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Schematic Package Supplement to Pole PositionTM
Operation, Maintenance, and Service Manual

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## MEMORY MAP

### CPU 1 AND 2

<table>
<thead>
<tr>
<th>HEXADECIMAL ADDRESS</th>
<th>READ/ WRITE</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-1FFF</td>
<td>R</td>
<td>Program Memory</td>
</tr>
<tr>
<td>2000-2FFF</td>
<td>R</td>
<td>Program Memory</td>
</tr>
<tr>
<td>3000-3FFF</td>
<td>RW</td>
<td>Battery Back-Up RAM</td>
</tr>
<tr>
<td>4000-43FF</td>
<td>RW</td>
<td>Motion Object Memory</td>
</tr>
<tr>
<td>4780-47FF</td>
<td>RW</td>
<td>Motion Object Memory</td>
</tr>
<tr>
<td>4800-48FF</td>
<td>RW</td>
<td>Road Memory</td>
</tr>
<tr>
<td>4400-47FF</td>
<td>RW</td>
<td>Road Memory</td>
</tr>
<tr>
<td>4C00-5FF</td>
<td>RW</td>
<td>Alphanumeric Memory</td>
</tr>
<tr>
<td>5000-5FF</td>
<td>RW</td>
<td>Alphanumeric Memory</td>
</tr>
<tr>
<td>8000-83FF</td>
<td>RW</td>
<td>Sound Memory</td>
</tr>
<tr>
<td>9000</td>
<td>RW</td>
<td>4-Bit CPU Controller</td>
</tr>
<tr>
<td>A000</td>
<td>RW</td>
<td>Input/Output</td>
</tr>
<tr>
<td>A000</td>
<td>W</td>
<td>lR2 Enable</td>
</tr>
<tr>
<td>A000</td>
<td>R</td>
<td>Bit 0: Not Used</td>
</tr>
<tr>
<td>A001</td>
<td>W</td>
<td>4-Bit CPU Enable</td>
</tr>
<tr>
<td>A002</td>
<td>W</td>
<td>Sound Enable</td>
</tr>
<tr>
<td>A003</td>
<td>W</td>
<td>ADC Input Select</td>
</tr>
<tr>
<td>A004</td>
<td>W</td>
<td>CPU 1 Enable</td>
</tr>
<tr>
<td>A005</td>
<td>W</td>
<td>CPU 2 Enable</td>
</tr>
<tr>
<td>A006</td>
<td>W</td>
<td>Start Switch</td>
</tr>
<tr>
<td>5007</td>
<td>W</td>
<td>Color Enable</td>
</tr>
<tr>
<td>100</td>
<td>W</td>
<td>Watchdog Reset</td>
</tr>
<tr>
<td>A200</td>
<td>W</td>
<td>Car Sound (Lower Nybble)</td>
</tr>
<tr>
<td>A300</td>
<td>W</td>
<td>Car Sound (Upper Nybble)</td>
</tr>
</tbody>
</table>

### Schematic Reference Designators and Symbols

Logic symbols depict the logic function performed by that particular device and may differ from the manufacturer’s data.

### REFERENCE DESIGNATORS:

- C: Capacitor
- CR: Diode, signal or rectifier
- F: Fuse
- J: Connector
- L: Inductor, fixed or variable
- LS: Speaker
- P: Connector
- Q: Transistor or silicon-controlled rectifier
- R: Resistor, fixed or variable
- S: Switch
- T: Transformer
- TP: Twisted wire pair
- VR: Voltage regulator
- Y: Crystal
- V: Violet
- BU: Blue
- BW: Brown
- BK: Black
- OR: Orange
- GN: Green
- Y: Yellow
- W: White
- R: Red
- PY: Gray

### WIRE COLORS:

- R: Red
- GN: Green
- Y: Yellow
- W: White
- BU: Blue
- BW: Brown
- BK: Black
- OR: Orange
- V: Violet
- PY: Gray

Electrical components shown on the schematic diagrams are in the following units unless otherwise noted:

- Capacitors: microfarads (µF)
- Resistors: ohms (Ω)
- Inductors: microhenrys (µH)

### SYMBOLS:

- Ground
- Test Point
- PCB edge connector pad

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**Pole Position Memory Map and Schematic Notes:**

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4th printing