CHK'D P. BOSSMAN	DATE 26-JAN-83	BOARD LOCATION: 22 OF 24	SIZE CODE K CS	NUMBER M8375-0-1
FIRST USED ON OPTION/MODEL: M5780E B-DD-M8375-0					REV. C

SHO 1



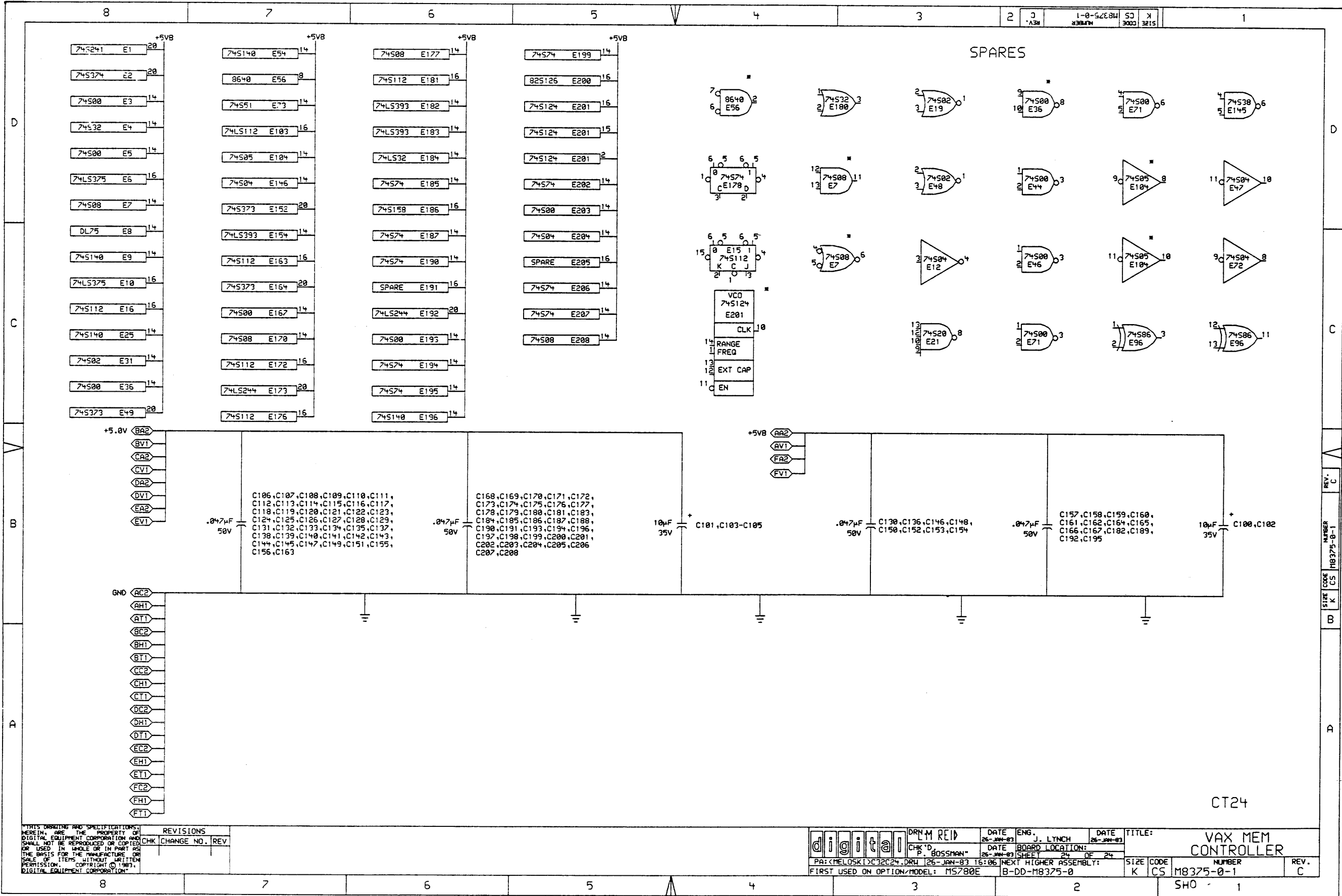


**REFRESH AND  
POWER UP/DOWN  
CONTROL LOGIC**  
CT23

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REV. NO.	CHG. NO.	DESCRIPTION

<b>digital</b>	DRN: M REID	DATE: 26-JAN-83	ENG.: J. LYNCH	DATE: 26-JAN-83	TITLE: VAX MEM CONTROLLER
CHK'D: P. BOSSMAN	DATE: 26-JAN-83	SHEET: 23	OF: 24	BOARD LOCATION:	
PA: MELOSKE IXC32C23.DRW	126-JAN-83 16:03	NEXT HIGHER ASSEMBLY: B-DD-M8375-0		SIZE: K	CODE: CS
FIRST USED ON OPTION/MODEL: M5780E				NUMBER: M8375-0-1	REV.: C



REV.	NO.	DATE	ENG.	DATE
1	1	26-JAN-83	J. LYNCH	26-JAN-83

**REVISIONS**  
CHK CHANGE NO. REV

**digital** DRN M REID  
CHK'D P. BOSSMAN  
DATE 26-JAN-83  
SHEET 24 OF 24

DATE	26-JAN-83	ENG.	J. LYNCH	DATE	26-JAN-83
CHK'D	P. BOSSMAN	DATE	26-JAN-83	SHEET	24 OF 24
PRJ	MELOSKI/3C32C24.DR1	DATE	26-JAN-83	TIME	16:06
FIRST USED ON OPTION/MODEL:		B-DD-M8375-0		SIZE	K CS

TITLE: VAX MEM CONTROLLER  
NUMBER M8375-0-1  
REV. C

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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1	E-UA-M8375-0-0	UNIT ASSY	REF	
2	2	B-DD-M8375-0	DRAWING DIRECTORY	REF	
3	3	D-MD-5015116-0-0	CIRCUIT DRILL & ETCH	REF	
4	4	D-EC-5015116-0-0	ETCH CUT DRAWING	REF	
5	5	D-CS-M8375-0-1	CIRCUIT SCHEMATIC	REF	
6	6	5015116-00	DRILL AND ETCH BRD.	1	
7	7	1000023-00	330.0 MMF 100V 5%200PPM MICA	1	C1
8	8	1012784-00	.047 MFD 50V +80-20% CER	103	C106-C208
9	9	1016549-00	47 MFD 10V +50-10% AL EL	1	C2
10	10	1017472-00	10 MFD 35V +50-10% AL EL	6	C100-C105
11	11	1105275-00	D 672 TR= 15NS PIV= 60V SI	1	B1
12	12	1300229-00	100.0 .25 W 5.0 % CC	10	R25,R26,R29,R30,R33,R35,R37,R51, R52,R54
13	13	1300365-00	1.0 K .25 W 5.0 % CC	31	R2-R23,R43-R46,R53,R55-R57,R59
14	14	1300479-00	10.0 K .25 W 5.0 % CC	3	R39,R42,R58
15	15	1616322-00	DELAY= .75NS,STAPS	1	E8
16	16	1910532-00	74S00 NAND GATE-QUAD 2IN	13	E3,E5,E26,E36,E44,E46,E71,E151, E167,E168,E179,E193,E203
17	18	1910534-00	74S04 INVERTER GATE-HEX 1I	6	E12,E47,E55,E72,E146,E204
18	19	1910535-00	74S05 INVERTER GATE-HEX 1	1	E104
19	20	1910536-00	74S10 NAND GATE-TRIPLE 3IN	5	E23,E27,E64,E142,E144
20	21	1910537-00	74S11 AND GATE-TRIPLE 3INP	1	E75
21	22	1910539-00	74S20 NAND GATE-DUAL 4INPU	3	E21,E63,E156
22	23	1910542-00	74S64 A-O-I GATE 4-2-3-2	2	E157,E161
23	24	1910544-00	74S74 FF-D DUAL,EDGE TRIGG	15	E13,E37,E45,E178,E185,E187-E190, E194,E195,E199,E202,E206,E207
24	25	1910545-00	74S112 FF-JK DUAL,EDGE TRIG	17	E14-E17,E24,E34,E35,E74,E150, E158,E159,E162,E163,E169,E172, E176,E181
25	26	1910546-00	74S140 NAND GATE-DUAL 4INPU	4	E9,E25,E54,E196

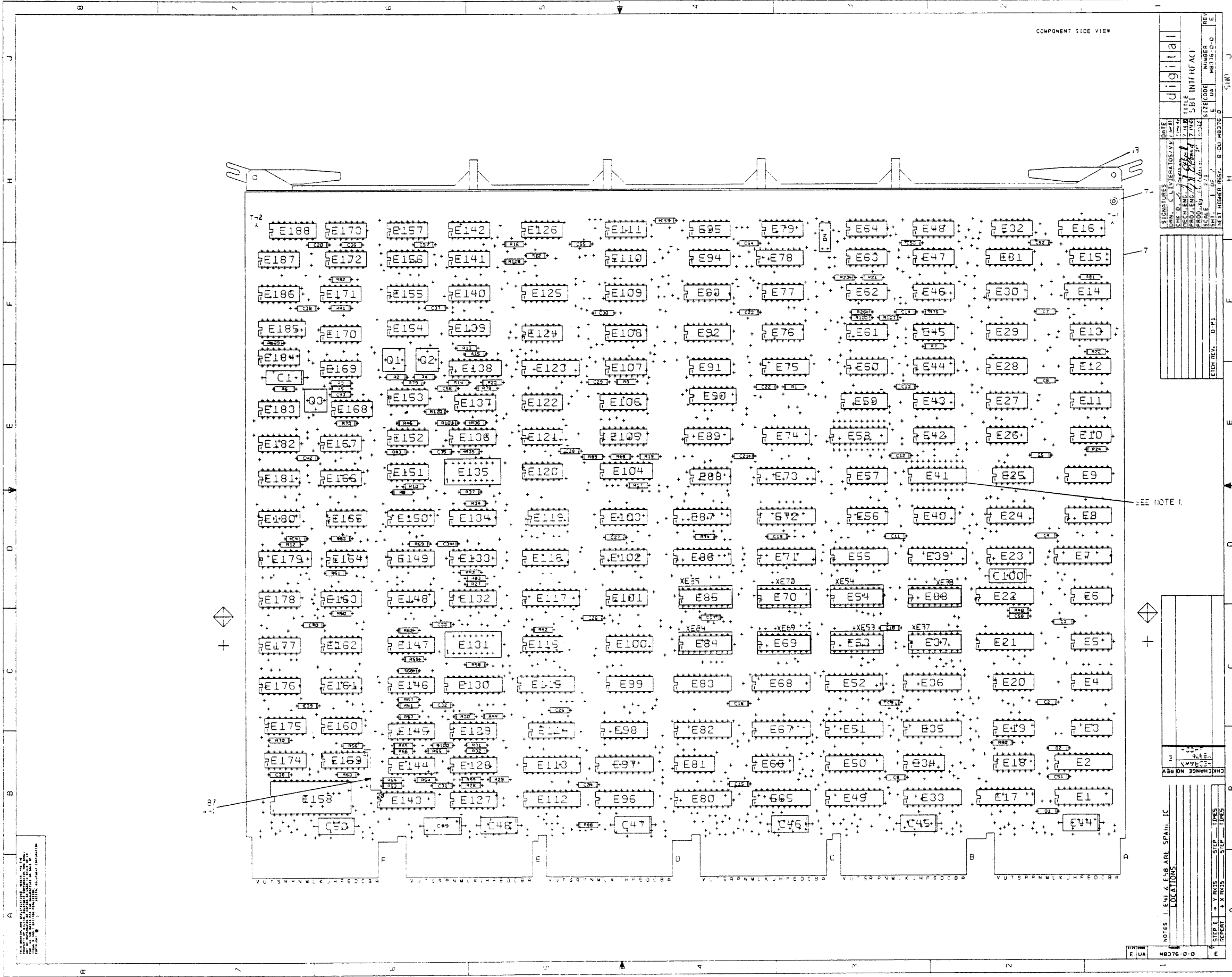
REVISION HISTORY		BASIC PART NO: M8375		DRN:	D. DINGELDEIN	DATE:	20-APR-82	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	G. MARCEAU	DATE:	30-JUL-82	TITLE PARTS LIST			
	INITIAL	A	SECTION VARIATION INDEX					VAX MEM CNTL MODULE			
			[A] 00					DOCUMENT NUMBER			
			[B]					SIZE CODE NUMBER REV			
			[C]	DES.ENG:	J. LYNCH	DATE:	19-JUL-82	K PL M8375-0-DBF A			
			[D]								
			[E]	RESP.ENG.:	J. LYNCH	DATE:	19-JUL-82				
			[F]								
			[G]								
			[H]								
			[I]	MFG.ENG.:	E. BALL	DATE:	19-AUG-82				
			[J]								
			[K]								
			[L]								
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
			[N]	E-UA-M8375-0-0		B-DD-M8375-0		Z2711A.PLS		15	

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
26	27		1910547-00	74S153 MUX 1 OF 4 (DUAL)	2		E81,E82
27	28		1910548-00	74S157 MUX 1 OF 2 (QUAD)	1		E198
28	29		1910549-00	74S158 MUX 1 OF 2 (QUAD)	5		E51,E58,E65,E83,E186
29	30		1910550-00	74S174 FF-D HEX	2		E53,E89
30	31		1910957-00	74S175 FF-D QUAD COMMON CLO	1		E76
31	32		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	1		E56
32	33		1911573-00	74S290 PARITY GEN/CHKR,9BIT	13		E12,E94,E101,E109,E111,E117, CONT E124,E127,E128,E130-E132,E135
33	34		1911712-00	74S51 AND-OR GATE-INVERT D	1		E73
34	35		1911911-00	DEC 74S124 OSCILLATOR,DUAL VOLT	1		E201
35	36		1912096-00	DEC 74S86 XOR GATE,QUAD 2IN	1		E96
36	37		1912388-00	74S02 NOR GATE-QUAD 2IN,PO	9		E19,E22,E28,E31,E43,E48,E147, CONT E171,E197
37	38		1912389-00	74S08 AND GATE-QUAD 2IN,PO	10		E7,E29,E62,E70,E148,E160,E170, CONT E177,E208,E209
38	39		1912816-00	LS32 OR GATE-QUAD 2IN,POS	1		E184
39	40		1912834-00	LS112 FF-JK,DUAL,EDGE TRIG	1		E103
40	41		1912871-00	LS375 LATCH	2		E6,E10
41	42		1913340-00	74S32 OR GATE-QUAD 2IN	3		E4,E32,E180
42	43		1913462-00	74S240 OCTAL BUFFER,INVERTI	3		E30,E40,E57
43	44		1913493-00	74S241 OCTAL BUFFER,TRI-STA	9		E1,E52,E60,E61,E105,E107,E121, CONT E123,E143
44	45		1913670-00	74S373 LATCH 8BIT TRASP TR	29		E11,E20,E38,E39,E49,E50,E66-E69, CONT E77-E80,E84-E87,E90-E93,E119, CONT E126,E137,E152,E153,E164,E165
45	46		1913671-00	74S374 FF-D OCTAL TRISTATE	22		E2,E41,E59,E88,E97-E100,E106, CONT E108,E112-E116,E120,E122,E129, CONT E134,E140,E141,E166
46	47		1914085-00	74S260 NOR GATE-DUAL,POS	3		E18,E149,E155
47	48		1914451-00	74LS393 COUNTER,BINARY,4BIT	3		E154,E182,E183
48	49		1915019-00	74S38 NAND BUFFER-QUAD 2IN	2		E33,E145
49	50		1915193-00	LS244 DRIVER,LINE,OCTAL,T	4		E173-E175,E192
50	51		1918822-00	2960 ERROR DETECTOR/CORRE	2		E138,E139
51	52		23372A2-00	A2-02,A2-04	1		E200
52	53		23054D2-00	D2-02	1		E95
53	54		23055D2-00	D2-02	1		E102
54	55		23056D2-00	D2-02	1		E118
55	56		23057D2-00	D2-02	1		E125
56	57		23058D2-00	D2-02	1		E110
57	58		23059D2-00	D2-02	1		E133
58	59		23060D2-00	D2-02	1		E136
59	60		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	1		W1
60	61		1219911-01	SKT,IC 24PIN DIP	7		XE95,XE102,XE118,XE125,XE110, CONT XE133,XE136
61	62		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1		
62	63		9105740-55	WIRE(WRAP) 30AWG KYNAR UL14	A/R		
63	64		9000024-01	EYELET,ROLLED 0.1210DX0.192	12		

TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
VAX MEM CNTL MODULE	SECTION A OF A	K	PL	MS375-0-DBP	A

COMPONENT SIDE VIEW



SEE NOTE 1.

SIGNATURES	DATE	TITLE	NUMBER
DATE	7/12/74	581 INT'RY AC1	M8376-D-0
DRAWN	J. H. B.		
CHECKED	J. H. B.		
PROJECT	581 INT'RY AC1		
PART NUMBER	M8376-D-0		
ETCH REV.			

ETCH REV.	D P 1
-----------	-------

CHANGE NO	REV
1	1

NOTES	1. E41 & E48 ARE SPARE IC LOCATIONS
STEP	1
REPORT	
STEP	1
LINKS	

E/UA M8376-D-0

8 6 5 4 3 2 1

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CORPORATION 1977  
DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS:  
ECC # 4  
WIRE ALL SILE 11  
4-1. ALD WIPE FROM E149-20 TO E150-9.

J  
H  
F  
E  
D  
C  
B  
A

J  
H  
F  
E  
D  
C  
B  
A

REVISION HISTORY		
DATE	ECC NUMBER	REV

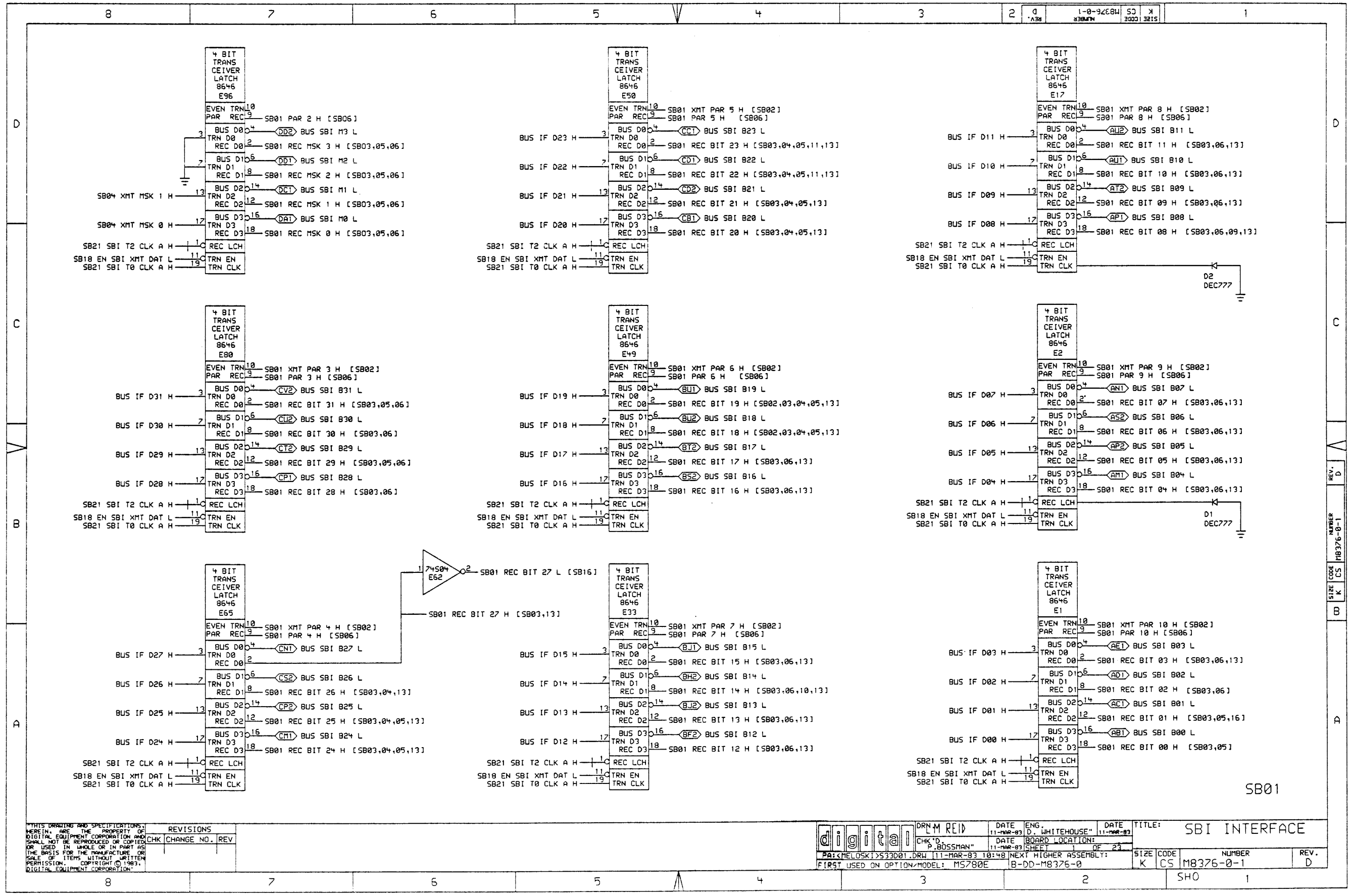
TITLE  
SBI INTERFACE

DOCUMENT NUMBER	
REV	NUMBER
E	UA MB376-B-0

SCALE: --- SHEET 2 OF 2

8 7 6 5 4 3 2 SHO 1

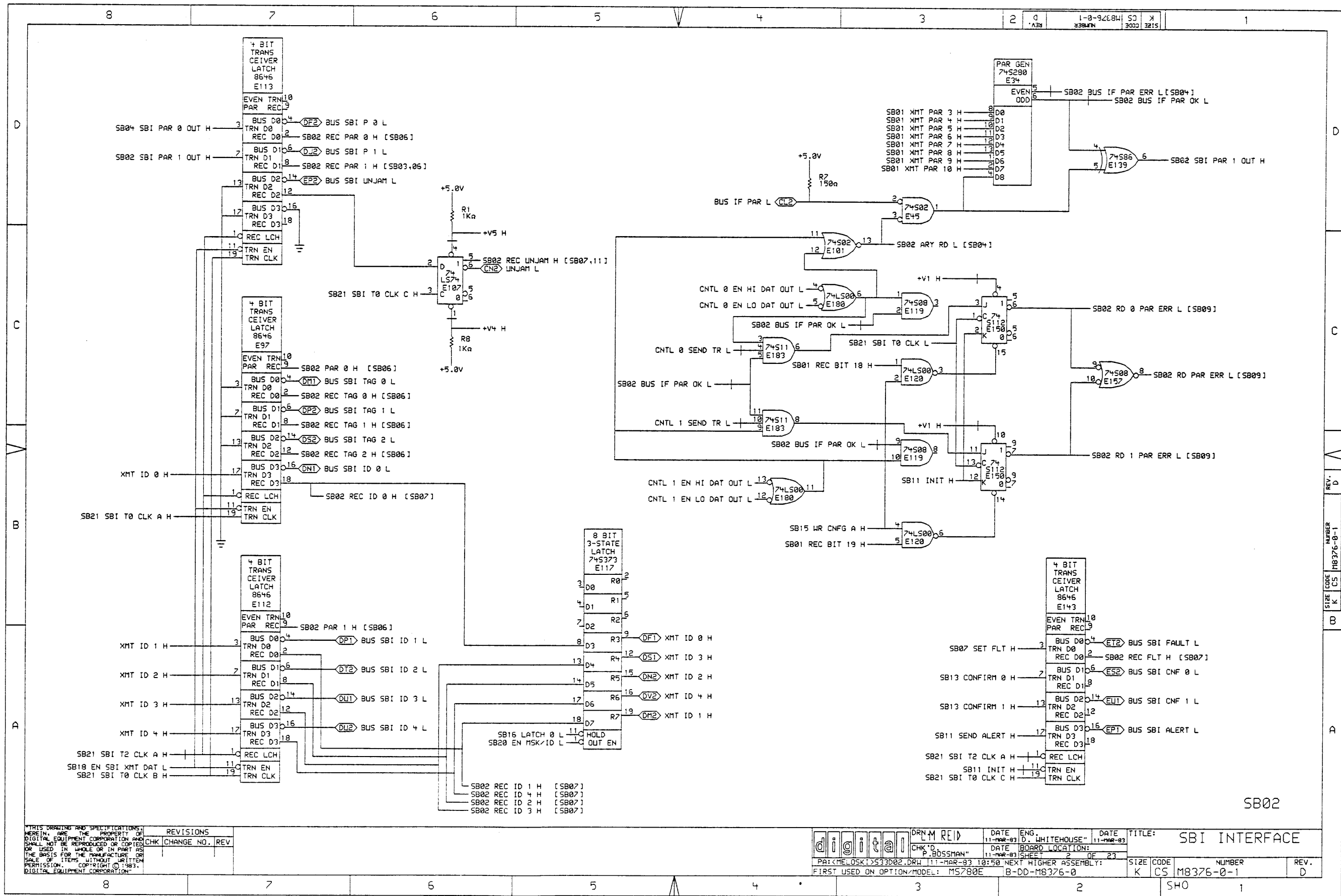
REV. CODE  
E UA MB376-B-0  
REV. NO.  
1



SB01

REVISIONS	
CHK	CHANGE NO. REV

	DRN M REID	DATE 11-MAR-83	ENG. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: 1 OF 23	SHEET	
PA: MELOSKI > S33001.DRW 11-MAR-83 10:48 NEXT HIGHER ASSEMBLY:			SIZE CODE K CS	NUMBER M8376-0-1	REV. D
FIRST USED ON OPTION/MODEL: M5780E			B-DD-M8376-0		



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REVISIONS	
CHK	CHANGE NO. REV

digital	DRM REID	DATE	ENG.	DATE	TITLE:
	CHK'D	11-MAR-83	D. WHITEHOUSE	11-MAR-83	SBI INTERFACE
P. BOSSMAN		DATE	BOARD LOCATION:		
		11-MAR-83	SHEET	2 OF 23	
PA:\MELOSKI\S33D02.DRW 11-MAR-83 10:50 NEXT HIGHER ASSEMBLY:					SIZE
FIRST USED ON OPTION/MODEL: M5780E B-DD-M8376-0					CODE
					NUMBER
					REV.
					D

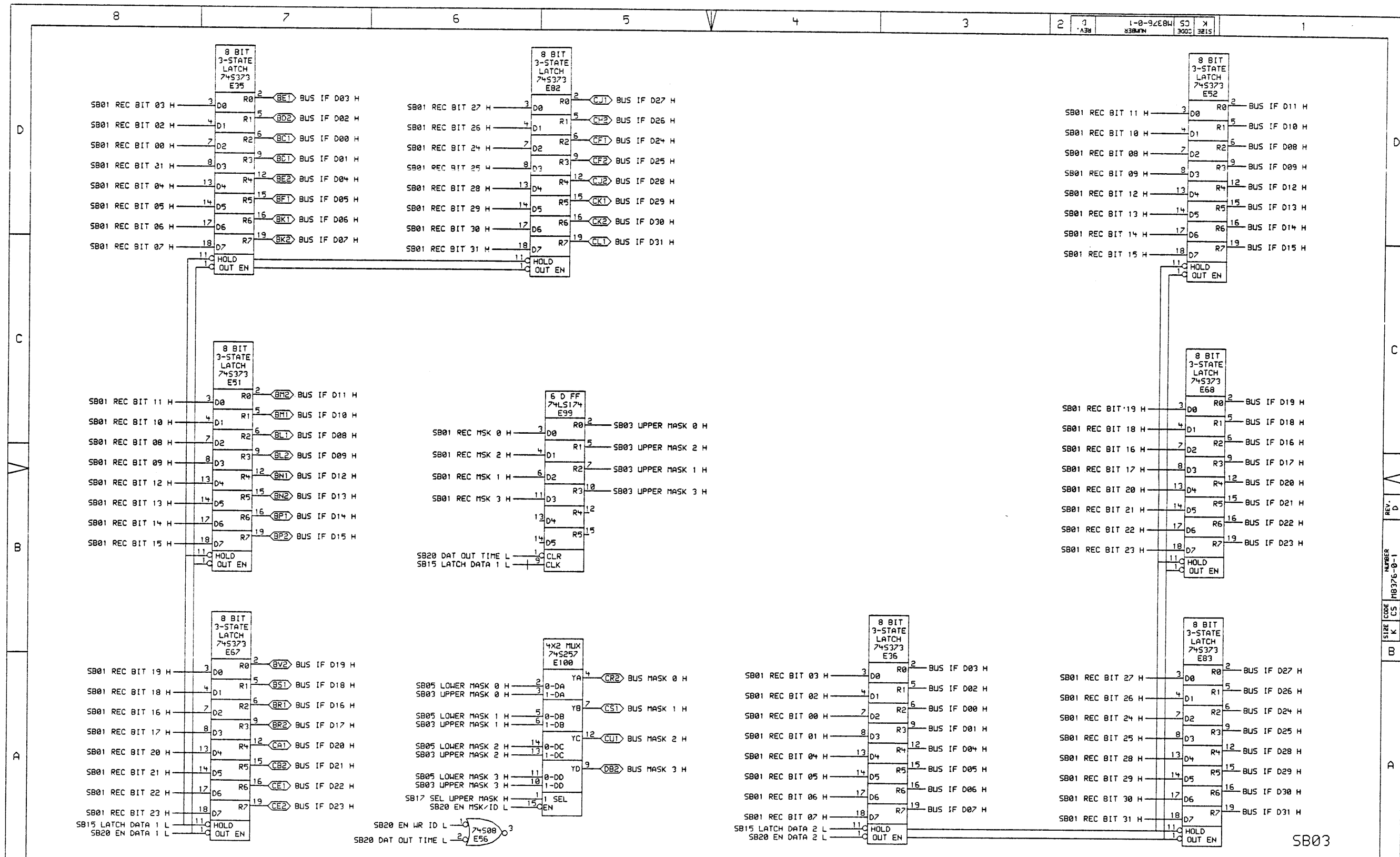
REV. D  
NUMBER 18376-0-1  
SIZE CODE K CS

B

A

SB02



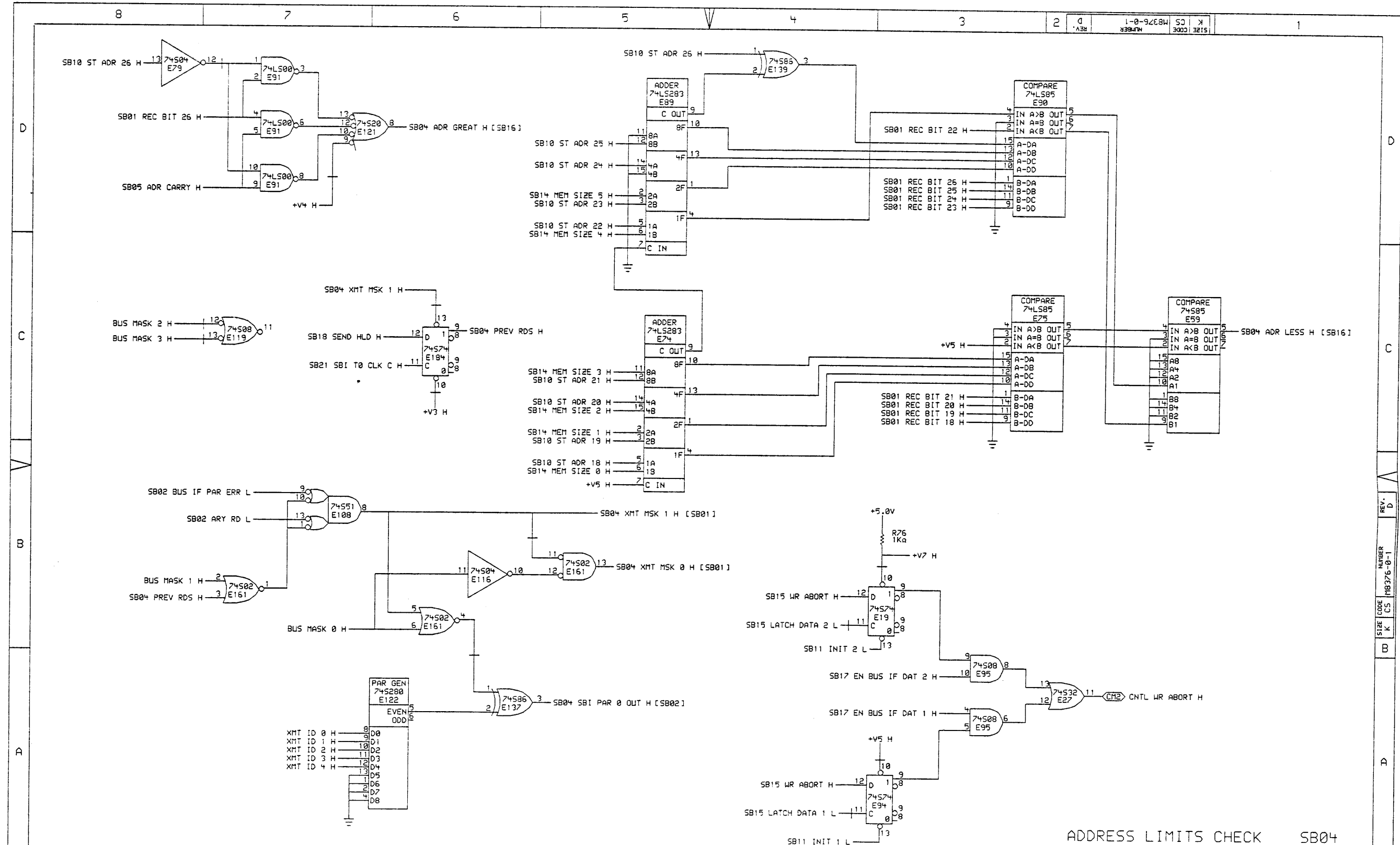


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REV.	DATE	ENG.	DRN	CHK'D	DATE	BOARD LOCATION	SHEET	OF
D	11-MAR-83	D. WHITEHOUSE		P. BOSSMAN	11-MAR-83		3	23

CHK	CHANGE NO.	REV

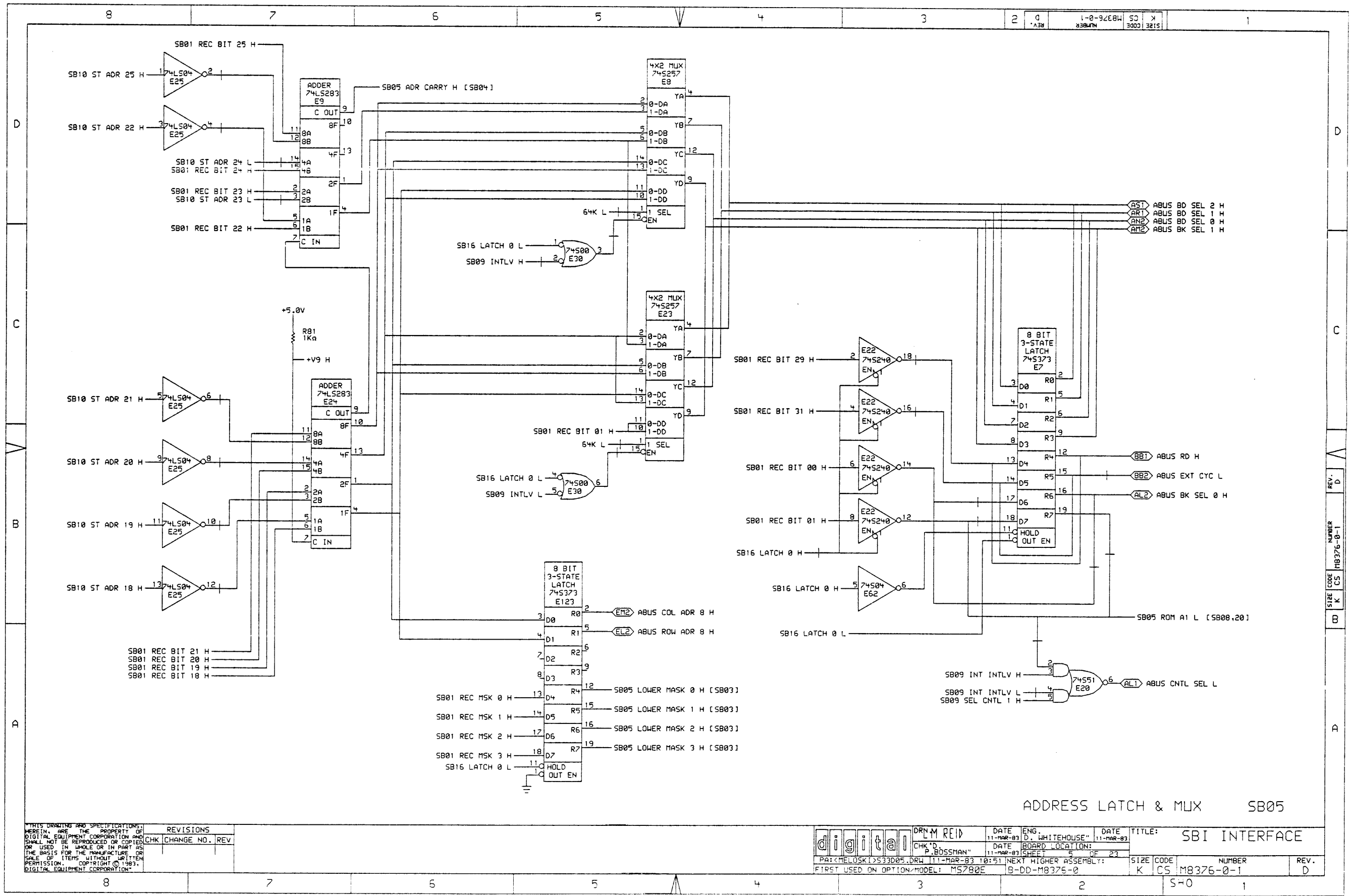
SIZE	CODE	NUMBER	REV.
K	CS	M8376-0-1	D



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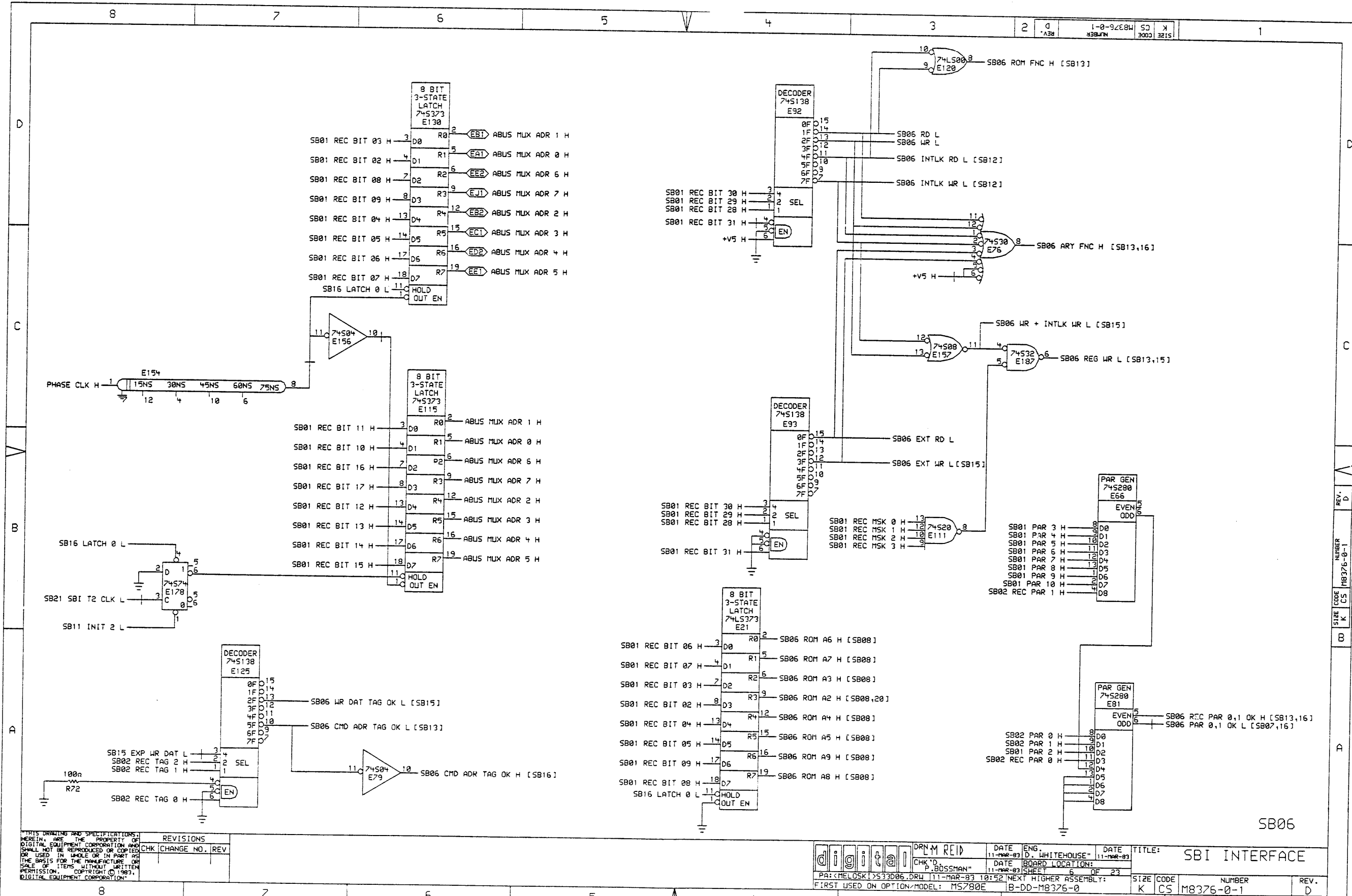
REV.	CHK	CHANGE NO.	REV.

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	CHK'D	P. BOSSMAN	DATE BOARD LOCATION:	11-MAR-83	SHEET	4 OF 23	SIZE CODE	NUMBER
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FIRST USED ON OPTION/MODEL: MS780E								



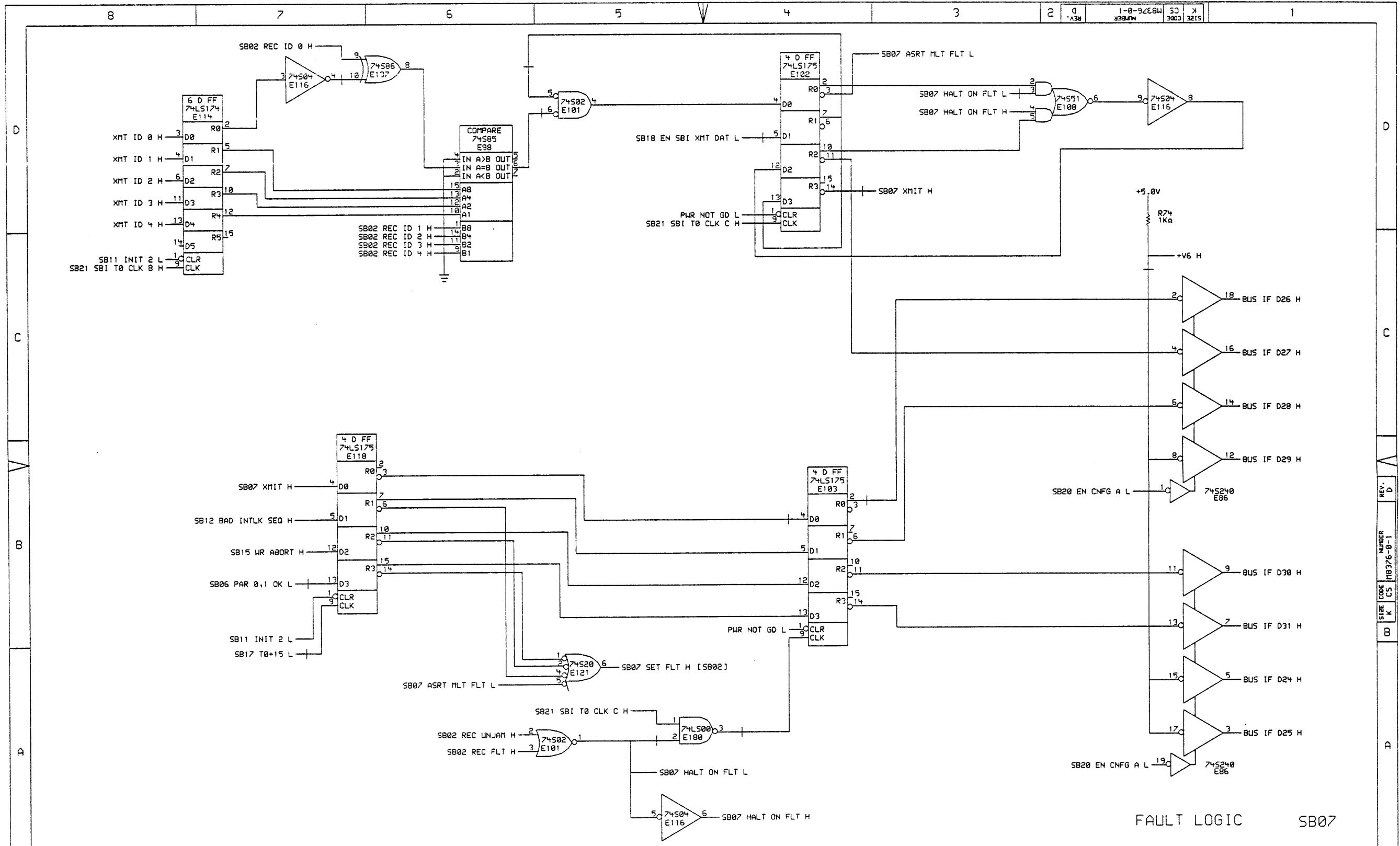
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2	1	REVISIONS
3	1	CHG
4	1	CHANGE NO.
5	1	REV

digital	DRM REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION:	74551	SHEET 5 OF 23	SIZE CODE K CS M8376-0-1
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FIRST USED ON OPTION MODEL: MS280E					



REV. NO.	DESCRIPTION
1	INITIAL ISSUE
2	REVISIONS
3	CHG CHANGE NO. REV

digital	DRN: M REID	DATE: 11-MAR-83	ENG: D. WHITEHOUSE	DATE: 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D: P. BOSSMAN	DATE: 11-MAR-83	BOARD LOCATION: 6 OF 23		
PA: MELOSKI\533006.DRW		11-MAR-83	10:52	NEXT HIGHER ASSEMBLY:	SIZE: K
FIRST USED ON OPTION: MODEL: MS280E		B-DD-M8376-0		NUMBER: CS M8376-0-1	REV. D



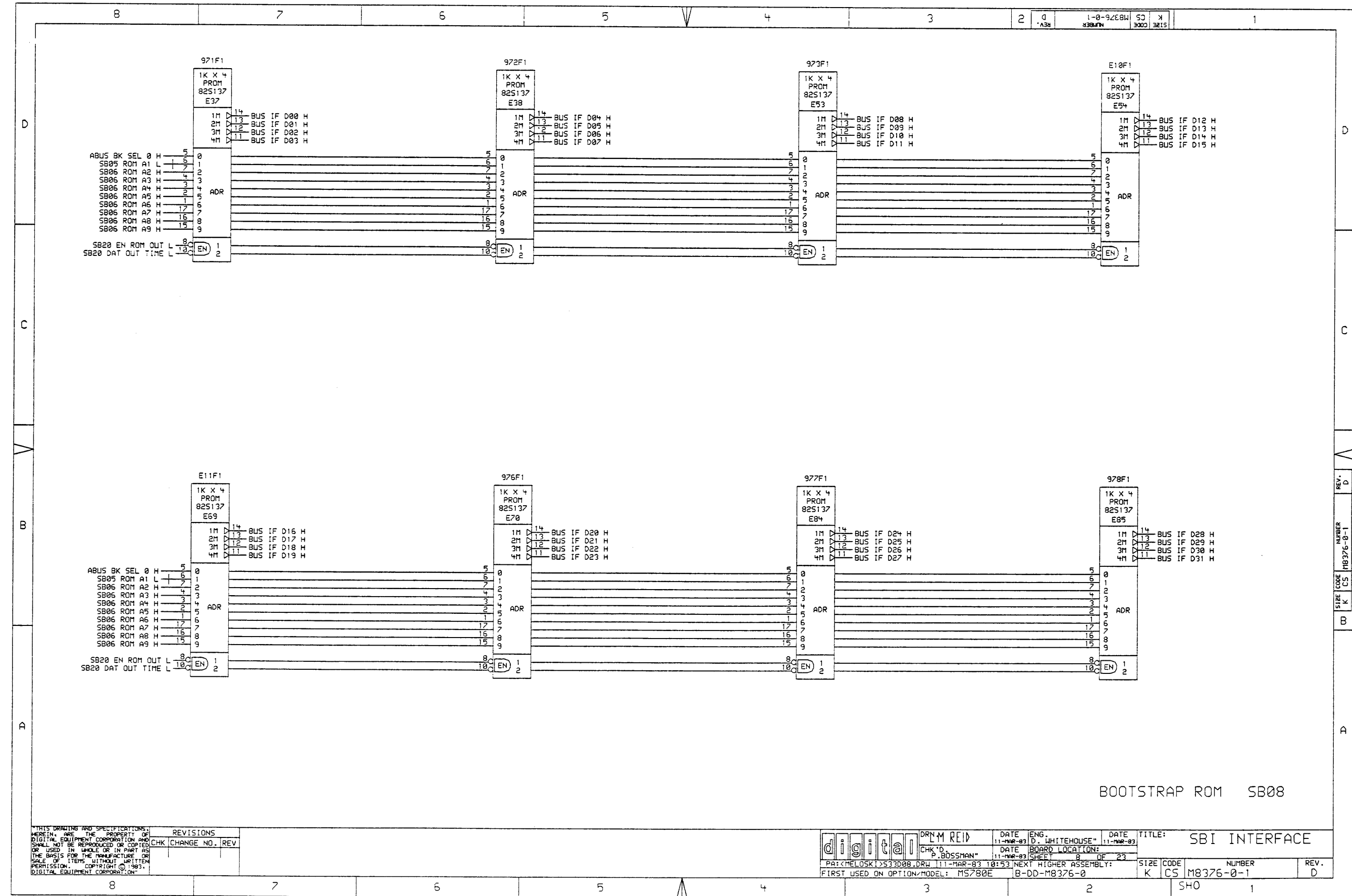
FAULT LOGIC SB07

REVISIONS	
CHK	CHANGE NO. REV

DRM REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
CHK'D. P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION:	SHEET 2 OF 23	SIZE CODE K CS
FIRST USED ON OPTION/MODEL: M5780E		NEXT HIGHER ASSEMBLY: B-DD-M8376-0		NUMBER M8376-0-1

PA: <MELOSKI>S33D07.DRW	11-MAR-83 10:53	SHO	1
-------------------------	-----------------	-----	---

REV. D

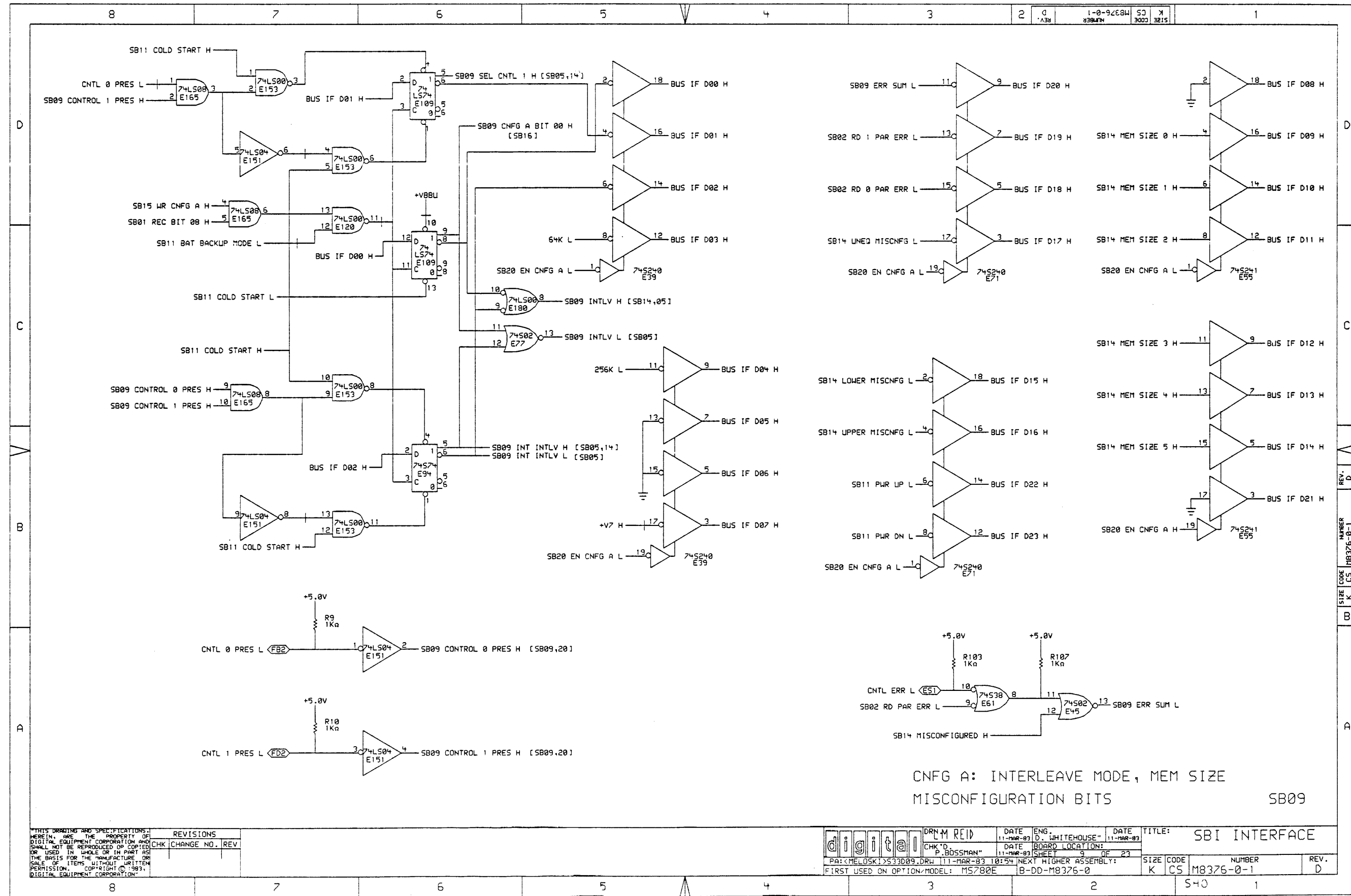


BOOTSTRAP ROM SB08

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN M REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: SHEET 8 OF 23	SIZE CODE K CS	NUMBER M8376-0-1
FIRST USED ON OPTION/MODEL: M5780E		B-DD-M8376-0		REV. D	SHO 1



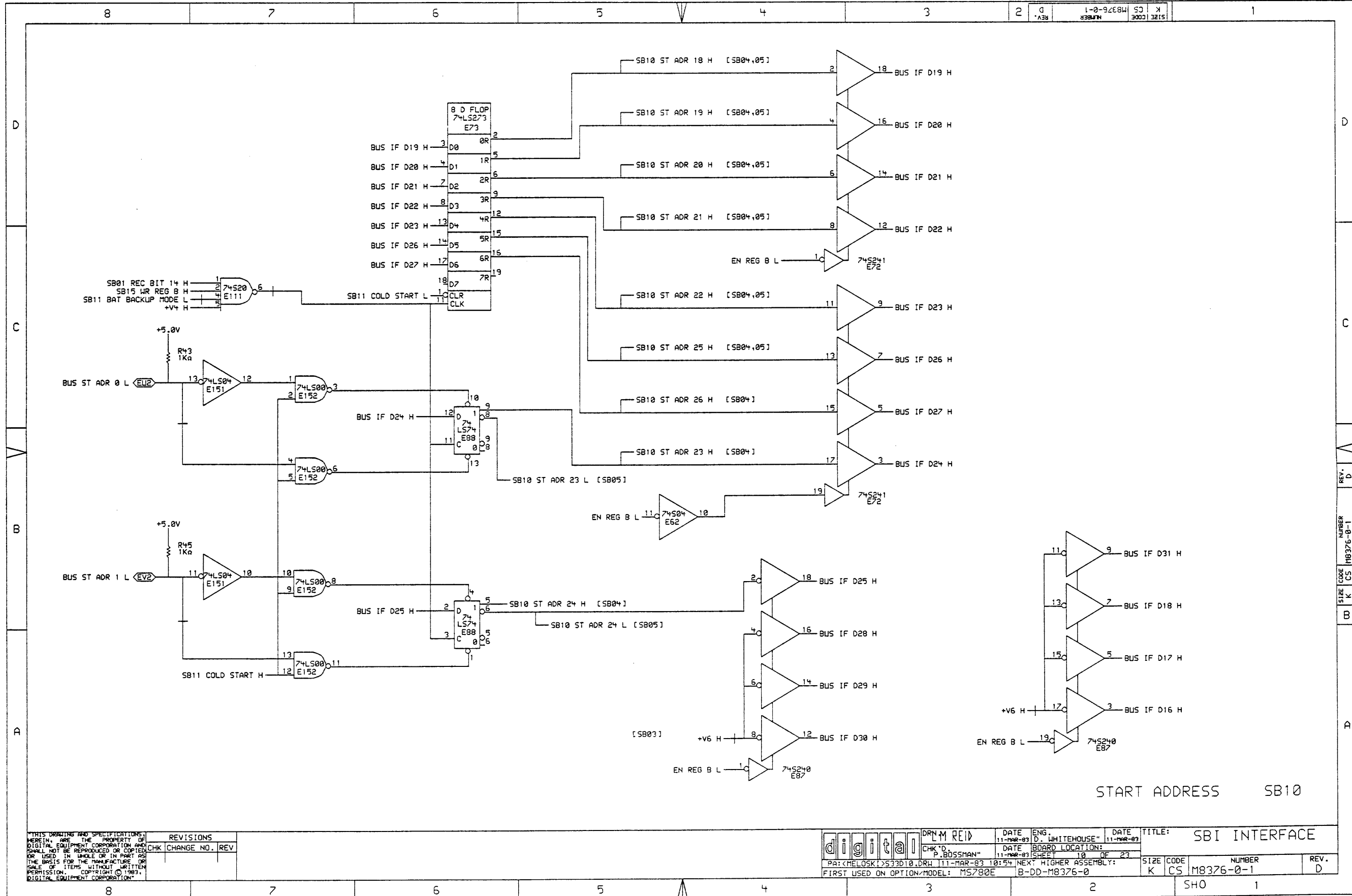
CFG A: INTERLEAVE MODE, MEM SIZE  
 MISCONFIGURATION BITS SB09

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REV.	DATE	DESCRIPTION
1	11-MAR-83	INITIAL RELEASE

REV.	DATE	DESCRIPTION
1	11-MAR-83	INITIAL RELEASE

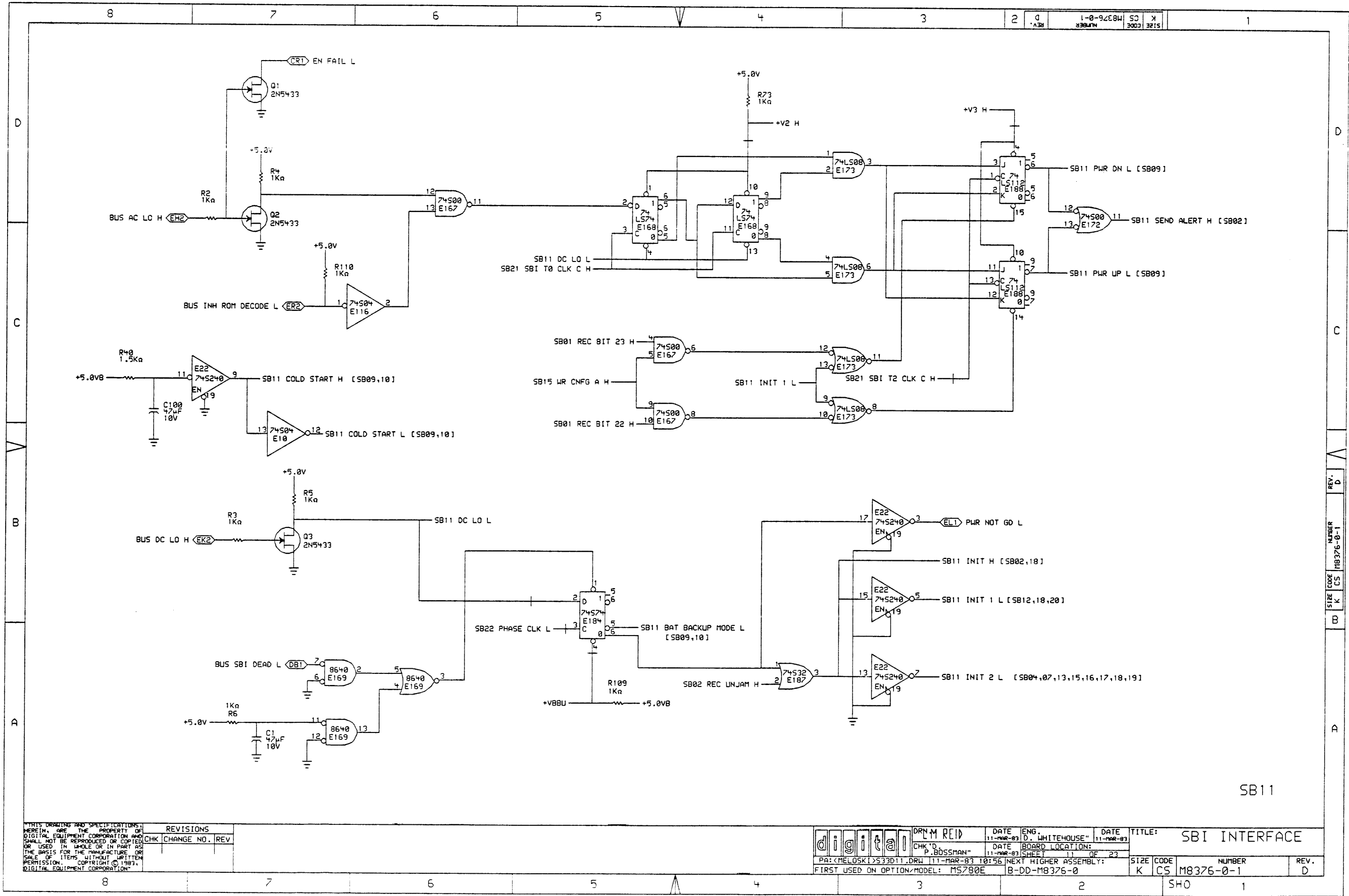
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	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION:	SHEET 3 OF 23	
PA: MELOSKI; 2533D09.DRW 11-MAR-83 10:54			NEXT HIGHER ASSEMBLY:		SIZE CODE K CS
FIRST USED ON OPTION/MODEL: MS780E			B-DD-M8376-0		NUMBER M8376-0-1
					REV. D



REVISIONS	
CHK	CHANGE NO. REV

digital	DRM REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D. P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: SHEET 10 OF 23		
PA: <MELOSKI>S33D10.DRW 11-MAR-83 10:54 NEXT: HIGHER ASSEMBLY: B-DD-M8376-0				SIZE CODE K CS	NUMBER M8376-0-1
FIRST USED ON OPTION/MODEL: MS780E					REV. D



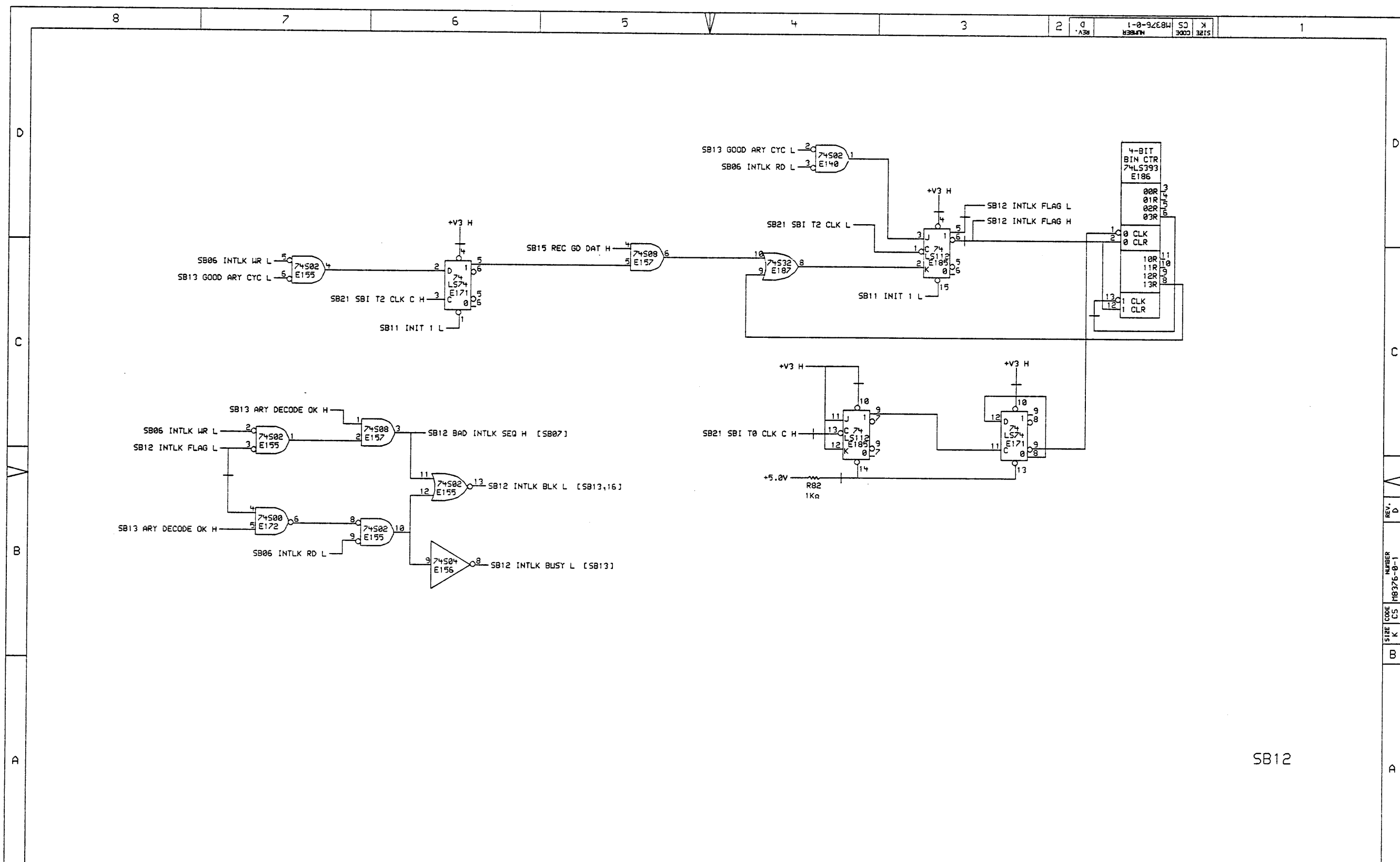


SB11

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REVISIONS	
CHK	CHANGE NO. REV

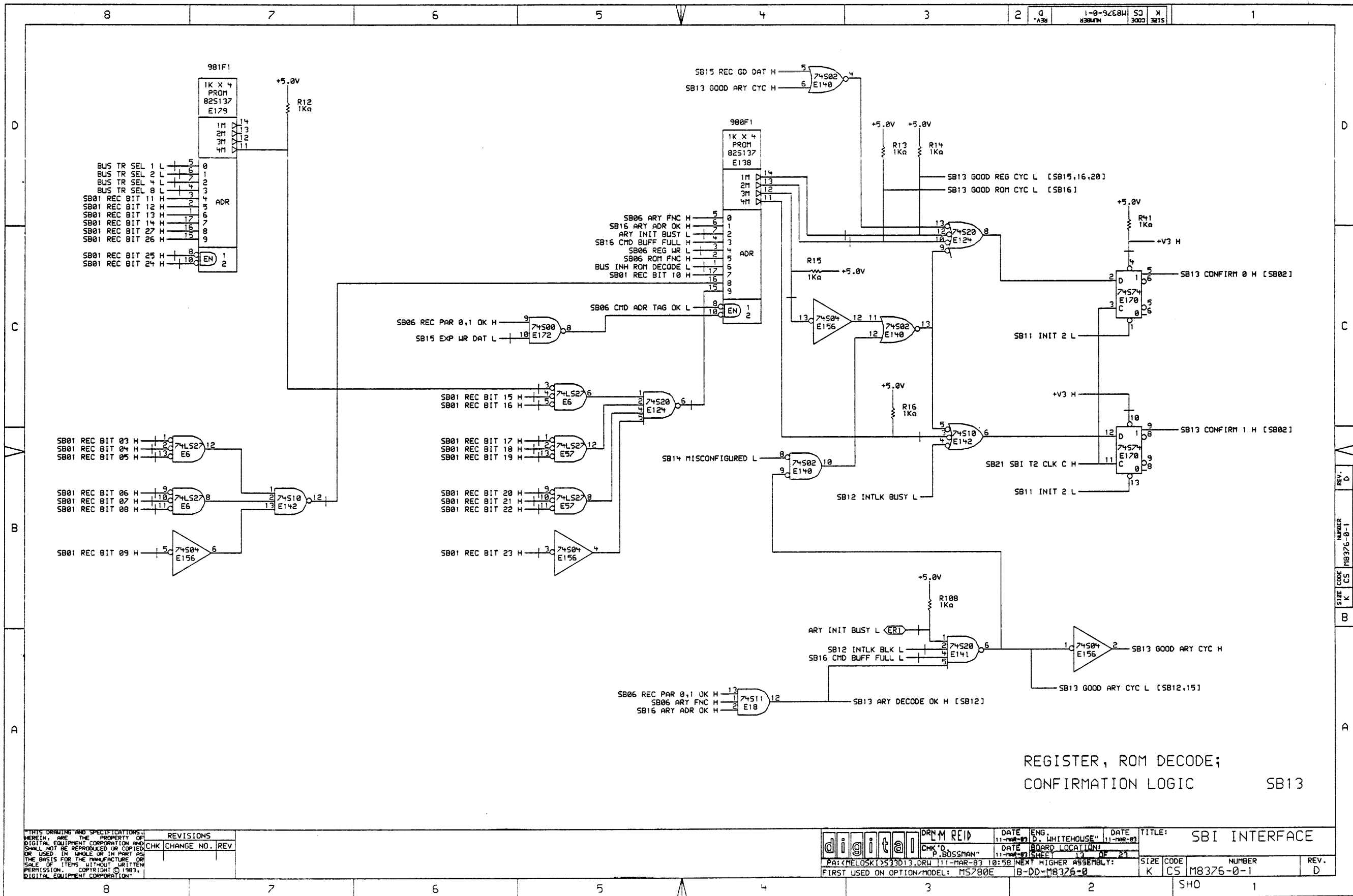
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	CHK'D P. BOSSMAN	DATE BOARD LOCATION: 11-MAR-83	SHEET 11 OF 23	SIZE CODE K CS
PA: (MELOSK1)S33011.DRW 11-MAR-83 10:56 NEXT HIGHER ASSEMBLY: B-DD-M8376-0				NUMBER M8376-0-1
FIRST USED ON OPTION/MODEL: MS780E				REV. D



SB12

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PA:MELOSKI\S33D12.DRW 11-MAR-83 10:57 NEXT HIGHER ASSEMBLY:				FIRST USED ON OPTION/MODEL: MS780E B-DD-M8376-0		SIZE CODE NUMBER REV. K CS M8376-0-1 D		SHO 1	

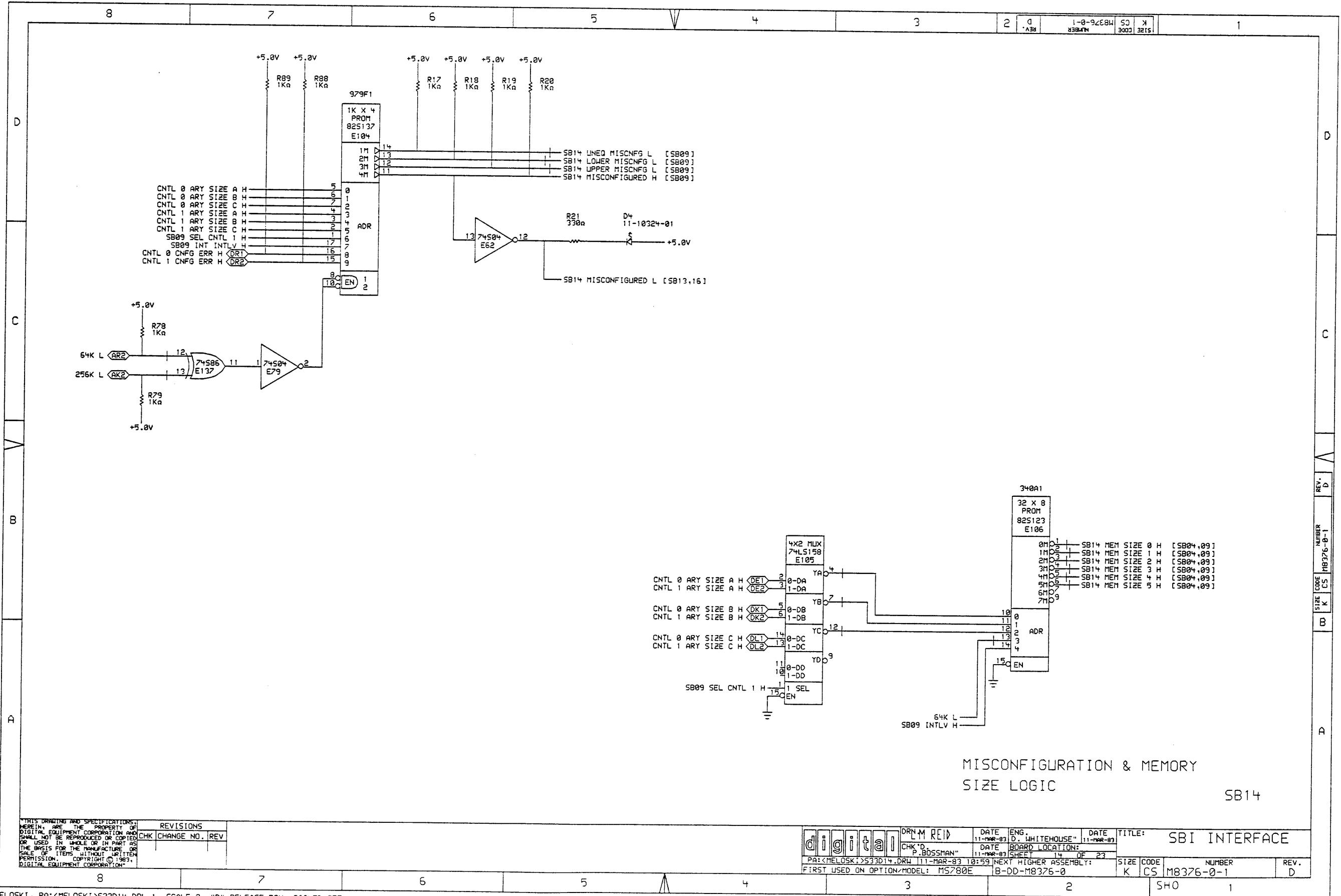
REV. D  
 NUMBER M8376-0-1  
 SIZE CODE K CS  
 B



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REV.	CHG.	NO.	REV.

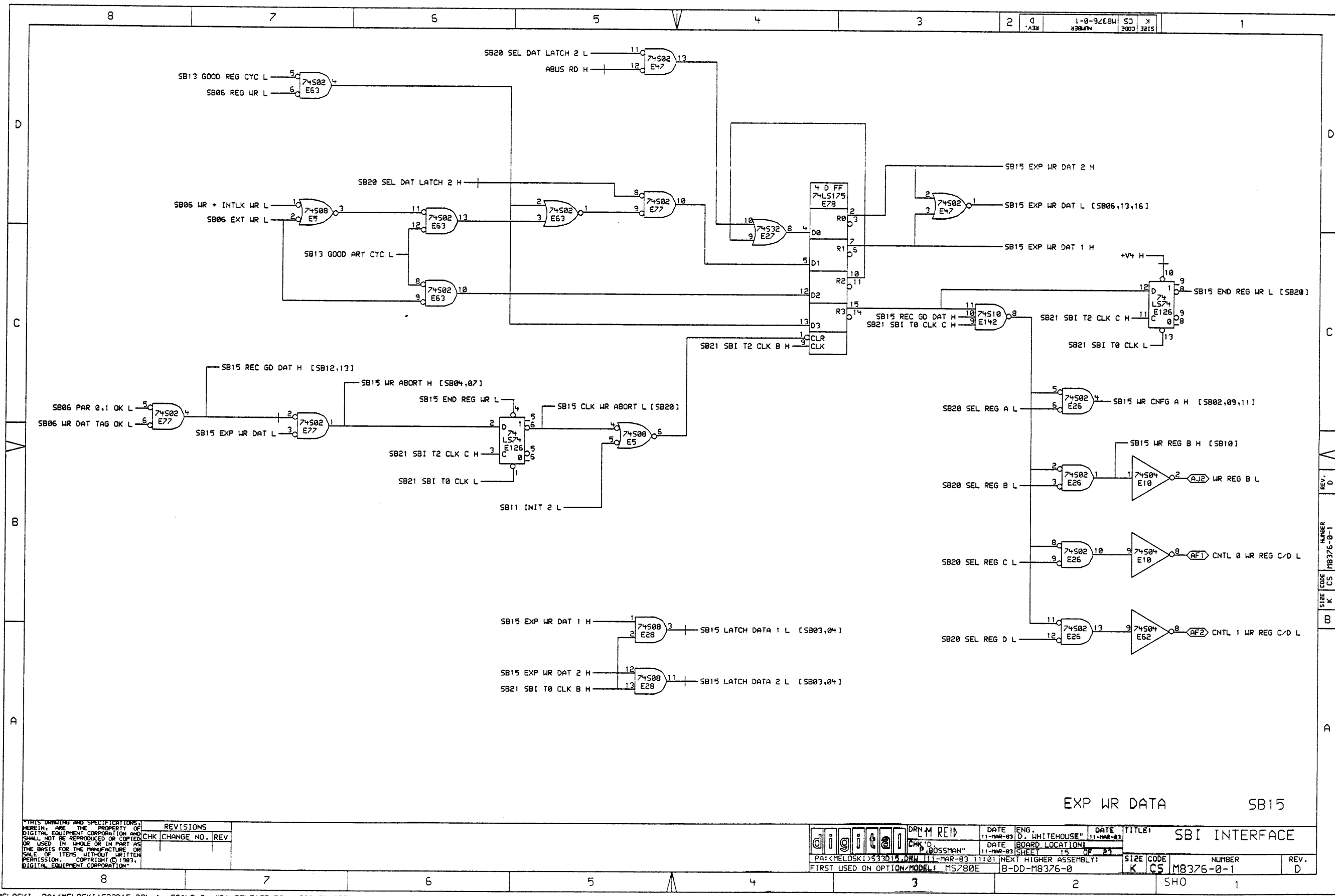
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	CHK: BOSSMAN	DATE: 11-1980-83	BOARD LOCATION: 13	SHEET: 13	OF: 23
PA: (MELOSKI)S33013.DRW 11-MAR-83 10:58 NEXT HIGHER ASSEMBLY:			SIZE: K	CODE: CS	NUMBER: M8376-0-1
FIRST USED ON OPTION/MODEL: MS780E			REV.:	D	



MISCONFIGURATION & MEMORY SIZE LOGIC SB14

REVISIONS		
CHK	CHANGE NO.	REV

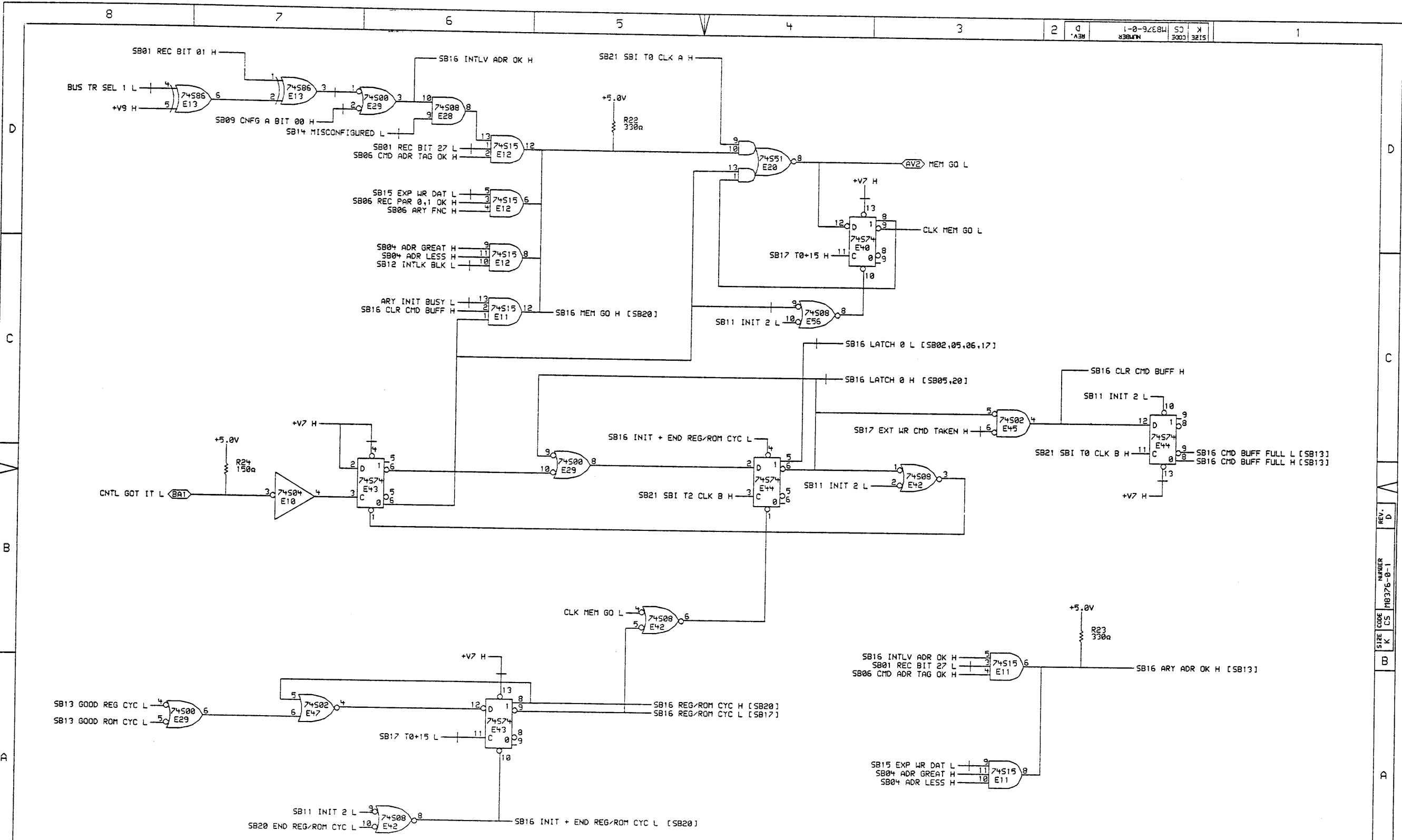
digital	DRM REID	DATE 11-MAR-83	ENG. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: 14 DE 23		
PA: <MELOSKI>S33D14.DRW		NEXT HIGHER ASSEMBLY: B-DD-M8376-0		SIZE CODE K CS	NUMBER M8376-0-1
FIRST USED ON OPTION/MODEL: MS780E					REV. D



EXP WR DATA SB15

REVISIONS	
CHK	CHANGE NO. REV

	DRM REID	DATE	ENG.	DATE	TITLE
	CHK'D P. BOSSMAN	11-MAR-83	D. WHITEHOUSE	11-MAR-83	SBI INTERFACE
PA: MELOSKI 1533015.DRW		11-MAR-83 11:01	NEXT HIGHER ASSEMBLY:		SIZE CODE
FIRST USED ON OPTION/MODEL: MS780E		B-DD-M8376-0	NUMBER		REV.
			K CS M8376-0-1		D

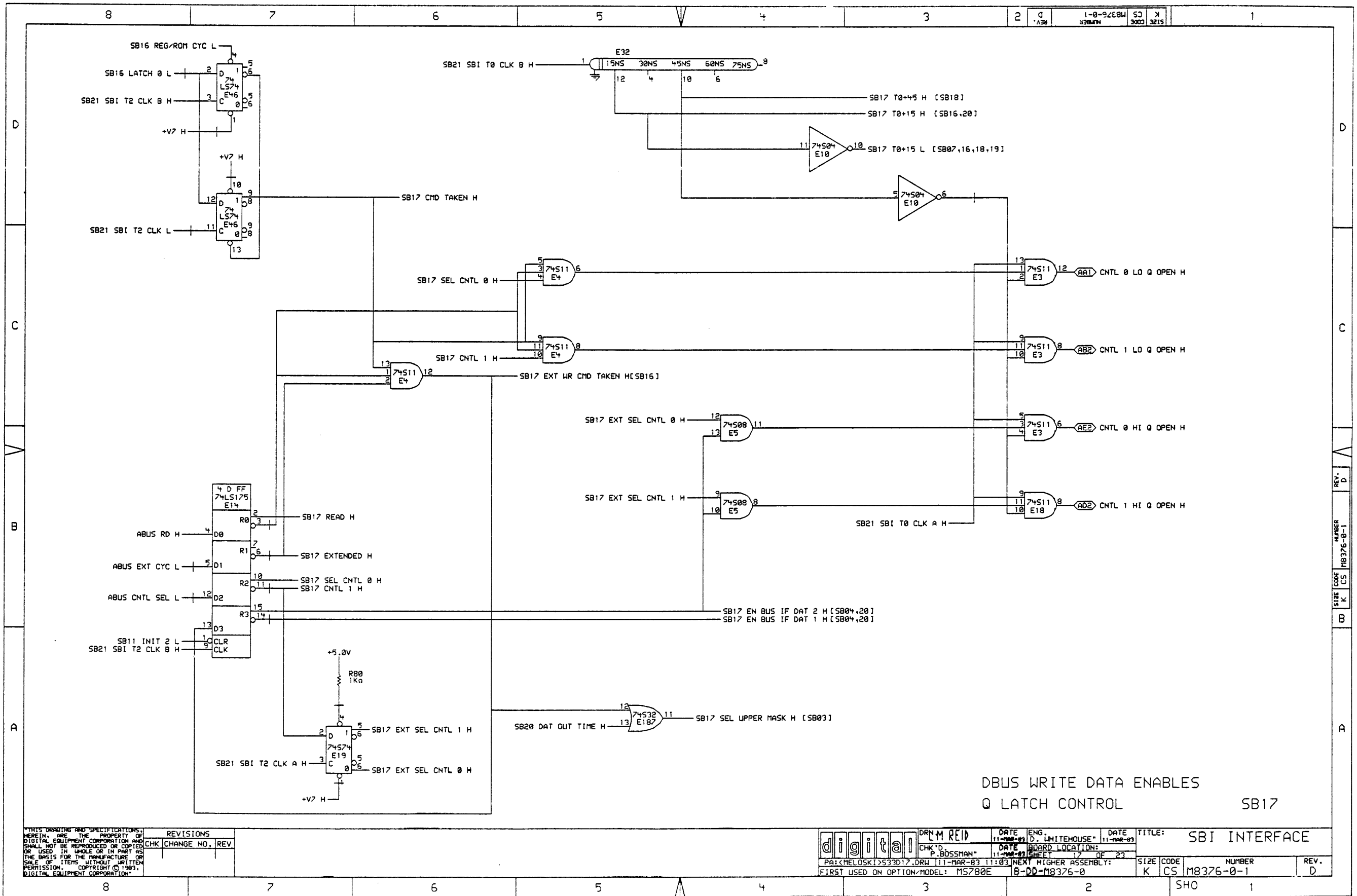


MEM GO LOGIC SB16

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REVISIONS	
CHK	CHANGE NO. / REV

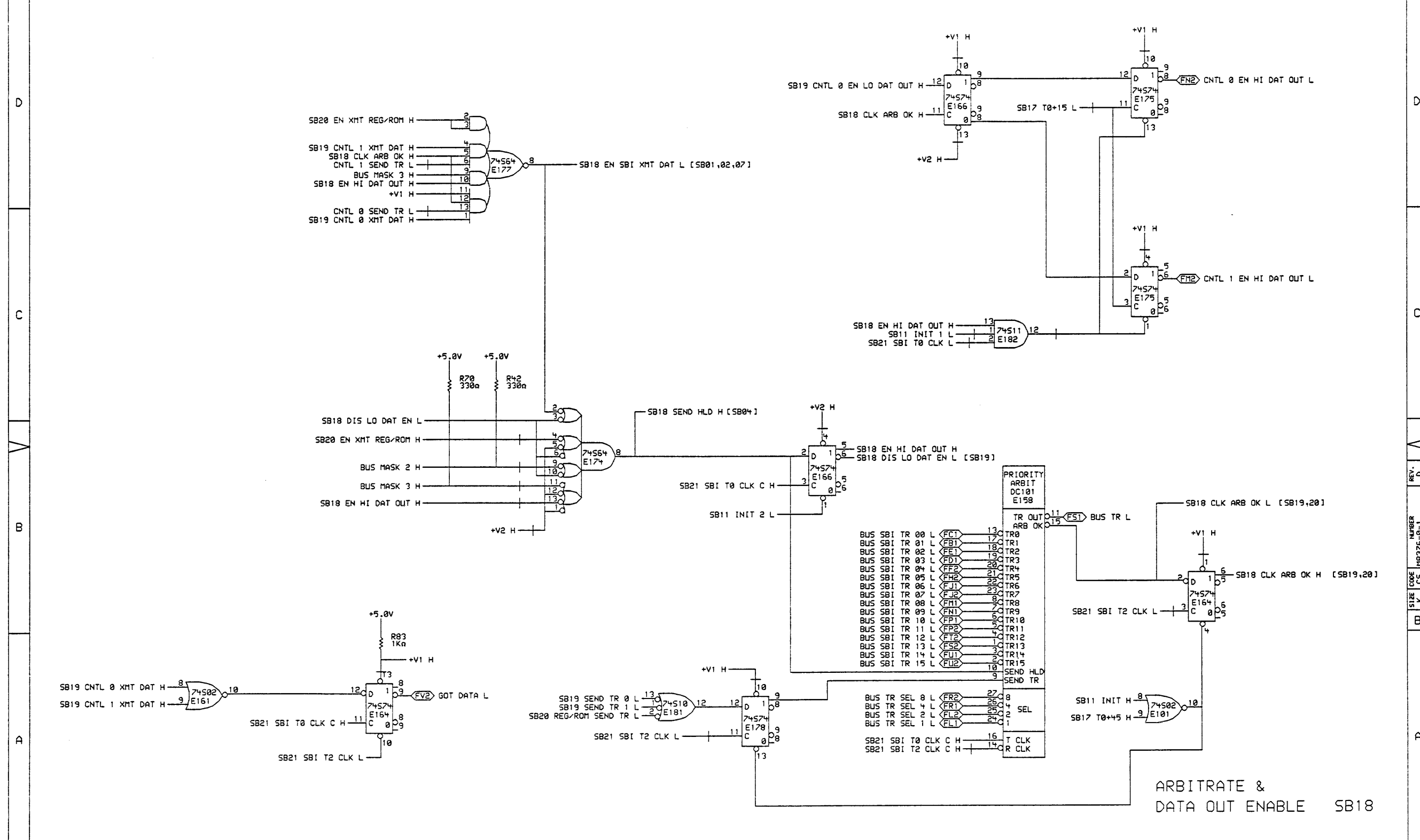
digital	DRM REID	DATE	ENG.	DATE	TITLE:
	CHK'D	11-MAR-83	P. BOSSMAN	11-MAR-83	SBI INTERFACE
PA: MELOSKI\S33D16.DRW		DATE	BOARD LOCATION:	SHEET 16 OF 23	
FIRST USED ON OPTION/MODEL: MS780E		DATE	NEXT HIGHER ASSEMBLY:	B-DD-M8376-0	
SIZE	CODE	NUMBER	REV.		
K	CS	M8376-0-1	D		



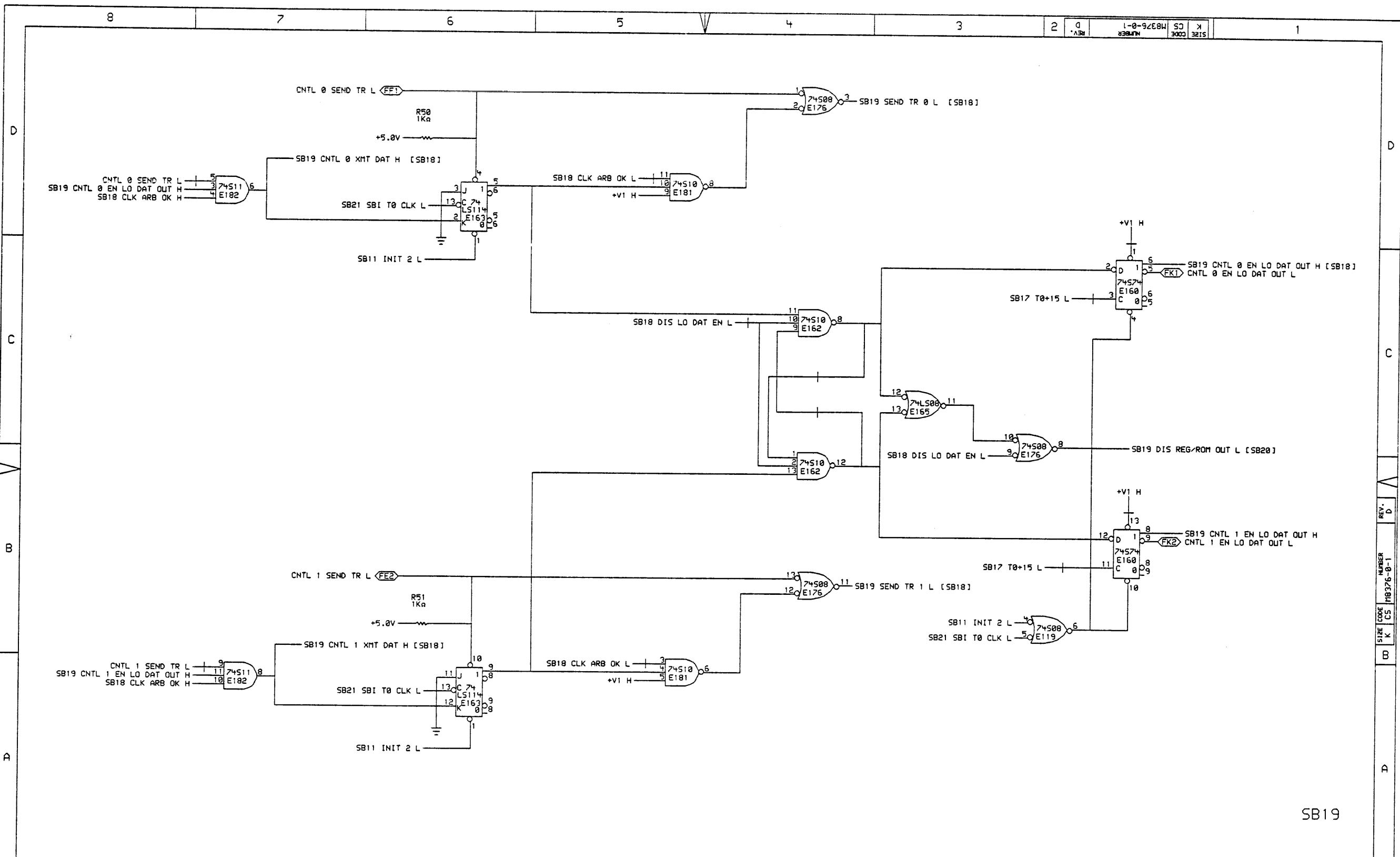
DBUS WRITE DATA ENABLES  
Q LATCH CONTROL SB17

REVISIONS	
CHK	CHANGE NO. REV

digital	DRM REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: 17	SHEET 23	
PA: MELOSKI\S33D17.DRW 11-MAR-83 11:03		NEXT HIGHER ASSEMBLY: 6-00-M8376-0		SIZE CODE K CS	NUMBER M8376-0-1
FIRST USED ON OPTION/MODEL: MS780E				REV. D	







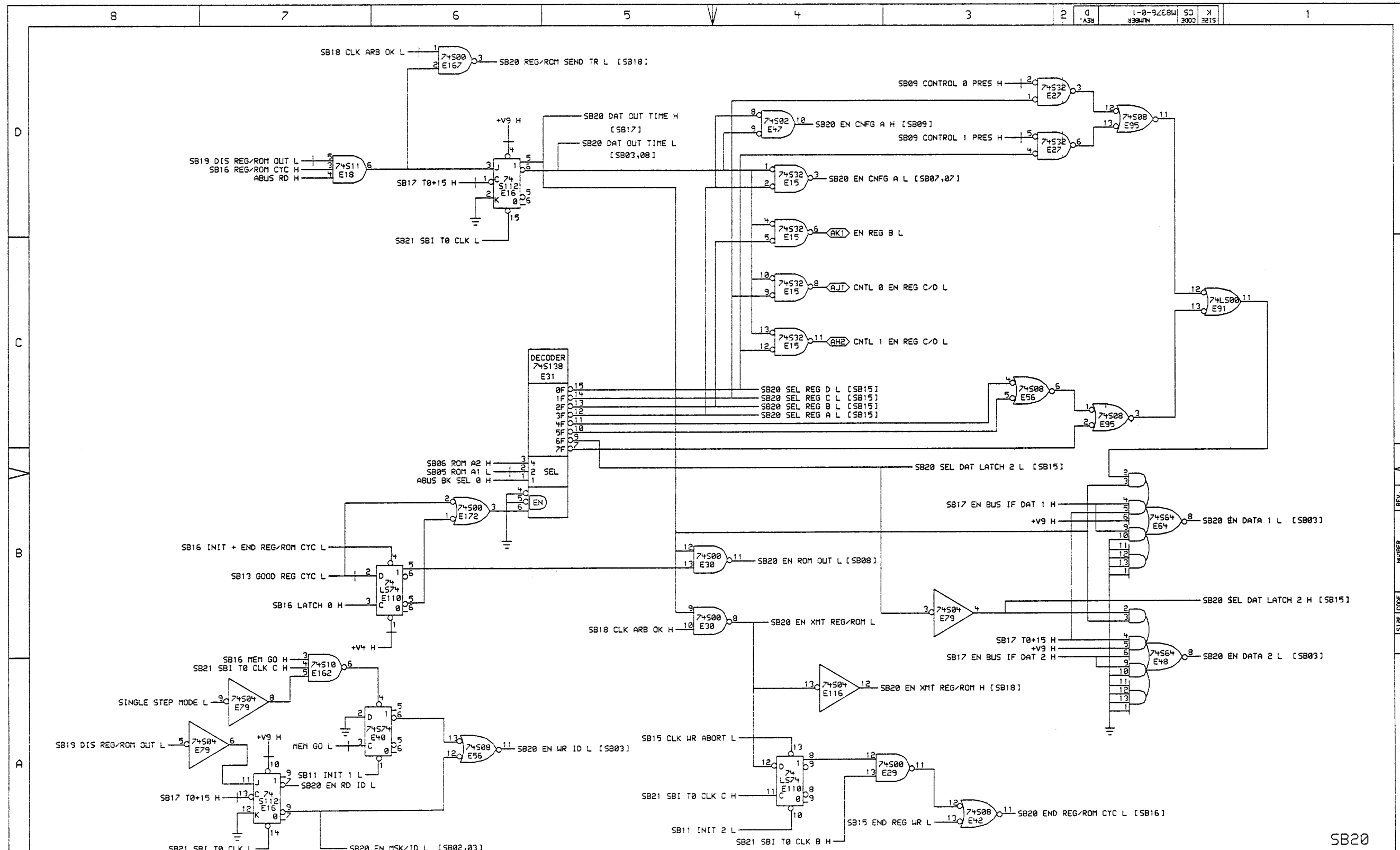
SB19

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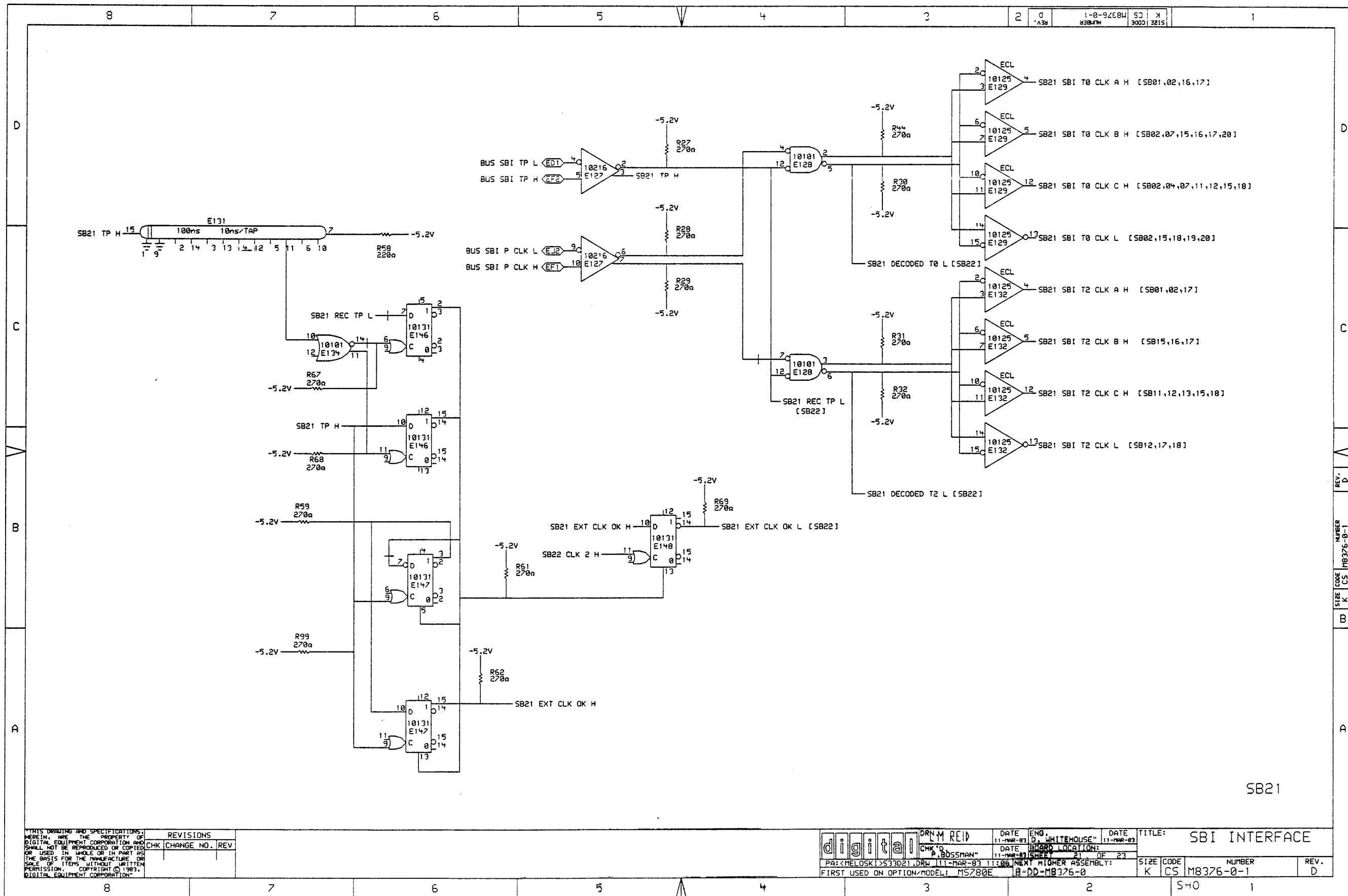
REVISIONS		
CHK	CHANGE NO.	REV

--	--	--	--	--	--	--	--	--	--

digital	DAN M REID	DATE ENG	DATE	TITLE
		11-MAR-83	11-MAR-83	SBI INTERFACE
PA: <MELOSKI>S33D19.DPL.1	P. BOSSMAN	DATE BOARD LOCATION		
		11-MAR-83		
FIRST USED ON OPTION/MODEL: M5200E				



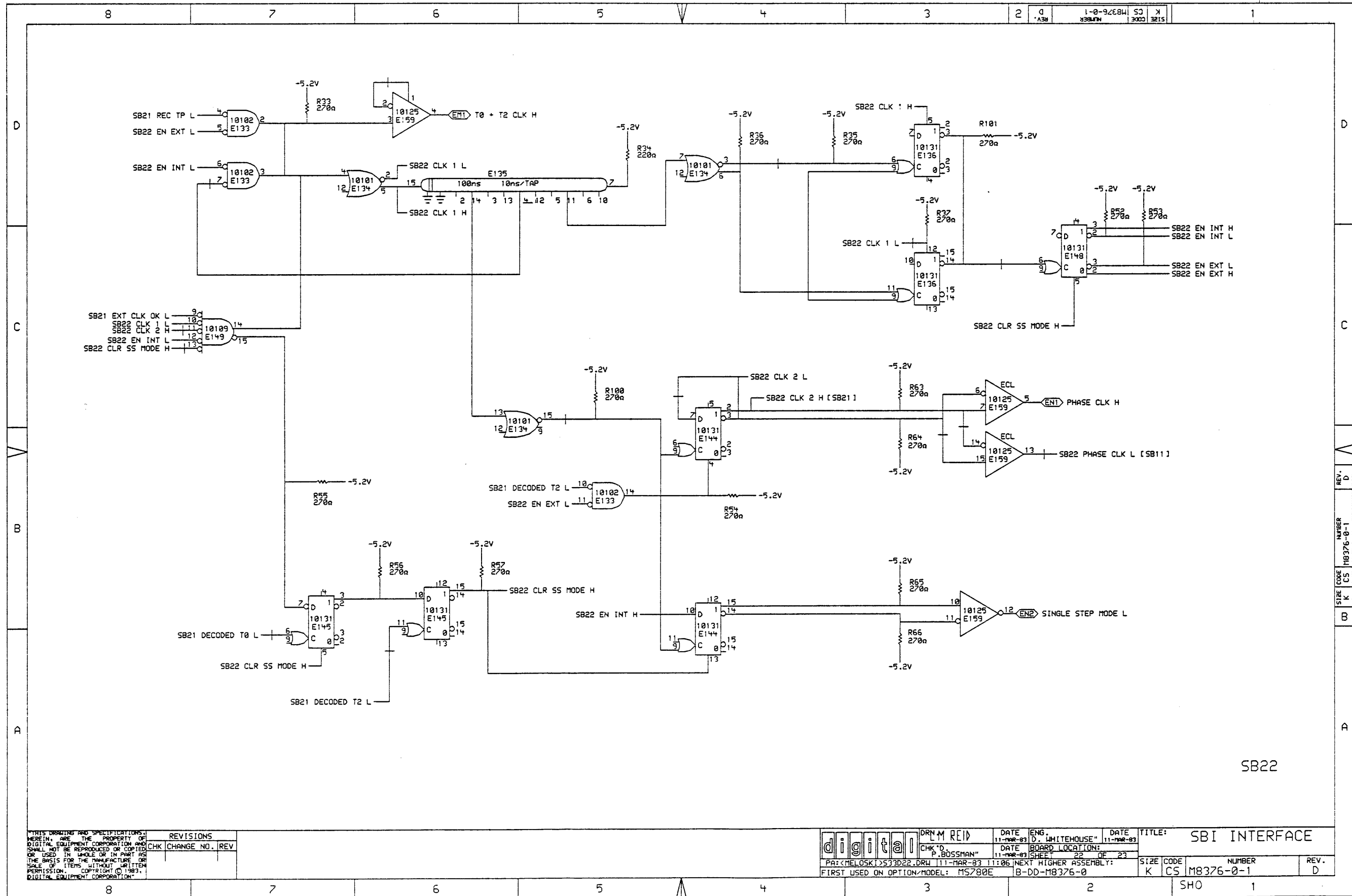
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PA: <MELOSKI>S33D20.DRW 11-MAR-83 11:05 NEXT HIGHER ASSEMBLY:		FIRST USED ON OPTION/MODEL: MS280E B-DD-M8376-0		SIZE CODE K CS		NUMBER M8376-0-1		REV. D	



SB21

REVISIONS	
CHK	CHANGE NO. REV.

	DRN: M REID	DATE: 11-MAR-83	ENG: WHITEHOUSE	DATE: 11-MAR-83	TITLE: SBI INTERFACE
	CHK: P BOSSMAN	DATE: 11-MAR-83	ISSUE: 1	OF: 23	
PA: MELOSKI; S33021.DWL 11-MAR-83 11:06 NEXT HIGHER ASSEMBLY:					SIZE: K CS NUMBER: M8376-0-1 REV.: D

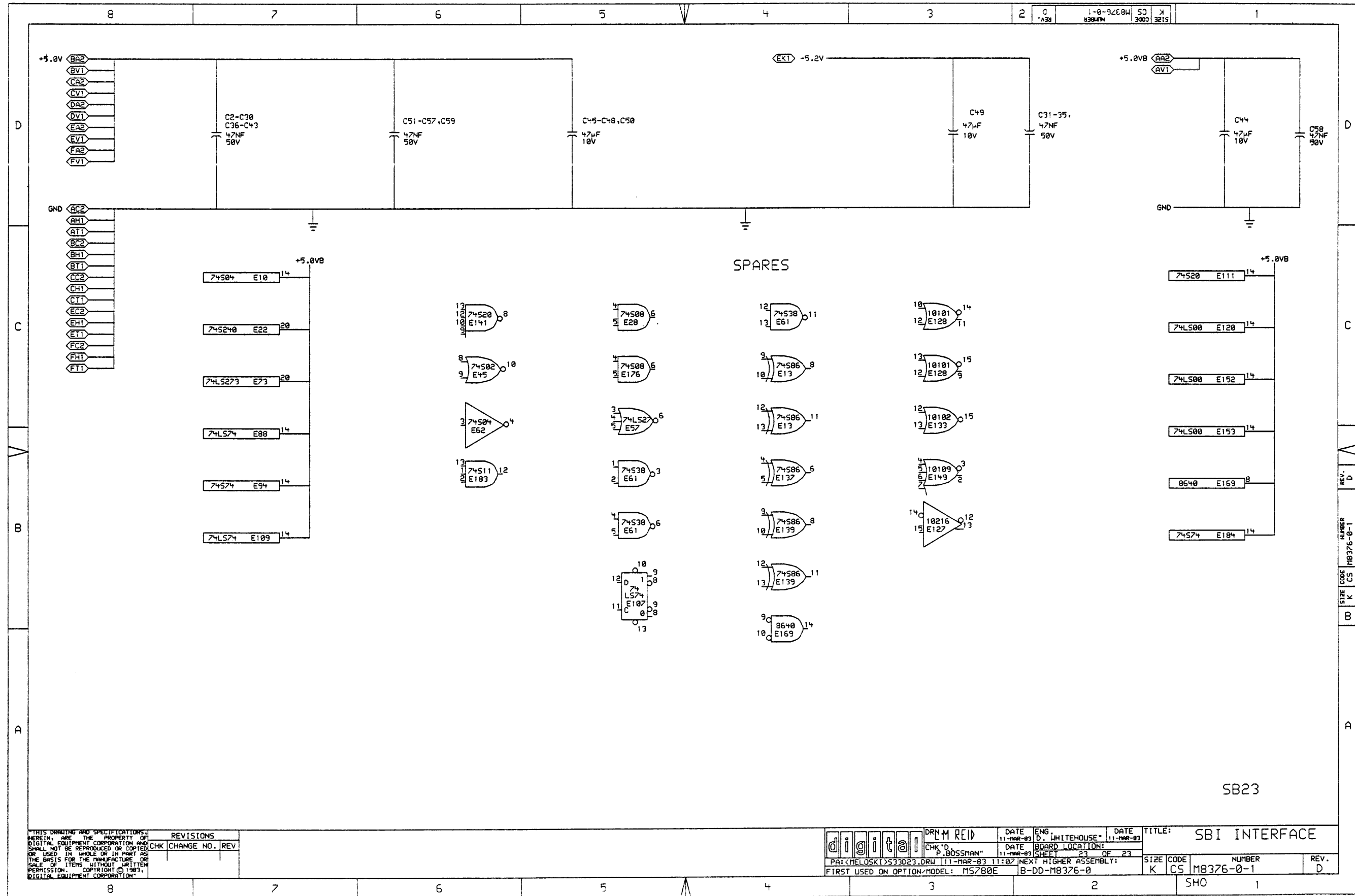


SB22

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRM REID	DATE 11-1988-83	ENG D. WHITEHOUSE	DATE 11-1988-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: 22	SHEET 23	
PA: <MELOSKI>S33D22.DRW 11-MAR-83 11:06			NEXT HIGHER ASSEMBLY: B-DD-M8376-0		
FIRST USED ON OPTION-MODEL: MS780E					
SIZE	CODE	NUMBER	REV.		
K	CS	M8376-0-1	D		



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRM REID	DATE 11-MAR-83	ENG. D. WHITEHOUSE	DATE 11-MAR-83	TITLE: SBI INTERFACE
	CHK'D P. BOSSMAN	DATE 11-MAR-83	BOARD LOCATION: 23	SHEET OF 23	
PA: <MELOSKI>S33D23.DRW 11-MAR-83 11:07			NEXT HIGHER ASSEMBLY: B-DD-M8376-0		
FIRST USED ON OPTION/MODEL: MS780E					

SIZE	CODE	NUMBER	REV.
K	CS	M8376-0-1	D

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	B-DD-M8376-0		DRAWING DIRECTORY		REF	
2	2	D-MD-5015059-0-0		CIRCUIT DRILL & ETCH		REF	
3	3	E-EC-5015059-0-0		ETCH CUT DRAWING		REF	
4	4	E-UA-M8376-0-0		UNIT ASSY		REF	
5	5	K-CS-M8376-0-1		CIRCUIT SCHEMATIC		REF	
6	7		5015059-00	DRILL AND ETCH BRD.		1	
7	9		1012784-00	.047 MFD 50V +80-20% CER	51		C2-C43,C51-C59
8	10		1016549-00	47 MFD 10V +50-10% AL EL	9		C1,C100,C44-C50
9	11		1103041-00	PIV= 8 IO= 50 MA	2		D1,D2
10	12		1110324-01	LED 1MCD@10MA PIV=3 .750 MIN. LE	1		D4
11	13		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1		
12	14		1300229-00	100.0 .25 W 5.0 % CF	1		R72
13	15		1300250-00	150.0 .25 W 5.0 % CF	3		R7,R24,R26
14	16		1300271-00	220.0 .25 W 5.0 % CF	2		R34,R58
15	17		1300295-00	330.0 .25 W 5.0 % CF	5		R21-R23,R42,R70
16	18		1300365-00	1.0 K .25 W 5.0 % CF	39		R1-R6,R8-R10,R12-R20,R41,R43, R45,R50,R51,R73,R74,R78-R83,R88, R89,R103,R107-R110,R76
17	19		1300391-00	1.50 K .25 W 5.0 % CF	1		R40
18	21		1301972-00	270.0 .25 W 5.0 % CF	30		R27-R33,R35-R37,R44,R52-R57,R59, R61-R69,R99-R101
19	22		1511686-00	DECS433 FET N 350MW 10 25 1A	3		Q1-Q3
20	23		1610033-00	DELAY= 10-100NS,10TAPS	2		E131,E135
21	24		1616322-00	DELAY= 75NS,5TAPS	2		E32,E154
22	25		1910532-00	74S00 NAND GATE-QUAD 2IN	4		E29,E30,E167,E172
23	26		1910534-00	74S04 INVERTER GATE-HEX 1I	5		E62,E116,E79,E10,E156
24	27		1910536-00	74S10 NAND GATE-TRIPLE 3IN	3		E162,E142,E181
25	28		1910537-00	74S11 AND GATE-TRIPLE 3INP	5		E3,E4,E18,E182,E183
26	29		1910538-00	74S15 AND GATE-TRIPLE 3IN	2		E11,E12
27	30		1910539-00	74S20 NAND GATE-DUAL 4INPU	4		E124,E141,E111,E121

REVISION HISTORY			BASIC PART NO: M8376		DRN: V.MANGAUDIS		DATE: 16-JUN-81		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P.BOSSMAN	DATE:	15-JUN-81	TITLE PARTS LIST				
	INITIAL	A	SECTION VARIATION INDEX					SBI INTERFACE				
DW	M8376-SH001	B	[A] 00									
DW	M8376-SH002	C	[B]									
DW	M8376-SH003	D	[C]	DES.ENG:	D. WHITEHOUSE	DATE:	19-JUL-82					
JL	M8376-SH004	E	[D]	RESP.ENG.:	D. WHITEHOUSE	DATE:	19-JUL-82	DOCUMENT NUMBER				
			[E]					SIZE:	CODE:	NUMBER	REV	
			[F]	MFG.ENG.:	E. BALL	DATE:	19-AUG-82	K	PL	M8376-0-DBP	E	
			[H]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #		
			[J]	E-UA-M8376-0-0		#B-DD-M8376-0		Z2365E.PLS		25		
			[K]									
			[L]									
			[M]									
			[N]									

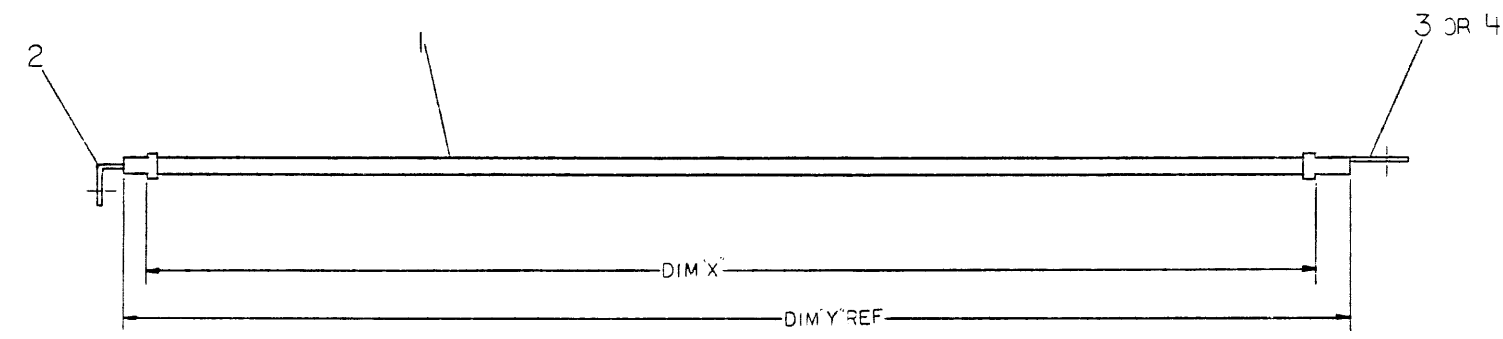
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8 7 6 5 4 3 2 1

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LEGEND			
PART NO.	DIM X VARIATION	DIM Y (PRECUT) REF	
7014250-01	1 FT-0IN ±.5IN	1 FT-1IN ±.5IN	
7014250-0K	0 FT-8IN ±.5IN	0 FT-9IN ±.5IN	
7014250-1F	1 FT-5IN ±.5IN	1 FT-6IN ±.5IN	

0-0-09271021110 2



CAUTION: OFF SHEET PARTS LIST EXISTS  
SEE K-PL-7014250-0-DBP (5537B, PLS)

REV	DATE	BY	CHK	DESCRIPTION
1	10/24/77	W. MARSH		7014250-01
2		R. EDGAR		7014250-0K
3				7014250-1F

DESCRIPTION	DWG. PART NO.	ITEM NO.
LUG, POWER STRAIGHT	1211615-00	3
LUG, POWER 30°	1211616-02	2
WIRE BANG BLACK	19107765-00	1

CLASS OF ACCURACY		NOMINAL DIMENSIONS ARE IN INCHES					
ANGLES		OVER		UNDER		OVER	
30°	30°	TO	TO	TO	TO	TO	TO
		0	1.2	1.2	4.0	4.0	16.0
		1.2	4.0	4.0	16.0	16.0	64.0
		4.0	16.0	16.0	64.0	64.0	256.0

QUANTITY & VARIATION	DESCRIPTION	CLASS OF ACCURACY	FINISH

THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS	DO NOT SCALE DWG	MATERIAL SEE PARTS LIST	FINISH

DRN.	CHK'D	ENG.	PROJ. ENG.	PROD.

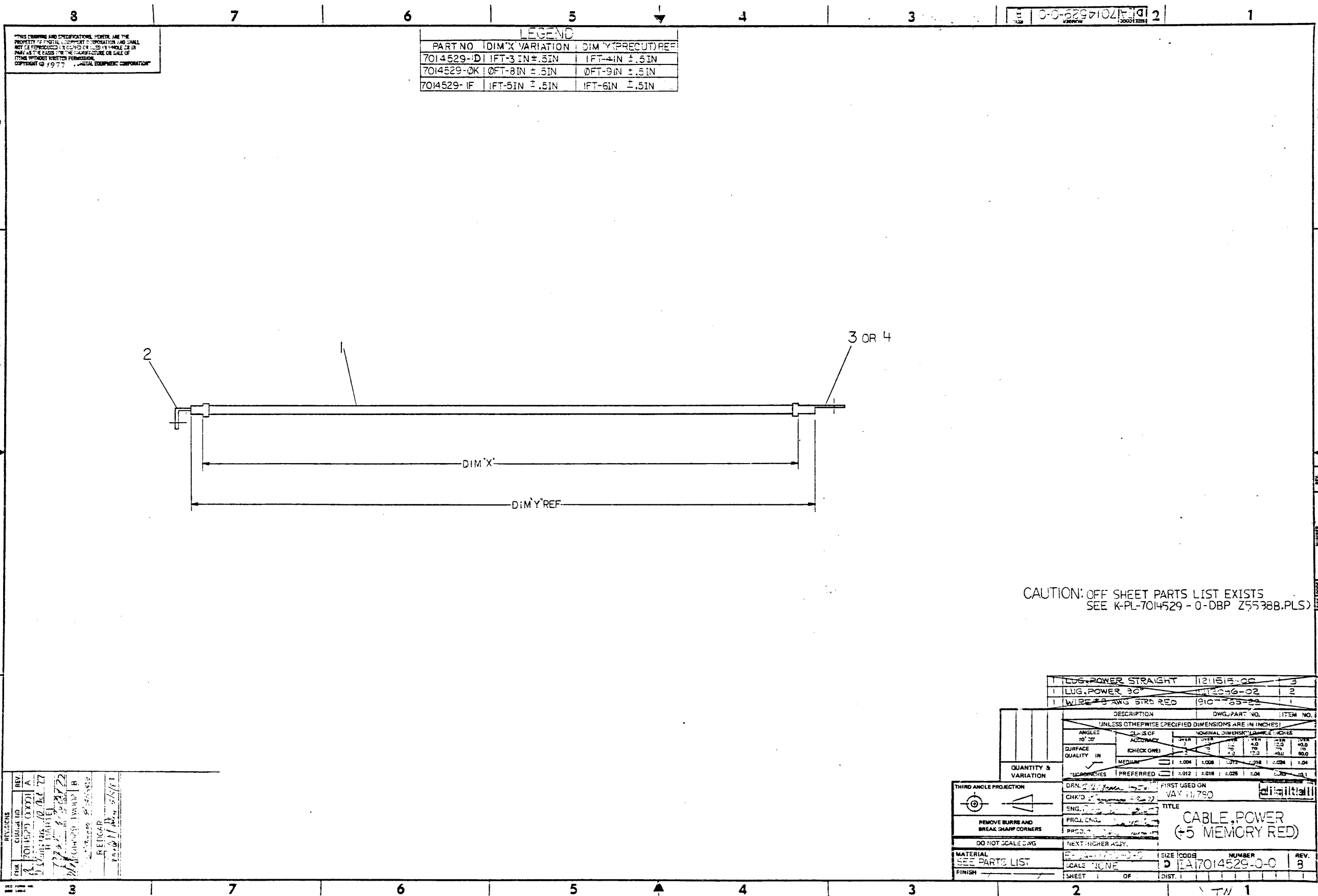
TITLE	SIZE CODE	NUMBER	REV.
CABLE, POWER (RTR MEMORY BLK)	D	7014250-0-0	B

SHEET	OF	DIST.
1	1	

REV. B  
7014250-0-0

8 7 6 5 4 3 2 1



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LEGEND		
PART NO	DIM 'X' VARIATION	DIM 'Y' (PRECUT) REF
7014529-D	1FT-3 IN ±.5 IN	1FT-4 IN ±.5 IN
7014529-QK	ØFT-8 IN ±.5 IN	ØFT-9 IN ±.5 IN
7014529-IF	1FT-5 IN ±.5 IN	1FT-6 IN ±.5 IN

CAUTION: OFF SHEET PARTS LIST EXISTS  
SEE K-PL-7014529-0-DBP Z55388.PLS)

REV	DATE	BY	CHKD	DESCRIPTION
1	04/77	W. HART		REVISED
2	05/77	W. HART		REVISED
3	05/77	W. HART		REVISED
4	05/77	W. HART		REVISED

1	LUG, POWER STRAIGHT	121513-00	3
1	LUG, POWER 90°	112036-02	2
1	WIRE #8 AWG STRS RED	910785-22	1

DESCRIPTION	DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLES	CLASS OF ACCURACY	NOMINAL DIMENSIONS
SURFACE QUALITY	IN	MICROMETRES
QUANTITY & VARIATION		

THIRD ANGLE PROJECTION	DRN: [Signature]	FIRST USED ON: VAX 11/780
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D: [Signature]	
DO NOT SCALE DWG	ENG: [Signature]	
MATERIAL: SEE PARTS LIST	PROJ. ENG: [Signature]	TITLE: CABLE, POWER (+5 MEMORY RED)
FINISH: [Blank]	SCALE: NONE	SIZE CODE: D
	SHEET: 1	OF: 1
		DIST: 1



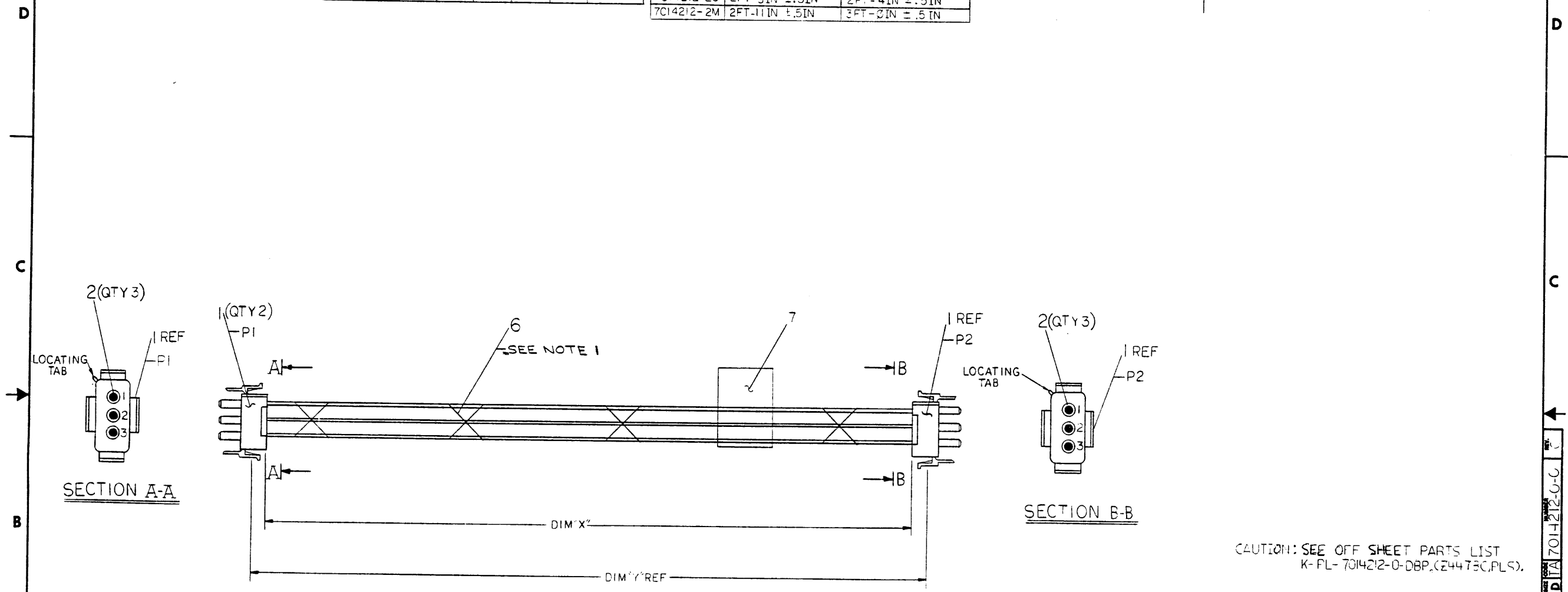
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WIRE TABLE						
ITEM NO	DESCRIPTION	FROM	TO	REMARKS		
	AWG	COLOR	CONN WITH	CONN WITH		
4	18	YELLOW	P1-1	P2-1	1&2	
5	18	VIOLET	P1-2	P2-2	1&2	
3	18	BLACK	P1-3	P2-3	1&2	

LEGEND		
NUMBER	DIM X VARIATION	DIM Y (PRECUT) REF
7014212-0H	ØFT-7IN ±.5IN	ØFT-8IN ±.5IN
7014212-0M	ØFT-11IN ±.5IN	1FT-ØIN ±.5IN
7014212-1C	1FT-3IN ±.5IN	1FT-4IN ±.5IN
7014212-2C	2FT-3IN ±.5IN	2FT-4IN ±.5IN
7014212-2M	2FT-11IN ±.5IN	3FT-ØIN ±.5IN

0-0-7157102 V1 2

NOTES:  
1. USE CABLE TIES (ITEM #6) APPROXIMATELY EVERY THREE (3) INCHES WHEN NECESSARY.



CAUTION: SEE OFF SHEET PARTS LIST  
K-PL-7014212-0-DBP.(24473C,PLS).

DESCRIPTION	DWG./PART NO.	ITEM NO.
1 LABEL, CABLE IDENT.	2009530-00	7
1 TIE, CABLE	3007031-00	6
4 WIRE 18 AWG VIOLET	9107360-77	5
4 WIRE 18 AWG YELLOW	9107360-44	4
4 WIRE 18 AWG BLACK	9107360-00	3
2 SOCKET, CONTACT	1212170-00	2
2 CONNECTOR, UNIVERSAL	1212167-00	1

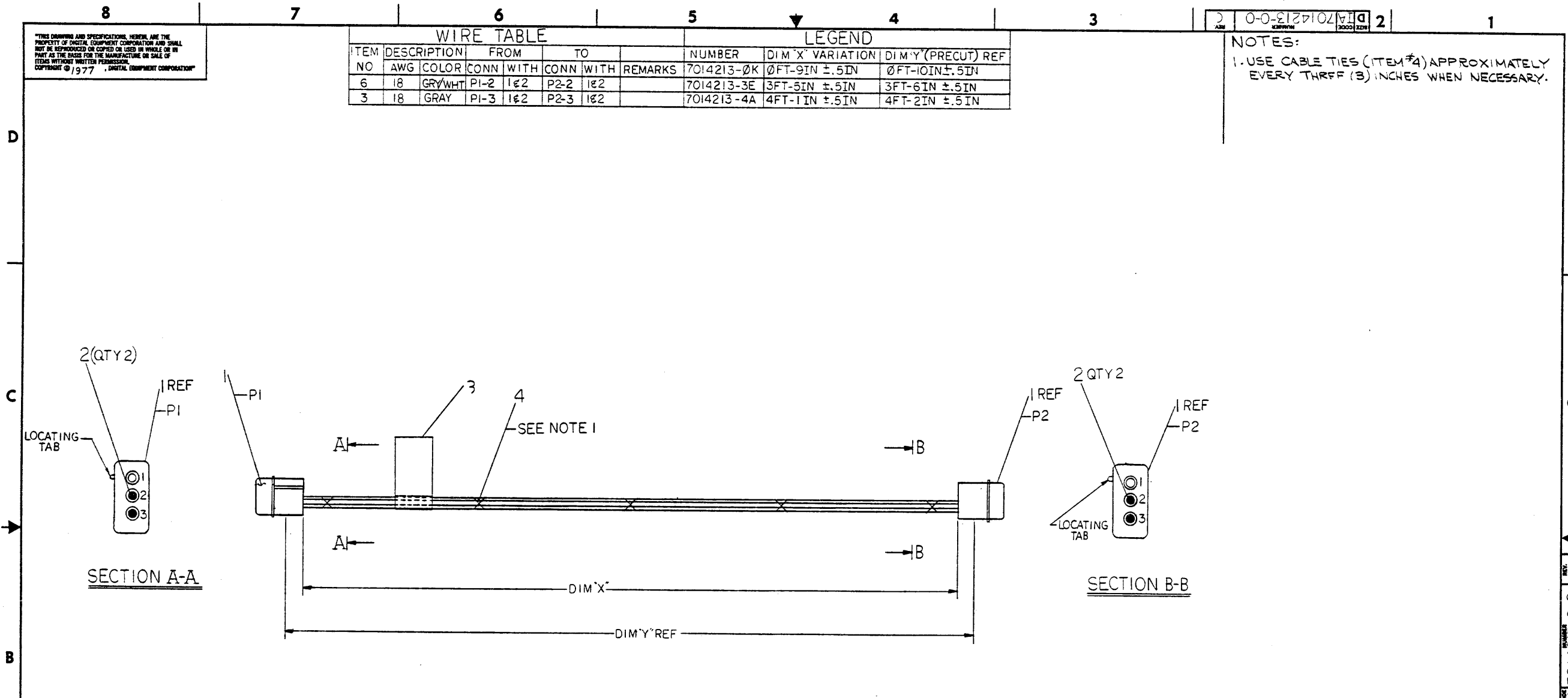
REV.	CHANGE NO.	DATE	BY	CHK'D
1	A	12-18-77	R. MARTEL	
2	B	12-18-77	R. MARTEL	
3	C	12-18-77	J. TICKNEY	

DESCRIPTION		DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES Ø 30°	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES	
SURFACE QUALITY IN	(CHECK ONE)	OVER 0	OVER 40.0
		0.004	40.0
MICROINCHES	PREFERRED	0.004	40.0
		0.008	80.0
THIRD ANGLE PROJECTION		FIRST USED ON	
REMOVE BURRS AND BREAK SHARP CORNERS		E-VA-11730-0-0	
DO NOT SCALE DWG.		TITLE	
MATERIAL SEE PARTS LIST		CABLE A.C., D.C. LOW	
FINISH		SIZE	NUMBER
		D	IA 7014212-0-C
		SHEET 1 OF 1	REV. C

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WIRE TABLE						LEGEND		
ITEM NO	DESCRIPTION	FROM	TO	NUMBER	DIM 'X' VARIATION	DIM 'Y' (PRE-CUT) REF		
6	18 GRY/WHT	P1-2	1#2	P2-2	1#2	7014213-0K	ØFT-9IN ±.5IN	ØFT-10IN ±.5IN
3	18 GRAY	P1-3	1#2	P2-3	1#2	7014213-3E	3FT-5IN ±.5IN	3FT-6IN ±.5IN
						7014213-4A	4FT-1IN ±.5IN	4FT-2IN ±.5IN

NOTES:  
 1. USE CABLE TIES (ITEM #4) APPROXIMATELY EVERY THREE (3) INCHES WHEN NECESSARY.



REV	DATE	BY	CHKD	DESCRIPTION
1	23 OCT 77			
2				
3				
4				
5				

CAUTION: SEE OFF SHT. PARTS LIST

DESCRIPTION	DWG. PART NO.	ITEM NO.
18 AWG GRY/WHITE WIRE	9107360-89	6
CABLE IDENT LABEL	9009532-00	5
CABLE TIE	9007031-00	4
18 AWG GRAY WIRE	9107360-88	3
PIN CONTACT	1209375-00	2
MATE N LOCK CONNECTOR	1209351-03	1

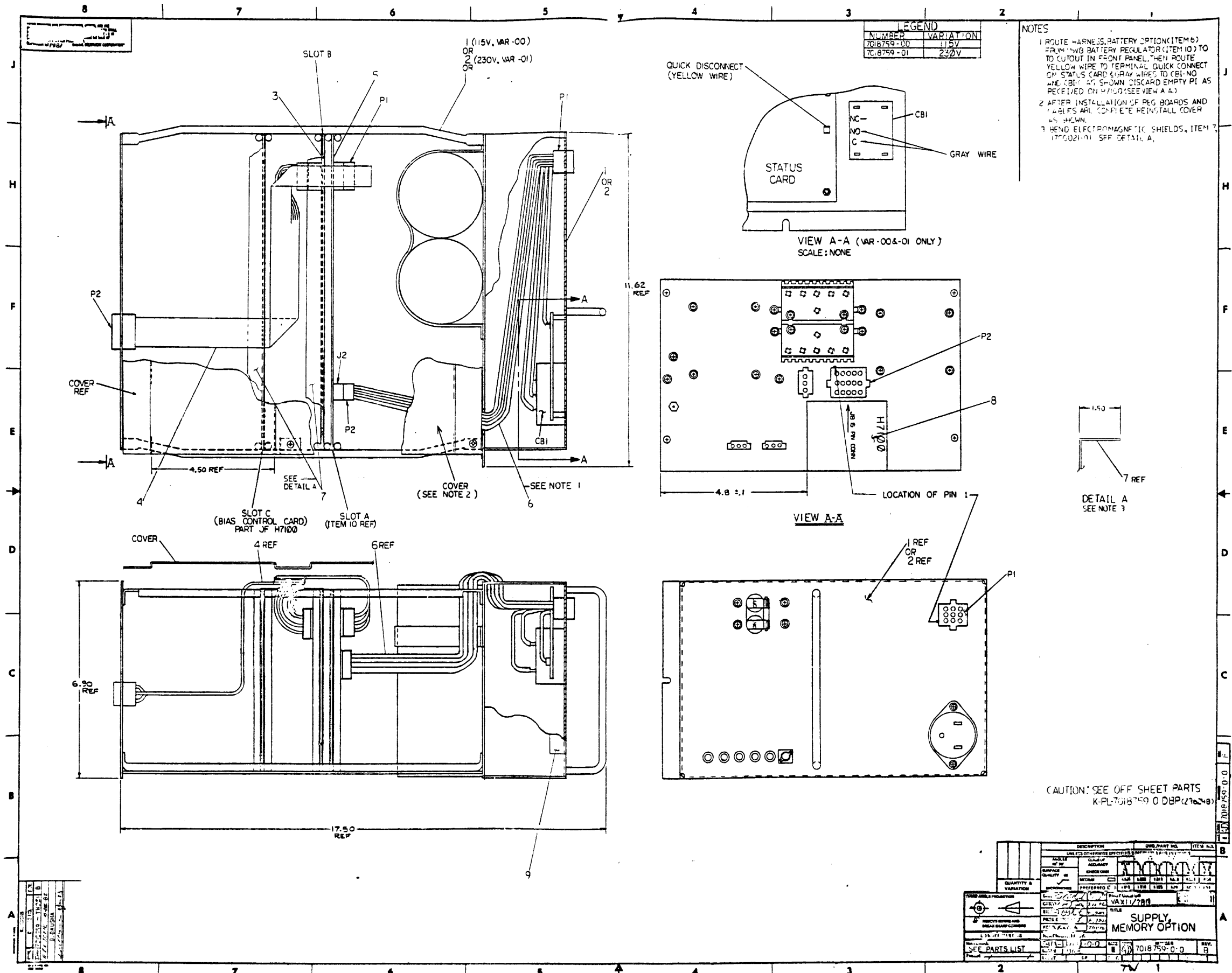
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
ANGLES	CLASS OF ACCURACY
SURFACE QUALITY	IN (CHECK ONE)
QUANTITY & VARIATION	
MICRONCHES	PREFERRED

THIRD ANGLE PROJECTION  
 REMOVE BURRS AND BREAK SHARP CORNERS  
 DO NOT SCALE DWG  
 MATERIAL: SEE PARTS LIST  
 FINISH: / / /

DRN: [Signature] FIRST USED ON: VAX 11/780  
 CHK'D: [Signature]  
 ENGR: [Signature]  
 PROJ. ENG: [Signature]  
 PROD. [Signature]

TITLE: CABLE OVER TEMP

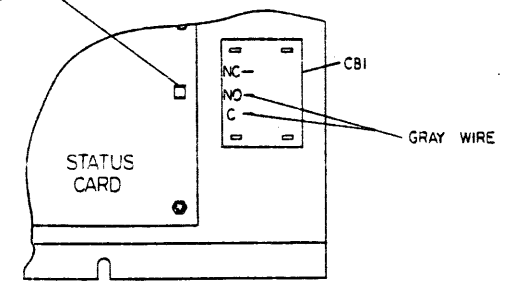
SIZE: D  
 CODE: IA7014213-0-0  
 NUMBER: Tw1  
 REV: C



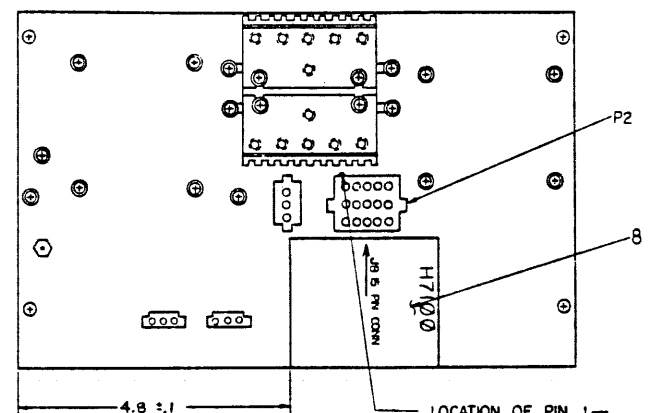
NUMBER	VARIATION
7018759-00	115V
7018759-01	230V

NOTES

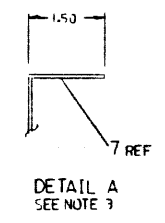
1. ROUTE HARNESS BATTERY OPTION (ITEM 6) FROM THE BATTERY REGULATOR (ITEM 10) TO THE CUTOFF IN FRONT PANEL, THEN ROUTE YELLOW WIRE TO TERMINAL QUICK CONNECT ON STATUS CARD & GRAY WIRES TO CBI-NO AND CBI-AN SHOWN DISCARD EMPTY PI AS RECEIVED ON H7100 (SEE VIEW A-A).
2. AFTER INSTALLATION OF PCB BOARDS AND CABLES ARE COMPLETE REINSTALL COVER AS SHOWN.
3. BEND ELECTROMAGNETIC SHIELDS, ITEM 7, 1706021-01 SEE DETAIL A.



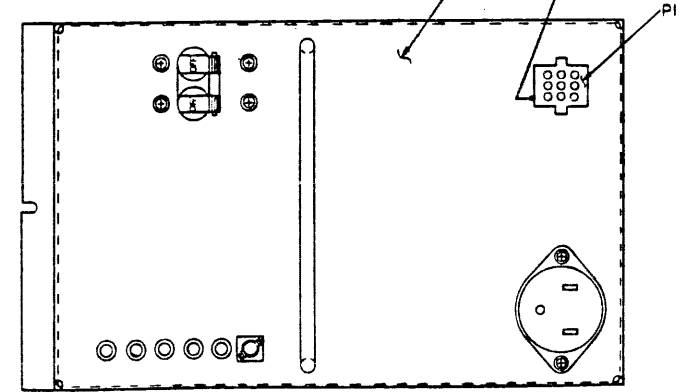
VIEW A-A (VAR-00&01 ONLY)  
SCALE: NONE



VIEW A-A



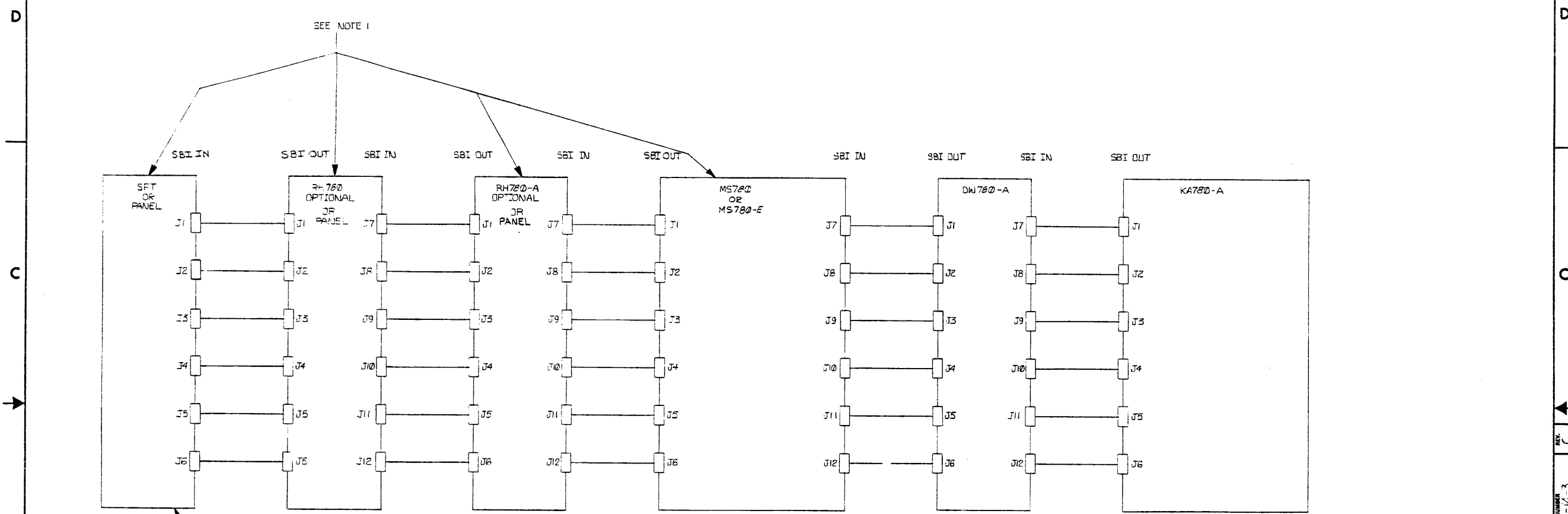
DETAIL A  
SEE NOTE 3



CAUTION: SEE OFF SHEET PARTS  
K-PL-7018759-0 DBP (276248)

DESCRIPTION	QUANTITY	ITEM NO.
UNLCS ONE WIRE SWITCH	1	7018759-00
...	...	...
TITLE: SUPPLY MEMORY OPTION		
PROJECT: 7018759-0		
DATE: 1964-01-01		
DRAWN BY: [Signature]		
CHECKED BY: [Signature]		
APPROVED BY: [Signature]		
PARTS LIST		

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- NOTES:
- 11780-C SYSTEM CONSISTS OF
    - A. KA780-A
    - B. DW780-A
    - C. MS780
    - D. SFT (# M9043)
    - E. 2 DUMMY PANELS (# 7418973)
  - 11780-D SYSTEM CONSISTS OF
    - A. KA780-A
    - B. DW780-A
    - C. MS780
    - D. RH780-A
    - E. RH780
    - F. SFT
  - 11780-EA, EC, ED SYSTEM CONSISTS OF
    - A. KA780-A
    - B. DW780
    - C. MS780-E
    - D. SFT (# M9043)
    - E. 2 DUMMY PANELS (# 7418973)

- CONT:
- 11780-EK, EM, EN SYSTEM CONSISTS OF
- A. KA780-A
  - B. DW780
  - C. MS780-E
  - D. RH780-A
  - E. RH780
  - F. SFT
- 2.) SBI CABLE CONNECTIONS TO SFT FROM ADJACENT BACKPLANE ARE ALWAYS 1700087-1 (QUANTITY 6) OTHER SBI CABLES ARE 1700087-0.

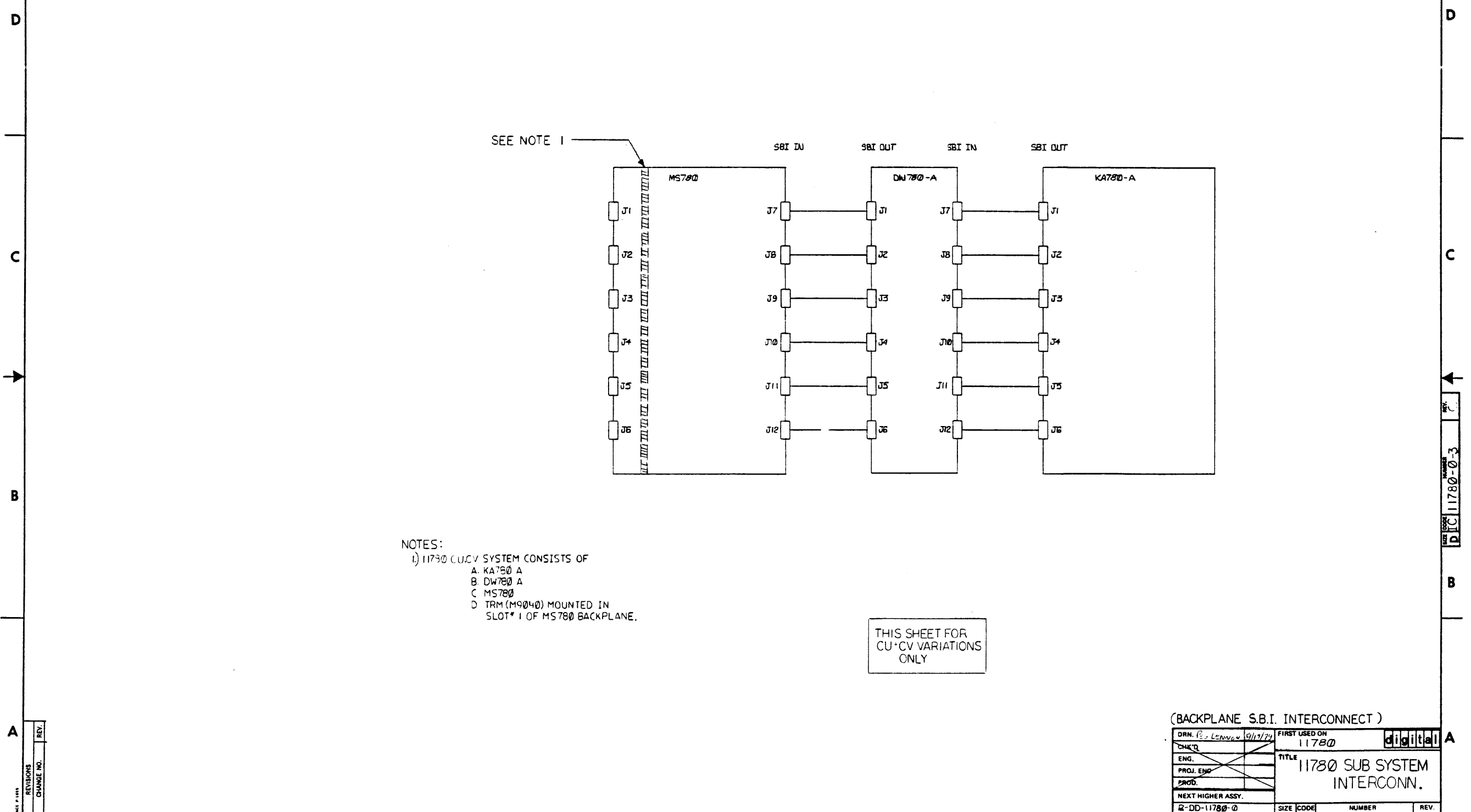
REV.	CHANGE NO.	DATE	BY	CHK'D
A	11780-1W002	11/22/77	E. ANTON	
B	11780-1W005	11/22/77	R. CHUSMAE	
C	11780-1W010	11/22/77	D. SMITH	

(BACKPLANE S.B.I. INTERCONNECT)

DRN. E. TAYLOR	26/11/77	FIRST USED ON	11780	digital
CHK'D D. TAYLOR	1/2/77	TITLE	11780 SUB SYSTEM INTERCONN.	
ENG'D A. TAYLOR	1/2/77	SCALE	D	IC 11780-0-3
PROD. R. TAYLOR	11-8-77	SHEET	1	OF 9
NEXT HIGHER ASSY.		SIZE	DD	11780-0
		NUMBER		
		REV.		C

TW 1

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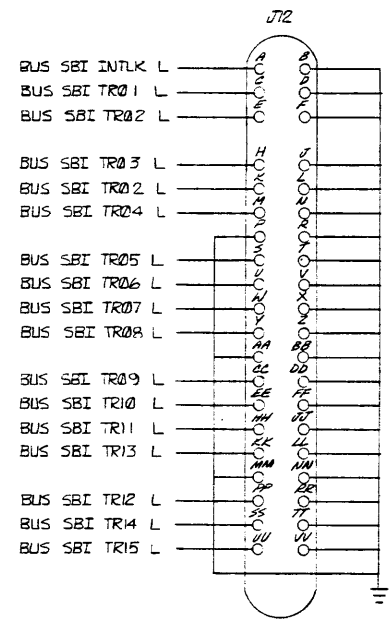
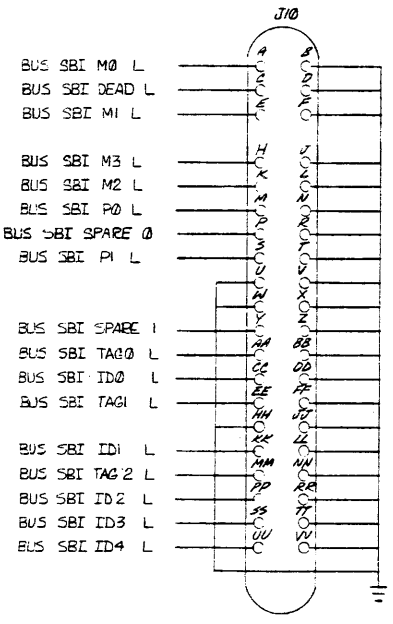
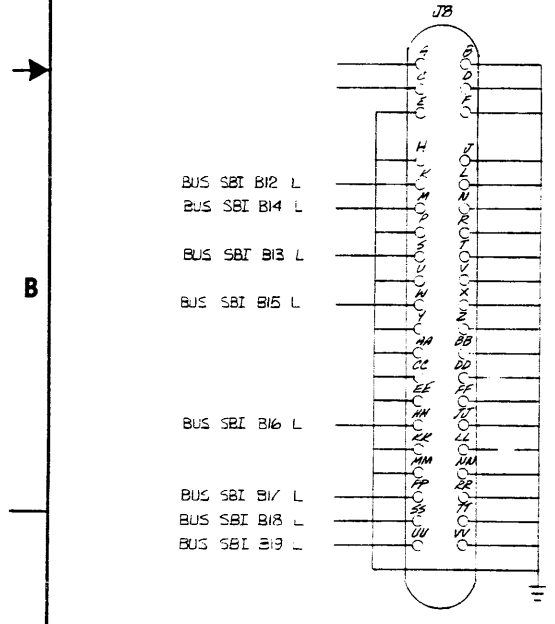
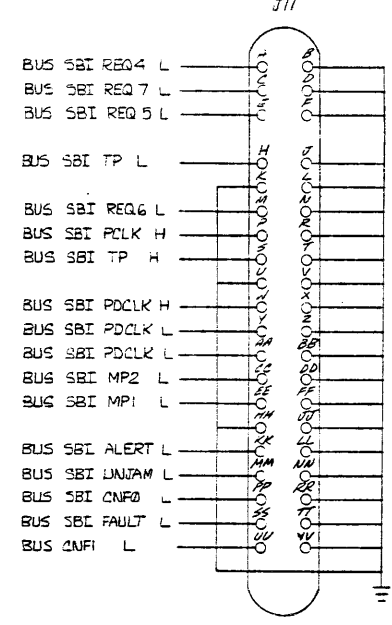
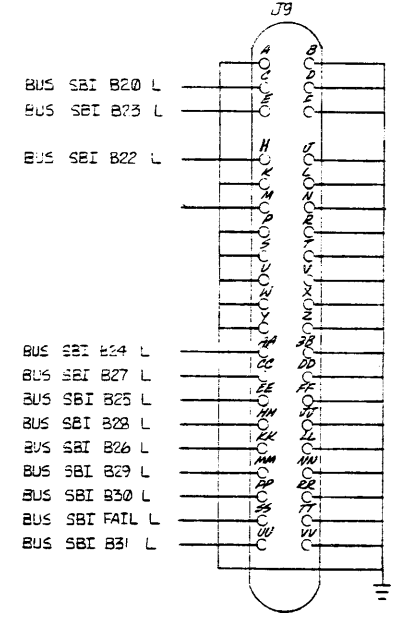
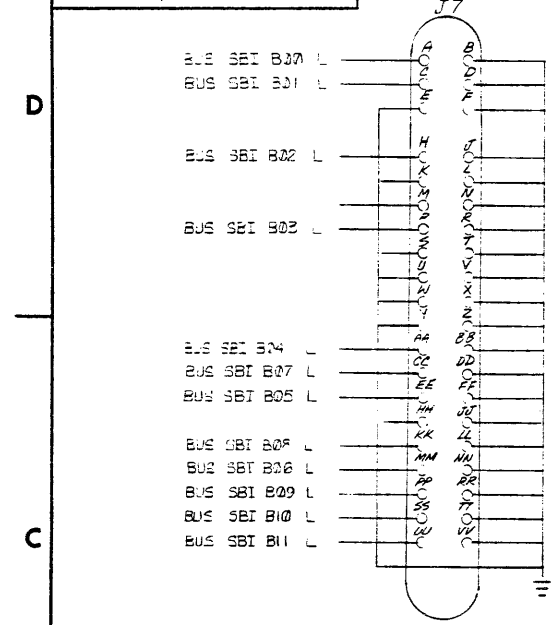
- NOTES:  
 1) 11730 CU\*CV SYSTEM CONSISTS OF  
 A. KA780 A  
 B. DW780 A  
 C. MS780  
 D. TRM (M9040) MOUNTED IN SLOT\* 1 OF MS780 BACKPLANE.

THIS SHEET FOR CU\*CV VARIATIONS ONLY

REV.	
CHANGE NO.	
CHK.	

(BACKPLANE S.B.I. INTERCONNECT)	
DRN. <i>B. Lenn...</i> 9/17/79	FIRST USED ON 11780
CHK'D	
ENG.	
PROJ. ENG.	
PROD.	
NEXT HIGHER ASSY.	
R- DD-11780-0	SIZE CODE NUMBER REV.
SCALE	D IC 11780-0-3
SHEET 2 OF 9	DIST.

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REVISIONS	REV.
CHANGE NO.	
CHK	

(SBI. IN)		FIRST USED ON		digital	
DRN. E. Taylor	25 34	11780			
CHK'D. J. M. Goff	16 AUG 77	TITLE		11780 SUB SYSTEM INTERCONNECT	
ENG. E. L. D. Smith	18 SEP 77	NEXT HIGHER ASSY.		B-DD-11780	
PROJ. ENG. A. J. Goff	19 SEP 77	SIZE	CODE	NUMBER	REV.
PROD. R. J. Goff	11-18-77	D	IC	11780-0-3	C
SCALE		SHEET		3 OF 9	
DIST.		TW		1	

8

7

6

5

4

3

2

1

11780-0-3

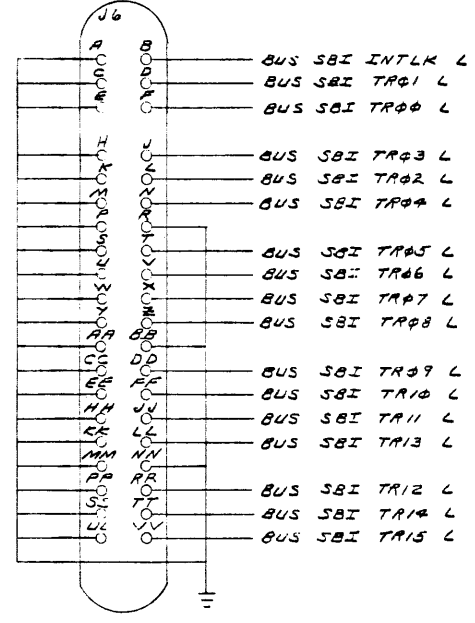
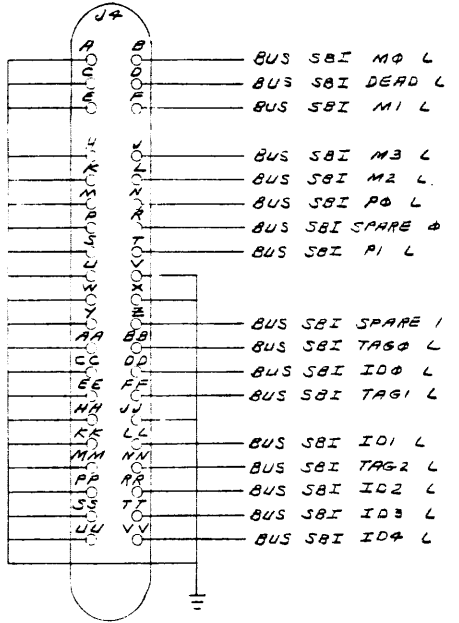
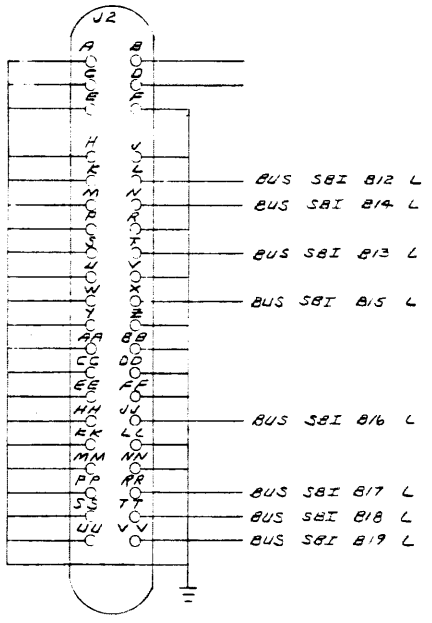
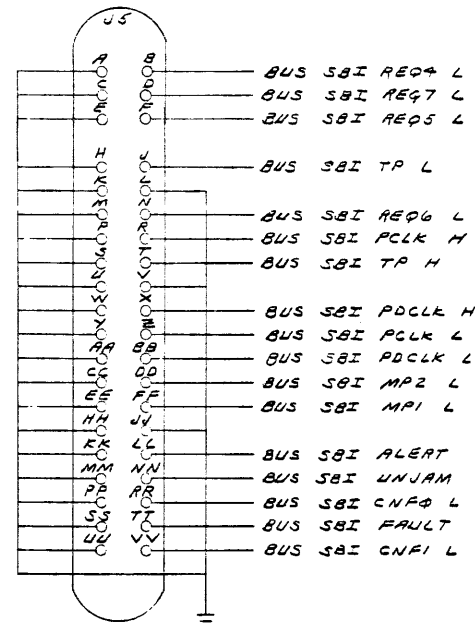
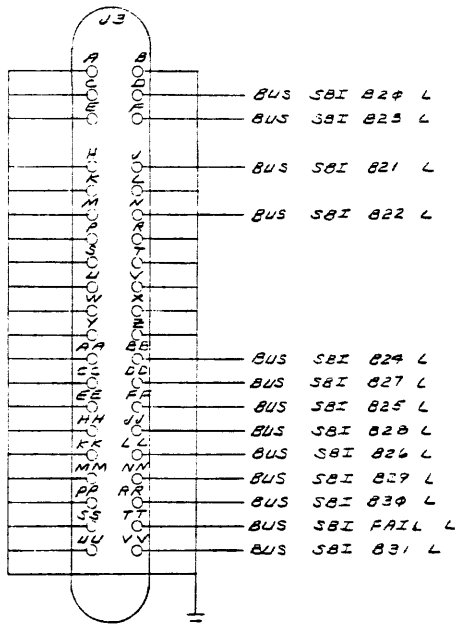
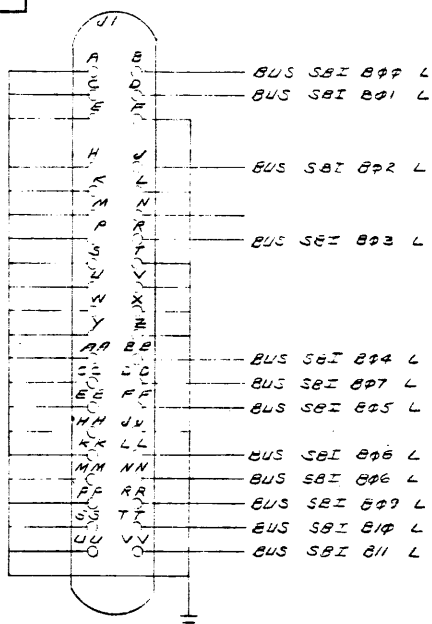
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D

C

B

A



D

C

C

B

A

REV	
CHG	
CHK	

DEC FORM NO. 100-100

8

7

6

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4

3

2

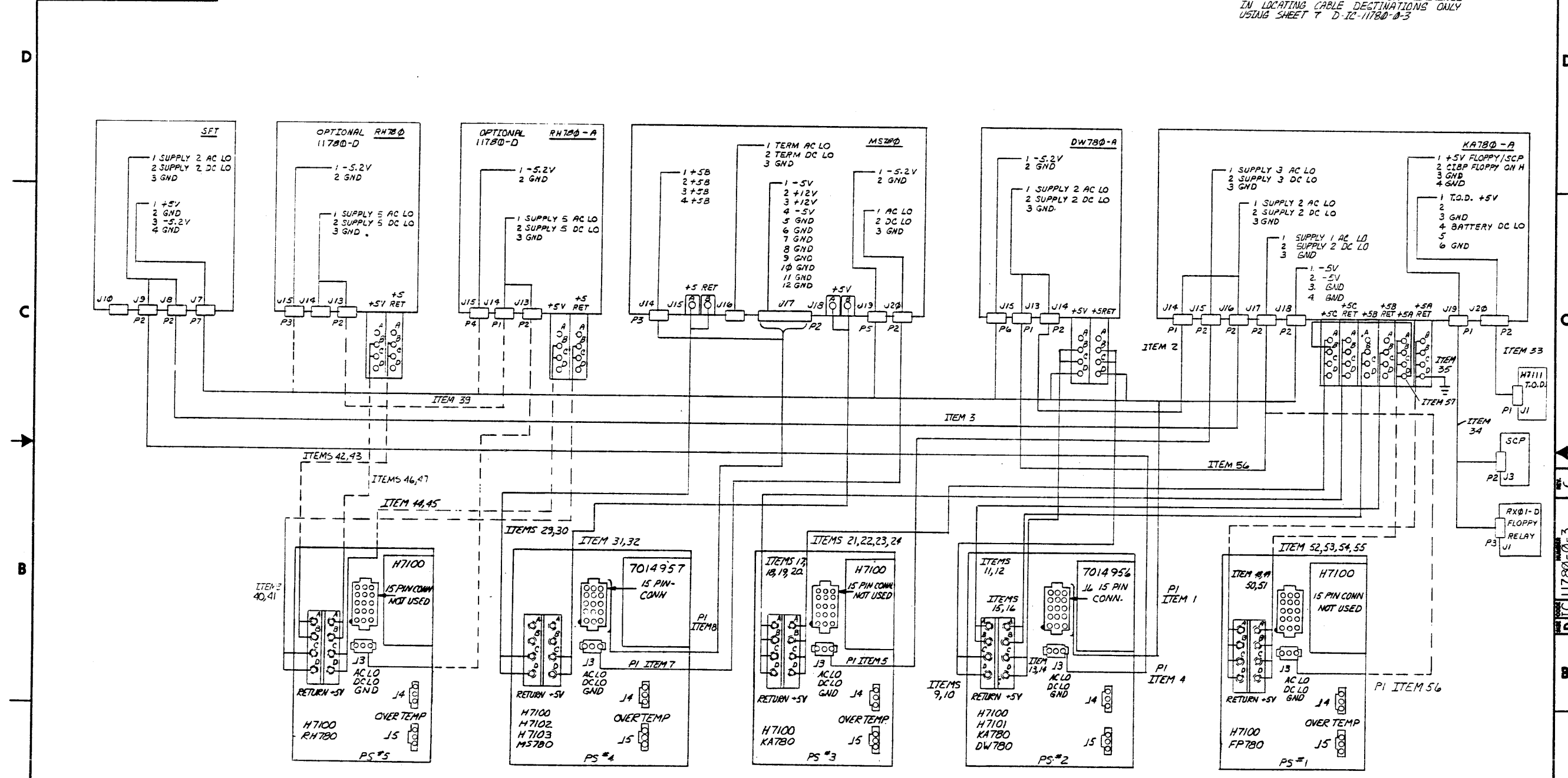
TW 1

(S.B.I. OUT)

DRN. E. Tabor	25 Jul 77	FIRST USED ON	11780	digital
CHK'D. D. Gamm	1 Aug 77	TITLE	11780 SUB SYSTEM INTERCONNECT	
ENG. Ed. Anttila	18 Aug 77	PROD. R. Zingales	11-18-77	
NEXT HIGHER ASSY.				
SCALE	+	SIZE	D	CODE
SHEET	4 OF 9	DIST.	LC	NUMBER
				REV.
				C

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NOTES:  
 1.) ITEM # 5 ARE SHOWN FOR REFERENCE IN LOCATING CABLE DESTINATIONS ONLY USING SHEET 7 D-IC-11780-0-3



REV.	
CHANGE NO.	
CHK	

SEE SHEET #6 FOR REF. PARTS LIST.  
 (BACKPLANE D.C. INTERCONNECT)

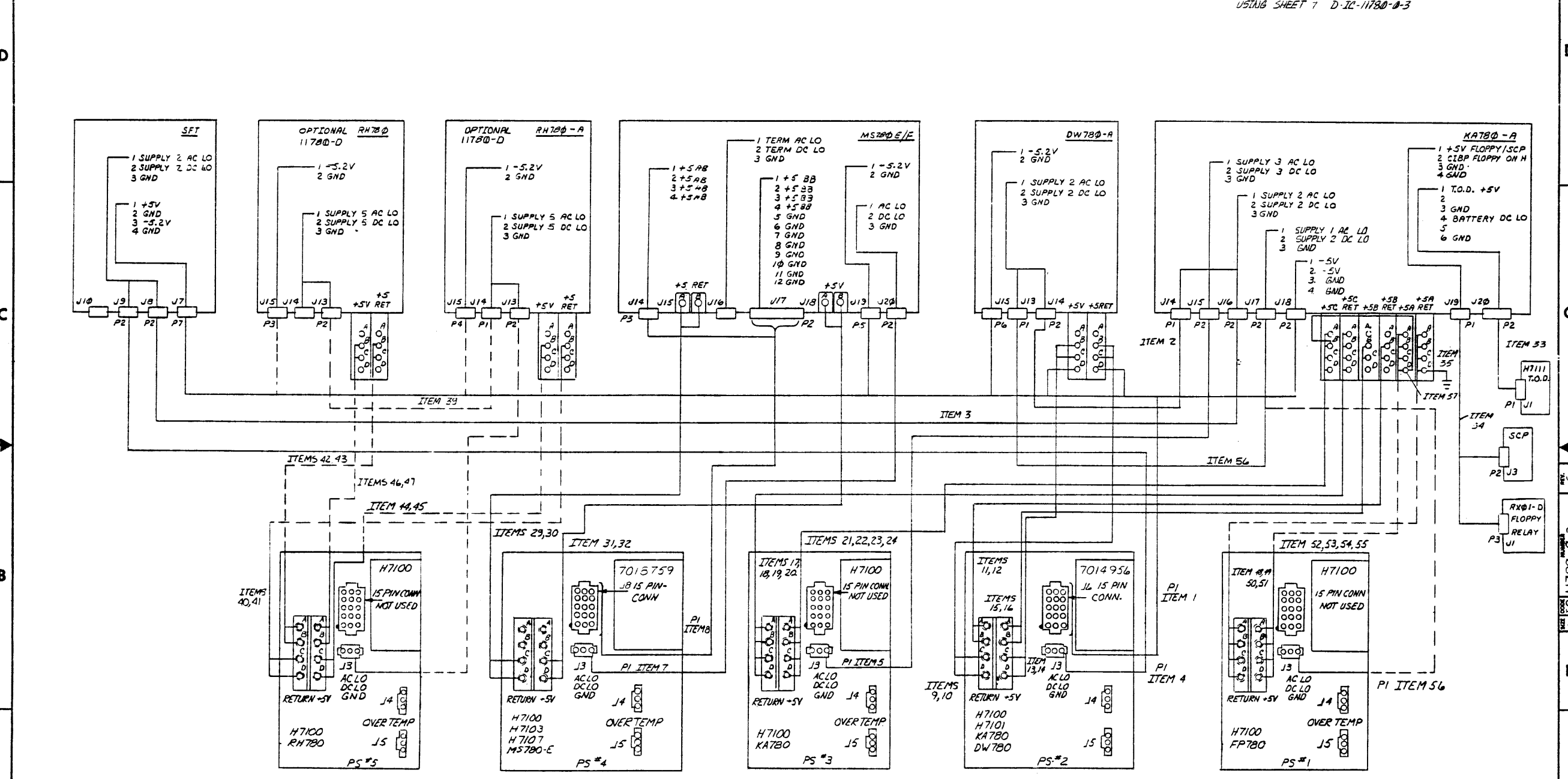
DRAWN: E. HANCOCK 25 JUN 77	FIRST USED ON: 11780	digital
CHK'D: J. GARDNER 19 AUG 77		
ENGR. Ed. A. PETERSON 18 SEPT 77	TITLE: 11780 SUB SYSTEM INTERCONNECT	
PROJ. ENGR. J. GARDNER 19 SEPT 77		
PROD. ENGR. J. GARDNER 19 SEPT 77		
NEXT HIGHER ASSY.		
SCALE	SIZE CODE: D I C	NUMBER: 11780-0-3
SHEET: 5 OF 9	DIST.	REV. C

11780-C+D CONFIGURATIONS



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NOTES:  
 1.) ITEM # 5 ARE SHOWN FOR REFERENCE IN LOCATING CABLE DESTINATIONS ONLY USING SHEET 1 D-12-11780-0-3



REV.	CHG.	NO.	DATE

11780-E CONFIGURATIONS I

SEE SHEET # 6 FOR REF. PARTS LIST.

(BACKPLANE D.C. INTERCONNECT)

DRN. E. TAVNER 25 JUL 77	FIRST USED ON 11780	digital
CHK'D J. G. 18 AUG 77		
ENG. Ed. A. 18 AUG 77	TITLE 11780 SUB SYSTEM INTERCONNECT	
PROJ. ENG. / L. 6. 77		
PROD. R. 11-18-77		
NEXT HIGHER ASSY.		
SCALE 1/4	SIZE CODE D	NUMBER 11780-0-3
SHEET 5 OF 9	DIST.	REV. C

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11780 - E (SEE NOTE 4)  
11780 - C & D (SEE SHEETS 7&8 FOR CUCV VARIATIONS)

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS		
D	7015273-0-0	HARNESS 5V TERMINATOR	HARNESS P1	PS#2 - J6	-5V GND		
			HARNESS P2	KA780 - J18			
			HARNESS P5	MS780 - J19			
			HARNESS P6	DW780 - J15	-5V, GND		
			HARNESS P7	SFT - J7	±5V, GND		
			HARNESS RING TERM (RED WIRE)	DW780 + 5V - D	+5V		
			HARNESS RING TERM (BLK WIRE)	DW780 + 5V RT - D	+5V RETURN		
2	7014212-0H	CABLE AC DC LOW	CABLE P1	KA780 - J14			
3	7014212-2M	CABLE AC DC LOW	CABLE P2	DW780 - J14			
			CABLE P1	KA780 - J16			
4	7014212-1M	CABLE AC DC LOW	CABLE P2	SFT - J8			
			CABLE P1	PS#2 - J3	AC DC LOW GND		
5	7014212-0M	CABLE AC DC LOW	P2	SFT - J9			
			CABLE P1	PS#3 - J3	AC DC LOW & GND		
7	7014212-1C	CABLE AC DC LOW	CABLE P1	PS#4 - J3	AC DC LOW & GND		
			P2	MS780 - J20			
			CABLE P1	PS#4 - J7	+5B & +12		
8	7014234-0K	CABLE ±5B & ±12	P2	MS780 - J17			
			P3	MS780 - J14			
			PS#2 + 5	RET - D	DW780 + 5	RET - B	PS#2 + 5 RETURN
9	7014249-1A	CABLE POWER (BLK)	PS#2 + 5	RET - C	DW780 + 5	RET - B	
10	7014249-1A	CABLE POWER (BLK)	PS#2 + 5	RET - B	KA780 + 5B	RET - B	
11	7014249-1C	CABLE POWER (BLK)	PS#2 + 5	RET - B	KA780 + 5B	RET - B	
12	7014249-1C	CABLE POWER (BLK)	PS#2 + 5	RET - A	KA780 + 5B	RET - C	PS#2 + 5 RETURN
13	7014530-1A	CABLE POWER (RED)	PS#2 + 5	- D	DW780 + 5	- B	PS#2 + 5
14			C	DW780 + 5	- C		
15	7014530-1A	CABLE POWER (RED)	PS#2 + 5	B	KA780 + 5B	C	
16	7014530-1A	CABLE POWER (RED)	PS#2 + 5	A	KA780 + 5B	B	PS#2 + 5
17	7014249-1J	CABLE POWER (BLK)	PS#3 + 5	RET - D	KA780 + 5C	RET - D	PS#3 + 5 RETURN
18			C				
19			B				
20	7014249-1J	CABLE POWER (BLK)	PS#3 + 5	RET - A	KA780 + 5C	- A	PS#3 + 5 RETURN
21	7014530-1E	CABLE POWER (RED)	PS#3 + 5	- D	KA780 + 5C	- D	PS#3 + 5 RETURN
22			C				
23			B				
24	7014530-1E	CABLE POWER (RED)	PS#3 + 5	- A	KA780 + 5C	- A	
* 58	7019586-1K	CABLE +5B	CABLE P1	PS#4 - J8			
			CABLE P2	MS780 - J17			
			CABLE P3	MS780 - J14			
29	7014250-0K	CABLE POWER	PS#4 + 5	RET - C	MS780 - J15	- A	PS#4 + 5 RETURN
30	7014250-0K	RTR MEMORY BLK	PS#4 + 5	RET - D	MS780 - J15	B	
31	7014529-0K	CABLE POWER	PS#4 + 5	C	MS780 - J18	- A	PS#4 + 5V
32	7014529-0K	-5 MEMORY (RED)	PS#4 + 5	D	MS780 - J18	B	
33	7014248-3M	CABLE TO T-04-BAT.	HARNESS P2	KA780 - J20			
34	7014248-2I	FLOPPY RELAY	P1	H7111 - J1			
			HARNESS P1	KA780 - J19			
			P2	SCP - J3			
35	7014249-0L	CABLE POWER (BLK)	P3	RX01 - J1			
			KA780 + 5A	RET - D	FRAME		
56	7014212-0M	CABLE AC/DC LO	CABLE P1	DW780 - J13	SEE NOTE #3		
			CABLE P2	KA780 - J17			

SEE NOTE #4

\* SEE NOTE #3

11780 - D, EK, EM, EN

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS		
1	7015073-0-0	HARNESS 5V TERM.	HARNESS P3	RH780 - J15	-5V GND		
1	7015073-0-0	HARNESS 5V TERM.	HARNESS P4	RH780 - A - J15	-5V GND		
38	7014212-0M	CABLE AC DC LOW	CABLE P1	PS#5 - J3	AC DC LO & GND		
39	7014212-0H	CABLE AC DC LOW	CABLE P2	RH780 - J13	AC DC LO & GND		
			CABLE P1	RH780 - A - J14	AC DC LO & GND		
40	7014212-0H	CABLE AC DC LOW	CABLE P2	RH780 - J13	AC DC LO & GND		
41	7014249-0L	CABLE POWER (BLK)	PS#5 + 5	RET - D	RH780 - A + 5	RET - C	PS#5 + 5 RETURN
42	7014249-0L	CABLE POWER (BLK)	C			B	
43	7014249-0L	CABLE POWER (BLK)	PS#5 + 5	RET - B	RH780 - A + 5	- C	PS#5 + 5 RETURN
44	7014530-0L	CABLE POWER (RED)	A			B	
45	7014530-0L	CABLE POWER (RED)	PS#5 + 5	- D	RH780 - A + 5	- C	PS#5 + 5V
46	7014530-0L	CABLE POWER (RED)	C			B	
47	7014530-0L	CABLE POWER (RED)	PS#5 + 5	- B	RH780 - A + 5	- C	PS#5 + 5V
			A			B	

FP780  
OR  
FP780 & KU780

SEE NOTE 1

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS			
48	7014249-0L	POWER CABLE (BLK)	PS#1 + 5	A	RET - D	KA780 + 5A	RET - D	PS#1 + 5 RETURN
49			C			C		
50			B			B		
51	7014249-0L	POWER CABLE (BLK)	PS#1 + 5	A	RET - A	KA780 + 5A	RET - A	PS#1 + 5 RETURN
52	7014530-0L	POWER CABLE (RED)	PS#1 + 5	- D	KA780 + 5A	- D	PS#1 + 5V	
53			C			C		
54			B			B		
55	7014530-0L	POWER CABLE (RED)	PS#1 + 5	- A	KA780 + 5A	- A	PS#1 + 5V	
56	7014212-0M	CABLE AC DC LO	CABLE P1	PS#1 - J3	AC, DC, LOW			
			P2	KA780 - J17				

OPTIONAL

SEE NOTE 3

KC780 or KU780

SEE NOTE 2

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS		
57	7014530-0L	CABLE POWER (RED)	KA780 - A + 5A	D	KA780 - A + 5C	- B	PS#2 + 5V

NOTES:

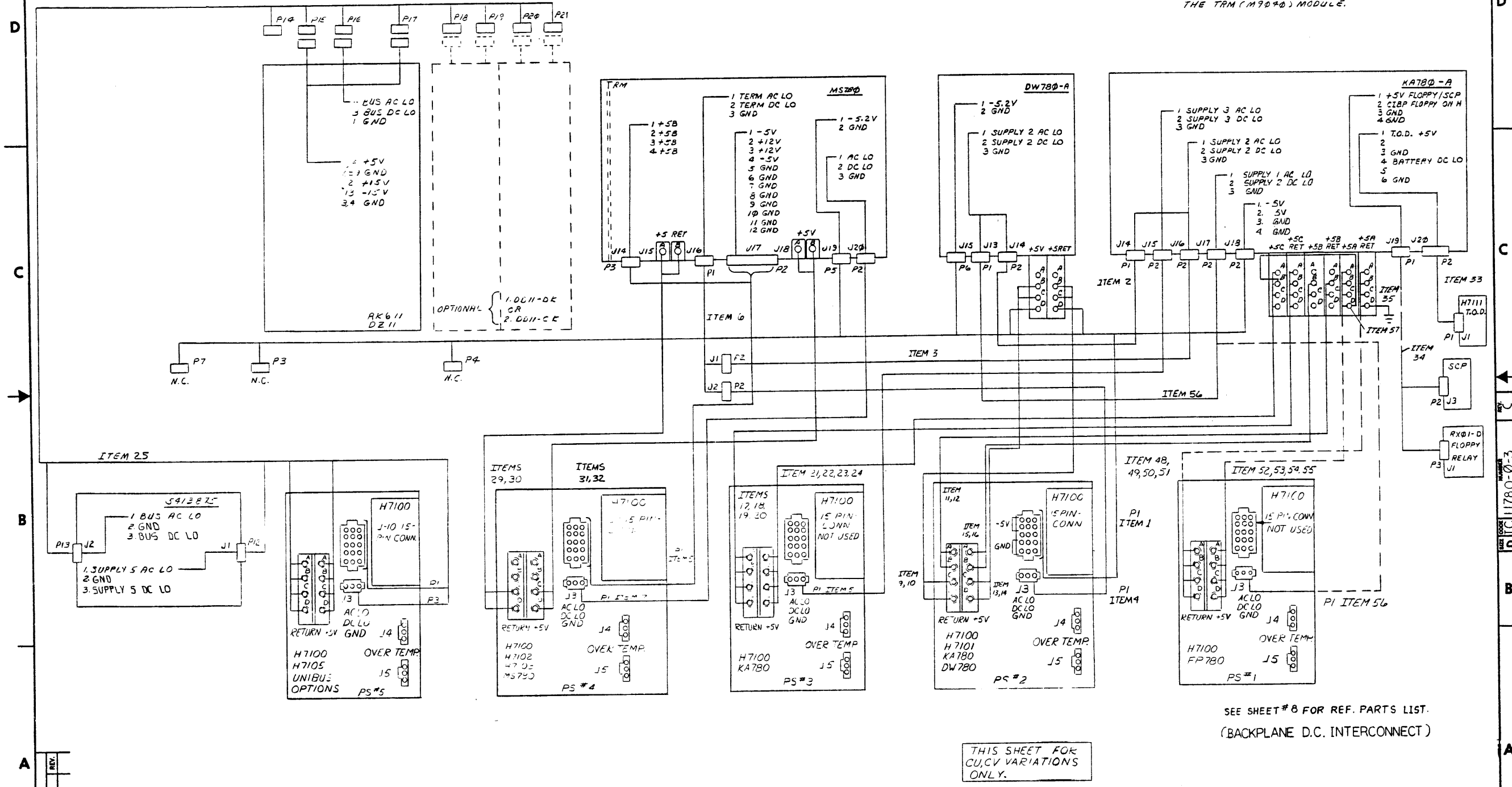
- REFER TO E-UA-KA780 FOR INSTRUCTIONS OF JUMPER REMOVAL IN CONFIGURATIONS USING PS#1.
- IF THE FP780 IS INSTALLED REMOVE ITEM 57.
- IF THE FP780 IS INSTALLED; ITEM #56 P1 CONNECTS TO PS#1-J3. OTHERWISE IT IS CONNECTED TO DW780-J13.
- 11780-E VARIATIONS MUST USE ITEM 58 IN PLACE OF ITEM 8.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	11780 SUB-SYSTEM INTERCONNECT	SIZE CODE	DIC	NUMBER	11780-0-3	REV.	C
SCALE		SHEET	7	OF	9	DIST.	

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- NOTES:
- 1.) ITEMS 5 ARE SHOWN FOR REFERENCE IN LOCATING CABLE DESTINATIONS ONLY USING SHEET 9 D-IC-11780-3
  - 2.) THE SBI IS TERMINATED IN SLOT #1 OF THE MS780 BACKPLANE WITH THE TRM (M9090) MODULE.



SEE SHEET # 8 FOR REF. PARTS LIST.  
(BACKPLANE D.C. INTERCONNECT)

THIS SHEET FOR  
CU, CV VARIATIONS  
ONLY.

REV.	
CHG	
REV.	
CHG	

TITLE	11780 SUB SYSTEM INTERCONNECT	SIZE CODE	DIC	NUMBER	11780-0-3	REV.	C
SCALE		SHEET	8	OF 9			

TW 1

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11780-CU/CV

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS
1	7015073-0-0	HARNESS-5V TERMINATOR	HARNESS - P1	PS*2 - J6	-5V GND
			HARNESS - P2	KA780-J18	
			HARNESS - P5	MS780-J19	
			HARNESS - P6	DW780-J15	-5V GND
			HARNESS - P7	N.C.	+5V GND
			HARNESS RING TERM. (RED WIRE)	DW780+5V-D	+5V
	7015073-0-0	HARNESS-5V TERMINATOR	HARNESS RING TERM. (BLK WIRE)	DW780+5V-RT-D	+5V RETURN
2	7014212-0-H	CABLE AC DC LOW	CABLE - P1	KA780-J14	AC,DC LOW+GND
			CABLE - P2	DW780-J14	
3	7014212-2-M	CABLE AC DC LOW	CABLE - P1	KA780-J16	AC,DC LOW+GND
			CABLE - P2	ITEM #0-J1	
4	7014212-2-M	CABLE AC DC LOW	CABLE - P1	PS*2 - J3	AC,DC LOW+GND
			CABLE - P2	ITEM #6-J2	
5	7014212-0-M	CABLE AC DC LOW	CABLE - P1	PS*3 - J3	AC,DC LOW+GND
			CABLE - P2	KA780-J15	
6	70	-0J AC DC LOW WYE CABLE	CABLE - P1	MS780-J16	AC,DC LOW+GND
			CABLE - J1	ITEM #3-P2	
			CABLE - J2	ITEM #4-P2	
7	7014212-1-C	CABLE AC DC LOW	CABLE - P1	PS*4 - J3	AC,DC LOW+GND
			CABLE - P2	MS780-J20	
8	7014212-0-K	CABLE ±5B +12V	CABLE - P1	PS*4 - J7	±5B +12V+GND
			CABLE - P2	MS780-J17	
			CABLE - P3	MS780-J14	
9	7014249-1-A	CABLE POWER (BLK)	PS*2 +5 RET -D	DW780+5 RET-B	PS*2+5 RETURN
10	7014249-1-A	CABLE POWER (BLK)	PS*2 +5 RET -C	DW780+5 RET-C	
11	7014249-1-C	CABLE POWER (BLK)	PS*2 +5 RET -B	KA780+5B RET-B	
12	7014249-1-C	CABLE POWER (BLK)	PS*2 +5 RET -A	KA780+5B RET-C	PS*2 +5 RETURN
13	7014530-1-A	CABLE POWER (RED)	PS*2 +5V -D	DW780+5V-B	PS*2 +5V
14	7014530-1-A	CABLE POWER (RED)	PS*2 +5V -C	DW780+5V-C	
15	7014530-1-A	CABLE POWER (RED)	PS*2 +5V -B	KA780+5B-C	
16	7014530-1-A	CABLE POWER (RED)	PS*2 +5V -A	KA780+5B-B	PS*2 +5V
17	7014249-1-J	CABLE POWER (BLK)	PS*3 +5V RET -D	KA780+5C RET-D	
18			-C	-C	
19			-B	-B	
20	7014249-1-J	CABLE POWER (BLK)	PS*3 +5V RET -A	KA780+5C RET-A	PS*3 +5 RETURN
21	7014530-1-E	CABLE POWER (RED)	PS*3 +5V -D	KA780+5C -D	PS*3 +5 RETURN
22			-C	-C	
23			-B	-B	
24	7014530-1-E	CABLE POWER (RED)	PS*3 +5V -A	KA780+5C -A	
25	7016951-0-0	UNIBUS PWR HARNESS	HARNESS - P1	PS*5 - J10	PS*5+5V+GND
			HARNESS RING TERM. (BLK WIRE) -P2	PS*5 +5 RET -D	PS*5 +5 RETURN
			HARNESS - P3	PS*5 - J3	AC,DC LOW +GND
			HARNESS RING TERM. (RED WIRE) -P4	PS*5 +5V -D	PS*5 -5V
			-P5	-C	
			-P6	-B	
			HARNESS RING TERM. (RED WIRE) -P7	PS*5 +5V -A	
			HARNESS RING TERM. (BLK WIRE) -P8	PS*5 +5 RET -D	PS*5 +5 RETURN
			-P9	-C	
			-P10	-B	
			HARNESS RING TERM. (BLK WIRE) -P11	PS*5 +5 RET -A	
	7016951-0-0	UNIBUS PWR HARNESS	HARNESS - P12	ADAPTER BOARD-J1	AC,DC LOW +GND

11780-CU/CV

REF. ITEM NUMBER	PART NUMBER	DESCRIPTION	FROM	TO	REMARKS
25	7016951-0-0	UNIBUS PWR HARNESS	HARNESS - P13	ADAPTER BOARD-J2	ADAPT. AC,DC LOW+GND
			-P14	N.C.(OPTIONAL)	
			-P15	RK611 - P2	
			-P16	RK611 - P3	
			-P17	RK611 - P4	
			-P18	N.C.(OPTIONAL)	
			-P19		
			-P20		
	7016951-0-0	UNIBUS PWR HARNESS	HARNESS - P21	N.C.(OPTIONAL)	
29	7014250-0-K	CABLE POWER RTR MEMORY (BLK)	PS*4 +5V RET -C	MS780-J15-A	PS*4 +5 RETURN
30			-D	-B	
31	7014529-0-K	CABLE POWER +5 MEMORY (RED)	PS*4 +5V -C	MS780-J18-A	PS*4 +5V
32			-D	-B	
33	7014243-3-M	CABLE TO T.Q.D. BAT.	HARNESS - P2	KA780 - J20	
			-P1	H7111 - J1	
34	7014243-2-I	FLOPPY RELAY SC PWR HARNESS	HARNESS - P1	KA780-J19	
			-P2	SCP - J3	
			-P3	RX01 - J1	
35	7014249-0-L	CABLE POWER (BLK)	KA780+5A RET-D	FRAME	
56	7014212-0-M	CABLE AC/DC LO	CABLE - P1	DW780 - J13	SEE NOTE #3
			CABLE - P2	KA780-J17	

FP780  
OR  
FP780 + KU780

SEE NOTE 1

48	7014249-0-L	POWER CABLE (BLK)	PS*1 +5A RET -D	KA780+5A RET-D	PS*1 +5 RETURN
49			-C	-C	
50			-B	-B	
51	7014249-0-L	POWER CABLE (BLK)	PS*1 +5A RET -A	KA780+5A RET-A	
52	7014530-0-L	POWER CABLE (RED)	PS*1 +5V -D	KA780+5A -D	PS*1 +5A
53			-C	-C	
54			-B	-B	
55	7014530-0-L	POWER CABLE (RED)	PS*1 +5V -A	KA780+5A -A	
56	7014212-0-M	CABLE AC DC LO	CABLE - P1	PS*1 - J3	AC,DC LOW+GND
			CABLE - P2	KA780 - J17	

OPTIONAL  
SEE NOTE 3

KC780 OR KU780

SEE NOTE 2

57	7014530-0-L	CABLE POWER (RED)	KA780 +5A -D	KA780+5C -B	PS*2 +5V
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NOTES:

- REFER TO E-UA-KA780 FOR INSTRUCTIONS OF JUMPER REMOVAL IN CONFIGURATIONS USING PS\*1
- IF THE FP780 IS INSTALLED, REMOVE ITEM 57.
- IF THE FP780 IS INSTALLED: ITEM #56 P1 CONNECTS TO PS\*1-J3 OTHERWISE IT IS CONNECTED TO DW780 - J13.

THIS SHEET FOR CU+CV VARIATION ONLY

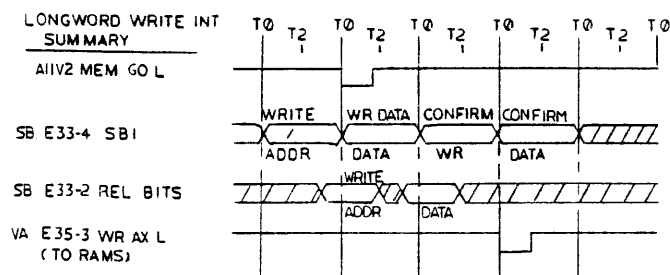
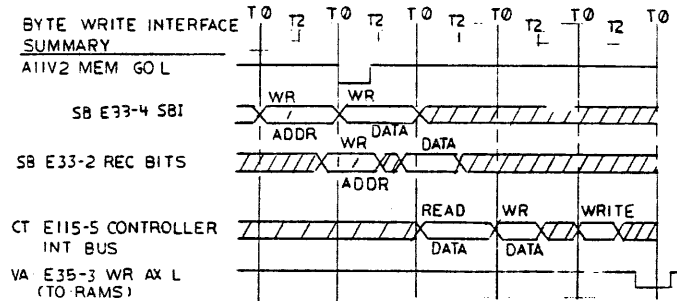
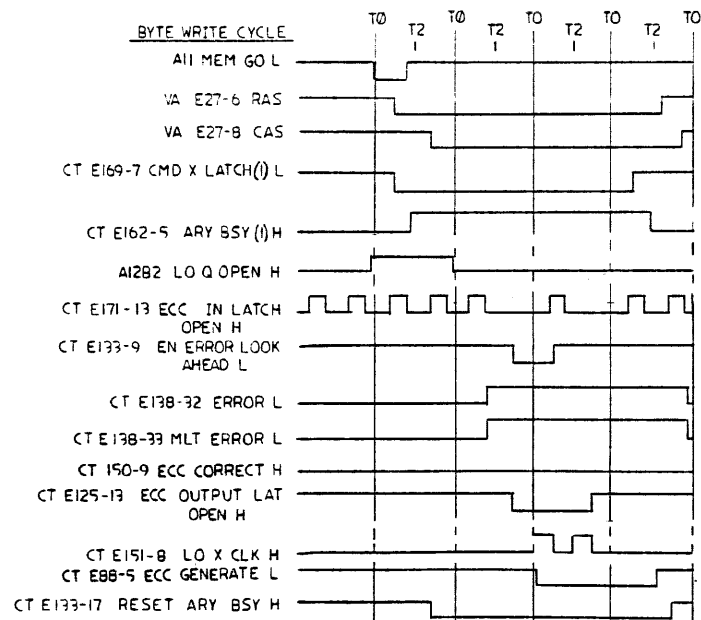
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TITLE 11780 SUB-SYSTEM INTERCONNECT

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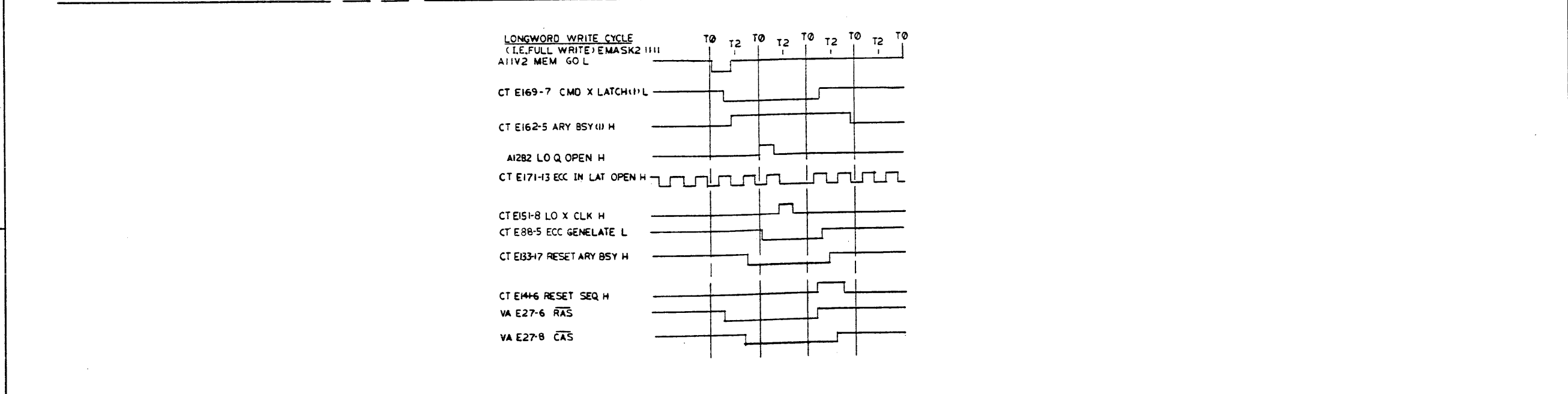
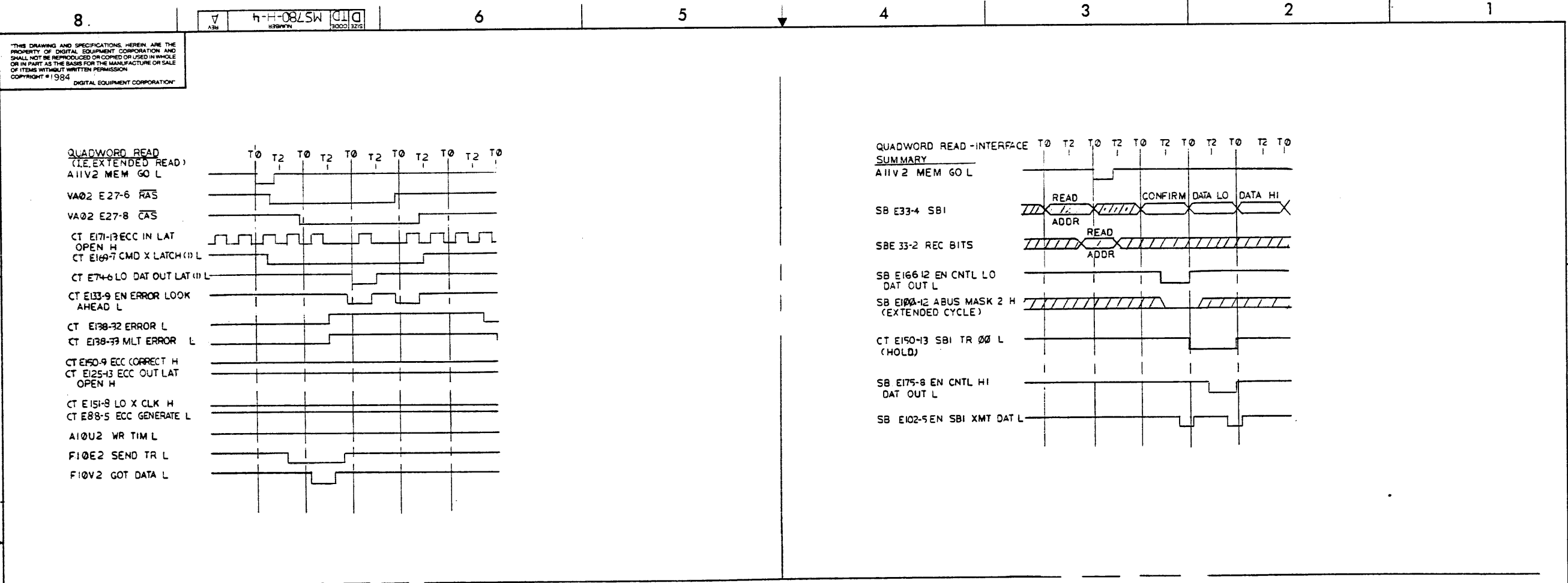
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WFL. ENG. Frank T. ...	DATE 4/20/84	NUMBER MS780-H-4
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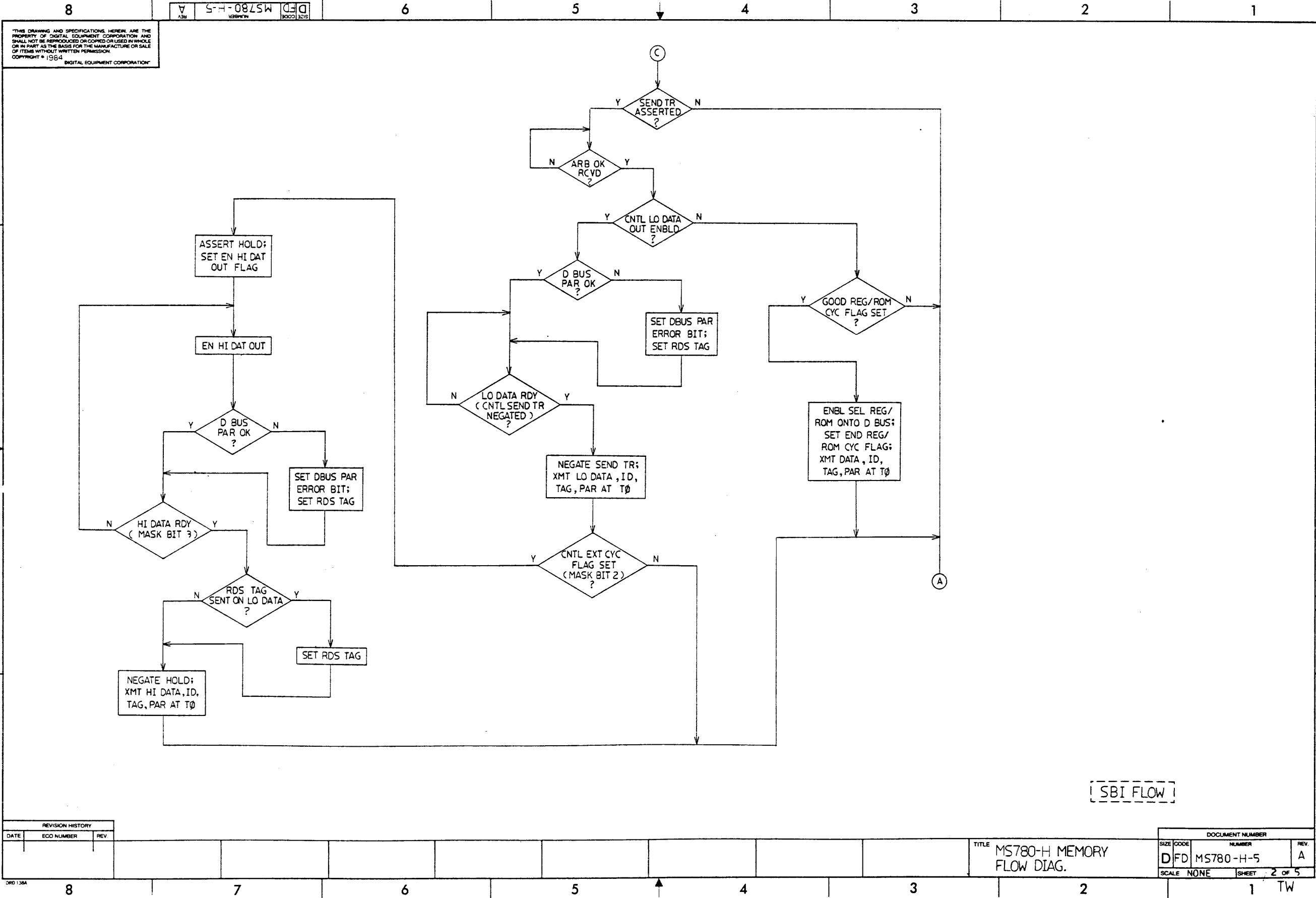


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TITLE MS780-H MEMORY TIMING DIAG.

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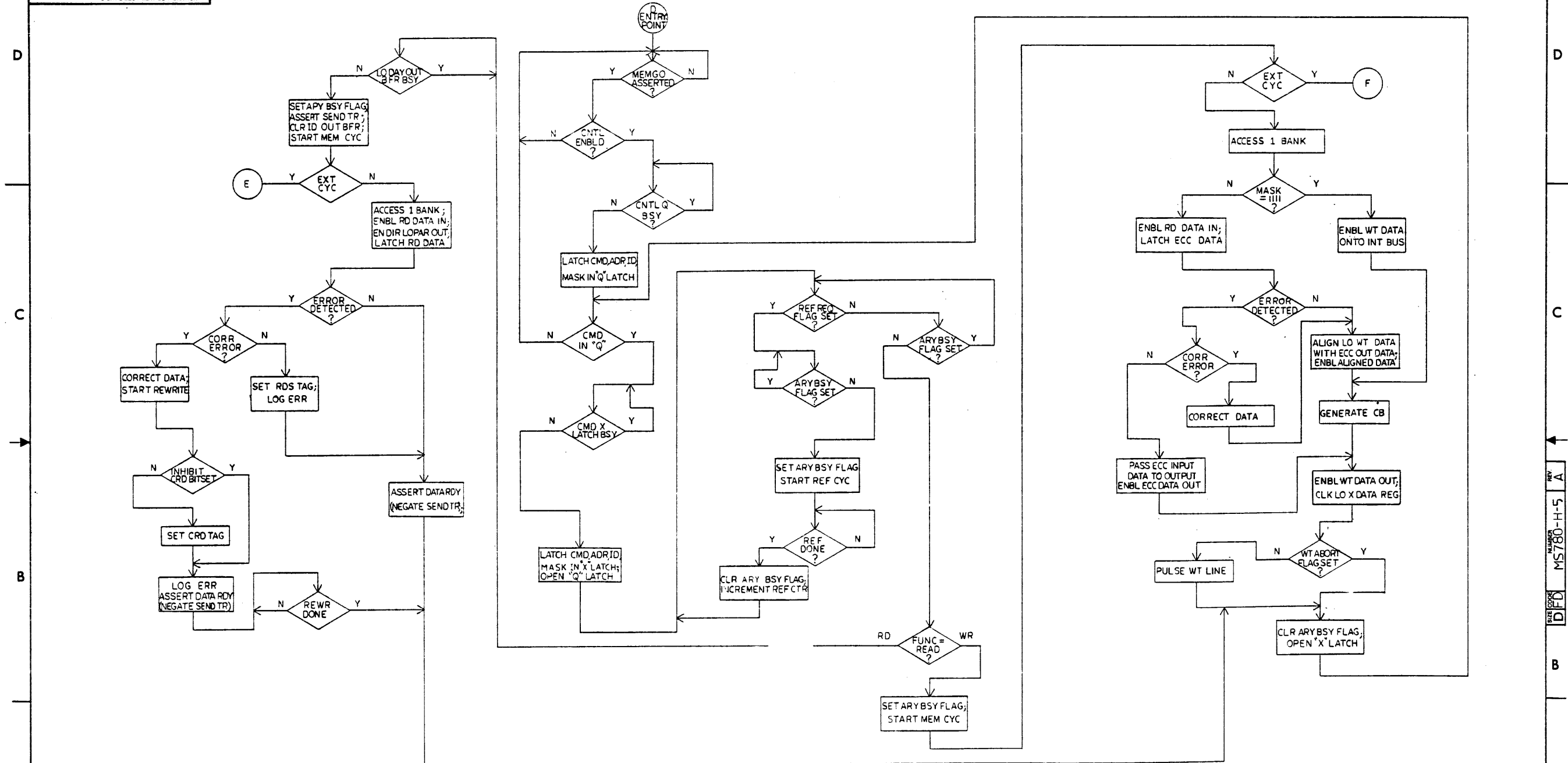
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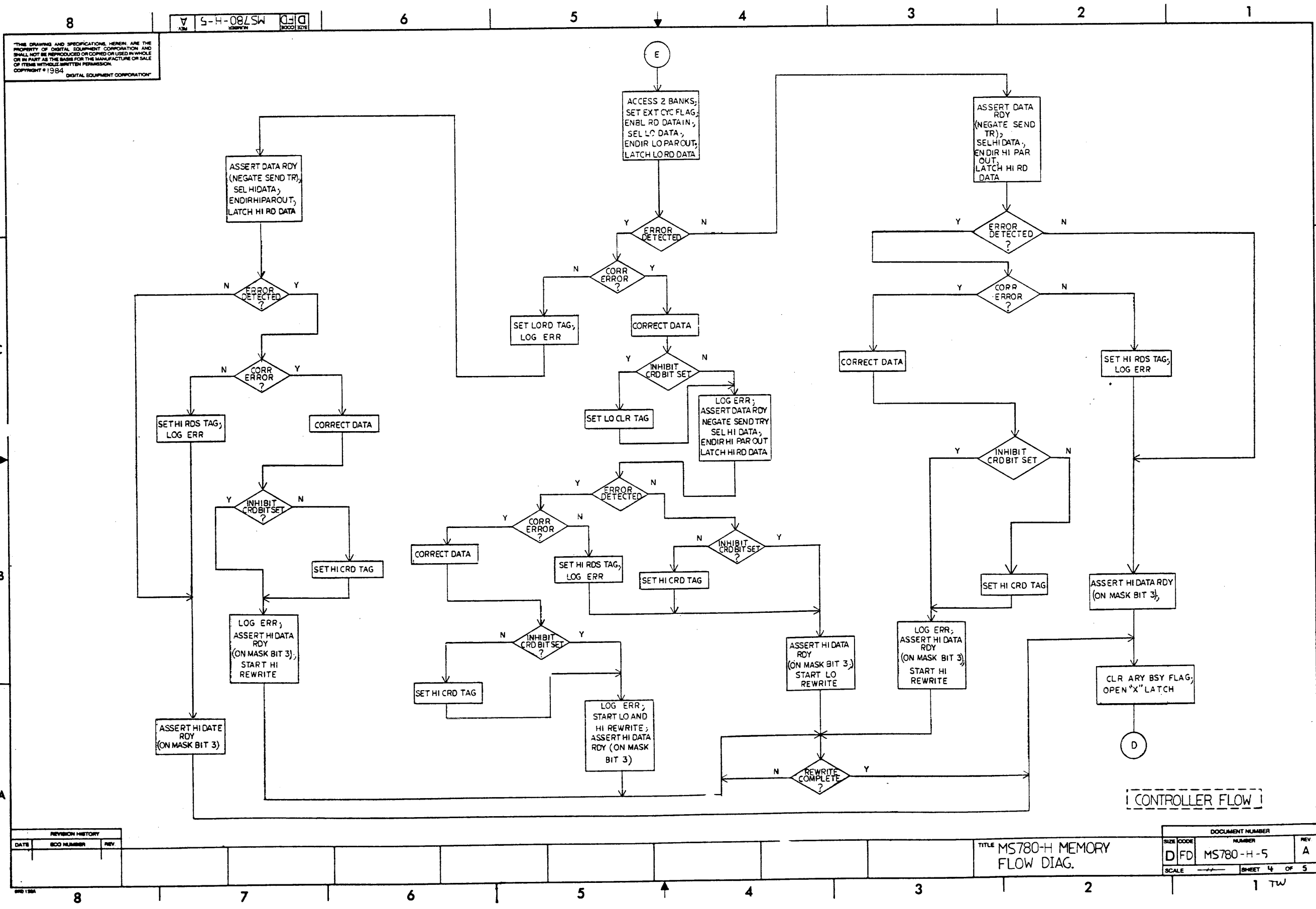
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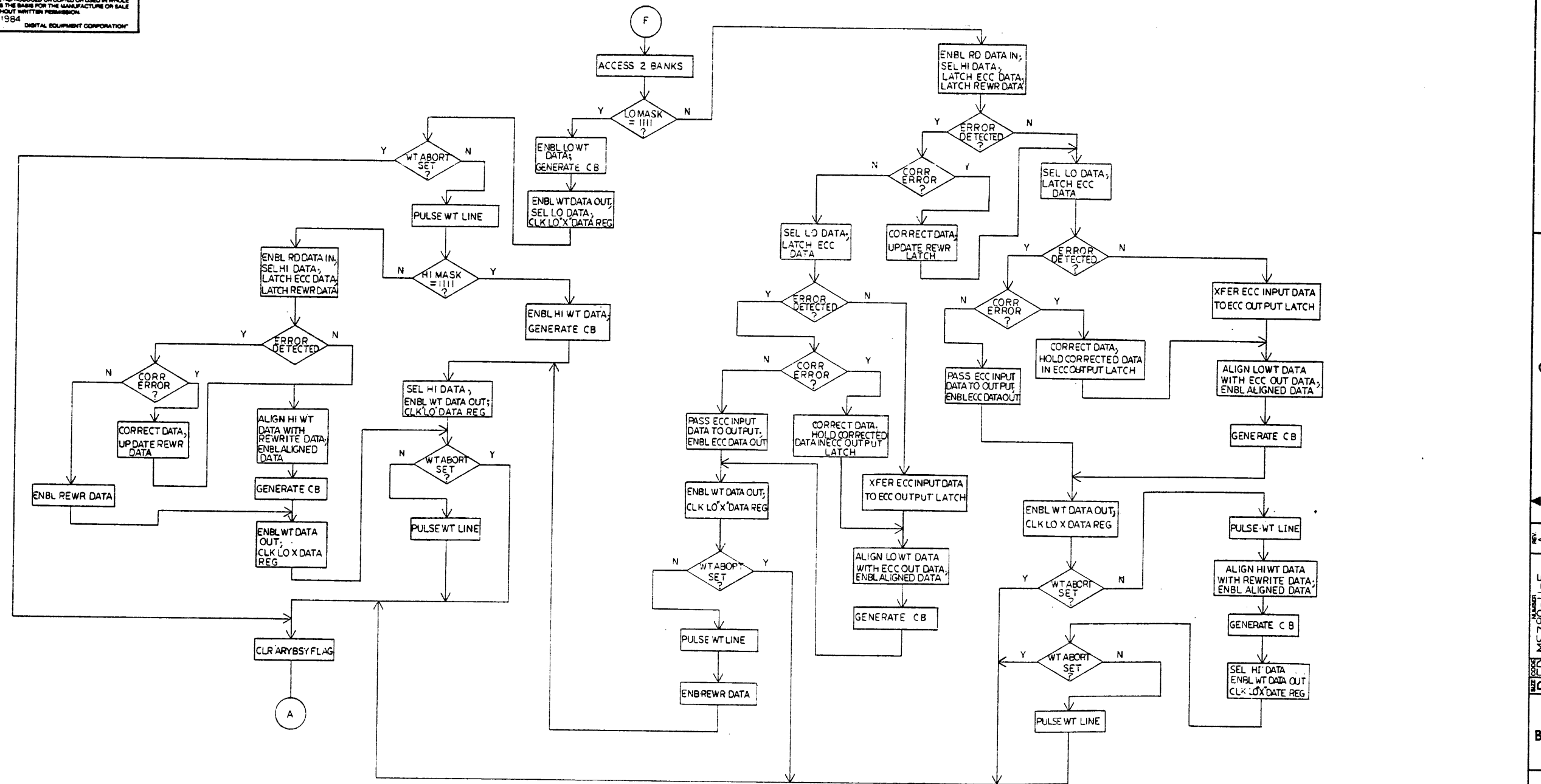
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