SIZE	CODE	NUMBER	REV.
B	DD	M8541-Ø	

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS
	-		MODULE REVISION	A
D-UA-M8541-Ø-Ø	5		CONTROL RAM ADDRESS	-
D-CS-M8541-Ø-CRA1	1		CONTROL RAM ADR CR ADR ØØ-Ø6	-
D-CS-M8541-Ø-CRA2	1		CONTROL RAM ADR CR ADR Ø7-1Ø	-
D-CS-M8541-Ø-CRA3	1		CONTROL RAM ADR REGISTERS	-
D-CS-M8541-Ø-CRA4	1		CONTROL RAM ADR SBR STACK	-
D-CS-M8541-Ø-CRA5	1		CONTROL RAM ADR 2K RAM & DIAG.	-
D-CS-M8541-Ø-CRA6	1		CONTROL RAM ADR POWER, GND, CAPS	-
D-CS-M8541-Ø-RES	2		CONTROL RAM ADR TERMINATORS	-
D-AH-M8541-Ø-5	4		CONTROL RAM ADDRESS	-
		5011887	ETCHED CIRCUIT BOARD	B
M8541-Ø-L			P.C. DESIGN DATA BASE	REF
M8541-Ø-PL			INSERTION P/L DATA BASE	REF
POO-M8541-ØØ			PROCESS SHEETS	REF

NOTES:

REVISIONS	CHG NO.	REV
DATE		

digital

USED ON OPTION/MODEL	
KL1Ø	

DRN.	D. F. Lucier	2 SEPT 76
CHK'D	R. W. Courter	2 Sept 76
ENG.	Tom Eggers	5 Oct 76
PROD.	Bill Embley	15 OCT 76

TITLE: CONTROL RAM ADDRESS

SIZE	CODE	NUMBER	REV.
B	DD	M8541-Ø	

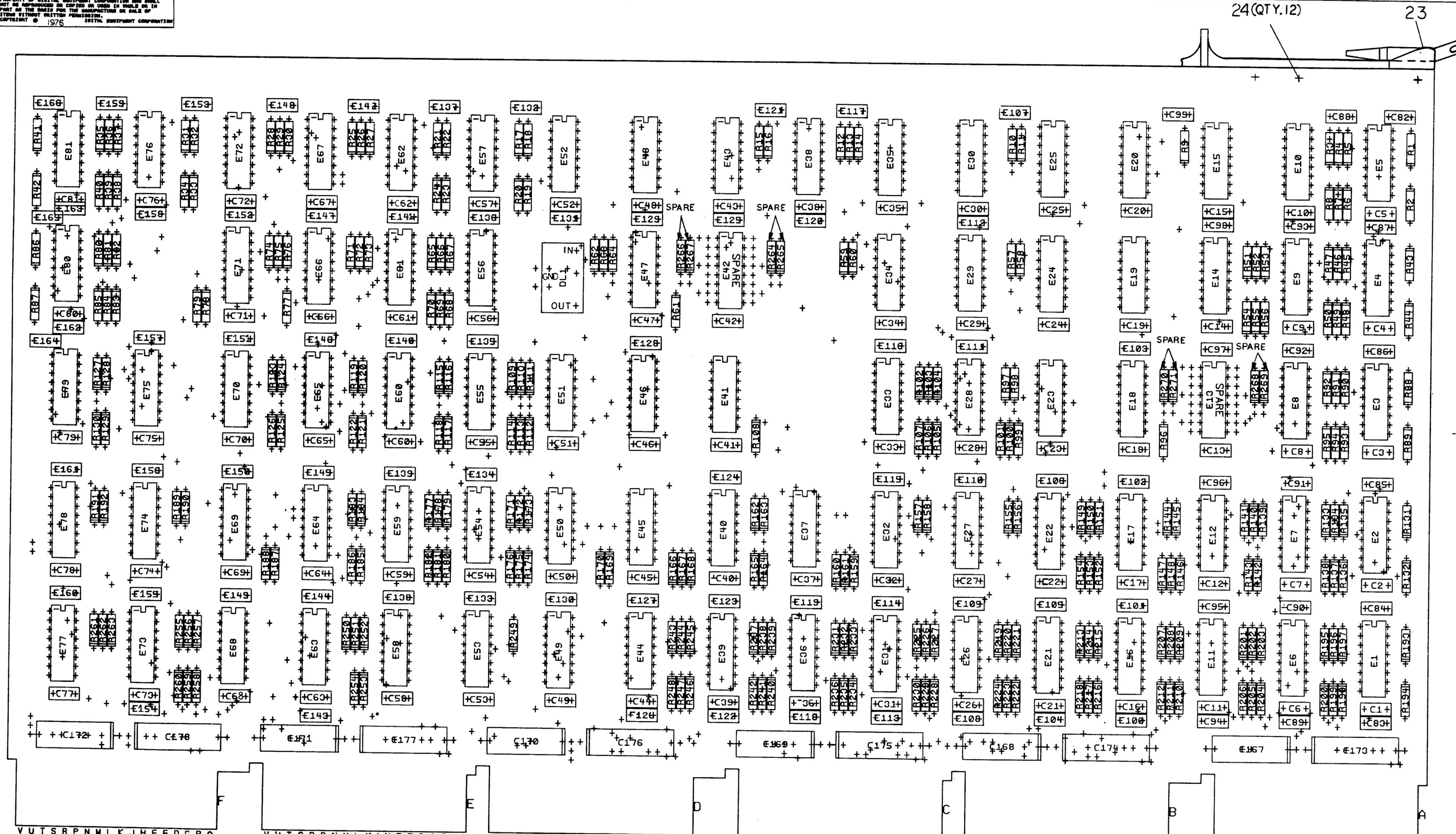
SHEET 1 OF 1

DRB 126 EN-01149-16-N176(325)

344

Mein

D UA M8541-0-0 2



NOTES:

CHK	CHANGE NO	REV

BUSS

SIGNATURES	DATE
DRN. N. R. Rheault	20FEB76
CHK'D. R.W. Counter	20SEPT76
ENG. Tom Eggers	5 Oct 76
PROJ. ENG. T Eggers	5 Oct 76
PROD. Bill Emley	15 Oct 76
SCALE 2 TO 1	
SHT. 2 OF 5	
ETCH REV	

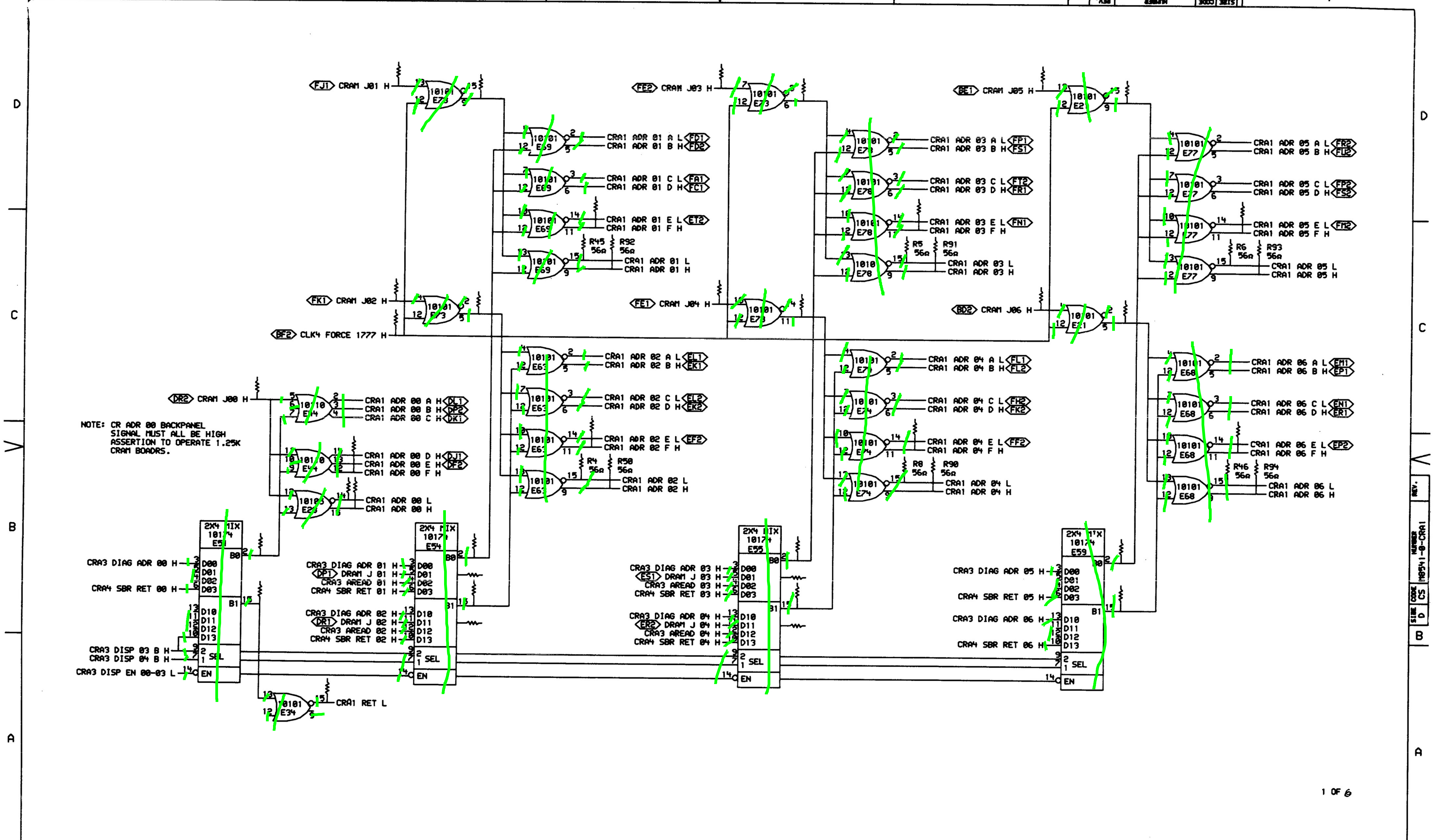
digital

TITLE CONTROL RAM ADDRESS

SIZE	CODE	NUMBER	REV
D	UA	M8541-0-0	

FIRST USED ON KL10

MR 1 MS# 30219



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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: DATE 20-SEP-76

CHKD: DATE 2/Sept 76

ENG: DATE 2/Sept 76

BOARD LOCATION: 4AF45

SHEET 1 OF 6

CRA1EA.RLS[4,161] 17-SEP-76 22:21

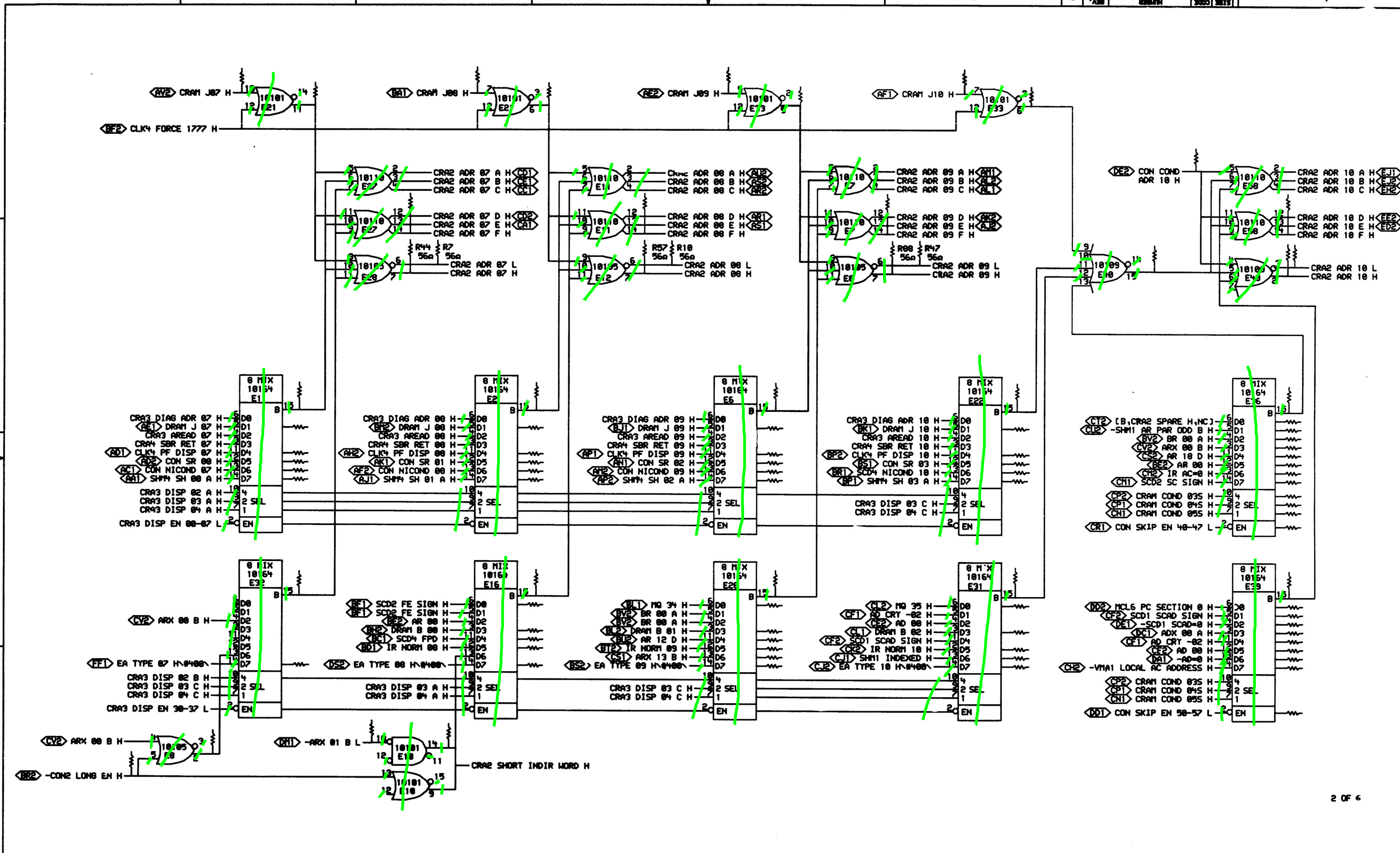
NEXT HIGHER ASSEMBLY: B-DD-M8541-0

FIRST USED ON OPTION/MODEL: KL10

TITLE: CONTROL RAM ADR CR ADR 00-06

SIZE	CODE	NUMBER	REV.
D	CS	M8541-0-CRA1	

346



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REVISIONS		
CHK	CHANGE NO.	REV

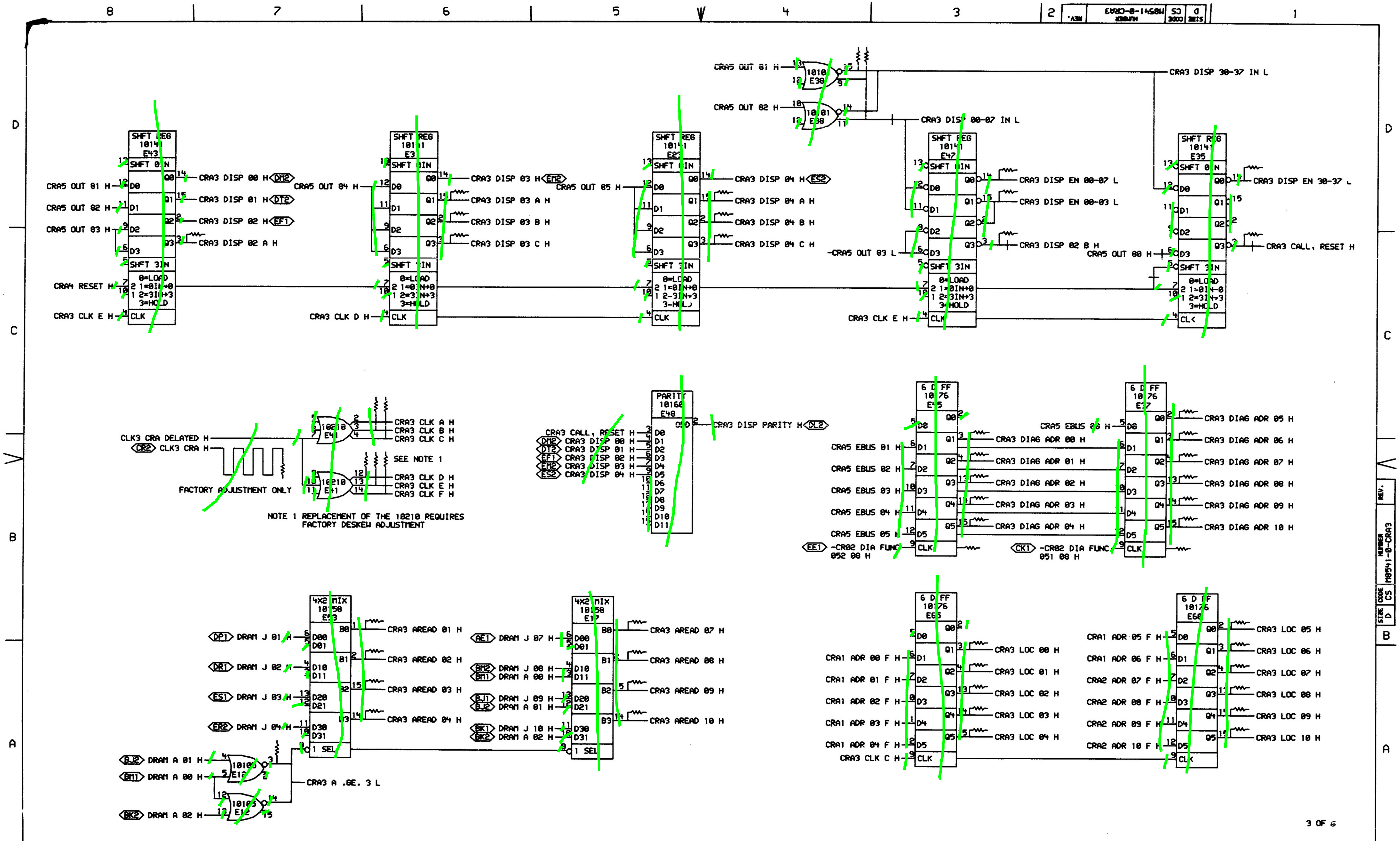
digital

DATE	20-SEP-76
BOARD LOCATION	4AF45
CRA2EA.RLS[4,161]	17-SEP-76 22:22
NEXT HIGHER ASSEMBLY	B-DD-M8541-0
FIRST USED ON OPTION/MODEL	KL10

TITLE: CONTROL RAM ADR CR ADR 07-10

SIZE	CODE	NUMBER	REV.
D	CS	M8541-0-CRA2	

347



REVISIONS | CHK | C A GE NO. | REV

digital

CRA3EA.RLS[4,161] 17-SEP-76 22:23

FIRST USED ON OPTION/MODEL: KL10

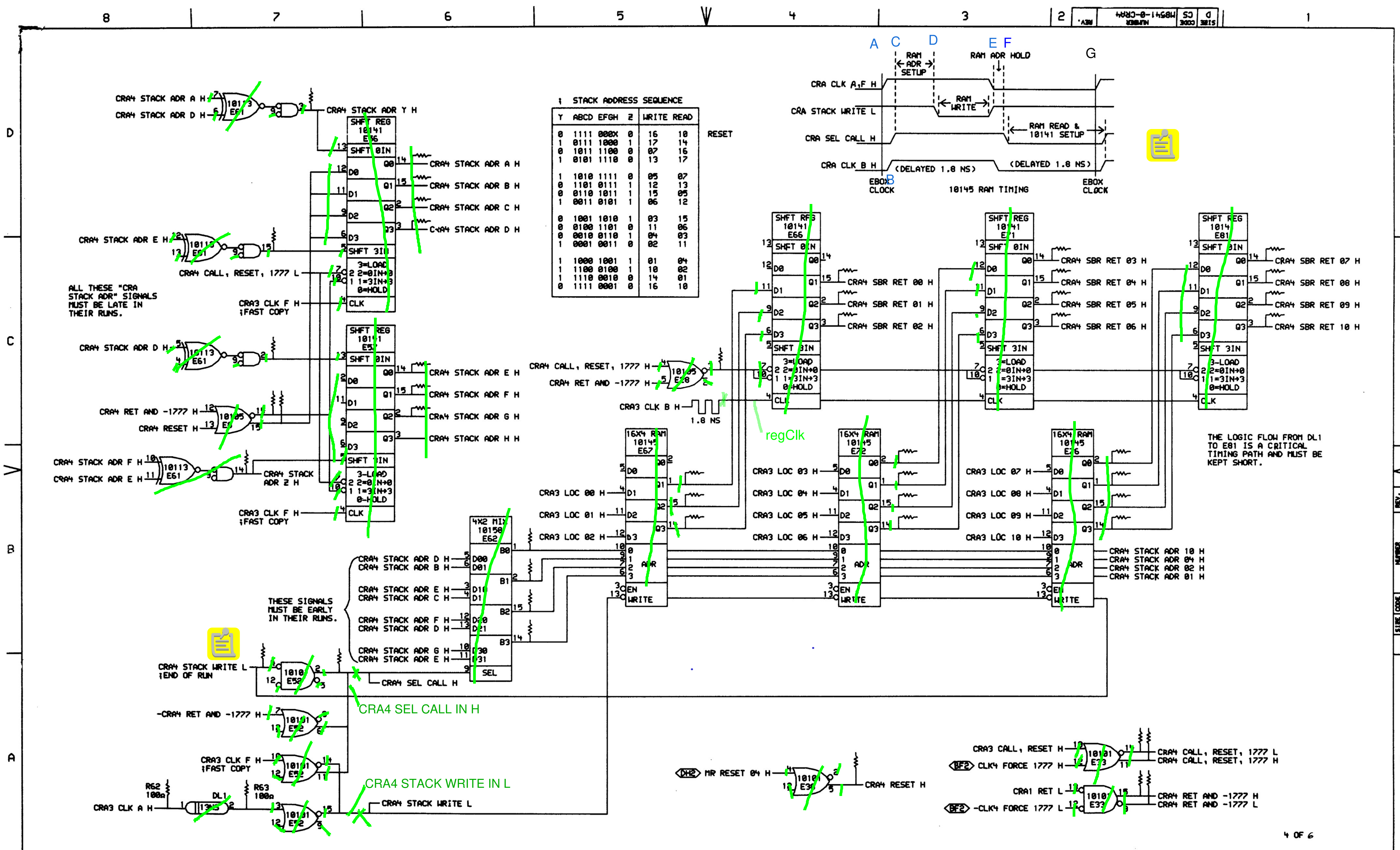
NEXT HIGHER ASSEMBLY: B-DD-M8541-0

BOARD LOCATION: 4AF45

SHEET 1 OF 1

TITLE: CONTROL RAM ADR REGISTERS

SIZE D | CODE CS | NUMBER M8541-0-CRA3 | REV.



; STACK ADDRESS SEQUENCE

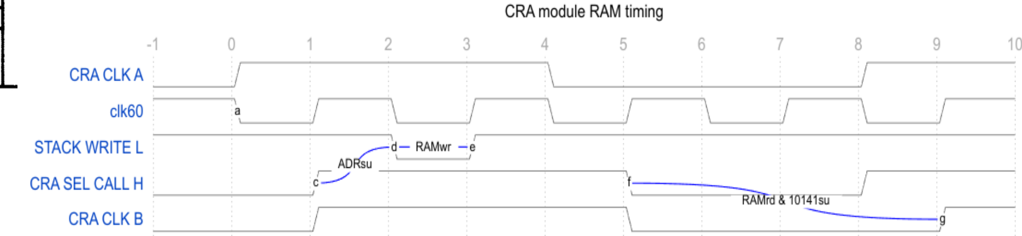
Y	ABCD EFGH	Z	WRITE	READ	
0	1111 000X	0	16	10	RESET
1	0111 1000	1	17	14	
0	1011 1100	0	07	16	
1	0101 1110	0	13	17	
1	1010 1111	0	05	07	
0	1101 0111	1	12	13	
0	0110 1011	1	15	05	
1	0011 0101	1	06	12	
0	1001 1010	1	03	15	
0	0100 1101	0	11	06	
0	0010 0110	1	04	03	
1	0001 0011	0	02	11	
1	1000 1001	1	01	04	
1	1100 0100	1	10	02	
1	1110 0010	0	14	01	
0	1111 0001	0	16	10	

4 OF 6

REVISIONS | CHK | CHANGE NO. | REV

349

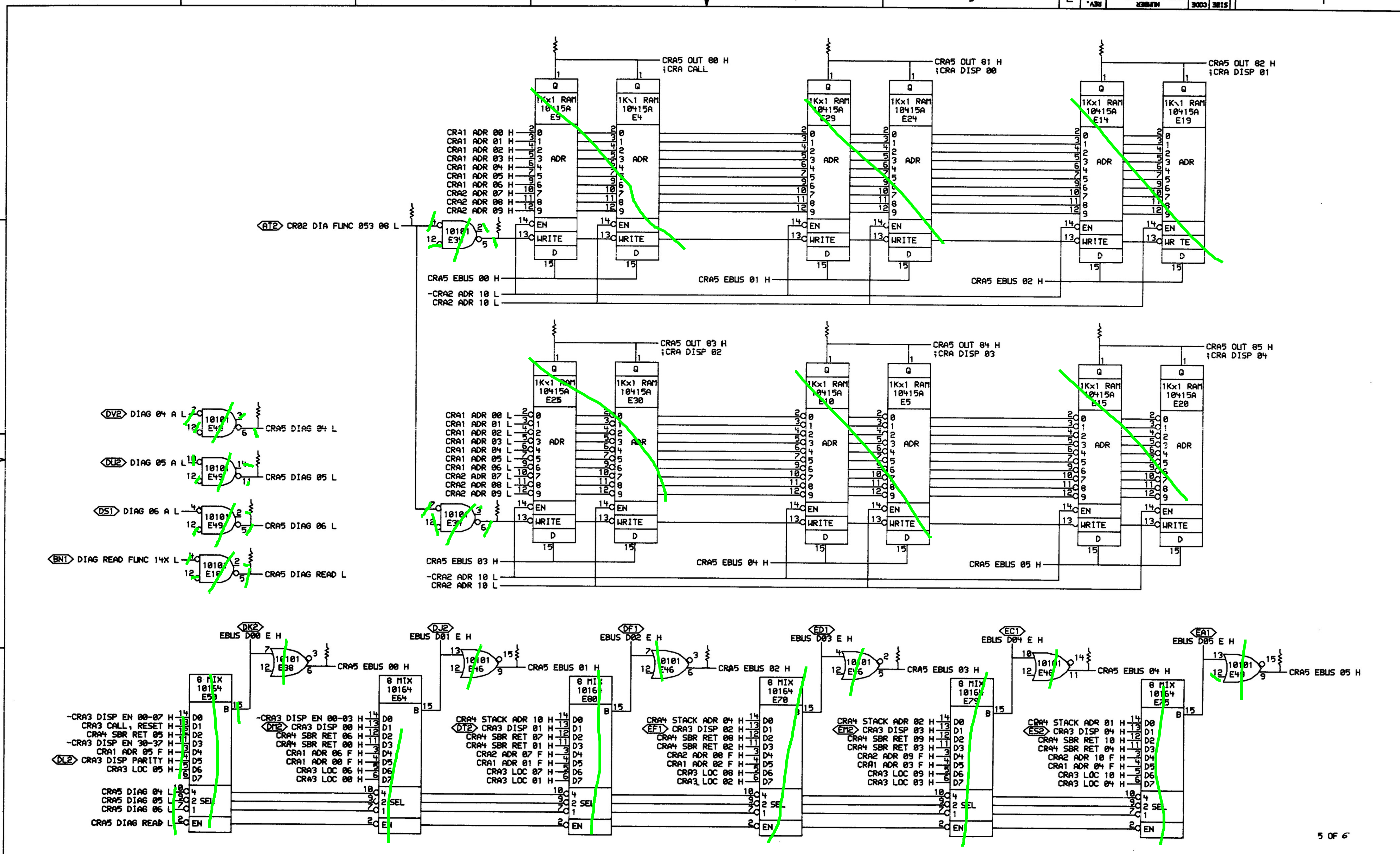
CRA module RAM timing



digital
DATE 20-SEP-76 | DATE 23 Sept 76 | DATE 23 Sept 76
BOARD LOCATION: 4AF45
SHEET 1 OF 1
CRA4EA.RLS(4,161) 17-SEP-76 22:30
NEXT HIGHER ASSEM LY: B-DD-M8541-0
FIRST USED ON OPTION/MODEL: KL10

TITLE: CONTROL RAM ADR SBR STACK

SIZE D | CODE CS | NUMBER M8541-0-CRA4 | REV.



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REVISIONS — CHK | CHANGE NO. | REV

digital

TITLE: CONTROL RAM ADR 2K RAM & DIAG

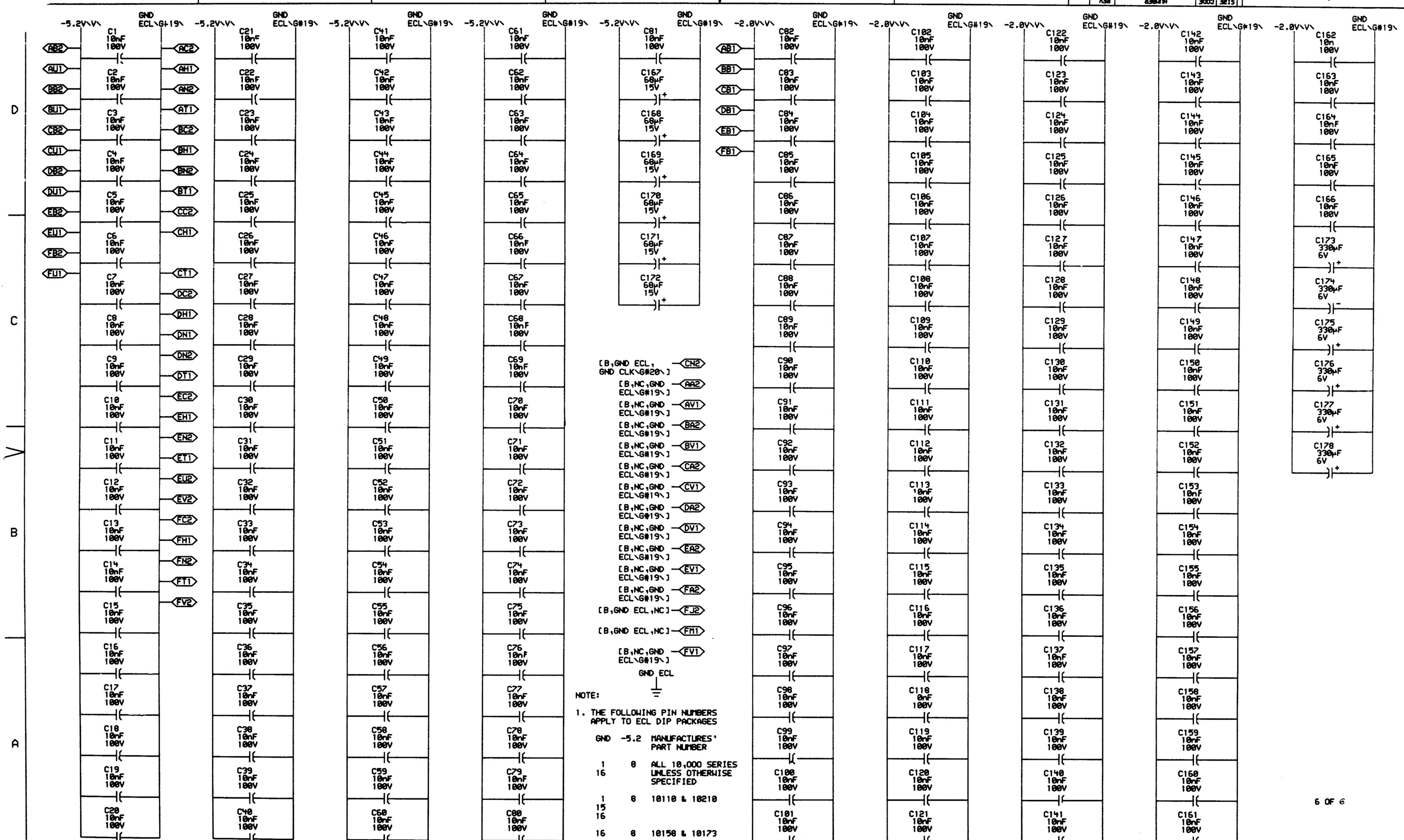
SIZE D | CODE CS | NUMBER M8541-0-CRA5 | REV.

CRA5EA.RLS(4,161) 17-SEP-76 22:24 — NEXT HIGHER ASSEMBLY: B-DD-M8541-0

FIRST USED ON OPTION/MODEL: KL10

BOARD LOCATION: 4AF45

SHEET 1 OF 1



REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN: S. Taornby — DATE 20-SEP-76
CHKD: Tom Eggers — DATE 23Sept76
ENG: Tom Eggers — DATE 23Sept76
BOARD LOCATION: 4AF45
SHEET 1 OF 1
CRA6EA.RLS[4,161] 03-AUG-76 10:51
NEXT HIGHER ASSEMBLY: B-DD-M8541-0
FIRST USED ON OPTION/MODEL: KL10

TITLE: CONTROL RAM ADR POWER, GND, CAPS

SIZE	CODE	NUMBER	REV.
D	CS	M8541-0-CRA6	

351

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R63(1)	CRA4	A7	100Ω	%DL1(2)
R101(1)	CRA2	C7	68Ω	%E1(15)
R145(1)	CRA2	B5	68Ω	%E16(15)
R210(1)	CRA2	C5	68Ω	%E2(15)
R100(1)	CRA2	D7	68Ω	%E21(11)
R256(1)	CRA1	C2	68Ω	%E21(5)
R144(1)	CRA2	D5	68Ω	%E21(6)
R262(1)	CRA1	D2	68Ω	%E21(9)
R163(1)	CRA2	C3	68Ω	%E22(15)
R141(1)	CRA2	B4	68Ω	%E26(15)
R48(1)	CRA4	C4	68Ω	%E28(3)
R162(1)	CRA2	B3	68Ω	%E31(15)
R98(1)	CRA2	B7	68Ω	%E32(15)
R143(1)	CRA2	D4	68Ω	%E33(5)
R164(1)	CRA2	D3	68Ω	%E33(6)
R49(1)	CRA5	C6	68Ω	%E34(5)
R2(1)	CRA5	B6	68Ω	%E34(6)
R165(1)	CRA2	C1	68Ω	%E36(15)
R253(1)	CRA2	B1	68Ω	%E39(15)
R254(1)	CRA2	C2	68Ω	%E40(15)
R59(1)	CRA1	B7	68Ω	%E51(15)
R97(1)	CRA1	B7	68Ω	%E51(2)
R258(1)	CRA1	B6	68Ω	%E54(15)
R187(1)	CRA1	B6	68Ω	%E54(2)
R189(1)	CRA1	B4	68Ω	%E55(15)
R191(1)	CRA1	B4	68Ω	%E55(2)
R257(1)	CRA1	B2	68Ω	%E59(15)
R261(1)	CRA1	B2	68Ω	%E59(2)
R140(1)	CRA2	C4	68Ω	%E6(15)
R67(1)	CRA4	C7	68Ω	%E61(15)
R17(1)	CRA4	C7	68Ω	%E61(2)
R71(1)	CRA4	B5	68Ω	%E67(1)
R77(1)	CRA4	B5	68Ω	%E67(14)
R72(1)	CRA4	B5	68Ω	%E67(15)
R75(1)	CRA4	B3	68Ω	%E72(1)
R79(1)	CRA4	B3	68Ω	%E72(14)
R78(1)	CRA4	B3	68Ω	%E72(15)
R74(1)	CRA4	B3	68Ω	%E72(2)
R190(1)	CRA1	C4	68Ω	%E73(11)
R251(1)	CRA1	C6	68Ω	%E73(5)

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R192(1)	CRA1	D4	68Ω	%E73(6)
R166(1)	CRA1	D6	68Ω	%E73(9)
R39(1)	CRA4	B2	68Ω	%E76(1)
R42(1)	CRA4	B2	68Ω	%E76(14)
R38(1)	CRA4	B2	68Ω	%E76(15)
R35(1)	CRA4	B2	68Ω	%E76(2)
R20(1)	CRA4	C7	68Ω	%E8(14)
R68(1)	CRA4	C7	68Ω	%E8(15)
R157(1)	CRA2	A7	68Ω	%E8(2)
R237(1)	CRA2	B1	68Ω	AD 00 H
R241(1)	CRA2	B1	68Ω	AD CRY -02 H
R244(1)	CRA2	A1	68Ω	-AD=0 H
R166(1)	CRA2	B1	68Ω	ADX 00 A H
R231(1)	CRA2	B1	68Ω	AR 00 H
R224(1)	CRA2	B4	68Ω	AR 12 D H
R236(1)	CRA2	B1	68Ω	AR 18 D H
R55(1)	CRA2	B1	68Ω	ARX 00 B H
R96(1)	CRA2	A6	68Ω	ARX 01 B H
R228(1)	CRA2	A4	68Ω	ARX 13 B H
R232(1)	CRA2	B1	68Ω	BR 00 A H
R100(1)	CRA3	B7	68Ω	CLK3 CRA H
R255(1)	CRA1	C6	68Ω	CLK4 FORCE 1777 H
R198(1)	CRA2	B7	68Ω	CLK4 PF DISP 07 H
R136(1)	CRA2	B6	68Ω	CLK4 PF DISP 08 H
R200(1)	CRA2	B4	68Ω	CLK4 PF DISP 09 H
R153(1)	CRA2	B3	68Ω	CLK4 PF DISP 10 H
R252(1)	CRA2	D2	68Ω	CON COND ADR 10 H
R194(1)	CR-2	B7	68Ω	CON NICOND 07 H
R131(1)	CRA2	B6	68Ω	CON NICOND 08 H
R201(1)	CRA2	B4	68Ω	CON NICOND 09 H
R238(1)	CRA2	B1	68Ω	-CON SKIP EN 40-47 H
R167(1)	CRA2	A1	68Ω	-CON SKIP EN 50-57 H
R199(1)	CRA2	B7	68Ω	CON SR 00 H
R130(1)	CRA2	B6	68Ω	CON SR 01 H
R204(1)	CRA2	B4	68Ω	CON SR 02 H
R149(1)	CRA2	B3	68Ω	CON SR 03 H
R56(1)	CRA2	A8	68Ω	-CON2 LONG EN H
R159(1)	CRA3	B2	68Ω	-CR02 DIA FUNC 051 00 H
R169(1)	CRA3	B3	68Ω	-CR02 DIA FUNC 052 00 H
R60(1)	CRA5	C6	68Ω	-CR02 DIA FUNC 053 00 H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R53(1)	CRA1	B7	68Ω	CRA1 ADR 00 H
R3(1)	CRA1	B7	68Ω	-CRA1 ADR 00 H
R125(1)	CRA1	B7	68Ω	CRA1 ADR 00 F H
R92(1)	CRA1	C5	56Ω	CRA1 ADR 01 H
R45(1)	CRA1	C5	56Ω	-CRA1 ADR 01 H
R81(1)	CRA1	C5	68Ω	CRA1 ADR 01 F H
R50(1)	CRA1	B5	56Ω	CRA1 ADR 02 H
R4(1)	CRA1	B5	56Ω	-CRA1 ADR 02 H
R126(1)	CRA1	B5	68Ω	CRA1 ADR 02 F H
R91(1)	CRA1	C3	56Ω	CRA1 ADR 03 H
R5(1)	CRA1	C3	56Ω	-CRA1 ADR 03 H
R128(1)	CRA1	C3	68Ω	CRA1 ADR 03 F H
R90(1)	CRA1	B3	56Ω	CRA1 ADR 04 H
R8(1)	CRA1	B3	56Ω	-CRA1 ADR 04 H
R119(1)	CRA1	B3	68Ω	CRA1 ADR 04 F H
R93(1)	CRA1	C1	56Ω	CRA1 ADR 05 H
R6(1)	CRA1	C2	56Ω	-CRA1 ADR 05 H
R173(1)	CRA1	C1	68Ω	CRA1 ADR 05 F H
R94(1)	CRA1	B1	56Ω	CRA1 ADR 06 H
R46(1)	CRA1	B2	56Ω	-CRA1 ADR 06 H
R121(1)	CRA1	B1	68Ω	CRA1 ADR 06 F H
R102(1)	CRA	A7	68Ω	-CRA1 RET H
R44(1)	CRA2	C6	56Ω	CRA2 ADR 07 H
R7(1)	CRA2	C6	56Ω	-CRA2 ADR 07 H
R84(1)	CRA2	D6	68Ω	CRA2 ADR 07 F H
R97(1)	CRA2	C5	56Ω	CRA2 ADR 08 H
R10(1)	CRA2	C5	56Ω	-CRA2 ADR 08 H
R123(1)	CRA2	D5	68Ω	CRA2 ADR 08 F H
R88(1)	CRA2	C3	56Ω	CRA2 ADR 09 H
R47(1)	CRA2	C3	56Ω	-CRA2 ADR 09 H
R130(1)	CRA2	D3	68Ω	CRA2 ADR 09 F H
R51(1)	CRA2	C1	68Ω	CRA2 ADR 10 H
R43(1)	CRA2	C1	68Ω	-CRA2 ADR 10 H
R127(1)	CRA2	D1	68Ω	CRA2 ADR 10 F H
R148(1)	CRA2	A6	68Ω	CRA2 SHORT INDIR WORD H
R240(1)	CRA2	C1	68Ω	CRA2 SPARE H
R249(1)	CRA3	A7	68Ω	-CRA3 A .GE. 3 H
R101(1)	CRA3	B6	68Ω	CRA3 AREAD 01 H
R171(1)	CRA3	A6	68Ω	CRA3 AREAD 02 H
R117(1)	CRA3	A6	68Ω	CRA3 AREAD 03 H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R109(1)	CRA3	A6	68Ω	CRA3 AREAD 04 H
R197(1)	CRA3	B5	68Ω	CRA3 AREAD 07 H
R134(1)	CRA3	A5	68Ω	CRA3 AREAD 08 H
R209(1)	CRA3	A5	68Ω	CRA3 AREAD 09 H
R151(1)	CRA3	A5	68Ω	CRA3 AREAD 10 H
R107(1)	CRA3	C1	68Ω	CRA3 CALL, RESET H
R62(1)	CRA4	A8	100Ω	CRA3 CLK A H
R41(1)	CRA3	C6	68Ω	CRA3 CLK B H
R122(1)	CRA3	C6	68Ω	CRA3 CLK C H
R95(1)	CRA3	B6	68Ω	CRA3 CLK D H
R14(1)	CRA3	B6	68Ω	CRA3 CLK E H
R76(1)	CRA3	B6	68Ω	CRA3 CLK F H
R111(1)	CRA3	C3	68Ω	CRA3 DIAG ADR 00 H
R178(1)	CRA3	B3	68Ω	CRA3 DIAG ADR 01 H
R172(1)	CRA3	B3	68Ω	CRA3 DIAG ADR 02 H
R115(1)	CRA3	B3	68Ω	CRA3 DIAG ADR 03 H
R110(1)	CRA3	B3	68Ω	CRA3 DIAG ADR 04 H
R104(1)	CRA3	C2	68Ω	CRA3 DIAG ADR 05 H
R177(1)	CRA3	C2	68Ω	CRA3 DIAG ADR 06 H
R196(1)	CRA3	B2	68Ω	CRA3 DIAG ADR 07 H
R142(1)	CRA3	B2	68Ω	CRA3 DIAG ADR 08 H
R205(1)	CRA3	B2	68Ω	CRA3 DIAG ADR 09 H
R156(1)	CRA3	B2	68Ω	CRA3 DIAG ADR 10 H
R61(1)	CRA3	D3	68Ω	-CRA3 DISP 00-07 IN H
R132(1)	CRA3	C7	68Ω	CRA3 DISP 02 A H
R217(1)	CRA3	C3	68Ω	CRA3 DISP 02 B H
R211(1)	CRA3	D6	68Ω	CRA3 DISP 03 A H
R102(1)	CRA3	D6	68Ω	CRA3 DISP 03 B H
R229(1)	CRA3	C6	68Ω	CRA3 DISP 03 C H
R216(1)	CRA3	D4	68Ω	CRA3 DISP 04 A H
R105(1)	CRA3	D4	68Ω	CRA3 DISP 04 B H
R220(1)	CRA3	C4	68Ω	CRA3 DISP 04 C H
R12(1)	CRA3	D4	68Ω	-CRA3 DISP 30-37 IN H
R103(1)	CRA3	D3	68Ω	-CRA3 DISP EN 00-03 H
R202(1)	CRA3	D3	68Ω	-CRA3 DISP EN 00-07 H
R170(1)	CRA3	D1	68Ω	-CRA3 DISP EN 30-37 H
R30(1)	CRA3	B3	68Ω	CRA3 LOC 00 H
R86(1)	CRA3	A3	68Ω	CRA3 LOC 01 H
R25(1)	CRA3	A3	68Ω	CRA3 LOC 02 H
R33(1)	CRA3	A3	68Ω	CRA3 LOC 03 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

REVISIONS

CHK	CHANGE NO.	REV

digital

DRN. C Smith DATE 17-SEP-76
CHK'D [illegible] DATE 23-SEP-76
M8541.BLSC4.161 17-SEP-76 22:46
FIRST USED ON OPTION/MODEL: KL10
ENG [illegible] DATE 23-SEP-76
BOARD LOCATION:
SHEET 1 OF 2
NEXT HIGHER ASSEMBLY: B-DD-M8541-0

TITLE: CONTROL RAM ADR TERMINATORS

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

352

MED

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R32(1)	CRA3	A3	68Ω	CRA3 LOC 04 H
R29(1)	CRA3	B1	68Ω	CRA3 LOC 05 H
R28(1)	CRA3	B1	68Ω	CRA3 LOC 06 H
R37(1)	CRA3	A1	68Ω	CRA3 LOC 07 H
R36(1)	CRA3	A1	68Ω	CRA3 LOC 08 H
R34(1)	CRA3	A1	68Ω	CRA3 LOC 09 H
R31(1)	CRA3	A1	68Ω	CRA3 LOC 10 H
R104(1)	CRA4	A2	68Ω	CRA4 CALL, RESET, 1777 H
R23(1)	CRA4	A2	68Ω	-CRA4 CALL, RESET, 1777 H
R139(1)	CRA4	A4	68Ω	CRA4 RESET H
R54(1)	CRA4	A2	68Ω	CRA4 RET AND -1777 H
R19(1)	CRA4	A2	68Ω	-CRA4 RET AND -1777 H
R112(1)	CRA4	C4	68Ω	CRA4 SBR RET 00 H
R180(1)	CRA4	C4	68Ω	CRA4 SBR RET 01 H
R176(1)	CRA4	C4	68Ω	CRA4 SBR RET 02 H
R118(1)	CRA4	C2	68Ω	CRA4 SBR RET 03 H
R114(1)	CRA4	C2	68Ω	CRA4 SBR RET 04 H
R174(1)	CRA4	C2	68Ω	CRA4 SBR RET 05 H
R186(1)	CRA4	C2	68Ω	CRA4 SBR RET 06 H
R195(1)	CRA4	C1	68Ω	CRA4 SBR RET 07 H
R133(1)	CRA4	C1	68Ω	CRA4 SBR RET 08 H
R208(1)	CRA4	C1	68Ω	CRA4 SBR RET 09 H
R155(1)	CRA4	C1	68Ω	CRA4 SBR RET 10 H
R24(1)	CRA4	A7	68Ω	CRA4 SEL CALL H
R128(1)	CRA4	B5	68Ω	CRA4 STACK ADR 01 H
R129(1)	CRA4	B5	68Ω	CRA4 STACK ADR 02 H
R124(1)	CRA4	B5	68Ω	CRA4 STACK ADR 04 H
R82(1)	CRA4	B5	68Ω	CRA4 STACK ADR 10 H
R69(1)	CRA4	D6	68Ω	CRA4 STACK ADR A H
R26(1)	CRA4	D6	68Ω	CRA4 STACK ADR B H
R27(1)	CRA4	D6	68Ω	CRA4 STACK ADR C H
R73(1)	CRA4	D6	68Ω	CRA4 STACK ADR D H
R65(1)	CRA4	C6	68Ω	CRA4 STACK ADR E H
R70(1)	CRA4	C6	68Ω	CRA4 STACK ADR F H
R21(1)	CRA4	C6	68Ω	CRA4 STACK ADR G H
R66(1)	CRA4	D7	68Ω	CRA4 STACK ADR Y H
R22(1)	CRA4	B7	68Ω	CRA4 STACK ADR Z H
R18(1)	CRA4	A7	68Ω	-CRA4 STACK WRITE H
R85(1)	CRA5	C7	68Ω	-CRA5 DIAG 04 H
R83(1)	CRA5	B7	68Ω	-CRA5 DIAG 05 H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R87(1)	CRA5	B7	68Ω	-CRA5 DIAG 06 H
R80(1)	CRA5	B7	68Ω	-CRA5 DIAG READ H
R48(1)	CRA5	A7	68Ω	CRA5 EBUS 00 H
R58(1)	CRA5	A6	68Ω	CRA5 EBUS 01 H
R52(1)	CRA5	A4	68Ω	CRA5 EBUS 02 H
R11(1)	CRA5	A3	68Ω	CRA5 EBUS 03 H
R1(1)	CRA5	A2	68Ω	CRA5 EBUS 04 H
R9(1)	CRA5	A1	68Ω	CRA5 EBUS 05 H
R13(1)	CRA5	D5	68Ω	CRA5 OUT 80 H
R15(1)	CRA5	D4	68Ω	CRA5 OUT 81 H
R16(1)	CRA5	D2	68Ω	CRA5 OUT 82 H
R64(1)	CRA5	C5	68Ω	CRA5 OUT 83 H
R89(1)	CRA5	C4	68Ω	CRA5 OUT 84 H
R99(1)	CRA5	C2	68Ω	CRA5 OUT 85 H
R242(1)	CRA2	B1	68Ω	CRAM COND 03S H
R247(1)	CRA2	B1	68Ω	CRAM COND 04S H
R246(1)	CRA2	B1	68Ω	CRAM COND 05S H
R105(1)	CRA1	C7	68Ω	CRAM J00 H
R258(1)	CRA1	D6	68Ω	CRAM J01 H
R263(1)	CRA1	C6	68Ω	CRAM J02 H
R259(1)	CRA1	D4	68Ω	CRAM J03 H
R260(1)	CRA1	C4	68Ω	CRAM J04 H
R213(1)	CRA1	D3	68Ω	CRAM J05 H
R221(1)	CRA1	C3	68Ω	CRAM J06 H
R218(1)	CRA2	D7	68Ω	CRAM J07 H
R222(1)	CRA2	D6	68Ω	CRAM J08 H
R103(1)	CRA2	D4	68Ω	CRAM J09 H
R106(1)	CRA2	D3	68Ω	CRAM J10 H
R214(1)	CRA2	B6	68Ω	DRAM B 00 H
R227(1)	CRA2	B4	68Ω	DRAM B 01 H
R233(1)	CRA2	B3	68Ω	DRAM B 02 H
R179(1)	CRA1	B6	68Ω	DRAM J 01 H
R175(1)	CRA1	B6	68Ω	DRAM J 02 H
R116(1)	CRA1	B4	68Ω	DRAM J 03 H
R113(1)	CRA1	B4	68Ω	DRAM J 04 H
R146(1)	CRA2	C7	68Ω	DRAM J 07 H
R135(1)	CRA2	C6	68Ω	DRAM J 08 H
R203(1)	CRA2	C4	68Ω	DRAM J 09 H
R152(1)	CRA2	C3	68Ω	DRAM J 10 H
R158(1)	CRA2	A7	68Ω	EA TYPE 07 H\#400\

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R147(1)	CRA2	A6	68Ω	EA TYPE 08 H\#400\
R219(1)	CRA2	A4	68Ω	EA TYPE 09 H\#400\
R225(1)	CRA2	A3	68Ω	EA TYPE 10 H\#400\
R161(1)	CRA2	B1	68Ω	IR AC=0 H
R207(1)	CRA2	B6	68Ω	IR NORM 08 H
R223(1)	CRA2	B4	68Ω	IR NORM 09 H
R235(1)	CRA2	B3	68Ω	IR NORM 10 H
R248(1)	CRA2	B1	68Ω	MCL6 PC SECTION 0 H
R230(1)	CRA2	B4	68Ω	MQ 34 H
R234(1)	CRA2	B3	68Ω	MQ 35 H
R245(1)	CRA2	B1	68Ω	SCD1 SCAD SIGN H
R243(1)	CRA2	B1	68Ω	-SCD1 SCAD=0 H
R215(1)	CRA2	B6	68Ω	SCD2 FE SIGN H
R160(1)	CRA2	B1	68Ω	SCD2 SC SIGN H
R212(1)	CRA2	B6	68Ω	SCD4 FPD H
R150(1)	CRA2	B3	68Ω	SCD4 NICOND 10 H
R239(1)	CRA2	C1	68Ω	-SHM1 AR PAR ODD B H
R226(1)	CRA2	A3	68Ω	SHM1 INDEXED H
R193(1)	CRA2	B7	68Ω	SHM4 SH 00 A H
R137(1)	CRA2	B6	68Ω	SHM4 SH 01 A H
R206(1)	CRA2	B4	68Ω	SHM4 SH 02 A H
R154(1)	CRA2	B3	68Ω	SHM4 SH 03 A H
R168(1)	CRA2	A1	68Ω	-VMA1 LOCAL AC ADDRESS H

NOTE:

1. ALL TER INATORS 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 DATE 17-SEP-76 | ENG Tom Eggers DATE 23Sept76
CHK'D. Tom Eggers DATE 23Sept76 | BOARD LOCATION:
SHEET 2 OF 2
M8541Z.RLS[4,161] 17-SEP-76 22:4
NEXT HIGHER ASSEMBLY: B-DD-M8541-0
FIRST USED ON OPTION/MODEL: KL10

TITLE: CONTROL RAM ADR TERMINATORS

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