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Power Input, Clock, NMI, and Watchdog
# MEMORY MAP

<table>
<thead>
<tr>
<th>HEXA-DECIMAL ADDRESS</th>
<th>R/W</th>
<th>DATA</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-3FFF</td>
<td>R</td>
<td>D</td>
<td>1st Priority Z80 CPU ROM (16K)</td>
</tr>
<tr>
<td>0000-1FFF</td>
<td>R</td>
<td>D</td>
<td>2nd Priority Z80 CPU ROM (8K)</td>
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<tr>
<td>0000-0FFF</td>
<td>R</td>
<td>D</td>
<td>3rd Priority Z80 CPU ROM (4K)</td>
</tr>
<tr>
<td>6800-680F</td>
<td>W</td>
<td>D</td>
<td>Audio Control</td>
</tr>
<tr>
<td>6810-681F</td>
<td>W</td>
<td>D</td>
<td>Audio Control</td>
</tr>
<tr>
<td>6820</td>
<td>W</td>
<td>D</td>
<td>0 = Reset IRQ1 (Latched)</td>
</tr>
<tr>
<td>6821</td>
<td>W</td>
<td>D</td>
<td>0 = Reset IRQ2 (Latched)</td>
</tr>
<tr>
<td>6822</td>
<td>W</td>
<td>D</td>
<td>0 = Enable NM13 (Latched)</td>
</tr>
<tr>
<td>6823</td>
<td>W</td>
<td>D</td>
<td>0 = Reset 2nd and 3rd Z80 CPUs (Latched)</td>
</tr>
<tr>
<td>6825</td>
<td>W</td>
<td>D</td>
<td>Custom Chip 53 Mode Control (Latched)</td>
</tr>
<tr>
<td>6826</td>
<td>W</td>
<td>D</td>
<td>Custom Chip 53 Mode Control (Latched)</td>
</tr>
<tr>
<td>6827</td>
<td>W</td>
<td>D</td>
<td>Custom Chip 53 Mode Control (Latched)</td>
</tr>
<tr>
<td>6830</td>
<td>W</td>
<td>D</td>
<td>Watchdog Reset</td>
</tr>
<tr>
<td>7000</td>
<td>R/W</td>
<td>D</td>
<td>Custom Chip 06—Data</td>
</tr>
<tr>
<td>7100</td>
<td>R/W</td>
<td>D</td>
<td>Custom Chip 06—Command</td>
</tr>
<tr>
<td>8000-87FF</td>
<td>R/W</td>
<td>D</td>
<td>2K Playfield RAM</td>
</tr>
<tr>
<td>8880-8BFF</td>
<td>R/W</td>
<td>D</td>
<td>1K Motion RAM (PIC, COLOR)</td>
</tr>
<tr>
<td>9380-93FF</td>
<td>R/W</td>
<td>D</td>
<td>1K Motion RAM (VPOS, HPOS)</td>
</tr>
<tr>
<td>9880-98FF</td>
<td>R/W</td>
<td>D</td>
<td>1K Motion RAM (FLIP)</td>
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<tr>
<td>A000</td>
<td>W</td>
<td>D</td>
<td>Playfield Select (Latched)</td>
</tr>
<tr>
<td>A001</td>
<td>W</td>
<td>D</td>
<td>Playfield Select (Latched)</td>
</tr>
<tr>
<td>A002</td>
<td>W</td>
<td>D</td>
<td>Alphanumeric Color Select (Latched)</td>
</tr>
<tr>
<td>A003</td>
<td>W</td>
<td>D</td>
<td>Playfield Enable (Latched)</td>
</tr>
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<td>A004</td>
<td>W</td>
<td>D</td>
<td>Playfield Color Select (Latched)</td>
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<tr>
<td>A005</td>
<td>W</td>
<td>D</td>
<td>Playfield Color Select (Latched)</td>
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<tr>
<td>A007</td>
<td>W</td>
<td>D</td>
<td>Flip Video</td>
</tr>
<tr>
<td>B800-B83F</td>
<td>W</td>
<td>D</td>
<td>Write EAROM Address and Data</td>
</tr>
<tr>
<td>B800</td>
<td>R</td>
<td>D</td>
<td>Read EAROM Data</td>
</tr>
<tr>
<td>B840</td>
<td>W</td>
<td>D</td>
<td>Write EAROM Control</td>
</tr>
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**Dig Dug Game PCB Schematic Diagram**

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SP-203 Sheet 4A
2nd printing 4L
Address Decoder

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Dig Dug Game PCB Schematic Diagram

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Motion Object Address Generator, Decoder, and Match Line Flag
Motion Object RAM

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Dig Dug Game PCB Schematic Diagram

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SP-203 Sheet 7B
2nd printing 4L
MOP0 through MOP7 - Motion Object
V and H Position Data.
MOBJA0 through MOBJA7 - Motion
Object Picture Address.
MOBJ0 through MOBJ3 - Motion Object Output.

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Video Output

Dig Dug Game PCB Schematic Diagram

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Dig Dug Game PCB Schematic Diagram

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Schematic Notes

Unless otherwise specified:
- Resistance: (Ω) (K=1KΩ, M=1MΩ), 1/4 (W) carbon resistor
- Capacitance: 1 or higher → (pF), less than 1 → (µF)
- Working voltage → 50 (V)
- Ceramic capacitor
- Inductance: (H)
- Electrolytic Cap: Capacitance Value (µF)/working voltage (V), NP → non-polar (or bipolar) electrolytic cap.

Refer to the parts list for additional component information.

@ indicates test point connection
△ indicates chassis ground unless otherwise specified
Hz indicates cycles per second

For safety purposes (and continuing reliability):
△ replace all components marked with safety symbol with identical type.

NOTE: FR → fusible resistor 1-300W

Parts identification on circuit boards:
e.g. SU1126A (R107 = R1107)
SU3030A (R113 = R3113)