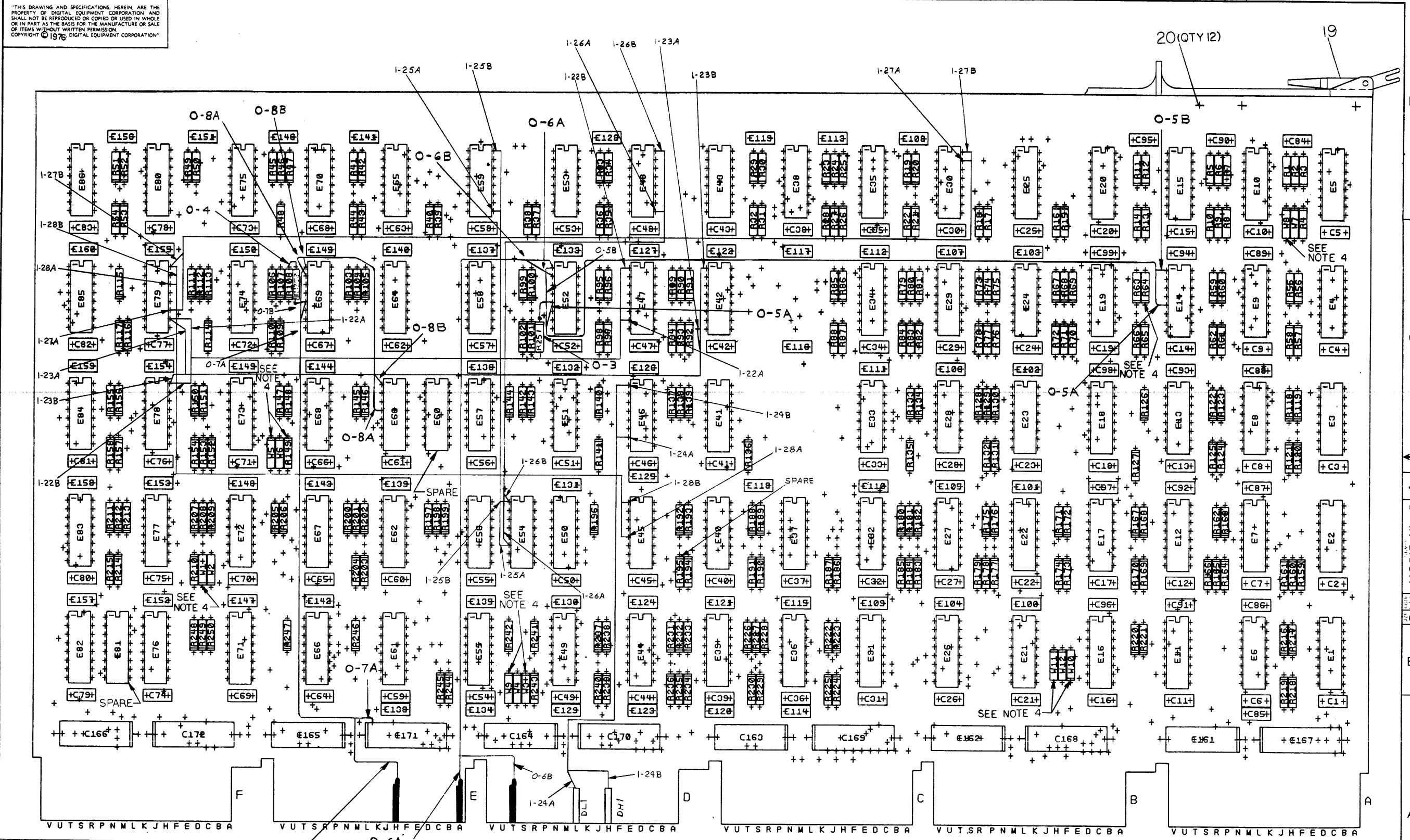


DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS		SIZE CODE	NUMBER	REV.		
				A	B					
D-UA-M8513-YA-Ø	5		MODULE REVISION	-	A					
D-CS-M8513-YA-CSH1	1		CACHE CONTROL	-	A					
D-CS-M8513-YA-CSH2	1		CSH CYC REQ PRI & TYPE, CSH IDLE	-	A					
D-CS-M8513-YA-CSH3	1		MBOX RESP, EBOX MINOR CYC TYPE	-	-					
D-CS-M8513-YA-CSH4	1		ANY VAL MATCH & HOLD, ANY WR	-	A					
D-CS-M8513-YA-CSH5	1		CSH EBOX T(N), PAGE FAIL T (N)	-	-					
D-CS-M8513-YA-CSH6	1		PAGE REFILL T(N) CSH & CHAN T(N)	-	-					
D-CS-M8513-YA-CSH7	1		PF HOLD, CCA CTL, CSH WR CTL	-	A					
D-CS-M8513-YA-CSH8	1		CSH DIAG MIX, CSH PERF SIGNALS	-	-					
D-CS-M8513-YA-CSH8	1		CACHE CONTROL POWER, GND, CAP	-	A					
D-CS-M8513-YA-RES	2		CACHE CONTROL TERMINATORS	-	A					
D-AH-M8513-Ø-5	4		CACHE CONTROL	C	C					
		5010528	ETCH CIRCUIT BOARD	D	D					
M8513-Ø-L			P.C. DESIGN DATA BASE	REF REF						
M8513-YA-PL			INSERTION P/L DATA BASE	REF REF						
POO-M8513-YA			PROCESS SHEETS	REF REF						
NOTES:				REVISIONS	CHG NO. REV.	4-77 00001 *YA				
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				KLIØ-DA,DB		CHK'D	CACHE CONTROL			
				KLIØ-EA,EB		ENG. John O. Allen 5 JAN 77				
				KLIØ-PV		PROD. W. Embrey 5 JAN 77	SIZE CODE B DD	NUMBER M8513-YA		
							REV. A			

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REVISIONS		
CHK	CHANGE NO.	R

8

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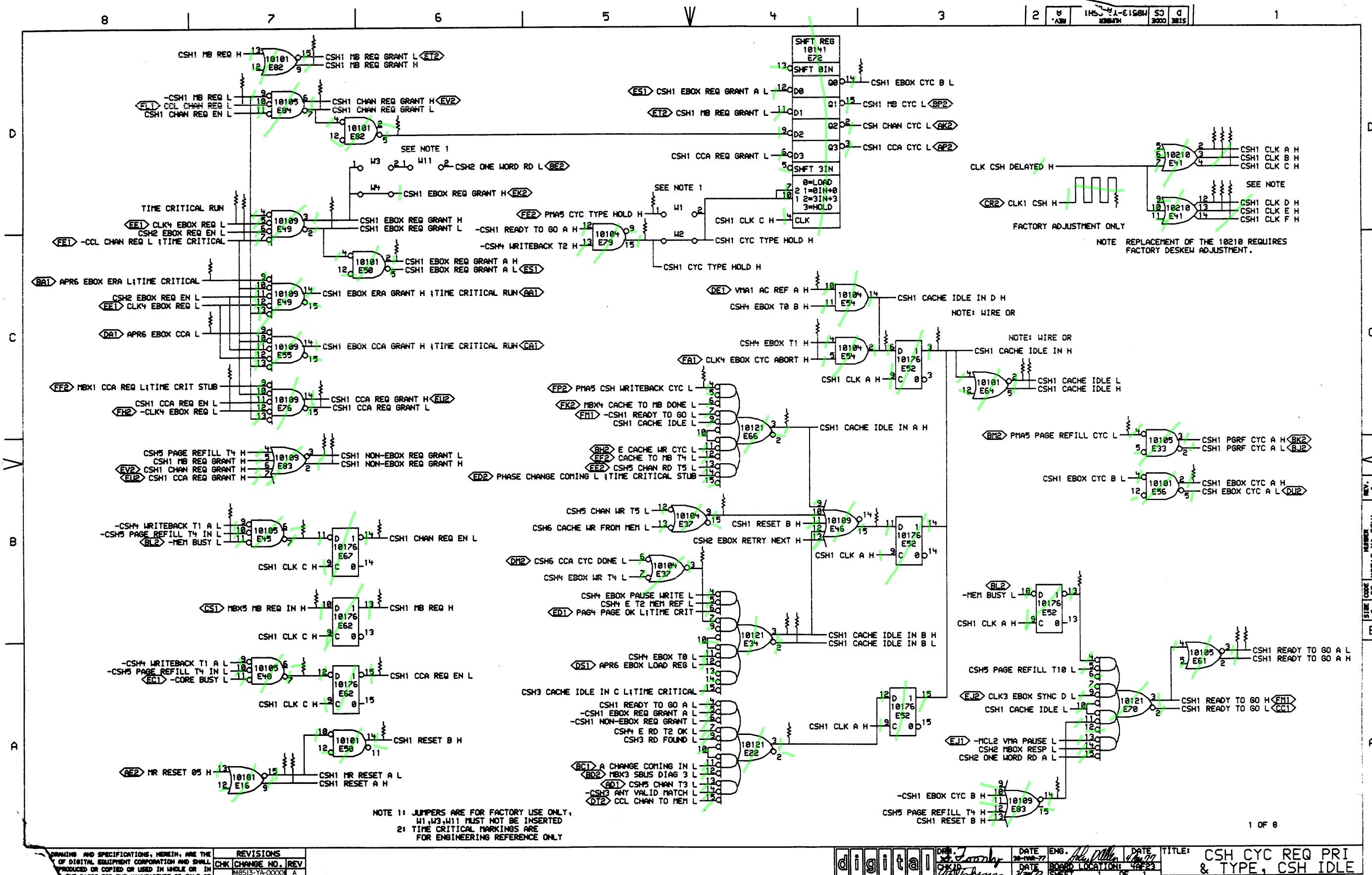
0-7

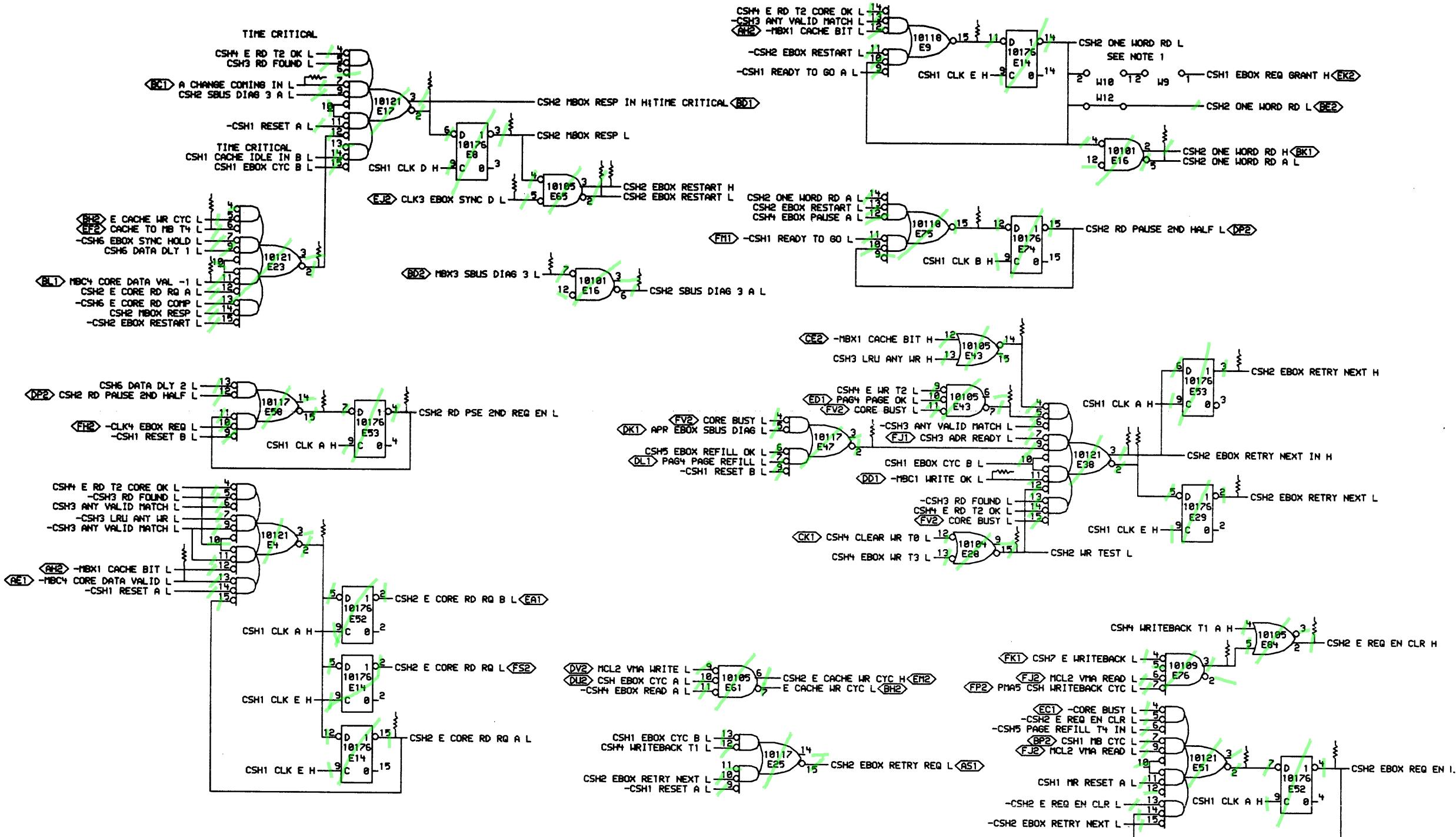
TITLE CACHE CONTROL  
SCALE 2 / 1 SHEET 2

Source: EPI. [Data](#)

3

23





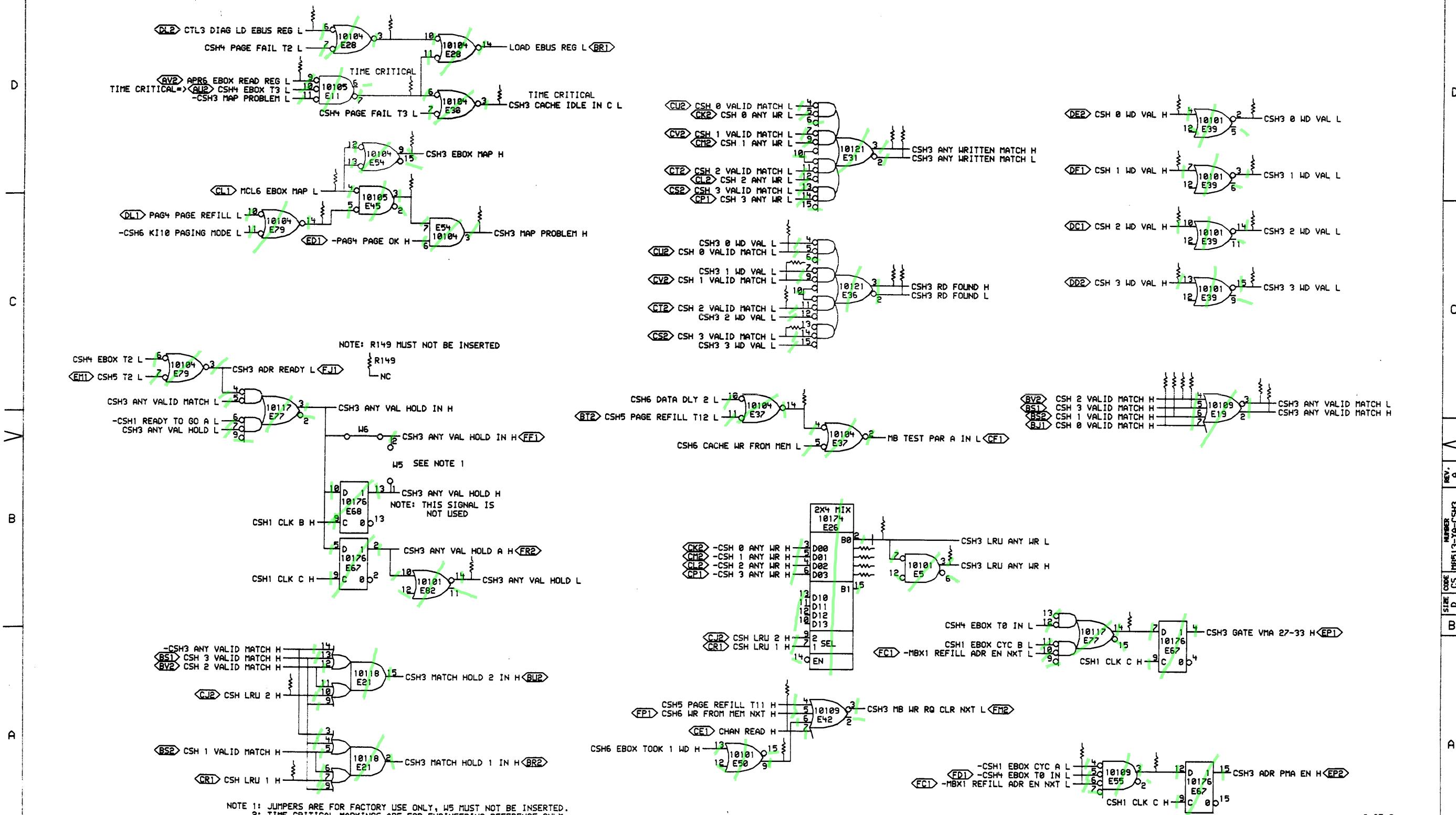
NOTE 1: JUMPERS ARE FACTORY USE ONLY  
W9,W10 MUST NOT BE INSERTED  
2: TIME CRITICAL MARKINGS ARE  
FOR ENGINEERING REFERENCE

20E A

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DRAW. *J. J. Murphy* DATE **08-NOV-76** ENG. *J. O. Allen* DATE **15-Dec-76** TITLE: MBOX RESP, EBOX  
 CHK'D BY *W. S. Thompson* DATE **11/9/76** BOARD LOCATION: **4A/P23**  
 SHEET **1** OF **1** SIZE **CODE** NUMBER **REV.**  
**75** **08-NOV-76** **051559** NEXT HIGHER ASSEMBLY:



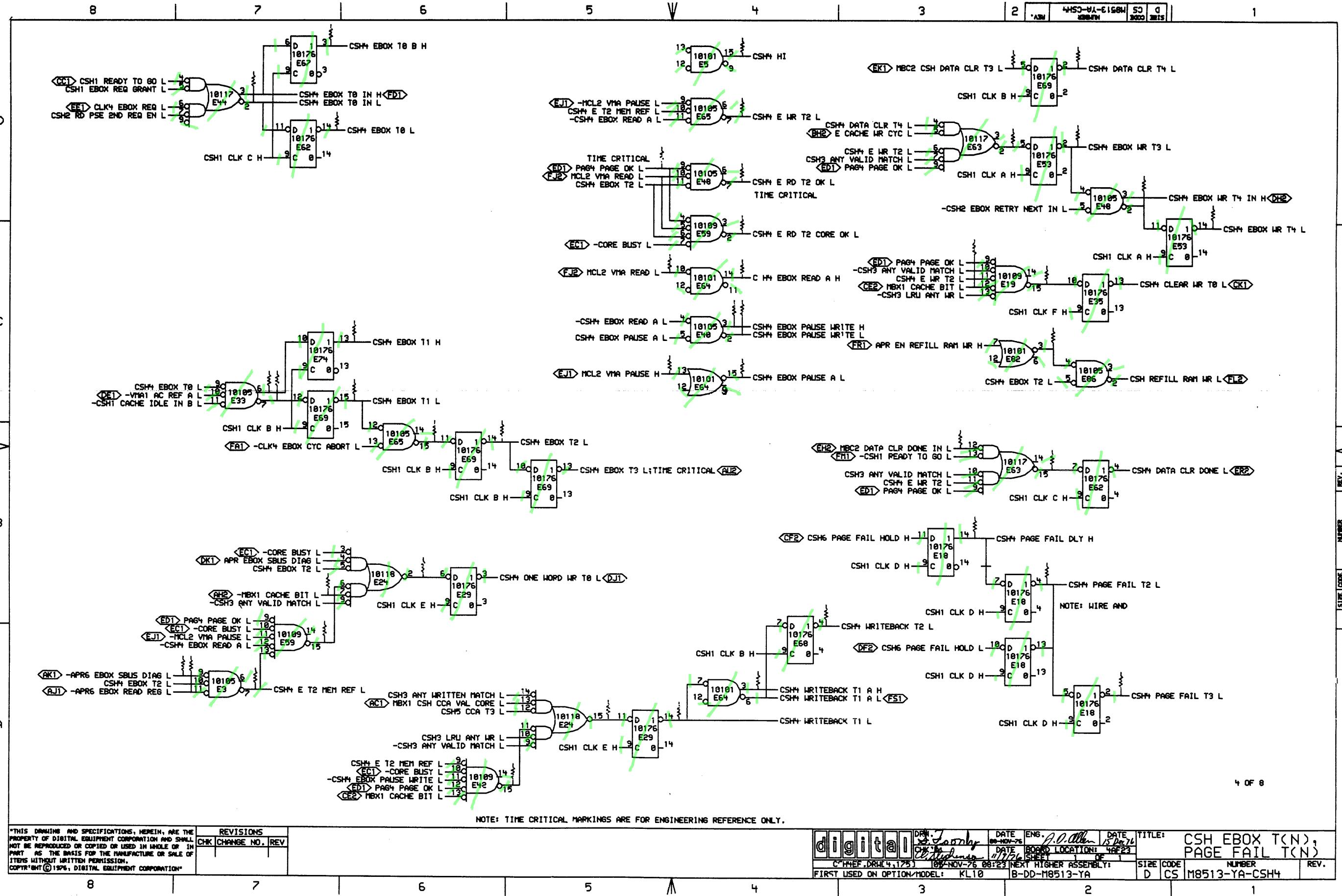
NOTE 1: JUMPERS ARE FOR FACTORY USE ONLY, W5 MUST NOT BE INSERTED  
2: TIME CRITICAL MARKINGS ARE FOR ENGINEERING REFERENCE ONLY

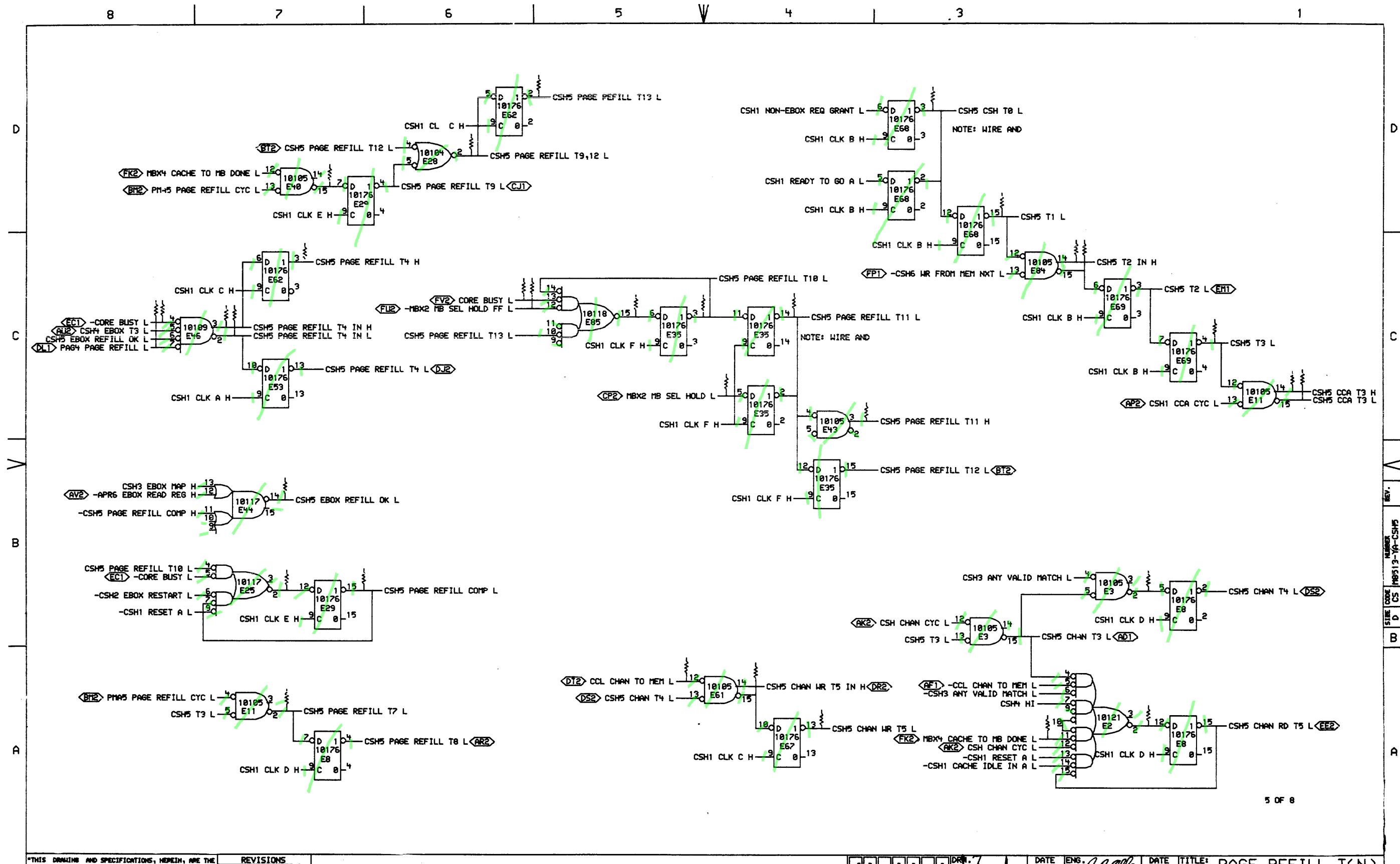
3 OF 6

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THE ALL IN OF	REVISIONS		
	CHK	CHANGE NO.	REV
		148513-YA-00001	A
<i>F. J. Allen</i> <i>J. ALLEN</i>			

<b>digital</b>	DRW:	DATE: 01-APR-77	ENG. <i>John Miller</i>	DATE: 01-APR-77	TITLE: ANY VAL MATCH & HOLD, ANY WR		
<i>St. Louis</i>		CIRCUIT BOARD LOCATION: 4A/23					
CSH13EF.DRW(4,540)		SHEET 1 OF 1		SIZE: D	CODE: CS	NUMBER: M8513-YA-CSH3	REV. A
FIRST USED ON OPTION/MODEL: KL10 B-DD-M8513-YA							
NEXT HIGHER ASSEMBLY: 16122							

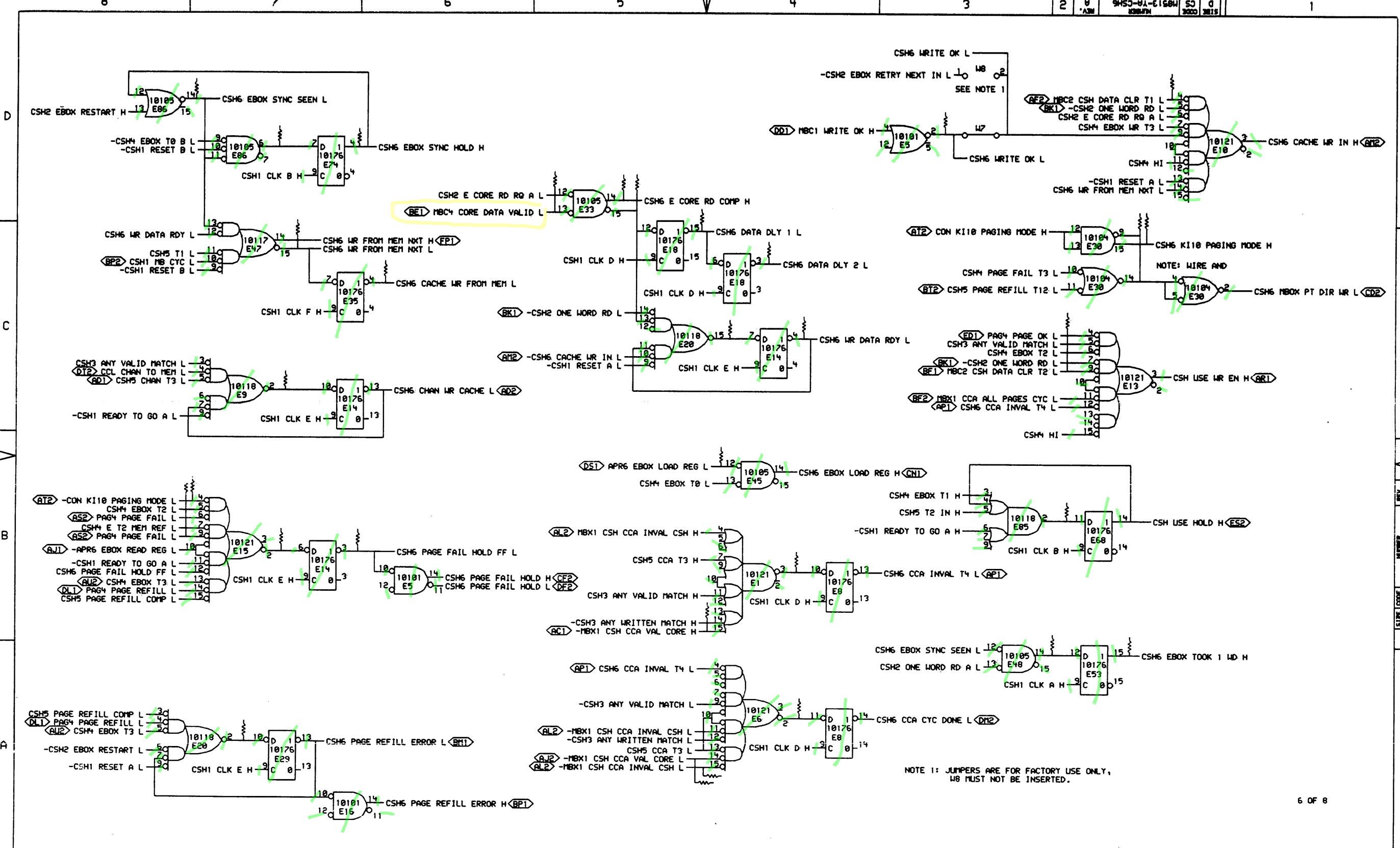




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REV

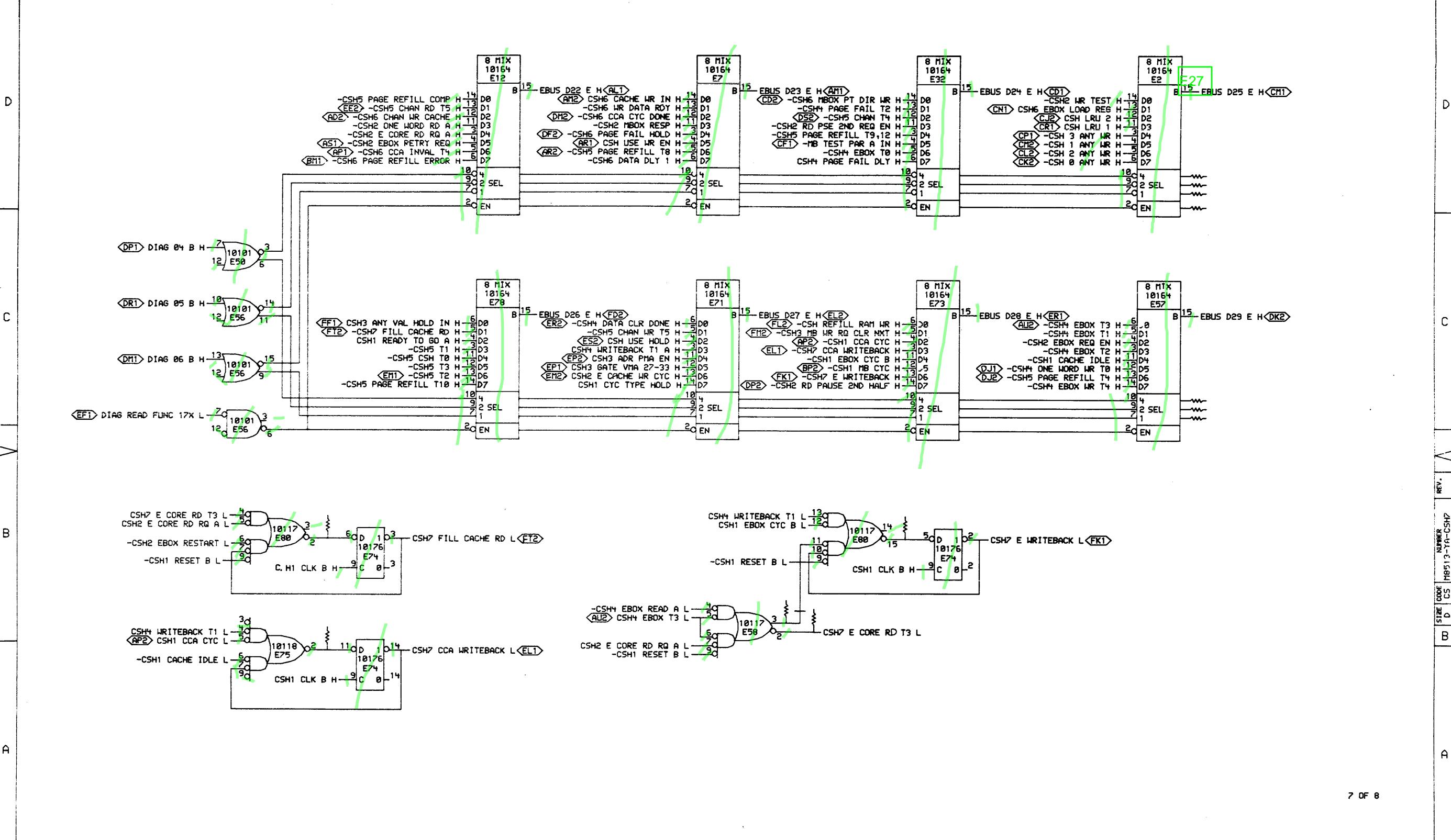
<b>digital</b>	DRA. <i>S. L. Loomis</i> <i>E. Chapman</i>	DATE <b>08-09-76</b>	ENG. <i>P. J. Allen</i> <i>John C. McNamee</i>	DATE <b>08-09-76</b>	TITLE: PAGE REFILL T(N) CSH & CHAN T(N)		
CHK	DATE <b>11/26/76</b>	BOARD LOCATION: <b>4A/F23</b>					
SHEET <b>1</b> OF <b>1</b>				SIZE <b>D</b>	CODE <b>CS</b>	NUMBER <b>M8513-YA-CSH5</b>	REV.
CASHREF, DRA. #4, 1251 08-SEP-76 21:34 NEXT HIGHER ASSEMBLY:							
FIRST USED ON OPTION/MODEL: <b>KL18</b>				B-DD-M8513YA			



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**REVISION**

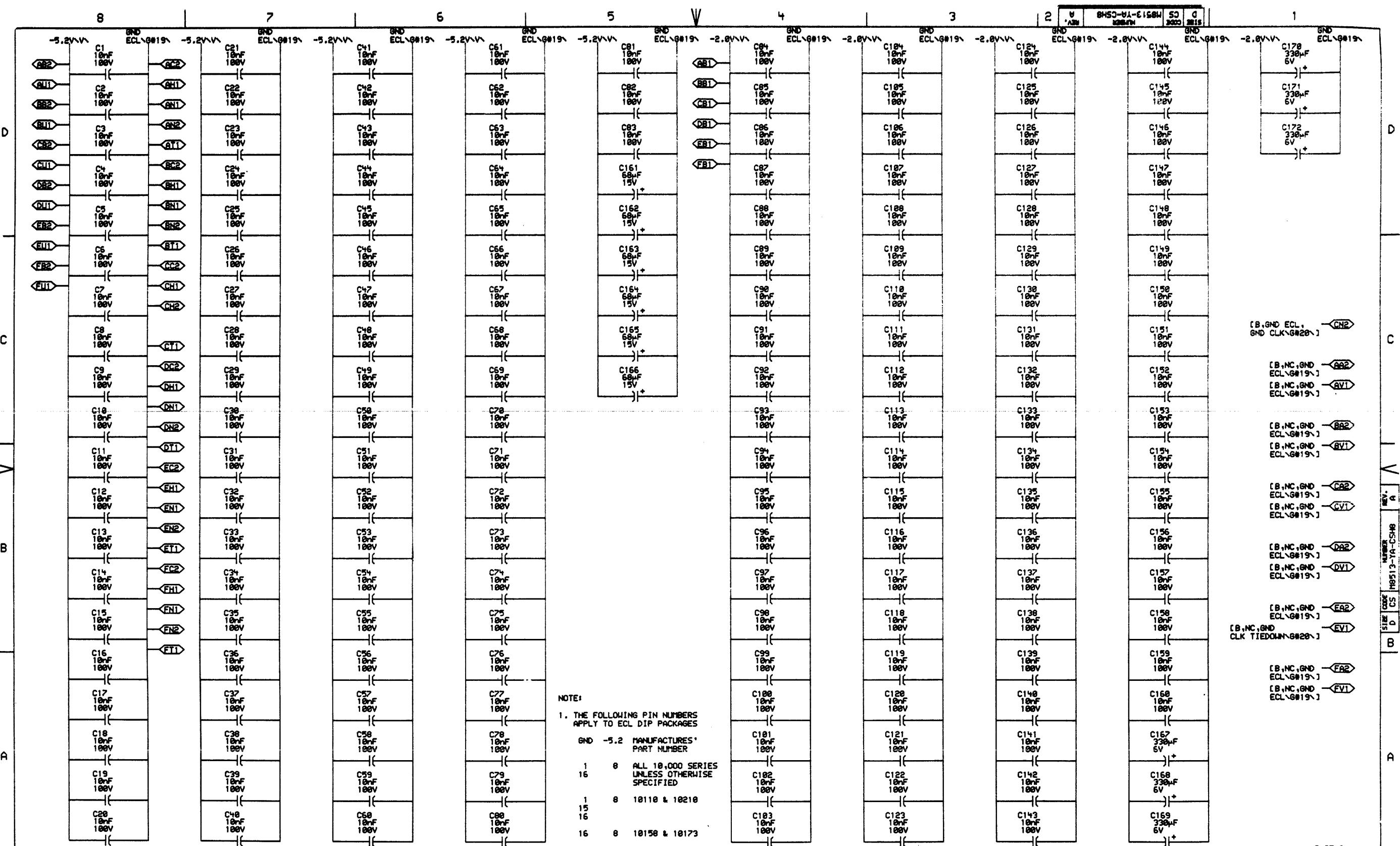
DIGITAL	DATE 30-MAR-77	ENG John O'Callan	DATE 4 APR 77	TITLE: PF HOLD, CCA CTL, CSH WR CTL		
CHARTS	DATE 30-MAR-77	BOARD LOCATION: 4AF23	SHEET 1 OF 1	SIZE D	CODE CS	NUMBER M0513-YA-CSH
CSHGEF.DRIV(4,540) 02-MAR-77 12:50 NEXT HIGHER ASSEMBLY:				REV. A	FIRST USED ON OPTION/MODEL: K110 R-DD-M0513-YA	



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REVISIONS		
CHK	CHANGE NO.	REV

DRW. 7	DATE 08-Nov-76	ENG. J. P. Allen	DATE 15-Dec-76	TITLE: CSH DIAG MIX
CHK. 1	DATE 11-Nov-76	BOARD LOCATION: 4AF23	SHEET 1 OF 1	CSH PERF SIGNALS
CSP1EF.DRW14,1751	07-SEP-76 21:36	NEXT HIGHER ASSEMBLY:		
		FIRST USED ON OPTION/MODEL: KL10	B-DD-M8513-YA	
D	CS	NUMBER M8513-YA-CSH7	REV.	



## NOTE:

1. THE FOLLOWING PIN NUMBERS  
APPLY TO ECL DIP PACKAGES

GND -5.2 MANUFACTURES'  
PART NUMBER

- |    |    |  |
|----|----|--|
| 16 | 8  | ALL 18,000 SERIES<br>UNLESS OTHERWISE<br>SPECIFIED |
| 16 | 8  | 10110 & 10210                                      |
| 15 | 8  | 10158 & 10173                                      |
| 1  | 12 | 10181  |

24

8 OF 8

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REVISIONS		
CHK	CHANGE NO.	REV
M8513-YA-00001	A	1/27/77

digital	DRW. <i>J. Journeay</i>	DATE 30-MAR-77	ENG. <i>John Miller</i>	DATE 4 APR 77	TITLE: CACHE CONTROL
CHK. <i>J. Journeay</i>	DATE 30-MAR-77	BOARD LOCATION: 40E23	SHEET 1 OF 1	NEXT HIGHER ASSEMBLY:	POWER, GND, CAP
C-SH8 REF. DRW. 4-5481	130-MAR-77	201-58	1 OF 1	KL10	SIZE D CODE CS NUMBER M8513-YA-CSH8 REV. A

D	RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
	R121(1)	CSH6	B4	68Ω	XE1(3)	R200(1)	CSH3	A2	68Ω	XE55(3)	R60(1)	CSH5	A5	68Ω	-CCL CHAN TO MEM H	R109(1)	CSH1	D1	68Ω	CSH1 CLK B H
	R19(1)	CSH3	D6	68Ω	XE11(7)	R152(1)	CSH7	C2	68Ω	XE56(11)	R92(1)	CSH3	A4	68Ω	CHAN READ H	R209(1)	CSH1	D1	68Ω	CSH1 CLK C H
	R66(1)	CSH6	B7	68Ω	XE15(2)	R166(1)	CSH7	D2	68Ω	XE56(14)	R136(1)	CSH1	D2	68Ω	CLK1 CSH H	R125(1)	CSH1	D1	68Ω	CSH1 CLK D H
	R122(1)	CSH2	D6	68Ω	XE17(2)	R164(1)	CSH7	D2	68Ω	XE56(15)	R43(1)	CSH2	D6	68Ω	-CLK3 EBOX SYNC D H	R61(1)	CSH1	D1	68Ω	CSH1 CLK E H
	R22(1)	CSH4	C2	68Ω	XE19(15)	R162(1)	CSH7	D2	68Ω	XE56(6)	R39(1)	CSH1	C4	68Ω	CLK4 EBOX CYC ABORT H	R21(1)	CSH1	D1	68Ω	CSH1 CLK F H
	R118(1)	CSH5	A2	68Ω	XE2(2)	R153(1)	CSH7	C2	68Ω	XE58(9)	R102(1)	CSH1	C7	68Ω	CLK4 EBOX REQ H	R250(1)	CSH1	C5	68Ω	CSH1 CYC TYPE HOLD H
	R65(1)	CSH6	C4	68Ω	XE20(15)	R37(1)	CSH2	C7	68Ω	XE58(15)	R237(1)	CSH1	D7	68Ω	-CLK4 EBOX REQ H	R245(1)	CSH1	B1	68Ω	CSH1 EBOX CYC A H
	R78(1)	CSH6	A7	68Ω	XE20(2)	R58(1)	CSH7	B4	68Ω	XE58(3)	R17(1)	CSH6	B7	68Ω	CON KI10 PAGING MODE H	R168(1)	CSH1	D3	68Ω	-CSH1 EBOX CYC B H
	R95(1)	CSH1	A4	68Ω	XE22(3)	R77(1)	CSH4	A7	68Ω	XE59(15)	R44(1)	CSH5	C8	68Ω	CORE BUSY H	R238(1)	CSH1	D7	68Ω	-CSH1 EBOX REQ GRANT H
	R171(1)	CSH2	C7	68Ω	XE23(2)	R119(1)	CSH6	A4	68Ω	XE6(2)	R24(1)	CSH5	C6	68Ω	-CORE BUSY H	R176(1)	CSH1	C6	68Ω	CSH1 EBOX REQ GRANT A H
	R83(1)	CSH4	A5	68Ω	XE24(15)	R204(1)	CSH5	A4	68Ω	XE61(15)	R183(1)	CSH3	B4	68Ω	-CSH 0 ANY WR H	R157(1)	CSH1	B6	68Ω	CSH1 MB REQ H
	R84(1)	CSH1	B6	68Ω	XE24(2)	R198(1)	CSH4	B2	68Ω	XE63(15)	R78(1)	CSH3	C2	68Ω	CSH 0 VALID MATCH H	R215(1)	CSH1	D7	68Ω	CSH1 MB REQ GRANT H
	R88(1)	CSH5	B7	68Ω	XE25(2)	R38(1)	CSH4	D2	68Ω	XE63(2)	R223(1)	CSH3	C4	68Ω	-CSH 0 VALID MATCH H	R143(1)	CSH1	A7	68Ω	-CSH1 MR RESET A H
	R132(1)	CSH3	D6	68Ω	XE28(3)	R104(1)	CSH4	B6	68Ω	XE65(15)	R233(1)	CSH3	D2	68Ω	CSH 0 WD VAL H	R177(1)	CSH1	B7	68Ω	CSH1 NON-EBOX REQ GRANT H
	R123(1)	CSH5	B2	68Ω	XE3(2)	R106(1)	CSH2	C3	68Ω	XE75(15)	R181(1)	CSH3	B4	68Ω	-CSH 1 ANY WR H	R148(1)	CSH1	B7	68Ω	-CSH1 NON-EBOX REQ GRANT H
	R20(1)	CSH6	C2	68Ω	XE38(9)	R107(1)	CSH7	A7	68Ω	XE75(2)	R71(1)	CSH3	C2	68Ω	CSH 1 VALID MATCH H	R91(1)	CSH1	A1	68Ω	CSH1 READY TO GO A H
	R14(1)	CSH6	D5	68Ω	XE33(15)	R156(1)	CSH2	B2	68Ω	XE76(3)	R224(1)	CSH3	C4	68Ω	-CSH 1 VALID MATCH H	R179(1)	CSH1	A1	68Ω	-CSH1 READY TO GO A H
	R110(1)	CSH4	C7	68Ω	XE33(6)	R206(1)	CSH3	B2	68Ω	XE77(14)	R234(1)	CSH3	D2	68Ω	CSH 1 WD VAL H	R15(1)	CSH1	A7	68Ω	CSH1 RESET A H
	R103(1)	CSH4	C7	68Ω	XE33(7)	R255(1)	CSH3	C7	68Ω	XE79(14)	R182(1)	CSH3	B4	68Ω	-CSH 2 ANY WR H	R212(1)	CSH1	A6	68Ω	CSH1 RESET B H
	R188(1)	CSH3	C4	68Ω	XE37(14)	R113(1)	CSH2	B3	68Ω	XE80(15)	R68(1)	CSH3	C2	68Ω	CSH 2 VALID MATCH H	R52(1)	CSH2	A6	68Ω	-CSH2 E CORE RD RQ A H
	R87(1)	CSH1	B4	68Ω	XE37(3)	R111(1)	CSH7	B7	68Ω	XE80(2)	R225(1)	CSH3	C4	68Ω	-CSH 2 VALID MATCH H	R140(1)	CSH2	B2	68Ω	CSH2 E REQ EN CLR H
	R138(1)	CSH1	B4	68Ω	XE37(9)	R54(1)	CSH4	C2	68Ω	XE82(3)	R235(1)	CSH3	C2	68Ω	CSH 2 WD VAL H	R240(1)	CSH2	A1	68Ω	-CSH2 EBOX REQ EN H
	R81(1)	CSH2	C2	68Ω	XE38(2)	R205(1)	CSH1	D6	68Ω	XE82(5)	R184(1)	CSH3	B4	68Ω	-CSH 3 ANY WR H	R58(1)	CSH2	D5	68Ω	CSH2 EBOX RESTART H
	R251(1)	CSH2	B7	68Ω	XE4(2)	R46(1)	CSH1	A2	68Ω	XE83(14)	R69(1)	CSH3	C2	68Ω	CSH 3 VALID MATCH H	R45(1)	CSH2	D5	68Ω	-CSH2 EBOX RESTART H
	R82(1)	CSH5	D7	68Ω	XE48(15)	R108(1)	CSH5	C2	68Ω	XE84(15)	R222(1)	CSH3	C4	68Ω	-CSH 3 VALID MATCH H	R139(1)	CSH2	C2	68Ω	CSH2 EBOX RETRY NEXT H
	R197(1)	CSH1	A7	68Ω	XE48(7)	R26(1)	CSH5	C5	68Ω	XE85(15)	R226(1)	CSH3	C2	68Ω	CSH 3 WD VAL H	R16(1)	CSH2	B2	68Ω	-CSH2 EBOX RETRY NEXT H
	R73(1)	CSH4	A5	68Ω	XE42(15)	R147(1)	CSH6	B2	68Ω	XE85(2)	R178(1)	CSH3	A7	68Ω	CSH LRU 1 H	R1(1)	CSH2	C3	68Ω	CSH2 EBOX RETRY NEXT IN H
	R31(1)	CSH2	C3	68Ω	XE43(14)	R114(1)	CSH6	D7	68Ω	XE86(6)	R175(1)	CSH3	A7	68Ω	CSH LRU 2 H	R42(1)	CSH2	D6	68Ω	-CSH2 MBOX RESP H
	R38(1)	CSH2	C3	68Ω	XE43(7)	R59(1)	CSH2	D3	68Ω	XE9(15)	R48(1)	CSH1	C2	68Ω	CSH1 CACHE IDLE H	R47(1)	CSH2	D2	68Ω	-CSH2 ONE WORD RD A H
	R253(1)	CSH3	C6	68Ω	XE45(3)	R62(1)	CSH6	C7	68Ω	XE9(2)	R246(1)	CSH1	C3	68Ω	-CSH1 CACHE IDLE H	R185(1)	CSH2	C6	68Ω	-CSH2 RD PSE 2ND REQ EN H
	R201(1)	CSH1	B7	68Ω	XE45(7)	R173(1)	CSH2	D7	68Ω	-A CHANGE COMING IN H	R105(1)	CSH1	C3	68Ω	CSH1 CACHE IDLE IN H	R169(1)	CSH2	C5	68Ω	-CSH2 SBUS DIAG 3 A H
	R96(1)	CSH1	B3	68Ω	XE46(15)	R242(1)	CSH1	C7	68Ω	-APR6 EBOX CCA H	R161(1)	CSH1	C4	68Ω	CSH1 CACHE IDLE IN A H	R23(1)	CSH2	B3	68Ω	-CSH2 LR TEST H
	R22(1)	CSH2	C4	68Ω	XE47(2)	R239(1)	CSH1	C7	68Ω	-APR6 EBOX ERA H; TIME CRITICAL	R137(1)	CSH1	B4	68Ω	CSH1 CACHE IDLE IN B H	R228(1)	CSH3	D2	68Ω	-CSH3 0 WD VAL H
	R33(1)	CSH6	A2	68Ω	XE48(14)	R88(1)	CSH6	B4	68Ω	-APR6 EBOX LOAD REG H	R167(1)	CSH1	B4	68Ω	-CSH1 CACHE IDLE IN B H	R229(1)	CSH3	D2	68Ω	-CSH3 1 WD VAL H
	R34(1)	CSH4	D2	68Ω	XE48(2)	R10(1)	CSH4	A7	68Ω	APR6 EBOX READ REG H	R100(1)	CSH1	C3	68Ω	CSH1 CACHE IDLE IN D H	R230(1)	CSH3	C2	68Ω	-CSH3 2 WD VAL H
	R165(1)	CSH7	D2	68Ω	XE50(3)	R231(1)	CSH3	D7	68Ω	-APR6 EBOX READ REG H	R249(1)	CSH1	A6	68Ω	-CSH1 CCA REQ EN H	R227(1)	CSH3	C2	68Ω	-CSH3 3 WD VAL H
	R15(1)	CSH7	C2	68Ω	XE50(6)	R120(1)	CSH4	A7	68Ω	APR6 EBOX SBUS DIAG H	R208(1)	CSH1	C7	68Ω	-CSH1 CCA REQ GRANT H	R214(1)	CSH3	B6	68Ω	-CSH3 ANY VAL HOLD H
	R93(1)	CSH3	A4	68Ω	XE50(9)	R126(1)	CSH2	C7	68Ω	-CACHE TO MB T4 H	R155(1)	CSH1	B6	68Ω	-CSH1 CHAN REQ EN H	R20(1)	CSH3	C1	68Ω	CSH3 ANY VALID MATCH H
	R181(1)	CSH2	A2	68Ω	XE51(2)	R243(1)	CSH1	D7	68Ω	CCL CHAN REQ H; TIME CRITICAL	R248(1)	CSH1	D7	68Ω	-CSH1 CHAN REQ GRANT H	R213(1)	CSH3	C2	6	

RESISTOR										RESISTOR										RESISTOR									
LOC(PIN)	SHOWN	ON	TERM	REF	DRW#	LOC(PIN)	SHOWN	ON	TERM	REF	DRW#	LOC(PIN)	SHOWN	ON	TERM	REF	DRW#	LOC(PIN)	SHOWN	ON	TERM	REF	DRW#						
R74(1)	CSH3	D4	68Ω	-CSH		R117(1)	CSH5	C4	68Ω	-CSH5		R174(1)	CSH2	C5	68Ω	-MBX3 SBUS DIAG 3 H													
R85(1)	CSH3	D6	68Ω	-CSH		R211(1)	CSH5	C7	68Ω	CSH5		R168(1)	CSH5	A2	68Ω	-MBX4 CACHE TO MB DONE H													
R232(1)	CSH3	D7	68Ω	CSH		R203(1)	CSH5	C7	68Ω	CSH5		R199(1)	CSH1	B7	68Ω	MBX5 MB REQ IN H													
R32(1)	CSH3	B3	68Ω	CSH		R36(1)	CSH5	C7	68Ω	CSH5		R411(1)	CSH4	C4	68Ω	MCL2 VMA PAUSE H													
R4(1)	CSH2	B4	68Ω	-C1		R124(1)	CSH5	A2	68Ω	CSH5		R141(1)	CSH4	C4	68Ω	-MCL2 VMA READ H													
R220(1)	CSH3	C6	68Ω	CSI		R202(1)	CSH5	D6	68Ω	CSH5		R241(1)	CSH3	D7	68Ω	-MCL6 EBOX MAP H													
R56(1)	CSH3	C4	68Ω	CS		R97(1)	CSH5	D3	68Ω	CSH5	T1 H	R256(1)	CSH1	B7	68Ω	MEM BUSY H													
R172(1)	CSH3	C4	68Ω	-C2		R116(1)	CSH5	C2	68Ω	CSH5	T2 IN H	R149(1)	CSH3	C6	68Ω	NC													
R145(1)	CSH4	D2	68Ω	-CSH4		R221(1)	CSH5	C1	68Ω	CSH5	T3 H	R13(1)	CSH6	B7	68Ω	-PAG4 PAGE FAIL H													
R57(1)	CSH4	C4	68Ω	-CSH4	E RD T2 CORE OK H	R189(1)	CSH6	C6	68Ω	CSH6	CACHE WR FROM MEM H	R126(1)	CSH4	D5	68Ω	-PAG4 PAGE OK H													
R178(1)	CSH4	D4	68Ω	-CSH4	E RD T2 OK H	R163(1)	CSH6	C4	68Ω	CSH6	DATA DLY 1 H	R11(1)	CSH5	C8	68Ω	-PAG4 PAGE REFILL H													
R48(1)	CSH4	A7	68Ω	-CSH4	E T2 MEM REF H	R99(1)	CSH6	C4	68Ω	CSH6	DATA DLY 2 H	R247(1)	CSH1	C4	68Ω	-PMAS CSH WRITEBACK CYC H													
R72(1)	CSH4	D4	68Ω	-CSH4	E WR T2 H	R129(1)	CSH6	D5	68Ω	CSH6	E CORE RD COMP H	R210(1)	CSH1	D5	68Ω	PMAS CYC TYPE HOLD H													
R193(1)	CSH4	C4	68Ω	-CSH4	EBOX PAUSE A H	R131(1)	CSH6	D6	68Ω	CSH6	EBOX SYNC HOLD H	R191(1)	CSH1	C2	68Ω	-PMAS PAGE REFILL CYC H													
R94(1)	CSH4	C4	68Ω	CSH4	EBOX PAUSE WRITE H	R98(1)	CSH6	D7	68Ω	CSH6	EBOX SYNC SEEN H	R135(1)	CSH1	C4	68Ω	VMA1 AC REF A H													
R86(1)	CSH4	C4	68Ω	-CSH4	EBOX PAUSE WRITE H	R196(1)	CSH6	A2	68Ω	CSH6	EBOX TOOK 1 WD H																		
R192(1)	CSH4	C4	68Ω	CSH4	EBOX READ A H	R254(1)	CSH6	C2	68Ω	CSH6	KI18 PAGING MODE H																		
R79(1)	CSH4	D6	68Ω	-CSH4	EBOX T8 H	R3(1)	CSH6	B6	68Ω	CSH6	PAGE FAIL FF H																		
R53(1)	CSH4	D6	68Ω	CSH4	EBOX T8 B H	R69(1)	CSH6	C4	68Ω	CSH6	PAGE FAIL FF H																		
R287(1)	CSH4	D7	68Ω	-CSH4	EBOX T8 IN H	R5(1)	CSH6	C7	68Ω	CSH6	PAGE FAIL FF H																		
R144(1)	CSH4	C6	68Ω	CSH4	EBOX T1 H	R2(1)	CSH6	D3	68Ω	CSH6	PAGE FAIL FF H																		
R142(1)	CSH4	C6	68Ω	-CSH4	EBOX T1 H	R51(1)	CSH7	B4	68Ω	CSH7	E CORE RD T3 H																		
R12(1)	CSH4	B5	68Ω	-CSH4	EBOX T2 H	R134(1)	CSH3	D7	68Ω	CSH3	CTL3 DIAG LD EBUS REG H																		
R8(1)	CSH4	D2	68Ω	-CSH4	EBOX WR T3 H	R6(1)	CSH2	B3	68Ω	CSH2	MBC1 WRITE OK H																		
R198(1)	CSH4	D1	68Ω	-CSH4	EBOX WR T4 H	R7(1)	CSH6	D2	68Ω	CSH6	MBC2 CSH DATA CLR T1 H																		
R159(1)	CSH4	D4	68Ω	CSH4	H1	R127(1)	CSH6	C2	68Ω	CSH6	MBC2 CSH DATA CLR T2 H																		
R186(1)	CSH4	B3	68Ω	CSH4	PAGE FAIL DLY H	R252(1)	CSH4	D2	68Ω	CSH4	MBC2 CSH DATA CLR T3 H																		
R188(1)	CSH4	B2	68Ω	-CSH4	PAGE FAIL T2 H	R146(1)	CSH4	B3	68Ω	CSH4	MBC2 DATA CLR DONE IN H																		
R18(1)	CSH4	A2	68Ω	-CSH4	PAGE FAIL T3 H	R130(1)	CSH2	C7	68Ω	CSH2	MBC4 CORE DATA VAL -1 H																		
R49(1)	CSH4	A4	68Ω	-CSH4	WRITEBACK T1 H	R55(1)	CSH2	B7	68Ω	CSH2	MBC4 CORE DATA VALID H																		
R194(1)	CSH4	A4	68Ω	CSH4	WRITEBACK T1 A H	R133(1)	CSH6	D5	68Ω	CSH6	MBC4 CORE DATA VALID H																		
R112(1)	CSH4	B4	68Ω	-CSH4	WRITEBACK T2 H	R76(1)	CSH4	B7	68Ω	CSH4	MBX1 CACHE BIT H																		
R218(1)	CSH5	C1	68Ω	CSH5	CCA T3 H	R63(1)	CSH4	C3	68Ω	CSH4	MBX1 CACHE BIT H																		
R67(1)	CSH5	C1	68Ω	-CSH5	CCA T3 H	R217(1)	CSH4	A4	68Ω	CSH4	MBX1 CCA INVALID CSH H																		
R187(1)	CSH5	A4	68Ω	-CSH5	CHAN WR T5 H	R219(1)	CSH6	A5	68Ω	CSH6	MBX1 CCA VAL CORE H																		
R151(1)	CSH5	D3	68Ω	-CSH5	CSH T8 H	R75(1)	CSH6	B4	68Ω	CSH6	MBX1 CCA VAL CORE H																		
R98(1)	CSH5	B7	68Ω	-CSH5	EBOX REFILL OK H	R244(1)	CSH3	A3	68Ω	CSH3	MBX1 REFILL ADR EN NXT H																		
R236(1)	CSH5	B6	68Ω	-CSH5	PAGE REFILL COMP H	R25(1)	CSH5	C4	68Ω	CSH5	MBX2 MB SEL HOLD H																		
R150(1)	CSH5	C4	68Ω	-CSH5	PAGE REFILL T18 H	R115(1)	CSH5	C5	68Ω	CSH5	MBX2 MB SEL HOLD FF H																		
R91(1)	CSH5	C4	68Ω	CSH5	PAGE REFILL T11 H																								

## NOTE:

1. ALL TERMINATORS HAVE PIN TWO CONNECTED TO -2.0V AND ARE 5% 1/4WATT UNLESS OTHERWISE SPECIFIED
2. ENTRIES ARE SORTED BY SIGNAL NAME
3. % INDICATES OUTPUT OF DIP LOC AND () INDICATES PIN NUMBER

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REVISIONS DRN. C. Smith DATE 30-MAR-77 ENG. John M. Smith DATE 30-MAR-77 TITLE: CACHE CONTROL TERMINATORS  
 CHG. CHANGE NO. REV. SHEET 2 OF 2  
 FIRST USED ON OPTION/MODEL: KL10 F35132.DRW4,5401 30-MAR-77 02/19 NEXT HIGHER ASSEMBLY: B-DD-M8513-YA  
 SIZE CODE D CS NUMBER M8513-YA-RES REV. A