

8 7 6 5 4 3 2 1

4-A-011  
3002 3215

# FIELD MAINTENANCE PRINT SET TABLE OF CONTENTS

UNIT VARIATIONS  
COVERED BY THIS  
PRINT SET

KL10-PV

KL10-PV  
FIELD MAINTENANCE  
PRINT SET

DIGITAL EQUIPMENT  
CORPORATION

PRINT SET ORDER NO.  
MP00301-00

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D  
C  
V  
B  
A

D  
C  
REV. C  
NUMBER KL10-PV-4  
SIZE CODE D TC  
B  
A

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REVISIONS		
CHK	CHANGE NO.	REV
✓	KL10-PV MROS	C

digital	DATE	ENG.	DATE	TITLE:
	83-JUN-80			KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION:		
	03-JUN-80 11:43	N/A		
DSK:KLPVTC.T2P[4.550]		NEXT HIGHER ASSEMBLY:		SIZE CODE
FIRST USED ON OPTION/MODEL: KL10-PV		NONE		D TC
			NUMBER	REV.
			KL10-PV-4	C

8 7 6 5 4 3 2 1

DOCUMENT NUMBER	REV	DESCRIPTION
B-TC-KL10-PV-4	C	KL10-PV FIELD MAINT. PRINT SET (TC)
D-MU-KL10-PV-CPU	*	MODULE UTILIZATION

MODULE (C.S.) CPU (E & M BOX) CONTINUED

MODULE (C.S.) CPU (E & M BOX)

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8512-0	B	DATA PATH SHEET 2
D-UA-M8512-0-0	A1	DATA PATH SHEET 2
B-DD-M8512-0	B	DATA PATH SHEET 3
D-UA-M8512-0-0	B	DATA PATH SHEET 2
D-CS-M8512-0-DP01	A	DATA PATH
D-CS-M8512-0-DP02	A	DATA PATH
D-CS-M8512-0-DP03	A	DATA PATH
D-CS-M8512-0-DP04	A	DATA PATH
D-CS-M8512-0-EDP5	B	DATA PATH
D-CS-M8512-0-RES	A	DATA PATH
B-DD-M8513-YA	A	CACHE CONTROL SHEET 1
D-UA-M8513-YA-0	A	CACHE CONTROL SHEET 2
D-CS-M8513-YA-CSH1	A	CACHE CONTROL
D-CS-M8513-YA-CSH2	*	CACHE CONTROL
D-CS-M8513-YA-CSH3	A	CACHE CONTROL
D-CS-M8513-YA-CSH4	*	CACHE CONTROL
D-CS-M8513-YA-CSH5	*	CACHE CONTROL
D-CS-M8513-YA-CSH6	A	CACHE CONTROL
D-CS-M8513-YA-CSH7	*	CACHE CONTROL
D-CS-M8513-YA-CSH8	A	CACHE CONTROL
D-CS-M8513-YA-RES	A	CACHE CONTROL
B-DD-M8514-0	A	CACHE DIRECTORY SHEET 2
D-UA-M8514-0-0	*	CACHE DIRECTORY SHEET 2
D-CS-M8514-0-CHA1	A	CACHE DIRECTORY
D-CS-M8514-0-CHA2	A	CACHE DIRECTORY
D-CS-M8514-0-CHA3	A	CACHE DIRECTORY
D-CS-M8514-0-CHA4	A	CACHE DIRECTORY
D-CS-M8514-0-CHA5	A	CACHE DIRECTORY
D-CS-M8514-0-RES	A	CACHE DIRECTORY
B-DD-M8549-YE	*	CACHE ADDRESS SUBSTITUTE SHEET 2
D-UA-M8549-YE-0	*	CACHE ADDRESS SUBSTITUTE SHEET 2
D-CS-M8549-YE-CHAS	*	CACHE ADDRESS SUBSTITUTE

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8515-0	A	CACHE EXTENSION SHEET 2
D-UA-M8515-0-0	A	CACHE EXTENSION SHEET 2
D-CS-M8515-CHX1	A	CACHE EXTENSION
D-CS-M8515-CHX2	A	CACHE EXTENSION
D-CS-M8515-CHX3	A	CACHE EXTENSION
D-CS-M8515-CHX4	A	CACHE EXTENSION
D-CS-M8515-CHX5	A	CACHE EXTENSION
D-CS-M8515-RES	A	CACHE EXTENSION
D-DD-M8549-YF	B	CACHE EXTENSION SUBSTITUTE SHEET 1
D-UA-M8549-YF-0	B	CACHE EXTENSION SUBSTITUTE SHEET 2
D-CS-M8549-YF-CHXS	*	CACHE EXTENSION SUBSTITUTE
B-DD-M8516-0	D	E & C BUS TRANSLATORS SHEET 2
D-UA-M8516-0-0	C1	E & C BUS TRANSLATORS SHEET 2
B-DD-M8516-0	D	E & C BUS TRANSLATORS SHEET 3
D-UA-M8516-0-0	D	E & C BUS TRANSLATORS SHEET 2
D-CS-M8516-0-TR01	D	E & C BUS TRANSLATORS
D-CS-M8516-0-TR02	C	E & C BUS TRANSLATORS
D-CS-M8516-0-TR03	D	E & C BUS TRANSLATORS
D-CS-M8516-0-TR04	D	E & C BUS TRANSLATORS
D-CS-M8516-0-TR05	D	E & C BUS TRANSLATORS
D-CS-M8516-0-TR06	C	E & C BUS TRANSLATORS
D-CS-M8516-0-RES	D	E & C BUS TRANSLATORS
B-DD-M8517-0	A	MB BOARD SHEET 2
D-UA-M8517-0-0	A	MB BOARD SHEET 2
D-CS-M8517-0-MB01	A	MB BOARD
D-CS-M8517-0-MB02	A	MB BOARD
D-CS-M8517-0-MB03	A	MB BOARD
D-CS-M8517-0-MB04	A	MB BOARD
D-CS-M8517-0-MB05	A	MB BOARD
D-CS-M8517-0-MB06	A	MB BOARD
D-CS-M8517-0-RES	A	MB BOARD
B-DD-M8518-YA	C	PHYSICAL MEM ADR SHEET 1
D-UA-M8518-YA-0	B	PHYSICAL MEM ADR SHEET 2
D-CS-M8518-YA-PMA1	*	PHYSICAL MEM ADR
D-CS-M8518-YA-PMA2	*	PHYSICAL MEM ADR
D-CS-M8518-YA-PMA3	*	PHYSICAL MEM ADR
D-CS-M8518-YA-PMA4	*	PHYSICAL MEM ADR
D-CS-M8518-YA-PMA5	*	PHYSICAL MEM ADR
D-CS-M8518-YA-PMA6	*	PHYSICAL MEM ADR
D-CS-M8518-YA-RES	*	PHYSICAL MEM ADR

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DATE 02-JUN-80  
CHK'D. *J. Lashby*

ENG. DATE  
BOARD LOCATION: H/A  
SHEET 2 OF 3

TITLE: KL10-PV BASED SYSTEM

DSK:KLPVTC.T2P(4.550) 03-JUN-80 11:43

FIRST USED ON OPTION/MODEL: KL10-PV

NEXT HIGHER ASSEMBLY: NONE

SIZE CODE	NUMBER	REV.
D TC	KL10-PV-4	C



MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8519-0	B	INTERNAL MEM BUS TRANSLATORS SHEET 2
D-UA-M8519-0-0	A1	INTERNAL MEM BUS TRANSLATORS SHEET 2
B-DD-M8519-0	B	INTERNAL MEM BUS TRANSLATORS SHEET 3
D-UA-M8519-0-0	B	INTERNAL MEM BUS TRANSLATORS SHEET 2
D-CS-M8519-0-MT01	A	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-MT02	A	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-MT03	A	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-MT04	A	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-MT05	A	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-MT06	B	INTERNAL MEM BUS TRANSLATORS
D-CS-M8519-0-RES	A	INTERNAL MEM BUS TRANSLATORS
B-DD-M8520-YA	*	PAGING BOARD SHEET 1
D-UA-M8520-YA-0	*	PAGING BOARD SHEET 2
D-CS-M8520-YA-PAG1	*	PAGING BOARD
D-CS-M8520-YA-PAG2	*	PAGING BOARD
D-CS-M8520-YA-PAG3	*	PAGING BOARD
D-CS-M8520-YA-PAG4	*	PAGING BOARD
D-CS-M8520-YA-PAG5	*	PAGING BOARD
D-CS-M8520-YA-PAG6	*	PAGING BOARD
D-CS-M8520-YA-RES	*	PAGING BOARD
B-DD-M8521-0	*	CACHE DATA SHEET 2
D-UA-M8521-0-0	*	CACHE DATA SHEET 2
D-CS-M8521-0-CHD1	*	CACHE DATA
D-CS-M8521-0-CHD2	*	CACHE DATA
D-CS-M8521-0-CHD3	*	CACHE DATA
D-CS-M8521-0-CHD4	*	CACHE DATA
D-CS-M8521-0-CHD5	*	CACHE DATA
D-CS-M8521-0-CHD6	*	CACHE DATA
D-CS-M8521-0-RES	*	CACHE DATA
D-DD-M8549-YH	B	CACHE DATA SUBSTITUTE SHEET 1
D-UA-M8549-YH-0	B	CACHE DATA SUBSTITUTE SHEET 2
D-CS-M8549-YH-CS01	A	CACHE DATA SUBSTITUTE
B-DD-M8522-0	A	IR DRAM & CARRY SHEET 2
D-UA-M8522-0-0	A	IR DRAM & CARRY SHEET 2
D-CS-M8522-0-IRD1	*	IR DRAM & CARRY
D-CS-M8522-0-IRD2	*	IR DRAM & CARRY
D-CS-M8522-0-IRD3	*	IR DRAM & CARRY
D-CS-M8522-0-IRD4	*	IR DRAM & CARRY
D-CS-M8522-0-IRD5	*	IR DRAM & CARRY
D-CS-M8522-0-RES	*	IR DRAM & CARRY

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8524-0	E	SCD. PC FLAG SHEET 2
D-UA-M8524-0-0	D1	SCD. PC FLAG SHEET 2
B-DD-M8524-0	E	SCD. PC FLAG SHEET 3
D-UA-M8524-0-0	E	SCD. PC FLAG SHEET 2
D-CS-M8524-0-SCD1	B	SCD. PC FLAG
D-CS-M8524-0-SCD2	B	SCD. PC FLAG
D-CS-M8524-0-SCD3	C	SCD. PC FLAG
D-CS-M8524-0-SCD4	C	SCD. PC FLAG
D-CS-M8524-0-SCD5	C	SCD. PC FLAG
D-CS-M8524-0-SCD6	C	SCD. PC FLAG
D-CS-M8524-0-RES	C	SCD. PC FLAG
B-DD-M8525-0	F	EBOX CONTROL #2 SHEET 2
D-UA-M8525-0-0	D1	EBOX CONTROL #2 SHEET 3
D-CS-M8525-0-CON1	C1	EBOX CONTROL #2
D-CS-M8525-0-CON2	C1	EBOX CONTROL #2
D-CS-M8525-0-CON3	B1	EBOX CONTROL #2
D-CS-M8525-0-CON4	D1	EBOX CONTROL #2
D-CS-M8525-0-CON5	B1	EBOX CONTROL #2
D-CS-M8525-0-CON6	A1	EBOX CONTROL #2
D-CS-M8525-0-RES	C1	EBOX CONTROL #2
B-DD-M8525-0	F	EBOX CONTROL #2 SHEET 3
D-UA-M8525-0-0	F	EBOX CONTROL #2 SHEET 2
D-CS-M8525-0-CON1	D	EBOX CONTROL #2
D-CS-M8525-0-CON2	D	EBOX CONTROL #2
D-CS-M8525-0-CON3	D	EBOX CONTROL #2
D-CS-M8525-0-CON4	E	EBOX CONTROL #2
D-CS-M8525-0-CON5	C	EBOX CONTROL #2
D-CS-M8525-0-CON6	C	EBOX CONTROL #2
D-CS-M8525-0-RES	E	EBOX CONTROL #2
B-DD-M8526-YA	A	CLK CONTROL SHEET 1
D-UA-M8526-YA-0	A	CLK CONTROL SHEET 2
D-CS-M8526-YA-CLK1	A	CLK CONTROL
D-CS-M8526-YA-CLK2	*	CLK CONTROL
D-CS-M8526-YA-CLK3	*	CLK CONTROL
D-CS-M8526-YA-CLK4	*	CLK CONTROL
D-CS-M8526-YA-CLK5	*	CLK CONTROL
D-CS-M8526-YA-CLK6	*	CLK CONTROL
D-CS-M8526-YA-RES	*	CLK CONTROL

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REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE	ENG.	DATE	TITLE:
	03-JUN-88			KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION:	N/A	
		SHEET	3	OF 5
FIRST USED ON OPTION/MODEL: KL10-PV		NEXT HIGHER ASSEMBLY:		
NONE		SIZE	CODE	NUMBER
		D	TC	KL10-PV-4
				REV.
				C

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8529-YA	*	MBOX CONTROL LOGIC SHEET 1
D-UA-M8529-YA-0	*	MBOX CONTROL LOGIC SHEET 2
D-CS-M8529-YA-MBX1	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX2	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX3	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX4	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX5	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX6	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-MBX7	*	MBOX CONTROL LOGIC
D-CS-M8529-YA-RES	*	MBOX CONTROL LOGIC
B-DD-M8531-YA	*	MBC MBOX CONTROL SHEET 1
D-UA-M8531-YA-0	*	MBC MBOX CONTROL SHEET 2
D-CS-M8531-YA-MBC1	*	MBC MBOX CONTROL
D-CS-M8531-YA-MBC2	*	MBC MBOX CONTROL
D-CS-M8531-YA-MBC3	*	MBC MBOX CONTROL
D-CS-M8531-YA-MBC4	*	MBC MBOX CONTROL
D-CS-M8531-YA-MBC5	*	MBC MBOX CONTROL
D-CS-M8531-YA-MBC6	*	MBC MBOX CONTROL
D-CS-M8531-YA-RES	*	MBC MBOX CONTROL
D-DD-M8532-0	F	PRIORITY INTERRUPT SHEET 1
D-UA-M8532-0-0	D2	PRIORITY INTERRUPT SHEET 2
D-CS-M8532-0-PIC1	A1	PRIORITY INTERRUPT
D-CS-M8532-0-PIC2	B2	PRIORITY INTERRUPT
D-CS-M8532-0-PIC3	C1	PRIORITY INTERRUPT
D-CS-M8532-0-PIC4	B1	PRIORITY INTERRUPT
D-CS-M8532-0-PIC5	B2	PRIORITY INTERRUPT
D-CS-M8532-0-PIC6	A1	PRIORITY INTERRUPT
D-CS-M8532-0-RES	B1	PRIORITY INTERRUPT
D-DD-M8532-0	F	PRIORITY INTERRUPT SHEET 2
D-UA-M8532-0-0	F	PRIORITY INTERRUPT SHEET 1
D-CS-M8532-0-PIC1	B	PRIORITY INTERRUPT
D-CS-M8532-0-PIC2	D	PRIORITY INTERRUPT
D-CS-M8532-0-PIC3	D	PRIORITY INTERRUPT
D-CS-M8532-0-PIC4	C	PRIORITY INTERRUPT
D-CS-M8532-0-PIC5	D	PRIORITY INTERRUPT
D-CS-M8532-0-PIC6	C	PRIORITY INTERRUPT
D-CS-M8532-0-RES	C	PRIORITY INTERRUPT
B-DD-M8549-YB	*	CHANNEL CONTROL WORD SUBSTITUTE SHEET 2
D-UA-M8549-YB-0	*	CHANNEL CONTROL WORD SUBSTITUTE SHEET 2
D-CS-M8549-YB-CCWS	*	CHANNEL CONTROL WORD SUBSTITUTE

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8533-0	B	CHANNEL CONTROL SHEET 2
D-UA-M8533-0-0	B	CHANNEL CONTROL SHEET 2
D-CS-M8533-0-CHC1	B	CHANNEL CONTROL
D-CS-M8533-0-CHC2	B	CHANNEL CONTROL
D-CS-M8533-0-CHC3	B	CHANNEL CONTROL
D-CS-M8533-0-CHC4	B	CHANNEL CONTROL
D-CS-M8533-0-CHC5	B	CHANNEL CONTROL
D-CS-M8533-0-CHC6	B	CHANNEL CONTROL
D-CS-M8533-0-RES	B	CHANNEL CONTROL
B-DD-M8534-0	D	CHANNEL CONTROL WORD SHEET 2
D-UA-M8534-0-0	B1	CHANNEL CONTROL WORD SHEET 2
B-DD-M8534-0	D	CHANNEL CONTROL WORD SHEET 3
D-UA-M8534-0-0	C	CHANNEL CONTROL WORD SHEET 2
D-CS-M8534-0-CCW1	B	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW2	C	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW3	B	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW4	A	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW5	C	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW6	B	CHANNEL CONTROL WORD
D-CS-M8534-0-CCW7	C	CHANNEL CONTROL WORD
D-CS-M8534-0-RES	C	CHANNEL CONTROL WORD
B-DD-M8549-YA	*	CHANNEL CONTROL SUBSTITUTE SHEET 2
D-UA-M8549-YA-0	A	CHANNEL CONTROL SUBSTITUTE SHEET 2
D-CS-M8549-YA-CHS	*	CHANNEL CONTROL SUBSTITUTE
B-DD-M8535-0	C	CHANNEL RAM CONTROL SHEET 2
D-UA-M8535-0-0	B1	CHANNEL RAM CONTROL SHEET 2
D-CS-M8535-0-CRC1	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC2	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC3	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC4	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC5	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC6	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC7	B1	CHANNEL RAM CONTROL
D-CS-M8535-0-RES	B1	CHANNEL RAM CONTROL
B-DD-M8535-0	C	CHANNEL RAM CONTROL SHEET 3
D-UA-M8535-0-0	C	CHANNEL RAM CONTROL SHEET 2
D-CS-M8535-0-CRC1	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC2	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC3	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC4	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC5	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC6	C	CHANNEL RAM CONTROL
D-CS-M8535-0-CRC7	C	CHANNEL RAM CONTROL
D-CS-M8535-0-RES	C	CHANNEL RAM CONTROL

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	03-JUN-88			KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION:	N/A	
		SHEET	4	OF 9
DSK:KL10PVC.TRP(4,550) 03-JUN-88 11:44		NEXT HIGHER ASSEMBLY:		
FIRST USED ON OPTION/MODEL:	KL10-PV	NONE		
SIZE	CODE	NUMBER	REV.	
D	TC	KL10-PV-4	C	

MODULE (C.S.) CPU (E & M BOX) CONTINUED

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8536-0	D	CHANNEL CONTROL LOGIC SHEET 2
D-UA-M8536-0-0	C1	CHANNEL CONTROL LOGIC SHEET 2
D-CS-M8536-0-CCL1	C1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL2	B1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL3	B1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL4	C1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL5	C1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL6	C1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL7	C1	CHANNEL CONTROL LOGIC
D-CS-M8536-0-RES	B1	CHANNEL CONTROL LOGIC
B-DD-M8536-0	D	CHANNEL CONTROL LOGIC SHEET 3
D-UA-M8536-0-0	D	CHANNEL CONTROL LOGIC SHEET 2
D-CS-M8536-0-CCL1	D	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL2	C	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL3	C	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL4	D	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL5	D	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL6	D	CHANNEL CONTROL LOGIC
D-CS-M8536-0-CCL7	D	CHANNEL CONTROL LOGIC
D-CS-M8536-0-RES	C	CHANNEL CONTROL LOGIC
D-DD-M8549-YD	B	CHANNEL CONTROL LOGIC SHEET 1
D-UA-M8549-YD-0	B	CHANNEL CONTROL LOGIC SHEET 2
D-CS-M8549-YD-CCLS	*	CHANNEL CONTROL LOGIC
B-DD-M8537-0	D	MBOX CONTROL #4 SHEET 2
D-UA-M8537-0-0	C1	MBOX CONTROL #4 SHEET 3
D-CS-M8537-0-MBZ1	B1	MBOX CONTROL #4
D-CS-M8537-0-MBZ2	A1	MBOX CONTROL #4
D-CS-M8537-0-MBZ3	B1	MBOX CONTROL #4
D-CS-M8537-0-MBZ4	B1	MBOX CONTROL #4
D-CS-M8537-0-MBZ5	A1	MBOX CONTROL #4
D-CS-M8537-0-MBZ6	B1	MBOX CONTROL #4
D-CS-M8537-0-MBZ7	A1	MBOX CONTROL #4
D-CS-M8537-0-RES	B1	MBOX CONTROL #4
B-DD-M8537-0	D	MBOX CONTROL #4 SHEET 3
D-UA-M8537-0-0	D	MBOX CONTROL #4 SHEET 2
D-CS-M8537-0-MBZ1	C	MBOX CONTROL #4
D-CS-M8537-0-MBZ2	B	MBOX CONTROL #4
D-CS-M8537-0-MBZ3	C	MBOX CONTROL #4
D-CS-M8537-0-MBZ4	C	MBOX CONTROL #4
D-CS-M8537-0-MBZ5	B	MBOX CONTROL #4
D-CS-M8537-0-MBZ6	C	MBOX CONTROL #4
C-CS-M8537-0-MBZ7	B	MBOX CONTROL #4
D-CS-M8537-0-RES	C	MBOX CONTROL #4

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8538-0	E	METER BOARD SHEET 2
D-UA-M8538-0-0	B1	METER BOARD SHEET 2
D-CS-M8538-0-MTR1	A1	METER BOARD
D-CS-M8538-0-MTR2	B1	METER BOARD
D-CS-M8538-0-MTR3	B1	METER BOARD
D-CS-M8538-0-MTR4	B1	METER BOARD
D-CS-M8538-0-MTR5	B1	METER BOARD
D-CS-M8538-0-MTR6	B1	METER BOARD
D-CS-M8538-0-RES	B1	METER BOARD
B-DD-M8538-0	E	METER BOARD SHEET 3
D-UA-M8538-0-0	D	METER BOARD SHEET 2
D-CS-M8538-0-MTR1	B	METER BOARD
D-CS-M8538-0-MTR2	D	METER BOARD
D-CS-M8538-0-MTR3	C	METER BOARD
D-CS-M8538-0-MTR4	D	METER BOARD
D-CS-M8538-0-MTR5	C	METER BOARD
D-CS-M8538-0-MTR6	C	METER BOARD
D-CS-M8538-0-RES	C	METER BOARD
B-DD-M8540-0	*	SHIFT MATRIX SHEET 1
D-UA-M8540-0-0	*	SHIFT MATRIX SHEET 2
D-CS-M8540-0-SHM1	*	SHIFT MATRIX
D-CS-M8540-0-SHM2	*	SHIFT MATRIX
D-CS-M8540-0-SHM3	*	SHIFT MATRIX
D-CS-M8540-0-SHM4	*	SHIFT MATRIX
D-CS-M8540-0-SHM5	*	SHIFT MATRIX
D-CS-M8540-0-RES	*	SHIFT MATRIX
B-DD-M8541-0	*	CONTROL RAM APR SHEET 1
D-UA-M8541-0-0	*	CONTROL RAM APR SHEET 2
D-CS-M8541-0-CRA1	*	CONTROL RAM APR
D-CS-M8541-0-CRA2	*	CONTROL RAM APR
D-CS-M8541-0-CRA3	*	CONTROL RAM APR
D-CS-M8541-0-CRA4	*	CONTROL RAM APR
D-CS-M8541-0-CRA5	*	CONTROL RAM APR
D-CS-M8541-0-CRA6	*	CONTROL RAM APR
D-CS-M8541-0-RES	*	CONTROL RAM APR

<small>                 DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS IS FOR THE MANUFACTURE OF ANY ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1980. DIGITAL EQUIPMENT CORPORATION.             </small>	REVISIONS CHK CHANGE NO. REV		DATE ENG. DATE 03-JUN-80 DATE BOARD LOCATION: N/A SHEET 2 OF 3 NEXT HIGHER ASSEMBLY: NONE FIRST USED ON OPTION/MODEL: KL10-PV	TITLE: KL10-PV BASED SYSTEM NUMBER: KL10-PV-4 REV. C
	SIZE CODE D TC			
	SIZE CODE D TC			

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8542-0	*	VMA BOARD SHEET 1
D-UA-M8542-0-0	*	VMA BOARD SHEET 2
D-CS-M8542-0-VMA1	*	VMA BOARD
D-CS-M8542-0-VMA2	*	VMA BOARD
D-CS-M8542-0-VMA3	*	VMA BOARD
D-CS-M8542-0-VMA4	*	VMA BOARD
D-CS-M8542-0-VMA5	*	VMA BOARD
D-CS-M8542-0-VMA6	*	VMA BOARD
D-CS-M8542-0-RES	*	VAM BOARD
B-DD-M8543-0	*	EBOX CONTROL #1 SHEET 1
D-UA-M8543-0-0	*	EBOX CONTROL #1 SHEET 2
D-CS-M8543-0-CTL1	*	EBOX CONTROL #1
D-CS-M8543-0-CTL2	*	EBOX CONTROL #1
D-CS-M8543-0-CTL3	*	EBOX CONTROL #1
D-CS-M8543-0-CTL4	*	EBOX CONTROL #1
D-CS-M8543-0-RES	*	EBOX CONTROL #1
B-DD-M8544-0	*	MEMORY CONTROL SHEET 1
D-UA-M8544-0-0	*	MEMORY CONTROL SHEET 2
D-CS-M8544-0-MCL1	*	MEMORY CONTROL
D-CS-M8544-0-MCL2	*	MEMORY CONTROL
D-CS-M8544-0-MCL3	*	MEMORY CONTROL
D-CS-M8544-0-MCL4	*	MEMORY CONTROL
D-CS-M8544-0-MCL5	*	MEMORY CONTROL
D-CS-M8544-0-MCL6	*	MEMORY CONTROL
D-CS-M8544-0-MCL7	*	MEMORY CONTROL
D-CS-M8544-0-RES	*	MEMORY CONTROL
B-DD-M8545-0	*	APR BOARD SHEET 1
D-UA-M8545-0-0	*	APR BOARD SHEET 2
D-CS-M8545-0-APR1	*	APR BOARD
D-CS-M8545-0-APR2	*	APR BOARD
D-CS-M8545-0-APR3	*	APR BOARD
D-CS-M8545-0-APR4	*	APR BOARD
D-CS-M8545-0-APR5	*	APR BOARD
D-CS-M8545-0-APR6	*	APR BOARD
D-CS-M8545-0-APR6	*	APR BOARD
D-CS-M8545-0-RES	*	APR BOARD

MODULE (C.S.) CPU (E & M BOX) CONTINUED

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-M8548-0	*	CONTROL RAM SHEET 1
D-UA-M8548-0-0	*	CONTROL RAM SHEET 2
D-CS-M8548-0-CR01	*	CONTROL RAM
D-CS-M8548-0-CR02	*	CONTROL RAM
D-CS-M8548-0-CR03	*	CONTROL RAM
D-CS-M8548-0-CR04	*	CONTROL RAM
D-CS-M8548-0-CR05	*	CONTROL RAM
D-CS-M8548-0-CR06	*	CONTROL RAM
D-CS-M8548-0-CRAM	*	CRAM NAMES
D-IC-KL10-0-EBUS	*	EBUS CABLE
D-IC-KL10-0-IOC1	*	EBUS CABLE I/O TO CPU
D-IC-KL10-0-IOC2	*	EBUS CABLE I/O TO CPU
D-IC-KL10-0-SBUS	*	SBUS CABLE MEMORY TO CPU

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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 02-JUN-80	ENG.:	DATE:	TITLE: KL10-PV BASED SYSTEM
	DATE: 02-JUN-80	BOARD LOCATION: H&R	SHEET: 5 OF 5	
FIRST USED ON OPTION/MODEL: KL10-PV		NEXT HIGHER ASSEMBLY: NONE		SIZE CODE: D TC
NUMBER: KL10-PV-4			REV. C	

MODULE (C.S.) DTE (10/11 INTERFACE)

DOCUMENT NUMBER	REV	DESCRIPTION	DOCUMENT NUMBER	REV	DESCRIPTION
C-MU-KL10-0-DTE	A	MODULE UTILIZATION			
D-MU-KL10-0-RHDTE	*	MODULE UTILIZATION			
B-DD-M8552-0	E	DATA PATH AND STATUS SHEET 2	B-DD-M8554-0	E	UNIBUS INTERRUPT SHEET 2
D-UA-M8552-0-0	D1	DATA PATH AND STATUS SHEET 2	D-UA-M8554-0-0	E	UNIBUS INTERRUPT SHEET 2
D-CS-M8552-0-DPS1	B1	DATA PATH AND STATUS	D-CS-M8554-0-INT1	E	UNIBUS INTERRUPT CONTROL
D-CS-M8552-0-DPS2	A1	DATA PATH AND STATUS	D-CS-M8554-0-INT2	C	UNIBUS INTERRUPT CONTROL
D-CS-M8552-0-DPS3	A1	DATA PATH AND STATUS	D-CS-M8554-0-INT3	C	UNIBUS INTERRUPT CONTROL
D-CS-M8552-0-DPS4	A1	DATA PATH AND STATUS			
D-CS-M8552-0-DPS5	C1	DATA PATH AND STATUS			
D-CS-M8552-0-DPS6	A1	DATA PATH AND STATUS			
D-CS-M8552-0-DPS7	C1	DATA PATH AND STATUS			
D-CS-M8552-0-DPS8	C1	DATA PATH AND STATUS			
B-DD-M8552-0	E	DATA PATH AND STATUS SHEET 3	B-DD-M8559-0	*	I/O BOX CLOCK DISTRIBUTION SHEET 2
D-UA-M8552-0-0	E	DATA PATH AND STATUS SHEET 3	D-UA-M8559-0-0	*	I/O BOX CLOCK DISTRIBUTION SHEET 2
D-CS-M8552-0-DPS1	C	DATA PATH AND STATUS	D-CS-M8559-0-CDS1	*	I/O BOX CLOCK DISTRIBUTION
D-CS-M8552-0-DPS2	B	DATA PATH AND STATUS	D-CS-M8559-0-CDS2	*	I/O BOX CLOCK DISTRIBUTION
D-CS-M8552-0-DPS3	B	DATA PATH AND STATUS	D-CS-M8559-0-CDS3	*	I/O BOX CLOCK DISTRIBUTION
D-CS-M8552-0-DPS4	B	DATA PATH AND STATUS			
D-CS-M8552-0-DPS5	D	DATA PATH AND STATUS			
D-CS-M8552-0-DPS6	B	DATA PATH AND STATUS	D-CS-KL10-C-UBCI	*	UNIBUS CABLE IN
D-CS-M8552-0-DPS7	D	DATA PATH AND STATUS	D-CS-KL10-C-UBCO	*	UNIBUS CABLE OUT
D-CS-M8552-0-DPS8	D	DATA PATH AND STATUS	D-CS-M8564-0-INTJ	*	DTE20 INTERRUPT JUMPER
B-DD-M8553-0	L	DTE20 CONTROL LOGIC SHEET 2			
D-UA-M8553-0-0	H1	DTE20 CONTROL LOGIC SHEET 3			
D-CS-M8553-0-CNT1	B1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT2	C1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT3	A1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT4	D1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT5	B1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT6	B1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT7	A1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT8	C1	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT9	A1	DTE20 CONTROL LOGIC			
B-DD-M8553-0	L	DTE20 CONTROL LOGIC SHEET 3			
D-UA-M8553-0-0	K	DTE20 CONTROL LOGIC SHEET 2			
D-CS-M8553-0-CNT1	C	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT2	E	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT3	B	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT4	E	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT5	C	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT6	C	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT7	B	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT8	D	DTE20 CONTROL LOGIC			
D-CS-M8553-0-CNT9	C	DTE20 CONTROL LOGIC			

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE
	03-JUN-80	J. Jambly		KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION	N/A	
DSK:KL10VTC.T2P(4.550)	03-JUN-80 11:44	SHEET	7	OF
FIRST USED ON OPTION/MODEL: KL10-PV	NONE	NEXT HIGHER ASSEMBLY:		
		SIZE CODE	NUMBER	REV.
		D TC	KL10-PV-4	C

REV. C  
NUMBER KL10-PV-4  
SIZE CODE TC

MODULE (C.S.) DIA (I/O ADAPTER)

MODULE (C.S.) DMA (MEM ADAPTER)

DOCUMENT NUMBER	REV	DESCRIPTION
C-MU-KL10-0-BAY1	*	MODULE UTILIZATION BAY 1
B-DD-M8550-0	C	IBUS ADAPTER DATA PATH SHEET 2
D-UA-M8550-0-0	A	IBUS ADAPTER DATA PATH SHEET 3
D-CS-M8550-0-DLH1	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH2	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH3	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH4	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH5	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH6	B	IBUS ADAPTER DATA PATH
B-DD-M8550-0	C	IBUS ADAPTER DATA PATH SHEET 3
D-UA-M8550-0-0	B	IBUS ADAPTER DATA PATH SHEET 2
D-CS-M8550-0-DLH1	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH2	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH3	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH4	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH5	B	IBUS ADAPTER DATA PATH
D-CS-M8550-0-DLH6	B	IBUS ADAPTER DATA PATH
B-DD-M8551-0	B	I/O BUS ADAPTER CONTROL INTERFACE SHEET 2
D-UA-M8551-0-0	B	I/O BUS ADAPTER CONTROL INTERFACE SHEET 2
D-CS-M8551-0-CL1	B	I/O BUS ADAPTER CONTROL INTERFACE
D-CS-M8551-0-CL2	A	I/O BUS ADAPTER CONTROL INTERFACE
D-CS-M8551-0-CL3	B	I/O BUS ADAPTER CONTROL INTERFACE
D-CS-M8551-0-CL4	B	I/O BUS ADAPTER CONTROL INTERFACE
D-CS-M8551-0-CL5	A	I/O BUS ADAPTER CONTROL INTERFACE
D-IC-KL10-0-IBUS	*	KL10 I/O BUS CONNECTOR
D-IC-KL10-0-MBUS	*	KL10 MEMORY BUS CONNECTOR

DOCUMENT NUMBER	REV	DESCRIPTION
C-MU-KL10-0-BAY1	*	MODULE UTILIZATION BAY 1
B-DD-M8558-0	D	KI MEMORY BUS ADAPTER SHEET 2
D-UA-M8558-0-0	C1	KI MEMORY BUS ADAPTER SHEET 2
D-CS-M8558-0-MA01	B1	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA02	B1	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA03	B1	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA04	B1	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA05	B1	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA06	B1	KI MEMORY BUS ADAPTER
B-DD-M8558-0	D	KI MEMORY BUS ADAPTER SHEET 3
D-UA-M8558-0-0	D	KI MEMORY BUS ADAPTER SHEET 2
D-CS-M8558-0-MA01	C	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA02	C	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA03	C	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA04	C	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA05	C	KI MEMORY BUS ADAPTER
D-CS-M8558-0-MA06	C	KI MEMORY BUS ADAPTER
B-DD-M8560-0	C	DMA TIMING/SBUS TRANCEIVERS SHEET 2
D-UA-M8560-0-0	C	DMA TIMING/SBUS TRANCEIVERS SHEET 3
D-CS-M8560-0-DTR1	C	DMA TIMING/SBUS TRANCEIVERS
D-CS-M8560-0-DTR2	A	DMA TIMING/SBUS TRANCEIVERS
D-CS-M8560-0-DTR3	B	DMA TIMING/SBUS TRANCEIVERS
D-CS-M8560-0-DTR4	B	DMA TIMING/SBUS TRANCEIVERS
D-CS-M8560-0-DTR5	A	DMA TIMING/SBUS TRANCEIVERS
B-DD-M8563-0	E	DMA20 BOARD #2 SHEET 2
D-UA-M8563-0-0	C2	DMA20 BOARD #2 SHEET 3
D-CS-M8563-0-DMC1	A1	DMA20 BOARD #2
D-CS-M8563-0-DMC2	B2	DMA20 BOARD #2
D-CS-M8563-0-DMC3	A1	DMA20 BOARD #2
D-CS-M8563-0-DMC4	B1	DMA20 BOARD #2
D-CS-M8563-0-DMC5	B1	DMA20 BOARD #2
D-CS-M8563-0-DMC6	A1	DMA20 BOARD #2
D-CS-M8563-0-DMC7	A1	DMA20 BOARD #2
B-DD-M8563-0	E	DMA20 BOARD #2 SHEET 3
D-UA-M8563-0-0	E	DMA20 BOARD #2 SHEET 2
D-CS-M8563-0-DMC1	B	DMA20 BOARD #2
D-CS-M8563-0-DMC2	D	DMA20 BOARD #2
D-CS-M8563-0-DMC3	B	DMA20 BOARD #2
D-CS-M8563-0-DMC4	C	DMA20 BOARD #2
D-CS-M8563-0-DMC5	C	DMA20 BOARD #2
D-CS-M8563-0-DMC6	B	DMA20 BOARD #2
D-CS-M8563-0-DMC7	C	DMA20 BOARD #2

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	07-JUN-88			KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION:	N/A	
		SHEET	8	OF
DSK1KLPVTC.TRP(4,550)	03-JUN-88 11:44	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10-PV	NONE		D	TC
			NUMBER	REV.
			KL10-PV-4	C

DOCUMENT NUMBER REV DESCRIPTION

D-DD-M8580-0	*	DUAL TRANSLATOR
D-UA-M8580-0-0	A	DUAL TRANSLATOR
D-CS-M8580-0-DT01	*	DUAL TRANSLATOR
D-CS-M8580-0-DT02	*	DATA TRANCVR 0-5
D-CS-M8580-0-DT03	*	DATA TRANCVR 6-11
D-CS-M8580-0-DT04	*	DATA TRANCVR 12-17
D-CS-M8580-0-DT05	*	ADDRESS DRIVERS
D-CS-M8580-0-DT06	*	CTRL AND REF VOLT
D-CS-M8580-0-DT07	*	MEM DATA DRIVERS
D-CS-M8580-0-DT08	*	POWER & GND CAPS
D-CS-M8580-0-RES	*	TERMINATORS
D-CS-M8581-0	*	X BUS TRANSLATOR
D-CS-M8581-0-0	A	X BUS TRANSLATOR
D-CS-M8581-0-DX01	*	X BUS TRANSLATOR
D-CS-M8581-0-DX02	*	DATA TRANCVR 0-5
D-CS-M8581-0-DX03	*	DATA TRANCVR 6-11
D-CS-M8581-0-DX04	*	DATA TRANCVR 12-17
D-CS-M8581-0-DX05	*	ADDRESS DRIVERS
D-CS-M8581-0-DX06	*	CTRL AND REF VOLT
D-CS-M8581-0-DX07	*	POWER & GND CAPS
D-CS-M8581-0-RES	*	TERMINATORS

KL10-PV OPTION/ASSY

DOCUMENT NUMBER	REV	DESCRIPTION
B-DD-KL10-PV	A	DRAWING DIRECTORY KL10-PV
K-WL-KL10-PV-0	C	REDUCED WIRELIST(COMPUTER PRINTOUT)
D-SP-KL10-PV-2	A	OPTION SERIAL NO. CHART
C-SP-KL10-PV-7	*	KL10 DESKEW INFORMATION
A-SP-KL10-PV-6	*	DMA20 SETUP PROCEDURE
A-PL-KL10-PV-0	B	KL10-PV CPU LOGIC ASSY P.L.
E-UA-KL10-PV-0	B	KL10-PV CPU LOGIC ASSY U.A.
E-AD-7013271-0-0	A	WIRED ASSY CPU
E-AD-7009417-0	D	BACKPLANE ASSY #1
D-UA-5410839-0	C	BACKPLANE
E-AD-7009415-0	C	BACKPLANE ASSY #2
D-UA-5410680-0	A	BACKPLANE
E-AD-7009416-0	D	BACKPLANE ASSY #3
D-UA-5410681-0	A	BACKPLANE

NOTE: A REVISION DESIGNATED AS "\*" REPRESENTS THE INITIAL RELEASE REVISION OF A DOCUMENT IN THE CASE WHERE THE INITIAL RELEASE REVISION WAS "-", "\*" OR LEFT BLANK.

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	15-AUG-88			KL10-PV BASED SYSTEM
CHK'D.	DATE	BOARD LOCATION:	N/A	
		SHEET	9 OF 9	
DSK:KLPVTC.T2P[4,550]	15-AUG-88 08:47	NEXT HIGHER ASSEMBLY:		SIZE CODE
FIRST USED ON OPTION/MODEL: KL10-PV	NONE			D TC
				NUMBER
				KL10-PV-4
				REV.
				C

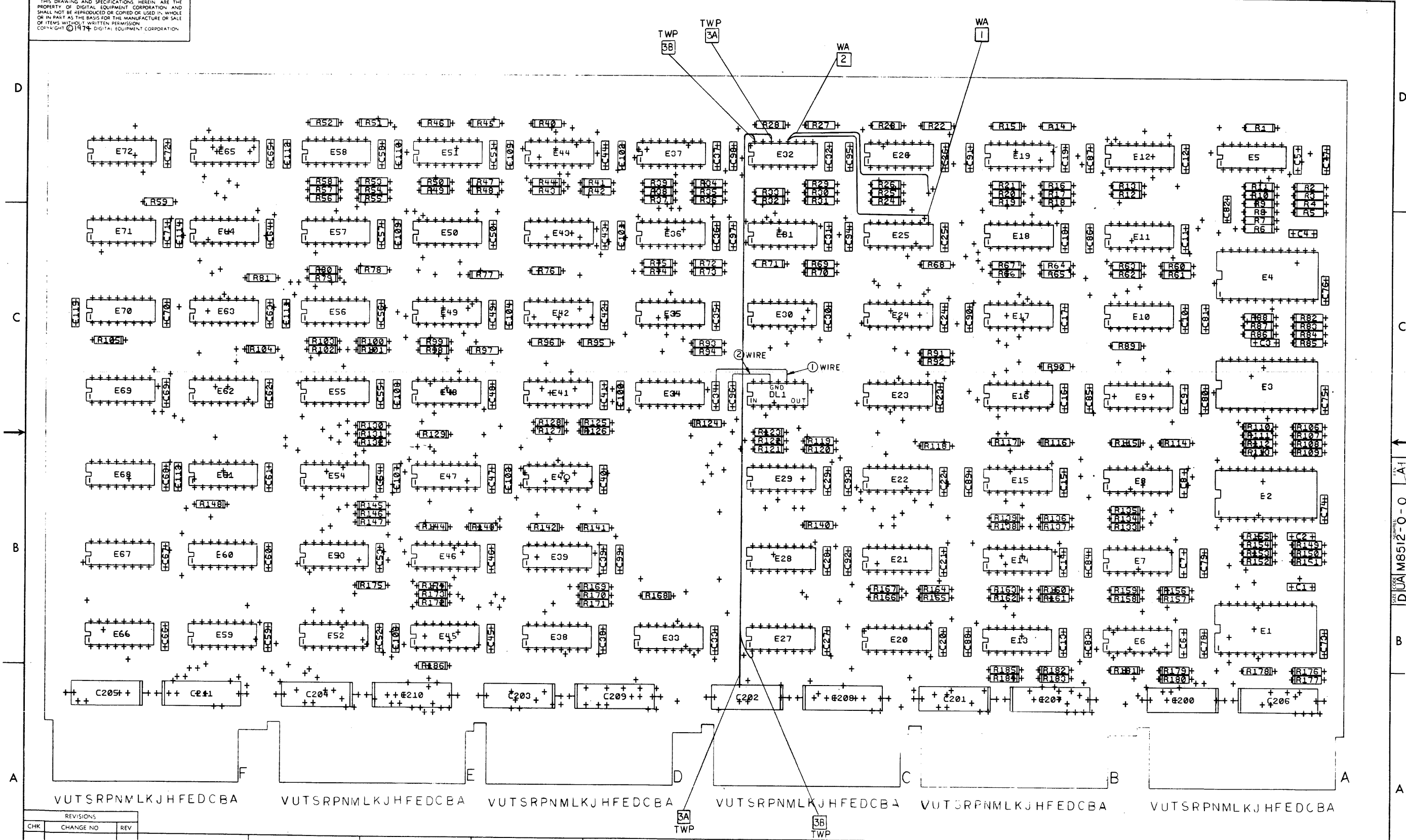
D  
C  
B  
A

REV. C  
KL10-PV-4









REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE CODE	NUMBER	REV.
DATA PATH BOARD	DUA	M8512-0-0	A1
SCALE 2/1	SHEET 2 OF 5	DIST.	

MR

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	(NEW LAYOUT VERSION) REVISIONS
			MODULE REVISION	C
D-UA-M8512-0-0	5		DATA PATH	B
D-CS-M8512-0-DP01	1		DATA PATH AR REGISTER	A
D-CS-M8512-0-DP02	1		DATA PATH ARX & MQ REGISTERS	A
D-CS-M8512-0-DP03	1		DATA PATH AD & ADX ADDERS	A
D-CS-M8512-0-DP04	1		DATA PATH EBUS FM, BR, BRX	A
D-CS-M8512-0-DP05	1		DATA PATH POWER, GND, CAPS	B
D-CS-M8512-0-RES	2		DATA PATH TERMINATORS	A
K-CO-M8512-4	1		DATA PATH BOARD	D
D-AH-M8512-5	4		DATA PATH BOARD	C
B-MH-M8512-6	1		MODULE EQ HISTORY	B
5010376			ETCH CIRCUIT BOARD	D
POO-M8512-00			PROCESS SHEET (REF ONLY)	-

**NOTES:**

REVISIONS	DATE	CHG NO.	REV.
		00002	B

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USED ON OPTION/MODEL	DRN. <i>H. Demaremore</i>	9-1-77
	CHK'D	
	ENG.	
	PROD.	

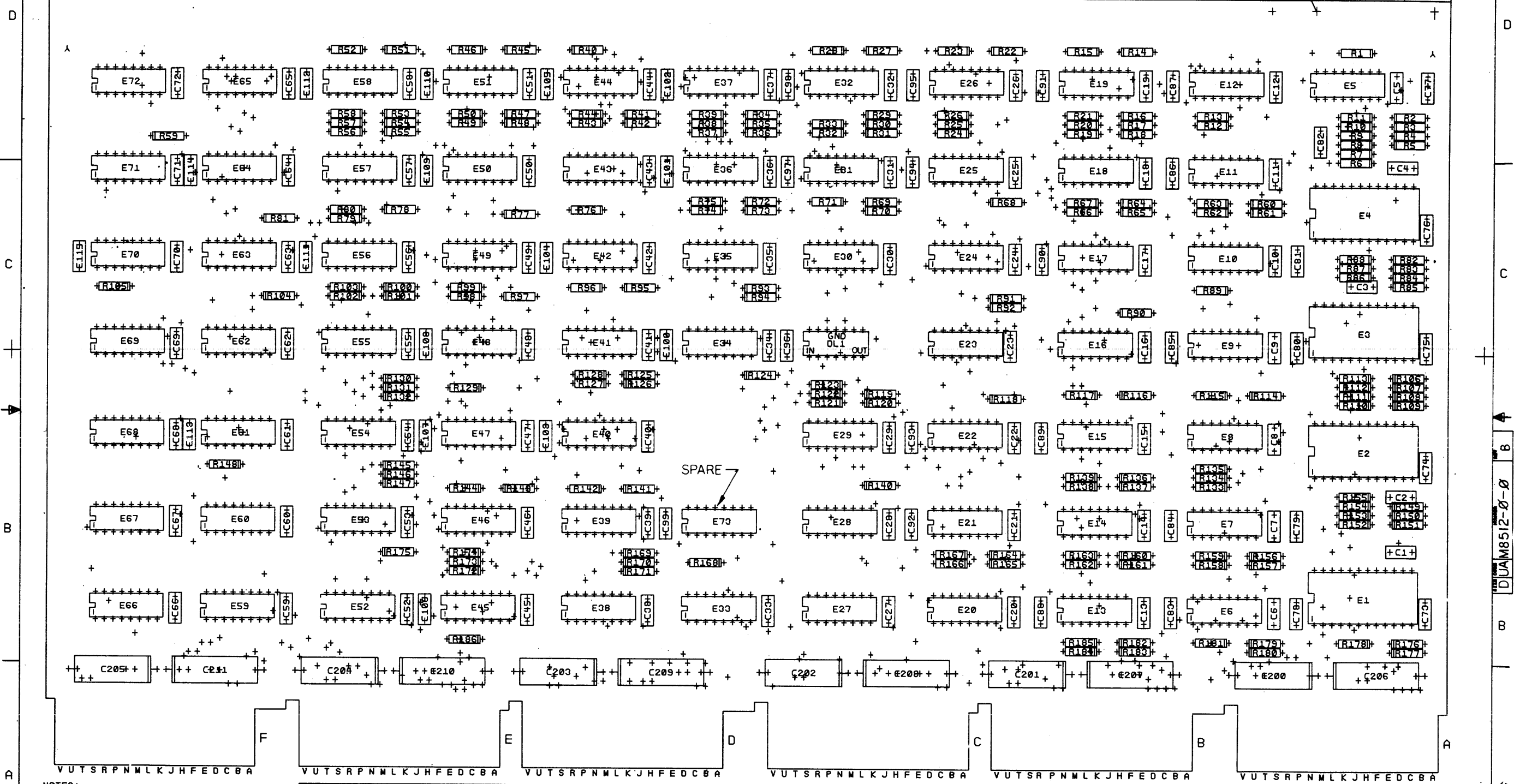
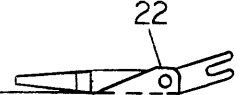
TITLE DATA PATH BOARD			
SIZE B	CODE DD	NUMBER M8512-0	REV. B
SHEET 3 OF 3			

13

MR

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23 (QTY 12)



NOTES:

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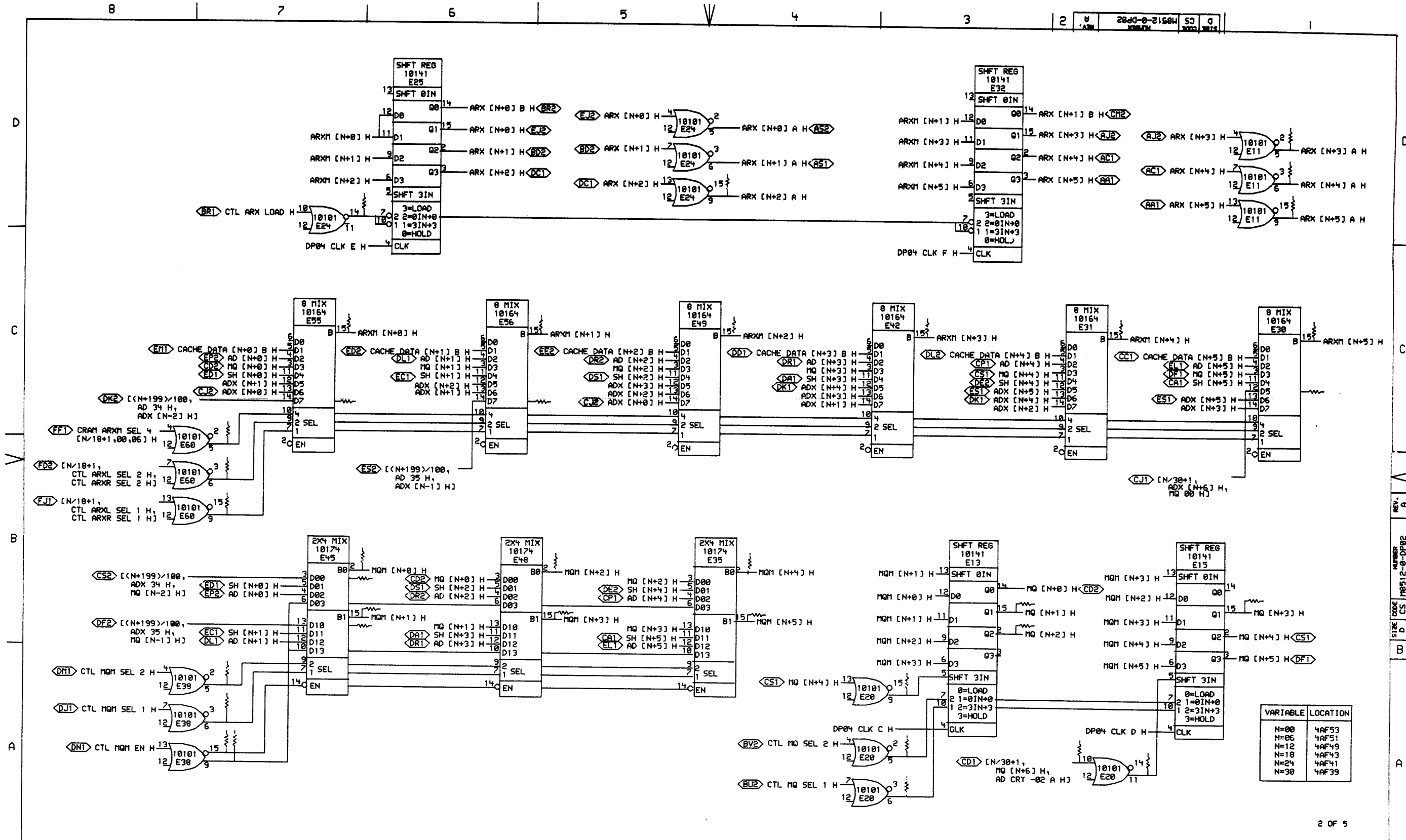
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CHK	CHANGE NO	REV

ETCH REV.	D
P.C. DESIGN DATA BASE REV.	D

SIGNATURES		DATE	digital
DRN. <i>X. ...</i>		2/10/77	
CHK'D. <i>R.W. ...</i>		2/10/77	TITLE DATA PATH BOARD
ENG. <i>E. ...</i>		2/4/77	
PROJ. ENG. <i>E. ...</i>		2/4/77	
PROD. <i>W. ...</i>		2/4/77	
SCALE 2/1			SIZE CODE NUMBER REV D UA M8512-0-0 B
SHT. 2 OF 5			
NEXT HIGHER ASSY. B-DD-M8512-0			



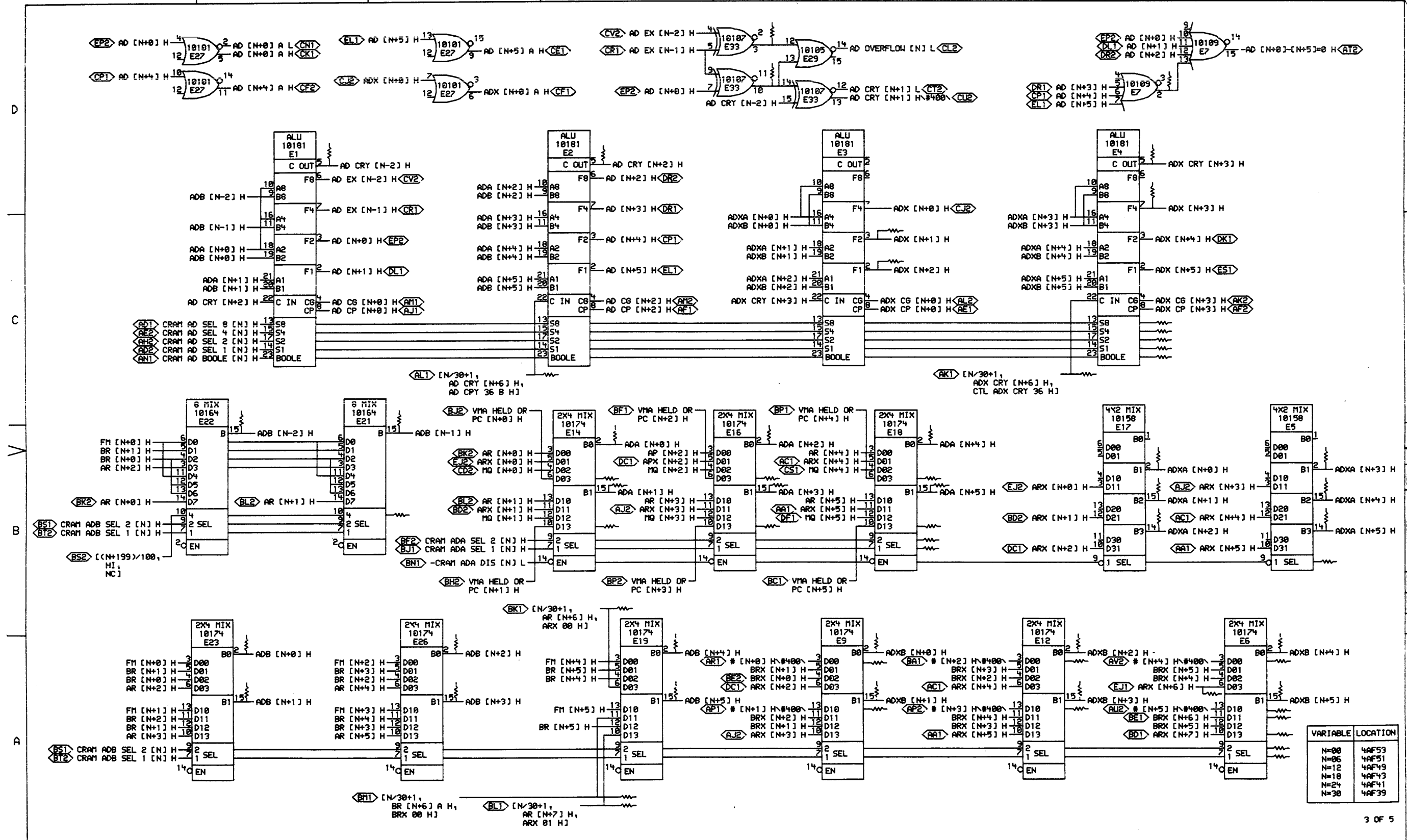


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REV	CHG	NO.	DATE
A		1	11/16/76

digit@l	DATE: 21-OCT-76	ENG: Form 199a	DATE: 21-OCT-76	TITLE: DATA PATH ARX & MQ REGISTERS
CHK: [Signature]	DATE: 21-OCT-76	BOARD LOCATION: SHEET 1 OF 1	SIZE: D	CODE: CS
FIRST USED ON OPTION/MODEL: KL10	19-OCT-76 12:43	NEXT HIGHER ASSEMBLY: B-DD-M8512-0	NUMBER: M8512-0-DP02	REV: A

REV. A  
NUMBER  
M8512-0-DP02  
SIZE  
D  
CS



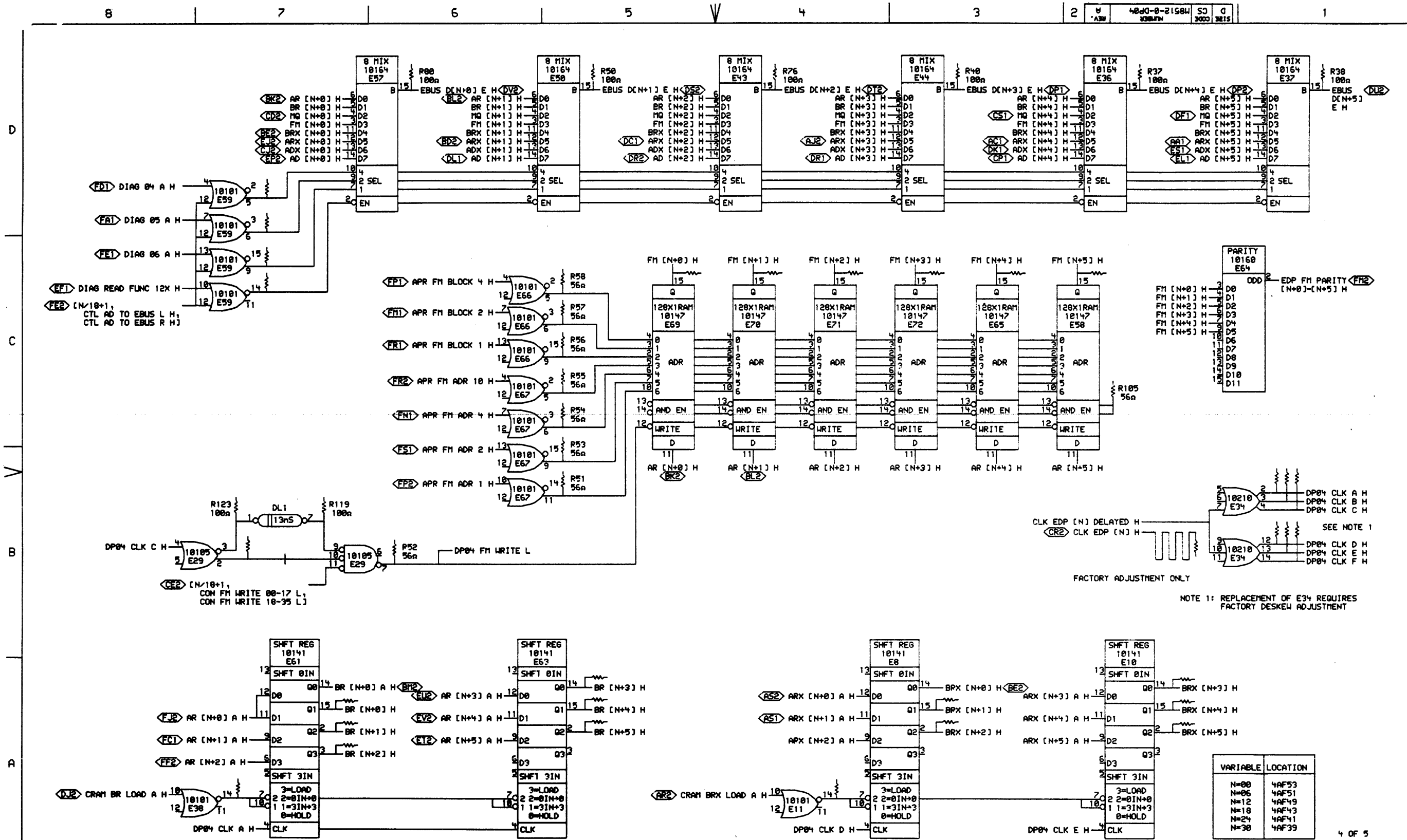
VARIABLE	LOCATION
N=00	4AF53
N=06	4AF51
N=12	4AF49
N=18	4AF43
N=24	4AF41
N=30	4AF39

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REVISIONS		
CHK	CHANGE NO.	REV
	M8512-00001	A
	6 JAN 77	
	Y EGGERS	

	DATE: 21 OCT 76	ENG: om gpa	DATE: 21 OCT 76	TITLE: DATA PATH AD & ADX ADDERS
	DATE: 21 OCT 76	DATE: 21 OCT 76	DATE: 21 OCT 76	DATE: 21 OCT 76
EDP3EX.RVAL4.120	118-OCT-76 22:31	NEXT HIGHER ASSEMBLY:	SIZE CODE: D CS	NUMBER: M8512-0-DP03
FIRST USED ON OPTION MODEL: KL10	B-DD-M8512-0			REV: A





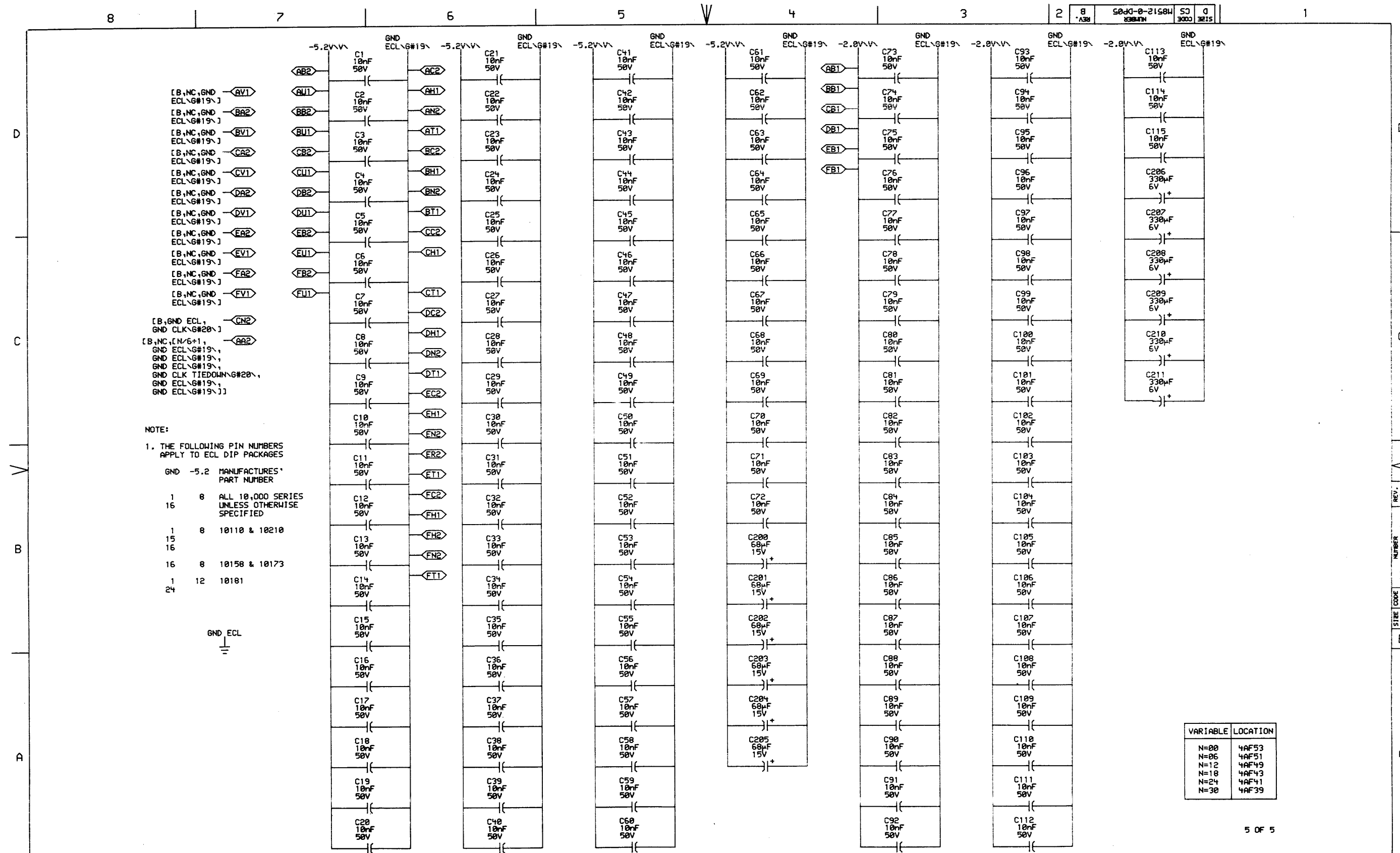
VARIABLE	LOCATION
N=00	4AF53
N=06	4AF51
N=12	4AF49
N=18	4AF43
N=24	4AF41
N=30	4AF39

REVISIONS	
CHK	CHANGE NO. REV
-	M8512-00001 A
1	11/10/77
2	1/10/77

digital		DATE: 21-OCT-76	ENGR: Tom Egner	DATE: 21-OCT-76	TITLE: DATA PATH
EDP4EX.RVAL.4.128		DATE: 18-OCT-76	22:41	BOARD LOCATION: B-DD-M8512-0	EBUS, FM, BR, BR.
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY:		SIZE: D	CODE: CS
				NUMBER: M8512-0-DP04	REV: A

REV. A  
M8512-0-DP04  
CS  
D  
B  
A





NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173
24	12	10181



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REVISIONS		
CHK	CHANGE NO.	REV
AV	M8512-00002	E
AV	1	1-77
AV	2	2-77

digital	DATE	16-JUN-77	ENG	Tom Egger	DATE	22-JUNE-77	TITLE:	DATA PATH POWER, GND, CAPS			
	DATE	16-JUN-77	DATE	16-JUN-77	18:18	NEXT HIGHER ASSEMBLY:	SIZE	CODE	NUMBER	REV.	
EDPSEX.DRW(4,536)		FIRST USED ON OPTION/MODEL:		KL10		B-DD-M8512-0		D	CS	M8512-0-DP05	B

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
R119(1)	DP04	B7	100n	%DL1(7)	R181(1)	DP03	A1	68n	# [N+4] HN#400\	R170(1)	DP01	C3	68n	ARM [N+2] H	R124(1)	DP04	B2	68n	CLK EDP [N] H
R135(1)	DP04	A4	68n	%E11(14)	R159(1)	DP03	A1	68n	# [N+5] HN#400\	R46(1)	DP01	A6	68n	ARM [N+3] H	R6(1)	DP03	C2	68n	CRAM AD BOOLE [N] H
R139(1)	DP02	A2	68n	%E20(11)	R155(1)	DP03	D5	68n	AD CRY [N+2] H	R45(1)	DP01	A5	68n	ARM [N+4] H	R3(1)	DP03	C2	68n	CRAM AD SEL 1 [N] H
R136(1)	DP02	A3	68n	%E20(5)	R168(1)	DP03	D7	68n	AD CRY [N-2] H	R47(1)	DP01	A3	68n	ARM [N+5] H	R5(1)	DP03	C2	68n	CRAM AD SEL 2 [N] H
R137(1)	DP02	A3	68n	%E20(6)	R176(1)	DP03	B5	68n	ADA [N+0] H	R175(1)	DP01	C6	68n	ARM [N+0] H	R4(1)	DP03	C2	68n	CRAM AD SEL 4 [N] H
R105(1)	DP02	A3	68n	%E20(9)	R152(1)	DP03	B5	68n	ADA [N+1] H	R173(1)	DP01	C5	68n	ARM [N+1] H	R2(1)	DP03	C2	68n	CRAM AD SEL 8 [N] H
R27(1)	DP02	D6	68n	%E24(14)	R150(1)	DP03	B4	68n	ADA [N+2] H	R143(1)	DP01	C3	68n	ARM [N+2] H	R1(1)	DP03	B1	68n	CRAM ADA DIS [N] H
R120(1)	DP04	B7	68n	%E29(2)	R108(1)	DP03	B4	68n	ADA [N+3] H	R120(1)	DP01	A6	68n	ARM [N+3] H	R64(1)	DP03	B3	68n	CRAM ADA SEL 1 [N] H
R123(1)	DP04	B7	100n	%E29(3)	R109(1)	DP03	B3	68n	ADA [N+4] H	R141(1)	DP01	A5	68n	ARM [N+4] H	R17(1)	DP03	B3	68n	CRAM ADA SEL 2 [N] H
R122(1)	DP03	D4	68n	%E33(10)	R112(1)	DP03	B3	68n	ADA [N+5] H	R145(1)	DP01	A3	68n	ARM [N+5] H	R179(1)	DP03	A1	68n	CRAM ADB SEL 1 [N] H
R121(1)	DP03	D4	68n	%E33(3)	R154(1)	DP03	A7	68n	ADB [N+0] H	R114(1)	DP02	D4	68n	ARX [N+2] A H	R156(1)	DP03	A1	68n	CRAM ADB SEL 2 [N] H
R81(1)	DP04	A7	68n	%E30(14)	R153(1)	DP03	A7	68n	ADB [N+1] H	R62(1)	DP02	D1	68n	ARX [N+3] A H	R148(1)	DP04	B1	68n	DP04 CLK A H
R74(1)	DP02	A7	68n	%E30(15)	R149(1)	DP03	A6	68n	ADB [N+2] H	R61(1)	DP02	D1	68n	ARX [N+4] A H	R171(1)	DP04	B1	68n	DP04 CLK B H
R73(1)	DP02	A7	68n	%E30(5)	R151(1)	DP03	A6	68n	ADB [N+3] H	R60(1)	DP02	D1	68n	ARX [N+5] A H	R104(1)	DP04	B1	68n	DP04 CLK C H
R93(1)	DP02	A7	68n	%E30(6)	R110(1)	DP03	A5	68n	ADB [N+4] H	R100(1)	DP03	A2	68n	ARX [N+6] H	R134(1)	DP04	B1	68n	DP04 CLK D H
R94(1)	DP02	A7	68n	%E30(9)	R111(1)	DP03	A5	68n	ADB [N+5] H	R157(1)	DP03	A1	68n	ARX [N+7] H	R63(1)	DP04	B1	68n	DP04 CLK E H
R127(1)	DP01	B7	68n	%E52(11)	R177(1)	DP03	B6	68n	ADB [N-1] H	R24(1)	DP02	C7	68n	ARXM [N+0] H	R49(1)	DP04	B1	68n	DP04 CLK F H
R95(1)	DP01	B7	68n	%E52(5)	R170(1)	DP03	B7	68n	ADB [N-2] H	R25(1)	DP02	C5	68n	ARXM [N+1] H	R52(1)	DP04	B6	56n	-DP04 FN WRITE H
R126(1)	DP01	B7	68n	%E52(6)	R08(1)	DP03	D2	68n	ADX CRY [N+3] H	R60(1)	DP02	C4	68n	ARXM [N+2] H	R00(1)	DP04	D6	100r	EBUS D[N+0] E H
R125(1)	DP01	B7	68n	%E52(9)	R174(1)	DP03	C3	68n	ADX [N+1] H	R26(1)	DP02	C3	68n	ARXM [N+3] H	R50(1)	DP04	D5	100r	EBUS D[N+1] E H
R105(1)	DP04	C2	56n	%E50(13)	R129(1)	DP03	C3	68n	ADX [N+2] H	R29(1)	DP02	C2	68n	ARXM [N+4] H	R76(1)	DP04	D4	100r	EBUS D[N+2] E H
R75(1)	DP04	C7	68n	%E59(14)	R43(1)	DP03	D2	68n	ADX [N+3] H	R33(1)	DP02	C1	68n	ARXM [N+5] H	R40(1)	DP04	D3	100r	EBUS D[N+3] E H
R35(1)	DP04	D7	68n	%E59(5)	R106(1)	DP03	B2	68n	ADXA [N+0] H	R166(1)	DP04	A7	68n	BR [N+0] H	R37(1)	DP04	D2	100r	EBUS D[N+4] E H
R34(1)	DP04	D7	68n	%E59(6)	R05(1)	DP03	B2	68n	ADXA [N+1] H	R167(1)	DP04	A7	68n	BR [N+1] H	R30(1)	DP04	D1	100n	EBUS D[N+5] E H
R72(1)	DP04	C7	68n	%E59(9)	R07(1)	DP03	B2	68n	ADXA [N+2] H	R92(1)	DP04	A7	68n	BR [N+2] H	R164(1)	DP04	C5	68n	FM [N+0] H
R31(1)	DP02	B7	68n	%E60(5)	R02(1)	DP03	B1	68n	ADXA [N+3] H	R22(1)	DP04	A5	68n	BR [N+3] H	R91(1)	DP04	C4	68n	FM [N+1] H
R30(1)	DP02	B7	68n	%E60(6)	R11(1)	DP03	B1	68n	ADXA [N+4] H	R20(1)	DP04	A5	68n	BR [N+4] H	R26(1)	DP04	C4	68n	FM [N+2] H
R69(1)	DP02	B7	68n	%E60(9)	R10(1)	DP03	B1	68n	ADXA [N+5] H	R10(1)	DP04	A5	68n	BR [N+5] H	R23(1)	DP04	C3	68n	FM [N+3] H
R50(1)	DP04	C5	56n	%E66(5)	R107(1)	DP03	A4	68n	ADXB [N+0] H	R40(1)	DP04	A3	68n	BRX [N+1] H	R19(1)	DP04	C3	68n	FM [N+4] H
R57(1)	DP04	C5	56n	%E66(6)	R04(1)	DP03	A4	68n	ADXB [N+1] H	R42(1)	DP04	A3	68n	BRX [N+2] H	R21(1)	DP04	C2	68n	FM [N+5] H
R56(1)	DP04	C5	56n	%E66(9)	R06(1)	DP03	A2	68n	ADXB [N+2] H	R41(1)	DP04	A2	68n	BRX [N+3] H	R103(1)	DP02	B3	68n	MQ [N+1] H
R51(1)	DP04	B5	56n	%E67(11)	R03(1)	DP03	A2	68n	ADXB [N+3] H	R36(1)	DP04	A2	68n	BRX [N+4] H	R90(1)	DP02	B3	68n	MQ [N+2] H
R55(1)	DP04	C5	56n	%E67(5)	R0(1)	DP03	A1	68n	ADXB [N+4] H	R30(1)	DP04	A2	68n	BRX [N+5] H	R44(1)	DP02	B1	68n	MQ [N+3] H
R54(1)	DP04	C5	56n	%E67(6)	R9(1)	DP03	A1	68n	ADXB [N+5] H	R150(1)	DP03	A1	68n	BRX [N+6] H	R103(1)	DP02	B6	68n	MQM [N+0] H
R53(1)	DP04	B5	56n	%E67(9)	R59(1)	DP01	D3	68n	AR [N+2] H	R130(1)	DP01	C6	68n	CACHE DATA [N+0] B H	R162(1)	DP02	B6	68n	MQM [N+1] H
R133(1)	DP03	D2	68n	%E7(2)	R140(1)	DP01	B3	68n	AR [N+3] H	R100(1)	DP01	C5	68n	CACHE DATA [N+1] B H	R161(1)	DP02	B5	68n	MQM [N+2] H
R115(1)	DP03	A4	68n	# [N+0] HN#400\	R66(1)	DP01	B3	68n	AR [N+4] H	R99(1)	DP01	C3	68n	CACHE DATA [N+2] B H	R102(1)	DP02	B5	68n	MQM [N+3] H
R09(1)	DP03	A4	68n	# [N+1] HN#400\	R104(1)	DP01	B3	68n	AR [N+5] H	R96(1)	DP01	A6	68n	CACHE DATA [N+3] B H	R116(1)	DP02	B4	68n	MQM [N+4] H
R12(1)	DP03	A2	68n	# [N+2] HN#400\	R142(1)	DP01	C6	68n	ARM [N+0] H	R71(1)	DP01	A5	68n	CACHE DATA [N+4] B H	R130(1)	DP02	B4	68n	MQM [N+5] H
R13(1)	DP03	A2	68n	# [N+3] HN#400\	R169(1)	DP01	C5	68n	ARM [N+1] H	R146(1)	DP01	A3	68n	CACHE DATA [N+5] B H	R101(1)	DP01	C6	68n	SH [N+0] 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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CHK	CHANGE NO.	REV
	M8512-00001	A
	1/1/77	

digital	DRN. <i>C. Smith</i>	DATE 20-OCT-76	ENG Tom Ippa	DATE 21-OCT-76	TITLE: DATA PATH TERMINATORS
	CHK'D <i>Tom Ippa</i>	DATE 21-OCT-76	BOARD LOCATION:	SHEET 1 OF 2	SIZE CODE D CS M8512-0-RES
M85121.RVAL4.120		20-OCT-76 20:08	NEXT HIGHER ASSEMBLY:	B-DD-M8512-3	REV. A
FIRST USED ON OPTION/MODEL: KL10					MP 1

REV. A  
 M8512-0-RES  
 CS  
 D

D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R78(1)	DP01	C5	68Ω	SH [N+1] H
R77(1)	DP01	C3	68Ω	SH [N+2] H
R97(1)	DP01	A6	68Ω	SH [N+3] H
R32(1)	DP01	A5	68Ω	SH [N+4] H
R131(1)	DP01	A3	68Ω	SH [N+5] H
R153(1)	DP03	B5	68Ω	VMA HELD OR PC [N+0] H
R160(1)	DP03	B5	68Ω	VMA HELD OR PC [N+1] H
R117(1)	DP03	B4	68Ω	VMA HELD OR PC [N+2] H
R90(1)	DP03	B4	68Ω	VMA HELD OR PC [N+3] H
R67(1)	DP03	B3	68Ω	VMA HELD OR PC [N+4] H
R65(1)	DP03	B3	68Ω	VMA HELD OR PC [N+5] H
R102(1)	DP02	C7	68Ω	[(N+199)/100, AD 34 H, ADX [N-2] H]
R79(1)	DP02	C5	68Ω	[(N+199)/100, AD 35 H, ADX [N-1] H]
R186(1)	DP02	B7	68Ω	[(N+199)/100, ADX 34 H, MQ [N-2] H]
R172(1)	DP02	B7	68Ω	[(N+199)/100, ADX 35 H, MQ [N-1] H]
R118(1)	DP03	B6	68Ω	[(N+199)/100, HI, NC]
R113(1)	DP03	C5	68Ω	[N/30+1, AD CRY [N+6] H, AD CRY 36 B H]
R132(1)	DP01	A3	68Ω	[N/30+1, AD [N+6] H, ADX 00 H]
R7(1)	DP03	C2	68Ω	[N/30+1, ADX CRY [N+6] H, CTL ADX CRY 36 H]
R70(1)	DP02	C1	68Ω	[N/30+1, ADX [N+6] H, MQ 00 H]
R16(1)	DP03	B5	68Ω	[N/30+1, AR [N+6] H, ARX 00 H]
R14(1)	DP03	A5	68Ω	[N/30+1, AR [N+7] H, ARX 01 H]
R15(1)	DP03	A5	68Ω	[N/30+1, BR [N+6] A H, BRX 00 H]
R165(1)	DP02	A2	68Ω	[N/30+1, MQ [N+6] H, AD CRY -02 A H]
R144(1)	DP01	C5	68Ω	[N/6+1, AD EX -01 H, AD 05 H, AD 11 H, AD 17 H, AD 23 H, AD 29 H]
R147(1)	DP01	C6	68Ω	[N/6+1, AD EX -02 H, AD 04 H, AD 10 H, AD 16 H, AD 22 H, AD 28 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

REV. A  
NUMBER M8512-0-RES  
D CS 3000

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REVISIONS		
CHK	CHANGE NO.	REV

<b>digital</b>	DRN. <i>Smith</i>	DATE <i>20-OCT-76</i>	EMP. <i>Tom Egge</i>	DATE <i>21 Oct 76</i>	TITLE: DATA PATH TERMINATORS
	CHK. <i>Tom Egge</i>	DATE <i>2 Oct 76</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	
M85122.RVAL4.120		20-OCT-76 20:08	NEXT HIGHER ASSEMBLY: B-DD-M8512-0	SIZE CODE D CS	NUMBER M8512-0-RES
FIRST USED ON OPTION/MODEL: KL10				REV. A	MR 1

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS															
				A	B														
			MODULE REVISION	A	B														
D-UA-M8513-YA-Ø	5		CACHE CONTROL	-	A														
D-CS-M8513-YA-CSH1	1		CSH CYC REQ PRI & TYPE, CSH IDLE	-	A														
D-CS-M8513-YA-CSH2	1		MBOX RESP, EBOX MINOR CYC TYPE	-	-														
D-CS-M8513-YA-CSH3	1		ANY VAL MATCH & HOLD, ANY WR	-	A														
D-CS-M8513-YA-CSH4	1		CSH EBOX T(N), PAGE FAIL T(N)	-	-														
D-CS-M8513-YA-CSH5	1		PAGE REFILL T(N) CSH & CHAN T(N)	-	-														
D-CS-M8513-YA-CSH6	1		PF HOLD, CCA CTL, CSH WR CTL	-	A														
D-CS-M8513-YA-CSH7	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:

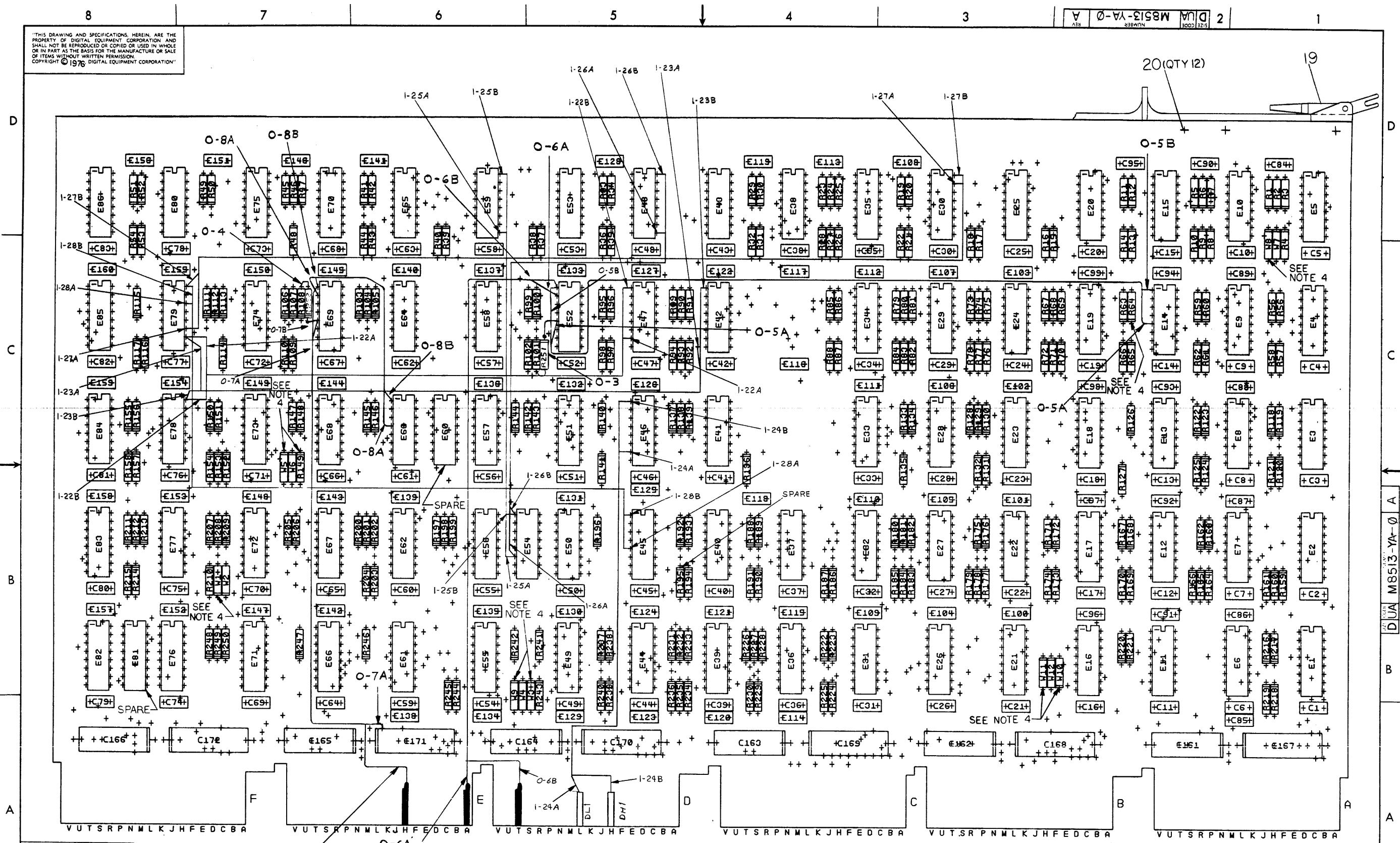
REV.	NO.	DATE	CHG	REVISIONS															
				A	B														
		4-77	00001	A															

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USED ON OPTION/MODEL	DRN. <i>M. Pascarella</i>	11 OCT 76	TITLE	
KL1Ø-DA, DB	CHK'D <i>M. Pascarella</i>	11 OCT 76	CACHE CONTROL	
KL1Ø-EA, EB	ENG. <i>John O. Allen</i>	5 JAN 77	SIZE CODE	BDD
KL1Ø-PV	PROD. <i>W. Embrey</i>	5 JAN 77	NUMBER	M8513-YA
			REV.	A
			SHEET	1 OF 1

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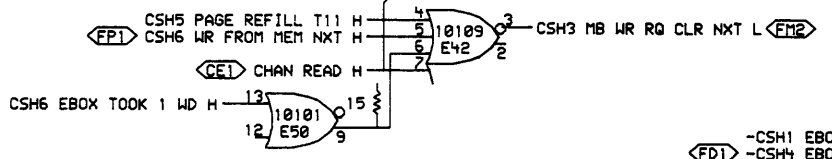
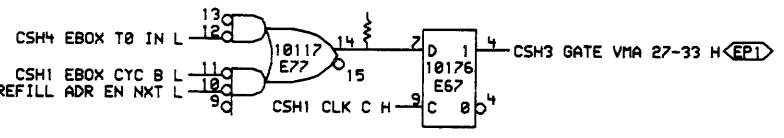
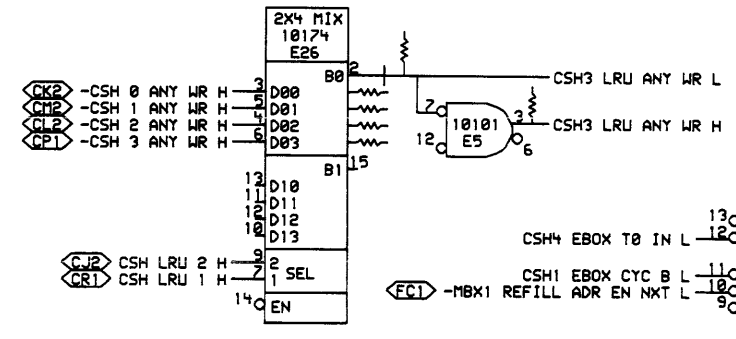
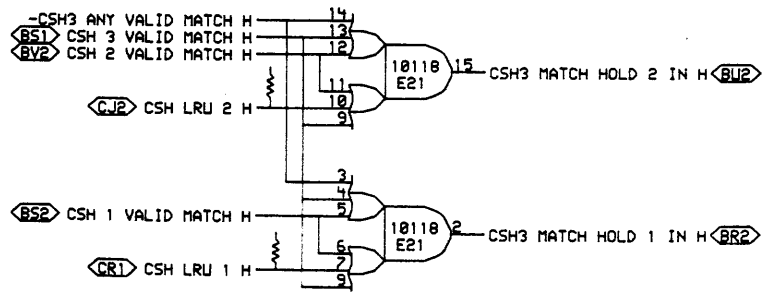
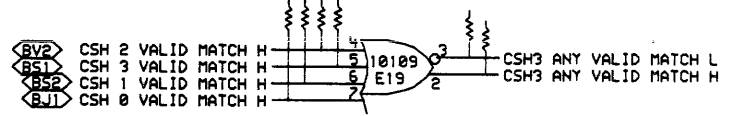
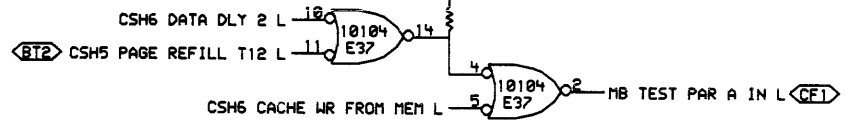
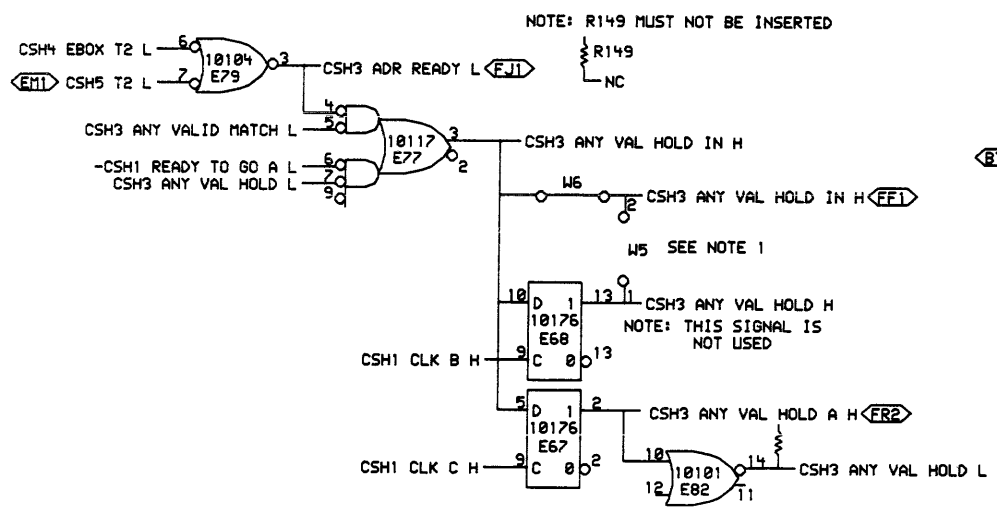
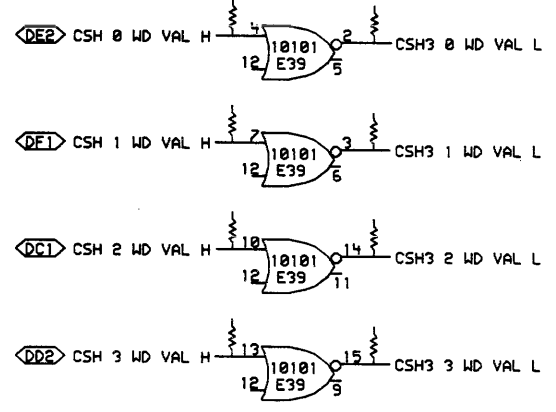
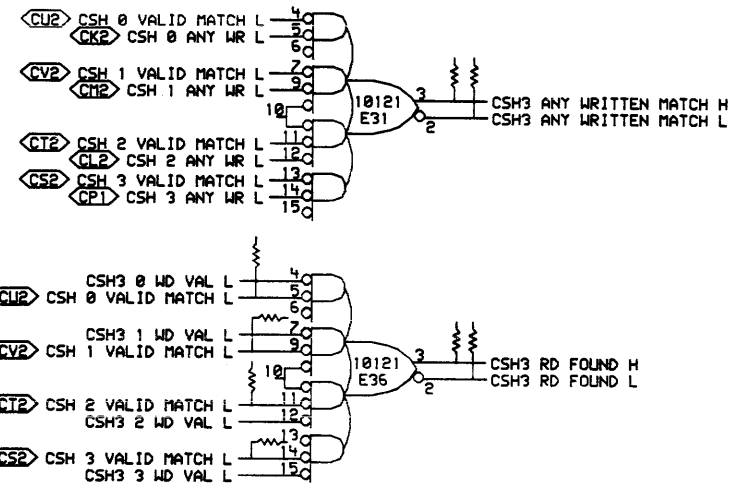
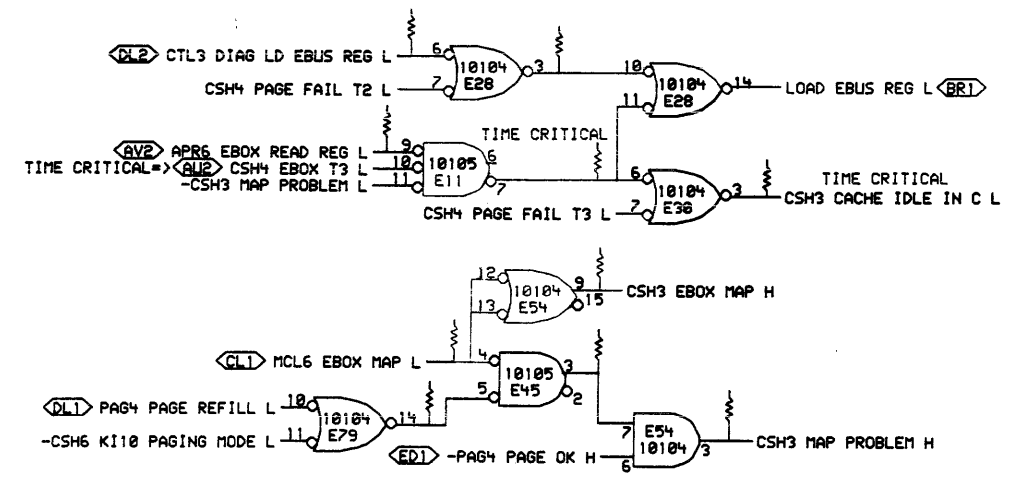
REVISIONS		
CHK	CHANGE NO	REV

TITLE	SCALE	SHEET	OF	NUMBER	REV.
CACHE CONTROL	2/1	2	6	D U A M8513-YA-0	A

23







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

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CHK	CHANGE NO.	REV

digital	DATE 81-APR-77	ENG. John P. Allen	DATE	TITLE: ANY VAL MATCH & HOLD, ANY WR
CSH3EF.DRW(4,540)	DATE 10-APR-77 16:22	BOARD LOCATION: 4AF23	DEPT	SIZE CODE D CS
FIRST USED ON OPTION/MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8513-YA	NUMBER M8513-YA-CSH3	REV. A	

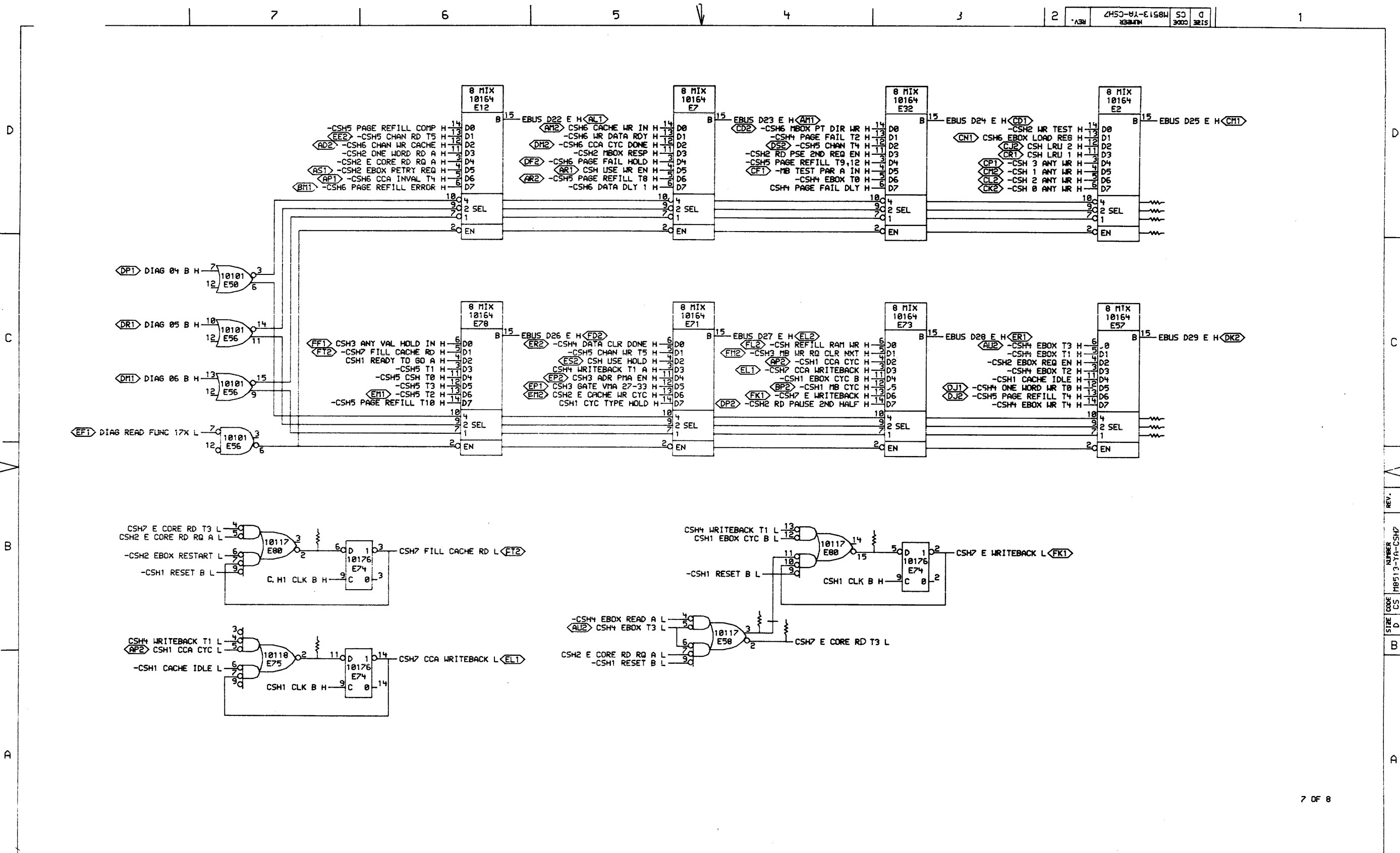
REV. A  
 NUMBER M8513-YA-CSH3  
 CS CODE CS  
 SIZE D  
 SHEETS 1











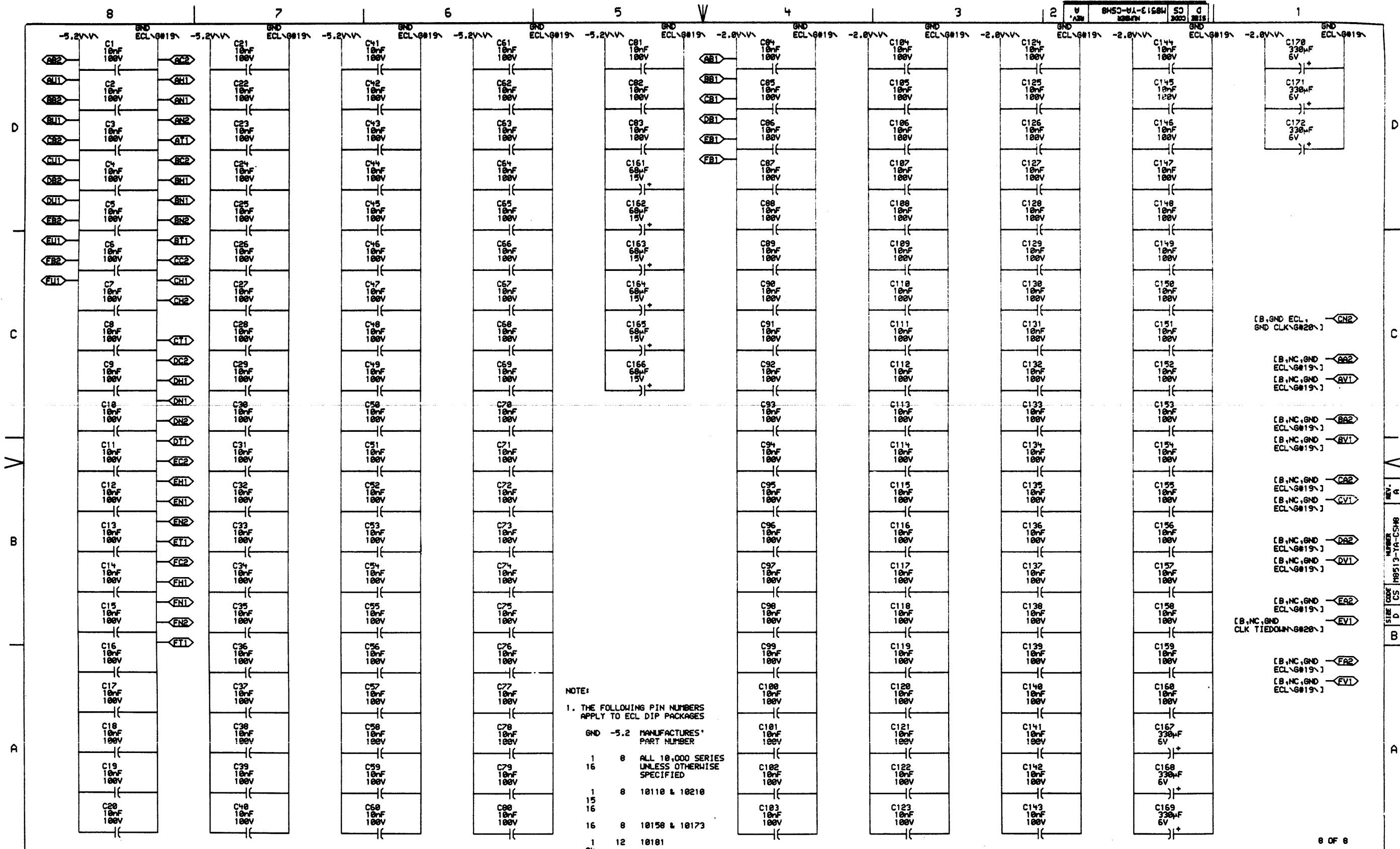
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REVISIONS		
CHK	CHANGE NO.	REV.

digital	DATE 00-NOV-76	ENG. J.P. Allen	DATE 15-DEC-76	TITLE: CSH DIAG MIX
CHK'D	DATE 11/17/76	BOARD LOCATION: 4AF23	SHEET 1 OF 1	CSH PERF SIGNALS
CSH7EF.DRW(4,175)	107-SEP-76 21:36	NEXT HIGHER ASSEMBLY: B-DD-M9513-YA	SIZE CODE D CS	NUMBER M9513-YA-CSH7
FIRST USED ON OPTION/MODEL: KL10				REV.

8	7	6	5	4	3	2	1
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REV. 1  
 CS M9513-YA-CSH7  
 SIZE D  
 CODE CS  
 NUMBER 3002



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REVISIONS		
CHK	CHANGE NO.	REV
	M8513-YA-0000	A
	J. ALLEY	
	1/11/77	

<b>digital</b>	DRN. <i>J. Alley</i>	DATE 28-11-77	ENG. <i>John P. Kelly</i>	DATE 4-28-77	TITLE: CACHE CONTROL POWER, GND, CAP
	CHK. <i>J. Alley</i>	DATE 2-2-77	BOARD LOCATION: 202	SHEET 1 OF 3	
CSHREF, DRU 4, 5, 6		124-MAR-77	06:28	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER
FIRST USED ON OPTION MODEL: KL10		B-DD-M8513-YA		D	CS M8513-YA-CSH8

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R121(1)	CSH6	B4	68a	XE1(3)	R200(1)	CSH3	A2	68a	XE55(3)	R60(1)	CSH5	A5	68a	-CCL CHAN TO MEM H	R109(1)	CSH1	D1	68a	CSH1 CLK B H
R19(1)	CSH3	D6	68a	XE11(7)	R152(1)	CSH7	C2	68a	XE56(11)	R92(1)	CSH3	A4	68a	CHAN READ H	R209(1)	CSH1	D1	68a	CSH1 CLK C H
R66(1)	CSH6	B7	68a	XE15(2)	R166(1)	CSH7	D2	68a	XE56(14)	R136(1)	CSH1	D2	68a	CLK1 CSH H	R125(1)	CSH1	D1	68a	CSH1 CLK D H
R122(1)	CSH2	D6	68a	XE17(2)	R164(1)	CSH7	D2	68a	XE56(15)	R43(1)	CSH2	D6	68a	-CLK3 EBOX SYNC D H	R61(1)	CSH1	D1	68a	CSH1 CLK E H
R22(1)	CSH4	C2	68a	XE19(15)	R162(1)	CSH7	D2	68a	XE56(6)	R39(1)	CSH1	C4	68a	CLK4 EBOX CYC ABORT H	R21(1)	CSH1	D1	68a	CSH1 CLK F H
R110(1)	CSH5	A2	68a	XE2(2)	R153(1)	CSH7	C2	68a	XE56(9)	R102(1)	CSH1	C7	68a	CLK4 EBOX REQ H	R250(1)	CSH1	C5	68a	CSH1 CYC TYPE HOLD H
R65(1)	CSH6	C4	68a	XE20(15)	R37(1)	CSH2	C7	68a	XE50(15)	R237(1)	CSH1	D7	68a	-CLK4 EBOX REQ H	R245(1)	CSH1	B1	68a	CSH1 EBOX CYC A H
R78(1)	CSH6	A7	68a	XE20(2)	R50(1)	CSH7	B4	68a	XE50(3)	R17(1)	CSH6	B7	68a	CON K110 PAGING MODE H	R168(1)	CSH1	D3	68a	-CSH1 EBOX CYC B H
R95(1)	CSH1	A4	68a	XE22(3)	R77(1)	CSH4	A7	68a	XE59(15)	R44(1)	CSH5	C8	68a	CORE BUSY H	R238(1)	CSH1	D7	68a	-CSH1 EBOX REQ GRANT H
R171(1)	CSH2	C7	68a	XE23(2)	R119(1)	CSH6	A4	68a	XE6(2)	R24(1)	CSH5	C6	68a	-CORE BUSY H	R176(1)	CSH1	C6	68a	CSH1 EBOX REQ GRANT A H
R03(1)	CSH4	A5	68a	XE24(15)	R204(1)	CSH5	A4	68a	XE61(15)	R103(1)	CSH3	B4	68a	-CSH 0 ANY MR H	R157(1)	CSH1	B6	68a	CSH1 MB REQ H
R04(1)	CSH4	B6	68a	XE24(2)	R190(1)	CSH4	B2	68a	XE63(15)	R70(1)	CSH3	C2	68a	CSH 0 VALID MATCH H	R215(1)	CSH1	D7	68a	CSH1 MB REQ GRANT H
R00(1)	CSH5	B7	68a	XE25(2)	R30(1)	CSH4	D2	68a	XE63(2)	R223(1)	CSH3	C4	68a	-CSH 0 VALID MATCH H	R143(1)	CSH1	A7	68a	-CSH1 MR RESET A H
R132(1)	CSH3	D6	68a	XE20(3)	R104(1)	CSH4	B6	68a	XE65(15)	R233(1)	CSH3	D2	68a	CSH 0 MD VAL H	R177(1)	CSH1	B7	68a	CSH1 NON-EBOX REQ GRANT H
R123(1)	CSH5	B2	68a	XE3(2)	R106(1)	CSH2	C3	68a	XE75(15)	R181(1)	CSH3	B4	68a	-CSH 1 ANY MR H	R148(1)	CSH1	B7	68a	-CSH1 NON-EBOX REQ GRANT H
R20(1)	CSH6	C2	68a	XE30(9)	R107(1)	CSH7	A7	68a	XE75(2)	R71(1)	CSH3	C2	68a	CSH 1 VALID MATCH H	R9(1)	CSH1	A1	68a	CSH1 READY TO GO A H
R14(1)	CSH6	D5	68a	XE33(15)	R156(1)	CSH2	B2	68a	XE76(3)	R224(1)	CSH3	C4	68a	-CSH 1 VALID MATCH H	R179(1)	CSH1	A1	68a	-CSH1 READY TO GO A H
R110(1)	CSH4	C7	68a	XE33(6)	R206(1)	CSH3	B2	68a	XE77(14)	R234(1)	CSH3	D2	68a	CSH 1 MD VAL H	R15(1)	CSH1	A7	68a	CSH1 RESET A H
R103(1)	CSH4	C7	68a	XE33(7)	R255(1)	CSH3	C7	68a	XE79(14)	R102(1)	CSH3	B4	68a	-CSH 2 ANY MR H	R212(1)	CSH1	A6	68a	CSH1 RESET B H
R100(1)	CSH3	C4	68a	XE37(14)	R113(1)	CSH7	B3	68a	XE80(15)	R60(1)	CSH3	C2	68a	CSH 2 VALID MATCH H	R52(1)	CSH2	A6	68a	-CSH2 E CORE RD RQ A H
R07(1)	CSH1	B4	68a	XE37(3)	R111(1)	CSH7	B7	68a	XE80(2)	R225(1)	CSH3	C4	68a	-CSH 2 VALID MATCH H	R140(1)	CSH2	B2	68a	CSH2 E REQ EN CLR H
R130(1)	CSH1	B4	68a	XE37(9)	R54(1)	CSH4	C2	68a	XE82(3)	R235(1)	CSH3	C2	68a	CSH 2 MD VAL H	R240(1)	CSH2	A1	68a	-CSH2 EBOX REQ EN H
R01(1)	CSH2	C2	68a	XE30(2)	R205(1)	CSH1	D6	68a	XE82(5)	R104(1)	CSH3	B4	68a	-CSH 3 ANY MR H	R50(1)	CSH2	D5	68a	CSH2 EBOX RESTART H
R251(1)	CSH2	B7	68a	XE4(2)	R46(1)	CSH1	A2	68a	XE83(14)	R69(1)	CSH3	C2	68a	CSH 3 VALID MATCH H	R45(1)	CSH2	D5	68a	-CSH2 EBOX RESTART H
R02(1)	CSH5	D7	68a	XE40(15)	R100(1)	CSH5	C2	68a	XE84(15)	R222(1)	CSH3	C4	68a	-CSH 3 VALID MATCH H	R139(1)	CSH2	C2	68a	CSH2 EBOX RETRY NEXT H
R197(1)	CSH1	A7	68a	XE40(7)	R26(1)	CSH5	C5	68a	XE85(15)	R226(1)	CSH3	C2	68a	CSH 3 MD VAL H	R16(1)	CSH2	B2	68a	-CSH2 EBOX RETRY NEXT H
R73(1)	CSH4	A5	68a	XE42(15)	R147(1)	CSH6	B2	68a	XE85(2)	R170(1)	CSH3	A7	68a	CSH LRU 1 H	R1(1)	CSH2	C3	68a	CSH2 EBOX RETRY NEXT IN H
R31(1)	CSH2	C3	68a	XE43(14)	R114(1)	CSH6	D7	68a	XE86(6)	R175(1)	CSH3	A7	68a	CSH LRU 2 H	R42(1)	CSH2	D6	68a	-CSH2 MBOX RESP H
R30(1)	CSH2	C3	68a	XE43(7)	R59(1)	CSH2	D3	68a	XE9(15)	R40(1)	CSH1	C2	68a	CSH1 CACHE IDLE H	R47(1)	CSH2	D2	68a	-CSH2 ONE WORD RD A H
R253(1)	CSH3	C6	68a	XE45(3)	R62(1)	CSH6	C7	68a	XE9(2)	R246(1)	CSH1	C3	68a	-CSH1 CACHE IDLE H	R105(1)	CSH2	C6	68a	-CSH2 RD PSE 2ND REQ EN H
R201(1)	CSH1	B7	68a	XE45(7)	R173(1)	CSH2	D7	68a	-A CHANGE COMING IN H	R105(1)	CSH1	C3	68a	CSH1 CACHE IDLE IN H	R169(1)	CSH2	C5	68a	-CSH2 SBLUS DIAG 3 A H
R96(1)	CSH1	B3	68a	XE46(15)	R242(1)	CSH1	C7	68a	-APR6 EBOX CCA H	R161(1)	CSH1	C4	68a	CSH1 CACHE IDLE IN A H	R23(1)	CSH2	B3	68a	-CSH2 MR TEST H
R27(1)	CSH2	C4	68a	XE47(2)	R239(1)	CSH1	C7	68a	-APR6 EBOX ERA HITIME CRITICAL	R137(1)	CSH1	B4	68a	CSH1 CACHE IDLE IN B H	R220(1)	CSH3	D2	68a	-CSH3 0 MD VAL H
R33(1)	CSH6	A2	68a	XE40(14)	R00(1)	CSH6	B4	68a	-APR6 EBOX LOAD REG H	R167(1)	CSH1	B4	68a	-CSH1 CACHE IDLE IN B H	R229(1)	CSH3	D2	68a	-CSH3 1 MD VAL H
R34(1)	CSH4	D2	68a	XE40(2)	R10(1)	CSH4	A7	68a	APR6 EBOX READ REG H	R100(1)	CSH1	C3	68a	CSH1 CACHE IDLE IN D H	R230(1)	CSH3	C2	68a	-CSH3 2 MD VAL H
R165(1)	CSH7	D2	68a	XE50(3)	R231(1)	CSH3	D7	68a	-APR6 EBOX READ REG H	R249(1)	CSH1	A6	68a	-CSH1 CCA REQ EN H	R227(1)	CSH3	C2	68a	-CSH3 3 MD VAL H
R154(1)	CSH7	C2	68a	XE50(6)	R120(1)	CSH4	A7	68a	APR6 EBOX SBLUS DIAG H	R200(1)	CSH1	C7	68a	-CSH1 CCA REQ GRANT H	R214(1)	CSH3	B6	68a	-CSH3 ANY VAL HOLD H
R93(1)	CSH3	A4	68a	XE50(9)	R120(1)	CSH2	C7	68a	-CACHE TO MB T4 H	R155(1)	CSH1	B6	68a	-CSH1 CHAN REQ EN H	R20(1)	CSH3	C1	68a	CSH3 ANY VALID MATCH H
R101(1)	CSH2	A2	68a	XE51(2)	R243(1)	CSH1	D7	68a	CCL CHAN REQ HITIME CRITICAL	R240(1)	CSH1	D7	68a	-CSH1 CHAN REQ GRANT H	R213(1)	CSH3	C2	68a	-CSH3 ANY VALID MATCH H
R257(1)	CSH1	B2	68a	XE52(13)	R150(1)	CSH1	D7	68a	-CCL CHAN REQ H	R35(1)	CSH1	D1	68a	CSH1 CLK A H	R216(1)	CSH3	D4	68a	CSH3 ANY WRITTEN MATCH H

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

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FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8513-YA		SIZE CODE NUMBER REV. D CS M8513-YA-RES A			

REV. A  
 NUMBER  
 CS M8513-YA-RES  
 D SIZE

D

C

V

B

A

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMIN SI
R74(1)	CSH3 D4	68n	-CSH RITTEN MATCH H
R85(1)	CSH3 D6	68n	-CSH E IDLE IN C H
R232(1)	CSH3 D6	68n	CSH MAP H
R32(1)	CSH3 B3	68n	CSH ANY WR H
R4(1)	CSH2 B4	68n	-C U ANY WR H
R220(1)	CSH3 C6	68n	CSH P PROBLEM H
R56(1)	CSH3 C4	68n	CSH ) FOUND H
R172(1)	CSH3 C4	68n	-C RD FOUND H
R145(1)	CSH4 D2	68n	-CSH4 DATA CLR T4 H
R57(1)	CSH4 C4	68n	-CSH4 E RD T2 CORE OK H
R170(1)	CSH4 D4	68n	-CSH4 E RD T2 OK H
R40(1)	CSH4 A7	68n	-CSH4 E T2 MEN REF H
R72(1)	CSH4 D4	68n	-CSH4 E WR T2 H
R193(1)	CSH4 C4	68n	-CSH4 EBOX PAUSE A H
R84(1)	CSH4 C4	68n	CSH4 EBOX PAUSE WRITE H
R86(1)	CSH4 C4	68n	-CSH4 EBOX PAUSE WRITE H
R192(1)	CSH4 C4	68n	CSH4 EBOX READ A H
R79(1)	CSH4 D6	68n	-CSH4 EBOX T0 H
R53(1)	CSH4 D6	68n	CSH4 EBOX T0 B H
R287(1)	CSH4 D7	68n	-CSH4 EBOX T0 IN H
R144(1)	CSH4 C6	68n	CSH4 EBOX T1 H
R142(1)	CSH4 C6	68n	-CSH4 EBOX T1 H
R12(1)	CSH4 B5	68n	-CSH4 EBOX T2 H
R8(1)	CSH4 D2	68n	-CSH4 EBOX WR T3 H
R190(1)	CSH4 D1	68n	-CSH4 EBOX WR T4 H
R159(1)	CSH4 D4	68n	CSH4 HI
R185(1)	CSH4 B3	68n	CSH4 PAGE FAIL DLY H
R180(1)	CSH4 B2	68n	-CSH4 PAGE FAIL T2 H
R18(1)	CSH4 A2	68n	-CSH4 PAGE FAIL T3 H
R49(1)	CSH4 A4	68n	-CSH4 WRITEBACK T1 H
R194(1)	CSH4 A4	68n	CSH4 WRITEBACK T1 A H
R112(1)	CSH4 B4	68n	-CSH4 WRITEBACK T2 H
R210(1)	CSH5 C1	68n	CSH5 CCA T3 H
R67(1)	CSH5 C1	68n	-CSH5 CCA T3 H
R187(1)	CSH5 A4	68n	-CSH5 CHAN WR T5 H
R151(1)	CSH5 D3	68n	-CSH5 CSH T0 H
R98(1)	CSH5 B7	68n	-CSH5 EBOX REFILL OK H
R236(1)	CSH5 B6	68n	-CSH5 PAGE REFILL COMP H
R150(1)	CSH5 C4	68n	-CSH5 PAGE REFILL T10 H
R91(1)	CSH5 C4	68n	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

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R29(1)	CSH5 C4	68n	-CSH5 PAGE REFILL T11 H
R117(1)	CSH5 D5	68n	-CSH5 PAGE REFILL T13 H
R211(1)	CSH5 C7	68n	CSH5 PAGE REFILL T4 H
R203(1)	CSH5 C7	68n	CSH5 PAGE REFILL T4 IN H
R36(1)	CSH5 C7	68n	-CSH5 PAGE REFILL T4 IN H
R124(1)	CSH5 A7	68n	-CSH5 PAGE REFILL T7 H
R202(1)	CSH5 D6	68n	-CSH5 PAGE REFILL T9,12 H
R97(1)	CSH5 D3	68n	-CSH5 T1 H
R116(1)	CSH5 C2	68n	CSH5 T2 IN H
R221(1)	CSH5 C1	68n	-CSH5 T3 H
R189(1)	CSH6 C6	68n	-CSH6 CACHE WR FROM MEM H
R163(1)	CSH6 C4	68n	-CSH6 DATA DLY 1 H
R99(1)	CSH6 C4	68n	-CSH6 DATA DLY 2 H
R129(1)	CSH6 D5	68n	CSH6 E CORE RD COMP H
R131(1)	CSH6 D6	68n	CSH6 EBOX SYNC HOLD H
R90(1)	CSH6 D7	68n	-CSH6 EBOX SYNC SEEM H
R196(1)	CSH6 A2	68n	CSH6 EBOX TOOK 1 HD H
R254(1)	CSH6 C2	68n	CSH6 K110 PAGING MODE H
R3(1)	CSH6 B6	68n	-CSH6 PAGE FAIL HOLD FF H
R89(1)	CSH6 C4	68n	-CSH6 WR DATA RDY H
R5(1)	CSH6 C7	68n	-CSH6 WR FROM MEM NXT H
R2(1)	CSH6 D3	68n	-CSH6 WRITE OK H
R51(1)	CSH7 B4	68n	-CSH7 E CORE RD T3 H
R134(1)	CSH3 D7	68n	-CTL3 DIAG LD EBUS REG H
R6(1)	CSH2 B3	68n	MBC1 WRITE OK H
R7(1)	CSH6 D2	68n	-MBC2 CSH DATA CLR T1 H
R127(1)	CSH6 C2	68n	-MBC2 CSH DATA CLR T2 H
R252(1)	CSH4 D2	68n	-MBC2 CSH DATA CLR T3 H
R146(1)	CSH4 B3	68n	-MBC2 DATA CLR DONE IN H
R130(1)	CSH2 C7	68n	-MBC4 CORE DATA VAL -1 H
R55(1)	CSH2 B7	68n	MBC4 CORE DATA VALID H
R133(1)	CSH6 D5	68n	-MBC4 CORE DATA VALID H
R76(1)	CSH4 B7	68n	MBC1 CACHE BIT H
R63(1)	CSH4 C3	68n	-MBC1 CACHE BIT H
R217(1)	CSH6 A4	68n	MBC1 CSH CCA INVAL CSH H
R219(1)	CSH6 A5	68n	MBC1 CSH CCA VAL CORE H
R75(1)	CSH6 B4	68n	-MBC1 CSH CCA VAL CORE H
R244(1)	CSH3 A3	68n	MBC1 REFILL ADR EN NXT H
R25(1)	CSH5 C4	68n	-MBC2 MB SEL HOLD H
R115(1)	CSH5 C5	68n	MBC2 MB SEL HOLD FF H

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R174(1)	CSH2 C5	68n	-MBC3 SBUS DIAG 3 H
R160(1)	CSH5 A2	68n	-MBC4 CACHE TO MB DONE H
R199(1)	CSH1 B7	68n	MBC5 MB REQ IN H
R4(1)	CSH4 C4	68n	MCL2 VMA PAUSE H
R141(1)	CSH4 C4	68n	-MCL2 VMA READ H
R241(1)	CSH3 D7	68n	-MCL6 EBOX MAP H
R256(1)	CSH1 B7	68n	MEM BUSY H
R149(1)	CSH3 C6	68n	NC
R13(1)	CSH6 B7	68n	-PAG4 PAGE FAIL H
R126(1)	CSH4 D5	68n	-PAG4 PAGE OK H
R11(1)	CSH5 C8	68n	-PAG4 PAGE REFILL H
R247(1)	CSH1 C4	68n	-PMA5 CSH WRITEBACK CYC H
R218(1)	CSH1 D5	68n	PMA5 CYC TYPE HOLD H
R191(1)	CSH1 C2	68n	-PMA5 PAGE REFILL CYC H
R135(1)	CSH1 C4	68n	VMA1 AC REF A H

REV. A  
NUMBER M8513-YA-RES  
CODE CS  
SIZE D

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REVISIONS		
CHK	CHANGE NO.	REV

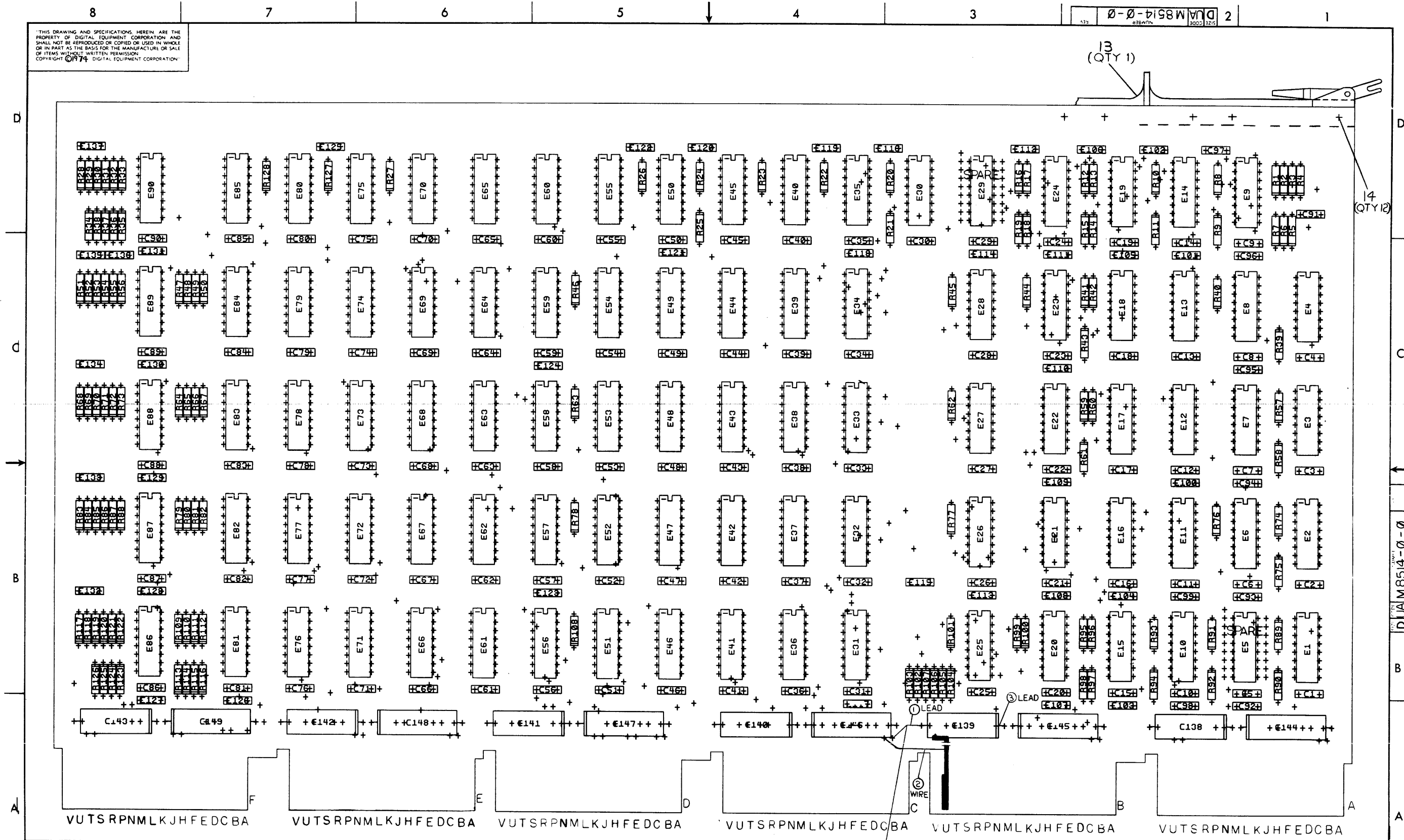
digital	DRN. <i>C. Smith</i>	DATE <i>30-MAR-77</i>	ENG. <i>[Signature]</i>	DATE <i>30-MAR-77</i>	TITLE: <b>CACHE CONTROL TERMINATORS</b>
	<i>[Signature]</i>	DATE <i>30-MAR-77</i>	BOARD LOCATION: <i>[Blank]</i>	SHEET <i>2</i> OF <i>2</i>	SIZE CODE NUMBER REV. D CS M8513-YA-RES A
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8513-YA		MIR 1	





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2 DUA M8514-0-0



13 (QTY 1)

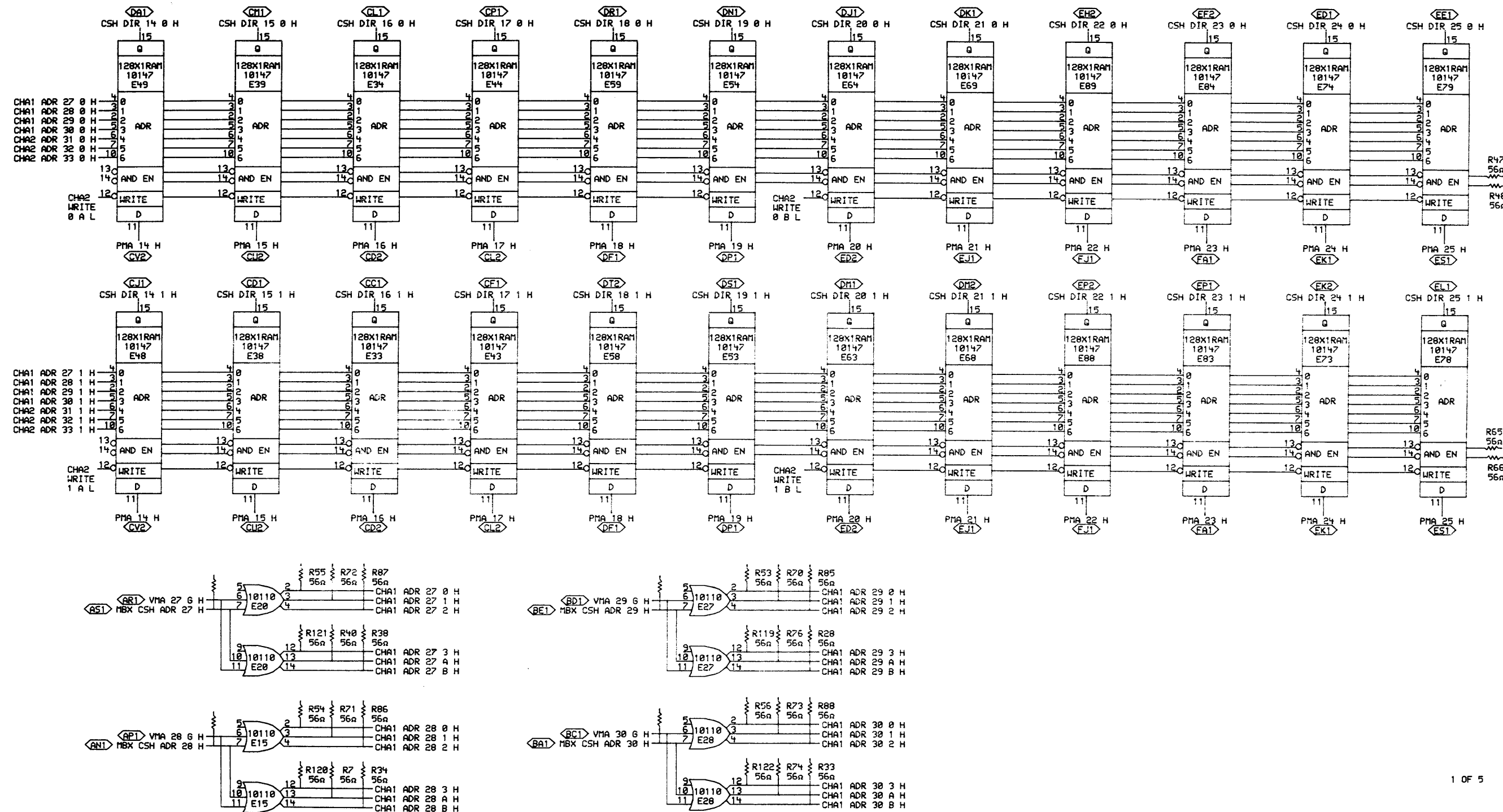
14 (QTY 12)

DUA M8514-0-0

REVISIONS		
CHK	CHANGE NO	REV

TITLE: CACHE DIRECTORY  
 SCALE: 2/1  
 SHEET: 2 OF 5  
 SIZE CODE: DUA M8514-0-0  
 NUMBER: MR  
 REV:  

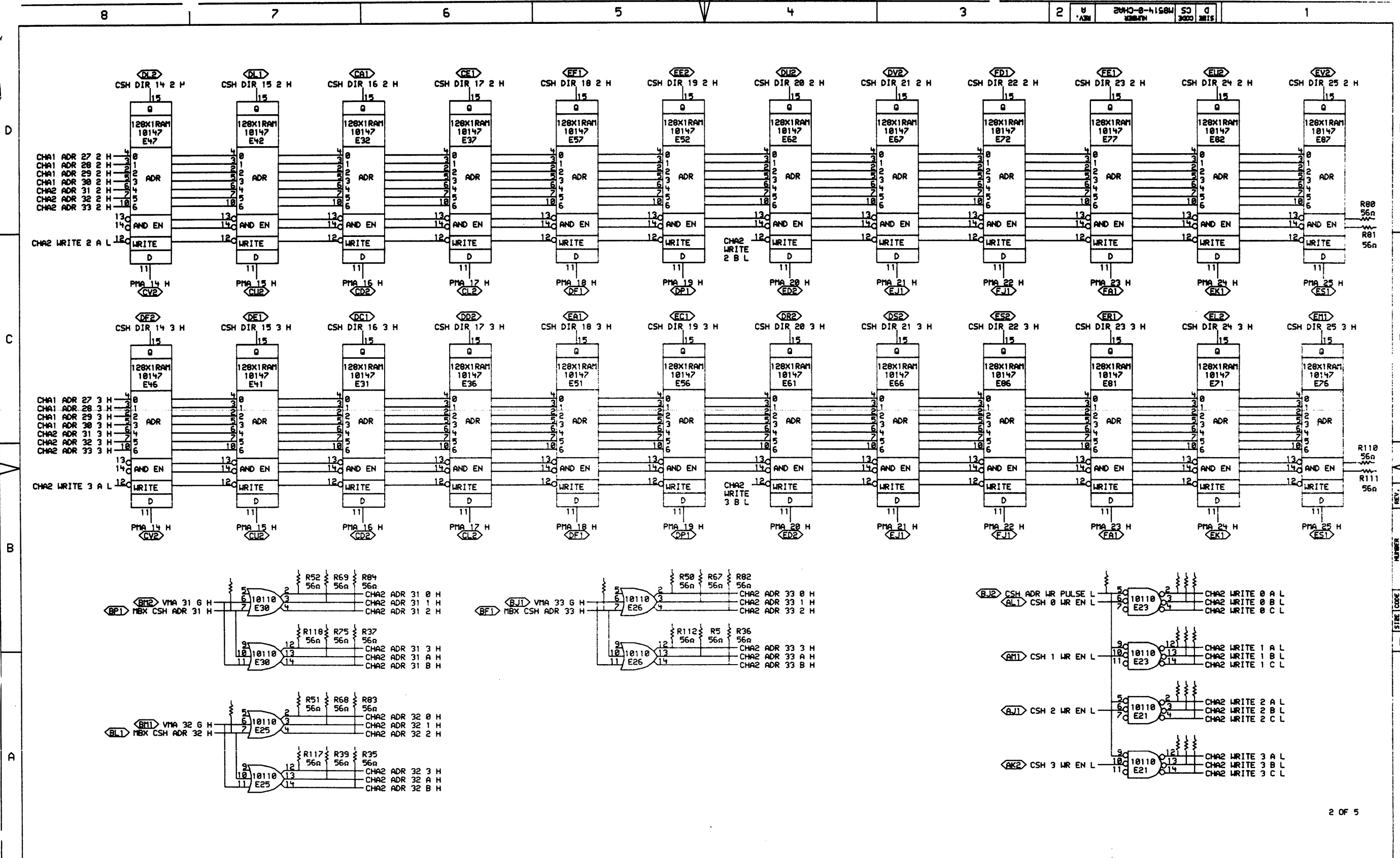
35



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REVISIONS		
CHK	CHANGE NO.	REV

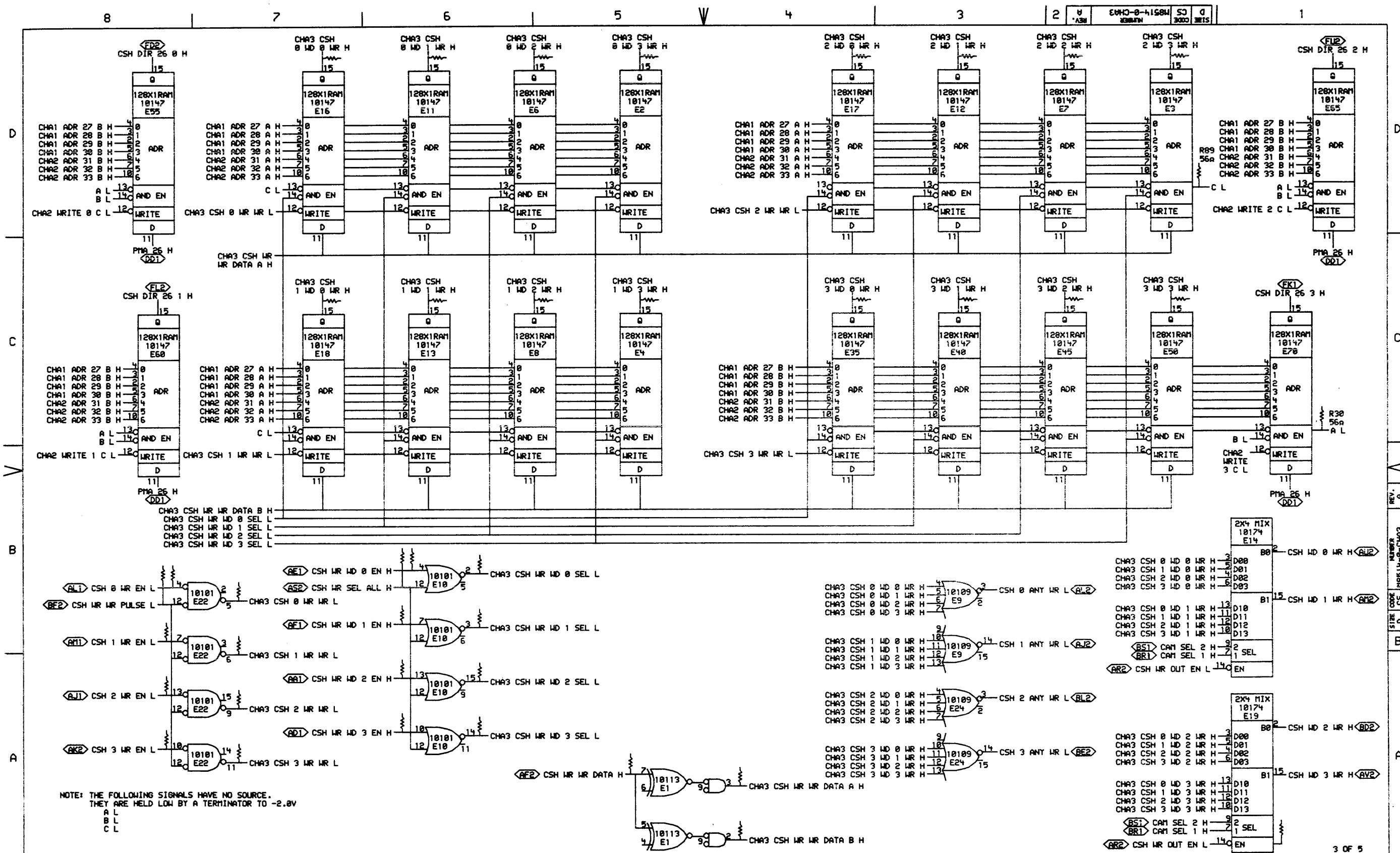
	DATE: 06-MAY-77 ENG: J. J. J.	DATE: 17-MAY-77 BOARD LOCATION: JAF27	TITLE: CACHE DIR CSH 0,1 BIT 14-25
	DATE: 17-MAY-77 SHEET: 1 OF 1	NEXT HIGHER ASSEMBLY:	SIZE CODE: D NUMBER: M8514-0-CHA1 REV: A



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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 09-MAY-77	ENG: J. J. J.	DATE: 19-MAY-77	TITLE: CACHE DIR
	DATE: 09-MAY-77	BOARD LOCATION: 4AF27	DATE: 19-MAY-77	CSH 2,3 BIT 14-25
CHAZEX.DRW 4,541 J	105-MAY-77	1304 NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER	REV.
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8514-0	D CS M8514-0-CHA2	A	

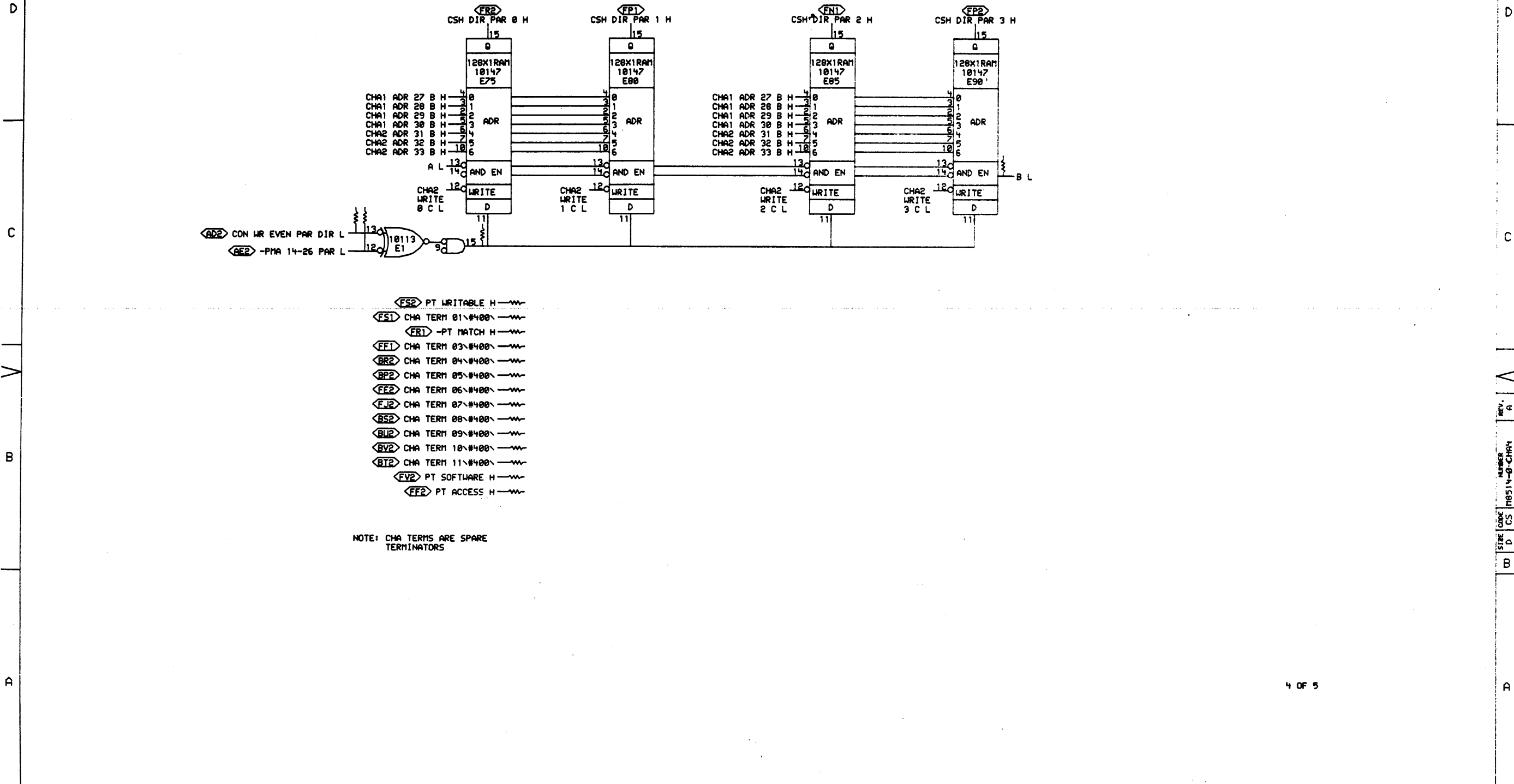


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REVISIONS		
CHK	CHANGE NO.	REV
CS	M8514-00001	A
J.A.L.		

	DATE: 11-MAY-77	ENG: John P. Allen	DATE: 11-MAY-77	TITLE: CACHE DIR BIT 26 & WR BITS
	DATE: 11-MAY-77	BOARD LOCATION: 4AF27	SHEET: 3 OF 5	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8514-0		NUMBER: M8514-0-CHA3
				REV. A

REV. A  
 NUMBER M8514-0-CHA3  
 SIZE CODE CS  
 D CS  
 3 OF 5  
 MR 1



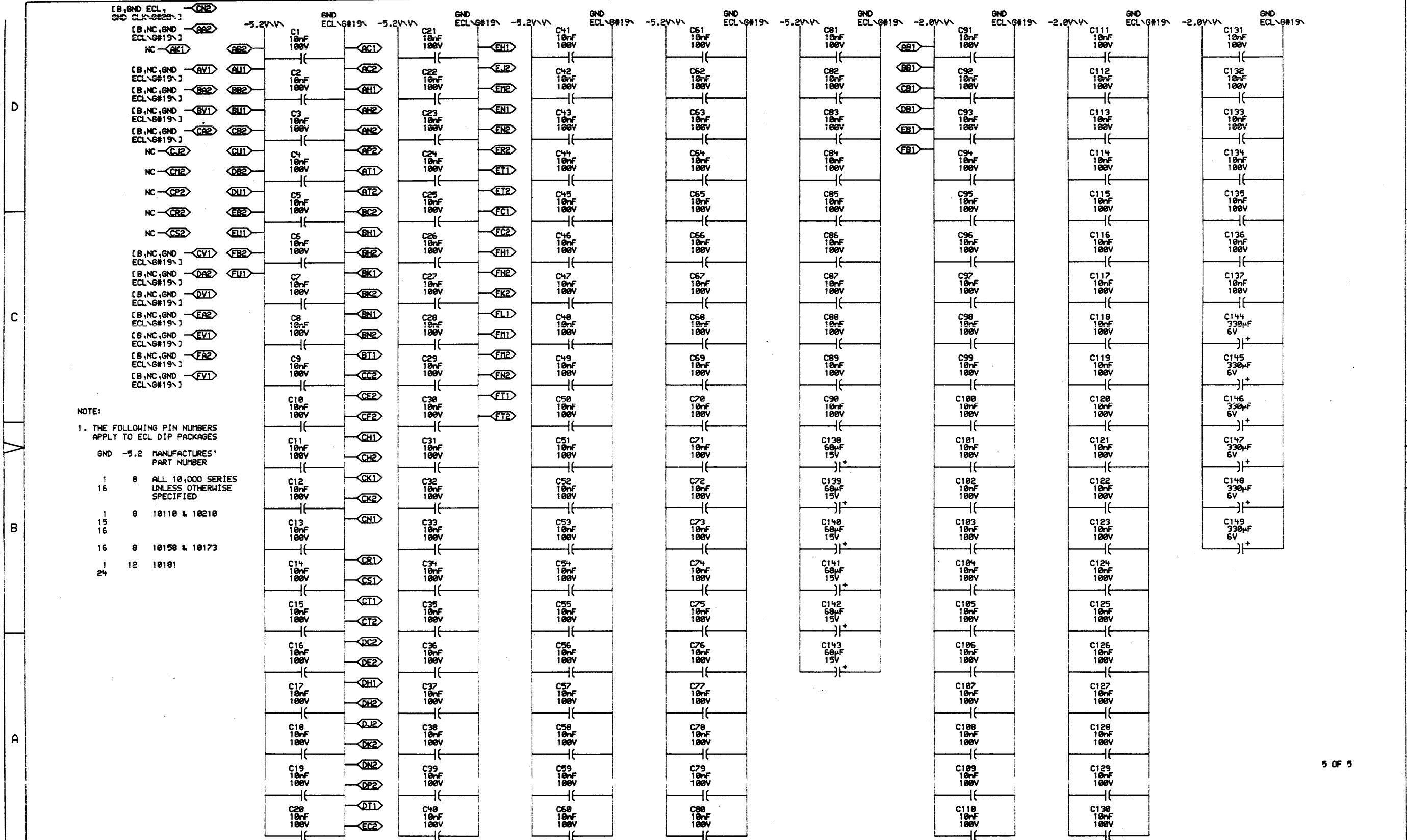
- ES2 PT WRITABLE H
- ES1 CHA TERM 01 #400
- FR1 -PT MATCH H
- FF1 CHA TERM 03 #400
- BR2 CHA TERM 04 #400
- BP2 CHA TERM 05 #400
- FE2 CHA TERM 06 #400
- FJ2 CHA TERM 07 #400
- BS2 CHA TERM 08 #400
- BL2 CHA TERM 09 #400
- BV2 CHA TERM 10 #400
- BT2 CHA TERM 11 #400
- FV2 PT SOFTWARE H
- FE2 PT ACCESS H

NOTE: CHA TERMS ARE SPARE TERMINATORS

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REVISIONS		
CHK	CHANGE NO.	REV
KR	M8514-00001	A

digital	DATE	ENG.	DATE	TITLE:
	11-MAY-77	J. J. [Signature]	15-MAY-77	CACHE DIR PARITY BITS
	DATE	BOB	LOCATION:	
	5/16/77		4AE27	
FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY:		SIZE CODE
KL10		B-DD-M8514-0		D CS
NUMBER			REV.	
M8514-0-CHA4			A	



NOTE:  
1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173
24	12	10181

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REVISIONS	
CHK	CHANGE NO. REV
	M8514-00001 A
	21-2-77
	ALEX

digital	DESIGNED BY: <i>J. J. J.</i>	DATE: 05-20-77	ENG. <i>M. M.</i>	DATE: <i>6/2/77</i>	TITLE: CACHE DIR POWER, GND, CAP
	CHASEX, DRK 4, 211	DATE: 05-20-77	BOARD LOCATION: 4822	SHEET: 1	REV. A
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8514-0		SIZE CODE: D CS	NUMBER: M8514-0-CHA5

D  
C  
V  
B  
A

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
R32(1)	CHA4	C6	68n	%E1(15)	R56(1)	CHA1	A5	56n	CHA1 ADR 30 0 H	R90(1)	CHA3	B7	68n	-CHA3 CSH 0 LR LR H	R21(1)	CHA2	B7	68n	MBX CSH ADR 31 H
R110(1)	CHA2	B1	56n	%E31(13)	R73(1)	CHA1	A4	56n	CHA1 ADR 30 1 H	R2(1)	CHA3	C7	68n	CHA3 CSH 1 LD 0 LR H	R101(1)	CHA2	A7	68n	MBX CSH ADR 32 H
R111(1)	CHA2	B1	56n	%E31(14)	R88(1)	CHA1	A4	56n	CHA1 ADR 30 2 H	R1(1)	CHA3	C6	68n	CHA3 CSH 1 LD 1 LR H	R77(1)	CHA2	B5	68n	MBX CSH ADR 33 H
R88(1)	CHA2	D1	56n	%E32(13)	R122(1)	CHA1	A5	56n	CHA1 ADR 30 3 H	R14(1)	CHA3	C5	68n	CHA3 CSH 1 LD 2 LR H	R92(1)	CHA4	C7	68n	PMA 14-26 PAR H
R81(1)	CHA2	D1	56n	%E32(14)	R74(1)	CHA1	A4	56n	CHA1 ADR 30 A H	R10(1)	CHA3	C5	68n	CHA3 CSH 1 LD 3 LR H	R114(1)	CHA4	B6	68n	PT ACCESS H
R65(1)	CHA1	B1	56n	%E33(13)	R33(1)	CHA1	A4	56n	CHA1 ADR 30 B H	R6(1)	CHA3	A7	68n	-CHA3 CSH 1 LR LR H	R123(1)	CHA4	C6	68n	-PT MATCH H
R66(1)	CHA1	B1	56n	%E33(14)	R52(1)	CHA2	B7	56n	CHA2 ADR 31 0 H	R16(1)	CHA3	D4	68n	CHA3 CSH 2 LD 0 LR H	R126(1)	CHA4	B6	68n	PT SOFTWARE H
R47(1)	CHA1	D1	56n	%E34(13)	R69(1)	CHA2	B7	56n	CHA2 ADR 31 1 H	R17(1)	CHA3	D3	68n	CHA3 CSH 2 LD 1 LR H	R125(1)	CHA4	C6	68n	PT WRITABLE H
R48(1)	CHA1	C1	56n	%E34(14)	R84(1)	CHA2	B6	56n	CHA2 ADR 31 2 H	R19(1)	CHA3	D2	68n	CHA3 CSH 2 LD 2 LR H					
R38(1)	CHA3	C1	56n	-A H	R118(1)	CHA2	B7	56n	CHA2 ADR 31 3 H	R10(1)	CHA3	D2	68n	CHA3 CSH 2 LD 3 LR H					
R29(1)	CHA4	C3	68n	-B H	R75(1)	CHA2	B7	56n	CHA2 ADR 31 A H	R57(1)	CHA3	A7	68n	-CHA3 CSH 2 LR LR H					
R89(1)	CHA3	D2	56n	-C H	R37(1)	CHA2	B6	56n	CHA2 ADR 31 B H	R8(1)	CHA3	C4	68n	CHA3 CSH 3 LD 0 LR H					
R124(1)	CHA4	C6	68n	CHA TERM 01	R51(1)	CHA2	A7	56n	CHA2 ADR 32 0 H	R9(1)	CHA3	C3	68n	CHA3 CSH 3 LD 1 LR H					
R115(1)	CHA4	B6	68n	CHA TERM 03	R60(1)	CHA2	A7	56n	CHA2 ADR 32 1 H	R42(1)	CHA3	C2	68n	CHA3 CSH 3 LD 2 LR H					
R105(1)	CHA4	B6	68n	CHA TERM 04	R83(1)	CHA2	A6	56n	CHA2 ADR 32 2 H	R11(1)	CHA3	C2	68n	CHA3 CSH 3 LD 3 LR H					
R104(1)	CHA4	B6	68n	CHA TERM 05	R117(1)	CHA2	A7	56n	CHA2 ADR 32 3 H	R26(1)	CHA3	A7	68n	-CHA3 CSH 3 LR LR H					
R116(1)	CHA4	B6	68n	CHA TERM 06	R39(1)	CHA2	A7	56n	CHA2 ADR 32 A H	R20(1)	CHA3	B6	68n	-CHA3 CSH LR LD 0 SEL H					
R113(1)	CHA4	B6	68n	CHA TERM 07	R35(1)	CHA2	A6	56n	CHA2 ADR 32 B H	R22(1)	CHA3	B6	68n	-CHA3 CSH LR LD 1 SEL H					
R106(1)	CHA4	B6	68n	CHA TERM 08	R50(1)	CHA2	B5	56n	CHA2 ADR 33 0 H	R23(1)	CHA3	A6	68n	-CHA3 CSH LR LD 2 SEL H					
R102(1)	CHA4	B6	68n	CHA TERM 09	R67(1)	CHA2	B4	56n	CHA2 ADR 33 1 H	R24(1)	CHA3	A6	68n	-CHA3 CSH LR LD 3 SEL H					
R103(1)	CHA4	B6	68n	CHA TERM 10	R82(1)	CHA2	B4	56n	CHA2 ADR 33 2 H	R50(1)	CHA3	A4	68n	CHA3 CSH LR LR DATA A H					
R107(1)	CHA4	B6	68n	CHA TERM 11	R112(1)	CHA2	B5	56n	CHA2 ADR 33 3 H	R25(1)	CHA3	A4	68n	CHA3 CSH LR LR DATA B H					
R55(1)	CHA1	B7	56n	CHA1 ADR 27 0 H	R5(1)	CHA2	B4	56n	CHA2 ADR 33 A H	R91(1)	CHA4	C7	68n	-CON LR EVEN PAR DIR H					
R72(1)	CHA1	B7	56n	CHA1 ADR 27 1 H	R36(1)	CHA2	B4	56n	CHA2 ADR 33 B H	R44(1)	CHA3	B8	68n	-CSH 0 LR EN H					
R87(1)	CHA1	B7	56n	CHA1 ADR 27 2 H	R46(1)	CHA2	B2	68n	-CHA2 WRITE 0 A H	R41(1)	CHA3	B8	68n	-CSH 1 LR EN H					
R121(1)	CHA1	A7	56n	CHA1 ADR 27 3 H	R49(1)	CHA2	B2	68n	-CHA2 WRITE 0 B H	R60(1)	CHA3	A8	68n	-CSH 2 LR EN H					
R48(1)	CHA1	A7	56n	CHA1 ADR 27 A H	R27(1)	CHA2	B2	68n	-CHA2 WRITE 0 C H	R61(1)	CHA3	A8	68n	-CSH 3 LR EN H					
R38(1)	CHA1	A7	56n	CHA1 ADR 27 B H	R63(1)	CHA2	B2	68n	-CHA2 WRITE 1 A H	R43(1)	CHA2	B2	68n	-CSH ADR LR PULSE H					
R54(1)	CHA1	A7	56n	CHA1 ADR 28 0 H	R64(1)	CHA2	B2	68n	-CHA2 WRITE 1 B H	R12(1)	CHA3	A1	68n	-CSH LR OUT EN H					
R71(1)	CHA1	A7	56n	CHA1 ADR 28 1 H	R127(1)	CHA2	B2	68n	-CHA2 WRITE 1 C H	R90(1)	CHA3	B6	68n	CSH LR SEL ALL H					
R86(1)	CHA1	A7	56n	CHA1 ADR 28 2 H	R78(1)	CHA2	A2	68n	-CHA2 WRITE 2 A H	R96(1)	CHA3	B6	68n	CSH LR LD 0 EN H					
R120(1)	CHA1	A7	56n	CHA1 ADR 28 3 H	R79(1)	CHA2	A2	68n	-CHA2 WRITE 2 B H	R97(1)	CHA3	B6	68n	CSH LR LD 1 EN H					
R7(1)	CHA1	A7	56n	CHA1 ADR 28 A H	R128(1)	CHA2	A2	68n	-CHA2 WRITE 2 C H	R95(1)	CHA3	A6	68n	CSH LR LD 2 EN H					
R34(1)	CHA1	A7	56n	CHA1 ADR 28 B H	R100(1)	CHA2	A2	68n	-CHA2 WRITE 3 A H	R94(1)	CHA3	A6	68n	CSH LR LD 3 EN H					
R53(1)	CHA1	B5	56n	CHA1 ADR 29 0 H	R109(1)	CHA2	A2	68n	-CHA2 WRITE 3 B H	R93(1)	CHA3	A5	68n	CSH LR LR DATA H					
R70(1)	CHA1	B4	56n	CHA1 ADR 29 1 H	R31(1)	CHA2	A2	68n	-CHA2 WRITE 3 C H	R99(1)	CHA3	B8	68n	-CSH LR LR PULSE H					
R85(1)	CHA1	B4	56n	CHA1 ADR 29 2 H	R3(1)	CHA3	D7	68n	CHA3 CSH 0 LD 0 LR H	R99(1)	CHA1	B7	68n	MBX CSH ADR 27 H					
R119(1)	CHA1	A5	56n	CHA1 ADR 29 3 H	R4(1)	CHA3	D6	68n	CHA3 CSH 0 LD 1 LR H	R100(1)	CHA1	A7	68n	MBX CSH ADR 28 H					
R76(1)	CHA1	A4	56n	CHA1 ADR 29 A H	R13(1)	CHA3	D5	68n	CHA3 CSH 0 LD 2 LR H	R62(1)	CHA1	B5	68n	MBX CSH ADR 29 H					
R20(1)	CHA1	A4	56n	CHA1 ADR 29 B H	R15(1)	CHA3	D5	68n	CHA3 CSH 0 LD 3 LR H	R45(1)	CHA1	A5	68n	MBX CSH ADR 30 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

REV. A  
 M8514-0-RES  
 CS  
 D

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REVISIONS		
CHK	CHANGE NO.	REV
J. ALLEN	00001	A

digital	DRN. <i>E. Smith</i>	DATE <i>02-1987-77</i>	ENGR. <i>John P. O'Neil</i>	DATE <i>01/1987</i>	TITLE: <b>CACHE DIR TERMINATORS</b>
	DESIGNED BY <i>John P. O'Neil</i>	DATE <i>02-1987-77</i>	LOCATED BY <i>John P. O'Neil</i>	DATE <i>01/1987</i>	
FIRST USED ON OPTION/MODEL: <b>KL10</b>		NEXT HIGHER ASSEMBLY: <b>B-DD-M8514-0</b>		SIZE <b>D</b>	CODE <b>CS</b>
NUMBER <b>M8514-0-RES</b>				REV. <b>A</b>	

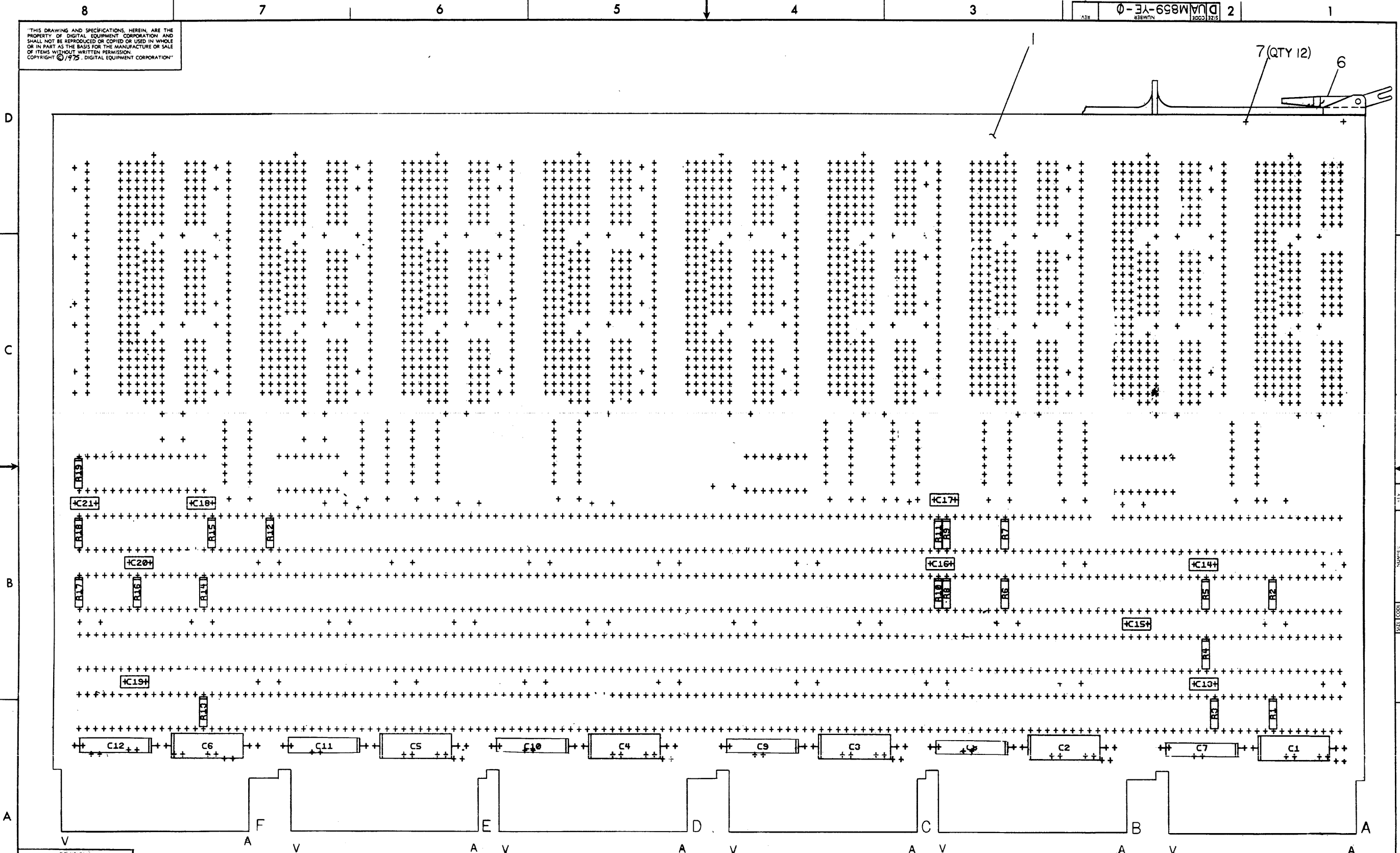






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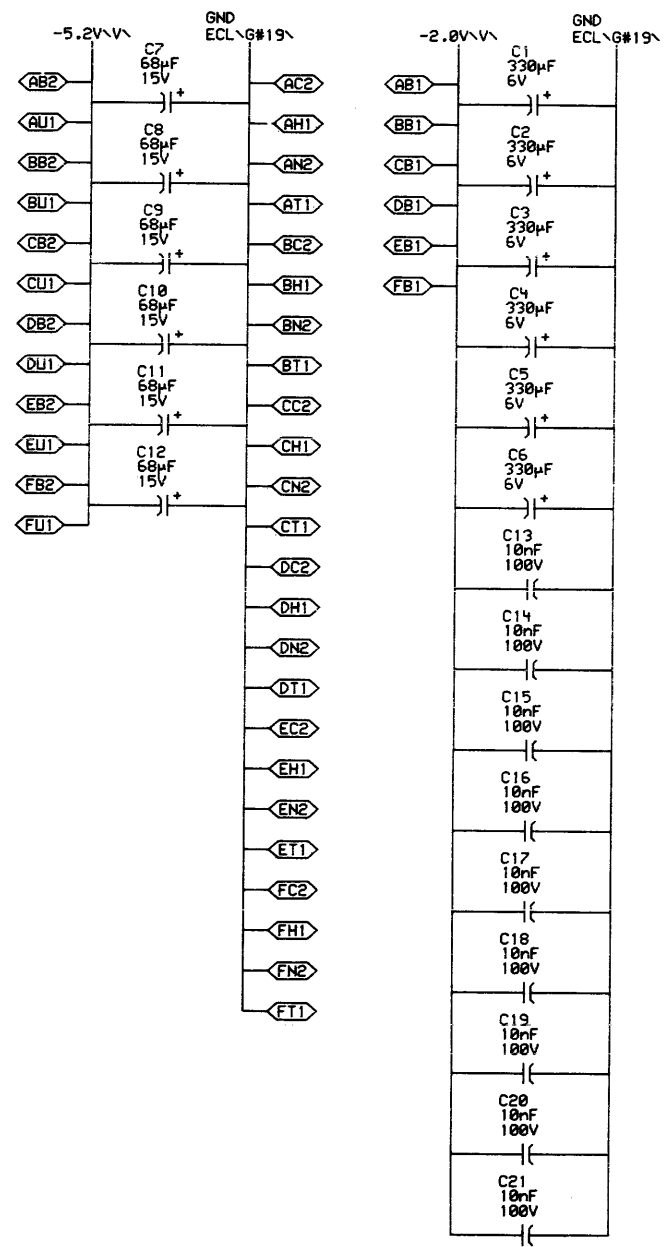
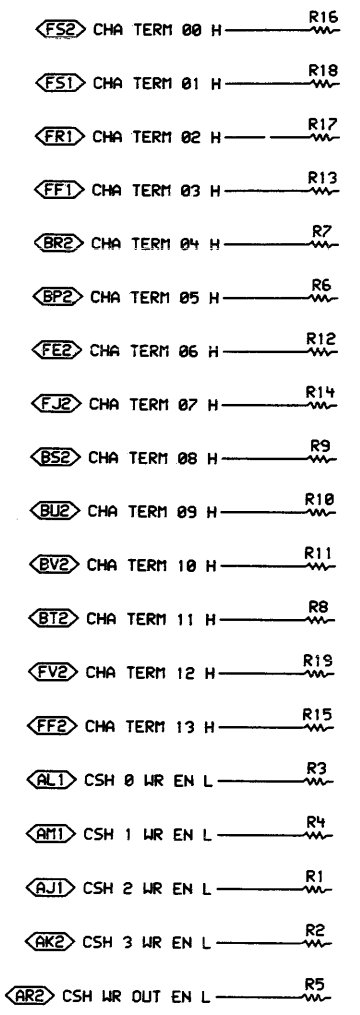
REV. 2  
SIZE CODE D U A M 8549-YE-0



REVISIONS		
CHK	CHANGE NO	REV

TITLE: CACHE ADDRESS SUBSTITUTE BD.  
 SIZE CODE: D U A M 8549-YE-0  
 NUMBER: MR1  
 SHEET 2 OF 5

43



NOTE:

- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173

- THE FOLLOWING PINS ARE NC:

- AA2 AV1
- BA2 BV1
- CA2 CV1
- DA2 DV1
- EA2 EV1
- FA2 FV1

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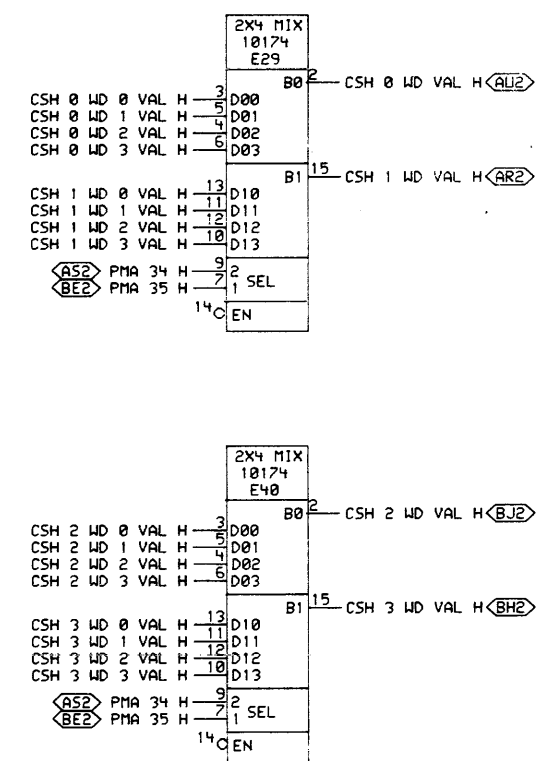
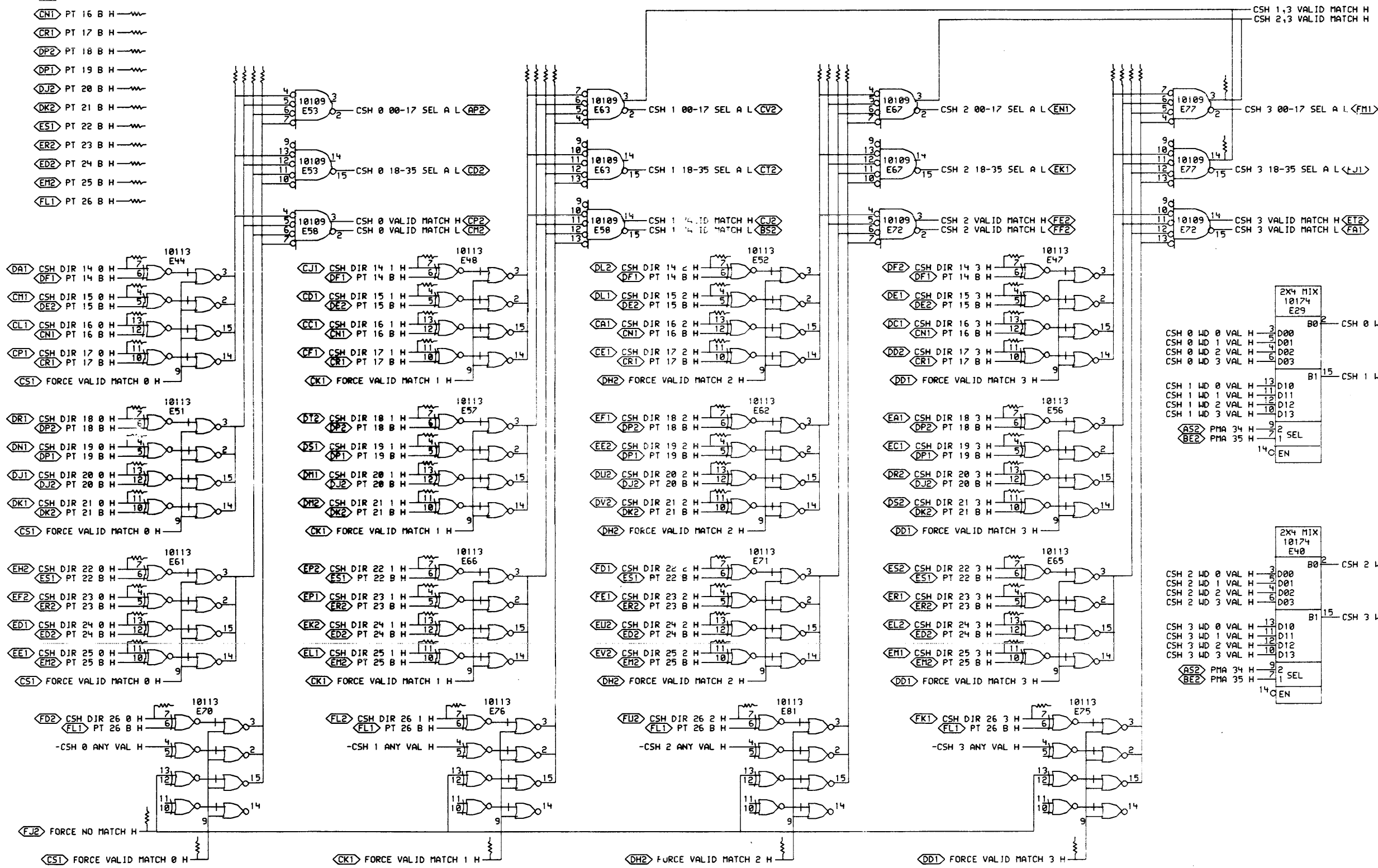
REVISIONS		
CHK	CHANGE NO.	REV.

digital	DRN.	DATE	ENG.	DATE	TITLE:
	CHK	2-21-75	AD	2-21-75	CACHE ADDRESS SUBSTITUE
CHAS14,121		120-FEB-75	20:54	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER
FIRST USED ON OPTION MODEL: KL16		B-DD-M8549-YE		D CS M8549-YE-CHAS	REV.
					MR 1





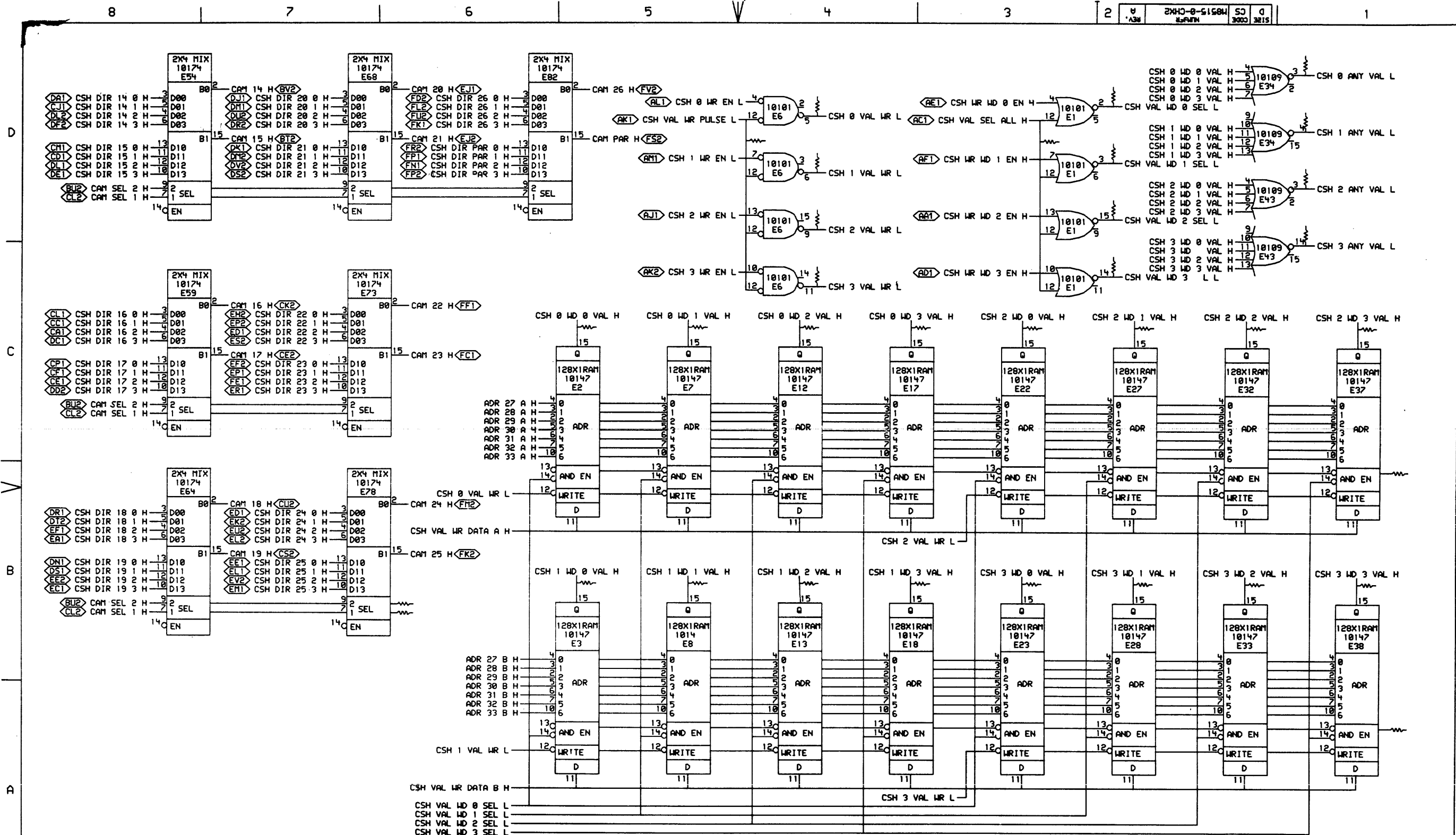
- DF1 PT 14 B H
- DE2 PT 15 B H
- CN1 PT 16 B H
- CR1 PT 17 B H
- DP2 PT 18 B H
- DP1 PT 19 B H
- DJ2 PT 20 B H
- DK2 PT 21 B H
- ES1 PT 22 B H
- ER2 PT 23 B H
- ED2 PT 24 B H
- EM2 PT 25 B H
- FL1 PT 26 B H



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REVISIONS		
CHK	CHANGE NO.	REV
	M8515-00001	A
	11/21/75	3215
	11/21/75	3215

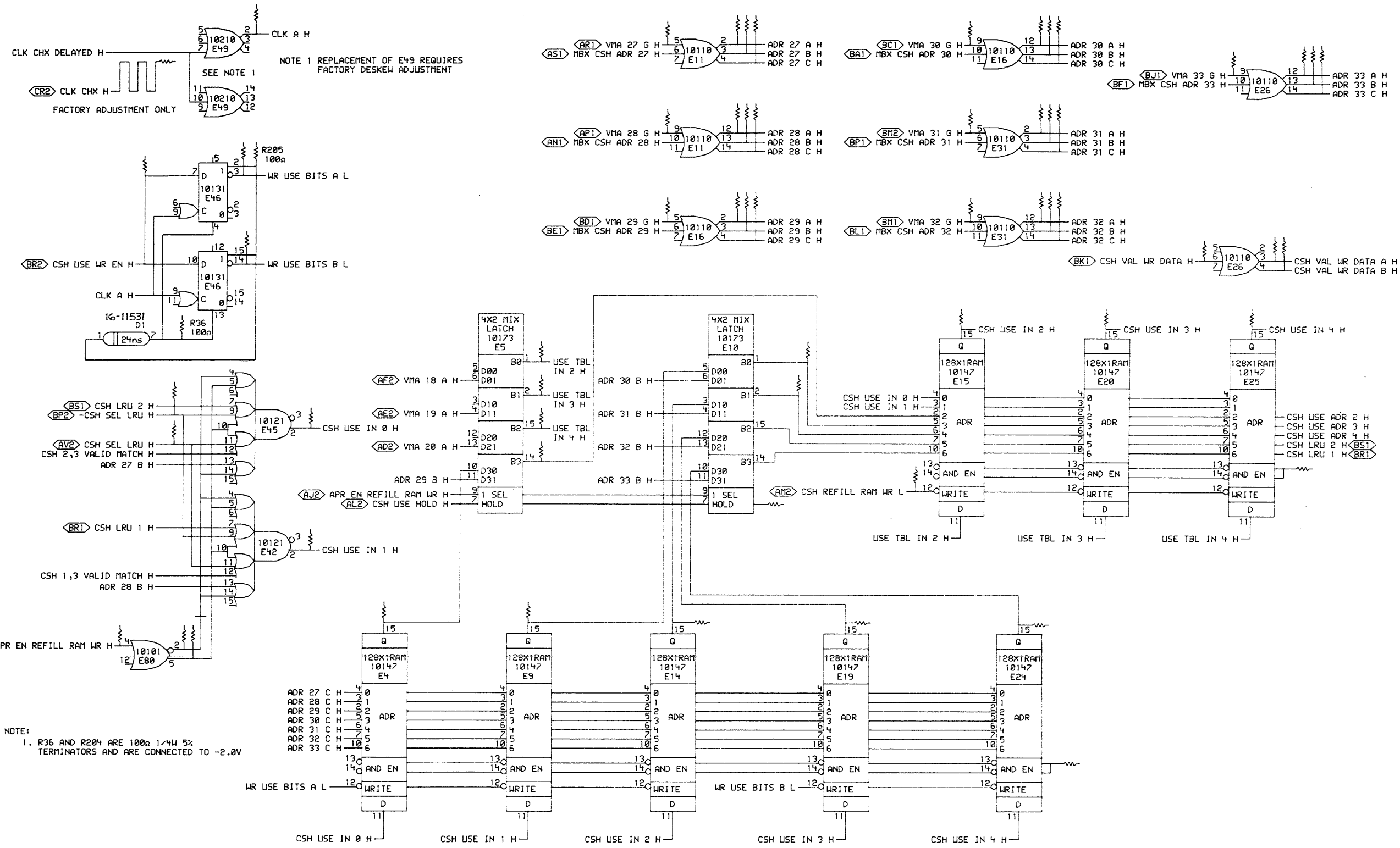
digital	DRN	DATE	ENG.	DATE	TITLE:
	CHK	DATE	BOARD LOCATION:	SHEET	CSH ADR COMPR & VAL BIT MIXER
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8515-0		SIZE	CODE
				D	CS
				NUMBER	
				M8515-0-CHX1	
				REV. A	



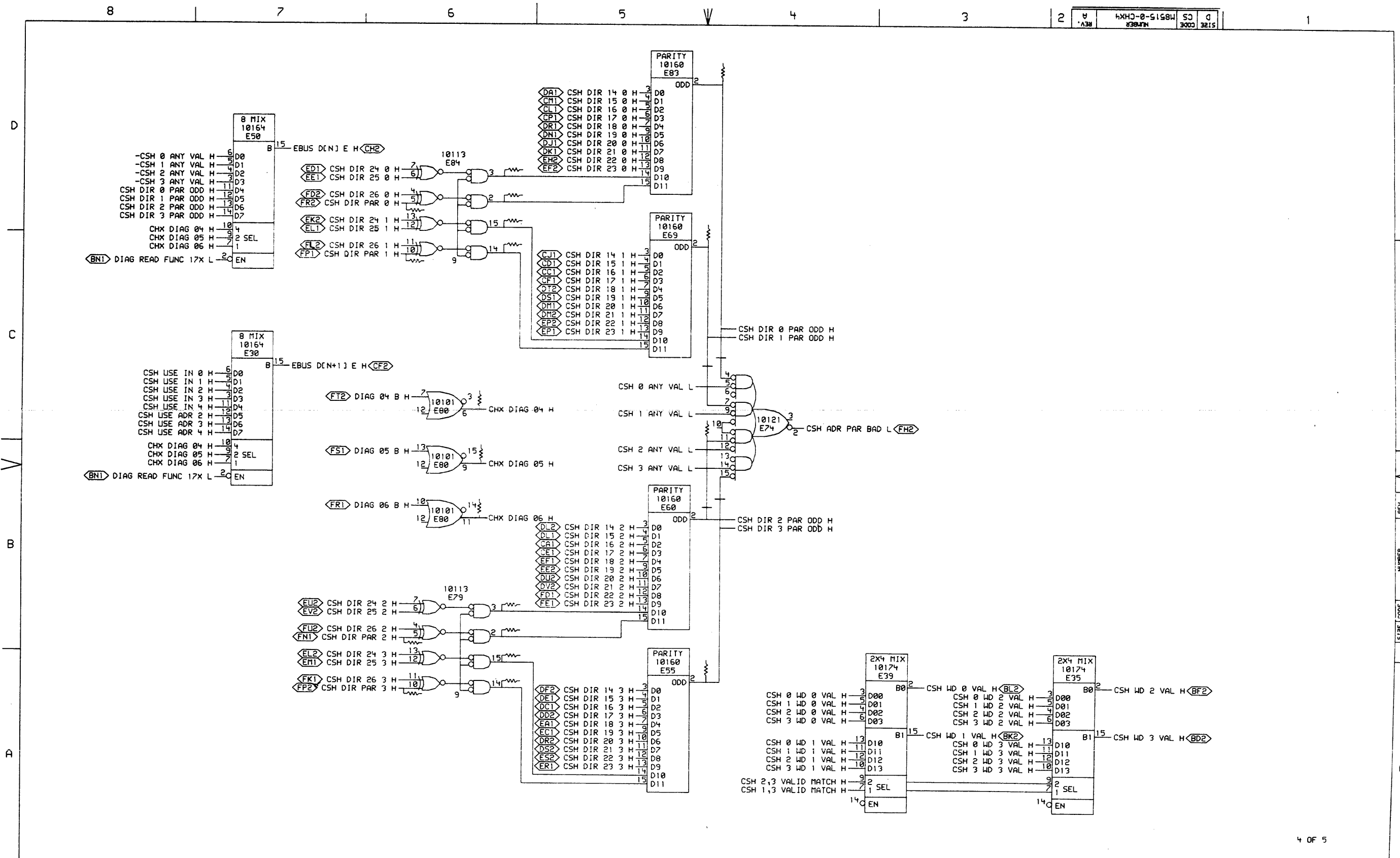
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REVISIONS	
CHK	CHANGE NO. REV
	M8515-00001 A
	P. GUGLIEMINI

	DATE: 4/9/75	ENG: P. Gugliemini	DATE: 4/9/75	TITLE: CSH VALID BITS AND ADR MIXERS
	DATE: 4/9/75	DATE: 4/9/75	DATE: 4/9/75	NUMBER: M8515-0-CHX2
CHECKED: 4.12.1 FIRST USED ON OPTION MODEL: KL10	DATE: 4/9/75 BOARD LOCATION: 4A228	DATE: 4/9/75 SHEET: 1	NEXT HIGHER ASSEMBLY: B-DD-M8515-0	SIZE CODE: D CS NUMBER: M8515-0-CHX2 REV. A



REVISIONS		DRN.	DATE	ENG.	DATE	TITLE:
CHK	CHANGE NO. REV	49	7-7-75	W. J. ...	4/1/75	CACHE USE BITS
1	M8515-00001 A	CHK'D	4-10-75	DATE	BOARD/LOCATION:	4AF28
	P. GUGLIELMI				SHEET	1 OF 1
*THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1975, DIGITAL EQUIPMENT CORPORATION*		FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY:		SIZE CODE NUMBER REV.
		KL10		B-DD-M8515-0		D CS M8515-0-CHX3 A



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REVISIONS		
CHK	CHANGE NO.	REV
	M8515-00001	A

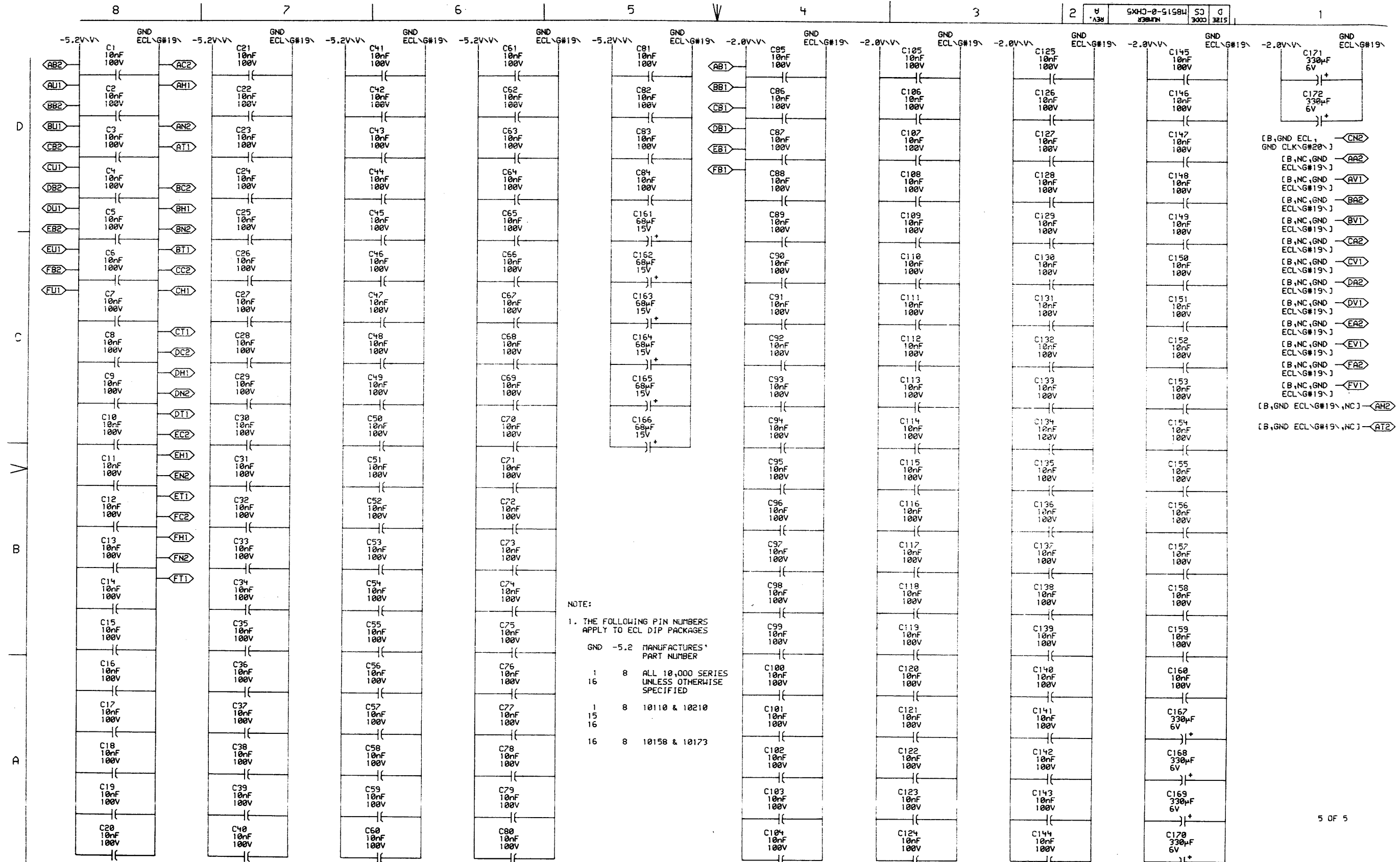
digital  
 CHX4EX4,1213

DRN: *W. Stephens*  
 DATE: *4/25/75*  
 ENG: *P. Conlon*  
 DATE: *4/21/75*  
 BOARD LOCATIC: *4AF28*  
 SHEET: *1* OF *1*

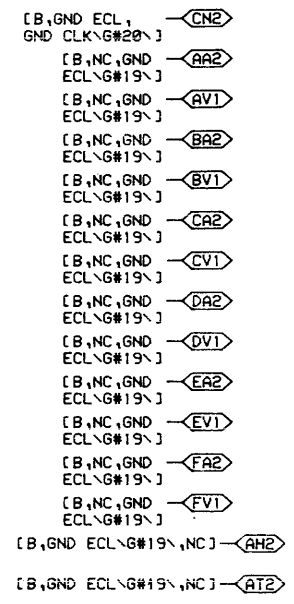
TITLE: CSH DIR PAR NET AND DIAG MIXERS  
 SIZE CODE: D CS  
 NUMBER: M8515-0-CHX4  
 REV. A

REV. A  
 NUMBER M8515-0-CHX4  
 SIZE CODE CS  
 D 3E15





NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES  
 GND -5.2 MANUFACTURER'S PART NUMBER  
 1 8 ALL 10,000 SERIES  
 16 UNLESS OTHERWISE SPECIFIED  
 1 8 10110 & 10210  
 15  
 16  
 16 8 10158 & 10173



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REVISIONS		
CHK	CHANGE NO.	REV
	M8515-00001	A
	REVISION 1	
	F. GUGLIelmi	

digital	DRN	DATE	ENG.	DATE	TITLE:
	CHK'D	4/10/75	P. GUGLIelmi	4/10/75	CACHE ADDRESS POWER AND GND
CHX5EX(4,121)		108-APR-75 10:25	NEXT HIGHER ASSEMBLY:		SIZE CODE
FIRST USED ON OPTION/MODEL: KL10		IB-DD-M8515-0		D	CS
				NUMBER	REV.
				M8515-0-CHX5	A

REV. A  
 NUMBER M8515-0-CHX5  
 CS  
 D

D

C

V

B

A

RESISTOR LOC(PIN)	SHOWN ON DRM# REF	VALUE	TERMINATES SIGNAL
R9(1)	CHK3EX B4	68a	%E14(15)
R3(1)	CHK3EX B4	68a	%E19(15)
R166(1)	CHK2EX B1	68a	%E2(13)
R97(1)	CHK3EX A2	68a	%E24(13)
R8(1)	CHK3EX B3	68a	%E24(15)
R14(1)	CHK3EX B1	68a	%E25(13)
R133(1)	CHK2EX A1	68a	%E38(13)
R2(1)	CHK3EX B6	68a	%E4(15)
R141(1)	CHK1EX D7	68a	%E44(14)
R36(1)	CHK3EX C7	100a	%E46(13)
R205(1)	CHK3EX D7	100a	%E46(15)
R153(1)	CHK1EX D2	68a	%E47(14)
R145(1)	CHK1EX D6	68a	%E48(14)
R140(1)	CHK1EX D7	68a	%E51(13)
R148(1)	CHK1EX D4	68a	%E52(14)
R154(1)	CHK1EX D2	68a	%E56(14)
R144(1)	CHK1EX D6	68a	%E57(13)
R138(1)	CHK1EX D7	68a	%E61(13)
R146(1)	CHK1EX D4	68a	%E62(14)
R152(1)	CHK1EX D2	68a	%E65(14)
R143(1)	CHK1EX D5	68a	%E66(13)
R139(1)	CHK1EX D7	68a	%E70(15)
R150(1)	CHK1EX D4	68a	%E71(14)
R147(1)	CHK1EX D2	68a	%E75(15)
R142(1)	CHK1EX D5	68a	%E76(13)
R42(1)	CHK4EX A6	68a	%E79(14)
R43(1)	CHK4EX A6	68a	%E79(15)
R51(1)	CHK4EX B6	68a	%E79(2)
R53(1)	CHK4EX B6	68a	%E79(3)
R109(1)	CHK3EX B7	68a	%E80(2)
R112(1)	CHK3EX B7	68a	%E80(5)
R149(1)	CHK1EX D4	68a	%E81(15)
R62(1)	CHK4EX C6	68a	%E84(14)
R61(1)	CHK4EX D6	68a	%E84(15)
R123(1)	CHK4EX D6	68a	%E84(2)
R127(1)	CHK4EX D6	68a	%E84(3)
R10(1)	CHK3EX B5	68a	%E9(15)
R169(1)	CHK3EX D4	68a	ADR 27 A H
R113(1)	CHK3EX D4	68a	ADR 27 B H
R101(1)	CHK3EX D4	68a	ADR 27 C H

NOTE:

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

RESISTOR LOC(PIN)	SHOWN ON DRM# REF	VALUE	TERMINATES SIGNAL
R168(1)	CHK3EX D4	68a	ADR 28 A H
R111(1)	CHK3EX D4	68a	ADR 28 B H
R100(1)	CHK3EX D4	68a	ADR 28 C H
R167(1)	CHK3EX C4	68a	ADR 29 A H
R1(1)	CHK3EX C4	68a	ADR 29 B H
R102(1)	CHK3EX C4	68a	ADR 29 C H
R170(1)	CHK3EX D3	68a	ADR 30 A H
R11(1)	CHK3EX D2	68a	ADR 30 B H
R95(1)	CHK3EX D2	68a	ADR 30 C H
R150(1)	CHK3EX D3	68a	ADR 31 A H
R5(1)	CHK3EX D2	68a	ADR 31 B H
R91(1)	CHK3EX D2	68a	ADR 31 C H
R159(1)	CHK3EX C3	68a	ADR 32 A H
R6(1)	CHK3EX C2	68a	ADR 32 B H
R93(1)	CHK3EX C2	68a	ADR 32 C H
R161(1)	CHK3EX D1	68a	ADR 33 A H
R4(1)	CHK3EX D1	68a	ADR 33 B H
R94(1)	CHK3EX D1	68a	ADR 33 C H
R202(1)	CHK3EX B7	68a	APR EN REFILL RAM WR H
R157(1)	CHK2EX B6	68a	CAM SEL 1 H
R155(1)	CHK2EX B6	68a	CAM SEL 2 H
R20(1)	CHK4EX C6	68a	CHK DIAG 04 H
R99(1)	CHK4EX B6	68a	CHK DIAG 05 H
R23(1)	CHK4EX B6	68a	CHK DIAG 06 H
R35(1)	CHK3EX D7	68a	CLK A H
R137(1)	CHK3EX D7	68a	CLK CHK H
R200(1)	CHK2EX D1	68a	-CSH 0 ANY VAL H
R162(1)	CHK2EX D4	68a	-CSH 0 VAL WR H
R110(1)	CHK2EX C5	68a	CSH 0 MD 0 VAL H
R105(1)	CHK2EX C5	68a	CSH 0 MD 1 VAL H
R26(1)	CHK2EX C4	68a	CSH 0 MD 2 VAL H
R106(1)	CHK2EX C4	68a	CSH 0 MD 3 VAL H
R103(1)	CHK2EX D1	68a	-CSH 1 ANY VAL H
R132(1)	CHK2EX D4	68a	-CSH 1 VAL WR H
R100(1)	CHK2EX B5	68a	CSH 1 MD 0 VAL H
R107(1)	CHK2EX B5	68a	CSH 1 MD 1 VAL H
R22(1)	CHK2EX B4	68a	CSH 1 MD 2 VAL H
R104(1)	CHK2EX B4	68a	CSH 1 MD 3 VAL H
R27(1)	CHK1EX D2	68a	CSH 1,3 VALID MATCH H
R100(1)	CHK2EX D1	68a	-CSH 2 ANY VAL H

RESISTOR LOC(PIN)	SHOWN ON DRM# REF	VALUE	TERMINATES SIGNAL
R165(1)	CHK2EX D4	68a	-CSH 2 VAL WR H
R33(1)	CHK2EX C3	68a	CSH 2 MD 0 VAL H
R34(1)	CHK2EX C2	68a	CSH 2 MD 1 VAL H
R31(1)	CHK2EX C2	68a	CSH 2 MD 2 VAL H
R21(1)	CHK2EX C1	68a	CSH 2 MD 3 VAL H
R20(1)	CHK2EX D2	68a	CSH 2,3 VALID MATCH H
R203(1)	CHK2EX C1	68a	-CSH 3 ANY VAL H
R135(1)	CHK2EX C4	68a	-CSH 3 VAL WR H
R25(1)	CHK2EX B3	68a	CSH 3 MD 0 VAL H
R32(1)	CHK2EX B2	68a	CSH 3 MD 1 VAL H
R29(1)	CHK2EX B2	68a	CSH 3 MD 2 VAL H
R30(1)	CHK2EX B1	68a	CSH 3 MD 3 VAL H
R40(1)	CHK4EX D4	68a	CSH DIR 0 PAR ODD H
R37(1)	CHK4EX C4	68a	CSH DIR 1 PAR ODD H
R122(1)	CHK1EX C8	68a	CSH DIR 14 0 H
R67(1)	CHK1EX C6	68a	CSH DIR 14 1 H
R52(1)	CHK1EX C5	68a	CSH DIR 14 2 H
R49(1)	CHK1EX C3	68a	CSH DIR 14 3 H
R130(1)	CHK1EX C8	68a	CSH DIR 15 0 H
R60(1)	CHK1EX C6	68a	CSH DIR 15 1 H
R63(1)	CHK1EX C5	68a	CSH DIR 15 2 H
R46(1)	CHK1EX C3	68a	CSH DIR 15 3 H
R120(1)	CHK1EX C8	68a	CSH DIR 16 0 H
R69(1)	CHK1EX C6	68a	CSH DIR 16 1 H
R54(1)	CHK1EX C5	68a	CSH DIR 16 2 H
R47(1)	CHK1EX C3	68a	CSH DIR 16 3 H
R156(1)	CHK1EX C8	68a	CSH DIR 17 0 H
R71(1)	CHK1EX C6	68a	CSH DIR 17 1 H
R56(1)	CHK1EX C5	68a	CSH DIR 17 2 H
R50(1)	CHK1EX C3	68a	CSH DIR 17 3 H
R129(1)	CHK1EX C8	68a	CSH DIR 18 0 H
R70(1)	CHK1EX C6	68a	CSH DIR 18 1 H
R55(1)	CHK1EX C5	68a	CSH DIR 18 2 H
R40(1)	CHK1EX C3	68a	CSH DIR 18 3 H
R151(1)	CHK1EX B8	68a	CSH DIR 19 0 H
R65(1)	CHK1EX B6	68a	CSH DIR 19 1 H
R58(1)	CHK1EX B5	68a	CSH DIR 19 2 H
R116(1)	CHK1EX B3	68a	CSH DIR 19 3 H
R30(1)	CHK4EX C4	68a	CSH DIR 2 PAR ODD H
R126(1)	CHK1EX B8	68a	CSH DIR 20 0 H

RESISTOR LOC(PIN)	SHOWN ON DRM# REF	VALUE	TERMINATES SIGNAL
R66(1)	CHK1EX B6	68a	CSH DIR 20 1 H
R110(1)	CHK1EX B5	68a	CSH DIR 20 2 H
R119(1)	CHK1EX B3	68a	CSH DIR 20 3 H
R125(1)	CHK1EX B8	68a	CSH DIR 21 0 H
R64(1)	CHK1EX B6	68a	CSH DIR 21 1 H
R57(1)	CHK1EX B5	68a	CSH DIR 21 2 H
R120(1)	CHK1EX B3	68a	CSH DIR 21 3 H
R124(1)	CHK1EX B8	68a	CSH DIR 22 0 H
R59(1)	CHK1EX B6	68a	CSH DIR 22 1 H
R45(1)	CHK1EX B5	68a	CSH DIR 22 2 H
R41(1)	CHK1EX B3	68a	CSH DIR 22 3 H
R121(1)	CHK1EX B8	68a	CSH DIR 23 0 H
R60(1)	CHK1EX B6	68a	CSH DIR 23 1 H
R117(1)	CHK1EX B5	68a	CSH DIR 23 2 H
R44(1)	CHK1EX B3	68a	CSH DIR 23 3 H
R87(1)	CHK1EX B8	68a	CSH DIR 24 0 H
R81(1)	CHK1EX B6	68a	CSH DIR 24 1 H
R82(1)	CHK1EX B5	68a	CSH DIR 24 2 H
R74(1)	CHK1EX B3	68a	CSH DIR 24 3 H
R80(1)	CHK1EX B8	68a	CSH DIR 25 0 H
R79(1)	CHK1EX B6	68a	CSH DIR 25 1 H
R77(1)	CHK1EX B5	68a	CSH DIR 25 2 H
R73(1)	CHK1EX B3	68a	CSH DIR 25 3 H
R85(1)	CHK1EX A8	68a	CSH DIR 26 0 H
R83(1)	CHK1EX A6	68a	CSH DIR 26 1 H
R75(1)	CHK1EX A4	68a	CSH DIR 26 2 H
R76(1)	CHK1EX A3	68a	CSH DIR 26 3 H
R72(1)	CHK4EX A4	68a	CSH DIR 3 PAR ODD H
R86(1)	CHK4EX D6	68a	CSH DIR PAR 0 H
R84(1)	CHK4EX C6	68a	CSH DIR PAR 1 H
R80(1)	CHK4EX B6	68a	CSH DIR PAR 2 H
R70(1)	CHK4EX A6	68a	CSH DIR PAR 3 H
R15(1)	CHK3EX B3	68a	-CSH REFILL RAM WR H
R114(1)	CHK3EX B7	68a	CSH SEL LRU H
R115(1)	CHK3EX C7	68a	-CSH SEL LRU H
R17(1)	CHK3EX B5	68a	CSH USE ADR 2 H
R18(1)	CHK3EX C4	68a	CSH USE ADR 3 H
R19(1)	CHK3EX C4	68a	CSH USE ADR 4 H
R7(1)	CHK3EX B4	68a	CSH USE HOLD H
R92(1)	CHK3EX C6	68a	CSH USE IN 0 H

D

C

V

B

A

REV. A  
NUMBER M8515-0-RES  
CS  
D

REVISIONS		
CHK	CHANGE NO.	REV
-	M8515-0000	A
E	REVISION 332	
P	CUCLELM	

digital	DRN. G. Smith	DATE 10-APR-75	ENG. P. C. C. C.	DATE 4/2/75	TITLE: CACHE EXTENSION TERMINATORS
	CHK. J. J. J.	DATE 10-APR-75	DRY LOCATION: 4828	SHEET 2	
FIRST USED ON OPTION MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8515-0		SIZE CODE D CS	NUMBER M8515-0-RES
				REV. A	

D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRUM	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRUM	REF	VALUE	TERMINATES SIGNAL
R09K(1)	CHK3EX	B6	60Ω	CSH USE IN 1 H	R190K(1)	CHK3EX	C3	60Ω	VMA 32 G H
R103K(1)	CHK3EX	C3	60Ω	CSH USE IN 2 H	R196K(1)	CHK3EX	D2	60Ω	VMA 33 G H
R24K(1)	CHK3EX	C2	60Ω	CSH USE IN 3 H	R90K(1)	CHK3EX	D7	60Ω	-WR USE BITS A H
R90K(1)	CHK3EX	C1	60Ω	CSH USE IN 4 H	R96K(1)	CHK3EX	C7	60Ω	-WR USE BITS B H
R39K(1)	CHK3EX	D7	60Ω	CSH USE WR EN H					
R109K(1)	CHK2EX	D3	60Ω	CSH VAL SEL ALL H					
R163K(1)	CHK2EX	D2	60Ω	-CSH VAL MD 0 SEL H					
R134K(1)	CHK2EX	D2	60Ω	-CSH VAL MD 1 SEL H					
R164K(1)	CHK2EX	D2	60Ω	-CSH VAL MD 2 SEL H					
R136K(1)	CHK2EX	C2	60Ω	-CSH VAL MD 3 SEL H					
R195K(1)	CHK3EX	C2	60Ω	CSH VAL WR DATA H					
R160K(1)	CHK3EX	C1	60Ω	CSH VAL WR DATA A H					
R131K(1)	CHK3EX	C1	60Ω	CSH VAL WR DATA B H					
R190K(1)	CHK2EX	D4	60Ω	-CSH VAL WR PULSE H					
R106K(1)	CHK1EX	A8	60Ω	FORCE NO MATCH H					
R199K(1)	CHK1EX	A7	60Ω	FORCE VALID MATCH 0 H					
R104K(1)	CHK1EX	A6	60Ω	FORCE VALID MATCH 1 H					
R105K(1)	CHK1EX	A4	60Ω	FORCE VALID MATCH 2 H					
R201K(1)	CHK1EX	A3	60Ω	FORCE VALID MATCH 3 H					
R173K(1)	CHK1EX	D8	60Ω	PT 14 B H					
R172K(1)	CHK1EX	D8	60Ω	PT 15 B H					
R171K(1)	CHK1EX	D8	60Ω	PT 16 B H					
R174K(1)	CHK1EX	D8	60Ω	PT 17 B H					
R177K(1)	CHK1EX	D8	60Ω	PT 18 B H					
R176K(1)	CHK1EX	D8	60Ω	PT 19 B H					
R175K(1)	CHK1EX	D8	60Ω	PT 20 B H					
R170K(1)	CHK1EX	D8	60Ω	PT 21 B H					
R181K(1)	CHK1EX	D8	60Ω	PT 22 B H					
R100K(1)	CHK1EX	D8	60Ω	PT 23 B H					
R179K(1)	CHK1EX	D8	60Ω	PT 24 B H					
R182K(1)	CHK1EX	C8	60Ω	PT 25 B H					
R187K(1)	CHK1EX	C8	60Ω	PT 26 B H					
R12K(1)	CHK3EX	C5	60Ω	USE TBL IN 2 H					
R13K(1)	CHK3EX	C5	60Ω	USE TBL IN 3 H					
R16K(1)	CHK3EX	C5	60Ω	USE TBL IN 4 H					
R191K(1)	CHK3EX	D5	60Ω	VMA 27 G H					
R192K(1)	CHK3EX	D5	60Ω	VMA 28 G H					
R193K(1)	CHK3EX	C5	60Ω	VMA 29 G H					
R194K(1)	CHK3EX	D3	60Ω	VMA 30 G H					
R197K(1)	CHK3EX	D3	60Ω	VMA 31 G 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
-	M8515-00001	A
P.	GUILLIEMI	

digital	DRN. <i>C. Smith</i>	DATE <i>10-2-75</i>	ENG. <i>P. Gray Wilson</i>	DATE <i>4/1/75</i>	TITLE: CACHE EXTENSION TERMINATORS
	CHK. <i>W. Allen</i>	DATE <i>11/1/75</i>	ISSUE <i>2</i>	OF <i>2</i>	
M8515-0-4-271		NEXT HIGHER ASSEMBLY: B-DD-M8515-0		SIZE CODE	NUMBER
FIRST USED ON OPTION MODEL: KL10				D CS	M8515-0-RES
					REV A

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2	B	11-64584	DD	D
	REV.	NUMBER	CODE	DRIS

1 MR

DRAWING NUMBER	PAGE	PART NO.	DESCRIPTION	REVISIONS		
			FILE: ORIGINAL LAYOUT			
			ECO NUMBER	1	2	
			MODULE REVISION	A	A	A
D-UA-M8549-YF-0	4		CACHE EXTENSION SUBSTITUTE	-	A	B
K-PL-M8549-YF-DBP	1		PARTS LIST	-	A	B
D-CS-M8549-YF-CHXS	1		CACHE EXTENSION SUBSTITUTE	-	-	-
D-MD-5011495-0-0	5		DRILL & ETCH DRAWING	-	A	A
		5011495	ETCH CIRCUIT BOARD	A	A	A
K-PC-M8549-YF-DBC	-		P.C. DESIGN DATA BASE	A	B	C
P00-M8549-YF	-		PROCESS SHEET (REFERENCE ONLY)			

NOTES: ECO 1 DOCUMENTATION CHANGE ONLY

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REVISIONS		
CHK	CHANGE NO.	REV
	M8549	2
	M8549	3
	T. BOWEN	

digital	DRG. <i>J. Loochy</i>	DATE	ENG.	DATE	TITLE: CACHE EXTENSION SUBSTITUTE BOARD
	CHK'D <i>M. P. Smith</i>	13-FEB-88			
DSK:8549FD.TPP(4,558) 13-FEB-88 08150		DATE	BOARD LOCATION:		
FIRST USED ON OPTION/MODEL: KL10/20		5-MAR-80	SHEET 1 OF 1		
NEXT HIGHER ASSEMBLY:			SIZE CODE	NUMBER	REV.
NONE			D DD	M8549-YF	B

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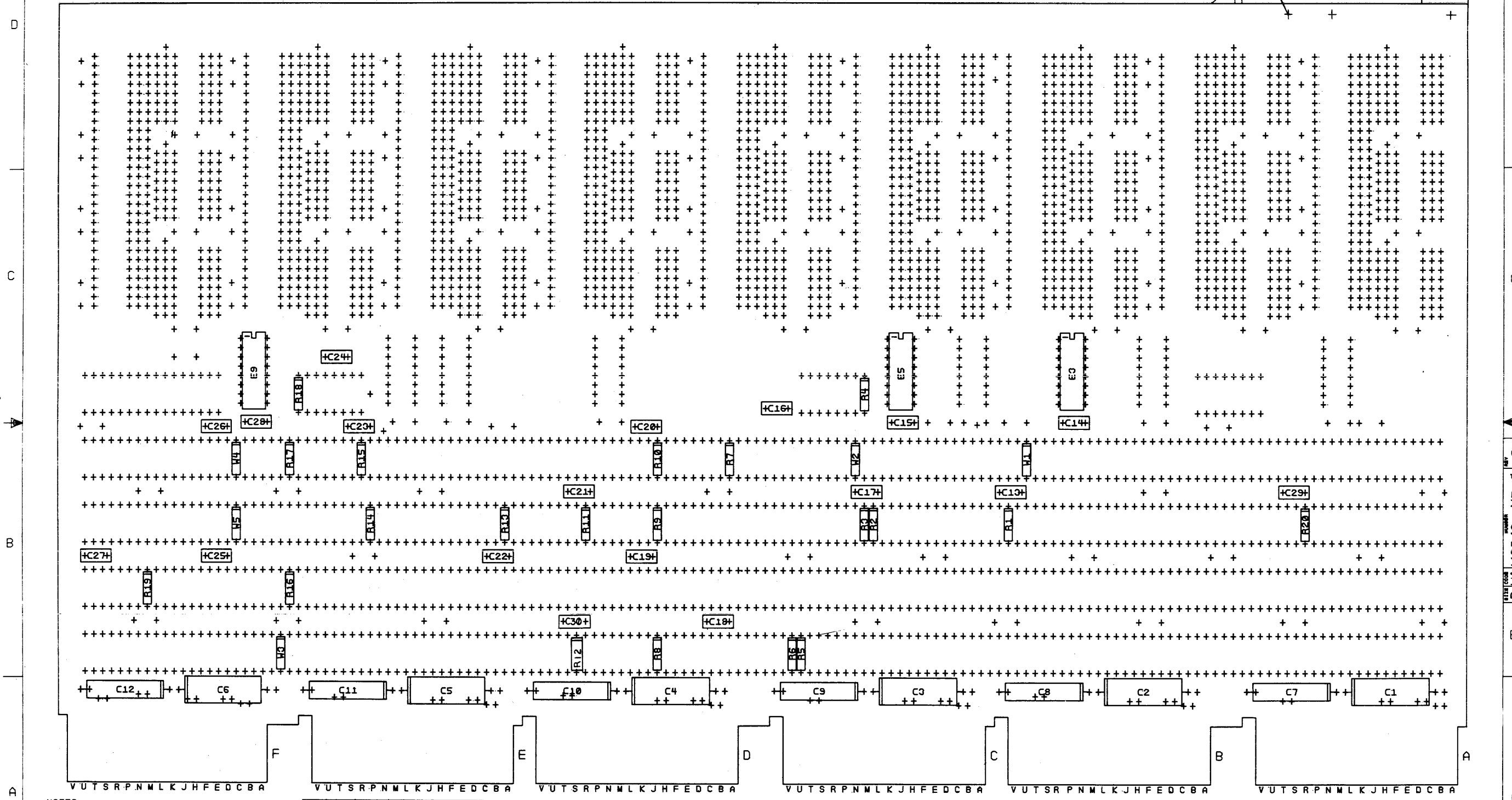
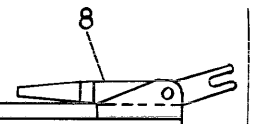
3

DUM8549-YF-0 B 2

1

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9 (QTY 12)



NOTES:


CHG	NO	REV	DATE	BY
1	1	A	11/14/78	T. BOWEN
2	1	B	11/14/78	T. BOWEN
3	1	C	11/14/78	T. BOWEN

SIGNATURES	DATE	digital
DRN: M. Norman	11/14/78	
CHK: D. Norman	11/14/78	TITLE CACHE EXTENSION SUBSTITUTE BD.
ENG: T. Bowen	11/14/78	
PROJ. ENG: T. Bowen	11/14/78	
PROD. 3.1 Output	11/14/78	
SCALE 2 / 1	SIZE CODE	NUMBER
SHT. 1 OF 4	D	UA M8549-YF-0 B
ETCH REV A	FIRST USED ON KLI0	REV

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DUM8549-YF-0 B

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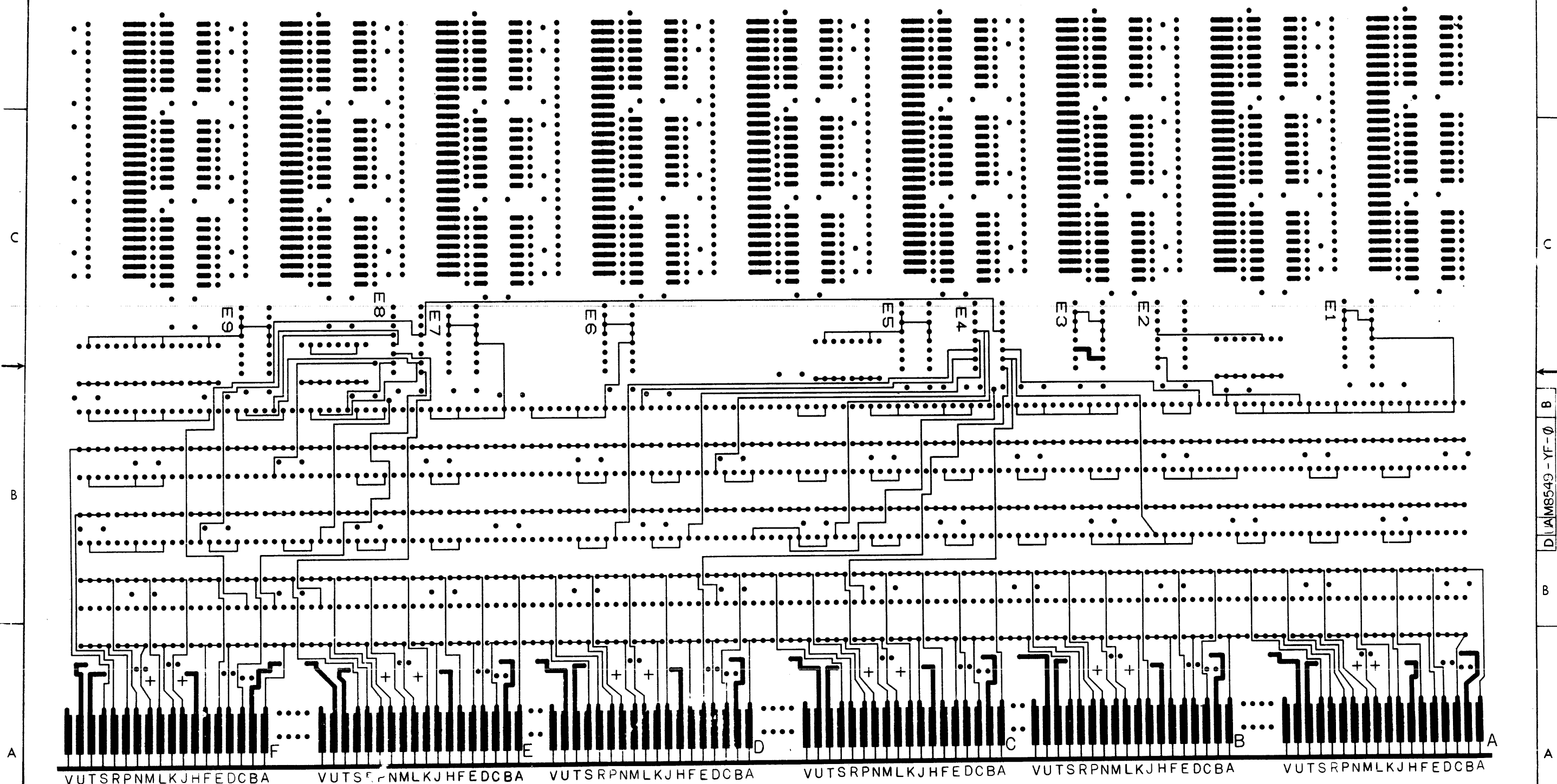
D UAM8549 - YF - 0 B 2

MR 1

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LAYER 1  
MS30061 M8549 5011495A

CS\*ABCDEFGHIJKLMNPRS SIDE 1 FLIP CHIP



REVISIONS		
CHK	CHANGE NO	REV

LAYER 1		TITLE	SIZE CODE	NUMBER	REV.
		CACHE EXTENSION SUBSTITUTE BD.	D	UAM8549 - YF - 0	B
SCALE		SHEET 2 OF 4	DIST.		

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MR 1

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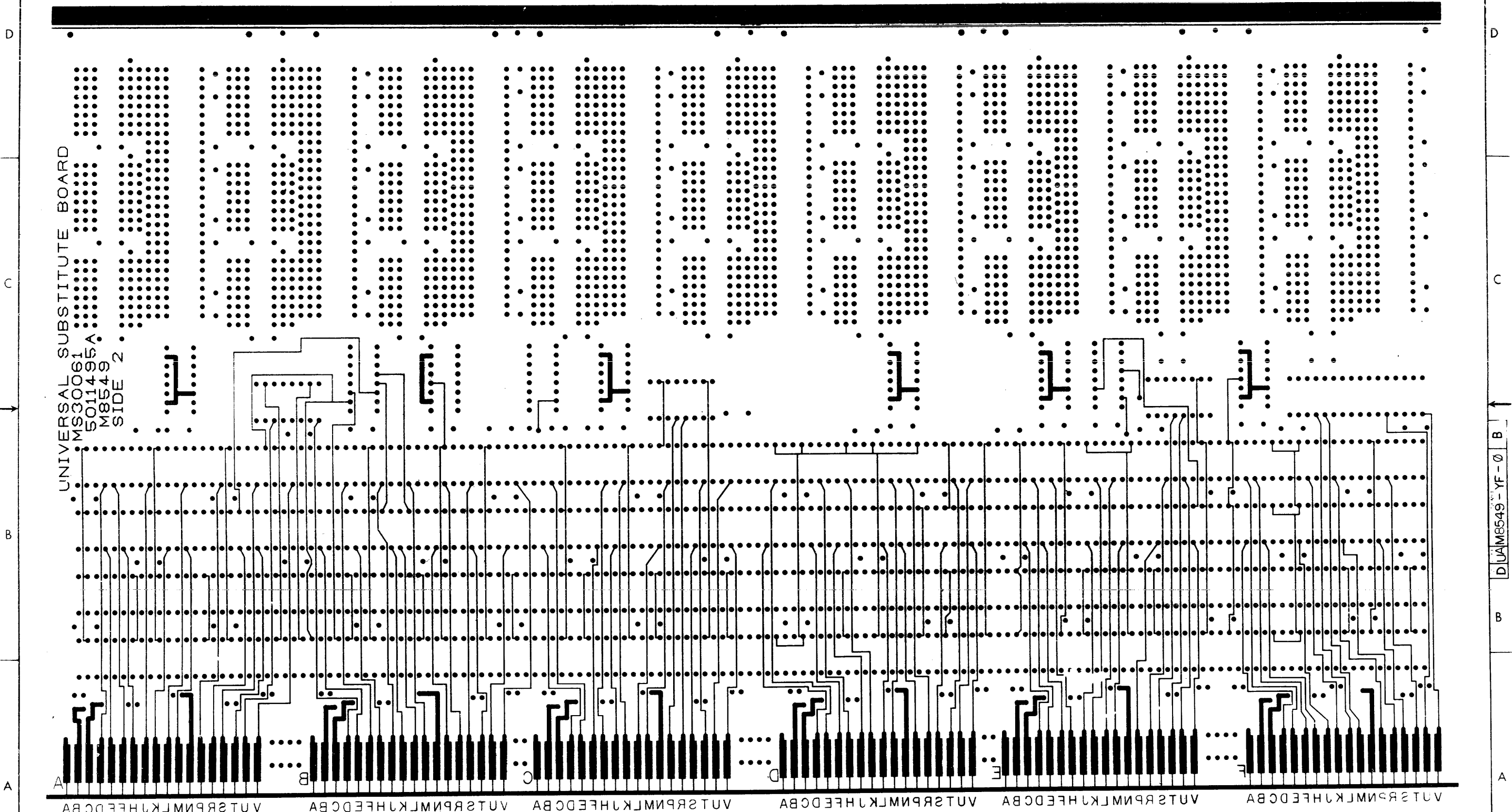
D UAM8549 - YF - 0 2

MR 1

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LAYER 4

UNIVERSAL SUBSTITUTE BOARD  
 MS30061  
 5011495A  
 M8549  
 SIDE 2



VUTSRPNMLKJHFE DCBA VUTSRPNMLKJHFE DCBA VUTSRPNMLKJHFE DCBA VUTSRPNMLKJHFE DCBA VUTSRPNMLKJHFE DCBA VUTSRPNMLKJHFE DCBA

LAYER 4

REVISIONS		
NO.	CHANGE I.D.	REV.

TITLE	CACHE EXTENSION SUBSTITUTE BD.	SIZE CODE	D UAM8549 - YF - 0	NUMBER	B
SCALE	SHEET 3 OF 4	DIST.			

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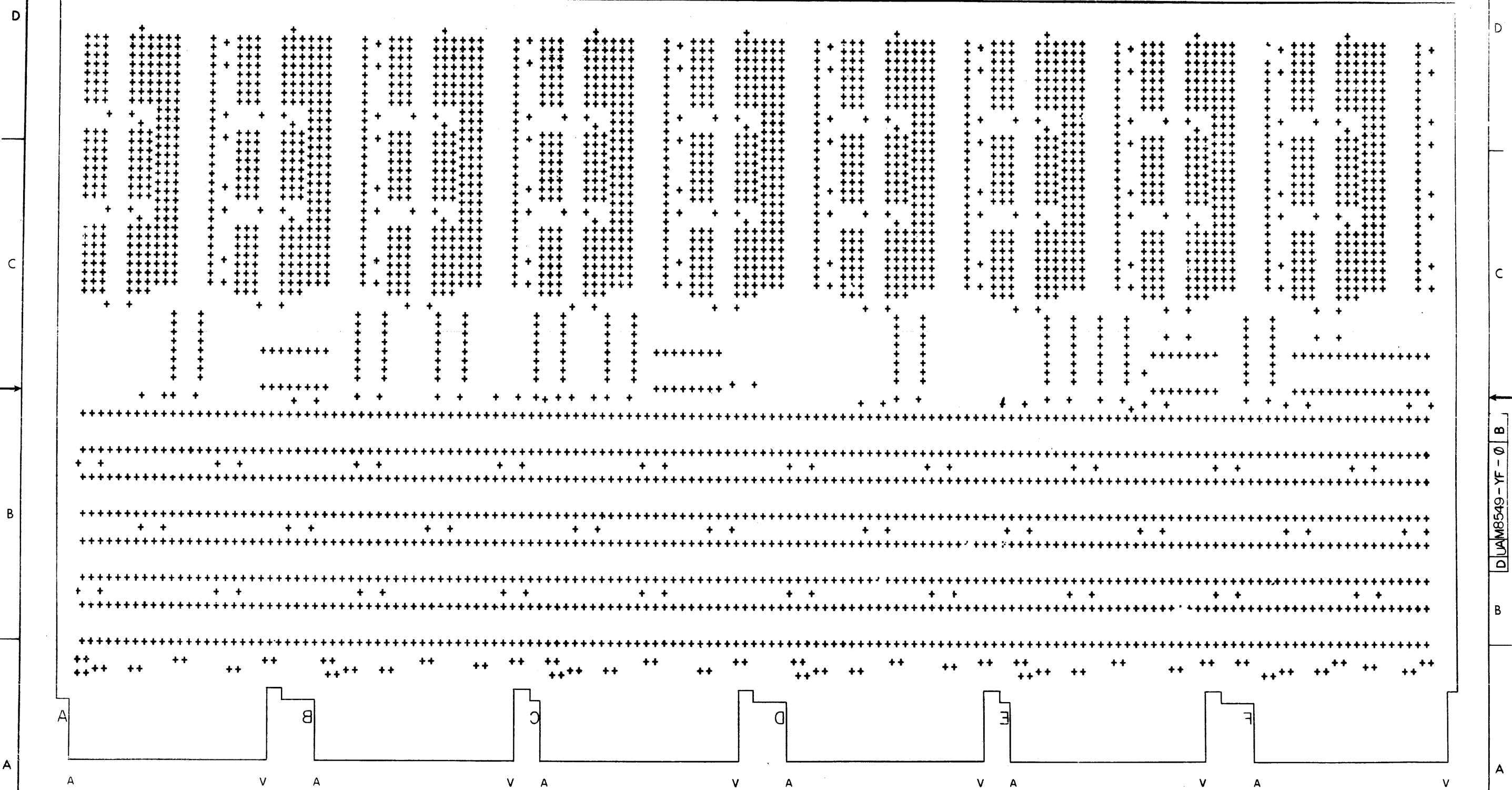
4

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D UAM8549-YF-0 2

1 MR

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DATE: 10/17/58



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	CACHE EXTENSION SUBSTITUTE BD.	SIZE CODE	D UAM8549-YF-0	NUMBER	1	REV.	B
SCALE	1" = 1"	SHEET	4	OF	4	DIST.	

D UAM8549-YF-0 B

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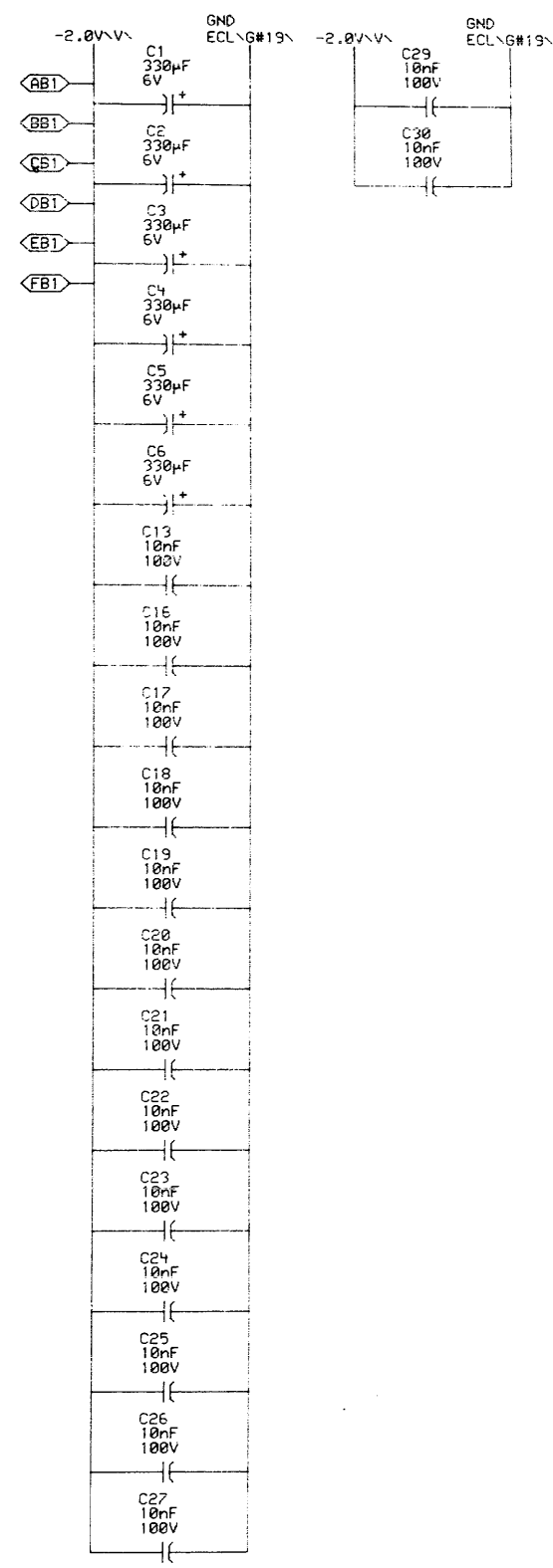
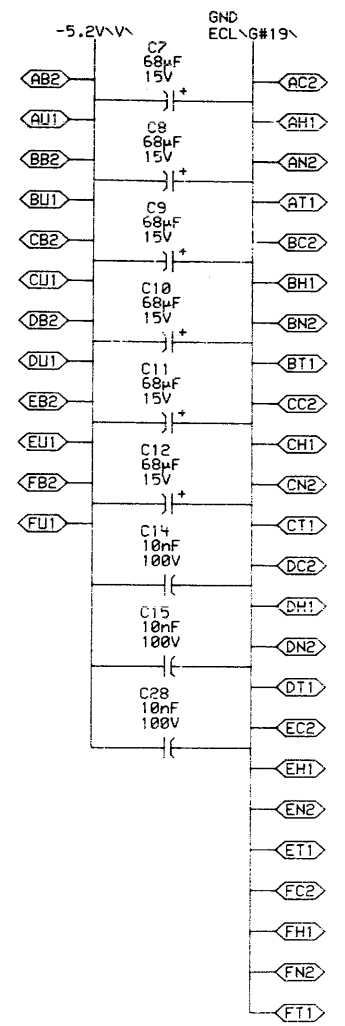
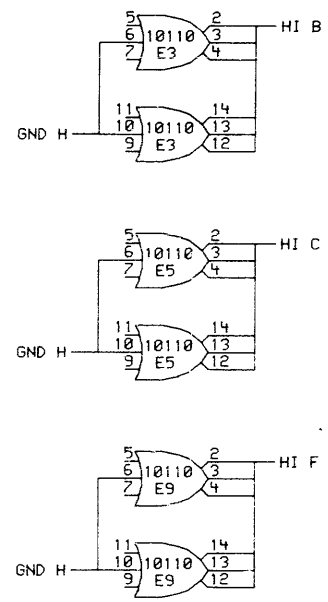
2

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- CL2 CAM SEL 1 H R3
- BU2 CAM SEL 2 H R1
- DF1 PT 14B H R8
- DE2 PT 15B H R7
- CN1 PT 16B H R5
- CR1 PT 17B H R6
- DP2 PT 18B H R11
- DP1 PT 19B H R12
- DJ2 PT 20B H R9
- DK2 PT 21B H R10
- ES1 PT 22B H R16
- ER2 PT 23B H R15
- ED2 PT 24B H R13
- EM2 PT 25B H R14
- FL1 PT 26B H R19
- CP2 CSH 0 VALID MATCH H R4
- CM2 CSH 0 VALID MATCH L W2 HI C
- CJ2 CSH 1 VALID MATCH H R2
- BS2 CSH 1 VALID MATCH L W1 HI B
- FE2 CSH 2 VALID MATCH H R17
- FF2 CSH 2 VALID MATCH L W4 HI F
- ET2 CSH 3 VALID MATCH H R18
- FA1 CSH 3 VALID MATCH L W3 HI F
- AM2 CSH REFILL RAM WR L R20
- FH2 CSH ADR PAR BAD L W5 HI F



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES  
 GND -5.2 MANUFACTURER'S PART NUMBER  
 1 8 ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED  
 15 8 10110 & 10210  
 16 8 10158 & 10173  
 2. THE FOLLOWING PINS ARE NC:  
 AA2 AV1  
 BA2 BV1  
 CA2 CV1  
 DA2 DV1  
 EA2 EA1  
 FA2 FV1

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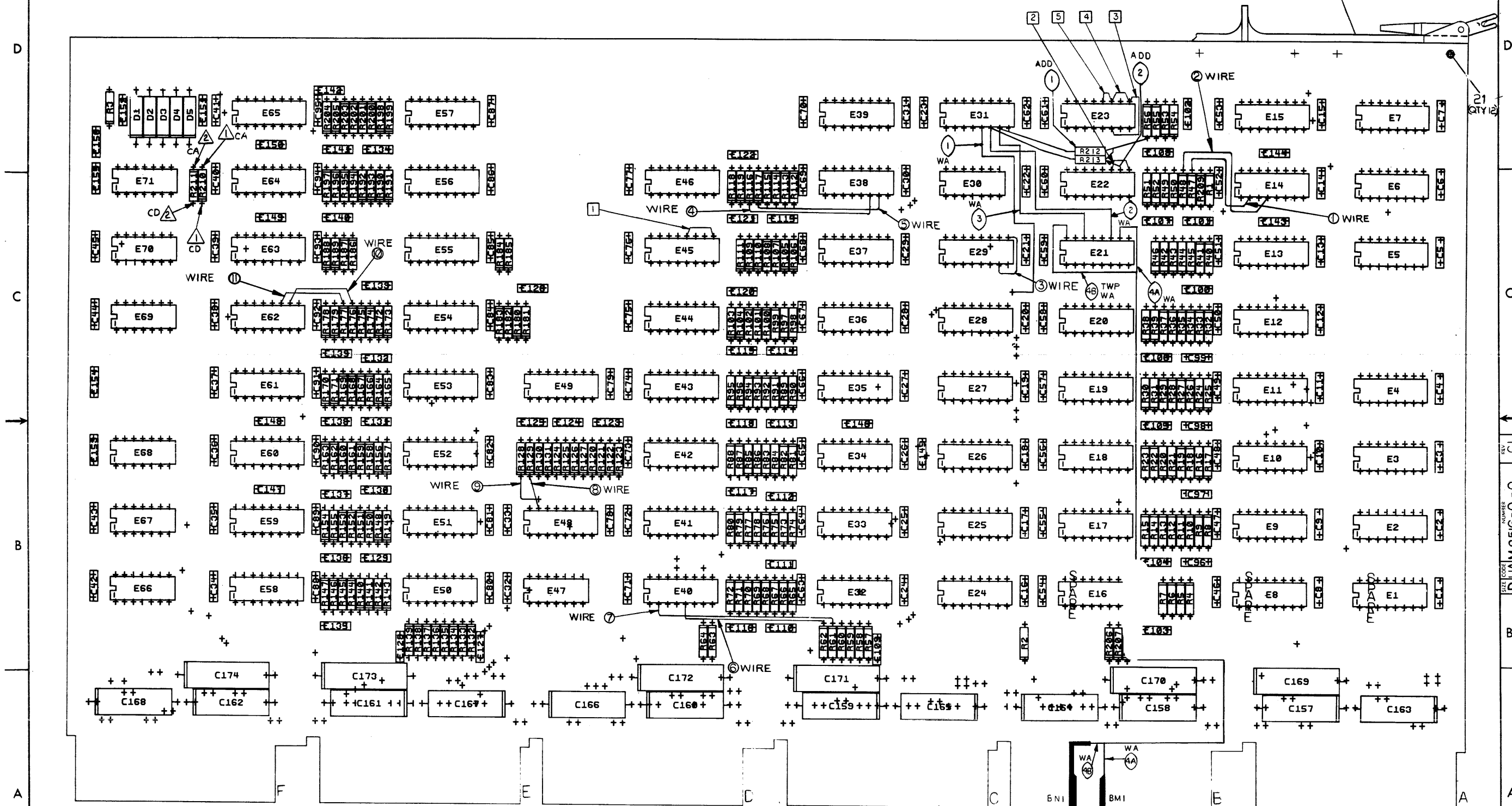
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN.	DATE	ENG.	DATE	TITLE:
	CHK'D.	DATE	BOARD LOCATION:	SHEET	OF
CHXS1[4,121]		20-FEB-75 23:16	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8549-YF	D	CS	M8549-YF-CHXS

REV. 1  
 NUMBER 3300  
 CODE 3215  
 5XHO-JA-6458W



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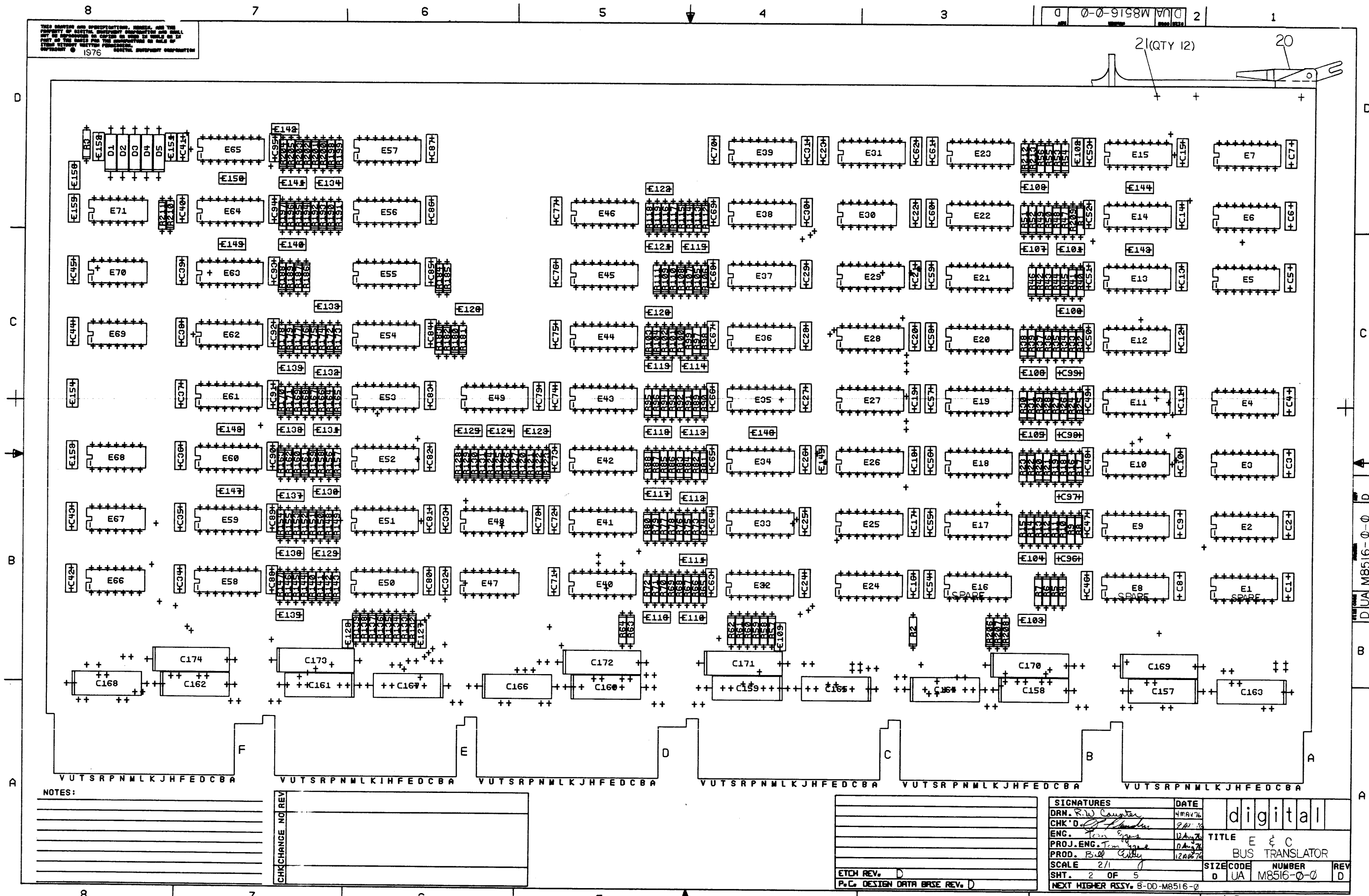
VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	E+C BUS TRANSLATOR	SIZE CODE	D U A M 8516-0-0	NUMBER	2	REV.	CI
SCALE	2/1	SHEET	2	OF	5	DIST.	



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SIGNATURES		DATE	digital
DRN. R.W. Causton		4/18/76	
CHK'D. J. [Signature]		7/21/76	
ENG. [Signature]		12/22/76	
PROJ. ENG. [Signature]		12/22/76	
PROD. [Signature]		12/22/76	
SCALE 2/1			TITLE E & C BUS TRANSLATOR
SHT. 2 OF 5			SIZE CODE NUMBER REV D UA M8516-0-0 D
NEXT HIGHER ASSY. B-DD-M8516-0			

NOTES:

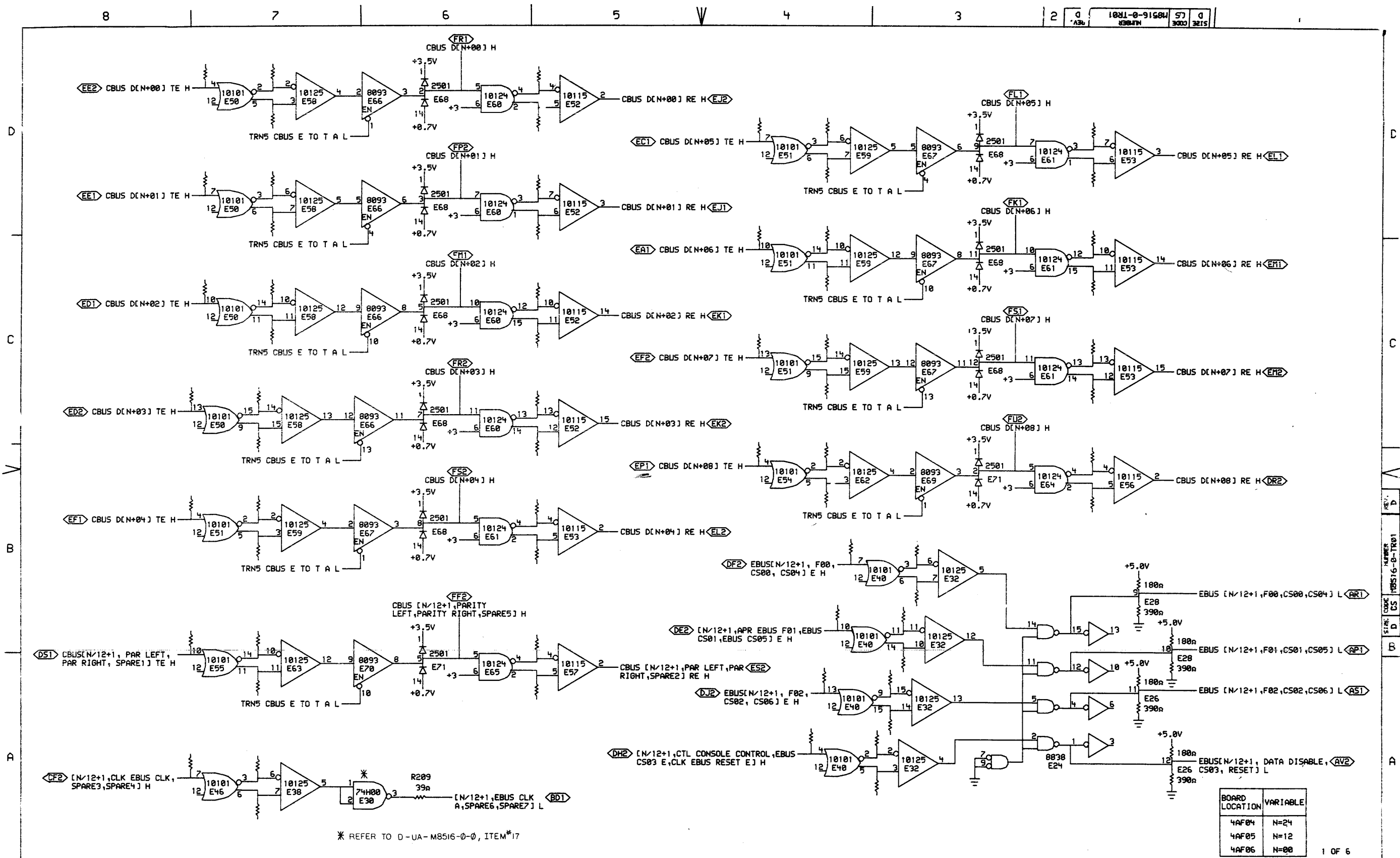
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CHK	CHANGE NO	REV



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REVISIONS		
CHK	CHANGE NO.	REV
	00004	D
REVISED & REDRAWN.		

digital  
 TRNEX DRU(4,12)  
 FIRST USED ON OPTION/MODEL: KL10

DATE: 28-JUL-76  
 DATE: 18-JUL-76  
 DATE: 10-SEP-76  
 BOARD LOCATION: 18-DD-M8516-0

TITLE: E & C BUS TRANSLATOR  
 SIZE CODE: D/CS  
 NUMBER: M8516-0-TR01  
 REV. D

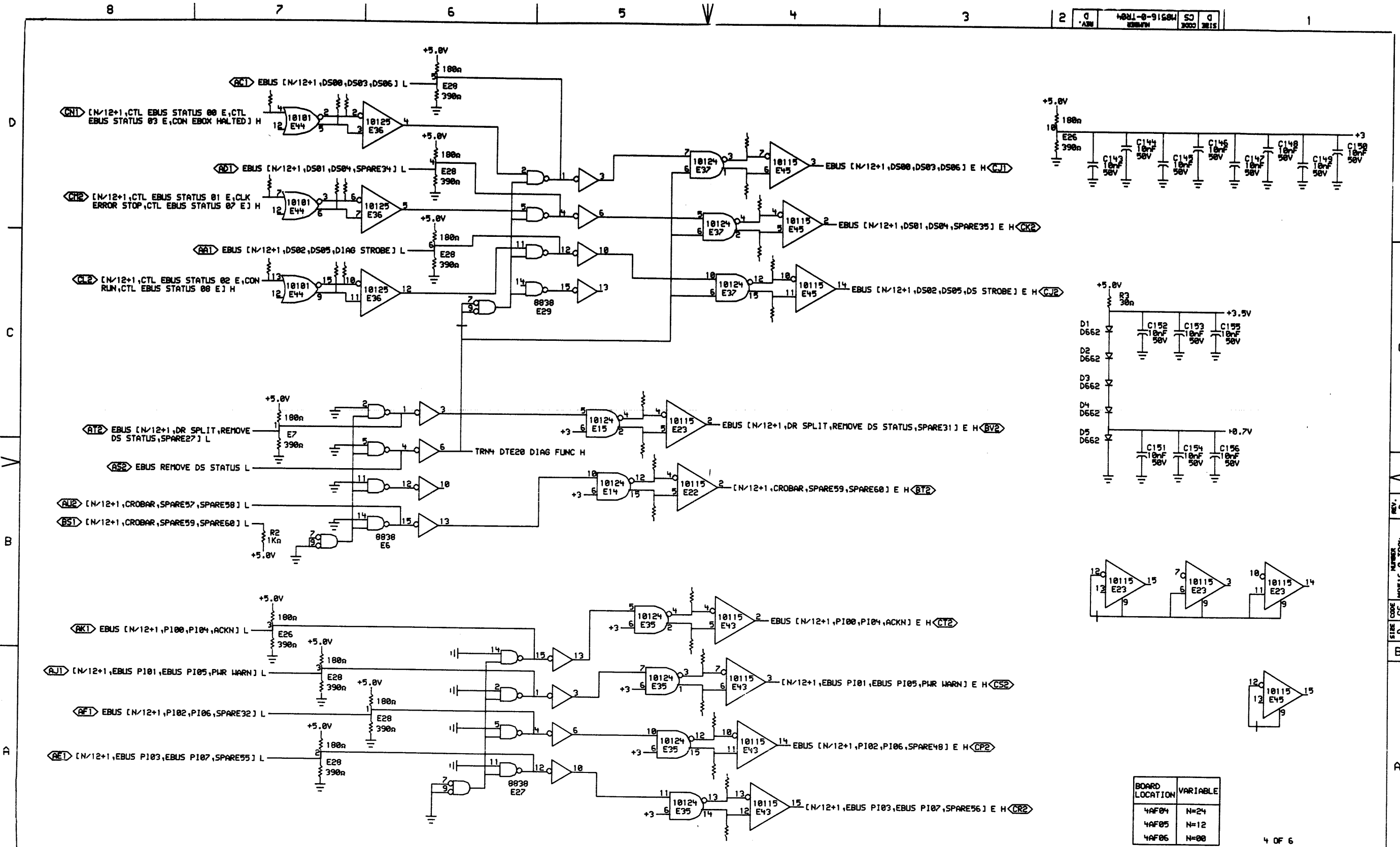
BOARD LOCATION	VARIABLE
4AF04	N=24
4AF05	N=12
4AF06	N=00

REV. D  
 NUMBER: M8516-0-TR01  
 SIZE CODE: CS









BOARD LOCATION	VARIABLE
4AF04	N=24
4AF05	N=12
4AF06	N=00

4 OF 6

REVISIONS		
CHK	CHANGE NO.	REV
27	00004	D
REVISED & RE-DRAWN		

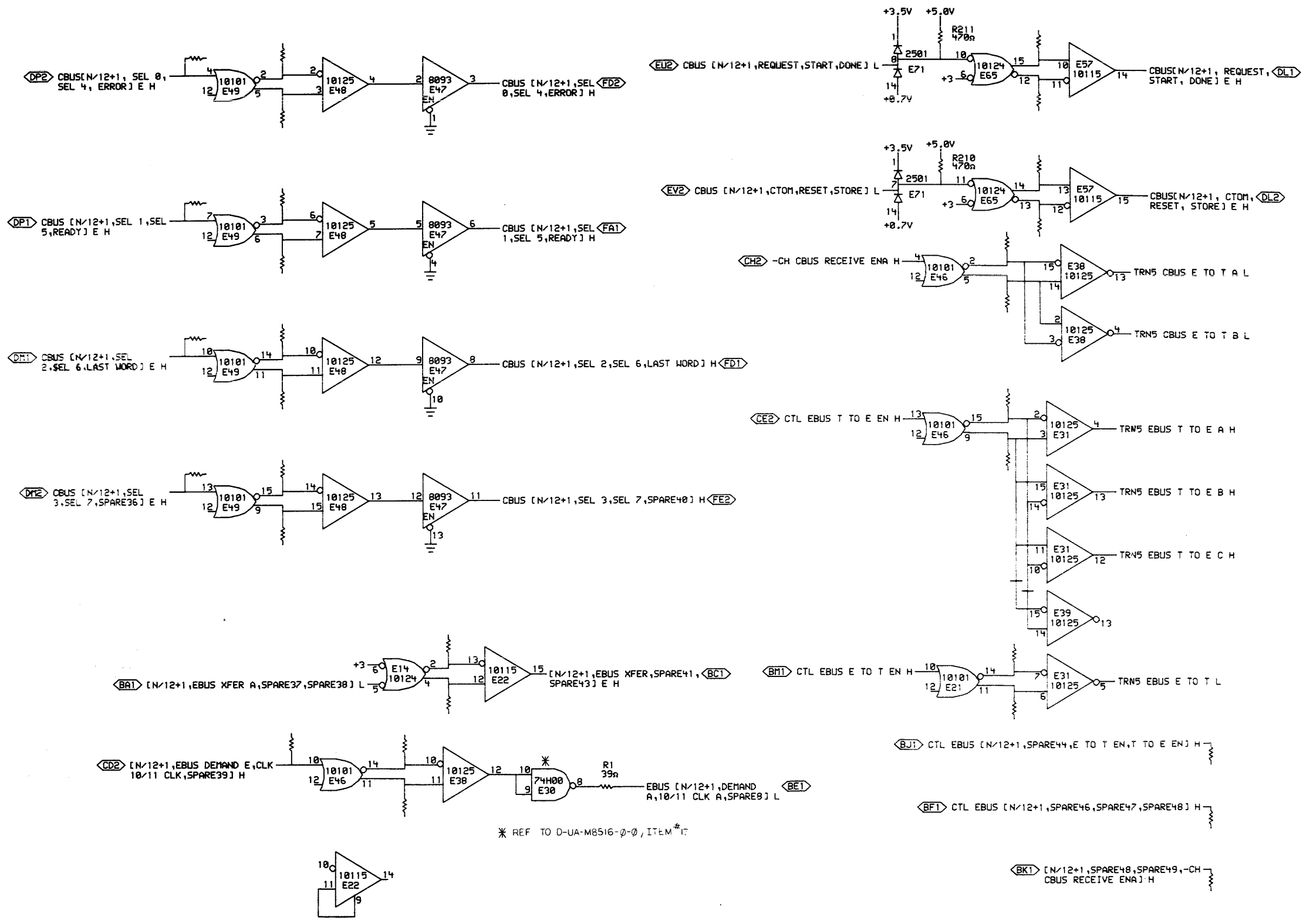
digital

DATE: 19-JUL-76 ENG: *lyga* DATE: 20-JUL-76 TITLE: E & C BUS TRANSLATOR

DATE: 20-JUL-76 BOARD LOCATION: B-DD-M8516-0

TRN4EX.DRW(4,12) 18-JUL-76 17:18 NEXT HIGHER ASSEMBLY: SIZE CODE NUMBER REV. D CS M8516-0-TR04 D

67

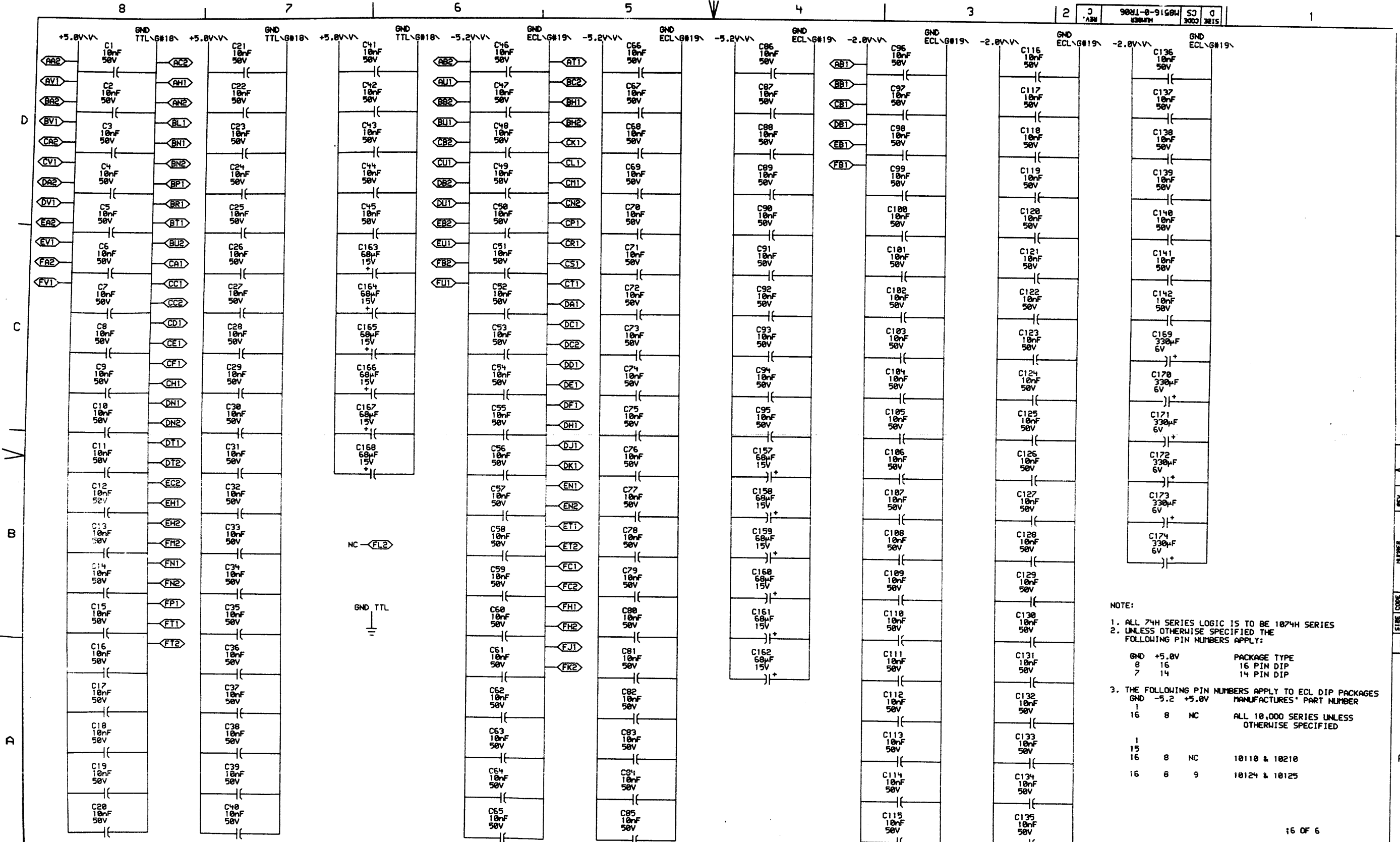


BOARD LOCATION	VARIABLE
4AF04	N=24
4AF05	N=12
4AF06	N=00

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REVISIONS	
CHK	CHANGE NO. REV
	00004 D
	REVISED & REDRAWN

digital	DATE	19-JUL-76	ENG	ggs	DATE	20-JUL-76	TITLE:	E & C BUS TRANSLATOR
	CHK'D	ggs	DATE	20-JUL-76	SHEET	1 OF 1	BOARD LOCATION:	
TRNSEX.DRAW 4,121	18-JUL-76	17:20	NEXT HIGHER ASSEMBLY:	B-DD-M8516-0	SIZE	CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL:	KL10				D	CS	M8516-0-TR05	D



NOTE:

- ALL 74H SERIES LOGIC IS TO BE 1074H SERIES
- UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY:
 

GND	+5.0V	PACKAGE TYPE
8	16	16 PIN DIP
7	14	14 PIN DIP
- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES
 

GND	-5.2	+5.0V	MANUFACTURER'S PART NUMBER		
1	16	8	NC	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED	
1	15	16	8	NC	10110 & 10210
1	16	8	9		10124 & 10125

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REVISIONS		
CHK	CHANGE NO.	REV
	00004	D
REVISED & REDRAWN		

<b>digital</b>	DATE	19-11-76	ENG	ygnd	DATE	20-11-76	TITLE:	E & C BUS TRANS
	DATE	20-11-76	DATE	20-11-76	BOARD LOCATION:		POWER, GND, CAPS	
TRNEX.DRAW 4,121		18-JUL-76 17:21		NEXT HIGHER ASSEMBLY:		SIZE	CODE	NUMBER
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8516-0				D	CS	M8516-0-TR06

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C  
B  
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RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R31(1)	TR03	C5	68n	%E11(1)	R07(1)	TR03	D2	68n	%E34(15)	R114(1)	TR05	A6	68n	%E46(11)	R187(1)	TR01	A7	68n	%E55(11)
R29(1)	TR03	D5	68n	%E11(12)	R06(1)	TR03	C2	68n	%E34(2)	R115(1)	TR05	A6	68n	%E46(14)	R186(1)	TR01	A7	68n	%E55(14)
R26(1)	TR03	D5	68n	%E11(13)	R03(1)	TR03	C2	68n	%E34(3)	R56(1)	TR05	C3	68n	%E46(15)	R189(1)	TR02	C4	68n	%E55(3)
R27(1)	TR03	D5	68n	%E11(14)	R05(1)	TR03	C2	68n	%E34(4)	R112(1)	TR05	C3	68n	%E46(2)	R180(1)	TR02	B4	68n	%E55(6)
R28(1)	TR03	D5	68n	%E11(15)	R96(1)	TR04	A4	68n	%E35(1)	R116(1)	TR01	A7	68n	%E46(3)	R160(1)	TR01	D5	68n	%E60(1)
R24(1)	TR03	C5	68n	%E11(2)	R91(1)	TR04	A4	68n	%E35(12)	R113(1)	TR05	C3	68n	%E46(5)	R159(1)	TR01	C5	68n	%E60(13)
R30(1)	TR03	C5	68n	%E11(3)	R93(1)	TR04	A4	68n	%E35(13)	R117(1)	TR01	A7	68n	%E46(6)	R162(1)	TR01	C5	68n	%E60(13)
R25(1)	TR03	C5	68n	%E11(4)	R94(1)	TR04	A4	68n	%E35(14)	R55(1)	TR05	C3	68n	%E46(9)	R163(1)	TR01	C5	68n	%E60(14)
R43(1)	TR03	A2	68n	%E14(1)	R92(1)	TR04	A4	68n	%E35(15)	R122(1)	TR05	C7	68n	%E49(11)	R150(1)	TR01	C5	68n	%E60(15)
R51(1)	TR04	B5	68n	%E14(12)	R09(1)	TR04	B5	68n	%E35(2)	R123(1)	TR05	C7	68n	%E49(14)	R157(1)	TR01	D5	68n	%E60(2)
R52(1)	TR04	B5	68n	%E14(15)	R95(1)	TR04	A4	68n	%E35(3)	R120(1)	TR05	B7	68n	%E49(15)	R161(1)	TR01	D5	68n	%E60(3)
R47(1)	TR05	B6	68n	%E14(2)	R90(1)	TR04	B5	68n	%E35(4)	R130(1)	TR05	D7	68n	%E49(2)	R156(1)	TR01	D5	68n	%E60(4)
R50(1)	TR03	A2	68n	%E14(3)	R109(1)	TR04	D4	68n	%E37(1)	R120(1)	TR05	D7	68n	%E49(3)	R170(1)	TR01	D2	68n	%E61(1)
R40(1)	TR05	B6	68n	%E14(4)	R108(1)	TR04	C4	68n	%E37(12)	R131(1)	TR05	D7	68n	%E49(5)	R160(1)	TR01	C2	68n	%E61(12)
R53(1)	TR04	C5	68n	%E15(2)	R107(1)	TR04	C4	68n	%E37(15)	R121(1)	TR05	C7	68n	%E49(6)	R167(1)	TR01	C2	68n	%E61(13)
R54(1)	TR04	C5	68n	%E15(4)	R105(1)	TR04	C4	68n	%E37(2)	R129(1)	TR05	B7	68n	%E49(9)	R166(1)	TR01	C2	68n	%E61(14)
R19(1)	TR03	B7	68n	%E18(11)	R111(1)	TR04	D4	68n	%E37(3)	R144(1)	TR01	C7	68n	%E50(11)	R169(1)	TR01	C2	68n	%E61(15)
R18(1)	TR03	B7	68n	%E18(14)	R106(1)	TR04	D4	68n	%E37(4)	R145(1)	TR01	C7	68n	%E50(14)	R165(1)	TR01	B5	68n	%E61(2)
R23(1)	TR03	B7	68n	%E18(15)	R58(1)	TR01	B3	68n	%E40(11)	R146(1)	TR01	C7	68n	%E50(15)	R171(1)	TR01	D2	68n	%E61(3)
R20(1)	TR03	B7	68n	%E18(2)	R57(1)	TR01	A3	68n	%E40(14)	R142(1)	TR01	D7	68n	%E50(2)	R164(1)	TR01	B5	68n	%E61(4)
R17(1)	TR03	A7	68n	%E18(3)	R66(1)	TR01	A3	68n	%E40(15)	R141(1)	TR01	D7	68n	%E50(3)	R195(1)	TR02	B5	68n	%E64(12)
R21(1)	TR03	A7	68n	%E18(5)	R61(1)	TR01	A3	68n	%E40(2)	R143(1)	TR01	D7	68n	%E50(5)	R196(1)	TR02	D3	68n	%E64(13)
R16(1)	TR03	A7	68n	%E18(6)	R59(1)	TR01	B3	68n	%E40(3)	R140(1)	TR01	D7	68n	%E50(6)	R197(1)	TR02	D3	68n	%E64(14)
R22(1)	TR03	B7	68n	%E18(9)	R62(1)	TR01	A3	68n	%E40(5)	R147(1)	TR01	C7	68n	%E50(9)	R194(1)	TR02	B5	68n	%E64(15)
R34(1)	TR03	D7	68n	%E20(11)	R60(1)	TR01	B3	68n	%E40(6)	R150(1)	TR01	C4	68n	%E51(11)	R192(1)	TR01	B2	68n	%E64(2)
R35(1)	TR03	D7	68n	%E20(14)	R65(1)	TR01	A3	68n	%E40(9)	R151(1)	TR01	C4	68n	%E51(14)	R190(1)	TR02	C5	68n	%E64(3)
R32(1)	TR03	D7	68n	%E20(15)	R79(1)	TR03	D4	68n	%E41(11)	R152(1)	TR01	C4	68n	%E51(15)	R193(1)	TR01	B2	68n	%E64(4)
R36(1)	TR03	C7	68n	%E20(2)	R00(1)	TR03	D4	68n	%E41(14)	R148(1)	TR01	B7	68n	%E51(2)	R199(1)	TR02	B3	68n	%E65(1)
R38(1)	TR03	C7	68n	%E20(3)	R75(1)	TR03	D4	68n	%E41(15)	R155(1)	TR01	D4	68n	%E51(3)	R202(1)	TR05	D3	68n	%E65(12)
R37(1)	TR03	C7	68n	%E20(5)	R74(1)	TR03	C4	68n	%E41(2)	R149(1)	TR01	B7	68n	%E51(5)	R201(1)	TR05	C3	68n	%E65(13)
R39(1)	TR03	C7	68n	%E20(6)	R77(1)	TR03	C4	68n	%E41(3)	R154(1)	TR01	D4	68n	%E51(6)	R200(1)	TR05	D3	68n	%E65(14)
R33(1)	TR03	D7	68n	%E20(9)	R73(1)	TR03	C4	68n	%E41(5)	R153(1)	TR01	C4	68n	%E51(9)	R203(1)	TR05	D3	68n	%E65(15)
R213(1)	TR05	B3	68n	%E21(11)	R78(1)	TR03	C4	68n	%E41(6)	R177(1)	TR02	B7	68n	%E54(11)	R204(1)	TR01	A5	68n	%E65(2)
R212(1)	TR05	B3	68n	%E21(14)	R76(1)	TR03	C4	68n	%E41(9)	R176(1)	TR02	B7	68n	%E54(14)	R190(1)	TR02	C3	68n	%E65(3)
R40(1)	TR03	A4	68n	%E21(3)	R102(1)	TR04	C7	68n	%E44(15)	R175(1)	TR02	D4	68n	%E54(15)	R205(1)	TR01	A5	68n	%E65(4)
R41(1)	TR03	A4	68n	%E21(6)	R100(1)	TR04	D7	68n	%E44(2)	R179(1)	TR01	B4	68n	%E54(3)	R6(1)	TR03	A5	68n	%E9(1)
R04(1)	TR03	B2	68n	%E34(1)	R97(1)	TR04	D7	68n	%E44(3)	R172(1)	TR02	C7	68n	%E54(5)	R11(1)	TR03	B5	68n	%E9(12)
R08(1)	TR03	D2	68n	%E34(12)	R99(1)	TR04	D7	68n	%E44(5)	R178(1)	TR01	B4	68n	%E54(6)	R0(1)	TR03	B5	68n	%E9(13)
R81(1)	TR03	D2	68n	%E34(13)	R98(1)	TR04	D7	68n	%E44(6)	R173(1)	TR02	C7	68n	%E54(9)	R9(1)	TR03	B5	68n	%E9(14)
R02(1)	TR03	C2	68n	%E34(14)	R101(1)	TR04	C7	68n	%E44(9)	R174(1)	TR02	D4	68n	%E54(9)					

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

REV. D  
 NUMBER M8516-0-RES  
 SIZE CODE CS

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CHK	CHANGE NO.	REV
2	00004	D
REVISED & REDRAWN		

DRN.	DATE	ENG.	DATE	TITLE:
Smith	18-JUL-76	ggn	20-JUL-76	E & C BUS TRANS TERMINATORS
CHK'D	20-JUL-76			

M85161.RVDL4.4271	118-JUL-76 17:50	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL:	KL10	B-DD-M8516-0	D CS	M8516-0-RES	D

RESISTOR LOC(PIN)	SHOWN DRAW	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRAW	ON REF	VALUE	TERMINATES SIGNAL
R10K(1)	TR03	B5	60n	XE9K15)	R6K(1)	TR01	A4	60n	[N/12+1,CTL CONSOLE CONTROL,EBUS CS03 E,CLK EBUS RESET E] H
R5K(1)	TR03	A5	60n	XE9K2)	R4K(1)	TR03	A4	60n	[N/12+1,CTL EBUS PARITY OUT,EBUS SPARE19, EBUS SPARE20] E H
R7K(1)	TR03	A5	60n	XE9K3)	R10K(1)	TR04	D7	60n	[N/12+1,CTL EBUS STATUS 00 E,CTL EBUS STATUS 03 E,CON EBOX HALTED] H
R4K(1)	TR03	B5	60n	XE9K4)	R10K(1)	TR04	D7	60n	[N/12+1,CTL EBUS STATUS 01 E,CLK ERROR STOP,CTL EBUS STATUS 07 E] H
R130K(1)	TR01	D7	60n	CBUS D(N+00) TE H	R110K(1)	TR04	C7	60n	[N/12+1,CTL EBUS STATUS 02 E,CON RUN,CTL EBUS STATUS 00 E] H
R137K(1)	TR01	D7	60n	CBUS D(N+01) TE H	R119K(1)	TR05	A7	60n	[N/12+1,EBUS DEMAND E,CLK 10/11 CLK,SPARE39] H
R135K(1)	TR01	C7	60n	CBUS D(N+02) TE H	R206K(1)	TR05	A2	60n	[N/12+1,SPARE40,SPARE49,-CH CBUS RECEIVE ENA] H
R134K(1)	TR01	C7	60n	CBUS D(N+03) TE H					
R136K(1)	TR01	B7	60n	CBUS D(N+04) TE H					
R133K(1)	TR01	D4	60n	CBUS D(N+05) TE H					
R132K(1)	TR01	C4	60n	CBUS D(N+06) TE H					
R139K(1)	TR01	C4	60n	CBUS D(N+07) TE H					
R101K(1)	TR01	B4	60n	CBUS D(N+08) TE H					
R100K(1)	TR02	C7	60n	CBUS D(N+09) TE H					
R103K(1)	TR02	B7	60n	CBUS D(N+10) TE H					
R102K(1)	TR02	D5	60n	CBUS D(N+11) TE H					
R125K(1)	TR05	D7	60n	CBUS [N/12+1,SEL 1,SEL 5,READY] E H					
R127K(1)	TR05	C7	60n	CBUS [N/12+1,SEL 2,SEL 6,LAST WORD] E H					
R126K(1)	TR05	B7	60n	CBUS [N/12+1,SEL 3,SEL 7,SPARE36] E H					
R104K(1)	TR02	C5	60n	CBUS [N/12+1,SPARE10,SPARE11,SPARE12] TE H					
R105K(1)	TR01	A7	60n	CBUS[N/12+1, PAR LEFT, PAR RIGHT, SPARE1] TE H					
R124K(1)	TR05	D7	60n	CBUS[N/12+1, SEL 0, SEL 4, ERROR] E H					
R207K(1)	TR05	A2	60n	CTL EBUS [N/12+1,SPARE44,E TO T EN,T TO E EN] H					
R200K(1)	TR05	A2	60n	CTL EBUS [N/12+1,SPARE46,SPARE47,SPARE40] H					
R42K(1)	TR03	D0	60n	EBUS D(N+00) E H					
R46K(1)	TR03	D0	60n	EBUS D(N+01) E H					
R43K(1)	TR03	C0	60n	EBUS D(N+02) E H					
R44K(1)	TR03	C0	60n	EBUS D(N+03) E H					
R15K(1)	TR03	B0	60n	EBUS D(N+04) E H					
R14K(1)	TR03	B0	60n	EBUS D(N+05) E H					
R13K(1)	TR03	B0	60n	EBUS D(N+06) E H					
R12K(1)	TR03	A0	60n	EBUS D(N+07) E H					
R71K(1)	TR03	D4	60n	EBUS D(N+08) E H					
R72K(1)	TR03	D4	60n	EBUS D(N+09) E H					
R60K(1)	TR03	C4	60n	EBUS D(N+10) E H					
R67K(1)	TR03	C4	60n	EBUS D(N+11) E H					
R63K(1)	TR01	B4	60n	EBUS[N/12+1, F00, CS00, CS04] E H					
R69K(1)	TR01	A4	60n	EBUS[N/12+1, F02, CS02, CS06] E H					
R70K(1)	TR01	B4	60n	[N/12+1,APR EBUS F01,EBUS CS01,EBUS CS05] E H					
R110K(1)	TR01	A7	60n	[N/12+1,CLK EBUS CLK, SPARE3,SPARE4] 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. X INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER

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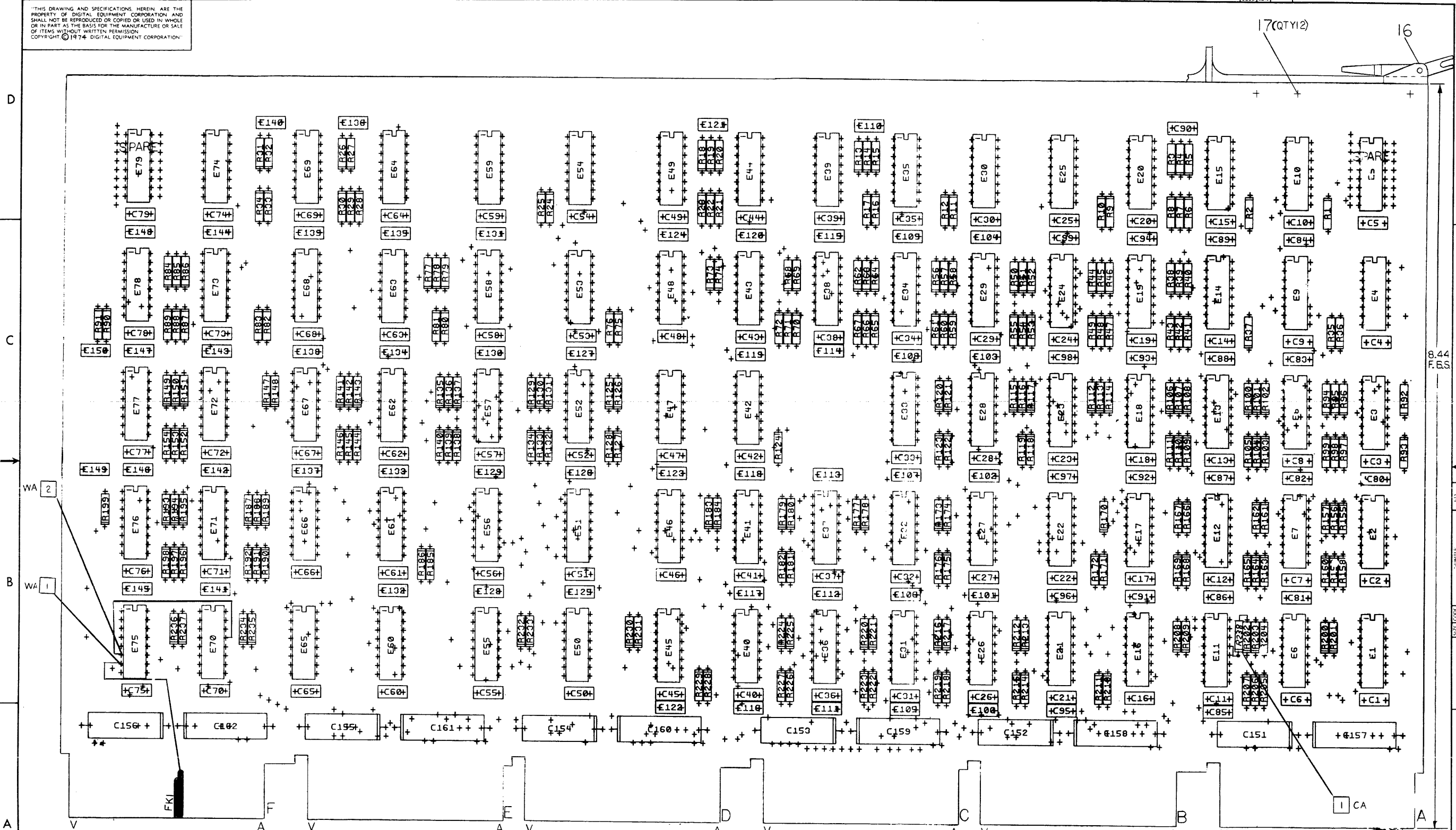
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>Smith</i>	DATE 10-JUL-76	ENG. <i>eggs</i>	DATE 20-JUL-76	TITLE: E & C BUS TRANS TERMINATORS
	CHK. <i>eggs</i>	DATE 20-JUL-76	BOARD LOCATION: SHEET 2 OF 2		
M85162.RVD(4,427)		118-JUL-76 17:50	NEXT HIGHER ASSEMBLY: B-DD-M8516-0	SIZE CODE D CS	NUMBER M8516-0-RES
FIRST USED ON OPTION/MODEL: KL10					REV. D

REV. D  
 NUMBER M8516-0-RES  
 CS  
 D

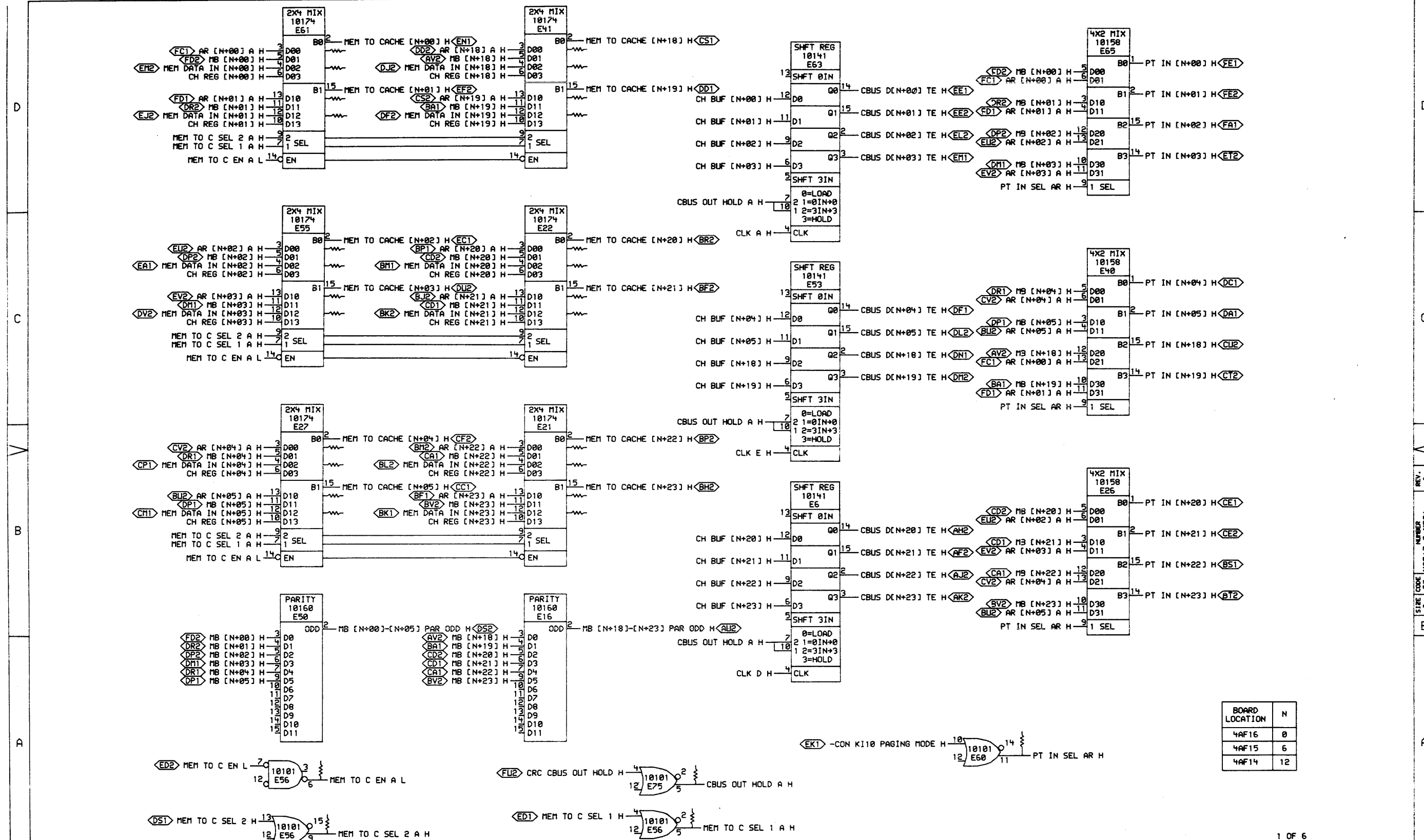


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TITLE	MEMORY BUFFER	SIZE CODE	DUA M8517-0-0	NUMBER		REV.	A
SCALE		SHEET	2 OF 5	DIST.			

REVISIONS		
CHK	CHANGE NO	REV



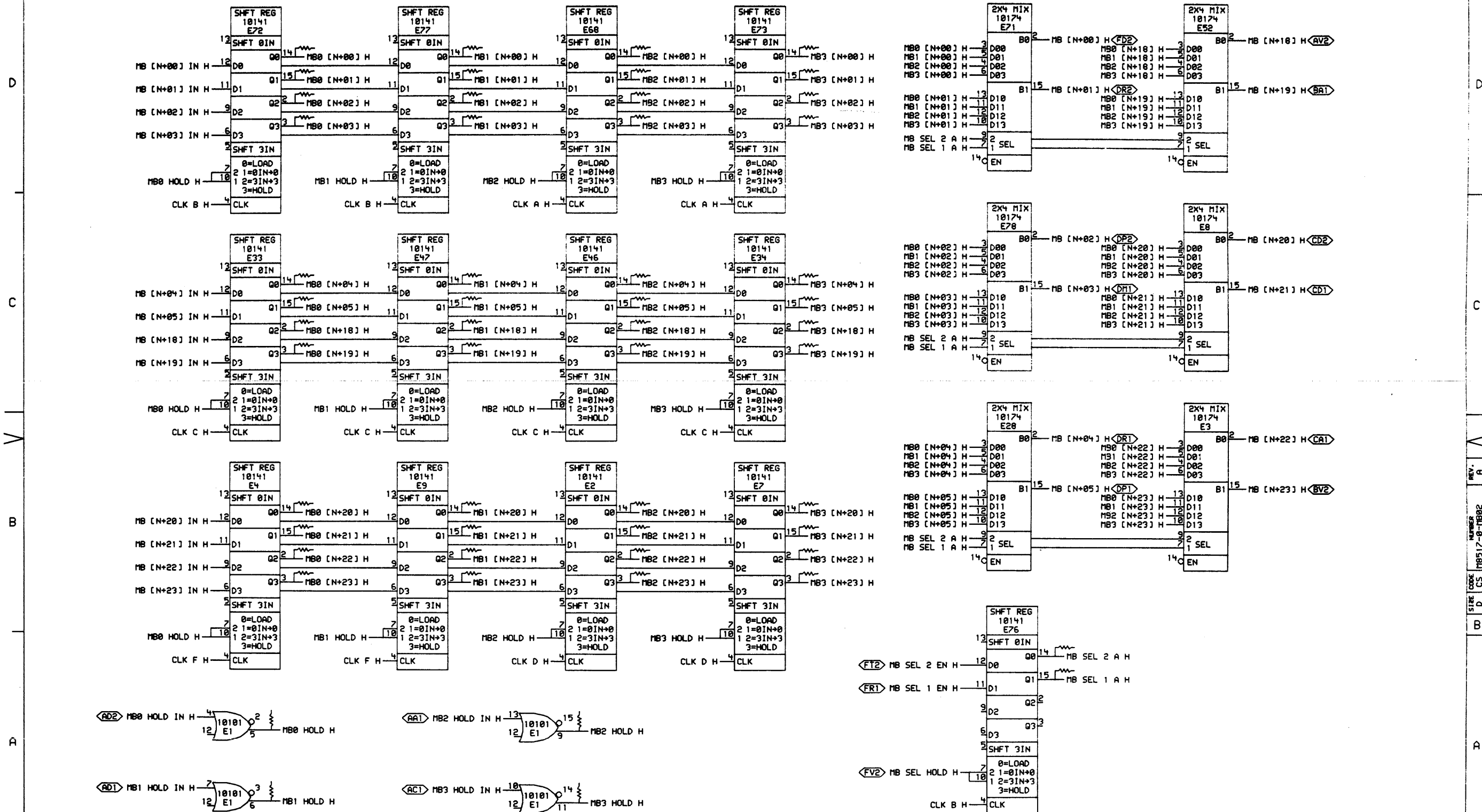
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REVISIONS		
CHK	CHANGE NO.	REV

DATE	ENG.	DATE	TITLE:
02-JUN-76	A.D. Allen	17 June 76	MB BOARD MEM TO C & PT IN MIX
DATE	BOARD LOCATION:	SHEET	OF
02-JUN-76	KL10	1	1
FIRST USED ON OPTION/MODEL:	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER
KL10	B-DD-M8517-0	D CS	M8517-0-MB01

REV.	A
NUMBER	M8517-0-MB01
SIZE CODE	D CS
NUMBER	M8517-0-MB01
REV.	A



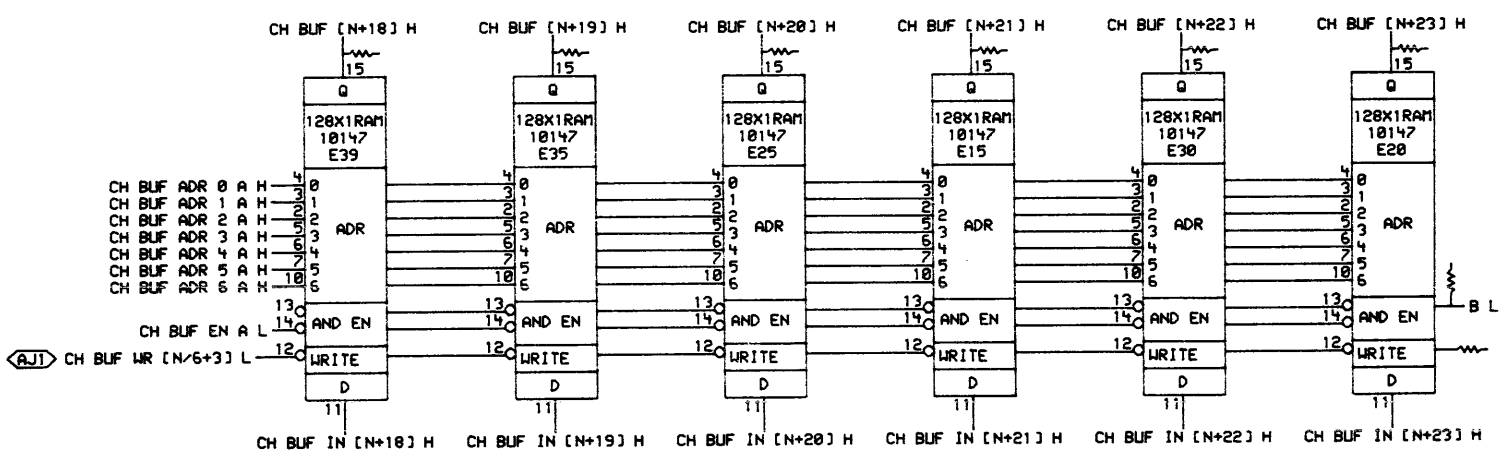
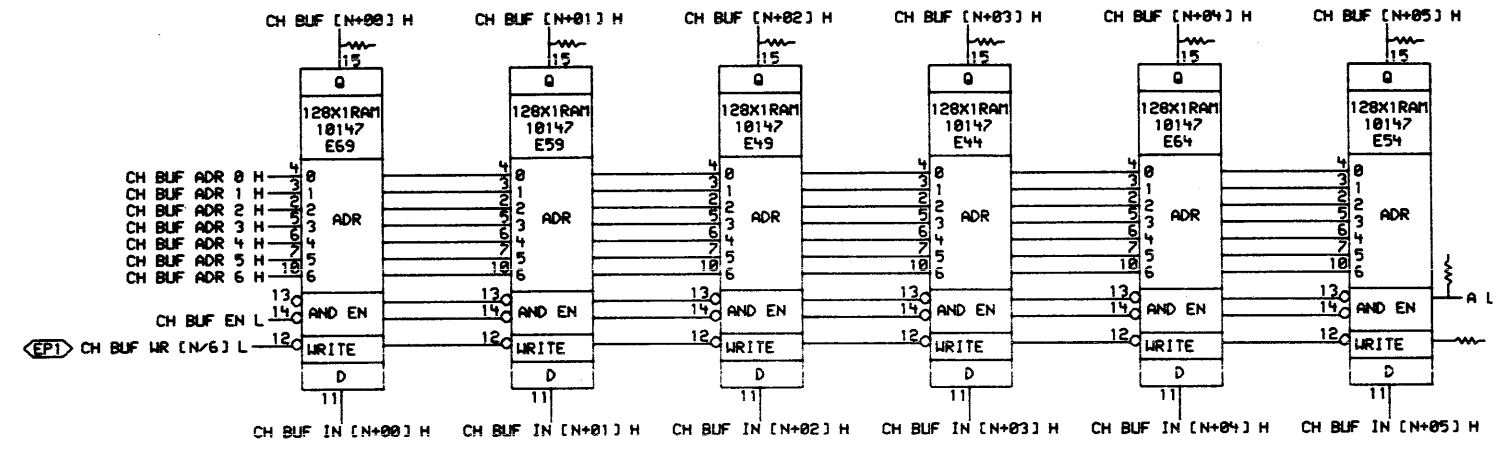
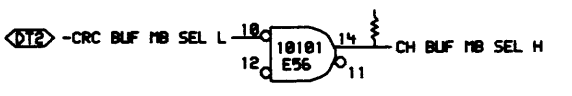
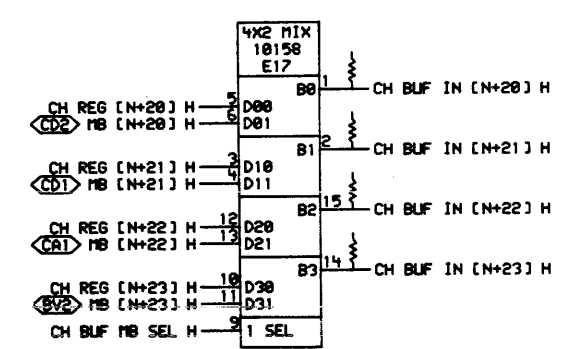
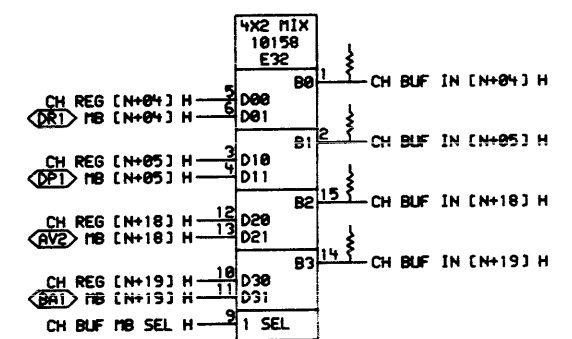
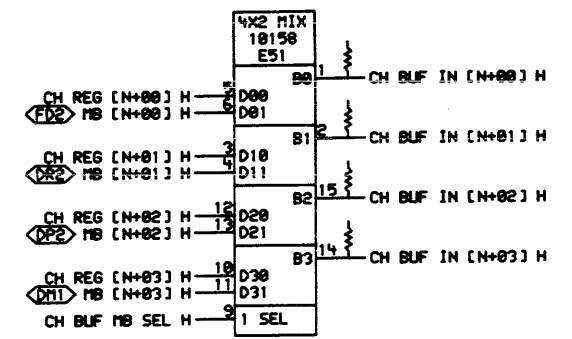


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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	83-JUN-76	J. J. Allen	7 Jun 76	MB BOARD MB'S & MB OUT MIXERS
	DATE	BOARD LOCATION:		
	26 MAY-76 17:28	1 OF 1		
MB2EX.DRW 4.1213		NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL:	KL10	B-DD-MB517-0	D	CS
			NUMBER	REV.
			M8517-0-MB02	A

75



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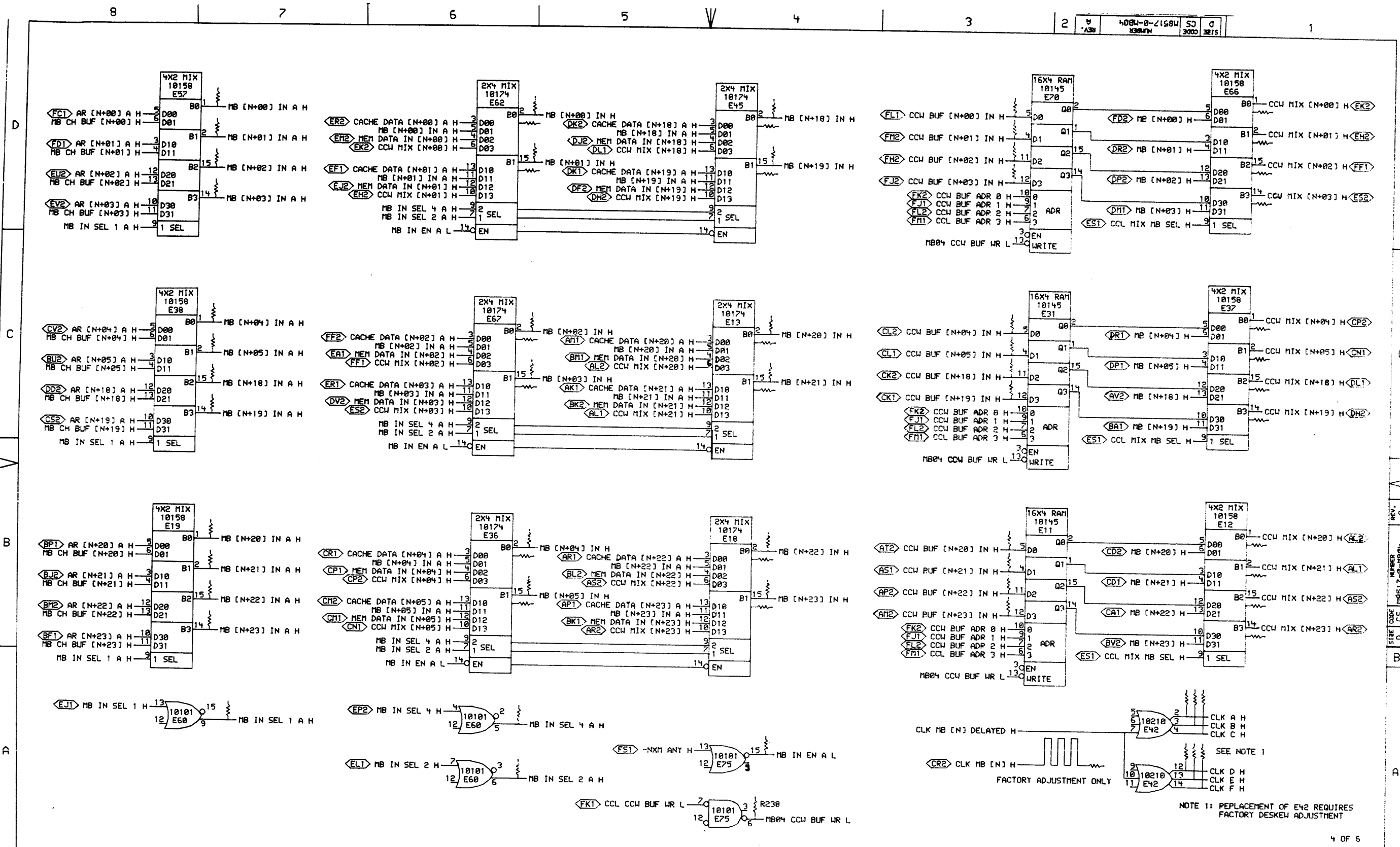
REVISIONS		
CHK	CHANGE NO.	REV
	M8517-00001	A
		7/10/76
		7/10/76

digital  
 MB3EX.DRL4.121  
 FIRST USED ON OPTION/MODEL: KL10

DATE 03-JUN-76  
 DATE 6/3/76  
 BOARD LOCATION: SHEET 1 OF 1  
 NEXT HIGHER ASSEMBLY: B-DD-M8517-0

TITLE: MB BOARD CH BUF MIXERS & RAMS  
 SIZE CODE D CS  
 NUMBER M8517-0-MB03  
 REV. A

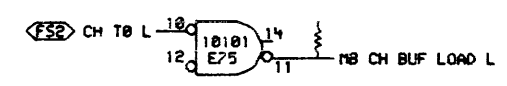
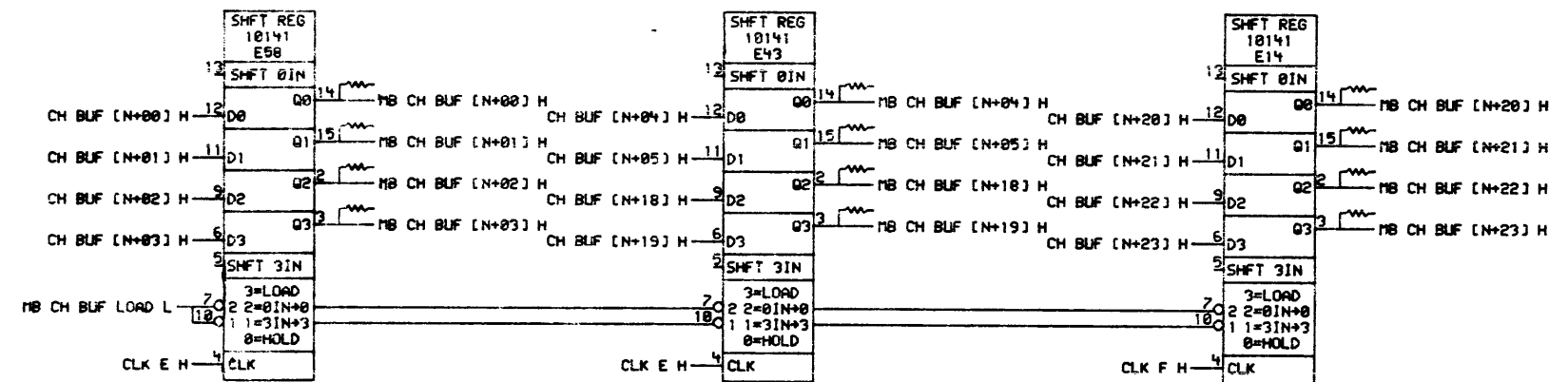
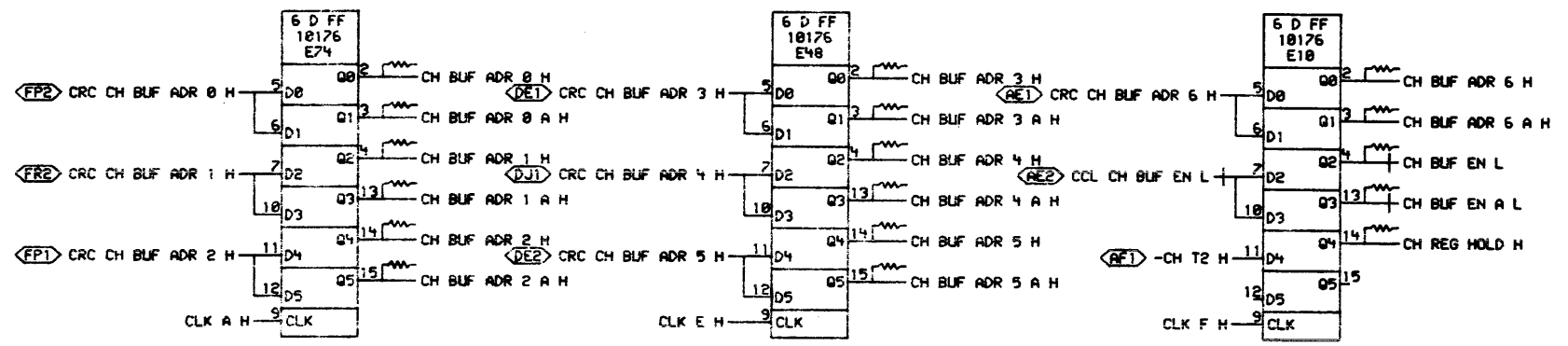
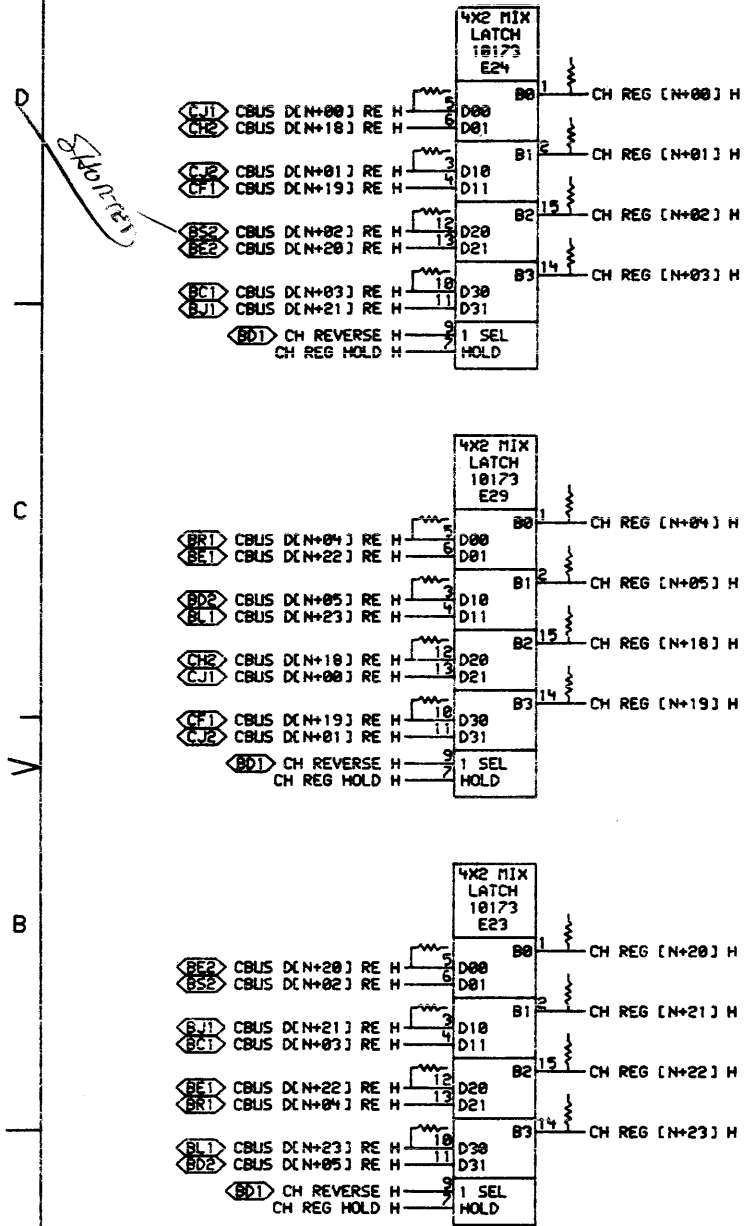
REV. A  
 NUMBER M8517-0-MB03  
 SIZE CODE CS  
 D



NOTE 1: REPLACEMENT OF E42 REQUIRES FACTORY DESKEW ADJUSTMENT

REVISIONS		
CHK	CHANGE NO.	REV

digit@l	DATE	ENG.	DATE	TITLE:
	08-JUN-76	J. Allen	8 Jun 76	MB BOARD CCW MIX & MB IN MIX
MB4EX.DRW(4,121)	DATE	BOARD LOCATION:	SHEET	OF
FIRST USED ON OPTION/MODEL:	08-JUN-76	B-DD-M8517-0	1	1
SIZE	CODE	NUMBER	REV.	
D	CS	M8517-0-MB04	A	



D  
 C  
 V  
 B  
 A

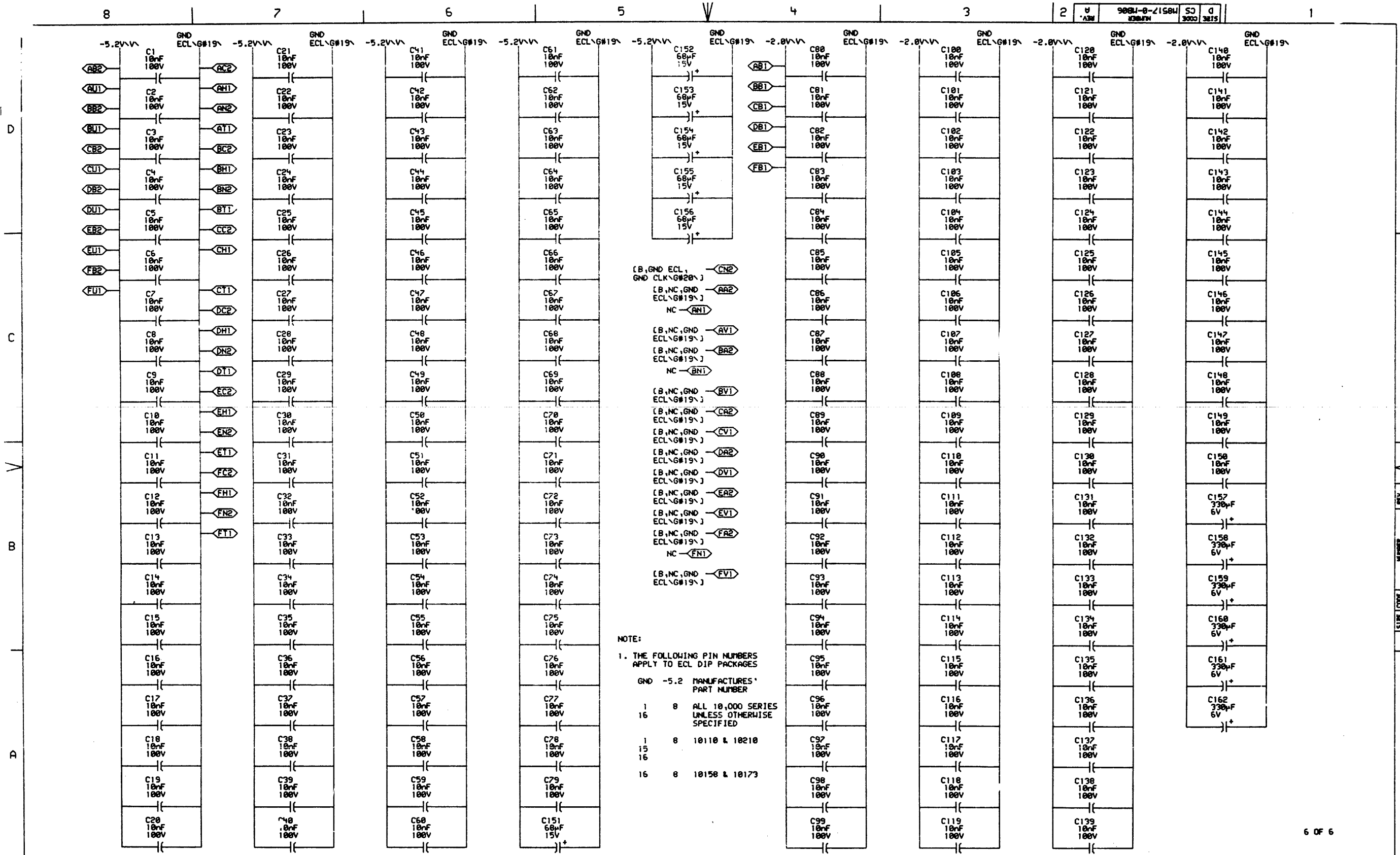
D  
 C  
 V  
 B  
 A

REV. A  
 NUMBER M8517-0-MB05  
 CS  
 D  
 B

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REVISIONS		
CHK	CHANGE NO.	REV
-	M8517-00001	A
7	10/11/76	7-2-76
T. B. GREGGERS		

	DATE: 02-10-76	ENG: J. O. Allen	DATE: 7 Jul 76	TITLE: MB BOARD CH BUF ADR & DATA INPUT
	DATE: 02/26	DATE: 02/26	DATE: 02/26	DATE: 02/26
FIRST USED ON OPTION/MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8517-0	SIZE CODE: D CS	NUMBER: M8517-0-MB05	REV. A



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CHK	CHANGE NO.	REV
	M8517-0001	A
	1	1
	2	1
	3	1
	4	1
	5	1
	6	1
	7	1
	8	1

REV.	DATE	ENG.	DATE	TITLE
1	07-JUN-76	A.D. Allen	7 JUN 76	MB BOARD POWER, GND, CAP
2	07-JUN-76			
3	07-JUN-76			
4	07-JUN-76			
5	07-JUN-76			
6	07-JUN-76			
7	07-JUN-76			
8	07-JUN-76			

digital

DATE: 07-JUN-76  
ENG: A.D. Allen  
DATE: 7 JUN 76

MBEX.DRAW(4,12) 124-MAY-76 10:08 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION MODEL: KL10 B-DD-M8517-0

SIZE CODE: D CS  
NUMBER: M8517-0-MB06  
REV. A

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
R168(1)	M804	B1	68n	%E11(1)	R54(1)	M805	D7	68n	CBUS D(N+02) RE H	R25(1)	M803	D7	68n	CH BUF IN [N+01] H	R199(1)	M804	A2	68n	CLK B H
R165(1)	M804	B1	68n	%E11(14)	R49(1)	M805	D7	68n	CBUS D(N+03) RE H	R18(1)	M803	D7	68n	CH BUF IN [N+02] H	R64(1)	M804	A2	68n	CLK C H
R164(1)	M804	B1	68n	%E11(15)	R50(1)	M805	C7	68n	CBUS D(N+04) RE H	R23(1)	M803	D7	68n	CH BUF IN [N+03] H	R201(1)	M804	A2	68n	CLK D H
R169(1)	M804	B1	68n	%E11(2)	R56(1)	M805	C7	68n	CBUS D(N+05) RE H	R20(1)	M803	C7	68n	CH BUF IN [N+04] H	R79(1)	M804	A2	68n	CLK E H
R181(1)	M804	C1	68n	%E31(1)	R55(1)	M805	C7	68n	CBUS D(N+18) RE H	R24(1)	M803	C7	68n	CH BUF IN [N+05] H	R1(1)	M804	A2	68n	CLK F H
R178(1)	M804	C1	68n	%E31(14)	R50(1)	M805	C7	68n	CBUS D(N+19) RE H	R16(1)	M803	C7	68n	CH BUF IN [N+18] H	R124(1)	M804	A2	68n	CLK M(N) H
R177(1)	M804	C1	68n	%E31(15)	R53(1)	M805	B7	68n	CBUS D(N+20) RE H	R12(1)	M803	C7	68n	CH BUF IN [N+19] H	R41(1)	M805	A5	68n	-MB CH BUF LOAD H
R180(1)	M804	C1	68n	%E31(2)	R48(1)	M805	B7	68n	CBUS D(N+21) RE H	R10(1)	M803	B7	68n	CH BUF IN [N+20] H	R138(1)	M805	C5	68n	MB CH BUF [N+00] H
R188(1)	M804	D1	68n	%E70(1)	R59(1)	M805	B7	68n	CBUS D(N+22) RE H	R2(1)	M803	B7	68n	CH BUF IN [N+21] H	R137(1)	M805	B5	68n	MB CH BUF [N+01] H
R190(1)	M804	D1	68n	%E70(14)	R57(1)	M805	B7	68n	CBUS D(N+23) RE H	R11(1)	M803	B7	68n	CH BUF IN [N+22] H	R133(1)	M805	B5	68n	MB CH BUF [N+02] H
R191(1)	M804	D1	68n	%E70(15)	R200(1)	M801	A4	68n	CBUS OUT HOLD A H	R9(1)	M803	B7	68n	CH BUF IN [N+23] H	R134(1)	M805	B5	68n	MB CH BUF [N+03] H
R189(1)	M804	D1	68n	%E70(2)	R237(1)	M804	D3	68n	CCU BUF [N+00] IN H	R171(1)	M803	A7	68n	CH BUF MB SEL H	R72(1)	M805	C3	68n	MB CH BUF [N+04] H
R26(1)	M803	C2	68n	-A H	R236(1)	M804	D3	68n	CCU BUF [N+01] IN H	R13(1)	M803	B2	68n	-CH BUF LR [N/6+3] H	R71(1)	M805	B3	68n	MB CH BUF [N+05] H
R224(1)	M801	D7	68n	AR [N+00] A H	R235(1)	M804	D3	68n	CCU BUF [N+02] IN H	R19(1)	M803	C2	68n	-CH BUF LR [N/6] H	R63(1)	M805	B3	68n	MB CH BUF [N+10] H
R227(1)	M801	D7	68n	AR [N+01] A H	R234(1)	M804	D3	68n	CCU BUF [N+03] IN H	R78(1)	M803	D5	68n	CH BUF [N+00] H	R70(1)	M805	B3	68n	MB CH BUF [N+19] H
R218(1)	M801	C7	68n	AR [N+02] A H	R221(1)	M804	C3	68n	CCU BUF [N+04] IN H	R00(1)	M803	D4	68n	CH BUF [N+01] H	R44(1)	M805	C2	68n	MB CH BUF [N+20] H
R217(1)	M801	C7	68n	AR [N+03] A H	R220(1)	M804	C3	68n	CCU BUF [N+05] IN H	R81(1)	M803	D4	68n	CH BUF [N+02] H	R45(1)	M805	B2	68n	MB CH BUF [N+21] H
R69(1)	M801	B7	68n	AR [N+04] A H	R219(1)	M804	C3	68n	CCU BUF [N+10] IN H	R77(1)	M803	D3	68n	CH BUF [N+03] H	R39(1)	M805	B2	68n	MB CH BUF [N+22] H
R68(1)	M801	B7	68n	AR [N+05] A H	R216(1)	M804	C3	68n	CCU BUF [N+19] IN H	R73(1)	M803	D3	68n	CH BUF [N+04] H	R40(1)	M805	B2	68n	MB CH BUF [N+23] H
R62(1)	M801	D5	68n	AR [N+10] A H	R209(1)	M804	B3	68n	CCU BUF [N+20] IN H	R74(1)	M803	D2	68n	CH BUF [N+05] H	R37(1)	M804	A4	68n	-MB IN EN A H
R67(1)	M801	D5	68n	AR [N+19] A H	R208(1)	M804	B3	68n	CCU BUF [N+21] IN H	R76(1)	M803	B5	68n	CH BUF [N+10] H	R42(1)	M804	A7	68n	MB IN SEL 1 A H
R46(1)	M801	C5	68n	AR [N+20] A H	R207(1)	M804	B3	68n	CCU BUF [N+22] IN H	R75(1)	M803	B4	68n	CH BUF [N+19] H	R109(1)	M804	A6	68n	MB IN SEL 2 A H
R47(1)	M801	C5	68n	AR [N+21] A H	R206(1)	M804	B3	68n	CCU BUF [N+23] IN H	R204(1)	M803	B4	68n	CH BUF [N+20] H	R110(1)	M804	A6	68n	MB IN SEL 4 A H
R38(1)	M801	B5	68n	AR [N+22] A H	R20(1)	M805	D5	68n	CH BUF ADR 0 H	R203(1)	M803	B3	68n	CH BUF [N+21] H	R99(1)	M802	A3	68n	MB SEL 1 A H
R43(1)	M801	B5	68n	AR [N+23] A H	R8(1)	M805	D5	68n	CH BUF ADR 0 A H	R205(1)	M803	B3	68n	CH BUF [N+22] H	R103(1)	M802	A3	68n	MB SEL 2 A H
R14(1)	M803	B2	68n	-B H	R21(1)	M805	C5	68n	CH BUF ADR 1 H	R202(1)	M803	B2	68n	CH BUF [N+23] H	R149(1)	M804	D6	68n	MB [N+00] IN H
R145(1)	M804	D6	68n	CACHE DATA [N+00] A H	R4(1)	M805	C5	68n	CH BUF ADR 1 A H	R18(1)	M803	C2	68n	CH REG HOLD H	R139(1)	M804	D7	68n	MB [N+00] IN A H
R136(1)	M804	D6	68n	CACHE DATA [N+01] A H	R22(1)	M805	C5	68n	CH BUF ADR 2 H	R105(1)	M805	D7	68n	CH REG [N+00] H	R151(1)	M804	D6	68n	MB [N+01] IN H
R147(1)	M804	C6	68n	CACHE DATA [N+02] A H	R3(1)	M805	C5	68n	CH BUF ADR 2 A H	R186(1)	M805	D7	68n	CH REG [N+01] H	R140(1)	M804	D7	68n	MB [N+01] IN A H
R144(1)	M804	C6	68n	CACHE DATA [N+03] A H	R32(1)	M805	D4	68n	CH BUF ADR 3 H	R232(1)	M805	D7	68n	CH REG [N+02] H	R153(1)	M804	C6	68n	MB [N+02] IN H
R226(1)	M804	B6	68n	CACHE DATA [N+04] A H	R5(1)	M805	D4	68n	CH BUF ADR 3 A H	R233(1)	M805	D7	68n	CH REG [N+03] H	R148(1)	M804	D7	68n	MB [N+02] IN A H
R222(1)	M804	B6	68n	CACHE DATA [N+05] A H	R31(1)	M805	C4	68n	CH BUF ADR 4 H	R176(1)	M805	C7	68n	CH REG [N+04] H	R150(1)	M804	C6	68n	MB [N+03] IN H
R230(1)	M804	D4	68n	CACHE DATA [N+10] A H	R7(1)	M805	C4	68n	CH BUF ADR 4 A H	R175(1)	M805	C7	68n	CH REG [N+05] H	R146(1)	M804	D7	68n	MB [N+03] IN A H
R229(1)	M804	D4	68n	CACHE DATA [N+19] A H	R33(1)	M805	C4	68n	CH BUF ADR 5 H	R184(1)	M805	C7	68n	CH REG [N+10] H	R60(1)	M804	B6	68n	MB [N+04] IN H
R166(1)	M804	C4	68n	CACHE DATA [N+20] A H	R6(1)	M805	C4	68n	CH BUF ADR 5 A H	R182(1)	M805	C7	68n	CH REG [N+19] H	R225(1)	M804	C7	68n	MB [N+04] IN A H
R104(1)	M804	C4	68n	CACHE DATA [N+21] A H	R30(1)	M805	D2	68n	CH BUF ADR 6 H	R170(1)	M805	B7	68n	CH REG [N+20] H	R61(1)	M804	B6	68n	MB [N+05] IN H
R112(1)	M804	B4	68n	CACHE DATA [N+22] A H	R17(1)	M805	D2	68n	CH BUF ADR 6 A H	R172(1)	M805	B7	68n	CH REG [N+21] H	R223(1)	M804	C7	68n	MB [N+05] IN A H
R167(1)	M804	B4	68n	CACHE DATA [N+23] A H	R27(1)	M805	C2	68n	-CH BUF EN H	R212(1)	M805	B7	68n	CH REG [N+22] H	R65(1)	M804	D4	68n	MB [N+10] IN H
R52(1)	M805	D7	68n	CBUS D(N+00) RE H	R15(1)	M805	C2	68n	-CH BUF EN A H	R211(1)	M805	B7	68n	CH REG [N+23] H	R231(1)	M804	C7	68n	MB [N+10] IN A H
R51(1)	M805	D7	68n	CBUS D(N+01) RE H	R29(1)	M803	D7	68n	CH BUF IN [N+00] H	R34(1)	M804	A2	68n	CLK A H	R66(1)	M804	D4	68n	MB [N+19] IN 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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CHK	CHANGE NO.	REV.
	M8517-0-001	A
	M8517-0-001	A
	M8517-0-001	A

digital	DRN. <i>G. Smith</i>	DATE 24-MAY-76	ENG. <i>J.O. Allen</i>	DATE 17-JUN-76	TITLE: MB BOARD TERMINATORS
M8517.1.DRM(4,427)	<i>J. Stephens</i>	DATE 05/26	BOARD LOCATION: SHEET 1 OF 2	SIZE CODE D CS	NUMBER M8517-0-RES
FIRST USED ON OPTION/MODEL: KL10			NEXT HIGHER ASSEMBLY: B-DD-M8517-0		REV. A

SIZE CODE NUMBER REV. A  
 D CS M8517-0-RES

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R228(1)	M804	C7	68n	MB [N+19] IN A H	R84(1)	M802	D5	68n	MB2 [N+03] H
R168(1)	M804	C4	68n	MB [N+20] IN H	R121(1)	M802	C5	68n	MB2 [N+04] H
R108(1)	M804	B7	68n	MB [N+20] IN A H	R119(1)	M802	C5	68n	MB2 [N+05] H
R159(1)	M804	C4	68n	MB [N+21] IN H	R130(1)	M802	C5	68n	MB2 [N+18] H
R105(1)	M804	B7	68n	MB [N+21] IN A H	R125(1)	M802	C5	68n	MB2 [N+19] H
P158(1)	M804	B4	68n	MB [N+22] IN H	R162(1)	M802	B5	68n	MB2 [N+20] H
R114(1)	M804	B7	68n	MB [N+22] IN A H	R94(1)	M802	B5	68n	MB2 [N+21] H
R163(1)	M804	B4	68n	MB [N+23] IN H	R156(1)	M802	B5	68n	MB2 [N+22] H
R111(1)	M804	B7	68n	MB [N+23] IN A H	R155(1)	M802	B5	68n	MB2 [N+23] H
R152(1)	M802	A7	68n	MB0 HOLD H	R83(1)	M802	A5	68n	MB3 HOLD H
R194(1)	M802	D7	68n	MB0 [N+00] H	R190(1)	M802	D4	68n	MB3 [N+00] H
R196(1)	M802	D7	68n	MB0 [N+01] H	R192(1)	M802	D4	68n	MB3 [N+01] H
R91(1)	M802	D7	68n	MB0 [N+02] H	R85(1)	M802	D4	68n	MB3 [N+02] H
R88(1)	M802	D7	68n	MB0 [N+03] H	R87(1)	M802	D4	68n	MB3 [N+03] H
R120(1)	M802	C7	68n	MB0 [N+04] H	R123(1)	M802	C4	68n	MB3 [N+04] H
R117(1)	M802	C7	68n	MB0 [N+05] H	R115(1)	M802	C4	68n	MB3 [N+05] H
R129(1)	M802	C7	68n	MB0 [N+10] H	R132(1)	M802	C4	68n	MB3 [N+10] H
R126(1)	M802	C7	68n	MB0 [N+19] H	R120(1)	M802	C4	68n	MB3 [N+19] H
R101(1)	M802	B7	68n	MB0 [N+20] H	R161(1)	M802	B4	68n	MB3 [N+20] H
R35(1)	M802	B7	68n	MB0 [N+21] H	R157(1)	M802	B4	68n	MB3 [N+21] H
R95(1)	M802	B7	68n	MB0 [N+22] H	R98(1)	M802	B4	68n	MB3 [N+22] H
R92(1)	M802	B7	68n	MB0 [N+23] H	R97(1)	M802	B4	68n	MB3 [N+23] H
R238(1)	M804	A4	68n	-M804 CCW BUF LR H	R143(1)	M801	D7	68n	MEM DATA IN [N+00] H
R154(1)	M802	A7	68n	MB1 HOLD H	R135(1)	M801	D7	68n	MEM DATA IN [N+01] H
R195(1)	M802	D6	68n	MB1 [N+00] H	R142(1)	M801	C7	68n	MEM DATA IN [N+02] H
R193(1)	M802	D6	68n	MB1 [N+01] H	R141(1)	M801	C7	68n	MEM DATA IN [N+03] H
R90(1)	M802	D6	68n	MB1 [N+02] H	R173(1)	M801	B7	68n	MEM DATA IN [N+04] H
R89(1)	M802	D6	68n	MB1 [N+03] H	R174(1)	M801	B7	68n	MEM DATA IN [N+05] H
R122(1)	M802	C6	68n	MB1 [N+04] H	R103(1)	M801	D5	68n	MEM DATA IN [N+10] H
R116(1)	M802	C6	68n	MB1 [N+05] H	R179(1)	M801	D5	68n	MEM DATA IN [N+19] H
R131(1)	M802	C6	68n	MB1 [N+10] H	R107(1)	M801	C5	68n	MEM DATA IN [N+20] H
R127(1)	M802	C6	68n	MB1 [N+19] H	R100(1)	M801	C5	68n	MEM DATA IN [N+21] H
R102(1)	M802	B6	68n	MB1 [N+20] H	R113(1)	M801	B5	68n	MEM DATA IN [N+22] H
R36(1)	M802	B6	68n	MB1 [N+21] H	R106(1)	M801	B5	68n	MEM DATA IN [N+23] H
R96(1)	M802	B6	68n	MB1 [N+22] H	R213(1)	M801	A7	68n	-MEM TO C EN A H
R93(1)	M802	B6	68n	MB1 [N+23] H	R214(1)	M801	A5	68n	MEM TO C SEL 1 A H
R82(1)	M802	A5	68n	MB2 HOLD H	R210(1)	M801	A7	68n	MEM TO C SEL 2 A H
R197(1)	M802	D5	68n	MB2 [N+00] H	R215(1)	M801	A2	68n	PT IN SEL AR H
R107(1)	M802	D5	68n	MB2 [N+01] H					
R86(1)	M802	D5	68n	MB2 [N+02] 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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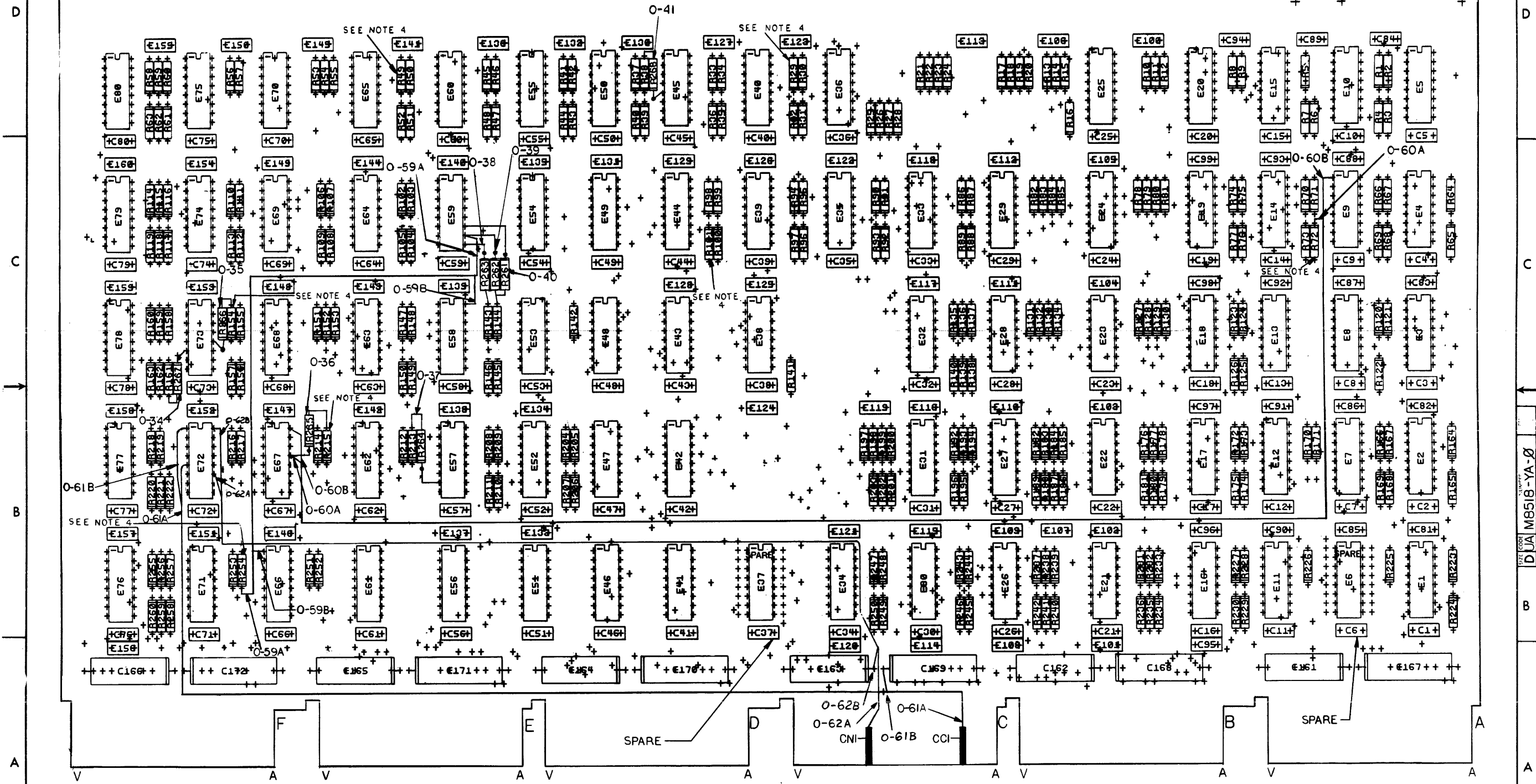
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>G. Smith</i>	DATE <i>11/11/76</i>	ENG. <i>A. Allen</i>	DATE <i>8 Jun 76</i>	TITLE: MB BOARD TERMINATORS
	CHK. <i>Stephens</i>	DATE <i>6/2/76</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	SIZE CODE NUMBER REV. D CS M8517-0-RES A
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8517-0		MR	





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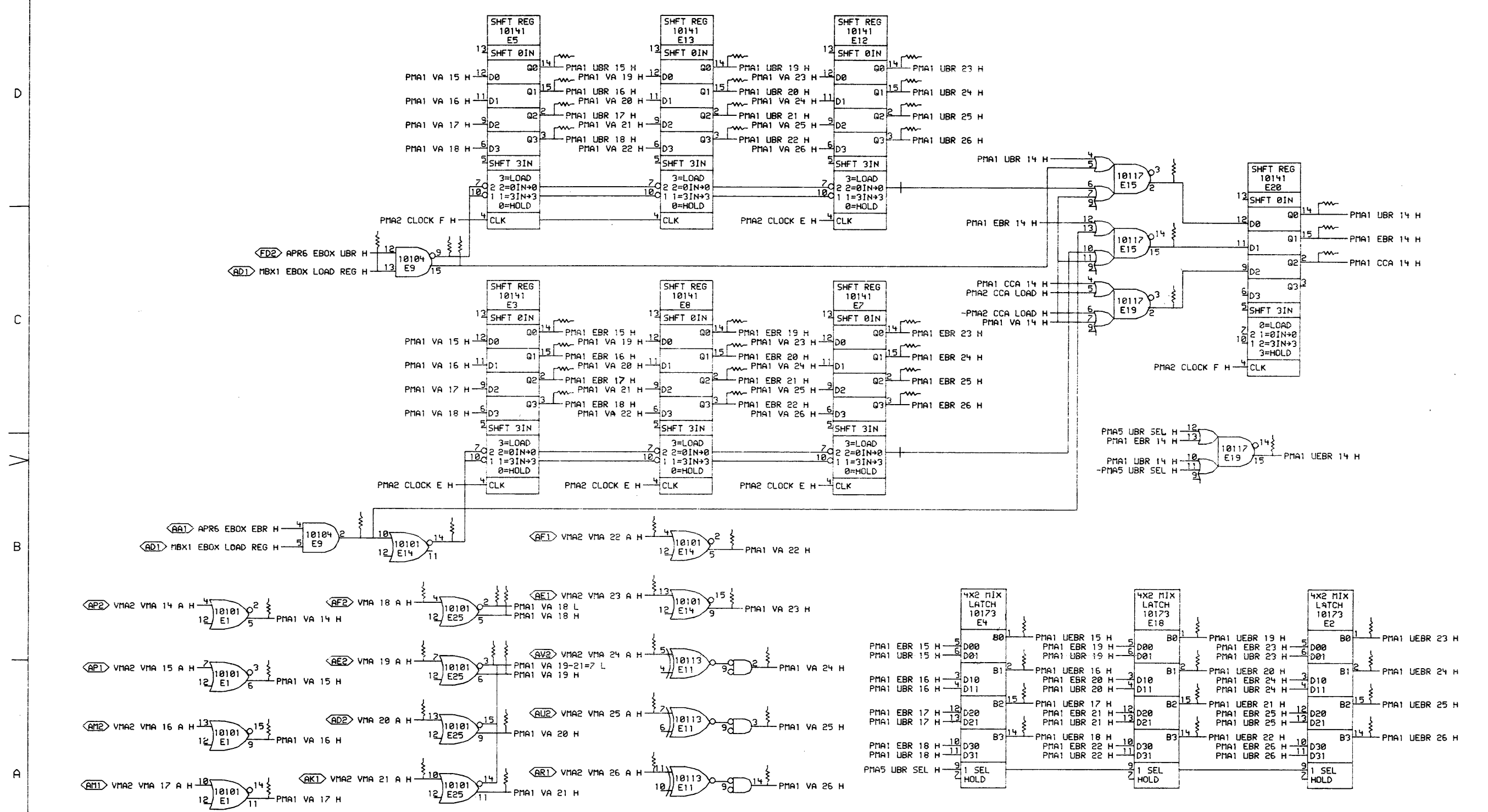


REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV
PHYSICAL MEMORY ADDRESS	D	UA	M8518-YA-0	
SCALE NONE	SHEET	2 OF 6		DIST.

93

MR



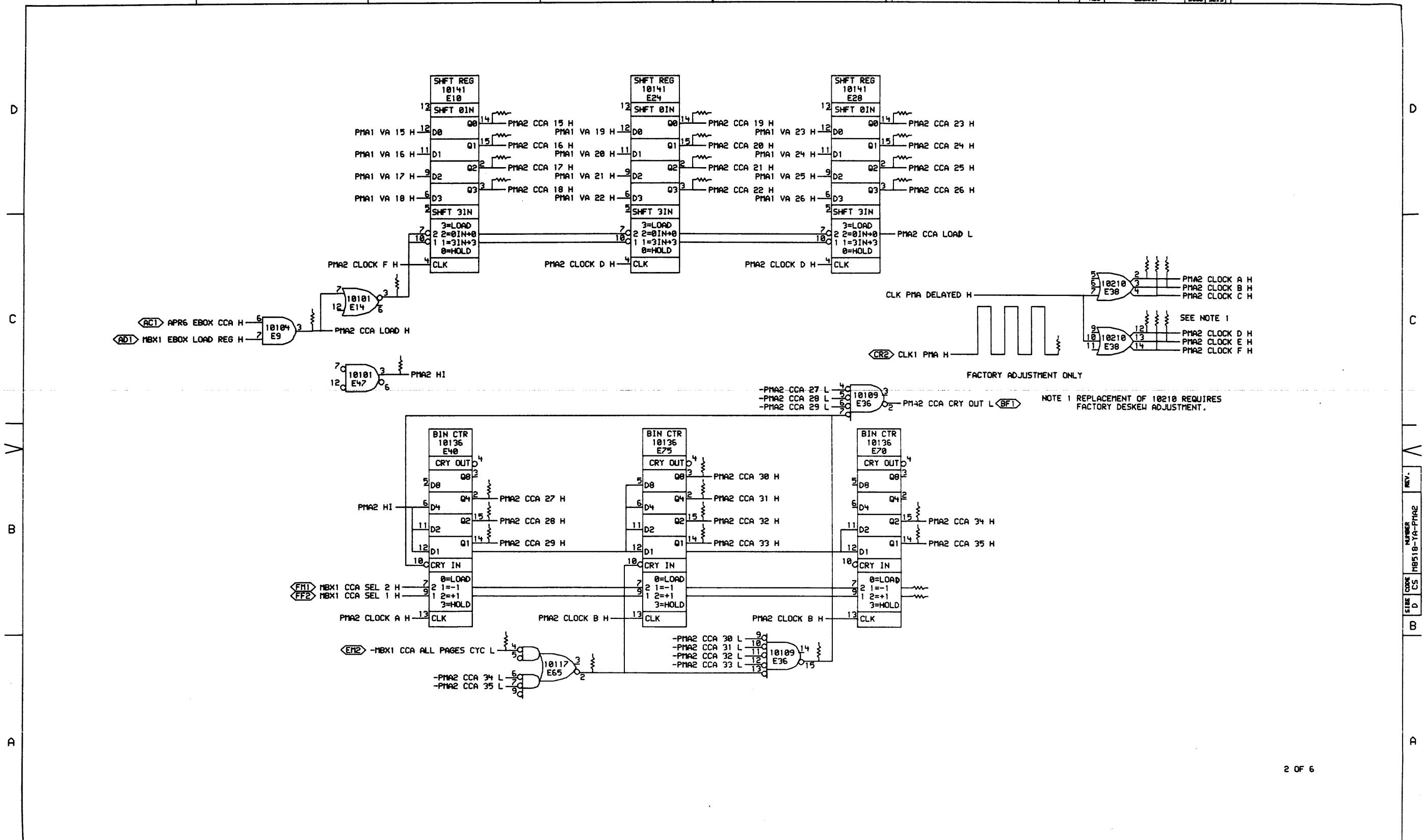
1 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV

	DRW. J. J. [Signature] CHK'D. [Signature]	DATE 17-JAN-77 DATE 19-JAN-77	ENG. A. D. Allen BOARD LOCATION: 4AF29	TITLE: EBR & UBR REG UEBR MIX & VA BUF
	PMA1EF.DRHC4.546	17-JAN-77 09:58	NEXT HIGHER ASSEMBLY: B-DD-M8518-YA	SIZE CODE NUMBER REV. D CS M8518-YA-PMA1

SIZE CODE NUMBER REV.  
 D CS M8518-YA-PMA1



NOTE 1 REPLACEMENT OF 10210 REQUIRES FACTORY DESKEW ADJUSTMENT.

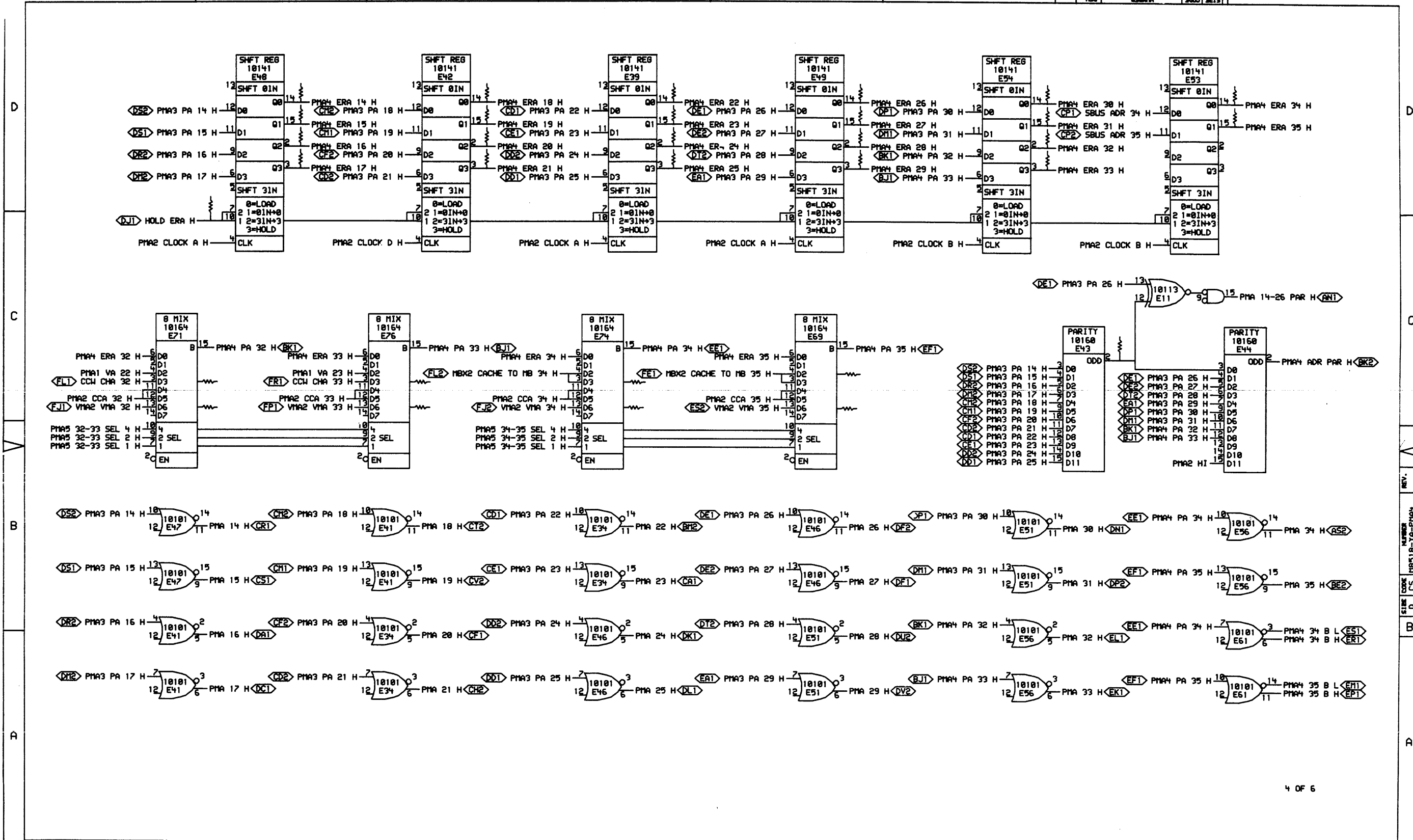
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REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE	ENG.	DATE	TITLE:
	09-SEP-76	J. D. Allen	19 JAN 77	CACHE CLEARER ADR CTR
DATE	BOB'D LOCATION:	DATE	SHEET	OF
11/2/76	4AF29	11/2/76	1	1
SIZE CODE D CS		NUMBER M8518-YA-PMA2		REV.
1 MR				

85

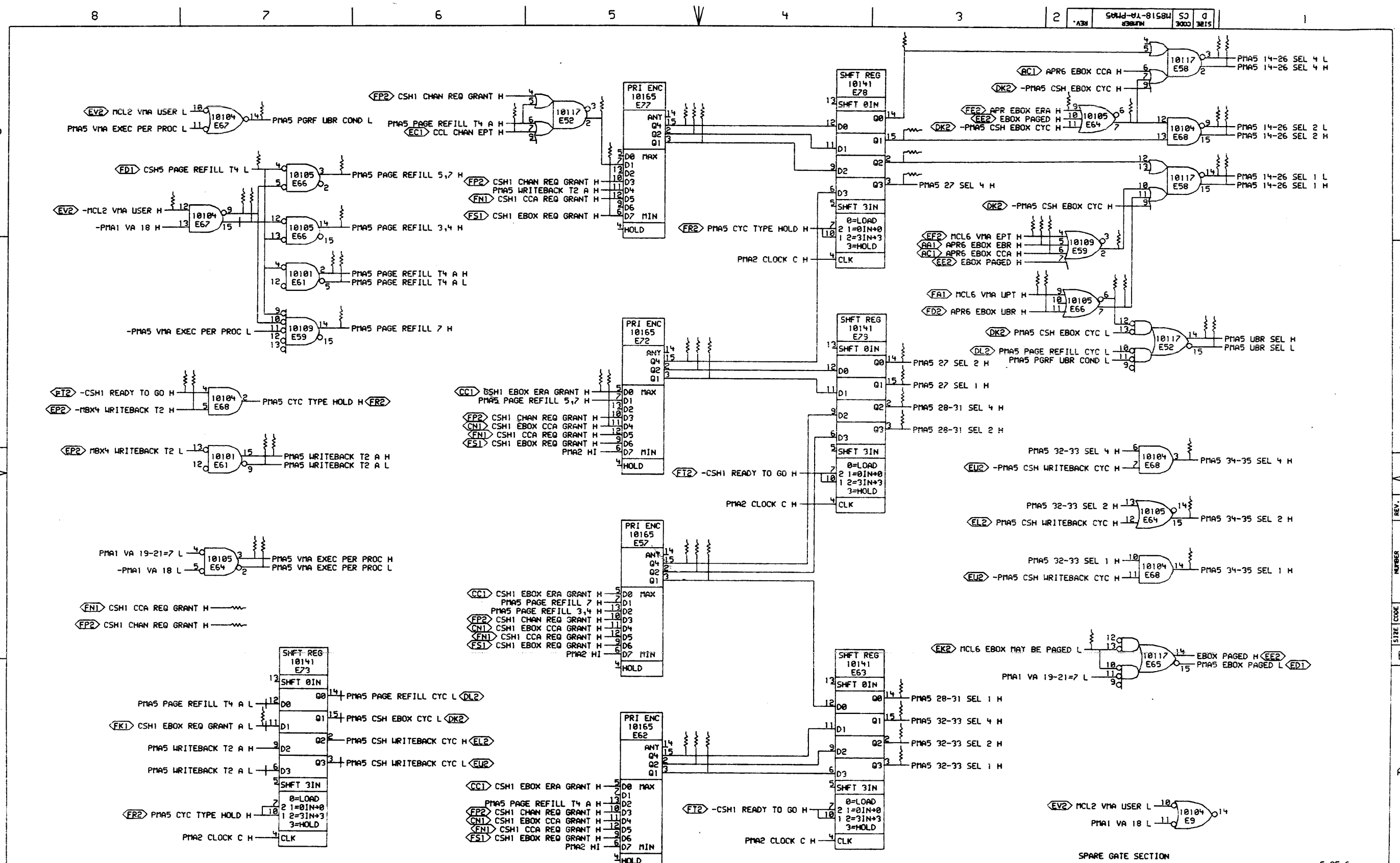




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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 09-SEP-76	ENG: J. P. Allen	DATE: 11-10-77	TITLE: ERA REG, ADR PAR, PA 32-35 MIX
	DATE: 10-SEP-76	BOARD LOCATION: 4AF29	SHEET: 1	
PMAHEF.DRAW 4.175 J FIRST USED ON OPTION/MODEL: KL10PV	187-SEP-76 13:20	NEXT HIGHER ASSEMBLY: B-DD-M8518-YA	SIZE: D	CODE: CS
			NUMBER: M8518-YA-PMA4	REV.:



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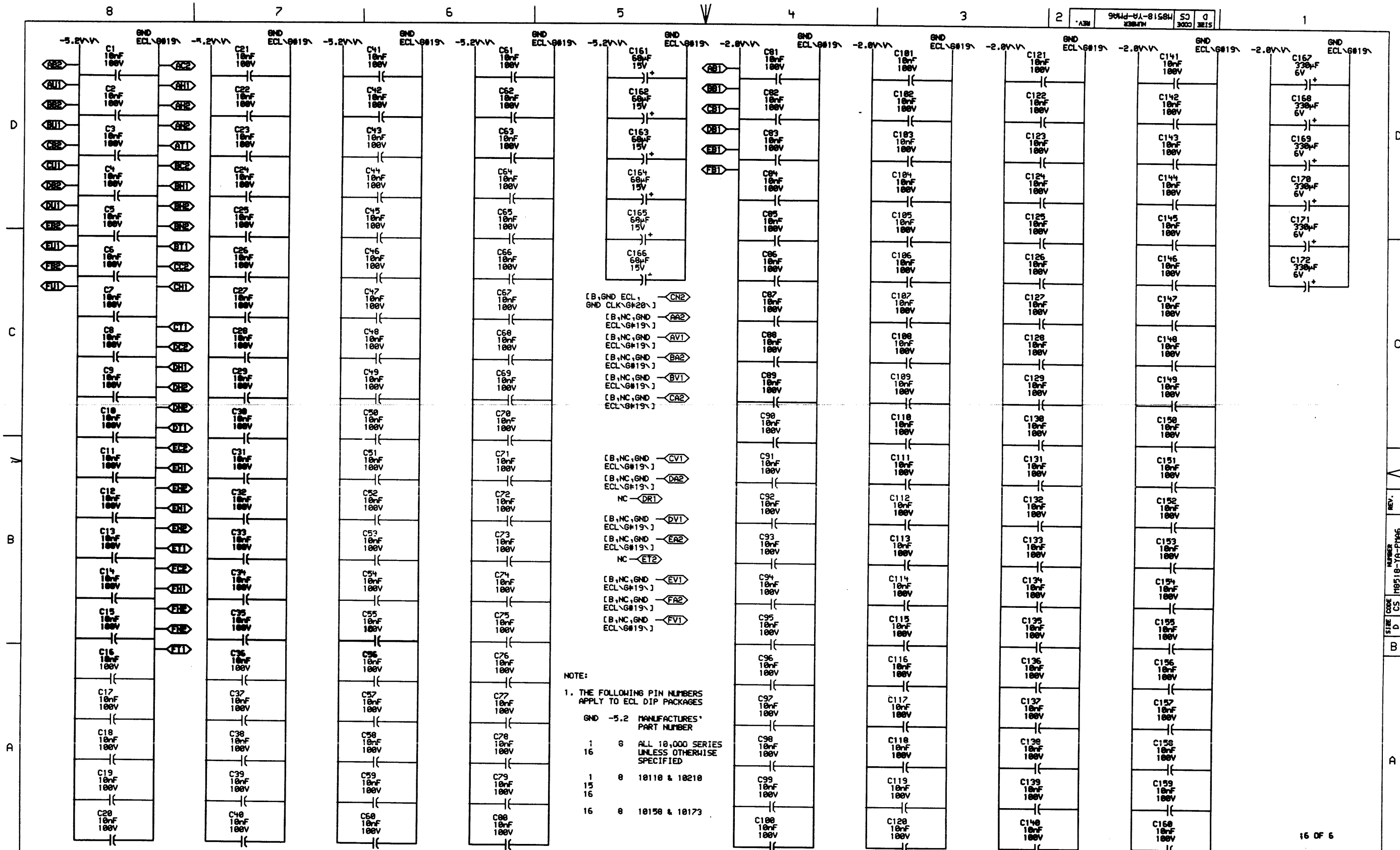
REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG	DATE	TITLE:
	17-JAN-77	J. Allen	17-JAN-77	PHY MEM ADR CONTROL LOGIC
CHK'D	DATE	BOARD LOCATION	OF	SIZE CODE
	17-JAN-77	4AF23		D CS
FIRST USED ON OPTION/MODEL: KL10PV				NUMBER
NEXT HIGHER ASSEMBLY: B-DD-M8518-YA				M8518-YA-PMA5
REV.				

SPARE GATE SECTION

5 OF 6

REV. NUMBER M8518-YA-PMA5



[B,GND,ECL, GND CLK\G#20] → GNE  
 [B,NC,GND ECL\G#19] → RA2  
 [B,NC,GND ECL\G#19] → AV1  
 [B,NC,GND ECL\G#19] → BA2  
 [B,NC,GND ECL\G#19] → BV1  
 [B,NC,GND ECL\G#19] → CA2

[B,NC,GND ECL\G#19] → CV1  
 [B,NC,GND ECL\G#19] → DA2  
 NC → DR1  
 [B,NC,GND ECL\G#19] → DV1  
 [B,NC,GND ECL\G#19] → EA2  
 NC → ET2

[B,NC,GND ECL\G#19] → EV1  
 [B,NC,GND ECL\G#19] → FA2  
 [B,NC,GND ECL\G#19] → FV1

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURERS' PART NUMBER
1	6	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16		
1	6	10110 & 10210
15		
16		
1	6	10150 & 10173

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REVISIONS	
CHK	CHANGE NO. REV

	DATE	ENG	DATE	TITLE:
	11/10/77	A. P. Allen	11/10/77	PHYSICAL MEM ADR PWR, GND, CAP
CHECKED BY: <i>C. W. Anderson</i> DATE: 11/10/77 SHEET: 1 OF 1	BOARD LOCATION: 4A23	SIZE CODE: D NUMBER: CS M8518-YA-PMAG	REV.: MR	

FIRST USED ON OPTION/MODEL: KL10PV B-DD-M8518-YA

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
R171(1)	PMA1	B6	68n	%E14(14)	R175(1)	PMA3	D3	68n	CAM 18 H	R54(1)	PMA2	A6	68n	MBX1 CCA ALL PAGES CYC H	R67(1)	PMA1	D6	68n	PMA1 UBR 16 H
R11(1)	PMA1	C2	68n	%E15(15)	R234(1)	PMA3	D2	68n	CAM 19 H	R32(1)	PMA2	B3	68n	MBX1 CCA SEL 1 H	R64(1)	PMA1	D6	68n	PMA1 UBR 17 H
R12(1)	PMA1	D2	68n	%E15(2)	R19(1)	PMA3	C7	68n	CAM 20 H	R99(1)	PMA2	B3	68n	MBX1 CCA SEL 2 H	R122(1)	PMA1	D6	68n	PMA1 UBR 18 H
R8(1)	PMA1	C2	68n	%E19(2)	R183(1)	PMA3	C6	68n	CAM 21 H	R70(1)	PMA1	C7	68n	MBX1 EBOX LOAD REG H	R129(1)	PMA1	D5	68n	PMA1 UBR 19 H
R30(1)	PMA2	A4	68n	%E36(15)	R81(1)	PMA3	C5	68n	CAM 22 H	R115(1)	PMA4	C5	68n	MBX2 CACHE TO MB 34 H	R128(1)	PMA1	D5	68n	PMA1 UBR 20 H
R226(1)	PMA4	C2	68n	%E43(2)	R23(1)	PMA3	C4	68n	CAM 23 H	R111(1)	PMA4	C4	68n	MBX2 CACHE TO MB 35 H	R124(1)	PMA1	D5	68n	PMA1 UBR 21 H
R219(1)	PMA5	D5	68n	%E52(2)	R97(1)	PMA3	C3	68n	CAM 24 H	R155(1)	PMA5	C7	68n	-MBX4 WRITEBACK T2 H	R126(1)	PMA1	D5	68n	PMA1 UBR 22 H
R163(1)	PMA5	B5	68n	%E57(15)	R92(1)	PMA3	C2	68n	CAM 25 H	R73(1)	PMA5	D7	68n	-MCL2 VMA USER H	R168(1)	PMA1	D4	68n	PMA1 UBR 23 H
R160(1)	PMA5	B4	68n	%E57(2)	R198(1)	PMA3	C1	68n	CAM 26 H	R55(1)	PMA5	B2	68n	-MCL6 EBOX MAY BE PAGED H	R167(1)	PMA1	D4	68n	PMA1 UBR 24 H
R147(1)	PMA5	B4	68n	%E57(3)	R205(1)	PMA5	D6	68n	CCL CHAN EPT H	R102(1)	PMA5	C3	68n	MCL6 VMA EPT H	R164(1)	PMA1	D4	68n	PMA1 UBR 25 H
R144(1)	PMA5	C2	68n	%E59(2)	R135(1)	PMA3	D7	68n	CCW CHA 14 H	R252(1)	PMA5	C3	68n	MCL6 VMA UPT H	R224(1)	PMA1	D4	68n	PMA1 UBR 26 H
R150(1)	PMA5	A5	68n	%E62(15)	R247(1)	PMA3	D6	68n	CCW CHA 15 H	R137(1)	PMA3	D7	68n	PAG1 PT 14 A H	R138(1)	PMA1	B2	68n	PMA1 UEBR 14 H
R153(1)	PMA5	A4	68n	%E62(2)	R243(1)	PMA3	D5	68n	CCW CHA 16 H	R249(1)	PMA3	D6	68n	PAG1 PT 15 A H	R240(1)	PMA1	B3	68n	PMA1 UEBR 15 H
R152(1)	PMA5	A4	68n	%E62(3)	R232(1)	PMA3	D4	68n	CCW CHA 17 H	R237(1)	PMA3	D5	68n	PAG1 PT 16 A H	R244(1)	PMA1	A3	68n	PMA1 UEBR 16 H
R145(1)	PMA5	D2	68n	%E64(7)	R177(1)	PMA3	D3	68n	CCW CHA 18 H	R228(1)	PMA3	D4	68n	PAG1 PT 17 A H	R233(1)	PMA1	A3	68n	PMA1 UEBR 17 H
R20(1)	PMA2	A5	68n	%E65(2)	R230(1)	PMA3	D2	68n	CCW CHA 19 H	R173(1)	PMA3	D3	68n	PAG2 PT 18 A H	R178(1)	PMA1	A3	68n	PMA1 UEBR 18 H
R204(1)	PMA5	C2	68n	%E66(6)	R84(1)	PMA3	C7	68n	CCW CHA 20 H	R231(1)	PMA3	D2	68n	PAG2 PT 19 A H	R239(1)	PMA1	B2	68n	PMA1 UEBR 19 H
R146(1)	PMA5	C2	68n	%E66(7)	R187(1)	PMA3	C6	68n	CCW CHA 21 H	R83(1)	PMA3	C7	68n	PAG2 PT 20 A H	R85(1)	PMA1	A2	68n	PMA1 UEBR 20 H
R251(1)	PMA5	D7	68n	%E67(15)	R80(1)	PMA3	C5	68n	CCW CHA 22 H	R186(1)	PMA3	C6	68n	PAG2 PT 21 A H	R176(1)	PMA1	A2	68n	PMA1 UEBR 21 H
R262(1)	PMA5	D7	68n	%E67(9)	R202(1)	PMA3	C4	68n	CCW CHA 23 H	R133(1)	PMA3	C5	68n	PAG2 PT 22 A H	R79(1)	PMA1	A2	68n	PMA1 UEBR 22 H
R159(1)	PMA5	C5	68n	%E72(15)	R93(1)	PMA3	C3	68n	CCW CHA 24 H	R21(1)	PMA3	C4	68n	PAG2 PT 23 A H	R18(1)	PMA1	B1	68n	PMA1 UEBR 23 H
R114(1)	PMA5	C4	68n	%E72(2)	R196(1)	PMA3	C2	68n	CCW CHA 25 H	R96(1)	PMA3	C3	68n	PAG2 PT 24 A H	R90(1)	PMA1	A1	68n	PMA1 UEBR 24 H
R119(1)	PMA5	C4	68n	%E72(3)	R189(1)	PMA3	C1	68n	CCW CHA 26 H	R201(1)	PMA3	C2	68n	PAG2 PT 25 A H	R193(1)	PMA1	A1	68n	PMA1 UEBR 25 H
R158(1)	PMA5	D5	68n	%E77(15)	R60(1)	PMA3	B7	68n	CCW CHA 27 H	R140(1)	PMA3	C1	68n	PAG2 PT 26 A H	R188(1)	PMA1	A1	68n	PMA1 UEBR 26 H
R162(1)	PMA5	D4	68n	%E77(2)	R34(1)	PMA3	B6	68n	CCW CHA 28 H	R86(1)	PMA1	C2	68n	PMA1 CCA 14 H	R7(1)	PMA1	B7	68n	PMA1 VA 14 H
R161(1)	PMA5	D4	68n	%E77(3)	R44(1)	PMA3	B5	68n	CCW CHA 29 H	R75(1)	PMA1	C2	68n	PMA1 EBR 14 H	R6(1)	PMA1	A7	68n	PMA1 VA 15 H
R148(1)	PMA5	D3	68n	%E78(14)	R48(1)	PMA3	B4	68n	CCW CHA 30 H	R69(1)	PMA1	C6	68n	PMA1 EBR 15 H	R1(1)	PMA1	A7	68n	PMA1 VA 16 H
R151(1)	PMA5	D3	68n	%E78(15)	R52(1)	PMA3	B3	68n	CCW CHA 31 H	R66(1)	PMA1	C6	68n	PMA1 EBR 16 H	R3(1)	PMA1	A7	68n	PMA1 VA 17 H
R143(1)	PMA5	D3	68n	%E78(2)	R255(1)	PMA4	C7	68n	CCW CHA 32 H	R65(1)	PMA1	C6	68n	PMA1 EBR 17 H	R105(1)	PMA1	B6	68n	PMA1 VA 18 H
R9(1)	PMA1	C6	68n	%E9(15)	R218(1)	PMA4	C6	68n	CCW CHA 33 H	R120(1)	PMA1	C6	68n	PMA1 EBR 18 H	R265(1)	PMA1	B6	68n	-PMA1 VA 18 H
R5(1)	PMA1	B7	68n	%E9(2)	R141(1)	PMA2	C2	68n	CLK1 PMA H	R130(1)	PMA1	C5	68n	PMA1 EBR 19 H	R42(1)	PMA1	B6	68n	PMA1 VA 19 H
R170(1)	PMA1	C6	68n	%E9(9)	R210(1)	PMA5	B7	68n	CSH1 CCA REQ GRANT H	R127(1)	PMA1	C5	68n	PMA1 EBR 20 H	R107(1)	PMA1	B6	68n	-PMA1 VA 19-21=7
R104(1)	PMA5	D2	68n	APR EBOX ERA H	R203(1)	PMA5	B7	68n	CSH1 CHAN REQ GRANT H	R123(1)	PMA1	C5	68n	PMA1 EBR 21 H	R46(1)	PMA1	A6	68n	PMA1 VA 20 H
R217(1)	PMA5	C2	68n	APR6 EBOX CCA H	R211(1)	PMA5	C5	68n	CSH1 EBOX CCA GRANT H	R125(1)	PMA1	C5	68n	PMA1 EBR 22 H	R50(1)	PMA1	A6	68n	PMA1 VA 21 H
R103(1)	PMA5	C3	68n	APR6 EBOX EBR H	R213(1)	PMA5	C5	68n	CSH1 EBOX ERA GRANT H	R169(1)	PMA1	C4	68n	PMA1 EBR 23 H	R256(1)	PMA1	B5	68n	PMA1 VA 22 H
R71(1)	PMA5	C2	68n	APR6 EBOX UBR H	R212(1)	PMA5	D5	68n	CSH1 EBOX REQ GRANT H	R166(1)	PMA1	C4	68n	PMA1 EBR 24 H	R222(1)	PMA1	B5	68n	PMA1 VA 23 H
R89(1)	PMA3	D7	68n	CAM 14 H	R157(1)	PMA5	A7	68n	-CSH1 EBOX REQ GRANT A H	R165(1)	PMA1	C4	68n	PMA1 EBR 25 H	R87(1)	PMA1	A4	68n	PMA1 VA 24 H
R245(1)	PMA3	D6	68n	CAM 15 H	R149(1)	PMA5	C7	68n	-CSH1 READY TO GO H	R225(1)	PMA1	C4	68n	PMA1 EBR 26 H	R131(1)	PMA1	A4	68n	PMA1 VA 25 H
R241(1)	PMA3	D5	68n	CAM 16 H	R263(1)	PMA5	D7	68n	-CSH5 PAGE REFILL T4 H	R76(1)	PMA1	C2	68n	PMA1 UBR 14 H	R88(1)	PMA1	A4	68n	PMA1 VA 26 H
R230(1)	PMA3	D4	68n	CAM 17 H	R100(1)	PMA4	C7	68n	HOLD ERA H	R68(1)	PMA1	D6	68n	PMA1 UBR 15 H	R246(1)	PMA2	D6	68n	PMA2 CCA 15 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. <i>C. Smith</i>	DATE <i>17-JAN-77</i>	ENG. <i>J. D. Allen</i>	DATE <i>8/1/77</i>	TITLE: PHYSICAL MEM ADDR TERMINATORS
	CHK'D. <i>J. D. Allen</i>	DATE <i>13 JAN 77</i>	BOARD LOCATION: <i>44F23</i>	SHEET <i>1</i> OF <i>2</i>	
FIRST USED ON OPTION/MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-M8518-YA		SIZE CODE: D CS	NUMBER: M8518-YA-RES

REV. NUMBER M8518-YA-RES



D

C

B

A

D

C

B

A

RESISTOR LOC(PIN)	SHOWN DRUM#	ON REF	VALUE	TERMINATES SIGNAL
R240(1)	PMA2	D6	68n	PMA2 CCA 16 H
R229(1)	PMA2	D6	68n	PMA2 CCA 17 H
R174(1)	PMA2	D6	68n	PMA2 CCA 18 H
R236(1)	PMA2	D5	68n	PMA2 CCA 19 H
R20(1)	PMA2	D5	68n	PMA2 CCA 20 H
R184(1)	PMA2	D5	68n	PMA2 CCA 21 H
R132(1)	PMA2	D5	68n	PMA2 CCA 22 H
R24(1)	PMA2	D3	68n	PMA2 CCA 23 H
R94(1)	PMA2	D3	68n	PMA2 CCA 24 H
R199(1)	PMA2	D3	68n	PMA2 CCA 25 H
R194(1)	PMA2	D3	68n	PMA2 CCA 26 H
R50(1)	PMA2	B6	68n	PMA2 CCA 27 H
R36(1)	PMA2	B6	68n	PMA2 CCA 28 H
R37(1)	PMA2	B6	68n	PMA2 CCA 29 H
R31(1)	PMA2	B5	68n	PMA2 CCA 30 H
R25(1)	PMA2	B5	68n	PMA2 CCA 31 H
R26(1)	PMA2	B5	68n	PMA2 CCA 32 H
R27(1)	PMA2	B5	68n	PMA2 CCA 33 H
R113(1)	PMA2	B3	68n	PMA2 CCA 34 H
R109(1)	PMA2	B3	68n	PMA2 CCA 35 H
R74(1)	PMA2	C7	68n	PMA2 CCA LOAD H
R4(1)	PMA2	C6	68n	-PMA2 CCA LOAD H
R142(1)	PMA2	C2	68n	PMA2 CLOCK A H
R56(1)	PMA2	C2	68n	PMA2 CLOCK B H
R63(1)	PMA2	C2	68n	PMA2 CLOCK C H
R16(1)	PMA2	C2	68n	PMA2 CLOCK D H
R121(1)	PMA2	C2	68n	PMA2 CLOCK E H
R2(1)	PMA2	C2	68n	PMA2 CLOCK F H
R268(1)	PMA2	C6	68n	PMA2 HI
R196(1)	PMA4	D7	68n	PMA4 ERA 14 H
R250(1)	PMA4	D7	68n	PMA4 ERA 15 H
R242(1)	PMA4	D7	68n	PMA4 ERA 16 H
R227(1)	PMA4	D7	68n	PMA4 ERA 17 H
R172(1)	PMA4	D6	68n	PMA4 ERA 18 H
R235(1)	PMA4	D6	68n	PMA4 ERA 19 H
R82(1)	PMA4	D6	68n	PMA4 ERA 20 H
R185(1)	PMA4	D6	68n	PMA4 ERA 21 H
R134(1)	PMA4	D5	68n	PMA4 ERA 22 H
R22(1)	PMA4	D5	68n	PMA4 ERA 23 H
R95(1)	PMA4	D5	68n	PMA4 ERA 24 H

RESISTOR LOC(PIN)	SHOWN DRUM#	ON REF	VALUE	TERMINATES SIGNAL
R200(1)	PMA4	D5	68n	PMA4 ERA 25 H
R139(1)	PMA4	D4	68n	PMA4 ERA 26 H
R61(1)	PMA4	D4	68n	PMA4 ERA 27 H
R39(1)	PMA4	D4	68n	PMA4 ERA 28 H
R43(1)	PMA4	D4	68n	PMA4 ERA 29 H
R47(1)	PMA4	D3	68n	PMA4 ERA 30 H
R51(1)	PMA4	D3	68n	PMA4 ERA 31 H
R257(1)	PMA4	D3	68n	PMA4 ERA 32 H
R221(1)	PMA4	D3	68n	PMA4 ERA 33 H
R116(1)	PMA4	D1	68n	PMA4 ERA 34 H
R108(1)	PMA4	D1	68n	PMA4 ERA 35 H
R181(1)	PMA5	D1	68n	PMA5 14-26 SEL 1 H
R203(1)	PMA5	D1	68n	-PMA5 14-26 SEL 1 H
R180(1)	PMA5	D1	68n	PMA5 14-26 SEL 2 H
R197(1)	PMA5	D1	68n	-PMA5 14-26 SEL 2 H
R179(1)	PMA5	D1	68n	PMA5 14-26 SEL 4 H
R195(1)	PMA5	D1	68n	-PMA5 14-26 SEL 4 H
R62(1)	PMA5	C3	68n	PMA5 27 SEL 1 H
R53(1)	PMA5	C3	68n	PMA5 27 SEL 2 H
R57(1)	PMA5	D3	68n	PMA5 27 SEL 4 H
R40(1)	PMA5	A3	68n	PMA5 28-31 SEL 1 H
R98(1)	PMA5	C3	68n	PMA5 28-31 SEL 2 H
R35(1)	PMA5	C3	68n	PMA5 28-31 SEL 4 H
R220(1)	PMA5	A3	68n	PMA5 32-33 SEL 1 H
R250(1)	PMA5	A3	68n	PMA5 32-33 SEL 2 H
R259(1)	PMA5	A3	68n	PMA5 32-33 SEL 4 H
R117(1)	PMA5	B2	68n	PMA5 34-35 SEL 1 H
R118(1)	PMA5	B2	68n	PMA5 34-35 SEL 2 H
R112(1)	PMA5	B2	68n	PMA5 34-35 SEL 4 H
R200(1)	PMA5	D7	68n	PMA5 PAGE REFILL 3,4 H
R216(1)	PMA5	D7	68n	PMA5 PAGE REFILL 5,7 H
R264(1)	PMA5	C7	68n	PMA5 PAGE REFILL 7 H
R206(1)	PMA5	C7	68n	PMA5 PAGE REFILL T4 A H
R266(1)	PMA5	C7	68n	-PMA5 PAGE REFILL T4 A H
R207(1)	PMA5	D7	68n	-PMA5 PGRF LBR COND H
R223(1)	PMA5	C2	68n	PMA5 LBR SEL H
R77(1)	PMA5	C2	68n	-PMA5 LBR SEL H
R261(1)	PMA5	B7	68n	PMA5 VMA EXEC PER PROC H
R214(1)	PMA5	B7	68n	-PMA5 VMA EXEC PER PROC H
R156(1)	PMA5	B7	68n	PMA5 WRITEBACK T2 A H

RESISTOR LOC(PIN)	SHOWN DRUM#	ON REF	VALUE	TERMINATES SIGNAL
R267(1)	PMA5	B7	68n	-PMA5 WRITEBACK T2 A H
R13(1)	PMA1	B6	68n	VMA 18 A H
R14(1)	PMA1	B6	68n	VMA 19 A H
R10(1)	PMA1	A6	68n	VMA 20 A H
R15(1)	PMA1	A6	68n	VMA2 VMA 21 A H
R70(1)	PMA1	B5	68n	VMA2 VMA 22 A H
R17(1)	PMA1	B5	68n	VMA2 VMA 23 A H
R91(1)	PMA1	B5	68n	VMA2 VMA 24 A H
R192(1)	PMA1	A5	68n	VMA2 VMA 25 A H
R102(1)	PMA1	A5	68n	VMA2 VMA 26 A H
R59(1)	PMA3	A7	68n	VMA2 VMA 27 H
R33(1)	PMA3	A6	68n	VMA2 VMA 28 H
R30(1)	PMA3	A5	68n	VMA2 VMA 29 H
R41(1)	PMA3	A4	68n	VMA2 VMA 30 H
R45(1)	PMA3	A3	68n	VMA2 VMA 31 H
R253(1)	PMA4	C7	68n	VMA2 VMA 32 H
R260(1)	PMA4	C6	68n	VMA2 VMA 33 H
R110(1)	PMA4	C5	68n	VMA2 VMA 34 H
R106(1)	PMA4	C4	68n	VMA2 VMA 35 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

REV.  
 CS  
 18518-1A-RES

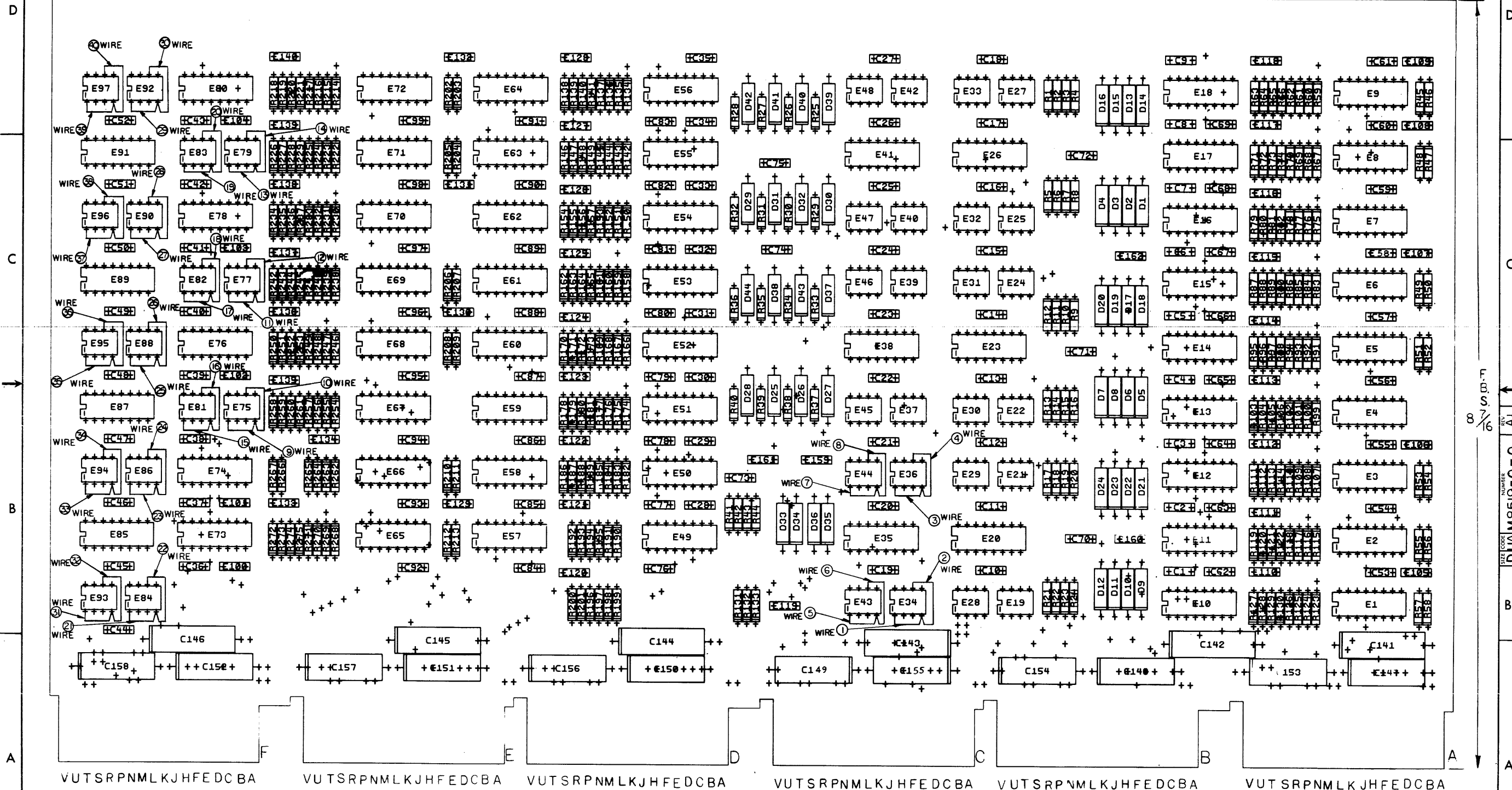
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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>C. Smith</i>	DATE <i>17-JAN-77</i>	ENG. <i>J. D. Allen</i>	DATE <i>1/18/77</i>	TITLE: PHYSICAL MEM ADDR TERMINATORS
	CHK'D <i>J. D. Allen</i>	DATE <i>1/18/77</i>	BOARD LOCATION:	SHEET 2 OF 2	
FIRST USED ON OPTION/MODEL: KL10PV			NEXT HIGHER ASSEMBLY: B-DD-M8518-YA		
SIZE CODE	NUMBER	REV.			
D CS	M8518-YA-RES				



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VUTSRPNMLKJHFEDCBA    VUTSRPNMLKJHFEDCBA    VUTSRPNMLKJHFEDCBA    VUTSRPNMLKJHFEDCBA    VUTSRPNMLKJHFEDCBA    VUTSRPNMLKJHFEDCBA

REVISIONS			TITLE		SIZE CODE	NUMBER		REV.
CHK	CHANGE NO.	REV.	INT MEM BUS TRANSLATOR		DUA	M8519-0-0		AI
			SCALE 2/1	SHEET 2 OF 5	DIST.			

CUSTOMER  
PRINT SET

MFG SET

REVISION CONTROL SHEET

REVISIONS

DRAWING NO	NO OF SHT	DESCRIPTION	OPTION NO/FILE DATE	NEW LAYOUT VERSION		
	-	MODULE REVISION		A	B	C
D-UA-M8519-0-0	5	INT MEM BUS TRANSLATOR		-	A	B
D-CS-M8519-0-MT01	1	INT MEM BUS TRANSLATOR		-	-	A
D-CS-M8519-0-MT02	1	INT MEM BUS TRANSLATOR		-	-	A
D-CS-M8519-0-MT03	1	INT MEM BUS TRANSLATOR		-	-	A
D-CS-M8519-0-MT04	1	INT MEM BUS TRANSLATOR		-	-	A
D-CS-M8519-0-MT05	1	INT MEM BUS TRANSLATOR		-	-	A
D-CS-M8519-0-MT06	1	INT MEM BUS TRANSLATOR		-	A	B
D-CS-M8519-0-RES	1	INTERNAL MEMORY TERMINATORS		-	-	A
K-CO-M8519-0-4	1	INT MEM BUS TRANSLATOR		B	B	C
D-AH-M8519-0-5	4	INT MEM BUS TRANSLATOR		A	A	B
B-MH-M8519-0-6	1	MODULE ECO HISTORY		-	REF	REF
5010639	-	ETCH CIRCUIT BOARD		B	B	C
P00-M8519-00	-	PROCESS SHEET (REF ONLY)		-	-	-

CUSTOMER PRINT SET CODES  
 X = PRINT OF DOCUMENT INCLUDED IN PRINT SET  
 C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT  
 S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

ECO NO  
 ORIG  
 00001  
 00002

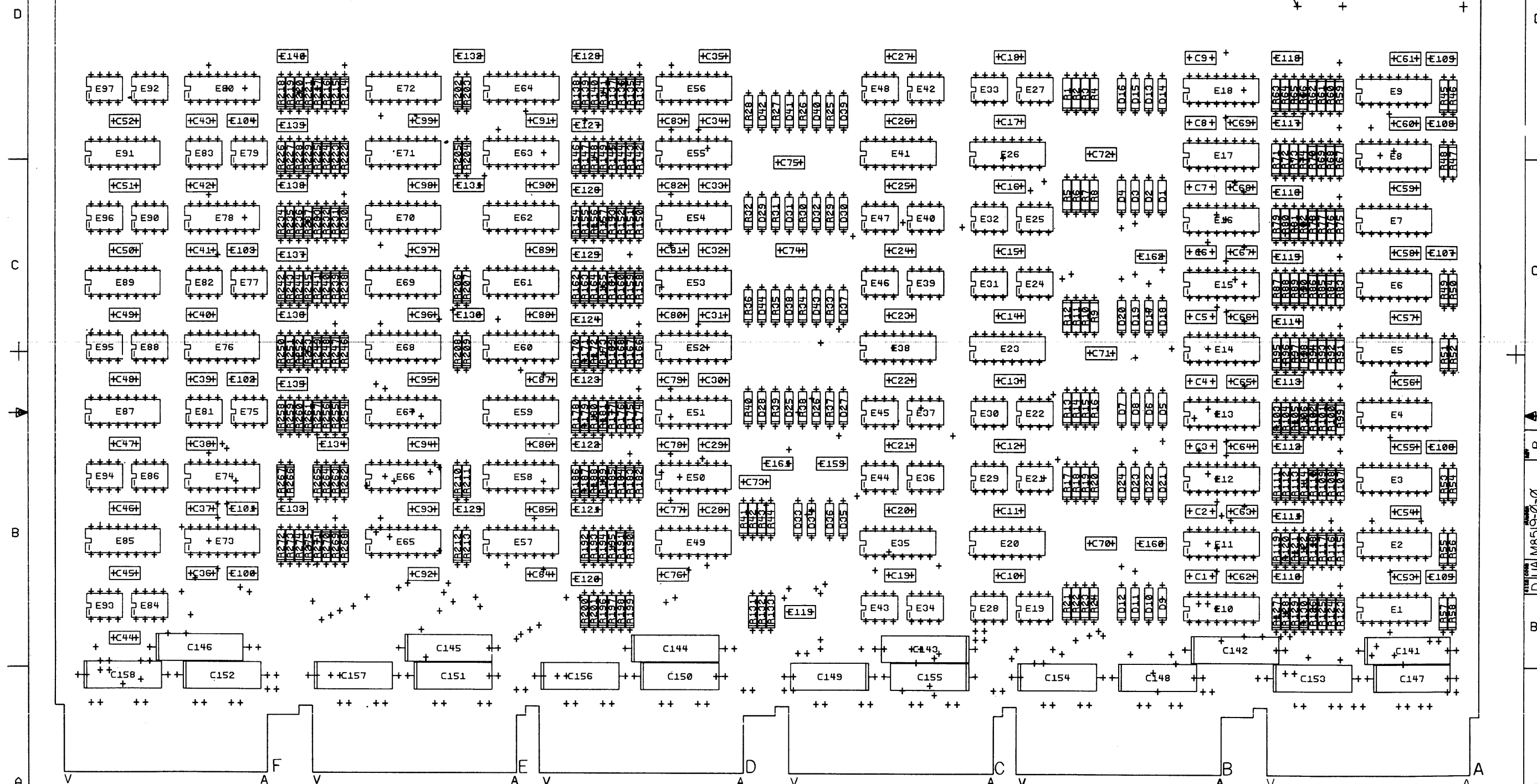
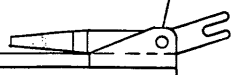
TITLE	SIZE	CODE	NUMBER	REV
INT MEM BUS TRANSLATOR	B	DD	M8519-0	8
SHEET 3 OF 3				

MR

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0-0-6198W 2

17(QTY 12)



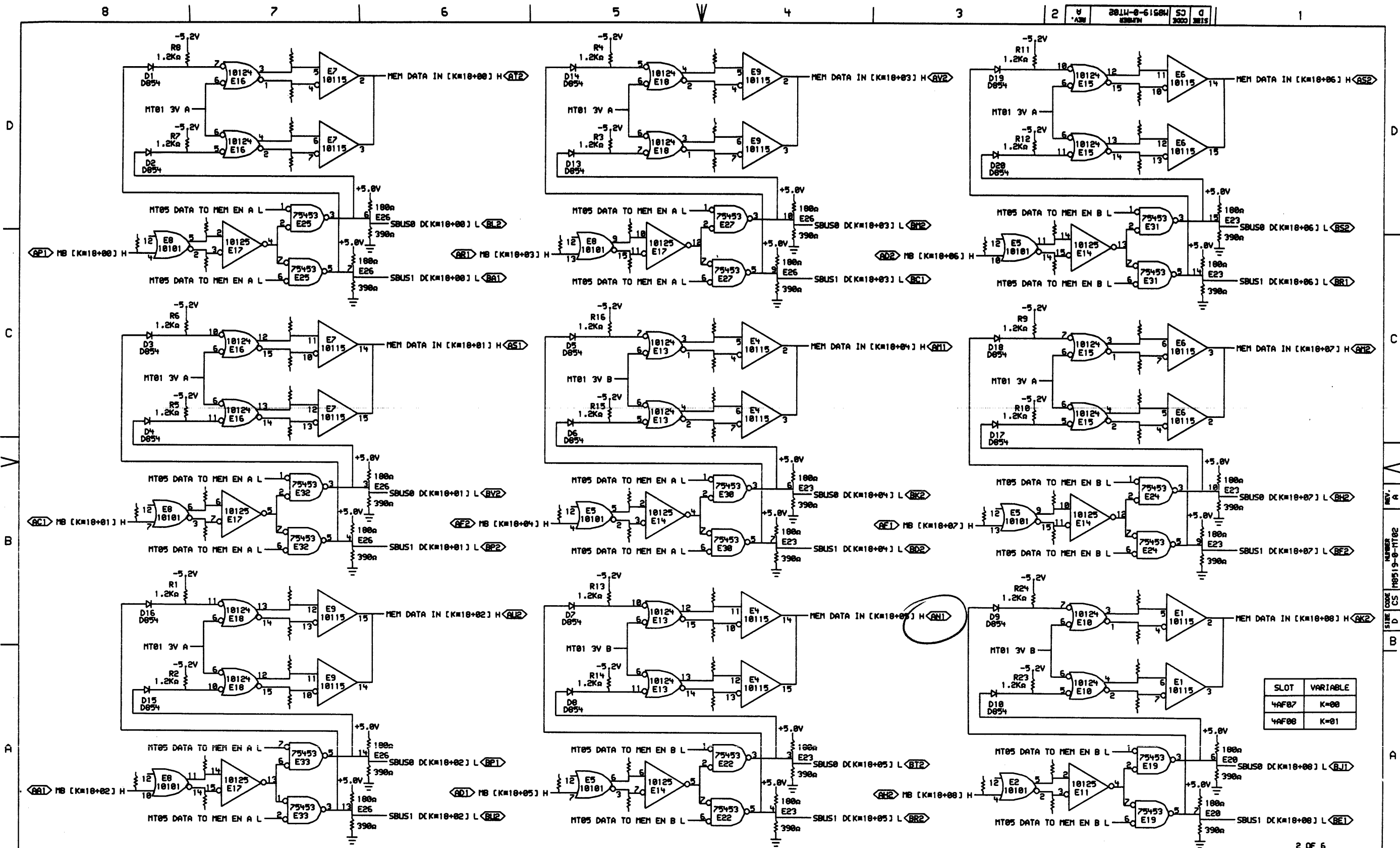
NOTES:


CHANGE NO	REV

ETCH REV.	C-P4
P.C. DESIGN DATA BASE REV.	C-P4

SIGNATURES		DATE	digital
DRN. <i>God's Man</i>		7-06-76	
CHK'D.			
ENG. <i>P.S. Allen</i>		25 J. 77	TITLE
PROJ. ENG. <i>P.S. Allen</i>		25 J. 77	INTERNAL MEMORY BUS
PROD. <i>W. Embury</i>		25 JAN 77	
SCALE	2/1		SIZE CODE NUMBER
SHT. 2 OF 5			D UA M8519-0-0
NEXT HIGHER ASSY. B-DD-M8519-0			REV
			B





SLOT	VARIABLE
4AF07	K=00
4AF08	K=01

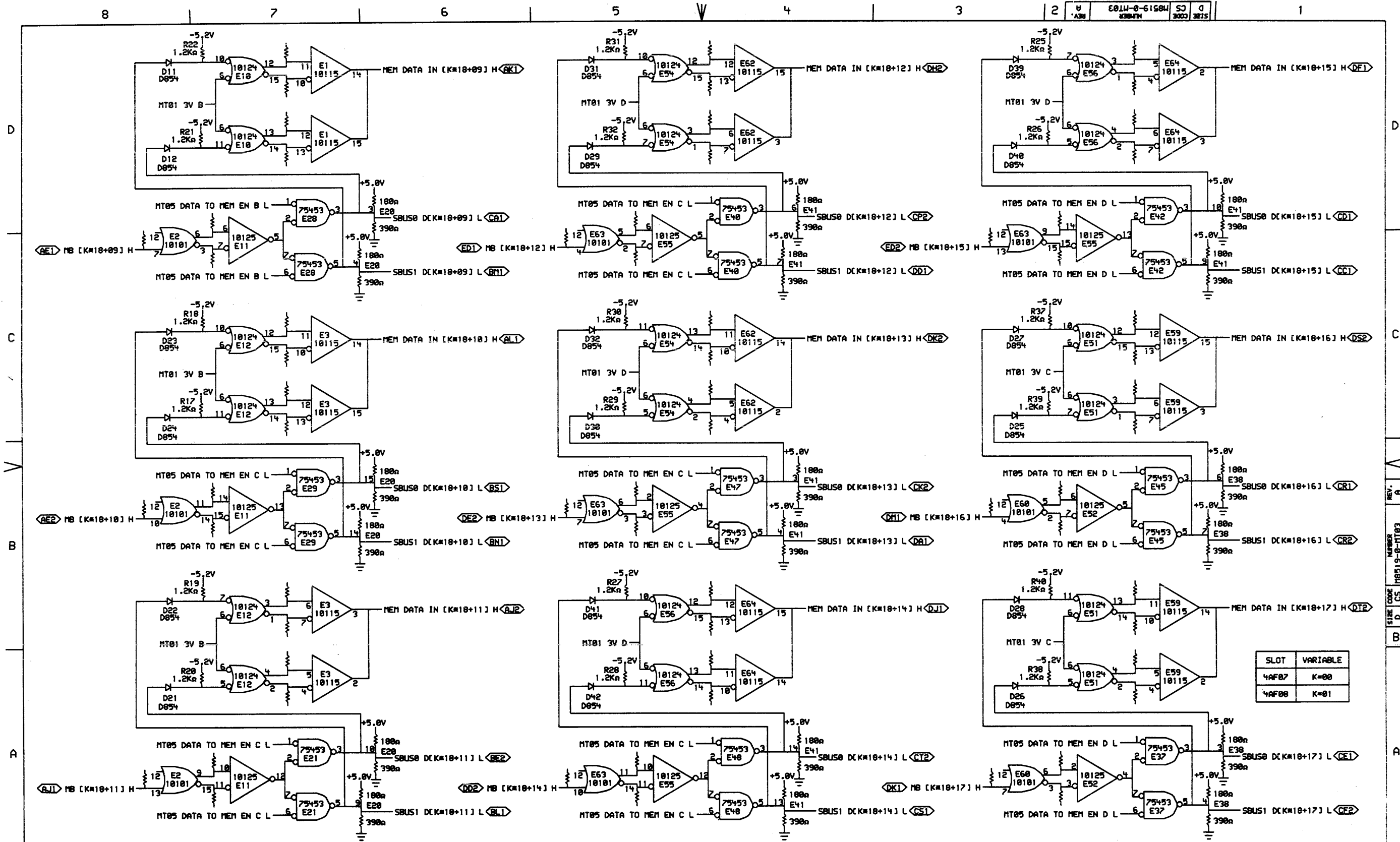
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REVISIONS		
CHK	CHANGE NO.	REV

<b>digital</b>	DRG: J. L. [Signature]	DATE: 10-JAN-77	ENG: S. Sullivan	DATE: 01-JAN-77	TITLE: INTERNAL MEMORY BUS TRANSLATOR
CHK'D: [Signature]	DATE: 09-JAN-77	BOARD LOCATION: 1	SHEET: 1		
NEXT HIGHER ASSEMBLY: MT02ER, DRG 4.547			FIRST USED ON OPTION/MODEL: KL10		
SIZE CODE: D CS		NUMBER: M8519-0-MT02	REV: A	MR	

97





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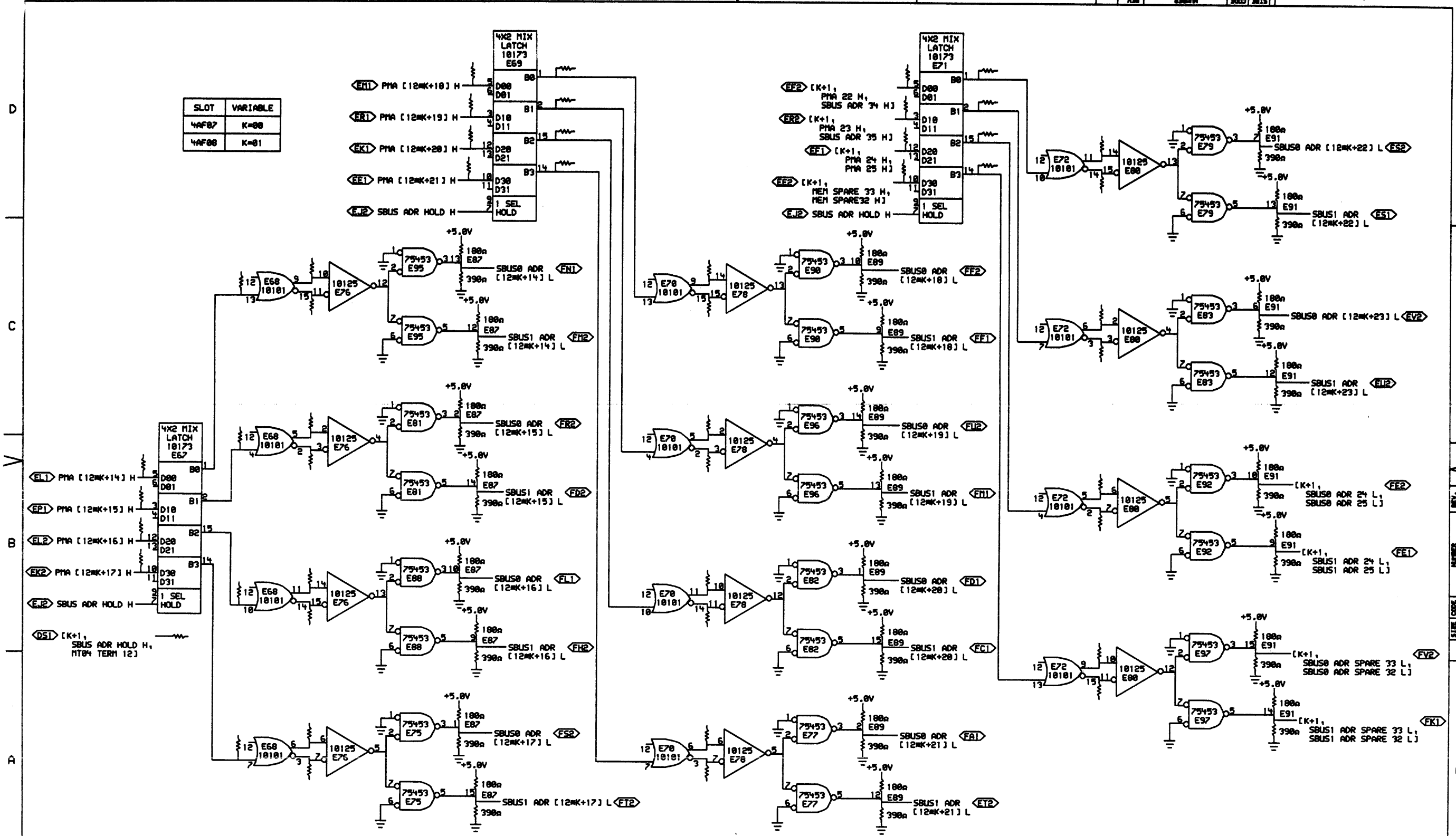
REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE: 18-JAN-77	ENG: J.S. [Signature]	DATE: 18-JAN-77	TITLE: INTERNAL MEMORY BUS TRANSLATOR
	CHK'D: [Signature]	DATE: 18-JAN-77	BOARD LOCATION: 1	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: 18-DD-M8519-0		NUMBER: M8519-0-MT03
MR				REV. A

REV. A  
NUMBER M8519-0-MT03  
SIZE CODE CS  
D



SLOT	VARIABLE
4AF87	K=88
4AF88	K=81



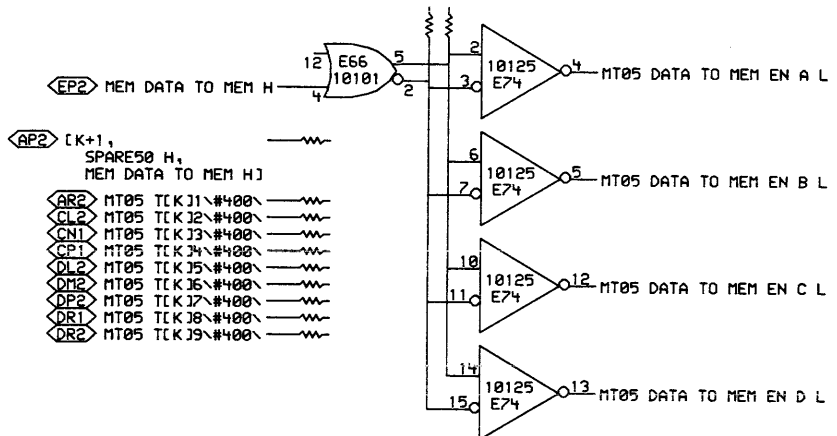
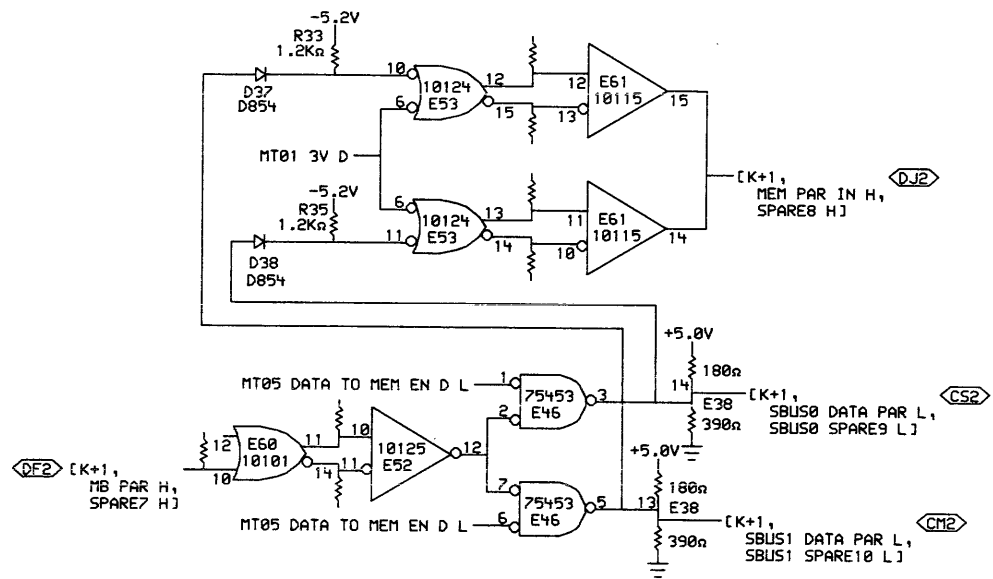
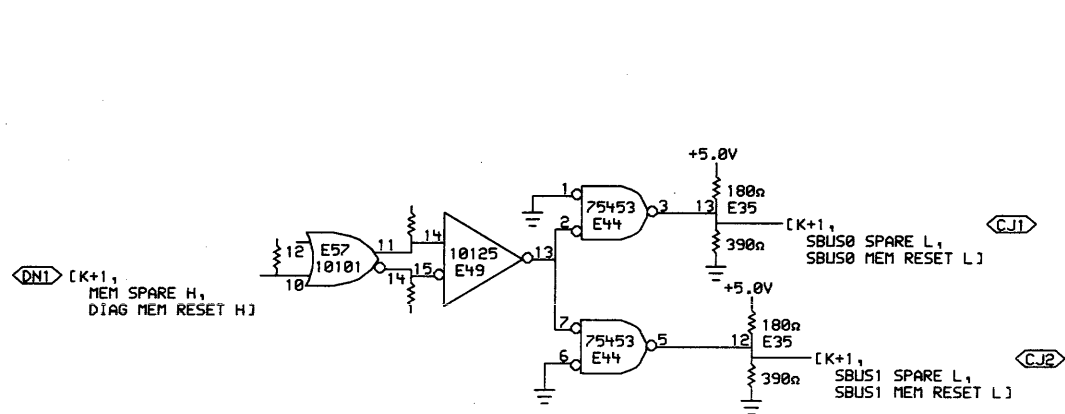
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REVISIONS	
CHK	CHANGE NO. REV

	DR. <i>J. Smith</i>	DATE ENG. 10-JAN-77	DATE 26-JUL-77	TITLE: INTERNAL MEMORY BUS TRANSLATOR
	CHK. <i>E. Smith</i>	DATE BOARD 1/17/77	BOARD LOCATION: 10	
RT0-ER.DRW (4,5,7)	118-JAN-77 12:41	NEXT HIGHER ASSEMBLY:	SIZE CODE D CS	NUMBER MR
FIRST USED ON OPTION MODEL: KL10		B-DD-M8519-0		REV. A

99

09 0108



- AR2 MT05 TTK J1\#400
- CL2 MT05 TTK J2\#400
- CN1 MT05 TTK J3\#400
- CP1 MT05 TTK J4\#400
- DL2 MT05 TTK J5\#400
- DM2 MT05 TTK J6\#400
- DP2 MT05 TTK J7\#400
- DR1 MT05 TTK J8\#400
- DR2 MT05 TTK J9\#400

SLOT	VARIABLE
4AF07	K=00
4AF08	K=01

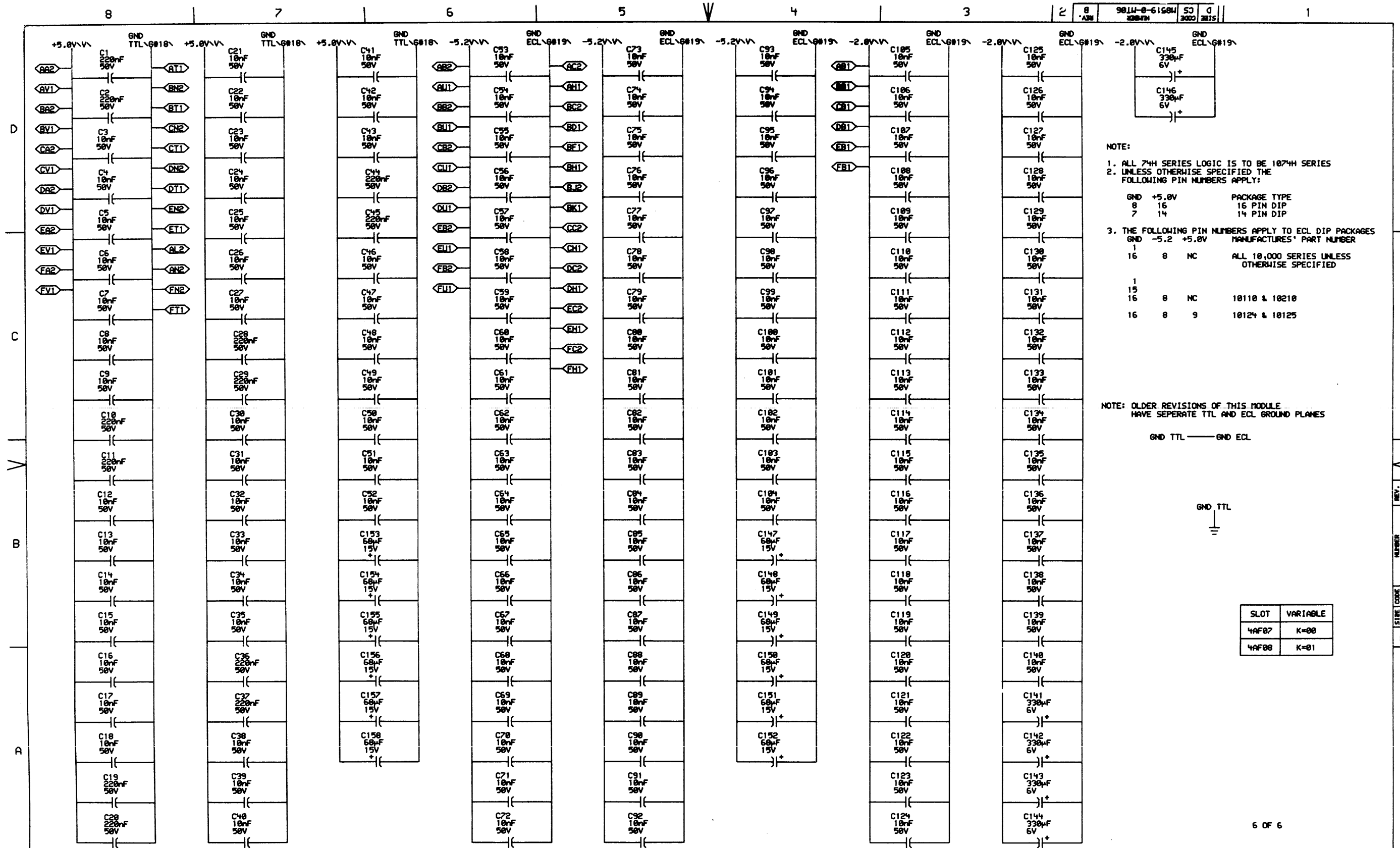
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REVISIONS		
CHK	CHANGE NO.	REV

digital  
 DWN: J. J. J. / E. C. C.  
 DATE: 18-JAN-77  
 MT05ER.DRW 4,547 J  
 FIRST USED ON OPTION/MODEL: KL10

DATE: 18-JAN-77  
 BOARD LOCATION: 1 OF 1  
 NEXT HIGHER ASSEMBLY: B-DD-M8519-0

TITLE: INTERNAL MEMORY BUS TRANSLATOR  
 SIZE CODE: D CS  
 NUMBER: M8519-0-MT05  
 REV: A



NOTE:

- ALL 74H SERIES LOGIC IS TO BE 1074H SERIES
- UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY:
 

GND	+5.0V	PACKAGE TYPE
8	16	16 PIN DIP
7	14	14 PIN DIP
- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES
 

GND	-5.2	+5.0V	MANUFACTURER'S PART NUMBER
1	16	8	NC
1	15	8	NC
16	8	NC	10110 & 10210
16	8	9	10124 & 10125

NOTE: OLDER REVISIONS OF THIS MODULE HAVE SEPERATE TTL AND ECL GROUND PLANES

GND TTL — GND ECL



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG	DATE	TITLE:
	10/20/77	J. J. L...	10/20/77	INT MEM BUS TRANSLATOR
RYOCER, DRUK 4, 5, 7, 1	DATE	BOARD LOCATION:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10	10/20/77	11:50	D	CS
			NUMBER	REV.
			M8519-0-M106	B

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R129(1)	MT02	B2	68n	%E10(1)	R66(1)	MT02	D4	68n	%E10(1)	R165(1)	MT01	B7	68n	%E53(1)	R145(1)	MT03	A5	68n	%E53(14)
R124(1)	MT03	D7	68n	%E10(12)	R60(1)	MT02	A7	68n	%E10(12)	R159(1)	MT05	D3	68n	%E53(12)	R142(1)	MT03	C2	68n	%E53(15)
R126(1)	MT03	D7	68n	%E10(13)	R62(1)	MT02	B7	68n	%E10(13)	R161(1)	MT05	D3	68n	%E53(13)	R140(1)	MT03	C5	68n	%E53(2)
R125(1)	MT03	D7	68n	%E10(14)	R61(1)	MT02	B7	68n	%E10(14)	R160(1)	MT05	D3	68n	%E53(14)	R146(1)	MT03	B5	68n	%E53(3)
R123(1)	MT03	D7	68n	%E10(15)	R59(1)	MT02	A7	68n	%E10(15)	R158(1)	MT05	D3	68n	%E53(15)	R149(1)	MT03	C5	68n	%E53(5)
R120(1)	MT02	A2	68n	%E10(2)	R64(1)	MT02	D4	68n	%E10(2)	R163(1)	MT01	B7	68n	%E53(2)	R147(1)	MT03	B5	68n	%E53(6)
R130(1)	MT02	B2	68n	%E10(3)	R65(1)	MT02	D4	68n	%E10(3)	R164(1)	MT01	B7	68n	%E53(3)	R143(1)	MT03	C2	68n	%E53(9)
R127(1)	MT02	A2	68n	%E10(4)	R63(1)	MT02	D4	68n	%E10(4)	R162(1)	MT01	B7	68n	%E53(4)	R271(1)	MT01	B3	68n	%E65(11)
R114(1)	MT03	B7	68n	%E12(1)	R110(1)	MT03	B7	68n	%E2(11)	R156(1)	MT03	D4	68n	%E54(1)	R270(1)	MT01	B3	68n	%E65(14)
R100(1)	MT03	C7	68n	%E12(12)	R117(1)	MT03	B7	68n	%E2(14)	R151(1)	MT03	D4	68n	%E54(12)	R269(1)	MT01	B3	68n	%E65(15)
R110(1)	MT03	C7	68n	%E12(13)	R116(1)	MT03	A7	68n	%E2(15)	R153(1)	MT03	C4	68n	%E54(13)	R273(1)	MT01	C3	68n	%E65(2)
R109(1)	MT03	C7	68n	%E12(14)	R120(1)	MT02	A2	68n	%E2(2)	R152(1)	MT03	C4	68n	%E54(14)	R274(1)	MT01	C3	68n	%E65(3)
R107(1)	MT03	C7	68n	%E12(15)	R121(1)	MT03	C7	68n	%E2(3)	R150(1)	MT03	D4	68n	%E54(15)	R272(1)	MT01	D3	68n	%E65(5)
R112(1)	MT03	A7	68n	%E12(2)	R119(1)	MT02	A2	68n	%E2(5)	R154(1)	MT03	C4	68n	%E54(2)	R275(1)	MT01	C3	68n	%E65(6)
R113(1)	MT03	B7	68n	%E12(3)	R122(1)	MT03	C7	68n	%E2(6)	R157(1)	MT03	D4	68n	%E54(3)	R260(1)	MT01	B3	68n	%E65(9)
R111(1)	MT03	A7	68n	%E12(4)	R115(1)	MT03	A7	68n	%E2(9)	R155(1)	MT03	C4	68n	%E54(4)	R266(1)	MT05	B4	68n	%E66(2)
R104(1)	MT02	C4	68n	%E13(1)	R94(1)	MT02	C2	68n	%E5(11)	R130(1)	MT03	D2	68n	%E56(1)	R267(1)	MT05	B4	68n	%E66(5)
R100(1)	MT02	B4	68n	%E13(12)	R93(1)	MT02	C2	68n	%E5(14)	R137(1)	MT03	B4	68n	%E56(12)	R257(1)	MT04	C7	68n	%E67(1)
R102(1)	MT02	A4	68n	%E13(13)	R92(1)	MT02	B2	68n	%E5(15)	R136(1)	MT03	A4	68n	%E56(13)	R254(1)	MT04	A7	68n	%E67(14)
R101(1)	MT02	A4	68n	%E13(14)	R96(1)	MT02	B5	68n	%E5(2)	R135(1)	MT03	A4	68n	%E56(14)	R256(1)	MT04	B7	68n	%E67(15)
R99(1)	MT02	B4	68n	%E13(15)	R97(1)	MT02	A5	68n	%E5(3)	R134(1)	MT03	B4	68n	%E56(15)	R255(1)	MT04	B7	68n	%E67(2)
R106(1)	MT02	C4	68n	%E13(2)	R95(1)	MT02	B5	68n	%E5(5)	R140(1)	MT03	D2	68n	%E56(2)	R249(1)	MT04	B7	68n	%E68(11)
R103(1)	MT02	C4	68n	%E13(3)	R98(1)	MT02	A5	68n	%E5(6)	R139(1)	MT03	D2	68n	%E56(3)	R240(1)	MT04	B7	68n	%E68(14)
R105(1)	MT02	C4	68n	%E13(4)	R91(1)	MT02	B2	68n	%E5(9)	R141(1)	MT03	D2	68n	%E56(4)	R247(1)	MT04	C7	68n	%E68(15)
R90(1)	MT02	C2	68n	%E15(1)	R105(1)	MT01	D6	68n	%E50(1)	R190(1)	MT05	C7	68n	%E57(11)	R251(1)	MT04	B7	68n	%E68(2)
R84(1)	MT02	D2	68n	%E15(12)	R102(1)	MT01	D6	68n	%E50(12)	R191(1)	MT05	C7	68n	%E57(14)	R252(1)	MT04	A7	68n	%E68(3)
R86(1)	MT02	D2	68n	%E15(13)	R100(1)	MT01	C6	68n	%E50(13)	R195(1)	MT01	C7	68n	%E57(2)	R250(1)	MT04	C7	68n	%E68(5)
R85(1)	MT02	D2	68n	%E15(14)	R109(1)	MT01	C6	68n	%E50(14)	R192(1)	MT01	D3	68n	%E57(3)	R253(1)	MT04	A7	68n	%E68(6)
R83(1)	MT02	D2	68n	%E15(15)	R103(1)	MT01	D6	68n	%E50(15)	R194(1)	MT01	D3	68n	%E57(5)	R246(1)	MT04	C7	68n	%E68(9)
R80(1)	MT02	C2	68n	%E15(2)	R106(1)	MT01	D6	68n	%E50(2)	R193(1)	MT01	D3	68n	%E57(6)	R230(1)	MT04	D5	68n	%E69(1)
R89(1)	MT02	C2	68n	%E15(3)	R104(1)	MT01	D6	68n	%E50(3)	R160(1)	MT05	C3	68n	%E60(11)	R240(1)	MT04	D5	68n	%E69(14)
R87(1)	MT02	C2	68n	%E15(4)	R107(1)	MT01	D6	68n	%E50(4)	R169(1)	MT05	C3	68n	%E60(14)	R241(1)	MT04	D5	68n	%E69(15)
R80(1)	MT02	D7	68n	%E16(1)	R179(1)	MT03	C2	68n	%E51(1)	R166(1)	MT01	A7	68n	%E60(15)	R239(1)	MT04	D5	68n	%E69(2)
R76(1)	MT02	C7	68n	%E16(12)	R175(1)	MT03	C2	68n	%E51(12)	R173(1)	MT03	B2	68n	%E60(2)	R233(1)	MT04	B5	68n	%E70(11)
R70(1)	MT02	C7	68n	%E16(13)	R177(1)	MT03	B2	68n	%E51(13)	R170(1)	MT03	A2	68n	%E60(3)	R232(1)	MT04	B5	68n	%E70(14)
R77(1)	MT02	C7	68n	%E16(14)	R176(1)	MT03	B2	68n	%E51(14)	R172(1)	MT03	B2	68n	%E60(5)	R231(1)	MT04	C5	68n	%E70(15)
R75(1)	MT02	C7	68n	%E16(15)	R174(1)	MT03	C2	68n	%E51(15)	R171(1)	MT03	A2	68n	%E60(6)	R235(1)	MT04	B5	68n	%E70(2)
R82(1)	MT02	D7	68n	%E16(2)	R180(1)	MT03	A2	68n	%E51(2)	R167(1)	MT01	A7	68n	%E60(9)	R236(1)	MT04	A5	68n	%E70(3)
R79(1)	MT02	D7	68n	%E16(3)	R178(1)	MT03	C2	68n	%E51(3)	R211(1)	MT01	B6	68n	%E51(2)	R234(1)	MT04	C5	68n	%E70(5)
R81(1)	MT02	D7	68n	%E16(4)	R181(1)	MT03	A2	68n	%E51(4)	R144(1)	MT03	A5	68n	%E53(11)	R237(1)	MT04	A5	68n	%E70(6)

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

REV. A  
 NUMBER 18519-0-RES  
 CS  
 D

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>C. Smith</i>	DATE <i>22-DEC-76</i>	ENG. <i>RS. Bl...</i>	DATE <i>12-22-77</i>	TITLE: INT MEM BUS TRANS TERMINATORS
	CHK. <i>W. Adams</i>	DATE <i>12/27</i>	BOARD LOCATION: <i>1</i>	SHEET <i>2</i>	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8519-0		NUMBER: M8519-0-RES	REV. A

D

C

V

B

A

D

C

V

B

A

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R230(1)	MT04	C5	60n	%E70(9)
R224(1)	MT04	D3	60n	%E71(1)
R223(1)	MT04	D3	60n	%E71(14)
R222(1)	MT04	D3	60n	%E71(15)
R225(1)	MT04	D3	60n	%E71(2)
R214(1)	MT04	D2	60n	%E72(11)
R215(1)	MT04	D2	60n	%E72(14)
R216(1)	MT04	A2	60n	%E72(15)
R219(1)	MT04	B2	60n	%E72(2)
R221(1)	MT04	C2	60n	%E72(3)
R210(1)	MT04	B2	60n	%E72(5)
R220(1)	MT04	C2	60n	%E72(6)
R217(1)	MT04	A2	60n	%E72(9)
R69(1)	MT02	A7	60n	%E8(11)
R70(1)	MT02	A7	60n	%E8(14)
R67(1)	MT02	C5	60n	%E8(15)
R73(1)	MT02	C7	60n	%E8(2)
R72(1)	MT02	B7	60n	%E8(3)
R74(1)	MT02	C7	60n	%E8(5)
R71(1)	MT02	B7	60n	%E8(6)
R68(1)	MT02	C5	60n	%E8(9)
R40(1)	MT02	C8	60n	MB [K#10+00] H
R47(1)	MT02	B8	60n	MB [K#10+01] H
R46(1)	MT02	A8	60n	MB [K#10+02] H
R45(1)	MT02	C5	60n	MB [K#10+03] H
R51(1)	MT02	B5	60n	MB [K#10+04] H
R52(1)	MT02	A5	60n	MB [K#10+05] H
R50(1)	MT02	C3	60n	MB [K#10+06] H
R49(1)	MT02	B3	60n	MB [K#10+07] H
R56(1)	MT02	A3	60n	MB [K#10+08] H
R55(1)	MT03	C8	60n	MB [K#10+09] H
R54(1)	MT03	B8	60n	MB [K#10+10] H
R53(1)	MT03	A8	60n	MB [K#10+11] H
R205(1)	MT03	C5	60n	MB [K#10+12] H
R204(1)	MT03	B5	60n	MB [K#10+13] H
R203(1)	MT03	A5	60n	MB [K#10+14] H
R202(1)	MT03	C3	60n	MB [K#10+15] H
R209(1)	MT03	B3	60n	MB [K#10+16] H
R208(1)	MT03	A3	60n	MB [K#10+17] H
R57(1)	MT05	B4	60n	MT05 T(K)J1~#400\

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R133(1)	MT05	B4	60n	MT05 T(K)J2~#400\
R132(1)	MT05	B4	60n	MT05 T(K)J3~#400\
R131(1)	MT05	B4	60n	MT05 T(K)J4~#400\
R199(1)	MT05	B4	60n	MT05 T(K)J5~#400\
R198(1)	MT05	B4	60n	MT05 T(K)J6~#400\
R197(1)	MT05	B4	60n	MT05 T(K)J7~#400\
R201(1)	MT05	B4	60n	MT05 T(K)J8~#400\
R196(1)	MT05	B4	60n	MT05 T(K)J9~#400\
R260(1)	MT04	B8	60n	PMA [12#K+14] H
R261(1)	MT04	B8	60n	PMA [12#K+15] H
R258(1)	MT04	B8	60n	PMA [12#K+16] H
R259(1)	MT04	B8	60n	PMA [12#K+17] H
R244(1)	MT04	D6	60n	PMA [12#K+18] H
R245(1)	MT04	D6	60n	PMA [12#K+19] H
R242(1)	MT04	D6	60n	PMA [12#K+20] H
R243(1)	MT04	D6	60n	PMA [12#K+21] H
R213(1)	MT01	C7	60n	[K+1, CLK SBUS CL< H, SPARE CLK H]
R206(1)	MT01	A7	60n	[K+1, DATA VALID A OUT H, DATA VALID B OUT H]
R207(1)	MT05	C3	60n	[K+1, MB PAR H, SPARE7 H]
R265(1)	MT01	B4	60n	[K+1, MEM DIAG L, -MEM ADR PAR L]
R264(1)	MT01	C4	60n	[K+1, MEM RQ 0 H, MEM RQ 3 H]
R262(1)	MT01	C4	60n	[K+1, MEM RQ 1 H, MEM RQ RQ H]
R263(1)	MT01	B4	60n	[K+1, MEM RQ 2 H, MEM WR RQ H]
R226(1)	MT04	D4	60n	[K+1, MEM SPARE 33 H, MEM SPARE32 H]
R210(1)	MT05	C7	60n	[K+1, MEM SPARE H, DIAG MEM RESET H]
R212(1)	MT01	D4	60n	[K+1, MEM START A H, MEM START B H]
R220(1)	MT04	D4	60n	[K+1, PMA 22 H, SBUS ADR 34 H]
R229(1)	MT04	D4	60n	[K+1, PMA 23 H, SBUS ADR 35 H]
R22(1)	MT04	D4	60n	[K+1, PMA 24 H, PMA 25 H]
R200(1)	MT04	B8	60n	[K+1, SBUS ADR HOLD H, MT04 TERM 12]
R50(1)	MT05	B4	60n	[K+1, SPARE50 H, MEM DATA TO MEM H]

NOTE:  
 1. ALL TERMINATOR 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

REV. A  
 NUMBER M8519-0-RES  
 SIZE CODE CS  
 D

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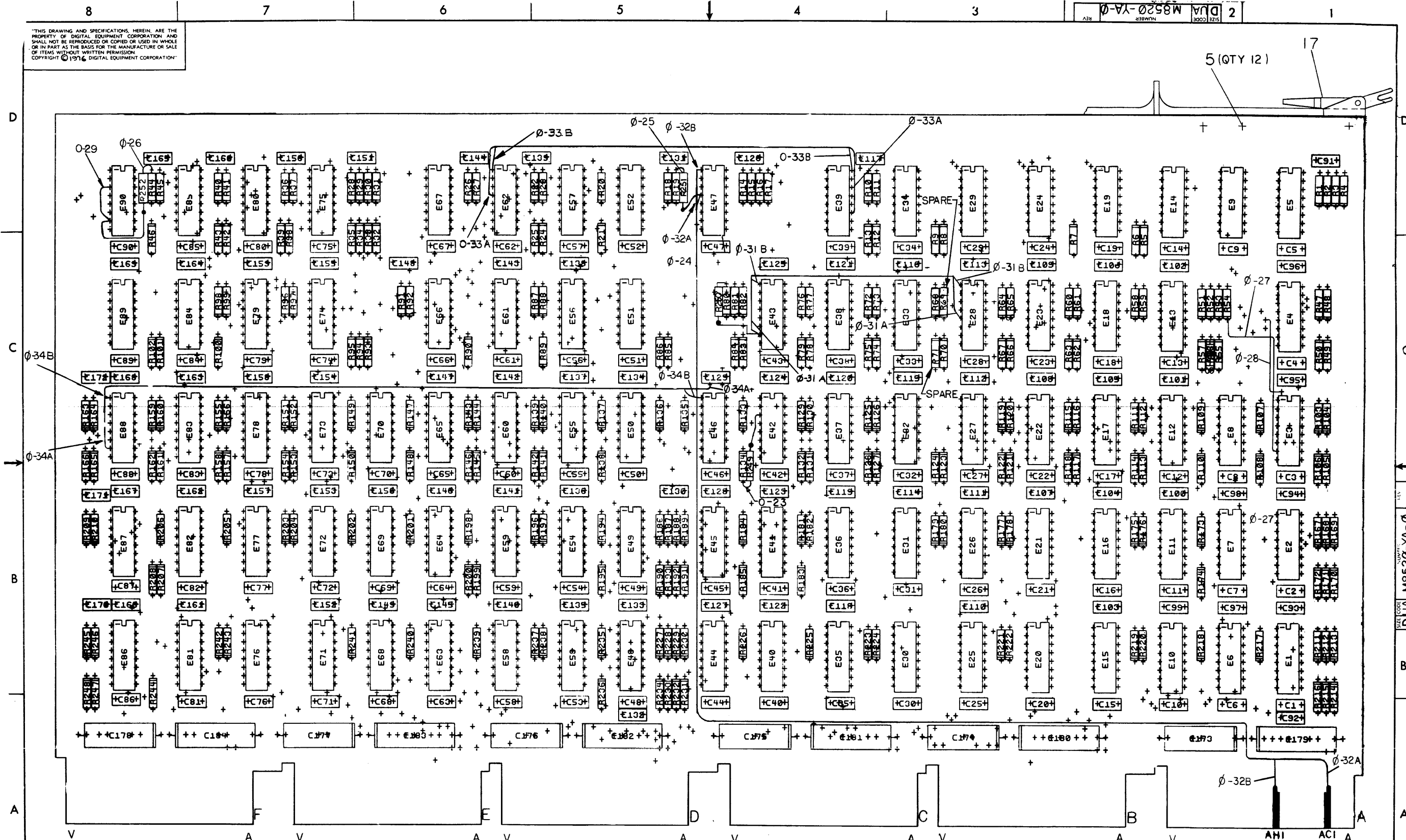
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>Smith</i>	DATE <i>12-DEC-76</i>	ENG. <i>PSullivan</i>	DATE <i>05-11-77</i>	TITLE: INT MEM BUS TRANS TERMINATORS
	CHK. <i>Chapman</i>	DATE <i>1/27</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	SIZE CODE NUMBER REV. <i>D CS M8519-0-RES A</i>
FIRST USED ON OPTION/MODEL: <i>KL10</i>			NEXT HIGHER ASSEM LY: <i>B-DD-M8519-0</i>		<i>MR</i>



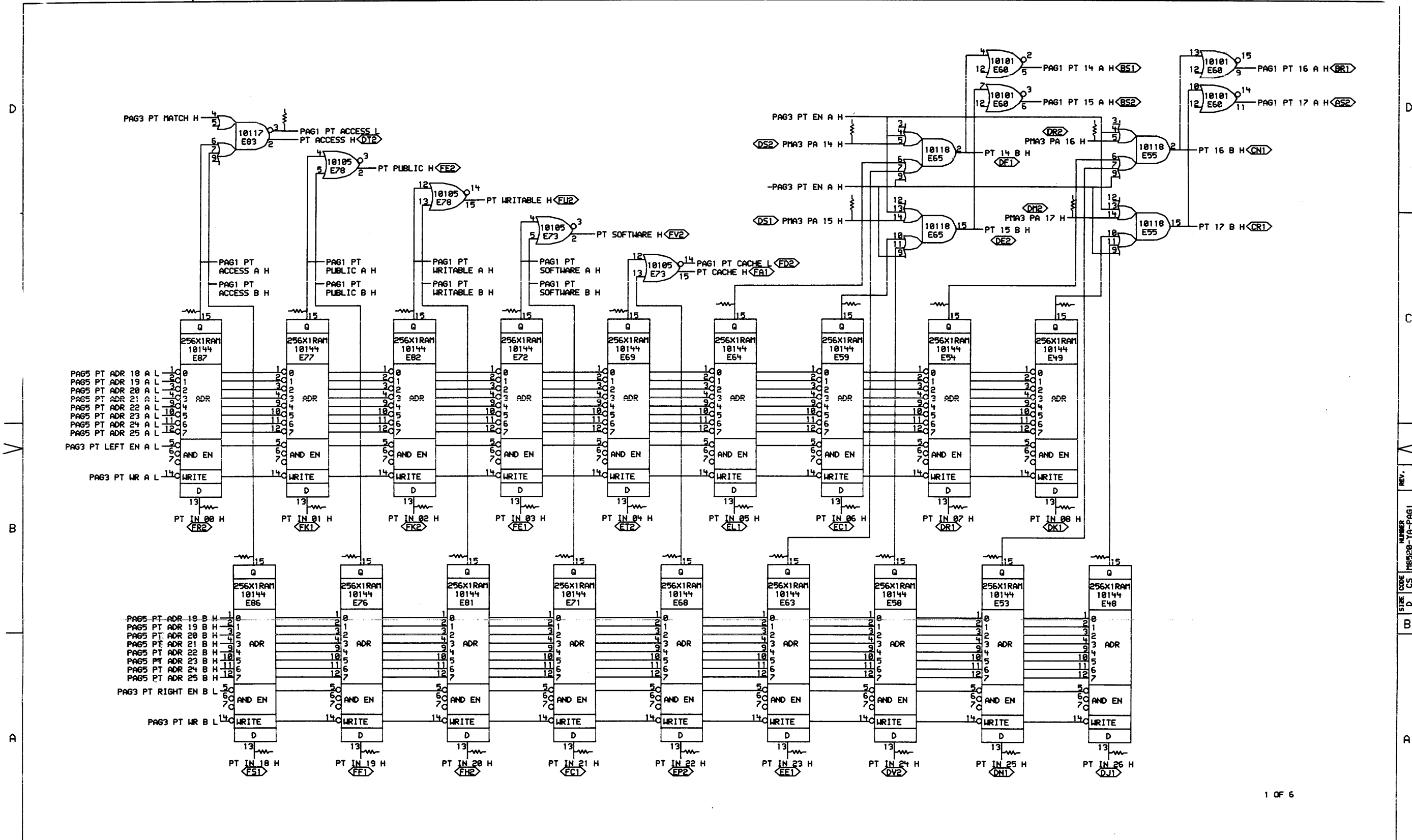
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2 DUA M8520-YA-0



REVISIONS		
CHK	CHANGE NO	REV

TITLE PAGING BOARD  
 SCALE 1" = 1" SHEET 2 OF 5  
 SIZE CODE DUA NUMBER M8520-YA-0  
 DIST. MR 1



1 OF 6

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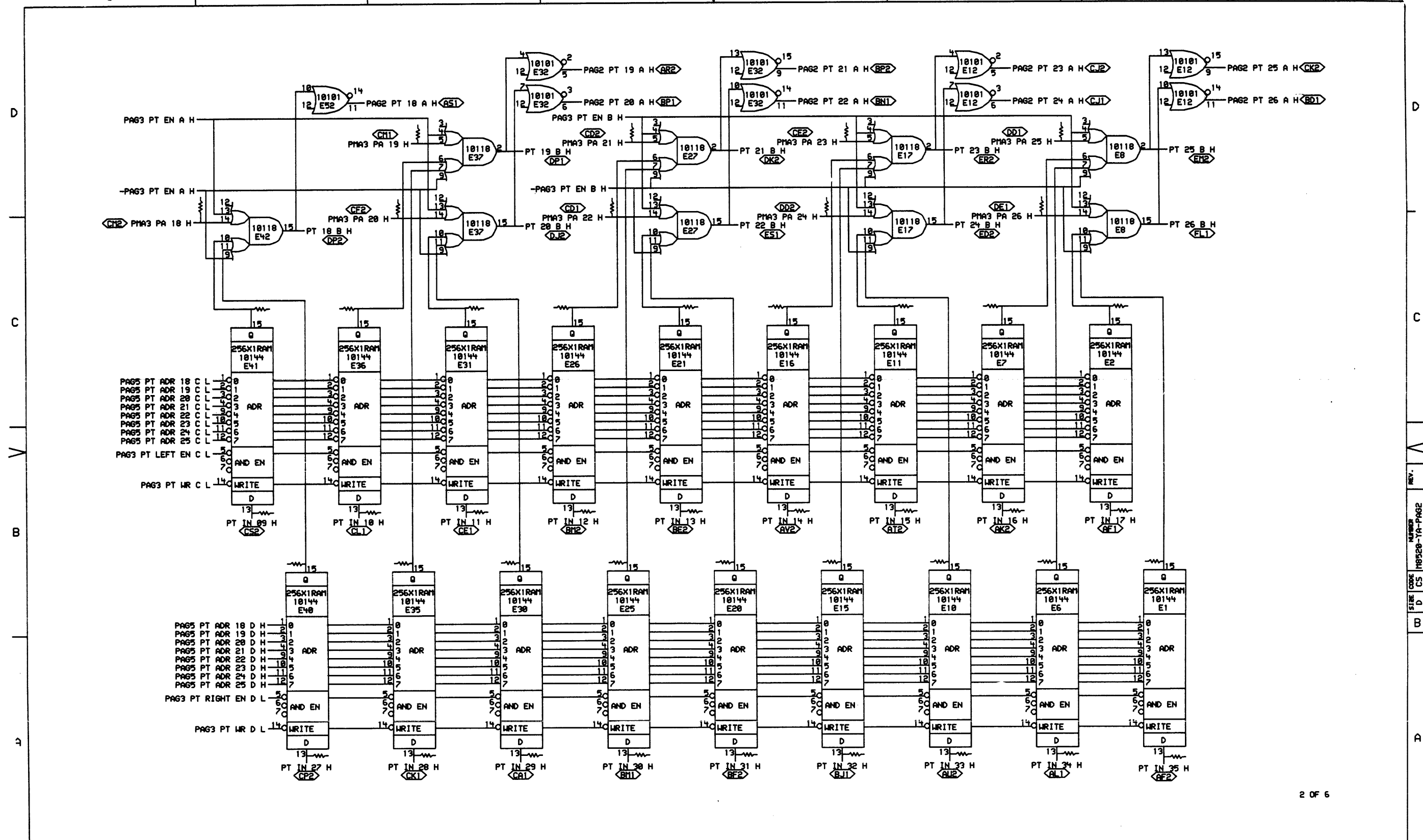
REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 01-JAN-77	ENG: A. D. Allen	DATE: 11-14-77	TITLE: PAGE TABLE DATA
	DATE: 01-JAN-77	DATE: 01-JAN-77	DATE: 01-JAN-77	PT ACCESS-PT 17
FIRST USED ON OPTION/MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-M8520-YA		SIZE CODE: D
REV. NUMBER: 104-P-10288				REV. NUMBER: 104-P-10288

SIZE CODE: D	NUMBER: M8520-YA-PAG1	REV.:
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REV. NUMBER 104-P-10288 CS D 1





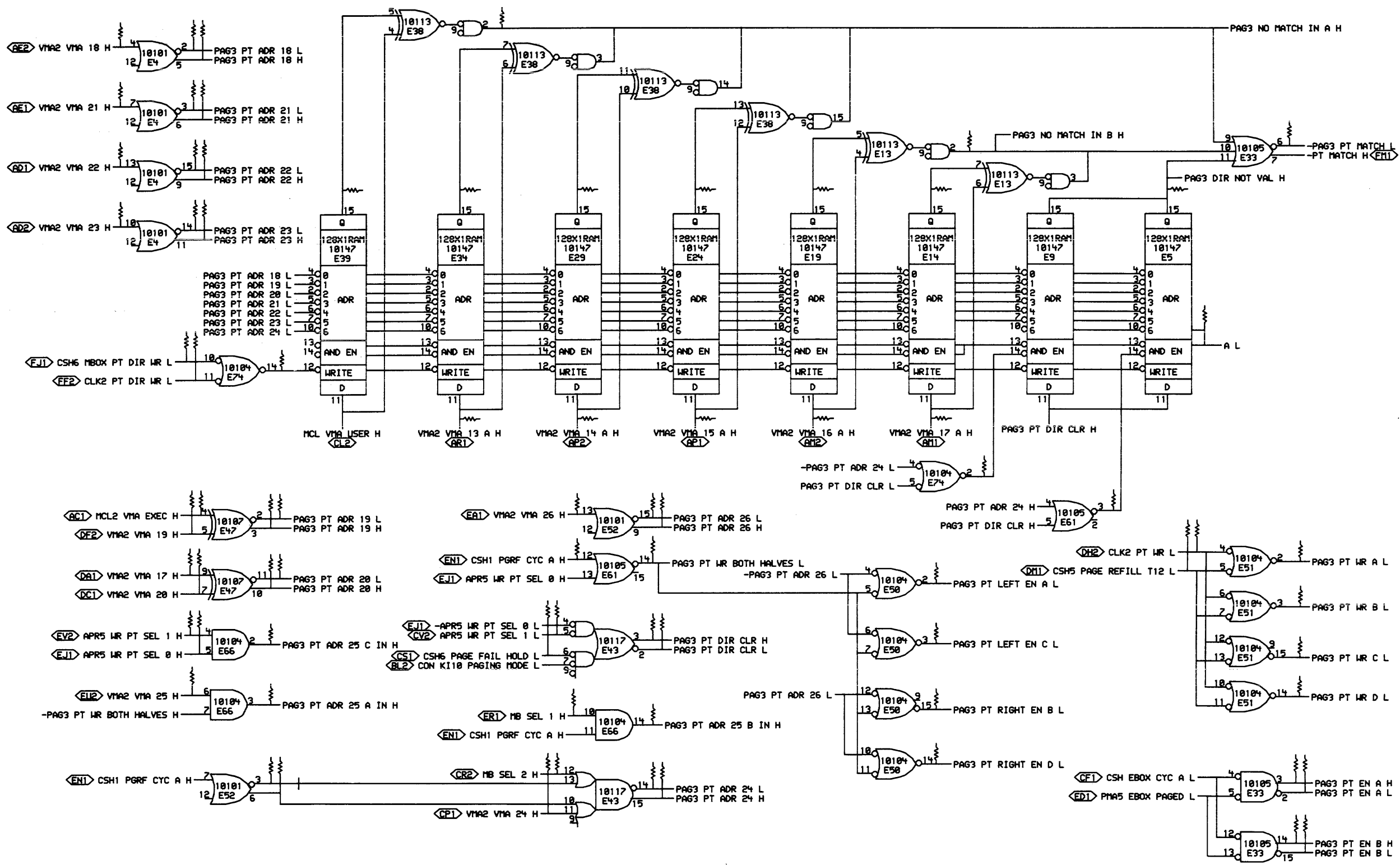
2 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 11/16/77	ENG: J.P. Allen	DATE: 11/16/77	TITLE: PAGE TABLE DATA
	DATE: 12/14/76	BOARD LOCATION: 4AF30	DATE: 11/16/77	PT 16 - PT 26
PAGE REF: DML 4.551	21 DEC 76 06:22	NEXT HIGHER ASSEMBLY: B-DD-M8520-YA	SIZE: D	CODE: CS
FIRST USED ON OPTION/MODEL: KL10PV			NUMBER: M8520-YA-PAGE 2	REV.:

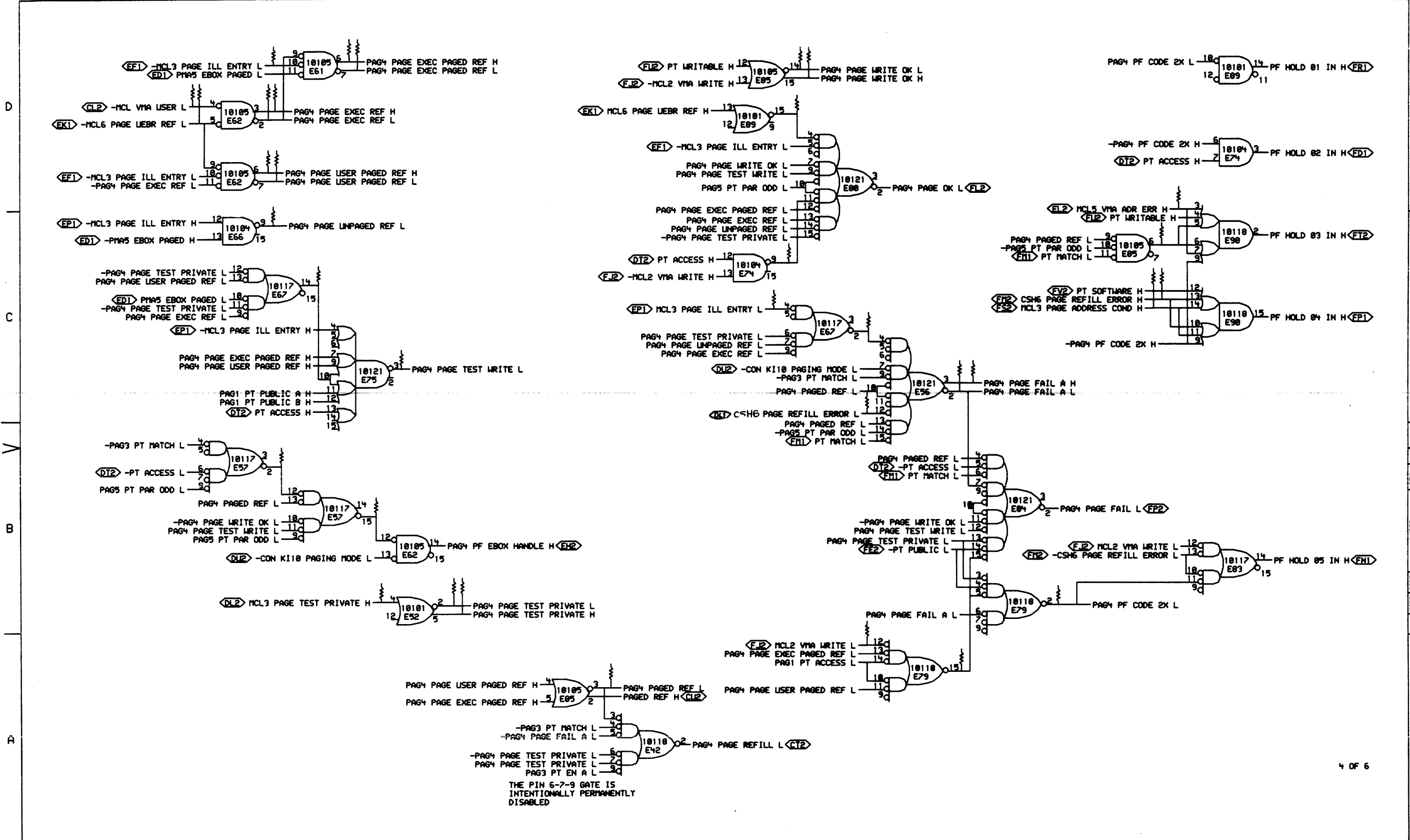
107



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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 11-16-77	ENG: J.P. Allen	DATE: 11-16-77	TITLE: PAGE TABLE DIRECTORY
	DATE: 121-DEC-76 06:49	BOARD LOCATION: 4AF-38	SHEET: 11577	SIZE CODE NUMBER REV. D CS M8520-YA-PAG3
FIRST USED ON OPTION/MODEL: KL10PV B-DD-M8520-YA				

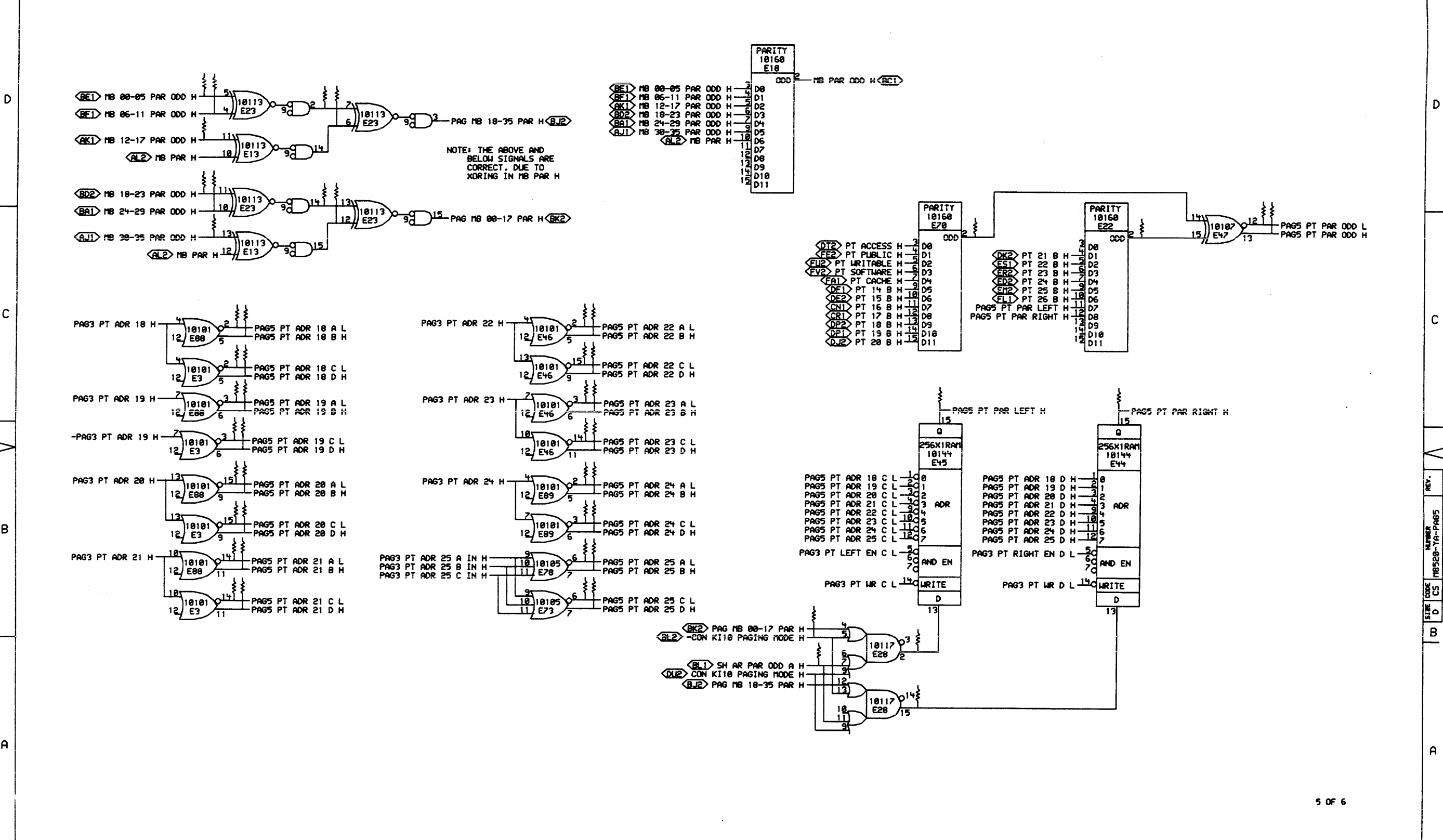


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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 11/27/77	ENGR. A.D. [Signature]	DATE 11/27/77	TITLE: PAGE TABLE CONTROL LOGIC
	DATE 11/27/77	ENGR. [Signature]	DATE 11/27/77	BOARD LOCATION: 48E30
FIRST USED ON OPTION/MODEL: KL10PV B-DD-M8520-YA				SIZE CODE D CS M8520-YA-PAG4

109

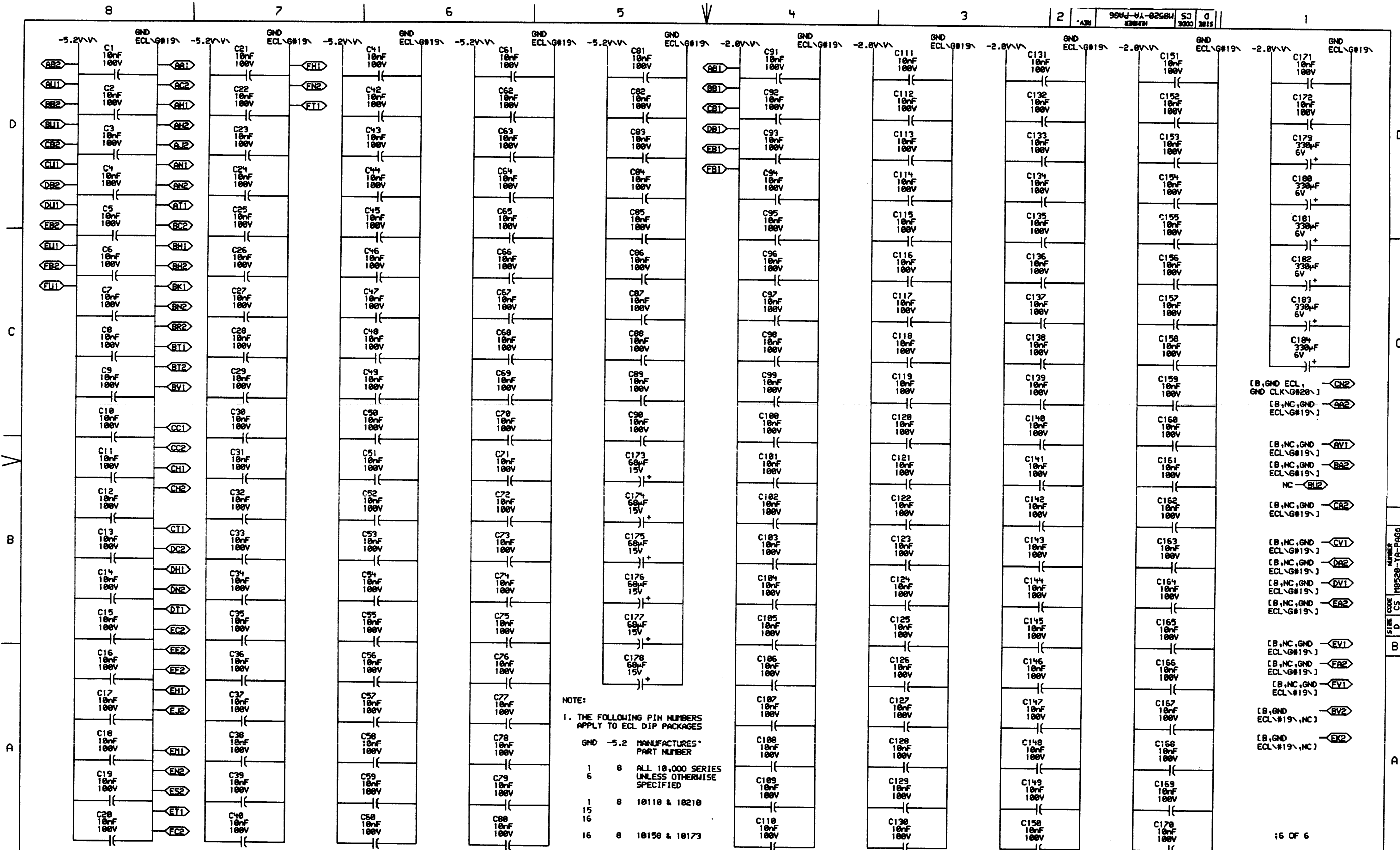


5 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	01 JUN 77	J. P. Allen	11 Jan 77	PAGE TABLE PARITY LOGIC
PAGE DEF. DRG 4.551	DATE	BOARD LOCATION:	SIZE CODE NUMBER REV.	
FIRST USED ON OPTION MODEL:	10 JUN 77	4RF30	D CS	M8520-YA-PAG5
KL10PV	1305			



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURES' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
6	8	10110 & 10210
1	8	10158 & 10173
15		
16		

[B,GND,ECL,GND,CLK,G#20] - CN2  
 [B,NC,GND,ECL,G#19] - AB2  
 [B,NC,GND,ECL,G#19] - BV1  
 [B,NC,GND,ECL,G#19] - BA2  
 NC - BL2  
 [B,NC,GND,ECL,G#19] - CA2  
 [B,NC,GND,ECL,G#19] - CV1  
 [B,NC,GND,ECL,G#19] - DB2  
 [B,NC,GND,ECL,G#19] - DV1  
 [B,NC,GND,ECL,G#19] - EA2  
 [B,NC,GND,ECL,G#19] - EV1  
 [B,NC,GND,ECL,G#19] - FA2  
 [B,NC,GND,ECL,G#19] - FV1  
 [B,GND,ECL,G#19,NC] - BV2  
 [B,GND,ECL,G#19,NC] - EK2

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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 08-11-77	ENG. J. P. Allen	DATE 11/10/77	TITLE: PAGING BOARD POWER, GND, CAP
	DATE 10/7/77	DESIGNER	DATE 11/10/77	REVISION
FIRST USED ON OPTION/MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-118520-YA		REV.

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
R104(1)	PAG2	B2	68n	%E1(15)	R2(1)	PAG3	B2	68n	%E61(3)	R100(1)	PAG4	D7	68n	MCL3 PAGE ILL ENTRY H	R107(1)	PAG3	A1	68n	PAG3 PT EN B H
R113(1)	PAG2	B3	68n	%E10(15)	R140(1)	PAG1	B4	68n	%E63(15)	R31(1)	PAG4	C4	68n	-MCL3 PAGE ILL ENTRY H	R105(1)	PAG3	A1	68n	-PAG3 PT EN B H
R114(1)	PAG2	C3	68n	%E11(15)	R150(1)	PAG1	C4	68n	%E64(15)	R20(1)	PAG4	B6	68n	MCL3 PAGE TEST PRIVATE H	R210(1)	PAG3	B3	68n	-PAG3 PT LEFT EN A H
R67(1)	PAG5	D7	68n	%E13(14)	R35(1)	PAG4	C7	68n	%E67(14)	R252(1)	PAG4	D2	68n	MCL5 VMA ADR ERR H	R174(1)	PAG3	B3	68n	-PAG3 PT LEFT EN C H
R60(1)	PAG5	C7	68n	%E13(15)	R87(1)	PAG4	C4	68n	%E67(2)	R102(1)	PAG4	D7	68n	MCL6 PAGE UEBR REF H	R160(1)	PAG3	D1	68n	PAG3 PT MATCH H
R57(1)	PAG3	D3	68n	%E14(15)	R154(1)	PAG1	B5	68n	%E68(15)	R96(1)	PAG1	D7	68n	-PAG1 PT ACCESS H	R246(1)	PAG3	A3	68n	-PAG3 PT RIGHT EN B H
R117(1)	PAG2	B4	68n	%E15(15)	R153(1)	PAG1	C5	68n	%E69(15)	R159(1)	PAG1	C7	68n	PAG1 PT ACCESS A H	R217(1)	PAG3	A3	68n	-PAG3 PT RIGHT EN D H
R111(1)	PAG2	C4	68n	%E16(15)	R100(1)	PAG2	C3	68n	%E7(15)	R161(1)	PAG1	B7	68n	PAG1 PT ACCESS B H	R207(1)	PAG3	B1	68n	-PAG3 PT WR A H
R59(1)	PAG3	D4	68n	%E19(15)	R16(1)	PAG5	C3	68n	%E70(2)	R29(1)	PAG1	C7	68n	PAG1 PT PUBLIC A H	R244(1)	PAG3	B1	68n	-PAG3 PT WR B H
R106(1)	PAG2	C2	68n	%E2(15)	R1(1)	PAG3	C7	68n	%E74(14)	R20(1)	PAG1	B6	68n	PAG1 PT PUBLIC B H	R137(1)	PAG3	B5	68n	-PAG3 PT WR BOTH HALVES H
R121(1)	PAG2	B4	68n	%E20(15)	R52(1)	PAG3	B3	68n	%E74(2)	R151(1)	PAG1	C6	68n	PAG1 PT SOFTWARE A H	R169(1)	PAG3	B1	68n	-PAG3 PT WR C H
R122(1)	PAG2	C5	68n	%E21(15)	R33(1)	PAG4	C4	68n	%E74(9)	R152(1)	PAG1	B5	68n	PAG1 PT SOFTWARE B H	R213(1)	PAG3	A1	68n	-PAG3 PT WR D H
R17(1)	PAG5	C2	68n	%E22(2)	R99(1)	PAG4	A3	68n	%E79(15)	R156(1)	PAG1	C6	68n	PAG1 PT WRITABLE A H	R42(1)	PAG4	D7	68n	PAG4 PAGE EXEC PAGED REF H
R61(1)	PAG5	C7	68n	%E23(14)	R46(1)	PAG4	C2	68n	%E85(6)	R155(1)	PAG1	B6	68n	PAG1 PT WRITABLE B H	R30(1)	PAG4	D7	68n	-PAG4 PAGE EXEC PAGED REF H
R66(1)	PAG5	D7	68n	%E23(2)	R36(1)	PAG4	D4	68n	%E89(15)	R60(1)	PAG3	D2	68n	PAG3 DIR NOT VAL H	R27(1)	PAG4	D7	68n	PAG4 PAGE EXEC REF H
R73(1)	PAG3	D5	68n	%E24(15)	R3(1)	PAG3	C2	68n	-A H	R75(1)	PAG3	D6	68n	PAG3 NO MATCH IN A H	R34(1)	PAG4	D7	68n	-PAG4 PAGE EXEC REF H
R124(1)	PAG2	B5	68n	%E25(15)	R80(1)	PAG3	B7	68n	APR5 WR PT SEL 0 H	R74(1)	PAG3	D3	68n	PAG3 NO MATCH IN B H	R133(1)	PAG4	C3	68n	PAG4 PAGE FAIL A H
R123(1)	PAG2	C5	68n	%E26(15)	R92(1)	PAG3	B7	68n	APR5 WR PT SEL 1 H	R164(1)	PAG3	D7	68n	PAG3 PT ADR 18 H	R98(1)	PAG4	C3	68n	-PAG4 PAGE FAIL A H
R226(1)	PAG5	A3	68n	%E28(15)	R81(1)	PAG3	B5	68n	-APR5 WR PT SEL 1 H	R11(1)	PAG3	D7	68n	-PAG3 PT ADR 19 H	R32(1)	PAG4	B6	68n	PAG4 PAGE TEST PRIVATE H
R183(1)	PAG5	A3	68n	%E28(2)	R94(1)	PAG3	C7	68n	-CLK2 PT DIR WR H	R166(1)	PAG3	B7	68n	PAG3 PT ADR 19 H	R134(1)	PAG4	B6	68n	-PAG4 PAGE TEST PRIVATE H
R72(1)	PAG3	D5	68n	%E29(15)	R85(1)	PAG3	B2	68n	-CLK2 PT WR H	R54(1)	PAG3	B7	68n	-PAG3 PT ADR 19 H	R25(1)	PAG4	C6	68n	-PAG4 PAGE TEST WRITE H
R126(1)	PAG2	B6	68n	%E30(15)	R230(1)	PAG5	B4	68n	-CON KI10 PAGING MODE H	R163(1)	PAG3	B7	68n	PAG3 PT ADR 20 H	R30(1)	PAG4	C7	68n	-PAG4 PAGE UNPAGED REF H
R120(1)	PAG2	C6	68n	%E31(15)	R21(1)	PAG3	B5	68n	CSH1 PGRF CYC A H	R4(1)	PAG3	B7	68n	-PAG3 PT ADR 20 H	R40(1)	PAG4	D7	68n	PAG4 PAGE USER PAGED REF H
R70(1)	PAG3	D6	68n	%E34(15)	R86(1)	PAG3	B2	68n	-CSH5 PAGE REFILL T12 H	R165(1)	PAG3	D7	68n	PAG3 PT ADR 21 H	R97(1)	PAG4	D7	68n	-PAG4 PAGE USER PAGED REF H
R127(1)	PAG2	B6	68n	%E35(15)	R95(1)	PAG3	C7	68n	-CSH6 MBOX PT DIR WR H	R10(1)	PAG3	D7	68n	-PAG3 PT ADR 21 H	R24(1)	PAG4	D4	68n	PAG4 PAGE WRITE OK H
R131(1)	PAG2	C7	68n	%E36(15)	R82(1)	PAG3	B5	68n	-CSH6 PAGE FAIL HOLD H	R136(1)	PAG3	D7	68n	PAG3 PT ADR 22 H	R37(1)	PAG4	D4	68n	-PAG4 PAGE WRITE OK H
R77(1)	PAG3	D6	68n	%E39(15)	R44(1)	PAG4	C2	68n	CSH6 PAGE REFILL ERROR H	R12(1)	PAG3	D7	68n	-PAG3 PT ADR 22 H	R249(1)	PAG4	A5	68n	-PAG4 PAGED REF H
R129(1)	PAG2	B7	68n	%E40(15)	R88(1)	PAG4	C4	68n	-CSH6 PAGE REFILL ERROR H	R135(1)	PAG3	C7	68n	PAG3 PT ADR 23 H	R162(1)	PAG4	B3	68n	-PAG4 PF CODE 2X H
R132(1)	PAG2	C7	68n	%E41(15)	R65(1)	PAG5	D7	68n	MB 00-05 PAR ODD H	R13(1)	PAG3	C7	68n	-PAG3 PT ADR 23 H	R192(1)	PAG5	C7	68n	-PAG5 PT ADR 18 A H
R196(1)	PAG1	B2	68n	%E48(15)	R64(1)	PAG5	D7	68n	MB 06-11 PAR ODD H	R101(1)	PAG3	A5	68n	PAG3 PT ADR 24 H	R190(1)	PAG5	C7	68n	PAG5 PT ADR 18 B H
R142(1)	PAG1	C2	68n	%E49(15)	R50(1)	PAG5	D7	68n	MB 12-17 PAR ODD H	R5(1)	PAG3	A5	68n	-PAG3 PT ADR 24 H	R189(1)	PAG5	C7	68n	-PAG5 PT ADR 18 C H
R84(1)	PAG3	A7	68n	%E52(3)	R62(1)	PAG5	D7	68n	MB 18-23 PAR ODD H	R204(1)	PAG3	A7	68n	PAG3 PT ADR 25 A IN H	R227(1)	PAG5	C7	68n	PAG5 PT ADR 18 D H
R79(1)	PAG3	A7	68n	%E52(6)	R63(1)	PAG5	D7	68n	MB 24-29 PAR ODD H	R150(1)	PAG3	A5	68n	PAG3 PT ADR 25 B IN H	R100(1)	PAG5	C7	68n	-PAG5 PT ADR 19 A H
R141(1)	PAG1	B3	68n	%E53(15)	R55(1)	PAG5	C7	68n	MB 30-35 PAR ODD H	R157(1)	PAG3	B7	68n	PAG3 PT ADR 25 C IN H	R232(1)	PAG5	C7	68n	PAG5 PT ADR 19 B H
R89(1)	PAG1	C3	68n	%E54(15)	R90(1)	PAG3	A5	68n	MB SEL 1 H	R197(1)	PAG3	B5	68n	PAG3 PT ADR 26 H	R104(1)	PAG5	B7	68n	-PAG5 PT ADR 19 C H
R22(1)	PAG4	B6	68n	%E57(15)	R83(1)	PAG3	A5	68n	MB SEL 2 H	R130(1)	PAG3	B5	68n	-PAG3 PT ADR 26 H	R220(1)	PAG5	B7	68n	PAG5 PT ADR 19 D H
R23(1)	PAG4	B7	68n	%E57(2)	R26(1)	PAG4	D7	68n	MCL VMA USER H	R53(1)	PAG3	B5	68n	PAG3 PT DIR CLR H	R193(1)	PAG5	B7	68n	-PAG5 PT ADR 20 A H
R144(1)	PAG1	B3	68n	%E58(15)	R25(1)	PAG3	B7	68n	MCL2 VMA EXEC H	R93(1)	PAG3	B5	68n	-PAG3 PT DIR CLR H	R233(1)	PAG5	B7	68n	PAG5 PT ADR 20 B H
R146(1)	PAG1	C4	68n	%E59(15)	R41(1)	PAG4	A4	68n	-MCL2 VMA WRITE H	R149(1)	PAG3	A1	68n	PAG3 PT EN A H	R191(1)	PAG5	B7	68n	-PAG5 PT ADR 20 C H
R110(1)	PAG2	B3	68n	%E6(15)	R45(1)	PAG4	C2	68n	MCL3 PAGE ADDRESS COND H	R145(1)	PAG3	A1	68n	-PAG3 PT EN A H	R229(1)	PAG5	B7	68n	PAG5 PT ADR 20 D 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  
 DATE: 11/16/77  
 ENG: J. D. Allen  
 DATE: 11/16/77  
 BOARD LOCATION: 11/16/77  
 SHEET: 1 OF 2  
 FIRST USED ON OPTION/MODEL: KL10-PV B-DD-M8520-YA

SIZE	CODE	NUMBER	REV.
D	CS	M8520-YA-RES	

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
R187(1)	PAG5	B7	68n	-PAG5 PT ADR 21 A H	R202(1)	PAG1	B6	68n	PT IN 03 H	R47(1)	PAG3	D8	68n	VMA2 VMA 18 H
R235(1)	PAG5	B7	68n	PAG5 PT ADR 21 B H	R201(1)	PAG1	B5	68n	PT IN 04 H	R19(1)	PAG3	B7	68n	VMA2 VMA 19 H
R185(1)	PAG5	B7	68n	-PAG5 PT ADR 21 C H	R200(1)	PAG1	B4	68n	PT IN 05 H	R14(1)	PAG3	B7	68n	VMA2 VMA 20 H
R230(1)	PAG5	B7	68n	PAG5 PT ADR 21 D H	R199(1)	PAG1	B4	68n	PT IN 06 H	R49(1)	PAG3	D8	68n	VMA2 VMA 21 H
R209(1)	PAG5	C5	68n	-PAG5 PT ADR 22 A H	R198(1)	PAG1	B3	68n	PT IN 07 H	R40(1)	PAG3	D8	68n	VMA2 VMA 22 H
R248(1)	PAG5	C5	68n	PAG5 PT ADR 22 B H	R194(1)	PAG1	B2	68n	PT IN 08 H	R50(1)	PAG3	C8	68n	VMA2 VMA 23 H
R170(1)	PAG5	C5	68n	-PAG5 PT ADR 22 C H	R181(1)	PAG2	B7	68n	PT IN 09 H	R76(1)	PAG3	A5	68n	VMA2 VMA 24 H
R215(1)	PAG5	C5	68n	PAG5 PT ADR 22 D H	R180(1)	PAG2	B7	68n	PT IN 10 H	R91(1)	PAG3	A7	68n	VMA2 VMA 25 H
R208(1)	PAG5	C5	68n	-PAG5 PT ADR 23 A H	R179(1)	PAG2	B6	68n	PT IN 11 H	R18(1)	PAG3	B5	68n	VMA2 VMA 26 H
R247(1)	PAG5	C5	68n	PAG5 PT ADR 23 B H	R178(1)	PAG2	B5	68n	PT IN 12 H					
R172(1)	PAG5	B5	68n	-PAG5 PT ADR 23 C H	R177(1)	PAG2	B5	68n	PT IN 13 H					
R216(1)	PAG5	B5	68n	PAG5 PT ADR 23 D H	R175(1)	PAG2	B4	68n	PT IN 14 H					
R195(1)	PAG5	B5	68n	-PAG5 PT ADR 24 A H	R176(1)	PAG2	B3	68n	PT IN 15 H					
R234(1)	PAG5	B5	68n	PAG5 PT ADR 24 B H	R173(1)	PAG2	B3	68n	PT IN 16 H					
R171(1)	PAG5	B5	68n	-PAG5 PT ADR 24 C H	R168(1)	PAG2	B2	68n	PT IN 17 H					
R214(1)	PAG5	B5	68n	PAG5 PT ADR 24 D H	R245(1)	PAG1	A7	68n	PT IN 18 H					
R186(1)	PAG5	B5	68n	-PAG5 PT ADR 25 A H	R243(1)	PAG1	A6	68n	PT IN 19 H					
R236(1)	PAG5	B5	68n	PAG5 PT ADR 25 B H	R242(1)	PAG1	A6	68n	PT IN 20 H					
R167(1)	PAG5	B5	68n	-PAG5 PT ADR 25 C H	R241(1)	PAG1	A5	68n	PT IN 21 H					
R211(1)	PAG5	B5	68n	PAG5 PT ADR 25 D H	R240(1)	PAG1	A5	68n	PT IN 22 H					
R118(1)	PAG5	C3	68n	PAG5 PT PAR LEFT H	R239(1)	PAG1	A4	68n	PT IN 23 H					
R43(1)	PAG5	C1	68n	PAG5 PT PAR ODD H	R237(1)	PAG1	A3	68n	PT IN 24 H					
R39(1)	PAG5	C1	68n	-PAG5 PT PAR ODD H	R238(1)	PAG1	A3	68n	PT IN 25 H					
R115(1)	PAG5	C2	68n	PAG5 PT PAR RIGHT H	R231(1)	PAG1	A2	68n	PT IN 26 H					
R147(1)	PAG1	D4	68n	PMA3 PA 14 H	R225(1)	PAG2	A7	68n	PT IN 27 H					
R143(1)	PAG1	C4	68n	PMA3 PA 15 H	R223(1)	PAG2	A6	68n	PT IN 28 H					
R139(1)	PAG1	D2	68n	PMA3 PA 16 H	R224(1)	PAG2	A6	68n	PT IN 29 H					
R140(1)	PAG1	C2	68n	PMA3 PA 17 H	R221(1)	PAG2	A5	68n	PT IN 30 H					
R102(1)	PAG2	C7	68n	PMA3 PA 18 H	R222(1)	PAG2	A4	68n	PT IN 31 H					
R130(1)	PAG2	D6	68n	PMA3 PA 19 H	R219(1)	PAG2	A4	68n	PT IN 32 H					
R125(1)	PAG2	C6	68n	PMA3 PA 20 H	R220(1)	PAG2	A3	68n	PT IN 33 H					
R119(1)	PAG2	D5	68n	PMA3 PA 21 H	R218(1)	PAG2	A3	68n	PT IN 34 H					
R120(1)	PAG2	C5	68n	PMA3 PA 22 H	R212(1)	PAG2	A2	68n	PT IN 35 H					
R116(1)	PAG2	D4	68n	PMA3 PA 23 H	R70(1)	PAG5	A4	68n	SH AR PAR ODD A H					
R112(1)	PAG2	C4	68n	PMA3 PA 24 H	R9(1)	PAG3	C6	68n	VMA2 VMA 13 A H					
R109(1)	PAG2	D2	68n	PMA3 PA 25 H	R8(1)	PAG3	C5	68n	VMA2 VMA 14 A H					
R103(1)	PAG2	C3	68n	PMA3 PA 26 H	R7(1)	PAG3	C5	68n	VMA2 VMA 15 A H					
R206(1)	PAG1	B7	68n	PT IN 00 H	R6(1)	PAG3	C4	68n	VMA2 VMA 16 A H					
R203(1)	PAG1	B7	68n	PT IN 01 H	R15(1)	PAG3	B7	68n	VMA2 VMA 17 H					
R205(1)	PAG1	B6	68n	PT IN 02 H	R51(1)	PAG3	C3	68n	VMA2 VMA 17 A 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	DATE	ENG.	DATE	TITLE:
	01-20-77	P. V. Allen	11/20/77	PAGING TERMINATORS
	DATE	ISSUED	LOCATION	
	1/27/77	2	DE 2	
F0202, DRL 4, 551	04-20-77	13146	NEXT HIGHER ASSEMBLY:	SIZE CODE
FIRST USED ON OPTION/MODEL: KL10-PV	1B-DD-M0520-YA			D CS
				NUMBER
				M0520-YA-RES
				REV.
				MR 1

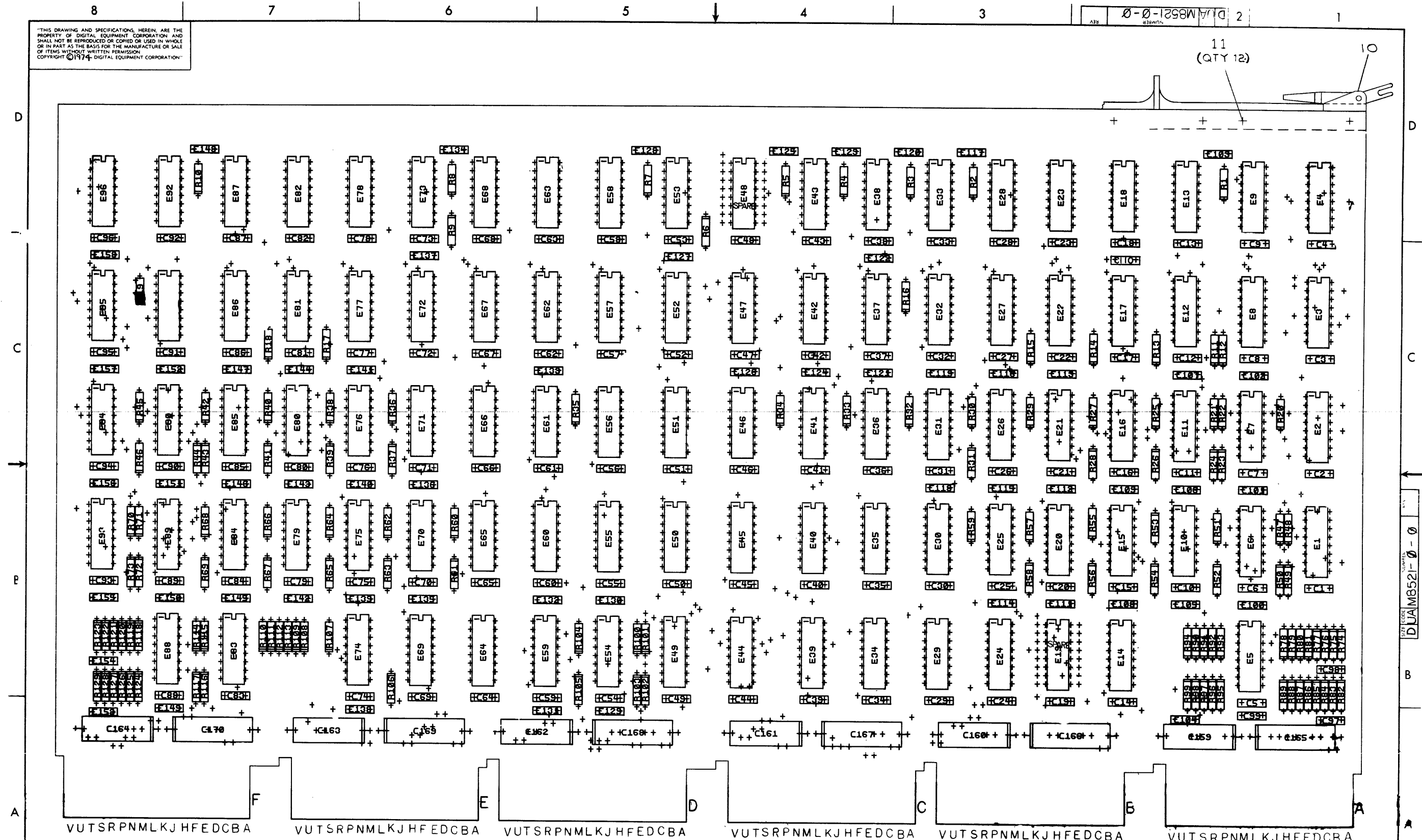




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DUA M8521-0-0

11 (QTY 12)



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE CACHE DATA		SIZE CODE DUA	NUMBER M8521-0-0	REV.
SCALE 2/1	SHEET 2 OF 4	DIST.	MR	

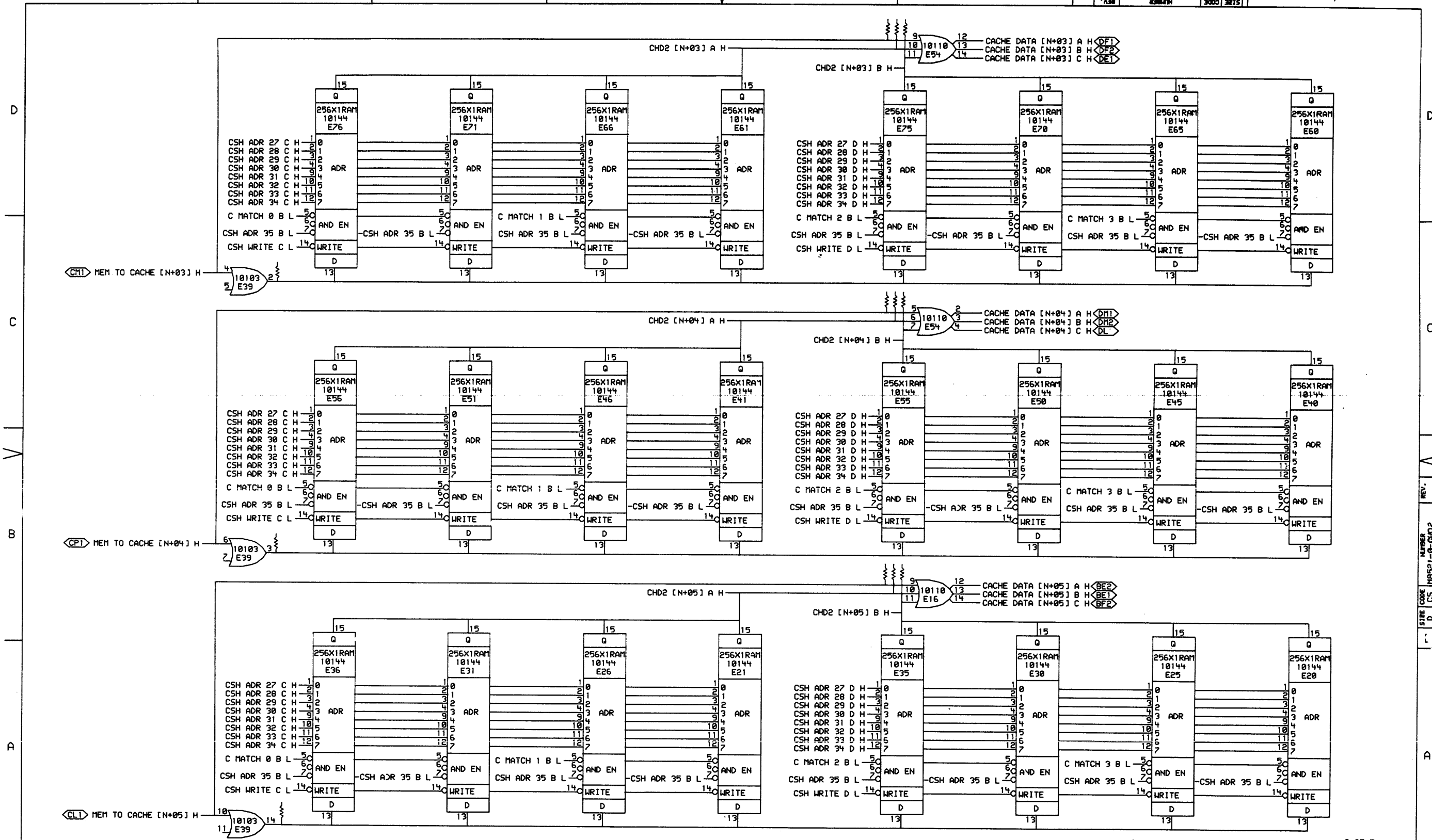
115



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REVISIONS		
CHK	CHANGE NO.	REV.

digital	DRN.	DATE	ENG.	DATE	TITLE:
	CHK'D	11/27/74	G. S. ...	11/27/74	CACHE DATA BITS [N]-[N+02]
CHD1EX4.121		DATE	BOARD LOCATION:	SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: KL10		29-OCT-74 23:49	NEXT HIGHER ASSEMBLY: B-DD-M8521-0	SIZE	CODE
				D	CS
				M8521-0-CHD1	REV.
				MR 1	



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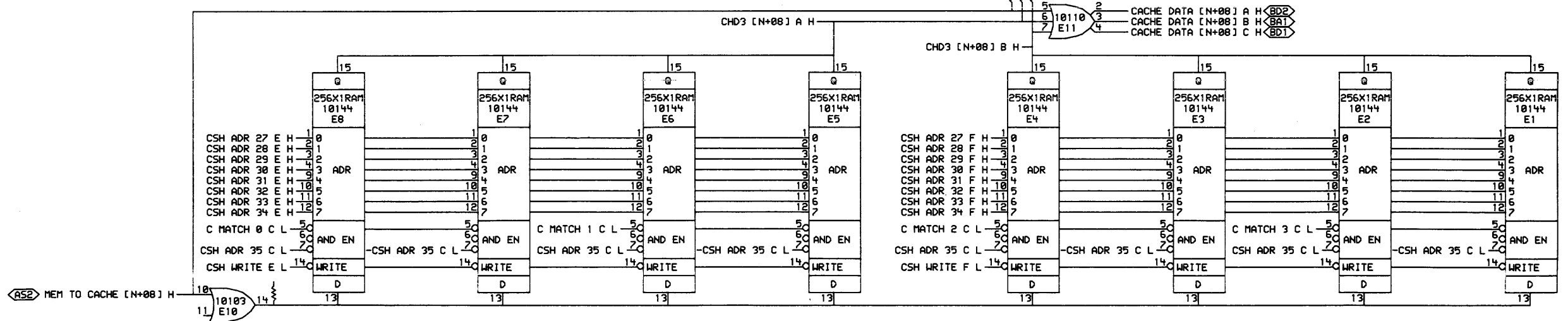
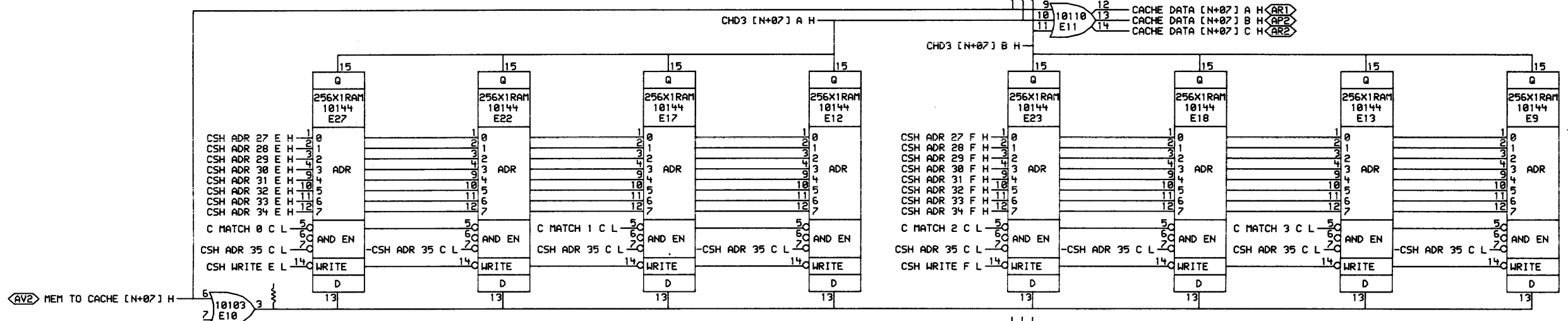
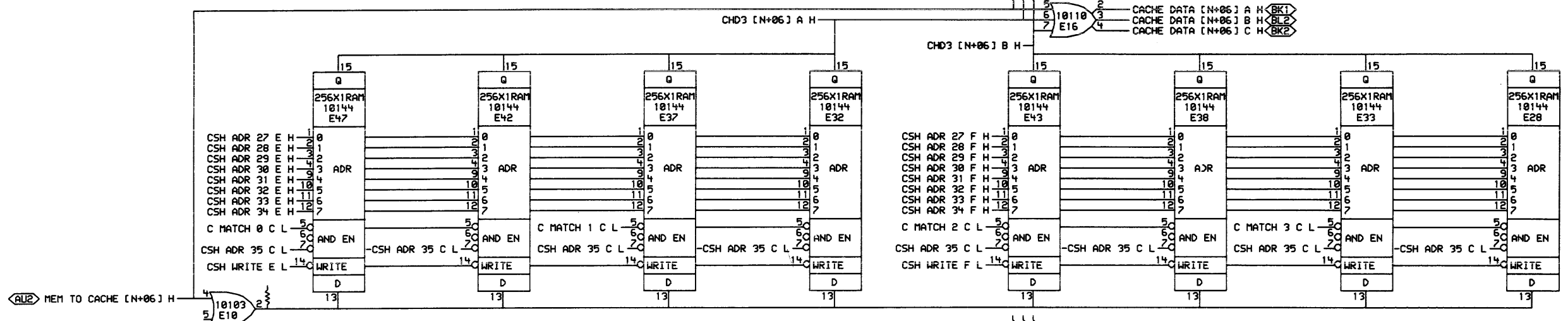
REVISIONS	
CHK	REV

<b>digital</b>	DRN: <i>M. Steppan</i>	DATE: <i>11/27/74</i>	ENG.:	DATE: <i>11/27/74</i>	TITLE: <b>CACHE DATA BITS [N+03]-[N+05]</b>
	CHK: <i>M. Steppan</i>	DATE: <i>11/27/74</i>	BOARD LOCATION:	OF 1	SIZE CODE: <b>D CS</b>
CH2EX(4,121)		29-OCT-74 23:49	NEXT HIGHER ASSEMBLY:	NUMBER: <b>M8521-0-CHD2</b>	REV.:
FIRST USED ON OPTION/MODEL: <b>KL10</b>		<b>B-DD-M8521-0</b>			

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D  
C  
V  
B  
A

D  
C  
V  
B  
A



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REVISIONS		
CHK	CHANGE NO.	REV

DRY	DATE	ENG.	DATE	TITLE:
W. J. Sturges	4/17/74	W. J. Sturges	11/2/77	CACHE DATA BITS [N+06]-[N+08]
CHD3	DATE	BOARD LOCATION:	SHEET	OF
4,121	29-OCT-74 23:49	1B	1	1
FIRST USED ON OPTION/MODEL:	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
KL10	1B-DD-18521-0	D CS	M8521-0-CHD3	

digital	DATE	ENG.	DATE	TITLE:
				CACHE DATA BITS [N+06]-[N+08]
CHD3	DATE	BOARD LOCATION:	SHEET	OF
4,121	29-OCT-74 23:49	1B	1	1
FIRST USED ON OPTION/MODEL:	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
KL10	1B-DD-18521-0	D CS	M8521-0-CHD3	

D

C

B

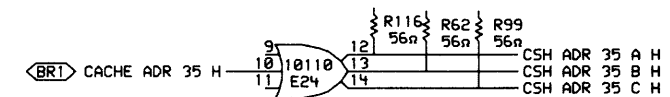
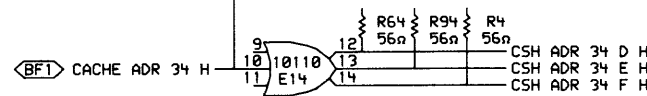
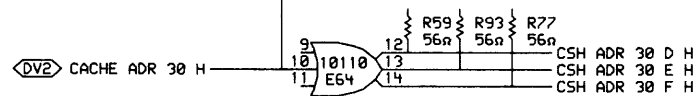
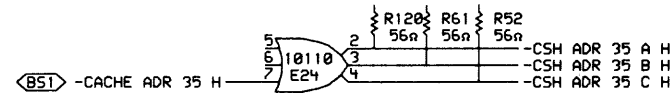
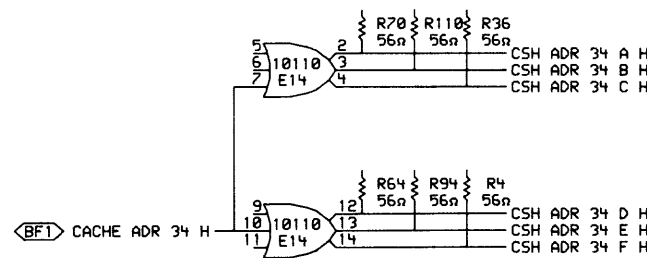
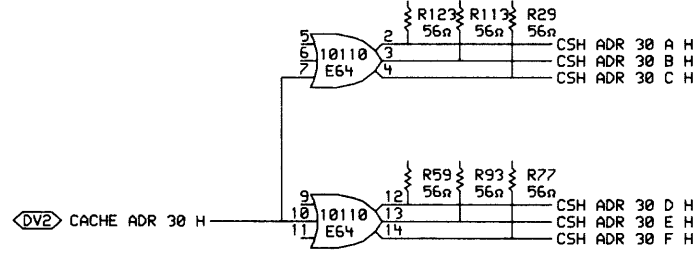
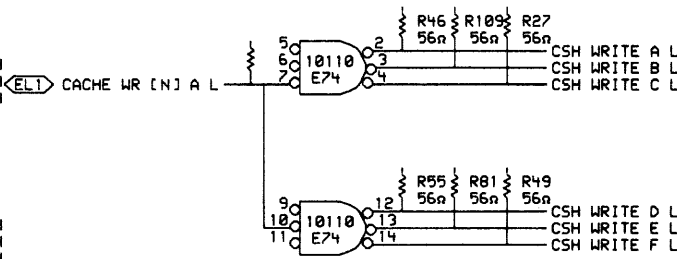
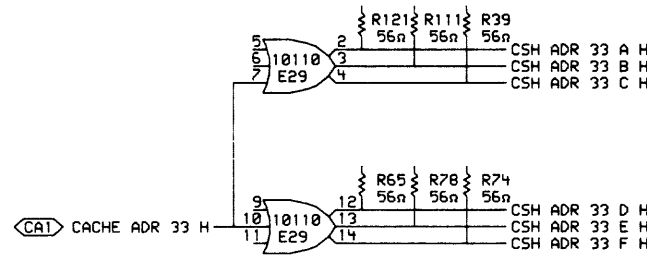
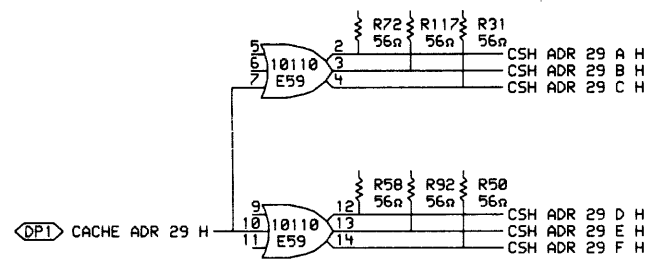
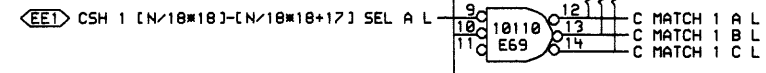
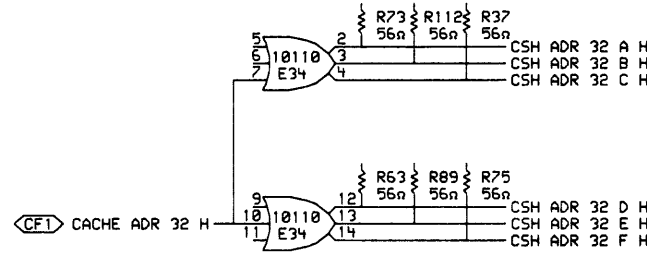
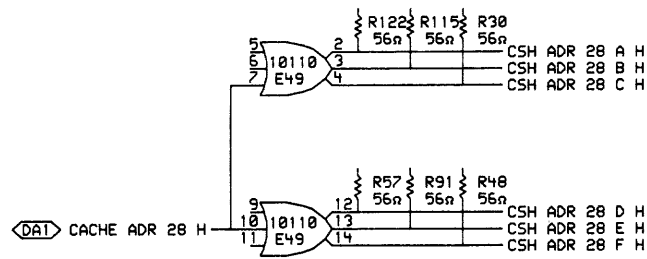
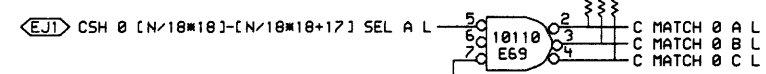
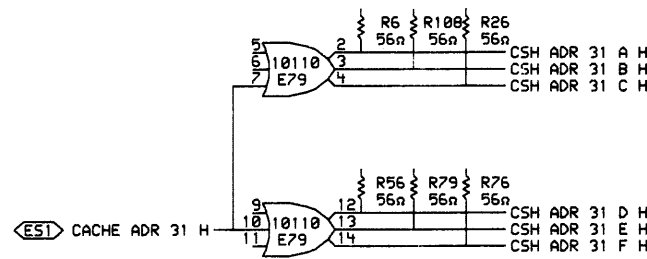
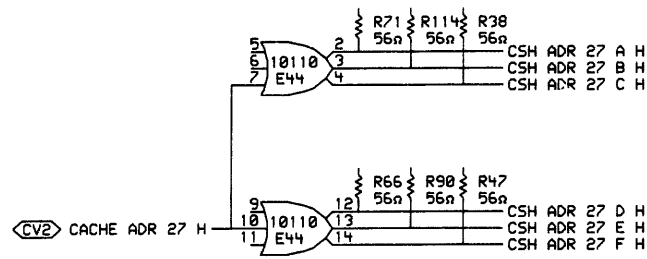
A

D

C

B

A

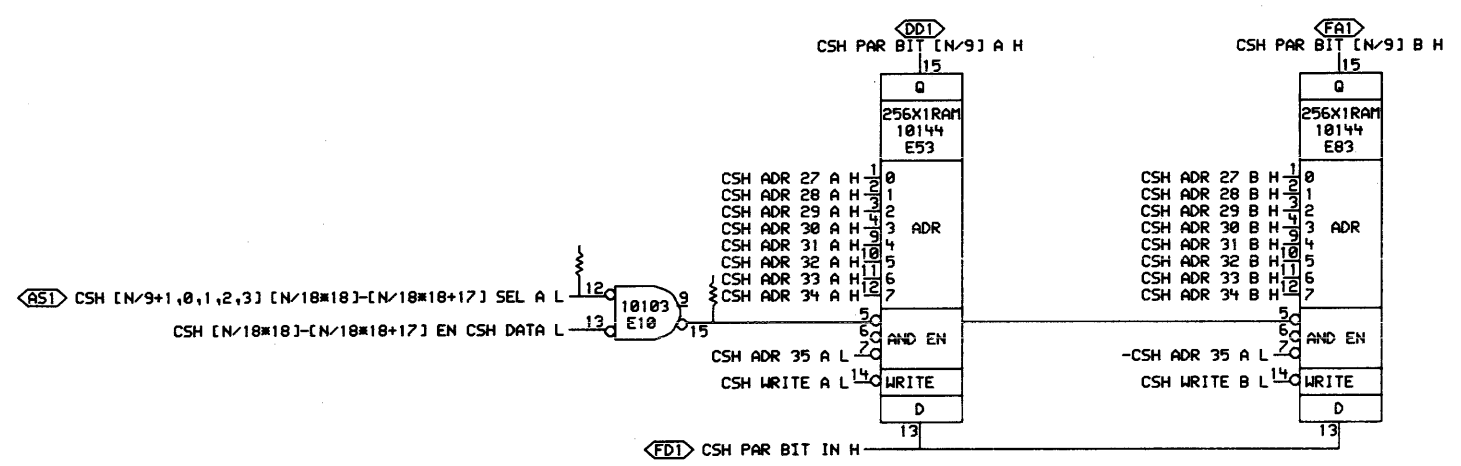


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REVISIONS	
CHK	CHANGE NO. REV.

digital	DRN.	DATE	ENG.	DATE	TITLE:
	CHK'D	DATE	BOARD LOCATION:	SHEET	1 OF 1
CHD4EXL4.1213		104-NOV-74 13:45	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8521-0	D	CS	M8521-0-CHD4
					NUMBER
					REV.

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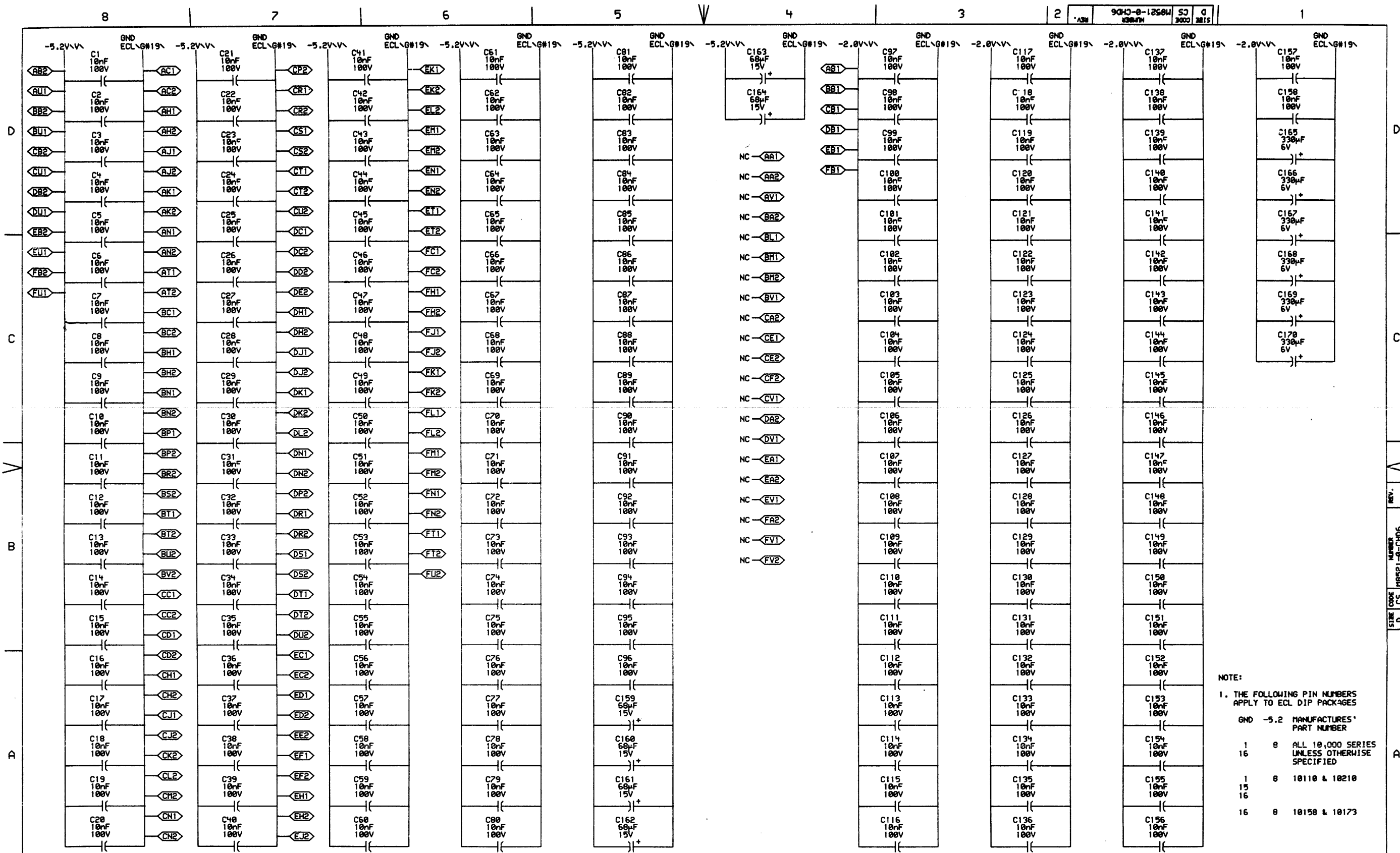
- CHD TERM 00 [N] H <AP1>
- CHD TERM 01 [N] H <FP2>
- CHD TERM 02 [N] H <AF1>
- CHD TERM 03 [N] H <FP1>
- CHD TERM 04 [N] H <AF2>
- CHD TERM 05 [N] H <FR1>
- CHD TERM 06 [N] H <AL1>
- CHD TERM 07 [N] H <FI1>
- CHD TERM 08 [N] H <AF2>
- CHD TERM 09 [N] H <AL2>
- CHD TERM 10 [N] H <FS1>
- CHD TERM 11 [N] H <FS2>
- CHD TERM 12 [N] H <FR2>
- CHD TERM 13 [N] H <AD2>
- CHD TERM 14 [N] H <AE2>
- CHD TERM 15 [N] H <AE1>
- CHD TERM 16 [N] H <AD1>

NOTE:  
1. CHD TERM 00 [N] H THRU CHD TERM 16 [N] H ARE TERMINATORS WHICH ARE USED TO TERMINATE BACKPANEL SIGNALS

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN	DATE	ENG.	DATE	TITLE:
	CHK'D	DATE	BOARD LOCATION:		CACHE DATA PARITY BITS
CHD5EX4,121		30-OCT-74 11:14	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8521-0		D CS	M8521-0-CHD5



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REVISIONS	
CHK	CHANGE NO. REV

<b>digital</b>	DRN. <i>[Signature]</i>	DATE ENG. <i>11/72</i>	DATE <i>11/72</i>	TITLE: <b>CACHE DATA POWER, GND, CAP</b>
	CHK'D. <i>[Signature]</i>	DATE BOARD LOCATION: <i>11/72</i>	SHEET <i>1</i> OF <i>1</i>	SIZE CODE NUMBER REV.
CHD6EXL4.121		131-007-74 08:40	NEXT HIGHER ASSEMBLY: B-DD-M8521-0	D CS M8521-0-CHD6
FIRST USED ON OPTION MODEL: KL10				

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURERS' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173
15	8	
16	8	

RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL
R 80 1	CHD3	%E10<14>	R 107 1	CHD4	-CACHE WR [N] A H	R 18 1	CHD1	CHD1 [N+02] A H
R 7 1	CHD5	%E10<15>	R 98 1	CHD5	CHD TERM 00 [N] H	R 41 1	CHD1	CHD1 [N+02] B H
R 2 1	CHD3	%E10<2>	R 127 1	CHD5	CHD TERM 01 [N] H	R 103 1	CHD2	CHD2 [N+03] A H
R 1 1	CHD3	%E10<3>	R 86 1	CHD5	CHD TERM 02 [N] H	R 102 1	CHD2	CHD2 [N+03] B H
R 33 1	CHD2	%E39<14>	R 124 1	CHD5	CHD TERM 03 [N] H	R 104 1	CHD2	CHD2 [N+04] A H
R 35 1	CHD2	%E39<2>	R 87 1	CHD5	CHD TERM 04 [N] H	R 105 1	CHD2	CHD2 [N+04] B H
R 34 1	CHD2	%E39<3>	R 125 1	CHD5	CHD TERM 05 [N] H	R 54 1	CHD2	CHD2 [N+05] A H
R 9 1	CHD1	%E85<14>	R 88 1	CHD5	CHD TERM 06 [N] H	R 53 1	CHD2	CHD2 [N+05] B H
R 118 1	CHD1	%E85<2>	R 97 1	CHD5	CHD TERM 07 [N] H	R 15 1	CHD3	CHD3 [N+06] A H
R 10 1	CHD1	%E85<3>	R 96 1	CHD5	CHD TERM 08 [N] H	R 14 1	CHD3	CHD3 [N+06] B H
R 8 1	CHD4	-C MATCH 0 A H	R 95 1	CHD5	CHD TERM 09 [N] H	R 12 1	CHD3	CHD3 [N+07] A H
R 32 1	CHD4	-C MATCH 0 B H	R 126 1	CHD5	CHD TERM 10 [N] H	R 11 1	CHD3	CHD3 [N+07] B H
R 20 1	CHD4	-C MATCH 0 C H	R 129 1	CHD5	CHD TERM 11 [N] H	R 22 1	CHD3	CHD3 [N+08] A H
R 19 1	CHD4	-C MATCH 1 A H	R 128 1	CHD5	CHD TERM 12 [N] H	R 106 1	CHD4	-CSH [N/18*18]-[N/18*18+17] EN CSH DATA H
R 28 1	CHD4	-C MATCH 1 B H	R 83 1	CHD5	CHD TERM 13 [N] H	R 51 1	CHD5	-CSH [N/9+1,0,1,2,3] [N/18*18]-[N/18*18+17] SEL A
R 16 1	CHD4	-C MATCH 1 C H	R 85 1	CHD5	CHD TERM 14 [N] H	R 42 1	CHD1	MEM TO CACHE [N+00] H
R 119 1	CHD4	-C MATCH 2 A H	R 84 1	CHD5	CHD TERM 15 [N] H	R 43 1	CHD1	MEM TO CACHE [N+01] H
R 67 1	CHD4	-C MATCH 2 B H	R 82 1	CHD5	CHD TERM 16 [N] H	R 44 1	CHD1	MEM TO CACHE [N+02] H
R 5 1	CHD4	-C MATCH 2 C H	R 68 1	CHD1	CHD1 [N+00] A H	R 100 1	CHD2	MEM TO CACHE [N+03] H
R 45 1	CHD4	-C MATCH 3 A H	R 69 1	CHD1	CHD1 [N+00] B H	R 101 1	CHD2	MEM TO CACHE [N+04] H
R 60 1	CHD4	-C MATCH 3 B H	R 17 1	CHD1	CHD1 [N+01] A H	R 23 1	CHD2	MEM TO CACHE [N+05] H
R 3 1	CHD4	-C MATCH 3 C H	R 40 1	CHD1	CHD1 [N+01] B H	R 25 1	CHD3	MEM TO CACHE [N+06] H
						R 24 1	CHD3	MEM TO CACHE [N+07] H
						R 21 1	CHD3	MEM TO CACHE [N+08] H

NOTE:  
 1. ENTRIES ARE SORTED BY SIGNAL NAME  
 2. ALL TERMINATION RESISTORS ARE 68 $\Omega$  1/4W 5% AND ARE CONNECTED TO -2.0V UNLESS OTHERWISE SPECIFIED  
 3. % INDICATES OUTPUT OF DIP LOC AND (<) INDICATES PIN NUMBER

REV. NUMBER M8521-0-RES

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>C. Smith</i>	DATE 31-OCT-74	ENG. <i>W. J. Green</i>	DATE 11/12/74	TITLE: CHACHE DATA TERMINATORS
	CHK'D <i>W. J. Green</i>	DATE 11/12/74	BOARD LOCATION: 1 OF 1	SIZE CODE D CS	NUMBR M8521-0-RES
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8521-0		REV. MR 1	

44 QUA



DRAWING NUMBER	PAGE	PART NO.	DESCRIPTION	REVISIONS
FILE: ORIGINAL LAYOUT				
ECO NUMBER				1 2
MODULE REVISION				A B B
D-UA-M8549-YH-0	5		CACHE DATA SUBSTITUTE BOARD	- A B
K-PL-M8549-YH-DBP	1		PARTS LIST	- A B
D-CS-M8549-YH-CS0	1		CACHE DATA SUBSTITUTE BOARD	- A A
D-MD-5011495-0-0	5		DRILL & ETCH DRAWING	- - A
		5011495	ETCH CIRCUIT BOARD	A A A
K-PC-M8549-YH-DBC	-		P.C. DESIGN DATA BASE	A A B
POO-M8549-YH	-		PROCESS SHEET (REFERENCE ONLY)	

NOTES: ECO 2 DOCUMENTATION CHANGE ONLY

REVISIONS
CHK CHANGE NO. REV
M8549-YH-2 B
1 BOWEN
21 Nov 78

<b>digital</b>	DRG. <i>J. J. J.</i>	DATE 21-NOV-78	ENG. <i>John Bowen</i>	DATE 21 Nov 78	TITLE: CACHE DATA SUBSTITUTE BOARD
DSK18549HD.T2PL4.550	CHK'D <i>M. M.</i>	DATE 21-NOV-78 08:40	BOARD LOCATION: 1 OF 1	SHEET 1 OF 1	SIZE CODE DD M8549-YH
FIRST USED ON OPTION/MODEL: KL10/20		NONE	NEXT HIGHER ASSEMBLY:		REV. B

REV. B  
NUMBER M8549-YH  
DD  
DD

8 7 6 5 4 3 2 1

SIZE CODE DUA M8549-YH-Ø B 2

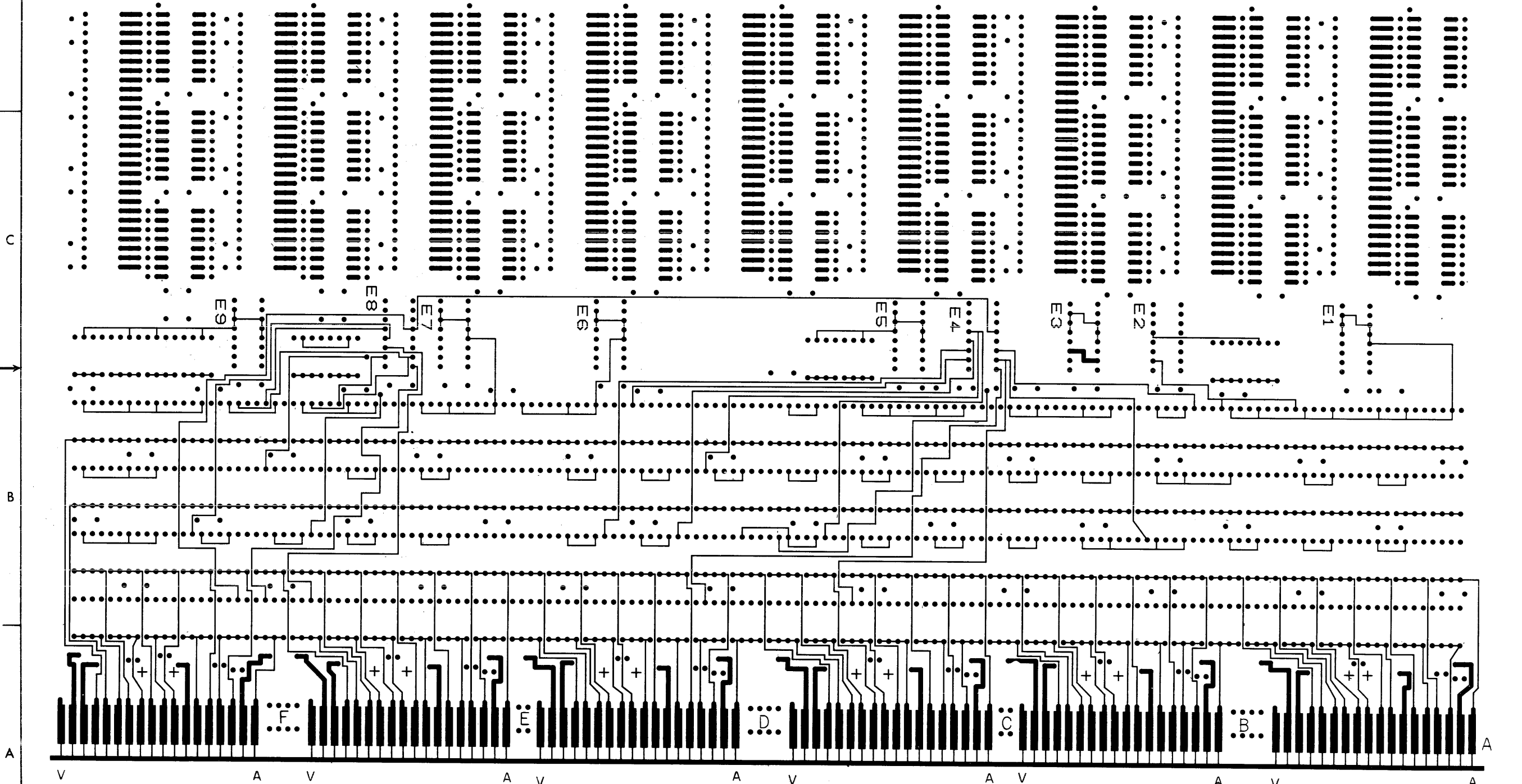
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LAYER I  
MS30061 M8549 5011495A

CS\*ABCDEFGHIJKLMNPRS

SIDE 1

FLIP CHIP®



REVISIONS		
CHK	CHANGE NO.	REV.

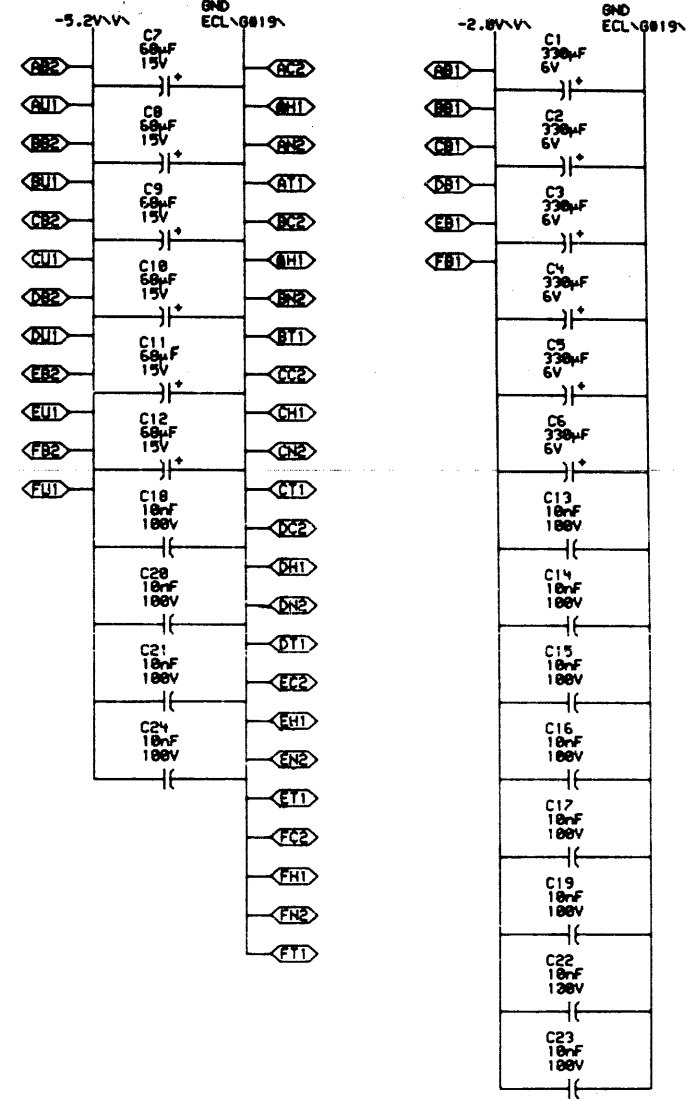
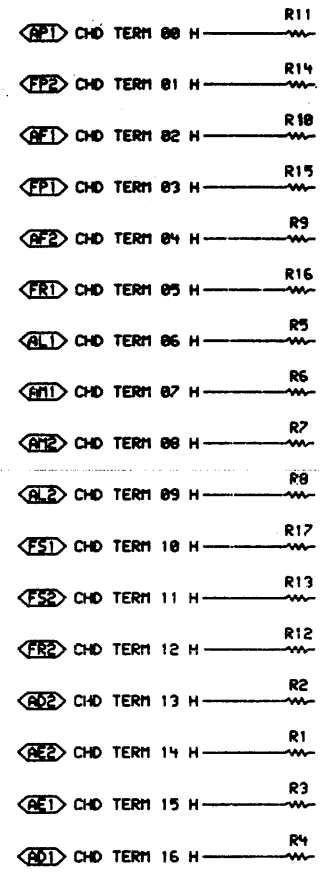
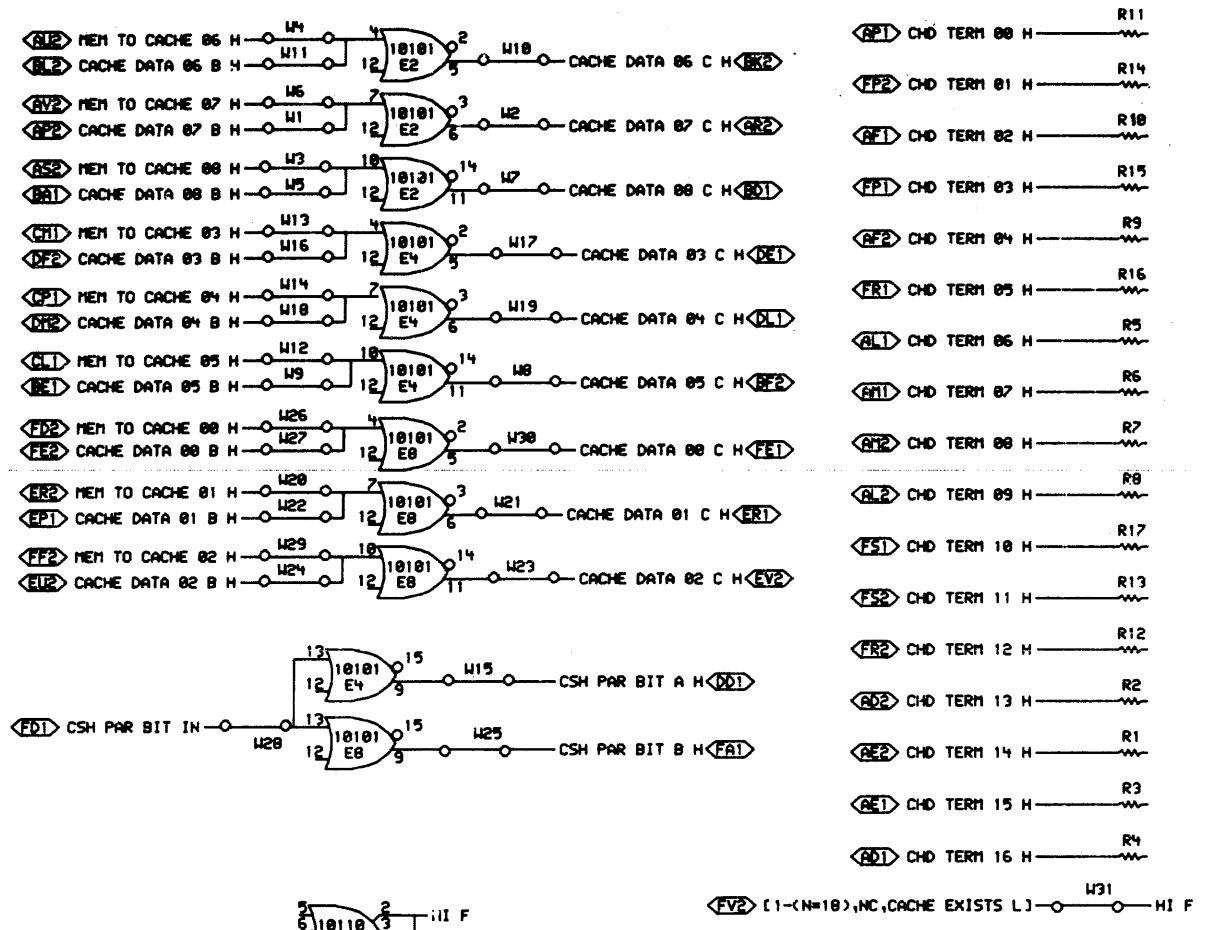
TITLE CACHE DATA SUBSTITUTE BOARD		SIZE CODE DUA M8549-YH-Ø B	NUMBER 2	REV. B
SCALE	SHEET 2 OF 5	DIST.	1 MR	

SIZE CODE DUA M8549-YH-Ø B REV. B

8 7 6 5 4 3 2 1

12'

D  
C  
B  
A



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES:  
 GND -5.2 MANUFACTURER'S PART NUMBER  
 1 8 ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED  
 15 8 10110 & 10210  
 16 8 10150 & 10173

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REVISIONS		
CHK	CHANGE NO.	REV.

J. ALLEN  
 John Carter 12-16-75  
 M8549-YA-00001 A

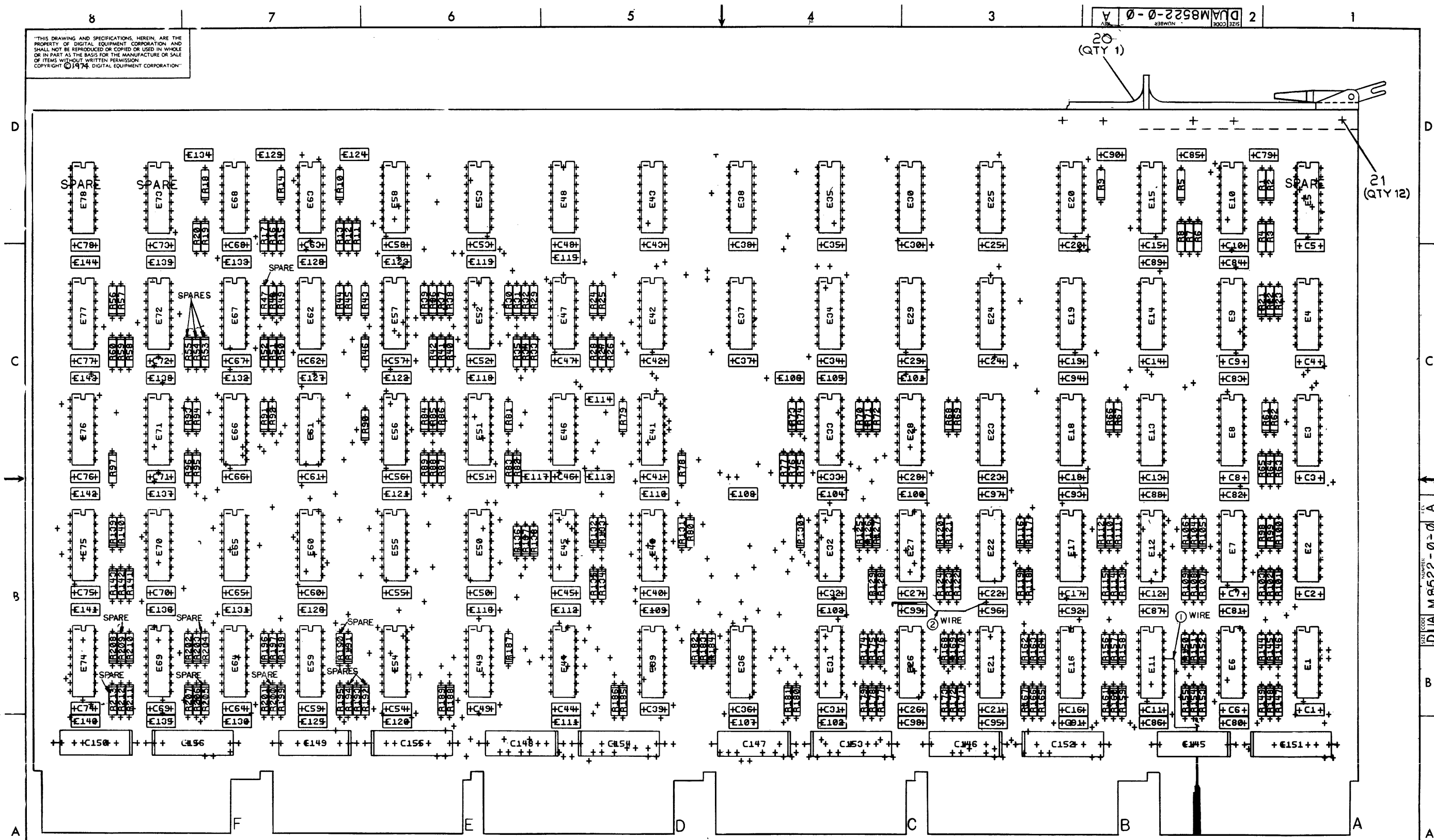
DATE 12-20-75	ENG. J. ALLEN	DATE 3 Dec 75	TITLE: CACHE DATA SUBSTITUTE
DATE 12/21/75	DESIGNER: J. ALLEN	DATE 12/21/75	BOARD LOCATION: DE 1
CS1EX DRL 4.121	102 DEC 25 12:09	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER REV.
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8549-0	D CS M8549-YH-CS01	A

digital	DATE 12-20-75	ENG. J. ALLEN	DATE 3 Dec 75	TITLE: CACHE DATA SUBSTITUTE
CS1EX DRL 4.121	102 DEC 25 12:09	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER REV.	D CS M8549-YH-CS01 A
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8549-0			



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DUAL M8522-0-0 2

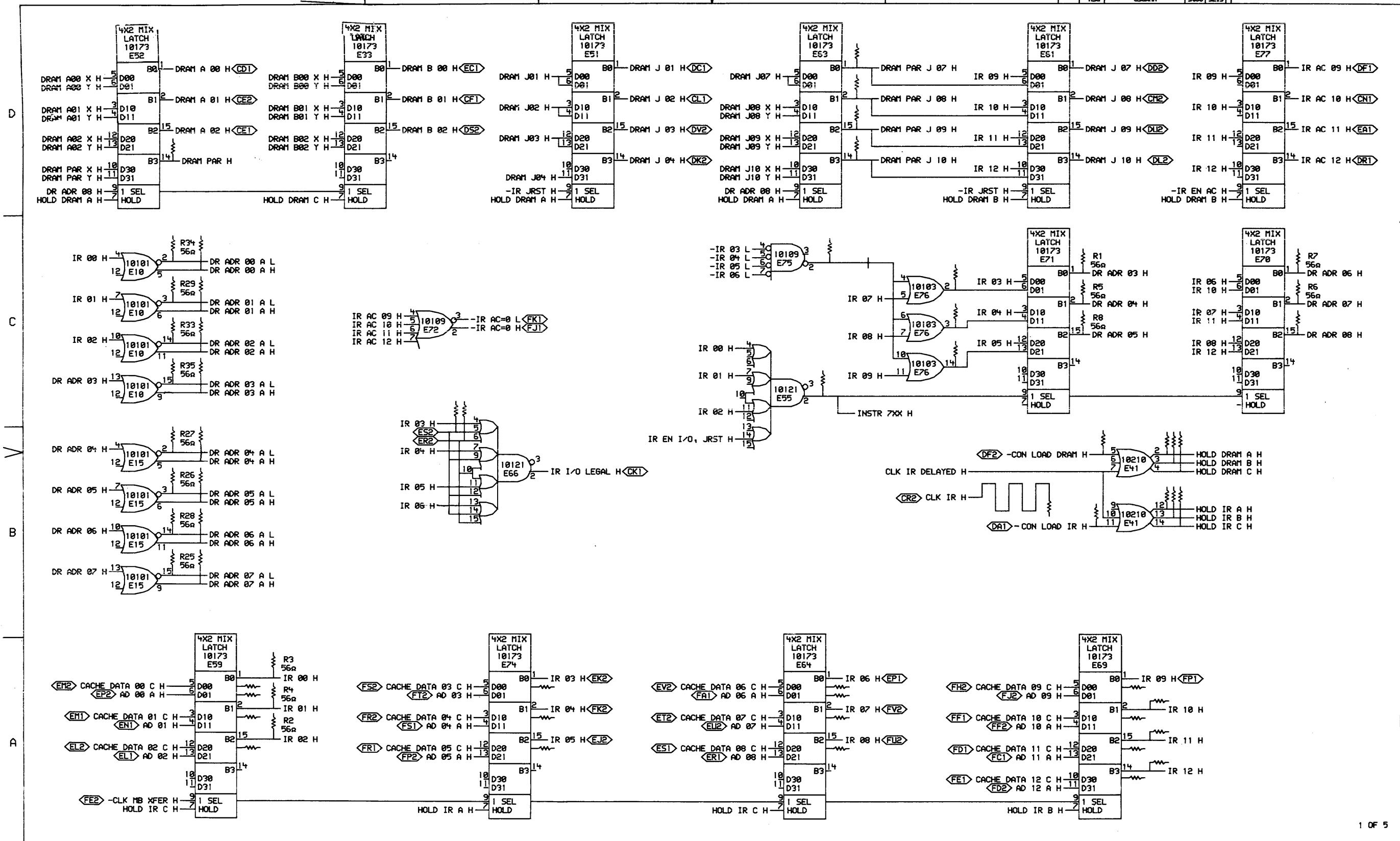


VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA VUTSRPNMLKJHFEDCBA

REVISIONS			TITLE	SIZE CODE	NUMBER	REV.
CHK	CHANGE NO	REV				
			IR DRAM # CARRY BOARD	DUA	M8522-0-0	A
			SCALE 2/1	SHEET 2 OF 5	DIST.	

FORM NO. 8 7 6 5 4 3 2 1

127

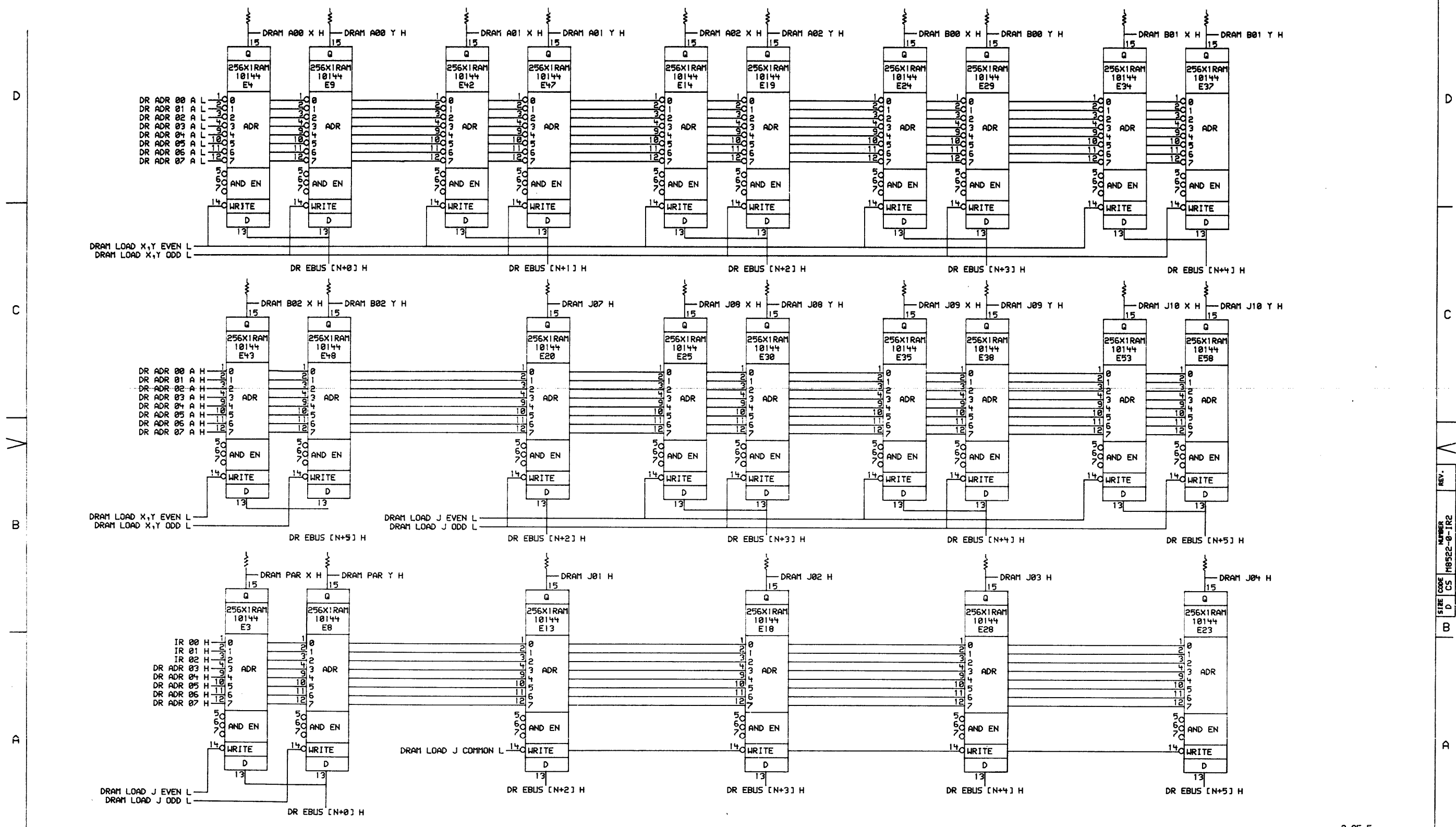


REV. NUMBER 131-0-IR1  
 CS M8522-0-IR1  
 D CS

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REVISIONS	
CHK	CHANGE NO. REV

	DRN: R Reid	DATE: 12-5-74	ENG: R Reid	DATE: 12-5-74	TITLE: IR, DRAM & CARRY
	CHK'D: R Reid	DATE: 12-5-74	BOARD LOCATION: 1	DEF: 1	IR, DRAM & CARRY
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8522-0		SIZE CODE: D CS	NUMBER: M8522-0-IR1



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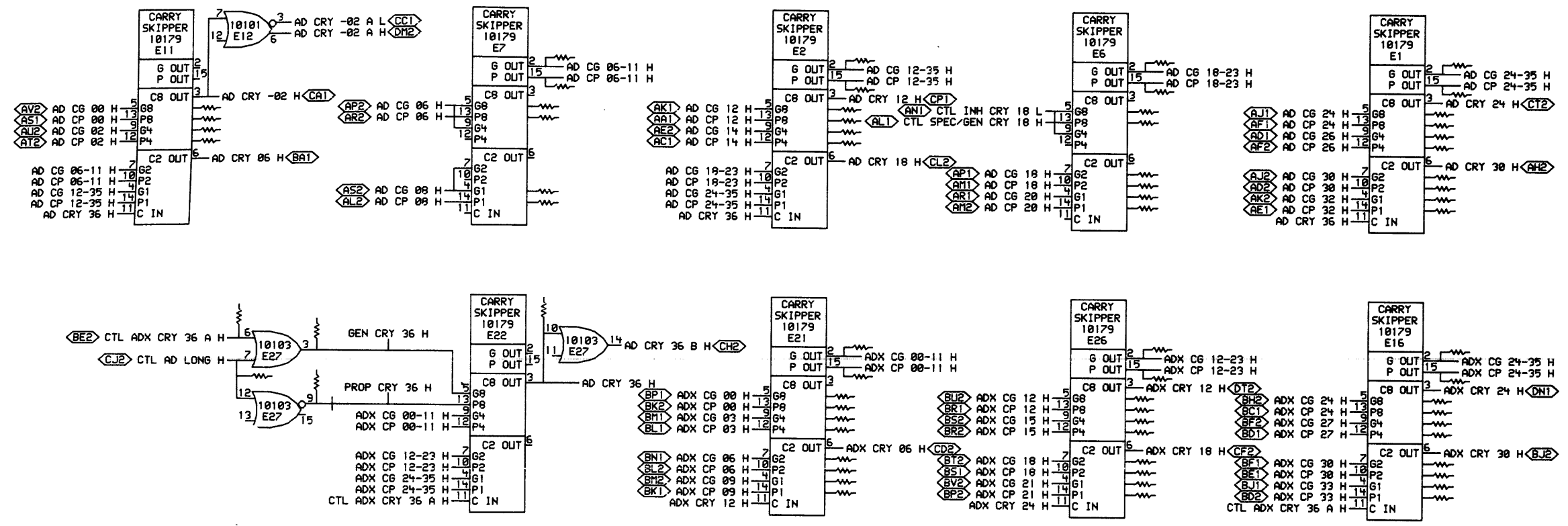
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN: R Reid	DATE: 12-5-74	ENG: R Reid	DATE: 12-5-74	TITLE: IR, DRAM & CARRY DRAM
	CHK: D Reid	DATE: 12-5-74	BOARD LOCATION: 1	SHEET: 1	REV:
IR2EX14.120		02-DEC-74 20:34		NEXT HIGHER ASSEMBLY: B-DD-M8522-0	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10				NUMBER: M8522-0-IR2	REV:

109







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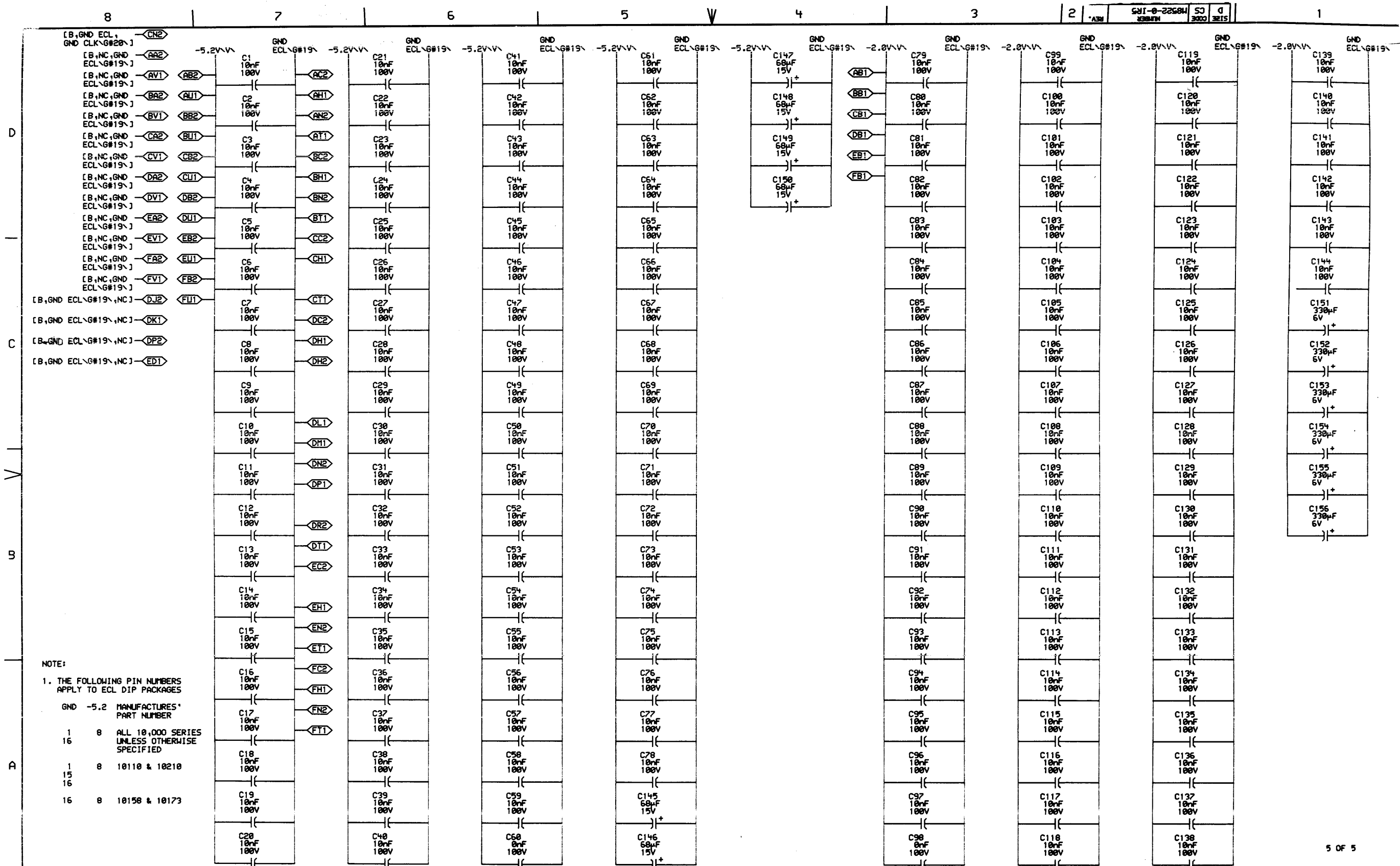
REVISIONS		
CHK	CHANGE NO.	REV

**digital** DRN. R Reid DATE 12-5-74 ENG. R Reid DATE 12-5-74 TITLE: IR, DRAM & CARRY CARRY NETWORK

CHK'D R Reid DATE 12-5-74 BOARD LOCATION: SHEET 1 OF 1

IR4EX(4,120) 02-DEC-74 20:37 NEXT HIGHER ASSEMBLY: SIZE CODE NUMBER REV. D CS M8522-0-IR4

FIRST USED ON OPTION/MODEL: KL10 B-DD-M8522-0



**NOTE:**

- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES
- | GND | -5.2 | MANUFACTURER'S PART NUMBER                   |
|-----|------|--|
| 1   | 8    | ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED |
| 16  |      |  |
| 1   | 8    | 10110 & 10210                                |
| 15  |      |  |
| 16  |      |  |
| 1   | 8    | 10158 & 10173                                |
| 15  |      |  |
| 16  |      |  |

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REVISIONS		
CHK	CHANGE NO.	REV

	DRN. R Reid	DATE 12-5-74	ENG. R Reid	DATE 12-5-74	TITLE: IR, DRAM & CARRY
	CHK'D R Reid				PWR, GND, CAPS
IR5EXL4,120		02-DEC-74 20:39	NEXT HIGHER ASSEMBLY: B-DD-M8522-0	SIZE CODE D CS	NUMBER M8522-0-IR5
FIRST USED ON OPTION/MODEL: KL10					REV.

REV. NUMBER 18522-0-IR5

RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL	RESISTOR LOC PIN	SHOWN ON DRW NO	TERMINATES SIGNAL
R 134 1	IR3E	%E12(14)	R 155 1	IR4E	AD CP 18 H	R 206 1	IR1E	CACHE DATA 11 C H	R 74 1	IR2E	DRAM B00 X H	R 116 1	IR4E	PROP CRY 36 H
R 90 1	IR3E	%E17(2)	R 102 1	IR4E	AD CP 18-23 H	R 201 1	IR1E	CACHE DATA 12 C H	R 76 1	IR2E	DRAM B00 Y H			
R 19 1	IR3E	%E40(2)	R 151 1	IR4E	AD CP 20 H	R 70 1	IR1E	CLK IR H	R 77 1	IR2E	DRAM B01 X H			
R 130 1	IR3E	%E45(3)	R 145 1	IR4E	AD CP 24 H	R 79 1	IR1E	-CON LOAD DRAM H	R 73 1	IR2E	DRAM B01 Y H			
R 131 1	IR3E	%E57(10)	R 90 1	IR4E	AD CP 24-35 H	R 00 1	IR1E	-CON LOAD IR H	R 70 1	IR2E	DRAM B02 X H			
R 20 1	IR3E	%E57(11)	R 146 1	IR4E	AD CP 26 H	R 137 1	IR3E	CRAM # 07 F H	R 71 1	IR2E	DRAM B02 Y H			
R 18 1	IR3E	%E57(12)	R 140 1	IR4E	AD CP 30 H	R 132 1	IR3E	CRAM # 08 F H	R 07 1	IR2E	DRAM J01 H			
R 52 1	IR3E	%E60(3)	R 144 1	IR4E	AD CP 32 H	R 120 1	IR4E	CTL AD LONG H	R 06 1	IR2E	DRAM J02 H			
R 40 1	IR3E	%E62(14)	R 103 1	IR4E	AD CRY 36 H	R 124 1	IR4E	CTL ADX CRY 36 A H	R 01 1	IR2E	DRAM J03 H			
R 45 1	IR3E	%E65(2)	R 170 1	IR4E	ADX CG 00 H	R 102 1	IR4E	-CTL INH CRY 10 H	R 03 1	IR2E	DRAM J04 H			
R 49 1	IR3E	%E75(15)	R 110 1	IR4E	ADX CG 00-11 H	R 126 1	IR4E	CTL SPEC/GEN CRY 10 H	R 16 1	IR2E	DRAM J07 H			
R 97 1	IR1E	%E75(2)	R 173 1	IR4E	ADX CG 03 H	R 43 1	IR3E	-DIAG LOAD FUNC 06X H	R 17 1	IR2E	DRAM J08 X H			
R 93 1	IR1E	%E76(14)	R 160 1	IR4E	ADX CG 06 H	R 125 1	IR1E	DR ADR 00 A H	R 14 1	IR2E	DRAM J08 Y H			
R 96 1	IR1E	%E76(2)	R 169 1	IR4E	ADX CG 09 H	R 34 1	IR1E	-DR ADR 00 A H	R 11 1	IR2E	DRAM J09 X H			
R 94 1	IR1E	%E76(3)	R 176 1	IR4E	ADX CG 12 H	R 100 1	IR1E	DR ADR 01 A H	R 10 1	IR2E	DRAM J09 Y H			
R 92 1	IR1E	#ER2	R 123 1	IR4E	ADX CG 12-23 H	R 29 1	IR1E	-DR ADR 01 A H	R 13 1	IR2E	DRAM J10 X H			
R 91 1	IR1E	#ES2	R 179 1	IR4E	ADX CG 15 H	R 106 1	IR1E	DR ADR 02 A H	R 12 1	IR2E	DRAM J10 Y H			
R 135 1	IR3E	-A>B H	R 177 1	IR4E	ADX CG 18 H	R 33 1	IR1E	-DR ADR 02 A H	R 67 1	IR3E	-DRAM LOAD J COMMON H			
R 100 1	IR1E	AD 00 A H	R 174 1	IR4E	ADX CG 21 H	R 1 1	IR1E	DR ADR 03 H	R 62 1	IR3E	-DRAM LOAD J EVEN H			
R 51 1	IR3E	-AD 00-05=0 H	R 166 1	IR4E	ADX CG 24 H	R 103 1	IR1E	DR ADR 03 A H	R 61 1	IR3E	-DRAM LOAD J ODD H			
R 44 1	IR1E	AD 06 A H	R 121 1	IR4E	ADX CG 24-35 H	R 35 1	IR1E	-DR ADR 03 A H	R 23 1	IR3E	-DRAM LOAD X,Y EVEN H			
R 142 1	IR3E	-AD 06-11=0 H	R 160 1	IR4E	ADX CG 27 H	R 5 1	IR1E	DR ADR 04 H	R 22 1	IR3E	-DRAM LOAD X,Y ODD H			
R 143 1	IR3E	-AD 12-17=0 H	R 165 1	IR4E	ADX CG 30 H	R 100 1	IR1E	DR ADR 04 A H	R 112 1	IR1E	DRAM PAR H			
R 141 1	IR3E	-AD 18-23=0 H	R 163 1	IR4E	ADX CG 33 H	R 27 1	IR1E	-DR ADR 04 A H	R 09 1	IR1E	DRAM PAR J 07 H			
R 139 1	IR3E	-AD 24-29=0 H	R 167 1	IR4E	ADX CP 00 H	R 0 1	IR1E	DR ADR 05 H	R 08 1	IR1E	DRAM PAR J 08 H			
R 140 1	IR3E	-AD 30-35=0 H	R 119 1	IR4E	ADX CP 00-11 H	R 105 1	IR1E	DR ADR 05 A H	R 04 1	IR1E	DRAM PAR J 09 H			
R 150 1	IR4E	AD CG 00 H	R 171 1	IR4E	ADX CP 03 H	R 26 1	IR1E	-DR ADR 05 A H	R 05 1	IR1E	DRAM PAR J 10 H			
R 114 1	IR4E	AD CG 02 H	R 172 1	IR4E	ADX CP 06 H	R 7 1	IR1E	DR ADR 06 H	R 30 1	IR2E	DRAM PAR X H			
R 109 1	IR4E	AD CG 06 H	R 162 1	IR4E	ADX CP 09 H	R 130 1	IR1E	DR ADR 06 A H	R 31 1	IR2E	DRAM PAR Y H			
R 159 1	IR4E	AD CG 06-11 H	R 129 1	IR4E	ADX CP 12 H	R 20 1	IR1E	-DR ADR 06 A H	R 107 1	IR4E	GEN CRY 36 H			
R 105 1	IR4E	AD CG 08 H	R 122 1	IR4E	ADX CP 12-23 H	R 6 1	IR1E	DR ADR 07 H	R 15 1	IR1E	HOLD DRAM A H			
R 65 1	IR4E	AD CG 12 H	R 175 1	IR4E	ADX CP 15 H	R 109 1	IR1E	DR ADR 07 A H	R 56 1	IR1E	HOLD DRAM B H			
R 115 1	IR4E	AD CG 12-35 H	R 170 1	IR4E	ADX CP 18 H	R 25 1	IR1E	-DR ADR 07 A H	R 75 1	IR1E	HOLD DRAM C H			
R 101 1	IR4E	AD CG 14 H	R 120 1	IR4E	ADX CP 21 H	R 72 1	IR1E	DR ADR 08 H	R 211 1	IR1E	HOLD IR A H			
R 150 1	IR4E	AD CG 18 H	R 157 1	IR4E	ADX CP 24 H	R 39 1	IR3E	DR DIAG 04 H	R 207 1	IR1E	HOLD IR B H			
R 64 1	IR4E	AD CG 18-23 H	R 117 1	IR4E	ADX CP 24-35 H	R 42 1	IR3E	DR DIAG 05 H	R 199 1	IR1E	HOLD IR C H			
R 152 1	IR4E	AD CG 20 H	R 156 1	IR4E	ADX CP 27 H	R 46 1	IR3E	DR DIAG 06 H	R 95 1	IR1E	INSTR 7XX H			
R 153 1	IR4E	AD CG 24 H	R 161 1	IR4E	ADX CP 30 H	R 127 1	IR3E	-DR DIAG READ H	R 136 1	IR3E	IR #06=07 H			
R 63 1	IR4E	AD CG 24-35 H	R 164 1	IR4E	ADX CP 33 H	R 21 1	IR3E	DR EBUS [N+0] H	R 133 1	IR3E	-IR #06=07 H			
R 149 1	IR4E	AD CG 26 H	R 195 1	IR1E	CACHE DATA 00 C H	R 24 1	IR3E	DR EBUS [N+1] H	R 3 1	IR1E	IR 00 H			
R 147 1	IR4E	AD CG 30 H	R 191 1	IR1E	CACHE DATA 01 C H	R 9 1	IR3E	DR EBUS [N+2] H	R 4 1	IR1E	IR 01 H			
R 154 1	IR4E	AD CG 32 H	R 193 1	IR1E	CACHE DATA 02 C H	R 66 1	IR3E	DR EBUS [N+3] H	R 2 1	IR1E	IR 02 H			
R 110 1	IR4E	AD CP 00 H	R 212 1	IR1E	CACHE DATA 03 C H	R 60 1	IR3E	DR EBUS [N+4] H	R 57 1	IR1E	IR 10 H			
R 111 1	IR4E	AD CP 02 H	R 210 1	IR1E	CACHE DATA 04 C H	R 69 1	IR3E	DR EBUS [N+5] H	R 60 1	IR1E	IR 11 H			
R 107 1	IR4E	AD CP 06 H	R 200 1	IR1E	CACHE DATA 05 C H	R 30 1	IR2E	DRAM A00 X H	R 59 1	IR1E	IR 12 H			
R 113 1	IR4E	AD CP 06-11 H	R 197 1	IR1E	CACHE DATA 06 C H	R 40 1	IR2E	DRAM A00 Y H	R 181 1	IR3E	IR EN AC H			
R 104 1	IR4E	AD CP 08 H	R 190 1	IR1E	CACHE DATA 07 C H	R 36 1	IR2E	DRAM A01 X H	R 50 1	IR3E	-IR EN AC H			
R 99 1	IR4E	AD CP 12 H	R 196 1	IR1E	CACHE DATA 08 C H	R 41 1	IR2E	DRAM A01 Y H	R 104 1	IR3E	IR EN I/O, JRST H			
R 106 1	IR4E	AD CP 12-35 H	R 202 1	IR1E	CACHE DATA 09 C H	R 32 1	IR2E	DRAM A02 X H	R 50 1	IR3E	-IR EN I/O, JRST H			
R 100 1	IR4E	AD CP 14 H	R 203 1	IR1E	CACHE DATA 10 C H	R 37 1	IR2E	DRAM A02 Y H	R 02 1	IR3E	-IR JRST H			

NOTE:  
 1. ENTRIES ARE SORTED BY SIGNAL NAME  
 2. ALL TERMINATION RESISTORS ARE 60Ω 1/4W 5% AND ARE CONNECTED TO -2.0V UNLESS OTHERWISE SPECIFIED  
 3. % INDICATES OUTPUT OF DIP LOC AND (<) INDICATES PIN NUMBER  
 4. ALL 56Ω RESISTORS ARE 1/4W 5% TERMINATORS AND ARE CONNECTED TO -2.0V UNLESS OTHERWISE SPECIFIED

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REVISIONS		
CHK	CHANGE NO.	REV

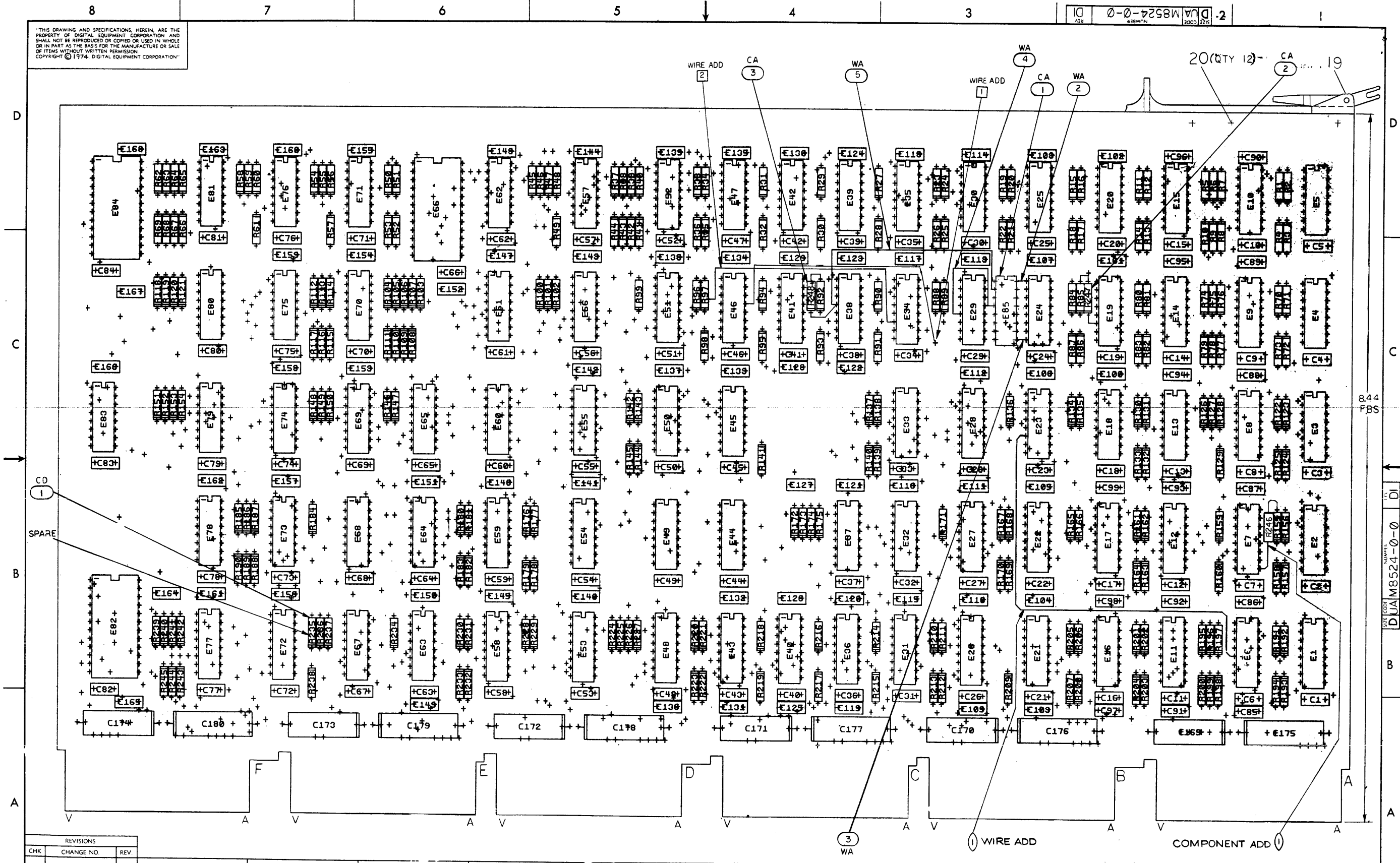
digital	DRN. <i>C. Smith</i>	DATE <i>02-NOV-74</i>	ENG. <i>R. Reid</i>	DATE <i>12-5-74</i>	TITLE: IR, DRAM & CARRY TERMINATORS
	CHK'D <i>R. Reid</i>	DATE <i>12-5-74</i>	BOARD LOCATION: <i>1</i>	SHEET <i>1</i> OF <i>1</i>	
M8522(4,427)		103-DEC-74 22106 NEXT HIGHER ASSEMBLY:		SIZE CODE	NUMBER
FIRST USED ON OPTION MODEL: KL10		18-DD-M8522-0		D CS	M8522-0-RES

REV. 1  
 NUMBER M8522-0-RES  
 CODE D CS  
 SIZE D



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2- DUA M8524-0-0  
REV. 001  
NO. 8524-0-0



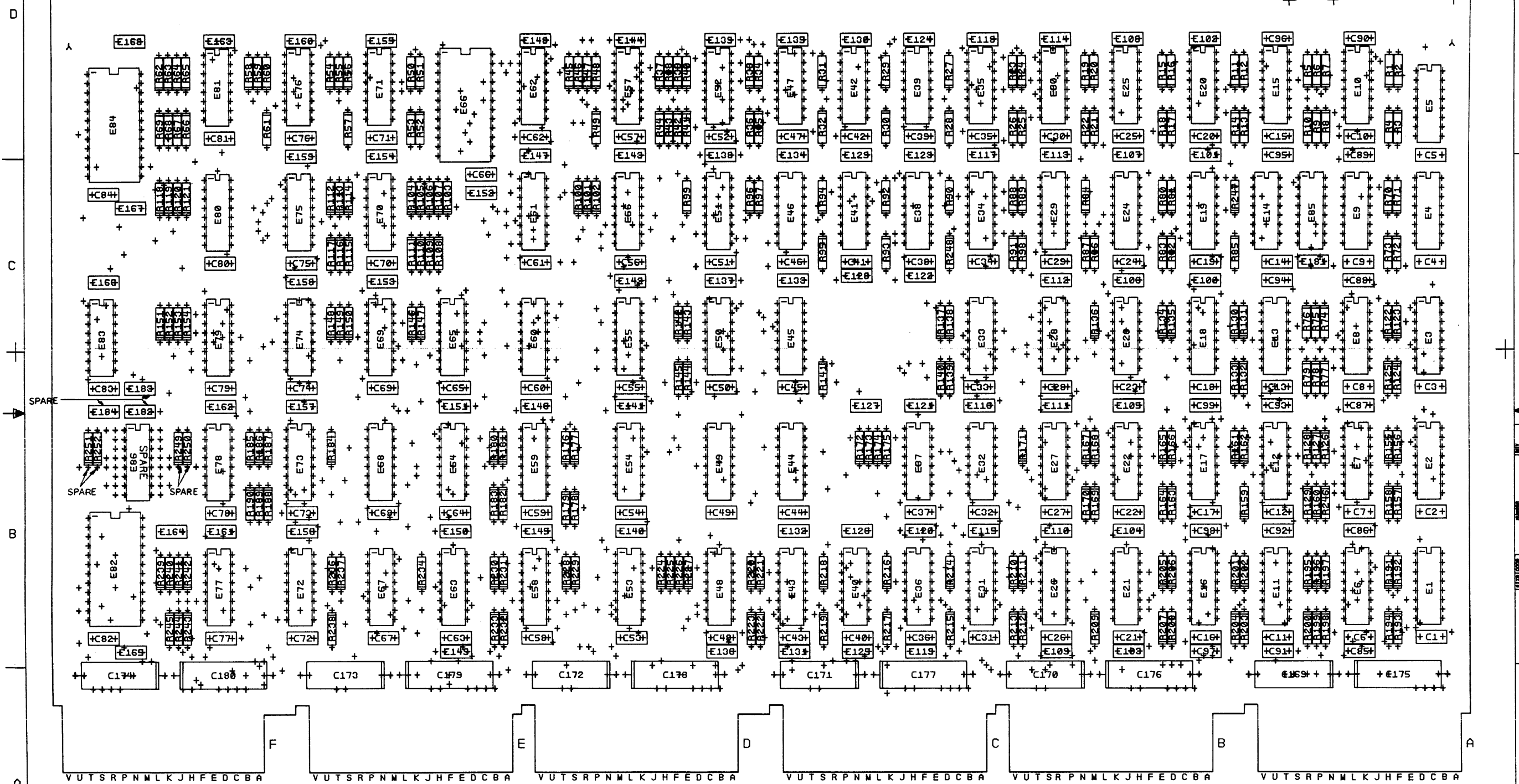
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SCAD PC FLAGS	SIZE CODE	D UA M8524-0-0	NUMBER	DI	REV.	
SCALE	NONE	SHEET	2	OF	7	DIST.	





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1977



SIGNATURES		DATE	digital
DRN. <i>E. Wilson</i>		13A917	
CHK'D. <i>P.W. Cantor</i>			TITLE SCAD, PC FLAG
ENG. <i>E. Cole</i>		8/4/77	
PROJ. ENG. <i>E. Cole</i>		8/4/77	
PROD. <i>L. Bradley</i>		14 Aug 77	
SCALE 2/1		SIZE CODE	NUMBER
SHT. 2 OF 5		D	UA M8524-0-0 E
NEXT HIGHER ASSY. B-DD-M8524-0			

NOTES:

\_\_\_\_\_

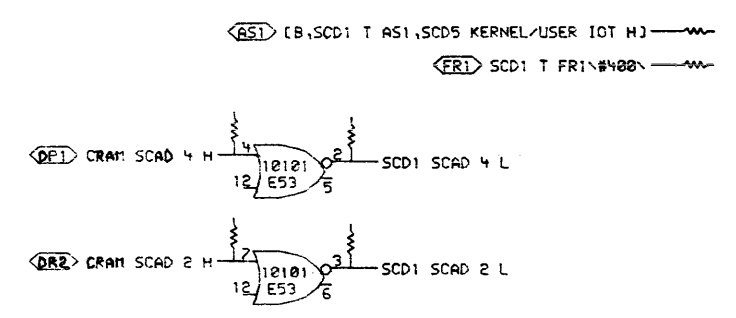
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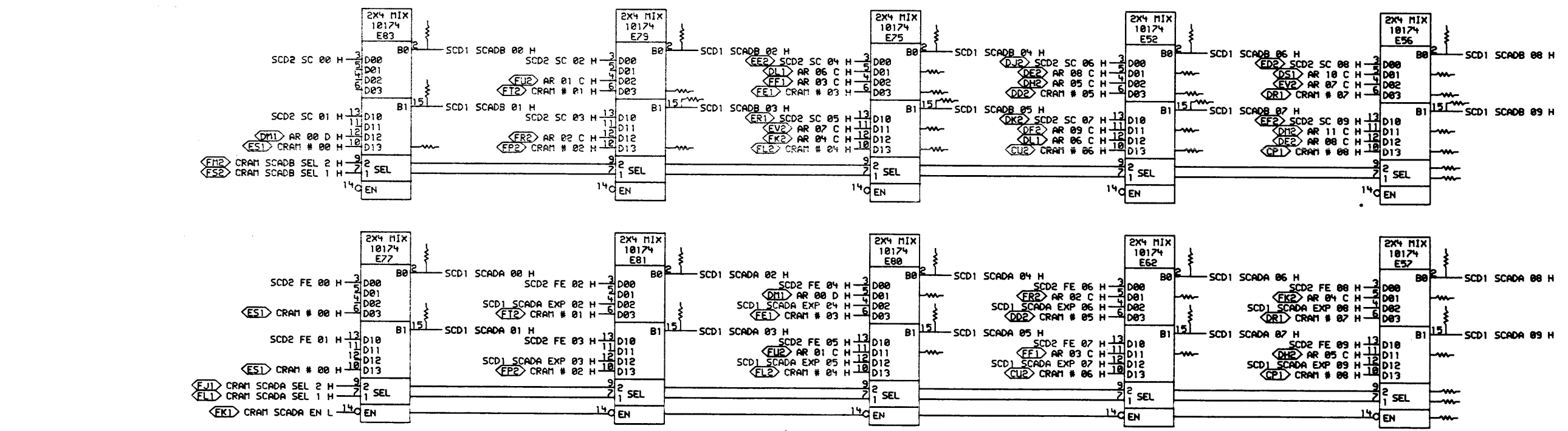
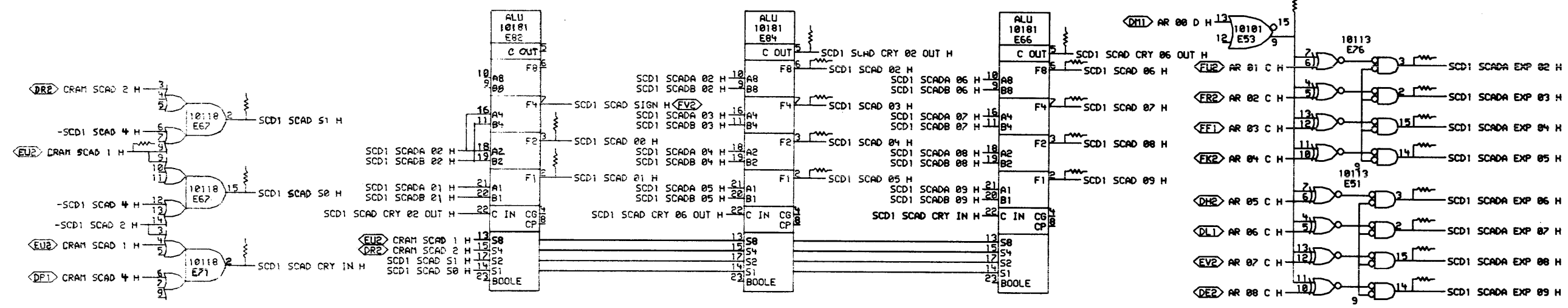
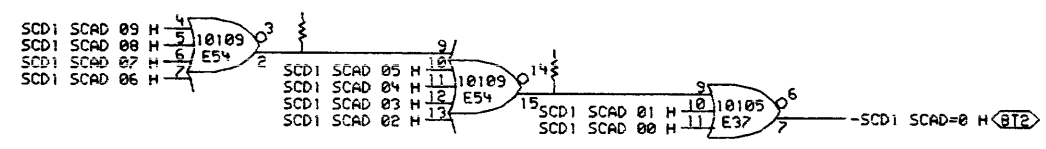
CHK	CHANGE NO	REV

ETCH REV.	C
P.C. DESIGN DATA BASE REV.	C



**SCAD CONTROL**

CRAM SCAD	SCAD FUNCTION	BOOLE	S8	S4	S2	S1	CRY IN
0 0 0	A	0	0	0	0	0	0
0 0 1	A-B-1	0	1	0	0	1	0
0 1 0	A+B	0	0	1	1	0	0
0 1 1	A-1	0	1	1	1	1	0
1 0 0	A+1	0	0	0	0	0	1
1 0 1	A-B	0	1	0	0	1	1
1 1 0	OR	0	0	1	0	0	0
1 1 1	AND	0	1	1	1	0	1

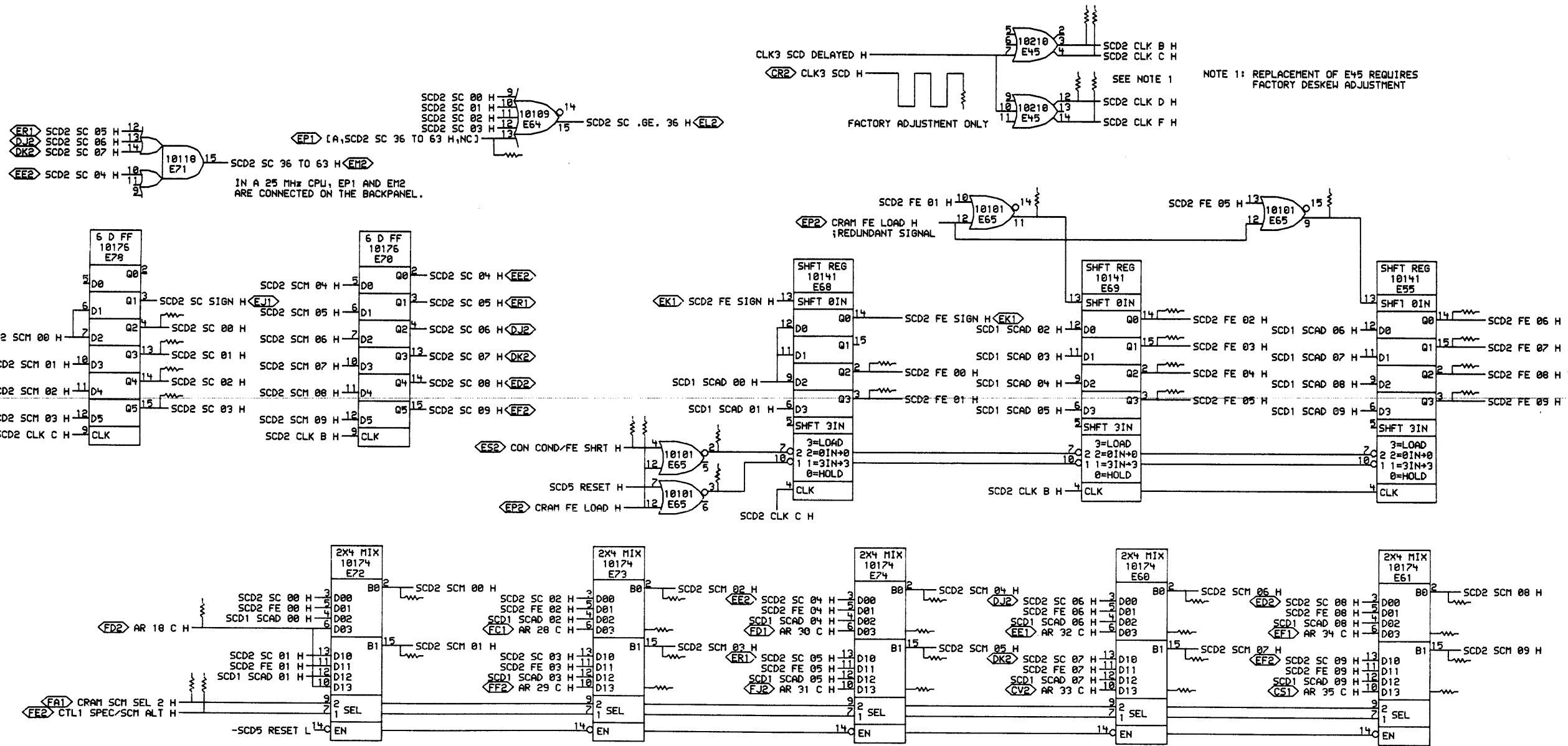


REV. B  
 NUMBER 18524-0-SCD1  
 SIZE CODE D CS

REVISIONS CHK CHANGE NO. REV. 18524-00004 B 11/27/77 JEGGERS		DATE: 21-DEC-76 ENG: Tom Egge DATE: 21DEC76 BOARD LOCATION: 4A54 SHEET: 1 OF 1	TITLE: SCAD, PC FLAGS SCAD, SCADA, SCADB NUMBER: 18524-0-SCD1 REV. B
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FIRST USED ON OPTION/MODEL: KL12 117-DEC-76 18:50 NEXT HIGHER ASSEMBLY: B-DD-18524-0





NOTE 1: REPLACEMENT OF E45 REQUIRES FACTORY DESKEW ADJUSTMENT

IN A 25 MHz CPU, EP1 AND EM2 ARE CONNECTED ON THE BACKPANEL.

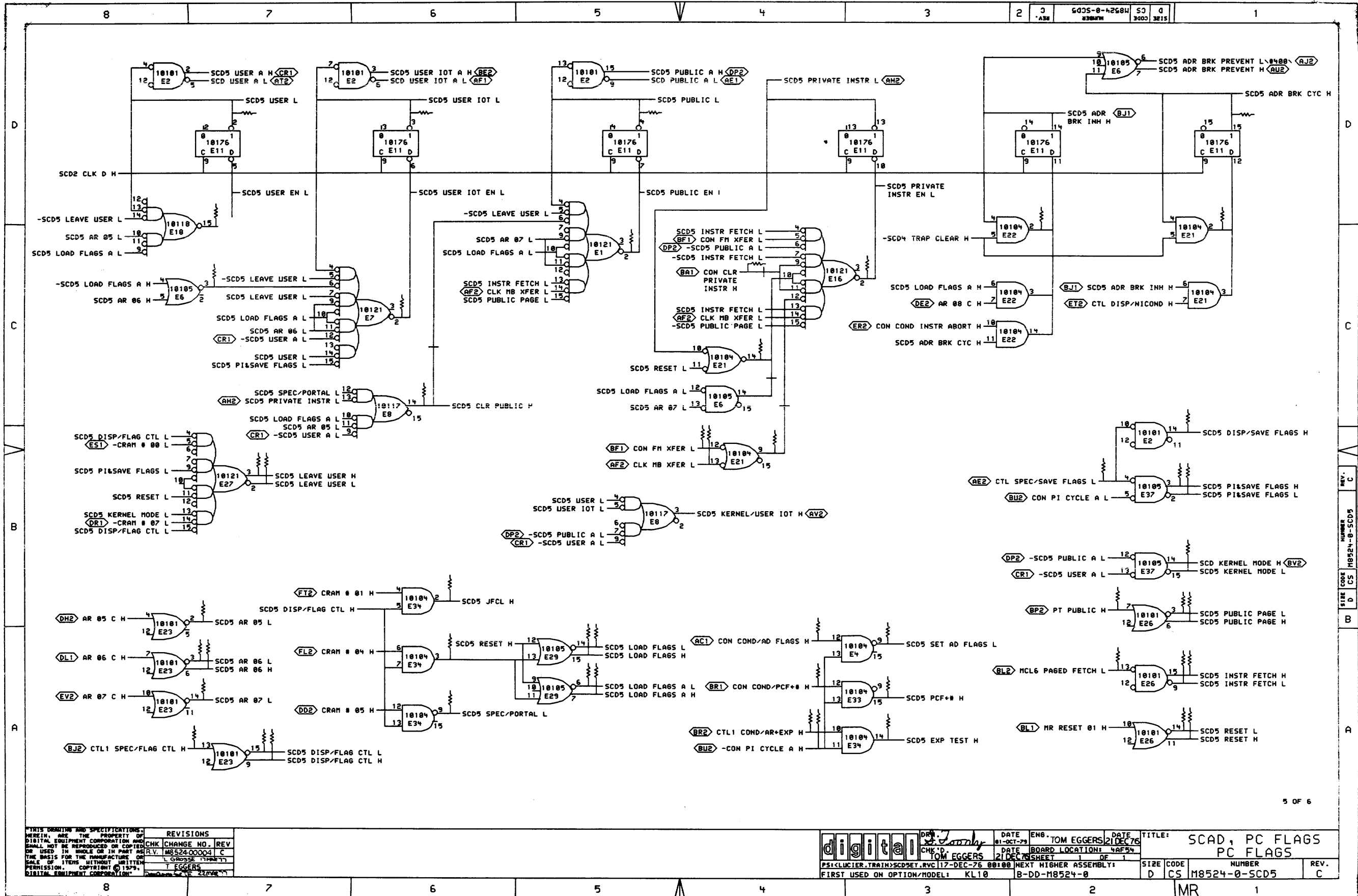
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CHK	CHANGE NO.	REV

digital	DATE	28-DEC-76	EMP	DATE	20 DEC 76	TITLE:	SCAD, PC FLAGS
	DATE	20 DEC 76	BOARD LOCATION:	4AF54		SC, SCM, FE	
SHEET		1	OF	1		SIZE	D
FIRST USED ON OPTION/MODEL:		KL10	NEXT HIGHER ASSEMBLY:		B-DD-M8524-0	NUMBER	M8524-0-SCD2
						REV.	B



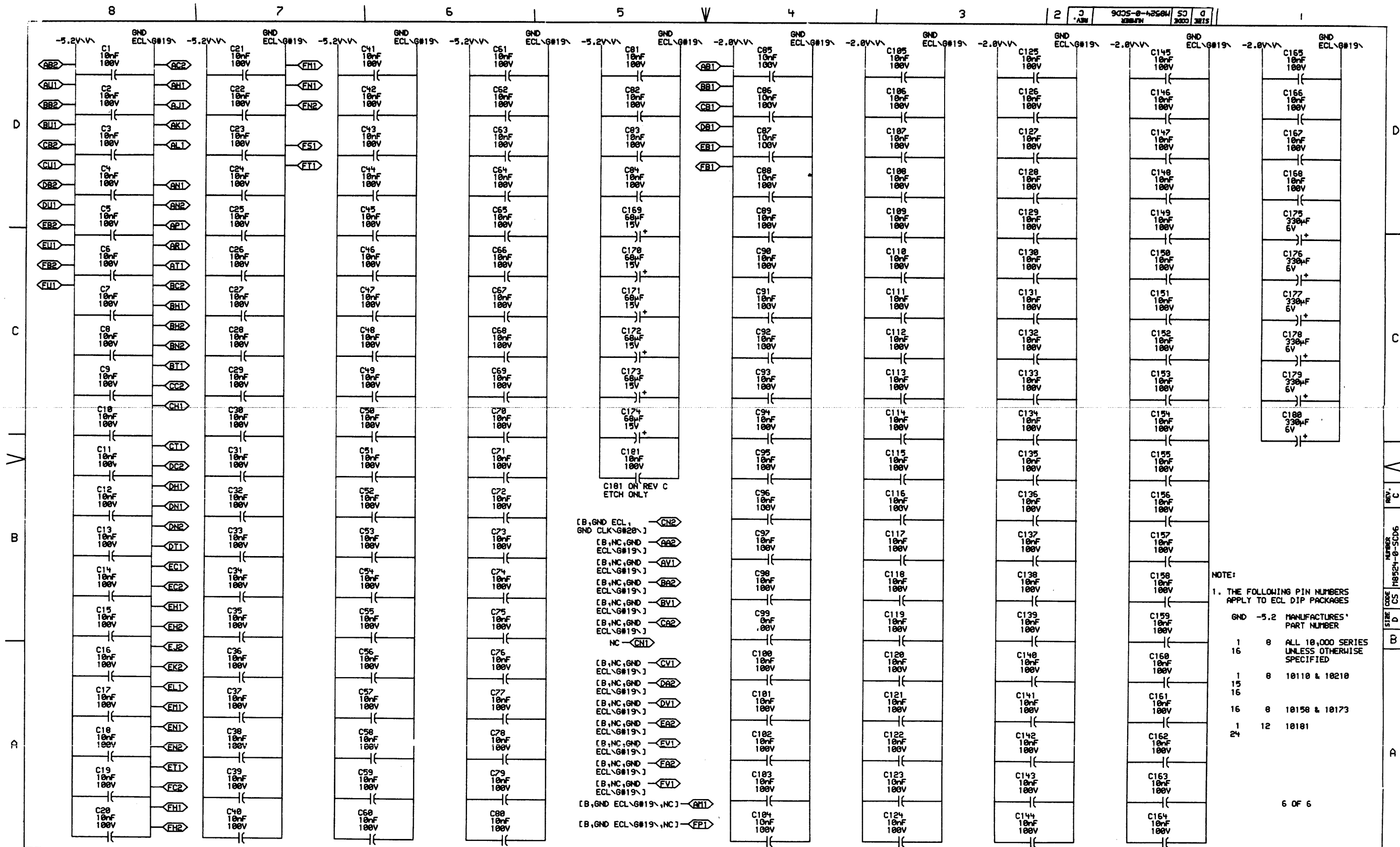




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REVISIONS	
CHK	CHANGE NO. REV
AV	M8524-00004 C
T	EGGERS

digit	DATE	ENG.	DATE	TITLE:
	81-057-29	TOM EGGERS	21 DEC 76	SCAD, PC FLAGS
	CHK'D.		BOARD LOCATION:	PC FLAGS
	TOM EGGERS		1 OF 1	
PSI<LUCIER,TRAIN>SCDSET.RVC	17-DEC-76	00:00	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL:	KL10	B-DD-M8524-0	SIZE	CODE
			D	CS
			M8524-0-SCD5	REV.
				C



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173
24	12	10181

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REVISIONS		
CHK	CHANGE NO.	REV
	M8524-0007	C
	07/27/77	21/20/77
	T. EGERS	
	2/20/77	21/20/77

digital	DATE	ENG	DATE	TITLE
	02-JUN-77	12m gpa	23-JUN-77	SCD, PC FLAGS POWER, GND, CAPS
	DATE	BOARD LOCATION	44674	
	02-JUN-77	13:35		
		NEXT HIGHER ASSEMBLY:		
		B-DD-M8524-0		
	FIRST USED ON OPTION/MODEL:	KL10		
	SIZE	CODE	NUMBER	REV.
	D	CS	M8524-0-SCD6	C

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
R75(1)	SCD4	B1	68n	%E10(2)	R144(1)	SCD2	B5	68n	%E65(3)	R70(1)	SCD5	A4	68n	-CON PI CYCLE A H	R226(1)	SCD1	C4	68n	SCD1 SCAD 02 H
R76(1)	SCD4	B3	68n	%E14(14)	R143(1)	SCD2	C2	68n	%E65(9)	R124(1)	SCD4	A4	68n	CON TRAP EN A H	R172(1)	SCD1	C4	68n	SCD1 SCAD 03 H
R82(1)	SCD4	B6	68n	%E14(2)	R248(1)	SCD4	A6	68n	%E85(15)	R140(1)	SCD1	B6	68n	CRAM # 00 H	R225(1)	SCD1	C4	68n	SCD1 SCAD 04 H
R10(1)	SCD4	B5	68n	%E15(14)	R247(1)	SCD4	A7	68n	%E85(2)	R227(1)	SCD1	B5	68n	CRAM # 01 H	R223(1)	SCD1	C4	68n	SCD1 SCAD 05 H
R15(1)	SCD4	D1	68n	%E18(2)	R12(1)	SCD4	D6	68n	-AD CRY -02 A H	R73(1)	SCD1	B5	68n	CRAM # 02 H	R179(1)	SCD1	C3	68n	SCD1 SCAD 06 H
R22(1)	SCD4	D5	68n	%E20(14)	R87(1)	SCD4	D5	68n	-AD CRY 01 H	R80(1)	SCD1	B4	68n	CRAM # 03 H	R96(1)	SCD1	C3	68n	SCD1 SCAD 07 H
R20(1)	SCD4	D6	68n	%E20(3)	R13(1)	SCD4	D7	68n	-AD OVERFLOW 00 H	R90(1)	SCD1	B4	68n	CRAM # 04 H	R97(1)	SCD1	C3	68n	SCD1 SCAD 08 H
R195(1)	SCD5	C1	68n	%E21(2)	R151(1)	SCD1	A4	68n	AR 00 D H	R46(1)	SCD1	B3	68n	CRAM # 05 H	R94(1)	SCD1	C3	68n	SCD1 SCAD 09 H
R201(1)	SCD5	B4	68n	%E21(9)	R19(1)	SCD1	A4	68n	AR 01 C H	R139(1)	SCD1	B3	68n	CRAM # 06 H	R56(1)	SCD1	D7	68n	-SCD1 SCAD 2 H
R81(1)	SCD4	B7	68n	%E22(15)	R84(1)	SCD1	A3	68n	AR 02 C H	R168(1)	SCD1	B1	68n	CRAM # 07 H	R237(1)	SCD1	D7	68n	-SCD1 SCAD 4 H
R200(1)	SCD5	C2	68n	%E22(2)	R26(1)	SCD1	A3	68n	AR 03 C H	R99(1)	SCD1	B1	68n	CRAM # 08 H	R244(1)	SCD1	C4	68n	SCD1 SCAD CRY 02 OUT H
R86(1)	SCD4	C5	68n	%E24(14)	R77(1)	SCD1	A1	68n	AR 04 C H	R32(1)	SCD3	B3	68n	CRAM COND 03 A H	R64(1)	SCD1	C3	68n	SCD1 SCAD CRY 06 OUT H
R21(1)	SCD4	D4	68n	%E24(3)	R134(1)	SCD1	A1	68n	AR 05 C H	R30(1)	SCD3	B3	68n	CRAM COND 04 A H	R57(1)	SCD1	C7	68n	SCD1 SCAD CRY IN H
R216(1)	SCD3	A7	68n	%E26(2)	R136(1)	SCD1	B4	68n	AP 06 C H	R35(1)	SCD3	B3	68n	CRAM COND 05 A H	R109(1)	SCD1	C7	68n	SCD1 SCAD 50 H
R217(1)	SCD3	A7	68n	%E26(5)	R133(1)	SCD1	B4	68n	AP 07 C H	R146(1)	SCD2	B5	68n	CRAM FE LOAD H	R107(1)	SCD1	C7	68n	SCD1 SCAD 51 H
R11(1)	SCD4	C6	68n	%E30(14)	R169(1)	SCD1	B3	68n	AR 08 C H	R100(1)	SCD1	C8	68n	CRAM SCAD 1 H	R239(1)	SCD1	A6	68n	SCD1 SCADA 00 H
R16(1)	SCD4	C7	68n	%E30(3)	R83(1)	SCD1	B3	68n	AR 09 C H	R110(1)	SCD1	D8	68n	CRAM SCAD 2 H	R243(1)	SCD1	A6	68n	SCD1 SCADA 01 H
R130(1)	SCD4	C2	68n	%E33(14)	R90(1)	SCD1	B1	68n	AR 10 C H	R55(1)	SCD1	D8	68n	CRAM SCAD 4 H	R67(1)	SCD1	A5	68n	SCD1 SCADA 02 H
R24(1)	SCD4	C8	68n	%E33(2)	R25(1)	SCD1	B1	68n	AR 11 C H	R39(1)	SCD1	A1	68n	-CRAM SCADA EN H	R68(1)	SCD1	A5	68n	SCD1 SCADA 03 H
R89(1)	SCD5	A6	68n	%E34(3)	R132(1)	SCD4	D2	68n	AR 12 C H	R49(1)	SCD1	A1	68n	CRAM SCADA SEL 1 H	R69(1)	SCD1	A4	68n	SCD1 SCADA 04 H
R17(1)	SCD4	D2	68n	%E35(15)	R238(1)	SCD2	B7	68n	AR 18 C H	R44(1)	SCD1	A1	68n	CRAM SCADA SEL 2 H	R63(1)	SCD1	A4	68n	SCD1 SCADA 05 H
R18(1)	SCD4	D3	68n	%E35(2)	R187(1)	SCD2	B5	68n	AR 28 C H	R41(1)	SCD1	B1	68n	CRAM SCADB SEL 1 H	R53(1)	SCD1	A3	68n	SCD1 SCADA 06 H
R224(1)	SCD3	A6	68n	%E36(2)	R184(1)	SCD2	B5	68n	AP 29 C H	R43(1)	SCD1	B1	68n	CRAM SCADB SEL 2 H	R111(1)	SCD1	A3	68n	SCD1 SCADA 07 H
R9(1)	SCD4	A5	68n	%E38(2)	R148(1)	SCD2	B4	68n	AR 30 C H	R102(1)	SCD2	A7	68n	CRAM SCM SEL 2 H	R106(1)	SCD1	A1	68n	SCD1 SCADA 08 H
R23(1)	SCD4	C3	68n	%E39(14)	R149(1)	SCD2	B4	68n	AR 31 C H	R93(1)	SCD3	A7	68n	CRAM SH-ARM SEL 1 H	R51(1)	SCD1	A1	68n	SCD1 SCADA 09 H
R27(1)	SCD4	C4	68n	%E39(2)	R40(1)	SCD2	B3	68n	AP 32 C H	R95(1)	SCD3	A7	68n	CRAM SH-ARM SEL 2 H	R59(1)	SCD1	C1	68n	SCD1 SCADA EXP 02 H
R79(1)	SCD4	B2	68n	%E4(2)	R142(1)	SCD2	B3	68n	AR 33 C H	R211(1)	SCD3	B2	68n	CRAM VMA SEL 2 A H	R58(1)	SCD1	C1	68n	SCD1 SCADA EXP 03 H
R31(1)	SCD3	B4	68n	%E40(15)	R34(1)	SCD2	B1	68n	AR 34 C H	R208(1)	SCD4	B7	68n	CTL DISP/NICOND H	R121(1)	SCD1	C1	68n	SCD1 SCADA EXP 04 H
R42(1)	SCD3	B6	68n	%E40(2)	R100(1)	SCD2	B1	68n	AR 35 C H	R175(1)	SCD5	B2	68n	-CTL SPEC/SAVE FLAGS H	R119(1)	SCD1	C1	68n	SCD1 SCADA EXP 05 H
R173(1)	SCD3	B5	68n	%E40(3)	R206(1)	SCD5	B4	68n	-CLK MB XFER H	R88(1)	SCD5	A4	68n	CTL1 COND/AR+EXP H	R47(1)	SCD1	C1	68n	SCD1 SCADA EXP 06 H
R214(1)	SCD3	B2	68n	%E43(15)	R141(1)	SCD2	D4	68n	CLK3 SCD H	R4(1)	SCD4	B3	68n	CTL1 SPEC/CLR FPD H	R45(1)	SCD1	C1	68n	SCD1 SCADA EXP 07 H
R6(1)	SCD4	A2	68n	%E5(14)	R163(1)	SCD5	C4	68n	CON CLP PRIVATE INSTR H	R135(1)	SCD5	A7	68n	CTL1 SPEC/FLAG CTL H	R38(1)	SCD1	C1	68n	SCD1 SCADA EXP 08 H
R8(1)	SCD4	A2	68n	%E5(15)	R33(1)	SCD3	B3	68n	-CON COND EN 30-37 H	R101(1)	SCD2	A7	68n	CTL1 SPEC/SCM ALT H	R37(1)	SCD1	C1	68n	SCD1 SCADA EXP 09 H
R54(1)	SCD1	D2	68n	%E53(9)	R165(1)	SCD4	B7	68n	CON COND INSTR ABORT H	R207(1)	SCD5	A2	68n	-MCL6 PAGED FETCH H	R240(1)	SCD1	B6	68n	SCD1 SCADB 00 H
R174(1)	SCD1	D2	68n	%E54(15)	R71(1)	SCD5	A4	68n	CON COND/AD FLAGS H	R218(1)	SCD3	B5	68n	-PI2 PI1 A H	R241(1)	SCD1	B6	68n	SCD1 SCADB 01 H
R178(1)	SCD1	D3	68n	%E54(2)	R147(1)	SCD2	B5	68n	CON COND/FE SHRT H	R219(1)	SCD3	B6	68n	-PI2 PI2 A H	R66(1)	SCD1	B5	68n	SCD1 SCADB 02 H
R204(1)	SCD5	C4	68n	%E6(14)	R138(1)	SCD5	A4	68n	CON COND/PCF+* H	R222(1)	SCD3	B7	68n	-PI2 PI4 A H	R118(1)	SCD1	B5	68n	SCD1 SCADB 03 H
R158(1)	SCD5	C7	68n	%E6(3)	R205(1)	SCD5	B4	68n	-CON FM XFER H	R209(1)	SCD5	B2	68n	PT PUBLIC H	R65(1)	SCD1	B4	68n	SCD1 SCADB 04 H
R150(1)	SCD2	C3	68n	%E65(11)	R123(1)	SCD4	A4	68n	CON NICOND TRAP EN H	R28(1)	SCD1	C6	68n	SCD1 SCAD 00 H	R62(1)	SCD1	B4	68n	SCD1 SCADB 05 H
R145(1)	SCD2	B5	68n	%E65(2)	R215(1)	SCD3	B2	68n	-CON PC+1 INH H	R29(1)	SCD1	C6	68n	SCD1 SCAD 01 H	R52(1)	SCD1	B3	68n	SCD1 SCADB 06 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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D  
C  
B  
A

D  
C  
B  
A

RESISTOR LOC(PIN)	DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRW#	ON REF	VALUE	TERMINATES SIGNAL
R50(1)	SCD1	B3	68n	SCD1 SCADB 07 H	R230(1)	SCD3	C7	68n	-SCD3 DIAG EN H	R14(1)	SCD5	A3	68n	-SCD5 SET AD FLAGS H
R105(1)	SCD1	B1	68n	SCD1 SCADB 08 H	R76(1)	SCD4	B3	68n	-SCD4 CLR FPD H	R122(1)	SCD5	A6	68n	-SCD5 SPEC/PORTAL H
R104(1)	SCD1	B1	68n	SCD1 SCADB 09 H	R7(1)	SCD4	A1	68n	SCD4 LOAD PCP H	R131(1)	SCD5	D7	68n	-SCD5 USER H
R160(1)	SCD1	D6	68n	SCD1 T AS1	R127(1)	SCD4	D6	68n	SCD4 OV H	R196(1)	SCD5	D7	68n	-SCD5 USER EN H
R245(1)	SCD1	D6	68n	SCD1 T FR1\#400	R5(1)	SCD4	B7	68n	-SCD4 TRAP CLEAR H	R120(1)	SCD5	D6	68n	-SCD5 USER IOT H
R103(1)	SCD2	D3	68n	SCD2 CLK B H	R221(1)	SCD4	C4	68n	SCD4 TRAP CYC 1 H	R202(1)	SCD5	C6	68n	-SCD5 USER IOT EN H
R100(1)	SCD2	D3	68n	SCD2 CLK C H	R220(1)	SCD4	C3	68n	SCD4 TRAP CYC 1 OR 2 H	R100(1)	SCD2	D6	68n	(A,SCD2 SC 36 TO 63 H,NC)
R159(1)	SCD2	D3	68n	SCD2 CLK D H	R36(1)	SCD4	C6	68n	SCD4 TRAP CYC 2 H					
R129(1)	SCD2	D3	68n	SCD2 CLK F H	R74(1)	SCD4	B4	68n	SCD4 TRAP REQ 1 EN H					
R242(1)	SCD2	C4	68n	SCD2 FE 00 H	R05(1)	SCD4	B7	68n	SCD4 TRAP REQ 2 EN H					
R229(1)	SCD2	C4	68n	SCD2 FE 01 H	R164(1)	SCD5	D1	68n	SCD5 ADR BRK CYC H					
R61(1)	SCD2	C3	68n	SCD2 FE 02 H	R125(1)	SCD5	B7	68n	-SCD5 AR 05 H					
R60(1)	SCD2	C3	68n	SCD2 FE 03 H	R197(1)	SCD5	A7	68n	SCD5 AR 06 H					
R177(1)	SCD2	C3	68n	SCD2 FE 04 H	R246(1)	SCD5	A7	68n	-SCD5 AR 06 H					
R120(1)	SCD2	C3	68n	SCD2 FE 05 H	R194(1)	SCD5	A7	68n	-SCD5 AR 07 H					
R220(1)	SCD2	C1	68n	SCD2 FE 06 H	P199(1)	SCD5	C6	68n	SCD5 CLR PUBLIC H					
R40(1)	SCD2	C1	68n	SCD2 FE 07 H	R91(1)	SCD5	A7	68n	SCD5 DISP/FLAG CTL H					
R176(1)	SCD2	C1	68n	SCD2 FE 08 H	R171(1)	SCD5	A7	68n	-SCD5 DISP/FLAG CTL H					
R101(1)	SCD2	C1	68n	SCD2 FE 09 H	R3(1)	SCD5	B1	68n	SCD5 DISP/SAVE FLAGS H					
R153(1)	SCD2	C7	68n	SCD2 SC 00 H	R137(1)	SCD5	A3	68n	SCD5 EXP TEST H					
R152(1)	SCD2	C7	68n	SCD2 SC 01 H	R203(1)	SCD5	A1	68n	SCD5 INSTR FETCH H					
R231(1)	SCD2	C7	68n	SCD2 SC 02 H	R192(1)	SCD5	A1	68n	-SCD5 INSTR FETCH H					
R154(1)	SCD2	C7	68n	SCD2 SC 03 H	R2(1)	SCD5	B6	68n	SCD5 JFCL H					
R106(1)	SCD2	B6	68n	SCD2 SCM 00 H	R167(1)	SCD5	B1	68n	-SCD5 KERNEL MODE H					
R190(1)	SCD2	B6	68n	SCD2 SCM 01 H	R190(1)	SCD5	B7	68n	SCD5 LEAVE USER H					
R109(1)	SCD2	B5	68n	SCD2 SCM 02 H	P157(1)	SCD5	B7	68n	-SCD5 LEAVE USER H					
R105(1)	SCD2	B5	68n	SCD2 SCM 03 H	R103(1)	SCD5	A5	68n	SCD5 LOAD FLAGS H					
R114(1)	SCD2	B4	68n	SCD2 SCM 04 H	R1(1)	SCD5	A5	68n	-SCD5 LOAD FLAGS H					
R112(1)	SCD2	B4	68n	SCD2 SCM 05 H	P166(1)	SCD5	A5	68n	SCD5 LOAD FLAGS A H					
R115(1)	SCD2	B3	68n	SCD2 SCM 06 H	R193(1)	SCD5	A5	68n	-SCD5 LOAD FLAGS A H					
R116(1)	SCD2	B3	68n	SCD2 SCM 07 H	R72(1)	SCD5	A3	68n	SCD5 PCF+# H					
R113(1)	SCD2	B1	68n	SCD2 SCM 08 H	R102(1)	SCD5	B1	68n	SCD5 PI&SAVE FLAGS H					
R117(1)	SCD2	B1	68n	SCD2 SCM 09 H	R155(1)	SCD5	B1	68n	-SCD5 PI&SAVE FLAGS H					
R92(1)	SCD3	A7	68n	SCD3 AR 00 H	R162(1)	SCD5	C3	68n	-SCD5 PRIVATE INSTR EN H					
R233(1)	SCD3	C7	68n	SCD3 DIAG 04 H	R156(1)	SCD5	D5	68n	-SCD5 PUBLIC H					
R213(1)	SCD3	C7	68n	-SCD3 DIAG 04 H	R126(1)	SCD5	C5	68n	-SCD5 PUBLIC EN H					
R232(1)	SCD3	C7	68n	SCD3 DIAG 05 H	R161(1)	SCD5	B1	68n	SCD5 PUBLIC PAGE H					
R212(1)	SCD3	C7	68n	-SCD3 DIAG 05 H	R191(1)	SCD5	B1	68n	-SCD5 PUBLIC PAGE H					
R234(1)	SCD3	C7	68n	SCD3 DIAG 06 H	P236(1)	SCD5	A1	68n	SCD5 RESET H					
R210(1)	SCD3	C7	68n	-SCD3 DIAG 06 H	R170(1)	SCD5	A1	68n	-SCD5 RESET 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

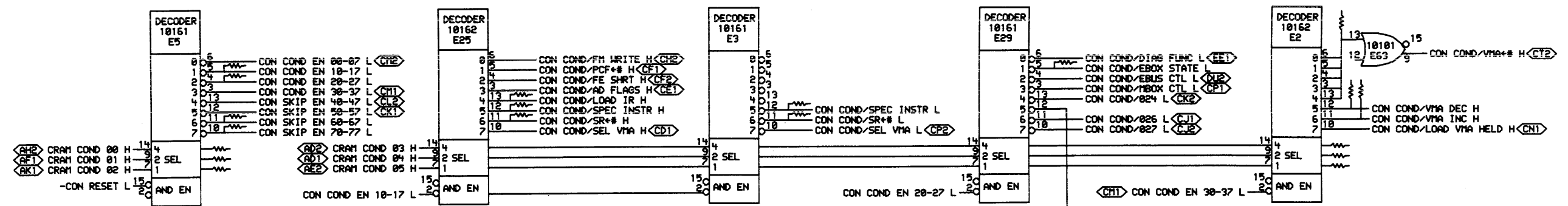
digital	DRN. <i>Smith</i>	DATE 17-DEC-76	ENGR. <i>John Egan</i>	DATE 21-DEC-76	TITLE: SCAD, PC FLAGS TERMINATORS
	CHK. <i>John Egan</i>	DATE 21-DEC-76	BOARD LOCATION: SHEET 2 OF 2		
M85242.RVC(4,120)		17-DEC-76 20:48	NEXT HIGHER ASSEMBLY: B-DD-M8524-0	SIZE CODE D CS	NUMBER M8524-0-RES
FIRST USED ON OPTION/MODEL: KL10					REV. C

145

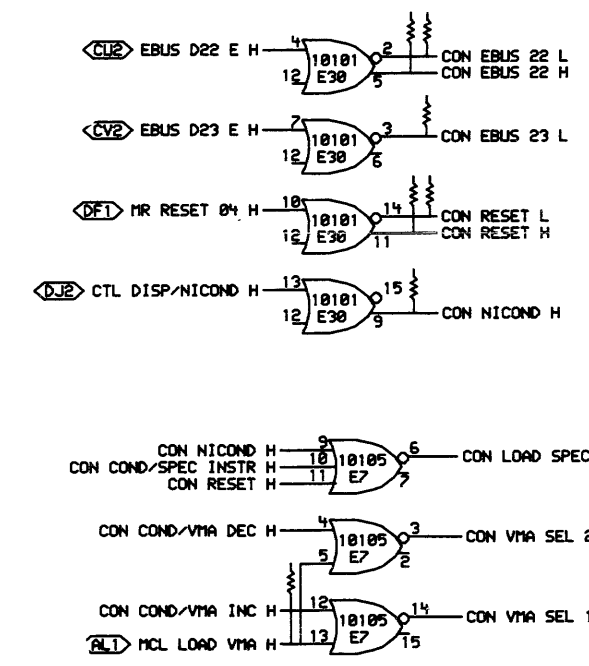
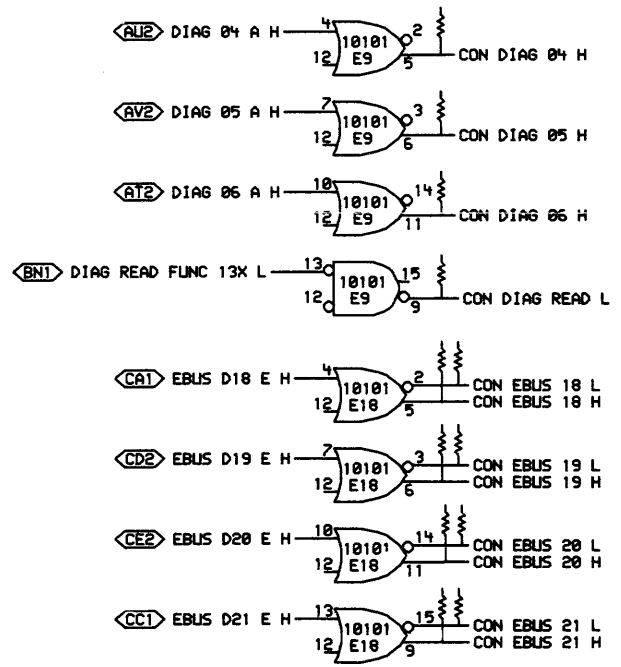
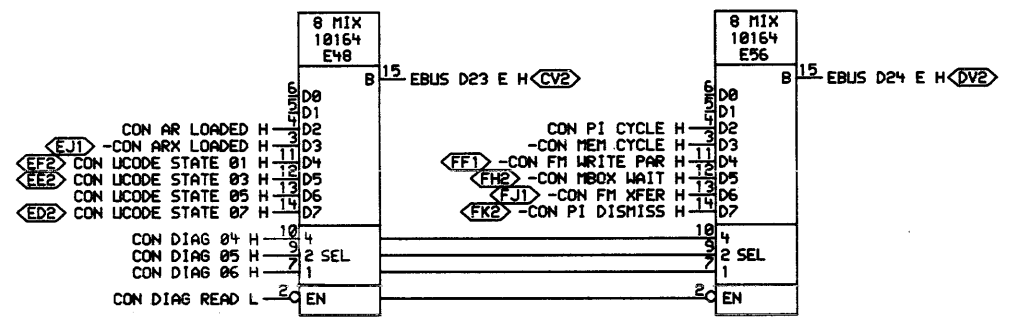
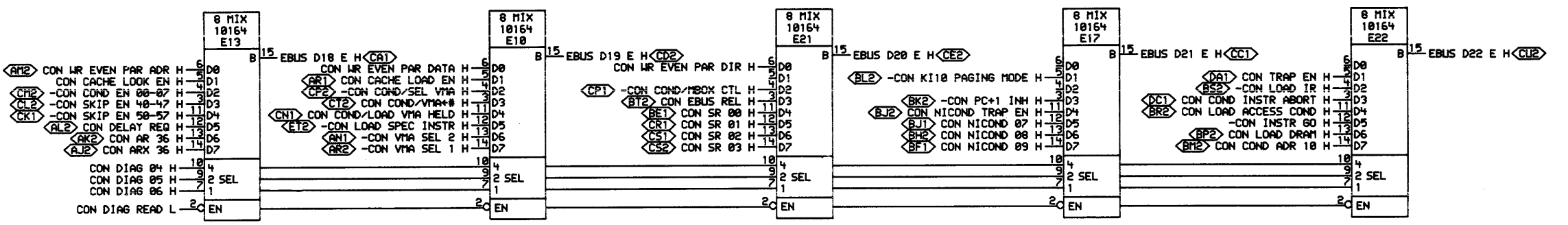








(CL1) CRM HI 00 H  
THIS CONNECTION TO HIGH  
IS REQUIRED ONLY BY THE  
NEW M8525 LAYOUT. IT DOES  
NOTHING HERE.



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REVISIONS	
CHK	CHANGE NO. REV
	MS222-00000 6
	M8525-0-CON1 1
	9-10-76
	T. EGGER
	7-16-76

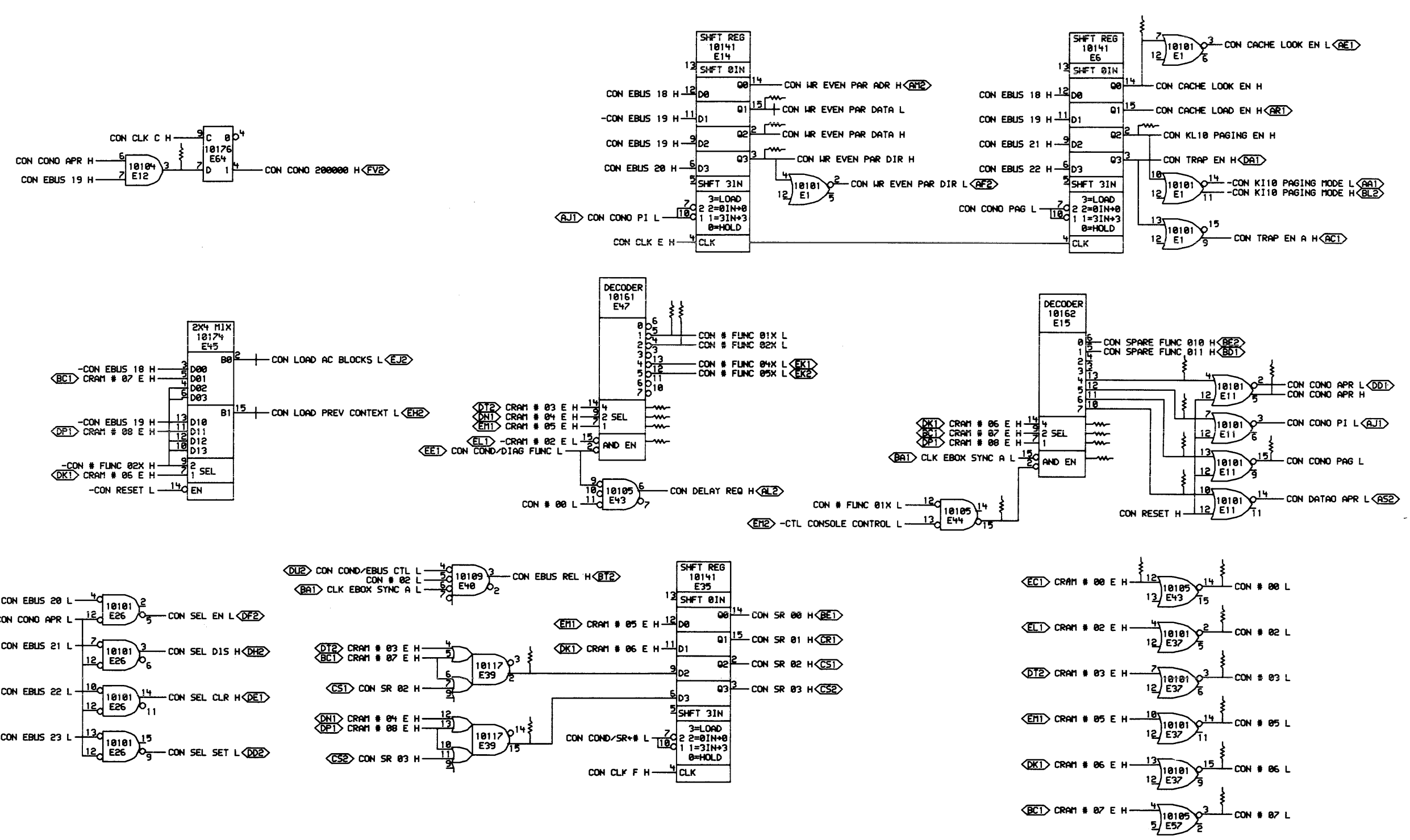
digital	DATE: 23-JUN-76	ENG: Egan	DATE: 23-JUN-76
CHK: B. Smith	DATE: 03-JUN-76	BOARD LOCATION: 4AF35	
CONTEX.DRM.4.120	121-JUN-76 1947	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL:	KL10	B-DD-M8525-0	

TITLE: EBOX CONTROL #2	SIZE CODE: D CS	NUMBER: M8525-0-CON1	REV: C1
------------------------	-----------------	----------------------	---------



D  
C  
V  
B  
A

D  
C  
V  
B  
A



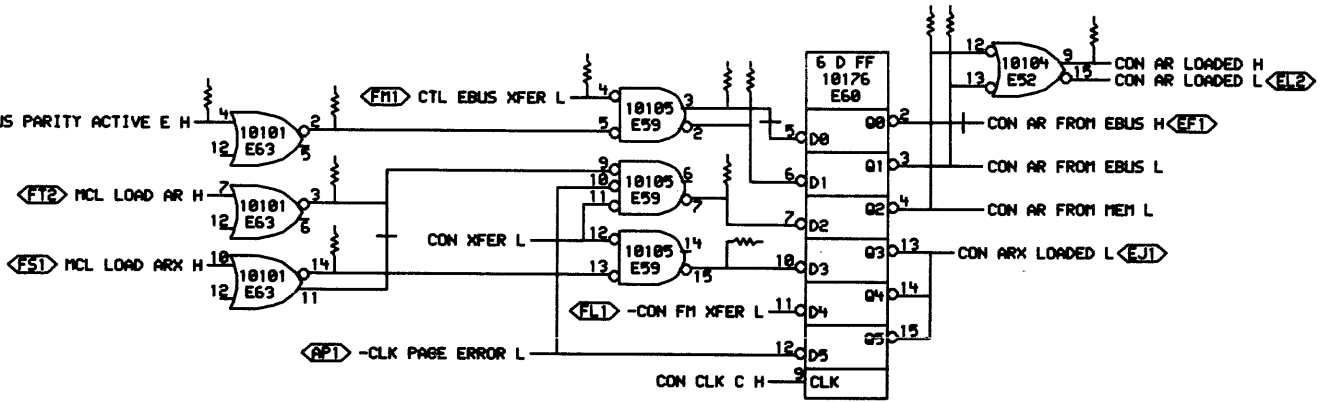
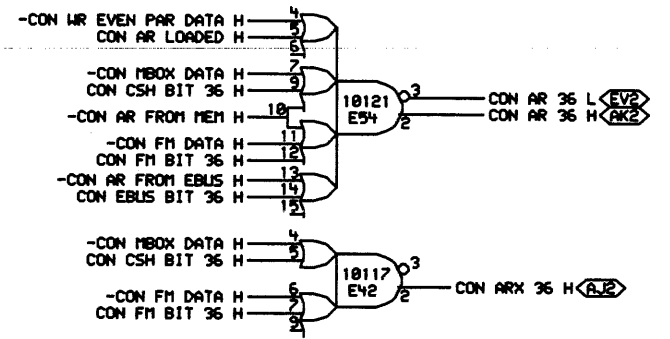
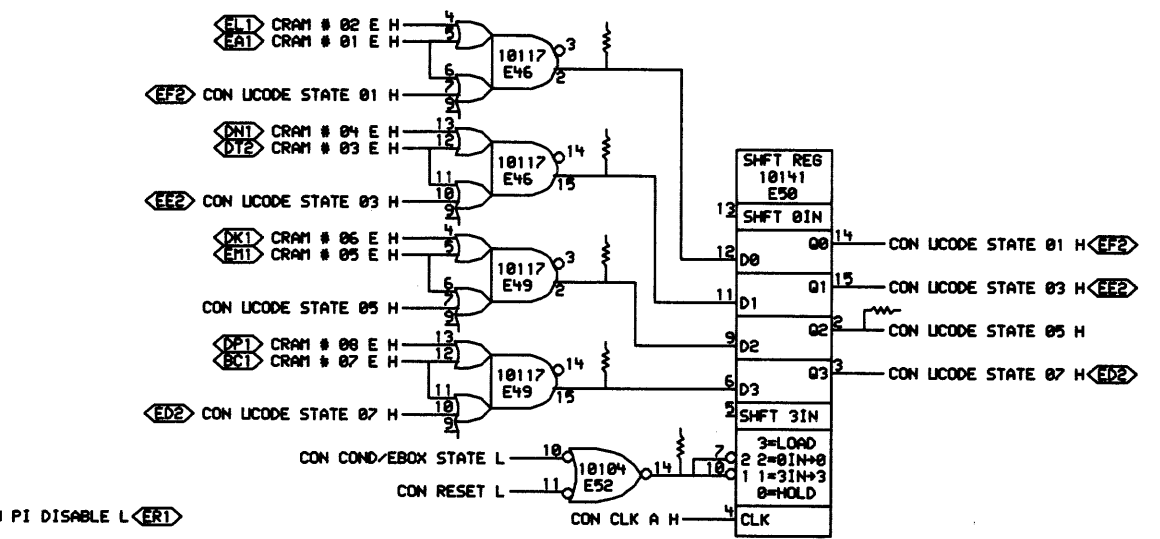
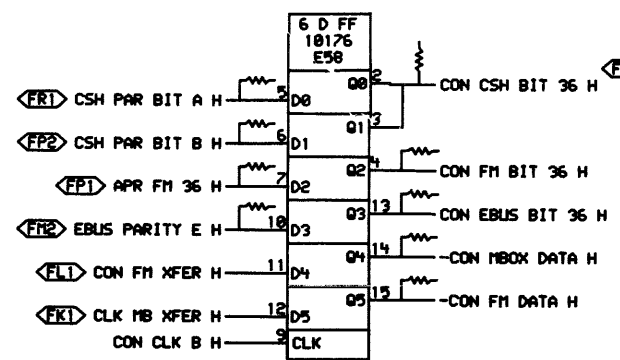
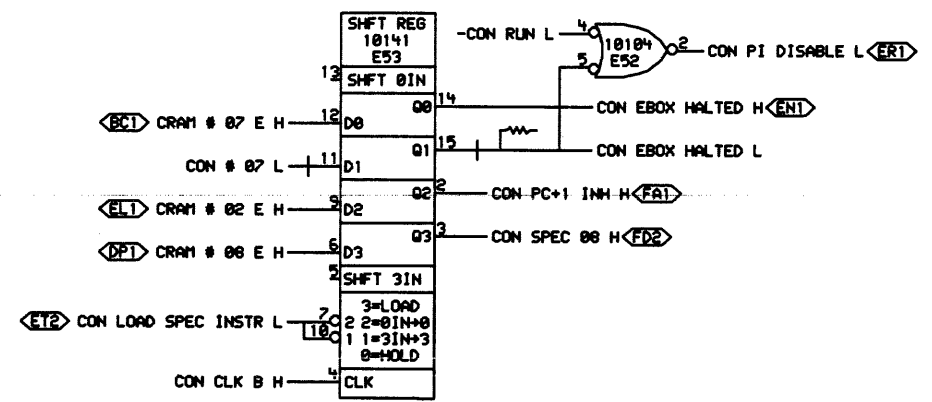
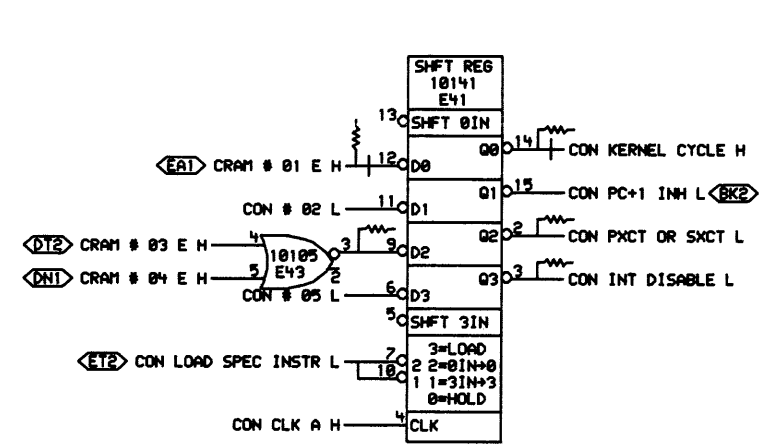
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REVISIONS	
CHK	CHANGE NO. REV

18M	M8525-00005	1

digital	DATE	ENG	DATE	TITLE:
	23 JUN 76	cy	23 JUN 76	EBOX CONTROL #2 INTERNAL I/O
	DATE	BOARD LOCATION:		
	23 JUN 76	4AE35		

D  
C  
B  
A



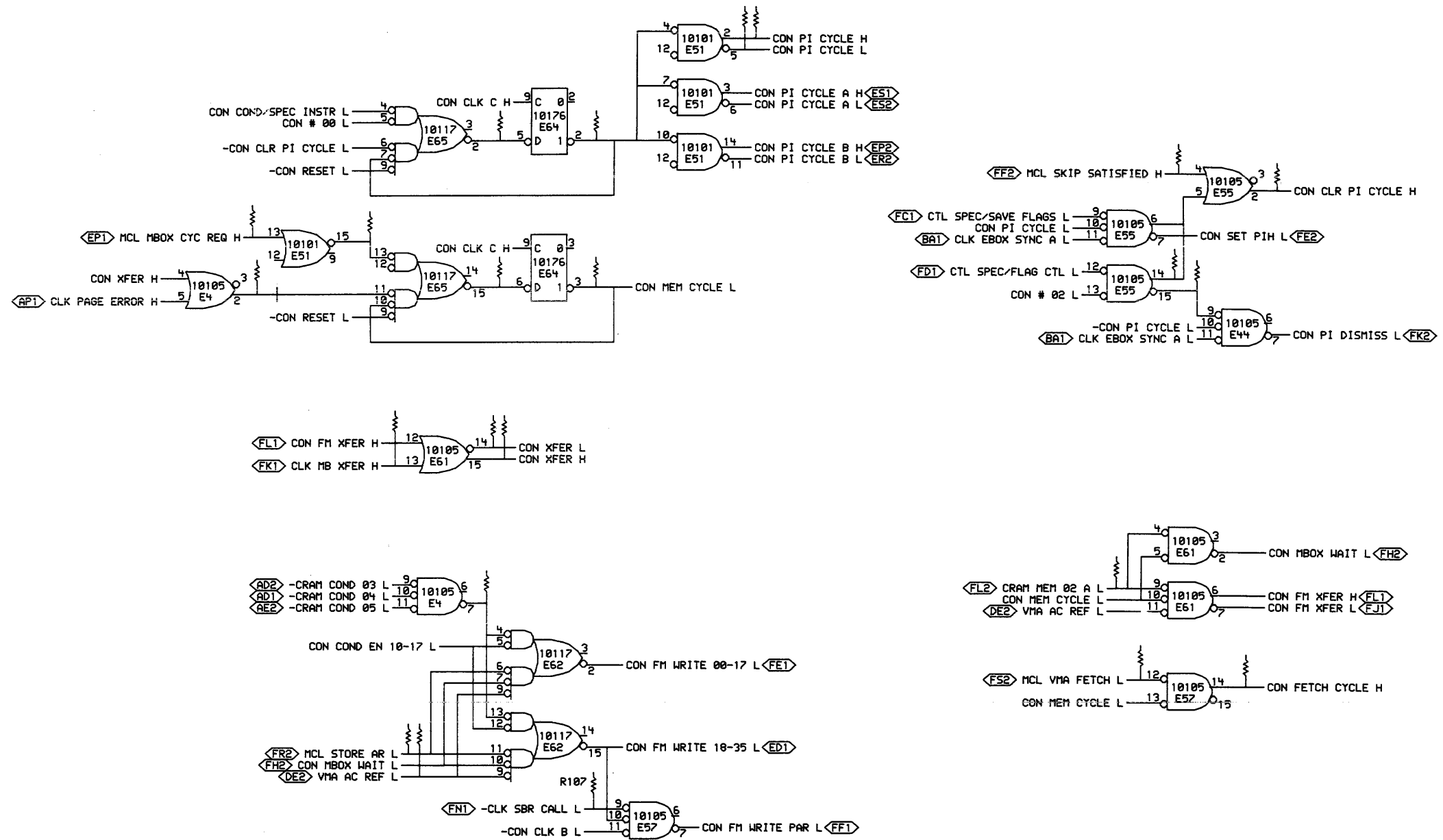
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REVISIONS		
CHK	CHANGE NO.	REV

DATE	15-09-76	ENGR	C. J. G.
DATE	23-08-76	DATE	23-08-76
DATE	11-06-76	DATE	11-06-76
DATE	11-06-76	DATE	11-06-76

digital		DATE		ENGR		TITLE: EBOX CONTROL #2 PARITY LOGIC	
FIRST USED ON OPTION/MODEL: KL10		DATE		ENGR		TITLE: EBOX CONTROL #2 PARITY LOGIC	
SIZE CODE		NUMBER		REV.		D CS M8525-0-CON4 D1	

151



5 OF 6

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REVISIONS	
CHK	CHANGE NO. REV.
1	1/1/76 10:30
2	1/1/76 10:30

	DATE: 23 JUN 76	ENG: T. Egan	DATE: 23 JUN 76	TITLE: EBOX CONTROL #2
	DATE: 23 JUN 76	BOARD LOCATION: 48F35	DATE: 23 JUN 76	XFER, FM WRITE
CONSEX. DRW. 4, 120	927 JUN 76 20:30	NEXT HIGHER ASSEMBLY:	SIZE CODE: D CS	NUMBER: M8525-0-CON5
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8525-0		REV. B1	

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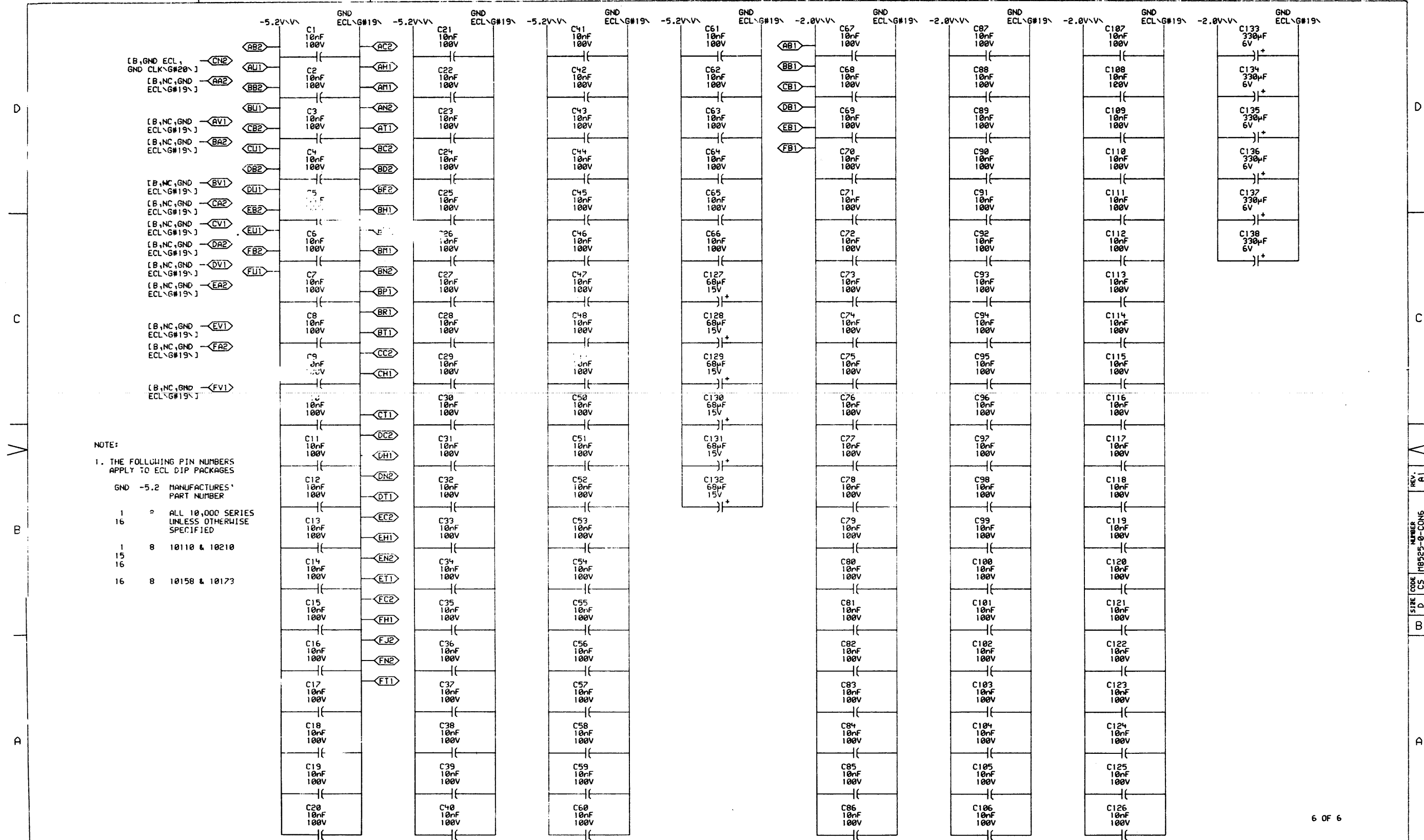
4

3

2

1

9N00-0-52504 SJ  
3000 32751



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	16	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
1	15	8 10110 & 10210
16	16	8 10158 & 10173

6 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV
	H8525-00001	A

digital  
 DRN. 9  
 DATE 8/30/75  
 BOARD LOCATION: 4E35  
 SHEET 1 OF 1  
 FIRST USED ON OPTION/MODEL: KL10

ENG. R Reid  
 DATE 5/1/75  
 DATE BOARD LOCATION: 4E35  
 SHEET 1 OF 1  
 NEXT HIGHER ASSEMBLY: B-DD-M8525-0

TITLE: EBOX CONTROL #2 POWER, GND, CAPS  
 SIZE CODE D CS  
 NUMBER M8525-0-CONG  
 REV. AI

153

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M/R

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REV. C1  
NUMBER M8525-0-RES  
SIZE CODE D CS

D  
C  
B  
A

D  
C  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R150(1)	CON3	D7	68n	%E12(3)	R51(1)	CON4	C3	68n	%E52(14)	R161(1)	CON1	D7	68n	-CON COND EN 20-27 H	R123(1)	CON2	C6	68n	-CON INSTR 60 H
R73(1)	CON3	B2	68n	%E15(10)	R135(1)	CON5	C3	68n	%E55(15)	R137(1)	CON1	D3	68n	-CON COND/EBOX STATE H	R36(1)	CON4	D6	68n	-CON INT DISABLE H
R71(1)	CON3	B2	68n	%E15(11)	R174(1)	CON5	C3	68n	%E55(6)	R87(1)	CON1	D6	68n	CON COND/LOAD IR H	R86(1)	CON2	D6	68n	CON INT REQ H
R72(1)	CON3	C2	68n	%E15(12)	R146(1)	CON4	A3	68n	%E59(15)	R69(1)	CON1	D6	68n	CON COND/SPEC INSTR H	R33(1)	CON2	D6	68n	-CON INT REQ H
R70(1)	CON3	C2	68n	%E15(13)	R144(1)	CON4	B3	68n	%E59(2)	R108(1)	CON1	D4	68n	-CON COND/SPEC INSTR H	R129(1)	CON4	D6	68n	CON KERNEL CYCLE H
R8(1)	CON2	B7	68n	%E16(13)	R143(1)	CON4	B3	68n	%E59(3)	R84(1)	CON1	D6	68n	CON COND/SR+# H	R131(1)	CON2	A5	68n	CON KERNEL MODE H
R7(1)	CON2	B6	68n	%E16(14)	R145(1)	CON4	A3	68n	%E59(7)	R164(1)	CON1	D4	68n	-CON COND/SR+# H	R4(1)	CON2	A5	68n	-CON KERNEL MODE H
R97(1)	CON2	B6	68n	%E16(15)	R172(1)	CON4	A4	68n	%E63(14)	R67(1)	CON1	D2	68n	CON COND/VMA DEC H	R152(1)	CON3	D2	68n	-CON KL10 PAGING EN H
R12(1)	CON2	C7	68n	%E16(2)	R178(1)	CON4	B4	68n	%E63(2)	R65(1)	CON1	D2	68n	CON COND/VMA INC H	R45(1)	CON4	A6	68n	-CON MBOX DATA H
R14(1)	CON2	C6	68n	%E16(3)	R175(1)	CON4	A4	68n	%E63(3)	R10(1)	CON3	C1	68n	CON COND APR H	R138(1)	CON5	C5	68n	-CON MEM CYCLE H
R177(1)	CON1	D2	68n	%E2(3)	R168(1)	CON5	C5	68n	%E64(2)	R118(1)	CON3	B1	68n	-CON COND PAG H	R29(1)	CON2	D7	68n	CON MTR INT REQ H
R15(1)	CON2	B7	68n	%E20(15)	R148(1)	CON5	C6	68n	%E65(15)	R43(1)	CON4	B6	68n	CON CSH BIT 36 H	R68(1)	CON1	B2	68n	CON NICOND H
R20(1)	CON2	C7	68n	%E20(2)	R147(1)	CON5	C6	68n	%E65(2)	R142(1)	CON1	B4	68n	CON DIAG 04 H	R88(1)	CON5	D5	68n	CON PI CYCLE H
R13(1)	CON2	C7	68n	%E20(3)	R17(1)	CON2	C3	68n	%E6(15)	R140(1)	CON1	B4	68n	CON DIAG 05 H	R5(1)	CON5	D5	68n	-CON PI CYCLE H
R90(1)	CON2	C2	68n	%E24(2)	R63(1)	CON4	A7	68n	APR FM 36 H	R141(1)	CON1	B4	68n	CON DIAG 06 H	R1(1)	CON2	A2	68n	CON PI XFER H
R79(1)	CON2	A3	68n	%E27(15)	R127(1)	CON2	D2	68n	CLK CON H	R19(1)	CON2	A7	68n	CON DIAG CLR RUN H	R28(1)	CON4	D6	68n	-CON PXCT OR SXCT H
R80(1)	CON2	A3	68n	%E27(2)	R170(1)	CON3	B2	68n	-CLK EBOX SYNC A H	R18(1)	CON2	B6	68n	-CON DIAG CONTINUE H	R113(1)	CON1	B2	68n	CON RESET H
R81(1)	CON2	A3	68n	%E27(3)	R61(1)	CON5	B6	68n	CLK MB XFER H	R134(1)	CON2	A7	68n	CON DIAG DRAM STROBE H	R136(1)	CON1	B2	68n	-CON RESET H
R22(1)	CON2	C2	68n	%E28(15)	R186(1)	CON2	D4	68n	CLK PAGE ERROR H	R82(1)	CON2	A7	68n	CON DIAG IR STROBE H	R32(1)	CON2	B5	68n	-CON RUN H
R133(1)	CON2	B5	68n	%E31(14)	R107(1)	CON5	A5	68n	CLK SBR CALL H	R139(1)	CON1	B4	68n	-CON DIAG READ H	R24(1)	CON1	D7	68n	-CON SKIP EN 60-67 H
R35(1)	CON2	D7	68n	%E31(3)	R114(1)	CON3	B2	68n	-CON # 00 H	R11(1)	CON2	B6	68n	-CON DIAG SET RUN H	R21(1)	CON1	D7	68n	-CON SKIP EN 70-77 H
R34(1)	CON2	C7	68n	%E31(4)	R169(1)	CON3	B2	68n	-CON # 02 H	R188(1)	CON4	C6	68n	-CON EBOX HALTED H	R31(1)	CON2	C6	68n	CON START H
R128(1)	CON2	C5	68n	%E33(14)	R95(1)	CON3	B2	68n	-CON # 03 H	R26(1)	CON2	C1	68n	-CON EBOX SPARE H	R187(1)	CON4	C3	68n	CON LCODE STATE 05 H
R93(1)	CON2	C7	68n	%E33(6)	R98(1)	CON3	A2	68n	-CON # 05 H	R116(1)	CON1	A4	68n	CON EBUS 18 H	R120(1)	CON3	D4	68n	CON WR EVEN PAR DATA H
R23(1)	CON2	C3	68n	%E34(14)	R83(1)	CON3	A2	68n	-CON # 06 H	R103(1)	CON1	A4	68n	-CON EBUS 18 H	R56(1)	CON3	D4	68n	-CON WR EVEN PAR DATA H
R25(1)	CON2	C3	68n	%E34(15)	R105(1)	CON3	A2	68n	-CON # 07 H	R9(1)	CON1	A4	68n	CON EBUS 19 H	R151(1)	CON3	D4	68n	CON WR EVEN PAR DIR H
R27(1)	CON2	C3	68n	%E34(9)	R132(1)	CON3	C5	68n	-CON # FUNC 01X H	R101(1)	CON1	A4	68n	-CON EBUS 19 H	R185(1)	CON5	B6	68n	CON XFER H
R39(1)	CON2	B7	68n	%E38(4)	R102(1)	CON3	C5	68n	-CON # FUNC 02X H	R121(1)	CON1	A4	68n	CON EBUS 20 H	R176(1)	CON5	B6	68n	-CON XFER H
R38(1)	CON2	B7	68n	%E38(5)	R58(1)	CON4	B3	68n	-CON AR FROM EBUS H	R126(1)	CON1	A4	68n	-CON EBUS 20 H	R37(1)	CON2	C3	68n	CON2 SPARE DM1 H
R163(1)	CON3	A5	68n	%E39(15)	R52(1)	CON4	B3	68n	-CON AR FROM MEM H	R119(1)	CON1	A4	68n	CON EBUS 21 H	R165(1)	CON3	B2	68n	CRAM # 00 E H
R162(1)	CON3	B5	68n	%E39(2)	R57(1)	CON4	B2	68n	CON AR LOADED H	R124(1)	CON1	A4	68n	-CON EBUS 21 H	R48(1)	CON4	D7	68n	CRAM # 01 E H
R111(1)	CON5	C7	68n	%E4(2)	R156(1)	CON3	D2	68n	CON CACHE LOOK EN H	R117(1)	CON1	B2	68n	CON EBUS 22 H	R99(1)	CON3	B5	68n	CRAM # 02 E H
R181(1)	CON5	B6	68n	%E4(7)	R53(1)	CON2	D1	68n	CON CLK A H	R122(1)	CON1	B2	68n	-CON EBUS 22 H	R41(1)	CON3	C5	68n	CRAM # 03 E H
R100(1)	CON4	D7	68n	%E43(3)	R59(1)	CON2	D1	68n	CON CLK B H	R125(1)	CON1	B2	68n	-CON EBUS 23 H	R47(1)	CON3	C5	68n	CRAM # 04 E H
R76(1)	CON3	B3	68n	%E44(15)	R149(1)	CON2	D1	68n	CON CLK C H	R55(1)	CON4	A6	68n	CON EBUS BIT 36 H	R104(1)	CON3	C5	68n	CRAM # 05 E H
R50(1)	CON4	D4	68n	%E46(15)	R16(1)	CON2	D1	68n	CON CLK D H	R2(1)	CON2	A2	68n	CON EBUS GRANT H	R75(1)	CON3	C2	68n	CRAM # 06 E H
R46(1)	CON4	D4	68n	%E46(2)	R115(1)	CON2	D1	68n	CON CLK E H	R85(1)	CON5	B2	68n	CON FETCH CYCLE H	R166(1)	CON3	C2	68n	CRAM # 07 E H
R54(1)	CON4	C4	68n	%E49(15)	R89(1)	CON2	D1	68n	CON CLK F H	R44(1)	CON4	A6	68n	CON FM BIT 36 H	R77(1)	CON3	B2	68n	CRAM # 08 E H
R49(1)	CON4	D4	68n	%E49(2)	R112(1)	CON5	C2	68n	CON CLR PI CYCLE H	R42(1)	CON4	A6	68n	-CON FM DATA H	R155(1)	CON1	D7	68n	CRAM COND 00 H
R109(1)	CON5	C6	68n	%E51(15)	R182(1)	CON1	D7	68n	-CON COND EN 10-17 H	R30(1)	CON2	C4	68n	-CON I/O LEGAL H	R153(1)	CON1	D7	68n	CRAM COND 01 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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154



RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R154(1)	CON1	D7	68n	CRAM COND 02 H
R157(1)	CON1	D2	68n	CRAM COND 03 H
R160(1)	CON1	D2	68n	CRAM COND 04 H
R159(1)	CON1	D2	68n	CRAM COND 05 H
R110(1)	CON5	B3	68n	-CRAM MEM 02 A H
R62(1)	CON4	B7	68n	CSH PAR BIT A H
R60(1)	CON4	A7	68n	CSH PAR BIT B H
R179(1)	CON4	B4	68n	-CTL EBUS XFER H
R91(1)	CON2	C7	68n	-CTL SPEC/FLAG CTL H
R40(1)	CON2	A7	68n	-DIAG CONTROL FUNC 01X H
R100(1)	CON4	B5	68n	EBUS PARITY ACTIVE E H
R64(1)	CON4	A7	68n	EBUS PARITY E H
R130(1)	CON2	C5	68n	IR I/O LEGAL H
R6(1)	CON2	B3	68n	-MBZ1 RD-PSE-WR REF H
R66(1)	CON1	A2	68n	MCL LOAD VMA H
R167(1)	CON5	C7	68n	MCL MBOX CYC REQ H
R173(1)	CON5	C3	68n	MCL SKIP SATISFIED H
R103(1)	CON5	A6	68n	-MCL STORE AR H
R104(1)	CON5	B3	68n	-MCL VMA FETCH H
R94(1)	CON2	D7	68n	MTR INTERRUPT REQ H
R74(1)	CON2	A2	68n	PI2 EXT TRAN REC H
R92(1)	CON2	D7	68n	PI2 READY H
R70(1)	CON2	A2	68n	PI5 EBUS CP GRANT H
R3(1)	CON2	B3	68n	-SCD PUBLIC A H
R96(1)	CON2	C5	68n	-SCD USER IOT A H
R106(1)	CON5	A6	68n	-VMA AC REF 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
1	M8525-0-RES	1
2	M8525-0-RES	2

13	REV. 1	538-0-02504	CS	D	REV. 1
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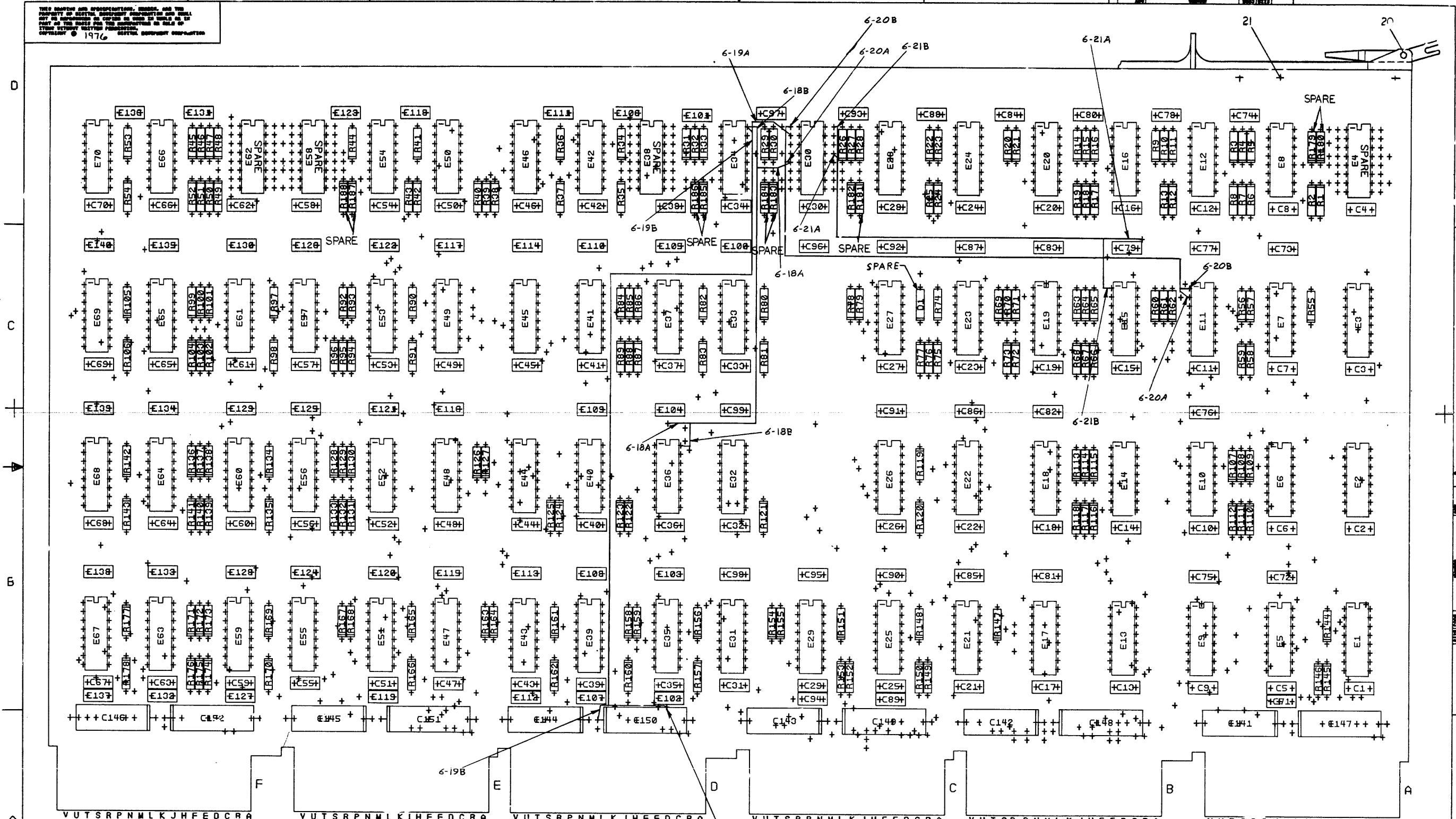
DAN. G. Smith	DATE 02-11-76	ENG. T. C. Smith	DATE 2/23/76
CHK. G. Smith	DATE 02-11-76	DATE 02-11-76	DATE 02-11-76

TITLE: EBOX CONTROL #2  
 TERMINATORS

FIRST USED ON OPTION/MODEL: KL10	122-JUN-76 1976	NEXT HIGHER ASSEMBLY: B-DD-M8525-0	SIZE CODE: D CS	NUMBER: M8525-0-RES	REV. CI
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NOTES:

CHG	NO	REV	DATE
1	1	1	12/15/76
2	1	1	12/15/76
3	1	1	12/15/76
4	1	1	12/15/76
5	1	1	12/15/76
6	1	1	12/15/76
7	1	1	12/15/76
8	1	1	12/15/76

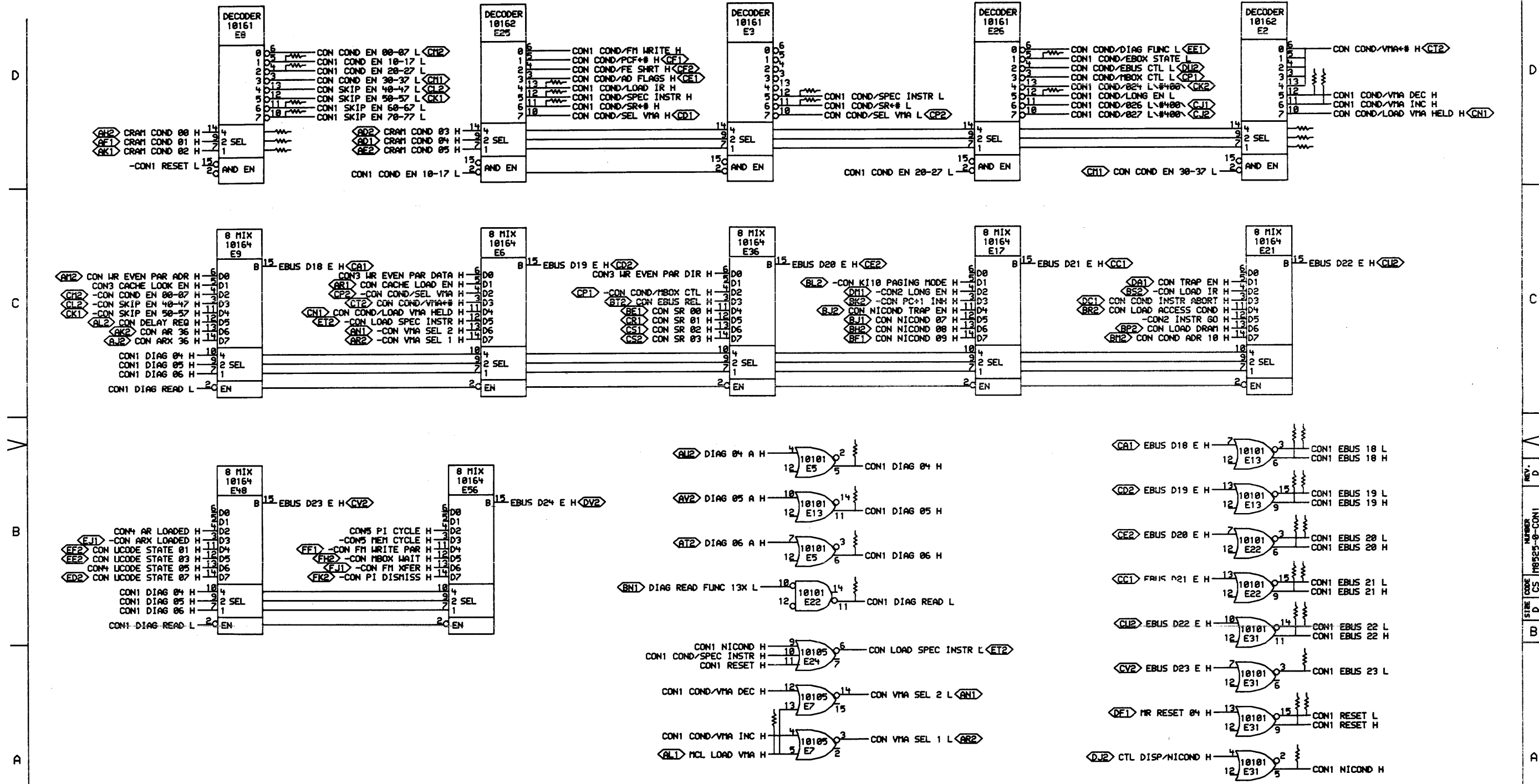
SIGNATURES	DATE
DRN. <i>R. Samsky</i>	12/15/76
CHK'D. <i>D. W. Hart</i>	12/15/76
ENG. <i>Tom Gage</i>	12/15/76
PROJ. ENG. <i>Tom Gage</i>	12/15/76
PROD. <i>Bill Gage</i>	12/15/76

ETCH REV.	DATE
P.C. DESIGN DATA BASE REV.	

TITLE	SIZE	CODE	NUMBER	REV
DIAGNOSTIC BOARD	0	UA	M8525-0-0	F

SCALE	DATE
2/1	12/15/76
SHT. 2 OF 6	
NEXT HIGHER ASSY. B-DD-M8525-0	

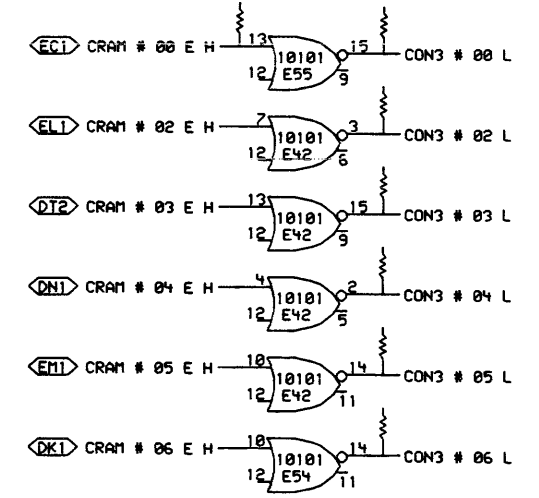
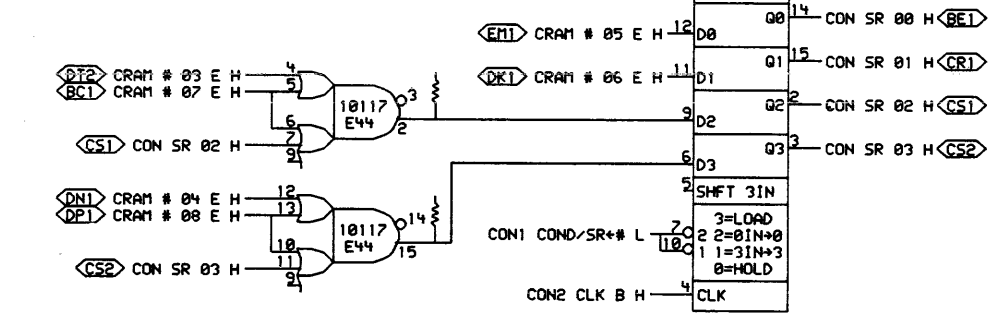
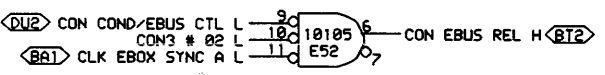
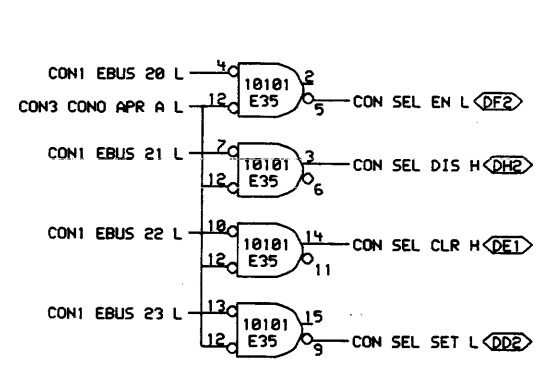
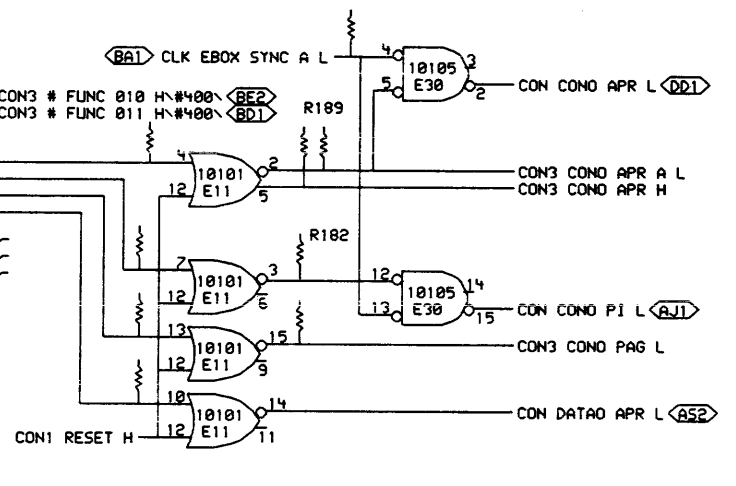
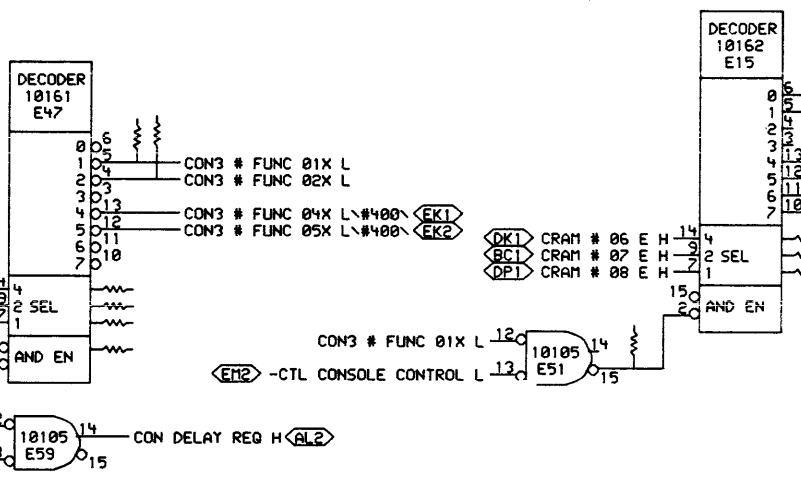
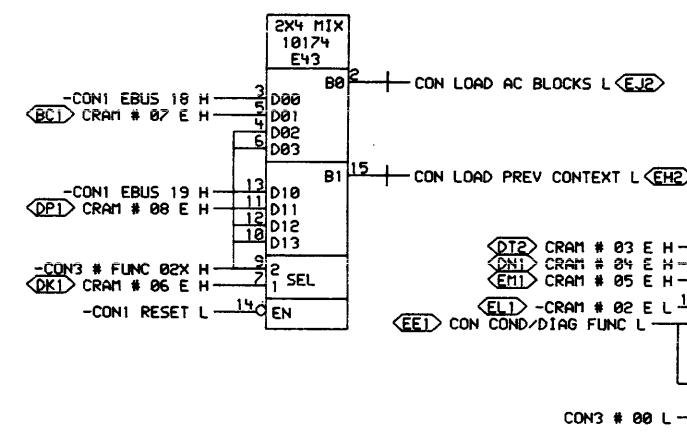
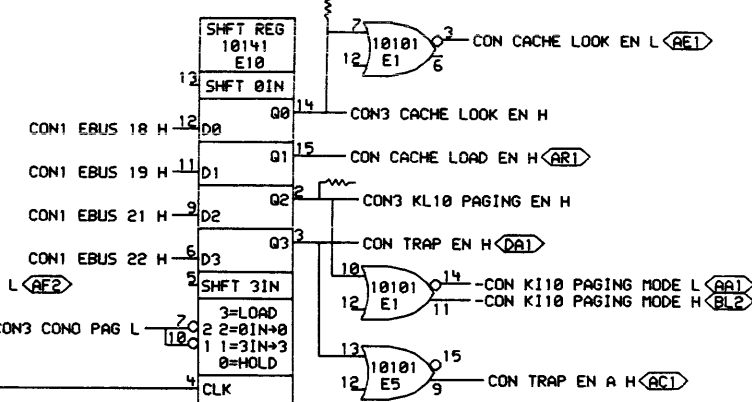
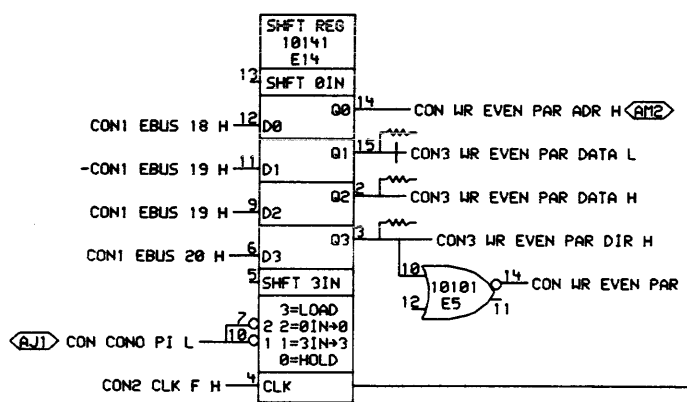
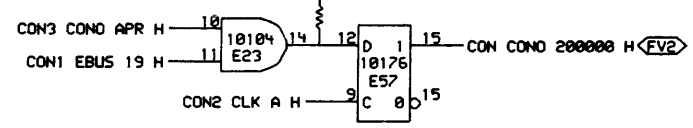
DUA M8525-0-0 F



REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 06-01-77	DATE 5-7-77	TITLE: EBOX CONTROL #2
	DATE 11-77	DATE 4-8-77	CRAM COND FIELD
CONTEC DRW 4.556	14 JUL 76 08:00	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER REV.
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8546-0	D CS	M8525-0-CON1 D

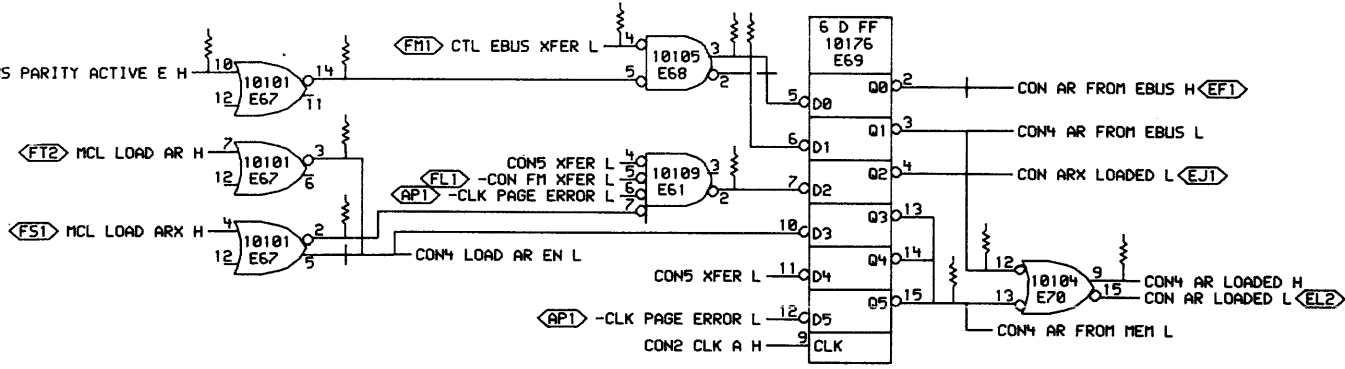
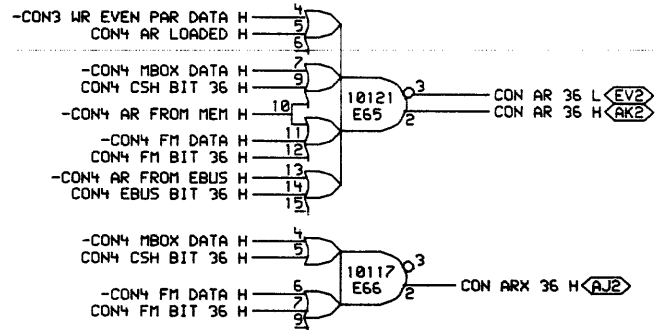
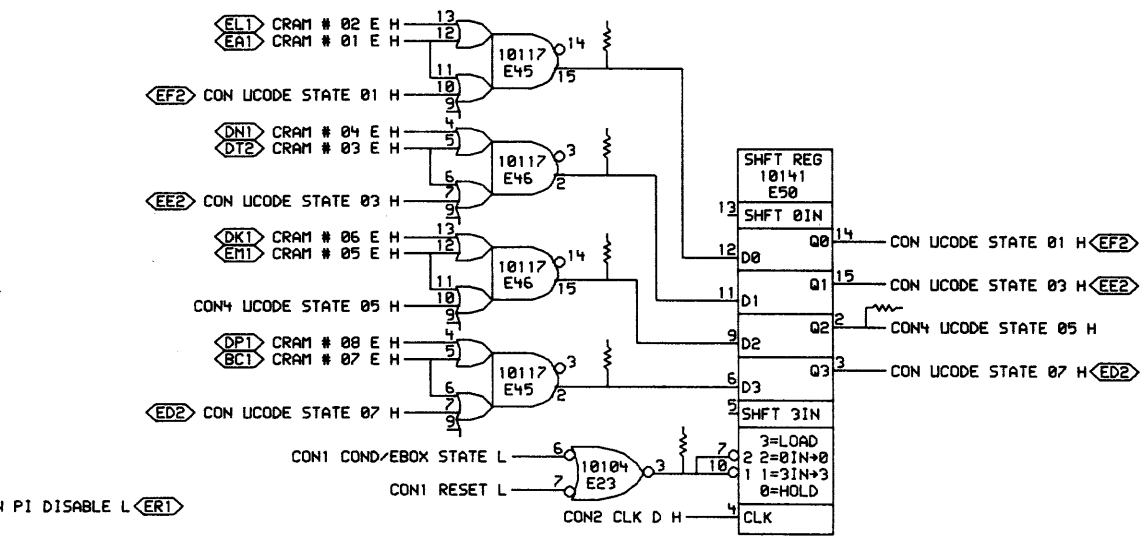
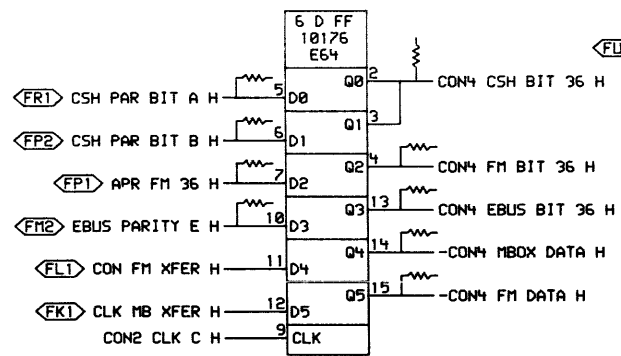
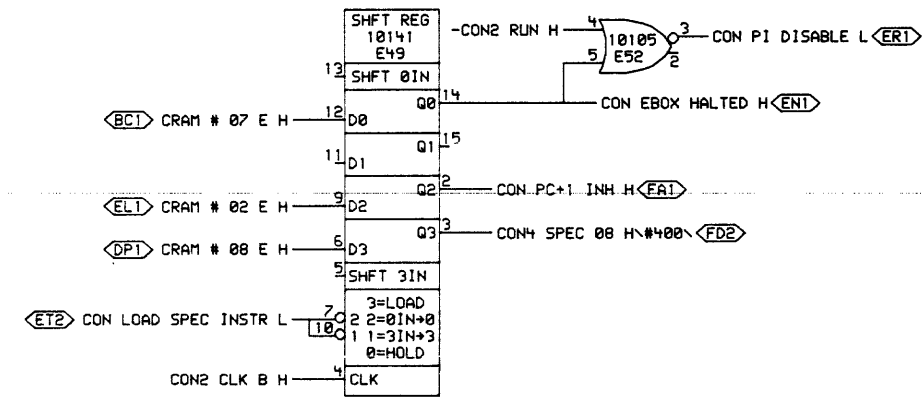
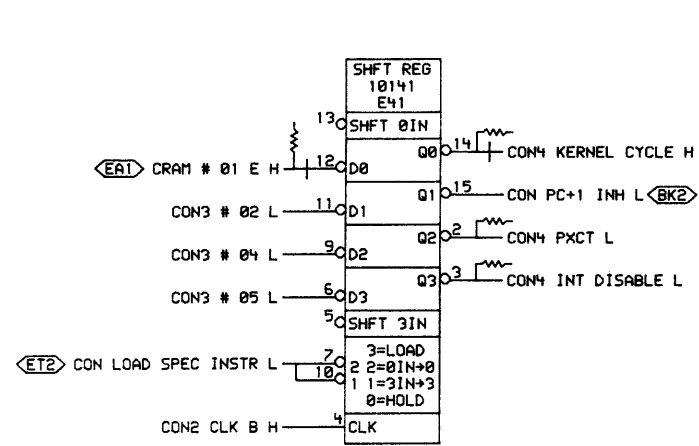




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REVISIONS		
CHK	CHANGE NO.	REV
	M8525-00006	D

digital	DATE	ENGR	DATE	TITLE:
	30 MAR 77	Tom	1 Apr 77	EBOX CONTROL #2
	DATE	BOARD LOCATION:		INTERNAL I/O
	30 MAR 77	4AF35		
CON3EA.DRW 4,556				SIZE CODE
FIRST USED ON OPTION/MODEL: KL10				D CS
NEXT HIGHER ASSEMBLY: B-DD-M8525-0				NUMBER
				M8525-0-CON3
				REV.
				D

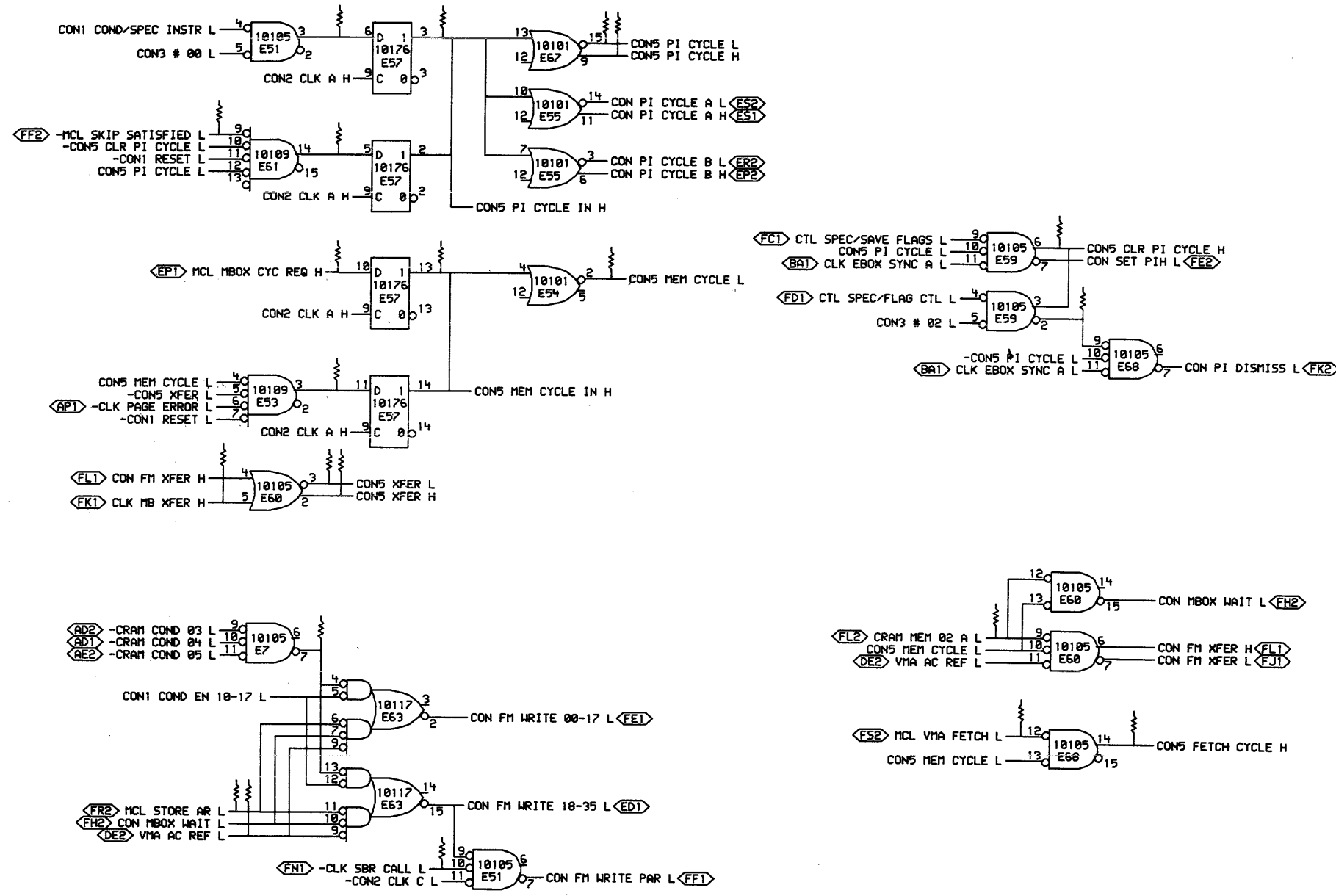


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CHK	CHANGE NO.	REV

REVISIONS
1 M8525-00002 E
2 10-10-76
3 11-10-76

digital	DATE: 15-11-76	ENG: ggg	DATE: 14-11-76	TITLE: EBOX CONTROL #2
CON4EA.DRW(4,161)	DATE: 14-11-76	BOARD LOCATION: 4AF35	DATE: 14-11-76	PARITY LOGIC
FIRST USED ON OPTION/MODEL: KL10	114-JUL-76 11:29	NEXT HIGHER ASSEMBLY: B-DD-M8546-0	SIZE CODE: D CS	NUMBER: M8525-0-CON4



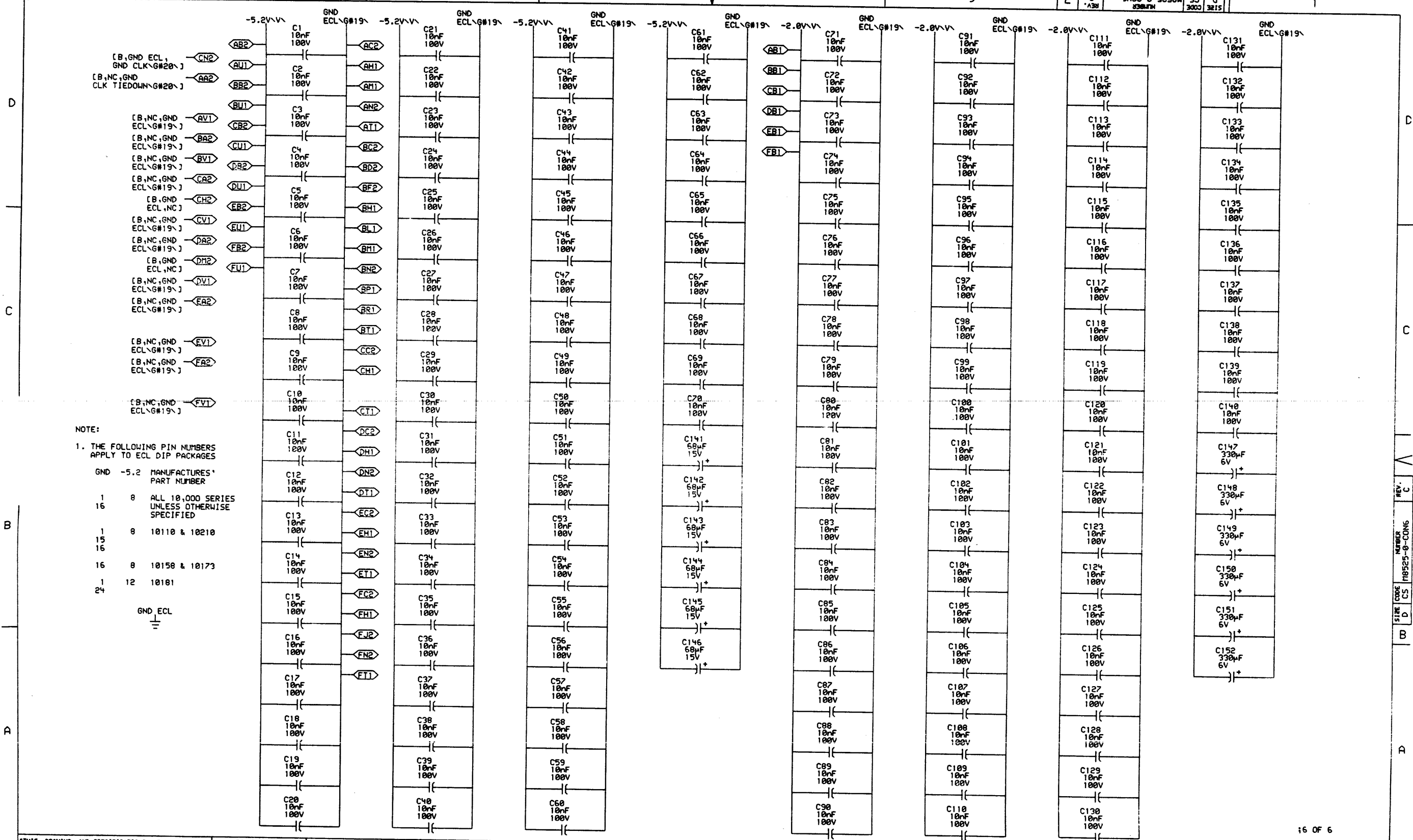
REV. C  
NUMBER M8525-0-CONS  
CODE CS  
SIZE D  
D

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REVISIONS		
CHK	CHANGE NO.	REV.

digital	DATE: 15-JUL-76	ENG: gme	DATE: 19-JUL-76	TITLE: EBOX CONTROL #2
	CHK: gme	DATE: 14-JUL-76	BOARD LOCATION: 4RF35	XFER, FM WRITE
CONSEA.DRW 4.161		114-JUL-76 11:30	NEXT HIGHER ASSEMBLY:	SIZE CODE D CS
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8546-0		NUMBER M8525-0-CONS
				REV. C





NOTE:  
1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173
15	8	
16	8	
16	8	10158 & 10173
1	12	10181
24	12	

GND ECL

REVISIONS		
CHK	CHANGE NO.	REV.
	000006	C
	000007	C
	000008	C

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digital	DATE	20 MAR 77	ENG.	10m	DATE	1 Apr 77	TITLE:	EBOX CONTROL #2
	DATE	5/20/77	DATE	5/20/77	BOARD LOCATION:	4B-35	POWER, GND, CAPS	
CONSEA.DRAW.4,556		130 MAR 77 09:37	NEXT HIGHER ASSEMBLY:		CODE	NUMBER	REV.	
FIRST USED ON OPTION MODEL:		KL10	B-DD-M8525-0		D	CS	M8525-0-CONG	C

163

RESISTOR LOC(PIN)	DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRW#	REF	VALUE	TERMINATES SIGNAL
R182(1)	CON3	C3	68Ω	%E11(3)	R182(1)	CON4	A4	68Ω	%E67(2)	R7(1)	CON1	D7	68Ω	-CON1 SKIP EN 70-77 H	R51(1)	CON4	A3	68Ω	-CON4 AR FROM EBUS H
R13(1)	CON2	B7	68Ω	%E12(15)	R53(1)	CON4	B3	68Ω	%E68(2)	R181(1)	CON2	D1	68Ω	CON2 CLK A H	R52(1)	CON4	A3	68Ω	-CON4 AR FROM MEM H
R58(1)	CON3	B3	68Ω	%E15(10)	R54(1)	CON4	B3	68Ω	%E68(3)	R98(1)	CON2	D1	68Ω	CON2 CLK B H	R127(1)	CON4	A2	68Ω	CON4 AR LOADED H
R59(1)	CON3	B3	68Ω	%E15(11)	R172(1)	CON5	B6	68Ω	%E7(7)	R139(1)	CON2	D1	68Ω	CON2 CLK C H	R46(1)	CON4	B6	68Ω	CON4 CSH BIT 36 H
R62(1)	CON3	C3	68Ω	%E15(12)	R148(1)	CON4	A7	68Ω	APR FM 36 H	R41(1)	CON2	D1	68Ω	CON2 CLK D H	R180(1)	CON4	A6	68Ω	CON4 EBUS BIT 36 H
R61(1)	CON3	C3	68Ω	%E15(13)	R121(1)	CON2	D2	68Ω	CLK CON H	R18(1)	CON2	D1	68Ω	CON2 CLK E H	R48(1)	CON4	A6	68Ω	CON4 FM BIT 36 H
R18(1)	CON2	B7	68Ω	%E16(13)	R178(1)	CON3	C3	68Ω	-CLK EBOX SYNC A H	R188(1)	CON2	D1	68Ω	CON2 CLK F H	R47(1)	CON4	A6	68Ω	-CON4 FM DATA H
R9(1)	CON2	B6	68Ω	%E16(14)	R134(1)	CON5	B6	68Ω	CLK MB XFER H	R8(1)	CON2	A7	68Ω	CON2 DIAG CLR RUN H	R28(1)	CON4	D6	68Ω	-CON4 INT DISABLE H
R28(1)	CON2	B6	68Ω	%E16(15)	R58(1)	CON2	D4	68Ω	CLK PAGE ERROR H	R14(1)	CON2	B6	68Ω	-CON2 DIAG CONTINUE H	R95(1)	CON4	D6	68Ω	CON4 KERNEL CYCLE H
R15(1)	CON2	C7	68Ω	%E16(2)	R166(1)	CON5	A6	68Ω	CLK SBR CALL H	R154(1)	CON2	A7	68Ω	CON2 DIAG DRAM STROBE H	R185(1)	CON4	A4	68Ω	-CON4 LOAD AR EN H
R17(1)	CON2	C6	68Ω	%E16(3)	R171(1)	CON1	D7	68Ω	-CON1 COND EN 10-17 H	R153(1)	CON2	A7	68Ω	CON2 DIAG IR STROBE H	R45(1)	CON4	A6	68Ω	-CON4 MBOX DATA H
R11(1)	CON2	C3	68Ω	%E19(15)	R119(1)	CON1	D7	68Ω	-CON1 COND EN 20-27 H	R3(1)	CON2	B6	68Ω	-CON2 DIAG SET RUN H	R77(1)	CON4	D6	68Ω	-CON4 PXCT H
R16(1)	CON2	C7	68Ω	%E28(14)	R76(1)	CON1	D3	68Ω	-CON1 COND/EBOX STATE H	R63(1)	CON2	A2	68Ω	CON2 EBUS GRANT H	R88(1)	CON4	D3	68Ω	CON4 UCODE STATE 05 H
R19(1)	CON2	C7	68Ω	%E28(15)	R38(1)	CON1	D6	68Ω	CON1 COND/LOAD IR H	R78(1)	CON2	C4	68Ω	-CON2 I/O LEGAL H	R183(1)	CON5	C3	68Ω	CON5 CLR PI CYCLE H
R92(1)	CON3	D7	68Ω	%E23(14)	R22(1)	CON1	D3	68Ω	-CON1 COND/LONG EN H	R147(1)	CON2	C6	68Ω	-CON2 INSTR 60 H	R152(1)	CON5	B3	68Ω	CON5 FETCH CYCLE H
R42(1)	CON4	C3	68Ω	%E23(3)	R24(1)	CON1	D6	68Ω	CON1 COND/SPEC INSTR H	R81(1)	CON2	D6	68Ω	CON2 INT REQ H	R138(1)	CON5	C5	68Ω	-CON5 MEM CYCLE H
R12(1)	CON2	C2	68Ω	%E27(15)	R168(1)	CON1	D4	68Ω	-CON1 COND/SPEC INSTR H	R79(1)	CON2	D6	68Ω	-CON2 INT REQ H	R44(1)	CON5	C6	68Ω	CON5 MEM CYCLE IN H
R29(1)	CON2	C2	68Ω	%E28(15)	R151(1)	CON1	D6	68Ω	CON1 COND/SR+* H	R91(1)	CON2	A5	68Ω	CON2 KERNEL MODE H	R83(1)	CON5	D5	68Ω	CON5 PI CYCLE H
R114(1)	CON2	A3	68Ω	%E33(15)	R124(1)	CON1	D4	68Ω	-CON1 COND/SR+* H	R71(1)	CON2	A5	68Ω	-CON2 KERNEL MODE H	R68(1)	CON5	D5	68Ω	-CON5 PI CYCLE H
R117(1)	CON2	A3	68Ω	%E33(2)	R55(1)	CON1	D2	68Ω	CON1 COND/VMA DEC H	R82(1)	CON2	D7	68Ω	CON2 MTR INT REQ H	R178(1)	CON5	D6	68Ω	CON5 PI CYCLE IN H
R118(1)	CON2	A3	68Ω	%E33(3)	R56(1)	CON1	D2	68Ω	CON1 COND/VMA INC H	R155(1)	CON2	B5	68Ω	CON2 NICOND OR LOAD IR DELAYED H	R93(1)	CON5	B6	68Ω	CON5 XFER H
R21(1)	CON2	C6	68Ω	%E34(15)	R133(1)	CON1	B4	68Ω	CON1 DIAG 04 H	R64(1)	CON2	A2	68Ω	CON2 PI XFER H	R49(1)	CON5	B6	68Ω	-CON5 XFER H
R26(1)	CON2	D7	68Ω	%E34(3)	R131(1)	CON1	B4	68Ω	CON1 DIAG 05 H	R129(1)	CON2	B5	68Ω	-CON2 RUN H	R167(1)	CON3	B2	68Ω	CRAM # 00 E H
R126(1)	CON2	C5	68Ω	%E37(3)	R132(1)	CON1	B4	68Ω	CON1 DIAG 06 H	R74(1)	CON2	C6	68Ω	CON2 START H	R84(1)	CON4	D7	68Ω	CRAM # 01 E H
R33(1)	CON2	C7	68Ω	%E37(6)	R128(1)	CON1	B4	68Ω	-CON1 DIAG READ H	R169(1)	CON3	B2	68Ω	-CON3 # 00 H	R37(1)	CON3	B6	68Ω	CRAM # 02 E H
R128(1)	CON2	B7	68Ω	%E39(4)	R187(1)	CON1	B2	68Ω	CON1 EBUS 18 H	R173(1)	CON3	B2	68Ω	-CON3 # 02 H	R35(1)	CON3	C6	68Ω	CRAM # 03 E H
R144(1)	CON2	B7	68Ω	%E39(5)	R163(1)	CON1	B2	68Ω	-CON1 EBUS 18 H	R87(1)	CON3	A2	68Ω	-CON3 # 03 H	R34(1)	CON3	C6	68Ω	CRAM # 04 E H
R125(1)	CON3	A5	68Ω	%E44(15)	R69(1)	CON1	B2	68Ω	CON1 EBUS 19 H	R88(1)	CON3	A2	68Ω	-CON3 # 04 H	R36(1)	CON3	C6	68Ω	CRAM # 05 E H
R123(1)	CON3	A5	68Ω	%E44(2)	R161(1)	CON1	B2	68Ω	-CON1 EBUS 19 H	R89(1)	CON3	A2	68Ω	-CON3 # 05 H	R68(1)	CON3	C4	68Ω	CRAM # 06 E H
R48(1)	CON4	D4	68Ω	%E45(15)	R115(1)	CON1	B2	68Ω	CON1 EBUS 20 H	R138(1)	CON3	A2	68Ω	-CON3 # 06 H	R164(1)	CON3	C4	68Ω	CRAM # 07 E H
R43(1)	CON4	C4	68Ω	%E45(2)	R159(1)	CON1	B2	68Ω	-CON1 EBUS 20 H	R165(1)	CON3	C6	68Ω	-CON3 # FUNC 01X H	R66(1)	CON3	C4	68Ω	CRAM # 08 E H
R38(1)	CON4	D4	68Ω	%E46(15)	R118(1)	CON1	B2	68Ω	CON1 EBUS 21 H	R162(1)	CON3	C6	68Ω	-CON3 # FUNC 02X H	R1(1)	CON1	D7	68Ω	CRAM COND 00 H
R39(1)	CON4	D4	68Ω	%E46(2)	R168(1)	CON1	B2	68Ω	-CON1 EBUS 21 H	R145(1)	CON3	D2	68Ω	CON3 CACHE LOOK EN H	R2(1)	CON1	D7	68Ω	CRAM COND 01 H
R65(1)	CON3	B4	68Ω	%E51(15)	R112(1)	CON1	B2	68Ω	CON1 EBUS 22 H	R73(1)	CON3	C3	68Ω	CON3 COND APR H	R6(1)	CON1	D7	68Ω	CRAM COND 02 H
R98(1)	CON5	D6	68Ω	%E51(3)	R157(1)	CON1	B2	68Ω	-CON1 EBUS 22 H	R189(1)	CON3	C3	68Ω	-CON3 COND APR A H	R148(1)	CON1	D2	68Ω	CRAM COND 03 H
R96(1)	CON5	C6	68Ω	%E53(3)	R156(1)	CON1	A2	68Ω	-CON1 EBUS 23 H	R111(1)	CON3	B3	68Ω	-CON3 COND PAG H	R149(1)	CON1	D2	68Ω	CRAM COND 04 H
R177(1)	CON5	C3	68Ω	%E59(2)	R25(1)	CON1	A2	68Ω	CON1 NICOND H	R146(1)	CON3	D2	68Ω	CON3 KL10 PAGING EN H	R158(1)	CON1	D2	68Ω	CRAM COND 05 H
R97(1)	CON5	C5	68Ω	%E61(14)	R5(1)	CON1	A2	68Ω	CON1 RESET H	R189(1)	CON3	D4	68Ω	CON3 LR EVEN PAR DATA H	R135(1)	CON5	B3	68Ω	-CRAM MEM 02 A H
R186(1)	CON4	A3	68Ω	%E61(2)	R75(1)	CON1	A2	68Ω	-CON1 RESET H	R99(1)	CON3	D4	68Ω	-CON3 LR EVEN PAR DATA H	R137(1)	CON4	B7	68Ω	CSH PAR BIT A H
R143(1)	CON4	B4	68Ω	%E67(14)	R4(1)	CON1	D7	68Ω	-CON1 SKIP EN 60-67 H	R122(1)	CON3	D4	68Ω	CON3 LR EVEN PAR DIR H	R136(1)	CON4	A7	68Ω	CSH PAR BIT 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	DRN. <i>S. Smith</i>	DATE 29-MAR-77	ENG. <i>W. J. ...</i>	DATE 1-Apr-77	TITLE: EBOX CONTROL #2 TERMINATORS
	CHK. <i>W. J. ...</i>	DATE 29-MAR-77	DATE 29-MAR-77	BOARD LOCATION: 1 OF 2	
R85251, DRW 4, 5561		129-MAR-77	09:43	NEXT HIGHER ASSEMBLY: B-DD-M8525-0	SIZE CODE NUMBER REV. D CS M8525-0-RES E
FIRST USED ON OPTION/MODEL: KL10					

REV. E  
M8525-0-RES

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R142(1)	CON4	B4	68n	-CTL EBUS XFER H
R85(1)	CON2	C7	68n	-CTL SPEC/FLAG CTL H
R150(1)	CON2	A7	68n	-DIAG CONTROL FUNC 01X H
R176(1)	CON4	B5	68n	EBUS PARITY ACTIVE E H
R141(1)	CON4	A7	68n	EBUS PARITY E H
R94(1)	CON2	C5	68n	IR I/O LEGAL H
R67(1)	CON2	B3	68n	-MBZ1 RD-PSE-WR REF H
R57(1)	CON1	A4	68n	MCL LOAD VMA H
R27(1)	CON5	C6	68n	MCL MBOX CYC REQ H
R104(1)	CON5	D6	68n	MCL SKIP SATISFIED H
R174(1)	CON5	A6	68n	-MCL STORE AR H
R72(1)	CON5	B3	68n	-MCL VMA FETCH H
R31(1)	CON2	D7	68n	MTR INTERRUPT REQ H
R113(1)	CON2	A2	68n	P12 EXT TRAN REC H
R32(1)	CON2	D7	68n	P12 READY H
R116(1)	CON2	A2	68n	P15 EBUS CP GRANT H
R70(1)	CON2	B3	68n	-SCD PUBLIC A H
R86(1)	CON2	C5	68n	-SCD USER IOT A H
R175(1)	CON5	A6	68n	-VMA AC REF H
R23(1)	CON2	D2	68n	[A,CRM HI 00 H, -MCL VMA SECTION 0 L]

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. <i>Smith</i>	DATE <i>29-MAR-77</i>	ENG. <i>Tom Egan</i>	DATE <i>1-12-77</i>	TITLE: EBOX CONTROL #2 TERMINATORS
	CHK. <i>W. Hopkins</i>	DATE <i>3/30/77</i>	BOARD LOCATION: <i>2</i>	OF <i>2</i>	
R85252.DRW(4,556)		29-MAR-77 09:43	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8525-0	D CS	M8525-0-RES	REV. E

165

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS															
				A	B														
			MODULE REVISION	A	B														
D-UA-M8526-YA-Ø	5		CLK CONTROL	-	A														
D-CS-M8526-YA-CLK1	1		CLK CONTROL, CLOCK CONTROL	-	A														
D-CS-M8526-YA-CLK2	1		CLK CONTROL, DIAGNOSTIC CONTROL	-	-														
D-CS-M8526-YA-CLK3	1		CLK CONTROL, EBOX CLK CONTROL	-	-														
D-CS-M8526-YA-CLK4	1		CLK CONTROL, PAGE FAIL LOGIC	-	-														
D-CS-M8526-YA-CLK5	1		CLK CONTROL, DIAGNOSTICS	-	-														
D-CS-M8526-YA-CLK6	1		CLK CONTROL, POWER, GND, CAPS	-	-														
D-CS-M8526-YA-RES	2		CLK CONTROL, TERMINATORS	-	-														
D-AH-M8526-Ø-Ø	4		CLK CONTROL	B	B														
	-	5010690	ETCHED CIRCUIT BOARD	C	C														
M8526-Ø-L	-		P.C. DESIGN DATA BASE	REF	REF														
M8526-Ø-PL	-		INSERTION P/L DATA BASE	REF	REF														
POO-M8526-YA			PROCESS SHEETS	REF	REF														

NOTES:

REVISIONS		DATE	CHG NO.	REV
<input checked="" type="checkbox"/>	ORIG	5-77	00001	A

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USED ON OPTION/MODEL	DRN.	TITLE	SIZE CODE	NUMBER	REV.
KL1Ø	<i>Klan</i> 2/FEB/77	CLK CONTROL	B DD	M8526-YA	A
	CHK'D <i>RW Caunter</i> 21 FEB 77				
	ENG. <i>W. K. ...</i> 29 FEB 77				
	PROD. <i>W. ...</i> 16 MAR 77				

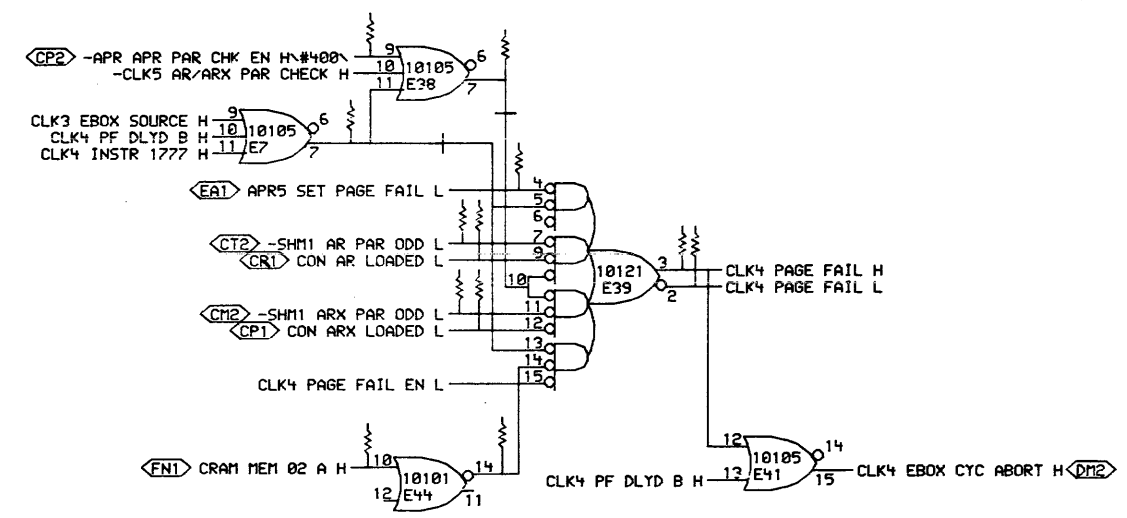
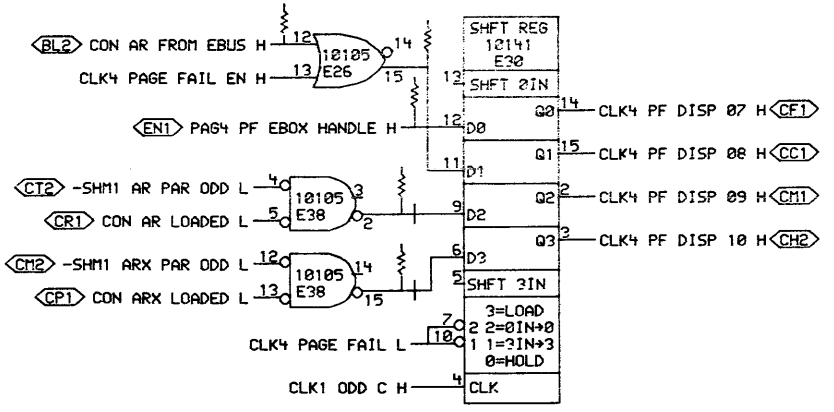
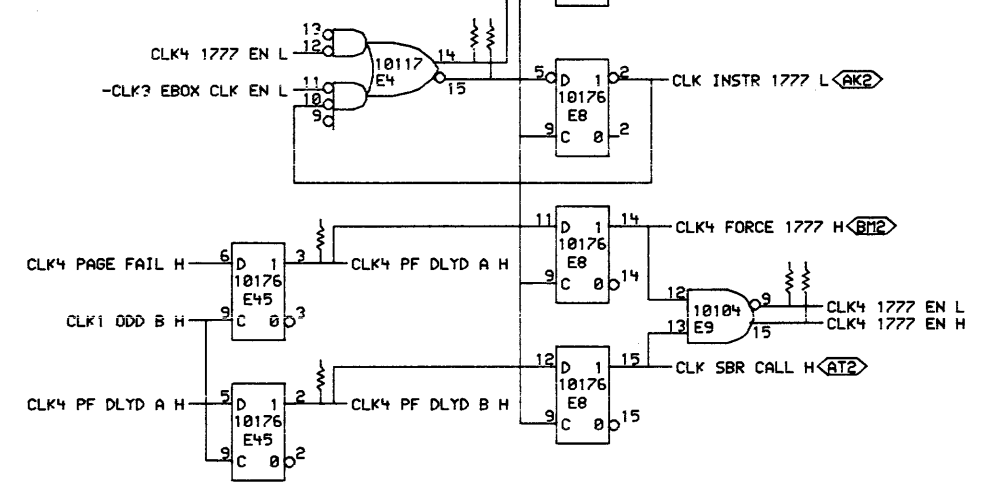
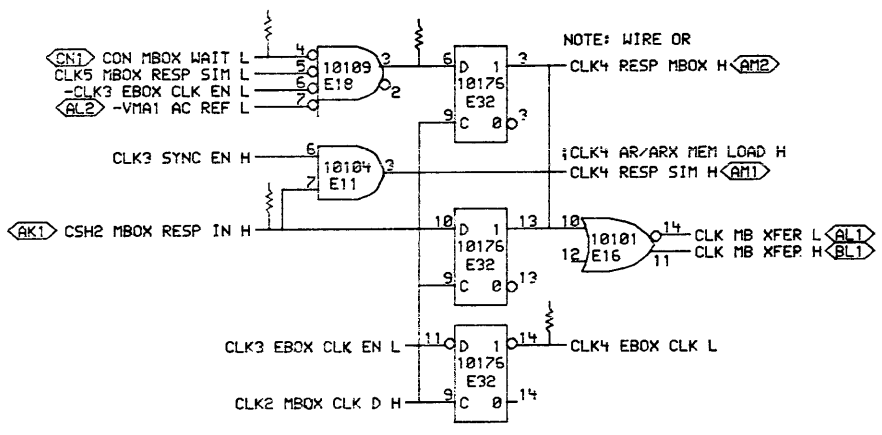
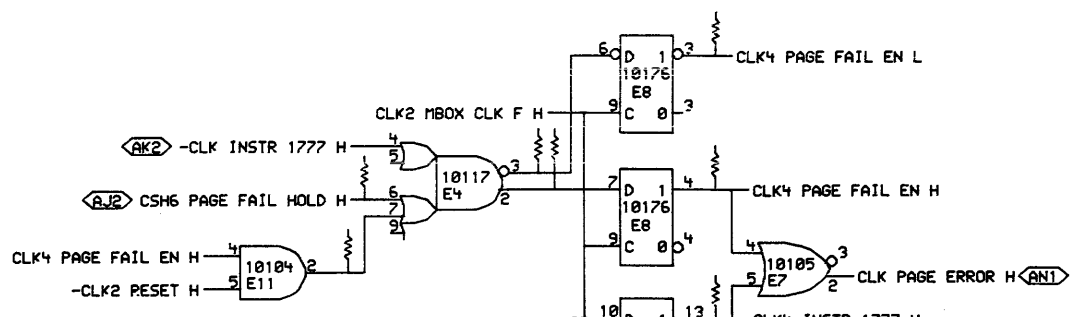
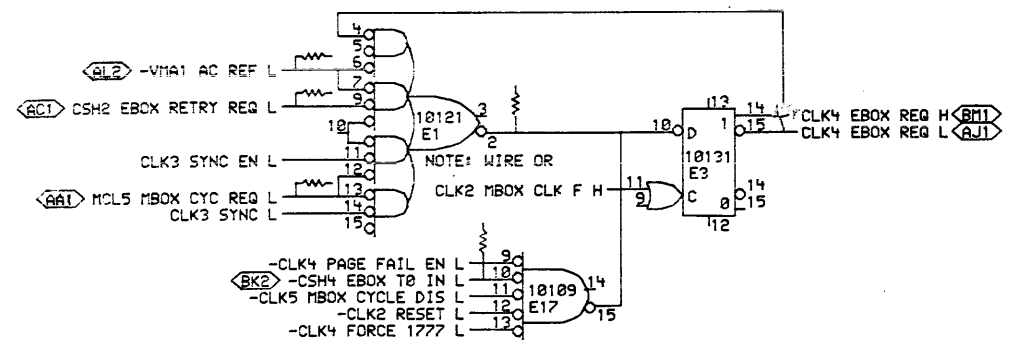






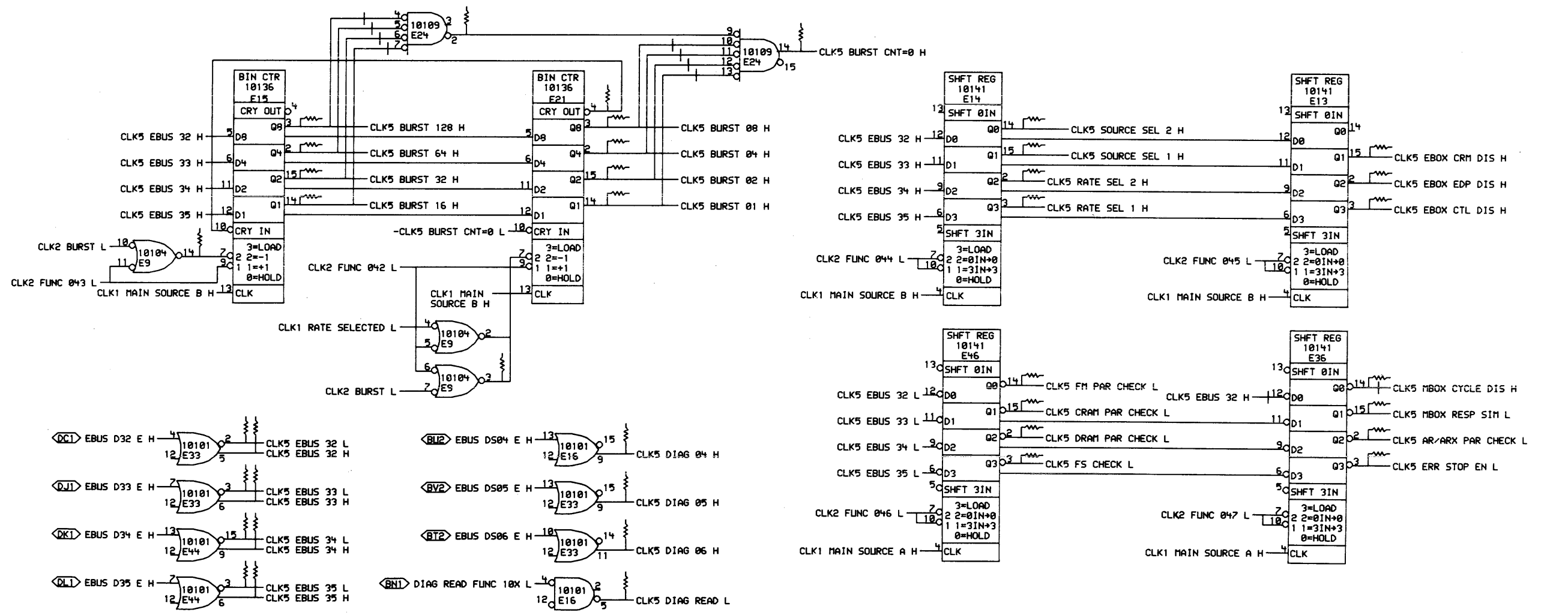
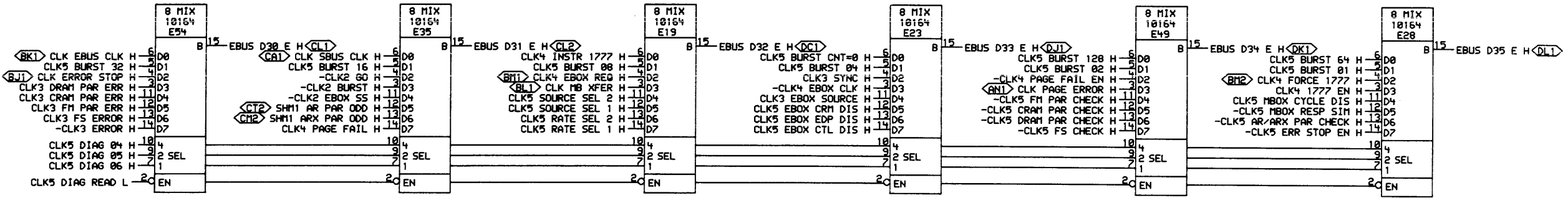






32

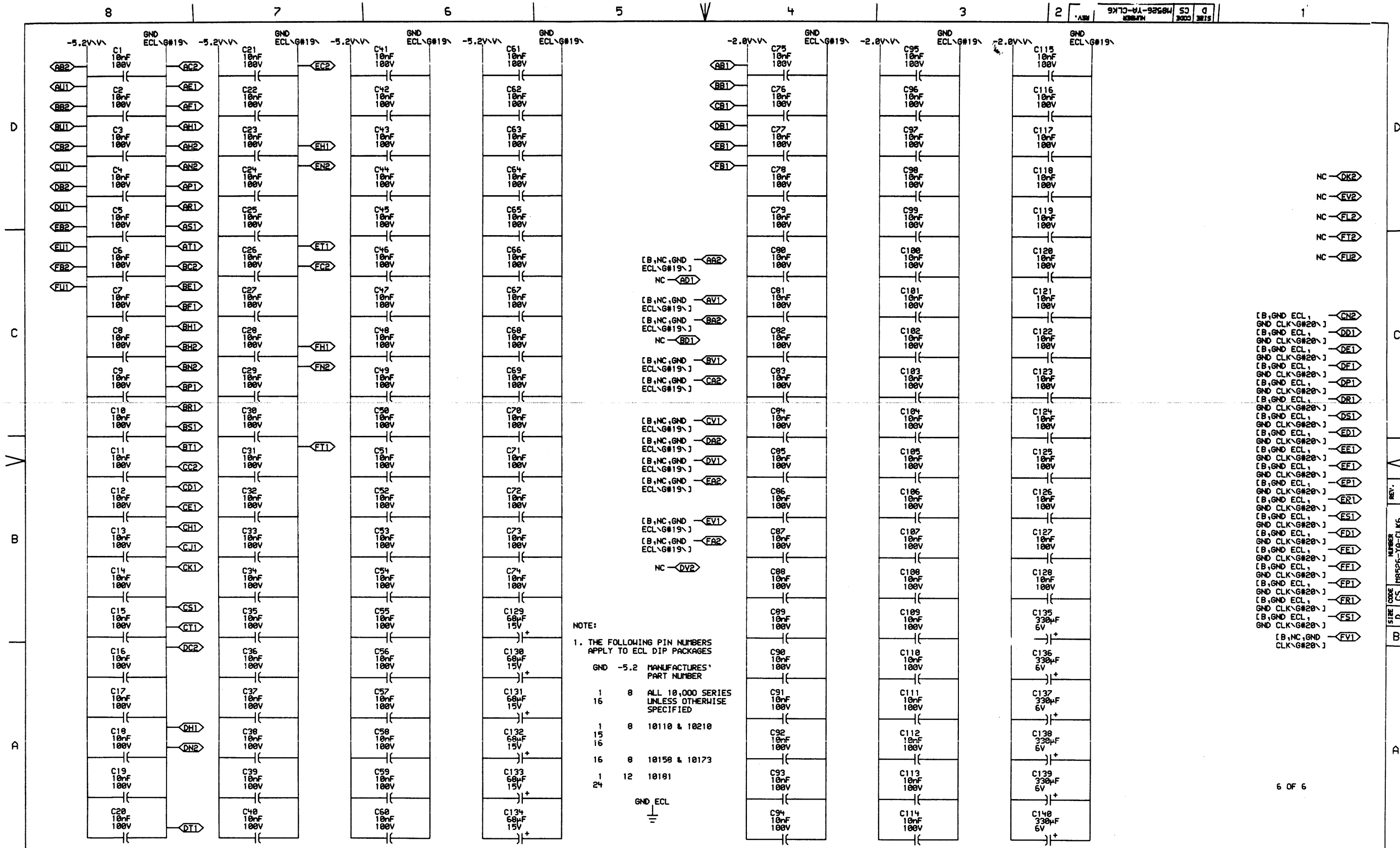
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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	22-FEB-77	ENG.	M. Amulet	DATE	2/23/77	TITLE:	CLK CONTROL DIAGNOSTICS
	DRW.	J. Jorjy	DATE	2/23/77	BOARD LOCATION:	48F32	SIZE	D CS
							NUMBER	M8526-YA-CLK5
							REV.	



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURES' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173
15	8	10181
16	12	10181
16	12	10181
1	12	10181
24	12	10181

GND ECL

- NC - DK2
- NC - EV2
- NC - FL2
- NC - FT2
- NC - FU2
- [B,GND ECL, GND CLK#20] - GN2
- [B,GND ECL, GND CLK#20] - DD1
- [B,GND ECL, GND CLK#20] - DE1
- [B,GND ECL, GND CLK#20] - DF1
- [B,GND ECL, GND CLK#20] - DP1
- [B,GND ECL, GND CLK#20] - DR1
- [B,GND ECL, GND CLK#20] - DS1
- [B,GND ECL, GND CLK#20] - ED1
- [B,GND ECL, GND CLK#20] - EE1
- [B,GND ECL, GND CLK#20] - EF1
- [B,GND ECL, GND CLK#20] - EP1
- [B,GND ECL, GND CLK#20] - ER1
- [B,GND ECL, GND CLK#20] - ES1
- [B,GND ECL, GND CLK#20] - FD1
- [B,GND ECL, GND CLK#20] - FE1
- [B,GND ECL, GND CLK#20] - FF1
- [B,GND ECL, GND CLK#20] - FP1
- [B,GND ECL, GND CLK#20] - FT1
- [B,GND ECL, GND CLK#20] - FU1
- [B,NC,GND CLK#20] - FV1

6 OF 6

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REVISIONS	
CHK	CHANGE NO. REV

digital	DR. J. J. J.	DATE 02-FEB-77	ENG. W. S. S.	DATE 01-FEB-77	TITLE: CLK CONTROL POWER, GND, CAPS
	DATE 02-FEB-77	BOARD LOCATION: 4AF32	DATE 01-FEB-77	SHEET 1 OF 1	SIZE CODE NUMBER REV.
CLKGEF.DRAW.4.557		14-FEB-77 20:38	NEXT HIGHER ASSEMBLY: B-DD-M8526-YA	D CS	M8526-YA-CLK6
FIRST USED ON OPTION MODEL: KL10					

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R85(1)	CLK1	C4	100n	%DL2(7)	R22(1)	CLK2	B2	60n	%E51(15)	R140(1)	CLK1	C6	100n	CLK1 EBUS CLK SOURCE H	R178(1)	CLK2	B7	50n	-CLK2 RESET H
R142(1)	CLK1	C3	100n	%DL3(7)	R36(1)	CLK2	D7	60n	%E51(3)	R77(1)	CLK1	C2	60n	-CLK1 ERROR STOP H	R225(1)	CLK2	C6	60n	CLK2 SYNC HOLD H
R87(1)	CLK4	D7	60n	%E1(2)	R204(1)	CLK2	C2	60n	%E52(4)	R137(1)	CLK1	C7	100n	CLK1 GATED H	R124(1)	CLK3	D6	60n	CLK3 CRAM PAR ERR H
R88(1)	CLK4	D4	60n	%E11(2)	R29(1)	CLK1	C7	60n	%E56(2)	R31(1)	CLK1	B3	60n	CLK1 GATED EN H	R127(1)	CLK3	D6	60n	CLK3 DRAM PAR ERR H
R146(1)	CLK3	A5	60n	%E11(9)	R211(1)	CLK3	B7	60n	%E57(3)	R18(1)	CLK1	D3	60n	CLK1 MAIN SOURCE A H	R105(1)	CLK3	C3	60n	CLK3 EBOX CLK EN H
R143(1)	CLK3	B2	60n	%E12(14)	R166(1)	CLK3	D6	60n	%E58(2)	R2(1)	CLK1	D3	60n	CLK1 MAIN SOURCE B H	R108(1)	CLK3	C3	60n	-CLK3 EBOX CLK EN H
R148(1)	CLK3	B2	60n	%E12(15)	R165(1)	CLK3	D6	60n	%E58(3)	R30(1)	CLK1	D3	60n	CLK1 MAIN SOURCE C H	R158(1)	CLK3	C6	60n	CLK3 EBOX CLK ERROR H
R157(1)	CLK3	A2	60n	%E12(2)	R168(1)	CLK3	C6	60n	%E58(4)	R162(1)	CLK1	B2	60n	CLK1 MBOX A H	R108(1)	CLK3	C6	60n	-CLK3 EBOX CLK ERROR H
R152(1)	CLK3	A4	60n	%E17(3)	R34(1)	CLK2	D6	60n	%E62(14)	R171(1)	CLK1	A2	60n	CLK1 MBOX B H	R53(1)	CLK3	B3	60n	CLK3 EBOX SOURCE H
R93(1)	CLK3	B4	60n	%E19(14)	R21(1)	CLK1	A4	60n	%E63(2)	R176(1)	CLK1	A2	60n	CLK1 MBOX C H	R109(1)	CLK3	C6	60n	-CLK3 EBOX SOURCE H
R110(1)	CLK4	C6	60n	%E18(3)	R135(1)	CLK2	D6	60n	%E64(14)	R97(1)	CLK1	C1	60n	CLK1 ODD A H	R86(1)	CLK3	B4	60n	CLK3 EBOX SRC EN H
R8(1)	CLK5	C5	60n	%E21(4)	R33(1)	CLK2	D6	60n	%E64(15)	R115(1)	CLK1	C1	60n	CLK1 ODD B H	R170(1)	CLK3	B4	60n	-CLK3 EBOX SRC EN H
R92(1)	CLK3	B4	60n	%E22(14)	R35(1)	CLK2	D6	60n	%E64(2)	R191(1)	CLK1	C1	60n	CLK1 ODD C H	R167(1)	CLK3	C7	60n	CLK3 ERROR H
R10(1)	CLK5	C6	60n	%E24(2)	R169(1)	CLK3	C7	60n	%E65(15)	R79(1)	CLK1	B7	60n	-CLK1 RATE SELECTED H	R122(1)	CLK3	C6	60n	-CLK3 ERROR H
R154(1)	CLK3	C4	60n	%E25(14)	R164(1)	CLK3	D7	60n	%E65(2)	R209(1)	CLK2	D6	60n	CLK2 16 MHZ FREE H	R100(1)	CLK3	D7	60n	CLK3 ERROR HOLD A H
R153(1)	CLK3	C4	60n	%E25(15)	R163(1)	CLK3	D7	60n	%E65(7)	R6(1)	CLK2	B2	60n	-CLK2 BURST H	R95(1)	CLK3	B6	60n	CLK3 ERROR HOLD B H
R156(1)	CLK3	C4	60n	%E25(2)	R114(1)	CLK1	D3	60n	%E67(15)	R206(1)	CLK2	C4	60n	CLK2 CROBAR H	R116(1)	CLK3	B6	60n	-CLK3 ERROR HOLD B H
R150(1)	CLK3	C4	60n	%E25(4)	R80(1)	CLK1	D5	60n	%E68(14)	R25(1)	CLK2	C4	60n	-CLK2 CROBAR H	R120(1)	CLK3	C6	60n	CLK3 FM PAR ERR H
R190(1)	CLK4	B7	60n	%E26(15)	R138(1)	CLK1	D5	60n	%E68(15)	R90(1)	CLK2	B2	60n	-CLK2 EBOX SS H	R214(1)	CLK3	B7	60n	CLK3 FS EN A H#400
R155(1)	CLK3	D3	60n	%E26(7)	R132(1)	CLK1	D5	60n	%E68(2)	R1(1)	CLK2	B5	60n	-CLK2 FUNC 042 H	R215(1)	CLK3	B7	60n	CLK3 FS EN B H#400
R99(1)	CLK3	B4	60n	%E27(14)	R81(1)	CLK1	D5	60n	%E68(3)	R5(1)	CLK2	B5	60n	-CLK2 FUNC 043 H	R217(1)	CLK3	B7	60n	CLK3 FS EN C H#400
R71(1)	CLK1	C2	60n	%E27(2)	R200(1)	CLK4	B3	60n	%E7(7)	R4(1)	CLK2	B4	60n	-CLK2 FUNC 044 H	R216(1)	CLK3	B7	60n	CLK3 FS EN D H#400
R99(1)	CLK3	D2	60n	%E31(15)	R174(1)	CLK1	A6	60n	%E70(15)	R49(1)	CLK2	A4	60n	-CLK2 FUNC 045 H	R213(1)	CLK3	B7	60n	CLK3 FS EN E L#400
R202(1)	CLK2	D2	60n	%E32(2)	R175(1)	CLK1	B5	60n	%E70(3)	R67(1)	CLK2	A4	60n	-CLK2 FUNC 046 H	R212(1)	CLK3	B7	60n	CLK3 FS EN F L#400
R193(1)	CLK4	A7	60n	%E30(15)	R76(1)	CLK1	C6	60n	%E71(14)	R20(1)	CLK2	B6	60n	-CLK2 FUNC BURST H	R207(1)	CLK3	B7	60n	CLK3 FS EN G L#400
R192(1)	CLK4	A7	60n	%E30(2)	R84(1)	CLK1	C7	60n	%E71(15)	R172(1)	CLK2	A4	60n	CLK2 FUNC CLR RESET H	R121(1)	CLK3	C6	60n	CLK3 FS ERROR H
R196(1)	CLK4	B3	60n	%E30(7)	R83(1)	CLK1	D7	60n	%E71(2)	R134(1)	CLK2	B6	60n	-CLK2 FUNC CLR RESET H	R64(1)	CLK3	C6	60n	-CLK3 FS ERROR H
R42(1)	CLK4	C3	60n	%E4(14)	R75(1)	CLK1	D6	60n	%E71(3)	R14(1)	CLK2	B6	60n	-CLK2 FUNC COND SS H	R59(1)	CLK3	C1	60n	CLK3 SYNC H
R46(1)	CLK4	C3	60n	%E4(15)	R141(1)	CLK1	C4	100n	%E73(15)	R13(1)	CLK2	B6	60n	-CLK2 FUNC COND SS H	R151(1)	CLK3	C1	60n	-CLK3 SYNC H
R94(1)	CLK4	D3	60n	%E4(2)	R82(1)	CLK1	C5	100n	%E73(3)	R60(1)	CLK2	B6	60n	-CLK2 FUNC EBOX SS H	R177(1)	CLK3	D2	60n	CLK3 SYNC EN H
R45(1)	CLK4	D3	60n	%E4(3)	R74(1)	CLK1	C3	60n	%E73(5)	R26(1)	CLK2	D5	60n	-CLK2 FUNC GATE H	R181(1)	CLK3	D2	60n	-CLK3 SYNC EN H
R23(1)	CLK1	A4	60n	%E41(2)	R7(1)	CLK5	B7	60n	%E9(14)	R173(1)	CLK2	B6	60n	-CLK2 FUNC SET RESET H	R55(1)	CLK4	C2	60n	CLK4 1777 EN H
R68(1)	CLK1	D2	60n	%E41(7)	R9(1)	CLK5	B6	60n	%E9(2)	R24(1)	CLK2	B6	60n	-CLK2 FUNC SINGLE STEP H	R40(1)	CLK4	C2	60n	-CLK4 1777 EN H
R12(1)	CLK1	B3	60n	%E42(14)	R198(1)	CLK4	B3	60n	-APR APR PAR CHK EN H#400	R17(1)	CLK2	B6	60n	-CLK2 FUNC START H	R11(1)	CLK4	C6	60n	-CLK4 EBOX CLK H
R210(1)	CLK2	C2	60n	%E43(7)	R218(1)	CLK3	C7	60n	APR3 FM ODD PARITY H	R15(1)	CLK2	B2	60n	-CLK2 GO H	R51(1)	CLK4	D3	60n	CLK4 INSTR 1777 H
R159(1)	CLK4	A3	60n	%E44(14)	R203(1)	CLK2	D2	60n	-APR5 PT DIR WR H	R37(1)	CLK2	A2	60n	CLK2 HI	R98(1)	CLK4	A2	60n	CLK4 PAGE FAIL H
R73(1)	CLK2	B5	60n	%E50(10)	R201(1)	CLK2	D2	60n	-APR5 PT WR H	R111(1)	CLK2	C4	60n	CLK2 MBOX CLK D H	R194(1)	CLK4	A2	60n	-CLK4 PAGE FAIL H
R28(1)	CLK2	B5	60n	%E50(11)	R160(1)	CLK4	B3	60n	-APR5 SET PAGE FAIL H	R182(1)	CLK2	C4	60n	CLK2 MBOX CLK E H	R103(1)	CLK4	D3	60n	CLK4 PAGE FAIL EN H
R72(1)	CLK2	B5	60n	%E50(12)	R113(1)	CLK2	B5	60n	CLK1 CLK H	R43(1)	CLK2	C4	60n	CLK2 MBOX CLK F H	R119(1)	CLK4	D3	60n	-CLK4 PAGE FAIL EN H
R69(1)	CLK2	B5	60n	%E50(13)	R130(1)	CLK1	C2	60n	CLK1 CLK ON H	R144(1)	CLK2	B7	60n	CLK2 RESET H	R38(1)	CLK4	C4	60n	CLK4 PF DLYD A 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. <i>C. Smith</i>	DATE <i>23-FEB-77</i>	ENG. <i>R. Gaudin</i>	DATE <i>24-FEB-77</i>	TITLE: CLK CONTROL TERMINATORS
F85261.DRW(4,557)	<i>McPherson</i>	<i>2/23/77</i>		SHEET 1 OF 2	
FIRST USED ON OPTION MODEL: KL10	123-FEB-77 13:44	NEXT HIGHER ASSEMBLY: B-DD-M8526-YA	SIZE CODE D CS	NUMBER M8526-YA-RES	REV.

D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R91<1>	CLK4	B4	60n	CLK4 PF DLYD B H	R205<1>	CLK2	C3	60n	CON COND 200000 H
R199<1>	CLK5	B2	60n	-CLK5 AR/ARX PAR CHECK H	R149<1>	CLK3	D3	60n	CON DELAY REQ H
R57<1>	CLK5	C5	60n	CLK5 BURST 01 H	R224<1>	CLK3	D8	60n	CON LOAD DRAM H
R117<1>	CLK5	C5	60n	CLK5 BURST 02 H	R102<1>	CLK4	C7	60n	-CON MBOX WAIT H
R56<1>	CLK5	C5	60n	CLK5 BURST 04 H	R161<1>	CLK4	A3	60n	CRAM MEM 02 A H
R52<1>	CLK5	C5	60n	CLK5 BURST 00 H	R220<1>	CLK3	D7	60n	CRAM PAR 16 H
R110<1>	CLK5	C7	60n	CLK5 BURST 120 H	R105<1>	CLK3	D3	60n	CRAM T 00 H
R16<1>	CLK5	C7	60n	CLK5 BURST 16 H	R104<1>	CLK3	D3	60n	CRAM T 01 H
R129<1>	CLK5	C7	60n	CLK5 BURST 32 H	R133<1>	CLK2	C4	60n	CROBAR E H
R50<1>	CLK5	C7	60n	CLK5 BURST 64 H	R100<1>	CLK4	D7	60n	-CSH2 EBOX RETRY REQ H
R54<1>	CLK5	C4	60n	CLK5 BURST CNT=0 H	R112<1>	CLK4	C7	60n	CSH2 MBOX RESP IN H
R219<1>	CLK5	B3	60n	-CLK5 CRAM PAR CHECK H	R147<1>	CLK4	D7	60n	CSH4 EBOX T0 IN H
R125<1>	CLK5	B5	60n	CLK5 DIAG 04 H	R41<1>	CLK4	D4	60n	CSH4 PAGE FAIL HOLD H
R123<1>	CLK5	A5	60n	CLK5 DIAG 05 H	R106<1>	CLK3	B2	60n	CTL3 DIAG CLK EDP H
R120<1>	CLK5	A5	60n	CLK5 DIAG 06 H	R27<1>	CLK2	A6	60n	-CTL3 DIAG CTL FUNC 00X H
R126<1>	CLK5	A5	60n	-CLK5 DIAG READ H	R70<1>	CLK2	A5	60n	-CTL3 DIAG LD FUNC 04X H
R222<1>	CLK5	B3	60n	-CLK5 DRAM PAR CHECK H	R70<1>	CLK1	C3	60n	DESKEW CLK H-#400
R101<1>	CLK5	C2	60n	CLK5 EBOX CRM DIS H	R223<1>	CLK3	D7	60n	DRAM ODD PARITY H
R107<1>	CLK5	C2	60n	CLK5 EBOX CTL DIS H	R131<1>	CLK1	D4	60n	EXTERNAL CLK H-#420
R96<1>	CLK5	C2	60n	CLK5 EBOX EDP DIS H	R226<1>	CLK1	D4	270n	EXTERNAL CLK H-#420
R44<1>	CLK5	B7	60n	CLK5 EBUS 32 H	R179<1>	CLK4	D7	60n	-MCL5 MBOX CYC REQ H
R65<1>	CLK5	B7	60n	-CLK5 EBUS 32 H	R109<1>	CLK4	B7	60n	PAG4 PF EBOX HANDLE H
R40<1>	CLK5	A7	60n	CLK5 EBUS 33 H	R13<1>	CLK4	B3	60n	SHM1 AR PAR ODD H
R66<1>	CLK5	A7	60n	-CLK5 EBUS 33 H	R19<1>	CLK4	A3	60n	SHM1 ARX PAR ODD H
R47<1>	CLK5	A7	60n	CLK5 EBUS 34 H	R32<1>	CLK2	D7	60n	SYNCHRONIZE CLK H-#400
R63<1>	CLK5	A7	60n	-CLK5 EBUS 34 H	R104<1>	CLK4	D7	60n	VMA1 AC REF H
R50<1>	CLK5	A7	60n	CLK5 EBUS 35 H					
R61<1>	CLK5	A7	60n	-CLK5 EBUS 35 H					
R106<1>	CLK5	B2	60n	-CLK5 ERR STOP EN H					
R221<1>	CLK5	B3	60n	-CLK5 FM PAR CHECK H					
R200<1>	CLK5	B3	60n	-CLK5 FS CHECK H					
R145<1>	CLK5	B2	60n	CLK5 MBOX CYCLE DIS H					
R103<1>	CLK5	B2	60n	-CLK5 MBOX RESP SIM H					
R39<1>	CLK5	C3	60n	CLK5 RATE SEL 1 H					
R3<1>	CLK5	C3	60n	CLK5 RATE SEL 2 H					
R139<1>	CLK5	C3	60n	CLK5 SOURCE SEL 1 H					
R136<1>	CLK5	C3	60n	CLK5 SOURCE SEL 2 H					
R107<1>	CLK4	B7	60n	CON AR FROM EBUS H					
R197<1>	CLK4	B3	60n	-CON AR LOADED H					
R195<1>	CLK4	A3	60n	-CON ARX LOADED 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

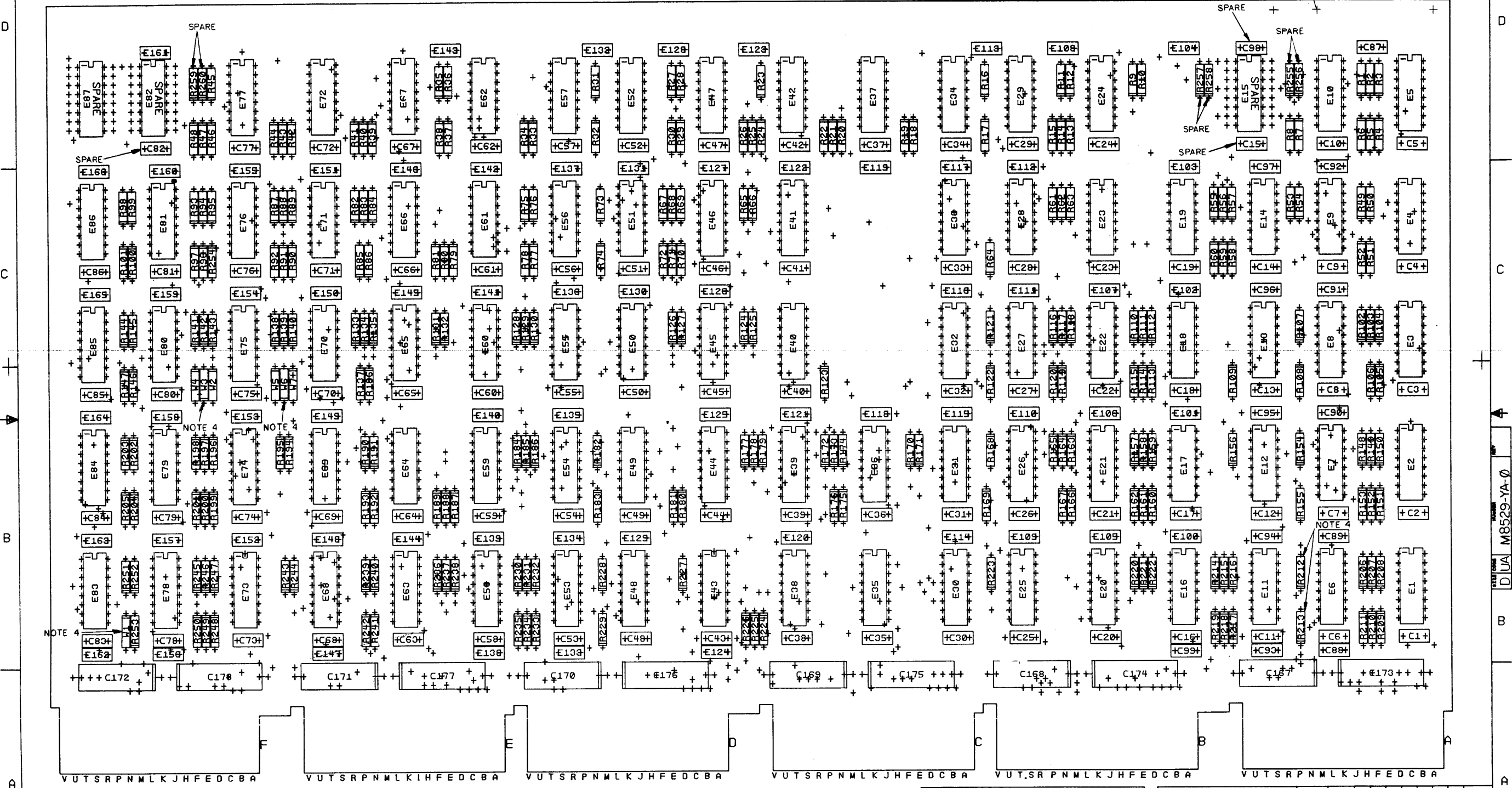
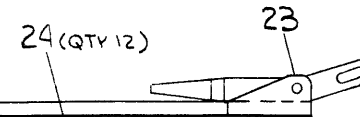
digital	DRN. <i>S. Smith</i>	DATE <i>23-FEB-77</i>	ENS. <i>H. Bruch</i>	DATE <i>24-FEB-77</i>
	CHK. <i>H. Bruch</i>	DATE <i>2/25/77</i>	BOARD LOCATION:	SHEET <i>2</i> OF <i>2</i>
F05262.DRW(4,557)		123-FEB-77 14:19	NEXT HIGHER ASSEMBLY:	SIZE CODE
FIRST USED ON OPTION MODEL: KL10		B-DD-M8526-YA		D CS

TITLE: CLK CONTROL TERMINATOR  
 NUMBER: M8526-YA-RES

175



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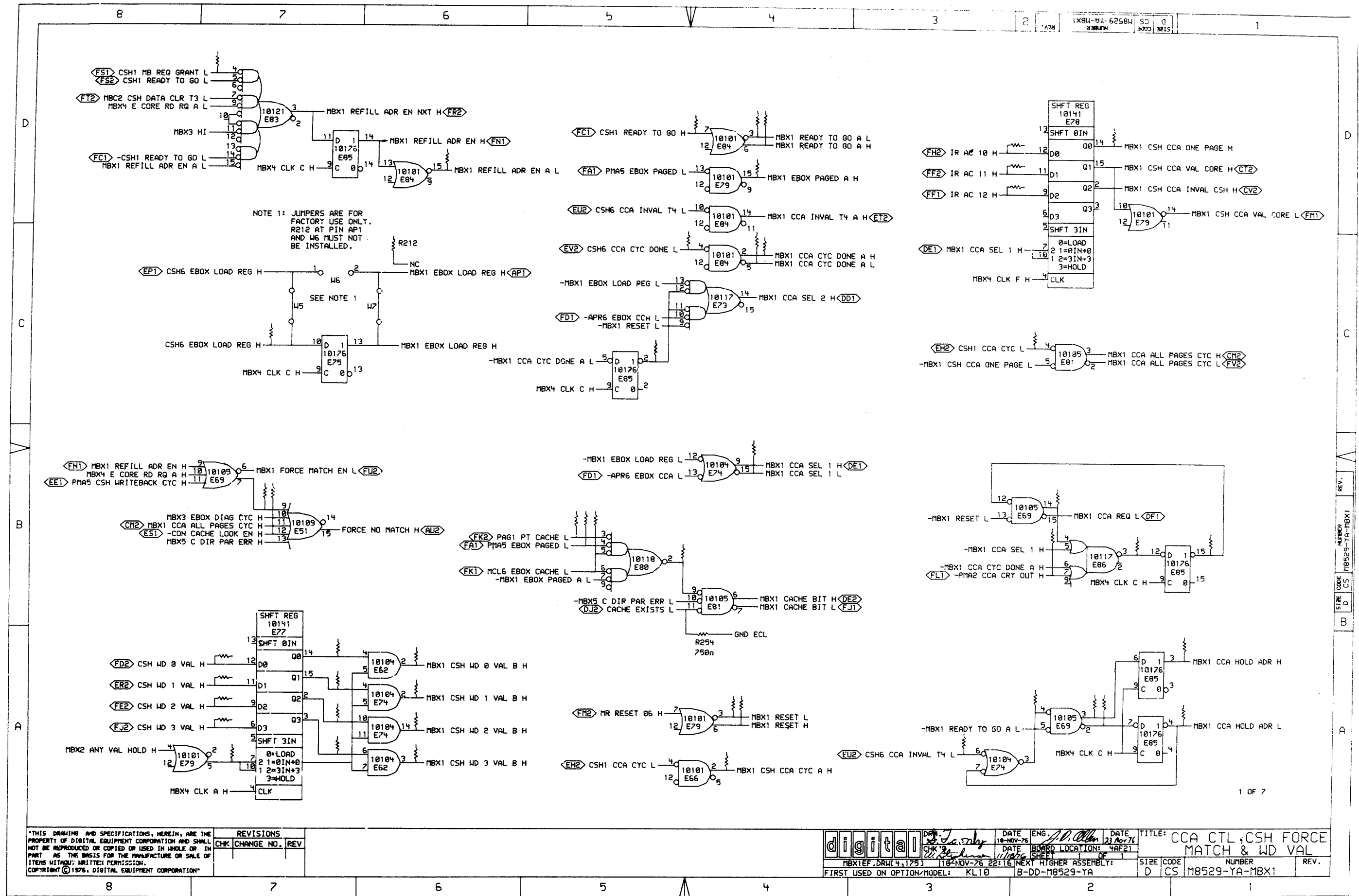
D U A M8529-YA-0

NOTES:


CHK	CHANGE	NO	REV

ETCH REV. C
P.C. DESIGN DATA BASE REV. C

SIGNATURES		DATE	digital
DRN. R. W. Campbell		1 APR 76	
CHK'D. <i>[Signature]</i>		4 OCT 76	
ENG. <i>[Signature]</i>		6 DEC 76	
PROD. <i>[Signature]</i>		8 DEC 76	
SCALE 2/1			TITLE MBOX CONTROL LOGIC
SHT. 2 OF 5			SIZE CODE D U A
NEXT HIGHER ASSY. B-DD-M8529-YA			NUMBER M8529-YA-0
			REV



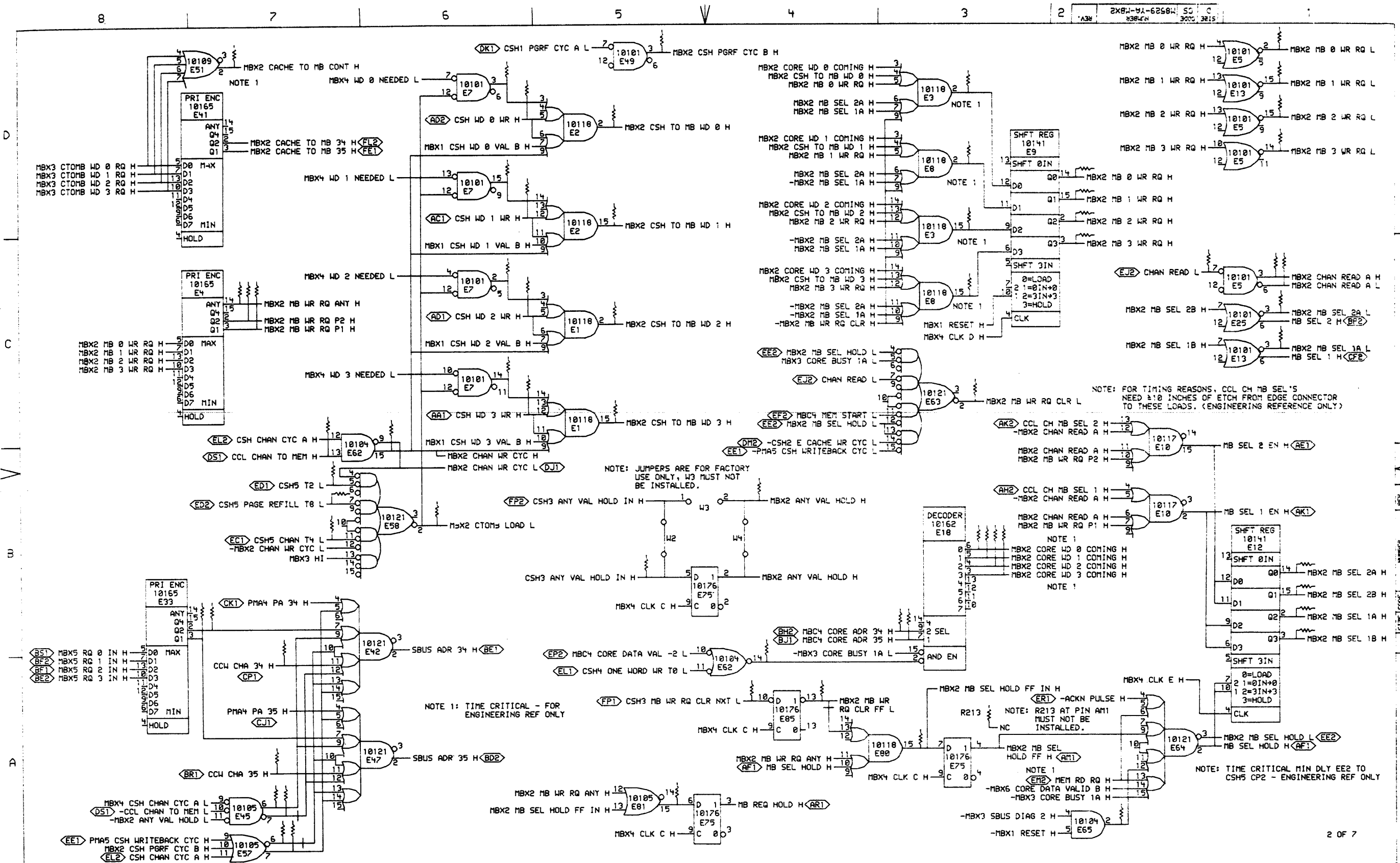
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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE: 18-NOV-76	ENG: J.D. Allen	DATE: 23 Nov 76	TITLE: CCA CTL, CSH FORCE MATCH & WD VAL
	DATE: 18-NOV-76	BOARD LOCATION: 4AF21	SHEET: 1 OF 7	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8529-YA		NUMBER: M8529-YA-MBX1
				REV.

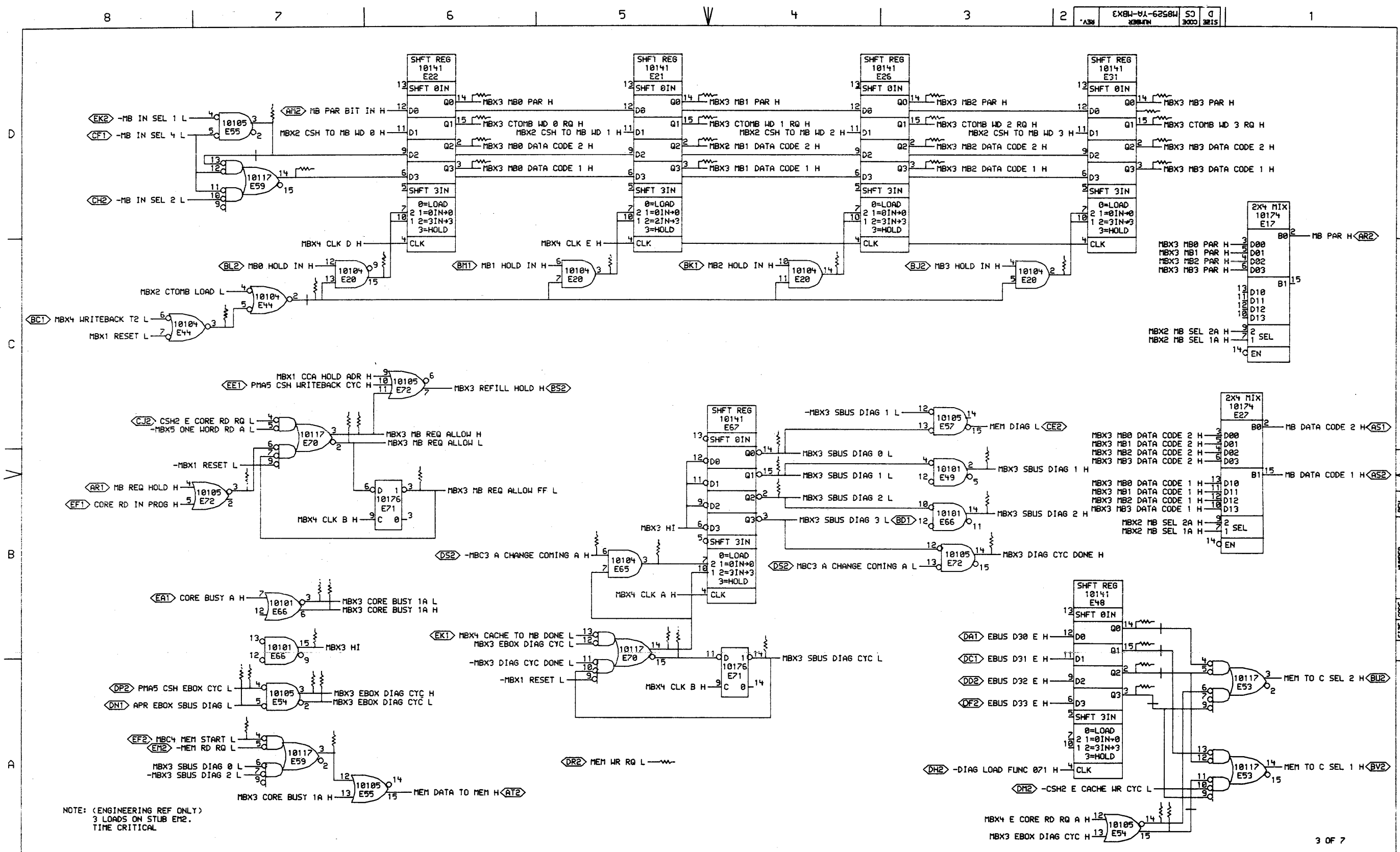
REV. NUMBER M8529-YA-MBX1





REVISIONS	
CHK	CHANGE NO. REV

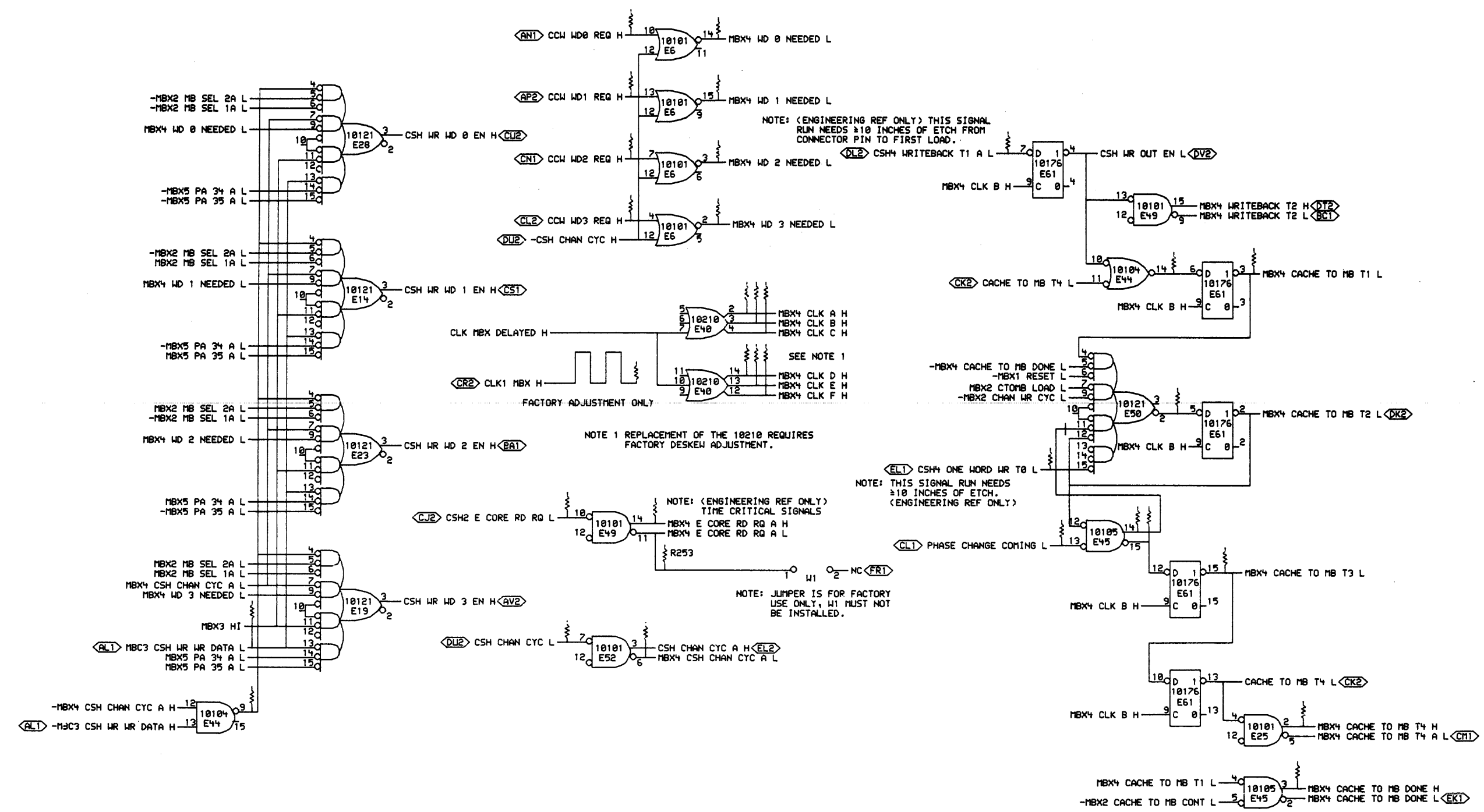
179



NOTE: (ENGINEERING REF ONLY)  
3 LOADS ON STUB EM2.  
TIME CRITICAL

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--	--	--	---------------------------------	--	---	--

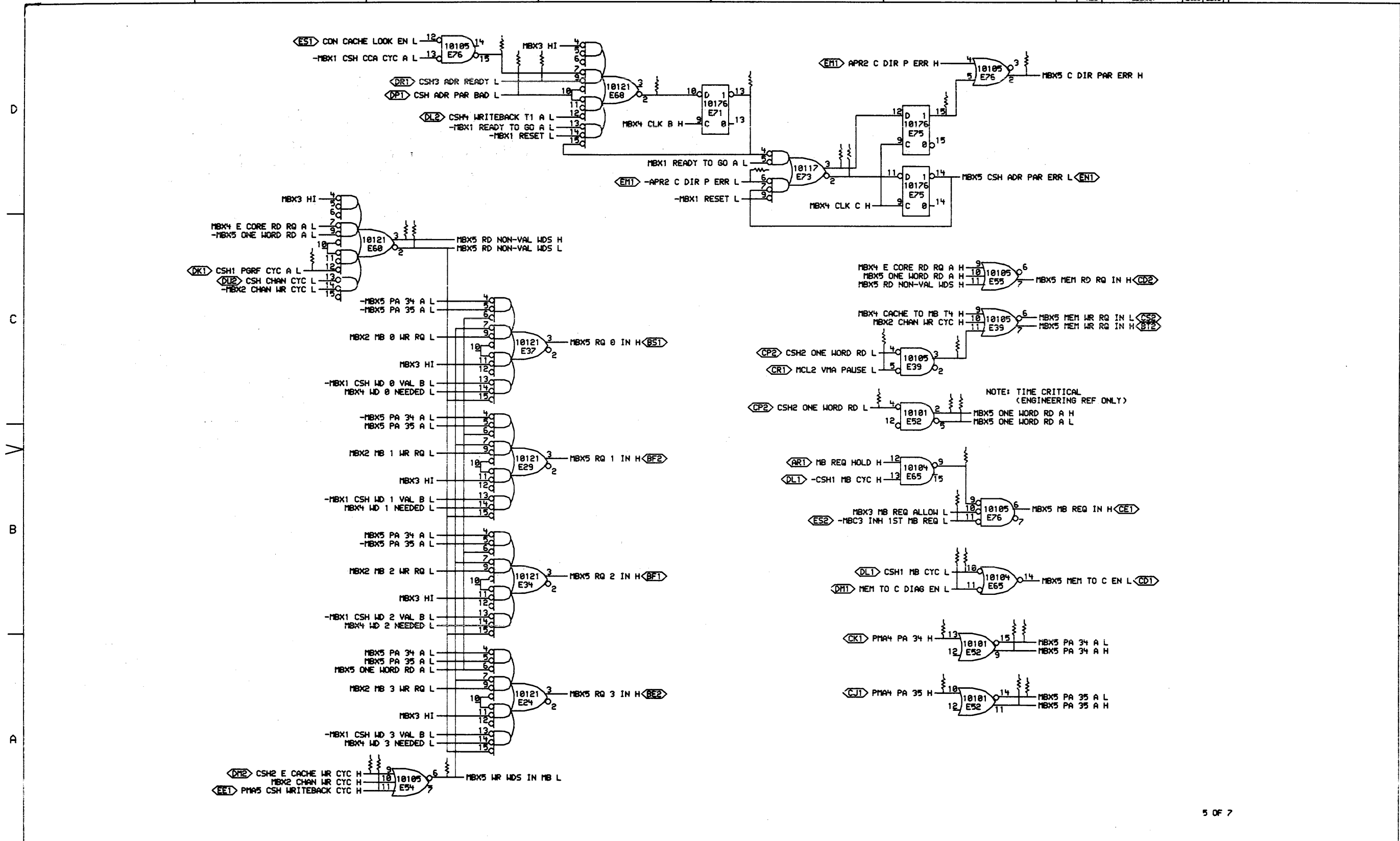
REV.  
NUMBER  
M8529-YA-MBX3  
SIZE CODE  
D CS



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REVISIONS	
CHK	CHANGE NO. REV

digital	DRW. J. J. J.	DATE 17-NOV-76	ENG. J. O. Allen	DATE 23-NOV-76	TITLE: CACHE TO MB T(N), CSH WR WD EN
	CHK. J. J. J.	DATE 11/17/76	BOARD LOCATION: 4A2E1	OF 1	
MBX4EF.DRW(4,175)	17-NOV-76 13:50	NEXT HIGHER ASSEMBLY:	SIZE CODE D CS	NUMBER M8529-YA-MBX4	REV.
FIRST USED ON OPTION MODEL: KL10	B-DD-M8529-YA				



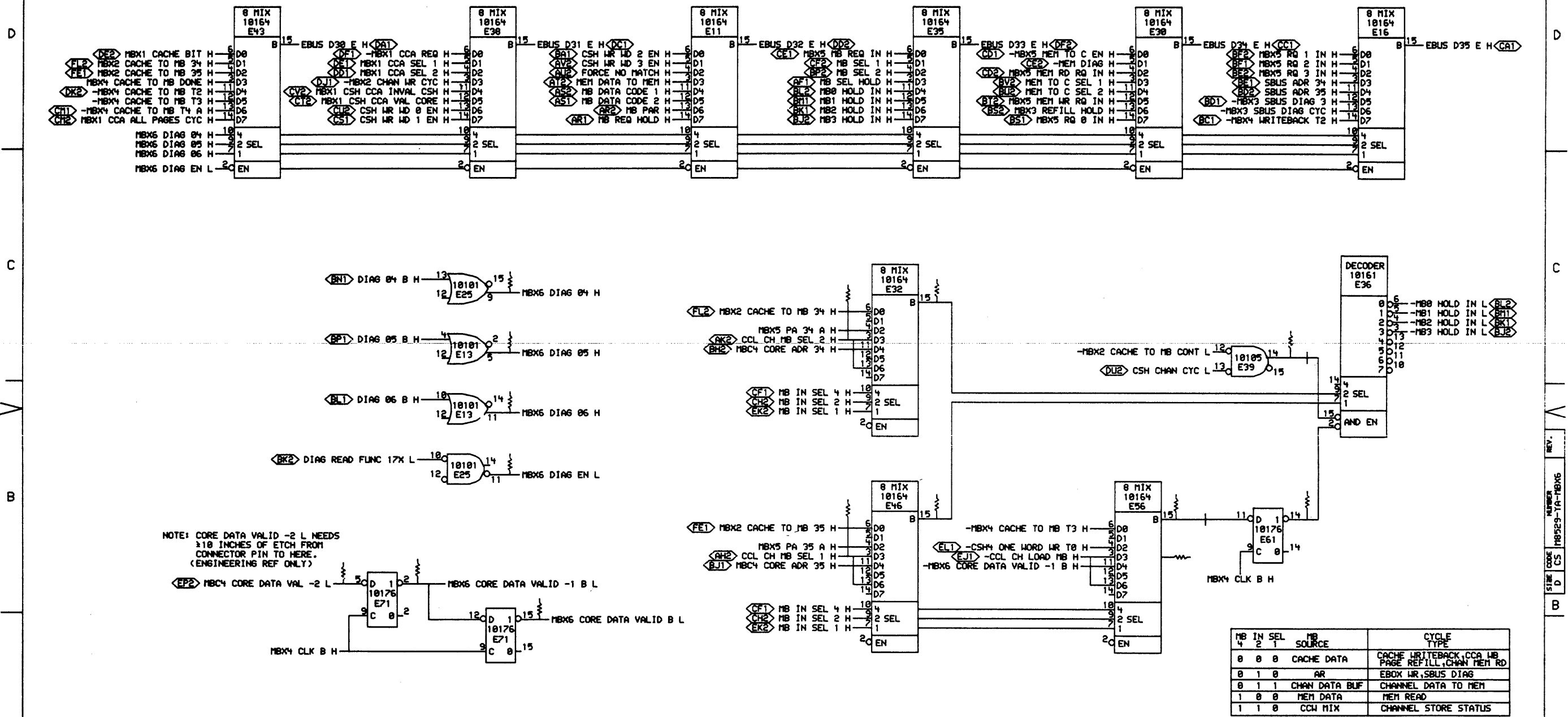
NOTE: TIME CRITICAL  
(ENGINEERING REF ONLY)

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	17-NOV-76	ENG.	J. J. O'Connell	DATE	23-NOV-76	TITLE:	CSH DIR PAR ERR, MEM RQ IN	
	DESIGNED BY	J. J. O'Connell	DATE	17-NOV-76	BOARD LOCATION	4A21	SIZE CODE	D CS	
FIRST USED ON OPTION/MODEL:	KL10	DATE	11-NOV-76	TIME	11:53	NEXT HIGHER ASSEMBLY:	B-DD-M8529-YA	NUMBER	M8529-YA-MBX5
								REV.	

REV. NUMBER SIZE CODE D



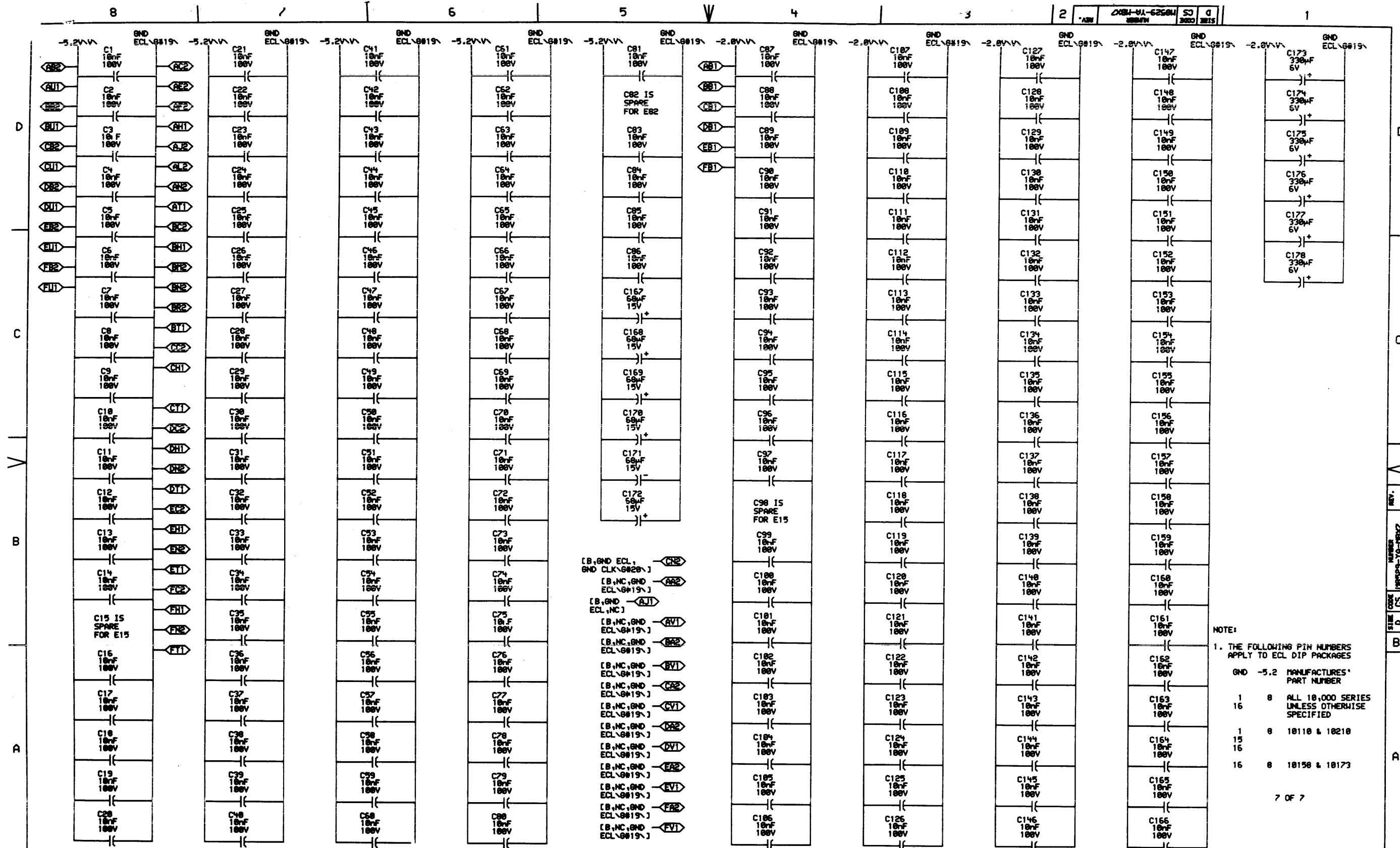
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REVISIONS	
CHK	CHANGE NO. REV

digital  
 DATE 17 NOV 76 ENG J.P. Allen DATE 22 Aug 76  
 TITLE: MB HOLD CTL, CORE DAT VAL, D-MIX  
 BOARD LOCATION: 48F21  
 NEXT HIGHER ASSEMBLY: B-DD-M8529-YA  
 SIZE CODE NUMBER REV.  
 D CS M8529-YA-MBX6

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MP



- [B,GND ECL, GND CLK\G#20\] **CH2**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,GND ECL,NC] **AI1**
- [B,NC,GND ECL\G#19\] **AV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **AV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **CV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **AV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **EV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **EV1**
- [B,NC,GND ECL\G#19\] **AE2**
- [B,NC,GND ECL\G#19\] **EV1**

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 18,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	18118 & 18218
1	8	18156 & 18173
15	8	
16	8	

7 OF 7

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REVISIONS
CHK CHANGE NO. REV.

**digital** DATE ENG. *J.P. Allen* DATE *11/10/76* TITLE: **MBOX CONTROL LOGIC PWR, GND, CAPS**

REV. OF: *DRK(4,175)* DATE: *12/26/76* LOCATION: *44P21*

FIRST USED ON OPTION/MODEL: *KL10PV* B-DD-M8529-YA

SIZE	CODE	NUMBER	REV.
D	CS	M8529-YA-MBX7	

MR 104

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
R167(1)	MBX3	C4	68n	%E20(14)	R147(1)	MBX1	A2	68n	%E69(2)	R4(1)	MBX2	C2	68n	-CHAN READ H	R65(1)	MBX2	B3	68n	MBX4 CORE ADR 35 H
R115(1)	MBX3	C6	68n	%E20(15)	R143(1)	MBX1	A2	68n	%E69(3)	R123(1)	MBX4	C5	68n	CLK1 MBX H	R89(1)	MBX6	B7	68n	-MBX4 CORE DATA VAL -2 H
R170(1)	MBX3	C2	68n	%E20(2)	R71(1)	MBX1	B7	68n	%E69(7)	R67(1)	MBX1	B7	68n	-CON CACHE LOOK EN H	R188(1)	MBX3	A7	68n	-MBX4 MEM START H
R162(1)	MBX3	C5	68n	%E20(3)	R206(1)	MBX2	C6	68n	%E7(14)	R242(1)	MBX5	D6	68n	-CSH ADR PAR BAD H	R145(1)	MBX1	C4	68n	MBX1 CCA CYC DONE A H
R51(1)	MBX2	D3	68n	%E3(15)	R149(1)	MBX2	D6	68n	%E7(15)	R216(1)	MBX4	B5	68n	-CSH CHAN CYC H	R100(1)	MBX1	C4	68n	-MBX1 CCA CYC DONE A H
R49(1)	MBX2	D3	68n	%E3(2)	R155(1)	MBX2	C6	68n	%E7(2)	R46(1)	MBX1	A7	68n	CSH WD 0 VAL H	R100(1)	MBX1	A1	68n	MBX1 CCA HOLD ADR H
R171(1)	MBX6	C4	68n	%E32(15)	R148(1)	MBX2	D6	68n	%E7(3)	R150(1)	MBX2	D5	68n	CSH WD 0 WR H	R199(1)	MBX1	A1	68n	-MBX1 CCA HOLD ADR H
R24(1)	MBX2	B7	68n	%E33(2)	R38(1)	MBX3	B5	68n	%E70(14)	R43(1)	MBX1	A7	68n	CSH WD 1 VAL H	R98(1)	MBX1	B4	68n	-MBX1 CCA SEL 1 H
R29(1)	MBX2	B7	68n	%E33(3)	R82(1)	MBX3	B5	68n	%E70(15)	R153(1)	MBX2	D5	68n	CSH WD 1 WR H	R44(1)	MBX1	A4	68n	MBX1 CSH CCA CYC A H
R174(1)	MBX6	C2	68n	%E39(14)	R246(1)	MBX5	D4	68n	%E71(13)	R48(1)	MBX1	A7	68n	CSH WD 2 VAL H	R94(1)	MBX1	D2	68n	MBX1 CSH CCA ONE PAGE H
R178(1)	MBX5	C3	68n	%E39(3)	R98(1)	MBX3	B7	68n	%E72(3)	R208(1)	MBX2	C5	68n	CSH WD 2 WR H	R151(1)	MBX1	A6	68n	MBX1 CSH WD 0 VAL B H
R88(1)	MBX4	C2	68n	%E44(14)	R195(1)	MBX5	D4	68n	%E73(2)	R47(1)	MBX1	A7	68n	CSH WD 3 VAL H	R152(1)	MBX1	A6	68n	MBX1 CSH WD 1 VAL B H
R220(1)	MBX3	C7	68n	%E44(2)	R194(1)	MBX5	D4	68n	%E73(3)	R207(1)	MBX2	C5	68n	CSH WD 3 WR H	R209(1)	MBX1	A6	68n	MBX1 CSH WD 2 VAL B H
R181(1)	MBX3	C7	68n	%E44(3)	R192(1)	MBX1	A2	68n	%E74(3)	R91(1)	MBX1	C2	68n	-CSH1 CCA CYC H	R211(1)	MBX1	A6	68n	MBX1 CSH WD 3 VAL B H
R57(1)	MBX4	A7	68n	%E44(9)	R87(1)	MBX5	D3	68n	%E75(15)	R132(1)	MBX5	B3	68n	-CSH1 MB CYC H	R196(1)	MBX1	D4	68n	MBX1 EBOX PAGED A H
R126(1)	MBX4	B3	68n	%E45(14)	R244(1)	MBX5	D6	68n	%E76(15)	R251(1)	MBX1	D7	68n	-CSH1 MB REQ GRANT H	R239(1)	MBX1	D4	68n	MBX1 READY TO GO A H
R75(1)	MBX4	B2	68n	%E45(15)	R35(1)	MBX1	A7	68n	%E77(14)	R128(1)	MBX5	C7	68n	-CSH1 PGRF CYC A H	R247(1)	MBX1	D4	68n	-MBX1 READY TO GO A H
R25(1)	MBX2	A7	68n	%E45(6)	R281(1)	MBX1	A7	68n	%E77(15)	R205(1)	MBX1	D4	68n	CSH1 READY TO GO H	R252(1)	MBX1	D6	68n	-MBX1 REFILL ADR EN A H
R23(1)	MBX2	A7	68n	%E45(7)	R288(1)	MBX1	A7	68n	%E77(2)	R236(1)	MBX5	A6	68n	CSH2 E CACHE WR CYC H	R52(1)	MBX1	A4	68n	MBX1 RESET H
R175(1)	MBX6	B4	68n	%E46(15)	R37(1)	MBX1	A7	68n	%E77(3)	R135(1)	MBX4	B5	68n	-CSH2 E CORE RD RD H	R182(1)	MBX1	A4	68n	-MBX1 RESET H
R231(1)	MBX3	B2	68n	%E48(14)	R36(1)	MBX1	A7	68n	%E79(5)	R27(1)	MBX5	C4	68n	-CSH2 ONE WORD RD H	R125(1)	MBX2	B4	68n	MBX2 ANY VAL HOLD H
R228(1)	MBX3	B2	68n	%E48(15)	R58(1)	MBX2	C3	68n	%E8(15)	R21(1)	MBX5	D5	68n	-CSH3 ADR READY H	R172(1)	MBX2	D7	68n	MBX2 CACHE TO MB CONT H
R232(1)	MBX3	A2	68n	%E48(2)	R54(1)	MBX2	D3	68n	%E8(2)	R138(1)	MBX2	B5	68n	CSH3 ANT VAL HOLD IN H	R8(1)	MBX2	C1	68n	MBX2 CHAN READ A H
R234(1)	MBX3	A2	68n	%E48(3)	R96(1)	MBX1	A4	68n	%E80(2)	R283(1)	MBX2	A4	68n	-CSH3 MB WR RD CLR NXT H	R1(1)	MBX2	C1	68n	-MBX2 CHAN READ A H
R81(1)	MBX4	C2	68n	%E50(2)	R139(1)	MBX2	B5	68n	%E81(15)	R34(1)	MBX4	B3	68n	-CSH4 ONE WORD WR TO H	R10(1)	MBX2	C6	68n	MBX2 CHAN WR CYC H
R235(1)	MBX3	A2	68n	%E54(14)	R198(1)	MBX1	B1	68n	%E85(15)	R79(1)	MBX4	D2	68n	-CSH4 WRITEBACK TO A H	R104(1)	MBX2	B3	68n	MBX2 CORE WD 0 COMING H
R233(1)	MBX3	A2	68n	%E54(15)	R243(1)	MBX1	C5	68n	%E85(2)	R238(1)	MBX2	A7	68n	-CSH5 CHAN TH H	R107(1)	MBX2	B3	68n	MBX2 CORE WD 1 COMING H
R113(1)	MBX3	D7	68n	%E55(3)	R144(1)	MBX1	B2	68n	%E86(3)	R237(1)	MBX2	B7	68n	-CSH5 PAGE REFILL TO H	R103(1)	MBX2	B3	68n	MBX2 CORE WD 2 COMING H
R78(1)	MBX6	B2	68n	%E56(15)	R186(1)	MBX3	A7	68n	-APR EBOX SBUS DIAG H	R236(1)	MBX2	B7	68n	-CSH5 T2 H	R102(1)	MBX2	B3	68n	MBX2 CORE WD 3 COMING H
R22(1)	MBX2	A7	68n	%E57(6)	R95(1)	MBX5	D4	68n	APR2 C DIR P ERR H	R22(1)	MBX1	C4	68n	-CSH6 CCA CYC DONE H	R32(1)	MBX2	D5	68n	MBX2 CSH PGRF CYC B H
R28(1)	MBX2	A7	68n	%E57(7)	R76(1)	MBX6	B2	68n	-CCL CH LOAD MB H	R204(1)	MBX1	A3	68n	-CSH6 CCA INVAL TH H	R114(1)	MBX2	D5	68n	MBX2 CSH TO MB WD 0 H
R163(1)	MBX3	D7	68n	%E59(14)	R66(1)	MBX6	B4	68n	CCL CH MB SEL 1 H	R136(1)	MBX1	C7	68n	CSH6 EBOX LOAD REG H	R161(1)	MBX2	D5	68n	MBX2 CSH TO MB WD 1 H
R138(1)	MBX3	A7	68n	%E59(3)	R121(1)	MBX6	C4	68n	CCL CH MB SEL 2 H	R249(1)	MBX1	D3	68n	IR AC 10 H	R166(1)	MBX2	C5	68n	MBX2 CSH TO MB WD 2 H
R173(1)	MBX6	B2	68n	%E61(14)	R33(1)	MBX2	C7	68n	CCL CHAN TO MEM H	R258(1)	MBX1	D3	68n	IR AC 11 H	R169(1)	MBX2	C5	68n	MBX2 CSH TO MB WD 3 H
R111(1)	MBX2	A4	68n	%E62(14)	R21(1)	MBX2	A7	68n	CCW CHA 34 H	R248(1)	MBX1	D3	68n	IR AC 12 H	R154(1)	MBX2	B6	68n	-MBX2 CTOMB LOAD H
R189(1)	MBX2	A2	68n	%E65(2)	R26(1)	MBX2	A7	68n	CCW CHA 35 H	R118(1)	MBX3	D2	68n	MB PAR BIT IN H	R3(1)	MBX2	D2	68n	MBX2 MB 0 WR RQ H
R39(1)	MBX3	B5	68n	%E65(3)	R217(1)	MBX4	D5	68n	CCW WD0 REQ H	R48(1)	MBX3	B5	68n	-MBC3 A CHANGE COMING A H	R19(1)	MBX2	D1	68n	-MBX2 MB 0 WR RQ H
R148(1)	MBX5	B3	68n	%E65(9)	R215(1)	MBX4	D5	68n	CCW WD1 REQ H	R177(1)	MBX4	B7	68n	-MBC3 CSH WR WR DATA H	R108(1)	MBX2	D2	68n	MBX2 MB 1 WR RQ H
R83(1)	MBX5	D5	68n	%E68(2)	R218(1)	MBX4	D5	68n	CCW WD2 REQ H	R88(1)	MBX5	B3	68n	MBC3 INH 1ST MB REQ H	R15(1)	MBX2	D1	68n	-MBX2 MB 1 WR RQ H
R99(1)	MBX1	B2	68n	%E69(14)	R214(1)	MBX4	C5	68n	CCW WD3 REQ H	R122(1)	MBX2	B3	68n	MBC4 CORE ADR 34 H	R2(1)	MBX2	D2	68n	MBX2 MB 2 WR RQ 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. G. Smith	DATE 13-OCT-76	ENG. A. D. Allen	DATE 1 Nov 76	TITLE: MBOX CONTROL TERMINATORS
	CHK'D BY D. Stephenson	DATE 10/16/76	SHEET 1 OF 2	BOARD LOCATION: 4AF21	
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8529-YA		SIZE CODE D CS	NUMBER M8529-YA-RES

105

D  
C  
V  
B  
A

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
R17(1)	MBX2	D1	60n	-MBX2 MB 2 WR RQ H	R104(1)	MBX3	B4	60n	-MBX3 SBUS DIAG 0 H	R142(1)	MBX1	B5	60n	-MCL6 EBOX CACHE H
R5X(1)	MBX2	C2	60n	MBX2 MB 3 WR RQ H	R31(1)	MBX3	B3	60n	MBX3 SBUS DIAG 1 H	R131(1)	MBX5	B3	60n	-MEM TO C DIAG EN H
R9X(1)	MBX2	D1	60n	-MBX2 MB 3 WR RQ H	R102(1)	MBX3	B4	60n	-MBX3 SBUS DIAG 1 H	R229(1)	MBX3	A5	60n	-MEM WR RQ H
R63(1)	MBX2	B1	60n	MBX2 MB SEL 1A H	R107(1)	MBX3	B3	60n	MBX3 SBUS DIAG 2 H	R212(1)	MBX1	C6	60n	NC SEE NOTE 4
R59(1)	MBX2	C1	60n	-MBX2 MB SEL 1A H	R06(1)	MBX3	B4	60n	-MBX3 SBUS DIAG 2 H	R213(1)	MBX2	A3	60n	NC SEE NOTE 4
R109(1)	MBX2	B1	60n	MBX2 MB SEL 1B H	R221(1)	MBX3	B4	60n	-MBX3 SBUS DIAG CYC H	R190(1)	MBX1	B5	60n	-PAGE PT CACHE H
R119(1)	MBX2	B1	60n	MBX2 MB SEL 2A H	R227(1)	MBX4	A2	60n	MBX4 CACHE TO MB DONE H	R124(1)	MBX4	B3	60n	-PHASE CHANGE COMING H
R106(1)	MBX2	C1	60n	-MBX2 MB SEL 2A H	R127(1)	MBX4	C2	60n	-MBX4 CACHE TO MB T1 H	R101(1)	MBX1	B2	60n	-PMA2 CCA CRY OUT H
R223(1)	MBX2	B1	60n	MBX2 MB SEL 2B H	R224(1)	MBX4	B2	60n	-MBX4 CACHE TO MB T3 H	R20(1)	MBX5	B3	60n	PMA4 PA 34 H
R93(1)	MBX2	A3	60n	MBX2 MB SEL HOLD FF IN H	R176(1)	MBX4	A2	60n	MBX4 CACHE TO MB T4 H	R30(1)	MBX5	A3	60n	PMA4 PA 35 H
R141(1)	MBX2	A4	60n	-MBX2 MB WR RQ CLR FF H	R45(1)	MBX4	C4	60n	MBX4 CLK A H	R105(1)	MBX3	A7	60n	-PMA5 CSH EBOX CYC H
R97(1)	MBX2	C7	60n	MBX2 MB WR RQ ANY H	R04(1)	MBX4	C4	60n	MBX4 CLK B H	R103(1)	MBX5	A6	60n	PMA5 CSH WRITEBACK CYC H
R105(1)	MBX2	C3	60n	-MBX2 MB WR RQ CLR H	R146(1)	MBX4	C4	60n	MBX4 CLK C H	R197(1)	MBX1	B5	60n	-PMA5 EBOX PAGED H
R7(1)	MBX2	C7	60n	MBX2 MB WR RQ P1 H	R53(1)	MBX4	C4	60n	MBX4 CLK D H					
R6(1)	MBX2	C7	60n	MBX2 MB WR RQ P2 H	R156(1)	MBX4	C4	60n	MBX4 CLK E H					
R112(1)	MBX3	B7	60n	MBX3 CORE BUSTY 1A H	R245(1)	MBX4	C4	60n	MBX4 CLK F H					
R240(1)	MBX3	B7	60n	-MBX3 CORE BUSTY 1A H	R50(1)	MBX4	B5	60n	-MBX4 CSH CHAN CYC A H					
R69(1)	MBX3	D6	60n	MBX3 CTOMB WD 0 RQ H	R193(1)	MBX4	B5	60n	MBX4 E CORE RD RQ A H					
R73(1)	MBX3	D5	60n	MBX3 CTOMB WD 1 RQ H	R253(1)	MBX4	B5	60n	-MBX4 E CORE RD RQ A H					
R74(1)	MBX3	D3	60n	MBX3 CTOMB WD 2 RQ H	R10(1)	MBX4	D5	60n	-MBX4 WD 0 NEEDED H					
R70(1)	MBX3	D2	60n	MBX3 CTOMB WD 3 RQ H	R11(1)	MBX4	D5	60n	-MBX4 WD 1 NEEDED H					
R05(1)	MBX3	B3	60n	MBX3 DIAG CYC DONE H	R16(1)	MBX4	D5	60n	-MBX4 WD 2 NEEDED H					
R72(1)	MBX3	A7	60n	MBX3 EBOX DIAG CYC H	R10(1)	MBX4	C5	60n	-MBX4 WD 3 NEEDED H					
R133(1)	MBX3	A7	60n	-MBX3 EBOX DIAG CYC H	R60(1)	MBX5	D3	60n	MBX5 C DIR PAR ERR H					
R61(1)	MBX3	B7	60n	MBX3 HI	R134(1)	MBX5	C3	60n	MBX5 ONE WORD RD A H					
R41(1)	MBX3	C6	60n	MBX3 MB REQ ALLOW H	R14(1)	MBX5	C3	60n	-MBX5 ONE WORD RD A H					
R92(1)	MBX3	C7	60n	-MBX3 MB REQ ALLOW H	R56(1)	MBX5	B3	60n	MBX5 PA 34 A H					
R137(1)	MBX3	B6	60n	-MBX3 MB REQ ALLOW FF H	R60(1)	MBX5	B3	60n	-MBX5 PA 34 A H					
R117(1)	MBX3	D6	60n	MBX3 MB0 DATA CODE 1 H	R62(1)	MBX5	A3	60n	MBX5 PA 35 A H					
R110(1)	MBX3	D6	60n	MBX3 MB0 DATA CODE 2 H	R55(1)	MBX5	A3	60n	-MBX5 PA 35 A H					
R157(1)	MBX3	D6	60n	MBX3 MB0 PAR H	R129(1)	MBX5	C6	60n	MBX5 RD NON-VAL WDS H					
R164(1)	MBX3	D5	60n	MBX3 MB1 DATA CODE 1 H	R12(1)	MBX5	C6	60n	-MBX5 RD NON-VAL WDS H					
R116(1)	MBX3	D5	60n	MBX3 MB1 DATA CODE 2 H	R13(1)	MBX5	A6	60n	-MBX5 WR WDS IN MB H					
R159(1)	MBX3	D5	60n	MBX3 MB1 PAR H	R77(1)	MBX6	B6	60n	-MBX6 CORE DATA VALID -1 B H					
R165(1)	MBX3	D3	60n	MBX3 MB2 DATA CODE 1 H	R191(1)	MBX6	A6	60n	-MBX6 CORE DATA VALID B H					
R64(1)	MBX3	D3	60n	MBX3 MB2 DATA CODE 2 H	R219(1)	MBX6	C6	60n	MBX6 DIAG 04 H					
R150(1)	MBX3	D3	60n	MBX3 MB2 PAR H	R226(1)	MBX6	C6	60n	MBX6 DIAG 05 H					
R120(1)	MBX3	D2	60n	MBX3 MB3 DATA CODE 1 H	R225(1)	MBX6	B6	60n	MBX6 DIAG 06 H					
R160(1)	MBX3	D2	60n	MBX3 MB3 DATA CODE 2 H	R222(1)	MBX6	B6	60n	-MBX6 DIAG EN H					
R160(1)	MBX3	D2	60n	MBX3 MB3 PAR H	R179(1)	MBX5	C3	60n	-MCL2 VMA PAUSE H					

- NOTE:
1. ALL TERMINATORS HAVE PIN TWO CONNECTED TO -2.0V AND ARE 5X 1/4WATT UNLESS OTHERWISE SPECIFIED
  2. ENTRIES ARE SORTED BY SIGNAL NAME
  3. X INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER
  4. R212 AND R213 ARE NOT TO BE USED OR INSTALLED

D  
C  
V  
B  
A

REV. 1  
MBX29-YA-RES

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. G. Smith	DATE 12-01-76	ENG. J.D. Allen	DATE 12-01-76	TITLE: MBOX CONTROL TERMINATORS
	DATE 11-20-76	DATE 11-20-76	DATE 11-20-76	DATE 11-20-76	DATE 11-20-76
FIRST USED ON OPTION/MODEL: KL10					18-DD-M0529-YA
SIZE	CODE	NUMBER	REV.		
D	CS	M8529-YA-RES			



REV. NUMBER M8531-YA BDD SIZE CODE

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS
			MODULE REVISION	A
D-UA-M8531-YA-Ø	5		M BOX CONTROL #3	-
D-CS-M8531-YA-MBC1	1		CSH ADR MIX, EBUS & PMA HOLD REG	-
D-CS-M8531-YA-MBC2	1		CACHE WR PULSE, CSH DATA CLR	-
D-CS-M8531-YA-MBC3	1		DATA VAL OUT, CLK, PHS, MEM START	-
D-CS-M8531-YA-MBC4	1		MEM REQUEST, ACK & DAT VAL CTRS	-
D-CS-M8531-YA-MBC5	1		FORCE VAL MATCH & MBC DIAG MIX	-
D-CS-M8531-YA-MBC6	1		MBC MBOX CONTROL PWR, GND, CAPS	-
D-CS-M8531-YA-RES	2		MBC MBOX CONTROL TERMINATORS	-
D-AH-M8531-Ø-5	4		M BOX CONTROL #3	B
		5010694	ETCHED CIRCUIT BOARD	C
M8531-Ø-L			P.C. DESIGN DATA BASE	REF
M8531-YA-PL			INSERTION P/L DATA BASE	REF
POO-M8531-YA			PROCESS SHEET	REF

NOTES:

REVISIONS  
DATE CHG NO. REV. X  
ORIG X

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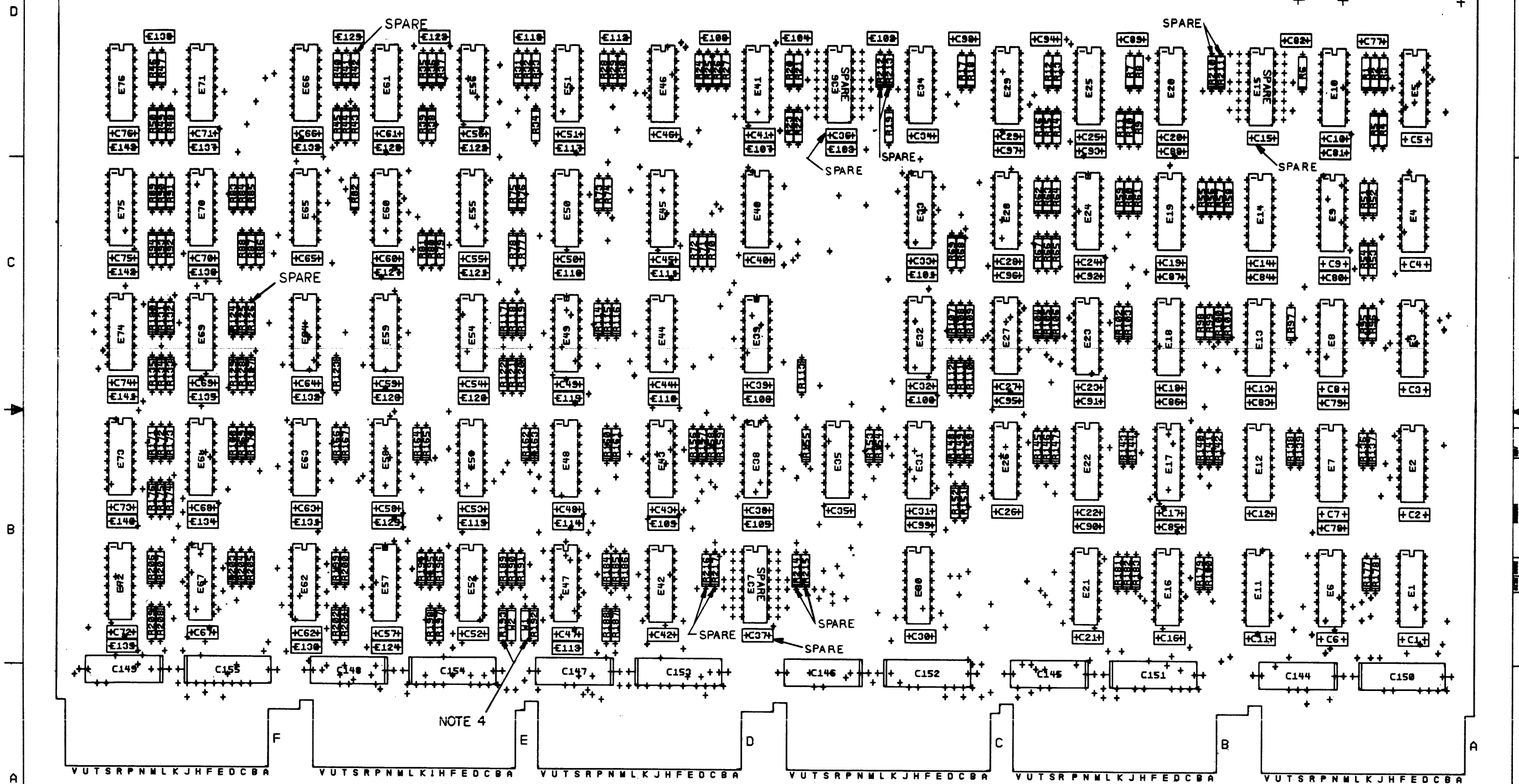
USED ON OPTION/MODEL	DRN: M. Pasarelli	11 OCT 76	TITLE
KL1Ø-DA, DB	CHK'D: [Signature]	11 OCT 76	M BOX CONTROL #3
KL1Ø-EA, EB	ENG: J.D. Allen	8 Dec 76	SIZE CODE
KL1Ø-PV	PROD: W. Embrey	8 Dec 76	BDD
			NUMBER
			M8531-YA
			REV.
			SHEET 1 OF 1

MR

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SPECIFICALLY STATES OTHERWISE IN ALL OF  
ITS RECORDS. DATE OF DECLASSIFICATION IS 01-01-2001

24 (QTY 12)

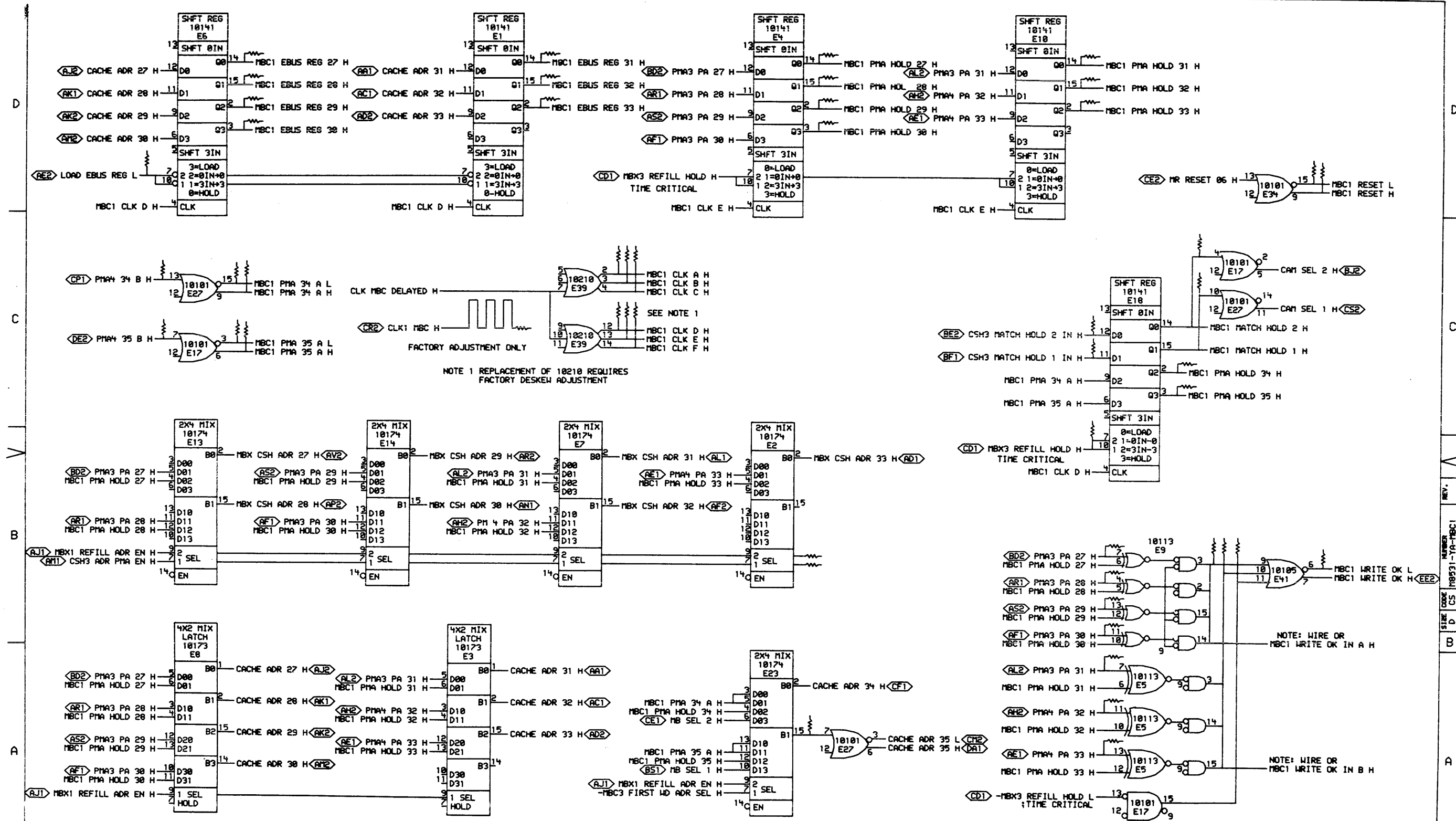
23



NOTES:


CHG	NO	REV

SIGNATURES		DATE
DRN. <i>[Signature]</i>	<i>[Signature]</i>	2/27/76
CHK'D <i>[Signature]</i>	<i>[Signature]</i>	2/27/76
ENG. <i>[Signature]</i>	<i>[Signature]</i>	2/27/76
PROJ. ENG. <i>[Signature]</i>	<i>[Signature]</i>	2/27/76
PROD. <i>[Signature]</i>	<i>[Signature]</i>	2/27/76
TITLE		
MBOX CONTROL #3		
SCALE 2/1/1	SIZE CODE	NUMBER
SHT. 2 OF 5	D	UA M8531-YA-0
ETCH REV	FIRST USED ON	B-DD-M8531-YA

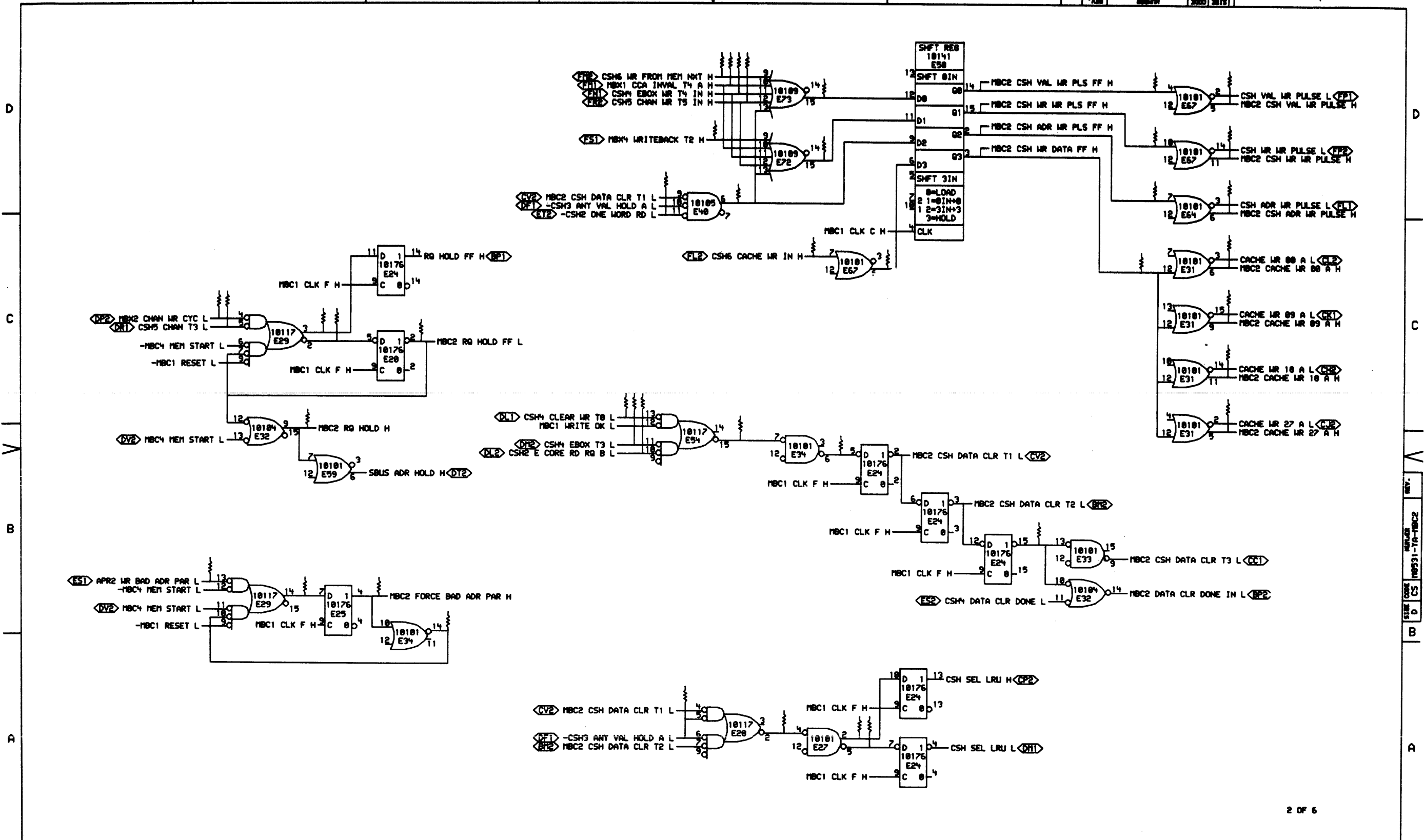


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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>J. Smith</i>	DATE 10-NOV-76	ENG. <i>A.D. Allen</i>	DATE 23-NOV-76	TITLE: CSH ADR MIX, EBUS & PMA HOLD REG
	CHK. <i>W. Johnson</i>	DATE 11/16	BOARD LOCATION: 4AF22	SHEET 1 OF 6	
FIRST USED ON OPTION/MODEL: KL10PV		89-NOV-76 08:44	NEXT HIGHER ASSEMBLY: B-DD-M8531-YA	SIZE CODE: D CS	NUMBER: M8531-YA-MBC1

109

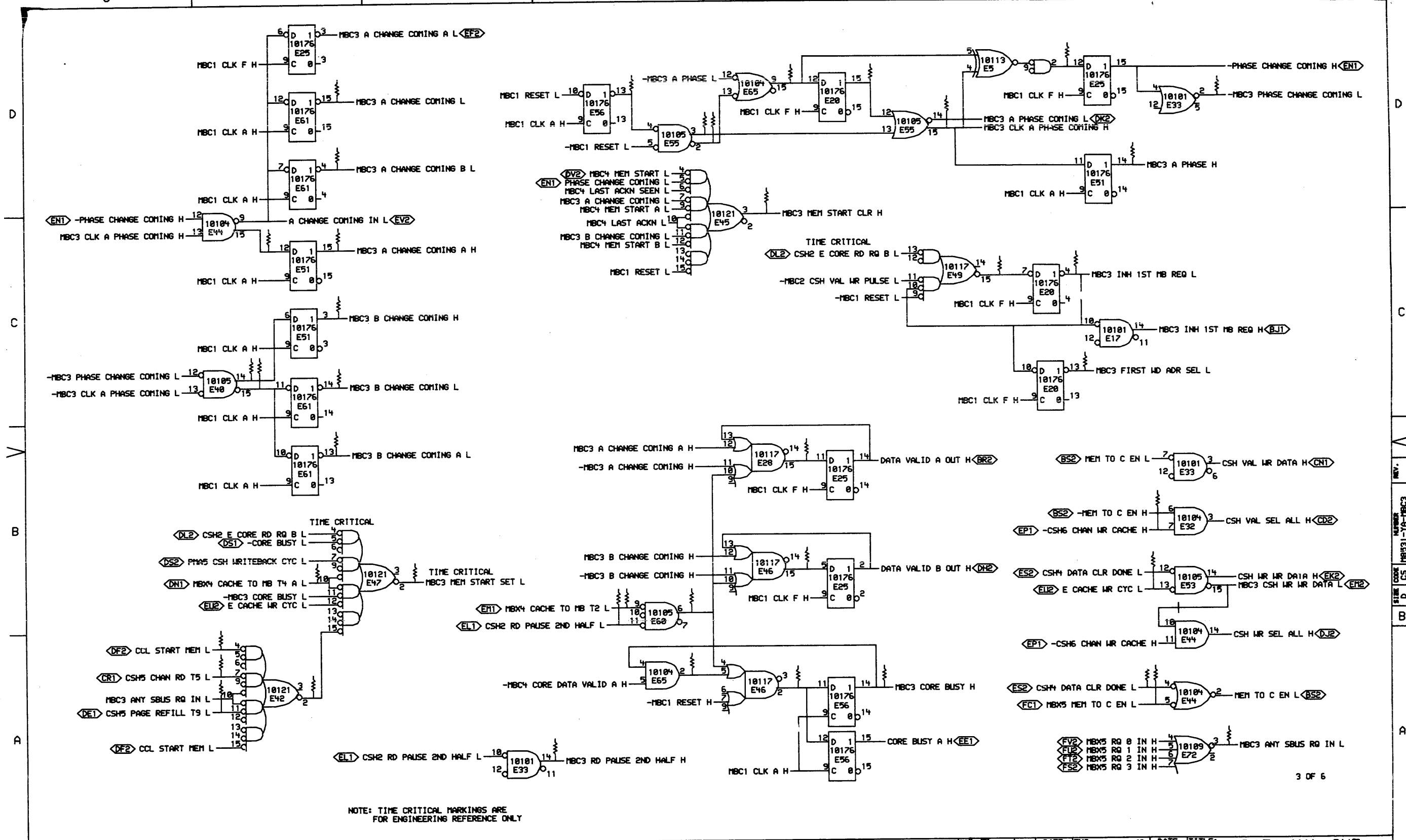


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REVISIONS	
CHK	CHANGE NO. REV.

	DATE: 18-NOV-76	ENG: A.D. Allen	DATE: 23-NOV-76	TITLE: CACHE WR PULSE, CSH DATA CLR
	DATE: 18-NOV-76	DESIGNER: [Signature]	DATE: 23-NOV-76	BOARD LOCATION: 48F22
FIRST USED ON OPTION/MODEL: KL10PV			8-DD-M8531-YA	SIZE CODE: D CS
NUMBER: M8531-YA-MBC2				REV.:

REV. 1  
 M8531-YA-MBC2  
 CS  
 D



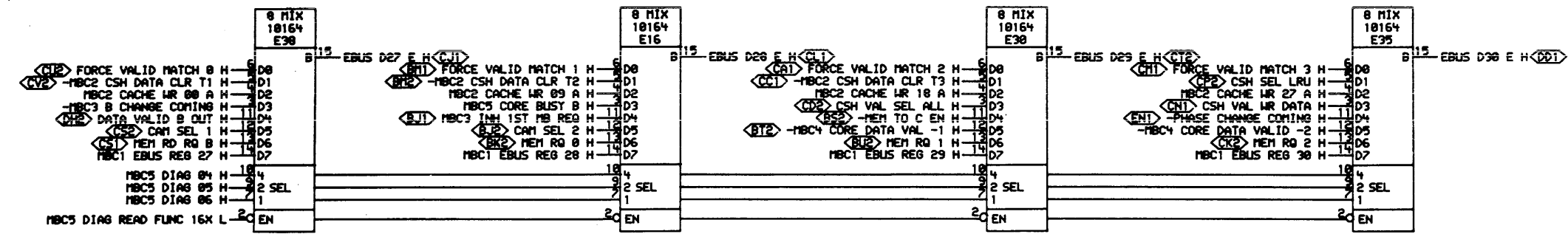
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REVISIONS		
CHK	CHANGE NO.	REV

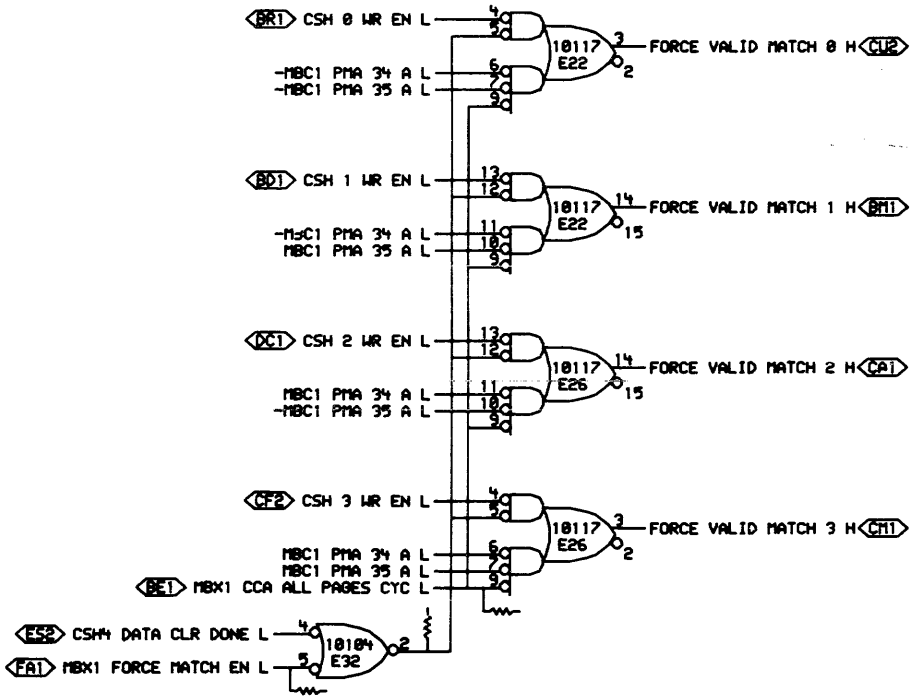
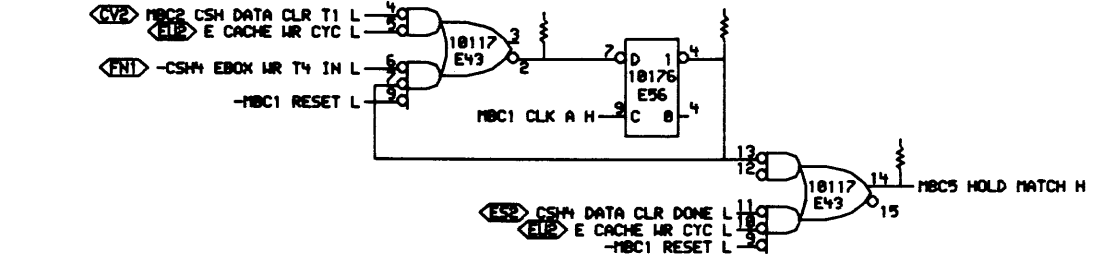
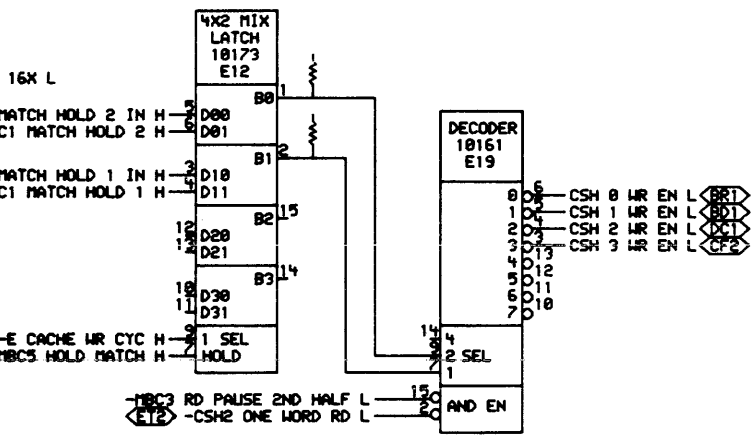
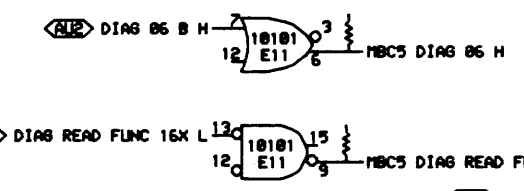
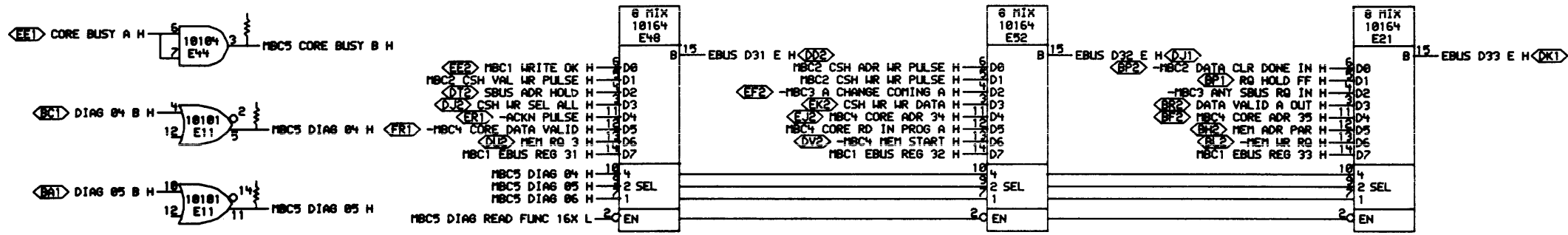
digital  
 DATE: 18 NOV 76  
 DATE: 23 Nov 76  
 TITLE: DATA VAL OUT, CLK, PHS, MEM START  
 BOARD LOCATION: 4AF22  
 SIZE: D CS  
 NUMBER: M8531-YA-MBC3  
 REV: 1  
 FIRST USED ON OPTION/MODEL: KL10PV  
 B-DD-M8531-YA

REV. NUMBER M8531-YA-MBC3





NOTE: DIAGNOSTIC MIXERS USE FUNCTIONS 160-167

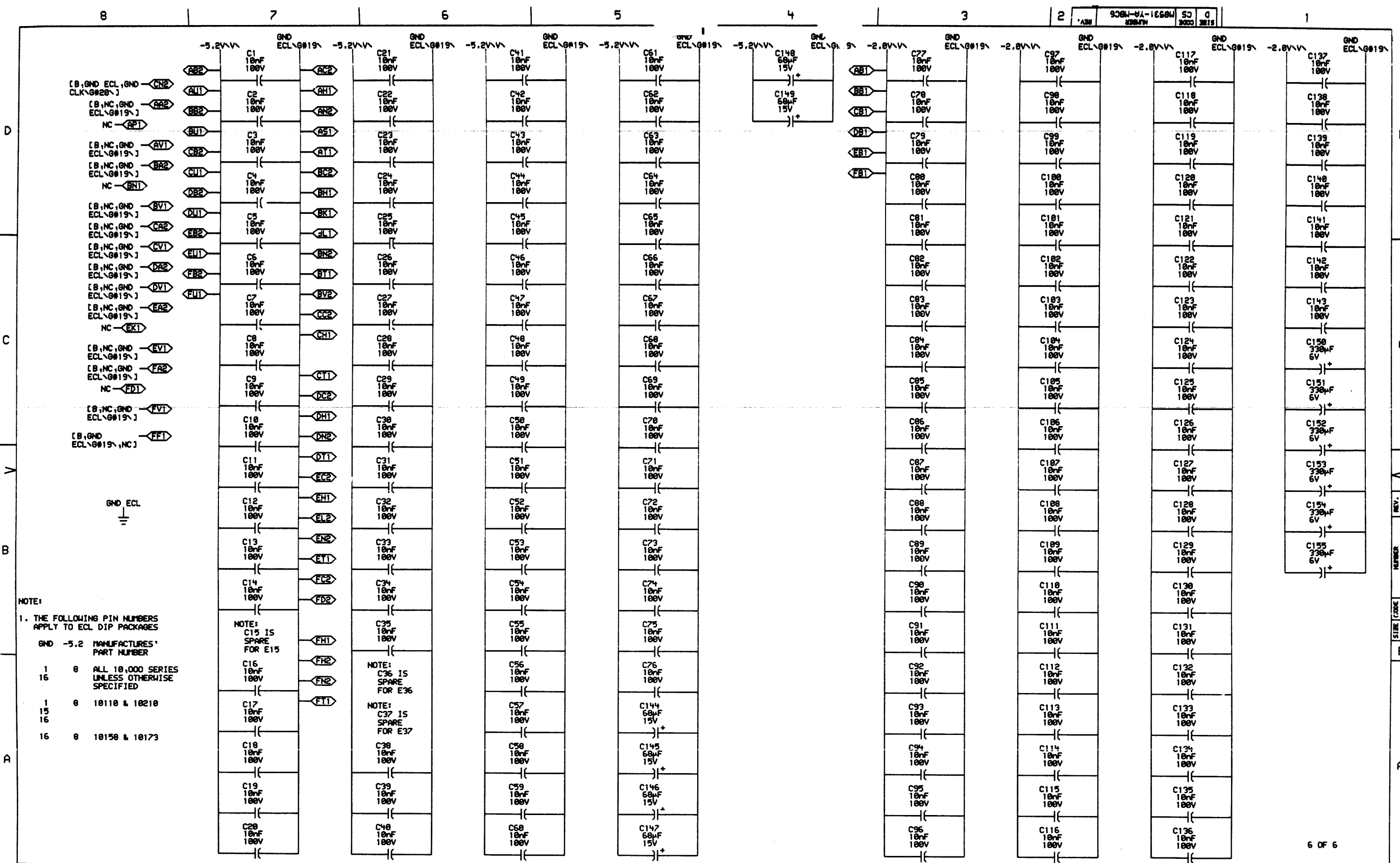


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REVISIONS	
CHK	CHANGE NO. / REV

digital	DATE: 10-20-76	ENG: A.D. [Signature]	DATE: 10-20-76	TITLE: FORCE VAL MATCH & MBC DIAG MIX
CHK: [Signature]	DATE: 10/20/76	BOARD LOCATION: 10E22	REV: 1	
FIRST USED ON OPTION/MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-M8531-YA		

SIZE	CODE	NUMBER	REV.
D	CS	M8531-YA-MBC5	



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
1	8	10110 & 10210
15	8	
16	8	10150 & 10173

NOTE:  
 C15 IS SPARE FOR E15  
 C16 10nF 100V  
 C17 10nF 100V  
 C18 10nF 100V  
 C19 10nF 100V  
 C20 10nF 100V

NOTE:  
 C36 IS SPARE FOR E36  
 C37 IS SPARE FOR E37  
 C38 10nF 100V  
 C39 10nF 100V  
 C40 10nF 100V

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REVISIONS		
CHK	CHANGE NO.	REV

	DR. J. Family DATE 10-20-76 BY M. Henderson SHEET 1 OF 1	ENG. P. D. Allen DATE 23 Nov 76 BOARD LOCATION: 4AF22	TITLE: MBC MBOX CONTROL PWR, GND, CAPS
	PCB REF. DR. 4, 1251 FIRST USED ON OPTION MODEL: KL10PV	18 NOV 76 19:04 NEXT HIGHER ASSEMBLY: B-DD-M8531-YA	SIZE CODE D CS M8531-YA-MBC6

REV. 1  
 CS M8531-YA-MBC6



3

7

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REV. NUMBER D CS M8531-YA-RES

D  
C  
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D  
C  
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B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R56(1)	MBC5	B5	68n	%E12(1)	R67(1)	MBC3	B5	68n	%E60(6)	R39(1)	MBC1	C5	68n	MBC1 CLK A H	R114(1)	MBC2	D2	68n	MBC2 CSH VAL WR PULSE H
R60(1)	MBC5	B5	68n	%E12(2)	R131(1)	MBC4	A4	68n	%E64(2)	R47(1)	MBC1	C5	68n	MBC1 CLK B H	R149(1)	MBC2	C2	68n	MBC2 CSH WR DATA FF H
R21(1)	MBC1	B2	68n	%E17(15)	R128(1)	MBC4	B4	68n	%E65(14)	R200(1)	MBC1	C5	68n	MBC1 CLK C H	R204(1)	MBC2	D2	68n	MBC2 CSH WR WR PLS FF H
R75(1)	MBC3	D3	68n	%E20(15)	R30(1)	MBC3	A5	68n	%E65(2)	R178(1)	MBC1	C5	68n	MBC1 CLK D H	R196(1)	MBC2	D2	68n	MBC2 CSH WR WR PULSE H
R110(1)	MBC1	A4	68n	%E23(15)	R80(1)	MBC4	B5	68n	%E65(3)	R6(1)	MBC1	C5	68n	MBC1 CLK E H	R170(1)	MBC2	B6	68n	MBC2 FORCE BAD ADR PAR H
R112(1)	MBC2	B3	68n	%E24(15)	R3(1)	MBC3	D4	68n	%E65(9)	R10(1)	MBC1	C5	68n	MBC1 CLK F H	R40(1)	MBC2	B7	68n	MBC2 RQ HOLD H
R66(1)	MBC2	A4	68n	%E27(2)	R201(1)	MBC4	D2	68n	%E67(15)	R157(1)	MBC1	D7	68n	MBC1 EBUS REG 27 H	R100(1)	MBC2	C6	68n	-MBC2 RQ HOLD FF H
R65(1)	MBC2	A4	68n	%E27(5)	R167(1)	MBC2	C3	68n	%E67(6)	R100(1)	MBC1	D7	68n	MBC1 EBUS REG 28 H	R62(1)	MBC3	D7	68n	-MBC3 A CHANGE COMING H
R11(1)	MBC3	B4	68n	%E28(15)	R205(1)	MBC4	D2	68n	%E67(9)	R151(1)	MBC1	D7	68n	MBC1 EBUS REG 29 H	R63(1)	MBC3	C7	68n	MBC3 A CHANGE COMING A H
R109(1)	MBC2	A4	68n	%E28(2)	R129(1)	MBC4	B4	68n	%E70(14)	R154(1)	MBC1	D7	68n	MBC1 EBUS REG 30 H	R44(1)	MBC3	D7	68n	MBC3 A CHANGE COMING B H
R14(1)	MBC2	B7	68n	%E29(14)	R92(1)	MBC4	C4	68n	%E70(2)	R160(1)	MBC1	D6	68n	MBC1 EBUS REG 31 H	R87(1)	MBC3	D2	68n	MBC3 A PHASE H
R8(1)	MBC2	C7	68n	%E29(2)	R166(1)	MBC4	C4	68n	%E70(3)	R195(1)	MBC1	D6	68n	MBC1 EBUS REG 32 H	R101(1)	MBC3	A1	68n	-MBC3 ANY SBUS RQ IN H
R59(1)	MBC2	C7	68n	%E29(3)	R165(1)	MBC2	D4	68n	%E72(15)	R102(1)	MBC1	D6	68n	MBC1 EBUS REG 33 H	R24(1)	MBC3	C7	68n	MBC3 B CHANGE COMING H
R143(1)	MBC5	A2	68n	%E32(2)	R164(1)	MBC2	D4	68n	%E73(15)	R140(1)	MBC1	C2	68n	MBC1 MATCH HOLD 1 H	R150(1)	MBC3	B7	68n	-MBC3 B CHANGE COMING H
R16(1)	MBC2	B6	68n	%E34(14)	R133(1)	MBC4	C4	68n	%E74(2)	R100(1)	MBC1	C7	68n	MBC1 PMA 34 A H	R4(1)	MBC3	D3	68n	MBC3 CLK A PHASE COMING H
R64(1)	MBC2	B4	68n	%E34(6)	R89(1)	MBC4	A4	68n	%E74(7)	R150(1)	MBC1	C7	68n	-MBC1 PMA 34 A H	R191(1)	MBC3	A3	68n	MBC3 CORE BUSY H
R32(1)	MBC3	C7	68n	%E40(14)	R49(1)	MBC4	A3	68n	%E75(14)	R146(1)	MBC1	C7	68n	MBC1 PMA 35 A H	R105(1)	MBC3	C2	68n	-MBC3 FIRST HD ADR SEL H
R35(1)	MBC3	C7	68n	%E40(15)	R15(1)	MBC2	B7	68n	-APR2 WR BAD A.R. PAR H	R145(1)	MBC1	C7	68n	-MBC1 PMA 35 A H	R115(1)	MBC3	C2	68n	-MBC3 INH 1ST MB REQ H
R206(1)	MBC2	D4	68n	%E40(6)	R106(1)	MBC3	A7	68n	-CCL START MEM H	R101(1)	MBC1	D4	68n	MBC1 PMA HOLD 27 H	R73(1)	MBC3	C4	68n	MBC3 MEM START CLR H
R27(1)	MBC4	C7	68n	%E41(14)	R113(1)	MBC1	C6	68n	CLK1 MBC H	R97(1)	MBC1	D4	68n	MBC1 PMA HOLD 28 H	R74(1)	MBC3	B6	68n	-MBC3 MEM START SET H
R36(1)	MBC4	C6	68n	%E41(2)	R121(1)	MBC2	C5	68n	-CSH2 E CORE RD RQ B H	R95(1)	MBC1	D4	68n	MBC1 PMA HOLD 29 H	R20(1)	MBC3	D1	68n	MBC3 PHASE CHANGE COMING H
R37(1)	MBC4	C6	68n	%E41(3)	R61(1)	MBC2	D5	68n	CSH2 ONE WORD RD H	R96(1)	MBC1	D4	68n	MBC1 PMA HOLD 30 H	R55(1)	MBC3	A5	68n	MBC3 RD PAUSE 2ND HALF H
R105(1)	MBC3	A7	68n	%E42(2)	R69(1)	MBC3	B5	68n	-CSH2 RD PAUSE 2ND HALF H	R139(1)	MBC1	D3	68n	MBC1 PMA HOLD 31 H	R46(1)	MBC4	A1	68n	MBC4 ADR 34 H
R38(1)	MBC5	A6	68n	%E43(2)	R57(1)	MBC1	B4	68n	CSH3 ADR PMA EN H	R136(1)	MBC1	D3	68n	MBC1 PMA HOLD 32 H	R160(1)	MBC4	A1	68n	MBC4 ADR 35 H
R20(1)	MBC3	C7	68n	%E44(15)	R68(1)	MBC2	A5	68n	CSH3 ANT VAL HOLD A H	R137(1)	MBC1	D3	68n	MBC1 PMA HOLD 33 H	R132(1)	MBC4	C4	68n	MBC4 ANT REQUEST
R13(1)	MBC3	B4	68n	%E46(15)	R99(1)	MBC1	C2	68n	CSH3 MATCH HOLD 1 IN H	R106(1)	MBC1	C2	68n	MBC1 PMA HOLD 34 H	R90(1)	MBC4	C3	68n	-MBC4 ANT RQS LEFT H
R31(1)	MBC3	A4	68n	%E46(2)	R98(1)	MBC1	C2	68n	CSH3 MATCH HOLD 2 IN H	R102(1)	MBC1	C2	68n	MBC1 PMA HOLD 35 H	R153(1)	MBC4	B6	68n	-MBC4 CORE DATA VALID -2 H
R9(1)	MBC3	C3	68n	%E49(15)	R118(1)	MBC2	C5	68n	-CSH4 CLEAR WR T0 H	R79(1)	MBC1	D1	68n	MBC1 RESET H	R05(1)	MBC4	A6	68n	-MBC4 CORE DATA VALID A H
R7(1)	MBC3	D2	68n	%E5(2)	R107(1)	MBC3	A2	68n	-CSH4 DATA CLR DONE H	R83(1)	MBC1	D1	68n	-MBC1 RESET H	R135(1)	MBC4	A6	68n	-MBC4 CORE RD IN PROG H
R33(1)	MBC4	D7	68n	%E50(14)	R122(1)	MBC2	C5	68n	-CSH4 EBOX T3 H	R117(1)	MBC1	B1	68n	-MBC1 WRITE OK H	R192(1)	MBC4	A6	68n	MBC4 CORE RD IN PROG A H
R34(1)	MBC4	D7	68n	%E50(3)	R161(1)	MBC2	D4	68n	CSH4 EBOX WR T4 IN H	R22(1)	MBC1	B2	68n	MBC1 WRITE OK IN A H	R29(1)	MBC4	B2	68n	MBC4 INIT COMP H
R120(1)	MBC4	C7	68n	%E53(3)	R107(1)	MBC3	A7	68n	-CSH5 CHAN RD T5 H	R23(1)	MBC1	B2	68n	MBC1 WRITE OK IN B H	R02(1)	MBC4	B2	68n	-MBC4 INIT COMP H
R119(1)	MBC4	C7	68n	%E53(6)	R18(1)	MBC2	C7	68n	-CSH5 CHAN T3 H	R159(1)	MBC2	C2	68n	MBC2 CACHE WR 00 A H	R25(1)	MBC4	C7	68n	MBC4 LAST ACKN H
R19(1)	MBC2	B4	68n	%E54(15)	R171(1)	MBC2	D4	68n	CSH5 CHAN WR T5 IN H	R179(1)	MBC2	C2	68n	MBC2 CACHE WR 09 A H	R72(1)	MBC4	C7	68n	-MBC4 LAST ACKN H
R04(1)	MBC3	D4	68n	%E55(2)	R100(1)	MBC3	A7	68n	-C4H5 PAGE REFILL T9 H	R152(1)	MBC2	C2	68n	MBC2 CACHE WR 10 A H	R70(1)	MBC4	C6	68n	MBC4 LAST ACKN SEEN H
R76(1)	MBC3	D4	68n	%E55(3)	R200(1)	MBC2	C4	68n	CSH6 CACHE WR IN H	R155(1)	MBC2	C2	68n	MBC2 CACHE WR 27 A H	R26(1)	MBC4	C6	68n	-MBC4 LAST ACKN SEEN H
R93(1)	MBC4	B3	68n	%E55(7)	R140(1)	MBC3	B2	68n	-C4H6 CHAN WR CACHE H	R123(1)	MBC2	D2	68n	MBC2 CSH ADR WR PLS FF H	R12(1)	MBC4	D6	68n	MBC4 MEM START H
R00(1)	MBC3	D5	68n	%E56(13)	R174(1)	MBC2	D4	68n	CSH6 WR FROM MEM NXT H	R190(1)	MBC2	D2	68n	MBC2 CSH ADR WR PULSE H	R71(1)	MBC4	D6	68n	-MBC4 MEM START A H
R156(1)	MBC5	A6	68n	%E56(4)	R130(1)	MBC3	B2	68n	-E CACHE WR CYC H	R207(1)	MBC2	D2	68n	MBC2 CSH VAL WR PLS FF H	R70(1)	MBC4	D6	68n	-MBC4 MEM START B H
R50(1)	MBC4	A3	68n	%E60(3)	R177(1)	MBC1	D8	68n	-LOAD EBUS REG 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. <i>S. Smith</i>	DATE 10-NOV-76	ENG. <i>J. D. Allen</i>	DATE 23-NOV-76	TITLE: MBC MBOX CONTROL TERMINATORS
	CHK'D <i>Ed. Ste...</i>	DATE 11/11/76	SHEET 1 OF 2	BOARD LOCATION: 4A22	
FIRST USED ON OPTION/MODEL: KL10PV		NEXT HIGHER ASSEMBLY: B-DD-M8531-YA		SIZE CODE D CS	NUMBER M8531-YA-RES

195

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MR

D

C

B

A

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	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 BUSY 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					
R81(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	MEM ACKN H					
R41(1)	MBC4	B7	68n	-MEM 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

D

C

B

A

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REVISIONS		
CH.	CHANGE NO.	REV.

digital	DR. <i>G. Smith</i>	DATE 18-NOV-76	ENG. <i>D. J. Allen</i>	DATE 23 Nov 76	TITLE: MBC MBOX CONTROL TERMINATORS
	CHK'D BY <i>W. Stephens</i>	DATE 11-11-76	BOARD LOCATION: 4AF22	2 OF 2	
F85312.DRAW 4.1793			118-NOV-76 17:16		NEXT HIGHER ASSEMBLY:
FIR'T USED ON OPTION/MODEL: KL10PV			B-DD-M8531-YA		SIZE CODE D CS
				NUMBER	REV.
				M8531-YA-RES	

DRAWING NUMBER PAGES PART NO. DESCRIPTION REVISIONS

FILE: ORIGINAL LAYOUT

ECO NUMBER 1 1A 2 3 3A 4 5 6

MODULE REVISION A B B C D D D D D1

D-UA-M8532-0-0	8		PI LOGIC BOARD	*	A	A	B	C	C	D	D1	D2
K-PL-M8532-0-DBP	2		PI LOGIC BOARD	*	*	*	*	*	*	*	*	D2
D-CS-M8532-0-PIC1	1		PRIORITY INTERRUPT REG.	*	*	*	A	A	A	A	A1	A1
D-CS-M8532-0-PIC2	1		PRIORITY INTERRUPT DEVICE SELECTION	*	*	*	A	B	B	B	B1	B2
D-CS-M8532-0-PIC3	1		PRIORITY INTERRUPT CHANNELS	*	A	A	B	C	C	C	C1	C1
D-CS-M8532-0-PIC4	1		PRIORITY INTERRUPT EBUS INTERFACE	*	*	*	A	B	B	B	B1	B1
D-CS-M8532-0-PIC5	1		PRIORITY INTERRUPT CONTROL	*	*	*	A	B	B	B	B1	B2
D-CS-M8532-0-PIC6	1		POWER. GND. CAPS.	*	*	*	A	A	A	A	A1	A1
D-CS-M8532-0-RES	1		TERMINATORS	*	*	*	A	B	B	B	B1	B1
D-AH-M8532-0-5	4		PI LOGIC BOARD	A	A	A	A	A	A	A	A	A
K-CO-M8532-0-4	1	5010829	ETCH CIRCUIT BOARD	B	B	B	B	B	B	B	B	B
P00-M8532-00			PROCESS SHEET (REF ONLY)	B	B	B	B	B	B	B	B	B

NOTES:  
ECO 1A SUPPLEMENT  
ECO 3A SUPPLEMENT

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REVISIONS	
CHK	CHANGE NO. REV
27	M8532-MR006 F
28	26 OCT 78
29	26 OCT 78

**digital** DATE ENG 24-OCT-78 W. BRUCKERT DATE 1-24-75  
 CHK'D G.F. ANDERS DATE BOARD LOCATION: N/A  
 DSK: 0532DD.T2P(4,615) 24-OCT-78 13:47 NEXT HIGHER ASSEMBLY:  
 FIRST USED ON OPTION/MODEL: KL10 NONE

TITLE: PI LOGIC BOARD	
SIZE CODE	NUMBER
D DD	M8532-0
REV.	F

MR

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REWORK INSTRUCTIONS

ECO #2 = ○

DELETES SIDE 1 AS SHOWN:

1. DELETE WIRE ITEM(26) FROM E7(12) TO E8(11); \*4 WIRE OF PREVIOUS ECO.
2. DELETE WIRE ITEM(26) FROM E8(11) TO E9(4); \*5 WIRE OF PREVIOUS ECO.
3. DELETE R79
4. DELETE R126
5. DELETE R121
6. DELETE R184

ETCH CUTS SIDE 1 AS SHOWN:

1. CUT ETCH AT E37(12).
2. CUT ETCH TO LEFT OF E6(16).
3. CUT ETCH RUNNING BETWEEN E12(15) AND E12(16).
4. CUT ETCH AT E15(11).

ETCH CUTS SIDE 2 AS SHOWN:

1. CUT ETCH AT E8(10).
2. CUT ETCH AT PTH. TO RIGHT OF E7(16).
3. CUT ETCH AT E8(14).
4. CUT ETCH AT E15(15).
5. CUT ETCH TO THE LEFT OF E13(11).
6. CUT ETCH AT E43(11).
7. CUT ETCH AT E7(5).
8. CUT ETCH AT E37(12).

COMPONENT ADDS SIDE 1 AS SHOWN:

1. ADD DEC 10104 (ITEM 8) TO SPARE AT E5.
2. ADD R296 (ITEM 27) WRAP LEAD OF R296 AROUND LEAD OF R262 & SOLDER. CUT OTHER END OF R296 1/4 IN.
3. ADD R297 (ITEM 27) WRAP LEAD OF R297 AROUND LEAD OF R2 & SOLDER. CUT OTHER END OF R297 1/4 IN.
4. ADD R298 (ITEM 27) WRAP LEAD OF R298 AROUND LEAD OF R2 & SOLDER. CUT OTHER END OF R298 1/4 IN.

WIRE ADDS SIDE 1 AS SHOWN:

1. ADD WIRE (ITEM 30) E37(12) TO E37(13).
2. ADD WIRE (ITEM 30) E7(5) TO E6(14).
3. ADD WIRE (ITEM 30) E15(15) TO E8(11).
4. ADD WIRE (ITEM 30) E15(5) TO E8(11).
5. ADD WIRE (ITEM 30) E8(14) TO E13(10).
6. ADD WIRE (ITEM 30) E12(2) TO E15(11).
7. ADD TWP (ITEM 31)
  - A. WHITE WIRE TO E5(2).
  - B. GREEN WIRE TO E5(16).
  - C. WHITE WIRE TO E7(5).
  - D. GREEN WIRE TO E7(1).
8. ADD TWP (ITEM 31)
  - A. WHITE WIRE TO PTH ABOVE E7.
  - B. GREEN WIRE TO E7(16).
  - C. WHITE WIRE TO E5(4).
  - D. GREEN WIRE TO E5(1).
9. ADD TWP (ITEM 31)
  - A. WHITE WIRE TO PTH TO THE LEFT OF R125.
  - B. GREEN WIRE TO E23(16).
  - C. WHITE WIRE TO E5(5).
  - D. GREEN WIRE TO E5(1).

10. ADD TWP (ITEM 31)

- A. WHITE WIRE TO E43(11).
- B. GREEN WIRE TO E43(16).
- C. WHITE WIRE TO E8(11).
- D. GREEN WIRE TO E8(16).

11. ADD TWP (ITEM 31)

- A. WHITE WIRE TO E7(12).
- B. GREEN WIRE TO E7(16).
- C. WHITE WIRE TO E9(4).
- D. GREEN WIRE TO E9(1).

12. ADD WIRE (ITEM 30) FROM 1/4 IN LEAD OF R296 TO E43(11).

13. ADD WIRE (ITEM 30) FROM 1/4 IN LEAD OF R297 TO E5(4).

14. ADD WIRE (ITEM 30) FROM 1/4 IN LEAD OF R298 TO E5(5).

ECO #3 = △

DELETE COMPONENTS SIDE 1 AS SHOWN.

1. REMOVE R85 ONLY IF BOARD IS SOLDERED.

ETCH CUTS SIDE 1 AS SHOWN:

1. AT PTH BELOW AND RIGHT OF E53(9).
2. AT E43(12).
3. AT PTH BELOW AND TO LEFT OF E11(8).
4. ETCH RUNNING FROM E13(4) TO R117 AT R117.
5. CUT ETCH RUNNING BELOW E19(8).
6. CUT ETCH UNDER R85 COMING LEFT FROM SECOND PTH OF E24(4).

ETCH CUTS SIDE 2 AS SHOWN:

1. AT E15(12).
2. AT E43(12).
3. AT PTH BELOW AND TO LEFT OF E47(9).

COMPONENTS ADDS SIDE 1 AS SHOWN:

1. ADD R85 ONLY IF BOARD IS SOLDERED.

WIRE ADDS SIDE 1 AS SHOWN: (9105740-55)

1. FROM E24(4) TO E19(7).
2. FROM E43(12) TO E43(13).

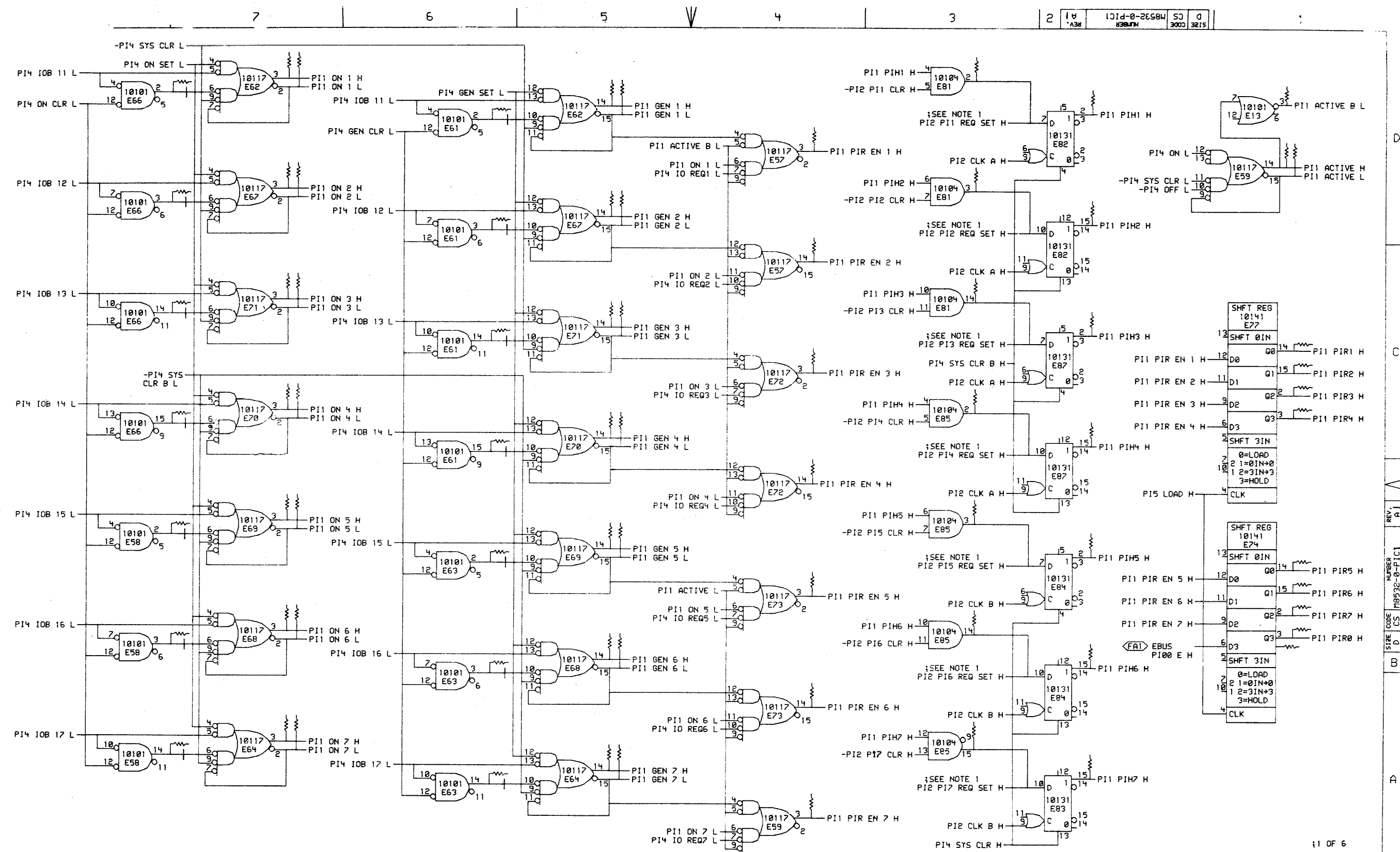
TWISTED PAIR WIRE ADDS SIDE 1 AS SHOWN: (9107768-59)

3. A. GRN FROM E53(16) TO E37(1). DO NOT SOLDER.
- B. WHT FROM PTH BELOW AND TO RIGHT OF E53(9) TO E37(4). DO NOT SOLDER.
4. A. GRN FROM E37(1) TO E11(1).
- B. WHT FROM E37(4) TO PTH BELOW AND TO LEFT OF E11(8).
5. A. GRN FROM E43(16) TO E13(1).
- B. WHT FROM E43(9) TO E13(4).
6. A. GRN FROM E15(16) TO E18(16).
- B. WHT FROM E15(12) TO R117.

ECO #4 = □  
DO NOT CHANGE ONLY

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
	FIRST USED ON OPTION/MODULE KLI0	PARTS LIST		
	ETCH BOARD REV			
	DRN. R.W. COUNTER	DATE 2-10-74	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
	CHK'D G. FLANDERS	DATE 1-27-75	TITLE PI LOGIC BOARD	
	ENG. W. BRUCKERT	DATE 1-24-75		
	PROJ. ENG. W. BRUCKERT	DATE 1-24-75		
	PROD. E. RECZEK	DATE 1-27-75		
	NEXT HIGHER ASSY	B-DD-M8532-0		
	SCALE	SIZE CODE NUMBER REV. DUA M8532-0-0 D2		
	SHEET 2 OF 3	DIST.		

REV. D2  
NUMBER 0-0  
SIZE CODE DUA M8532-0-0



NOTE 1: THESE SIGNALS ARE EMITTER ORED WITH SIGNALS GENERATED ON THE PIC2 PRINT

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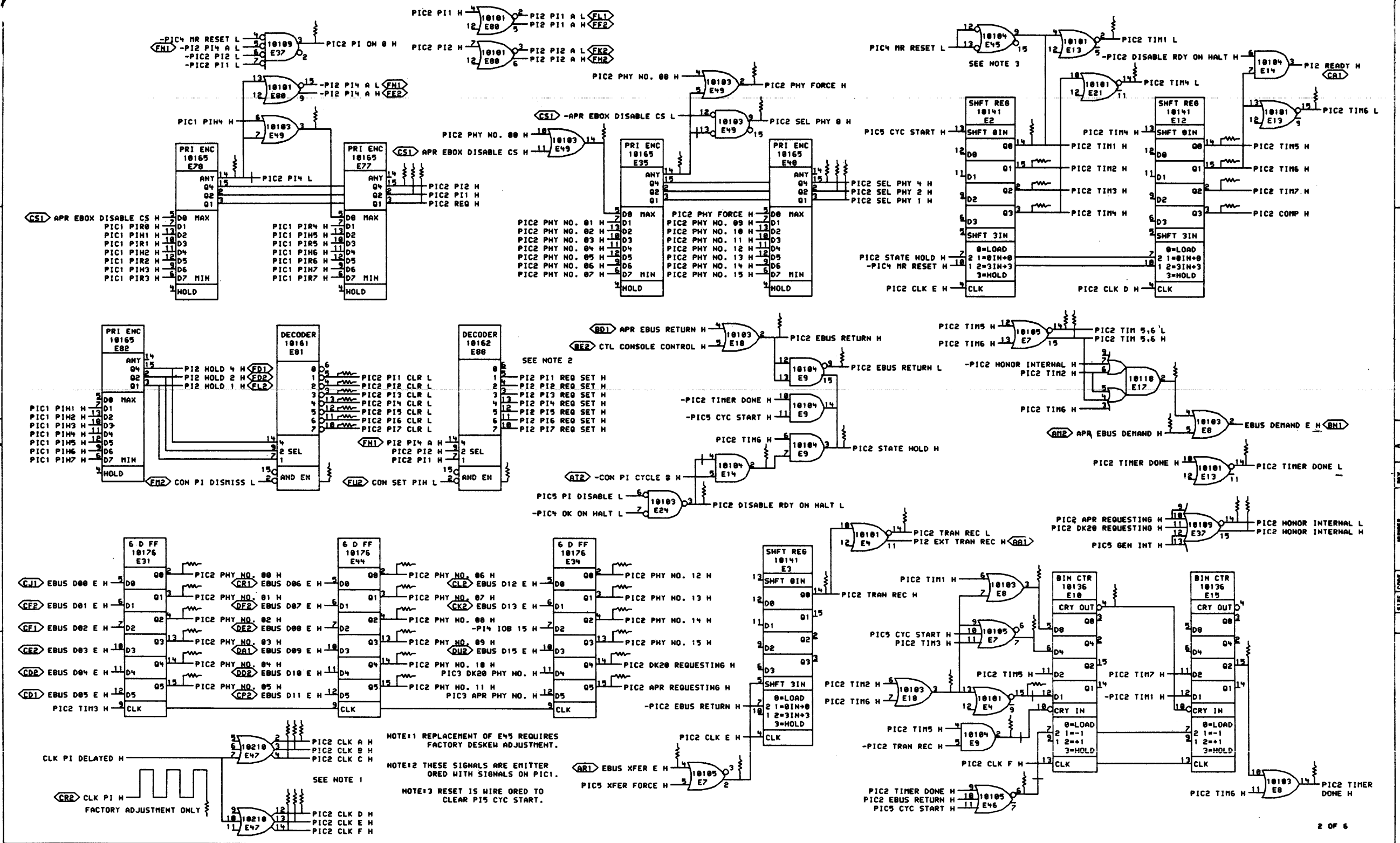
REVISIONS		M8532-0005/A1
CHK	CHANGE NO. REV	B.W.G. 11/23/77
		J. CALVO
		W. BRUCKERT

DRN.	DATE	ENG.	DATE	TITLE
4	5/12/75	F. F. F.	5/12/75	PRIORITY INTERRUPT REGISTERS
CHK				BOARD LOCATION: 4AF31
DATE	4/30/75			SHEET

PIIEXL4, 1201	88-APR-75 07:26	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL:	KL10	B-D-8532-0	D CS	M8532-0-PIC1	A1

199

REV. A1  
SIZE CODE CS M8532-0-PIC1

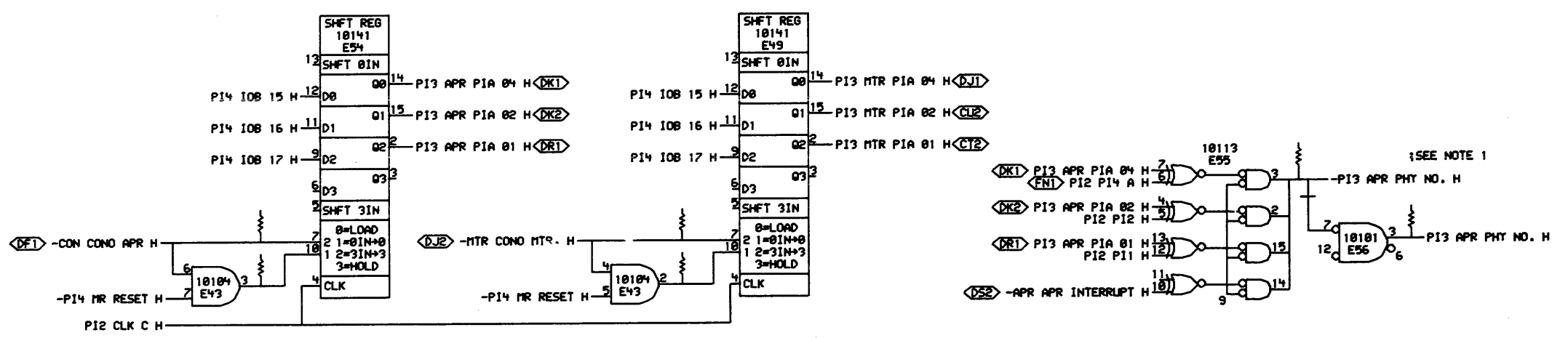
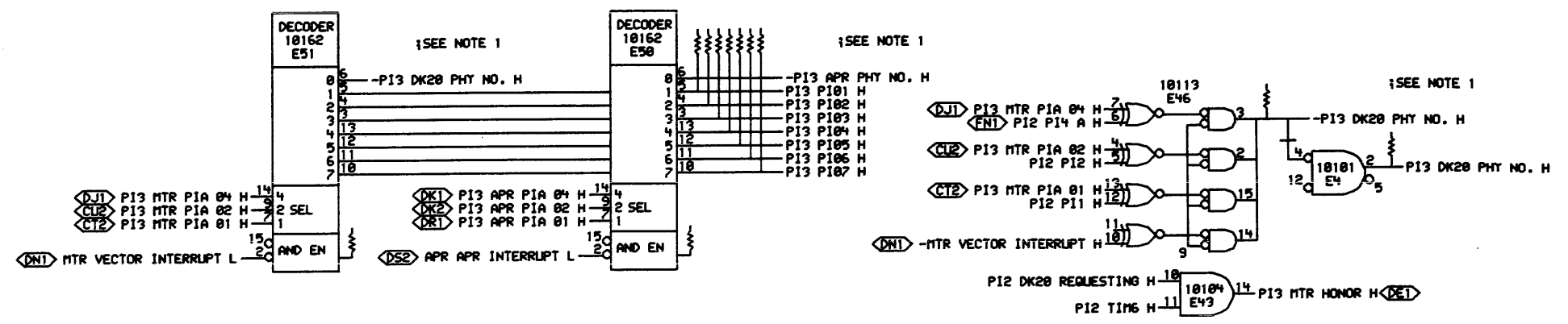


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REV	CHK	CHANGE NO.	REV
1	MR	1	B2
2	MR	2	B2

digital	DATE: 21-JUL-78	ENG: J. Bala	DATE: 10-27-78	TITLE: PRIORITY INTERRUPT DEVICE SELECTION
MODULE: M8532-PIC2	DATE: 12-1-78	13103	NEXT HIGHER ASSEMBLY:	SIZE: D
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8532-0			CODE: CS
				NUMBER: M8532-0-PIC2
				REV: B2

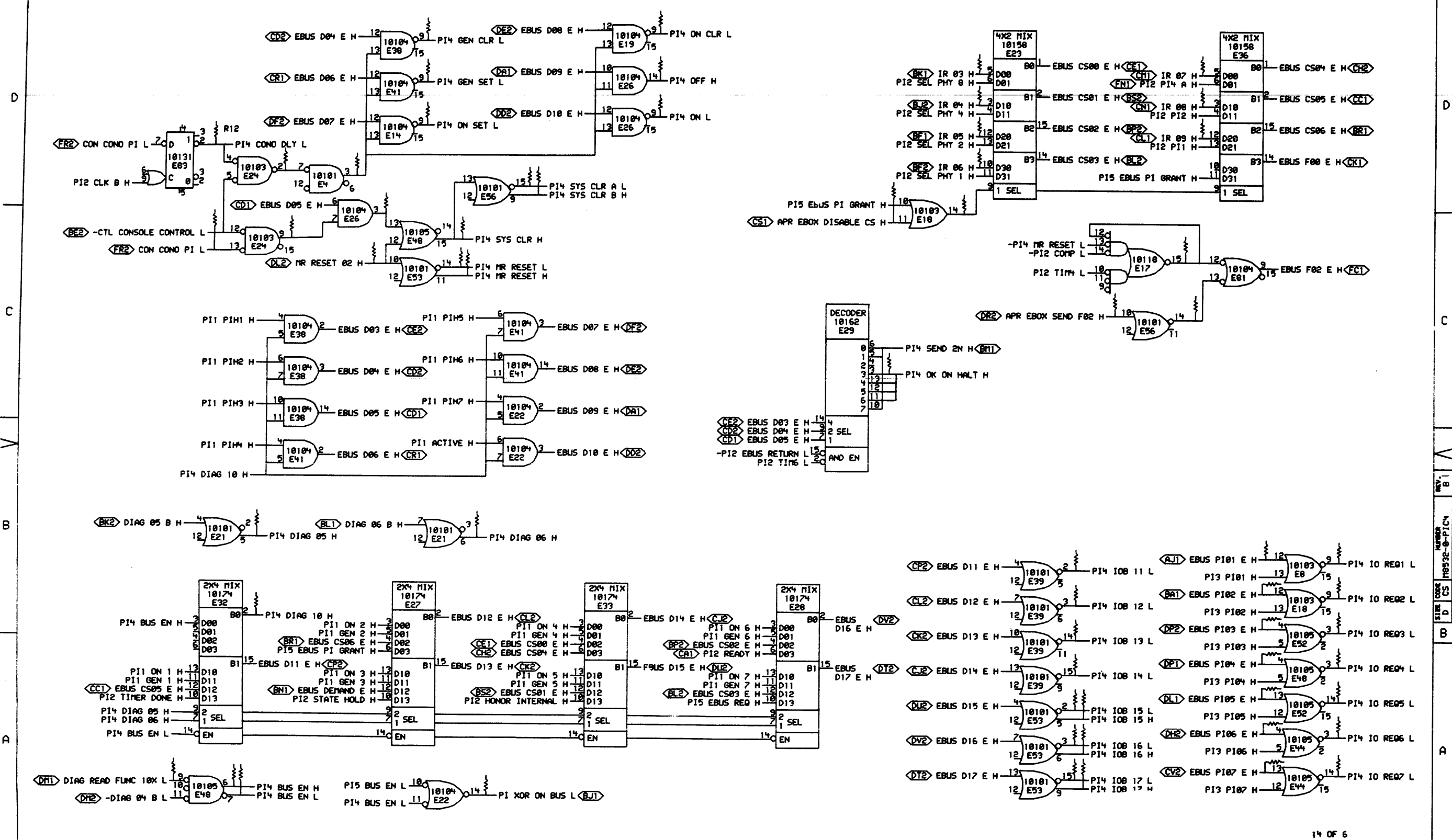
200



NOTE 1: THIS SIGNAL IS EMITTER ORED WITH ANOTHER GATE ON THIS PR

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REV. C1  
 NUMBER M8532-0-PIC3  
 CODE D CS  
 SIZE D



Legend for decoder and bus signals:

- CE2 EBUS D03 E H
- CE2 EBUS D04 E H
- CE1 EBUS D05 E H
- P12 EBUS RETURN L
- P12 TIME L

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REVISIONS		M8532-0005 B1
CHK	CHANGE NO.	REV
	M8532-00003	B
	W. BRULLETT	J. CALVO
	12/18/75	12/18/75

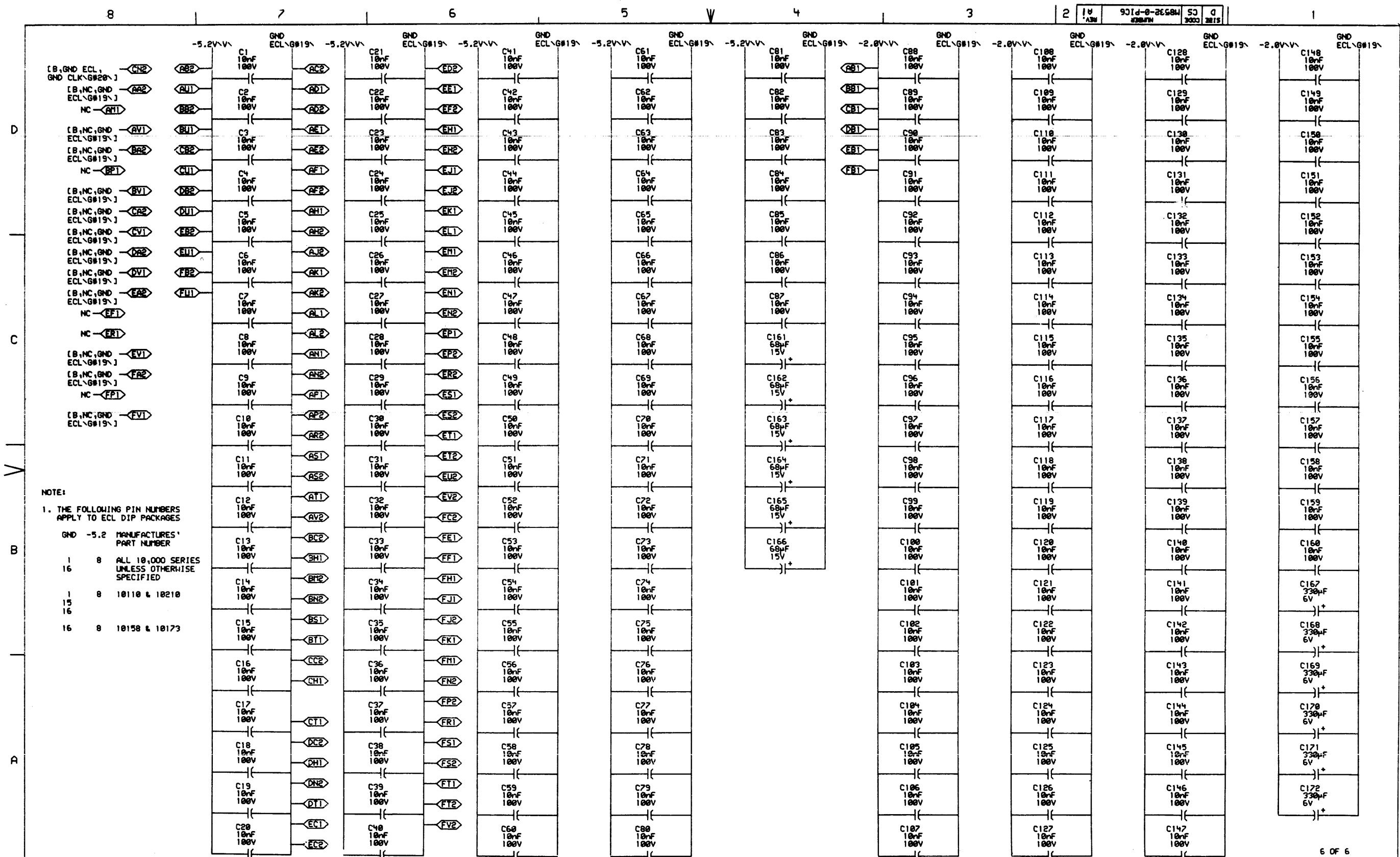
DATE	ENG.	DATE	ENG.
07-DEC-75	J. CALVO	12/18/75	J. CALVO
DATE	BOARD LOCATION	DATE	BOARD LOCATION
12/18/75	4A231	12/18/75	4A231
FIRST USED ON C-TION MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8532-0	

TITLE: PRIORITY INTERRUPT EBUS INTERFACE		SIZE CODE	NUMBER	REV.
P14X.DR4.1201		D CS	M8532-0-PIC4	B1

REV. B1  
 NUMBER M8532-0-PIC4  
 SIZE CODE D CS







NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173

REVISIONS		1M8532-0005A1
CHK	CHANGE NO.	REV
W. BRUCKERT	1	A
DATE		11-5-77

digital	DRN.	DATE	ENG.	DATE	TITLE
	W. BRUCKERT	5/12/75	V. BRUCKERT	5/12/75	PRIORITY INTERRUPT POWER, GND, CAPS
FIRST USED ON OPTION MODEL: KL19		NEXT HIGHER ASSEMBLY: B-DD-1M8532-0		SIZE CODE	NUMBER
D		CS		M8532-0-PIC6	

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R232(1)	P15EX	C2	60n	%E1(3)	R99(1)	P11EX	C7	60n	%E66(14)	R203(1)	P13EX	B5	60n	-MTR CONO MTR, H	R173(1)	P11EX	A2	60n	P11 PIH7 H
R8(1)	P12EX	B2	60n	%E10(4)	R154(1)	P11EX	C7	60n	%E66(15)	R91(1)	P13EX	C6	60n	-MTR VECTOR INTERRUPT H	R100(1)	P11EX	D4	60n	P11 PIR EN 1 H
R230(1)	P15EX	B3	60n	%E14(14)	R95(1)	P11EX	D7	60n	%E66(2)	R101(1)	P14EX	A6	60n	-PI XOR ON BUS H	R105(1)	P11EX	C4	60n	P11 PIR EN 2 H
R75(1)	P12EX	B4	60n	%E14(2)	R99(1)	P11EX	D7	60n	%E66(3)	R119(1)	P11EX	D1	60n	P11 ACTIVE H	R106(1)	P11EX	C4	60n	P11 PIR EN 3 H
R114(1)	P12EX	A1	60n	%E15(15)	R113(1)	P12EX	A4	60n	%E7(2)	R206(1)	P11EX	D1	60n	-P11 ACTIVE H	R107(1)	P11EX	B4	60n	P11 PIR EN 4 H
R235(1)	P15EX	D3	60n	%E16(14)	R5(1)	P12EX	A2	60n	%E7(7)	R60(1)	P11EX	D1	60n	-P11 ACTIVE B H	R221(1)	P11EX	B4	60n	P11 PIR EN 5 H
R161(1)	P14EX	C2	60n	%E17(15)	R6(1)	P12EX	B2	60n	%E8(3)	R100(1)	P11EX	D5	60n	P11 GEN 1 H	R220(1)	P11EX	A4	60n	P11 PIR EN 6 H
R110(1)	P12EX	C2	60n	%E17(2)	R2(1)	P12EX	A3	60n	%E9(2)	R90(1)	P11EX	D5	60n	-P11 GEN 1 H	R217(1)	P11EX	A4	60n	P11 PIR EN 7 H
R260(1)	P14EX	C3	60n	%E18(14)	R147(1)	P13EX	C5	60n	-APR APR INTERRUPT H	R103(1)	P11EX	D5	60n	P11 GEN 2 H	R101(1)	P11EX	B1	60n	P11 PIR0 H
R69(1)	P12EX	B3	60n	%E18(3)	R125(1)	P14EX	D4	60n	APR EBOX DISABLE CS H	R45(1)	P11EX	D5	60n	-P11 GEN 2 H	R103(1)	P11EX	C1	60n	P11 PIR1 H
R237(1)	P15EX	A3	60n	%E19(2)	R97(1)	P14EX	C2	60n	APR EBOX SEND F02 H	R102(1)	P11EX	C5	60n	P11 GEN 3 H	R104(1)	P11EX	C1	60n	P11 PIR2 H
R15(1)	P15EX	D7	60n	%E19(3)	R120(1)	P12EX	B2	60n	APR EBUS DEMAND H	R63(1)	P11EX	C5	60n	-P11 GEN 3 H	R102(1)	P11EX	C1	60n	P11 PIR3 H
R00(1)	P15EX	C5	60n	%E20(14)	R240(1)	P15EX	D4	60n	-APR EBUS REQ H	R141(1)	P11EX	C5	60n	P11 GEN 4 H	R160(1)	P11EX	C1	60n	P11 PIR4 H
R13(1)	P15EX	C5	60n	%E20(2)	R146(1)	P12EX	A7	60n	CLK PI H	R62(1)	P11EX	C5	60n	-P11 GEN 4 H	R152(1)	P11EX	B1	60n	P11 PIR5 H
R10(1)	P15EX	C4	60n	%E20(3)	R200(1)	P13EX	B7	60n	-CON CONO APR H	R142(1)	P11EX	B5	60n	P11 GEN 5 H	R156(1)	P11EX	B1	60n	P11 PIR6 H
R14(1)	P15EX	C5	60n	%E24(14)	R04(1)	P14EX	C7	60n	-CON CONO PI H	R290(1)	P11EX	B5	60n	-P11 GEN 5 H	R159(1)	P11EX	B1	60n	P11 PIR7 H
R05(1)	P14EX	D7	60n	%E24(2)	R230(1)	P15EX	D4	60n	CON EBUS REL H	R135(1)	P11EX	B5	60n	P11 GEN 6 H	R109(1)	P12EX	A5	60n	P12 APR REQUESTING H
R240(1)	P14EX	C7	60n	%E24(9)	R70(1)	P15EX	D7	60n	-CON PI CYCLE B H	R200(1)	P11EX	B5	60n	-P11 GEN 6 H	R67(1)	P12EX	A7	60n	P12 CLK A H
R231(1)	P15EX	C2	60n	%E26(2)	R295(1)	P12EX	B5	60n	-CON PI DISABLE H	R175(1)	P11EX	A5	60n	P11 GEN 7 H	R293(1)	P12EX	A7	60n	P12 CLK B H
R260(1)	P14EX	C6	60n	%E26(3)	R150(1)	P12EX	B7	60n	-CON PI DISMISS H	R213(1)	P11EX	A5	60n	-P11 GEN 7 H	R201(1)	P12EX	A7	60n	P12 CLK C H
R40(1)	P12EX	D5	60n	%E35(14)	R164(1)	P12EX	B6	60n	-CON SET PIH H	R107(1)	P11EX	D7	60n	P11 ON 1 H	R236(1)	P12EX	A7	60n	P12 CLK D H
R4(1)	P12EX	A3	60n	%E4(15)	R270(1)	P14EX	A0	60n	-DIAG READ FUNC 10X H	R52(1)	P11EX	D7	60n	-P11 ON 1 H	R165(1)	P12EX	A7	60n	P12 CLK E H
R243(1)	P14EX	D7	60n	%E4(3)	R210(1)	P11EX	B1	60n	EBUS P100 E H	R179(1)	P11EX	D7	60n	P11 ON 2 H	R3(1)	P12EX	A7	60n	P12 CLK F H
R205(1)	P13EX	B5	60n	%E43(2)	R116(1)	P14EX	B1	60n	EBUS P101 E H	R40(1)	P11EX	D7	60n	-P11 ON 2 H	R239(1)	P12EX	C1	60n	P12 COMP H
R199(1)	P13EX	B7	60n	%E43(3)	R124(1)	P14EX	B1	60n	EBUS P102 E H	R100(1)	P11EX	C7	60n	P11 ON 3 H	R73(1)	P12EX	B4	60n	-P12 DISABLE RDT ON HALT H
R7(1)	P12EX	A3	60n	%E44(6)	R39(1)	P14EX	B1	60n	EBUS P103 E H	R61(1)	P11EX	C7	60n	-P11 ON 3 H	R264(1)	P12EX	A5	60n	P12 DK20 REQUESTING H
R20(1)	P12EX	D5	60n	%E47(14)	R267(1)	P14EX	A1	60n	EBUS P104 E H	R140(1)	P11EX	C7	60n	P11 ON 4 H	R197(1)	P12EX	C4	60n	P12 EBUS RETURN H
R157(1)	P12EX	D7	60n	%E47(3)	R30(1)	P14EX	A1	60n	EBUS P105 E H	R57(1)	P11EX	C7	60n	-P11 ON 4 H	R77(1)	P12EX	C4	60n	-P12 EBUS RETURN H
R16(1)	P15EX	D6	60n	%E52(6)	R193(1)	P14EX	A1	60n	EBUS P106 E H	R130(1)	P11EX	B7	60n	P11 ON 5 H	R297(1)	P12EX	B1	60n	P12 HONOR INTERNAL H
R163(1)	P14EX	C2	60n	%E56(14)	R194(1)	P14EX	A1	60n	EBUS P107 E H	R291(1)	P11EX	B7	60n	-P11 ON 5 H	R171(1)	P12EX	B1	60n	-P12 HONOR INTERNAL H
R210(1)	P11EX	A7	60n	%E50(14)	R167(1)	P12EX	A5	60n	EBUS XFER E H	R133(1)	P11EX	B7	60n	P11 ON 6 H	R32(1)	P12EX	D4	60n	P12 PHY FORCE H
R214(1)	P11EX	B7	60n	%E50(2)	R129(1)	P14EX	D3	60n	IR 03 H	R207(1)	P11EX	B7	60n	-P11 ON 6 H	R35(1)	P12EX	B7	60n	P12 PHY NO. 00 H
R202(1)	P11EX	B7	60n	%E50(3)	R127(1)	P14EX	D3	60n	IR 04 H	R134(1)	P11EX	A7	60n	P11 ON 7 H	R10(1)	P12EX	B7	60n	P12 PHY NO. 01 H
R100(1)	P11EX	C6	60n	%E61(14)	R130(1)	P14EX	D3	60n	IR 05 H	R207(1)	P11EX	A7	60n	-P11 ON 7 H	R21(1)	P12EX	B7	60n	P12 PHY NO. 02 H
R153(1)	P11EX	C6	60n	%E61(15)	R169(1)	P14EX	D3	60n	IR 06 H	R143(1)	P11EX	D2	60n	P11 PIH1 H	R25(1)	P12EX	A7	60n	P12 PHY NO. 03 H
R49(1)	P11EX	D6	60n	%E61(2)	R257(1)	P14EX	D2	60n	IR 07 H	R144(1)	P11EX	D2	60n	P11 PIH2 H	R24(1)	P12EX	A7	60n	P12 PHY NO. 04 H
R56(1)	P11EX	D6	60n	%E61(3)	R254(1)	P14EX	D2	60n	IR 08 H	R145(1)	P11EX	C2	60n	P11 PIH3 H	R23(1)	P12EX	A7	60n	P12 PHY NO. 05 H
R212(1)	P11EX	A6	60n	%E63(14)	R256(1)	P14EX	D2	60n	IR 09 H	R42(1)	P11EX	C2	60n	P11 PIH4 H	R22(1)	P12EX	B6	60n	P12 PHY NO. 06 H
R216(1)	P11EX	B6	60n	%E63(2)	R272(1)	P14EX	C6	60n	MR RESET 02 H	R92(1)	P11EX	B2	60n	P11 PIH5 H	R19(1)	P12EX	B6	60n	P12 PHY NO. 07 H
R203(1)	P11EX	B6	60n	%E63(3)	R229(1)	P15EX	B3	60n	-MTR 1 PH2 A H	R93(1)	P11EX	B2	60n	P11 PIH6 H	R36(1)	P12EX	B6	60n	P12 PHY NO. 08 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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	FIRST USED ON OPTION/MODEL: KL10	SIZE CODE: D CS	DATE: 11-NOV-78

REV. B1  
 M8532-0-RES  
 SIZE CODE CS D

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R30(1)	PI2EX A6	60n	PI2 PHY NO. 09 H	R296(1)	PI2EX D1	60n	PI2 TIM6 H	R284(1)	PI4EX A3	60n	-PI4 IOB 16 H	R275(1)	PI5EX A7	60n	PI5 T EA1
R29(1)	PI2EX A6	60n	PI2 PHY NO. 10 H	R87(1)	PI2EX D1	60n	-PI2 TIM6 H	R202(1)	PI4EX A2	60n	PI4 IOB 17 H	R274(1)	PI5EX A7	60n	PI5 T ED1
R28(1)	PI2EX A6	60n	PI2 PHY NO. 11 H	R11(1)	PI2EX D1	60n	PI2 TIM7 H	R211(1)	PI4EX A3	60n	-PI4 IOB 17 H	R277(1)	PI5EX A7	60n	PI5 T EE2
R27(1)	PI2EX B5	60n	PI2 PHY NO. 12 H	R195(1)	PI2EX A1	60n	PI2 TIMER DONE H	R233(1)	PI4EX C6	60n	PI4 MR RESET H	R279(1)	PI5EX A7	60n	PI5 T EK2
R26(1)	PI2EX B5	60n	PI2 PHY NO. 13 H	R72(1)	PI2EX B1	60n	-PI2 TIMER DONE H	R166(1)	PI4EX C6	60n	-PI4 MR RESET H	R278(1)	PI5EX A7	60n	PI5 T EL2
R33(1)	PI2EX B5	60n	PI2 PHY NO. 14 H	R70(1)	PI2EX B4	60n	PI2 TRAN REC H	R200(1)	PI4EX D5	60n	PI4 OFF H	R17(1)	PI5EX D6	60n	PI5 TEST H
R31(1)	PI2EX A5	60n	PI2 PHY NO. 15 H	R74(1)	PI2EX B3	60n	-PI2 TRAN REC H	R06(1)	PI4EX C4	60n	PI4 OK ON MALT H	R44(1)	PI5EX D6	60n	PI5 WAIT1 H
R02(1)	PI2EX D7	60n	PI2 PI ON 0 H	R09(1)	PI3EX B2	60n	PI3 APR PHY NO. H	R209(1)	PI4EX D5	60n	-PI4 ON H	R43(1)	PI5EX D6	60n	PI5 WAIT2 H
R190(1)	PI2EX D6	60n	PI2 P11 H	R96(1)	PI3EX B3	60n	-PI3 APR PHY NO. H	R276(1)	PI4EX D5	60n	-PI4 ON CLR H	R160(1)	PI5EX C2	60n	PI5 XFER FORCE H
R112(1)	PI2EX C7	60n	-PI2 P11 CLR H	R90(1)	PI3EX C2	60n	PI3 DK20 PHY NO. H	R205(1)	PI4EX D6	60n	-PI4 ON SET H				
R109(1)	PI1EX D3	60n	PI2 P11 REQ SET H	R71(1)	PI3EX D3	60n	-PI3 DK20 PHY NO. H	R292(1)	PI4EX C6	60n	PI4 SYS CLR H				
R255(1)	PI2EX D6	60n	PI2 P12 H	R115(1)	PI3EX D5	60n	PI3 P101 H	R95(1)	PI4EX D6	60n	-PI4 SYS CLR A H				
R111(1)	PI2EX C7	60n	-PI2 P12 CLR H	R123(1)	PI3EX D5	60n	PI3 P102 H	R65(1)	PI4EX D6	60n	PI4 SYS CLR B H				
R110(1)	PI1EX D3	60n	PI2 P12 REQ SET H	R46(1)	PI3EX D5	60n	PI3 P103 H	R170(1)	PI5EX A2	60n	-PI5 BUS EN H				
R162(1)	PI2EX C7	60n	-PI2 P13 CLR H	R273(1)	PI3EX D5	60n	PI3 P104 H	R242(1)	PI5EX D3	60n	PI5 CP BUS EN H				
R66(1)	PI1EX C3	60n	PI2 P13 REQ SET H	R37(1)	PI3EX D5	60n	PI3 P105 H	R196(1)	PI5EX D1	60n	PI5 CYC START H				
R41(1)	PI2EX D7	60n	-PI2 P14 H	R192(1)	PI3EX D4	60n	PI3 P106 H	R76(1)	PI5EX D1	60n	-PI5 CYC START H				
R226(1)	PI2EX C7	60n	-PI2 P14 CLR H	R191(1)	PI3EX D4	60n	PI3 P107 H	R244(1)	PI5EX D3	60n	-PI5 EBUS CP GRANT H				
R60(1)	PI1EX C3	60n	PI2 P14 REQ SET H	R106(1)	PI4EX A7	60n	PI4 BUS EN H	R290(1)	PI5EX D3	60n	PI5 EBUS PI GRANT H				
R225(1)	PI2EX C7	60n	-PI2 P15 CLR H	R139(1)	PI4EX A7	60n	-PI4 BUS EN H	R00(1)	PI5EX D3	60n	-PI5 EBUS PI GRANT H				
R224(1)	PI1EX B3	60n	PI2 P15 REQ SET H	R12(1)	PI4EX D7	60n	-PI4 CONC DLY H	R136(1)	PI5EX C4	60n	PI5 EBUS REQ H				
R220(1)	PI2EX B7	60n	-PI2 P16 CLR H	R137(1)	PI4EX B7	60n	PI4 DIAG 05 H	R241(1)	PI5EX C4	60n	-PI5 EBUS REQ H				
R222(1)	PI1EX B3	60n	PI2 P16 REQ SET H	R174(1)	PI4EX B6	60n	PI4 DIAG 06 H	R149(1)	PI5EX C6	60n	PI5 GEN 1 H				
R227(1)	PI2EX B7	60n	-PI2 P17 CLR H	R177(1)	PI4EX B7	60n	PI4 DIAG 10 H	R151(1)	PI5EX C6	60n	PI5 GEN 2 H				
R294(1)	PI1EX A3	60n	PI2 P17 REQ SET H	R200(1)	PI4EX D6	60n	-PI4 GEN CLR H	R150(1)	PI5EX C7	60n	PI5 GEN 4 H				
R9(1)	PI2EX D6	60n	PI2 REQ H	R201(1)	PI4EX D6	60n	-PI4 GEN SET H	R105(1)	PI5EX B5	60n	PI5 GEN INT H				
R170(1)	PI2EX D4	60n	PI2 SEL PHY 1 H	R51(1)	PI4EX B1	60n	-PI4 IO REQ1 H	R94(1)	PI5EX B5	60n	-PI5 GEN INT H				
R131(1)	PI2EX D4	60n	PI2 SEL PHY 2 H	R47(1)	PI4EX B1	60n	-PI4 IO REQ2 H	R140(1)	PI5EX C7	60n	PI5 GEN ON H				
R120(1)	PI2EX D4	60n	PI2 SEL PHY 4 H	R64(1)	PI4EX B1	60n	-PI4 IO REQ3 H	R01(1)	PI5EX D7	60n	-PI5 INHIBIT REQ H				
R132(1)	PI2EX D4	60n	PI2 SEL PHY 0 H	R50(1)	PI4EX A1	60n	-PI4 IO REQ4 H	R219(1)	PI5EX D6	60n	PI5 LOAD H				
R176(1)	PI2EX B4	60n	PI2 STATE HOLD H	R209(1)	PI4EX A1	60n	-PI4 IO REQ5 H	R253(1)	PI5EX B7	60n	PI5 T BR2				
R263(1)	PI2EX C2	60n	PI2 TIM 5,6 H	R223(1)	PI4EX A1	60n	-PI4 IO REQ6 H	R252(1)	PI5EX B7	60n	PI5 T BT2				
R249(1)	PI2EX C2	60n	-PI2 TIM 5,6 H	R206(1)	PI4EX A1	60n	-PI4 IO REQ7 H	R251(1)	PI5EX B7	60n	PI5 T BU2				
R234(1)	PI2EX D3	60n	PI2 TIM1 H	R54(1)	PI4EX B3	60n	-PI4 IOB 11 H	R250(1)	PI5EX B7	60n	PI5 T BV2				
R117(1)	PI2EX D2	60n	-PI2 TIM1 H	R53(1)	PI4EX B3	60n	-PI4 IOB 12 H	R261(1)	PI5EX B7	60n	PI5 T CM2				
R122(1)	PI2EX D3	60n	PI2 TIM2 H	R90(1)	PI4EX B3	60n	-PI4 IOB 13 H	R259(1)	PI5EX A7	60n	PI5 T CP1				
R34(1)	PI2EX D3	60n	PI2 TIM3 H	R155(1)	PI4EX A3	60n	-PI4 IOB 14 H	R250(1)	PI5EX A7	60n	PI5 T CS2				
R247(1)	PI2EX C3	60n	PI2 TIM4 H	R190(1)	PI4EX A2	60n	PI4 IOB 15 H	R266(1)	PI5EX A7	60n	PI5 T DC1				
R172(1)	PI2EX D2	60n	-PI2 TIM4 H	R215(1)	PI4EX A3	60n	-PI4 IOB 15 H	R265(1)	PI5EX A7	60n	PI5 T DD1				
R1(1)	PI2EX D1	60n	PI2 TIM5 H	R204(1)	PI4EX A2	60n	PI4 IOB 16 H	R271(1)	PI5EX A7	60n	PI5 T DS1				

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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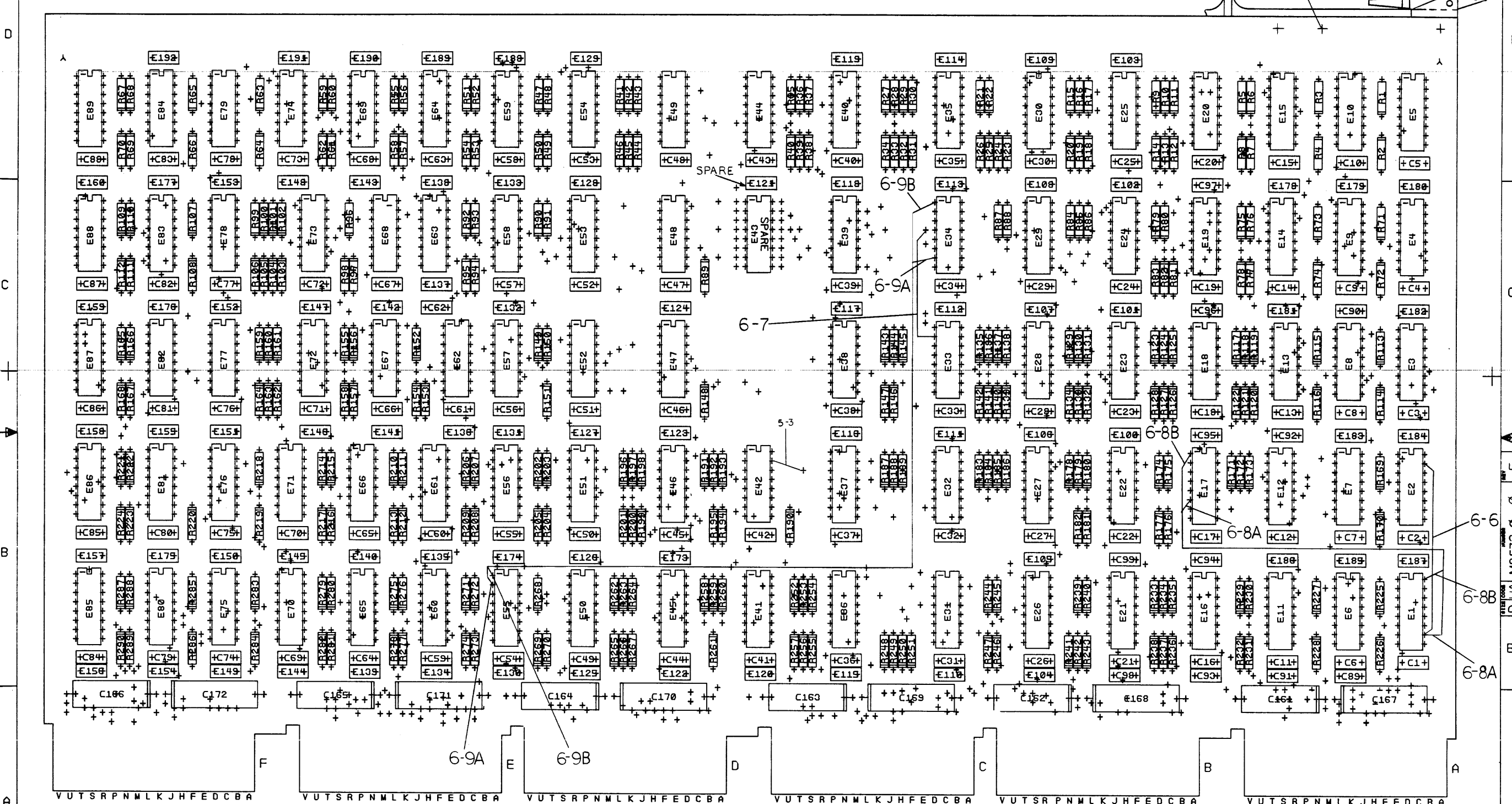
REV	CHG	NO.	DATE
1	CS	1	11/10/75
2	CS	1	11/10/75

digital	DRN. <i>C. Smith</i>	DATE ENG. <i>11-10-75</i>	DATE <i>11/27/76</i>	TITLE: P. I. CONTROL TERMINATORS
	CHK'D. <i>C. Smith</i>	DATE <i>11/10/75</i>	BOARD LOCATION: <i>2</i>	SIZE CODE: D CS M8532-0-RES
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8532-0		REV. B I

REV. B I  
 CS M8532-0-RES  
 SIZE CODE NUMBER



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NOTES:

CHK CHANGE NO	REV
M8532-MR6	F
27	10/20/77
L SALES	
J. Bal. 2/20/77	

ETCH REV.	C
P.C. DESIGN DATA BASE REV.	C

SIGNATURES	DATE
DRN. F. Wilson	11 MAY 77
CHK. D. R. W. Cooney	12 MAY 77
ENG. W. J. ...	...
PROJ. ENG. ...	...
PROD. W. Bal. ...	20 MAY 77

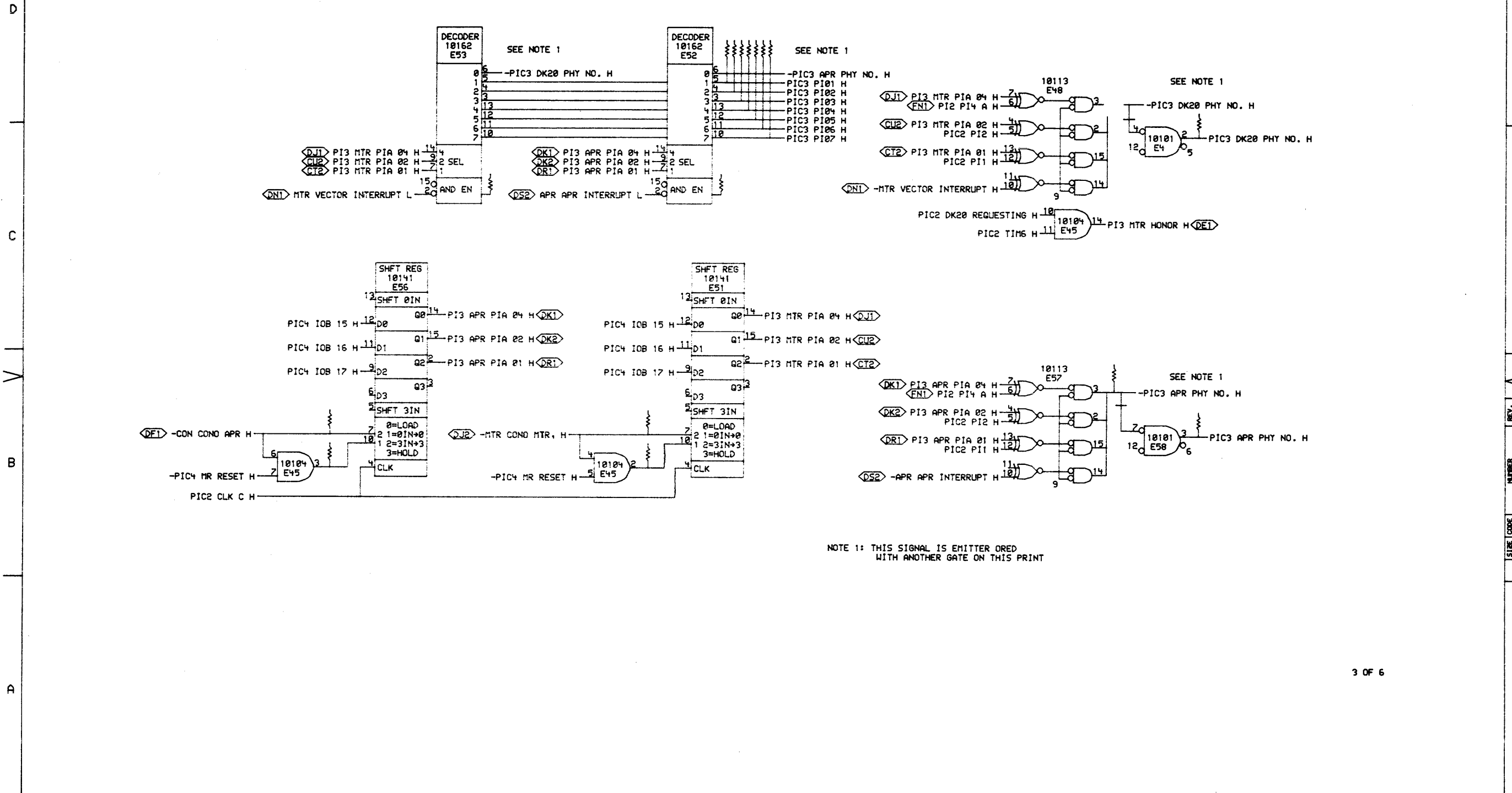
digital	
TITLE PI LOGIC	
SIZE CODE	NUMBER
D UA	M8532-0-0
REV	F

D UA M8532-0-0







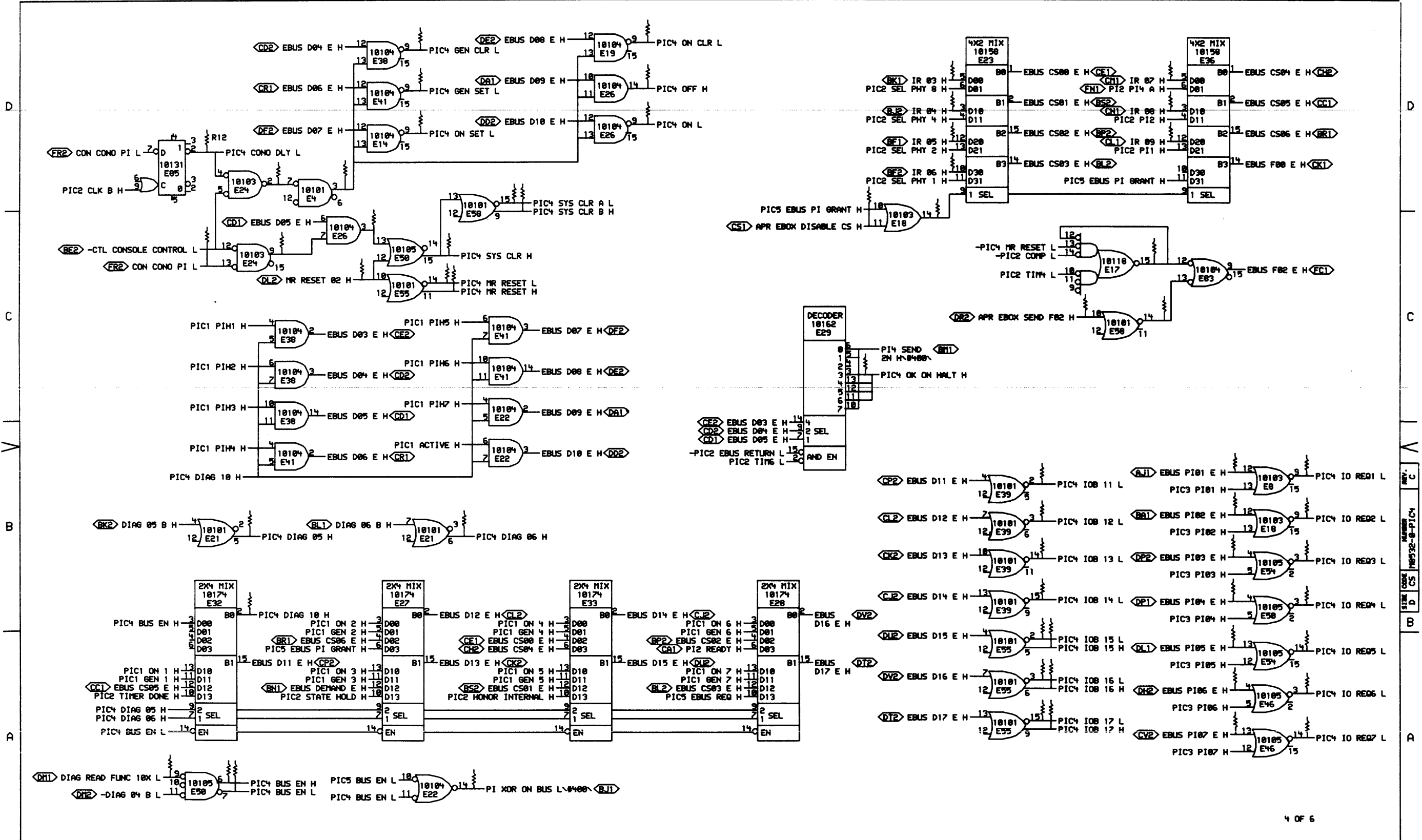


NOTE 1: THIS SIGNAL IS EMITTER ORED WITH ANOTHER GATE ON THIS PRINT

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REVISIONS	
CHK	CHANGE NO. REV

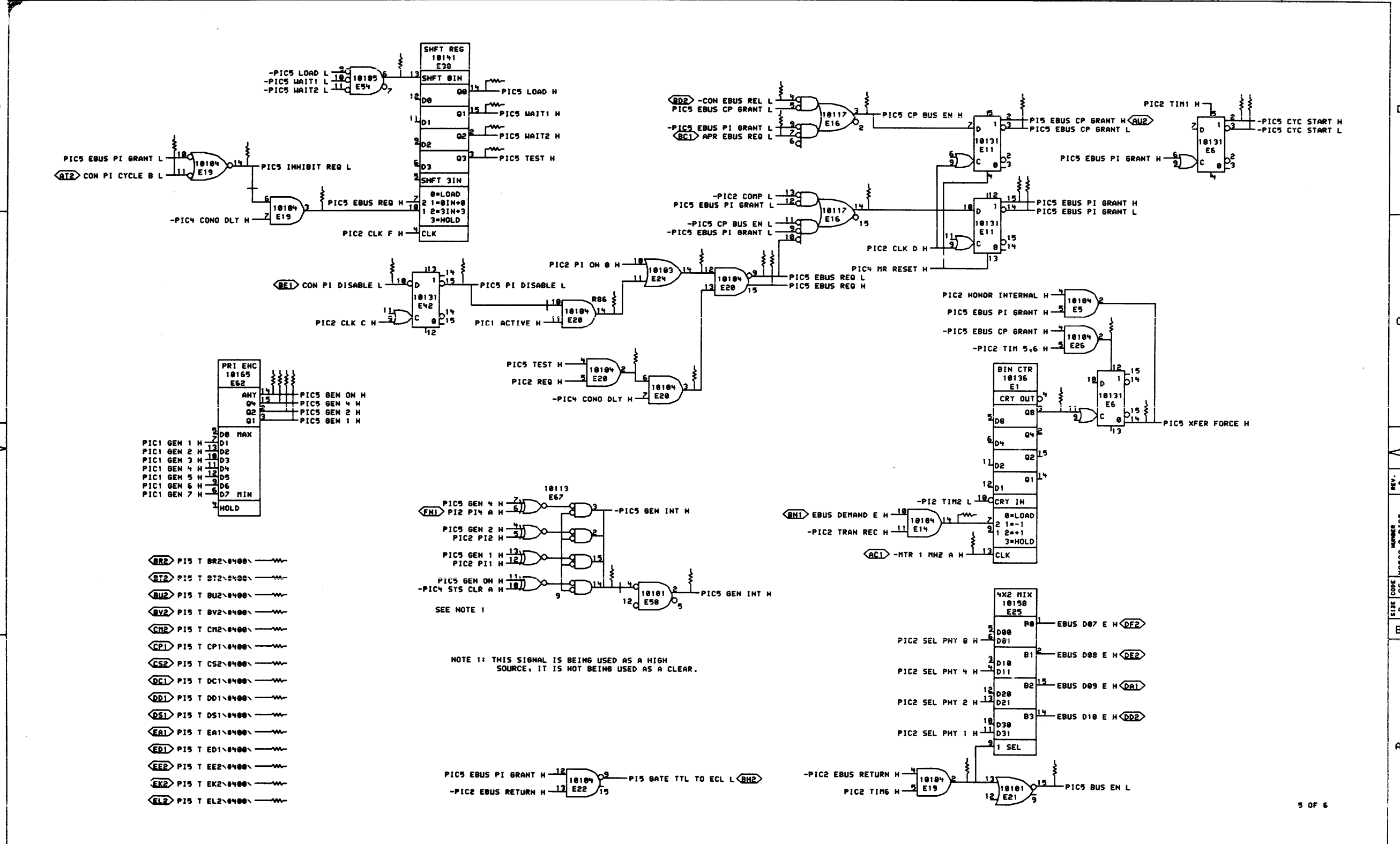
digital	DRN. J. J. J.	DATE ENG. 25-101-77	DATE 01/11/77	TITLE: PRIORITY INTERRUPT CHANNELS
	DR. J. J. J.	DATE BOARD LOCATION: 4A-31	DATE 01/11/77	
FIRST USED ON OPTION/MODEL: KL10		DATE NEXT HIGHER ASSEMBLY: 18-11-77		
SIZE CODE	NUMBER	REV.		
D CS	M8532-0-PIC3	D		



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REVISIONS		
CHK	CHANGE NO.	REV

	DATE	ENG.	DATE	TITLE
	08-28-77	R. Coe	08/29/77	PRIORITY INTERRUPT BUS INTERFACE
PI53R.DWG 4.452	DATE	BOARD LOCATION	REV.	
FIRST USED ON OPTION MODEL: KL10	15-AUG-77 13152	B-DD-M85332-0	1	
SIZE	CODE	NUMBER	REV.	
D	CS	M8532-0-PIC4	C	



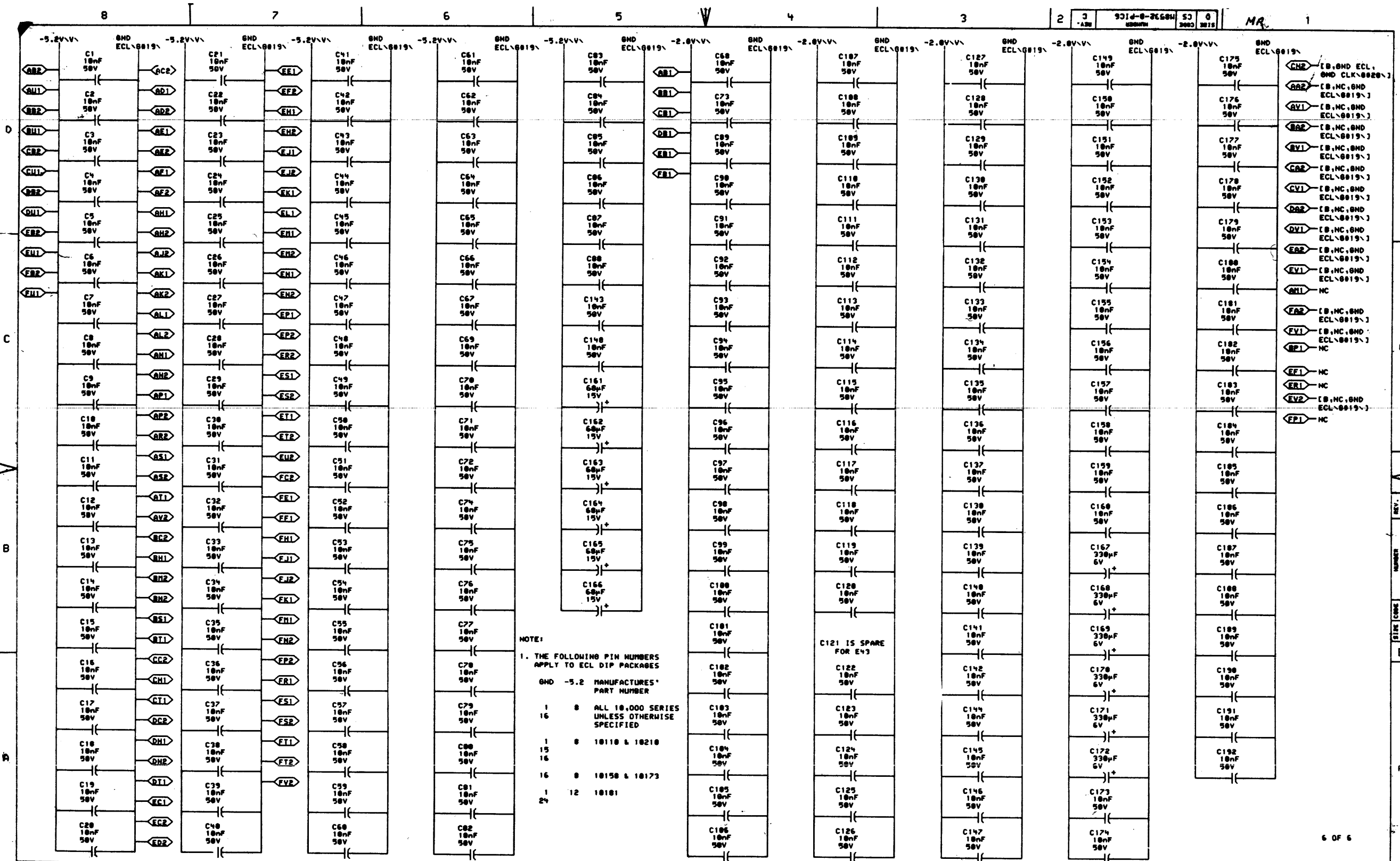
PRI ENC 10165 E62	
ANY	PIC5 GEN ON H
04	PIC5 GEN 4 H
02	PIC5 GEN 2 H
01	PIC5 GEN 1 H
D8 MAX	
D1	PIC1 GEN 1 H
D2	PIC1 GEN 2 H
D3	PIC1 GEN 3 H
D4	PIC1 GEN 4 H
D5	PIC1 GEN 5 H
D6	PIC1 GEN 6 H
D7	PIC1 GEN 7 H
HOLD	

- BR2 P15 T BR2-0400
- BT2 P15 T BT2-0400
- BV2 P15 T BV2-0400
- CV2 P15 T CV2-0400
- CP1 P15 T CP1-0400
- CS2 P15 T CS2-0400
- DC1 P15 T DC1-0400
- DD1 P15 T DD1-0400
- DS1 P15 T DS1-0400
- EA1 P15 T EA1-0400
- ED1 P15 T ED1-0400
- EE2 P15 T EE2-0400
- EK2 P15 T EK2-0400
- EL2 P15 T EL2-0400

NOTE 1: THIS SIGNAL IS BEING USED AS A HIGH SOURCE, IT IS NOT BEING USED AS A CLEAR.

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MODULE: M8532-0-PI5ER.DRW FIRST USED ON OPTION/MODEL: KL10	DATE: 10-27-78 DATE: 03-08-78	SIZE CODE: D CS NUMBER: M8532-0-PIC5	REV. D	MR 1

213



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16		
1	8	10110 & 10210
15		
16		
16	8	10150 & 10173
1	12	10101
24		

REVISIONS

CHK	CHANGE NO.	REV

**digital** DR. J. J. J. DATE: 31-JUL-78 ENG: A. B. DATE: 4-22-78  
 TITLE: PRIORITY INTERRUPT PWR, GNDS, CAPS  
 MODULE: M8532-0-PIC6 DRN 31-JUL-78 08106 NEXT HIGHER ASSEMBLY: B-DD-M8532-0  
 FIRST USED ON OPTION/MODEL: KL10

214

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
R226(1)	PIC5	C2	68n	%E1(3)	R103(1)	PIC1	C7	68n	%E68(14)	R204(1)	PIC3	B5	68n	-NTR CONO NTR, H	R140(1)	PIC1	A5	68n	PIC1 GEN 7 H
R9(1)	PIC2	B2	68n	%E10(4)	R155(1)	PIC1	C7	68n	%E68(15)	R09(1)	PIC3	C6	68n	-NTR VECTOR INTERRUPT H	R207(1)	PIC1	A5	68n	-PIC1 GEN 7 H
R226(1)	PIC5	B3	68n	%E14(14)	R53(1)	PIC1	D7	68n	%E68(2)	R112(1)	PIC1	D3	68n	PI2 PI1 REQ SET H	R103(1)	PIC1	D7	68n	PIC1 ON 1 H
R70(1)	PIC2	B4	68n	%E14(2)	R57(1)	PIC1	D7	68n	%E68(3)	R66(1)	PIC1	D3	68n	PI2 PI2 REQ SET H	R49(1)	PIC1	D7	68n	-PIC1 ON 1 H
R122(1)	PIC2	A1	68n	%E15(15)	R113(1)	PIC2	A4	68n	%E7(2)	R69(1)	PIC1	C3	68n	PI2 PI3 REQ SET H	R105(1)	PIC1	D7	68n	PIC1 ON 2 H
R230(1)	PIC5	D3	68n	%E16(14)	R14(1)	PIC2	B3	68n	%E7(7)	R70(1)	PIC1	C3	68n	PI2 PI4 REQ SET H	R91(1)	PIC1	D7	68n	-PIC1 ON 2 H
R107(1)	PIC4	C2	68n	%E17(15)	R3(1)	PIC2	B3	68n	%E8(3)	R223(1)	PIC1	B3	68n	PI2 PI5 REQ SET H	R170(1)	PIC1	C7	68n	PIC1 ON 3 H
R121(1)	PIC2	C2	68n	%E17(2)	R7(1)	PIC2	A3	68n	%E9(2)	R224(1)	PIC1	B3	68n	PI2 PI6 REQ SET H	R65(1)	PIC1	C7	68n	-PIC1 ON 3 H
R255(1)	PIC4	C3	68n	%E18(14)	R149(1)	PIC3	C5	68n	-APR APR INTERRUPT H	R290(1)	PIC1	A3	68n	PI2 PI7 REQ SET H	R144(1)	PIC1	C7	68n	PIC1 ON 4 H
R71(1)	PIC2	A3	68n	%E18(3)	R127(1)	PIC4	D4	68n	APR EBOX DISABLE CS H	R243(1)	PIC4	A6	68n	PI4 XOR ON BUS L#400	R56(1)	PIC1	C7	68n	-PIC1 ON 4 H
R233(1)	PIC5	A3	68n	%E19(2)	R97(1)	PIC4	C2	68n	APR EBOX SEND F02 H	R242(1)	PIC5	B7	68n	PI5 T BR2#400	R135(1)	PIC1	B7	68n	PIC1 ON 5 H
R23(1)	PIC5	D7	68n	%E19(3)	R120(1)	PIC2	B2	68n	APR EBUS DEMAND H	R241(1)	PIC5	B7	68n	PI5 T BT2#400	R206(1)	PIC1	B7	68n	-PIC1 ON 5 H
R86(1)	PIC5	C5	68n	%E20(14)	R236(1)	PIC5	D4	68n	-APR EBUS REQ H	R240(1)	PIC5	B7	68n	PI5 T BL2#400	R141(1)	PIC1	B7	68n	PIC1 ON 6 H
R5(1)	PIC5	C5	68n	%E20(2)	R148(1)	PIC2	A7	68n	CLK PI H	R239(1)	PIC5	B7	68n	PI5 T BV2#400	R204(1)	PIC1	B7	68n	-PIC1 ON 6 H
R16(1)	PIC5	C4	68n	%E20(3)	R200(1)	PIC3	B7	68n	-CON CONO APR H	R250(1)	PIC5	B7	68n	PI5 T CH2#400	R137(1)	PIC1	A7	68n	PIC1 ON 7 H
R17(1)	PIC5	C4	68n	%E24(14)	R79(1)	PIC4	C7	68n	-CON CONO PI H	R249(1)	PIC5	A7	68n	PI5 T CP1#400	R202(1)	PIC1	A7	68n	-PIC1 ON 7 H
R74(1)	PIC4	D7	68n	%E24(2)	R234(1)	PIC5	D4	68n	CON EBUS REL H	R248(1)	PIC5	A7	68n	PI5 T CS2#400	R143(1)	PIC1	D2	68n	PIC1 PIH1 H
R246(1)	PIC4	C7	68n	%E24(9)	R00(1)	PIC5	D7	68n	-CON PI CYCLE B H	R264(1)	PIC5	A7	68n	PI5 T DC1#400	R146(1)	PIC1	D2	68n	PIC1 PIH2 H
R227(1)	PIC5	C2	68n	%E26(2)	R190(1)	PIC5	C6	68n	-CON PI DISABLE H	R267(1)	PIC5	A7	68n	PI5 T DD1#400	R147(1)	PIC1	C2	68n	PIC1 PIH3 H
R263(1)	PIC4	C6	68n	%E26(3)	R221(1)	PIC2	B7	68n	-CON PI DISMISS H	R270(1)	PIC5	A7	68n	PI5 T DS1#400	R259(1)	PIC1	C2	68n	PIC1 PIH4 H
R43(1)	PIC2	D5	68n	%E35(14)	R110(1)	PIC2	B6	68n	-CON SET PIH H	R269(1)	PIC5	A7	68n	PI5 T EA1#400	R260(1)	PIC1	B2	68n	PIC1 PIH5 H
R6(1)	PIC2	A3	68n	%E4(15)	R266(1)	PIC4	A8	68n	-DIAG READ FUNC 10X H	R273(1)	PIC5	A7	68n	PI5 T ED1#400	R257(1)	PIC1	B2	68n	PIC1 PIH6 H
R247(1)	PIC4	D7	68n	%E4(3)	R220(1)	PIC1	B1	68n	EBUS PI00 E H	R277(1)	PIC5	A7	68n	PI5 T EE2#400	R179(1)	PIC1	A2	68n	PIC1 PIH7 H
R201(1)	PIC3	B5	68n	%E45(2)	R116(1)	PIC4	B1	68n	EBUS PI01 E H	R272(1)	PIC5	A7	68n	PI5 T EK2#400	R59(1)	PIC1	D4	68n	PIC1 PIR EN 1 H
R205(1)	PIC3	B7	68n	%E45(3)	R117(1)	PIC4	B1	68n	EBUS PI02 E H	R274(1)	PIC5	A7	68n	PI5 T EL2#400	R64(1)	PIC1	C4	68n	PIC1 PIR EN 2 H
R13(1)	PIC2	A3	68n	%E46(6)	R40(1)	PIC4	B1	68n	EBUS PI03 E H	R20(1)	PIC1	D1	68n	PIC1 ACTIVE H	R60(1)	PIC1	C4	68n	PIC1 PIR EN 3 H
R30(1)	PIC2	D5	68n	%E49(14)	R262(1)	PIC4	B1	68n	EBUS PI04 E H	R201(1)	PIC1	D1	68n	-PIC1 ACTIVE H	R60(1)	PIC1	B4	68n	PIC1 PIR EN 4 H
R162(1)	PIC2	D7	68n	%E49(3)	R41(1)	PIC4	A1	68n	EBUS PI05 E H	R61(1)	PIC1	D1	68n	-PIC1 ACTIVE B H	R210(1)	PIC1	B4	68n	PIC1 PIR EN 5 H
R22(1)	PIC5	D6	68n	%E54(6)	R197(1)	PIC4	A1	68n	EBUS PI06 E H	R104(1)	PIC1	D5	68n	PIC1 GEN 1 H	R219(1)	PIC1	A4	68n	PIC1 PIR EN 6 H
R101(1)	PIC4	C2	68n	%E58(14)	R192(1)	PIC4	A1	68n	EBUS PI07 E H	R93(1)	PIC1	D5	68n	-PIC1 GEN 1 H	R216(1)	PIC1	A4	68n	PIC1 PIR EN 7 H
R211(1)	PIC1	A7	68n	%E60(14)	R172(1)	PIC2	A5	68n	EBUS XFER E H	R106(1)	PIC1	D5	68n	PIC1 GEN 2 H	R105(1)	PIC1	B1	68n	PIC1 PIR0 H
R215(1)	PIC1	B7	68n	%E60(2)	R131(1)	PIC4	D3	68n	IR 03 H	R47(1)	PIC1	D5	68n	-PIC1 GEN 2 H	R106(1)	PIC1	C1	68n	PIC1 PIR1 H
R276(1)	PIC1	B7	68n	%E60(3)	R129(1)	PIC4	D3	68n	IR 04 H	R101(1)	PIC1	C5	68n	PIC1 GEN 3 H	R99(1)	PIC1	C1	68n	PIC1 PIR2 H
R90(1)	PIC1	C6	68n	%E63(14)	R123(1)	PIC4	D3	68n	IR 05 H	R63(1)	PIC1	C5	68n	-PIC1 GEN 3 H	R104(1)	PIC1	C1	68n	PIC1 PIR3 H
R150(1)	PIC1	C6	68n	%E63(15)	R128(1)	PIC4	D3	68n	IR 06 H	R145(1)	PIC1	C5	68n	PIC1 GEN 4 H	R163(1)	PIC1	C1	68n	PIC1 PIR4 H
R92(1)	PIC1	D6	68n	%E63(2)	R254(1)	PIC4	D2	68n	IR 07 H	R55(1)	PIC1	C5	68n	-PIC1 GEN 4 H	R164(1)	PIC1	B1	68n	PIC1 PIR5 H
R50(1)	PIC1	D6	68n	%E63(3)	R252(1)	PIC4	D2	68n	IR 08 H	R142(1)	PIC1	B5	68n	PIC1 GEN 5 H	R159(1)	PIC1	B1	68n	PIC1 PIR6 H
R213(1)	PIC1	A6	68n	%E65(14)	R256(1)	PIC4	D2	68n	IR 09 H	R205(1)	PIC1	B5	68n	-PIC1 GEN 5 H	R160(1)	PIC1	B1	68n	PIC1 PIR7 H
R217(1)	PIC1	B6	68n	%E65(2)	R260(1)	PIC4	C6	68n	NR RESET 02 H	R130(1)	PIC1	B5	68n	PIC1 GEN 6 H	R100(1)	PIC2	A5	68n	PIC2 APR REQUESTING H
R270(1)	PIC1	B6	68n	%E65(3)	R225(1)	PIC5	B3	68n	-NTR 1 MHz A H	R203(1)	PIC1	B5	68n	-PIC1 GEN 6 H	R109(1)	PIC2	A7	68n	PIC2 CLK A 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. <i>G. Smith</i>	DATE <i>25-MAY-77</i>	ENG. <i>B. Bunk</i>	DATE <i>8-11-77</i>	TITLE: PRIORITY INTR TERMINATORS
	<i>D. Johnson</i>	<i>5/27/77</i>	<i>5/27/77</i>	<i>5/27/77</i>	BOARD LOCATION: <i> </i>
R05321.DRAW 4, 5, 6, 7		25-MAY-77 09:16	NEXT HIGHER ASSEMBLY: <i> </i>		SIZE CODE NUMBER REV. D CS M8532-0-RES C
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8532-0			

D

C

B

A

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R288(1)	PIC2 A7	68n	PIC2 CLK B H	R18(1)	PIC2 D6	68n	PIC2 REQ H	R51(1)	PIC4 D6	68n	-PIC4 GEN SET H	R187(1)	PIC5 B5	68n	PIC5 GEN INT H
R289(1)	PIC2 A7	68n	PIC2 CLK C H	R125(1)	PIC2 D4	68n	PIC2 SEL PHY 1 H	R58(1)	PIC4 B1	68n	-PIC4 IO REQ1 H	R95(1)	PIC5 B5	68n	-PIC5 GEN INT H
R232(1)	PIC2 A7	68n	PIC2 CLK D H	R124(1)	PIC2 D4	68n	PIC2 SEL PHY 2 H	R98(1)	PIC4 B1	68n	-PIC4 IO REQ2 H	R153(1)	PIC5 C7	68n	PIC5 GEN ON H
R169(1)	PIC2 A7	68n	PIC2 CLK E H	R138(1)	PIC2 D4	68n	PIC2 SEL PHY 4 H	R182(1)	PIC4 B1	68n	-PIC4 IO REQ3 H	R81(1)	PIC5 D7	68n	-PIC5 INHIBIT REQ H
R4(1)	PIC2 A7	68n	PIC2 CLK F H	R132(1)	PIC2 D4	68n	PIC2 SEL PHY 8 H	R62(1)	PIC4 B1	68n	-PIC4 IO REQ4 H	R222(1)	PIC5 D6	68n	PIC5 LOAD H
R235(1)	PIC2 D1	68n	PIC2 COMP H	R182(1)	PIC2 B4	68n	PIC2 STATE HOLD H	R289(1)	PIC4 A1	68n	-PIC4 IO REQ5 H	R15(1)	PIC5 C6	68n	-PIC5 PI DISABLE H
R75(1)	PIC2 B4	68n	-PIC2 DISABLE RDY ON HALT H	R175(1)	PIC2 C2	68n	PIC2 TIM 5,6 H	R282(1)	PIC4 A1	68n	-PIC4 IO REQ6 H	R19(1)	PIC5 D6	68n	PIC5 TEST H
R261(1)	PIC2 A5	68n	PIC2 DK20 REQUESTING H	R245(1)	PIC2 C2	68n	-PIC2 TIM 5,6 H	R212(1)	PIC4 A1	68n	-PIC4 IO REQ7 H	R46(1)	PIC5 D6	68n	PIC5 WAIT1 H
R195(1)	PIC2 C4	68n	PIC2 EBUS RETURN H	R119(1)	PIC2 D3	68n	PIC2 TIM1 H	R54(1)	PIC4 B3	68n	-PIC4 IOB 11 H	R45(1)	PIC5 D6	68n	PIC5 WAIT2 H
R174(1)	PIC2 C4	68n	-PIC2 EBUS RETURN H	R11(1)	PIC2 D2	68n	-PIC2 TIM1 H	R52(1)	PIC4 B3	68n	-PIC4 IOB 12 H	R173(1)	PIC5 C2	68n	PIC5 XFER FORCE H
R1(1)	PIC2 B1	68n	PIC2 HONOR INTERNAL H	R126(1)	PIC2 D3	68n	PIC2 TIM2 H	R96(1)	PIC4 B3	68n	-PIC4 IOB 13 H				
R176(1)	PIC2 B1	68n	-PIC2 HONOR INTERNAL H	R48(1)	PIC2 D3	68n	PIC2 TIM3 H	R161(1)	PIC4 B3	68n	-PIC4 IOB 14 H				
R37(1)	PIC2 D4	68n	PIC2 PHY FORCE H	R238(1)	PIC2 D3	68n	PIC2 TIM4 H	R196(1)	PIC4 A3	68n	PIC4 IOB 15 H				
R35(1)	PIC2 B7	68n	PIC2 PHY NO. 00 H	R171(1)	PIC2 D2	68n	-PIC2 TIM4 H	R214(1)	PIC4 A3	68n	-PIC4 IOB 15 H				
R31(1)	PIC2 B7	68n	PIC2 PHY NO. 01 H	R8(1)	PIC2 D1	68n	PIC2 TIM5 H	R208(1)	PIC4 A3	68n	PIC4 IOB 16 H				
R29(1)	PIC2 B7	68n	PIC2 PHY NO. 02 H	R258(1)	PIC2 D1	68n	PIC2 TIM6 H	R279(1)	PIC4 A3	68n	-PIC4 IOB 16 H				
R26(1)	PIC2 B7	68n	PIC2 PHY NO. 03 H	R85(1)	PIC2 D1	68n	-PIC2 TIM6 H	R199(1)	PIC4 A3	68n	PIC4 IOB 17 H				
R25(1)	PIC2 A7	68n	PIC2 PHY NO. 04 H	R18(1)	PIC2 D1	68n	PIC2 TIM7 H	R218(1)	PIC4 A3	68n	-PIC4 IOB 17 H				
R21(1)	PIC2 A7	68n	PIC2 PHY NO. 05 H	R194(1)	PIC2 A1	68n	PIC2 TIMER DONE H	R229(1)	PIC4 C6	68n	PIC4 MR RESET H				
R24(1)	PIC2 B6	68n	PIC2 PHY NO. 06 H	R77(1)	PIC2 B1	68n	-PIC2 TIMER DONE H	R178(1)	PIC4 C6	68n	-PIC4 MR RESET H				
R32(1)	PIC2 B6	68n	PIC2 PHY NO. 07 H	R114(1)	PIC2 B4	68n	PIC2 TRAN REC H	R289(1)	PIC4 D5	68n	PIC4 OFF H				
R42(1)	PIC2 B6	68n	PIC2 PHY NO. 08 H	R76(1)	PIC2 B3	68n	-PIC2 TRAN REC H	R84(1)	PIC4 C4	68n	PIC4 OK ON HALT H				
R38(1)	PIC2 B6	68n	PIC2 PHY NO. 09 H	R87(1)	PIC3 B2	68n	PIC3 APR PHY NO. H	R286(1)	PIC4 D5	68n	-PIC4 ON H				
R28(1)	PIC2 A6	68n	PIC2 PHY NO. 10 H	R94(1)	PIC3 B3	68n	-PIC3 APR PHY NO. H	R271(1)	PIC4 D5	68n	-PIC4 ON CLR H				
R34(1)	PIC2 A6	68n	PIC2 PHY NO. 11 H	R88(1)	PIC3 C2	68n	PIC3 DK20 PHY NO. H	R288(1)	PIC4 D6	68n	-PIC4 ON SET H				
R33(1)	PIC2 B5	68n	PIC2 PHY NO. 12 H	R72(1)	PIC3 D3	68n	-PIC3 DK20 PHY NO. H	R287(1)	PIC4 C6	68n	PIC4 SYS CLR H				
R27(1)	PIC2 B5	68n	PIC2 PHY NO. 13 H	R115(1)	PIC3 D5	68n	PIC3 PI01 H	R194(1)	PIC4 D6	68n	-PIC4 SYS CLR A H				
R39(1)	PIC2 B5	68n	PIC2 PHY NO. 14 H	R118(1)	PIC3 D5	68n	PIC3 PI02 H	R67(1)	PIC4 D6	68n	PIC4 SYS CLR B H				
R36(1)	PIC2 B5	68n	PIC2 PHY NO. 15 H	R158(1)	PIC3 D5	68n	PIC3 PI03 H	R177(1)	PIC5 A2	68n	-PIC5 BUS EN H				
R83(1)	PIC2 D7	68n	PIC2 PI ON 0 H	R265(1)	PIC3 D5	68n	PIC3 PI04 H	R231(1)	PIC5 D4	68n	PIC5 CP BUS EN H				
R251(1)	PIC2 D6	68n	PIC2 PI1 H	R151(1)	PIC3 D5	68n	PIC3 PI05 H	R193(1)	PIC5 D1	68n	PIC5 CYC START H				
R188(1)	PIC2 C7	68n	-PIC2 PI1 CLR H	R198(1)	PIC3 D4	68n	PIC3 PI06 H	R73(1)	PIC5 D1	68n	-PIC5 CYC START H				
R253(1)	PIC2 D6	68n	PIC2 PI2 H	R191(1)	PIC3 D4	68n	PIC3 PI07 H	R244(1)	PIC5 D3	68n	-PIC5 EBUS CP GRANT H				
R111(1)	PIC2 C7	68n	-PIC2 PI2 CLR H	R189(1)	PIC4 A7	68n	PIC4 BUS EN H	R2(1)	PIC5 D3	68n	PIC5 EBUS PI GRANT H				
R188(1)	PIC2 C7	68n	-PIC2 PI3 CLR H	R136(1)	PIC4 A7	68n	-PIC4 BUS EN H	R82(1)	PIC5 D3	68n	-PIC5 EBUS PI GRANT H				
R44(1)	PIC2 D7	68n	-PIC2 PI4 H	R12(1)	PIC4 D7	68n	-PIC4 CONO DLY H	R134(1)	PIC5 C4	68n	PIC5 EBUS REQ H				
R165(1)	PIC2 C7	68n	-PIC2 PI4 CLR H	R133(1)	PIC4 B7	68n	PIC4 DIAG 05 H	R237(1)	PIC5 C4	68n	-PIC5 EBUS REQ H				
R168(1)	PIC2 C7	68n	-PIC2 PI5 CLR H	R139(1)	PIC4 B6	68n	PIC4 DIAG 06 H	R152(1)	PIC5 C7	68n	PIC5 GEN 1 H				
R167(1)	PIC2 C7	68n	-PIC2 PI6 CLR H	R188(1)	PIC4 B7	68n	PIC4 DIAG 10 H	R156(1)	PIC5 C7	68n	PIC5 GEN 2 H				
R166(1)	PIC2 B7	68n	-PIC2 PI7 CLR H	R275(1)	PIC4 D6	68n	-PIC4 GEN CLR H	R157(1)	PIC5 C7	68n	PIC5 GEN 4 H				

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

D

C

B

A

REV. C  
 SIZE CODE NUMBER  
 D CS M8532-0-RES

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. *C. Smith* DATE *01/10/77* ENG. *C. Smith* DATE *01/10/77*  
 DATE *01/10/77* SHEET *2* OF *2*

TITLE: PRIORITY INTR TERMINATORS

R85322, DRW 4, 862 1 28-MAY-77 09121/NEXT HIGHER ASSEMBLY: B-DD-M8532-0  
 FIRST USED ON OPTION/MODEL: KL10

SIZE CODE NUMBER REV.  
 D CS M8532-0-RES C

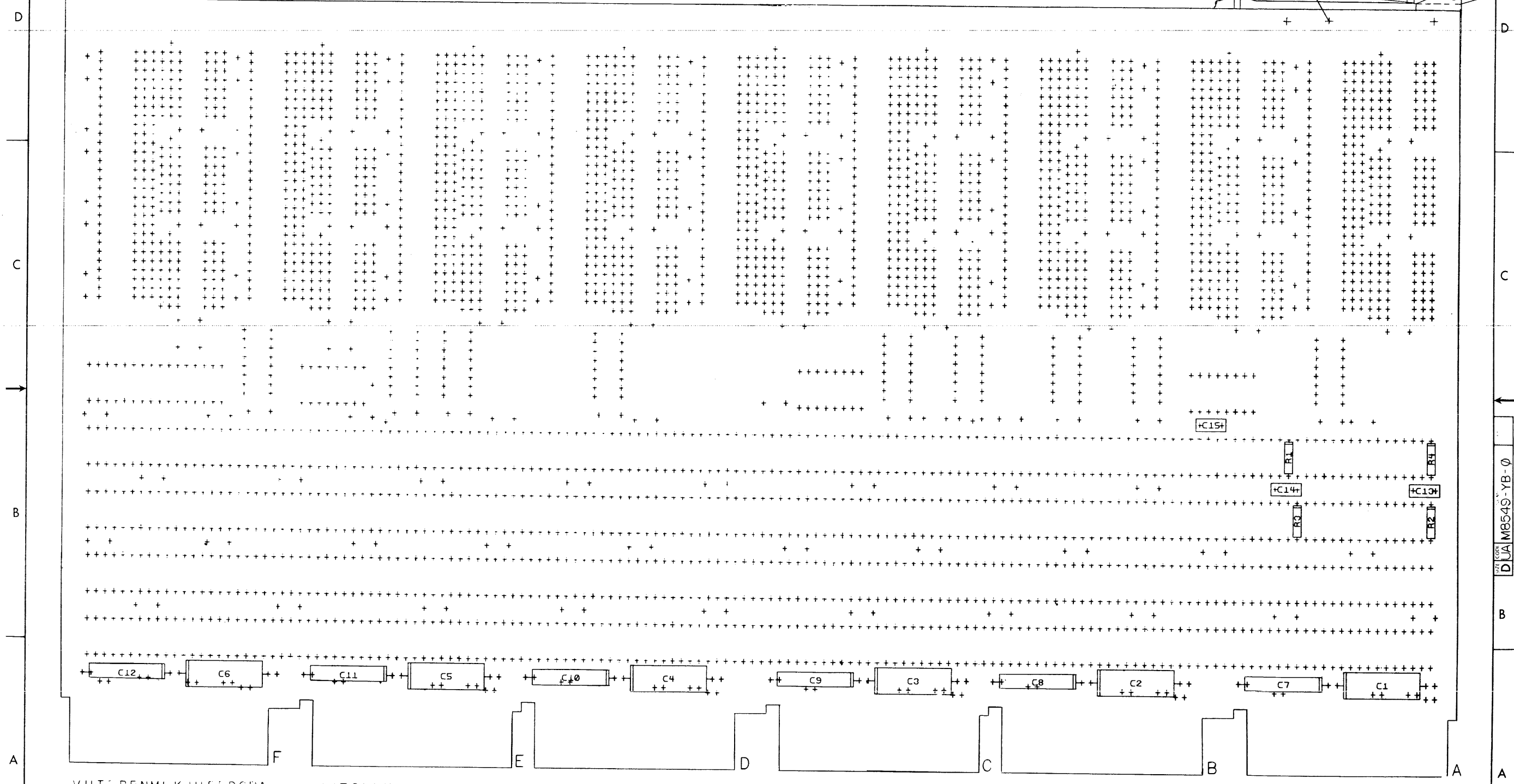


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DUA M8549-YB 0 2

7(QTY12)

6

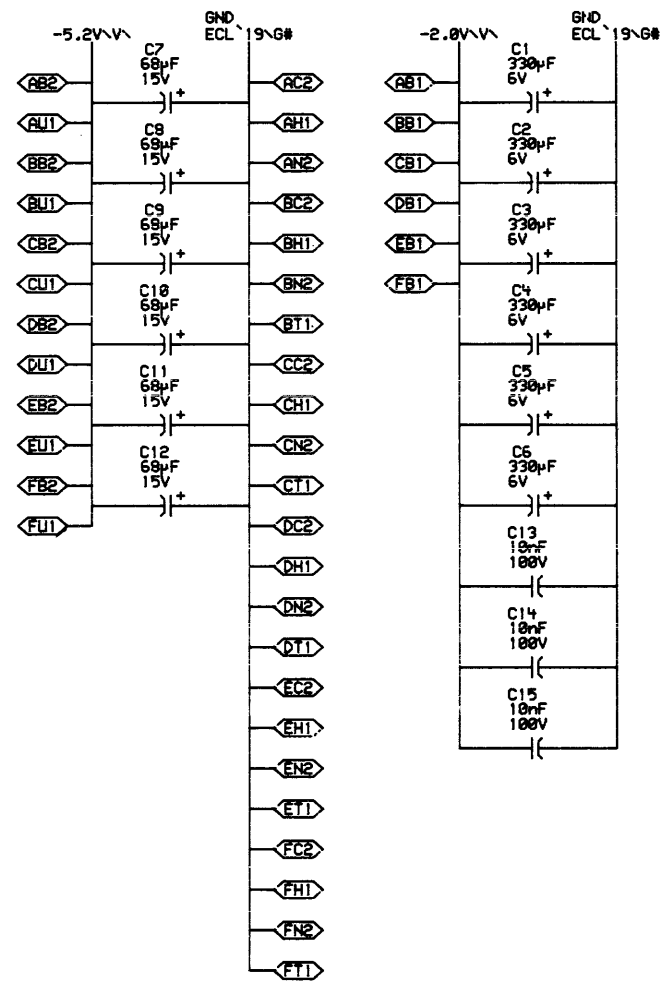
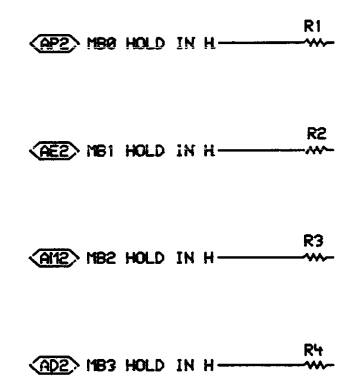


REV. CO.		
CHK	CHANGE TO	REV

TITLE	CHAN. CONTROL WORD SUBSTITUTE BD.	SIZE CODE	DUA	NUMBER	M8549-YB -0	REV.	
SCALE	1/1	SHEET	2 OF 5	DIST.			

MR. 1





NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173

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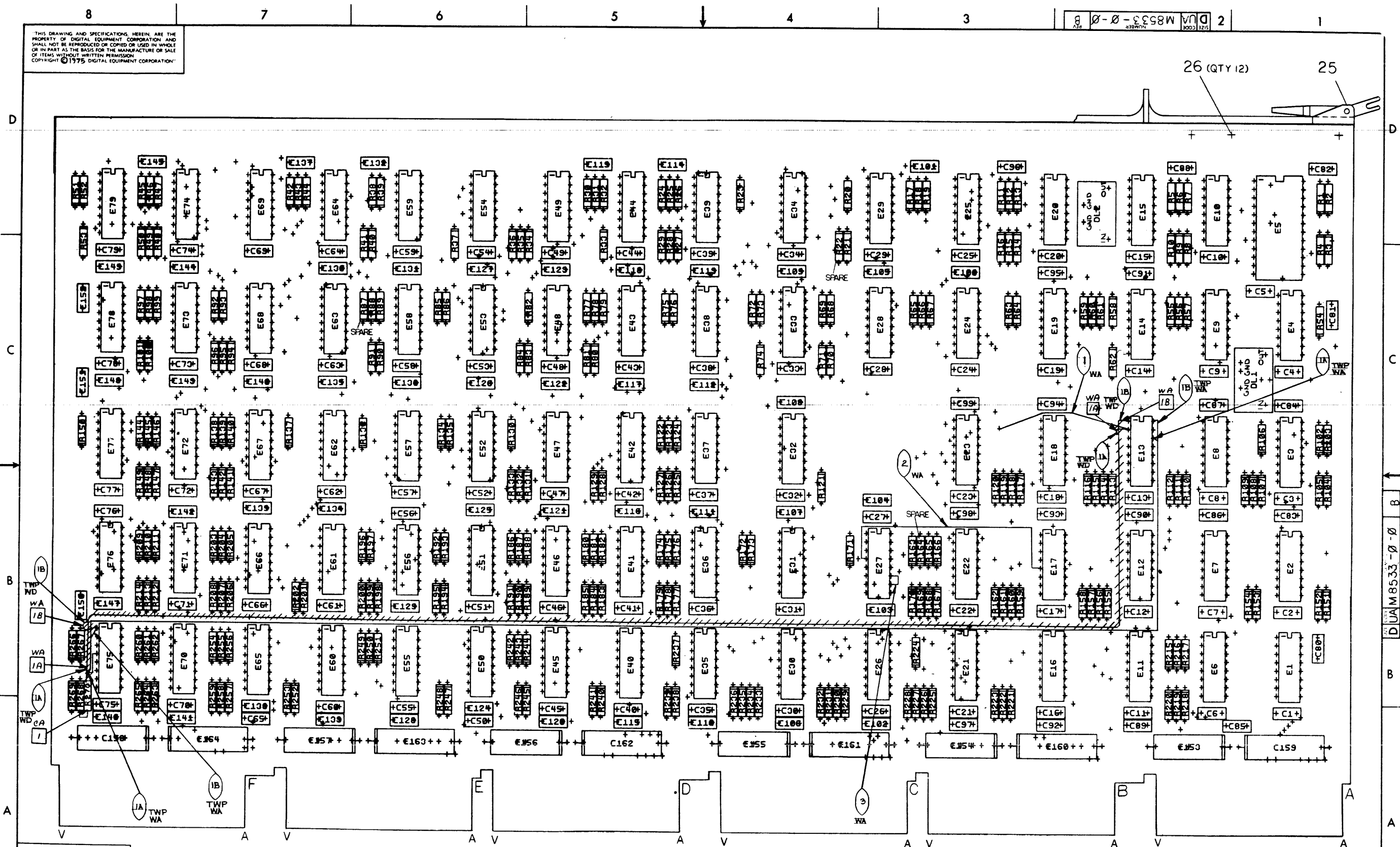
REVISIONS		
CHK	CHANGE NO.	REV

**digital** DRN *Q* DATE 2-19-75 ENG. *Ala* DATE 02-19-75  
 CHK'D *Q* DATE 2-19-75 BOARD LOCATION: SHEET 1 OF 1  
 CCHS1(4,121) (19-FEB-75 09:10) NEXT HIGHER ASSEMBLY: B-DD-M8549-YB

TITLE: CHANNEL CONTROL WORD SUBSTITUTE			
SIZE	CODE	NUMBER	REV.
D	CS	M8549-YB-CCWS	



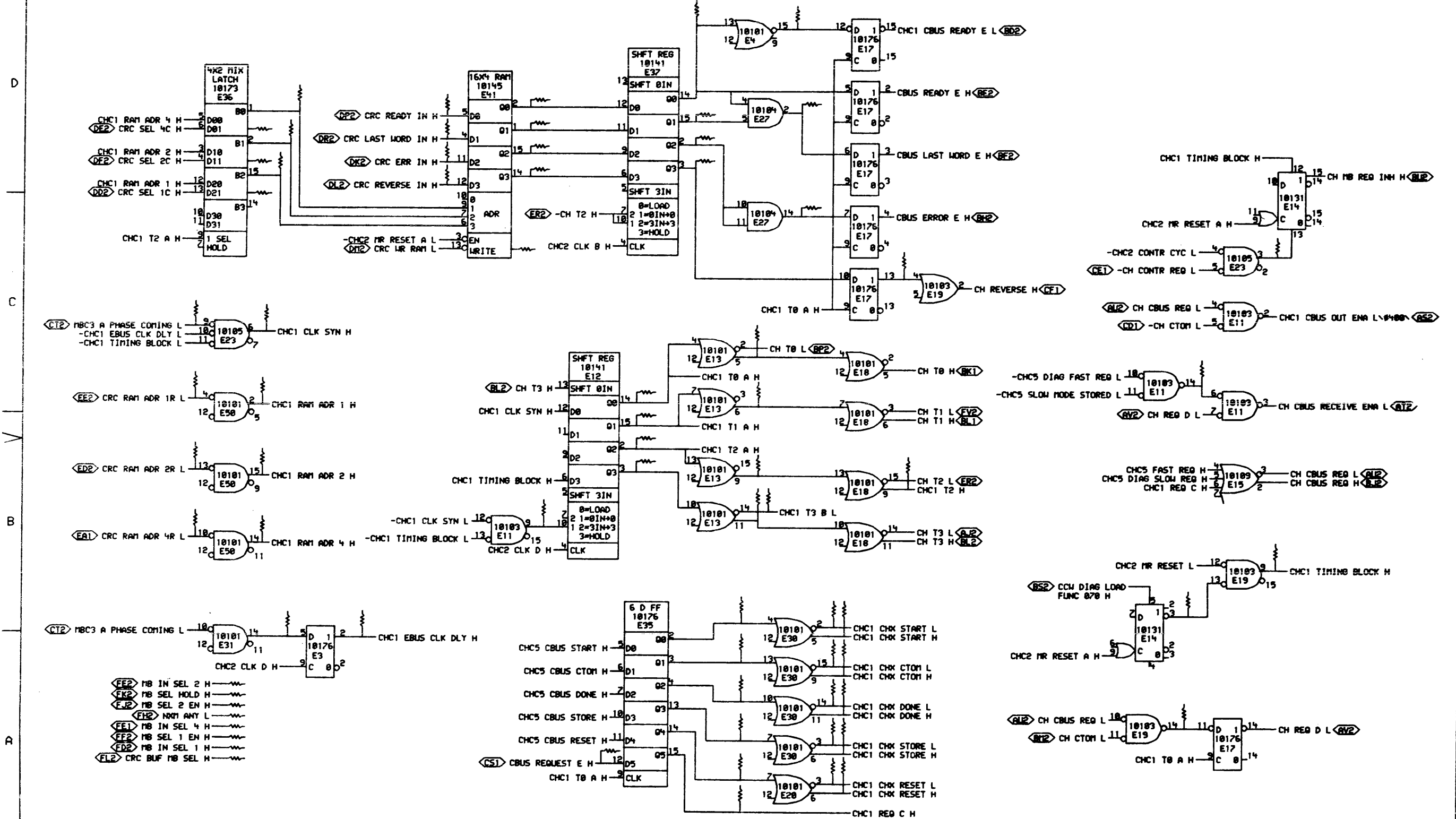
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REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE CODE	NUMBER	REV.
CHANNEL CONTROL	D U A	M 8533-0-0	E
SCALE	SHEET 2 OF 5	DIST.	MR

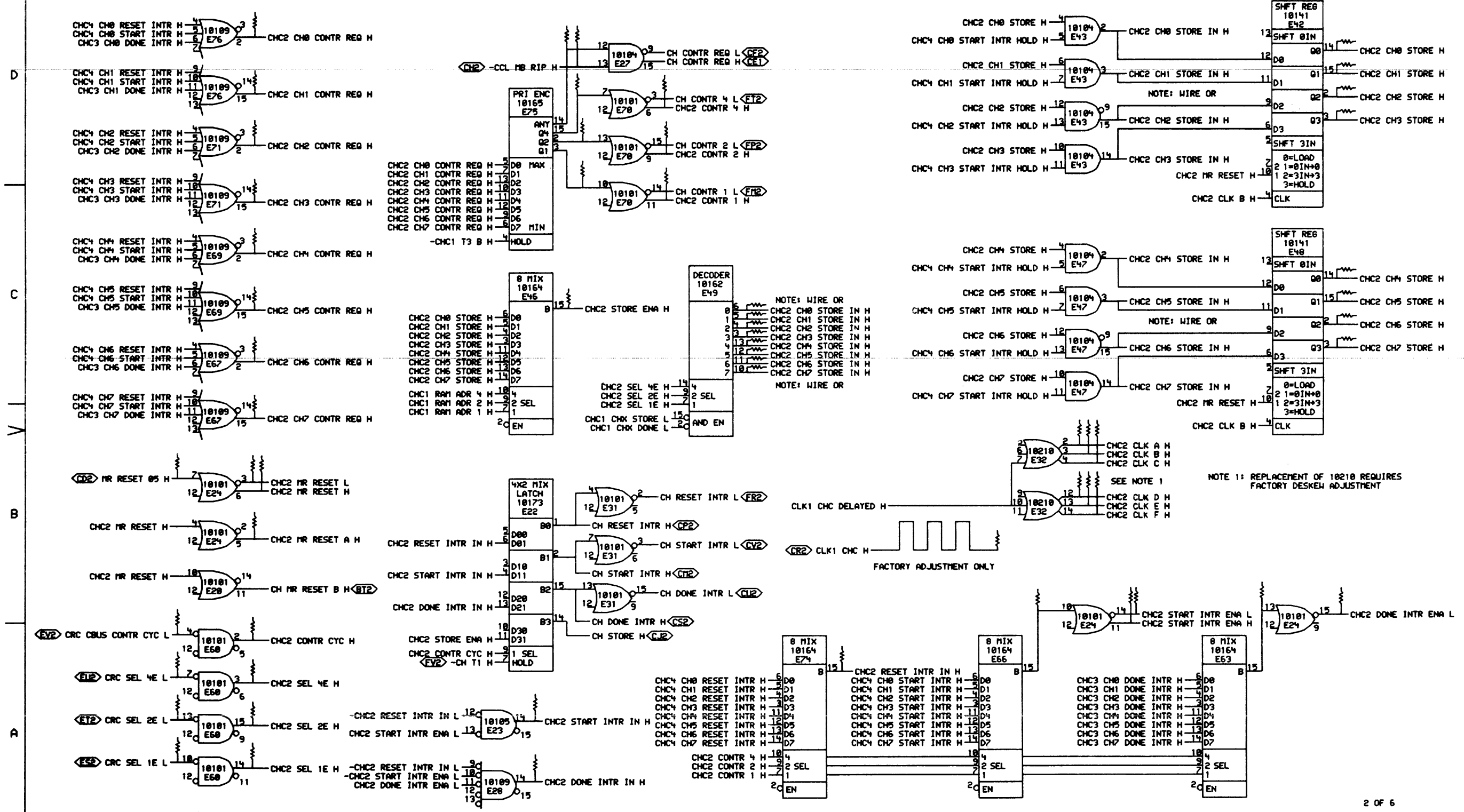
221



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REVISIONS		
CHK	CHANGE NO.	REV
Q	M8533-00002	B
J	SCHWARTZ	16
J	SCHWARTZ	22

digital	DATE	ENG	DATE	TITLE:
	02-JAN-77	SL	1/12/77	CHANNEL CONTROL
CNC1EF.DRI(4,578)		DATE	BOARD LOCATION	4AF89
FIRST USED ON OPTION MODEL: KL10		1/10/77	SHEET	OF
NEXT HIGHER ASSEMBLY:		B-DD-M8533-0		SIZE CODE
				D CS
				NUMBER
				M8533-0-CHC1
				REV.
				B

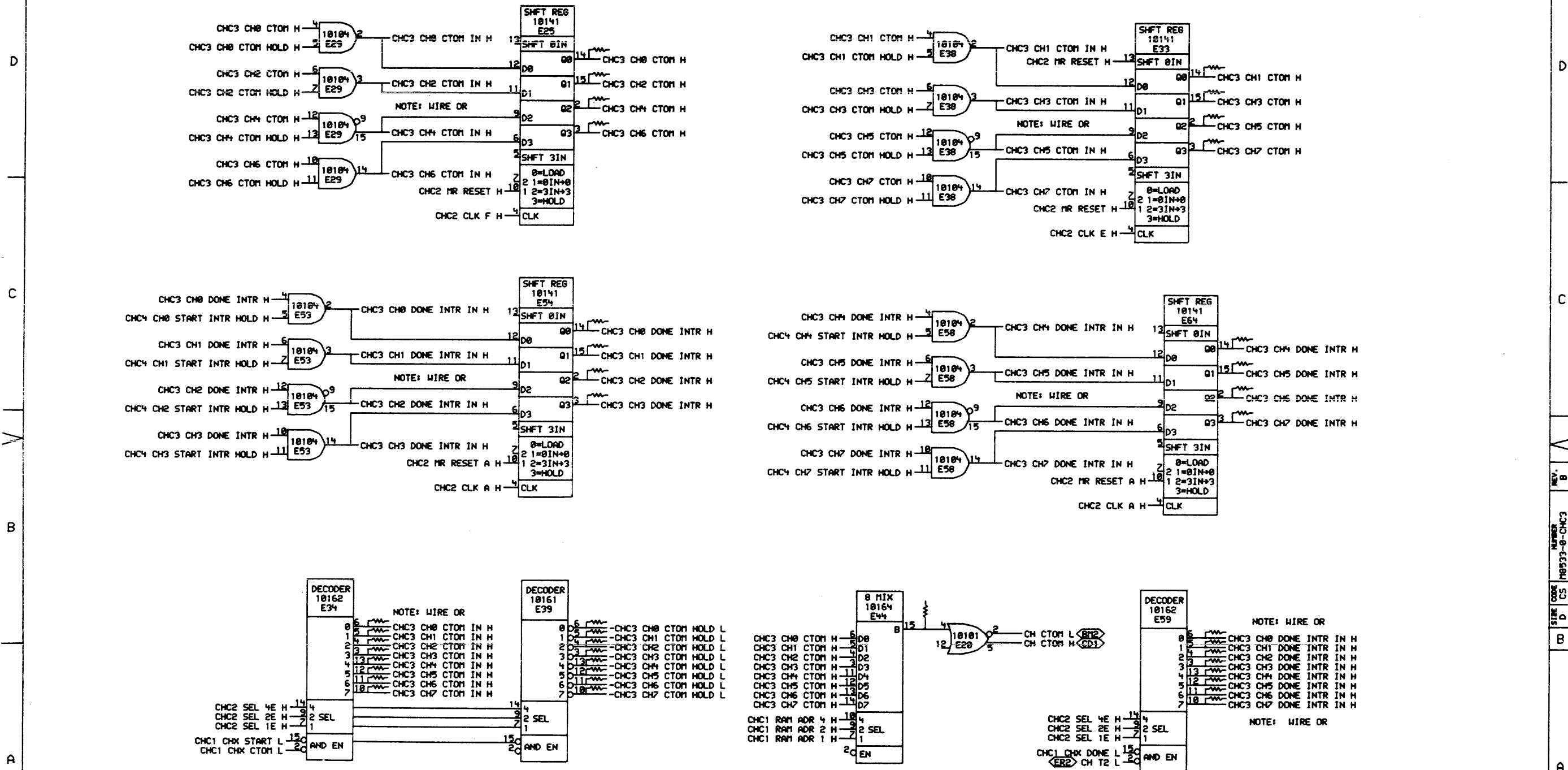


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REV. NO.	CHG. NO.	REV.
1	18533-00002	B

	DATE: 06-30-77	ENG: [Signature]	DATE: [Signature]	TITLE: CHANNEL CONTROL
	DATE: 06-30-77	DATE: 06-30-77	DATE: 06-30-77	DATE: 06-30-77
FIRST USED ON OPTION MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8533-0	SIZE CODE: D CS	NUMBER: M8533-0-CHC2	REV. B

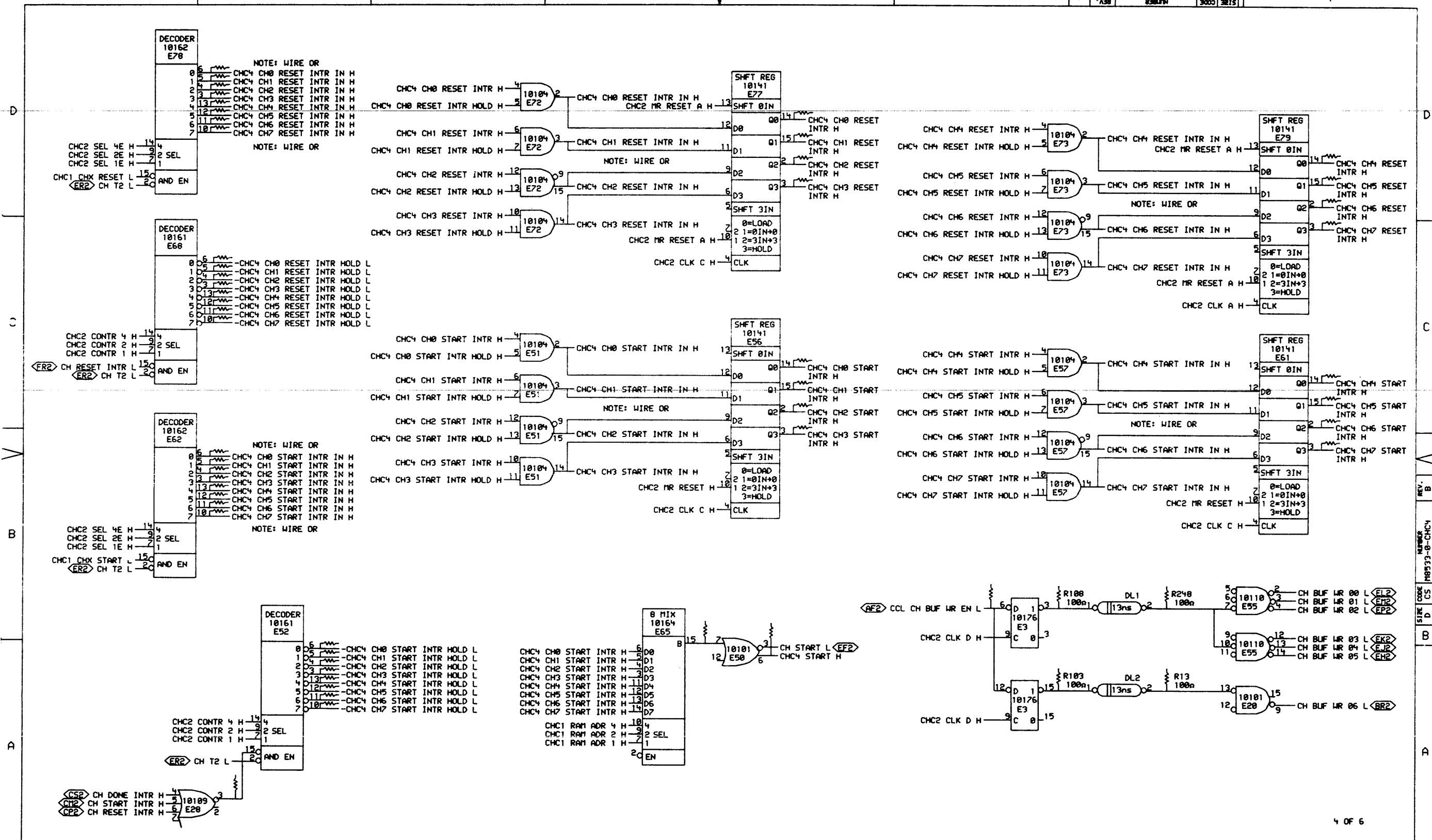
223



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REVISIONS		
CHK	CHANGE NO.	REV
491	M8533-0002	2

	DATE: 06-30-77	ENG: M. Schmitt	DATE: 12/77	TITLE: CHANNEL CONTROL
	DATE: 1/8/77	BOARD LOCATION: 4A209	SHEET: 1	
CHC3EF, DR14, 578	1864 JAN-77 18152	NEXT HIGHER ASSEMBLY: B-DD-M8533-0	SIZE CODE: D CS	NUMBER: M8533-0-CHC3
FIRST USED ON OPTION MODEL: KL10				REV. B

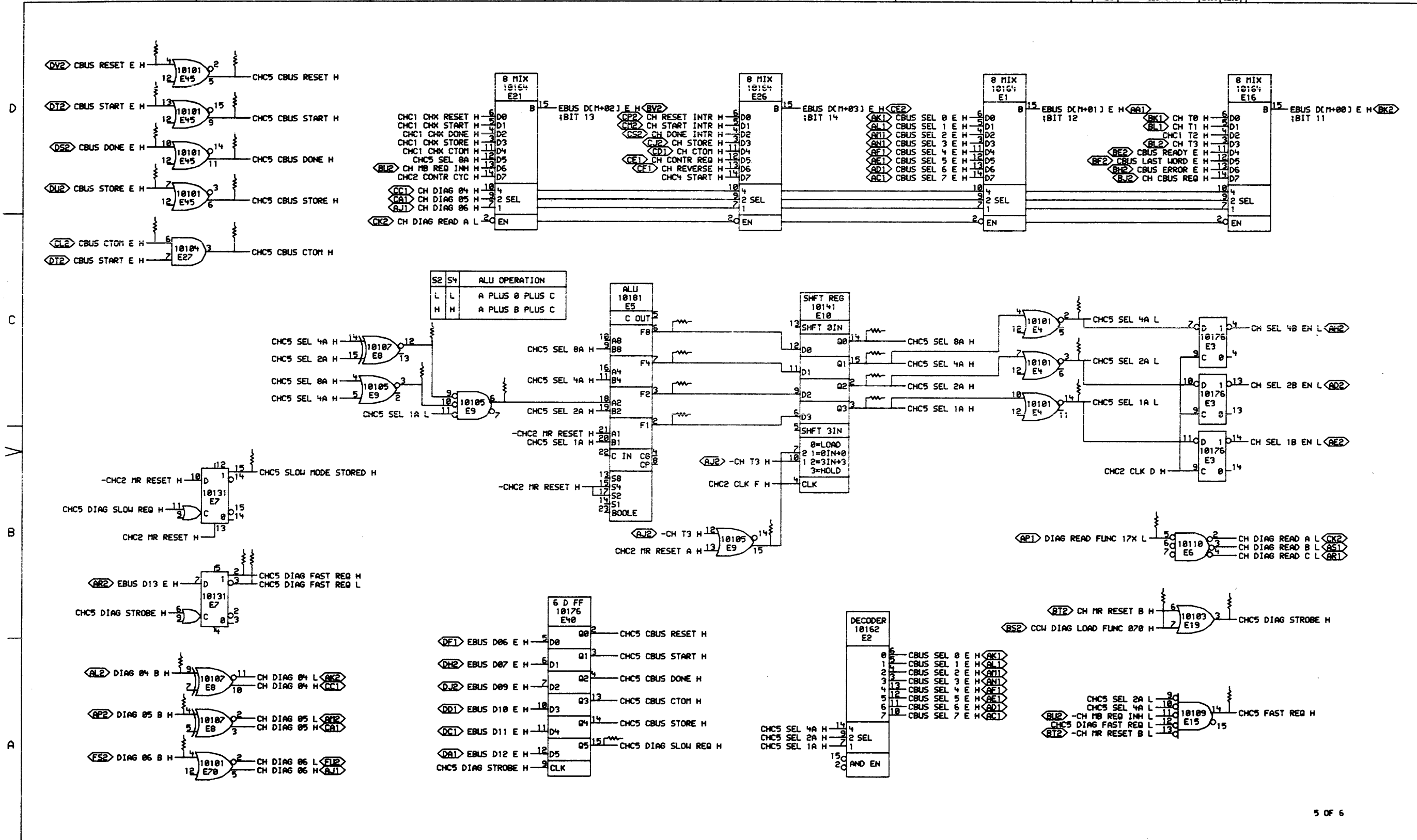


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REV.	CHG	CHANGE NO.	REV
1	1	1	1

digital	DATE	ENG	DATE	TITLE:
	06 JAN 77	M. J. ...	11/2/77	CHANNEL CONTROL
CHC4E.DRAW 4.5781	DATE	BOARD LOCATION:	4AF05	
FIRST USED ON OPTION/MODEL:	06 JAN 77	10:55	NEXT HIGHER ASSEMBLY:	B-DD-M8533-0
	SIZE	CODE	NUMBER	REV.
	D	CS	M8533-0-CHC4	B

225



S2	S4	ALU OPERATION
L	L	A PLUS 0 PLUS C
H	H	A PLUS B PLUS C

6 D FF	10176	E48
00	00	CHC5 CBUS RESET H
01	01	CHC5 CBUS START H
02	02	CHC5 CBUS DONE H
03	03	CHC5 CBUS CTOM H
04	04	CHC5 CBUS STORE H
05	05	CHC5 DIAG SLOW REQ H

DECODER	10162	E2
0	0	CBUS SEL 0 E H
1	1	CBUS SEL 1 E H
2	2	CBUS SEL 2 E H
3	3	CBUS SEL 3 E H
4	4	CBUS SEL 4 E H
5	5	CBUS SEL 5 E H
6	6	CBUS SEL 6 E H
7	7	CBUS SEL 7 E H

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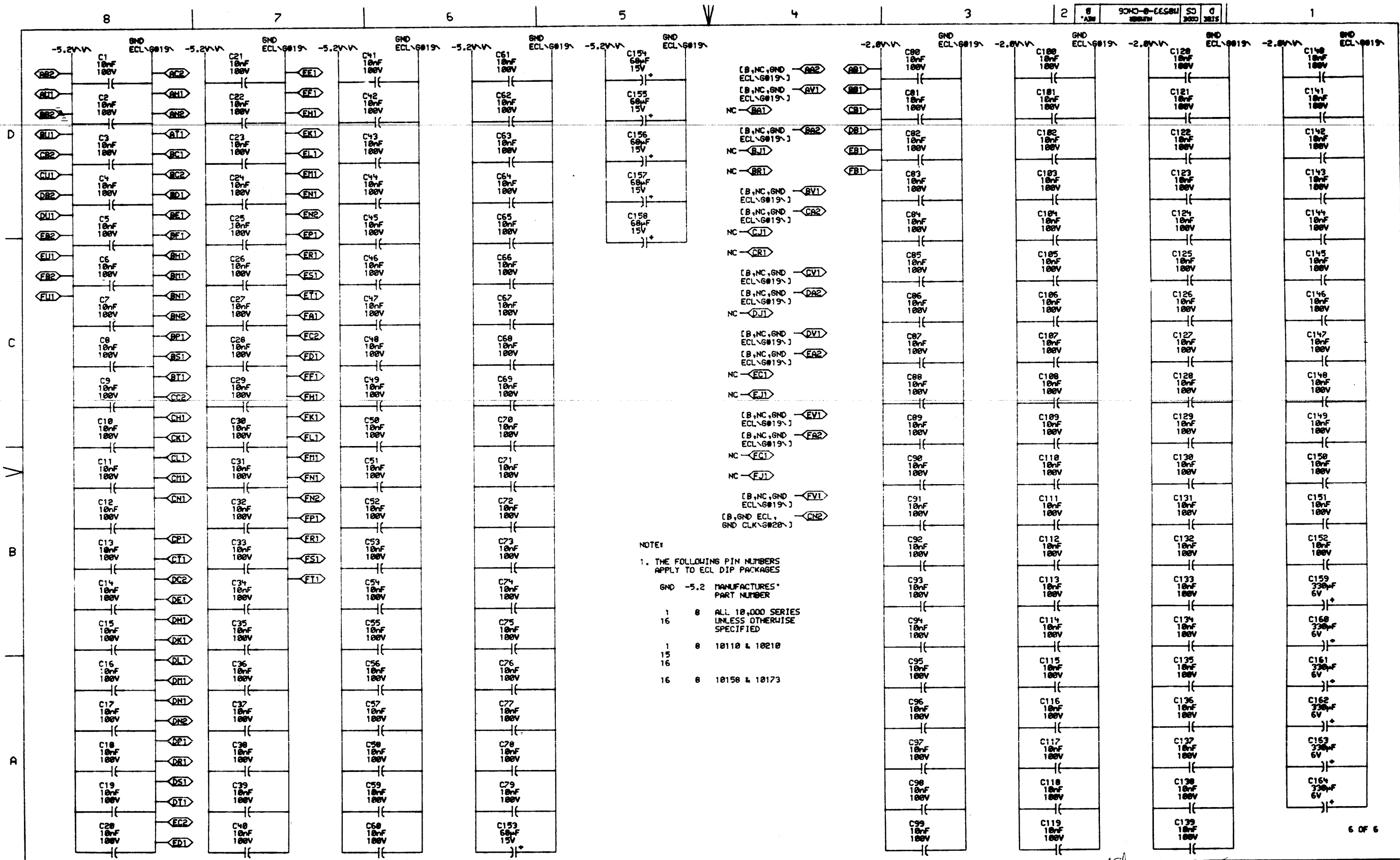
REVISIONS	DATE	ENG.	DATE	TITLE:
CHG CHANGE NO. REV	08-JAN-77	M. S. SWART	01/27/77	CHANNEL CONTROL
01 M8533-00002 E				
M. SCHWARTZ				

digital	DATE	ENG.	DATE	TITLE:
CHC5 (DRW 4,578)	08-JAN-77	M. S. SWART	01/27/77	CHANNEL CONTROL
FIRST USED ON OPTION MODEL:	180 JAN-77			
	180 JAN-77			

SIZE CODE	NUMBER	REV.
D CS	M8533-0-CHC5	B

220





NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10110 & 10210
15	8	10158 & 10173
16	8	10158 & 10173

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REV. NO.	DATE	DESCRIPTION
1	10/10/77	INITIAL RELEASE

	DATE: 10/10/77	ENG: M. Schmitt	DATE: 10/10/77	TITLE: CHANNEL CONTROL POWER AND GROUND
	CHECKED: DRK 4, 578 FIRST USED ON OPTION MODEL: KL10	DATE: 10/10/77 BOARD LOCATION: 4RE05	NEXT HIGHER ASSEMBLY: B-DD-M8533-0	SIZE CODE: D CS NUMBER: M8533-0-CHC6 REV.: B

227

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
R248(1)	CHC4	B2	100n	%DL1(2)	R1(1)	CHC5	C5	60n	%E5(7)	R172(1)	CHC1	B5	60n	CHC1 T2 A H	R154(1)	CHC2	B7	60n	-CHC2 MR RESET H
R13(1)	CHC4	A2	100n	%DL2(2)	R64(1)	CHC2	B2	60n	%E6(15)	R270(1)	CHC1	B4	60n	-CHC1 T3 B H	R149(1)	CHC2	B7	60n	CHC2 MR RESET A H
R219(1)	CHC1	C2	60n	%E11(14)	R247(1)	CHC4	B5	60n	%E65(15)	R216(1)	CHC1	B2	60n	CHC1 TIMING BLOCK H	R167(1)	CHC2	A4	60n	CHC2 RESET INTR IN H
R155(1)	CHC1	B6	60n	%E11(9)	R63(1)	CHC2	B3	60n	%E66(15)	R263(1)	CHC2	D7	60n	CHC2 CH0 CONTR REQ H	R101(1)	CHC2	A7	60n	CHC2 SEL 1E H
R112(1)	CHC1	B5	60n	%E12(3)	R163(1)	CHC2	D5	60n	%E75(14)	R189(1)	CHC2	D1	60n	CHC2 CH0 STORE H	R100(1)	CHC2	A7	60n	CHC2 SEL 2E H
R116(1)	CHC1	B4	60n	%E13(11)	R250(1)	CHC2	D5	60n	%E75(15)	R122(1)	CHC2	C4	60n	CHC2 CH0 STORE IN H	R97(1)	CHC2	A7	60n	CHC2 SEL 4E H
R113(1)	CHC1	C4	60n	%E13(5)	R255(1)	CHC2	D5	60n	%E75(2)	R266(1)	CHC2	D7	60n	CHC2 CH1 CONTR REQ H	R66(1)	CHC2	B2	60n	CHC2 START INTR ENA H
R114(1)	CHC1	C4	60n	%E13(6)	R259(1)	CHC2	C5	60n	%E75(3)	R190(1)	CHC2	D1	60n	CHC2 CH1 STORE H	R118(1)	CHC2	B2	60n	-CHC2 START INTR ENA H
R115(1)	CHC1	B4	60n	%E13(9)	R56(1)	CHC5	C6	60n	%E8(12)	R127(1)	CHC2	C4	60n	CHC2 CH1 STORE IN H	R166(1)	CHC2	A6	60n	CHC2 START INTR IN H
R59(1)	CHC1	B2	60n	%E14(3)	R8(1)	CHC5	B4	60n	%E9(15)	R261(1)	CHC2	D7	60n	CHC2 CH2 CONTR REQ H	R161(1)	CHC2	C5	60n	CHC2 STORE ENA H
R60(1)	CHC1	C4	60n	%E17(13)	R57(1)	CHC5	C6	60n	%E9(3)	R191(1)	CHC2	D1	60n	CHC2 CH2 STORE H	R28(1)	CHC3	D5	60n	CHC3 CH0 CTOM H
R157(1)	CHC1	A2	60n	%E19(14)	R4(1)	CHC5	C6	60n	%E9(6)	R120(1)	CHC2	C4	60n	CHC2 CH2 STORE IN H	R20(1)	CHC3	B5	60n	CHC3 CH0 CTOM HOLD H
R55(1)	CHC1	C2	60n	%E23(3)	R169(1)	CHC5	C8	60n	CBUS CTOM E H	R265(1)	CHC2	C7	60n	CHC2 CH3 CONTR REQ H	R11(1)	CHC3	B7	60n	CHC3 CH0 CTOM IN H
R159(1)	CHC1	C4	60n	%E27(14)	R241(1)	CHC5	D8	60n	CBUS DONE E H	R180(1)	CHC2	D1	60n	CHC2 CH3 STORE H	R210(1)	CHC3	C5	60n	CHC3 CH0 DONE INTR H
R160(1)	CHC1	D4	60n	%E27(2)	R235(1)	CHC1	A5	60n	CBUS REQUEST E H	R129(1)	CHC2	C4	60n	CHC2 CH3 STORE IN H	R35(1)	CHC3	B2	60n	CHC3 CH0 DONE INTR IN H
R130(1)	CHC4	A7	60n	%E28(3)	R244(1)	CHC5	D8	60n	CBUS RESET E H	R262(1)	CHC2	C7	60n	CHC2 CH4 CONTR REQ H	R33(1)	CHC3	D2	60n	CHC3 CH1 CTOM H
R103(1)	CHC4	A3	100n	%E3(15)	R170(1)	CHC5	D8	60n	CBUS START E H	R185(1)	CHC2	C1	60n	CHC2 CH4 STORE H	R76(1)	CHC3	B5	60n	CHC3 CH1 CTOM HOLD H
R108(1)	CHC4	B3	100n	%E3(3)	R245(1)	CHC5	D8	60n	CBUS STORE E H	R77(1)	CHC2	C4	60n	CHC2 CH4 STORE IN H	R69(1)	CHC3	B7	60n	CHC3 CH1 CTOM IN H
R107(1)	CHC1	B7	60n	%E31(14)	R102(1)	CHC4	B3	60n	-CCL CH BUF WR EN H	R260(1)	CHC2	C7	60n	CHC2 CH5 CONTR REQ H	R213(1)	CHC3	C5	60n	CHC3 CH1 DONE INTR H
R230(1)	CHC1	A4	60n	%E35(13)	R165(1)	CHC2	D5	60n	-CCL MB RIP H	R180(1)	CHC2	C1	60n	CHC2 CH5 STORE H	R36(1)	CHC3	B2	60n	CHC3 CH1 DONE INTR IN H
R14(1)	CHC1	A4	60n	%E35(14)	R61(1)	CHC5	B2	60n	CCW DIAG LOAD FUNC 070 H	R83(1)	CHC2	C4	60n	CHC2 CH5 STORE IN H	R32(1)	CHC3	D5	60n	CHC3 CH2 CTOM H
R232(1)	CHC1	B4	60n	%E35(2)	R223(1)	CHC1	A4	60n	CHC1 CHX CTOM H	R264(1)	CHC2	C7	60n	CHC2 CH6 CONTR REQ H	R21(1)	CHC3	B5	60n	CHC3 CH2 CTOM HOLD H
R231(1)	CHC1	A4	60n	%E35(3)	R23(1)	CHC1	A4	60n	-CHC1 CHX CTOM H	R187(1)	CHC2	C1	60n	CHC2 CH6 STORE H	R16(1)	CHC3	B7	60n	CHC3 CH2 CTOM IN H
R229(1)	CHC1	A4	60n	%E35(4)	R227(1)	CHC1	A4	60n	CHC1 CHX DONE H	R81(1)	CHC2	C4	60n	CHC2 CH6 STORE IN H	R211(1)	CHC3	C5	60n	CHC3 CH2 DONE INTR H
R178(1)	CHC1	D7	60n	%E36(1)	R39(1)	CHC1	A4	60n	-CHC1 CHX DONE H	R267(1)	CHC2	B7	60n	CHC2 CH7 CONTR REQ H	R34(1)	CHC3	A2	60n	CHC3 CH2 DONE INTR IN H
R184(1)	CHC1	D7	60n	%E36(15)	R225(1)	CHC1	A4	60n	CHC1 CHX RESET H	R186(1)	CHC2	C1	60n	CHC2 CH7 STORE H	R31(1)	CHC3	D2	60n	CHC3 CH3 CTOM H
R183(1)	CHC1	D7	60n	%E36(2)	R90(1)	CHC1	A4	60n	-CHC1 CHX RESET H	R84(1)	CHC2	C4	60n	CHC2 CH7 STORE IN H	R75(1)	CHC3	A5	60n	CHC3 CH3 CTOM HOLD H
R54(1)	CHC1	D5	60n	%E37(14)	R226(1)	CHC1	B4	60n	CHC1 CHX START H	R51(1)	CHC2	B3	60n	CHC2 CLK A H	R71(1)	CHC3	A7	60n	CHC3 CH3 CTOM IN H
R171(1)	CHC1	D5	60n	%E37(15)	R136(1)	CHC1	B4	60n	-CHC1 CHX START H	R82(1)	CHC2	B3	60n	CHC2 CLK B H	R212(1)	CHC3	C5	60n	CHC3 CH3 DONE INTR H
R168(1)	CHC1	D5	60n	%E37(2)	R224(1)	CHC1	A4	60n	CHC1 CHX STORE H	R150(1)	CHC2	B3	60n	CHC2 CLK C H	R37(1)	CHC3	A2	60n	CHC3 CH3 DONE INTR IN H
R150(1)	CHC1	D5	60n	%E37(3)	R30(1)	CHC1	A4	60n	-CHC1 CHX STORE H	R106(1)	CHC2	B3	60n	CHC2 CLK D H	R27(1)	CHC3	D5	60n	CHC3 CH4 CTOM H
R156(1)	CHC1	D4	60n	%E4(15)	R215(1)	CHC1	C7	60n	CHC1 CLK SYN H	R60(1)	CHC2	B3	60n	CHC2 CLK E H	R17(1)	CHC3	A5	60n	CHC3 CH4 CTOM HOLD H
R126(1)	CHC1	D6	60n	%E4(1)	R120(1)	CHC1	B7	60n	CHC1 EBUS CLK DLY H	R10(1)	CHC2	B3	60n	CHC2 CLK F H	R15(1)	CHC3	A7	60n	CHC3 CH4 CTOM IN H
R123(1)	CHC1	D6	60n	%E4(14)	R257(1)	CHC1	C7	60n	CHC1 RAM ADR 1 H	R132(1)	CHC2	C5	60n	CHC2 CONTR 1 H	R88(1)	CHC3	C2	60n	CHC3 CH4 DONE INTR H
R125(1)	CHC1	D6	60n	%E4(15)	R253(1)	CHC1	B7	60n	CHC1 RAM ADR 2 H	R131(1)	CHC2	D5	60n	CHC2 CONTR 2 H	R38(1)	CHC3	A2	60n	CHC3 CH4 DONE INTR IN H
R124(1)	CHC1	D6	60n	%E4(12)	R29(1)	CHC1	B7	60n	CHC1 RAM ADR 4 H	R133(1)	CHC2	D5	60n	CHC2 CONTR 4 H	R24(1)	CHC3	D2	60n	CHC3 CH5 CTOM H
R12(1)	CHC3	B4	60n	%E44(15)	R62(1)	CHC1	A4	60n	CHC1 REQ C H	R119(1)	CHC2	A7	60n	CHC2 CONTR CYC H	R72(1)	CHC3	A5	60n	CHC3 CH5 CTOM HOLD H
R7(1)	CHC5	C5	60n	%E5(2)	R233(1)	CHC1	C5	60n	CHC1 T0 A H	R65(1)	CHC2	B1	60n	-CHC2 DONE INTR ENA H	R70(1)	CHC3	A7	60n	CHC3 CH5 CTOM IN H
R3(1)	CHC5	C5	60n	%E5(3)	R111(1)	CHC1	B5	60n	CHC1 T1 A H	R162(1)	CHC2	A6	60n	CHC2 DONE INTR IN H	R91(1)	CHC3	C2	60n	CHC3 CH5 DONE INTR H
R2(1)	CHC5	C5	60n	%E5(6)	R221(1)	CHC1	B4	60n	CHC1 T2 H	R200(1)	CHC2	B7	60n	CHC2 MR RESET H	R41(1)	CHC3	A2	60n	CHC3 CH5 DONE INTR IN 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. <i>Smith</i>	DATE <i>11-30-77</i>	ENG. <i>W. C.</i>	DATE <i>1/27/77</i>	TITLE: CHANNEL CONTROL TERMINATORS
	F85331 DRW 4, 5, 6, 7	DATE <i>11/27/77</i>	BOARD LOCATION: <i>1</i>	SHEET <i>1</i> OF <i>2</i>	SIZE CODE NUMBER REV. D CS M8533-0-RES B
FIRST USED ON OPTION/MODEL: KL10			NEXT HIGHER ASSEMBLY: B-DD-M8533-0		MR1

RESISTOR LOC(PIN)	SHOWN DRU#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRU#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DRU#	ON REF	VALUE	TERMINATES SIGNAL
R25(1)	CHC3	D5	68n	CHC3 CH6 CTOM H	R95(1)	CHC4	D1	68n	CHC4 CH5 RESET INTR H	R179(1)	CHC1	D6	68n	CRC ERR IN H
R18(1)	CHC3	A5	68n	CHC3 CH6 CTOM HOLD H	R96(1)	CHC4	C7	68n	CHC4 CH5 RESET INTR HOLD H	R181(1)	CHC1	D6	68n	CRC LAST WORD IN H
R19(1)	CHC3	A7	68n	CHC3 CH6 CTOM IN H	R50(1)	CHC4	D7	68n	CHC4 CH5 RESET INTR IN H	R242(1)	CHC1	C7	68n	-CRC RAM ADR 1R H
R140(1)	CHC3	C2	68n	CHC3 CH6 DONE INTR H	R43(1)	CHC4	C1	68n	CHC4 CH5 START INTR H	R243(1)	CHC1	B7	68n	-CRC RAM ADR 2R H
R40(1)	CHC3	A2	68n	CHC3 CH6 DONE INTR IN H	R90(1)	CHC4	A7	68n	CHC4 CH5 START INTR HOLD H	R246(1)	CHC1	B7	68n	-CRC RAM ADR 4R H
R26(1)	CHC3	D2	68n	CHC3 CH7 CTOM H	R197(1)	CHC4	B7	68n	CHC4 CH5 START INTR IN H	R182(1)	CHC1	D6	68n	CRC READY IN H
R73(1)	CHC3	A5	68n	CHC3 CH7 CTOM HOLD H	R139(1)	CHC4	D1	68n	CHC4 CH6 RESET INTR H	R174(1)	CHC1	D6	68n	CRC REVERSE IN H
R74(1)	CHC3	A7	68n	CHC3 CH7 CTOM IN H	R93(1)	CHC4	C7	68n	CHC4 CH6 RESET INTR HOLD H	R173(1)	CHC1	C7	68n	CRC SEL 1C H
R137(1)	CHC3	C2	68n	CHC3 CH7 DONE INTR H	R53(1)	CHC4	D7	68n	CHC4 CH6 RESET INTR IN H	R251(1)	CHC2	A8	68n	-CRC SEL 1E H
R44(1)	CHC3	A2	68n	CHC3 CH7 DONE INTR IN H	R134(1)	CHC4	C1	68n	CHC4 CH6 START INTR H	R176(1)	CHC1	D7	68n	CRC SEL 2C H
R40(1)	CHC4	D4	68n	CHC4 CH0 RESET INTR H	R85(1)	CHC4	A7	68n	CHC4 CH6 START INTR HOLD H	R250(1)	CHC2	A8	68n	-CRC SEL 2E H
R146(1)	CHC4	C7	68n	CHC4 CH0 RESET INTR HOLD H	R199(1)	CHC4	B7	68n	CHC4 CH6 START INTR IN H	R177(1)	CHC1	D7	68n	CRC SEL 4C H
R144(1)	CHC4	D7	68n	CHC4 CH0 RESET INTR IN H	R141(1)	CHC4	C1	68n	CHC4 CH7 RESET INTR H	R252(1)	CHC2	A8	68n	-CRC SEL 4E H
R203(1)	CHC4	C4	68n	CHC4 CH0 START INTR H	R92(1)	CHC4	C7	68n	CHC4 CH7 RESET INTR HOLD H	R175(1)	CHC1	C6	68n	-CRC WR RAM H
R79(1)	CHC4	A7	68n	CHC4 CH0 START INTR HOLD H	R52(1)	CHC4	D7	68n	CHC4 CH7 RESET INTR IN H	R103(1)	CHC5	A8	68n	DIAG 04 B H
R132(1)	CHC4	B7	68n	CHC4 CH0 START INTR IN H	R135(1)	CHC4	B1	68n	CHC4 CH7 START INTR H	R110(1)	CHC5	A8	68n	DIAG 05 B H
R47(1)	CHC4	D4	68n	CHC4 CH1 RESET INTR H	R86(1)	CHC4	A7	68n	CHC4 CH7 START INTR HOLD H	R254(1)	CHC5	A8	68n	DIAG 06 B H
R143(1)	CHC4	C7	68n	CHC4 CH1 RESET INTR HOLD H	R201(1)	CHC4	B7	68n	CHC4 CH7 START INTR IN H	R217(1)	CHC5	B2	68n	-DIAG READ FUNC 17X H
R145(1)	CHC4	D7	68n	CHC4 CH1 RESET INTR IN H	R228(1)	CHC4	B4	68n	CHC4 START H	R205(1)	CHC1	A7	68n	MB IN SEL 1 H
R214(1)	CHC4	C4	68n	CHC4 CH1 START INTR H	R238(1)	CHC5	C7	68n	CHC5 CBUS CTOM H	R207(1)	CHC1	A7	68n	MB IN SEL 2 H
R80(1)	CHC4	A7	68n	CHC4 CH1 START INTR HOLD H	R234(1)	CHC5	D7	68n	CHC5 CBUS DONE H	R206(1)	CHC1	A7	68n	MB IN SEL 4 H
R193(1)	CHC4	B7	68n	CHC4 CH1 START INTR IN H	R236(1)	CHC5	D7	68n	CHC5 CBUS RESET H	R204(1)	CHC1	A7	68n	MB SEL 1 EN H
R46(1)	CHC4	D4	68n	CHC4 CH2 RESET INTR H	R237(1)	CHC5	D7	68n	CHC5 CBUS START H	R203(1)	CHC1	A7	68n	MB SEL 2 EN H
R130(1)	CHC4	C7	68n	CHC4 CH2 RESET INTR HOLD H	R239(1)	CHC5	D7	68n	CHC5 CBUS STORE H	R260(1)	CHC1	A7	68n	MB SEL HOLD H
R147(1)	CHC4	D7	68n	CHC4 CH2 RESET INTR IN H	R220(1)	CHC5	B7	68n	CHC5 DIAG FAST REQ H	R117(1)	CHC1	C7	68n	-MBC3 A PHASE COMING H
R256(1)	CHC4	C4	68n	CHC4 CH2 START INTR H	R5(1)	CHC5	B7	68n	-CHC5 DIAG FAST REQ H	R67(1)	CHC2	B8	68n	MR RESET 05 H
R70(1)	CHC4	A7	68n	CHC4 CH2 START INTR HOLD H	R6(1)	CHC5	A5	68n	CHC5 DIAG SLOW REQ H	R202(1)	CHC1	A7	68n	-NM1 ANT H
R195(1)	CHC4	B7	68n	CHC4 CH2 START INTR IN H	R240(1)	CHC5	B2	68n	CHC5 DIAG STROBE H					
R45(1)	CHC4	D4	68n	CHC4 CH3 RESET INTR H	R58(1)	CHC5	A2	68n	CHC5 FAST REQ H					
R142(1)	CHC4	C7	68n	CHC4 CH3 RESET INTR HOLD H	R153(1)	CHC5	C4	68n	CHC5 SEL 1A H					
R148(1)	CHC4	D7	68n	CHC4 CH3 RESET INTR IN H	R104(1)	CHC5	C2	68n	-CHC5 SEL 1A H					
R200(1)	CHC4	C4	68n	CHC4 CH3 START INTR H	R152(1)	CHC5	C4	68n	CHC5 SEL 2A H					
R194(1)	CHC4	A7	68n	CHC4 CH3 START INTR HOLD H	R105(1)	CHC5	C2	68n	-CHC5 SEL 2A H					
R190(1)	CHC4	B7	68n	CHC4 CH3 START INTR IN H	R151(1)	CHC5	C4	68n	CHC5 SEL 4A H					
R99(1)	CHC4	D1	68n	CHC4 CH4 RESET INTR H	R9(1)	CHC5	C2	68n	-CHC5 SEL 4A H					
R94(1)	CHC4	C7	68n	CHC4 CH4 RESET INTR HOLD H	R22(1)	CHC5	C4	68n	CHC5 SEL 8A H					
R49(1)	CHC4	D7	68n	CHC4 CH4 RESET INTR IN H	R218(1)	CHC5	B7	68n	CHC5 SLOW MODE STORED H					
R42(1)	CHC4	C1	68n	CHC4 CH4 START INTR H	R121(1)	CHC2	B3	68n	CLK1 CHC H					
R89(1)	CHC4	A7	68n	CHC4 CH4 START INTR HOLD H	R269(1)	CHC1	A7	68n	CRC BUF MB SEL H					
R196(1)	CHC4	B7	68n	CHC4 CH4 START INTR IN H	R249(1)	CHC2	A8	68n	-CRC CBUS CONTR CYC H					

NOTE:

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

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>G. Smith</i>	DATE 11-28-77	ENG. <i>M. G. F.</i>	DATE 11/27/77	TITLE: CHANNEL CONTROL TERMINATORS
	BY <i>John</i>	DATE 11/27/77	BOARD LOCATION: 2 OF 2	SHEET 2 OF 2	SIZE CODE D CS M8533-0-RES
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8533-0		REV. B	

CUSTOMER  
PRINT SET

MFG SET

REVISION CONTROL SHEET

DRAWING NO	NO OF SHT	DESCRIPTION	OPTION NO/FILE DATE
	-	MODULE REVISION	
D-UA-M8534-Ø-Ø	5	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW1	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW2	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW3	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW4	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW5	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW6	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-CCW7	1	CHANNEL CONTROL WORD	
D-CS-M8534-Ø-RES	2	CHAN CONTROL WORD TERMINATORS	
K-CO-M8534-Ø-4	1	CHANNEL CONTROL WORD (CALDEC DATA BASE)	
D-AH-M8534-Ø-5	4	CHANNEL CONTROL WORD	
B-MH-M8534-Ø-6	1	MODULE ECO HISTORY	
5010924	-	ETCH CIRCUIT BOARD	
P00-M8534-ØØ		PROCESS SHEET (REF ONLY)	

REVISIONS	
A	B C C C
-	A B BI BI
-	A B B B
-	A B C C
-	A B B B
-	A A A A
-	A B C C
-	A A B B
-	A B C C
-	A B C C
B	B B B B SHT.3
A	A A A A A
A	B C C C C
B	B B B B B
-	- - - - -
REWORK VERSION SEE SHT.3	
RELAYOUT VERSION	

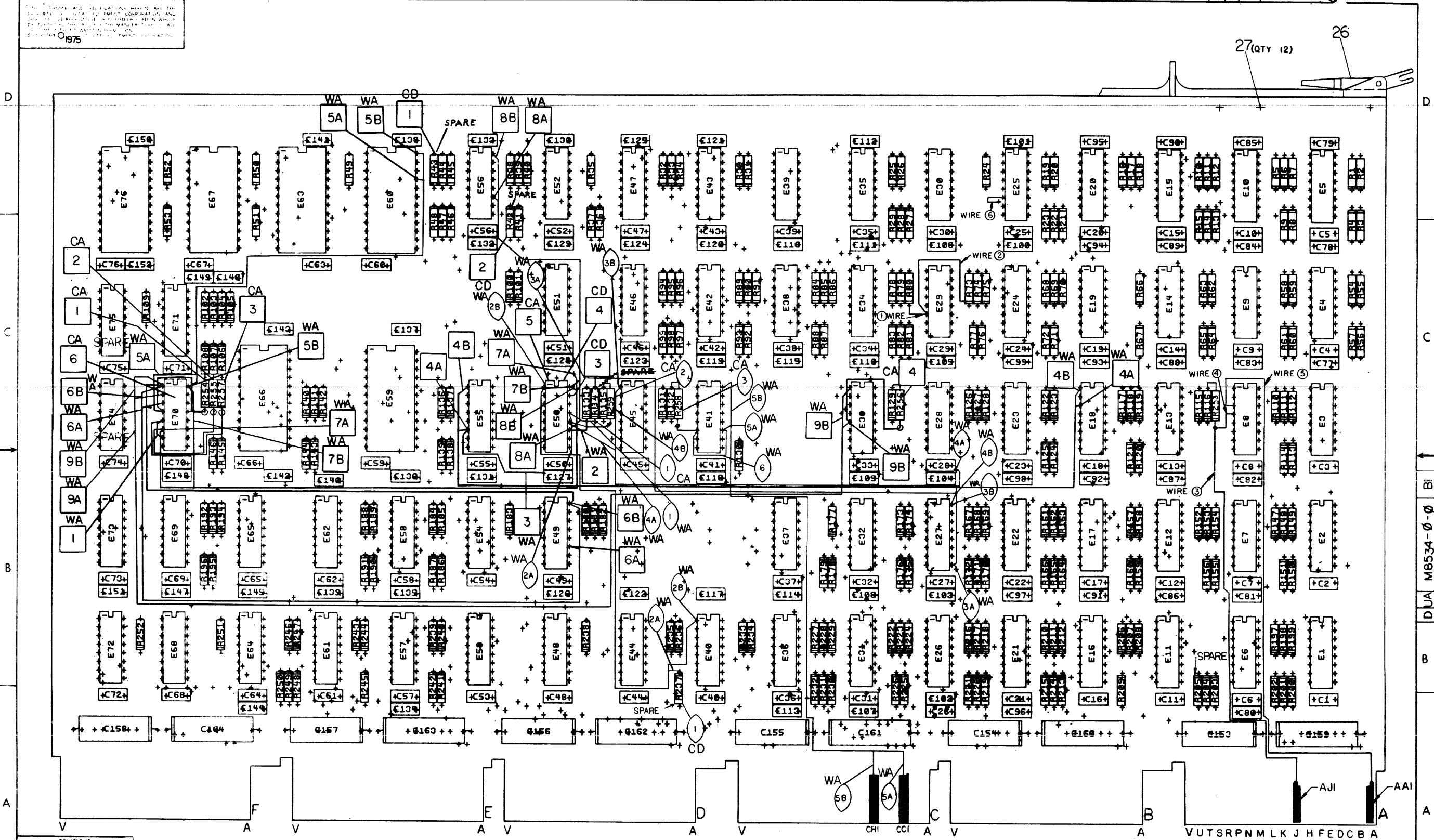
CUSTOMER PRINT SET CODES  
 X = PRINT OF DOCUMENT INCLUDED IN PRINT SET  
 C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT  
 S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

ECO NO  
 ORIG.  
 00001  
 00002  
 MRO03  
 MRO04

TITLE CHANNEL CONTROL WORD	SHEET 2 OF 3	SIZE CODE B DD	NUMBER M8534-Ø	D
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MR

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REVISIONS		
CHK	CHANGE NO.	REV.

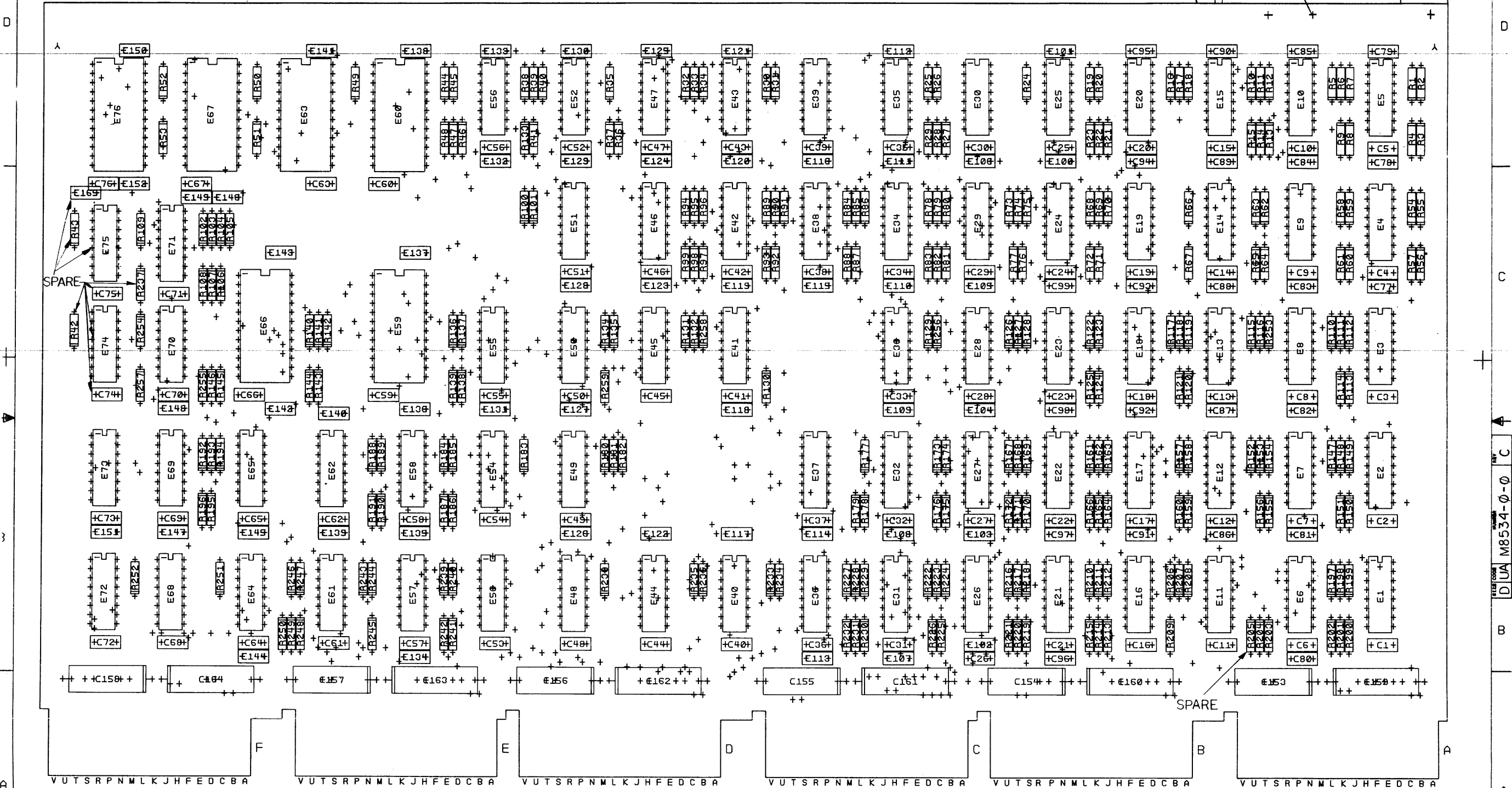
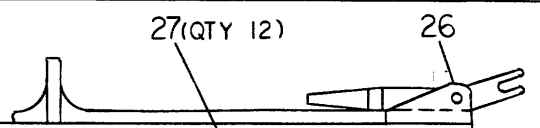
(LAYER I)		TITLE	SIZE CODE	NUMBER	REV.
CHANNEL CONTROL WORD		DUA	M8534-0-0	Bl	
SCALE 2/1	SHEET 2 OF 5	DIST.			





2 | DUA M8534-0-0 | C

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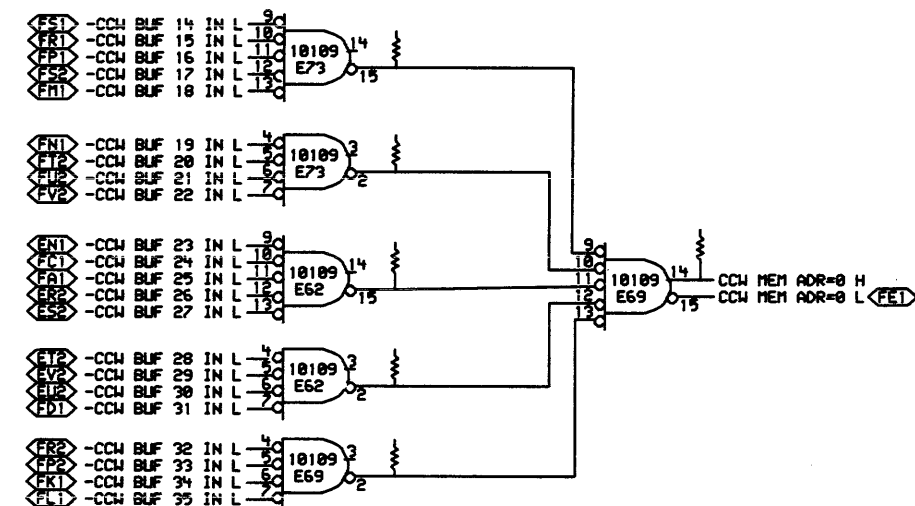
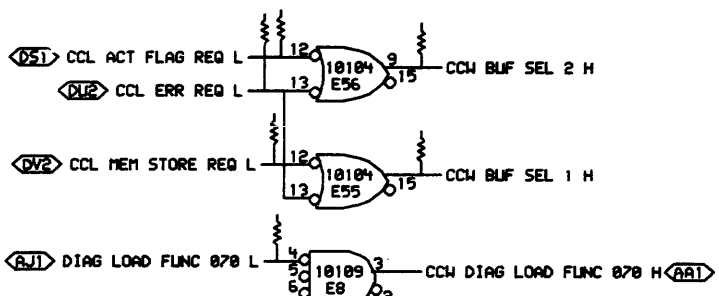
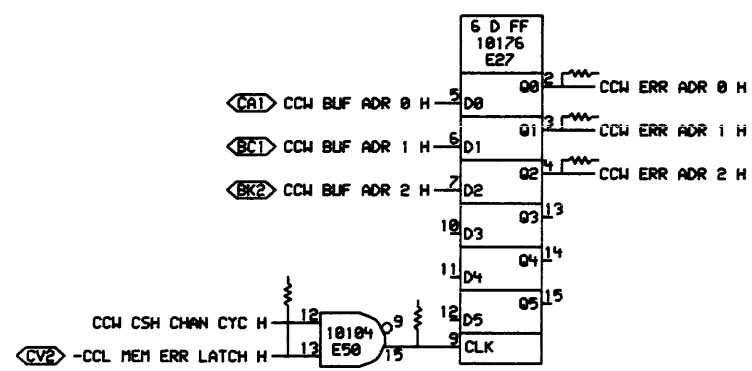
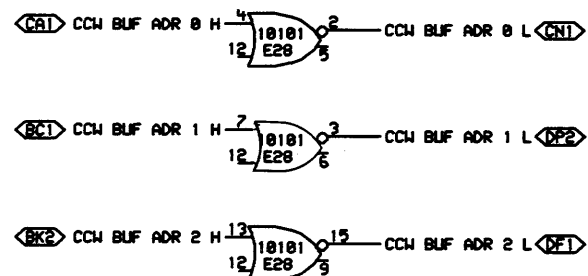
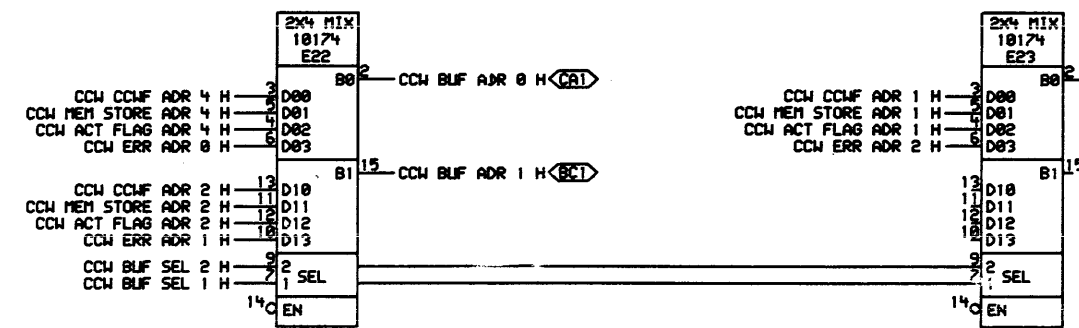


NOTES:  
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\_\_\_\_\_  
\_\_\_\_\_

CHK	CHANGE NO	REV

ETCH REV.	C
P.C. DESIGN DATA BASE REV.	C

SIGNATURES	DATE	digital
DRN. R. COUNTER	1-3-75	
CHK'D. G. FLANDER	8-28-75	
ENG. M. SCHWARTZ	8-28-75	
PROJ. ENG. M. SCHWARTZ	8-28-75	
PROD. D. RECZEK	8-28-75	TITLE
SCALE 2/1		CHANNEL CONTROL WORD
SHT. 2 OF 5	SIZE CODE	NUMBER
NEXT HIGHER ASSY. B-DD-M8534-0	D U A	M8534-0-0
		REV
		C



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CHK	CHAR	REV
M8534-00002	B	
M. SCHWARTZ		

digital

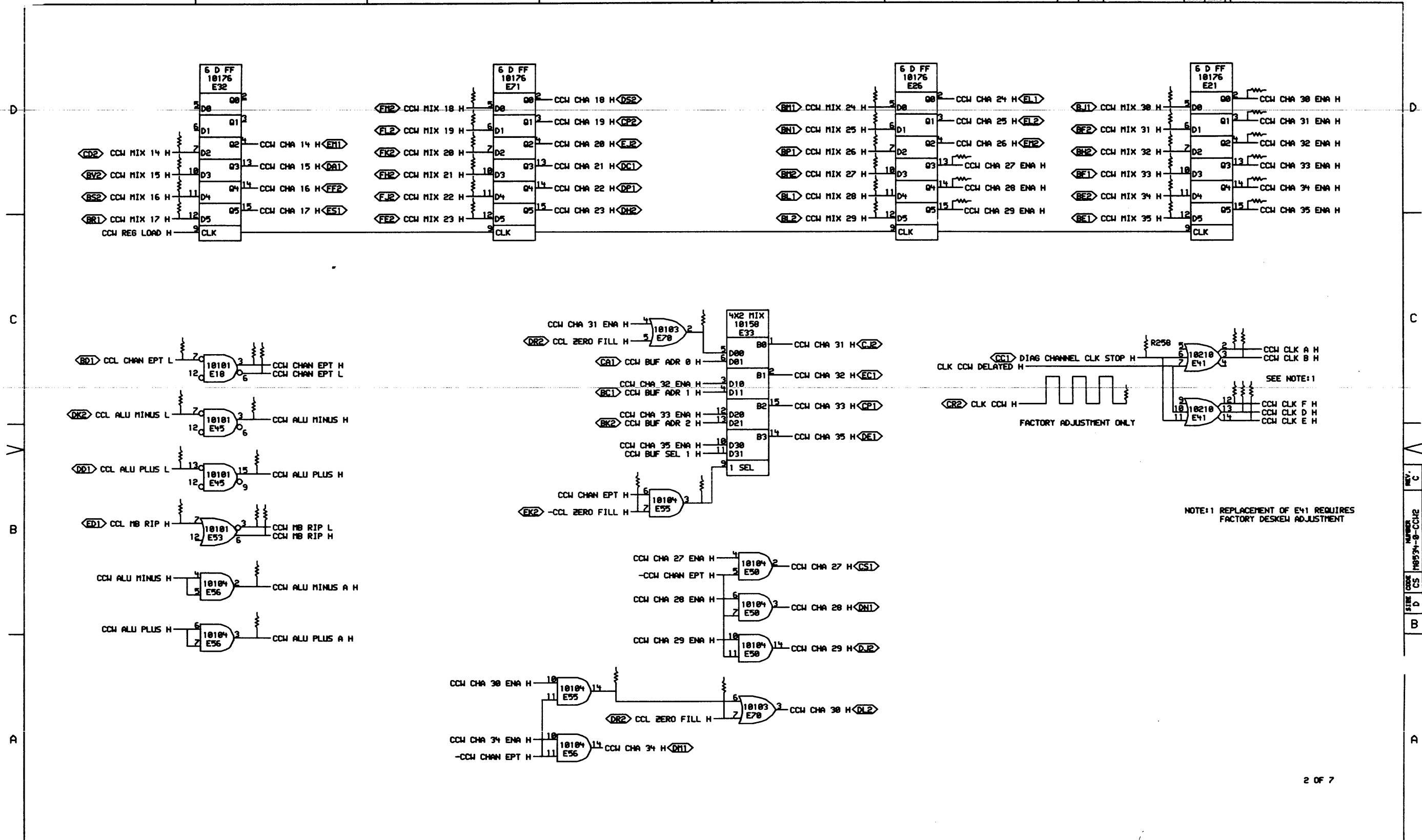
DATE: 03-FEB-76  
 ENG: M. Schwartz  
 DATE: 2/2/76  
 BOARD LOCATION: 4A12

TITLE: CHANNEL CONTROL WORD

SIZE CODE: D CS  
 NUMBER: M8534-0-CCW1  
 REV. B

REV. B  
 NUMBER M8534-0-CCW1  
 CS D B





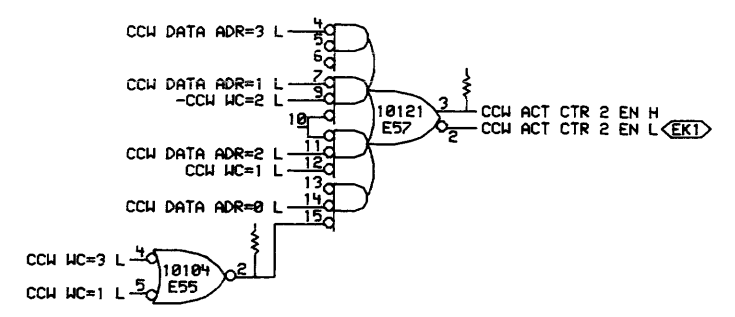
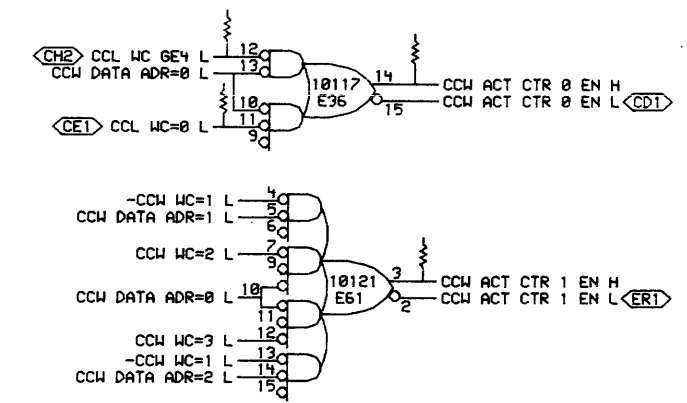
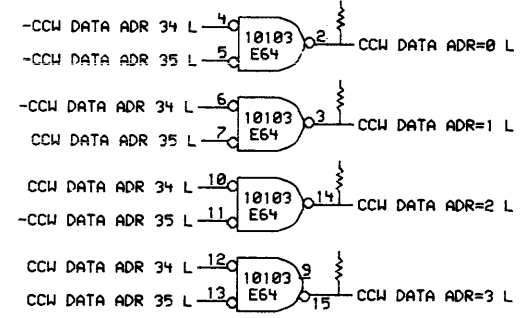
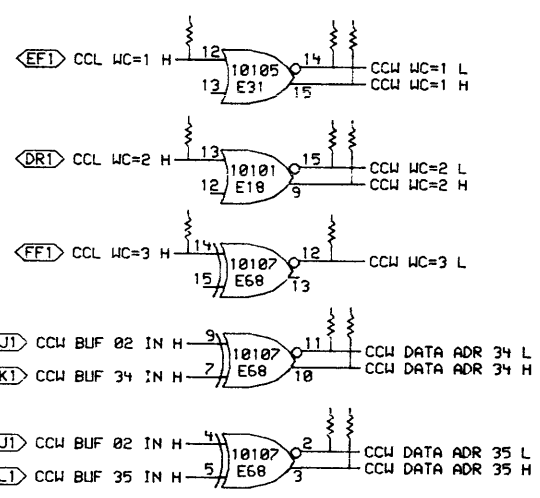
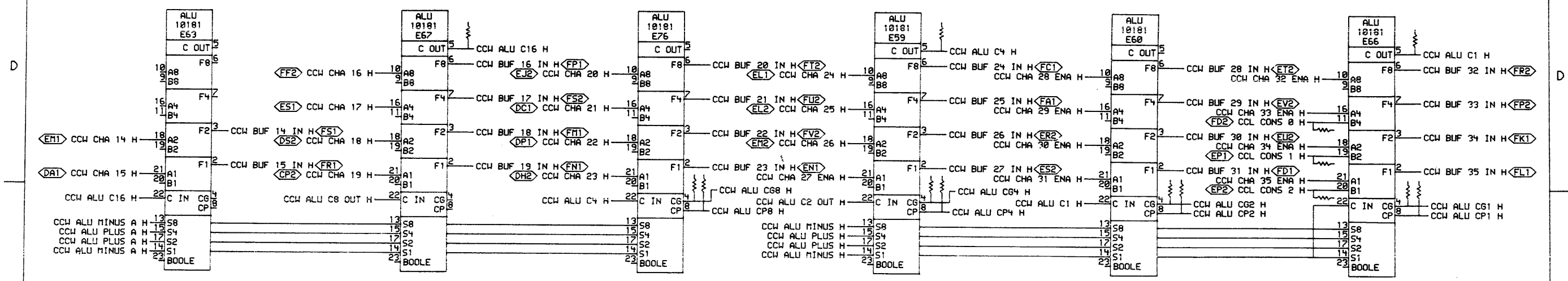
NOTE:1 REPLACEMENT OF E41 REQUIRES FACTORY DESKEW ADJUSTMENT

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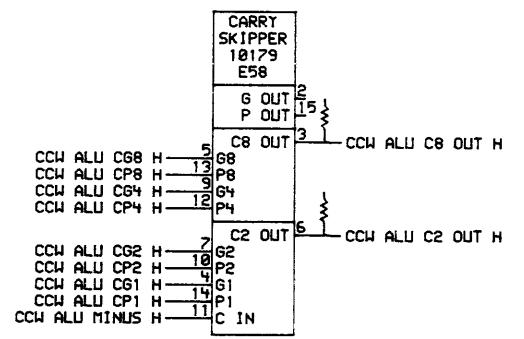
CHK	CHANGE NO.	REV
CS	185534-0-CCW2	C
M	SCHWARTZ	1/16/78

digital	DATE	15-AUG-77	ENG.	J. J. J.	DATE	8/17/77	TITLE:	CHANNEL CONTROL WORD	
	CHK'D	E. E.	DATE	8/17/77	BOARD LOCATION	4AF12	SIZE	D	
CCUREX.DRAW 4.521		120-JUL-77 11:38		NEXT HIGHER ASSEMBLY:		B-DD-18534-0		REV.	C
FIRST USED ON OPTION MODEL:		KL10		B-DD-18534-0		NUMBER		REV.	C

235



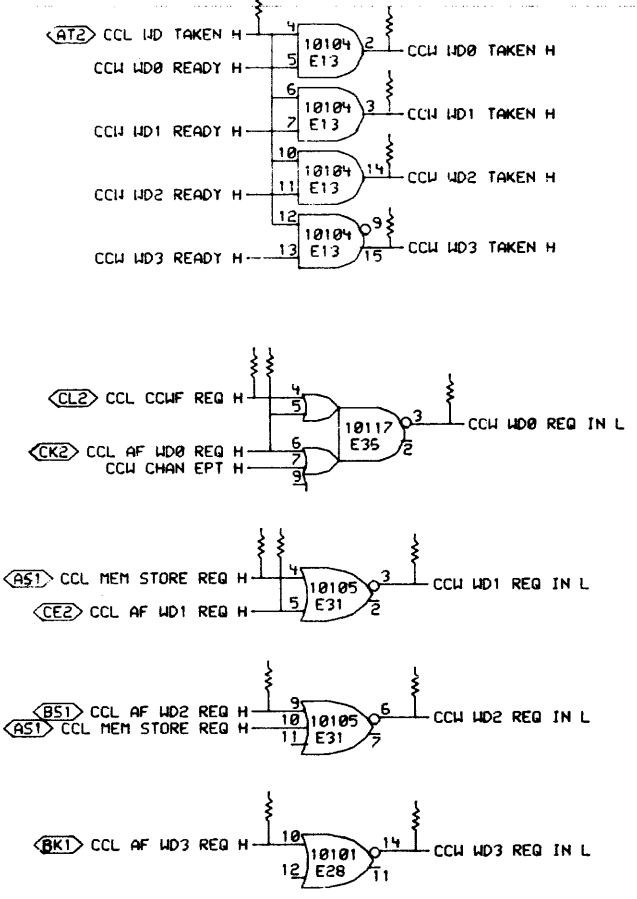
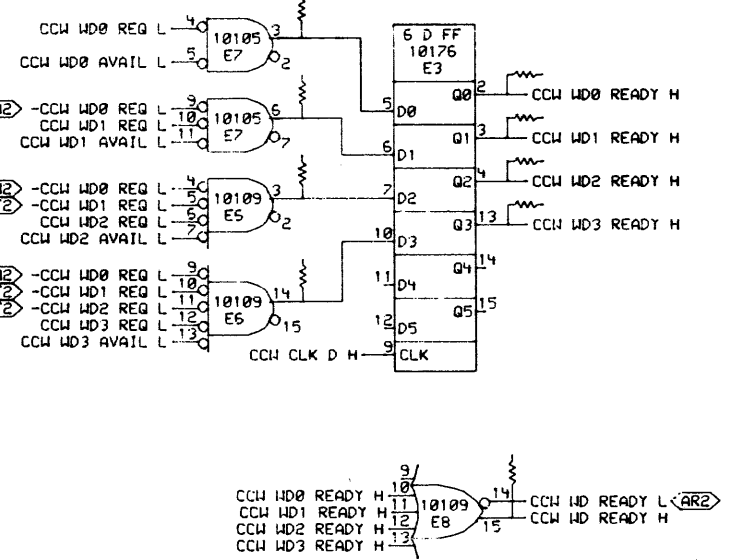
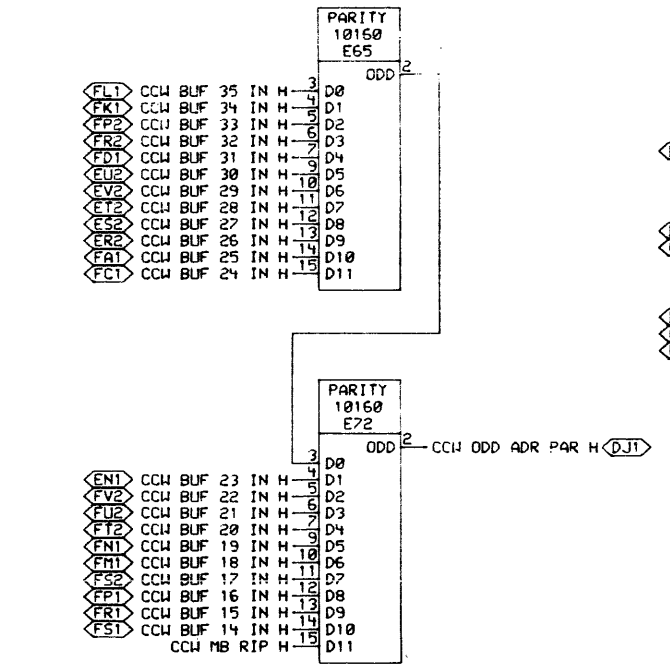
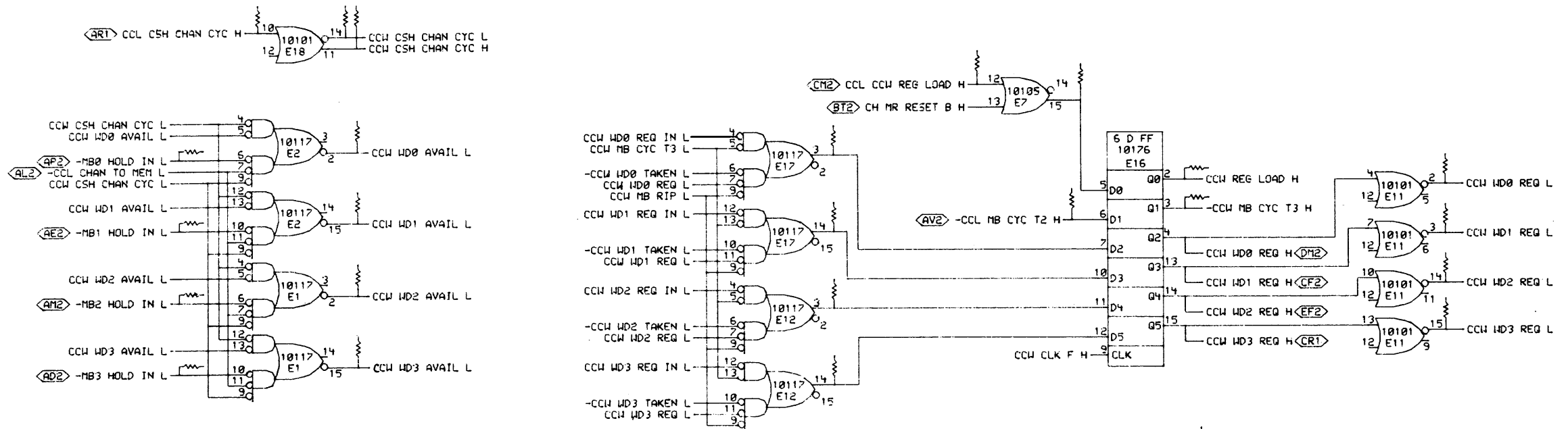
S1	S2	S4	S8	ALU OPERATION
L	L	L	L	A PLUS 0 PLUS C
H	H	H	H	A MINUS 1 PLUS C
H	L	L	H	A MINUS B MINUS 1 PLUS C
L	H	H	L	A PLUS B PLUS C



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REVISIONS	
CHK	NO. REV

digital  
 DATE 14-FEB-76  
 DATE 2/16/76  
 BOARD LOCATION: 4F12  
 TITLE: CHANNEL CONTROL WORD  
 SIZE CODE NUMBER REV.  
 D CS 18534-0-CCW3 B

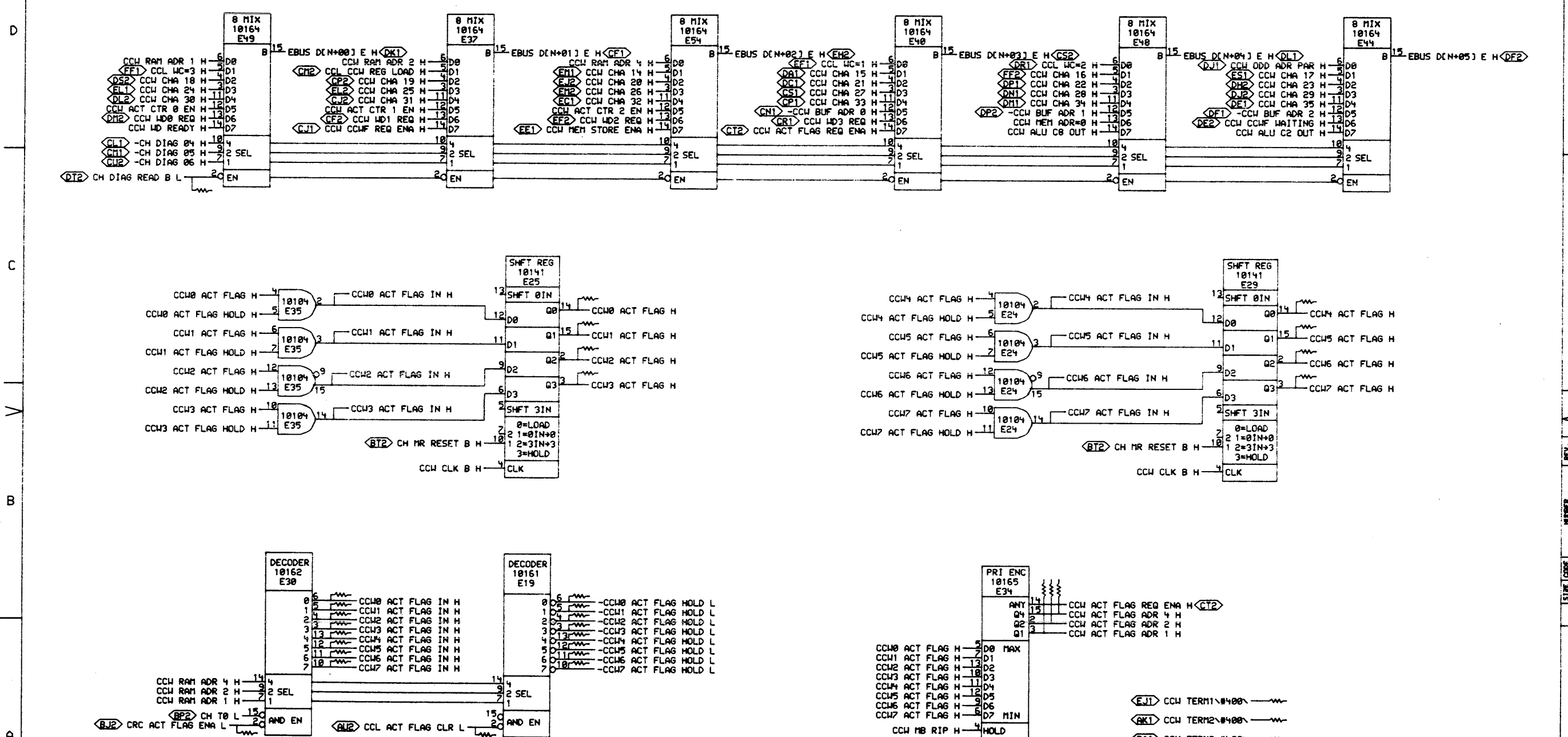


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REVISIONS		00001	A
CHK	CHANGE NO.	REV	

digit@l  
 CCH4EX(4,477)  
 FIRST USED ON OPTION/MODEL: KL10

DATE: 24-SEP-75	ENG: [Signature]	DATE: [Signature]	TITLE: CHANNEL CONTROL WORD
DATE: [Signature]	BOARD LOCATION: 4AF12	SHEET: 1	OF: 1
DATE: [Signature]	NEXT HIGHER ASSEMBLY: B-DD-M8534-0	SIZE: D	CODE: CS
DATE: [Signature]	NUMBER: M8534-0-CCW4	REV: A	



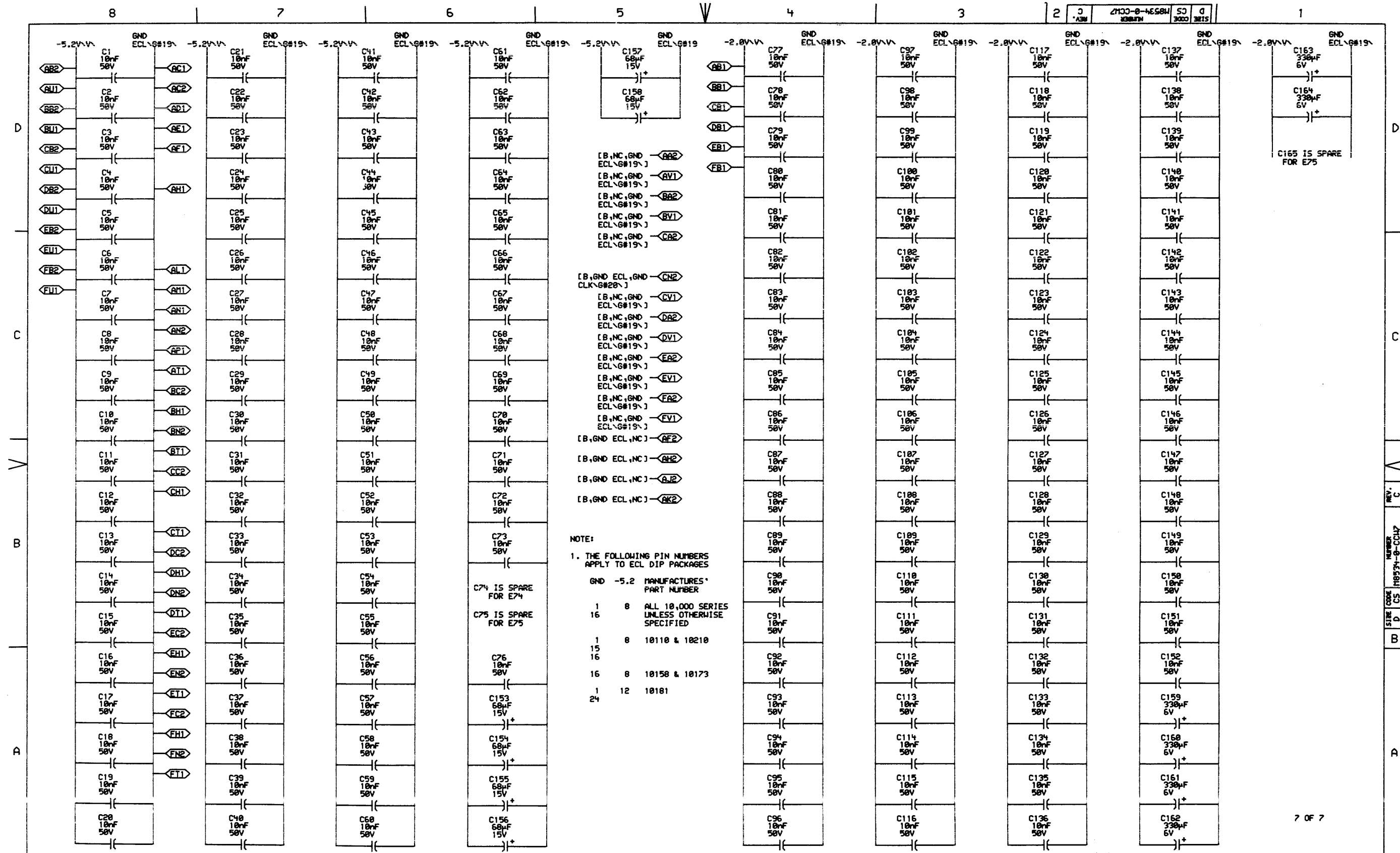
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REVISIONS		
CHK	CHANGE NO.	REV

DATE	ENG	DATE	TITLE:
28-JUL-77	J. J. J.	11-30-77	CHANNEL CONTROL WORD
DATE	LOC	DATE	SIZE CODE
28-JUL-77	11139	11-30-77	D CS
DATE	LOC	DATE	NUMBER
28-JUL-77	11139	11-30-77	M8534-0-CCW5
DATE	LOC	DATE	REV.
28-JUL-77	11139	11-30-77	C

CCWEX.DRAW 4.5713	28-JUL-77 11:39	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL:	KL10	B-DD-M8534-0	D CS	M8534-0-CCW5	C





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REVISIONS	
CHK	CHANGE NO. REV
CS	M8534-0003 C
M. SCHWARTZ	10/20/77
	10/27/77

<b>digital</b>	DRN. <i>J. J. J.</i>	DATE 05-AUG-77	ENG. <i>M. Schmitt</i>	DATE 07-77	TITLE: CHANNEL CONTROL WORD
	CHK'D.	DATE	BOARD LOCATION: 4F12	DE	
CCUPEX.DRAW 4.571		05-AUG-77 13:48	NEXT HIGHER ASSEMBLY: B-DD-M8534-0	SIZE CODE D	NUMBER CS M8534-0-CCU7
FIRST USED ON OPTION/MODEL: KL10				REV. C	

REV. C  
 SIZE CODE CS M8534-0-CCU7  
 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
R207(1)	CCU4	C4	68n	%E12(14)	R228(1)	CCU4	A3	68n	CCL MEM STORE REQ H	R47(1)	CCU2	D3	68n	CCW CHA 29 ENA H	R102(1)	CCU2	D6	68n	CCW MIX 18 H
R208(1)	CCU4	C4	68n	%E12(3)	R16(1)	CCU1	B5	68n	-CCL MEM STORE REQ H	R48(1)	CCU2	D1	68n	CCW CHA 30 ENA H	R104(1)	CCU2	D6	68n	CCW MIX 19 H
R206(1)	CCU4	D4	68n	%E17(14)	R227(1)	CCU3	C2	68n	-CCL MC GE4 H	R254(1)	CCU2	D1	68n	CCW CHA 31 ENA H	R107(1)	CCU2	D6	68n	CCW MIX 20 H
R213(1)	CCU4	D4	68n	%E17(3)	R230(1)	CCU3	C2	68n	-CCL MC=0 H	R146(1)	CCU2	D1	68n	CCW CHA 32 ENA H	R108(1)	CCU2	D6	68n	CCW MIX 21 H
R175(1)	CCU1	B7	68n	%E50(15)	R222(1)	CCU3	C7	68n	CCL MC=1 H	R143(1)	CCU2	D1	68n	CCW CHA 33 ENA H	R105(1)	CCU2	D6	68n	CCW MIX 22 H
R255(1)	CCU2	A5	68n	%E55(14)	R120(1)	CCU3	B7	68n	CCL MC=2 H	R144(1)	CCU2	D1	68n	CCW CHA 34 ENA H	R103(1)	CCU2	C6	68n	CCW MIX 23 H
R240(1)	CCU3	A2	68n	%E55(2)	R102(1)	CCU3	B7	68n	CCL MC=3 H	R140(1)	CCU2	D1	68n	CCW CHA 35 ENA H	R224(1)	CCU2	D4	68n	CCW MIX 24 H
R129(1)	CCU2	B5	68n	%E55(3)	R117(1)	CCU4	C3	68n	CCL MD TAKEN H	R231(1)	CCU2	C7	68n	CCW CHAN EPT H	R223(1)	CCU2	D4	68n	CCW MIX 25 H
R113(1)	CCU4	B5	68n	%E6(14)	R257(1)	CCU2	A4	68n	CCL ZERO FILL H	R133(1)	CCU2	C7	68n	-CCW CHAN EPT H	R225(1)	CCU2	D4	68n	CCW MIX 26 H
R114(1)	CCU4	B5	68n	%E6(3)	R139(1)	CCU2	B5	68n	-CCL ZERO FILL H	R96(1)	CCU2	C1	68n	CCW CLK A H	R221(1)	CCU2	D4	68n	CCW MIX 27 H
R193(1)	CCU1	B3	68n	%E62(15)	R100(1)	CCU3	C2	68n	CCW ACT CTR 0 EN H	R24(1)	CCU2	C1	68n	CCW CLK B H	R217(1)	CCU2	D4	68n	CCW MIX 28 H
R192(1)	CCU1	B3	68n	%E62(2)	R177(1)	CCU3	B2	68n	CCW ACT CTR 1 EN H	R111(1)	CCU2	C1	68n	CCW CLK D H	R210(1)	CCU2	C4	68n	CCW MIX 29 H
R252(1)	CCU4	B7	68n	%E65(2)	R103(1)	CCU3	A2	68n	CCW ACT CTR 2 EN H	R62(1)	CCU2	C1	68n	CCW CLK E H	R216(1)	CCU2	D2	68n	CCW MIX 30 H
R194(1)	CCU1	B3	68n	%E69(2)	R127(1)	CCU5	B3	68n	CCW ACT FLAG ADR 1 H	R209(1)	CCU2	C1	68n	CCW CLK F H	R220(1)	CCU2	D2	68n	CCW MIX 31 H
R212(1)	CCU4	D3	68n	%E7(15)	R161(1)	CCU5	B3	68n	CCW ACT FLAG ADR 2 H	R259(1)	CCU4	D6	68n	CCW CSH CHAN CYC H	R219(1)	CCU2	D2	68n	CCW MIX 32 H
R112(1)	CCU4	B5	68n	%E7(3)	R167(1)	CCU5	B3	68n	CCW ACT FLAG ADR 4 H	R199(1)	CCU4	D7	68n	-CCW CSH CHAN CYC H	R215(1)	CCU2	D2	68n	CCW MIX 33 H
R110(1)	CCU4	B5	68n	%E7(6)	R44(1)	CCU3	D1	68n	CCW ALU C1 H	R251(1)	CCU3	B7	68n	CCW DATA ADR 34 H	R214(1)	CCU2	D2	68n	CCW MIX 34 H
R256(1)	CCU2	C5	68n	%E70(2)	R51(1)	CCU3	D6	68n	CCW ALU C16 H	R249(1)	CCU3	B7	68n	-CCW DATA ADR 34 H	R210(1)	CCU2	C2	68n	CCW MIX 35 H
R195(1)	CCU1	C3	68n	%E73(15)	R235(1)	CCU3	A4	68n	CCW ALU C2 OUT H	R250(1)	CCU3	B7	68n	CCW DATA ADR 35 H	R13(1)	CCU6	A7	68n	CCW RAM ADR 1 H
R196(1)	CCU1	C3	68n	%E73(2)	R52(1)	CCU3	D4	68n	CCW ALU C4 H	R246(1)	CCU3	B7	68n	-CCW DATA ADR 35 H	R5(1)	CCU6	A7	68n	CCW RAM ADR 2 H
R70(1)	CCU5	A6	68n	-CCL ACT FLAG CLR H	R50(1)	CCU3	A4	68n	CCW ALU C8 OUT H	R232(1)	CCU3	C4	68n	-CCW DATA ADR=0 H	R11(1)	CCU6	A7	68n	CCW RAM ADR 4 H
R30(1)	CCU1	C5	68n	-CCL ACT FLAG REQ H	R100(1)	CCU3	C1	68n	CCW ALU C61 H	R245(1)	CCU3	C4	68n	-CCW DATA ADR=1 H	R106(1)	CCU4	D3	68n	CCW REG LOAD H
R234(1)	CCU4	B3	68n	CCL AF MD0 REQ H	R191(1)	CCU3	C2	68n	CCW ALU C62 H	R239(1)	CCU3	B4	68n	-CCW DATA ADR=2 H	R243(1)	CCU5	A2	68n	CCW TERM1\#400\
R229(1)	CCU4	A3	68n	CCL AF MD1 REQ H	R190(1)	CCU3	C4	68n	CCW ALU C64 H	R244(1)	CCU3	B4	68n	-CCW DATA ADR=3 H	R203(1)	CCU5	A2	68n	CCW TERM2\#400\
R226(1)	CCU4	A3	68n	CCL AF MD2 REQ H	R109(1)	CCU3	C5	68n	CCW ALU C68 H	R172(1)	CCU1	C7	68n	CCW ERR ADR 0 H	R204(1)	CCU5	A2	68n	CCW TERM3\#400\
R126(1)	CCU4	A3	68n	CCL AF MD3 REQ H	R105(1)	CCU3	C1	68n	CCW ALU CP1 H	R166(1)	CCU1	C7	68n	CCW ERR ADR 1 H	R247(1)	CCU3	C7	68n	CCW MC=1 H
R135(1)	CCU2	C8	68n	-CCL ALU MINUS H	R107(1)	CCU3	C2	68n	CCW ALU CP2 H	R125(1)	CCU1	B7	68n	CCW ERR ADR 2 H	R130(1)	CCU3	C7	68n	-CCW MC=1 H
R131(1)	CCU2	B8	68n	-CCL ALU PLUS H	R106(1)	CCU3	C4	68n	CCW ALU CP4 H	R132(1)	CCU6	C4	68n	CCW FAST MODE TP H\#400\	R242(1)	CCU3	B7	68n	CCW MC=2 H
R147(1)	CCU4	D4	68n	CCL CCW REG LOAD H	R104(1)	CCU3	C5	68n	CCW ALU CP8 H	R20(1)	CCU4	D3	68n	-CCW MB CYC T3 H	R240(1)	CCU3	B7	68n	-CCW MC=2 H
R31(1)	CCU6	D3	68n	-CCL CCWF CLR H	R45(1)	CCU2	C7	68n	CCW ALU MINUS H	R57(1)	CCU2	B7	68n	CCW MB RIP H	R137(1)	CCU3	B7	68n	-CCW MC=3 H
R233(1)	CCU4	B3	68n	CCL CCWF REQ H	R109(1)	CCU2	B7	68n	CCW ALU MINUS A H	R155(1)	CCU2	B7	68n	-CCW MB RIP H	R101(1)	CCU4	A5	68n	CCW MD READY H
R124(1)	CCU2	C8	68n	-CCL CHAN EPT H	R46(1)	CCU2	B7	68n	CCW ALU PLUS H	R230(1)	CCU1	B2	68n	CCW MEM ADR=0 H	R154(1)	CCU4	D6	68n	-CCW MD0 AVAIL H
R145(1)	CCU3	D2	68n	CCL CONS 0 H	R53(1)	CCU2	B7	68n	CCW ALU PLUS A H	R120(1)	CCU6	B7	68n	CCW MEM STORE ADR 1 H	R119(1)	CCU4	B5	68n	CCW MD0 READY H
R141(1)	CCU3	D2	68n	CCL CONS 1 H	R170(1)	CCU1	B5	68n	CCW BUF SEL 1 H	R171(1)	CCU6	B7	68n	CCW MEM STORE ADR 2 H	R153(1)	CCU4	D2	68n	-CCW MD0 REQ H
R142(1)	CCU3	C2	68n	CCL CONS 2 H	R165(1)	CCU1	C5	68n	CCW BUF SEL 2 H	R169(1)	CCU6	B7	68n	CCW MEM STORE ADR 4 H	R163(1)	CCU4	B2	68n	-CCW MD0 REQ IN H
R121(1)	CCU4	D7	68n	CCL CSH CHAN CYC H	R122(1)	CCU6	C7	68n	CCW CCWF ADR 1 H	R123(1)	CCU6	C4	68n	CCW MEM STORE TP H\#400\	R164(1)	CCU4	C2	68n	CCW MD0 TAKEN H
R39(1)	CCU1	C5	68n	-CCL ERR REQ H	R160(1)	CCU6	C7	68n	CCW CCWF ADR 2 H	R170(1)	CCU2	D8	68n	CCW MIX 14 H	R140(1)	CCU4	D6	68n	-CCW MD1 AVAIL H
R211(1)	CCU4	D3	68n	-CCL MB CYC T2 H	R174(1)	CCU6	C7	68n	CCW CCWF ADR 4 H	R176(1)	CCU2	D8	68n	CCW MIX 15 H	R110(1)	CCU4	B5	68n	CCW MD1 READY H
R241(1)	CCU2	B8	68n	CCL MB RIP H	R136(1)	CCU2	D3	68n	CCW CHA 27 ENA H	R179(1)	CCU2	D8	68n	CCW MIX 16 H	R149(1)	CCU4	D2	68n	-CCW MD1 REQ H
R134(1)	CCU1	B7	68n	-CCL MEM ERR LATCH H	R49(1)	CCU2	D3	68n	CCW CHA 28 ENA H	R173(1)	CCU2	C8	68n	CCW MIX 17 H	R162(1)	CCU4	A2	68n	-CCW MD1 REQ IN 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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CHK	CHANGE NO.	REV
	M8534-MR001	C
	M. SCHWARTZ	

digital	DRN. <i>C. Smith</i>	DATE 25-JUL-77	ENG. <i>M. J. ...</i>	DATE 3/6/77	TITLE: CHANNEL CONTROL TERMINATORS
	CHK'D.	DATE	BOARD LOCATION:	SHEET 1 OF 2	
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8534-0		SIZE CODE D CS	NUMBER M8534-0-RES
				REV. C	

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R160(1)	CCW4	C2	68Ω	CCW MD1 TAKEN H
R202(1)	CCW4	C6	68Ω	-CCW MD2 AVAIL H
R115(1)	CCW4	B5	68Ω	CCW MD2 READY H
R159(1)	CCW4	C2	68Ω	-CCW MD2 REQ H
R157(1)	CCW4	A2	68Ω	-CCW MD2 REQ IN H
R150(1)	CCW4	B2	68Ω	CCW MD2 TAKEN H
R197(1)	CCW4	C6	68Ω	-CCW MD3 AVAIL H
R116(1)	CCW4	B5	68Ω	CCW MD3 READY H
R201(1)	CCW4	C2	68Ω	-CCW MD3 REQ H
R152(1)	CCW4	A2	68Ω	-CCW MD3 REQ IN H
R156(1)	CCW4	B2	68Ω	CCW MD3 TAKEN H
R86(1)	CCW5	C6	68Ω	CCW0 ACT FLAG H
R28(1)	CCW5	B6	68Ω	CCW0 ACT FLAG HOLD H
R19(1)	CCW5	B7	68Ω	CCW0 ACT FLAG IN H
R91(1)	CCW6	D3	68Ω	CCW0 CCMF HOLD H
R89(1)	CCW6	C5	68Ω	CCW0 CCMF IN H
R101(1)	CCW6	B4	68Ω	CCW0 CCMF REQ H
R18(1)	CCW6	D6	68Ω	CCW0 MEM STORE HOLD H
R63(1)	CCW6	A5	68Ω	CCW0 MEM STORE IN H
R59(1)	CCW6	A4	68Ω	CCW0 MEM STORE REQ H
R81(1)	CCW5	C6	68Ω	CCW1 ACT FLAG H
R29(1)	CCW5	B6	68Ω	CCW1 ACT FLAG HOLD H
R21(1)	CCW5	B7	68Ω	CCW1 ACT FLAG IN H
R92(1)	CCW6	D3	68Ω	CCW1 CCMF HOLD H
R90(1)	CCW6	B5	68Ω	CCW1 CCMF IN H
R100(1)	CCW6	B4	68Ω	CCW1 CCMF REQ H
R17(1)	CCW6	D6	68Ω	CCW1 MEM STORE HOLD H
R67(1)	CCW6	A5	68Ω	CCW1 MEM STORE IN H
R56(1)	CCW6	A4	68Ω	CCW1 MEM STORE REQ H
R79(1)	CCW5	C6	68Ω	CCW2 ACT FLAG H
R25(1)	CCW5	B6	68Ω	CCW2 ACT FLAG HOLD H
R23(1)	CCW5	B7	68Ω	CCW2 ACT FLAG IN H
R88(1)	CCW6	D3	68Ω	CCW2 CCMF HOLD H
R93(1)	CCW6	B5	68Ω	CCW2 CCMF IN H
R87(1)	CCW6	B4	68Ω	CCW2 CCMF REQ H
R15(1)	CCW6	D6	68Ω	CCW2 MEM STORE HOLD H
R65(1)	CCW6	A5	68Ω	CCW2 MEM STORE IN H
R54(1)	CCW6	A4	68Ω	CCW2 MEM STORE REQ H
R83(1)	CCW5	C6	68Ω	CCW3 ACT FLAG H
R27(1)	CCW5	A6	68Ω	CCW3 ACT FLAG HOLD H

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R22(1)	CCW5	A7	68Ω	CCW3 ACT FLAG IN H
R85(1)	CCW6	D3	68Ω	CCW3 CCMF HOLD H
R97(1)	CCW6	B5	68Ω	CCW3 CCMF IN H
R84(1)	CCW6	B4	68Ω	CCW3 CCMF REQ H
R14(1)	CCW6	D6	68Ω	CCW3 MEM STORE HOLD H
R66(1)	CCW6	A5	68Ω	CCW3 MEM STORE IN H
R55(1)	CCW6	A4	68Ω	CCW3 MEM STORE REQ H
R82(1)	CCW5	C2	68Ω	CCW4 ACT FLAG H
R75(1)	CCW5	A6	68Ω	CCW4 ACT FLAG HOLD H
R73(1)	CCW5	A7	68Ω	CCW4 ACT FLAG IN H
R40(1)	CCW6	D3	68Ω	CCW4 CCMF HOLD H
R32(1)	CCW6	C2	68Ω	CCW4 CCMF IN H
R94(1)	CCW6	B1	68Ω	CCW4 CCMF REQ H
R7(1)	CCW6	D6	68Ω	CCW4 MEM STORE HOLD H
R58(1)	CCW6	A2	68Ω	CCW4 MEM STORE IN H
R6(1)	CCW6	A1	68Ω	CCW4 MEM STORE REQ H
R78(1)	CCW5	C2	68Ω	CCW5 ACT FLAG H
R76(1)	CCW5	A6	68Ω	CCW5 ACT FLAG HOLD H
R74(1)	CCW5	A7	68Ω	CCW5 ACT FLAG IN H
R41(1)	CCW6	D3	68Ω	CCW5 CCMF HOLD H
R33(1)	CCW6	B2	68Ω	CCW5 CCMF IN H
R95(1)	CCW6	B1	68Ω	CCW5 CCMF REQ H
R9(1)	CCW6	D6	68Ω	CCW5 MEM STORE HOLD H
R60(1)	CCW6	A2	68Ω	CCW5 MEM STORE IN H
R8(1)	CCW6	A1	68Ω	CCW5 MEM STORE REQ H
R68(1)	CCW5	C2	68Ω	CCW6 ACT FLAG H
R69(1)	CCW5	A6	68Ω	CCW6 ACT FLAG HOLD H
R77(1)	CCW5	A7	68Ω	CCW6 ACT FLAG IN H
R37(1)	CCW6	D3	68Ω	CCW6 CCMF HOLD H
R34(1)	CCW6	B2	68Ω	CCW6 CCMF IN H
R98(1)	CCW6	B1	68Ω	CCW6 CCMF REQ H
R3(1)	CCW6	D6	68Ω	CCW6 MEM STORE HOLD H
R61(1)	CCW6	A2	68Ω	CCW6 MEM STORE IN H
R4(1)	CCW6	A1	68Ω	CCW6 MEM STORE REQ H
R72(1)	CCW5	C2	68Ω	CCW7 ACT FLAG H
R71(1)	CCW5	A6	68Ω	CCW7 ACT FLAG HOLD H
R80(1)	CCW5	A7	68Ω	CCW7 ACT FLAG IN H
R35(1)	CCW6	D3	68Ω	CCW7 CCMF HOLD H
R36(1)	CCW6	B2	68Ω	CCW7 CCMF IN H
R99(1)	CCW6	B1	68Ω	CCW7 CCMF REQ H

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R2(1)	CCW6	D6	68Ω	CCW7 MEM STORE HOLD H
R64(1)	CCW4	A2	68Ω	CCW7 MEM STORE IN H
R1(1)	CCW6	A1	68Ω	CCW7 MEM STORE REQ H
R236(1)	CCW5	C8	68Ω	-CH DIAG READ B H
R12(1)	CCW6	D7	68Ω	CH MB REQ INH H
R130(1)	CCW2	C2	68Ω	CLK CCW H
R26(1)	CCW5	A7	68Ω	-CRC ACT FLAG ENA H
R30(1)	CCW6	D4	68Ω	-CRC CCMF EN H
R10(1)	CCW6	D7	68Ω	-CRC MEM STORE ENA H
R250(1)	CCW2	C2	68Ω	DIAG CHANNEL CLK STOP H
R253(1)	CCW1	B5	68Ω	-DIAG LOAD FUNC 070 H
R151(1)	CCW4	D7	68Ω	MB0 HOLD IN H
R150(1)	CCW4	D7	68Ω	MB1 HOLD IN H
R200(1)	CCW4	C7	68Ω	MB2 HOLD IN H
R190(1)	CCW4	C7	68Ω	MB3 HOLD IN 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. <i>C. Smith</i>	DATE 25-JUL-77	ENG. <i>M. Smith</i>	DATE 8/15/77	TITLE: CHANNEL CONTROL TERMINATORS
	CHK'D.	DATE	BOARD LOCATION: SHEET 2 OF 2	SIZE D	CODE CS
FIRST USED ON OPTION/MODEL: KL10			NEXT HIGHER ASSEMBLY: B-DD-M8534-0		NUMBER M8534-0-RES
					REV. C

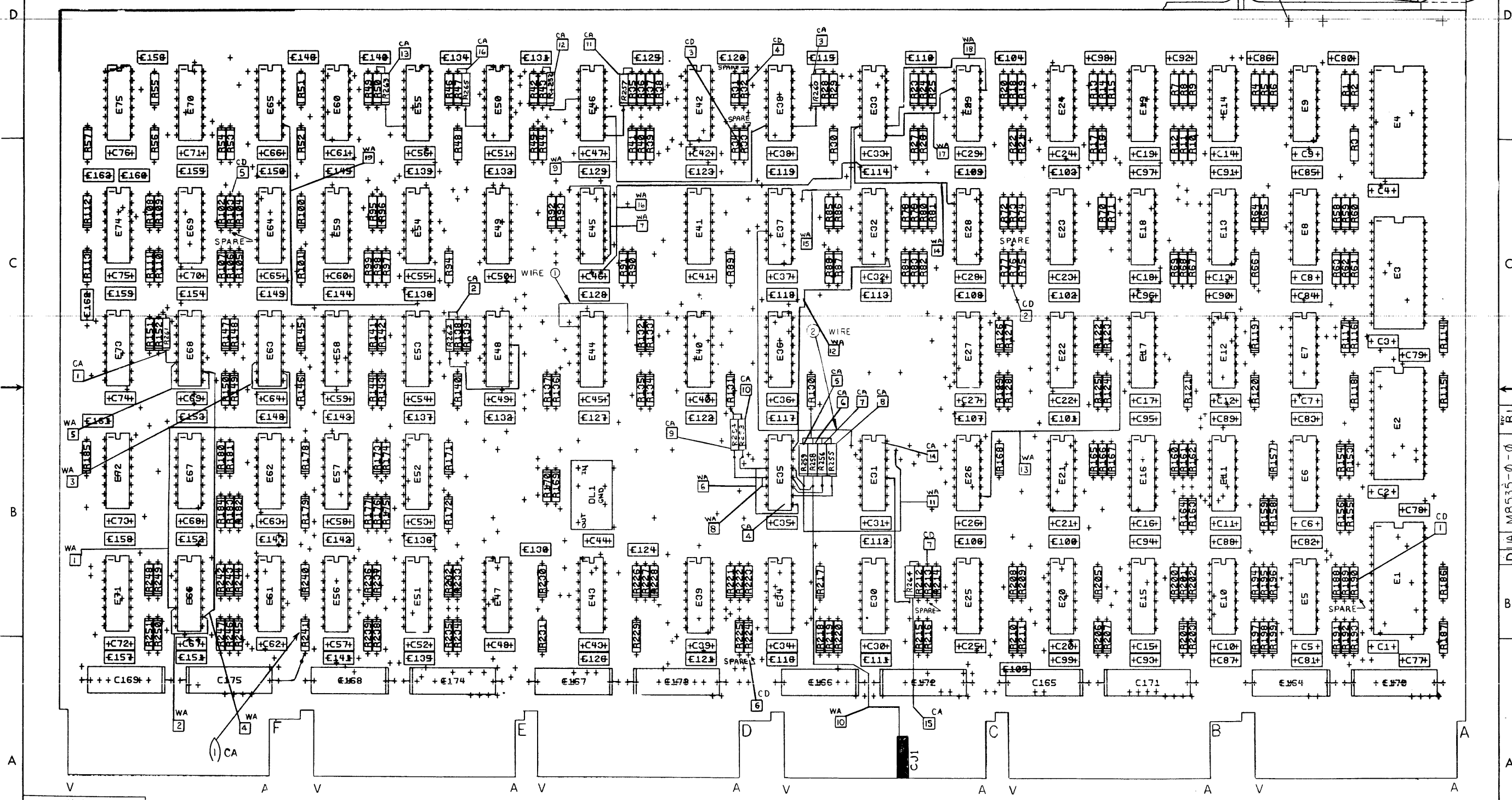
REV. C  
NUMBER M8534-0-RES  
SITE CODE CS  
D



CUSTOMER PRINT SET				REVISION CONTROL SHEET																																			
MFG SET				REVISIONS																																			
DRAWING NO		NO OF SHT	DESCRIPTION	OPTION NO/FILE DATE	A	B	C	C																															
		-	MODULE REVISION																																				
D-UA-M8535-Ø-Ø		6	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC1		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC2		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC3		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC4		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC5		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC6		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-CRC7		1	CHANNEL RAM CONTROL			A	B	BI																															
D-CS-M8535-Ø-RES		2	CHANNEL RAM CONTROL PWR, GND AND CAPS TERMINATORS			A	B	BI																															
K-CO-M8535-Ø-4		1	CHANNEL RAM CONTROL (CALDEC DATA BASE)		B	B	B	B																															
D-AH-M8535-Ø-5		4	CHANNEL RAM CONTROL		A	A	A	A																															
B-MH-M8535-Ø-6		1	MODULE ECO HISTORY			A	B	B																															
5010925		-	ETCH CIRCUIT BOARD		B	B	B	B																															
POO-M8535-ØØ			PROCESS SHEET (REF ONLY)																																				
CUSTOMER PRINT SET CODES				X = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED				ECO NO				ORIG				00001				00002				00003				REWORK				VERSION							
				TITLE				CHANNEL RAM CONTROL				SHEET 2 OF 3				SIZE CODE				B DD				NUMBER				M8535-Ø				REV				C			

MR

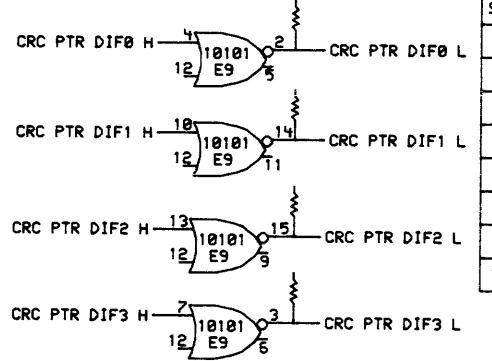
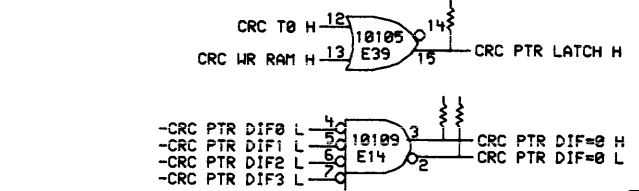
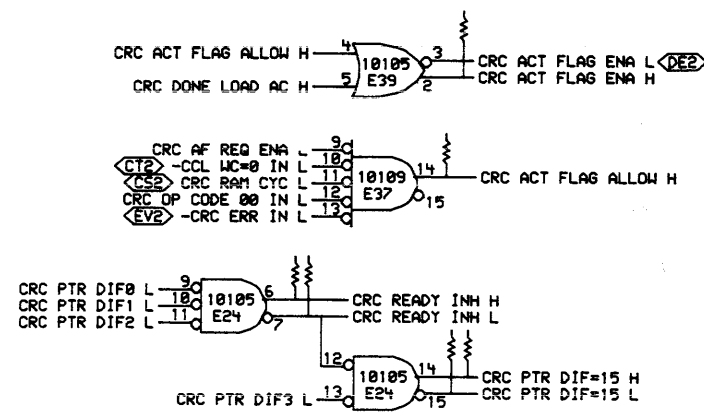
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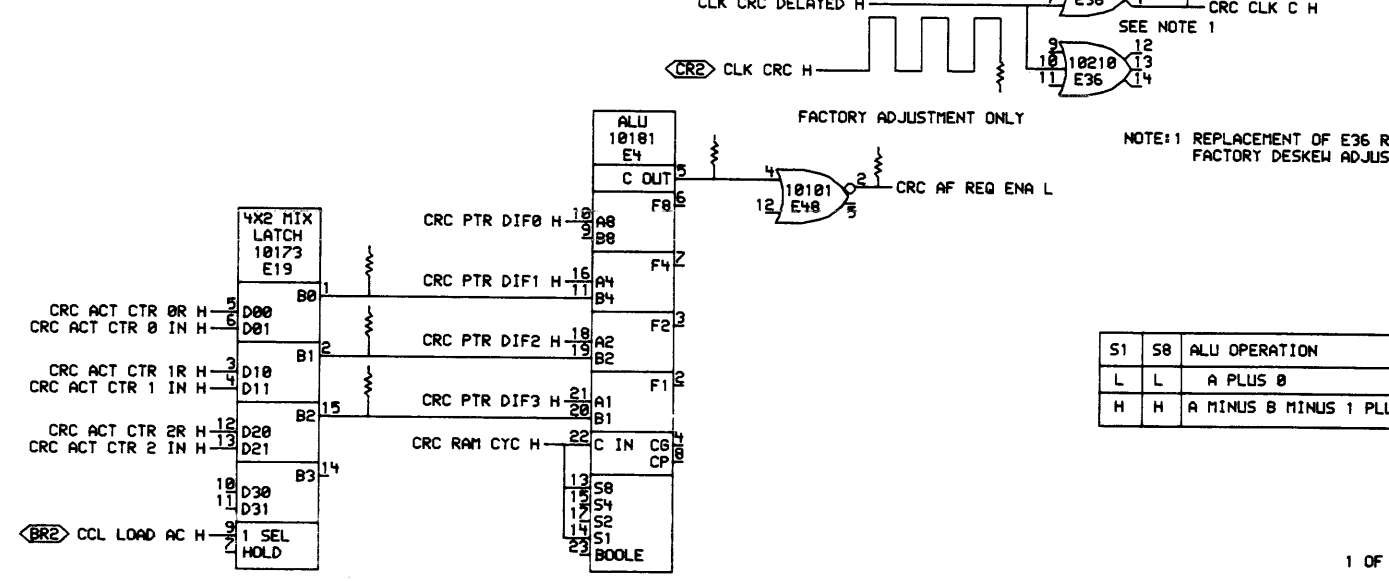
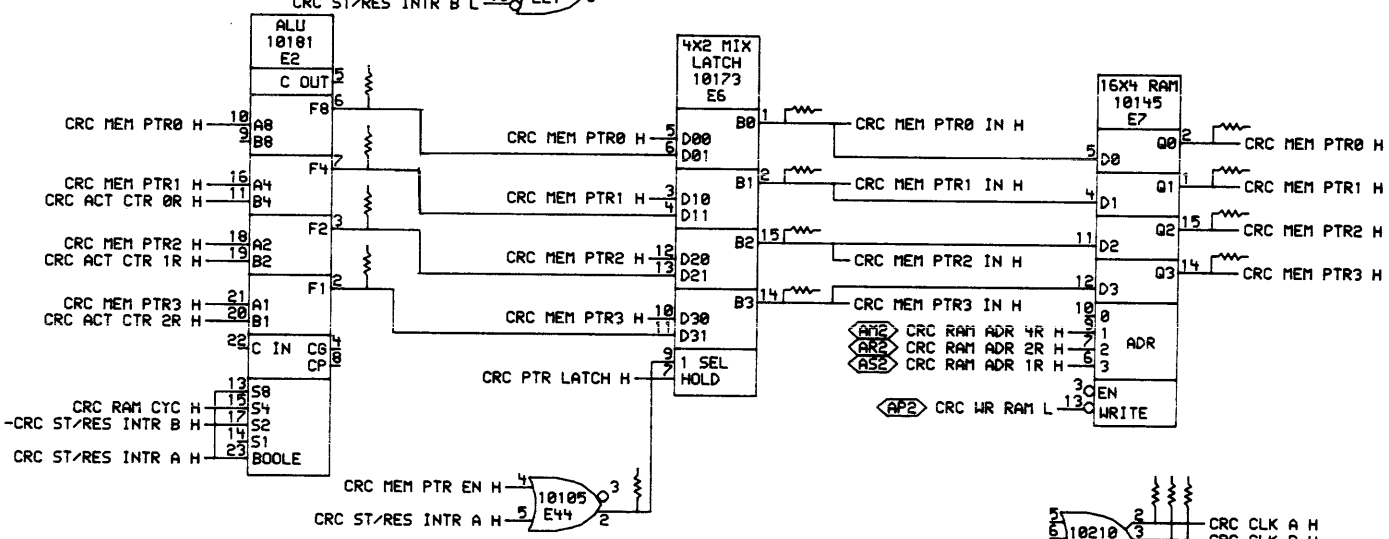
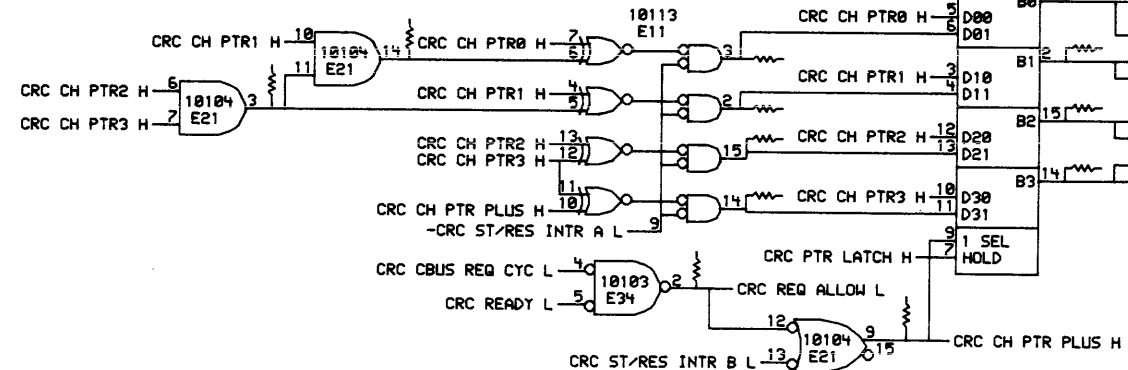
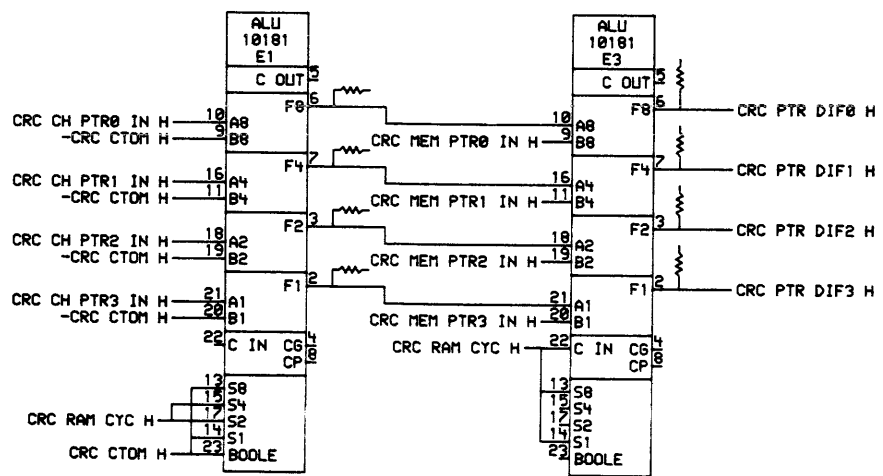
REVISIONS		
CHK	CHANGE NO	REV

TITLE	CHANNEL RAM CONTROL	SIZE CODE	DUA	NUMBER	M8535-0-0	REV.	BI
SCALE	1/1	SHEET	2	OF	6	DIST.	

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S8	S4	S2	BOOLE	ALU FUNCTION
L	L	H	L	A PLUS 0
L	H	H	L	A PLUS (A * B)
L	H	L	L	(A-B) PLUS 0
H	L	L	H	A * B
H	L	H	H	B
H	H	L	H	LOGICAL "0"
H	H	H	H	A * B

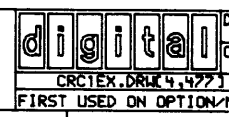


S1	S8	ALU OPERATION
L	L	A PLUS 0
H	H	A MINUS B MINUS 1 PLUS C

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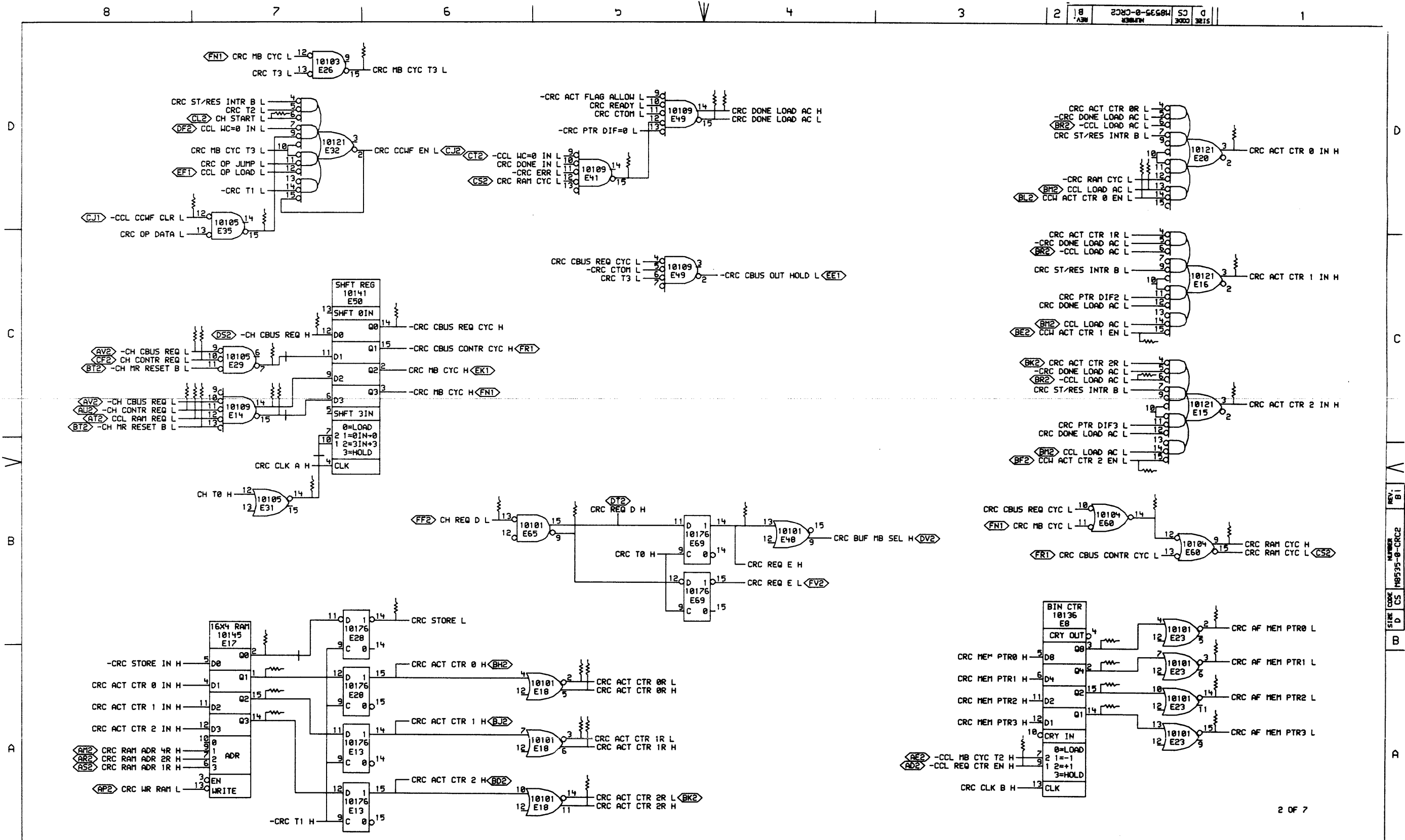
REVISIONS	CHK	CHANGE NO.	REV
1			
2			

CHK CHANGE NO. 1777  
 V. SCHWARTZ



DATE: 22-MAY-76  
 DATE: 26-MAY-76  
 BOARD LOCATION: 4A:10  
 SHEET: 1 OF 7

TITLE: CHANNEL RAM CONTROL  
 SIZE CODE NUMBER: D CS M8535-0-CRC1  
 REV. B.1



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REVISIONS	CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV

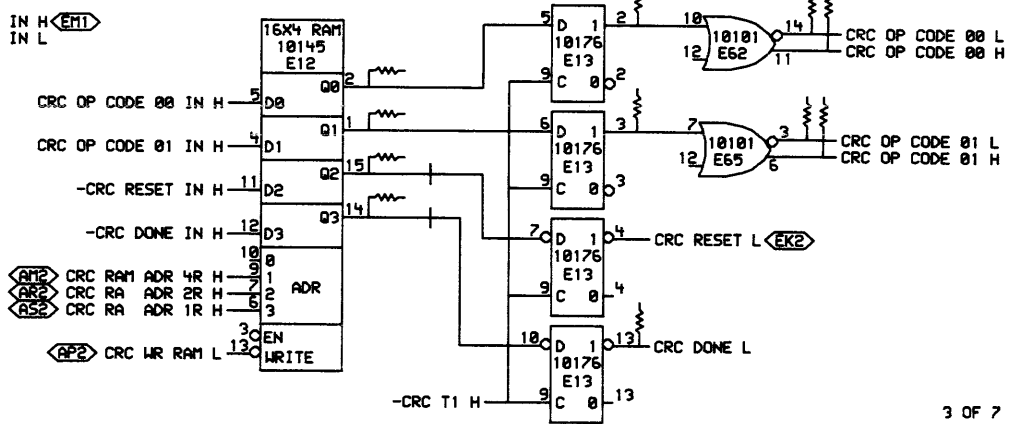
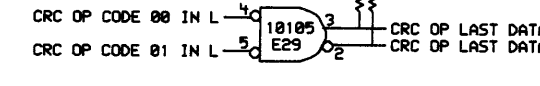
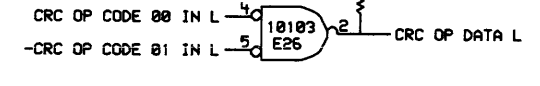
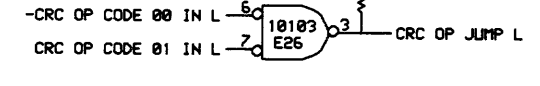
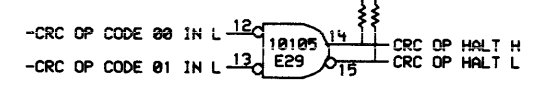
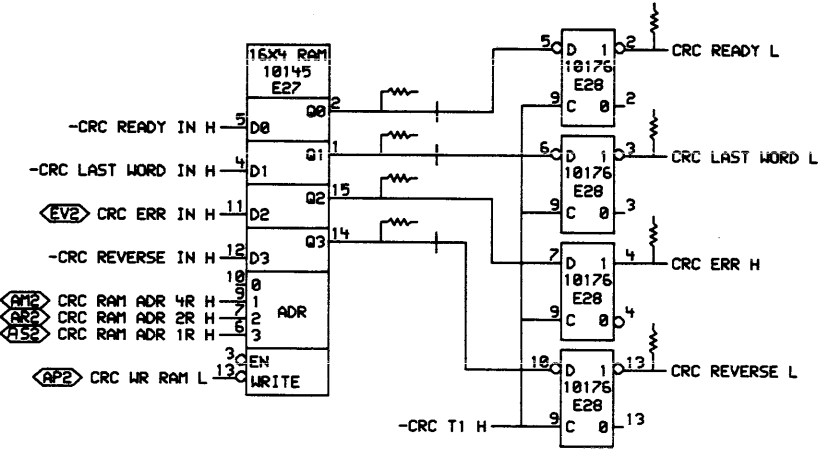
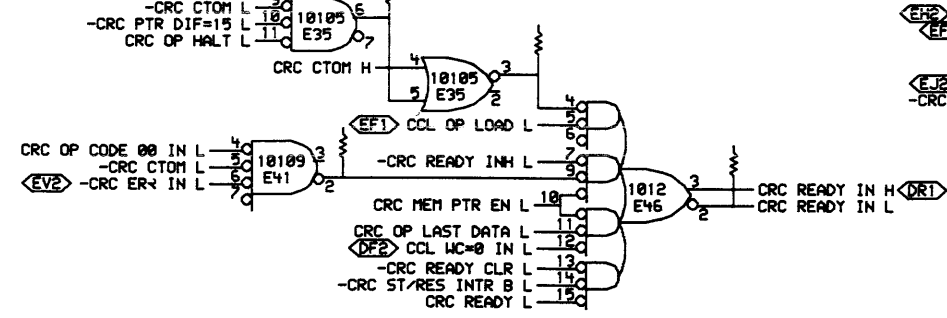
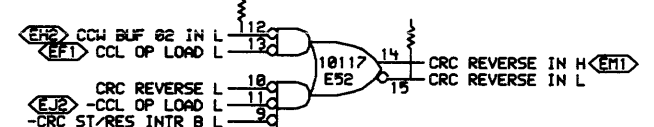
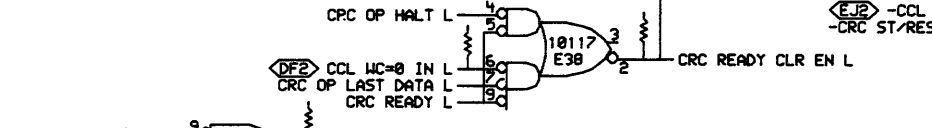
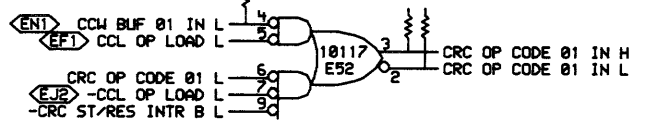
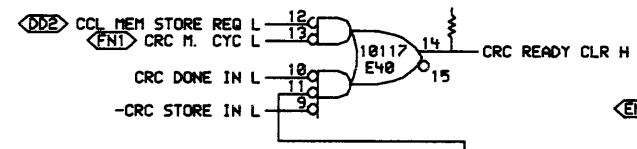
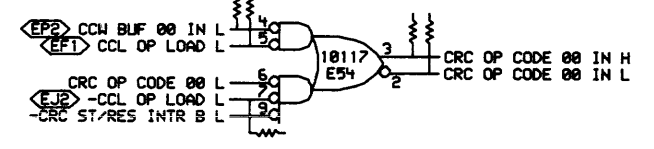
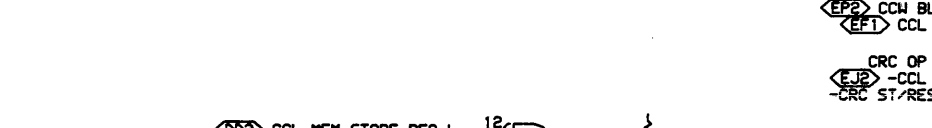
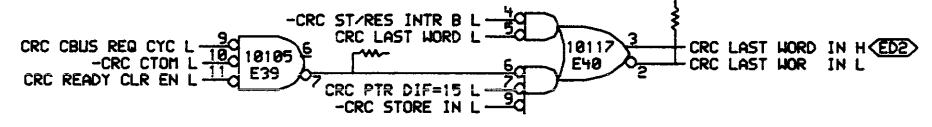
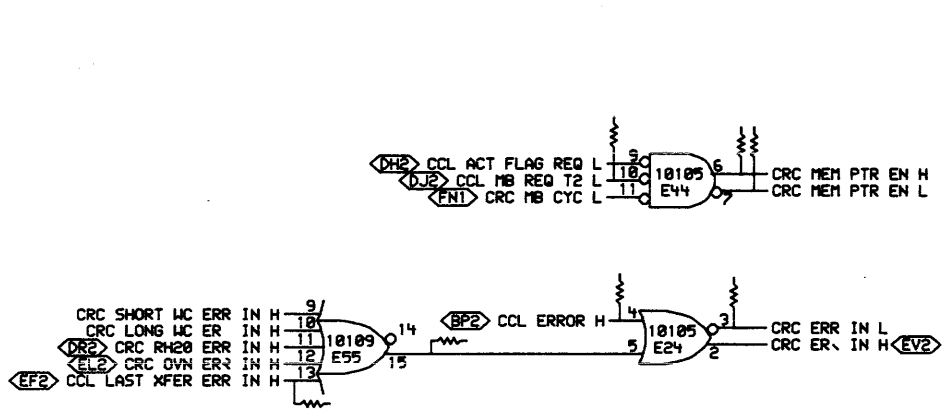
CHK	CHANGE NO.	REV

**digital** *John* DATE: 25-JUN-76 ENG: *Pat* DATE: 06/26/76 TITLE: CHANNEL RAM CONTROL

CRCPLEX.DWG(4,427) 26-MAY-76 13:10 NEXT HIGHER ASSEMBLY: B-DD-M8535

SIZE	CODE	NUMBER	REV.
D	CS	M8535-0-CRC2	B1

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CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV

REVISIONS

CHK CHANGE NO. REV

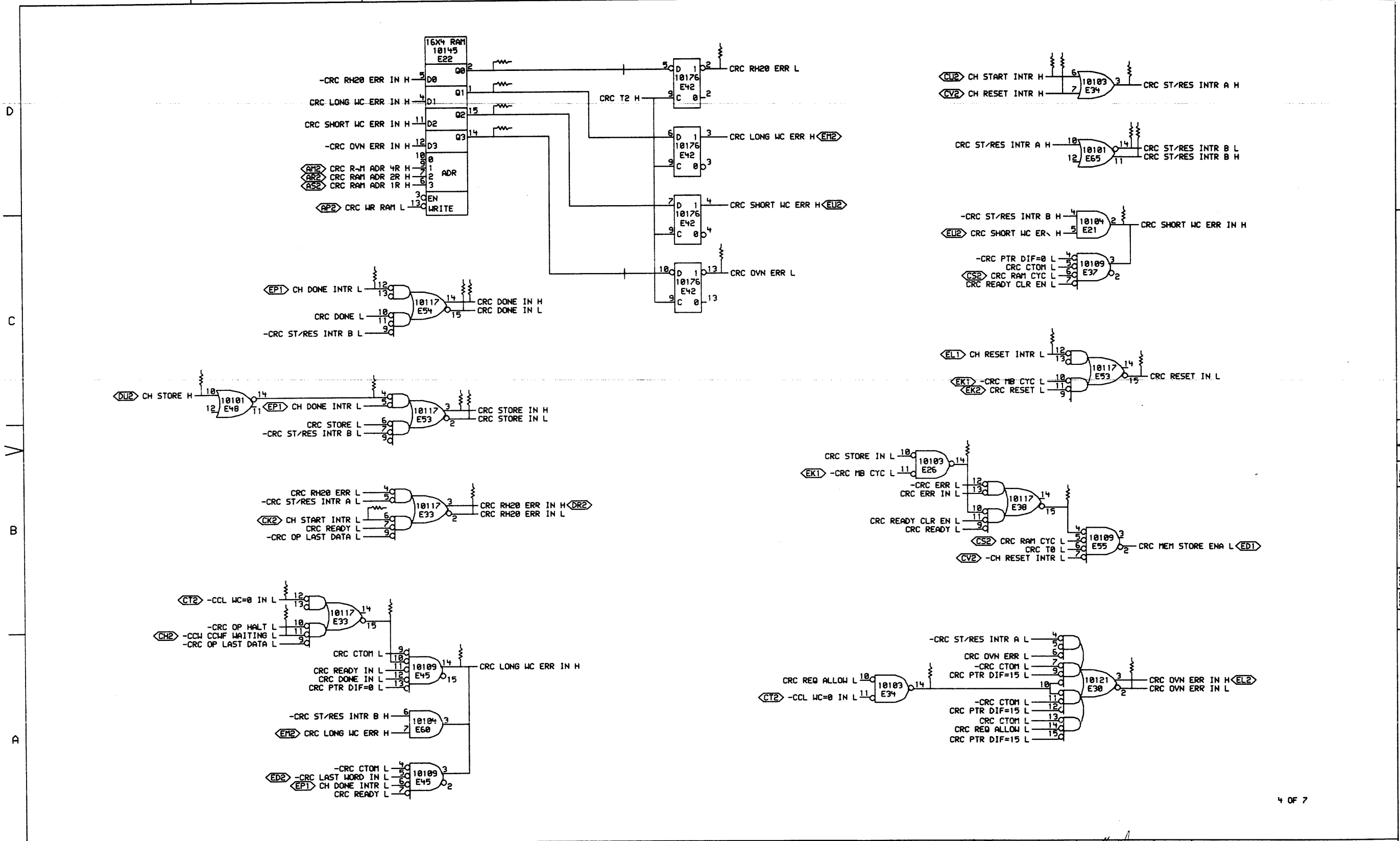
18535-0003 B1

R.D. Brown 11-7-77

M. SCHWARTZ

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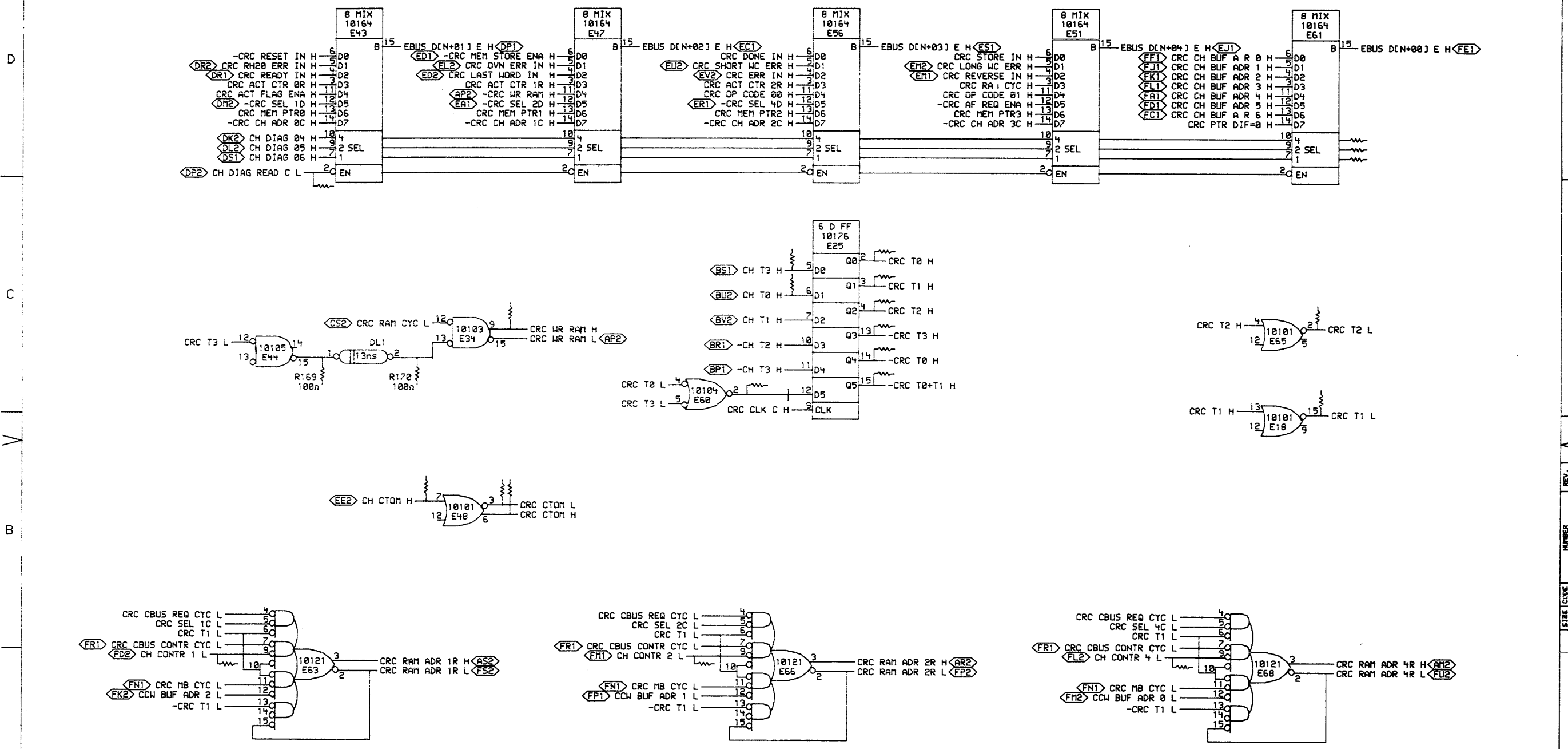
digital	DRN. J. J. J.	DATE 22-JUN-76	ENG. J. J. J.	DATE 6/21/76	TITLE: CHANNEL RAM CONTROL
	CHK'D.	DATE	BOAR. LOCATION: 4A10	SHEET	SIZE CODE NUMBER REV. D CS M8535-0-CRC3 B1
FIRST USED ON OPTION MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8535-0			



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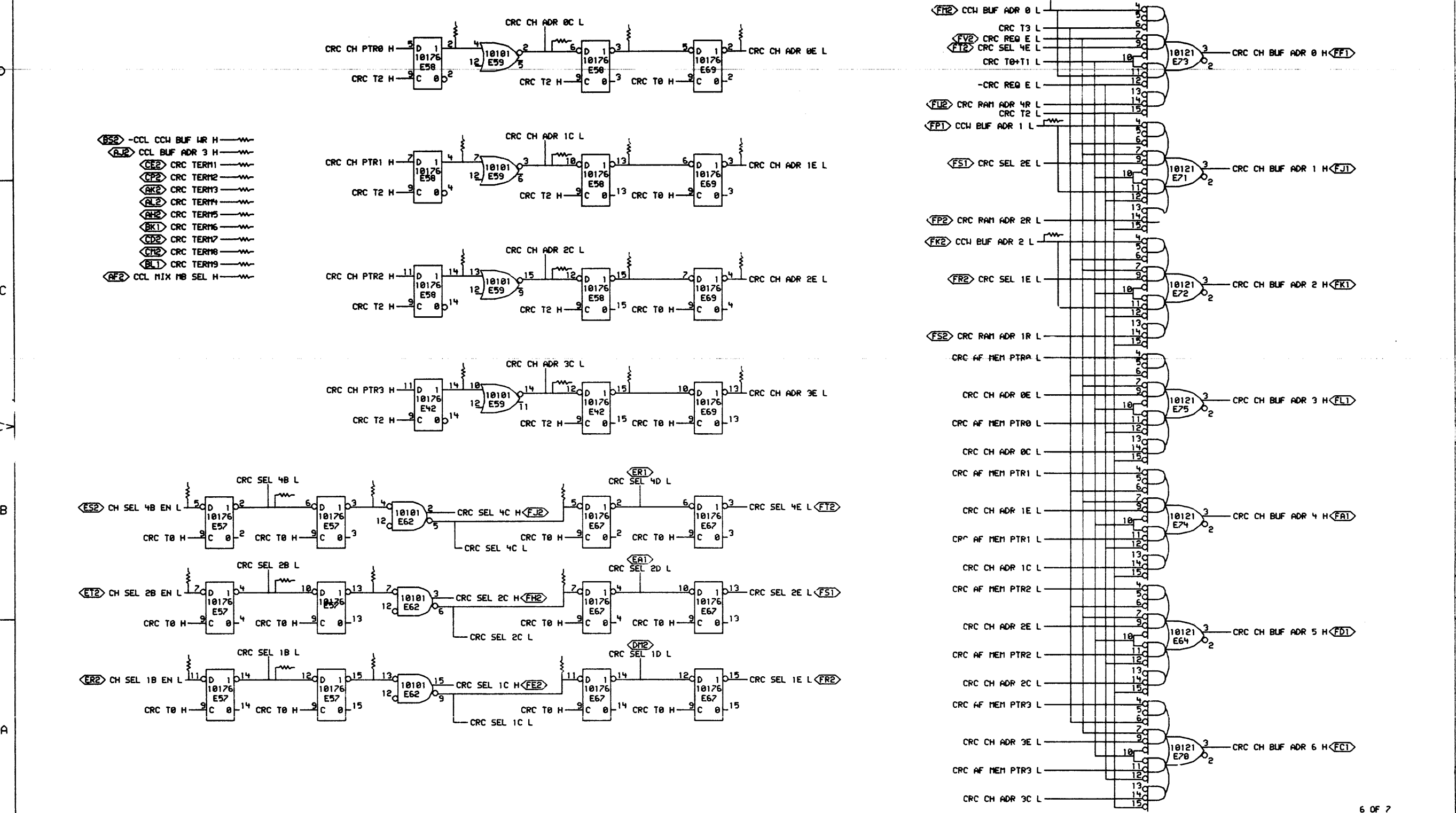
REVISIONS		CHK	CHANGE NO.	REV.
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			M8535-00003	B1
			M8535-00003	B1
			M8535-00003	B1

	DATE	22-JUN-76	ENG	MICHAEL	DATE	9/17/76	TITLE:	CHANNEL RAM CONTROL
	CHK'D.				BOARD LOCATION	4A10	SIZE	D CS
					NUMBER	1	REV.	B1
					NEXT HIGHER ASSEMBLY:	B-DD-M8535-0	NUMBER	M8535-0-CRC4
					FIRST USED ON OPTION/MODEL:	KL10	REV.	B1



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CHK	CHANGE NO.	REV	CHG. DATE	NO.	REV.																												
	M8535-00002	B	11/27/77																														
<p>FIRST USED ON OPTION/MODEL: KL10</p>						<p>SIZE CODE: D CS</p>		<p>NUMBER: M8535-0-CRC5</p>		<p>REV. BI</p>																							

- (B52) -CCL CCH BUF 4R H
- (A32) CCL BUF ADR 3 H
- (CE2) CRC TERM1
- (CF2) CRC TERM2
- (AK2) CRC TERM3
- (AL2) CRC TERM4
- (AH2) CRC TERM5
- (BK1) CRC TERM6
- (CD2) CRC TERM7
- (CF2) CRC TERM8
- (BL1) CRC TERM9
- (AF2) CCL MIX MB SEL H



6 OF 7

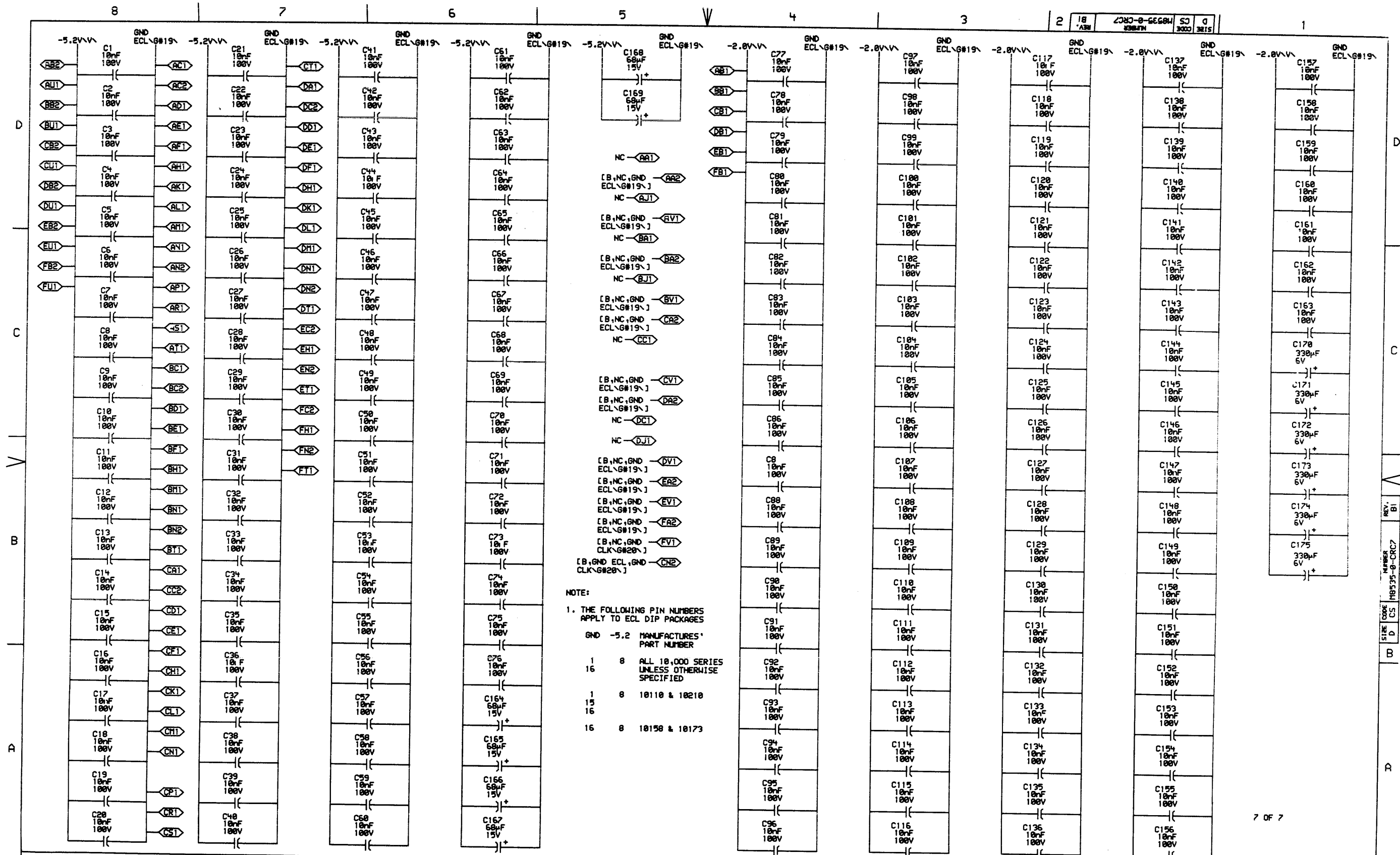
REVISIONS		CHK	CHANGE NO.	REV.
			M8535-00003	B1

M. SCHWARTZ  
 1-777

digital	DATE: 28-MAY-76	ENG: M. Schwartz	DATE: 6/23/76
CRC6EX.DRM(4,477)	DATE: 5/27/76	BOARD LOCATION: 4AF10	SHEET: 1 OF 1
FIRST USED ON OPTION MODEL: KL10	28-MAY-76 13:15	NEXT HIGHER ASSEMBLY: B-DD-M8535-0	

TITLE: CHANNEL RAM CONTROL		REV. B1
SIZE CODE D CS	NUMBER M8535-0-CRC6	





NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURERS' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10150 & 10173

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CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV

CHK	CHANGE NO.	REV

**digital** DRW: *J. J. J.* DATE: *6/22/76* ENG: *Mat. Sch.* DATE: *6/22/76* TITLE: CHANNEL RAM CNTRL PWR, GND, AND CAPS

CRC7EX DRW 4,477 22-JUN-76 09:22 NEXT HIGHER ASSEMBLY: BOARD LOCATION: 46E10 SHEET 1 OF 1

SIZE	CODE	NUMBER	REV.
D	CS	M8535-0-CRC7	B1

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
R60(1)	CRC1	A7	68n	%E1(2)	R91(1)	CRC4	B6	68n	%E33(15)	R135(1)	CRC3	D6	68n	-CCL MB REQ T2 H	R30(1)	CRC4	B6	68n	-CH START INTR H
R62(1)	CRC1	A7	68n	%E1(3)	R170(1)	CRC5	C6	100n	%E34(13)	R193(1)	CRC6	C7	68n	CCL MIX MB SEL H	R137(1)	CRC4	C7	68n	CH STORE H
R116(1)	CRC1	B7	68n	%E1(6)	R212(1)	CRC4	A3	68n	%E34(14)	R97(1)	CRC3	C5	68n	CCL OP LOAD H	R264(1)	CRC5	C4	68n	CH T0 H
R114(1)	CRC1	A7	68n	%E1(7)	R83(1)	CRC2	C7	68n	%E35(15)	R78(1)	CRC3	C5	68n	-CCL OP LOAD H	R214(1)	CRC5	C4	68n	CH T3 H
R195(1)	CRC1	D4	68n	%E11(14)	R252(1)	CRC3	B6	68n	%E35(3)	R4(1)	CRC2	C7	68n	-CCL RAM REQ H	R130(1)	CRC1	B2	68n	CLK CRC H
R194(1)	CRC1	D4	68n	%E11(15)	R254(1)	CRC3	B7	68n	%E35(6)	R63(1)	CRC2	A3	68n	-CCL REQ CTR EN H	R15(1)	CRC2	D1	68n	CRC ACT CTR 0 IN H
R202(1)	CRC1	D4	68n	%E11(2)	R50(1)	CRC4	B2	68n	%E30(15)	R23(1)	CRC4	B7	68n	CCL WC=0 IN H	R230(1)	CRC2	A5	68n	CRC ACT CTR 0R H
R203(1)	CRC1	D4	68n	%E11(3)	R132(1)	CRC3	C7	68n	%E39(7)	R87(1)	CRC3	B6	68n	-CCL WC=0 IN H	R209(1)	CRC2	A5	68n	-CRC ACT CTR 0R H
R68(1)	CRC3	B3	68n	%E12(1)	R139(1)	CRC1	B3	68n	%E4(5)	R205(1)	CRC2	D2	68n	-CCW ACT CTR 0 EN H	R14(1)	CRC2	C1	68n	CRC ACT CTR 1 IN H
R66(1)	CRC3	A3	68n	%E12(14)	R92(1)	CRC2	D5	68n	%E41(15)	R161(1)	CRC2	C2	68n	-CCW ACT CTR 1 EN H	R233(1)	CRC2	A5	68n	CRC ACT CTR 1R H
R67(1)	CRC3	A3	68n	%E12(15)	R257(1)	CRC3	A7	68n	%E41(2)	R201(1)	CRC2	B2	68n	-CCW ACT CTR 2 EN H	R166(1)	CRC2	A5	68n	-CRC ACT CTR 1R H
R69(1)	CRC3	B3	68n	%E12(2)	R99(1)	CRC6	C6	68n	%E42(14)	R96(1)	CRC3	C5	68n	-CCW BUF 00 IN H	R7(1)	CRC2	C1	68n	CRC ACT CTR 2 IN H
R183(1)	CRC3	B2	68n	%E13(2)	R107(1)	CRC6	C5	68n	%E42(15)	R174(1)	CRC3	B5	68n	-CCW BUF 01 IN H	R240(1)	CRC2	A5	68n	CRC ACT CTR 2R H
R53(1)	CRC3	A2	68n	%E13(3)	R169(1)	CRC5	C7	100n	%E44(15)	R171(1)	CRC3	B5	68n	-CCW BUF 02 IN H	R220(1)	CRC1	D7	68n	CRC ACT FLAG ALLOW H
R45(1)	CRC2	C7	68n	%E14(14)	R155(1)	CRC1	B3	68n	%E44(2)	R151(1)	CRC6	D3	68n	-CCW BUF ADR 0 H	R229(1)	CRC1	D7	68n	CRC ACT FLAG ENA H
R48(1)	CRC2	C7	68n	%E14(15)	R142(1)	CRC4	C6	68n	%E40(14)	R248(1)	CRC6	D3	68n	-CCW BUF ADR 1 H	R57(1)	CRC2	B2	68n	-CRC AF MEM PTR0 H
R72(1)	CRC2	A7	68n	%E17(1)	R19(1)	CRC3	C7	68n	%E55(15)	R185(1)	CRC6	C3	68n	-CCW BUF ADR 2 H	R112(1)	CRC2	A2	68n	-CRC AF MEM PTR1 H
R64(1)	CRC2	A7	68n	%E17(14)	R184(1)	CRC6	B6	68n	%E57(13)	R24(1)	CRC4	B7	68n	CCW CBUF WAITING H	R104(1)	CRC2	A2	68n	-CRC AF MEM PTR2 H
R65(1)	CRC2	A7	68n	%E17(15)	R181(1)	CRC6	A6	68n	%E57(15)	R21(1)	CRC2	C7	68n	CH CBUS REQ H	R55(1)	CRC2	A2	68n	-CRC AF MEM PTR3 H
R73(1)	CRC2	A7	68n	%E17(2)	R180(1)	CRC6	B6	68n	%E57(3)	R42(1)	CRC2	C7	68n	-CH CBUS REQ H	R88(1)	CRC1	B3	68n	-CRC AF REQ ENA H
R3(1)	CRC1	A4	68n	%E19(1)	R111(1)	CRC6	D5	68n	%E50(13)	R149(1)	CRC5	A7	68n	-CH CONTR 1 H	R217(1)	CRC2	C6	68n	-CRC CBUS REQ CYC H
R1(1)	CRC1	A4	68n	%E19(15)	R95(1)	CRC6	C6	68n	%E50(14)	R250(1)	CRC5	A5	68n	-CH CONTR 2 H	R227(1)	CRC6	D5	68n	-CRC CH ADR 0C H
R2(1)	CRC1	A4	68n	%E19(2)	R110(1)	CRC6	C5	68n	%E50(15)	R150(1)	CRC5	A2	68n	-CH CONTR 4 H	R56(1)	CRC6	D4	68n	-CRC CH ADR 0E H
R156(1)	CRC1	C4	68n	%E2(2)	R100(1)	CRC6	D5	68n	%E50(2)	R5(1)	CRC2	C8	68n	CH CONTR REQ H	R108(1)	CRC6	D5	68n	-CRC CH ADR 1C H
R154(1)	CRC1	C4	68n	%E2(3)	R109(1)	CRC6	D5	68n	%E50(3)	R22(1)	CRC2	C7	68n	-CH CONTR REQ H	R113(1)	CRC6	D4	68n	-CRC CH ADR 1E H
R159(1)	CRC1	C4	68n	%E2(6)	R101(1)	CRC6	D6	68n	%E50(4)	R140(1)	CRC5	B6	68n	CH CTOM H	R237(1)	CRC6	C5	68n	-CRC CH ADR 2C H
R157(1)	CRC1	C4	68n	%E2(7)	R49(1)	CRC2	B2	68n	%E60(14)	R246(1)	CRC5	D2	68n	CH DIAG 04 H	R106(1)	CRC6	C4	68n	-CRC CH ADR 2E H
R163(1)	CRC1	D5	68n	%E21(14)	R208(1)	CRC5	C5	68n	%E60(2)	R247(1)	CRC5	D2	68n	CH DIAG 05 H	R232(1)	CRC6	C5	68n	-CRC CH ADR 3C H
R162(1)	CRC1	D5	68n	%E21(3)	R102(1)	CRC2	B5	68n	%E65(2)	R245(1)	CRC5	D2	68n	CH DIAG 06 H	R54(1)	CRC6	C4	68n	-CRC CH ADR 3E H
R40(1)	CRC4	D6	68n	%E22(1)	R70(1)	CRC2	A2	68n	%E8(14)	R243(1)	CRC5	C7	68n	-CH DIAG READ C H	R196(1)	CRC1	C3	68n	CRC CH PTR PLUS H
R34(1)	CRC4	D6	68n	%E22(14)	R71(1)	CRC2	A2	68n	%E8(15)	R93(1)	CRC4	C6	68n	-CH DONE INTR H	R145(1)	CRC1	D2	68n	CRC CH PTR0 H
R39(1)	CRC4	D6	68n	%E22(15)	R75(1)	CRC2	A2	68n	%E8(2)	R6(1)	CRC2	C7	68n	CH HR RESET B H	R191(1)	CRC1	D3	68n	CRC CH PTR0 IN H
R30(1)	CRC4	D6	68n	%E22(2)	R74(1)	CRC2	B2	68n	%E8(3)	R52(1)	CRC2	B6	68n	-CH REQ D H	R146(1)	CRC1	D2	68n	CRC CH PTR1 H
R260(1)	CRC4	B3	68n	%E26(14)	R199(1)	CRC6	D7	68n	CCL BUF ADR 3 H	R263(1)	CRC4	D2	68n	CH RESET INTR H	R189(1)	CRC1	D3	68n	CRC CH PTR1 IN H
R80(1)	CRC3	D3	68n	%E27(1)	R211(1)	CRC6	D7	68n	-CCL CBUF WR H	R130(1)	CRC4	C2	68n	-CH RESET INTR H	R141(1)	CRC1	D2	68n	CRC CH PTR2 H
R77(1)	CRC3	D3	68n	%E27(14)	R258(1)	CRC2	D7	68n	CCL CBUF CLR H	R176(1)	CRC6	A7	68n	-CH SEL 1B EN H	R100(1)	CRC1	D3	68n	CRC CH PTR2 IN H
R82(1)	CRC3	D3	68n	%E27(15)	R18(1)	CRC3	C6	68n	CCL ERROR H	R182(1)	CRC6	B7	68n	-CH SEL 2B EN H	R31(1)	CRC1	D2	68n	CRC CH PTR3 H
R81(1)	CRC3	D3	68n	%E27(2)	R46(1)	CRC3	C7	68n	CCL LAST XFER ERR IN H	R178(1)	CRC6	B7	68n	-CH SEL 4B EN H	R106(1)	CRC1	D3	68n	CRC CH PTR3 IN H
R43(1)	CRC2	C7	68n	%E29(7)	R12(1)	CRC2	C2	68n	CCL LOAD AC H	R85(1)	CRC2	D7	68n	-CH START H	R47(1)	CRC1	B2	68n	CRC CLK A H
R265(1)	CRC2	B7	68n	%E31(14)	R160(1)	CRC2	D2	68n	-CCL LOAD AC H	R225(1)	CRC4	D2	68n	CH START INTR H	R50(1)	CRC1	B2	68n	CRC CLK 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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CHK	CHANGE NO.	REV	CHG	CHANGE NO.	REV
	MB535-00003	B1			
	MB535-00002	B			

DRN.	DATE	ENG.	DATE	TITLE
G. Smith	27-MAY-76	M. J. Jones	6/23/76	CHANNEL RAM TERMINATORS
CH. De...	5/27/76			

digital  
 MB5351.DRW(4,477)  
 FIRST USED ON OPTION/MODEL: KL10

DATE	BOARD LOCATION	SHEET	OF
27-MAY-76 00:10	NEXT HIGHER ASSEMBLY:	1	2

SIZE	CODE	NUMBER	REV.
D	CS	MB535-0-RES	BI

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R210(1)	CRC1	B2	68n	CRC CLK C H	R8(1)	CRC1	B6	68n	CRC PTR DIF0 H	R147(1)	CRC5	C4	68n	CRC T0 H
R253(1)	CRC5	B6	68n	CRC CTOM H	R15(1)	CRC1	C7	68n	-CRC PTR DIF0 H	R51(1)	CRC5	C4	68n	-CRC T0 H
R187(1)	CRC5	B6	68n	-CRC CTOM H	R9(1)	CRC1	A6	68n	CRC PTR DIF1 H	R105(1)	CRC5	C4	68n	-CRC T0+T1 H
R94(1)	CRC3	A2	68n	-CRC DONE H	R17(1)	CRC1	B7	68n	-CRC PTR DIF1 H	R242(1)	CRC5	C4	68n	CRC T1 H
R241(1)	CRC4	C6	68n	CRC DONE IN H	R11(1)	CRC1	A6	68n	CRC PTR DIF2 H	R261(1)	CRC5	C2	68n	-CRC T1 H
R119(1)	CRC4	C6	68n	-CRC DONE IN H	R164(1)	CRC1	B7	68n	-CRC PTR DIF2 H	R144(1)	CRC5	C4	68n	CPC T2 H
R167(1)	CRC2	D4	68n	CRC DONE LOAD AC H	R10(1)	CRC1	A6	68n	CRC PTR DIF3 H	R06(1)	CRC5	C2	68n	-CRC T2 H
R200(1)	CRC2	D4	68n	-CRC DONE LOAD AC H	R204(1)	CRC1	B7	68n	-CRC PTR DIF3 H	R251(1)	CRC5	C4	68n	-CRC T3 H
R09(1)	CRC3	D2	68n	CRC ERR H	R244(1)	CRC1	C7	68n	CRC PTR DIF=0 H	R215(1)	CRC6	D7	68n	CRC TERM1
R28(1)	CRC3	C6	68n	-CRC ERR IN H	R90(1)	CRC1	C7	68n	-CRC PTR DIF=0 H	R210(1)	CRC6	C7	68n	CRC TERM2
R133(1)	CRC3	D2	68n	-CRC LAST WORD H	R255(1)	CRC1	C7	68n	CRC PTR DIF=15 H	R190(1)	CRC6	C7	68n	CRC TERM3
R120(1)	CRC3	C6	68n	-CRC LAST WORD IN H	R134(1)	CRC1	C7	68n	-CRC PTR DIF=15 H	R197(1)	CRC6	C7	68n	CRC TERM4
R124(1)	CRC4	A6	68n	CRC LONG WC ERR IN H	R150(1)	CRC1	C7	68n	CRC PTR LATCH H	R192(1)	CRC6	C7	68n	CPC TERM5
R04(1)	CRC2	D6	68n	-CRC MB CYC T3 H	R230(1)	CRC2	B1	68n	CRC RAM CYC H	R207(1)	CRC6	C7	68n	CPC TERM6
R136(1)	CRC3	D6	68n	CRC MEM PTR EN H	R223(1)	CRC3	D2	68n	-CRC READY H	R216(1)	CRC6	C7	68n	CRC TERM7
R41(1)	CRC3	D6	68n	-CRC MEM PTR EN H	R36(1)	CRC3	B6	68n	CRC READY CLR H	R219(1)	CRC6	C7	68n	CRC TERM8
R226(1)	CRC1	C2	68n	CRC MEM PTR0 H	R222(1)	CRC3	B6	68n	-CRC READY CLR EN H	R206(1)	CRC6	C7	68n	CPC TERM9
R117(1)	CRC1	C3	68n	CRC MEM PTR0 IN H	R129(1)	CRC3	A6	68n	-CRC READY IN H	R221(1)	CRC5	C6	68n	CRC WR RAM H
R231(1)	CRC1	C2	68n	CRC MEM PTR1 H	R44(1)	CRC1	D7	68n	CRC READY INH H					
R110(1)	CRC1	C3	68n	CRC MEM PTR1 IN H	R13(1)	CRC1	D7	68n	-CRC READY INH H					
R236(1)	CRC1	C2	68n	CRC MEM PTR2 H	R165(1)	CRC1	C4	68n	-CRC REQ ALLOW H					
R61(1)	CRC1	C3	68n	CRC MEM PTR2 IN H	R262(1)	CRC2	B4	68n	CRC REQ E H					
R234(1)	CRC1	C2	68n	CRC MEM PTR3 H	R120(1)	CRC4	C2	68n	-CRC RESET IN H					
R59(1)	CRC1	C3	68n	CRC MEM PTR3 IN H	R172(1)	CRC3	C2	68n	-CRC REVERSE H					
R239(1)	CRC3	B1	68n	CRC OP CODE 00 H	R126(1)	CRC3	B4	68n	-CRC REVERSE IN H					
R90(1)	CRC3	B1	68n	-CRC OP CODE 00 H	R29(1)	CRC4	D4	68n	-CRC RH20 ERR H					
R121(1)	CRC3	C4	68n	CRC OP CODE 00 IN H	R127(1)	CRC4	B6	68n	-CRC RH20 ERR IN H					
R160(1)	CRC3	C4	68n	-CRC OP CODE 00 IN H	R173(1)	CRC6	A7	68n	-CRC SEL 1B H					
R235(1)	CRC3	A1	68n	CRC OP CODE 01 H	R140(1)	CRC6	A5	68n	-CRC SEL 1C H					
R175(1)	CRC3	A1	68n	-CRC OP CODE 01 H	R177(1)	CRC6	B7	68n	-CRC SEL 2B H					
R20(1)	CRC3	B4	68n	CRC OP CODE 01 IN H	R249(1)	CRC6	B5	68n	-CRC SEL 2C H					
R25(1)	CRC3	B4	68n	-CRC OP CODE 01 IN H	R179(1)	CRC6	B7	68n	-CRC SEL 4B H					
R259(1)	CRC3	B2	68n	-CRC OP DATA H	R152(1)	CRC6	B5	68n	-CRC SEL 4C H					
R26(1)	CRC3	C2	68n	CRC OP HALT H	R125(1)	CRC4	C2	68n	CRC SHORT WC ERR IN H					
R256(1)	CRC3	C2	68n	-CRC OP HALT H	R115(1)	CRC4	D2	68n	CRC ST/RES INTR A H					
R79(1)	CRC3	C2	68n	-CRC OP JUMP H	R37(1)	CRC4	D2	68n	CRC ST/RES INTR B H					
R27(1)	CRC3	B2	68n	CRC OP LAST DATA H	R153(1)	CRC4	D2	68n	-CRC ST/RES INTR B H					
R35(1)	CRC3	B2	68n	-CRC OP LAST DATA H	R143(1)	CRC2	B6	68n	-CRC STORE H					
R220(1)	CRC4	C4	68n	-CRC OVN ERR H	R131(1)	CRC4	C6	68n	CRC STORE IN H					
R122(1)	CRC4	A2	68n	-CRC OVN ERR IN H	R123(1)	CRC4	C6	68n	-CRC STORE IN 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

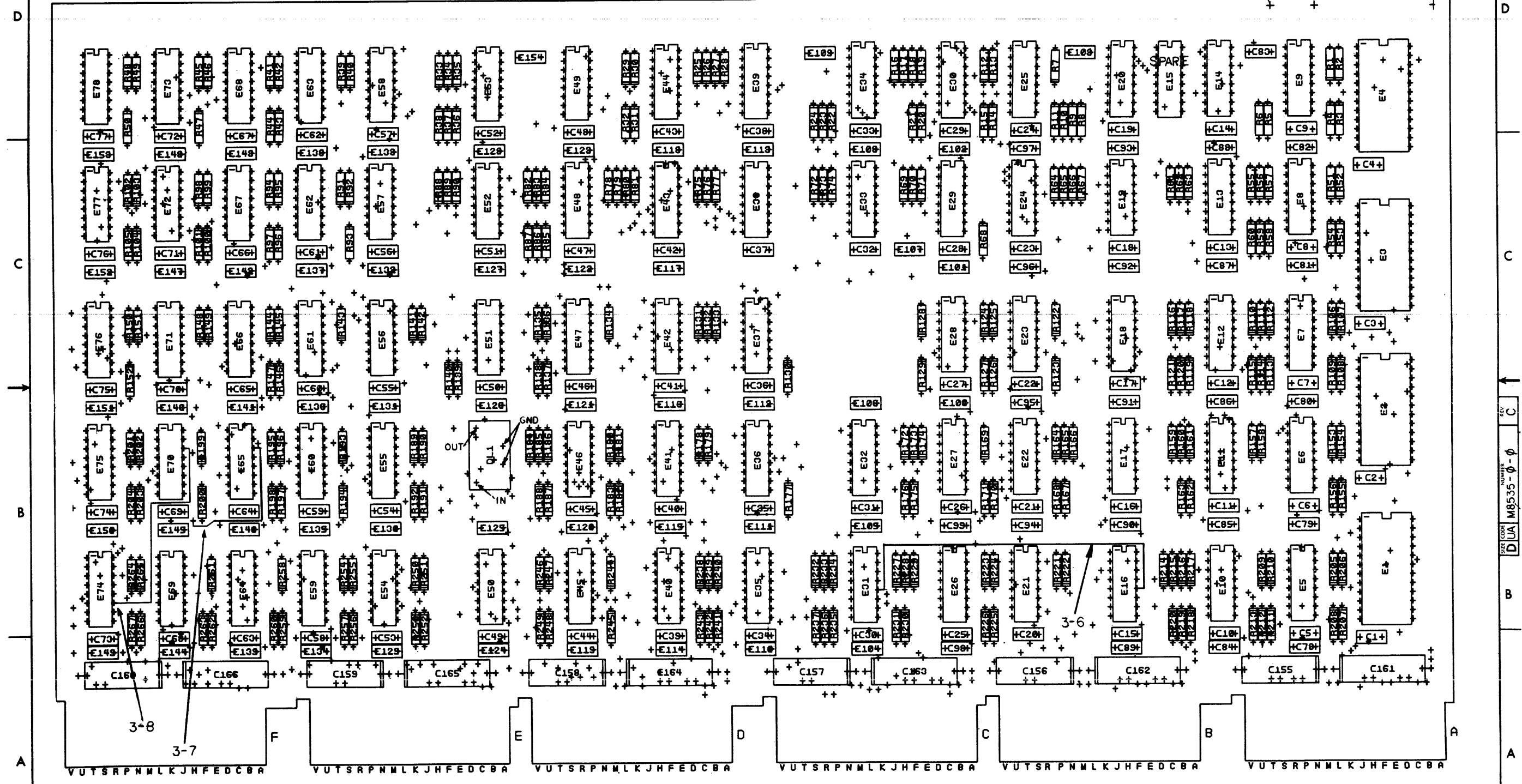
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REV. NO.	CHANGE NO.

digital	DRN. <i>E. Smith</i>	DATE <i>27-MAY-76</i>	ENG. <i>W. Sch...</i>	DATE <i>27-MAY-76</i>	TITLE: CHANNEL RAM TERMINATORS
	CHK. <i>W. Sch...</i>	DATE <i>27-MAY-76</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	
M85352.DRW(4,477)		FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8535-0	
SIZE CODE	D CS	NUMBER	M8535-0-RES	REV.	BI



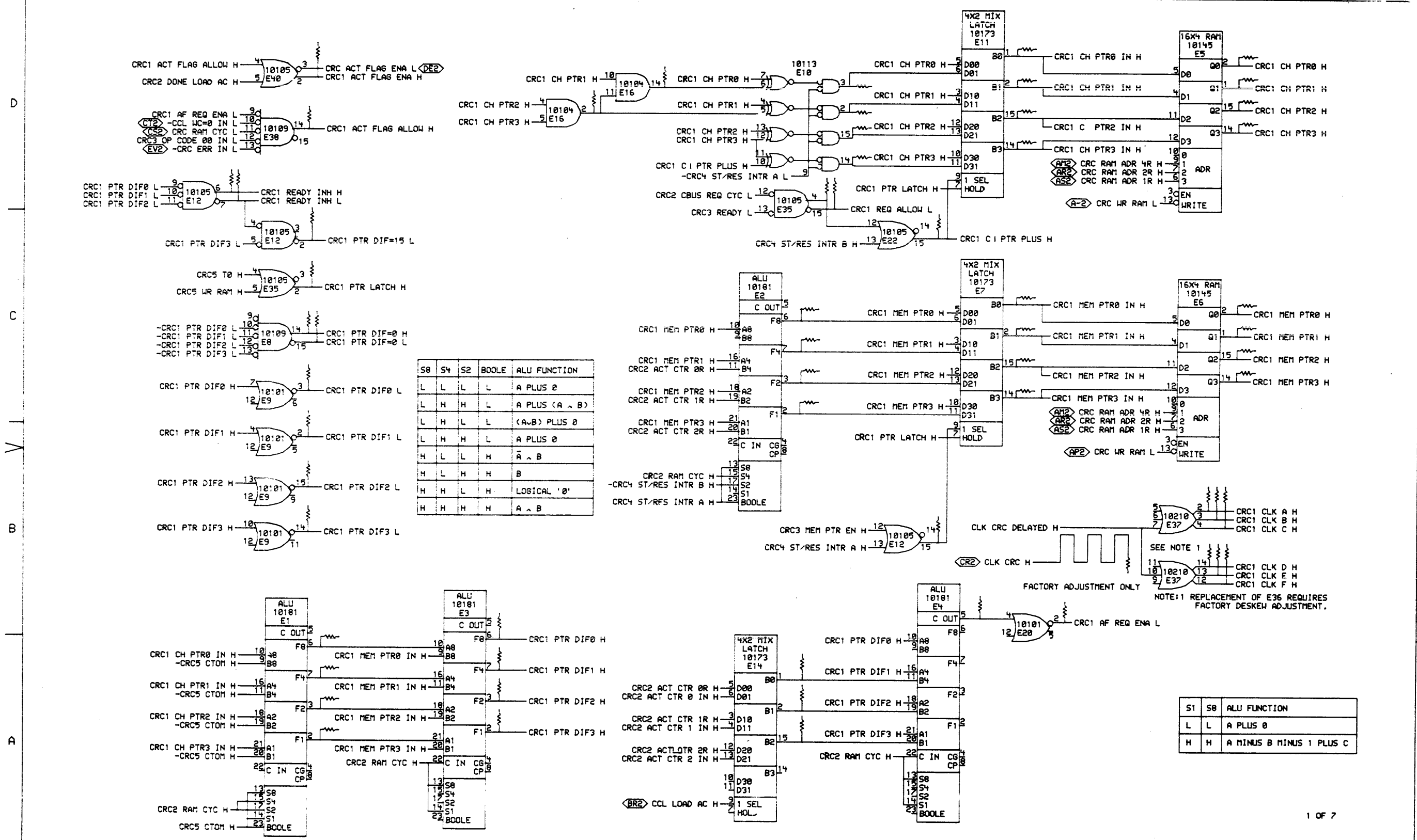
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	CHANNEL RAM CONTROL	SIZE CODE	D U A	NUMBER	M8535-φ-φ	REV.	C
SCALE	2/1	SHEET	2 OF 5	DIST.			

258



S8	S4	S2	BOOLE	ALLU FUNCTION
L	L	L	L	A PLUS 0
L	H	H	L	A PLUS (A ~ B)
L	H	L	L	(A~B) PLUS 0
L	H	H	L	A PLUS 0
H	L	L	H	A ~ B
H	L	H	H	B
H	H	L	H	LOGICAL '0'
H	H	H	H	A ~ B

S1	S8	ALLU FUNCTION
L	L	A PLUS 0
H	H	A MINUS B MINUS 1 PLUS C

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REVISIONS	CHK	CHANGE NO.	REV

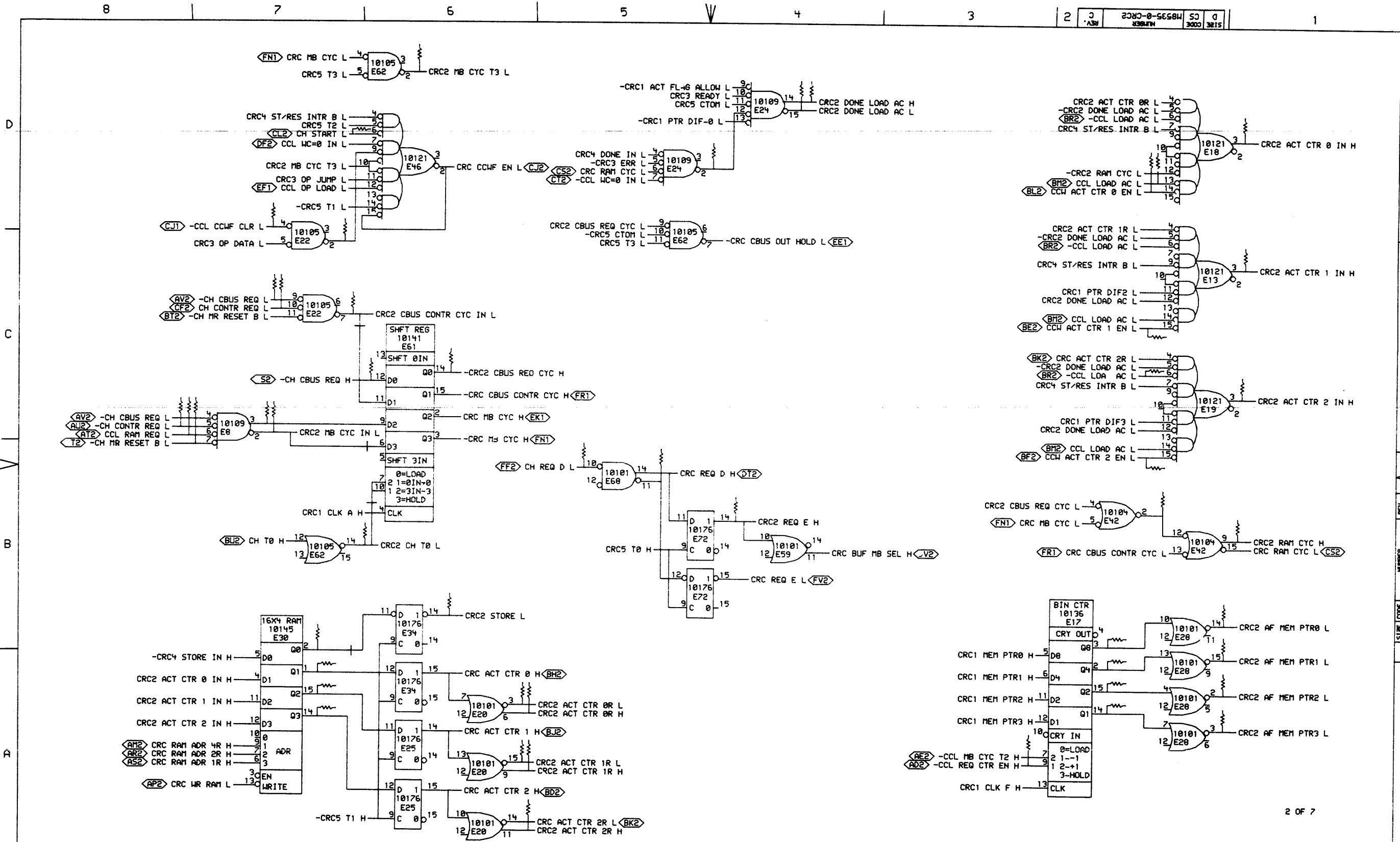
**digital** DATE: 01-NOV-76 ENG: M.S. DATE: 11/2/76 TITLE: CHANNEL RAM CONTROL

CRC1ES.DRAW 4.1253 113-001-76 13:23 NEXT HIGHER ASSEMBLY: B-DD-M8535-0

FIRST USED ON OPTION MODEL: KL10 BOARD LOCATION: 4AF18 SHEET: 1 OF 1

SIZE CODE: D CS NUMBER: M8535-0-CRC1 REV: C

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REVISIONS		
CHK	CHANGE NO.	REV.

**digital**  
 DATE: 01-10-76  
 DATE: 11/25/76  
 SHEET: 1 OF 1

ENG: J. J. J. DATE: 11/25/76  
 BOARD LOCATION: 4AF10  
 NEXT HIGHER ASSEMBLY: B-DD-M8535

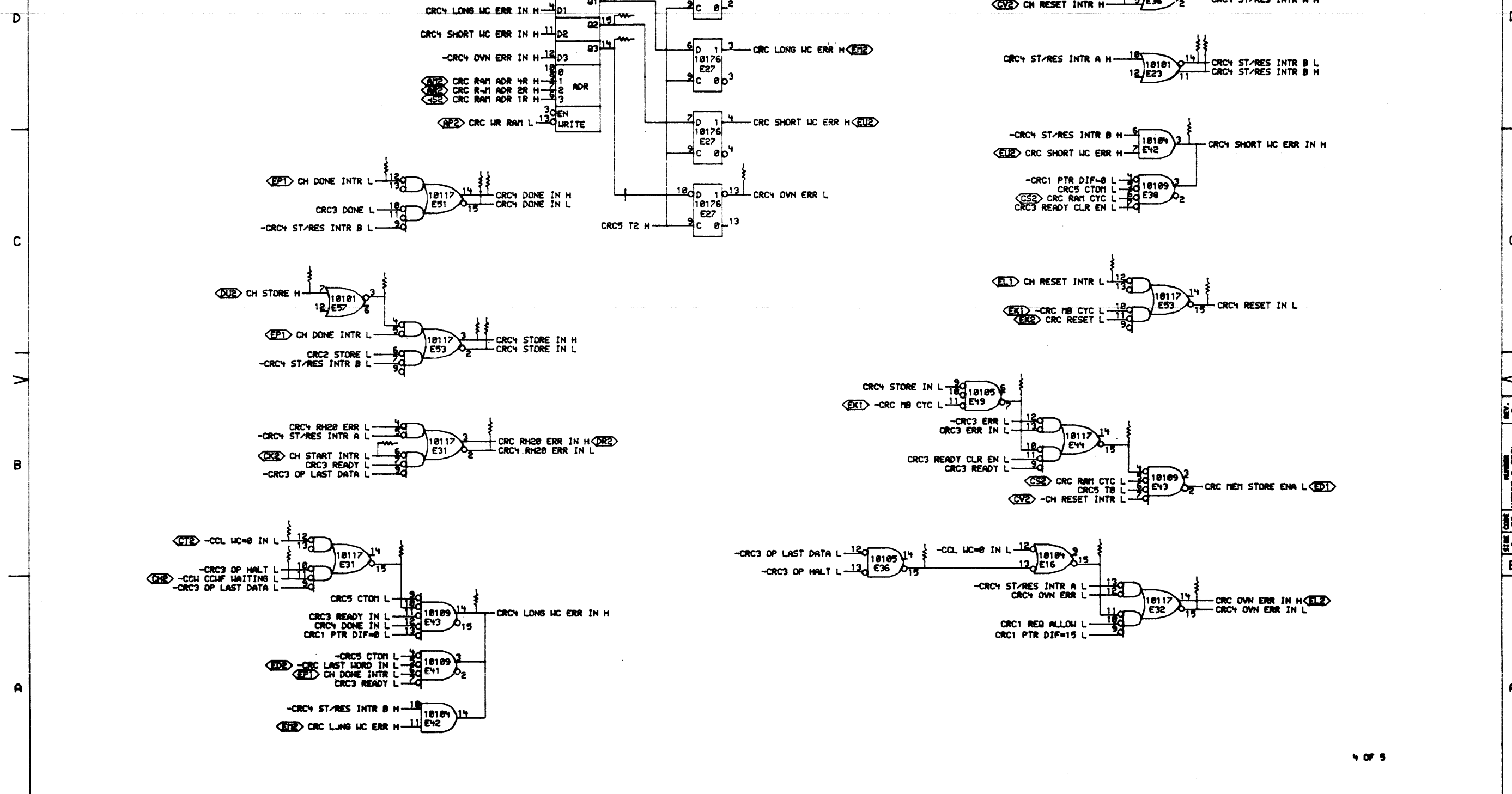
TITLE: CHANNEL RAM CONTROL  
 SIZE CODE: D CS  
 NUMBER: M8535-0-CRC2  
 REV. C

262



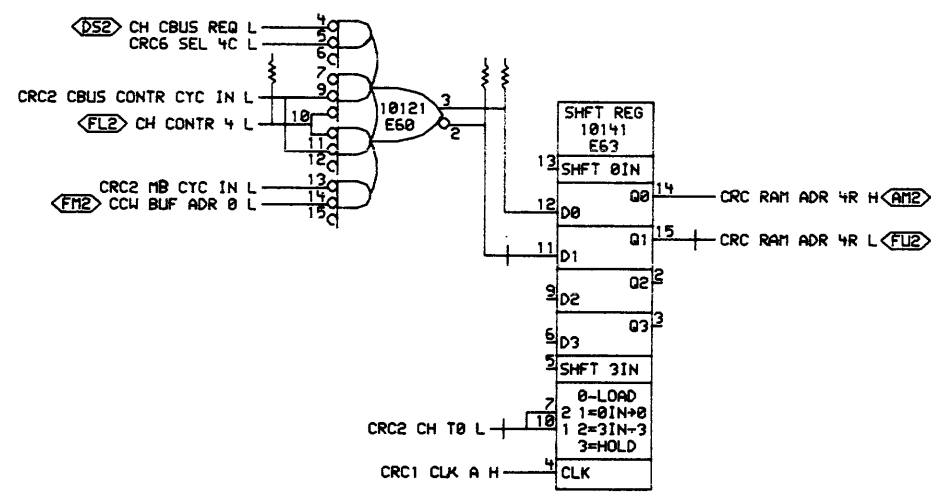
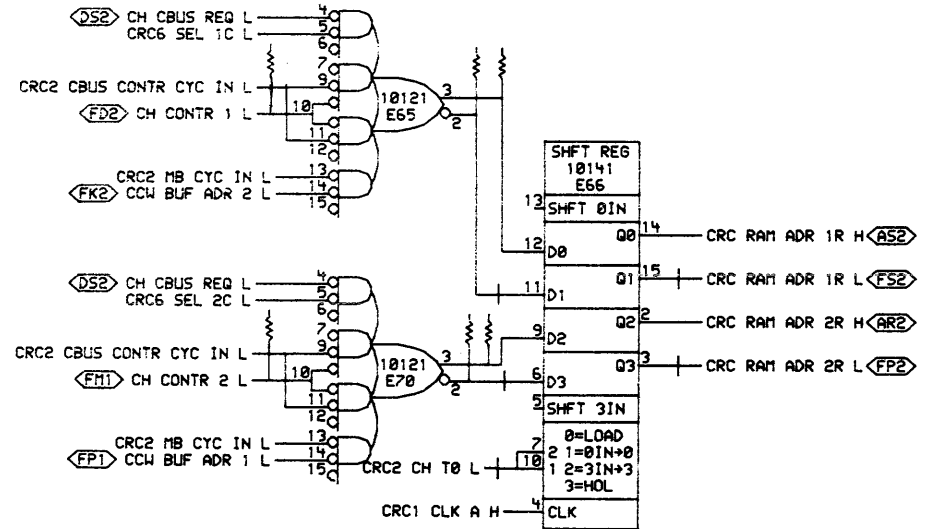
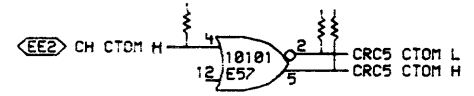
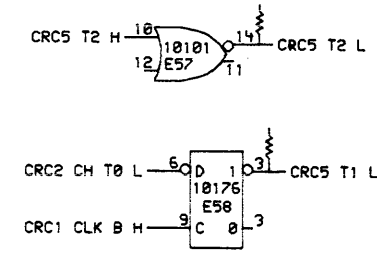
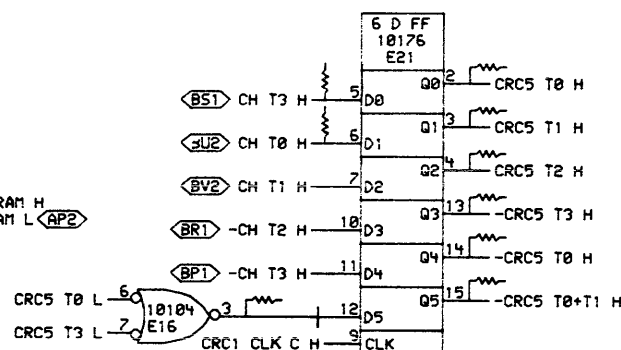
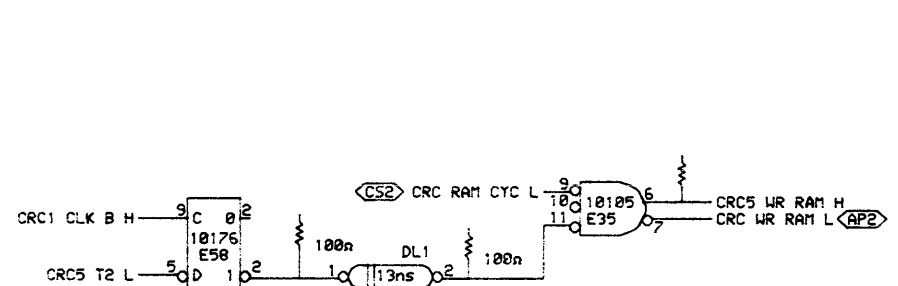
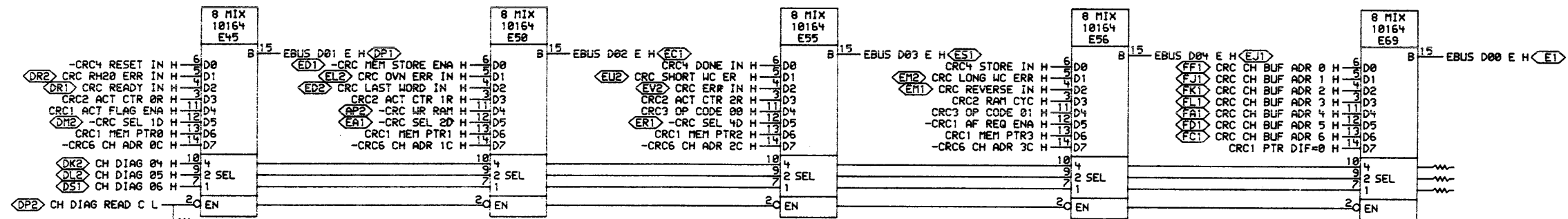






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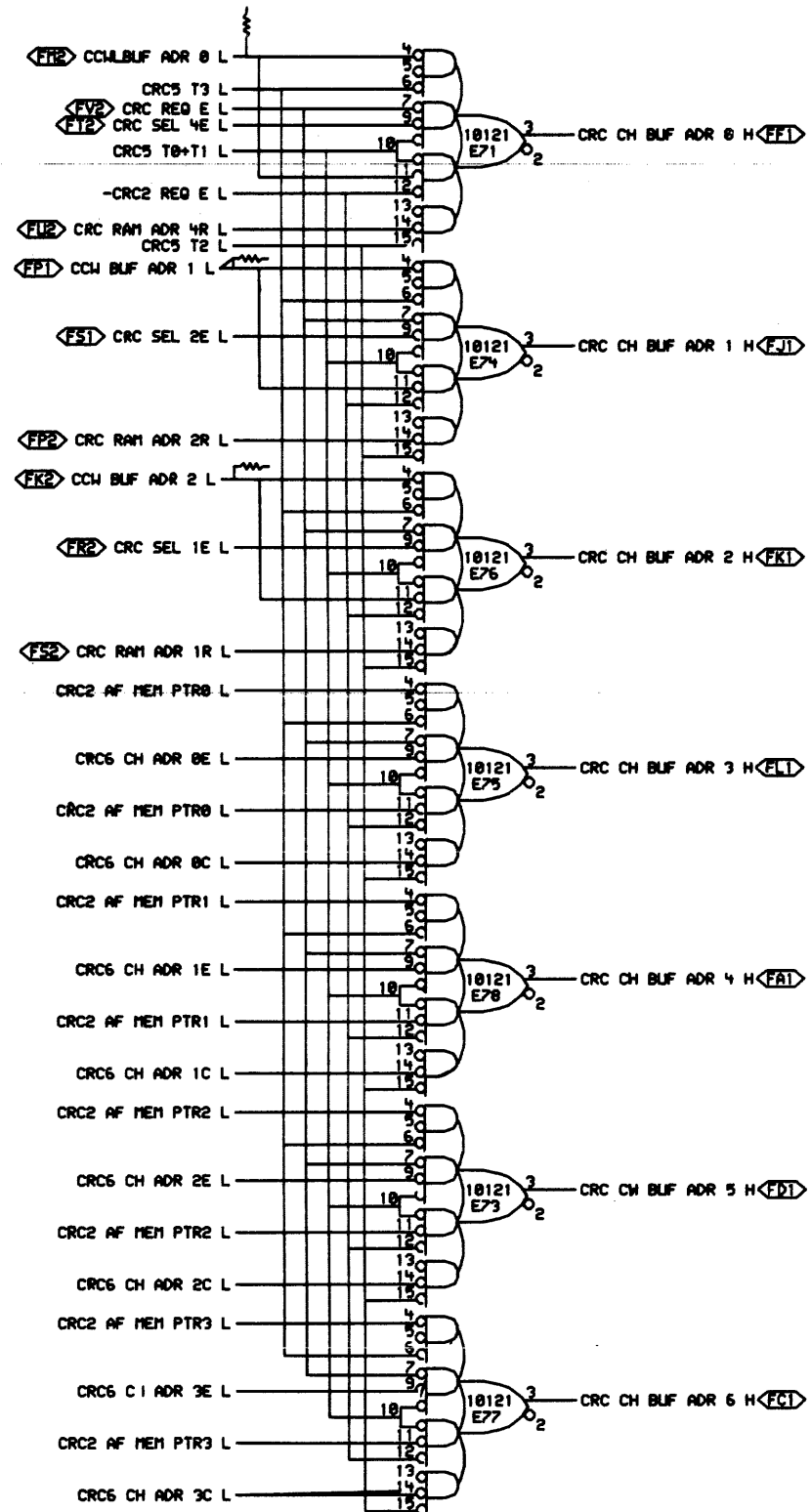
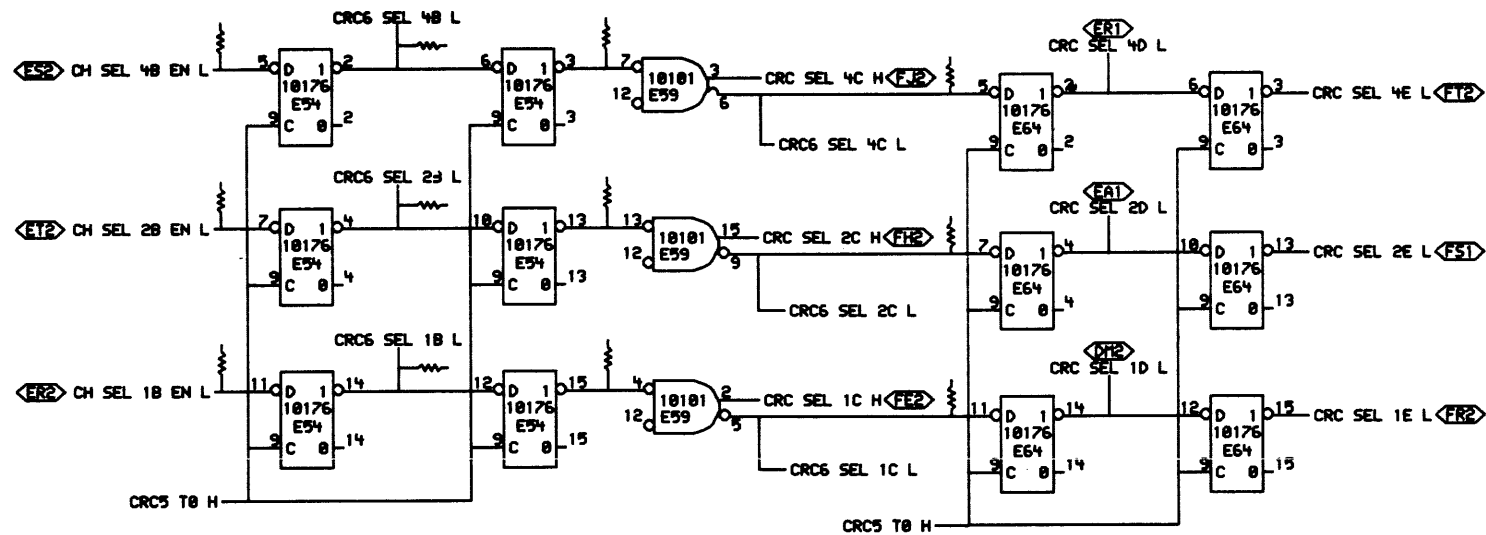
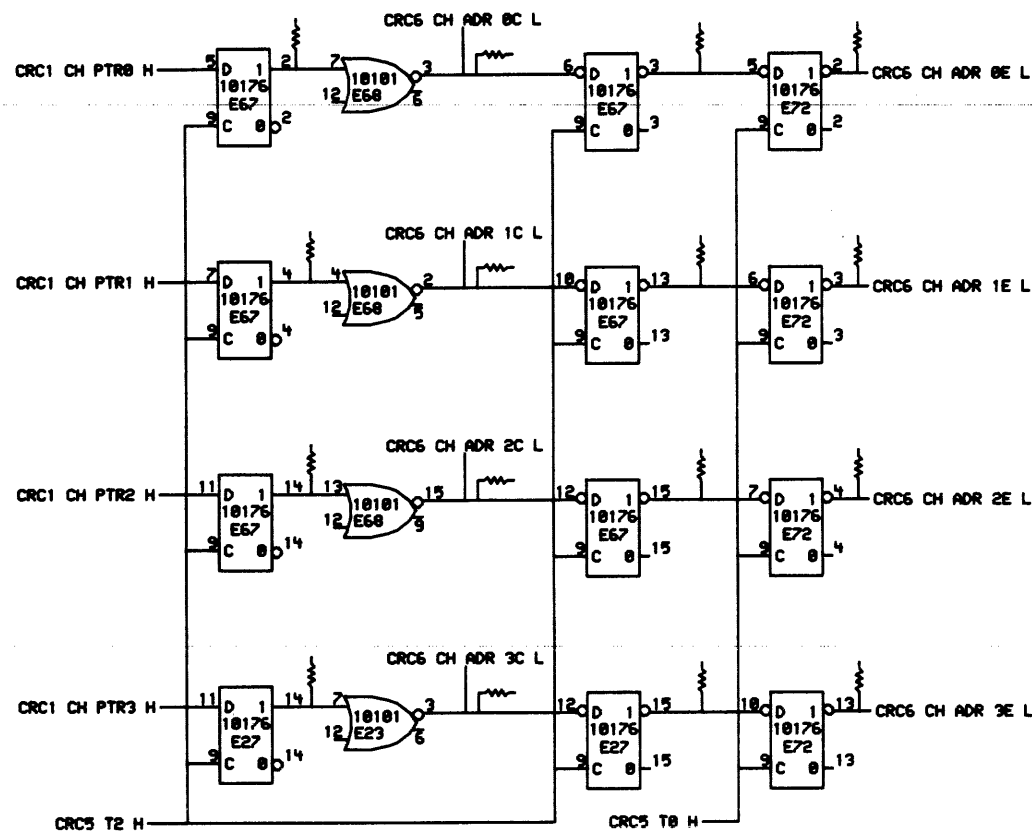
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REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE: 01-NOV-76	ENG: [Signature]	DATE: 11/2/76	TITLE: CHANNEL RAM CONTROL
	DATE: 11/2/76	BOARD LOCATION: 4A110	SHEET: 1 OF 1	NUMBER: M8535-0-CRC5
FIRST USED ON OPTION MODEL: KL10			REV. C	

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- ES2 -CCL CCH BUF IAR H
- AL2 CCL BUF ADR 3 H
- CE2 CRC5 TERN11 #400
- CF2 CRC5 TERN12 #400
- AG2 CRC5 TERN13 #400
- AI2 CRC5 TERN14 #400
- AK2 CRC5 TERN15 #400
- AK1 CRC5 TERN16 #400
- CP2 CRC5 TERN17 #400
- CH2 CRC5 TERN18 #400
- BL1 CRC5 TERN19 #400
- AF2 CCL MIX MB SEL H



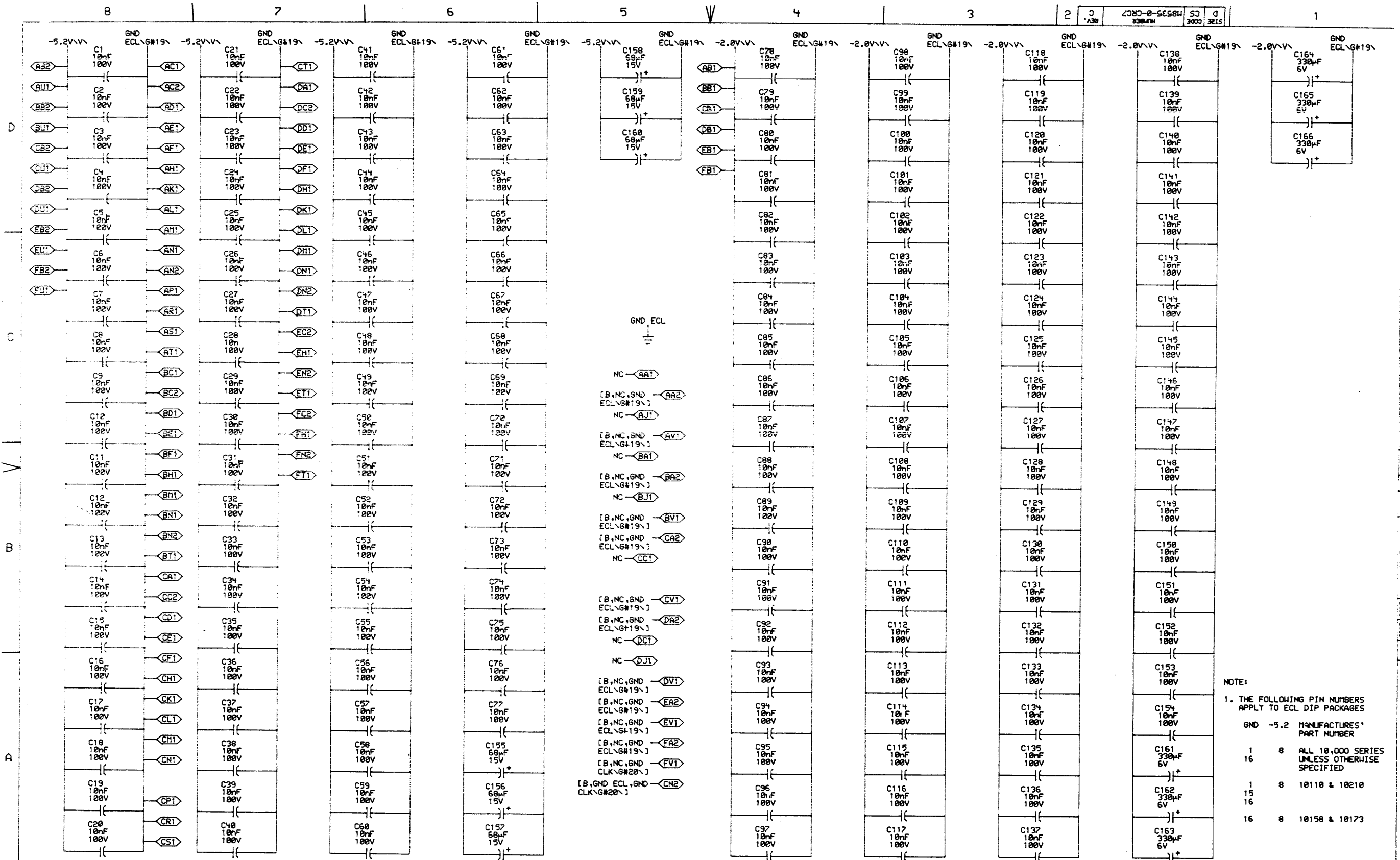
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REVISIONS	
CHK	CHANGE NO. REV

**digital**  
 DR. J. J. ... DATE 01-10-76  
 CK. ... DATE 11-26-76  
 FIRST USED ON OPTION MODEL: KL10

ENG. ... DATE 11/76  
 BOARD LOCATION: 48270  
 NEXT HIGHER ASSEMBLY: B-DD-M8535-0

TITLE: CHANNEL RAM CONTROL		REV. C
SIZE CODE D	NUMBER CS M8535-0-CRC6	



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES  
 GND -5.2 MANUFACTURER'S PART NUMBER  
 1 8 ALL 18,000 SERIES UNLESS OTHERWISE SPECIFIED  
 15 8 10110 & 10210  
 16  
 16 8 10158 & 10173

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE:
	11/3/76	KL10	11/3/76	CHANNEL RAM CNTRL PWR, GND, AND CAPS
FIRST USED ON OPTION MODEL		KL10	B-DD-M8535-0	REV. C

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RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R100(1)	CRC5	C5	100n	%DL1(2)	R7(1)	CRC2	A7	60n	%E30(14)	R230(1)	CRC3	D6	60n	CCL ERROR H	R256(1)	CRC6	B8	60n	-C1 SEL 2B EN H
R53(1)	CRC1	A7	60n	%E1(2)	R10(1)	CRC2	A7	60n	%E30(15)	R170(1)	CRC3	C7	60n	CCL LAST XFER ERR IN H	R255(1)	CRC6	B8	60n	-CH SEL 4B EN H
R107(1)	CRC1	A7	60n	%E1(3)	R20(1)	CRC2	B7	60n	%E30(2)	R6(1)	CRC2	C2	60n	CCL LOAD AC H	R107(1)	CRC2	D7	60n	-CH START H
R105(1)	CRC1	B7	60n	%E1(6)	R76(1)	CRC4	B6	60n	%E31(15)	R60(1)	CRC2	D2	60n	-CCL LOAD AC H	R179(1)	CRC4	D3	60n	CH START INTR H
R100(1)	CRC1	A7	60n	%E1(7)	R83(1)	CRC3	B6	60n	%E32(3)	R243(1)	CRC3	D6	60n	-CCL MB REQ T2 H	R234(1)	CRC4	B7	60n	-CH START INTR H
R162(1)	CRC1	D4	60n	%E10(14)	R23(1)	CRC3	D3	60n	%E33(1)	R209(1)	CRC6	C7	60n	CCL MIX MB SEL H	R93(1)	CRC7	C7	60n	CH STORE H
R150(1)	CRC1	D4	60n	%E10(15)	R21(1)	CRC3	D3	60n	%E33(14)	R06(1)	CRC3	C5	60n	CCL OP LOAD H	R91(1)	CRC5	C5	60n	CH T0 H
R161(1)	CRC1	D4	60n	%E10(2)	R22(1)	CRC3	D3	60n	%E33(15)	R04(1)	CRC3	C5	60n	-CCL OP LOAD H	R224(1)	CRC5	C5	60n	CH T3 H
R163(1)	CRC1	D4	60n	%E10(3)	R24(1)	CRC3	D3	60n	%E33(2)	R59(1)	CRC2	C7	60n	-CCL RAM REQ H	R130(1)	CRC1	B2	60n	CLK CRC H
R113(1)	CRC1	B3	60n	%E12(15)	R164(1)	CRC1	D4	60n	%E35(14)	R159(1)	CRC2	A3	60n	-CCL REQ CTR EN H	R239(1)	CRC1	D7	60n	CRC1 ACT FLAG ALLOW H
R51(1)	CRC1	A4	60n	%E14(1)	R214(1)	CRC4	B4	60n	%E36(15)	R72(1)	CRC4	B7	60n	CCL WC=0 IN H	R245(1)	CRC1	D7	60n	CRC1 ACT FLAG ENA H
R2(1)	CRC1	A4	60n	%E14(15)	R135(1)	CRC3	C6	60n	%E36(7)	R30(1)	CRC3	B7	60n	-CCL WC=0 IN H	R141(1)	CRC1	B3	60n	-CRC1 AF REQ ENA H
R4(1)	CRC1	A4	60n	%E14(2)	R32(1)	CRC3	A7	60n	%E39(7)	R116(1)	CRC2	D2	60n	-CCW ACT CTR 0 EN H	R215(1)	CRC1	C3	60n	CRC1 CH PTR PLUS H
R216(1)	CRC1	D5	60n	%E16(14)	R0(1)	CRC1	B3	60n	%E4(5)	R62(1)	CRC2	C2	60n	-CCW ACT CTR 1 EN H	R95(1)	CRC1	D2	60n	CRC1 CH PTR0 H
R175(1)	CRC4	B3	60n	%E16(15)	R242(1)	CRC3	C6	60n	%E41(15)	R61(1)	CRC2	B2	60n	-CCW ACT CTR 2 EN H	R205(1)	CRC1	D3	60n	CRC1 CH PTR0 IN H
R217(1)	CRC1	D5	60n	%E16(2)	R131(1)	CRC2	B2	60n	%E42(2)	R142(1)	CRC3	C5	60n	-CCW BUF 00 IN H	R96(1)	CRC1	D2	60n	CRC1 CH PTR1 H
R221(1)	CRC5	C5	60n	%E16(3)	R00(1)	CRC4	B3	60n	%E44(15)	R09(1)	CRC3	B5	60n	-CCW BUF 01 IN H	R155(1)	CRC1	D3	60n	CRC1 CH PTR1 IN H
R129(1)	CRC2	A2	60n	%E17(14)	R25(1)	CRC4	B3	60n	%E49(7)	R02(1)	CRC3	B5	60n	-CCW BUF 02 IN H	R94(1)	CRC1	D2	60n	CRC1 CH PTR2 H
R120(1)	CRC2	A2	60n	%E17(15)	R254(1)	CRC6	B6	60n	%E54(13)	R196(1)	CRC6	D3	60n	-CCW BUF ADR 0 H	R206(1)	CRC1	D3	60n	CRC1 CH PTR2 IN H
R124(1)	CRC2	A2	60n	%E17(2)	R250(1)	CRC6	A6	60n	%E54(15)	R264(1)	CRC6	D3	60n	-CCW BUF ADR 1 H	R169(1)	CRC1	D2	60n	CRC1 CH PTR3 H
R127(1)	CRC2	B2	60n	%E17(3)	R259(1)	CRC6	B6	60n	%E54(3)	R152(1)	CRC6	C3	60n	-CCW BUF ADR 2 H	R154(1)	CRC1	D3	60n	CRC1 CH PTR3 IN H
R109(1)	CRC1	C4	60n	%E2(2)	R33(1)	CRC4	C7	60n	%E57(3)	R227(1)	CRC4	B7	60n	CCW CCMF WAITING H	R42(1)	CRC1	B2	60n	CRC1 CLK A H
R112(1)	CRC1	C4	60n	%E2(3)	R104(1)	CRC5	C7	100n	%E50(2)	R56(1)	CRC2	C7	60n	CH CBUS REQ H	R30(1)	CRC1	B2	60n	CRC1 CLK B H
R115(1)	CRC1	C4	60n	%E2(5)	R40(1)	CRC5	B3	60n	%E50(2)	R145(1)	CRC2	C6	60n	-CH CBUS REQ H	R222(1)	CRC1	B2	60n	CRC1 CLK C H
R111(1)	CRC1	C4	60n	%E2(7)	R39(1)	CRC5	B3	60n	%E60(3)	R190(1)	CRC5	B7	60n	-CH CONTR 1 H	R133(1)	CRC1	B2	60n	CRC1 CLK D H
R102(1)	CRC2	C7	60n	%E22(2)	R149(1)	CRC5	B7	60n	%E65(2)	R200(1)	CRC5	A7	60n	-CH CONTR 2 H	R132(1)	CRC1	B2	60n	CRC1 CLK E H
R64(1)	CRC2	D4	60n	%E24(2)	R144(1)	CRC5	B7	60n	%E65(3)	R194(1)	CRC5	B4	60n	-CH CONTR 4 H	R166(1)	CRC1	B2	60n	CRC1 CLK F H
R00(1)	CRC3	B2	60n	%E25(2)	R102(1)	CRC5	D5	60n	%E67(13)	R57(1)	CRC2	C7	60n	CH CONTR REQ H	R244(1)	CRC1	C2	60n	CRC1 MEM PTR0 H
R125(1)	CRC3	A2	60n	%E25(3)	R41(1)	CRC6	C6	60n	%E67(14)	R160(1)	CRC2	C7	60n	-CH CONTR REQ H	R150(1)	CRC1	C3	60n	CRC1 MEM PTR0 IN H
R173(1)	CRC4	D5	60n	%E26(1)	R104(1)	CRC6	C5	60n	%E67(15)	R92(1)	CRC5	B6	60n	CH CTOM H	R249(1)	CRC1	C2	60n	CRC1 MEM PTR1 H
R171(1)	CRC4	D5	60n	%E26(14)	R43(1)	CRC6	D6	60n	%E67(2)	R263(1)	CRC5	D2	60n	CH DIAG 04 H	R157(1)	CRC1	C3	60n	CRC1 MEM PTR1 IN H
R170(1)	CRC4	D5	60n	%E26(15)	R99(1)	CRC6	D5	60n	%E67(3)	R262(1)	CRC5	D2	60n	CH DIAG 05 H	R109(1)	CRC1	C2	60n	CRC1 MEM PTR2 H
R174(1)	CRC4	D5	60n	%E26(2)	R45(1)	CRC6	D6	60n	%E67(4)	R266(1)	CRC5	D2	60n	CH DIAG 06 H	R153(1)	CRC1	C3	60n	CRC1 MEM PTR2 IN H
R125(1)	CRC6	C6	60n	%E27(14)	R90(1)	CRC2	B5	60n	%E68(11)	R265(1)	CRC5	C7	60n	-CH DIAG READ C H	R143(1)	CRC1	C2	60n	CRC1 MEM PTR3 H
R101(1)	CRC6	C5	60n	%E27(15)	R140(1)	CRC5	A7	60n	%E70(2)	R35(1)	CRC4	C7	60n	-CH DONE INTR H	R54(1)	CRC1	C3	60n	CRC1 MEM PTR3 IN H
R13(1)	CRC3	B3	60n	%E29(1)	R147(1)	CRC5	A7	60n	%E70(3)	R50(1)	CRC2	C7	60n	CH MR RESET B H	R5(1)	CRC1	B6	60n	CRC1 PTR DIF0 H
R11(1)	CRC3	A3	60n	%E29(14)	R146(1)	CRC2	C7	60n	%E8(3)	R44(1)	CRC2	B5	60n	-CH REQ D H	R171(1)	CRC1	C7	60n	-CRC1 PTR DIF0 H
R14(1)	CRC3	A3	60n	%E29(15)	R211(1)	CRC6	D7	60n	CCL BUF ADR 3 H	R77(1)	CRC4	D3	60n	CH RESET INTR H	R52(1)	CRC1	A6	60n	CRC1 PTR DIF1 H
R12(1)	CRC3	B3	60n	%E29(2)	R220(1)	CRC6	D7	60n	-CCL CCM BUF WR H	R34(1)	CRC4	C3	60n	-CH RESET INTR H	R120(1)	CRC1	B7	60n	-CRC1 PTR DIF1 H
R16(1)	CRC2	A7	60n	%E30(1)	R165(1)	CRC2	D7	60n	CCL CCMF CLR H	R252(1)	CRC6	A8	60n	-CH SEL 1B EN H	R3(1)	CRC1	A6	60n	CRC1 PTR DIF2 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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	CHK	CHANGE NO.		REV	585351.DRAW.4.125	20-OCT-76 10:21	BOARD LOCATION: SHEET 2	DEF 2
				FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8535-0		

D C B A

266

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	DRUM	SHOWN ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRUM	SHOWN ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	DRUM	SHOWN ON REF	VALUE	TERMINATES SIGNAL
R119K(1)	CRC1	B7	68a	-CRC1 PTR DIF2 H	R139K(1)	CRC3	B1	68a	-CRC3 OP CODE 00 H	R97K(1)	CRC5	C4	68a	CRC5 T2 H
R1K(1)	CRC1	A6	68a	CRC1 PTR DIF3 H	R71K(1)	CRC3	C4	68a	CRC3 OP CODE 00 IN H	R105K(1)	CRC5	C2	68a	-CRC5 T2 H
R110K(1)	CRC1	B7	68a	-CRC1 PTR DIF3 H	R27K(1)	CRC3	C4	68a	-CRC3 OP CODE 01 H	R267K(1)	CRC5	C4	68a	-CRC5 T3 H
R261K(1)	CRC1	C7	68a	CRC1 PTR DIF=0 H	R140K(1)	CRC3	A1	68a	CRC3 OP CODE 01 H	R240K(1)	CRC5	C6	68a	CRC5 MR RA1 H
R75K(1)	CRC1	C7	68a	-CRC1 PTR DIF=0 H	R90K(1)	CRC3	A2	68a	-CRC3 OP CODE 01 H	R246K(1)	CRC6	D5	68a	-CRC6 CH ADR 0C H
R137K(1)	CRC1	C7	68a	-CRC1 PTR DIF=15 H	R70K(1)	CRC3	B4	68a	CRC3 OP CODE 01 IN H	R204K(1)	CRC6	D4	68a	-CRC6 CH ADR 0E H
R114K(1)	CRC1	C7	68a	CRC1 PTR LATCH H	R20K(1)	CRC3	B4	68a	-CRC3 OP CODE 01 IN H	R240K(1)	CRC6	D5	68a	-CRC6 CH ADR 1C H
R05K(1)	CRC1	D7	68a	CRC1 READY INH H	R167K(1)	CRC3	B2	68a	-CRC3 OP DATA H	R50K(1)	CRC6	D4	68a	-CRC6 CH ADR 1E H
R117K(1)	CRC1	D7	68a	-CRC1 READY INH H	R231K(1)	CRC3	C2	68a	CRC3 OP HALT H	R190K(1)	CRC6	C5	68a	-CRC6 CH ADR 2C H
R176K(1)	CRC1	D4	68a	-CRC1 REQ ALLOW H	R29K(1)	CRC3	C2	68a	-CRC3 OP HALT H	R47K(1)	CRC6	C4	68a	-CRC6 CH ADR 2E H
R17K(1)	CRC2	D1	68a	CRC2 ACT CTR 0 IN H	R180K(1)	CRC3	C2	68a	-CRC3 OP JUMP H	R150K(1)	CRC6	C5	68a	-CRC6 CH ADR 3C H
R247K(1)	CRC2	A5	68a	CRC2 ACT CTR 0R H	R230K(1)	CRC3	B2	68a	CRC3 OP LAST DATA H	R105K(1)	CRC6	C4	68a	-CRC6 CH ADR 3E H
R122K(1)	CRC2	A6	68a	-CRC2 ACT CTR 0R H	R70K(1)	CRC3	B2	68a	-CRC3 OP LAST DATA H	R250K(1)	CRC6	A7	68a	-CRC6 SEL 1B H
R15K(1)	CRC2	C1	68a	CRC2 ACT CTR 1 IN H	R67K(1)	CRC3	D2	68a	-CRC3 READY H	R195K(1)	CRC6	A5	68a	-CRC6 SEL 1C H
R251K(1)	CRC2	A5	68a	CRC2 ACT CTR 1R H	R79K(1)	CRC3	B6	68a	CRC3 READY CLR H	R253K(1)	CRC6	B7	68a	-CRC6 SEL 2B H
R63K(1)	CRC2	A6	68a	-CRC2 ACT CTR 1R H	R177K(1)	CRC3	B6	68a	-CRC3 READY CLR EN H	R202K(1)	CRC6	B5	68a	-CRC6 SEL 2C H
R10K(1)	CRC2	C1	68a	CRC2 ACT CTR 2 IN H	R74K(1)	CRC3	A6	68a	-CRC3 READY IN H	R257K(1)	CRC6	B7	68a	-CRC6 SEL 4B H
R193K(1)	CRC2	A5	68a	CRC2 ACT CTR 2R H	R07K(1)	CRC3	C2	68a	-CRC3 REVERSE H	R197K(1)	CRC6	B5	68a	-CRC6 SEL 4C H
R201K(1)	CRC2	B1	68a	-CRC2 AF MEM PTR0 H	R69K(1)	CRC3	B4	68a	-CRC3 REVERSE IN H	R235K(1)	CRC6	D7	68a	CRC6 TERM11-#400\
R40K(1)	CRC2	B1	68a	-CRC2 AF MEM PTR1 H	R192K(1)	CRC4	C6	68a	CRC4 DONE IN H	R237K(1)	CRC6	C7	68a	CRC6 TERM12-#400\
R49K(1)	CRC2	A1	68a	-CRC2 AF MEM PTR2 H	R66K(1)	CRC4	C6	68a	-CRC4 DONE IN H	R212K(1)	CRC6	C7	68a	CRC6 TERM13-#400\
R103K(1)	CRC2	A1	68a	-CRC2 AF MEM PTR3 H	R220K(1)	CRC4	A6	68a	CRC4 LONG WC ERR IN H	R213K(1)	CRC6	C7	68a	CRC6 TERM14-#400\
R203K(1)	CRC2	C7	68a	-CRC2 CBUS CONTR CYC IN H	R172K(1)	CRC4	C5	68a	-CRC4 OVN ERR H	R210K(1)	CRC6	C7	68a	CRC6 TERM15-#400\
R232K(1)	CRC2	C6	68a	-CRC2 CBUS REQ CYC H	R223K(1)	CRC4	A2	68a	-CRC4 OVN ERR IN H	R210K(1)	CRC6	C7	68a	CRC6 TERM16-#400\
R151K(1)	CRC2	B6	68a	-CRC2 CH T0 H	R60K(1)	CRC4	C2	68a	-CRC4 RESET IN H	R225K(1)	CRC6	C7	68a	CRC6 TERM17-#400\
R241K(1)	CRC2	D4	68a	CRC2 DONE LOAD AC H	R233K(1)	CRC4	D5	68a	-CRC4 R I20 ERR H	R236K(1)	CRC6	C7	68a	CRC6 TERM18-#400\
R55K(1)	CRC2	D4	68a	-CRC2 DONE LOAD AC H	R229K(1)	CRC4	B6	68a	-CRC4 RH20 ERR IN H	R219K(1)	CRC6	C7	68a	CRC6 TERM19-#400\
R199K(1)	CRC2	C7	68a	-CRC2 MB CYC IN H	R226K(1)	CRC4	C2	68a	CRC4 SHORT WC ERR IN H					
R103K(1)	CRC2	D6	68a	-CRC2 MB CYC T3 H	R123K(1)	CRC4	D2	68a	CRC4 ST/RES INTR A H					
R207K(1)	CRC2	B1	68a	CRC2 RAM CYC H	R36K(1)	CRC4	D2	68a	CRC4 ST/RES INTR B H					
R260K(1)	CRC2	B4	68a	CRC2 REQ E H	R106K(1)	CRC4	D2	68a	-CRC4 ST/RES INTR B H					
R37K(1)	CRC2	B6	68a	-CRC2 STORE H	R134K(1)	CRC4	C6	68a	CRC4 STORE IN H					
R130K(1)	CRC3	A2	68a	-CRC3 DONE H	R19K(1)	CRC4	C6	68a	-CRC4 STORE IN H					
R65K(1)	CRC3	D2	68a	CRC3 ERR H	R200K(1)	CRC5	B6	68a	CRC5 CTOM H					
R26K(1)	CRC3	D6	68a	-CRC3 ERR IN H	R156K(1)	CRC5	B6	68a	-CRC5 CTOM H					
R136K(1)	CRC3	D2	68a	-CRC3 LAST WORD H	R100K(1)	CRC5	C4	68a	CRC5 T0 H					
R73K(1)	CRC3	C6	68a	-CRC3 LAST WORD IN H	R01K(1)	CRC5	C4	68a	-CRC5 T0 H					
R110K(1)	CRC3	D6	68a	CRC3 MEM PTR EN H	R46K(1)	CRC5	C4	68a	-CRC5 T0+T1 H					
R31K(1)	CRC3	D6	68a	-CRC3 MEM PTR EN H	R101K(1)	CRC5	C4	68a	CRC5 T1 H					
R191K(1)	CRC3	B1	68a	CRC3 OP CODE 00 H	R9K(1)	CRC5	C2	68a	-CRC5 T1 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. X INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER

D  
C  
V  
B  
A

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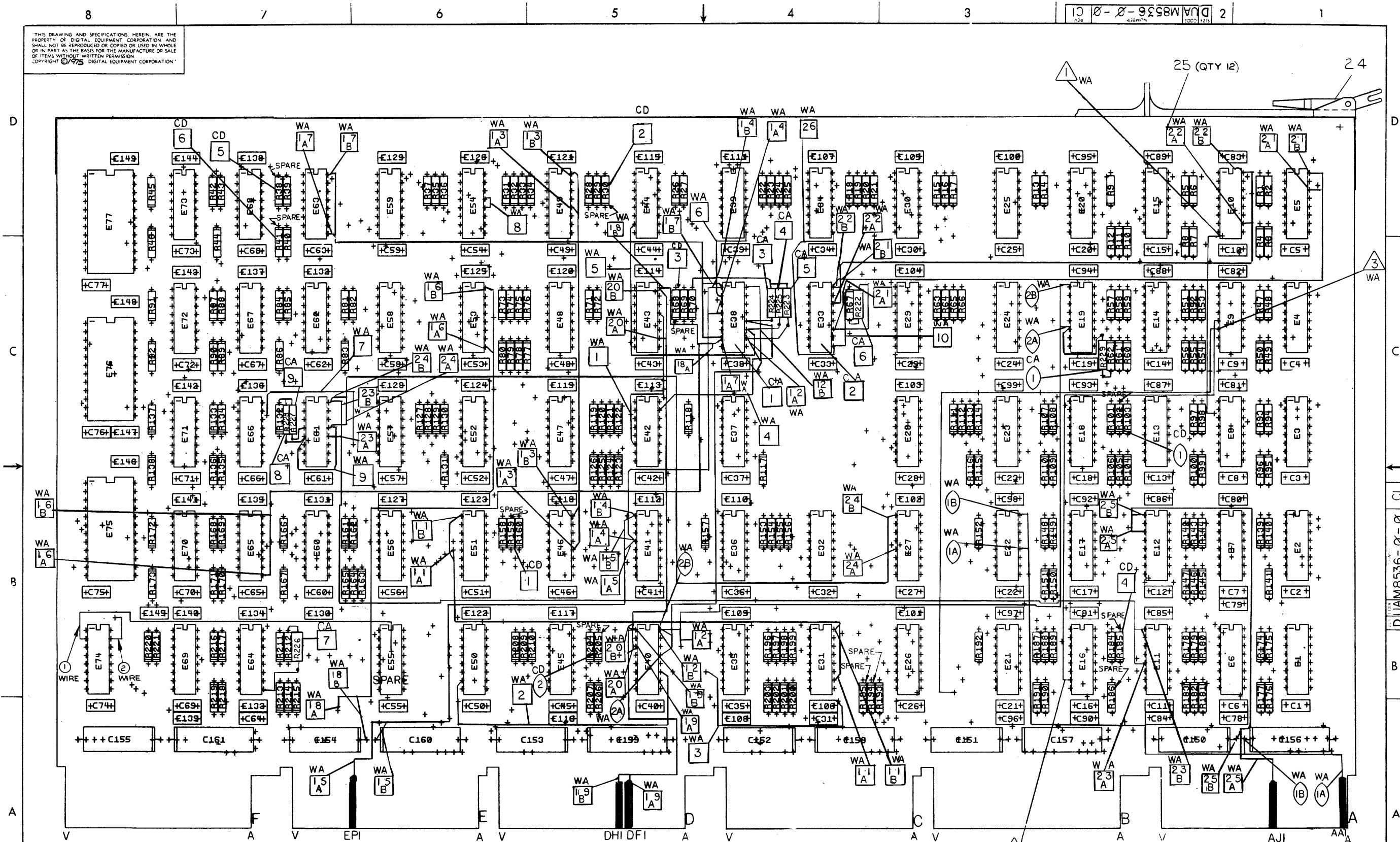
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>G. Smith</i>	DATE <i>20-OCT-76</i>	ENG. <i>M. Jones</i>	DATE <i>11/2/76</i>	TITLE: CHANNEL RAM TERMINATORS
	58535-0-RES	120-OCT-76 10721	11/2/76	2	REV. C
FIRST LISTED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8535-0		SIZE CODE: D CS	NUMBER: M8535-0-RES

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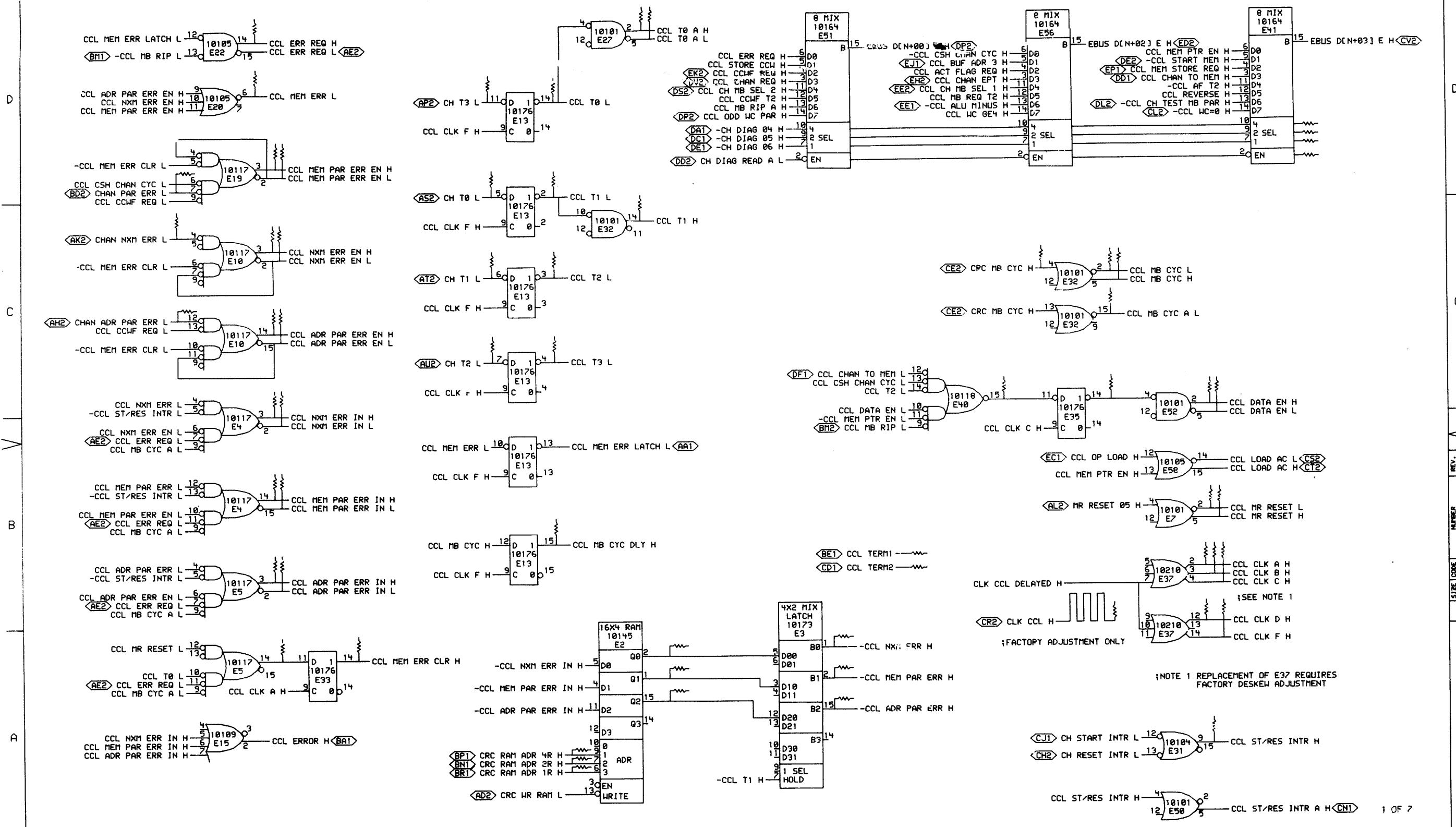


REVISIONS		
CHK	CHANGE NO	REV

TITLE	CHANNEL CONTROL LOGIC	SIZE CODE	DUAL M8536-0-0	NUMBER	C1	REV.	
SCALE		SHEET	2 OF 5	DIST.			

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REVISIONS	CHK	CHANGE NO.	REV
1	MBS36-00003	C	M.SCHWARTZ
2	MBS36-00003	C	M.SCHWARTZ

CHK	CHANGE NO.	REV
MBS36-00003	C	M.SCHWARTZ

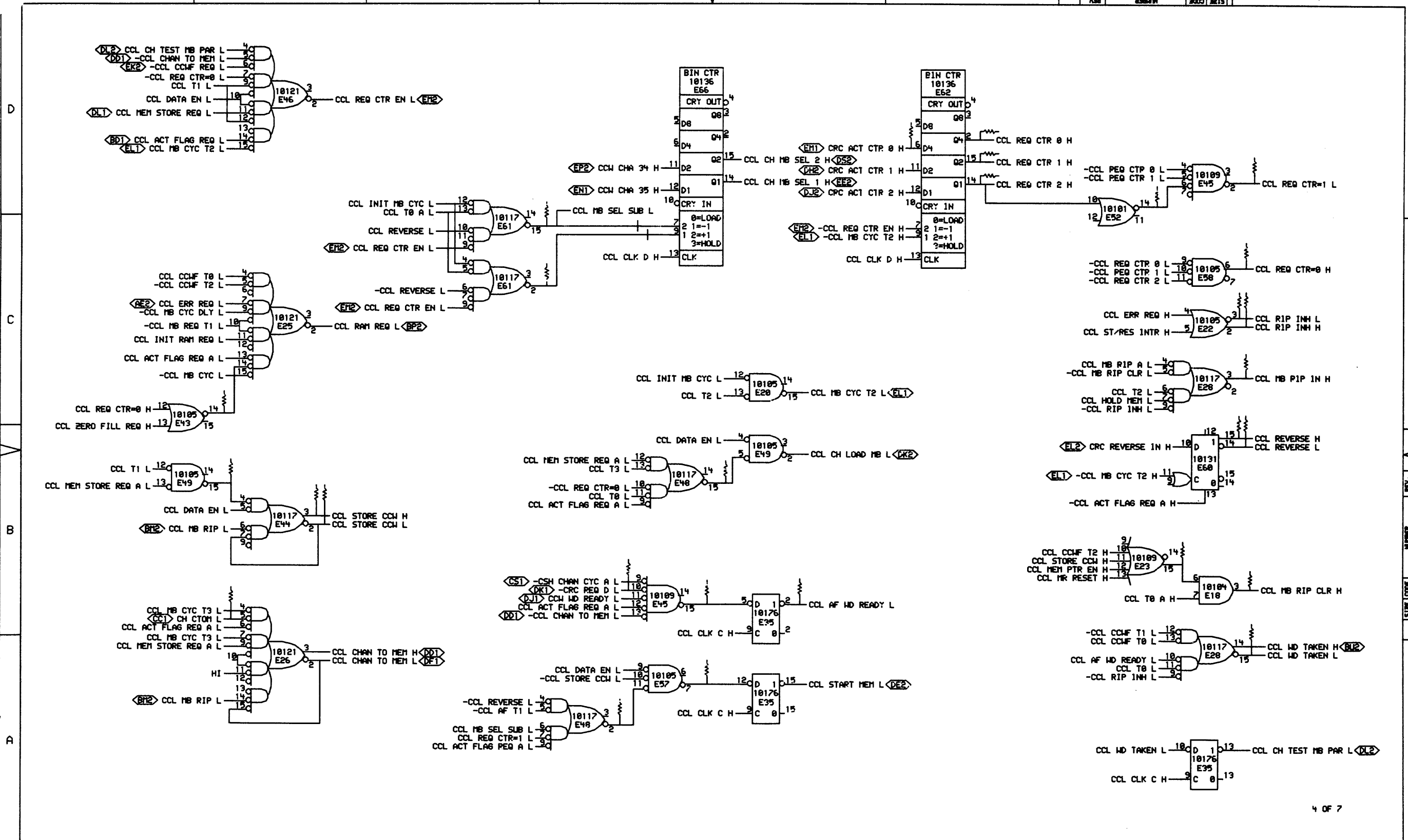
DATE	ENG.	DATE	TITLE:
12-MAY-76	M.S.	14-MAY-76	CHANNEL CONTROL LOGIC

SIZE	CODE	NUMBER	REV.
D	C5	M8536-0-CCL1	C1

DATE	ENG.	DATE	TITLE:
12-MAY-76	M.S.	14-MAY-76	CHANNEL CONTROL LOGIC







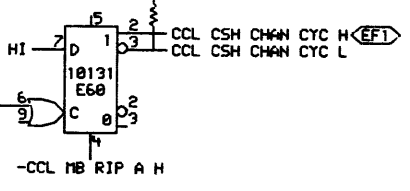
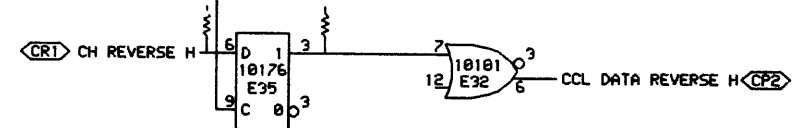
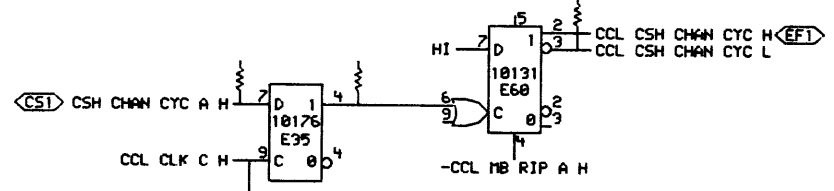
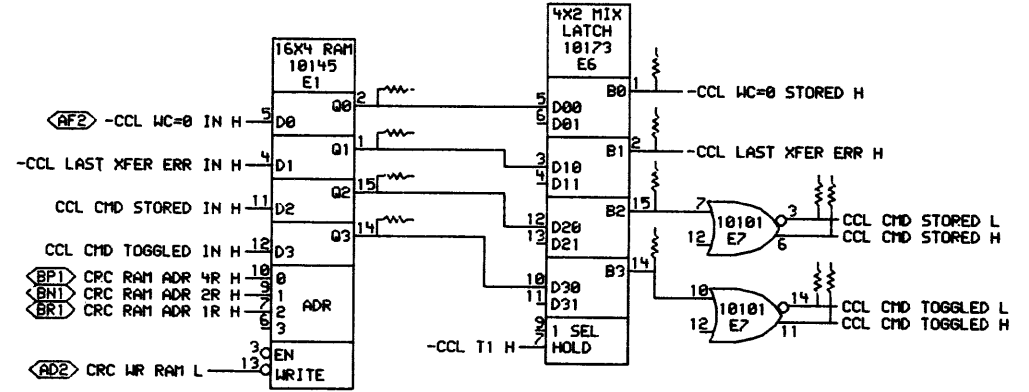
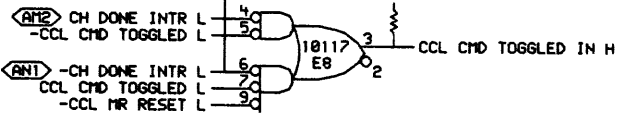
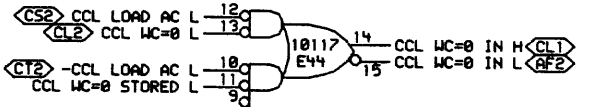
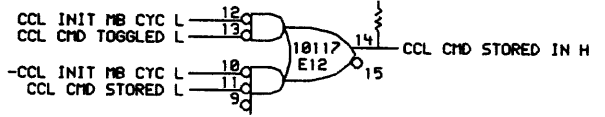
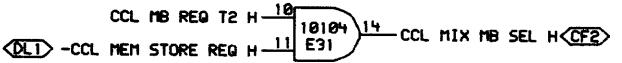
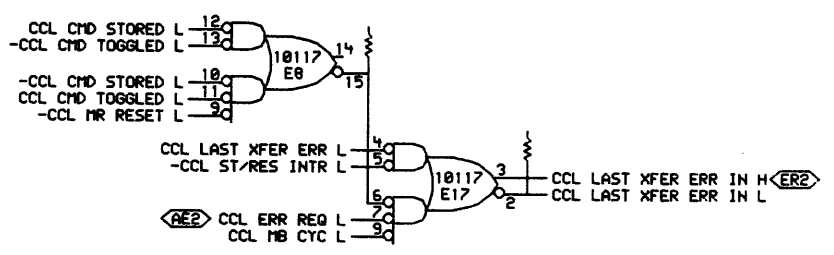
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REV	CHANGE NO.	CHK	DATE
1	0000	C1	
2	0003	C	
3	0004	C	

REV	CHANGE NO.	CHK	DATE
1	0000	C1	
2	0003	C	
3	0004	C	

digital	DATE	ENG.	DATE	TITLE:
	128-MAY-76	M.S.	6/2/76	CHANNEL CONTROL LOGIC
CCL 4EX (DR 4, 477)	DATE	BOARD LOCATION:	REV.	
	128-MAY-76	13122	1	
FIRST USED ON OPTION/MODEL:	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	
KL10	B-DD-M8536-0	D CS	M8536-0-CCL4	





CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
	M8536-0000	A1			
	M8536-00003	C			

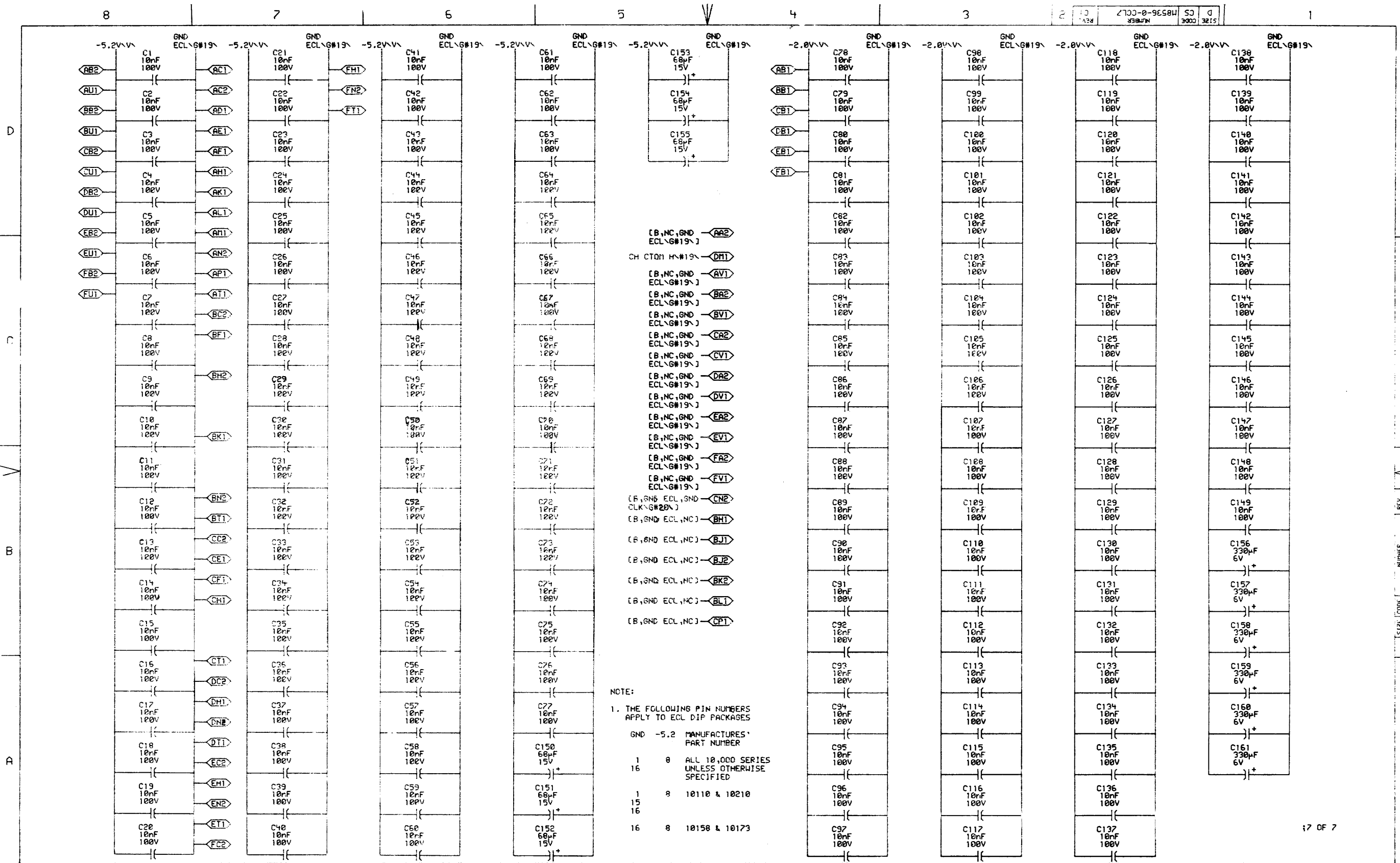
REV.	DATE	BY	CHK	DATE	BY
1	02-28-76	M. Schwartz			
2	04-21-76	M. Schwartz			

**digital** *DR. J. J. J.*  
 DATE: 02-28-76  
 DATE: 04-21-76  
 CCL EX. DRAW 4.4771  
 FIRST USED ON OPTION/MODEL: KL10

ENG. *M. Schwartz*  
 DATE: 02-28-76  
 DATE: 04-21-76  
 B-B-D-18536-0

TITLE: CHANNEL CONTROL LOGIC  
 SIZE CODE: D CS  
 NUMBER: M8536-0-CCL6  
 REV. C1

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NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURES' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16		
1	8	10110 & 10210
15		
16		
16	8	10158 & 10173

CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
	MBS36-00003	C		MBS36-00004	C1

digital	DATE	22-JUN-76	ENG.	M.S.K.	DATE	6/1/76	TITLE:	CHANNEL CNTRL LGC PWR, CAPS, AND GNDS
	CHK'D		DATE		BOARD LOCATION:	4A11	SIZE	CODE
					SHEET	1 OF 1	NUMBER	
							D	CS
							MBS36-0-CCL7	CI

RESISTOR LOC(PIN)	SHOWN ON DRAW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRAW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRAW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRAW#	REF	VALUE	TERMINATES SIGNAL
R179(1)	CCL6	C4	68n	%E1(1)	R134(1)	CCL4	C5	68n	%E6(2)	R176(1)	CCL6	C6	68n	CCL CMD STORED IN H	R100(1)	CCL1	B2	68n	CCL MR RESET H
R177(1)	CCL6	C4	68n	%E1(14)	R127(1)	CCL5	B3	68n	%E7(15)	R98(1)	CCL6	C3	68n	CCL CMD TOGGLED H	R88(1)	CCL1	B2	68n	-CCL MR RESET H
R181(1)	CCL6	C4	68n	%E1(15)	R129(1)	CCL5	B3	68n	%E7(2)	R100(1)	CCL6	C3	68n	-CCL CMD TOGGLED H	R93(1)	CCL1	A4	68n	-CCL NMN ERR H
R180(1)	CCL6	D4	68n	%E1(2)	R150(1)	CCL6	D7	68n	%E8(15)	R173(1)	CCL6	B6	68n	CCL CMD TOGGLED IN H	R12(1)	CCL1	C7	68n	CCL NMN ERR EN H
R39(1)	CCL2	C7	68n	%E17(15)	R84(1)	CCL2	A4	68n	-CCL AC=1 H	R205(1)	CCL6	B3	68n	-CCL CSH CHAN CTC H	R40(1)	CCL1	C7	68n	-CCL NMN ERR EN H
R19(1)	CCL3	D7	68n	%E19(14)	R86(1)	CCL2	A4	68n	CCL AC=3 OR 4 H	R119(1)	CCL1	C2	68n	CCL DATA EN H	R70(1)	CCL1	C7	68n	CCL NMN ERR IN H
R20(1)	CCL3	D7	68n	%E19(15)	R87(1)	CCL2	B4	68n	CCL AC=4 H	R33(1)	CCL1	C2	68n	-CCL DATA EN H	R140(1)	CCL1	C7	68n	-CCL NMN ERR IN H
R93(1)	CCL1	A5	68n	%E2(1)	R16(1)	CCL2	B4	68n	CCL ACT FLAG REQ H	R8(1)	CCL1	D7	68n	CCL ERR REQ H	R45(1)	CCL5	A5	68n	CCL REG 03 H
R95(1)	CCL1	A5	68n	%E2(15)	R56(1)	CCL2	C4	68n	-CCL ACT FLAG REQ A H	R112(1)	CCL2	B6	68n	-CCL HOLD MEM H	R44(1)	CCL5	A5	68n	CCL REG 04 H
R94(1)	CCL1	A5	68n	%E2(2)	R113(1)	CCL2	C6	68n	CCL ACT FLAG REQ ENA H	R142(1)	CCL3	A4	68n	CCL INIT MB CTC H	R42(1)	CCL5	A5	68n	CCL REG 05 H
R110(1)	CCL4	B2	68n	%E23(15)	R154(1)	CCL2	C6	68n	-CCL ACT FLAG REQ ENA H	R227(1)	CCL3	A4	68n	-CCL INIT MB CTC H	R135(1)	CCL5	B3	68n	CCL REG 06 H
R2(1)	CCL3	D7	68n	%E3(2)	R4(1)	CCL1	A4	68n	-CCL ADR PAR ERR H	R110(1)	CCL3	C2	68n	-CCL INIT RMN REG H	R92(1)	CCL5	A3	68n	CCL REG 07 H
R187(1)	CCL2	C2	68n	%E31(3)	R10(1)	CCL1	C7	68n	CCL ADR PAR ERR EN H	R149(1)	CCL6	C3	68n	-CCL LAST XFER ERR H	R91(1)	CCL5	A3	68n	CCL REG 08 H
R15(1)	CCL3	D6	68n	%E34(14)	R2(1)	CCL1	C7	68n	-CCL ADR PAR ERR EN H	R174(1)	CCL6	D6	68n	-CCL LAST XFER ERR IN H	R89(1)	CCL5	A3	68n	CCL REG 09 H
R131(1)	CCL3	C6	68n	%E34(15)	R7(1)	CCL1	B7	68n	CCL ADR PAR ERR IN H	R9(1)	CCL1	C2	68n	CCL MB CTC H	R173(1)	CCL5	B2	68n	CCL REG 10 H
R130(1)	CCL1	C2	68n	%E35(14)	R25(1)	CCL1	B7	68n	-CCL ADR PAR ERR IN H	R93(1)	CCL1	C2	68n	-CCL MB CTC H	R172(1)	CCL5	A2	68n	CCL REG 11 H
R155(1)	CCL6	B4	68n	%E35(3)	R120(1)	CCL3	C6	68n	CCL AF T0 H	R3(1)	CCL1	C2	68n	-CCL MB CTC A H	R130(1)	CCL5	A2	68n	CCL REG 12 H
R161(1)	CCL6	B4	68n	%E35(4)	R76(1)	CCL3	C6	68n	CCL AF T1 H	R17(1)	CCL1	B6	68n	CCL MB CTC DLY H	R137(1)	CCL5	A2	68n	CCL REG 13 H
R226(1)	CCL5	A7	68n	%E38(2)	R206(1)	CCL3	C6	68n	-CCL AF T2 H	R103(1)	CCL3	D6	68n	-CCL MB CTC T3 H	R210(1)	CCL5	B5	68n	CCL REG HOLD H
R31(1)	CCL5	A6	68n	%E39(15)	R116(1)	CCL4	B4	68n	-CCL AF LD READY H	R99(1)	CCL3	B6	68n	-CCL MB REQ T0 H	R200(1)	CCL4	D3	68n	CCL REG CTR 0 H
R202(1)	CCL1	C3	68n	%E40(15)	R90(1)	CCL5	D4	68n	CCL ALL CA H	R14(1)	CCL3	B4	68n	CCL MB REQ T1 H	R210(1)	CCL4	D3	68n	CCL REG CTR 1 H
R124(1)	CCL3	C7	68n	%E40(2)	R43(1)	CCL5	D5	68n	CCL ALL CB H	R63(1)	CCL3	B4	68n	-CCL MB REQ T1 H	R133(1)	CCL4	D3	68n	CCL REG CTR 2 H
R224(1)	CCL3	C2	68n	%E42(15)	R6(1)	CCL2	C4	68n	-CCL CCMF REQ H	R136(1)	CCL3	B4	68n	CCL MB REQ T2 H	R160(1)	CCL4	C1	68n	CCL REG CTR=0 H
R13(1)	CCL4	C7	68n	%E43(14)	R65(1)	CCL2	C4	68n	-CCL CCMF REQ A H	R150(1)	CCL3	C6	68n	CCL MB RIP A H	R77(1)	CCL4	D1	68n	-CCL REG CTR=1 H
R54(1)	CCL3	B4	68n	%E43(2)	R107(1)	CCL2	C6	68n	CCL CCMF REQ ENA H	R102(1)	CCL3	C6	68n	-CCL MB RIP A H	R74(1)	CCL4	B2	68n	CCL REVERSE H
R197(1)	CCL4	B5	68n	%E45(15)	R157(1)	CCL2	C6	68n	-CCL CCMF REQ ENA H	R111(1)	CCL4	B1	68n	CCL MB RIP CLR H	R40(1)	CCL4	B1	68n	-CCL REVERSE H
R4(1)	CCL4	B4	68n	%E46(15)	R64(1)	CCL3	D6	68n	CCL CCMF T0 H	R10(1)	CCL4	C1	68n	CCL MB RIP IN H	R115(1)	CCL4	C1	68n	CCL RIP INH H
R120(1)	CCL4	A5	68n	%E48(2)	R153(1)	CCL3	D6	68n	-CCL CCMF T0 H	R75(1)	CCL4	C5	68n	-CCL MB SEL SUB H	R100(1)	CCL4	C2	68n	-CCL RIP INH H
R26(1)	CCL4	B7	68n	%E49(15)	R199(1)	CCL3	D6	68n	CCL CCMF T1 H	R105(1)	CCL1	D7	68n	-CCL MEM ERR H	R47(1)	CCL1	A2	68n	CCL ST/RES INTR H
R222(1)	CCL1	A7	68n	%E5(14)	R200(1)	CCL3	D6	68n	CCL CCMF T2 H	R40(1)	CCL1	A7	68n	CCL MEM ERR CLR H	R191(1)	CCL4	B7	68n	CCL STORE CCH H
R209(1)	CCL4	D2	68n	%E52(14)	R66(1)	CCL3	D6	68n	-CCL CCMF T2 H	R49(1)	CCL1	A4	68n	-CCL MEM PAR ERR H	R225(1)	CCL4	B7	68n	-CCL STORE CCH H
R52(1)	CCL3	C4	68n	%E54(14)	R126(1)	CCL3	B6	68n	CCL CHAN REQ EN H	R11(1)	CCL1	D7	68n	CCL MEM PAR ERR EN H	R71(1)	CCL1	D6	68n	-CCL T0 H
R122(1)	CCL3	B7	68n	%E57(2)	R125(1)	CCL3	B6	68n	-CCL CHAN REQ EN H	R50(1)	CCL1	D7	68n	-CCL MEM PAR ERR EN H	R51(1)	CCL1	D5	68n	CCL T0 A H
R196(1)	CCL4	A5	68n	%E57(7)	R67(1)	CCL1	B2	68n	CCL CLK A H	R23(1)	CCL1	B7	68n	CCL MEM PAR ERR IN H	R220(1)	CCL1	D5	68n	-CCL T0 A H
R36(1)	CCL2	A5	68n	%E58(2)	R123(1)	CCL1	B2	68n	CCL CLK B H	R139(1)	CCL1	B7	68n	-CCL MEM PAR ERR IN H	R109(1)	CCL1	C5	68n	CCL T1 H
R221(1)	CCL5	C7	68n	%E59(10)	R201(1)	CCL1	B2	68n	CCL CLK C H	R8(1)	CCL3	D4	68n	CCL MEM PTR EN H	R20(1)	CCL1	D6	68n	-CCL T1 H
R220(1)	CCL5	C7	68n	%E59(13)	R132(1)	CCL1	B2	68n	CCL CLK D H	R51(1)	CCL3	D4	68n	-CCL MEM PTR EN H	R223(1)	CCL1	C6	68n	-CCL T2 H
R35(1)	CCL2	A5	68n	%E59(2)	R106(1)	CCL1	B2	68n	CCL CLK F H	R46(1)	CCL3	D3	68n	CCL MEM PTR EN A H	R2(1)	CCL1	C6	68n	-CCL T3 H
R147(1)	CCL6	C3	68n	%E6(14)	R96(1)	CCL6	C3	68n	CCL CMD STORED H	R32(1)	CCL2	B4	68n	-CCL MEM STORE REQ A H	R104(1)	CCL1	B4	68n	CCL TERM1
R143(1)	CCL6	C3	68n	%E6(15)	R97(1)	CCL6	C3	68n	-CCL CMD STORED H	R114(1)	CCL2	C6	68n	-CCL MEM STORE REQ ENA H	R193(1)	CCL1	B4	68n	CCL TERM2

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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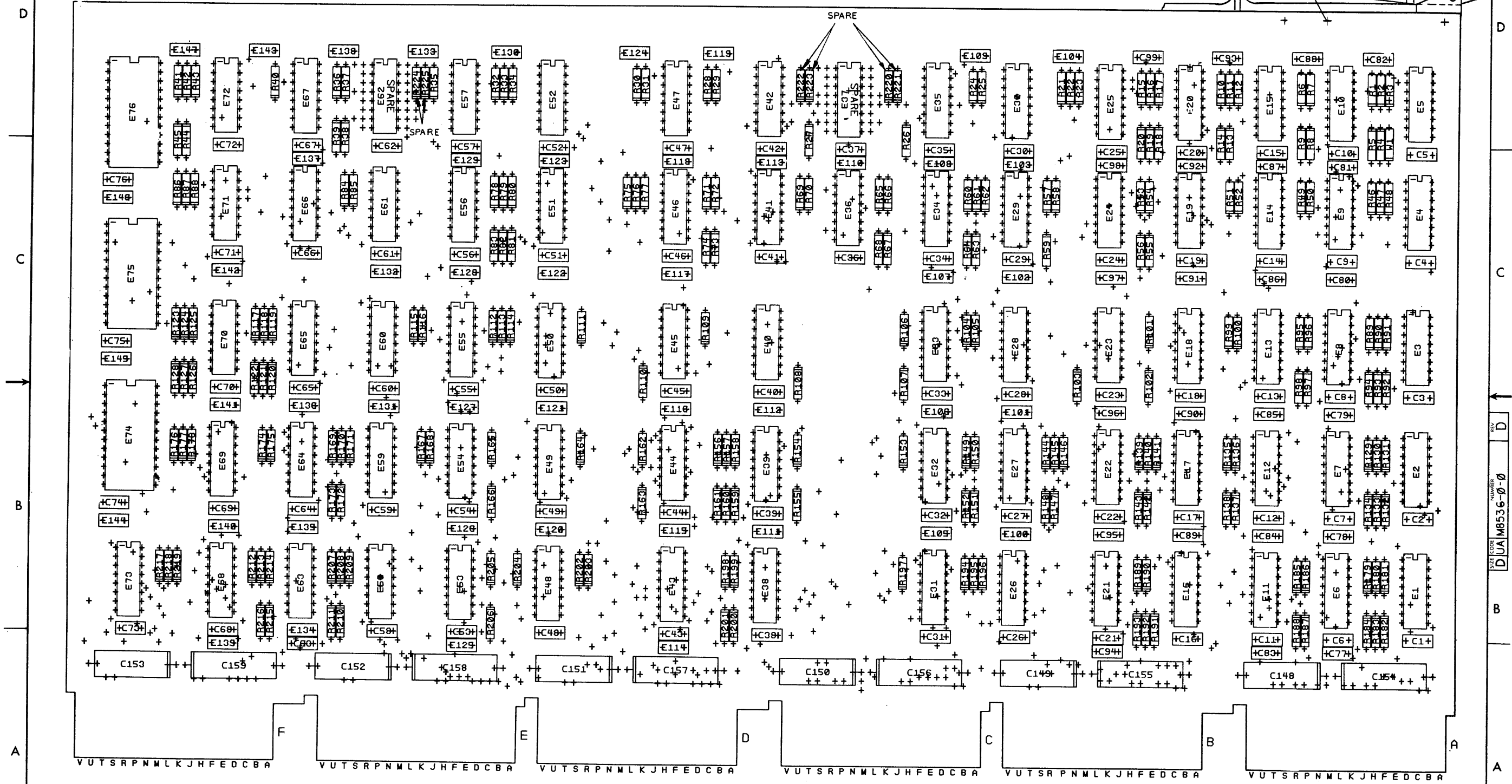






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26 (QTY 12)

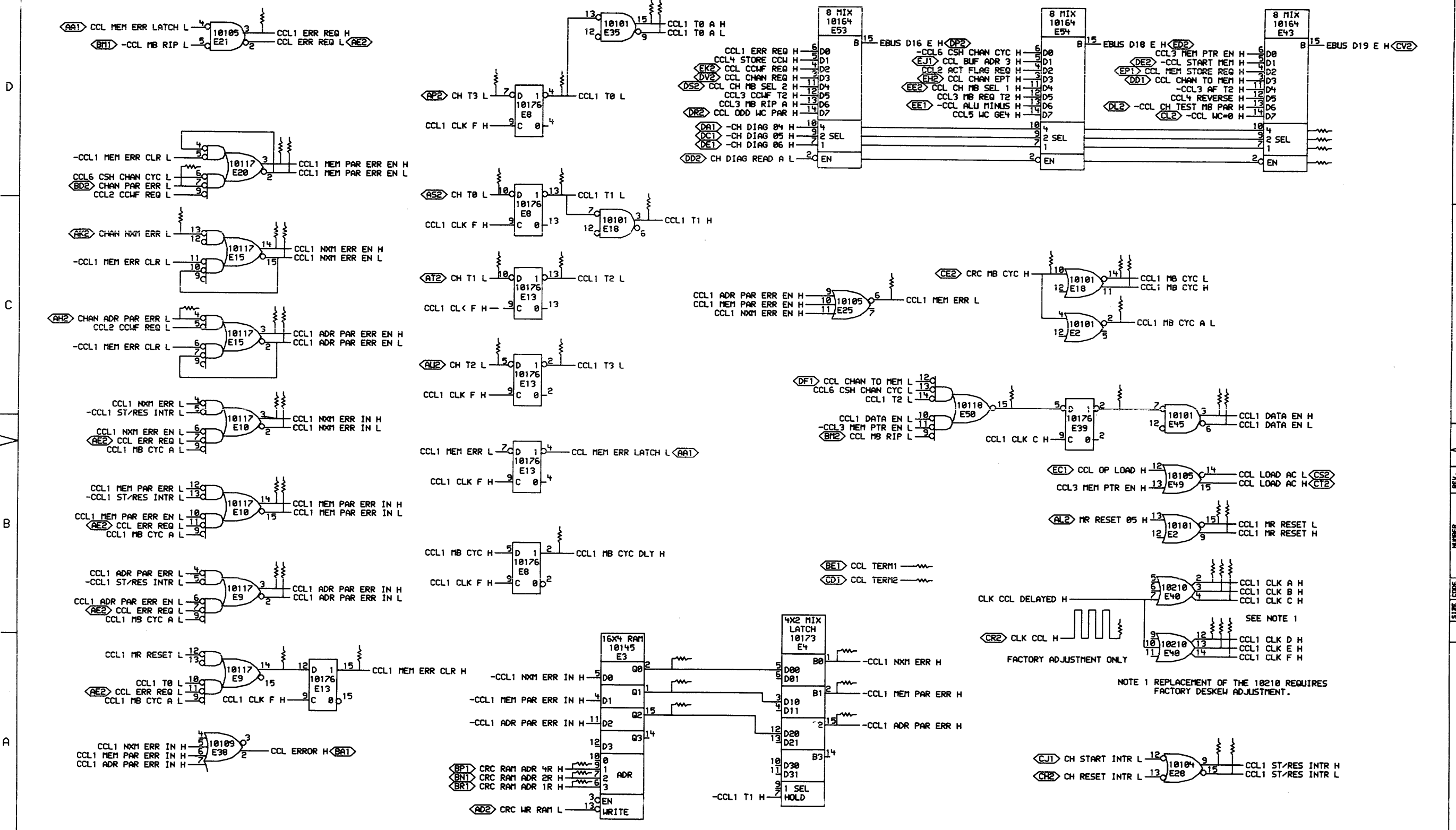


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
CHANNEL CONTROL LOGIC	D U A M8536-0-0	2	D
SCALE 2/1	SHEET 2 OF 5	DIST.	

MR

280



REV. D  
NUMBER 18536-0-CCL1  
SIZE D

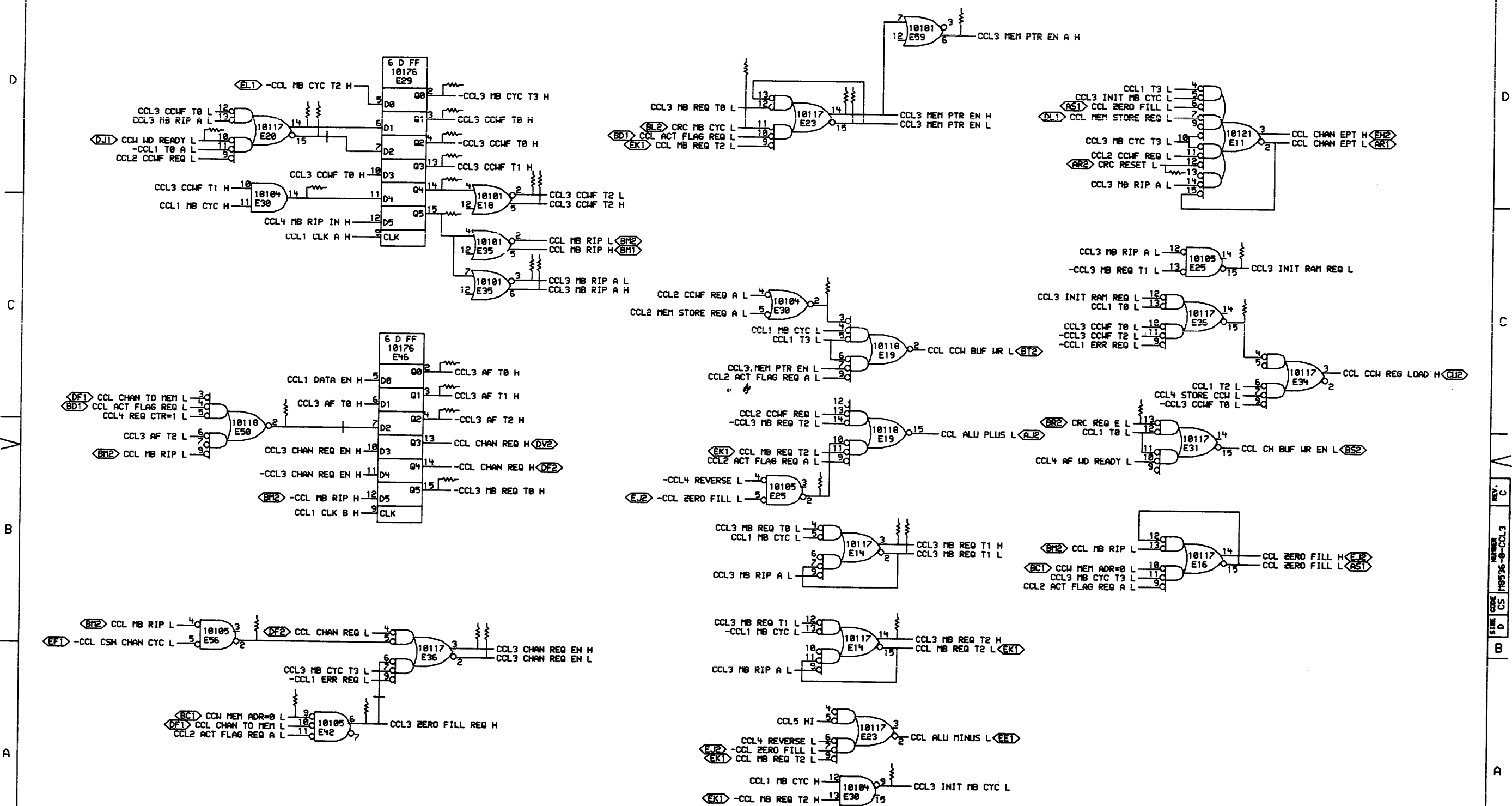
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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 05-OCT-76 ENG: M.S.	DATE: 11/27/76 BOARD LOCATION: 4AF11	TITLE:
	CCL1ES.DRAW 4,1251 FIRST USED ON OPTION/MODEL: KL10	DATE: 09/29/76 SHEET: 1 OF 1	NEXT HIGHER ASSEMBLY: B-DD-M8536-0
			SIZE CODE NUMBER REV. D CS M8536-0-CCL1 D

1 MR



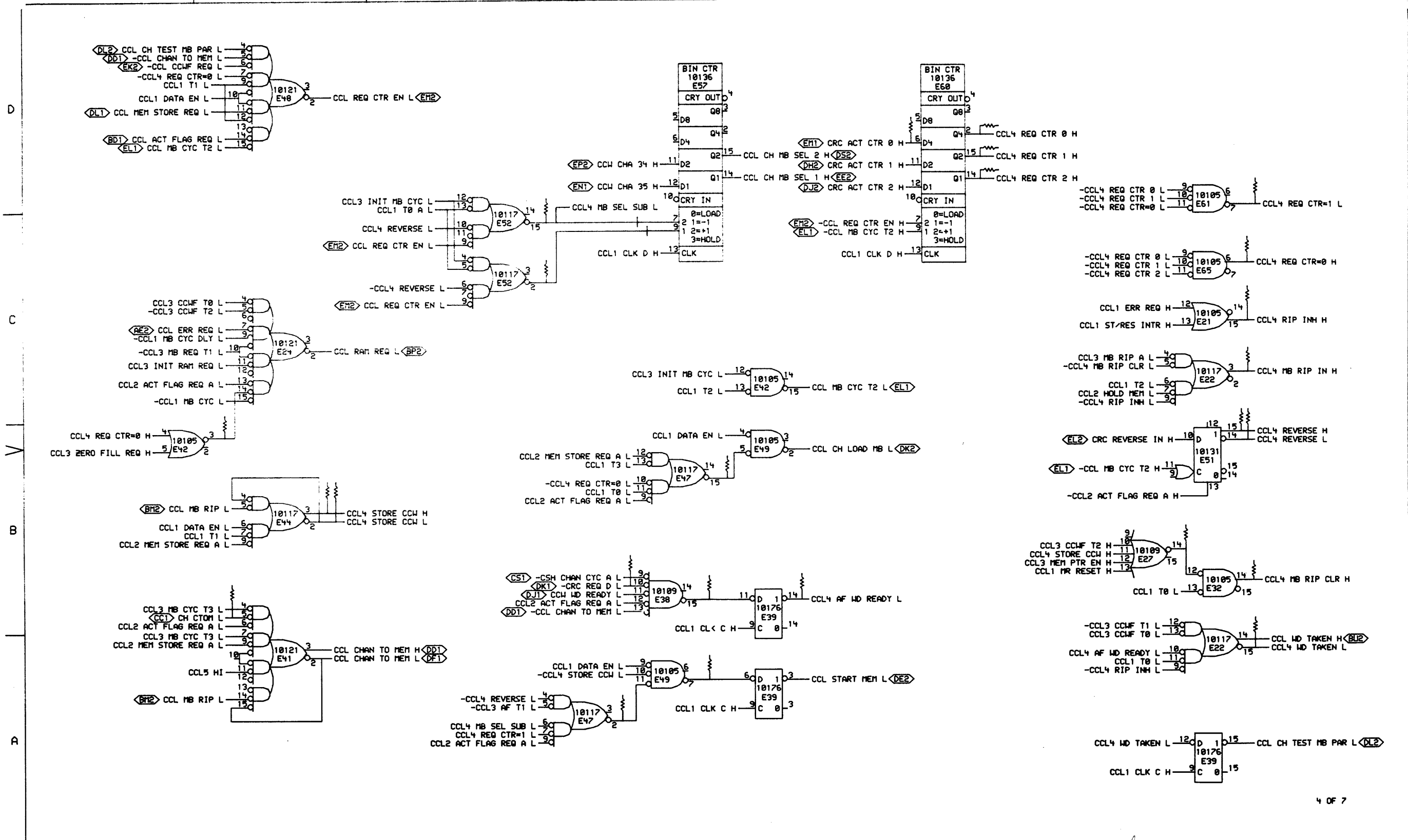


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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 85-05-76	DATE: 11/27/76	TITLE: CHANNEL CONTROL LOGIC
	ENG: J. Family DESIGNED BY: J. Family CHECKED BY: J. Family DRAWN BY: J. Family	DATE: 12-5-75 NEXT HIGHER ASSEMBLY: KL10	DATE: 11/27/76 NEXT HIGHER ASSEMBLY: KL10

283



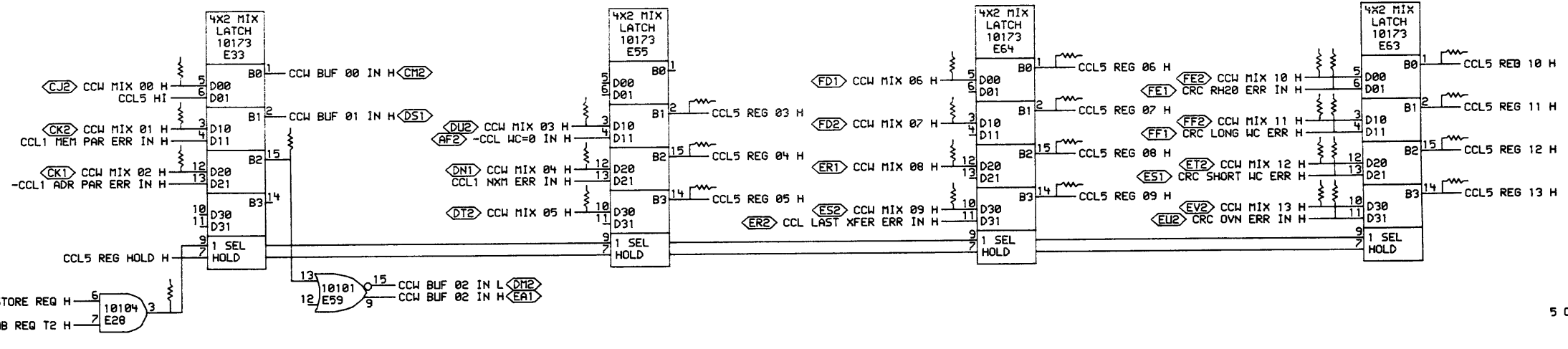
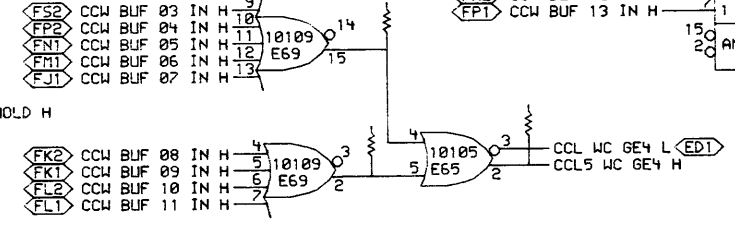
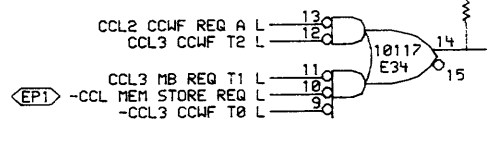
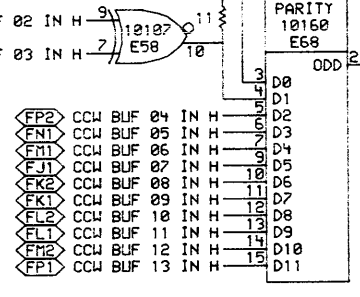
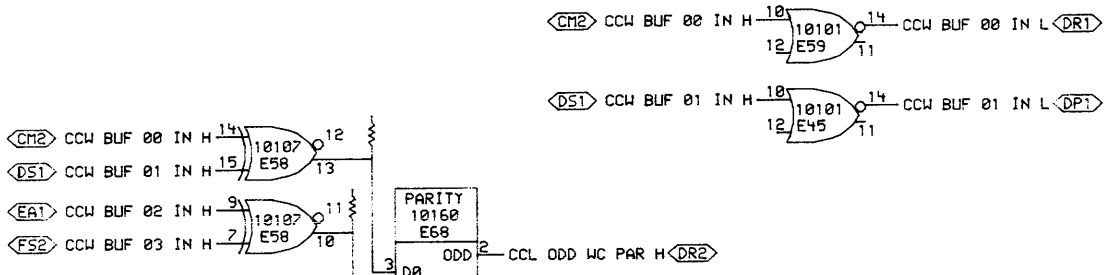
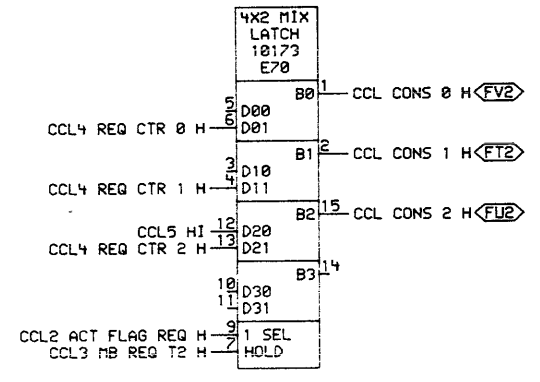
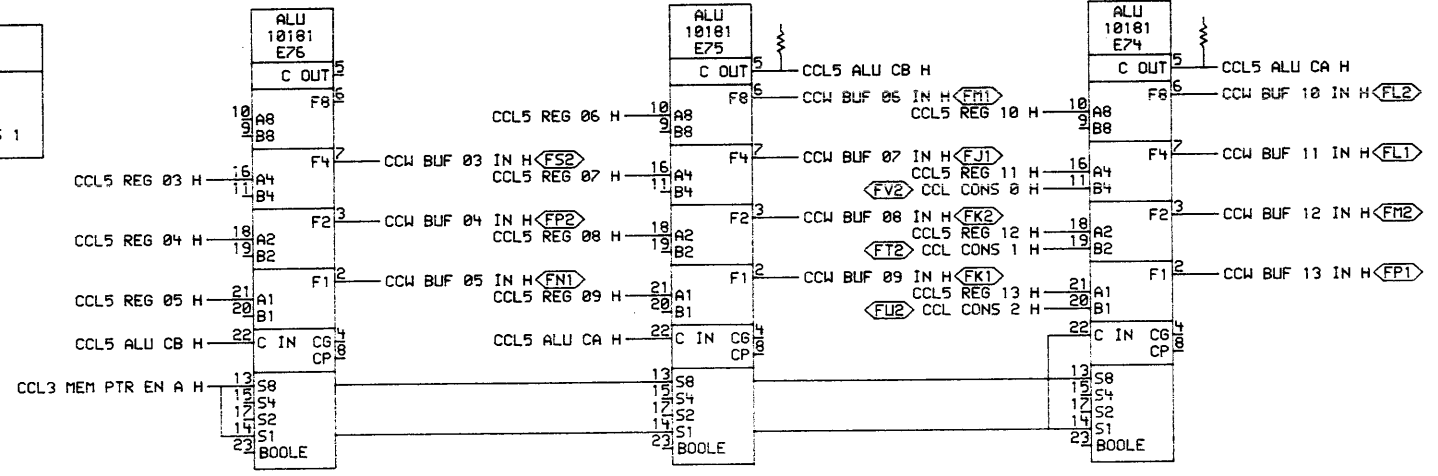
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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 85-OCT-76	ENG: M. S. [Signature]	DATE: 11/27/76	TITLE: CHANNEL CONTROL LOGIC
	DATE: 10-SEP-76	DESIGNER: [Signature]	DATE: 10-SEP-76	NUMBER: M8536-0-CCL4
FIRST USED ON OPTION/MODEL: KL10 B-DD-M8536-0				REV: D

D  
C  
B  
A  
REV. D  
NUMBER M8536-0-CCL4  
SIZE D CS  
4 OF 7

S1	S8	ALU OPERATION
L	L	A PLUS 0
H	H	A MINUS B MINUS 1



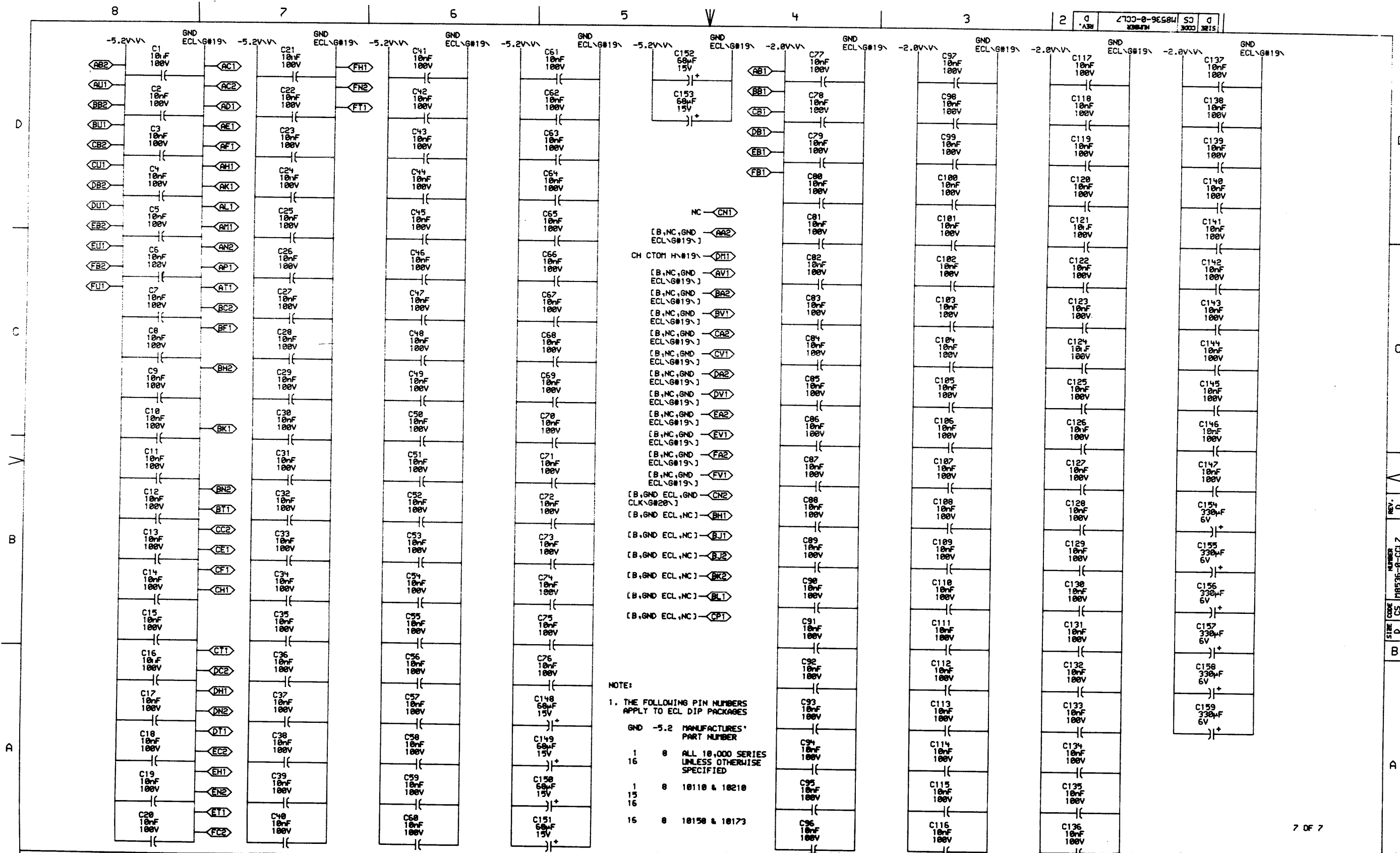
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REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 27-OCT-76	ENG. M. J. DENT	DATE 11/27/76	TITLE: CHANNEL CONTROL LOGIC
	DATE 12/27/76	CHK. J. JOHNSON	DATE 11/27/76	SIZE CODE D CS M8536-0-CCL5
CCL5ES.DRAW 4,175 J		129 SEP-76 12:48	NEXT HIGHER ASSEMBLY: B-DD-M8536-0	NUMBER 1 MR
FIRST USED ON OPTION/MODEL: KL10				REV. D







NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	18118 & 18218
1	8	18158 & 18173
15	8	
16	8	

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REVISIONS		
CHK	CHANGE NO.	REV

**digital** DATE: 10-27-76 ENG: M. [Signature] DATE: 11/2/76  
 TITLE: CHANNEL CNTRL LGC PWR, CAPS, AND GNDS  
 BOARD LOCATION: 4A11  
 DATE: 11/2/76 SHEET: 1 OF 1  
 FIRST USED ON OPTION MODEL: KL10 B-DD-M8536-0  
 SIZE CODE: D NUMBER: CS M8536-0-CCL7 REV: D

287

D

C

V

B

A

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R140(1)	CCL6	D6	68n	%E1(15)
R133(1)	CCL6	C3	68n	%E12(14)
R132(1)	CCL6	C3	68n	%E12(15)
R40(1)	CCL2	C7	68n	%E17(15)
R62(1)	CCL3	D7	68n	%E20(14)
R63(1)	CCL3	D7	68n	%E20(15)
R51(1)	CCL3	B4	68n	%E25(2)
R149(1)	CCL4	B2	68n	%E27(14)
R156(1)	CCL2	C2	68n	%E28(2)
R210(1)	CCL5	A7	68n	%E28(3)
R101(1)	CCL3	D6	68n	%E29(14)
R26(1)	CCL3	C6	68n	%E29(15)
R46(1)	CCL1	A5	68n	%E3(1)
R47(1)	CCL1	A5	68n	%E3(15)
R48(1)	CCL1	A5	68n	%E3(2)
R59(1)	CCL3	D7	68n	%E30(14)
R54(1)	CCL3	C4	68n	%E30(2)
R171(1)	CCL5	A6	68n	%E33(15)
R66(1)	CCL3	C2	68n	%E36(15)
R161(1)	CCL4	B5	68n	%E38(15)
R195(1)	CCL6	B4	68n	%E39(13)
R110(1)	CCL1	C2	68n	%E39(2)
R81(1)	CCL6	B4	68n	%E39(4)
R53(1)	CCL4	B7	68n	%E42(3)
R164(1)	CCL4	B4	68n	%E47(15)
R163(1)	CCL4	A5	68n	%E47(2)
R160(1)	CCL4	A5	68n	%E49(7)
R104(1)	CCL6	C7	68n	%E5(14)
R179(1)	CCL6	C7	68n	%E5(15)
R150(1)	CCL1	C3	68n	%E50(15)
R75(1)	CCL3	B7	68n	%E50(2)
R32(1)	CCL4	C5	68n	%E52(2)
R70(1)	CCL3	B7	68n	%E56(2)
R210(1)	CCL5	C7	68n	%E58(10)
R219(1)	CCL5	C7	68n	%E58(13)
R04(1)	CCL2	A5	68n	%E58(3)
R05(1)	CCL2	A5	68n	%E65(14)
R117(1)	CCL5	B3	68n	%E69(15)
R119(1)	CCL5	B3	68n	%E69(2)
R135(1)	CCL6	C4	68n	%E7(1)

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R138(1)	CCL6	C4	68n	%E7(14)
R137(1)	CCL6	C4	68n	%E7(15)
R136(1)	CCL6	D4	68n	%E7(2)
R96(1)	CCL1	A7	68n	%E9(14)
R191(1)	CCL1	B3	68n	CCL TERM1
R195(1)	CCL1	B3	68n	CCL TERM2
R50(1)	CCL1	A4	68n	-CCL1 ADR PAR ERR H
R19(1)	CCL1	C7	68n	CCL1 ADR PAR ERR EN H
R49(1)	CCL1	C7	68n	-CCL1 ADR PAR ERR EN H
R200(1)	CCL1	B7	68n	CCL1 ADR PAR ERR IN H
R105(1)	CCL1	B7	68n	-CCL1 ADR PAR ERR IN H
R50(1)	CCL1	B2	68n	CCL1 CLK A H
R73(1)	CCL1	B2	68n	CCL1 CLK B H
R157(1)	CCL1	B2	68n	CCL1 CLK C H
R33(1)	CCL1	B2	68n	CCL1 CLK D H
R109(1)	CCL1	B2	68n	CCL1 CLK E H
R90(1)	CCL1	B2	68n	CCL1 CLK F H
R77(1)	CCL1	C2	68n	CCL1 DATA EN H
R202(1)	CCL1	C2	68n	-CCL1 DATA EN H
R60(1)	CCL1	D7	68n	CCL1 ERR REQ H
R21(1)	CCL1	C2	68n	CCL1 MB CYC H
R153(1)	CCL1	C2	68n	-CCL1 MB CYC H
R5(1)	CCL1	C2	68n	-CCL1 MB CYC A H
R56(1)	CCL1	B5	68n	CCL1 MB CYC DLY H
R99(1)	CCL1	C4	68n	-CCL1 MEM ERR H
R17(1)	CCL1	A7	68n	CCL1 MEM ERR CLR H
R1(1)	CCL1	A4	68n	-CCL1 MEM PAR ERR H
R20(1)	CCL1	D7	68n	CCL1 MEM PAR ERR EN H
R0(1)	CCL1	D7	68n	-CCL1 MEM PAR ERR EN H
R199(1)	CCL1	B7	68n	CCL1 MEM PAR ERR IN H
R09(1)	CCL1	B7	68n	-CCL1 MEM PAR ERR IN H
R145(1)	CCL1	B2	68n	CCL1 MR RESET H
R30(1)	CCL1	B2	68n	-CCL1 MR RESET H
R6(1)	CCL1	A4	68n	-CCL1 NXM ERR H
R15(1)	CCL1	C7	68n	CCL1 NXM ERR EN H
R7(1)	CCL1	C7	68n	-CCL1 NXM ERR EN H
R114(1)	CCL1	C7	68n	CCL1 NXM ERR IN H
R91(1)	CCL1	C7	68n	-CCL1 NXM ERR IN H
R2(1)	CCL1	A2	68n	CCL1 ST/RES INTR H
R3(1)	CCL1	A2	68n	-CCL1 ST/RES INTR H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R20(1)	CCL1	D5	68n	-CCL1 T0 H
R11(1)	CCL1	D5	68n	CCL1 T0 A H
R34(1)	CCL1	D5	68n	-CCL1 T0 A H
R105(1)	CCL1	C5	68n	CCL1 T1 H
R203(1)	CCL1	D5	68n	-CCL1 T1 H
R111(1)	CCL1	C5	68n	-CCL1 T2 H
R29(1)	CCL1	C5	68n	-CCL1 T3 H
R39(1)	CCL2	A4	68n	-CCL2 AC=1 H
R37(1)	CCL2	A4	68n	CCL2 AC=3 OR 4 H
R36(1)	CCL2	B4	68n	CCL2 AC=4 H
R122(1)	CCL2	B4	68n	CCL2 ACT FLAG REQ H
R79(1)	CCL2	C4	68n	-CCL2 ACT FLAG REQ A H
R150(1)	CCL2	C6	68n	CCL2 ACT FLAG REQ ENA H
R152(1)	CCL2	C6	68n	-CCL2 ACT FLAG REQ ENA H
R13(1)	CCL2	C4	68n	-CCL2 CCMF REQ H
R25(1)	CCL2	C4	68n	-CCL2 CCMF REQ A H
R151(1)	CCL2	C6	68n	CCL2 CCMF REQ ENA H
R70(1)	CCL2	C6	68n	-CCL2 CCMF REQ ENA H
R109(1)	CCL2	B2	68n	-CCL2 CLR REQ H
R147(1)	CCL2	B6	68n	-CCL2 HOLD MEM H
R162(1)	CCL2	B4	68n	-CCL2 MEM STORE REQ A H
R144(1)	CCL2	C6	68n	-CCL2 MEM STORE REQ ENA H
R76(1)	CCL3	C6	68n	CCL3 AF T0 H
R31(1)	CCL3	C6	68n	CCL3 AF T1 H
R190(1)	CCL3	C6	68n	-CCL3 AF T2 H
R64(1)	CCL3	D6	68n	CCL3 CCMF T0 H
R10(1)	CCL3	D6	68n	-CCL3 CCMF T0 H
R139(1)	CCL3	D6	68n	CCL3 CCMF T1 H
R205(1)	CCL3	D6	68n	CCL3 CCMF T2 H
R60(1)	CCL3	D6	68n	-CCL3 CCMF T2 H
R74(1)	CCL3	B6	68n	CCL3 CHAN REQ EN H
R71(1)	CCL3	B6	68n	-CCL3 CHAN REQ EN H
R4(1)	CCL3	A4	68n	-CCL3 INIT MB CYC H
R65(1)	CCL3	C2	68n	-CCL3 INIT RAM REQ H
R107(1)	CCL3	D6	68n	-CCL3 MB CYC T3 H
R52(1)	CCL3	B6	68n	-CCL3 MB REQ T0 H
R23(1)	CCL3	B4	68n	CCL3 MB REQ T1 H
R61(1)	CCL3	B4	68n	-CCL3 MB REQ T1 H
R126(1)	CCL3	B4	68n	CCL3 MB REQ T2 H
R206(1)	CCL3	C6	68n	CCL3 MB RIP A H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R00(1)	CCL3	C6	68n	-CCL3 MB RIP A H
R172(1)	CCL3	D4	68n	CCL3 MEM PTR EN H
R55(1)	CCL3	D4	68n	-CCL3 MEM PTR EN H
R45(1)	CCL3	D3	68n	CCL3 MEM PTR EN A H
R69(1)	CCL3	A7	68n	CCL3 ZERO FILL REQ H
R143(1)	CCL4	B4	68n	-CCL4 AF WD READY H
R146(1)	CCL4	B1	68n	CCL4 MB RIP CLR H
R57(1)	CCL4	C1	68n	CCL4 MB RIP IN H
R35(1)	CCL4	C5	68n	-CCL4 MB SEL SUB H
R127(1)	CCL4	D3	68n	CCL4 REQ CTR 0 H
R125(1)	CCL4	D3	68n	CCL4 REQ CTR 1 H
R120(1)	CCL4	D3	68n	CCL4 REQ CTR 2 H
R204(1)	CCL4	C1	68n	CCL4 REQ CTR=0 H
R30(1)	CCL4	D1	68n	-CCL4 REQ CTR=1 H
R22(1)	CCL4	B1	68n	CCL4 REVERSE H
R103(1)	CCL4	B1	68n	-CCL4 REVERSE H
R142(1)	CCL4	C1	68n	CCL4 RIP INH H
R140(1)	CCL4	B7	68n	CCL4 STORE CCH H
R67(1)	CCL4	B7	68n	-CCL4 STORE CCH H
R154(1)	CCL4	B1	68n	-CCL4 WD TAKEN H
R06(1)	CCL5	D4	68n	CCL5 ALU CA H
R42(1)	CCL5	D5	68n	CCL5 ALU CB H
R121(1)	CCL5	C4	68n	CCL5 HI
R44(1)	CCL5	A5	68n	CCL5 REG 03 H
R43(1)	CCL5	A5	68n	CCL5 REG 04 H
R41(1)	CCL5	A5	68n	CCL5 REG 05 H
R123(1)	CCL5	B3	68n	CCL5 REG 06 H
R124(1)	CCL5	A3	68n	CCL5 REG 07 H
R00(1)	CCL5	A3	68n	CCL5 REG 08 H
R07(1)	CCL5	A3	68n	CCL5 REG 09 H
R176(1)	CCL5	B1	68n	CCL5 REG 10 H
R177(1)	CCL5	A1	68n	CCL5 REG 11 H
R170(1)	CCL5	A1	68n	CCL5 REG 12 H
R120(1)	CCL5	A1	68n	CCL5 REG 13 H
R215(1)	CCL5	B5	68n	CCL5 REG HOLD H
R217(1)	CCL5	B3	68n	CCL5 MC GE4 H
R170(1)	CCL5	C2	68n	CCL5 MC=0 H
R102(1)	CCL6	C2	68n	CCL6 CMD STORED H
R100(1)	CCL6	C2	68n	-CCL6 CMD STORED H
R134(1)	CCL6	C5	68n	CCL6 CMD STORED IN 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. G. Smith DATE 25-OCT-76 ENG. M. Smith DATE 11/27/76  
 CHK. D. Williams DATE 11/27/76 BOARD LOCATION: 1 OF 2  
 585361.DRW 4,175 25-OCT-76 17:23 NEXT HIGHER ASSEMBLY: B-DD-M8536-0

TITLE: CHANNEL CONTROL LOGIC TERMINATORS	SIZE D	CODE CS	NUMBER M8536-0-RES	REV. C
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RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R101(1)	CCL6	C2	68n	CCL6 CMD TOGGLED H	R108(1)	CCL1	B2	68n	CLK CCL H
R106(1)	CCL6	C2	68n	-CCL6 CMD TOGGLED H	R115(1)	CCL4	D3	68n	CRC ACT CTR 0 H
R129(1)	CCL6	B6	68n	CCL6 CMD TOGGLED IN H	R02(1)	CCL2	A5	68n	CRC ACT CTR 1 H
R16(1)	CCL6	B3	68n	-CCL6 CSH CHAN CYC H	R03(1)	CCL2	A5	68n	CRC ACT CTR 2 H
R141(1)	CCL6	C3	68n	-CCL6 LAST XFER ERR H	R110(1)	CCL2	A5	68n	-CRC ACT CTR 2R H
R130(1)	CCL6	D6	68n	-CCL6 LAST XFER ERR IN H	R213(1)	CCL5	A2	68n	CRC LONG WC ERR H
R197(1)	CCL6	D3	68n	-CCL6 WC=0 STORED H	R131(1)	CCL1	C3	68n	CRC MB CYC H
R193(1)	CCL2	C7	68n	CCW ACT FLAG REQ ENA H	R102(1)	CCL3	D5	68n	-CRC MB CYC H
R24(1)	CCL2	C7	68n	CCW CCHW REQ ENA H	R200(1)	CCL5	A2	68n	CRC OVN ERR IN H
R27(1)	CCL3	A7	68n	-CCW MEM ADR=0 H	R90(1)	CCL1	A5	68n	CRC RAM ADR 1R H
R192(1)	CCL2	C7	68n	CCW MEM STORE ENA H	R93(1)	CCL1	A5	68n	CRC RAM ADR 2R H
R107(1)	CCL5	B7	68n	CCW MIX 00 H	R92(1)	CCL1	A5	68n	CRC RAM ADR 4R H
R106(1)	CCL5	A7	68n	CCW MIX 01 H	R190(1)	CCL2	C2	68n	-CRC RAM CYC H
R104(1)	CCL5	A7	68n	CCW MIX 02 H	R201(1)	CCL4	B5	68n	CRC REQ D H
R116(1)	CCL5	A5	68n	CCW MIX 03 H	R194(1)	CCL3	C2	68n	-CRC REQ E H
R112(1)	CCL5	A5	68n	CCW MIX 04 H	R100(1)	CCL3	D2	68n	-CRC RESET H
R113(1)	CCL5	A5	68n	CCW MIX 05 H	R216(1)	CCL5	B2	68n	CRC RH20 ERR IN H
R175(1)	CCL5	B3	68n	CCW MIX 06 H	R209(1)	CCL5	A2	68n	CRC SHORT WC ERR H
R174(1)	CCL5	A3	68n	CCW MIX 07 H	R159(1)	CCL6	B4	68n	CSH CHAN CYC A H
R169(1)	CCL5	A3	68n	CCW MIX 08 H					
R173(1)	CCL5	A3	68n	CCW MIX 09 H					
R214(1)	CCL5	B2	68n	CCW MIX 10 H					
R212(1)	CCL5	A2	68n	CCW MIX 11 H					
R207(1)	CCL5	A2	68n	CCW MIX 12 H					
R211(1)	CCL5	A2	68n	CCW MIX 13 H					
R14(1)	CCL3	D7	68n	-CCW WD READY H					
R72(1)	CCL4	B7	68n	-CH CTOM H					
R165(1)	CCL1	D1	68n	-CH DIAG 04 H					
R166(1)	CCL1	D1	68n	-CH DIAG 05 H					
R160(1)	CCL1	D1	68n	-CH DIAG 06 H					
R167(1)	CCL1	D1	68n	-CH DIAG READ A H					
R103(1)	CCL6	B7	68n	CH DONE INTR H					
R155(1)	CCL6	B4	68n	CH REVERSE H					
R94(1)	CCL1	D6	68n	-CH T0 H					
R95(1)	CCL1	C6	68n	-CH T1 H					
R100(1)	CCL1	C6	68n	-CH T2 H					
R97(1)	CCL1	D6	68n	-CH T3 H					
K12(1)	CCL1	C8	68n	-CHAN ADR PAR ERR H					
R9(1)	CCL1	C8	68n	-CHAN NXM ERR H					
R10(1)	CCL1	D8	68n	-CHAN PAR ERR 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. G. Smith	DATE 05-OCT-76	ENG. M. Schmitt	DATE 11/2/76	TITLE: CHANNEL CONTROL LOGIC TERMINATORS
	CHK. J. ...	DATE 12/2/76	BOARD LOCATION: 2	OF 2	SIZE CODE D CS
585362.DRW 4.1751		12-OCT-76 17:23	NEXT HIGHER ASSEMBLY: B-DD-M8536-0	NUMBER M8536-0-RES	REV. C
FIRST USED ON OPTION/MODEL: KL10					

DRAWING NUMBER	PAGE	PART NO.	DESCRIPTION	REVISIONS
			FILE: ORIGINAL LAYOUT	
			ECO NUMBER	1 2
			MODULE REVISION	A B B
D-UA-M8549-YD-0	5		CHANNEL CONTROL LOGIC	- A B
K-PL-M8549-YD-DBP	1		PARTS LIST	- A B
D-CS-M8549-YD-CCLS	1		CHANNEL CONTROL LOGIC	- - -
D-MD-5011495-0-0	5		DRILL & ETCH DRAWING	- - A
		5011495	ETCH CIRCUIT BOARD	A A A
K-PC-M8549-YD-DBC	-		P.C. DESIGN DATA BASE	- A B
P00-M8549-YD	-		PROCESS SHEET (REFERENCE ONLY)	

NOTES: ECO 2 DOCUMENTATION CHANGE ONLY

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REVISIONS		
CHK	CHANGE NO.	REV
	M8549-YD-2	B

digital	DRG. <i>J. J. J.</i>	DATE 21-NOV-78	ENG. <i>E. P.</i>	DATE 11/22/78	TITLE: CHANNEL CTL LOGIC SUBSTITUTE BOARD
	CHK. <i>M. J.</i>	DATE	BOARD LOCATION:	SHEET 1 OF 1	SIZE CODE NUMBER REV. D DD M8549-YD B
DSK:8549DD.T2P[4,550]		21-NOV-78 08:39	NEXT HIGHER ASSEMBLY:	NONE	
FIRST USED ON OPTION/MODEL: KL10/20					

REV. B  
NUMBER M8549-YD  
CODE DD  
D

8

7

6

5

4

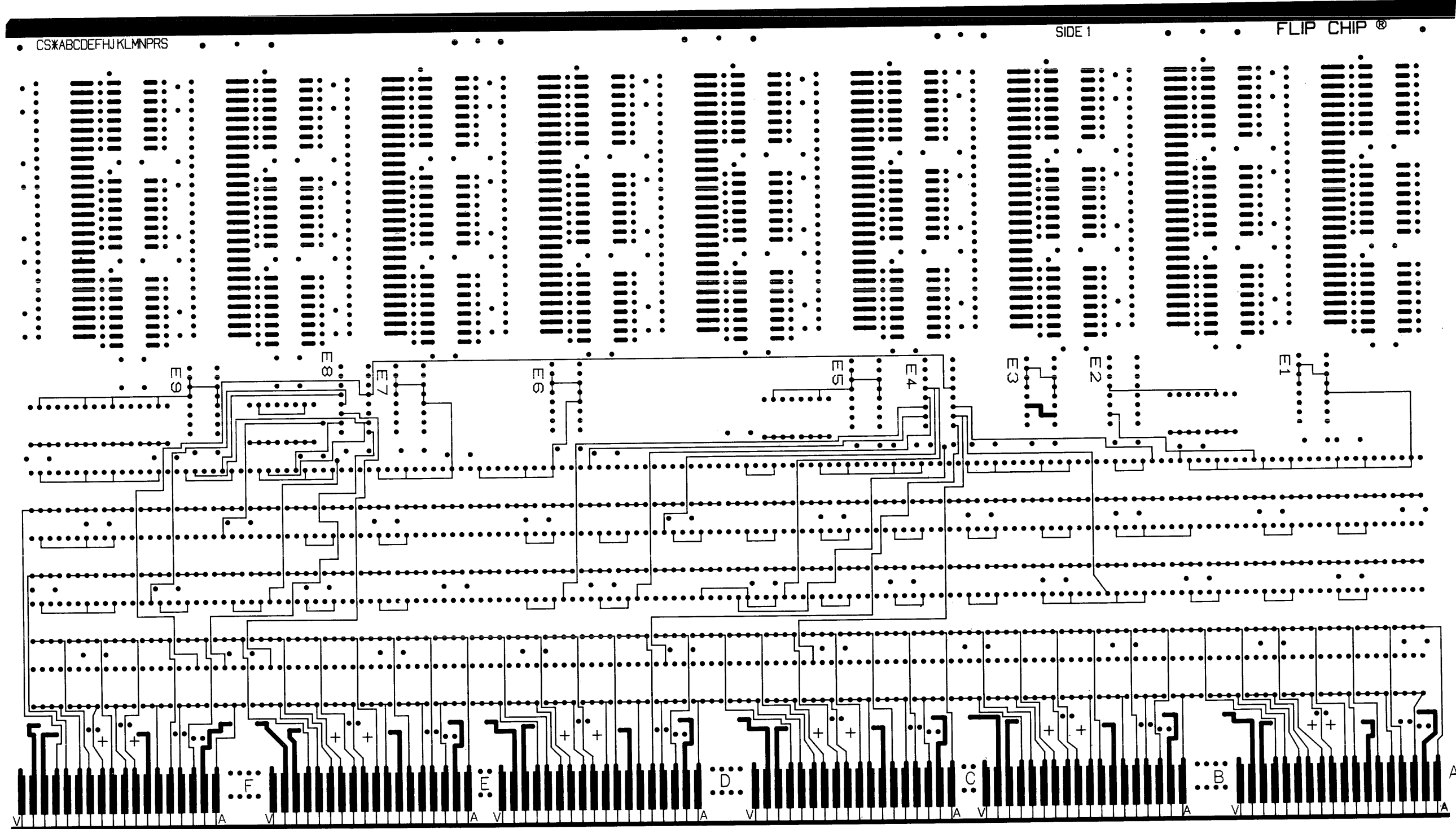
3

SIZE CODE D U A M8549-YD-0  
REV B

1

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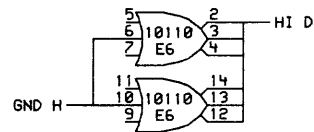
LAYER 1  
MS30061 M8549 501.+95A



REVISIONS		
CHK	CHANGE NO.	REV

291

1 PR



DK2 CCL CH LOAD MB L — W4 — HI D

DL2 CCL CH TEST MB PAR L — W3 — HI D

DV2 CCL CHAN REQ H — R4

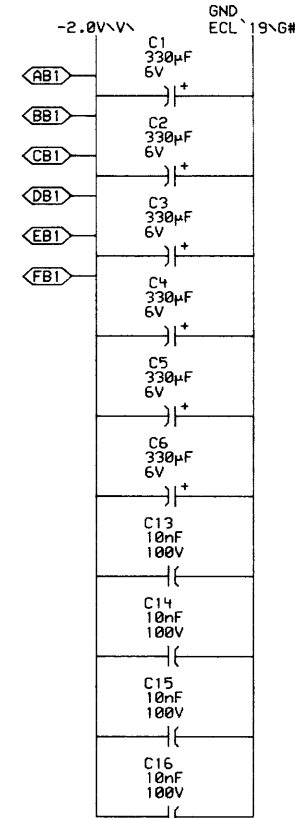
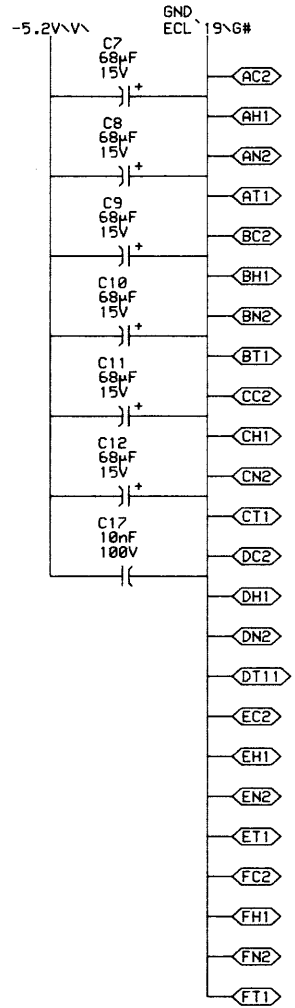
DE2 CCL START MEM L — W1 — HI D

DF2 CCL CHAN REQ L — W2 — HI D

BS1 CCL HOLD MEM H — R1

CF2 CCL MIX MB SEL H — R2

CS1 CSH CHAN CYC A H — R3



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES  
 GND -5.2 MANUFACTURER'S PART NUMBER  
 1 8 ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED  
 15 8 10110 & 10210  
 16 8 10158 & 10173

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REVISIONS		
CHK	CHANGE NO.	REV

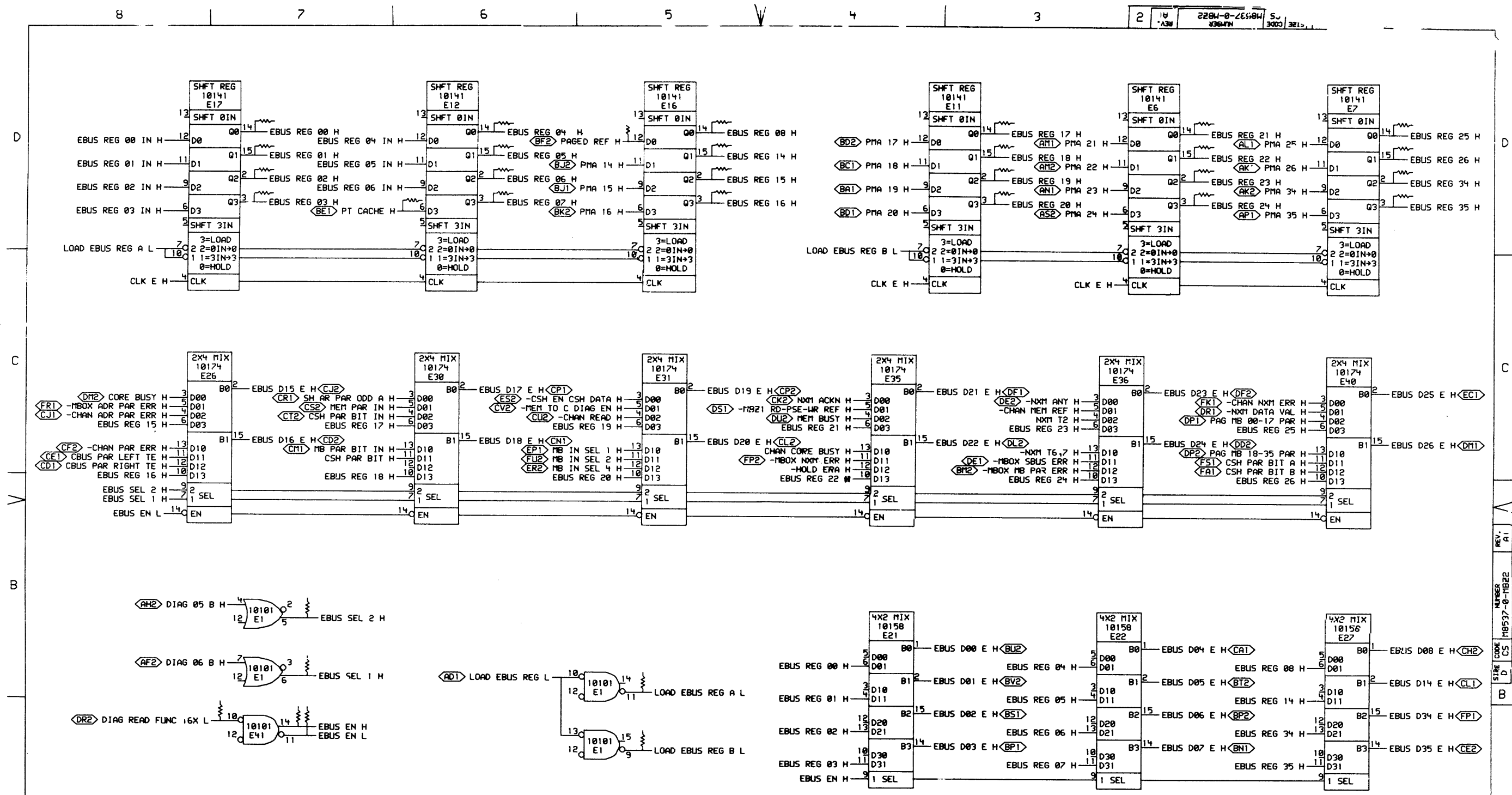
digital	DRN <i>DL</i>	DATE 2-4-75	ENG. <i>ALB</i>	DATE 2-7-75	TITLE: CHANNEL CONTROL LOGIC SUBSTITUTE
	CHK <i>DL</i>	DATE 2-19-75	SHEET 1 OF 1	BOARD LOCATION: B-DD-M8549-YD	SIZE D CODE CS
CCLSL4,121		19-FEB-75 08:59	NEXT HIGHER ASSEMBLY:	NUMBER M8549-YD-CCLS	REV. 292
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8549-YD			











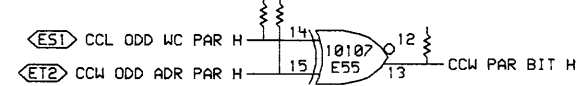
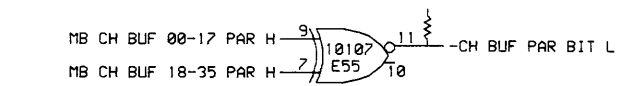
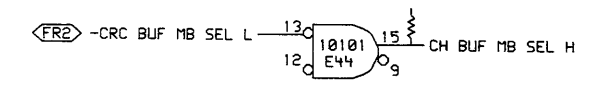
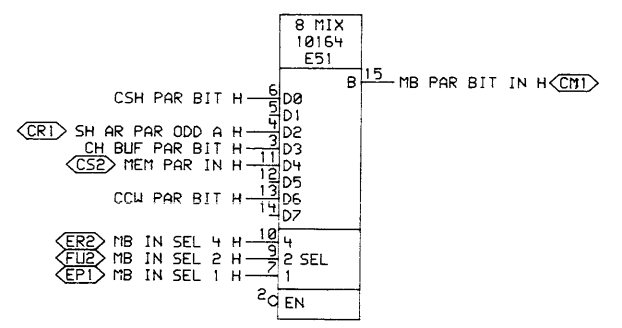
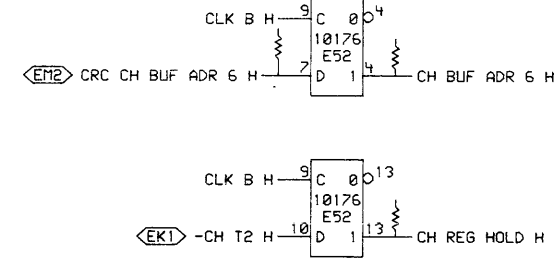
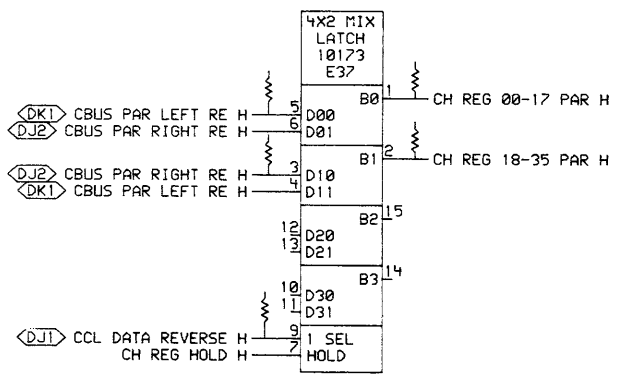
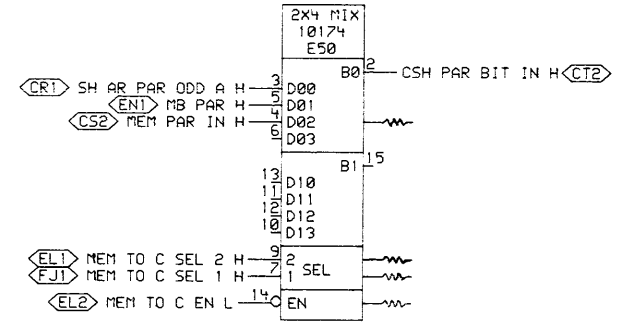
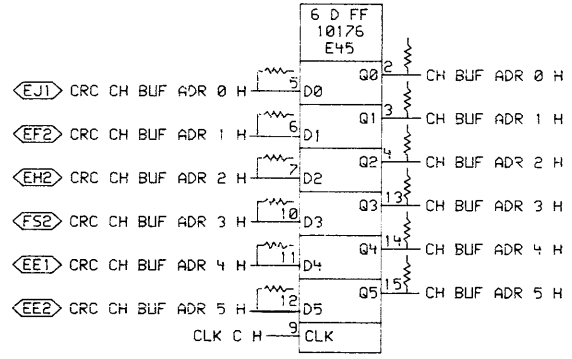
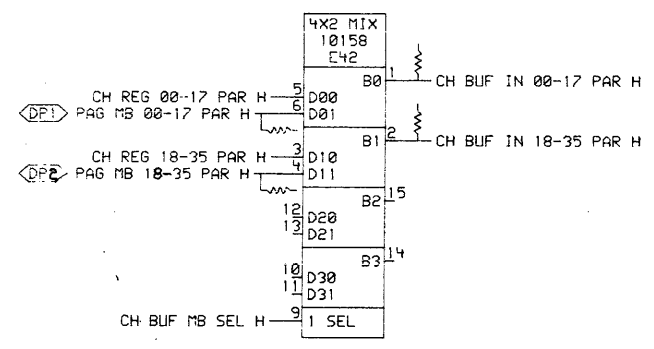
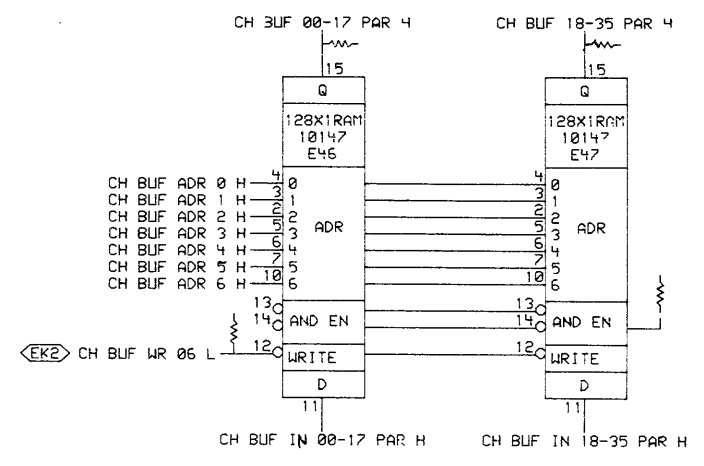
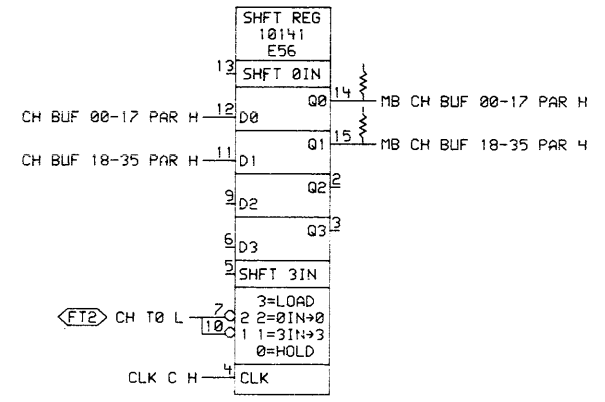
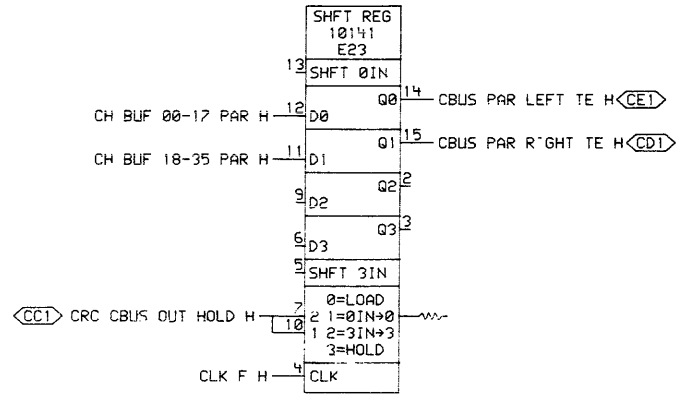
REVISIONS		REVISIONS			
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
P3	M8537-0002	A	P3	M8537-0004	A1
			P3	M8537-0004	A1
			P3	M8537-0004	A1

digital	DATE	ENG.	DATE	TITLE:
	11/25	W. G. ...	11/25	EBUS REG, MBZ DIAG MIX
DATE	BOARD LOCATION:	SHEET		SIZE CODE
11/25	4AF20	1 OF 1		D CS
FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY:		NUMBER
KL10		B-DD-M8537-0		M8537-0-MB22
				REV.
				A1

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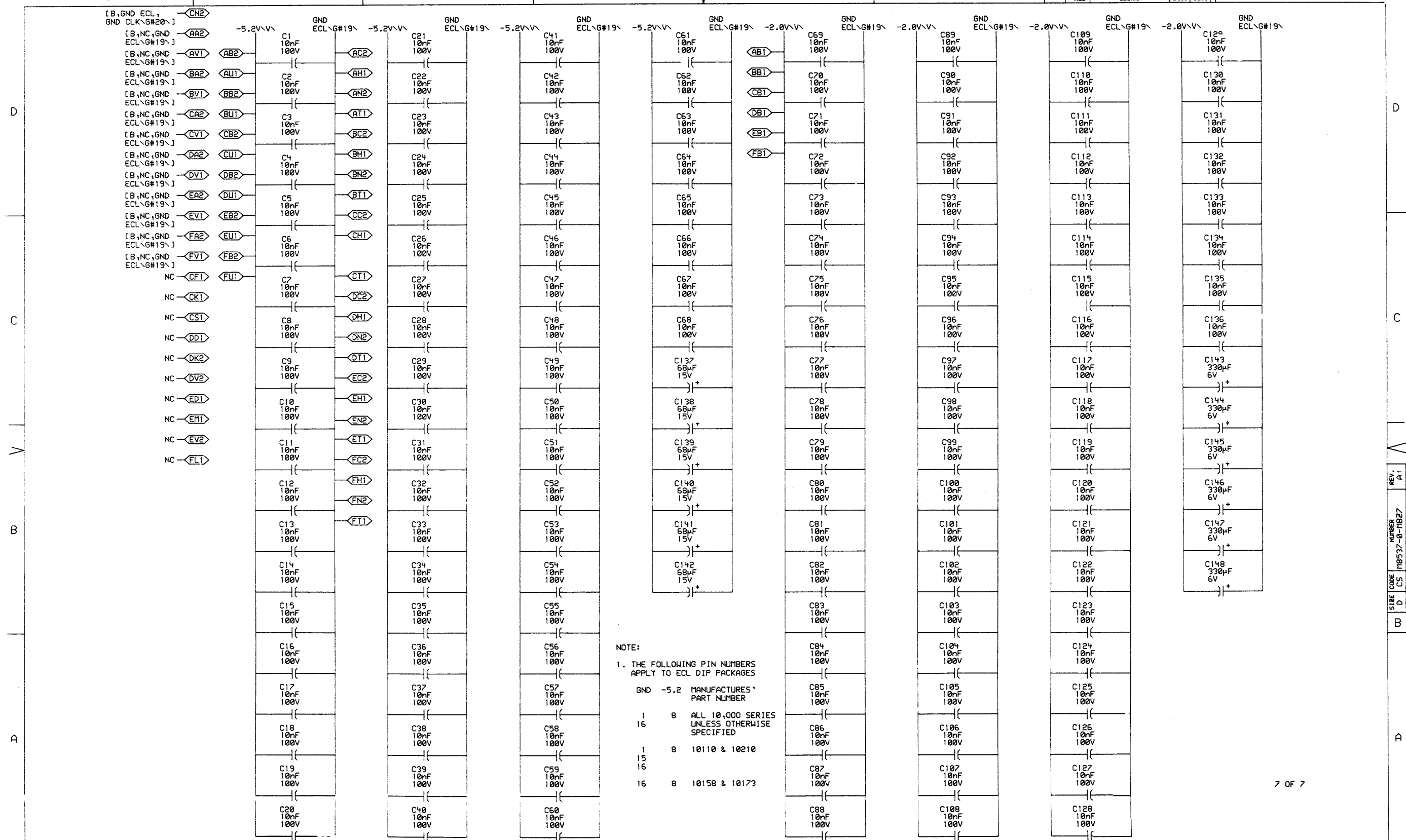
REVISIONS		REVISIONS			
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
P. GUGLIELMI	00002	A	P. GUGLIELMI	00041	A
P. GUGLIELMI	00002	A	P. GUGLIELMI	00041	A

digital	DRN	DATE	ENG.	DATE	TITLE:
		4/11/75	P. Guglielmi	11 APR 75	MBOX & CHAN PAR BIT DATA PATHS
	CHK'D	DATE	BOARD LOCATION:	4AF20	
		4/11/75			
			SHEET	OF	

MBZ5EX(4,121)	05-APR-75 18:25	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8537-0		D CS	M8537-0-MBZ5	A1

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NOTE:  
 1. THE FOLLOWING PIN NUMBERS  
 APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173

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REVISIONS		REVISIONS	
CHK	CHANGE NO. REV	CHK	CHANGE NO. REV
	1 MB537-0-0001 A		1 MB537-0-0001 A
	2 MB537-0-0002 A		2 MB537-0-0002 A
	3 MB537-0-0003 A		3 MB537-0-0003 A
	4 MB537-0-0004 A		4 MB537-0-0004 A
	5 MB537-0-0005 A		5 MB537-0-0005 A
	6 MB537-0-0006 A		6 MB537-0-0006 A
	7 MB537-0-0007 A		7 MB537-0-0007 A
	8 MB537-0-0008 A		8 MB537-0-0008 A
	9 MB537-0-0009 A		9 MB537-0-0009 A
	10 MB537-0-0010 A		10 MB537-0-0010 A
	11 MB537-0-0011 A		11 MB537-0-0011 A
	12 MB537-0-0012 A		12 MB537-0-0012 A
	13 MB537-0-0013 A		13 MB537-0-0013 A
	14 MB537-0-0014 A		14 MB537-0-0014 A
	15 MB537-0-0015 A		15 MB537-0-0015 A
	16 MB537-0-0016 A		16 MB537-0-0016 A
	17 MB537-0-0017 A		17 MB537-0-0017 A
	18 MB537-0-0018 A		18 MB537-0-0018 A
	19 MB537-0-0019 A		19 MB537-0-0019 A
	20 MB537-0-0020 A		20 MB537-0-0020 A
	21 MB537-0-0021 A		21 MB537-0-0021 A
	22 MB537-0-0022 A		22 MB537-0-0022 A
	23 MB537-0-0023 A		23 MB537-0-0023 A
	24 MB537-0-0024 A		24 MB537-0-0024 A
	25 MB537-0-0025 A		25 MB537-0-0025 A
	26 MB537-0-0026 A		26 MB537-0-0026 A
	27 MB537-0-0027 A		27 MB537-0-0027 A
	28 MB537-0-0028 A		28 MB537-0-0028 A
	29 MB537-0-0029 A		29 MB537-0-0029 A
	30 MB537-0-0030 A		30 MB537-0-0030 A

digital	DATE	ENG.	DATE	TITLE:
	10/1/75	J. G. Williams	11/10/75	MBOX CONTROL #4 POWER, GND, CAP
CHK	DATE	BOARD LOCATION	SHEET	OF
J. G. Williams	10/1/75	4AF20	1	1
MB27EXL4,121	05-APR-75 18:26	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10		B-DD-MB537-0	D	CS
			NUMBER	REV.
			MB537-0-MB27	A1

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RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R2<1>	MB24EX C2	60n	%E10<3>	R210<1>	MB23EX B4	60	%E66<3>	R129<1>	MB25EX C7	60n	CH BUF IN 10-35 PAR H	R176<1>	MB26EX C7	60n	CSH PAR BIT 00 B H
R8<1>	MB24EX C2	60n	%E14<14>	R33<1>	MB24EX C6	60n	%E66<9>	R116<1>	MB25EX A7	60n	CH BUF MB SEL H	R220<1>	MB26EX D7	60n	CSH PAR BIT 01 A H
R1<1>	MB24EX D2	60n	%E14<3>	R49<1>	MB23EX D2	60n	%E67<13>	R179<1>	MB25EX A5	60n	CH BUF PAR BIT H	R175<1>	MB26EX C7	60n	CSH PAR BIT 01 B H
R13<1>	MB24EX B2	60n	%E15<13>	R232<1>	MB23EX A5	60n	%E67<14>	R110<1>	MB25EX C3	60n	-CH BUF WR 06 H	R222<1>	MB26EX D7	60n	CSH PAR BIT 02 A H
R17<1>	MB24EX B2	60n	%E15<14>	R20<1>	MB23EX A3	60n	%E67<15>	R122<1>	MB25EX B7	60n	CH REG 00-17 PAR H	R103<1>	MB26EX C7	60n	CSH PAR BIT 02 B H
R230<1>	MB24EX B4	60n	%E15<15>	R06<1>	MB24EX D6	60n	%E69<14>	R119<1>	MB25EX B7	60n	CH REG 10-35 PAR H	R221<1>	MB26EX D7	60n	CSH PAR BIT 03 A H
R226<1>	MB24EX B4	60n	%E2<14>	R131<1>	MB24EX C7	60	%E69<2>	R114<1>	MB25EX B5	60n	CH REG HOLD H	R102<1>	MB26EX C7	60n	CSH PAR BIT 03 B H
R60<1>	MB21EX B2	60n	%E2<2>	R22<1>	MB26EX B3	60n	%E0<15>	R70<1>	MB21EX B5	60n	CHAN BUF TO MB H	R19<1>	MB21EX C3	60n	-DIAG LOAD FUNC 071 H
R12<1>	MB23EX C7	60n	%E25<2>	R47<1>	MB24EX D3	60n	%E0<2>	R03<1>	MB21EX C7	60n	CHAN CORE BUSY H	R167<1>	MB22EX A7	60n	-DIAG READ FUNC 16X H
R13<1>	MB23EX D7	60n	%E25<3>	R43<1>	MB24EX C3	60n	%E0<3>	R21<1>	MB21EX C6	60n	-CHAN CORE BUSY H	R62<1>	MB21EX B2	60n	-EBOX DIAG CYC A H
R67<1>	MB21EX C6	60n	%E33<2>	R45<1>	MB24EX C3	60n	%E9<14>	R56<1>	MB21EX B5	60n	CHAN EPT H	R100<1>	MB22EX A7	60n	EBUS EN H
R69<1>	MB21EX D2	60n	%E34<15>	R46<1>	MB24EX D3	60n	%E9<2>	R50<1>	MB21EX B5	60n	-CHAN EPT H	R162<1>	MB22EX A7	60n	-EBUS EN H
R63<1>	MB21EX C2	60n	%E34<2>	R6<1>	MB24EX C3	60n	%E9<3>	R57<1>	MB23EX B6	60n	-CHAN MEM REF H	R191<1>	MB22EX D7	60n	EBUS REG 00 H
R234<1>	MB21EX D6	60n	%E30<14>	R42<1>	MB23EX B3	60n	-A CHANGE COMING H	R105<1>	MB26EX C6	60n	CHAN REF H	R147<1>	MB26EX D3	60n	EBUS REG 00 IN H
R235<1>	MB21EX D6	60n	%E30<15>	R34<1>	MB24EX D6	60n	-ACKN PULSE H	R77<1>	MB21EX C5	60n	CHAN STATUS TO MB H	R190<1>	MB22EX D7	60n	EBUS REG 01 H
R14<1>	MB23EX D7	60n	%E39<14>	R216<1>	MB24EX C2	60n	ADR PAR ERR FLG H	R53<1>	MB21EX B2	60n	-CHAN TO MEM H	R140<1>	MB26EX D3	60n	EBUS REG 01 IN H
R15<1>	MB21EX C3	60n	%E39<3>	R179<1>	MB23EX C2	60	APR ANY EBOX ERR FLG H	R55<1>	MB21EX C5	60n	-CHAN WR MEM H	R105<1>	MB22EX D7	60n	EBUS REG 02 H
R02<1>	MB21EX A3	60n	%E41<3>	R40<1>	MB24EX C4	60n	-APR MB PAR ERR H	R29<1>	MB21EX C7	60n	CLK A H	R145<1>	MB26EX D3	60n	EBUS REG 02 IN H
R16<1>	MB21EX D3	60n	%E43<13>	R166<1>	MB23EX D5	60n	-APR MM ERR H	R00<1>	MB21EX C7	60n	CLK B H	R107<1>	MB22EX D7	60n	EBUS REG 03 H
R75<1>	MB21EX A3	60n	%E43<4>	R39<1>	MB24EX C4	60n	-APR S ADR P ERR H	R174<1>	MB21EX C7	60n	CLK C H	R149<1>	MB26EX D3	60n	EBUS REG 03 IN H
R160<1>	MB25EX D2	60n	%E47<14>	R44<1>	MB24EX D4	60n	-APR SBUS ERR H	R<1>	MB21EX B7	60n	CLK D H	R152<1>	MB22EX D6	60n	EBUS REG 04 H
R65<1>	MB23EX C7	60n	%E40<15>	R117<1>	MB25EX B7	60	CBUS PAR LEFT RE H	R104<1>	MB21EX B7	60n	CLK E H	R140<1>	MB26EX C3	60n	EBUS REG 04 IN H
R66<1>	MB21EX B7	60n	%E40<2>	R113<1>	MB2 EX B7	60	CBUS PAR RIGHT RE H	R93<1>	MB21EX B7	60n	CLK F H	R151<1>	MB22EX D6	60n	EBUS REG 05 H
R76<1>	MB21EX B2	60n	%E49<6>	R103<1>	MB26EX C6	60n	CCA REF H	R112<1>	MB21EX B7	60n	CLK MB2 H	R141<1>	MB26EX C3	60n	EBUS REG 05 IN H
R31<1>	MB24EX C7	60n	%E52<2>	R50<1>	MB26EX B3	60n	-CCL CH TEST MB PAR H	R96<1>	MB24EX A5	60n	CORE BUSY A H	R190<1>	MB22EX D6	60n	EBUS REG 06 H
R30<1>	MB24EX D6	60n	%E52<3>	R115<1>	MB2 EX A7	60n	CCL DATA REVERSE H	R60<1>	MB24EX A5	60n	CORE BUSY IN A H	R144<1>	MB26EX C3	60n	EBUS REG 06 IN H
R139<1>	MB23EX A5	60n	%E59<2>	R64<1>	MB21EX C7	60n	CCL HOLD MEM H	R59<1>	MB21EX A2	60n	CORE RD IN PROG H	R153<1>	MB22EX D6	60n	EBUS REG 07 H
R137<1>	MB23EX B7	60n	%E57<15>	R211<1>	MB25EX A5	60n	CCL ODD MC PAR H	R111<1>	MB25EX D7	60n	CRC CBUS OUT HOLD H	R157<1>	MB22EX D5	60n	EBUS REG 08 H
R136<1>	MB23EX D3	60n	%E57<3>	R212<1>	MB25EX A5	60n	CCM ODD ADR PAR H	R206<1>	MB25EX C5	60n	CRC CH BUF ADR 0 H	R155<1>	MB22EX D5	60n	EBUS REG 14 H
R26<1>	MB23EX A2	60n	%E59<14>	R172<1>	MB25EX A5	60	CCM PAR BIT H	R200<1>	MB25EX C5	60n	CRC CH BUF ADR 1 H	R109<1>	MB22EX D5	60n	EBUS REG 15 H
R27<1>	MB23EX A2	60n	%E59<15>	R100<1>	MB25EX D3	60n	CH BUF 00-17 PAR H	R207<1>	MB25EX C5	60n	CRC CH BUF ADR 2 H	R192<1>	MB22EX D5	60n	EBUS REG 16 H
R25<1>	MB23EX B2	60n	%E59<2>	R110<1>	MB25EX D2	60n	CH BUF 10-35 PAR H	R203<1>	MB25EX C5	60n	CRC CH BUF ADR 3 H	R195<1>	MB22EX D3	60n	EBUS REG 17 H
R24<1>	MB23EX B2	60n	%E59<3>	R126<1>	MB25EX C5	60n	CH BUF ADR 0 H	R201<1>	MB25EX C5	60n	CRC CH BUF ADR 4 H	R194<1>	MB22EX D3	60n	EBUS REG 18 H
R225<1>	MB26EX D6	60n	%E60<2>	R125<1>	MB25EX C5	60n	CH BUF ADR 1 H	R200<1>	MB25EX C5	60n	CRC CH BUF ADR 5 H	R150<1>	MB22EX D3	60n	EBUS REG 19 H
R130<1>	MB23EX A4	60n	%E62<2>	R124<1>	MB25EX C5	60n	CH BUF ADR 2 H	R132<1>	MB25EX B5	60n	CRC CH BUF ADR 6 H	R159<1>	MB22EX D3	60n	EBUS REG 20 H
R51<1>	MB26EX C7	60n	%E63<15>	R127<1>	MB25EX C5	60n	CH BUF ADR 3 H	R54<1>	MB21EX C5	60n	CSH CHAN CYC A H	R190<1>	MB22EX D2	60n	EBUS REG 21 H
R229<1>	MB24EX B5	60n	%E63<2>	R120<1>	MB25EX C5	60n	CH BUF ADR 4 H	R40<1>	MB21EX C5	60n	-CSH CHAN CYC A H	R197<1>	MB22EX D2	60n	EBUS REG 22 H
R177<1>	MB23EX C3	60n	%E65<6>	R129<1>	MB25EX C5	60n	CH BUF ADR 5 H	R23<1>	MB26EX B3	60n	-CSH EBOX CYC A H	R165<1>	MB22EX D2	60n	EBUS REG 23 H
R100<1>	MB23EX C3	60n	%E65<7>	R170<1>	MB2 EX B5	60n	CH BUF ADR 6 H	R193<1>	MB26EX D6	60n	CSH PAR BIT H	R163<1>	MB22EX D2	60n	EBUS REG 24 H
R05<1>	MB23EX B2	60n	%E66<2>	R169<1>	MB2EX C7	60n	CH BUF IN 00-17 PAR H	R219<1>	MB26EX D7	60n	CSH PAR BIT 00 A H	R202<1>	MB22EX D1	60n	EBUS REG 25 H

NOTE:

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

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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
	MB537-00003	B			

digital		DRN. <i>C. Smith</i>	DATE 12-27-73	ENG. <i>P. Guglielmi</i>	DATE 12-27-73
		CHK'D.	DATE	DESIGN LOCATION	
			127-OCT-73 21148	NEXT HIGHER ASSEMBLY:	
			FIRST USED ON OPTION/MODEL: KL10	B-DD-MB537-0	

TITLE: MBOX CONTROL #4 TERMINATORS			
SIZE	CODE	NUMBER	REV.
D	CS	M8537-0-RES	BI

D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R199(1)	MB22EX D1	68Ω	EBUS REG 26 H	R74(1)	MB24EX A2	68Ω	-MEM WR RQ A H
R154(1)	MB22EX D1	68Ω	EBUS REG 34 H	R97(1)	MB26EX C6	68Ω	MEM WRITE H
R156(1)	MB22EX D1	68Ω	EBUS REG 35 H	R20(1)	MB23EX C3	68Ω	MR RESET 06 H
R161(1)	MB22EX B7	68Ω	EBUS SEL 1 H	R236(1)	MB23EX C3	68Ω	MR RESET A H
R160(1)	MB22EX B7	68Ω	EBUS SEL 2 H	R223(1)	MB23EX C3	68Ω	-MR RESET A H
R92(1)	MB26EX B2	68Ω	ERA SEL H	R84(1)	MB21EX A3	68Ω	-MTR CCA WRITEBACK H
R37(1)	MB23EX C2	68Ω	ERR HOLD H	R73(1)	MB23EX C6	68Ω	NXM CLR DONE H
R196(1)	MB23EX C2	68Ω	-HOLD ERA H	R135(1)	MB23EX C6	68Ω	-NXM CLR DONE H
R227(1)	MB23EX C1	68Ω	HOLD ERR REG H	R18(1)	MB23EX D6	68Ω	NXM CLR T0 H
R142(1)	MB22EX B5	68Ω	-LOAD EBUS REG A H	R71(1)	MB23EX B3	68Ω	-NXM CRY A H
R143(1)	MB22EX A5	68Ω	-LOAD EBUS REG B H	R70(1)	MB23EX B1	68Ω	-NXM CRY B H
R94(1)	MB24EX C6	68Ω	-LOAD MB # H	R233(1)	MB23EX B6	68Ω	NXM FLG H
R213(1)	MB25EX D5	68Ω	MB CH BUF 00-17 PAR H	R36(1)	MB23EX C6	68Ω	-NXM FLG H
R214(1)	MB25EX D5	68Ω	MB CH BUF 18-35 PAR H	R164(1)	MB24EX D5	68Ω	NXM T2 H
R90(1)	MB24EX B7	68Ω	MB DATA CODE 1 H	R81(1)	MB24EX D5	68Ω	NXM T3 H
R89(1)	MB24EX B7	68Ω	MB DATA CODE 2 H	R80(1)	MB24EX C5	68Ω	NXM T4 H
R98(1)	MB24EX B7	68Ω	MB DATA SOURCE 1 H	R79(1)	MB24EX C5	68Ω	NXM T5 H
R101(1)	MB24EX B7	68Ω	MB DATA SOURCE 2 H	R231(1)	MB24EX B5	68Ω	NXM T6 H
R218(1)	MB24EX D2	68Ω	MB PAR ERR H	R38(1)	MB24EX B3	68Ω	-NXM T6,7 H
R4(1)	MB24EX D3	68Ω	MB PAR ODD H	R121(1)	MB25EX C7	68Ω	PAG MB 00-17 PAR H
R61(1)	MB21EX D7	68Ω	MB REQ HOLD H	R120(1)	MB25EX C7	68Ω	PAG MB 18-35 PAR H
R5(1)	MB24EX D3	68Ω	-MB TEST PAR A IN H	R106(1)	MB22EX D5	68Ω	PAGED REF H
R35(1)	MB26EX A3	68Ω	-MB TEST PAR B IN H	R109(1)	MB26EX D3	68Ω	PF HOLD 01 IN H
R104(1)	MB24EX B7	68Ω	MB WD SEL 1 H	R102(1)	MB26EX D3	68Ω	PF HOLD 02 IN H
R106(1)	MB24EX B7	68Ω	MB WD SEL 2 H	R107(1)	MB26EX D3	68Ω	PF HOLD 03 IN H
R3(1)	MB23EX D3	68Ω	MBOX NXM ERR H	R100(1)	MB26EX C3	68Ω	PF HOLD 04 IN H
R130(1)	MB23EX D4	68Ω	MBOX NXM ERR CLR H	R99(1)	MB26EX C3	68Ω	PF HOLD 05 IN H
R237(1)	MB24EX A5	68Ω	MB24 CORE BUSY A H	R146(1)	MB22EX D6	68Ω	PT CACHE H
R52(1)	MB24EX A5	68Ω	-MB24 CORE BUSY A H	R178(1)	MB23EX B2	68Ω	RQ HOLD DLY H
R95(1)	MB24EX C4	68Ω	MEM ADR PAR ERR H	R181(1)	MB23EX C3	68Ω	RQ HOLD FF H
R91(1)	MB24EX D4	68Ω	MEM ERROR H	R215(1)	MB24EX D2	68Ω	SBUS ERR FLG H
R171(1)	MB25EX C3	68Ω	MEM PAR IN H				
R11(1)	MB24EX A2	68Ω	MEM RD RQ A H				
R72(1)	MB24EX A2	68Ω	-MEM RD RQ A H				
R41(1)	MB24EX A2	68Ω	MEM RD RQ B H				
R9(1)	MB23EX C3	68Ω	MEM START C H				
R32(1)	MB23EX C3	68Ω	-MEM START C H				
R205(1)	MB25EX B3	68Ω	-MEM TO C EN H				
R204(1)	MB25EX B3	68Ω	MEM TO C SEL 1 H				
R209(1)	MB25EX B3	68Ω	MEM TO C SEL 2 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. Ω INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER

REV. BI  
NUMBER M8537-0-RES  
CODE CS  
SIZE D

303

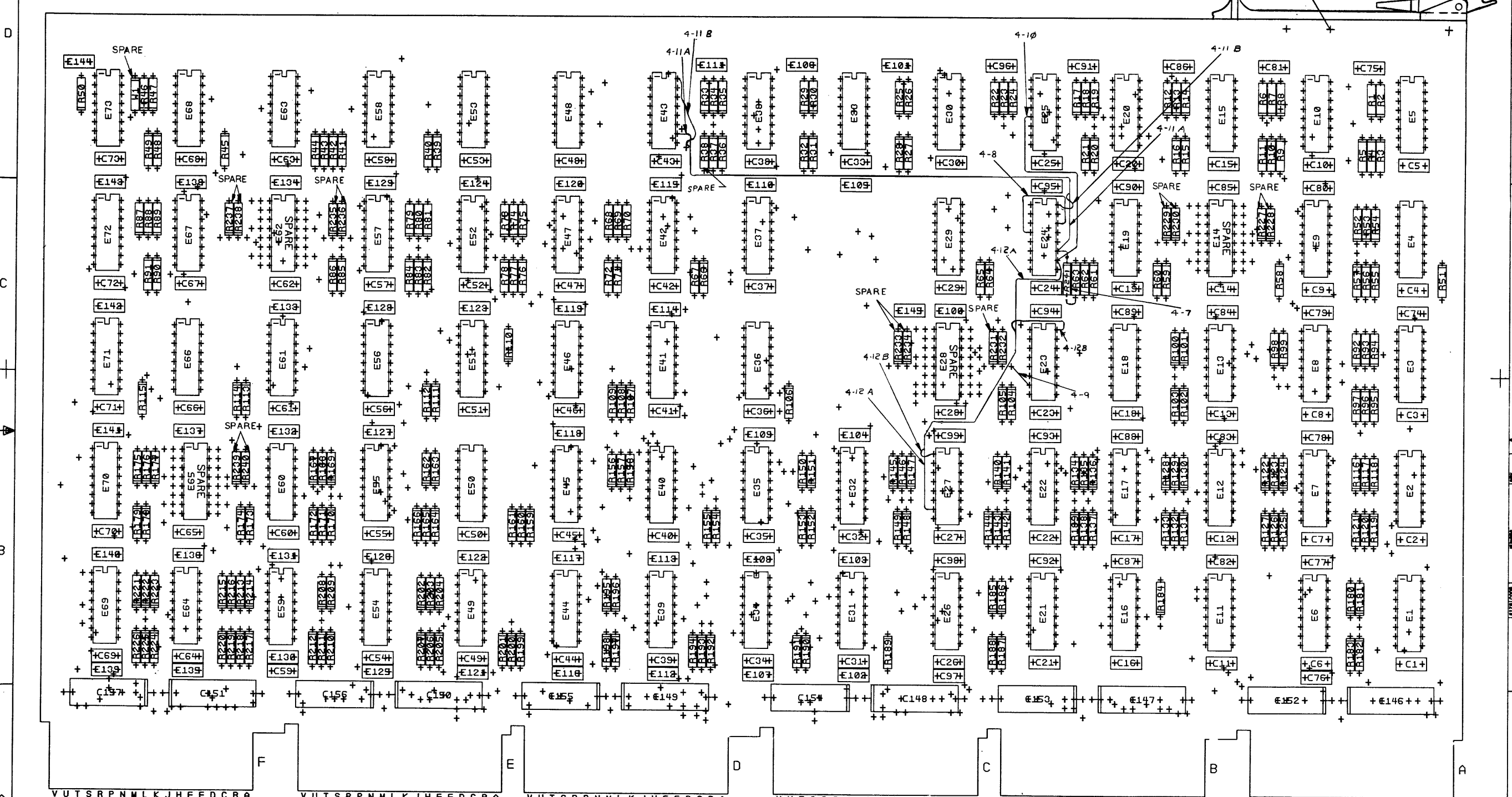
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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>E. Smith</i>	DATE 27-02-75	ENG. <i>P. Condit</i>	DATE 12-04-76	TITLE: MBOX CONTROL #4 TERMINATORS
	CHK'D.	DATE	BOARD LOCATION: SHEET 2 OF 2	SIZE CODE D CS	NUMBER M8537-0-RES
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8537-0		REV. BI	



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NOTES:

CHG	NO	REV

CHG	NO	REV

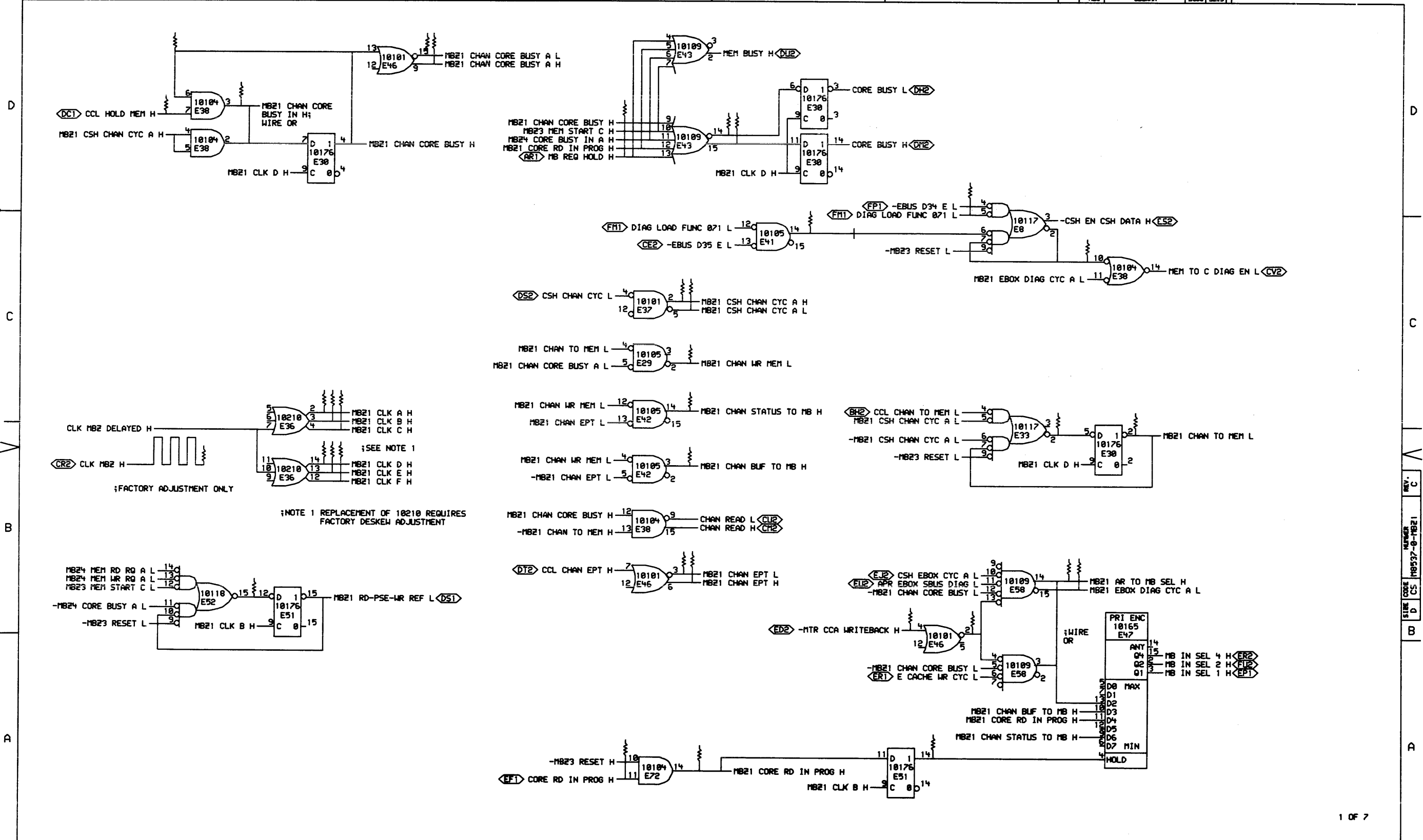
ETCH REV.	
P.C. DESIGN DATA BASE REV.	C

SIGNATURES	DATE
DRN. <i>[Signature]</i>	5/18/76
CHK'D. <i>[Signature]</i>	5/20/76
ENG. <i>[Signature]</i>	4/21/76
PROJ. ENG. <i>[Signature]</i>	4/21/76
PROD. <i>[Signature]</i>	4/21/76

digital	TITLE	MBOX
CONTROL #4	SIZE	CODE
	NUMBER	
	D UA M8537-0-0	REV
		D

305

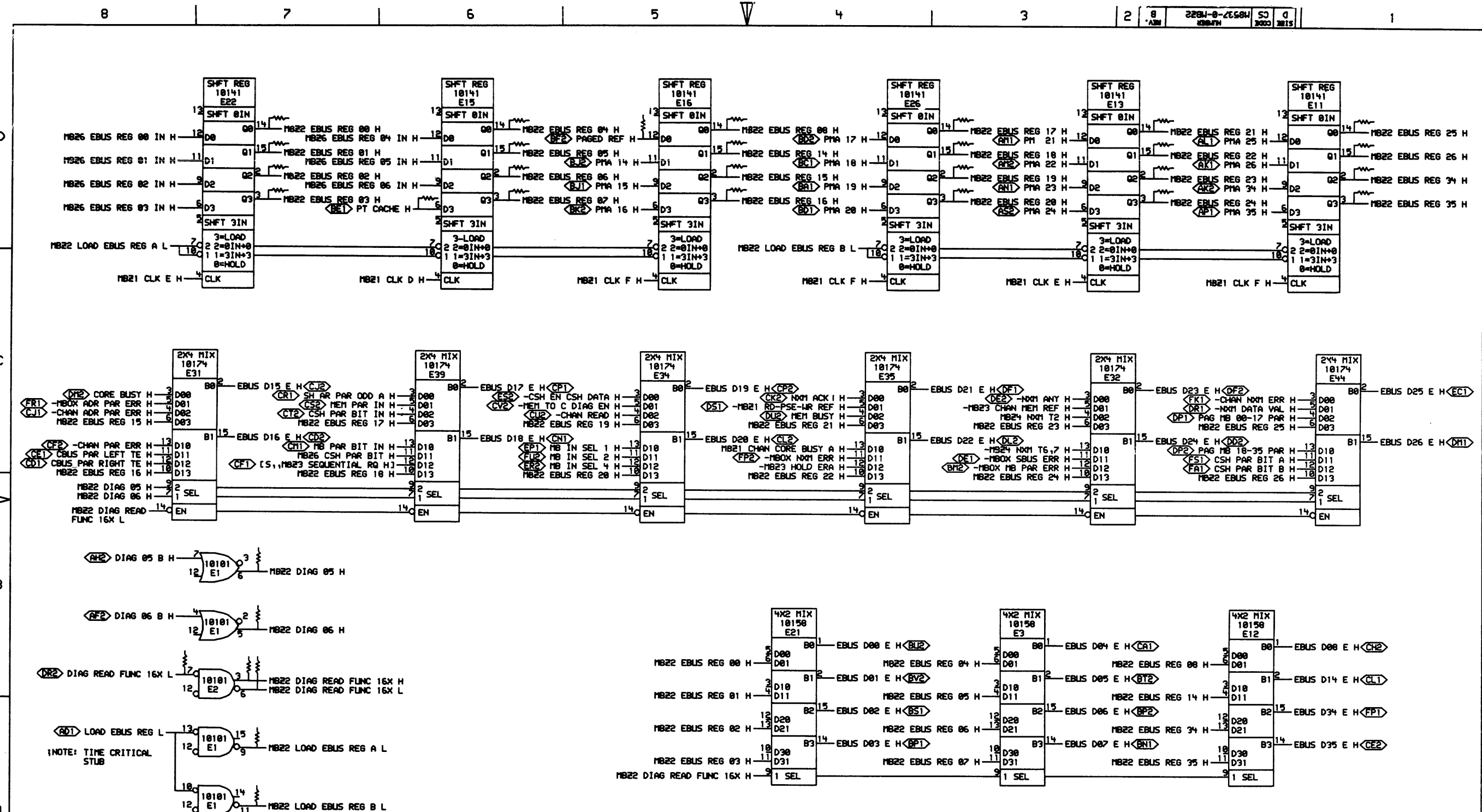
MR1 MS#



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REVISIONS		
CHK	CHANGE NO.	REV

<b>digital</b>	DATE: 11-22-76	ENG: J. Dale	DATE: 11-22-76	TITLE: CORE BUSY, MB IN SEL N, CHAN CTL
DESIGNER: D. J. 1291	DATE: 11-22-76	LOC: 10	REV: 26	
FIRST USED ON OPTION MODEL: KL10				NEXT HIGHER ASSEMBLY: B-DD-MB537-0
SIZE: D	CODE: CS	NUMBER: MB537-0-MB21	REV: C	



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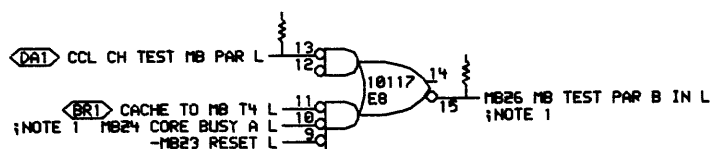
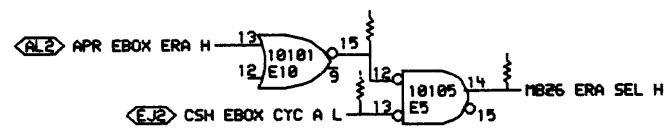
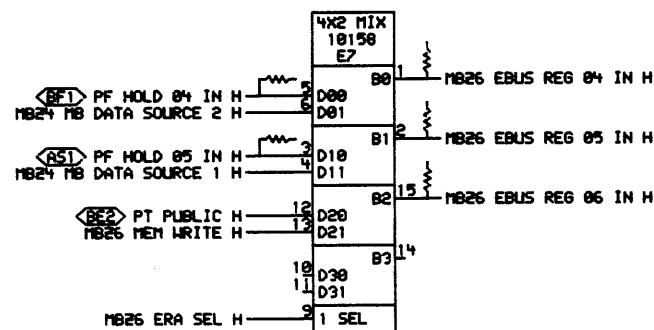
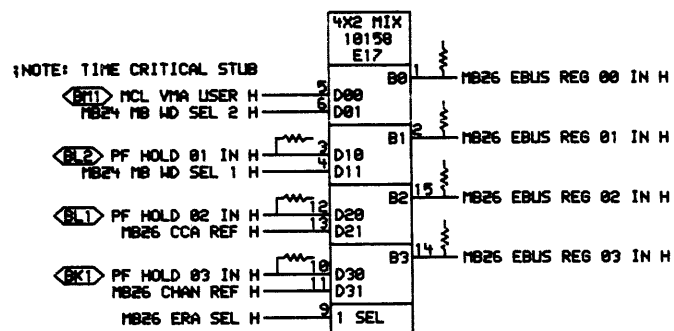
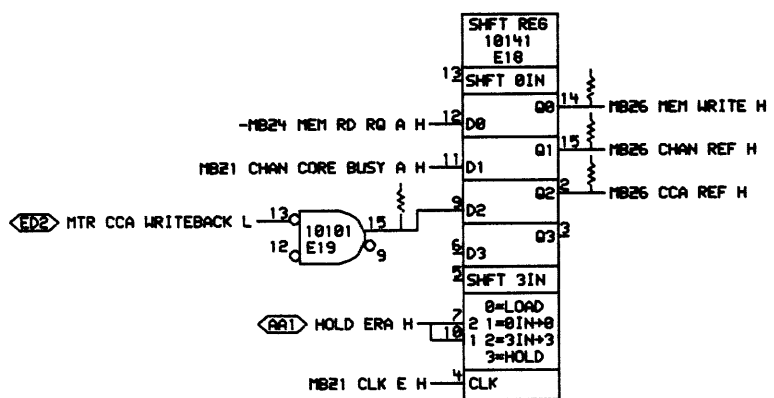
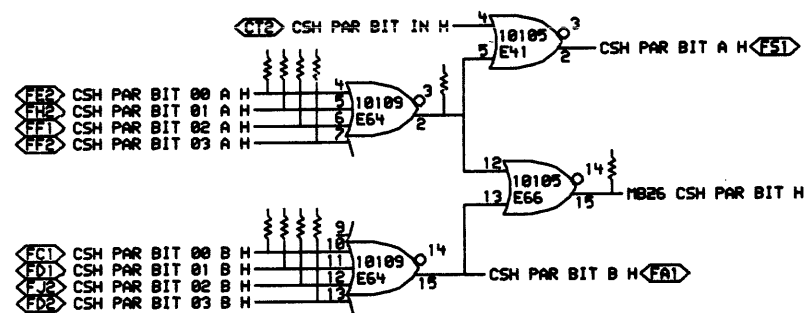
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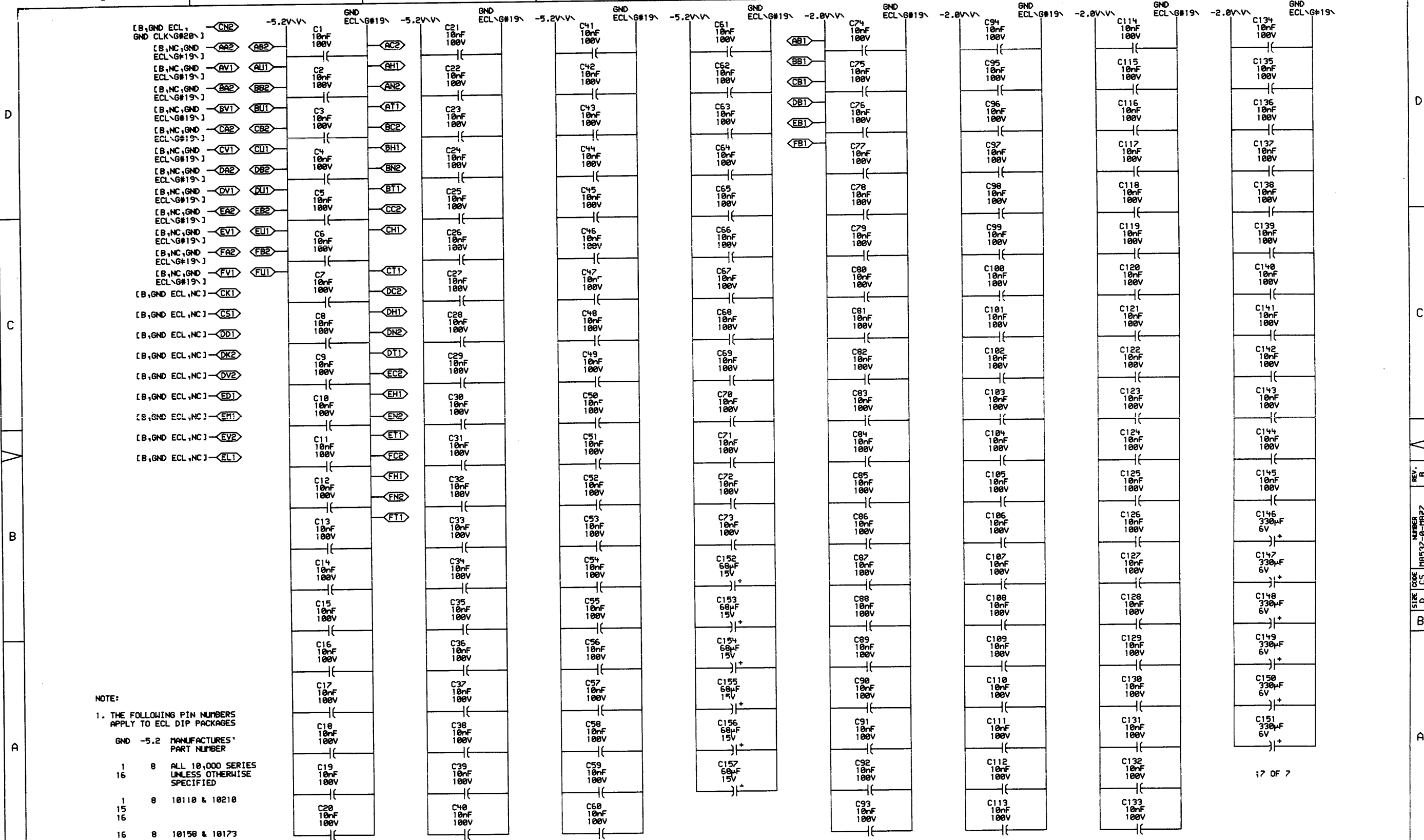


NOTE 1: TIME CRITICAL SIGNAL

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REVISIONS		
CHK	CHANGE NO.	REV.

digital	DATE	14 SEP 76	ENG	John D. Allen	DATE	17 SEP 76	TITLE:	EBUS REG IN MIX	
	DATE	27 AUG 76	BOARD LOCATION:	4A228	DATE	17 SEP 76	CSH PAR BIT		
MB26ER, DPK 4, 175	127 AUG 76 11:24	NEXT HIGHER ASSEMBLY:	B-DD-M8537-0	SIZE	D	CODE	CS	NUMBER	M8537-0-MB26
FIRST USED ON OPTION/MODEL:	KL10			REV.					C



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10150 & 10173

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REVISIONS		
CHK	CHANGE NO.	REV

digital  
 DATE 11-22-76 ENG John D. Allen  
 DATE 11-22-76 BOARD LOCATION: 4A20  
 DATE 11-22-76 SHEET 1 OF 1  
 MBEZER.DRAW 4,175 12 JUL 76 15:37 NEXT HIGHER ASSEMBLY:  
 FIRST USED ON OPTION MODEL: KL10 B-DD-M8537-0

TITLE: MBOX CONTROL #4 POWER, GND, CAP  
 SIZE CODE D CS NUMBER M8537-0-MBZ7 REV. B

D  
 C  
 B  
 A  
 REV. B  
 NUMBER M8537-0-MBZ7  
 SITE CODE CS  
 CD  
 A

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R13(1)	M824	D3	68n	%E10(14)
R1(1)	M826	B3	68n	%E10(15)
R52(1)	M824	C3	68n	%E10(3)
R19(1)	M824	C3	68n	%E19(14)
R103(1)	M826	B7	68n	%E19(15)
R16(1)	M824	D3	68n	%E2(14)
R20(1)	M824	B3	68n	%E2(15)
R18(1)	M824	D2	68n	%E20(14)
R21(1)	M824	C2	68n	%E20(2)
R24(1)	M824	C2	68n	%E20(3)
R232(1)	M823	D7	68n	%E24(14)
R104(1)	M823	D7	68n	%E24(2)
R17(1)	M824	B5	68n	%E24(3)
R3(1)	M824	B4	68n	%E25(15)
R89(1)	M824	D7	68n	%E25(2)
R66(1)	M824	B2	68n	%E25(3)
R105(1)	M823	D7	68n	%E29(14)
R64(1)	M824	B2	68n	%E30(13)
R26(1)	M821	B2	68n	%E33(2)
R90(1)	M821	C4	68n	%E4(14)
R25(1)	M821	D4	68n	%E43(14)
R23(1)	M821	D4	68n	%E43(15)
R40(1)	M821	B3	68n	%E46(2)
R75(1)	M821	A3	68n	%E51(14)
R100(1)	M823	D2	68n	%E51(2)
R110(1)	M821	B7	68n	%E52(15)
R80(1)	M823	C7	68n	%E52(2)
R80(1)	M824	C7	68n	%E57(2)
R39(1)	M823	A5	68n	%E57(3)
R112(1)	M823	D3	68n	%E61(14)
R79(1)	M823	B7	68n	%E61(2)
R109(1)	M826	D6	68n	%E64(2)
R86(1)	M824	C7	68n	%E67(15)
R49(1)	M824	D6	68n	%E67(3)
R87(1)	M823	A6	68n	%E68(4)
R40(1)	M823	A7	68n	%E70(2)
R85(1)	M823	A6	68n	%E71(2)
R147(1)	M823	C3	68n	%E71(6)
R46(1)	M823	C3	68n	%E71(7)
R175(1)	M823	B6	68n	%E72(2)

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R84(1)	M823	A2	68n	%E72(3)
R90(1)	M824	D6	68n	%E72(9)
R32(1)	M821	C2	68n	%E8(2)
R22(1)	M824	C2	68n	%E9(3)
R54(1)	M824	D6	68n	-ACKN PULSE H
R143(1)	M823	C2	68n	APR ANY EBOX ERR FLG H
R9(1)	M824	C4	68n	-APR MB PAR ERR H
R226(1)	M823	D5	68n	-APR NXM ERP H
R110(1)	M824	B3	68n	-APR S ADR P ERR H
R119(1)	M824	D4	68n	-APR S BUS ERR H
R204(1)	M825	B7	68n	CBUS PAR LEFT RE H
R203(1)	M825	B7	68n	CBUS PAR RIGHT RE H
R92(1)	M826	B3	68n	-CCL CH TEST MB PAR H
R201(1)	M825	A7	68n	CCL DATA REVERSE H
R36(1)	M821	D8	68n	CCL HOLD MEM H
R170(1)	M825	A5	68n	CCL ODD WC PAR H
R179(1)	M825	A5	68n	CCU ODD ADR PAR H
R170(1)	M825	C3	68n	-CH BUF WP 06 H
R106(1)	M821	B7	68n	CLK MB2 H
R41(1)	M824	A5	68n	CORE BUSY A H
R91(1)	M821	A5	68n	CORE RD IN PROG H
R159(1)	M825	D7	68n	CRC CBUS OUT HOLD H
R209(1)	M825	C5	68n	CPC CH BUF ADP 0 H
R200(1)	M825	C5	68n	CRC CH BUF ADR 1 H
R211(1)	M825	C5	68n	CRC CH BUF ADR 2 H
R210(1)	M825	C5	68n	CRC CH BUF ADR 3 H
R206(1)	M825	C5	68n	CRC CH BUF ADR 4 H
R202(1)	M825	C5	68n	CRC CH BUF ADR 5 H
R111(1)	M825	B5	68n	CRC CH BUF ADR 6 H
R2(1)	M826	B3	68n	-CSH EBOX CYC A H
R222(1)	M826	D7	68n	CSH PAR BIT 00 A H
R220(1)	M826	C7	68n	CSH PAR BIT 00 B H
R223(1)	M826	D7	68n	CSH PAR BIT 01 A H
R219(1)	M826	C7	68n	CSH PAR BIT 01 B H
R225(1)	M826	D7	68n	CSH PAR BIT 02 A H
R210(1)	M826	C7	68n	CSH PAR BIT 02 B H
R224(1)	M826	D7	68n	CSH PAR BIT 03 A H
R215(1)	M826	C7	68n	CSH PAR BIT 03 B H
R99(1)	M821	D3	68n	-DIAG LOAD FUNC 071 H
R120(1)	M822	B8	68n	-DIAG READ FUNC 16X H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R102(1)	M824	B7	68n	MB DATA CODE 1 H
R100(1)	M824	B7	68n	MB DATA CODE 2 H
R50(1)	M824	D3	68n	MB PAR ODD H
P35(1)	M821	D5	68n	MB REQ HOLD H
P57(1)	M824	D3	68n	-MB TEST PAR A IN H
P60(1)	M821	B2	68n	MB21 AR TO MB SEL H
R72(1)	M821	B5	68n	MB21 CHAN BUF TO MB H
P50(1)	M821	D8	68n	MB21 CHAN CORE BUSY H
R100(1)	M821	D6	68n	MB21 CHAN CORE BUSY A H
R65(1)	M821	D6	68n	-MB21 CHAN CORE BUSY A H
R27(1)	M821	D7	68n	MB21 CHAN CORE BUSY IN H
R70(1)	M821	B5	68n	MB21 CHAN EPT H
R67(1)	M821	B5	68n	-MB21 CHAN EPT H
R71(1)	M821	C5	68n	MB21 CHAN STATUS TO MB H
P29(1)	M821	B2	68n	-MB21 CHAN TO MEM H
R69(1)	M821	C5	68n	-MB21 CHAN WR MEM H
R45(1)	M821	C7	68n	MB21 CLK A H
P03(1)	M821	C7	68n	MB21 CLK B H
P207(1)	M821	C7	68n	MB21 CLK C H
P14(1)	M821	B7	68n	MB21 CLK D H
P101(1)	M821	B7	68n	MB21 CLK E H
R101(1)	M821	B7	68n	MB21 CLK F H
R33(1)	M821	A5	68n	MB21 CORE RD IN PROG H
P37(1)	M821	C5	68n	MB21 CSH CHAN CYC A H
R30(1)	M821	C5	68n	-MB21 CSH CHAN CYC A H
R31(1)	M821	B2	68n	-MB21 EBOX DIAG CYC A H
P197(1)	M822	B7	68n	MB22 DIAG 05 H
R199(1)	M822	B7	68n	MB22 DIAG 06 H
R131(1)	M822	B7	68n	MB22 DIAG READ FUNC 16X H
R195(1)	M822	B7	68n	-MB22 DIAG READ FUNC 16X H
R100(1)	M822	D7	68n	MB22 EBUS REG 00 H
R105(1)	M822	D7	68n	MB22 EBUS REG 01 H
R106(1)	M822	D7	68n	MB22 EBUS REG 02 H
R107(1)	M822	D7	68n	MB22 EBUS REG 03 H
P96(1)	M822	D6	68n	MB22 EBUS REG 04 H
R93(1)	M822	D6	68n	MB22 EBUS REG 05 H
P94(1)	M822	D6	68n	MB22 EBUS REG 06 H
P95(1)	M822	D6	68n	MB22 EBUS REG 07 H
R132(1)	M822	D5	68n	MB22 EBUS REG 08 H
R130(1)	M822	D5	68n	MB22 EBUS REG 14 H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R190(1)	M822	D5	68n	MB22 EBUS REG 15 H
R109(1)	M822	D5	68n	MB22 EBUS REG 16 H
R196(1)	M822	D3	68n	MB22 EBUS REG 17 H
R194(1)	M822	D3	68n	MB22 EBUS REG 18 H
R192(1)	M822	D3	68n	MB22 EBUS REG 19 H
R191(1)	M822	D3	68n	MB22 EBUS REG 20 H
R154(1)	M822	D2	68n	MB22 EBUS REG 21 H
R153(1)	M822	D2	68n	MB22 EBUS REG 22 H
R152(1)	M822	D2	68n	MB22 EBUS REG 23 H
R149(1)	M822	D2	68n	MB22 EBUS REG 24 H
R200(1)	M822	D1	68n	MB22 EBUS REG 25 H
R190(1)	M822	D1	68n	MB22 EBUS REG 26 H
R122(1)	M822	D1	68n	MB22 EBUS REG 34 H
R127(1)	M822	D1	68n	MB22 EBUS REG 35 H
R11(1)	M822	A7	68n	-MB22 LOAD EBUS REG A H
R102(1)	M822	A7	68n	-MB22 LOAD EBUS REG B H
R12(1)	M823	B5	68n	-MB23 A CHANGE COMING H
R107(1)	M823	B6	68n	-MB23 CHAN MEM REF H
R53(1)	M823	C2	68n	MB23 ERR HOLD H
R150(1)	M823	C2	68n	-MB23 HOLD ERA H
R51(1)	M823	C1	68n	MB23 HOLD ERR REG H
R144(1)	M823	D3	68n	MB23 MBOX NXM ERR H
R113(1)	M823	D4	68n	MB23 MBOX NXM ERR CLR H
R24(1)	M823	C3	68n	MB23 MEM START C H
R01(1)	M823	C3	68n	-MB23 MEM START C H
R02(1)	M823	C6	68n	MB23 NXM CLR DONE H
R114(1)	M823	C6	68n	-MB23 NXM CLR DONE H
R63(1)	M823	D6	68n	MB23 NXM CLR T0 H
R73(1)	M823	B5	68n	-MB23 NXM CRY A H
R74(1)	M823	B3	68n	-MB23 NXM CRY B H
R140(1)	M823	C6	68n	MB23 NXM FLG H
R55(1)	M823	C6	68n	-MB23 NXM FLG H
R20(1)	M823	C3	68n	MB23 RESET H
R47(1)	M823	C3	68n	-MB23 RESET H
R146(1)	M823	A2	68n	MB23 R0 HOLD DLY H
R140(1)	M824	C2	68n	MB24 ADR PAR ERR FLG H
R76(1)	M824	A5	68n	MB24 CORE BUSY A H
R97(1)	M824	A5	68n	-MB24 CORE BUSY A H
R34(1)	M824	A5	68n	MB24 CORE BUSY IN A H
R103(1)	M824	C6	68n	-MB24 LOAD MB # 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. <i>C. Smith</i>	DATE <i>03-AUG-76</i>	ENG. <i>John Dallen</i>	DATE <i>17 SEPT 76</i>	TITLE: <b>MBOX CONTROL #4 TERMINATORS</b>
	CHK. <i>W. Stephenson</i>	DATE <i>17/01/76</i>	BOARD LOCATION: <i>2</i>	OF <i>2</i>	
FIRST USED ON OPTION/MODEL: <i>KL10</i>					
SIZE CODE	NUMBER	REV.			
<i>D</i>	<i>CS M8537-0-RES</i>	<i>C</i>			

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R124(1)	MB24	B6	68n	MB24 MB DATA SOURCE 1 H	R142(1)	MB26	D3	68n	MB26 EBUS REG 02 IN H
R125(1)	MB24	B6	68n	MB24 MB DATA SOURCE 2 H	R141(1)	MB26	D3	68n	MB26 EBUS REG 03 IN H
R61(1)	MB24	D2	68n	MB24 MB PAR ERR H	R6(1)	MB26	C3	68n	MB26 EBUS REG 04 IN H
R136(1)	MB24	B6	68n	MB24 MB WD SEL 1 H	R7(1)	MB26	C3	68n	MB26 EBUS REG 05 IN H
R137(1)	MB24	B6	68n	MB24 MB WD SEL 2 H	R10(1)	MB26	C3	68n	MB26 EBUS REG 06 IN H
R62(1)	MB24	A2	68n	MB24 MEM RD RQ A H	R121(1)	MB26	B2	68n	MB26 ERA SEL H
R70(1)	MB24	A2	68n	-MB24 MEM RD PQ A H	R56(1)	MB26	A3	68n	-MB26 MB TEST PAR B IN H
R77(1)	MB24	A2	68n	-MB24 MEM WR PQ A H	R116(1)	MB26	C6	68n	MB26 MEM WRITE H
R151(1)	MB24	D5	68n	MB24 NXM T2 H	R59(1)	MB24	C3	68n	MEM ADR PAR ERR H
R44(1)	MB24	D5	68n	MB24 NXM T3 H	R5(1)	MB24	D3	68n	MEM ERROR H
R43(1)	MB24	C5	68n	MB24 NXM T4 H	R161(1)	MB25	C2	68n	MEM PAR IN H
P42(1)	MB24	C5	68n	MB24 NXM T5 H	R117(1)	MB24	A2	68n	MEM RD RQ B H
R4(1)	MB24	B5	68n	MB24 NXM T6 H	R163(1)	MB25	B2	68n	-MEM TO C EN H
R145(1)	MB24	B4	68n	-MB24 NXM T6,7 H	R164(1)	MB25	B2	68n	MEM TO C SEL 1 H
R0(1)	MB24	D2	68n	MB24 SBUS ERP FLG H	R160(1)	MB25	B2	68n	MEM TO C SEL 2 H
R155(1)	MB25	A5	68n	MB25 CCH PAP BIT H	R221(1)	MB23	C3	68n	MR RESET 06 H
R157(1)	MB25	D3	68n	MB25 CH BUF 00-17 PAR H	R60(1)	MB21	B3	68n	-MTR CCA WRITEBACK H
R156(1)	MB25	D2	68n	MB25 CH BUF 18-35 PAR H	R217(1)	MB25	C7	68n	PAG MB 00-17 PAR H
R169(1)	MB25	C5	68n	MB25 CH BUF ADR 0 H	R213(1)	MB25	C7	68n	PAG MB 18-35 PAR H
R160(1)	MB25	C5	68n	MB25 CH BUF ADR 1 H	R104(1)	MB22	D5	68n	PAGED REF H
R167(1)	MB25	C5	68n	MB25 CH BUF ADR 2 H	R135(1)	MB26	D3	68n	PF HOLD 01 IN H
R172(1)	MB25	C5	68n	MB25 CH BUF ADR 3 H	R130(1)	MB26	D3	68n	PF HOLD 02 IN H
R171(1)	MB25	C5	68n	MB25 CH BUF ADR 4 H	R133(1)	MB26	D3	68n	PF HOLD 03 IN H
R174(1)	MB25	C5	68n	MB25 CH BUF ADR 5 H	R126(1)	MB26	C3	68n	PF HOLD 04 IN H
R166(1)	MB25	B5	68n	MB25 CH BUF ADR 6 H	R123(1)	MB26	C3	68n	PF HOLD 05 IN H
R173(1)	MB25	C7	68n	MB25 CH BUF IN 00-17 PAR H	R15(1)	MB22	D6	68n	PT CACHE H
R165(1)	MB25	C7	68n	MB25 CH BUF IN 18-35 PAR H	R115(1)	MB23	C3	68n	RQ HOLD FF H
R212(1)	MB25	A7	68n	MB25 CH BUF MB SEL H					
R150(1)	MB25	A5	68n	MB25 CH BUF PAP BIT H					
R214(1)	MB25	B7	68n	MB25 CH PEG 00-17 PAR H					
R216(1)	MB25	B7	68n	MB25 CH REG 18-35 PAR H					
R205(1)	MB25	B5	68n	MB25 CH REG HOLD H					
R162(1)	MB25	D2	68n	-MB25 LOW H					
R176(1)	MB25	D5	68n	MB25 MB CH BUF 00-17 PAP H					
R177(1)	MB25	D5	68n	MB25 MB CH BUF 18-35 PAR H					
R120(1)	MB26	C6	68n	MB26 CCA REF H					
R129(1)	MB26	C6	68n	MB26 CHAN REF H					
R193(1)	MB26	D6	68n	MB26 CSH PAP BIT H					
R134(1)	MB26	D3	68n	MB26 EBUS REG 00 IN H					
R139(1)	MB26	D3	68n	MB26 EBUS REG 01 IN 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. <i>C. Smith</i>	DATE <i>25-AUG-76</i>	ENG. <i>Alvin D. Allen</i>	DATE <i>17-SEP-76</i>	TITLE: MBOX CONTROL #4 TERMINATORS
	CHK. <i>D. Stephens</i>	DATE <i>11-15-76</i>	BOSS LOCATION: <i>2</i>	OF <i>2</i>	
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8537-0		SIZE CODE D CS	NUMBER M8537-0-RES

REV. C  
 NUMBER M8537-0-RES  
 SIZE CODE D CS  
 B  
 A



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ECO #2 CONTINUED

COMPONENT ADDS AS SHOWN: (WIRE P/N 9105740-55)

- 1. E40 (10105) (P/N 1911402) ONLY IF BOARD IS SOLDERED. UA SHEET 4.
- 2. E304 (68.2L) (P/N 1300219) AND WIRE FROM E38 (9) TO R19.
- 3. E305 (68.2L) (P/N 1300219) AND WIRE FROM E36 (10) TO R254.
- 4. R306 (68.2L) (P/N 1300219) AND WIRE FROM E7 (13) TO R180.
- 5. R307 (68.2L) (P/N 1300219) AND WIRE FROM E59 (11) TO R148.
- 6. R308 (68.2L) (P/N 1300219) AND WIRE FROM E47 (13) TO R86.
- 7. E59 (10136) (P/N 1911500) ONLY IF BOARD IS SOLDERED. UA SHEET 4.
- 8. R203 TO PTH'S NEXT TO R204. UA SHEET 3.

UA SHEET 3.

WIRE ADDS SIDE 2 AS SHOWN: (P/N 9105740-55) UA SHEET 3.

- 1. FROM E71 (12) TO R49.
- 2. FROM E63 (12) TO E64 (10).
- 3. FROM E64 (10) TO SECOND PTH TO LEFT AND BELOW E57 (8).
- 4. FROM E40 (13) TO R203.
- 5. FROM E40 (13) TO R27 (13).
- 6. FROM PTH TO LEFT OF E36 (1) TO PTH BELOW AND TO LEFT OF E39 (9).
- 7. FROM E63 (15) TO JUMPER W3.
- 8. FROM W4 TO E59 (11).
- 9. FROM E47 (2) TO E38 (9).
- 10. FROM E7 (12) TO E7 (13).

TWISTED PAIR WIRE ADD SIDE 1 AS SHOWN (9107768-59): UA SHEET 3.

- 11. A. WHT FROM E82 (13) TO E64 (15).
- B. GRN FROM E82 (16) TO E64 (1).
- 12. A. WHT FROM E71 (12) TO E40 (12).
- B. GRN FROM E71 (16) TO E40 (16).
- 13. A. WHT FROM E40 (12) TO E8 (2).
- B. GRN FROM E40 (16) TO E8 (1).
- 14. A. WHT FROM R300 TO E40 (14).
- B. GRN FROM E14 (1) TO E40 (1).
- 15. A. WHT FROM E47 (13) TO CC1.
- B. GRN FROM E47 (16) TO LEFT LEAD OF C177.
- 16. A. WHT FROM E47 (15) TO E64 (9).
- B. GRN FROM E47 (16) TO E64 (16).
- 17. A. WHT FROM E44 (11) TO PTH ABOVE D41.
- B. GRN FROM E63 (16) TO LEFT LEAD OF C178.
- 18. A. WHT FROM E38 (10) TO E64 (14).
- B. GRN FROM E38 (16) TO E59 (1).
- 19. A. WHT FROM E11 (14) TO E27 (14). DO NOT SOLDER.
- B. GRN FROM E11 (16) TO E27 (16).
- 20. A. WHT FROM E27 (14) TO PTH TO LEFT OF E6 (3).
- B. GRN FROM E27 (1) TO E6 (1).
- 21. A. WHT FROM E38 (6) TO E36 (10).
- B. GRN FROM E38 (1) TO E36 (16).
- 22. A. WHT FROM E36 (13) TO E7 (12).
- B. GRN FROM E36 (16) TO E7 (1).
- 23. A. WHT FROM E7 (15) TO E46 (10).
- B. GRN FROM E7 (16) TO E46 (16).
- 24. A. WHT FROM E7 (9) TO E43 (7).
- B. GRN FROM E7 (1) TO E43 (1). DO NOT SOLDER.
- 25. A. WHT FROM E14 (9) TO E43 (12). DO NOT SOLDER.
- B. GRN FROM E14 (16) TO E43 (16).
- 26. A. WHT FROM E43 (12) TO E59 (15).
- B. GRN FROM E43 (16) TO E59 (16).
- 27. A. WHT FROM E11 (3) TO E43 (13). DO NOT SOLDER.
- B. GRN FROM E11 (1) TO E43 (1).
- 28. A. WHT FROM E43 (13) TO E46 (12). DO NOT SOLDER.
- B. GRN FROM E42 (16) TO E46 (16).

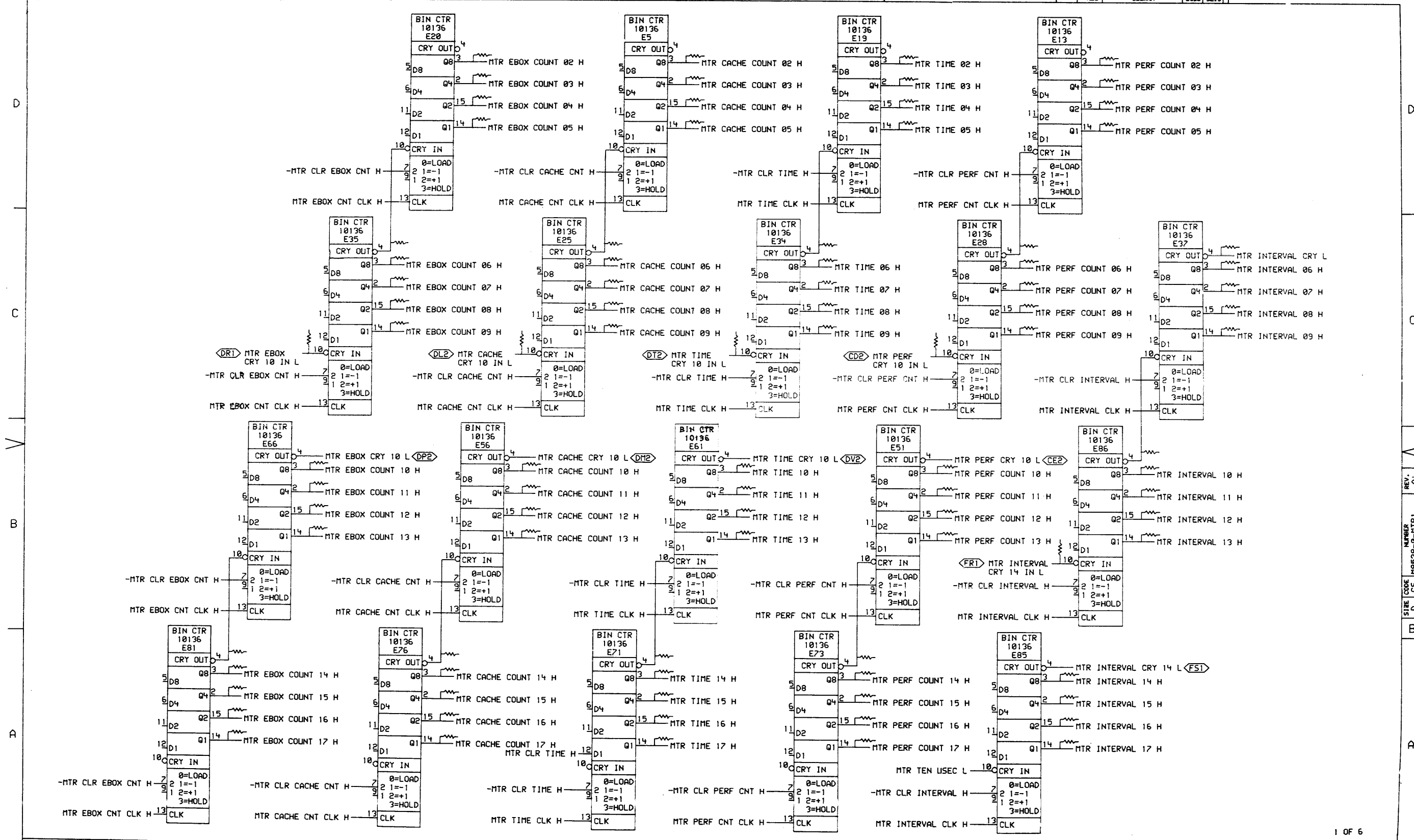
- 29. A. WHT FROM E46 (12) TO E59 (6).
- B. GRN FROM E46 (12) TO E59 (1).
- 30. A. WHT FROM E41 (4) TO FINGER LEAD OF R299.
- B. GRN FROM E41 (1) TO DS1.

D  
C  
B  
A

D  
C  
B  
A

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MTR BOARD	SIZE CODE	D J A M 8538-0-0	NUMBER	0-0-0	REV.	BI
SCALE	SHEET 2 OF 7	DIST.					



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CHK	CHANGE NO.	REV.	DATE
		A	9/1/77
		A	11-APR-77

REV.	DATE	BY
A1	9/1/77	R. M. ...
A	11-APR-77	J. LEONARD



DRN. 8 Foonly  
DATE ENG. 5/1/75  
DATE BOARD LOCATION: 4A33  
DATE 4/30/75 SHEET 1 OF 1

TITLE: METER COUNTERS  
SIZE CODE D CS NUMBER M8538-0-MTR1 REV. A1

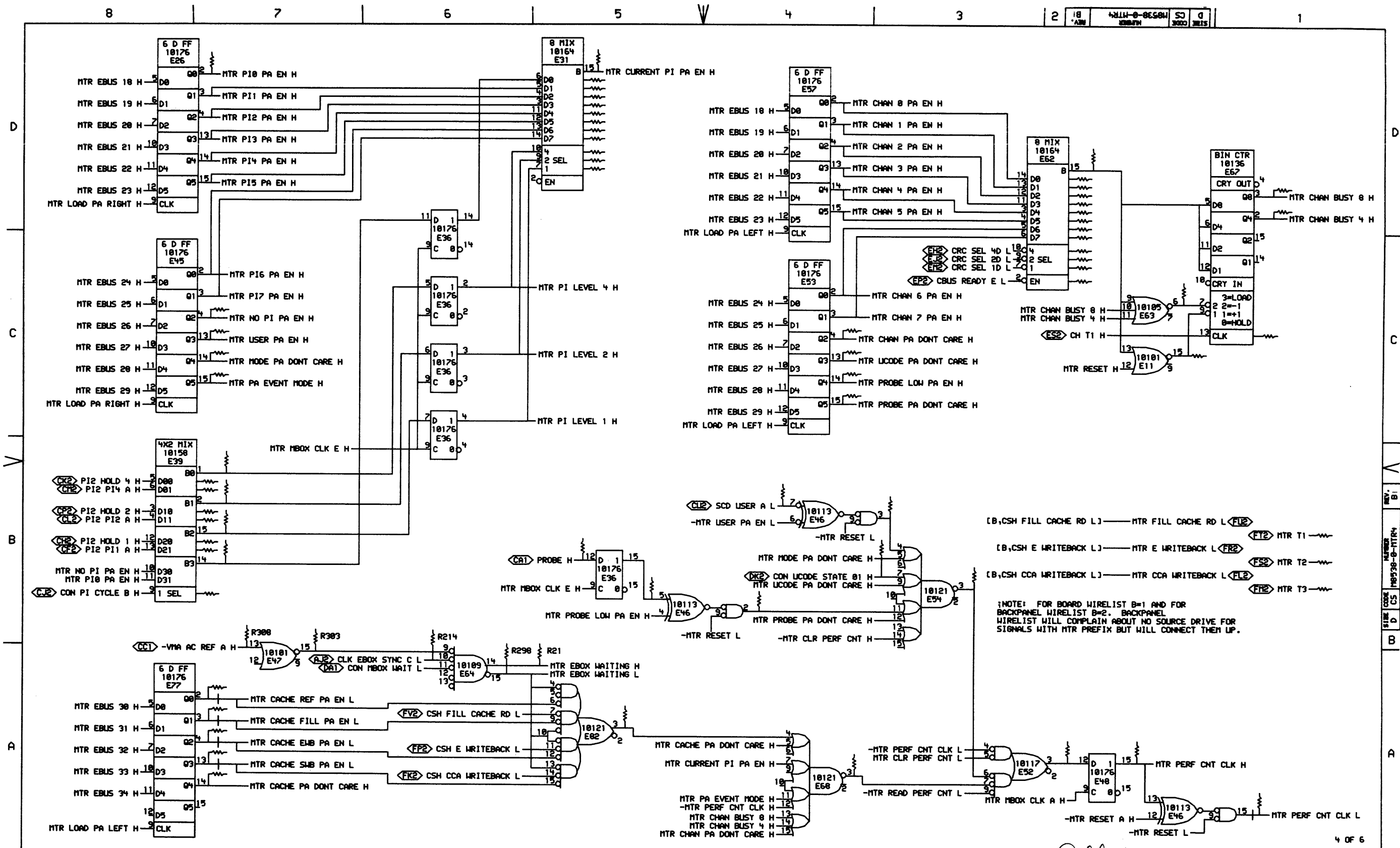
MTR1EXC4,1203 16-APR-75 07:22 NEXT HIGHER ASSEMBLY: B-DD-M8538-0

317









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REVISIONS		NO.	DATE	BY
CHK	CHANGE NO.	REV		
	M8538-00002	B		J. LEONARD

M8538-00003	B1

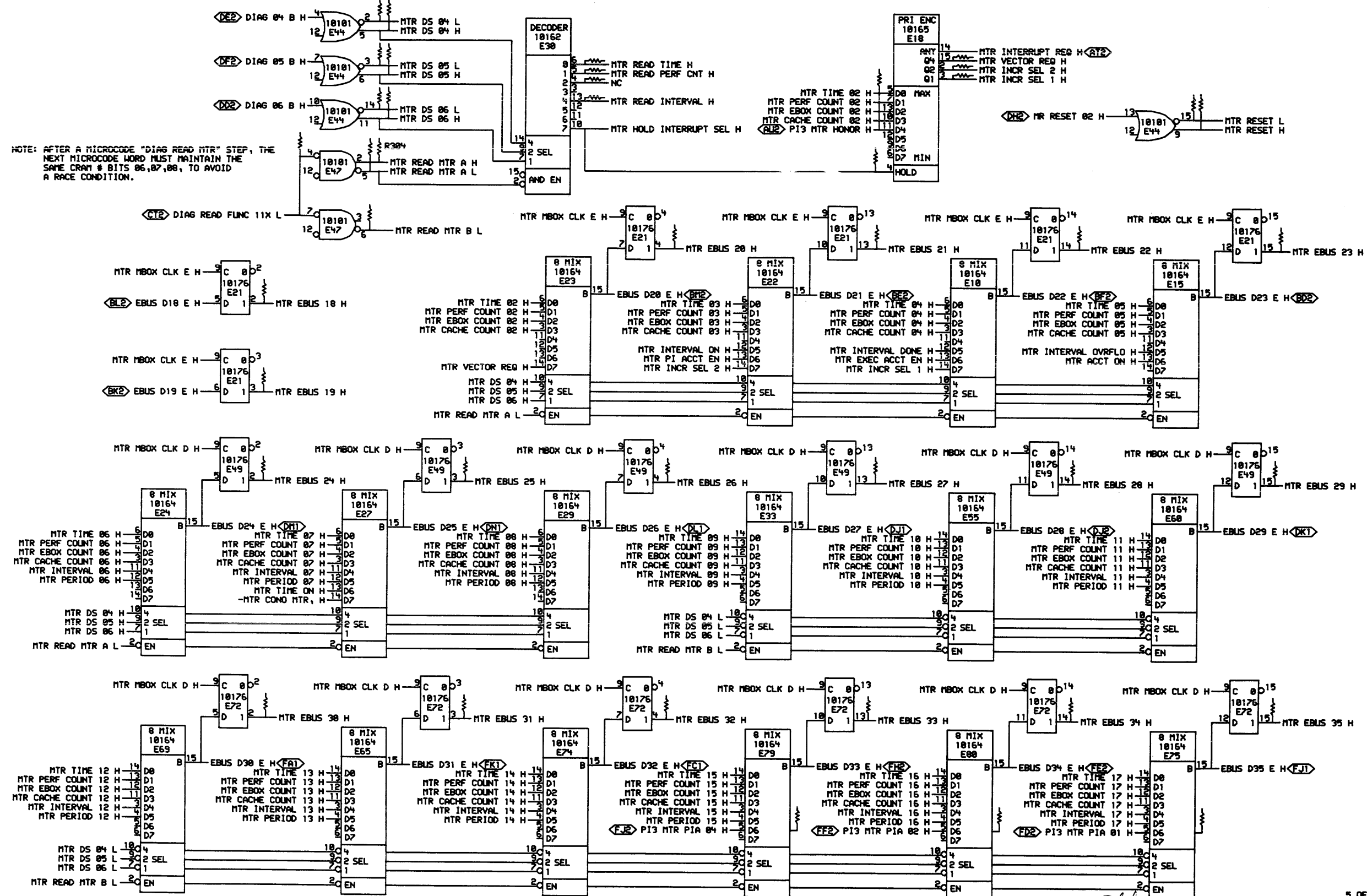
**digital** *Company*

DATE ENG: 17-FEB-76  
 DATE DES: 12-23-75  
 DATE CHECKED: 12-23-75  
 DATE APPROVED: 12-23-75

MTR-EX.DRAW 4,120  
 FIRST USED ON OPTION MODEL: KL10  
 NEXT HIGHER ASSEMBLY: B-DD-M8538-0

TITLE:	PERFORMANCE ANALYSIS
SIZE	D
CODE	CS
NUMBER	M8538-0-MTR4
REV.	B1

NOTE: AFTER A MICROCODE "DIAG READ MTR" STEP, THE NEXT MICROCODE WORD MUST MAINTAIN THE SAME CRAM # BITS 06,07,08, TO AVOID A RACE CONDITION.



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REVISIONS	CHK	CHANGE NO.	REV
M8538-00002	B		
M8538-00003	B1		

M8538-00003	B1		
J. LEONARD			

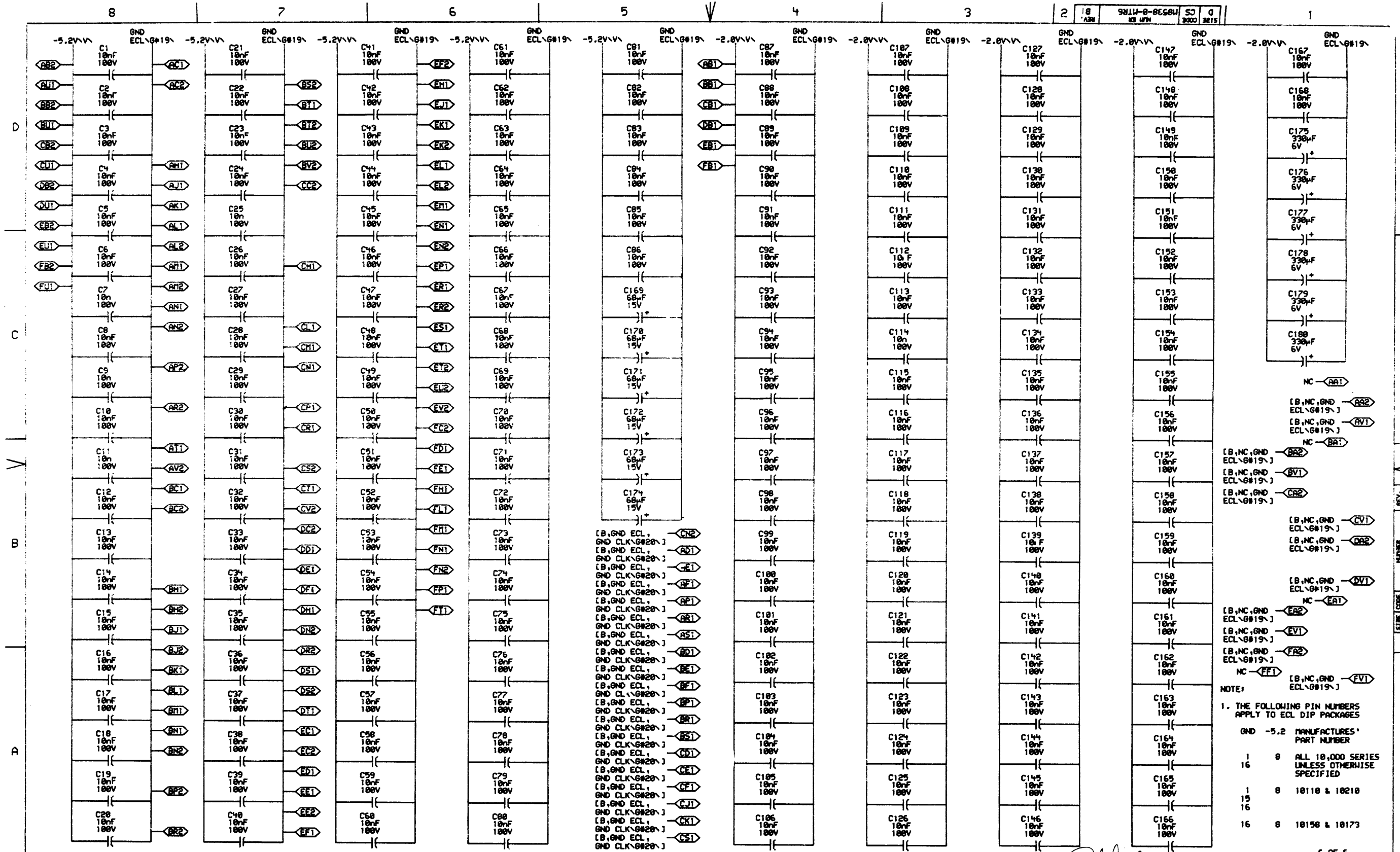
digital

DATE: 12-28-75  
 DATE: 12-28-75  
 DATE: 12-28-75

TITLE: EBUS MIXERS AND BUFFERS

SIZE: D CS NUMBER: M8538-0-MTR5 REV: B1

FIRST USED ON OPTION MODEL: KL10



NC - (AA1)  
 [B,NC,GND ECL\G819] - (AA2)  
 [B,NC,GND ECL\G819] - (AV1)  
 NC - (BA1)  
 [B,NC,GND ECL\G819] - (BA2)  
 [B,NC,GND ECL\G819] - (BV1)  
 [B,NC,GND ECL\G819] - (CB2)  
 [B,NC,GND ECL\G819] - (CV1)  
 [B,NC,GND ECL\G819] - (DA2)  
 [B,NC,GND ECL\G819] - (DV1)  
 NC - (EA1)  
 [B,NC,GND ECL\G819] - (EA2)  
 [B,NC,GND ECL\G819] - (EV1)  
 [B,NC,GND ECL\G819] - (FA2)  
 NC - (FF1)  
 [B,NC,GND ECL\G819] - (FV1)

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10156 & 10173

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REVISIONS		
CHK	CHANGE NO.	REV
	1	1
	2	1

M8538-00003	B1
J. LEONARD	
J. LEONARD	

**digital** *Dr. J. Leonard* *Dr. Stephen*

DATE: 12-22-75  
 DATE: 12/25/75  
 DATE: 12/25/75

LOCATION: 44E-33  
 SHEET: 1 OF 1

HYPEREX DRUM 4, 120  
 101 DEC-75 16:53 NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: KL10 B-DD-M8538-0

SIZE CODE: D CS  
 NUMBER: M8538-0-MTR6  
 REV.: B1

TITLE: METERS POWER, GND, CAPS

REV. B1  
 CS M8538-0-MTR6  
 CS  
 D  
 A

RESISTOR LOC(PIN)	SHOWN ON DRUM# REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRUM# REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRUM# REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRUM# REF	VALUE	TERMINATES SIGNAL
R180(1)	MTR3EX A7	68Ω	%E1(10)	R153(1)	MTR2EX A7	68Ω	%E63(3)	R136(1)	MTR1EX C5	68Ω	MTR CACHE COUNT 09 H	R163(1)	MTR5EX D6	68Ω	-MTR DS 06 H
R182(1)	MTR3EX B7	68Ω	%E1(12)	R208(1)	MTR4EX C2	68Ω	%E63(6)	R92(1)	MTR1EX B6	68Ω	MTR CACHE COUNT 10 H	R51(1)	MTR2EX D3	68Ω	MTR EBOX CNT CLK H
R179(1)	MTR3EX B7	68Ω	%E1(13)	R41(1)	MTR4EX A4	68Ω	%E68(3)	R96(1)	MTR1EX B6	68Ω	MTR CACHE COUNT 11 H	R141(1)	MTR2EX D4	68Ω	MTR EBOX CNT EN H
R181(1)	MTR3EX B7	68Ω	%E1(3)	R183(1)	MTR3EX D4	68Ω	%E7(2)	R162(1)	MTR1EX B6	68Ω	MTR CACHE COUNT 12 H	R27(1)	MTR2EX D4	68Ω	-MTR EBOX CNT EN H
R242(1)	MTR3EX B7	68Ω	%E1(4)	R45(1)	MTR1EX A5	68Ω	%E7(4)	R181(1)	MTR1EX B6	68Ω	MTR CACHE COUNT 13 H	R138(1)	MTR1EX D6	68Ω	MTR EBOX COUNT 02 H
R289(1)	MTR4EX C2	68Ω	%E11(15)	R87(1)	MTR1EX A4	68Ω	%E73(4)	R167(1)	MTR1EX A6	68Ω	MTR CACHE COUNT 14 H	R191(1)	MTR1EX D6	68Ω	MTR EBOX COUNT 03 H
R26(1)	MTR2EX A2	68Ω	%E14(15)	R43(1)	MTR1EX A6	68Ω	%E76(4)	R173(1)	MTR1EX A6	68Ω	MTR CACHE COUNT 15 H	R5(1)	MTR1EX D6	68Ω	MTR EBOX COUNT 04 H
R68(1)	MTR2EX A3	68Ω	%E14(2)	R47(1)	MTR1EX A7	68Ω	%E81(4)	R115(1)	MTR1EX A6	68Ω	MTR CACHE COUNT 16 H	R15(1)	MTR1EX D6	68Ω	MTR EBOX COUNT 05 H
R1(1)	MTR1EX C5	68Ω	%E25(4)	R228(1)	MTR4EX A5	68Ω	%E82(3)	R189(1)	MTR1EX A6	68Ω	MTR CACHE COUNT 17 H	R69(1)	MTR1EX C6	68Ω	MTR EBOX COUNT 06 H
R124(1)	MTR1EX C3	68Ω	%E28(4)	R78(1)	MTR1EX B2	68Ω	%E86(4)	R17(1)	MTR1EX C6	68Ω	-MTR CACHE CRY 10 IN H	R198(1)	MTR1EX C6	68Ω	MTR EBOX COUNT 07 H
R66(1)	MTR1EX C4	68Ω	%E34(4)	R63(1)	MTR2EX A2	68Ω	%E93(14)	R295(1)	MTR4EX A7	68Ω	-MTR CACHE EMB PA EN H	R74(1)	MTR1EX C6	68Ω	MTR EBOX COUNT 08 H
R64(1)	MTR1EX C6	68Ω	%E35(4)	R34(1)	MTR2EX A3	68Ω	%E93(3)	R298(1)	MTR4EX A7	68Ω	-MTR CACHE FILL PA EN H	R133(1)	MTR1EX C6	68Ω	MTR EBOX COUNT 09 H
R386(1)	MTR2EX D5	68Ω	%E36(13)	R119(1)	MTR3EX C2	68Ω	%E93(7)	R219(1)	MTR1EX A7	68Ω	MTR CACHE PA DONT CARE 1	R89(1)	MTR1EX B7	68Ω	MTR EBOX COUNT 10 H
R253(1)	MTR4EX D5	68Ω	%E36(14)	R288(1)	MTR4EX C2	68Ω	-CBUS READY E H	R297(1)	MTR4EX A7	68Ω	-MTR CACHE REF PA EN H	R93(1)	MTR1EX B7	68Ω	MTR EBOX COUNT 11 H
R144(1)	MTR4EX B5	68Ω	%E36(15)	R287(1)	MTR4EX C1	68Ω	CH T1 H	R296(1)	MTR4EX A7	68Ω	-MTR CACHE SUB PA EN H	R161(1)	MTR1EX B7	68Ω	MTR EBOX COUNT 12 H
R24(1)	MTR2EX B7	68Ω	%E38(14)	R214(1)	MTR4EX A6	68Ω	-CLK EBOX SYNC C H	R276(1)	MTR4EX D2	68Ω	MTR CHAN 0 PA EN H	R188(1)	MTR1EX B7	68Ω	MTR EBOX COUNT 13 H
R184(1)	MTR2EX B7	68Ω	%E38(2)	R139(1)	MTR2EX C2	68Ω	CLK MTR H	R275(1)	MTR4EX D2	68Ω	MTR CHAN 1 PA EN H	R166(1)	MTR1EX A7	68Ω	MTR EBOX COUNT 14 H
R385(1)	MTR2EX D5	68Ω	%E38(6)	R288(1)	MTR4EX B7	68Ω	CON PI CYCLE B H	R274(1)	MTR4EX D2	68Ω	MTR CHAN 2 PA EN H	R172(1)	MTR1EX A7	68Ω	MTR EBOX COUNT 15 H
R258(1)	MTR4EX B7	68Ω	%E39(1)	R158(1)	MTR4EX B3	68Ω	CON UCODE STATE 01 H	R277(1)	MTR4EX D2	68Ω	MTR CHAN 3 PA EN H	R118(1)	MTR1EX A7	68Ω	MTR EBOX COUNT 16 H
R268(1)	MTR4EX B7	68Ω	%E39(14)	R287(1)	MTR2EX C7	68Ω	CON UCODE STATE 03 H	R281(1)	MTR4EX D2	68Ω	MTR CHAN 4 PA EN H	R188(1)	MTR1EX A7	68Ω	MTR EBOX COUNT 17 H
R259(1)	MTR4EX B7	68Ω	%E39(15)	R234(1)	MTR3EX A7	68Ω	CRAM # 06 A H	R285(1)	MTR4EX D2	68Ω	MTR CHAN 5 PA EN H	R18(1)	MTR1EX C7	68Ω	-MTR EBOX CRY 10 IN H
R257(1)	MTR4EX B7	68Ω	%E39(2)	R236(1)	MTR3EX A7	68Ω	CRAM # 07 A H	R282(1)	MTR4EX C2	68Ω	MTR CHAN 6 PA EN H	R148(1)	MTR2EX D4	68Ω	-MTR EBOX HALF COUNT H
R121(1)	MTR3EX D2	68Ω	%E4(2)	R235(1)	MTR3EX A7	68Ω	CRAM # 08 A H	R284(1)	MTR4EX C2	68Ω	MTR CHAN 7 PA EN H	R21(1)	MTR4EX A5	68Ω	MTR EBOX WAITING H
R56(1)	MTR3EX D3	68Ω	%E4(6)	R283(1)	MTR4EX C2	68Ω	-CRC SEL 1D H	R217(1)	MTR4EX D1	68Ω	MTR CHAN BUST 4 H	R298(1)	MTR4EX A6	68Ω	-MTR EBOX WAITING H
R388(1)	MTR2EX A4	68Ω	%E48(14)	R278(1)	MTR4EX C2	68Ω	-CRC SEL 2D H	R216(1)	MTR4EX D1	68Ω	MTR CHAN BUST 8 H	R278(1)	MTR5EX C7	68Ω	MTR EBUS 18 H
R83(1)	MTR2EX C7	68Ω	%E48(3)	R279(1)	MTR4EX C2	68Ω	-CRC SEL 4D H	R213(1)	MTR4EX C4	68Ω	MTR CHAN PA DONT CARE H	R269(1)	MTR5EX C7	68Ω	MTR EBUS 19 H
R38(1)	MTR2EX A1	68Ω	%E43(14)	R233(1)	MTR3EX A7	68Ω	-CTL SPEC MTR CTL H	R58(1)	MTR3EX A6	68Ω	-MTR CLR CACHE CNT H	R271(1)	MTR5EX C5	68Ω	MTR EBUS 20 H
R36(1)	MTR2EX D2	68Ω	%E43(3)	R88(1)	MTR5EX D7	68Ω	-DIAG READ FUNC 11X H	R52(1)	MTR3EX B6	68Ω	-MTR CLR EBOX CNT H	R273(1)	MTR5EX C4	68Ω	MTR EBUS 21 H
R37(1)	MTR2EX D4	68Ω	%E46(14)	R215(1)	MTR2EX A5	68Ω	MTR 1 MHz H	R55(1)	MTR3EX D3	68Ω	-MTR CLR INTERVAL H	R272(1)	MTR5EX C2	68Ω	MTR EBUS 22 H
R146(1)	MTR4EX B4	68Ω	%E46(2)	R62(1)	MTR2EX A5	68Ω	-MTR 1 MHz H	R226(1)	MTR3EX A3	68Ω	-MTR CLR PERF CNT H	R268(1)	MTR5EX C1	68Ω	MTR EBUS 23 H
R148(1)	MTR4EX B3	68Ω	%E46(3)	R31(1)	MTR2EX B4	68Ω	MTR ACCT ON H	R49(1)	MTR3EX B3	68Ω	MTR CLR TIME H	R28(1)	MTR5EX B7	68Ω	MTR EBUS 24 H
R85(1)	MTR2EX C7	68Ω	%E47(14)	R2(1)	MTR2EX D5	68Ω	MTR CACHE CNT CLK H	R48(1)	MTR3EX B3	68Ω	-MTR CLR TIME H	R25(1)	MTR5EX B6	68Ω	MTR EBUS 25 H
R383(1)	MTR4EX A7	68Ω	%E47(15)	R39(1)	MTR2EX C6	68Ω	-MTR CACHE CNT EN H	R187(1)	MTR3EX A7	68Ω	MTR COND MTR, H	R185(1)	MTR5EX B5	68Ω	MTR EBUS 26 H
R35(1)	MTR2EX D5	68Ω	%E52(14)	R129(1)	MTR1EX D5	68Ω	MTR CACHE COUNT 02 H	R227(1)	MTR3EX A6	68Ω	MTR COND TIM, H	R211(1)	MTR5EX B4	68Ω	MTR EBUS 27 H
R29(1)	MTR4EX A2	68Ω	%E52(3)	R198(1)	MTR1EX D5	68Ω	MTR CACHE COUNT 03 H	R221(1)	MTR4EX D5	68Ω	MTR CURRENT PI PA EN H	R289(1)	MTR5EX B2	68Ω	MTR EBUS 28 H
R42(1)	MTR4EX B3	68Ω	%E54(3)	R12(1)	MTR1EX D5	68Ω	MTR CACHE COUNT 04 H	R4(1)	MTR5EX D6	68Ω	MTR DS 04 H	R286(1)	MTR5EX B1	68Ω	MTR EBUS 29 H
R151(1)	MTR2EX A6	68Ω	%E58(4)	R16(1)	MTR1EX D5	68Ω	MTR CACHE COUNT 05 H	R138(1)	MTR5EX D6	68Ω	-MTR DS 04 H	R186(1)	MTR5EX A7	68Ω	MTR EBUS 30 H
R243(1)	MTR2EX B5	68Ω	%E6(15)	R67(1)	MTR1EX C5	68Ω	MTR CACHE COUNT 06 H	R3(1)	MTR5EX D6	68Ω	MTR DS 05 H	R238(1)	MTR5EX A6	68Ω	MTR EBUS 31 H
R128(1)	MTR3EX C3	68Ω	%E6(2)	R199(1)	MTR1EX C5	68Ω	MTR CACHE COUNT 07 H	R137(1)	MTR5EX D6	68Ω	-MTR DS 05 H	R231(1)	MTR5EX A5	68Ω	MTR EBUS 32 H
R237(1)	MTR4EX D2	68Ω	%E62(15)	R75(1)	MTR1EX C5	68Ω	MTR CACHE COUNT 08 H	R8(1)	MTR5EX D6	68Ω	MTR DS 06 H	R228(1)	MTR5EX A4	68Ω	MTR EBUS 33 H

NOTE:  
 1. ALL TERMINATORS HAVE PIN TWO CONNECTED TO -2.0V AND ARE 5X 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
	M8538-00002	B1
	J. LEONARD	11-7-75

digital	DRN. <i>C. Smith</i>	DATE <i>08-DEC-75</i>	ENG. <i>[Signature]</i>	DATE <i>17-FEB-76</i>	TITLE: METERS TERMINATORS
	CHK'D.	DATE	BOARD LOCATION	SHEET <i>2</i> OF <i>2</i>	SIZE CODE D CS NUMBER M8538-0-RES REV. B1
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8538-0			

32-3

RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R224(1)	MTR5	A2	68Ω	MTR EBUS 34 H	R193(1)	MTR1	D2	68Ω	MTR PERF COUNT 03 H	R249(1)	MTR4	D5	68Ω	MTR P16 PA EN H	R19(1)	MTR2	C4	68Ω	-MTR TIME ON H
R223(1)	MTR5	A1	68Ω	MTR EBUS 35 H	R10(1)	MTR1	D2	68Ω	MTR PERF COUNT 04 H	R250(1)	MTR4	D5	68Ω	MTR P17 PA EN H	R147(1)	MTR4	C4	68Ω	MTR UCODE PA DONT CARE H
R81(1)	MTR2	B6	68Ω	MTR EXEC ACCT EN H	R14(1)	MTR1	D2	68Ω	MTR PERF COUNT 05 H	R143(1)	MTR4	C4	68Ω	MTR PROBE LOW PA EN H	R142(1)	MTR4	C7	68Ω	MTR USER PA EN H
R125(1)	MTR5	D4	68Ω	MTR HOLD INTERRUPT SEL H	R70(1)	MTR1	C3	68Ω	MTR PERF COUNT 06 H	R145(1)	MTR4	C4	68Ω	MTR PROBE PA DONT CARE H	R127(1)	MTR5	J3	68Ω	MTR VECTOR REQ H
R6(1)	MTR5	D3	68Ω	MTR INCR SEL 1 H	R197(1)	MTR1	C3	68Ω	MTR PERF COUNT 07 H	R20(1)	MTR5	D5	68Ω	MTR READ INTERVAL H	R232(1)	MTR2	C3	68Ω	MTR2 COUNT TEN USEC H
R108(1)	MTR5	D3	68Ω	MTR INCR SEL 2 H	R73(1)	MTR1	C3	68Ω	MTR PERF COUNT 08 H	R304(1)	MTR5	D6	68Ω	MTR READ MTR A H	R156(1)	MTR3	C4	68Ω	MTR3 NO MATCH 06-09 H
R202(1)	MTR1	C2	68Ω	MTR INTERVAL 06 H	R134(1)	MTR1	C3	68Ω	MTR PERF COUNT 09 H	R13(1)	MTR5	D6	68Ω	-MTR READ MTR A H	R155(1)	MTR3	C5	68Ω	MTR3 NO MATCH 10-13 H
R194(1)	MTR1	C2	68Ω	MTR INTERVAL 07 H	R91(1)	MTR1	B3	68Ω	MTR PERF COUNT 10 H	R79(1)	MTR5	C6	68Ω	-MTR READ MTR B H	R152(1)	MTR3	C5	68Ω	MTR3 NO MATCH 14-17 H
R201(1)	MTR1	C2	68Ω	MTR INTERVAL 08 H	R95(1)	MTR1	B3	68Ω	MTR PERF COUNT 11 H	R30(1)	MTR5	D5	68Ω	MTR READ PERF CNT H	R239(1)	MTR3	B3	68Ω	MTR3 RESET PERF H
R200(1)	MTR1	C2	68Ω	MTR INTERVAL 09 H	R159(1)	MTR1	B3	68Ω	MTR PERF COUNT 12 H	R61(1)	MTR5	D5	68Ω	MTR READ TIME H	R230(1)	MTR3	B3	68Ω	MTR3 RESET TIME H
R44(1)	MTR1	B2	68Ω	MTR INTERVAL 10 H	R90(1)	MTR1	B3	68Ω	MTR PERF COUNT 13 H	R240(1)	MTR5	D2	68Ω	MTR RESET H	R22(1)	MTR5	D5	68Ω	NC
R46(1)	MTR1	B2	68Ω	MTR INTERVAL 11 H	R164(1)	MTR1	A4	68Ω	MTR PERF COUNT 14 H	R229(1)	MTR5	D2	68Ω	-MTR RESET H	R255(1)	MTR4	B7	68Ω	P12 HOLD 1 H
R150(1)	MTR1	B2	68Ω	MTR INTERVAL 12 H	R171(1)	MTR1	A4	68Ω	MTR PERF COUNT 15 H	R122(1)	MTR3	A5	68Ω	MTR RESET A H	R263(1)	MTR4	B7	68Ω	P12 HOLD 2 H
R97(1)	MTR1	B2	68Ω	MTR INTERVAL 13 H	R114(1)	MTR1	A4	68Ω	MTR PERF COUNT 16 H	R154(1)	MTR3	A5	68Ω	-MTR RESET A H	R267(1)	MTR4	B7	68Ω	P12 HOLD 4 H
R170(1)	MTR1	A2	68Ω	MTR INTERVAL 14 H	R106(1)	MTR1	A4	68Ω	MTR PERF COUNT 17 H	R57(1)	MTR3	D4	68Ω	MTR RESET INTERVAL H	R265(1)	MTR4	B7	68Ω	P12 P11 A H
R174(1)	MTR1	A2	68Ω	MTR INTERVAL 15 H	R132(1)	MTR1	C3	68Ω	-MTR PERF CRY 10 IN H	R241(1)	MTR3	A7	68Ω	MTR RESET PLSD H	R264(1)	MTR4	B7	68Ω	P12 P12 A H
R176(1)	MTR1	A2	68Ω	MTR INTERVAL 16 H	R68(1)	MTR3	D7	68Ω	MTR PERIOD 06 H	R307(1)	MTR3	A7	68Ω	-MTR RESET PLSD H	R266(1)	MTR4	B7	68Ω	P12 P14 A H
R177(1)	MTR1	A2	68Ω	MTR INTERVAL 17 H	R195(1)	MTR3	D7	68Ω	MTR PERIOD 07 H	R294(1)	MTR4	B1	68Ω	MTR T1	R126(1)	MTR5	D3	68Ω	P13 MTR HONOR H
R54(1)	MTR2	B1	68Ω	MTR INTERVAL CLK H	R72(1)	MTR3	D7	68Ω	MTR PERIOD 08 H	R293(1)	MTR4	B1	68Ω	MTR T2	R112(1)	MTR5	A2	68Ω	P13 MTR P1A 01 H
R59(1)	MTR1	C2	68Ω	-MTR INTERVAL CRY H	R00(1)	MTR3	D7	68Ω	MTR PERIOD 09 H	R292(1)	MTR4	B1	68Ω	MTR T3	R117(1)	MTR5	A3	68Ω	P13 MTR P1A 02 H
P53(1)	MTR1	B2	68Ω	-MTR INTERVAL CRY 14 IN H	P105(1)	MTR3	D7	68Ω	MTR PERIOD 10 H	R110(1)	MTR2	C3	68Ω	-MTR TEN USEC H	R175(1)	MTR5	A4	68Ω	P13 MTR P1A 04 H
R7(1)	MTR3	C2	68Ω	MTR INTERVAL DONE H	R104(1)	MTR3	D7	68Ω	MTR PERIOD 11 H	R120(1)	MTR1	D3	68Ω	MTR TIME 02 H	R261(1)	MTR4	B5	68Ω	PROBE H
R50(1)	MTR3	C4	68Ω	MTR INTERVAL MATCH H	R103(1)	MTR3	D6	68Ω	MTR PERIOD 12 H	R192(1)	MTR1	D3	68Ω	MTR TIME 03 H	R06(1)	MTR4	B4	68Ω	-SCD USER A H
R157(1)	MTR3	B6	68Ω	MTR INTERVAL MATCH INH H	R102(1)	MTR3	D6	68Ω	MTR PERIOD 13 H	R9(1)	MTR1	D3	68Ω	MTR TIME 04 H	R300(1)	MTR4	B7	68Ω	-VMA AC REF A H
R109(1)	MTR3	B7	68Ω	MTR INTERVAL OFF H	R169(1)	MTR3	D6	68Ω	MTR PERIOD 14 H	R65(1)	MTR1	D3	68Ω	MTR TIME 05 H					
R301(1)	MTR3	C7	68Ω	MTR INTERVAL ON H	R170(1)	MTR3	D6	68Ω	MTR PERIOD 15 H	R71(1)	MTR1	C4	68Ω	MTR TIME 06 H					
R11(1)	MTR3	D2	68Ω	MTR INTERVAL OVRFLO H	R116(1)	MTR3	D6	68Ω	MTR PERIOD 16 H	R246(1)	MTR1	C4	68Ω	MTR TIME 07 H					
R291(1)	MTR3	A6	68Ω	MTR LOAD PA LEFT H	R111(1)	MTR3	D6	68Ω	MTR PERIOD 17 H	R76(1)	MTR1	C4	68Ω	MTR TIME 08 H					
R210(1)	MTR3	A6	68Ω	MTR LOAD PA RIGHT H	R04(1)	MTR2	B6	68Ω	MTR P1 ACCT EN H	R135(1)	MTR1	C4	68Ω	MTR TIME 09 H					
R33(1)	MTR2	C2	68Ω	MTR MBOX CLK A H	R02(1)	MTR2	C7	68Ω	MTR P1 IN PROG H	R90(1)	MTR1	B4	68Ω	MTR TIME 10 H					
R212(1)	MTR2	C2	68Ω	MTR MBOX CLK B H	R32(1)	MTR2	C7	68Ω	-MTR P1 IN PROG H	R94(1)	MTR1	B4	68Ω	MTR TIME 11 H					
R299(1)	MTR2	C2	68Ω	MTR MBOX CLK C H	R205(1)	MTR4	D5	68Ω	MTR P1 LEVEL 1 H	R160(1)	MTR1	B4	68Ω	MTR TIME 12 H					
R206(1)	MTR2	C2	68Ω	MTR MBOX CLK D H	R204(1)	MTR4	D5	68Ω	MTR P1 LEVEL 2 H	R99(1)	MTR1	B4	68Ω	MTR TIME 13 H					
R244(1)	MTR2	C2	68Ω	MTR MBOX CLK E H	R247(1)	MTR4	D5	68Ω	MTR P1 LEVEL 4 H	R165(1)	MTR1	A5	68Ω	MTR TIME 14 H					
R149(1)	MTR4	C7	68Ω	MTR MODE PA DONT CARE H	R256(1)	MTR4	D7	68Ω	MTR P10 PA EN H	R160(1)	MTR1	A5	68Ω	MTR TIME 15 H					
R262(1)	MTR4	C7	68Ω	MTR NO P1 PA EN H	R254(1)	MTR4	D5	68Ω	MTR P11 PA EN H	R113(1)	MTR1	A5	68Ω	MTR TIME 16 H					
R210(1)	MTR4	C7	68Ω	MTR PA EVENT MODE H	R252(1)	MTR4	D5	68Ω	MTR P12 PA EN H	R107(1)	MTR1	A5	68Ω	MTR TIME 17 H					
R225(1)	MTR4	A2	68Ω	MTR PERF CNT CLK H	R251(1)	MTR4	D5	68Ω	MTR P13 PA EN H	R123(1)	MTR2	B3	68Ω	MTR TIME CLK H					
R222(1)	MTR4	A1	68Ω	-MTR PERF CNT CLK H	R245(1)	MTR4	D5	68Ω	MTR P14 PA EN H	R77(1)	MTR1	C4	68Ω	-MTR TIME CRY 10 IN H					
R121(1)	MTR1	D2	68Ω	MTR PERF COUNT 02 H	R240(1)	MTR4	D5	68Ω	MTR P15 PA EN H	R203(1)	MTR2	C4	68Ω	MTR TIME ON 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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CHK	CHANGE NO.	REV
	M8538-00003	B1

REVISIONS

digital	DRN. <i>E. Smith</i>	DATE (ENG) 17-FEB-76	DATE 17-FEB-76	TITLE: METERS TERMINATORS
	CHK'D.	DATE	BOARD LOCATION: SHEET 2 OF 2	NUMBER
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M9539-0		REV. BL

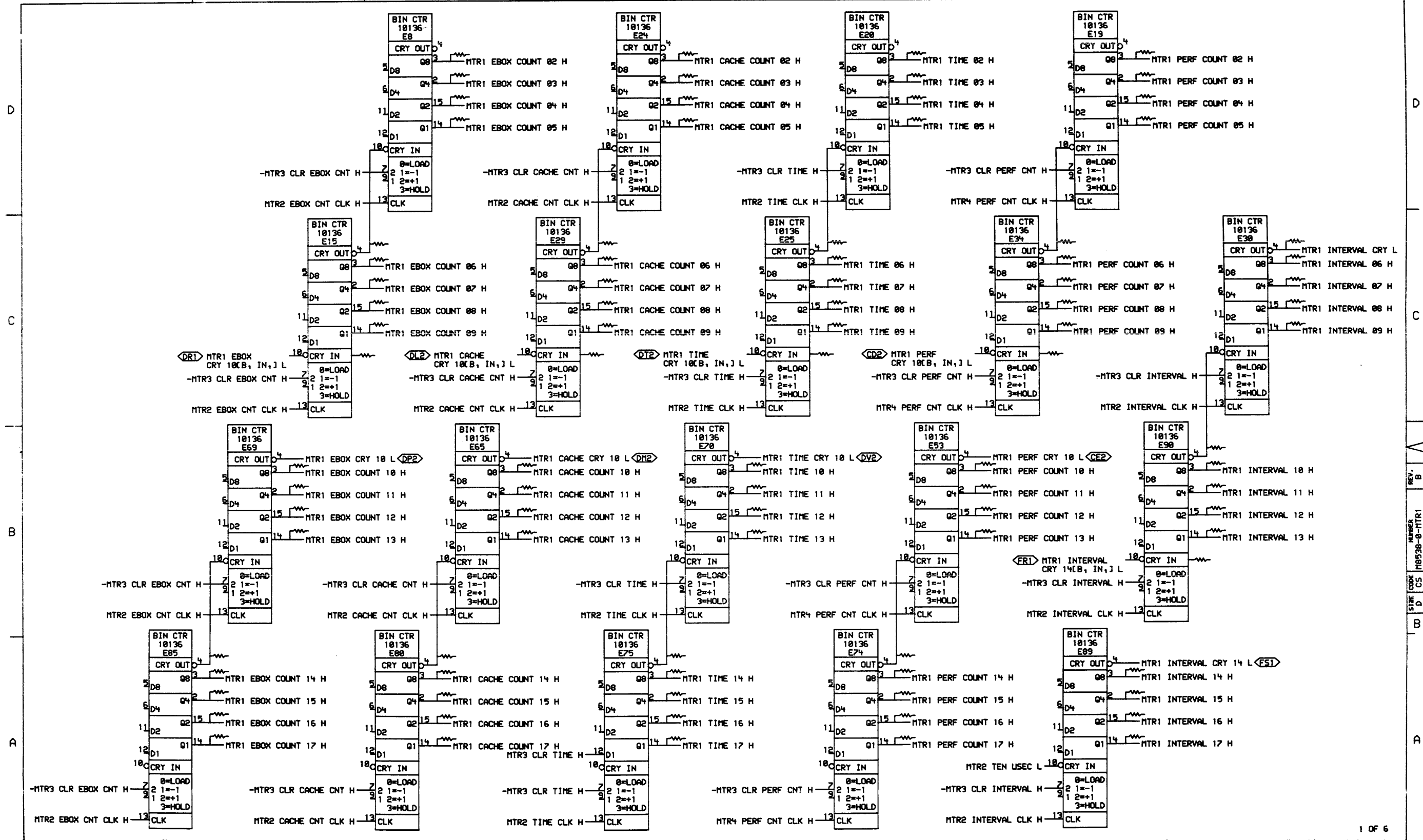
REV. B1  
 NUMBER M8538-0-RES  
 SIZE D CS











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REVISIONS	
CHK	CHANGE NO. REV
	M8538-00 JUS B
	8-10-77 4:10:27
	AC LEQUARD
	2/22/77 2:28:27

digital	DATE 03-FEB-77	ENG. P. Kasper	DATE 7-28-77	TITLE: METER COUNTERS
	DATE 2/27	BOARD LOCATION: 4AE33		
MTR1R.RV84.575	183-JAN-77 12:33	NEXT HIGHER ASSEMBLY:	SIZE CODE D CS	NUMBER M8538-0-MTR1
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8538-0		REV. B

8	7	6	5	4	3	2	1
							11R

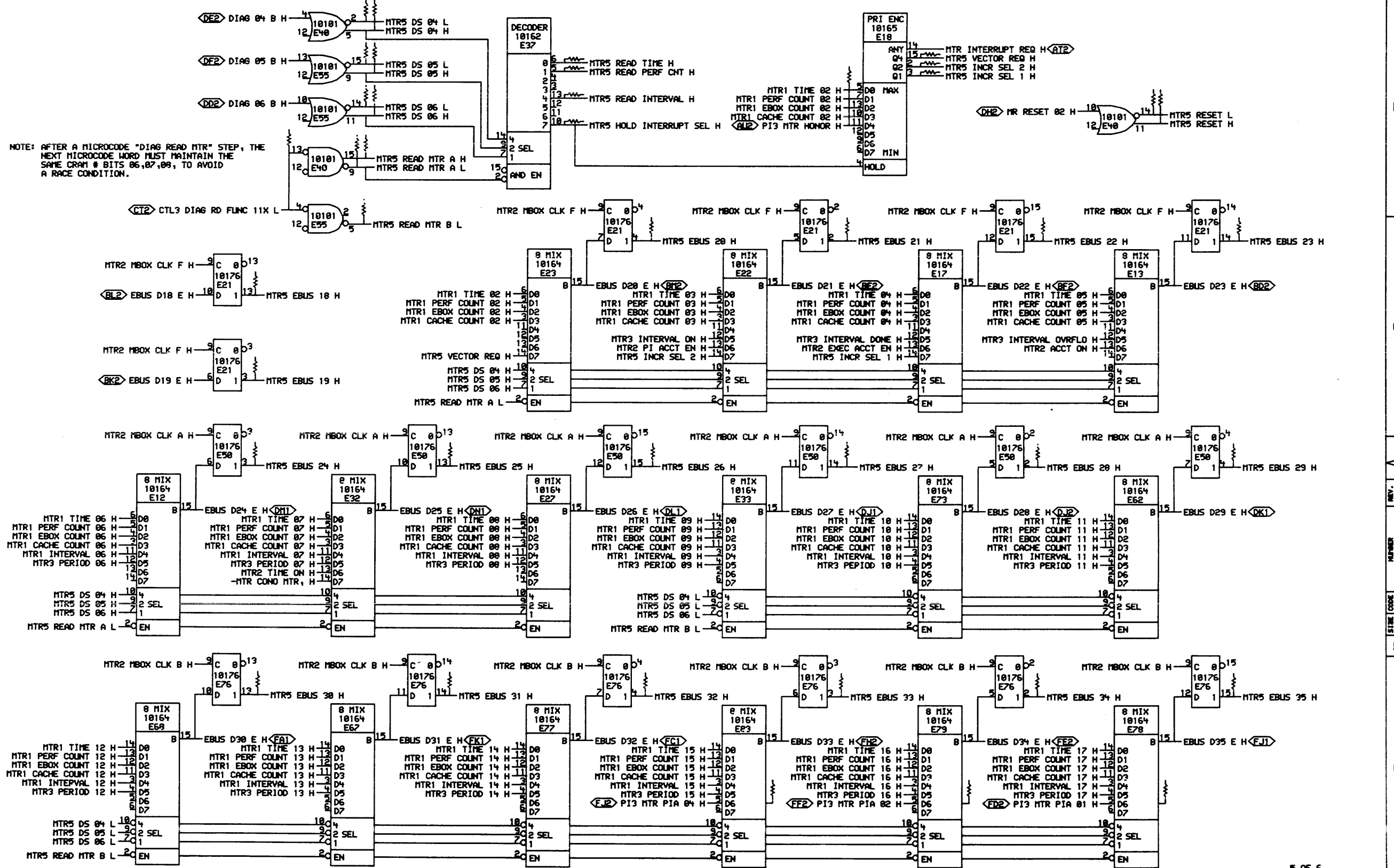
327







NOTE: AFTER A MICROCODE "DIAG READ MTR" STEP, THE NEXT MICROCODE WORD MUST MAINTAIN THE SAME CRAM # BITS 06,07,09, TO AVOID A RACE CONDITION.



REVISIONS		
CHK	CHANGE NO.	REV
	M8538-00005	C
	W. B. LEONARD	12/21/77

	DATE: 10/21/77	ENG: P. Kasper	DATE: 7/28/77	TITLE: EBUS MIXERS AND BUFFERS
	DATE: 10/21/77	DATE: 10/21/77	DATE: 10/21/77	DATE: 10/21/77
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8538-0		SIZE CODE: D CS
				NUMBER: M8538-0-MTR5
				REV. C





RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R167(1)	MTR3	A6	68n	%E1(10)	R48(1)	MTR3	D4	68n	%E57(2)	R149(1)	MTR1	B6	68n	MTR1 CACHE COUNT 10 H	R114(1)	MTR1	D2	68n	MTR1 PERF COUNT 02 H
R169(1)	MTR3	A6	68n	%E1(12)	R35(1)	MTR4	B3	68n	%E58(3)	R213(1)	MTR1	B6	68n	MTR1 CACHE COUNT 11 H	R185(1)	MTR1	D2	68n	MTR1 PERF COUNT 03 H
R168(1)	MTR3	A6	68n	%E1(13)	R249(1)	MTR2	B6	68n	%E6(15)	R148(1)	MTR1	B6	68n	MTR1 CACHE COUNT 12 H	R183(1)	MTR1	D2	68n	MTR1 PERF COUNT 04 H
R170(1)	MTR3	A6	68n	%E1(3)	R99(1)	MTR3	C3	68n	%E6(2)	R219(1)	MTR1	B6	68n	MTR1 CACHE COUNT 13 H	R105(1)	MTR1	D2	68n	MTR1 PERF COUNT 05 H
R248(1)	MTR3	B6	68n	%E1(4)	R37(1)	MTR2	A6	68n	%E60(4)	R232(1)	MTR1	A6	68n	MTR1 CACHE COUNT 14 H	R176(1)	MTR1	C2	68n	MTR1 PERF COUNT 06 H
R172(1)	MTR3	B6	68n	%E1(5)	R38(1)	MTR2	A7	68n	%E63(3)	R161(1)	MTR1	A6	68n	MTR1 CACHE COUNT 15 H	R197(1)	MTR1	C2	68n	MTR1 PERF COUNT 07 H
R166(1)	MTR3	B6	68n	%E1(6)	R293(1)	MTR4	C2	68n	%E63(6)	R89(1)	MTR1	A6	68n	MTR1 CACHE COUNT 16 H	R192(1)	MTR1	C2	68n	MTR1 PERF COUNT 08 H
R292(1)	MTR4	C2	68n	%E11(15)	R243(1)	MTR4	D2	68n	%E66(15)	R155(1)	MTR1	A6	68n	MTR1 CACHE COUNT 17 H	R123(1)	MTR1	C2	68n	MTR1 PERF COUNT 09 H
R182(1)	MTR1	C6	68n	%E15(4)	R36(1)	MTR4	A4	68n	%E72(3)	R60(1)	MTR1	C5	68n	-MTR1 CACHE CRY 10 IN H	R86(1)	MTR1	B3	68n	MTR1 PERF COUNT 10 H
R9(1)	MTR1	C4	68n	%E25(4)	R75(1)	MTR1	A3	68n	%E74(4)	R59(1)	MTR1	D6	68n	MTR1 EBOX COUNT 02 H	R210(1)	MTR1	B3	68n	MTR1 PERF COUNT 11 H
R57(1)	MTR1	C5	68n	%E29(4)	R42(1)	MTR1	A5	68n	%E75(4)	R187(1)	MTR1	D6	68n	MTR1 EBOX COUNT 03 H	R146(1)	MTR1	B3	68n	MTR1 PERF COUNT 12 H
R56(1)	MTR1	C2	68n	%E34(4)	R40(1)	MTR1	A6	68n	%E80(4)	R181(1)	MTR1	D6	68n	MTR1 EBOX COUNT 04 H	R216(1)	MTR1	B3	68n	MTR1 PERF COUNT 13 H
R4(1)	MTR2	A4	68n	%E35(14)	R83(1)	MTR1	A7	68n	%E85(4)	R104(1)	MTR1	D6	68n	MTR1 EBOX COUNT 05 H	R231(1)	MTR1	A3	68n	MTR1 PERF COUNT 14 H
R67(1)	MTR2	C4	68n	%E35(3)	R223(1)	MTR4	A5	68n	%E86(3)	R175(1)	MTR1	C6	68n	MTR1 EBOX COUNT 06 H	R159(1)	MTR1	A3	68n	MTR1 PERF COUNT 15 H
R264(1)	MTR4	B7	68n	%E36(1)	R11(1)	MTR1	B2	68n	%E90(4)	R195(1)	MTR1	C6	68n	MTR1 EBOX COUNT 07 H	R84(1)	MTR1	A3	68n	MTR1 PERF COUNT 16 H
R268(1)	MTR4	B7	68n	%E36(14)	R285(1)	MTR4	C1	68n	CH T1 H	R190(1)	MTR1	C6	68n	MTR1 EBOX COUNT 08 H	R150(1)	MTR1	A3	68n	MTR1 PERF COUNT 17 H
R263(1)	MTR4	B7	68n	%E36(15)	R220(1)	MTR4	C2	68n	-CHC1 CBUS READY E H	R117(1)	MTR1	C6	68n	MTR1 EBOX COUNT 09 H	R61(1)	MTR1	C3	68n	-MTR1 PERF CRY 10 IN H
R269(1)	MTR4	B7	68n	%E36(2)	R125(1)	MTR2	C2	68n	CLK1 MTR H	R153(1)	MTR1	B7	68n	MTR1 EBOX COUNT 10 H	R116(1)	MTR1	D3	68n	MTR1 TIME 02 H
R257(1)	MTR4	D5	68n	%E39(14)	R137(1)	MTR4	B6	68n	-CLK3 EBOX SYNC C H	R209(1)	MTR1	B7	68n	MTR1 EBOX COUNT 11 H	R186(1)	MTR1	D3	68n	MTR1 TIME 03 H
R133(1)	MTR4	B5	68n	%E39(2)	R64(1)	MTR4	B7	68n	CON PI CYCLE B H	R147(1)	MTR1	B7	68n	MTR1 EBOX COUNT 12 H	R182(1)	MTR1	D3	68n	MTR1 TIME 04 H
R131(1)	MTR2	C5	68n	%E39(4)	R81(1)	MTR4	B3	68n	CON UCODE STATE 01 H	R215(1)	MTR1	B7	68n	MTR1 EBOX COUNT 13 H	R186(1)	MTR1	D3	68n	MTR1 TIME 05 H
R100(1)	MTR3	D2	68n	%E4(15)	R66(1)	MTR2	C7	68n	CON UCODE STATE 03 H	R233(1)	MTR1	A7	68n	MTR1 EBOX COUNT 14 H	R179(1)	MTR1	C4	68n	MTR1 TIME 06 H
R6(1)	MTR2	A3	68n	%E4(3)	R239(1)	MTR3	A6	68n	CRAM # 06 A H	R156(1)	MTR1	A7	68n	MTR1 EBOX COUNT 15 H	R196(1)	MTR1	C4	68n	MTR1 TIME 07 H
R101(1)	MTR3	C2	68n	%E4(7)	R241(1)	MTR3	A6	68n	CRAM # 07 A H	R88(1)	MTR1	A7	68n	MTR1 EBOX COUNT 16 H	R191(1)	MTR1	C4	68n	MTR1 TIME 08 H
R204(1)	MTR4	B6	68n	%E40(3)	R240(1)	MTR3	A6	68n	CRAM # 08 A H	R154(1)	MTR1	A7	68n	MTR1 EBOX COUNT 17 H	R124(1)	MTR1	C4	68n	MTR1 TIME 09 H
R7(1)	MTR2	C4	68n	%E42(15)	R290(1)	MTR4	C2	68n	-CRC SEL 1D H	R8(1)	MTR1	C6	68n	-MTR1 EBOX CRY 10 IN H	R87(1)	MTR1	B4	68n	MTR1 TIME 10 H
R23(1)	MTR2	C7	68n	%E42(3)	R287(1)	MTR4	C2	68n	-CRC SEL 2D H	R177(1)	MTR1	C1	68n	MTR1 INTERVAL 06 H	R211(1)	MTR1	B4	68n	MTR1 TIME 11 H
R52(1)	MTR3	D3	68n	%E42(6)	R288(1)	MTR4	C2	68n	-CRC SEL 4D H	R193(1)	MTR1	C1	68n	MTR1 INTERVAL 07 H	R143(1)	MTR1	B4	68n	MTR1 TIME 12 H
R29(1)	MTR2	A1	68n	%E43(3)	R238(1)	MTR3	A6	68n	-CTL1 SPEC MTR CTL H	R251(1)	MTR1	C1	68n	MTR1 INTERVAL 08 H	R217(1)	MTR1	B4	68n	MTR1 TIME 13 H
R24(1)	MTR2	D2	68n	%E46(14)	R275(1)	MTR5	D7	68n	-CTL3 DIAG RD FUNC 11X H	R63(1)	MTR1	C1	68n	MTR1 INTERVAL 09 H	R230(1)	MTR1	A5	68n	MTR1 TIME 14 H
R30(1)	MTR2	D5	68n	%E46(3)	R294(1)	MTR4	B1	68n	MTR T1	R152(1)	MTR1	B2	68n	MTR1 INTERVAL 10 H	R160(1)	MTR1	A5	68n	MTR1 TIME 15 H
R25(1)	MTR2	A3	68n	%E47(14)	R295(1)	MTR4	B1	68n	MTR T2	R218(1)	MTR1	B2	68n	MTR1 INTERVAL 11 H	R85(1)	MTR1	A5	68n	MTR1 TIME 16 H
R271(1)	MTR2	C6	68n	%E47(6)	R188(1)	MTR1	D5	68n	MTR1 CACHE COUNT 02 H	R145(1)	MTR1	B2	68n	MTR1 INTERVAL 12 H	R151(1)	MTR1	A5	68n	MTR1 TIME 17 H
R27(1)	MTR2	A2	68n	%E5(15)	R184(1)	MTR1	D5	68n	MTR1 CACHE COUNT 03 H	R222(1)	MTR1	B2	68n	MTR1 INTERVAL 13 H	R18(1)	MTR1	C4	68n	-MTR1 TIME CRY 10 IN H
R70(1)	MTR2	A3	68n	%E5(2)	R180(1)	MTR1	D5	68n	MTR1 CACHE COUNT 04 H	R229(1)	MTR1	A2	68n	MTR1 INTERVAL 14 H	R138(1)	MTR2	A5	68n	MTR2 1 MHZ H
R32(1)	MTR2	D4	68n	%E52(15)	R183(1)	MTR1	D5	68n	MTR1 CACHE COUNT 05 H	R162(1)	MTR1	A2	68n	MTR1 INTERVAL 15 H	R5(1)	MTR2	A5	68n	-MTR2 1 MHZ H
R80(1)	MTR4	B4	68n	%E52(2)	R174(1)	MTR1	C5	68n	MTR1 CACHE COUNT 06 H	R91(1)	MTR1	A2	68n	MTR1 INTERVAL 16 H	R22(1)	MTR2	B5	68n	MTR2 ACCT ON H
R78(1)	MTR4	B3	68n	%E52(3)	R194(1)	MTR1	C5	68n	MTR1 CACHE COUNT 07 H	R157(1)	MTR1	A2	68n	MTR1 INTERVAL 17 H	R44(1)	MTR2	D5	68n	MTR2 CACHE CNT CLK H
R31(1)	MTR4	A2	68n	%E54(3)	R189(1)	MTR1	C5	68n	MTR1 CACHE COUNT 08 H	R60(1)	MTR1	C1	68n	-MTR1 INTERVAL CRY H	R129(1)	MTR2	C6	68n	-MTR2 CACHE CNT EN H
R20(1)	MTR2	C7	68n	%E55(3)	R118(1)	MTR1	C5	68n	MTR1 CACHE COUNT 09 H	R47(1)	MTR1	B2	68n	-MTR1 INTERVAL CRY 14 IN H	R164(1)	MTR2	C2	68n	MTR2 COUNT TEN USEC 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

D  
C  
B  
A

REV. C  
NUMBER M8538-0-RES  
SIZE CODE D CS

323

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8 7 6 5 4 3 2 1



RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R120K(1)	MTR2	D3	60a	MTR2 EBOX CNT CLK H	R113K(1)	MTR3	D7	60a	MTR3 PERIOD 08 H	R220K(1)	MTR4	A1	60a	-MTR4 PERF CNT CLK H	R234K(1)	MTR5	A1	60a	MTR5 EBUS 35 H
R127K(1)	MTR2	D5	60a	MTR2 EBOX CNT EN H	R120K(1)	MTR3	D7	60a	MTR3 PERIOD 09 H	R15K(1)	MTR4	D5	60a	MTR4 PI LEVEL 1 H	R110K(1)	MTR5	D3	60a	MTR5 HOLD INTERRUPT SEL H
R130K(1)	MTR2	D4	60a	-MTR2 EBOX CNT EN H	R237K(1)	MTR3	D7	60a	MTR3 PERIOD 10 H	R16K(1)	MTR4	D5	60a	MTR4 PI LEVEL 2 H	R245K(1)	MTR5	D3	60a	MTR5 INCR SEL 1 H
R126K(1)	MTR2	D4	60a	-MTR2 EBOX HALF COUNT H	R235K(1)	MTR3	D7	60a	MTR3 PERIOD 11 H	R14K(1)	MTR4	D5	60a	MTR4 PI LEVEL 4 H	R250K(1)	MTR5	D3	60a	MTR5 INCR SEL 2 H
R17K(1)	MTR2	B5	60a	MTR2 EXEC ACCT EN H	R144K(1)	MTR3	D6	60a	MTR3 PERIOD 12 H	R266K(1)	MTR4	D7	60a	MTR4 PI0 PA EN H	R20K(1)	MTR5	D5	60a	MTR5 READ INTERVAL H
R50K(1)	MTR2	B1	60a	MTR2 INTERVAL CLK H	R221K(1)	MTR3	D6	60a	MTR3 PERIOD 13 H	R258K(1)	MTR4	D5	60a	MTR4 P11 PA EN H	R72K(1)	MTR5	D6	60a	MTR5 READ MTR A H
R267K(1)	MTR2	D2	60a	MTR2 MBOX CLK A H	R96K(1)	MTR3	D6	60a	MTR3 PERIOD 14 H	R260K(1)	MTR4	D5	60a	MTR4 P12 PA EN H	R58K(1)	MTR5	D6	60a	-MTR5 READ MTR A H
R291K(1)	MTR2	D2	60a	MTR2 MBOX CLK B H	R90K(1)	MTR3	D6	60a	MTR3 PERIOD 15 H	R259K(1)	MTR4	D5	60a	MTR4 P13 PA EN H	R62K(1)	MTR5	C6	60a	-MTR5 READ MTR B H
R276K(1)	MTR2	D2	60a	MTR2 MBOX CLK C H	R92K(1)	MTR3	D6	60a	MTR3 PERIOD 16 H	R256K(1)	MTR4	D5	60a	MTR4 P14 PA EN H	R33K(1)	MTR5	D5	60a	MTR5 READ PERF CNT H
R39K(1)	MTR2	C2	60a	MTR2 MBOX CLK D H	R94K(1)	MTR3	D6	60a	MTR3 PERIOD 17 H	R253K(1)	MTR4	D5	60a	MTR4 P15 PA EN H	R69K(1)	MTR5	D5	60a	MTR5 READ TIME H
R71K(1)	MTR2	C2	60a	MTR2 MBOX CLK E H	R49K(1)	MTR3	A4	60a	MTR3 RESET A H	R254K(1)	MTR4	D5	60a	MTR4 P16 PA EN H	R244K(1)	MTR5	D2	60a	MTR5 RESET H
R252K(1)	MTR2	C2	60a	MTR2 MBOX CLK F H	R26K(1)	MTR3	A4	60a	-MTR3 RESET A H	R255K(1)	MTR4	D5	60a	MTR4 P17 PA EN H	R165K(1)	MTR5	D2	60a	-MTR5 RESET H
R19K(1)	MTR2	B5	60a	MTR2 PI ACCT EN H	R74K(1)	MTR3	D4	60a	MTR3 RESET INTERVAL H	R132K(1)	MTR4	C4	60a	MTR4 PROBE LOW PA EN H	R109K(1)	MTR5	D3	60a	MTR5 VECTOR REQ H
R10K(1)	MTR2	C7	60a	MTR2 PI IN PROG H	R55K(1)	MTR3	B2	60a	MTR3 RESET PERF H	R77K(1)	MTR4	C4	60a	MTR4 PROBE PA DONT CARE H	R262K(1)	MTR4	B7	60a	P12 HOLD 1 H
R21K(1)	MTR2	C7	60a	-MTR2 PI IN PROG H	R242K(1)	MTR3	A6	60a	MTR3 RESET PLSD H	R296K(1)	MTR4	B1	60a	MTR4 T3-#400	R200K(1)	MTR4	B7	60a	P12 HOLD 2 H
R95K(1)	MTR2	C2	60a	-MTR2 TEN USEC H	R34K(1)	MTR3	A6	60a	-MTR3 RESET PLSD H	R79K(1)	MTR4	C4	60a	MTR4 UCODE PA DONT CARE H	R201K(1)	MTR4	B7	60a	P12 HOLD 4 H
R3K(1)	MTR2	B3	60a	MTR2 TIME CLK H	R54K(1)	MTR3	B2	60a	MTR3 RESET TIME H	R135K(1)	MTR4	C7	60a	MTR4 USER PA EN H	R261K(1)	MTR4	B7	60a	P12 P11 A H
R100K(1)	MTR2	C4	60a	MTR2 TIME ON H	R303K(1)	MTR4	A7	60a	-MTR4 CACHE EMB PA EN H	R112K(1)	MTR5	D6	60a	MTR5 DS 04 H	R199K(1)	MTR4	B7	60a	P12 P12 A H
R12K(1)	MTR2	C4	60a	-MTR2 TIME ON H	R302K(1)	MTR4	A7	60a	-MTR4 CACHE FILL PA EN H	R214K(1)	MTR5	D6	60a	-MTR5 DS 04 H	R190K(1)	MTR4	B7	60a	P12 P14 A H
R45K(1)	MTR3	A5	60a	-MTR3 CLR CACHE CNT H	R224K(1)	MTR4	A7	60a	MTR4 CACHE PA DONT CARE H	R111K(1)	MTR5	D6	60a	MTR5 DS 05 H	R107K(1)	MTR5	D3	60a	P13 MTR HONOR H
R46K(1)	MTR3	B6	60a	-MTR3 CLR EBOX CNT H	R305K(1)	MTR4	A7	60a	-MTR4 CACHE REF PA EN H	R121K(1)	MTR5	D6	60a	-MTR5 DS 05 H	R150K(1)	MTR5	A2	60a	P13 MTR PIA 01 H
R57K(1)	MTR3	D3	60a	-MTR3 CLR INTERVAL H	R304K(1)	MTR4	A7	60a	-MTR4 CACHE SIB PA EN H	R115K(1)	MTR5	D6	60a	MTR5 DS 06 H	R93K(1)	MTR5	A3	60a	P13 MTR PIA 02 H
R02K(1)	MTR3	A2	60a	-MTR3 CLR PERF CNT H	R279K(1)	MTR4	D2	60a	MTR4 CHAN 0 PA EN H	R122K(1)	MTR5	D6	60a	-MTR5 DS 06 H	R163K(1)	MTR5	A4	60a	P13 MTR PIA 04 H
R41K(1)	MTR3	B2	60a	MTR3 CLR TIME H	R270K(1)	MTR4	D2	60a	MTR4 CHAN 1 PA EN H	R136K(1)	MTR5	C7	60a	MTR5 EBUS 18 H	R270K(1)	MTR4	B5	60a	PROBE H-#400
R43K(1)	MTR3	B2	60a	-MTR3 CLR TIME H	R277K(1)	MTR4	D2	60a	MTR4 CHAN 2 PA EN H	R200K(1)	MTR5	C7	60a	MTR5 EBUS 19 H	R134K(1)	MTR4	B4	60a	-SCD USER A H
R1K(1)	MTR3	A6	60a	MTR3 COND MTR, H	R206K(1)	MTR4	D2	60a	MTR4 CHAN 3 PA EN H	R201K(1)	MTR5	C5	60a	MTR5 EBUS 20 H	R202K(1)	MTR4	B6	60a	-VMA1 AC REF A H
R297K(1)	MTR3	A5	60a	MTR3 COND TIM, H	R212K(1)	MTR4	D2	60a	MTR4 CHAN 4 PA EN H	R202K(1)	MTR5	C3	60a	MTR5 EBUS 21 H					
R246K(1)	MTR3	A2	60a	MTR3 INTERVAL DONE H	R203K(1)	MTR4	D2	60a	MTR4 CHAN 5 PA EN H	R273K(1)	MTR5	C2	60a	MTR5 EBUS 22 H					
R51K(1)	MTR3	C4	60a	MTR3 INTERVAL MATCH H	R209K(1)	MTR4	D2	60a	MTR4 CHAN 6 PA EN H	R274K(1)	MTR5	C1	60a	MTR5 EBUS 23 H					
R206K(1)	MTR3	B4	60a	MTR3 INTERVAL MATCH INH H	R204K(1)	MTR4	C2	60a	MTR4 CHAN 7 PA EN H	R13K(1)	MTR5	B7	60a	MTR5 EBUS 24 H					
R2K(1)	MTR3	B6	60a	MTR3 INTERVAL OFF H	R142K(1)	MTR4	D1	60a	MTR4 CHAN BUSY 4 H	R65K(1)	MTR5	B6	60a	MTR5 EBUS 25 H					
R247K(1)	MTR3	C6	60a	MTR3 INTERVAL ON H	R141K(1)	MTR4	D1	60a	MTR4 CHAN BUSY 0 H	R171K(1)	MTR5	B5	60a	MTR5 EBUS 26 H					
R90K(1)	MTR3	D2	60a	MTR3 INTERVAL OVRFLO H	R225K(1)	MTR4	C4	60a	MTR4 CHAN PA DONT CARE H	R200K(1)	MTR5	B3	60a	MTR5 EBUS 27 H					
R301K(1)	MTR3	A5	60a	MTR3 LOAD PA LEFT H	R226K(1)	MTR4	D5	60a	MTR4 CURRENT PI PA EN H	R207K(1)	MTR5	B2	60a	MTR5 EBUS 28 H					
R272K(1)	MTR3	A5	60a	MTR3 LOAD PA RIGHT H	R73K(1)	MTR4	A6	60a	MTR4 EBOX WAITING H	R203K(1)	MTR5	B1	60a	MTR5 EBUS 29 H					
R140K(1)	MTR3	C7	60a	MTR3 NO MATCH 06-09 H	R306K(1)	MTR4	A6	60a	-MTR4 EBOX WAITING H	R173K(1)	MTR5	A7	60a	MTR5 EBUS 30 H					
R205K(1)	MTR3	C6	60a	MTR3 NO MATCH 10-13 H	R76K(1)	MTR4	C7	60a	MTR4 MODE PA DONT CARE H	R236K(1)	MTR5	A6	60a	MTR5 EBUS 31 H					
R139K(1)	MTR3	C4	60a	MTR3 NO MATCH 14-17 H	R265K(1)	MTR4	C7	60a	MTR4 NO PI PA EN H	R300K(1)	MTR5	A5	60a	MTR5 EBUS 32 H					
R170K(1)	MTR3	D7	60a	MTR3 PERIOD 06 H	R227K(1)	MTR4	C7	60a	MTR4 PA EVENT MODE H	R290K(1)	MTR5	A3	60a	MTR5 EBUS 33 H					
R119K(1)	MTR3	D7	60a	MTR3 PERIOD 07 H	R53K(1)	MTR4	A2	60a	MTR4 PERF CNT CLK H	R299K(1)	MTR5	A2	60a	MTR5 EBUS 34 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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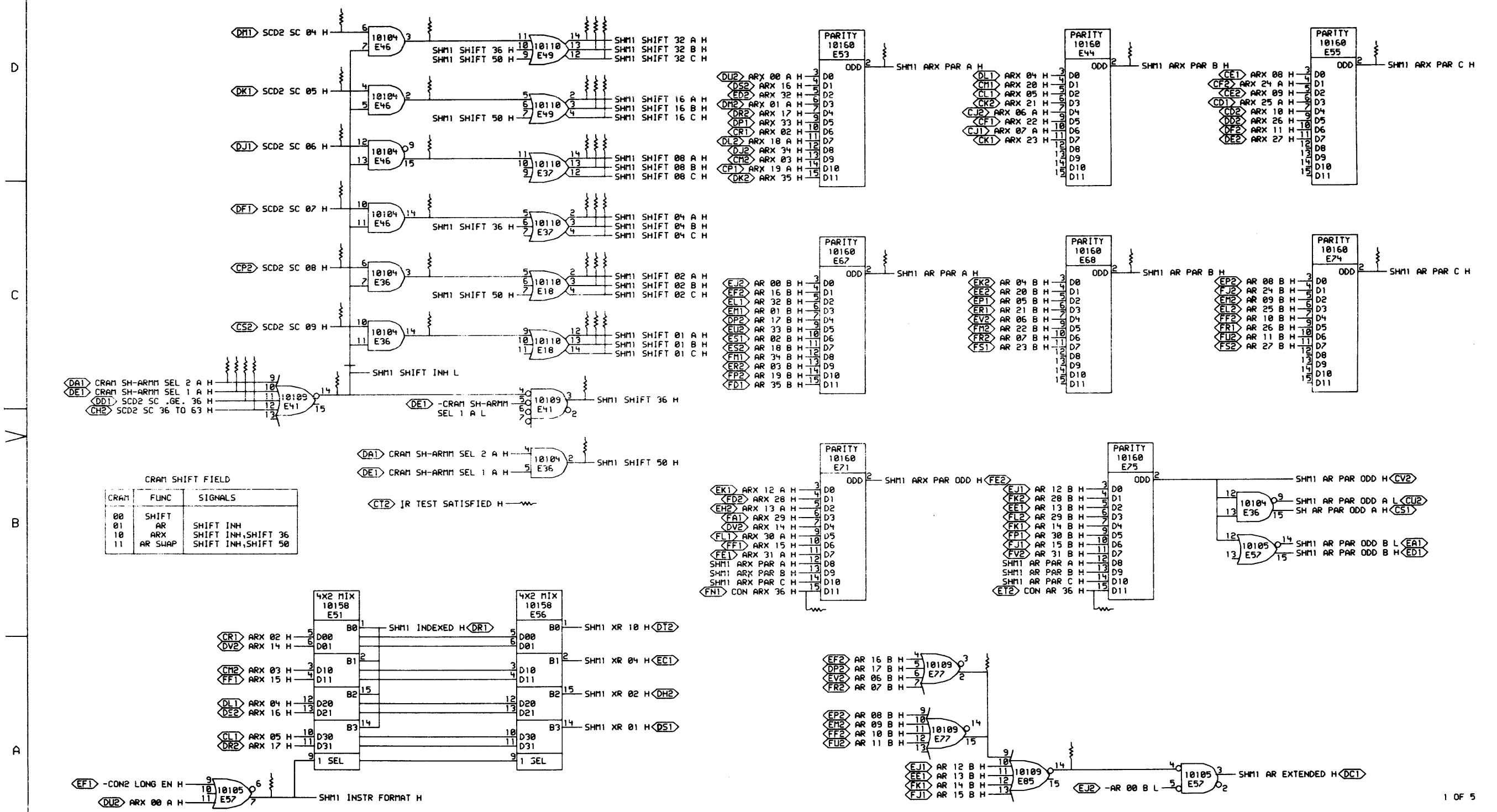
REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>G. Smith</i>	DATE <i>02-04-77</i>	ENG <i>P. Kemp</i>	DATE <i>7 Feb 77</i>	TITLE: METERS TERMINATORS
	CHK <i>D. Phillips</i>	DATE <i>2/4/77</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	REV. <i>C</i>
FIRST USED ON OPTION/MODEL: <i>KL10</i>		NEXT HIGHER ASSEMBLY: <i>B-DD-M8538-0</i>		SIZE CODE: <i>D CS</i>	NUMBER: <i>M8538-0-RES</i>

334

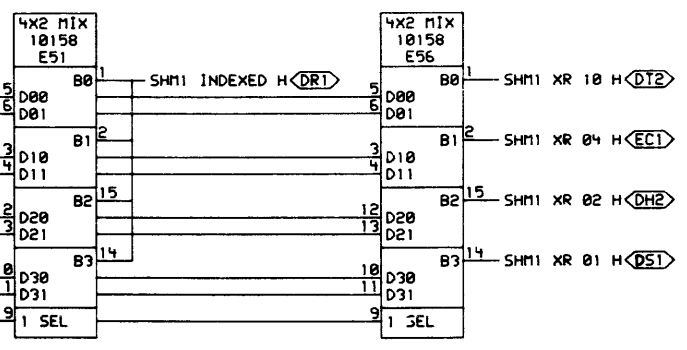






CRAM SHIFT FIELD

CRAM	FUNC	SIGNALS
00	SHIFT	SHIFT INH
01	AR	SHIFT INH, SHIFT 36
10	ARX	SHIFT INH, SHIFT 50
11	AR SWAP	SHIFT INH, SHIFT 50



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REVISIONS

CHK	CHANGE NO.	REV

digital

DATE: 20-SEP-76  
 DATE: 23-SEP-76  
 DATE: 23-SEP-76

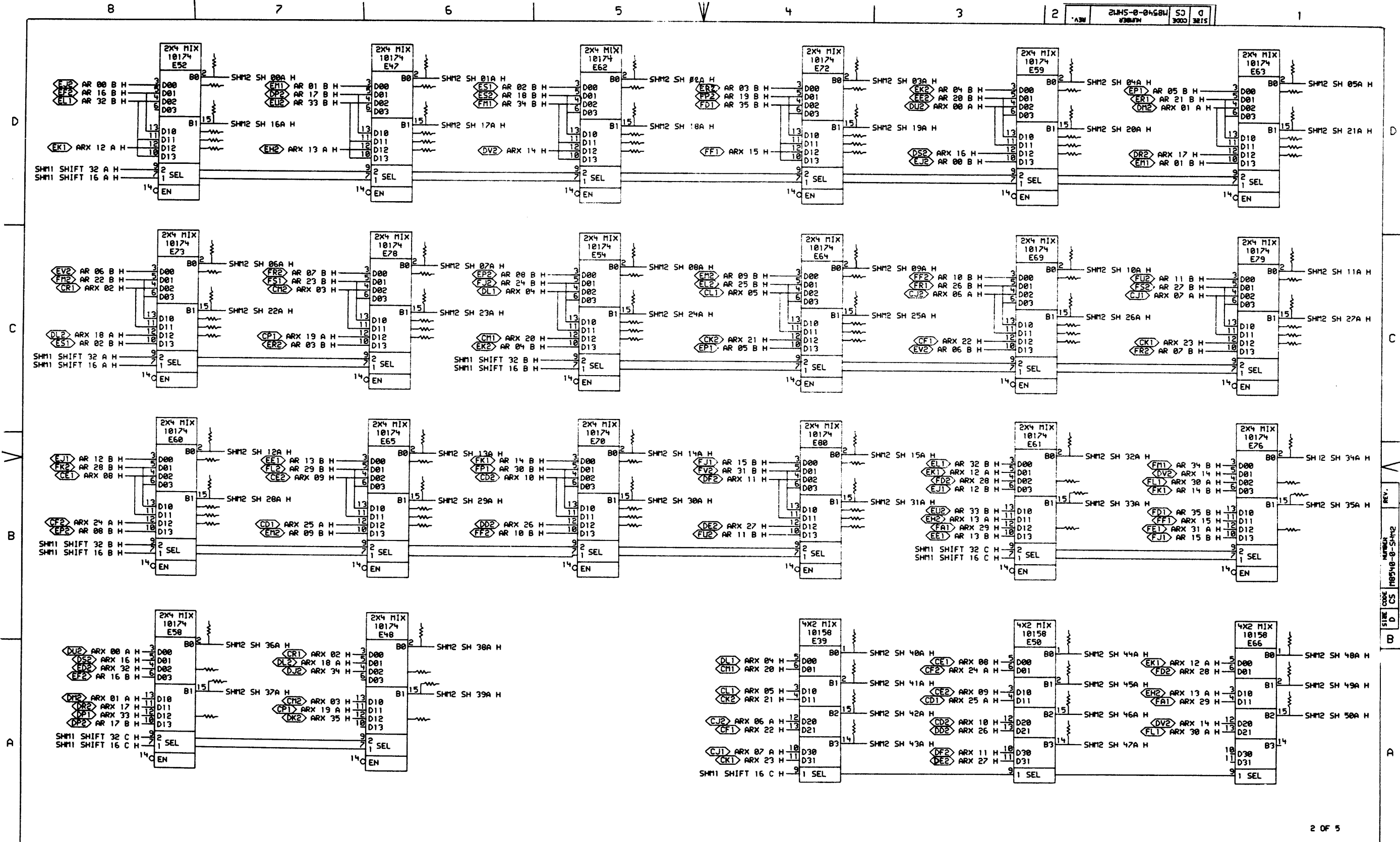
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 CHECKED: [Signature]  
 DATE: 23-SEP-76

TITLE: SHIFT MATRIX CONTROL

SIZE CODE: D CS  
 NUMBER: M8540-0-SHM1  
 REV.:

FIRST USED ON OPTION/MODEL: KL10 B-DD-M8540-0

337



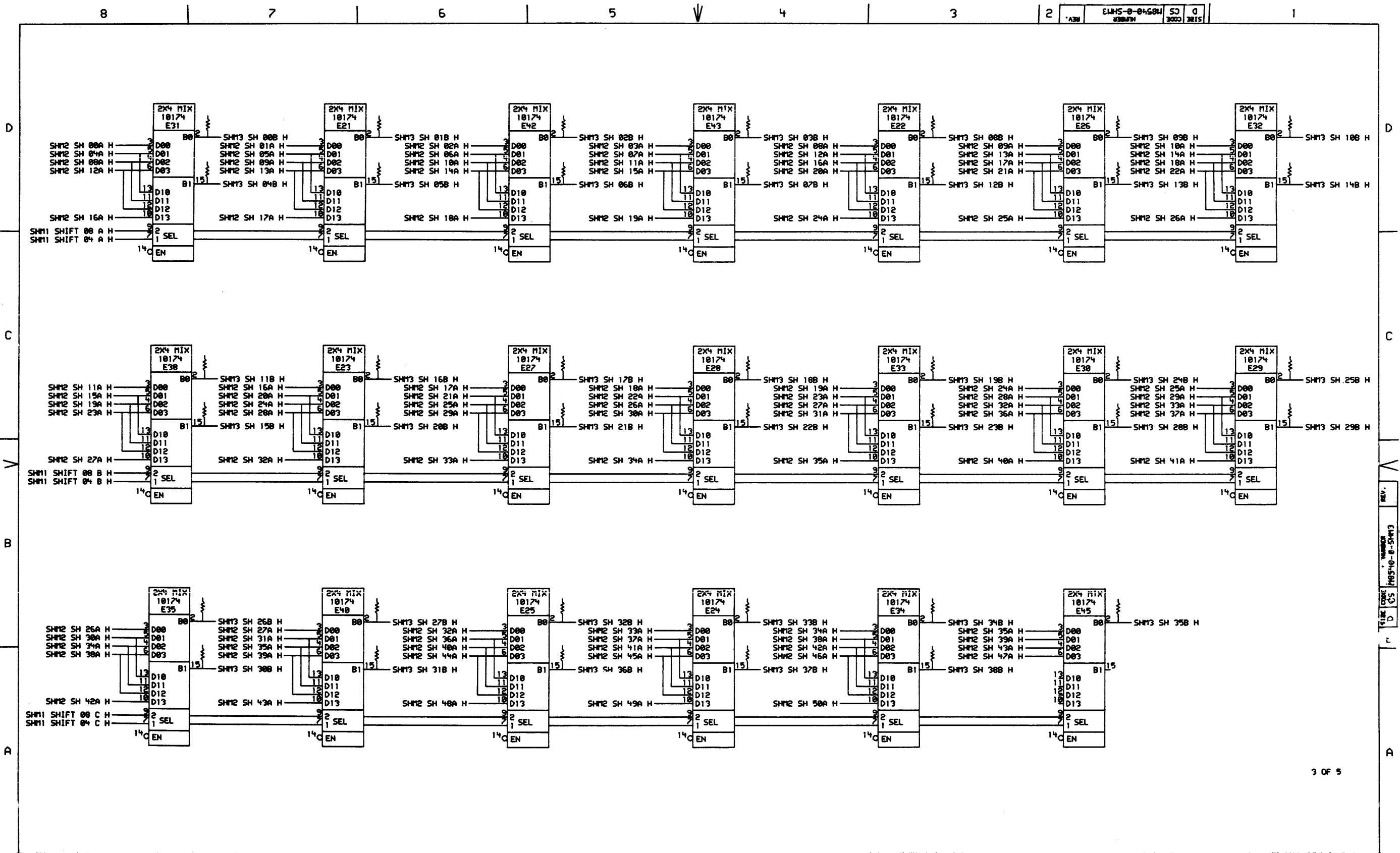
2 OF 5

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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 23 SEP 76 ENG: <i>Tom Gagn</i> DATE: 23 SEP 76 BOARD LOCATION: 4AF46 SHEET: 1 OF 1	TITLE: SHIFT MATRIX SHIFT 16,32
	FIRST USED ON OPTION MODEL: KL10 NEXT HIGHER ASSEMBLY: B-DN-M8540-0	SIZE CODE: D CS NUMBER: M8540-0-SHM2

330



REV. 1  
 NUMBER 1  
 CS 10540-0-SHM3  
 D 1

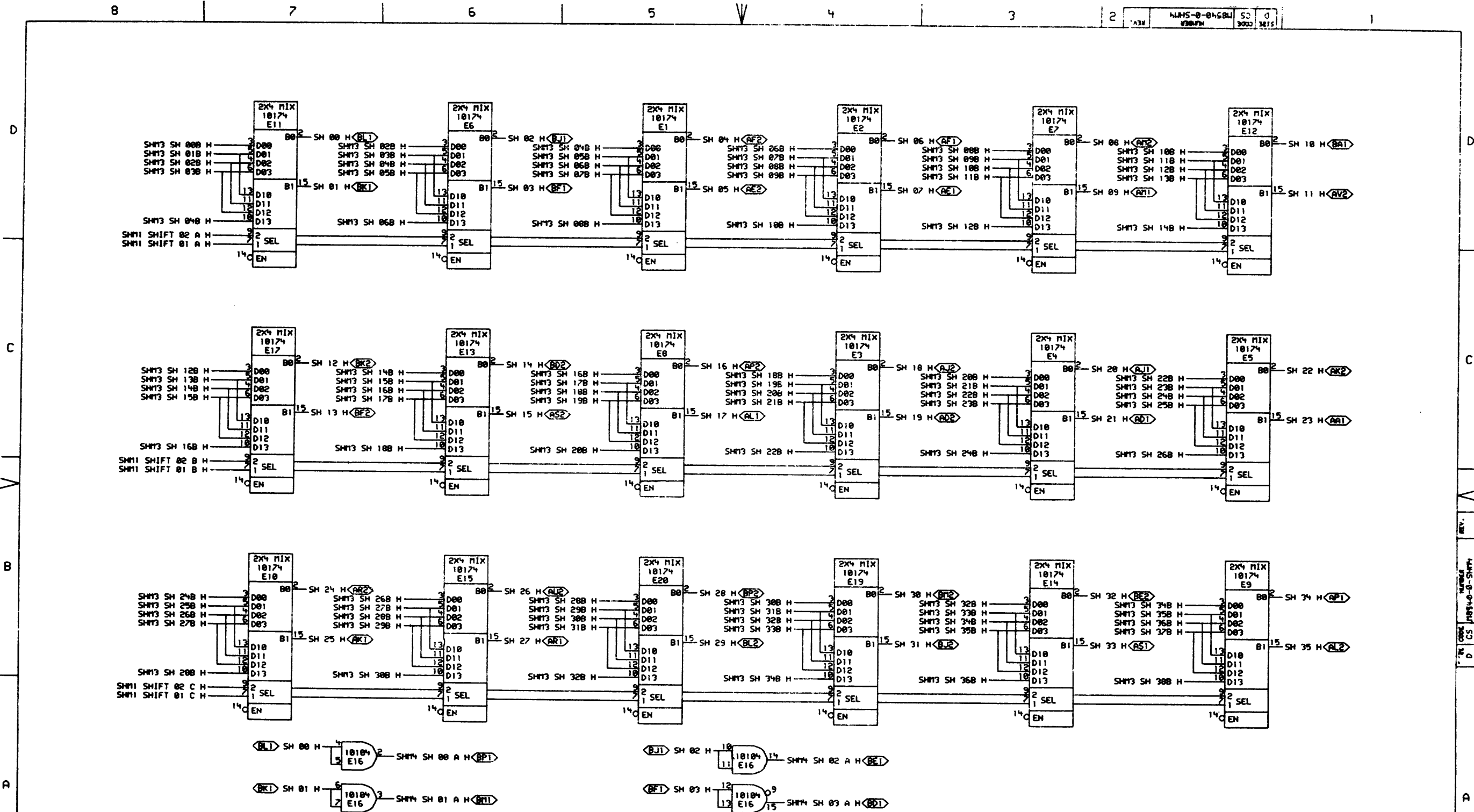
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REVISIONS	
CHK	CHANGE NO. REV

	DATE 11-22-76	DATE 23-SEP-76	TITLE: SHIFT MATRIX SHIFT 4,8
	DATE 25-SEP-76	BOARD LOCATION: 4R46	NUMBER
FIRST USED ON OPTION/MODEL: KL10 B-DD-M8540-0			SIZE CODE D CS
NEXT HIGHER ASSEMBLY:			REV. 1

339

1

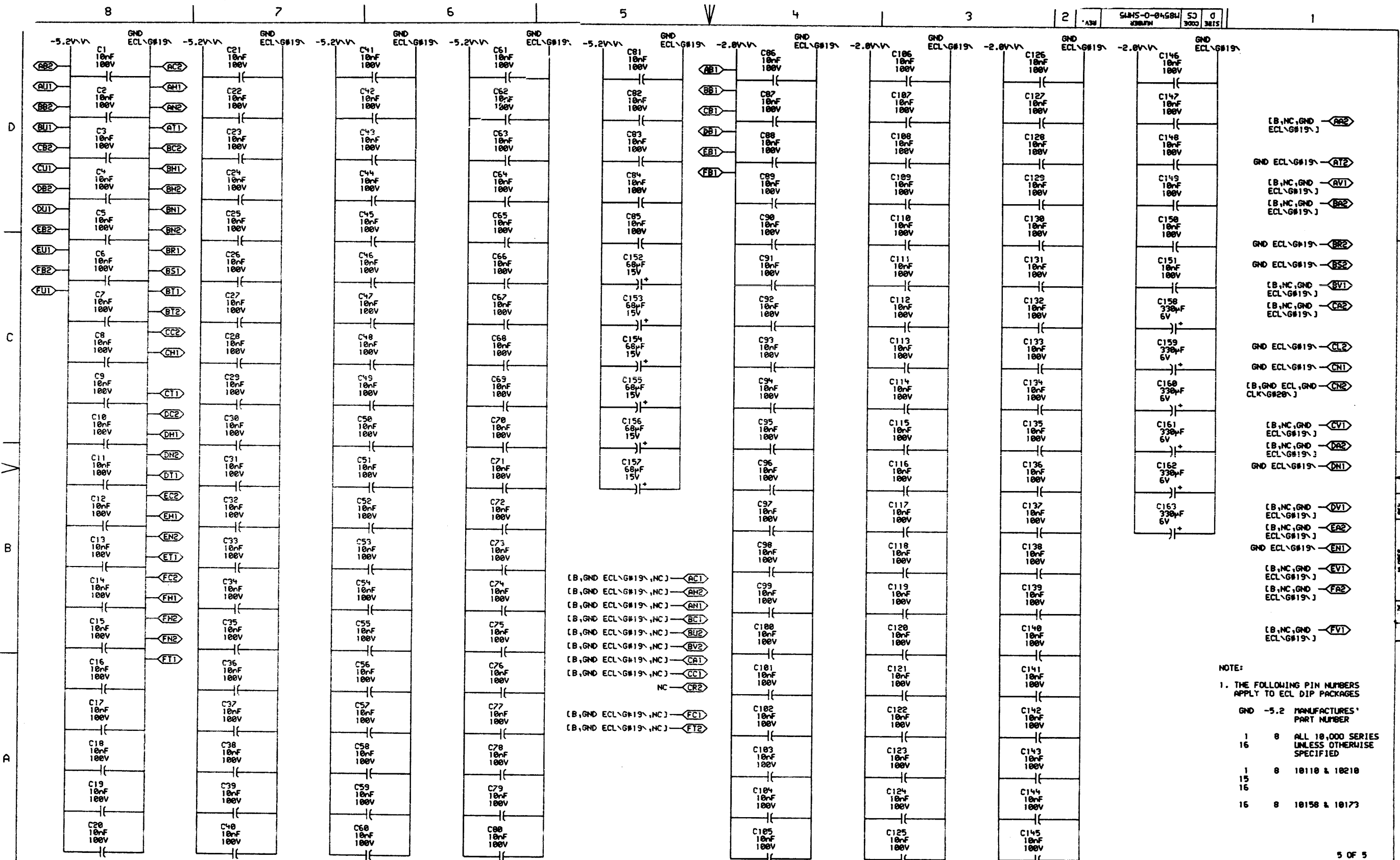


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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 20-SEP-76	ENG: J. J. G. / J. J. G.	DATE: 21-SEP-76	TITLE: SHIFT MATRIX SHIFT 1,2
	DATE: 23-SEP-76	BOARD LOCATION: 4A55	DATE: 23-SEP-76	NUMBER: 340
FIRST USED ON OPTION MODEL: KL10			NEXT HIGHER ASSEMBLY: B-DD-M8540-0	
SIZE: D		CODE: CS	NUMBER: M8540-0-SHM4	REV: MR





- (B,GND ECL/G#19,NC) → AC1
- (B,GND ECL/G#19,NC) → AH2
- (B,GND ECL/G#19,NC) → AN1
- (B,GND ECL/G#19,NC) → BC1
- (B,GND ECL/G#19,NC) → BU2
- (B,GND ECL/G#19,NC) → BV2
- (B,GND ECL/G#19,NC) → CA1
- (B,GND ECL/G#19,NC) → CC1
- NC → CR2
- (B,GND ECL/G#19,NC) → FC1
- (B,GND ECL/G#19,NC) → FT2

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURERS' PART NUMBER
1	8	ALL 18,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173

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REVISIONS	
CHK	CHANGE NO. / REV

	DRN: <i>J. J. J. J.</i> CHD: <i>J. J. J. J.</i>	DATE: 28-SEP-76 DATE: 28-SEP-76	ENG: <i>Tom J. J.</i> DATE: 28-SEP-76	TITLE: SHIFT MATRIX POWER, GND, CAPS
	SHIP:SEA.RLS(L4.161)	31-AUG-76 16:56	BOARD LOCATION: 4AF46	SHEET: 1 OF 1
FIRST USED ON OPTION/MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8540-0	NUMBER: M8540-0-SHM5	REV.:	MR

341



D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R99(1)	SH 11	C6	60a	XE36(14)	R199(1)	SH12	D7	60a	AR 32 B H	R40(1)	SH11	B3	60a	CON AR 36 H	R197(1)	SH11	C7	60a	-SH11 SHIFT INH H
R100(1)	SH11	C6	60a	XE36(3)	R195(1)	SH12	D6	60a	AR 33 B H	R209(1)	SH11	B4	60a	CON ARX 36 H	R187(1)	SH12	D7	60a	SH12 SH 00A H
R193(1)	SH11	C6	60a	XE46(14)	R163(1)	SH12	D5	60a	AR 34 B H	R190(1)	SH11	C7	60a	CRAM SH-ARM1 SEL 1 A H	R170(1)	SH12	D6	60a	SH12 SH 01A H
R192(1)	SH11	D6	60a	XE46(15)	R164(1)	SH12	D4	60a	AR 35 B H	R189(1)	SH11	C7	60a	CRAM SH-ARM1 SEL 2 A H	R156(1)	SH12	D5	60a	SH12 SH 02A H
R77(1)	SH11	D6	60a	XE46(2)	R04(1)	SH12	D2	60a	ARX 00 A H	R193(1)	SH11	B6	60a	IR TEST SATISFIED H	R112(1)	SH12	D4	60a	SH12 SH 03A H
R73(1)	SH11	D6	60a	XE46(3)	R110(1)	SH12	D1	60a	ARX 01 A H	R192(1)	SH11	C7	60a	SCD2 SC .GE. 36 H	R104(1)	SH12	D2	60a	SH12 SH 04A H
R40(1)	SH11	A3	60a	XE77(2)	R124(1)	SH12	C7	60a	ARX 02 H	R190(1)	SH11	D7	60a	SCD2 SC 04 H	R100(1)	SH12	D1	60a	SH12 SH 05A H
R161(1)	SH11	A3	60a	XE05(14)	R127(1)	SH12	C6	60a	ARX 03 H	R199(1)	SH11	D7	60a	SCD2 SC 05 H	R151(1)	SH12	C7	60a	SH12 SH 06A H
R00(1)	SH12	D7	60a	AR 00 B H	R72(1)	SH12	C5	60a	ARX 04 H	R194(1)	SH11	D7	60a	SCD2 SC 06 H	R100(1)	SH12	C6	60a	SH12 SH 07A H
R150(1)	SH12	D6	60a	AR 01 B H	R71(1)	SH12	C4	60a	ARX 05 H	R195(1)	SH11	C7	60a	SCD2 SC 07 H	R145(1)	SH12	C5	60a	SH12 SH 08A H
R125(1)	SH12	D5	60a	AR 02 B H	R07(1)	SH12	C2	60a	ARX 06 A H	R100(1)	SH11	C7	60a	SCD2 SC 08 H	R179(1)	SH12	C4	60a	SH12 SH 09A H
R130(1)	SH12	D4	60a	AR 03 B H	R90(1)	SH12	C1	60a	ARX 07 A H	R191(1)	SH11	C7	60a	SCD2 SC 09 H	R150(1)	SH12	C2	60a	SH12 SH 10A H
R70(1)	SH12	D2	60a	AR 04 B H	R20(1)	SH12	B7	60a	ARX 08 H	R196(1)	SH11	C7	60a	SCD2 SC 36 TO 63 H	R109(1)	SH12	C1	60a	SH12 SH 11A H
R03(1)	SH12	D1	60a	AR 05 B H	R32(1)	SH12	B6	60a	ARX 09 H	R35(1)	SH11	C4	60a	SH11 AR PAR A H	R140(1)	SH12	B7	60a	SH12 SH 12A H
R00(1)	SH12	C7	60a	AR 06 B H	R37(1)	SH12	B5	60a	ARX 10 H	R39(1)	SH11	C3	60a	SH11 AR PAR B H	R102(1)	SH12	B6	60a	SH12 SH 13A H
R121(1)	SH12	C6	60a	AR 07 B H	R46(1)	SH 12	B4	60a	ARX 11 H	R36(1)	SH11	C1	60a	SH11 AR PAR C H	R146(1)	SH12	B5	60a	SH12 SH 14A H
R26(1)	SH12	C5	60a	AR 08 B H	R157(1)	SH12	D7	60a	ARX 12 A H	R204(1)	SH11	D4	60a	SH11 ARX PAR A H	R110(1)	SH12	B4	60a	SH12 SH 15A H
R30(1)	SH12	C4	60a	AR 09 B H	R194(1)	SH12	D6	60a	ARX 13 A H	R205(1)	SH11	D3	60a	SH11 ARX PAR B H	R105(1)	SH12	D7	60a	SH12 SH 16A H
R34(1)	SH12	C2	60a	AR 10 B H	R207(1)	SH12	D5	60a	ARX 14 H	R206(1)	SH11	D1	60a	SH11 ARX PAR C H	R101(1)	SH12	D6	60a	SH12 SH 17A H
R93(1)	SH12	C1	60a	AR 11 B H	R212(1)	SH12	D4	60a	ARX 15 H	R200(1)	SH11	A7	60a	SH11 INSTR FORMAT H	R103(1)	SH12	D5	60a	SH12 SH 18A H
R45(1)	SH12	B7	60a	AR 12 B H	R79(1)	SH12	D2	60a	ARX 16 H	R176(1)	SH11	C5	60a	SH11 SHIFT 01 A H	R107(1)	SH12	D4	60a	SH12 SH 19A H
R49(1)	SH12	B6	60a	AR 13 B H	R117(1)	SH12	D1	60a	ARX 17 H	R141(1)	SH11	C5	60a	SH11 SHIFT 01 B H	R139(1)	SH12	D2	60a	SH12 SH 20A H
R30(1)	SH12	B5	60a	AR 14 B H	R120(1)	SH12	C7	60a	ARX 18 A H	R0(1)	SH11	C5	60a	SH11 SHIFT 01 C H	R106(1)	SH12	D1	60a	SH12 SH 21A H
R43(1)	SH12	B4	60a	AR 15 B H	R126(1)	SH12	C6	60a	ARX 19 A H	R175(1)	SH11	C5	60a	SH11 SHIFT 02 A H	R140(1)	SH12	C7	60a	SH12 SH 22A H
R115(1)	SH12	D7	60a	AR 16 B H	R75(1)	SH12	C5	60a	ARX 20 H	R137(1)	SH11	C5	60a	SH11 SHIFT 02 B H	R102(1)	SH12	C6	60a	SH12 SH 23A H
R166(1)	SH12	D6	60a	AR 17 B H	R02(1)	SH12	C4	60a	ARX 21 H	R9(1)	SH11	C5	60a	SH11 SHIFT 02 C H	R143(1)	SH12	C5	60a	SH12 SH 24A H
R160(1)	SH12	D5	60a	AR 18 B H	R05(1)	SH12	C2	60a	ARX 22 H	R144(1)	SH11	C5	60a	SH11 SHIFT 04 A H	R103(1)	SH12	C4	60a	SH12 SH 25A H
R165(1)	SH12	D4	60a	AR 19 B H	R09(1)	SH12	C1	60a	ARX 23 H	R17(1)	SH11	C5	60a	SH11 SHIFT 04 B H	R149(1)	SH12	C2	60a	SH12 SH 26A H
R01(1)	SH12	D2	60a	AR 20 B H	R25(1)	SH12	B7	60a	ARX 24 A H	R67(1)	SH11	C5	60a	SH11 SHIFT 04 C H	R106(1)	SH12	C1	60a	SH12 SH 27A H
R119(1)	SH12	D1	60a	AR 21 B H	R29(1)	SH12	B6	60a	ARX 25 A H	R142(1)	SH11	D5	60a	SH11 SHIFT 00 A H	R90(1)	SH12	B7	60a	SH12 SH 28A H
R123(1)	SH12	C7	60a	AR 22 B H	R33(1)	SH12	B5	60a	ARX 26 H	R14(1)	SH11	D5	60a	SH11 SHIFT 00 B H	R147(1)	SH12	B6	60a	SH12 SH 29A H
R122(1)	SH12	C6	60a	AR 23 B H	R41(1)	SH12	B4	60a	ARX 27 H	R63(1)	SH11	D5	60a	SH11 SHIFT 00 C H	R104(1)	SH12	B5	60a	SH12 SH 30A H
R76(1)	SH12	C5	60a	AR 24 B H	R202(1)	SH12	B2	60a	ARX 28 H	R129(1)	SH11	D5	60a	SH11 SHIFT 16 A H	R105(1)	SH12	B4	60a	SH12 SH 31A H
R91(1)	SH12	C4	60a	AR 25 B H	R203(1)	SH12	B2	60a	ARX 29 H	R47(1)	SH11	D5	60a	SH11 SHIFT 16 B H	R16(1)	SH12	B2	60a	SH12 SH 32A H
R06(1)	SH12	C2	60a	AR 26 B H	R201(1)	SH12	B1	60a	ARX 30 A H	R211(1)	SH11	D5	60a	SH11 SHIFT 16 C H	R66(1)	SH12	B2	60a	SH12 SH 33A H
R92(1)	SH12	C1	60a	AR 27 B H	R200(1)	SH12	B1	60a	ARX 31 A H	R120(1)	SH11	D5	60a	SH11 SHIFT 32 A H	R15(1)	SH12	B1	60a	SH12 SH 34A H
R24(1)	SH12	B7	60a	AR 28 B H	R116(1)	SH12	A7	60a	ARX 32 H	R44(1)	SH11	D5	60a	SH11 SHIFT 32 B H	R22(1)	SH12	B1	60a	SH12 SH 35A H
R27(1)	SH12	B6	60a	AR 29 B H	R114(1)	SH12	A7	60a	ARX 33 H	R210(1)	SH11	D5	60a	SH11 SHIFT 32 C H	R11(1)	SH12	B7	60a	SH12 SH 36A H
R31(1)	SH12	B5	60a	AR 30 B H	R113(1)	SH12	A6	60a	ARX 34 H	R74(1)	SH11	C5	60a	SH11 SHIFT 36 H	R60(1)	SH12	A7	60a	SH12 SH 37A H
R42(1)	SH12	B4	60a	AR 31 B H	R111(1)	SH12	A6	60a	ARX 35 H	R101(1)	SH11	B5	60a	SH11 SHIFT 50 H	R20(1)	SH12	B6	60a	SH12 SH 38A 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. X INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. <i>C Smith</i>	DATE 19-SEP-76	EMP. <i>Tom Lynn</i>	DATE 23-SEP-76	TITLE: SHIFT MATRIX TERMINATORS
	CHKD. <i>Tom Lynn</i>	DATE 23-SEP-76	BOOKED LOCATION: DE 2	SIZE CODE D CS	NUMBER M8540-0-RES
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8540-0		REV. MR	

D  
C  
B  
A

D  
C  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	ON REF	VALUE	TERMINATES SIGNAL
R19(1)	SH12	A6	68n	SH12 SH 39A H	R6(1)	SH13	C2	68n	SH13 SH 28B H
R12(1)	SH12	A4	68n	SH12 SH 40A H	R7(1)	SH13	C1	68n	SH13 SH 29B H
R64(1)	SH12	A4	68n	SH12 SH 41A H	R61(1)	SH13	A7	68n	SH13 SH 30B H
R18(1)	SH12	A4	68n	SH12 SH 42A H	R62(1)	SH13	A6	68n	SH13 SH 31B H
R23(1)	SH12	A4	68n	SH12 SH 43A H	R58(1)	SH13	B5	68n	SH13 SH 32B H
R10(1)	SH12	A2	68n	SH12 SH 44A H	R59(1)	SH13	B4	68n	SH13 SH 33B H
R60(1)	SH12	A2	68n	SH12 SH 45A H	R57(1)	SH13	B3	68n	SH13 SH 34B H
R69(1)	SH12	A2	68n	SH12 SH 46A H	R56(1)	SH13	B2	68n	SH13 SH 35B H
R21(1)	SH12	A2	68n	SH12 SH 47A H	R53(1)	SH13	A5	68n	SH13 SH 36B H
R13(1)	SH12	A1	68n	SH12 SH 48A H	R55(1)	SH13	A4	68n	SH13 SH 37B H
R65(1)	SH12	A1	68n	SH12 SH 49A H	R54(1)	SH13	A3	68n	SH13 SH 38B H
R70(1)	SH12	A1	68n	SH12 SH 50A H					
R177(1)	SH13	D7	68n	SH13 SH 00B H					
R173(1)	SH13	D6	68n	SH13 SH 01B H					
R174(1)	SH13	D5	68n	SH13 SH 02B H					
R167(1)	SH13	D4	68n	SH13 SH 03B H					
R168(1)	SH13	D7	68n	SH13 SH 04B H					
R169(1)	SH13	D6	68n	SH13 SH 05B H					
R172(1)	SH13	D5	68n	SH13 SH 06B H					
R171(1)	SH13	D4	68n	SH13 SH 07B H					
R170(1)	SH13	D3	68n	SH13 SH 08B H					
R132(1)	SH13	D2	68n	SH13 SH 09B H					
R133(1)	SH13	D1	68n	SH13 SH 10B H					
R131(1)	SH13	C7	68n	SH13 SH 11B H					
R134(1)	SH13	D3	68n	SH13 SH 12B H					
R136(1)	SH13	D2	68n	SH13 SH 13B H					
R97(1)	SH13	D1	68n	SH13 SH 14B H					
R135(1)	SH13	C7	68n	SH13 SH 15B H					
R130(1)	SH13	C6	68n	SH13 SH 16B H					
R94(1)	SH13	C5	68n	SH13 SH 17B H					
R95(1)	SH13	C4	68n	SH13 SH 18B H					
R96(1)	SH13	C3	68n	SH13 SH 19B H					
R50(1)	SH13	C6	68n	SH13 SH 20B H					
R51(1)	SH13	C5	68n	SH13 SH 21B H					
R4(1)	SH13	C4	68n	SH13 SH 22B H					
R3(1)	SH13	C3	68n	SH13 SH 23B H					
R52(1)	SH13	C2	68n	SH13 SH 24B H					
R2(1)	SH13	C1	68n	SH13 SH 25B H					
R5(1)	SH13	B7	68n	SH13 SH 26B H					
R1(1)	SH13	B6	68n	SH13 SH 27B 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. X INDICATES OUTPUT OF DIP LOC AND ( ) INDICATES PIN NUMBER

REV. 2  
 SIZE CODE NUMBER  
 D CS M8540-0-RES

343

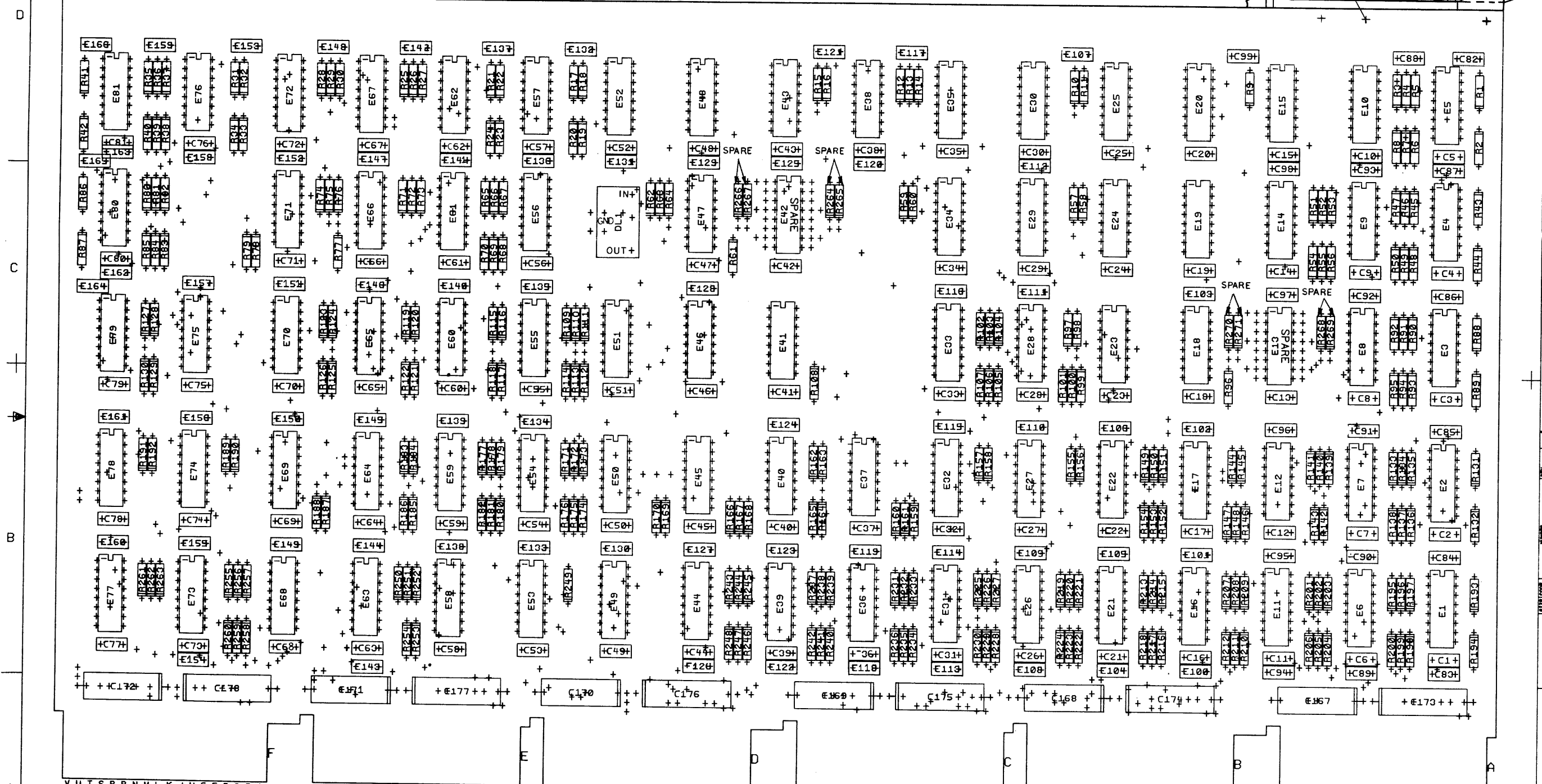
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REVISIONS		
CHK	CHANGE NO.	REV

<b>digital</b>	DATE	12-22-76	DATE	2/24/77	TITLE:	SHIFT MATRIX TERMINATORS
	BY	Smith	BY	Smith	SIZE CODE	D CS
	DATE	11-22-76	DATE	12/18/76	NUMBER	M8540-0-RES
	BY	Smith	BY	Smith	REV.	
FIRST USED ON OPTION/MODEL:		KL10				



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NOTES:

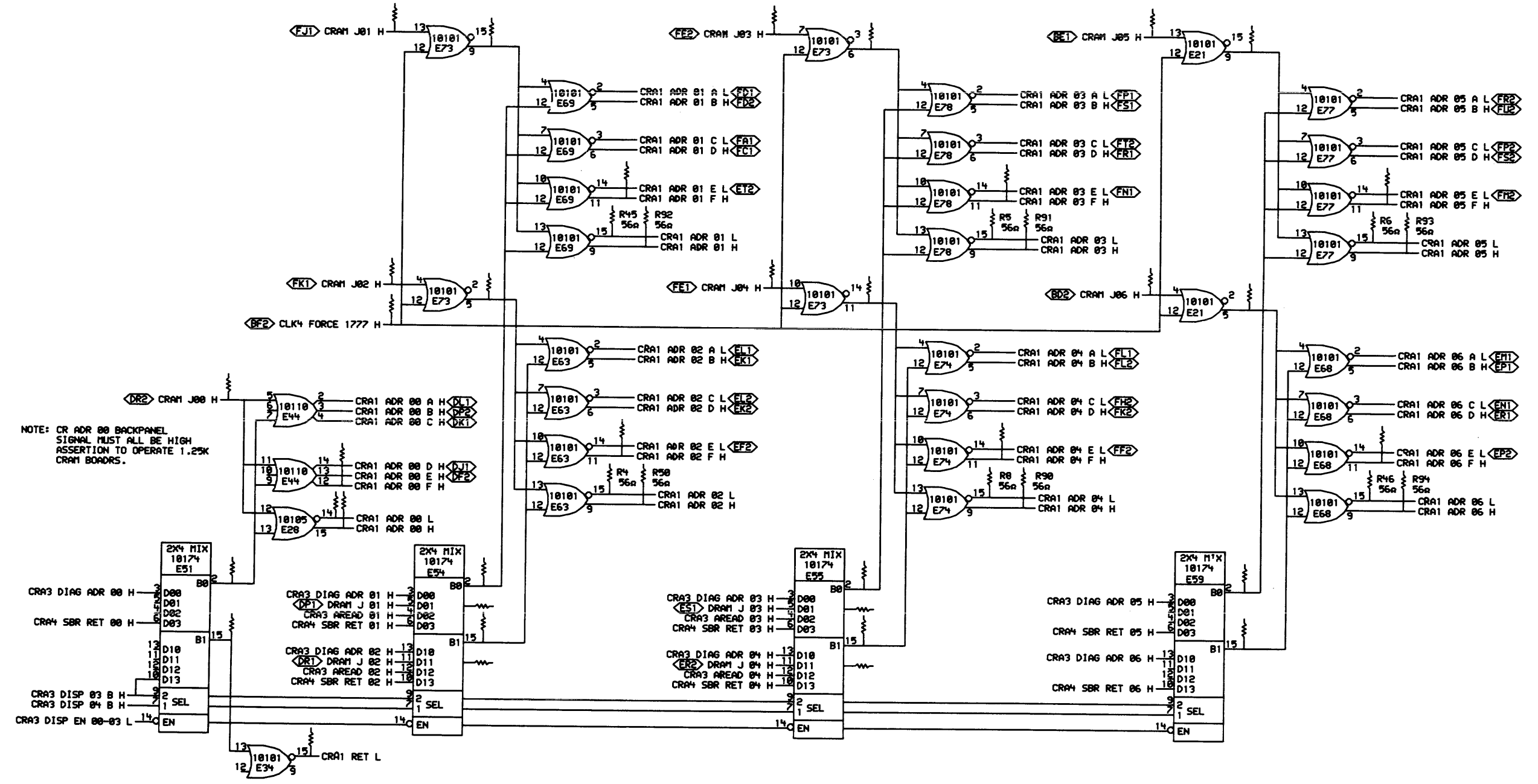
CHG	CHANGE NO	REV

SIGNATURES	DATE
DRN. <i>J. R. ...</i>	20 FEB 76
CHK'D. <i>R. ...</i>	20 FEB 76
ENG. <i>Tom ...</i>	5 Oct 74
PROD. ENG. <i>T. ...</i>	5 Oct 74
PROJ. <i>Bill ...</i>	15 Oct 76

TITLE: CONTROL RAM ADDRESS

SCALE	2 TO 1	SIZE	CODE	NUMBER	REV
SHT. 2	OF 5	D	UA	M8541-0-0	

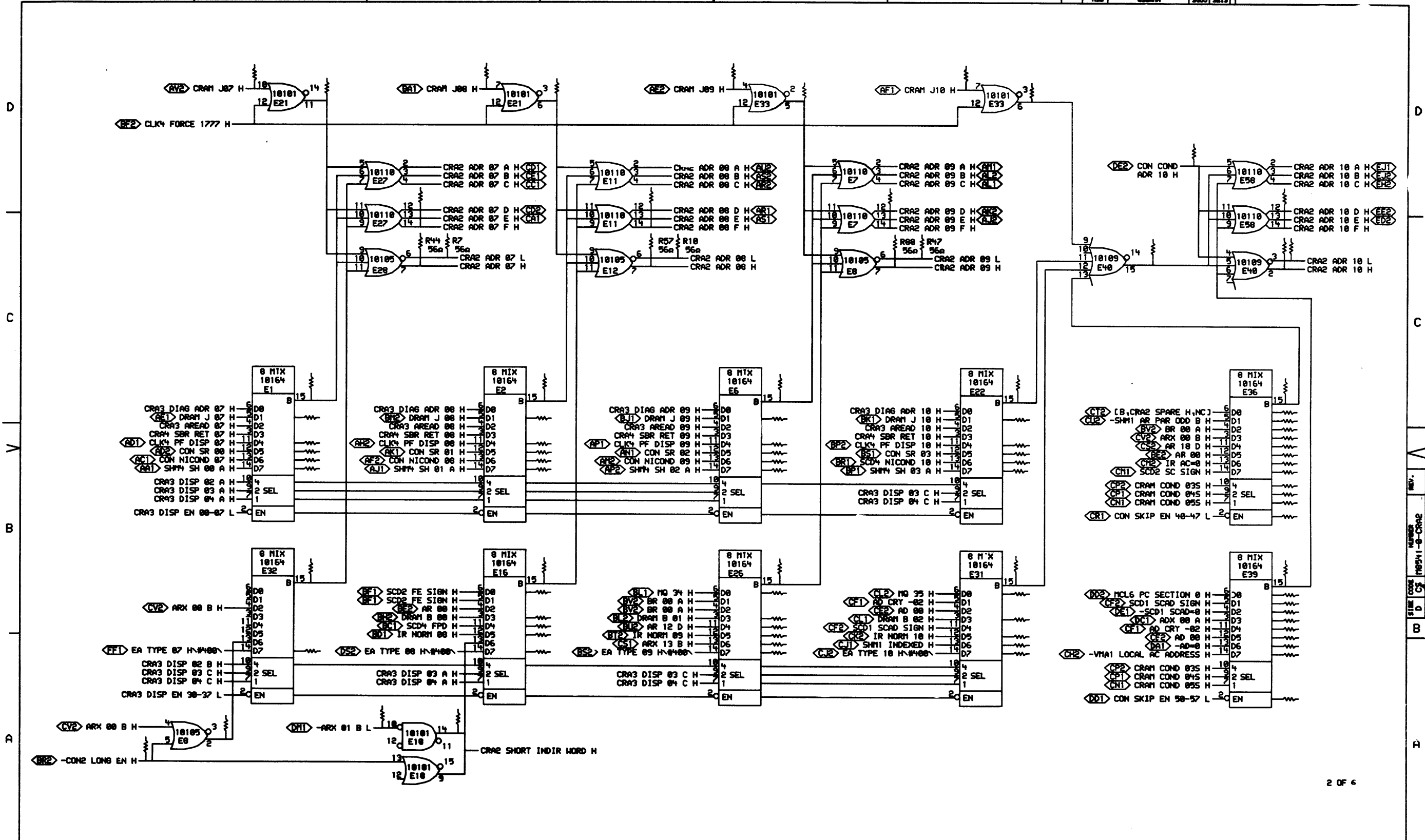
ETCH REV FIRST USED ON K110



NOTE: CR ADR 00 BACKPANEL SIGNAL MUST ALL BE HIGH ASSERTION TO OPERATE 1.25K CRAM BOARDS.

REVISIONS	
CHK	CHANGE NO. REV

	DATE: 8-29-76	ENG: <i>Tom Egan</i>	DATE: 2/26/76	TITLE: CONTROL RAM ADR
	DATE: 11/2/76	CHK: <i>Tom Egan</i>	DATE: 11/2/76	CR ADDR 00-06
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8541-0		SIZE: D CS
NUMBER: M8541-0-CRA1			REV.:	346

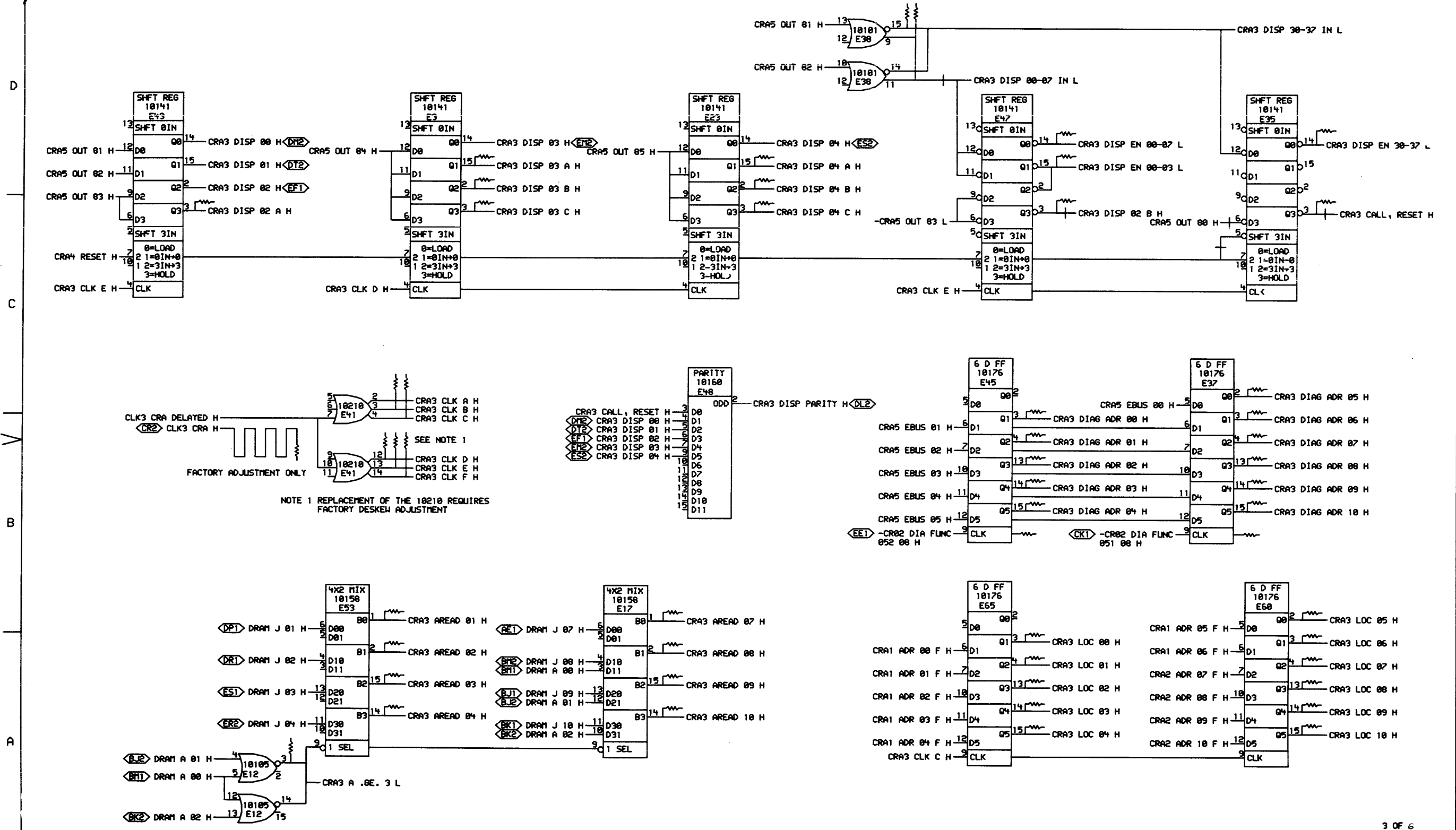


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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 11-2-76 DESIGNED BY: [Signature] CHECKED BY: [Signature]	DATE: 2/2/77 REVISION: 1 BOARD LOCATION: 58E43	TITLE: CONTROL RAM ADR CR ADR 07-10
	FIRST USED ON OPTION MODEL: KL10	B-DD-M8541-0	SIZE CODE: D CS NUMBER: M8541-0-CRA2

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NOTE 1 REPLACEMENT OF THE 10210 REQUIRES FACTORY DESKTOP ADJUSTMENT

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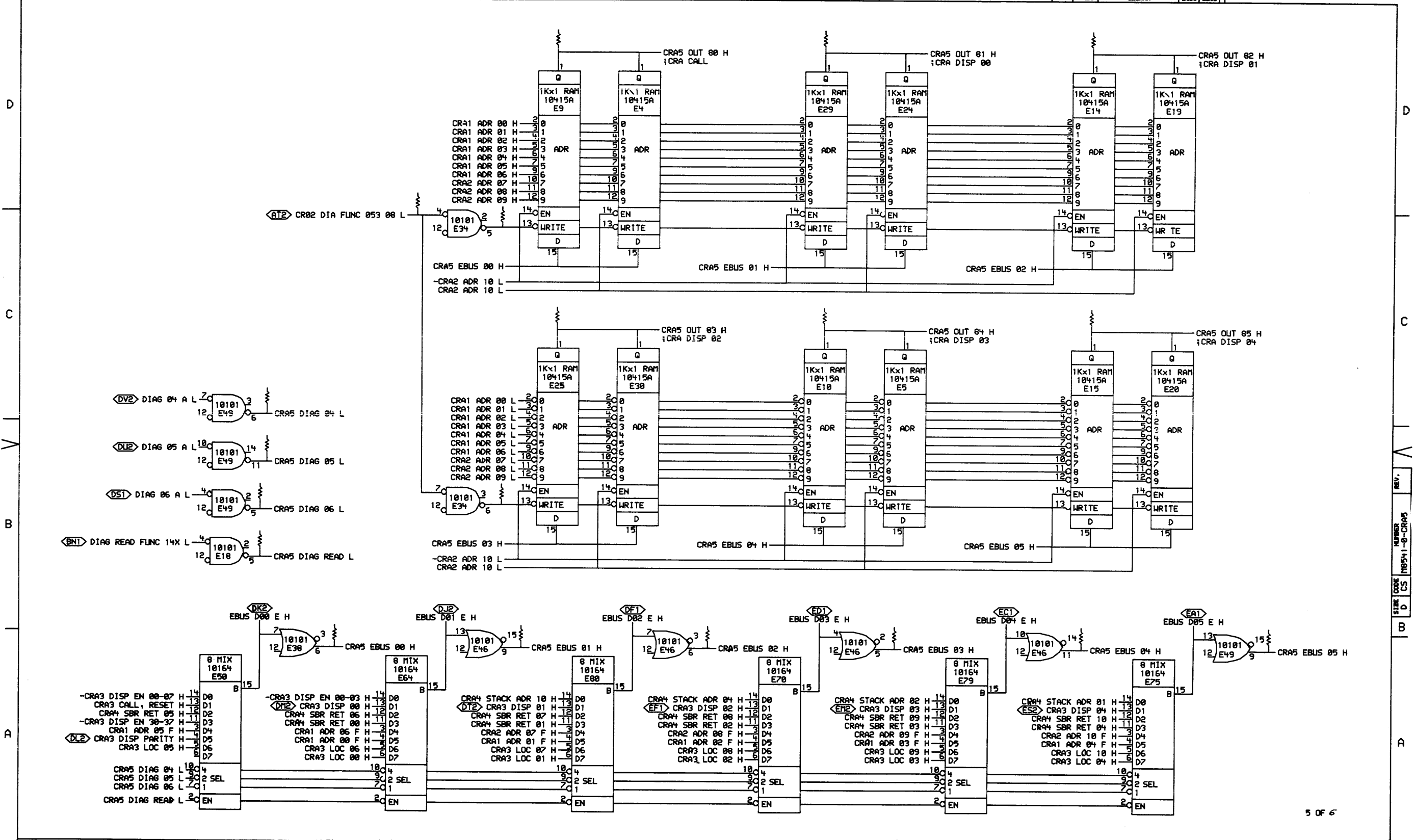
REVISIONS	
CHK	C A GE NO. REV

	DR. J. J. [Signature] DATE: 17-SEP-76 TIME: 22:23	ENG: [Signature] DATE: 28-SEP-76 TIME: 10:45	TITLE: CONTROL RAM ADR REGISTERS
	CRA3A.RLS(4.161) FIRST USED ON OPTION MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8541-0	SIZE CODE: D CS NUMBER: M8541-0-CRA3

348







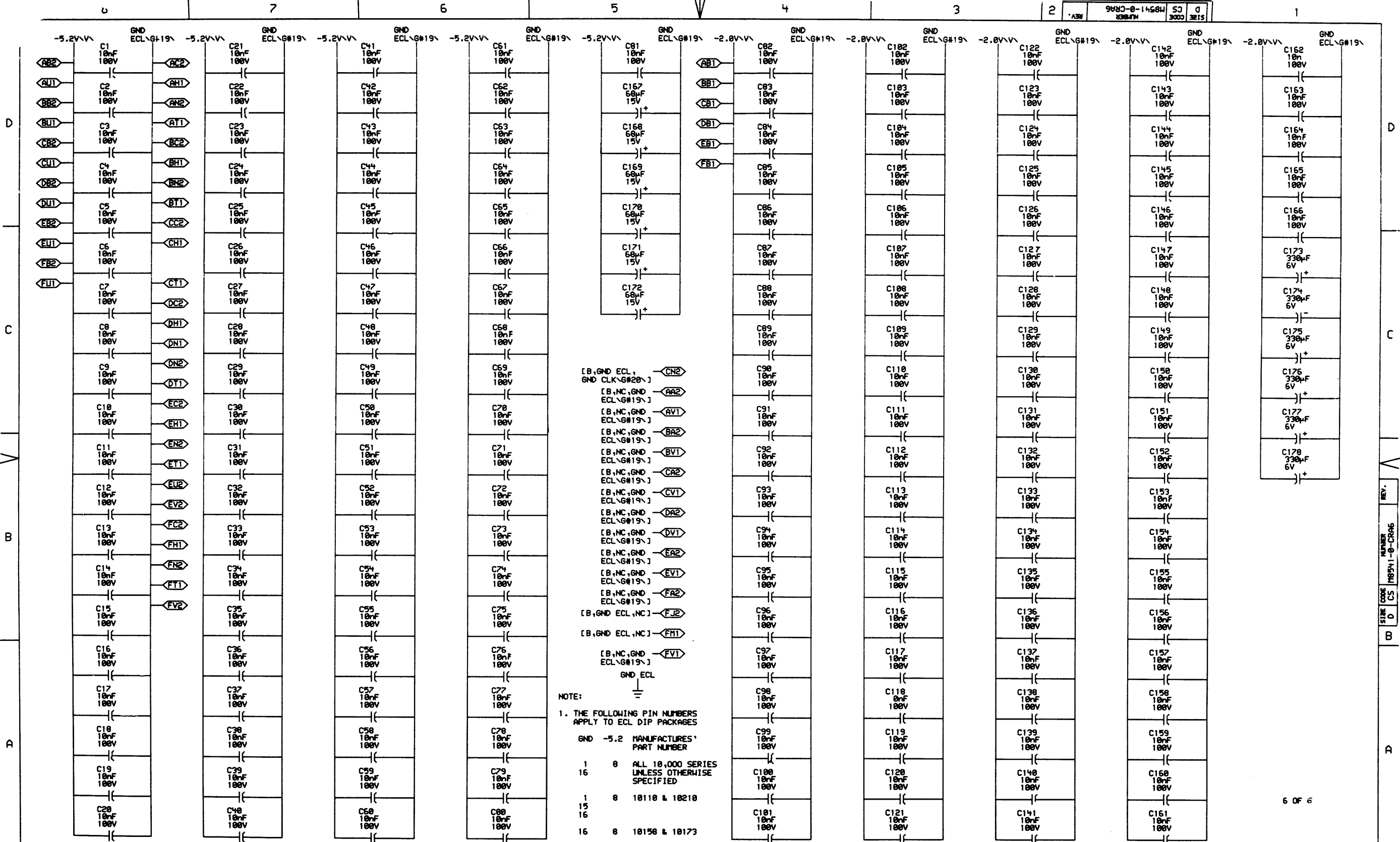
REV. NUMBER CS D SIZE CODE 18541-0-CRA5

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REVISIONS	
CHK	CH-NGE NO. REV

	DATE	ENG. 10/23/76	DATE	23/2/76	TITLE:	CONTROL RAM ADR
	28-SEP-76	23/2/76	23/2/76	23/2/76	2K RAM & DIAG	
CHAP. 11	DATE	17-SEP-76	DATE	17-SEP-76	SIZE CODE	D CS
117-SEP-76	17-SEP-76	17-SEP-76	17-SEP-76	17-SEP-76	NUM ER	M8541-0-CRA5
FIR T USED ON OPTION MODEL: KL10	NEXT HIGHER ASSEMBLY:	B-DD-18541-0			REV.	

350



- [B,GND ECL, GND CLK#20] - CN2
- [B,NC,GND ECL#19] - AA2
- [B,NC,GND ECL#19] - AV1
- [B,NC,GND ECL#19] - BA2
- [B,NC,GND ECL#19] - BV1
- [B,NC,GND ECL#19] - CA2
- [B,NC,GND ECL#19] - CV1
- [B,NC,GND ECL#19] - DA2
- [B,NC,GND ECL#19] - DV1
- [B,NC,GND ECL#19] - EA2
- [B,NC,GND ECL#19] - EV1
- [B,NC,GND ECL#19] - FA2
- [B,GND ECL,NC] - FJ2
- [B,GND ECL,NC] - FM1
- [B,NC,GND ECL#19] - FV1

NOTE:  
1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURE'S PART NUMBER
1	8	ALL 18,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10110 & 10210
15	8	10150 & 10173
16	8	10150 & 10173

REVISIONS	
CHK	CHANGE NO. REV

**digital** DRN. *St. J. ...* DA E ENR *...* DATE *23 SEP 76*  
 DATE *23 SEP 76* BOARD LOCATION: *48F42*  
 SHEET *1* OF *1*  
 TITLE: CONTROL RAM ADR POWER, GND, CAPS  
 SIZE CODE NUMBER REV.  
 D CS M8541-0-CRAG  
 FIR T USED ON OPTION MODEL: KL10 B-DD-M8541-0

351

D  
C  
V  
B  
A

D  
C  
V  
B  
A

RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN DR#	ON REF	VALUE	TERMINATES SIGNAL
R63(1)	CRA4	A7	100a	XDL1(2)	R192(1)	CRA1	D4	60a	XE73(6)	R53(1)	CRA1	B7	60a	CRA1 ADR 00 H	R109(1)	CRA3	A6	60a	CRA3 AREAD 04 H
R101(1)	CRA2	C7	60a	XE1(15)	R100(1)	CRA1	D6	60a	XE73(9)	R3(1)	CRA1	B7	60a	-CRA1 ADR 00 H	R197(1)	CRA3	B5	60a	CRA3 AREAD 07 H
R145(1)	CRA2	B5	60a	XE16(15)	R93(1)	CRA4	B2	60a	XE76(1)	R125(1)	CRA1	B7	60a	CRA1 ADR 00 F H	R134(1)	CRA3	A5	60a	CRA3 AREAD 08 H
R210(1)	CRA2	C5	60a	XE2(15)	R42(1)	CRA4	B2	60a	XE76(14)	R92(1)	CRA1	C5	56a	CRA1 ADR 01 H	R209(1)	CRA3	A5	60a	CRA3 AREAD 09 H
R100(1)	CRA2	D7	60a	XE21(11)	R98(1)	CRA4	B2	60a	XE76(15)	R45(1)	CRA1	C5	56a	-CRA1 ADR 01 H	R151(1)	CRA3	A5	60a	CRA3 AREAD 10 H
R256(1)	CRA1	C2	60a	XE21(5)	R35(1)	CRA4	B2	60a	XE76(2)	R81(1)	CRA1	C5	60a	CRA1 ADR 01 F H	R107(1)	CRA3	C1	60a	CRA3 CALL, RESET H
R144(1)	CRA2	D5	60a	XE21(6)	R20(1)	CRA4	C7	60a	XE8(14)	R50(1)	CRA1	B5	56a	CRA1 ADR 02 H	R62(1)	CRA4	A8	100a	CRA3 CLK A H
R262(1)	CRA1	D2	60a	XE21(9)	R60(1)	CRA4	C7	60a	XE8(15)	R4(1)	CRA1	B5	56a	-CRA1 ADR 02 H	R41(1)	CRA3	C5	60a	CRA3 CLK B H
R163(1)	CRA2	C3	60a	XE22(15)	R157(1)	CRA2	A7	60a	XE8(2)	R126(1)	CRA1	B5	60a	CRA1 ADR 02 F H	R122(1)	CRA3	C6	60a	CRA3 CLK C H
R141(1)	CRA2	B4	60a	XE26(15)	R237(1)	CRA2	B1	60a	AD 00 H	R91(1)	CRA1	C3	56a	CRA1 ADR 03 H	R95(1)	CRA3	B6	60a	CRA3 CLK D H
R40(1)	CRA4	C4	60a	XE20(3)	R241(1)	CRA2	B1	60a	AD CRY -02 H	R5(1)	CRA1	C3	56a	-CRA1 ADR 03 H	R14(1)	CRA3	B6	60a	CRA3 CLK E H
R162(1)	CRA2	B3	60a	XE31(15)	R244(1)	CRA2	A1	60a	-AD-0 H	R120(1)	CRA1	C3	60a	CRA1 ADR 03 F H	R76(1)	CRA3	B6	60a	CRA3 CLK F H
R90(1)	CRA2	B7	60a	XE32(15)	R166(1)	CRA2	B1	60a	ADX 00 A H	R90(1)	CRA1	B3	56a	CRA1 ADR 04 H	R111(1)	CRA3	C3	60a	CRA3 DIAG ADR 00 H
R143(1)	CRA2	D4	60a	XE33(5)	R231(1)	CRA2	B1	60a	AR 00 H	R0(1)	CRA1	B3	56a	-CRA1 ADR 04 H	R170(1)	CRA3	B3	60a	CRA3 DIAG ADR 01 H
R164(1)	CRA2	D3	60a	XE33(6)	R224(1)	CRA2	B4	60a	AR 12 D H	R119(1)	CRA1	B3	60a	CRA1 ADR 04 F H	R172(1)	CRA3	B3	60a	CRA3 DIAG ADR 02 H
R45(1)	CRA5	C6	60a	XE34(5)	R236(1)	CRA2	B1	60a	AR 10 D H	R93(1)	CRA1	C1	56a	CRA1 ADR 05 H	R115(1)	CRA3	B3	60a	CRA3 DIAG ADR 03 H
R2(1)	CRA5	B6	60a	XE34(6)	R95(1)	CRA2	B1	60a	ARX 00 B H	R6(1)	CRA1	C2	56a	-CRA1 ADR 05 H	R110(1)	CRA3	B3	60a	CRA3 DIAG ADR 04 H
R165(1)	CRA2	C1	60a	XE36(15)	R96(1)	CRA2	A6	60a	ARX 01 B H	R173(1)	CRA1	C1	60a	CRA1 ADR 05 F H	R104(1)	CRA3	C2	60a	CRA3 DIAG ADR 05 H
R253(1)	CRA2	B1	60a	XE39(15)	R220(1)	CRA2	A4	60a	ARX 13 B H	R94(1)	CRA1	B1	56a	CRA1 ADR 06 H	R177(1)	CRA3	C2	60a	CRA3 DIAG ADR 06 H
R254(1)	CRA2	C2	60a	XE40(15)	R232(1)	CRA2	B1	60a	BR 00 A H	R46(1)	CRA1	B2	56a	-CRA1 ADR 06 H	R196(1)	CRA3	B2	60a	CRA3 DIAG ADR 07 H
R59(1)	CRA1	B7	60a	XE51(15)	R100(1)	CRA3	B7	60a	CLK3 CRA H	R121(1)	CRA1	B1	60a	CRA1 ADR 06 F H	R142(1)	CRA3	B2	60a	CRA3 DIAG ADR 08 H
R97(1)	CRA1	B7	60a	XE51(2)	R255(1)	CRA1	C6	60a	CLK4 FORCE 1777 H	R102(1)	CRA1	A7	60a	-CRA1 RET H	R205(1)	CRA3	B2	60a	CRA3 DIAG ADR 09 H
R250(1)	CRA1	B6	60a	XE54(15)	R190(1)	CRA2	B7	60a	CLK4 PF DISP 07 H	R44(1)	CRA2	C6	56a	CRA2 ADR 07 H	R156(1)	CRA3	B2	60a	CRA3 DIAG ADR 10 H
R187(1)	CRA1	B6	60a	XE54(2)	R136(1)	CRA2	B6	60a	CLK4 PF DISP 08 H	R7(1)	CRA2	C6	56a	-CRA2 ADR 07 H	R61(1)	CRA3	D3	60a	-CRA3 DISP 00-07 IN H
R109(1)	CRA1	B4	60a	XE55(15)	R200(1)	CRA2	B4	60a	CLK4 PF DISP 09 H	R04(1)	CRA2	D6	60a	CRA2 ADR 07 F H	R132(1)	CRA3	C7	60a	CRA3 DISP 02 A H
R191(1)	CRA1	B4	60a	XE55(2)	R153(1)	CRA2	B3	60a	CLK4 PF DISP 10 H	R47(1)	CRA2	C5	56a	CRA2 ADR 08 H	R217(1)	CRA3	C3	60a	CRA3 DISP 02 B H
R257(1)	CRA1	B2	60a	XE59(15)	R252(1)	CRA2	D2	60a	CON COND ADR 10 H	R10(1)	CRA2	C5	56a	-CRA2 ADR 08 H	R211(1)	CRA3	D6	60a	CRA3 DISP 03 A H
R261(1)	CRA1	B2	60a	XE59(2)	R194(1)	CRA2	B7	60a	CON NICOND 07 H	R123(1)	CRA2	D5	60a	CRA2 ADR 08 F H	R102(1)	CRA3	D6	60a	CRA3 DISP 03 B H
R140(1)	CRA2	C4	60a	XE6(15)	R131(1)	CRA2	B6	60a	CON NICOND 08 H	R00(1)	CRA2	C3	56a	CRA2 ADR 09 H	R229(1)	CRA3	C6	60a	CRA3 DISP 03 C H
R67(1)	CRA4	C7	60a	XE61(15)	R201(1)	CRA2	B4	60a	CON NICOND 09 H	R47(1)	CRA2	C3	56a	-CRA2 ADR 09 H	R216(1)	CRA3	D4	60a	CRA3 DISP 04 A H
R17(1)	CRA4	C7	60a	XE61(2)	R230(1)	CRA2	B1	60a	-CON SKIP EN 40-47 H	R130(1)	CRA2	D3	60a	CRA2 ADR 09 F H	R105(1)	CRA3	D4	60a	CRA3 DISP 04 B H
R71(1)	CRA4	B5	60a	XE67(1)	R167(1)	CRA2	A1	60a	-CON SKIP EN 50-57 H	R51(1)	CRA2	C1	60a	CRA2 ADR 10 H	R220(1)	CRA3	C4	60a	CRA3 DISP 04 C H
R77(1)	CRA4	B5	60a	XE67(14)	R199(1)	CRA2	B7	60a	CON SR 00 H	R43(1)	CRA2	C1	60a	-CRA2 ADR 10 H	R12(1)	CRA3	D4	60a	-CRA3 DISP 30-37 IN H
R72(1)	CRA4	B5	60a	XE67(15)	R130(1)	CRA2	B6	60a	CON SR 01 H	R127(1)	CRA2	D1	60a	CRA2 ADR 10 F H	R103(1)	CRA3	D3	60a	-CRA3 DISP EN 00-03 H
R75(1)	CRA4	B3	60a	XE72(1)	R204(1)	CRA2	B4	60a	CON SR 02 H	R140(1)	CRA2	A6	60a	CRA2 SHORT INDIR WORD H	R202(1)	CRA3	D3	60a	-CRA3 DISP EN 00-07 H
R79(1)	CRA4	B3	60a	XE72(14)	R149(1)	CRA2	B3	60a	CON SR 03 H	R240(1)	CRA2	C1	60a	CRA2 SPARE H	R170(1)	CRA3	D1	60a	-CRA3 DISP EN 30-37 H
R70(1)	CRA4	B3	60a	XE72(15)	R56(1)	CRA2	A8	60a	-CON2 LONG EN H	R249(1)	CRA3	A7	60a	-CRA3 A .GE. 3 H	R30(1)	CRA3	B3	60a	CRA3 LOC 00 H
R74(1)	CRA4	B3	60a	XE72(2)	R159(1)	CRA3	B2	60a	-CR02 DIA FLNC 051 00 H	R101(1)	CRA3	B6	60a	CRA3 AREAD 01 H	R06(1)	CRA3	A3	60a	CRA3 LOC 01 H
R190(1)	CRA1	C4	60a	XE73(11)	R169(1)	CRA3	B3	60a	-CR02 DIA FLNC 052 00 H	R171(1)	CRA3	A6	60a	CRA3 AREAD 02 H	R25(1)	CRA3	A3	60a	CRA3 LOC 02 H
R251(1)	CRA1	C6	60a	XE73(5)	R60(1)	CRA5	C6	60a	-CR02 DIA FLNC 053 00 H	R117(1)	CRA3	A6	60a	CRA3 AREAD 03 H	R33(1)	CRA3	A3	60a	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

REV. 1  
 NUMBER 108541-0-RES  
 CS  
 D

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REVISIONS		
CHK	CHANGE NO.	REV

digital DRN. *G. Smith* DATE 17-SEP-76  
 CHECKED BY *John Igara* DATE 23-SEP-76  
 BOARD LOCATION: DE 2  
 TITLE: CONTROL RAM ADR TERMINATORS  
 FIRST USED ON OPTION/MODEL: KL10  
 NEXT HIGHER ASSEMBLY: B-DD-108541-0  
 SIZE CODE D CS NUMBER 108541-0-RES REV. 1

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
R32(1)	CRA3	A3	68n	CRA3 LOC 04 H	R87(1)	CRA5	B7	68n	-CRA5 DIAG 06 H	R147(1)	CRA2	A6	68n	EA TYPE 08 H-#400
R29(1)	CRA3	B1	68n	CRA3 LOC 05 H	R88(1)	CRA5	B7	68n	-CRA5 DIAG READ H	R219(1)	CRA2	A4	68n	EA TYPE 09 H-#400
R28(1)	CRA3	B1	68n	CRA3 LOC 06 H	R48(1)	CRA5	A7	68n	CRA5 EBUS 00 H	R225(1)	CRA2	A3	68n	EA TYPE 10 H-#400
R37(1)	CRA3	A1	68n	CRA3 LOC 07 H	R58(1)	CRA5	A6	68n	CRA5 EBUS 01 H	R161(1)	CRA2	B1	68n	IR AC=0 H
R36(1)	CRA3	A1	68n	CRA3 LOC 08 H	R52(1)	CRA5	A4	68n	CRA5 EBUS 02 H	R207(1)	CRA2	B6	68n	IR NORM 08 H
R34(1)	CRA3	A1	68n	CRA3 LOC 09 H	R11(1)	CRA5	A3	68n	CRA5 EBUS 03 H	R223(1)	CRA2	B4	68n	IR NORM 09 H
R31(1)	CRA3	A1	68n	CRA3 LOC 10 H	R1(1)	CRA5	A2	68n	CRA5 EBUS 04 H	R235(1)	CRA2	B3	68n	IR NORM 10 H
R104(1)	CRA4	A2	68n	CRA4 CALL, RESET, 1777 H	R9(1)	CRA5	A1	68n	CRA5 EBUS 05 H	R240(1)	CRA2	B1	68n	MCL6 PC SECTION 0 H
R23(1)	CRA4	A2	68n	-CRA4 CALL, RESET, 1777 H	R13(1)	CRA5	D5	68n	CRA5 OUT 00 H	R230(1)	CRA2	B4	68n	M0 34 H
R139(1)	CRA4	A4	68n	CRA4 RESET H	R15(1)	CRA5	D4	68n	CRA5 OUT 01 H	R234(1)	CRA2	B3	68n	M0 35 H
R54(1)	CRA4	A2	68n	CRA4 RET AND -1777 H	R16(1)	CRA5	D2	68n	CRA5 OUT 02 H	R245(1)	CRA2	B1	68n	SCD1 SCAD SIGN H
R19(1)	CRA4	A2	68n	-CRA4 RET AND -1777 H	R64(1)	CRA5	C5	68n	CRA5 OUT 03 H	R243(1)	CRA2	B1	68n	-SCD1 SCAD=0 H
R112(1)	CRA4	C4	68n	CRA4 SBR RET 00 H	R89(1)	CRA5	C4	68n	CRA5 OUT 04 H	R215(1)	CRA2	B6	68n	SCD2 FE SIGN H
R100(1)	CRA4	C4	68n	CRA4 SBR RET 01 H	R99(1)	CRA5	C2	68n	CRA5 OUT 05 H	R160(1)	CRA2	B1	68n	SCD2 SC SIGN H
R176(1)	CRA4	C4	68n	CRA4 SBR RET 02 H	R242(1)	CRA2	B1	68n	CRAM COND 035 H	R212(1)	CRA2	B6	68n	SCD4 FPD H
R110(1)	CRA4	C2	68n	CRA4 SBR RET 03 H	R247(1)	CRA2	B1	68n	CRAM COND 045 H	R150(1)	CRA2	B3	68n	SCD4 NICOND 10 H
R114(1)	CRA4	C2	68n	CRA4 SBR RET 04 H	R246(1)	CRA2	B1	68n	CRAM COND 055 H	R239(1)	CRA2	C1	68n	-SH11 AR PAR ODD B H
R174(1)	CRA4	C2	68n	CRA4 SBR RET 05 H	R105(1)	CRA1	C7	68n	CRAM J00 H	R226(1)	CRA2	A3	68n	SH11 INDEXED H
R106(1)	CRA4	C2	68n	CRA4 SBR RET 06 H	R250(1)	CRA1	D6	68n	CRAM J01 H	R193(1)	CRA2	B7	68n	SH14 SH 00 A H
R195(1)	CRA4	C1	68n	CRA4 SBR RET 07 H	R263(1)	CRA1	C6	68n	CRAM J02 H	R137(1)	CRA2	B6	68n	SH14 SH 01 A H
R133(1)	CRA4	C1	68n	CRA4 SBR RET 08 H	R259(1)	CRA1	D4	68n	CRAM J03 H	R206(1)	CRA2	B4	68n	SH14 SH 02 A H
R200(1)	CRA4	C1	68n	CRA4 SBR RET 09 H	R260(1)	CRA1	C4	68n	CRAM J04 H	R154(1)	CRA2	B3	68n	SH14 SH 03 A H
R155(1)	CRA4	C1	68n	CRA4 SBR RET 10 H	R213(1)	CRA1	D3	68n	CRAM J05 H	R160(1)	CRA2	A1	68n	-VMA1 LOCAL AC ADDRESS H
R24(1)	CRA4	A7	68n	CRA4 SEL CALL H	R221(1)	CRA1	C3	68n	CRAM J06 H					
R120(1)	CRA4	B5	68n	CRA4 STACK ADR 01 H	R218(1)	CRA2	D7	68n	CRAM J07 H					
R129(1)	CRA4	B5	68n	CRA4 STACK ADR 02 H	R222(1)	CRA2	D6	68n	CRAM J08 H					
R124(1)	CRA4	B5	68n	CRA4 STACK ADR 04 H	R103(1)	CRA2	D4	68n	CRAM J09 H					
R82(1)	CRA4	B5	68n	CRA4 STACK ADR 10 H	R106(1)	CRA2	D3	68n	CRAM J10 H					
R69(1)	CRA4	D6	68n	CRA4 STACK ADR A H	R214(1)	CRA2	B6	68n	DRAM B 00 H					
R26(1)	CRA4	D6	68n	CRA4 STACK ADR B H	R227(1)	CRA2	B4	68n	DRAM B 01 H					
R27(1)	CRA4	D6	68n	CRA4 STACK ADR C H	R233(1)	CRA2	B3	68n	DRAM B 02 H					
R73(1)	CRA4	D6	68n	CRA4 STACK ADR D H	R179(1)	CRA1	B6	68n	DRAM J 01 H					
R65(1)	CRA4	C6	68n	CRA4 STACK ADR E H	R175(1)	CRA1	B6	68n	DRAM J 02 H					
R78(1)	CRA4	C6	68n	CRA4 STACK ADR F H	R116(1)	CRA1	B4	68n	DRAM J 03 H					
R21(1)	CRA4	C6	68n	CRA4 STACK ADR G H	R113(1)	CRA1	B4	68n	DRAM J 04 H					
R66(1)	CRA4	D7	68n	CRA4 STACK ADR Y H	R146(1)	CRA2	C7	68n	DRAM J 07 H					
R22(1)	CRA4	B7	68n	CRA4 STACK ADR Z H	R135(1)	CRA2	C6	68n	DRAM J 08 H					
R10(1)	CRA4	A7	68n	-CRA4 STACK WRITE H	R203(1)	CRA2	C4	68n	DRAM J 09 H					
R05(1)	CRA5	C7	68n	-CRA5 DIAG 04 H	R152(1)	CRA2	C3	68n	DRAM J 10 H					
R03(1)	CRA5	B7	68n	-CRA5 DIAG 05 H	R150(1)	CRA2	A7	68n	EA TYPE 07 H-#400					

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	DRW. <i>E. Smith</i>	DATE 17-SEP-76	ENG. <i>Tom Egan</i>	DATE 23-SEP-76	TITLE: CONTROL RAM ADR TERMINATORS
	CHK. <i>E. Egan</i>	DATE 23-SEP-76	DRW. LOCATION: 2 OF 2	SIZE CODE D CS	NUMBER M8541-0-RES
FIRST USED ON OPTION MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8541-0		REV.	

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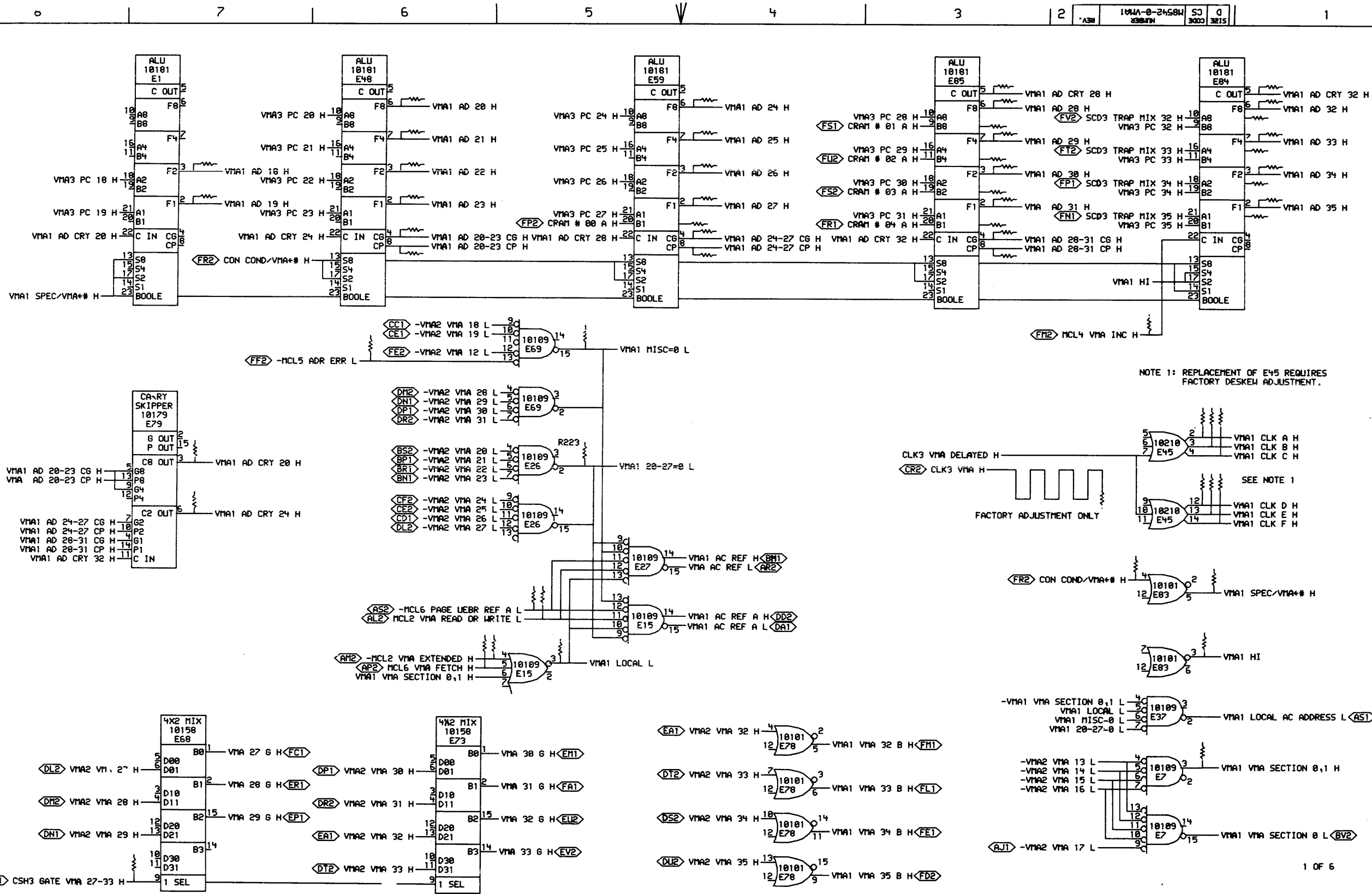
Diag FN 16x  $\Rightarrow$  M8537 EBUS Reg  
 $E<\phi:8>$ ,  $E<34:35>$  always

$E<34:35> := PMA<34:35>$

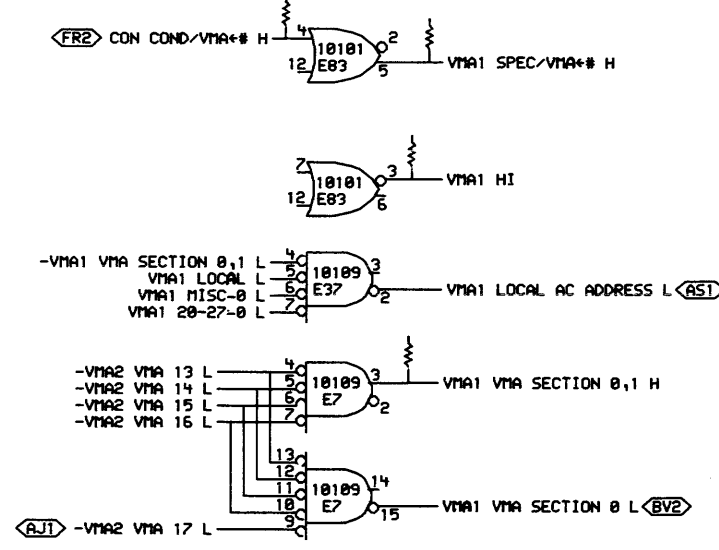
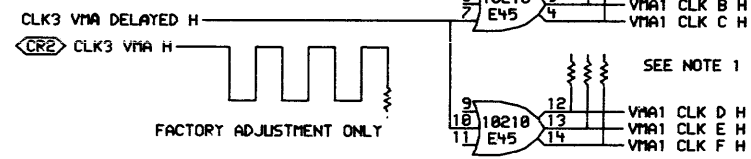
M8518 PMA if EBUX REQ GRANT (G)  $PMA<35> = VMA2 VMA35$   
if EBUX BRA GRANT ( $\phi$ )  $PMA<35> = PMA4 BRA35$

$PMA4 BRA35 := SBUS ADR<35>$

M8542 VMA ADR<35> output of 10181 ALU



NOTE 1: REPLACEMENT OF E45 REQUIRES FACTORY DESKTOP ADJUSTMENT.



1 OF 6

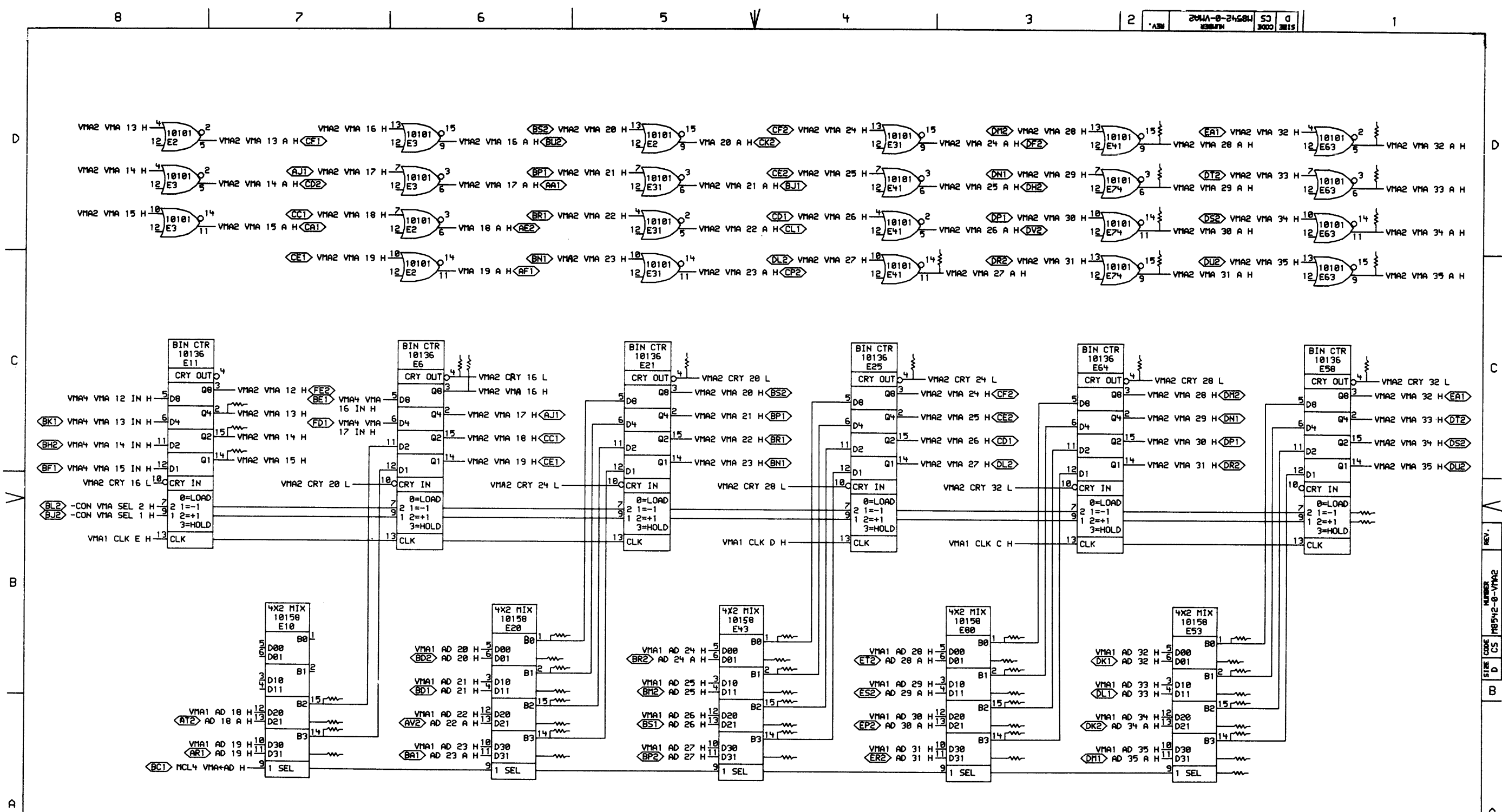
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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 24-SEP-76	DATE: 24-SEP-76	TITLE: VMA BOARD ADDER & CONTROL
	DATE: 24-SEP-76	DATE: 24-SEP-76	BOARD LOCATION: 4A638
VMA1EB.DRAW(4,161)	23-SEP-76 17:46	NEXT HIGHER ASSEMBLY:	SIZE CODE: D CS
FIRST USED ON OPTION MODEL: KL10	B-DD-M8542-0		NUMBER: M8542-0-VMA1
			REV.:

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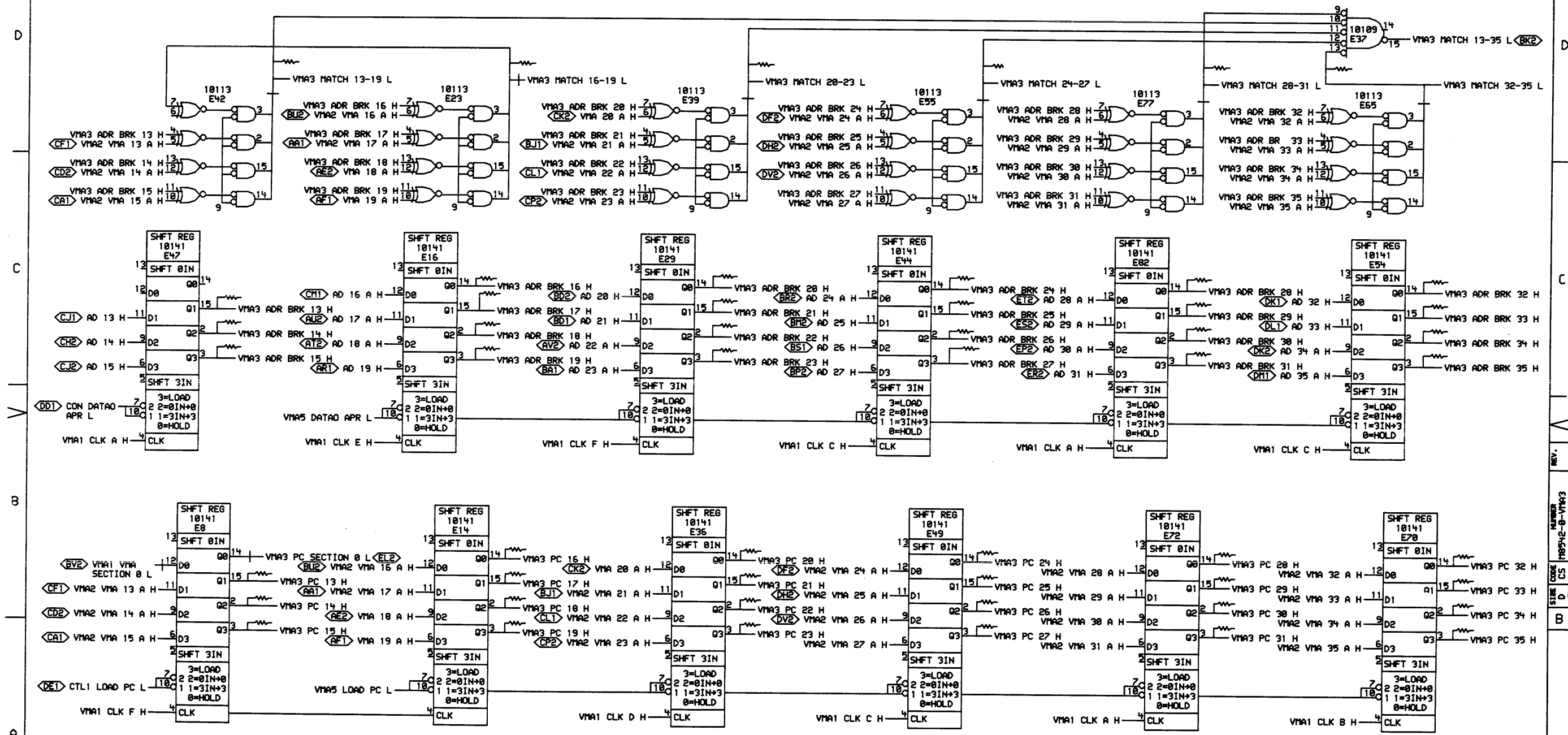
357

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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 23-SEP-76	DATE: 23-SEP-76	TITLE: VMA BOARD VMA REGISTER
	DATE: 19-SEP-76	DATE: 19-SEP-76	DATE: 19-SEP-76
VMA2B.RL(54.161) FIRST USED ON OPTION/MODEL: KL10	DATE: 19-SEP-76 TIME: 17:29 NEXT HIGHER ASSEMBLY: B-DD-M8542-0	BOARD LOCATION: 48E38 SHEET: 2 OF 6	SIZE CODE: D CS NUMBER: M8542-0-VMA2

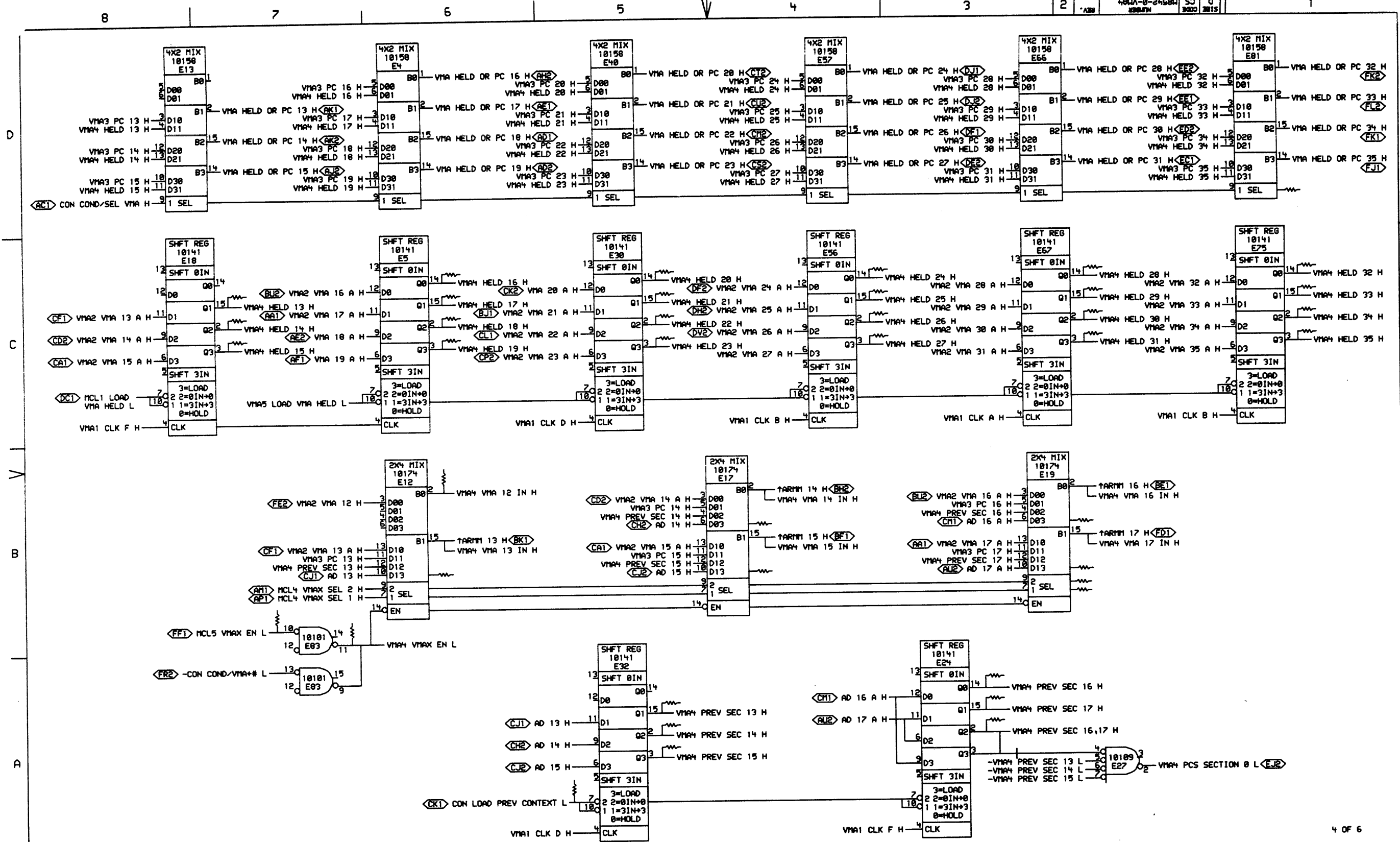
REV. NUMBER M8542-0-VMA2  
 SIZE CODE CS  
 D



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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 19-SEP-76 17:30 DATE: 23-SEP-76 DATE: 23-SEP-76	ENG: <i>Tom Gagne</i> DATE: 23-SEP-76 DATE: 23-SEP-76	TITLE: VMA BOARD PC & ADR BRK REG
	VMA3EB.RLS(4,161) FIRST USED ON OPTION/MODEL: KL10	NEXT HIGHER ASSEMBLY: B-DD-M8542-0	SIZE CODE: D CS NUMBER: M8542-0-VMA3



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REVISIONS	
CHK	CHANGE NO. REV

digital

DATE: 23 SEP 76  
 DATE: 23 SEP 76  
 DATE: 23 SEP 76

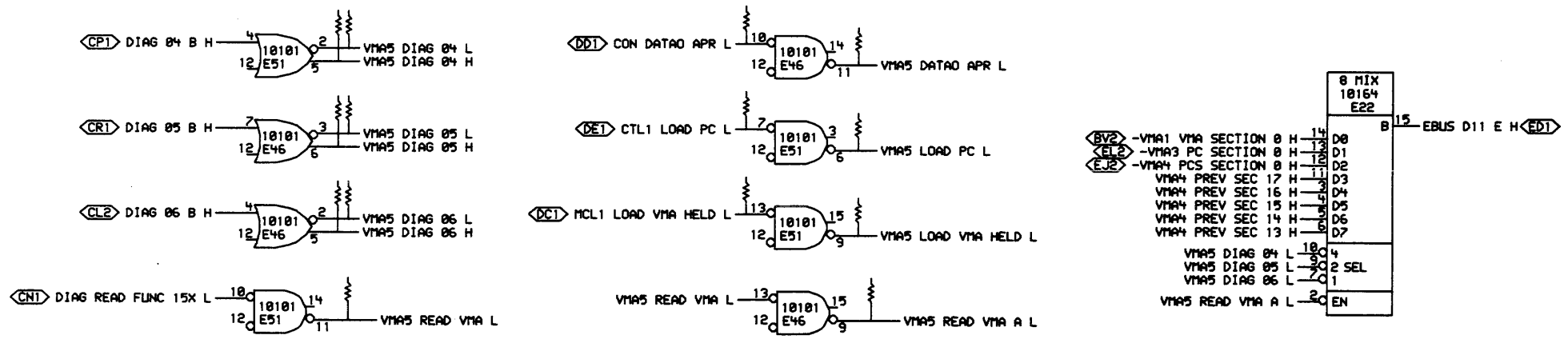
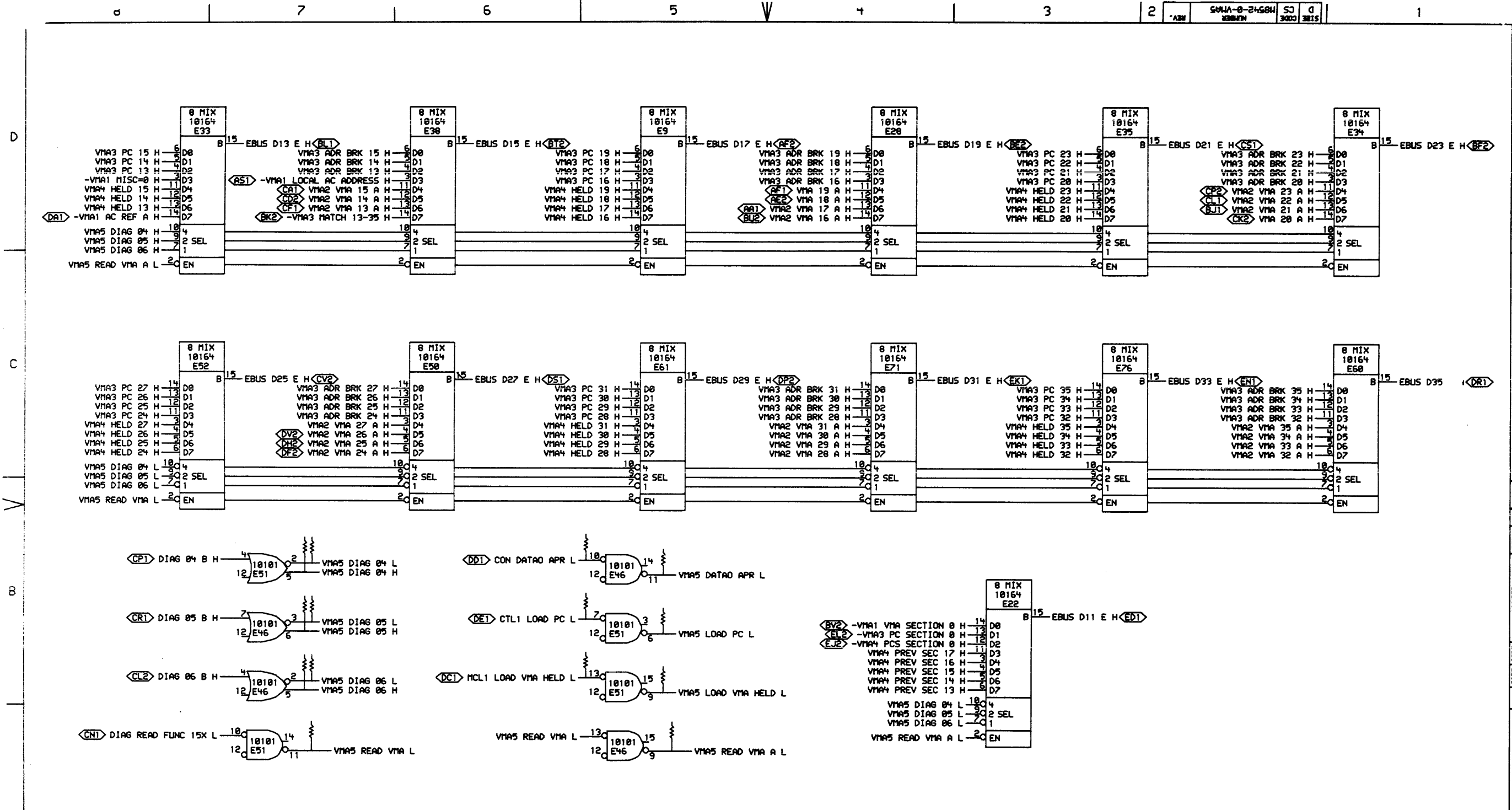
EMF: *Emm Egg*  
 DATE: 23 SEP 76  
 DATE: 23 SEP 76

TITLE: VMA BOARD VMA HELD REG

SIZE: D  
 CODE: CS  
 NUMBER: M8542-0-VMA4

REV: 1

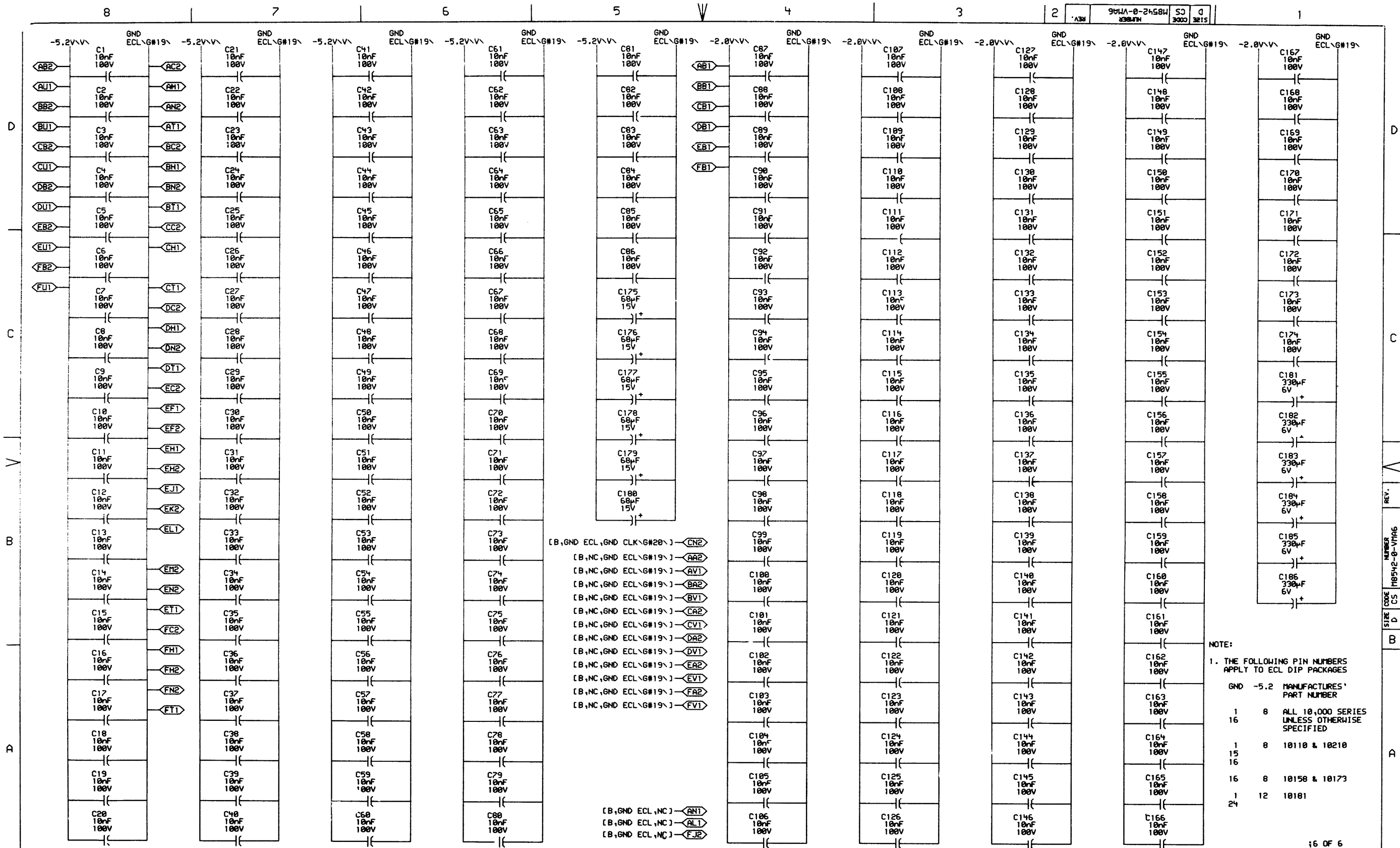
359



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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 20-SEP-76	DATE: 25-SEP-76	TITLE: VMA BOARD DIAGNOSTICS
	DATE: 25-SEP-76	DATE: 25-SEP-76	NUMBER: M8542-0-VMA5
FIRST USED ON OPTION/MODEL: KL10			REV. 360



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10150 & 10173
24	12	10101

REVISIONS		
CHK	CHANGE NO.	REV

digital  
 TITLE: VMA BOARD POWER, GND, CAPS  
 DATE: 23-SEP-76  
 BOARD LOCATION: 4A F38  
 FIRST USED ON OPTION MODEL: KL10  
 NEXT HIGHER ASSEMBLY: B-DD-M8542-0  
 SIZE CODE: D CS M8542-0-VMA6  
 NUMBER: 3000  
 REV: 3E15

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MC

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R134(1)	VMA2	A7	68n	%E10K(14)	R156(1)	VMA2	A2	68n	AD 35 A H	R166(1)	VMA1	D4	68n	VMA1 AD 24-27 CG H	R31(1)	VMA2	D2	68n	VMA2 VMA 28 A H
R133(1)	VMA2	A7	68n	%E10K(15)	R103(1)	VMA1	B2	68n	CLK3 VMA H	R167(1)	VMA1	C4	68n	VMA1 AD 24-27 CP H	R32(1)	VMA2	D2	68n	VMA2 VMA 29 A H
R144(1)	VMA2	B6	68n	%E20K(1)	R197(1)	VMA4	D1	68n	CON COND/SEL VMA H	R150(1)	VMA1	D4	68n	VMA1 AD 25 H	R30(1)	VMA2	D2	68n	VMA2 VMA 30 A H
R139(1)	VMA2	A6	68n	%E20K(14)	R201(1)	VMA1	B2	68n	CON COND/VMA# H	R149(1)	VMA1	D4	68n	VMA1 AD 26 H	R29(1)	VMA2	C2	68n	VMA2 VMA 31 A H
R140(1)	VMA2	A6	68n	%E20K(15)	R23(1)	VMA5	B5	68n	-CON DATA0 APR H	R146(1)	VMA1	D4	68n	VMA1 AD 27 H	R112(1)	VMA2	D1	68n	VMA2 VMA 32 A H
R143(1)	VMA2	B6	68n	%E20K(2)	R7(1)	VMA4	A5	68n	-CON LOAD PREV CONTEXT H	R127(1)	VMA1	D3	68n	VMA1 AD 28 H	R111(1)	VMA2	D1	68n	VMA2 VMA 33 A H
R188(1)	VMA2	B4	68n	%E43K(1)	R211(1)	VMA2	B1	68n	-CON VMA SEL 1 H	R165(1)	VMA1	D3	68n	VMA1 AD 28-31 CG H	R119(1)	VMA2	D1	68n	VMA2 VMA 34 A H
R189(1)	VMA2	A4	68n	%E43K(14)	R159(1)	VMA2	B1	68n	-CON VMA SEL 2 H	R162(1)	VMA1	C3	68n	VMA1 AD 28-31 CP H	R118(1)	VMA2	C1	68n	VMA2 VMA 35 A H
R190(1)	VMA2	A4	68n	%E43K(15)	R155(1)	VMA1	D4	68n	CRAM # 00 A H	R122(1)	VMA1	D3	68n	VMA1 AD 29 H	R58(1)	VMA3	C7	68n	VMA3 ADR BRK 13 H
R187(1)	VMA2	B4	68n	%E43K(2)	R131(1)	VMA1	D3	68n	CRAM # 01 A H	R126(1)	VMA1	D3	68n	VMA1 AD 30 H	R60(1)	VMA3	C7	68n	VMA3 ADR BRK 14 H
R209(1)	VMA2	B2	68n	%E53K(1)	R130(1)	VMA1	D3	68n	CRAM # 02 A H	R125(1)	VMA1	D3	68n	VMA1 AD 31 H	R59(1)	VMA3	C7	68n	VMA3 ADR BRK 15 H
R213(1)	VMA2	A2	68n	%E53K(14)	R79(1)	VMA1	D3	68n	CRAM # 03 A H	R205(1)	VMA1	D1	68n	VMA1 AD 32 H	R40(1)	VMA3	C6	68n	VMA3 ADR BRK 16 H
R210(1)	VMA2	A2	68n	%E53K(15)	R129(1)	VMA1	D3	68n	CRAM # 04 A H	R208(1)	VMA1	D1	68n	VMA1 AD 33 H	R50(1)	VMA3	C6	68n	VMA3 ADR BRK 17 H
R214(1)	VMA2	B2	68n	%E53K(2)	R215(1)	VMA1	A7	68n	CSH3 GATE VMA 27-33 H	R204(1)	VMA1	D1	68n	VMA1 AD 34 H	R47(1)	VMA3	C6	68n	VMA3 ADR BRK 18 H
R158(1)	VMA2	B3	68n	%E80K(1)	R45(1)	VMA5	B5	68n	-CTL1 LOAD PC H	R207(1)	VMA1	D1	68n	VMA1 AD 35 H	R49(1)	VMA3	C6	68n	VMA3 ADR BRK 19 H
R116(1)	VMA2	A3	68n	%E80K(14)	R46(1)	VMA5	B5	68n	-MCL1 LOAD VMA HELD H	R173(1)	VMA1	C7	68n	VMA1 AD CRY 20 H	R19(1)	VMA3	C5	68n	VMA3 ADR BRK 20 H
R117(1)	VMA2	A3	68n	%E80K(15)	R181(1)	VMA1	B5	68n	-MCL2 VMA EXTENDED H	R153(1)	VMA1	B7	68n	VMA1 AD CRY 24 H	R15(1)	VMA3	C5	68n	VMA3 ADR BRK 21 H
R160(1)	VMA2	B3	68n	%E80K(2)	R89(1)	VMA1	B5	68n	-MCL2 VMA READ OR WRITE H	R109(1)	VMA1	D3	68n	VMA1 AD CRY 28 H	R14(1)	VMA3	C5	68n	VMA3 ADR BRK 22 H
R17(1)	VMA4	B6	68n	AD 13 H	R163(1)	VMA1	C2	68n	MCL4 VMA INC H	R124(1)	VMA1	D1	68n	VMA1 AD CRY 32 H	R16(1)	VMA3	C5	68n	VMA3 ADR BRK 23 H
R18(1)	VMA4	B4	68n	AD 14 H	R6(1)	VMA4	B2	68n	MCL4 VMAX SEL 1 H	R37(1)	VMA1	C2	68n	VMA1 CLK A H	R108(1)	VMA3	C4	68n	VMA3 ADR BRK 24 H
R24(1)	VMA4	B4	68n	AD 15 H	R4(1)	VMA4	B2	68n	MCL4 VMAX SEL 2 H	R120(1)	VMA1	C2	68n	VMA1 CLK B H	R105(1)	VMA3	C4	68n	VMA3 ADR BRK 25 H
R5(1)	VMA4	B2	68n	AD 16 A H	R121(1)	VMA2	A2	68n	MCL4 VMA+AD H	R157(1)	VMA1	C2	68n	VMA1 CLK C H	R106(1)	VMA3	C4	68n	VMA3 ADR BRK 26 H
R9(1)	VMA4	B2	68n	AD 17 A H	R161(1)	VMA1	C6	68n	MCL5 ADR ERR H	R57(1)	VMA1	B2	68n	VMA1 CLK D H	R107(1)	VMA3	C4	68n	VMA3 ADR BRK 27 H
R138(1)	VMA2	A7	68n	AD 18 A H	R221(1)	VMA4	B7	68n	-MCL5 VMAX EN H	R132(1)	VMA1	B2	68n	VMA1 CLK E H	R71(1)	VMA3	C2	68n	VMA3 ADR BRK 28 H
R141(1)	VMA2	A7	68n	AD 19 H	R93(1)	VMA1	B5	68n	MCL6 PAGE UEBR REF A H	R13(1)	VMA1	B2	68n	VMA1 CLK F H	R70(1)	VMA3	C2	68n	VMA3 ADR BRK 29 H
R8(1)	VMA2	B6	68n	AD 20 H	R180(1)	VMA1	B6	68n	MCL6 VMA FETCH H	R219(1)	VMA1	B2	68n	VMA1 HI	R68(1)	VMA3	C2	68n	VMA3 ADR BRK 30 H
R10(1)	VMA2	B6	68n	AD 21 H	R170(1)	VMA1	D1	68n	SCD3 TRAP MIX 32 H	R100(1)	VMA1	B5	68n	-VMA1 LOCAL H	R69(1)	VMA3	C2	68n	VMA3 ADR BRK 31 H
R11(1)	VMA2	A6	68n	AD 22 A H	R171(1)	VMA1	D1	68n	SCD3 TRAP MIX 33 H	R179(1)	VMA1	C5	68n	-VMA1 MISC=0 H	R115(1)	VMA3	C1	68n	VMA3 ADR BRK 32 H
R12(1)	VMA2	A6	68n	AD 23 A H	R168(1)	VMA1	D1	68n	SCD3 TRAP MIX 34 H	R174(1)	VMA1	B2	68n	VMA1 SPEC/VMA# H	R114(1)	VMA3	C1	68n	VMA3 ADR BRK 33 H
R102(1)	VMA2	B4	68n	AD 24 A H	R164(1)	VMA1	D1	68n	SCD3 TRAP MIX 35 H	R95(1)	VMA1	A2	68n	VMA1 VMA SECTION 0,1 H	R110(1)	VMA3	C1	68n	VMA3 ADR BRK 34 H
R140(1)	VMA2	B4	68n	AD 25 H	R223(1)	VMA1	C5	68n	-VMA1 20-27=0 H	R136(1)	VMA2	C6	68n	-VMA2 CRY 16 H	R113(1)	VMA3	C1	68n	VMA3 ADR BRK 35 H
R147(1)	VMA2	A4	68n	AD 26 H	R176(1)	VMA1	D7	68n	VMA1 AD 18 H	R135(1)	VMA2	C5	68n	-VMA2 CRY 20 H	R98(1)	VMA3	D7	68n	-VMA3 MATCH 13-19 H
R104(1)	VMA2	A4	68n	AD 27 H	R177(1)	VMA1	D7	68n	VMA1 AD 19 H	R142(1)	VMA2	C4	68n	-VMA2 CRY 24 H	R20(1)	VMA3	D6	68n	-VMA3 MATCH 16-19 H
R33(1)	VMA2	B3	68n	AD 28 A H	R185(1)	VMA1	D6	68n	VMA1 AD 20 H	R186(1)	VMA2	C2	68n	-VMA2 CRY 28 H	R96(1)	VMA3	D5	68n	-VMA3 MATCH 20-23 H
R34(1)	VMA2	B3	68n	AD 29 A H	R217(1)	VMA1	D6	68n	VMA1 AD 20-23 CG H	R212(1)	VMA2	C1	68n	-VMA2 CRY 32 H	R101(1)	VMA3	D3	68n	-VMA3 MATCH 24-27 H
R35(1)	VMA2	A3	68n	AD 30 A H	R216(1)	VMA1	C6	68n	VMA1 AD 20-23 CP H	R84(1)	VMA2	C7	68n	VMA2 VMA 13 H	R97(1)	VMA3	D2	68n	-VMA3 MATCH 28-31 H
R38(1)	VMA2	A3	68n	AD 31 H	R184(1)	VMA1	D6	68n	VMA1 AD 21 H	R81(1)	VMA2	C7	68n	VMA2 VMA 14 H	R99(1)	VMA3	D2	68n	-VMA3 MATCH 32-35 H
R151(1)	VMA2	B2	68n	AD 32 H	R182(1)	VMA1	D6	68n	VMA1 AD 22 H	R82(1)	VMA2	C7	68n	VMA2 VMA 15 H	R54(1)	VMA3	B7	68n	VMA3 PC 13 H
R152(1)	VMA2	B2	68n	AD 33 H	R183(1)	VMA1	D6	68n	VMA1 AD 23 H	R80(1)	VMA2	C6	68n	VMA2 VMA 16 H	R55(1)	VMA3	B7	68n	VMA3 PC 14 H
R154(1)	VMA2	A2	68n	AD 34 A H	R203(1)	VMA1	D4	68n	VMA1 AD 24 H	R63(1)	VMA2	C3	68n	VMA2 VMA 27 A H	R56(1)	VMA3	B7	68n	VMA3 PC 15 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. <i>Smith</i>	DATE 19-SEP-76	ENG. <i>Tom Igona</i>	DATE 23-SEP-76	TITLE: VMA BOARD TERMINATORS
	CHKD. <i>Tom Igona</i>	DATE 23-SEP-76	BOARD LOCATION: SHEET 1 OF 2		
M85421.RLS(4,161)		19-SEP-76 10:59	NEXT HIGHER ASSEMBLY: B-DD-M8542-0	SIZE CODE D CS	NUMBER M8542-0-RES
FIRST USED ON OPTION MODEL: KL10					REV. MR

REV. 0  
 CS 18542-0-RES

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R42(1)	VMA3	B6	68n	VMA3 PC 16 H
R41(1)	VMA3	B6	68n	VMA3 PC 17 H
R175(1)	VMA3	B6	68n	VMA3 PC 18 H
R172(1)	VMA3	B6	68n	VMA3 PC 19 H
R206(1)	VMA3	B5	68n	VMA3 PC 20 H
R190(1)	VMA3	B5	68n	VMA3 PC 21 H
R200(1)	VMA3	B5	68n	VMA3 PC 22 H
R202(1)	VMA3	B5	68n	VMA3 PC 23 H
R27(1)	VMA3	B3	68n	VMA3 PC 24 H
R21(1)	VMA3	B3	68n	VMA3 PC 25 H
R22(1)	VMA3	B3	68n	VMA3 PC 26 H
R25(1)	VMA3	B3	68n	VMA3 PC 27 H
R120(1)	VMA3	B2	68n	VMA3 PC 28 H
R123(1)	VMA3	B2	68n	VMA3 PC 29 H
R75(1)	VMA3	B2	68n	VMA3 PC 30 H
R70(1)	VMA3	B2	68n	VMA3 PC 31 H
R169(1)	VMA3	B1	68n	VMA3 PC 32 H
R222(1)	VMA3	B1	68n	VMA3 PC 33 H
R210(1)	VMA3	B1	68n	VMA3 PC 34 H
R220(1)	VMA3	B1	68n	VMA3 PC 35 H
R52(1)	VMA4	C7	68n	VMA4 HELD 13 H
R51(1)	VMA4	C7	68n	VMA4 HELD 14 H
R53(1)	VMA4	C7	68n	VMA4 HELD 15 H
R43(1)	VMA4	C6	68n	VMA4 HELD 16 H
R44(1)	VMA4	C6	68n	VMA4 HELD 17 H
R39(1)	VMA4	C6	68n	VMA4 HELD 18 H
R40(1)	VMA4	C6	68n	VMA4 HELD 19 H
R199(1)	VMA4	C5	68n	VMA4 HELD 20 H
R194(1)	VMA4	C5	68n	VMA4 HELD 21 H
R195(1)	VMA4	C5	68n	VMA4 HELD 22 H
R196(1)	VMA4	C5	68n	VMA4 HELD 23 H
R61(1)	VMA4	C4	68n	VMA4 HELD 24 H
R62(1)	VMA4	C4	68n	VMA4 HELD 25 H
R20(1)	VMA4	C4	68n	VMA4 HELD 26 H
R26(1)	VMA4	C4	68n	VMA4 HELD 27 H
R67(1)	VMA4	C2	68n	VMA4 HELD 28 H
R66(1)	VMA4	C2	68n	VMA4 HELD 29 H
R65(1)	VMA4	C2	68n	VMA4 HELD 30 H
R64(1)	VMA4	C2	68n	VMA4 HELD 31 H
R77(1)	VMA4	C1	68n	VMA4 HELD 32 H

RESISTOR LOC(PIN)	SHOWN DRW#	ON REF	VALUE	TERMINATES SIGNAL
R76(1)	VMA4	C1	68n	VMA4 HELD 33 H
R73(1)	VMA4	C1	68n	VMA4 HELD 34 H
R74(1)	VMA4	C1	68n	VMA4 HELD 35 H
R03(1)	VMA4	A5	68n	VMA4 PREV SEC 13 H
R06(1)	VMA4	A5	68n	VMA4 PREV SEC 14 H
R05(1)	VMA4	A5	68n	VMA4 PREV SEC 15 H
R90(1)	VMA4	A3	68n	VMA4 PREV SEC 16 H
R94(1)	VMA4	A3	68n	VMA4 PREV SEC 16,17 H
R07(1)	VMA4	A3	68n	VMA4 PREV SEC 17 H
R137(1)	VMA4	B6	68n	VMA4 VMA 12 IN H
R3(1)	VMA4	B7	68n	-VMA4 VMAX EN H
R36(1)	VMA5	B5	68n	-VMA5 DATA0 APR H
R193(1)	VMA5	B7	68n	VMA5 DIAG 04 H
R00(1)	VMA5	B7	68n	-VMA5 DIAG 04 H
R192(1)	VMA5	B7	68n	VMA5 DIAG 05 H
R91(1)	VMA5	B7	68n	-VMA5 DIAG 05 H
R191(1)	VMA5	B7	68n	VMA5 DIAG 06 H
R92(1)	VMA5	B7	68n	-VMA5 DIAG 06 H
R2(1)	VMA5	B5	68n	-VMA5 LOAD PC H
R1(1)	VMA5	B5	68n	-VMA5 LOAD VMA HELD H
R72(1)	VMA5	A7	68n	-VMA5 READ VMA H
R145(1)	VMA5	A5	68n	-VMA5 READ VMA A 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. <i>Smith</i>	DATE 19-SEP-76	ENG. <i>Tom Egan</i>	DATE 23-SEP-76	TITLE: VMA BOARD TERMINATORS
	CHKD. <i>Tom Egan</i>	DATE 23-SEP-76	BOARD LOCATION: SHEET 2 OF 2		
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8542-0		SIZE CODE D CS	NUMBER M8542-0-RES

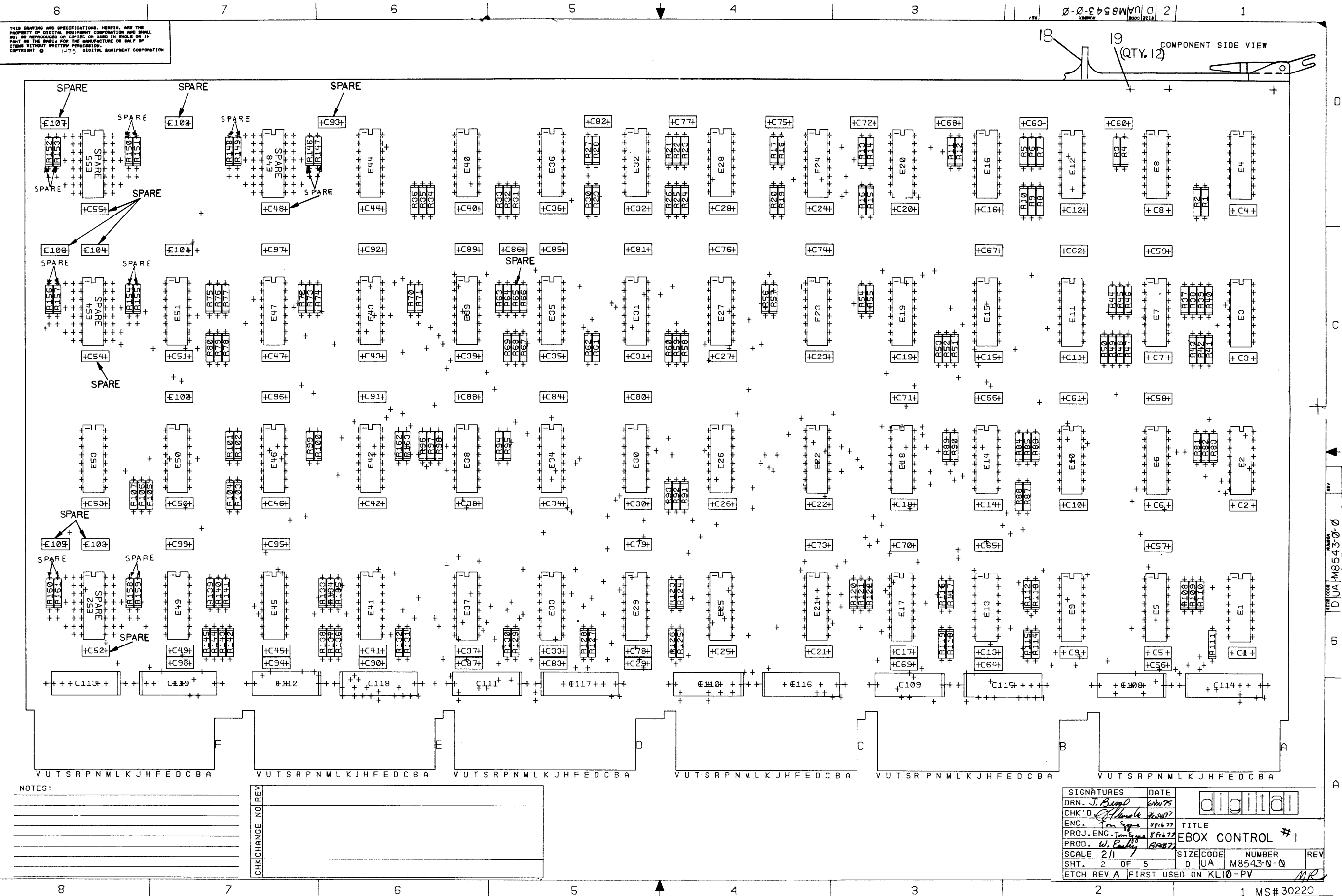
363

REV. 1  
 SIZE CODE NUMBER  
 D CS M8542-0-RES





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NOTES:

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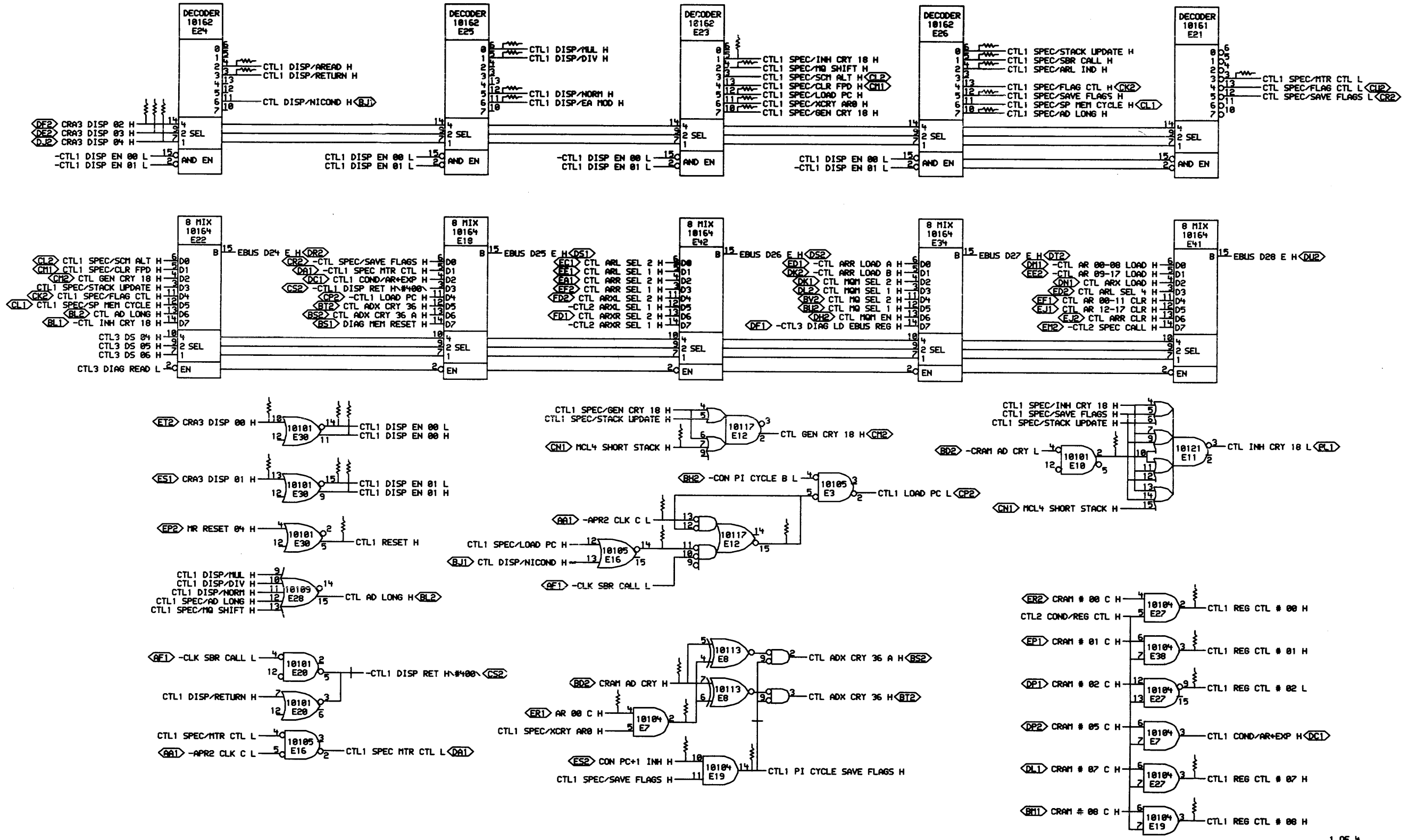


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CHK	CHANGE NO	REV

SIGNATURES	DATE	digital	
DRN. J. Beard	6/20/75		
CHK'D. J. Daniels	6/26/77	TITLE EBOX CONTROL #1	
ENG. Tom Egan	8/16/77		
PROJ. ENG. Tom Egan	8/16/77		
PROD. W. Easley	6/20/77	SCALE 2/1 SHT. 2 OF 5 ETCH REV A FIRST USED ON KL10-PV	
SIZE CODE	NUMBER		REV
D UA	M8543-0-0		

365



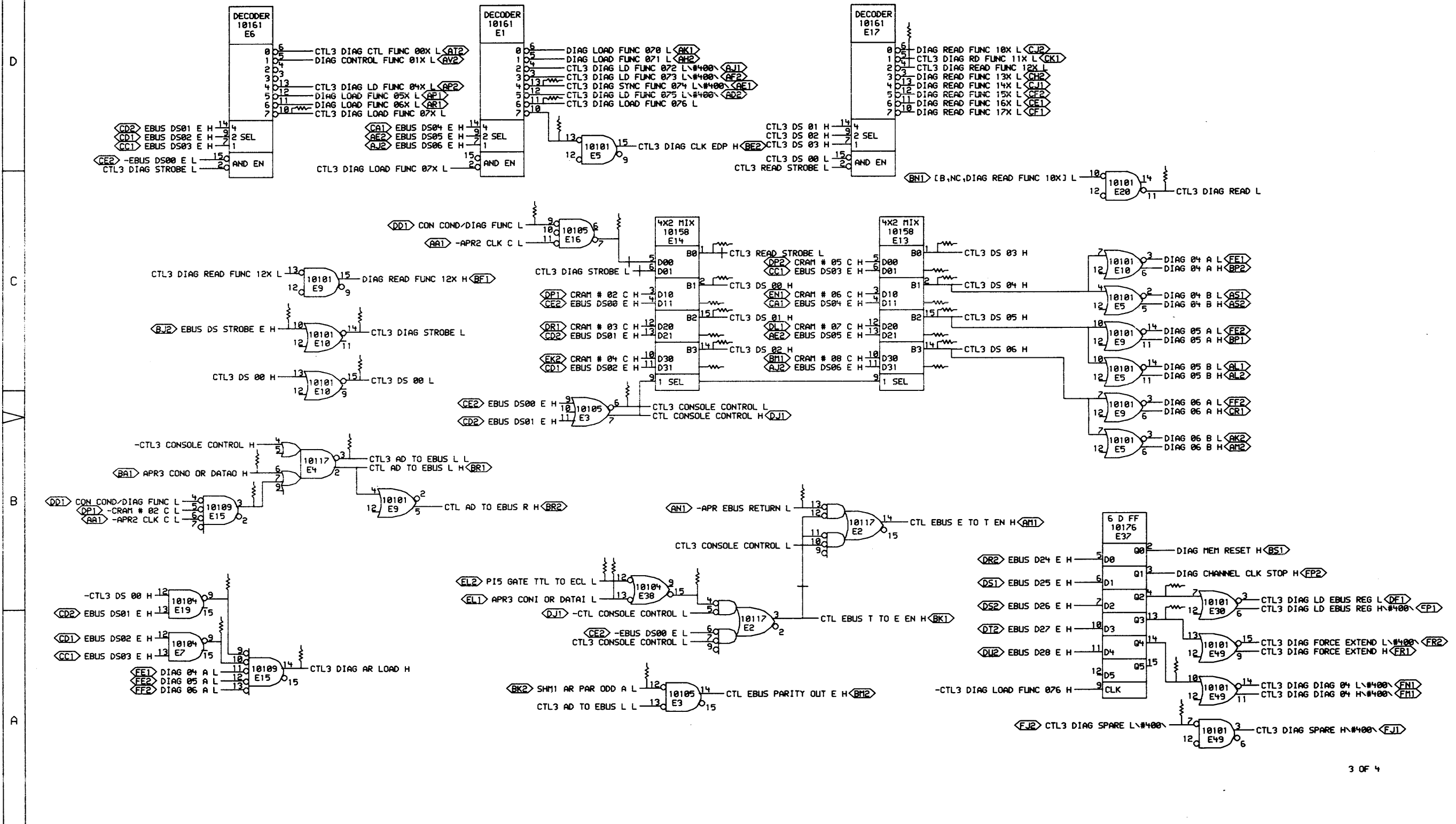
1 OF 4

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. J. J. J.	DATE 25 JAN 77	ENG. Tom Egge	DATE 25 JAN 77	TITLE: EBOX CONTROL #1 SPEC/FLINC & DIAG
	CHK. J. J. J.	DATE 1/25/77	BOARD LOCATION: 4AF36		
CTL1E.RLS/4.682	24 JAN 77	2128	NEXT HIGHER ASSEMBLY:	SIZE CODE D CS	NUMBER M8543-0-CTL1
FIRST USED ON OPTION MODEL: KL10-PV					REV.





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REVISIONS	
CHK	CHANGE NO., REV

	DRN: J. J. J. J. CHK: D. J. J. J.	DATE: 25 JAN 77 DATE: 1/25/77	ENG: Tom Egge BOARD LOCATION: 4A236	DATE: 25 JAN 77 SHEET: 1 OF 1	TITLE: EBOX CONTROL #1 CONSOLE FUNCTIONS
	CTL3EA,RLS4,682	24 JAN 77 21:58 NEXT HIGHER ASSEMBLY:	B-DD-M8543-0	SIZE CODE: D CS	NUMBER: M8543-0-CTL3

368

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7

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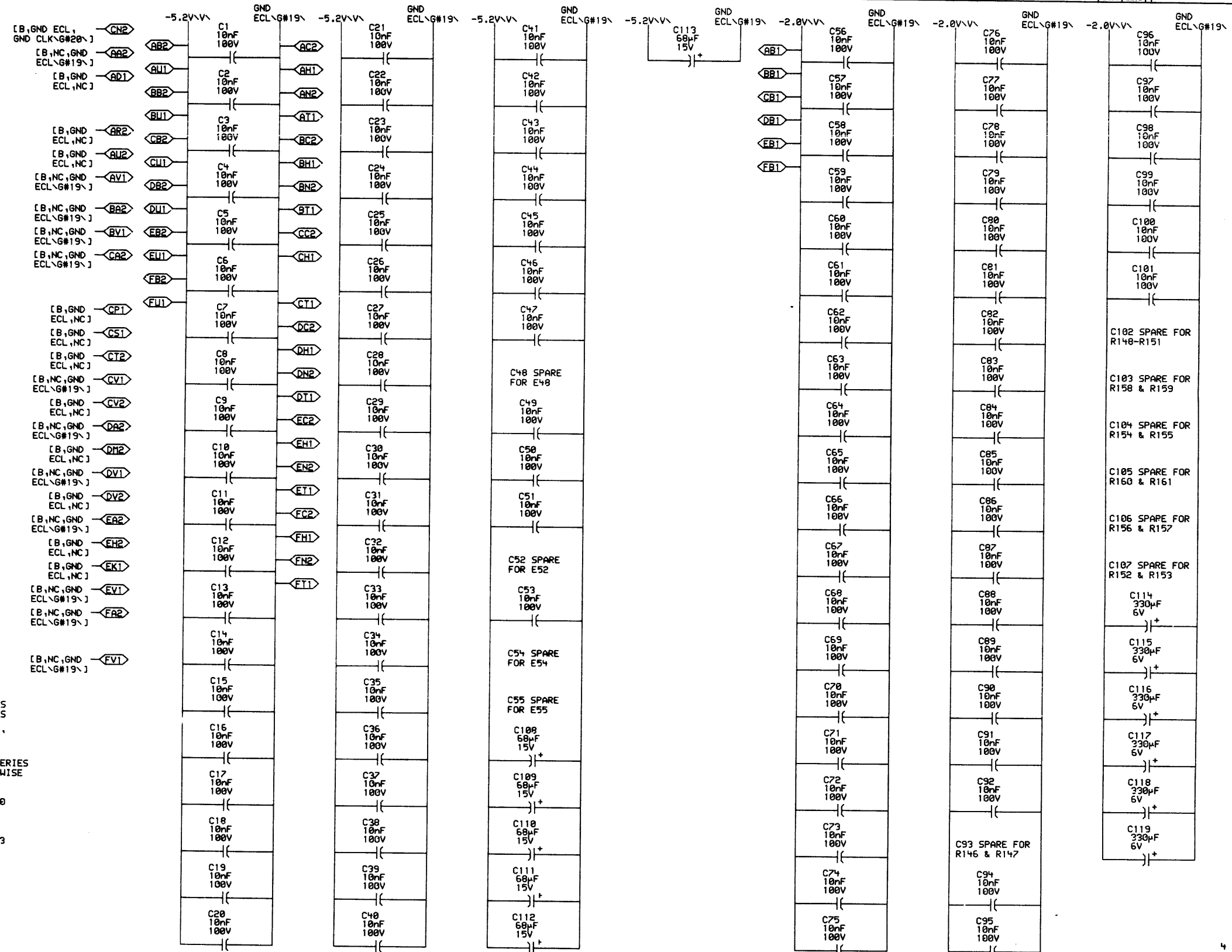
4

3

2

1

REV	4710-0-E468W	CS	D
DATE	1/23/77	3000	3215



NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURERS' PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10159 & 10173

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REVISIONS	
CHK	CHANGE NO. / REV

**digital** DRN: *J. Lounby* DATE: 05-30-77 ENG: Tom Egge DATE: 12-23-77  
 CHK: *W. Johnson* DATE: 1/23/77 BOARD LOCATION: 4AF36  
 CTL4EA.RLSL4.602 124 JAN 77 21:19 NEXT HIGHER ASSEMBLY: B-DD-M8543-0

TITLE:	EBOX CONTROL #1 POWER, GND, CAPS		
SIZE	CODE	NUMBER	REV.
D	CS	M8543-0-CTL4	

369

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1

D  
C  
B  
A

RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRW#	VALUE	TERMINATES SIGNAL
R100(1)	CTL3 D5	60n	%E1(10)	R76(1)	CTL2 D5	60n	CON FM XFER H	R54(1)	CTL1 A2	60n	-CTL1 REG CTL # 02 H	R111(1)	CTL3 D6	60n	CTL3 DIAG SYNC FUNC 074 L#400
R50(1)	CTL1 B2	60n	%E10(2)	R53(1)	CTL1 A5	60n	CON PC+1 INH H	R22(1)	CTL1 A2	60n	CTL1 REG CTL # 07 H	R06(1)	CTL3 C5	60n	CTL3 DS 00 H
R40(1)	CTL1 B4	60n	%E12(15)	R93(1)	CTL1 B7	60n	CRA3 DISP 00 H	R26(1)	CTL1 A2	60n	CTL1 REG CTL # 08 H	R116(1)	CTL3 C7	60n	-CTL3 DS 00 H
R1(1)	CTL3 B7	60n	%E15(3)	R91(1)	CTL1 B7	60n	CRA3 DISP 01 H	R134(1)	CTL1 B6	60n	CTL1 RESET H	R119(1)	CTL3 C5	60n	CTL3 DS 01 H
R9(1)	CTL1 B5	60n	%E16(14)	R13(1)	CTL1 D0	60n	CRA3 DISP 02 H	R17(1)	CTL1 D3	60n	CTL1 SPEC/AD LONG H	R118(1)	CTL3 C5	60n	CTL3 DS 02 H
R90(1)	CTL3 C5	60n	%E16(7)	R16(1)	CTL1 D7	60n	CRA3 DISP 03 H	R60(1)	CTL1 D3	60n	CTL1 SPEC/ARL IND H	R121(1)	CTL3 C3	60n	CTL3 DS 03 H
R52(1)	CTL3 B7	60n	%E19(9)	R19(1)	CTL1 D7	60n	CRA3 DISP 04 H	R6(1)	CTL1 D4	60n	CTL1 SPEC/GEN CRY 18 H	R132(1)	CTL3 C3	60n	CTL3 DS 04 H
R29(1)	CTL2 B2	60n	%E32(14)	R56(1)	CTL2 A7	60n	CRAM # 00 C H	R44(1)	CTL1 D4	60n	CTL1 SPEC/INH CRY 18 H	R131(1)	CTL3 C3	60n	CTL3 DS 05 H
R20(1)	CTL2 C2	60n	%E32(2)	R94(1)	CTL2 C7	60n	CRAM # 01 C H	R12(1)	CTL1 D4	60n	CTL1 SPEC/LOAD PC H	R136(1)	CTL3 C3	60n	CTL3 DS 06 H
R27(1)	CTL2 C2	60n	%E32(3)	R09(1)	CTL2 C8	60n	CRAM # 02 C H	R24(1)	CTL1 D4	60n	CTL1 SPEC/MQ SHIFT H	R122(1)	CTL3 C5	60n	-CTL3 READ STROBE H
R61(1)	CTL2 B7	60n	%E33(14)	R04(1)	CTL2 B8	60n	CRAM # 03 C H	R11(1)	CTL1 D2	60n	-CTL1 SPEC/MTR CTL H	R07(1)	CTL3 C7	60n	EBUS DS STROBE E H
R102(1)	CTL2 B7	60n	%E33(15)	R08(1)	CTL2 B8	60n	CRAM # 04 C H	R49(1)	CTL1 D3	60n	CTL1 SPEC/SAVE FLAGS H	R42(1)	CTL3 C5	60n	EBUS DS00 E H
R30(1)	CTL2 B2	60n	%E35(14)	R40(1)	CTL2 B8	60n	CRAM # 05 C H	R71(1)	CTL1 D3	60n	CTL1 SPEC/SBR CALL H	R41(1)	CTL3 C5	60n	EBUS DS01 E H
R139(1)	CTL3 B2	60n	%E37(13)	R117(1)	CTL2 A7	60n	CRAM # 06 C H	R7(1)	CTL1 D3	60n	CTL1 SPEC/STACK UPDATE H	R37(1)	CTL3 C5	60n	EBUS DS02 E H
R145(1)	CTL3 A2	60n	%E37(14)	R112(1)	CTL2 A7	60n	CRAM # 07 C H	R46(1)	CTL1 D4	60n	CTL1 SPEC/XCRY AR0 H	R30(1)	CTL3 C3	60n	EBUS DS03 E H
R92(1)	CTL3 B2	60n	%E37(4)	R63(1)	CTL2 A7	60n	CRAM # 08 C H	R33(1)	CTL2 A5	60n	CTL2 36 BIT EA H	R109(1)	CTL3 C3	60n	EBUS DS04 E H
R130(1)	CTL2 C7	60n	%E38(14)	R4(1)	CTL1 A5	60n	CRAM AD CRY H	R90(1)	CTL2 B6	60n	-CTL2 AR 00-11 CLR H	R115(1)	CTL3 C3	60n	EBUS DS05 E H
R03(1)	CTL3 B5	60n	%E39(15)	R69(1)	CTL2 A7	60n	CRAM ARM SEL 1 H	R129(1)	CTL2 B4	60n	CTL2 ARL IND H	R114(1)	CTL3 C3	60n	EBUS DS06 E H
R66(1)	CTL2 B7	60n	%E39(1)	R34(1)	CTL2 A7	60n	CRAM ARM SEL 2 H	R72(1)	CTL2 A7	60n	CTL2 ARL IND SEL 1 H	R70(1)	CTL2 D2	60n	MCL LOAD AR H
R55(1)	CTL2 D7	60n	%E43(14)	R60(1)	CTL2 A7	60n	CRAM ARM SEL 4 H	R31(1)	CTL2 A7	60n	CTL2 ARL IND SEL 2 H	R79(1)	CTL2 D2	60n	MCL LOAD ARX H
R140(1)	CTL2 D7	60n	%E43(2)	R107(1)	CTL2 D2	60n	CRAM ARXM SEL 1 H	R133(1)	CTL2 C7	60n	CTL2 ARX CLR H	R59(1)	CTL2 B4	60n	MCL1 MEM/ARL IND H
R104(1)	CTL2 D2	60n	%E44(2)	R77(1)	CTL2 C5	60n	CRAM ARXM SEL 2 H	R162(1)	CTL2 C2	60n	-CTL2 ARXL SEL 1 H	R0(1)	CTL1 B5	60n	MCL4 SHORT STACK H
R106(1)	CTL2 D2	60n	%E47(15)	R137(1)	CTL2 C4	60n	CRAM ARXM SEL 4 H	R163(1)	CTL2 C2	60n	-CTL2 ARXR SEL 1 H	R100(1)	CTL2 B6	60n	MCL5 18 BIT EA H
R00(1)	CTL2 C7	60n	%E49(2)	R123(1)	CTL2 A4	60n	-CRAM COND 03 A H	R120(1)	CTL2 A4	60n	CTL2 COND/AR CLR H	R103(1)	CTL2 B6	60n	MCL5 23 BIT EA H
R99(1)	CTL2 C6	60n	%E51(14)	R126(1)	CTL2 A4	60n	-CRAM COND 04 A H	R50(1)	CTL2 A4	60n	CTL2 COND/ARL IND H	R97(1)	CTL3 B5	60n	-P15 GATE TTL TO ECL H
R32(1)	CTL2 C5	60n	%E51(2)	R125(1)	CTL2 A4	60n	-CRAM COND 05 A H	R141(1)	CTL2 A4	60n	CTL2 COND/ARLL LOAD H	R43(1)	CTL3 A5	60n	-SHM1 AR PAR ODD A H
R74(1)	CTL2 C5	60n	%E51(3)	R64(1)	CTL2 B3	60n	CRAM MQ SEL H	R35(1)	CTL2 A4	60n	CTL2 COND/ARLR LOAD H				
R67(1)	CTL2 B4	60n	%E51(9)	R14(1)	CTL1 B6	60n	CTL1 DISP EN 00 H	R70(1)	CTL2 A4	60n	CTL2 COND/ARR LOAD H				
R3(1)	CTL1 A5	60n	%E7(2)	R120(1)	CTL1 B6	60n	-CTL1 DISP EN 00 H	R127(1)	CTL2 A4	60n	CTL2 COND/ARX CLR H				
R51(1)	CTL3 A7	60n	%E7(9)	R10(1)	CTL1 B6	60n	CTL1 DISP EN 01 H	R47(1)	CTL2 A4	60n	CTL2 COND/REG CTL H				
R01(1)	CTL3 B4	60n	APR EBUS RETURN H	R57(1)	CTL1 B6	60n	-CTL1 DISP EN 01 H	R25(1)	CTL2 C7	60n	CTL2 MQ CLR H				
R5(1)	CTL1 B5	60n	APR2 CLK C H	R96(1)	CTL1 D7	60n	CTL1 DISP/AREAD H	R39(1)	CTL3 B7	60n	-CTL3 AD TO EBUS L H				
R95(1)	CTL3 B5	60n	-APR3 CONI OR DATAI H	R23(1)	CTL1 D6	60n	CTL1 DISP/DIV H	R02(1)	CTL3 B5	60n	-CTL3 CONSOLE CONTROL H				
R62(1)	CTL3 B7	60n	APR3 CONO OR DATAO H	R75(1)	CTL1 D6	60n	CTL1 DISP/EA MOD H	R73(1)	CTL3 A7	60n	CTL3 DIAG AR LOAD H				
R45(1)	CTL1 A5	60n	AR 00 C H	R21(1)	CTL1 D6	60n	CTL1 DISP/MUL H	R130(1)	CTL3 D6	60n	-CTL3 DIAG LOAD FUNC 076 H				
R143(1)	CTL2 C7	60n	ARX 18 B H	R20(1)	CTL1 D6	60n	CTL1 DISP/NORM H	R110(1)	CTL3 D7	60n	-CTL3 DIAG LOAD FUNC 07X H				
R105(1)	CTL2 C2	60n	CLK RESP SIM H	R15(1)	CTL1 D7	60n	CTL1 DISP/RETURN H	R135(1)	CTL3 C2	60n	-CTL3 DIAG READ H				
R101(1)	CTL2 C2	60n	CLK4 RESP MBOX H	R2(1)	CTL1 A4	60n	CTL1 PI CYCLE SAVE FLAGS H	R113(1)	CTL3 D4	60n	-CTL3 DIAG READ FUNC 12X H				
R124(1)	CTL2 A4	60n	-CON COND EN 00-07 H	R142(1)	CTL1 B2	60n	CTL1 REG CTL # 00 H	R144(1)	CTL3 A2	60n	CTL3 DIAG SPARE L#400				
R10(1)	CTL3 C6	60n	-CON COND/DIAG FUNC H	R36(1)	CTL1 A2	60n	CTL1 REG CTL # 01 H	R05(1)	CTL3 C7	60n	-CTL3 DIAG STROBE 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

REV. 1 CS M8543-0-RES

370

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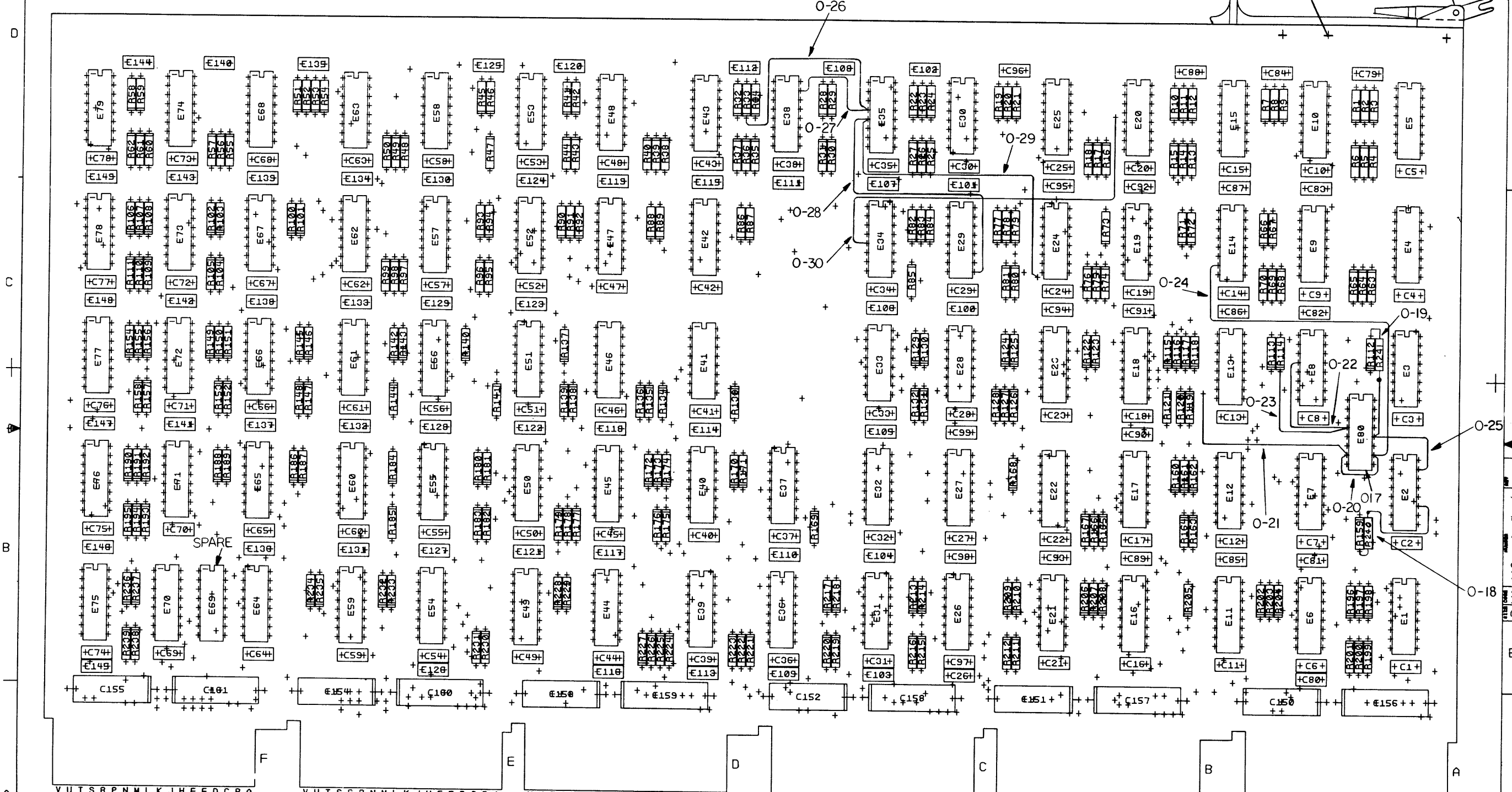
REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. <i>G. Smith</i>	DATE 22-JAN-77	ENG. <i>Tom Egna</i>	DATE 25-JAN-77	TITLE: EBOX CONTROL #1 TERMINATORS
	CHK'D <i>W. Williams</i>	DATE 1/25/77	DESIGN LOCATION: 1	SHEET 1	REV. 1
FIRST USED ON OPTION/MODEL: KL10PV			NEXT HIGHER ASSEMBLY: B-DD-M8543-0		SIZE CODE NUMBER REV.
M85431.RLS(4,602)			122-JAN-77		D CS M8543-0-RES





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NOTES:


CHEG	CHANGE	NO	REV

ETCH REV.	D
P.C. DESIGN DATA BASE REV.	D

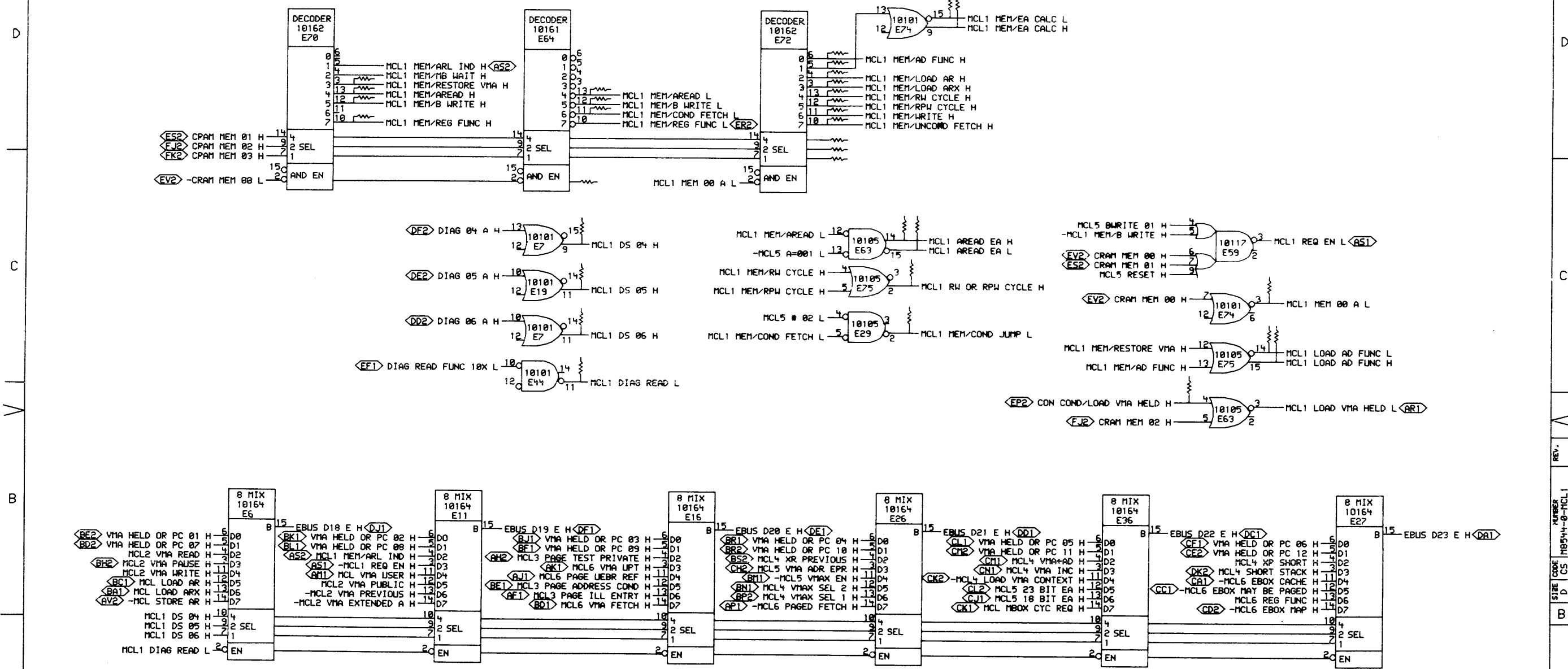
SIGNATURES:		DATE
DRN. <i>Rw County</i>		1/26/74
CHK'D. <i>[Signature]</i>		1/30/74
ENG. <i>[Signature]</i>		2/26/74
PROJ. ENG. <i>[Signature]</i>		1/17/74
PROD. <i>[Signature]</i>		2/1/74

TITLE		MEMORY
CONTROL BOARD		
SCALE	2/1/1	SIZE CODE
SHT.	2 OF 6	NUMBER
NEXT HIGHER ASSY. B-DD-M8544-0		DUA M8544-0-0

MR 1 MS# 30231

372





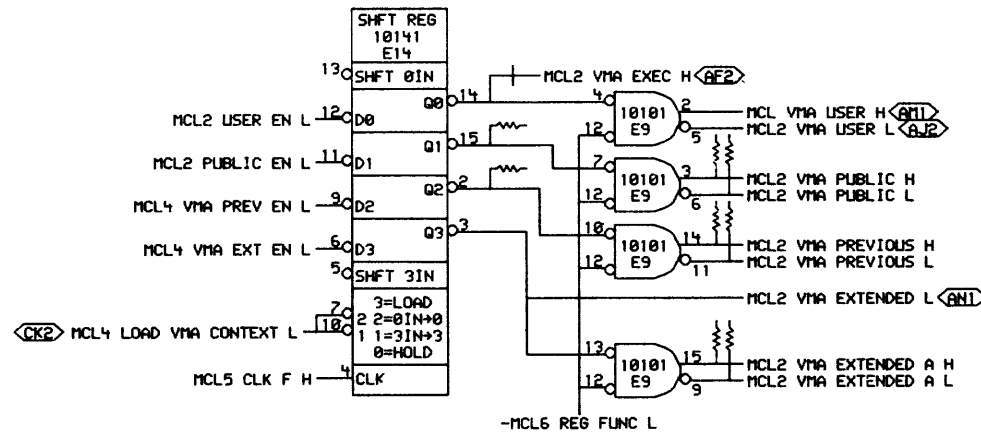
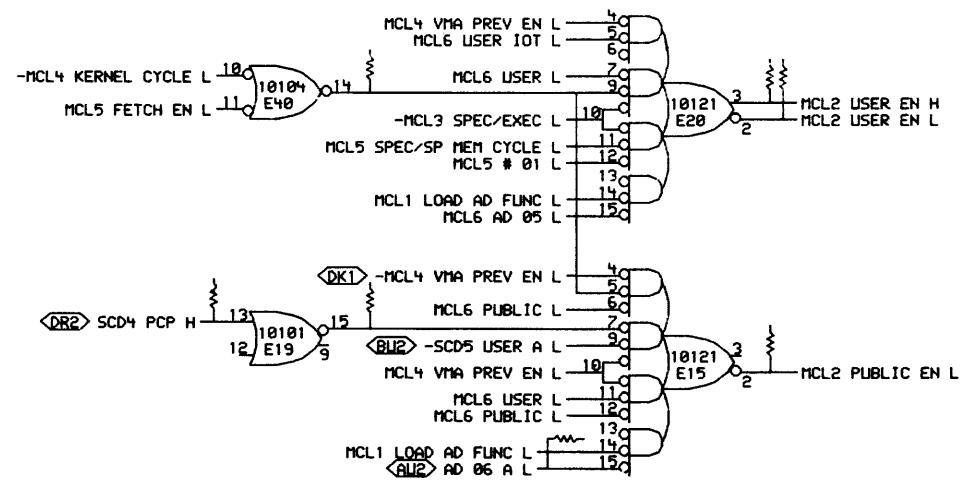
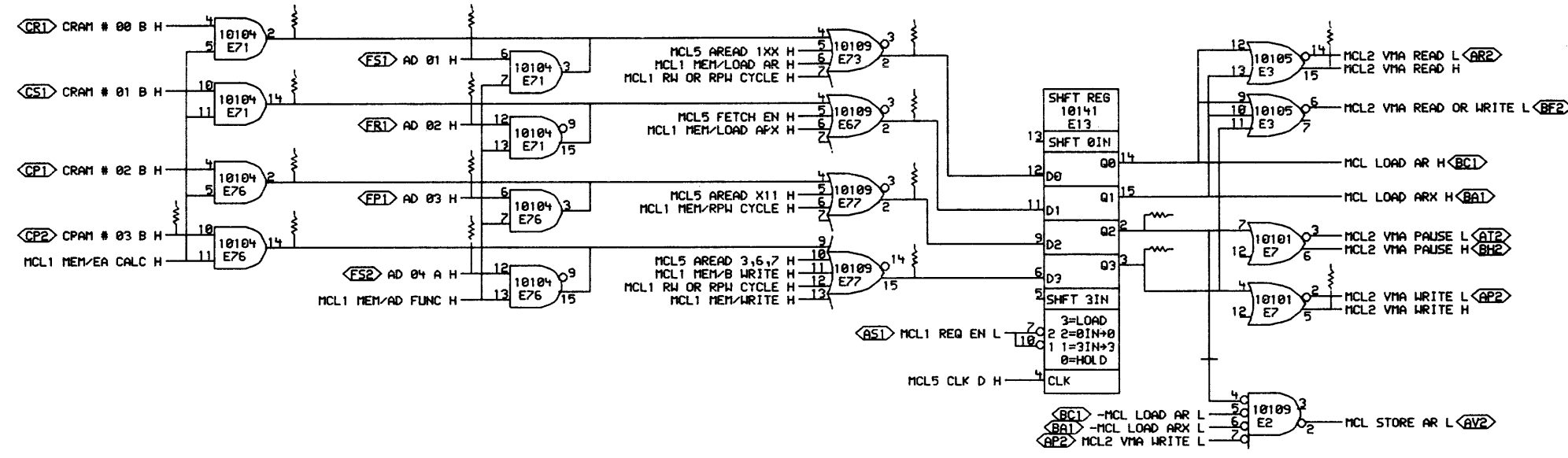
373

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T CORPORATION"

REVISIONS		
CHK	CHANGE NO.	REV

	DR. J. ...	DATE 00-FEB-77	ENG. Tom ...	DATE 08 Feb 77	TITLE: MEMORY CONTROL MEM FIELD DECODE
	CHK. ...	DATE 2/8/77	BOARD LOCATION: 4AF42	SHEET 1	REV.
FIRST USED ON OPTION/MODEL: KL10-PV					NEXT HIGHER ASSEMBLY: B-DD-M8544-0
SIZE	CODE	NUMBER	REV.		
D	CS	M8544-0-MCL1	1 MR		



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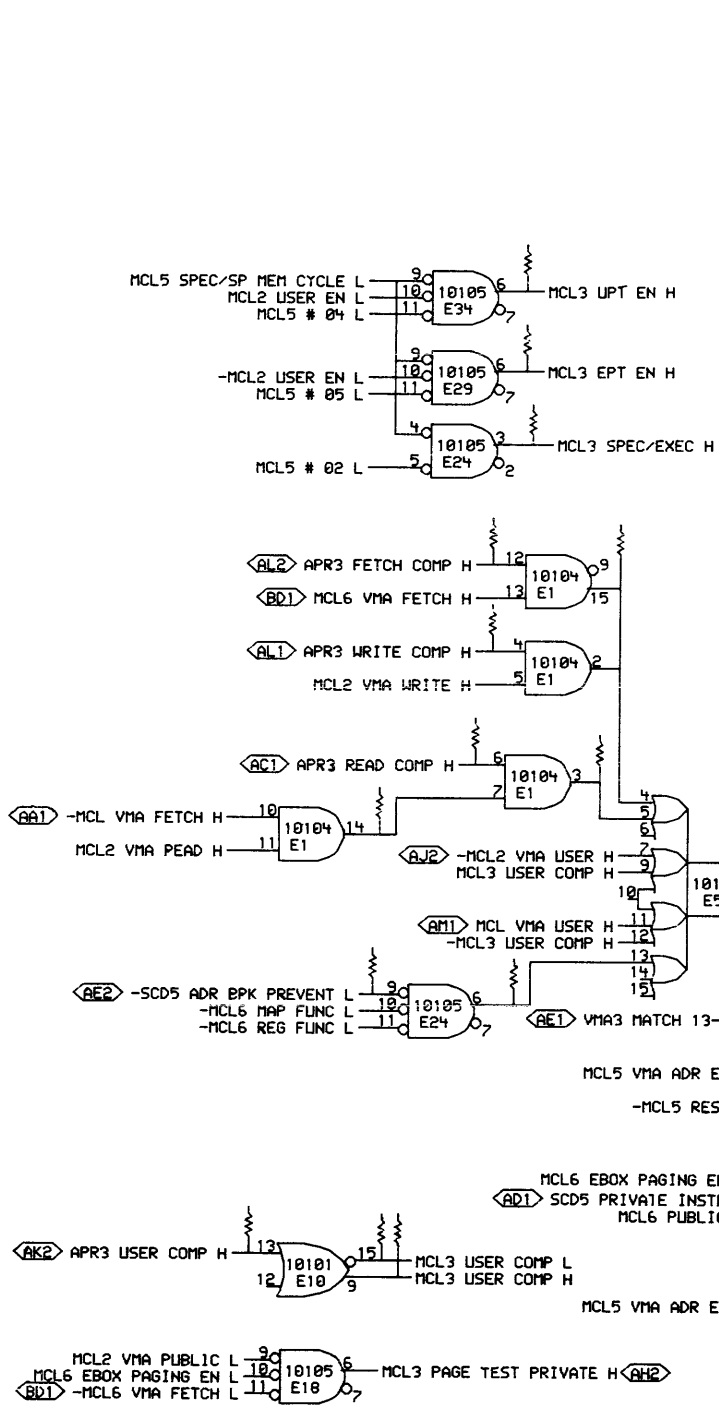
REVISIONS		
CHK	CHANGE NO.	REV.

digital	DATE	ENG	DATE	TITLE:
	08-FEB-77	Tom Egge	9 Feb 77	MEMORY CONTROL VMA CYCLE FLAGS
MCL2EC.RL(4,603)	DATE	BOARD LOCATION:	SHEET	1 OF 1
	127 JAN-77 09:00	4AF4Z	1	
FIRST USED ON OPTION/MODEL:	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
KL10-PV	B-DD-M8544-0	D CS	M8544-0-MCL2	

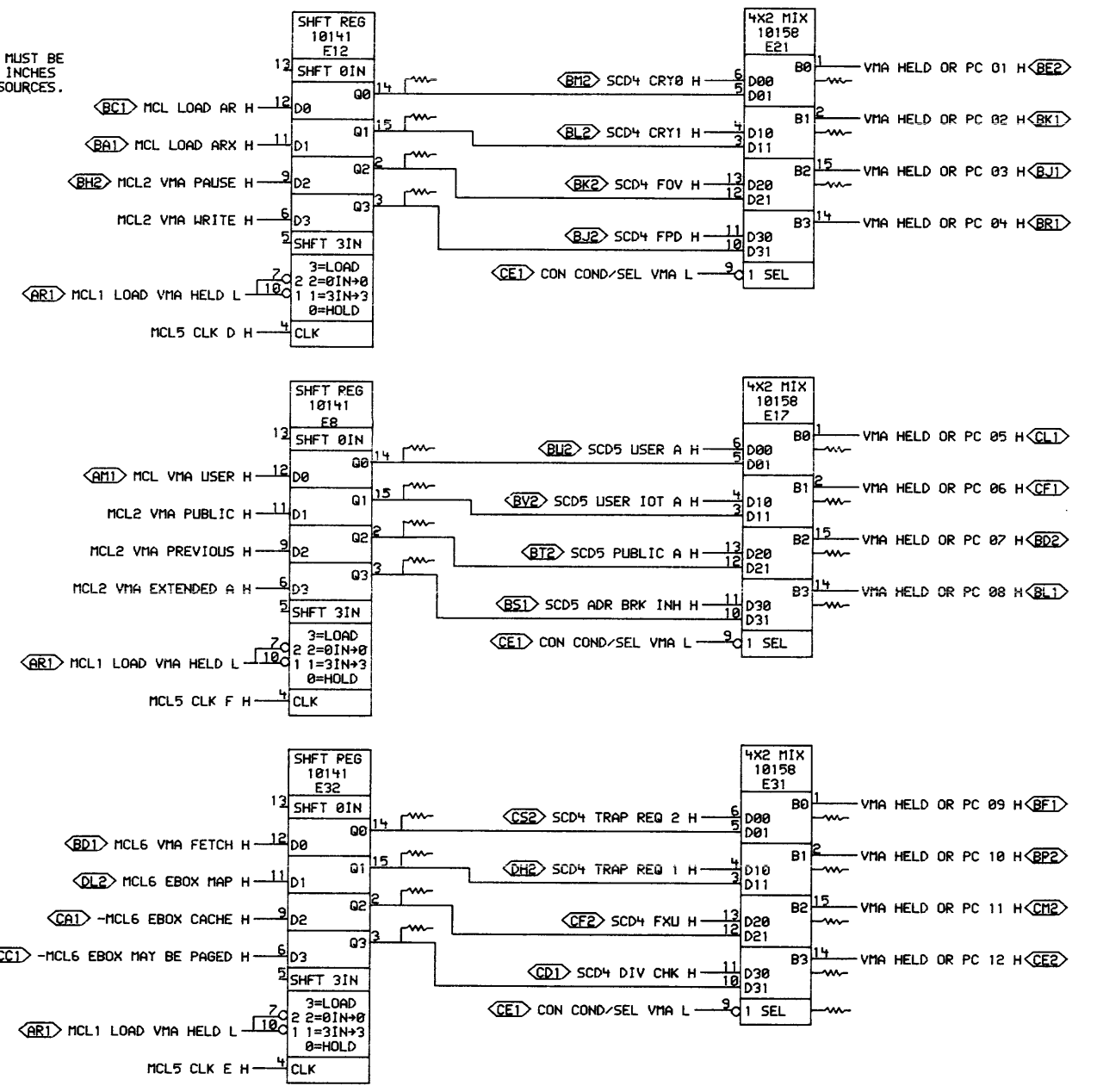
374

MR

D  
C  
B  
A



THESE LOADS MUST BE MORE THAN 4 INCHES FROM THEIR SOURCES.



REV. NUMBER 7704-0-1484 CS D SIZE

A

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REVISIONS		
CHK	CHANGE NO.	REV.

digital	DATE 08-FEB-77	ENG Tom Eggen	DATE 07-FEB-77	TITLE: MEMORY CONTROL VMA HELD FLAGS
	DATE 2/9/77	DRN J. L. Lashby	BOARD LOCATION: 4AF47	SIZE CODE NUMBER REV. D CS M8544-0-MCL3
MCL3 EC RLS 4.6033		127-JAN-77 09:04	NEXT HIGHER ASSEMBLY: B-DD-M8544-0	
FIRST USED ON OPTION/MODEL: KL10-PV				

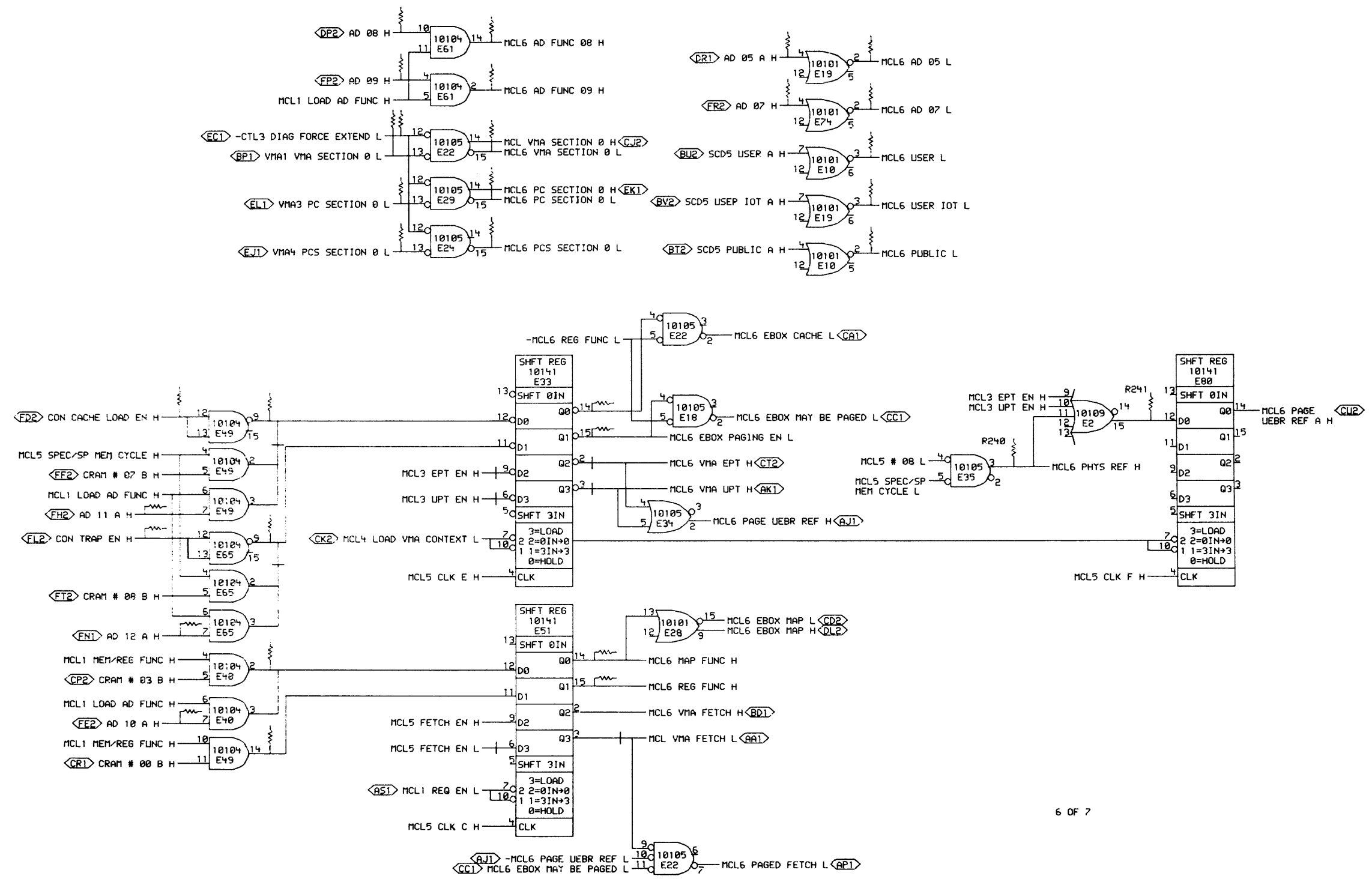
375





D  
C  
V  
B  
A

D  
C  
V  
B  
A



6 OF 7

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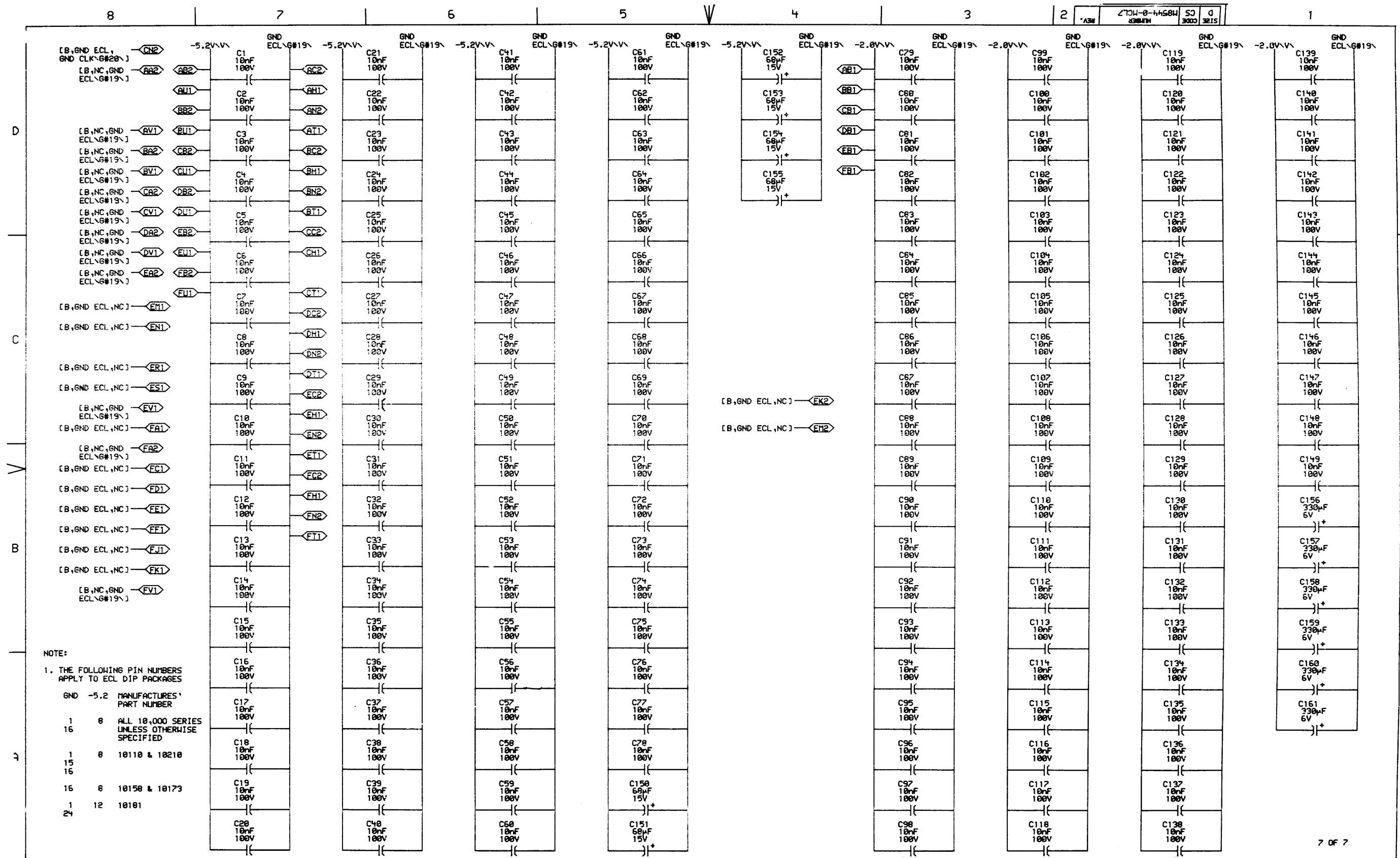
REVISIONS		
CHK	CHANGE NO.	REV

DATE	ENG.	DATE	TITLE:
08-FEB-77	Tom Gagne	08-FEB-77	MEMORY CONTROL MEM/AD FUNC
DATE	BOARD LOCATION:	DATE	BOARD LOCATION:
2/8/77	46E47	2/8/77	46E47
SHEET	OF	SHEET	OF
1	1	1	1
MCL6EC.RLS(4,603)		NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: KL10-PV		B-DD-M8544-0	

SIZE	CODE	NUMBER	REV.
D	CS	M8544-0-MCL6	

378

MR



REV. 1  
 NUMBER 18544-0-MCL7  
 SIZE CODE D CS  
 B  
 A

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REVISIONS	
CHK	CHANGE NO. REV

	DATE: 00-FEB-77	EMP: Tom Igoe	DATE: 8/20/77	TITLE: MEMORY CONTROL POWER, GND, CAPS
	DATE: 2/0/77	BOARD LOCATION: 4B47	SHEET: 1 OF 1	NUMBER: 18544-0-MCL7
FIRST USED ON OPTION/MODEL: KL10-PV			SIZE CODE: D CS	REV.:

379

MR

RESISTOR LOC(PIN)	SHOWN ON DRU#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRU#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRU#	REF	VALUE	TERMINATES SIGNAL	RESISTOR LOC(PIN)	SHOWN ON DRU#	REF	VALUE	TERMINATES SIGNAL
R199(1)	MCL3	B7	68n	%E1(14)	R132(1)	MCL6	B7	68n	%E65(2)	R228(1)	MCL6	C7	68n	CON CACHE LOAD EN H	R238(1)	MCL1	D4	68n	MCL1 MEM/AD FUNC H
R2(1)	MCL3	C6	68n	%E1(2)	R117(1)	MCL2	D5	68n	%E67(2)	R53(1)	MCL1	B2	68n	CON COND/LOAD VMA HELD H	R86(1)	MCL1	D7	68n	MCL1 MEM/AREAD H
R3(1)	MCL3	B6	68n	%E1(3)	R183(1)	MCL2	D7	68n	%E71(14)	R166(1)	MCL3	A2	68n	-CON COND/SEL VMA H	R48(1)	MCL1	D6	68n	-MCL1 MEM/AREAD H
R218(1)	MCL3	D3	68n	%E12(14)	R187(1)	MCL2	D7	68n	%E71(2)	R184(1)	MCL4	D8	68n	CON LOAD ACCESS COND H	R111(1)	MCL1	D7	68n	MCL1 MEM/B WRITE H
R209(1)	MCL3	D3	68n	%E12(15)	R56(1)	MCL1	D4	68n	%E72(5)	R169(1)	MCL4	A5	68n	-CON LOAD SPEC INSTR H	R235(1)	MCL1	D6	68n	-MCL1 MEM/B WRITE H
R206(1)	MCL3	D3	68n	%E12(2)	R145(1)	MCL5	B7	68n	%E73(14)	R83(1)	MCL4	B2	68n	CON PI CYCLE A H	R84(1)	MCL1	D6	68n	-MCL1 MEM/COND FETCH H
R208(1)	MCL3	D3	68n	%E12(3)	R118(1)	MCL2	D5	68n	%E73(2)	R186(1)	MCL6	B7	68n	CON TRAP EN H	R125(1)	MCL1	C4	68n	-MCL1 MEM/COND JUMP H
R159(1)	MCL2	C4	68n	%E13(2)	R157(1)	MCL2	C7	68n	%E76(14)	R192(1)	MCL5	B4	68n	CRAM # 00 B H	R87(1)	MCL1	D4	68n	MCL1 MEM/EA CALC H
R112(1)	MCL2	C4	68n	%E13(3)	R156(1)	MCL2	D7	68n	%E76(2)	R57(1)	MCL5	B4	68n	CRAM # 01 B H	R36(1)	MCL1	D4	68n	-MCL1 MEM/EA CALC H
R68(1)	MCL2	B3	68n	%E14(15)	R116(1)	MCL2	C5	68n	%E77(15)	R191(1)	MCL5	B4	68n	CRAM # 02 B H	R110(1)	MCL1	D4	68n	MCL1 MEM/LOAD AR H
R69(1)	MCL2	B3	68n	%E14(2)	R119(1)	MCL2	D5	68n	%E77(2)	R195(1)	MCL2	C7	68n	CRAM # 03 B H	R184(1)	MCL1	D4	68n	MCL1 MEM/LOAD ARX H
R13(1)	MCL2	A6	68n	%E19(15)	R58(1)	MCL5	B7	68n	%E79(11)	R225(1)	MCL5	A4	68n	CRAM # 04 B H	R105(1)	MCL1	D7	68n	MCL1 MEM/REG FUNC H
R241(1)	MCL6	C2	68n	%E2(15)	R49(1)	MCL5	B7	68n	%E79(3)	R128(1)	MCL5	A4	68n	CRAM # 05 B H	R236(1)	MCL1	D7	68n	MCL1 MEM/RESTORE VMA H
R1(1)	MCL3	B7	68n	%E24(6)	R163(1)	MCL3	C3	68n	%E8(14)	R226(1)	MCL5	A4	68n	CRAM # 07 B H	R239(1)	MCL1	D4	68n	MCL1 MEM/RW CYCLE H
R218(1)	MCL3	B3	68n	%E32(14)	R161(1)	MCL3	C3	68n	%E8(2)	R229(1)	MCL5	A4	68n	CRAM # 08 B H	R237(1)	MCL1	D4	68n	MCL1 MEM/RW CYCLE H
R219(1)	MCL3	B3	68n	%E32(15)	R160(1)	MCL3	C3	68n	%E8(5)	R68(1)	MCL1	C6	68n	CRAM MEM 00 H	R101(1)	MCL1	D4	68n	MCL1 MEM/UNCOND FETCH H
R213(1)	MCL3	B3	68n	%E32(2)	R164(1)	MCL3	C3	68n	%E8(3)	R149(1)	MCL1	D4	68n	CRAM MEM 01 H	R155(1)	MCL1	D4	68n	MCL1 MEM/WRITE H
R216(1)	MCL3	B3	68n	%E32(3)	R193(1)	MCL2	D6	68n	AD 01 H	R54(1)	MCL1	C4	68n	CRAM MEM 02 H	R189(1)	MCL1	C4	68n	MCL1 RW OR RPW CYCLE H
R168(1)	MCL6	C5	68n	%E33(14)	R188(1)	MCL2	D6	68n	AD 02 H	R153(1)	MCL1	C4	68n	CRAM MEM 03 H	R66(1)	MCL2	A5	68n	-MCL2 PUBLIC EN H
R41(1)	MCL4	A6	68n	%E38(2)	R194(1)	MCL2	D6	68n	AD 03 H	R52(1)	MCL5	C2	68n	-CRAM SH-ARIM SEL 1 A H	R81(1)	MCL2	B5	68n	MCL2 USER EN H
R12(1)	MCL2	B6	68n	%E40(14)	R198(1)	MCL2	C6	68n	AD 04 A H	R51(1)	MCL5	C2	68n	-CRAM SH-ARIM SEL 2 A H	R85(1)	MCL2	B5	68n	-MCL2 USER EN H
R137(1)	MCL6	B7	68n	%E40(2)	R73(1)	MCL6	D4	68n	AD 05 A H	R126(1)	MCL4	C2	68n	CRAM VMA SEL 1 H	R113(1)	MCL2	A3	68n	MCL2 VMA EXTENDED A H
R23(1)	MCL4	B4	68n	%E42(3)	R7(1)	MCL2	A6	68n	-AD 06 A H	R127(1)	MCL4	C2	68n	CRAM VMA SEL 2 H	R203(1)	MCL2	A3	68n	-MCL2 VMA EXTENDED A H
R183(1)	MCL4	D5	68n	%E46(3)	R59(1)	MCL6	D4	68n	AD 07 H	R224(1)	MCL5	A2	68n	CTL1 SPEC/SP MEM CYCLE H	R32(1)	MCL2	A3	68n	MCL2 VMA PREVIOUS H
R34(1)	MCL4	B7	68n	%E48(15)	R144(1)	MCL6	D6	68n	AD 08 H	R88(1)	MCL6	D6	68n	CTL3 DIAG FORCE EXTEND H	R285(1)	MCL2	A3	68n	-MCL2 VMA PREVIOUS H
R45(1)	MCL4	B7	68n	%E48(2)	R146(1)	MCL6	D6	68n	AD 09 H	R58(1)	MCL5	B7	68n	DRAM A 00 H	R282(1)	MCL2	B3	68n	MCL2 VMA PUBLIC H
R139(1)	MCL6	A7	68n	%E49(14)	R175(1)	MCL6	A7	68n	AD 10 A H	R61(1)	MCL5	B7	68n	DRAM A 01 H	R128(1)	MCL2	B3	68n	-MCL2 VMA PUBLIC H
R129(1)	MCL6	C7	68n	%E49(2)	R238(1)	MCL6	B7	68n	AD 11 A H	R62(1)	MCL5	A7	68n	DRAM A 02 H	R196(1)	MCL2	D3	68n	MCL2 VMA READ H
R122(1)	MCL3	B6	68n	%E5(3)	R187(1)	MCL6	B7	68n	AD 12 A H	R227(1)	MCL5	A2	68n	-IR AC=0 H	R198(1)	MCL2	C3	68n	MCL2 VMA WRITE H
R94(1)	MCL4	A2	68n	%E58(14)	R281(1)	MCL3	C7	68n	APR3 FETCH COMP H	R97(1)	MCL5	C4	68n	-IR JRST 0, H	R131(1)	MCL3	C7	68n	MCL3 EPT EN H
R95(1)	MCL4	A2	68n	%E58(15)	R28(1)	MCL4	D2	68n	APR3 FM EXTENDED H	R27(1)	MCL4	B2	68n	-IR TEST SATISFIED H	R16(1)	MCL3	C7	68n	MCL3 SPEC/EXEC H
R91(1)	MCL4	A2	68n	%E58(2)	R288(1)	MCL3	B7	68n	APR3 READ COMP H	R148(1)	MCL1	C4	68n	MCL1 AREAD EA H	R138(1)	MCL3	D7	68n	MCL3 LPT EN H
R92(1)	MCL4	A2	68n	%E58(3)	R6(1)	MCL3	A7	68n	APR3 USER COMP H	R135(1)	MCL1	C4	68n	-MCL1 AREAD EA H	R4(1)	MCL3	A7	68n	MCL3 USER COMP H
R121(1)	MCL5	D6	68n	%E54(2)	R197(1)	MCL3	C7	68n	APR3 WRITE COMP H	R284(1)	MCL1	C6	68n	-MCL1 DIAG READ H	R5(1)	MCL3	A7	68n	-MCL3 USER COMP H
R176(1)	MCL4	D7	68n	%E55(3)	R177(1)	MCL4	A2	68n	-APR4 AC 09 H	R223(1)	MCL1	C6	68n	MCL1 DS 04 H	R178(1)	MCL4	A4	68n	MCL4 KERNEL CYCLE H
R181(1)	MCL4	C4	68n	%E57(14)	R178(1)	MCL4	A2	68n	-APR4 AC 10 H	R222(1)	MCL1	C6	68n	MCL1 DS 05 H	R232(1)	MCL4	B2	68n	-MCL4 LOAD VMA H
R142(1)	MCL4	D4	68n	%E57(3)	R179(1)	MCL4	A2	68n	-APR4 AC 11 H	R221(1)	MCL1	C6	68n	MCL1 DS 06 H	R98(1)	MCL4	A4	68n	-MCL4 PXCT H
R231(1)	MCL5	D7	68n	%E68(2)	R182(1)	MCL4	A2	68n	-APR4 AC 12 H	R173(1)	MCL1	C2	68n	MCL1 LOAD AD FUNC H	R89(1)	MCL4	A2	68n	MCL4 PXCT B09 H
R186(1)	MCL5	A6	68n	%E63(7)	R148(1)	MCL5	C7	68n	-CLK3 EBOX SYNC B H	R18(1)	MCL1	C2	68n	-MCL1 LOAD AD FUNC H	R48(1)	MCL4	A2	68n	-MCL4 PXCT B09 H
R151(1)	MCL5	C6	68n	%E65(14)	R133(1)	MCL5	B2	68n	CLK3 MCL H	R158(1)	MCL1	C2	68n	-MCL1 MEM 00 A H	R42(1)	MCL4	A2	68n	-MCL4 PXCT B10 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* DATE: *10 FEB 77* ENG: *Tom Lynn* DATE: *10 FEB 77*  
 CHK: *Stephania* DATE: *2/77* BOARD LOCATION: *DE 2*  
 FIRST USED ON OPTION/MODEL: KL10-PV NEXT HIGHER ASSEMBLY: B-DD-M8544-0

TITLE: MEMORY CONTROL TERMINATORS  
 SIZE CODE: D CS NUMBER: M8544-0-RES REV.:



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
R88(1)	MCL4	A2	68n	MCL4 PXCT B11 H	R174(1)	MCL5	C3	68n	-MCL5 FETCH EN H	R78(1)	MCL6	C6	68n	-VMA4 PCS SECTION 0 H
R44(1)	MCL4	A2	68n	-MCL4 PXCT B11 H	R102(1)	MCL5	C4	68n	MCL5 FETCH EN IN H					
R26(1)	MCL4	A2	68n	MCL4 PXCT B12 H	R124(1)	MCL5	A2	68n	MCL5 RESET H					
R24(1)	MCL4	A2	68n	-MCL4 PXCT B12 H	R38(1)	MCL5	A2	68n	-MCL5 RESET H					
R93(1)	MCL4	D7	68n	MCL4 SR 00 H	R82(1)	MCL5	B2	68n	-MCL5 SKIP SATISFIED H					
R39(1)	MCL4	D7	68n	MCL4 SR 01 H	R189(1)	MCL5	A2	68n	MCL5 SPEC/SP MEM CYCLE H					
R43(1)	MCL4	D7	68n	MCL4 SR 02 H	R98(1)	MCL5	A2	68n	-MCL5 SPEC/SP MEM CYCLE H					
R72(1)	MCL4	D4	68n	-MCL4 VMA EXT EN H	R65(1)	MCL5	D6	68n	-MCL5 VMA ADR ERR H					
R185(1)	MCL4	D4	68n	MCL4 VMA LONG EN H	R11(1)	MCL6	D4	68n	-MCL6 AD 05 H					
R37(1)	MCL4	D4	68n	-MCL4 VMA LONG EN H	R47(1)	MCL6	D4	68n	-MCL6 AD 07 H					
R70(1)	MCL4	B6	68n	-MCL4 VMA PREV EN H	R143(1)	MCL6	D5	68n	MCL6 AD FUNC 08 H					
R180(1)	MCL4	C1	68n	MCL4 VMA/AD H	R100(1)	MCL6	D5	68n	MCL6 AD FUNC 09 H					
R46(1)	MCL4	C1	68n	-MCL4 VMA/AD H	R64(1)	MCL6	C5	68n	-MCL6 EBOX PAGING EN H					
R31(1)	MCL4	C6	68n	-MCL4 XR PREVIOUS H	R76(1)	MCL6	B5	68n	MCL6 MAP FUNC H					
R55(1)	MCL4	D2	68n	MCL4 XR SHORT H	R25(1)	MCL6	C5	68n	-MCL6 PC SECTION 0 H					
R99(1)	MCL5	B4	68n	-MCL5 # 00 H	R19(1)	MCL6	C5	68n	-MCL6 PCS SECTION 0 H					
R17(1)	MCL5	B4	68n	-MCL5 # 01 H	R240(1)	MCL6	B3	68n	MCL6 PHYS REF H					
R79(1)	MCL5	B4	68n	-MCL5 # 02 H	R14(1)	MCL6	C4	68n	-MCL6 PUBLIC H					
R29(1)	MCL5	A4	68n	-MCL5 # 04 H	R67(1)	MCL6	B5	68n	MCL6 REG FUNC H					
R30(1)	MCL5	A4	68n	-MCL5 # 05 H	R15(1)	MCL6	D4	68n	-MCL6 USER H					
R28(1)	MCL5	A4	68n	-MCL5 # 07 H	R18(1)	MCL6	C4	68n	-MCL6 USER IOT H					
R33(1)	MCL5	A4	68n	-MCL5 # 08 H	R21(1)	MCL6	D5	68n	-MCL6 VMA SECTION 0 H					
R147(1)	MCL5	B7	68n	MCL5 A=001 H	R211(1)	MCL3	D2	68n	SCD4 CRY0 H					
R152(1)	MCL5	B7	68n	MCL5 A=0X0 H	R212(1)	MCL3	D2	68n	SCD4 CRY1 H					
R96(1)	MCL5	C2	68n	MCL5 AD LONG EN H	R215(1)	MCL3	A2	68n	SCD4 DIV CHK H					
R136(1)	MCL5	C2	68n	-MCL5 AD LONG EN H	R207(1)	MCL3	D2	68n	SCD4 FOV H					
R22(1)	MCL5	B6	68n	MCL5 AREAD 001 H	R214(1)	MCL3	B2	68n	SCD4 FXJ H					
R108(1)	MCL5	A6	68n	MCL5 AREAD 1XX H	R71(1)	MCL2	A7	68n	SCD4 PCP H					
R158(1)	MCL5	A6	68n	MCL5 AREAD 3,6,7 H	R217(1)	MCL3	B2	68n	SCD4 TRAP REQ 1 H					
R154(1)	MCL5	B6	68n	MCL5 AREAD X11 H	R220(1)	MCL3	B2	68n	SCD4 TRAP REQ 2 H					
R234(1)	MCL5	B7	68n	MCL5 BWRITE 01 H	R165(1)	MCL3	C2	68n	SCD5 ADR BRK INH H					
R233(1)	MCL5	B2	68n	MCL5 CLK A H	R75(1)	MCL3	B7	68n	SCD5 ADR BRK PREVENT H					
R134(1)	MCL5	B2	68n	MCL5 CLK B H	R63(1)	MCL3	A6	68n	-SCD5 PRIVATE INSTR H					
R172(1)	MCL5	B1	68n	MCL5 CLK C H	R9(1)	MCL3	C2	68n	SCD5 PUBLIC A H					
R162(1)	MCL5	B2	68n	MCL5 CLK D H	R8(1)	MCL3	C2	68n	SCD5 USER A H					
R171(1)	MCL5	B2	68n	MCL5 CLK E H	R74(1)	MCL3	C2	68n	SCD5 USER IOT A H					
R114(1)	MCL5	B1	68n	MCL5 CLK F H	R167(1)	MCL6	D6	68n	-VMA1 VMA SECTION 0 H					
R138(1)	MCL5	D4	68n	-MCL5 EA EXTENDED H	R115(1)	MCL5	D6	68n	VMA2 VMA 12 H					
R35(1)	MCL5	D4	68n	-MCL5 EA PREVIOUS H	R123(1)	MCL3	B6	68n	-VMA3 MATCH 13-35 H					
R141(1)	MCL5	C3	68n	MCL5 FETCH EN H	R77(1)	MCL6	C6	68n	-VMA3 PC SECTION 0 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

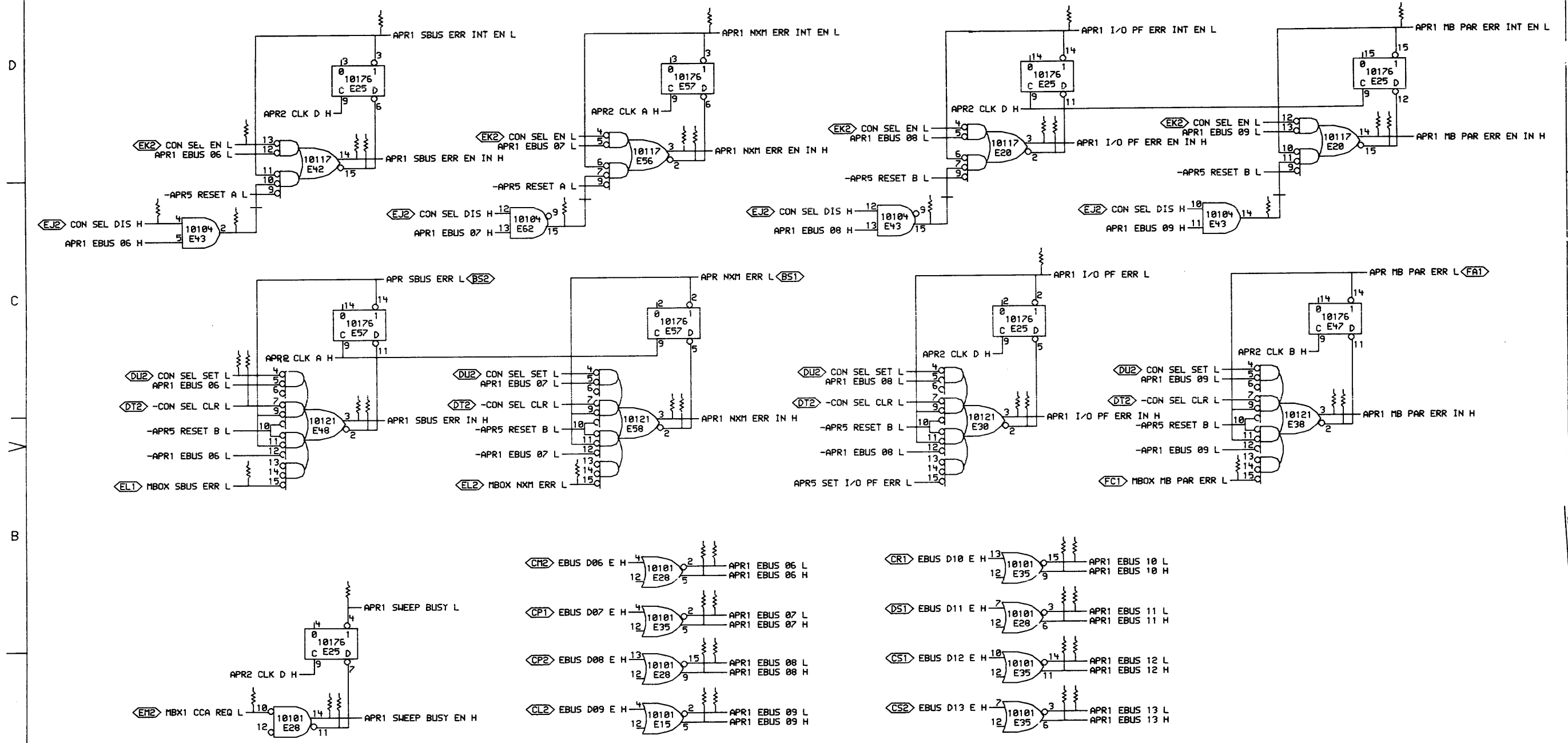
digital	DRN. <i>G. Smith</i>	DATE <i>10-FEB-77</i>	ENG. <i>Tom Eggen</i>	DATE <i>8-FEB-77</i>	TITLE: MEMORY CONTROL TERMINATORS
	CHK. <i>M. Stephens</i>	DATE <i>2/8/77</i>	BOARD LOCATION: <i>2</i>	SHEET <i>2</i> OF <i>2</i>	REV.
FIRST USED ON OPTION/MODEL: KL10-PV		NEXT HIGHER ASSEMBLY: B-DD-M8544-0		SIZE CODE: D CS	NUMBER: M8544-0-RES

REV. NUMBER M8544-0-RES

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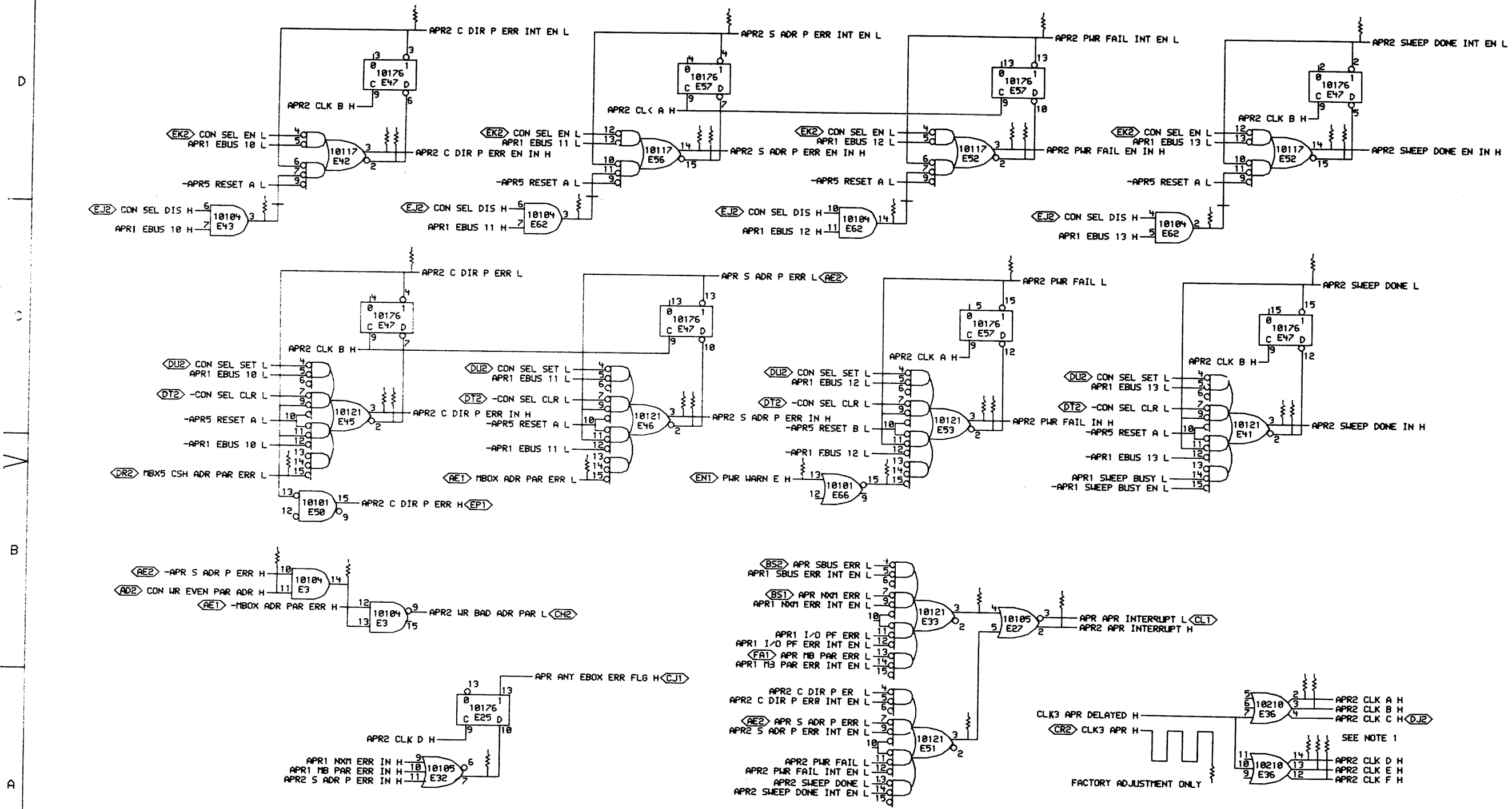




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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 01-09-76	ENG: Tom Egge	DATE: 3 Nov 76	TITLE: APR BOARD
	DATE: 3 Nov 76	CHK: Tom Egge	BOARD LOCATION: 4AF34	APR REGISTER A
APR1EC.RLS4.1611	30-OCT-76 20:45	NEXT HIGHER ASSEMBLY:	SIZE: D	CODE: CS
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8545-0		NUMBER: M8545-0-APR1	REV.:



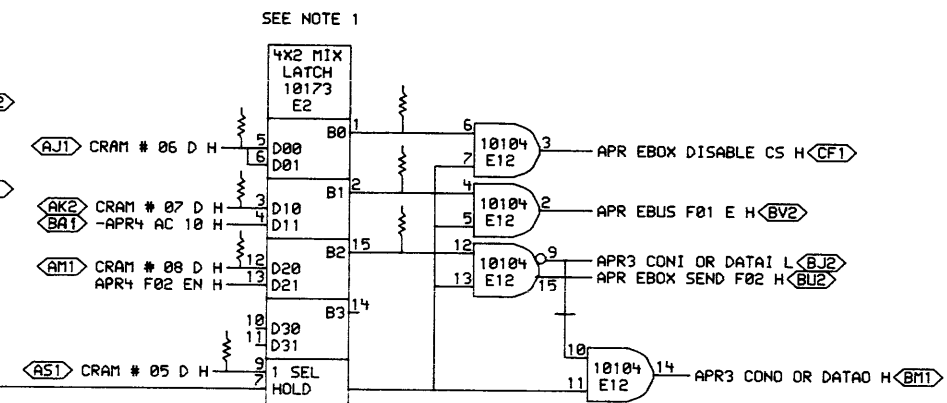
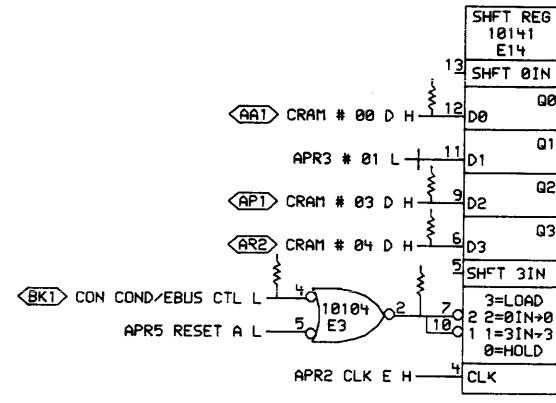
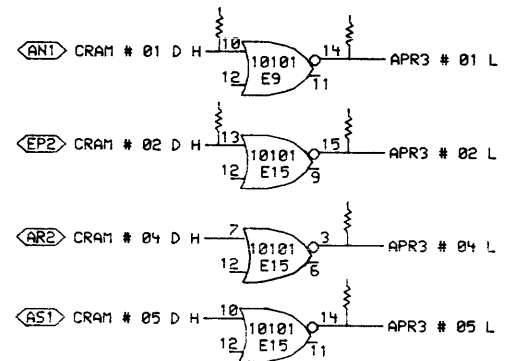
NOTE 1: REPLACEMENT OF E36 REQUIRES FACTORY DESKEW ADJUSTMENT.

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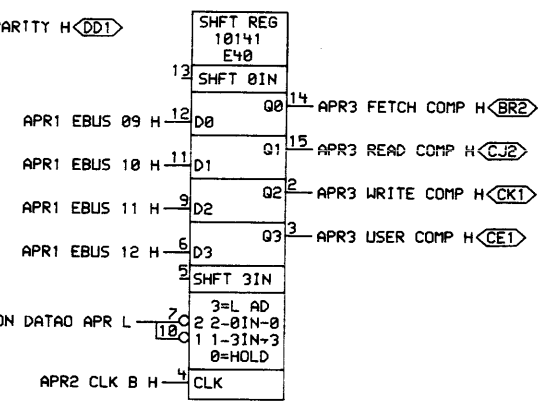
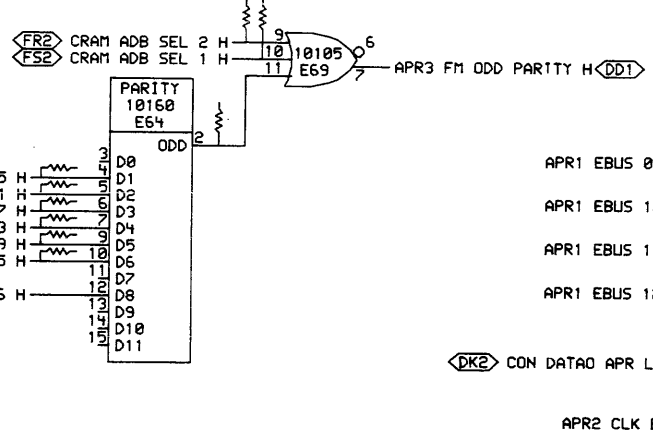
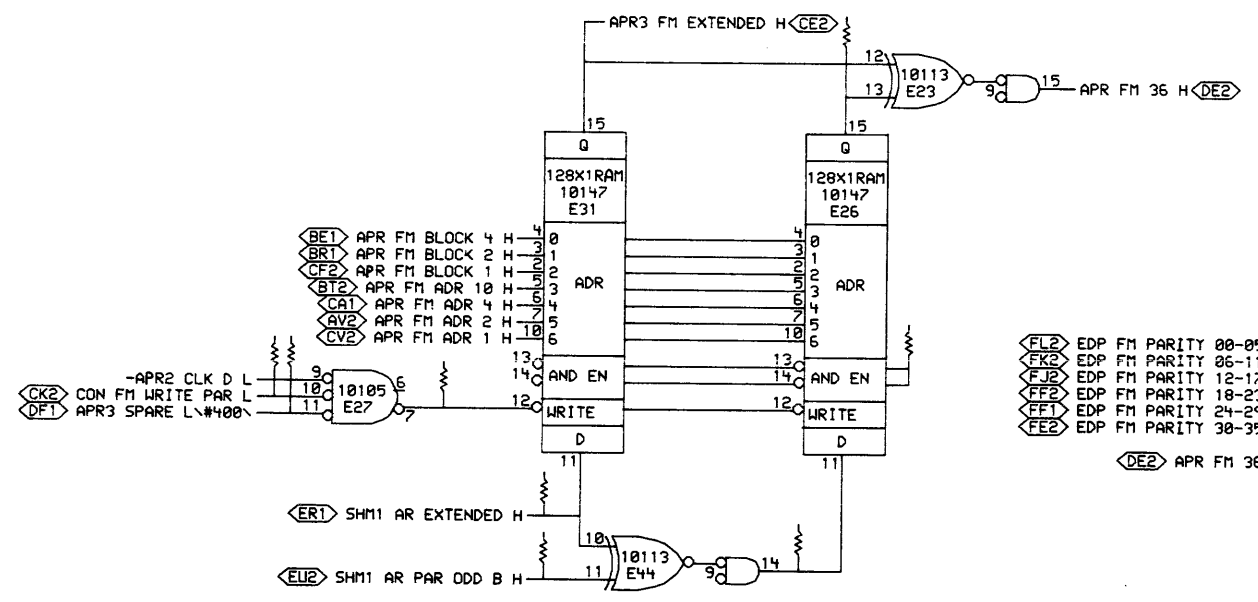
REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG	DATE	TITLE:
	01-NOV-76	Tom Egge	3 Nov 76	APR BOARD APR REGISTER B
APR2EC.RLS(4,161)	DATE	BOARD LOCATION:	SIZE	CODE
FIRST USED ON OPTION/MODEL:	30-OCT-76 20:46	KL10	D	CS
	NEXT HIGHER ASSEMBLY:	B-DD-M8545-0	NUMBER	REV.
			M8545-0-APR2	MR

385



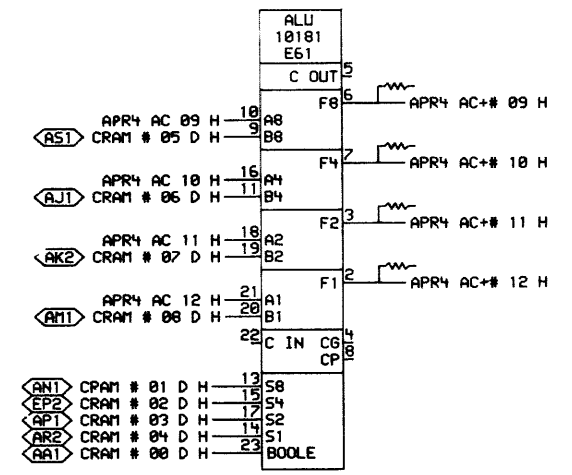
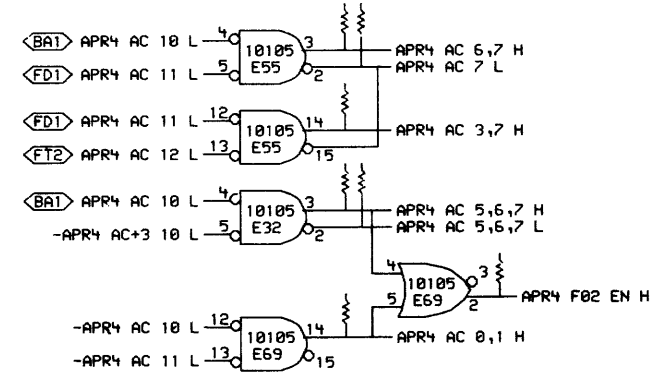
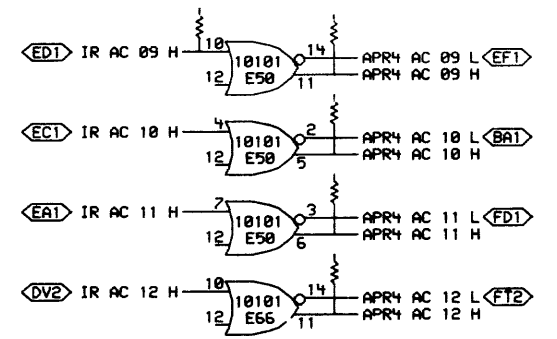
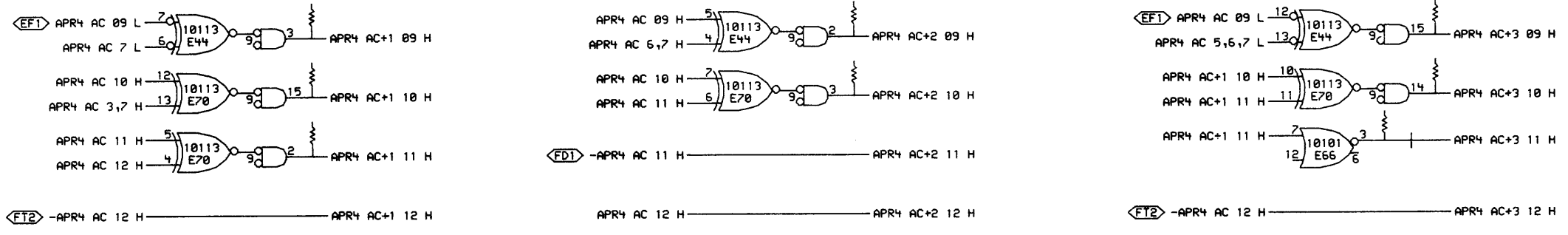
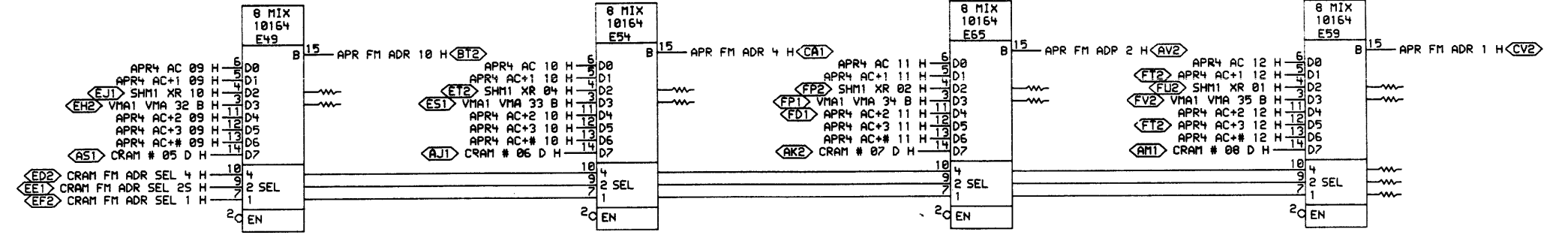
NOTE 1: MICROCODE TIMING RESTRICTION:  
 THE MICROINSTRUCTION FOLLOWING  
 "COND/EBUS CTL" AND "CRAM # 04" MUST  
 HOLD "CRAM # 05" UNCHANGED. IF # 05  
 IS ZERO, THEN # 06, # 07, AND # 08  
 MUST ALSO BE HELD UNCHANGED.



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE 05-NOV-76	ENG Jim Eggen	DATE 5 Nov 76	TITLE: APR BOARD I/O CONTROL
	DATE 11/27/76	BOARD LOCATION: 4AF34	SHEET 1 OF 1	SIZE CODE D CS
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8545-0		NUMBER M8545-0-APR3

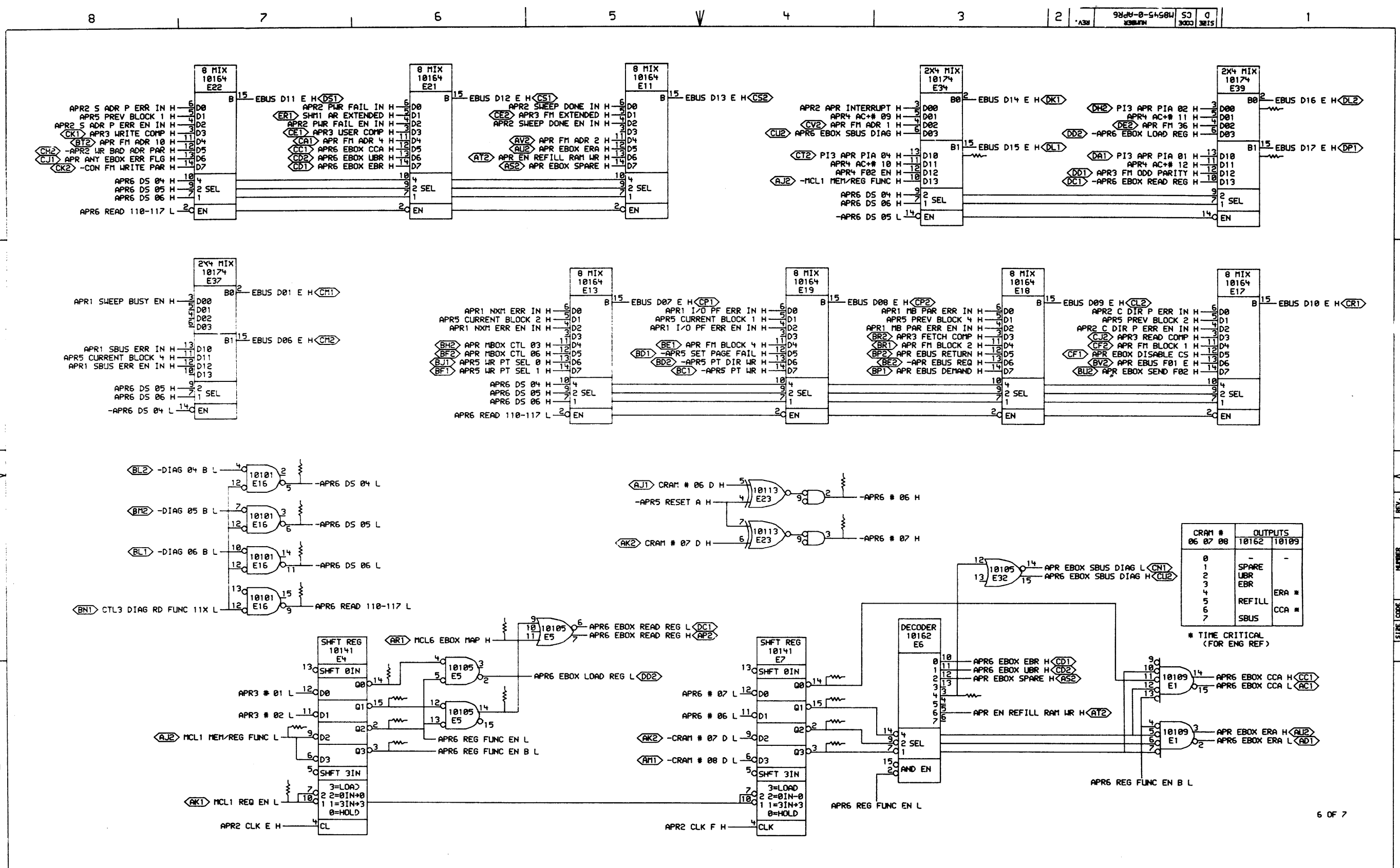


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FIRST USED ON OPTION/MODEL: KL10				NEXT HIGHER ASSEMBLY: B-DD-M8545-0		MR				







CRAM #	06	07	08	10162	10109
0				SPARE	
1				LIBR	
2				EBR	ERA #
3					CCA #
4				REFILL	
5					
6				SBUS	
7					

\* TIME CRITICAL  
(FOR ENG REF)

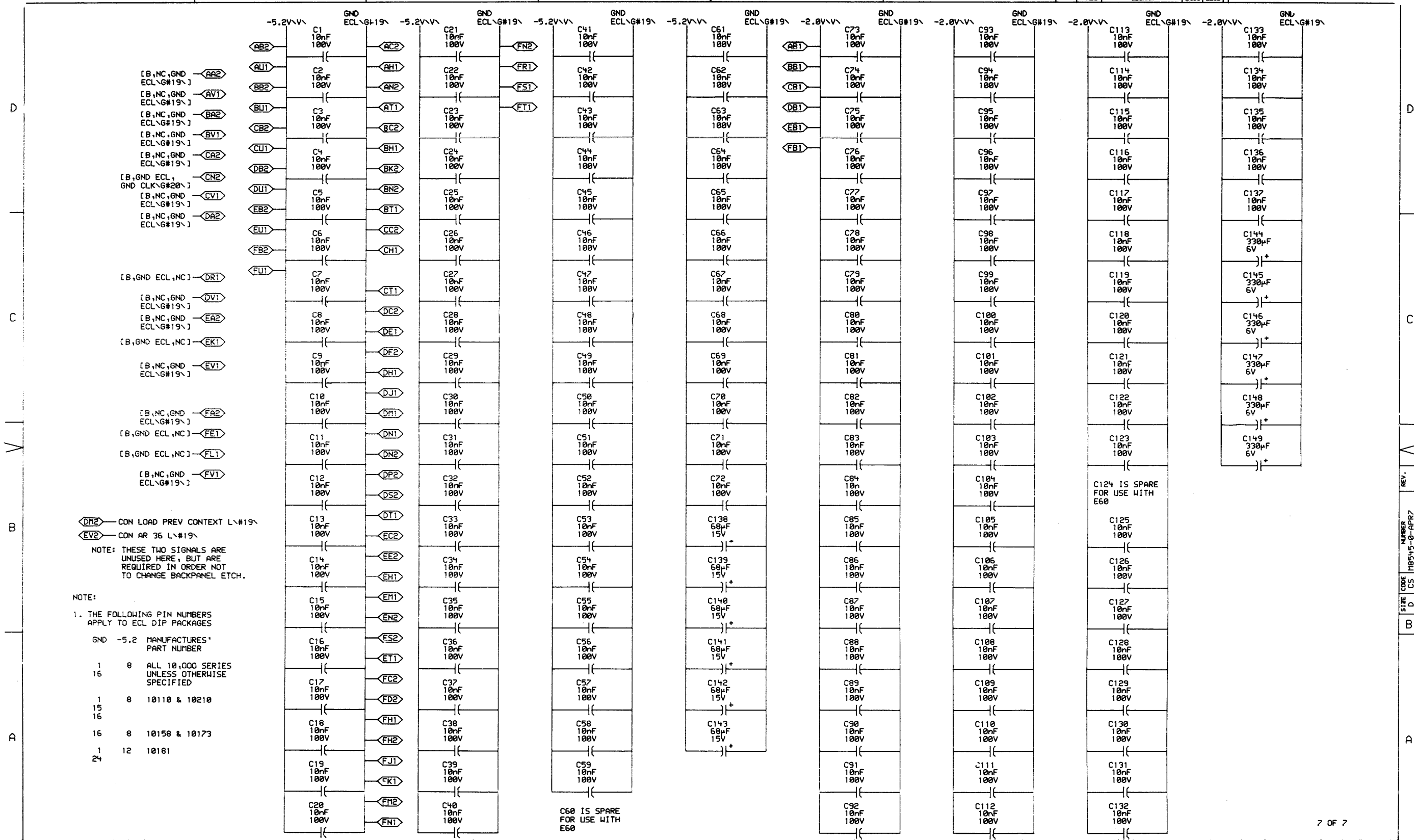
REVISIONS	
CHK	CHANGE NO. REV.

digital *DRW. J. J. ...* DATE 01-NOV-76 ENG. *John Egner* DATE 3/20/76 TITLE: APR BOARD DIAGNOSTICS

APR6EC.RLS(4,161) 130-OCT-76 20:48 NEXT HIGHER ASSEMBLY: SIZE CODE NUMBER REV. D CS M8545-0-APR6

FIRST USED ON OPTION MODEL: KL10 B-DD-M8545-0

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NOTE: THESE TWO SIGNALS ARE UNUSED HERE, BUT ARE REQUIRED IN ORDER NOT TO CHANGE BACKPANEL ETCH.

NOTE:

1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15	8	10110 & 10210
16	8	10158 & 10173
1	12	10181

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG	DATE	TITLE:
	83-NOV-76	Tom Egan	3/20/76	APR BOARD POWER, GND, CAPS
APRZEC.RLSC4.151	DATE	BOARD LOCATION	4/F34	SIZE
FIRST USED ON OPTION/MODEL: KL10	11/3/76	SHEET	1 OF 1	CS
	10-NOV-76 12:22	NEXT HIGHER ASSEMBLY:	B-DD-M8545-0	NUMBER
				M8545-0-APR7
				REV.

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
R130(1)	APR3	D4	68n	%E14(3)	R165(1)	APR6	A4	68n	%E7(2)	R112(1)	APR2	D2	68n	-APR2 SWEET DONE INT EN H	R9(1)	APR5	B4	68n	-CON COND/MBX CTL H
R136(1)	APR3	D3	68n	%E2(1)	R163(1)	APR6	A4	68n	%E7(3)	R7(1)	APR3	D7	68n	-APR3 # 01 H	R143(1)	APR3	B7	68n	-CON FM WRITE PAR H
R132(1)	APR3	D3	68n	%E2(15)	R55(1)	APR5	C3	68n	%E8(15)	R53(1)	APR3	D7	68n	-APR3 # 02 H	R47(1)	APR5	B5	68n	-CON LOAD AC BLOCKS H
R137(1)	APR3	D3	68n	%E2(2)	R54(1)	APR5	C3	68n	%E8(3)	R8(1)	APR3	C7	68n	-APR3 # 04 H	R26(1)	APR1	C7	68n	CON SEL CLR H
R17(1)	APR1	D1	68n	%E20(15)	R44(1)	APR1	B5	68n	APR1 EBUS 06 H	R6(1)	APR3	C7	68n	-APR3 # 05 H	R33(1)	APR1	C8	68n	CON SEL DIS H
R10(1)	APR1	D3	68n	%E20(2)	R32(1)	APR1	B5	68n	-APR1 EBUS 06 H	R149(1)	APR3	B7	68n	APR3 SPARE L#400	R11(1)	APR1	D7	68n	-CON SEL EN H
R65(1)	APR5	A7	68n	%E24(14)	R39(1)	APR1	B5	68n	APR1 EBUS 07 H	R214(1)	APR4	B4	68n	APR4 AC 0,1 H	R25(1)	APR1	C7	68n	-CON SEL SET H
R62(1)	APR5	A7	68n	%E24(15)	R40(1)	APR1	B5	68n	-APR1 EBUS 07 H	R125(1)	APR4	B7	68n	APR4 AC 09 H	R97(1)	APR2	B7	68n	CON MR EVEN PAR ADR H
R61(1)	APR5	A7	68n	%E24(2)	R43(1)	APR1	B5	68n	APR1 EBUS 08 H	R160(1)	APR4	B7	68n	APR4 AC 10 H	R120(1)	APR3	D5	68n	CRAM # 00 D H
R174(1)	APR3	B5	68n	%E26(13)	R12(1)	APR1	B5	68n	-APR1 EBUS 08 H	R200(1)	APR4	B7	68n	APR4 AC 11 H	R121(1)	APR3	D7	68n	CRAM # 01 D H
R105(1)	APR3	B6	68n	%E26(15)	R37(1)	APR1	A5	68n	APR1 EBUS 09 H	R153(1)	APR4	B7	68n	APR4 AC 12 H	R5(1)	APR3	D7	68n	CRAM # 02 D H
R173(1)	APR3	B7	68n	%E27(7)	R30(1)	APR1	A5	68n	-APR1 EBUS 09 H	R156(1)	APR4	B4	68n	APR4 AC 3,7 H	R93(1)	APR3	D5	68n	CRAM # 03 D H
R19(1)	APR1	A7	68n	%E20(11)	R38(1)	APR1	B3	68n	APR1 EBUS 10 H	R209(1)	APR4	B4	68n	APR4 AC 5,6,7 H	R126(1)	APR3	D5	68n	CRAM # 04 D H
R95(1)	APR2	B7	68n	%E3(14)	R72(1)	APR1	B3	68n	-APR1 EBUS 10 H	R103(1)	APR4	B4	68n	-APR4 AC 5,6,7 H	R124(1)	APR3	C3	68n	CRAM # 05 D H
R56(1)	APR3	C5	68n	%E3(2)	R41(1)	APR1	B3	68n	APR1 EBUS 11 H	R190(1)	APR4	B4	68n	APR4 AC 6,7 H	R198(1)	APR3	D3	68n	CRAM # 06 D H
R94(1)	APR5	B3	68n	%E3(3)	R119(1)	APR1	B3	68n	-APR1 EBUS 11 H	R191(1)	APR4	B4	68n	-APR4 AC 7 H	R155(1)	APR3	D3	68n	CRAM # 07 D H
R18(1)	APR1	C3	68n	%E30(2)	R08(1)	APR1	B3	68n	APR1 EBUS 12 H	R179(1)	APR4	B2	68n	APR4 AC+# 09 H	R201(1)	APR3	D3	68n	CRAM # 08 D H
R20(1)	APR2	A6	68n	%E32(7)	R36(1)	APR1	B3	68n	-APR1 EBUS 12 H	R100(1)	APR4	B2	68n	APR4 AC+# 10 H	R215(1)	APR3	B4	68n	CRAM ADB SEL 1 H
R147(1)	APR2	B4	68n	%E33(3)	R09(1)	APR1	A3	68n	APR1 EBUS 13 H	R105(1)	APR4	B2	68n	APR4 AC+# 11 H	R213(1)	APR3	B4	68n	CRAM ADB SEL 2 H
R71(1)	APR1	C2	68n	%E30(2)	R79(1)	APR1	A3	68n	-APR1 EBUS 13 H	R107(1)	APR4	B2	68n	APR4 AC+# 12 H	R49(1)	APR4	D2	68n	CRAM FM ADR SEL 1 H
R1(1)	APR6	A6	68n	%E4(14)	R27(1)	APR1	C3	68n	-APR1 I/O PF ERR H	R194(1)	APR4	C6	68n	APR4 AC+1 09 H	R40(1)	APR4	D2	68n	CRAM FM ADR SEL 25 H
R2(1)	APR6	A6	68n	%E4(15)	R59(1)	APR1	D3	68n	APR1 I/O PF ERR EN IN H	R199(1)	APR4	C6	68n	APR4 AC+1 10 H	R50(1)	APR4	D2	68n	CRAM FM ADR SEL 4 H
R70(1)	APR2	C2	68n	%E41(2)	R50(1)	APR1	C3	68n	APR1 I/O PF ERR IN H	R129(1)	APR4	C6	68n	APR4 AC+1 11 H	R202(1)	APR3	B4	68n	EDP FM PARITY 00-05 H
R22(1)	APR1	D7	68n	%E42(15)	R23(1)	APR1	D3	68n	-APR1 I/O PF ERR INT EN H	R109(1)	APR4	C4	68n	APR4 AC+2 09 H	R211(1)	APR3	B4	68n	EDP FM PARITY 06-11 H
R74(1)	APR2	D7	68n	%E42(2)	R102(1)	APR1	D1	68n	APR1 MB PAR ERR EN IN H	R196(1)	APR4	C4	68n	APR4 AC+2 10 H	R212(1)	APR3	B4	68n	EDP FM PARITY 12-17 H
R15(1)	APR1	C2	68n	%E43(14)	R101(1)	APR1	C2	68n	APR1 MB PAR ERR IN H	R108(1)	APR4	C2	68n	APR4 AC+3 09 H	R206(1)	APR3	B4	68n	EDP FM PARITY 18-23 H
R13(1)	APR1	C4	68n	%E43(15)	R24(1)	APR1	D1	68n	-APR1 MB PAR ERR INT EN H	R150(1)	APR4	C2	68n	APR4 AC+3 10 H	R205(1)	APR3	B4	68n	EDP FM PARITY 24-29 H
R69(1)	APR1	C7	68n	%E43(2)	R99(1)	APR1	D5	68n	APR1 NMI ERR EN IN H	R194(1)	APR4	C2	68n	APR4 AC+3 11 H	R207(1)	APR3	A4	68n	EDP FM PARITY 30-35 H
R73(1)	APR2	C7	68n	%E43(3)	R90(1)	APR1	C5	68n	APR1 NMI ERR IN H	R131(1)	APR4	B4	68n	APR4 F02 EN H	R153(1)	APR4	B7	68n	IR AC 09 H
R172(1)	APR3	A6	68n	%E44(14)	R20(1)	APR1	D5	68n	-APR1 NMI ERR INT EN H	R60(1)	APR5	C7	68n	APR5 CURRENT BLOCK 1 H	R113(1)	APR2	B6	68n	-MBX ADR PAR ERR H
R76(1)	APR2	C7	68n	%E45(2)	R66(1)	APR1	D7	68n	APR1 SBUS ERR EN IN H	R100(1)	APR5	C7	68n	APR5 CURRENT BLOCK 2 H	R29(1)	APR1	B2	68n	-MBX MB PAR ERR H
R77(1)	APR2	C5	68n	%E46(2)	R67(1)	APR1	C7	68n	APR1 SBUS ERR IN H	R63(1)	APR5	C7	68n	APR5 CURRENT BLOCK 4 H	R34(1)	APR1	B6	68n	-MBX NMI ERR H
R01(1)	APR1	C7	68n	%E40(2)	R68(1)	APR1	D7	68n	-APR1 SBUS ERR INT EN H	R145(1)	APR5	C5	68n	APR5 PREV BLOCK 1 H	R31(1)	APR1	B7	68n	-MBX SBUS ERR H
R3(1)	APR6	A6	68n	%E5(14)	R109(1)	APR1	B7	68n	-APR1 SWEET BUST H	R141(1)	APR5	C5	68n	APR5 PREV BLOCK 2 H	R104(1)	APR1	A7	68n	-MBX1 CCA REG H
R140(1)	APR2	A4	68n	%E51(3)	R110(1)	APR1	A7	68n	APR1 SWEET BUST EN H	R103(1)	APR5	C5	68n	APR5 PREV BLOCK 4 H	R151(1)	APR2	B7	68n	-M3X5 CSH ADR PAR ERR H
R78(1)	APR2	D2	68n	%E52(15)	R170(1)	APR2	B3	68n	APR2 APR INTERRUPT H	R123(1)	APR5	B2	68n	APR5 RESET A H	R175(1)	APR6	A7	68n	-MCL1 MEM/REG FLUNC H
R04(1)	APR2	D3	68n	%E52(2)	R152(1)	APR2	C6	68n	-APR2 C DIR P ERR H	R106(1)	APR5	B2	68n	-APR5 RESET A H	R52(1)	APR6	A7	68n	-MCL1 REG EN H
R00(1)	APR2	C3	68n	%E53(2)	R140(1)	APR2	D7	68n	APR2 C DIR P ERR EN IN H	R14(1)	APR5	B1	68n	APR5 RESET B H	R64(1)	APR5	A5	68n	-MCL4 LOAD VMA CONTEXT H
R05(1)	APR2	D5	68n	%E56(15)	R138(1)	APR2	C7	68n	APR2 C DIR P ERR IN H	R16(1)	APR5	A3	68n	-APR5 SET I/O PF ERR H	R57(1)	APR5	A7	68n	MCL4 VMA PREV EN H
R06(1)	APR1	D5	68n	%E56(2)	R116(1)	APR2	D6	68n	-APR2 C DIR P ERR INT EN H	R120(1)	APR5	A5	68n	APR5 VMA BLOCK 1 H	R91(1)	APR5	C7	68n	MCL4 XR PREVIOUS H
R07(1)	APR1	C5	68n	%E50(2)	R42(1)	APR2	A2	68n	APR2 CLK A H	R92(1)	APR5	A5	68n	APR5 VMA BLOCK 2 H	R4(1)	APR6	B6	68n	MCL6 EBOX MAP H
R146(1)	APR6	A3	68n	%E6(3)	R75(1)	APR2	A2	68n	APR2 CLK B H	R45(1)	APR5	B5	68n	APR5 VMA BLOCK 4 H	R102(1)	APR6	D1	68n	P13 APR PIA 01 H
R03(1)	APR2	C4	68n	%E62(14)	R21(1)	APR2	A2	68n	APR2 CLK D H	R127(1)	APR5	D7	68n	APR5 XR BLOCK 1 H	R104(1)	APR6	D1	68n	P13 APR PIA 02 H
R110(1)	APR1	C6	68n	%E62(15)	R51(1)	APR2	A2	68n	APR2 CLK E H	R90(1)	APR5	D7	68n	APR5 XR BLOCK 2 H	R176(1)	APR6	D3	68n	P13 APR PIA 04 H
R02(1)	APR2	C2	68n	%E62(2)	R133(1)	APR2	A2	68n	APR2 CLK F H	R46(1)	APR5	D7	68n	APR5 XR BLOCK 4 H	R122(1)	APR2	B4	68n	PAR MARN E H
R117(1)	APR2	C6	68n	%E62(3)	R115(1)	APR2	C3	68n	-APR2 PUR FAIL H	R134(1)	APR6	B4	68n	-APR6 # 06 H	R170(1)	APR3	A6	68n	SH11 AR EXTENDED H
R210(1)	APR3	B4	68n	%E64(2)	R169(1)	APR2	D3	68n	APR2 PUR FAIL EN IN H	R135(1)	APR6	B4	68n	-APR6 # 07 H	R192(1)	APR3	A6	68n	SH11 AR PAR ODD B H
R35(1)	APR2	B4	68n	%E66(15)	R171(1)	APR2	C4	68n	APR2 PUR FAIL IN H	R181(1)	APR6	B7	68n	APR6 DS 04 H	R204(1)	APR4	D2	68n	SH11 XR 01 H
R164(1)	APR6	A4	68n	%E7(14)	R111(1)	APR2	D3	68n	-APR2 PUR FAIL INT EN H	R177(1)	APR6	B7	68n	APR6 DS 05 H	R158(1)	APR4	D4	68n	SH11 XR 02 H
R162(1)	APR6	A4	68n	%E7(15)	R144(1)	APR2	D5	68n	APR2 S ADR P ERR EN IN H	R105(1)	APR6	B7	68n	APR6 DS 06 H	R197(1)	APR4	D5	68n	SH11 XR 04 H
					R142(1)	APR2	C5	68n	APR2 S ADR P ERR IN H	R166(1)	APR6	A6	68n	-APR6 REG FLUNC EN H	R195(1)	APR4	D6	68n	SH11 XR 10 H
					R114(1)	APR2	D5	68n	APR2 S ADR P ERR INT EN H	R161(1)	APR6	A6	68n	-APR6 REG FLUNC EN B H	R193(1)	APR4	D6	68n	VMA1 VMA 32 B H
					R100(1)	APR2	C2	68n	-APR2 SWEET DONE H	R161(1)	APR6	A6	68n	CLK3 APR H	R200(1)	APR4	D5	68n	VMA1 VMA 33 B H
					R160(1)	APR2	D2	68n	APR2 SWEET DONE EN IN H	R107(1)	APR2	A2	68n	-CON COND/EBUS CTL H	R157(1)	APR4	D4	68n	VMA1 VMA 34 B H
					R167(1)	APR2	C2	68n	APR2 SWEET DONE IN H	R96(1)	APR3	C5	68n		R203(1)	APR4	D2	68n	VMA1 VMA 35 B H

NOTE:  
 1. ALL TERMINATORS HAVE PIN TWO CONNECTED TO -2.0V AND ARE 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		DATE	ENG	DATE	TITLE:
CHK	CHANGE NO.				
		DATE	BOARD LOCATION		
		3-Nov-76			
		NEXT HIGHER ASSEMBLY:		SIZE	CODE
		KL10		D	CS
		FIRST USED ON OPTION/MODEL:		NUMBER	
		B-DD-M0545-0		M0545-0-RES	

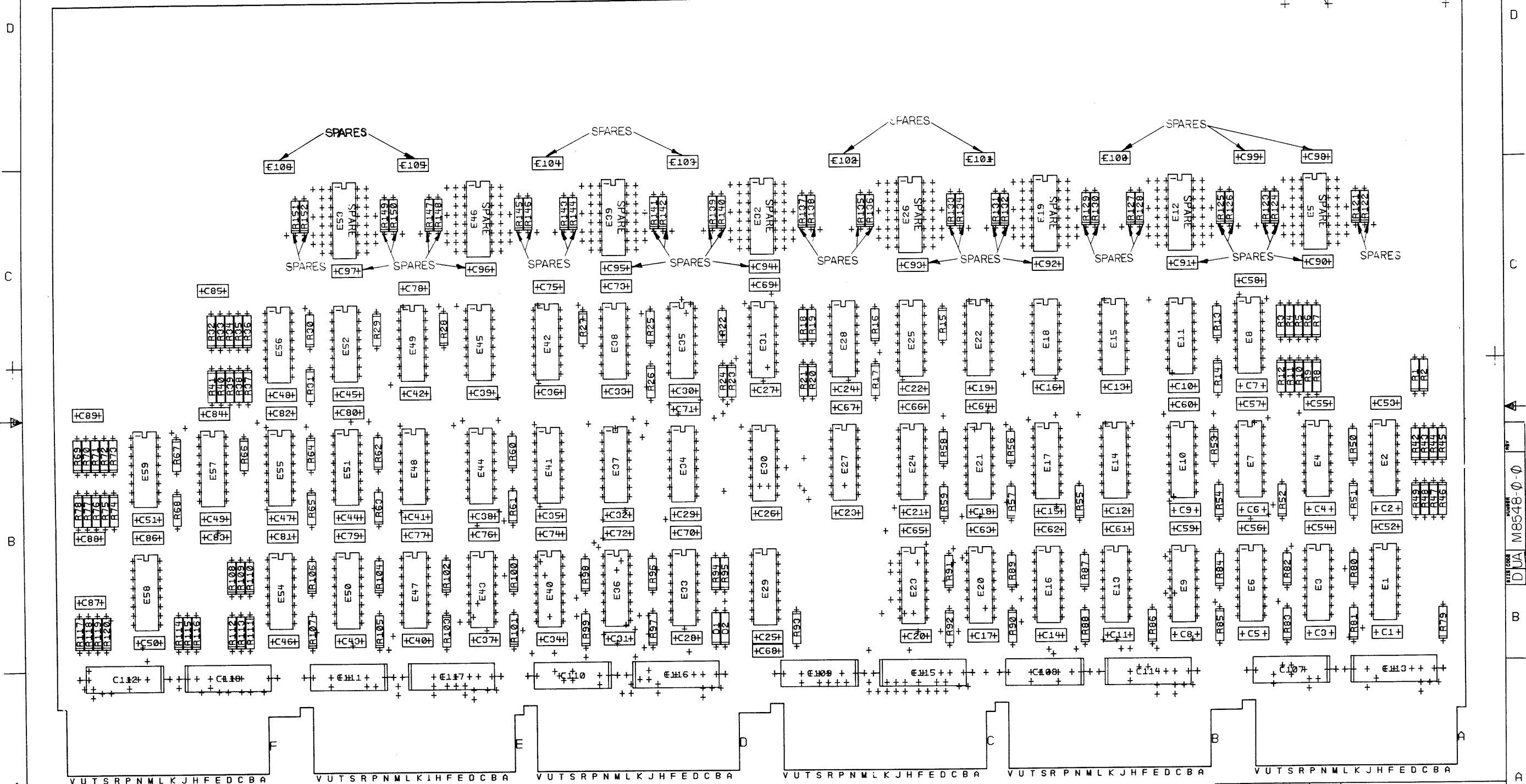


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Ø-Ø-8768W 2 | 1

17(QTY 12)

16



NOTES:

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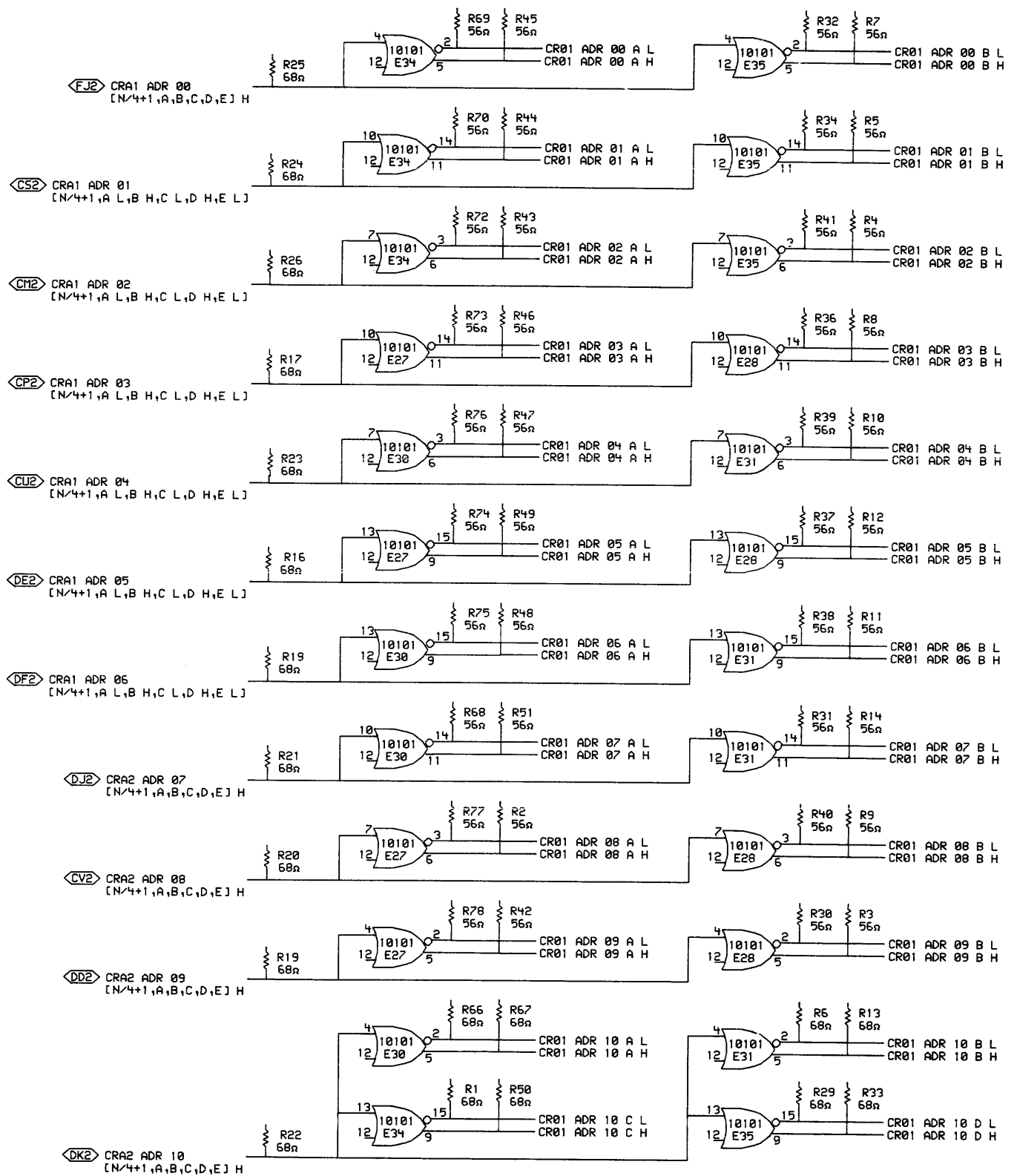
CHANGE NO	REV

SIGNATURES	DATE	digital
DRN. R. W. Cameron	6 APR 76	
CHK'D. Bill Pinsky	30 AUG 76	TITLE
ENG. Tom Eggen	30 AUG 76	2K CONTROL RAM
PROJ. ENG. Tom Eggen	30 AUG 76	SCALE 2/1
PROD. Bill Pinsky	140076	SHT. 2 OF 5
ETCH REV	FIRST USED ON KLIQ	SIZE CODE NUMBER REV
		D UA M8548-Ø-Ø

393

MR 1 MS#30201

D  
C  
V  
B  
A



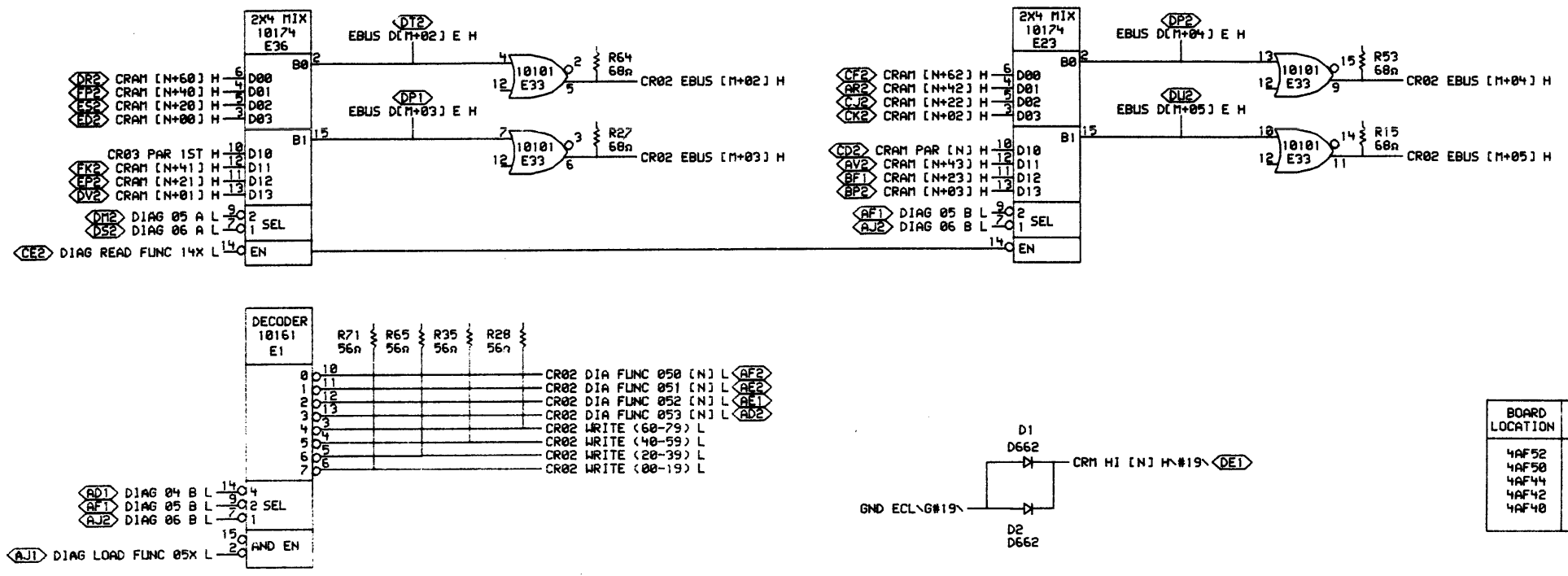
BOARD LOCATION	VARIABLES
4AF52	N=00, M=06
4AF50	N=04, M=12
4AF44	N=08, M=18
4AF42	N=12, M=24
4AF40	N=16, M=30

1 OF 7

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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 28-AUG-76	ENG: [Signature]	DATE: 30-AUG-76	TITLE: 2K CONTROL RAM ADDRESS LINES
	DATE: 30-AUG-76	CHK: [Signature]	DATE: 30-AUG-76	BOARD LOCATION: 1 OF 1
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8528-0		SIZE CODE: D CS
NUMBER: M8548-0-CR01			REV.:	344



THE RESISTORS INSIDE THIS BOX ARE NOT CONNECTED TO ANYTHING ON THIS BOARD OTHER THAN THEIR BACKPANEL PIN, AND ARE NOT USED FOR ANYTHING OTHER THAN TERMINATING MANY SIGNALS AROUND THE MACHINE. THIS BOARD HAD MANY SPARE PINS. THE BACKPANEL WIRELIST SHOWS THE REST OF THE CONNECTIONS FOR EACH SIGNAL TERMINATED HERE.

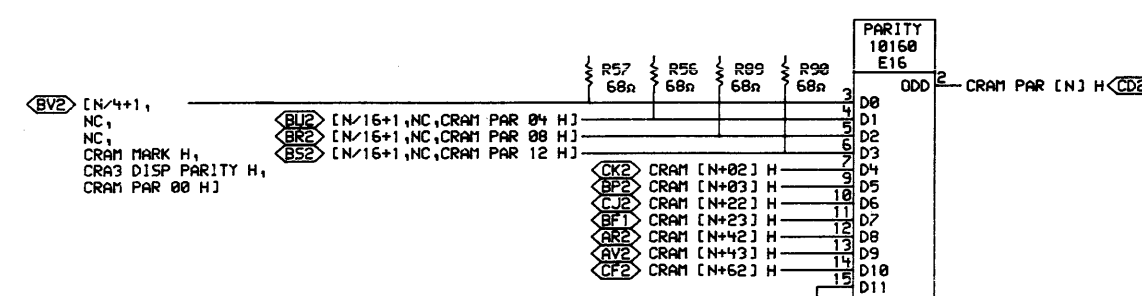
(API) [N/4+1, CRAM BRX LOAD A H, AR 01 H, NC, CRAM BRX LOAD H, APR EBOX SPARE H] --- R83 68n  
 (ATI) [N/4+1, DIAG 06 B L, CRAM AD SEL 1 H, NC, NC, NC] --- R80 68n  
 (ALI) [N/4+1, DIAG 05 B L, NC, NC, NC, CLK INSTR 1777 L] --- R81 68n  
 (AAI) [N/4+1, DIAG 04 B L, NC, NC, NC, NC] --- R79 68n  
 (BAI) [N/4+1, SCD KERNEL MODE H, CRAM ADA SEL 1 H, NC, NC, APR MBOX CTL 06 H] --- R86 68n  
 (BPI) [N/4+1, MR RESET 01 H, CTL MQ SEL 1 H, DIAG READ FUNC 14X L, NC, APR MBOX CTL 03 H] --- R88 68n  
 (BRI) [N/4+1, CTL ARX LOAD H, CTL MQ SEL 2 H, NC, NC, NC] --- R87 68n  
 (DAI) [N/4+1, CON FM WRITE 00-17 L, CRAM ADA SEL 2 H, NC, CON FM WRITE 18-35 L, DIAG READ FUNC 15X L] --- R96 68n  
 (DDI) [N/4+1, NC, CRAM AD SEL 2 H, NC, NC, NC] --- R97 68n  
 (DFI) [N/4+1, CRAM BR LOAD A H, CTL MQM SEL 1 H, CTL ARR LOAD B L, NC, NC] --- R99 68n  
 (DRI) [N/4+1, CTL MQM EN H, CTL MQM SEL 2 H, NC, NC, NC] --- R98 68n  
 (DSI) [N/4+1, DIAG 06 A L, DIAG 05 A L, DIAG 04 A L, NC, NC] --- R100 68n  
 (EAI) [N/4+1, DIAG READ FUNC 12X H, DIAG READ FUNC 13X L, MR RESET 04 H, NC, CON UCODE STATE 07 H] --- R101 68n  
 (EJI) [N/4+1, CTL AR 00-08 LOAD L, CTL AR 00-11 CLR H, CTL AR 12-17 CLR H, CTL ARR CLR H, NC] --- R104 68n  
 (EKI) [N/4+1, CTL ARL SEL 2 H, CTL AR 09-17 LOAD L, CTL ARR LOAD A L, CTL ARR SEL 2 H, NC] --- R105 68n  
 (ELI) [N/4+1, CTL ARL SEL 1 H, CRAM ADA DIS H, NC, CTL ARR SEL 1 H, NC] --- R106 68n  
 (ERI) [N/4+1, CTL ARL SEL 4 H, CRAM AD SEL 4 H, NC, NC, CRAM ARM SEL 4 A H] --- R107 68n  
 (ESI) [N/4+1, CRAM AD SEL 8 H, CRAM AD BOOLE H, NC, NC, NC] --- R113 68n  
 (FAI) [N/4+1, CTL ARXL SEL 2 H, CTL AD TO EBUS L H, CTL ARXR SEL 2 H, CTL AD TO EBUS R H, DIAG 05 A H] --- R112 68n  
 (FJI) [N/4+1, CRAM ARXM SEL 4 00 H, NC, CTL ARXR SEL 1 H, CRAM ARXM SEL 4 06 H, DIAG 04 A H] --- R116 68n  
 (FKI) [N/4+1, CTL ARXL SEL 1 H, NC, NC, NC, DIAG 06 A H] --- R115 68n  
 (FLI) NC --- R 14 68n  
 (FMI) [N/4+1, APR FM ADR 4 H, APR FM BLOCK 2 H, NC, NC, CRAM FM ADR SEL 2 H] --- R120 68n  
 (FPI) [N/4+1, APR FM ADR 1 H, APR FM BLOCK 4 H, NC, CRAM BR LOAD H, NC] --- R119 68n  
 (FRI) [N/4+1, APR FM ADR 10 H, APR FM BLOCK 1 H, NC, NC, NC] --- R118 68n  
 (FSI) [N/4+1, APR FM ADR 2 H, NC, NC, NC, DIAG LOAD FUNC 05X L] --- R117 68n

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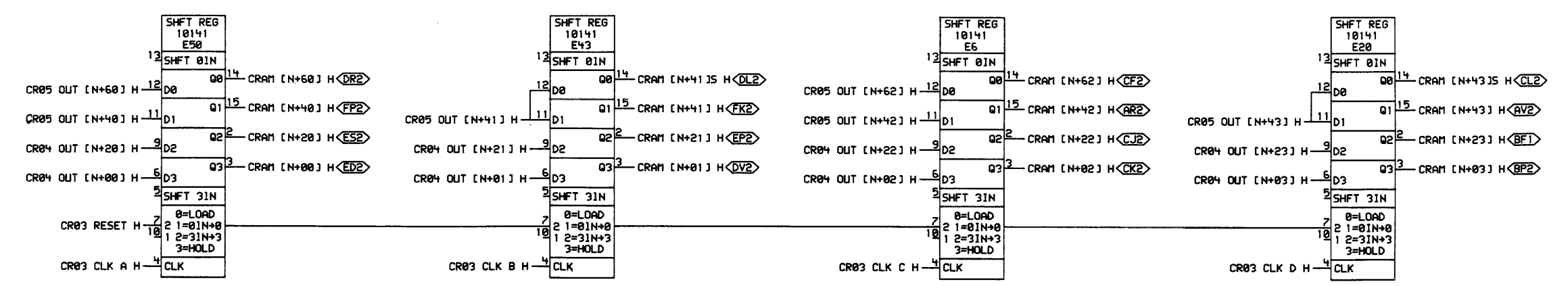
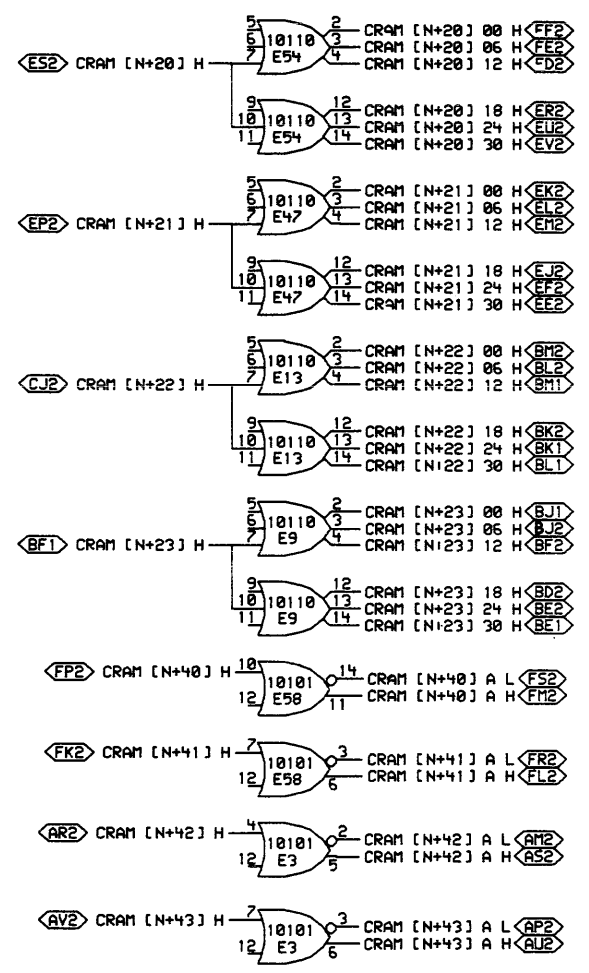
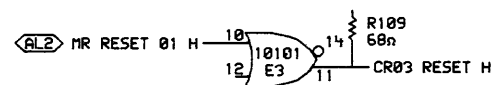
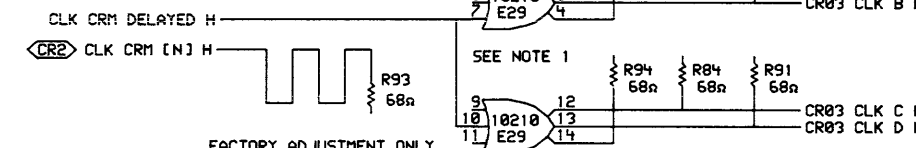
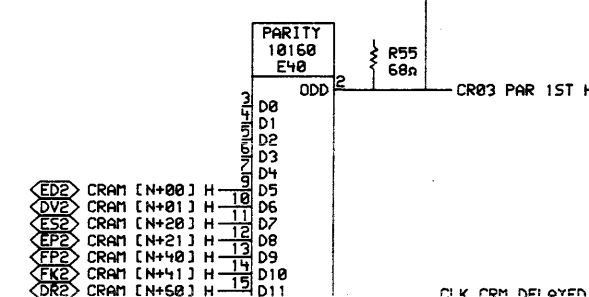
REVISIONS	
CHK	CHANGE NO. REV

digital	DATE 28-AUG-76	ENG Jim Sype	DATE 30-SEP-76	TITLE: 2K CONTROL RAM
	DATE 30-SEP-76	DATE 30-SEP-76	DATE 30-SEP-76	EBUS AND DIAG
CR02A, DRA 4, 161	29-AUG-76 18:56	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8528-0		D CS	M8548-0-CR02

395



BOARD LOCATION	VARIABLES
4AF52	N=00, M=06
4AF50	N=04, M=12
4AF44	N=08, M=18
4AF42	N=12, M=24
4AF40	N=16, M=30



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REVISIONS		DATE	END	DATE	TITLE
CHK	CHANGE NO.				
		28-AUG-76	28-AUG-76		2K CONTROL RAM OUTPUT SIGNALS
		29-AUG-76	29-AUG-76		CR03A.DRAW 4,161
		29-AUG-76	29-AUG-76		CR03A.DRAW 4,161

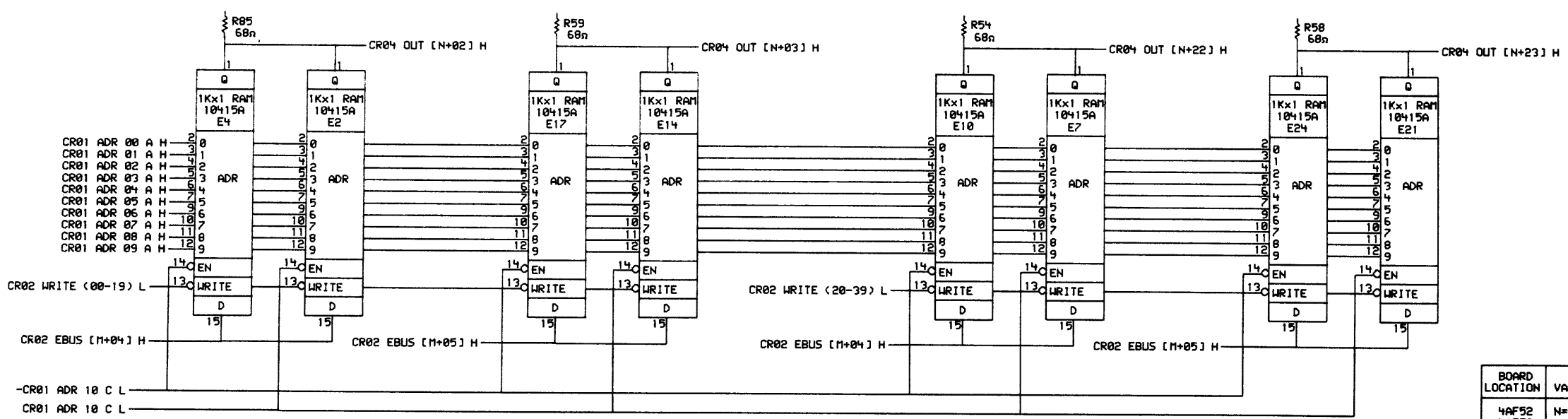
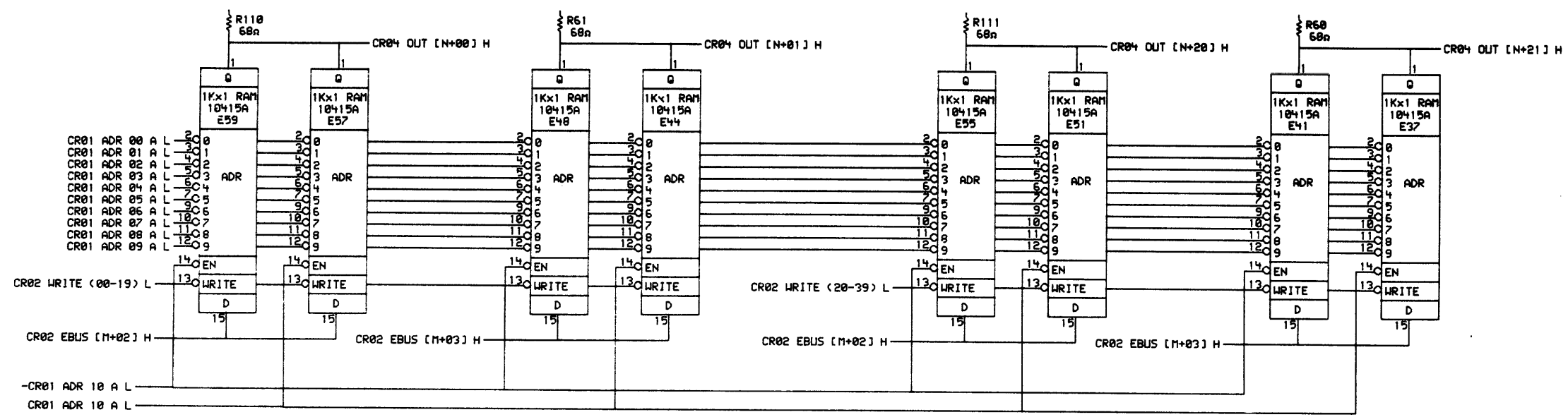
SIZE CODE NUMBER REV. 390

FIRST USED ON OPTION/MODEL: KL10

NEXT HIGHER ASSEMBLY: B-DD-M8548-0

SIZE CODE NUMBER REV. D CS M8548-0-CR03





BOARD LOCATION	VARIABLES
4AF52	N=00, M=06
4AF50	N=04, M=12
4AF44	N=08, M=18
4AF42	N=12, M=24
4AF40	N=16, M=30

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REVISIONS		
CHK	CHANGE NO.	REV.

digital

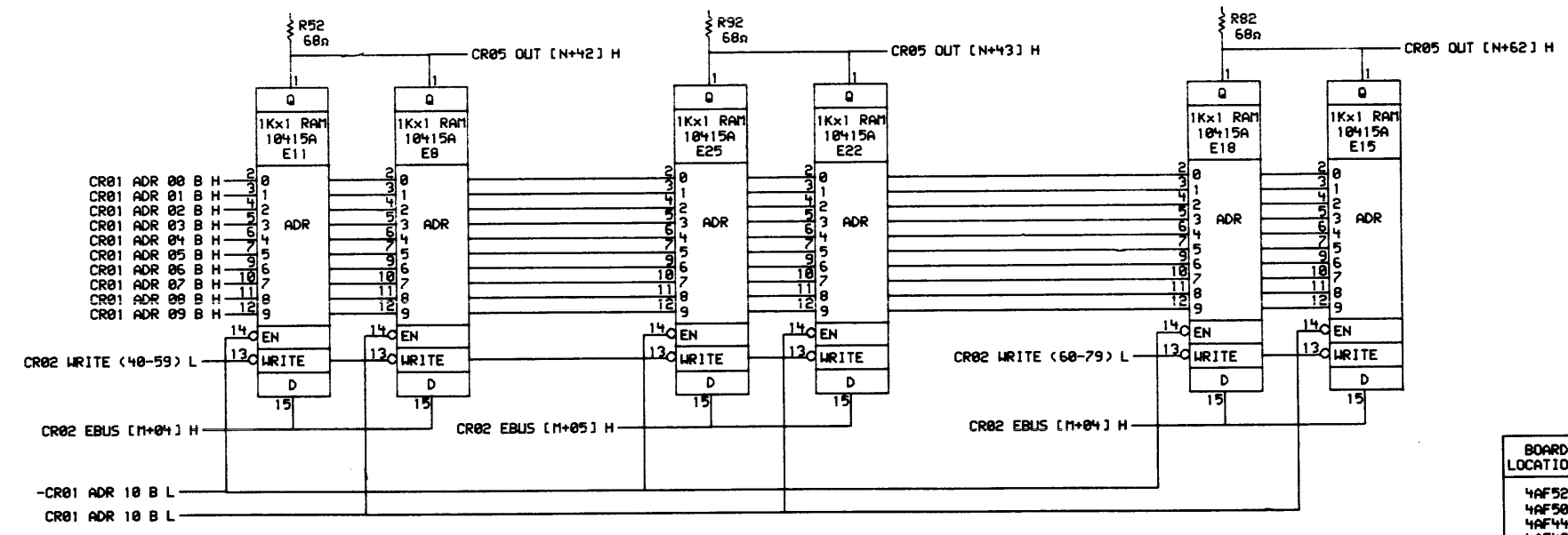
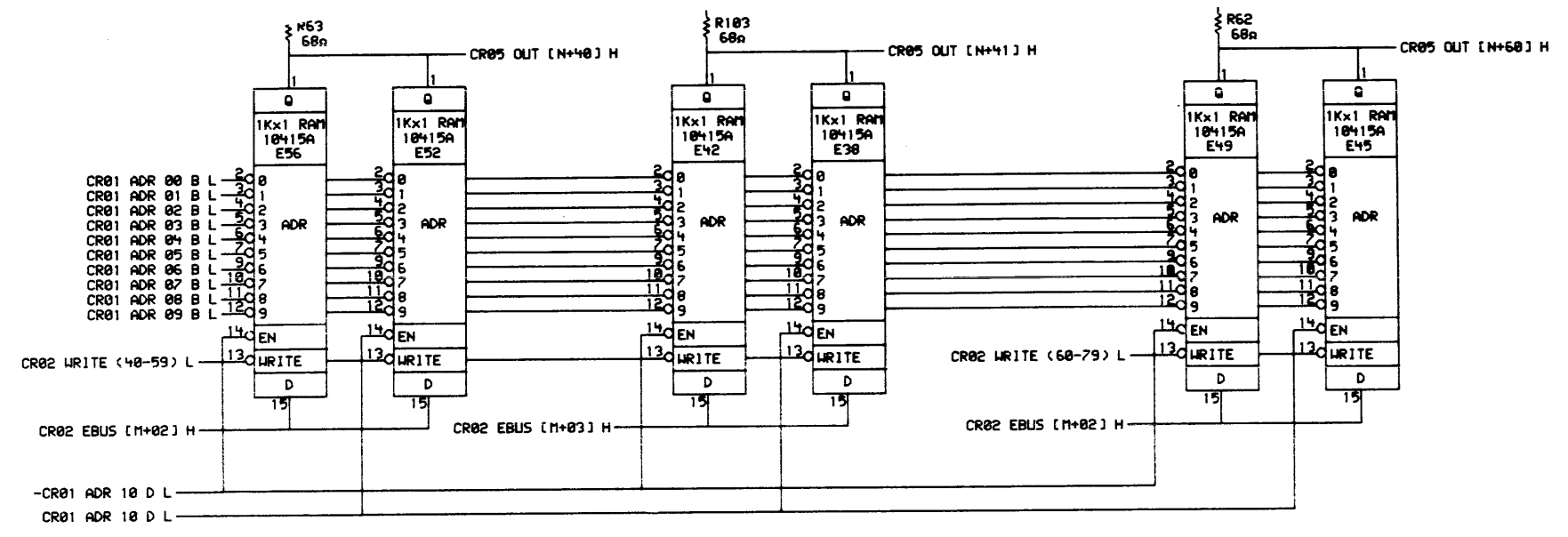
DATE 28-AUG-76  
 DATE 30-AUG-76  
 BOARD LOCATION: 1  
 SHEET 1 OF 1

TITLE: 2K CONTROL RAM BITS 00-39

CR04EA.DRW(4,161) 14-AUG-76 14:32 NEXT HIGHER ASSEMBLY: B-DD-M8548-0

SIZE CODE D CS NUMBER M8548-0-CR04 REV.

8 7 6 5 4 3 2 1



BOARD LOCATION	VARIABLES
4AF52	N=00, M=06
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4AF44	N=08, M=18
4AF42	N=12, M=24
4AF40	N=16, M=30

5 OF 7

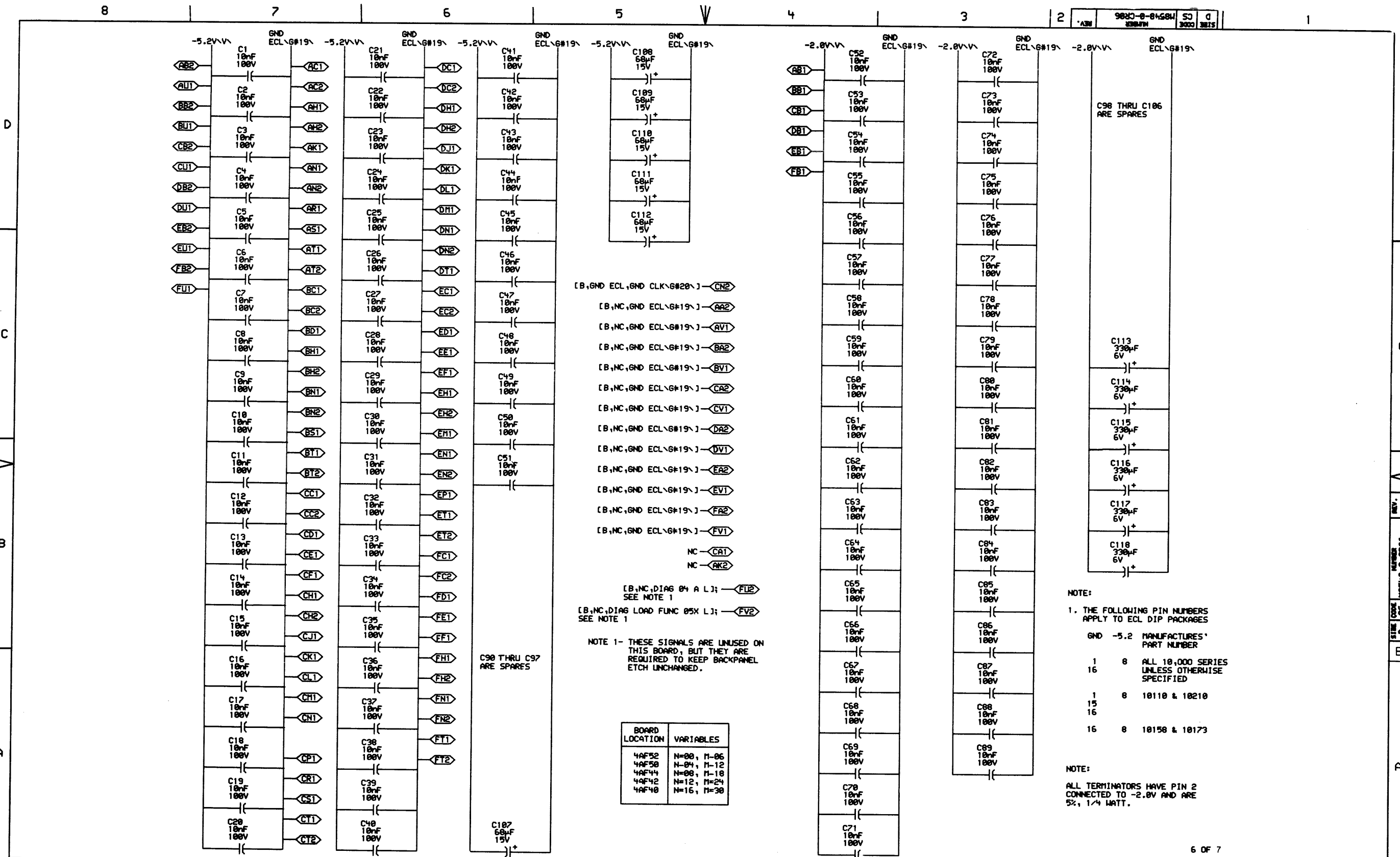
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REVISIONS	
CHK	CHANGE NO. REV

**digital** DR. J. Family DATE 20-AUG-76 EMP. Jim Igusa DATE 30-AUG-76 TITLE: 2K CONTROL RAM BITS 40-79  
 CR02A.DRM 4.161 11-AUG-76 14:35 BOARD LOCATION: SHEET 1 OF 1  
 FIRST USED ON OPTION/MODEL: KL10 NEXT HIGHER ASSEMBLY: B-DD-M8548-0 SIZE CODE NUMBER REV.  
 D CS M8548-0-CR05 MR 1

398

8 7 6 5 4 3 2 1



[B,GND,ECL,GND,CLK#20] - CN2  
 [B,NC,GND,ECL#19] - AA2  
 [B,NC,GND,ECL#19] - AV1  
 [B,NC,GND,ECL#19] - BA2  
 [B,NC,GND,ECL#19] - BV1  
 [B,NC,GND,ECL#19] - CA2  
 [B,NC,GND,ECL#19] - CV1  
 [B,NC,GND,ECL#19] - DA2  
 [B,NC,GND,ECL#19] - DV1  
 [B,NC,GND,ECL#19] - EA2  
 [B,NC,GND,ECL#19] - EV1  
 [B,NC,GND,ECL#19] - FA2  
 [B,NC,GND,ECL#19] - FV1  
 NC - GA1  
 NC - AK2  
 [B,NC,DIAG 04 A L] - FL2  
 SEE NOTE 1  
 [B,NC,DIAG LOAD FUNC 05X L] - FV2  
 SEE NOTE 1

NOTE 1 - THESE SIGNALS ARE UNUSED ON THIS BOARD, BUT THEY ARE REQUIRED TO KEEP BACKPANEL ETCH UNCHANGED.

BOARD LOCATION	VARIABLES
4AF52	N=00, M=06
4AF50	N=04, M=12
4AF44	N=08, M=18
4AF42	N=12, M=24
4AF40	N=16, M=30

NOTE:  
 1. THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES

GND	-5.2	MANUFACTURER'S PART NUMBER
1	8	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
16	8	10110 & 10210
1	8	10158 & 10173
15	16	
16	8	

NOTE:  
 ALL TERMINATORS HAVE PIN 2 CONNECTED TO -2.0V AND ARE 5%, 1/4 WATT.

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE: 20-SEP-76	ENG: Tom Iyama	DATE: 20-SEP-76	TITLE: 2K CONTROL RAM POWER, GND, CAPS
	DATE: 20-SEP-76	BOARD LOCATION:	DATE: 20-SEP-76	SIZE CODE: D CS
CROSS REF: 4,161	117-SEP-76 12:10	NEXT HIGHER ASSEMBLY:	NUMBER: M8548-0-CR06	REV.:
FIRST USED ON OPTION MODEL: KL10	B-DD-M8528-0			MR 1



- |                                  |                                 |                                    |                                 |
|----------------------------------|---------------------------------|------------------------------------|---------------------------------|
| <u>AA1</u> EBUS D21 L/C          | <u>BA1</u> EBUS D35 L/C         | <u>CA1</u> SPARE PIN30 EBUS/C      | <u>DA1</u> SPARE PIN38 EBUS/C   |
| <u>AA2</u> GND/G                 | <u>BA2</u> GND/G                | <u>CA2</u> GND/G                   | <u>DA2</u> GND/G                |
| <u>AB1</u> SPARE PIN2 EBUS/C     | <u>BB1</u> GND/G                | <u>CB1</u> SPARE PIN32 EBUS/C      | <u>DB1</u> SPARE PIN40 EBUS/C   |
| <u>AB2</u> GND/G                 | <u>BB2</u> GND/G                | <u>CB2</u> GND/G                   | <u>DB2</u> GND/G                |
| <u>AC1</u> SPARE PIN3 EBUS/C     | <u>BC1</u> EBUS D32 L/C         | <u>CC1</u> EBUS D24 L/C            | <u>DC1</u> SPARE PIN41 EBUS/C   |
| <u>AC2</u> GND/G                 | <u>BC2</u> GND/G                | <u>CC2</u> GND/G                   | <u>DC2</u> GND/G                |
| <u>AD1</u> EBUS P107 L/C         | <u>BD1</u> GND/G                | <u>CD1</u> SPARE PIN33 EBUS/C      | <u>DD1</u> GND/G                |
| <u>AD2</u> SPARE PIN4 EBUS/C     | <u>BD2</u> EBUS D22 L/C         | <u>CD2</u> SPARE PIN34 EBUS/C      | <u>DD2</u> SPARE PIN42 EBUS/C   |
| <u>AE1</u> EBUS P106 L/C         | <u>BE1</u> GND/G                | <u>CE1</u> CDS1 EBUS DEMAND 15 L/C | <u>DE1</u> GND/G                |
| <u>AE2</u> SPARE PIN5 EBUS/C     | <u>BE2</u> EBUS D31 L/C         | <u>CE2</u> SPARE PIN35 EBUS/C      | <u>DE2</u> SPARE PIN43 EBUS/C   |
| <u>AF1</u> EBUS P104 L/C         | <u>BF1</u> EBUS RESET L/C       | <u>CF1</u> SPARE PIN36 EBUS/C      | <u>DF1</u> SPARE PIN44 EBUS/C   |
| <u>AF2</u> EBUS P103 L/C         | <u>BF2</u> EBUS D27 L/C         | <u>CF2</u> SPARE PIN37 EBUS/C      | <u>DF2</u> GND/G                |
| <u>AH1</u> SPARE PIN6 EBUS/C     | <u>BH1</u> EBUS D26 L/C         | <u>CH1</u> EBUS D23 L/C            | <u>DH1</u> SPARE PIN46 EBUS/C   |
| <u>AH2</u> EBUS DATA DISABLE L/C | <u>BH2</u> EBUS D20 L/C         | <u>CH2</u> EBUS D15 L/C            | <u>DH2</u> EBUS F01 L/C         |
| <u>AJ1</u> EBUS P101 L/C         | <u>BJ1</u> CL1 EBUS XFER 15 L/C | <u>CJ1</u> EBUS D28 L/C            | <u>DJ1</u> GND/G                |
| <u>AJ2</u> EBUS P102 L/C         | <u>BJ2</u> CDS1 EBUS CLK 15 L/C | <u>CJ2</u> EBUS D01 L/C            | <u>DJ2</u> GND/G                |
| <u>AK1</u> SPARE PIN7 EBUS/C     | <u>BK1</u> SPARE PIN18 EBUS/C   | <u>CK1</u> EBUS D06 L/C            | <u>DK1</u> GND/G                |
| <u>AK2</u> EBUS P105 L/C         | <u>BK2</u> SPARE PIN19 EBUS/C   | <u>CK2</u> EBUS D13 L/C            | <u>DK2</u> EBUS F00 L/C         |
| <u>AL1</u> EBUS D33 L/C          | <u>BL1</u> SPARE PIN20 EBUS/C   | <u>CL1</u> EBUS D17 L/C            | <u>DL1</u> EBUS F02 L/C         |
| <u>AL2</u> SPARE PIN8 EBUS/C     | <u>BL2</u> SPARE PIN21 EBUS/C   | <u>CL2</u> EBUS D08 L/C            | <u>DL2</u> GND/G                |
| <u>AM1</u> EBUS D34 L/C          | <u>BM1</u> EBUS D10 L/C         | <u>CM1</u> EBUS D14 L/C            | <u>DM1</u> EBUS ACKN L/C        |
| <u>AM2</u> SPARE PIN9 EBUS/C     | <u>BM2</u> SPARE PIN22 EBUS/C   | <u>CM2</u> EBUS D05 L/C            | <u>DM2</u> EBUS C506 L/C        |
| <u>AN1</u> GND/G                 | <u>BN1</u> EBUS D11 L/C         | <u>CN1</u> GND/G                   | <u>DN1</u> GND/G                |
| <u>AN2</u> EBUS D30 L/C          | <u>BN2</u> SPARE PIN23 EBUS/C   | <u>CP1</u> GND/G                   | <u>DN2</u> GND/G                |
| <u>AP1</u> GND/G                 | <u>BP1</u> EBUS D12 L/C         | <u>CP2</u> EBUS D19 L/C            | <u>DP1</u> EBUS C505 L/C        |
| <u>AP2</u> EBUS D29 L/C          | <u>BP2</u> SPARE PIN24 EBUS/C   | <u>CR1</u> GND/G                   | <u>DP2</u> EBUS C504 L/C        |
| <u>AR1</u> GND/G                 | <u>BR1</u> SPARE PIN25 EBUS/C   | <u>CR2</u> EBUS D03 L/C            | <u>DR1</u> EBUS C503 L/C        |
| <u>AR2</u> SPARE PIN10 EBUS/C    | <u>BR2</u> SPARE PIN26 EBUS/C   | <u>CS1</u> GND/G                   | <u>DR2</u> EBUS C502 L/C        |
| <u>AS1</u> GND/G                 | <u>BS1</u> EBUS D09 L/C         | <u>CS2</u> EBUS D18 L/C            | <u>DS1</u> EBUS C501 L/C        |
| <u>AS2</u> SPARE PIN11 EBUS/C    | <u>BS2</u> SPARE PIN27 EBUS/C   | <u>CT1</u> GND/G                   | <u>DS2</u> EBUS DIAG STROBE L/C |
| <u>AT1</u> GND/G                 | <u>BT1</u> GND/G                | <u>CU1</u> EBUS D04 L/C            | <u>DT1</u> GND/G                |
| <u>AT2</u> SPARE PIN12 EBUS/C    | <u>BU1</u> SPARE PIN28 EBUS/C   | <u>CU2</u> EBUS D16 L/C            | <u>DT2</u> GND/G                |
| <u>AU1</u> SPARE PIN13 EBUS/C    | <u>BV1</u> EBUS D02 L/C         | <u>CV1</u> EBUS D07 L/C            | <u>DU1</u> GND/G                |
| <u>AU2</u> SPARE PIN14 EBUS/C    | <u>BV2</u> GND/G                | <u>CV2</u> GND/G                   | <u>DV1</u> EBUS C500 L/C        |
| <u>AV1</u> SPARE PIN15 EBUS/C    |                                 |                                    | <u>DV2</u> GND/G                |
| <u>AV2</u> GND/G                 |                                 |                                    |                                 |

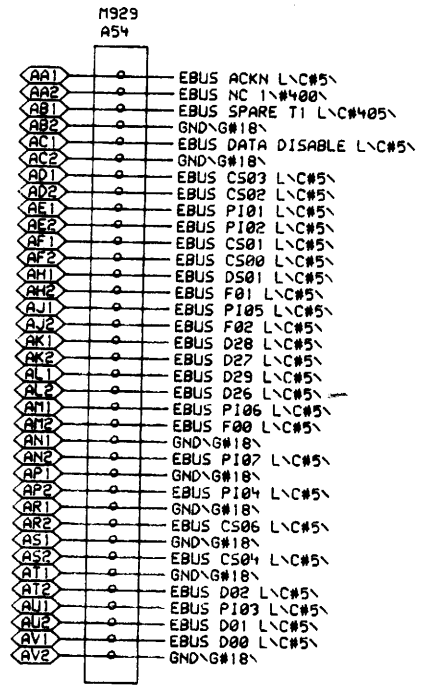
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REVISIONS		
CHK	CHANGE NO.	REV

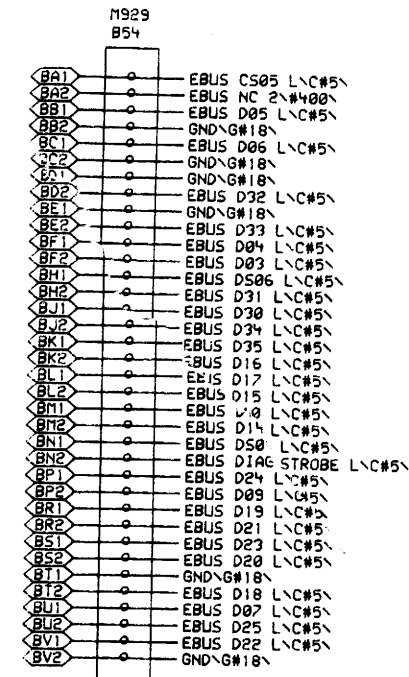
digital  
 DATE 17-OCT-75  
 DATE 1975  
 BOARD LOCATION: 1 OF 1  
 SHEET 1 OF 1  
 FIRST USED ON OPTION/MODEL: KL10 B-DD-KL10-0

TITLE: EBUS CABLE	SIZE CODE D IC	NUMBER KL10-0-EBUS	REV.
-------------------	----------------	--------------------	------

401



OPTION	CABLE LOCATION
KL10	4A001
DTE20(NO RH20)	2A810
DTE20 & RH20	2A837



1 OF 2

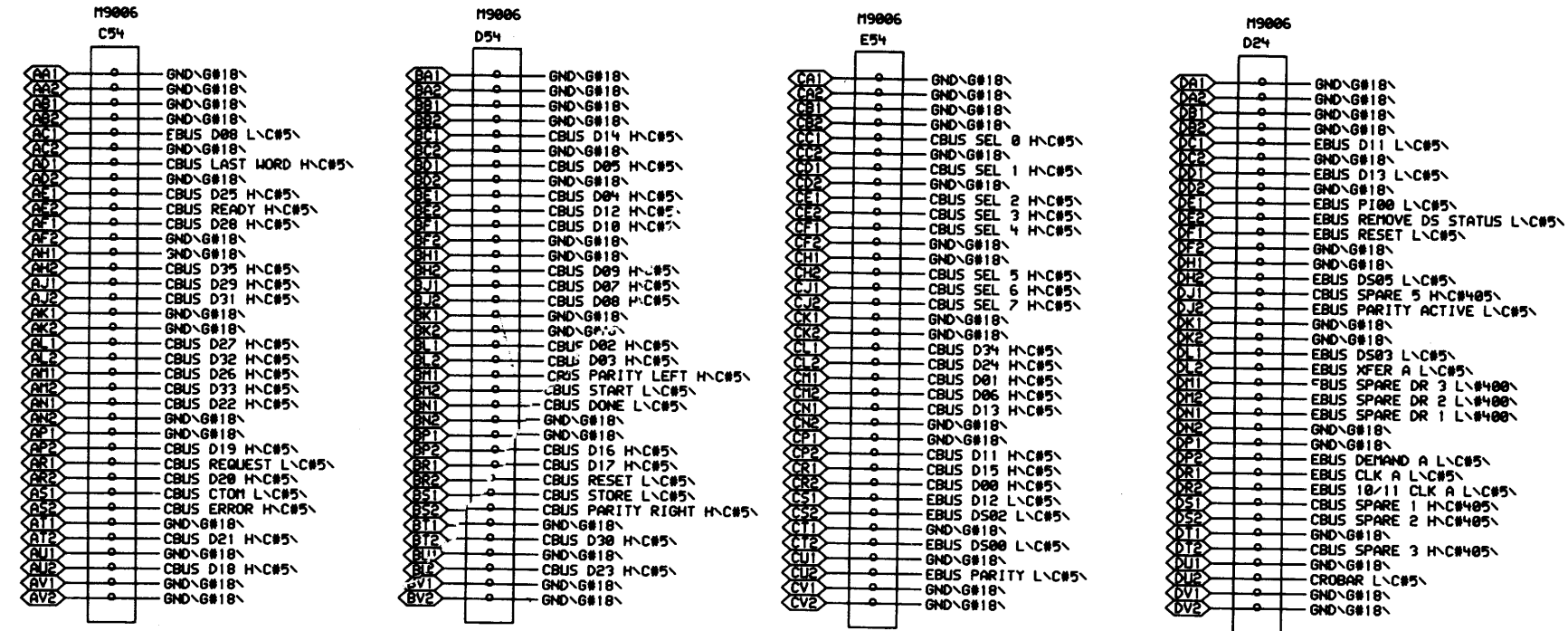
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REVISIONS		
CHK	CHANGE NO.	REV

	DATE: 21-OCT-75	ENG: <i>[Signature]</i>	DATE: 21-OCT-75	TITLE: EBUS CABLE I/O TO CPU
	DATE: 07-SEP-75	DATE: 21-OCT-75	DATE: 21-OCT-75	NUMBER: 1
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-KL10-0		SIZE CODE: D IC

REV. NUMBER KL10-0-IOCI

4c2



OPTION	CABLE LOCATION
KL10	4CF01
DTE20(ND RH20)	2CF10
DTE20 & RH20	2CF37

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REVISIONS	
CHK	CHANGE NO. REV

**digital** *Dr. J. L. Lundy*

DATE 11-OCT-75 ENG. *Ygg* DATE 20-OCT-75  
 DATE 20-OCT-75 BOARD LOCATION:   
 NEXT HIGHER ASSEMBLY:

TITLE: EBUS+CBUS CABLES I/O TO CPU

FIRST USED ON OPTION/MODEL: KL10 B-DD-KL10-0

SIZE CODE NUMBER REV.  
 D IC KL10-0-10C2

REV. NUMBER  
 KL10-0-10C2  
 B

BC20C/  
 M9006

- AA1 [B,NC,GND TTL\G#18\]
- AB1 [B,NC,GND TTL\G#18\]
- AC1 SBUS[N] D00 L\N\
- AD1 SBUS[N] D18 L\N\
- AE1 SBUS[N] D01 L\N\
- AF1 SBUS[N] D19 L\N\
- AH1 GND TTL\G#18\
- AJ1 SBUS[N] D02 L\N\
- AK1 NC
- AL1 SBUS[N] D20 L\N\
- AM1 SBUS[N] D03 L\N\
- AN1 SBUS[N] D21 L\N\
- AP1 GND TTL\G#18\
- AR1 SBUS[N] ADR PAR ERR L\N\
- AS1 SBUS[N] SPARE LINE #1\N\
- AT1 GND TTL\G#18\
- AU1 [B,NC,GND TTL\G#18\]
- AV1 [B,NC,GND TTL\G#18\]
- BA1 [B,NC,GND TTL\G#18\]
- BB1 [B,NC,GND TTL\G#18\]
- BC1 SBUS[N] D04 L\N\
- BD1 SBUS[N] D22 L\N\
- BE1 SBUS[N] D05 L\N\
- BF1 SBUS[N] D23 L\N\
- BH1 GND TTL\G#18\
- BJ1 SBUS[N] D06 L\N\
- BK1 NC
- BL1 SBUS[N] D24 L\N\
- BM1 SBUS[N] D07 L\N\
- BN1 SBUS[N] D25 L\N\
- BP1 GND TTL\G#18\
- BR1 SBUS[N] D08 L\N\
- BS1 SBUS[N] D26 L\N\
- BT1 GND TTL\G#18\
- BV1 [B,NC,GND TTL\G#18\]

- AA2 [B,NC,GND TTL\G#18\]
- AB2 [B,NC,GND TTL\G#18\]
- AC2 GND TTL\G#18\
- AD2 GND TTL\G#18\
- AE2 SBUS[N] ADR 14 L\N\
- AF2 GND TTL\G#18\
- AH2 SBUS[N] ADR 15 L\N\
- AJ2 SBUS[N] ADR 16 L\N\
- AK2 GND TTL\G#18\
- AL2 SBUS[N] ADR 17 L\N\
- AM2 SBUS[N] ADR 18 L\N\
- AN2 GND TTL\G#18\
- AP2 SBUS[N] ADR 19 L\N\
- AR2 SBUS[N] ADR 20 L\N\
- AS2 SBUS[N] ADR 21 L\N\
- AT2 SBUS[N] ADR 22 L\N\
- AU2 SBUS[N] ADR 23 L\N\
- AV2 GND TTL\G#18\
- BA2 [B,NC,GND TTL\G#18\]
- BB2 [B,NC,GND TTL\G#18\]
- BC2 GND TTL\G#18\
- BD2 GND TTL\G#18\
- BE2 SBUS[N] ADR 24 L\N\
- BF2 GND TTL\G#18\
- BH2 SBUS[N] ADR 25 L\N\
- BJ2 SBUS[N] ADR 26 L\N\
- BK2 GND TTL\G#18\
- BL2 SBUS[N] ADR 27 L\N\
- BM2 SBUS[N] ADR 28 L\N\
- BN2 GND TTL\G#18\
- BP2 SBUS[N] ADR 29 L\N\
- BR2 SBUS[N] ADR 30 L\N\
- BS2 SBUS[N] ADR 31 L\N\
- BT2 SBUS[N] ADR 32 L\N\
- BV2 SBUS[N] ADR 33 L\N\
- BV2 GND TTL\G#18\

OPTION	CABLE LOCATION	VARIABLE
KL10	4AD02 4AD03	N = 0 N = 1
MA20	(3,5)AD01 (3,5)AD54	N = 0,1 N = 0,1
DMA20	1AD01 NONE	N = 0 N = 1

BC20C/  
 M9006

- CA1 [B,NC,GND TTL\G#18\]
- CB1 [B,NC,GND TTL\G#18\]
- CC1 SBUS[N] MEM RESET L\N\
- CD1 SBUS[N] D30 L\N\
- CE1 SBUS[N] D09 L\N\
- CF1 SBUS[N] D27 L\N\
- CH1 GND TTL\G#18\
- CJ1 SBUS[N] D10 L\N\
- CK1 NC
- CL1 SBUS[N] D28 L\N\
- CM1 SBUS[N] D11 L\N\
- CN1 SBUS[N] D29 L\N\
- CP1 GND TTL\G#18\
- CR1 SBUS[N] D12 L\N\
- CS1 CROBAR L\N\
- CT1 GND TTL\G#18\
- CU1 [B,NC,GND TTL\G#18\]
- CV1 [B,NC,GND TTL\G#18\]
- DA1 [B,NC,GND TTL\G#18\]
- DB1 [B,NC,GND TTL\G#18\]
- DC1 [B,NC,GND TTL\G#18\]
- DD1 SBUS[N] D13 L\N\
- DE1 SBUS[N] D31 L\N\
- DF1 SBUS[N] D14 L\N\
- DH1 SBUS[N] D32 L\N\
- DJ1 GND TTL\G#18\
- DK1 SBUS[N] D15 L\N\
- DL1 NC
- DM1 SBUS[N] D33 L\N\
- DN1 SBUS[N] D16 L\N\
- DP1 SBUS[N] D34 L\N\
- DQ1 GND TTL\G#18\
- DR1 SBUS[N] D17 L\N\
- DS1 SBUS[N] D35 L\N\
- DT1 GND TTL\G#18\
- DU1 [B,NC,GND TTL\G#18\]
- DV1 [B,NC,GND TTL\G#18\]

- CAP [B,NC,GND TTL\G#18\]
- CB2 [B,NC,GND TTL\G#18\]
- CC2 GND TTL\G#18\
- CD2 GND TTL\G#18\
- CE2 SBUS[N] ADR 34 L\N\
- CF2 GND TTL\G#18\
- CH2 SBUS[N] ADR 35 L\N\
- CJ2 SBUS[N] ADR PAR L\N\
- CK2 GND TTL\G#18\
- CL2 SBUS[N] WR RQ L\N\
- CM2 SBUS[N] RD RQ L\N\
- CNE GND TTL\G#18\
- CP2 SBUS[N] DATA PAR L\N\
- CR2 SBUS[N] CLK INT L\N\
- CSE SBUS[N] RQ 3 L\N\
- CT2 SBUS[N] RQ 2 L\N\
- CU2 SBUS[N] CLK [N+1,SPARE#\#00\,EXT] L\N\
- CV2 GND TTL\G#18\
- DA2 [B,NC,GND TTL\G#18\]
- DB2 [B,NC,GND TTL\G#18\]
- DC2 GND TTL\G#18\
- DD2 GND TTL\G#18\
- DE2 SBUS[N] RQ 1 L\N\
- DF2 GND TTL\G#18\
- DH2 SBUS[N] RQ 0 L\N\
- DJ2 SBUS[N] ERROR L\N\
- DK2 GND TTL\G#18\
- DL2 SBUS[N] DIAG H\N\
- DNE SBUS[N] START A H\N\
- DNE GND TTL\G#18\
- DP2 SBUS[N] START B H\N\
- DR2 SBUS[N] DATA VALID A L\N\
- DSE SBUS[N] DATA VALID B L\N\
- DT2 SBUS[N] ACKN B L\N\
- DU2 SBUS[N] ACKN A L\N\
- DVE GND TTL\G#18\

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REVISIONS		
CHK	CHANGE NO.	REV.

	DATE 21-OCT-75 ENG. J. Family CHK'D G. J.	DATE 21-OCT-75 BOARD LOCATION:	TITLE: SBUS CABLE MEMORY TO CPU
	DATE 07-SEP-75 16:04 NEXT HIGHER ASSEMBLY:	SHEET 1 OF 1	SIZE CODE D IC NUMBER KL10-0-SBUS
FIRST USED ON OPTION/MODEL: KL10	B-DD-KL10-0	REV.	404



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NOTES:  
1. ITEMS NOT SHOWN WITH AN ASTERISK ARE PART OF DTE20 LOGIC ASSY E-AD-7010101-0-0

	4	5	6	7	8
H		B C I I A	B C I I A		
		**	**		
J		(M 9 2 9)	(M 9 2 9)	(M 8 8 9 4)	

	1	2	3	4	5	6	7	8	9	10
A	✓	**								B C I I A
		M S N Q								(M S N Q)
B			✓							
C			M S N Q	M S N Q	M S N Q	M S N Q	M S N Q	M S N Q	M S N Q	B C I I A
			**	**						(M S N Q)
D										
E	S P A R E		M S N Q							B C I I A
			**							(M S N Q)
F										

REF. PIN SIDE  
 \* DTE20 MODULE SET LOCATION NOT SUPPLIED AS PART OF E-AD-7010101-0-0  
 \*\* NOT SUPPLIED AS PART OF E-AD-7010101-0-0 SEE D-UA-KLI0-0-0

REV. A	CHANGE NO. 00002	DATE 11 Nov 75
CHK	J. PROVIDENT	DATE 11 Nov 75

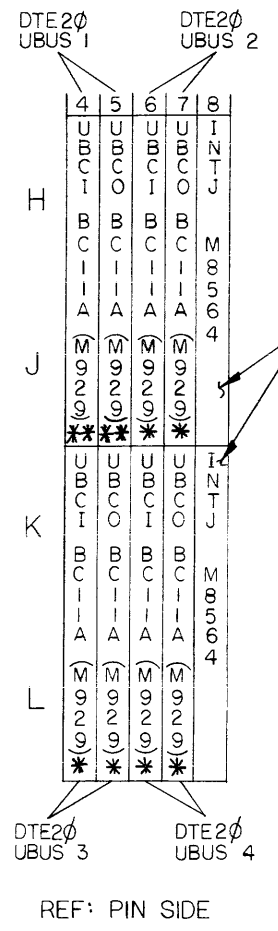
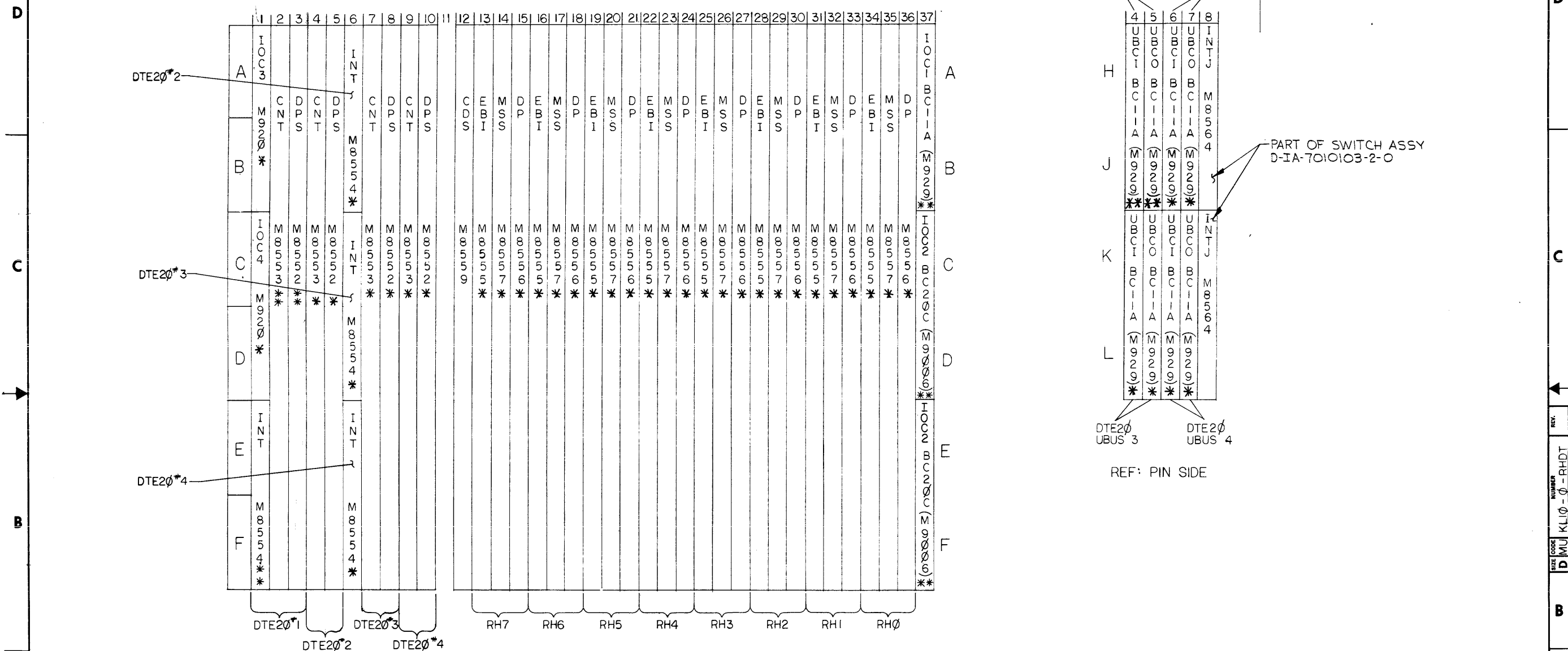
FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
KLI0					
PARTS LIST					
DIMENSIONAL TOLERANCE		DRN. M. G. CHIEF	DATE 2-27-75	 TITLE MODULE UTILIZATION DTE20	
DIMENSIONS ARE <u>MILLIMETERS</u> UNLESS OTHERWISE SPECIFIED		CHK'D. J. PROVIDENT	DATE 3-6-75		
MILLIMETERS	INCHES	ENG. J. PROVIDENT	DATE 3-26-75		
X,XX ±0.10 X,X ±0.5 X ±2	.XXX ±.005 .XX ±.02 .X ±.1	PROJ. ENG. J. PROVIDENT	DATE 3-26-75		
THIRD ANGLE PROJECTION	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROD. J. PROVIDENT	DATE 3-26-75		
		NEXT HIGHER ASSY.		SIZE CODE C MU	NUMBER KLI0-0-DTEI
		MATERIAL //		SCALE //	REV. A
		FINISH //		SHEET 1 OF 1	

REV. A  
 NUMBER KLI0-0-DTEI  
 SIZE CODE C MU

405

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NOTES:  
 1. ITEM NOT SHOWN WITH AN ASTERISK ARE PART OF RH2Ø DTE2Ø LOGIC ASSY E-AD-7Ø1Ø1Ø2-Ø-Ø



PART OF SWITCH ASSY D-IA-7Ø1Ø1Ø3-2-Ø

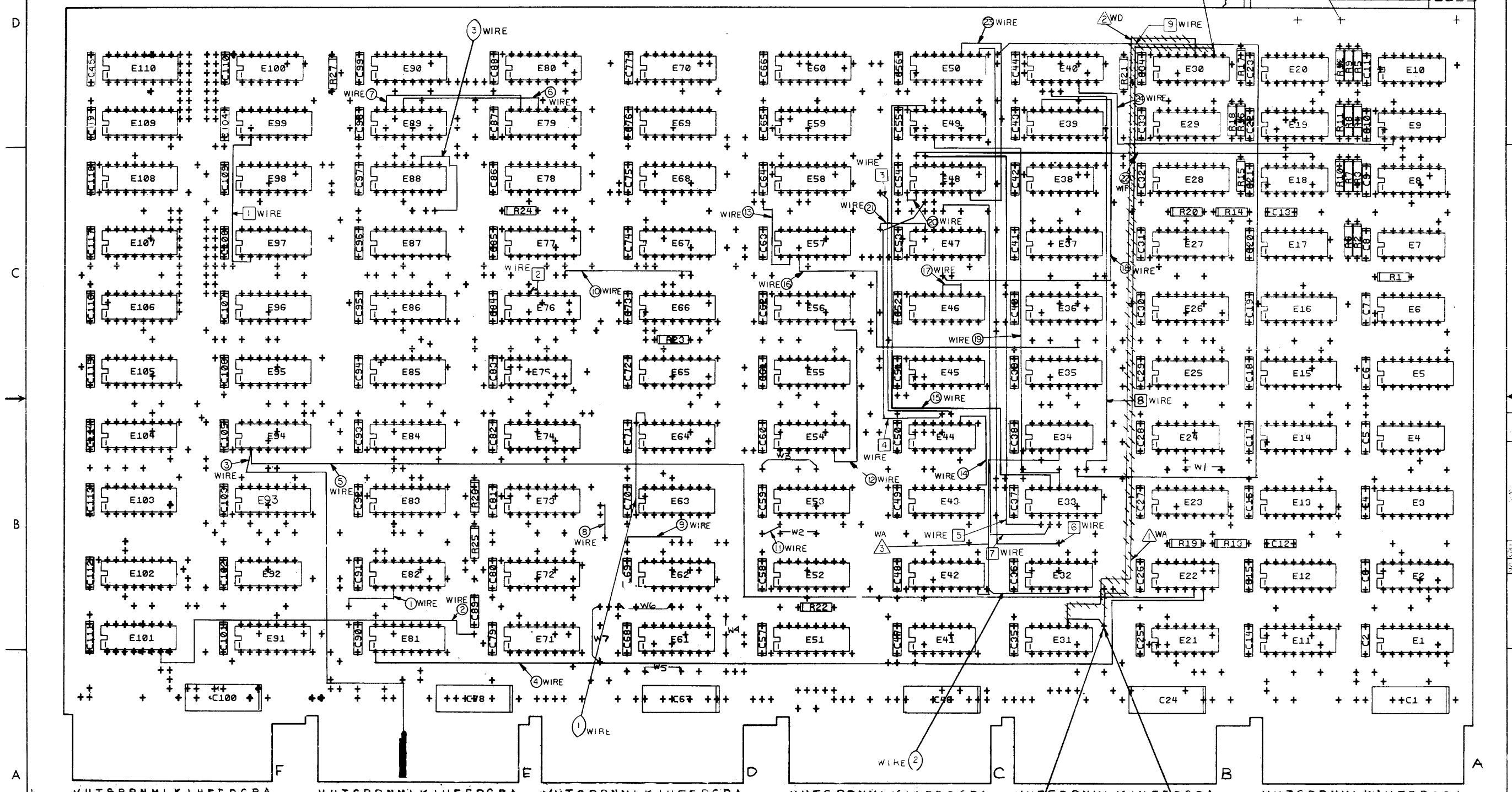
REF: PIN SIDE  
 \* INSTALLED AT SYSTEMS LEVEL  
 \*\* INSTALLED AT KLIØ UNIT ASSY LEVEL D-UA-KLIØ-Ø-Ø

REV.	
CHG	
CHK	
REVISE	
CHANGE NO.	

QUANTITY & VARIATION	DESCRIPTION	DWG./PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
	ANGLES 50° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES
	SURFACE QUALITY IN	(CHECK ONE)	OVER 0 TO 0.2
			OVER 0.2 TO 1.2
			OVER 1.2 TO 4.0
			OVER 4.0 TO 12.0
			OVER 12.0 TO 40.0
			OVER 40.0 TO 80.0
			OVER 80.0 TO 100.0
			OVER 100.0 TO 150.0
			OVER 150.0 TO 200.0
			OVER 200.0 TO 300.0
			OVER 300.0 TO 400.0
			OVER 400.0 TO 500.0
			OVER 500.0 TO 600.0
			OVER 600.0 TO 700.0
			OVER 700.0 TO 800.0
			OVER 800.0 TO 900.0
			OVER 900.0 TO 1000.0
			OVER 1000.0 TO 1500.0
			OVER 1500.0 TO 2000.0
			OVER 2000.0 TO 3000.0
			OVER 3000.0 TO 4000.0
			OVER 4000.0 TO 5000.0
			OVER 5000.0 TO 6000.0
			OVER 6000.0 TO 7000.0
			OVER 7000.0 TO 8000.0
			OVER 8000.0 TO 9000.0
			OVER 9000.0 TO 10000.0
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			OVER 30000.0 TO 40000.0
			OVER 40000.0 TO 50000.0
			OVER 50000.0 TO 60000.0
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			OVER 90000.0 TO 100000.0
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			OVER 150000.0 TO 200000.0
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			OVER 1500000000000000000.0 TO 2000000000000000000.0
			OVER 2000000000000000000.0 TO 3000000000000000000.0
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			OVER 9000000000000000000.0 TO 10000000000000000000.0
			OVER 10000000000000000000.0 TO 15000000000000000000.0
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			OVER 20000000000000000000.0 TO 30000000000000000000.0
			OVER 30000000000000000000.0 TO 40000000000000000000.0
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			OVER 80000000000000000000.0 TO 90000000000000000000.0
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			OVER 150000000000000000000.0 TO 200000000000000000000.0
			OVER 200000000000000000000.0 TO 300000000000000000000.0
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			OVER 6000000000000



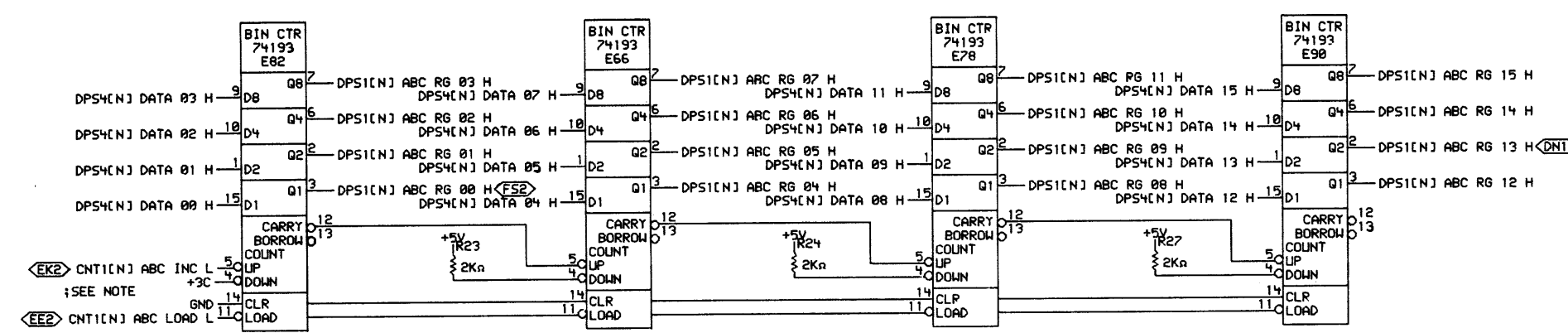
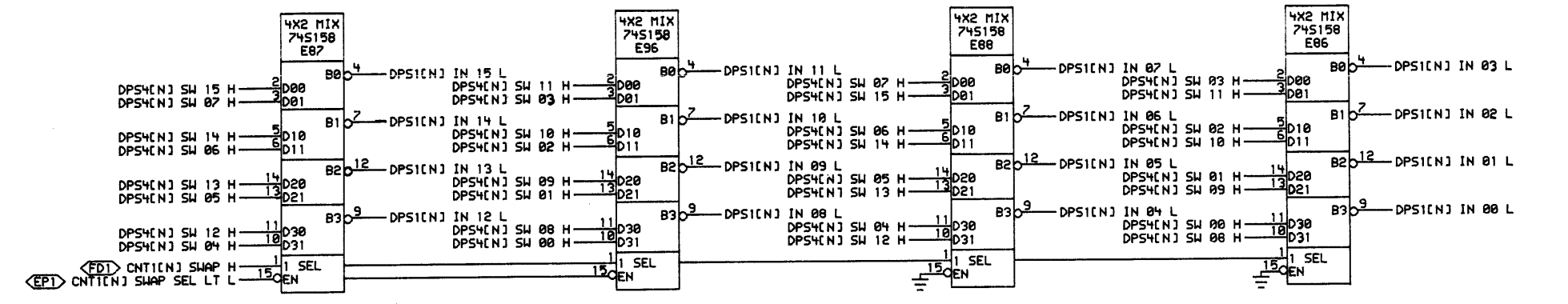
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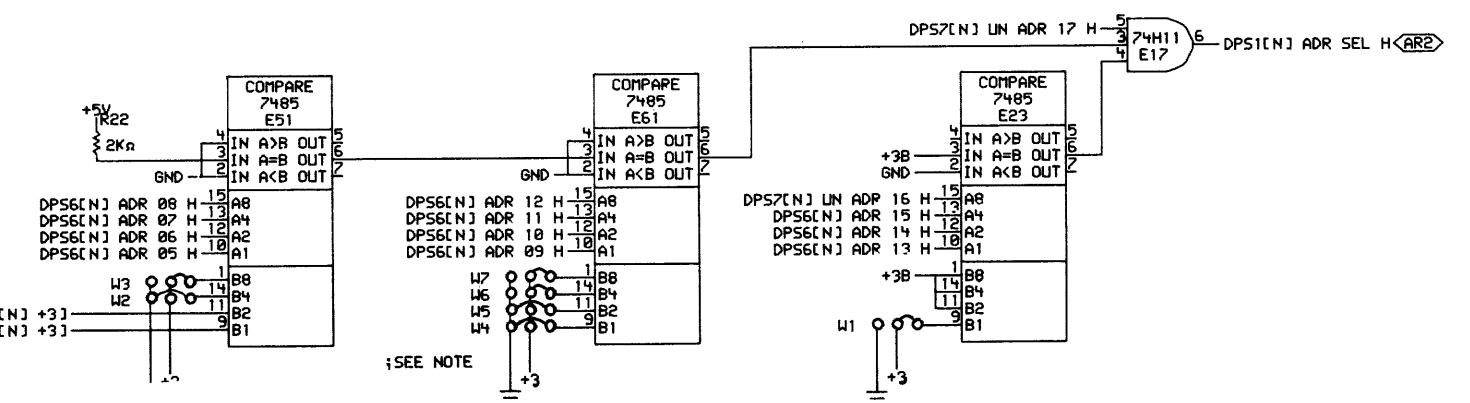
REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE CODE	NUMBER	REV.
Ø/11 DATA PATH	D UA	M8552-0-0	DI
SCALE 2/1	SHEET 2 OF 5	DIST.	

DUA M8552-0-0 DI



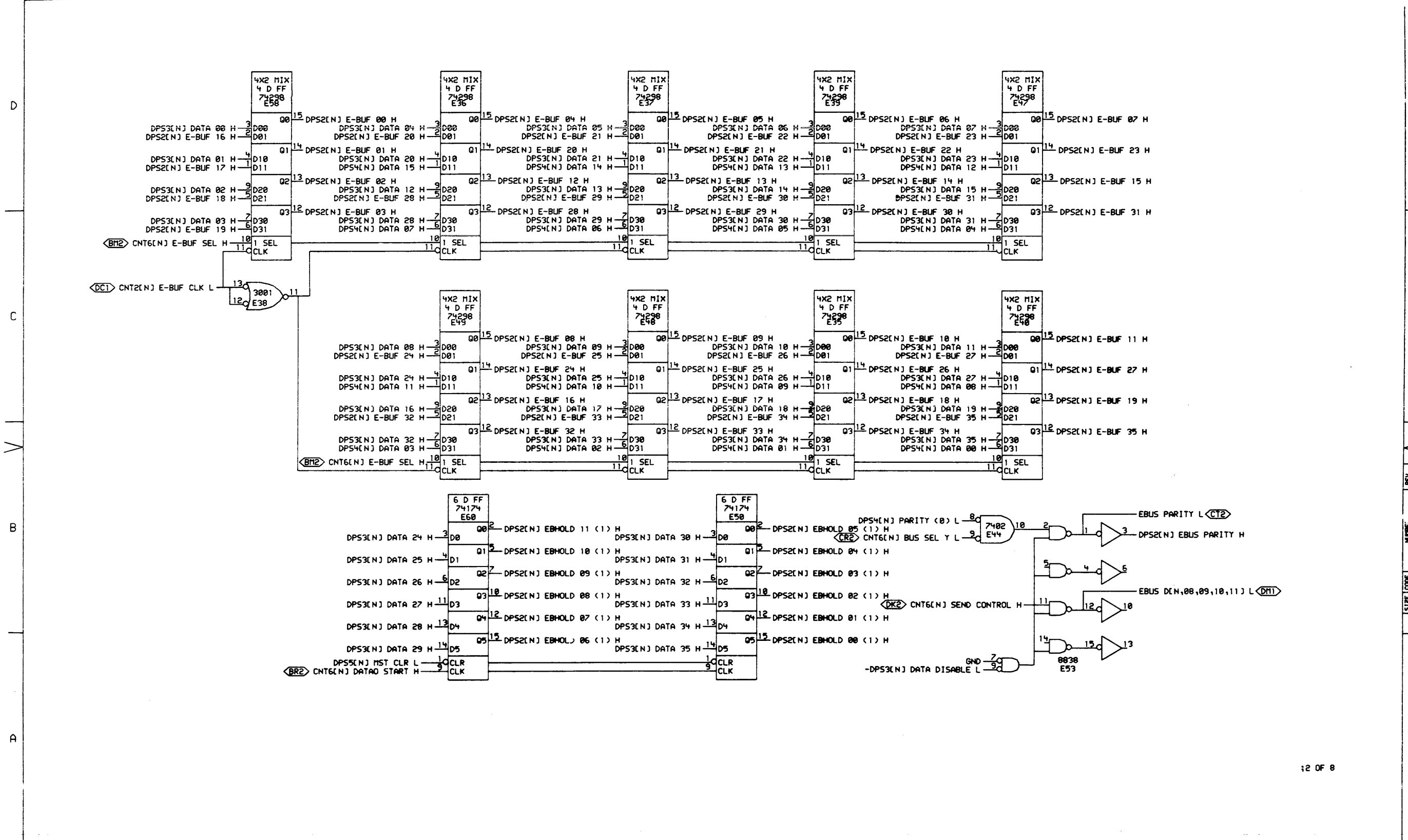
**NOTES:**  
 THE 74193 UP/DOWN COUNTER HAS THE FOLLOWING CHARACTERISTICS.  
 UP-COUNT: SETS UP WHEN LOW AND COUNTS ON THE POSITIVE TRANSITION OF THE UP COUNT PULSE.  
 LOAD: SETS UP WHEN LOW AND LOADS ON THE POSITIVE TRANSITION OF THE LOAD PULSE.  
 CARRY: IF A CARRY IS GENERATED THE CARRY WILL GO LOW WHEN THE UP INPUT IS LOW AND WILL GO HIGH WHEN THE UP INPUT GOES HIGH.  
 WIRE JUMPERS W1-W7 AS SHOWN WILL SELECT DTE20 FROM '11 ADDRESS 1774400 TO '11 ADDRESS 1774577.



REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV	CHK	CHANGE	REV
	M8552-00004	B		M8552-00005	B1

**digital** DATE: 01 JUN 76 ENG: [Signature] DATE: 21 JUN 76  
 CHECKED: [Signature] DATE: 08/76 BOARD LOCATION: DE 1  
 TITLE: DATA PATH AND STATUS  
 FIRST USED ON OPTION/MODEL: DTE20 B-DD-M8552-0  
 SIZE CODE NUMBER REV.  
 D CS M8552-0-DPS1 BI

409



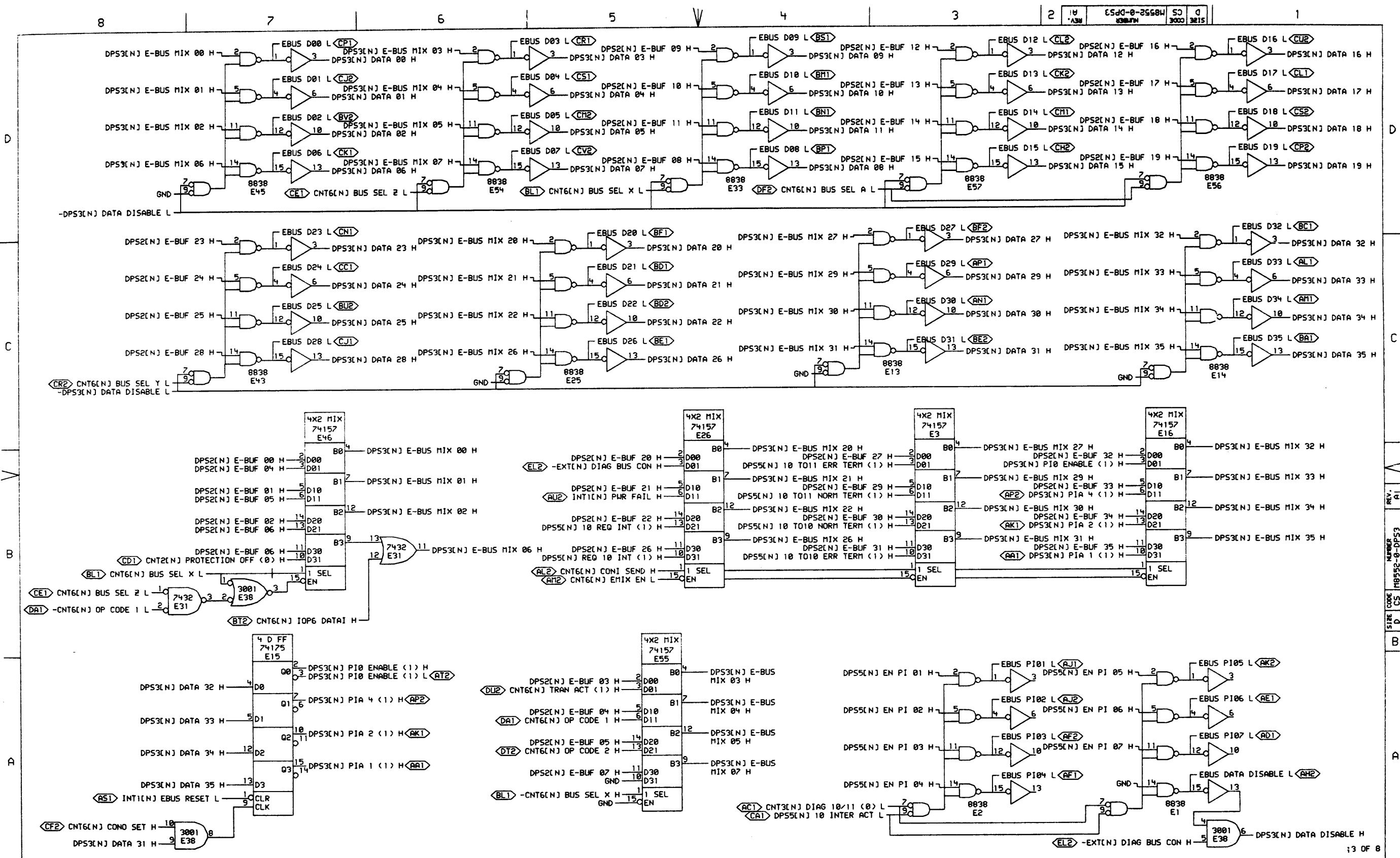
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
	M8552-00002	A		M852-00005	A1
	W. BRUCKERT			W. BRUCKERT	

digital	DATE 5/29/75	ENG. G. M. L.	DATE 5/29/75	TITLE: DATA PATH AND STATUS
DPS2(4,426)	12 MAY 75 09:26	12 MAY 75 09:26	12 MAY 75 09:26	12 MAY 75 09:26
FIRST USED ON OPTION/MODEL: DTE20	NEXT HIGHER ASSEMBLY: B-DD-M8552-0		SIZE CODE D CS	NUMBER M8552-0-DPS2

REV. A1	410
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SLOT 3

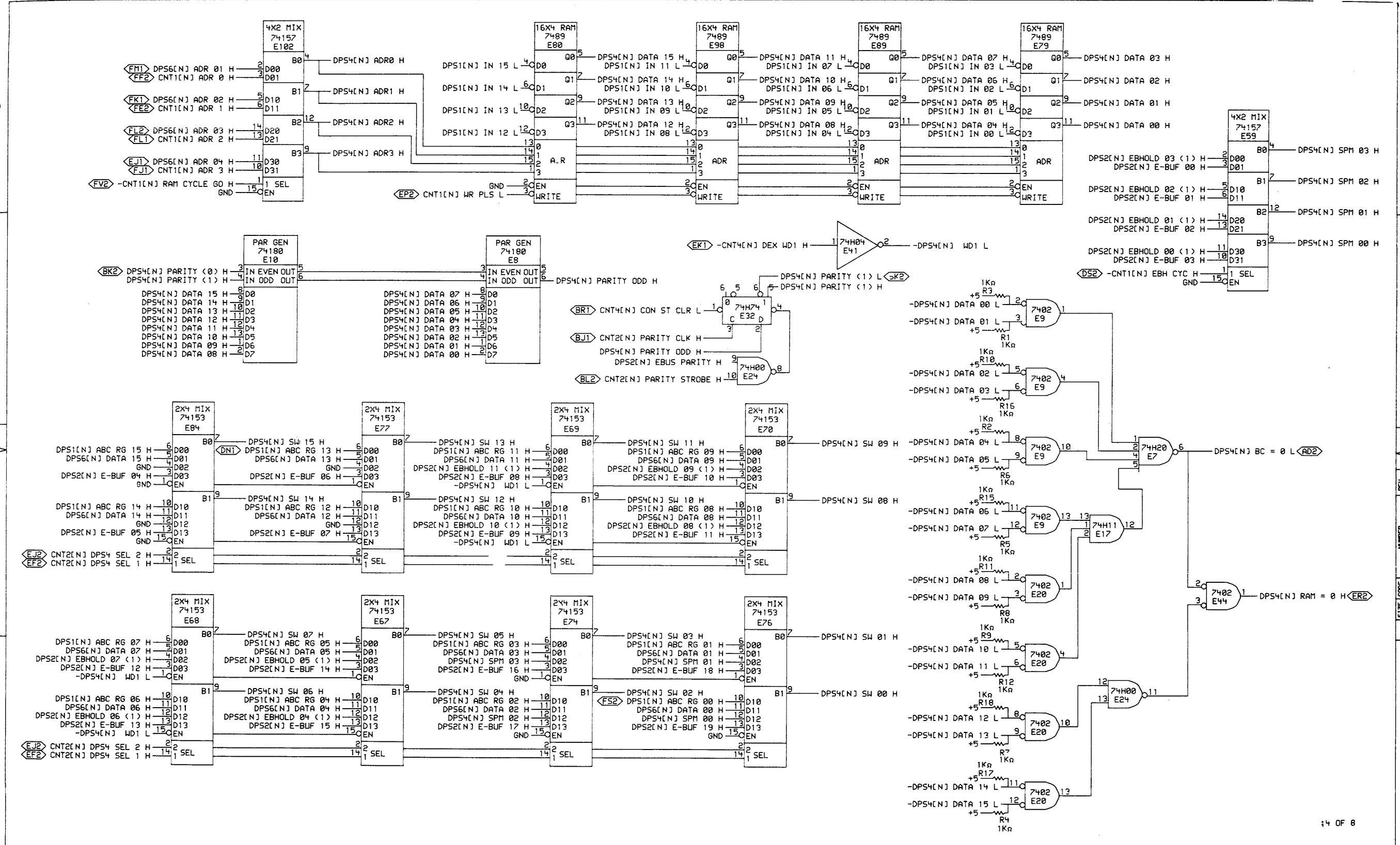


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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
	M8552-00002	A		M8552-00005	A1

DRN	DATE	ENG.	DATE	TITLE:
	5/23/75	W. Bruckert	5/29/75	DATA PATH AND STATUS
DATE	BOARD LOCATION:			
5/23/75				
DPS3K(4,426)		NEXT HIGHER ASSEMBLY:		SIZE CODE
FIRST USED ON OPTION/MODEL: DTE20		B-DD-M8552-0		D CS

NUMBER	REV.
M8552-0-DPS3	A1



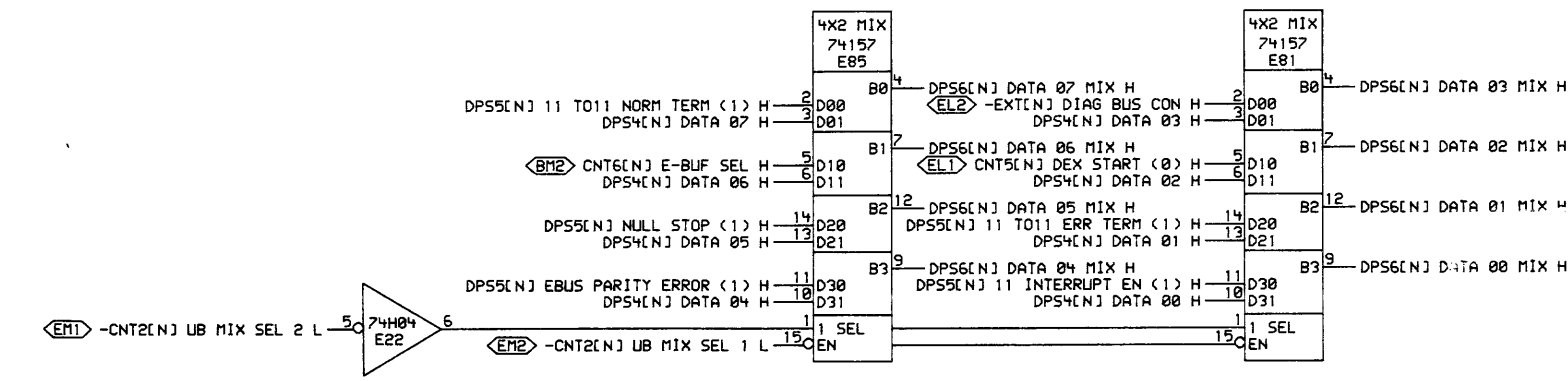
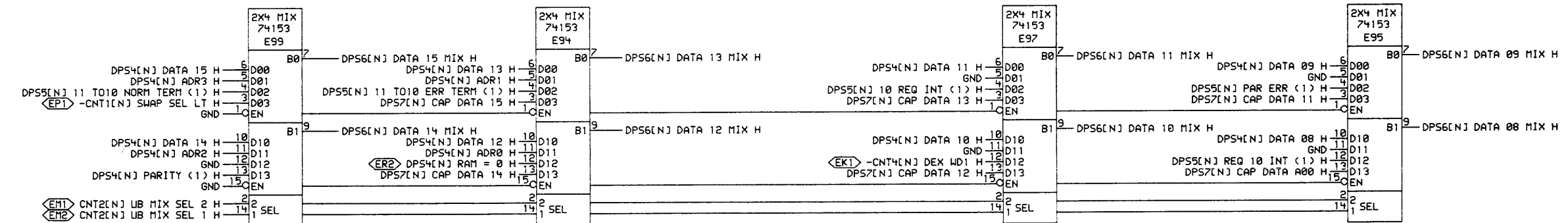
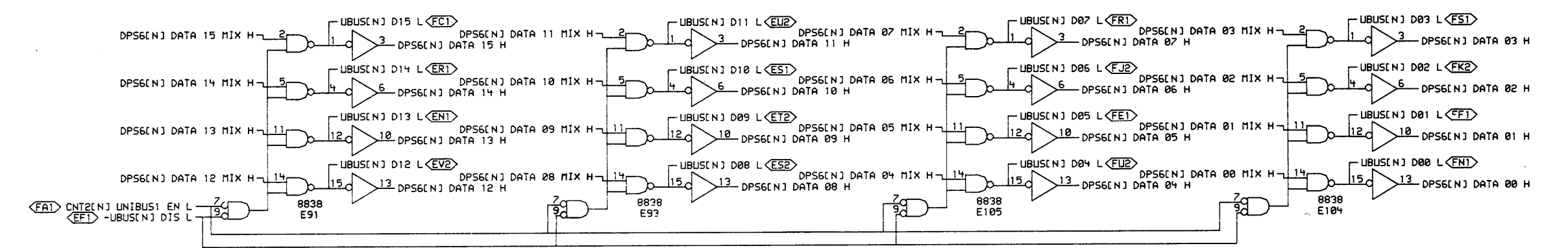
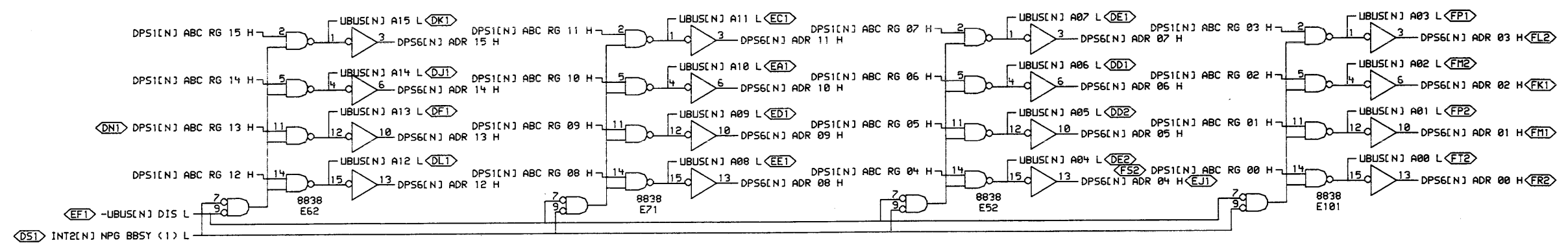
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV
MR	552-00002	A	MR	552-00005	AI
W	7/7/75		W	1/1/77	
W	8/2/76		W	1/1/77	
W	8/2/76		W	1/1/77	

digital	DRN	DATE	ENG.	DATE	TITLE:
	CHK	5/23/75	W. Buchert	4/21/75	DATA PATH AND STATUS
DPS4X(4,426)		DATE	BOARD LOCATION:		
FIRST USED ON OPTION MODEL: DTE20		DATE	SHEET	1 OF 1	
B-DD-M8552-0		NEXT HIGHER ASSEMBLY:		SIZE CODE NUMBER REV.	
				D CS M8552-0-DPS4 AI	





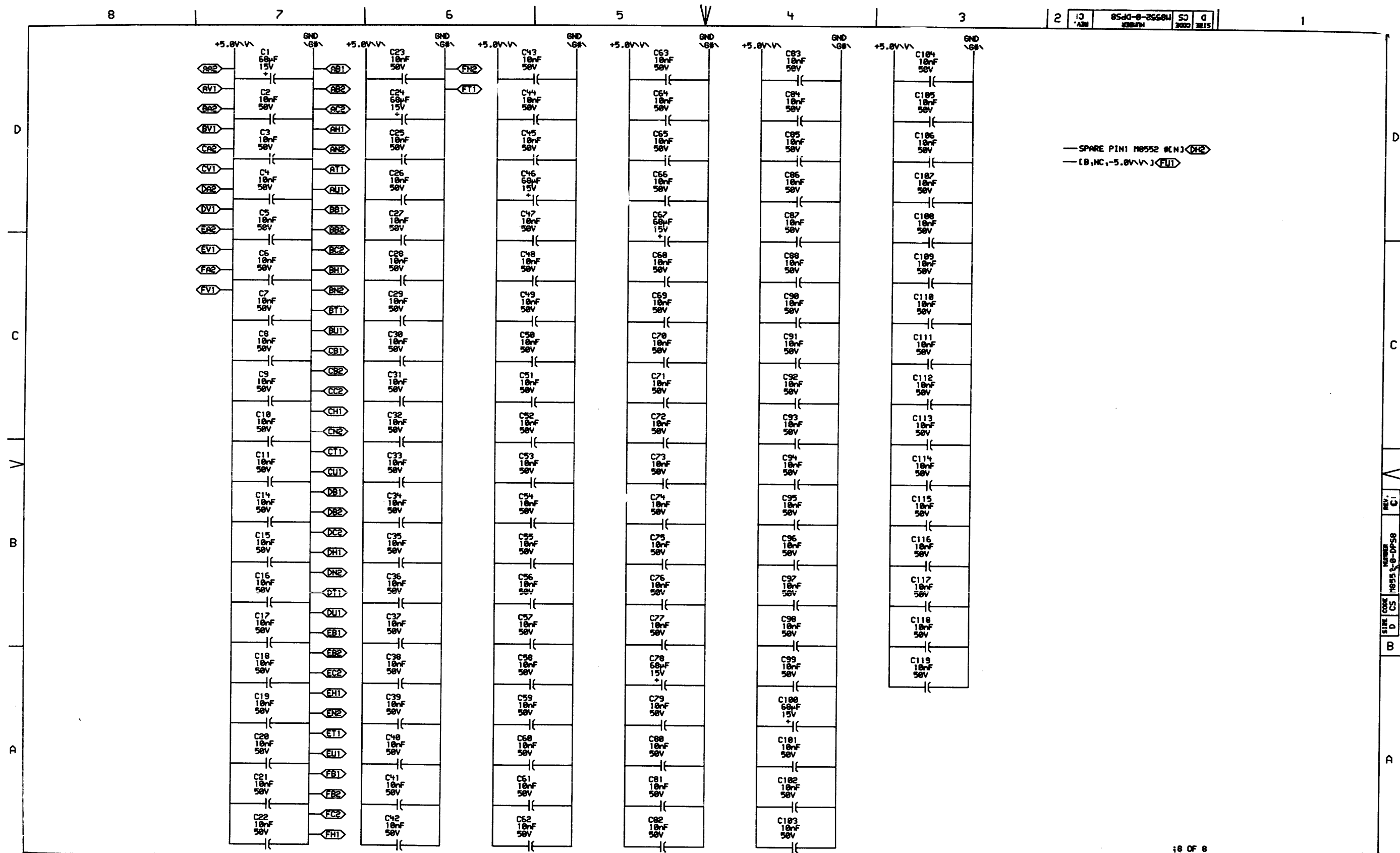


16 OF 8

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414





— SPARE PIN1 M8552 #C11 (X2)  
 — [B,NC,-5.0V] (FUT)

18 OF 8

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REVISIONS		REVISIONS			
CHK	CHANGE NO.	REV	CHK	CHANGE NO.	REV

DATE	ENG.	DATE	ENG.
10/20/76	W. Bruckert	10/20/76	W. Bruckert
DATE	LOC.	DATE	LOC.
10/20/76	10/20/76	10/20/76	10/20/76

**digital** *W. Bruckert* *W. Bruckert*

DATE: 10/20/76 ENG: W. Bruckert  
 DATE: 10/20/76 LOC: 10/20/76

TITLE: DATA PATH & STATUS  
 PWR, CAP & GND

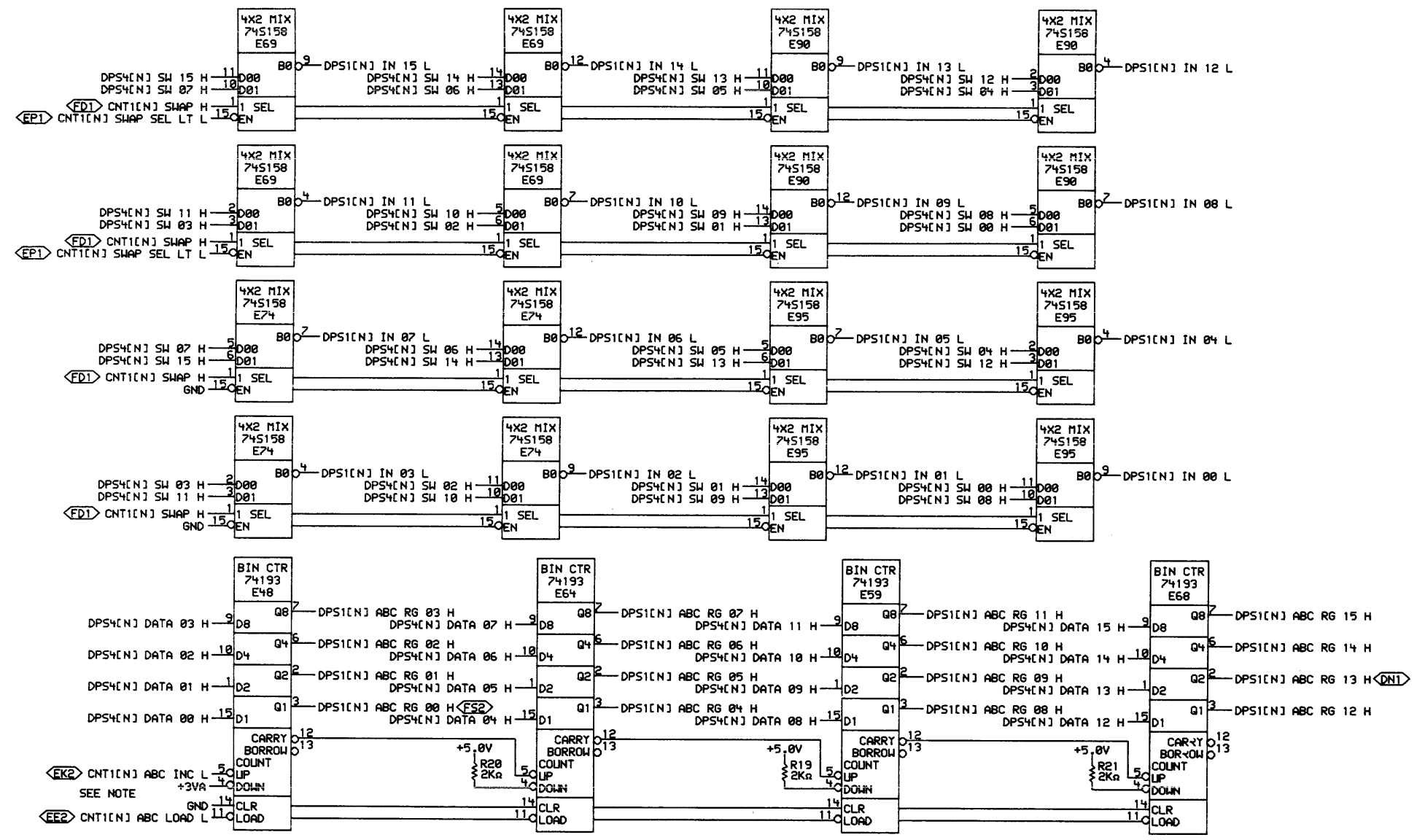
SIZE CODE: D CS NUMBER: M8552-0-DPS8 REV: C1

FIRST USED ON OPTION MODEL: DTE20 NEXT HIGHER ASSEMBLY: B-DD-M8552-0

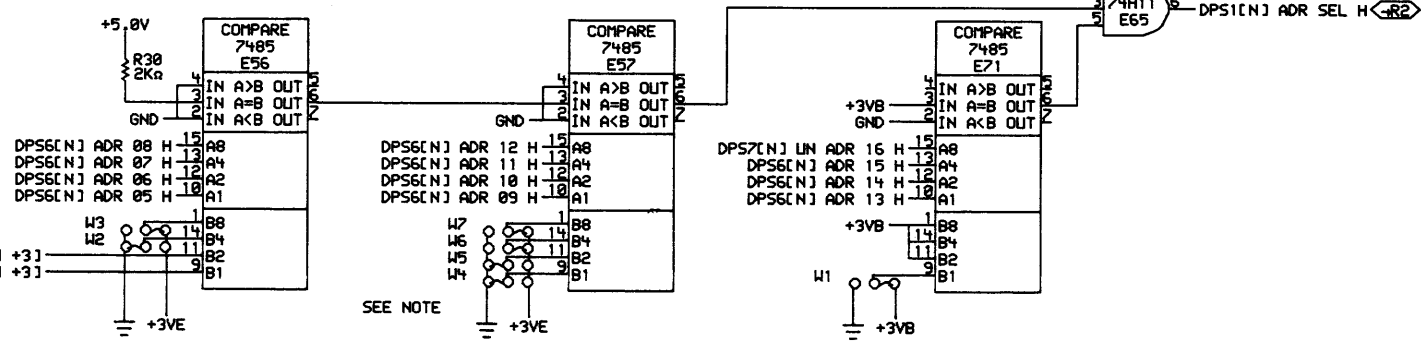
416







**NOTES:**  
 THE 74193 UP/DOWN COUNTER HAS THE FOLLOWING CHARACTERISTICS.  
 UP-COUNT: SETS UP WHEN LOW AND COUNTS ON THE POSITIVE TRANSITION OF THE UP COUNT PULSE.  
 LOAD: SETS UP WHEN LOW AND LOADS ON THE POSITIVE TRANSITION OF THE LOAD PULSE.  
 CARRY: IF A CARRY IS GENERATED THE CARRY WILL GO LOW WHEN THE UP INPUT IS LOW AND WILL GO HIGH WHEN THE UP INPUT GOES HIGH.  
 \*WIRE JUMPERS W1-W7 ARE FACTORY SET.



DTE SLOT LOCATIONS

TYPE	N=	SLOT
SINGLE	1	2AF0
MULTIPLE	1	2AF03
	2	2AF05
	3	2AF08
	4	2AF10

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REVISIONS	CHK	CHANGE NO.	REV
M.S. 10-5 C			
W. ERUCKEFT			

**digital** DRN. J. J. J. DATE 18-FEB-77 ENG. Ch. Carmichael DATE 23-FEB-77  
 DATE 2/11/77 BOARD LOCATION: SHEET 1 OF 1  
 TITLE: DATA PATH AND STATUS  
 DPS1RS.DRM 4.613 109 FEB-77 12:08 NEXT HIGHER ASSEMBLY: B-DC-M8552-0  
 FIRST USED ON OPTION/MODEL: DTE20

SIZE	CODE	NUMBER	REV.
D	CS	M8552-0-DPS1	C

419

D

C

B

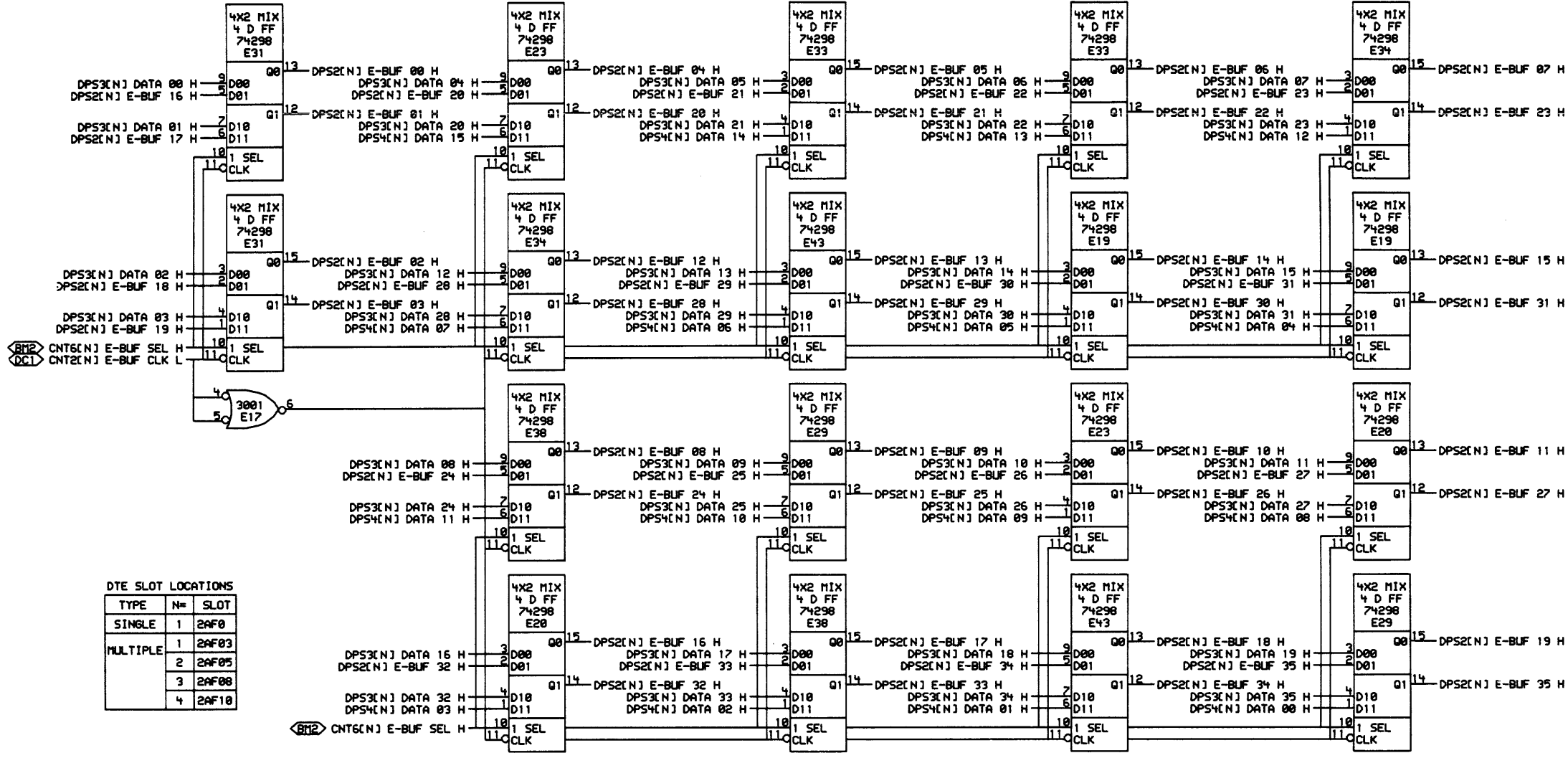
A

D

C

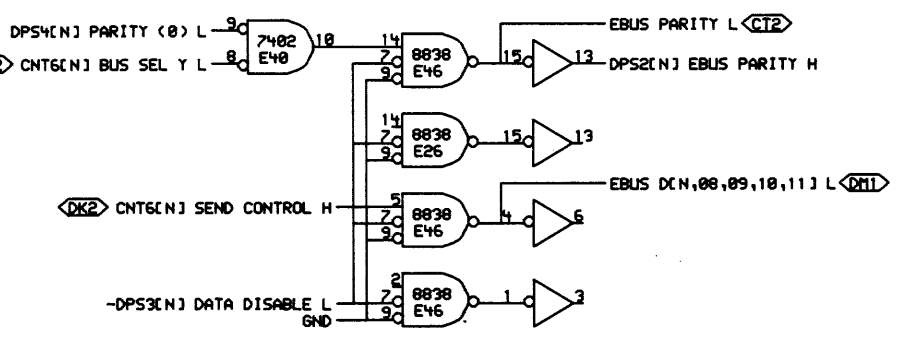
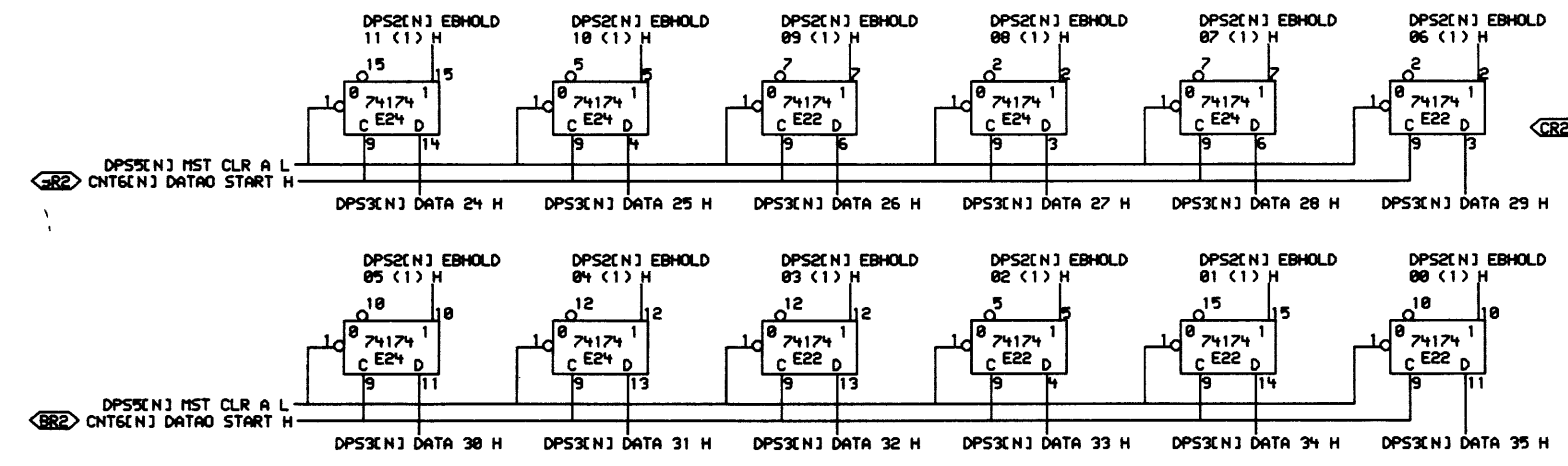
B

A



DTE SLOT LOCATIONS

TYPE	N#	SLOT
SINGLE	1	2AF0
MULTIPLE	2	2AF05
	3	2AF08
	4	2AF10



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REVISIONS	CHK	CHANGE NO.	REV
1			

148552-00006	B
W. BRUCKERT	

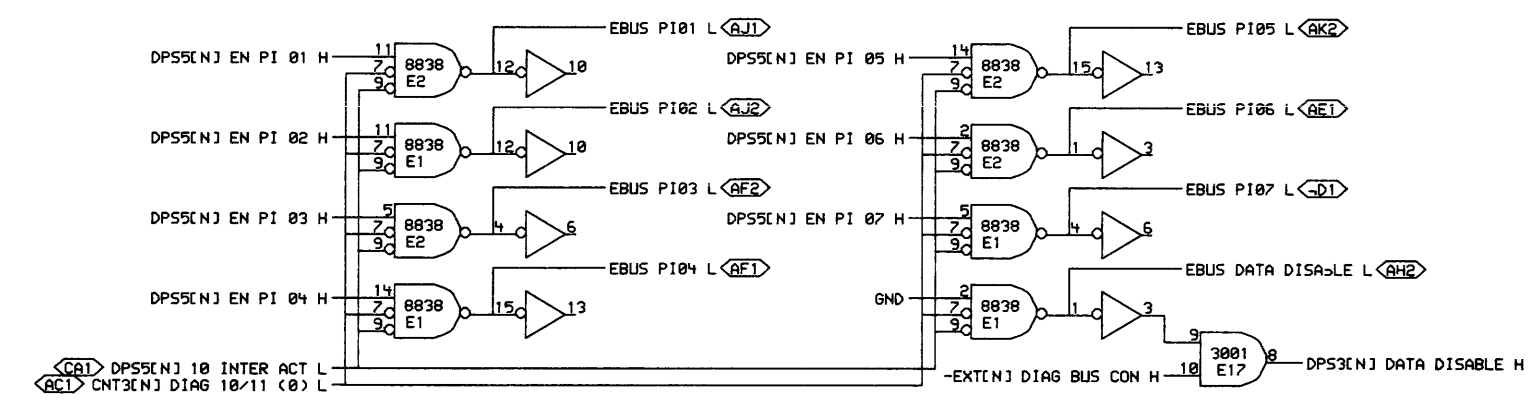
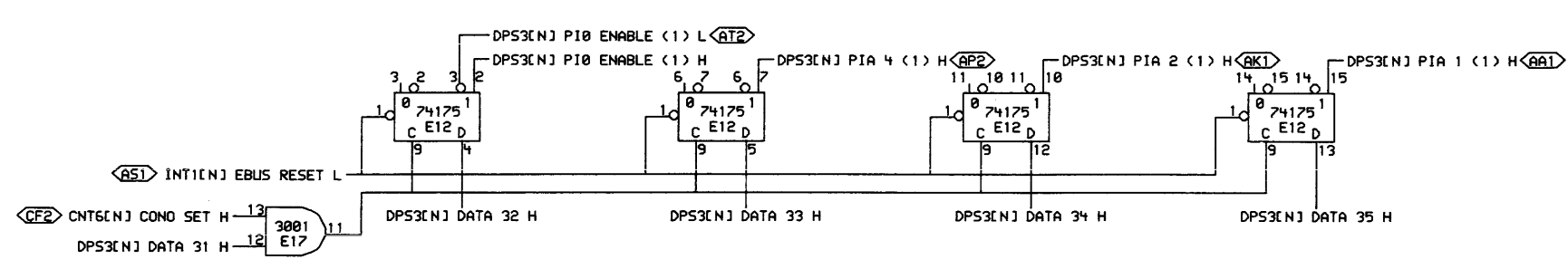
digital

DATE: 10-FEB-77  
 DATE: 2/77  
 BOARD LOCATION: DE

TITLE:	DATA PATH AND STATUS
SIZE CODE	D CS
NUMBER	M8552-0-DPS2
REV.	B

420





DTE SLOT LOCATIONS

TYPE	N=	SLOT
SINGLE	1	2AF0
MULTIPLE	1	2AF03
	2	2AF05
	3	2AF08
	4	2AF10

3A OF 8

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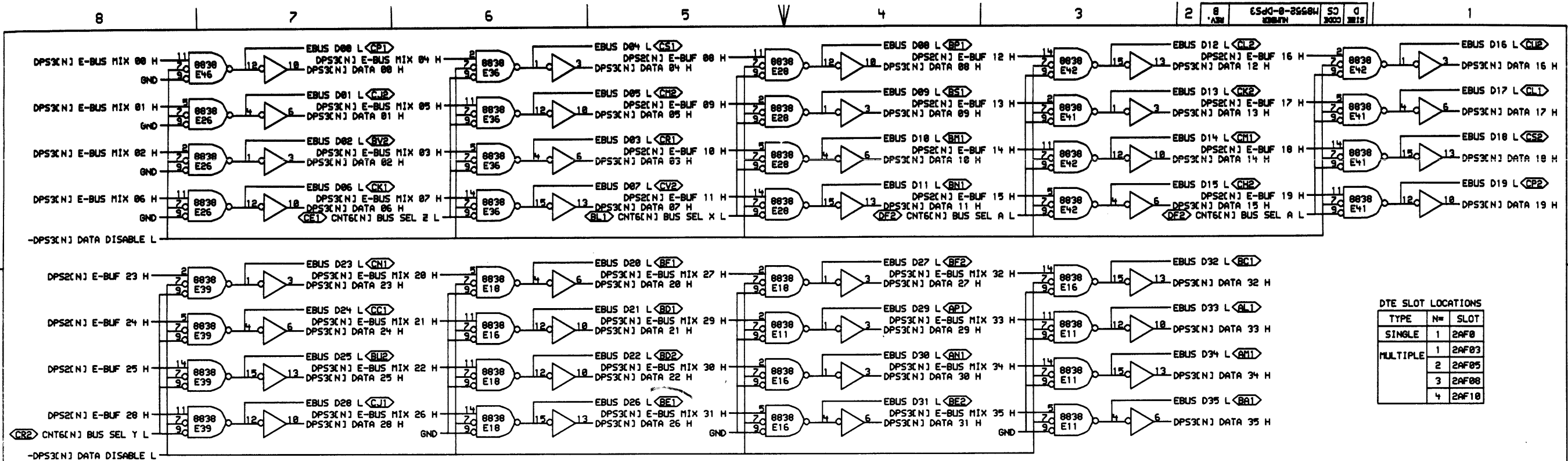
REVISIONS		
CHK	CHANGE NO.	REV
		1
		2

1M8552-00005	B
W. BRUCKERT	
11 FEB 77	

digital	DATE 11-FEB-77	ENG. W. Bruckert	DATE 23-FEB-77
	DATE 2/11/77	BOARD LOCATION:	
		SHEET 1 OF 2	

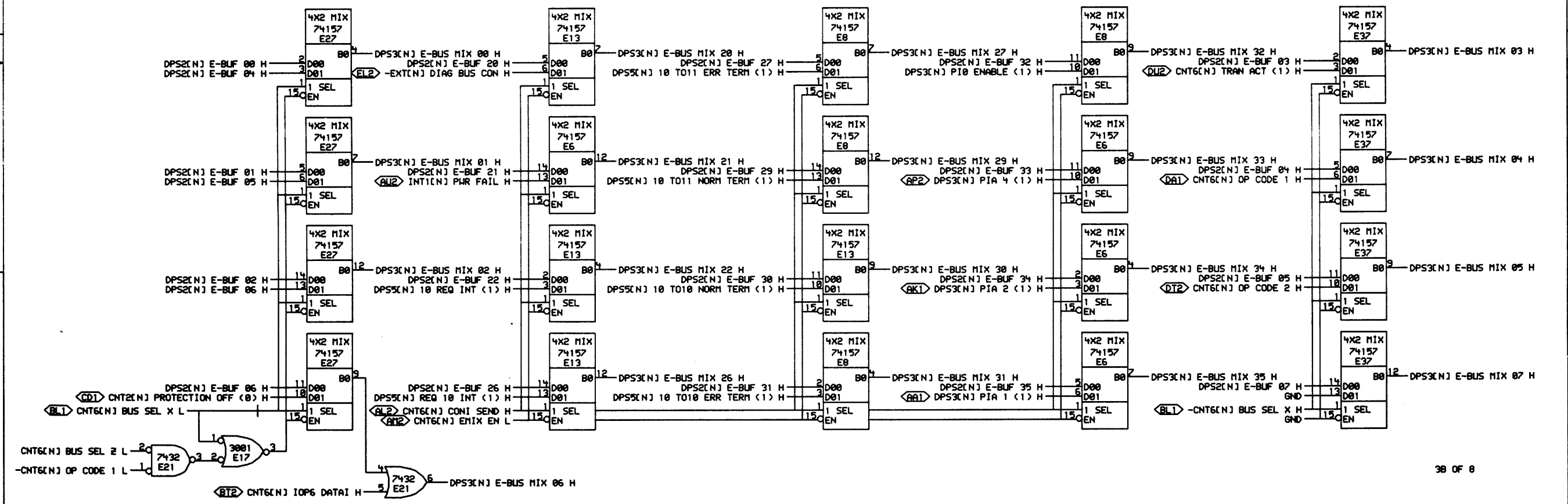
TITLE: DATA PATH AND STATUS		
SIZE CODE	NUMBER	REV.
D CS	M8552-0-DPS3	B

421



DTE SLOT LOCATIONS

TYPE	N#	SLOT
SINGLE	1	2AF0
MULTIPLE	1	2AF03
	2	2AF05
	3	2AF08
	4	2AF10



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REVISIONS		DATE	ENG.	DATE	TITLE:
CHK	CHANGE NO. REV				DATA PATH AND STATUS
		10/1/77	W. BRUCKERT	10/1/77	

digital

DPS3RS.DATA 4.6131

DATE 10-FEB-77 13:02

ENG. W. Bruckert

DATE 10/1/77

BOARD LOCATION: 2 OF 2

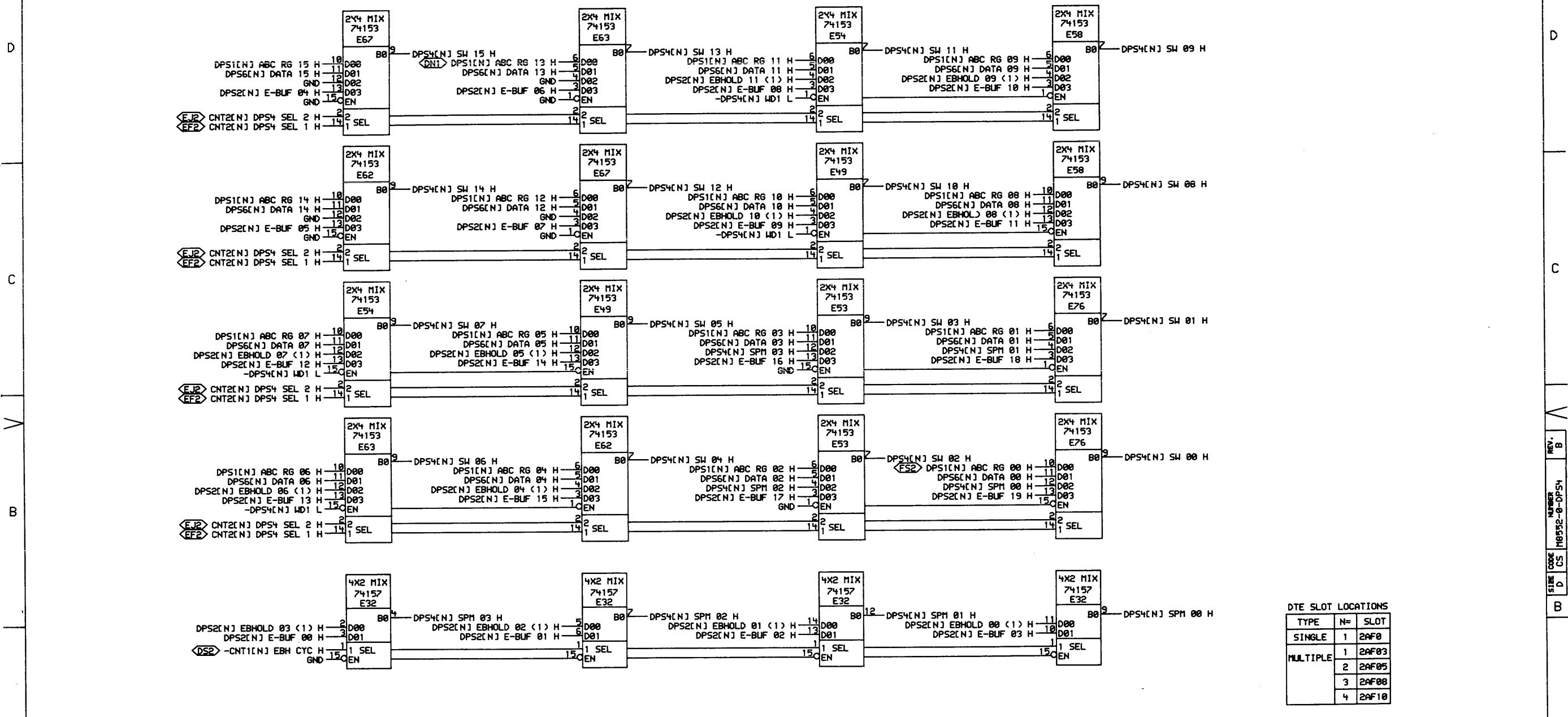
NEXT HIGHER ASSEMBLY: B-DD-M8552-0

SIZE CODE D CS

NUMBER M8552-0-DPS3

REV. B

422



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REVISIONS		M8552-00005	B
CHK	CHANGE NO.	REV	

**digital** *W. Bruckert*

DATE 11-FEB-77 ENG. *W. Bruckert* DATE 23-FEB-77

DATE BOARD LOCATION: *2/11/77*

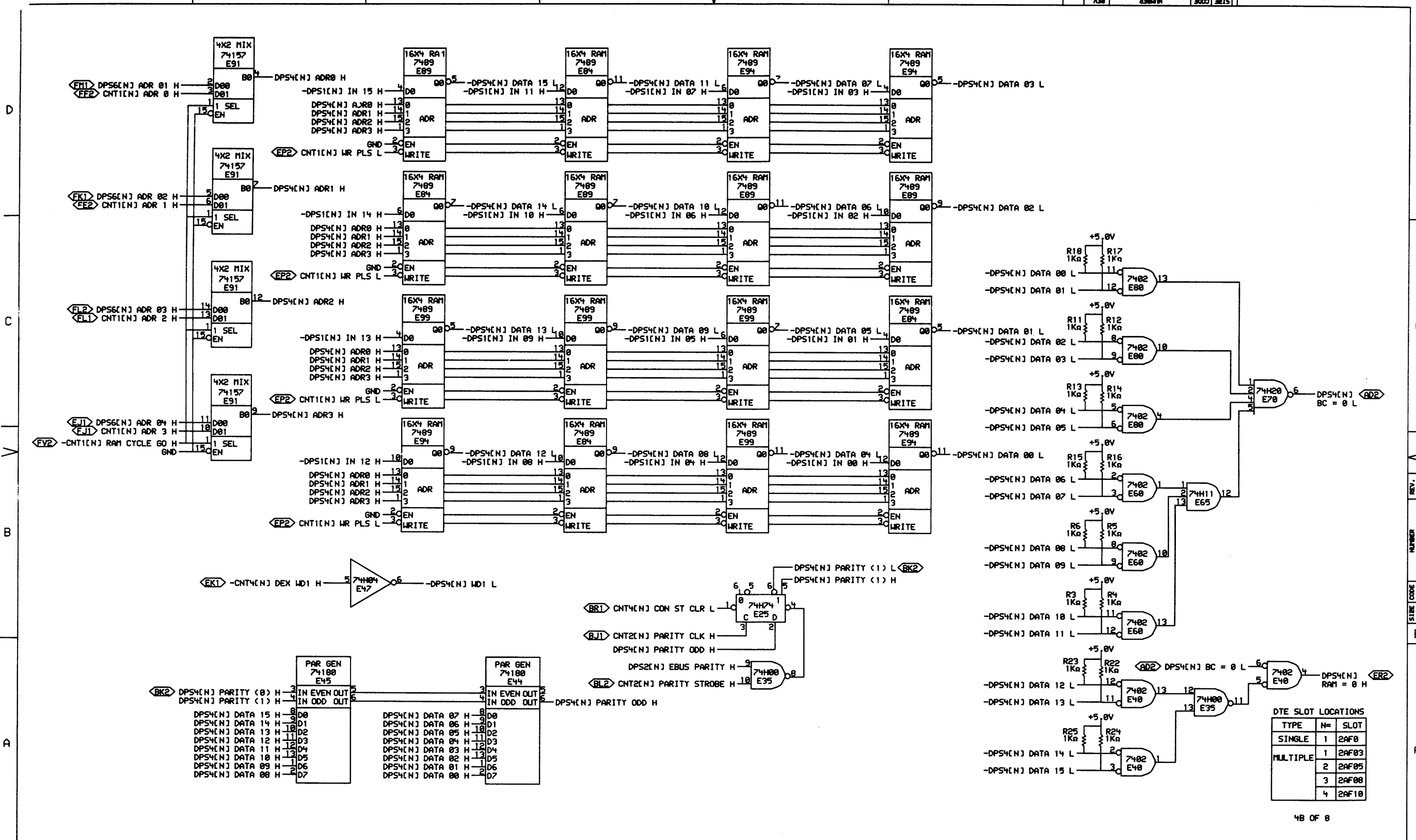
SHEET 1 OF 2

DPS4AR.DRM 4.613 109 FEB-77 13103 NEXT HIGHER ASSEMBLY: B-DD-M8552-0

FIRST USED ON OPTION/MODEL: DTE20

SIZE	CODE	NUMBER	REV.
D	CS	M8552-0-DPS4	B

423



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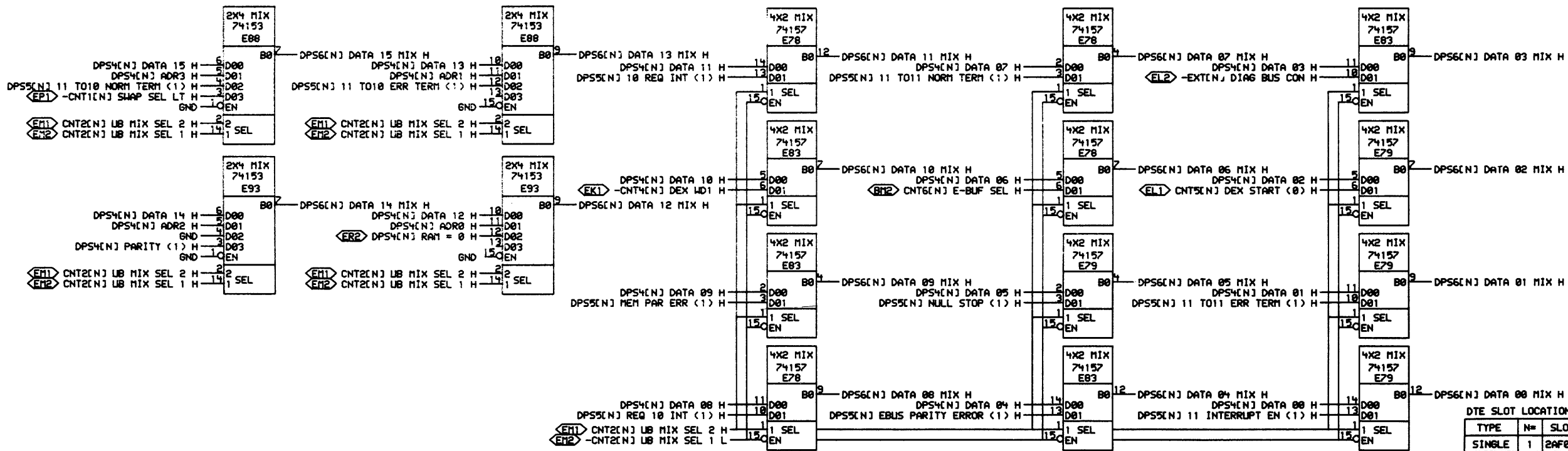
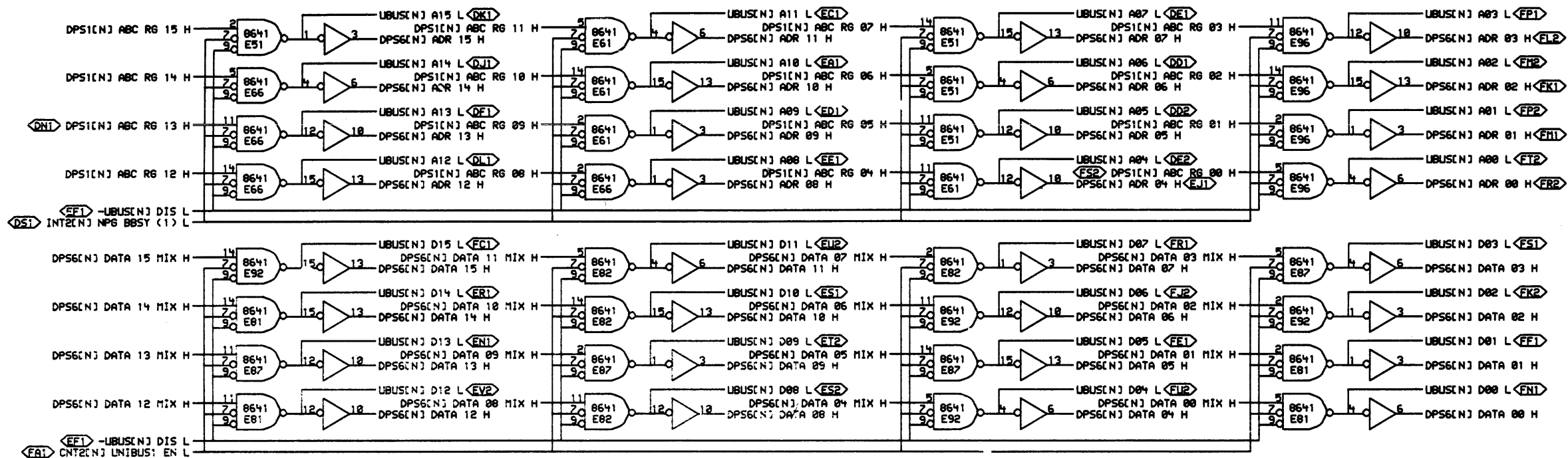
REVISIONS		
CHK	CHANGE NO.	REV

M8552-00005 B  
 W. BRUCKERT  
 4/77

digital  
 DATE 11-FEB-77  
 DATE 2/11/77  
 SHEET 2 OF 2  
 FIRST USED ON OPTION MODEL: DTE20

DATE 23FEB77  
 TITLE: DATA PATH AND STATUS  
 SIZE CODE D CS  
 NUMBER M8552-0-DPS4  
 REV. B





DTE SLOT LOCATIONS		
TYPE	N#	SLOT
SINGLE	1	2AF0
MULTIPLE	1	2AF03
	2	2AF05
	3	2AF08
	4	2AF10

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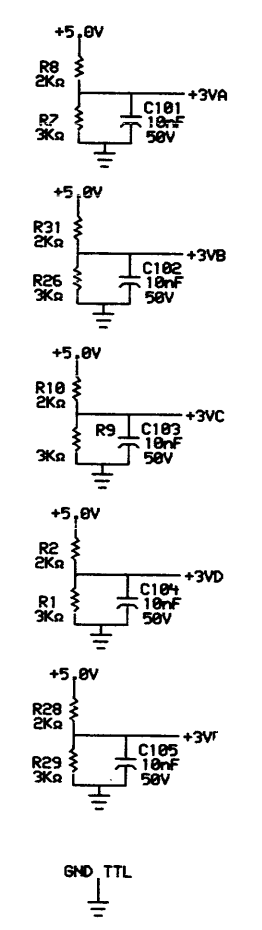
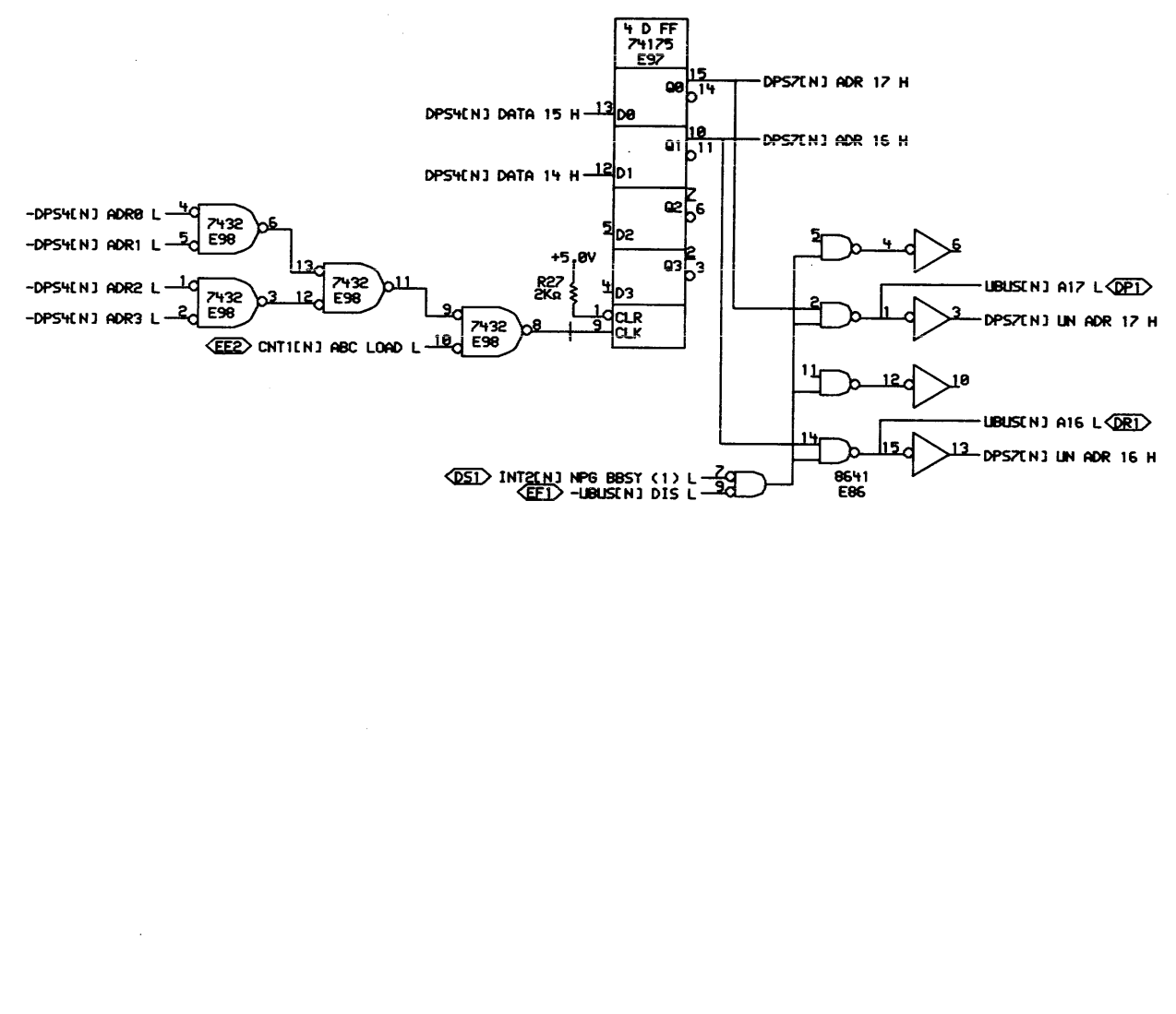
REVISIONS		DATE	BY
CHK	CHANGE NO.	REV	
		01/17	W. BRUCKERT

digital  
 DATE 10-FEB-77  
 DATE 2/17/77  
 BOARD LOCATION: 2/17/77  
 SHEET: 4 OF 8  
 FIRST USED ON OPTION/MODEL: DTE20 B-DD-M8552-0

DATE	ENG.	DATE	TITLE:
10-FEB-77	M. Guelat	23-FEB-77	DATA PATH AND STATUS
09-FEB-77			

SIZE	CODE	NUMBER	REV
D	CS	M8552-0-DP56	B

D  
 C  
 V  
 B  
 A



DTE SLOT LOCATIONS

TYPE	N=	SLOT
SINGLE	1	2AF8
MULTIPLE	1	2AF03
	2	2AF05
	3	2AF06
	4	2AF10

7 OF 8

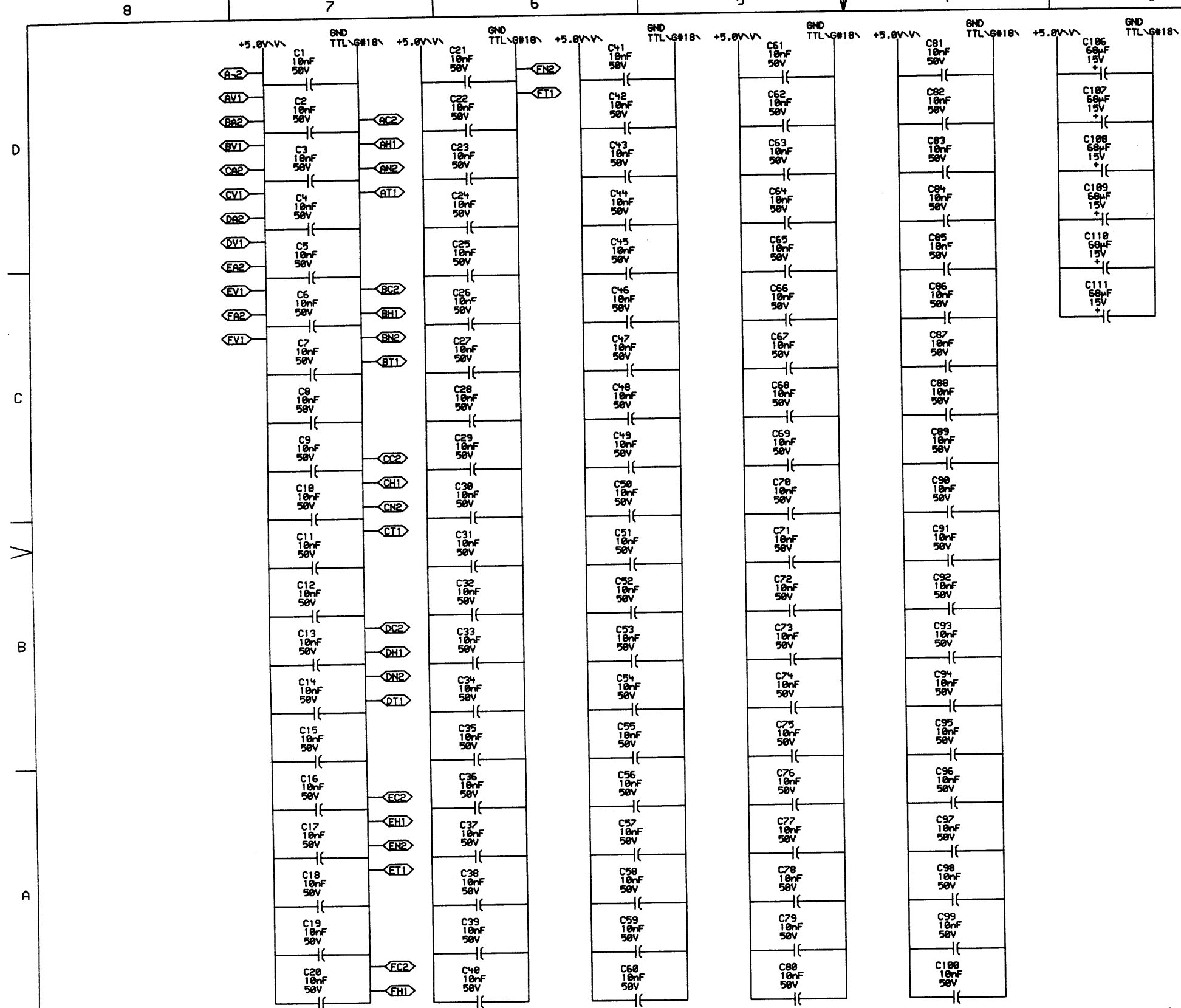
REV. D  
 NUMBER M8552-0-DPS7  
 CS  
 D

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REVISIONS		
CHK	CHANGE NO.	REV
		M8552-00005 D
		4/77
		W. BRUCKERT
		2/1/77

digital  
 DRN. J. J. J. J.  
 DATE 11-FEB-77  
 ENG. J. J. J. J.  
 DATE 2/1/77  
 BOARD LOCATION: 1 OF 1  
 SHEET 1 OF 1  
 TITLE: DATA PATH AND STATUS  
 FIRST USED ON OPTION MODEL: DTE20  
 NEXT HIGHER ASSEMBLY: B-DD-M8552-0

SIZE	CODE	NUMBER	REV.
D	CS	M8552-0-DPS7	D



- AE2 - SPARE DATA PAR EVEN
- AS2 - SPARE ADR PAR ODD
- AV2 - SPARE PAR ERR
- DH2 - SPARE PIN1 M8552 #CNJ
- FD2 - SPARE DATA1 PAR ODD
- FH2 - SPARE CAP DATA CLK

- AB2 - [B,NC,GND TTL]
- AL1 - [B,NC,GND TTL]
- BB2 - [B,NC,GND TTL]
- BL1 - [B,NC,GND TTL]
- CB2 - [B,NC,GND TTL]
- CL1 - [B,NC,GND TTL]
- DB2 - [B,NC,GND TTL]
- DL1 - [B,NC,GND TTL]
- EB2 - [B,NC,GND TTL]
- EL1 - [B,NC,GND TTL]
- FB2 - [B,NC,GND TTL]
- FL1 - [B,NC,GND TTL]
- GB1 - [B,NC,GND TTL]
- HB1 - [B,NC,GND TTL]
- CB1 - [B,NC,GND TTL]
- DB1 - [B,NC,GND TTL]
- EB1 - [B,NC,GND TTL]
- FB1 - [B,NC,GND TTL]

8 OF 8

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REVISIONS		NO.	REV.
1	W. BRUCKERT	M8552-00J05	D

	DATE: 11-FEB-77	ENG. <i>J. J. J.</i>	DATE: 23-FEB-77	TITLE: DATA PATH & STATUS PWR, CAP & GND
	DATE: 2/1/77	DRG. NO. 4.613	SHEET 1 OF 1	
FIRST USED ON OPTION MODEL: DTE20			NUMBER: B-DD-M8552-0	REV. D

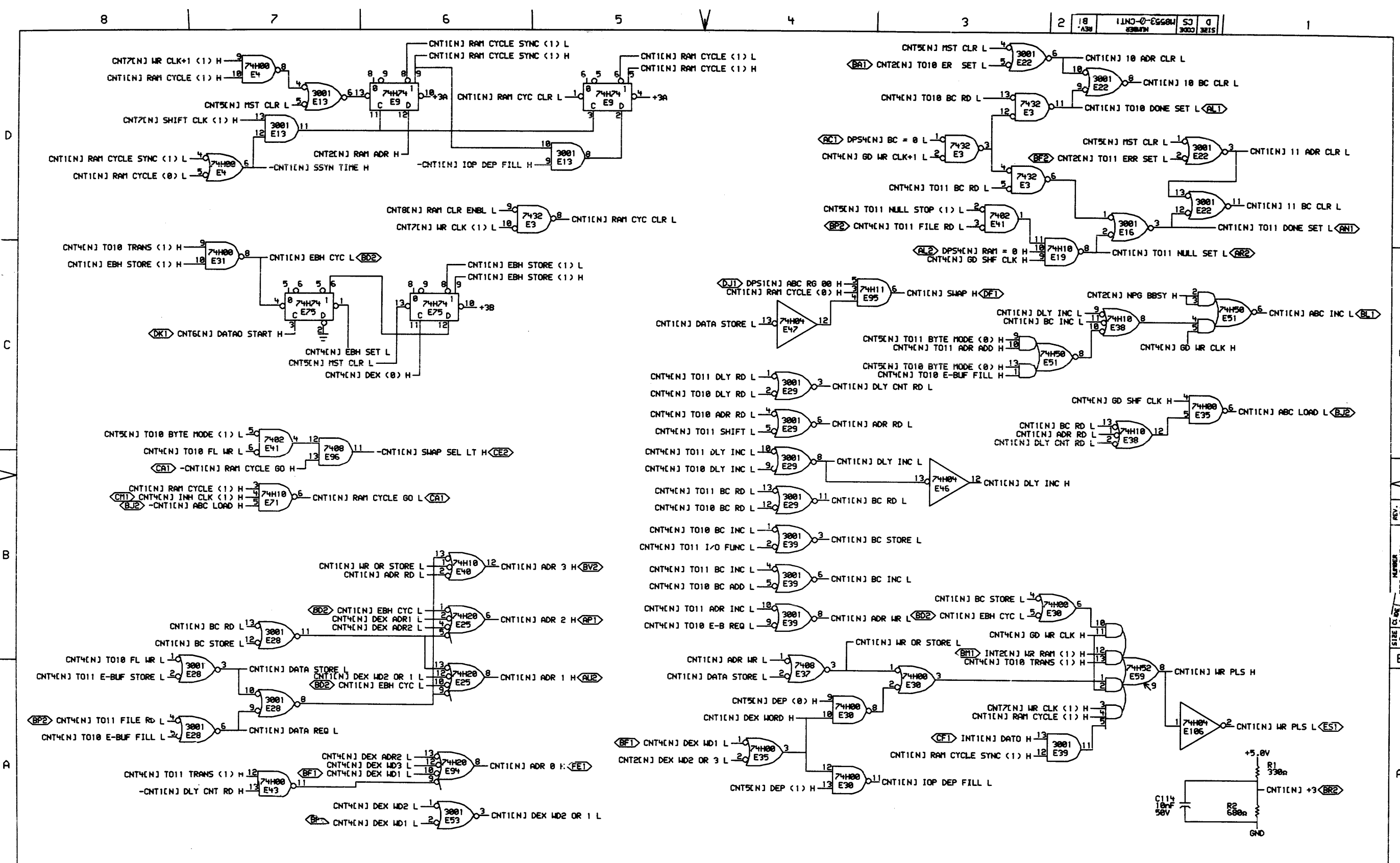
REV. D  
 NUMBER M8552-0-DP58  
 SIZE D CS

428









REVISIONS		DATE		TITLE	
CHK	CHANGE NO.	REV	DATE	NO.	DESCRIPTION
		1	12/14/75	1	INITIAL DESIGN
		2	12/14/75	2	REVISED FOR MANUFACTURE

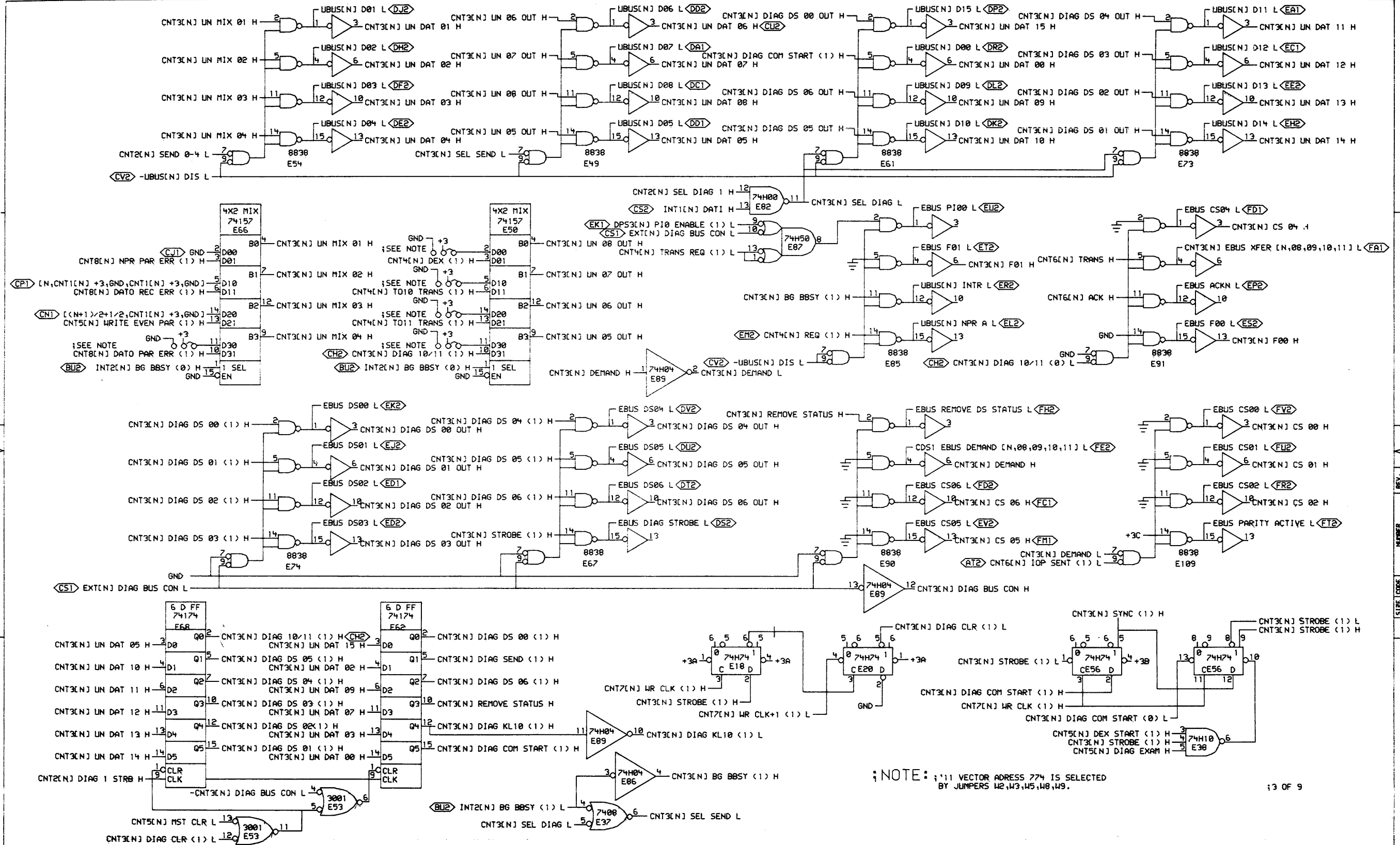
  

digital	DATE: 12-14-75	ENG: B. Bruckert	DATE: 12/14/75	TITLE: DTE20 CONTROL LOGIC
CNTIX.DRAW.4.4261	12/14/75	12/14/75	1	SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: KL10	12-DEC-75 14:00	NEXT HIGHER ASSEMBLY: B-DD-M8553-0		NUMBER: M8553-0-CNT1

431

5205 2





NOTE: '11 VECTOR ADDRESS 774 IS SELECTED BY JUMPERS W2, W3, W5, W8, W9.

REVISIONS		REVISIONS	
CHK	CHANGE NO.	REV	CHK

REVISIONS		REVISIONS	
CHK	CHANGE NO.	REV	CHK

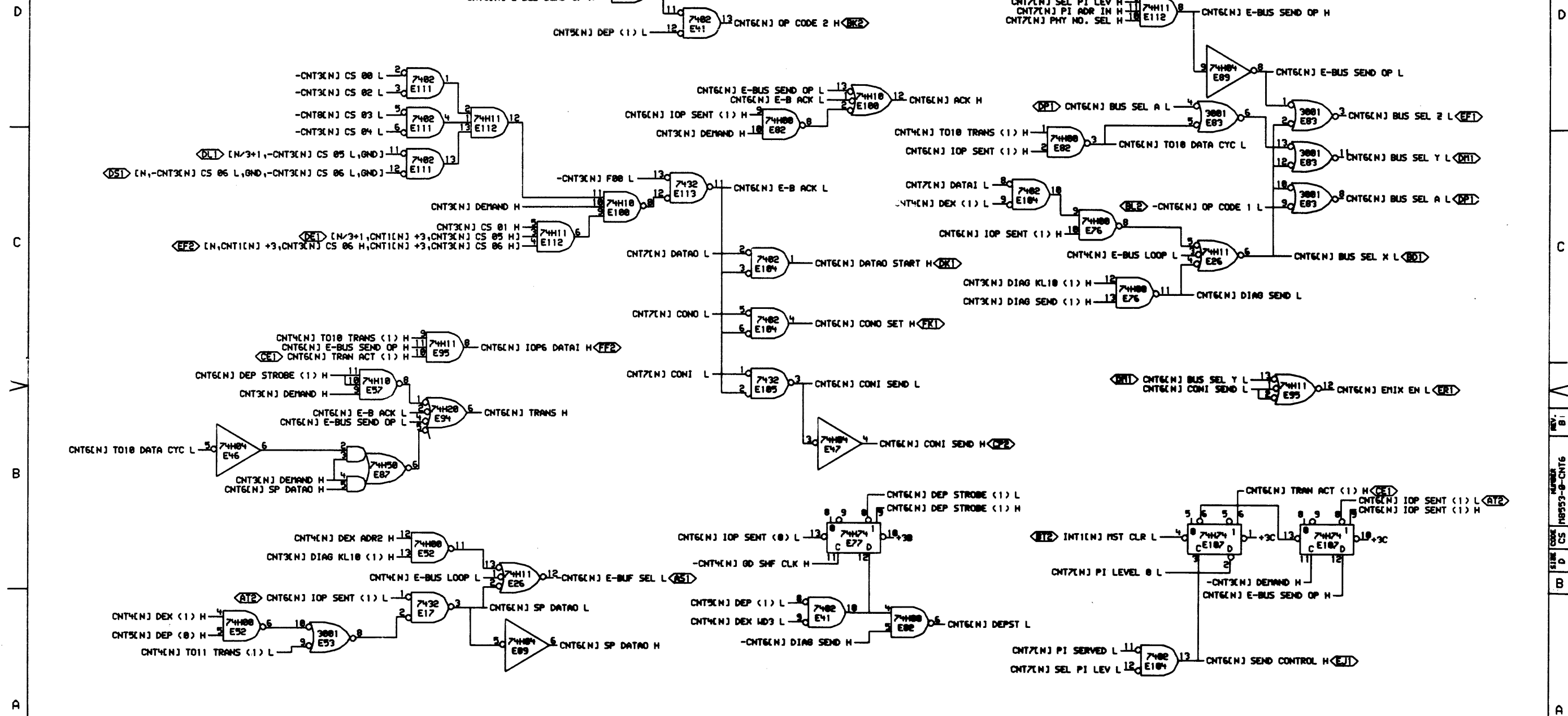
digital	DATE	ENG.	DATE	TITLE:
	3/23/75	W. Bruckert	6/6/75	DTE20 CONTROL LOGIC
	DATE	BOARD LOCATION:		
	120 MAY-75 15:25	3/23/75		

433









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REVISIONS		DATE	BY	REASON
1		11/11/75	B	INITIAL DESIGN
2		12/11/75	B	REVISED FOR KL10
3		1/11/76	B	REVISED FOR KL10
4		1/11/76	B	REVISED FOR KL10
5		1/11/76	B	REVISED FOR KL10
6		1/11/76	B	REVISED FOR KL10
7		1/11/76	B	REVISED FOR KL10
8		1/11/76	B	REVISED FOR KL10

**digital** *John J. ...*

DATE: 12/11/75  
 ENG: [Signature]  
 DATE: 12/11/75  
 ENG: [Signature]

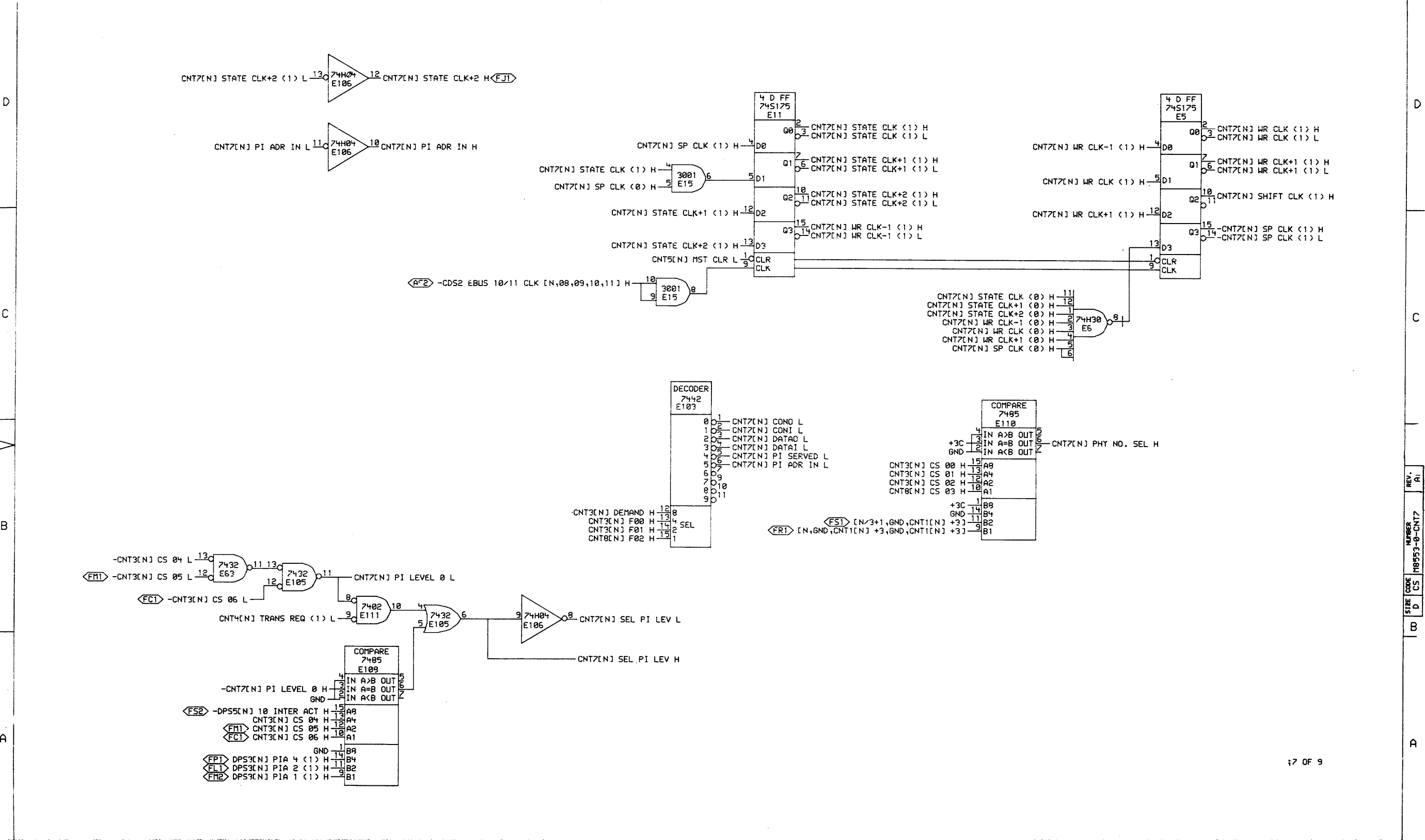
TITLE: DTE20 CONTROL LOGIC

SIZE: D CS  
 CODE: M8553-0-CNT6  
 NUMBER: 18  
 REV: B1

FIRST USED ON OPTION MODEL: KL10  
 NEXT HIGHER ASSEMBLY: B-DD-M8553-0

436





17 OF 9

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CHG	CHANGE NO.	REV	DATE	BY																				
01	1	A	5/11/77	W. BRUCKET																				
02	2	A	7/10/78	W. BRUCKET																				
<p>437</p>		<p>W. BRUCKET</p>	<p>8553-00002 A</p>	<p>8553-00008 AI</p>	<p>DATE: 5/23/75</p>	<p>DATE: 6/5/75</p>	<p>BOARD LOCATION:</p>	<p>SHEET 1 OF 1</p>	<p>SIZE CODE: D CS</p>	<p>NUMBER: M8553-0-CNT7</p>	<p>REV. AI</p>													
<p>8 7 6 5 4 3 2 1</p>		<p>FIRST USED ON OPTION/MODEL: KL10</p>		<p>NEXT HIGHER ASSEMBLY: B-DD-M8553-0</p>		<p>SIZE CODE: D CS</p>		<p>NUMBER: M8553-0-CNT7</p>		<p>REV. AI</p>														

REV. AI  
NUMBER M8553-0-CNT7  
SIZE CODE CS  
D

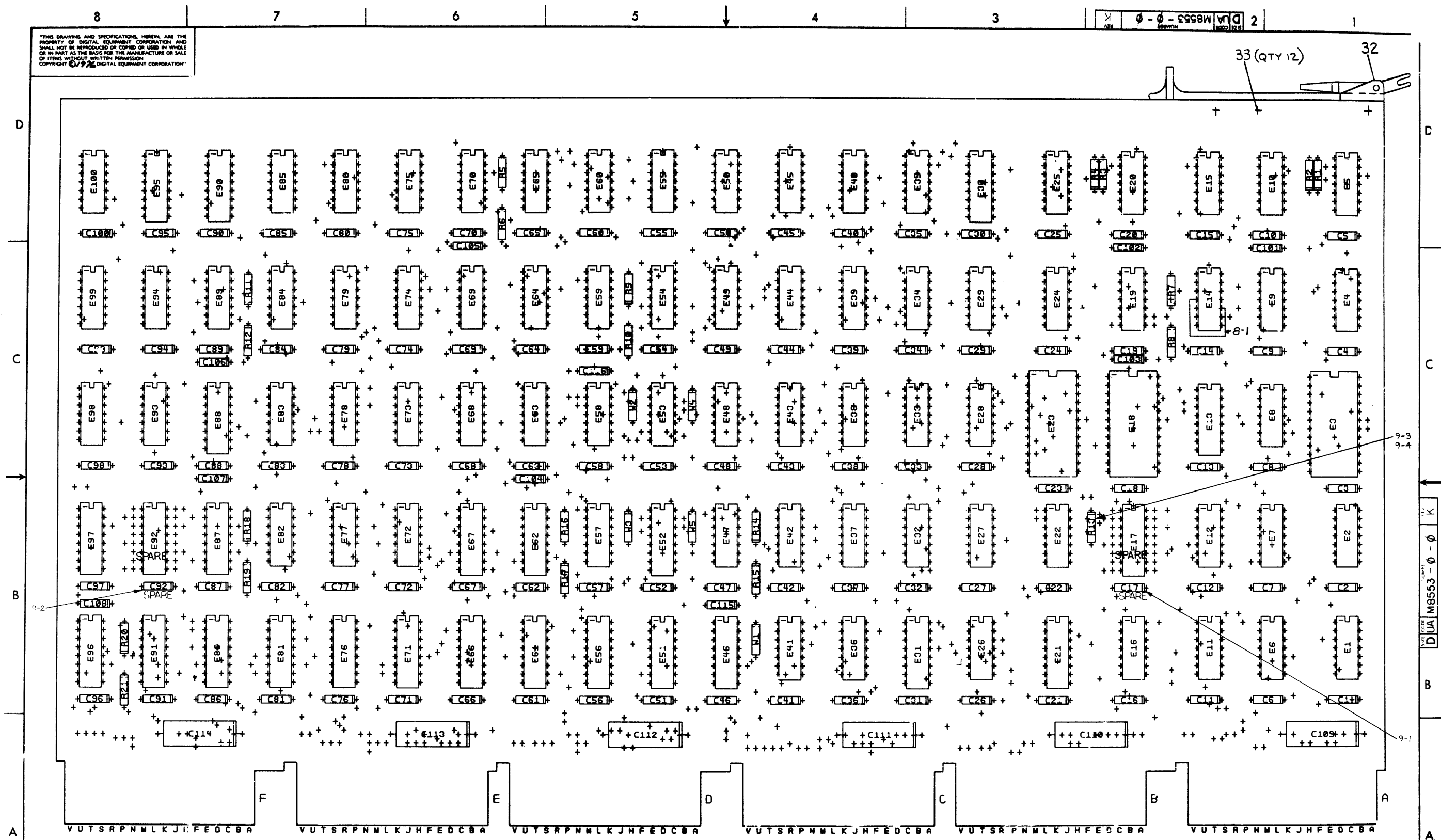




CUSTOMER PRINT SET		REVISION CONTROL SHEET						
MFG SET	DRAWING NO	NO OF SHT	DESCRIPTION	OPTION NO/FILE DATE	REVISIONS			
					NEW	LAYOUT	VERSION	
		-	MODULE REVISION		K	L	L	
	D-UA-M8553-0-0	7	10/11 BUS AND DATA CONTROL		J	K	K	
	D-CS-M8553-0-CNT1	1	DTE20 CONTROL LOGIC		C	C	C	
	D-CS-M8553-0-CNT2	1	DTE20 CONTROL LOGIC		D	E	E	
	D-CS-M8553-0-CNT3	1	DTE20 CONTROL LOGIC		B	B	B	
	D-CS-M8553-0-CNT4	1	DTE20 CONTROL LOGIC		E	E	E	
	D-CS-M8553-0-CNT5	1	DTE20 CONTROL LOGIC		C	C	C	
	D-CS-M8553-0-CNT6	1	DTE20 CONTROL LOGIC		C	C	C	
	D-CS-M8553-0-CNT7	1	DTE20 CONTROL LOGIC		B	B	B	
	D-CS-M8553-0-CNT8	1	DTE20 CONTROL LOGIC		D	D	D	
	D-CS-M8553-0-CNT9	1	DTE20 CONTROL LOGIC PWR, CAP, AND GND		B	C	C	
	K-PC-M8553-0-DBC	1	P.C. DESIGN DATA BASE		E	E	F	
	D-AH-M8553-0-5	4	10/11 BUS AND DATA CONTROL		D	D	D	
	B-MH-M8553-0-6	1	MODULE ECO HISTORY		REF	REF	REF	
	5010514	-	ETCH CIRCUIT BOARD		E	E	E	
	POO-M8553-00		PROCESS SHEET (REF ONLY)		-	-	-	
CUSTOMER PRINT SET CODES	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED				ECO NO	00008	00009	MR010
TITLE					SHEET 3 of 3		REV	
10/11 BUS AND DATA CONTROL					SIZE CODE	NUMBER	L	
					B	DD M8553-0		

MR

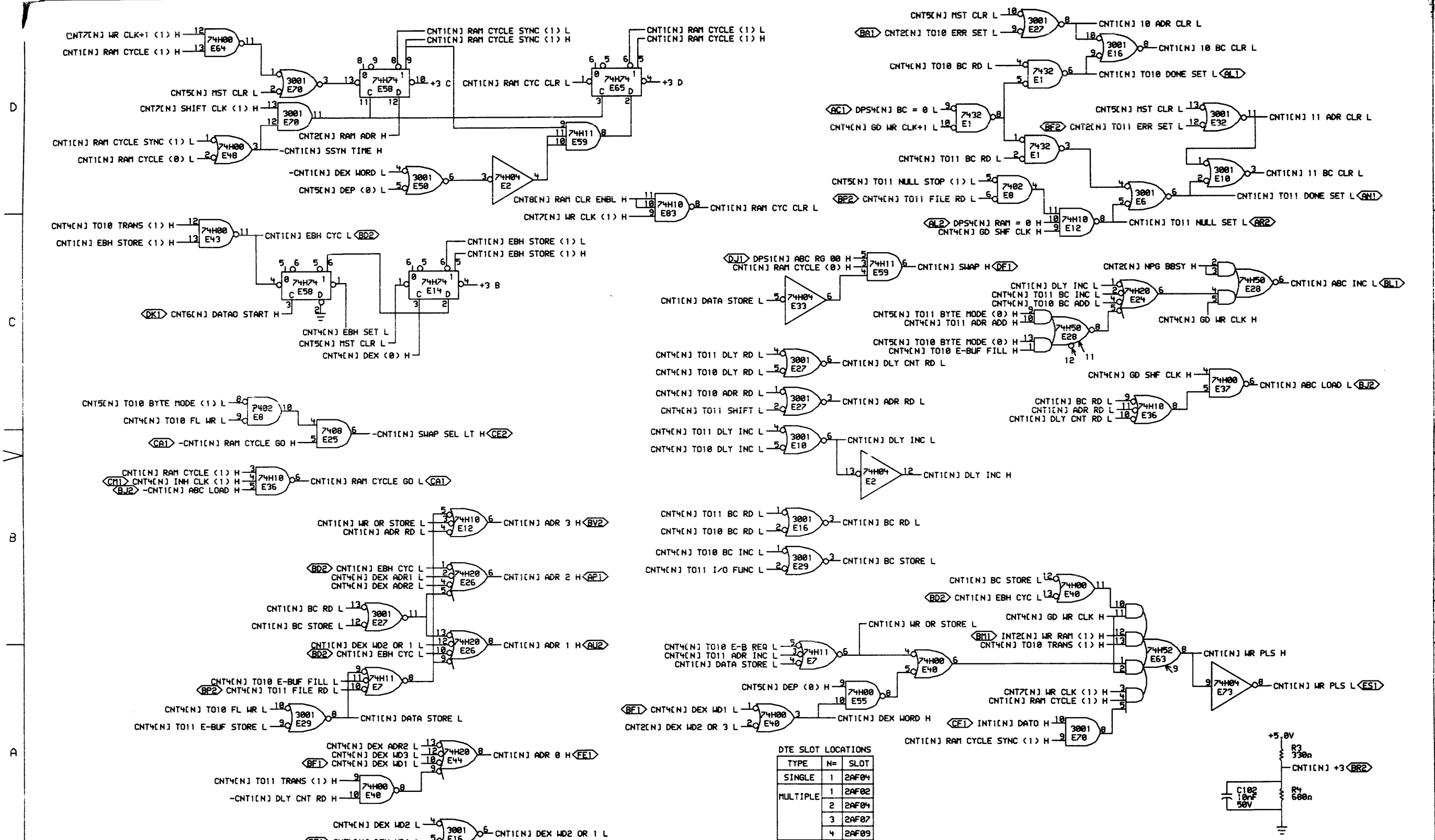
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REVISIONS		
CHK	CHANGE NO	REV

TITLE	10/11 BUS AND DATA CONTROL	SIZE/CODE	DUA	NUMBER	M8553-0-0	REV.	K
SCALE	2/1	SHEET	2 OF 5	DIST.			

44



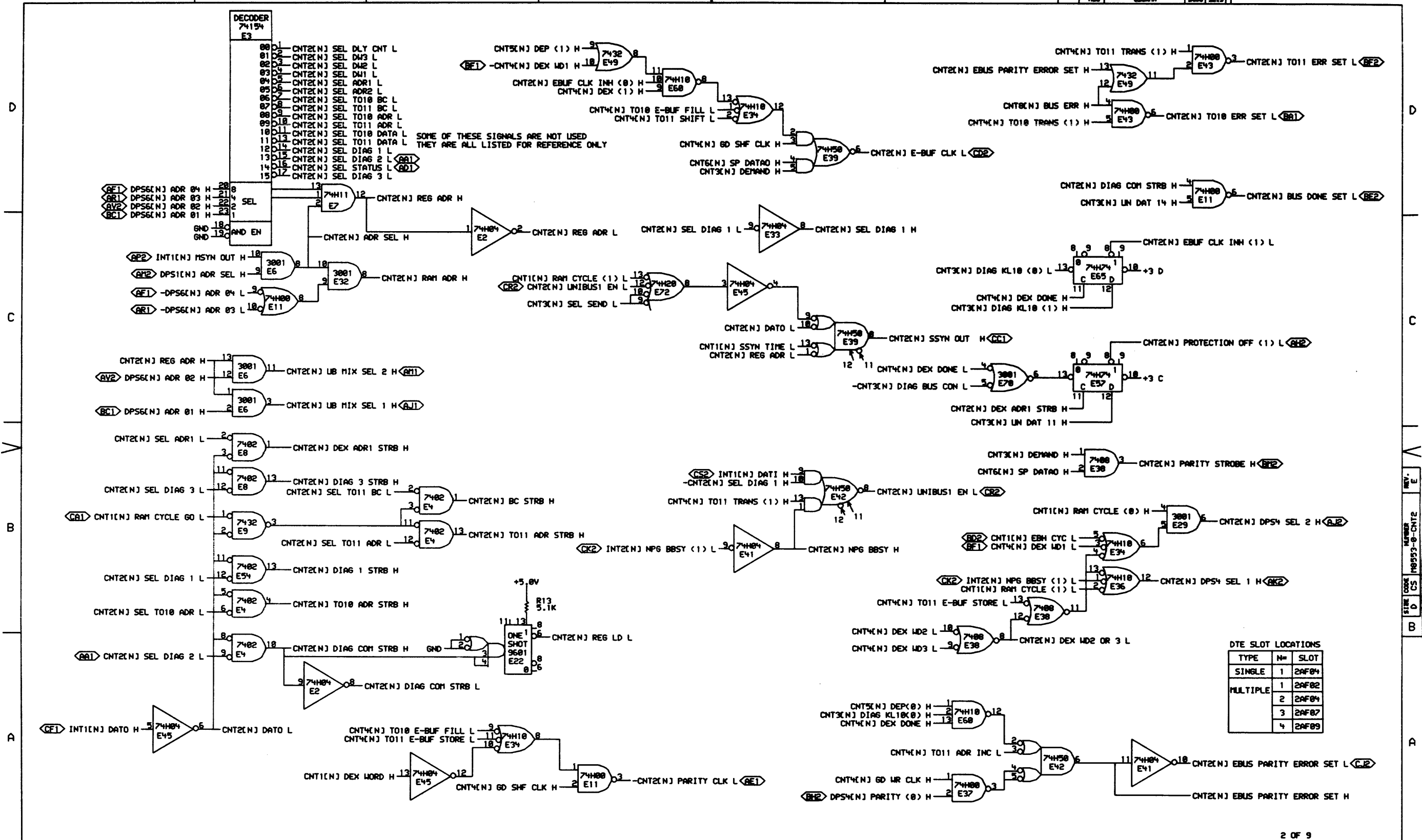
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REVISIONS		
CHK	CHANGE NO.	REV

DATE	23-FEB-77	ENG	J. J. Gaudin
DATE	2/23/77	DATE	2/23/77
DATE	2/23/77	DATE	2/23/77
DATE	2/23/77	DATE	2/23/77

TITLE:	DTE20 CONTROL LOGIC		
SIZE	D	CODE	CS
NUMBER	M8553-0-CNT1		
REV.	C		

442



DTE SLOT LOCATIONS

TYPE	N#	SLOT
SINGLE	1	2AF04
MULTIPLE	1	2AF02
	2	2AF04
	3	2AF07
	4	2AF09

REVISIONS

CHK	CHANGE NO.	REV

W. BECKETT  
8-7-77

digital

DATE ENG. 87-JUN-77  
DATE DESIGNED 5/17/77  
DATE CHECKED 5/17/77

TITLE: DTE20 CONTROL LOGIC

SIZE CODE D CS M8553-0-CNT2

NUMBER 1

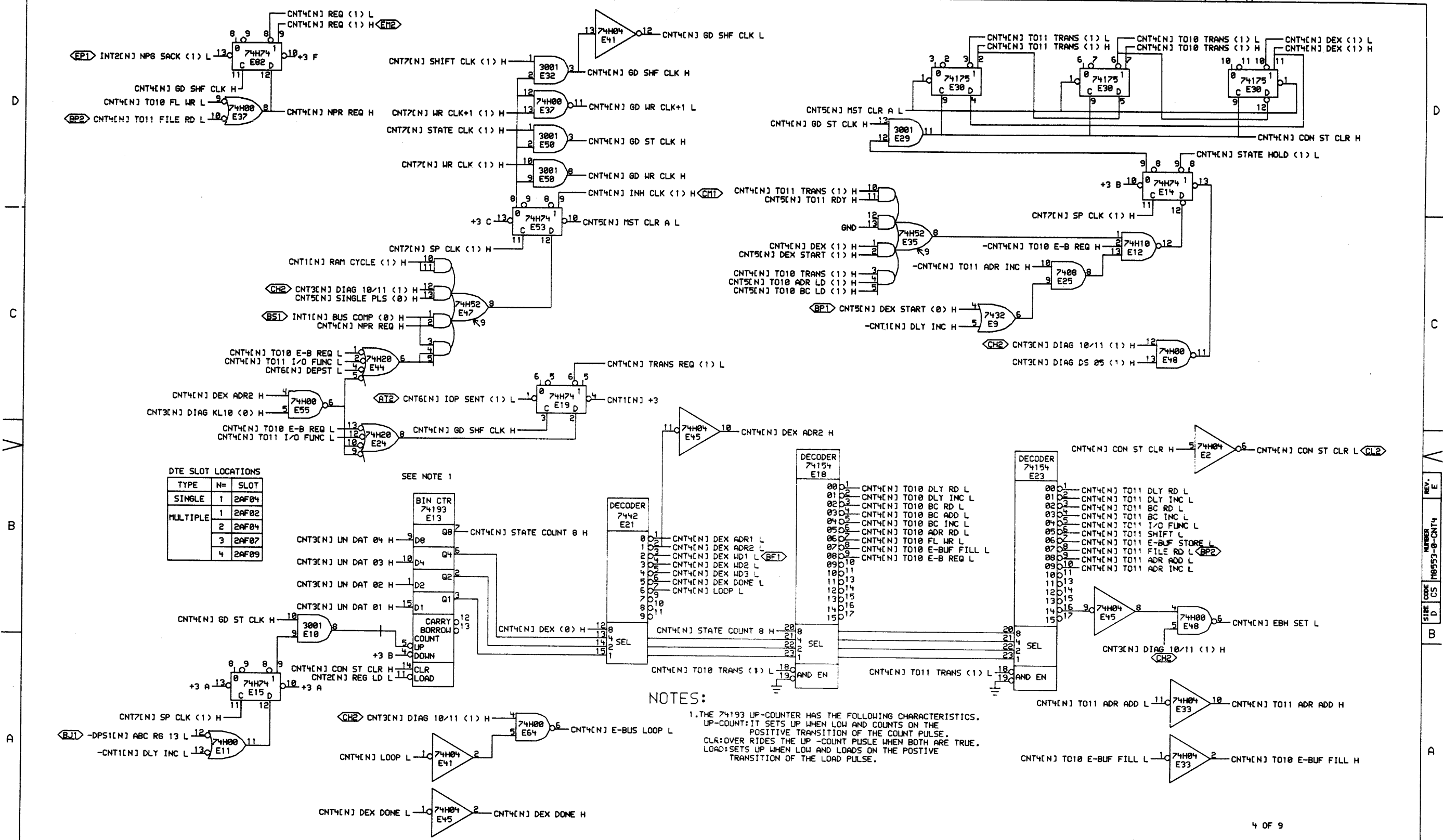
REV. E

FIRST USED ON OPTION MODEL: KL10 B-DD-M8553-0

443







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REVISIONS	DATE	BY	CHK	CHANGE NO.	REV
	11-23-77	W. BRUCKERT			

**digital**  
DR. J. Lashby  
DATE 11-FEB-77  
DATE 2/1/77  
DATE 2/1/77  
DATE 2/1/77

ENG	DATE	DATE	TITLE:
W. BRUCKERT	11-FEB-77	23-FEB-77	DTE20 CONTROL LOGIC
DATE	DATE	DATE	DATE
11-FEB-77	09-FEB-77	09-FEB-77	09-FEB-77
DATE	DATE	DATE	DATE
11-FEB-77	09-FEB-77	09-FEB-77	09-FEB-77
DATE	DATE	DATE	DATE
11-FEB-77	09-FEB-77	09-FEB-77	09-FEB-77
DATE	DATE	DATE	DATE
11-FEB-77	09-FEB-77	09-FEB-77	09-FEB-77
DATE	DATE	DATE	DATE
11-FEB-77	09-FEB-77	09-FEB-77	09-FEB-77

SIZE	CODE	NUMBER	REV.
D	CS	M8553-0-CNT4	E

445





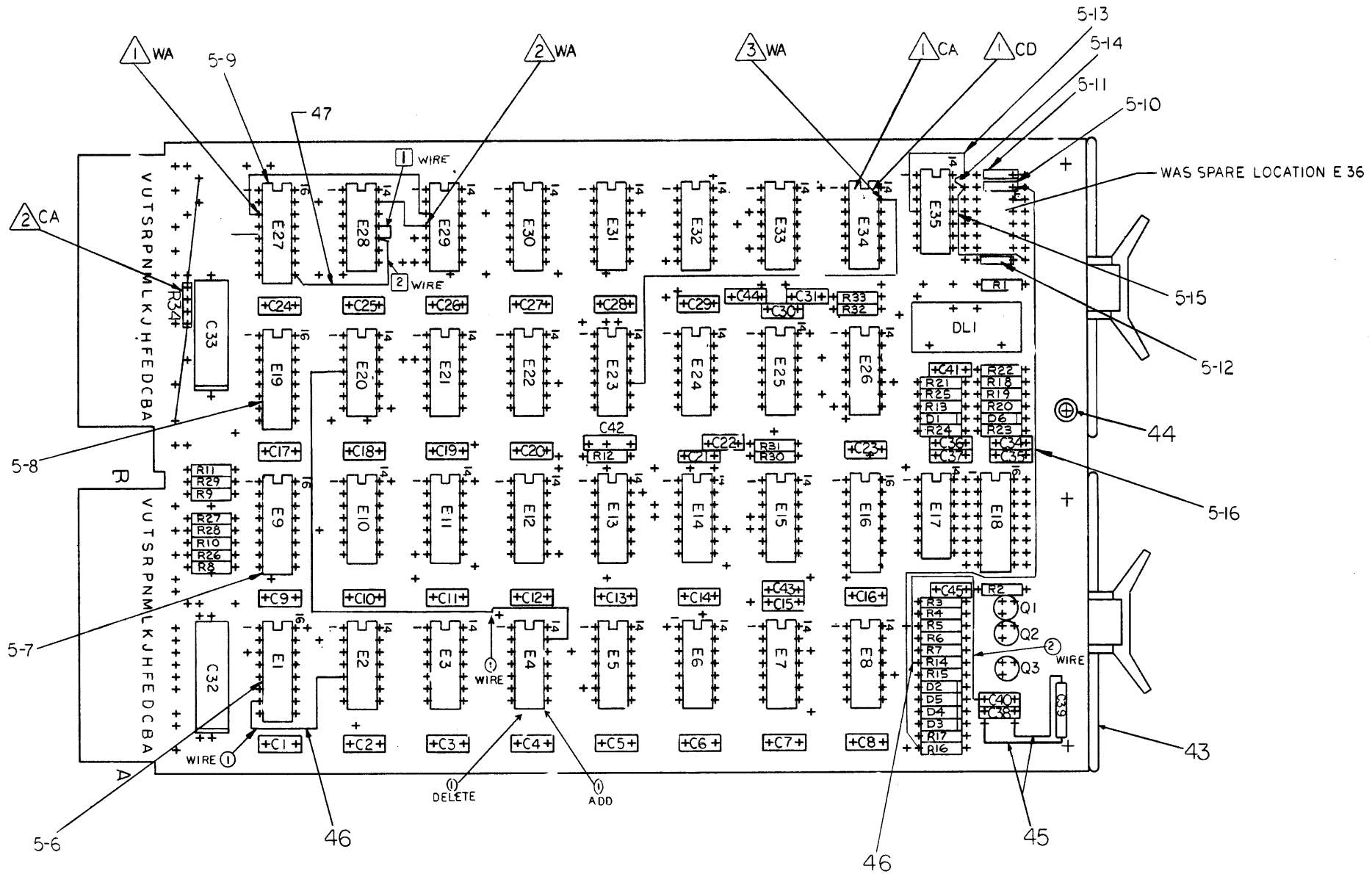








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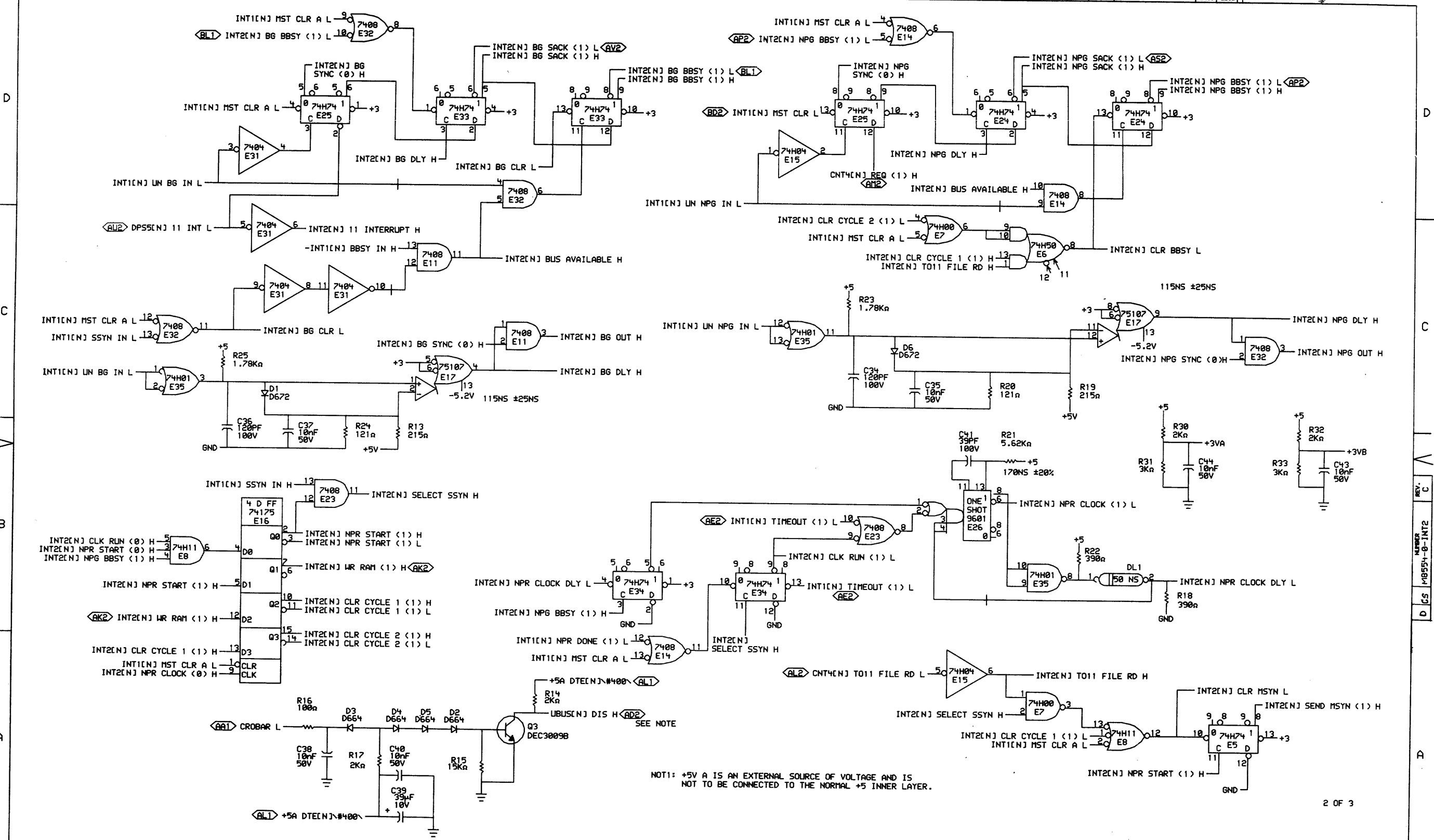
REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE CODE	NUMBER	REV.
11/10 BUS DATA CONTROL	D UA	M8554-0-0	E
SCALE 2/1	SHEET 2 OF 5	DIST.	

452







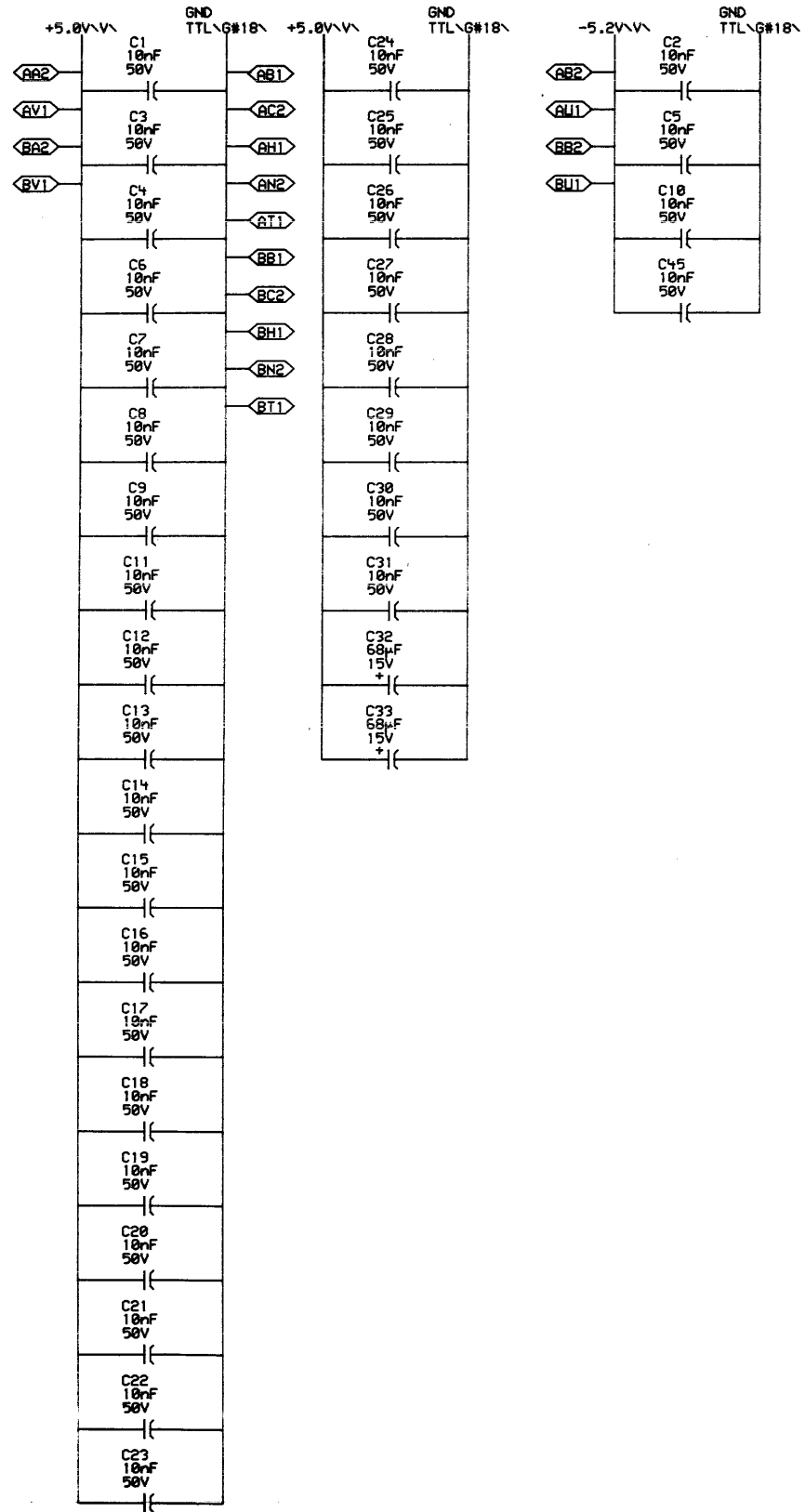
NOT1: +5V A IS AN EXTERNAL SOURCE OF VOLTAGE AND IS NOT TO BE CONNECTED TO THE NORMAL +5 INNER LAYER.

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REVISIONS	
CHK	CHANGE NO. REV
MS	11/28/78
BALES	11/28/78

digital	DATE	ENG.	DATE	TITLE:
	01-FEB-78	E. C. C.	11/28/78	UNIBUS INTERRUPT CONTROL
INT2EX.DPL 4.6153	DATE	BOARD LOCATION:	NUMBER	
FIRST USED ON OPTION MODEL:	08-NOV-77 09:33	11/28/78	D C5 M8554-0-INT2	
KL10	NEXT HIGHER ASSEMBLY:		SIZE	CODE
	B-DD-M8554-0		D	C5
			REV.	C

454



— SPARE PIN1 M8554 #[N] AT2  
 — SPARE PIN2 M8554 #[N] BH2  
 — SPARE PIN3 M8554 #[N] BU2  
 — SPARE PIN4 M8554 #[N] BV2

3 OF 3

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REVISIONS		
CHK	CHANGE NO.	REV

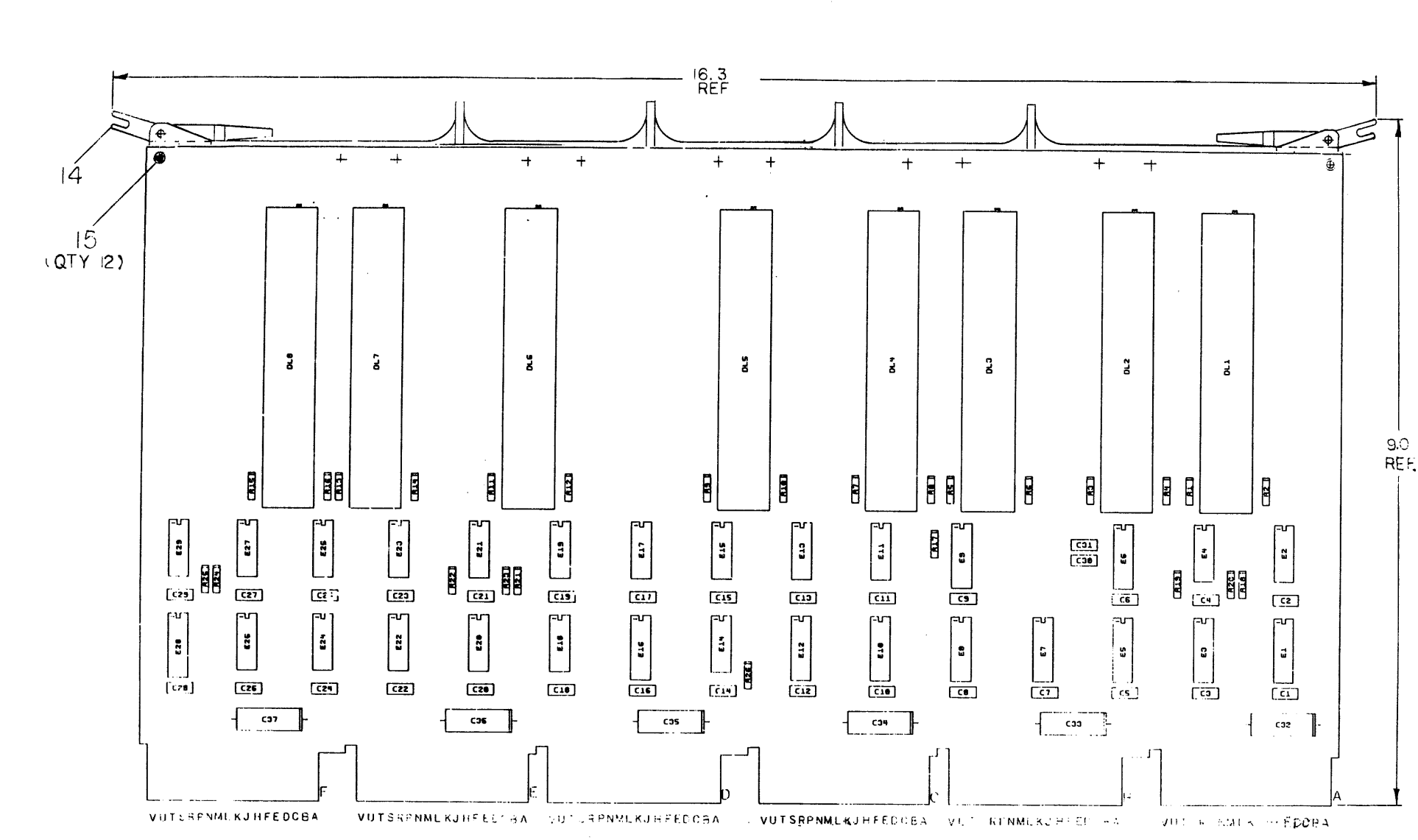
digital	DATE: 31-OCT-77	ENG: [Signature]	DATE: 4-20-77	TITLE: UNIBUS INTERRUPT POWER AND GROUND
CHK'D: [Signature]	DATE: [Signature]	BOARD LOCATION: [Signature]	SHEET: 1 OF 1	
INT 3 EX. DRW 4.615.1	31-OCT-77 11:39	NEXT HIGHER ASSEMBLY: B-DD-M8554-0	SIZE CODE: D CS	NUMBER: M8554-0-INT3
FIRST USED ON OPTION/MODEL: KL10				REV. C



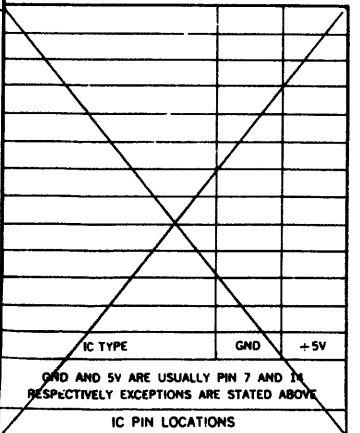
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**NOTES:**

- FOR DRAWING DIRECTORY REFER TO: 8-DD-M8559-Ø
- UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY  
 PACKAGE TYPE VCC GND  
 16 PIN DIP 16 8  
 14 PIN DIP 14 7



QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1		ETCHED CIRCUIT BOARD	5010650	1
6	C32 THRU C37	CAP. 68UF 10% 15V TANT.	1000082	2
31	C1 THRU C31	CAP. 10NF 20% 100V DISC	1001610-00	3
16	R1 THRU R16	RES. 300 5% 1/4W	1301425	4
10	R17 THRU R26	RES. 39 5% 1/4W	1302377	5
11	E1, E3, E5 THRU E10, E12, E16, E28	RES. PACK	1311003-1	6
8	DL1 THRU DL8	DELAY LINE 80NS	1610079	7
4	E2, E11, E15, E19	I.C. DEC 1074H40	1910469	8
1	E13	I.C. DEC 7402	1909004	9
4	E19, E20, E22, E24	I.C. DEC 1074H00	1910482	10
2	E14, E17	I.C. DEC 1074H30	1910468	11
3	E4, E21, E27	I.C. DEC 1074H11	1910465	12
4	E23, E25, E26, E29	I.C. DEC 7438	1911219	13
1		HANDLE ASSY.	1210711-2	14
12		EYELET, HANDLE	9006732	15
A R		#30 AWG WIRE WRAP WIRE WHITE	8105740-99	16

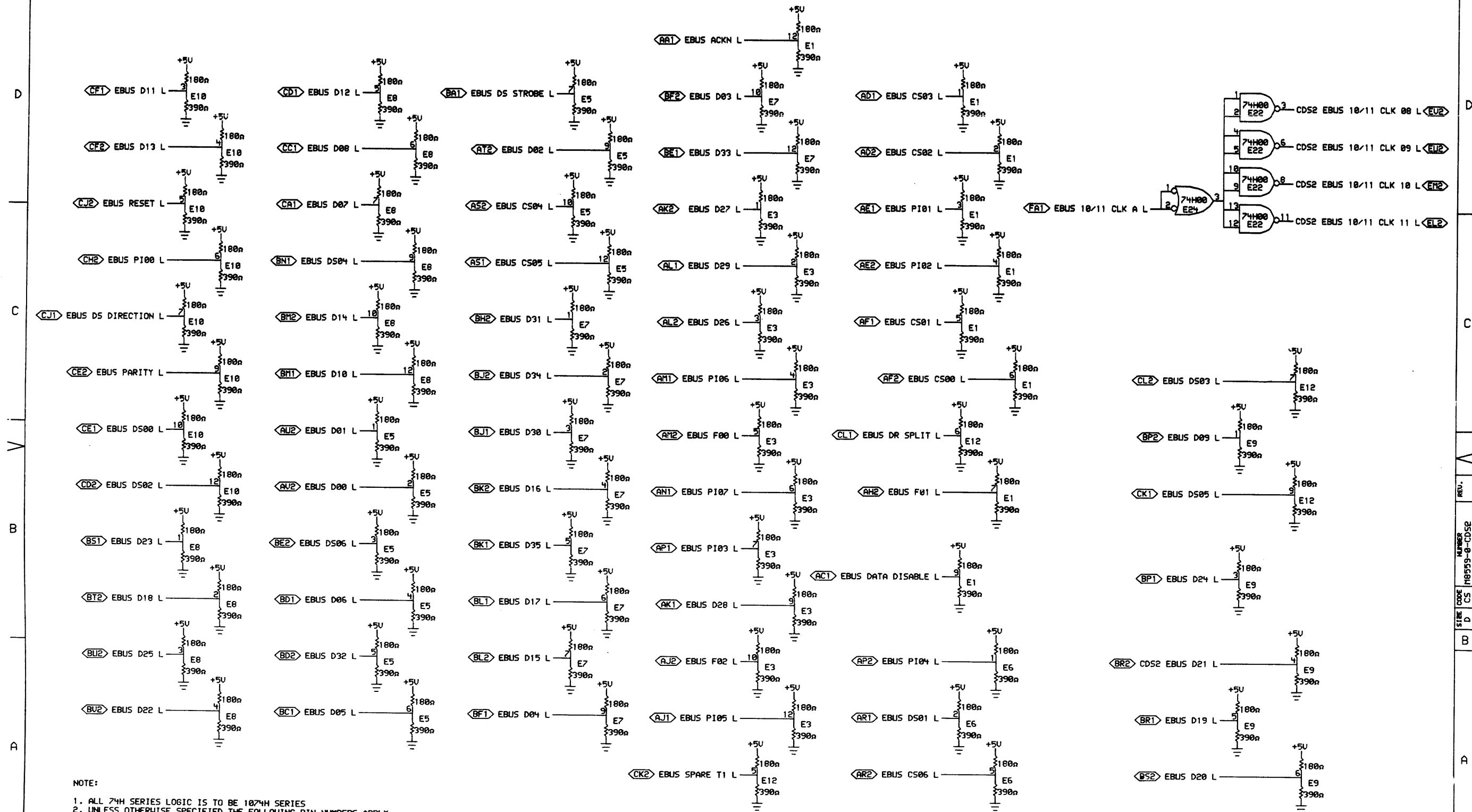


IC PIN LOCATIONS

FIRST USED ON OPTION MODEL		PARTS LIST	
KL1Ø		ETCI BOARD-REV.	
DRN.	DATE	 TITLE <b>I/O BOX CLOCK DISTRIBUTION</b> SIZE CODE NUMBER REV. <b>DUA M8559-Ø-Ø</b>	
ENR'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PRD.	DATE		
NEXT HIGHER ASSY		SCALE NONE	
B-DD-M8559-Ø		SHEET OF	
DEC NO.	EIA NO.	DEC NO.	EIA NO.
SEMICONDUCTOR CONVERSION CHART			

REV. Ø  
 NUMBER  
 M8559-Ø  
 SIZE CODE  
 DUA





NOTE:  
 1. ALL 74H SERIES LOGIC IS TO BE 1074H SERIES  
 2. UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY  
 PACKAGE TYPE UCC GND  
 16 PIN DIP 16 8  
 14 PIN DIP 14 7

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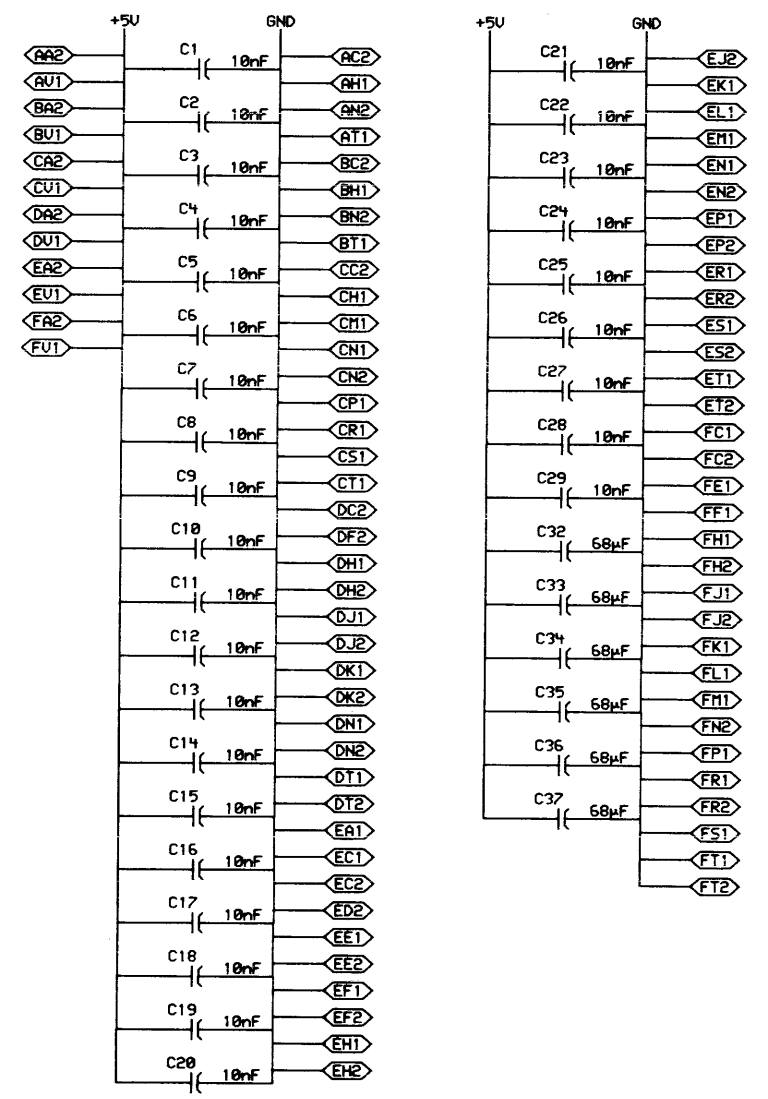
REVISIONS		
CHK	CHANGE NO.	REV.

digital  
 CDS2E10,426 J

DRN: *DMP*  
 DATE: *10/13/74*  
 ENG: *John M. An*  
 DATE: *9/13/74*  
 CHECKED: *[Signature]*  
 SHEET: 1 OF 1

TITLE: I/O BOX CLOCK DISTRIBUTION  
 SIZE CODE NUMBER REV. D CS M8559-0-CD52

454



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REVISIONS	
CHK	CHANGE NO. / REV.

digital	DRN. <i>Smith</i>	DATE 13-SEP-74	ENG. <i>Sultan</i>	DATE 7/16/74	TITLE: I/O BOX CLOCK DISTRIBUTION
	CHK. <i>Smith</i>	DATE 13-SEP-74	BOARD LOCATION: 21A	SHEET 1 OF 1	SIZE CODE NUMBER REV. D CS M8559-0-CDS3
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8559-0			

SIZE CODE NUMBER REV.  
 D CS M8559-0-CDS3

460





- |     |                                   |     |                                   |
|-----|-----------------------------------|-----|-----------------------------------|
| AA1 | UBUSCN] INIT LVS                  | BA1 | UBUSCN] BG 6 IN HVS               |
| AA2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BA2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AB1 | UBUSCN] INTR LVS                  | BB1 | UBUSCN] BG 5 IN HVS               |
| AB2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BB2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AC1 | UBUSCN] D00 LVS                   | BC1 | UBUSCN] BR 5 LVS                  |
| AC2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BC2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AD1 | UBUSCN] D02 LVS                   | BD1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AD2 | UBUSCN] D01 LVS                   | BD2 | UBUSCN] BR 4 LVS                  |
| AE1 | UBUSCN] D04 LVS                   | BE1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AE2 | UBUSCN] D03 LVS                   | BE2 | UBUSCN] BG 4 IN HVS               |
| AF1 | UBUSCN] D06 LVS                   | BF1 | UBUSCN] ACLO LVS                  |
| AF2 | UBUSCN] D05 LVS                   | BF2 | UBUSCN] DCLJ LVS                  |
| AH1 | UBUSCN] D08 LVS                   | BH1 | UBUSCN] A01 LVS                   |
| AH2 | UBUSCN] D07 LVS                   | BH2 | UBUSCN] A00 LVS                   |
| AJ1 | UBUSCN] D10 LVS                   | BJ1 | UBUSCN] A03 LVS                   |
| AJ2 | UBUSCN] D09 LVS                   | BJ2 | UBUSCN] A02 LVS                   |
| AK1 | UBUSCN] D12 LVS                   | BK1 | UBUSCN] A05 LVS                   |
| AK2 | UBUSCN] D11 LVS                   | BK2 | UBUSCN] A04 LVS                   |
| AL1 | UBUSCN] D14 LVS                   | BL1 | UBUSCN] A07 LVS                   |
| AL2 | UBUSCN] D13 LVS                   | BL2 | UBUSCN] A06 LVS                   |
| AM1 | UBUSCN] PA LVS                    | BM1 | UBUSCN] A09 LVS                   |
| AM2 | UBUSCN] D15 LVS                   | BM2 | UBUSCN] A08 LVS                   |
| AN1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BN1 | UBUSCN] A11 LVS                   |
| AN2 | UBUSCN] PB LVS                    | BN2 | UBUSCN] A10 LVS                   |
| AP1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BP1 | UBUSCN] A13 LVS                   |
| AP2 | UBUSCN] BBUSY LVS                 | BP2 | UBUSCN] A12 LVS                   |
| AR1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BR1 | UBUSCN] A15 LVS                   |
| AR2 | UBUSCN] SACK LVS                  | BR2 | UBUSCN] A14 LVS                   |
| AS1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BS1 | UBUSCN] A17 LVS                   |
| AS2 | UBUSCN] NPR LVS                   | BS2 | UBUSCN] A16 LVS                   |
| AT1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BT1 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |
| AT2 | UBUSCN] BR 7 LVS                  | BT2 | UBUSCN] C1 LVS                    |
| AU1 | UBUSCN] NPG IN HVS                | BU1 | UBUSCN] S5YN LVS                  |
| AU2 | UBUSCN] BR 6 LVS                  | BU2 | UBUSCN] C0 LVS                    |
| AV1 | UBUSCN] BG 7 IN HVS               | BV1 | UBUSCN] M5YN LVS                  |
| AV2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] | BV2 | [N/3+1,GND 2HJ4-BVG,GND 2KL4-BVG] |

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REVISIONS		
CHK	CHANGE NO.	REV

digital

DRN. *J. J. J.*  
 DATE 02-MAR-76  
 ENG. *J. J. J.*  
 DATE 05-MAR-76  
 BOARD LOCATION: 1 OF 1  
 SHEET 1 OF 1

TITLF. UNIBUS CABLE IN

UBCI, DRW 4, 426] 127-FEB-76 10:42 NEXT HIGH-ASSEMBLY.  
 FIRST USED ON OPTION/MODEL: KL10 B-DD-KL10-C

SIZE CODE	NUMBER	REV.
D CS	KL10-C-UBCI	

REV. 1  
 NUMBER KL10-C-UBCI  
 SIZE CODE D CS

- |     |                                   |     |                                   |
|-----|-----------------------------------|-----|-----------------------------------|
| AA1 | UBUSCN) INIT LVC                  | BA1 | UBUSCN) B6 6 OUT HVC              |
| AA2 | [N/3+1,GND 2 14-8V6,GND 2KL4-8V6] | BA2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AB1 | UBUSCN) INTR LVC                  | BB1 | UBUSCN) B6 5 OUT HVC              |
| AB2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BB2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AC1 | UBUSCN) D00 LVC                   | BC1 | UBUSCN) BR 5 LVC                  |
| AC2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BC2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AD1 | UBUSCN) D02 LVC                   | BD1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AD2 | UBUSCN) D01 LVC                   | BD2 | UBUSCN) BR 4 LVC                  |
| AE1 | UBUSCN) D04 LVC                   | BE1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AE2 | UBUSCN) D03 LVC                   | BE2 | UBUSCN) B6 4 OUT HVC              |
| AF1 | UBUSCN) D06 LVC                   | BF1 | UBUSCN) ACLO LVC                  |
| AF2 | UBUSCN) D05 LVC                   | BF2 | UBUSCN) DCLO LVC                  |
| AH1 | UBUSCN) D08 LVC                   | BH1 | UBUSCN) A01 LVC                   |
| AH2 | UBUSCN) D07 LVC                   | BH2 | UBUSCN) A00 LVC                   |
| AJ1 | UBUSCN) D10 LVC                   | BJ1 | UBUSCN) A03 LVC                   |
| AJ2 | UBUSCN) D09 LVC                   | BJ2 | UBUSCN) A02 LVC                   |
| AK1 | UBUSCN) D12 LVC                   | BK1 | UBUSCN) A05 LVC                   |
| AK2 | UBUSCN) D11 LVC                   | BK2 | UBUSCN) A04 LVC                   |
| AL1 | UBUSCN) D14 LVC                   | BL1 | UBUSCN) A07 LVC                   |
| AL2 | UBUSCN) D13 LVC                   | BL2 | UBUSCN) A06 LVC                   |
| AM1 | UBUSCN) PA LVC                    | BM1 | UBUSCN) A09 LVC                   |
| AM2 | UBUSCN) D15 LVC                   | BM2 | UBUSCN) A08 LVC                   |
| AN1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BN1 | UBUSCN) A11 LVC                   |
| AN2 | UBUSCN) PB LVC                    | BN2 | UBUSCN) A10 LVC                   |
| AP1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BP1 | UBUSCN) A13 LVC                   |
| AP2 | UBUSCN) BBUSY LVC                 | BP2 | UBUSCN) A12 LVC                   |
| AR1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BR1 | UBUSCN) A15 LVC                   |
| AR2 | UBUSCN) SACK LVC                  | BR2 | UBUSCN) A14 LVC                   |
| AS1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BS1 | UBUSCN) A17 LVC                   |
| AS2 | UBUSCN) NPR LVC                   | BS2 | UBUSCN) A16 LVC                   |
| AT1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BT1 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |
| AT2 | UBUSCN) BR 7 LVC                  | BT2 | UBUSCN) C1 LVC                    |
| AU1 | UBUSCN) NPG OUT HVC               | BU1 | UBUSCN) SSYN LVC                  |
| AU2 | UBUSCN) BR 6 LVC                  | BU2 | UBUSCN) C0 LVC                    |
| AV1 | UBUSCN) B6 7 OUT HVC              | BV1 | UBUSCN) MSYN LVC                  |
| AV2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] | BV2 | [N/3+1,GND 2HJ4-8V6,GND 2KL4-8V6] |

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REVISIONS		
CHK	CHANGE NO.	REV

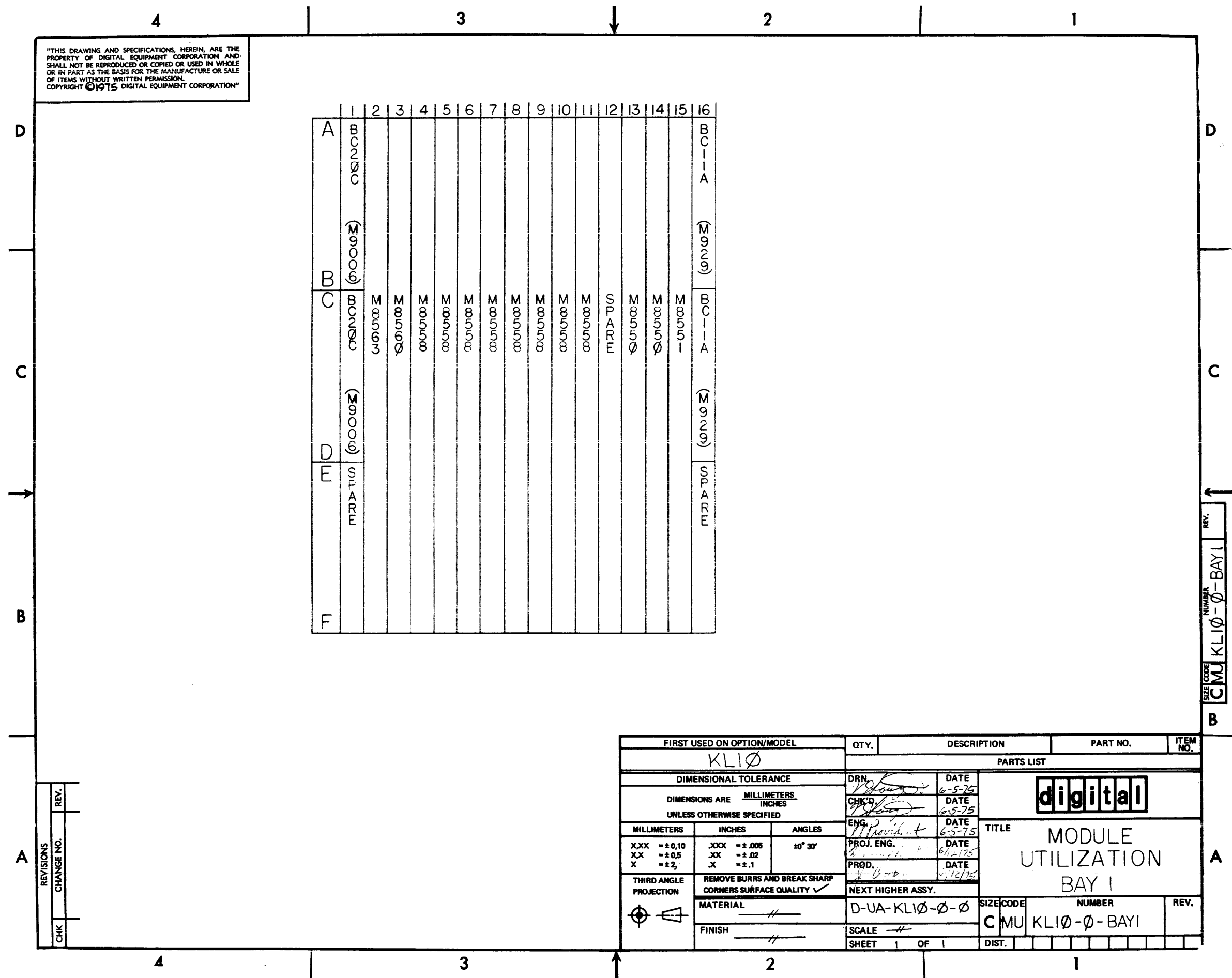
digital	DATE	ENG.	DATE	TITLE
	02-MAR-76	J. J. Conroy	02-MAR-76	UNIBUS CABLE OUT
UBCO, DRW 4,426	DATE	BOARD LOCATION:	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL: KL10	02-MAR-76 09:13		B-DD-KL10-C	
	SHEET	OF	SIZE	CODE
	1	1	D	CS
			NUMBER	REV.
			KL10-C-UBCO	

REV. NUMBER KL10-C-UBCO

462



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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	B															B
	(9009M)															(9009M)
B																
C	B											S				B
	(9009M)											P				(9009M)
D																
E	S															S
	TABLE															TABLE
F																

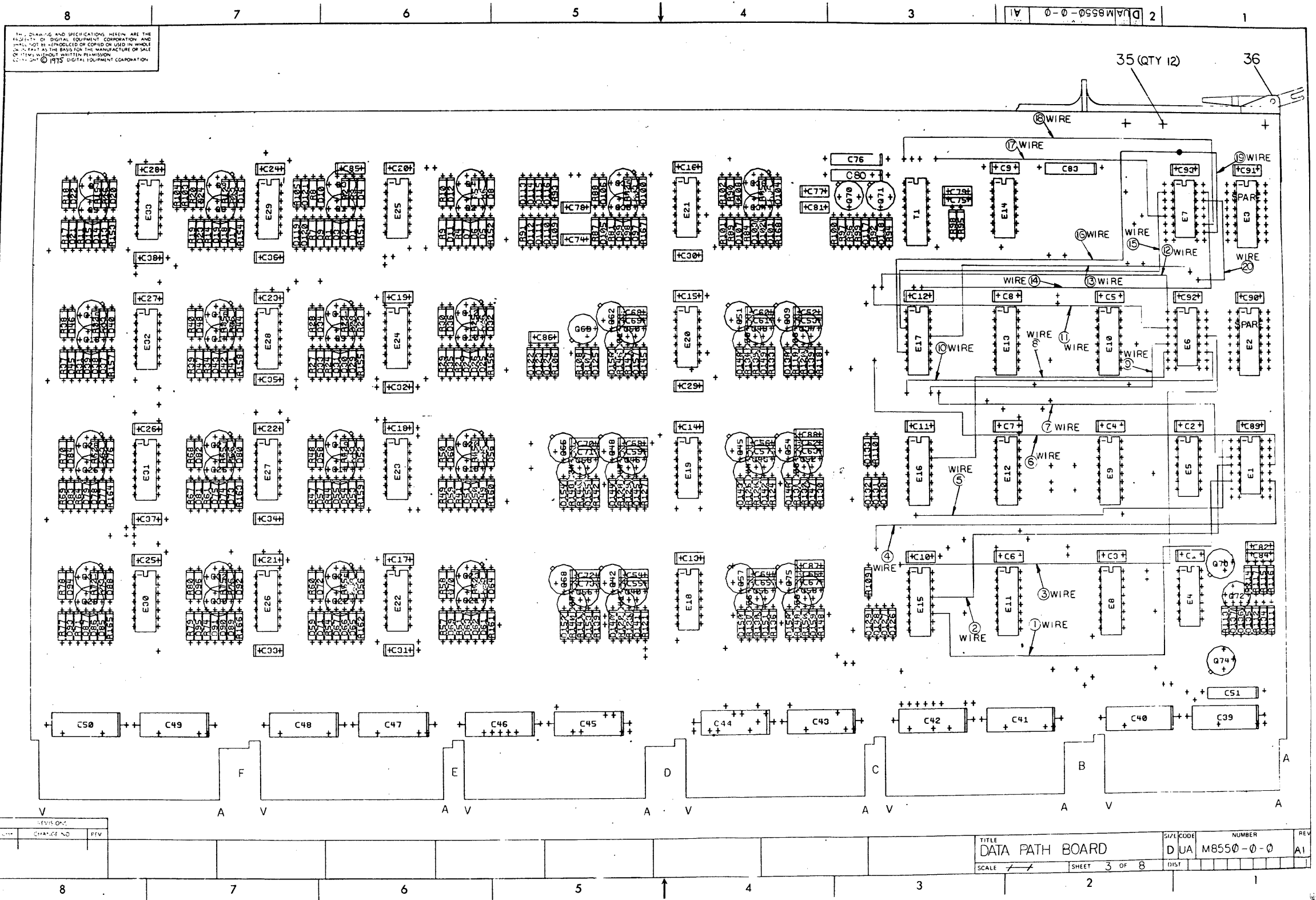
REV.	
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
KL1Ø					
DIMENSIONAL TOLERANCE					
DIMENSIONS ARE			PARTS LIST		
MILLIMETERS			digital		
INCHES			TITLE		
ANGLES			MODULE UTILIZATION BAY I		
X,XX = ±0.10	.XXX = ±.005	±0° 30'	DATE 6-5-75		
XX = ±0.5	.XX = ±.02		DATE 6-5-75		
X = ±2	.X = ±.1		DATE 6/12/75		
THIRD ANGLE PROJECTION		REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓		NEXT HIGHER ASSY.	
MATERIAL		D-UA-KL1Ø-Ø-Ø		SIZE CODE	NUMBER
FINISH		SCALE		C MU	KL1Ø-Ø-BAY I
		SHEET		DIST.	REV.

SIZE CODE NUMBER REV.  
C MU KL1Ø-Ø-BAY I

464

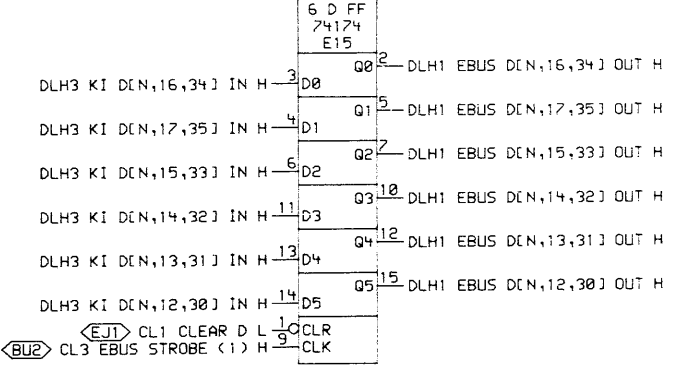
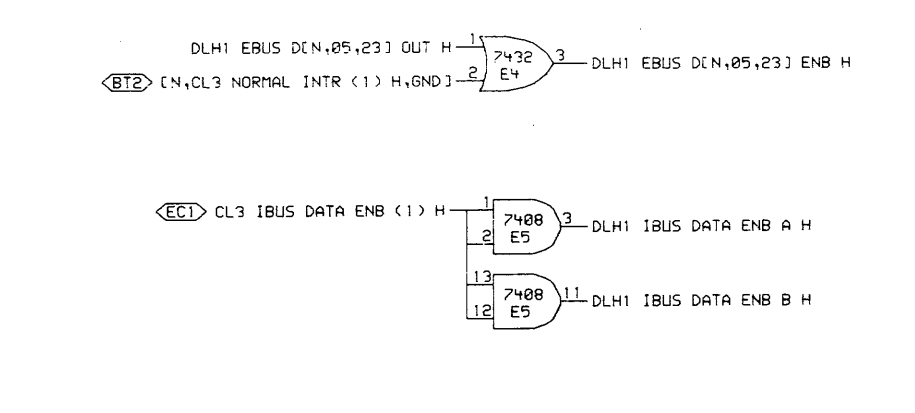
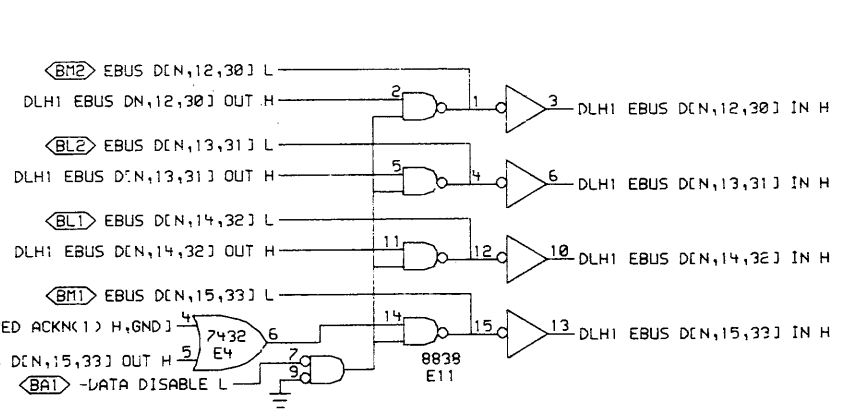
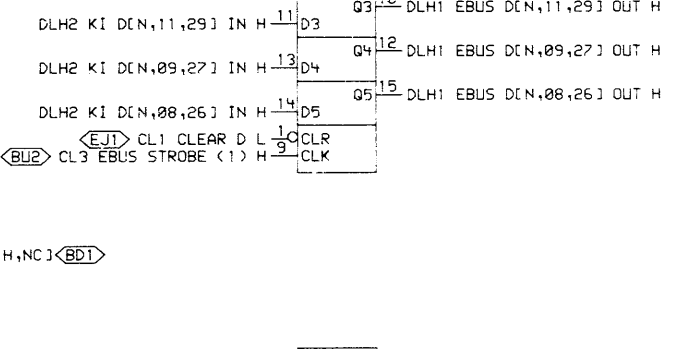
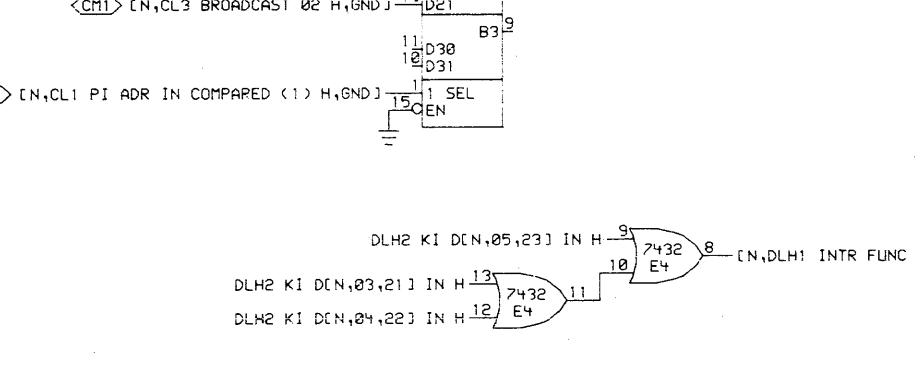
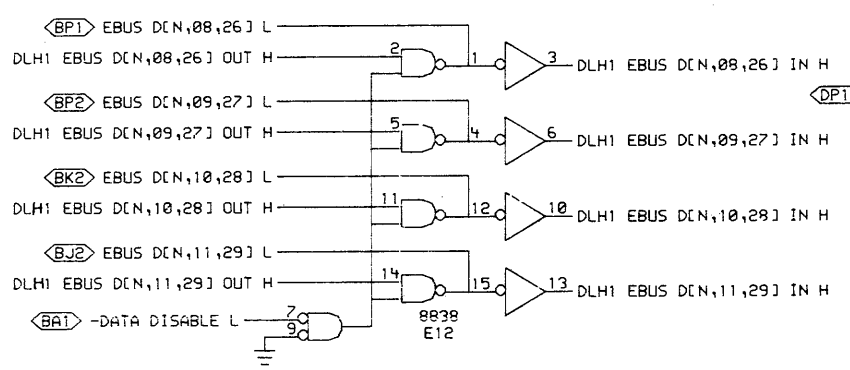
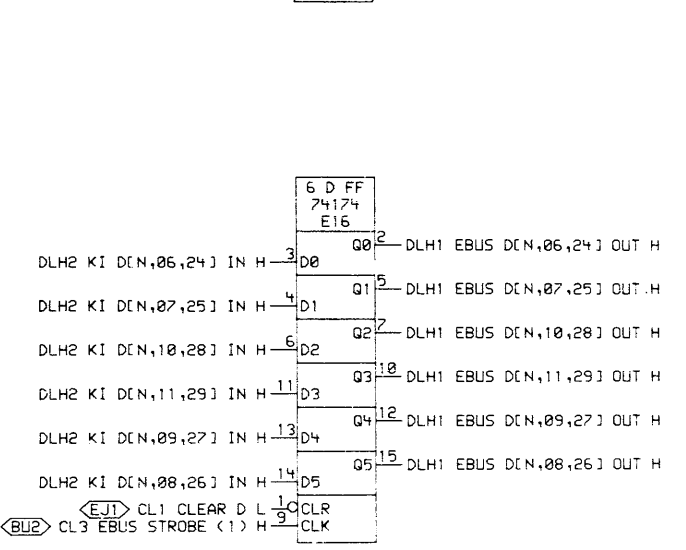
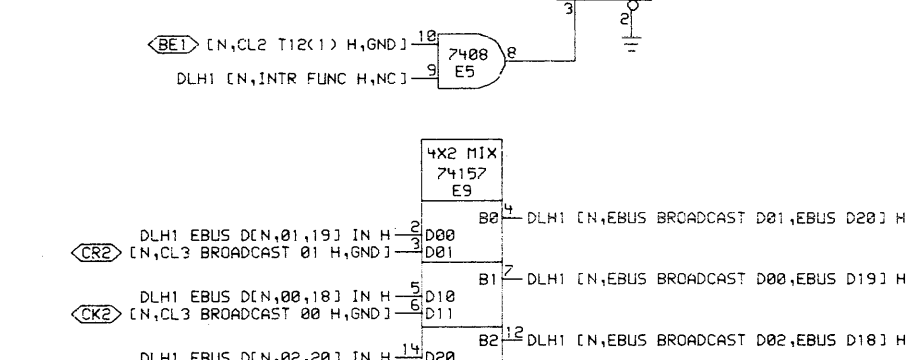
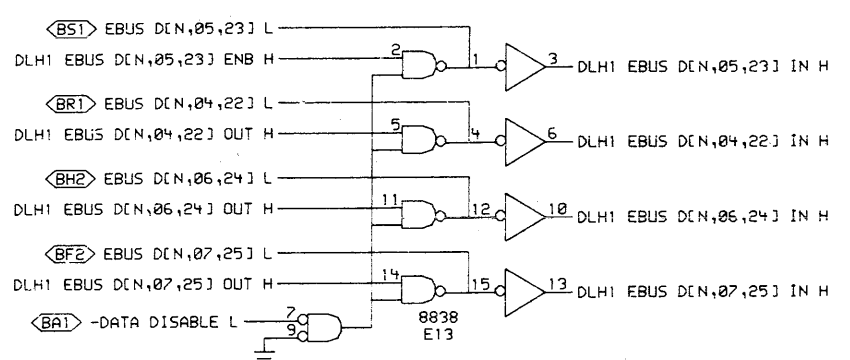
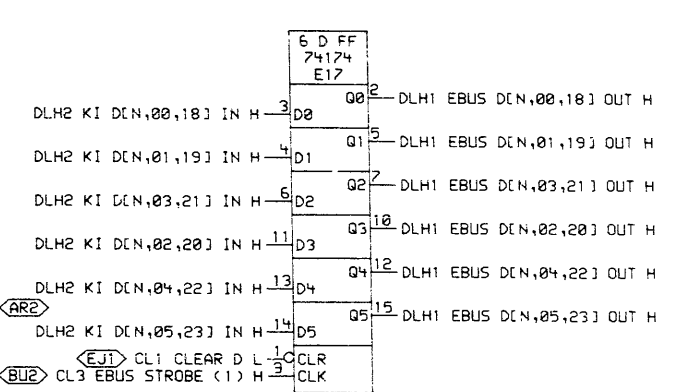
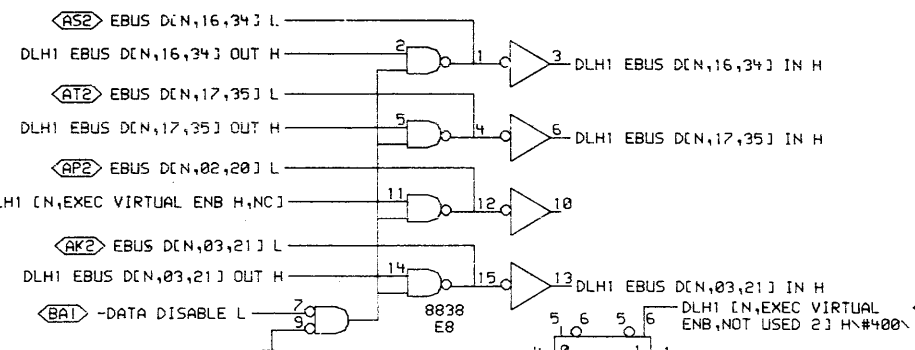
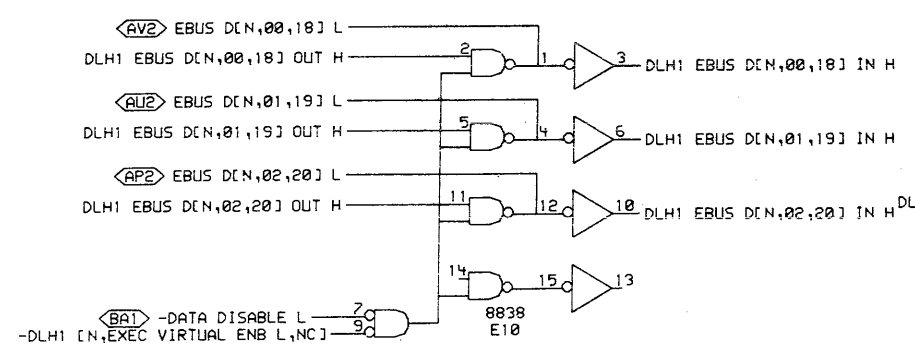




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REV	DATE	BY	CHKD	CHANGE NO	REV

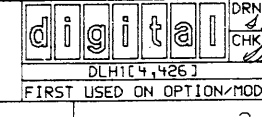
TITLE		SCALE		SHEET		NUMBER		REV	
DATA PATH BOARD		1/8" = 1"		3 OF 8		DUA M8550-0-0		A1	



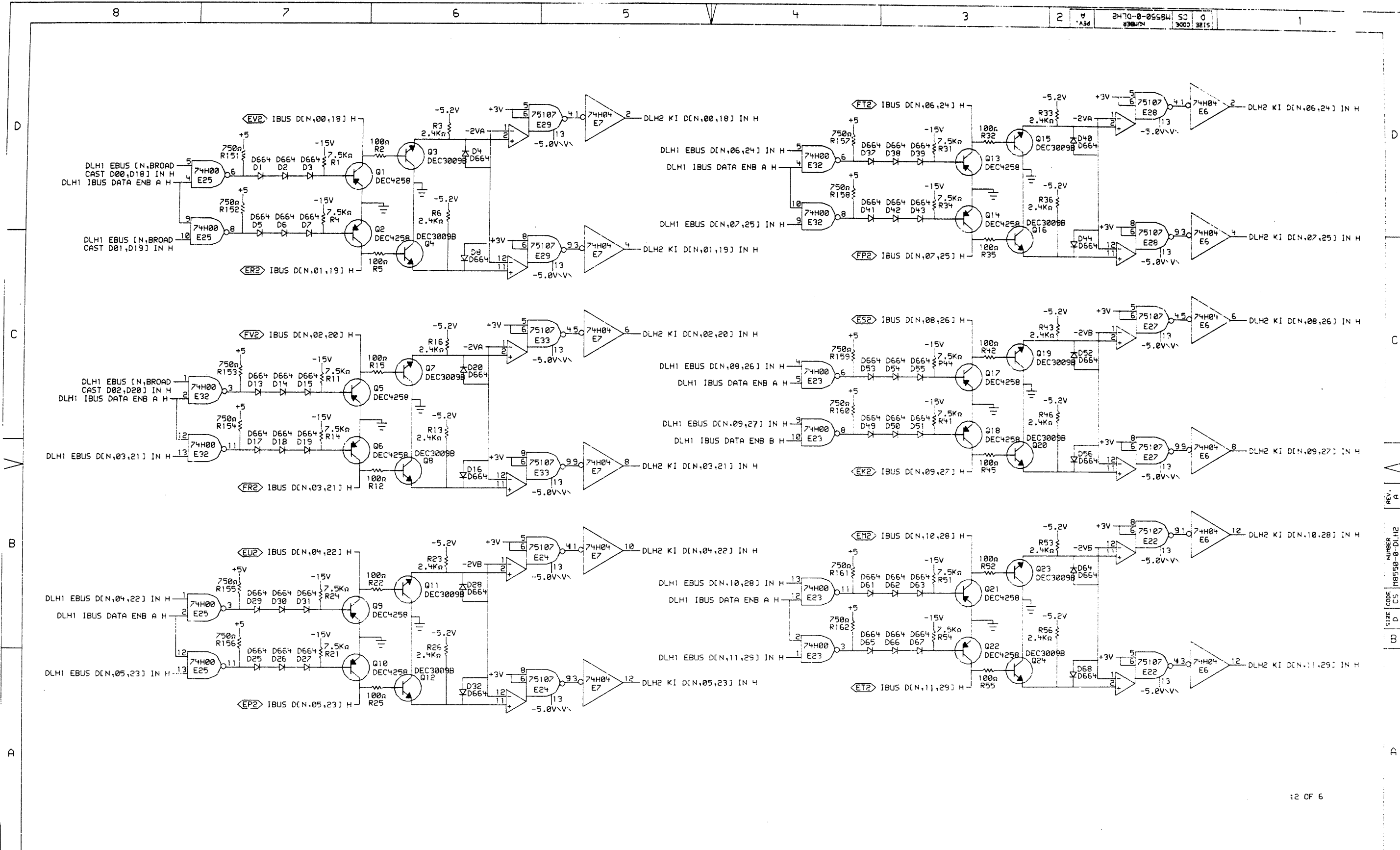
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REVISIONS		
CHK	CHANGE NO.	REV
LSL	M8550-00001	A
W. BRUCKERT	7/17/75	

DRN. J. Foordy	DATE 5/19/75	ENG. W. Bruckert	DATE 5/19/75	TITLE: IBUS ADAPTER DATA PATH
CHK'D. Carl Allen	DATE 5-18-75	SHEET 1	OF 1	
DLH1[4,426]	15-MAY-75 09:50	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8550-0		D CS	M8550-0-DLH1



DLH1[4,426]	15-MAY-75 09:50	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
FIRST USED ON OPTION/MODEL: KL10	B-DD-M8550-0		D CS	M8550-0-DLH1	A



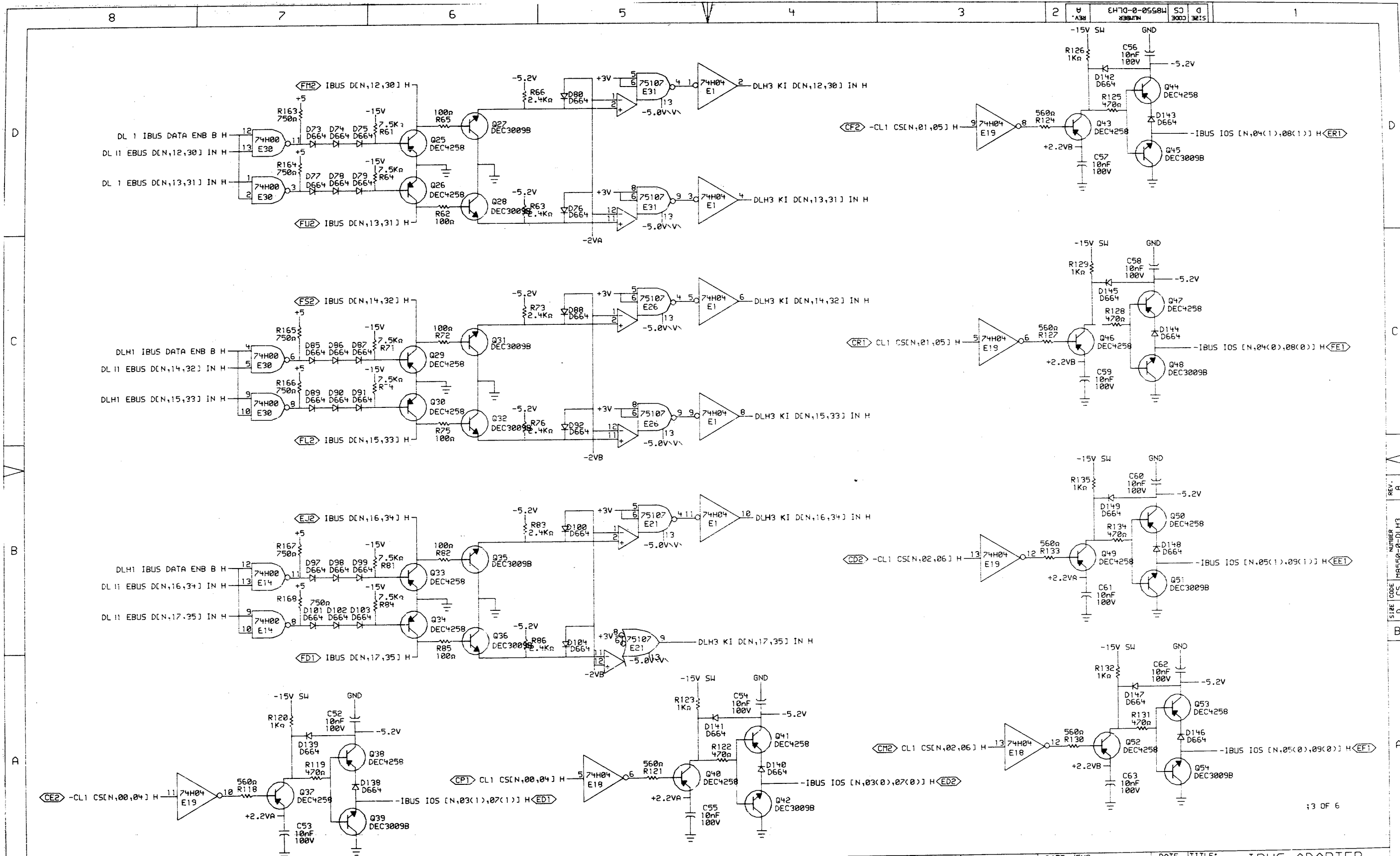
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REVISIONS		
CHK	CHANGE NO.	REV
	1	A
	2	A
	3	A
	4	A
	5	A
	6	A
	7	A
	8	A

	DRN. Family	DATE 5/11/75	ENG. M. Bruckert	DATE 5/19/75	TITLE: IBUS ADAPTER DATA PATH
	CHK'D	DATE 5-12-75	BOARD LOCATION:	SHEET 1 OF 1	SIZE CODE: D CS M8550-0-DLH2
DLH2 (4,426)		15-MAY-75 09:51	NEXT HIGHER ASSEMBLY: B-DD-M8550-0	NUMBER	REV. A
FIRST USED ON OPTION/MODEL: KL10					

REV. A  
 NUMBER 1  
 SIZE CODE D CS M8550-0-DLH2





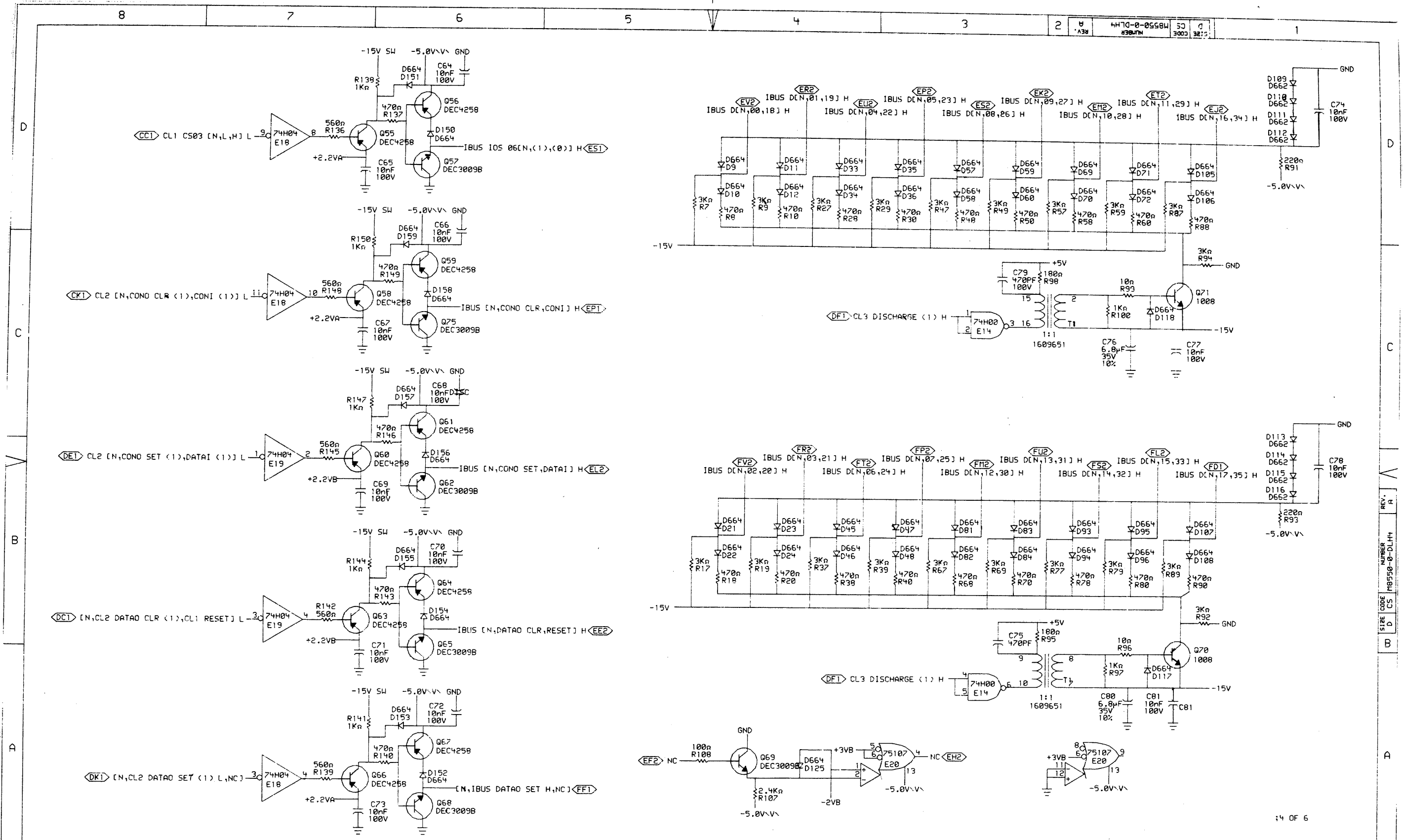
3 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV
	M8550-00001	A
	W. BRUCKER	

	DRN. <i>Fromby</i>	DATE ENG. <i>5/19/75</i>	DATE <i>5/19/75</i>	TITLE: IBUS ADAPTER DATA PATH
	CHK'D. <i>W. Brucker</i>	DATE BOARD LOCATION: <i>5-19-75</i>	SHEET 1 OF 1	NUMBER
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8550-0		REV. A

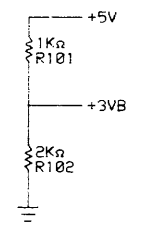
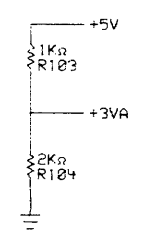
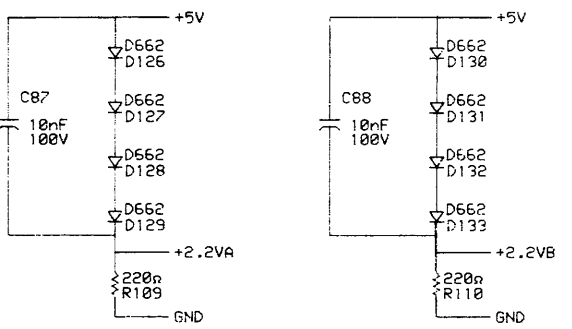
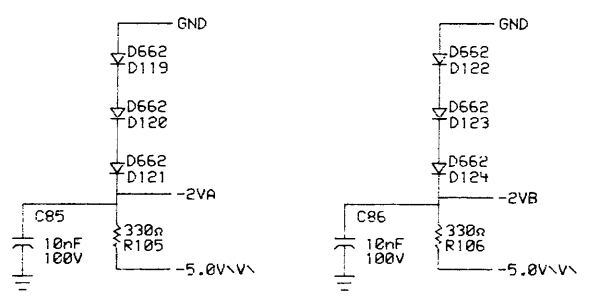
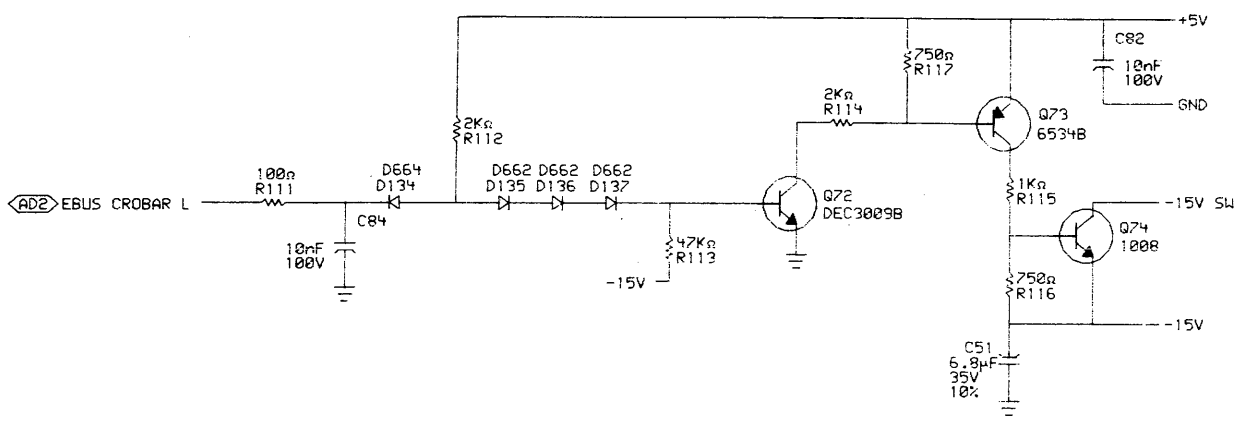
469



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REVISIONS		
CHK	CHANGE NO.	REV
CR	M8550-00001	A
	5/19/75	
	W. BRUCKERT	

digital	DRN. <i>Frank</i>	DATE <i>5/19/75</i>	ENG. <i>Di. Orslet</i>	DATE <i>5/19/75</i>	TITLE: <b>IBUS ADAPTER DATA PATH</b>
	CHK'D. <i>Bill</i>	DATE <i>5/19/75</i>	BOARD LOCATION: <i>1</i>	SHEET <i>1</i> OF <i>1</i>	SIZE CODE: <b>D CS</b>
DLH44,426		FIRST USED ON OPTION/MODEL: <b>KL10</b>		NUMBER: <b>M8550-0-DLH4</b>	
				REV. <b>A</b>	

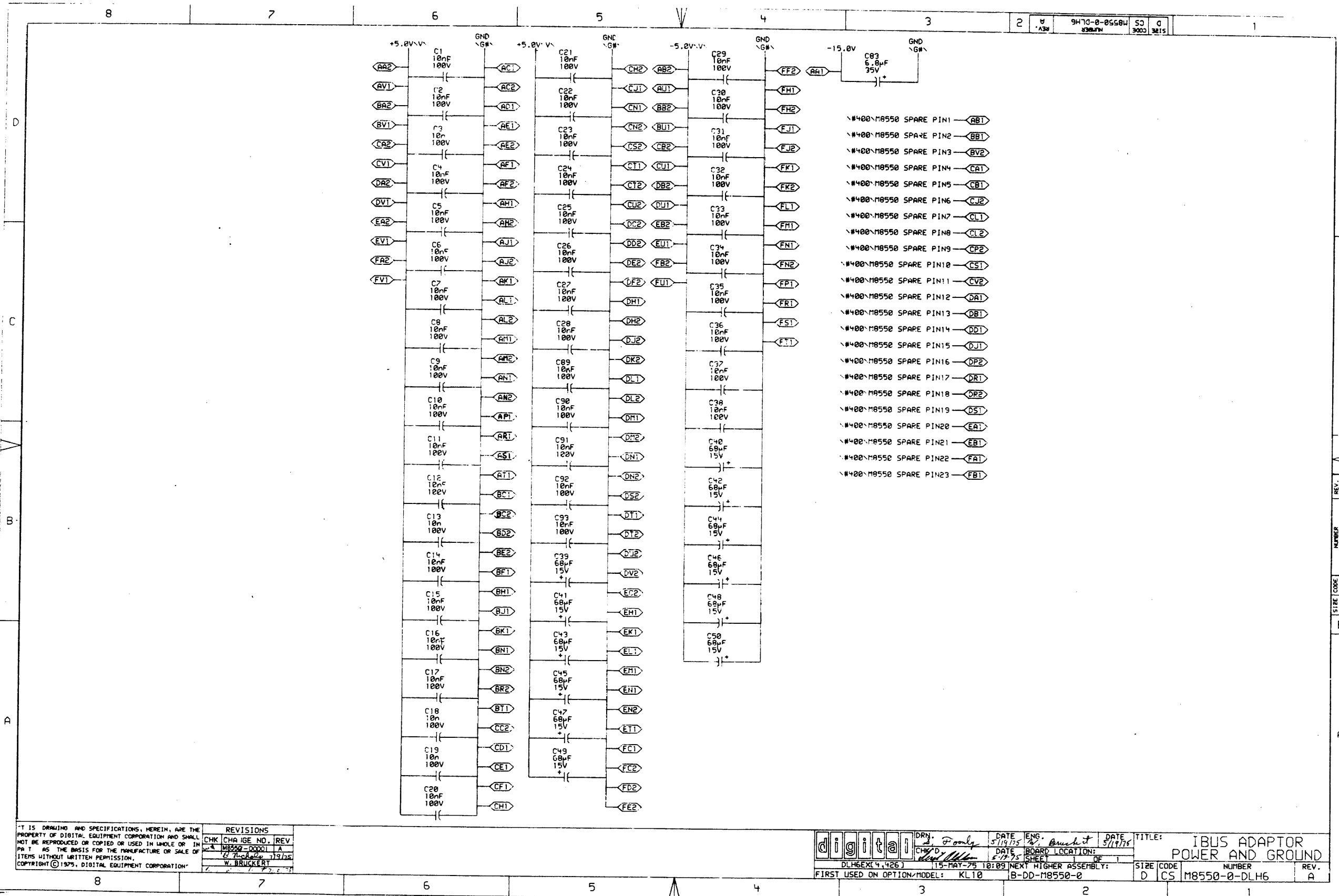


15 OF 6

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REVISIONS		
CHK	CHANGE NO.	REV
W	M8550-00001	A
W	10/10/75	
W	BRUCKERT	

digital	DRN. <i>S. Fools</i>	DATE <i>5/19/75</i>	ENG. <i>W. Bruckert</i>	DATE <i>5/19/75</i>	TITLE: <b>IBUS ADAPTER DATA PATH</b>
	CHK'D <i>W. Bruckert</i>	DATE <i>5-19-75</i>	BOARD LOCATION:	SHEET <i>1</i> OF <i>1</i>	SIZE CODE NUMBER REV. <b>D CS M8550-0-DLH5 A</b>
FIRST USED ON OPTION/MODEL: <b>KL10 B-DD-M8550-0</b>					NEXT HIGHER ASSEMBLY:



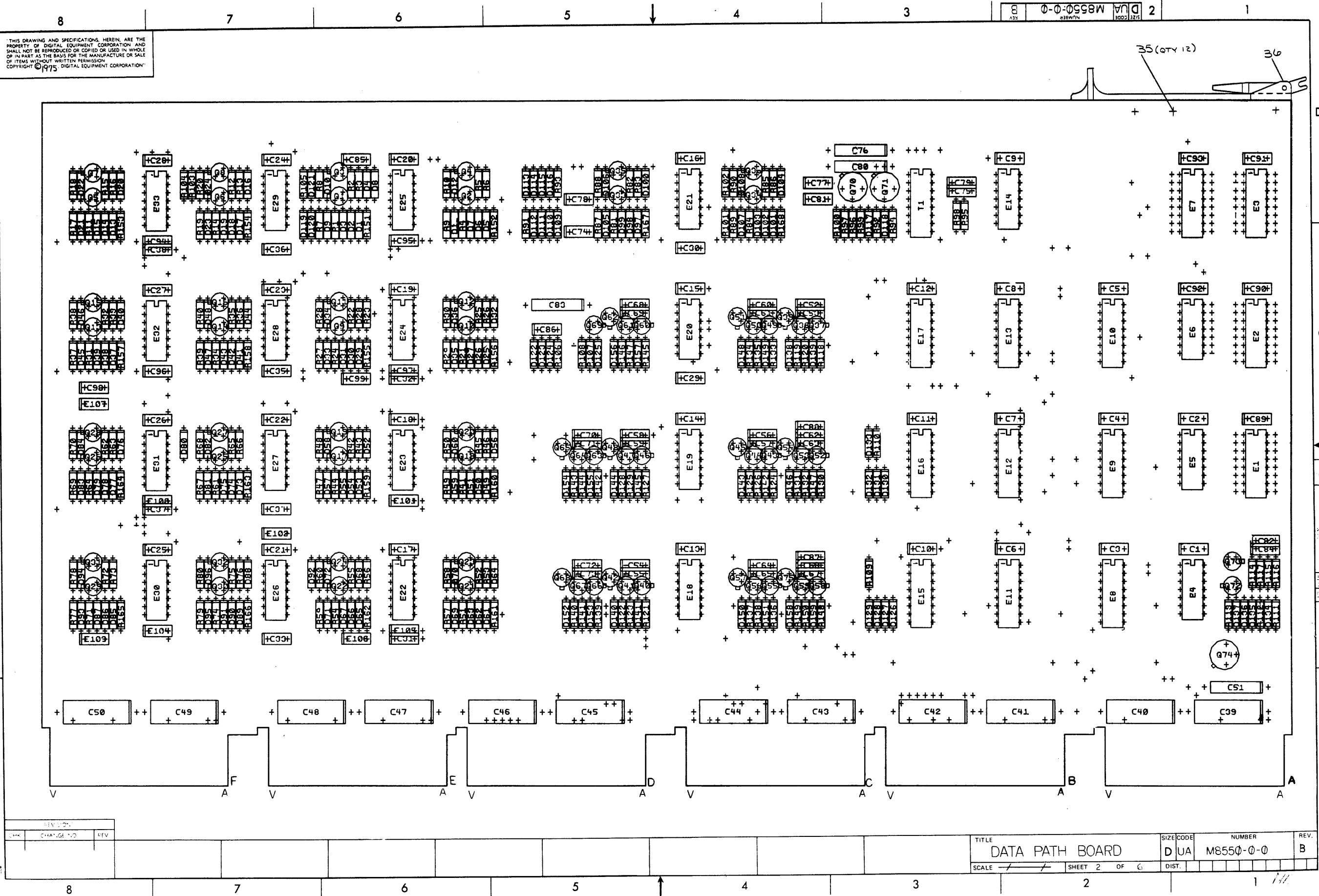
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REVISIONS		
CHK	CHANGE NO.	REV.
	M8550-0000	A
	6	7/9/75
	W. BRUCKERT	

digital	DRY	DATE	ENG.	DATE	TITLE:
	Flonly	5/19/75	W. Bruckert	5/19/75	IBUS ADAPTOR POWER AND GROUND
	CHK'D	DATE	BOARD LOCATION:		
	W. Bruckert	5-19-75	SHEET 1 OF 1		
DLH6EX14,426		15-MAY-75 10:09	NEXT HIGHER ASSEMBLY:	SIZE	CODE
FIRST USED ON OPTION/MODEL: KL10		B-DD-M8550-0		D	CS
				NUMBER	
				M8550-0-DLH6	
				REV.	
				A	



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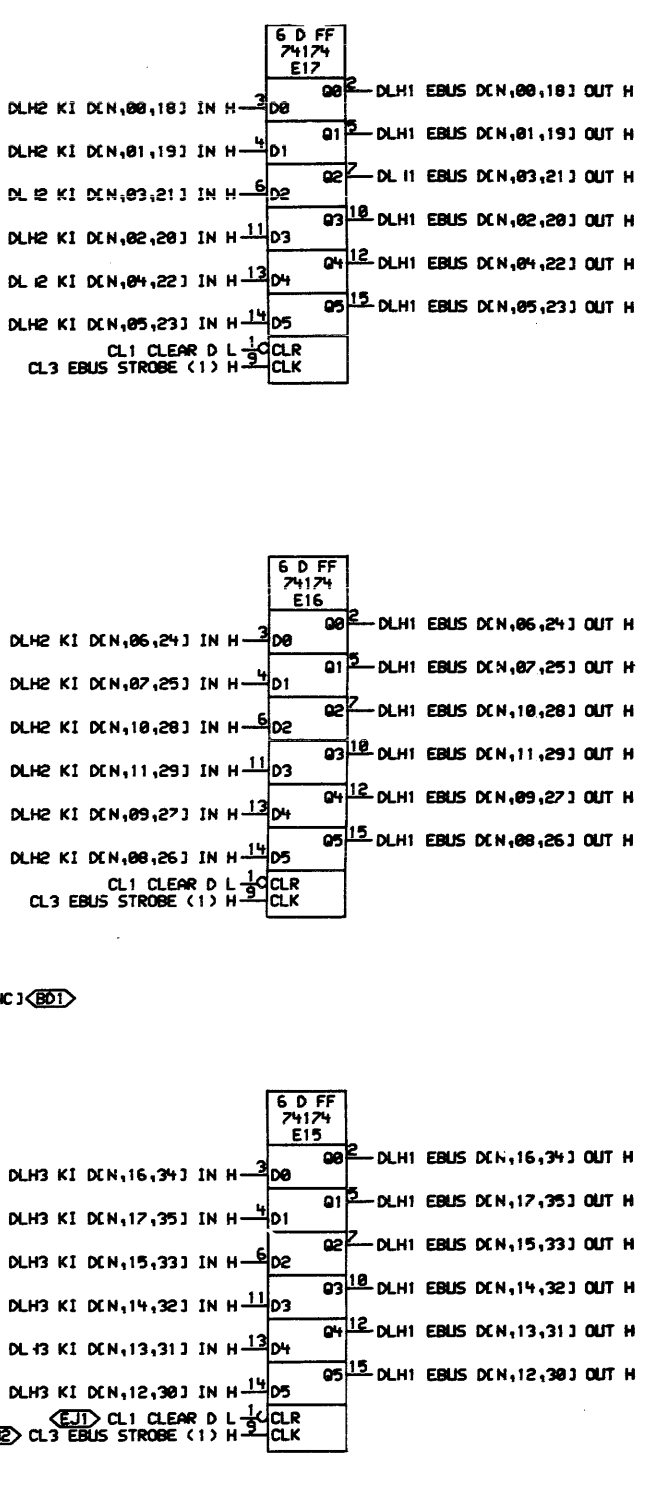
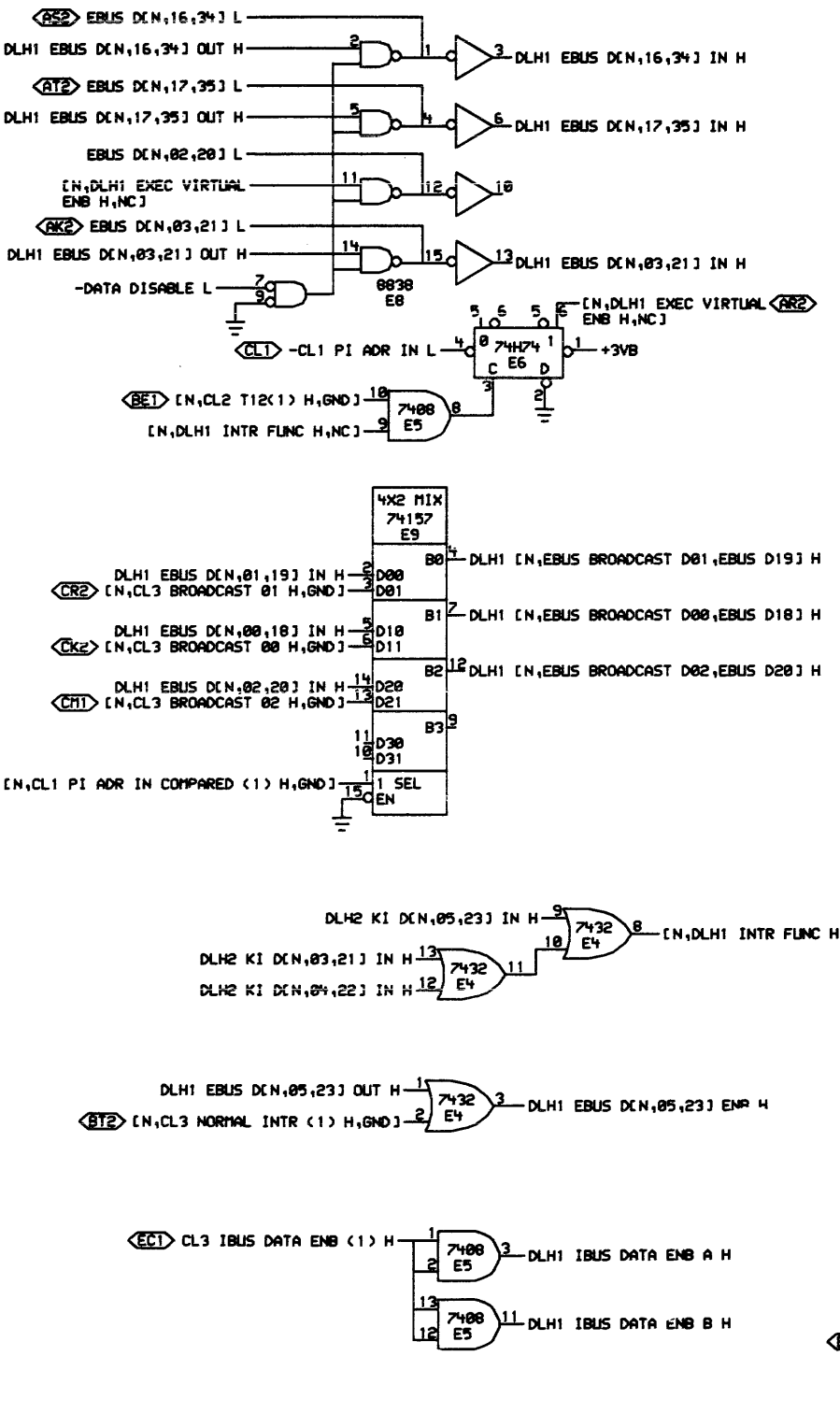
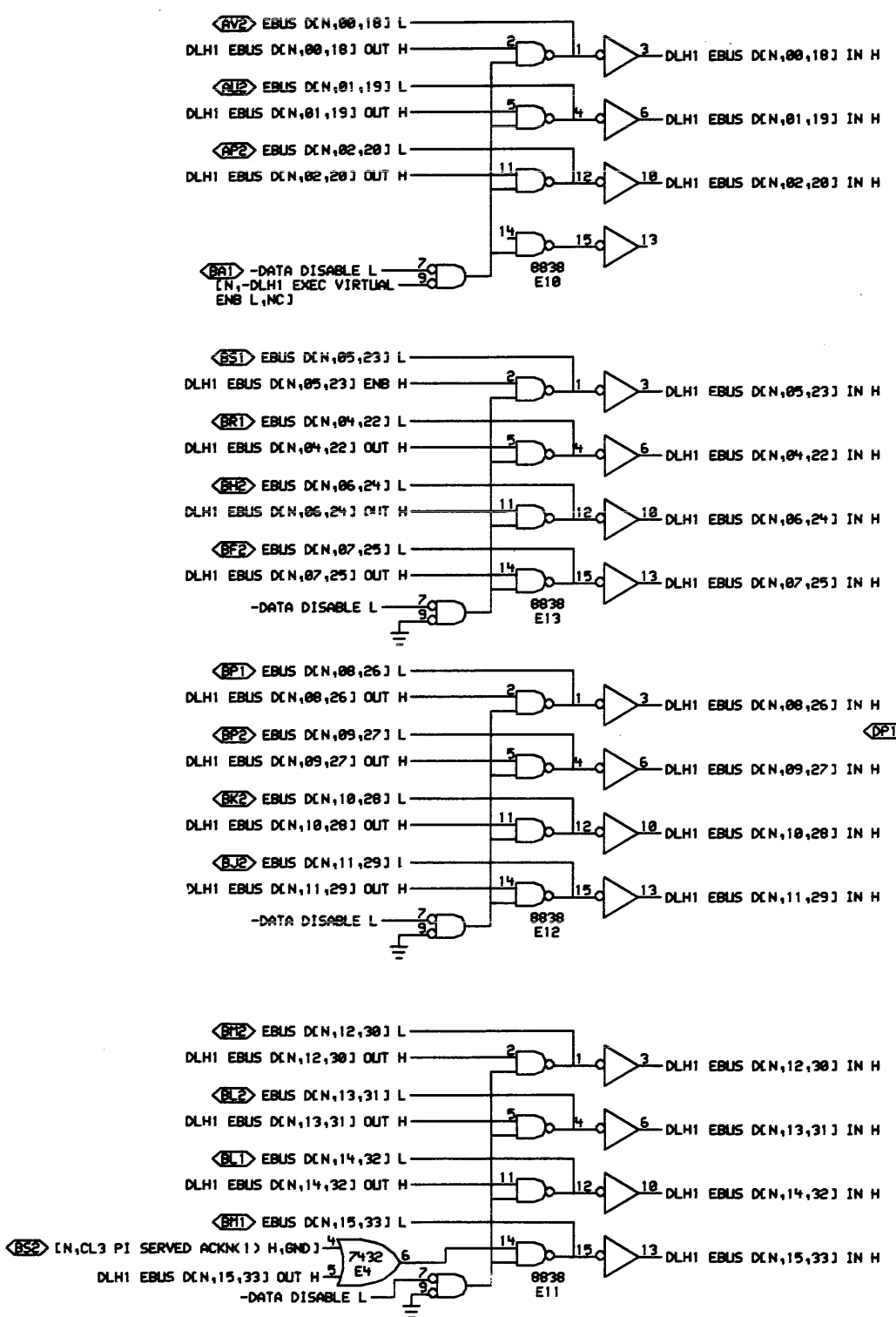
REV	DATE	BY	CHK	CHANGE NO	REV

TITLE	DIA	NUMBER	REV.
DATA PATH BOARD	UA	M8550-0-0	B
SCALE	SHEET	DIST.	
	2		

474

D  
C  
B  
A

D  
C  
B  
A



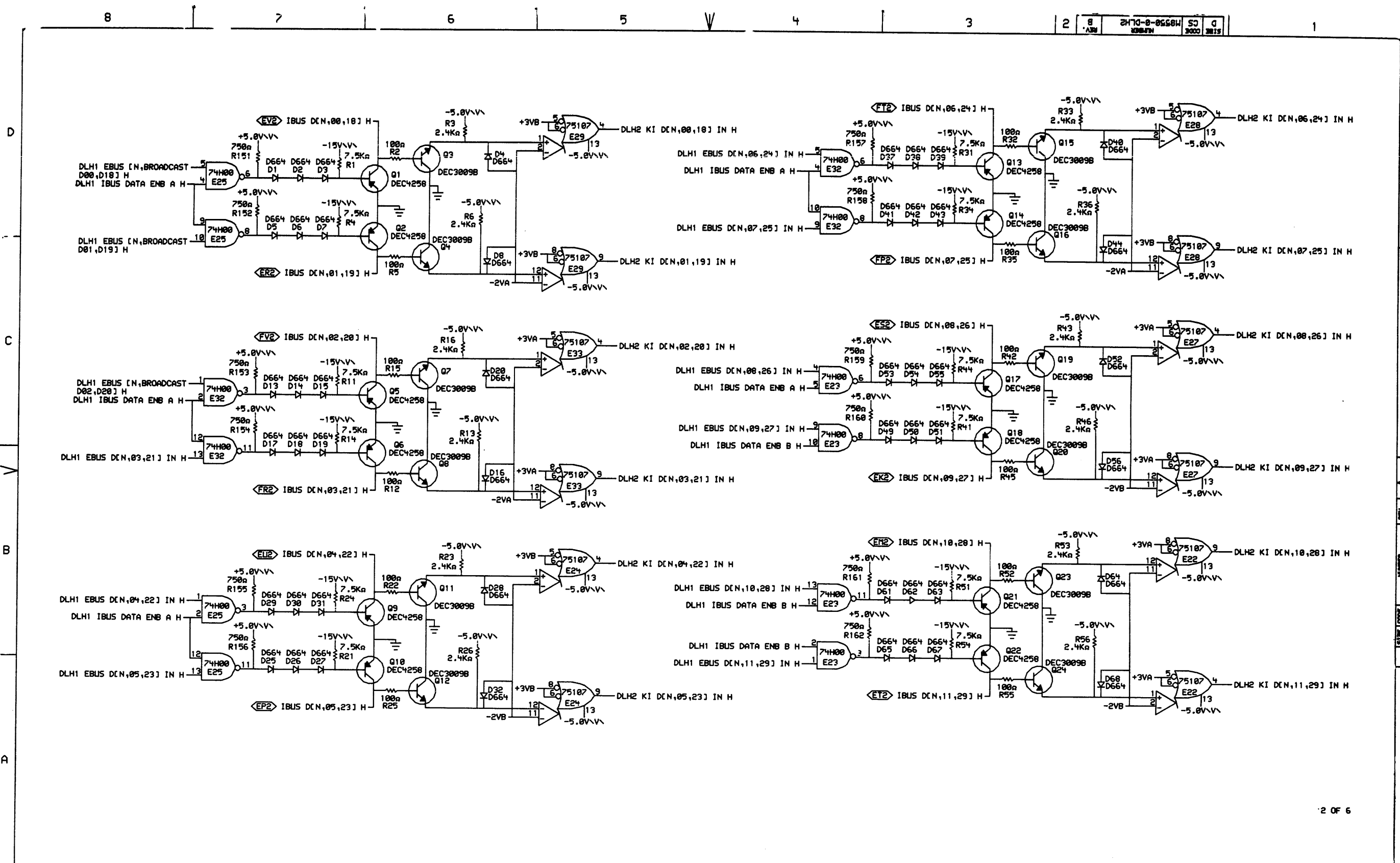
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REVISIONS		
CHK	CHANGE NO.	REV
	00002	B
BRUCKERT		

digital	DATE	ENG.	DATE	TITLE:
	12-JUN-75	W. J. ...	7/1/75	IBUS ADAPTER DATA PATH
FIRST USED ON OPTION/MODEL:		NEXT HIGHER ASSEMBLY:		SIZE CODE NUMBER REV.
DLH1 4, 425		B-DD-M8550-0		D CS M8550-0-DLH1 B

SIZE	CODE	NUMBER	REV.
D	CS	M8550-0-DLH1	B

475



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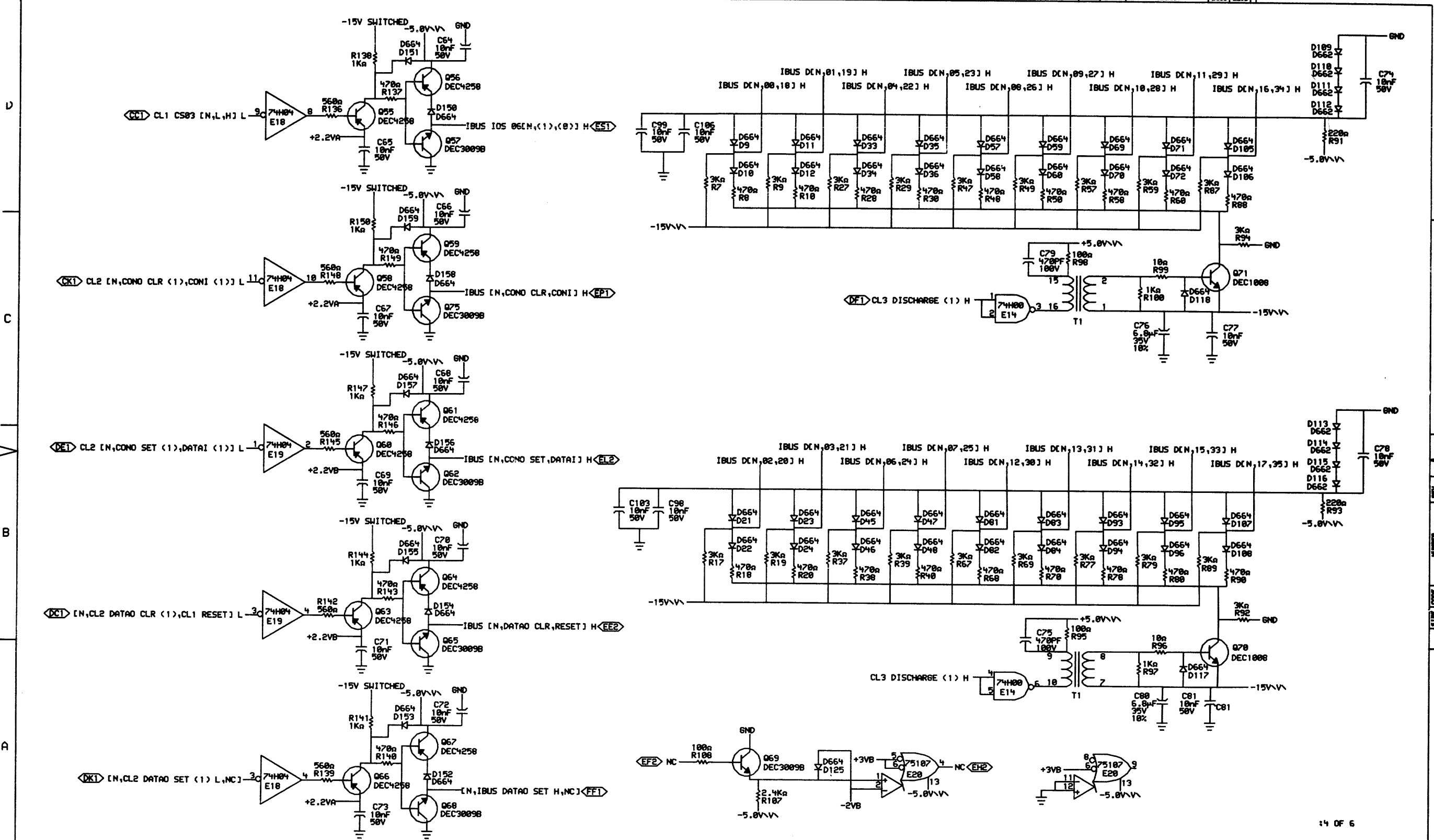
REVISIONS		
CHK	CHANGE NO.	REV
W	00002	B
BRUCKERT		

	DATE: 27-JUN-75	ENG: M. Bruckert	DATE: 9/11/75	TITLE: IBUS ADAPTER DATA PATH
	DATE: 7/20/75	BOARD LOCATION: 1	OF: 1	NUMBER: M8550-0-DLH2
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8550-0		SIZE CODE: D CS

476







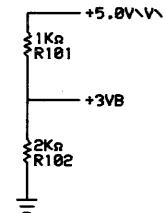
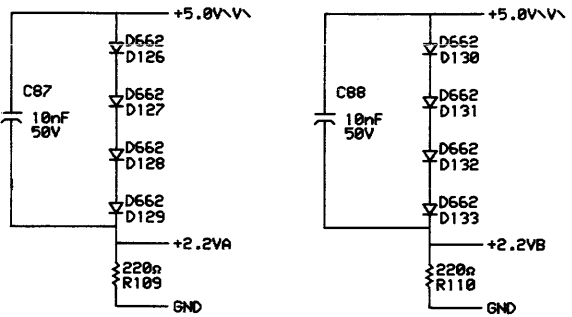
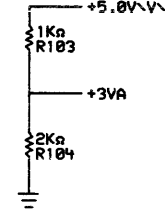
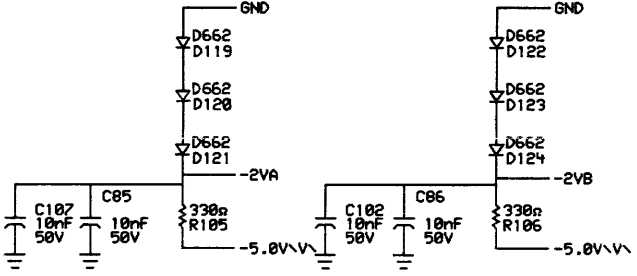
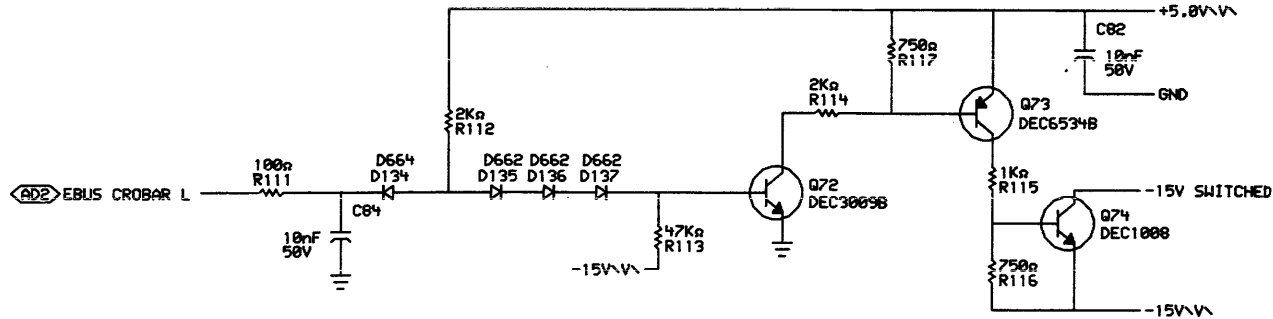
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REVISIONS		
CHK	CHANGE NO.	REV
ERUCKERT		B



DATE 8-JUN-75  
 DATE 9/1/75  
 BOARD LOCATION: 1 OF 1  
 SHEET

TITLE: IBUS ADAPTER DATA PATH  
 SIZE CODE D CS  
 NUMBER M8550-0-DLH4  
 REV. B



15 OF 6

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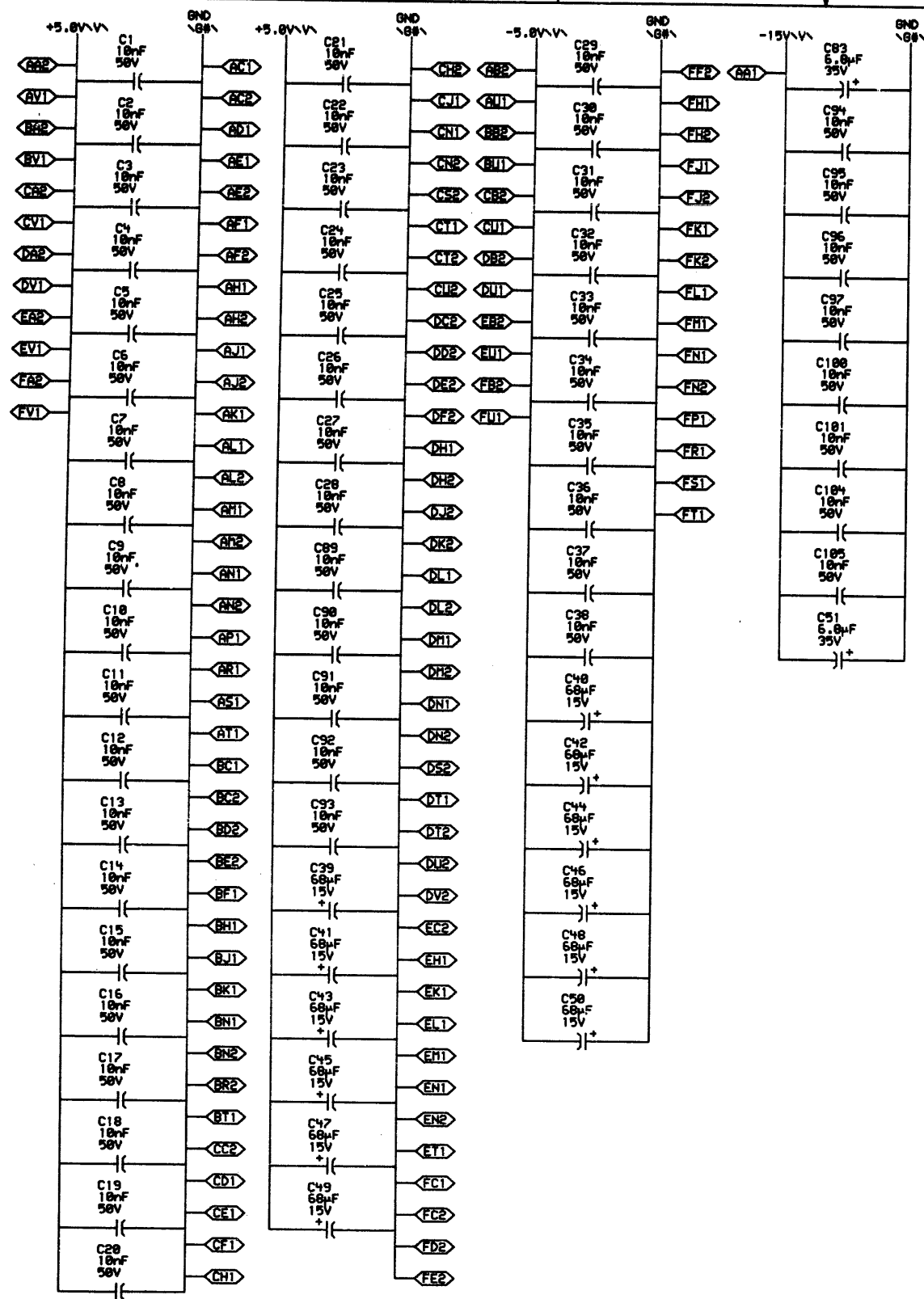
REVISIONS		
CHK	CHANGE NO.	REV
X	00002	B
BRUCKERT		

digital  
DLH5R4,426J

DATE: 27-JUN-75  
DATE: 27-JUN-75 10:56  
NEXT HIGHER ASSEMBLY: B-DD-M8550-0

TITLE: IBUS ADAPTER DATA PATH  
SIZE: D CS  
CODE: M8550-0-DLH5  
NUMBER: 1  
REV: B

439



- #400\M8550 SPARE PIN1 - (A1)
- #400\M8550 SPARE PIN2 - (B1)
- #400\M8550 SPARE PIN3 - (B2)
- #400\M8550 SPARE PIN4 - (C1)
- #400\M8550 SPARE PIN5 - (C2)
- #400\M8550 SPARE PIN6 - (C3)
- #400\M8550 SPARE PIN8 - (C4)
- #400\M8550 SPARE PIN9 - (C5)
- #400\M8550 SPARE PIN10 - (C6)
- #400\M8550 SPARE PIN11 - (C7)
- #400\M8550 SPARE PIN12 - (D1)
- #400\M8550 SPARE PIN13 - (D2)
- #400\M8550 SPARE PIN14 - (D3)
- #400\M8550 SPARE PIN15 - (D4)
- #400\M8550 SPARE PIN16 - (D5)
- #400\M8550 SPARE PIN17 - (D6)
- #400\M8550 SPARE PIN18 - (D7)
- #400\M8550 SPARE PIN19 - (D8)
- #400\M8550 SPARE PIN20 - (E1)
- #400\M8550 SPARE PIN21 - (E2)
- #400\M8550 SPARE PIN22 - (F1)
- #400\M8550 SPARE PIN23 - (F2)

NOTE:  
 1. ALL 74H SERIES LOGIC IS TO BE 1074H SERIES  
 2. THE FOLLOWING PIN NUMBERS APPLY TO TTL DIP PACKAGES:  
 GND +5.0V PACKAGE TYPE  
 8 16 16 PIN DIP  
 7 14 14 PIN DIP

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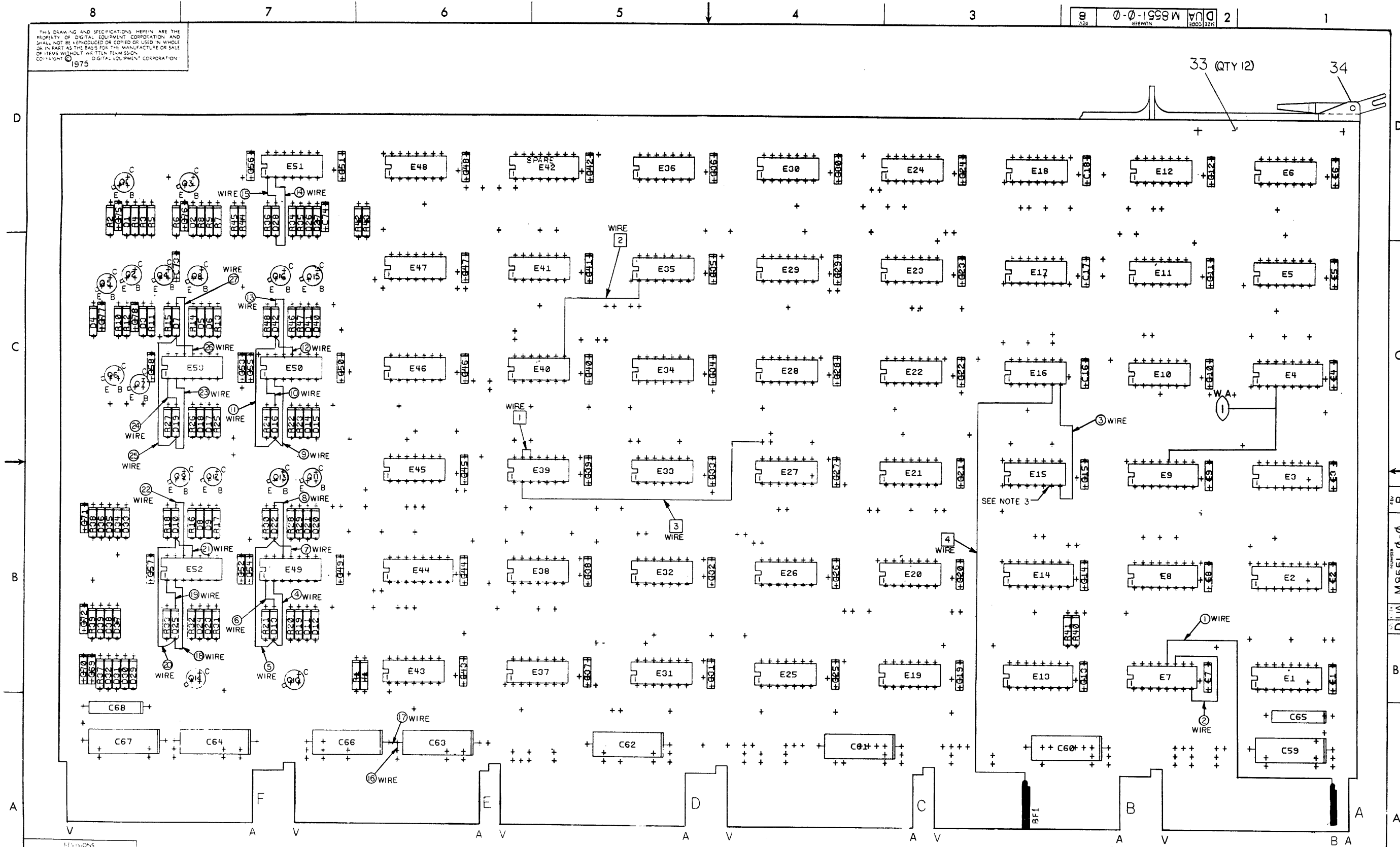
REVISIONS		
CHK	CHANGE NO.	REV
24	00002	B
BRUCKERT		
9/16/75		

digital	DATE	ENG.	DATE	TITLE:
	12-JUN-75	KL10	11:00	IBUS ADAPTOR POWER AND GROUND
DLH6R(4,426)	DATE	BOARD LOCATION	SIZE	CODE
FIRST USED ON OPTION MODEL: KL10	12-JUN-75	DE	D	CS
18-DD-M8550-0	NUMBER	REV.		
	M8550-0-DLH6	B		



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DUA M8551-0-0 2

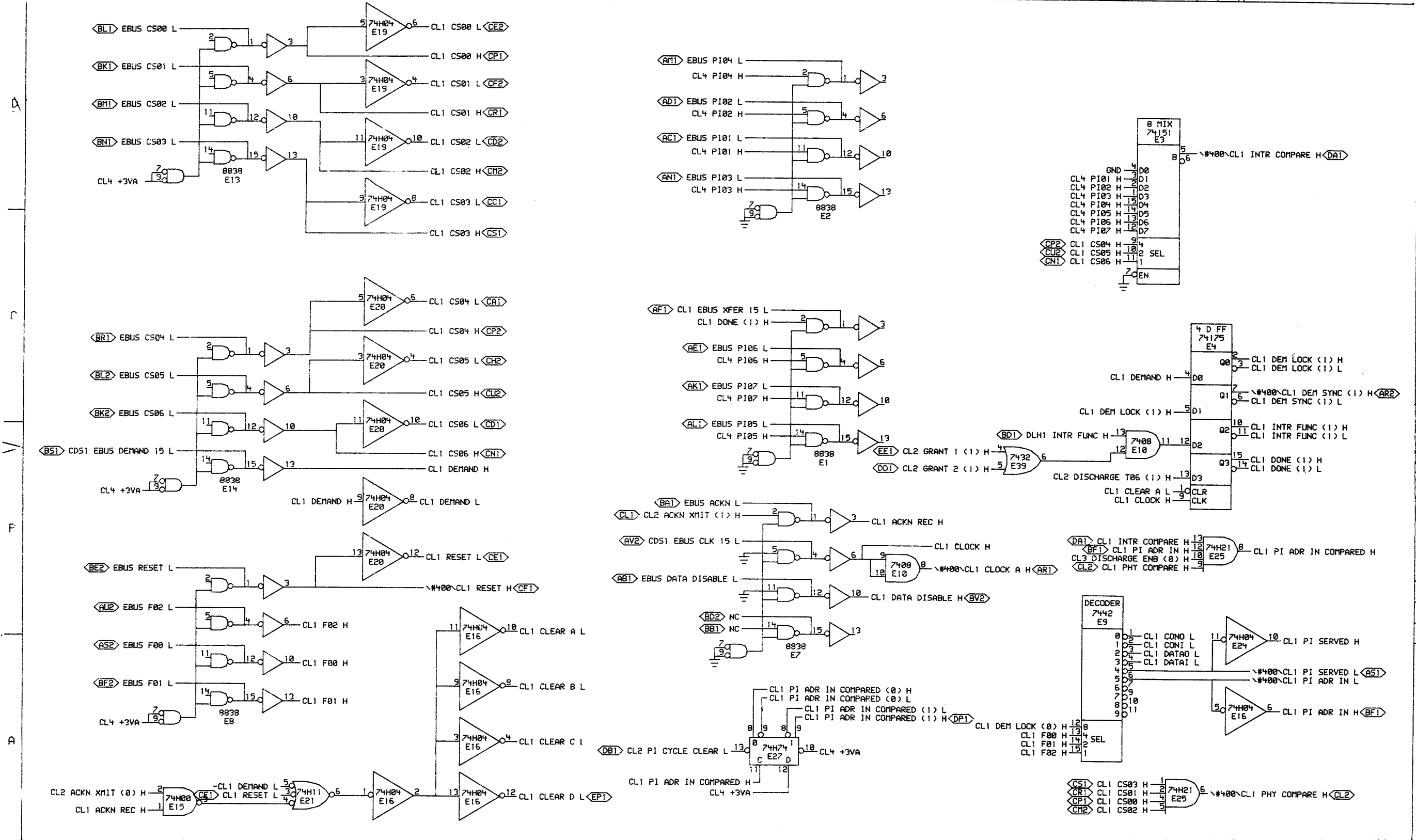


REVISIONS		
NO.	CHANGE NO.	REV.

TITLE CONTROL BD FOR KLI I/O ADAPTER  
 SIZE CODE DUA  
 NUMBER M8551-0-0  
 REV. B  
 SCALE 1:1 SHEET 2 OF 5  
 DIST. MR 1

DUA M8551-0-0 B

482



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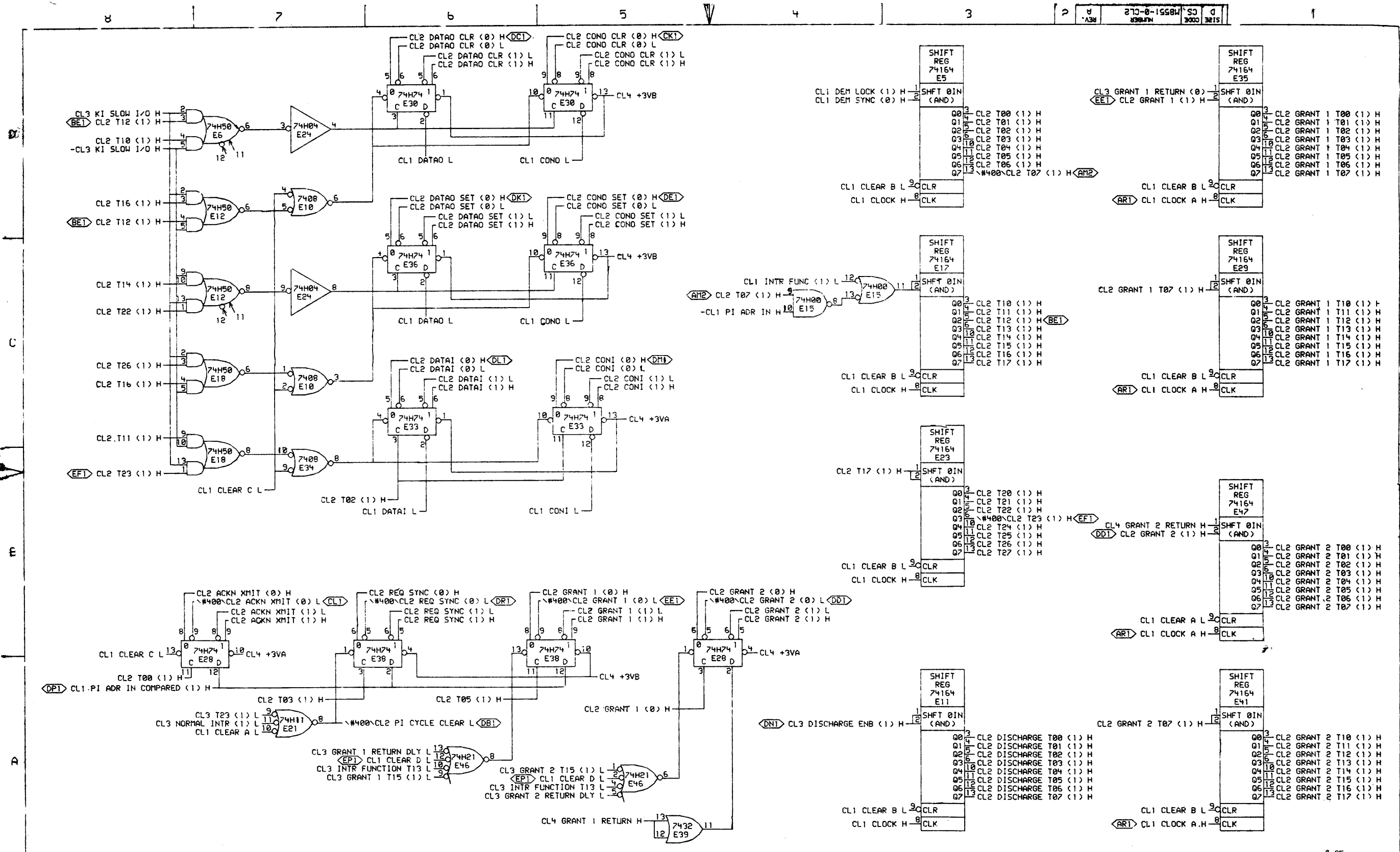
REVISIONS		18551-00002	B
CHK	CHANGE NO.	REV	DATE
		W. BRUCKERT	11-10-75
			12-12-75

digital	DATE	ENG.	DATE	TITLE:
	16-OCT-75	W. Bruckert	11/10/75	I/O BUS ADAPTER CONTROL INTERFACE
CL14,426J	DATE	BOARD LOCATION:	SHEET	OF
FIR T USED ON OPTION/MODEL: DIA20	16-OCT-75 13:02	B-DD-M8551-0	1	1
	NEXT HIGHER ASSEMBLY:	SIZE CODE	NUMBER	REV.
		D CS	M8551-0-CL1	B

REV. B  
 NUMBER 18551-0-CL1  
 SIZE D CS  
 11 of 5

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MR



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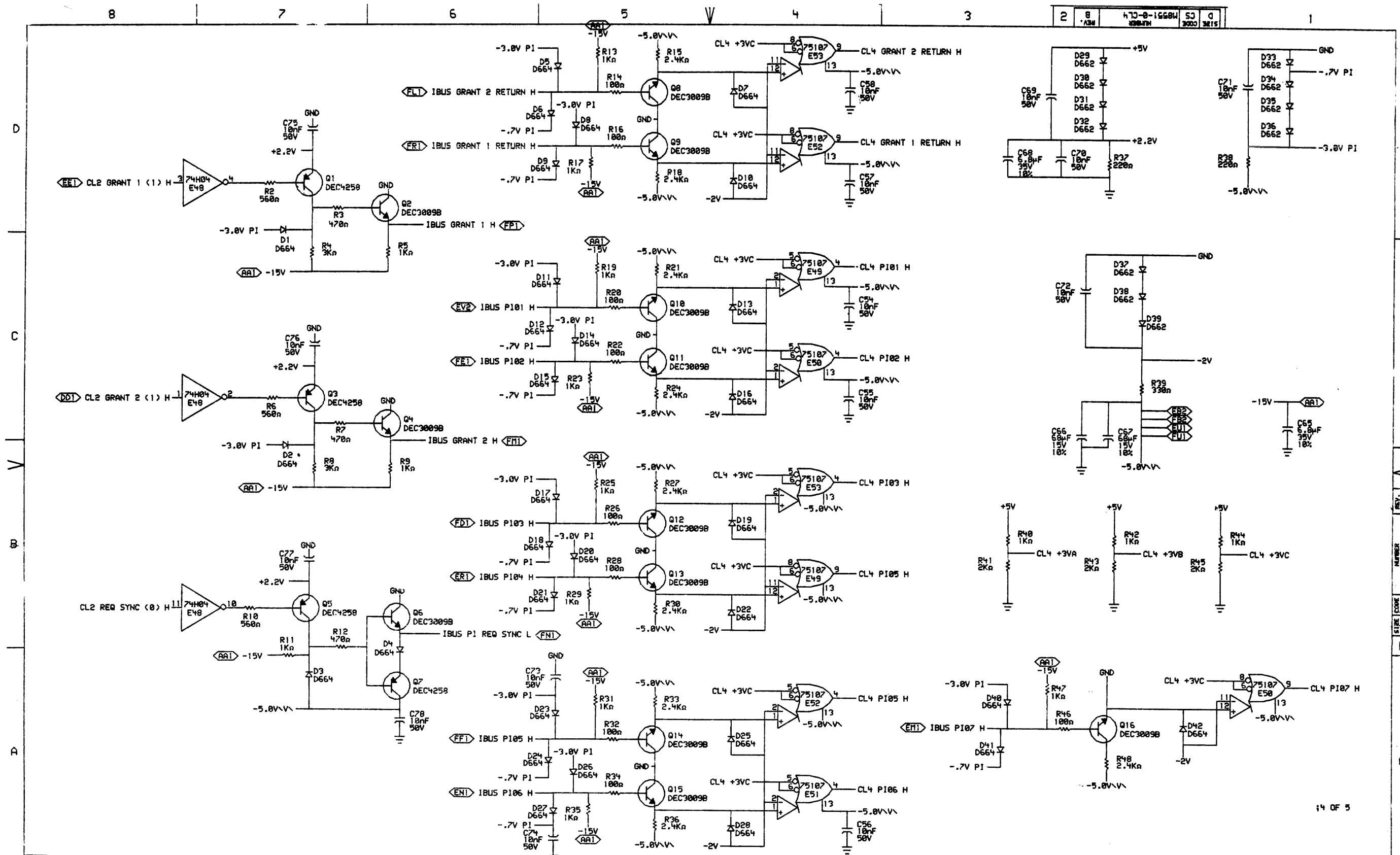
REVISIONS	
CHK	CHANGE NO. REV
	00001 A
W BRACKET	

DRN. <i>2 Foody</i>	DATE <i>5/19/75</i>	ENG. <i>W. Amich</i>	DATE <i>5/19/75</i>	TITLE: <b>I/O BUS ADAPTER CONTROL INTERFACE</b>
CHK'D <i>W. Allen</i>	DATE <i>5-19-75</i>	BOARD LOCATION: <i>1A115</i>	OF <i>1</i>	NUMBER: <i>1</i>
FIRST USED ON OPTION/MODEL: <i>DIA20 B-DD-M8551-0</i>		SIZE CODE: <i>D CS</i>	NUMBER: <i>M8551-0-CL2</i>	REV: <i>A</i>

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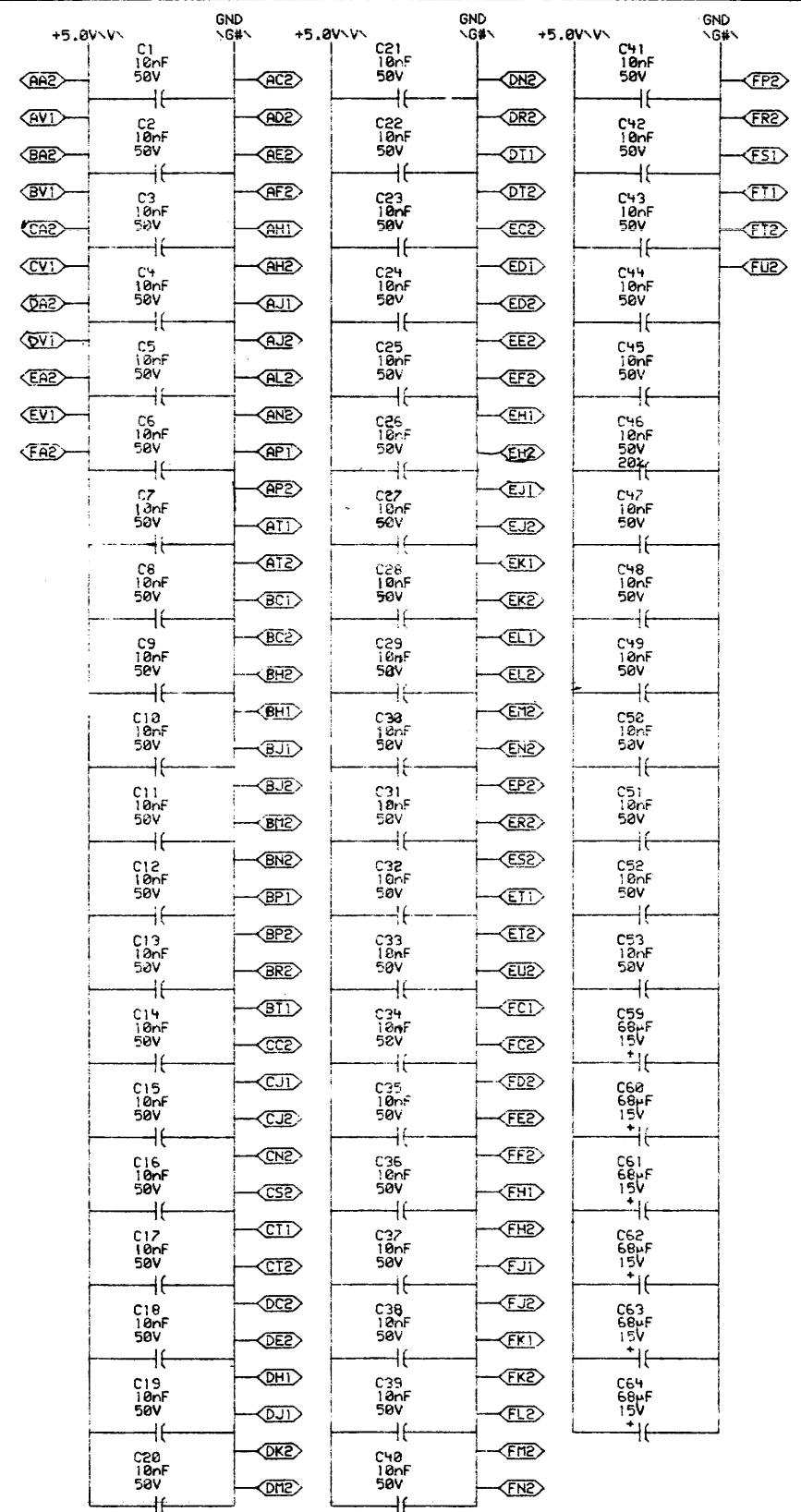
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REVISIONS		M8551-00002 B	
CHK	CHANGE NO.	REV	DATE
		1	12-12-75
		2	12-15-75

W. BRUCKERT

digital	DATE	27-OCT-75	ENG	W. Bruckert	DATE	11/15/75	TITLE	I/O BUS ADAPTER CONTROL INTERFACE	
	DRN	J. Jansky	DATE	11/14/75	BOARD LOCATION	IAF15	SIZE CODE	D	
FIRST USED ON OPTION MODEL:		DIA20		NEXT HIGHER ASSEMBLY:		B-DD-M8551-0-CL4		REV	B

NOTE:  
 1. ALL 74H SERIES LOGIC IS TO BE 1074H SERIES  
 2. THE FOLLOWING PIN NUMBERS APPLY TO TTL DIP PACKAGES:  
 GND +5.0V PACKAGE TYPE  
 16 8 16 PIN DIP  
 14 7 14 PIN DIP



- <AK2> [B,GND\G\,NC]
- <AB2> [B,NC,-5.0V\V\]
- <AU1> [B,NC,-5.0V\V\]
- <BB2> [B,NC,-5.0V\V\]
- <BU1> [B,NC,-5.0V\V\]
- <CB1> SPARE PIN1 M8551\#400\
- <CB2> [B,NC,-5.0V\V\]
- <CH1> [B,NC,GND\G\]
- <CU1> [B,NC,-5.0V\V\]
- <CV2> SPARE PIN2 M8551\#400\
- <DB2> [B,NC,-5.0V\V\]
- <DD2> SPARE PIN3 M8551\#400\
- <DF2> SPARE PIN4 M8551\#400\
- <DH2> SPARE PIN5 M8551\#400\
- <DJ2> SPARE PIN6 M8551\#400\
- <DL2> SPARE PIN7 M8551\#400\
- <DP2> SPARE PIN8 M8551\#400\
- <DS2> SPARE PIN9 M8551\#400\
- <DU1> [B,NC,-5.0V\V\]
- <DU2> SPARE PIN10 M8551\#400\
- <DV2> SPARE PIN11 M8551\#400\
- <EA1> SPARE PIN12 M8551\#400\
- <EB1> SPARE PIN13 M8551\#400\
- <ES1> [B,NC,GND\G\]
- <FA1> SPARE PIN14 M8551\#400\
- <FB1> SPARE PIN15 M8551\#400\
- <FS2> [B,NC,GND\G\]
- <FV1> [B,NC,+5.0V\V\]
- <FV2> SPARE PIN16 M8551\#400\

15 OF 5

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REVISIONS		
CHK	CHANGE NO.	REV
	00001	A
W. BRUCKET		

digital	DRN: <i>Flouly</i>	DATE: 5/19/75	ENG: <i>W. Brucket</i>	DATE: 5/19/75	TITLE: I/O BUS ADAPTER POWER AND GROUND
	CHK'D: <i>W. Brucket</i>	DATE: 5-19-75	BOARD LOCATION: 1AE15	SHEET: 1	OF: 1
CL5EXL4,426	16-MAY-75 11:22	NEXT HIGHER ASSEMBLY: B-DD-M8551-0	SIZE: D	CODE: CS	NUMBER: M8551-0-CL5
FIRST USED ON OPTION/MODEL: DIA20					REV. A

8

7

6

5

4

3

2

1

REV. 5061-0-017K 01 0  
3000 3215

SLOT PIN SIDE	H17		H13		H14		H15
	1	2	1	2	1	2	1
A	+	+	+	+	+	+	+
B	+	+	+	+	+	+	+
C	+	+	+	+	+	+	+
D	+	+	+	+	+	+	+
E	+	+	+	+	+	+	+
F	+	+	+	+	+	+	+
H	+	+	+	+	+	+	+
J	+	+	+	+	+	+	+
K	+	+	+	+	+	+	+
L	+	+	+	+	+	+	+
M	+	+	+	+	+	+	+
N	+	+	+	+	+	+	+
P	+	+	+	+	+	+	+
R	+	+	+	+	+	+	+
S	+	+	+	+	+	+	+
T	+	+	+	+	+	+	+

SLOT PIN SIDE	J14	J15		J16		J17	
	?	1	2	1	2	1	2
A	+	+	+	+	+	+	+
B	+	+	+	+	+	+	+
C	+	+	+	+	+	+	+
D	+	+	+	+	+	+	+
E	+	+	+	+	+	+	+
F	+	+	+	+	+	+	+
H	+	+	+	+	+	+	+
J	+	+	+	+	+	+	+
K	+	+	+	+	+	+	+
L	+	+	+	+	+	+	+
M	+	+	+	+	+	+	+
N	+	+	+	+	+	+	+
P	+	+	+	+	+	+	+
R	+	+	+	+	+	+	+
S	+	+	+	+	+	+	+
T	+	+	+	+	+	+	+

- IBUS CONT L --- (H14P1) (J16P2)
- IBUS CONO CLR L --- (H12R2) (J15R1)
- IBUS CONO SET L --- (H13R1) (J14R2)
- IBUS D00 H --- (H12A1) (J14A2)
- IBUS D01 H --- (H12A2) (J15A1)
- IBUS D02 H --- (H12B2) (J15B1)
- IBUS D03 H --- (H13B1) (J15B2)
- IBUS D04 H --- (H13A2) (J15A1)
- IBUS D05 H --- (H14A1) (J16A2)
- IBUS D05 H --- (H14B1) (J16B2)
- IBUS D07 H --- (H14B2) (J17B1)
- IBUS D08 H --- (H15A1) (J17A2)
- IBUS D08 H --- (H12C1) (J14C2)
- IBUS D10 H --- (H12C2) (J15C1)
- IBUS D11 H --- (H12D2) (J15D1)
- IBUS D12 H --- (H13D1) (J15D2)
- IBUS D13 H --- (H13C2) (J16C1)
- IBUS D14 H --- (H14C1) (J16C2)
- IBUS D15 H --- (H14D1) (J16D2)
- IBUS D16 H --- (H14D2) (J17D1)
- IBUS D17 H --- (H15C1) (J17C2)
- IBUS D18 H --- (H12E1) (J14E2)
- IBUS D19 H --- (H12E2) (J15E1)
- IBUS D20 H --- (H12F2) (J15F1)
- IBUS D21 H --- (H13F1) (J15F2)
- IBUS D22 H --- (H13E2) (J16E1)
- IBUS D23 H --- (H14E1) (J16E2)
- IBUS D24 H --- (H14F1) (J16F2)
- IBUS D25 H --- (H14F2) (J17F1)
- IBUS D26 H --- (H15E1) (J17E2)
- IBUS D27 H --- (H12H1) (J14H2)
- IBUS D28 H --- (H12H2) (J15H1)
- IBUS D29 H --- (H12J2) (J15J1)
- IBUS D30 H --- (H13J1) (J15J2)
- IBUS D31 H --- (H13H2) (J16H1)
- IBUS D32 H --- (H14H1) (J16H2)
- IBUS D33 H --- (H14J1) (J16J2)
- IBUS D34 H --- (H14J2) (J17J1)
- IBUS D35 H --- (H15H1) (J17H2)
- IBUS DATA L --- (H13P2) (J16P1)
- IBUS DATA CLR L --- (H12P1) (J14P2)
- IBUS DATA SET L --- (H12P2) (J15P1)
- IBUS DR SPLIT H --- (H13L1) (J13L2)
- IBUS GRANT 1 H --- (H12S2)
- IBUS GRANT 1 RETURN H --- (H15P1)
- IBUS GRANT 2 H --- (J15S1)
- IBUS GRANT 2 RETURN H --- (J17P2)
- IBUS IOS 03 H --- (H13K2) (J16K1)
- IBUS IOS 03 L --- (H14K1) (J16K2)
- IBUS IOS 04 H --- (H14L1) (J16L2)
- IBUS IOS 04 L --- (H14L2) (J17L1)
- IBUS IOS 05 H --- (H15K1) (J17K2)
- IBUS IOS 05 L --- (H12M1) (J14M2)
- IBUS IOS 05 H --- (H12M2) (J15M1)
- IBUS IOS 06 L --- (H12N2) (J15N1)
- IBUS IOS 07 H --- (H13M1) (J15M2)
- IBUS IOS 07 L --- (H13N2) (J16N1)
- IBUS IOS 08 H --- (H14M1) (J16M2)
- IBUS IOS 08 L --- (H14N1) (J16N2)
- IBUS IOS 09 H --- (H14N2) (J17N1)
- IBUS IOS 09 L --- (H15M1) (J17M2)
- IBUS PI REQ SYNC L --- (H12S1) (J14S2)
- IBUS PI01 H --- (H12T2) (J15T1)
- IBUS PI02 H --- (H13T1) (J15T2)
- IBUS PI03 H --- (H13S2) (J16S1)
- IBUS PI04 H --- (H14S1) (J16S2)
- IBUS PI05 H --- (H14T1) (J16T2)
- IBUS PI06 H --- (H14T2) (J17T1)
- IBUS PI07 H --- (H15S1) (J17S2)
- IBUS RD1 DATA H --- (H14R2) (J17R1)
- IBUS RD1 PULSE L --- (H14R1) (J15R2)
- IBUS RESERVE L --- (H12K2) (J15K1)
- IBUS RESET L --- (H12K1) (J14K2)

D

C

V

B

A

D

C

V

B

A

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE 17-OCT-75	ENG. <i>W. S. ...</i>	DATE 10/20/75	TITLE: KL10 I/O BUS CONNECTOR
	DATE 10/20/75	CHK. <i>W. S. ...</i>	BOARDS LOCATION:	SIZE CODE D IC
IBUS(4,426)	DATE 10-OCT-75 12:22	NEXT HIGHER ASSEMBLY: B-DD-KL10-0	NUMBER	REV.
FIRST USED ON OPTION/MODEL: KL10			KL10-0-IBUS	

8

7

6

5

3

2

1

480

SLOT	H01		H02		H03		H04	
PIN SIDE	1	2	1	2	1	2	1	2
A	+	+	+	+	+	+	+	+
B	+	+	+	+	+	+	+	+
C	+	+	+	+	+	+	+	+
D	+	+	+	+	+	+	+	+
E	+	+	+	+	+	+	+	+
F	+	+	+	+	+	+	+	+
H	+	+	+	+	+	+	+	+
J	+	+	+	+	+	+	+	+
K	+	+	+	+	+	+	+	+
L	+	+	+	+	+	+	+	+
M	+	+	+	+	+	+	+	+
N	+	+	+	+	+	+	+	+
P	+	+	+	+	+	+	+	+
R	+	+	+	+	+	+	+	+
S	+	+	+	+	+	+	+	+
T	+	+	+	+	+	+	+	+

SLOT	H05		H07		H08		H09	
PIN SIDE	2	1	2	1	2	1	2	
A	+	+	+	+	+	+	+	
B	+	+	+	+	+	+	+	
C	+	+	+	+	+	+	+	
D	+	+	+	+	+	+	+	
E	+	+	+	+	+	+	+	
F	+	+	+	+	+	+	+	
H	+	+	+	+	+	+	+	
J	+	+	+	+	+	+	+	
K	+	+	+	+	+	+	+	
L	+	+	+	+	+	+	+	
M	+	+	+	+	+	+	+	
N	+	+	+	+	+	+	+	
P	+	+	+	+	+	+	+	
R	+	+	+	+	+	+	+	
S	+	+	+	+	+	+	+	
T	+	+	+	+	+	+	+	

SLOT	J03		J04		J05		J06	
PIN SIDE	2	1	2	1	2	1	2	
A	+	+	+	+	+	+	+	
B	+	+	+	+	+	+	+	
C	+	+	+	+	+	+	+	
D	+	+	+	+	+	+	+	
E	+	+	+	+	+	+	+	
F	+	+	+	+	+	+	+	
H	+	+	+	+	+	+	+	
J	+	+	+	+	+	+	+	
K	+	+	+	+	+	+	+	
L	+	+	+	+	+	+	+	
M	+	+	+	+	+	+	+	
N	+	+	+	+	+	+	+	
P	+	+	+	+	+	+	+	
R	+	+	+	+	+	+	+	
S	+	+	+	+	+	+	+	
T	+	+	+	+	+	+	+	

SLOT	J09		J10		J11		J12	
PIN SIDE	1	2	1	2	1	2	1	
A	+	+	+	+	+	+	+	
B	+	+	+	+	+	+	+	
C	+	+	+	+	+	+	+	
D	+	+	+	+	+	+	+	
E	+	+	+	+	+	+	+	
F	+	+	+	+	+	+	+	
H	+	+	+	+	+	+	+	
J	+	+	+	+	+	+	+	
K	+	+	+	+	+	+	+	
L	+	+	+	+	+	+	+	
M	+	+	+	+	+	+	+	
N	+	+	+	+	+	+	+	
P	+	+	+	+	+	+	+	
R	+	+	+	+	+	+	+	
S	+	+	+	+	+	+	+	
T	+	+	+	+	+	+	+	

	KBUS0	KBUS1	KBUS2	KBUS3
KBUS"X" ADR ACK (NT) L	1H01A1	1H06A2	1J03A2	1J09A1
KBUS"X" ADR ACK (T) L	1H04C1	1H09C2	1J06C2	1J12C1
KBUS"X" D00 L	1H01K1	1H06K2	1J03K2	1J09K1
KBUS"X" D01 L	1H01K2	1H07K1	1J04K1	1J09K2
KBUS"X" D02 L	1H01L2	1H07L1	1J04L1	1J09L2
KBUS"X" D03 L	1H02L1	1H07L2	1J04L2	1J10L1
KBUS"X" D04 L	1H02K2	1H08K1	1J05K1	1J10K2
KBUS"X" D05 L	1H03K1	1H08K2	1J05K2	1J11K1
KBUS"X" D06 L	1H03L1	1H08L2	1J05L2	1J11L1
KBUS"X" D07 L	1H03L2	1H09L1	1J06L1	1J11L2
KBUS"X" D08 L	1H04K1	1H09K2	1J06K2	1J12K1
KBUS"X" D09 L	1H01M1	1H06M2	1J03M2	1J09M1
KBUS"X" D10 L	1H01M2	1H07M1	1J04M1	1J09M2
KBUS"X" D11 L	1H01N2	1H07N1	1J04N1	1J09N2
KBUS"X" D12 L	1H02N1	1H07N2	1J04N2	1J10N1
KBUS"X" D13 L	1H02M2	1H08M1	1J05M1	1J10M2
KBUS"X" D14 L	1H03M1	1H08M2	1J05M2	1J11M1
KBUS"X" D15 L	1H03N1	1H08N2	1J05N2	1J11N1
KBUS"X" D16 L	1H03N2	1H09N1	1J06N1	1J11N2
KBUS"X" D17 L	1H04M1	1H09M2	1J06M2	1J12M1
KBUS"X" D18 L	1H01P1	1H06P2	1J03P2	1J09P1
KBUS"X" D19 L	1H01P2	1H07P1	1J04P1	1J09P2
KBUS"X" D20 L	1H01R2	1H07R1	1J04R1	1J09R2
KBUS"X" D21 L	1H02R1	1H07R2	1J04R2	1J10R1
KBUS"X" D22 L	1H02P2	1H08P1	1J05P1	1J10P2
KBUS"X" D23 L	1H03P1	1H08P2	1J05P2	1J11P1
KBUS"X" D24 L	1H03R1	1H08R2	1J05R2	1J11R1
KBUS"X" D25 L	1H03R2	1H09R1	1J06R1	1J11R2
KBUS"X" D26 L	1H04P1	1H09P2	1J06P2	1J12P1
KBUS"X" D27 L	1H01S1	1H06S2	1J03S2	1J09S1
KBUS"X" D28 L	1H01S2	1H07S1	1J04S1	1J09S2
KBUS"X" D29 L	1H01T2	1H07T1	1J04T1	1J09T2
KBUS"X" D30 L	1H02T1	1H07T2	1J04T2	1J10T1
KBUS"X" D31 L	1H02S2	1H08S1	1J05S1	1J10S2
KBUS"X" D32 L	1H03S1	1H08S2	1J05S2	1J11S1
KBUS"X" D33 L	1H03T1	1H08T2	1J05T2	1J11T1
KBUS"X" D34 L	1H03T2	1H09T1	1J06T1	1J11T2
KBUS"X" D35 L	1H04S1	1H09S2	1J06S2	1J12S1
KBUS"X" DATA WARNING L	1H04A1	1H09A2	1J06A2	1J12A1
KBUS"X" IGN PAR PULSE L	1H03J2	1H08J1	1J05J1	1J11J2
KBUS"X" MADR 14 L	1H02C2	1H08C1	1J05C1	1J10C2
KBUS"X" MADR 15 L	1H03C1	1H08C2	1J05C2	1J11C1
KBUS"X" MADR 16 L	1H03D1	1H08D2	1J05D2	1J11D1
KBUS"X" MADR 17 L	1H03D2	1H09D1	1J06D1	1J11D2
KBUS"X" MADR 18 L	1H03B2	1H09B1	1J05B1	1J11B2
KBUS"X" MADR 19 L	1H01C1	1H06C2	1J03C2	1J09C1
KBUS"X" MADR 20 L	1H01D2	1H07D1	1J04D1	1J09D2
KBUS"X" MADR 21 L	1H04H1	1H09H2	1J06H2	1J12H1
KBUS"X" MADR 22 L	1H01E1	1H06E2	1J03E2	1J09E1
KBUS"X" MADR 23 L	1H01E2	1H07E1	1J04E1	1J09E2
KBUS"X" MADR 24 L	1H01F2	1H07F1	1J04F1	1J09F2
KBUS"X" MADR 25 L	1H02F1	1H07F2	1J04F2	1J10F1
KBUS"X" MADR 26 L	1H02E2	1H08E1	1J05E1	1J10E2
KBUS"X" MADR 27 L	1H03E1	1H08E2	1J05E2	1J11E1
KBUS"X" MADR 28 L	1H03F1	1H08F2	1J05F2	1J11F1
KBUS"X" MADR 29 L	1H03F2	1H09F1	1J06F1	1J11F2
KBUS"X" MADR 30 L	1H04E1	1H09E2	1J06E2	1J12E1
KBUS"X" MADR 31 L	1H01H1	1H06H2	1J03H2	1J09H1
KBUS"X" MADR 32 L	1H01H2	1H07H1	1J04H1	1J09H2
KBUS"X" MADR 33 L	1H01J2	1H07J1	1J04J1	1J09J2
KBUS"X" MADR 34 L	1H02J1	1H07J2	1J04J2	1J10J1
KBUS"X" MADR 35 L	1H02H2	1H08H1	1J05H1	1J10H2
KBUS"X" MADR RD RQ L	1H03H1	1H08H2	1J05H2	1J11H1
KBUS"X" MADR WR RQ L	1H03J1	1H08J2	1J05J2	1J11J1
KBUS"X" MBD PAR L	1H02B1	1H07B2	1J04B2	1J10B1
KBUS"X" MBI SEQ RQ L	1H02D1	1H07D2	1J04D2	1J10D1
KBUS"X" RD RS L	1H01A2	1H07A1	1J04A1	1J09A2
KBUS"X" RQ CYC FAST L	1H03A1	1H08A2	1J05A2	1J11A1
KBUS"X" RQ CYC IMM L	1H02A2	1H08A1	1J05A1	1J10A2
KBUS"X" RQ CYC SLOW L	1H03B1	1H08B2	1J05B2	1J11B1
KBUS"X" WR RS L	1H01B2	1H07B1	1J04B1	1H09B2

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REVISIONS	
CHK	CHANGE NO. / REV

409

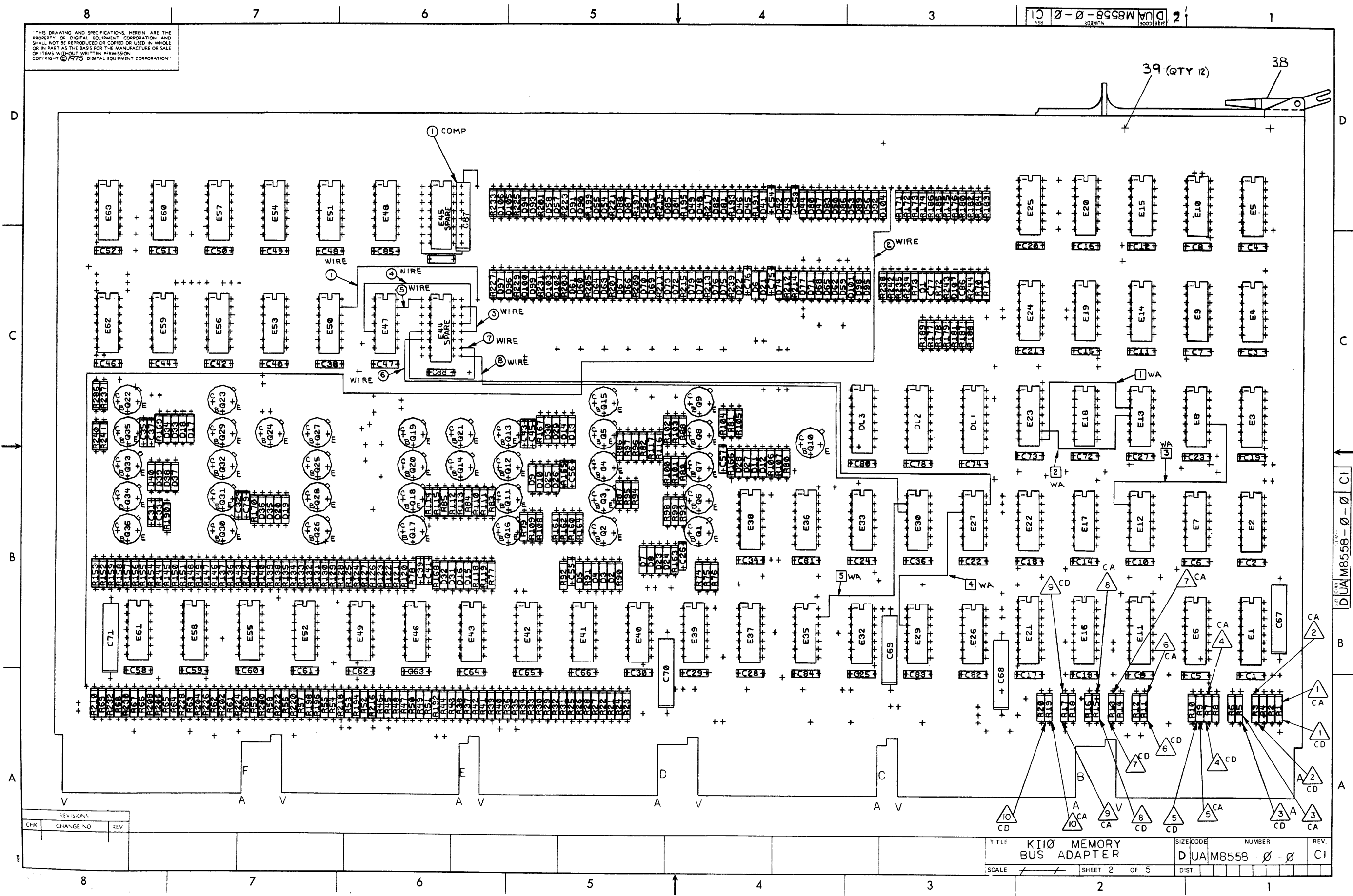
**digital** DRN: *La mky* DATE: 12-OCT-75  
 DATE: 10/20/75  
 BOARD LOCATION: *118-OCT-75 13:42*  
 SHEET: *1* OF *1*  
 NEXT HIGHER ASSEMBLY: *B-DD-KL10-0*

TITLE: **KL10 MEMORY BUS CONNECTORS**  
 NUMBER: **D I C KL10-0-MBUS**





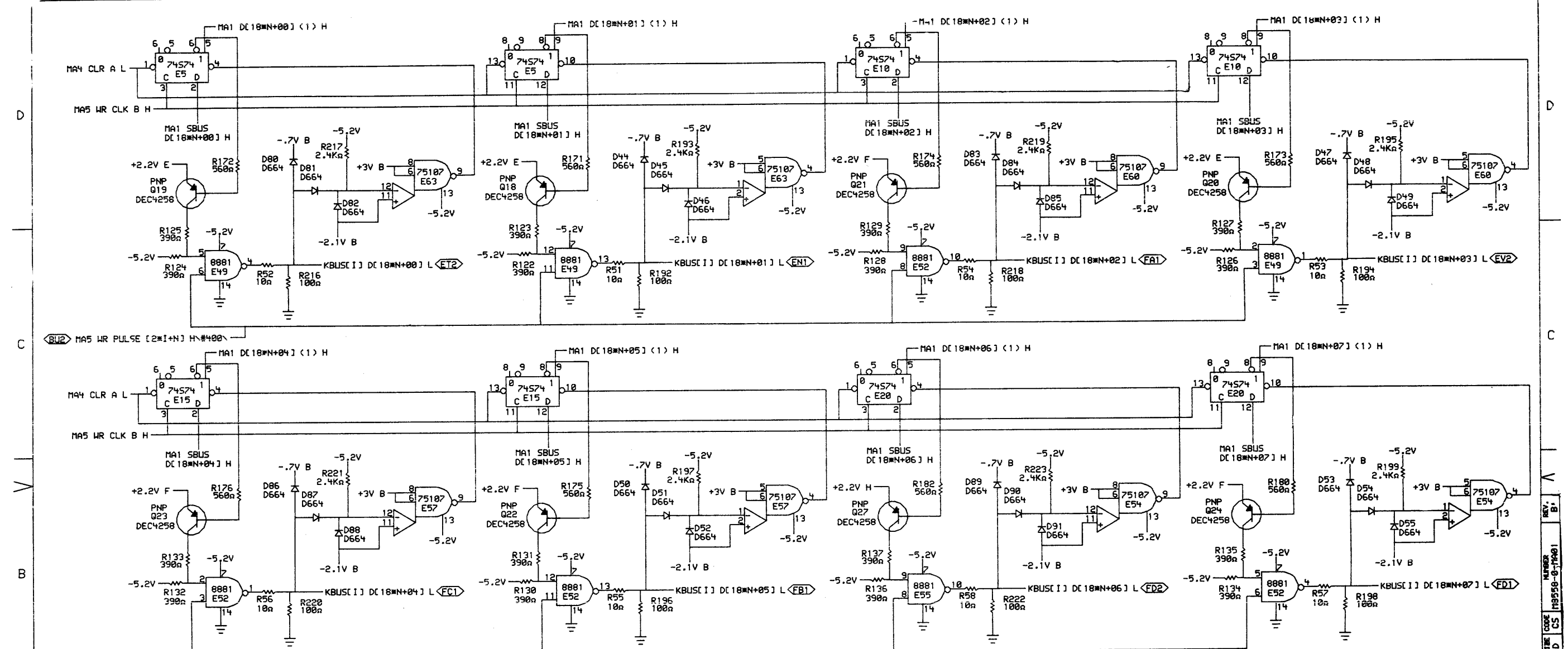
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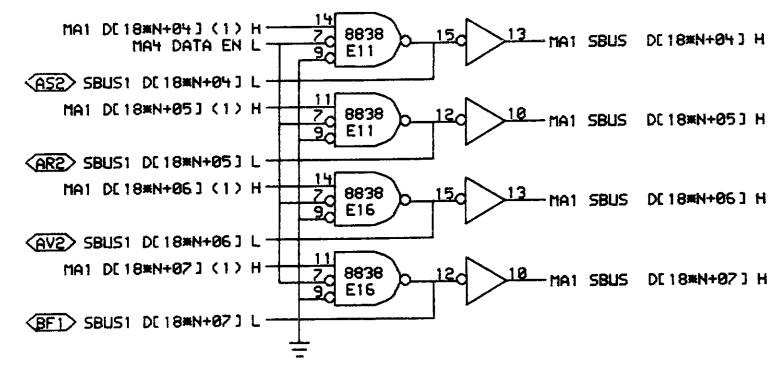
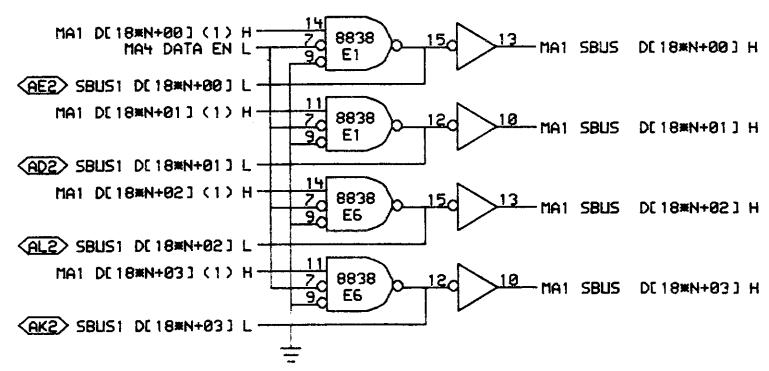
REVISIONS		
CHK	CHANGE NO	REV

TITLE	KI10 MEMORY BUS ADAPTER	SIZE CODE	DUA M8558-0-0	NUMBER	C1	REV.	
SCALE		SHEET	2	OF	5	DIST.	





LOCATION	VARIABLES
1AF04	N=00 I=0
1AF05	N=01 I=0
1AF06	N=00 I=1
1AF07	N=01 I=1
1AF08	N=00 I=2
1AF09	N=01 I=2
1AF10	N=00 I=3
1AF11	N=01 I=3



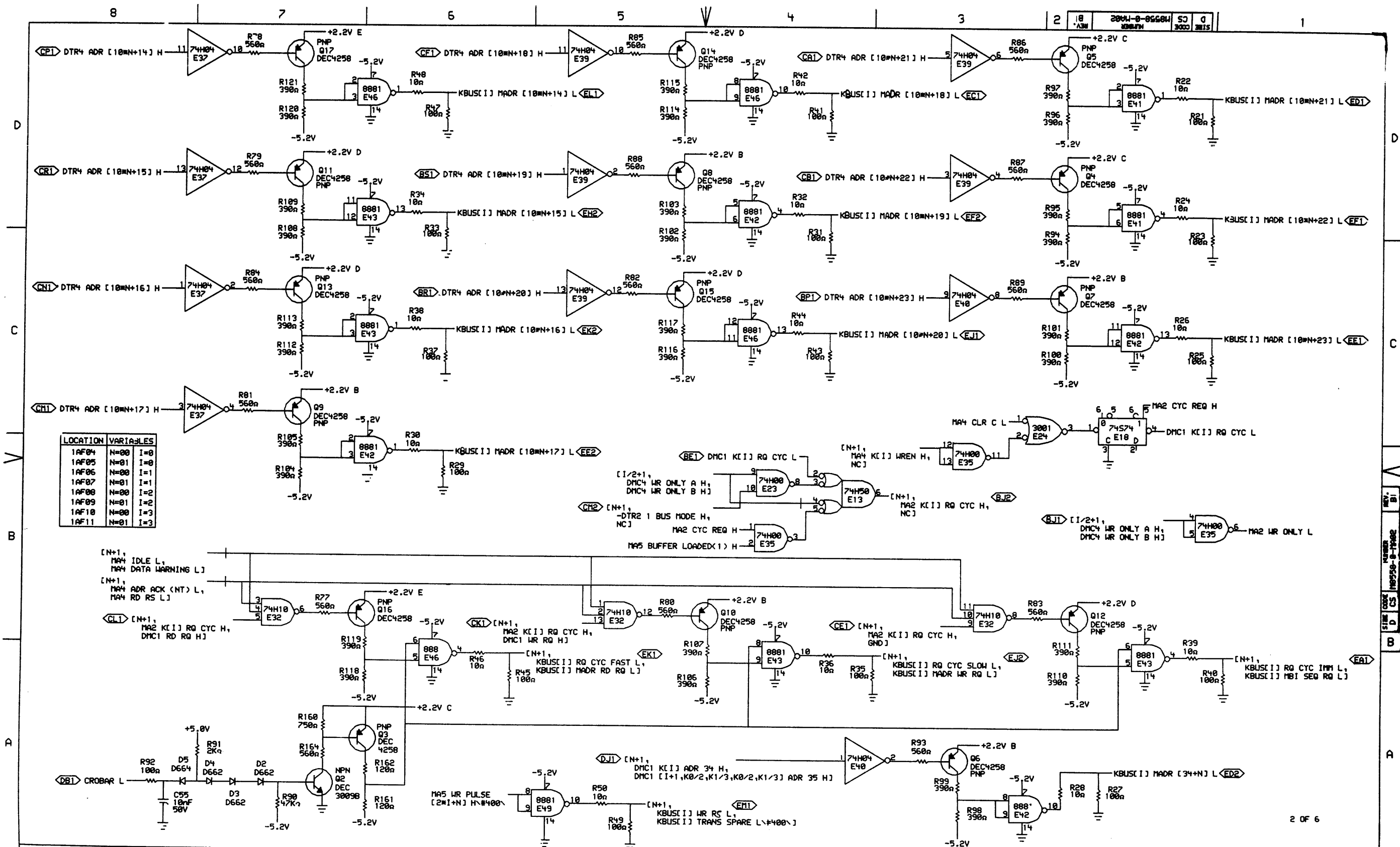
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REVISIONS	DATE	BY
1	11/27/76	D. LITWINETZ
2	1/18/77	B. BRUCKERT

digital  
 DATE: 27-JAN-77  
 ENG: W. BRUNDT  
 DATE: 12/77  
 BOARD LOCATION: 1 OF 1  
 SHEET: 1 OF 1  
 FIRST USED ON OPTION/MODEL: KL10 / B-DD-M8558-0

TITLE: KI MEMORY BUS ADAPTER  
 NUMBER: M8558-0-MA01  
 REV: B1

493



LOCATION	VARIABLES
1AF04	N=00 I=0
1AF05	N=01 I=0
1AF06	N=00 I=1
1AF07	N=01 I=1
1AF08	N=00 I=2
1AF09	N=01 I=2
1AF10	N=00 I=3
1AF11	N=01 I=3

REVISIONS		DATE	ENG.	DATE	ENG.	DATE	ENG.
CHK	CH-NGE NO.	REV					
	18558-00003	B	D. LITWINETZ	11/22/77			
	5. BRUCKERY						

digital

DATE: 11-22-77

ENG: D. Litwinetz

DATE: 11/22/77

BOARD LOCATION: 11/22/77

TITLE: KI MEMORY BUS ADAPTER

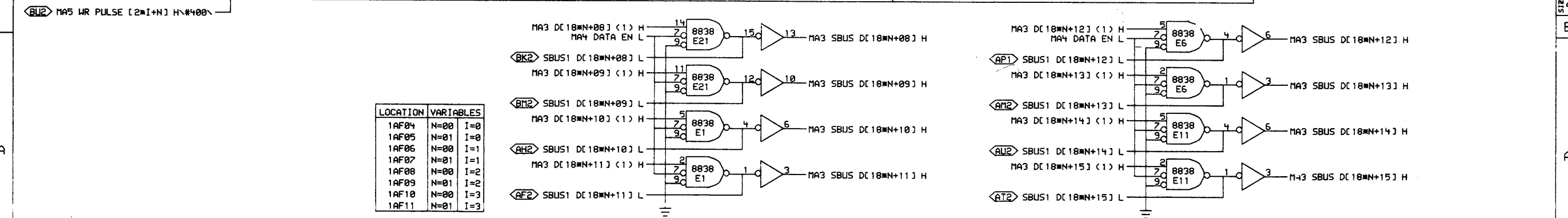
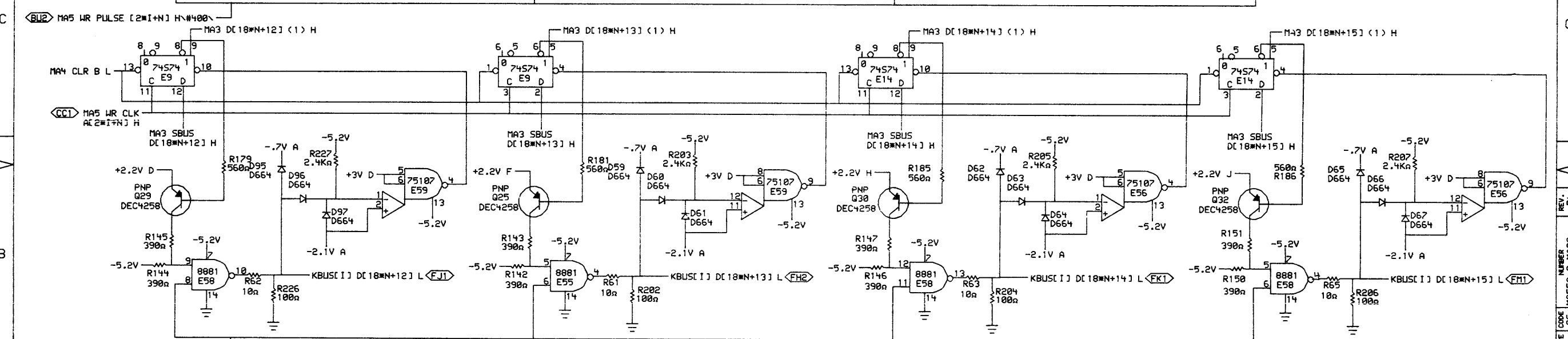
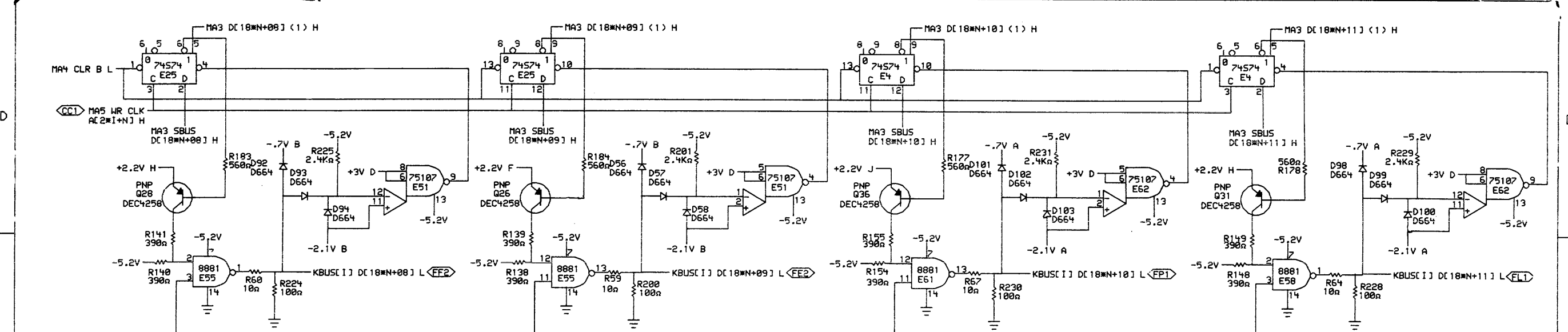
SIZE CODE: D CS

NUMBER: M8558-0-MA02

REV: B1

FIRST USED ON OPTION MODEL: KL10

NEXT HIGHER ASSEMBLY: B-DD-M8558-0



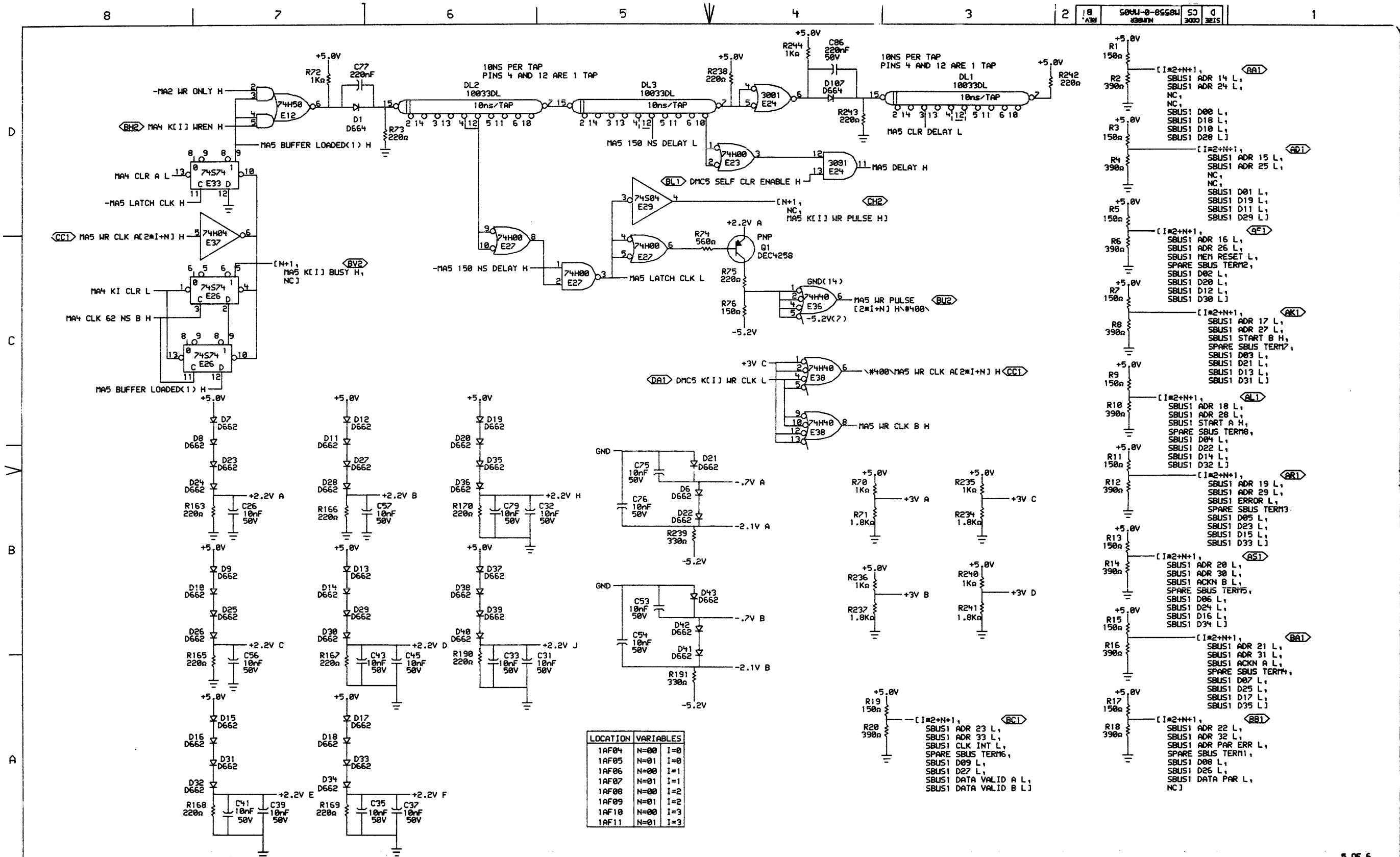
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REVISIONS	DATE	BY	CHK
1	17 JAN 77	D.LITWINETZ	
2	17 FEB 77	B. BRUCKERT	

445

digital	DATE: 25 JAN 77	ENG: B. Bruckert	DATE: 7 FEB 77	TITLE: KI MEMORY BUS ADAPTER
	DATE: 1/28/77	BOARD LOCATION: 1	SHEET: 1	
NMA03.DRM 4,426 J	126-JAN-77 16:51	NEXT HIGHER ASSEMBLY: B-DD-M8558-0	SIZE CODE: D CS	NUMBER: M8558-0-MA03
FIRST USED ON OPTION/MODEL: KL10				REV. BI





- (A1) SBUS1 ADDR 14 L, SBUS1 ADDR 24 L, NC, SBUS1 D00 L, SBUS1 D18 L, SBUS1 D10 L, SBUS1 D28 L
- (A2) SBUS1 ADDR 15 L, SBUS1 ADDR 25 L, NC, SBUS1 D01 L, SBUS1 D19 L, SBUS1 D11 L, SBUS1 D29 L
- (A3) SBUS1 ADDR 16 L, SBUS1 ADDR 26 L, SBUS1 MEM RESET L, SPARE SBUS TERM2, SBUS1 D02 L, SBUS1 D20 L, SBUS1 D12 L, SBUS1 D30 L
- (A4) SBUS1 ADDR 17 L, SBUS1 ADDR 27 L, SBUS1 START B H, SPARE SBUS TERM7, SBUS1 D03 L, SBUS1 D21 L, SBUS1 D13 L, SBUS1 D31 L
- (A5) SBUS1 ADDR 18 L, SBUS1 ADDR 28 L, SBUS1 START A H, SPARE SBUS TERM8, SBUS1 D04 L, SBUS1 D22 L, SBUS1 D14 L, SBUS1 D32 L
- (A6) SBUS1 ADDR 19 L, SBUS1 ADDR 29 L, SBUS1 ERROR L, SPARE SBUS TERM3, SBUS1 D05 L, SBUS1 D23 L, SBUS1 D15 L, SBUS1 D33 L
- (A7) SBUS1 ADDR 20 L, SBUS1 ADDR 30 L, SBUS1 ACKN B L, SPARE SBUS TERM5, SBUS1 D06 L, SBUS1 D24 L, SBUS1 D16 L, SBUS1 D34 L
- (A8) SBUS1 ADDR 21 L, SBUS1 ADDR 31 L, SBUS1 ACKN A L, SPARE SBUS TERM4, SBUS1 D07 L, SBUS1 D25 L, SBUS1 D17 L, SBUS1 D35 L
- (A9) SBUS1 ADDR 22 L, SBUS1 ADDR 32 L, SBUS1 ADDR PAR ERR L, SPARE SBUS TERM1, SBUS1 D08 L, SBUS1 D26 L, SBUS1 DATA PAR L, NC

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REVISIONS		AM8558 MRO04 B1
CHK	CHANGE NO.	REV
1	1	1
2	2	2
3	3	3

DATE	ENG.	DATE	TITLE:
27-JAN-77	D. Bruckert	7 FEB 76	KI MEMORY BUS ADAPTER
1/28/77			

digital  
 FIRST USED ON OPTION/MODEL: KL10  
 B-DD-M8558-0  
 SIZE CODE NUMBER REV.  
 D CS M8558-0-MA05 B1

D

C

B

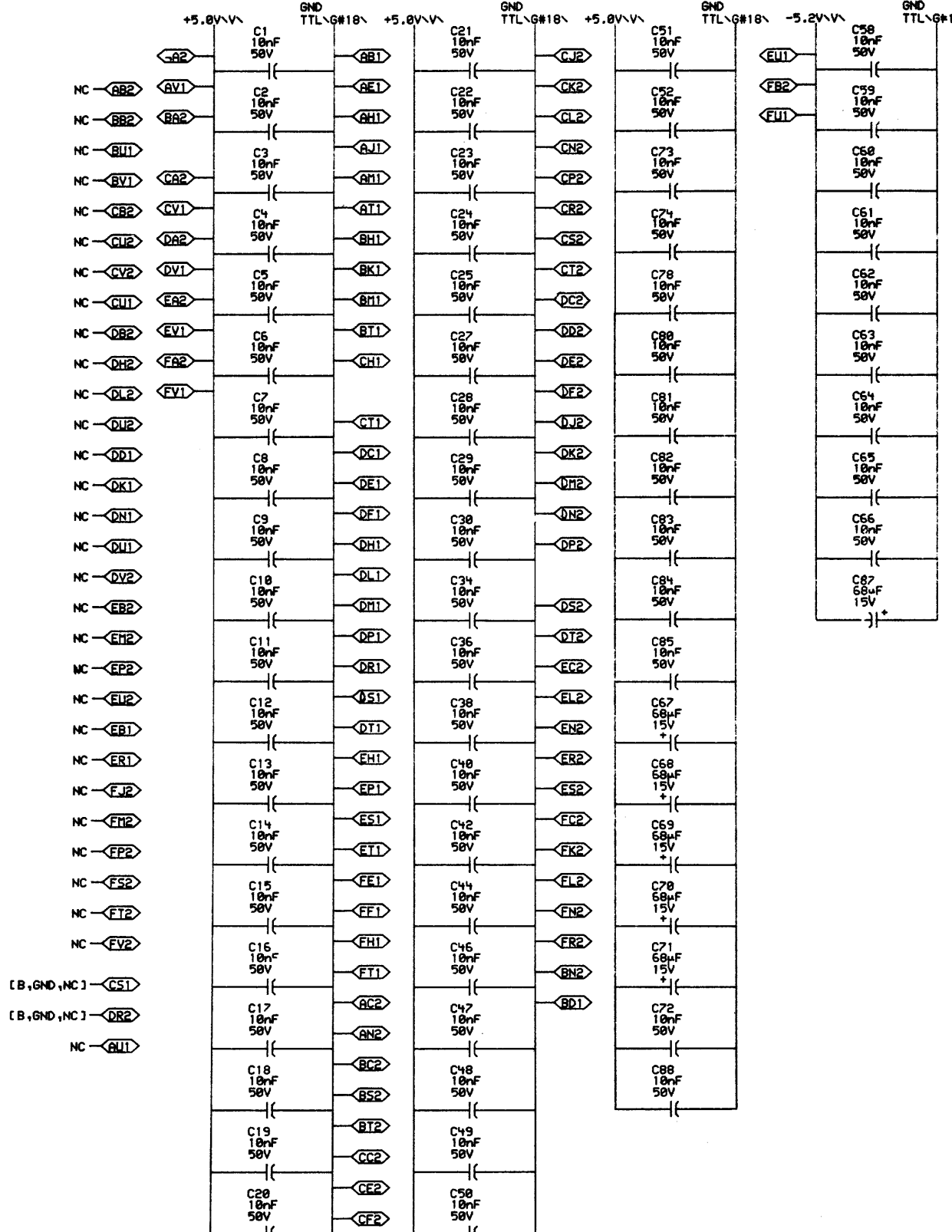
D

D

C

B

D



NOTE:

- ALL 74H SERIES LOGIC IS TO BE 1074H SERIES
- THE FOLLOWING PIN NUMBERS APPLY TO TTL DIP PACKAGES:

GND +5.0V PACKAGE TYPE		
8	16	16 PIN DIP
7	14	14 PIN DIP

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REVISIONS		DATE	BY
1	58-00003 B	1/18/77	D. LITWINETZ
2			

DR. G. Smith	DATE: 07-FEB-73	ENG. M. Smith	DATE: 7 FEB 76
DATE: 1/18/77	BOARD LOCATION:	SHEET 1 OF 1	
FIRST USED ON OPTION/MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8558-0	

TITLE: KI MEM BUS ADPT POWER AND GND		SIZE CODE: D CS	NUMBER: M8558-0-MA06	REV.: B1
--------------------------------------	--	-----------------	----------------------	----------

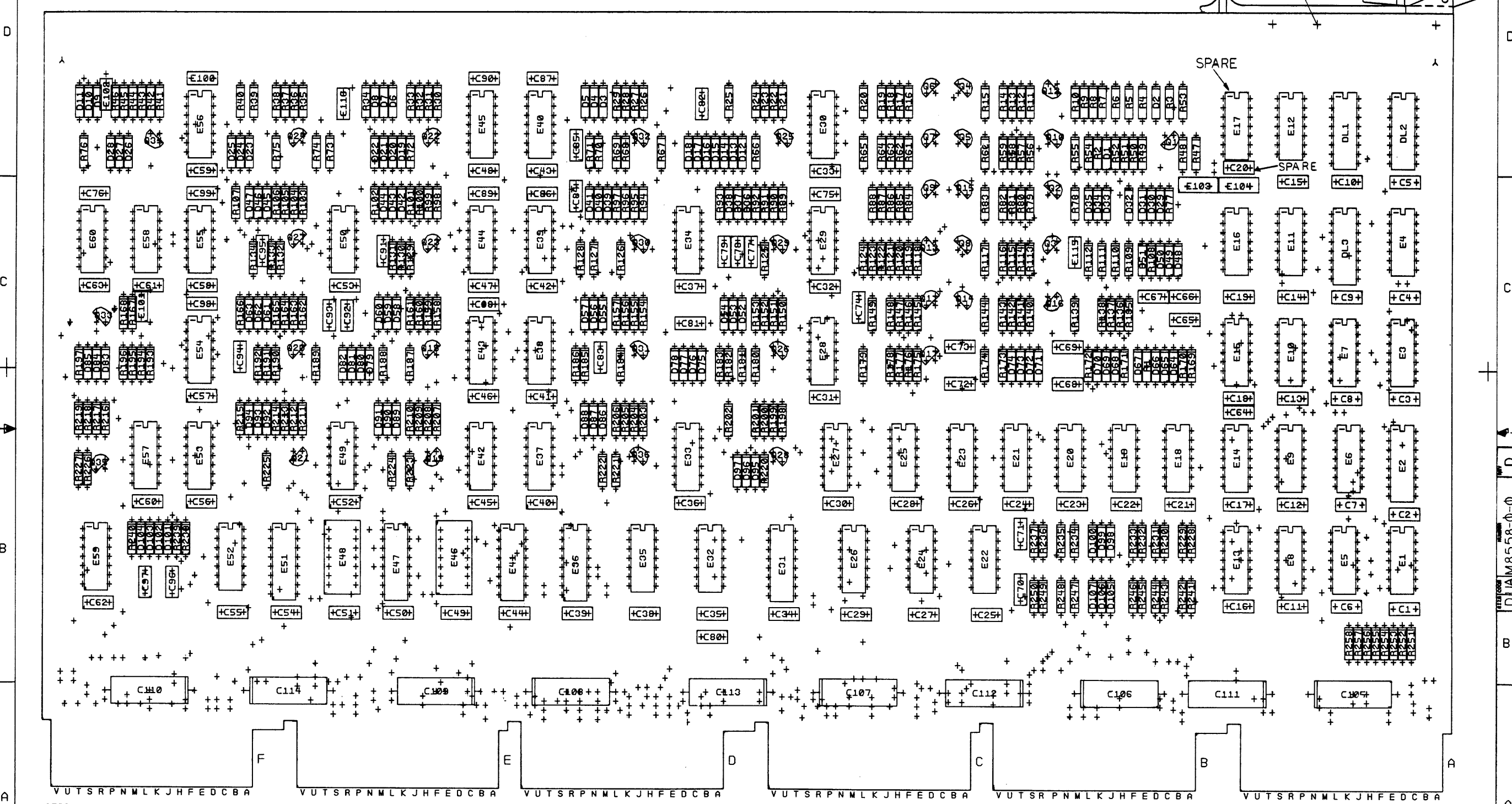




40 (QTY 12)

39

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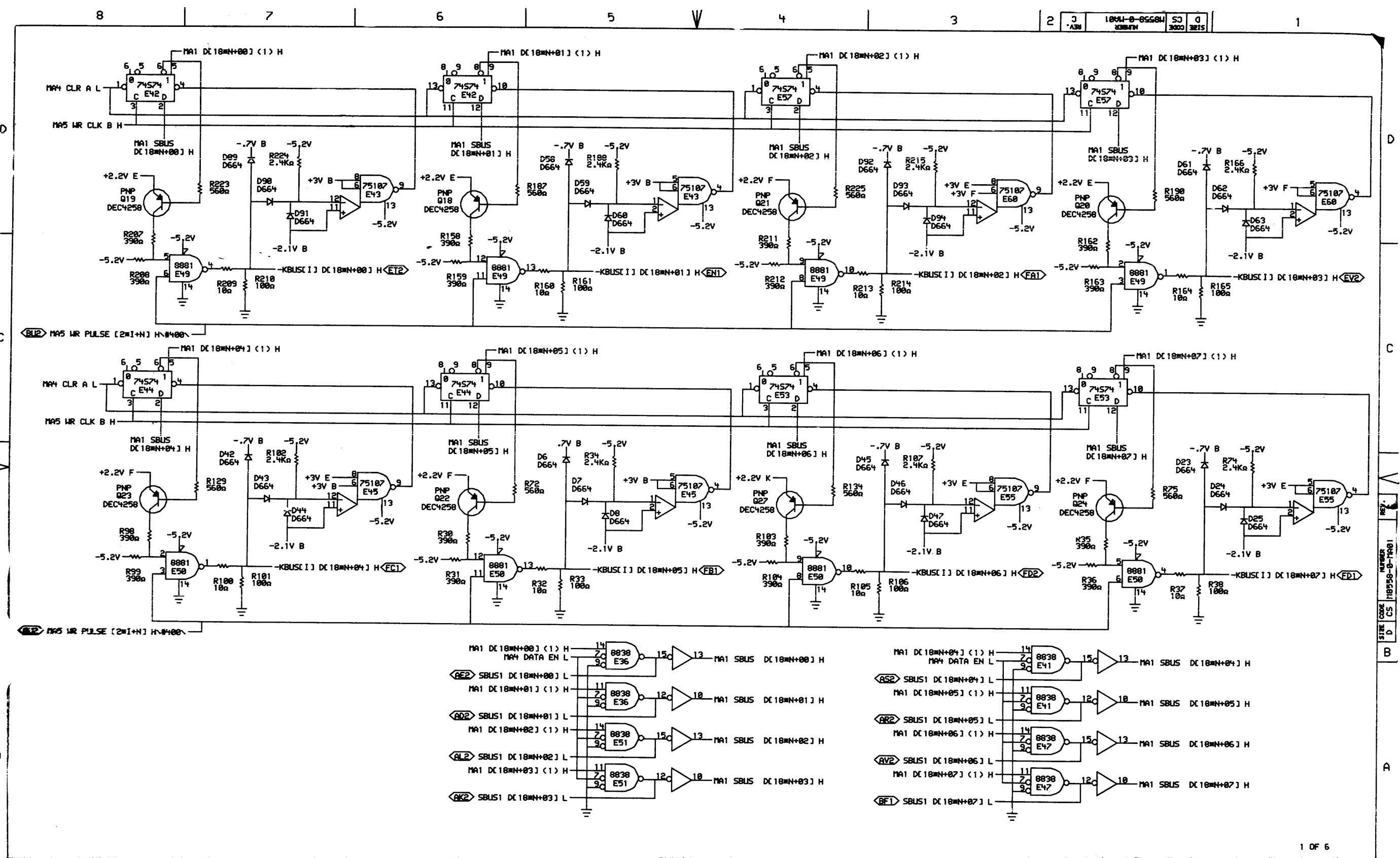
NOTES:


CHK	CHANGE NO	REV

ETCH REV.	CPI
P.C. DESIGN DATA BASE REV.	CPI

SIGNATURES		DATE	digital
DRN	<i>[Signature]</i>	26/10/77	
CHK'D.	<i>[Signature]</i>	13/11/77	TITLE KI MEMORY BUS ADAPTER
ENG.	<i>[Signature]</i>	13/11/77	
PROJ. ENG.	<i>[Signature]</i>	10/11/77	SIZE CODE NUMBER REV
SCALE	2/1		
SHT. 2 OF 5			NEXT HIGHER ASSY. B-DD-M8558-0

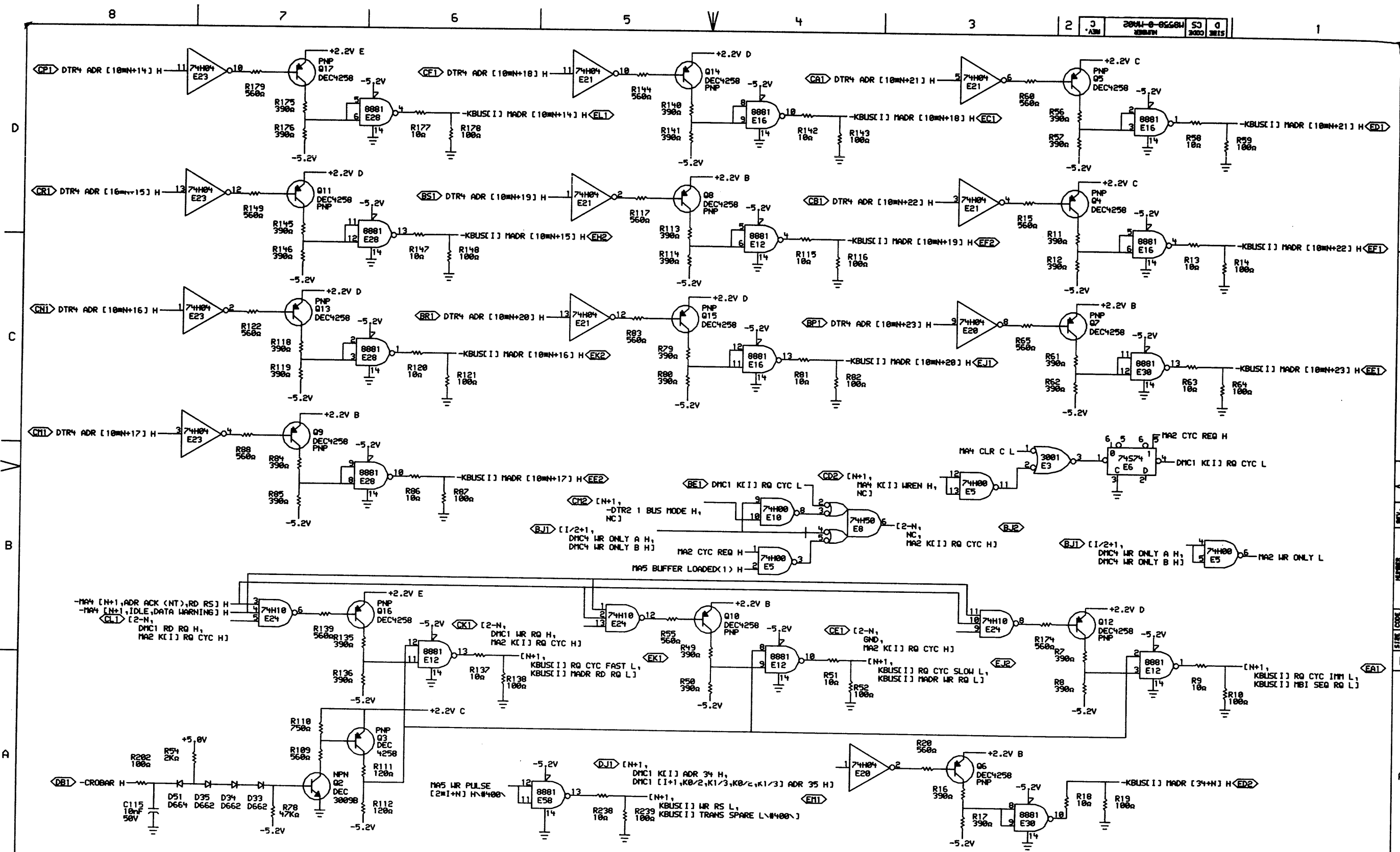




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REVISIONS		
CHK	CHANGE NO.	REV
	M8558 MPO09	C
	7/16/77	16 JAN 78
	D. LITWINETZ	

	DATE: 12-AUG-77	ENG: [Signature]	DATE: 7/12/77	TITLE: KI MEMORY BUS ADAPTER
	CHK'D: [Signature]	DATE: 8/11/77	SHEET: 1	NUMBER: M8558-0-MA01
FIRST USED ON OPTION MODEL: KL10		NEXT HIGHER ASSEMBLY: B-DD-M8558-0		SIZE CODE: D CS

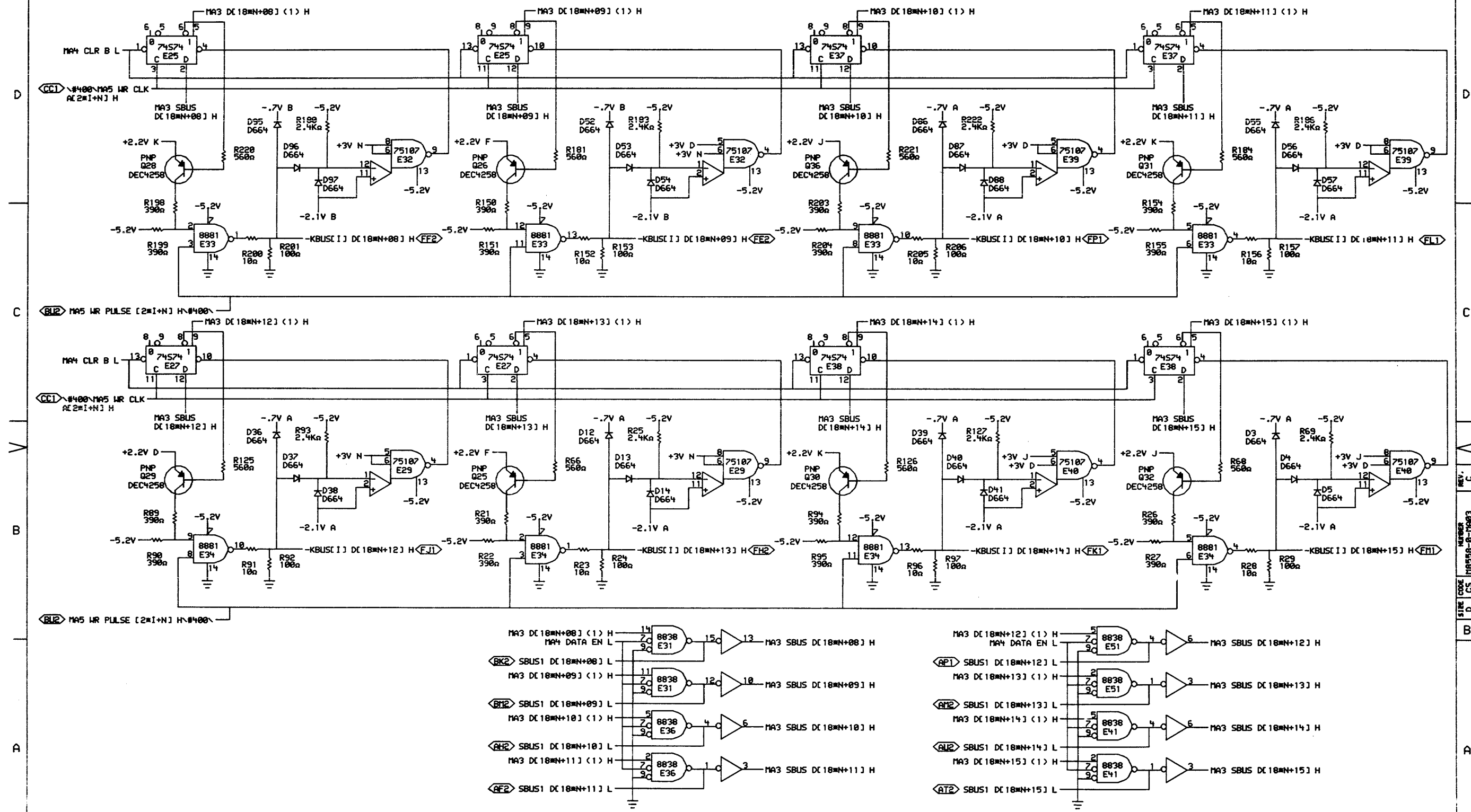


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REVISIONS		
CHK	CHANGE NO.	REV
	M8558 MRO09	C
D.LITWINETZ		

	DATE: 10-AUG-77	ENG: [Signature]	DATE: 7/2/77	TITLE: KI MEMORY BUS ADAPTER
	DATE: 11/22	BOARD LOCATION:	DE:	SIZE CODE: D CS
FIRST USED ON OPTION MODEL: KL10			DATE: B-DD-M8558-0	NUMBER: M8558-0-MA02
				REV. C

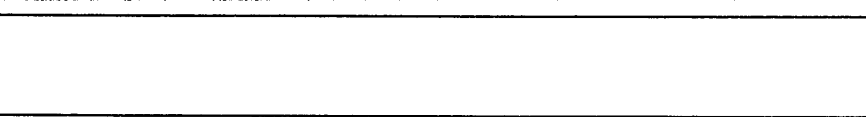
502



REV. C  
 NUMBER 118558-0-MA03  
 CS D

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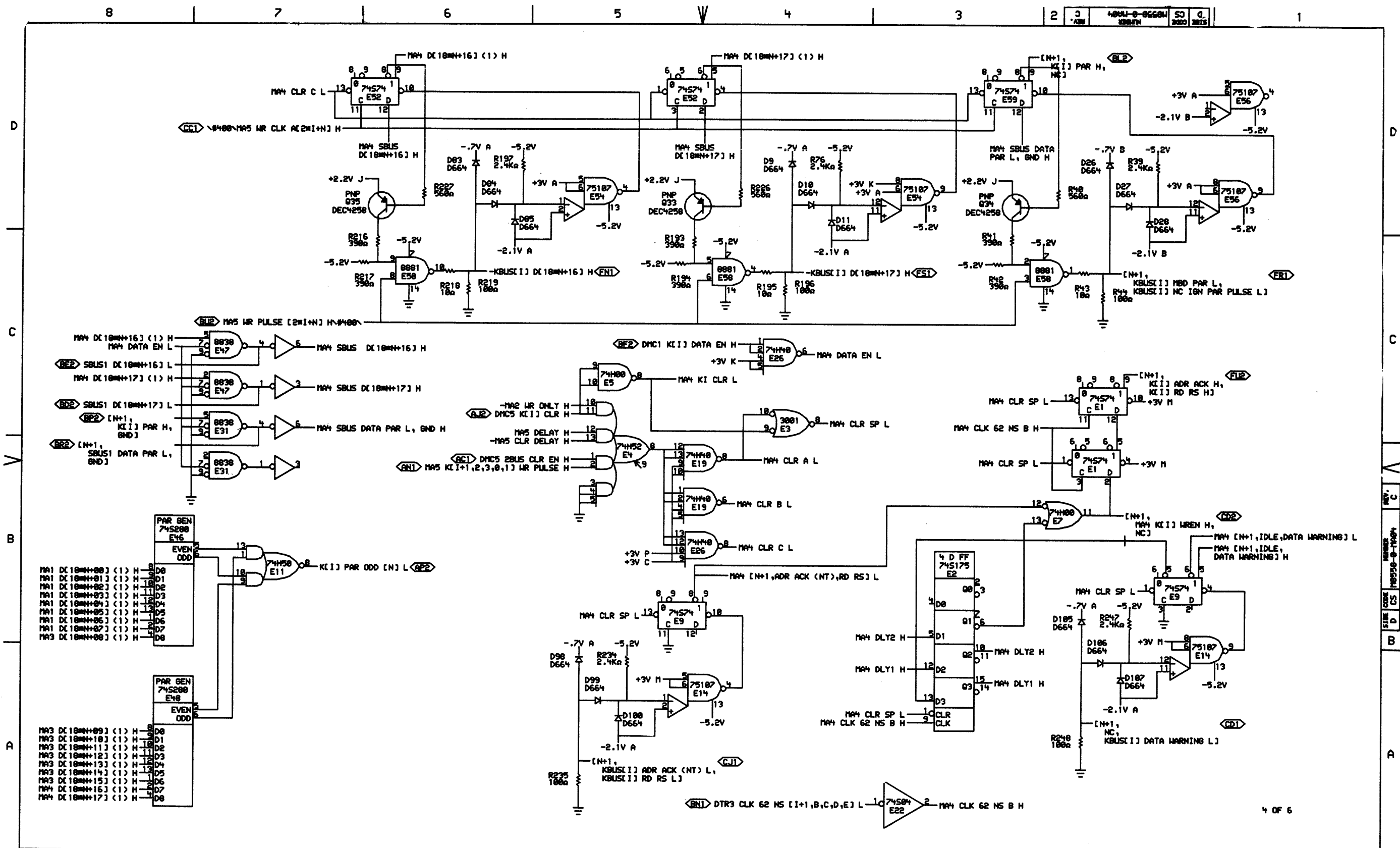
REVISIONS	CHK	CHANGE NO.	REV
1			
2			
3			
4			
5			
6			
7			
8			



digital	DATE 28-AUG-77	ENG. [Signature]	DATE 7/30/77
MA03ER.DRAW 4.6213	124-AUG-77	13:23	NEXT HIGHER ASSEMBLY:
FIRST USED ON OPTION/MODEL:	KL10	B-DD-M8558-0	

TITLE:	KI MEMORY BUS ADAPTER		
SIZE	CODE	NUMBER	REV.
D	CS	M8558-0-MA03	C

503



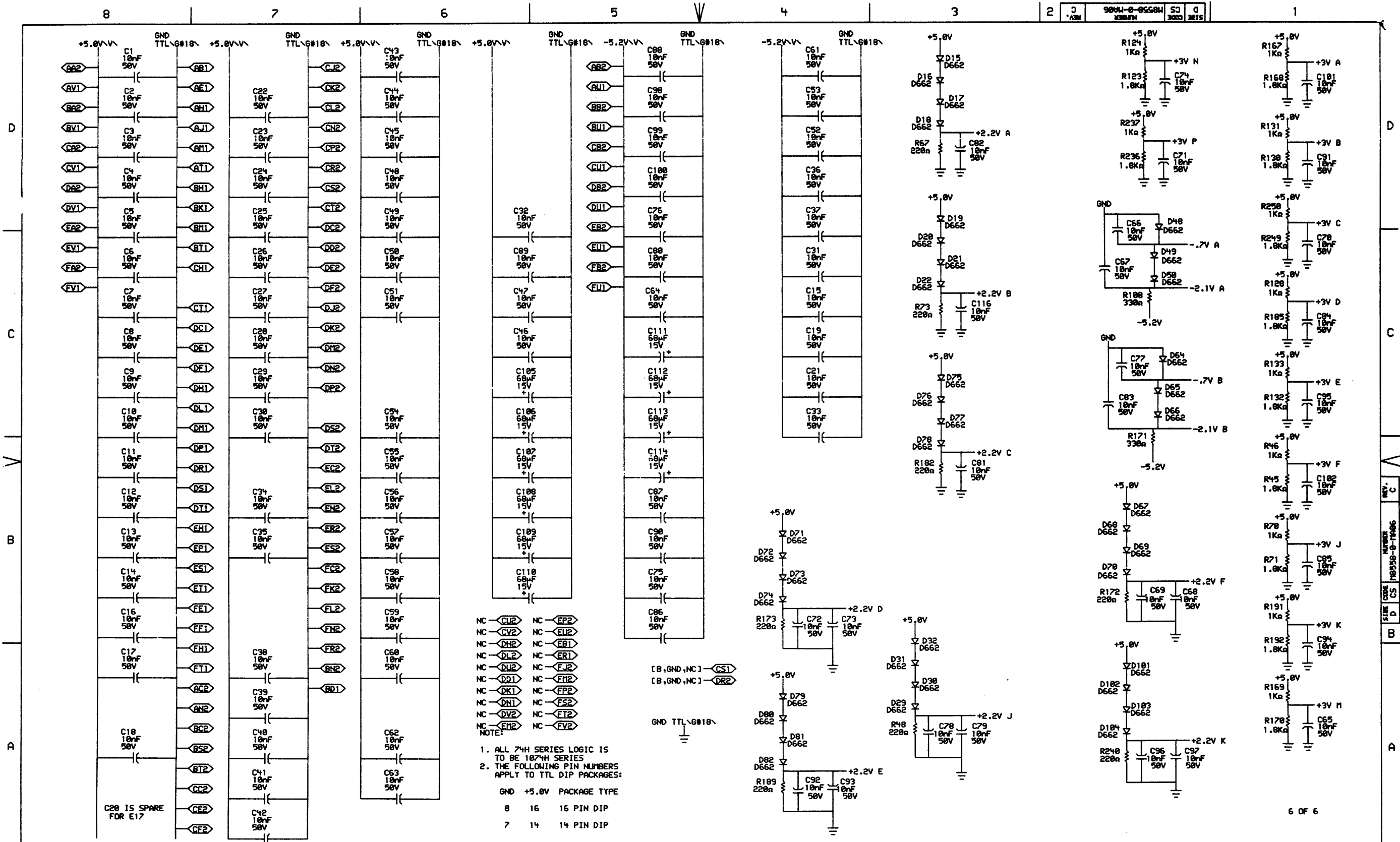
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REVISIONS		
CHK	CHANGE NO.	REV
	M8558 MRO09	C
D. LITWINETZ		

DATE: 8-18-77  
 DATE: 7/20/77  
 DATE: 8/27/77  
 DATE: 8/27/77

digital	DATE: 8-18-77	DATE: 7/20/77	DATE: 8/27/77	DATE: 8/27/77	TITLE: KI MEMORY ADAPTER
	MAPPER, DRK 4.621	185 AUG-77 1178	NEXT HIGHER ASSEMBLY: B-DD-M8558-0	SIZE CODE: D CS	NUMBER: M8558-0-MA04
FIRST USED ON OPTION/MODEL: KL10					REV. C





- NC -> C1P2 NC -> EP2  
 NC -> CV2 NC -> E1P  
 NC -> D1P2 NC -> E1B  
 NC -> DL2 NC -> E1R  
 NC -> DL1P NC -> F1P  
 NC -> DK1 NC -> F1B  
 NC -> DN1 NC -> F1R  
 NC -> DV2 NC -> F1P  
 NC -> EH2 NC -> F1P

NOTE:  
 1. ALL 74H SERIES LOGIC IS TO BE 107H SERIES  
 2. THE FOLLOWING PIN NUMBERS APPLY TO TTL DIP PACKAGES:

GND	+5.0V	PACKAGE TYPE
8	16	16 PIN DIP
7	14	14 PIN DIP

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REVISIONS	
CHK	CHANGE NO. / REV
	M8558 MRO03 C
	7/10/77 17/00/78
	D. LITWINETZ

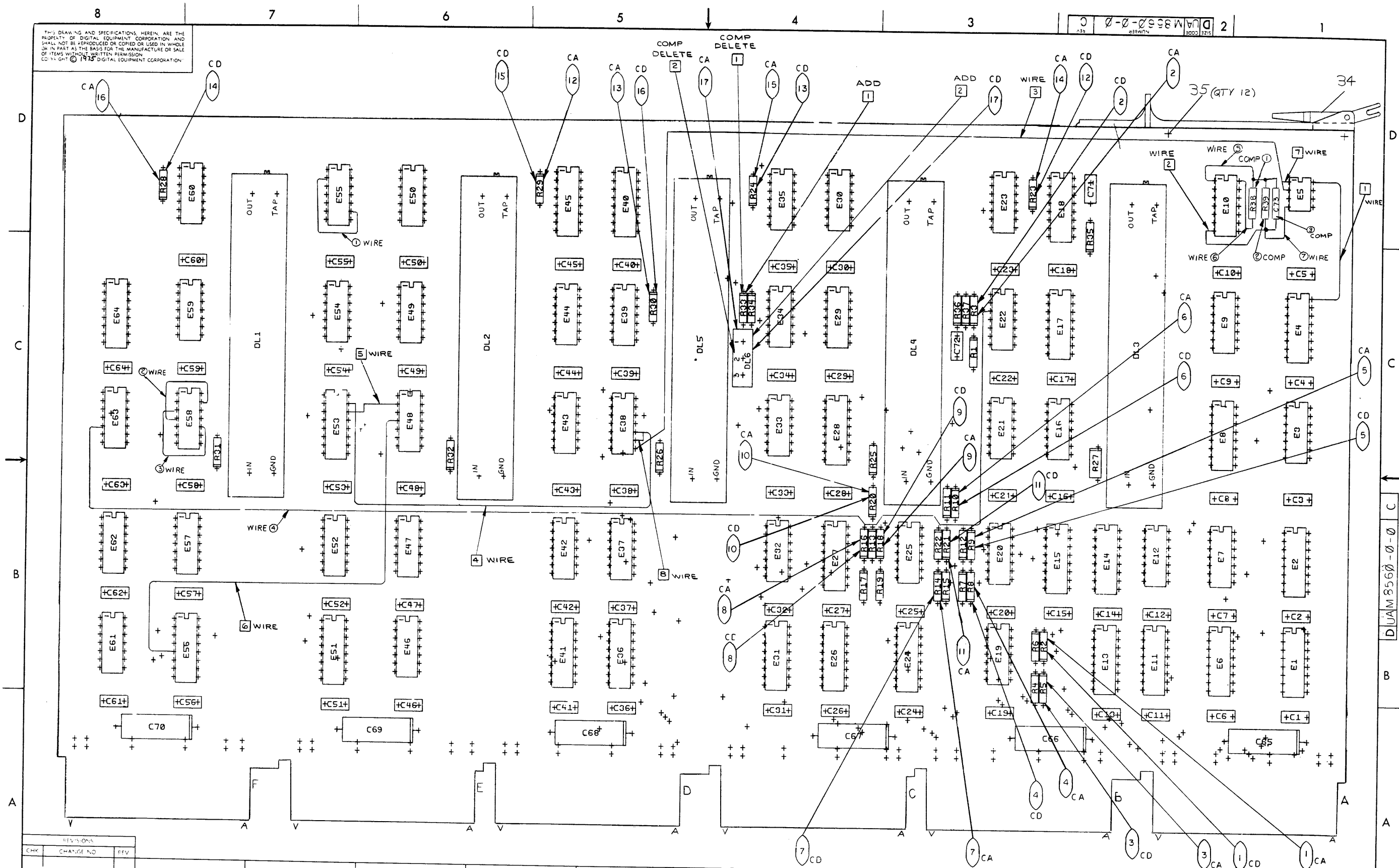
E. Cabre 11/8/77

digital	DATE	12-AUG-77	ENG	DATE	7/30/77	TITLE:	KI MEMORY BUS ADAPTER
	CHK'D	E. Cabre	DATE	8/11/77	SHEET	1 OF 1	NUMBER
FIRST USED ON OPTION/MODEL:		KL10		NEXT HIGHER ASSEMBLY:		B-DD-M8558-0	
SIZE	CODE	D	CS	M8558-0-MA06	REV.	C	

506



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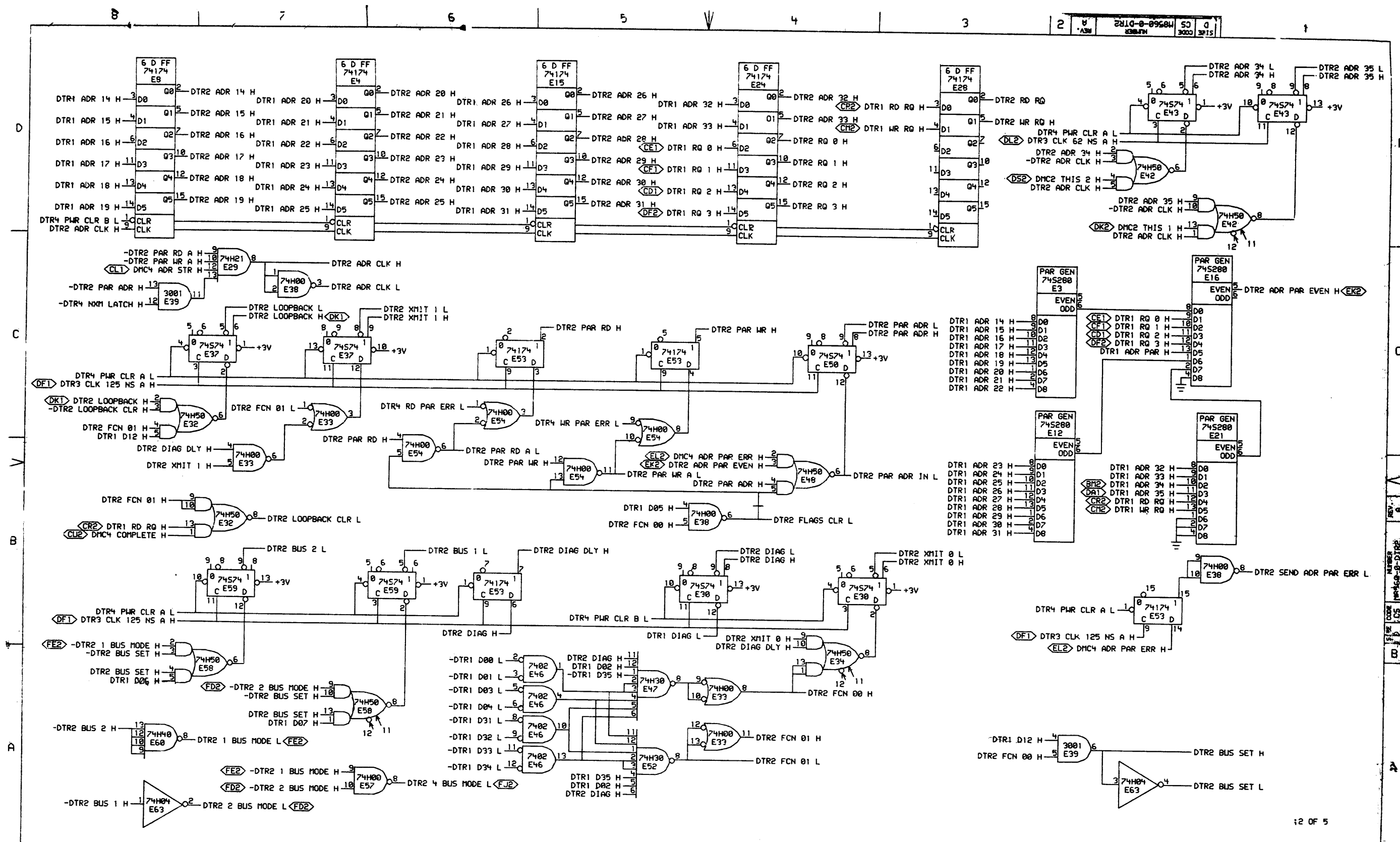
REVISIONS		
CHK	CHANGE NO	REV

TITLE	SBUS INTERFACE (LAYER 1)	SIZE CODE	D U A M 8560-0-0	NUMBER		REV.	C
SCALE		SHEET	3 OF 6	DIST.			

508





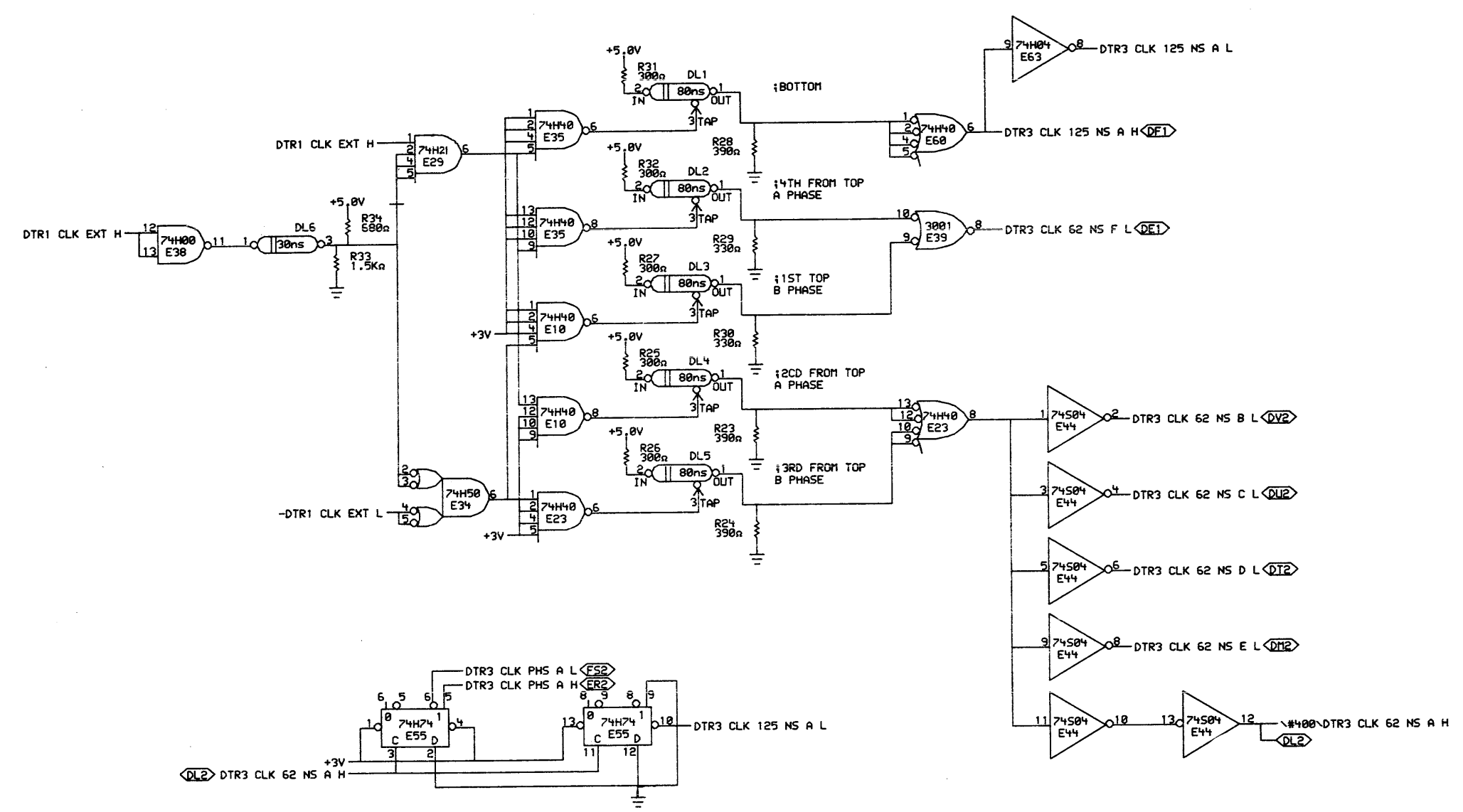


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REVISIONS		
CHK	CHANGE NO.	REV
W. BRUCKERT	1	A
W. BRUCKERT	2	B

	DRN: S. Foorley DATE: 5/27/75 W. Bruckert	ENG: M. Arnold DATE: 6/19/75	TITLE: DMA TIMING AND SBUS TRANCEIVERS
	DTR2EX4,426J FIRST USED ON OPTION MODEL: DMA20	BOARD LOCATION: 1AF03 SHEET: 1 OF 5	SIZE CODE: D CS

REV	NUMBER	DESCRIPTION
A	1	INITIAL RELEASE

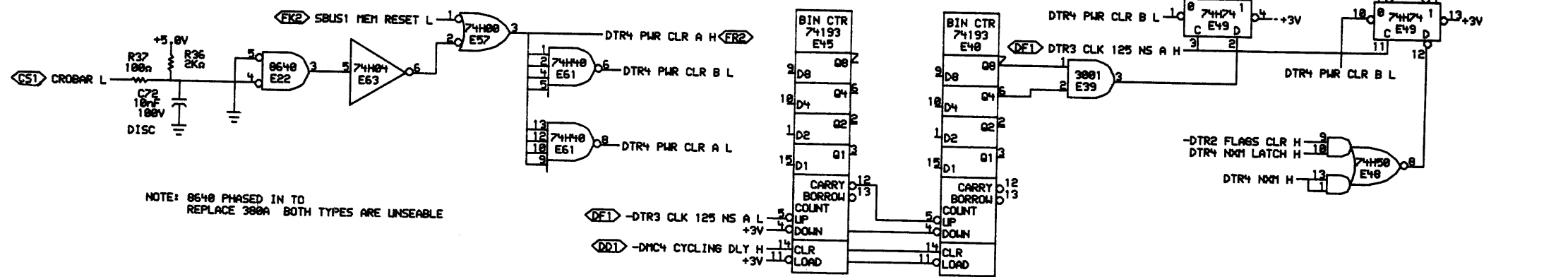
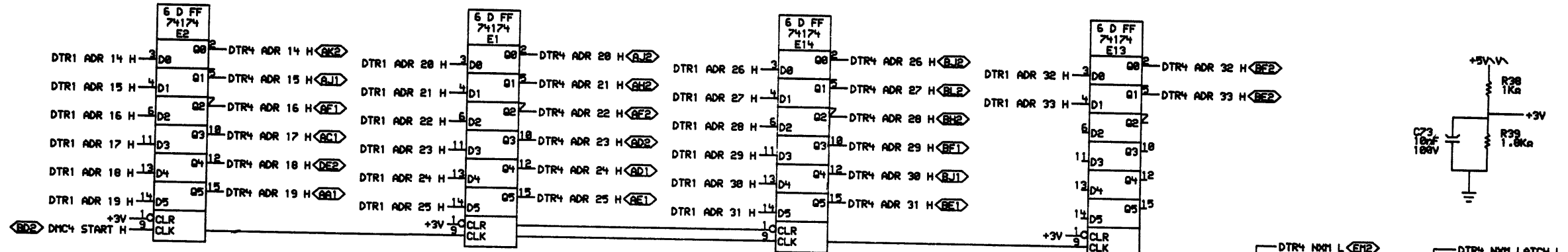
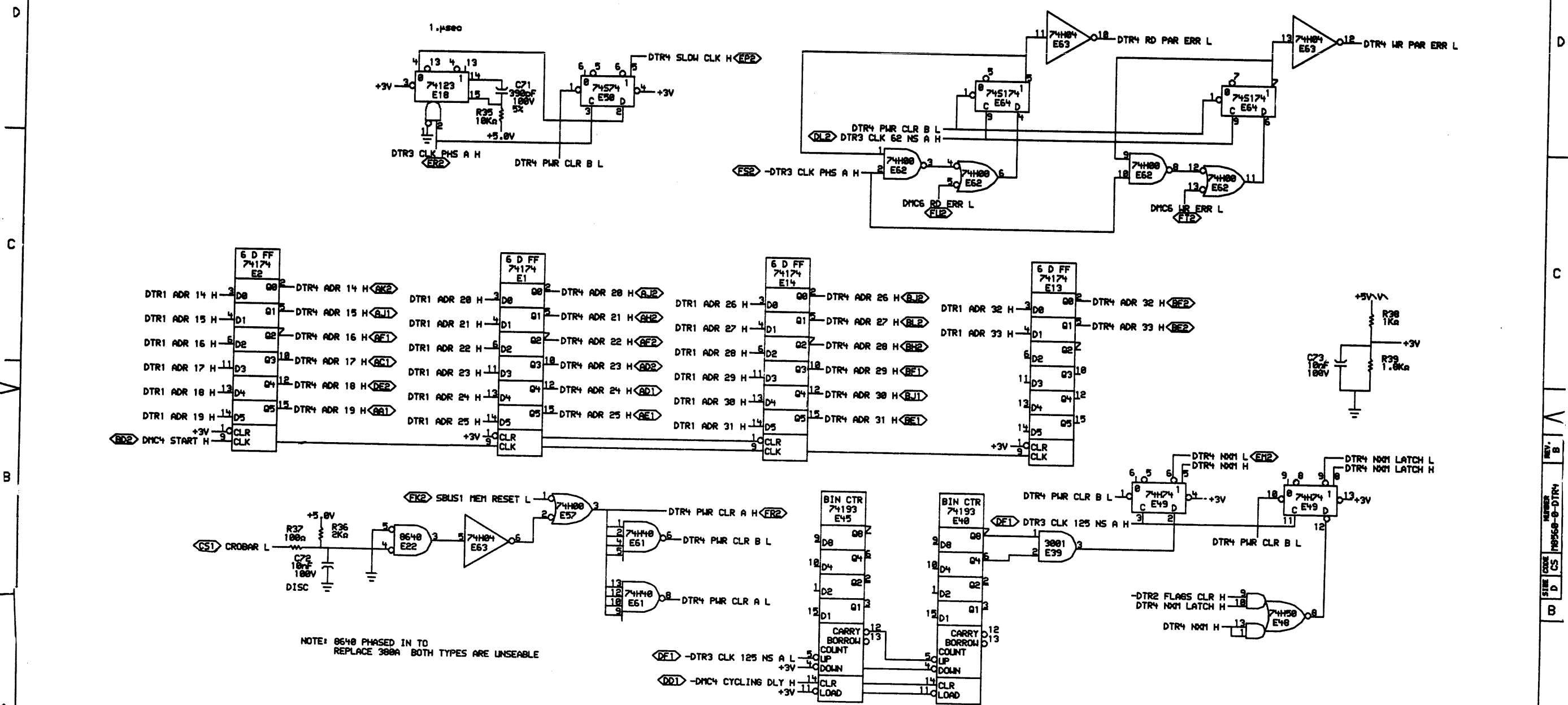


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REVISIONS		
CHK	CHANGE NO.	REV
	1	B
B. BAUCKERT		

digital	DATE	ENG.	DATE	TITLE:
	24 JAN 77	A. Buckert	24 JAN 77	DMA TIMING AND SBUS TRANCEIVERS
	DATA	BOARD LOCATION:		
	1/25/77	1AF03		

8 7 6 5 3 1



NOTE: 8640 PHASED IN TO REPLACE 3801 BOTH TYPES ARE UNSEALABLE

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REVISIONS
CHK CHANGE NO. REV
18560-00003 B
BEFLUCKERT

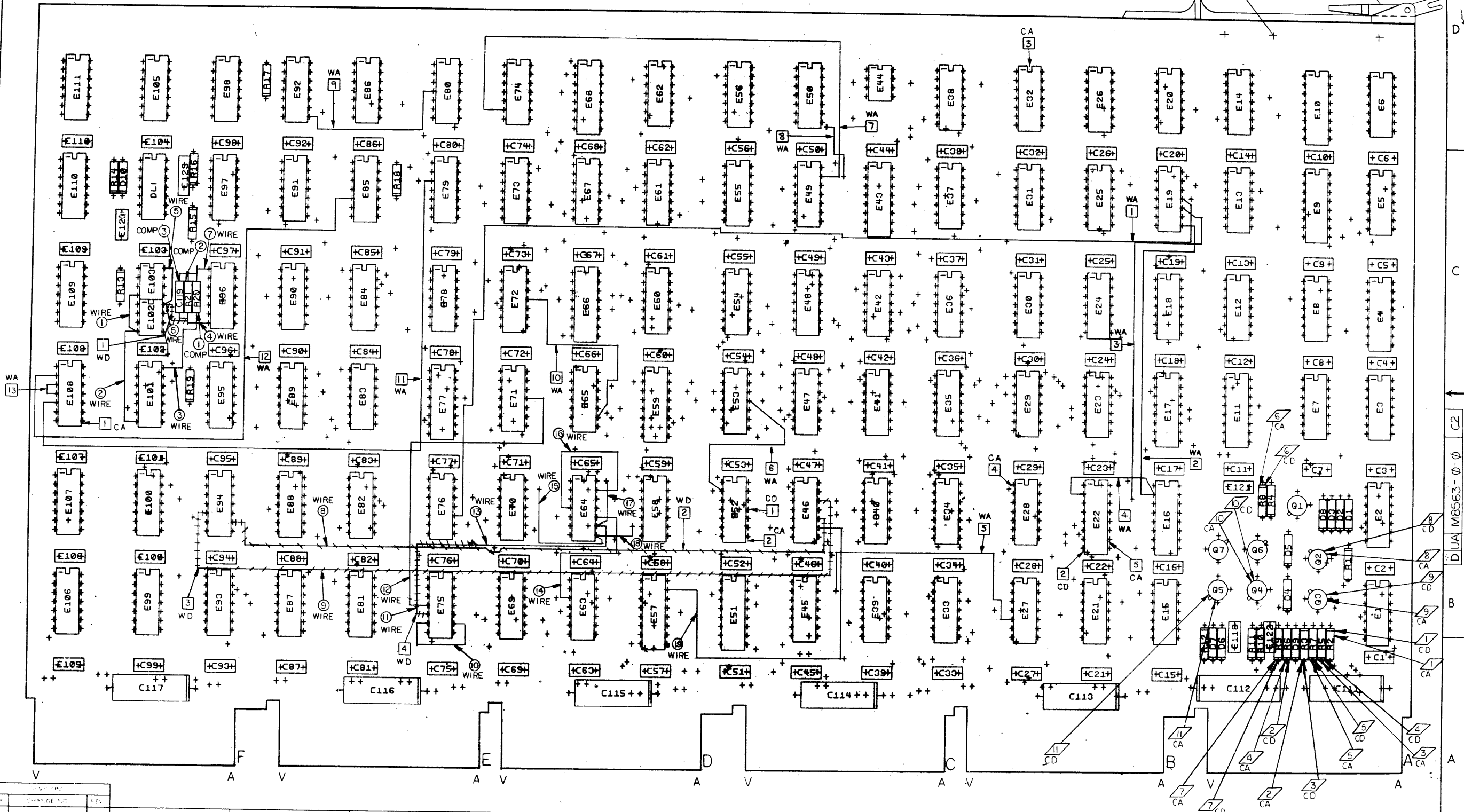
digital	DATE 10-10-77	ENG [Signature]	DATE 10-10-77	TITLE: DMA TIMING AND SBus TRANCEIVERS
	DATE 10-10-77	DESIGNER [Signature]	DATE 10-10-77	BOARD LOCATION 1A03
FIRST USED ON OPTION/MODEL: DMA20				REV. B

7 6 5 4 3 2 1





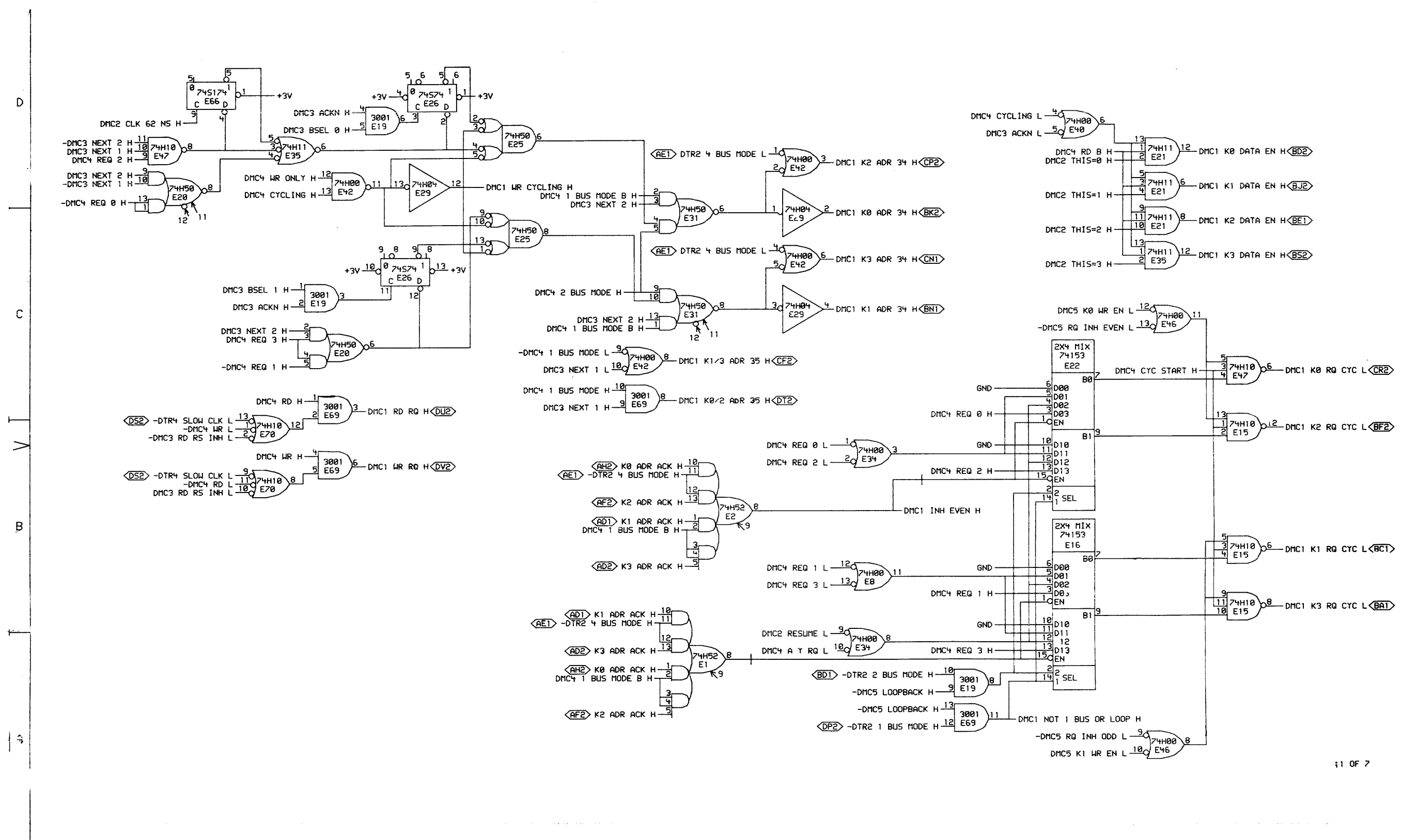
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REV.	CHANGE NO.	REV.

S15

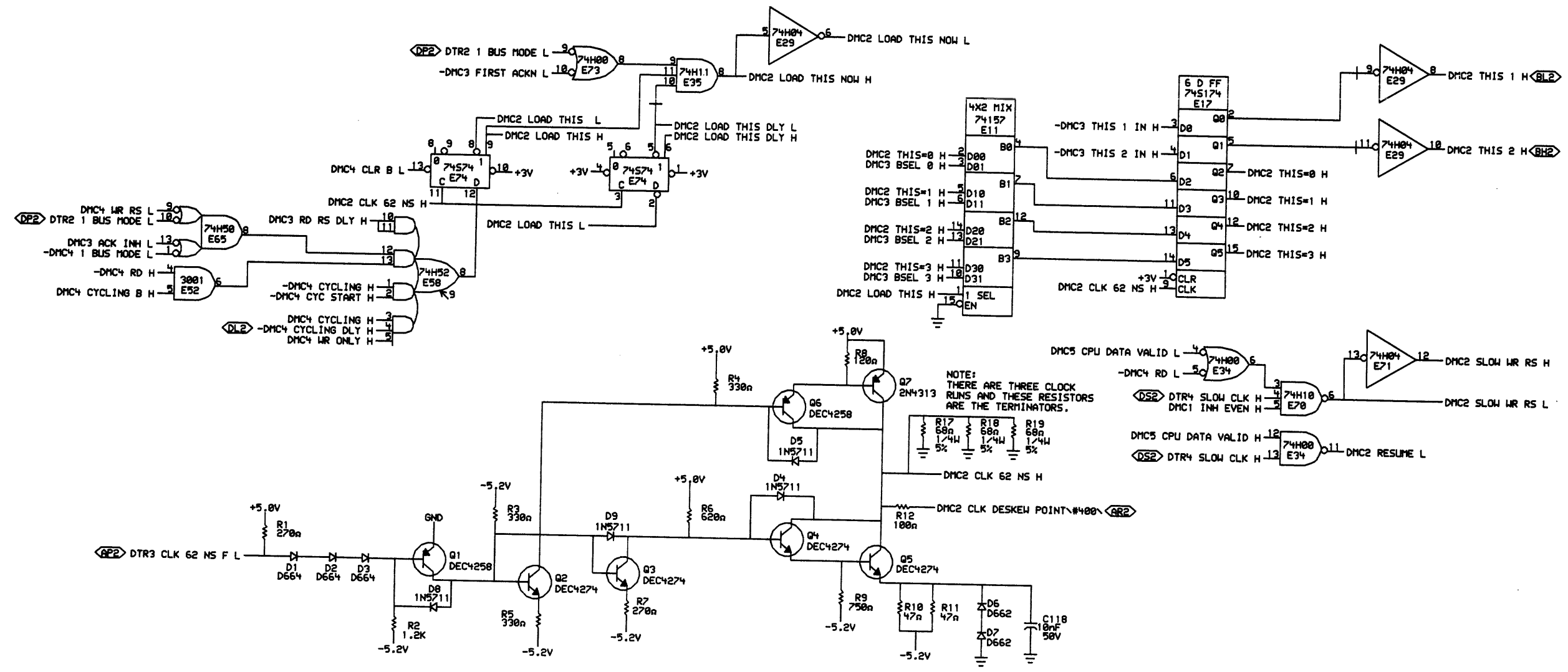
1040-0-0968  
MAY 1975



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CHK	CHANGE NO.	REV	DATE	BY	DESCRIPTION																								
<p>DATE: 5/6/75 DATE: 5/6/75 DATE: 5/6/75</p>				<p>BOARD LOCATION: 1AF02 SHEET: 11 OF 11</p>																									
<p>DIGITAL</p>				<p>DATE: 100 JUN-75 07:39 NEXT HIGHER ASSEMBLY: B-DD-M8563-0</p>																									
<p>SIZE: D CODE: CS NUMBER: M8563-10-DMC1</p>				<p>REV. AI</p>																									

516

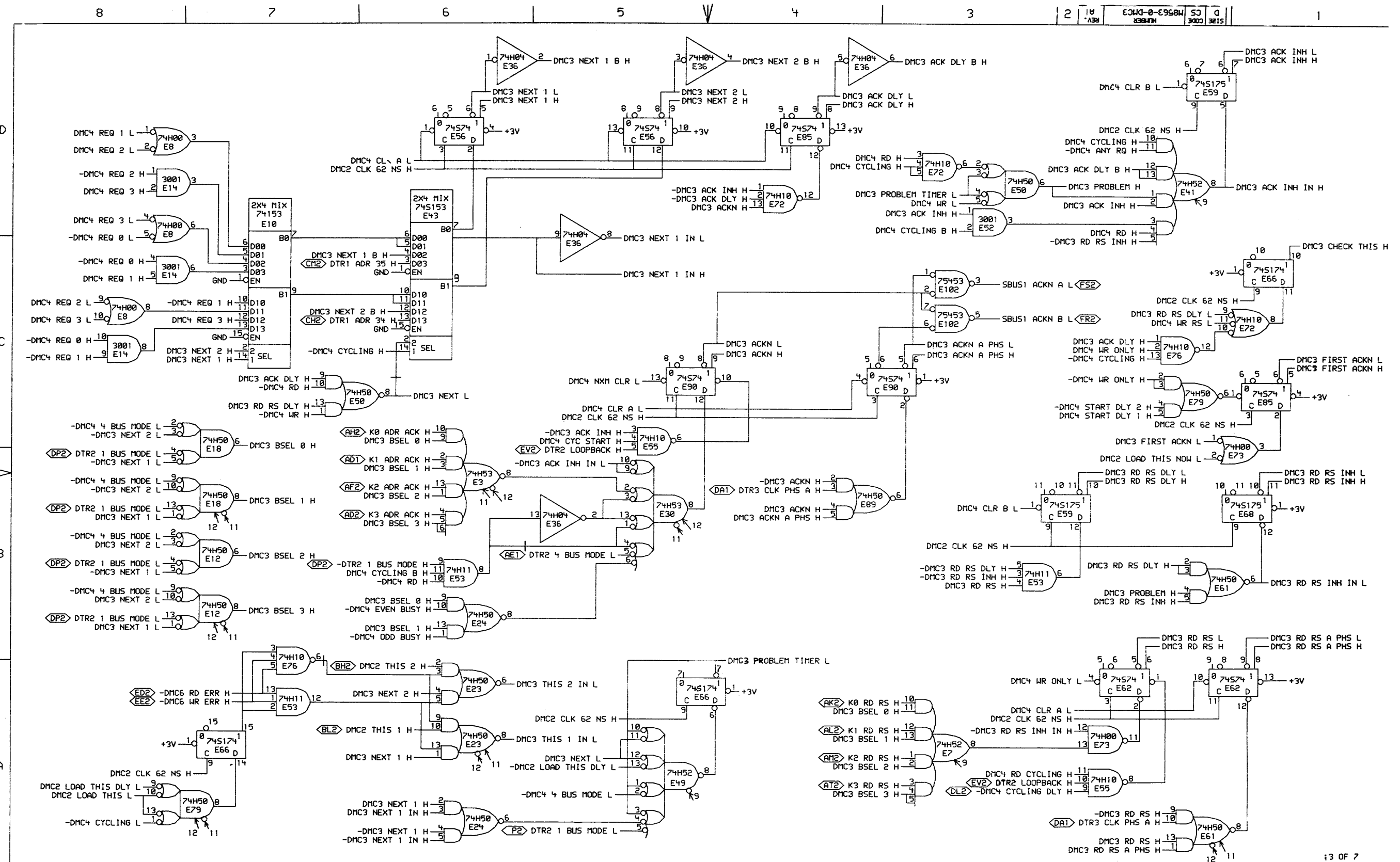




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CHK	CHANGE NO.	REV
	M8563-00005	B2
W. BRUCKERT		

digital	DATE	15-APR-77	ENG.	W. Bruckert	DATE	20-APR-77	TITLE:	BUS SELECTION	
	DATE	11-5-APR-77	10:15	10:15	10:15	10:15	10:15	DMA20	
FIRST USED ON OPTION/MODEL:		DMA20		NEXT HIGHER ASSEMBLY:		B-DD-M8563-0		REV.	B2
SIZE	CODE	NUMBER	D	CS	M8563-0-DMC2	REV.	B2		



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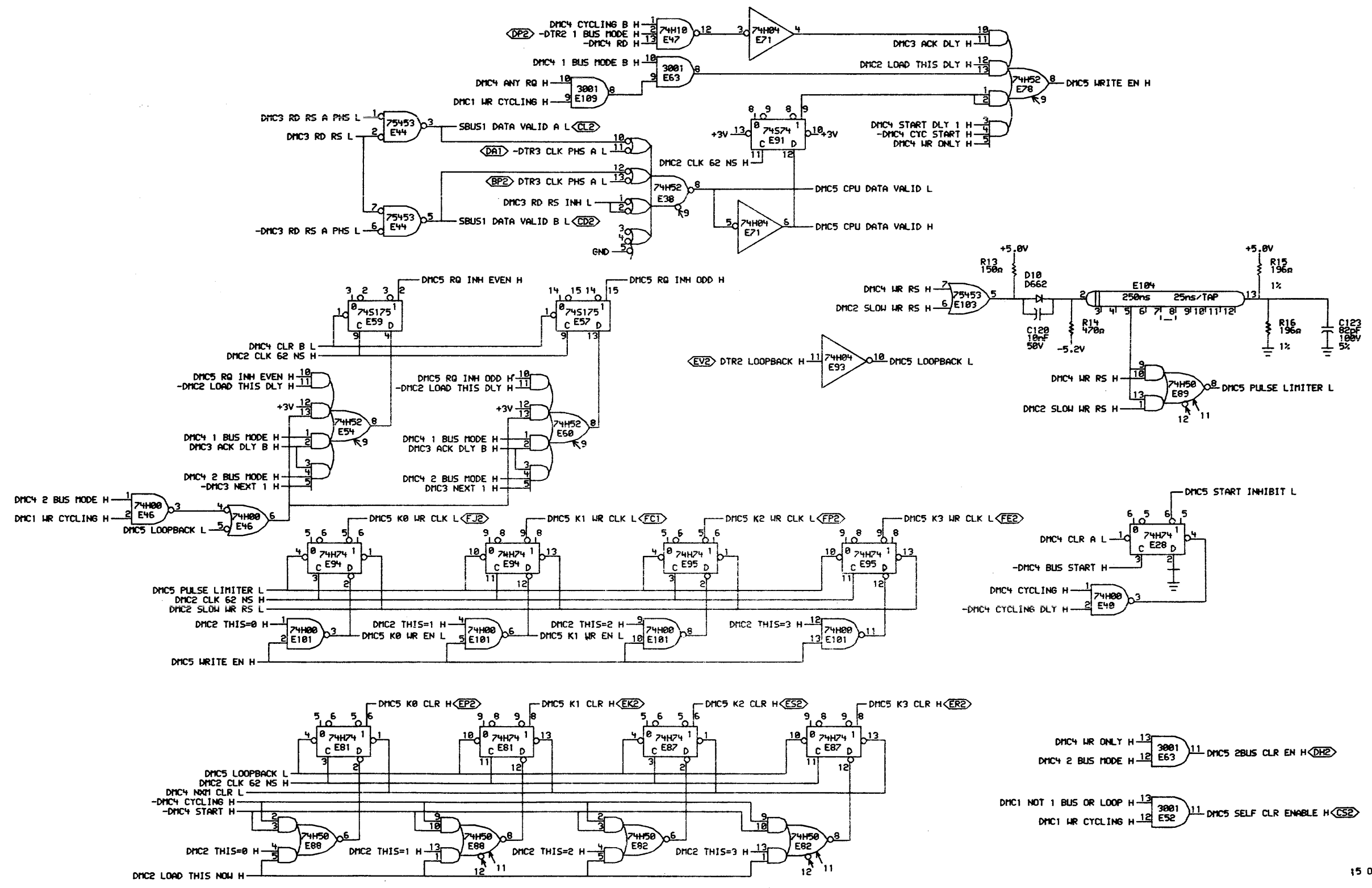
REVISIONS		
CHK	CHANGE NO.	REV
	M8563-0000	A
	W. BRUCKERT	

M8563-00004 LA1  
 W. BRUCKERT  
 106 JUN 75 07:42

digital	DATE	ENG.	DATE	TITLE:
	106 JUN 75 07:42	W. Bruckert	6/9/75	ADAPTER INTERFACE DMA20 BOARD 2
DMC3EXT 4,426	DATE	BOARD LOCATION:	1AF02	
FIRST USED ON OPTION/MODEL:	106 JUN 75 07:42	SHEET	OF	
DMA20	106 JUN 75 07:42	1	1	
	NEXT HIGHER ASSEMBLY:	SIZE	CODE	NUMBER
	B-DD-M8563-0	D	CS	M8563-0-DMC3
				REV. AI



2	18	CS	M8563-0-DMC5	CS	D	3000	3815
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REVISIONS	CHG	CHANGE NO.	REV	BY	DATE
M8563-00004	B	1	1	W. BRUCKERT	1/24/76
M8563-00003	B	1	1	W. BRUCKERT	1/24/76
M8563-00002	B	1	1	W. BRUCKERT	1/24/76
M8563-00001	B	1	1	W. BRUCKERT	1/24/76

DATE	ENG.	DATE	TITLE:
05-MAY-76	W. Bruckert	6/2/76	ADAPTER INTERFACE
DATE	BOARD LOCATION:	1A/E2	DMA20 BOARD 2
5/20/76	SHEET	1	OF
FIRST USED ON OPTION/MODEL: DMA20		B-DD-M8563-0	

SIZE	CODE	NUMBER	REV.
D	CS	M8563-0-DMC5	B1

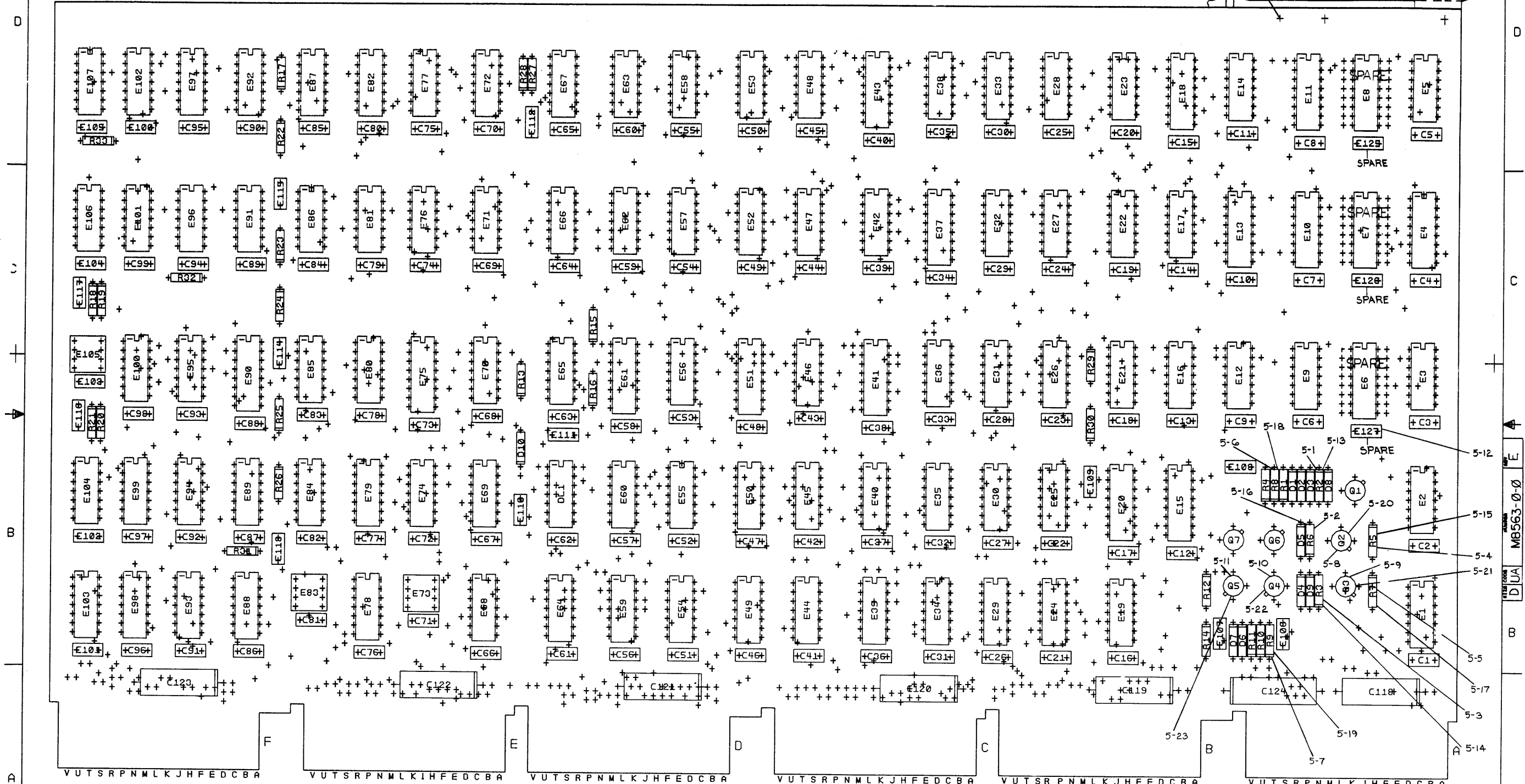
520







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NOTES:

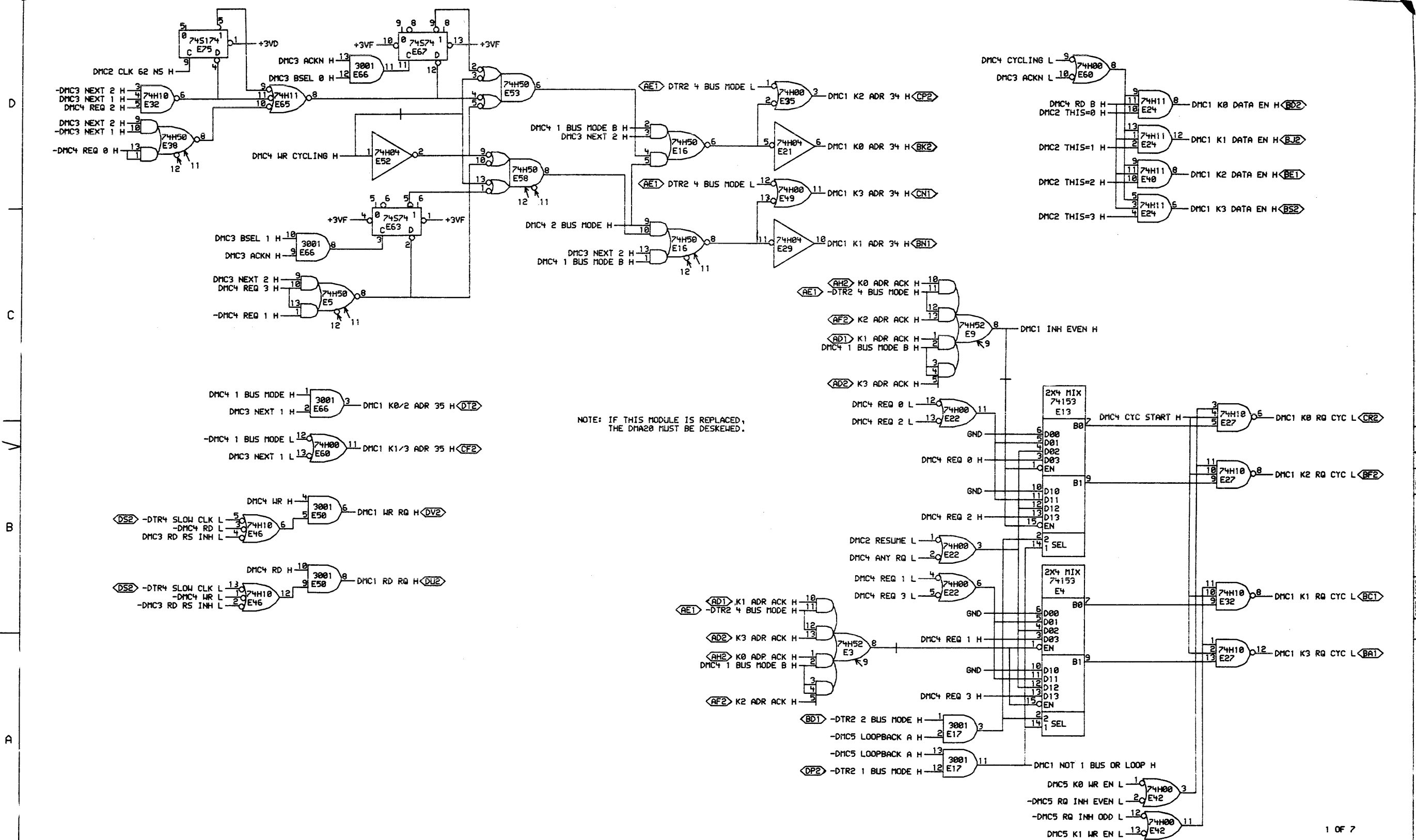
CHK	CHANGE NO	REV

ETCH REV.	C
P.C. DESIGN DATA BASE REV.	C

SIGNATURES		DATE
DRN <i>T. Lynde</i>		7/10/76
CHK'D <i>M. Williams</i>		10/25/76
ENG. <i>W. B. ...</i>		10/25/76
PROJ. ENG. <i>...</i>		10/25/76
PROD. <i>B. Ealy</i>		10/25/76
SCALE	2/1	
SHT. 2 OF 5		
NEXT HIGHER ASSY	B-DD-M8563-0	
TITLE		digital
DMA20 BOARD #2		
SIZE	CODE	NUMBER
D UA		M8563-0-0
REV		

DIGITAL EQUIPMENT CORPORATION  
 D L UA M8563-0-0





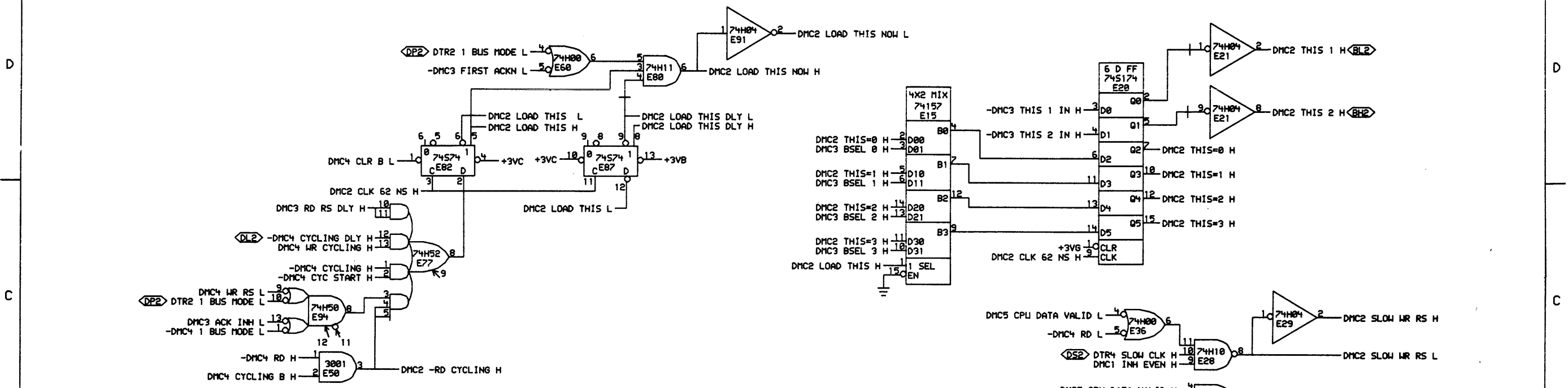
NOTE: IF THIS MODULE IS REPLACED, THE DMA20 MUST BE DESKEWED.

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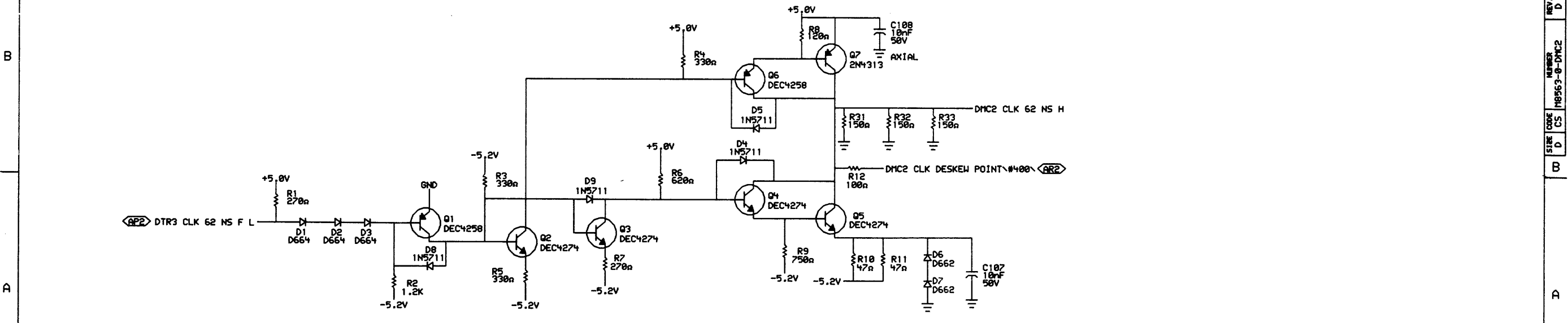
REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	18-NOV-76	ENG	W. Bruchert	DATE	18-NOV-76	TITLE:	ADAPTER INTERFACE
	DRW	W. Bruchert	DATE	18-NOV-76	BOARD LOCATION:	IAF02	SHEET	1 OF 1
FIRST USED ON OPTION MODEL:		DMA20	NEXT HIGHER ASSEMBLY:		B-DD-M8563-0		SIZE CODE	D CS
NUMBER		M8563-0-DMC1		REV.	B			

REV. B NUMBER 18563-0-DMC1 SIZE CODE CS 3215



NOTE: IF THIS MODULE IS REPLACED, THE DMA20 MUST BE DESKEWED.

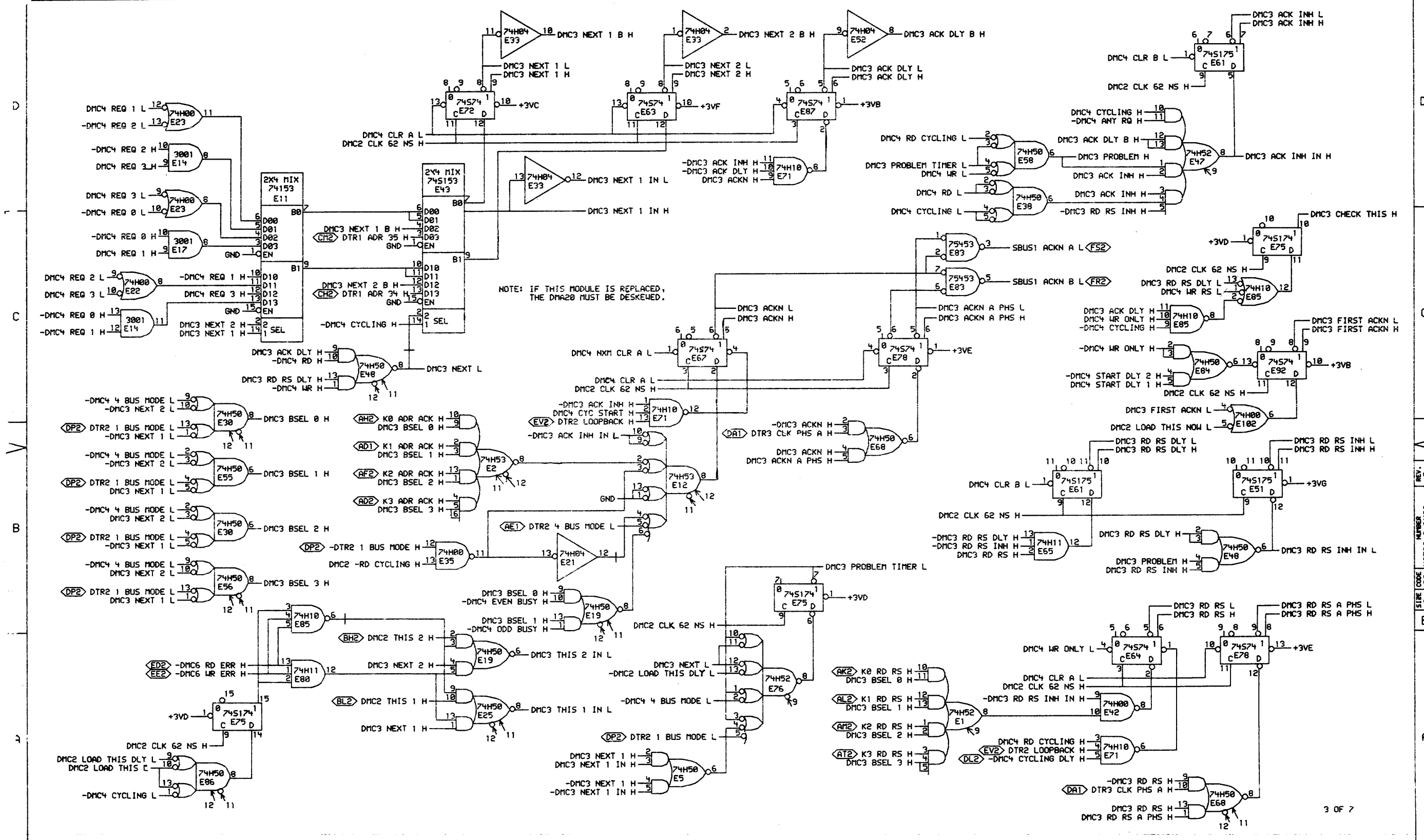


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REVISIONS		
CHK	CHANGE NO.	REV
	M8563-0-00000A	D
	W. BLICKERT	

digital	DATE 03-19-77	ENG J. G. GIBNEY	DATE 04-07-77	TITLE: BUS SELECTION DMA20
	DATE 04/07/77	BOBBO LOCATION: TAF02	DATE 04/07/77	REV. D
FIRST USED ON OPTION/MODEL: DMA20		NEXT HIGHER ASSEMBLY: B-DD-M8563-0		SIZE CODE D CS
		NUMBER M8563-0-DMC2		REV. D

526



NOTE: IF THIS MODULE IS REPLACED,  
THE DMA20 MUST BE DESKEWED.

REV. B  
NUMBER M8563-0-DMC3  
SIZE CODE CS

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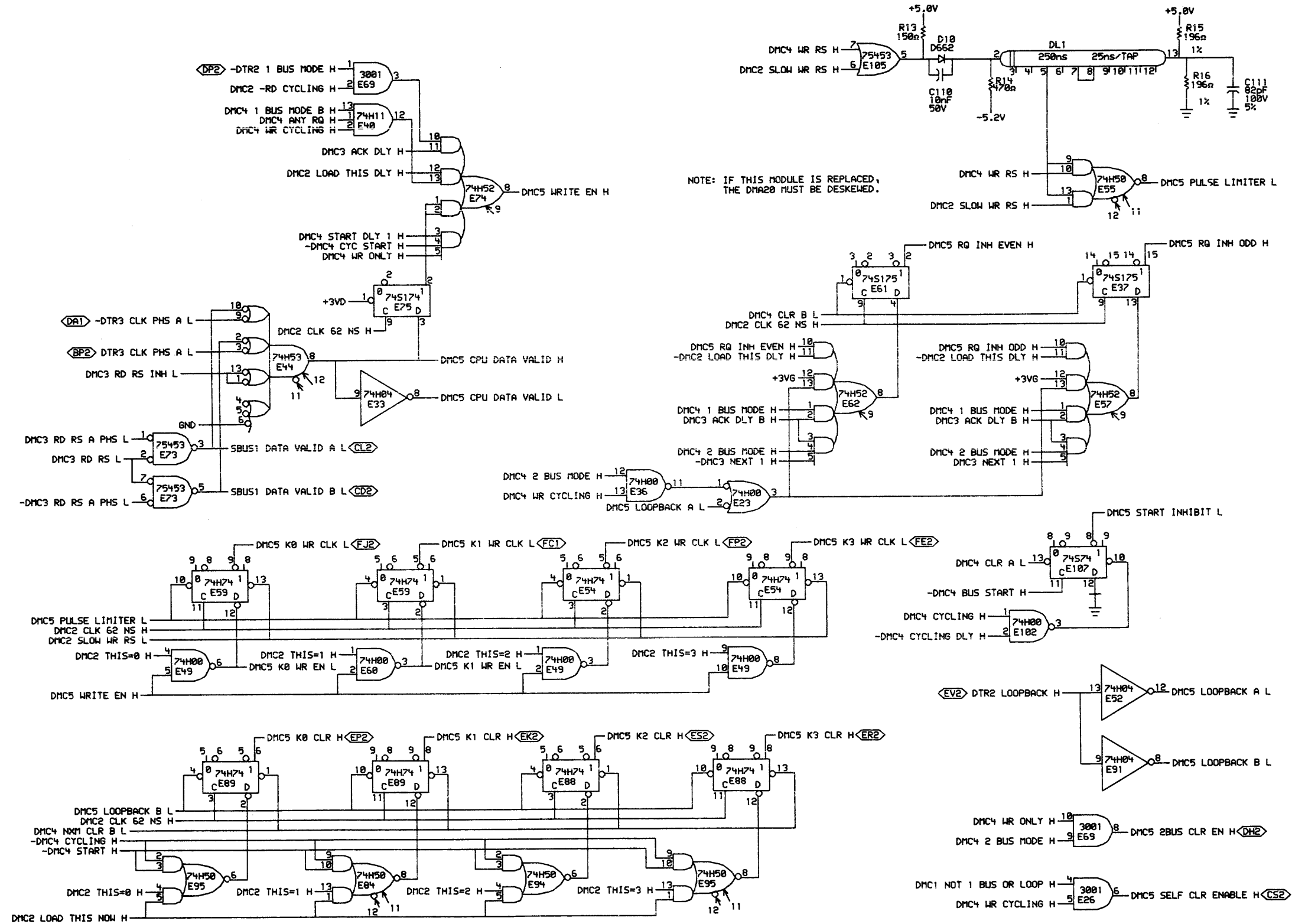
REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE: 11 NOV 76	ENG.:	DATE: 16 NOV 76

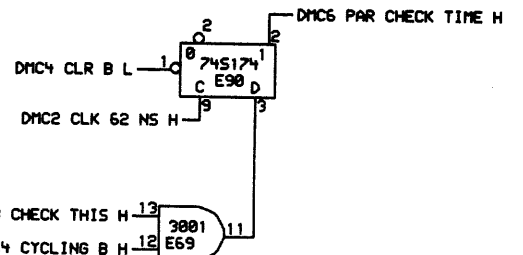
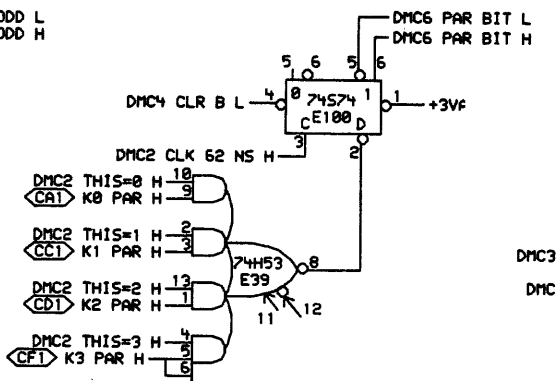
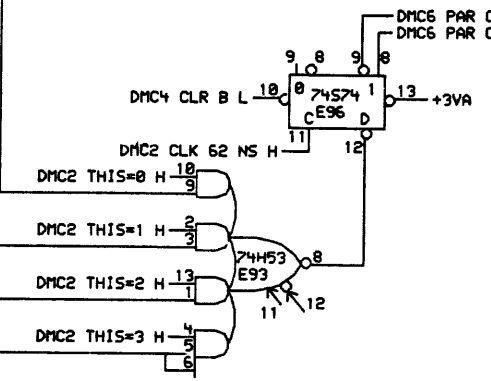
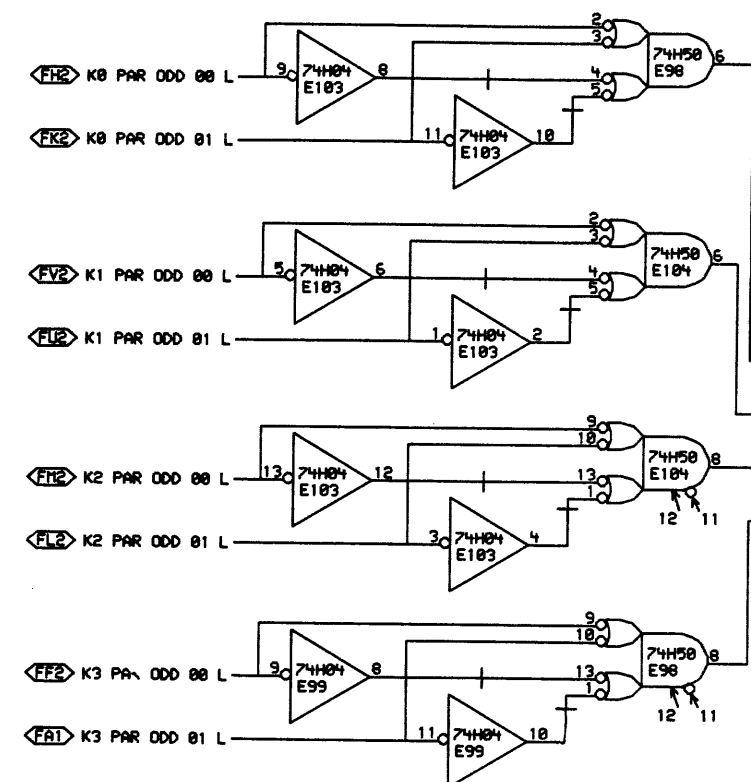
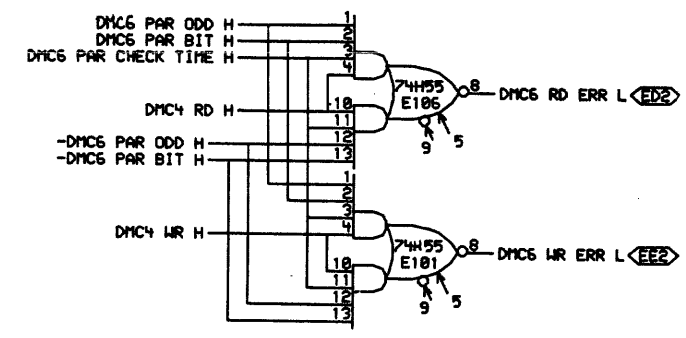
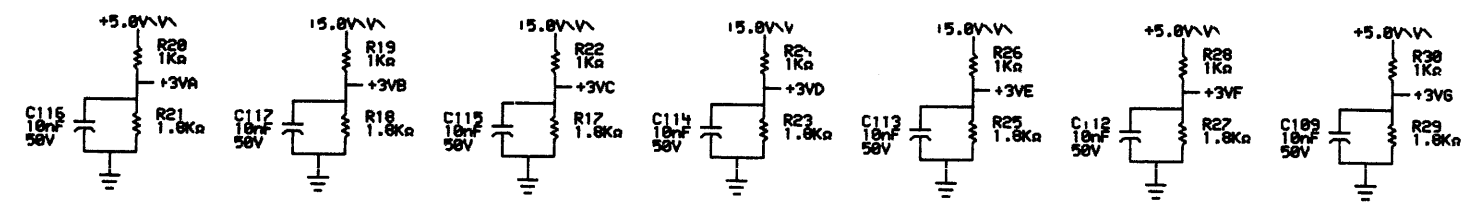
TITLE: ADAPTER INTERFACE DMA20 BOARD 2	SIZE CODE: D CS	NUMBER: M8563-0-DMC3	REV. B
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527

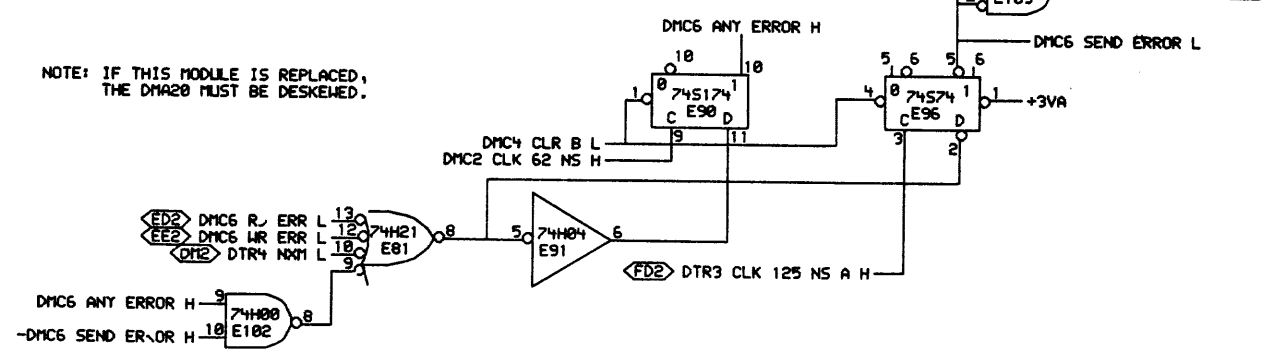




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	FIRST USED ON OPTION/MODEL: DMA20			SIZE CODE: D CS	NUMBER: M8563-0-DMC5	REV. C
	8 7 6 5 4 3 2 1					



NOTE: IF THIS MODULE IS REPLACED, THE DMA20 MUST BE DESKEWED.

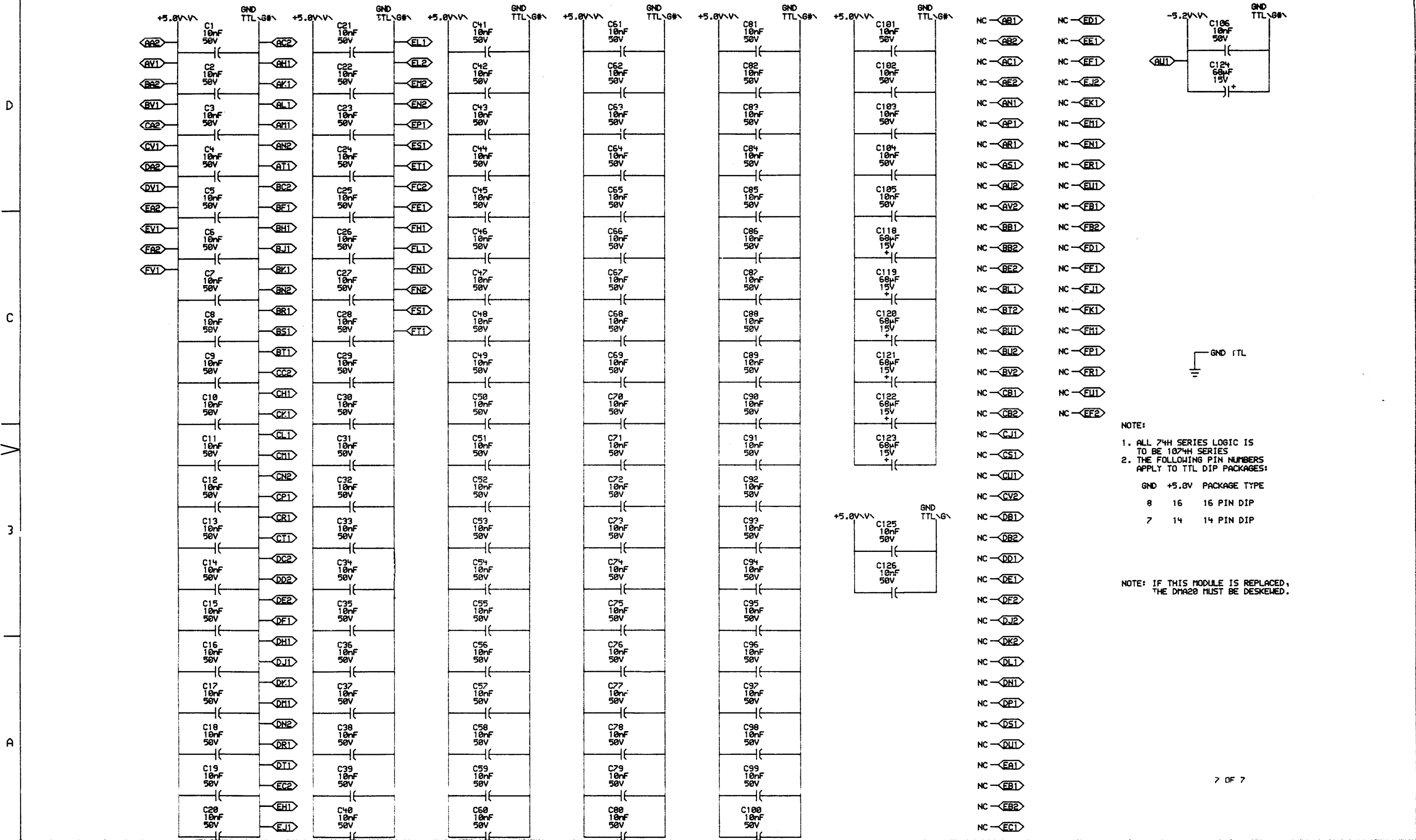


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REVISIONS	
CHK	CHANGE NO. REV

DIGITAL CORPORATION	DATE: 10-NOV-76	ENG: V. Brundage	DATE: 16-NOV-76	TITLE: ADAPTER INTERFACE
	DESIGNED BY: J. J. ...	CHECKED BY: ...	BOARD LOCATION: 1A/B/C	DMA20 BOARD 2
FIRST USED: DMA20	ON OPTION MODEL: DMA20	DATE: 09-NOV-76 11:09	NEXT H QWER ASSEMBLY:	SIZE CODE: D CS
				NUMBER: M8563-0-DMC6
				REV. B

530



NOTE:  
 1. ALL 74H SERIES LOGIC IS TO BE 1074H SERIES  
 2. THE FOLLOWING PIN NUMBERS APPLY TO TTL DIP PACKAGES:  
 GND +5.0V PACKAGE TYPE  
 8 16 16 PIN DIP  
 7 14 14 PIN DIP

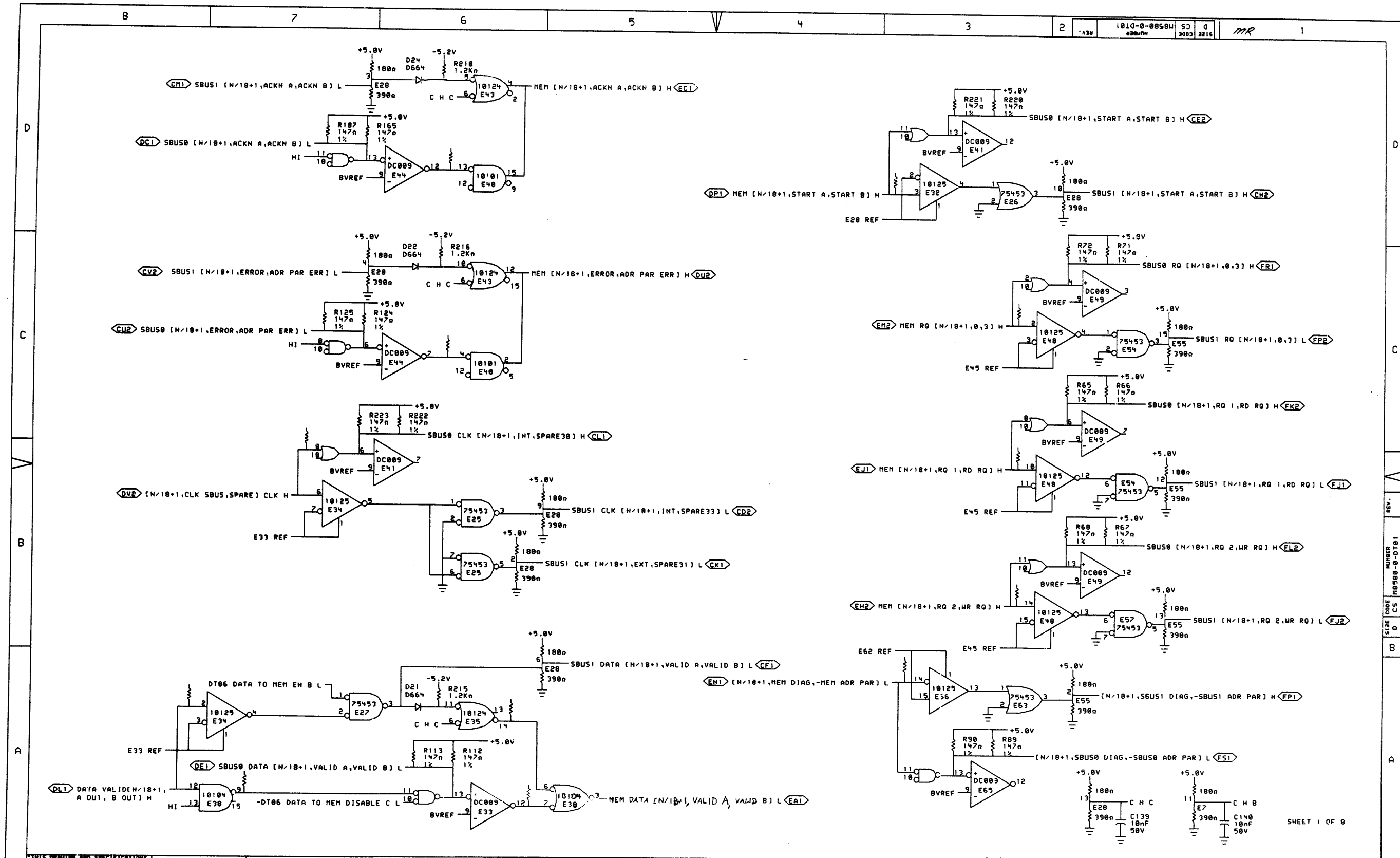
NOTE: IF THIS MODULE IS REPLACED, THE DMA20 MUST BE DESKEWED.

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REVISIONS		
CHK	CHANGE NO.	REV
	M8563-000	C

	DATE	ENG.	DATE	TITLE: ADAPTER INTERFACE POWER AND GROUND
	11-28-77	W. J. Gaudin	11-28-77	
	DATE	BOARD	LOCATION:	TAF02
	11-28-77	18:01	NEXT HIGHER ASSEMBLY:	
FIRST USED ON OPTION/MODEL:	DMA20	B-DD-M8563-0	SIZE	CODE
			D	CS
			NUMBER	REV.
			M8563-0-DMC7	C

S31



SHEET 1 OF 8

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REVISIONS		
CHK	CHANGE NO.	REV

DRN: <i>C. Smith</i>	DATE: 18-JUL-78	ENG: <i>E. Lio</i>	DATE: 19-SEP-78	TITLE: DUAL TRANSLATOR
CHK: <i>[Signature]</i>	DATE: 18-JUL-78	BOARD LOCATION: 18-114	SHEET: 1	OF: 1
PUB: M8580-MOS-DT01EF.DRW	18-JUL-78	11:35	NEXT HIGHER ASSEMBLY:	SIZE CODE NUMBER REV.
FIRST USED ON OPTION/MODEL: MF20	D-DD-M8580-0			D CS M8580-0-DT01

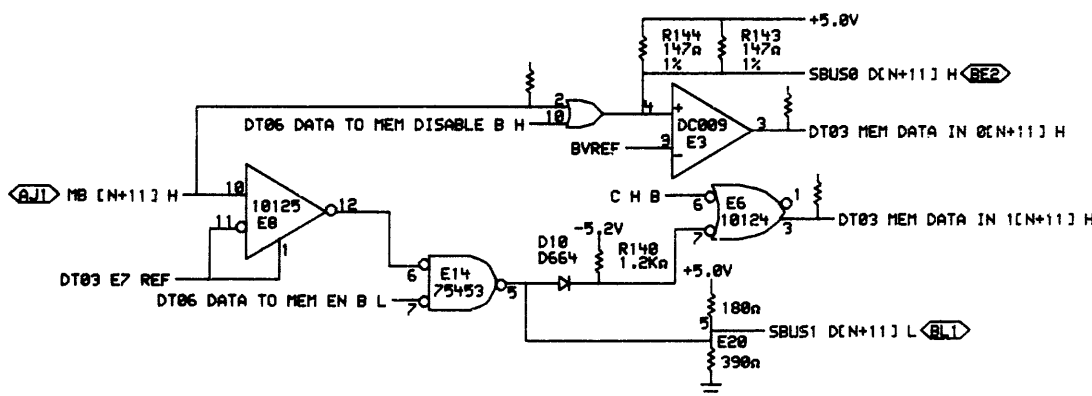
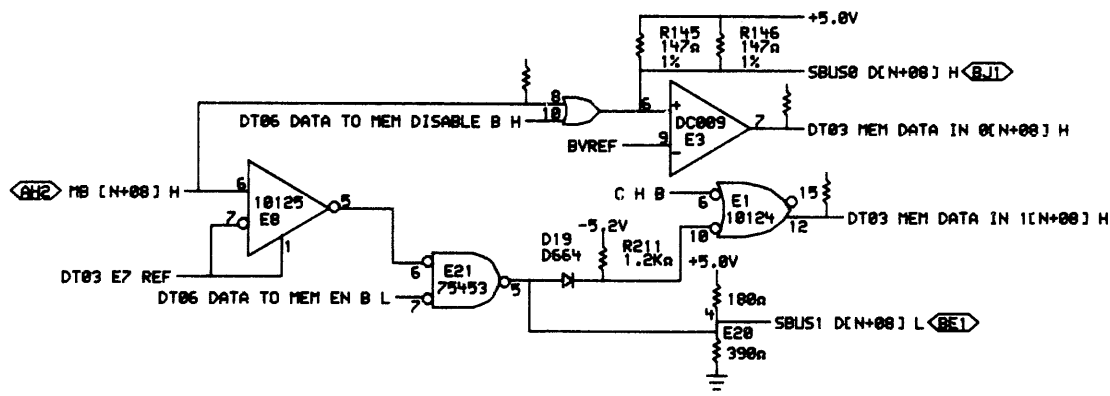
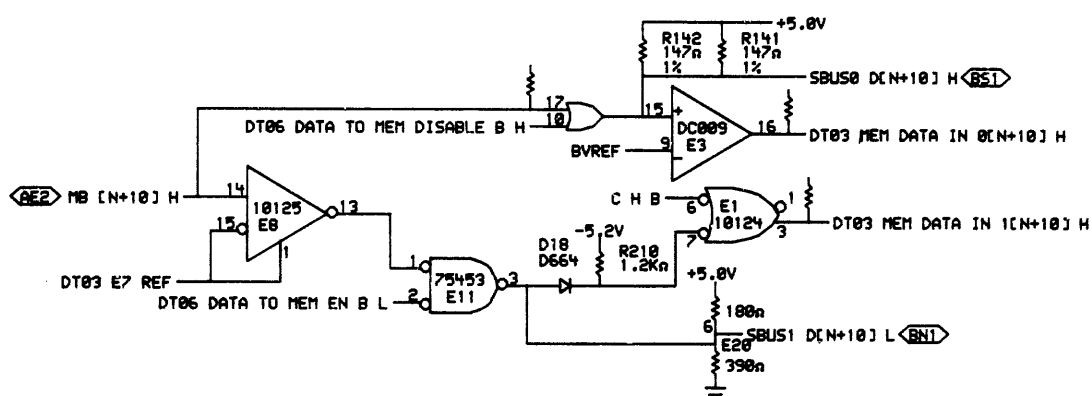
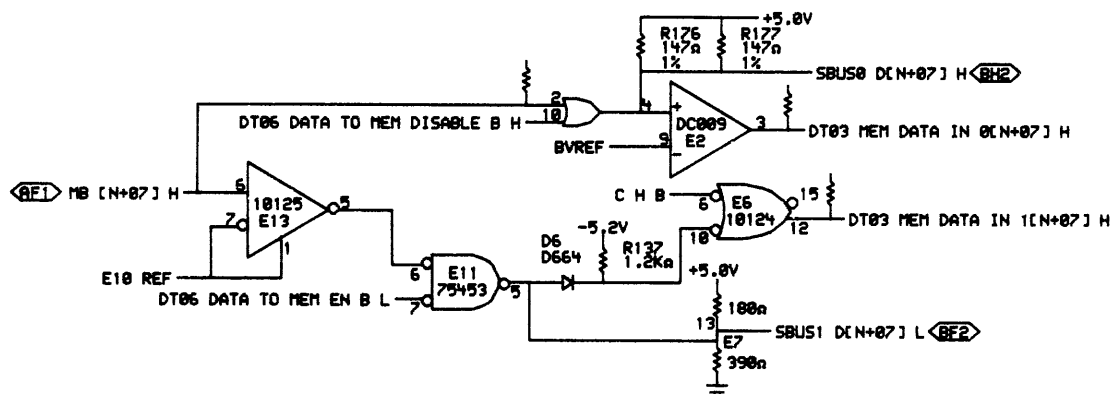
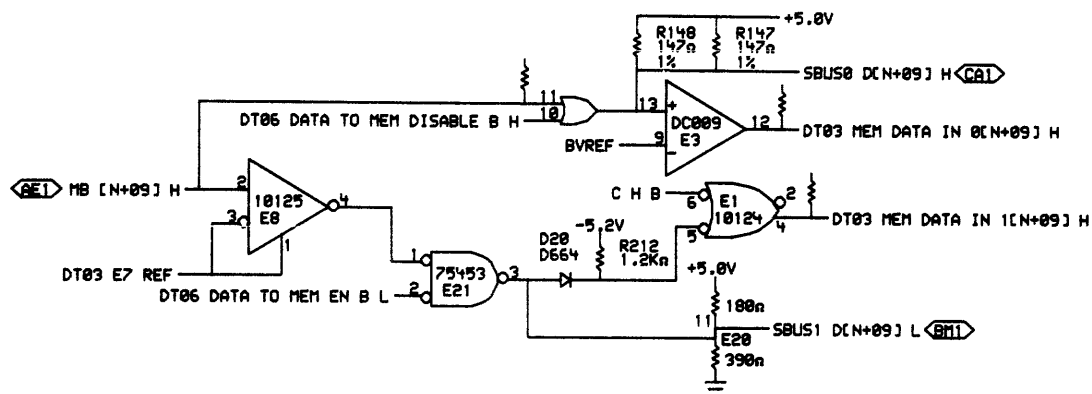
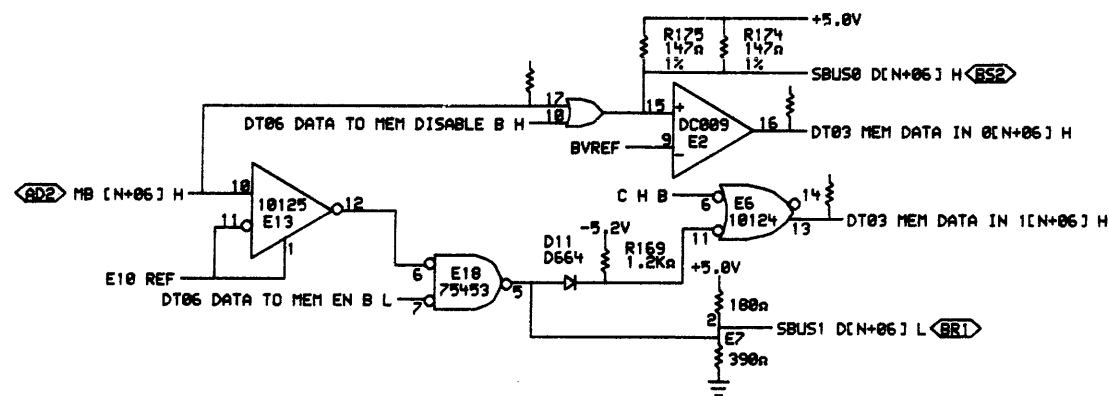
8	7	6	5	4	3	2	1
						me	

522

111





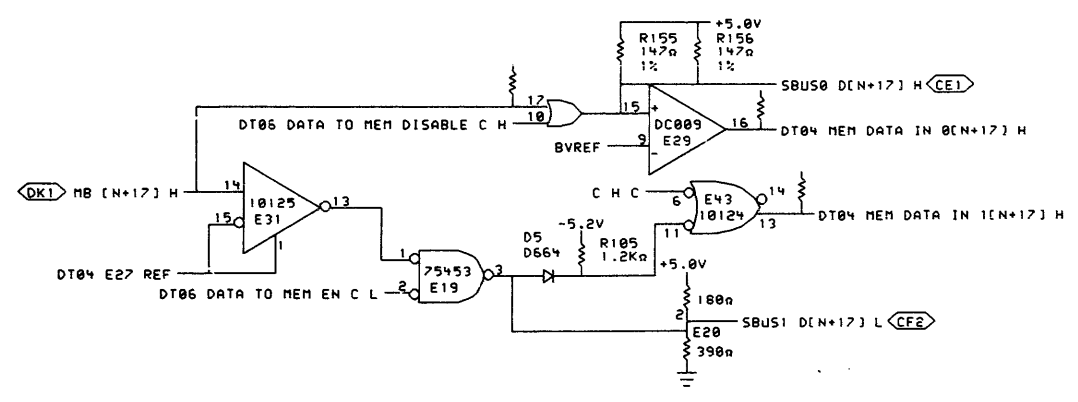
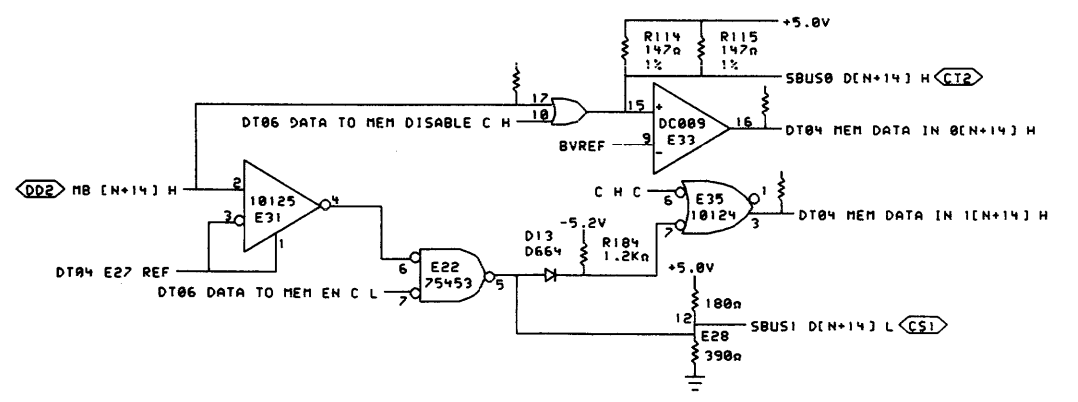
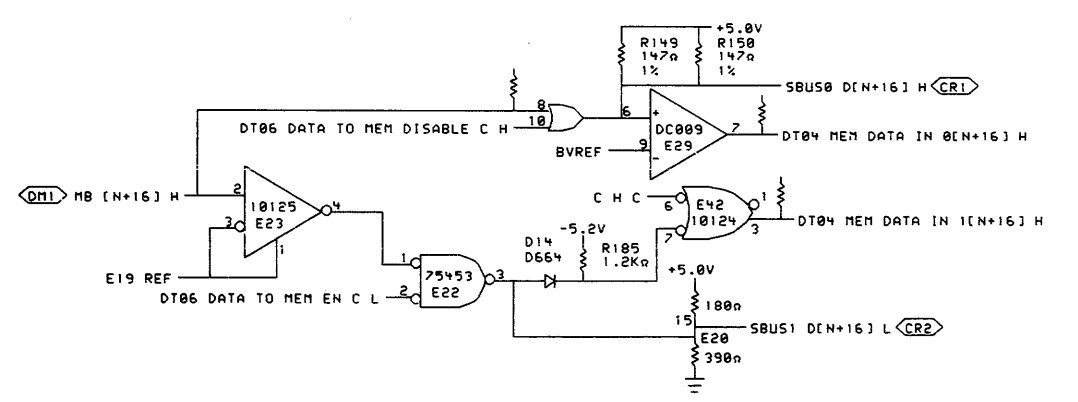
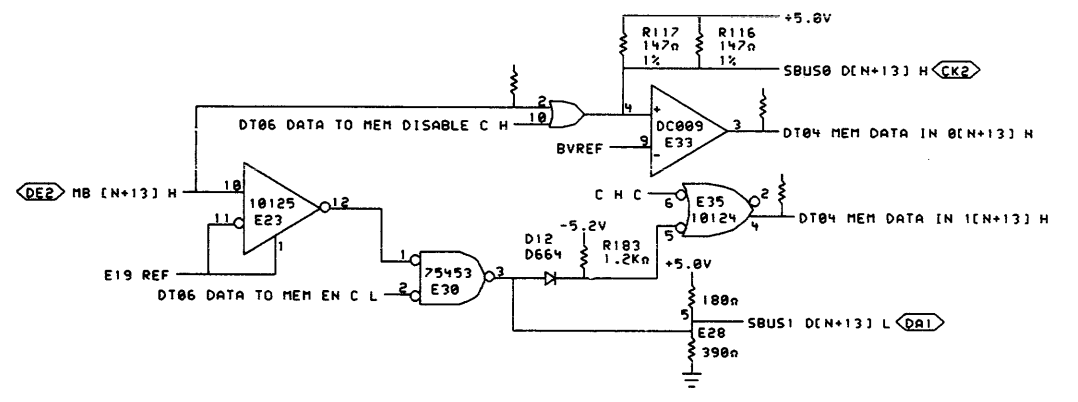
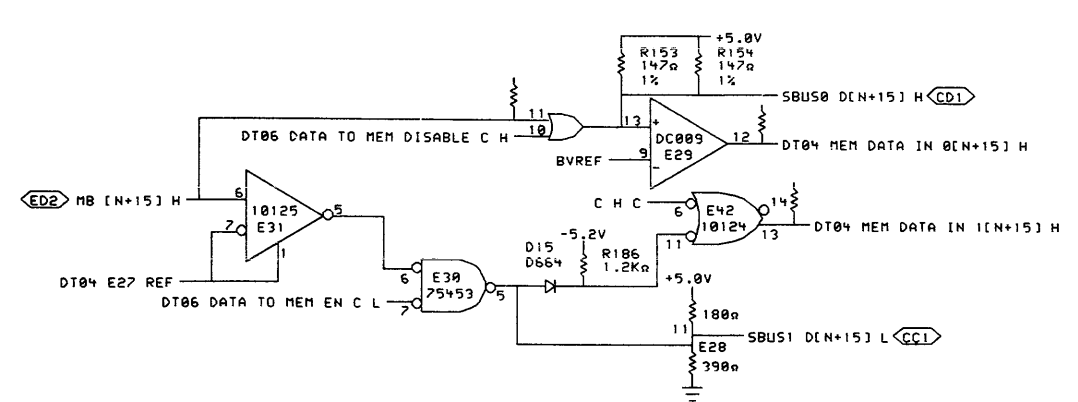
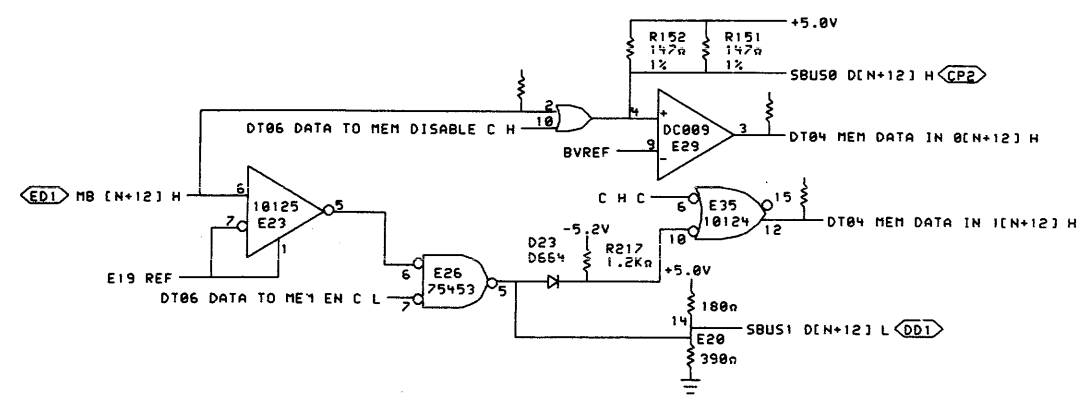


SHEET 3 OF 8

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. <i>G. Smith</i>	DATE 14-11-78	ENG. <i>D.J. Chin</i>	DATE 7-18-78	TITLE: DUAL TRANSLATOR DATA TRNCVR 6-11
	CHK. <i>P. Lucia</i>	DATE 10-11-78	BOARD LOCATION: 1	REV. 1	
FIRST USED ON OPTION/MODEL: MF20		NEXT HIGHER ASSEMBLY: D-DD-M8580-0		SIZE CODE D CS	NUMBER M8580-0-DT03



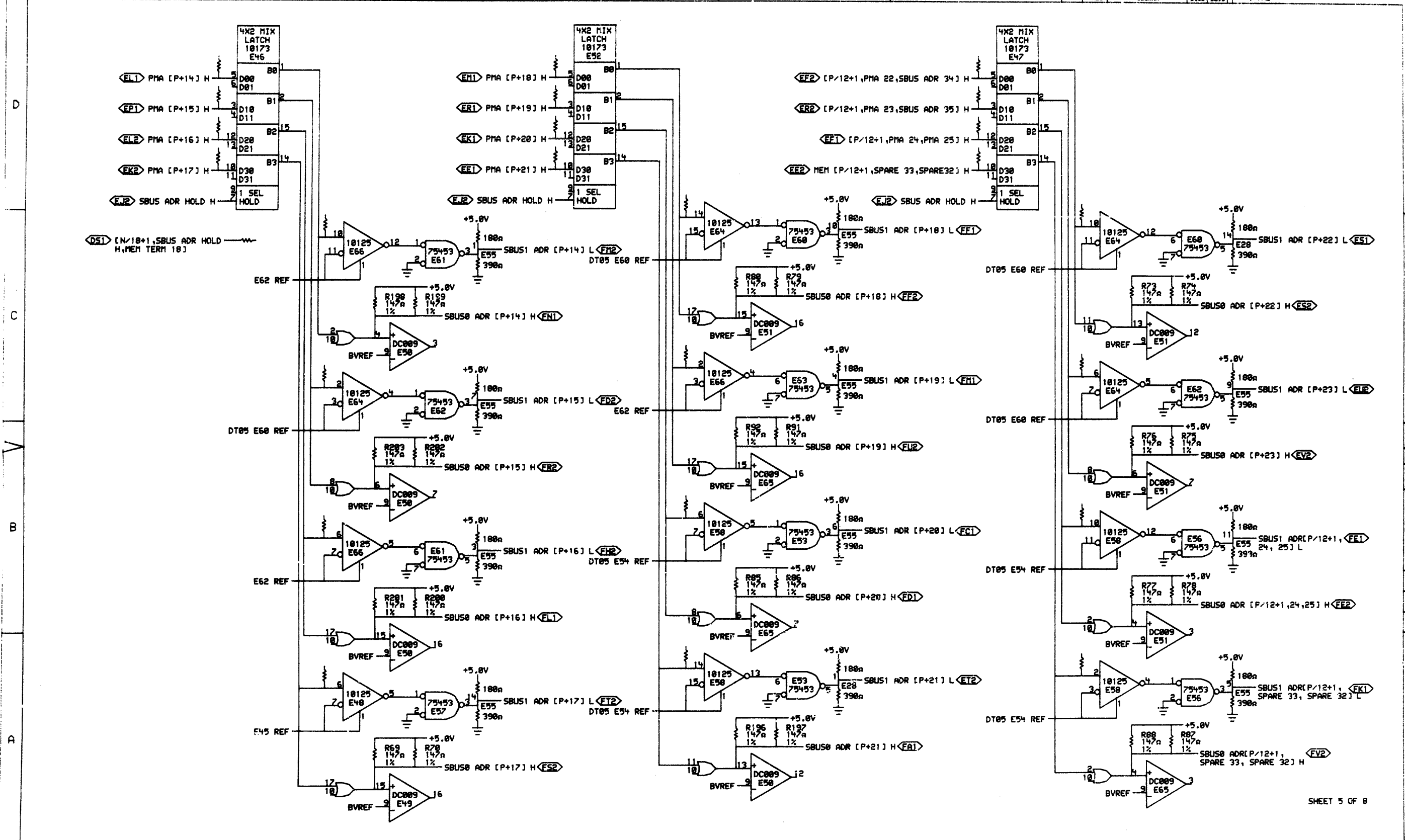
SHEET 4 OF 8

REV. NUMBER 18580-0-D104  
SIZE CODE C5  
B  
A

REVISIONS	
CHK	CHANGE NO. REV

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digital	DRN. Smith	DATE 18-JUL-78	ENG. E. E. E.	DATE 17-JUL-78	TITLE: DUAL TRANSLATOR DATA TRNCVR 12-17
	CHK. J. J. J.	DATE 18-JUL-78	BOARD LOCATION:	OF 1	SIZE CODE NUMBER REV.
PUB: M8580-M05>DT04EF.DRW		118-JUL-78 11:38	NEXT HIGHER ASSEMBLY:	D C5	M8580-0-D104
FIRST USED ON OPTION/MODEL:		MF20	D-DD-M8580-0		

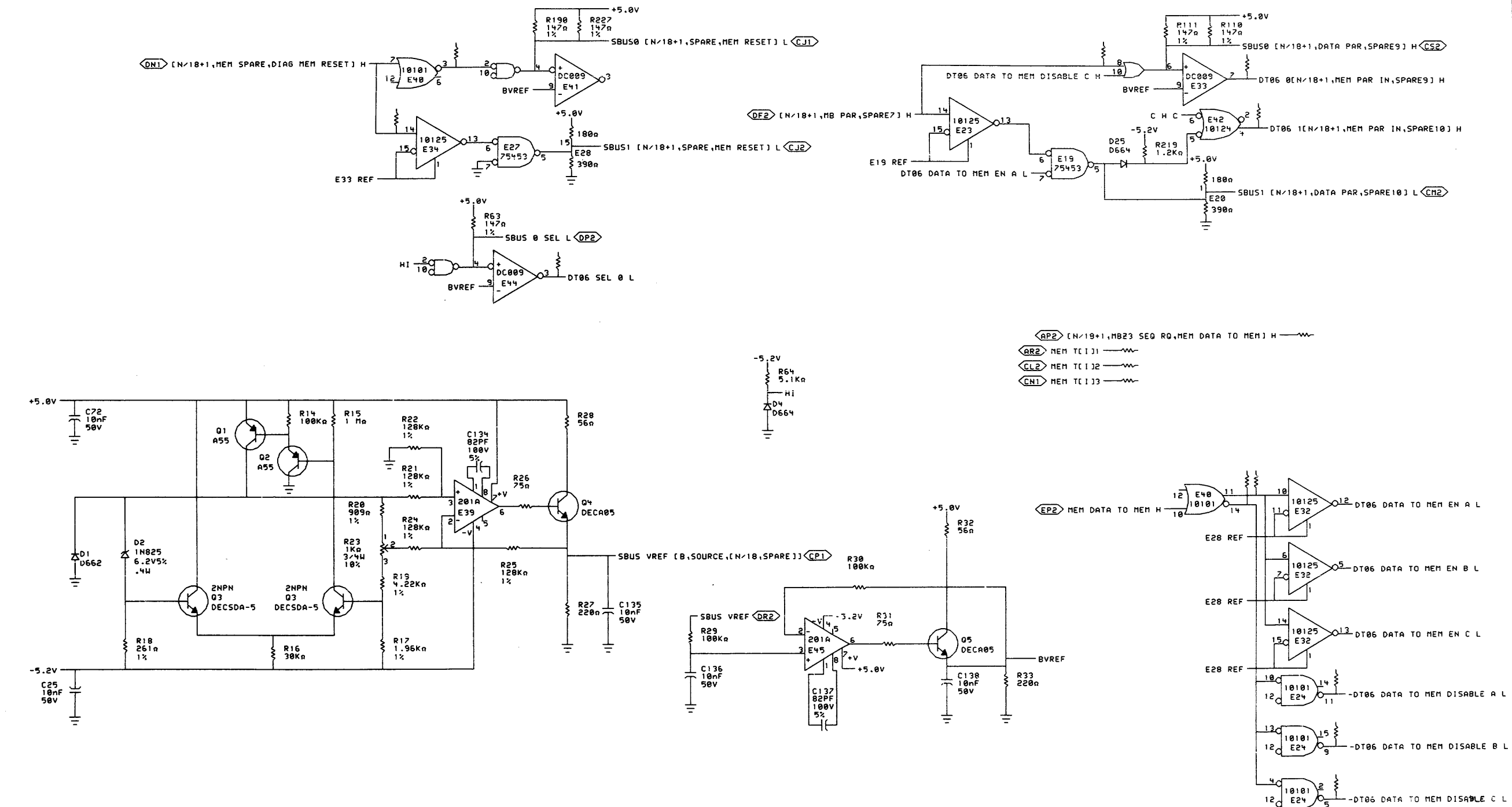


SHEET 5 OF 8

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN. <i>C. Smith</i>	DATE 11-28-78	ENG. <i>J. Chin</i>	DATE 2-18-78	TITLE: DUAL TRANSLATOR ADDRESS DRIVERS
	CHK. <i>J. Chin</i>	DATE 11-28-78	DATE 11-28-78	LOCATION: 1	SIZE CODE NUMBER REV. D C5 M8580-0-DT05
FIRST USED ON OPTION/MODEL: MF20 D-DD-M8580-0					



- AP2 [N/18+1, MB23 SEQ RQ, MEM DATA TO MEM] H
- AR2 MEM TC [1] 1
- CL2 MEM TC [1] 2
- CN1 MEM TC [1] 3

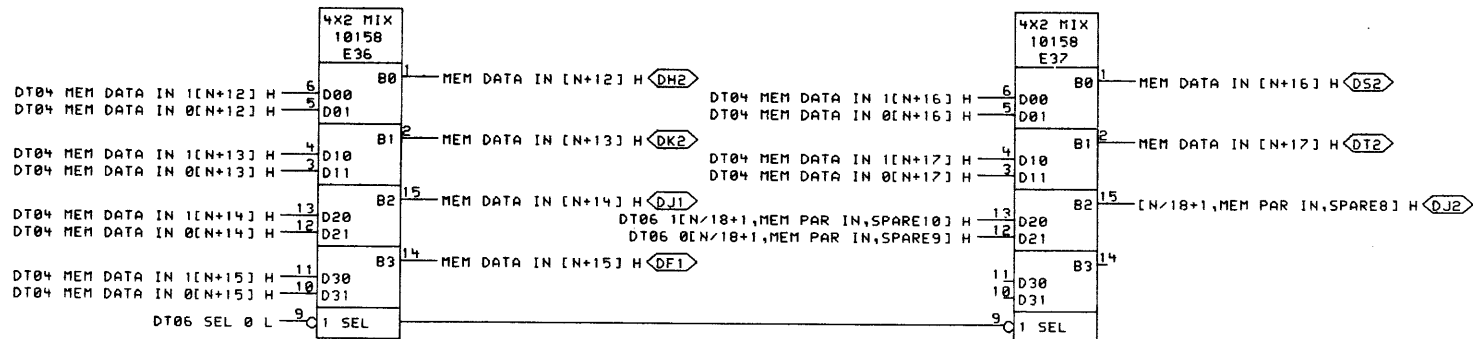
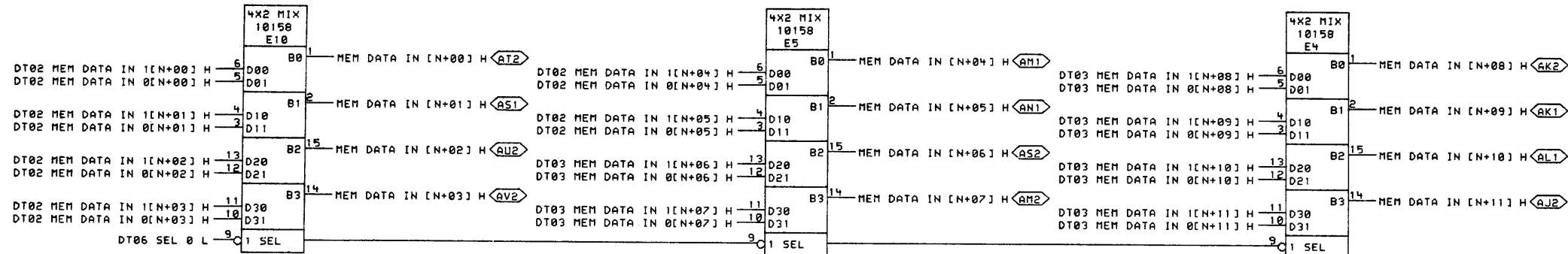
SHEET 6 OF 8

REVISIONS	
CHK	CHANGE NO. REV

DATE	ENG	DATE	TITLE
18-JUL-78	E. C. Smith	19-JUL-78	DUAL TRANSLATOR CTRL & REF VOLT

PUB: <M8580-MOS>DT06EF.DRW	DATE: 18-JUL-78	DATE: 19-JUL-78	TITLE: DUAL TRANSLATOR CTRL & REF VOLT
CHK: J. C. Smith	DATE: 18-JUL-78	DATE: 19-JUL-78	BOARD LOCATION: 1 OF 1
FIRST USED ON OPTION/MODEL: MF20	DATE: 18-JUL-78 11:30	NEXT HIGHER ASSEMBLY: D-DD-M8580-0	SIZE CODE NUMBER REV. D CS M8580-0-DT06 MR 1

116



SHEET 7 OF 8

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REVISIONS		
CHK	CHANGE NO.	REV

digital DRN. G. Smith

DATE 16-JUN-78 ENG. D. Chu DATE 18-JUN-78

TITLE: BUS SELECT MEM DATA DRVRs

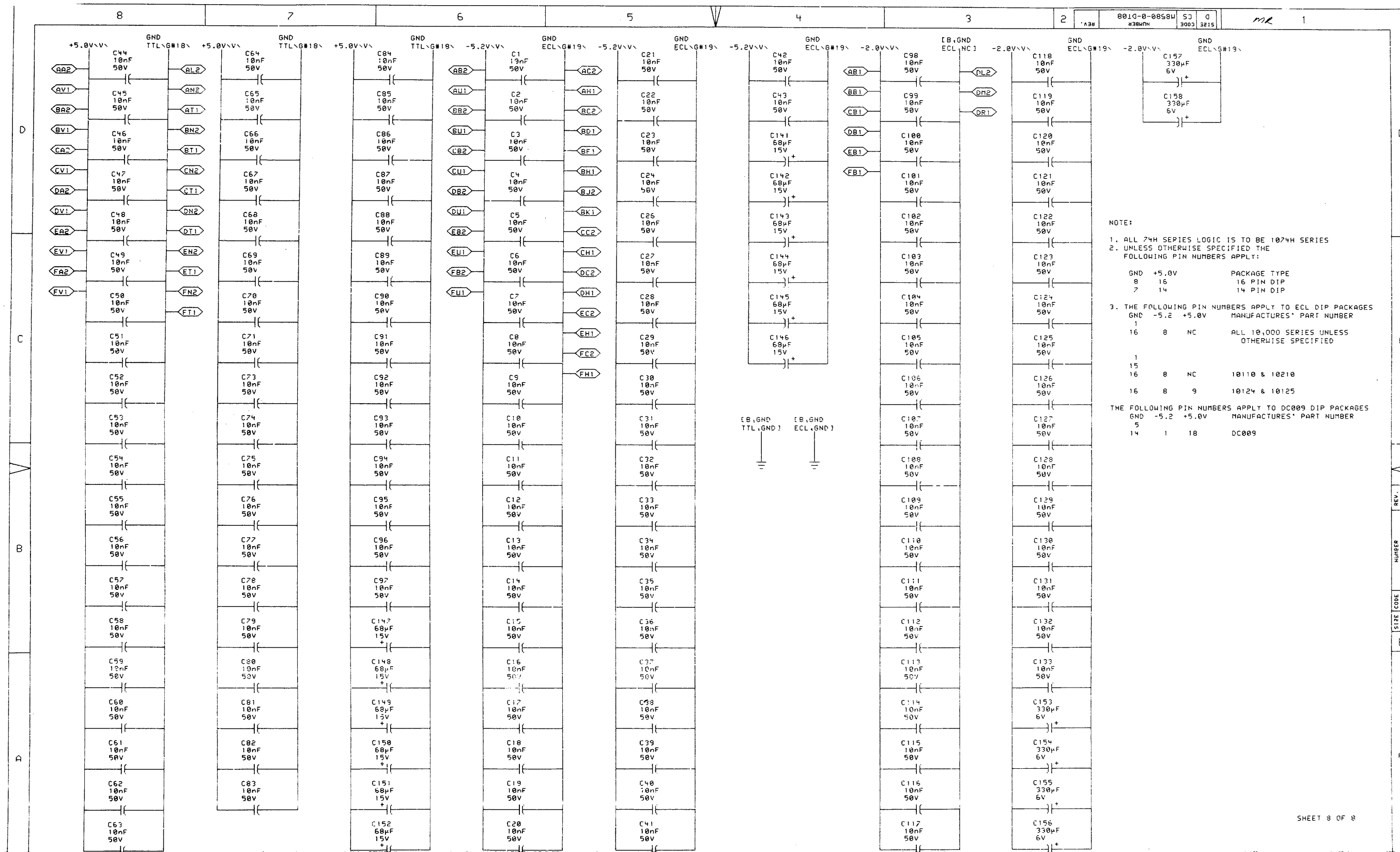
DT07EF.DRW(4,672) 105-JUN-78 16:53 SHEET 1 OF 1

SIZE CODE NUMBER REV. D CS M8580-0-DT07

FIRST USED ON OPTION/MODEL: MF20 D-DD-M8580-0

MC

17



NOTE:

- ALL 74H SERIES LOGIC IS TO BE 1074H SERIES UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY:

GND +5.0V	PACKAGE TYPE
8 16	16 PIN DIP
7 14	14 PIN DIP

- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES GND -5.2 +5.0V MANUFACTURER'S PART NUMBER

16	8	NC	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
15			
16	8	NC	10110 & 10210
16	8	9	10124 & 10125

- THE FOLLOWING PIN NUMBERS APPLY TO DC009 DIP PACKAGES GND -5.2 +5.0V MANUFACTURER'S PART NUMBER

5			
14	1	18	DC009

SHEET 8 OF 8

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN: <i>Lucien</i>	DATE: 06 JUN 78	ENG.:	DATE:	TITLE: DUAL TRANSLATOR POWER. GND. CAPS.
	CHK'D: <i>Lucien</i>	DATE: 05 JUN 78 16:53	WHSHEET: 1	OF: 1	REV.:
FIRST USED ON OPTION MODEL: MF20		10-00-18580		SIZE: D	CODE: CS
				NUMBER: M8580-0-D108	REV.:

REV. NUMBER M8580-0-D108

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R61(1)	DT01	A6	60n	%E33(12)
R62(1)	DT01	A6	60n	%E35(14)
R109(1)	DT01	A7	60n	%E38(9)
R50(1)	DT06	B2	60n	%E40(11)
R13(1)	DT06	B2	60n	%E40(14)
R108(1)	DT06	D6	60n	%E40(3)
R228(1)	DT01	D6	60n	%E44(12)
R224(1)	DT01	C6	60n	%E44(7)
R97(1)	DT05	C7	60n	%E46(1)
R128(1)	DT05	A7	60n	%E46(14)
R94(1)	DT05	B7	60n	%E46(15)
R205(1)	DT05	C7	60n	%E46(2)
R167(1)	DT05	C2	60n	%E47(1)
R131(1)	DT05	A2	60n	%E47(14)
R130(1)	DT05	B2	60n	%E47(15)
R204(1)	DT05	C2	60n	%E47(2)
R166(1)	DT05	C5	60n	%E52(1)
R232(1)	DT05	A5	60n	%E52(14)
R93(1)	DT05	B5	60n	%E52(15)
R95(1)	DT05	C5	60n	%E52(2)
R60(1)	DT01	A8	60n	DATA VALID(N/18+1, A OUT, B OUT) H
R49(1)	DT02	D5	60n	DT02 MEM DATA IN (N+00) H
R51(1)	DT02	C5	60n	DT02 MEM DATA IN (N+01) H
R8(1)	DT02	B5	60n	DT02 MEM DATA IN (N+02) H
R6(1)	DT02	D2	60n	DT02 MEM DATA IN (N+03) H
R39(1)	DT02	C2	60n	DT02 MEM DATA IN (N+04) H
R41(1)	DT02	B2	60n	DT02 MEM DATA IN (N+05) H
R48(1)	DT02	C5	60n	DT02 MEM DATA IN (N+00) H
R50(1)	DT02	B5	60n	DT02 MEM DATA IN (N+01) H
R10(1)	DT02	A5	60n	DT02 MEM DATA IN (N+02) H
R7(1)	DT02	C2	60n	DT02 MEM DATA IN (N+03) H
R38(1)	DT02	B2	60n	DT02 MEM DATA IN (N+04) H
R40(1)	DT02	A2	60n	DT02 MEM DATA IN (N+05) H
R1(1)	DT03	D5	60n	DT03 MEM DATA IN (N+06) H
R3(1)	DT03	C5	60n	DT03 MEM DATA IN (N+07) H
R100(1)	DT03	B5	60n	DT03 MEM DATA IN (N+08) H
R132(1)	DT03	D2	60n	DT03 MEM DATA IN (N+09) H
R35(1)	DT03	C2	60n	DT03 MEM DATA IN (N+10) H
R37(1)	DT03	B2	60n	DT03 MEM DATA IN (N+11) H
R5(1)	DT03	D5	60n	DT03 MEM DATA IN (N+06) H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R2(1)	DT03	B5	60n	DT03 MEM DATA IN (N+07) H
R99(1)	DT03	A5	60n	DT03 MEM DATA IN (N+08) H
R101(1)	DT03	D2	60n	DT03 MEM DATA IN (N+09) H
R34(1)	DT03	B2	60n	DT03 MEM DATA IN (N+10) H
R36(1)	DT03	A2	60n	DT03 MEM DATA IN (N+11) H
R162(1)	DT04	D5	60n	DT04 MEM DATA IN (N+12) H
R164(1)	DT04	C5	60n	DT04 MEM DATA IN (N+13) H
R158(1)	DT04	B5	60n	DT04 MEM DATA IN (N+14) H
R159(1)	DT04	D2	60n	DT04 MEM DATA IN (N+15) H
R119(1)	DT04	C2	60n	DT04 MEM DATA IN (N+16) H
R121(1)	DT04	B2	60n	DT04 MEM DATA IN (N+17) H
R161(1)	DT04	D5	60n	DT04 MEM DATA IN (N+12) H
R163(1)	DT04	B5	60n	DT04 MEM DATA IN (N+13) H
R157(1)	DT04	A5	60n	DT04 MEM DATA IN (N+14) H
R160(1)	DT04	D2	60n	DT04 MEM DATA IN (N+15) H
R118(1)	DT04	B2	60n	DT04 MEM DATA IN (N+16) H
R120(1)	DT04	A2	60n	DT04 MEM DATA IN (N+17) H
R122(1)	DT06	D2	60n	DT06 (N/18+1, MEM PAR IN, SPARE9) H
R123(1)	DT06	D2	60n	DT06 (N/18+1, MEM PAR IN, SPARE10) H
R98(1)	DT06	A1	60n	DT06 DATA TO MEM DISABLE A H
R168(1)	DT06	A1	60n	DT06 DATA TO MEM DISABLE B H
R102(1)	DT06	A1	60n	DT06 DATA TO MEM DISABLE C H
R4(1)	DT06	C6	60n	-DT06 SEL 0 H
R12(1)	DT02	D6	60n	MB (N+00) H
R9(1)	DT02	C6	60n	MB (N+01) H
R54(1)	DT02	B6	60n	MB (N+02) H
R55(1)	DT02	D3	60n	MB (N+03) H
R100(1)	DT02	C3	60n	MB (N+04) H
R179(1)	DT02	B3	60n	MB (N+05) H
R101(1)	DT03	D6	60n	MB (N+06) H
R178(1)	DT03	C6	60n	MB (N+07) H
R134(1)	DT03	B6	60n	MB (N+08) H
R133(1)	DT03	D3	60n	MB (N+09) H
R135(1)	DT03	C3	60n	MB (N+10) H
R136(1)	DT03	B3	60n	MB (N+11) H
R57(1)	DT04	D6	60n	MB (N+12) H
R11(1)	DT04	C6	60n	MB (N+13) H
R107(1)	DT04	B6	60n	MB (N+14) H
R106(1)	DT04	D3	60n	MB (N+15) H
R53(1)	DT04	C3	60n	MB (N+16) H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R108(1)	DT04	B3	60n	MB (N+17) H
R129(1)	DT01	C3	60n	MEM R0 (N/18+1, 0, 3) H
R206(1)	DT06	C3	60n	MEM T(1)1
R214(1)	DT06	C3	60n	MEM T(1)2
R213(1)	DT06	C3	60n	MEM T(1)3
R126(1)	DT01	B3	60n	MEM (N/18+1, R0 1, RD RQ) H
R127(1)	DT01	B3	60n	MEM (N/18+1, R0 2, WR RQ) H
R56(1)	DT01	D3	60n	MEM (N/18+1, START A, START B) H
R195(1)	DT05	D3	60n	MEM (P/12+1, SPARE 33, SPARE32) H
R230(1)	DT05	D7	60n	PMA (P+14) H
R231(1)	DT05	D7	60n	PMA (P+15) H
R191(1)	DT05	D7	60n	PMA (P+16) H
R229(1)	DT05	D7	60n	PMA (P+17) H
R02(1)	DT05	D5	60n	PMA (P+18) H
R01(1)	DT05	D5	60n	PMA (P+19) H
R03(1)	DT05	D5	60n	PMA (P+20) H
R04(1)	DT05	D5	60n	PMA (P+21) H
R109(1)	DT01	B7	60n	(N/18+1, CLK SBUS, SPARE) CLK H
R59(1)	DT06	D3	60n	(N/18+1, MB PAR, SPARE7) H
R207(1)	DT06	C2	60n	(N/18+1, MB23 SEQ RQ, MEM DATA TO MEM) H
R96(1)	DT01	A3	60n	-(N/18+1, MEM DIAG, -MEM ADR PAR) H
R225(1)	DT06	D6	60n	(N/18+1, MEM SPARE, DIAG MEM RESET) H
R226(1)	DT05	C7	60n	(N/18+1, SBUS ADR HOLD H, MEM TERM 10) H
R192(1)	DT05	D3	60n	(P/12+1, PMA 22, SBUS ADR 34) H
R193(1)	DT05	D3	60n	(P/12+1, PMA 23, SBUS ADR 35) H
R194(1)	DT05	D3	60n	(P/12+1, PMA 24, PMA 25) 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. <i>C. Smith</i>	DATE 09-JUN-78	ENG. <i>A. Chiu</i>	DATE 20-JUN-78	TITLE: DUAL TRANSLATOR TERMINATORS
	CHK. <i>A. Lucas</i>	DATE 16-JUL-78	BOARD LOCATION: SHEET 1 OF 1		
FIRST USED ON OPTION/MODEL: MF20		NEXT HIGHER ASSEMBLY: D-DD-M8580-0		SIZE CODE D CS	NUMBER M8580-0-RES

REV.



DRAWING NUMBER PAGE PART NO. DESCRIPTION REVISIONS

FILE: ORIGINAL LAYOUT

ECO NUMBER

MODULE REVISION A

D-UA-M8581-0-0	5		XBUS TRANSLATOR	A
K-PL-M8581-0-DBP	2		XBUS TRANSLATOR	A
D-CS-M8581-0-DX01	1		XBUS TRANSLATOR	-
D-CS-M8581-0-DX02	1		DATA TRNCVR 0-5	-
D-CS-M8581-0-DX03	1		DATA TRNCVR 6-11	-
D-CS-M8581-0-DX04	1		DATA TRNCVR 12-17	-
D-CS-M8581-0-DX05	1		ADDRESS DRIVERS	-
D-CS-M8581-0-DX06	1		CTRL & REF VOLT	-
D-CS-M8581-0-DX07	1		POWER. GND. CAPS.	-
D-CS-M8581-0-RES	1		TERMINATORS	-
D-MD-5013219-0-0	5		DRILL & ETCH DRAWING	A
		5013219	ETCH CIRCUIT BOARD	B
K-PC-M8581-0-DBC	-		P.C. DESIGN DATA BASE	A
P00-M8581-00	-		PROCESS SHEET (REF ONLY)	-

NOTES:

D  
C  
B  
A

REV. NUMBER  
M8581-0

SIZE CODE  
D DD B

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REVISIONS	
CHK	CHANGE NO. REV.

digital

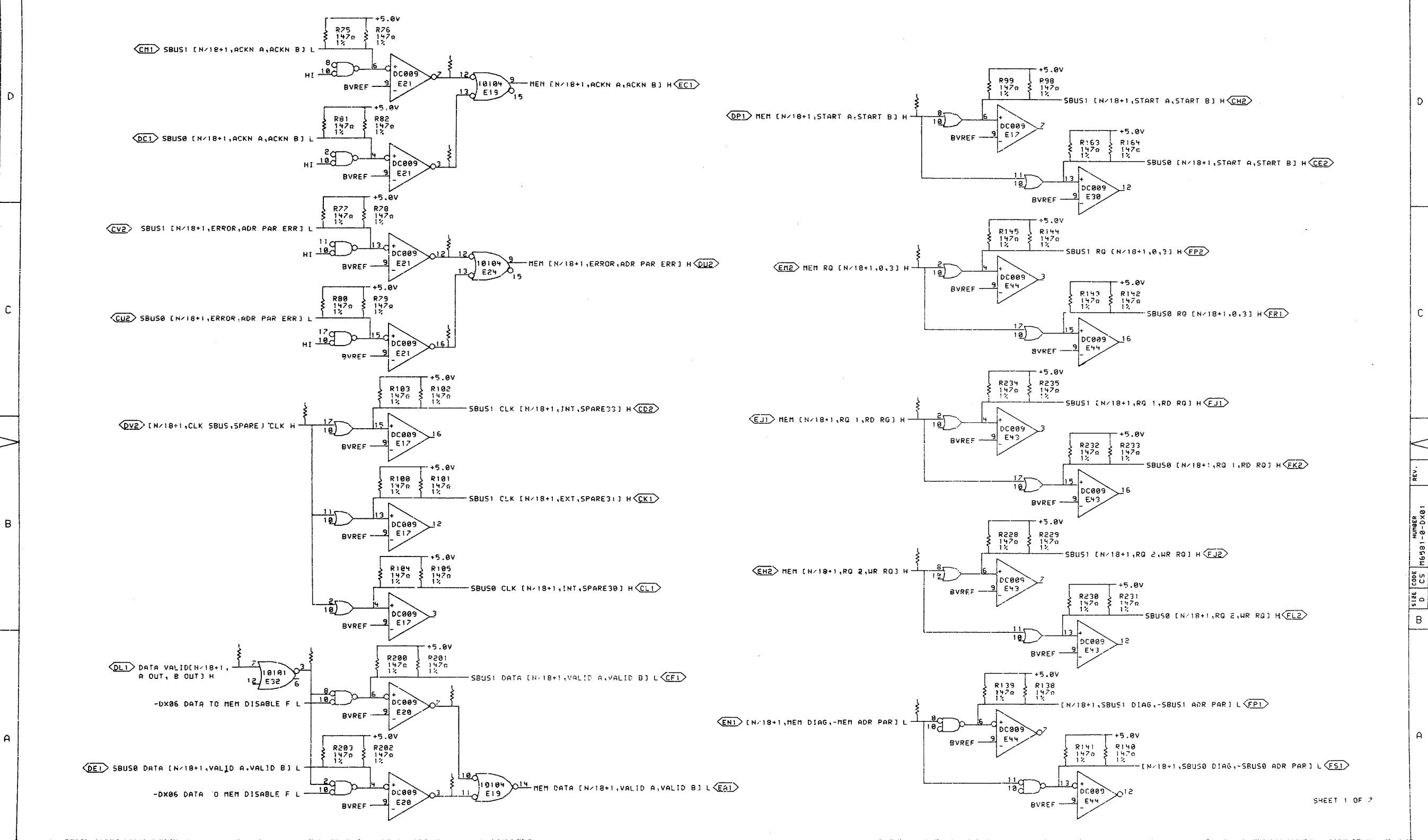
DRN: *P. Lucier* DATE: 16-AUG-78  
CHK'D: *M. Mural* DATE: 17-AUG-78  
SHEET 1 OF 1

DATE: 16-AUG-78  
BOARD LOCATION: N/A  
TITLE: XBUS TRANSLATOR

PROD. DSK18581DD.T2PL1.6731 16-AUG-78 13:50 NEXT HIGHER ASSEMBLY: NONE  
FIRST USED ON OPTION/MODEL: MF20

SIZE CODE NUMBER REV.  
D DD M8581-0





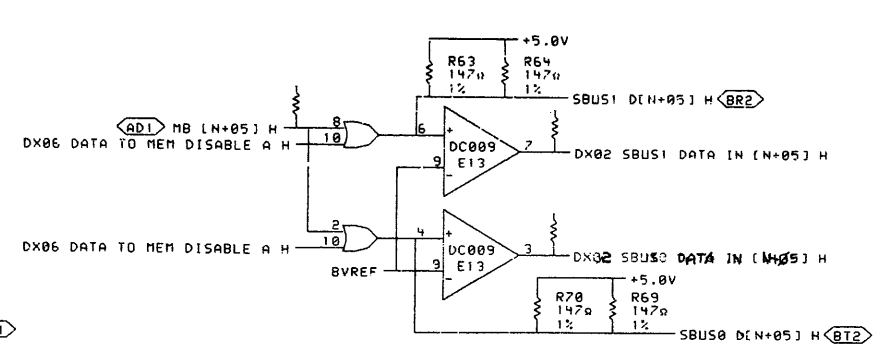
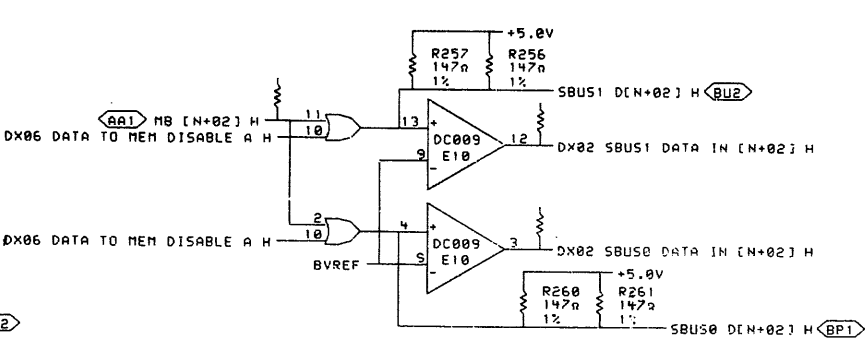
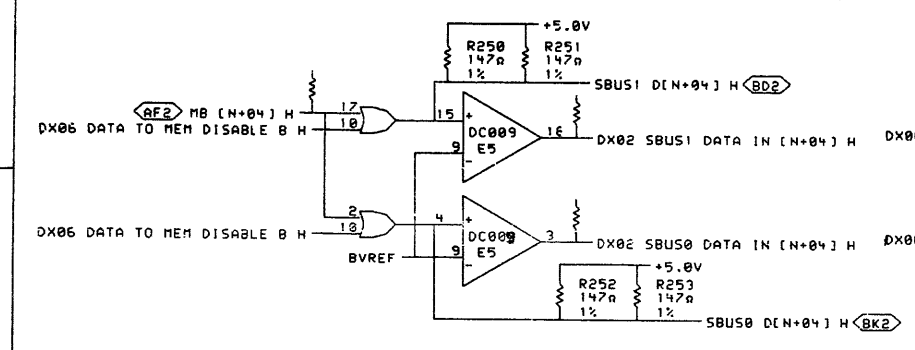
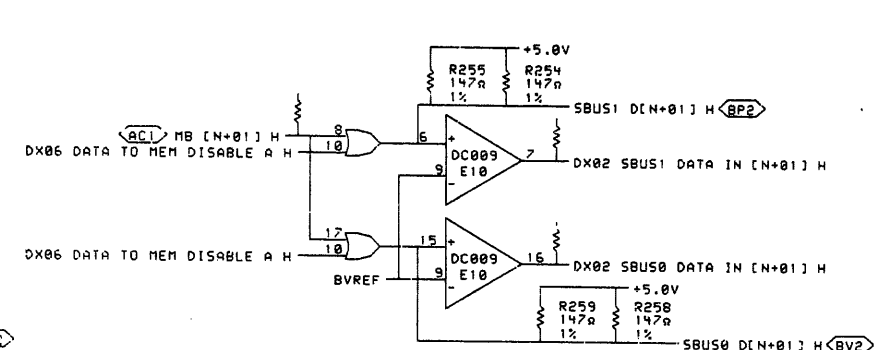
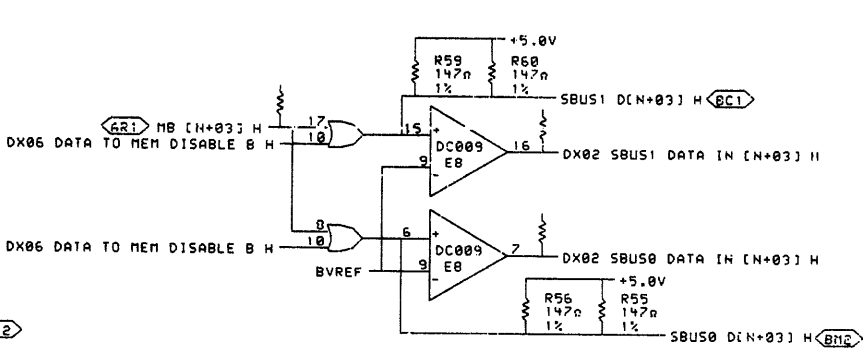
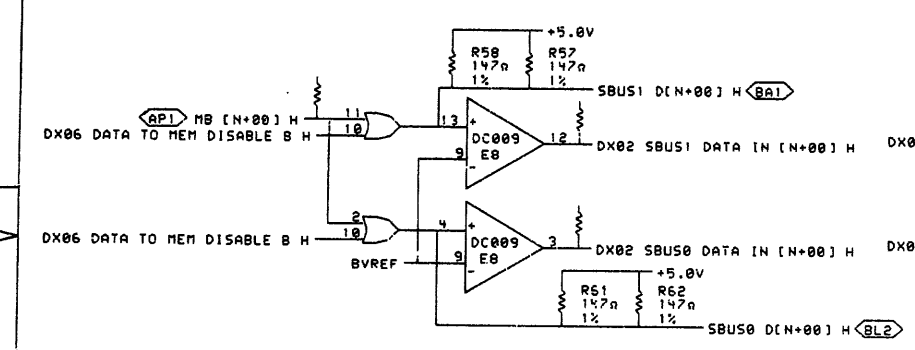
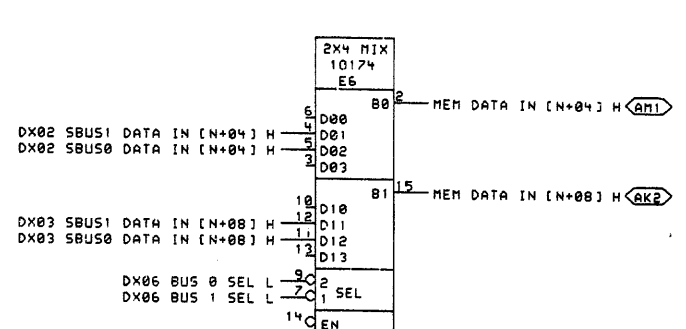
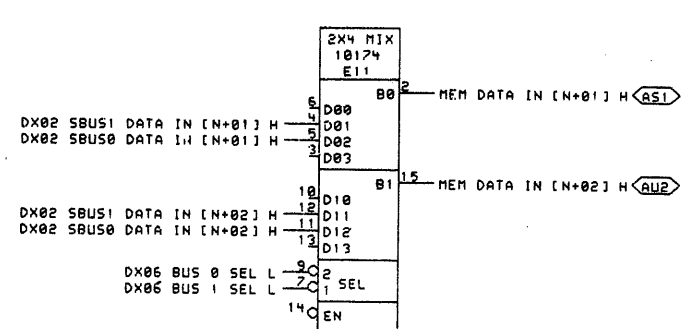
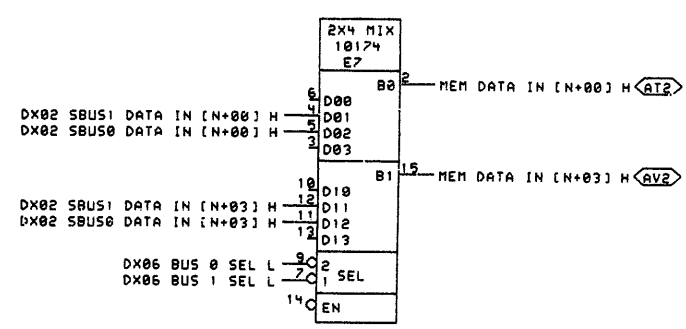
SHEET 1 OF 7

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REVISIONS  
CHK CHANGE NO. REV

	DRN: <i>D. Lussier</i>	DATE: 26-JUL-78	ENG: <i>W. L.</i>	DATE: <i>MGJ</i>	TITLE: XBUS TRANSLATOR
	CHK: <i>M. M.</i>	DATE: <i>MGJ</i>	BOARD LOCATION:	SHEET: 1 OF 1	SIZE CODE: D
PUB: (M8581-DC)DX01B.DRW 26-JUL-78 08:01 NEXT HIGHER ASSEMBLY: D-DD-M8581-0					NUMBER: <i>me</i> REV.: 1

S43



SHEET 2 OF 7

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CHK	CHANGE NO.	REV

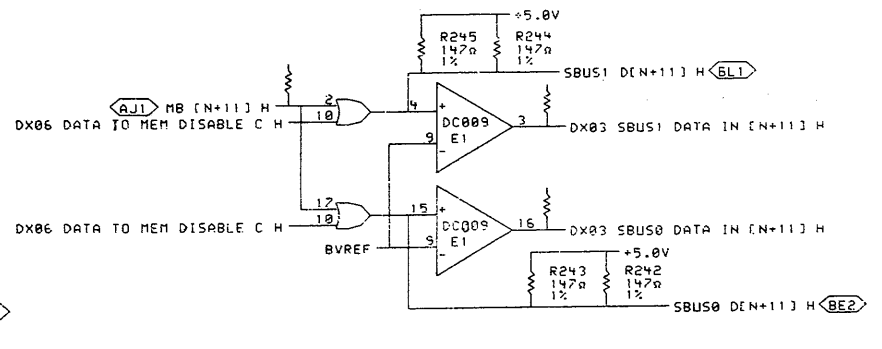
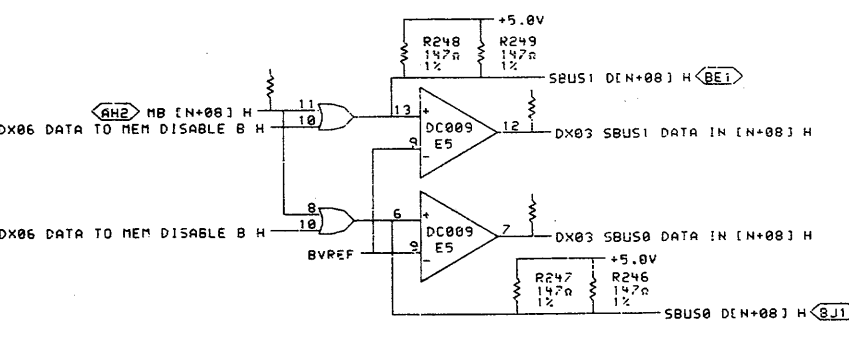
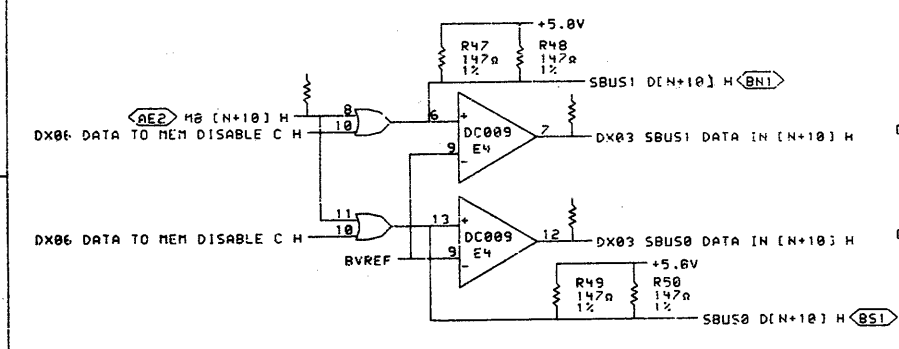
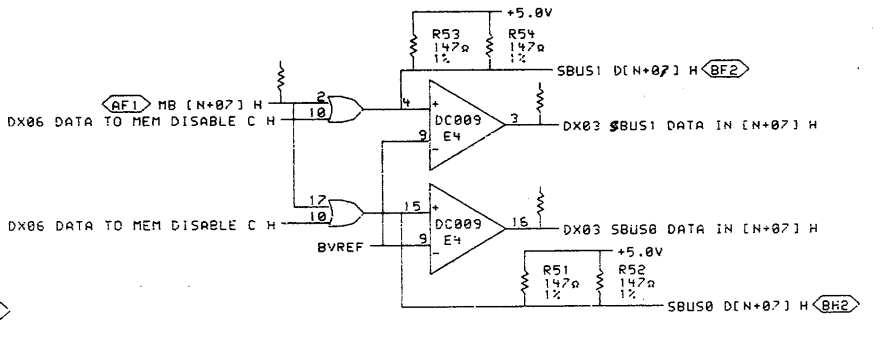
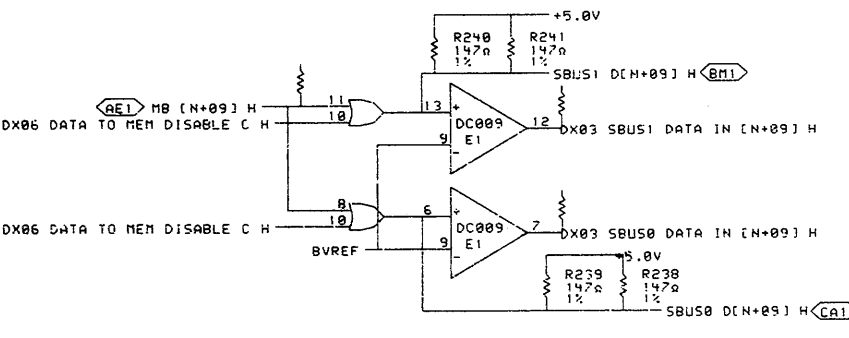
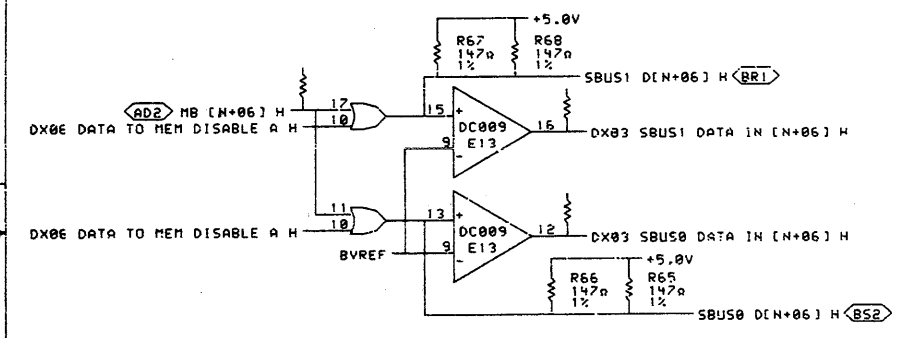
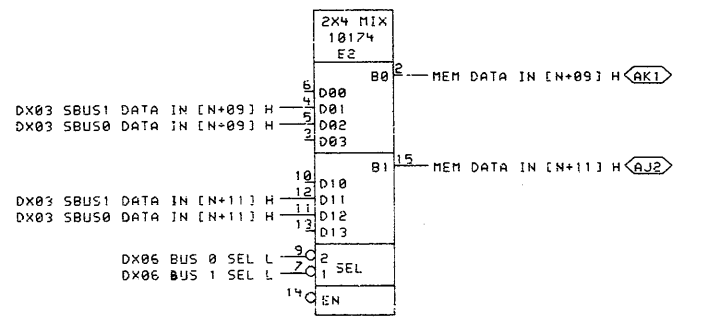
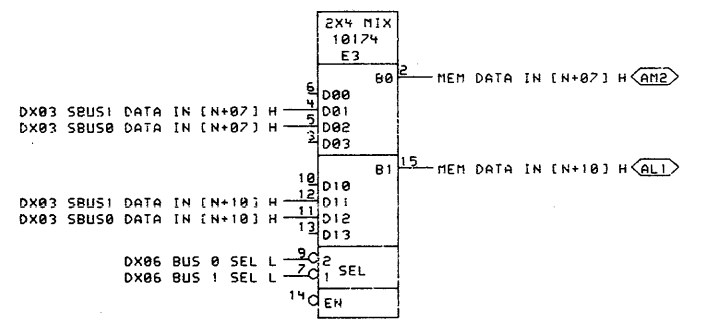
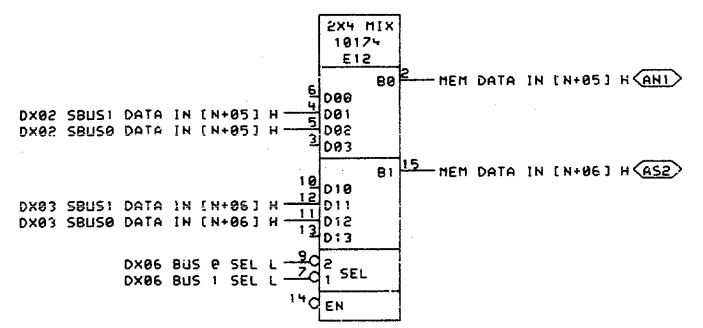
digital	DRN: <i>Lucas</i>	DATE: 26-JUL-78	ENG: <i>W.H.H.</i>	DATE: <i>10.9.78</i>	TITLE: XBUS TRANSLATOR DATA TRNCVR 0-5
	CHK: <i>W.H.H.</i>	DATE: <i>10.9.78</i>	BOARD LOCATION: <i>1</i>	SHEET: <i>1</i>	OF: <i>1</i>
PUB: <M8581-N05>DX02B.DRW 126-JUL-78 08:06			NEXT HIGHER ASSEMBLY: D-DD-M8581-0		SIZE CODE: D CS
FIRST USED ON OPTION/MODEL: MF20			NUMBER: M8581-0-DX02		REV.:

D

C

B

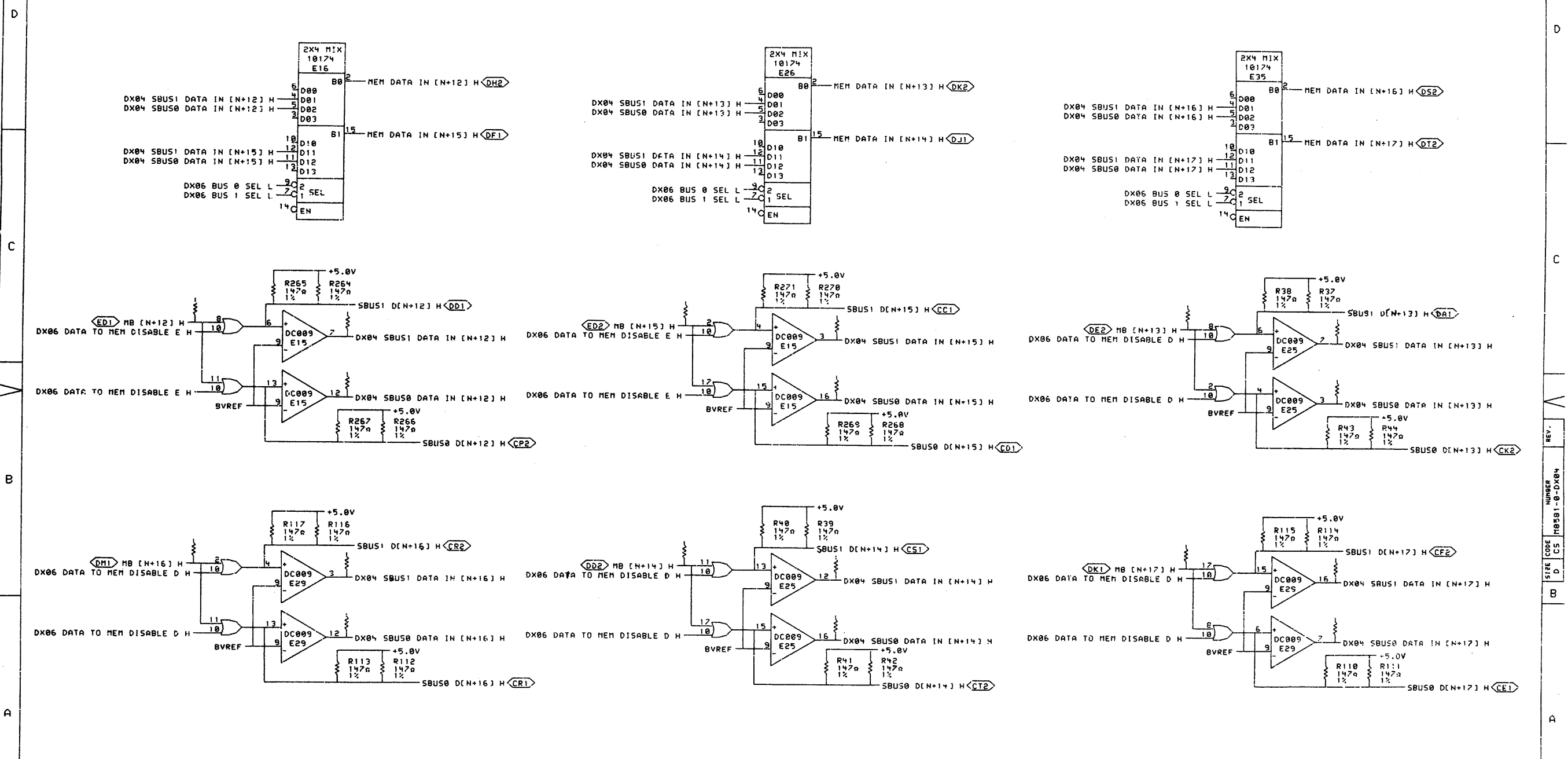
A



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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN	DATE	ENG	DATE	TITLE
	CHK'D	26-JUL-78	J. L. ...	11-11-78	XBUS TRANSLATOR DATA TRNCVR 6-11
PUB: M8581-M05-DX03B.DRW		DATE	BOARD LOCATION:	SIZE	CODE
FIRST USED ON OPTION/MODEL: MF20		26-JUL-78 08:13		D	CS
NEXT HIGHER ASSEMBLY: D-DD-M8581-0		SHEET	OF	NUMBER	REV.
		1	1	M8581-0-DX03	



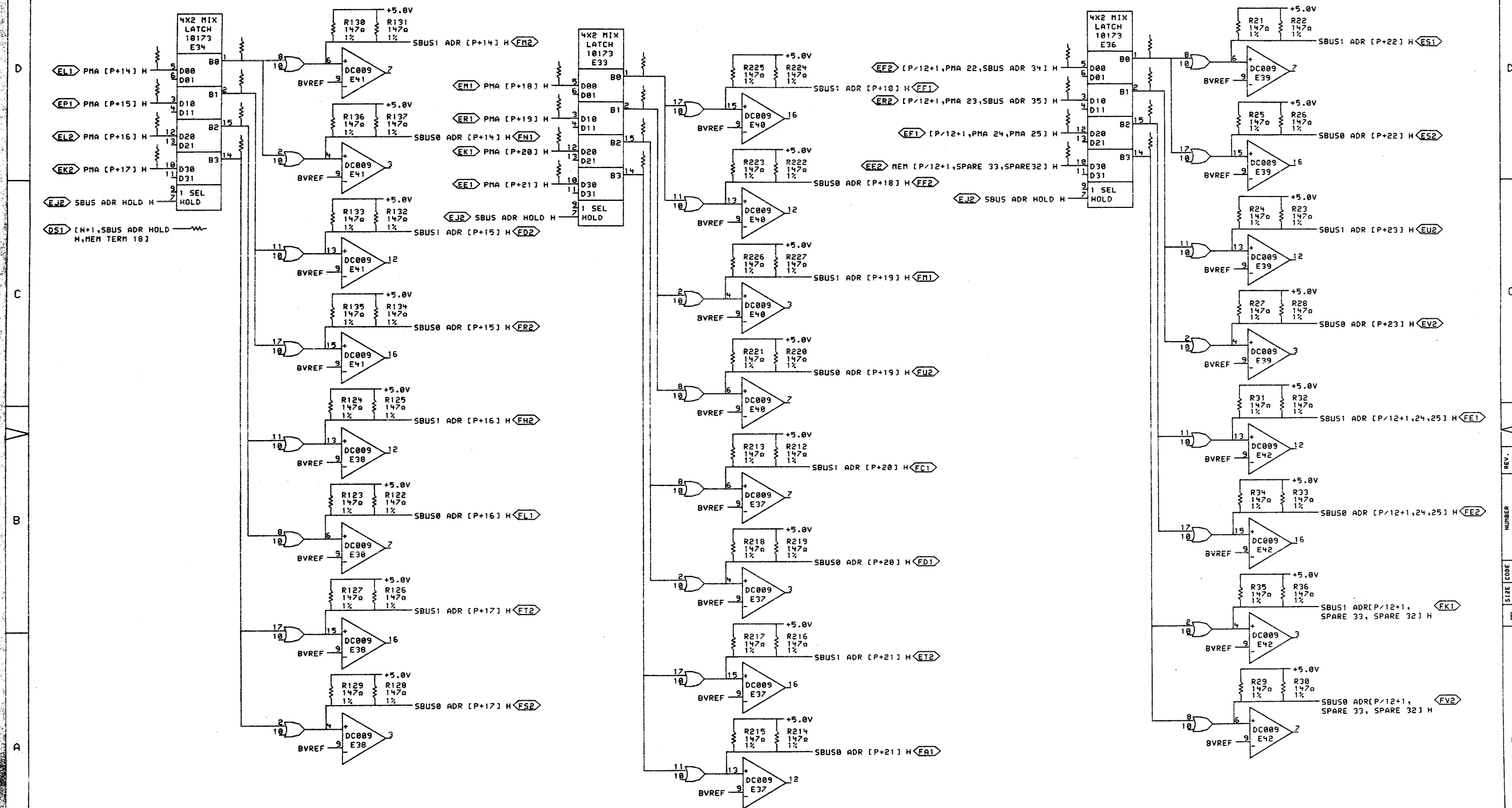
SHEET 4 OF 7

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REVISONS	
CHK	CHANGE NO. REV.

digital	DRN: <i>Olucian</i>	DATE: 26-JUL-78	ENG: <i>William R. Mac</i>	DATE: <i>Mac</i>	TITLE: XBUS TRANSLATOR DATA TRNCVR 12-17
	CHK: <i>Michael Smith</i>	DATE: <i>Smith</i>	BOARD LOCATION: <i>Smith</i>		
PUB: <M8581-NOS>DX04B.DRW	26-JUL-78 08:10	NEXT HIGHER ASSEMBLY: <i>Smith</i>			
FIRST USED ON OPTION/MODEL: MF20	D-DD-M8581-0				

SIZE CODE NUMBER REV. D CS M8581-0-DX04 1

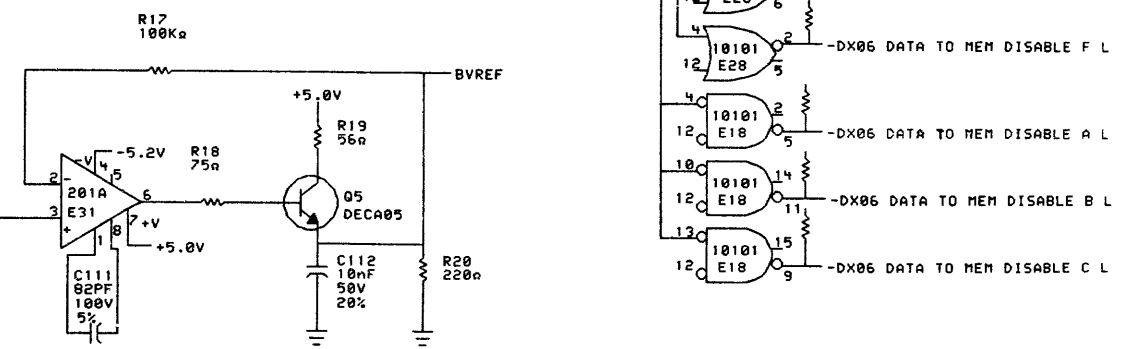
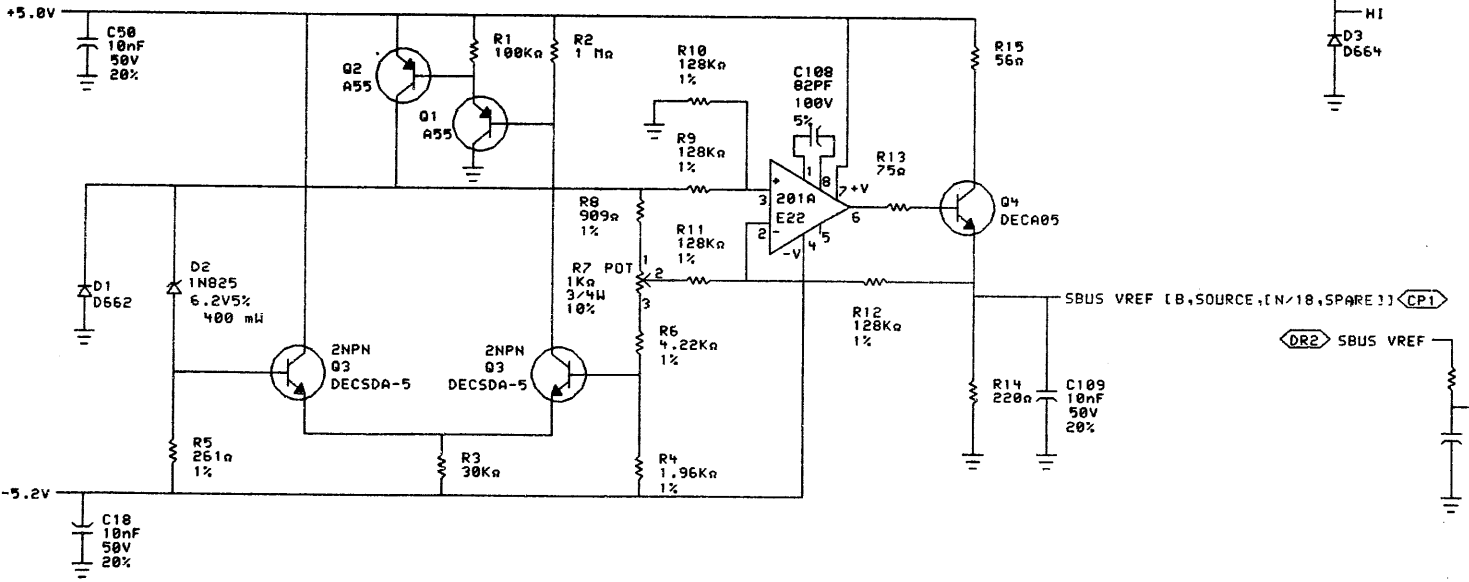
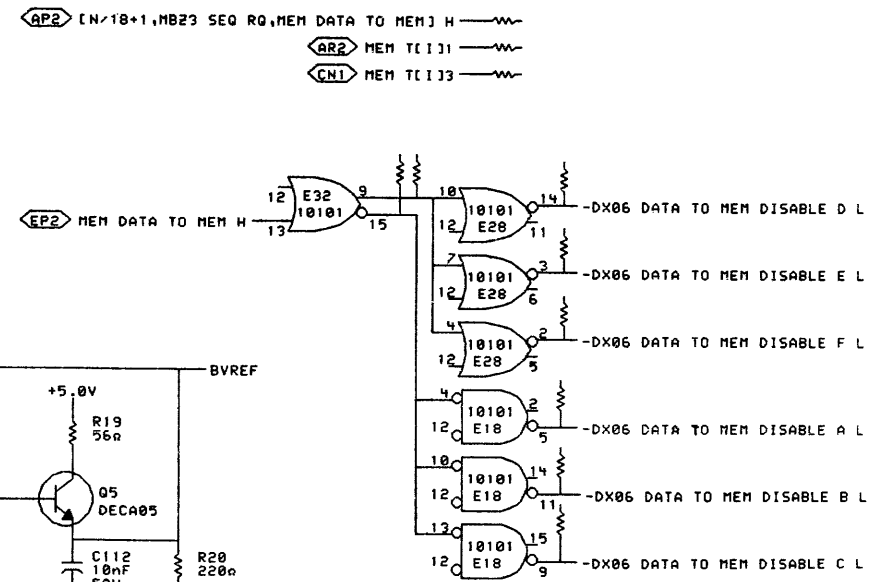
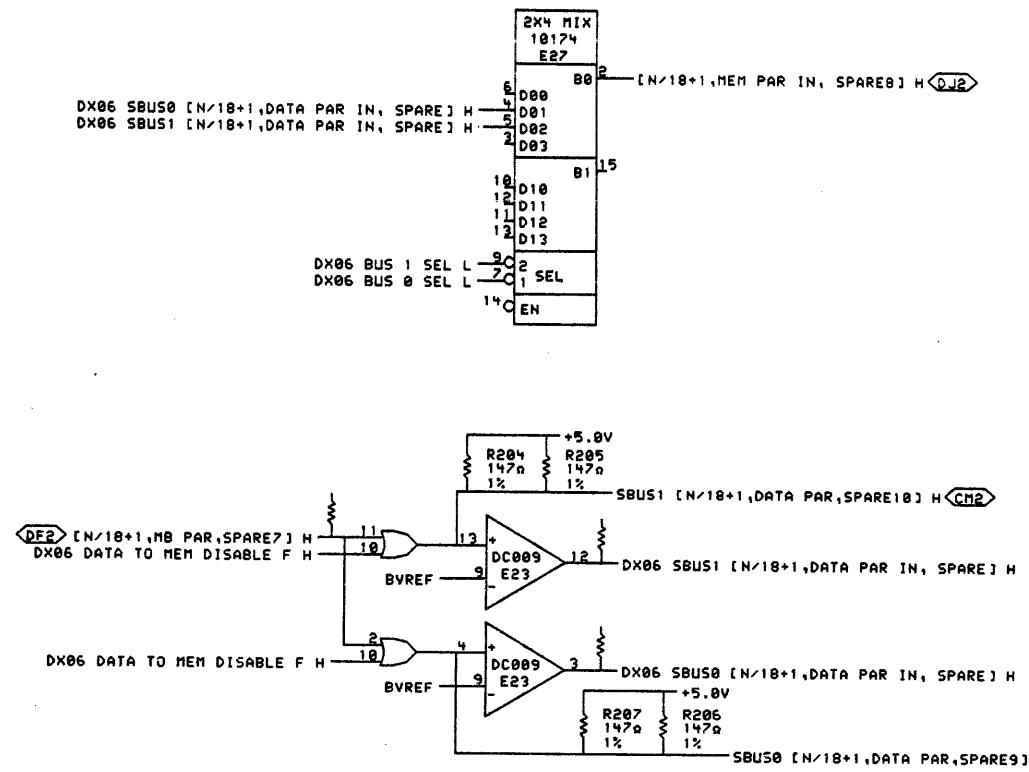
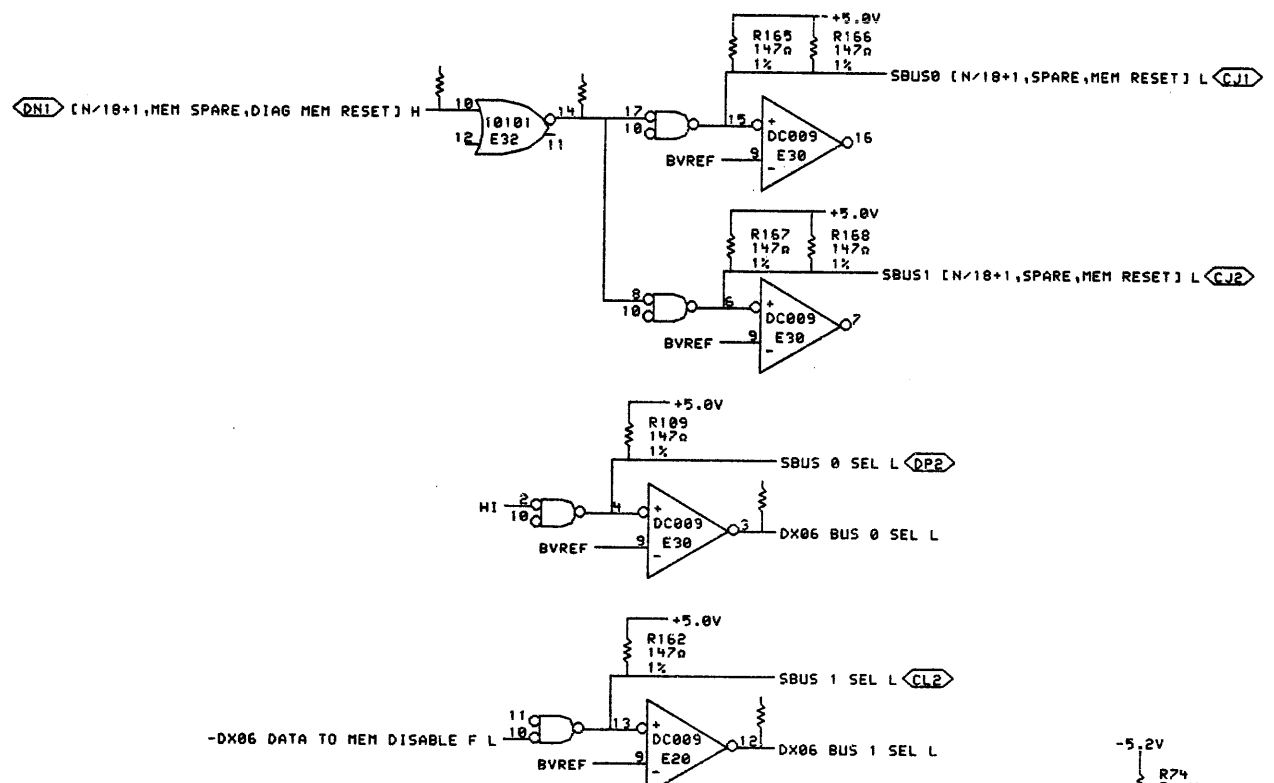


SHEET 5 OF 7

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REVISIONS	CHK	CHANGE NO.	REV

digital	DRN	DATE	ENG	DATE	TITLE:	XBUS TRANSLATOR ADDRESS DRIVERS		
	CHK'D	26-JUL-78	M. L. H. H.	7/28	BOARD LOCATION:	SIZE	CODE	NUMBER
PUB: M8581-MOS-DX05B.DRW		126-JUL-78 08:21	NEXT HIGHER ASSEMBLY:		D	CS	M8581-0-DX05	REV.
FIRST USED ON OPTION/MODEL:		MF20	D-DD-M8581-0					



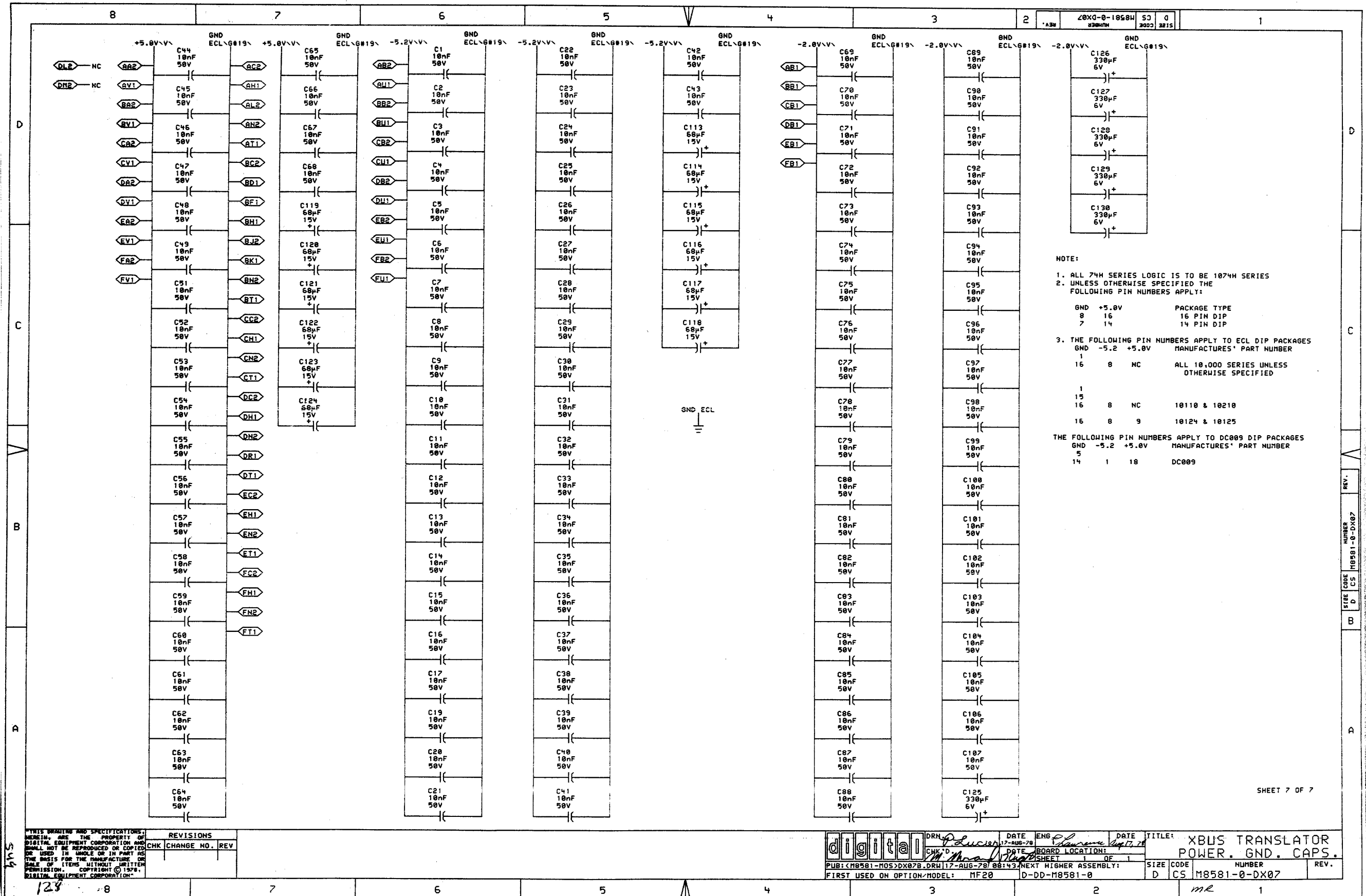
SHEET 6 OF 7

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REVISIONS	
CHK	CHANGE NO. REV

digital	DRN: <i>P. Lucian</i>	DATE: 17-AUG-78	ENG: <i>P. Lucian</i>	DATE: <i>Sept 78</i>	TITLE: XBUS TRANSLATOR CTRL & REF VOLT
	CHK'D: <i>M. Morrell</i>	DATE: <i>17-AUG-78</i>	BOARD LOCATION: <i>1</i>	SHEET: <i>1</i>	OF: <i>1</i>
PUB: <M8581-N05>DX068.DRW	17-AUG-78 09:16	NEXT HIGHER ASSEMBLY:	SIZE CODE: D	NUMBER: M8581-0-DX06	REV.:
FIRST USED ON OPTION/MODEL: MF20	10-DD-M8581-0				





NOTE:

- ALL 74H SERIES LOGIC IS TO BE 1074H SERIES UNLESS OTHERWISE SPECIFIED THE FOLLOWING PIN NUMBERS APPLY:
- THE FOLLOWING PIN NUMBERS APPLY TO ECL DIP PACKAGES MANUFACTURERS' PART NUMBER
- THE FOLLOWING PIN NUMBERS APPLY TO DC009 DIP PACKAGES MANUFACTURERS' PART NUMBER

GND +5.0V	PACKAGE TYPE
8 16	16 PIN DIP
7 14	14 PIN DIP

GND -5.2 +5.0V	MANUFACTURERS' PART NUMBER
1 16 8 NC	ALL 10,000 SERIES UNLESS OTHERWISE SPECIFIED
1 15 16 8 NC	10110 & 10210
16 8 9	10124 & 10125

GND -5.2 +5.0V	MANUFACTURERS' PART NUMBER
5 14 1 18	DC009

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REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN	DATE	ENG	DATE	TITLE
	CHK'D	17-AUG-78	Chaurme	17-78	XBUS TRANSLATOR POWER. GND. CAPS.
PUB: M8581-MOS-DX07B.DRW		17-AUG-78	88:43	SHEET 1 OF 1	SIZE CODE
FIRST USED ON OPTION/MODEL: MF20		NEXT HIGHER ASSEMBLY: D-DD-M8581-0		NUMBER	REV.
				D CS	M8581-0-DX07



RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R273(1)	DX01	A6	68Ω	%E20(3)
R274(1)	DX01	A6	68Ω	%E20(7)
R170(1)	DX01	C6	68Ω	%E21(12)
R169(1)	DX01	C6	68Ω	%E21(16)
R198(1)	DX01	D6	68Ω	%E21(3)
R272(1)	DX01	D6	68Ω	%E21(7)
R07(1)	DX06	D6	68Ω	%E32(14)
R71(1)	DX06	B2	68Ω	%E32(15)
R197(1)	DX01	A7	68Ω	%E32(3)
R171(1)	DX06	B2	68Ω	%E32(9)
R297(1)	DX05	D5	68Ω	%E33(1)
R295(1)	DX05	D5	68Ω	%E33(14)
R296(1)	DX05	D5	68Ω	%E33(15)
R298(1)	DX05	D5	68Ω	%E33(2)
R178(1)	DX05	D7	68Ω	%E34(1)
R180(1)	DX05	D7	68Ω	%E34(14)
R179(1)	DX05	D7	68Ω	%E34(15)
R181(1)	DX05	D7	68Ω	%E34(2)
R92(1)	DX05	D2	68Ω	%E36(1)
R95(1)	DX05	D2	68Ω	%E36(14)
R94(1)	DX05	D2	68Ω	%E36(15)
R93(1)	DX05	D2	68Ω	%E36(2)
R292(1)	DX01	A7	68Ω	DATA VALID(N/18+1, A OUT, B OUT) H
R152(1)	DX02	B7	68Ω	DX02 SBUS0 DATA IN [N+00] H
R194(1)	DX02	B2	68Ω	DX02 SBUS0 DATA IN [N+01] H
R192(1)	DX02	A4	68Ω	DX02 SBUS0 DATA IN [N+02] H
R154(1)	DX02	B4	68Ω	DX02 SBUS0 DATA IN [N+03] H
R190(1)	DX02	A7	68Ω	DX02 SBUS0 DATA IN [N+04] H
R156(1)	DX02	A2	68Ω	DX02 SBUS0 DATA IN [N+05] H
R153(1)	DX02	C7	68Ω	DX02 SBUS1 DATA IN [N+00] H
R195(1)	DX02	C2	68Ω	DX02 SBUS1 DATA IN [N+01] H
R193(1)	DX02	B4	68Ω	DX02 SBUS1 DATA IN [N+02] H
R155(1)	DX02	C4	68Ω	DX02 SBUS1 DATA IN [N+03] H
R191(1)	DX02	B7	68Ω	DX02 SBUS1 DATA IN [N+04] H
R157(1)	DX02	B2	68Ω	DX02 SBUS1 DATA IN [N+05] H
R158(1)	DX03	B7	68Ω	DX03 SBUS0 DATA IN [N+06] H
R146(1)	DX03	B2	68Ω	DX03 SBUS0 DATA IN [N+07] H
R189(1)	DX03	A4	68Ω	DX03 SBUS0 DATA IN [N+08] H
R185(1)	DX03	B4	68Ω	DX03 SBUS0 DATA IN [N+09] H
R148(1)	DX03	A7	68Ω	DX03 SBUS0 DATA IN [N+10] H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R187(1)	DX03	A2	68Ω	DX03 SBUS0 DATA IN [N+11] H
R159(1)	DX03	C7	68Ω	DX03 SBUS1 DATA IN [N+06] H
R147(1)	DX03	C2	68Ω	DX03 SBUS1 DATA IN [N+07] H
R188(1)	DX03	B4	68Ω	DX03 SBUS1 DATA IN [N+08] H
R186(1)	DX03	C4	68Ω	DX03 SBUS1 DATA IN [N+09] H
R149(1)	DX03	B7	68Ω	DX03 SBUS1 DATA IN [N+10] H
R184(1)	DX03	B2	68Ω	DX03 SBUS1 DATA IN [N+11] H
R286(1)	DX04	B7	68Ω	DX04 SBUS0 DATA IN [N+12] H
R84(1)	DX04	B2	68Ω	DX04 SBUS0 DATA IN [N+13] H
R85(1)	DX04	A4	68Ω	DX04 SBUS0 DATA IN [N+14] H
R287(1)	DX04	B4	68Ω	DX04 SBUS0 DATA IN [N+15] H
R119(1)	DX04	A7	68Ω	DX04 SBUS0 DATA IN [N+16] H
R121(1)	DX04	A2	68Ω	DX04 SBUS0 DATA IN [N+17] H
R285(1)	DX04	C7	68Ω	DX04 SBUS1 DATA IN [N+12] H
R83(1)	DX04	C2	68Ω	DX04 SBUS1 DATA IN [N+13] H
R86(1)	DX04	B4	68Ω	DX04 SBUS1 DATA IN [N+14] H
R288(1)	DX04	C4	68Ω	DX04 SBUS1 DATA IN [N+15] H
R118(1)	DX04	B7	68Ω	DX04 SBUS1 DATA IN [N+16] H
R128(1)	DX04	B2	68Ω	DX04 SBUS1 DATA IN [N+17] H
R150(1)	DX06	C6	68Ω	-DX06 BUS 0 SEL H
R151(1)	DX06	B6	68Ω	-DX06 BUS 1 SEL H
R282(1)	DX06	A1	68Ω	DX06 DATA TO MEM DISABLE A H
R279(1)	DX06	A1	68Ω	DX06 DATA TO MEM DISABLE B H
R237(1)	DX06	A1	68Ω	DX06 DATA TO MEM DISABLE C H
R186(1)	DX06	B1	68Ω	DX06 DATA TO MEM DISABLE D H
R262(1)	DX06	B1	68Ω	DX06 DATA TO MEM DISABLE E H
R196(1)	DX06	A1	68Ω	DX06 DATA TO MEM DISABLE F H
R298(1)	DX06	C2	68Ω	DX06 SBUS0 [N/18+1, DATA PAR IN, SPARE] H
R291(1)	DX06	C2	68Ω	DX06 SBUS1 [N/18+1, DATA PAR IN, SPARE] H
R97(1)	DX02	C7	68Ω	MB [N+00] H
R263(1)	DX02	C3	68Ω	MB [N+01] H
R284(1)	DX02	B5	68Ω	MB [N+02] H
R96(1)	DX02	C5	68Ω	MB [N+03] H
R281(1)	DX02	B7	68Ω	MB [N+04] H
R72(1)	DX02	B3	68Ω	MB [N+05] H
R73(1)	DX03	C7	68Ω	MB [N+06] H
R45(1)	DX03	C3	68Ω	MB [N+07] H
R280(1)	DX03	B5	68Ω	MB [N+08] H
R236(1)	DX03	C5	68Ω	MB [N+09] H
R46(1)	DX03	B7	68Ω	MB [N+10] H

RESISTOR LOC(PIN)	SHOWN ON DRW#	REF	VALUE	TERMINATES SIGNAL
R278(1)	DX03	B3	68Ω	MB [N+11] H
R283(1)	DX04	C7	68Ω	MB [N+12] H
R188(1)	DX04	C3	68Ω	MB [N+13] H
R187(1)	DX04	B5	68Ω	MB [N+14] H
R275(1)	DX04	C5	68Ω	MB [N+15] H
R172(1)	DX04	B7	68Ω	MB [N+16] H
R173(1)	DX04	B3	68Ω	MB [N+17] H
R183(1)	DX01	C3	68Ω	MEM RQ [N/18+1,0,3] H
R276(1)	DX06	B2	68Ω	MEM T[1]
R289(1)	DX06	B2	68Ω	MEM T[1]3
R300(1)	DX01	C3	68Ω	MEM [N/18+1,RQ 1,RD RQ] H
R299(1)	DX01	B3	68Ω	MEM [N/18+1,RQ 2,WR RQ] H
R161(1)	DX01	D3	68Ω	MEM [N/18+1,START A,START B] H
R91(1)	DX05	D3	68Ω	MEM [P/12+1,SPARE 33,SPARE32] H
R176(1)	DX05	D8	68Ω	PMA [P+14] H
R177(1)	DX05	D8	68Ω	PMA [P+15] H
R175(1)	DX05	D8	68Ω	PMA [P+16] H
R174(1)	DX05	D8	68Ω	PMA [P+17] H
R289(1)	DX05	D6	68Ω	PMA [P+18] H
R288(1)	DX05	D6	68Ω	PMA [P+19] H
R211(1)	DX05	D6	68Ω	PMA [P+20] H
R210(1)	DX05	C6	68Ω	PMA [P+21] H
R293(1)	DX05	C8	68Ω	[N+1,SBUS ADR HOLD H, MEM TERM 18]
R160(1)	DX01	B7	68Ω	[N/18+1,CLK SBUS,SPARE] CLK H
R199(1)	DX06	C3	68Ω	[N/18+1,MB PAR,SPARE7] H
R277(1)	DX06	B2	68Ω	[N/18+1,MB23 SEQ RQ, MEM DATA TO MEM] H
R182(1)	DX01	A3	68Ω	-[N/18+1, MEM DIAG, -MEM ADR PAR] H
R294(1)	DX06	D7	68Ω	[N/18+1, MEM SPARE, DIAG MEM RESET] H
R88(1)	DX05	D3	68Ω	[P/12+1, PMA 22, SBUS ADR 34] H
R89(1)	DX05	D3	68Ω	[P/12+1, PMA 23, SBUS ADR 35] H
R90(1)	DX05	D3	68Ω	[P/12+1, PMA 24, PMA 25] 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

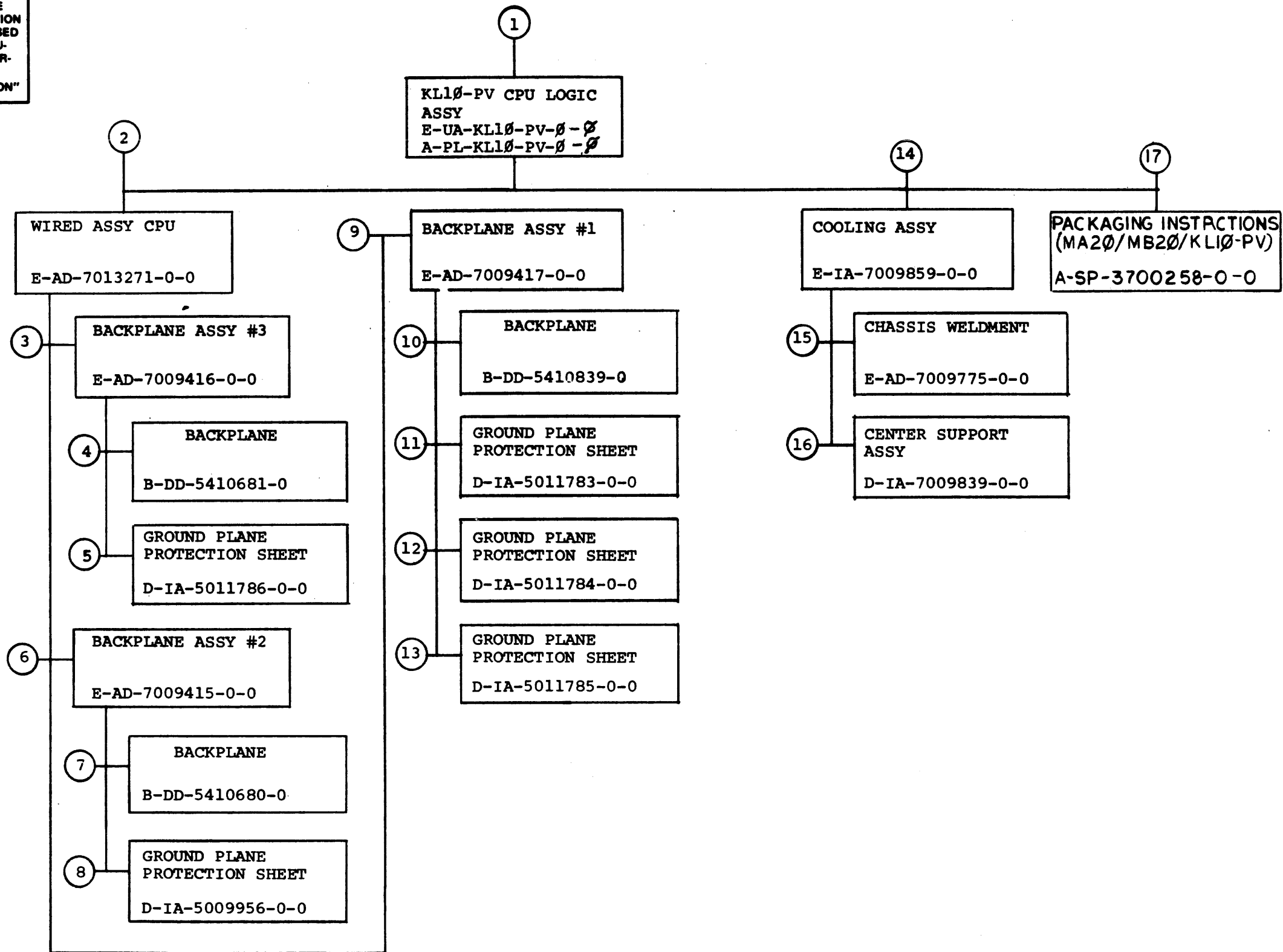
REVISIONS	
CHK	CHANGE NO. REV

digital DRN: *C. Smith* DATE: 15-AUG-78 ENG: *P. ...* DATE: *...* TITLE: TERMINATORS  
 CHK'D: *M. ...* DATE: *...* BOARD LOCATION: *...*  
 PUB: (M8581-MOS)M85811.DRW16-AUG-78 13:47 NEXT HIGHER ASSEMBLY: *...* OF 1 SHEET  
 FIRST USED ON OPTION/MODEL: MF20 D-DD-M8581-0 SIZE CODE: D, CS NUMBER: M8581-0-RES REV.:

REV. NUMBER M8581-0-RES  
 SIZE CODE CS  
 D  
 B  
 A



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TITLE	KL10-PV BASED SYSTEM	SIZE CODE	DD	NUMBER	KL10-PV	REV	A
SHEET 2 OF 5							

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE			
1	B-TC-KL10-PV-4	KL10-PV FIELD MAINT. PRINT SET (TC)	E/M		D-UA-M8544-0-0	EBOX MEMORY CONTROL	E/M			
	E-UA-KL10-PV-0-0	KL10-PV CPU LOGIC ASSY (UA)	E/M		B-DD-M8544-0	DRAWING DIRECTORY	E/M			
	A-PL-KL10-PV-0-0	KL10-PV CPU LOGIC ASSY (PL)								
	D-UA-M8544-0-0	SHIFT MATRIX	E/M		D-UA-M8531-YA-0	MBOX CONTROL #3	E/M			
	B-DD-M8544-0	DRAWING DIRECTORY	E/M		B-DD-M8531-YA	M8531-YA DRAWING DIRECTORY	E/M			
	D-UA-M8541-0-0	CONTROL ROM ADDRESS	E/M		D-UA-M8532-0-0	PRIORITY INTERRUPT EBUS INTERFACE	E/M			
	B-DD-M8541-0	DRAWING DIRECTORY	E/M		B-DD-M8532-0	M8532 DRAWING DIRECTORY	E/M			
	D-UA-M8512-0-0	DATA PATH BOARD	E/M		D-UA-M8537-0-0	MBOX CONTROL #4	E/M			
	B-DD-M8512-0	M8512 DRAWING DIRECTORY	E/M		B-DD-M8537-0	M8537 DRAWING DIRECTORY	E/M			
	D-UA-M8513-YA-0	CACHE CONTROL	E/M		D-UA-M8538-0-0	MTR (METER)	E/M			
	B-DD-M8513-YA	M8513-YA DRAWING CONTROL DIRECTORY	E/M		B-DD-M8538-0	M8538 DRAWING DIRECTORY	E/M			
	D-UA-M8516-0-0	ECL, TTL TRANSLATOR	E/M		D-UA-M8545-0-0	APR (ARITHMETIC PROCESS REGISTER)	E/M			
	B-DD-M8516-0	M8516 DRAWING DIRECTORY	E/M		B-DD-M8545-0	DRAWING DIRECTORY	E/M			
	D-UA-M8517-0-0	MEMORY BUFFER	E/M			KL10-PC MODULES				
	B-DD-M8517-0	M8517 DRAWING DIRECTORY	E/M							
	D-UA-M8518-YA-0	PHYSICAL MEMORY ADDRESS MODULE	E/M		D-UA-M8533-0-0	CHANNEL CONTROL	E/M			
	B-DD-M8518-YA	M8518-YA DRAWING DIRECTORY	E/M		B-DD-M8533-0	M8533 DRAWING DIRECTORY	E/M			
	D-UA-M8519-0-0	INT MEM BUS TRANSLATOR (SBUS)	E/M		D-UA-M8534-0-0	CHANNEL CONTROL WORK	E/M			
	B-DD-M8519-0	M8519 DRAWING DIRECTORY	E/M		B-DD-M8534-0	M8534 DRAWING DIRECTORY	E/M			
	D-UA-M8520-YA-0	PAGING BOARD	E/M		D-UA-M8535-0-0	CHANNEL RAM CONTROL	E/M			
	B-DD-M8520-YA	M8520-YA DRAWING DIRECTORY	E/M		B-DD-M8535-0	M8535 DRAWING DIRECTORY	E/M			
	D-UA-M8522-0-0	IR, DRAM & CARRY	E/M		D-UA-M8536-0-0	CHANNEL CONTROL LOGIC	E/M			
	B-DD-M8522-0	M8522 DRAWING DIRECTORY	E/M		B-DD-M8536-0	M8536 DRAWING DIRECTORY	E/M			
	D-UA-M8542-0-0	VIRTUAL MEMORY ADDRESS	E/M		D-MU-KL10-PV-CPU	MODULE UTILIZATION	E			
	B-DD-M8542-0	M8542 DRAWING DIRECTORY	E/M		B-MD-7413992-0-0	ROD, SUPPORT	M			
					A-SP-KL10-PV-3	KL10-PV UPGRADE PROCEDURE FOR KL10-C	-			
	D-UA-M8524-0-0	SCAD PC13-17 PC FLAGS	E/M		A-PL-KL10-PV-5H	SHIP LIST	-			
	B-DD-M8524-0	M8524 DRAWING DIRECTORY	E/M		A-SP-DTE20-0-1	DTE20 MANUFACTURING TEST SPEC	-			
	D-UA-M8525-0-0	CONTROL REGISTER	E/M			KL10-PB MODULE				
	B-DD-M8525-0	M8525 DRAWING DIRECTORY	E/M							
	D-UA-M8526-YA-0	CLOCK CONTROL	E/M		D-UA-M8549-YE-0	CACHE ADDRESS SUBSTITUTE	E/M			
	B-DD-M8526-YA	M8526-YA DRAWING DIRECTORY	E/M		B-DD-M8549-YE	M8549-YE DRAWING DIRECTORY	E/M			
	D-UA-M8543-0-0	EBOX CONTROL LOGIC	E/M		D-UA-M8549-YF-0	CACHE EXTENSION SUBSTITUTE	E/M			
	B-DD-M8543-0	M8543 DRAWING DIRECTORY	E/M		B-DD-M8549-YF	M8549-YF DRAWING DIRECTORY	E/M			
	D-UA-M8548-0-0	CONTROL RAM	E/M		D-UA-M8549-YH-0	CACHE DATA SUBSTITUTE	E/M			
	B-DD-M8548-0	M8548 DRAWING DIRECTORY	E/M		B-DD-M8549-YH	M8549-YH DRAWING DIRECTORY	E/M			
	D-UA-M8529-YA-0	MBOX CONTROL LOGIC	E/M		C-SP-KL10-PV-7	KL10 DESKEW INFORMATION	-			
	B-DD-M8529-YA	M8529-YA DRAWING DIRECTORY	E/M		A-SP-KL10-PV-5	KL10-PV CPU MANUFACTURING TEST SPEC	-			
					A-SP-KL10-PV-6	DMA20 SETUP PROCEDURE	-			
TYPE: E ELECTRICAL M MECHANICAL E/M ELECTRO/MECHANICAL				<div style="border: 1px solid black; padding: 2px; display: inline-block;">digital</div>		TITLE KL10-PV BASED SYSTEM		SIZE CODE SHEE 3 OF 5 B DD	NUMBER KL10-PV	REV A

EN-01062-2C-16-R376-(125)

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
2	E-AD-7013271-0-0	WIRED ASSY CPU	E/M		D-IA-7412900-0-0	BRACKET LOGIC FRAME	M
	A-PL-7013271-0-0	WIRED ASSY CPU	E/M				
	D-MD-7412001-0-0	BAR BACKPLANE TOP & BOT.	M				
	C-MD-7411147-0-0	STRIP GROUND	M				
	A-DC-7411881-0-0	DECAL, LOGIC ASSY REVISION	M				
	K-WL-KL10-PV-WL	WIRE LIST CPU	E				
	D-WT-KL10-0-AWT4	CPU ASSY PROCEDURE	E				
	A-WL-KL10-PV-1	GENERAL WIRING SHEET	E	7	D-UA-5410680-0-0	BACKPLANE	E/M
	K-WL-KL10-PV-0	REDUCED WIRE LIST	E		B-DD-5410680-0	DRAWING DIRECTORY	E/M
		FIXTURE DRAWINGS REF		8	D-IA-5009956-0-0	GROUND PLANE PROTECTION SHT	M
	E-AD-9606103-0-0	WIRE WRAP PALLET	M		D-SS-5009956-0-1	SILKSCREEN	M
3	E-AD-7009416-0-0	BACKPLANE ASSY #1	E/M	9	E-AD-7009417-0-0	BACKPLANE ASSY #1	E/M
	C-MD-7411944-0-0	BAR BACKPLANE CPU	M		C-MD-7411944-0-0	BAR BACKPLANE	M
	C-MD-7411399-0-0	SPACER BACKPLANE	M		C-MD-7411399-0-0	SPACER BACKPLANE	M
	D-IA-7412900-0-0	BRACKET LOGIC FRAME	M		D-IA-7412900-0-0	BRACKET LOGIC FRAME	M
4	D-UA-5410681-0-0	BACKPLANE	E/M	10	D-UA-5410839-0-0	BACKPLANE	E/M
	B-DD-5410681-0	DRAWING DIRECTORY	E/M		B-DD-5410839-0	DRAWING DIRECTORY	E/M
5	D-IA-5011786-0-0	GROUND PLANE PROTECTION SHEET	M	11	D-IA-5011783-0-0	GROUND PLANE PROTECTION SHEET	M
	D-SS-5011786-0-1	SILKSCREEN	M		D-SS-5011783-0-1	SILKSCREEN	M
6	E-AD-7009415-0-0	BACKPLANE ASSY #2	E/M	12	D-IA-5011784-0-0	GROUND PLANE PROTECTION SHEET	M
	C-MD-7411943-0-0	BAR BACKPLANE	M		D-SS-5011784-0-1	SILKSCREEN	M
	C-MD-7411399-0-0	SPACER BACKPLANE	M				

TYPE: E ELECTRICAL  
M MECHANICAL  
E/M ELECTRO/MECHANICAL

digital

TITLE

KL10-PV BASED SYSTEM

SHEET 4 OF 5

SIZE CODE  
B DD

NUMBER  
KL10-PV

REV  
A

EN-01062-2C-16-R376-13251

DRB 108A

554



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DIGITAL EQUIP. CORP.

D'

A

REVISIONS	
CHK	CHANGE NO.
B	KLI0-PV-00001
C	KLI0-PV-MR006

FORM NO. 105

4

3

2

MR

536

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
KLI0-PV				
PARTS LIST				
DWN. <i>M. Russell</i> DATE 22 FEB 77 CHK'D. <i>[Signature]</i> DATE 24 MAR 77 EN. <i>John D. All.</i> DATE 25 MAR 77 PROJ. ENG. <i>John D. All.</i> DATE 25 MAR 77 DRG. <i>[Signature]</i> DATE 25 MAR 77		digi EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
NEXT HIGHER ASSEMBLY		TITLE		
E-UA-KLI0-PV-0		REDUCED WIRE LIST		
SCALE	H	SIZE CODE	NUMBER	REV.
SHEET	1 OF 1	K WL	KLI0-PV-0	C
		DIST.		



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FOR EACH OPTION OR SERIAL NUMBER WIRE THE SOURCE LISTED ABOVE THE OPTION OR SERIAL NUMBER BIT TO THE SOURCE TO MAKE THE BIT TRUE.

OPTIONS:

SOURCE:		4D44E1
OPTIONS:	5Ø HZ	4E43M2
	CACHE AVAIL	4E43A1
	CHANNEL AVAIL	4E43E1
	KLIØ-PV CPU	4D43D2
	MASTER OSCILLATOR	4D43E1

SERIAL NUMBERS:

SOURCE:		4D42E1
	2048	4E41M2
	1024	4E41A1
	512	4E41E1
	256	4D41D2
	128	4D41E1
	64	4E41F2

SERIAL NUMBERS:

SOURCE:		4D4ØE1
	32	4E39M2
	16	4E39A1
	8	4E39E1
	4	4D39D2
	2	4D39E1
	1	4E39F2

REV.	CHG.	NO.	DATE	BY	APP.
A	JA	1	12-11-77	C. SMITH	

THIRD ANGLE PROJECTION		DESCRIPTION		DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES			
SURFACE QUALITY IN	(CHECK ONE)	OVER 0 TO 0.2	OVER 0.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0
QUANTITY & VARIATION	MEDIUM	±.004	±.008	±.012	±.016
	PREFERRED	±.012	±.016	±.025	±.04
				±.063	±.1
DRN. <i>Pearson</i>	27 JUN 77	FIRST USED ON			
CHK'D <i>Pearson</i>	27 JUN 77	KLIØ-PV			
ENG. <i>Pearson</i>	12 DEC 77	TITLE			
PROJ. ENG. <i>Pearson</i>	12 DEC 77	OPTION / SERIAL			
PROD. <i>Pearson</i>	12 DEC 77	NUMBER CHART			
DO NOT SCALE DWG	NEXT HIGHER ASSY.				
MATERIAL	B-DD-KLIØ-PV	SIZE	CODE	NUMBER	REV.
FINISH		D	SP	KLIØ-PV-2	A
		SHEET	1	OF	1

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UNIT	MODULE REPLACED	UNIT(S) REQUIRING DESKEW	UNIT TO BE DESKEWED	REFERENCE DOCUMENTATION
KLIØ-PV CPU	M8516	ALL RH2Ø UNITS	DMA2Ø	A-SP-KLIØ-PV-6
	M8519	ALL DMA2Ø, MA2Ø/MB2Ø	MA2Ø, MB2Ø	D-BS-MB2Ø-Ø-INS
	M8526-YA	DMA2Ø, MA2Ø/MB2Ø, ALL RH2Ø UNITS	RH2Ø	A-SP-RH2Ø-Ø-SP
CABLES	SBUS - BC2ØC	THE DMA2Ø OR MA/MB2Ø CONNECTED TO THAT SBUS	ALL OF THE ABOVE	EK-2ØXX-IN-ØØ1
	E & C BUS - BC11 OR BC2ØC	ALL RH2Ø UNITS		
MA2Ø	M8561 OR M8562	THE MA2Ø IN WHICH THE MODULE WAS REPLACED		
MB2Ø	M8565 OR M8568	THE MB2Ø IN WHICH THE MODULE WAS REPLACED		
DMA2Ø	M856Ø OR M8563	DMA2Ø		
RH2Ø	M8556	THE RH2Ø IN WHICH THE MODULE WAS REPLACED		
	M8559	ALL RH2Ø UNITS		

D  
C  
B  
A

D  
C  
B

REV.	
CHANGE NO.	
CHK	

QUANTITY & VARIATION	DESCRIPTION	DWG./PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
	ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES
	SURFACE QUALITY IN	MEDIUM <input type="checkbox"/>	OVER 0 TO 0.2 ±.004
	MICROINCHES	PREFERRED <input type="checkbox"/>	OVER 0.2 TO 1.2 ±.008
			OVER 1.2 TO 4.0 ±.012
			OVER 4.0 TO 12.0 ±.016
			OVER 12.0 TO 40.0 ±.024
			OVER 40.0 TO 80.0 ±.04
THIRD ANGLE PROJECTION	DRN. <i>[Signature]</i> 28 MAR 77	FIRST USED ON	KLIØ-PV digital
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D. <i>[Signature]</i> 18 APR 77	TITLE	KLIØ DESKEW INFORMATION
DO NOT SCALE DWG	ENG. <i>[Signature]</i> 12 APR 77		
	PROD. ENG. <i>[Signature]</i> 12 APR 77		
	PROD. <i>[Signature]</i> 12 APR 77		
MATERIAL	B-DD-KLIØ-PV	SIZE	C
FINISH	SCALE	CODE	SP
	SHEET 1 OF 1	NUMBER	KLIØ-PV-7
		REV.	

DEC FORM NO. DEC 100-C

4

3

2

1

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ENGINEERING SPECIFICATION



CONTINUATION SHEET

TITLE DMA20 SETUP PROCEDURE

e. Adjust DL2 on the M8560 in slot 1AF03 (it is the 4th delay from the top) until the clock on channel 2 which is affected by this adjustment crosses the centerline at the same time as the "A" phase clock on channel 1.

f. Adjust DL3 on the M8560 in slot 1AF03 (it is the top delay) until the clock which is affected by this adjustment crosses the centerline at the same time as the "B" phase Mbox clock which is on channel 1.

h. Connect channel 2 to 1D03F1 (DTR3 CLK 125 NS A H).

i. Adjust DL1 on the M8560 in slot 1AF03 (it is the bottom delay) until the clock on channel 2 which is affect by this adjustment crosses the centerline at the same time as the "A" phase clock on channel 1.

j. Connect channel 2 to 1D03L2 (DTR3 CLK 62 NS A H).

k. Adjust DL4 in slot 1AF03 (it is the second delay from the top) until the clock on channel 2 which is affected by this delay crosses the centerline at the same time as the "A" phase clock on channel 1.

l. Adjust DL5 in slot 1AF03 (it is the third delay from the top) until the clock on channel 2 which is affected by this delay crosses the centerline at the same time as the "B" phase clock on channel 1.

m. You have now completed the adjustments for clock deskew on the DMA20.

SIZE	CODE	NUMBER	REV
A	SP	KL10-PV-6	

ENGINEERING SPECIFICATION



CONTINUATION SHEET

TITLE DMA20 SETUP PROCEDURE

2.0 Adjustment procedure for setting up DATA WARNING when used with the DMA20.

\*\*\*\*\*

NOTES: 1. Use identical probes with short ground clips. This procedure uses 4-BUS mode, assuming the system has multiples of 4 memories. This general procedure will work in any bus mode.

2. The memory must be setup to return DATA WARNING SLOW and ADDRESS ACK (NT) only. No other combination is legal!!

\*\*\*\*\*

a. Set-up the DMA20 4-BUS mode doing a small loop which reads from only one memory on a given bus such as:

```
10/MOVE 0, 100 (200000 100)
11/MOVE 0, 101 (200000 101)
12/MOVE 0, 102 (200000 102)
13/MOVE 0, 103 (200000 103)
14/JRST 10 (254000 10)
```

b. Put channel 1 on KBUS"X" DATA WARNING.

```
KBUS0 1C05D1
KBUS1 1C07D1
KBUS2 1C09D1
KBUS3 1C11D1
```

c. Put channel 2 on KBUS"X" RD RS.

```
KBUS0 1C05J1
KBUS1 1C07J1
KBUS2 1C09J1
KBUS3 1C11J1
```

d. Sync on channel 1 going negative.

SIZE	CODE	NUMBER	REV
A	SP	KL10-PV-6	

560



TITLE DMA20 SETUP PROCEDURE

e. Adjust each memory such that DATA WARNING (on channel 1) occurs 260 NS prior to RD RS (on channel 2).

f. Modify program to set up the next four memories.

561

SIZE	CODE	NUMBER	REV
A	SP	KL10-PV-6	

DEC FORM NO DRA 108 DEC 16 (381) 1022 N370 SHEET 5 OF 5

25

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**PARTS LIST**

MADE BY *W. H. ...*  
 DATE *12 APR 77*  
 ENG *J. M. ...*  
 DATE *12 APR 77*

CHECKED *W. H. ...*  
 DATE *12 APR 77*  
 PROD *...*  
 DATE *12 APR 77*

SECTION 1  
 ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION
2	E-AD-7013271-0-0	WIRED ASSY CPU	1
3	1210775	SWTCH MICRO SPDT	1
4	9006075-1	SCR PHL PAN HD #10-32 X .75	8
5	9006557	NUT, KEPS 4-40	10
6	M8512	DATA PATH BOARD	6
7	M8513-YA	CACHE CONTROL	1
8	M8516	ECL, TTL TRANSLATOR	3
9	M8517	MEMORY BUFFER	3
10	M8518-YA	PHYSICAL MEMORY ADDRESS MODULE	1
11	M8519	INT MEM BUS TRANSLATOR (SBUS)	2
12	M8520-YA	PAGING BOARD	1
13	M8522	IR D RAM & CARRY	1
14	M8524	SCAD PCL3-17 PC FLAGS	1
15	M8525	CONTROL REGISTER	1
16	M8526-YA	CLOCK CONTROL	1
17	M8529-YA	M BOX CONTROL LOGIC	1
18	M8531-YA	M BOX CONTROL 3	1
19	M8532	PRIORITY INTERRUPT E BUS INTERFACE	1
20	M8533 ***	CHANNEL CONTROL	1
21	M8534 ***	CHANNEL CONTROL WORK	1
22	M8535 ***	CHANNEL RAM CONTROL	1

TITLE **KL10-PV CPU LOGIC ASSY**

ASSY NO. **E-UA-KL10-PV-0**

SHEET 1 OF 3

SIZE CODE **A PL**

NUMBER **KL10-PV-0**

REV. **B**

ECO NO. **MR008**

DEC FORM DEC 16-(325)-1031-N870  
 DRA 110

MR

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**PARTS LIST**

MADE BY *W. H. ...*  
 DATE *12 APR 77*  
 ENG *J. M. ...*  
 DATE *12 APR 77*

CHECKED *W. H. ...*  
 DATE *12 APR 77*  
 PROD *...*  
 DATE *12 APR 77*

SECTION 1  
 ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION
23	M8536 ***	CHANNEL CONTROL LOGIC	1
24	M8537	M BOX CONTROL #4	1
25	M8538	MTR (METER)	1
26	M8540	SHIFT MATRIX	1
27	M8541	CONTROL RAM ADDRESS	1
28	M8542	VIRTUAL MEMORY ADDRESS	1
29	M8543	E BOX CONTROL LOGIC	1
30	M8544	E BOX MEMORY CONTROL	1
31	M8545	APR (ARITHMETIC PROCESS REGISTER)	1
32	M8548	CONTROL RAM	5
33	M8549-YE.**	CACHE ADDRESS SUBSTITUTE	REF
34	M8549-YF**	CACHE EXTENSION SUBSTITUTE	REF
35	M8549-YH**	CACHE DATA SUBSTITUTE	REF
36	D-MU-KL10-0-CPU	MODULE UTILIZATION	REF
37	9009255	LABEL ADHESIVE BACK	1
38	B-MD-7413992-0-0	ROD, SUPPORT	2
39	9006655	WASHER, FLAT	8
40	9008274	FOAM .38 X .38	A/R
41	M8514 *	CACHE ADDRESS	REF
42	M8515 *	CACHE EXTENSION	REF
43	M8521 *	CACHE DATA	REF
44	A-DC-7412561-0-0	POWER INTERLOCK WARNING DECAL	1

TITLE **KL10-PV CPU LOGIC ASSY**

ASSY NO. **E-UA-KL10-PV-0**

SHEET 2 OF 3

SIZE CODE **A PL**

NUMBER **KL10-PV-0**

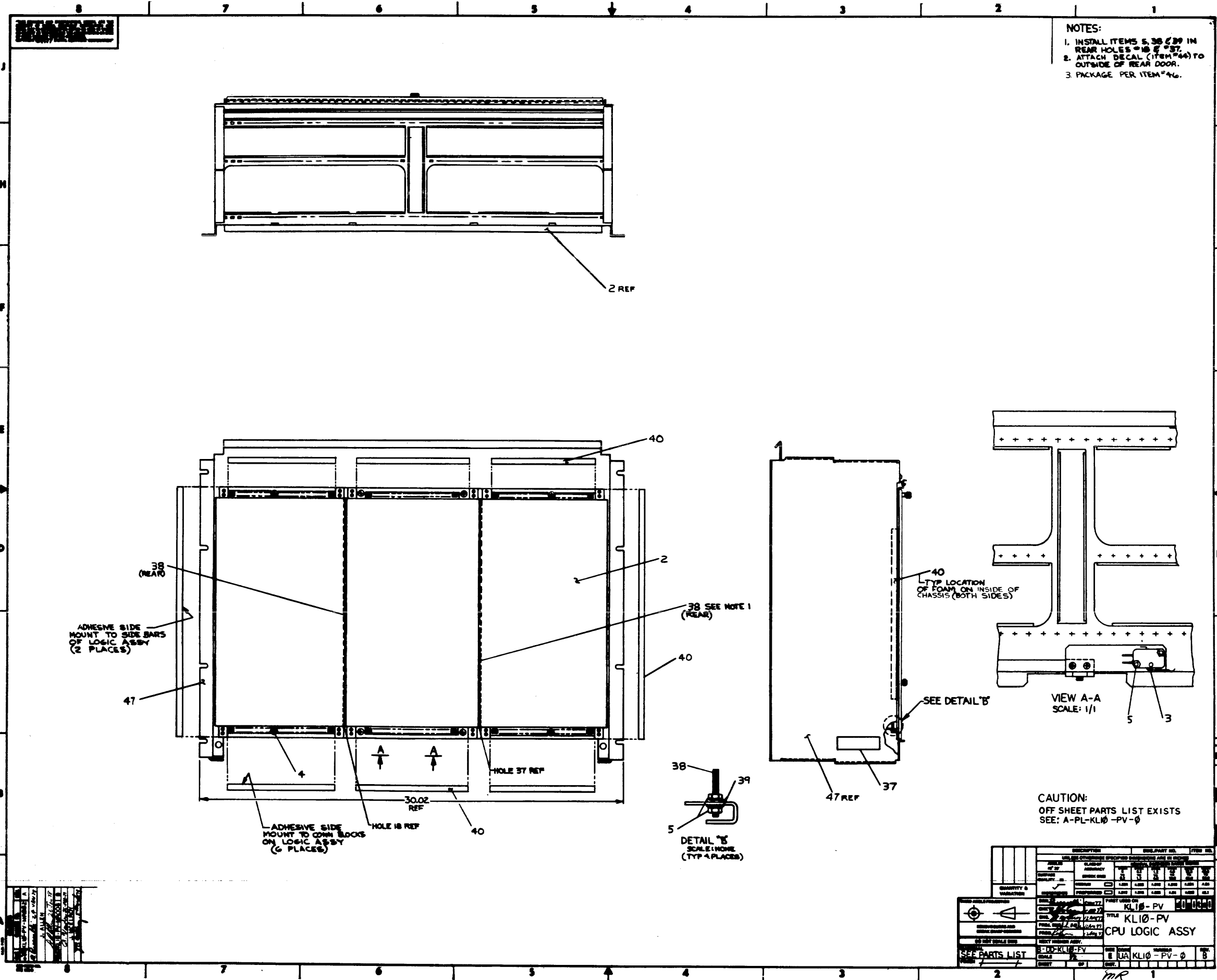
REV. **B**

ECO NO. **MR008**

DEC FORM DEC 16-(325)-1031-N870  
 DRA 110

MR





**NOTES:**

1. INSTALL ITEMS 5, 38 & 39 IN REAR HOLES #18 & #37.
2. ATTACH DECAL (ITEM #44) TO OUTSIDE OF REAR DOOR.
3. PACKAGE PER ITEM #46.

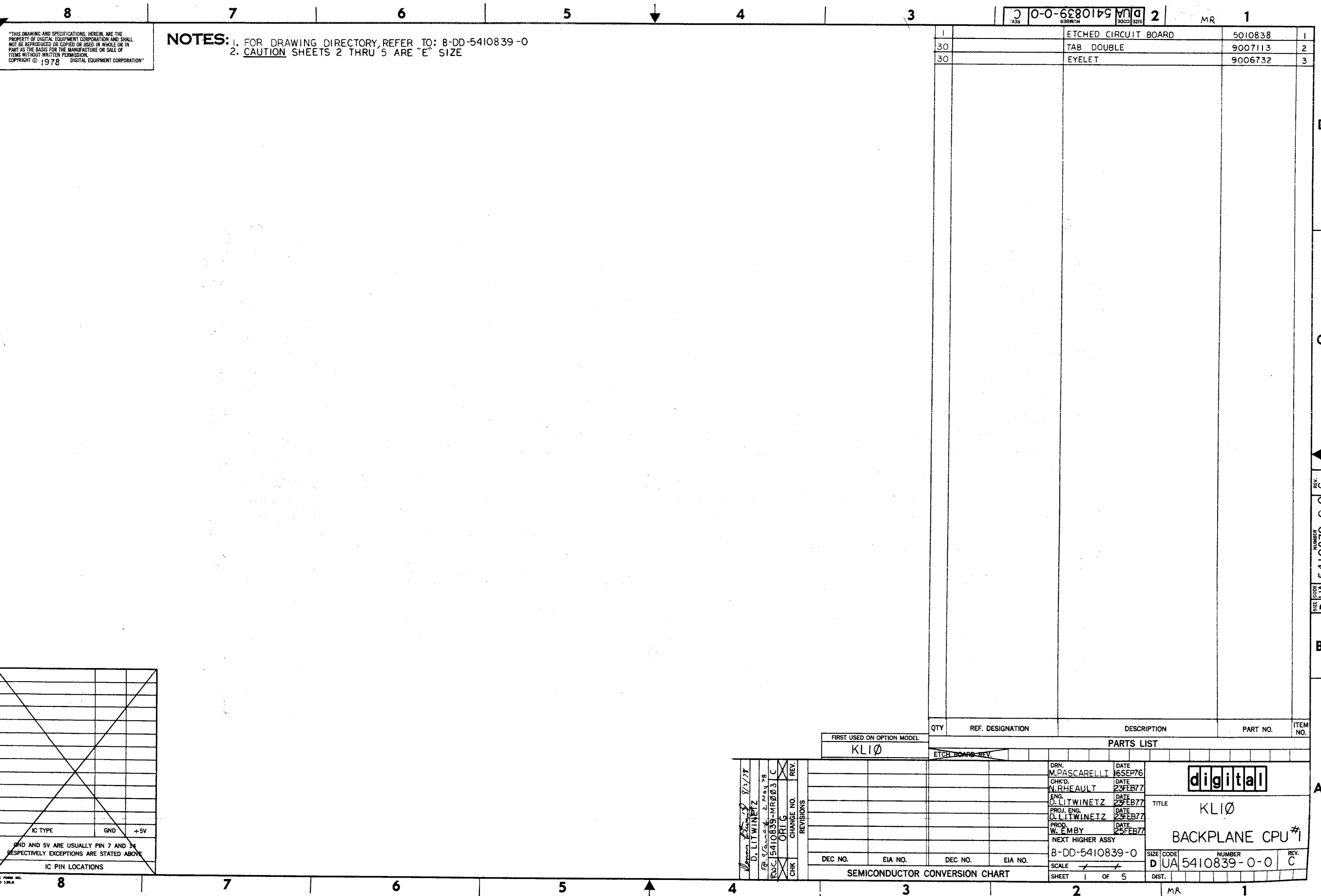
**CAUTION:**  
OFF SHEET PARTS LIST EXISTS  
SEE: A-PL-KL10-PV-0

ITEM NO.	DESCRIPTION	QTY	UNIT	REF	REV
5	...	...	...	...	...
38	...	...	...	...	...
39	...	...	...	...	...
40	...	...	...	...	...
47	...	...	...	...	...
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98	...	...	...	...	...
99	...	...	...	...	...
100	...	...	...	...	...

564







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**NOTES:**  
 1. FOR DRAWING DIRECTORY, REFER TO: B-DD-5410839-0  
 2. CAUTION SHEETS 2 THRU 5 ARE "E" SIZE

0-0-0-6680149 DUA 5410839-0-0 2 MR 1

1	ETCHED CIRCUIT BOARD	5010838	1
30	TAB DOUBLE	9007113	2
30	EYELET	9006732	3

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
	KL10	ETCH BOARD-REV.		

DRN. M. PASCARELLI DATE 16 SEP 76		<b>digital</b>
CHKD. N. RHEAULT DATE 23 FEB 77	DATE 23 FEB 77	
ENG. D. LITWINETZ DATE 23 FEB 77	DATE 23 FEB 77	TITLE KL10
PROJ. ENG. D. LITWINETZ DATE 23 FEB 77	DATE 23 FEB 77	BACKPLANE CPU #1
PROD. W. EMBY DATE 25 FEB 77	DATE 25 FEB 77	
NEXT HIGHER ASSY		
B-DD-5410839-0		SIZE CODE NUMBER REV. DUA 5410839-0-0 C
SCALE		
SHEET 1 OF 5		

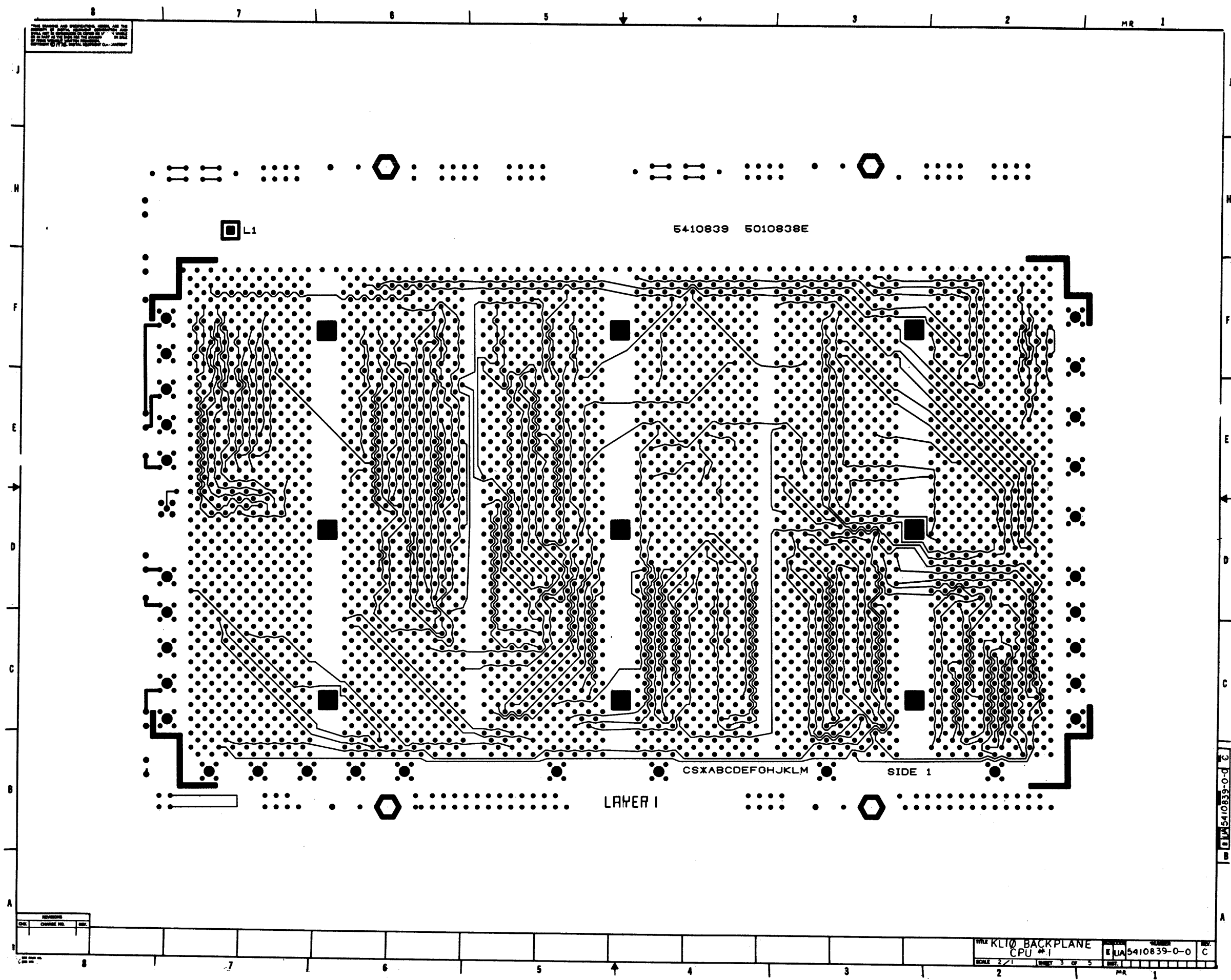
DRN. 8/2/77	REV.
D. LITWINETZ	
ORIG. 2 MAY 78	
ROC 5410839-MR003 C	
CHK	CHANGE NO.
	REVISIONS

DEC NO.	EIA NO.	DEC NO.	EIA NO.

IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

REV. C  
 NUMBER 5410839-0-0  
 SIZE CODE DUA

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.  
TOLERANCES: DIMENSIONS IN PARENTHESES ARE HOLE DIA.  
DIMENSIONS IN SQUARE BRACKETS ARE HOLE DIA.  
DIMENSIONS IN CIRCLES ARE HOLE DIA.  
DIMENSIONS IN TRIANGLES ARE HOLE DIA.  
DIMENSIONS IN DIAMETERS ARE HOLE DIA.

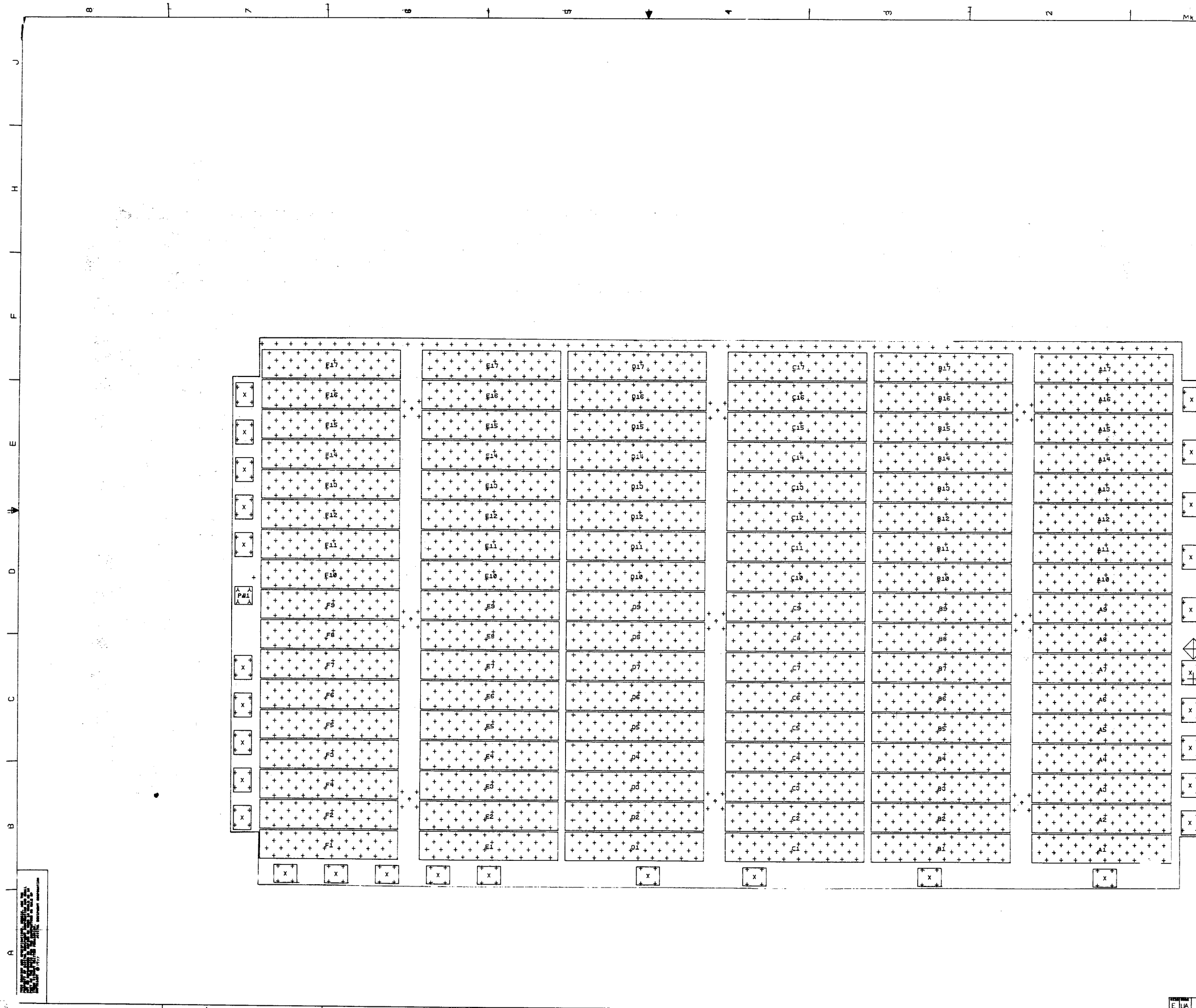


967

REV.	DESCRIPTION	DATE

TITLE	KL10 BACKPLANE	REV.	
	CPU #1		
SCALE	2/1	SHEET	3 OF 5

3  
P-0-0  
5410839-0-0  
C



NOTES:

digital

DATE: 08/10/96  
 DESIGNED BY: DAN W. DASCARELLI  
 CHECKED BY: CHK. D. N. RHEAULT  
 DRAWN BY: ENG. D. L. TWINEZ  
 SCALE: 2/1  
 SHEET: 7 OF 5

TITLE: KL10 BACKPLANE CPU's  
 NUMBER: 540639-0-0  
 REV: C

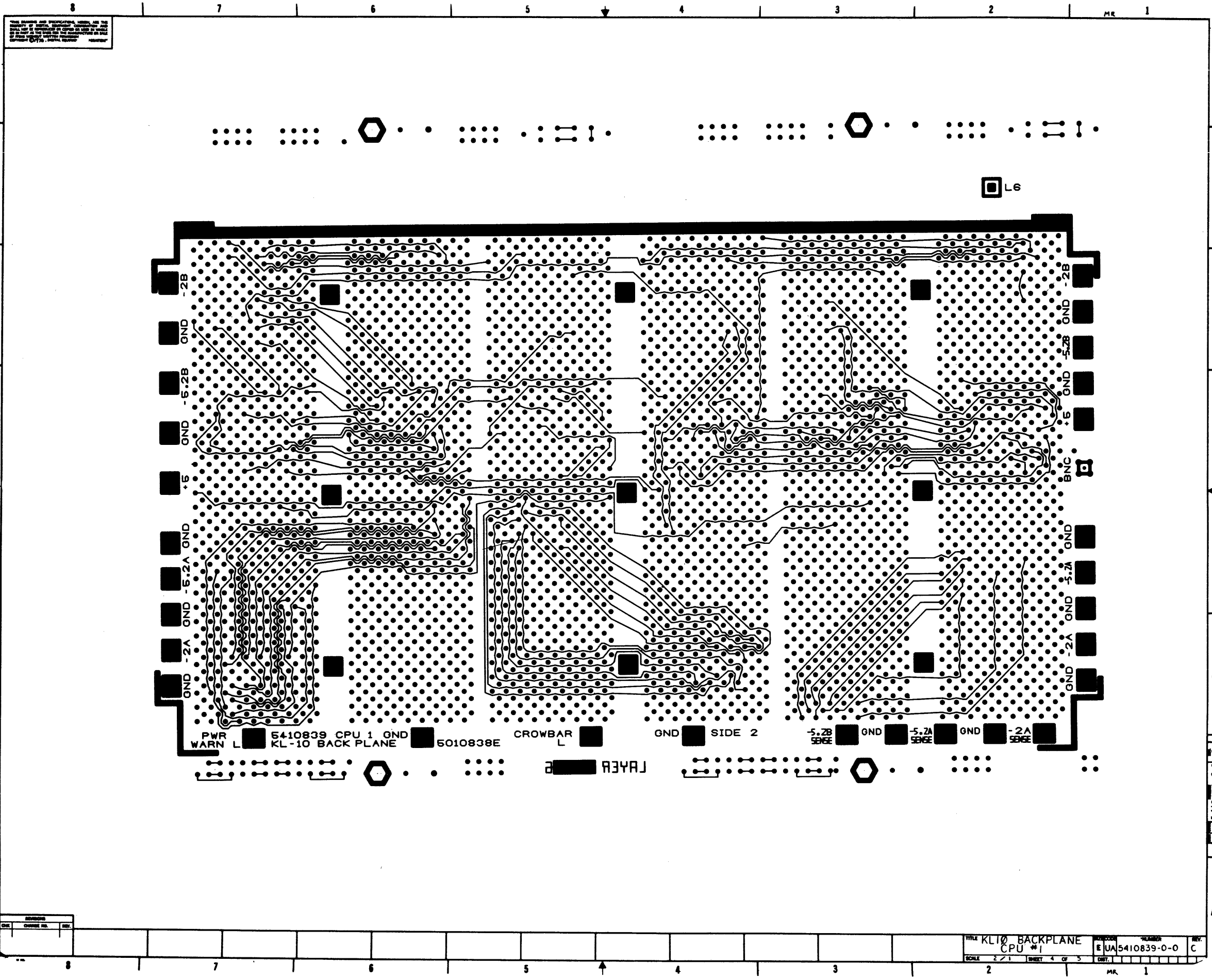
REV. NO. DATE BY

PLT DESGN UNIT BRSE REV.

CHANGE NO. REV.

E LA 540639-0-0 C

568

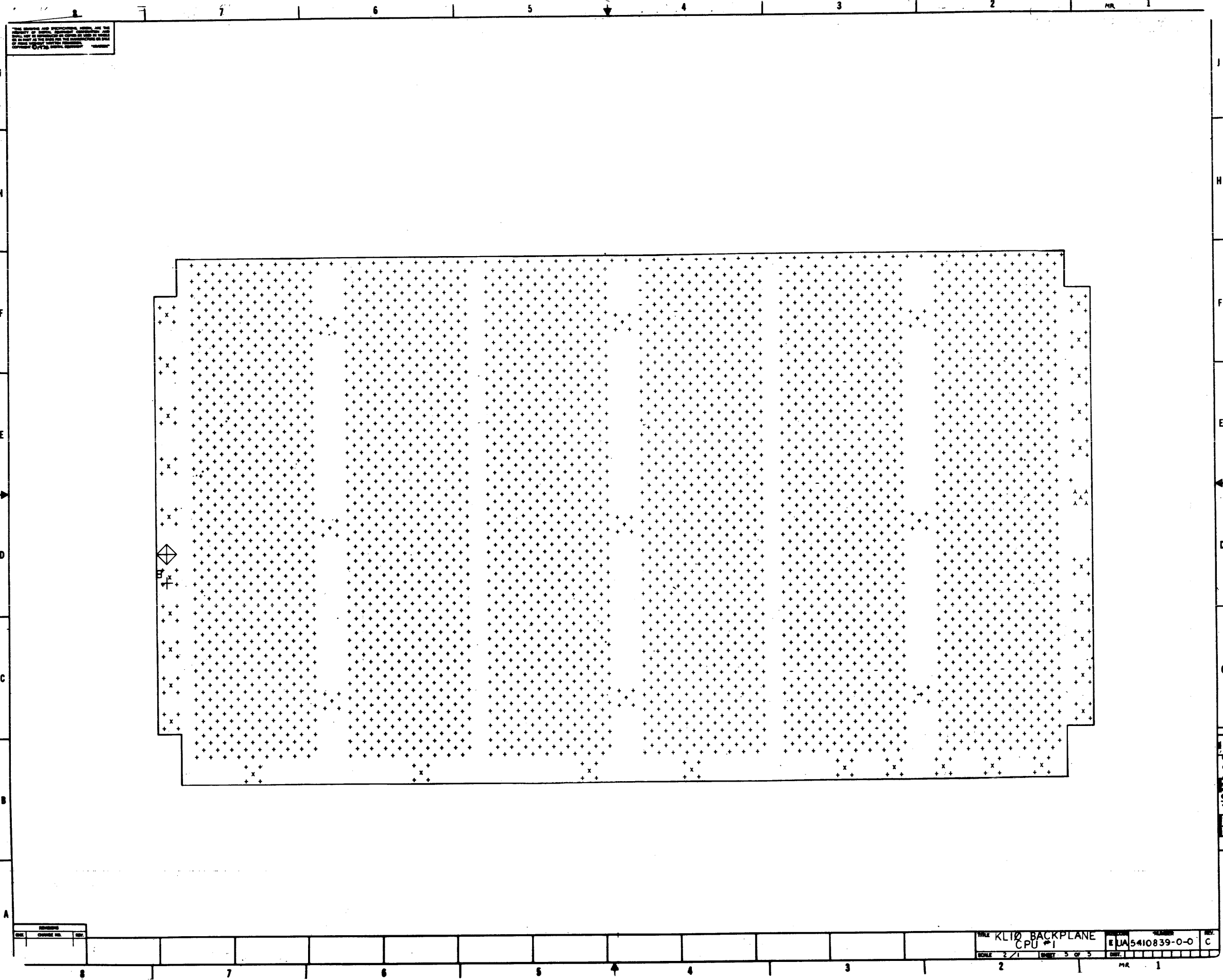


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REV.	DESCRIPTION	DATE

S69

TITLE	KL10 BACKPLANE	REV.	C
	CPU #1	DESIGNER	EUA
SCALE	2/1	DATE	5410839-0-0
	SHEET 4 OF 5		



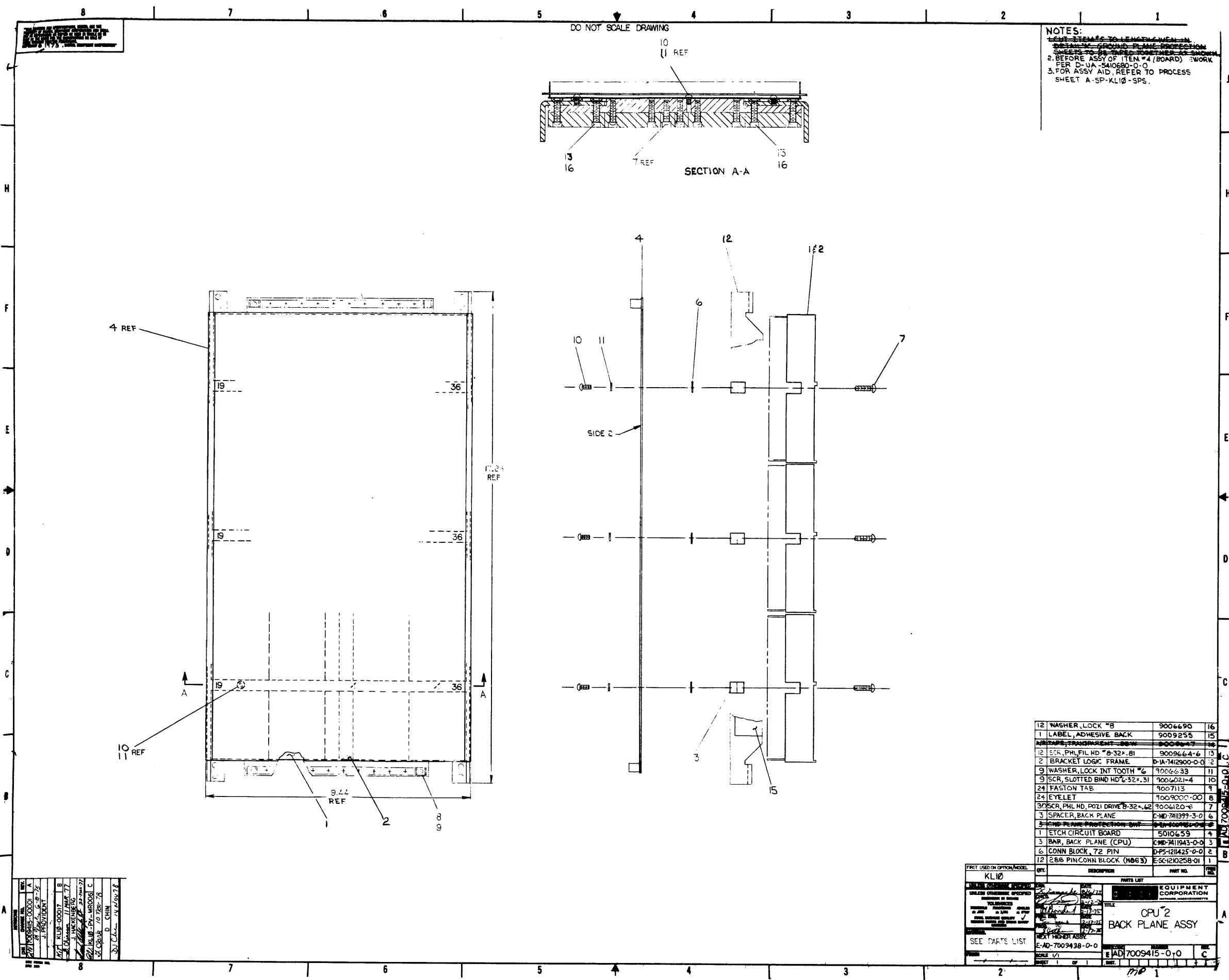
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

REV.	DATE	BY	CHKD.

TITLE KLT0 BACKPLANE CPU #1	DRAWING NUMBER EJA5410839-0-0	REV. C
SCALE 2/1	SHEET 5 OF 5	MR 1

EJA5410839-0-0

570



NOTES:  
 1. LEFT STENCIL TO LENGTH WHEN IN  
 DESIGN - GROUND PLANE PROTECTION  
 SHEETS TO BE PROCESSED AS SHOWN  
 2. BEFORE ASSY OF ITEM #4 (BOARD) WORK  
 PER D-UA-5410680-0-0  
 3. FOR ASSY AID, REFER TO PROCESS  
 SHEET A-SP-KL10-SPS.

12	WASHER, LOCK #8	9006690	16
1	LABEL, ADHESIVE BACK	9009255	15
1	SPACER, TRANSPARENT - 8x8	9009647	14
12	SCR, PHIL FIL HD #8-32x.81	9009664-6	13
2	BRACKET LOGIC FRAME	D-1A-7412900-0-0	12
9	WASHER, LOCK INT TOOTH #6	9006633	11
9	SCR, SLOTTED BIND HD #6-32x.31	9006021-4	10
24	FASTON TAB	9007113	9
24	EYELET	9009000-00	8
30	SCR, PHIL HD, POZI DRIVE #8-32x.62	9006620-6	7
3	SPACER, BACK PLANE	C-MD-7411399-3-0	6
3	GROUND PLANE PROTECTION - SWT	D-2A-9009122-0-0	5
1	ETCH CIRCUIT BOARD	5010659	4
3	BAR, BACK PLANE (CPU)	C-MD-7411943-0-0	3
6	CONN BLOCK, 72 PIN	D-P5-121425-0-0	2
12	28P PIN CONN BLOCK (H863)	E-SC1210258-01	1

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	REV.
KL10					
UNLESS OTHERWISE SPECIFIED		EQUIPMENT CORPORATION			
DIMENSIONS IN INCHES		TITLE			
TOLERANCES		CPU 2			
AS SHOWN		BACK PLANE ASSY			
SEE PARTS LIST		E-AD-7009438-0-0			
SCALE 1/1		E-AD-7009415-0-0			
SHEET 1 OF 1		REV. 1			

REV.	DATE	BY	APP.	DESCRIPTION
1	10/1/74	J. PROVIDENT		INITIAL RELEASE
2	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
3	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
4	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
5	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
6	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
7	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
8	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
9	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
10	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
11	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12
12	11/1/74	J. PROVIDENT		REVISED TO ADD PART 12

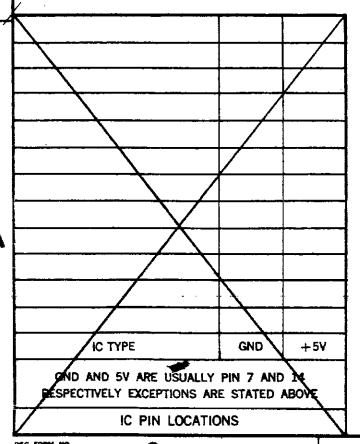
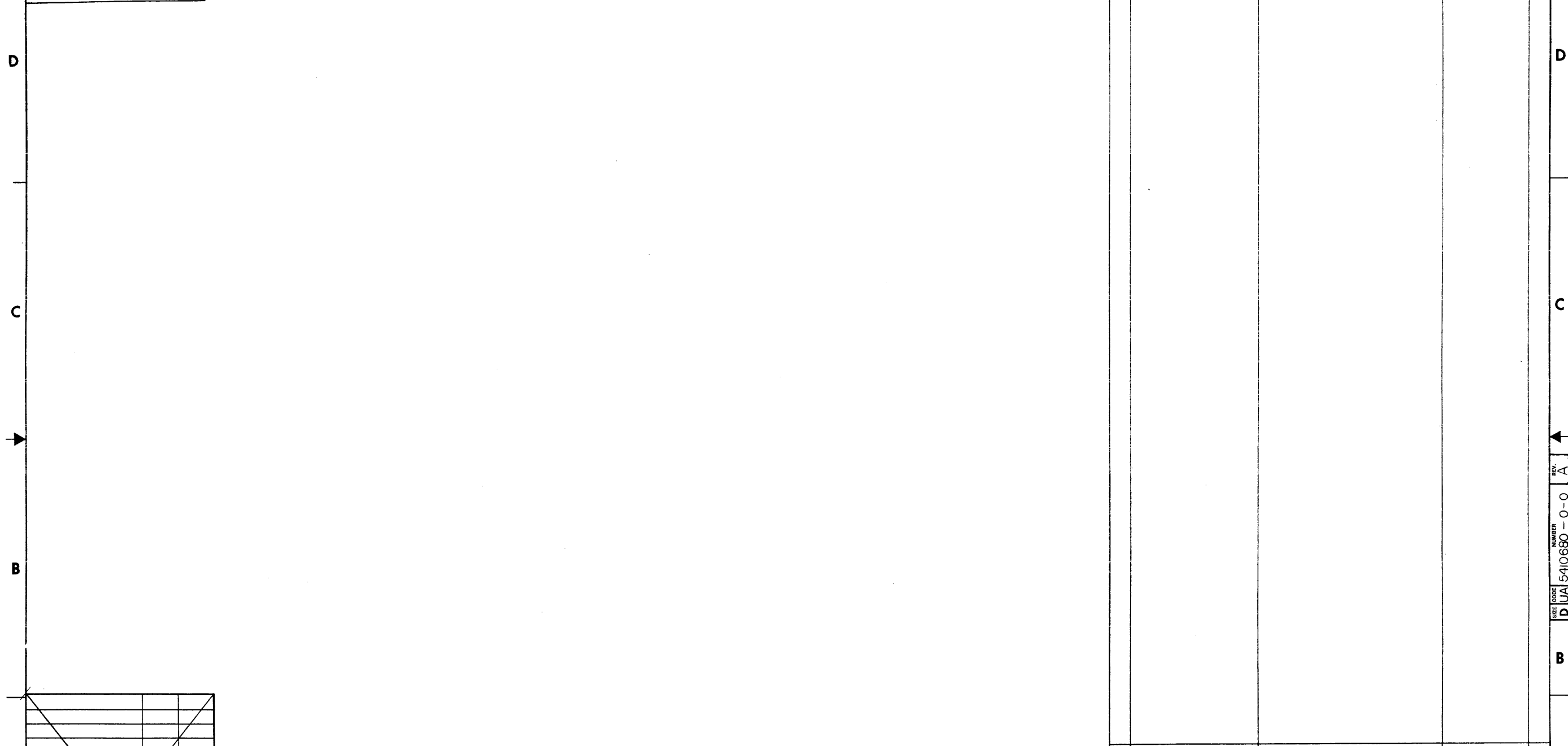
571

8 7 6 5 4 3 2 1

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**NOTES:** 1. FOR DRAWING DIRECTORY REFER TO: B-DD-5410680-0.  
2. SHEET 2 THRU SHEET 5 ARE "E" SIZE.

1	ETCHED CIRCUIT BOARD	5010659	1
24	TAB, DOUBLE	9007113	2
24	EYELET	9006732	3



QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

FIRST USED ON OPTION MODEL: KL10

ETCH BOARD-REV.

DRN	DATE	
CHK'D	DATE	
ENG.	DATE	
PROJ. ENG.	DATE	
PROD.	DATE	

TITLE: BACKPANEL CPU \*2

NEXT HIGHER ASSY: B-DD-5410680-0

SIZE CODE: D U A      NUMBER: 5410680-0-0      REV. A

SCALE: 1 OF 5

SHEET 1 OF 5

REV.	CHANGE NO.	REVISIONS
A	0001	

REV. A  
NUMBER 5410680-0-0  
SIZE CODE D U A

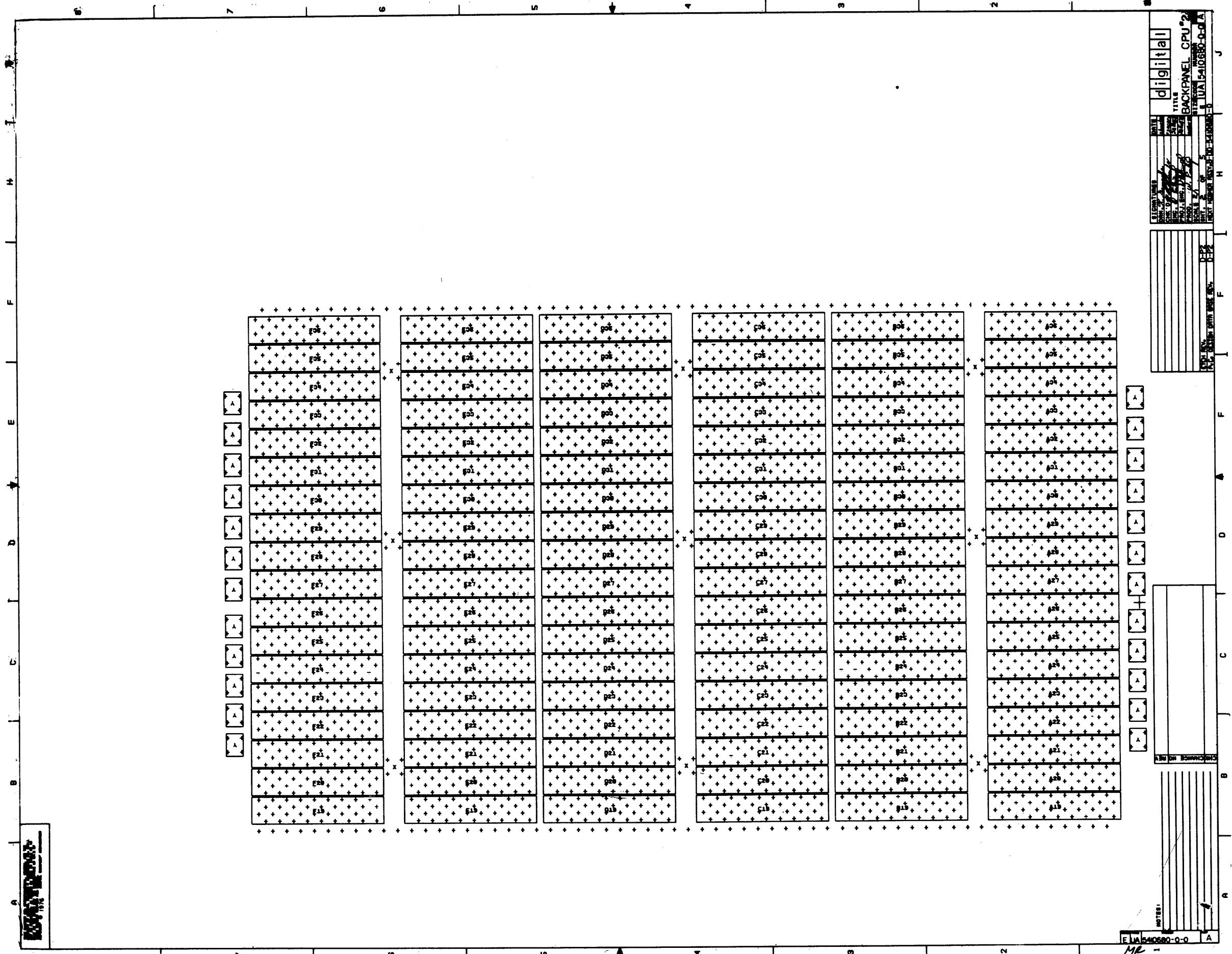
8 7 6 5 4 3 2 1

572



573

540680-0-0



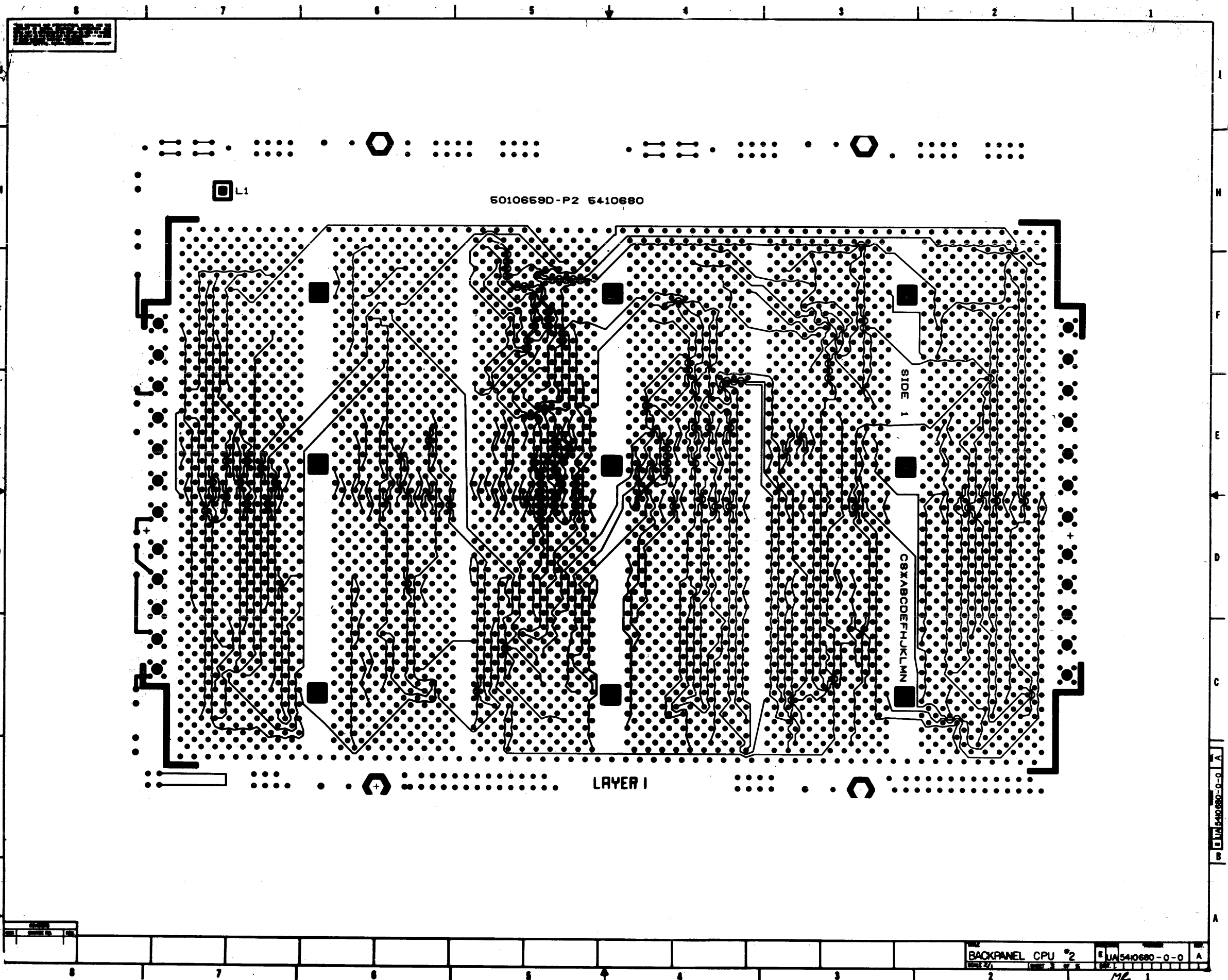
digital  
 title BACKPANEL CPU #2  
 EIA 540680-0-0

DATE: 11/11/70  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 APPROVED BY: [Signature]  
 PART NUMBER: 540680-0-0

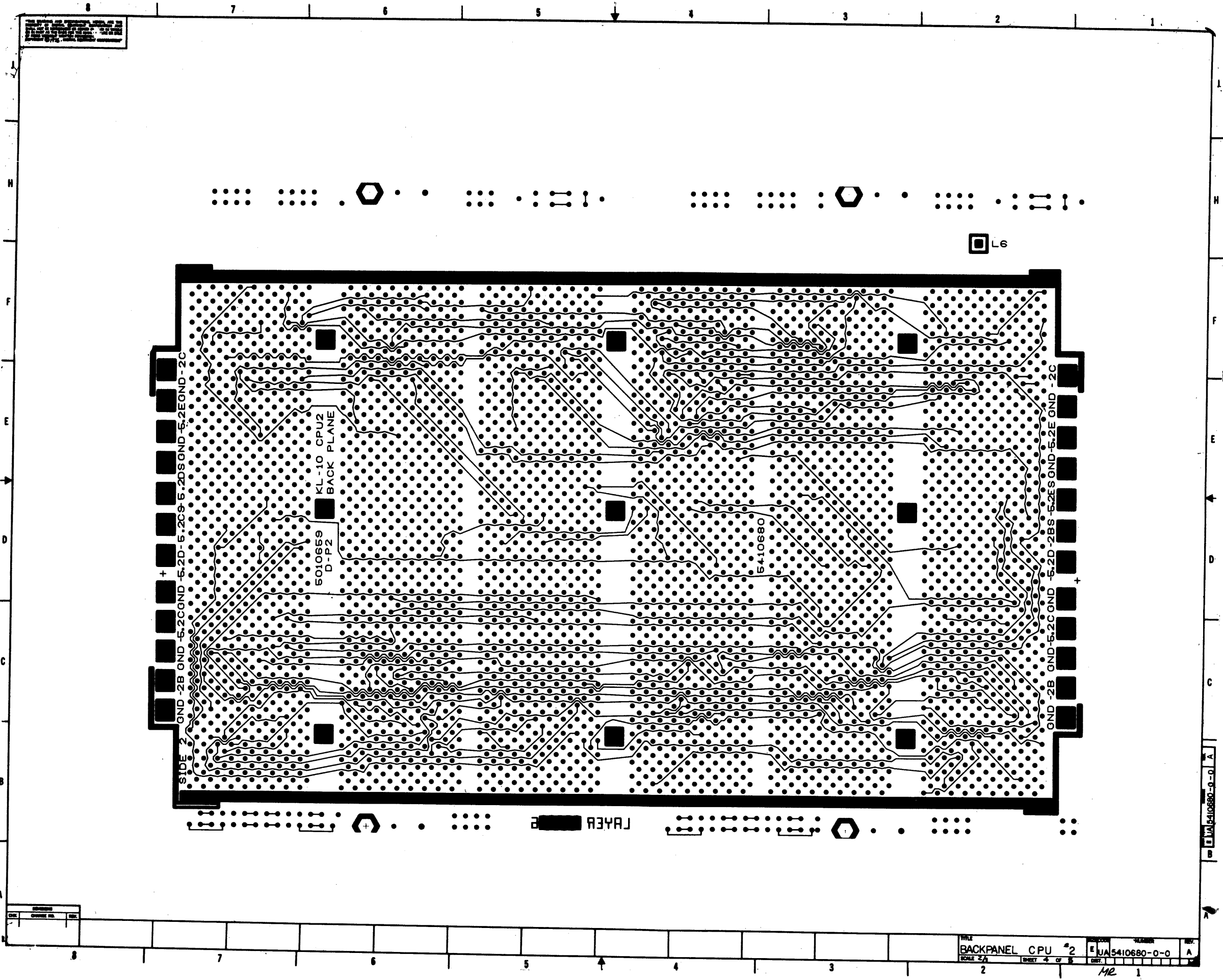
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CPU #2  
 CPU #1

NOTE:  
 EIA 540680-0-0  
 MR

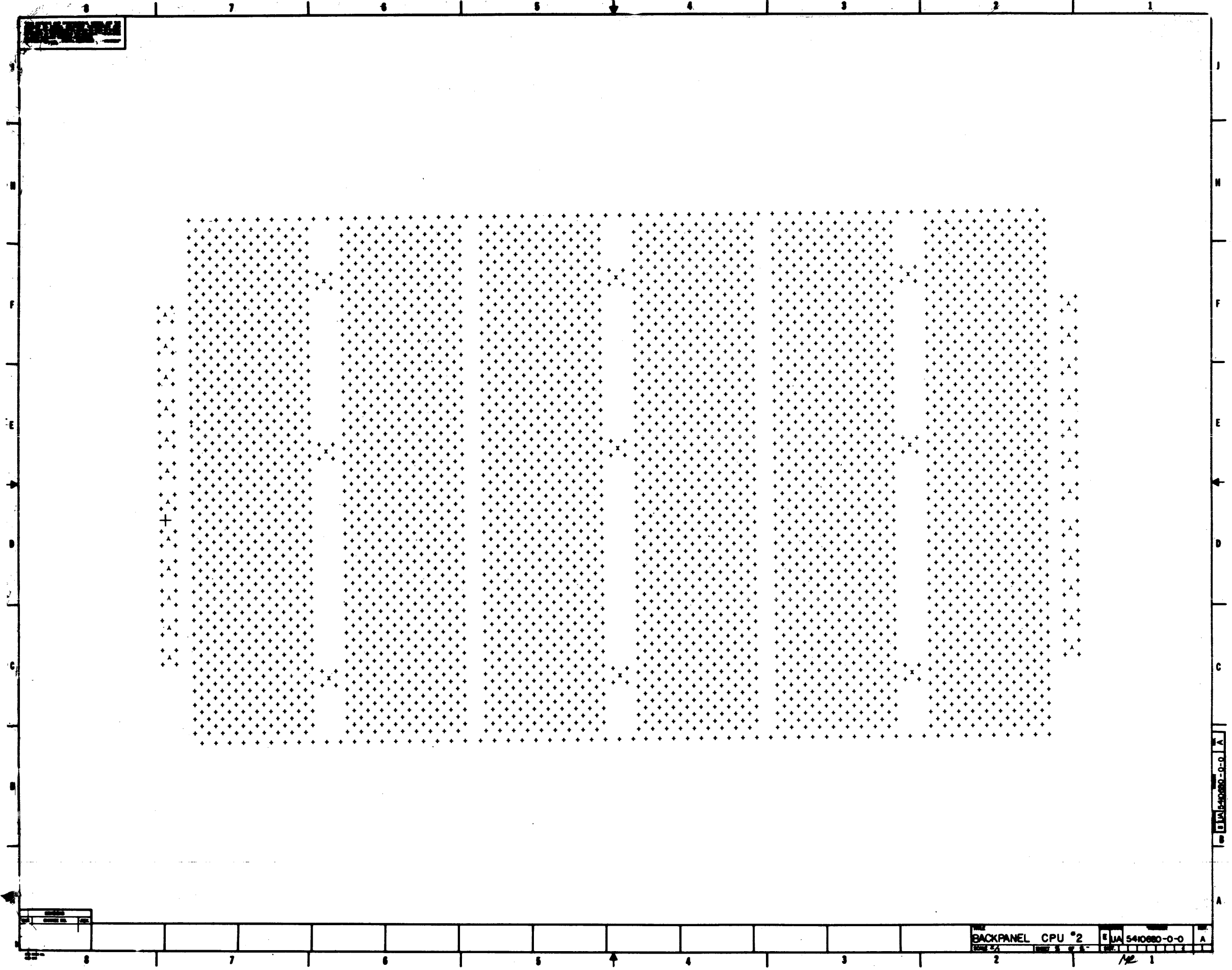


574



TITLE: BACKPANEL CPU #2  
 SCALE: 2/1  
 SHEET: 4 OF 5  
 NUMBER: EJA5410680-0-0  
 REV: A  
 142

575



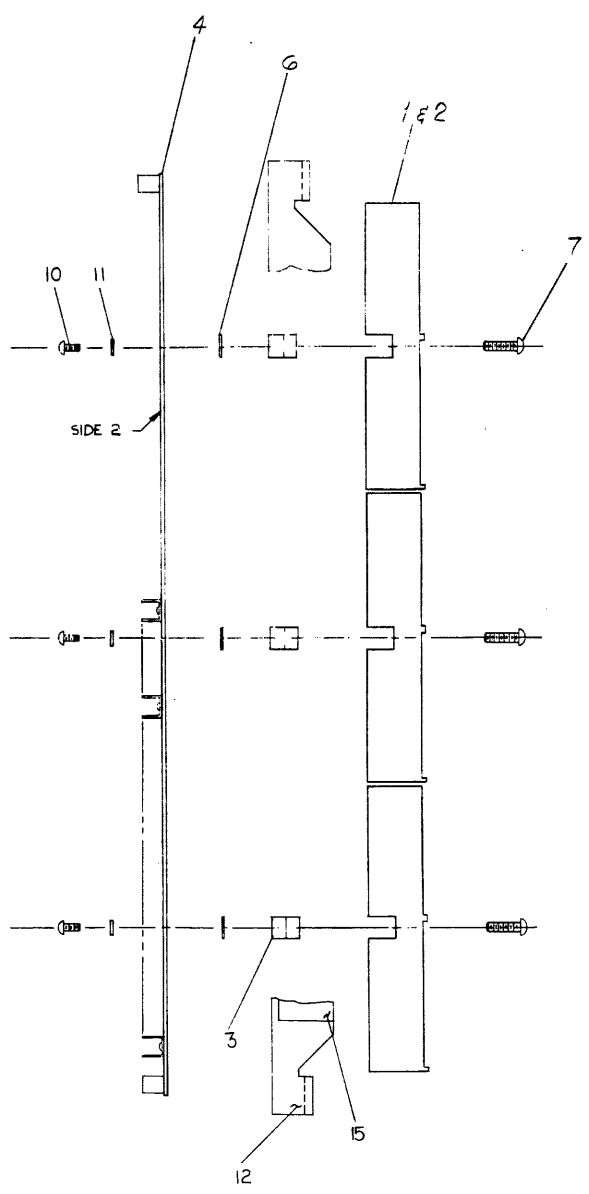
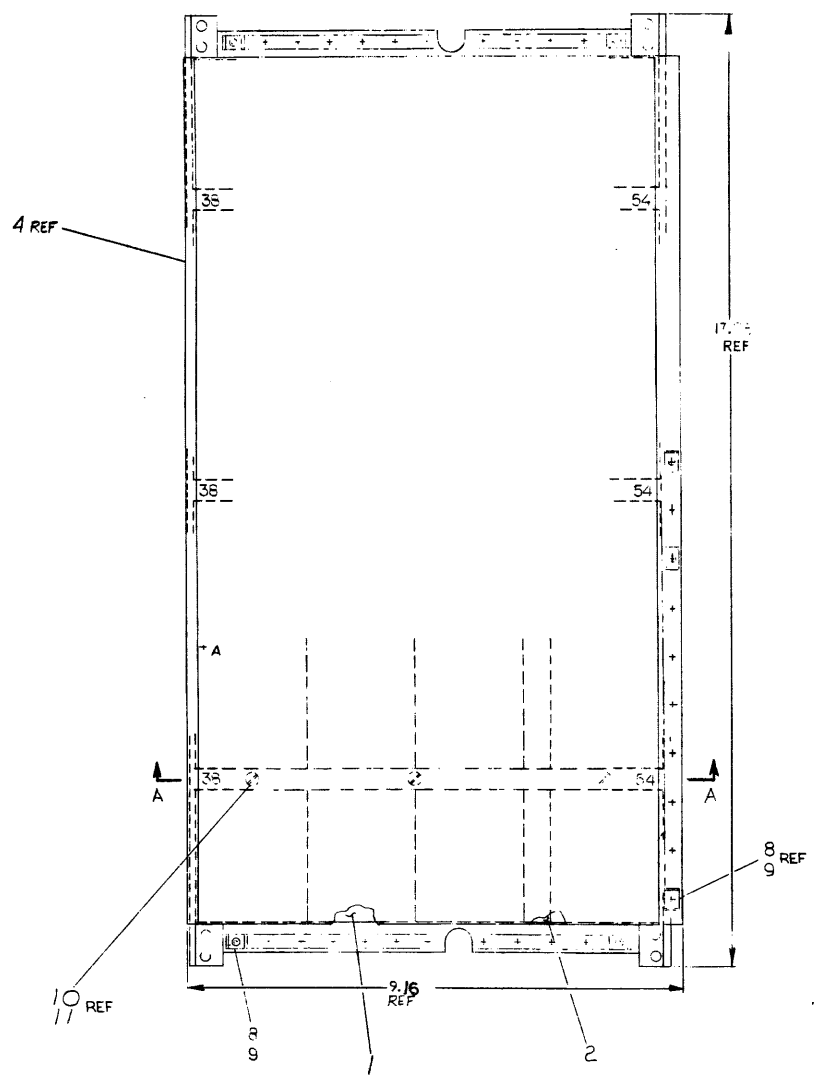
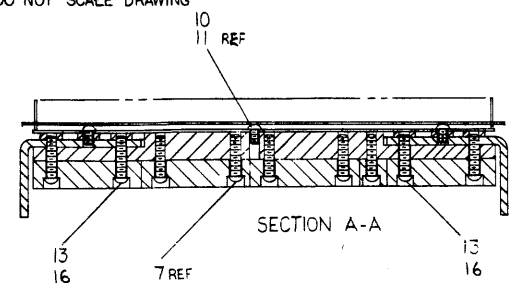
576

DO NOT SCALE DRAWING

DO NOT SCALE DRAWING

NOTES:

- CUT ITEM 5 TO LENGTH GIVEN IN DETAIL A. GROUND PLANE PROTECTION SHEETS SHOULD BE TAPE TOGETHER AS SHOWN WITH ITEM 11 IN PLACE.
- BEFORE ASSY OF ITEM #4 (BOARD) REWORK PER D-UA-5410681-0-0.
- FOR ASSY AID REFER TO PROCESS SHEET A-SP-KLI0-SP3

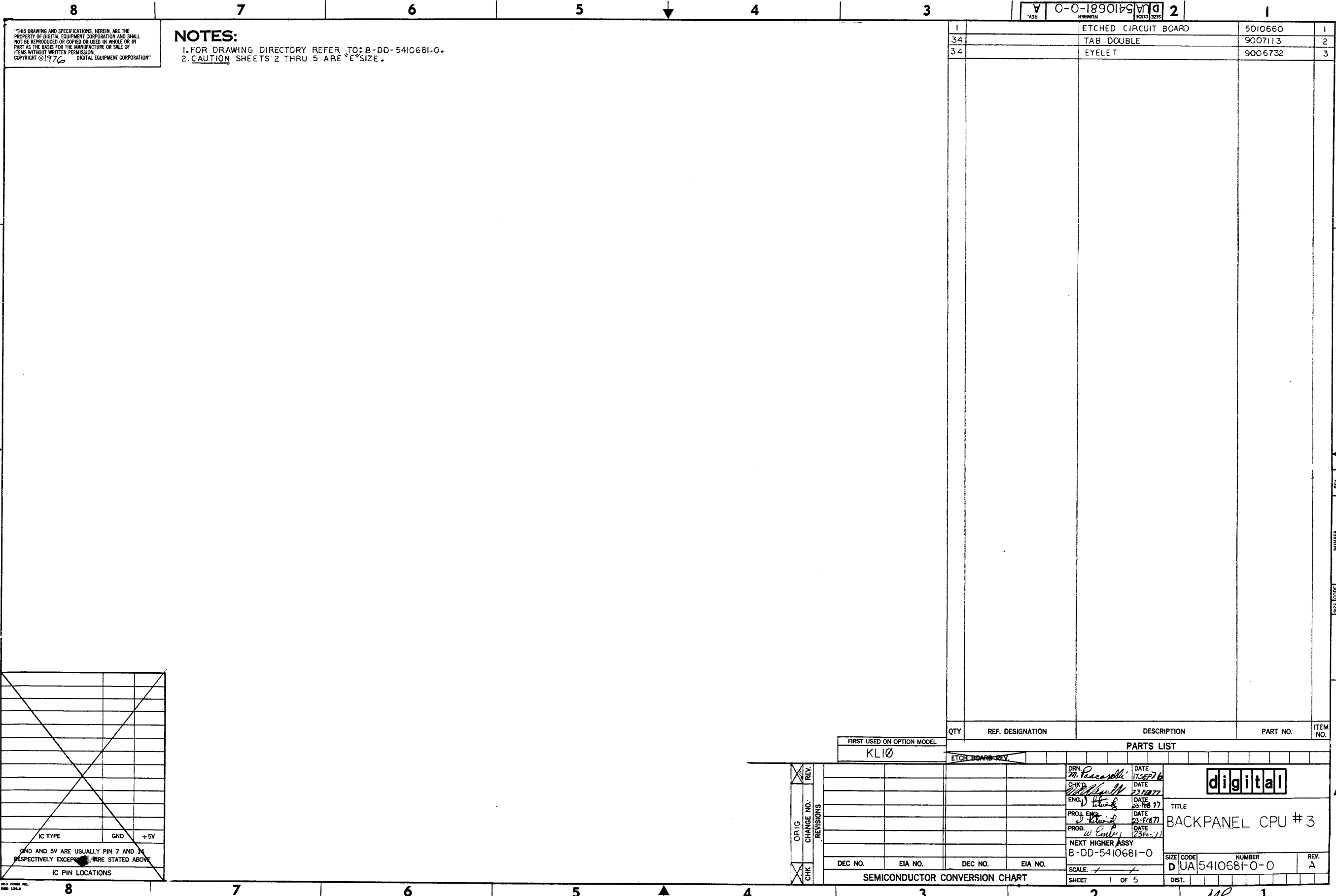


REV	DATE	DESCRIPTION
1	10/10/73	ISSUE FOR PRODUCTION
2	11/17/73	REVISED TO ADD DIMENSIONS
3	12/11/73	REVISED TO ADD DIMENSIONS
4	1/10/74	REVISED TO ADD DIMENSIONS
5	2/1/74	REVISED TO ADD DIMENSIONS
6	2/1/74	REVISED TO ADD DIMENSIONS
7	2/1/74	REVISED TO ADD DIMENSIONS
8	2/1/74	REVISED TO ADD DIMENSIONS
9	2/1/74	REVISED TO ADD DIMENSIONS
10	2/1/74	REVISED TO ADD DIMENSIONS
11	2/1/74	REVISED TO ADD DIMENSIONS
12	2/1/74	REVISED TO ADD DIMENSIONS
13	2/1/74	REVISED TO ADD DIMENSIONS
14	2/1/74	REVISED TO ADD DIMENSIONS
15	2/1/74	REVISED TO ADD DIMENSIONS
16	2/1/74	REVISED TO ADD DIMENSIONS
17	2/1/74	REVISED TO ADD DIMENSIONS
18	2/1/74	REVISED TO ADD DIMENSIONS
19	2/1/74	REVISED TO ADD DIMENSIONS
20	2/1/74	REVISED TO ADD DIMENSIONS

12	WASHER, LOCK #8	9006690	14
1	LABEL, ADHESIVE BACK	9009255	15
12	SCR, PHL FIL HD #8-32 x .81	9009664-6	13
2	BRACKET LOGIC FRAME	D-1A-7412900-0	12
9	WASHER, LOCK INT TOOTH #6	9006633	17
9	SCR, SLOTTED BIND HD #6-32 x .31	9006021-4	10
34	FASTON TAB	9007113	9
34	EYELET	9009000-00	8
27	SCR, FIL HD POLI DRIVE #8-32 x .62	9006120-8	7
3	SPACER, BACK PLANE	C-MD-7411399-2-0	6
3	GROUND PLANE PROTECTION SHEET	D-1A-7411786-0-0	5
1	ETCH CIRCUIT BOARD	5010660	4
3	BAR, BACK PLANE (CPU)	C-MD-7411944-0-0	3
3	CONN BLOCK, 72 PIN	D-PS-1211425-0-0	2
12	288 PIN CONN BLOCK (H863)	ESC-1210258-01	1

FIRST USED ON OPY/NOO	DATE	BY	DESCRIPTION	PART NO.	QTY
KLI0	10/10/73	J. PROWENT	BACK PLANE ASSY		
UNLESS OTHERWISE SPECIFIED	TOLERANCES	IN UNLESS SPECIFIED	IN UNLESS SPECIFIED	IN UNLESS SPECIFIED	IN UNLESS SPECIFIED
SEE PARTS LIST	SCALE 1/1	SHEET 1/1	REV. 10/10/73	REV. 10/10/73	REV. 10/10/73
EQUIPMENT CORPORATION			TITLE: CPU #5 BACK PLANE ASSY		
PART NO. EAD-7009416-0-0			REV. 10/10/73		

577



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**NOTES:**  
 1. FOR DRAWING DIRECTORY REFER TO: B-DD-5410681-0.  
 2. CAUTION SHEETS 2 THRU 5 ARE "E" SIZE.

REV. A 0-0-1890187  
 NUMBER 5410681-0-0  
 SIZE CODE D 2

1	ETCHED CIRCUIT BOARD	5010660	1
34	TAB DOUBLE	9007113	2
34	EYELET	9006732	3

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
	KL10	ETCH BOARD-REV.		

DRN. <i>M. Pascaulli</i>	DATE 17-SEP-76		TITLE BACKPANEL CPU #3
CHK'D <i>[Signature]</i>	DATE 23-10-77		
ENG. <i>[Signature]</i>	DATE 03-128-77		
PROJ. ENG. <i>[Signature]</i>	DATE 23-1-77		
PROD. <i>[Signature]</i>	DATE 23-Fe-77		
NEXT HIGHER ASSY B-DD-5410681-0		SIZE CODE D U A 5410681-0-0	REV. A

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

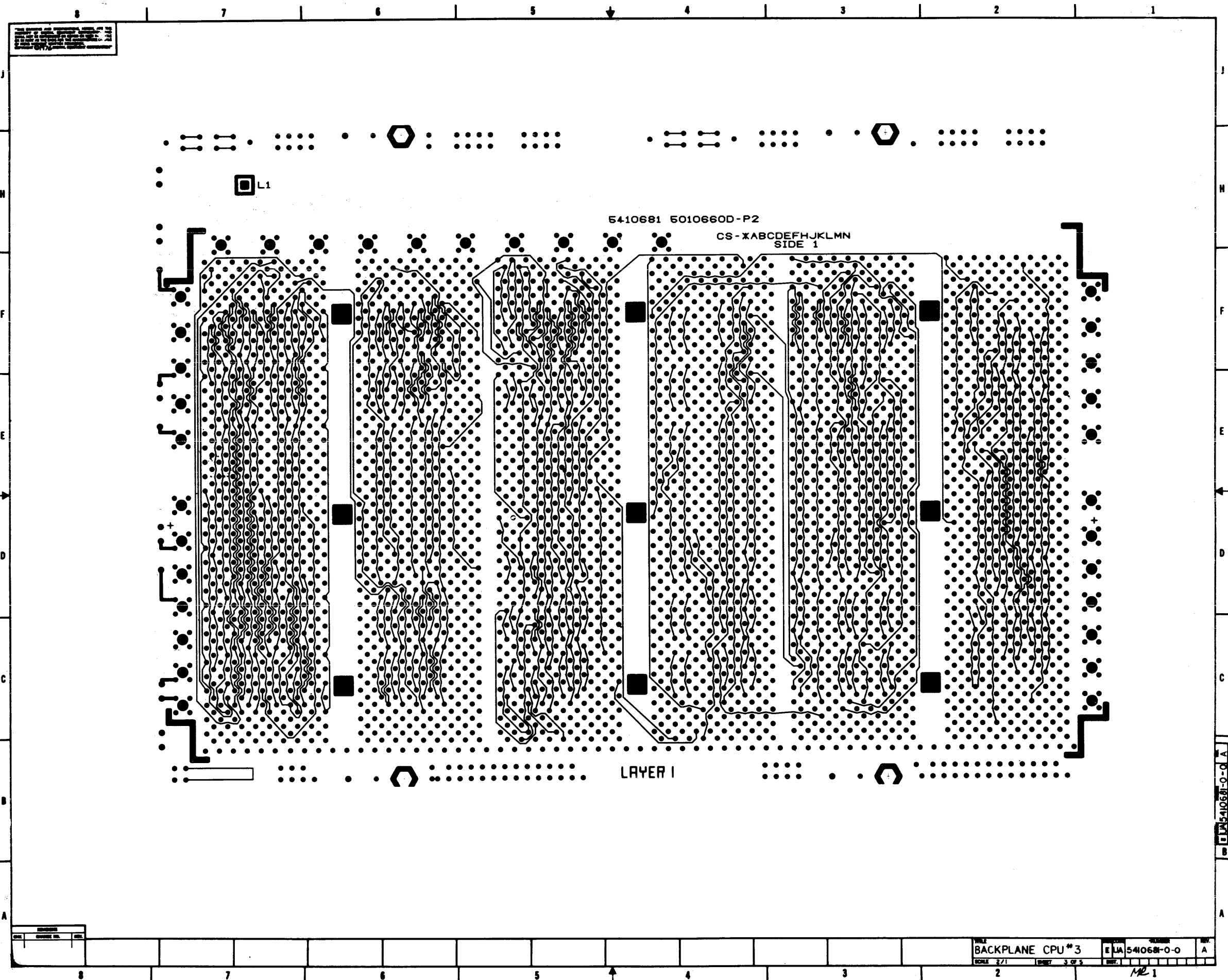
SCALE: 1 OF 5  
 SHEET: 1 OF 5

REV. A  
 NUMBER 5410681-0-0  
 SIZE CODE D

578

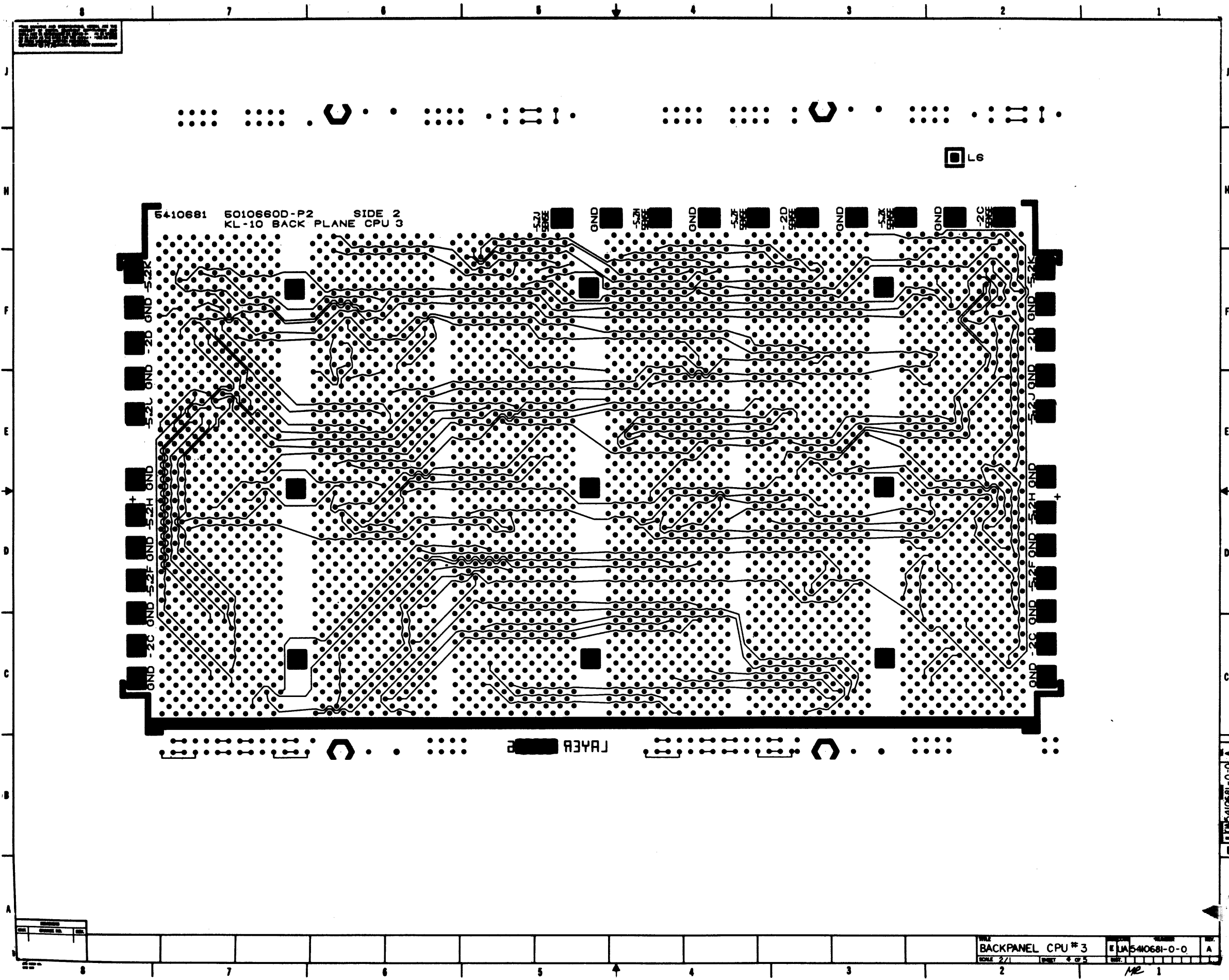
MR





580





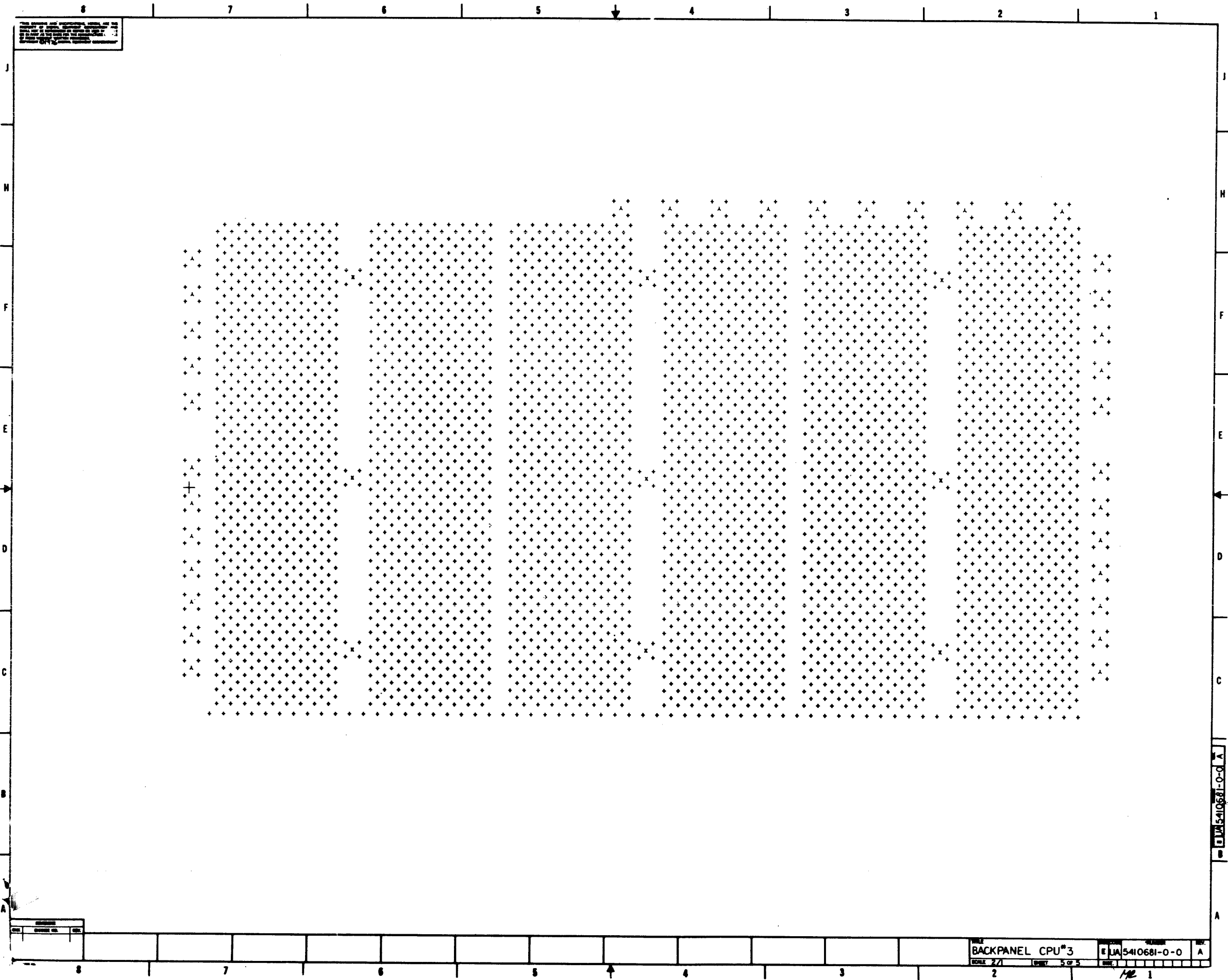
5410681 5010680D-P2 SIDE 2  
KL-10 BACK PLANE CPU 3

L6

LAYER 2

BACKPANEL CPU # 3  
5410681-0-0  
SCALE 2/1  
SHEET 4 OF 5  
MR 1

182



582