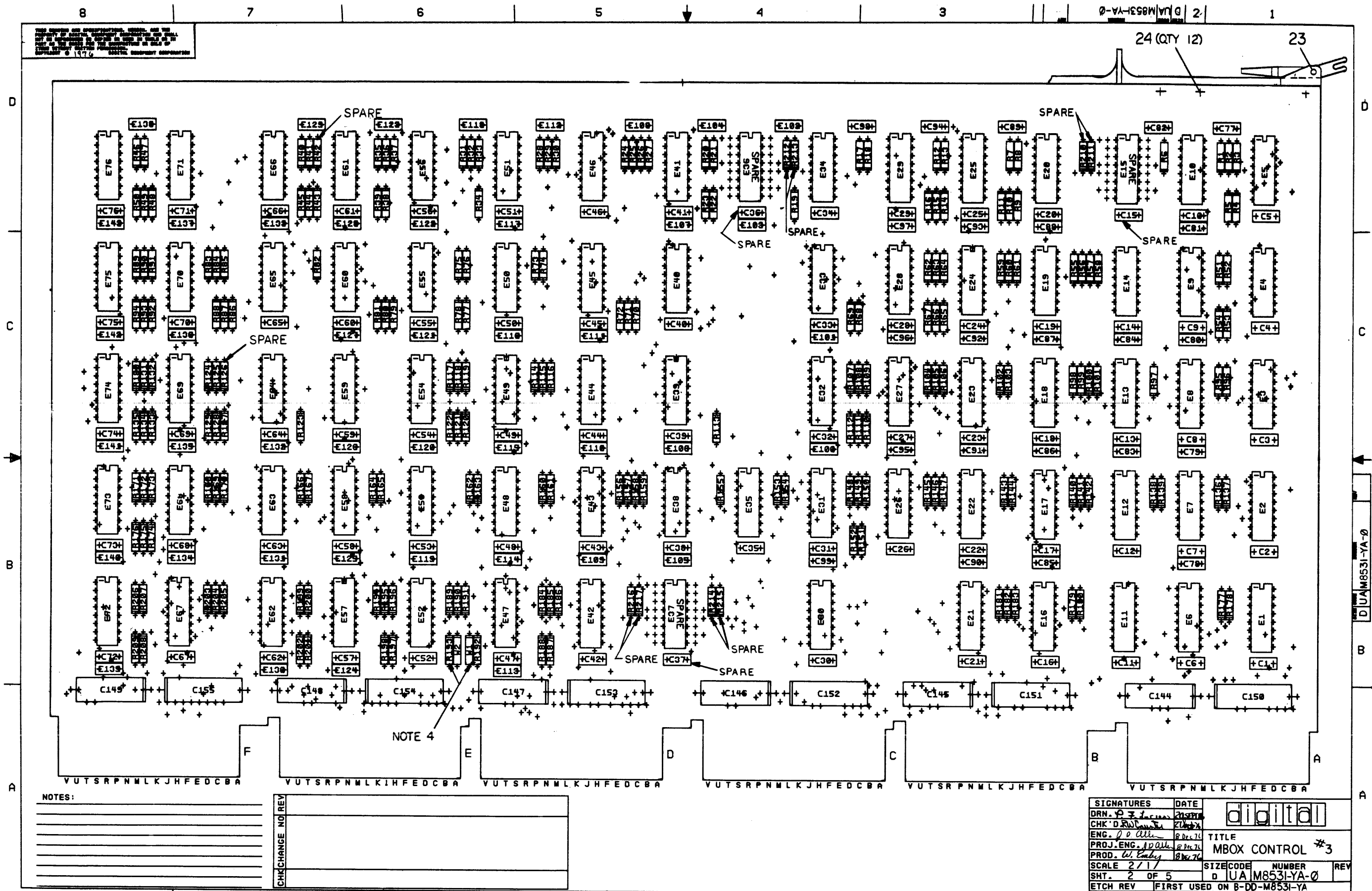
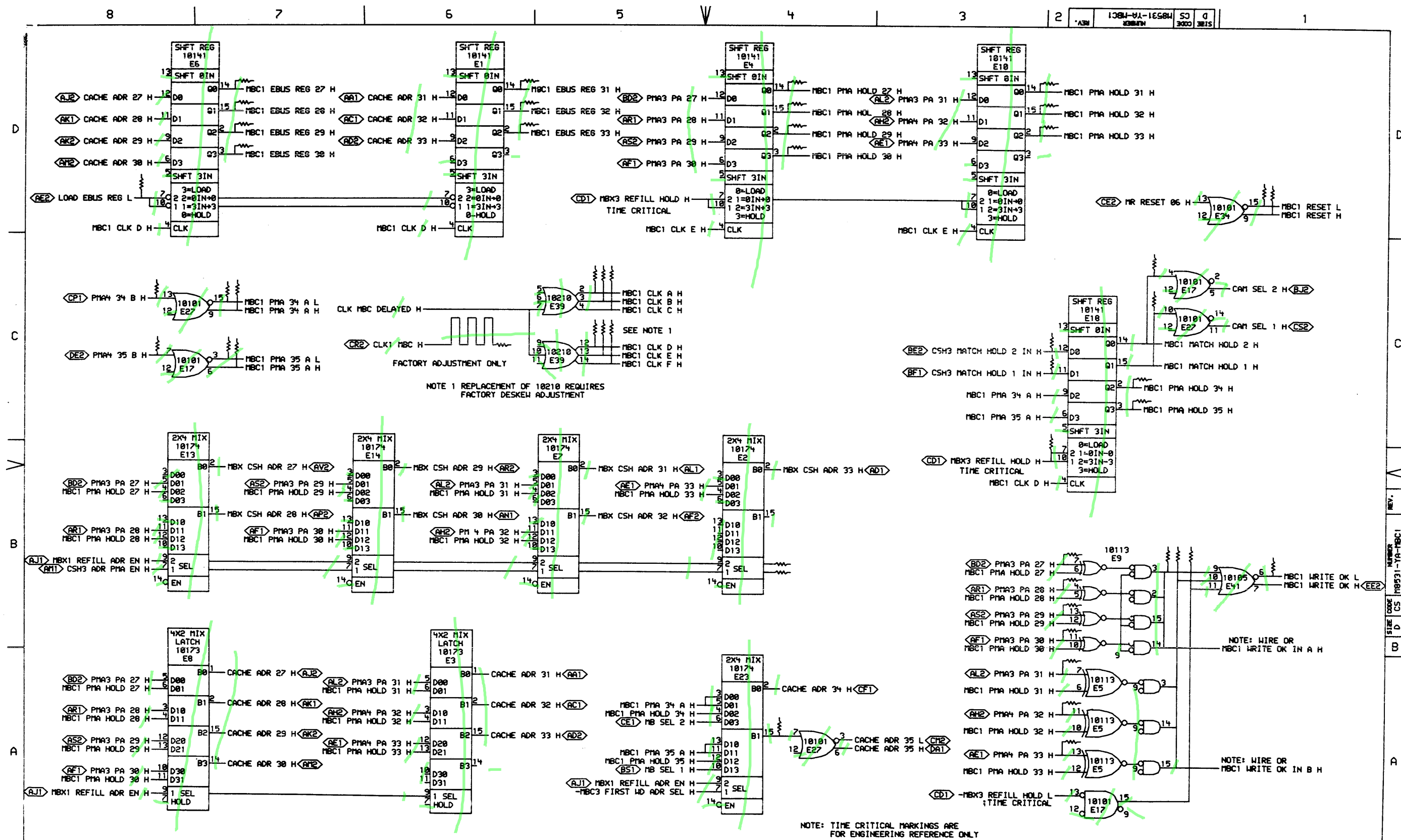


[illegible]





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2081-VA-1650N 52 0  
M8531-VA-MBC2

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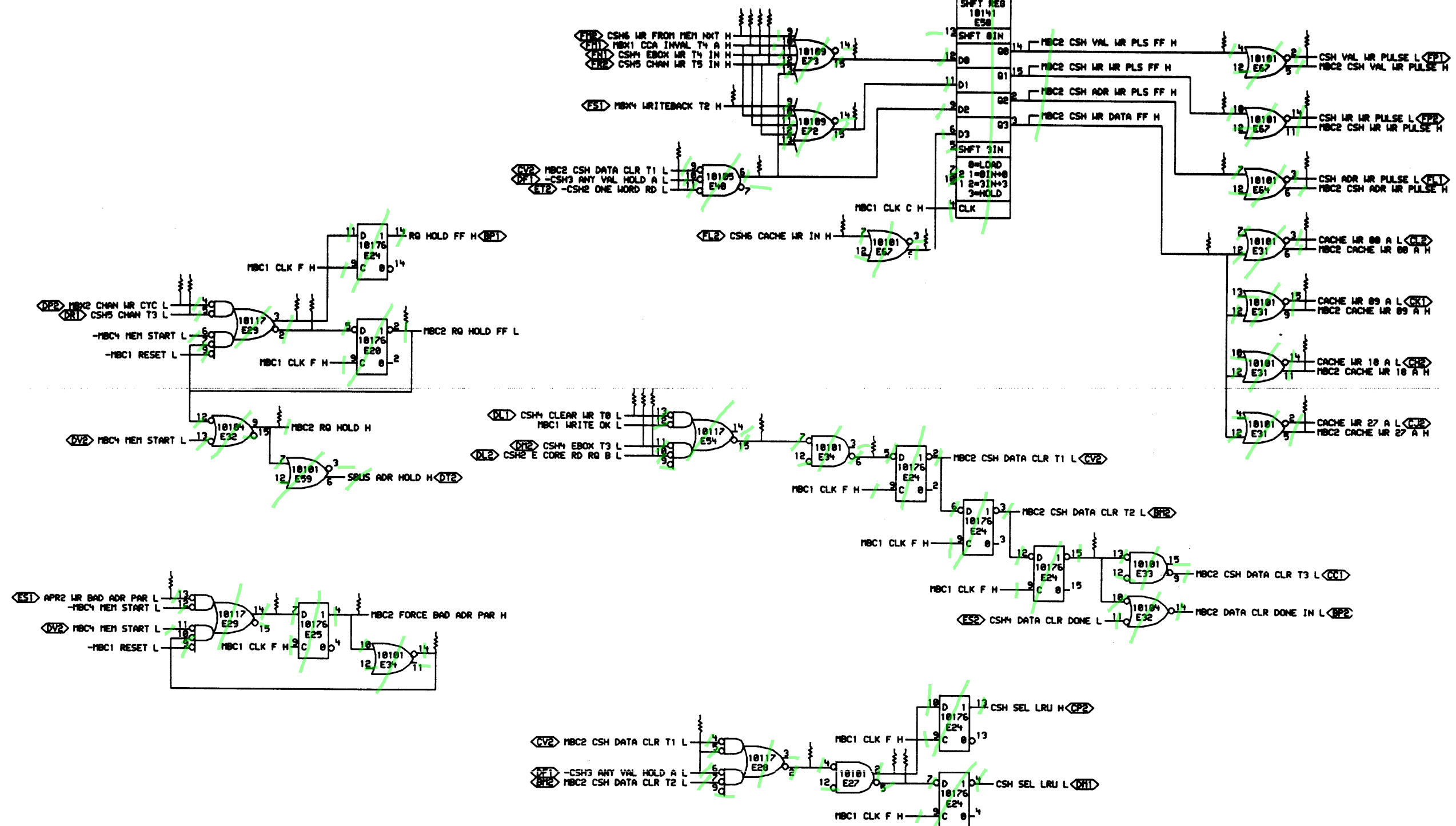
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2 OF 6

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REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE 18-NOV-76	ENG. A.D. Allen	DATE 23-NOV-76	TITLE: CACHE WR PULSE, CSH DATA CLR
	DATE 18-NOV-76	DATE 23-NOV-76	DATE 23-NOV-76	DATE 23-NOV-76
MBC2EF, DRK 4.1753 18-NOV-76 09121 NEXT HIGHER ASSEMBLY: B-DD-M8531-YA				
FIRST USED ON OPTION/MODEL: KL10PV				
SIZE CODE D CS	NUMBER M8531-YA-MBC2	REV.		

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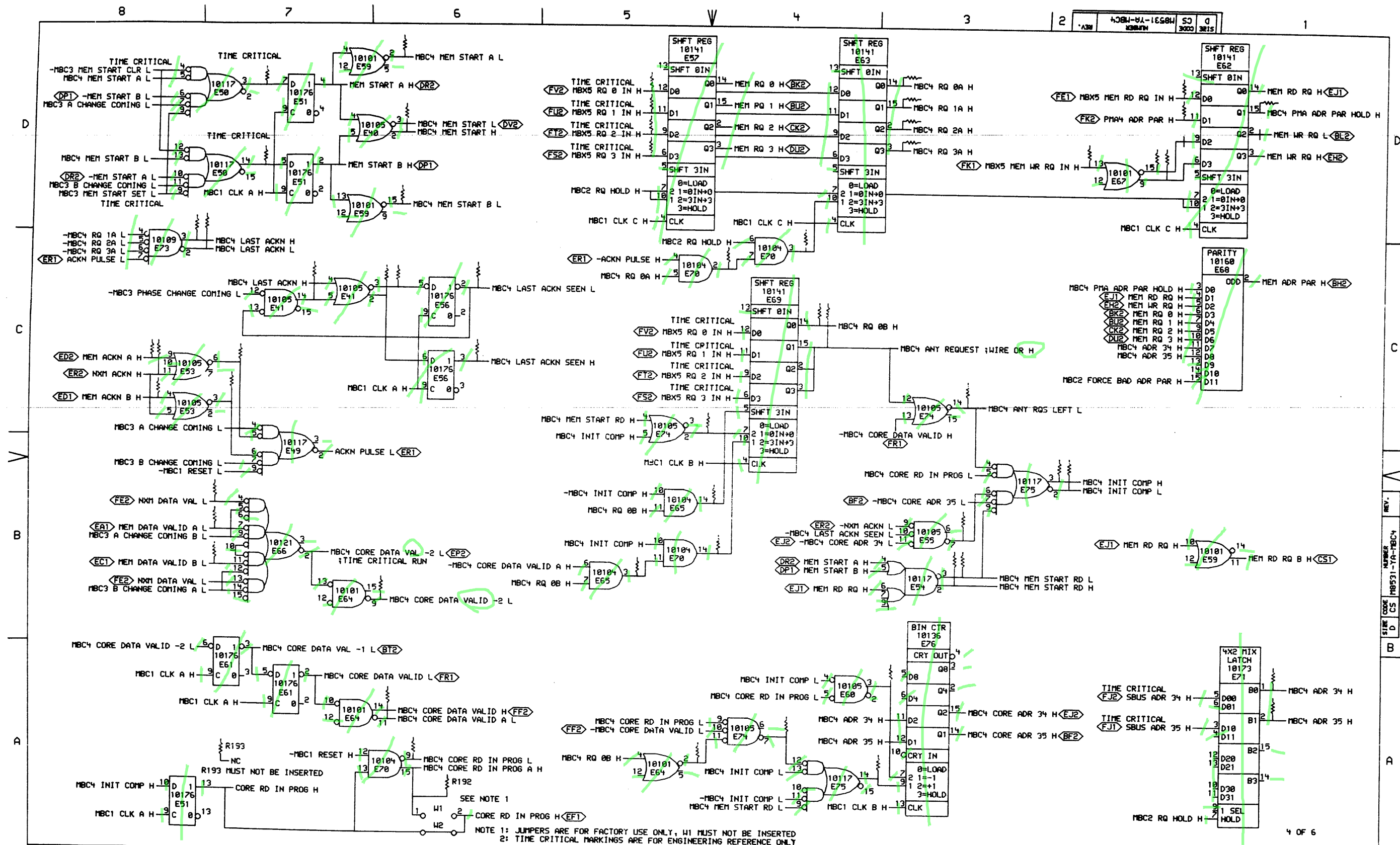
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190







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REV	CHK	CHANGE NO.	REV

NOTE 1: JUMPERS ARE FOR FACTORY USE ONLY. W1 MUST NOT BE INSERTED  
NOTE 2: TIME CRITICAL MARKINGS ARE FOR ENGINEERING REFERENCE ONLY

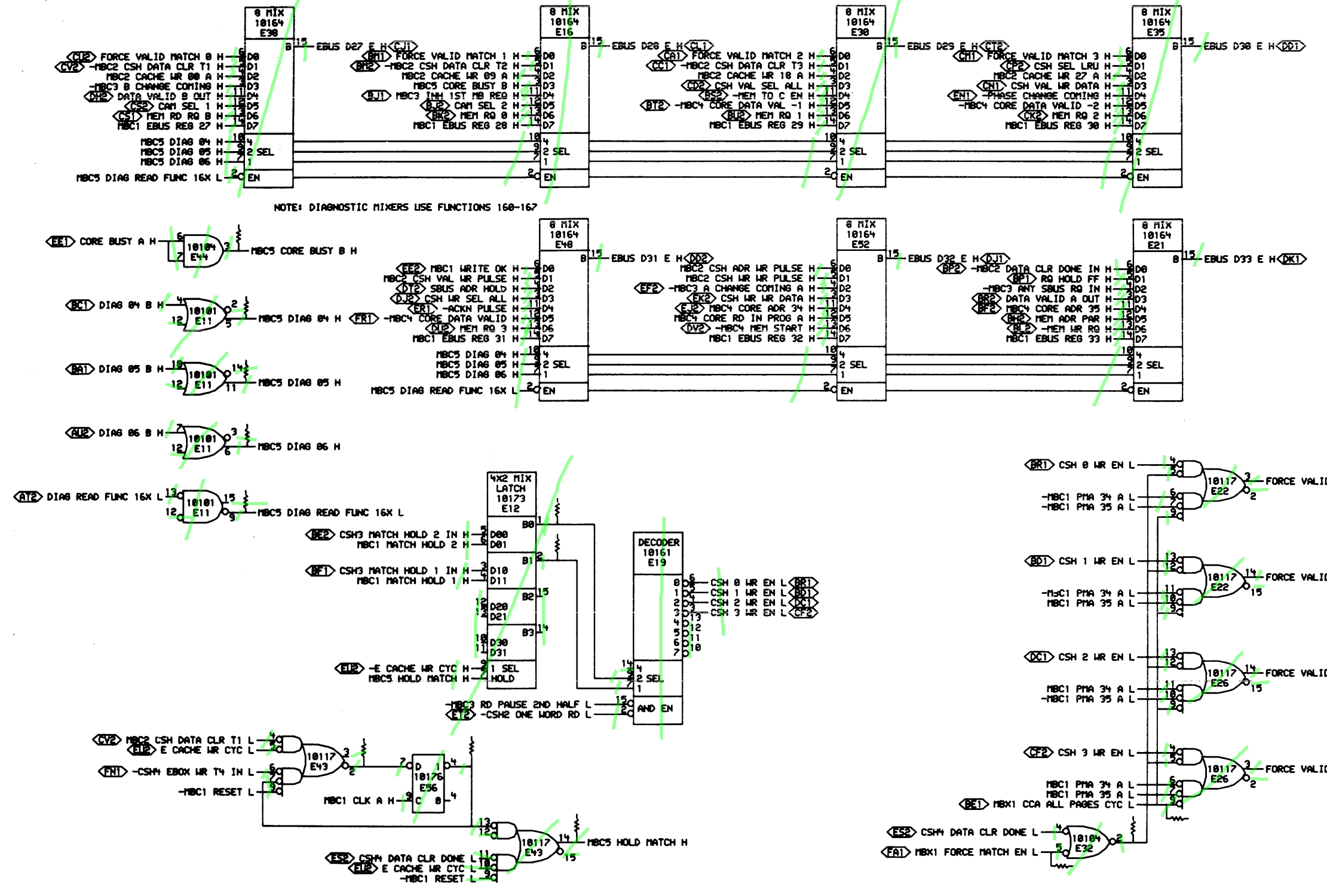
digital

16-NOV-76 17:50

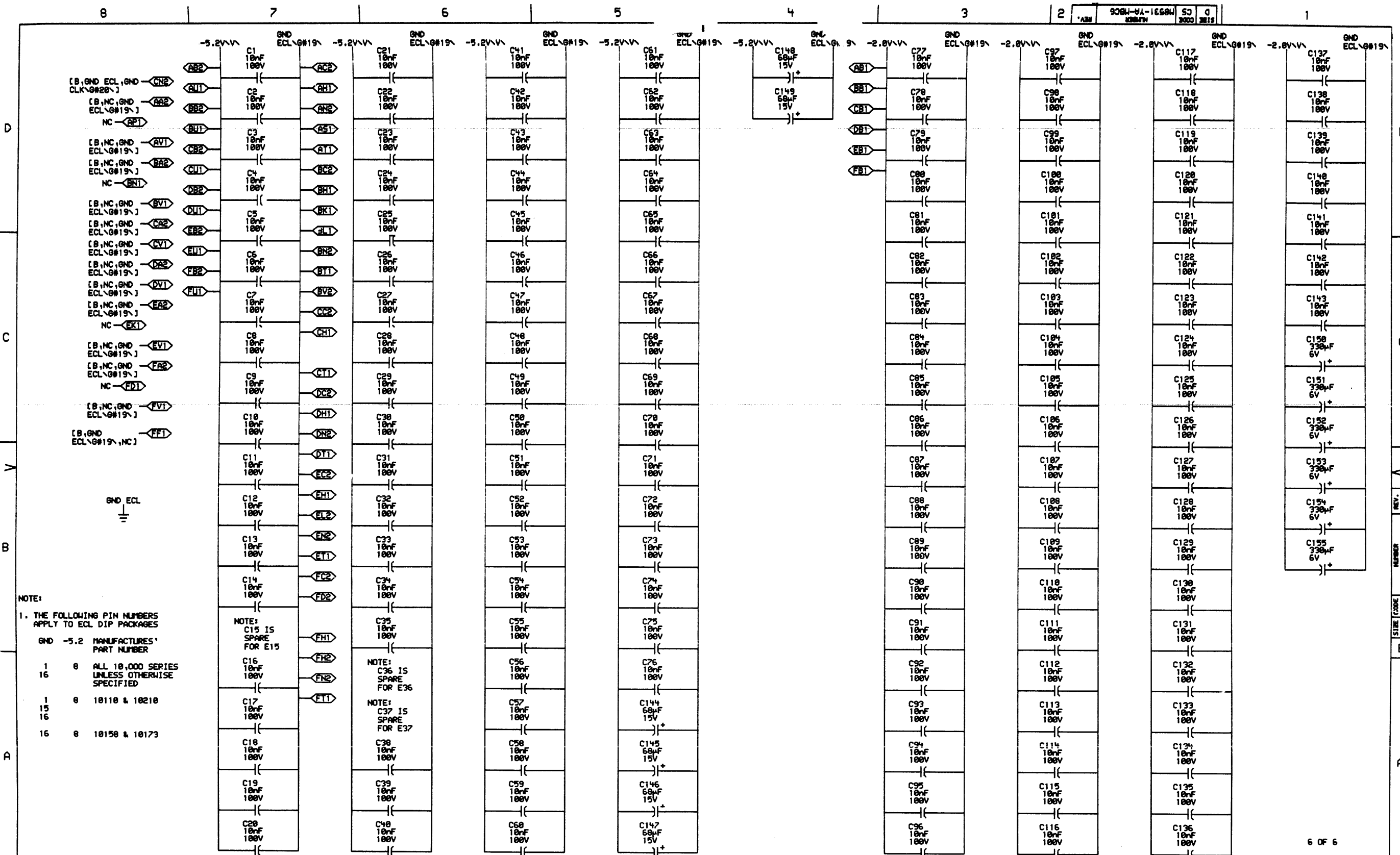
DATE 16-NOV-76  
ENG. J. P. Allen  
DATE 23-Nov-76  
BOARD LOCATION: 48E22

TITLE: MEM REQUESTS, ACK & DAT VAL CTRS  
FIRST USED ON OPTION/MODEL: KL10PV  
NEXT HIGHER ASSEMBLY: B-DD-M8531-YA

SIZE CODE D CS  
NUMBER M8531-YA-MBC4  
REV.



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FIRST USED ON OPTION MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-M8531-YA		SIZE CODE		NUMBER		REV.		D CS M8531-YA-MBC5	





RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R56(1)	MBC5	B5	68n	%E12(1)
R60(1)	MBC5	B5	68n	%E12(2)
R21(1)	MBC1	B2	68n	%E17(15)
R75(1)	MBC3	D3	68n	%E20(15)
R110(1)	MBC1	A4	68n	%E23(15)
R112(1)	MBC2	B3	68n	%E24(15)
R66(1)	MBC2	A4	68n	%E27(2)
R65(1)	MBC2	A4	68n	%E27(5)
R11(1)	MBC3	B4	68n	%E28(15)
R109(1)	MBC2	A4	68n	%E28(2)
R14(1)	MBC2	B7	68n	%E29(14)
R8(1)	MBC2	C7	68n	%E29(2)
R59(1)	MBC2	C7	68n	%E29(3)
R143(1)	MBC5	A2	68n	%E32(2)
R16(1)	MBC2	B6	68n	%E34(14)
R64(1)	MBC2	B4	68n	%E34(6)
R32(1)	MBC3	C7	68n	%E40(14)
R35(1)	MBC3	C7	68n	%E40(15)
R206(1)	MBC2	D4	68n	%E40(6)
R27(1)	MBC4	C7	68n	%E41(14)
R36(1)	MBC4	C6	68n	%E41(2)
R37(1)	MBC4	C6	68n	%E41(3)
R105(1)	MBC3	A7	68n	%E42(2)
R38(1)	MBC5	A6	68n	%E43(2)
R28(1)	MBC3	C7	68n	%E44(15)
R13(1)	MBC3	B4	68n	%E46(15)
R31(1)	MBC3	A4	68n	%E46(2)
R9(1)	MBC3	C3	68n	%E49(15)
R7(1)	MBC3	D2	68n	%E5(2)
R33(1)	MBC4	D7	68n	%E50(14)
R34(1)	MBC4	D7	68n	%E50(3)
R120(1)	MBC4	C7	68n	%E53(3)
R119(1)	MBC4	C7	68n	%E53(6)
R19(1)	MBC2	B4	68n	%E54(15)
R84(1)	MBC3	D4	68n	%E55(2)
R76(1)	MBC3	D4	68n	%E55(3)
R93(1)	MBC4	B3	68n	%E55(7)
R80(1)	MBC3	D5	68n	%E56(13)
R156(1)	MBC5	A6	68n	%E56(4)
R50(1)	MBC4	A3	68n	%E60(3)

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R67(1)	MBC3	B5	68n	%E60(6)
R131(1)	MBC4	A4	68n	%E64(2)
R128(1)	MBC4	B4	68n	%E65(14)
R30(1)	MBC3	A5	68n	%E65(2)
R88(1)	MBC4	B5	68n	%E65(3)
R3(1)	MBC3	D4	68n	%E65(9)
R201(1)	MBC4	D2	68n	%E67(15)
R167(1)	MBC2	C3	68n	%E67(6)
R205(1)	MBC4	D2	68n	%E67(9)
R129(1)	MBC4	B4	68n	%E70(14)
R92(1)	MBC4	C4	68n	%E70(2)
R166(1)	MBC4	C4	68n	%E70(3)
R165(1)	MBC2	D4	68n	%E72(15)
R164(1)	MBC2	D4	68n	%E73(15)
R133(1)	MBC4	C4	68n	%E74(2)
R89(1)	MBC4	A4	68n	%E74(7)
R49(1)	MBC4	A3	68n	%E75(14)
R15(1)	MBC2	B7	68n	-APR2 WR BAD A.R PAR H
R186(1)	MBC3	A7	68n	-CCL START MEM H
R113(1)	MBC1	C6	68n	CLK1 MBC H
R121(1)	MBC2	C5	68n	-CSH2 E CORE RD RQ B H
R61(1)	MBC2	D5	68n	CSH2 ONE WORD RD H
R69(1)	MBC3	B5	68n	-CSH2 RD PAUSE 2ND HALF H
R57(1)	MBC1	B4	68n	CSH3 ADR PMA EN H
R68(1)	MBC2	A5	68n	CSH3 ANY VAL HOLD A H
R99(1)	MBC1	C2	68n	CSH3 MATCH HOLD 1 IN H
R98(1)	MBC1	C2	68n	CSH3 MATCH HOLD 2 IN H
R118(1)	MBC2	C5	68n	-CSH4 CLEAR WR T0 H
R107(1)	MBC3	A2	68n	-CSH4 DATA CLR DONE H
R122(1)	MBC2	C5	68n	-CSH4 EBOX T3 H
R161(1)	MBC2	D4	68n	CSH4 EBOX WR T4 IN H
R187(1)	MBC3	A7	68n	-CSH5 CHAN RD T5 H
R18(1)	MBC2	C7	68n	-CSH5 CHAN T3 H
R171(1)	MBC2	D4	68n	CSH5 CHAN WR T5 IN H
R180(1)	MBC3	A7	68n	-C5H5 PAGE REFILL T9 H
R200(1)	MBC2	C4	68n	CSH6 CACHE WR IN H
R140(1)	MBC3	B2	68n	-C5H6 CHAN WR CACHE H
R174(1)	MBC2	D4	68n	CSH6 WR FROM MEM NXT H
R130(1)	MBC3	B2	68n	-E CACHE WR CYC H
R177(1)	MBC1	D8	68n	-LOAD EBUS REG H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R39(1)	MBC1	C5	68n	MBC1 CLK A H
R47(1)	MBC1	C5	68n	MBC1 CLK B H
R200(1)	MBC1	C5	68n	MBC1 CLK C H
R178(1)	MBC1	C5	68n	MBC1 CLK D H
R6(1)	MBC1	C5	68n	MBC1 CLK E H
R10(1)	MBC1	C5	68n	MBC1 CLK F H
R157(1)	MBC1	D7	68n	MBC1 EBUS REG 27 H
R180(1)	MBC1	D7	68n	MBC1 EBUS REG 28 H
R151(1)	MBC1	D7	68n	MBC1 EBUS REG 29 H
R154(1)	MBC1	D7	68n	MBC1 EBUS REG 30 H
R160(1)	MBC1	D6	68n	MBC1 EBUS REG 31 H
R195(1)	MBC1	D6	68n	MBC1 EBUS REG 32 H
R182(1)	MBC1	D6	68n	MBC1 EBUS REG 33 H
R140(1)	MBC1	C2	68n	MBC1 MATCH HOLD 1 H
R142(1)	MBC1	C2	68n	MBC1 MATCH HOLD 2 H
R180(1)	MBC1	C7	68n	MBC1 PMA 34 A H
R150(1)	MBC1	C7	68n	-MBC1 PMA 34 A H
R146(1)	MBC1	C7	68n	MBC1 PMA 35 A H
R145(1)	MBC1	C7	68n	-MBC1 PMA 35 A H
R181(1)	MBC1	D4	68n	MBC1 PMA HOLD 27 H
R97(1)	MBC1	D4	68n	MBC1 PMA HOLD 28 H
R95(1)	MBC1	D4	68n	MBC1 PMA HOLD 29 H
R96(1)	MBC1	D4	68n	MBC1 PMA HOLD 30 H
R139(1)	MBC1	D3	68n	MBC1 PMA HOLD 31 H
R136(1)	MBC1	D3	68n	MBC1 PMA HOLD 32 H
R137(1)	MBC1	D3	68n	MBC1 PMA HOLD 33 H
R186(1)	MBC1	C2	68n	MBC1 PMA HOLD 34 H
R182(1)	MBC1	C2	68n	MBC1 PMA HOLD 35 H
R79(1)	MBC1	D1	68n	MBC1 RESET H
R83(1)	MBC1	D1	68n	-MBC1 RESET H
R117(1)	MBC1	B1	68n	-MBC1 WRITE OK H
R22(1)	MBC1	B2	68n	MBC1 WRITE OK IN A H
R23(1)	MBC1	B2	68n	MBC1 WRITE OK IN B H
R159(1)	MBC2	C2	68n	MBC2 CACHE WR 00 A H
R179(1)	MBC2	C2	68n	MBC2 CACHE WR 09 A H
R152(1)	MBC2	C2	68n	MBC2 CACHE WR 18 A H
R155(1)	MBC2	C2	68n	MBC2 CACHE WR 27 A H
R123(1)	MBC2	D2	68n	MBC2 CSH ADR WR PLS FF H
R190(1)	MBC2	D2	68n	MBC2 CSH ADR WR PULSE H
R207(1)	MBC2	D2	68n	MBC2 CSH VAL WR PLS FF H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R114(1)	MBC2	D2	68n	MBC2 CSH VAL WR PULSE H
R149(1)	MBC2	C2	68n	MBC2 CSH WR DATA FF H
R204(1)	MBC2	D2	68n	MBC2 CSH WR WR PLS FF H
R196(1)	MBC2	D2	68n	MBC2 CSH WR WR PULSE H
R170(1)	MBC2	B6	68n	MBC2 FORCE BAD ADR PAR H
R48(1)	MBC2	B7	68n	MBC2 RQ HOLD H
R188(1)	MBC2	C6	68n	-MBC2 RQ HOLD FF H
R62(1)	MBC3	D7	68n	-MBC3 A CHANGE COMING H
R63(1)	MBC3	C7	68n	MBC3 A CHANGE COMING A H
R44(1)	MBC3	D7	68n	-MBC3 A CHANGE COMING B H
R87(1)	MBC3	D2	68n	MBC3 A PHASE H
R181(1)	MBC3	A1	68n	-MBC3 ANY SBUS RQ IN H
R24(1)	MBC3	C7	68n	MBC3 B CHANGE COMING H
R158(1)	MBC3	C7	68n	-MBC3 B CHANGE COMING H
R40(1)	MBC3	B7	68n	-MBC3 B CHANGE COMING A H
R4(1)	MBC3	D3	68n	MBC3 CLK A PHASE COMING H
R191(1)	MBC3	A3	68n	MBC3 CORE BUSY H
R105(1)	MBC3	C2	68n	-MBC3 FIRST WD ADR SEL H
R115(1)	MBC3	C2	68n	-MBC3 INH 1ST MB REQ H
R73(1)	MBC3	C4	68n	MBC3 MEM START CLR H
R74(1)	MBC3	B6	68n	-MBC3 MEM START SET H
R20(1)	MBC3	D1	68n	MBC3 PHASE CHANGE COMING H
R55(1)	MBC3	A5	68n	MBC3 RD PAUSE 2ND HALF H
R46(1)	MBC4	A1	68n	MBC4 ADR 34 H
R168(1)	MBC4	A1	68n	MBC4 ADR 35 H
R132(1)	MBC4	C4	68n	MBC4 ANY REQUEST
R90(1)	MBC4	C3	68n	-MBC4 ANY RQS LEFT H
R153(1)	MBC4	B6	68n	-MBC4 CORE DATA VALID -2 H
R85(1)	MBC4	A6	68n	-MBC4 CORE DATA VALID A H
R135(1)	MBC4	A6	68n	-MBC4 CORE RD IN PROG H
R192(1)	MBC4	A6	68n	MBC4 CORE RD IN PROG A H
R29(1)	MBC4	B2	68n	MBC4 INIT COMP H
R82(1)	MBC4	B2	68n	-MBC4 INIT COMP H
R25(1)	MBC4	C7	68n	MBC4 LAST ACKN H
R72(1)	MBC4	C7	68n	-MBC4 LAST ACKN H
R78(1)	MBC4	C6	68n	MBC4 LAST ACKN SEEN H
R26(1)	MBC4	C6	68n	-MBC4 LAST ACKN SEEN H
R12(1)	MBC4	D6	68n	MBC4 MEM START H
R71(1)	MBC4	D6	68n	-MBC4 MEM START A H
R70(1)	MBC4	D6	68n	-MBC4 MEM START B 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		
CHK	CHANGE NO.	REV.

digital

DR. J. Smith

DATE 10 NOV 76  
ENG. J. D. Allen  
DATE 21 Nov 76  
BOARD LOCATION: 4AF22  
SHEET 1 OF 2

TITLE: MBC MBOX CONTROL TERMINATORS

F85311.DRW(4,175)  
FIRST USED ON OPTION/MODEL: KL10PV

110 NOV 76 17:15 NEXT HIGHER ASSEMBLY:  
B-DD-M8531-YA

SIZE CODE D CS  
NUMBER M8531-YA-RES

REV.

RESISTOR LOC(PIN)	SHOWN DRAW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRAW#	ON REF	VALUE	TERMINATES SIGNAL
R198(1)	MBC4	B3	68n	MBC4 MEM START RD H	R54(1)	MBC1	B2	68n	PMA3 PA 30 H
R94(1)	MBC4	B3	68n	-MBC4 MEM START RD H	R1(1)	MBC1	A2	68n	PMA3 PA 31 H
R169(1)	MBC4	D1	68n	MBC4 PMA ADR PAR HOLD H	R104(1)	MBC1	C8	68n	PMA4 34 B H
R91(1)	MBC4	D3	68n	MBC4 RQ 0A H	R144(1)	MBC1	C8	68n	PMA4 35 B H
R86(1)	MBC4	C4	68n	MBC4 RQ 0B H	R202(1)	MBC4	D2	68n	PMA4 ADR PAR H
R172(1)	MBC4	D3	68n	MBC4 RQ 1A H	R2(1)	MBC1	A2	68n	PMA4 PA 32 H
R175(1)	MBC4	D3	68n	MBC4 RQ 2A H	R5(1)	MBC1	A2	68n	PMA4 PA 33 H
R173(1)	MBC4	D3	68n	MBC4 RQ 3A H					
R103(1)	MBC5	C7	68n	MBC5 CORE BUST B H					
R109(1)	MBC5	C7	68n	MBC5 DIAG 04 H					
R190(1)	MBC5	C7	68n	MBC5 DIAG 05 H					
R197(1)	MBC5	B7	68n	MBC5 DIAG 06 H					
R194(1)	MBC5	B7	68n	-MBC5 DIAG READ FUNC 16X H					
R141(1)	MBC5	A5	68n	MBC5 HOLD MATCH H					
R147(1)	MBC5	A2	68n	-MBX1 CCA ALL PAGES CYC H					
R176(1)	MBC2	D4	68n	MBX1 CCA INVAL T4 A H					
R111(1)	MBC5	A3	68n	-MBX1 FORCE MATCH EN H					
R103(1)	MBC1	B4	68n	MBX1 REFILL ADR EN H					
R17(1)	MBC2	C7	68n	-MBX2 CHAN WR CYC H					
R53(1)	MBC1	B2	68n	MBX3 REFILL HOLD H					
R01(1)	MBC3	B5	68n	-MBX4 CACHE TO MB T2 H					
R104(1)	MBC3	B7	68n	-MBX4 CACHE TO MB T4 A H					
R209(1)	MBC2	D4	68n	MBX4 WRITEBACK T2 H					
R199(1)	MBC4	D2	68n	MBX5 MEM RD RQ IN H					
R116(1)	MBC3	A2	68n	-MBX5 MEM TO C EN H					
R203(1)	MBC4	D2	68n	MBX5 MEM WR RQ IN H					
R124(1)	MBC4	D5	68n	MBX5 RQ 0 IN H					
R125(1)	MBC4	D5	68n	MBX5 RQ 1 IN H					
R127(1)	MBC4	D5	68n	MBX5 RQ 2 IN H					
R134(1)	MBC4	D5	68n	MBX5 RQ 3 IN H					
R163(1)	MBC4	C8	68n	MEM ACKN A H					
R162(1)	MBC4	C8	68n	MEM ACKN B H					
R45(1)	MBC4	B7	68n	-MEM DATA VALID A H					
R43(1)	MBC4	B7	68n	-MEM DATA VALID B H					
R193(1)	MBC4	A7	68n	NC SEE NOTE 4					
R77(1)	MBC4	C8	68n	NXM ACKN H					
R41(1)	MBC4	B7	68n	-NXM DATA VAL H					
R52(1)	MBC1	B2	68n	PMA3 PA 27 H					
R51(1)	MBC1	B2	68n	PMA3 PA 28 H					
R50(1)	MBC1	B2	68n	PMA3 PA 29 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
4. R193 IS NOT TO BE USED OR INSTALLED

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REVISIONS		
CH.	CHANGE NO.	REV.

digit	DR. <i>G. Smith</i>	DATE 18-NOV-76	ENG. <i>A. J. Allen</i>	DATE 23 Nov 76	TITLE: MBC MBOX CONTROL TERMINATORS
	CHK'D <i>W. Stephens</i>	DATE 11-11-76	BOARD LOCATION: 4AF22	SHEET 2 OF 2	
F85312.DRAW 4,1793		118-NOV-76 17:16		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: KL10PV		B-DD-M8531-YA		SIZE CODE D CS	NUMBER M8531-YA-RES

MR 1