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# PARTS REFERENCE

| ITEM NO. | DRAWING REFERENCE                                      | DESCRIPTION          | PART NUMBER | QUANTITY |
|----------|--------------------------------------------------------|----------------------|-------------|----------|
| 1        | E1,E3,E5,E7,E9,E11,E13,E15,E17,E19,E21,E23,E25,E27,E29 | DEC 7400N            | 1005575     | 14       |
| 2        | E2,E3,E5,E7                                            | DEC 7410N            | 1305576     | 3        |
| 3        | E4,E5                                                  | DEC 350              | 1303485     | 2        |
| 4        | E5,E9                                                  | DEC 7422N            | 1305577     | 2        |
| 5        | E5,E9                                                  | DEC 8515A            | 1303113     | 2        |
| 6        | E10,E11,E14,E21,E24,E28                                | DEC 7402N            | 1305004     | 6        |
| 7        | E12,E18,E22,E29,F40,F46,F48                            | DEC 7474N            | 1305547     | 7        |
| 8        | F16,F44,F49                                            | DEC 5581             | 1305705     | 3        |
| 9        | E17,E19,E32                                            | DEC 7450N            | 1305530     | 3        |
| 10       | E25,E34,E35,E43,E47,E50,E51                            | DEC 9601             | 1303487     | 9        |
| 11       | E30                                                    | DEC 74H42N           | 1305556     | 1        |
| 12       | E31                                                    | DEC 7450N            | 1305579     | 1        |
| 13       | E36                                                    | DEC 7450N            | 1305592     | 1        |
| 14       | C1,C4,C7,C9,C14,C20                                    | 330 MMF, 100V, 5%    | CAP 1000223 | 8        |
| 15       | C5,C11,C15,C67                                         | 1000 MMF, 100V, 5%   | CAP 1000042 | 4        |
| 16       | C6                                                     | 100 MMF, 100V, 5%    | CAP 1000018 | 1        |
| 17       | C8,C10,C12,C68                                         | 470 MMF, 100V, 5%    | CAP 1000024 | 4        |
| 18       | C16,C16, C19                                           | 1.0 MFD, 35V, 10%    | CAP 00176   | 3        |
| 19       | C17                                                    | 2.2 MFD, 20V, 10%    | CAP 1002627 | 1        |
| 20       | C21,C22,C29,C70,C71                                    | 20 MFD, 100V, 20%    | CAP 1000510 | 45       |
| 21       | C53,C66,C18                                            | 5.6 MFD, 35V         | CAP 1000057 | 3        |
| 22       | R14,R5,R8,R10,R15,R30,R33                              | 220, 1/4W, 5%        | RES 1300271 | 8        |
| 23       | R2,R3,R5,R7,R9,R14,R22,R29                             | 470, 1/4W, 5%        | RES 1300316 | 8        |
| 24       | R11                                                    | 5000, 1/4W, 5%       | RES 1301874 | 1        |
| 25       | R12,R13,R16,R32                                        | 1000, 1/4W, 5%       | RES 1300354 | 5        |
| 26       | R17,R19,R25,R26                                        | 30K, 1/4W, 5%        | RES 1302334 | 4        |
| 27       | R20,R21,R34,R35                                        | 47, 1/4W, 5%         | RES 1302202 | 4        |
| 28       | R23,R24,R27                                            | 5K, 1/4W, 5%         | RES 1300496 | 3        |
| 29       | R28                                                    | 10K, 1/4W, 5%        | RES 1300479 | 1        |
| 30       | R31                                                    | 3.9K, 1/4W, 5%       | RES 1300444 | 1        |
| 31       | DI-D12                                                 | 0664 DIODE           | 100214      | 12       |
| 32       | Q1                                                     | DEC 3009B TRANSISTOR | 1303100     | 1        |

## NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE KAI1 PROCESSOR. 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.

2. 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 SEPARATE PINS ARE USED; MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.

3. PROCESSOR SIGNAL SOURCE NOTATION (K10-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE (PRINT AND MODULE). THE FIRST NUMBER AFTER THE K INDICATES THE MODULE PRINT SET, WHILE THE SECOND INDICATES THE SHEET WITHIN THE SET. IF ON A PRINT, THE FIRST NUMBER OF THE K PREFIXES COINCIDE FOR A SIGNAL NAME AND THE PRINT (SEE TITLE BLOCK). THE SIGNAL IS GENERATED ON THE MODULE. A DIFFERENCE IN THE FIRST NUMBER OF THE K PREFIXES INDICATES A SIGNAL GENERATED OFF THE MODULE. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION, AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.

4. DETAILS ON COMPONENTS ARE NOTED IN THE PARTS REFERENCE. PLACEMENT IS NOTED IN THE COMPONENT PLACEMENT DIAGRAM.

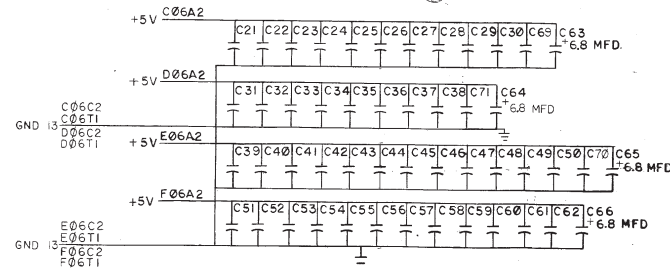
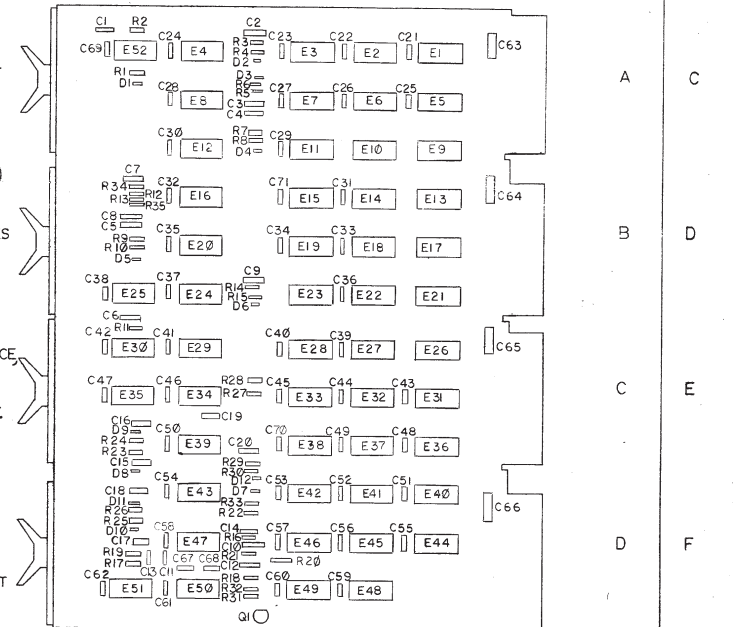
5. GND AND +5V ARE USUALLY PIN 7 AND PIN 14, RESPECTIVELY. EXCEPTIONS ARE:

| IC TYPE  | GND    | +5V    |
|----------|--------|--------|
| DEC 7481 | PIN 10 | PIN 4  |
| DEC 7482 | PIN 11 | PIN 4  |
| DEC 8251 | PIN 8  | PIN 16 |
| DEC 8271 | PIN 8  | PIN 16 |
| DEC 380  | PIN 1  | PIN 8  |
| DEC 384  | PIN 1  | PIN 8  |

6. UNLESS OTHERWISE NOTED: RESISTANCE IS IN OHMS; CAPACITANCE IS IN PICOFARADS. CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 MFD.

## COMPONENT PLACEMENT

## PIN NOMENCLATURE



| REVISIONS | REV | DATE    | BY | CHKD | DATE |
|-----------|-----|---------|----|------|------|
| 1         | B   | 12-2-70 |    |      |      |
| 2         | A   | 12-2-70 |    |      |      |
| 3         | A   | 12-2-70 |    |      |      |
| 4         | A   | 12-2-70 |    |      |      |
| 5         | A   | 12-2-70 |    |      |      |
| 6         | A   | 12-2-70 |    |      |      |
| 7         | A   | 12-2-70 |    |      |      |
| 8         | A   | 12-2-70 |    |      |      |

DEC FORM NO. 100-1

|                                                                                                                                                                                     |      |             |          |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------|----------|----------|
| FIRST USED ON OPTION/MODEL<br>PDP 11                                                                                                                                                | QTY. | DESCRIPTION | PART NO. | ITEM NO. |
| PARTS LIST                                                                                                                                                                          |      |             |          |          |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS IN INCHES<br>TOLERANCES<br>DECIMALS FRACTIONS ANGLES<br>±.000 ±.125 ±.000<br>FINAL SURFACE QUALITY<br>REMOVE BURRS AND BREAK SHARP CORNERS |      |             |          |          |
| DATE 5/28/70<br>CHKD. [Signature]<br>DATE 5/28/70<br>ENGR. [Signature]<br>DATE 5/28/70<br>PRG. [Signature]<br>DATE 5/28/70                                                          |      |             |          |          |
| TITLE<br>BUS & CONSOLE CNTL.                                                                                                                                                        |      |             |          |          |
| MATERIAL<br>#                                                                                                                                                                       |      |             |          |          |
| NEXT HIGHER ASSY<br>A-M-L-KAI1-0                                                                                                                                                    |      |             |          |          |
| FINISH<br>#                                                                                                                                                                         |      |             |          |          |
| SCALE<br>SHEET 1 OF 4                                                                                                                                                               |      |             |          |          |
| ETCH REV B C                                                                                                                                                                        |      |             |          |          |
| DIST.                                                                                                                                                                               |      |             |          |          |

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

AA

AB

AC

AD

AE

AF

AG

AH

AI

AJ

AK

AL

AM

AN

AO

AP

AQ

AR

AS

AT

AU

AV

AW

AX

AY

AZ

BA

BB

BC

BD

BE

BF

BG

BH

BI

BJ

BK

BL

BM

BN

BO

BP

BQ

BR

BS

BT

BU

BV

BW

BX

BY

BZ

CA

CB

CC

CD

CE

CF

CG

CH

CI

CJ

CK

CL

CM

CN

CO

CP

CQ

CR

CS

CT

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CV

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GW

GX

GY

GZ

HA

HB

HC

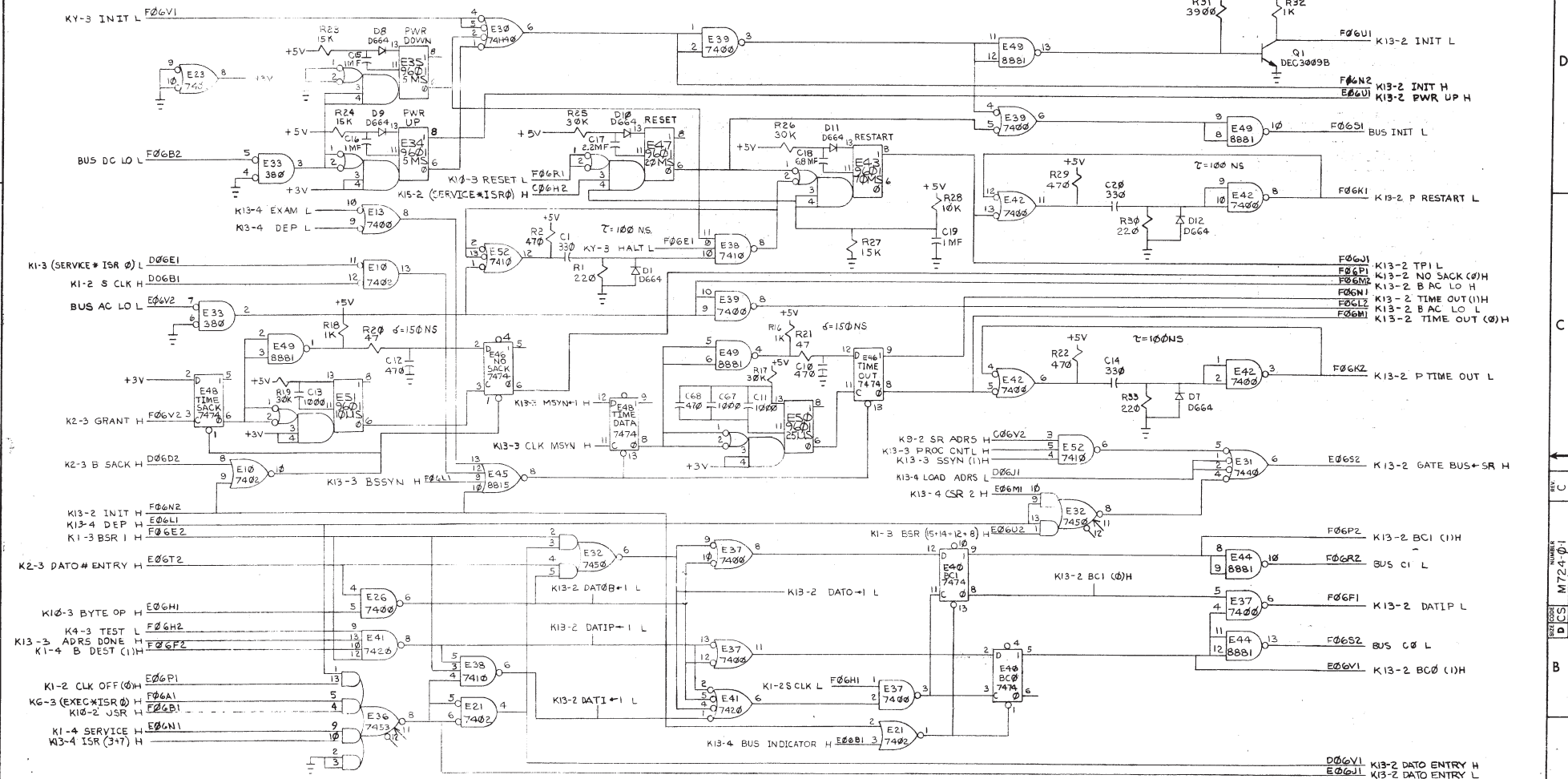
HD

HE

HF

HG

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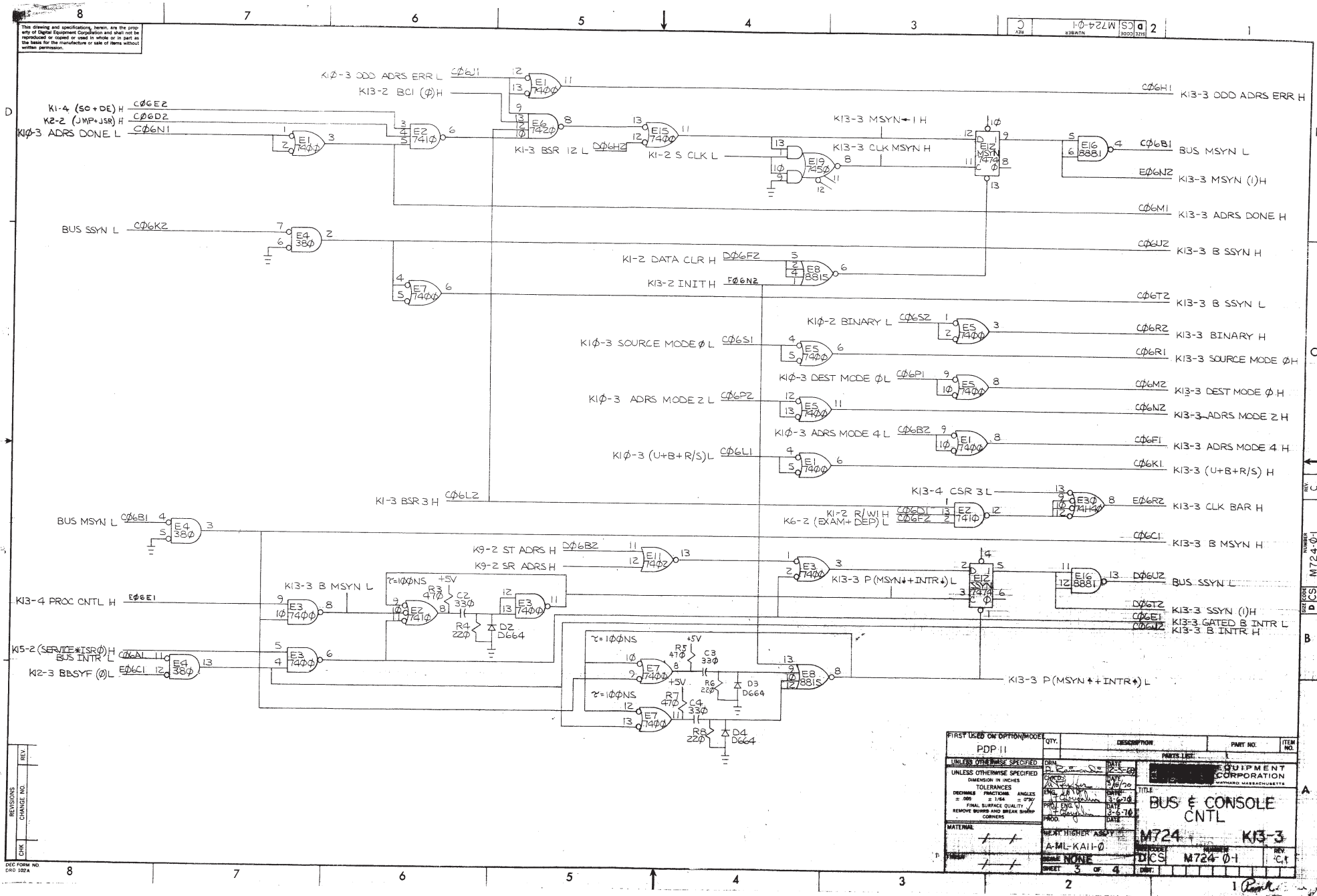


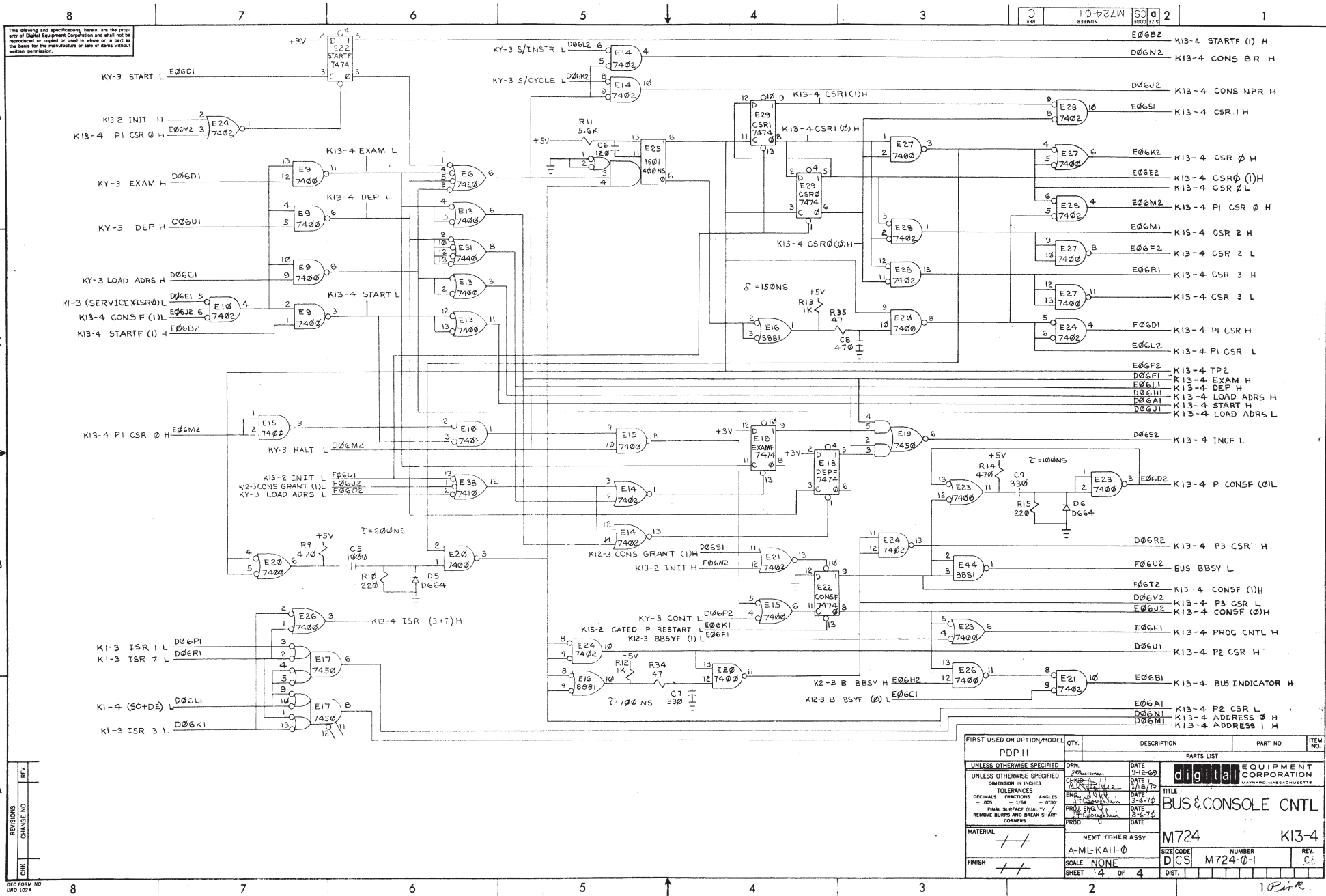
REVISIONS  
CHANGE NO.  
CHK

| FIRST USED ON OPTION/MODEL           |  | QTY. | DESCRIPTION | PART NO. | ITEM NO. |
|--------------------------------------|--|------|-------------|----------|----------|
| PDP-11                               |  |      |             |          |          |
| UNLESS OTHERWISE SPECIFIED           |  |      |             |          |          |
| DIMENSIONS IN INCHES                 |  |      |             |          |          |
| TOLERANCES                           |  |      |             |          |          |
| DECIMALS FRACTIONS ANGLES            |  |      |             |          |          |
| ± .005 ± 1/64 ± 0°30'                |  |      |             |          |          |
| FINAL SURFACE QUALITY                |  |      |             |          |          |
| REMOVE BURRS AND BREAK SHARP CORNERS |  |      |             |          |          |
| MATERIAL                             |  |      |             |          |          |
| FINISH                               |  |      |             |          |          |
| NEXT HIGHER ASSY                     |  |      |             |          |          |
| A-ML-KA11-0                          |  |      |             |          |          |
| SCALE                                |  |      |             |          |          |
| NONE                                 |  |      |             |          |          |
| SHEET                                |  |      |             |          |          |
| 2 OF 4                               |  |      |             |          |          |

| PARTS LIST                    |  | REV |
|-------------------------------|--|-----|
| digital EQUIPMENT CORPORATION |  |     |
| M724-01                       |  |     |
| K13-2                         |  |     |
| M724-01                       |  |     |
| C                             |  |     |

1/10/70





| REV. | CHANGE NO. |
|------|------------|
| 1    | 1          |

DEC FORM NO. 102A

REV. C

B

A