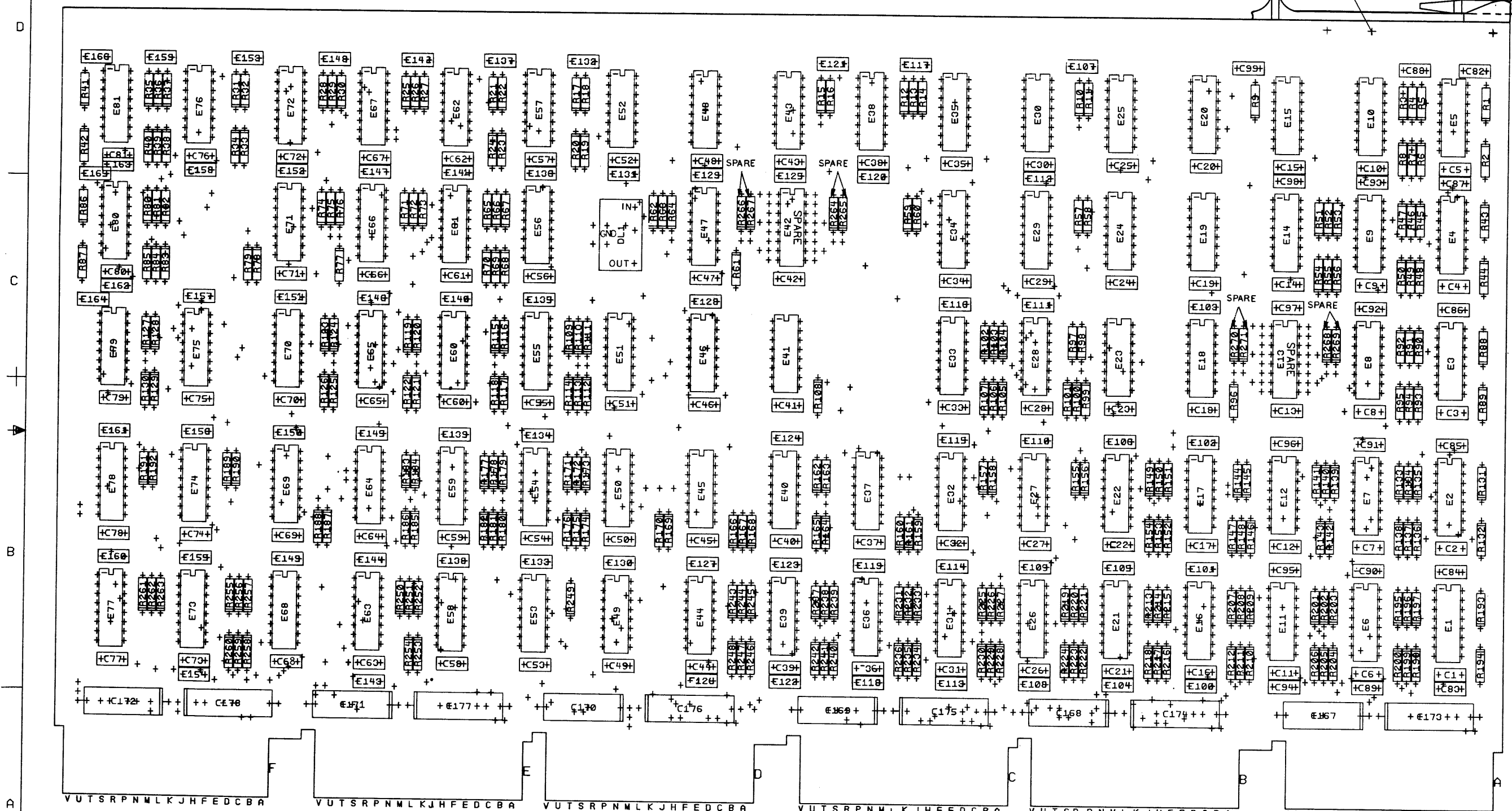




2	D/UA	M8541-0-0
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NOTES:

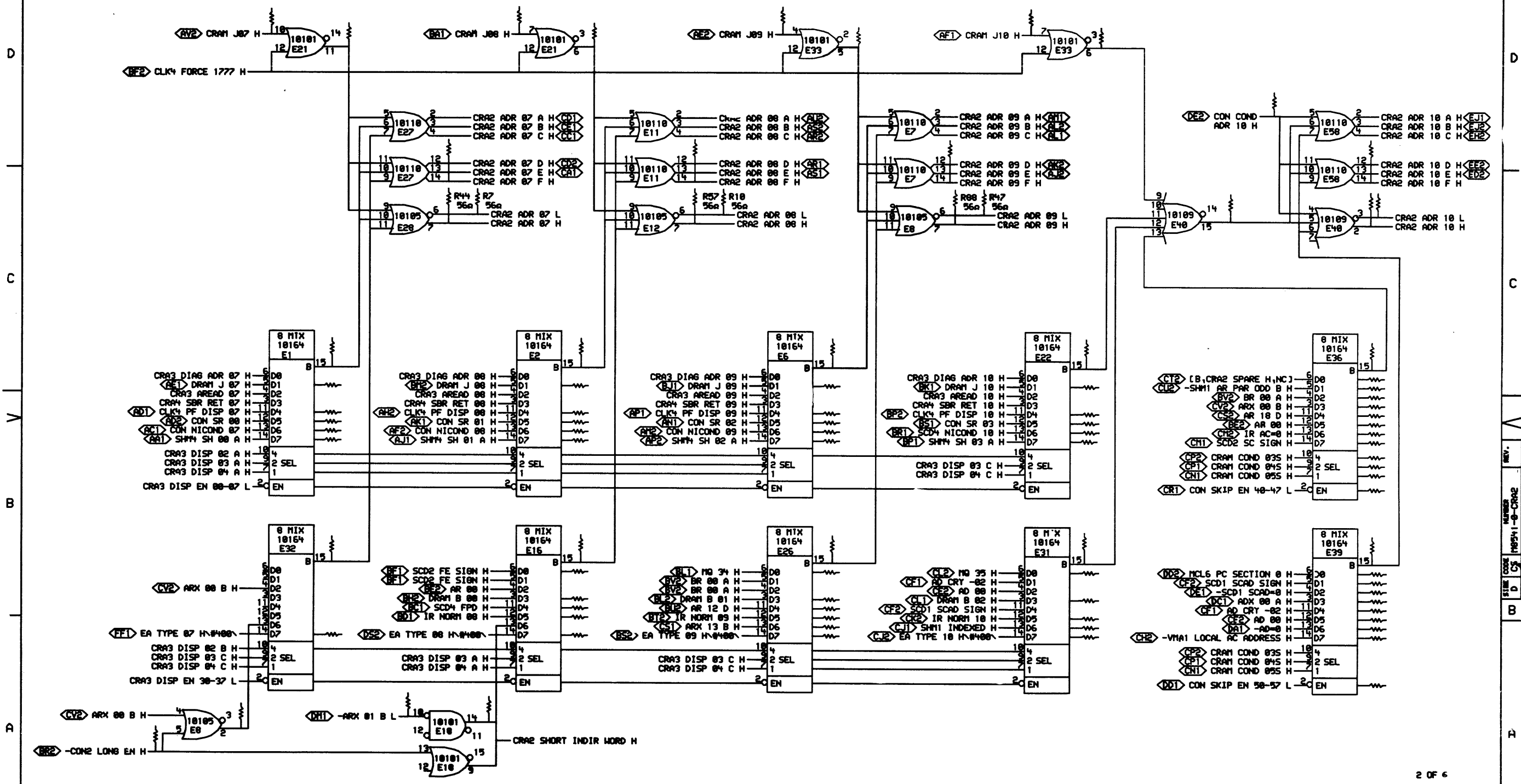
CHK	CHANGE	NO	REV
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SIGNATURES		DATE	digital	
DRN. <i>J. P. Plaut</i>		20 FEB 76		
CHK'D. <i>R. J. Carter</i>		20 FEB 76		
ENG. <i>Tom Lynn</i>		5 Oct 76	TITLE	
PROJ. ENG. <i>T. Lynn</i>		5 Oct 76	CONTROL	
PROD. <i>Bill Petty</i>		15 Oct 76	RAM ADDRESS	
SCALE 2 TO 1			SIZE	CODE
SHT. 2 OF 5			D	NUMBER
ETCH REV			UA	M8541-0-0
FIRST USED ON KLI0			REV	

MR 1 MS# 30219

345



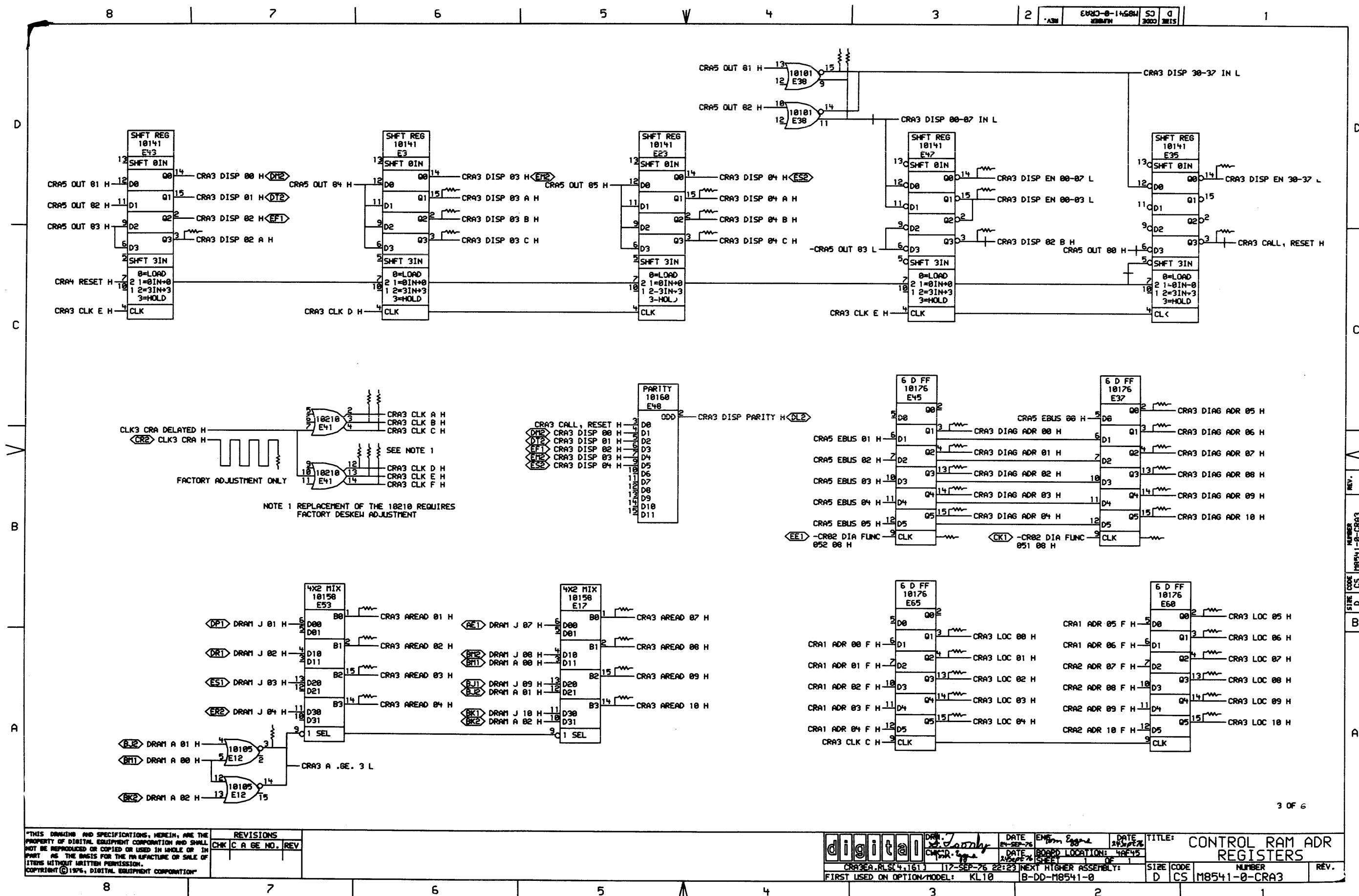


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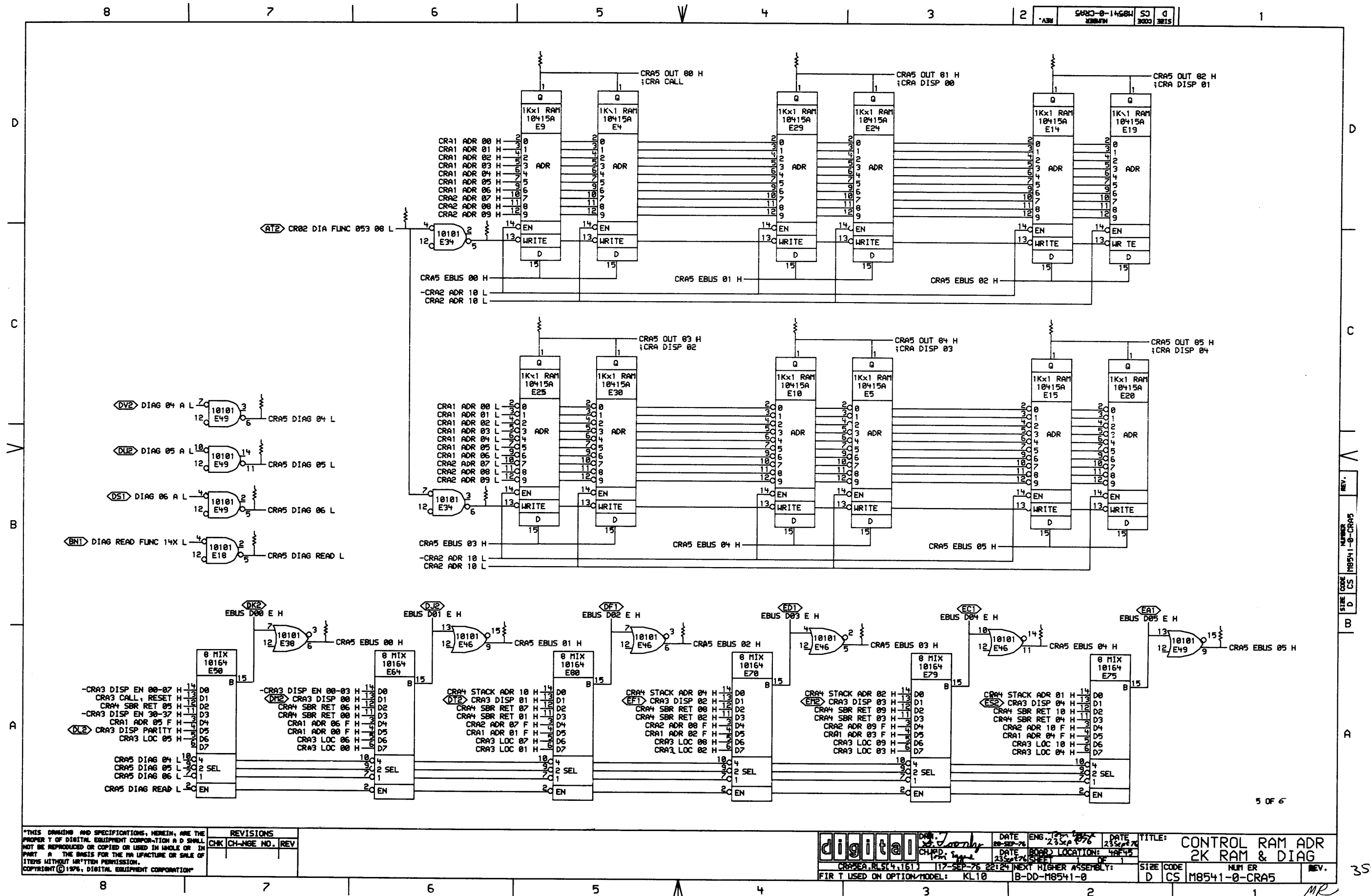
REVISIONS	
CHK	CHANGE NO. REV

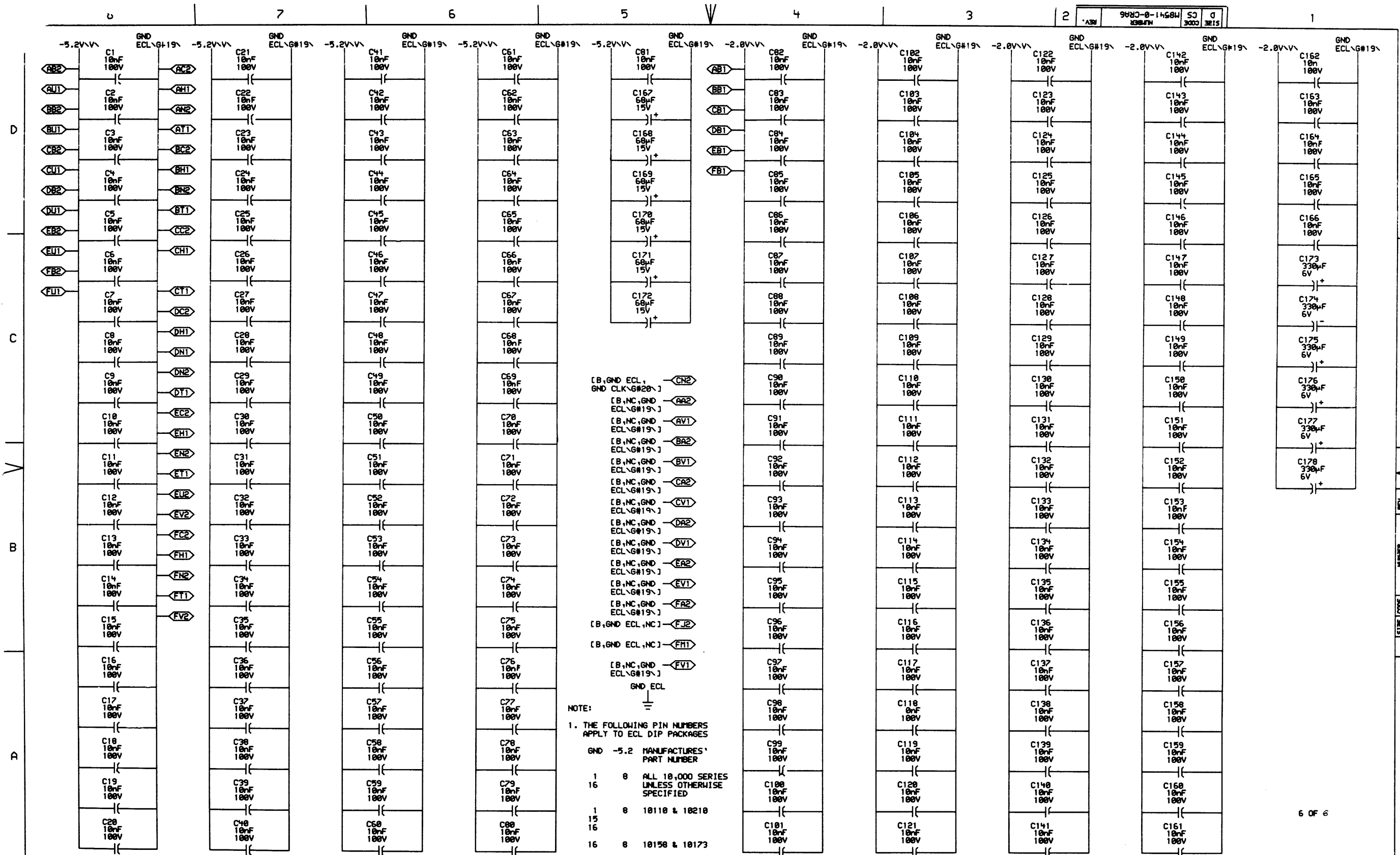
digital	DATE	ENG	DATE	TITLE: CONTROL RAM ADR CR ADR 07-10
	11-2-76	KL10	2/13/77	
CRA2A, M54, 1513		117-SEP-76 E2122 NEXT HIGHER ASSEMBLY		SIZE CODE NUMBER REV.
FIRST USED ON OPTION MODEL: KL10		B-DD-M8541-0		D CS M8541-0-CRA2

347









REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	23 SEP 76	ENGR	DATE	23 SEP 76	TITLE:	CONTROL RAM ADR
	CHKD	23 SEP 76	DATE	23 SEP 76	BOARD LOCATION:	4A545	POWER, GND, CAPS
CIRCUIT USED ON OPTION/MODEL:		KL10	NEXT HIGHER ASSEMBLY:		B-DD-M8541-0	SIZE	D
CODE		C5	NUMBER		M8541-0-CRA6	REV.	

351



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53-0-14604

SC

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D

RESISTOR LOC(PIN)	SHOWN ON DRM#	REF	VALUE	TERMINATES SIGNAL
R63K1)	CRA4	A7	100a	XDL1(2)
R101(1)	CRA2	C7	60a	XE1(15)
R145(1)	CRA2	B5	60a	XE16(15)
R210(1)	CRA2	C5	60a	XE2(15)
R100(1)	CRA2	D7	60a	XE21(11)
R256(1)	CRA1	C2	60a	XE21(5)
R144(1)	CRA2	D5	60a	XE21(6)
R262(1)	CRA1	D2	60a	XE21(9)
R163(1)	CRA2	C3	60a	XE22(15)
R141(1)	CRA2	B4	60a	XE26(15)
R40(1)	CRA4	C4	60a	XE20(3)
R162(1)	CRA2	B3	60a	XE31(15)
R90(1)	CRA2	B7	60a	XE32(15)
R143(1)	CRA2	D4	60a	XE33(5)
R164(1)	CRA2	D3	60a	XE33(6)
R49(1)	CRA5	C6	60a	XE34(5)
R2(1)	CRA5	B6	60a	XE34(6)
R165(1)	CRA2	C1	60a	XE36(15)
R253(1)	CRA2	B1	60a	XE39(15)
R254(1)	CRA2	C2	60a	XE40(15)
R59(1)	CRA1	B7	60a	XE51(15)
R97(1)	CRA1	B7	60a	XE51(2)
R250(1)	CRA1	B6	60a	XE54(15)
R187(1)	CRA1	B6	60a	XE54(2)
R109(1)	CRA1	B4	60a	XE55(15)
R191(1)	CRA1	B4	60a	XE55(2)
R257(1)	CRA1	B2	60a	XE59(15)
R261(1)	CRA1	B2	60a	XE59(2)
R140(1)	CRA2	C4	60a	XE6(15)
R67(1)	CRA4	C7	60a	XE61(15)
R17(1)	CRA4	C7	60a	XE61(2)
R71(1)	CRA4	B5	60a	XE67(1)
R77(1)	CRA4	B5	60a	XE67(14)
R72(1)	CRA4	B5	60a	XE67(15)
R75(1)	CRA4	B3	60a	XE72(1)
R79(1)	CRA4	B3	60a	XE72(14)
R70(1)	CRA4	B3	60a	XE72(15)
R74(1)	CRA4	B3	60a	XE72(2)
R190(1)	CRA1	C4	60a	XE73(11)
R251(1)	CRA1	C6	60a	XE73(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 ON DRM#	REF	VALUE	TERMINATES SIGNAL
R192(1)	CRA1	D4	60a	XE73(6)
R100(1)	CRA1	D6	60a	XE73(9)
R39(1)	CRA4	B2	60a	XE76(1)
R42(1)	CRA4	B2	60a	XE76(14)
R30(1)	CRA4	B2	60a	XE76(15)
R35(1)	CRA4	B2	60a	XE76(2)
R20(1)	CRA4	C7	60a	XE8(14)
R60(1)	CRA4	C7	60a	XE8(15)
R157(1)	CRA2	A7	60a	XE8(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 ON DRM#	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
R01(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 ON DRM#	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.

SIZE CODE NUMBER  
D CS M8541-0-RES

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	
SIZE CODE	NUMBER
D CS	M8541-0-RES

REV.

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538-0-14684 SC 0 15  
3000 3015

RESISTOR LOC(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	C7	68n	-CRA5 DIAG 04 H
R03(1)	CRA5	B7	68n	-CRA5 DIAG 05 H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R07(1)	CRA5	B7	68n	-CRA5 DIAG 06 H
R00(1)	CRA5	B7	68n	-CRA5 DIAG READ H
R40(1)	CRA5	A7	68n	CRA5 EBUS 00 H
R50(1)	CRA5	A6	68n	CRA5 EBUS 01 H
R52(1)	CRA5	A4	68n	CRA5 EBUS 02 H
R11(1)	CRA5	A3	68n	CRA5 EBUS 03 H
R1(1)	CRA5	A2	68n	CRA5 EBUS 04 H
R9(1)	CRA5	A1	68n	CRA5 EBUS 05 H
R13(1)	CRA5	D5	68n	CRA5 OUT 00 H
R15(1)	CRA5	D4	68n	CRA5 OUT 01 H
R16(1)	CRA5	D2	68n	CRA5 OUT 02 H
R64(1)	CRA5	C5	68n	CRA5 OUT 03 H
R09(1)	CRA5	C4	68n	CRA5 OUT 04 H
R99(1)	CRA5	C2	68n	CRA5 OUT 05 H
R242(1)	CRA2	B1	68n	CRAM COND 035 H
R247(1)	CRA2	B1	68n	CRAM COND 045 H
R246(1)	CRA2	B1	68n	CRAM COND 055 H
R105(1)	CRA1	C7	68n	CRAM J00 H
R250(1)	CRA1	D6	68n	CRAM J01 H
R263(1)	CRA1	C6	68n	CRAM J02 H
R259(1)	CRA1	D4	68n	CRAM J03 H
R260(1)	CRA1	C4	68n	CRAM J04 H
R213(1)	CRA1	D3	68n	CRAM J05 H
R221(1)	CRA1	C3	68n	CRAM J06 H
R210(1)	CRA2	D7	68n	CRAM J07 H
R222(1)	CRA2	D6	68n	CRAM J08 H
R103(1)	CRA2	D4	68n	CRAM J09 H
R106(1)	CRA2	D3	68n	CRAM J10 H
R214(1)	CRA2	B6	68n	DRAM B 00 H
R227(1)	CRA2	B4	68n	DRAM B 01 H
R233(1)	CRA2	B3	68n	DRAM B 02 H
R179(1)	CRA1	B6	68n	DRAM J 01 H
R175(1)	CRA1	B6	68n	DRAM J 02 H
R116(1)	CRA1	B4	68n	DRAM J 03 H
R113(1)	CRA1	B4	68n	DRAM J 04 H
R146(1)	CRA2	C7	68n	DRAM J 07 H
R135(1)	CRA2	C6	68n	DRAM J 08 H
R203(1)	CRA2	C4	68n	DRAM J 09 H
R152(1)	CRA2	C3	68n	DRAM J 10 H
R150(1)	CRA2	A7	68n	EA TYPE 07 H-#400

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R147(1)	CRA2	A6	68n	EA TYPE 08 H-#400
R219(1)	CRA2	A4	68n	EA TYPE 09 H-#400
R225(1)	CRA2	A3	68n	EA TYPE 10 H-#400
R161(1)	CRA2	B1	68n	IR AC=0 H
R207(1)	CRA2	B6	68n	IR NORM 00 H
R223(1)	CRA2	B4	68n	IR NORM 09 H
R235(1)	CRA2	B3	68n	IR NORM 10 H
R240(1)	CRA2	B1	68n	NCL6 PC SECTION 0 H
R230(1)	CRA2	B4	68n	MD 34 H
R234(1)	CRA2	B3	68n	MD 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 000 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
R160(1)	CRA2	A1	68n	-VMA1 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

digital

DRN. *C. Smith*  
CHK. *C. Smith*DATE  
17-SEP-76ENG. *C. Smith*DATE  
23-SEP-76BOARD LOCATION:  
SHEET 2 OF 2NEXT HIGHER ASSEMBLY:  
B-DD-M8541-0TITLE: CONTROL RAM ADR  
TERMINATORSSIZE CODE  
D CSNUMBER  
M8541-0-RES

REV.