

**MR11-DB
bulk storage
bootstrap loader
engineering drawings**

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

| | | | | | | | |
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SEQUENCE

SEQUENCE

DRAWING DIRECTORY
ROM DIODE MATRIX
ROM DIODE MATRIX

B-DD-MR11-D (SHEET ONE ONLY)
D-CS-M792-YD-1
D-CS-M792-YE-1

| UNIT VARIATIONS | | PRINT SET TYPE | | | | | | |
|-----------------|--------------------------|----------------|--|--|--|--|--|--|
| VARIATION | TITLE | MR11-D1 | | | | | | |
| MR11-DB | 64 WORD BOOTSTRAP LOADER | X | | | | | | |
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|-----------|------|----------|-----|
| REVISIONS | DATE | CHG. NO. | REV |
| | 7/78 | MR11D-1 | A |

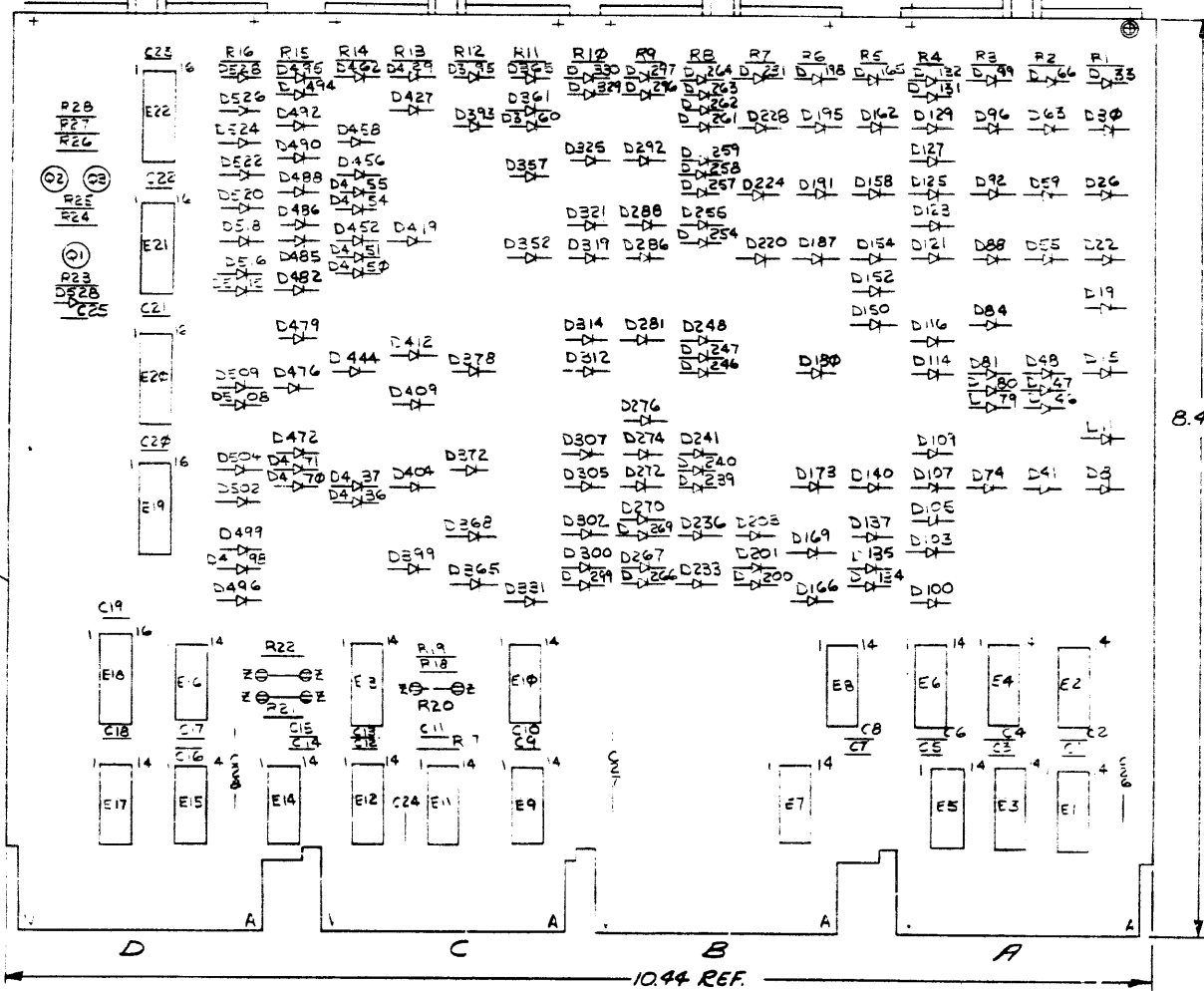
| | | | | | | |
|----------------------|-------------|---------|------------------|-----------|--------|-----|
| USED ON OPTION/MODEL | DRN. | DATE | TITLE | SIZE CODE | NUMBER | REV |
| 11/45 | R. COOK | 5/23/78 | BOOTSTRAP LOADER | B DD | MR11-D | A |
| | CHKZ | 5/23/78 | | | | |
| | PROJ ENG. | 5/23/78 | | | | |
| | PROD. | 5/25/78 | | | | |
| | FIELD SERV. | 5/25/78 | | | | |
| SHEET 1 OF 3 | | | DIST | | | |

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NOTES:

1. FOR DIODE LOCATIONS SEE ETCH BOARD OVERLAY.
2. ON ITEM #19, ALL CHIPS MUST BE EITHER DEC 380'S OR IT'S SUBSTITUTE, 11360'S I.C.'S, COMBINATIONS ARE NOT ALLOWED ON THE SAME OPTION.

| ALLOWABLE SUBSTITUTION LIST | | | |
|-----------------------------|-----------------|-------------|--------|
| ORIGINAL PART # | SUBSTITUTE PART | DESCRIPTION | ITEM # |
| 909495 | I.C. 11360 | SEE NOTE 2 | 19 |



NWA5

| QTY | REF DESIGNATION | DESCRIPTION | PART NO | ITEM NO |
|-----|-------------------------------|------------------------------|----------------|---------|
| 6 | | SPLIT LUGS | 9006735 | 26 |
| 8 | | EYELET #684-7 EB STIMPSON | 9006732 | 25 |
| 165 | SEE NOTE #1 | DIODE D664 | 1100114 | 24 |
| 1 | E13 | I.C. DEC 8292 | 1909712 | 23 |
| 5 | E1, E3, E5, E7, E11 | I.C. DEC 8851 | 1909705 | 22 |
| 1 | E9 | I.C. DEC 814 | 1909704 | 21 |
| 5 | E18-E22 | I.C. DEC 8251 | 1909594 | 20 |
| 9 | E2, E4, E6, E8, E12, E14, E16 | I.C. DEC 837 | 117411 * 19 | 19 |
| 1 | E17 | I.C. DEC 749911 | 1905575 | 18 |
| 1 | Q1 | TRANSISTOR DEC 3009B | 1502100 | 17 |
| 2 | Q2, Q3 | TRANSISTOR 2N3639B | 1502762 | 16 |
| 16 | R1-R16 | RES. 82K 1/4W 5% | 1303179 | 15 |
| 1 | R24 | RES. 15K 1/4W 5% | 1300391 | 14 |
| 5 | R17-R19, R21, R22 | RES. 1K 1/4W 5% | 1300365 | 13 |
| 1 | R25 | RES. 2K 1/4W 5% | 1302886 | 12 |
| 4 | R20, R23, R27, R28 | RES. 100Ω 1/4W 5% | 1300229 | 11 |
| 1 | R26 | RES. 47Ω 1/4W 5% | 1300202 | 10 |
| 3 | C26-C28 | CAP. 6.8µF 35V 10% | 1005306 | 9 |
| 23 | C1-C23 | CAP. 0.1µF 100V 20% DISC | 1001610 | 8 |
| 1 | C24 | CAP. 560µF 100V 5% DM | 1000025 | 7 |
| 1 | C25 | CAP. 220µF 100V 5% DM | 1000021 | 6 |
| 1 | | ETCHED CIRCUIT BOARD | 5008917 | 5 |
| REF | | MODULE ECO HISTORY | B-MH-M792-YL-6 | 4 |
| REF | | ASSY/DRILLING HOLE LAYOUT | D-MH-M792-YL-5 | 3 |
| REF | | X-Y COORDINATE HOLE LOCATION | K-CO-M792-YL-4 | 2 |
| 4 | | WANGLE FLIP CHIP-MAGENTA | 9009227 | 1 |

* SEE ALLOWABLE SUBSTITUTION LIST

| IC TYPE | GND | + 5V |
|---------|-----|------|
| 8251 | 8 | 16 |
| 319 | 1 | 8 |
| 380 | 1 | 8 |

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL 11/45

ETCH BOARD REV E

SEMICONDUCTOR CONVERSION CHART

| CHK | CHANGE NO. | REV | REVISIONS |
|-----|------------|-----|-----------|
| | | | |
| | | | |
| | | | |

ORIGINAL

DATE 5-18-72

DRN. J. J. J. DATE 5-18-72

CHK'D. DATE

ENG. DATE

PROJ. ENG. DATE

PROD. DATE

NEXT HIGHER ASSY B-DD-MR11-DE

SCALE

SHEET 1 OF 1

digital EQUIPMENT CORPORATION

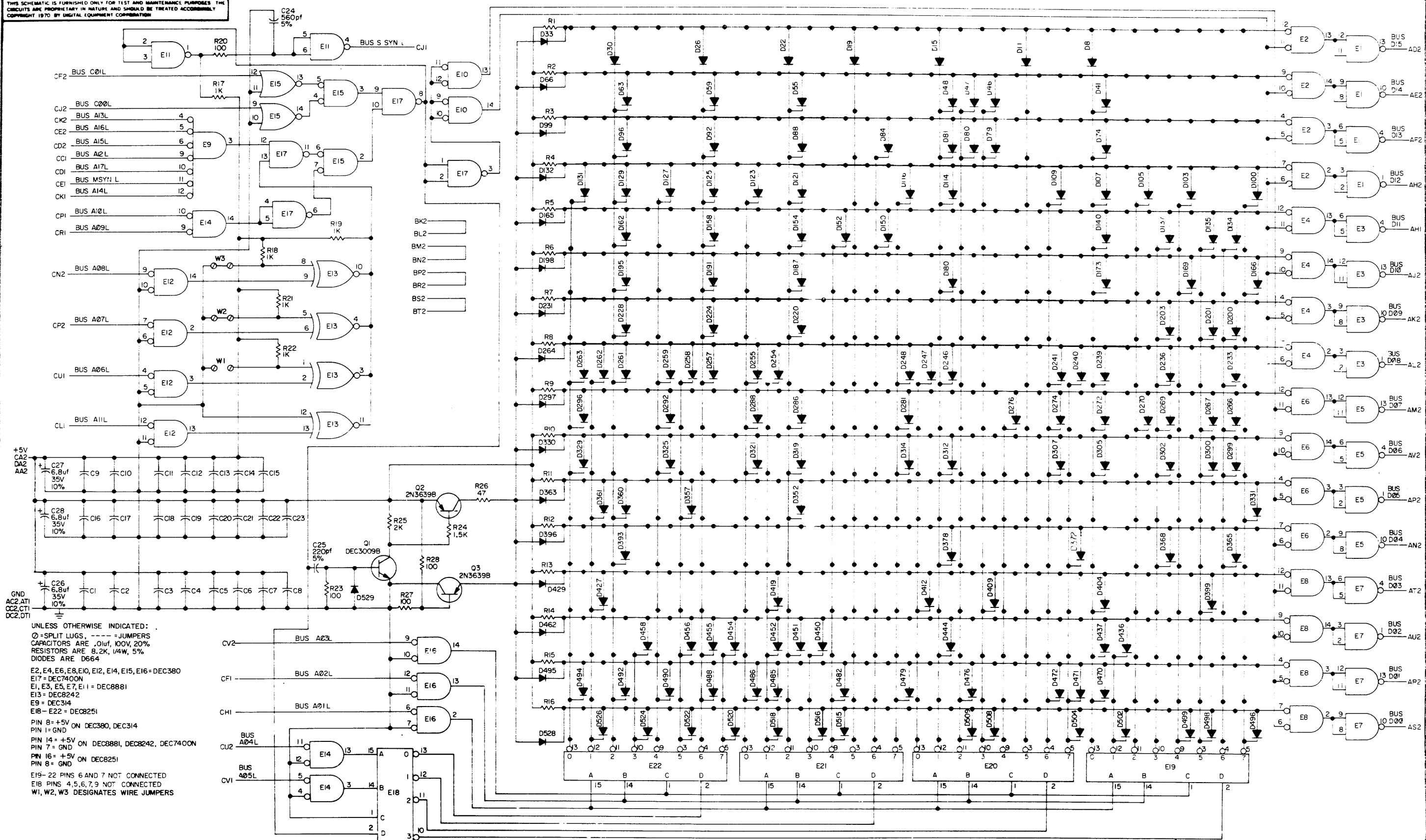
TITLE REV BIONA

SIZE CODE NUMBER REV. 3

BRINING 40 522 16699

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CA 224W 50
3000 1/15



UNLESS OTHERWISE INDICATED:
 ○ = SPLIT LUGS, --- = JUMPERS
 CAPACITORS ARE .01uf, 100V, 20%
 RESISTORS ARE 8.2K, 1/4W, 5%
 DIODES ARE D664

E2, E4, E6, E8, E10, E12, E14, E15, E16 = DEC380
 E17 = DEC7400N
 E1, E3, E5, E7, E11 = DEC8881
 E13 = DEC8242
 E9 = DEC314
 E18 = E22 = DEC8251

PIN 8 = +5V ON DEC380, DEC314
 PIN 1 = GND

PIN 14 = +5V
 PIN 7 = GND ON DEC8881, DEC8242, DEC7400N
 PIN 16 = +5V
 PIN 8 = GND ON DEC8251

E19-22 PINS 6 AND 7 NOT CONNECTED
 E18 PINS 4, 5, 6, 7, 9 NOT CONNECTED
 W1, W2, W3 DESIGNATES WIRE JUMPERS

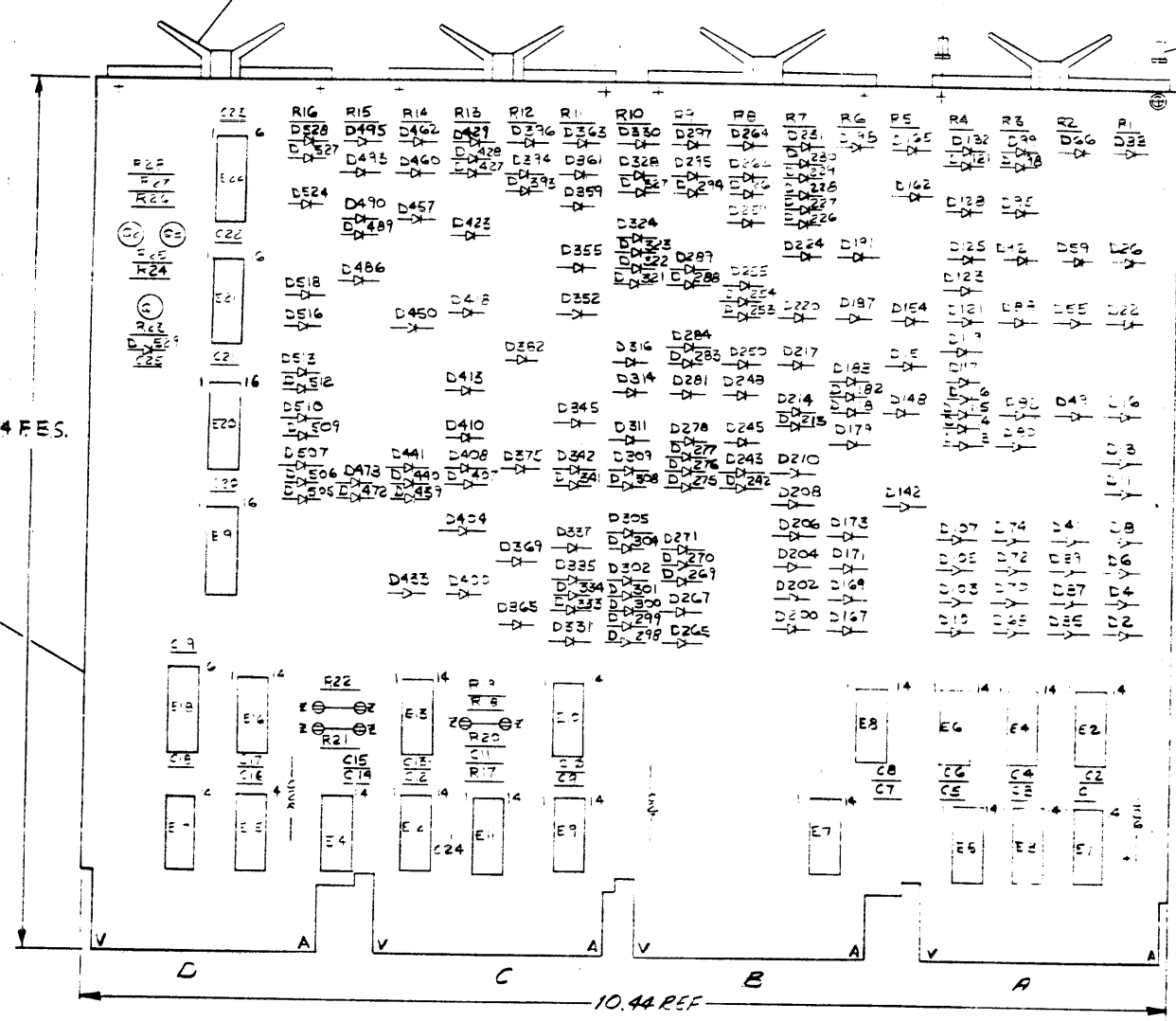
| | | | | |
|------------------------------|------|-------------------------------------|---------|---------------------------|
| REVISIONS CHG/END NO. KEY | DATE | TRANSISTOR & DIODE CONVERSION CHART | | TITLE ROM DIODE MATRIX |
| | 1984 | DEC | EIA | |
| | DATE | DEC3009B | 2N3639B | SIZE CODE D |
| | DATE | 2N3639B | NONE | NUMBER M792-YD-1 |
| | DATE | | | REV B |

PRINTED CIRCUIT REV

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NOTES:
 1. FOR DIODE LOCATIONS SEE ETCH BOARD OVERLAY.
 2. ON ITEM #20 ALL 9 CHIPS MUST BE EITHER DEC 380'S OR ITS SUBSTITUTE, 11380 I.C.'S. COMBINATIONS ARE NOT ALLOWED ON THE SAME OPTION.

| ALLOWABLE SUBSTITUTION LIST | | | |
|-----------------------------|---------------------|-------------|--------|
| ORIG PART # | SUBSTITUTION PART # | DESCRIPTION | ITEM # |
| 209425 | IC 380 | SEE NOTE 2 | 20 |



*SEE ALLOWABLE SUBSTITUTION LIST

| QTY | REF DESIGNATION | DESCRIPTION | PART NO | ITEM NO |
|-----|-----------------------------------|------------------------------|------------------|---------|
| 6 | | SPLIT LUGS | 7002785 | 26 |
| 8 | | EYELET #664-7 EB STAMP CON | 7002782 | 25 |
| 1 | E12 | IC DEC 380 | 1701712 | 24 |
| 5 | E13, E6, E7, E11 | IC DEC 380 | 1701705 | 23 |
| 1 | E9 | IC DEC 314 | 1701704 | 22 |
| 5 | E15-E22 | IC DEC 3251 | 1701594 | 21 |
| 9 | E2, E4, E6, E8, E10, E12, E14-E16 | IC DEC 380 | 1701425 | 20 |
| 1 | E17 | IC DEC 740PN | 1705575 | 19 |
| 1 | Q1 | TRANSISTOR DEC 3009B | 1502100 | 18 |
| 2 | Q2, Q3 | TRANSISTOR 2N3639B | 1502762 | 17 |
| 16 | R1-R16 | RES. 52K 1/4W 5% | 1303179 | 16 |
| 1 | R24 | RES. 1.5K 1/4W 5% | 1300391 | 15 |
| 5 | R17-R19, R21, R22 | RES. 1K 1/4W 5% | 1300365 | 14 |
| 1 | R25 | RES. 2K 1/4W 5% | 1302393 | 13 |
| 4 | R20, R23, R27, R28 | RES. 100Ω 1/4W 5% | 1300229 | 12 |
| 1 | R26 | RES. 47Ω 1/4W 5% | 1300202 | 11 |
| 18 | SEE NOTE #1 | DIODE D664 | 1100114 | 10 |
| 3 | C26-C28 | CAP 6.8UF 25V 10% TANT | 1005006 | 9 |
| 23 | C1-C23 | CAP .01UF 100V 20% | 1001610 | 8 |
| 1 | C24 | CAP 560UF 100V 5% DM | 1005025 | 7 |
| 1 | C25 | CAP 220UF 100V 5% DM | 1005021 | 6 |
| 1 | | ETCHED CIRCUIT BOARD | 5007917 | 5 |
| REF | | MODULE ECO HISTORY | B-MH-1772-1E-6-4 | |
| REF | | ASSY/DRILLING HOLE LAYOUT | D-MH-1772-1E-5-3 | |
| REF | | X-Y COORDINATE HOLE LOCATION | K-LS-1772-1E-4-2 | |
| 4 | | HANDLE, FLIP CHIT, MAGENTA | 7001557-06 | 1 |

| IC TYPE | GND | +5V |
|---------|-----|-----|
| DEC 325 | B | 16 |
| DEC 314 | 1 | 8 |
| DEC 380 | 1 | 8 |

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.

IC PIN LOCATIONS

| CHK | CHANGE NO. | REV |
|-----|------------|-----|
| | | |
| | | |

FIRST USED ON OPTION MODEL 11/45

| DEC NO. | EIA NO. | DEC NO. | EIA NO. |
|---------|---------|-----------|---------|
| 2N3639B | SAME | DEC 3009B | 2N3646 |
| D664 | 1N3606 | | |

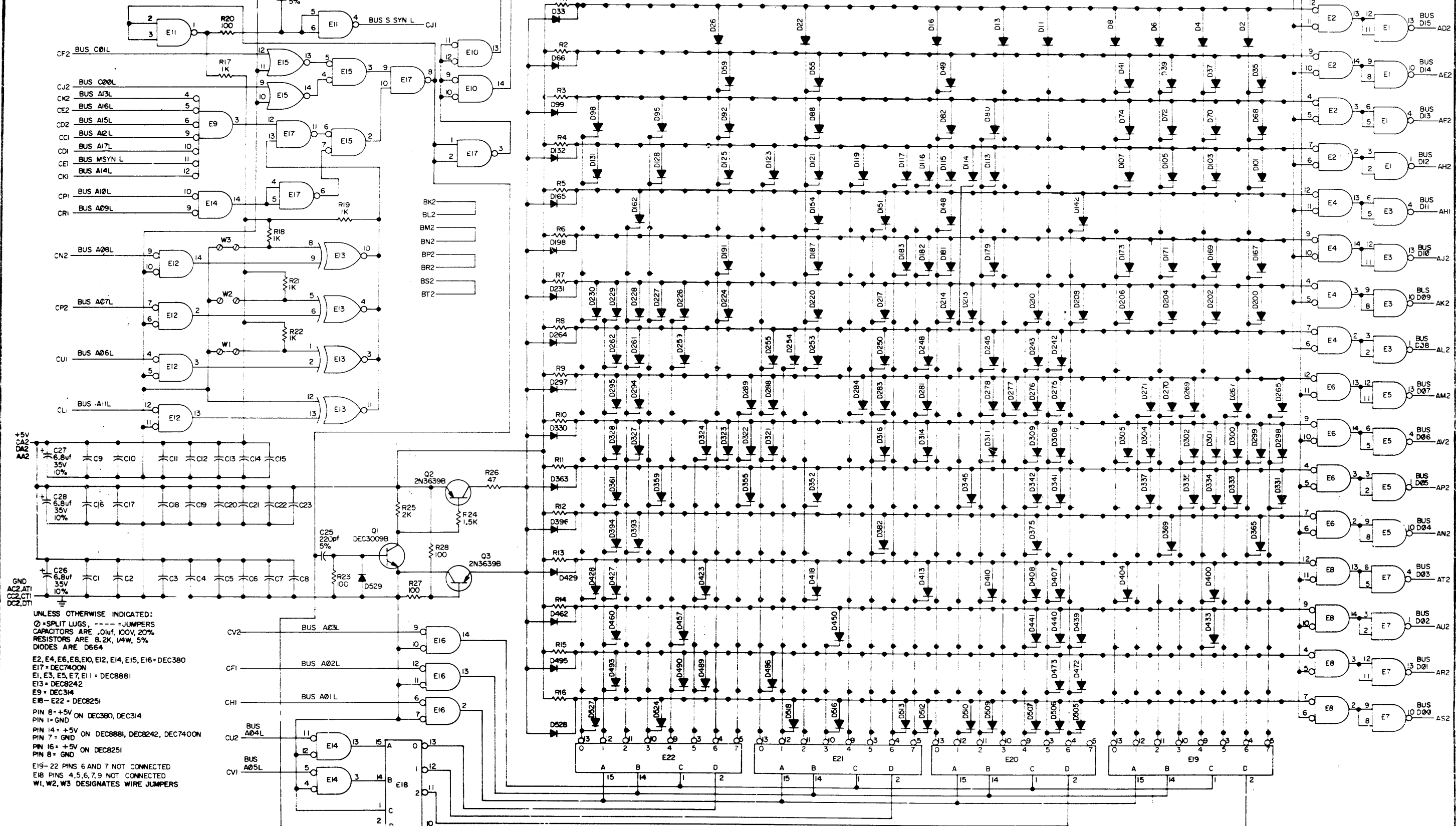
SEMICONDUCTOR CONVERSION CHART

| | | |
|-------------------------------|-------------|--|
| DRN. <i>[Signature]</i> | DATE 5/1/72 | |
| CHK'D. <i>[Signature]</i> | DATE | |
| ENG. <i>[Signature]</i> | DATE | |
| PROJ. ENG. <i>[Signature]</i> | DATE | |
| PROD. <i>[Signature]</i> | DATE | |
| NEXT HIGHER ASSY | | |
| B-DD-MR11-DE | | |
| SCALE | | |
| SHEET 1 OF 2 | DIST | |

SHUNKING 40-322-16699

DEC FORM NO. 080-1154

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UNLESS OTHERWISE INDICATED:
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 RESISTORS ARE 1/4W, 5%
 DIODES ARE D664

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 E17 = DEC7400N
 E1, E3, E5, E7, E11 = DEC8881
 E13 = DEC8242
 E9 = DEC314
 E18 = E22 = DEC8251

PIN 8 = +5V ON DEC380, DEC314
 PIN 1 = GND

PIN 14 = +5V ON DEC8881, DEC8242, DEC7400N
 PIN 7 = GND

PIN 16 = +5V ON DEC8251
 PIN 8 = GND

E19-22 PINS 6 AND 7 NOT CONNECTED
 E18 PINS 4, 5, 6, 7, 9 NOT CONNECTED
 W1, W2, W3 DESIGNATES WIRE JUMPERS

| TRANSISTOR & DIODE CONVERSION CHART | | | |
|-------------------------------------|--------|-----|----|
| DEC | EA | DEC | EA |
| D664 | IN3800 | | |
| DEC3009B | 2N3009 | | |
| 2N3639B | NONE | | |

| | | | |
|------|----------|-----------------------|------------------|
| DATE | 5-8-72 | TITLE | ROM DIODE MATRIX |
| DATE | 8/23/72 | | |
| DATE | DEC3009B | EQUIPMENT CORPORATION | PART NUMBER |
| DATE | 2N3639B | | |
| DATE | 5/28/71 | PRINTED CIRCUIT REV | B C D E |