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VAR	TITLE
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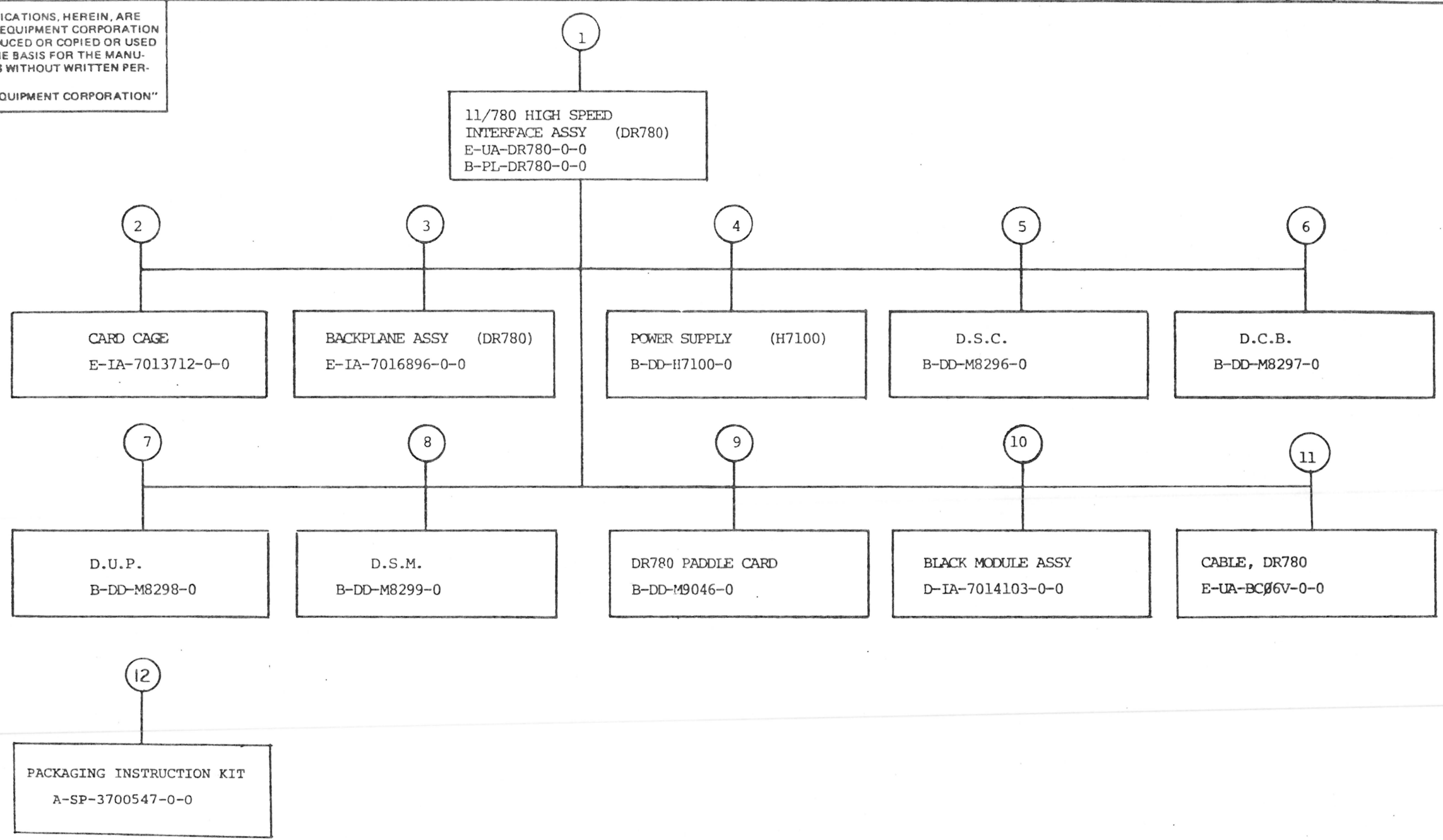
DR780	11/780 HIGH SPEED PARALLEL INTERFACE
DR780-AA	DR780 PLUS H7100-A 115V AC 50/60 HZ
DR780-AB	DR780 PLUS H7100-B 230V AC 50/60 HZ

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	T. ROCHA	DATE	5/29/79	TITLE		11/780 HIGH SPEED PARALLEL INTERFACE (DR780)										digital			
	CHANGE NO.			CHK'D.	<i>[Signature]</i>	DATE	10/5/79																
	CHK			PROJ. ENG.	T. Rocha	DATE	5/29/79																
				PROD.	5/29/79	DATE	4-14-80	SIZE	B	CODE	DD	NUMBER				DR780-0	REV	*					
				SHEET 1 OF 3																			

TW

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REV	NUMBER	SIZE	CODE
*	DR780-0	B	DD



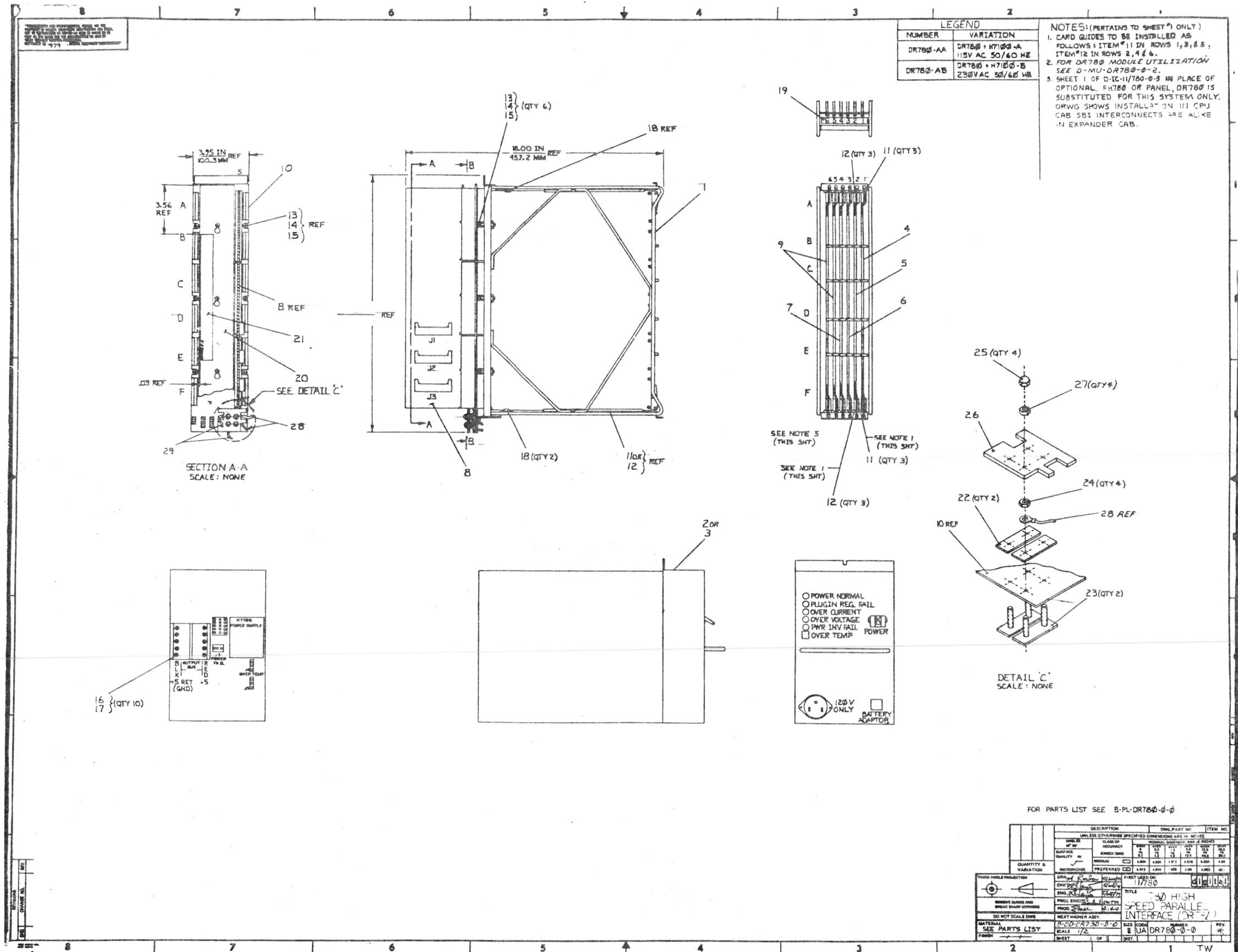
TITLE	SIZE	CODE	NUMBER	REV
11/780 HIGH SPEED PARALLEL INTERFACE (DR780)	B	DD	DR780-0	*
SHEET 2 OF 3				

TW

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1		11780 HIGH SPEED PARALLEL INTERFACE (DR780) (MP)	-				
	B-TC-DR780-0	11780 HIGH SPEED PARALLEL INTERFACE (DR780) (TC)	-	3	E-IA-7016896-0-0	BACKPLANE ASSY	M
	E-UA-DR780-0-0	11780 HIGH SPEED PARALLEL INTERFACE (DR780)	E/M		E-MD-5013843-0-0	BOARD DRILL AND ETCH	M
	A-PL-DR780-0-0	11780 HIGH SPEED PARALLEL INTERFACE (DR780) (PL)	E/M		B-MD-7417973-0-0	BLOCK SPACER	M
	B-IA-7423049-0-0	PLATE STUD	M		C-MD-7417866-0-0	BAR MOUNTING	M
	B-MD-7423050-0-0	COVER PLATE	M		B-MD-7419254-0-0	REWORK CONN BLOCK	M
					B-MD-7423065-0-0	SPACER INSULATOR	M
	B-MD-7423048-0-0	COVER POWER	M		A-DC-7411881-0-0	DECAL AWT REV STATUS	M
					K-WL-7016896-0-2	WIRE LIST	E
					A-WT-7016896-0	A.W.T. REV. STATUS	E
					K-WL-7016896-0-DBW	WIRE LIST DATA BASE TAPE	E
	D-MU-DR780-0-2	MODULE UTILIZATION	E/M	4	B-DD-H7100-0	POWER SUPPLY (H7100)	E/M
	D-BD-DR780-0-1	D.R. BLOCK DIAGRAM	E				
	D-IA-7014212-0-0	CABLE, AC DC IO	E/M	5	B-DD-M8296-0	D.S.C.	E/M
	D-IA-7014530-0-0	CABLE, POWER (RED)	E/M				
	D-IA-7014249-0-0	CABLE, POWER (BLACK)	E/M				
	C-MD-7419450-0-0	COVER, BACKPLANE	M				
	D-IA-1700087-00	CABLE, COAX RIBBON	E/M				
	D-IA-7014213-OK	CABLE, OVER TEMP	E/M	6	B-DD-M8297-0	D.C.B.	E/M
	D-UA-BC06R-0-0	CABLE, I/O	E/M				
	D-AD-7013678-0-0	CAB/CAB CONN PANEL ASSY	M				
				7	B-DD-M8298-0	D.U.P.	E/M
				8	B-DD-M8299-0	D.S.M.	E/M
2	E-IA-7013712-0-0	CARD GAGE	M	9	B-DD-M9046-0	DR780 PADDLE CARD	E/M
	C-MD-7417930-0-0	MTG BAR VERTICAL	M				
	C-MD-7417966-0-0	BRACKET BOTTOM REAR	M				
	B-MD-7417963-0-0	BRACKET CARD GUIDE	M	10	D-IA-7014103-0-0	BLANK MODULE ASSY	M
	C-MD-7417967-0-0	BRACKET BOTTOM CARD GUIDE	M		E-MD-7418172-0-0	BLANK MODULE	M
	C-MD-7417964-0-0	BRACKET TOP CARD GUIDE	M				
	C-MD-7417942-0-0	HANDLE, CARD CAGE	M				
	C-MD-7417965-0-0	BRACKET TOP REAR	M				
	C-MD-7418194-0-0	STIFFENER CARD CAGE	M	11	E-UA-BC06V-0-0	CABLE, DR780	E/M
	C-MD-7418181-0-0	STIFFENER CORNER	M				
				12	A-SP-3700547-0-0	PACKAGING INSTRUCTIONS KIT	
TYPE: E ELECTRICAL M MECHANICAL E/M ELECTRO/MECHANICAL				TITLE 11780 HIGH SPEED PARALLEL INTERFACE (DR780)			
DRB 108A				SHEET 3 OF 3		SIZE B CODE DD	NUMBER DR780-0 TW

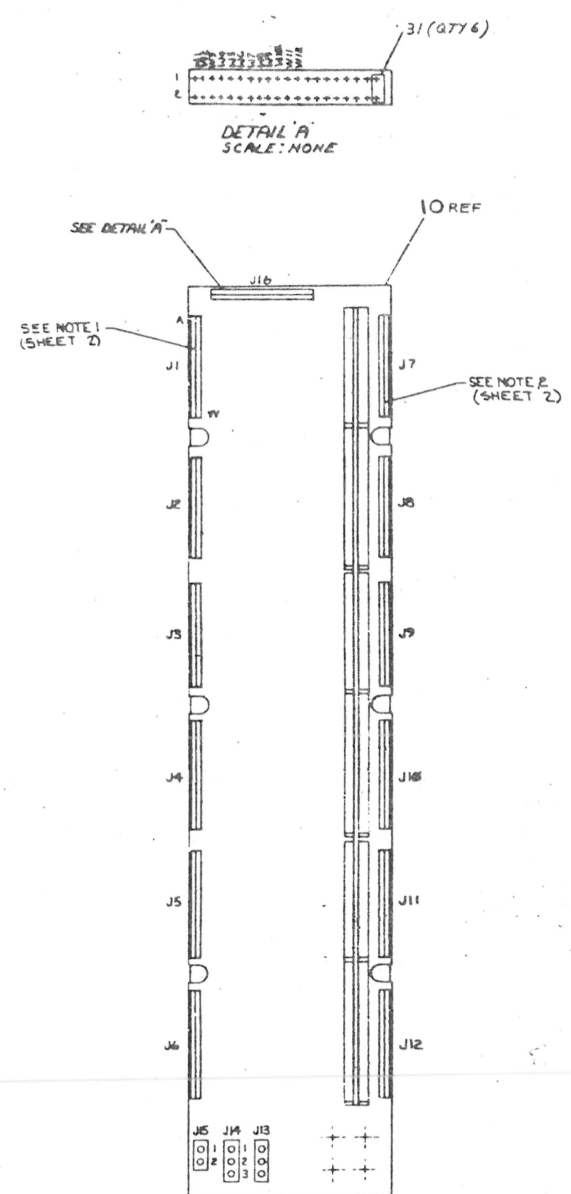
digital

REV *



REVISIONS

- NOTES (PERTAINS TO SHEET 2 ONLY):
1. CONN J1-J6 ARE SET BUS OUT CONN.
 2. CONN J7-J12 ARE SET BUS IN CONN.
 3. 2-KUMMER PLUG INSTALLED(SIGNAL IS LOW)W9-W12 ARE SPARES. JUMPER PLUGS NOT BEING USED ON W1-W8 SHOULD BE STORED ON W9-W12.
 4. INSTALL JUMPER PLUG(ITEM#31)ON W9, W4, W5.
 5. W7+WB ARE INSTALLATION DEPENDENT.



DR INTERRUPT LEVEL SELECTION

SIGNAL NAME	DR INTR CODE #1	DR INTR CODE #2
BR #	WS	WB
4	—	—
5	—	I
6	I	—
7	I	I

SEE NOTE 3 (SHEET 2)

DR TR ARBITRATION LEVEL SELECTION

SIGNAL NAME					WIRE WRAP TABLE	
	TR SELD L	TR SELC L	TR SELB L	TR SELA L	DCBR WY BUS TR L	BUS SET TRX L
TR #	W4	W3	W2	W1	FROM	TO
1	—	—	—	—	+	F02C1
2	—	—	—	I	—	F02D1
3	—	—	I	—	—	F02E1
4	—	—	I	I	—	F02F2
5	—	I	—	—	—	F02H2
6	—	I	—	I	—	F02J1
7	—	I	I	—	—	F02J2
8	—	I	I	I	—	F02M1
9	I	—	—	—	—	F02N1
10	I	—	—	I	—	F02P1
11	I	—	I	—	—	F02P2
12	I	—	I	I	—	F02S2
13	I	I	—	—	—	F02T2
14	I	I	—	I	—	F02U1
15	I	I	I	—	F02L2	F02U2
16	I	I	I	I	—	—

SEE NOTES 3
(SHEET 2)

DE CLK SOURCE SELECTION

DR SUPPLYING CLK	—
DR NOT SUPPLYING CLK	I

SEE NOTE

MSEL DRIVER SELECTION

DR W/ ARBITRATOR	—
DR W/O ARBITRATOR	X

MATE-N-LOK CONNECTIONS

CONNECTOR	1	2	3	4	5	6
J15	NC	NC	I	2	—	—
J14	I	2	NC	3	—	—
J13	I	2	NC	3	—	—

NC = NO CONNECTION

DISABLE SELECT

DR A	DR B
E03R1-E03T2	E03R1-E03F2
E03R2-E03F2	E03R2-E03T2

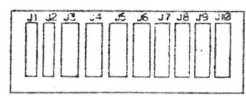
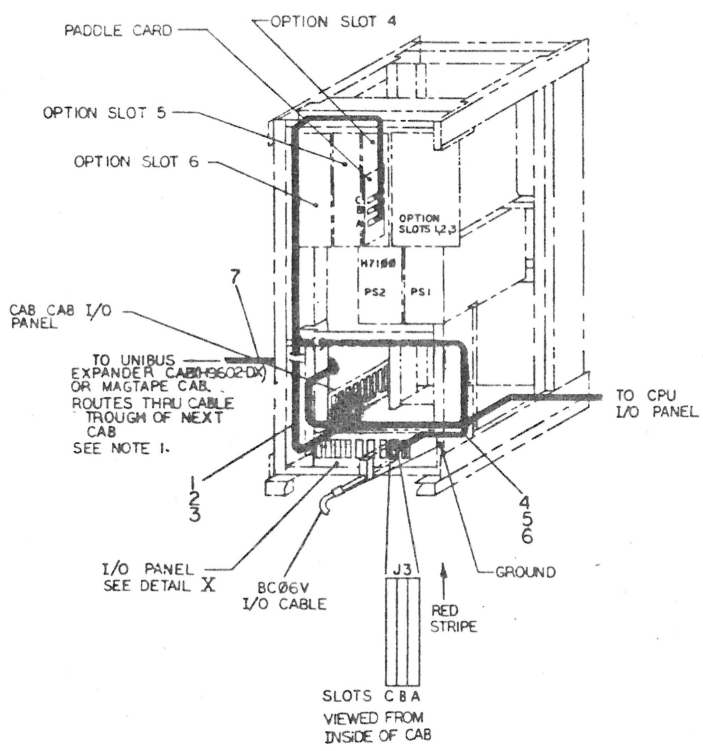
REVISIONS

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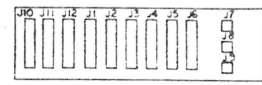
NOTES:

1. CABLES ROUTED THRU M9602 CAB SHALL TAKE ROUTE SHOWN. CABLES ARE DRESSED IN BOTTOM REAR TROUGH.
2. TOTAL CABLE LENGTH BETWEEN M9046 OF DR 780 AND M9046 OF PARENT DEVICE CANNOT EXCEED 100'.

OPTION INTERCONNECT TABLE SEE NOTE 2				
ITEM NO REF ONLY	PART NUMBER	DESCRIPTION	FROM	TO
1	BC06R-10	I/O CABLE	M9046-C	EXP TO CONN-J10
2			M9046-B	EXP TO CONN-J11
3			M9046-A	EXP TO CONN-J12
4			M9046-C	TO CONN J3 SLOT C
5			M9046-B	TO CONN J3 SLOT B
6	BC06R-10	I/O CABLE	M9046-A	TO CONN J3 SLOT A
7	*	I/O CABLE	CPU TO PANEL	UNIBUS OR MAGTAPE

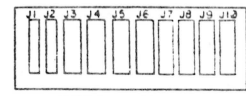
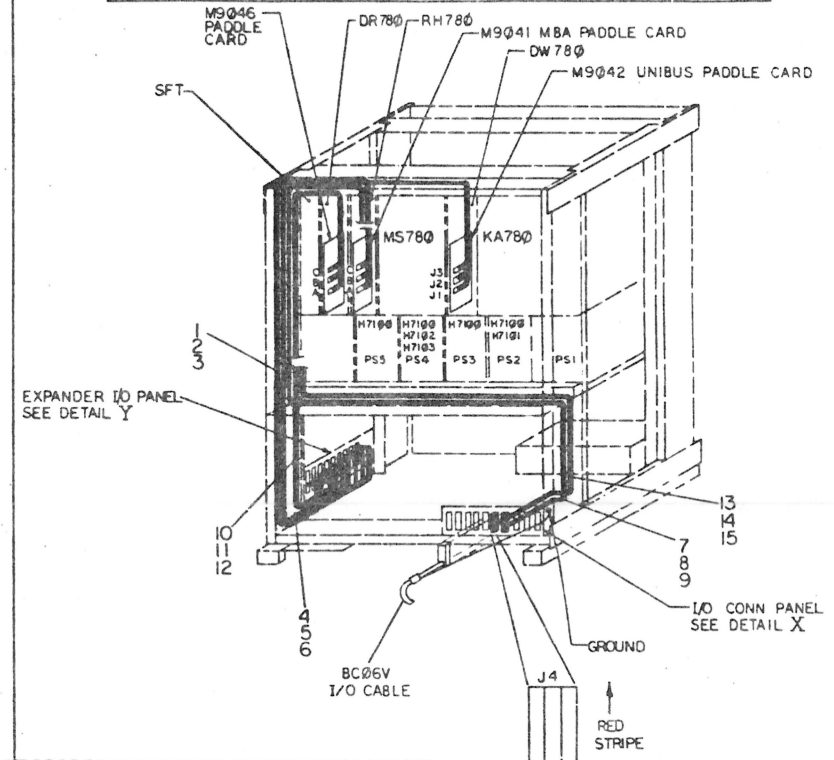


DETAIL X
VIEW FROM
INSIDE OF CABINET

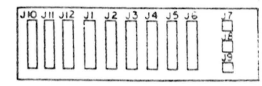


DETAIL Y
VIEW FROM
INSIDE OF CABINET

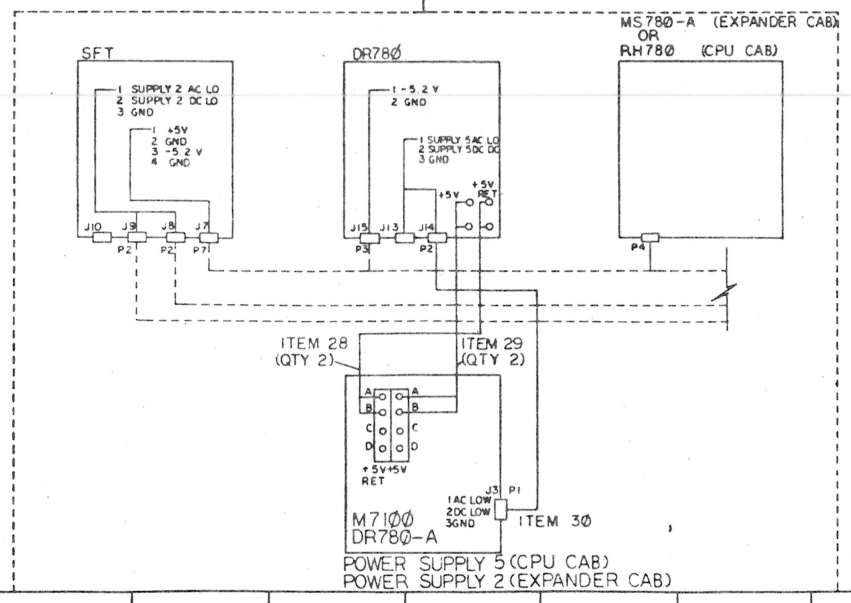
OPTION INTERCONNECT TABLE SEE NOTE 2				
ITEM NO REF ONLY	PART NUMBER	DESCRIPTION	FROM	TO
1	7013622-Q	CABLE RIBBON UNIBUS	M9042-J2	EXP TO CONN J3
2			M9042-J3	-J11
3			M9042-J1	-J12
4	BC06R-10	I/O CABLE	M9041-C	-J4
5			M9041-B	-J5
6			M9041-A	-J6
7			M9041-C	TO CONN J3 SLOT C
8			M9041-B	SLOT B
9			M9041-A	SLOT A
10			M9046-C	EXP TO CONN-J10
11			M9046-B	-J11
12			M9046-A	-J12
13			M9046-C	TO CONN J4 SLOT C
14			M9046-B	SLOT B
15			M9046-A	SLOT A



DETAIL X
VIEW FROM INSIDE
OF CABINET



DETAIL Y
VIEW FROM INSIDE
OF CABINET



MADE BY A. ROCHA DATE 7/17/79	CHECKED <i>[Signature]</i> DATE 10/5/79	SECTION
ENG T. Elmendorf DATE 5 OCT 79	PROD <i>[Signature]</i> DATE 4.14.0	ISSUED SECTION

NOTES:

SECTION

ISSUED SECTION

DESCRIPTION

DR780-AB

REF DESIGNATION

CARD CAGE
H7100-A PWR SUPPLY 115V AC
H7100-B PWR SUPPLY 230V AC
DSC
DCB
DUP
DSM
DDIP
BLANK MODULE ASSY
BACKPLANE ASSY DR780
CARD GUIDE SINGLE (NATURAL)
CARD GUIDE SINGLE (MAGENTA)
SCR PH PAN HD #8-32-1.00
WASHER FLAT, .038 O.D.X.19 I.D.X.06
NUT, KEP #8-32
SCR. PH PAN HD #10-32X.50
WASHER, LOCK SPLIT #10
CARD GUIDE
LABEL, ADHESIVE BACKED (6 SLOT)
COVER, M.B.A. BACKPLANE
LABEL, DANGER
PLATE COVER
PLATE STUD
NUT KEP #10-32
NUT CAP #10-32
COVER, POWER

1	1
1	-
-	1
1	1
1	1
1	1
1	1
1	1
2	2
2	2
1	1
6	6
6	6
6	6
6	6
6	6
10	10
10	10
2	2
1	1
1	1
1	1
2	2
2	2
4	4
4	4
1	1

E.C.O. NO.

REV.
*

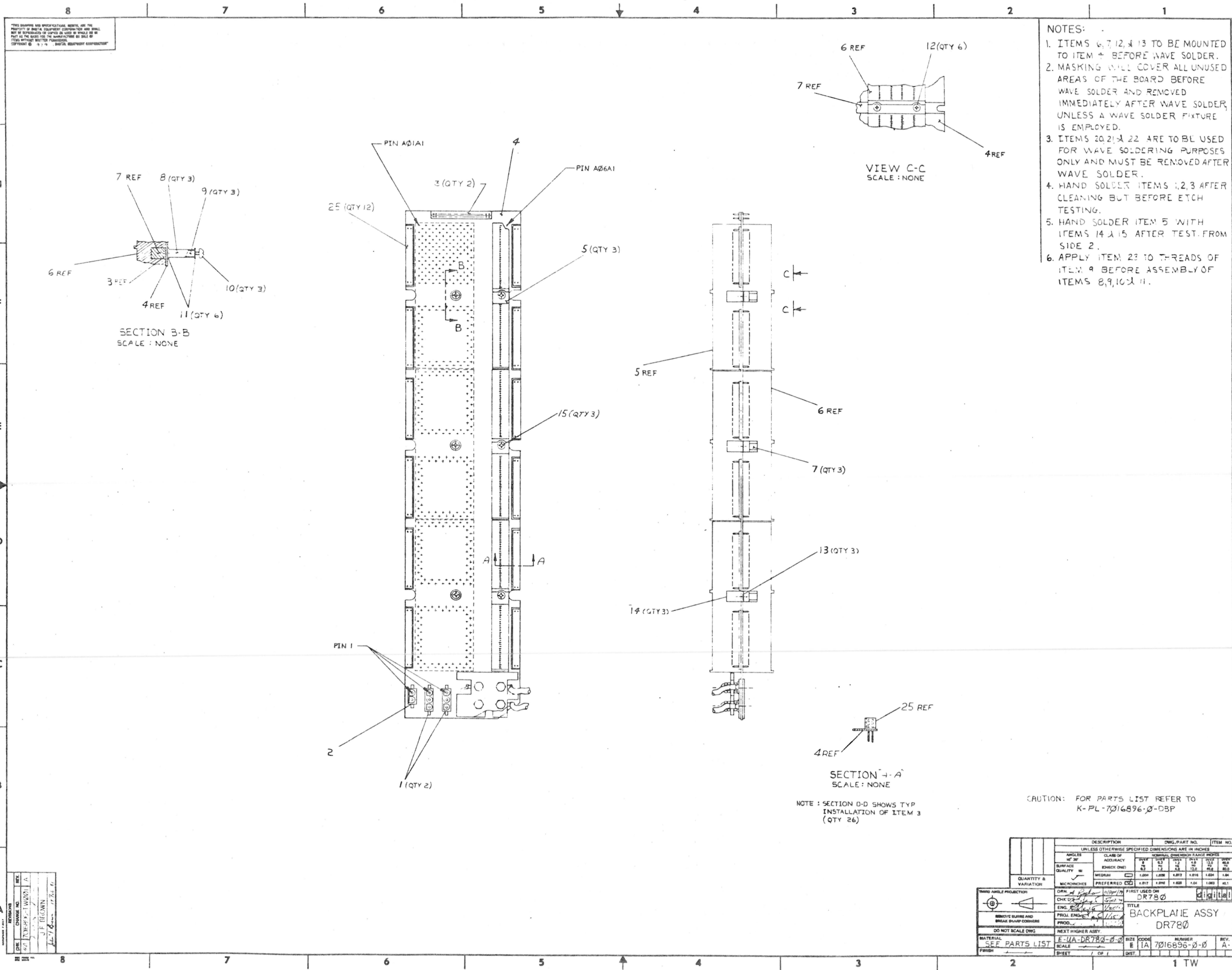
INSERTION PARTS LIST DATA BASE REV

Tu

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION												NOTES:			
MADE BY A. ROCHA DATE 7/17/79		CHECKED <i>[Signature]</i> DATE 10/5/79		SECTION															
ENG T. <i>[Signature]</i> 5 OCT 79 DATE		PROD DATE		ISSUED SECTION															
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	DR780-AA	DR780-BB												REF DESIGNATION		
27		9009005-00	NUT, HEX #10-32	4	4														
28	D-IA-7014530-0-0	7014530-0L	CABLE, POWER (BLACK)	2	2														
29	D-IA-7014249-0-0	7014249-0L	CABLE, POWER (RED)	2	2														
30	D-IA-7014212-0-0	7014212-M	CABLE AC, DC LO	1	1														
31		1214314-00	PLUG, JUMPER	6	6														
32	D-IA-7014213-0-0	7014213-OK	CABLE, OVER TEMP	1	1														
33	D-IA-1700087-0-0	1700087-00	CABLE, COAX RIBBON	6	6														
34	D-IA-BC06R-0-0	BC06R-10	CABLE, I/O, BC06R (10FT)	6	6														
35	E-UA-BC06V-0-0	BC06V-25	CABLE, DR780, BC06V (25 FT)	1	1														
36	A-PS-3616912-0-0	3616912-00	DECAL, MODULE UTILIZATION	1	1														
37	D-AD-7013678-0-0	7013678-00	CAB/CAB CONN PANEL ASSY	1	1														
38		1211591-19	RECEPTACLE HOUSING KIT	2	2														
39		9006557-00	NUT, KEP #4-40	8	8														
40		9008033-01	SCR, PAN ED, PHIL #4-40 X .56	8	8														
41		9009642-00	SCR, PAN HD, PHIL SEMS #8-32 X .25	5	5														
42		1211591-23	RECEPTACLE	6	6														
43	A-SP-3700547-0-0	3700547-00	PACKAGING INSTRUCTION KIT	1	1														

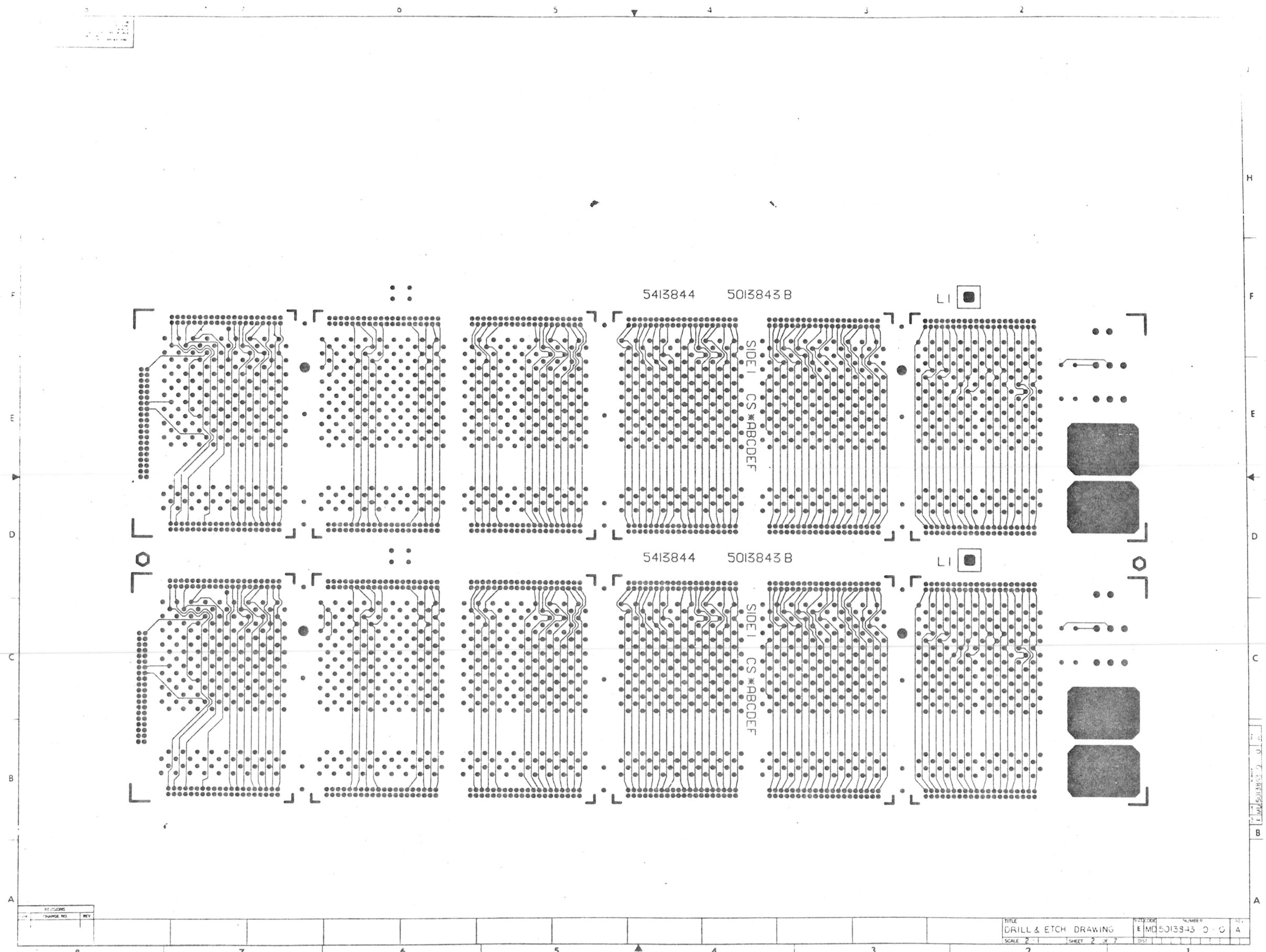
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			E-UA-DR780-0-0	B	PL	DR780-0-0	*
SHEET 2 OF 2			INSERTION PARTS LIST DATA BASE REV				

711



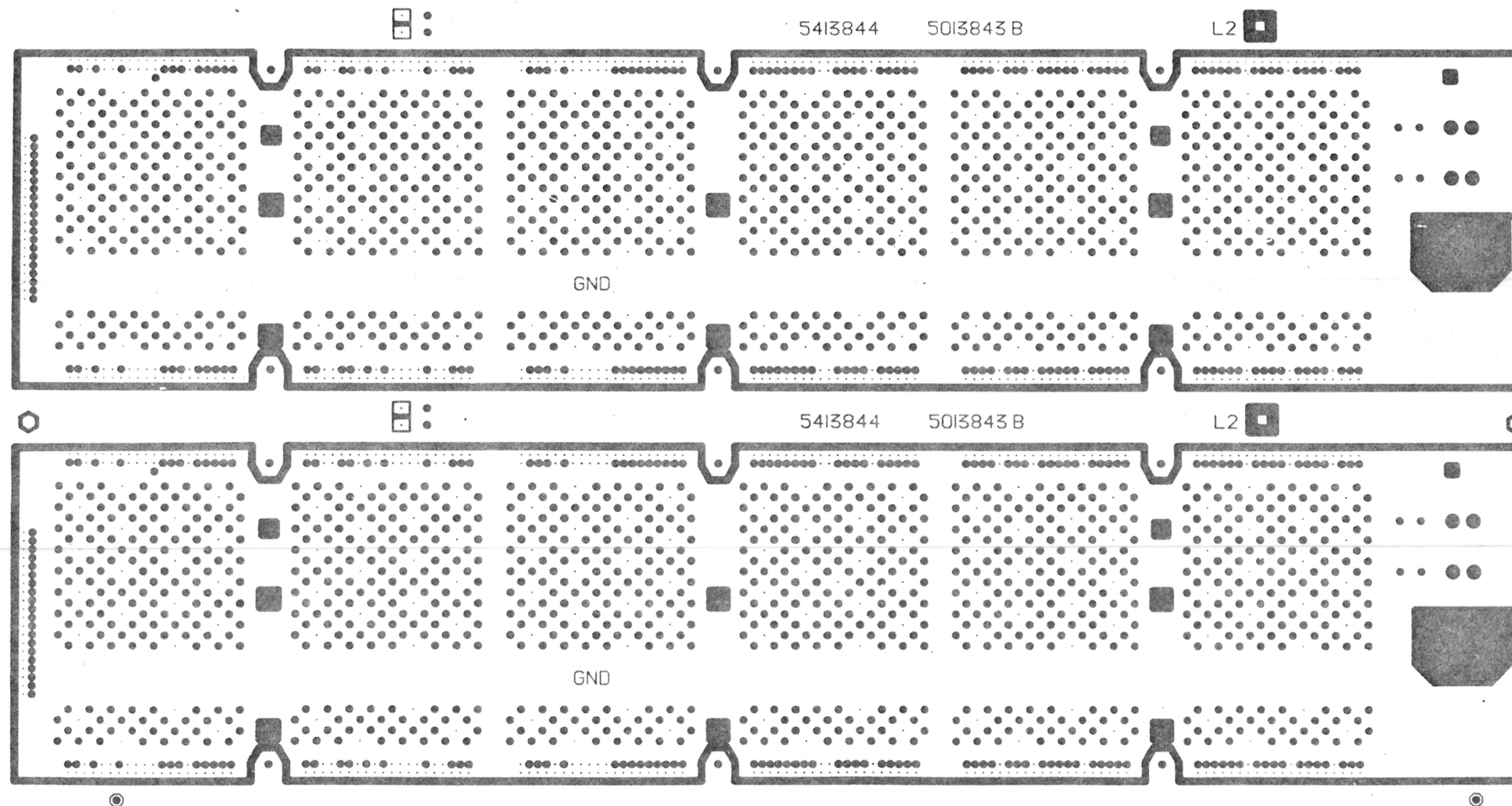
- NOTES:
1. ITEMS 6, 7, 12, & 13 TO BE MOUNTED TO ITEM 4 BEFORE WAVE SOLDER.
 2. MASKING WILL COVER ALL UNUSED AREAS OF THE BOARD BEFORE WAVE SOLDER AND REMOVED IMMEDIATELY AFTER WAVE SOLDER, UNLESS A WAVE SOLDER FIXTURE IS EMPLOYED.
 3. ITEMS 20, 21 & 22 ARE TO BE USED FOR WAVE SOLDERING PURPOSES ONLY AND MUST BE REMOVED AFTER WAVE SOLDER.
 4. HAND SOLDER ITEMS 1, 2, 3 AFTER CLEANING BUT BEFORE ETCH TESTING.
 5. HAND SOLDER ITEM 5 WITH ITEMS 14 & 15 AFTER TEST FROM SIDE 2.
 6. APPLY ITEM 23 TO THREADS OF ITEM 9 BEFORE ASSEMBLY OF ITEMS 8, 9, 10 & 11.

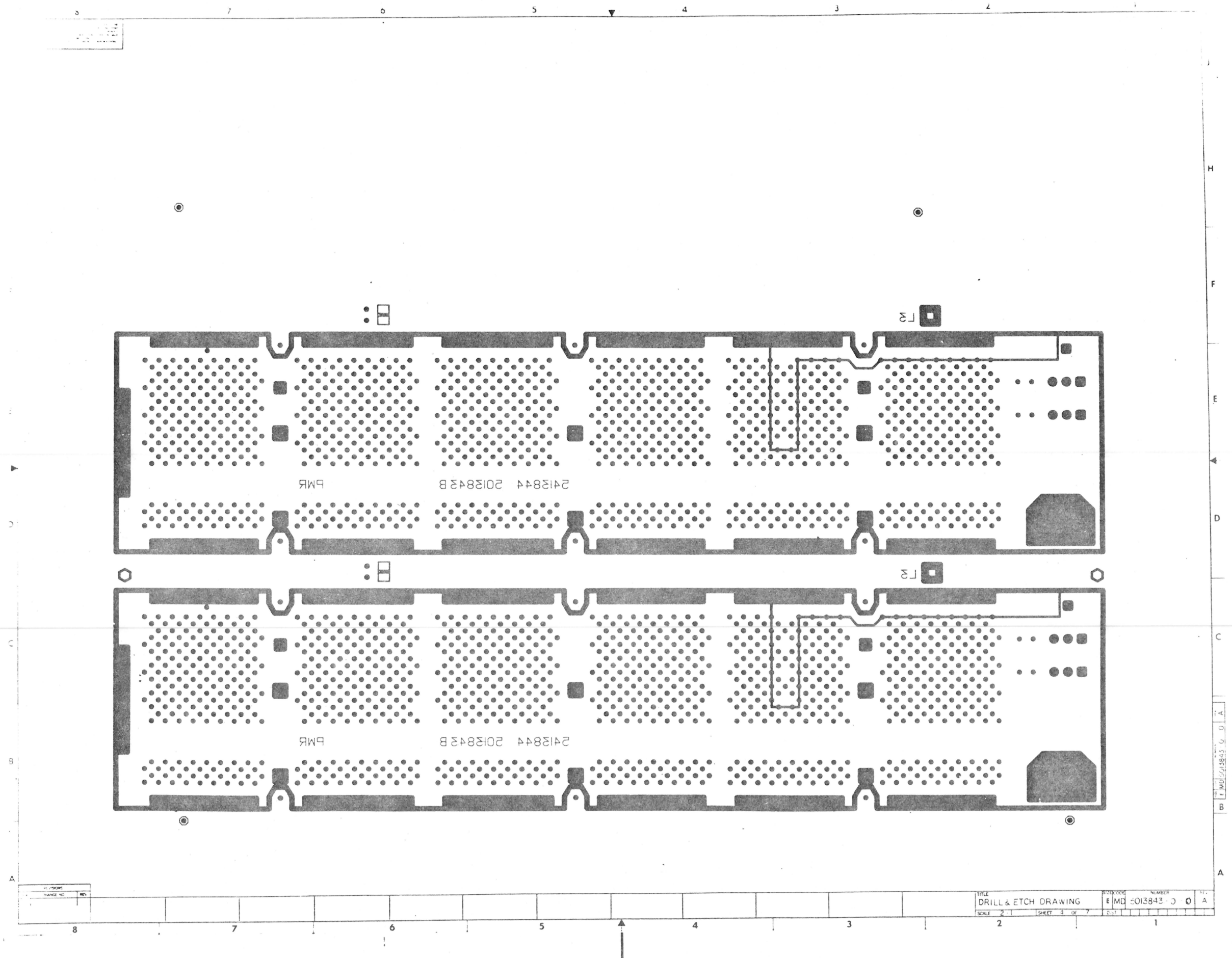
QUANTITY & VARIATION		DESCRIPTION		DWG. PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
ANGLES		CLASS OF ACCURACY		SURFACE QUALITY		FINISH	
30°		B		1.00		1.00	
SURFACE QUALITY		FINISH		FINISH		FINISH	
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1.00		1.00		1.00		1.00	
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1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00		1.00		1.00		1.00	
1.00</							



REV	DESCRIPTION	DATE
1	CHANGE NO.	REV

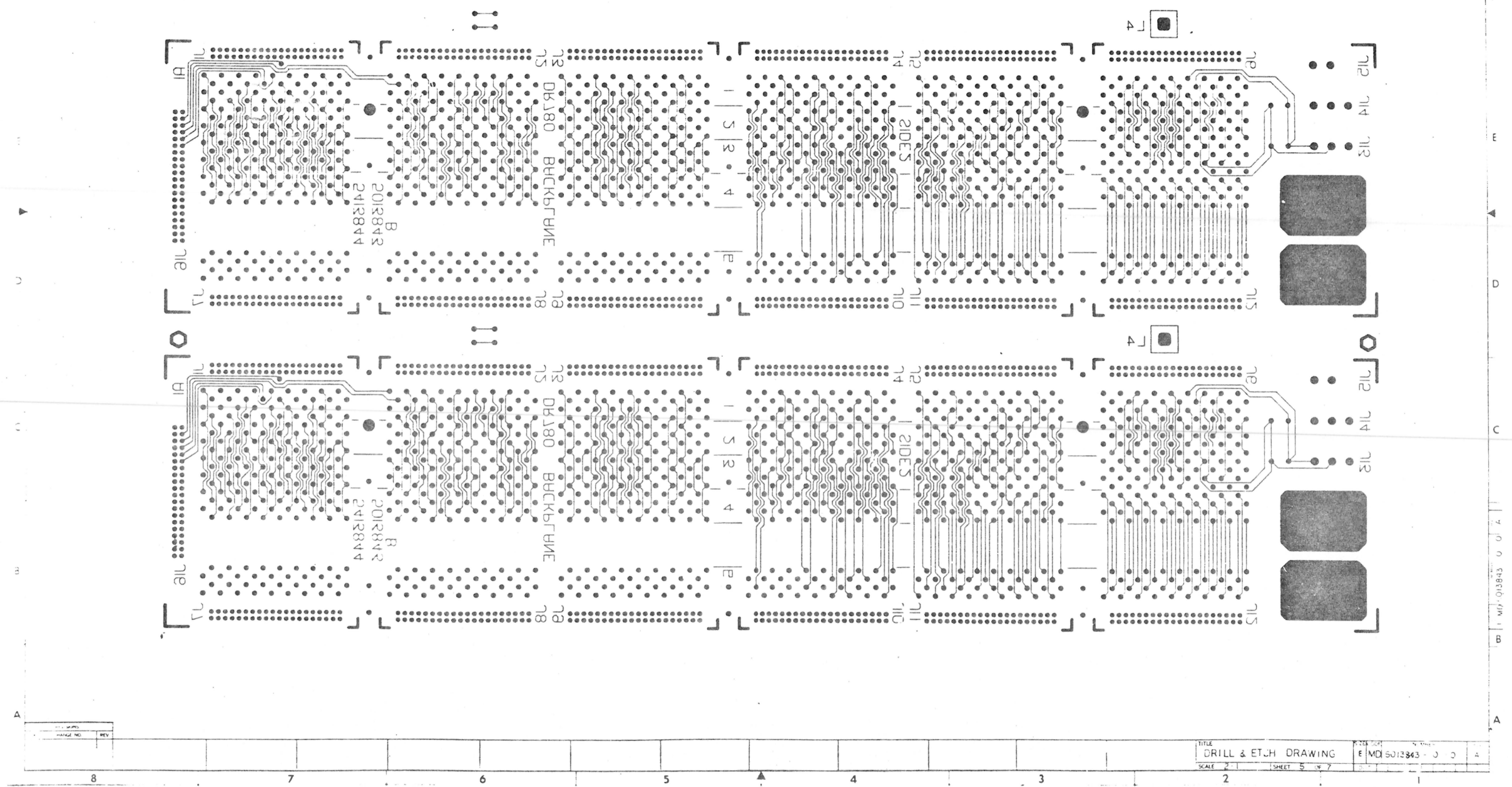
TITLE	DRILL & ETCH DRAWING	SIZE	000	NUMBER	0	0	A
SCALE	2-1	SHEET	2	OF	7	DIST	





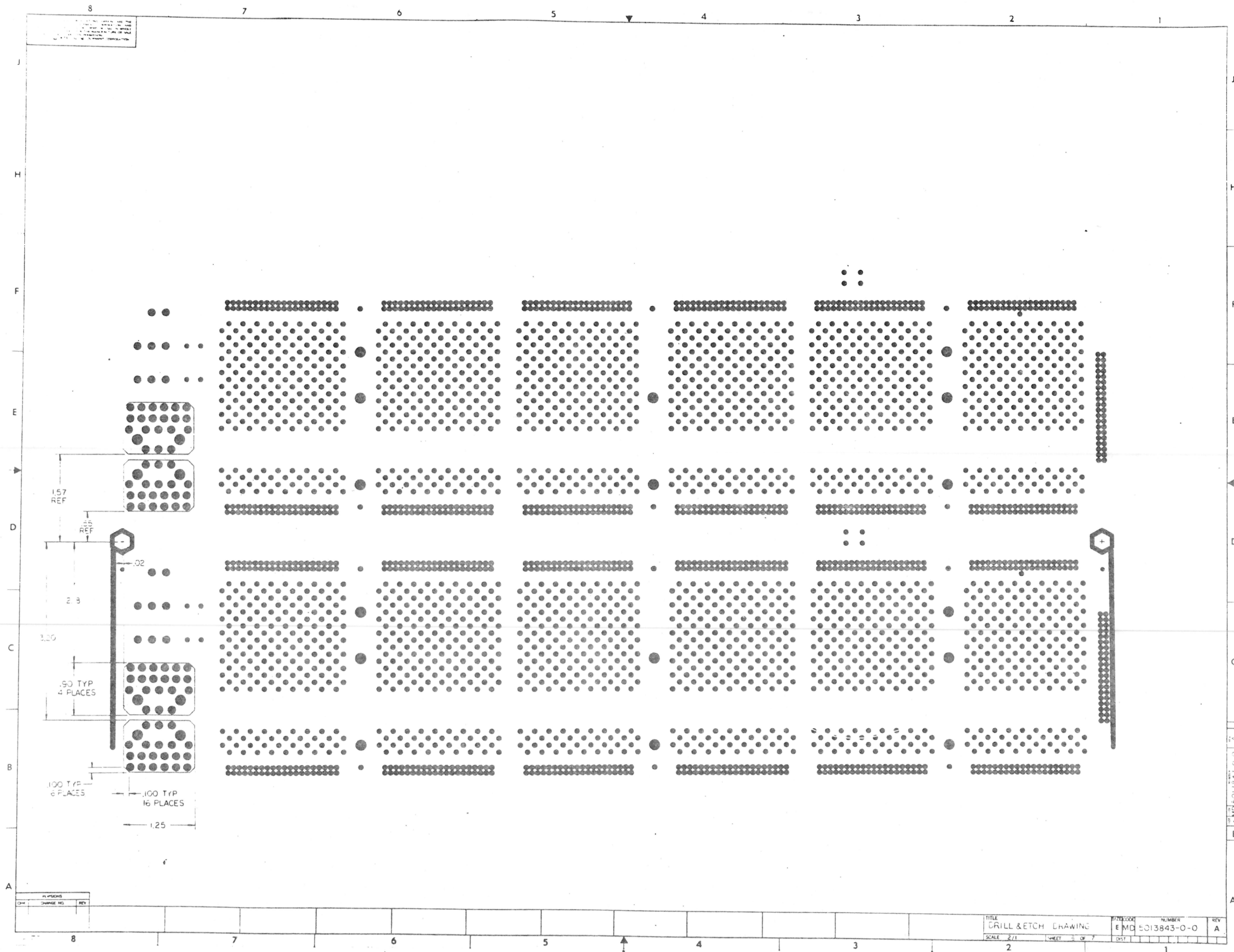
REV	DATE	BY
1		

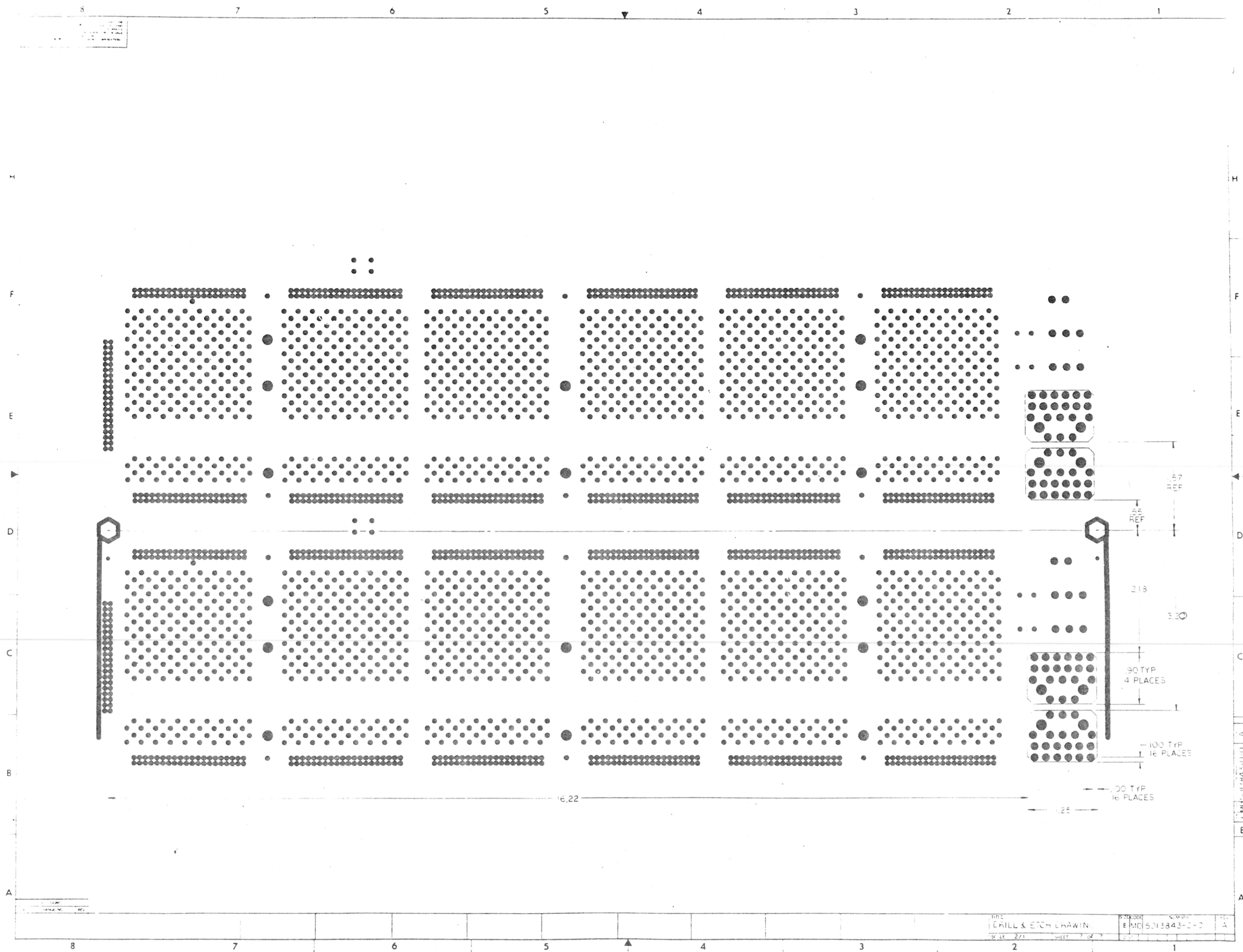
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SCALE	2	SHEET	3	OF	7	DATE		



NO.	REV.
1	

TITLE	DRILL & ETCH DRAWING	NO. 5013843	0 0 A
SCALE	1:2	SHEET	5 OF 7





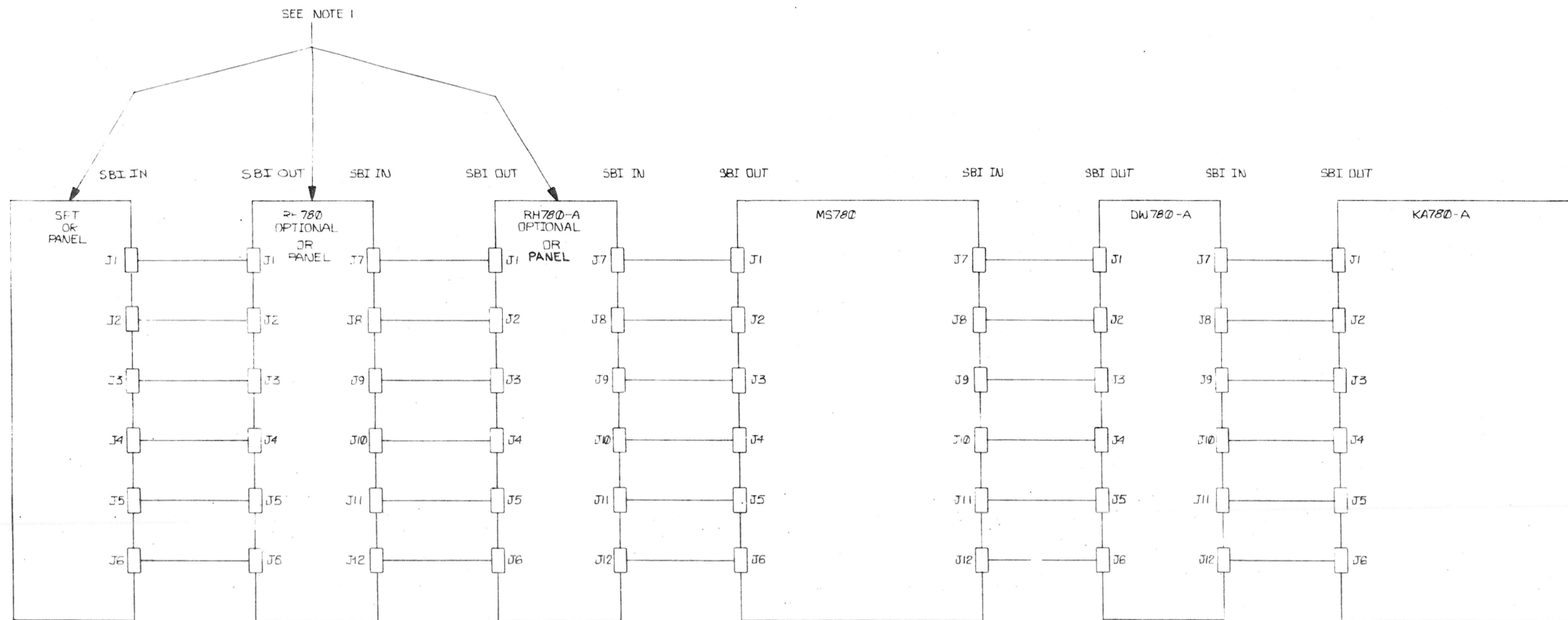
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D

C

B

A



NOTES:

- 1.) 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
- 2.) SBI CABLE CONNECTIONS TO SFT FROM ADJACENT BACKPLANE ARE ALWAYS 1700087-1 (QUANTITY 6) OTHER SBI CABLES ARE 1700087-0

REV.	CHG.	NO.	DATE	BY	CHK.
1		11780-TW002	1/17/77	E. ANTON	
2		11780-TW006	2/14/77	R. CHUSMAE	

SEC. 100-0

(BACKPLANE S.B.I. INTERCONNECT)

DRN. <i>E. Taylor</i>	26 JUL 77	FIRST USED ON	11780	digital
CHK'D <i>D. Hoady</i>	1 Aug 77	TITLE	11780 SUB SYSTEM	
ENG'D <i>P. T. S.</i>	8 Sep 77		INTERCONN.	
PROJ. ENG. <i>11780</i>	8 Sep 77			
PROD. <i>R. Hoady</i>	11 Aug 77			
NEXT HIGHER ASSY.				
B-DD-11780-0				
SCALE		SIZE	CODE	NUMBER
		D	IC	11780-0-3
SHEET	1	OF	8	REV. B
DIST.				

TW 1

B

B

A

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8 2-0-08211 2

1

D

D

C

C

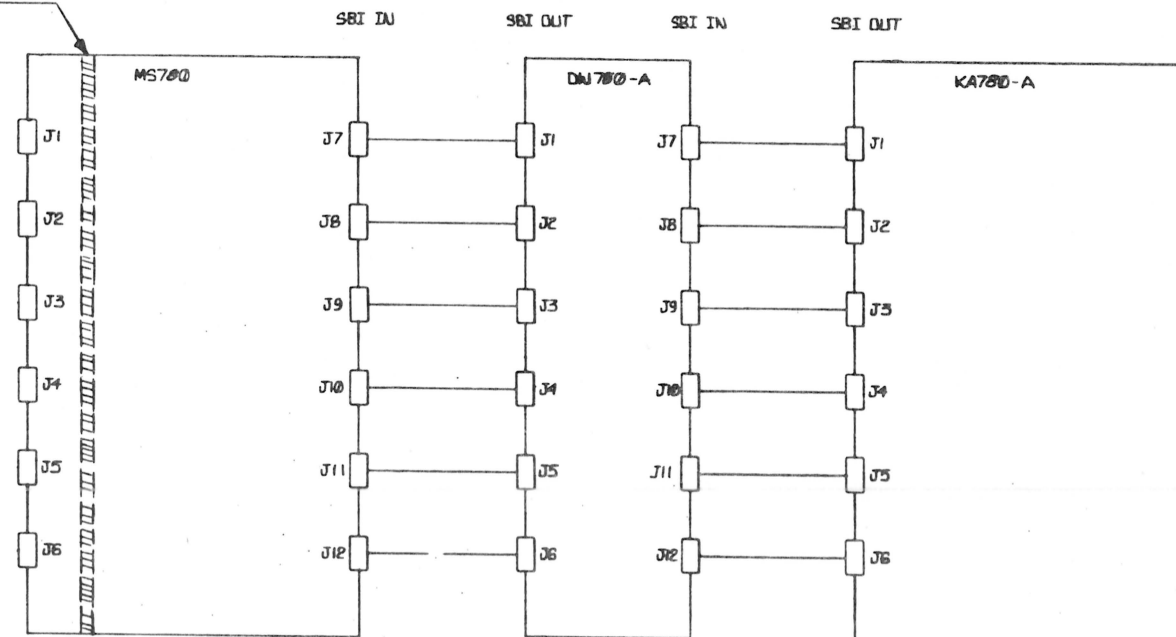
B

B

A

A

SEE NOTE 1



NOTES:

- 1) 11780 CU+CV SYSTEM CONSISTS OF
 - A. KA780 A
 - B. DW780 A
 - C. MS780
 - D. TRM (M9040) MOUNTED IN SLOT# 1 OF MS780 BACKPLANE.

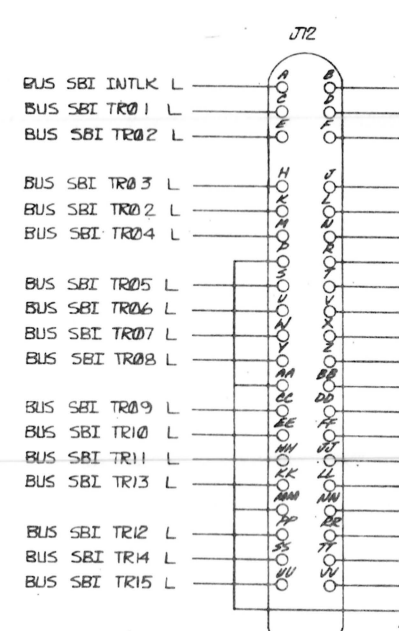
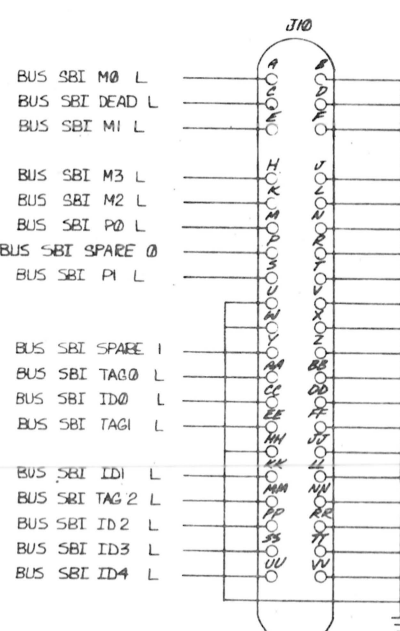
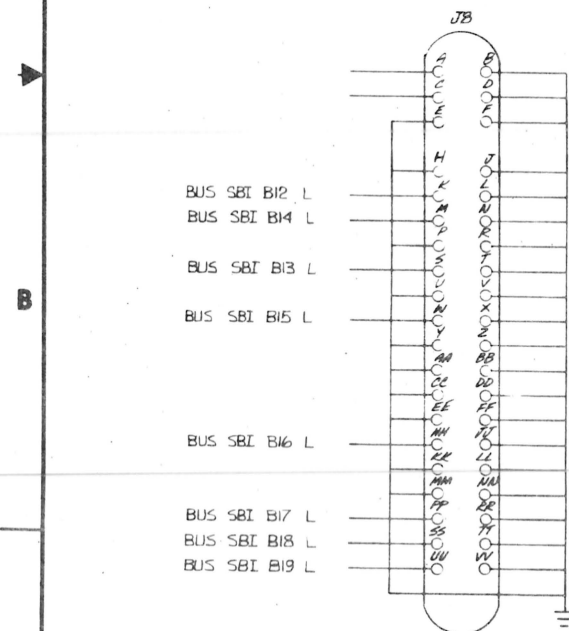
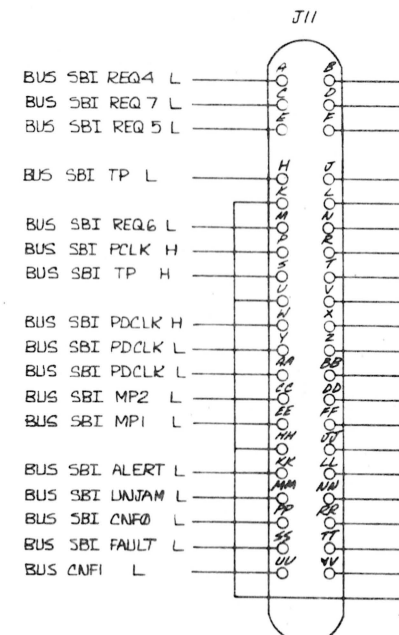
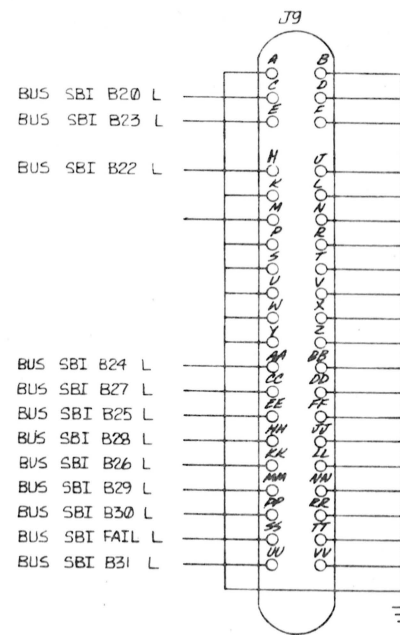
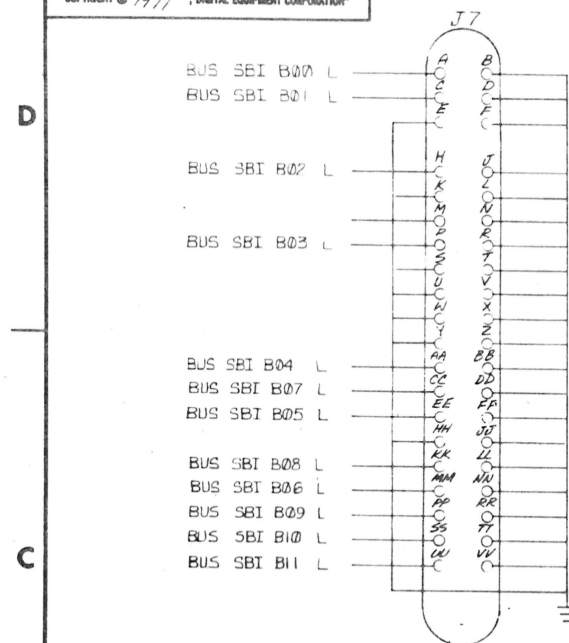
THIS SHEET FOR
CU+CV VARIATIONS
ONLY

(BACKPLANE S.B.I. INTERCONNECT)

DRN. PEG Lennan 9/17/79	FIRST USED ON 11780
CHKD	TITLE 11780 SUB SYSTEM INTERCONN.
ENG.	NO.
PROJ. ENG.	NO.
PROD.	NO.
NEXT HIGHER ASSY.	NO.
2-DD-11780-0	SIZE CODE NUMBER REV.
SCALE	D IC 11780-0-3 B
SHEET 2 OF 8	DIST.

TW 1

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REV.	CHANGE NO.	DATE
1		

DEC 1977

(SBI. IN)		FIRST USED ON	
DRN. E. Taylor	25 JUL 77	11780	
CHK'D. J. Taylor	16 AUG 77	11780 SUB SYSTEM	
ENG. E. Taylor	16 SEP 77	INTERCONNECT	
PROJ. ENG. J. Taylor	16 OCT 77		
PROD. R. Taylor	11-10-77		
NEXT HIGHER ASSY.			
B-DD-11780		SIZE CODE	NUMBER
SCALE 1:1		D IC	11780-0-3
SHEET 3 OF 8		DIST.	

TW 1

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D

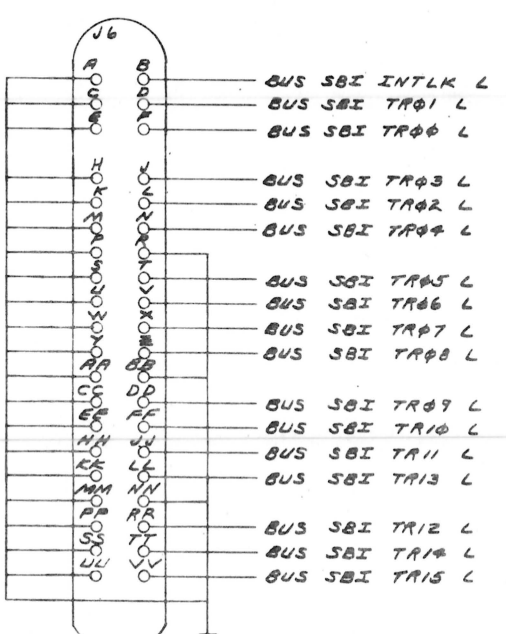
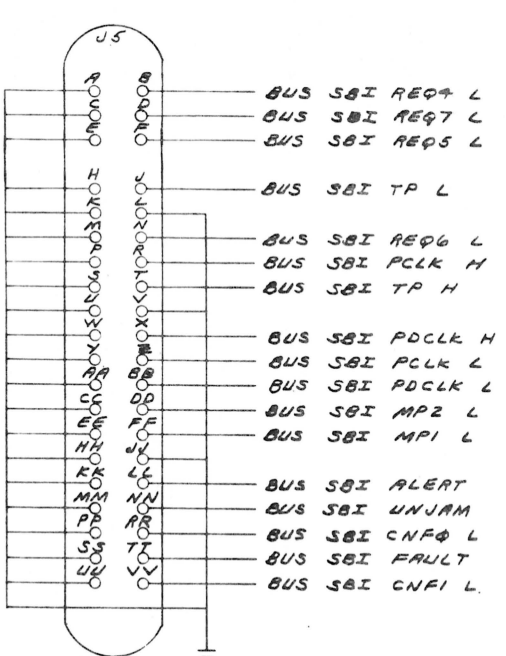
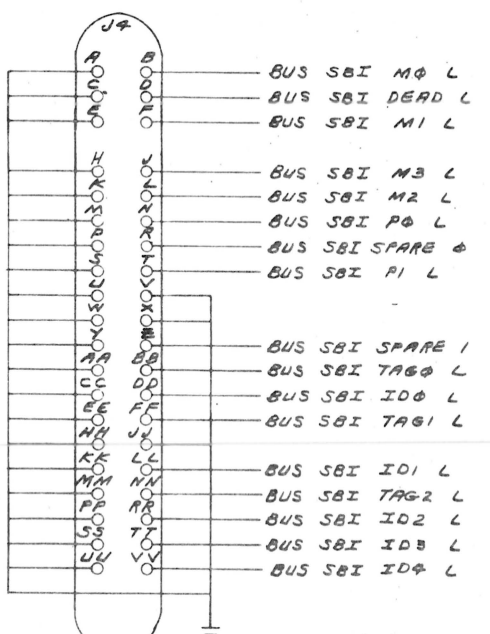
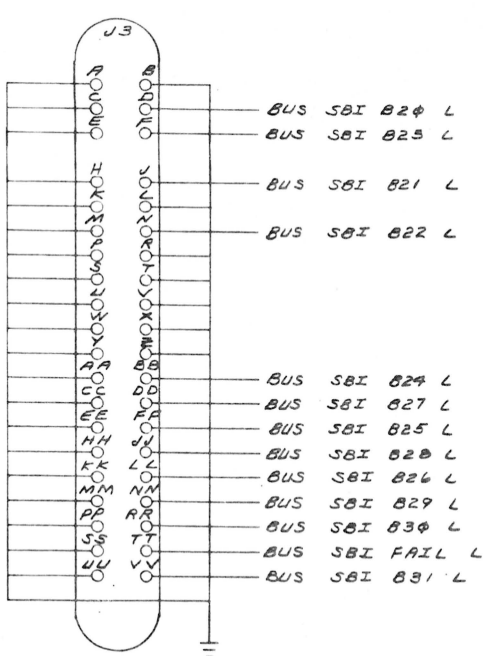
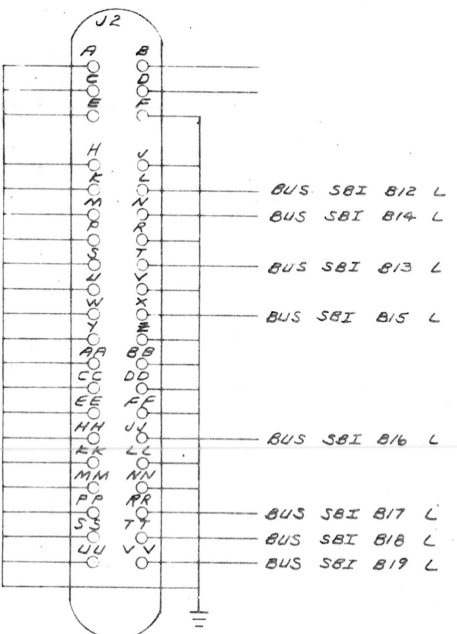
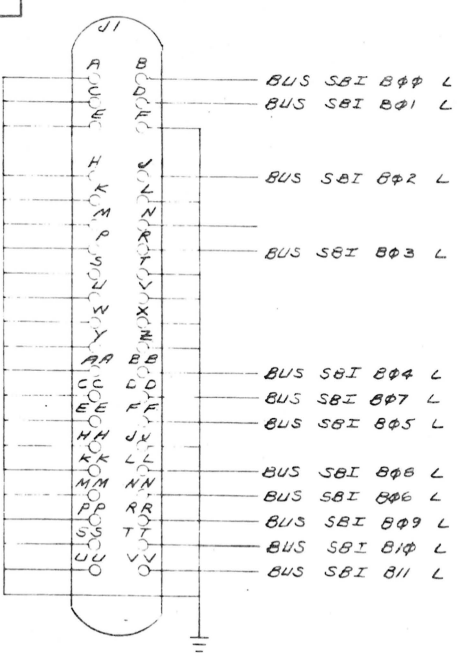
C

B

A

REVISIONS
CHANGE NO.
CHK

DEC FORM NO. 000 100-0



(S.B.I. OUT)

DRN. E. THOR	25.77	FIRST USED ON	11780
CHK'D. D. G. M.	1/2/77	TITLE	11780 SUB SYSTEM INTERCONNECT
ENG. S. D. A. T. H.	1/2/77	SIZE CODE	D IC
PROJ. ENG. J. H. T. H.	1/2/77	NUMBER	11780-0-3
PROD. E. J. M. D.	11-8-77	REV.	B
NEXT HIGHER ASSY.		SHEET	4 OF 8
SCALE	+	DIST.	

DIC 11780-0-3

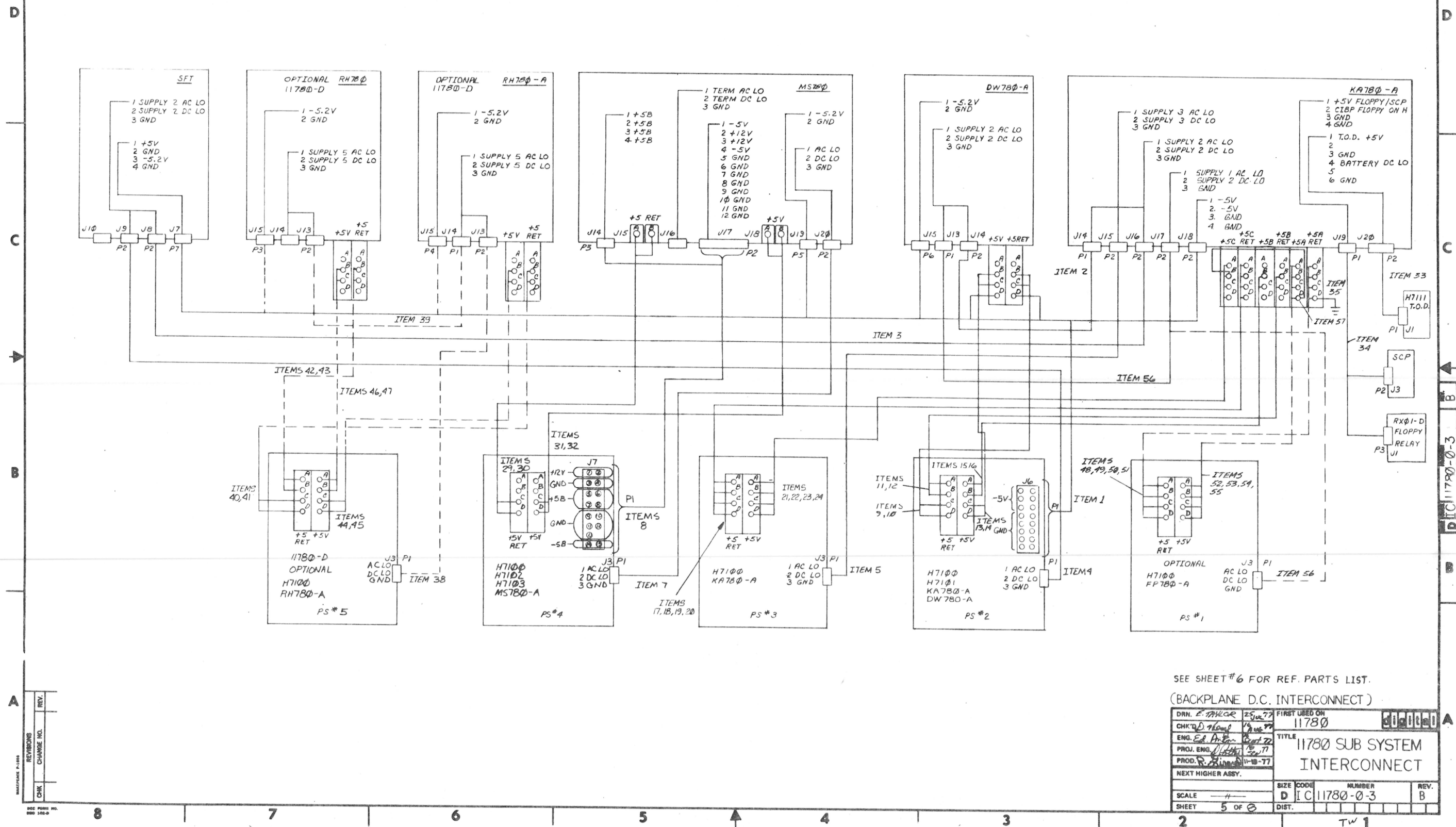
A

TW 1

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NOTES:

- 1.) ITEM #5 ARE SHOWN FOR REFERENCE IN LOCATING CABLE DESTINATIONS ONLY USING SHEET 6 D-IC-11780-0-3



SEE SHEET #6 FOR REF. PARTS LIST.

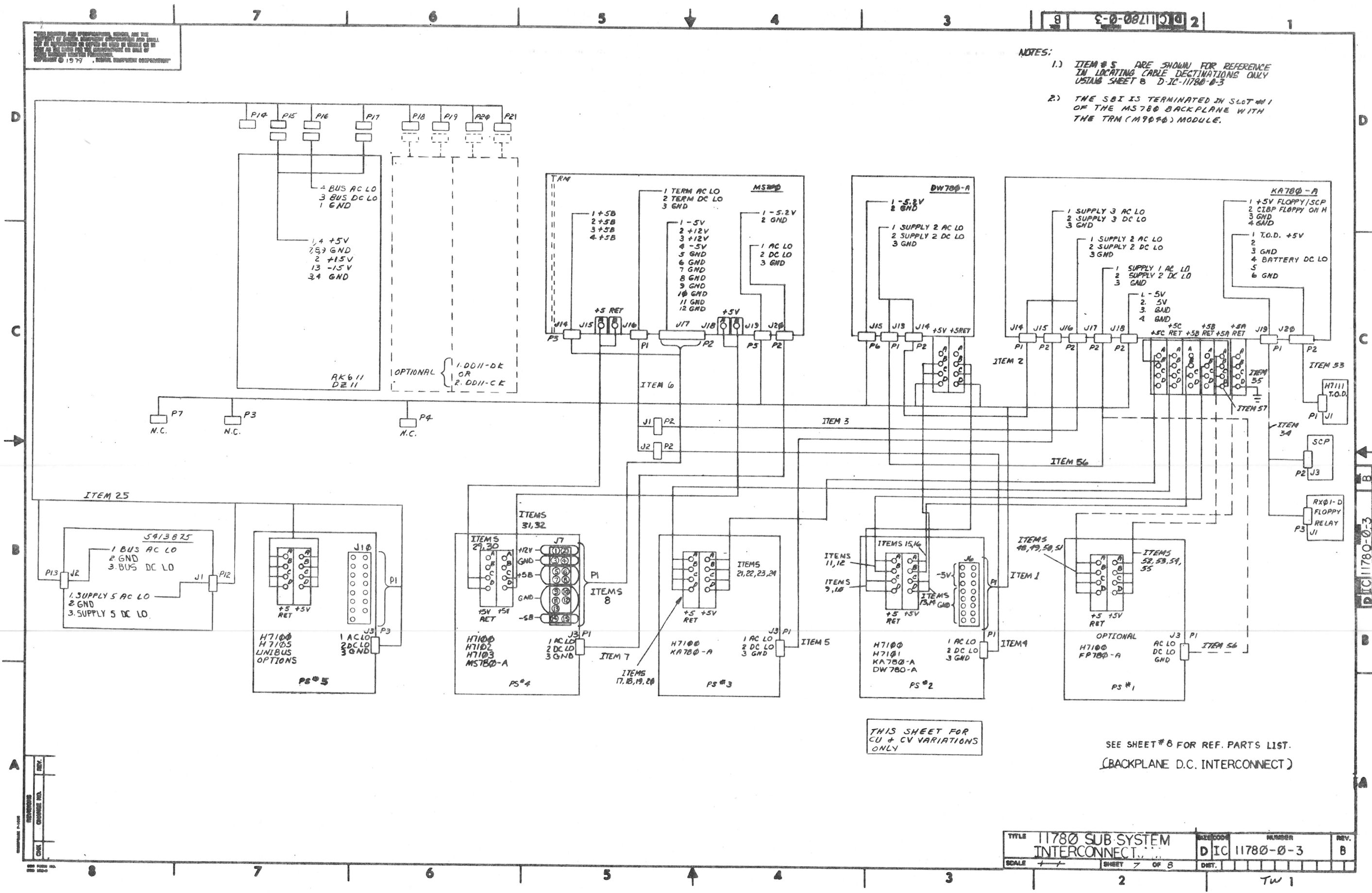
(BACKPLANE D.C. INTERCONNECT)

DRN. E. THOR	25 JUL 77	FIRST USED ON	11780
CHK'D D. HARRIS	18 JUL 77	TITLE	11780 SUB SYSTEM INTERCONNECT
ENG. E. B. HARRIS	18 JUL 77	PROD. E. B. HARRIS	11-8-77
PROJ. ENG. J. HARRIS	18 JUL 77	NEXT HIGHER ASSY.	
SCALE	1	SIZE CODE	D
SHEET	5 OF 5	NUMBER	11780-0-3
		REV.	B

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NOTES:

- 1.) ITEM #5 ARE SHOWN FOR REFERENCE IN LOCATING CABLE DESTINATIONS ONLY USING SHEET 8 D-IC-11780-0-3
- 2.) THE SBI IS TERMINATED IN SLOT #1 OF THE MS780 BACKPLANE WITH THE TRM (M9040) MODULE.

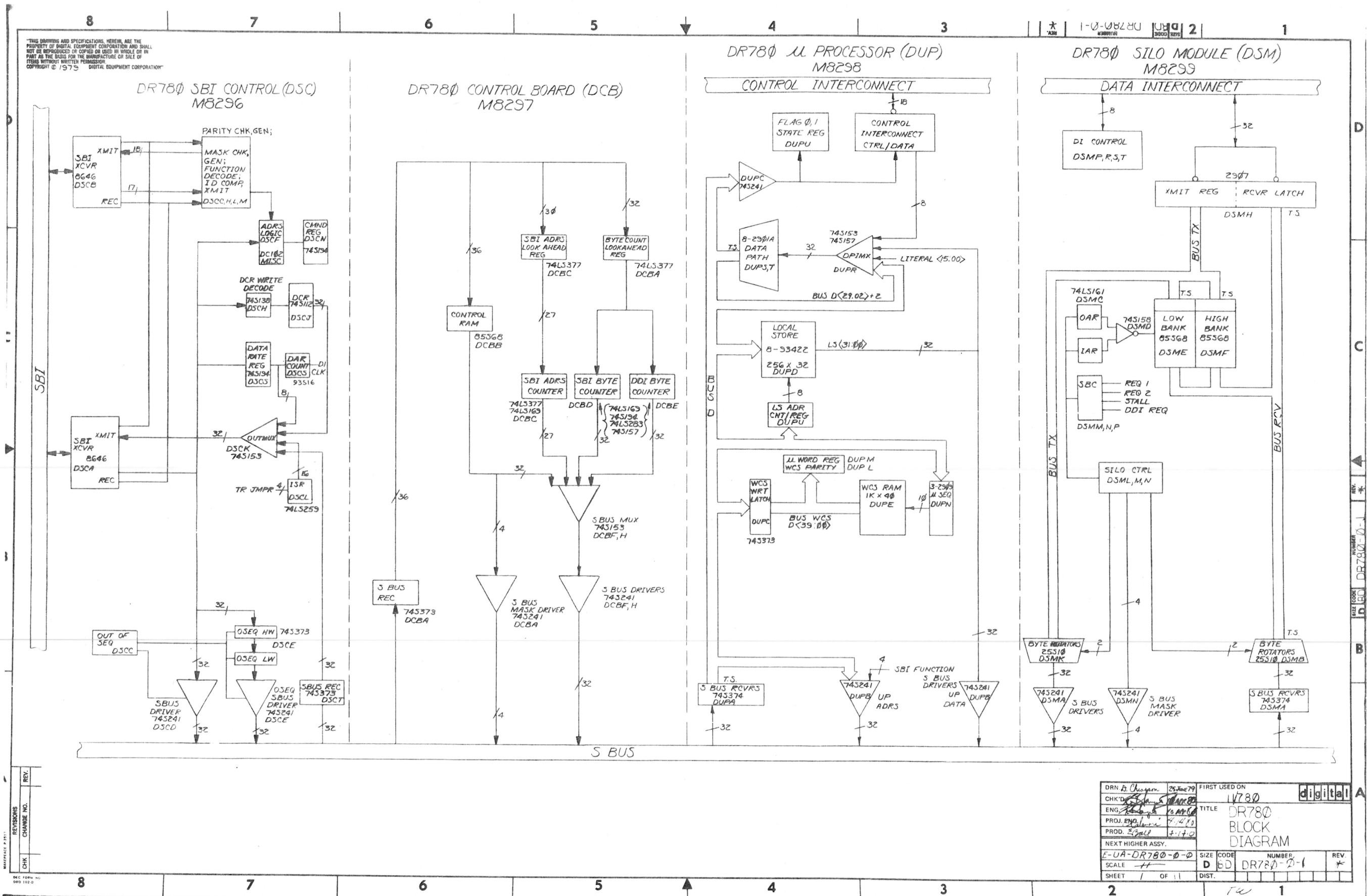


THIS SHEET FOR
CU + CV VARIATIONS
ONLY

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

TITLE	DATE	CODE	NUMBER	REV.
11780 SUB SYSTEM INTERCONNECT	DIC	11780-0-3	B	
SCALE	SHEET	OF	DIST.	
1	7	8		

TW 1



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DR780 SBI ADDRESS DEFINITIONS

ADDRESS	NAME
20018000	DR780 CONTROL REGISTER
4	UTILITY REGISTER
8	WCS ADDRESS REGISTER
C	WCS DATA REGISTER
10	UNUSED
14	SBI ADDRESS REGISTER
18	SBI BYTE COUNT
1C	DDI BYTE COUNT
20	UNUSED
24	COMMAND/ADDRESS ID1 (HOLD FOR RETRY)
28	COMMAND/ADDRESS ID2 (HOLD FOR RETRY)
2C	WRITE DATA WORD 2 ID1 (HOLD FOR RETRY)
30	UNUSED
34	WRITE DATA WORD 1 ID1 (HOLD FOR RETRY)
38	WRITE DATA WORD 1 ID2 (HOLD FOR RETRY)
3C	WRITE DATA WORD 2 ID2 (HOLD FOR RETRY)
20018040 → 200181FC	NO RESPONSE
20018200	USER CONTROL REGISTER
20018204 → 200183FC	RESERVED
20018400	DR780 STATUS LONGWORD
20018404 → 20018458	READ/WRITE
2001845C	MICROCODE STATUS REGISTER
20018460 → 200187FC	READ/ WRITE

NOTE

ADDRESSES SHOWN ARE FOR A
DR780 WHOSE TR IS 12.

ADDRESS DEFINITIONS

BRN	1-0-08280	FIRST USED ON	
CHK'D		TITLE	DR780
ENG.		PROJ. ENG.	
PROD.		PROD.	
NEXT HIGHER ASSY.		SIZE	D
SCALE		CODE	BD
SHEET	2 OF 11	NUMBER	DR780-0-1
		DIST.	
		REV.	*

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DCR (READ) REGISTER

	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
-2016000	PTY	WSQ	URD		MXT	XMT		EXT	PWR	PWR		INT	PKT	DCR	DCR	CRD	RDS	ID1	T/O	ID1	DI	ID2	T/O	ID2								
	FLT	FLT	FLT	0	FLT	FLT		ABT	DWN	UP	0	EN	INT	ABT	HLT			STATUS	ERR	STA-		STATUS	ERR		0	0	1	1	0	0	0	0

BIT

FUNCTION

31	PARITY FAULT
30	WRITE SEQUENCE FAULT
29	UNEXPECTED READ DATA
28	UNUSED
27	MULTIPLE TRANSMITTER FAULT
26	TRANSMITTER DURING FAULT
25	UNUSED
24	EXTERNAL ABORT
23	POWER DOWN
22	POWER UP
21	UNUSED
20	INTERRUPT ENABLE
19	PACKET INTERRUPT
18	ABORT
17	HALT
16	CORRECTED READ DATA
15	READ DATA SUBSTITUTE
14	COMMAND / ADDRESS TIME OUT ID1
13	READ DATA EXPECTED TIME OUT ID1
12	RECEIVED ERROR CONFIRMATION ID1
11	DATA INTERCONNECT STALL
10	COMMAND / ADDRESS TIME OUT ID2
9	READ DATA EXPECTED TIME OUT ID2
8	RECEIVED ERROR CONFIRMATION ID2
7-0	30(16) ADAPTER TYPE CODE

DCR (WRITE) REGISTER

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
← 0 →												CONTROL FIELD B		0	CONTROL FIELD A		← 0 →														
												FIELD B			FIELD A																

CONTROL FIELD B

14	13	12	
0	0	0	NO OPERATION
0	0	1	CLEAR CORRECTED READ DATA
0	1	0	SET EXTERNAL ABORT
0	1	1	CLEAR PACKET INTERRUPT
1	0	0	RESET
1	0	1	SET OUT OF SEQUENCE TEST
1	1	0	CLEAR OUT OF SEQUENCE TEST
1	1	1	NO OPERATION

CONTROL FIELD A

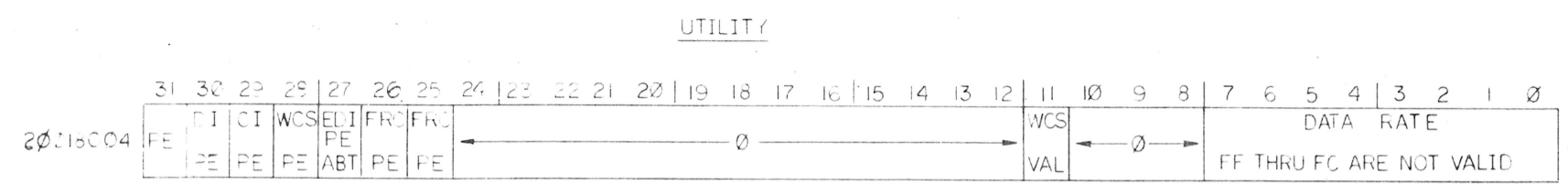
10	9	8	
0	0	0	NO OPERATION
0	0	1	CLEAR POWER UP
0	1	0	CLEAR POWER DOWN
0	1	1	NO OPERATION
1	0	0	CLEAR ABORT INTERRUPT AND READ DATA SUBSTITUTE
1	0	1	CLEAR INTERRUPT ENABLE
1	1	0	SET INTERRUPT ENABLE
1	1	1	CLEAR HALT

DCR REGISTER

DRN. <i>A. M. 1-7</i>	8-29-78	FIRST USED ON	
CHK'D		TITLE	DR780 BLOCK DIAGRAM
ENG.		SIZE	D BD
PROJ. ENG.		NUMBER	DR730-0-1
PROD.		REV.	*
NEXT HIGHER ASSY.		SCALE	
		SHEET	3 OF 11
		DIST.	

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REV. 1
SIZE CODE D
NUMBER DR730-0-1
2



BIT	FUNCTION
31	PARITY ERROR
30	DATA INTERCONNECT PARITY ERROR
29	CONTROL INTERCONNECT PARITY ERROR
28	WRITEABLE CONTROL STORE PARITY ERROR
27	ENABLE DATA INTERCONNECT PARITY ERROR ABORT
26	FORCE DATA INTERCONNECT PARITY ERROR
25	FORCE CONTROL INTERCONNECT PARITY ERROR
24→12	UNUSED
11	WRITEABLE CONTROL STORE VALID
10→3	UNUSED
7→0	DATA RATE

DCR WRITE & UTILITY REGISTERS

DRN	CHK'D	ENG.	PROJ. ENG.	PROO.	NEXT HIGHER ASSY.	SCALE	SHEET	OF	11	FIRST USED ON	TITLE	DR730 BLOCK DIAGRAM	SIZE	CODE	NUMBER	REV.
						NONE	7						D	BD	DR730-0-1	1

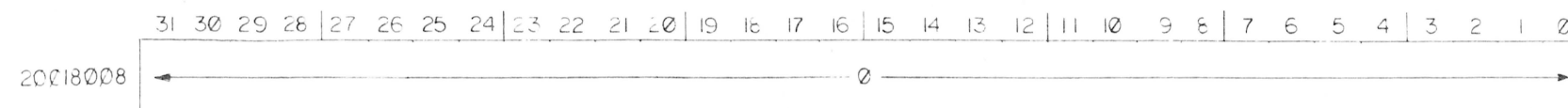
REV. 1
CHANGE NO.
CHK

DEC FORM NO.
000 102-0

REV. 1
SIZE CODE D
NUMBER DR730-0-1
2

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WCS ADDRESS REGISTER (READ AS 0)

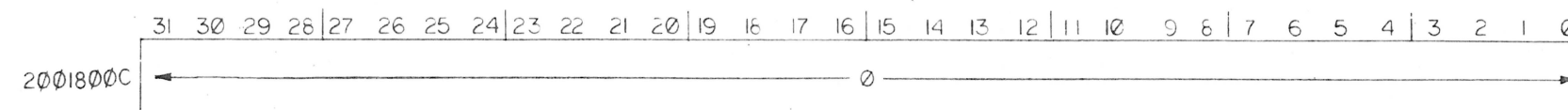


BIT
0

FUNCTION

WHEN SET TO 0 POINTS TO THE LOW 32 BITS OF THE MICROWORD
WHEN SET TO 1 POINTS TO THE HIGH BYTE (B39:32) OF THE MICROWORD

WCS DATA REGISTER (READ AS 0)



BIT
7 → 0

FUNCTION

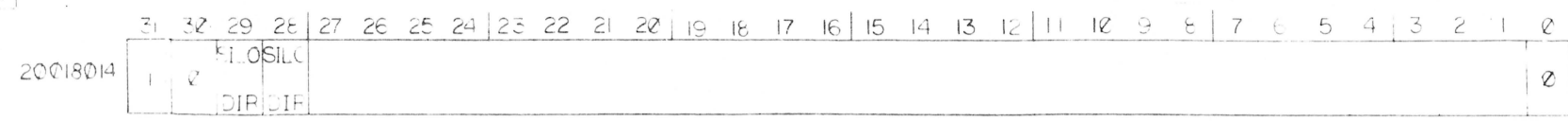
WHEN WCS ADDRESS REGISTER BIT 0 SET TO 1 THE LOW BYTE OF THIS REGISTER CONTAINS THE MICROWORD(39:32) DATA

WCS ADPS & DATA REGISTERS

DRN	3-31-79	FIRST USED ON	digital
CHK'D		TITLE	DR780
ENG.			BLOCK DIAGRAM
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE	1/1	SIZE CODE	D BD
SHEET	5 OF 11	NUMBER	DR780-0-1
		DIST.	
		REV.	*

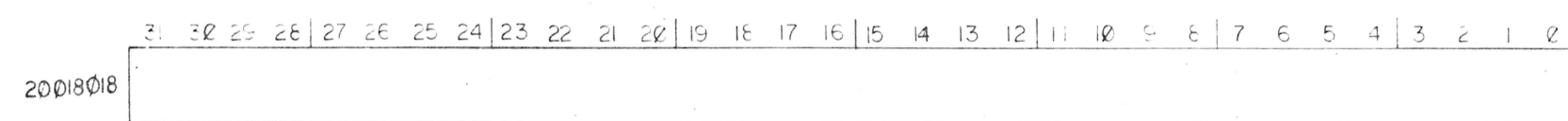
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SBI ADDRESS REGISTER



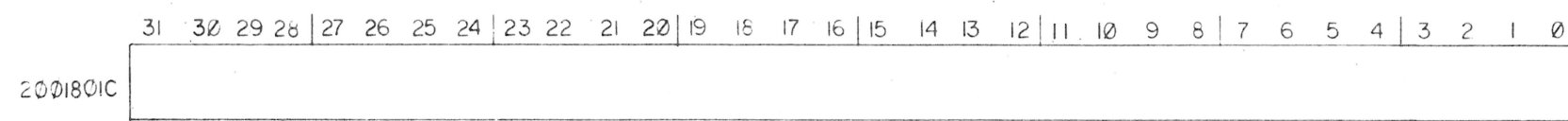
BIT	FUNCTION
31	31:28 ARE THE FUNCTION FIELD OF THE C/A WORD
30	SET TO 1
29-28	SET TO 0
27-26	WHEN SET TO 0, FUNCTION IS AN SBI READ
25-24	WHEN SET TO 1, FUNCTION IS AN SBI WRITE
23-22	SBI ADDRESS (MULTIPLY BY 4 FOR CONSOLE ADDRESS)
21-20	SET TO 0

SBI BYTE COUNT



BIT	FUNCTION
31-2	SBI (DDI) BYTE COUNT

DDI BYTE COUNT



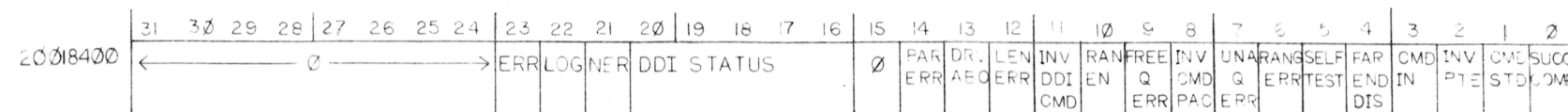
SBI ADRS REG & SBI & DDI BYTE COUNT

DRN	DR730-0-1	FIRST USED ON	digital
CHK'D		TITLE	DR730
ENG.			BLOCK DIAGRAM
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE	D	CODE	BD
SHEET	6	OF	11
		NUMBER	DR730-0-1
		REV.	1

REVISIONS
CHANGE NO.
REV.

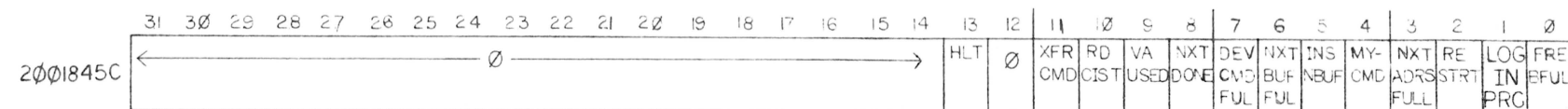
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DSL REGISTER



BIT	FUNCTION
31→24	UNUSED
23	FAR END ERROR
22	LOG FAR END REGISTER
21	NON EXISTENT REGISTER
20→16	USER DEFINED DDI STATUS
15	UNUSED
14	DDI PARITY ERROR
13	DRIVER ABORT
12	LENGTH ERROR
11	INVALID DDI COMMAND
10	RANDOM ENABLE
9	FREE QUEUE EMPTY
8	INVALID COMMAND PACKET
7	UNALIGNED QUEUE ERROR
6	RANGE ERROR
5	SELF TEST
4	FAR END DISABLE
3	COMMAND IN
2	INVALID PAGE TABLE ENTRY
1	COMMAND STARTED
0	SUCCESSFUL COMPLETION

MICROCODE STATUS REGISTER (USR)



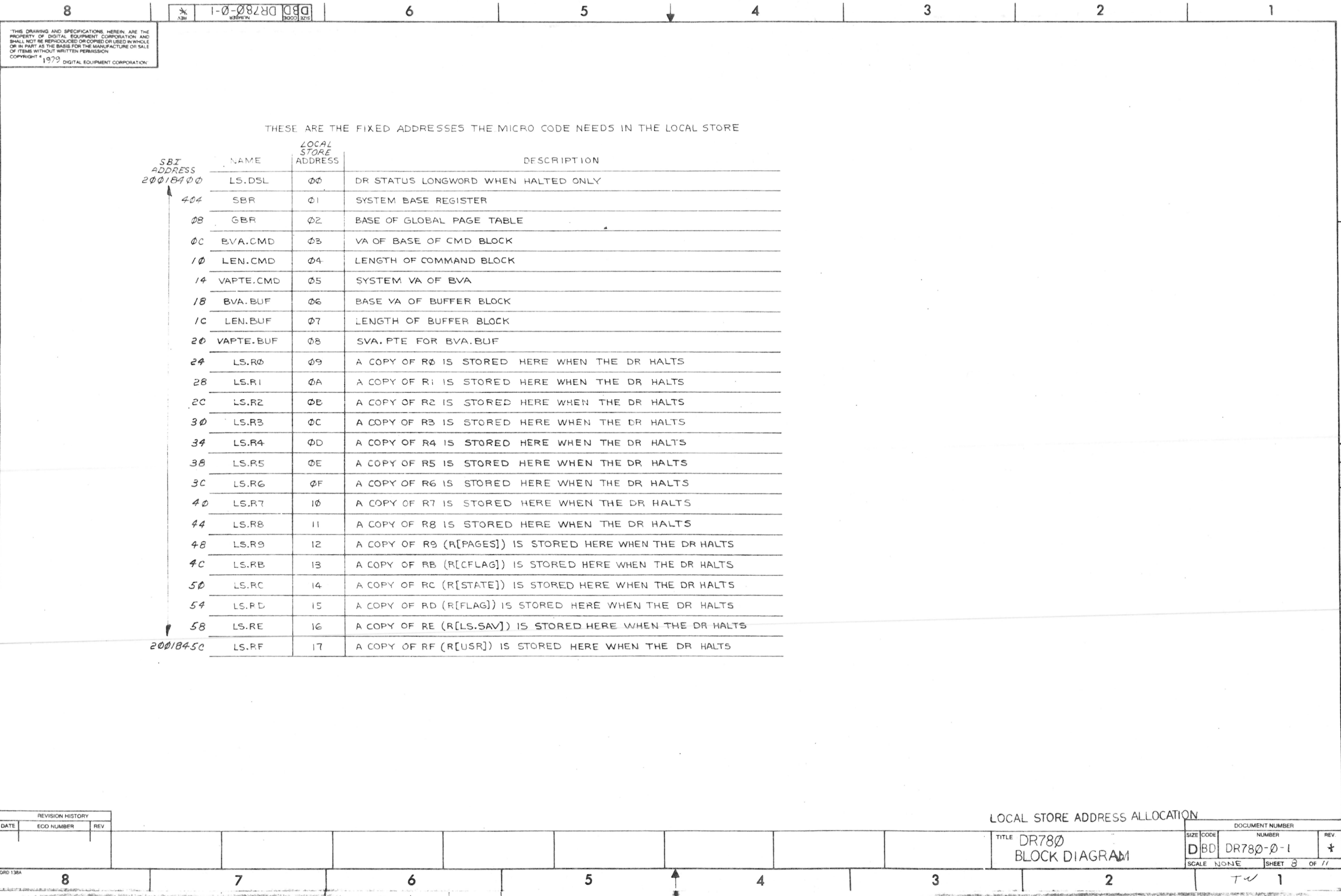
BIT	FUNCTION
31→14	UNUSED
13	HALT
12	UNUSED
11	TRANSFER COMMAND
10	READ CONTROL INTERCONNECT STATUS
9	VIRTUAL ADDRESS USED
8	NEXT BUFFER DONE
7	DEVICE COMMAND FULL
6	NEXT BUFFER FULL
5	INSERT NEXT BUFFER
4	MY COMMAND
3	NEXT ADDRESS
2	RESTART
1	LOG IN PROCESS
0	FREE BUFFER FULL

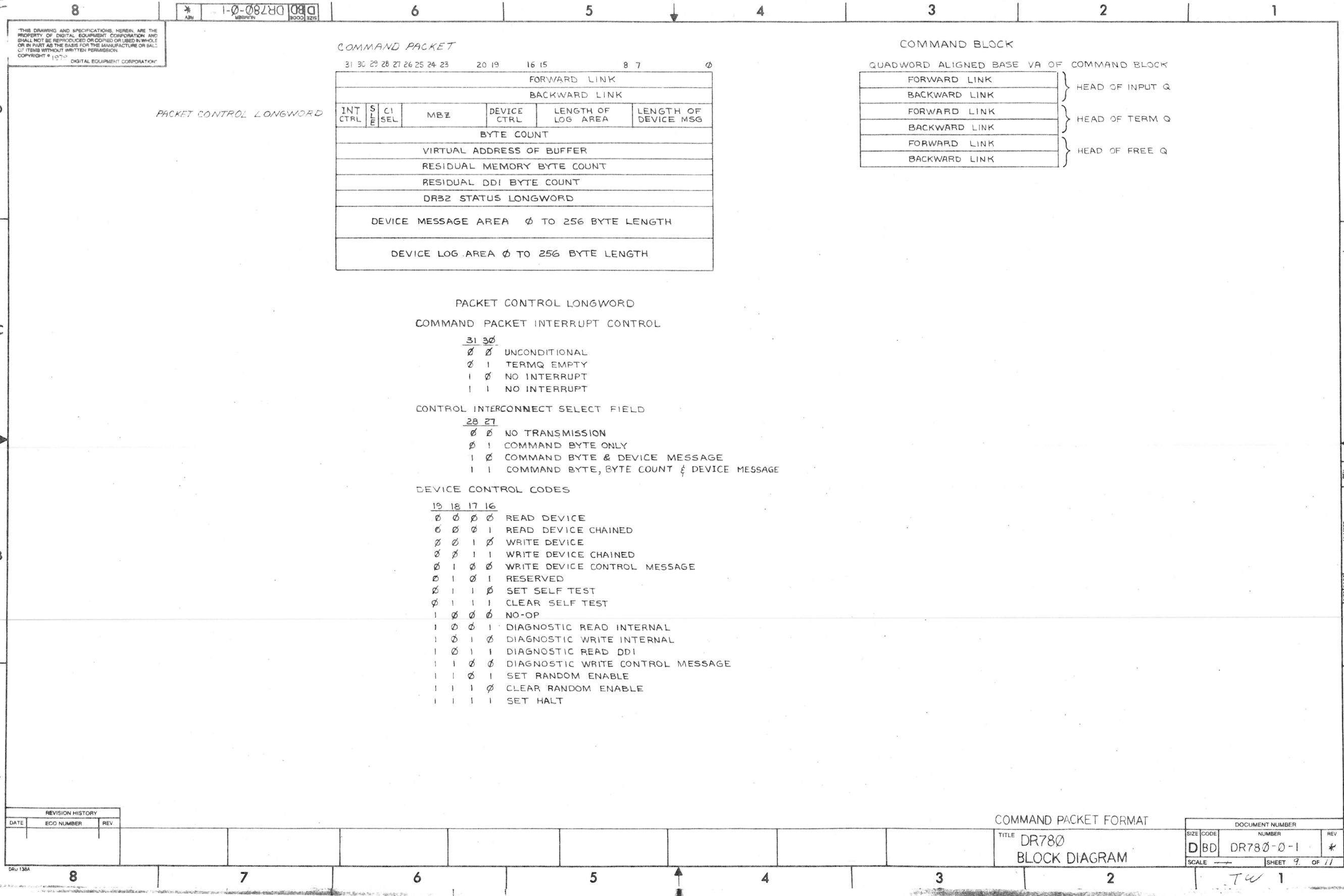
DSL & USR REGISTERS

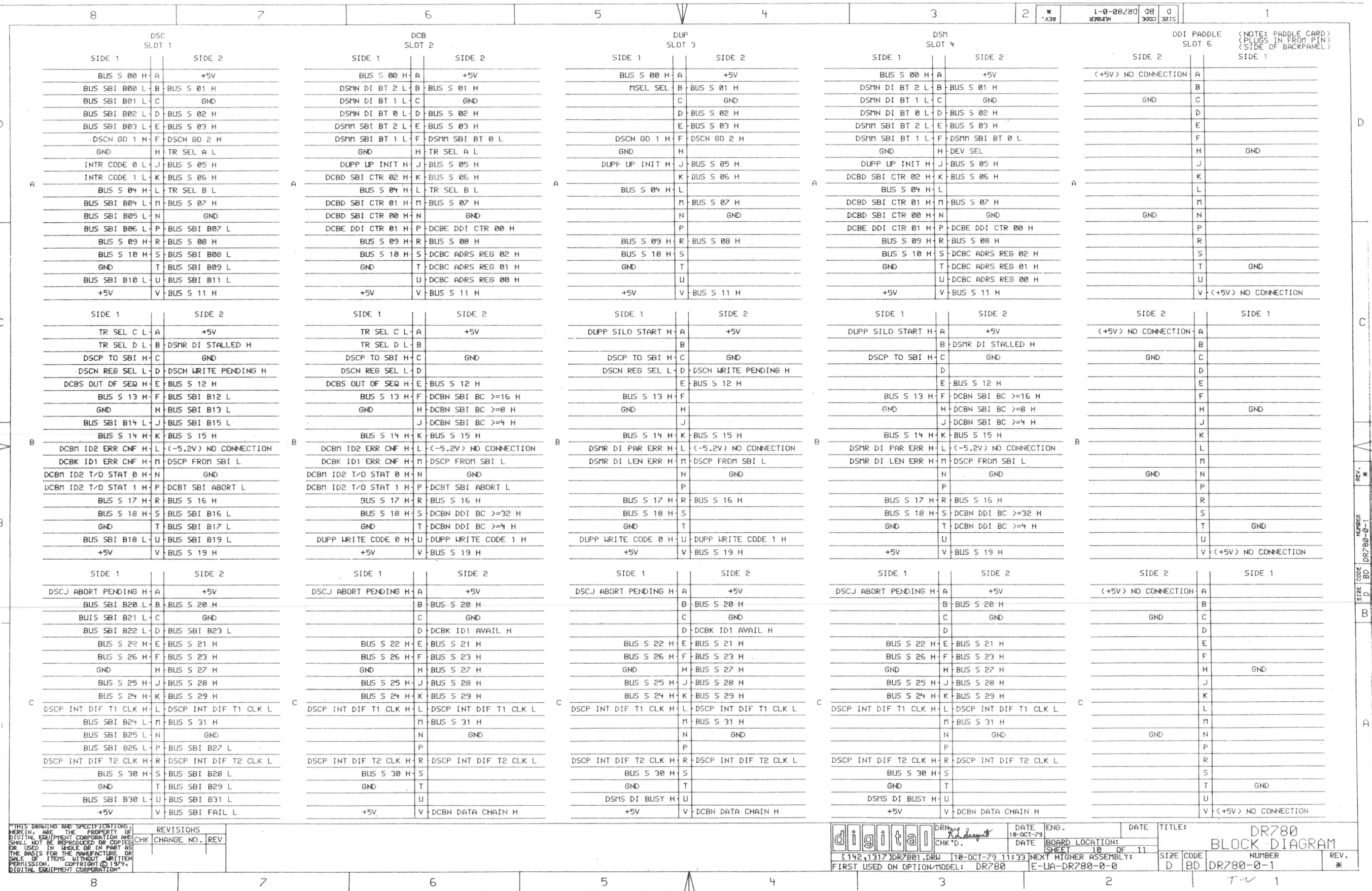
DRN. J. P. Smith	FIRST USED ON	digital
CHK'D	TITLE	DR780
ENG.	PROJ. ENG.	BLOCK DIAGRAM
PROD.	PROD.	
NEXT HIGHER ASSY.	SIZE	D
SCALE	CODE	ED
SHEET 7 OF 11	NUMBER	DR780-0-1
	DIST.	
	REV.	

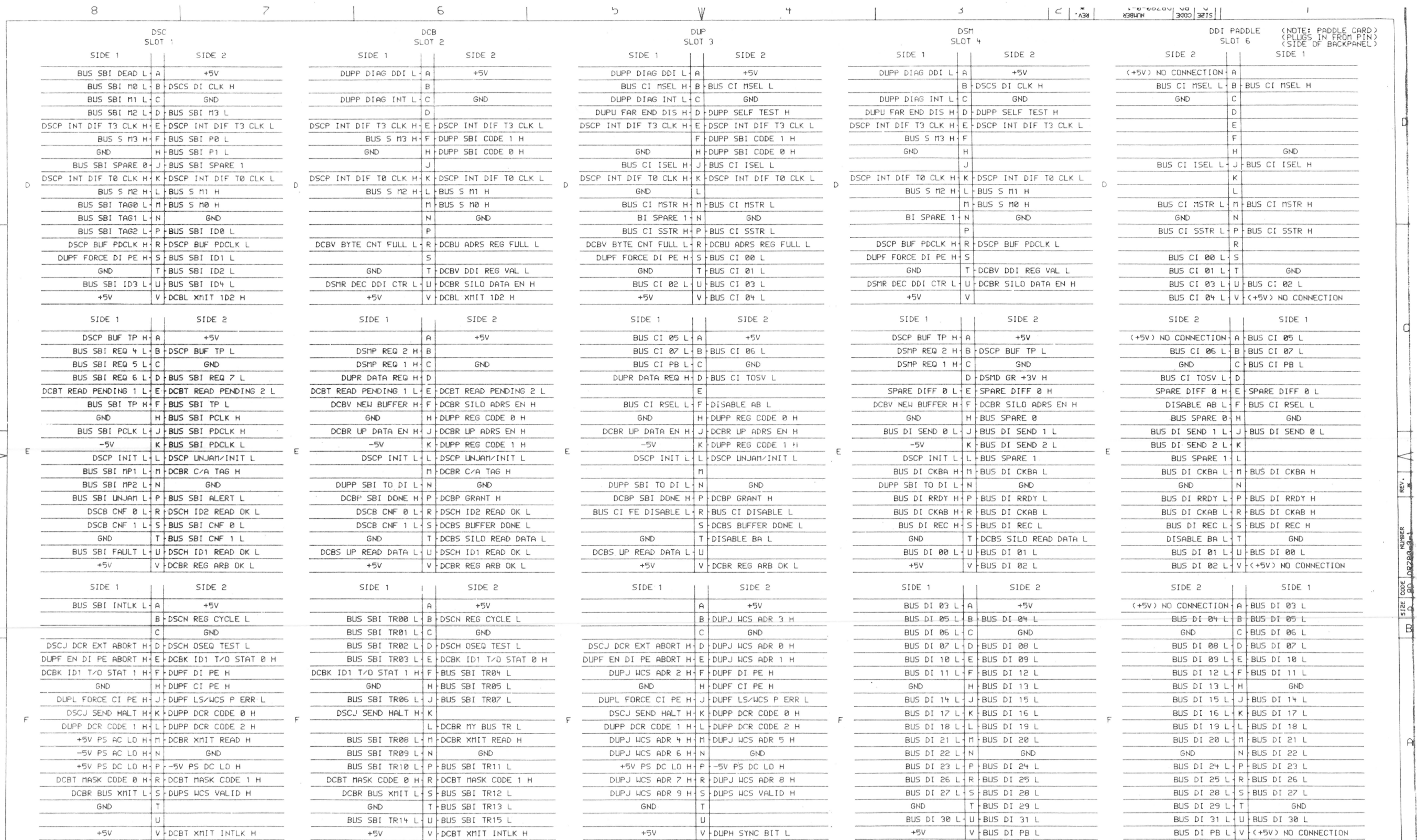
REV.	
CHANGE NO.	
CHK	

DEC FORM NO. DR7 102-0









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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 10-OCT-79	ENG. R. J. Dwyer	DATE	TITLE: DR780 BLOCK DIAGRAM	SIZE CODE D	NUMBER 11	REV. *
FIRST USED ON OPTION MODEL: DR780				NEXT HIGHER ASSEMBLY: E-1A-DR780-0-0			

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VIEW FROM SIDE 2

	1	2	3	4	5	6
	M8296	M8297	M8298	M8299		M9046
	DSC	DCB	DUP	DSM		DDIP
A						
B						
C						
D						
E						
F						

NOTE

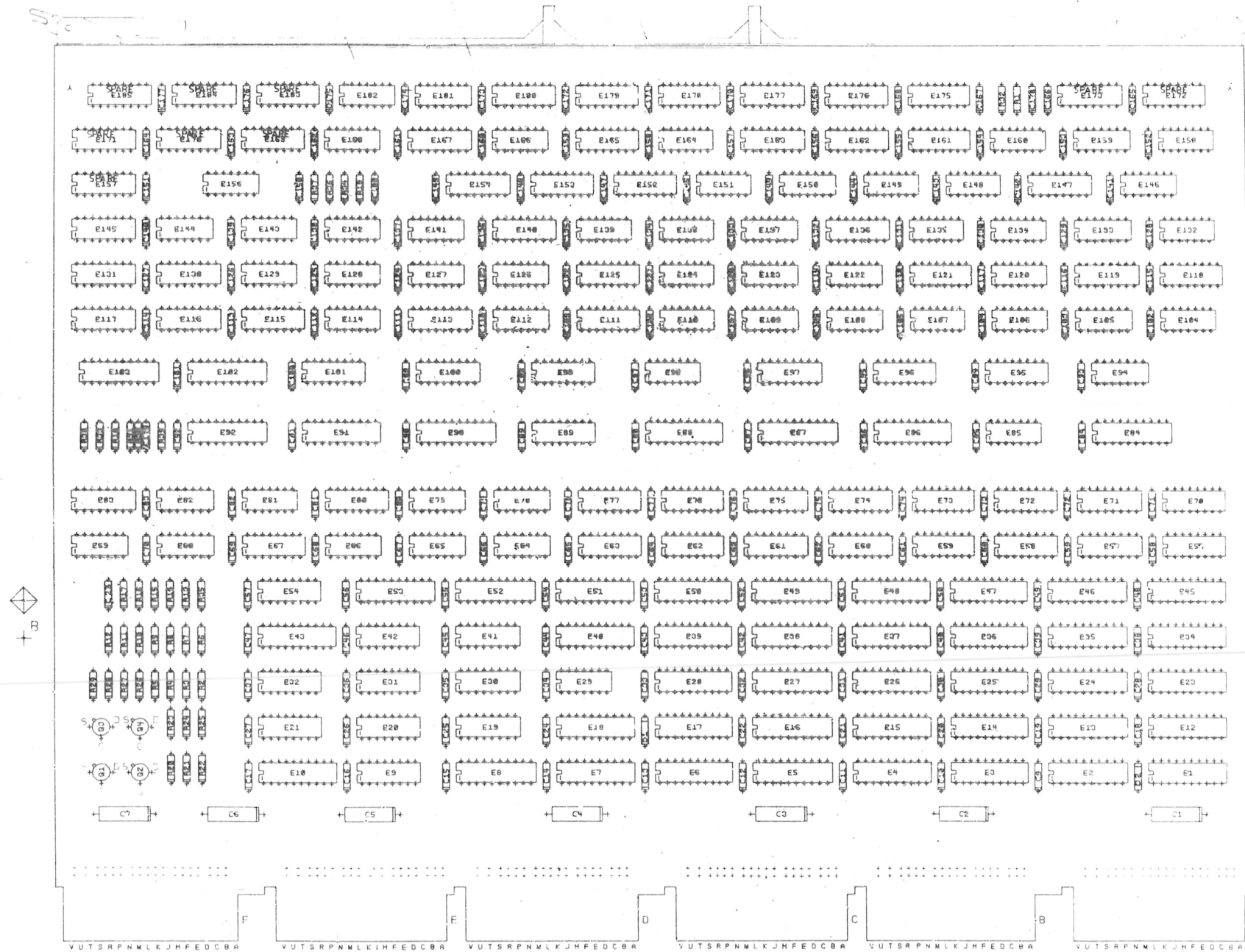
1. M9046 PLUGS IN ON SIDE 2
2. TWO BLANK MODULES ARE INSERTED IN SLOTS 5 AND 6 FROM SIDE 2.

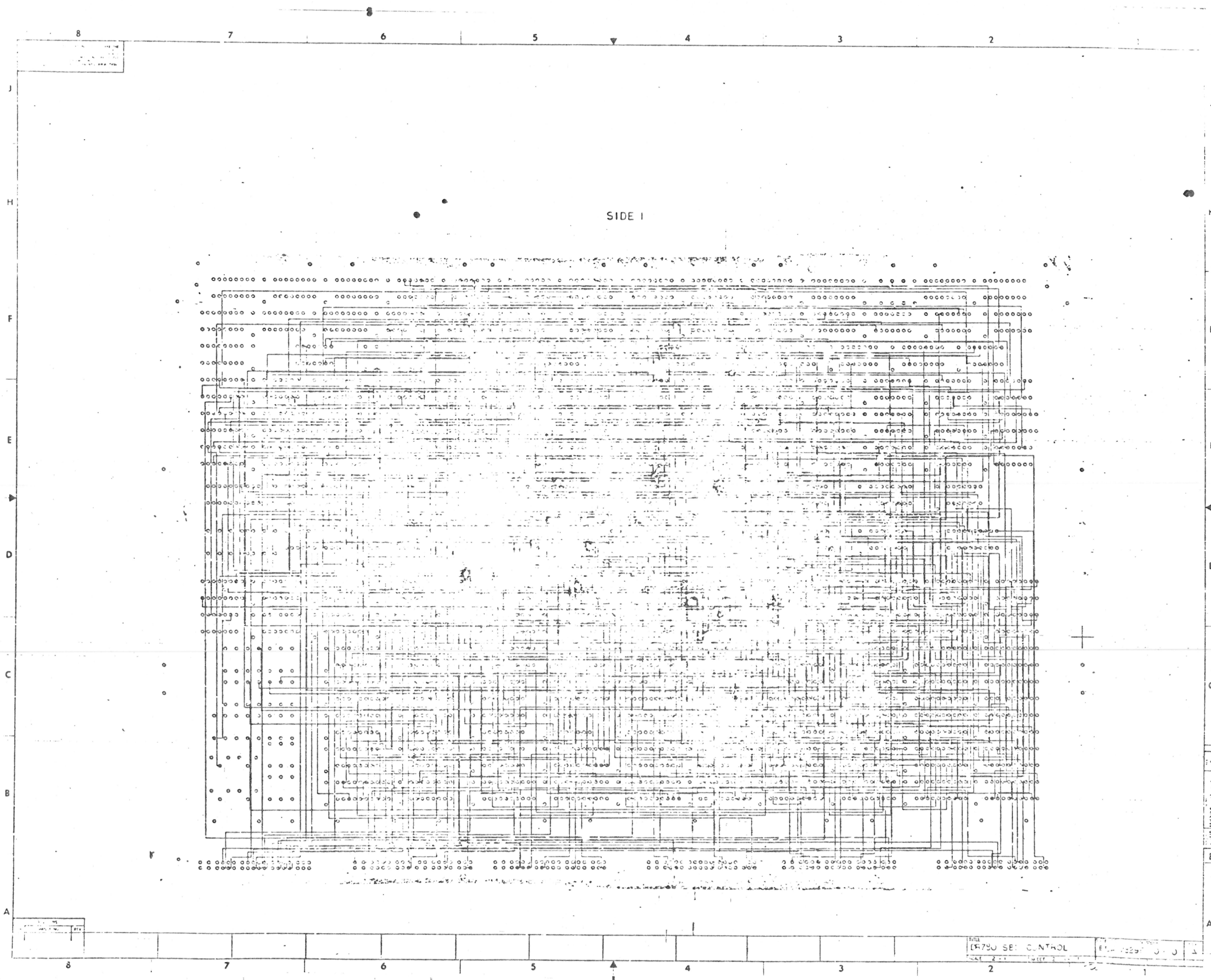
REV.	CHANGE NO.	REVISIONS
1		

DEC FORM NO. 100-1

DRN. 100-100-1	FIRST USED ON 11-73	digital
CHK'D. 500-79		
ENG. 500-79	TITLE	DR780 MODULE UTILIZATION
PROJ. ENG. 500-79		
PROD. 500-79	4.14.0	
NEXT HIGHER ASSY.		
EVA-DR780-0-0	SIZE CODE	NUMBER
SCALE NONE	D MU	DR780-0-2
SHEET 1 OF 1	DIST.	REV. *

SIGNATURES		DATE	09/11/01	
CHIEF OF POLICE	10/10/01	TITLE		
ENGINEER	10/10/01	TITLE		
PROJECT ENGINEER	10/10/01	TITLE		
PROJ. ENG. 2	10/10/01	TITLE		
PROJ. ENG. 3	10/10/01	TITLE		
PROJ. ENG. 4	10/10/01	TITLE		
PROJ. ENG. 5	10/10/01	TITLE		
PROJ. ENG. 6	10/10/01	TITLE		
PROJ. ENG. 7	10/10/01	TITLE		
PROJ. ENG. 8	10/10/01	TITLE		
PROJ. ENG. 9	10/10/01	TITLE		
PROJ. ENG. 10	10/10/01	TITLE		
PROJ. ENG. 11	10/10/01	TITLE		
PROJ. ENG. 12	10/10/01	TITLE		
PROJ. ENG. 13	10/10/01	TITLE		
PROJ. ENG. 14	10/10/01	TITLE		
PROJ. ENG. 15	10/10/01	TITLE		
PROJ. ENG. 16	10/10/01	TITLE		
PROJ. ENG. 17	10/10/01	TITLE		
PROJ. ENG. 18	10/10/01	TITLE		
PROJ. ENG. 19	10/10/01	TITLE		
PROJ. ENG. 20	10/10/01	TITLE		
PROJ. ENG. 21	10/10/01	TITLE		
PROJ. ENG. 22	10/10/01	TITLE		
PROJ. ENG. 23	10/10/01	TITLE		
PROJ. ENG. 24	10/10/01	TITLE		
PROJ. ENG. 25	10/10/01	TITLE		
PROJ. ENG. 26	10/10/01	TITLE		
PROJ. ENG. 27	10/10/01	TITLE		
PROJ. ENG. 28	10/10/01	TITLE		
PROJ. ENG. 29	10/10/01	TITLE		
PROJ. ENG. 30	10/10/01	TITLE		
PROJ. ENG. 31	10/10/01	TITLE		
PROJ. ENG. 32	10/10/01	TITLE		
PROJ. ENG. 33	10/10/01	TITLE		
PROJ. ENG. 34	10/10/01	TITLE		
PROJ. ENG. 35	10/10/01	TITLE		
PROJ. ENG. 36	10/10/01	TITLE		
PROJ. ENG. 37	10/10/01	TITLE		
PROJ. ENG. 38	10/10/01	TITLE		
PROJ. ENG. 39	10/10/01	TITLE		
PROJ. ENG. 40	10/10/01	TITLE		
PROJ. ENG. 41	10/10/01	TITLE		
PROJ. ENG. 42	10/10/01	TITLE		
PROJ. ENG. 43	10/10/01	TITLE		
PROJ. ENG. 44	10/10/01	TITLE		
PROJ. ENG. 45	10/10/01	TITLE		
PROJ. ENG. 46	10/10/01	TITLE		
PROJ. ENG. 47	10/10/01	TITLE		
PROJ. ENG. 48	10/10/01	TITLE		
PROJ. ENG. 49	10/10/01	TITLE		
PROJ. ENG. 50	10/10/01	TITLE		
PROJ. ENG. 51	10/10/01	TITLE		
PROJ. ENG. 52	10/10/01	TITLE		
PROJ. ENG. 53	10/10/01	TITLE		
PROJ. ENG. 54	10/10/01	TITLE		
PROJ. ENG. 55	10/10/01	TITLE		
PROJ. ENG. 56	10/10/01	TITLE		
PROJ. ENG. 57	10/10/01	TITLE		
PROJ. ENG. 58	10/10/01	TITLE		
PROJ. ENG. 59	10/10/01	TITLE		
PROJ. ENG. 60	10/10/01	TITLE		
PROJ. ENG. 61	10/10/01	TITLE		
PROJ. ENG. 62	10/10/01	TITLE		
PROJ. ENG. 63	10/10/01	TITLE		
PROJ. ENG. 64	10/10/01	TITLE		
PROJ. ENG. 65	10/10/01	TITLE		
PROJ. ENG. 66	10/10/01	TITLE		
PROJ. ENG. 67	10/10/01	TITLE		
PROJ. ENG. 68	10/10/01	TITLE		
PROJ. ENG. 69	10/10/01	TITLE		
PROJ. ENG. 70	10/10/01	TITLE		
PROJ. ENG. 71	10/10/01	TITLE		
PROJ. ENG. 72	10/10/01	TITLE		
PROJ. ENG. 73	10/10/01	TITLE		
PROJ. ENG. 74	10/10/01	TITLE		
PROJ. ENG. 75	10/10/01	TITLE		
PROJ. ENG. 76	10/10/01	TITLE		
PROJ. ENG. 77	10/10/01	TITLE		
PROJ. ENG. 78	10/10/01	TITLE		
PROJ. ENG. 79	10/10/01	TITLE		
PROJ. ENG. 80				

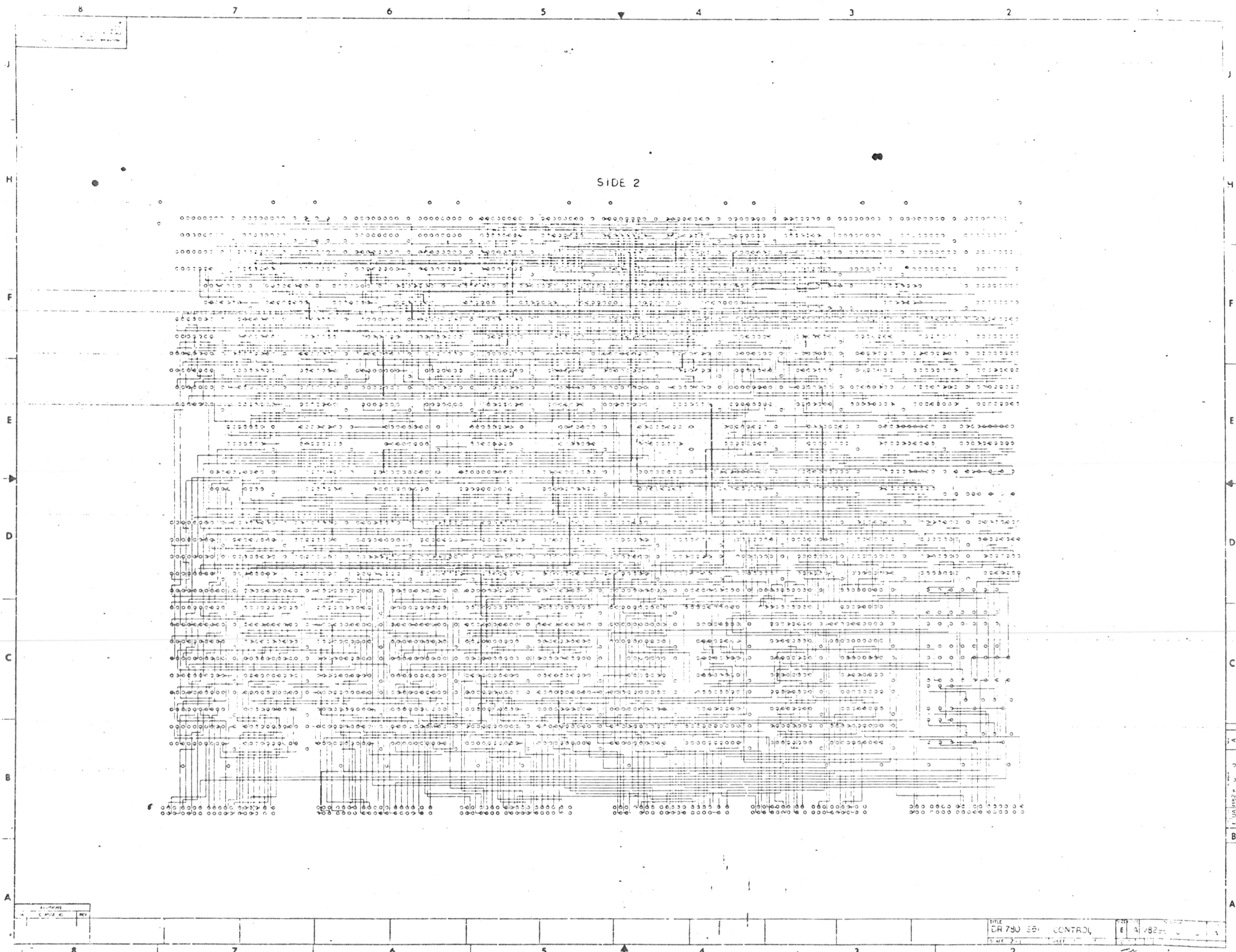




SIDE 1

1/16" = 1"

TITLE: R780 SET CONTROL
FILE: 100000-0-0
SCALE: 2" = 1" (SEE NOTE 1)
PAGE: 1



SIDE 2

REV	DATE	BY

TITLE		DR 790 55 CONTROL		REV		E A 182	
SHEET		2		SHEET		2	

AUTOMATED BY PHILST,SL(3/)

P A R T S L I S T

SHEET A1 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1	5013004-00	D&C DR700 SBI CONTROL	1	
2	2	1012704-00	.047 MFD 50V -20+00 CER	172	C170,C179,C180,C9-C177
3	4	1012004-01	.0 MFD 25V G0 30D AL EL	7	C1-C7
4	5	1103041-00	DEC 777 QS=12PCB PIV= 8V6	2	D1,D2
5	6	1210711-02	HANDLE,MODULE,HEX	1	
6	7	1300295-00	330 1/4W 5% CC	19	R1-R19
7	8	1300365-00	1 K 1/4W 5% CC	12	R20-R31
8	9	1301424-00	600 1/4W 5% CC	3	R32-R34
9	10	1302957-00	121 1/4W 1% RN55D-F 100PPH	5	R35-R39
10	11	1511006-00	DEC5433 FET N 350MH 10 25 1A	4	Q1-Q4
11	12	1910532-00	74800 NAND GATE-QUAD 2IN6	4	E02,E105,E126,E150
12	13	1910534-00	74804 INVERTER GATE-HEX 11	11	E06,E09,E01,E94,E112,E127,E129, E134,E141,E142,E160
13	14	1910536-00	74810 NAND GATE-TRIPLE 3IN	2	E79,E120
14	15	1910537-00	74811 AND GATE-TRIPLE 3INP	3	E139,E149,E166
15	16	1910539-00	74820 NAND GATE-DUAL 4INPU	6	E08,E114,E135,E137,E138,E151
16	17	1910542-00	74864 A-O-I GATE 4-2-3-2	2	E124,E133
17	18	1910544-00	74874 FF-D DUAL,EDGE TRIGG	5	E04,E106,E146,E140,E156
18	19	1910545-00	748112 FF-JK DUAL,EDGE TRIG	9	E07,E117,E116,E110,E119,E130, E131,E140,E147
19	20	1910546-00	748140 NAND GATE-DUAL 4INPU	1	E98
20	21	1910547-00	748153 MUX 1 OF 4 (DUAL)	16	E56-E63,E70-E77
21	22	1910548-00	748157 MUX 1 OF 2 (QUAD)	3	E99-E101
22	23	1910550-00	748174 FF-D HEX	4	E121,E145,E154,E167
23	24	1910552-00	748194 SHIFT REG.,4BIT RICH	5	E161-E163,E179,E180
24	25	1910557-00	748175 FF-D QUAD COMMON CLO	1	E136
25	26	1911398-00	18101 OR/MOR GATE,4-2IN	2	E19,E20
26	27	1911413-00	18121 OR/AND GATE,4-IDE	1	E42
27	28	1911415-00	18125 ECL TO TTL TRNSLTR	4	E30-E32,E41
28	29	1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	1	E29

REVISION HISTORY		BASIC PART NO: M8296		DRN: K, FRIEDGEN		DATE: 01-OCT-79		D I G I T A L	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	<i>R. SARGENT</i>	DATE:	29-OCT-79	TITLE	
---	INITIAL	1A	SECTION VARIATION INDEX	(A) 00				PARTS LIST	
			(B)	DES. ENG:	<i>C. A. Calama</i>	DATE:	29-OCT-79	SBI CONTROL	
			(C)		<i>K. DUGGEN</i>	DATE:	29-OCT-79		
			(D)		<i>C. A. Calama</i>	DATE:	29-OCT-79	DOCUMENT NUMBER	
			(E)	RESP. ENG.:	<i>T. ERPOLOVICH</i>	DATE:	29-OCT-79	SIZE CODE NUMBER	
			(F)		<i>M. J. CHAPUT</i>	DATE:	29-OCT-79	REV	
			(G)	INFG. ENG.:	<i>P. CHAPUT</i>	DATE:	29-OCT-79	K PL M8296-S-DBP A	
			(H)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	
			(I)	ID-UM-M8296-S-0				M8296.PLS	
			(J)					EDIT	
			(K)					5	
			(L)						
			(M)						
			(N)						

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TW

AUTOMATED BY PHLST, JL(3/)

PARTS LIST

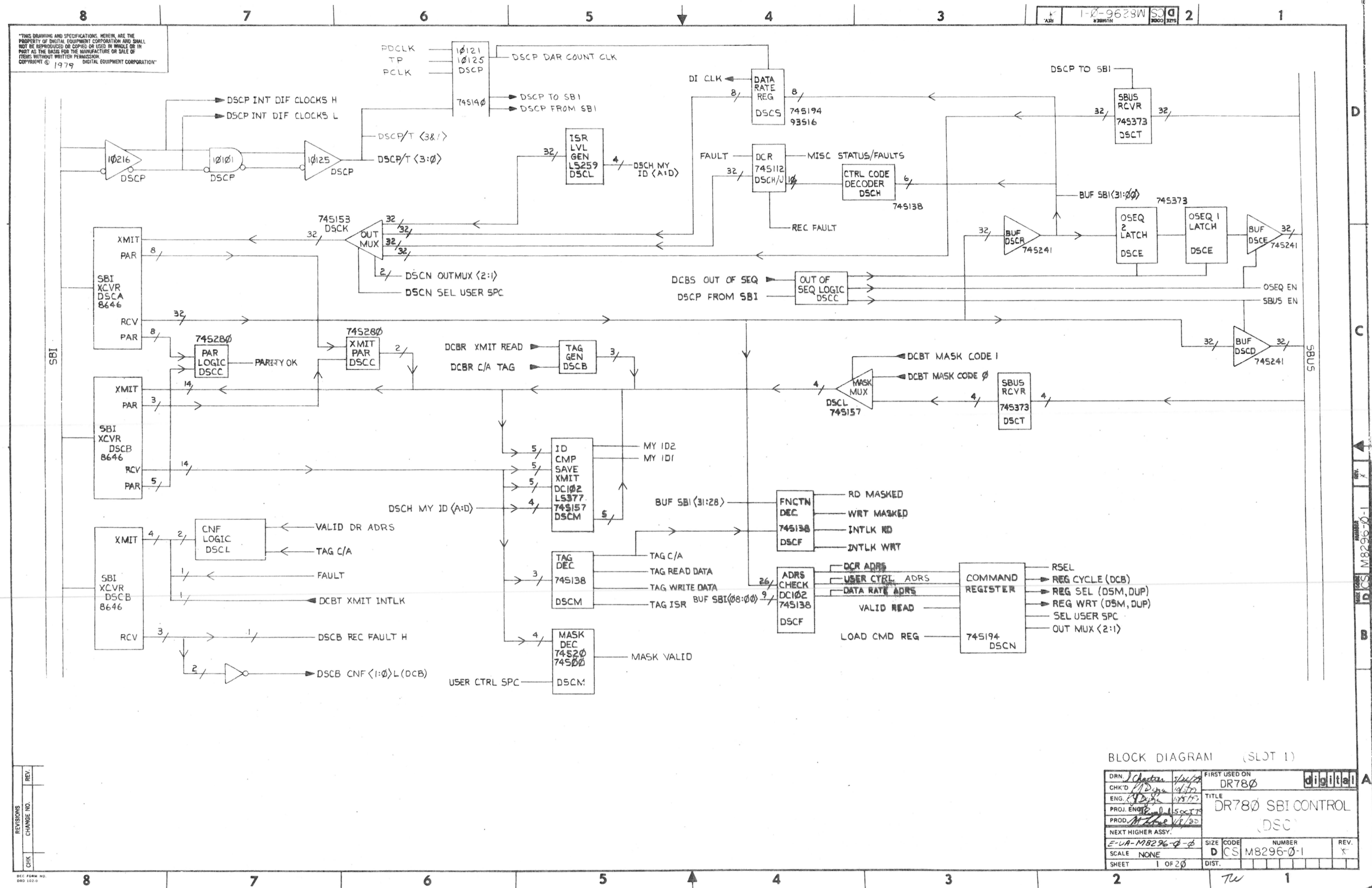
SHEET A2 OF A2

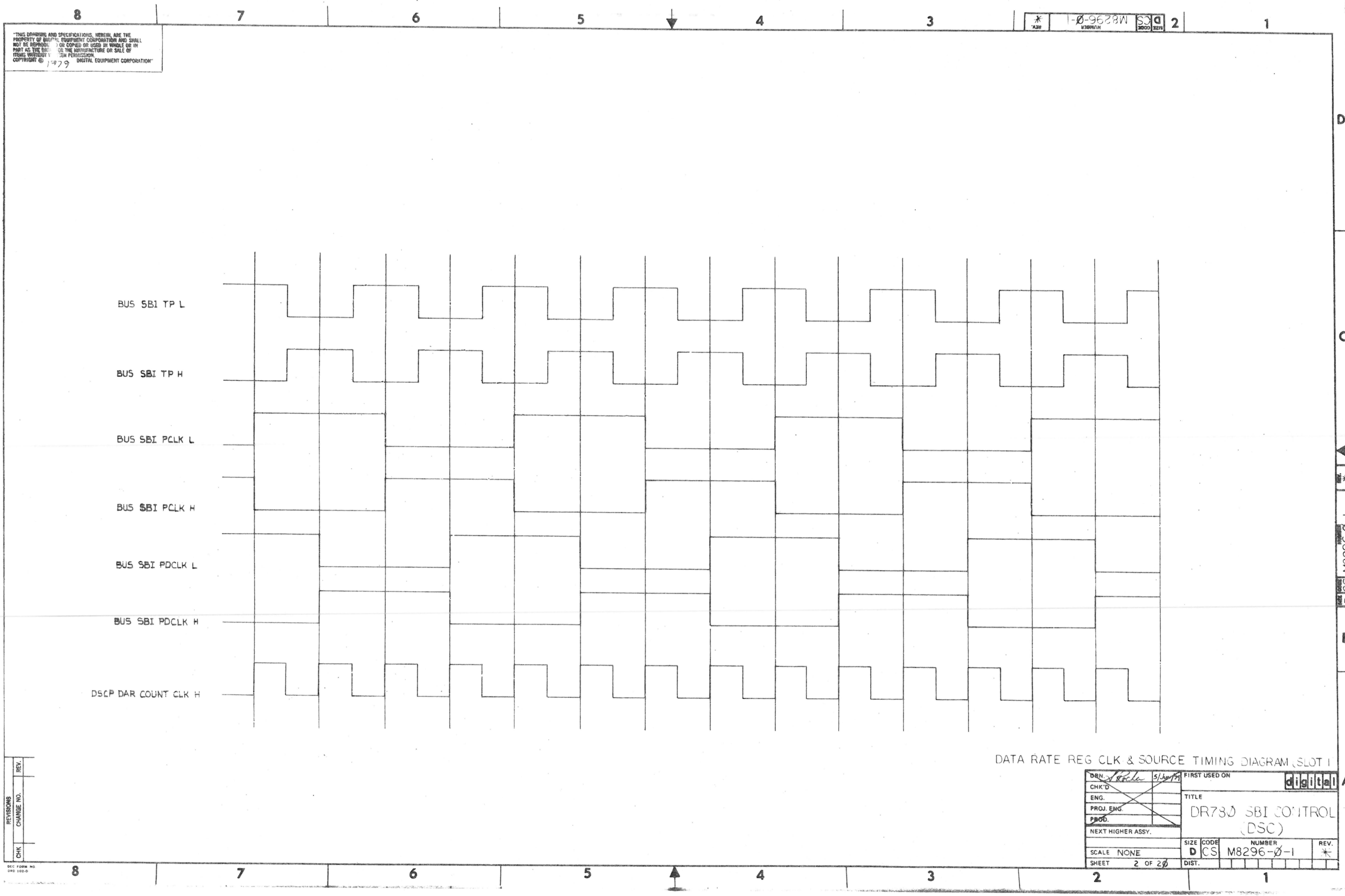
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
29	30	1911573-00	74S280 PARITY GEN/CHKR, 9BIT	4	E107-E110
30	31	1911675-00	74S138 DECODER/DEMUX 3-8 LIN	7	E54, E89, E111, E115, E152, E153, E165
31	32	1911676-00	74S139 DECODER-DUAL TWO-IMP	1	E80
32	33	1912089-00	74S85 CMPRTR-4BIT MAGNITUD	2	E97, E129
33	34	1912096-00	DEC 74S86 XOR GATE-QUAD 2IN	1	E158
34	35	1912388-00	74S82 NOR GATE-QUAD 2IN, PO	3	E78, E120, E182
35	36	1912389-00	74S88 AND GATE-QUAD 2IN, PO	6	E65, E104, E123, E159, E164, E168
36	37	1912731-00	DEC 74S46A TRANSCIVER, 4BIT BUS	14	E1-E8, E10, E13, E14, E16-E18
37	38	1912746-00	DEC 74S37 NAND GATE-QUAD 2IN	2	E85, E101
38	39	1912860-00	LS259 LATCH 8BIT	3	E95, E96, E113
39	40	1912865-00	LS283 ADDER-4BIT BINARY FU	1	E83
40	41	1912972-00	LS377 FF-Q 8BIT W/ENABLE	2	E43, E91
41	42	1913224-00	10216 RECEIVER, TRIPLE LINE	2	E9, E21
42	43	1913294-00	93816 COUNTER, SYNCH UP BIN	2	E177, E178
43	44	1913340-00	74S32 OR GATE-QUAD 2IN	4	E122, E132, E143, E144
44	45	1913670-00	74S373 LATCH 8BIT TRASP TR	13	E34-E40, E45-E50
45	46	1913888-00	DC 102A EQUALS CHECKER 8BIT	6	E52, E53, E90, E92, E102, E103
46	47	1913493-00	74S241 OCTAL BUFFER, TRI-STA	13	E12, E15, E23-E28, E84, E86-E88, E91
47	48	9600024-01	EYELET, ROLLED FLANGE, .121 OD X	12	

48 NOTE: SPARE I.C.'S ARE: E157, E169-E173, E175, E176, E183-E185.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE/CODE	DOCUMENT NUMBER	REV
							SBI CONTROL		K PL	88296-0-DBP	A

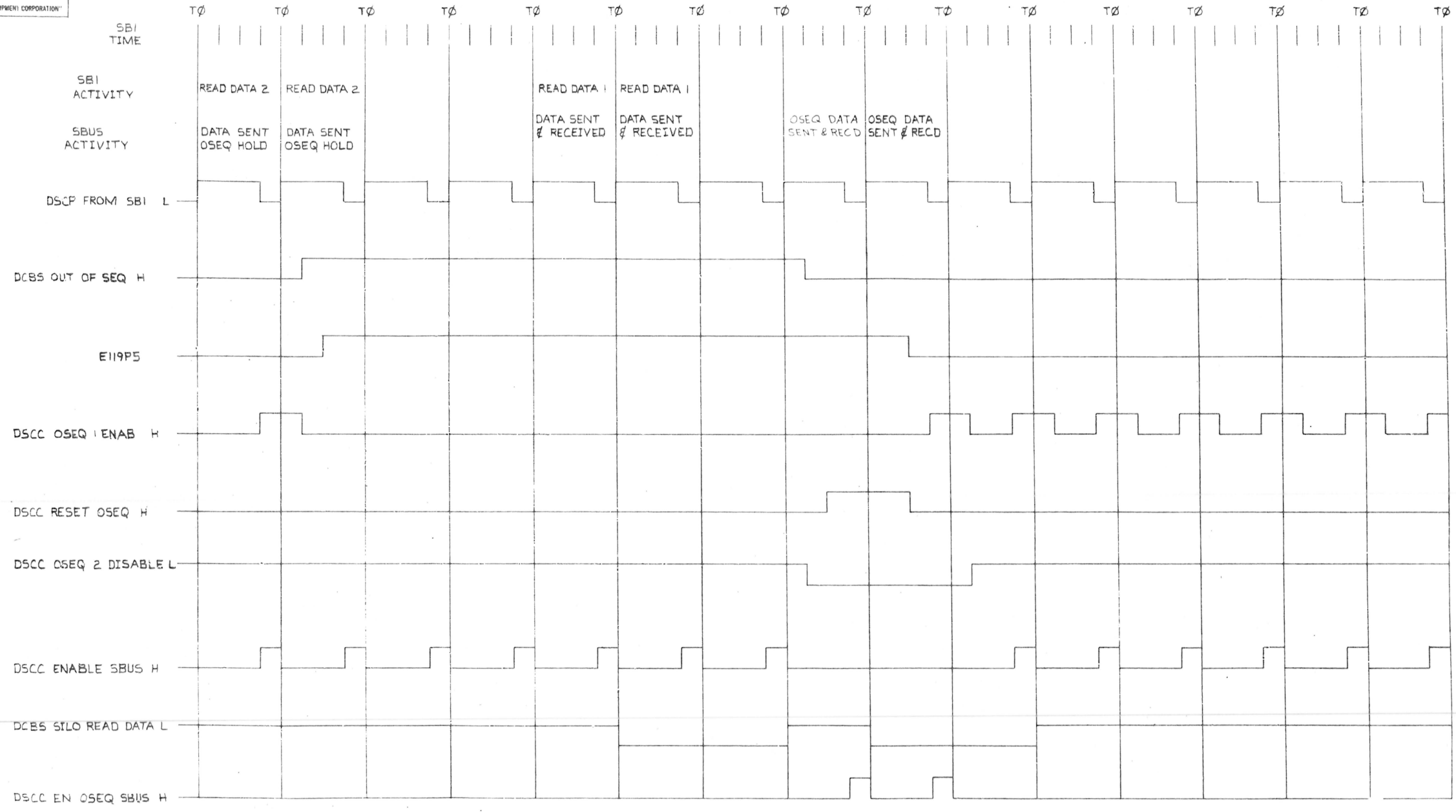
TW





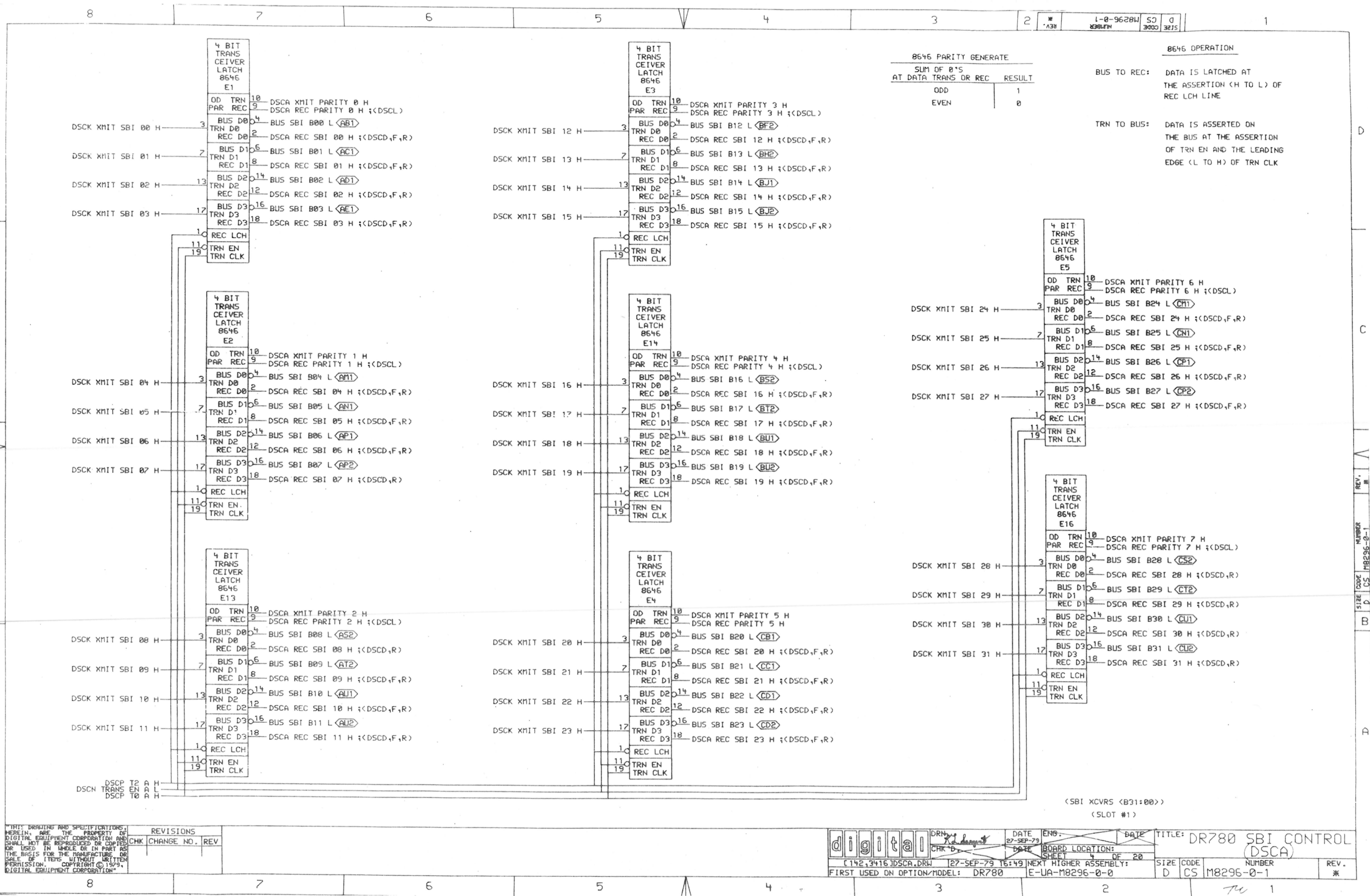
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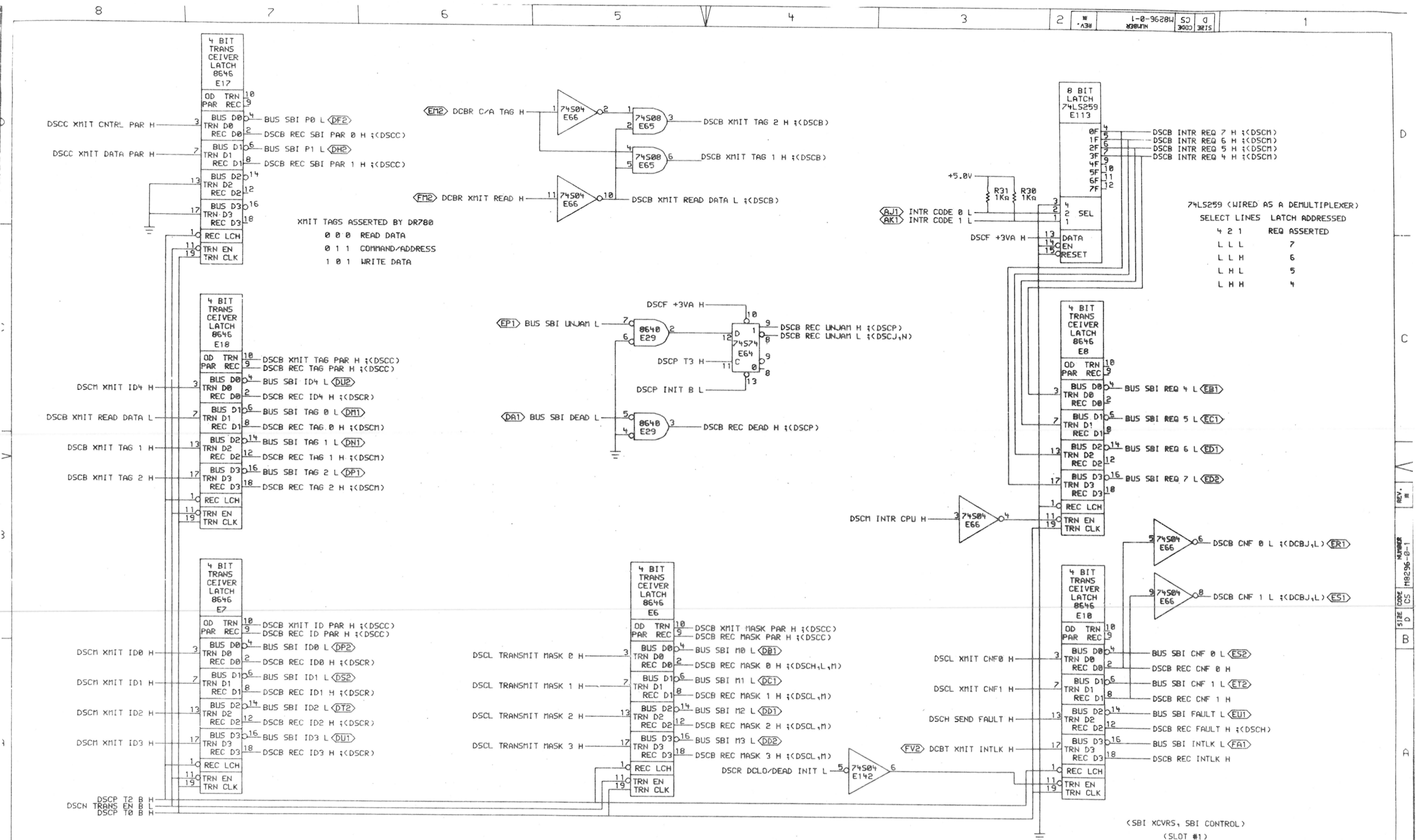
* -0-3528W SCD 2
NUMBER 2000 2215



OUT OF SEQUENCE LOGIC TIMING DIAGRAM (SLOT 1)

DRN: <i>John Smith</i>	FIRST USED ON	DR730	digital
CHK'D	TITLE	DR730 SBI CONTROL	
ENG.	DSC		
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE NONE	SIZE CODE	NUMBER	REV.
SHEET 3 OF 3	D CS	M8296-0-1	*
	DIST.		

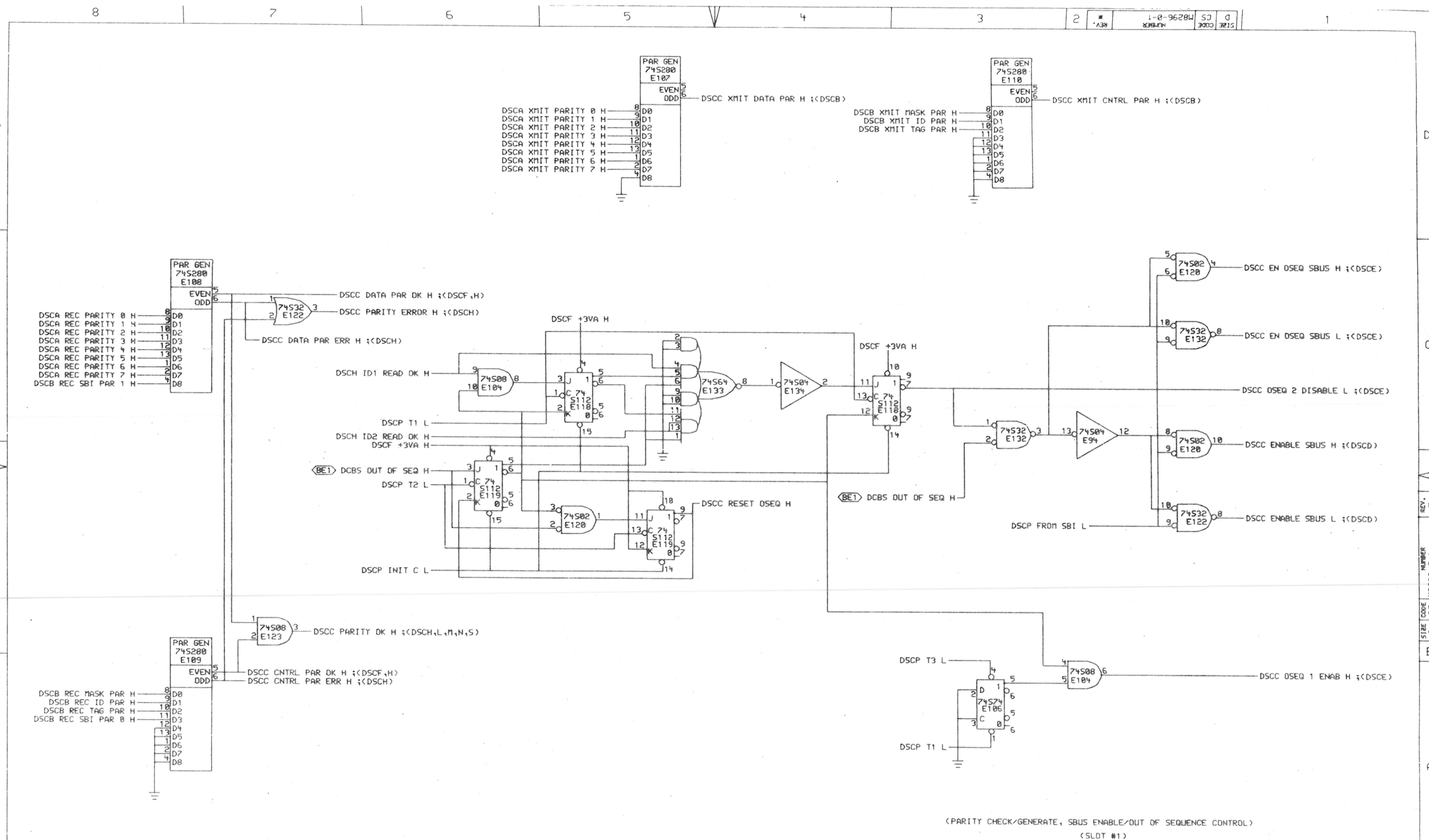




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REVISIONS		
CHK	CHANGE NO.	REV

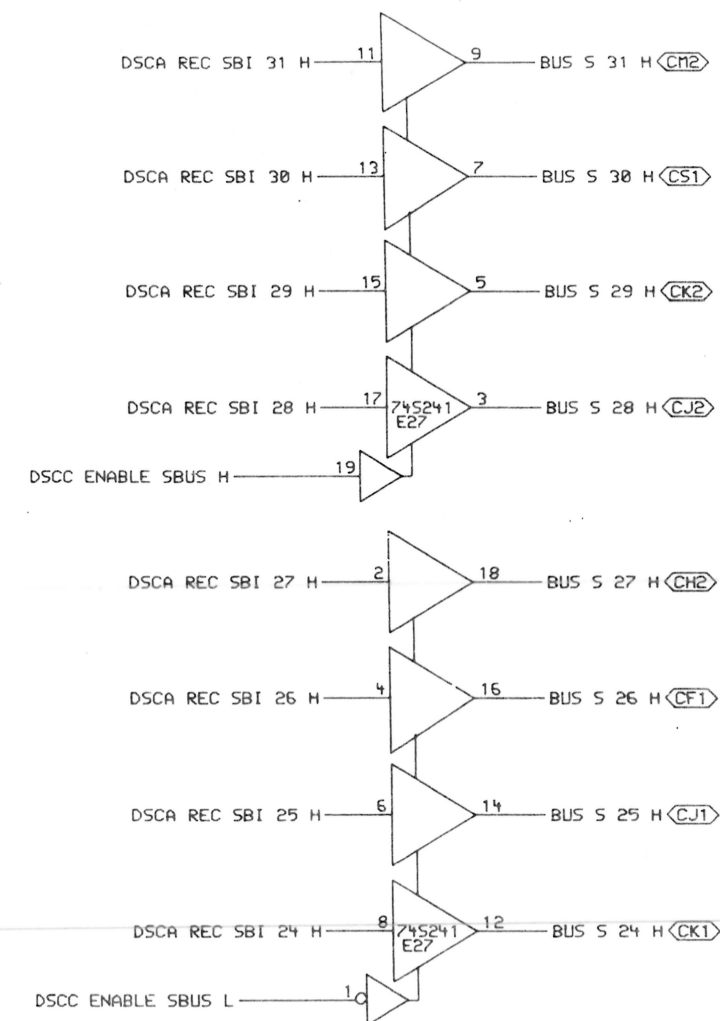
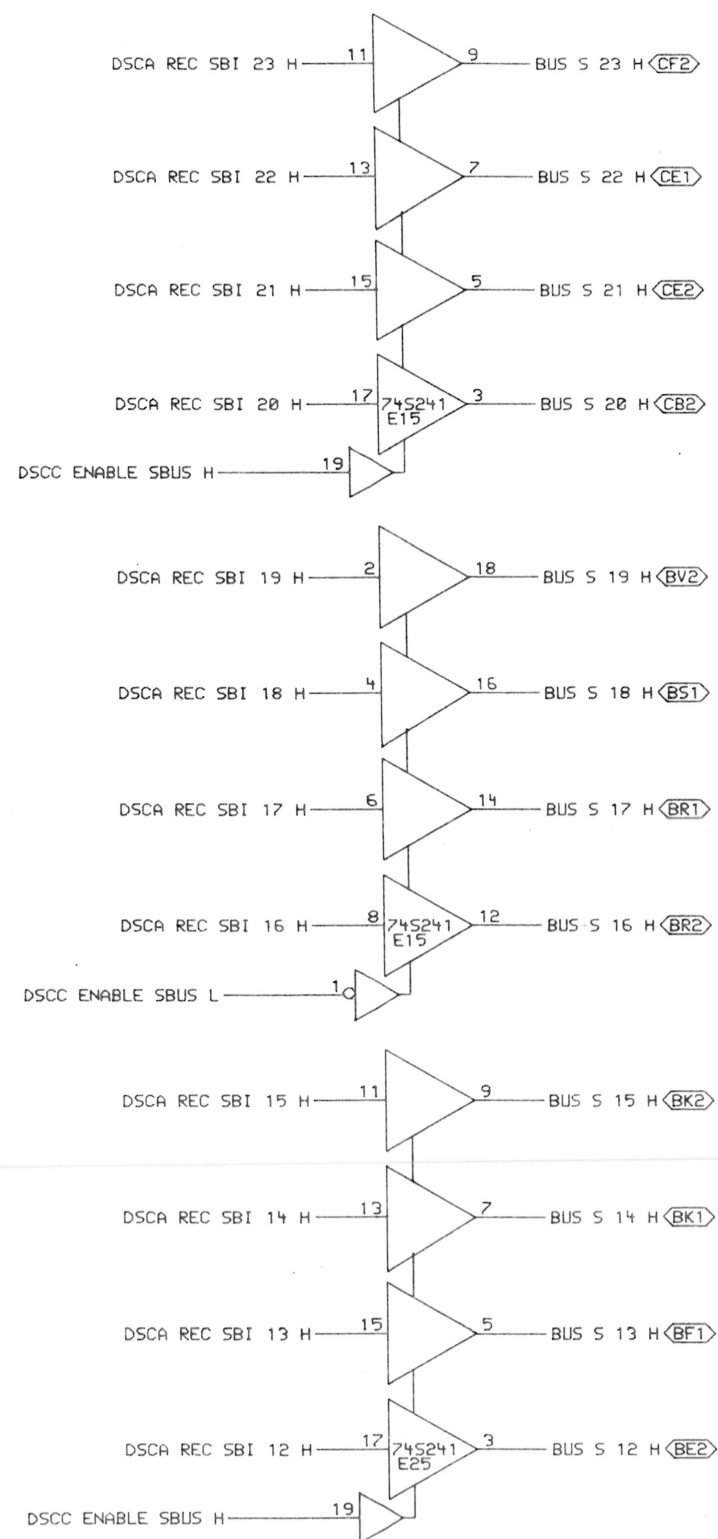
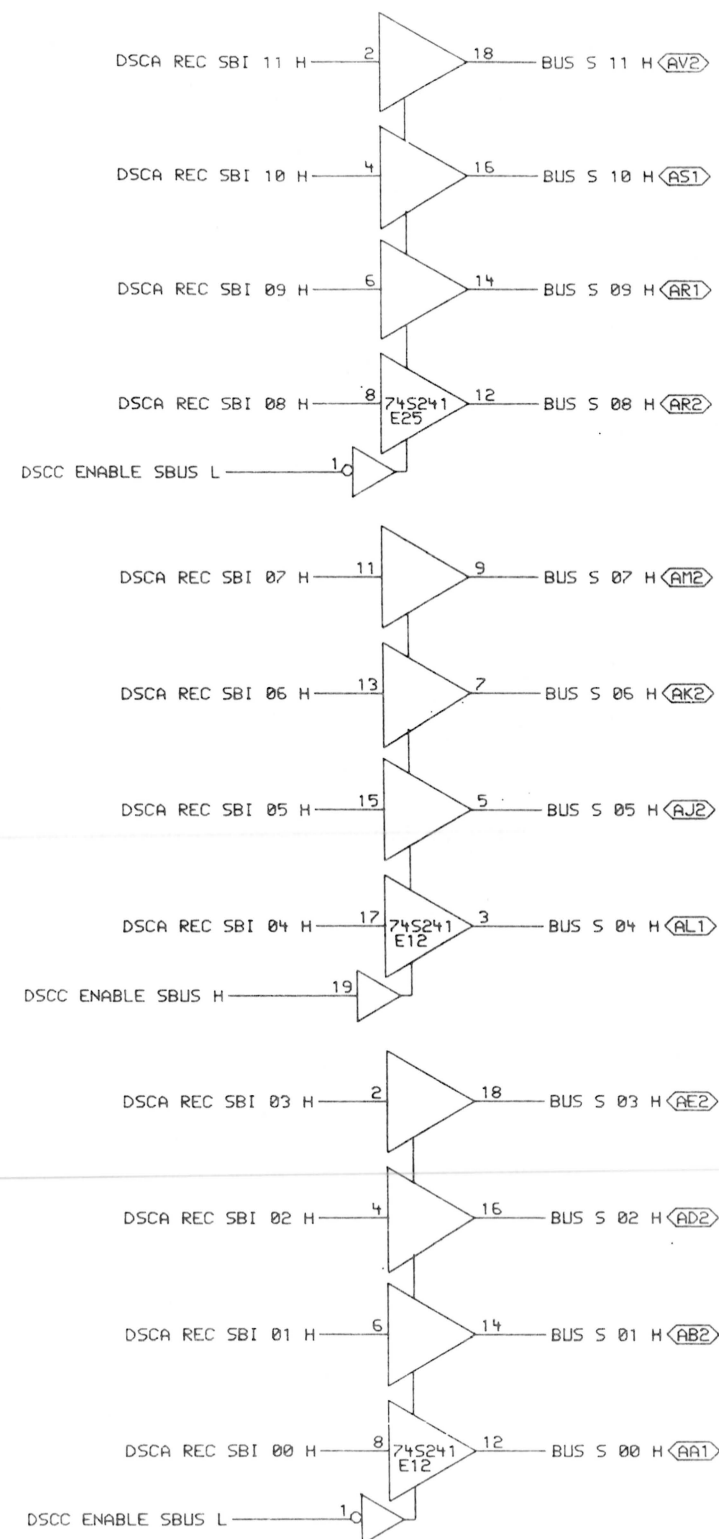
digital	DATE	27-SEP-79	ENG.		DATE		TITLE:	DR780 SBI CONTROL (DSCB)
	CHK'D.				BOARD LOCATION:			
142,3416 DSCB.DRW		27-SEP-79 16:49		NEXT HIGHER ASSEMBLY:		SIZE CODE		NUMBER
FIRST USED ON OPTION/MODEL: DR780		E-UA-M8296-0-0				D CS		M8296-0-1
								REV. *



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REVISIONS	
CHK	CHANGE NO., REV

digital	DRN: <i>[Signature]</i>	DATE: 27-SEP-79	ENG: <i>[Signature]</i>	DATE: <i>[Signature]</i>	TITLE: DR780 SBI CONTROL (DSCC)
	CHK: <i>[Signature]</i>	DATE: 27-SEP-79 16:50	BOARD LOCATION: SHEET 6 OF 20	SIZE CODE: D CS M8296-0-1	NUMBER: E-UA-M8296-0-1
FIRST USED ON OPTION/MODEL: DR780					REV: *



(SBUS DRIVERS)
(SLOT #1)

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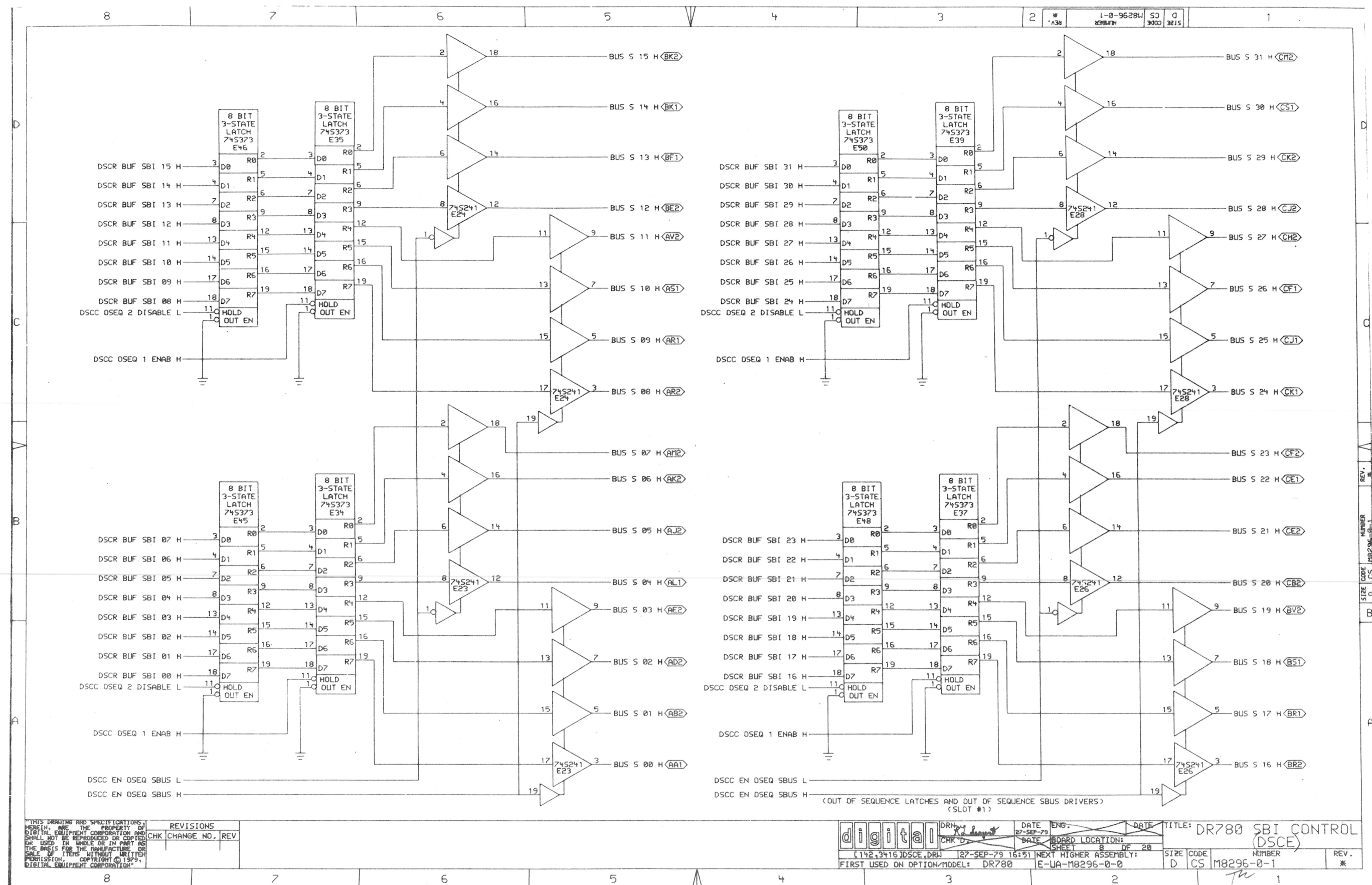
REVISIONS		
CHK	CHANGE NO.	REV

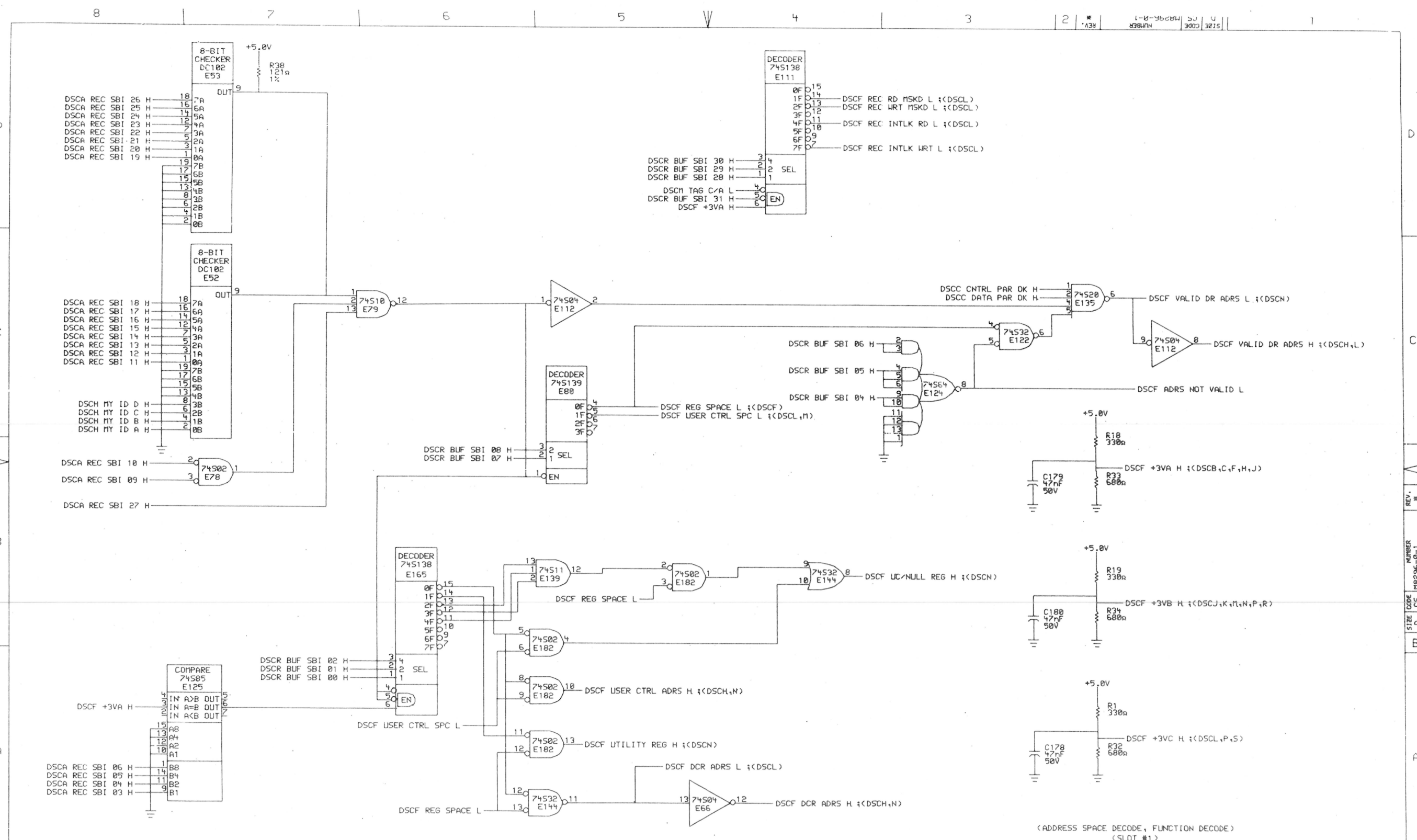
digital
C142,3415 DSCD.DRW
FIRST USED ON OPTION/MODEL: DR780

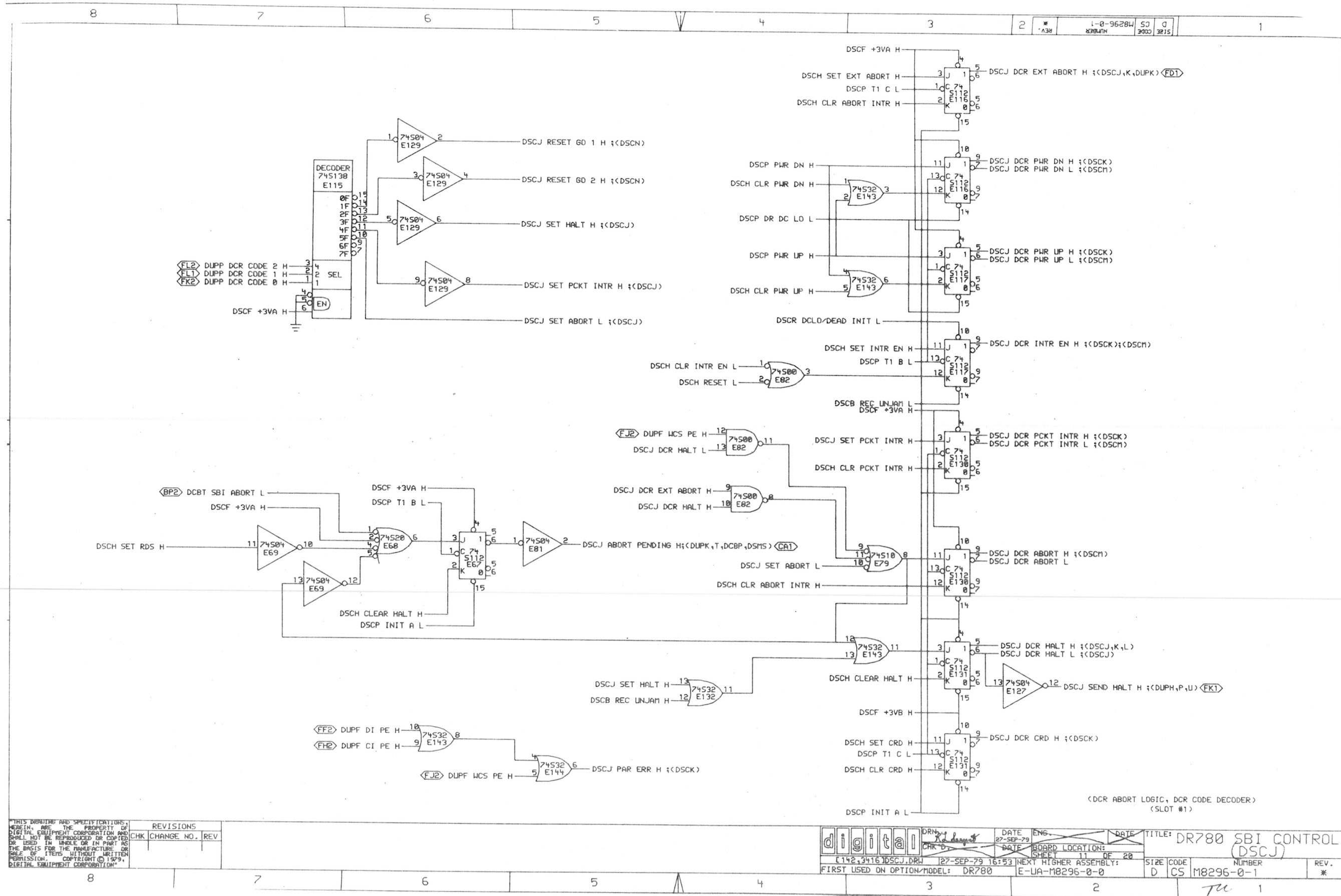
DATE 27-SEP-79
DATE 27-SEP-79 16:50
NEXT HIGHER ASSEMBLY: E-UA-M8296-0-0

ENG. DATE
BOARD LOCATION: SHEET 7 OF 20
SIZE CODE D CS M8296-0-1

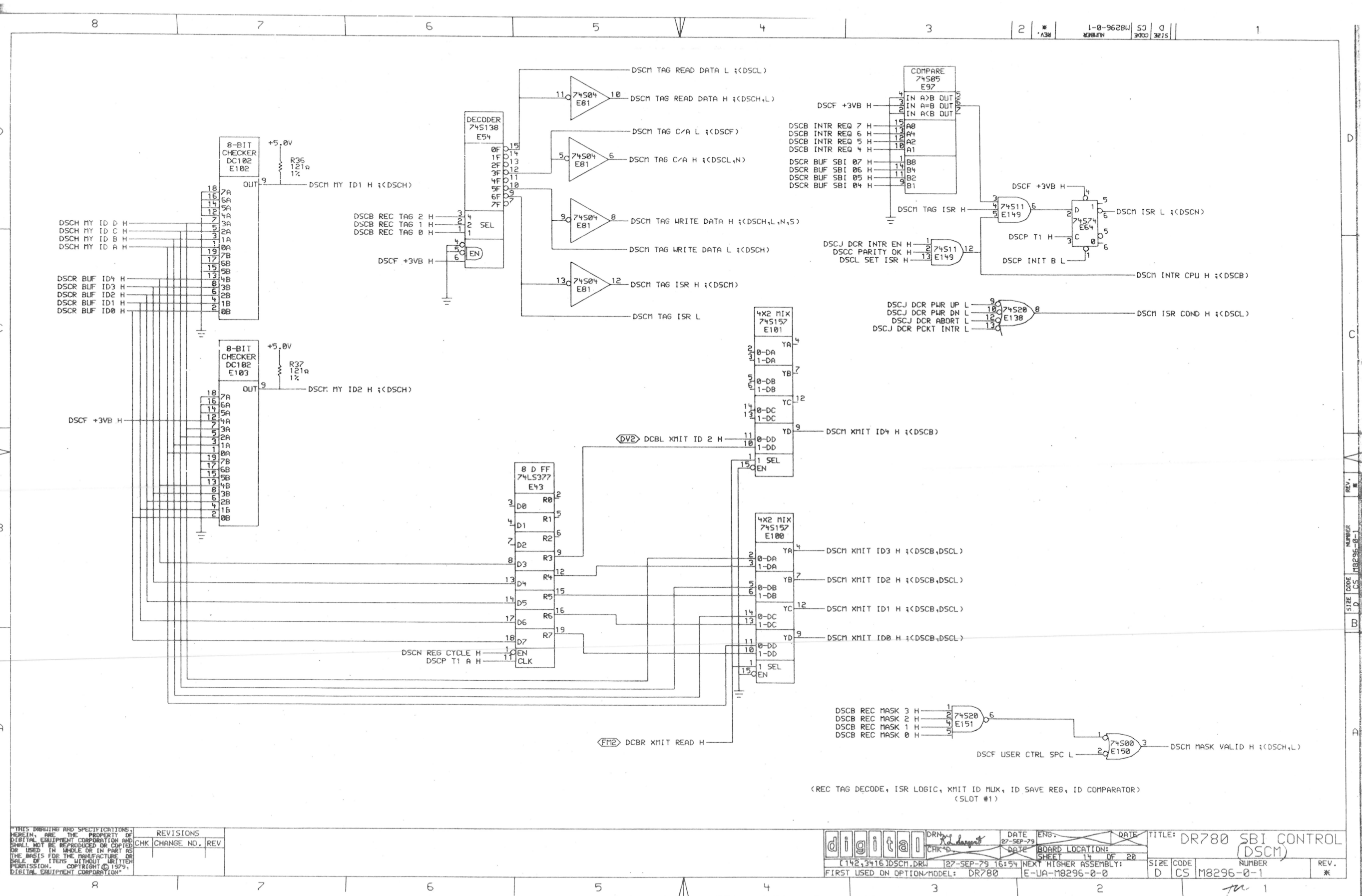
TITLE: DR780 SBI CONTROL (DSCD)
NUMBER 1-8-96281
REV. *



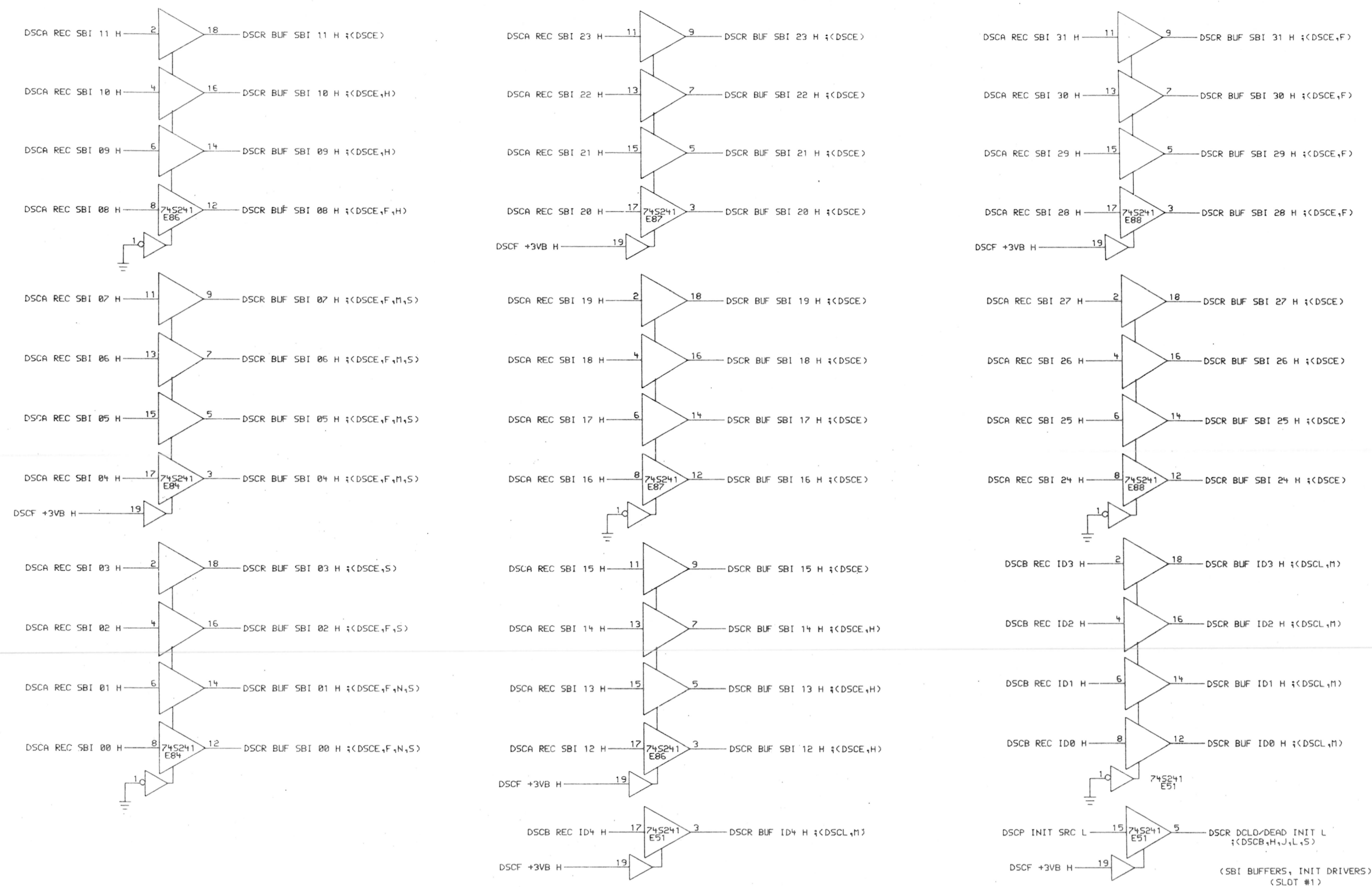






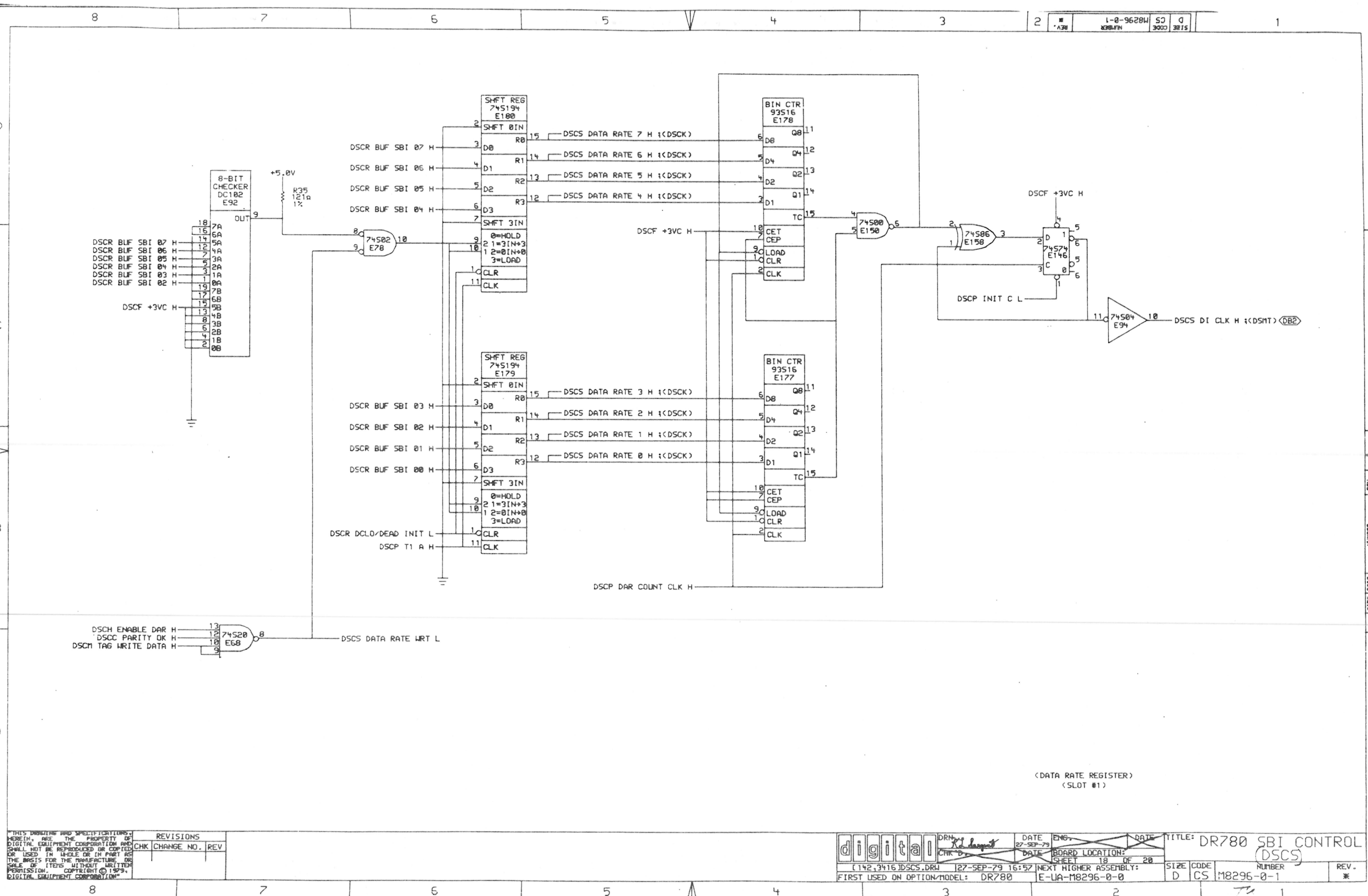


8 7 6 5 4 3 2 1



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CHK	CHANGE NO.	REV	DATE	DATE	BOARD LOCATION	SIZE CODE	NUMBER
			27-SEP-79	27-SEP-79	17 OF 20	D CS	M8296-0-1
FIRST USED ON OPTION/MODEL: DR780				NEXT HIGHER ASSEMBLY: E-UA-M8296-0-0		REV. *	

8 7 6 5 4 3 2 1

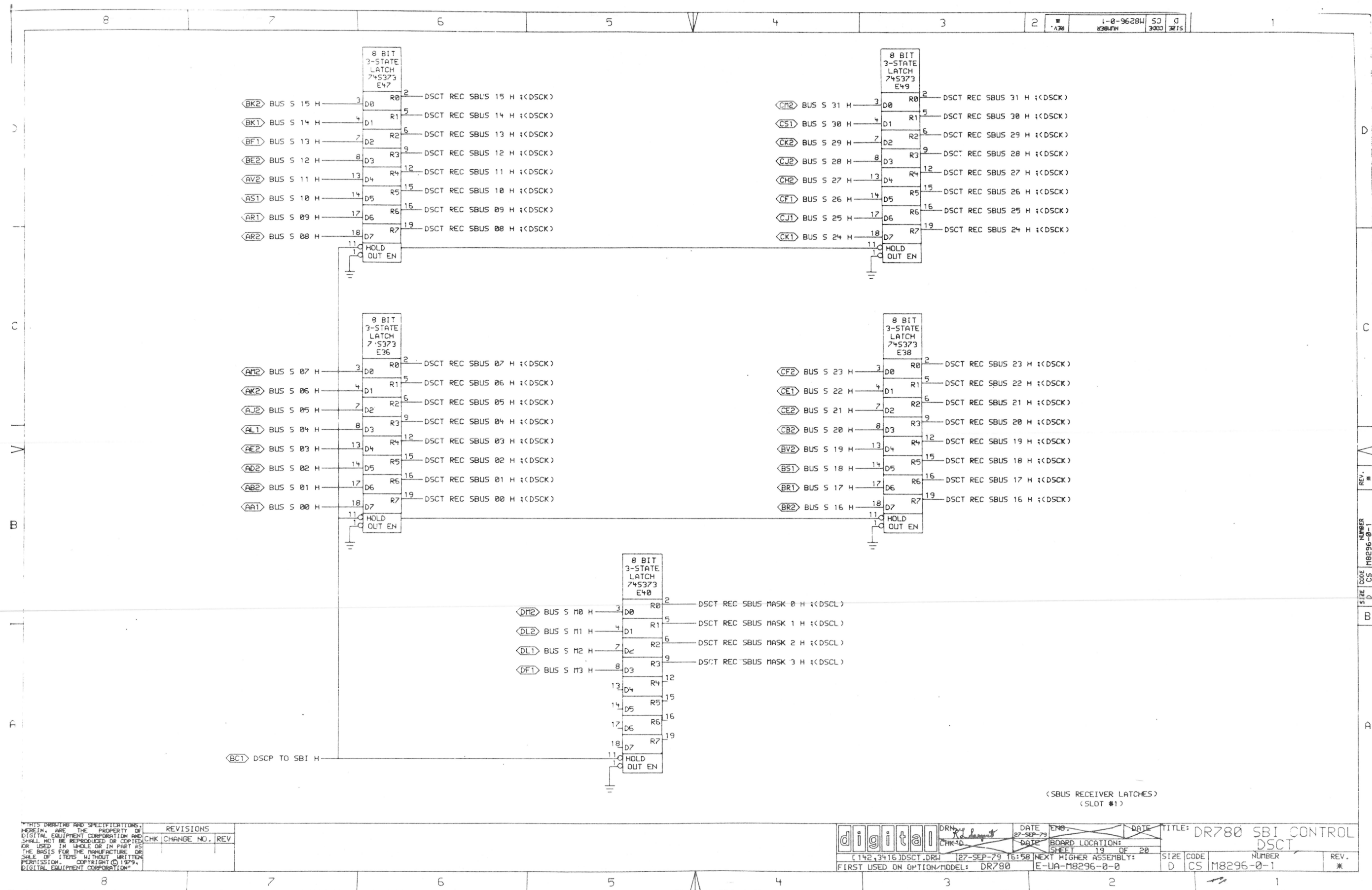


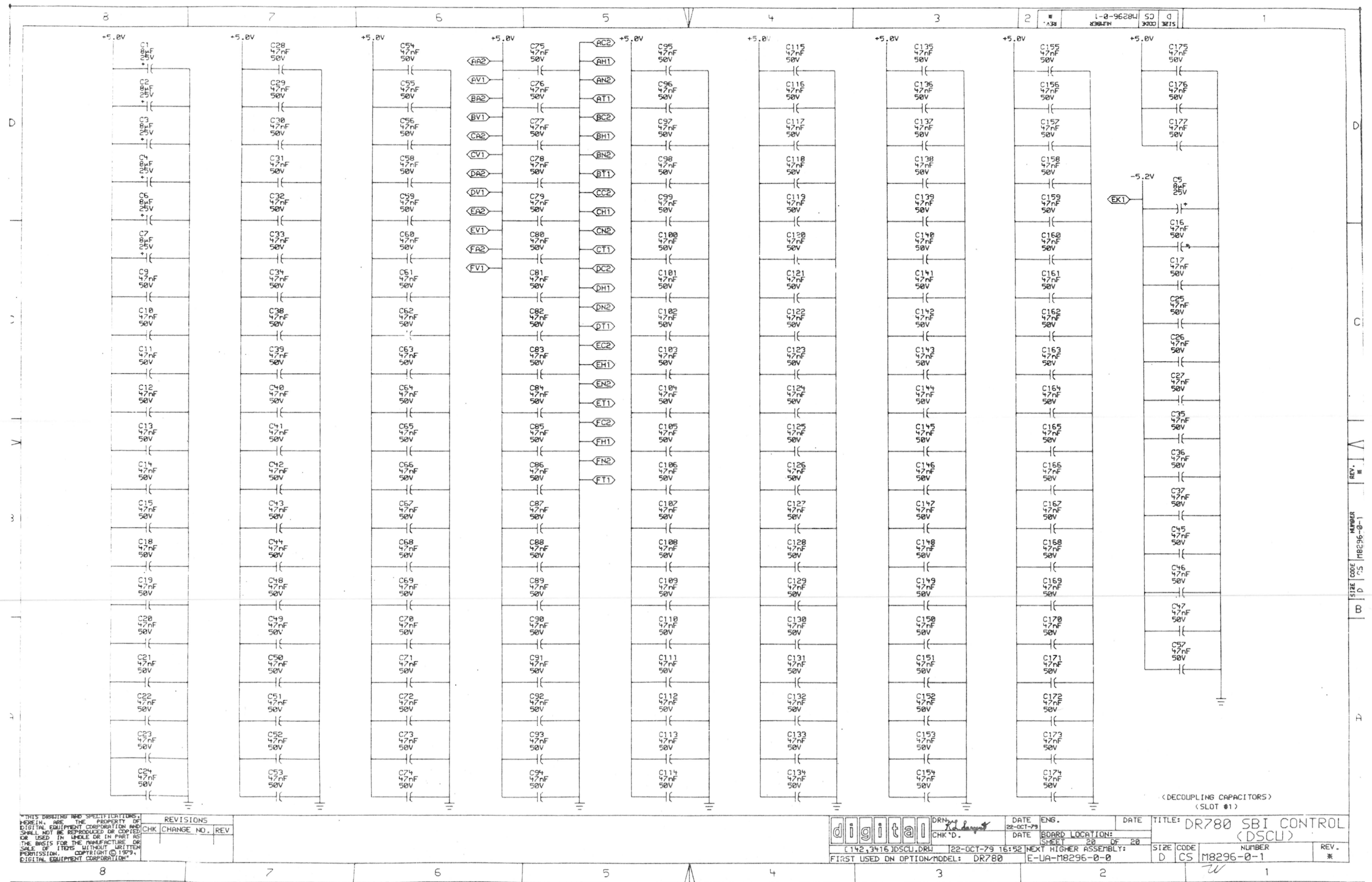
(DATA RATE REGISTER)
(SLOT #1)

REVISIONS	
CHK	CHANGE NO. REV

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digital		DRN: <i>R. J. Lopez</i>	DATE: 27-SEP-79	ENG: <i>R. J. Lopez</i>	DATE: 27-SEP-79	TITLE: DR780 SBI CONTROL (DSCS)	
C142,3416.DSCS.DRW		CHK: <i>R. J. Lopez</i>	DATE: 27-SEP-79	DATE: 27-SEP-79	DATE: 27-SEP-79	SHEET 18 OF 20	
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8296-0-0		SIZE CODE		NUMBER	
				D CS		M8296-0-1	
				REV.		*	





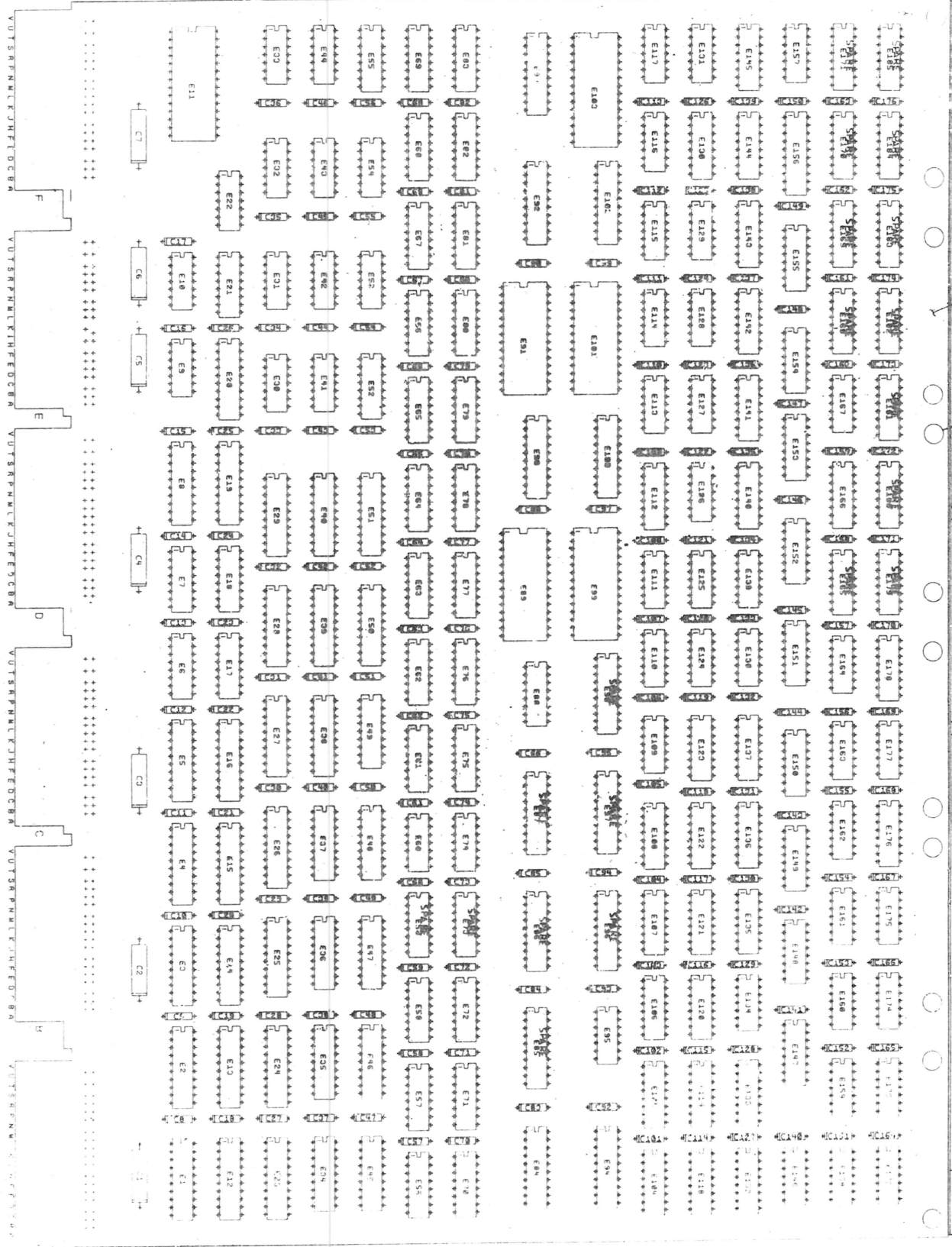
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1979, DIGITAL EQUIPMENT CORPORATION.

REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG.	DATE	TITLE: DR780 SBI CONTROL (DSU)
	22-OCT-79			
CHK'D.	DATE	BOARD LOCATION:	SHEET	OF
			20	20
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8296-0-0		

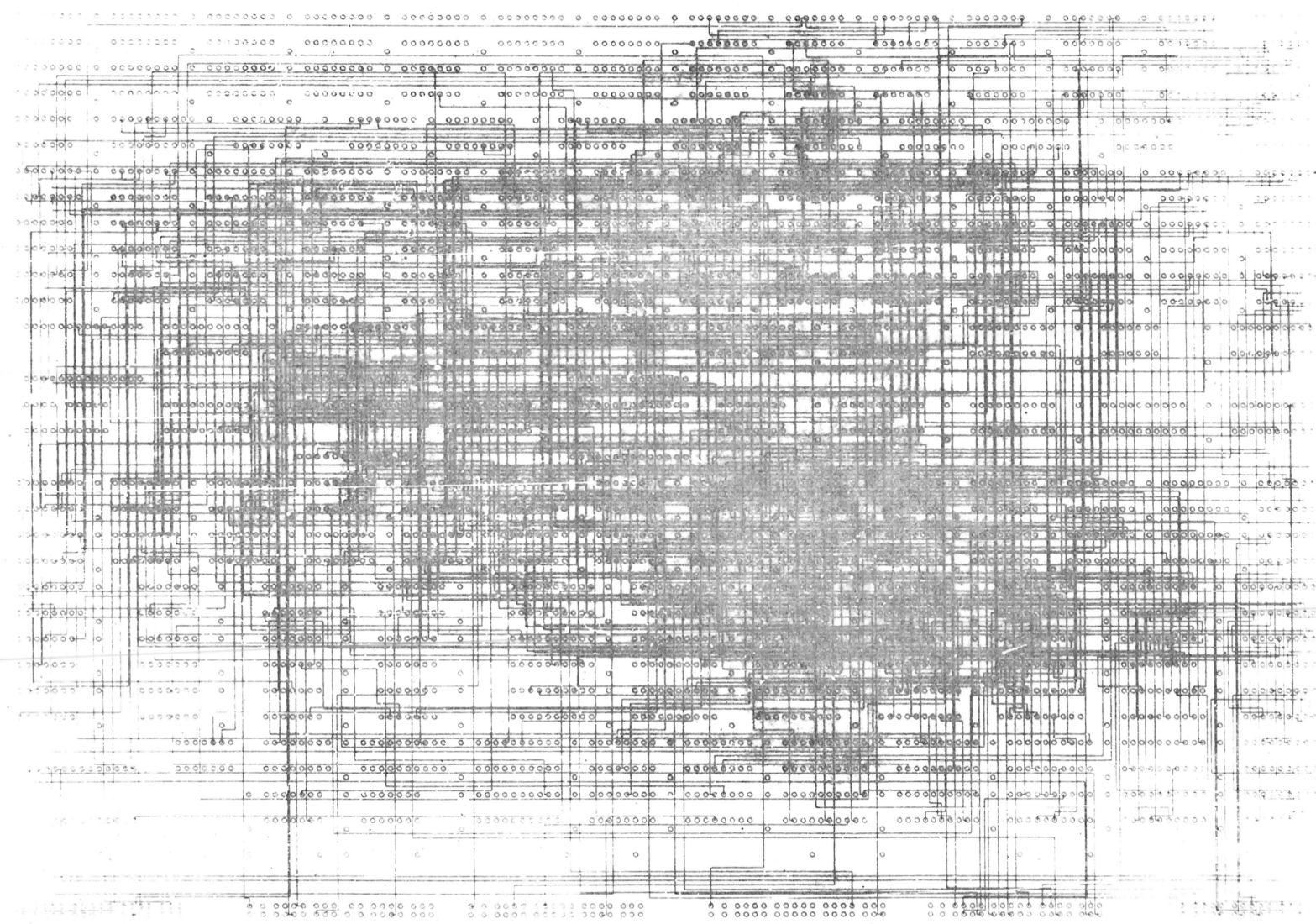
(DECOUPLING CAPACITORS)
(SLOT #1)

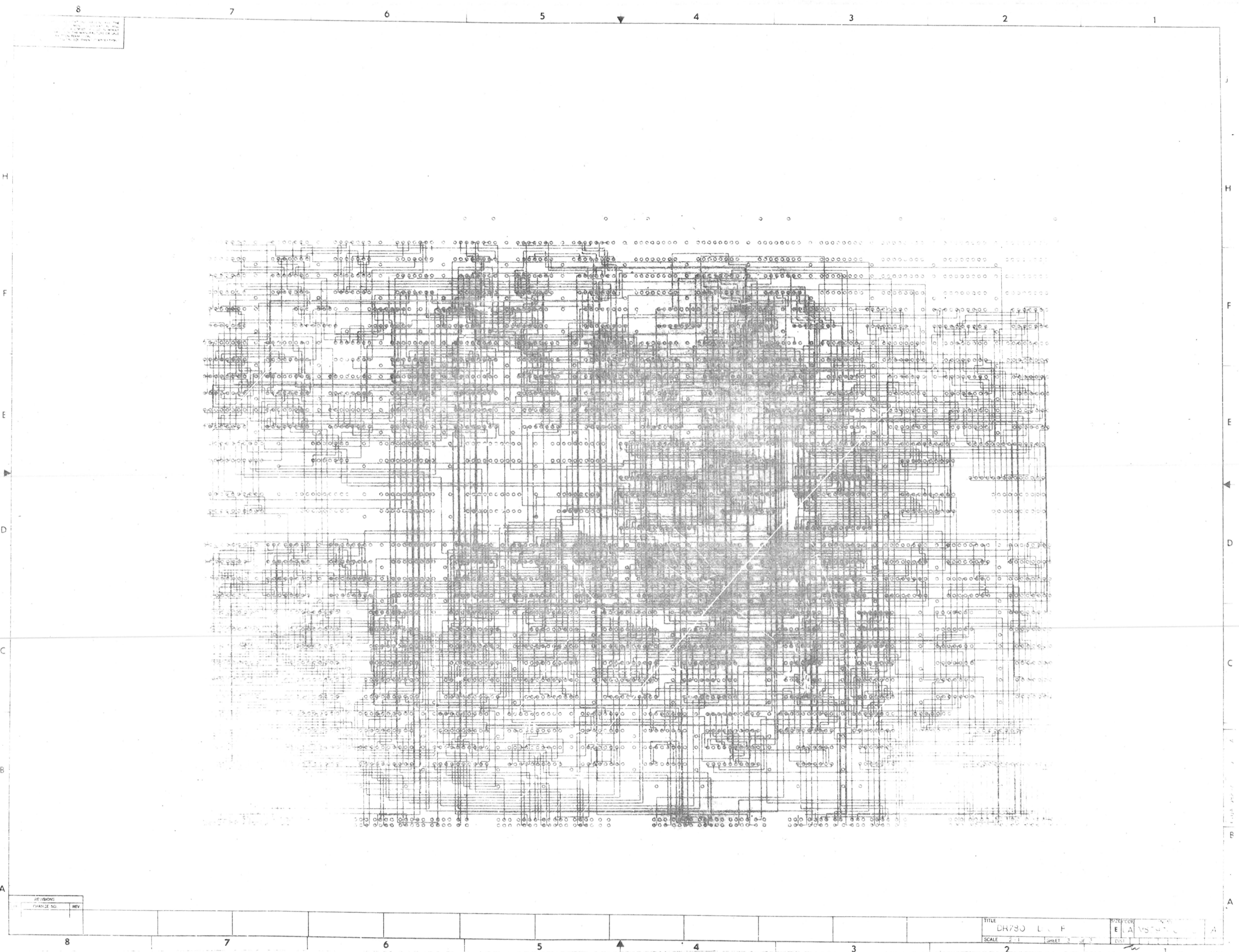
NOT TO SCALE
ALL DIMENSIONS IN INCHES
UNLESS OTHERWISE SPECIFIED



0237-028

SIGNATURES		DATE
CHK. D.	1/1/70	1/1/70
DESIGN. ENG.	1/1/70	1/1/70
PROD. ENG.	1/1/70	1/1/70
SCALE	1/1/70	1/1/70
NEXT HIGHER REV.		





LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1		5013806-00	DR780 CONTROL BOARD	1	
2	2		1012084-01	8 MFD 25V G% 30D AL EL	7	C1-C7
3	3		1012784-00	.047 MFD 50V -20+80 CER	163	C8-C86,C88,C90,C92,C93,C94,C95, C97,C99,C101-C176
4	4		1210711-02	HANDLE,MODULE,HEX	1	
5	5		1910532-00	74S00 NAND GATE-QUAD 2IN\$	9	E43,E53,E113,E115,E124,E126, E129,E173,E177
6	6		1910534-00	74S04 INVERTER GATE-HEX 1I	10	E30,E32,E60,E109,E114,E159,E160, E161,E164,E167
7	7		1910536-00	74S10 NAND GATE-TRIPLE 3IN	6	E22,E54,E117,E125,E128,E174
8	8		1910539-00	74S20 NAND GATE-DUAL 4INPU	2	E111,E175
9	9		1910542-00	74S64 A-O-I GATE 4-2-3-2	6	E9,E10,E31,E110,E131,E146
10	10		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	9	E52,E55,E112,E123,E137,E140, E176,E178,E166
11	11		1910547-00	74S153 MUX 1 OF 4 (DUAL)	16	E62-E69,E76-E83
12	12		1910548-00	74S157 MUX 1 OF 2 (QUAD)	3	E57,E71,E150
13	13		1910550-00	74S174 FF-D HEX	3	E21,E145,E147
14	14		1910552-00	74S194 SHIFT REG.,4BIT RIGH	6	E58,E70,E152-E155
15	15		1910956-00	74S151 MUX 1 OF 8	1	E149
16	16		1910957-00	74S175 FF-D QUAD COMMON CLO	3	E130,E144,E151
17	17		1911415-00	10125 ECL TO TTL TRNSLTR	4	E6,E7,E17,E18
18	18		1912388-00	74S02 NOR GATE-QUAD 2IN,PO	6	E42,E44,E116,E127,E158,E162
19	19		1912389-00	74S08 AND GATE-QUAD 2IN,PO	7	E33,E41,E134,E138,E139,E157,E172
20	20		1912586-00	DM 85S68N REGISTER,64BIT EDGE	9	E34-E37,E45-E49
21	21		1912746-00	DEC 74S37 NAND GATE-QUAD 2IN	2	E74,E163
22	22		1912851-00	LS169 COUNTER,SYNCH, UP/DO	20	E61,E75,E104-E108,E118-E122, E132-E133,E140-E143,E135,E136
23	23		1912865-00	LS283 ADDER-4BIT BINARY FU	2	E56,E72
24	24		1912872-00	LS377 FF-D 8BIT W/ENABLE	12	E23-E29,E38-E40,E50,E94
25	25		1913670-00	74S373 LATCH 8BIT TRASP TR	6	E1-E5,E20

REVISION HISTORY		BASIC PART NO: M8297		DRN: B.DEMPSKI	DATE: 14-MAR-79	D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A			TITLE PARTS LIST			
---	INITIAL	A	SECTION, VARIATION INDEX	CHK'D: K.SARGENT	DATE: 29-OCT-79	CONTROL BOARD			
			[A] 00						
			[B]	DES.ENG: T.ERMOLOVICH		DATE: 29-OCT-79			
			[C]						
			[D]	RESP.ENG.: T.ERMOLOVICH		DATE: 29-OCT-79			
			[E]			DOCUMENT NUMBER			
			[F]						
			[H]	MFG.ENG.: B.CHAPUT		DATE: 29-OCT-79			
			[J]			SIZE CODE NUMBER REV			
			[K]			K PL M8297-0-DBP A			
			[L]						
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	
			[N]	ID-UA-M8297-0-0				M8297.PLS	
								EDIT #	
								5	

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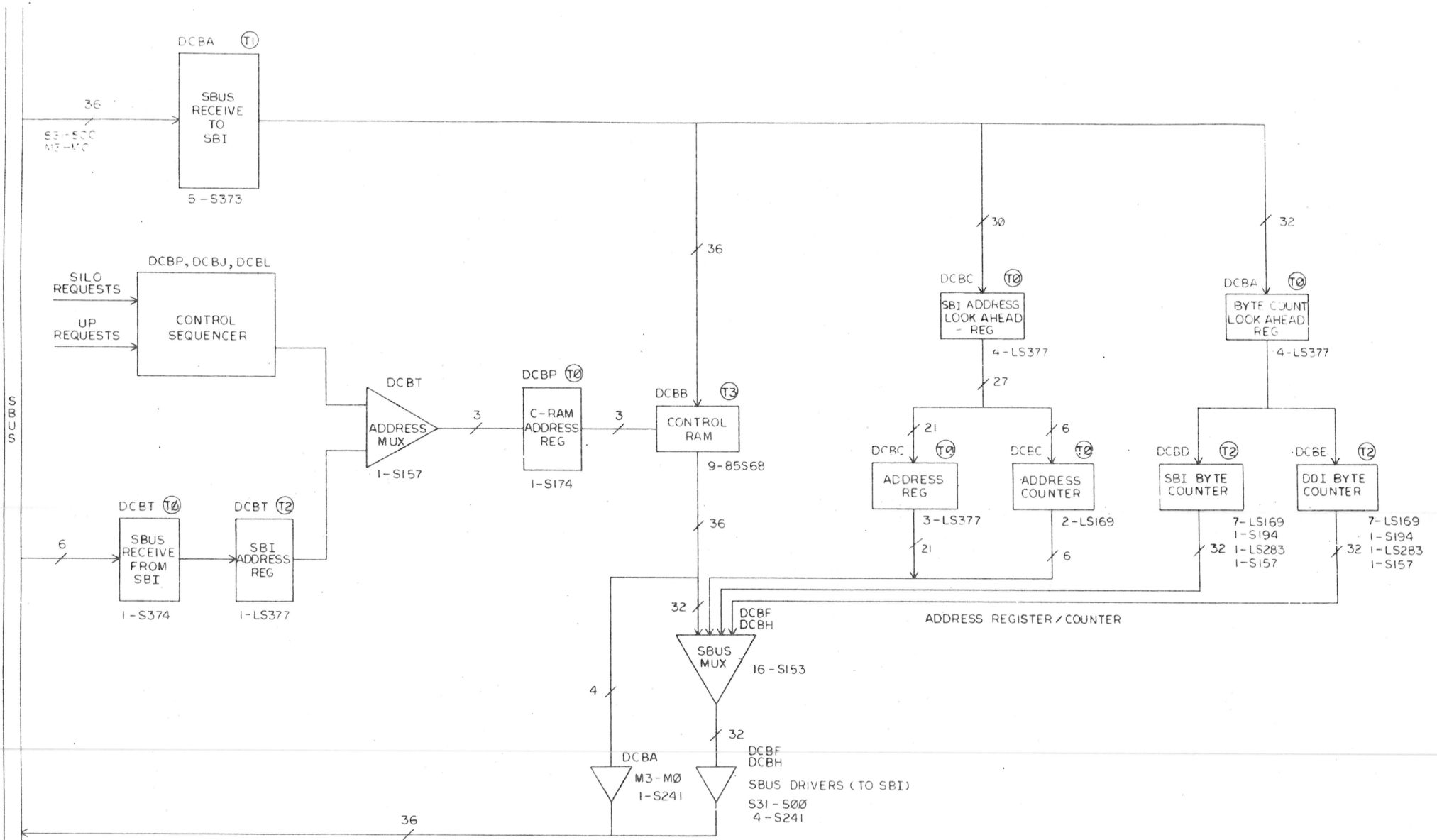
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
26	26	1913671-00	74S374 FF-D OCTAL TRISTATE	8	E8,E51,E84,E90,E92,E100,E102,
27	27	1913730-00	DC 101 PRIORITY ARBITRATOR	1	E156
28	28	2305381-00	B1-01	1	E11
29	29	23041C6-00	C6-01	2	E19
30	30	1913493-00	74S241 OCTAL BUFFER,TRI-STA	5	E89,E91
31	31	9000024-01	EYELET, ROLLED FLANGE, .121 OD X	12	E12-E16
32	32	1300005-09	R NETWORK 15-56 RESISTORS 16 P	1	E88
33	33	23046C6-00	C6-01	1	E103
34	34	23042C6-00	C6-01	2	E99,E101
35	35	191A085-00	74S260 NOR GATE-DUAL,POS	1	E95

36 NOTE: SPARE I.C.'S ARE; E59,E73,E85-E87,E93,E96-E98,E165,E168-E171,E179-E185.

L	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							CONTROL BOARD		K	PL	M8297-0-DBP	A

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1-0-1528W
878W/11
2



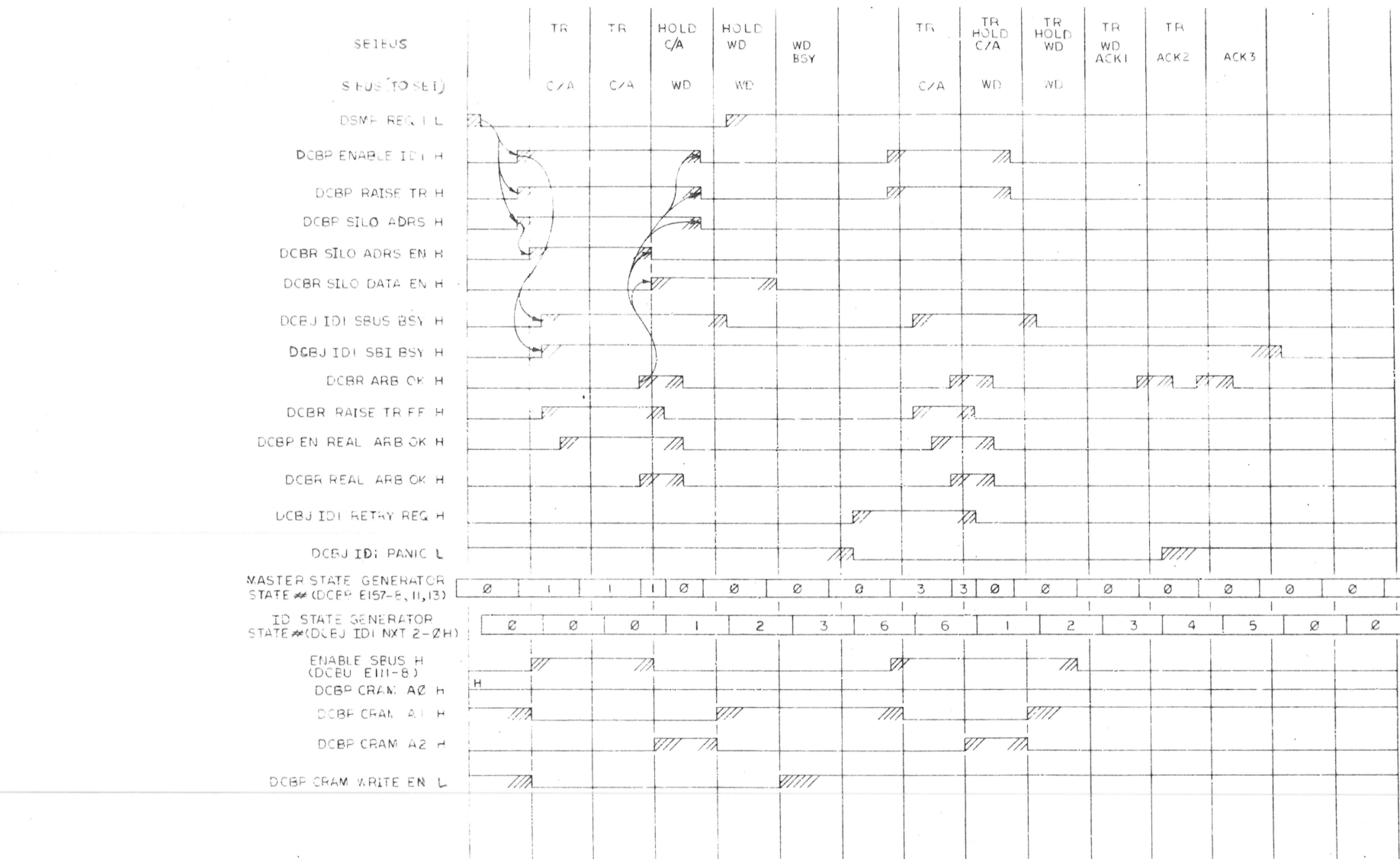
(BLOCK DIAGRAM)

DRN: R. KOPPENHIL 7.11.79	FIRST USED ON	DR780	digital
CHK'D: T. C. L. 5.01.79	TITLE	DR780	CONTROL BOARD
ENG: J. P. 5.01.79	PROJ. ENG: J. P. 5.01.79	PROD. M. P. 11/80	
NEXT HIGHER ASSY.	SIZE	CODE	NUMBER
E-4-1152-77-3-2	D	CS	M297-0-1
SCALE	SHEET	1	OF 3.4
DIST.			

(S.OT 02)

116257-0-1
116257-0-1
116257-0-1

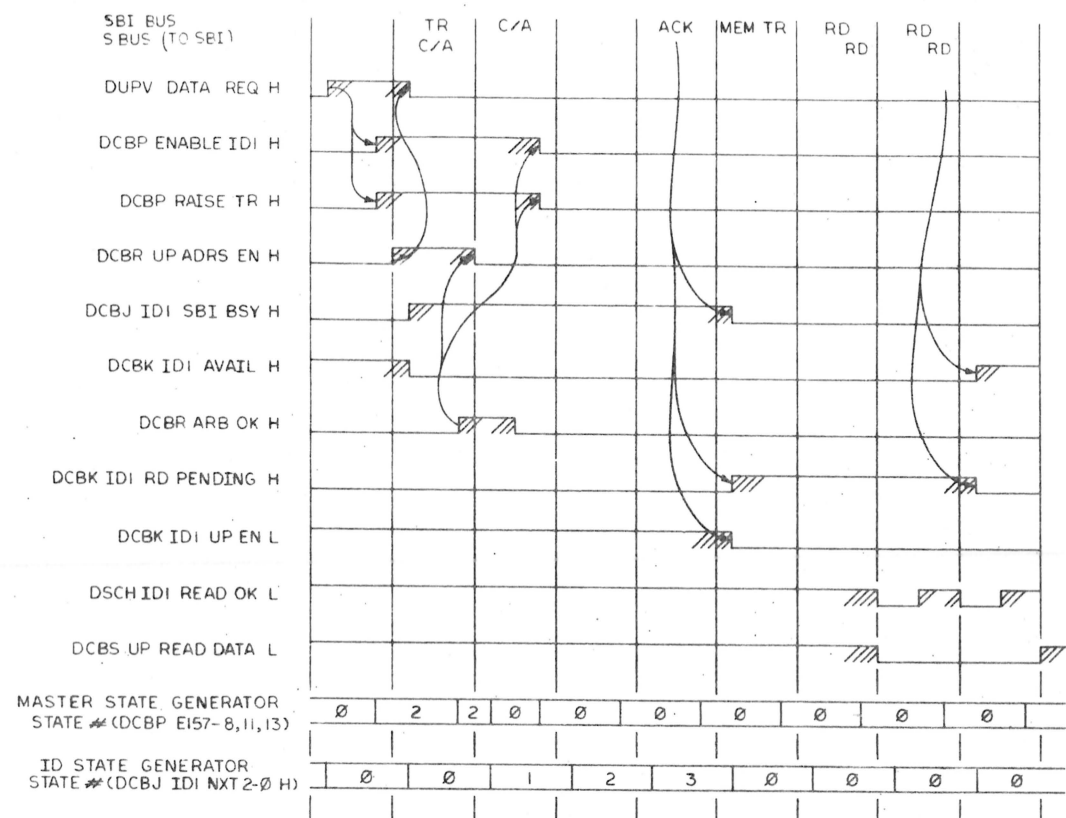
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(EXTENDED WRITE COMMAND)

BRN. & NO.	DATE	FIRST USED ON	digital
CHK'D		TITLE	
ENG.		PROJ. ENG.	
PROD.		PROD.	
NEXT HIGHER ASSY.		SIZE CODE	NUMBER
SCALE		D 05	V6297-2-1
SHEET 1 OF 34		DIST	REV

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(EXTENDED READ COMMAND)

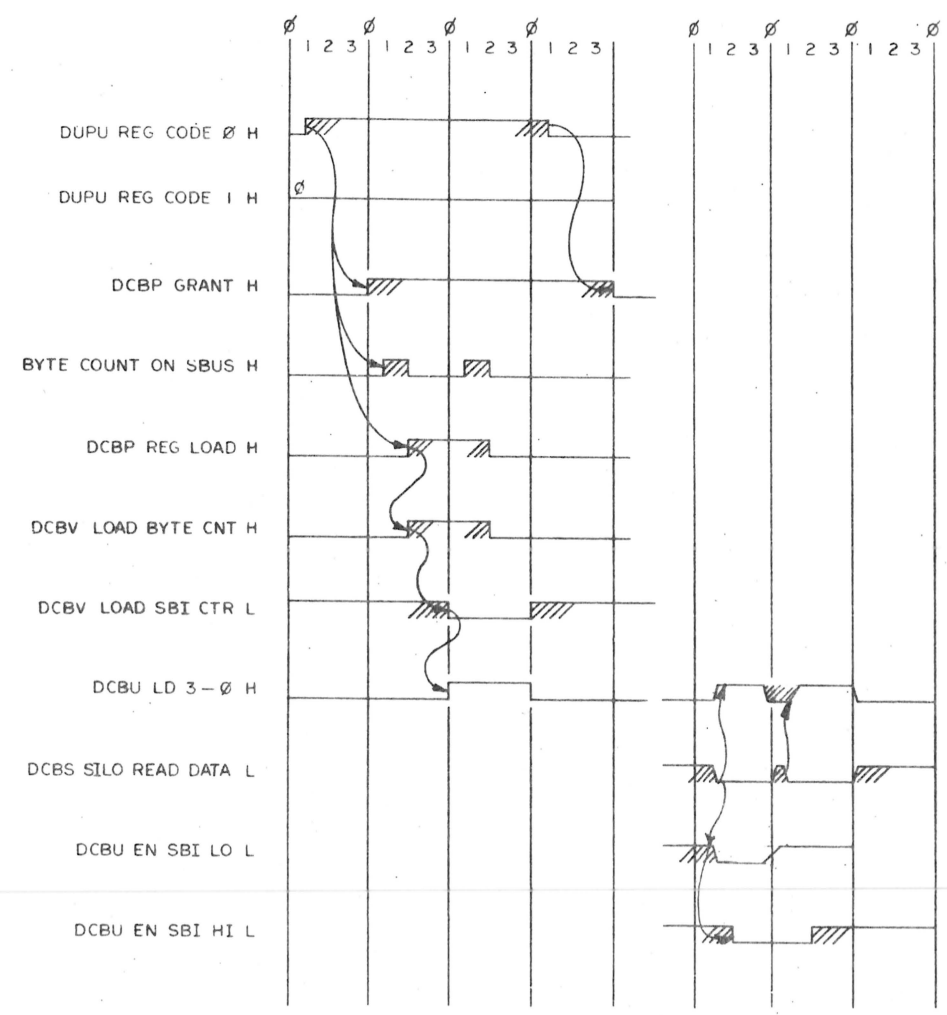
DRN. P. Koppelman	7 JUN 79	FIRST USED ON	DR780
CHK'D		TITLE	DR780 CONTROL BOARD
ENG.		SIZE	D
PROJ. ENG.		CODE	CS
PROD.		NUMBER	M3297-0-1
NEXT HIGHER ASSY.		DIST.	
SCALE	1/1	REV.	*
SHEET 3 OF 34			

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REV. 1-0-1 M8297-01
DIGITAL EQUIPMENT CORPORATION
M8297-01

TIME STATE

SBI BYTE COUNTER LOAD SBI BYTE COUNTER DECREMENT



(SBI BYTE COUNTER)

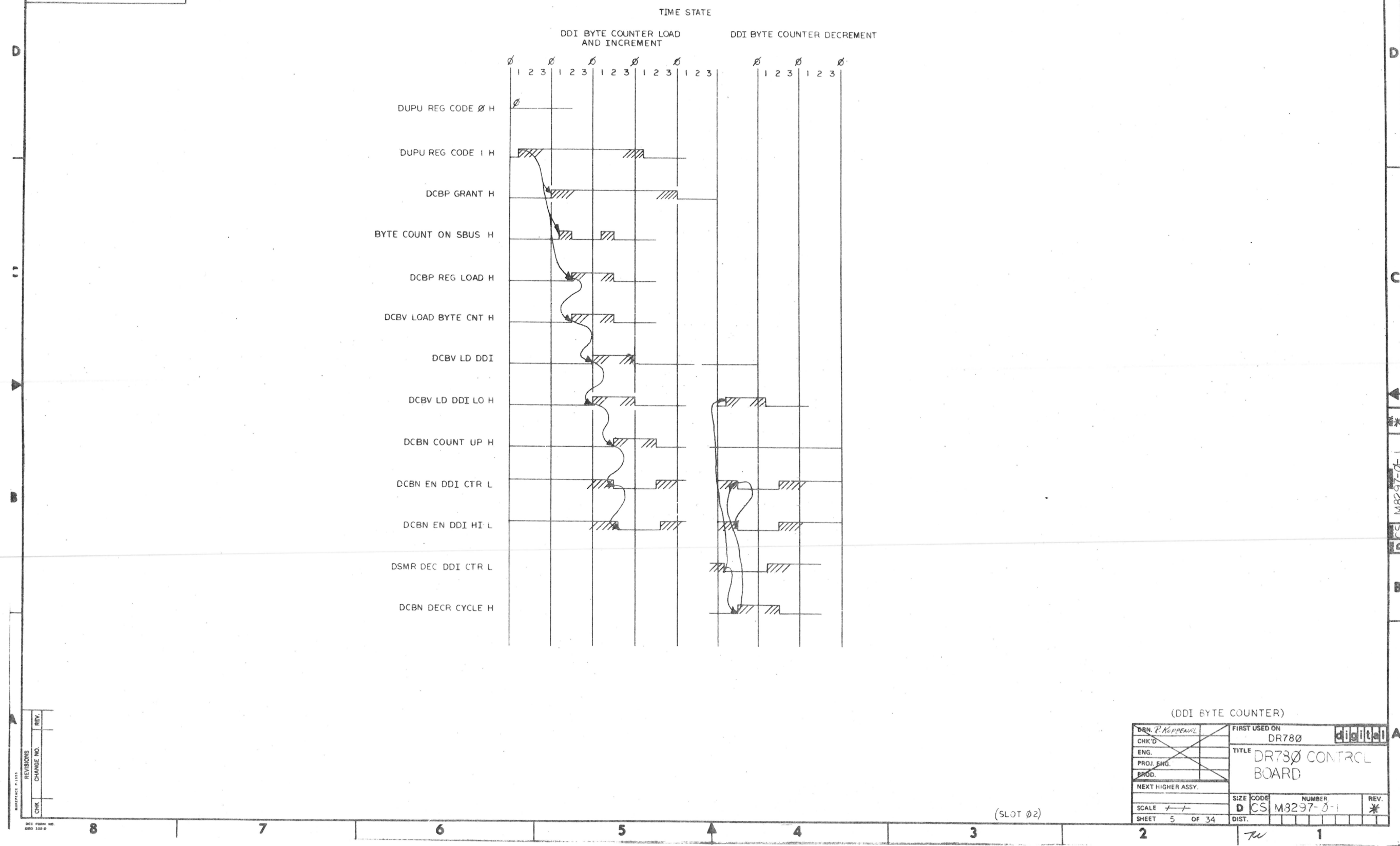
DR730 CONTROL BOARD	
SIZE	CODE
D	CS
NUMBER	
M8297-01	
REV.	
1	
DIST.	
1	

SCALE: 1-1-1
SHEET: 4 OF 34
NEXT HIGHER ASSY.

REV.	1
CHANGE NO.	1
CHK	1

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1-0-1628W 500 2



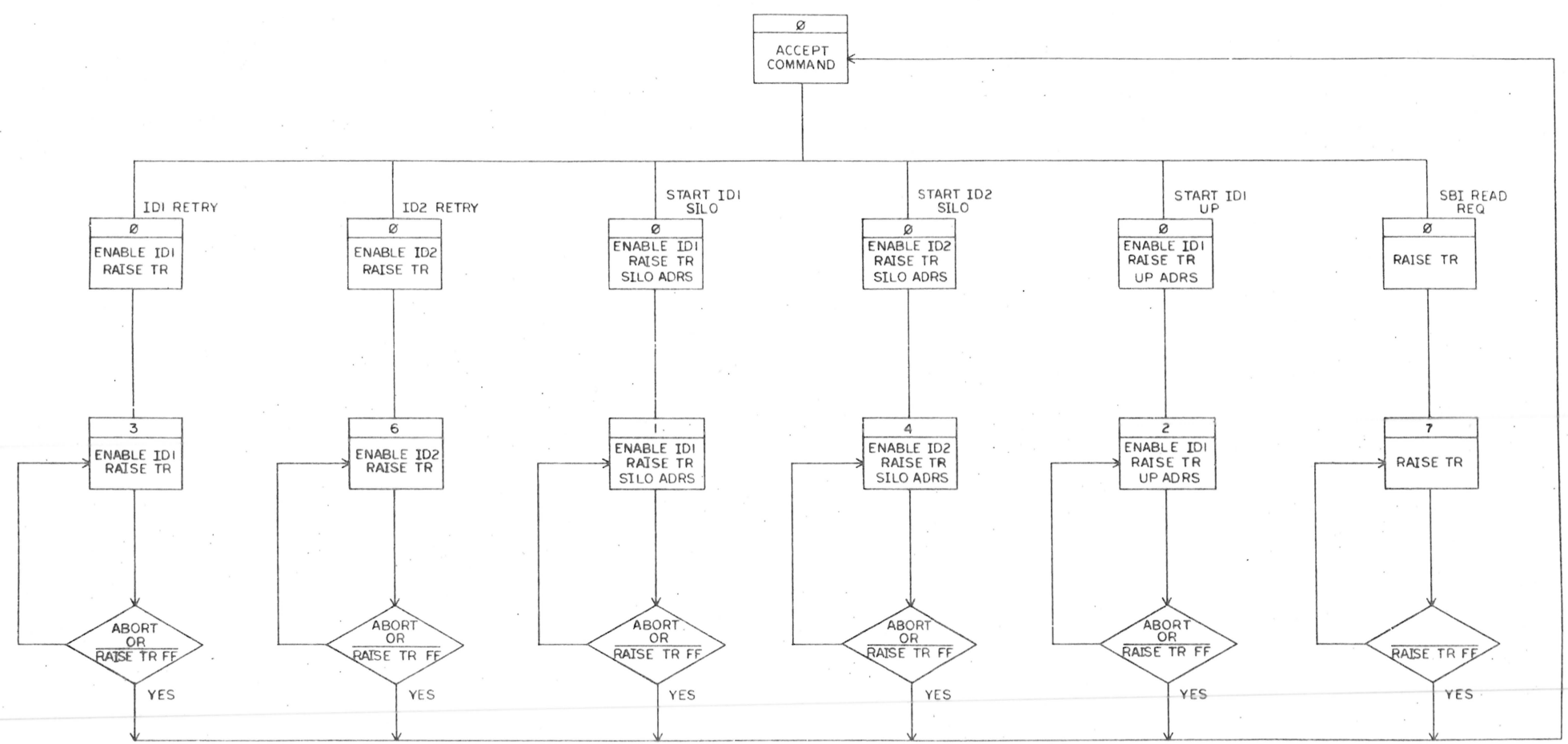
REV.	CHG.	REV.

(DDI BYTE COUNTER)	
DEN. R. KOPPENAL CHK'D ENG. PROJ. ENG. PROD. NEXT HIGHER ASSY.	FIRST USED ON DR780 TITLE DR780 CONTROL BOARD SIZE CODE D CS NUMBER M8297-0-1 REV. *
SCALE 1:1 SHEET 5 OF 34	DIST. 1

(SLOT 02)

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1-2 1528W 3200 3210 2



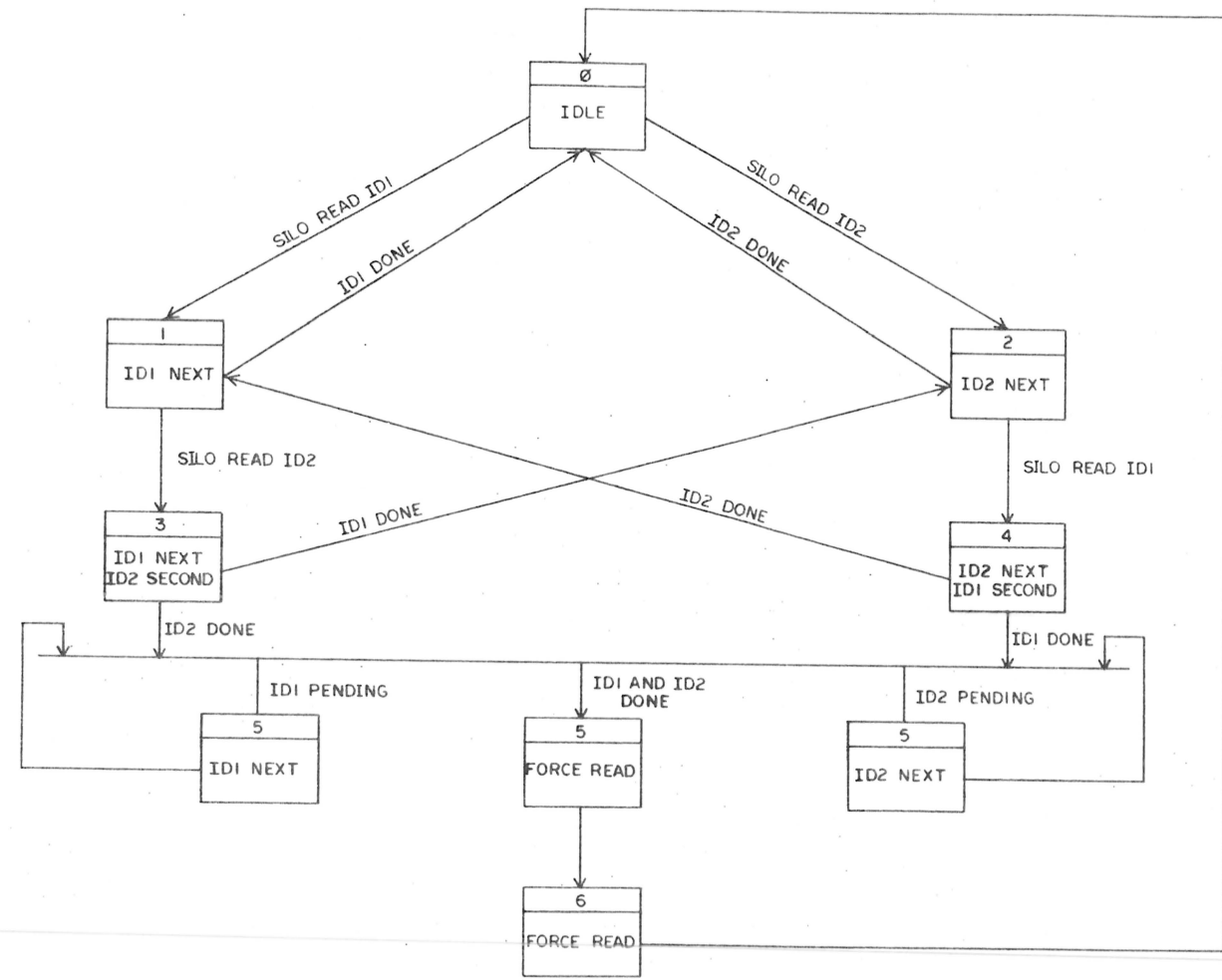
(MASTER STATE GENERATOR)

DRN: R. K. SPENGLER 10/10/79	FIRST USED ON	DR730	digital	
CHK'D	TITLE	DR730 CONTROL BOARD		
ENG.	PROJ. ENG.			
PROD.				
NEXT HIGHER ASSY.				
SCALE	SIZE	CODE	NUMBER	REV.
SHEET 6 OF 34	DIST.		M3297-01	*

(SLOT 02)

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1-0-1528W DCS 2



(SLOT 02) (OUT OF SEQUENCE READ DATA STATE DIAGRAM)
(NON DIAGNOSTIC MODE)

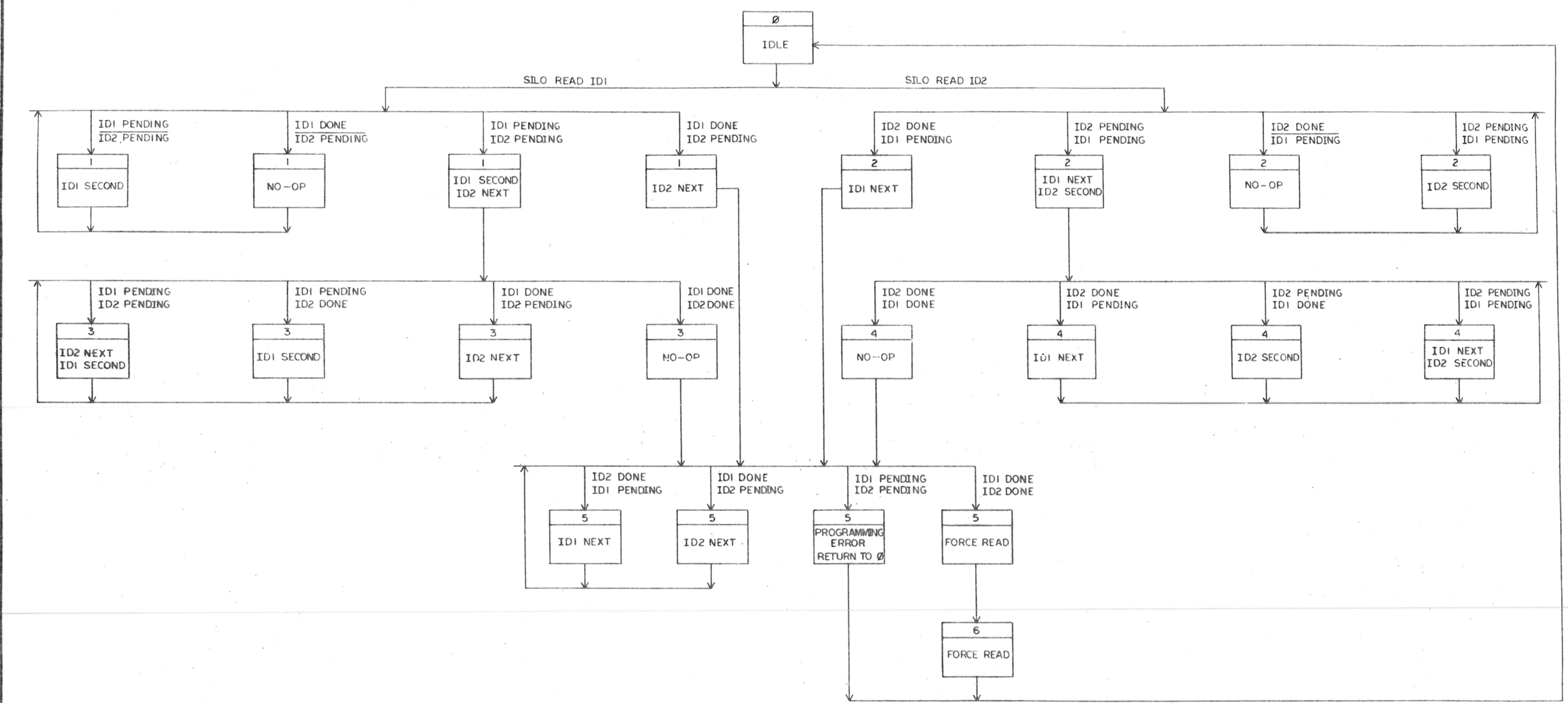
REVISIONS		
CHK	CHANGE NO.	REV

TITLE	DR780 CONTROL BOARD	SIZE CODE	DCS	NUMBER	V15297-0-1	REV.	*
SCALE	1:1	SHEET	8	OF	34	DIST.	

DEC FORM NO. 100 1-75

Tu

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REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO. DRD 130

(SLOT 02)

(OUT OF SEQUENCE READ DATA STATE DIAGRAM)
(DIAGNOSTIC MODE)

TITLE	SIZE CODE	NUMBER	REV.
DR730 CONTROL BOARD	DCS	M8297-0-i	*
SCALE	SHEET 9 OF 34	DIST.	

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UP SBI CODES (DUPU SBI CODE 1,0 H)

- 00 EXTENDED READ
- 01 WRITE
- 10 INTLK READ
- 11 INTLK WRITE

SILO DIRECTION (DUPU SBI TO DI L)

- 0 MEMORY READ
- 1 MEMORY WRITE

CONFIRMATION (INVERTED ON DSC)

(DSCB CNF 1,0 L)

- 00 ERR
- 01 BSY
- 10 ACK
- 11 NR

MASK GENERATION (PLA OUTPUT)

(DCBJ ID1 MASK 1,0 L)
(DCBL ID2 MASK 1,0 L)

- 00 SBUS
- 01 SBUS
- 10 1'S
- 11 0'S

MASK GENERATION (DSC INPUT)

(DCBT MASK CODE 1,0 H)

- 00 SBUS
- 01 SBUS
- 10 0'S
- 11 1'S

UP REGISTER CODES (DUPU REG CODE 1,0 H)

- 00 NO-OP
- 01 LOOK AHEAD BYTE COUNT, DATA CHAIN=0
- 10 LOOK AHEAD ADDRESS
- 11 LOOK AHEAD BYTE COUNT, DATA CHAIN=1

SILO REQUESTS (DSMP REQ 2 H, E44-1)

- 00 NO REQUEST
- 01 AT LEAST 1 REQUEST
- 10 AT LEAST 2 REQUESTS
- 11 AT LEAST 3 REQUESTS

UP WRITE CODES (DUPU WRITE CODE 1,0 H)

- 00 WRITE SBUS DATA
- 01 WRITE SBUS DATA
- 10 WRITE SBI BYTE COUNT
- 11 WRITE DDI BYTE COUNT

SBUS MUX SELECT

- 00 DDI BYTE COUNTER
- 01 SBI BYTE COUNTER
- 10 ADDRESS REGISTER
- 11 CONTROL RAM

SBI ADDRESS DECODE

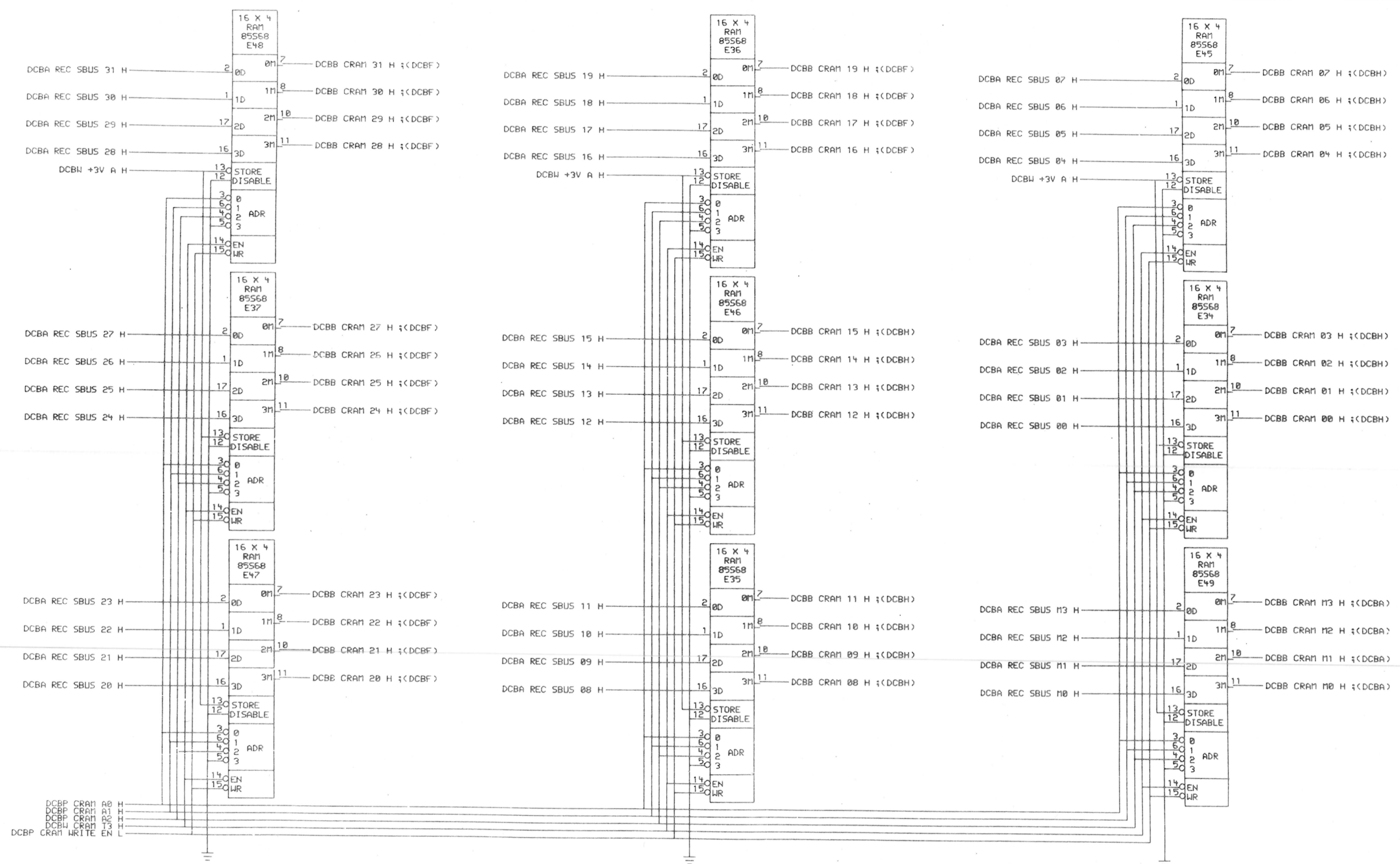
ADDRESS BIT	3	2	1	0	
	0	0	X	X	NOT USED ON DCB
	0	1	0	0	NOT USED ON DCB
	0	1	0	1	ADDRESS REGISTER
	0	1	1	0	SBI BYTE COUNTER
	0	1	1	1	DDI BYTE COUNTER
	1	0	0	0	NOT USED
	1	0	0	1	C/A ID1
	1	0	1	0	C/A ID2
	1	0	1	1	WD2 ID1
	1	1	0	0	NOT USED
	1	1	0	1	WD1 ID1
	1	1	1	0	WD1 ID2
	1	1	1	1	WD2 ID2

CONTROL RAM ADDRESSING

(CONTROL CODES AND ADDRESSES)

DRN. P. HOPPENL	6 JUN 78	FIRST USED ON	DR780	digital
CHK'D		TITLE	DR780	
ENG.				
PROJ. ENG.				
PROD.				
NEXT HIGHER ASSY.				
SCALE	1/2	OF 34	SIZE CODE	D CS
SHEET	1/2		NUMBER	M329-0-1
			REV.	*

(SLOT 02)

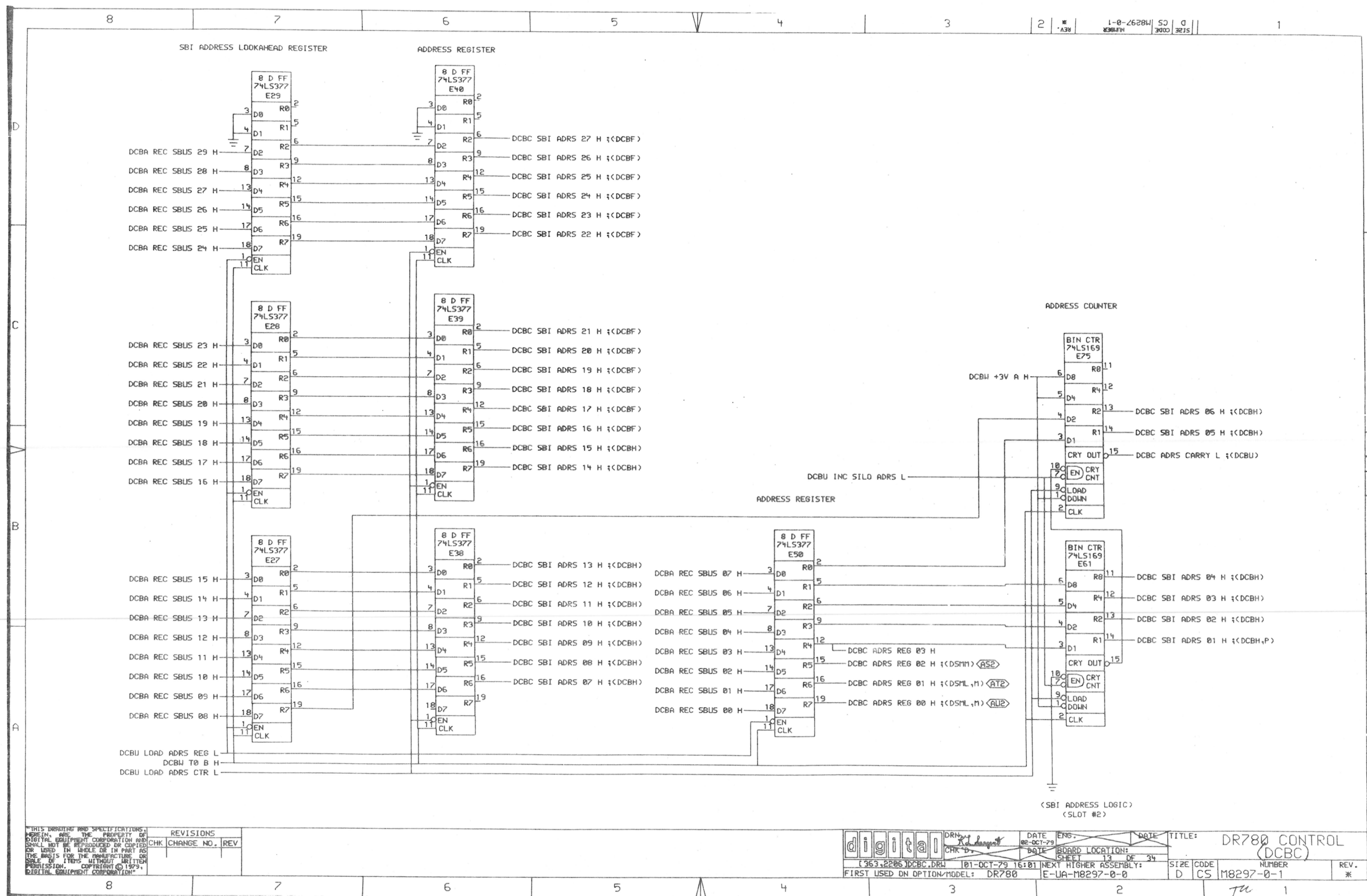


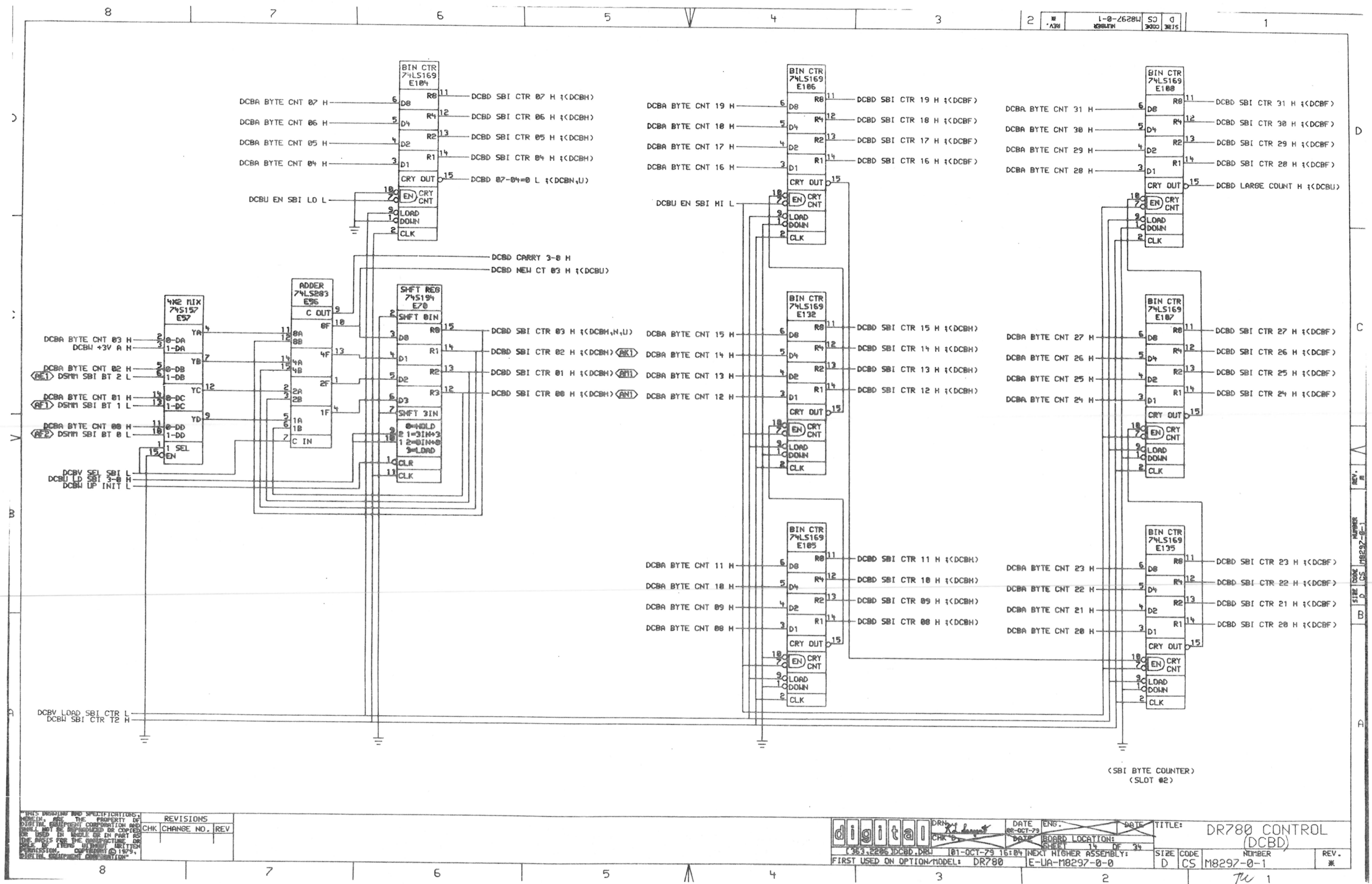
(CONTROL RAM)
(SLOT #2)

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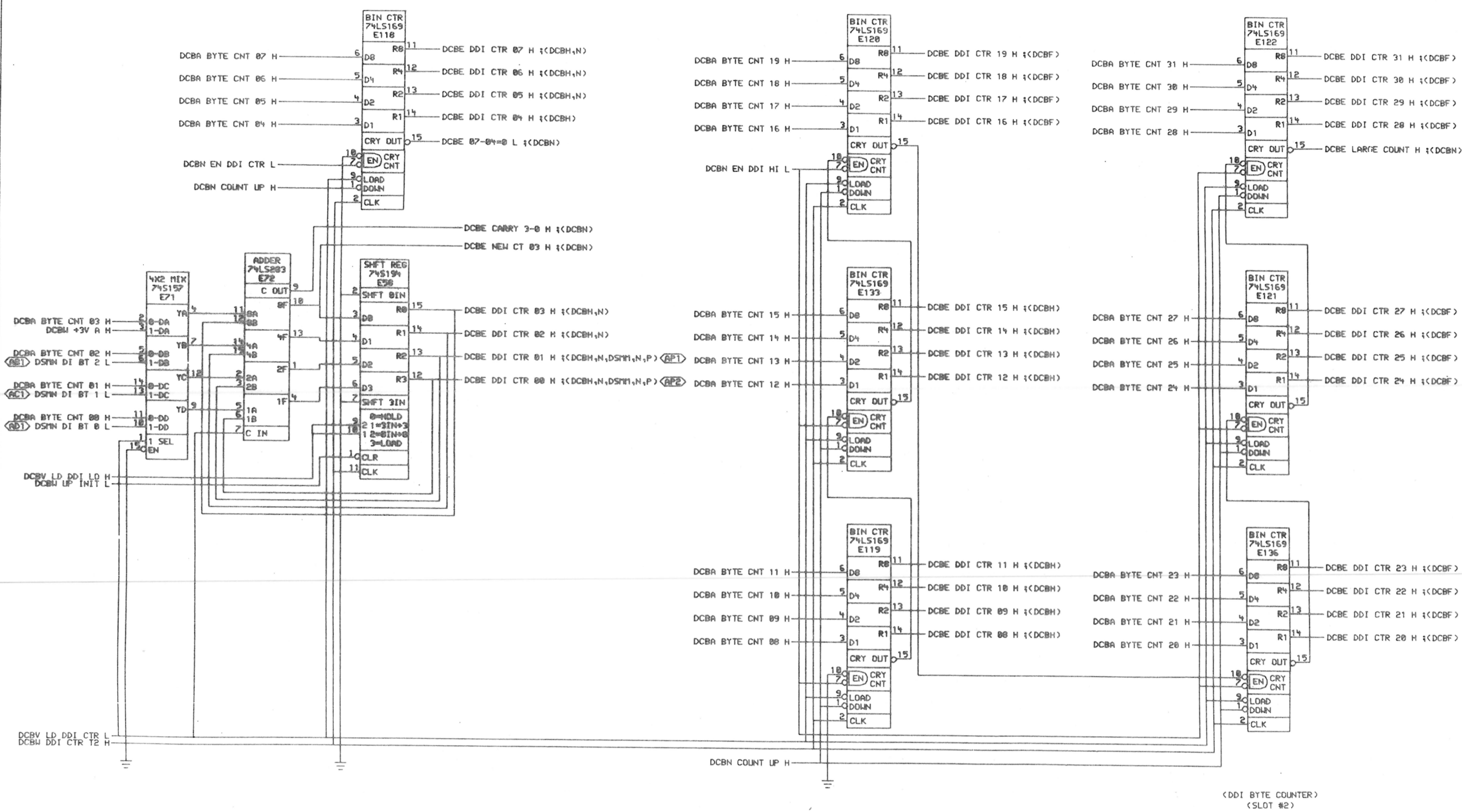
REVISIONS	
CHK	CHANGE NO. REV.

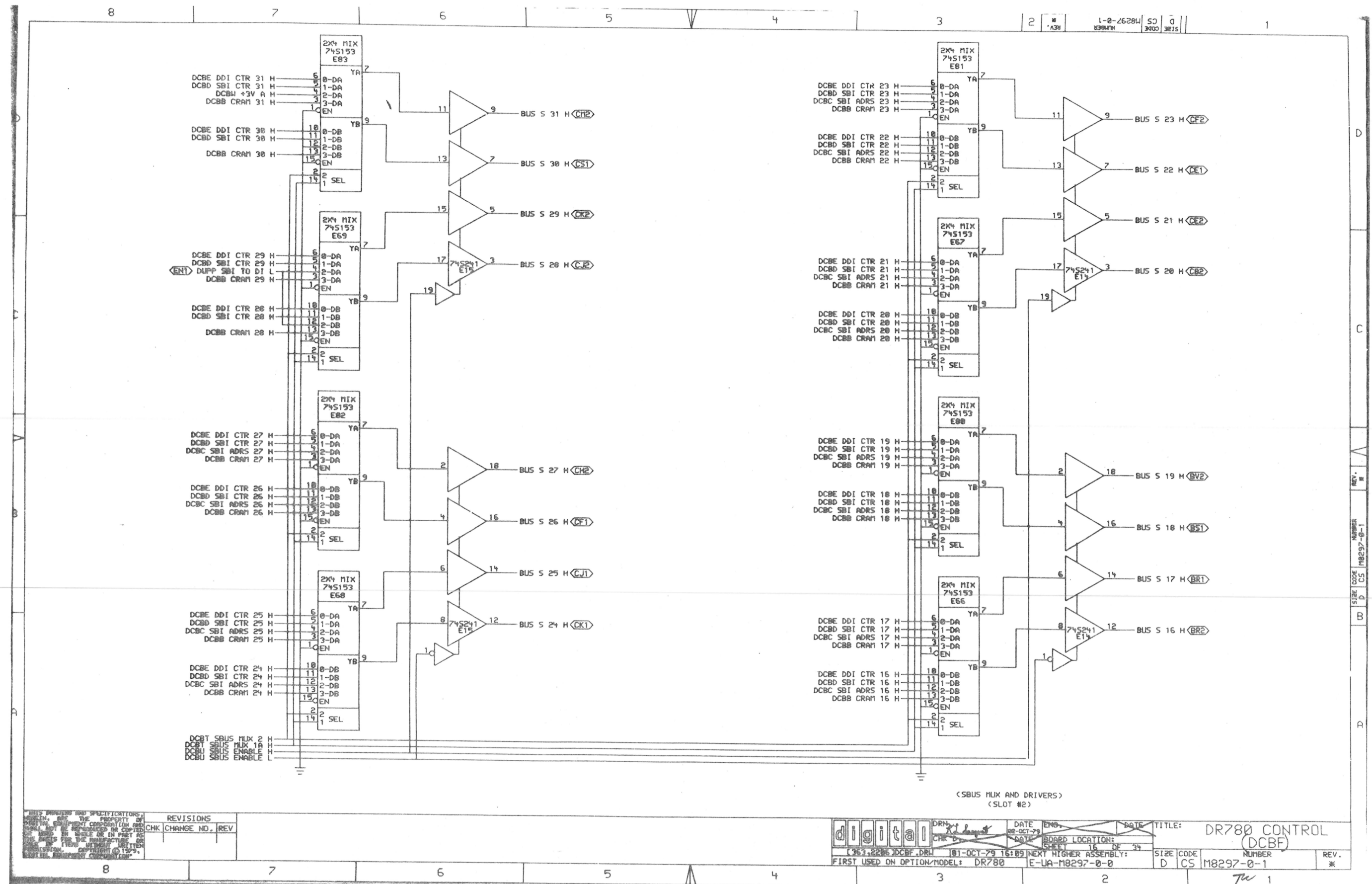
digital	DATE	02-OCT-79	ENG.	DATE		TITLE	DR780 CONTROL (DCBB)	
	DATE	01-OCT-79	15:59	BOARD LOCATION	12 OF 34	SIZE	CODE	NUMBER
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8297-0-0		SIZE		CODE	NUMBER	REV.
				D		CS	M8297-0-1	*

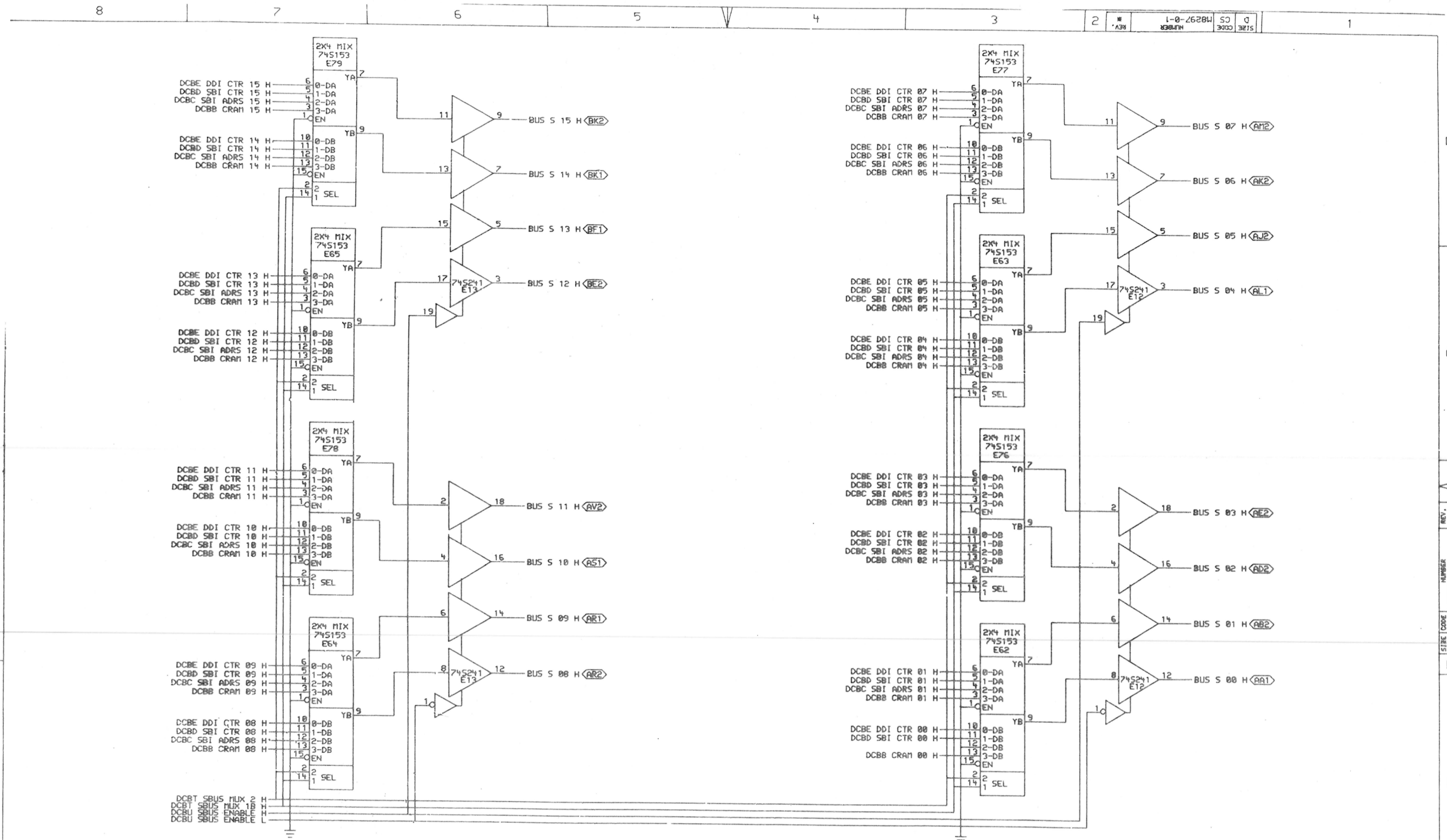




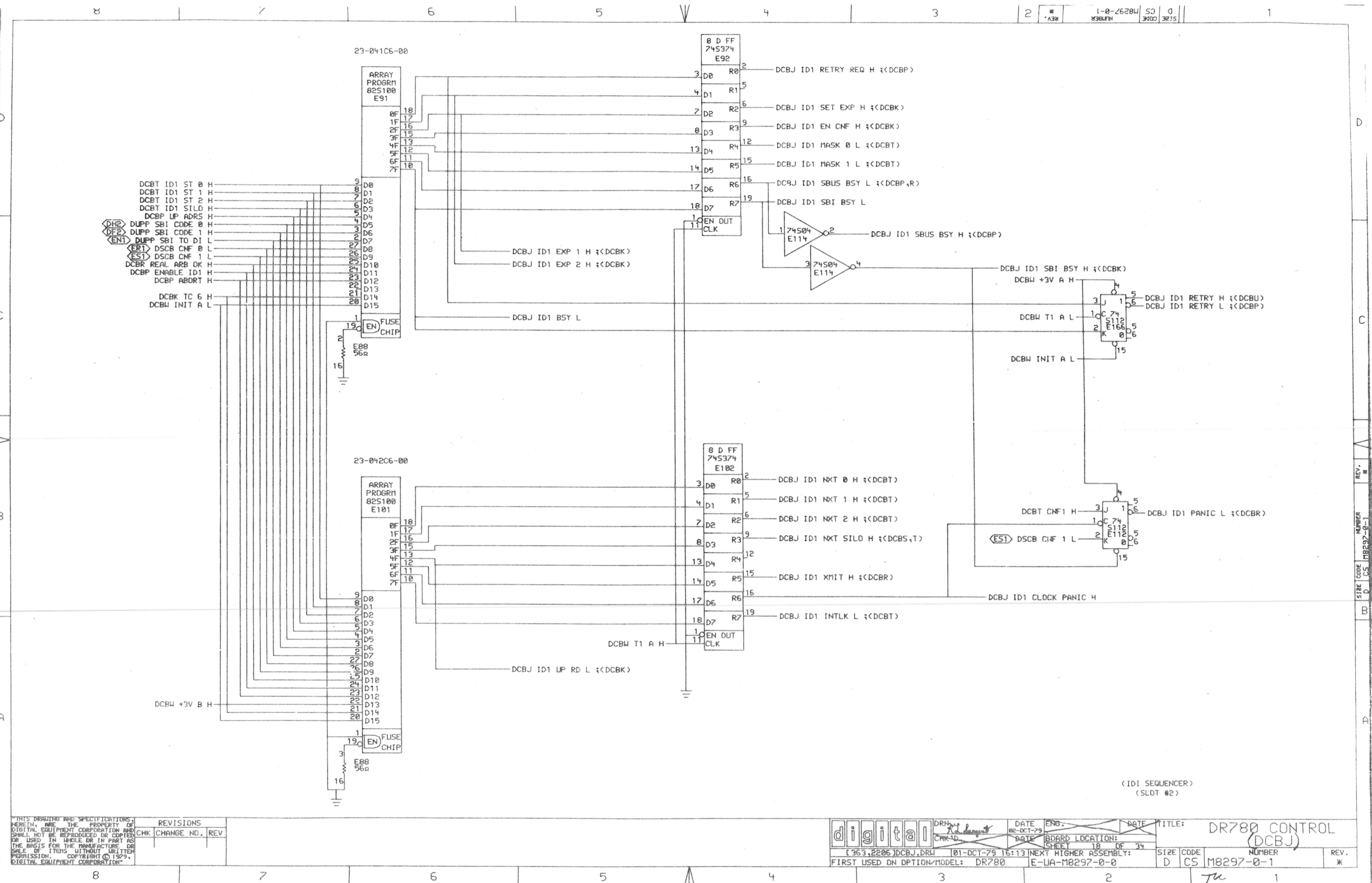
D
C
B
A

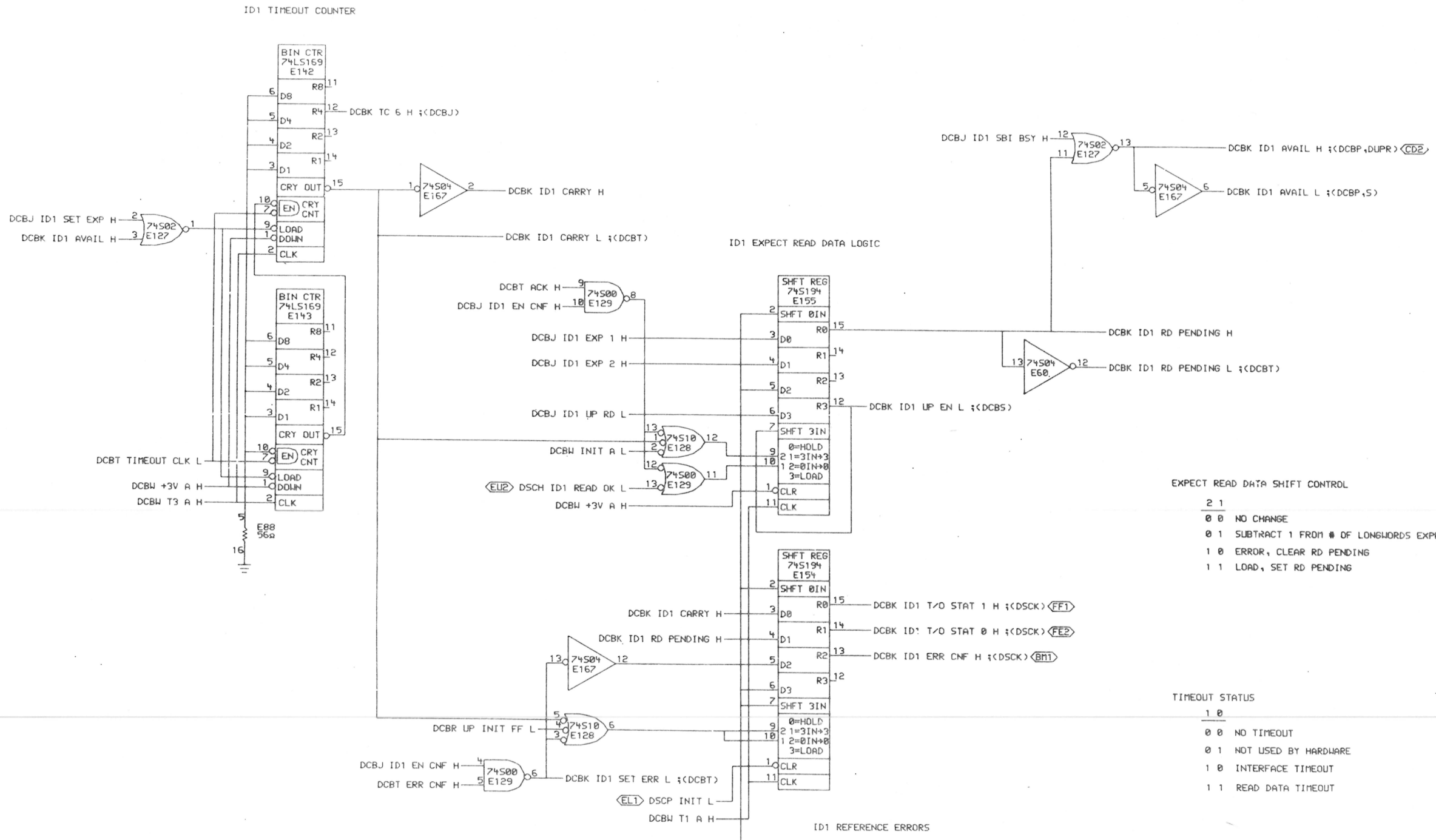






(SBUS MUX AND DRIVERS)
(SLOT #2)





EXPECT READ DATA SHIFT CONTROL

2	1
0	0
0	1
1	0
1	1

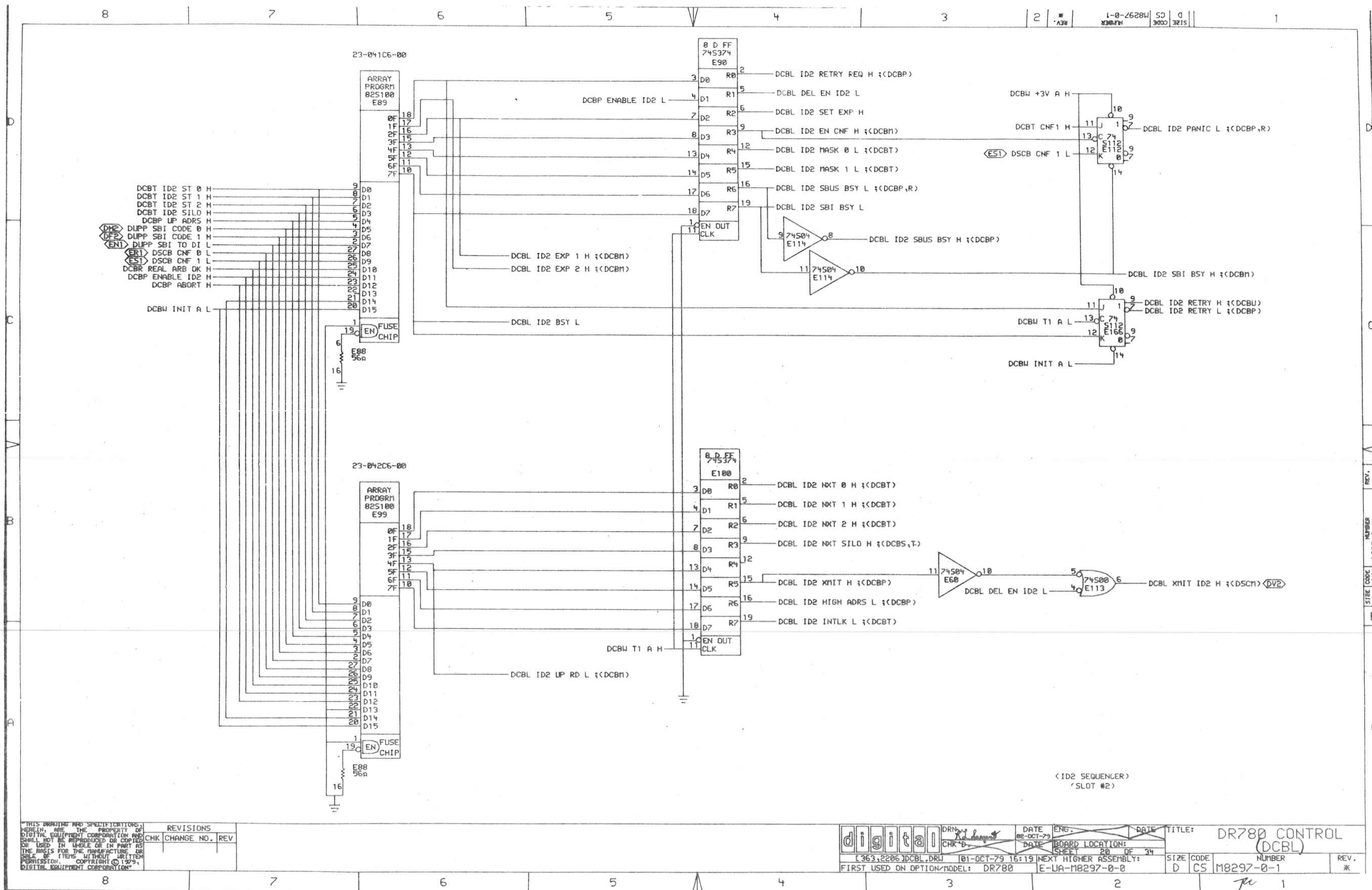
NO CHANGE
SUBTRACT 1 FROM # OF LONGWORDS EXPECTED
ERROR, CLEAR RD PENDING
LOAD, SET RD PENDING

TIMEOUT STATUS

1	0
0	0
0	1
1	0
1	1

NO TIMEOUT
NOT USED BY HARDWARE
INTERFACE TIMEOUT
READ DATA TIMEOUT

(ID1 TIMEOUT COUNTER AND EXPECT READ DATA LOGIC)
(SLOT #2)



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REVISIONS
CHK CHANGE NO. REV

digital

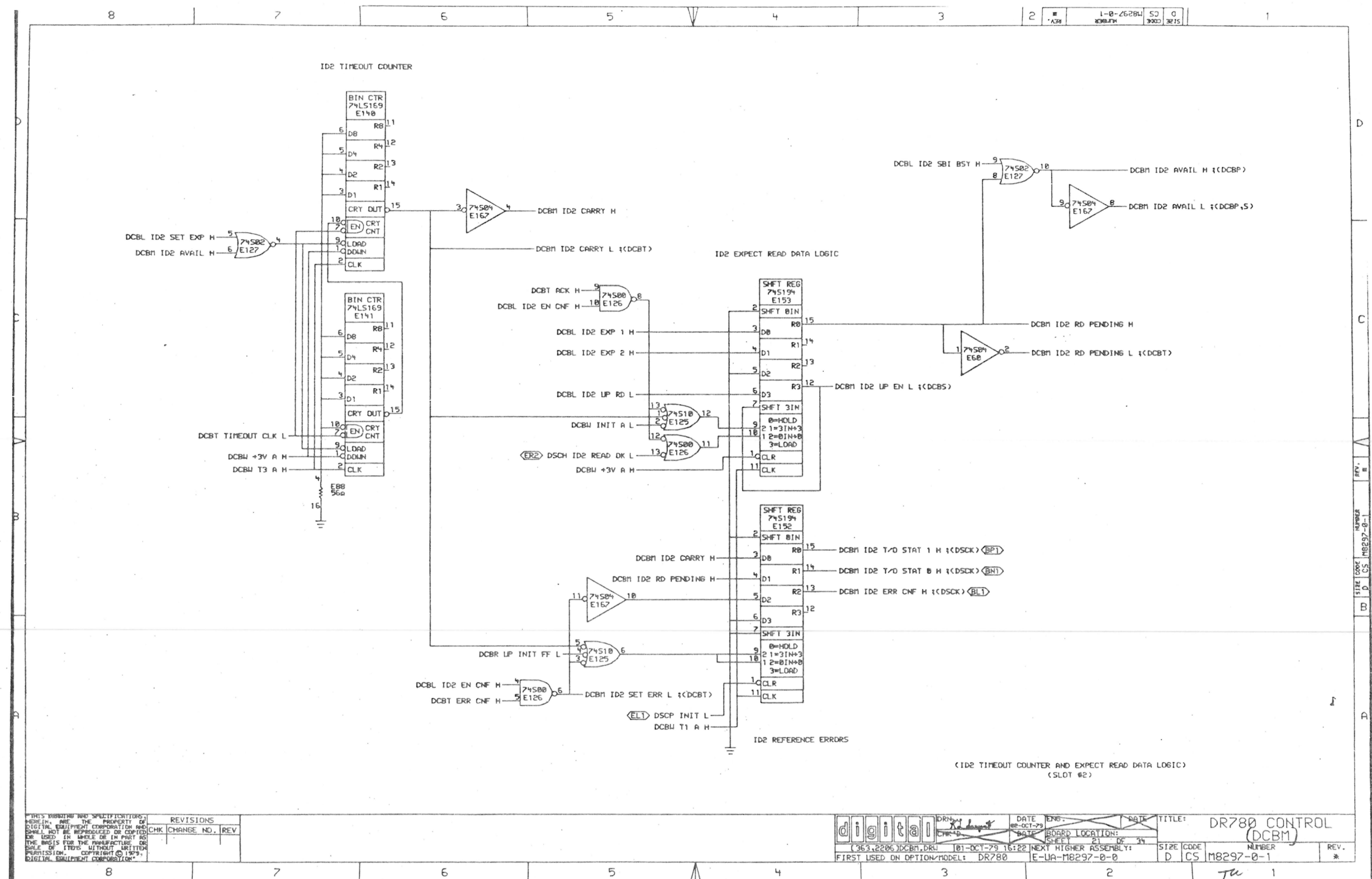
DRN
CHK-B

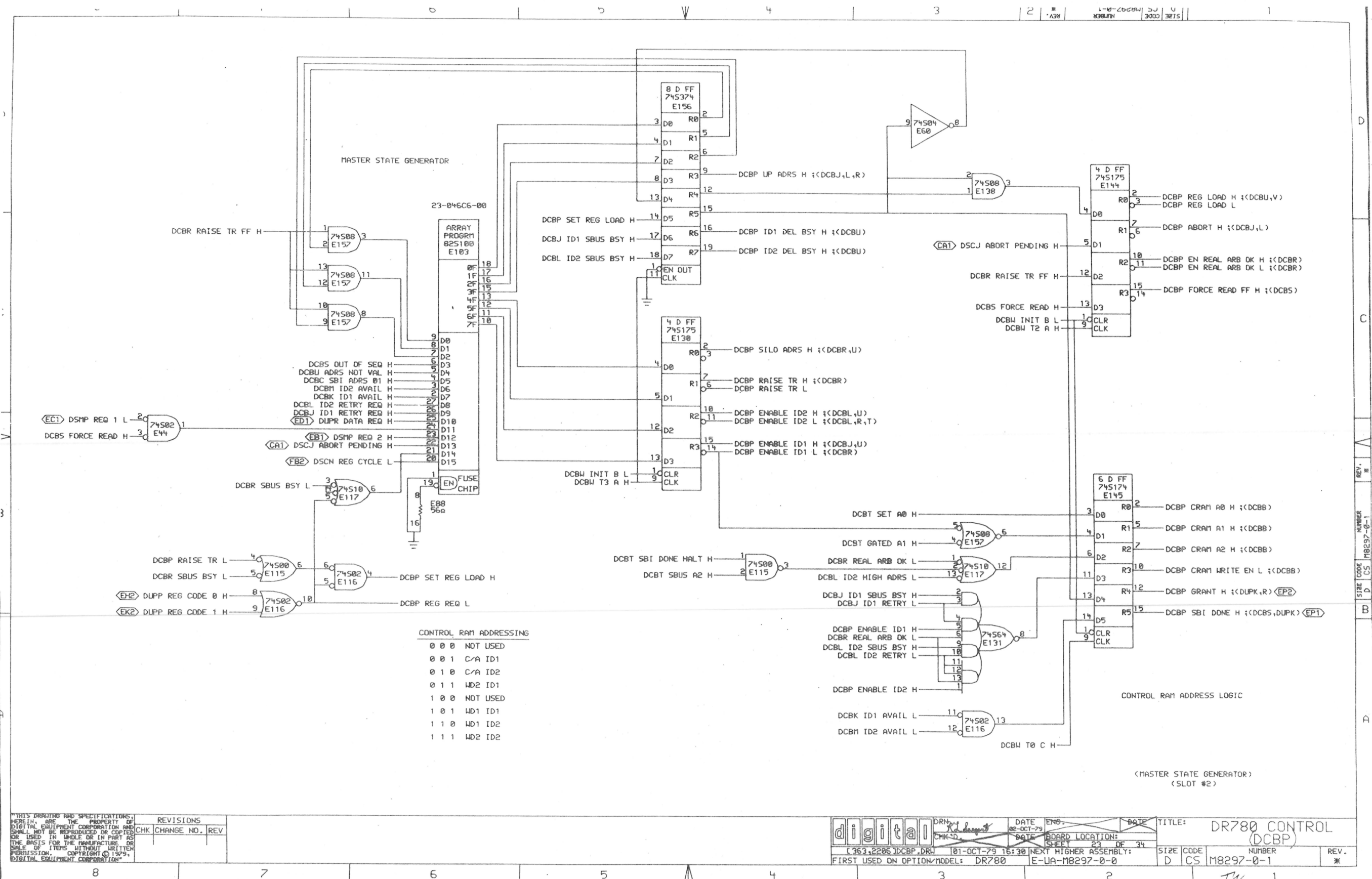
DATE 02-OCT-79
DATE 01-OCT-79
BOARD LOCATION: SHEET 20 OF 34

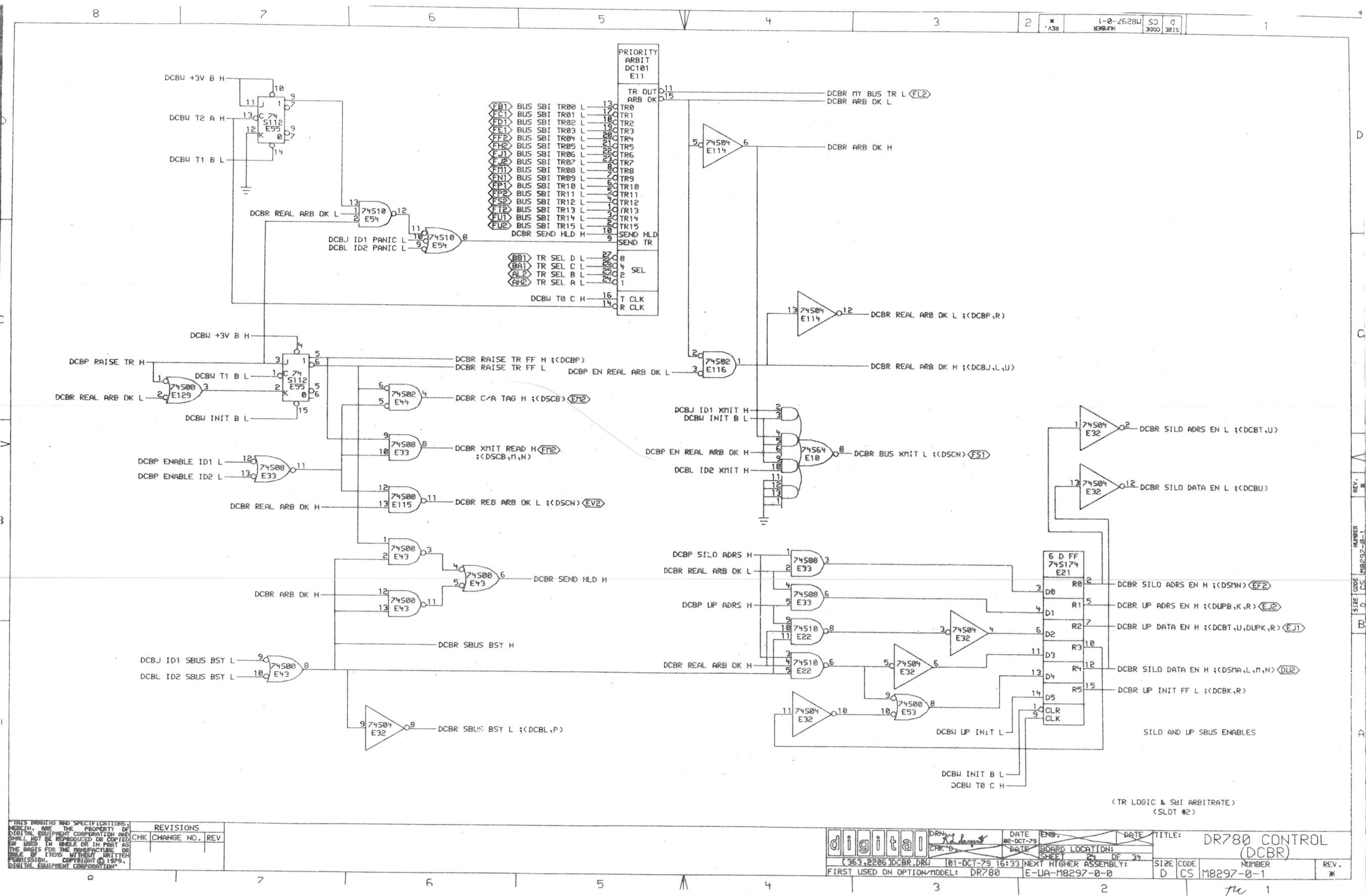
TITLE: DR780 CONTROL (DCBL)

363,2206 DCBL.DRI 01-OCT-79 16:19 NEXT HIGHER ASSEMBLY: FIRST USED ON OPTION/MODEL: DR780 E-UA-M8297-0-0

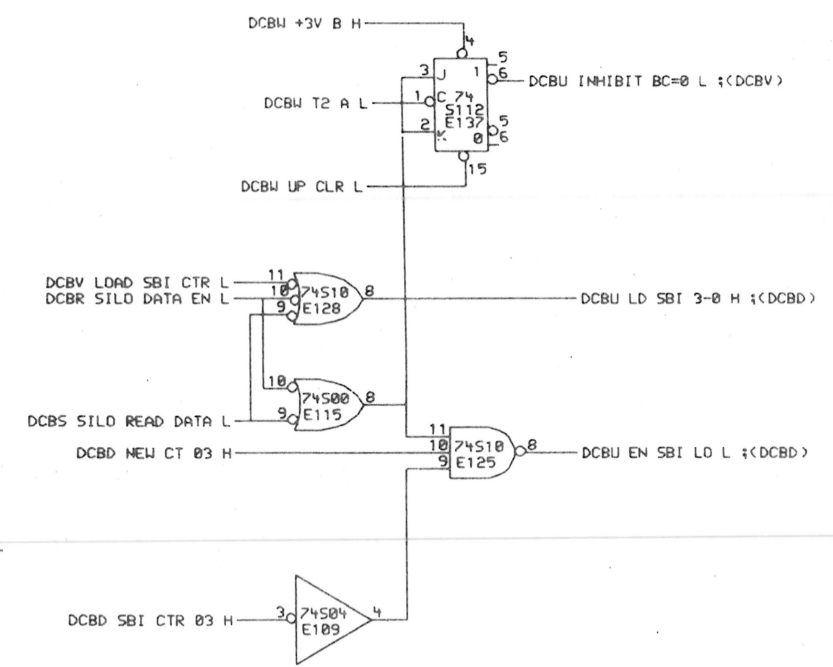
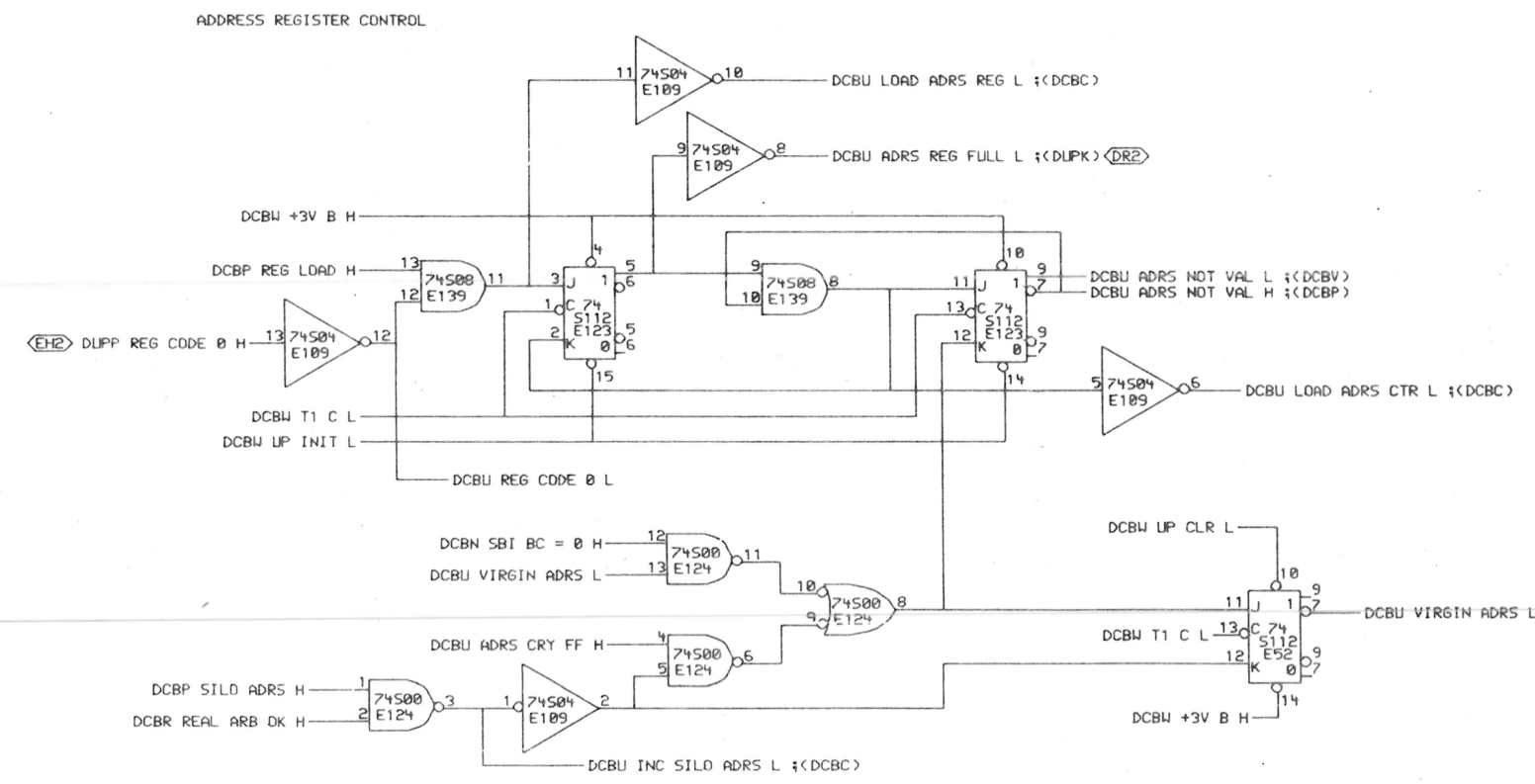
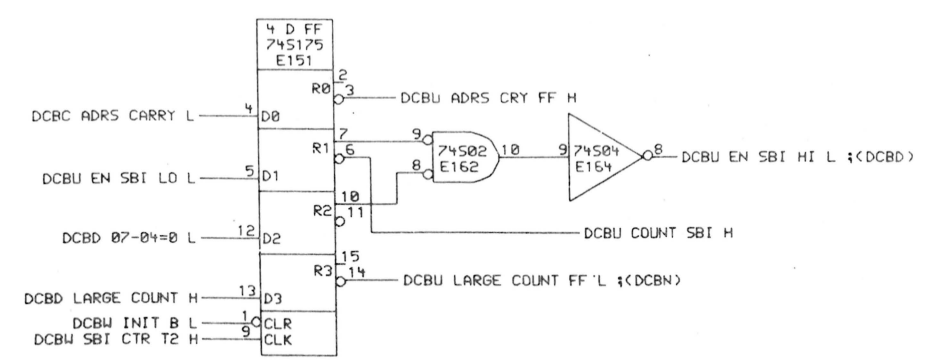
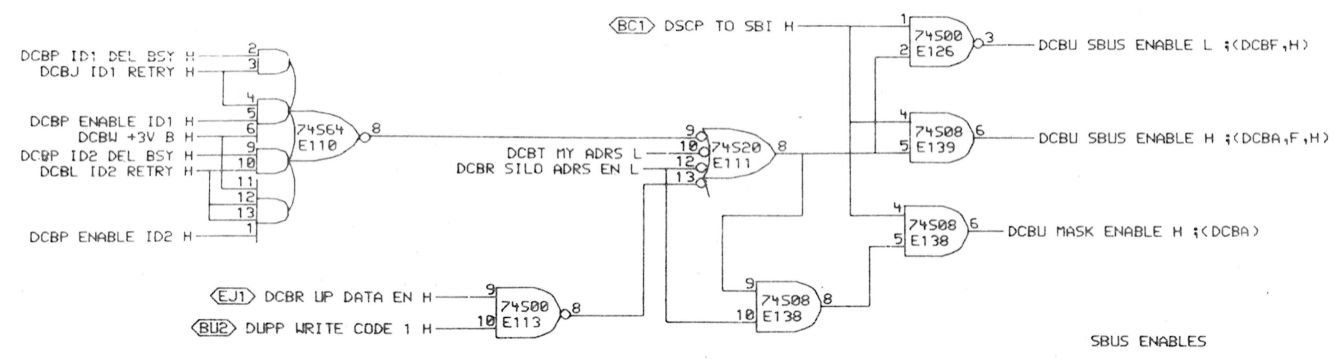
SIZE CODE D CS NUMBER M8297-0-1 REV. *







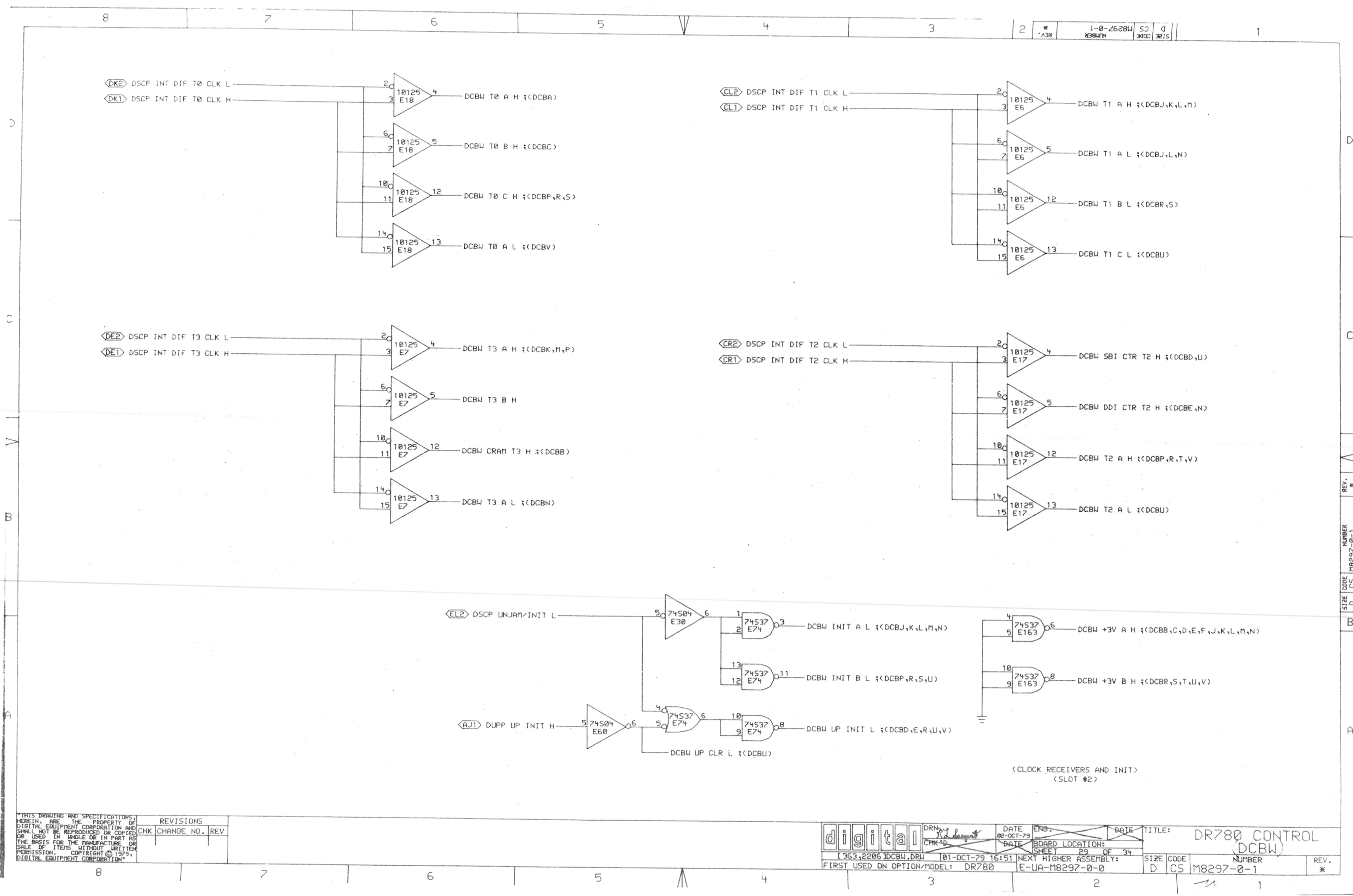




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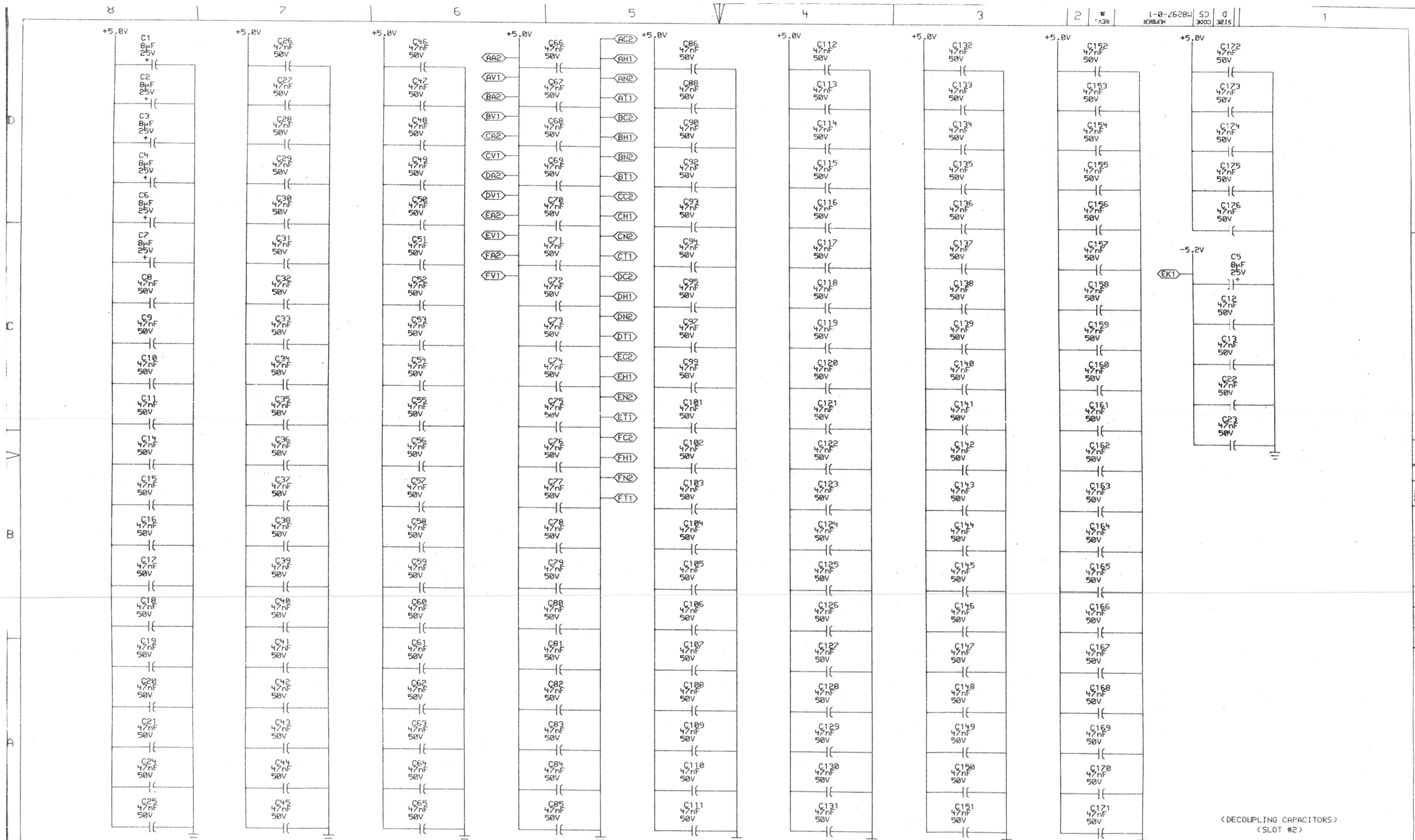
REVISIONS		
CHK	CHANGE NO.	REV.

digital	DRN	DATE	ENG.	DATE	TITLE	DR780 CONTROL (DCBU)
	CHK	02-OCT-79				
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8297-0-0		BOARD LOCATION: SHEET 27 OF 34		
SIZE CODE		NUMBER		REV.		
D CS		M8297-0-1		*		



REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN: <i>K. J. J.</i>	DATE: 02-OCT-79	ENR: <i>K. J. J.</i>	DATE: <i>02-OCT-79</i>	TITLE: DR780 CONTROL (DCBW)
	CHK: <i>K. J. J.</i>	DATE: 101-OCT-79 16:51	BOARD LOCATION: SHEET 29 OF 34	DATE: <i>101-OCT-79</i>	
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8297-0-0		SIZE CODE: D CS	NUMBER: M8297-0-1
				REV.:	*



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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG.	DATE	TITLE
	02-OCT-79	X. J. J.	02-OCT-79	DR780 CONTROL (DCBX)
363,2206 DCBX.DRW	101-OCT-79 16:51	NEXT HIGHER ASSEMBLY:	SHEET 30 OF 34	SIZE CODE
FIRST USED ON OPTION/MODEL: DR780	E-UR-M8297-0-0			D CS
				NUMBER
				M8297-0-1
				REV. *

(DECOUPLING CAPACITORS)
(SLOT #2)

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INPUTS															OUTPUTS												
	I15 DSCN REG CYCLE L	I14 INHIBIT H	I13 ABORT H	I12 REQ 2 H	I11 REQ 1 H	I10 DUP DATA REQ H	I9 ID1 RETRY H	I8 ID2 RETRY H	I7 ID1 AVAIL H	I6 ID2 AVAIL H	I5 ADRS REG 03 H	I4 ADRS NOT VAL H	I3 LATCH IT H	I2 S2 H	I1 S1 H	I0 S0 H	7 ENABLE ID1 H	6 ENABLE ID2 H	5 RAISE TR H	4 SILO ADRS H	3 UP ADRS H	2 S2 H	1 S1 H	0 S0 H			
0	H	L	L	-	-	-	H	L	-	-	-	-	-	L	L	L	A	•	A	•	•	•	A	A			
1	H	L	L	-	-	-	L	L	-	-	-	-	-	L	L	L	A	•	A	•	•	•	A	A			
2	H	L	L	-	-	H	L	L	H	-	-	-	-	L	L	L	A	•	A	•	A	•	A	A			
3																											
4	H	L	L	L	H	L	L	L	H	H	L	L	L	L	L	L	A	•	A	A	•	•	•	A			
5	H	L	L	H	L	L	L	L	H	H	L	L	L	L	L	L	A	•	A	A	•	•	•	A			
6	H	L	L	H	L	L	L	L	H	L	L	L	L	L	L	L	A	•	A	A	•	•	•	A			
7	H	L	L	H	H	L	L	L	H	L	L	L	L	L	L	L	A	•	A	A	•	•	•	A			
8	H	L	L	H	L	L	L	L	L	H	H	L	L	L	L	L	•	A	A	A	•	•	A	•			
9	H	L	L	H	H	L	L	L	L	H	H	L	L	L	L	L	•	A	A	A	•	•	A	•			
10	L	L	-	-	-	-	-	-	-	-	-	-	-	L	L	L	•	•	A	•	•	A	A	A			
11																											
12																											
13	-	-	L	-	-	-	-	-	-	-	-	-	-	L	H	H	A	•	A	•	•	•	A	A			
14	-	-	L	-	-	-	-	-	-	-	-	-	-	H	H	L	•	A	A	•	•	A	A	•			
15	-	-	L	-	-	-	-	-	-	-	-	-	-	L	H	L	A	•	A	•	A	•	A	A			
16																											
17	-	-	L	-	-	-	-	-	-	-	-	-	-	L	L	H	A	•	A	A	•	•	•	A			
18	-	-	L	-	-	-	-	-	-	-	-	-	-	H	L	L	•	A	A	A	•	A	•	•			
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PART NO. 23-046CE-00

- = DON'T CARE
• = NOT USED FOR THIS OUTPUT
A = TERM PRESENT IN OUTPUT. OUTPUT = H

REVISIONS		
CHK	CHANGE NO	REV

DEC FORM NO.
DRD 138

(SLOT 02)

(MASTER STATE GENERATOR E103)

TITLE	SIZE/CODE	NUMBER	REV.
DR730 CONTROL BOARD	D CS	M3297-V-1	*
SCALE	SHEET	DIST.	
1/1	51 OF 34		

TH

OUTPUTS

[illegible]

OUTPUT
LEVEL

PART NO. 23-041C6-00

OUTPUTS

```

15 INIT L
14 TC H
13
12 ABORT H
11 ENABLE ID H
10 AB OK H
9 CNF L
8 CNF Ø L
7 SILO DIR H
6 UP SET CODE I H
5 UP SET CODE Ø H
4 ADORS H
3 SILO REF H
2 STATE 2 H
1 STATE I H
0 STATE Ø H

7 SET BSY L
6 SONS BSY L
5 MASK L
4 MASK Ø L
3 EN CNF H
2 SET EXP I H
1 SET EXP 2 H
0 RETRY REQ H

```

OUTPUT
LEVEL

- = DON'T CARE
- = NOT USED FOR THIS OUTPUT
- A= TERM PRESENT IN OUTPUT, OUTPUT= OUTPUT LEVEL.

REVISIONS		
CHK	CHANGE NO.	REV.

DEC FORM NO.
DD FORM 138

(SLOT Ø2)

(ID STATE GENERATOR, E91 & E89)

TITLE	DR780 CONTROL BOARD
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SIZE	CODE
D	CS

NUMBER
M13297-Ø-1

REV.	
	

SCALE	SHEET 33 OF 34
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SHEET 33 OF 34

	DIST.	
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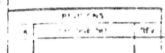
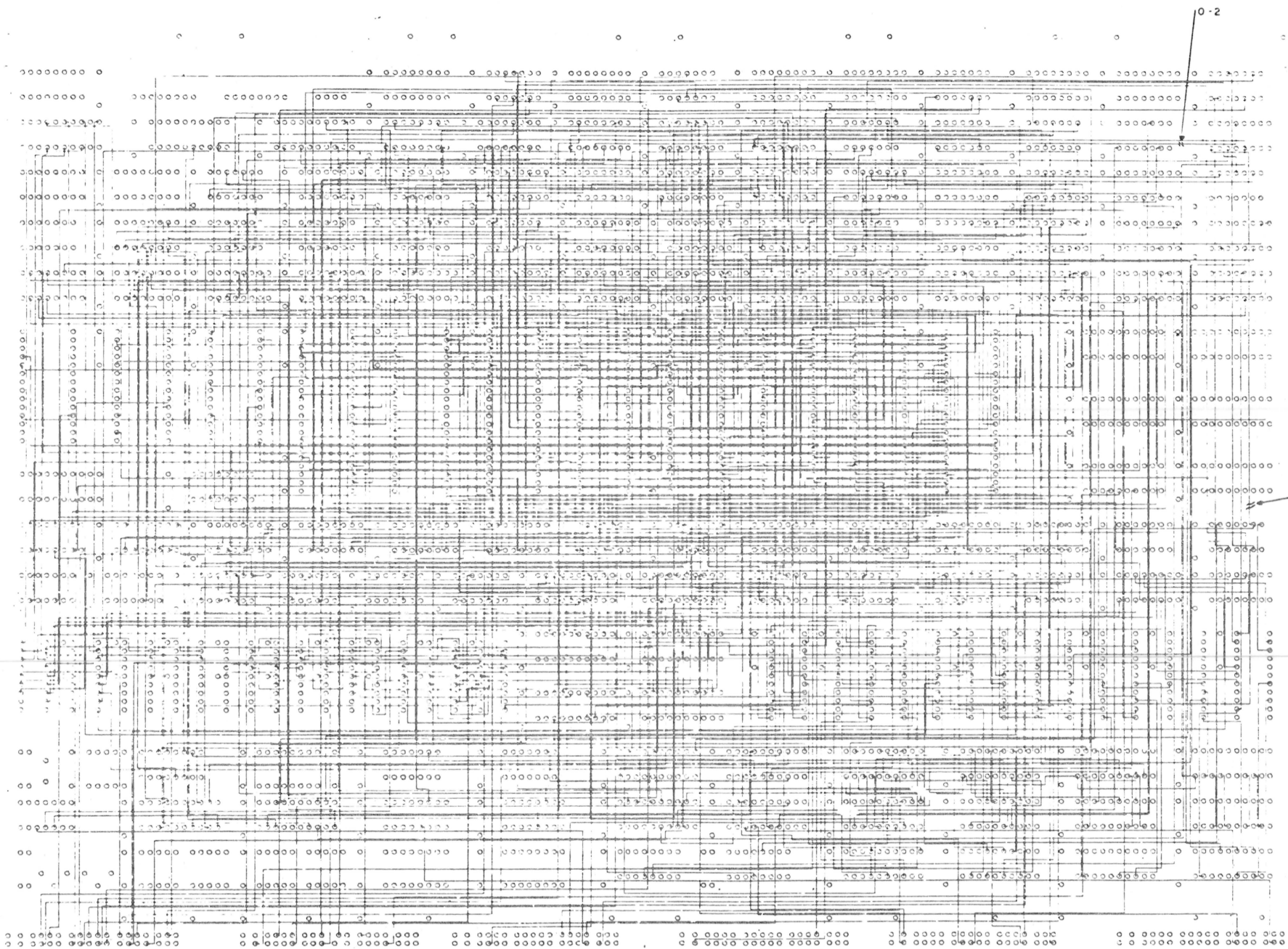
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TEST OSEQ L		ID1 AVAIL L ID2 AVAIL L	ID1 SILO READ H ID2 SILO READ H	ST2 ST1 ST0	FORCE READ H	ID1 NEXT ID2 NEXT	ID1 SECOND ID2 SECOND	ST2 ST1 ST0
L	L L	X X	L L L	L	L L	L L	L L	L L L
L	H L	H X	L L L	L	L L	H L	L L	L L H
L	H L	L X	L L L	L	L L	L L	L L	L L L
L	L H	X H	L L L	L	L L	H L	L L	L H L
L	H H	L H	L L L	L	L L	H L	L L	L H L
L	H H	H L	L L L	L	L L	H L	L L	L L H
L	H H	H H	L L L	L	L L	L L	L L	L L L
L	H H	L L	L L L	L	L L	L L	L L	L L L
L	H L	X X	L L H	L	L L	H L	L L	L L H
L	L L	X X	L L H	L	L L	L L	L L	L L H
L	L H	X H	L L H	L	L H	L L	L L	H L H
L	L H	X L	L L H	L	L L	L L	L L	L L H
L	H H	X H	L L H	L	L H	H L	L L	L H H
L	H H	X L	L L H	L	L L	H L	L L	L L H
L	H H	X X	L H H	L	L H	H L	L L	L H H
L	H L	X X	L H H	L	L L	H L	L L	L H H
L	L H	X X	L H H	L	L H	L L	L L	L H H
L	L L	X X	L H H	L	L L	L L	L L	H L H
L	L H	X X	L H L	L	L L	L H	L L	L H L
L	L L	X X	L H L	L	L L	L L	L L	L H L
L	H L	H X	L H L	L	H L	L L	L L	H L H
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L	H H	L X	L H L	L	L L	L H	L L	L H L
L	H H	X X	H L L	L	H L	L H	L L	H L L
L	L H	X X	H L L	L	L L	L H	L L	H L L
L	H L	X X	H L L	L	H L	L L	L L	H L L
L	L L	X X	H L L	L	L L	L L	L L	H L H
L	H L	X X	H L H	L	H L	L L	L L	H L H
L	L H	X X	H L H	L	L H	L L	L L	H L H
L	L L	X X	H L H	H	L L	L L	L L	H H L
L	H H	X X	H L H	L	L L	L L	L L	L L L
L	X X	X X	H H L	H	L L	L L	L L	L L L
L	X X	X X	H H H	L	L L	L L	L L	L L L

(SLOT 02)

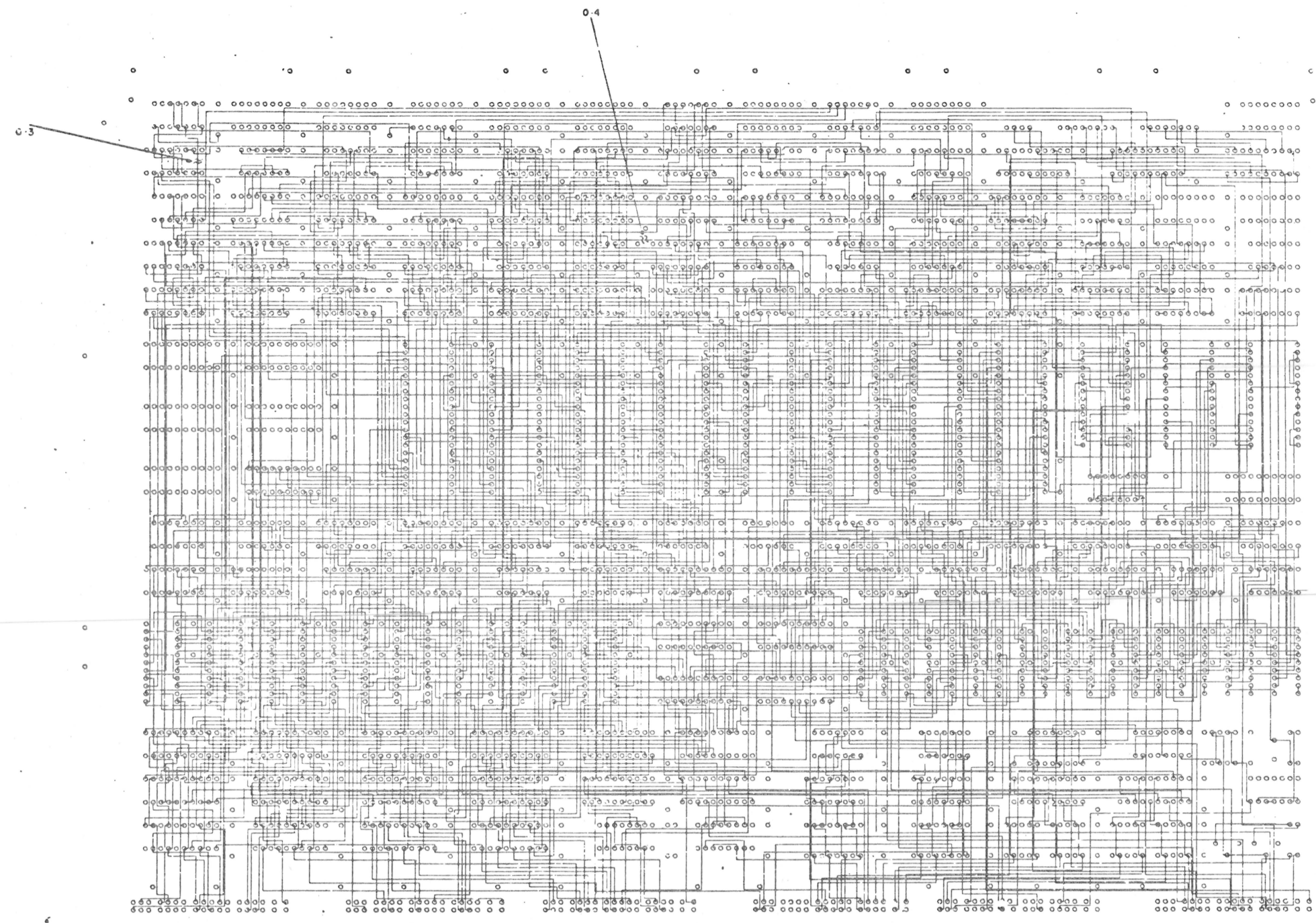
REVISIONS	
CHK	CHANGE NO. REV.
DEC FORM	
ORD 103-0	

SIDE 1



TITLE		DR780 MICRO PROCESSOR	NUMBER	EUA M8298-0-0	REV	C
SCALE		2-1	1-1	2-2	3-3	4-4

SIDE 2



REV	DATE	BY	CHK

TITLE	DR780 MICRO PROCESSOR	DATE	001	NUMBER	1	REV	C
SCALE	2 - 1	SHEET	3	OF	4		

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REWORK INSTRUCTIONS

ETCH CUTS SIDE 1

0-1 BETWEEN E63-9 AND E138-1

0-2 BETWEEN E128-13 AND E140-3

ETCH CUTS SIDE 2:

0-3 BETWEEN E138-1 AND E151-3

0-4 BETWEEN E121-8 AND E129-13

WIRE ADDS SIDE 1:

0-5 FROM E140-3 TO E138-1

0-6 FROM E63-9 TO E138-13

0-7 FROM E138-13 TO E151-3

0-8 FROM E 25-10 TO E129-13

REVISIONS		
NO.	DESCRIPTION	DATE
1	CHANGE NO.	REV.

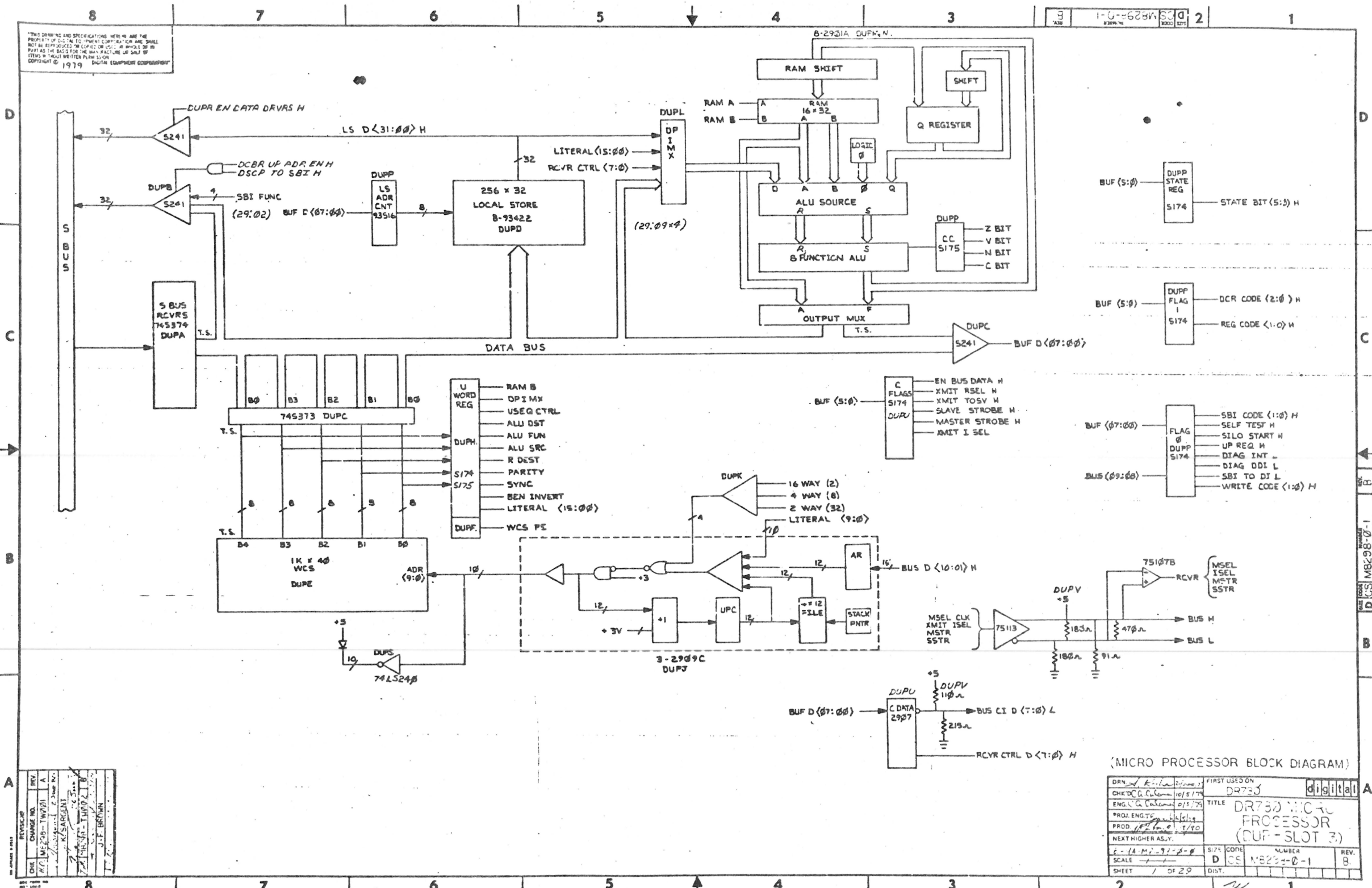
TITLE
DR760 MICRO PROCESSOR

SCALE
1/2" = 1"

SHEET
1 OF 1

REV.
C

11A M8298-0-0



8780 MICRO BRANCH DEFINITIONS

BEN	NAME	UPC (07)	UPC (02)	UPC (01)	UPC (00)
00	NOP	0	0	0	0
01	ALUC				ALUC
02	ALUZ				ALUZ
03	ALUN				ALUN
04	ALUV				ALUV
05	N OR Z				ALUN+Z
06	WRITE DONE				UPWRTDONE
07	DP D02				DP D02
08	STATE 4				STATE 04
09	CURBUF				STATE 05
0A	LS31				LS D31
0B	ABORT				ABORT
0C	DI-PARITY				DI PAR ERR
0D	CI-PARITY				CI PAR ERR
0E	DRV. ABORT				DRV ABORT
0F	ADR. ENABLE				UPADREN+DR ABORT
10	MSEL				MSEL
11	ISEL				ISEL
12	MSTR				MSTR
13	SSTR				SSTR
14	RSEL				RSEL
15	TOSV				TOSV
16	DISABLE				FE DISABLE
17	LENGTHERR				LEN ERR
18	GO				GO 1
19	GO 1				GO 2
1A	SBUSGRANT				GRANT
1B	BUF DONE				BUF DONE
1C	SBI DONE				SBI DONE
1D	INTLK RD?				LS ADR 0
1E	CHAINING				DCHAIN
1F	SBI TO DI				SBI TO DI
20	STATE 1-0			STATE 01	STATE 03
21	STATE 3-2			STATE 03	STATE 02
22	DP D<1:0>			DP D01	DP D00
23	Q?			DP D02	DP D00
24	PYE?			LS D26	LS D22
25	READ?			DR ABORT	UP RD DONE
26	WRITE?			DR ABORT	UP DATA EN
27	LOOKAHEAD			ABUF FUL	BC FUL
28					
29					
2A					
2B					
2C					
2D					
2E					
2F					
30	DP D<3:0>	DP D03	DP D02	DP D01	DP D00
31	PKT?	DP D19	DP D18	DP D17	DP D16

ALU DEST

	F	Q	Y
0	F=Q	F	
1	NOP	F	
2	F=B	A	
3	F=B	F	
4	RAMQD	F	
5	RAMD	F	
6	RAMQU	F	
7	RAMU	F	

ALU FUNCTN

	R	S
0	R PLUS S	
1	S MINUS R	
2	R MINUS S	
3	R OR S	
4	R AND S	
5	R AND S	
6	R EX-OR S	
7	R EX-NOR S	

ALU SRC

	R	S
0	A	Q
1	A	B
2	Q	Q
3	Q	B
4	Q	A
5	D	A
6	D	Q
7	D	Q

REGISTER DEST

	DEST
0	NOP
1	UP INIT
2	SHF IN ZERO
3	RSVD
4	LD LSA
5	LSA+1
6	LD LSC
7	LD LSC/LSA+1
8	WRT STATE
9	WRT C FLAG
A	WRT C DATA
B	WRT FLAG 0
C	WRT FLAG 1
D	CLK CI PE
E	RSVD
F	RSVD

DP IMX

	LITERAL (15:00)
0	LITERAL (15:00)
1	CD (7:0)
2	LS (31:00)
3	DP (29:09) *4

USEQ

	JMP UJMP
00	JMP UJMP
01	JSR UJMP
10	CONT-UPC+1
11	RTS

RAM B ADDRESS

	DATA PATH IMX	USEQ CONTROL
39		
38		
37		
36		
35		
34		
33		
32		

ALU DEST

	F	Q	Y
0	F=Q	F	
1	NOP	F	
2	F=B	A	
3	F=B	F	
4	RAMQD	F	
5	RAMD	F	
6	RAMQU	F	
7	RAMU	F	

ALU FUNCTN

	R	S
0	R PLUS S	
1	S MINUS R	
2	R MINUS S	
3	R OR S	
4	R AND S	
5	R AND S	
6	R EX-OR S	
7	R EX-NOR S	

ALU SRC

	R	S
0	A	Q
1	A	B
2	Q	Q
3	Q	B
4	Q	A
5	D	A
6	D	Q
7	D	Q

REGISTER DEST

	DEST
0	NOP
1	UP INIT
2	SHF IN ZERO
3	RSVD
4	LD LSA
5	LSA+1
6	LD LSC
7	LD LSC/LSA+1
8	WRT STATE
9	WRT C FLAG
A	WRT C DATA
B	WRT FLAG 0
C	WRT FLAG 1
D	CLK CI PE
E	RSVD
F	RSVD

DP IMX

	LITERAL (15:00)
0	LITERAL (15:00)
1	CD (7:0)
2	LS (31:00)
3	DP (29:09) *4

USEQ

	JMP UJMP
00	JMP UJMP
01	JSR UJMP
10	CONT-UPC+1
11	RTS

RAM B ADDRESS

	DATA PATH IMX	USEQ CONTROL
39		
38		
37		
36		
35		
34		
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32		

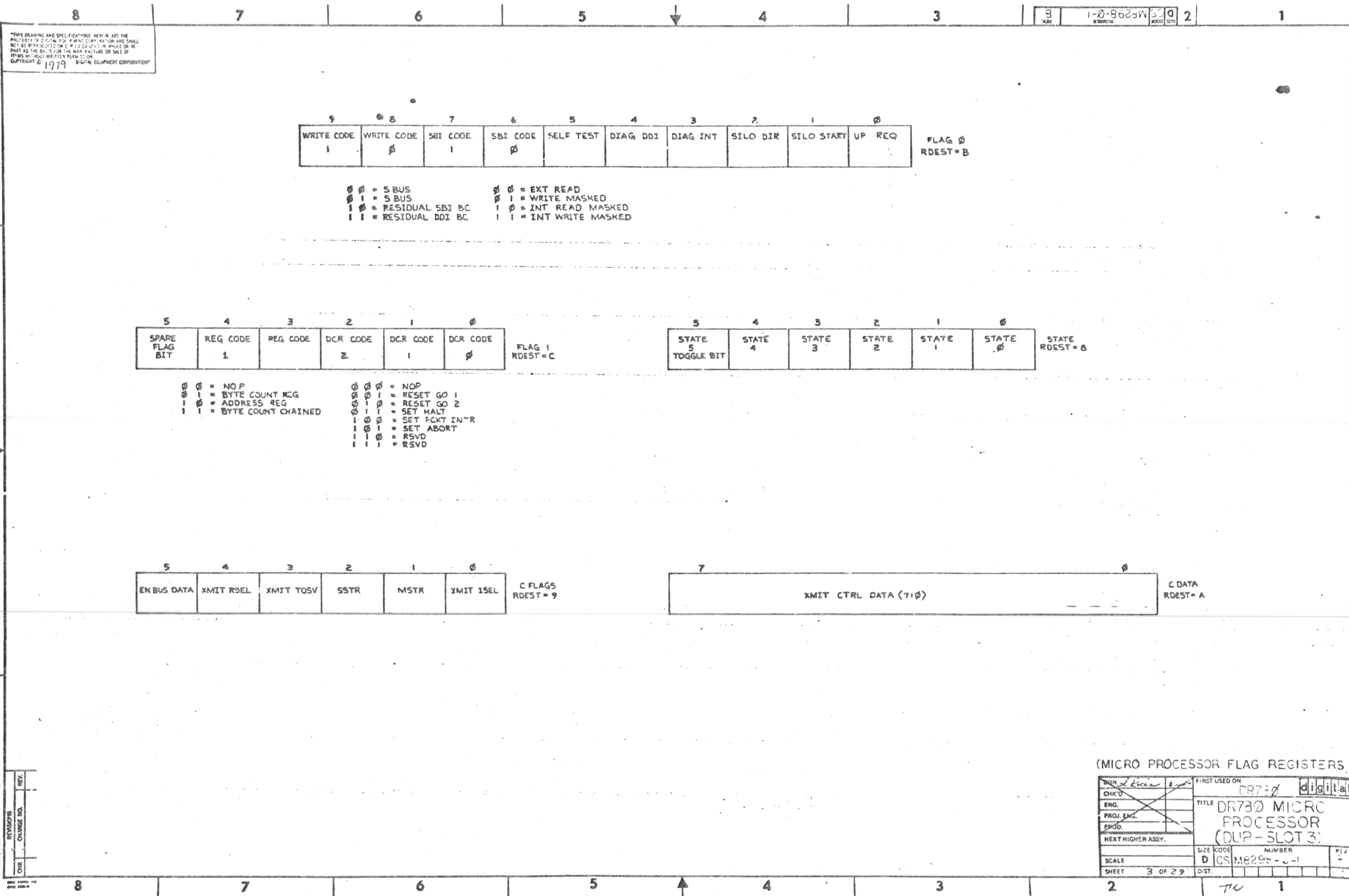
NOTES:

1. * IF ALU SRC = 5 & DPIMX = 0 THEN THE STROBE FOR DPIMX (15:12) IS DEASSERTED.

2. * * WHEN USEQ CTRL = 2 IT ZEROS THE BEN OUTPUT.

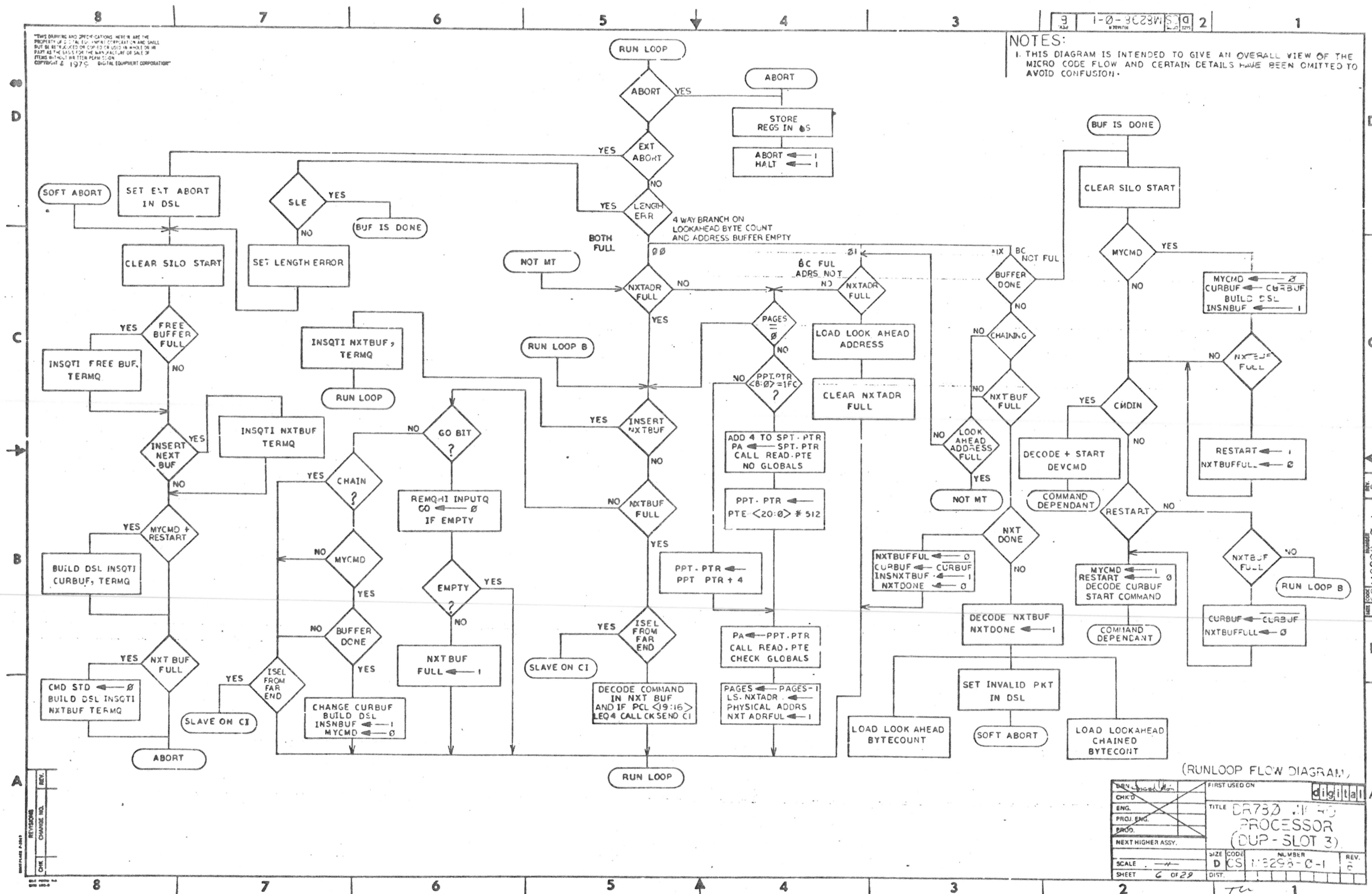
DR780 MICRO WORD DESCRIPTION

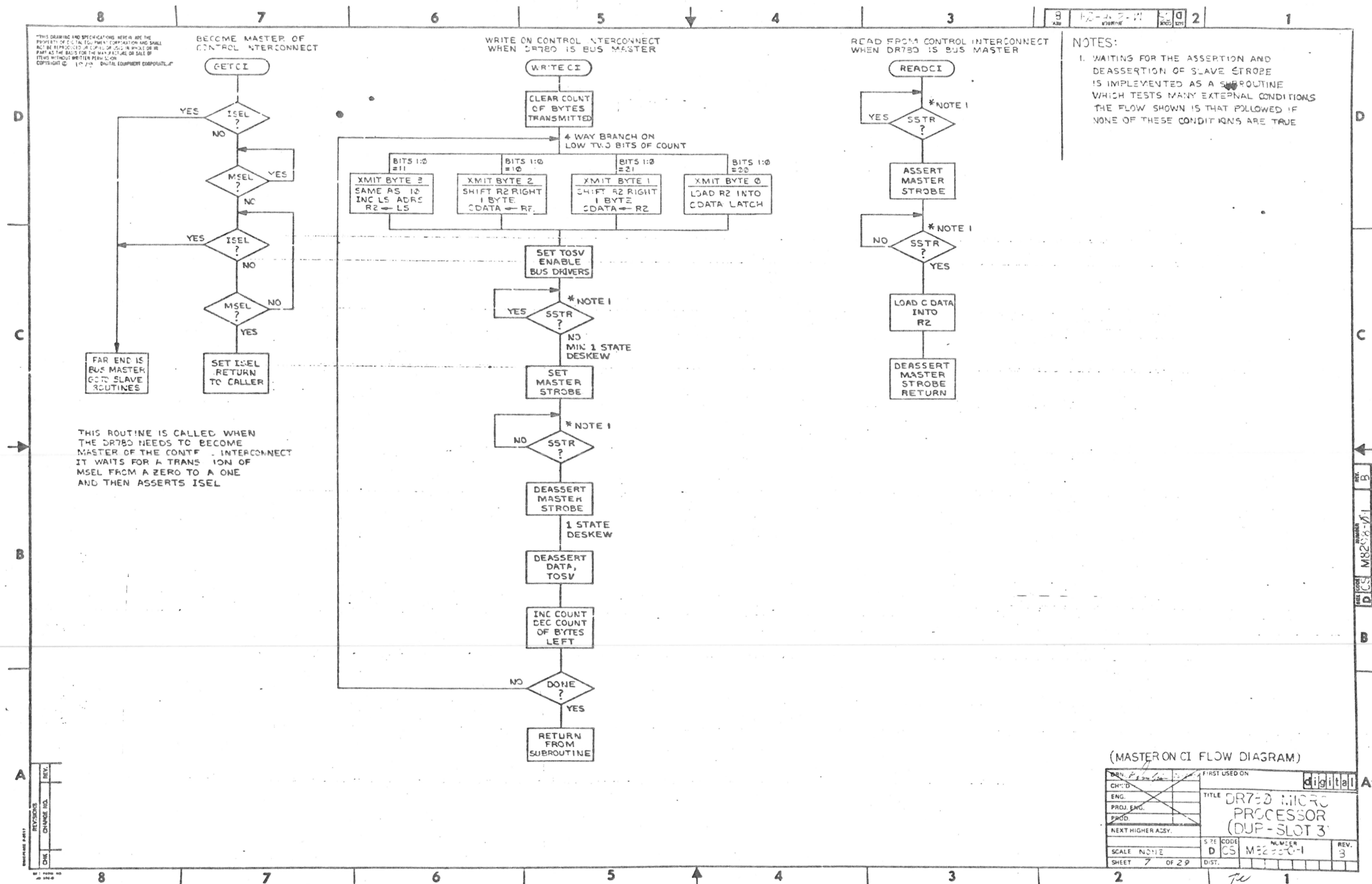
DRN	CHK'D	ENG.	PROJ. ENG.	PROD.	NEXT HIGHER ASSY.	SCALE	SHEET	FIRST USED ON	TITLE	SIZE	CODE	NUMBER	REV.
1-7-8628W							2 OF 29	DR780	DR780 U PROCESSOR (DUP SLOT 3)	D	CS	18238-0-1	B

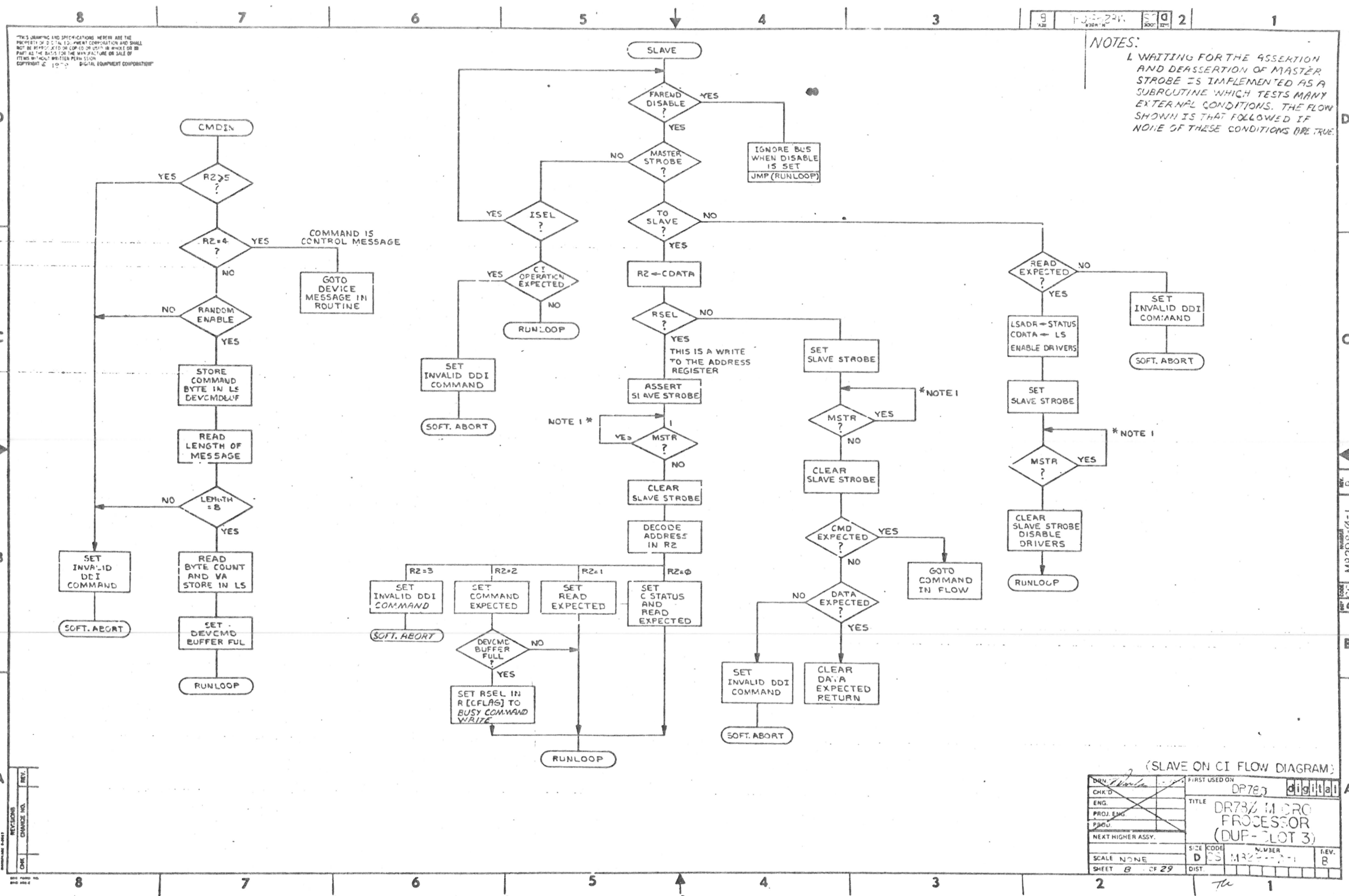


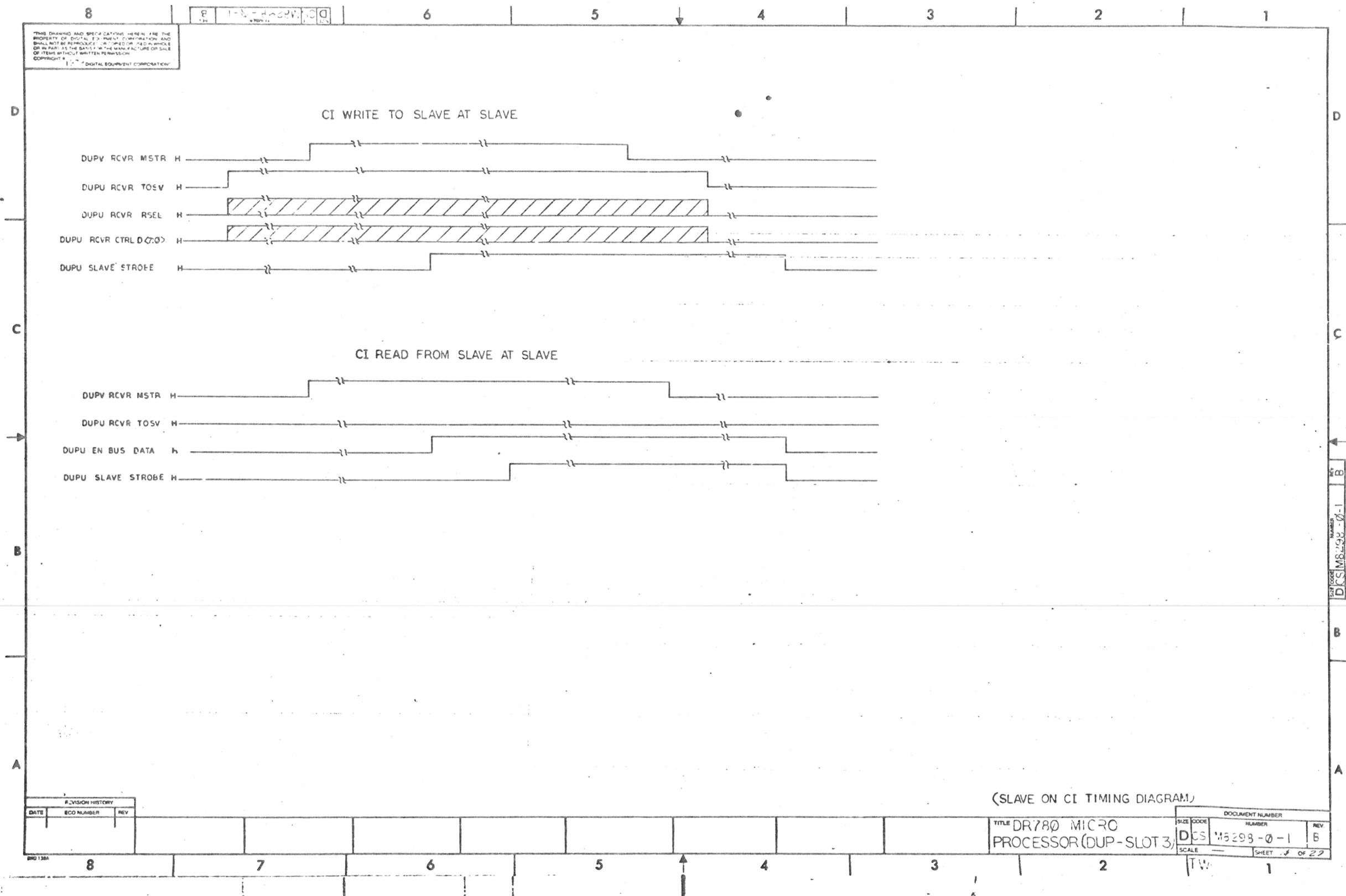


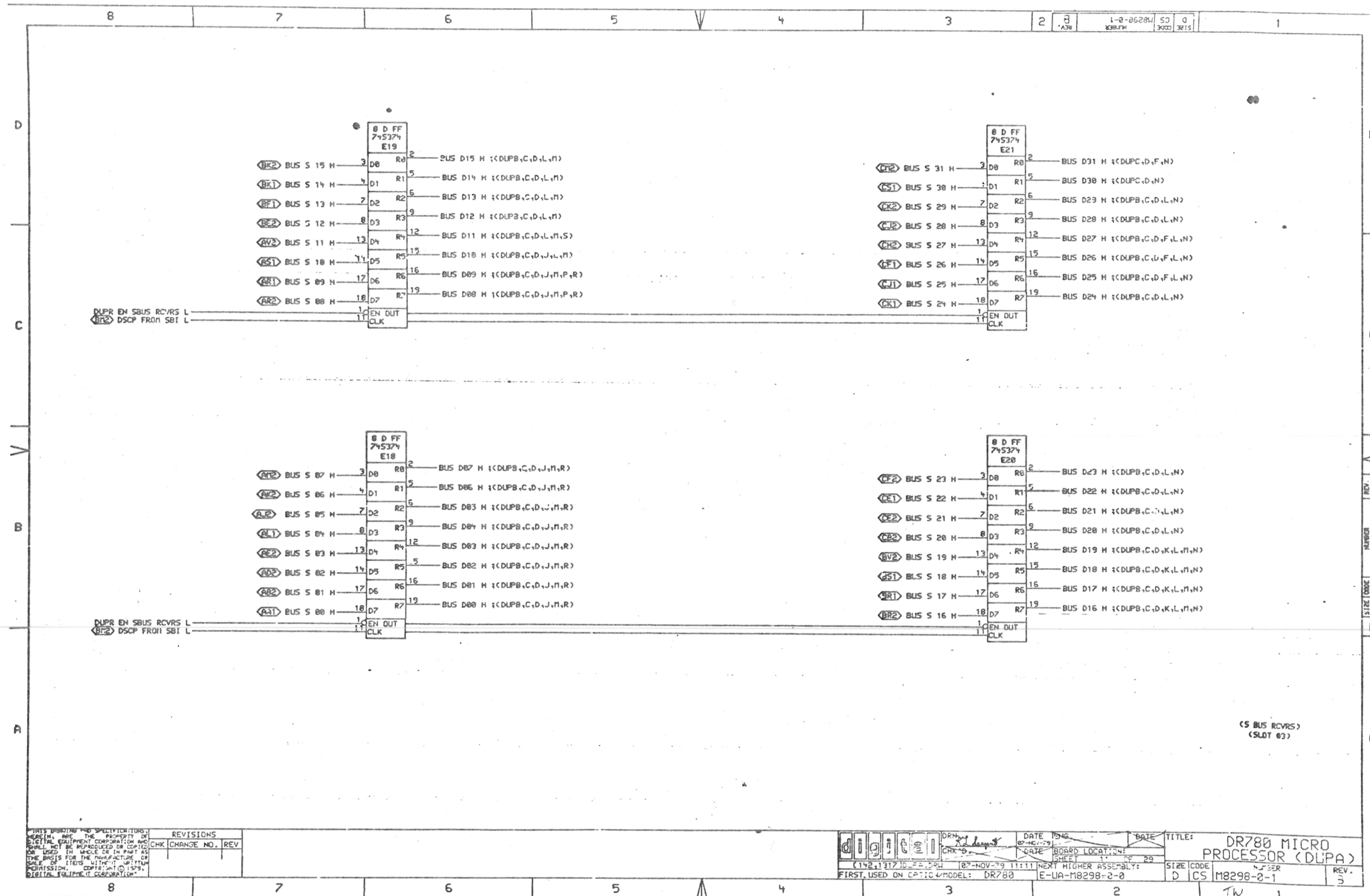
DENY <i>Exam</i> <i>10/27</i> CHKD ENG. PROJ. ENG. PROG. NEXT HIGHER ASSY.	FIRST USED ON <i>DR780</i> TITLE <i>DR780 VICE PROCESSOR (LUF-SLOT 3)</i>	<i>digital</i>
SCALE SHEET <i>4</i> OF <i>22</i>	SIZE CODE <i>CS</i> DIST.	NUMBER <i>18298-0-1</i> REV. <i>3</i>







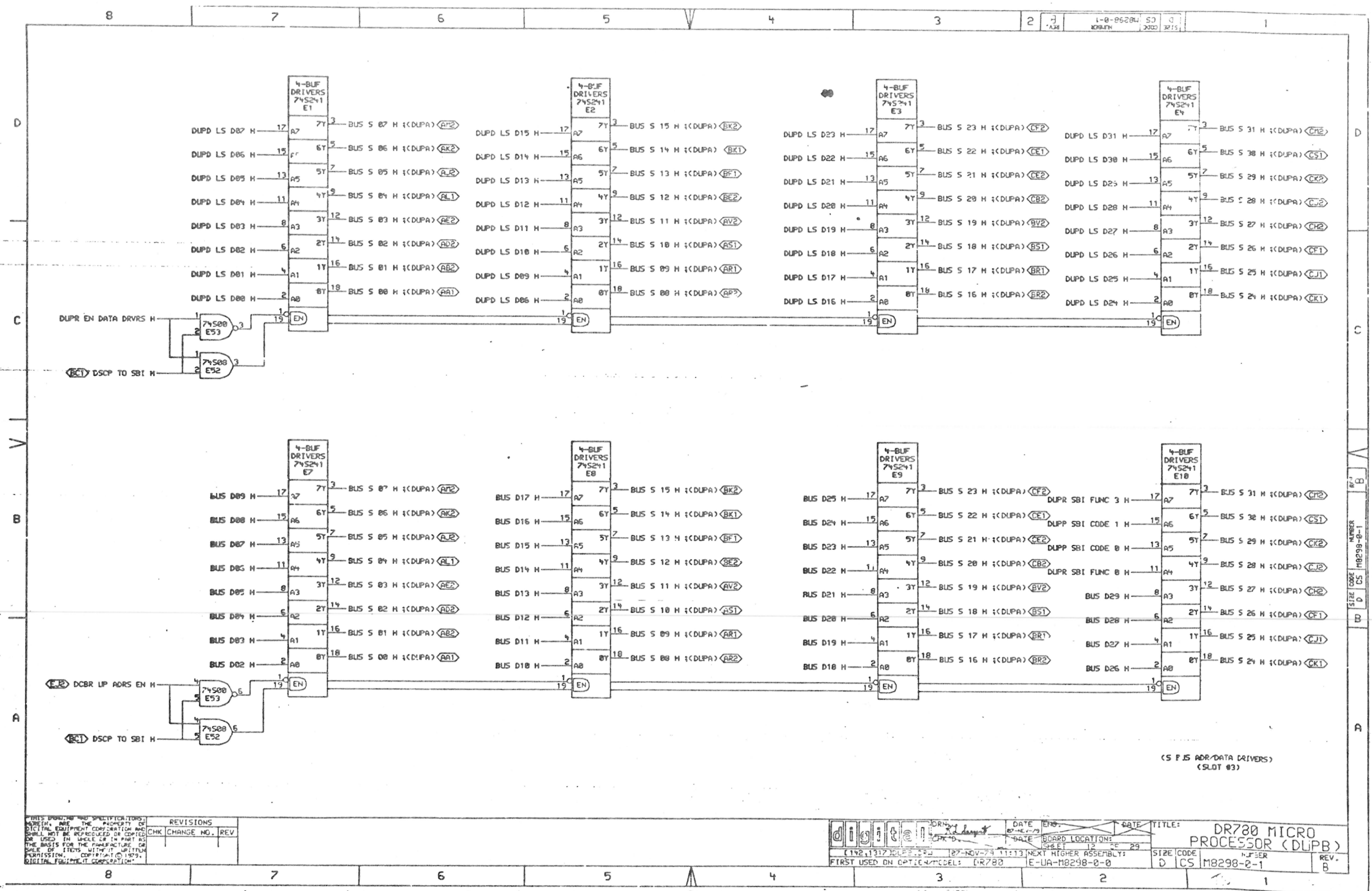


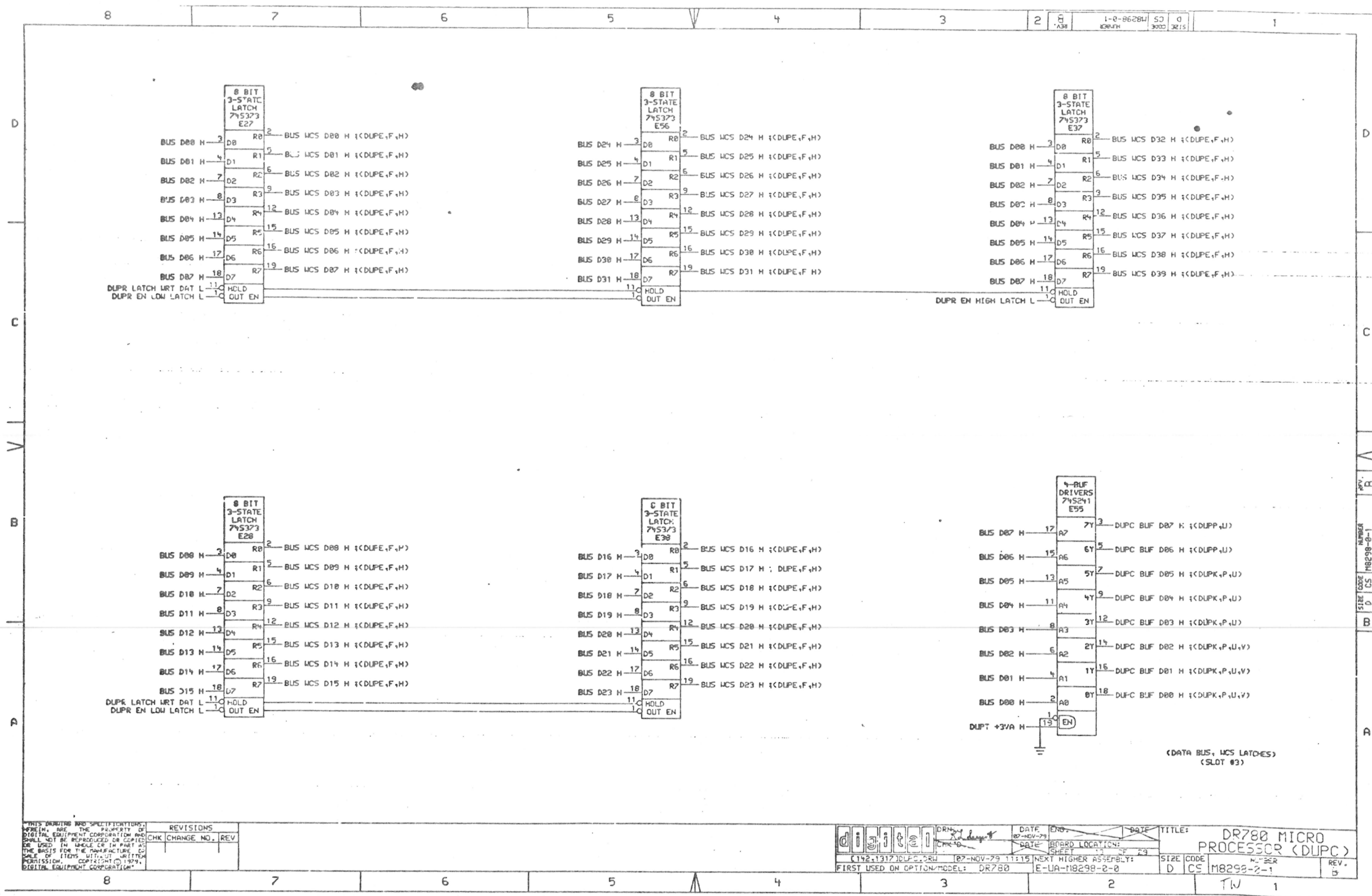


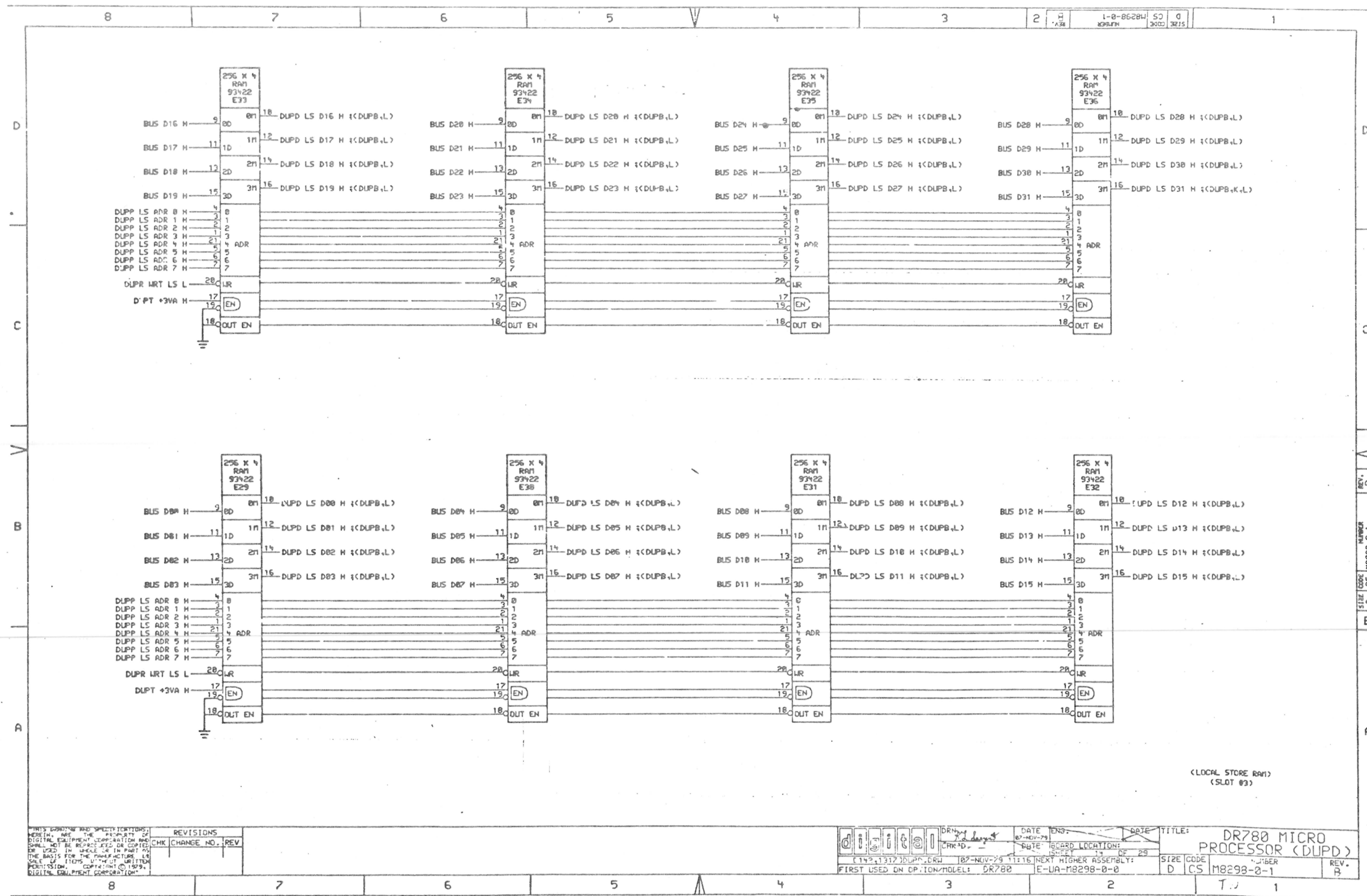
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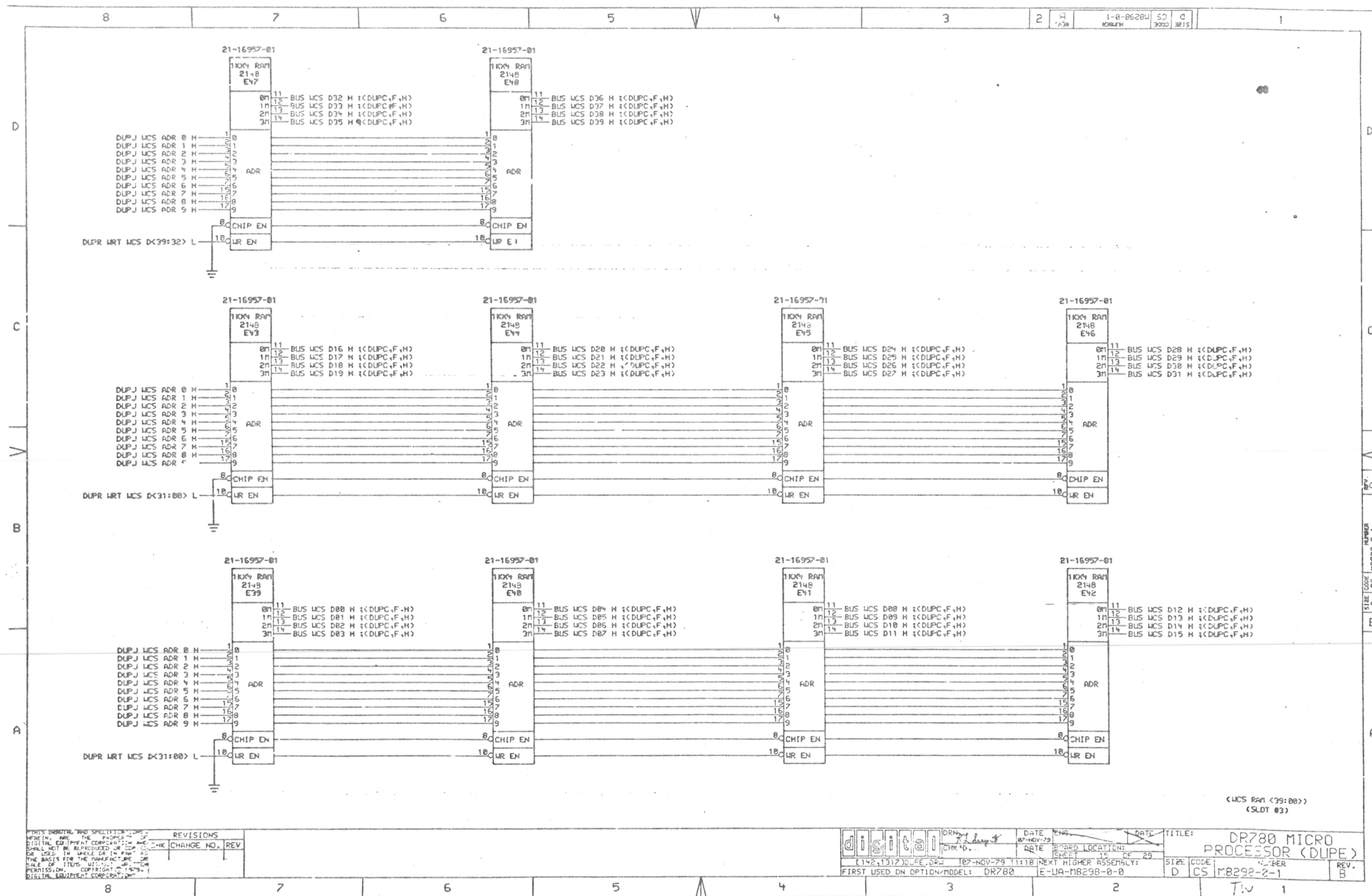
REVISIONS		
CHK	CHANGE NO.	REV

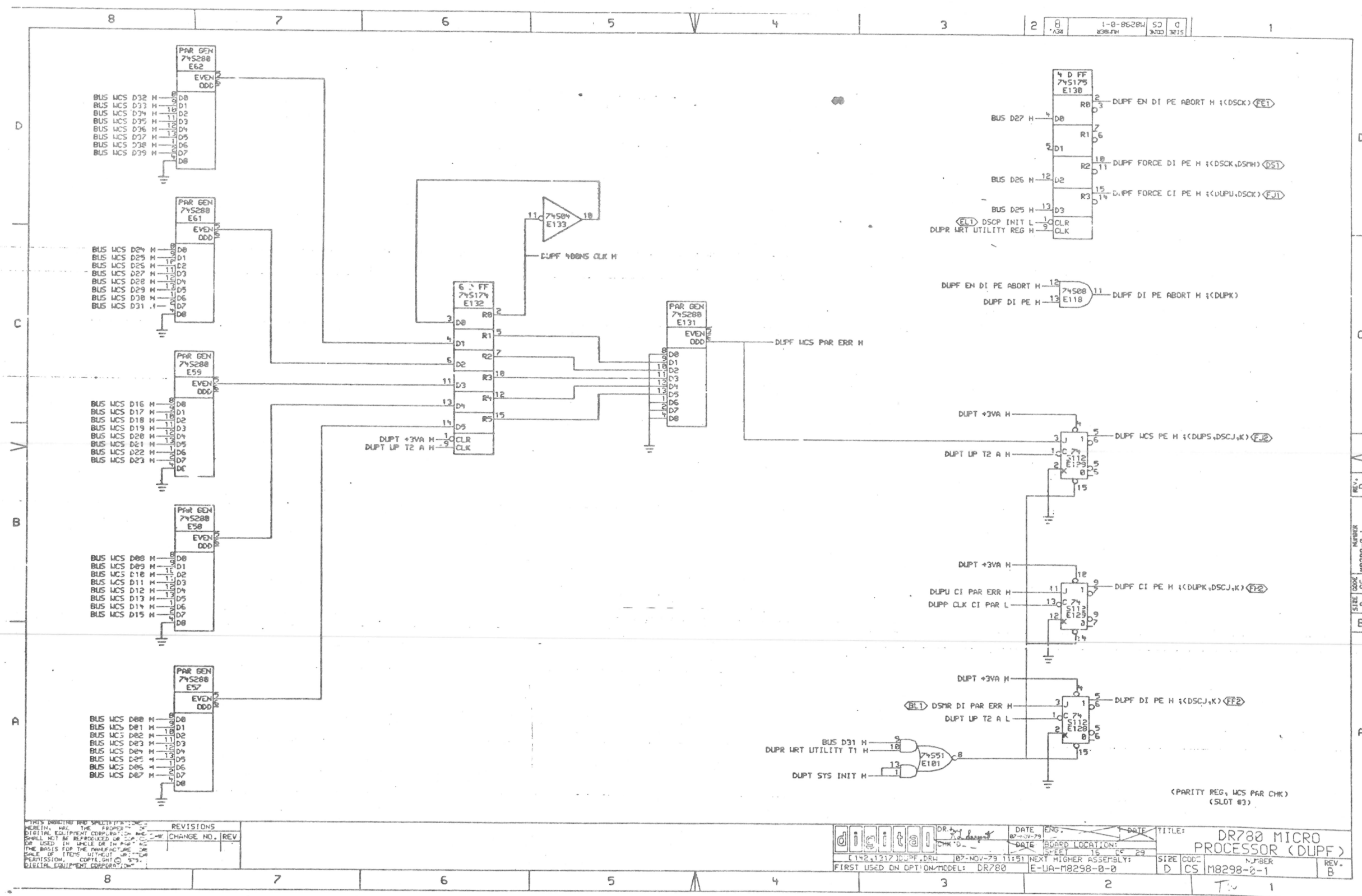
digital	DATE 10-10-79	DATE 10-10-79	DATE 10-10-79	TITLE: DR780 MICRO PROCESSOR (DUPA)
CHK 5	DATE 10-10-79	DATE 10-10-79	DATE 10-10-79	SIZE CODE D
FIRST USED ON: DR780				REV. 3

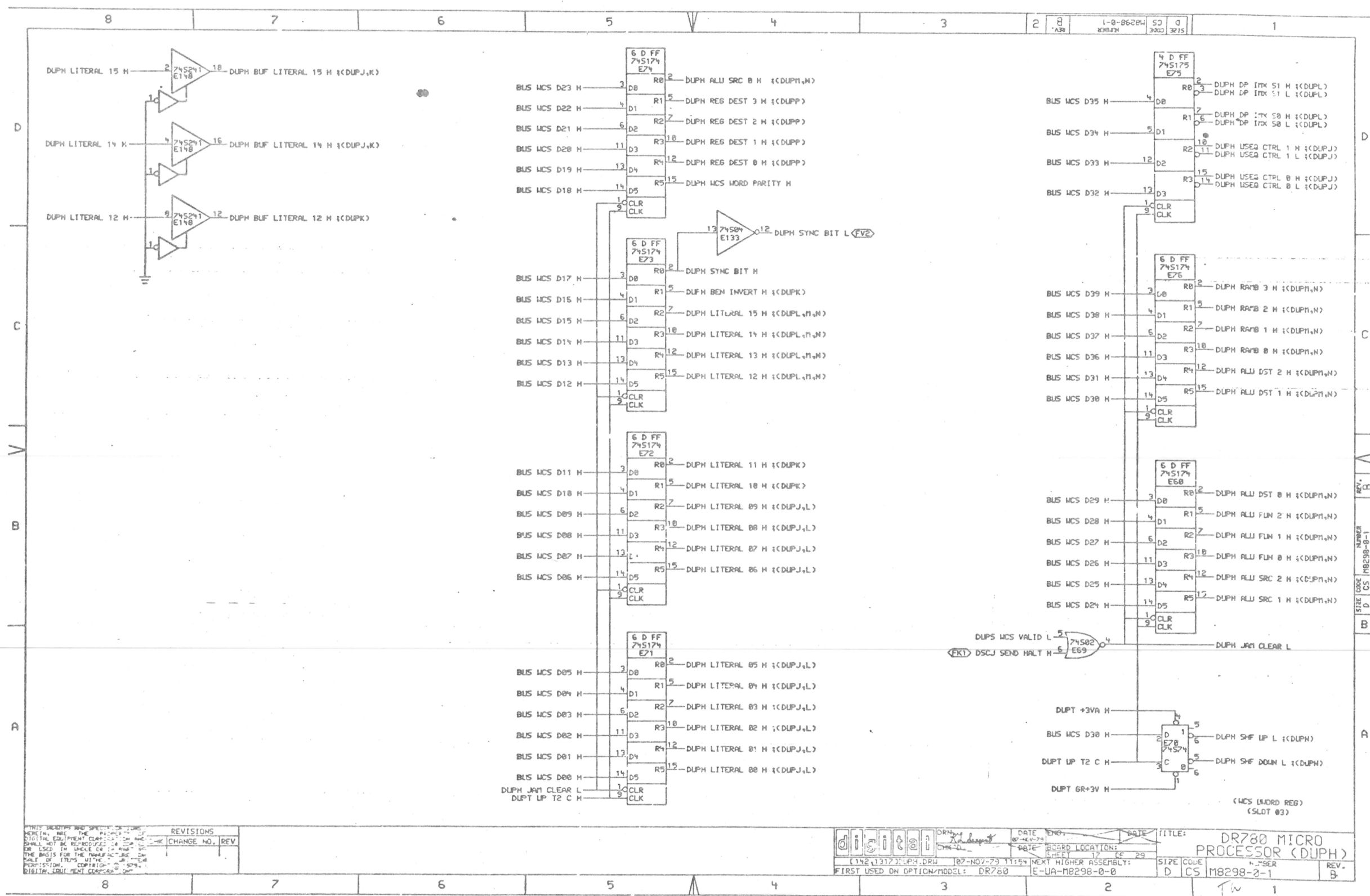


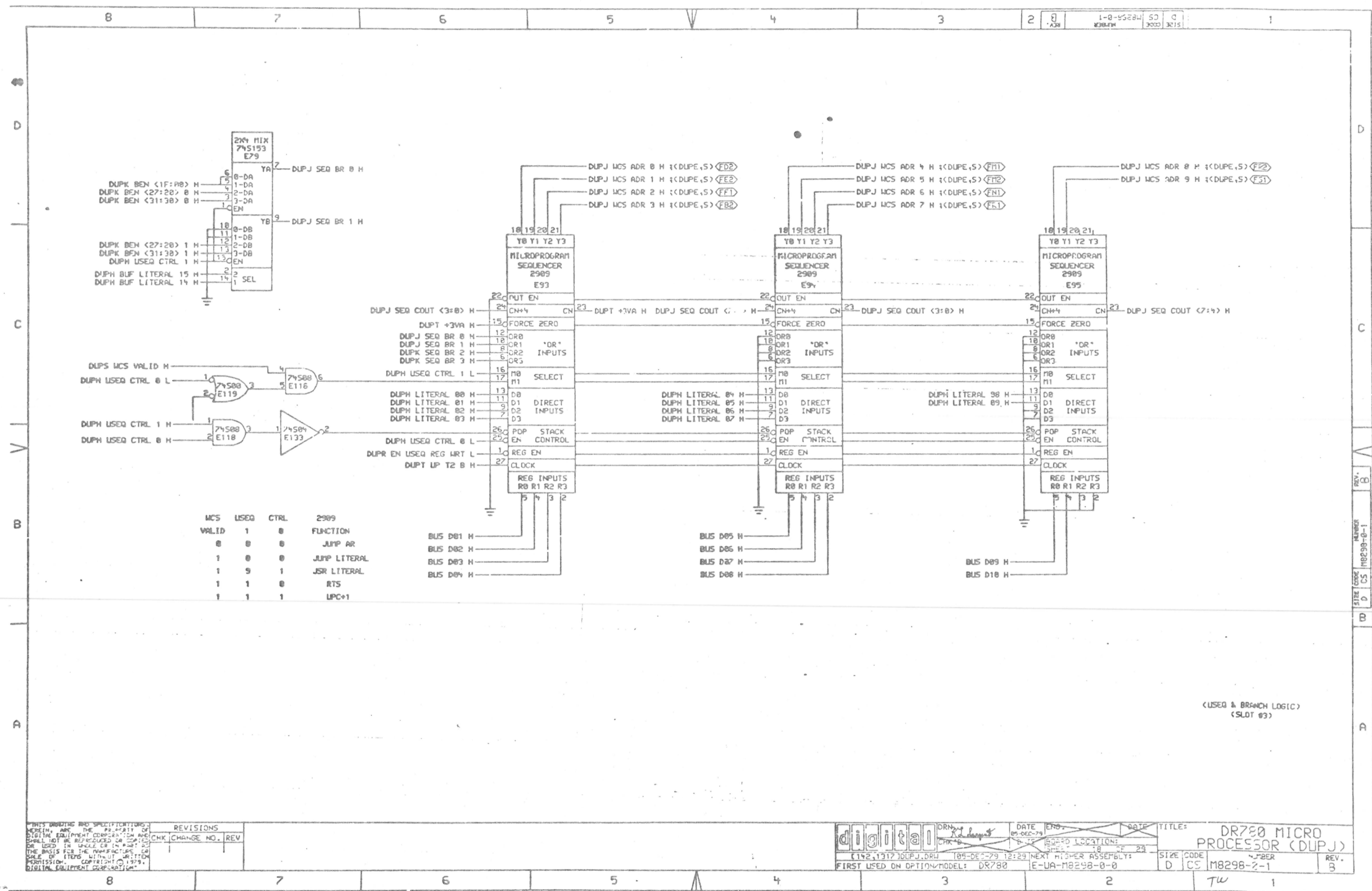


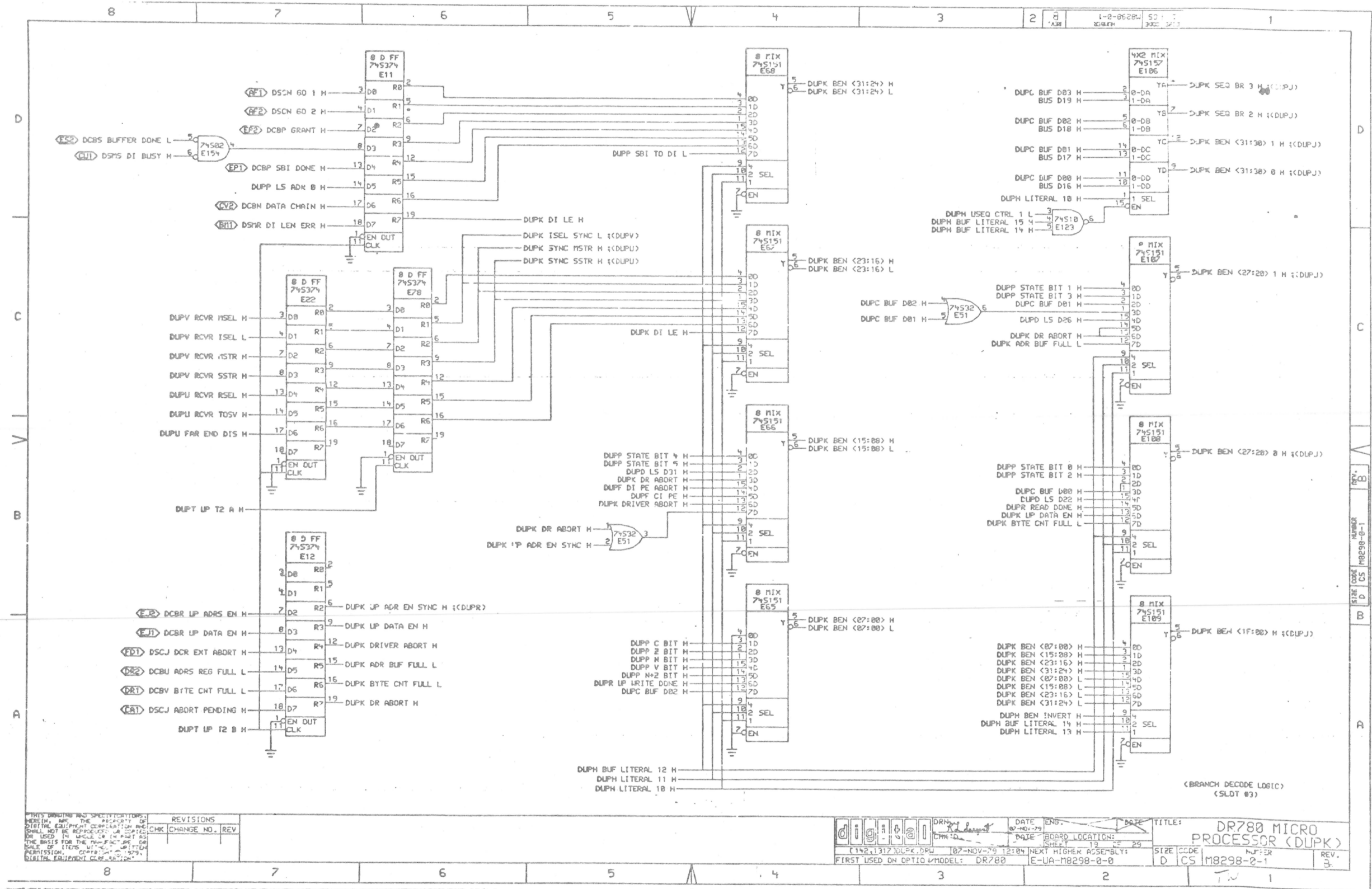


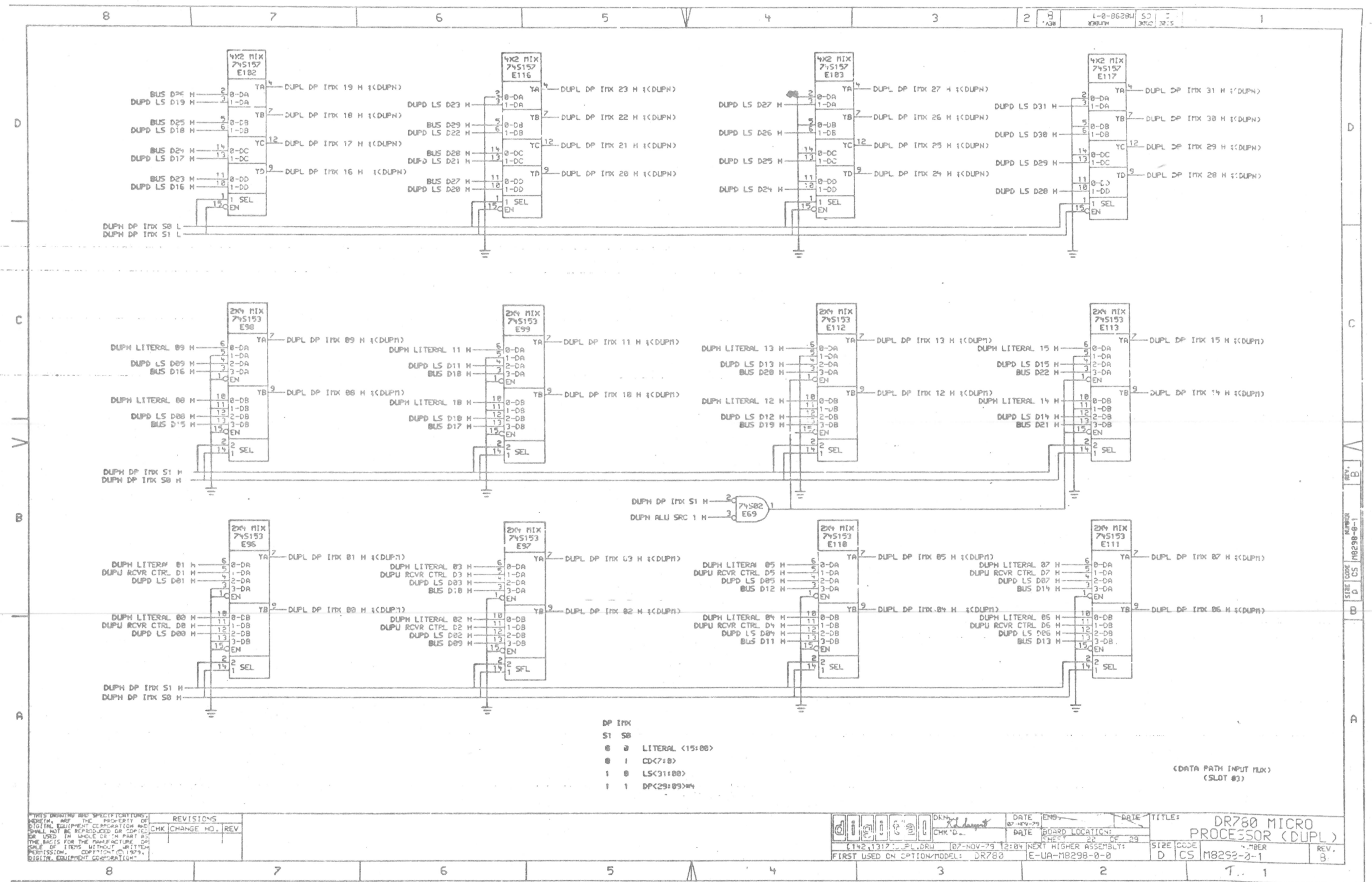


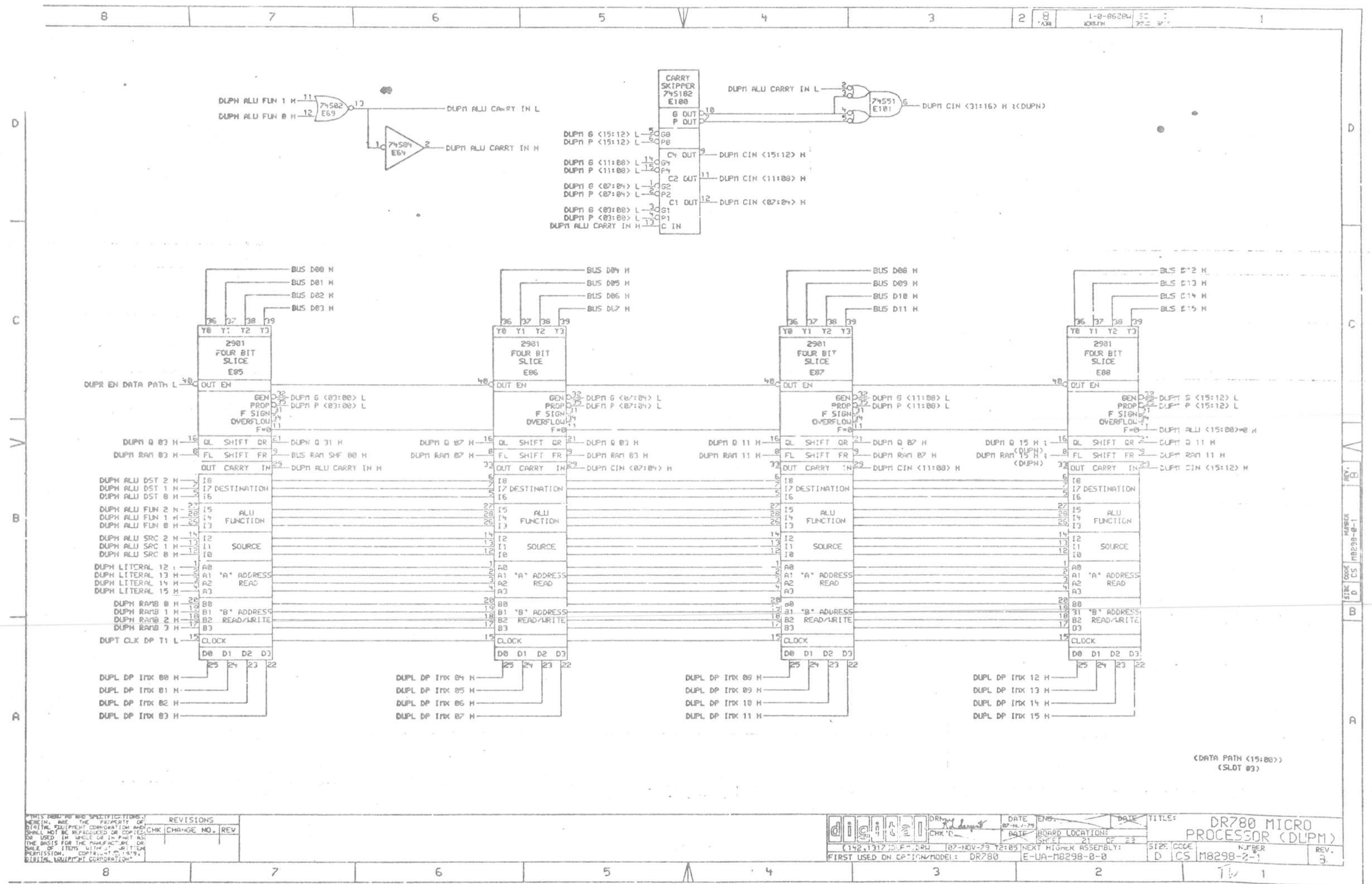


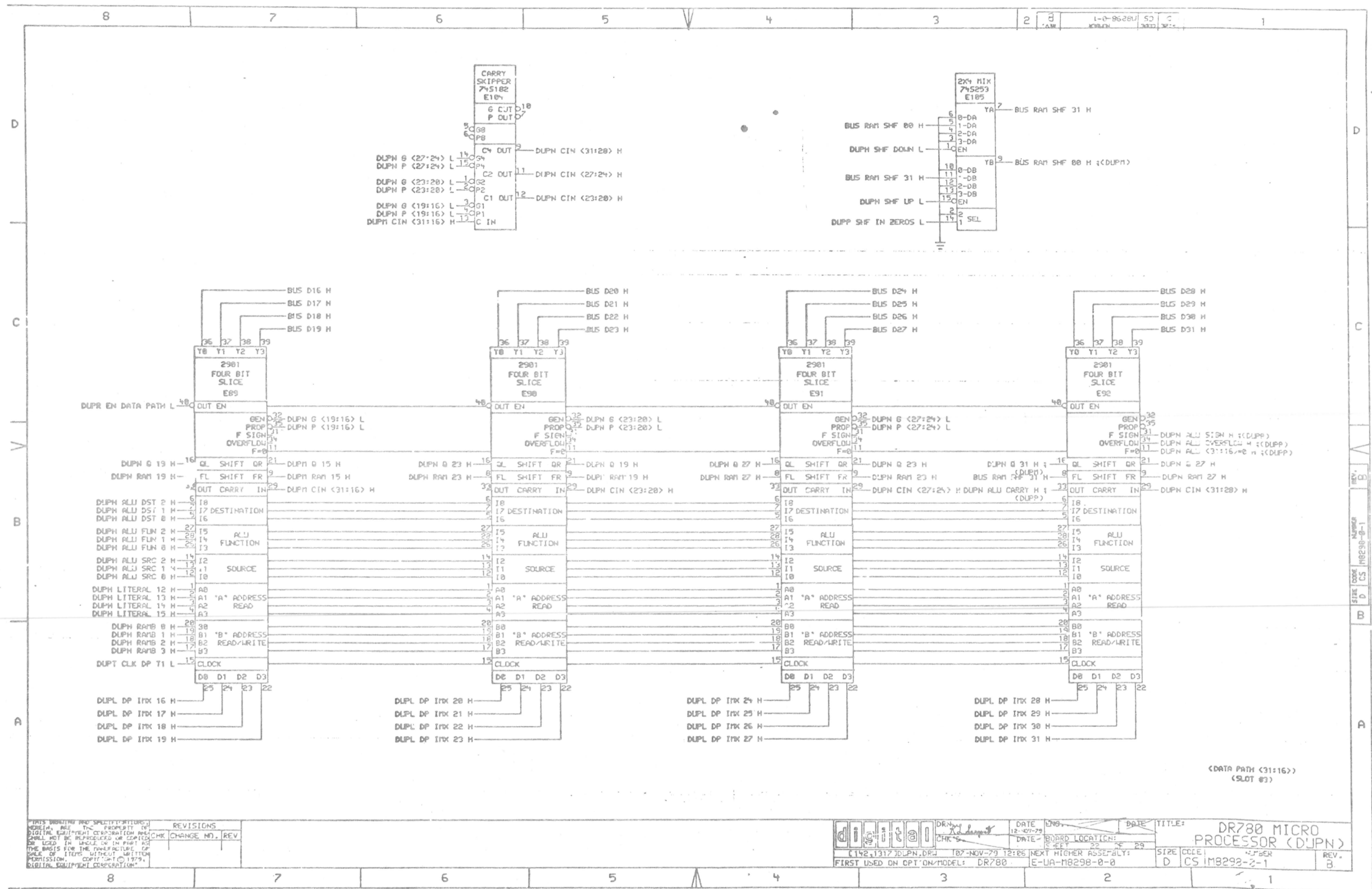


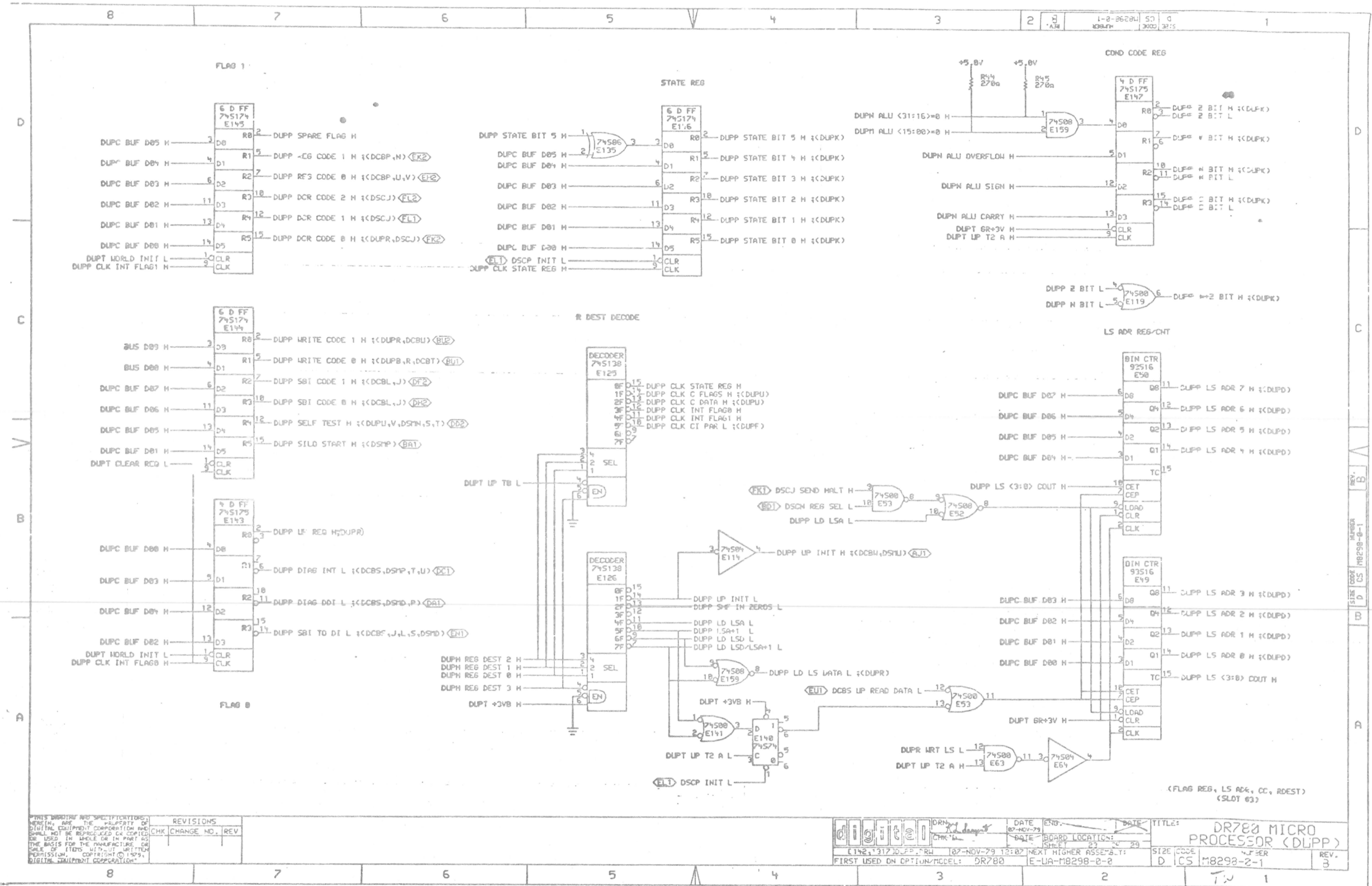


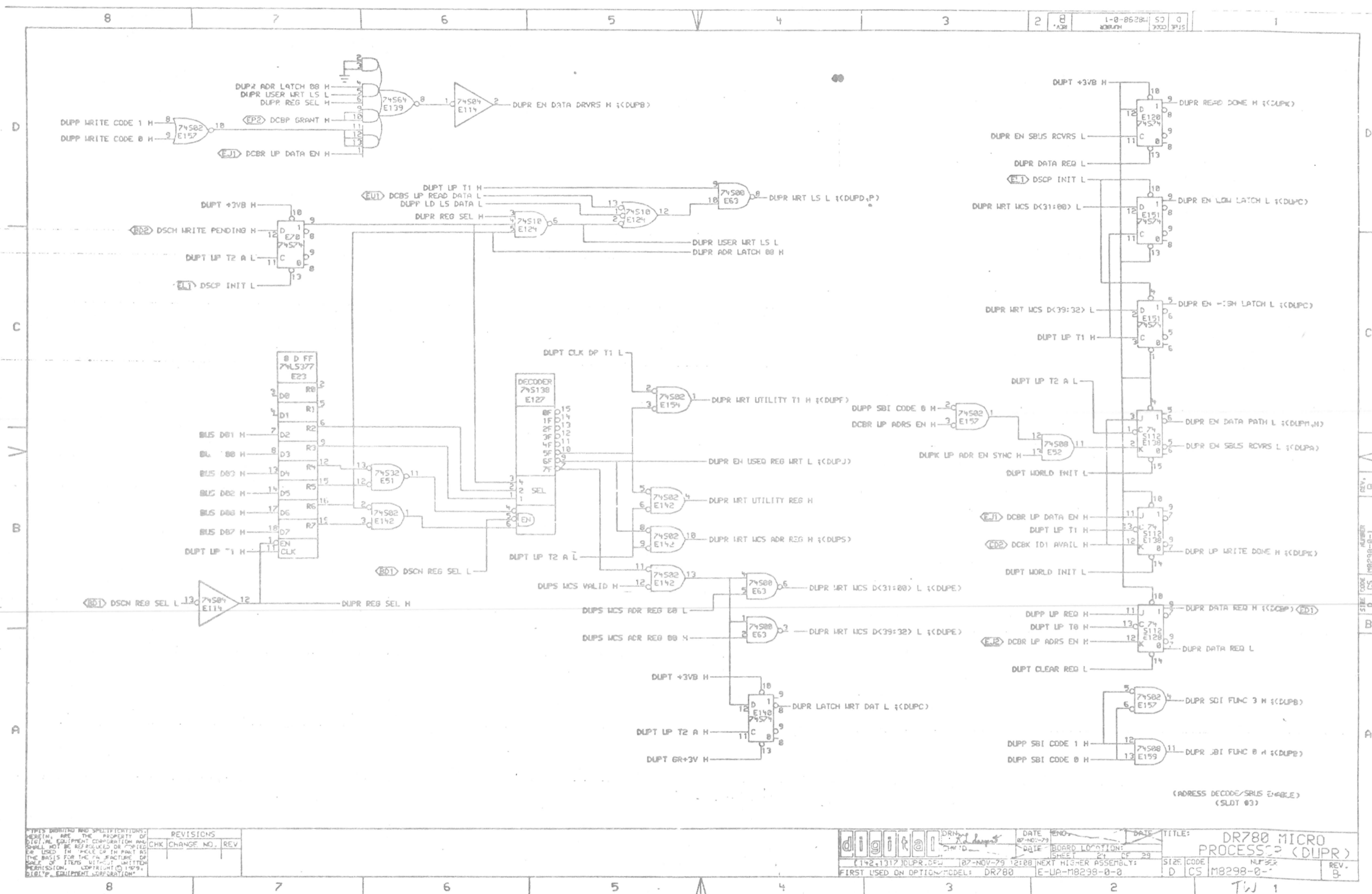


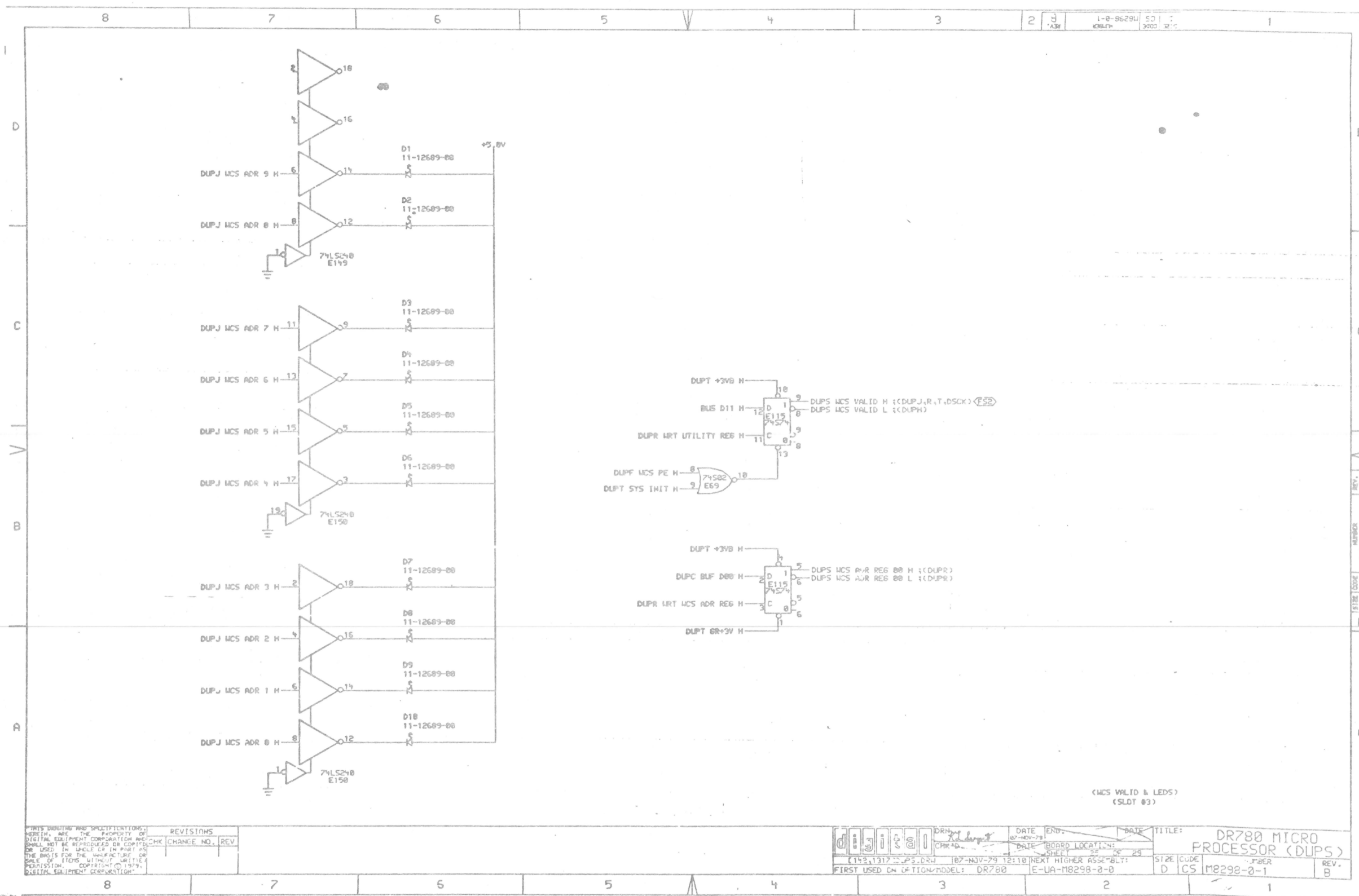


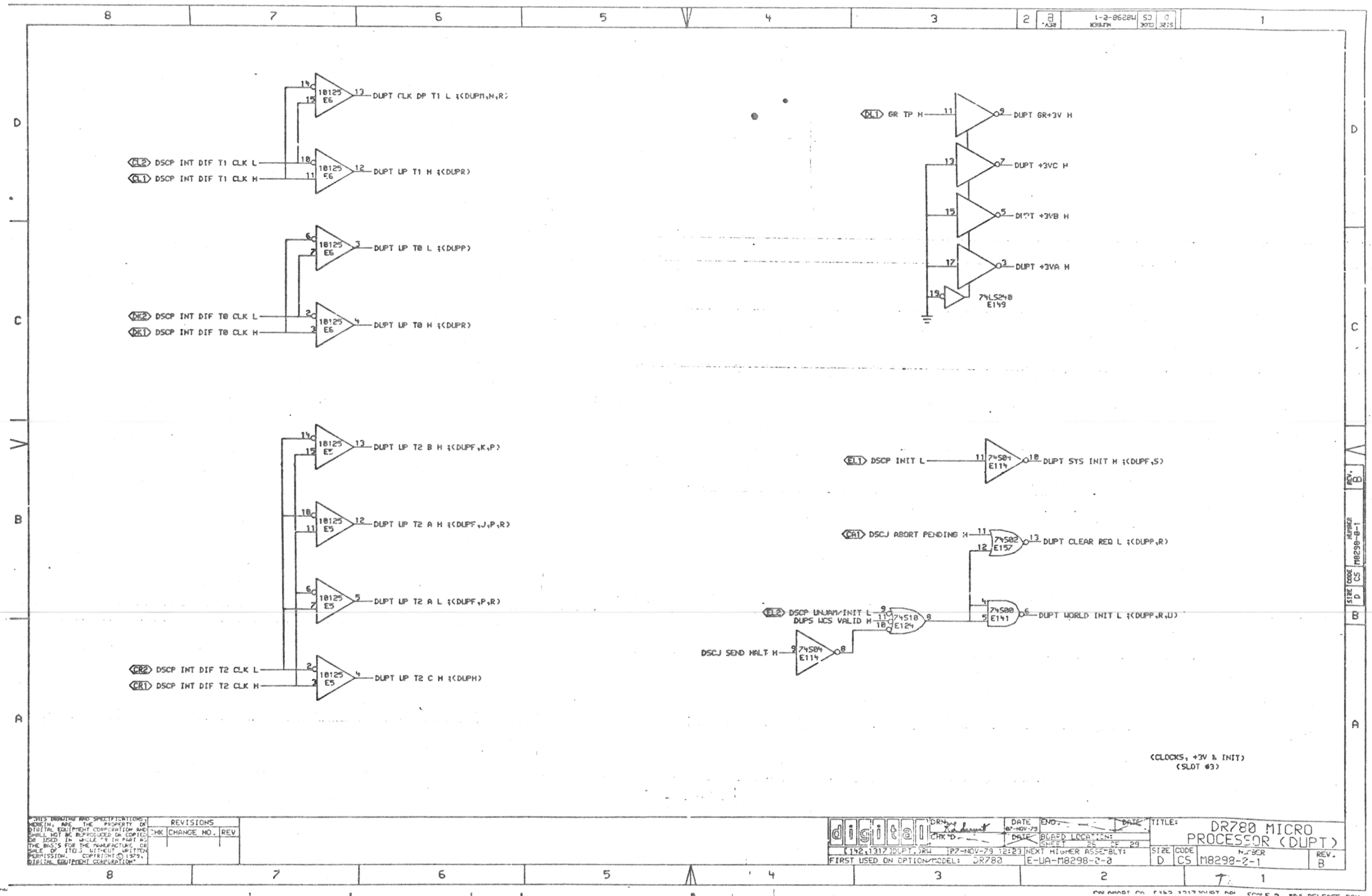


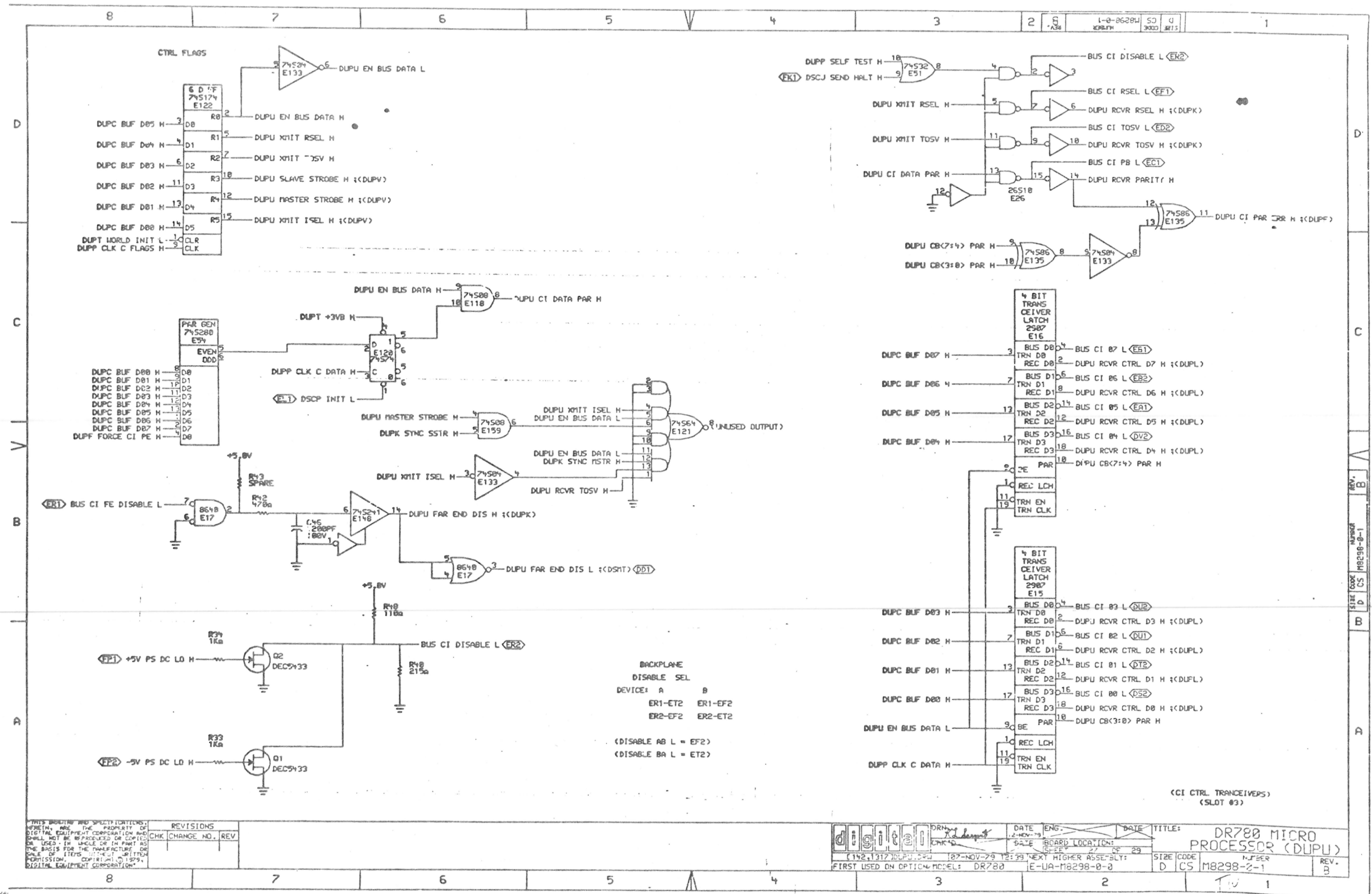


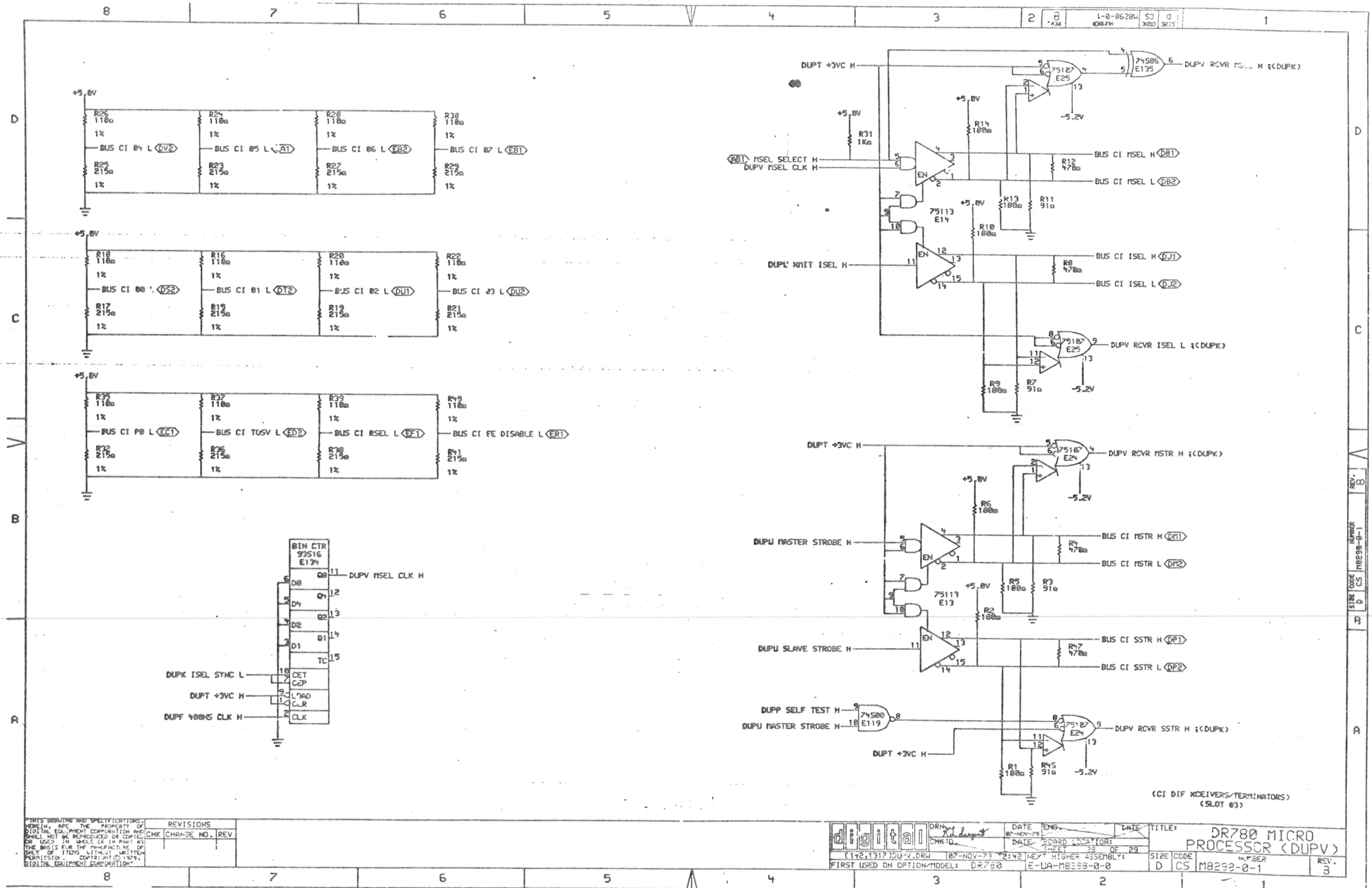


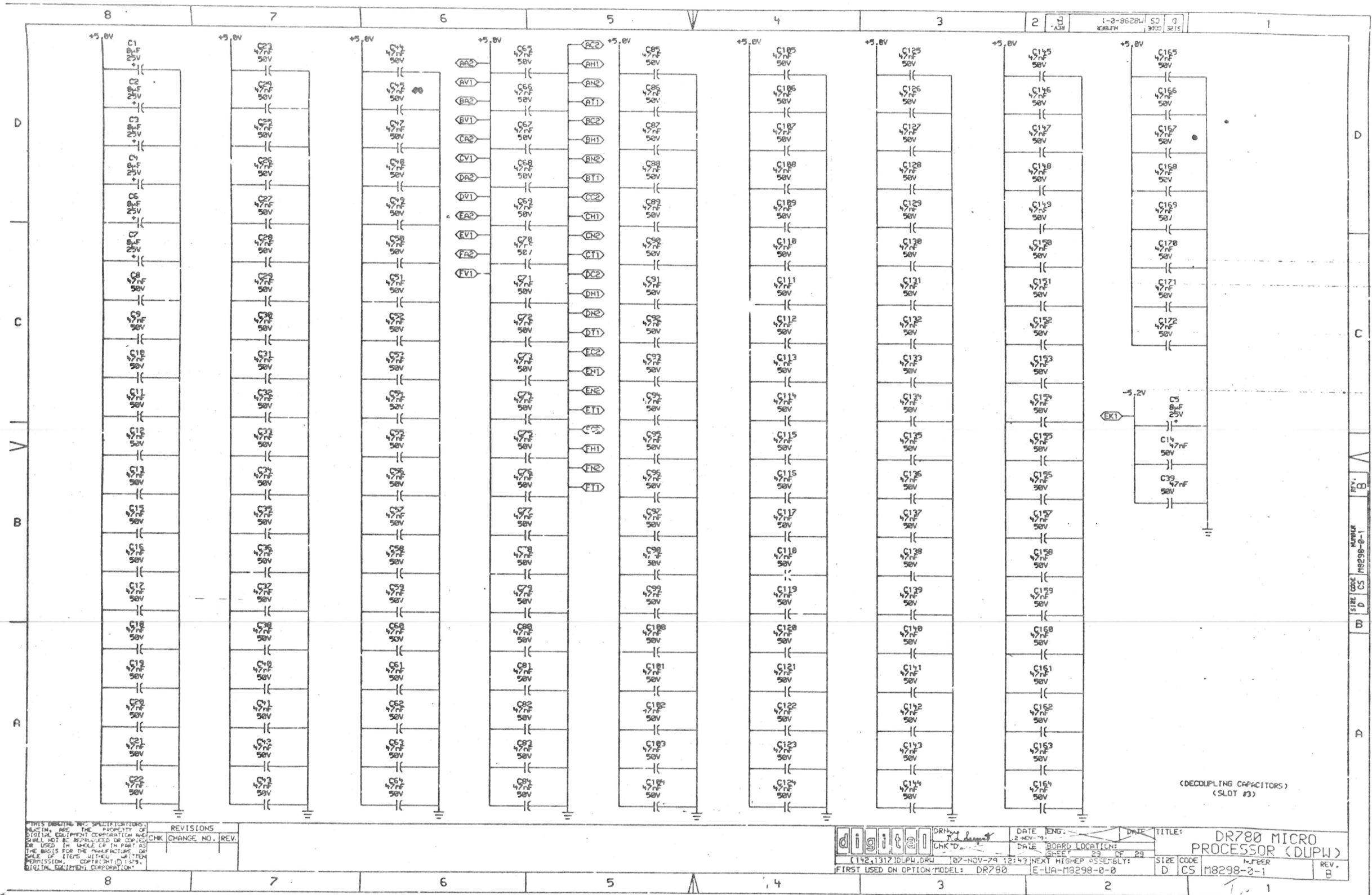


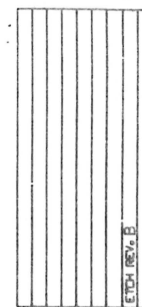








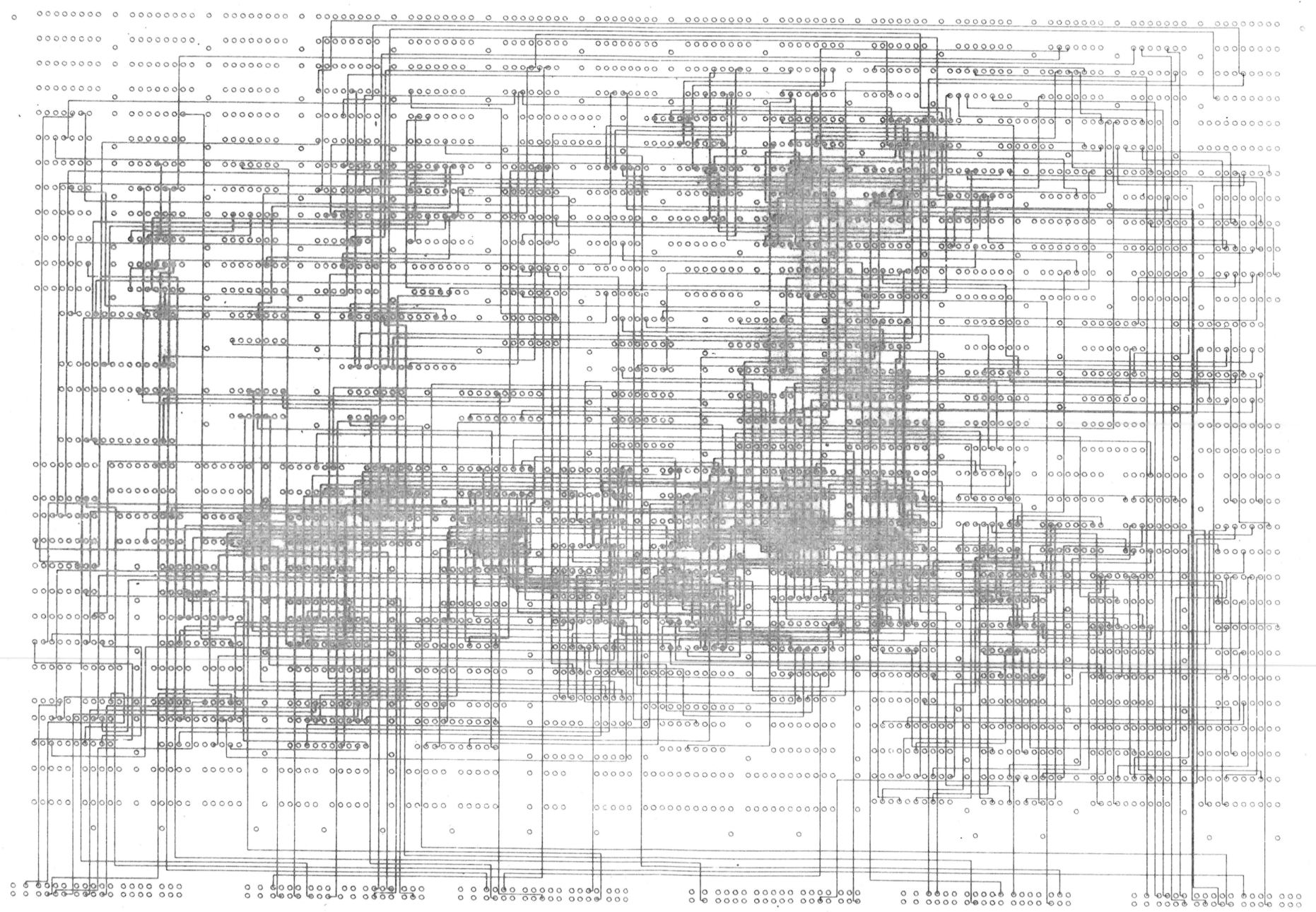




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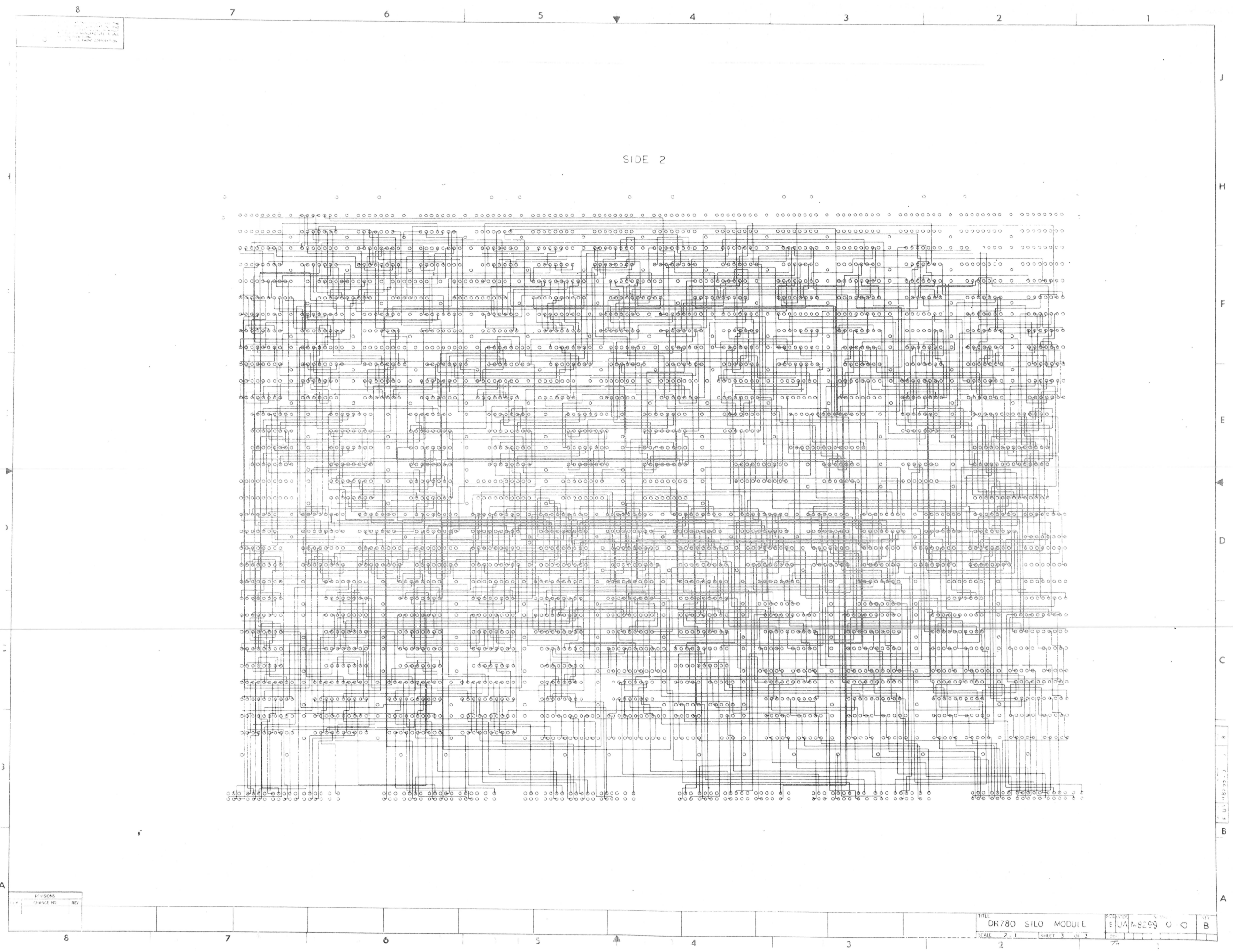
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L-7740-0

SIDE 1



REVISIONS		
CHG	CHANGE NO.	REV.

TITLE DR780 SILO MODULE		SIZE/SCALE EUA	NUMBER M8299-0-0	REV B
SCALE 2-1	SHEET 2	OF 3	INST.	



SIDE 2

BY	DATE	REV

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-M8299-0-0	5013810-00	DR780 SILO MODULE	1
2	2	1012784-00	.047 MFD 50V +80-20% CER	192	C8-C199
3	3	1012084-01	8 MFD 25V +75-10% AL EL	7	C1-C7
4	4	1302957-00	121.0 .25 W 1.0 % RN55D-F10	12	R1-R12
5	5	1311422-00	178.0 .25 W 1.0 % RN55D-F10	12	R13-R24
6	6	1305123-00	215.0 .25 W 1.0 % RN55D-F10	39	R25,R26,R28-R64
7	7	1313581-00	110.0 .25 W 1.0 % RN55D-F10	39	R65,R66,R68-R104
8	8	1301322-00	180.0 .25 W 5.0 % CC	8	R105-R112
9	9	1314386-00	91.0 .25 W 5.0 % CC	4	R113-R116
10	10	1300316-00	470.0 .25 W 5.0 % CC	4	R117-R120
11	11	1300365-00	1.0 K .25 W 5.0 % CC	1	R121
12	12	1301890-00	560.0 .25 W 5.0 % CC	2	R122,R123
13	13	1301972-00	270.0 .25 W 5.0 % CC	2	R124,R125
14	14	1910268-00	DEC 75107B RECEIVER, LINE, DUAL,	2	E66,E65
15	15	1910532-00	74500 NAND GATE-QUAD 2IN	3	E115,E154,E162
16	16	1910534-00	74504 INVERTER GATE-HEX 1I	4	E108,E130,E165,E172
17	17	1910536-00	74510 NAND GATE-TRIPLE 3IN	4	E149,E163,E168,E169
18	18	1910537-00	74511 AND GATE-TRIPLE 3INP	1	E161
19	19	1910542-00	74564 A-O-I GATE 4-2-3-2	3	E134,E150,E151
20	20	1910544-00	74574 FF-D DUAL, EDGE TRIGG	6	E131,E135,E136,E137,E140,E181
21	21	1910545-00	745112 FF-JK DUAL, EDGE TRIG	5	E120,E160,E164,E174,E159
22	22	1910547-00	745153 MUX 1 OF 4 (DUAL)	2	E170,E171
23	23	1910548-00	745157 MUX 1 OF 2 (QUAD)	7	E68,E85,E124,E129,E139,E148,E167
24	24	1910549-00	745158 MUX 1 OF 2 (QUAD)	5	E90,E93,E100,E103,E141
25	25	1910550-00	745174 FF-D HEX	3	E69,E147,E118
26	26	1910552-00	745194 SHIFT REG., 4BIT RIGH	10	E71,E82,E121,E125,E128,E133, E138,E144,E145,E166
27	27	1910957-00	745175 FF-D QUAD COMMON CLO	4	E55,E80,E86,E73
28	28	1911341-00	75113 DRIVER, LINE, DUAL, MA	2	E67,E79
29	29	1911415-00	10125 ECL TO TTL TRANSLTR	3	E16,E17,E27

CONT

REVISION HISTORY		BASIC PART NO: M8299		DRN: G.TYNES		DATE: 05-APR-79		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: K/SARGENT		DATE: 29-OCT-79		TITLE PARTS LIST	
---	INITIAL	A	SECTION VARIATION INDEX	DES.ENG: C.CALAMARI		DATE: 29-OCT-79		DOCUMENT NUMBER	
CC	M8299-TW002	B	[A] 00	RESP.ENG.: T.ERMOLOVICH		DATE: 29-OCT-79		SIZE CODE NUMBER REV	
CC	M8299-TW002	B	[B]	MFG.ENG.: B.CHAPUT		DATE: 29-OCT-79		K PL M8299-0-DBP C	
R.C	M8299-TW003	C	[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-UA-M8299-0-0				Z0663.PLS 16	
			[E]						
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
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			[M]						
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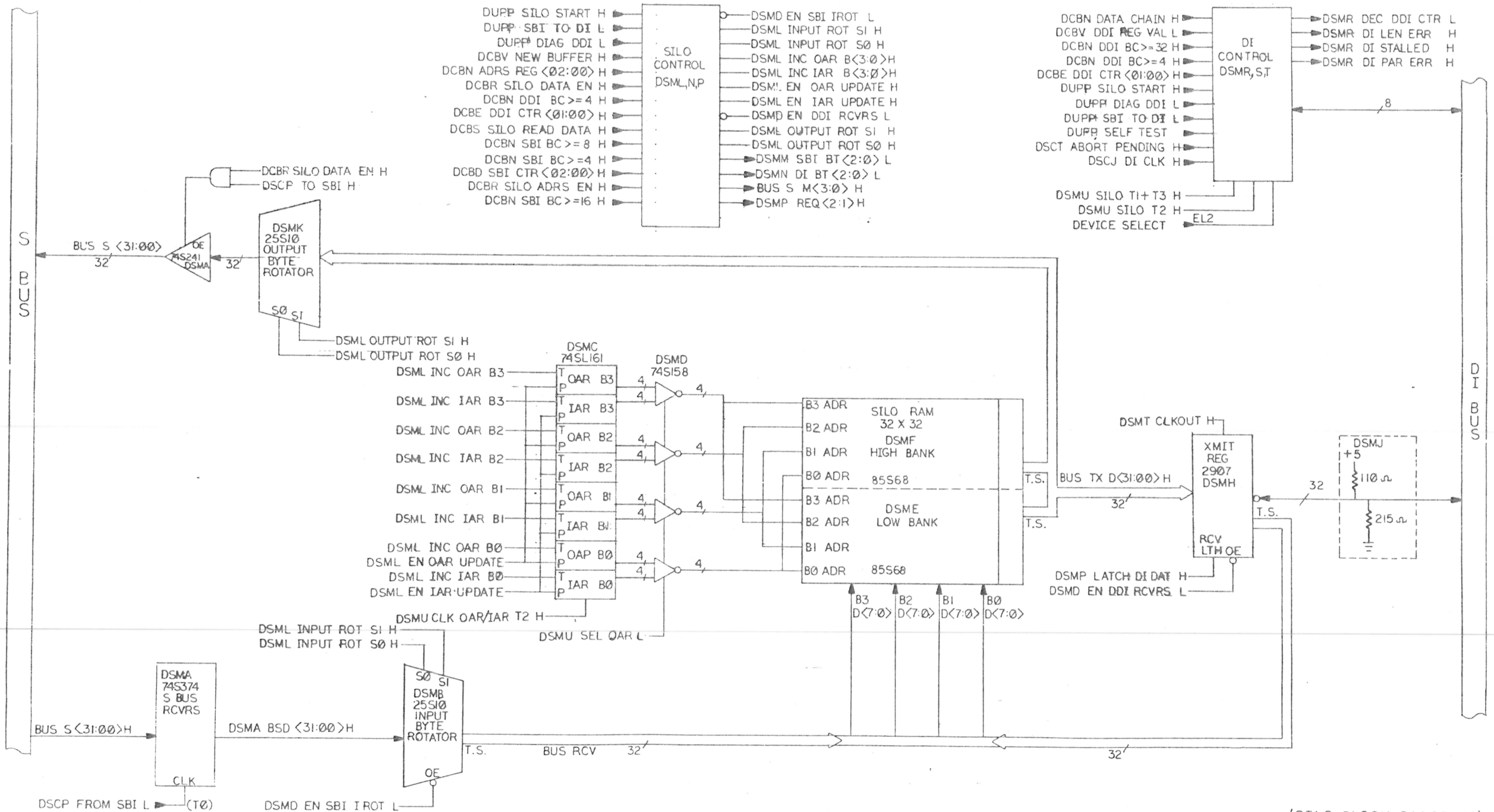
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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30	1911573-00	745280 PARITY GEN/CHKR,9BIT	1	E98
31	31	1912096-00	DEC 74586 XOR GATE,QUAD 2IN	3	E70,E72,E116
32	32	1912388-00	74502 NOR GATE-QUAD 2IN,PO	2	E119,E182
33	33	1912389-00	74508 AND GATE-QUAD 2IN,PO	7	E81,E106,E112,E122,E132,E175, E179
34	34	1912586-00	DM 85568N REGISTER,64BIT EDGE	16	CONT E38-E40,E49-E51,E60-E64,E74-E78
35	35	1912746-00	DEC 74537 NAND GATE-QUAD 2IN	2	E97,E117
36	36	1913340-00	74532 OR GATE-QUAD 2IN	6	E111,E113,E123,E142,E146,E180
37	37	1913493-00	745241 OCTAL BUFFER,TRI-STA	5	E1-E4,E96
38	38	1914414-00	2907 TRANSCEIVER,BUS,QUA	9	E19-E22,E29,E41-E44
39	39	1912849-00	LS161 COUNTER,SYNCHR,4BIT	8	E91,E92,E94,E95,E101,E102,E104, E105
40	40	1911712-00	74551 AND-OR GATE-INVERT D	2	CONT E54,E173
41	41	1912865-00	LS283 ADDER-4BIT BINARY FU	2	E126,E127
42	42	1913671-00	745374 FF-D OCTAL TRISTATE	6	E12-E15,E155,E156
43	43	1912693-00	25510 SHIFTER,4BIT TRI-STA	18	E23-E26,E34-E37,E45-E48,E56-E59, CONT E110,E114
44	44	1913700-00	745381 ALU-4BIT	3	E152,E157,E158
45	45	23925A9-00	A9-01	1	E143
46	46	23000C6-01	*** THIS ITEM IS NOT USED ***	-	
47	47	23054B1-00	B1-01	1	E153
48	48	9000024-01	EYELET, ROLLED FLANGE, .121 OD X	12	
49	49	1210711-02	/REPLACED BY 12-16988-02	1	
50	50	1300005-09	R NETWORK 15-56 5.0 % 16PIN	1	E88
51	51	23059C6-00	C6-01	1	E99
52	52	23060C6-00	C6-01	1	E109
53	53	23045C6-00	C6-01	1	E107
54	54	1215006-07	SOCKET 28PIN IC LOW PROFILE	3	XE99,XE107,XE109

55 NOTE: IC SPARE LOCATIONS ARE: E84,E87,E89,E176-E178,E183-E191.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							DR780 SILO MODULE		K	PL	M8299-0-DBP	C

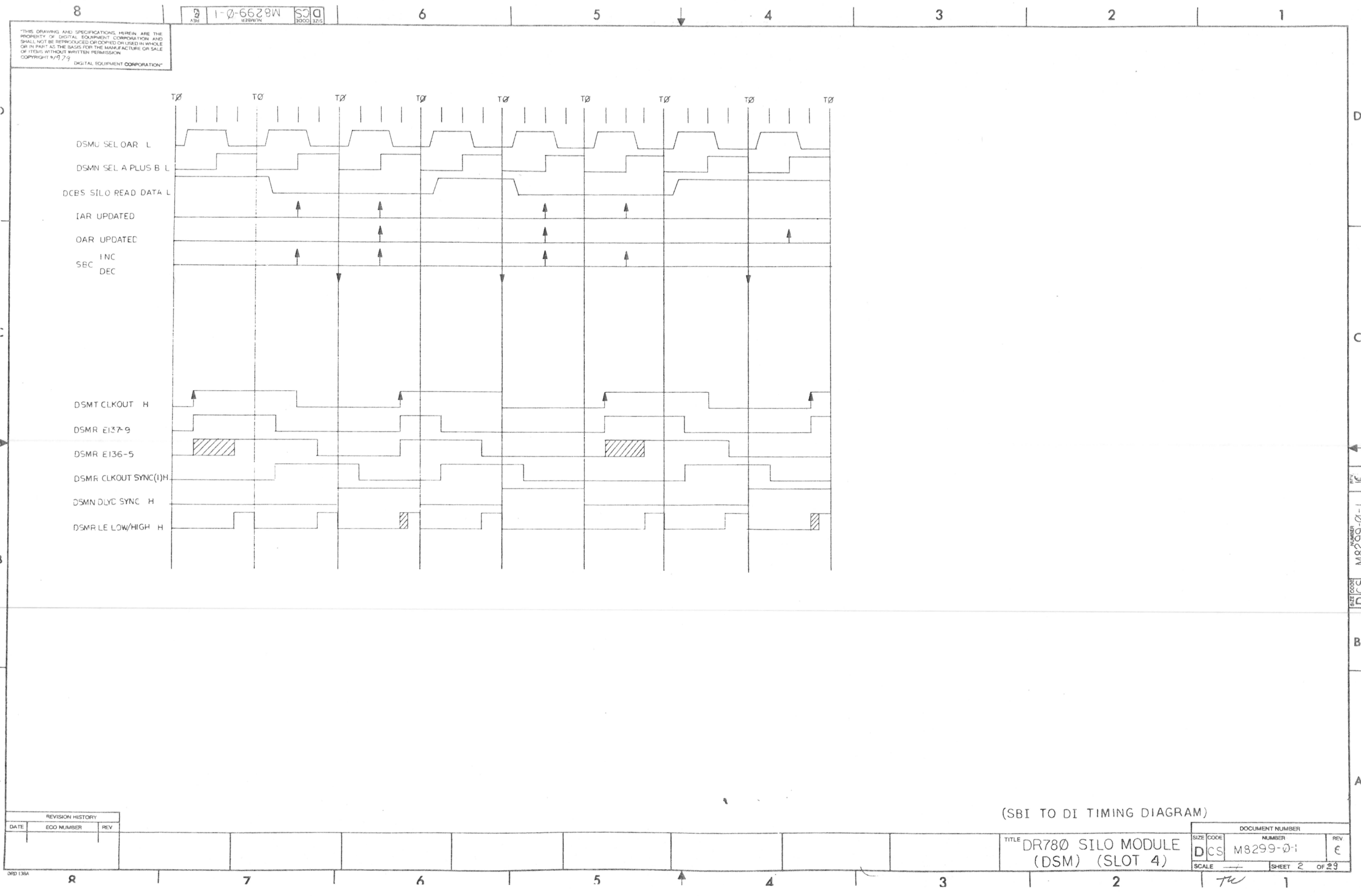
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(SILO BLOCK DIAGRAM)

DRN. <i>A. Murray</i>	7-5-79	FIRST USED ON	11/780	digital
CHK'D <i>C. C. C.</i>	10-5-79	TITLE	DR780 SILO MODULE	
ENG. <i>C. C. C.</i>	10-5-79	PROD. <i>10-5-79</i>	(DSM) (SLOT 4)	
PROJ. ENG. <i>10-5-79</i>		NEXT HIGHER ASSY.		
E-UA-M8299-0-0		SIZE CODE	D CS	NUMBER
SCALE				
SHEET 1	OF 29	DIST.		REV.

REV.	CHANGE NO.	DATE	BY	CHK'D
1	1	10-5-79	K. SARGENT	
2	2	10-5-79	K. SARGENT	
3	3	10-5-79	K. SARGENT	
4	4	10-5-79	K. SARGENT	
5	5	10-5-79	K. SARGENT	
6	6	10-5-79	K. SARGENT	
7	7	10-5-79	K. SARGENT	
8	8	10-5-79	K. SARGENT	



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1-0-6628W530

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DSMU SEL OAR L

DSMN SEL A PLUS E L

DSMR LE LOW/HIGH H

DCBR SILO DATA EN H

IAR UPDATE

OAR UPDATE

SBC INC
DEC

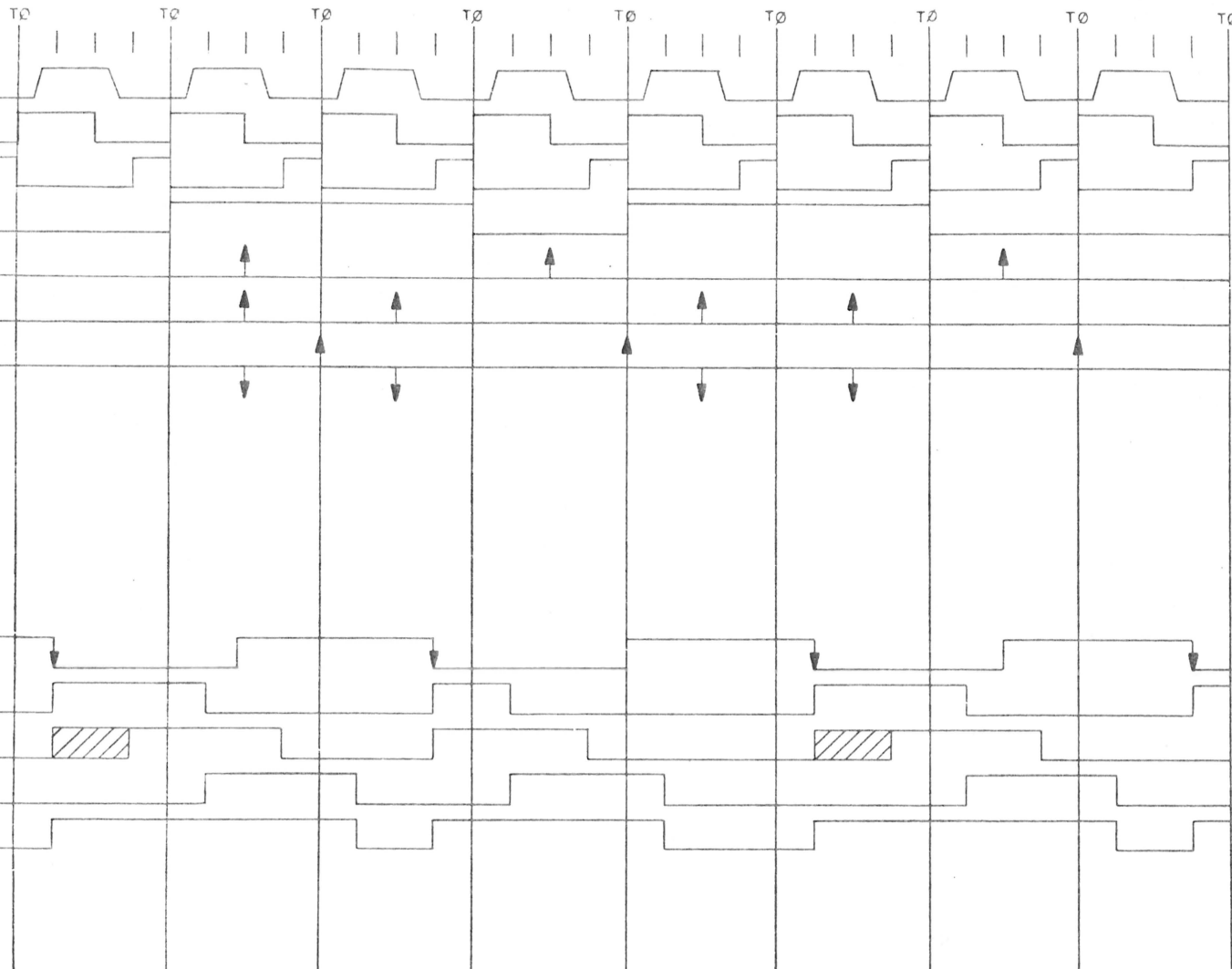
DSMT CLKIN H

DSMR EI37-5

DSMR EI35-5

DSMR CLKIN SYNC (I; H

DSMR LATCH DI DAT H



D

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DCS M8299-0-1

REVISION HISTORY

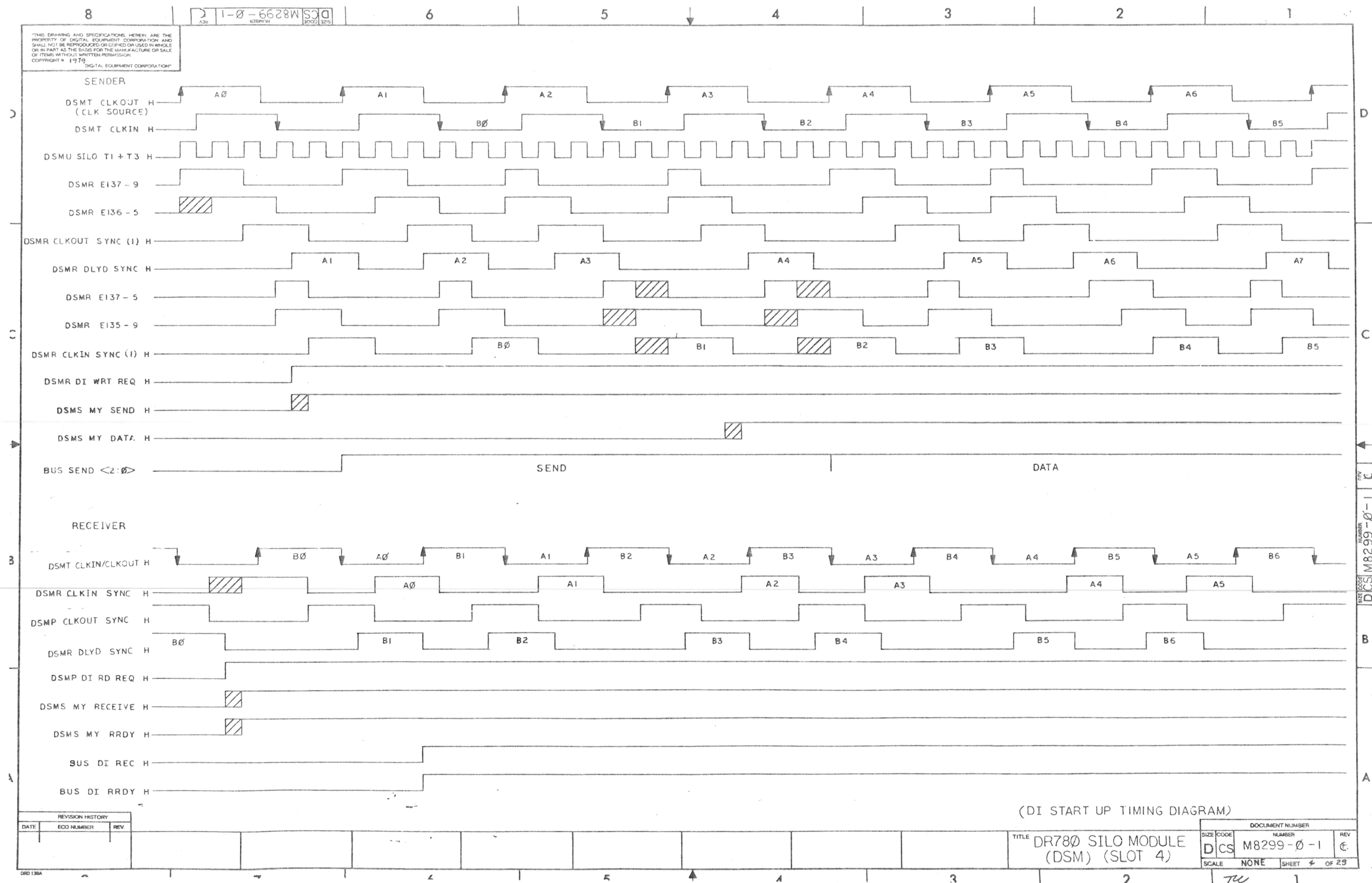
DATE	ECO NUMBER	REV

(DI TO SBI TIMING DIAGRAM)

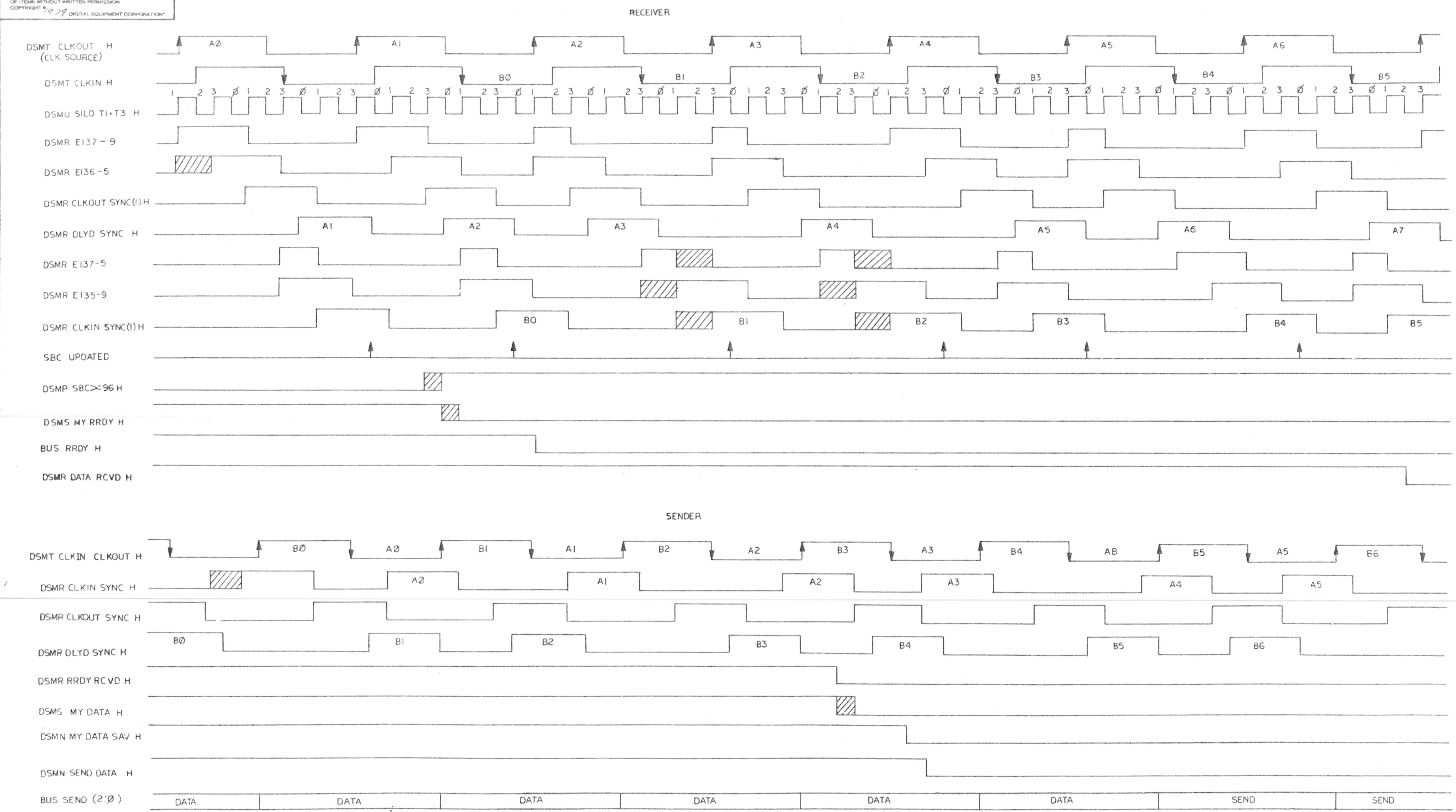
TITLE DR780 SILO MODULE
(DSM) (SLOT 4)

SIZE	CODE	NUMBER	REV
DCS	M8299-0-1	C	
SCALE	NONE	SHEET 3	OF 29

TW 1



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(DI STALL HANDSHAKE TIMING DIAGRAM)

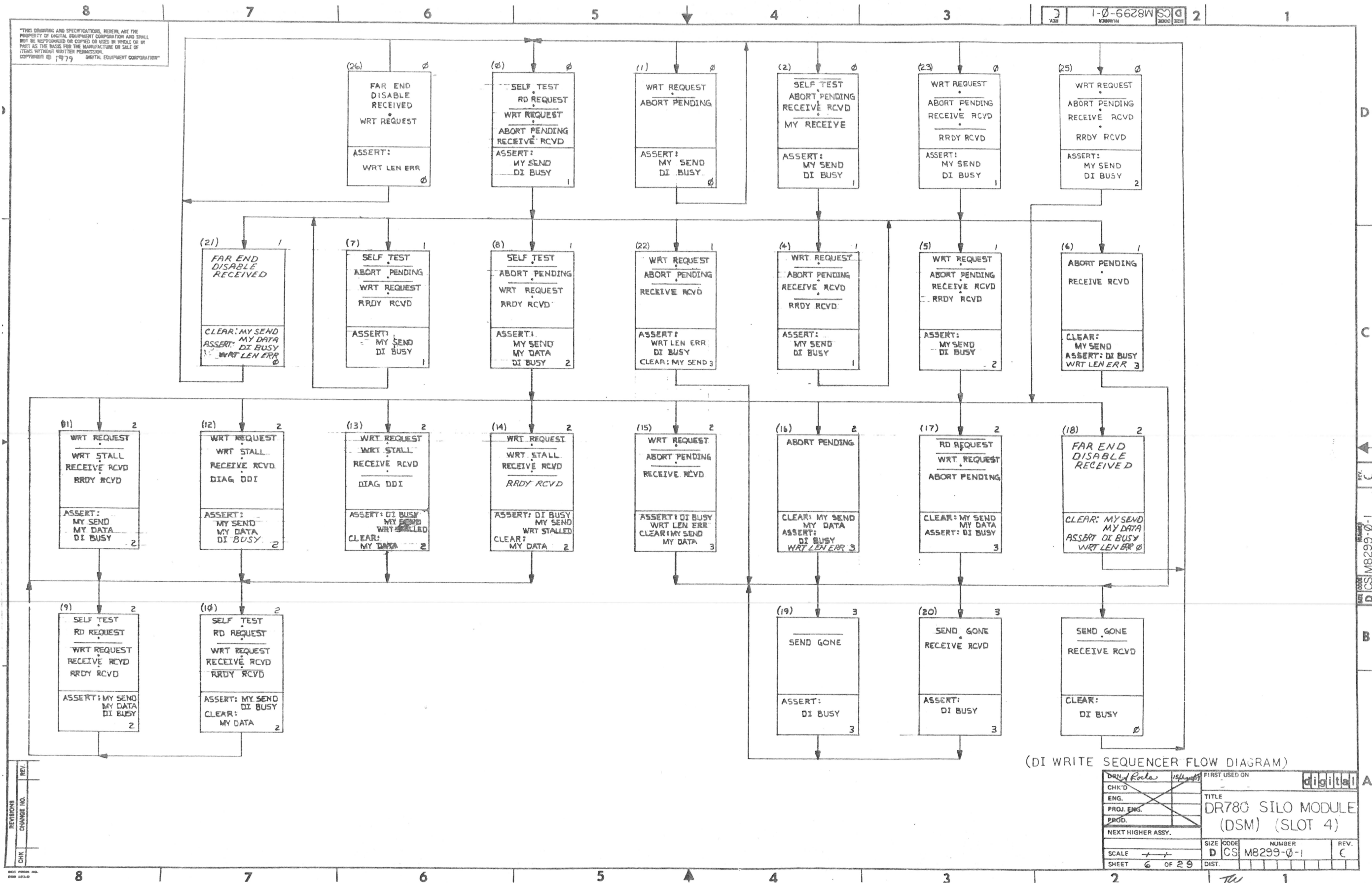
REVISION HISTORY		
DATE	ECO NUMBER	REV.

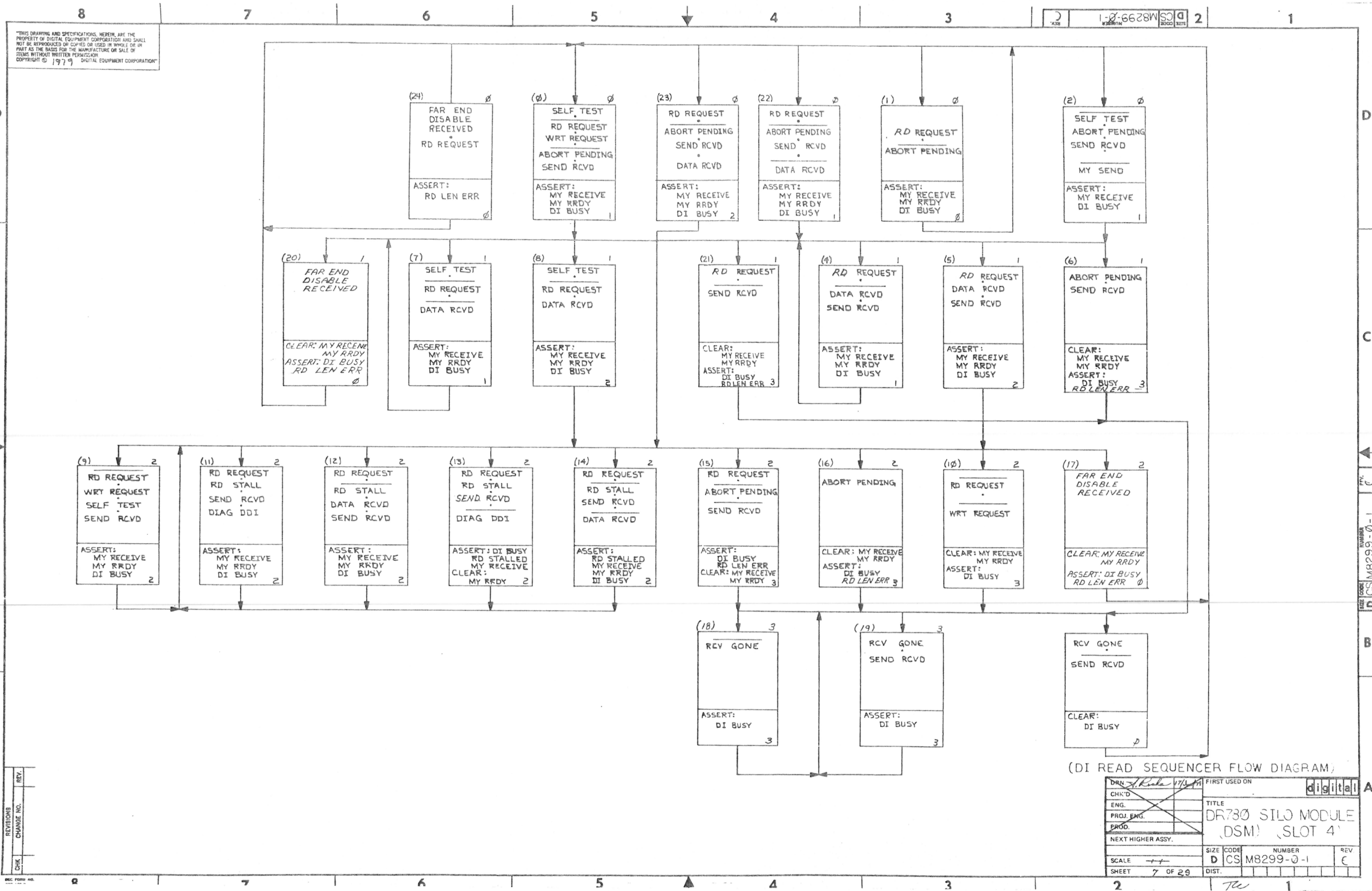
TITLE		DOCUMENT NUMBER	
DR780 SILO MODULE (DSM) (SLOT 4)		SIZE CODE	NUMBER
		DCS	M8299-0-1
		SCALE NONE	SHEET 5 OF 29

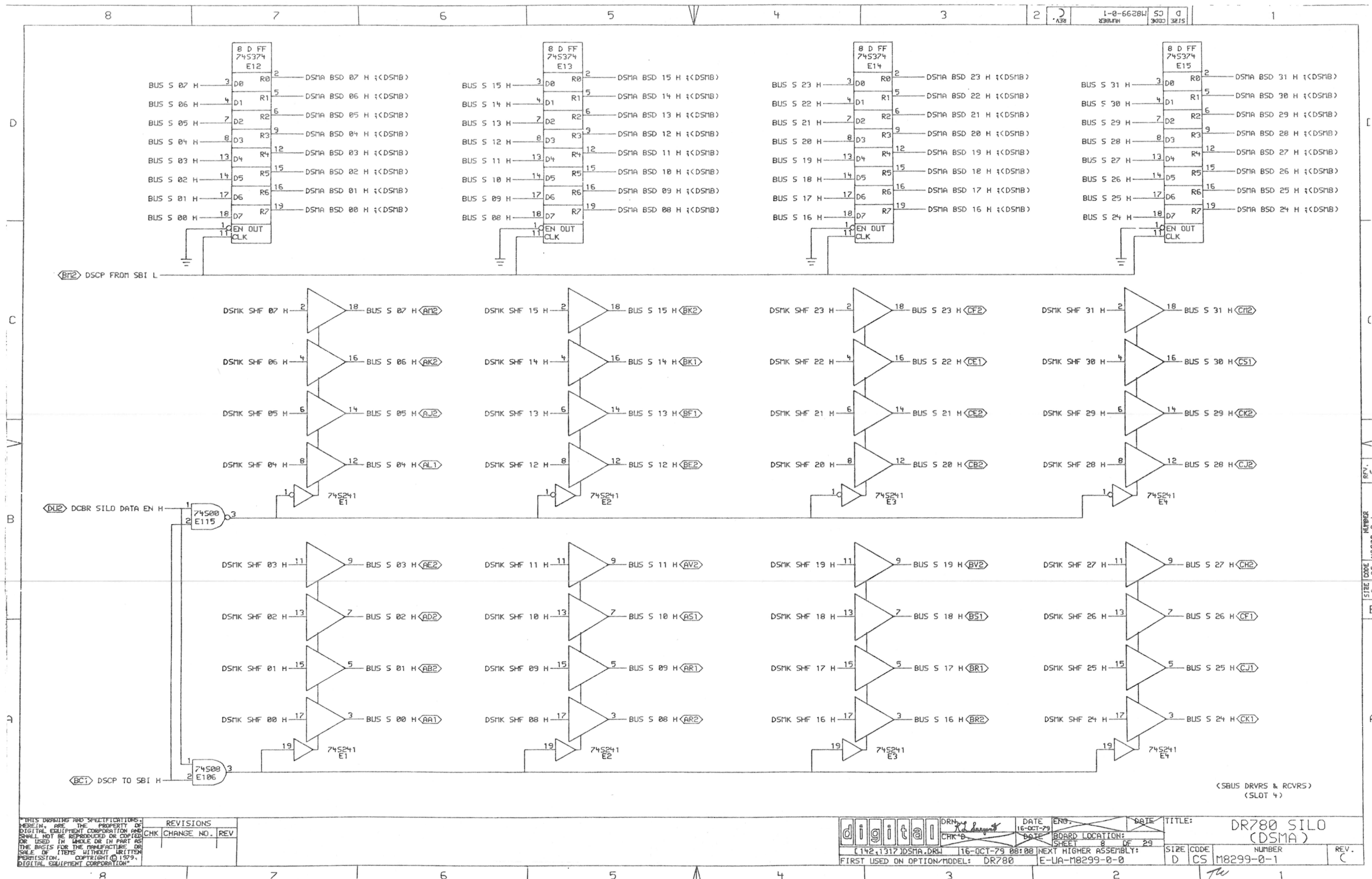
REV. C
NUMBER M8299-0-1
SIZE CODE DCS

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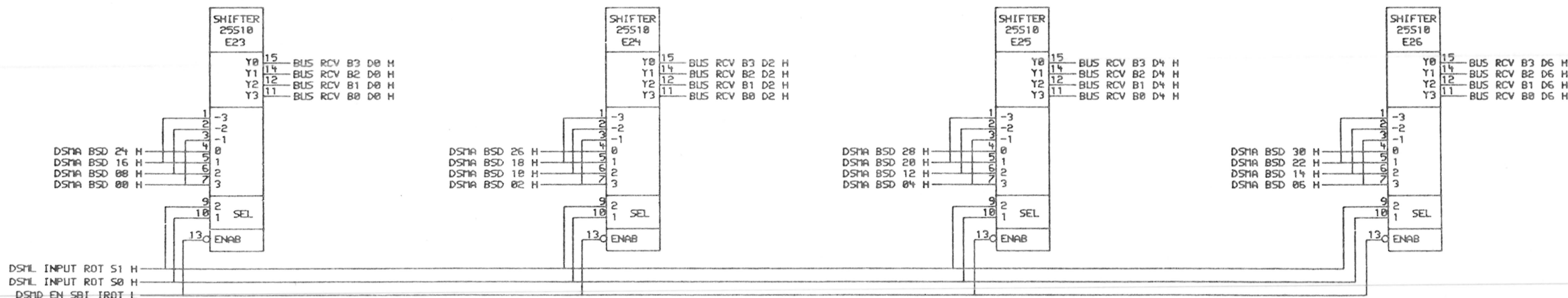
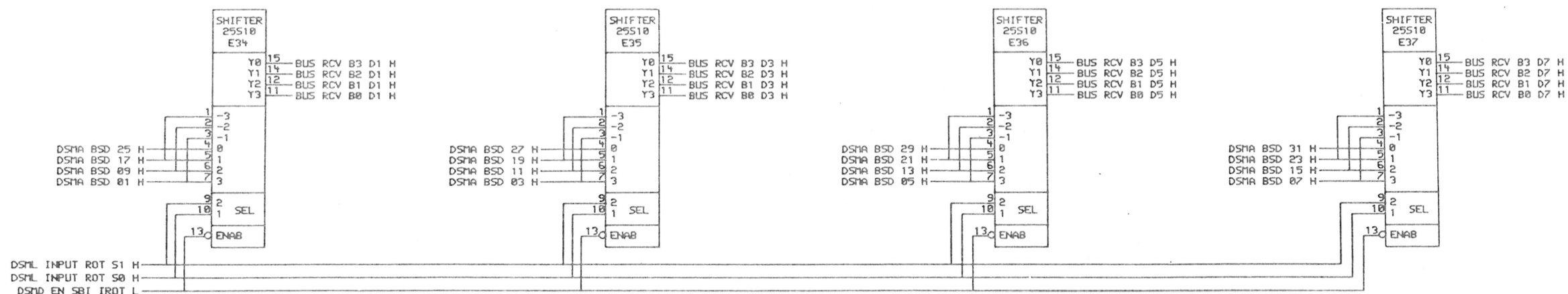
1-8-66284

CS

D

REV

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INPUT BYTE ROTATOR

S1	S0	BYTE ROTATION
0	0	3 2 1 0
0	1	0 3 2 1
1	0	1 0 3 2
1	1	2 1 0 3

(INPUT BYTE ROTATORS)
(SLOT #4)

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REVISIONS
CHK CHANGE NO. REV

digital
[142,1317]DSMB.DRW
FIRST USED ON OPTION/MODEL: DR780

DATE 16-OCT-79
DATE 16-OCT-79 08:10
NEXT HIGHER ASSEMBLY: E-UA-M8299-0-0

ENG. [Signature]
DATE 16-OCT-79
BOARD LOCATION: SHEET 9 OF 29

TITLE: DR780 SILO (DSMB)

SIZE CODE NUMBER REV.
D CS M8299-0-1 C

TW

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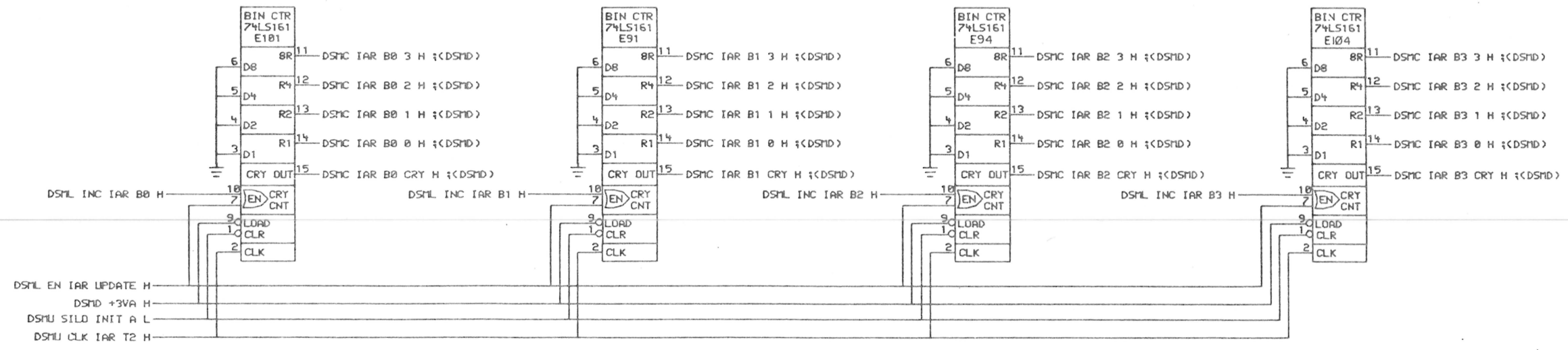
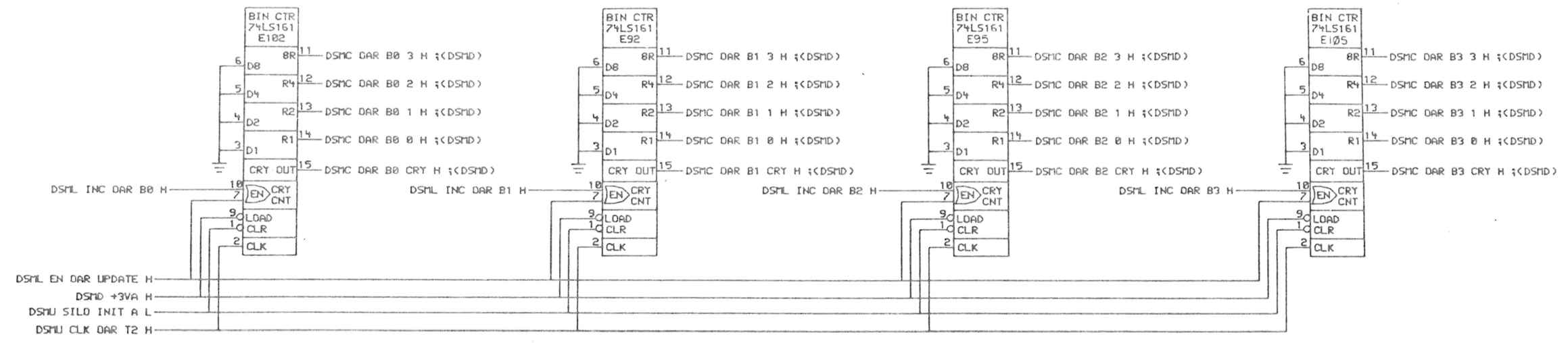
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(IAR & DAR ADR COUNTERS)
(SLOT #4)

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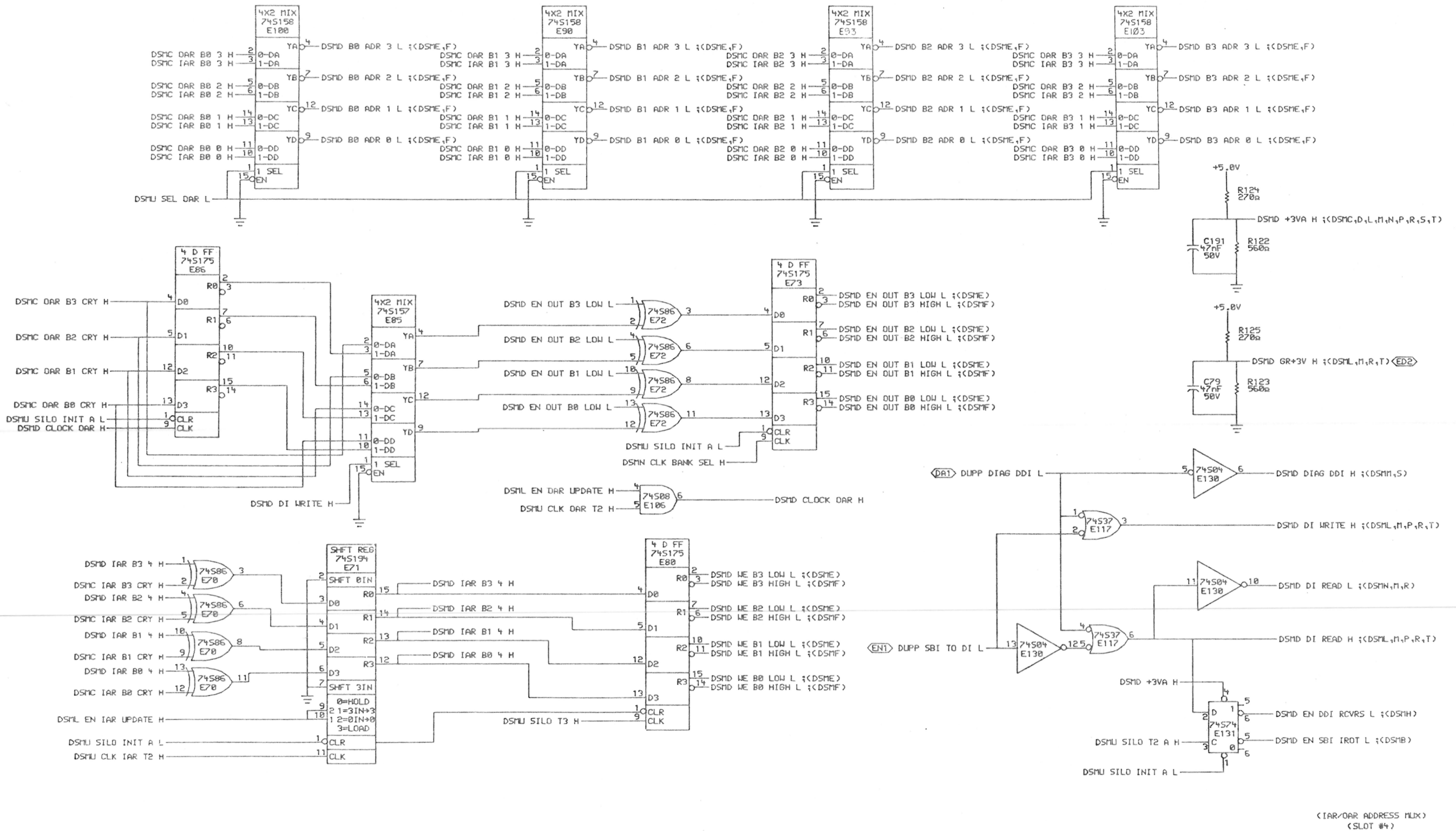
2

1-0-66284

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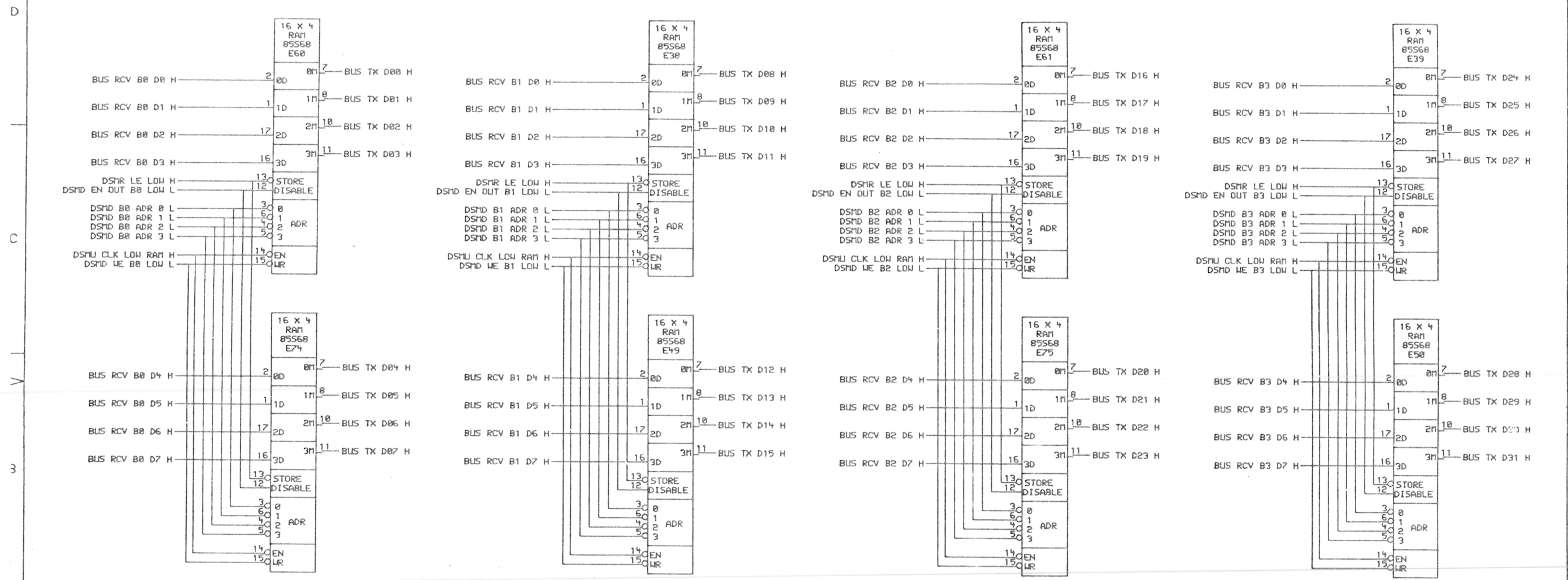
REV. NUMBER
CS M8299-0-1

A

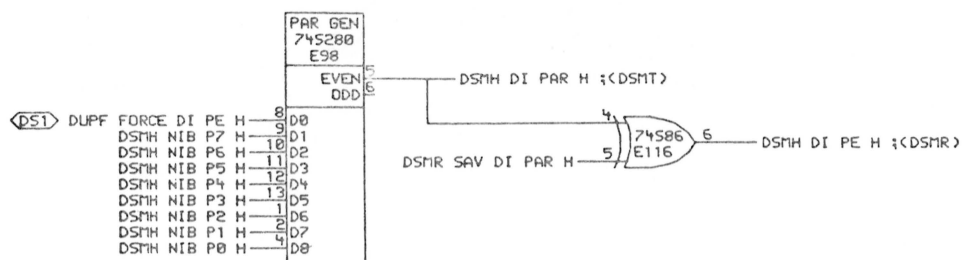
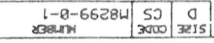
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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN	DATE	ENG.	DATE	TITLE
		17-OCT-79			DR780 SILO (DSMD)
[142,1317]DSMD.DRW		17-OCT-79 13:53		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: DR780		E-UA-M8299-0-0			
SIZE	CODE	NUMBER	REV.		
D	CS	M8299-0-1	C		

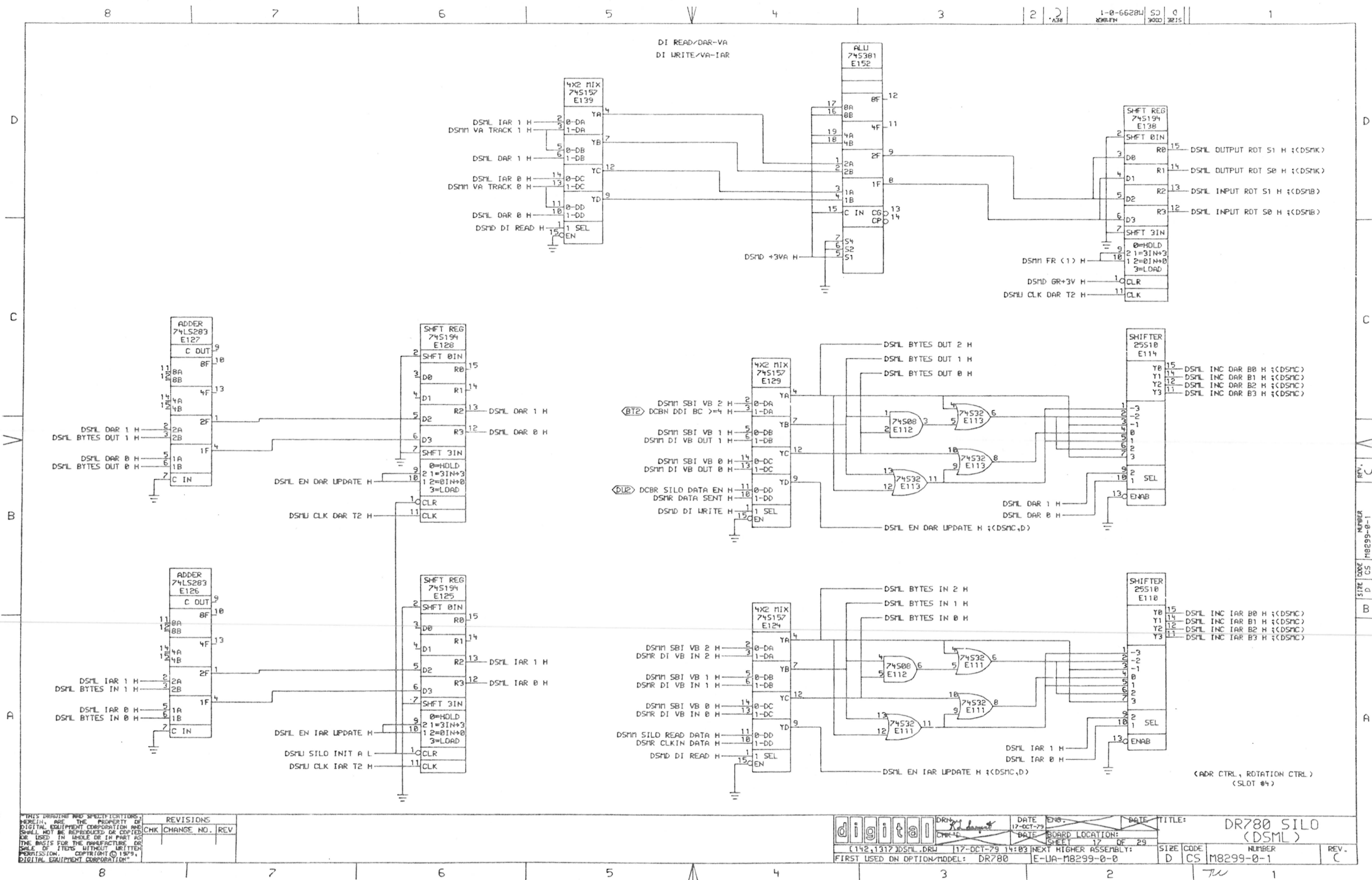


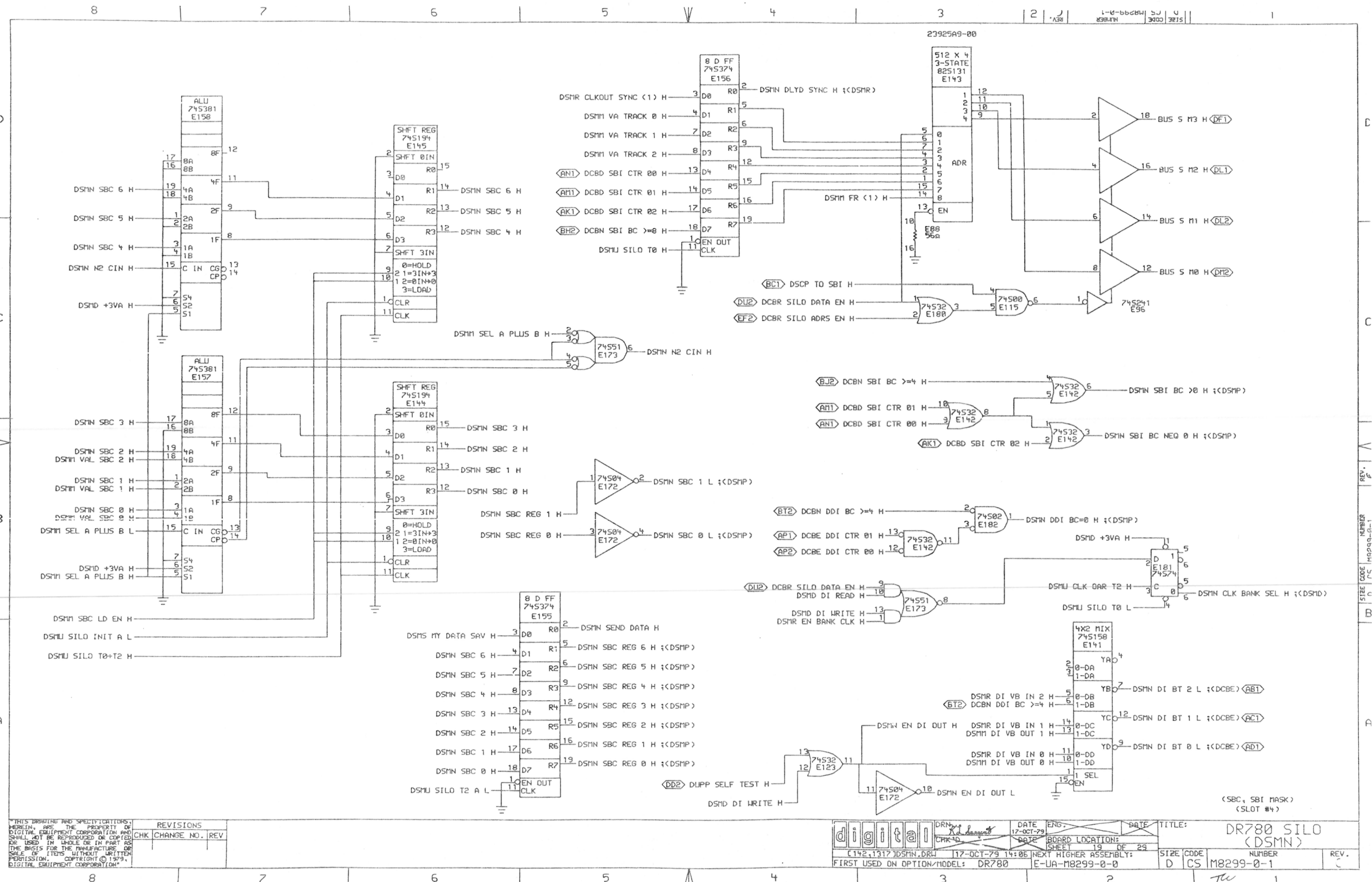
(SILO RAM - LOW BANK)
(SLOT #4)

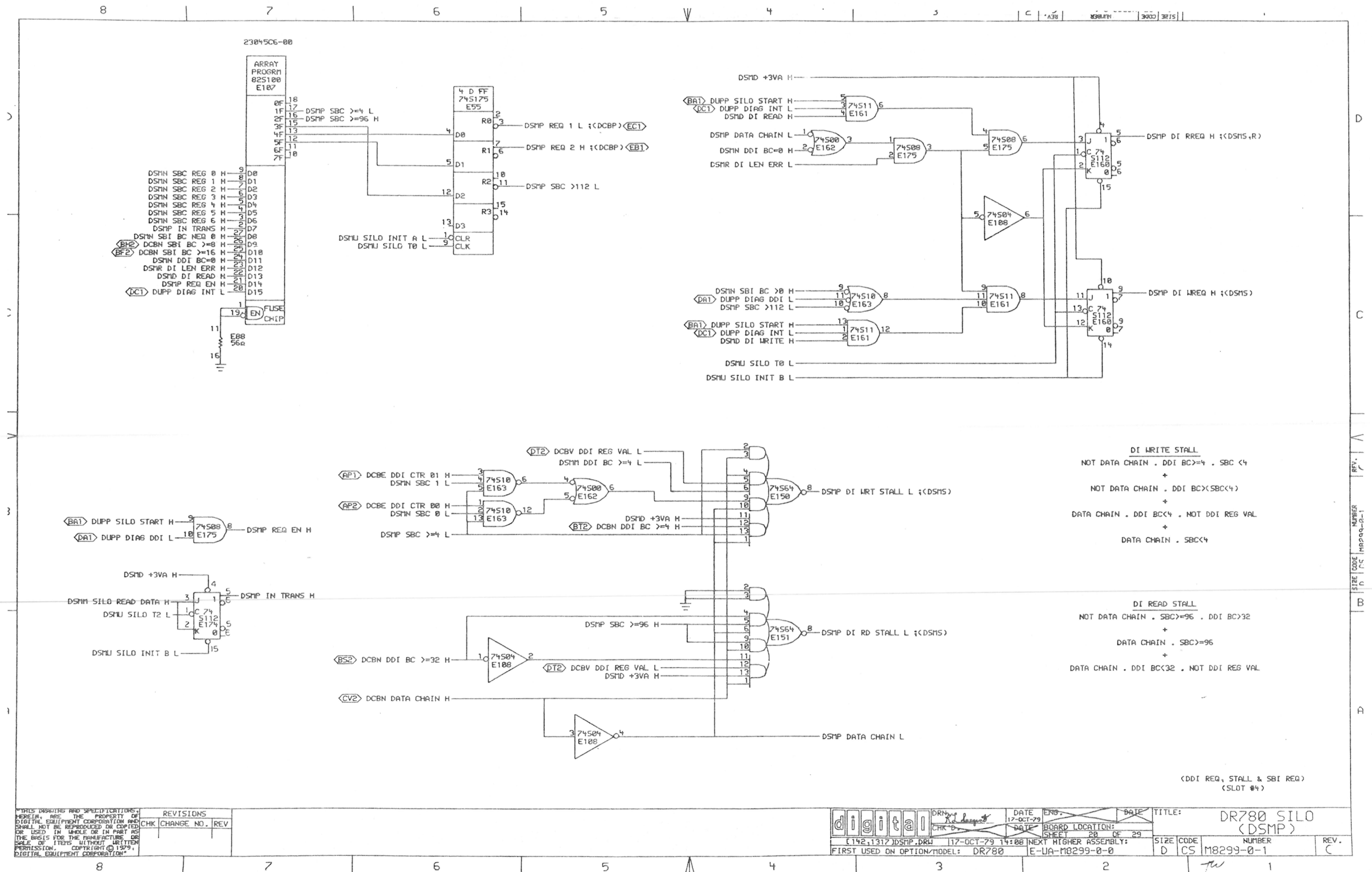


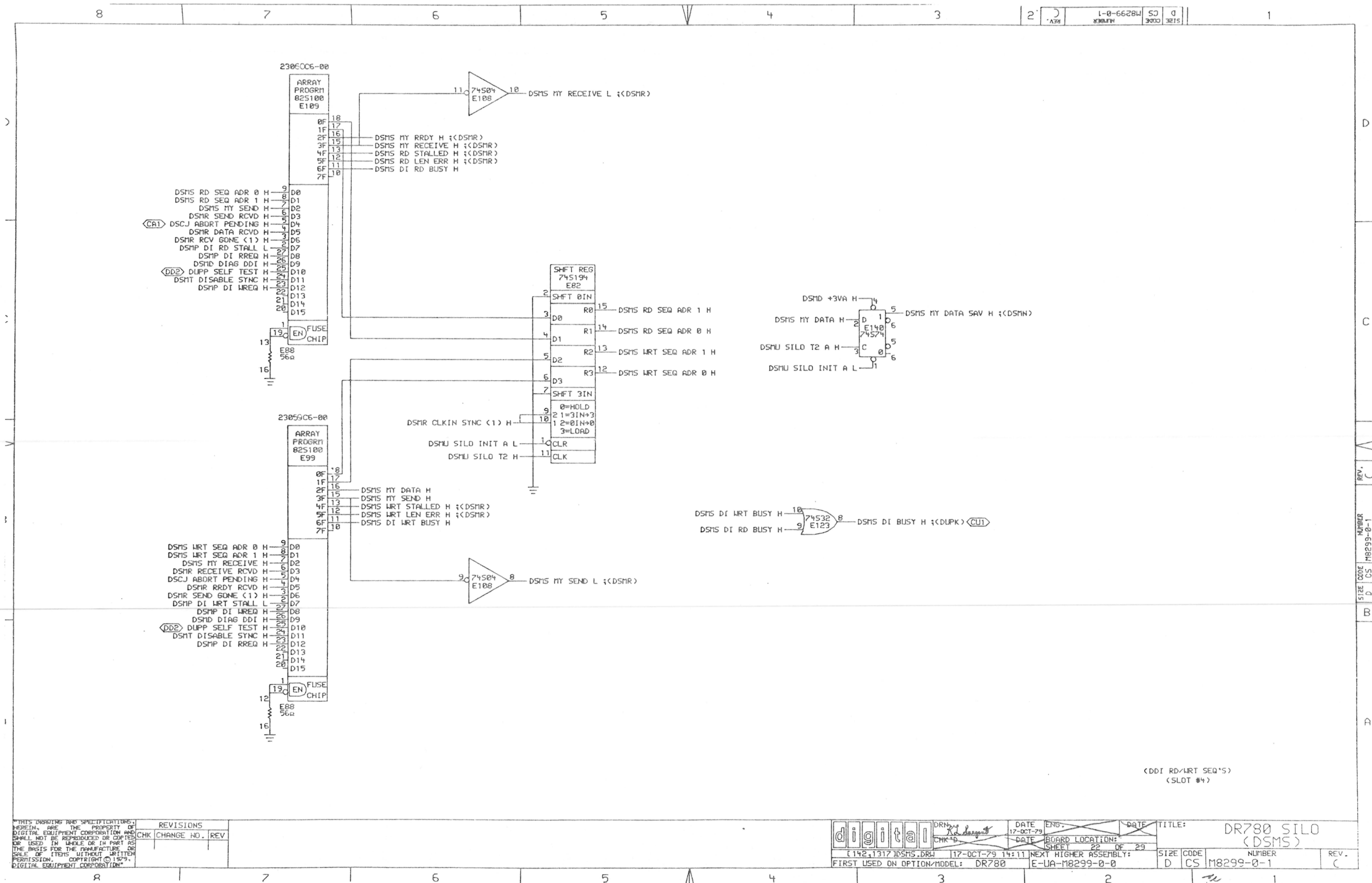
REVISIONS		
CHK	CHANGE NO.	REV

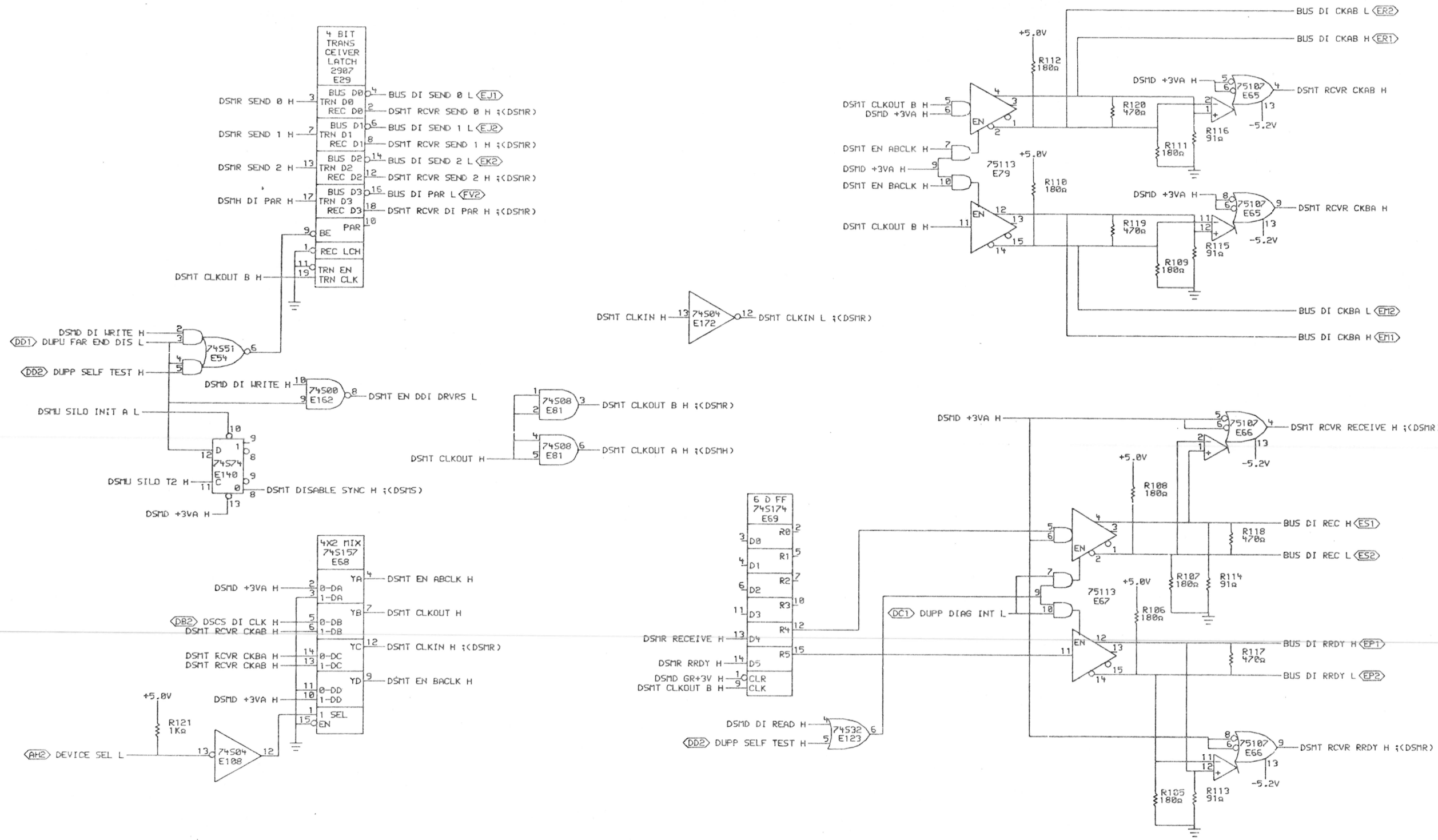
TITLE:		DR780 SILO (DSMH)	
SIZE	CODE	NUMBER	REV.
D	CS	M8299-0-1	C











(DDI CTRL TRANCEIVERS)
(SLOT #4)

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DR780 SILO (DSMT)	DATE: 17-OCT-79	ENG: [Signature]	DATE: [Signature]	TITLE: DR780 SILO (DSMT)
	117-OCT-79 14:13	DATE: 17-OCT-79	ENG: [Signature]	DATE: [Signature]	TITLE: DR780 SILO (DSMT)
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: E-UA-M8299-0-0		SIZE CODE: D CS	NUMBER: M8299-0-1
				REV: C	

8

7

6

5

4

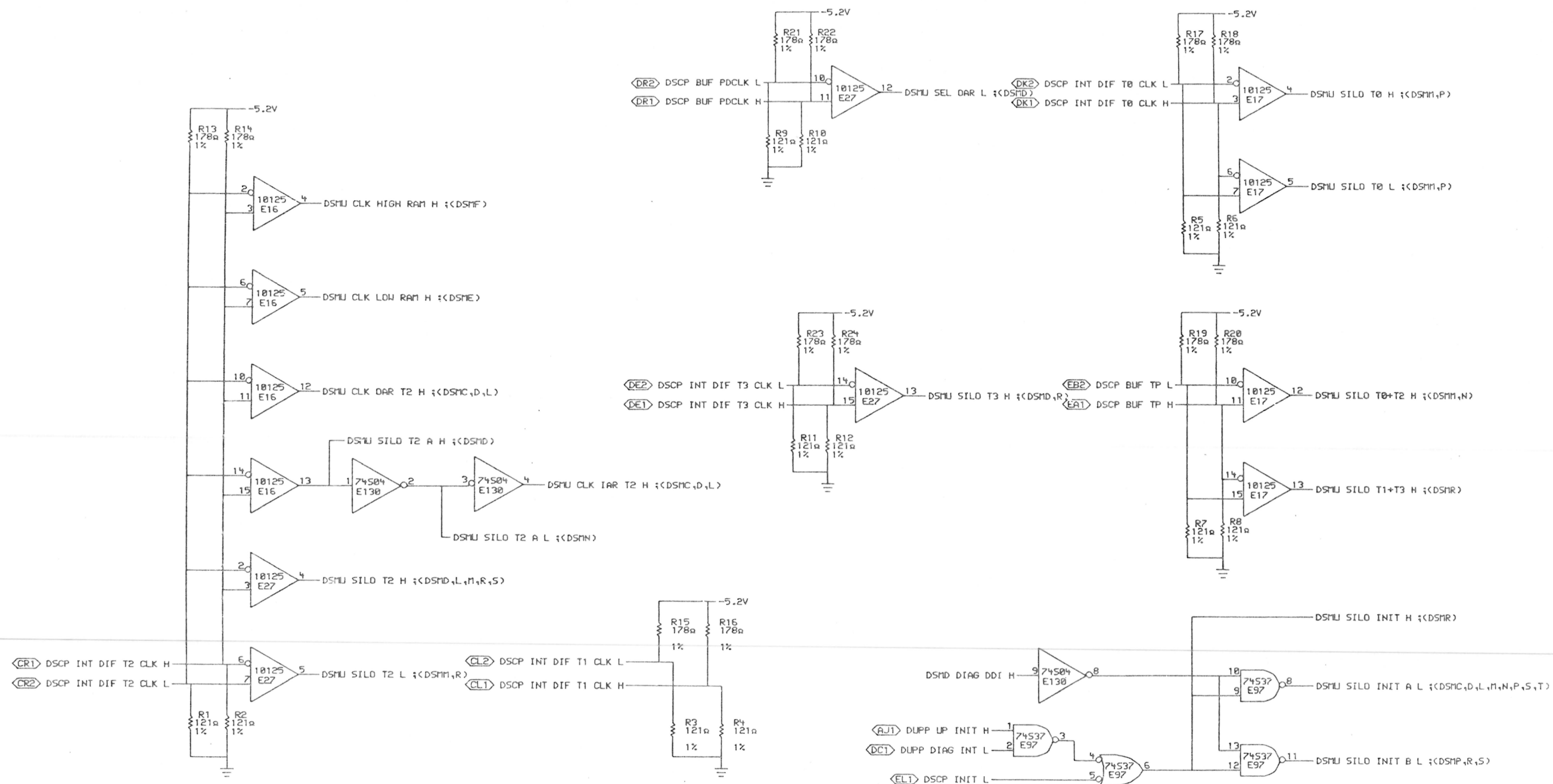
3

2

1

1-0-66284

1



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: 17-OCT-79

DATE: 17-OCT-79

ENG: 17-OCT-79

DATE: 17-OCT-79

DATE: 17-OCT-79

DATE: 17-OCT-79

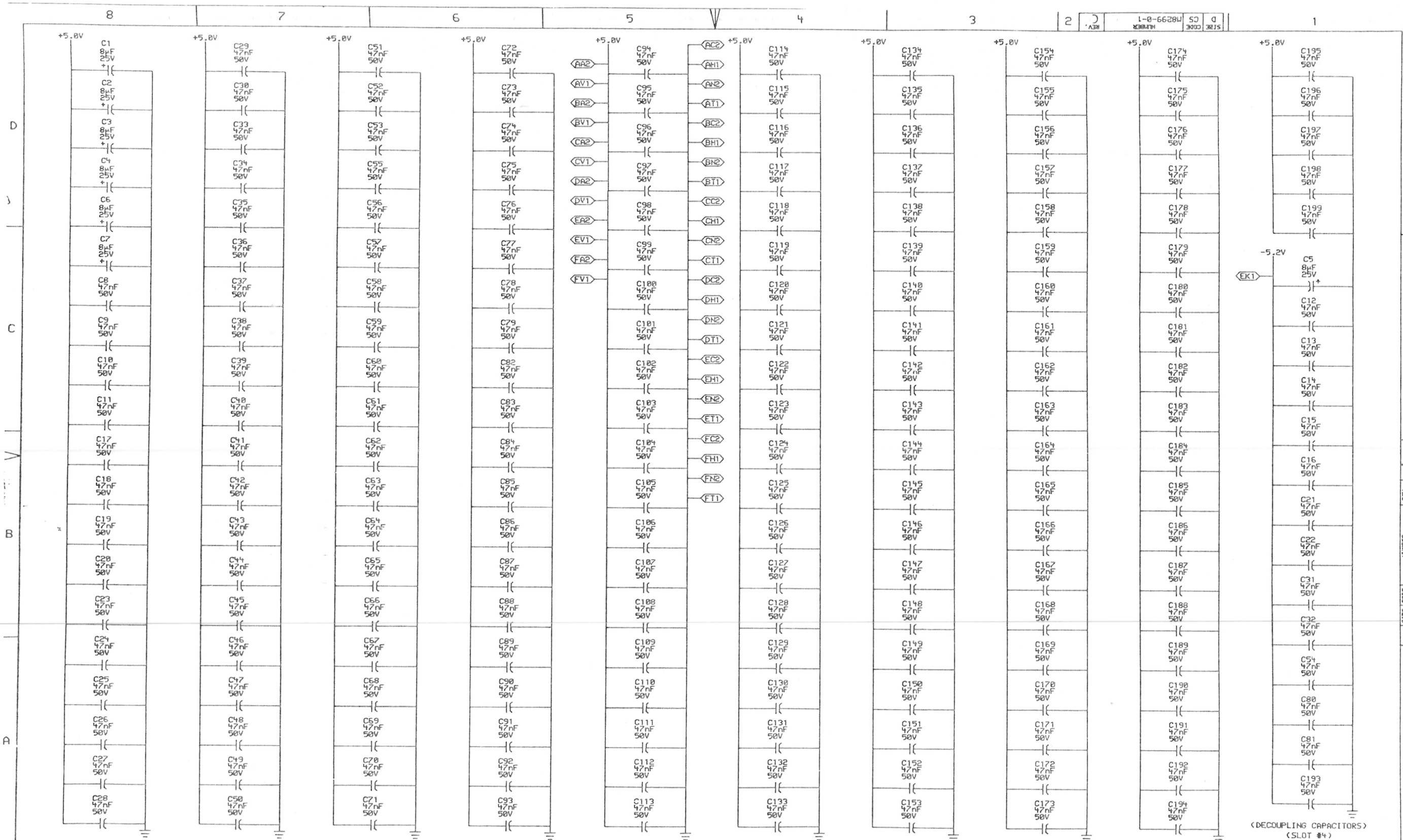
FIRST USED ON OPTION/MODEL: DR780

17-OCT-79 14:15 NEXT HIGHER ASSEMBLY:

SIZE CODE D CS M8299-0-1

NUMBER 1

REV. C



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN: <i>Ad. Sanyo</i>	DATE: 17-OCT-79	ENG: <i>Ad. Sanyo</i>	DATE: <i>Ad. Sanyo</i>	TITLE: DR780 SILO (DSMV)
	CHK: <i>Ad. Sanyo</i>	DATE: 17-OCT-79	BOARD LOCATION: SHEET 25 OF 25	SIZE: D	CODE: CS
FIRST USED ON OPTION MODEL: DR780			NEXT HIGHER ASSEMBLY: E-UA-M8299-0-0		NUMBER: M8299-0-1
					REV: C

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	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ACTIVE LEVEL:

H H H H H H H H

DSMS DI WRITE SEQ-ESS
23-05906-00

* A=TERM PRESENT IN OUTPUT, OUTPUT=OUTPUT LEVEL.

DSMS DI READ SEQ-EI09
23-06006-00

(DI RD & WRT PLA TRUTH TABLES)

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	DR780 SILO MODULE (DSM) SLOT 4	SIZE CODE	NUMBER	REV.
SCALE	+	SHEET	27 OF 29	DIST.

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INPUT								
8	7	6	5	4	3	2	1	0
FR	SBI BC ≥ 8	SBI CTR 2	SBI CTR 1	SBI CTR 0	VA 2	VA 1	VA 0	SILO DATA EN

OUTPUT			
3	2	1	0
MASK B3	MASK B2	MASK B1	MASK B0

SBI BYTE COUNT	VA=0		VA=1		VA=2		VA=3		VA=4		VA=5		VA=6		VA=7	
	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW	LW
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	2	0	4	0	8	0	0	1	0	2	0	4	0	8
2	3	0	6	0	C	0	8	1	0	3	0	6	0	C	0	8
3	7	0	E	0	C	1	8	3	0	7	0	E	0	C	0	8
4	F	0	E	1	C	3	8	7	0	F	0	E	0	C	0	8
5	F	1	E	3	C	7	8	F	0	F	0	E	0	C	0	8
6	F	3	E	7	C	F	8	F	0	F	0	E	0	C	0	8
7	F	7	E	F	C	F	8	F	0	F	0	E	0	C	0	8
> 8	F	F	E	F	C	F	8	F	0	F	0	E	0	C	0	8

[illegible]

(23-925A9-ØØ)

(SBI MASK ROM TRUTH TABLE)

DSN - <i>E. Sullivan</i> 9 AUG 79		FIRST USED ON		<div style="border: 1px solid black; padding: 5px; display: inline-block;">digital</div>	
CHK'D		TITLE DR780 SILO MODULE (DSM) (SLOT 4)			
ENG.					
PROJ. ENG.					
PROD.					
NEXT HIGHER ASSY.		SIZE	CODE	NUMBER	REV.
SCALE NONE		D	CS	M3299-J-1	C
SHEET 28 OF 29		DIST.			

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2 1-0-6628W 33 2

INPUT

7	6	5	4	3	2	1	0
2ND LW	FR	SBI BC 7-4	SBI CTR 01	SBI CTR 00	VA 02	VA 01	VA 00

OUTPUT

7	6	5	4	3	2	1	0
0	DELTA VA 2	DELTA VA 1	DELTA VA 0	0	SBI VB 2	SBI VB 1	SBI VB 0

FIRST REFERENCE FIRST LONG WORD

SBI BYTE COUNT	VA=0		VA=1		VA=2		VA=3		VA=4		VA=5		VA=6		VA=7	
	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB	DELTA	SBI VB
0	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
1	1	1	2	1	3	1	4	1	4	0	5	0	6	0	7	0
2	2	2	3	2	4	2	4	1	4	0	5	0	6	0	7	0
3	3	3	4	3	4	2	4	1	4	0	5	0	6	0	7	0
>=4	4	4	4	3	4	2	4	1	4	0	5	0	6	0	7	0

FIRST REFERENCE SECOND LONG WORD

0	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
1	0	0	1	0	2	0	3	0	5	1	6	1	7	1	0	1
2	0	0	1	0	2	0	3	0	6	2	7	2	0	2	0	1
3	0	0	1	0	2	0	3	0	7	3	0	3	0	2	0	1
>=4	0	0	1	0	2	0	3	0	0	4	0	3	0	2	0	1

NOT FIRST REFERENCE

0	0	0	1	0	2	0	2	0	4	0	5	0	6	0	7	3
1	1	1	0	0	0	0	0	0	5	1	0	0	0	0	0	0
2	2	2	0	0	0	0	0	0	6	2	0	0	0	0	0	0
3	3	3	0	0	0	0	0	0	7	3	0	0	0	0	0	0
>=4	4	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0

(23-054B1-00)

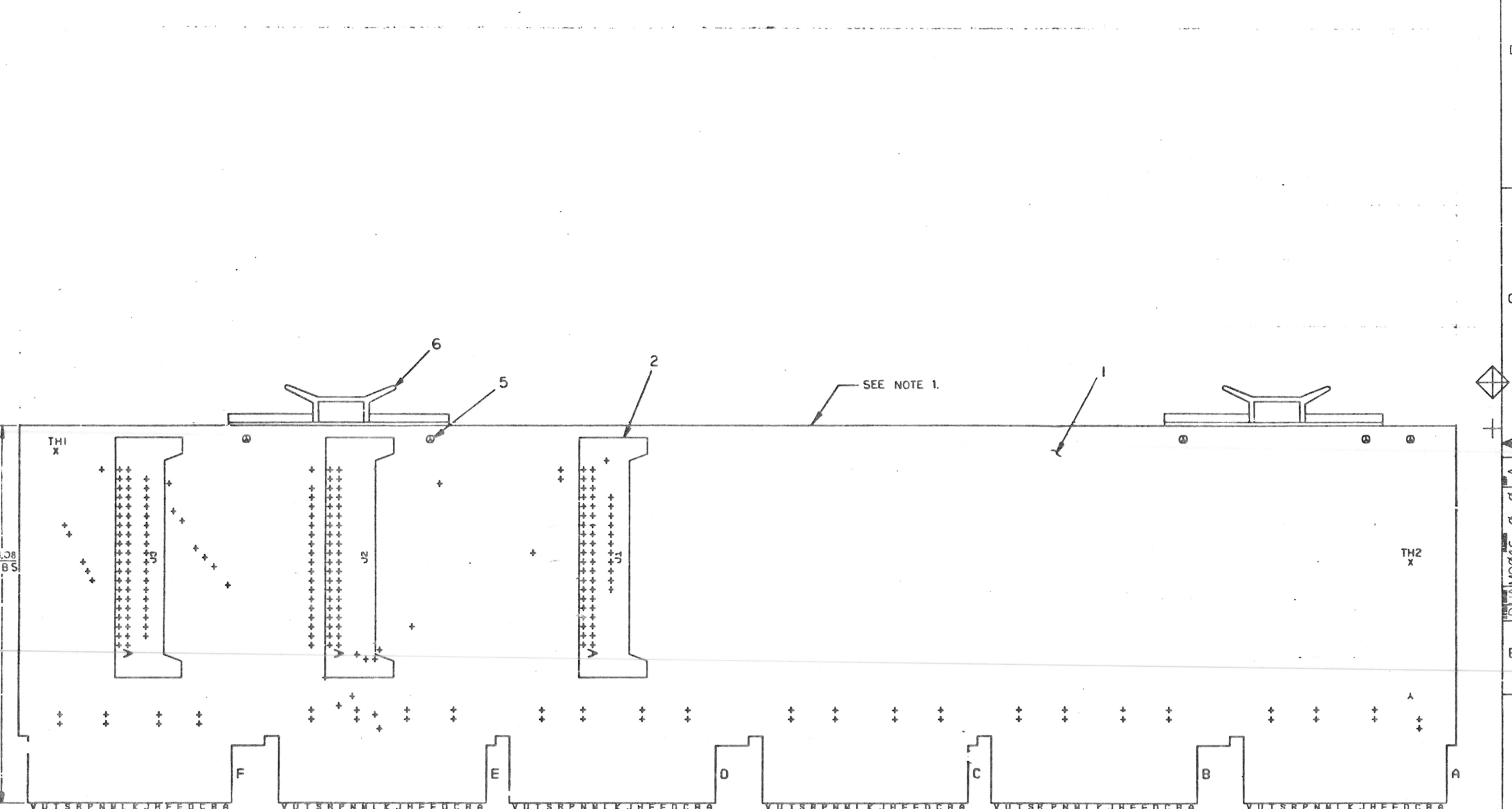
(SBI VB ROM TRUTH TABLE)

DRN J. Buelin 7/79	FIRST USED ON	digital
CHK'D	TITLE	CR730 SILO MODULE
ENG.	PROJ. ENG.	DSM SLOT 4
PROD.	NEXT HIGHER ASSY.	
SCALE	SIZE CODE	NUMBER
SHEET 29 OF 29	DOS	M8299-0-1
	DIST.	REV. C

8 7 6 5 4 3 2 1

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COMPONENT SIDE VIEW



NOTES: 1. THIS BOARD INCORPORATES LAYERS 2&3 AS GND AND CONTAINS NO VOLTAGE LAYER.

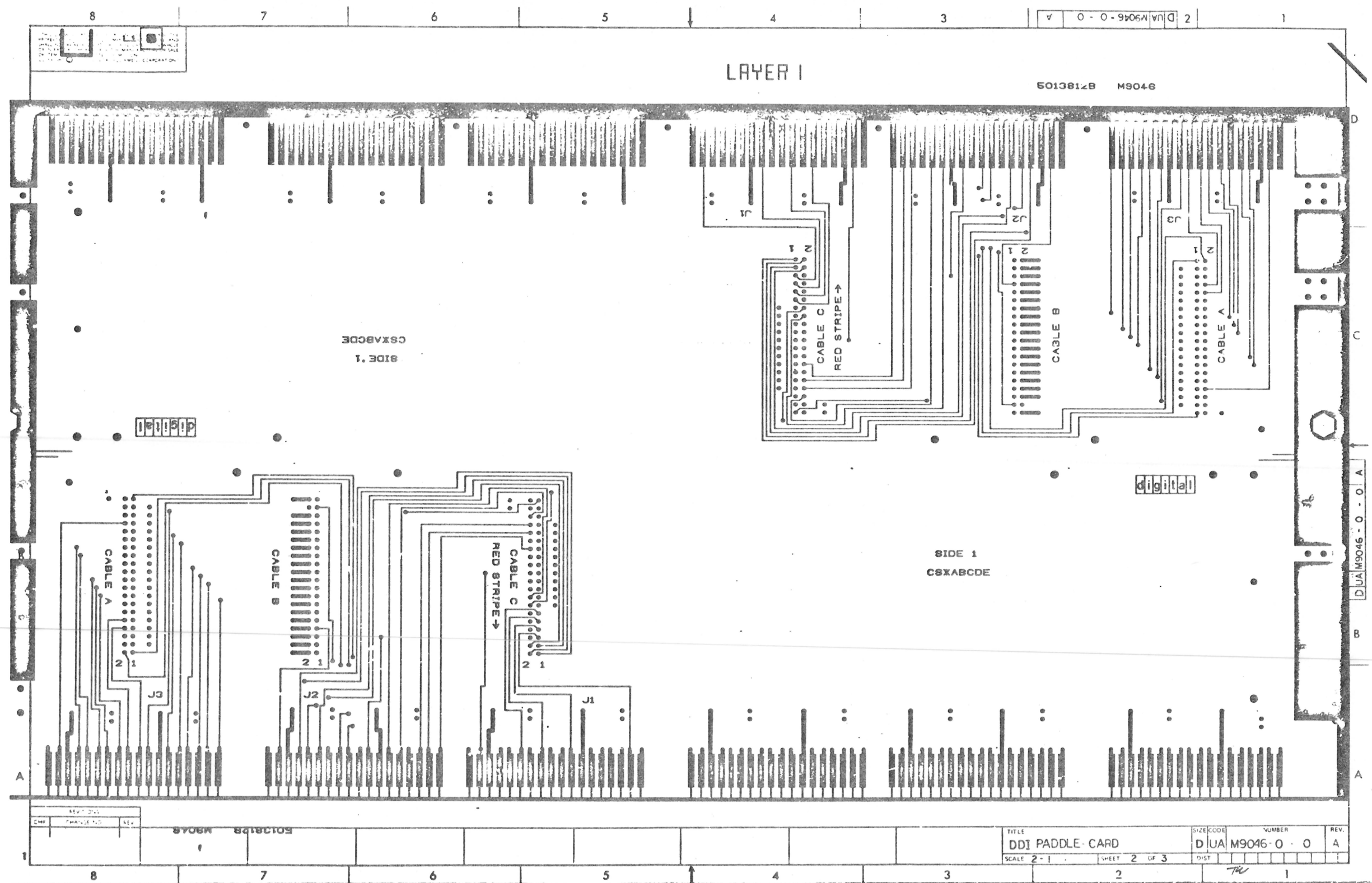
STEP	E	Y AXIS	STEP	TIMES
REPEAT	X AXIS	STEP	TIMES	

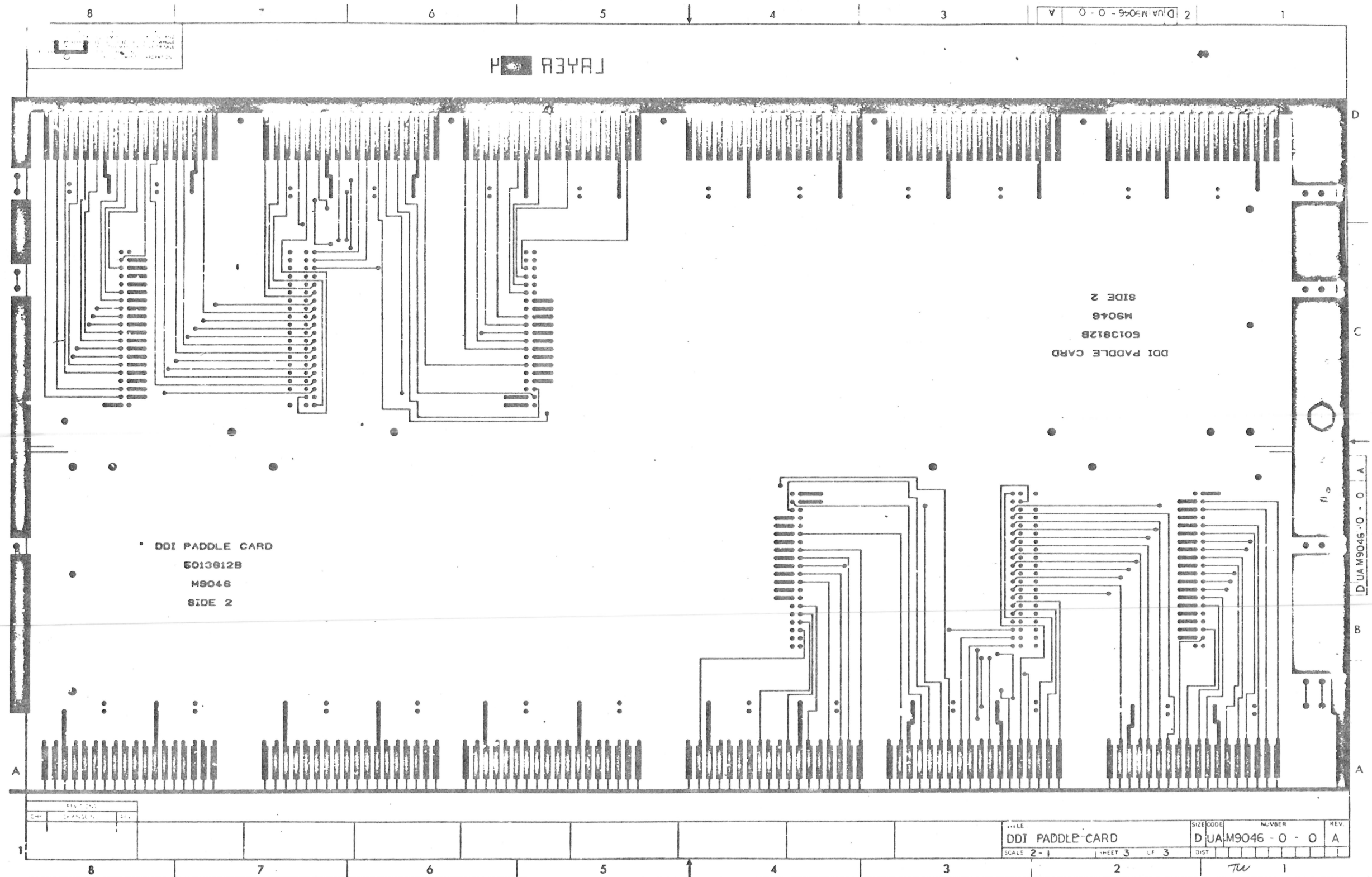
CHK	CHANGE	NO	REV

ETCH	REV.	B

SIGNATURES		DATE	digital			
DRN. <i>Sam Tjos</i>		9-2-77	TITLE DDI PADDLE CARD			
CHK'D. <i>Paul J. Galt</i>		8-16-77				
MECH. ENG. <i>W. J. S.</i>		10-2-77				
PROJ. ENG. <i>W. J. S.</i>		1-2-78				
PROD. <i>W. J. S.</i>		1-2-80				
SCALE 2:1			SIZE	CODE	NUMBER	REV
SHT. 1 OF 3			d	U	AM9046-0-0	A
NEXT HIGHER ASSY. B-DD-M9046-0						

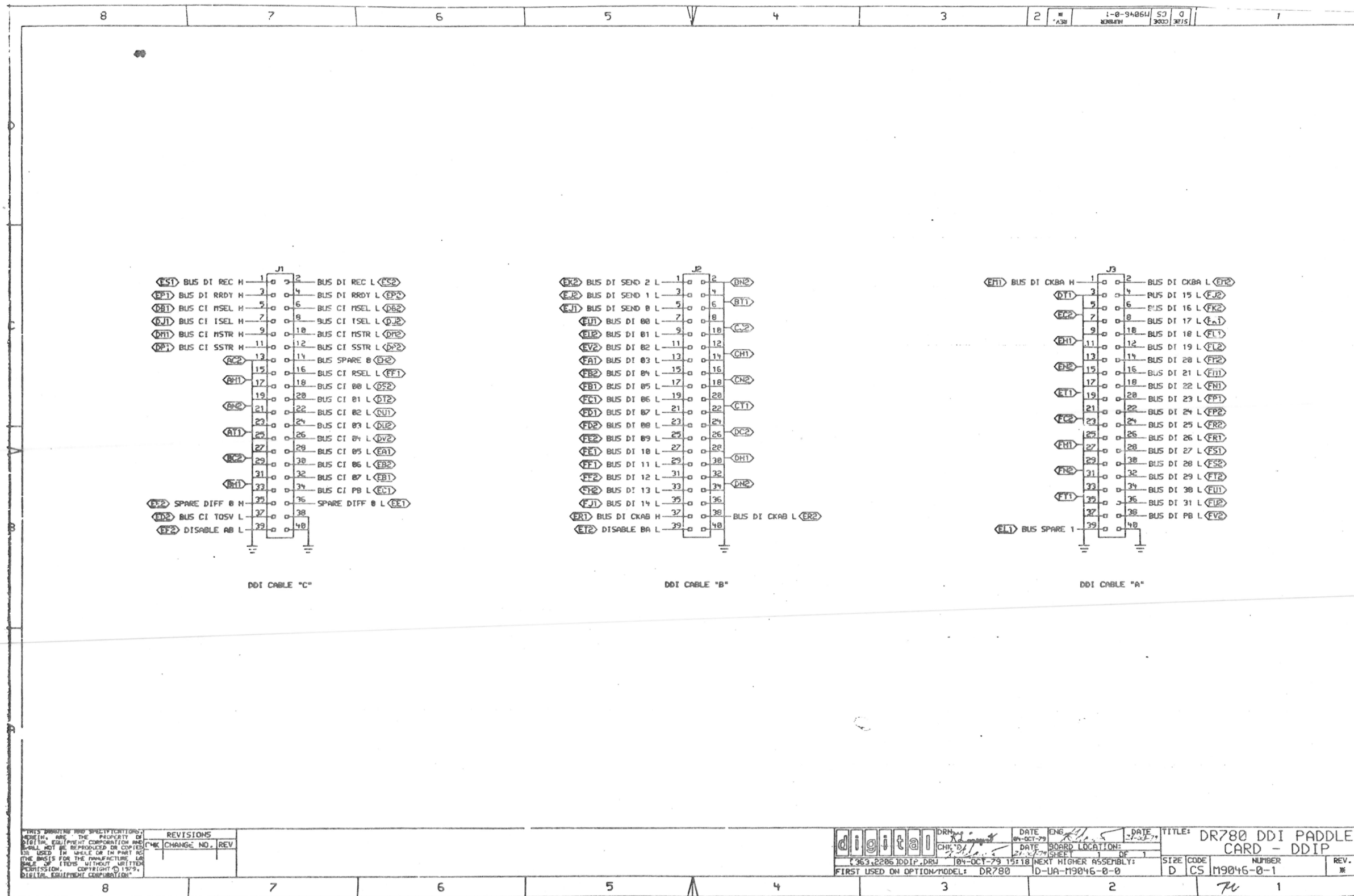
8 7 6 5 4 3 2 1





SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1	D-MD-5013812-0-0	5013812-00	DR780 PADDLE CARD	1	
2	2		1209941-02	HEADER 100 40POS RT ANGLE	3	J1-J3
3	3		1209941-03	*** THIS ITEM IS NOT USED ***	-	
4	4		1209941-04	*** THIS ITEM IS NOT USED ***	-	
5	5		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4	
6	6		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	

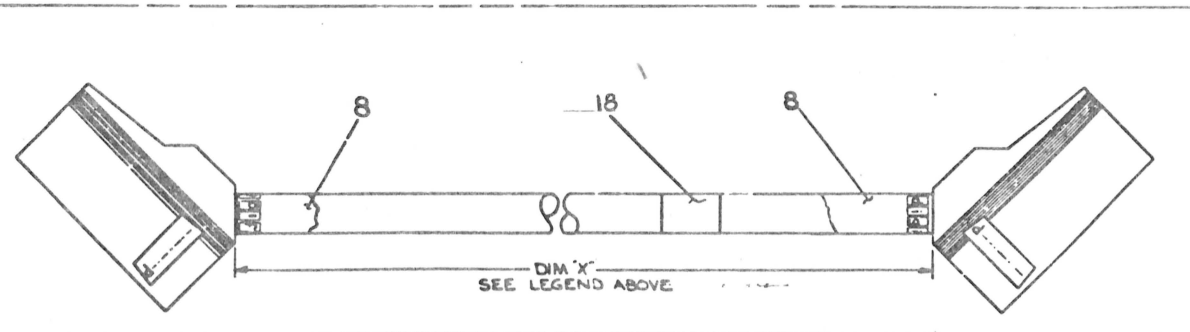


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REV.	CHANGE NO.	REV.
1		

digital	DRN	DATE	ENG	DATE	TITLE
	CHK	04-OCT-79		21-10-79	DR780 DDI PADDLE CARD - DDIP
FIRST USED ON OPTION/MODEL: DR780		NEXT HIGHER ASSEMBLY: D-UA-M9046-0-0		SIZE	CODE
				D	CS
				NUMBER	REV.
				M9046-0-1	*

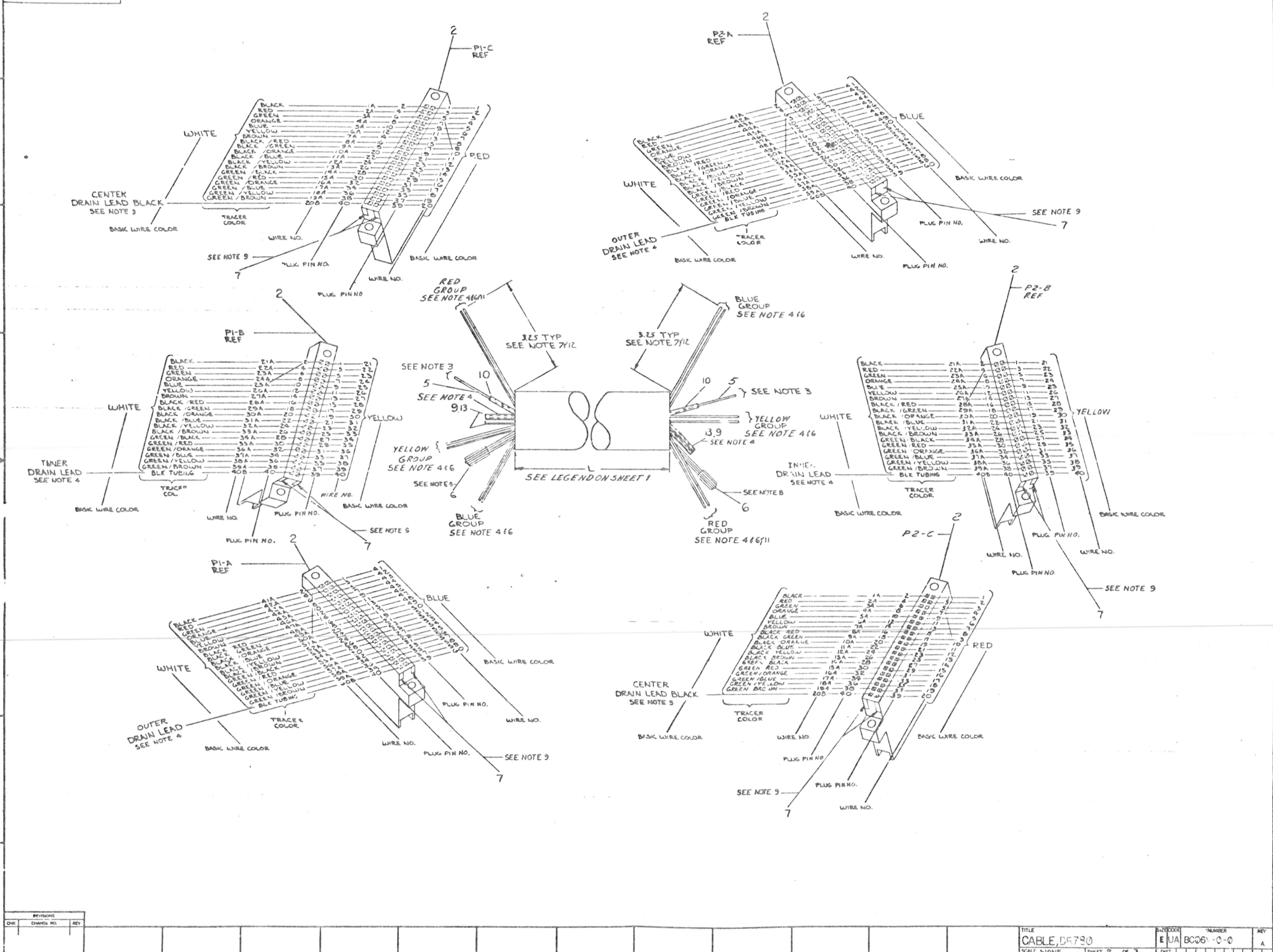
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- | | | | |
|------|----------------------------|----------------|----|
| 1 | I.D. LABEL | 3616 073-00 | 18 |
| 2 | TERM RING, 16-14 GA | 9007928 | 17 |
| A/R | WIRE, 14 AWG GRN/YEL | 9107777-54 | 16 |
| A/R | TUBING SHRINK (4") | 9107817-00 | 15 |
| 1 | BAG, POLYETHYLENE (2-X4) | 9905129-19 | 14 |
| A/P | TUBING, THIN WALL (4-LB) | 9107256-00 | 13 |
| A/R | TUBING, SHRINK (1.5") | 9107233-02 | 12 |
| 6 | CAPT ACTIVE | 121591-11 | 7 |
| 8 | TERMINAL SOLDERLESS (PUSH) | 9006782-01 | 10 |
| 4 | TERMINAL SOLDERLESS (PUSH) | 9006782-01 | 9 |
| 2 | STICKER (2.5x5) | A-25-32 782-PP | 8 |
| 12 | COVER, CAPTIVE | 121591-11 | 7 |
| A/R | TUBING, HEAT SHRINK (2.5") | 9107254-09 | 6 |
| A/R | WIRE TUBING, LRG. BULK LG | 9107770-00 | 3 |
| A/VL | CABLE, MATS. BUSS | 1700033-01 | 4 |
| 6 | PLUG HOUSING (CAN. SHFT) | 121591-01 | 1 |
| 6 | PLUG | 121591-01 | 2 |
| 2 | STRAP, RELIEF KIT | 121591-12 | 1 |

[illegible]

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WIRE TABLE (RED GROUP)								WIRE TABLE (YEL GROUP)								WIRE TABLE (BLU GROUP)							
WIRE NO.	FROM CONNECTOR PLUG	PLUG PIN NO.	BASIC WIRE COLOR	WITH TRACER COLOR	TO CONNECTOR PLUG	PLUG PIN NO.	REMARKS	WIRE NO.	FROM CONNECTOR PLUG	PLUG PIN NO.	BASIC WIRE COLOR	WITH TRACER COLOR	TO CONNECTOR PLUG	PLUG PIN NO.	REMARKS	WIRE NO.	FROM CONNECTOR PLUG	PLUG PIN NO.	BASIC WIRE COLOR	WITH TRACER COLOR	TO CONNECTOR PLUG	PLUG PIN NO.	REMARKS
1	P1-C	1	RED		P2-C	1	TWISTED	21	P1-B	1	YEL		P2-B	1	TWISTED	41	P1-A	1	BLU		P2-A	1	TWISTED
1A		2	WHT	BLK		2	PAIR	21A		2	WHT	BLK		2	PAIR	41A		2	WHT	BLK		2	PAIR
2		3	RED			3		22		3	YEL			3		42		3	BLU			3	
2A		4	WHT	RED		4		22A		4	WHT	RED		4		42A		4	WHT	RED		4	
3		5	RED			5		23		5	YEL			5		43		5	BLU			5	
3A		6	WHT	GRN		6		23A		6	WHT	GRN		6		43A		6	WHT	GRN		6	
4		7	RED			7		24		7	YEL			7		44		7	BLU			7	
4A		8	WHT	ORN		8		24A		8	WHT	ORN		8		44A		8	WHT	ORN		8	
5		9	RED			9		25		9	YEL			9		45		9	BLU			9	
5A		10	WHT	BLU		10		25A		10	WHT	BLU		10		45A		10	WHT	BLU		10	
6		11	RED			11		26		11	YEL			11		46		11	BLU			11	
6A		12	WHT	YEL		12		26A		12	WHT	YEL		12		46A		12	WHT	YEL		12	
7		13	RED			13		27		13	YEL			13		47		13	BLU			13	
7A		14	WHT	BRN		14		27A		14	WHT	BRN		14		47A		14	WHT	BRN		14	
8		15	RED			15		28		15	YEL			15		48		15	BLU			15	
8A		16	WHT	BLK/RED		16		28A		16	WHT	BLK/RED		16		48A		16	WHT	BLK/RED		16	
9		17	RED			17		29		17	YEL			17		49		17	BLU			17	
9A		18	WHT	BLK/GRN		18		29A		18	WHT	BLK/GRN		18		49A		18	WHT	BLK/GRN		18	
10		19	RED			19		30		19	YEL			19		50		19	BLU			19	
10A		20	WHT	BLK/ORN		20		30A		20	WHT	BLK/ORN		20		50A		20	WHT	BLK/ORN		20	
11		21	RED			21		31		21	YEL			21		51		21	BLU			21	
11A		22	WHT	BLK/BLU		22		31A		22	WHT	BLK/BLU		22		51A		22	WHT	BLK/BLU		22	
12		23	RED			23		32		23	YEL			23		52		23	BLU			23	
12A		24	WHT	BLK/YEL		24		32A		24	WHT	BLK/YEL		24		52A		24	WHT	BLK/YEL		24	
13		25	RED			25		33		25	YEL			25		53		25	BLU			25	
13A		26	WHT	BLK/BRN		26		33A		26	WHT	BLK/BRN		26		53A		26	WHT	BLK/BRN		26	
14		27	RED			27		34		27	YEL			27		54		27	BLU			27	
14A		28	WHT	GRN/BLK		28		34A		28	WHT	GRN/BLK		28		54A		28	WHT	GRN/BLK		28	
15		29	RED			29		35		29	YEL			29		55		29	BLU			29	
15A		30	WHT	GRN/RED		30		35A		30	WHT	GRN/RED		30		55A		30	WHT	GRN/RED		30	
16		31	RED			31		36		31	YEL			31		56		31	BLU			31	
16A		32	WHT	GRN/ORN		32		36A		32	WHT	GRN/ORN		32		56A		32	WHT	GRN/ORN		32	
17		33	RED			33		37		33	YEL			33		57		33	BLU			33	
17A		34	WHT	GRN/BLU		34		37A		34	WHT	GRN/BLU		34		57A		34	WHT	GRN/BLU		34	
18		35	RED			35		38		35	YEL			35		58		35	BLU			35	
18A		36	WHT	GRN/YEL		36		38A		36	WHT	GRN/YEL		36		58A		36	WHT	GRN/YEL		36	
19		37	RED			37		39		37	YEL			37		59		37	BLU			37	
19A		38	WHT	GRN/BRN		38		39A		38	WHT	GRN/BRN		38		59A		38	WHT	GRN/BRN		38	
20	P1-C	39	RED		P2-C	39	TWISTED	40	P1-B	39	YEL		P2-B	39	TWISTED	60	P1-A	39	BLU		P2-A	39	TWISTED
20A	SEE NOTE 2		WHT		SEE NOTE 2		PAIR	40A	SEE NOTE 2		WHT		SEE NOTE 2		PAIR	60A	SEE NOTE 2		WHT		SEE NOTE 2		PAIR
20B	P1-C	40	BLK		P2-C	40	CENTER DRAIN WIRE	40B	P1-B	40	BLK		P2-B	40	INNER DRAIN WIRE	60B	P1-A	40	BLK		P2-A	40	OUTER DRAIN WIRE
	SEE NOTE 3				SEE NOTE 3				SEE NOTE 4				SEE NOTE 4				SEE NOTE 4				SEE NOTE 4		

CHK	REV

TITLE	CABLE, DR750	REVISION	1	DATE	0-0-0	REV	1
SCALE	AS SHOWN	SHEET	3	OF	3	DIST.	

[illegible]