Multimedia terminals produce tape, cartridge, card and on-line input.

Microprocessors let you perform many computer functions off-line.

Zero-defect computer tape input system lets you record data anywhere—without environmental controls.

Video displays provide fill-in-the-blanks formatting so anyone can prepare and verify computer input.

Desk-top printing robots prepare formatted hard copies from tape, card, cartridge or computer input.

Batch-transmission and unattended operation features allow automatic polling of remote locations.

Addition and Subtraction lets you develop total information.
ROM WORD FORMAT

1 1 0 9 8 7 6 5 4 3 2 1 0

OP 07 LE ADDR
OP 01 SET
EX 101 RESET
111 TEST

OP RAR ADDR JUMP (OP = 00)
OP DATA DATA (OP = 00)
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<td>SWITCH MP09</td>
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<td>OUTPUT CHANNEL SELECT INTERFACE MP11</td>
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**Microprocessor II**

**Industrial Surplus**

**Unusual Hobby Supplies**

**Electronics & Sound**

**Complete Stock of Viatron Parts Available From:**

**Verada 214 Div. Lolar**

**MAIL: P.O. Box 438, Lowell, MA 01852**

**Store: 36 French St., Lowell, MA**

**Phone (978) 482-5013**
INDICATES PIN ASSIGNMENTS NUMBERS
NOTES:
1. CHIP DESIGN MUST INCLUDE THE ENABLING CIRCUITRY
2. CHIPS MUST HAVE THE CAPABILITY OF HAVING THE OUTPUTS PARALLELED WITH OTHER CHIPS OF SAME TYPE.
3. ACCESS < 5.0 μSEC
NOTE: L.CRX = FKA = ROE (ALL CB OUTPUTS WILL BE HIGH WHEN BOTH FKA & ROE ARE LOW)
DOTTED LINES REPRESENT TRACTS TO E POINTS

NOTES:
1. INSTALL ITEM C39 UNDER ALL TRANSISTORS.
2. INSTALL ITEM C30 UNDER Z1, Z2, Z3.
3. MOS DEVICES TO BE INSTALLED AFTER WAVE SOLDERING.
4. USE ITEM 32 #24 AWG STRANDED WIRE FOR JUMPERS E1 TO E1 THRU E9 TO E9.
5. HOLE FOR JUMPER WIRE FROM E9 TO B01.
6. HOLE FOR JUMPER WIRE FROM E9 TO A05.

VERADA 214 Div. LOLAR
PARTS AVAILABLE FROM:
MAIL: P.O. Box 438, Lowell, MA, 01852
STORE: 39 French St., Lowell, MA
Phone (617) 452-5013

INDUSTRIAL SURPLUS
UNUSUAL HOBBY SUPPLIES
ELECTRONICS & SOUND
NOTES:
ALL RESISTORS ARE IN
OHMS 1/2W ±10%
NOTES:
1. INSTALL ITEM 3 UNDER ALL TRANSISTORS
2. INSTALL MOS DEVICES AFTER FLOW SOLDERING
3. INSTALL ITEM XI UNDER ALL MOS DEVICES
4. INSTALL JUMPER WIRE (ITEM 32) TO BOARDS USING FIXED BOARDS ONLY
5. INSTALL JUMPER WIRE AS SHOWN
NOTE
1. INSTALL ITEM (8) UNDER ITEM (2)
2. ITEM (9) POSITIONS TO BE DETERMINED
NOTES:
1. INSTALL MOS DEVICES AFTER FLOW SOLDERING
2. INSTALL ITEM (35) UNDER ALL TRANSISTORS
3. INSTALL ITEM (3) UNDER Z1, Z2, Z4
4. INSTALL ITEM (41) UNDER Z3
5. INSTALL ITEM (43) AS SHOWN
6. FOR SCHEMATIC SEE Dwg. 40099
7. USE ITEM (53) FOR JUMPERS E1 TO E1 THRU E6 TO E6
8. DRILL AT ASSY FOR MTG OF ITEM (52)
   a. .05333 HOLE FOR JUMPERS E4 TO R98
   b. TOP LEAD E5 TO Z4, PIN 13
NOTES:
1. INSTALL ITEM (3) UNDER Q1
2. FOR SCHEMATIC SEE DWG C-19001G.
NOTES:
1. INSTALL ITEM(10) UNDER ITEM(9).
NOTES:
1. NPN TRANSISTORS ARE 2N3903
2. PNP TRANSISTORS ARE 2N3705
3. ALL RESISTORS ARE 3/4W 5%
4. ALL CAPACITORS ARE 0.01µF 50V
5. ALL OTHERS OTHERWISE NOTED
NOTES:
1. ALL RESISTORS 1/4W ± 5% CARBON COMP.
2. ALL SWITCHING WIRES RUNNING NEAR PRE-AMP MUST BE SHIELDED.
NOTES:
1. ALL RESISTORS ARE 1/2 Watt unless otherwise specified.
2. ALL CAPACITORS ARE 0.1 uf unless otherwise specified.
3. POWER SUPPLIES SHOWN IN PICTORIAL ARE IN-WAFF.
4. THERMAL BOLTS ARE TO BE USED AT ALL TIMES.
5. JUMPERS TO BE USED AS OPTION.
NOTES:
1. ALL RESISTORS ARE IN OHMS, ±5%, UNLESS OTHERWISE SPECIFIED.
2. ALL DIODES ARE IN 1N4148 UNLESS OTHERWISE SPECIFIED.
3. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
4. # INDICATES PART OF RCA 3039
NOTES:
1. UNLESS OTHERWISE SPECIFIED
   ALL RESISTORS ARE IN OHMS, 1/4W, 1%
FOR FIELD ENGINEERING PURPOSES ONLY
NOTES
1. INSTALL ITEM 2 WITH SIDES OF SQUARE RECEPTACLE PARALLEL (TOL: ≤5") TO EDGE OF BOARD
2. THE OUTPUT SIGNALS SHALL BE DERIVED FROM A BUFFER SIMILAR TO VIACELL NO. 1104
4. A TRUE ADDRESS HAS 4 '1'S AND 4 '0'S
NOTES:
1. INSTALL ITEM 27 UNDER ALL TRANSISTORS.
2. INSTALL ITEM 9 UNDER 211/2E
3. INSTALL ITEM 9 UNDER 211/5A
4. INSTALL MOS DEVICES AFTER FLOW VOLTAGE.
5. INSTALL ITEMS 306 & 31 AS SHOWN
6. USE ITEM 31 IN LAY-OUT SHOWN.
7. INSTALL ITEM 30 AS SHOWN.
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NOTES:
1. Latch Far Side.
2. Install Item B Under All Transistors.
NOTES
1. CRIMP ITEM 2 AS SHOWN IN DETAIL B WITH CRIMPING TOOL.
2. ALL CHANGES MUST BE MADE TO SCALE 6/1.
3. WIRE LENGTHS SHOWN ARE MINIMUM.
4. MARK BOTH ENDS OF WIRES AS SHOWN USING NUMBERED ADHESIVE TAPE.

WRAP-AROUND MARKERS (ITEM 7)
5. ATTACH TIE STRAPS (ITEM 5) APPROX. 3 IN. APART AS SHOWN.
6. CRIMP ITEM 2 WITH CRIMPING TOOL.
7. WIRE RUNS 2 & 23 TO BE TWISTED FROM POINT WHERE THEY BREAK OUT FROM HARNESS. LAY
8. AN 18" PIECE OF #24 AWG WHITE WIRE (RUN #22)
9. THIS LEAD TO BE SOLDERED TO TOP LEAD OF RESISTOR R5 SCALE 6/1.
10. OPEN SHELL Braid AND TWIST TO FIT INTO ITEM 13, CRIMP USING TOOL (AMP 43939).
11. HEAT SHRINK ITEM 14 OVER ITEM 13 (2 3/4" PIECE).

FOR PARTS LIST SEE PL 129201-00

DETAIL A
2
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11
22
22-4
7-22
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5

VIEW C-C SCALE 6/1

NOTE 4

DETA L B

TYPICAL PIN ASSY SCALE 6/1
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<th>PROGRAM 3501</th>
<th>ROM</th>
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**ASCII/HOLLERITH TRANSLATOR STORAGE PATTERN**

**PRINT NO. 10520(I-4)R**

**TC - 2**

**REV A**

**CHANGED PER ECN NO. 55 SEE SHEETS 2,3,4 3/26/69**

**Page 1 of 4**

**CONTROL NO. 10520**
<table>
<thead>
<tr>
<th>VENDOR</th>
<th>FAIRCHILD</th>
<th>PROGRAM</th>
<th>3501 ROM</th>
<th>T.C.03</th>
<th>PUNCHING INSTRUCTIONS</th>
<th>&quot;1&quot;=Ground</th>
<th>&quot;0&quot;=Vdd</th>
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**PUNCHING INSTRUCTIONS**

- "1"=Ground
- "0"=Vdd
NOTES:
1. INSTALL ITEM 8 UNDER ALL TRANSISTORS
2. FOR SCHEMATIC SEE 140704
NOTE:
IN THIS PACKAGE PIN 1 IS TIED TO THE SUBSTRATE THROUGH THE MOUNTING EPOXY.

MMO5-RS
INTERLEAVE FORMAT

VERT PERIOD: 1/60 sec

LC 7
L01
L-RESET
HS #12
TRANSFER 2,3,4
FORMAT TRANSFER 2,3,4
LC12-RC4
LC12-RC4
RCO
RC1
RC2
RC3
F Q
F C1
F C2
FM
READ REQUEST
WRITE REQUEST
MASTER REQUEST

VERT SYNC
TV HORIZ SYNC
HS 1
EB #1 GATE
#7 PULSE
RECIRCULATE GATE
Ω1 DDG
Ω2 DDG
Ω1 MM
TEST A
TEST B

H PERIOD: (63.1 μsec)

NOTE: CONNECT RSW, WSW, AND MSW TO GROUND.
NOTE:
1. CBX + FKX + RDT (ALL CB OUTPUTS WILL BE HIGH WHEN BOTH PM & RDI ARE LOW)
NOTES:
1. UNLESS OTHERWISE NOTED ALL RESISTORS ARE IN OHM 1/8 W 2% 10%.
2. LI = 57.5 Ω, TAP AT 1 TURN.
3. CHAN "B" NORMALLY USED. CHAN "A", "C", OR "G" CAN ALSO BE USED.
NOTE:
1. 60Hz has a 250 µsec pulse width.
NOTE:
ROM OUTPUTS MUST SOURCE OR SINK ONE MILLIAMPERE.

ROM MEMORY PATTERN
(128 x 8)

BUFFERS

Vee
Vcc
GND

ROM ENABLE
<table>
<thead>
<tr>
<th>TILT MOTION</th>
<th>UPPER CASE</th>
<th>LOWER CASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO</td>
<td>FROM</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>&lt;$#&amp;*SZ@%$&gt;</td>
<td>13784Z25609</td>
</tr>
<tr>
<td>1</td>
<td>BHKENTLCDUX</td>
<td>BHKENTLCDUX</td>
</tr>
<tr>
<td>2</td>
<td>WSI&quot;.&quot;OARVM</td>
<td>wsi&quot;.&quot;oarvm</td>
</tr>
<tr>
<td>3</td>
<td>-YQP+J?; :FG</td>
<td>-YQP=j/; fg</td>
</tr>
<tr>
<td></td>
<td>-543210+12345</td>
<td>-543210+12345</td>
</tr>
</tbody>
</table>

**ROTATE MOTION**
NOTES:
1. INSTALL ITEM (22) UNDER ALL TRANSISTORS.
2. INSTALL ITEM (23) UNDER Z4.
4. INSTALL ITEM (24) UNDER Z1, Z2.
5. ALL MOS DEVICES TO BE INSTALLED AFTER SOLDERING.
6. REMOVE NUT FROM STUD ON ITEM (30) BEFORE ASSY.
NOTES
1. C1 VALUE IS: .01µf FOR NEXT ASSY 109902-00
   .0033µf FOR NEXT ASSY 109902-01
   .001µf FOR NEXT ASSY 109902-02
1. INSTALL ITEM 12 UNDER ITEM 11.
2. INSTALL ITEM 14 (9) PLACES MARKED 'A'.
3. FLOW SOLDER BEFORE INSTALLING 24.
4. INSTALL ITEM 13 (9) PLACES MARKED 'B'.

NOTES:

COMPLETE STOCK OF VIATRON
PARTS AVAILABLE FROM:

VERADA 214 DIV. LOLAR
MAIL: P.O. BOX 438, LOWELL, MA. 01852
STORE: 38 FRENCH ST., LOWELL, MA.
PHONE: (617) 492-8013

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