

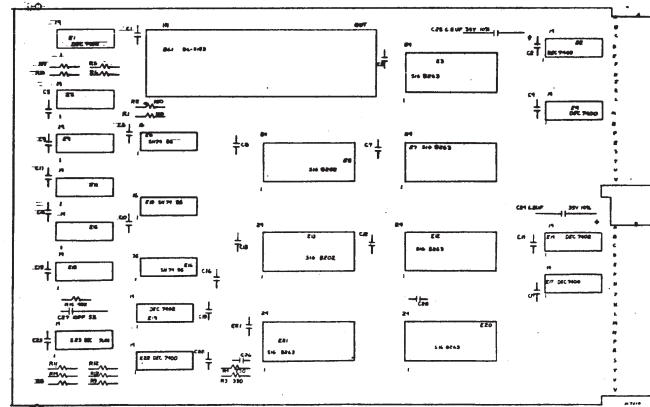
**NOTES**

1. COPPER SIDE OF SHIELD MUST BE ASSEMBLED FACING COMPONENT SIDE OF ETCH BOARD

2. TO INSTALL ECC M7012-6443 ON A REV. B MAKE THE FOLLOWING ETCH CUTS AND ADD THE INDICATED JUMPER:

ETCH CUT AT:  
A. E12 FIN 3 NEAR THE PAD ON SIDE 2  
B. E21 FIN 4 NEAR THE PAD ON SIDE 2

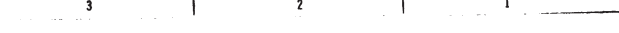
JUMPER WIRES:  
A. E21 PIN 4 TO E12 FIN 3  
B. E12 FIN 3 TO E6 PIN 6

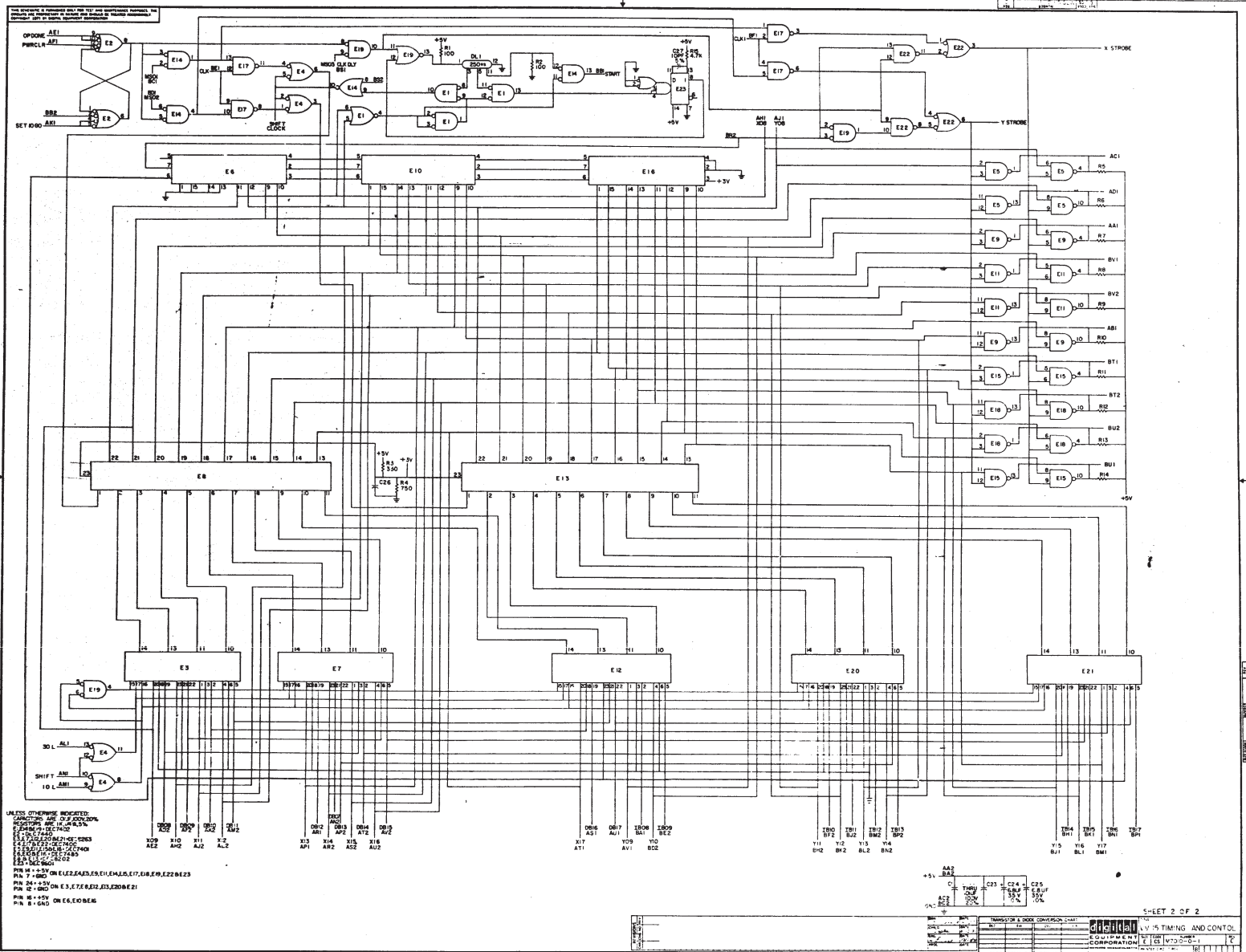


1	SHIELD, COPPER	5009893	29	
4	STANDOFF #DAK316L	9007623	28	
2	KEPNUT #4-40	9006557	27	
2	SCREW #4-40x3/8 BN HD	9006401	24	
2	SCREW #4-40x3/8 BN HD	9006404	25	
2	HANDLE, FLIP CHIP-MAGENTA	9008337-04	24	
2	EYELET #G54-7	9006792	29	
1	Z5 0NS TAPPED DELAY LUM	1605529	22	
R/R	GRIPLETS	1210244-0	21	
1	E2B	IC DEC 9601	1908373	20
2	E8, E13	IC DEC 8202	1910273	19
5	E8, E7, E12, E20, E21	IC DEC 8263	1910471	18
3	E6, E10, E16	IC DEC 7485	1910224	17
3	E14, E19	IC DEC 7402	1909004	16
5	E5, E9, E11, E15, E18	IC DEC 7401	1905990	15
1	E2	IC DEC 7440	1905579	14
3	E4, E17, E22	IC DEC 7400	1905575	13
1	R4	RES 750 1/4W 5%	1301401	12
1	R15	RES 4.7K 1/4W 5%	1300447	11
10	R5- R14	RES 1K 1/4W 5%	1300365	10
1	R3	RES 330 1/4W 5%	1300295	9
2	R1, R2	RES 100 1/4W 5%	1300229	8
1	C27	CAP 100P, 100V, 5%, DM	1000006	7
2	C24, C25	CAP .01UF, 35V, 20%, DSC	1000306	6
24	C1-23, C26	CAP .01UF, 100V, 20%, DSC	100040	5
1		ETCHED CIRCUIT BOARD	5009514	4
1		ETCHED ECO HISTORY	9004700-04	3
REF		MODULE CIRCUIT BOARD	9004700-04	2
REF		ASSY DRILLING HOLE LOCATION	9004700-04	1
REF		Z-T COORD HOLE LOCATION	KCO0700-04	1

IC PIN LOCATIONS				
JUMPER LIST				
IC TYPE	QND	Q3F	ITEM NO	FROM TO
QND AND Q3F ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE				

ETCH BOARD REV. B				EQUIPMENT CORPORATION			
TITLE: VVI5 TIMING AND CONTROL				REV. NO. 1			
DRAWN BY: [Signature]				CHECKED BY: [Signature]			
DATE: 10/22/70				DATE: 10/22/70			
DESIGNED BY: [Signature]				DATE: 10/22/70			
DATE: 10/22/70				DATE: 10/22/70			
DATE: 10/22/70				DATE: 10/22/70			
DATE: 10/22/70				DATE: 10/22/70			
DATE: 10/22/70				DATE: 10/22/70			
DATE: 10/22/70				DATE: 10/22/70			





UNLESS OTHERWISE INDICATED:  
 CAPACITORS ARE 0.01 MFD UNLESS  
 OTHERWISE NOTED.  
 RESISTORS ARE 1/2 WATT UNLESS  
 OTHERWISE NOTED.  
 E1 THROUGH E23 ARE 74LS00  
 E6, E7, E8, E10, E12, E13, E14, E20, E21  
 ARE 74LS107  
 E9, E11, E15, E16, E17, E18, E19, E22, E23  
 ARE 74LS109  
 E5, E10, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23  
 ARE 74LS109  
 E1, E2, E3, E4, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23  
 ARE 74LS109  
 E5, E10, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23  
 ARE 74LS109

Pin 14 - +5V  
 Pin 7 - GND ON E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23  
 Pin 20 - +5V  
 Pin 12 - GND ON E3, E7, E8, E12, E13, E20, E21  
 Pin 16 - +5V  
 Pin 8 - GND ON E6, E10, E16

X09  
X10  
X11  
X12  
X13  
X14  
X15  
X16  
X17  
X18  
X19  
X20  
X21  
X22  
X23  
AE1  
AE2  
AE3  
AE4  
AE5  
AE6  
AE7  
AE8  
AE9  
AE10  
AE11  
AE12  
AE13  
AE14  
AE15  
AE16  
AE17  
AE18  
AE19  
AE20  
AE21  
AE22  
AE23

A01  
A02  
A03  
A04  
A05  
A06  
A07  
A08  
A09  
A10  
A11  
A12  
A13  
A14  
A15  
A16  
A17  
A18  
A19  
A20  
A21  
A22  
A23

B01  
B02  
B03  
B04  
B05  
B06  
B07  
B08  
B09  
B10  
B11  
B12  
B13  
B14  
B15  
B16  
B17  
B18  
B19  
B20  
B21  
B22  
B23

C01  
C02  
C03  
C04  
C05  
C06  
C07  
C08  
C09  
C10  
C11  
C12  
C13  
C14  
C15  
C16  
C17  
C18  
C19  
C20  
C21  
C22  
C23  
C24  
C25  
C26  
C27  
C28  
C29  
C30  
C31  
C32  
C33  
C34  
C35  
C36  
C37  
C38  
C39  
C40  
C41  
C42  
C43  
C44  
C45  
C46  
C47  
C48  
C49  
C50  
C51  
C52  
C53  
C54  
C55  
C56  
C57  
C58  
C59  
C60  
C61  
C62  
C63  
C64  
C65  
C66  
C67  
C68  
C69  
C70  
C71  
C72  
C73  
C74  
C75  
C76  
C77  
C78  
C79  
C80  
C81  
C82  
C83  
C84  
C85  
C86  
C87  
C88  
C89  
C90  
C91  
C92  
C93  
C94  
C95  
C96  
C97  
C98  
C99  
C100

Pin 14 - +5V  
 Pin 7 - GND ON E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23  
 Pin 20 - +5V  
 Pin 12 - GND ON E3, E7, E8, E12, E13, E20, E21  
 Pin 16 - +5V  
 Pin 8 - GND ON E6, E10, E16

5-SHEET 2 OF 2

REV	DATE	DESCRIPTION	BY	CHKD
1				
2				
3				
4				
5				