

MR 1 MS# 30219

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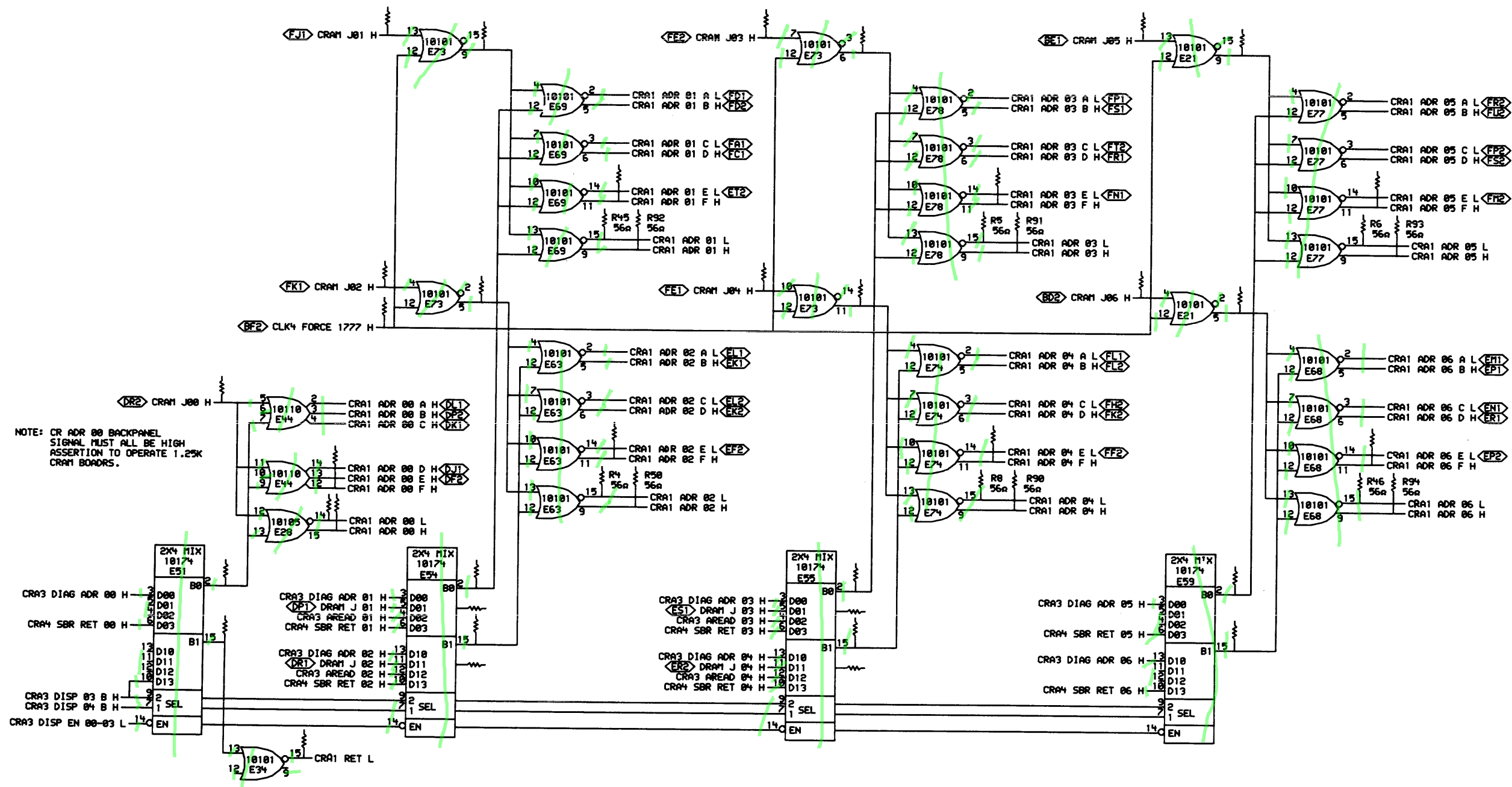
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1080-0-14584  
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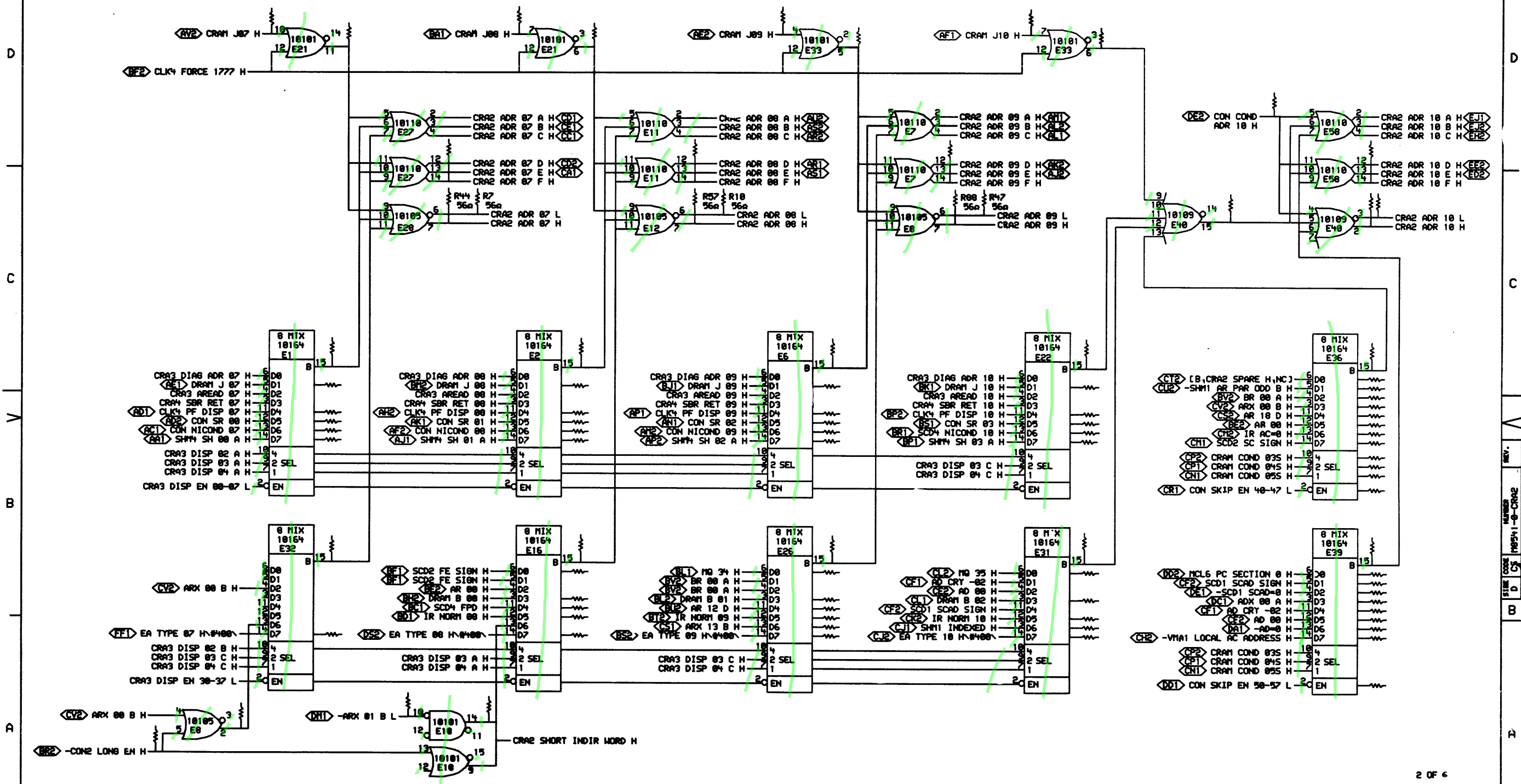
1 OF 6

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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG	DATE	TITLE
	117-SEP-76	2/2/76	2/2/76	CONTROL RAM ADR CR ADR 00-06
CRA1E.RLS(4,161)		DATE		BOARD LOCATION
FIRST USED ON OPTION/MODEL		117-SEP-76 22:21 NEXT HIGHER ASSEMBLY:		18-DD-M8541-0
SIZE	CODE	NUMBER	REV.	
D	CS	M8541-0-CRA1	MR	

346

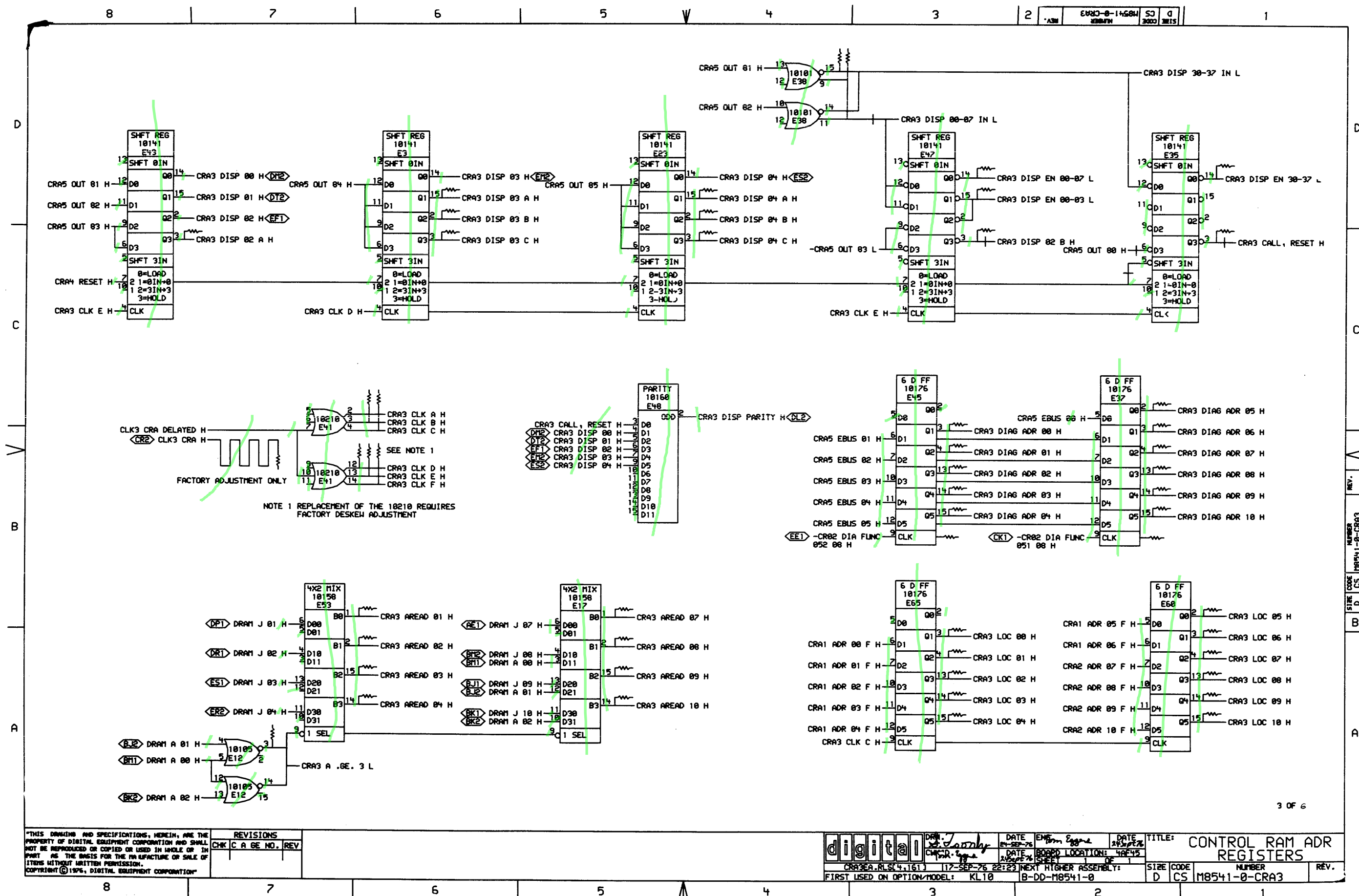


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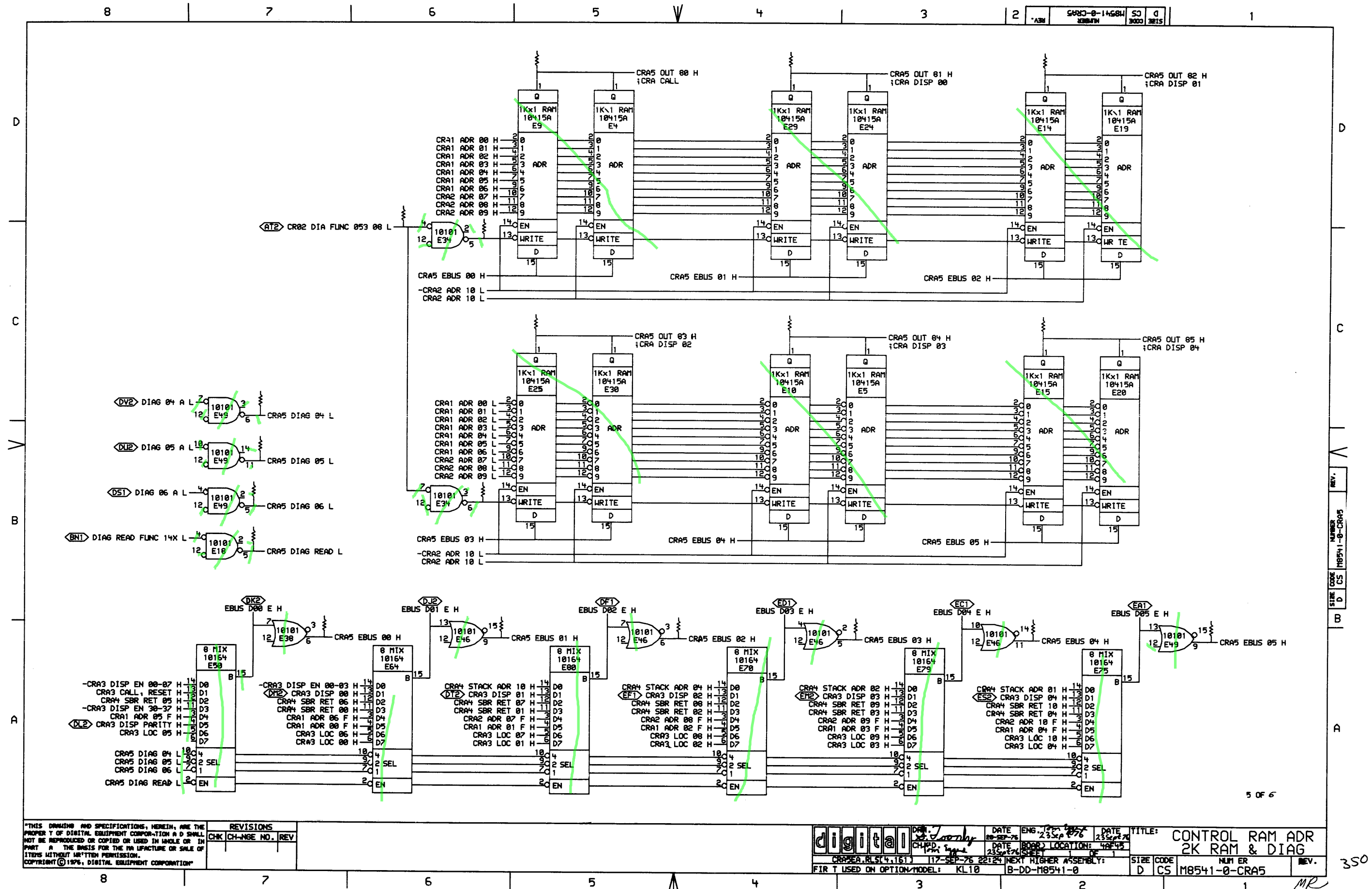
REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG	DATE	TITLE: CONTROL RAM ADR CR ADR 07-10
	11-7-76	KL10	2/13/77	
CRA2A.M54.151		117-SEP-76 E2122 NEXT HIGHER ASSEMBLY		SIZE CODE NUMBER REV.
FIRST USED ON OPTION MODEL: KL10		B-DD-M8541-0		D CS M8541-0-CRA2













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53-0-14604

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RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R63(1)	CRA4	A7	100a	%DL1(2)
R101(1)	CRA2	C7	60a	%E1(15)
R145(1)	CRA2	B5	60a	%E16(15)
R210(1)	CRA2	C5	60a	%E2(15)
R100(1)	CRA2	D7	60a	%E21(11)
R256(1)	CRA1	C2	60a	%E21(5)
R144(1)	CRA2	D5	60a	%E21(6)
R262(1)	CRA1	D2	60a	%E21(9)
R163(1)	CRA2	C3	60a	%E22(15)
R141(1)	CRA2	B4	60a	%E26(15)
R40(1)	CRA4	C4	60a	%E20(3)
R162(1)	CRA2	B3	60a	%E31(15)
R90(1)	CRA2	B7	60a	%E32(15)
R143(1)	CRA2	D4	60a	%E33(5)
R164(1)	CRA2	D3	60a	%E33(6)
R49(1)	CRA5	C6	60a	%E34(5)
R2(1)	CRA5	B6	60a	%E34(6)
R165(1)	CRA2	C1	60a	%E36(15)
R253(1)	CRA2	B1	60a	%E39(15)
R254(1)	CRA2	C2	60a	%E40(15)
R59(1)	CRA1	B7	60a	%E51(15)
R97(1)	CRA1	B7	60a	%E51(2)
R250(1)	CRA1	B6	60a	%E54(15)
R187(1)	CRA1	B6	60a	%E54(2)
R109(1)	CRA1	B4	60a	%E55(15)
R191(1)	CRA1	B4	60a	%E55(2)
R257(1)	CRA1	B2	60a	%E59(15)
R261(1)	CRA1	B2	60a	%E59(2)
R140(1)	CRA2	C4	60a	%E6(15)
R67(1)	CRA4	C7	60a	%E61(15)
R17(1)	CRA4	C7	60a	%E61(2)
R71(1)	CRA4	B5	60a	%E67(1)
R77(1)	CRA4	B5	60a	%E67(14)
R72(1)	CRA4	B5	60a	%E67(15)
R75(1)	CRA4	B3	60a	%E72(1)
R79(1)	CRA4	B3	60a	%E72(14)
R70(1)	CRA4	B3	60a	%E72(15)
R74(1)	CRA4	B3	60a	%E72(2)
R190(1)	CRA1	C4	60a	%E73(11)
R251(1)	CRA1	C6	60a	%E73(5)

## 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

RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R192(1)	CRA1	D4	60a	%E73(6)
R100(1)	CRA1	D6	60a	%E73(9)
R39(1)	CRA4	B2	60a	%E76(1)
R42(1)	CRA4	B2	60a	%E76(14)
R30(1)	CRA4	B2	60a	%E76(15)
R35(1)	CRA4	B2	60a	%E76(2)
R20(1)	CRA4	C7	60a	%E8(14)
R60(1)	CRA4	C7	60a	%E8(15)
R157(1)	CRA2	A7	60a	%E8(2)
R237(1)	CRA2	B1	60a	AD 00 H
R241(1)	CRA2	B1	60a	AD CRY -02 H
R244(1)	CRA2	A1	60a	-AD-0 H
R166(1)	CRA2	B1	60a	ADX 00 A H
R231(1)	CRA2	B1	60a	AR 00 H
R224(1)	CRA2	B4	60a	AR 12 D H
R236(1)	CRA2	B1	60a	AR 10 D H
R55(1)	CRA2	B1	60a	ARX 00 B H
R96(1)	CRA2	A6	60a	ARX 01 B H
R220(1)	CRA2	A4	60a	ARX 13 B H
R232(1)	CRA2	B1	60a	BR 00 A H
R100(1)	CRA3	B7	60a	CLK3 CRA H
R255(1)	CRA1	C6	60a	CLK4 FORCE 1777 H
R190(1)	CRA2	B7	60a	CLK4 PF DISP 07 H
R136(1)	CRA2	B6	60a	CLK4 PF DISP 08 H
R200(1)	CRA2	B4	60a	CLK4 PF DISP 09 H
R153(1)	CRA2	B3	60a	CLK4 PF DISP 10 H
R252(1)	CRA2	D2	60a	CON COND ADR 10 H
R194(1)	CRA2	B7	60a	CON NICOND 07 H
R131(1)	CRA2	B6	60a	CON NICOND 08 H
R201(1)	CRA2	B4	60a	CON NICOND 09 H
R230(1)	CRA2	B1	60a	-CON SKIP EN 40-47 H
R167(1)	CRA2	A1	60a	-CON SKIP EN 50-57 H
R199(1)	CRA2	B7	60a	CON SR 00 H
R130(1)	CRA2	B6	60a	CON SR 01 H
R204(1)	CRA2	B4	60a	CON SR 02 H
R149(1)	CRA2	B3	60a	CON SR 03 H
R56(1)	CRA2	A0	60a	-CON2 LONG EN H
R159(1)	CRA3	B2	60a	-CR02 DIA FLUNC 051 00 H
R169(1)	CRA3	B3	60a	-CR02 DIA FLUNC 052 00 H
R60(1)	CRA5	C6	60a	-CR02 DIA FLUNC 053 00 H

RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R53(1)	CRA1	B7	60a	CRA1 ADR 00 H
R3(1)	CRA1	B7	60a	-CRA1 ADR 00 H
R125(1)	CRA1	B7	60a	CRA1 ADR 00 F H
R92(1)	CRA1	C5	56a	CRA1 ADR 01 H
R45(1)	CRA1	C5	56a	-CRA1 ADR 01 H
R0(1)	CRA1	C5	60a	CRA1 ADR 01 F H
R50(1)	CRA1	B5	56a	CRA1 ADR 02 H
R4(1)	CRA1	B5	56a	-CRA1 ADR 02 H
R126(1)	CRA1	B5	60a	CRA1 ADR 02 F H
R91(1)	CRA1	C3	56a	CRA1 ADR 03 H
R5(1)	CRA1	C3	56a	-CRA1 ADR 03 H
R120(1)	CRA1	C3	60a	CRA1 ADR 03 F H
R90(1)	CRA1	B3	56a	CRA1 ADR 04 H
R0(1)	CRA1	B3	56a	-CRA1 ADR 04 H
R119(1)	CRA1	B3	60a	CRA1 ADR 04 F H
R93(1)	CRA1	C1	56a	CRA1 ADR 05 H
R6(1)	CRA1	C2	56a	-CRA1 ADR 05 H
R173(1)	CRA1	C1	60a	CRA1 ADR 05 F H
R94(1)	CRA1	B1	56a	CRA1 ADR 06 H
R46(1)	CRA1	B2	56a	-CRA1 ADR 06 H
R121(1)	CRA1	B1	60a	CRA1 ADR 06 F H
R102(1)	CRA1	A7	60a	-CRA1 RET H
R44(1)	CRA2	C6	56a	CRA2 ADR 07 H
R7(1)	CRA2	C6	56a	-CRA2 ADR 07 H
R04(1)	CRA2	D6	60a	CRA2 ADR 07 F H
R47(1)	CRA2	C5	56a	CRA2 ADR 08 H
R10(1)	CRA2	C5	56a	-CRA2 ADR 08 H
R123(1)	CRA2	D5	60a	CRA2 ADR 08 F H
R00(1)	CRA2	C3	56a	CRA2 ADR 09 H
R47(1)	CRA2	C3	56a	-CRA2 ADR 09 H
R130(1)	CRA2	D3	60a	CRA2 ADR 09 F H
R51(1)	CRA2	C1	60a	CRA2 ADR 10 H
R43(1)	CRA2	C1	60a	-CRA2 ADR 10 H
R127(1)	CRA2	D1	60a	CRA2 ADR 10 F H
R140(1)	CRA2	A6	60a	CRA2 SHORT INDIR WORD H
R240(1)	CRA2	C1	60a	CRA2 SPARE H
R249(1)	CRA3	A7	60a	-CRA3 A .0E. 3 H
R101(1)	CRA3	B6	60a	CRA3 AREAD 01 H
R171(1)	CRA3	A6	60a	CRA3 AREAD 02 H
R117(1)	CRA3	A6	60a	CRA3 AREAD 03 H

RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R109(1)	CRA3	A6	60a	CRA3 AREAD 04 H
R197(1)	CRA3	B5	60a	CRA3 AREAD 07 H
R134(1)	CRA3	A5	60a	CRA3 AREAD 08 H
R209(1)	CRA3	A5	60a	CRA3 AREAD 09 H
R151(1)	CRA3	A5	60a	CRA3 AREAD 10 H
R107(1)	CRA3	C1	60a	CRA3 CALL, RESET H
R62(1)	CRA4	A0	100a	CRA3 CLK A H
R41(1)	CRA3	C6	60a	CRA3 CLK B H
R122(1)	CRA3	C6	60a	CRA3 CLK C H
R95(1)	CRA3	B6	60a	CRA3 CLK D H
R14(1)	CRA3	B6	60a	CRA3 CLK E H
R76(1)	CRA3	B6	60a	CRA3 CLK F H
R111(1)	CRA3	C3	60a	CRA3 DIAG ADR 00 H
R170(1)	CRA3	B3	60a	CRA3 DIAG ADR 01 H
R172(1)	CRA3	B3	60a	CRA3 DIAG ADR 02 H
R115(1)	CRA3	B3	60a	CRA3 DIAG ADR 03 H
R110(1)	CRA3	B3	60a	CRA3 DIAG ADR 04 H
R104(1)	CRA3	C2	60a	CRA3 DIAG ADR 05 H
R177(1)	CRA3	C2	60a	CRA3 DIAG ADR 06 H
R196(1)	CRA3	B2	60a	CRA3 DIAG ADR 07 H
R142(1)	CRA3	B2	60a	CRA3 DIAG ADR 08 H
R205(1)	CRA3	B2	60a	CRA3 DIAG ADR 09 H
R156(1)	CRA3	B2	60a	CRA3 DIAG ADR 10 H
R61(1)	CRA3	D3	60a	-CRA3 DISP 00-07 IN H
R132(1)	CRA3	C7	60a	CRA3 DISP 02 A H
R217(1)	CRA3	C3	60a	CRA3 DISP 02 B H
R211(1)	CRA3	D6	60a	CRA3 DISP 03 A H
R102(1)	CRA3	D6	60a	CRA3 DISP 03 B H
R229(1)	CRA3	C6	60a	CRA3 DISP 03 C H
R216(1)	CRA3	D4	60a	CRA3 DISP 04 A H
R105(1)	CRA3	D4	60a	CRA3 DISP 04 B H
R220(1)	CRA3	C4	60a	CRA3 DISP 04 C H
R12(1)	CRA3	D4	60a	-CRA3 DISP 30-37 IN H
R103(1)	CRA3	D3	60a	-CRA3 DISP EN 00-03 H
R202(1)	CRA3	D3	60a	-CRA3 DISP EN 00-07 H
R170(1)	CRA3	D1	60a	-CRA3 DISP EN 30-37 H
R30(1)	CRA3	B3	60a	CRA3 LOC 00 H
R06(1)	CRA3	A3	60a	CRA3 LOC 01 H
R25(1)	CRA3	A3	60a	CRA3 LOC 02 H
R33(1)	CRA3	A3	60a	CRA3 LOC 03 H

D

C

REV.

NUMBER

M8541-0-RES

SIZE

CODE

D

B

A

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN.	DATE	ENG	DATE
17-SEP-76	17-SEP-76	17-SEP-76	17-SEP-76
CHKD.	DATE	CHKD.	DATE
17-SEP-76	17-SEP-76	17-SEP-76	17-SEP-76

TITLE:		CONTROL RAM ADR TERMINATORS	
FIRST USED ON OPTION/MODEL:		KL10	

SIZE	CODE	NUMBER	REV.
D	CS	M8541-0-RES	

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REGISTER LOCK(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R32(1)	CRA3	A3	68n	CRA3 LOC 04 H
R29(1)	CRA3	B1	68n	CRA3 LOC 05 H
R28(1)	CRA3	B1	68n	CRA3 LOC 06 H
R37(1)	CRA3	A1	68n	CRA3 LOC 07 H
R36(1)	CRA3	A1	68n	CRA3 LOC 08 H
R34(1)	CRA3	A1	68n	CRA3 LOC 09 H
R31(1)	CRA3	A1	68n	CRA3 LOC 10 H
R104(1)	CRA4	A2	68n	CRA4 CALL, RESET, 1777 H
R23(1)	CRA4	A2	68n	-CRA4 CALL, RESET, 1777 H
R139(1)	CRA4	A4	68n	CRA4 RESET H
R54(1)	CRA4	A2	68n	CRA4 RET AND -1777 H
R19(1)	CRA4	A2	68n	-CRA4 RET AND -1777 H
R112(1)	CRA4	C4	68n	CRA4 SBR RET 00 H
R100(1)	CRA4	C4	68n	CRA4 SBR RET 01 H
R176(1)	CRA4	C4	68n	CRA4 SBR RET 02 H
R110(1)	CRA4	C2	68n	CRA4 SBR RET 03 H
R114(1)	CRA4	C2	68n	CRA4 SBR RET 04 H
R174(1)	CRA4	C2	68n	CRA4 SBR RET 05 H
R106(1)	CRA4	C2	68n	CRA4 SBR RET 06 H
R195(1)	CRA4	C1	68n	CRA4 SBR RET 07 H
R133(1)	CRA4	C1	68n	CRA4 SBR RET 08 H
R200(1)	CRA4	C1	68n	CRA4 SBR RET 09 H
R155(1)	CRA4	C1	68n	CRA4 SBR RET 10 H
R24(1)	CRA4	A7	68n	CRA4 SEL CALL H
R120(1)	CRA4	B5	68n	CRA4 STACK ADR 01 H
R129(1)	CRA4	B5	68n	CRA4 STACK ADR 02 H
R124(1)	CRA4	B5	68n	CRA4 STACK ADR 04 H
R02(1)	CRA4	B5	68n	CRA4 STACK ADR 10 H
R69(1)	CRA4	D6	68n	CRA4 STACK ADR A H
R26(1)	CRA4	D6	68n	CRA4 STACK ADR B H
R27(1)	CRA4	D6	68n	CRA4 STACK ADR C H
R73(1)	CRA4	D6	68n	CRA4 STACK ADR D H
R65(1)	CRA4	C6	68n	CRA4 STACK ADR E H
R70(1)	CRA4	C6	68n	CRA4 STACK ADR F H
R21(1)	CRA4	C6	68n	CRA4 STACK ADR G H
R66(1)	CRA4	D7	68n	CRA4 STACK ADR Y H
R22(1)	CRA4	B7	68n	CRA4 STACK ADR Z H
R10(1)	CRA4	A7	68n	-CRA4 STACK WRITE H
R05(1)	CRA5	B7	68n	-CRA5 DIAG 04 H
R03(1)	CRA5	C7	68n	-CRA5 DIAG 05 H

RESISTOR LOCK PIN)	SHOWN DRUM	ON REF	VALUE	TERMINATES SIGNAL
R07(1)	CRA5	B7	60n	-CRA5 DIAG 06 H
R08(1)	CRA5	B7	60n	-CRA5 DIAG READ H
R40(1)	CRA5	A7	60n	CRA5 EBUS 06 H
R50(1)	CRA5	A6	60n	CRA5 EBUS 01 H
R52(1)	CRA5	A4	60n	CRA5 EBUS 02 H
R11(1)	CRA5	A3	60n	CRA5 EBUS 03 H
R1(1)	CRA5	A2	60n	CRA5 EBUS 04 H
R9(1)	CRA5	A1	60n	CRA5 EBUS 05 H
R13(1)	CRA5	D5	60n	CRA5 OUT 00 H
R15(1)	CRA5	D4	60n	CRA5 OUT 01 H
R16(1)	CRA5	D2	60n	CRA5 OUT 02 H
R64(1)	CRA5	C5	60n	CRA5 OUT 03 H
R09(1)	CRA5	C4	60n	CRA5 OUT 04 H
R99(1)	CRA5	C2	60n	CRA5 OUT 05 H
R242(1)	CRA2	B1	60n	CRAM COND 035 H
R247(1)	CRA2	B1	60n	CRAM COND 045 H
R246(1)	CRA2	B1	60n	CRAM COND 055 H
R105(1)	CRA1	C7	60n	CRAM J00 H
R250(1)	CRA1	D6	60n	CRAM J01 H
R263(1)	CRA1	C6	60n	CRAM J02 H
R259(1)	CRA1	D4	60n	CRAM J03 H
R260(1)	CRA1	C4	60n	CRAM J04 H
R213(1)	CRA1	D3	60n	CRAM J05 H
R221(1)	CRA1	C3	60n	CRAM J06 H
R218(1)	CRA2	D7	60n	CRAM J07 H
R222(1)	CRA2	D6	60n	CRAM J08 H
R103(1)	CRA2	D4	60n	CRAM J09 H
R106(1)	CRA2	D3	60n	CRAM J10 H
R214(1)	CRA2	B6	60n	DRAM B 00 H
R227(1)	CRA2	B4	60n	DRAM B 01 H
R233(1)	CRA2	B3	60n	DRAM B 02 H
R179(1)	CRA1	B6	60n	DRAM J 01 H
R175(1)	CRA1	B6	60n	DRAM J 02 H
R116(1)	CRA1	B4	60n	DRAM J 03 H
R113(1)	CRA1	B4	60n	DRAM J 04 H
R146(1)	CRA2	C7	60n	DRAM J 07 H
R135(1)	CRA2	C6	60n	DRAM J 08 H
R203(1)	CRA2	C4	60n	DRAM J 09 H
R152(1)	CRA2	C3	60n	DRAM J 10 H
R150(1)	CRA2	A7	60n	EA TYPE 07 H-H400

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R147(1)	CRA2	A6	68n	EA TYPE 08 HN#400\
R219(1)	CRA2	A4	68n	EA TYPE 09 HN#400\
R225(1)	CRA2	A3	68n	EA TYPE 10 HN#400\
R161(1)	CRA2	B1	68n	IR AC=0 H
R207(1)	CRA2	B6	68n	IR NORM 08 H
R223(1)	CRA2	B4	68n	IR NORM 09 H
R235(1)	CRA2	B3	68n	IR NORM 10 H
R240(1)	CRA2	B1	68n	MC6 PC SECTION 0 H
R230(1)	CRA2	B4	68n	MQ 34 H
R234(1)	CRA2	B3	68n	MQ 35 H
R245(1)	CRA2	B1	68n	SCD1 SCAD SIGN H
R243(1)	CRA2	B1	68n	-SCD1 SCAD=0 H
R215(1)	CRA2	B6	68n	SCD2 FE SIGN H
R160(1)	CRA2	B1	68n	SCD2 SC SIGN H
R212(1)	CRA2	B6	68n	SCD4 FPD H
R150(1)	CRA2	B3	68n	SCD4 NICOND 10 H
R239(1)	CRA2	C1	68n	-SH11 AR PAR ODD B H
R226(1)	CRA2	A3	68n	SH11 INDEXED H
R193(1)	CRA2	B7	68n	SH14 SH 00 A H
R137(1)	CRA2	B6	68n	SH14 SH 01 A H
R206(1)	CRA2	B4	68n	SH14 SH 02 A H
R154(1)	CRA2	B3	68n	SH14 SH 03 A H
R168(1)	CRA2	A1	68n	-VIA1 LOCAL AC ADDRESS 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

digit

DRN. C. Smith  
CHS. 2/2/2

DATE 17-SEP-76	ENG Tom Egan	DATE 23 Sep 76
DATE 23 Sep 76	BOARD LOCATION: SHEET 2 OF 2	

TITLE:		CONTROL RAM ADDRESS TERMINATORS	
SIZE	ADDR	VALUE	RE

FIRST USED ON OPTION/MODEL: KL16

22:4	NEXT HIGHER ASSEMBLY:
0	B-DD-M8541-0

SIZE	CODE	NUMBER	RE
D	CS	M8541-0-RES	