



pdp11

LC11
DECwriter system
engineering drawings

digital

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DECwriter system
engineering drawings**

1st Printing October 1971

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ENGINEERING DRAWINGS

Drawing Number	Title
A-ML-LC11-0	LA30 Interface -- Master List
D-CS-M791-0-1	LA30 Printer Interface -- M791
D-IA-7008417-0-0	LA30 to PDP-11 Interface Cable
C-CS-M105-0-1	M105 Address Selector
D-CS-M7820-0-1	M7820 Interrupt Control
A-PL-LC11-0-0	LA30 Interface -- Parts List



MASTER DRAWING LIST

MAINTENANCE MANUALS		UNIT VARIATIONS																																			
NO.	TITLE	LC11-0																																			
LC11-0	LA30 INTERFACE	X																																			

USED ON OPTIONS							
LA30							

REVISIONS	REV.	CHG. NO.	APP'D.	DATE	DRN.	DATE	digital EQUIPMENT CORPORATION <small>MAYNARD, MASSACHUSETTS</small>							
	A	00001	F.V.	7/71	KEN RUSS	6/71	TITLE LA30 INTERFACE	SIZE	CODE	NUMBER	REV.			
	B	00002	J.B.	8/71	K. GULICK	6/71								
					ENG. <i>Beatty</i>	6/7/71								
					PROJ. ENG. <i>Beatty</i>	6/7/71								
					PROP. <i>Gulick</i>	6/7/71								
					FIRST USED ON									
				LA30		A						ML	LC11-0	B
				SCALE NONE										
				SHEET 1 OF 2										

DRA 131
Dec 16-(325)-1048-N471

PRINT SET			DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.	
LC11-0								
X			D-CS-M791-0-1	#	2	LA30 PRINTER INTERFACE (M791)		
X			D-IA-7008417-0-0	A	1	INTERFACE CABLE (LC11)		
X			C-CS-M105-0-1	#	1	ADDRESS SELECTOR		
X			D-CS-M7820-0-1	#	1	INTERRUPT CONTROL		
X			A-PL-LC11-0-0	A	1	LA30 INTERFACE PARTS LIST		
TITLE		LA30 interface		SHEET 2 OF 2		SIZE A ML	CODE NUMBER LC11-0	REV. B

DRA 132
DEC 16-(325)-1048-1-N471

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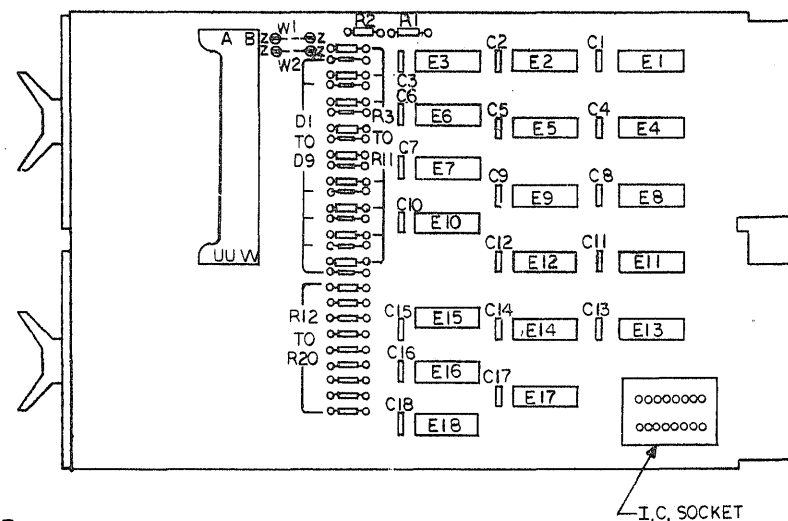
PARTS REFERENCE

ITEM NO	DRAWING REFERENCE	DESCRIPTION	PART NUMBER	QUANTITY
1	C1 THRU C18	CAPACITOR, 0.01uF, 100V, 20%	1001610	18
2	D1 THRU D5	DIODE, D664	1100114	9
3		SOCKET, I.C.	1209838	1
4		HEADER, RIGHT ANGLE 40 PIN	1209941	1
5	R12 THRU R20	RES 220 1/4W, 5%	1300271	9
6	R3 THRU R11	RES 330 1/4W, 5%	1300295	9
7	R1	RES 3K, 1/4W, 5%	1300432	1
8	R2	RES 2K, 1/4W, 5%	1302388	1
9	E9, E12, E14	I.C. DEC 7437	1910091	3
10	E3, E6, E7, E10, E16	I.C. DEC 7474	1905547	5
11	E13	I.C. DEC 7400	1905575	1
12	E15	I.C. DEC 7440	1905579	1
13	E18	I.C. DEC 7402	1909004	1
14	E1, E4	I.C. DEC 380	1909485	2
15	E8, E11	I.C. DEC 7404	1909686	2
16	E2, E5, E17	I.C. DEC 8881	1909705	3
REF		LA30 PRINTER INTERFACE	A PL-M791-0-0	

NOTES:

- PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE LC11. MODULE REFERENCE ALONE IS OBTAINED BY DELETING THE NUMBER (SLOT LOCATION) AFTER THE FIRST LETTER, AND CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.
- ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED; MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET WHENEVER POSSIBLE.

COMPONENT PLACEMENT



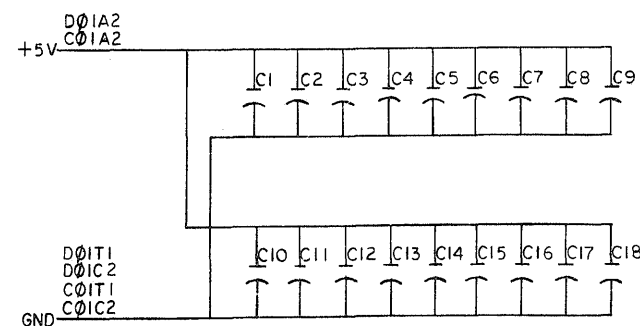
PIN NOMENCLATURE

MODULE	CONTROLLER
A	C
B	D

- DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE, PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM. CAPACITORS WITHOUT NOTED VALUES ARE .01 MFD.
- GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

IC TYPE	GND	+5V
DEC 380	PIN 1	PIN 8

- UNLESS OTHERWISE SPECIFIED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS.



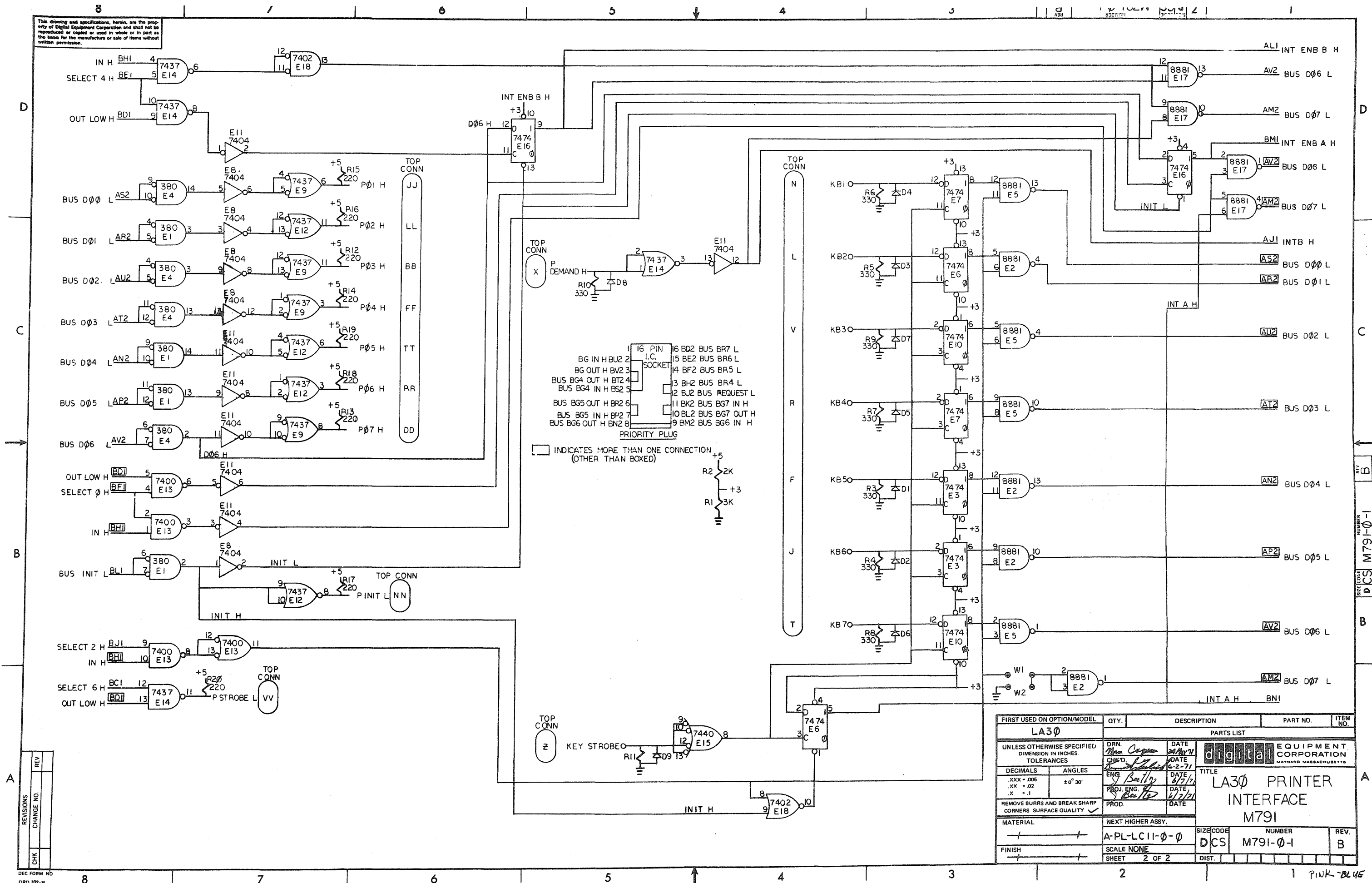
REV	A
REV	B
ORIGINATED	J. BEATY
DATE	10/1/71

ETCH REV. B	QTY.	DESCRIPTION	PART NO.	ITEM NO.
FIRST USED ON OPT/MOD				
LA30				
UNLESS OTHERWISE SPECIFIED	PARTS LIST			
UNLESS OTHERWISE SPECIFIED	EQUIPMENT CORPORATION NATYARD MASSACHUSETTS			
TOLERANCES	TITLE			
ANGLES = 45°	LA30 PRINTER INTERFACE			
REMOVE BURRS AND BREAK SHARP CORNERS	M791			
MATERIAL	DRAWING NUMBER			
FINISH	DCS M791-0-1			
	REV. B			
	SHEET 1 OF 2			

DCS M791-0-1

PINK-BLUE

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16 PIN L.C. SOCKET
 1 BG IN H BU2 2 16 BD2 BUS BR7 L
 2 BG OUT H BV2 3 15 BE2 BUS BR6 L
 3 BUS BG4 OUT H BT2 4 14 BF2 BUS BR5 L
 4 BUS BG4 IN H BS2 5 13 BH2 BUS BR4 L
 5 BUS BG5 OUT H BR2 6 12 BU2 BUS REQUEST L
 6 BUS BG5 IN H BP2 7 11 BK2 BUS BG7 IN H
 7 BUS BG6 IN H BQ2 8 10 BL2 BUS BG7 OUT H
 8 BUS BG6 OUT H BN2 9 9 BM2 BUS BG6 IN H

PRIORITY PLUG

INDICATES MORE THAN ONE CONNECTION (OTHER THAN BOXED)

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
LA30				
UNLESS OTHERWISE SPECIFIED: DIMENSION IN INCHES TOLERANCES				
DECIMALS	ANGLES	TITLE		
.XXX = .005	±0° 30'	LA30 PRINTER INTERFACE		
.XX = .02		M791		
.X = .1		MATERIAL		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		NEXT HIGHER ASSY.		
		A-PL-LC11-0-0		
FINISH		SCALE NONE		
		SHEET 2 OF 2		
		SIZE CODE NUMBER REV.		
		DCS M791-0-1 B		
		DIST.		

REV	CHANGE NO.	REVISIONS

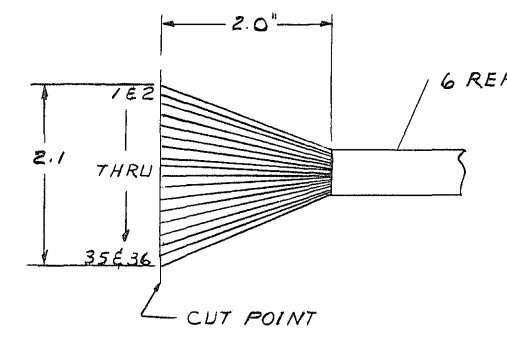
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WIRE TABLE					
ITEM NO.	AWS	COLOR	FROM CONNECTION	TO CONNECTION	CUT POINT
6	22	GRN	P1-E	P2-25	1
	TWP	WHT	P1-F	P2-17	2
		BLK	P1-H	P2-23	3
		BLU	P1-J	P2-16	4
		BLU	P1-K	P2-26	5
		RED	P1-L	P2-22	6
		GRN	P1-M	P2-24	7
		YEL	P1-N	P2-5	8
		BRN	P1-P	P2-4	9
		RED	P1-R	P2-18	10
		ORN	P1-S	P2-23	11
		WHT	P1-T	P2-15	12
		RED	P1-U	P2-25	13
		ORN	P1-V	P2-20	14
		BLK	P1-W	P2-3	15
		ORN	P1-X	P2-13	16
	22	YEL	P1-Y	P2-2	17
6	TWP	BLU	P1-Z	P2-7	18

WIRE TABLE					
ITEM NO.	AWS	COLOR	FROM CONNECTION	TO CONNECTION	CUT POINT
6	22	BLK	P1-AA	P2-3	19
	TWP	BRN	P1-BB	P2-10	20
		ORN	P1-CC	P2-1	21
		YEL	P1-DD	P2-6	22
		BLK	P1-EE	P2-4	23
		GRY	P1-FF	P2-9	24
		BLK	P1-HH	P2-4	25
		GRN	P1-JJ	P2-12	26
		BRN	P1-KK	P2-24	27
		WHT	P1-LL	P2-11	28
		GRY	P1-MM	P2-23	29
		RED	P1-NN	P2-14	30
		GRY	P1-PP	P2-2	31
		WHT	P1-RR	P2-8	32
		GRN	P1-SS	P2-1	33
		RED	P1-TT	P2-19	34
	22	WHT	P1-UU	P2-26	35
6	TWP	BLU	P1-VV	P2-21	36

LEGEND		
NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF
7008417-25	25' ± 3"	25' 7"

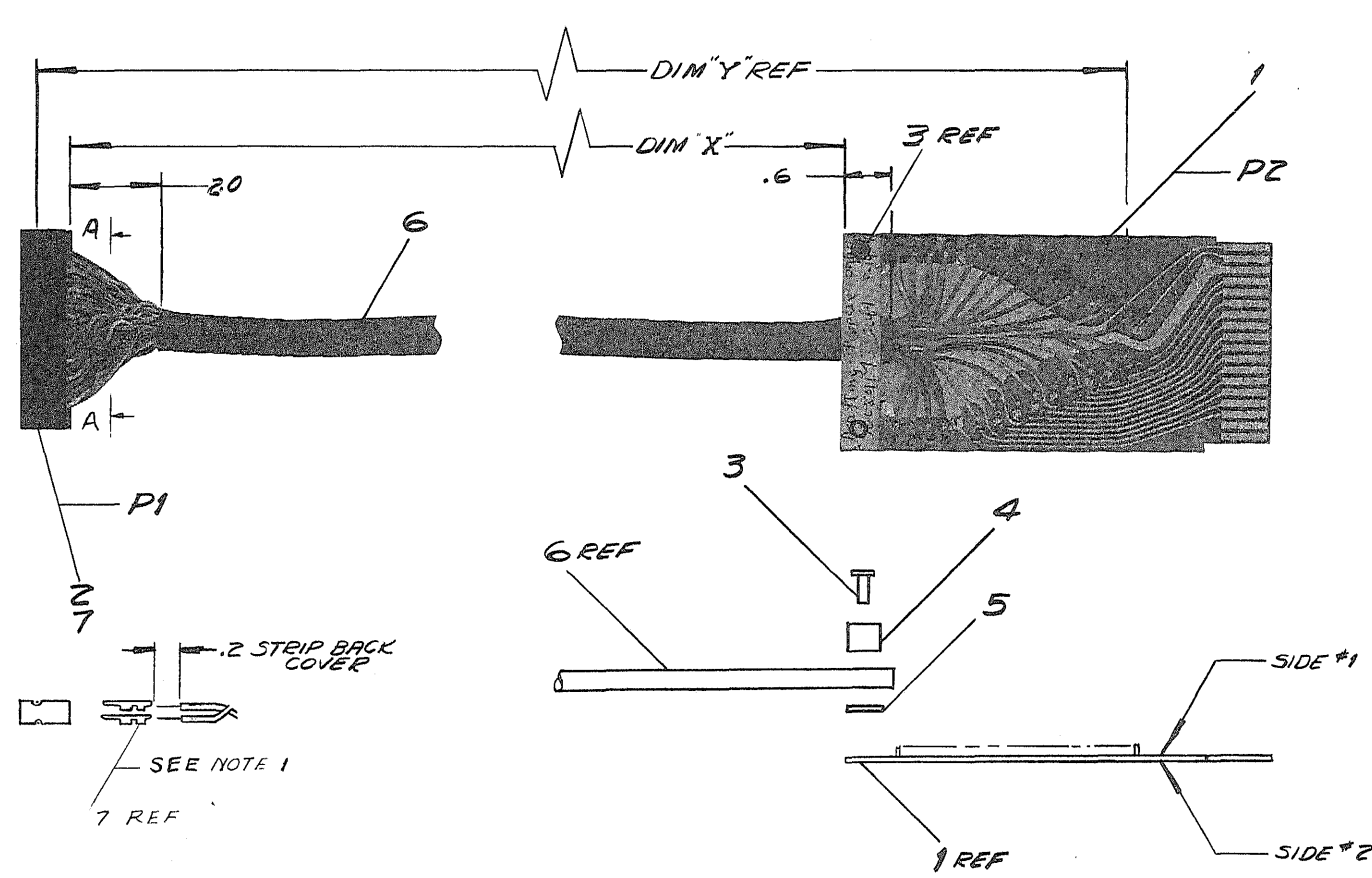
- NOTES:
1. BERG #HT66-TOOL FOR CRIMPING PINS.
 2. MANUFACTURING SHOULD USE MACHINE CRIMPER.
 3. FOR INFORMATION ON BERG PINS REFER TO SPEC #12-10089-C-0.



CUT POINT VIEW
SCALE: 1/1

NOT USED	NOT USED
A	B
C	D
E	F
G	H
I	J
K	L
M	N
P	Q
R	S
T	U
V	W
X	Y
Z	
AA	BB
CC	DD
EE	FF
GG	HH
II	JJ
KK	LL
MM	NN
OO	PP
QQ	RR
SS	TT
UU	VV
XX	YY
ZZ	
AAA	BBB
CCC	DDD
EEE	FFF
GGG	HHH
III	JJJ
KKK	LLL
MMM	NNN
OOO	PPP
QQQ	RRR
SSS	TTT
UUU	VVV
XXX	YYY
ZZZ	
AAA	BBB
CCC	DDD
EEE	FFF
GGG	HHH
III	JJJ
KKK	LLL
MMM	NNN
OOO	PPP
QQQ	RRR
SSS	TTT
UUU	VVV
XXX	YYY
ZZZ	
AAA	BBB
CCC	DDD
EEE	FFF
GGG	HHH
III	JJJ
KKK	LLL
MMM	NNN
OOO	PPP
QQQ	RRR
SSS	TTT
UUU	VVV
XXX	YYY
ZZZ	
AAA	BBB
CCC	DDD
EEE	FFF
GGG	HHH
III	JJJ
KKK	LLL
MMM	NNN
OOO	PPP
QQQ	RRR
SSS	TTT
UUU	VVV
XXX	YYY
ZZZ	
AAA	BBB
CCC	DDD
EEE	FFF
GGG	HHH
III	JJJ
KKK	LLL
MMM	NNN
OOO	PPP
QQQ	RRR
SSS	TTT
UUU	VVV
XXX	YYY
ZZZ	

VIEW A-A
SCALE: NONE



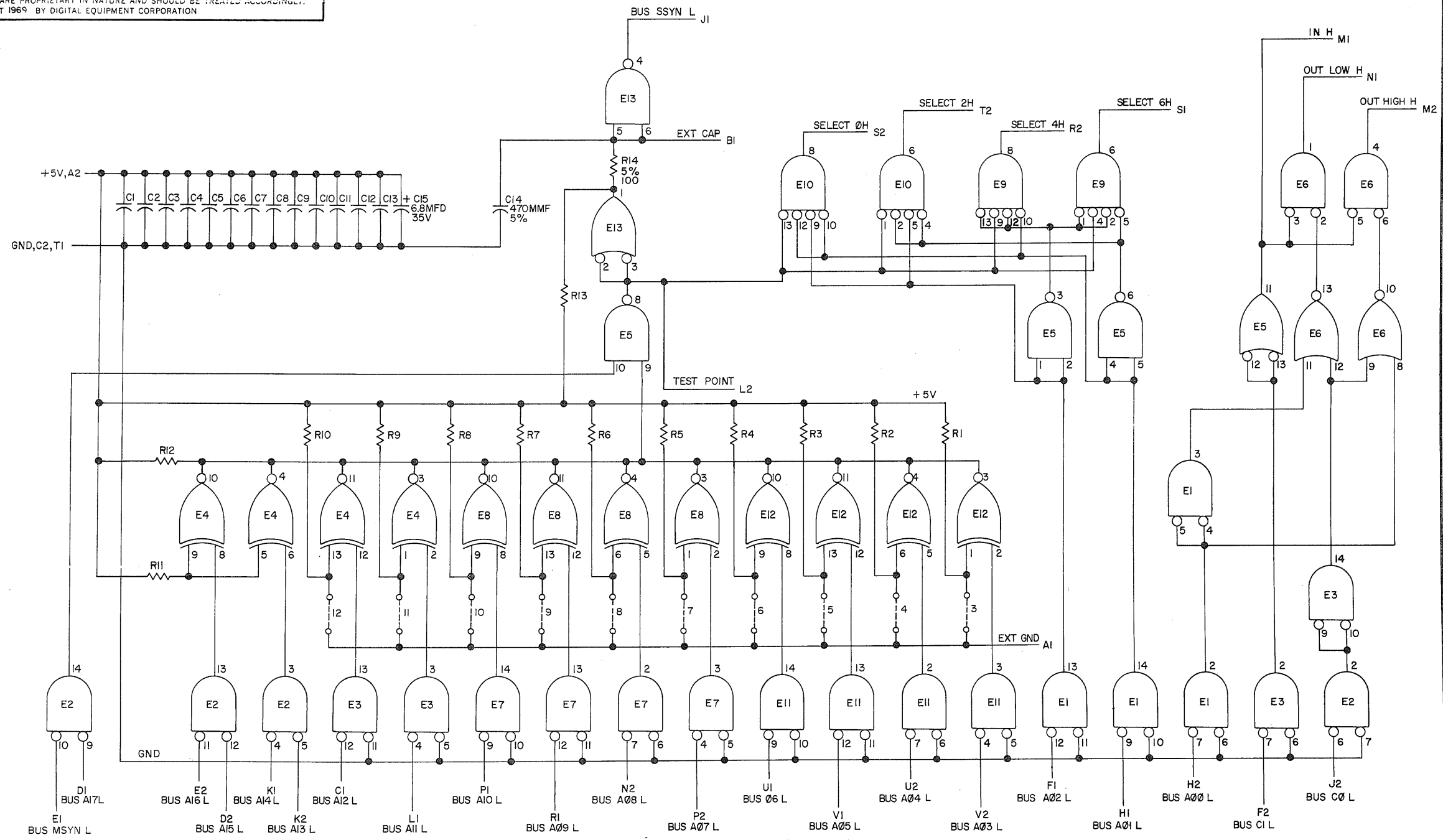
QTY.	DESCRIPTION	PART NO.	ITEM NO.
36	CRIMP SOCKET BERG 47784	1210089-5	7
1	CABLE 36 COND.	9107700	6
1	TAPE #432 1/8 W. 3M CO.	9007834	5
1	CLAMP CABLE	1202790	4
2	EYELET A-94 STIMP	9006741	3
1	HOUSING #20383 BERG	1210090-0	2
1	MODULE BD. M904	M904	1

FIRST USED ON OPTION/MODEL		QTY.		DESCRIPTION		PART NO.		ITEM NO.	
LC11									
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES									
DECIMALS	ANGLES	PARTS LIST							
.xxx = .005	± 0° 30'	DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS					
.xx = .02		CHK	DATE	TITLE					
.x = .1		ENG	DATE	INTERFACE CABLE (LC11)					
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROJ-ENG	DATE						
		PROJ	DATE						
MATERIAL		NEXT HIGHER ASSY.		SIZE CODE		NUMBER		REV.	
H		A-PL-LC11-0-0		DIA		7008417-0-0		A	
FINISH		SCALE		SHEET		1 OF 1			
H		H		G					

REVISIONS	CHANGE NO.	REV.
CHK	LC11-0001	A
McDonald & P-17-7		
BEATTY		
J. Beatty		

SIZE CODE NUMBER DIA 7008417-0-0

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UNLESS OTHERWISE INDICATED:
 O---O INDICATES JUMPERS
 RESISTORS ARE 1K, 1/4W, 5%
 CAPACITORS ARE .01MFD, 100V, 20%
 E1, E2, E3, E7, E11 ARE DEC380
 E4, E6, E12 ARE DEC8242
 E9, E10 ARE DEC8815
 E5 IS DEC74H00
 E6 IS DEC7402
 E13 IS DEC8881
 PIN 1 ON E1, E2, E3, E7, E11 = GND
 PIN 8 ON E1, E2, E3, E7, E11 = +5V
 PIN 7 ON E4, E5, E6, E8, E9, E10, E12, E13 = GND
 PIN 14 ON E4, E5, E6, E8, E9, E10, E12, E13 = +5V

REVISONS	CHK	CHG NO.	REV.	A	B
	TS	LRI	00002		

DRN	DATE	11-26-69
CHK'D	DATE	1-9-70
ENG	DATE	3-2-70
PROB	DATE	6/17/70

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA

digital EQUIPMENT CORPORATION
 MAYNARD, MASSACHUSETTS

TITLE: ADDRESS SELECTOR MIO5

SIZE	CODE	NUMBER	REV.
C	CS	MIO5-0-1	B

PRINTED CIRCUIT REV. C

DEC FORM NO. DRC 102

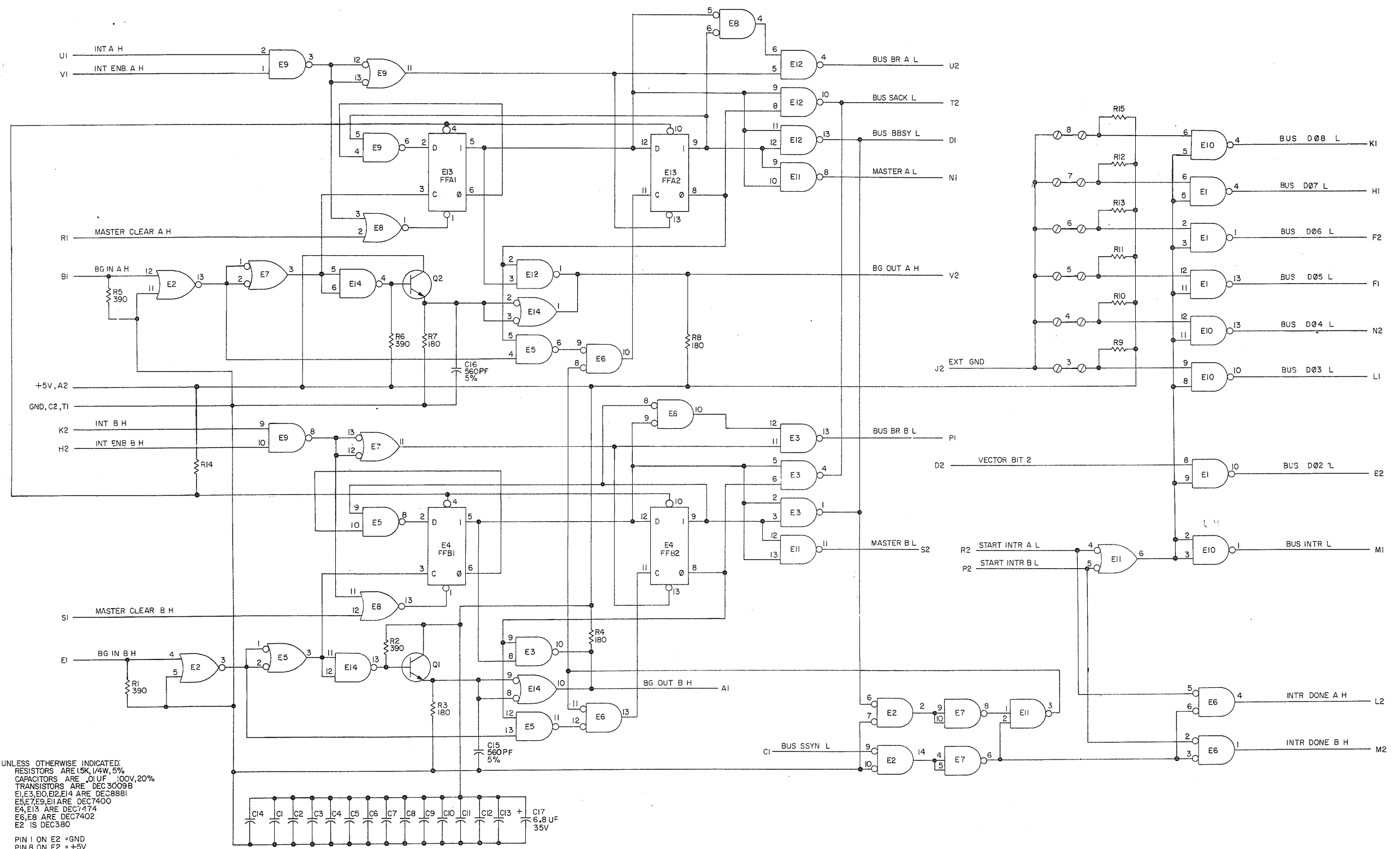
11-941-16

Dist. 325 734 1350 5 PINK 26

REV. B
 NUMBER MIO5-0-1
 SIZE CODE C CS

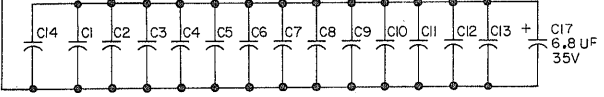
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REV. 1-0-0282JW
 NUMBER M7820-0-1
 SIZE CODE D CS



UNLESS OTHERWISE INDICATED:
 RESISTORS ARE 1/4W, 5%
 CAPACITORS ARE .01UF, 100V, 20%
 TRANSISTORS ARE DEC3009B
 E1, E3, E10, E12, E14 ARE DEC8881
 E5, E7, E9, E11 ARE DEC7400
 E4, E13 ARE DEC7474
 E6, E8 ARE DEC7402
 E2 IS DEC380

PIN 1 ON E2 = GND
 PIN 8 ON E2 = +5V
 PIN 7 ON E1, E3 - E14 = GND
 PIN 14 ON E1, E3 - E14 = +5V
 ⊗ = SPLIT LUGS
 — = JUMPERS



REV	NO	REV	DATE
1	00002	B	

DRN	DATE	TRANSISTOR & DIODE CONVERSION CHART
S Cooper	12/31/70	DEC EIA
CHW	1/10/71	DEC 2N3009B
END	1/10/71	
PROD		

TITLE		SIZE	CODE	NUMBER	REV
digital INTERRUPT CONTROL M7820		D	CS	M7820-0-1	B
EQUIPMENT CORPORATION		PRINTED CIRCUIT REV. 81C			
MAYNARD, MASSACHUSETTS					

REV. B
 NUMBER M7820-0-1
 SIZE CODE D CS

4
 100-3-14-1134-435
 P/MK