### SWITCH MATRIX GRID, DEDICATED SWITCHES & LOCATIONS

<table>
<thead>
<tr>
<th>Column (Switch)</th>
<th>Row (Terminal)</th>
<th>Switch Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: U400</td>
<td>1</td>
<td>Cabinet Side</td>
<td>Switch 1</td>
</tr>
<tr>
<td>2: U400</td>
<td>2</td>
<td>Coin Door</td>
<td>Switch 2</td>
</tr>
<tr>
<td>3: U400</td>
<td>3</td>
<td>5th Coin Slot</td>
<td>Switch 3</td>
</tr>
<tr>
<td>4: U400</td>
<td>4</td>
<td>6th Coin Slot</td>
<td>Switch 4</td>
</tr>
<tr>
<td>5: U400</td>
<td>5</td>
<td>Coin Slot</td>
<td>Switch 5</td>
</tr>
<tr>
<td>6: U400</td>
<td>6</td>
<td>Coin Slot</td>
<td>Switch 6</td>
</tr>
<tr>
<td>7: U400</td>
<td>7</td>
<td>Cabinet Side</td>
<td>Switch 7</td>
</tr>
<tr>
<td>8: U400</td>
<td>8</td>
<td>Cabinet Side</td>
<td>Switch 8</td>
</tr>
</tbody>
</table>

**Switch Part Notes:**
- You Coin Switch is 180-5091-00. Part Numbers which start with 515- or 500- include the bracket, target, and housing.
- Switches 14, 15, 18, 23, 24, 41, 42 & 43 Part Numbers.
- Terminal & Receiver OPTO PC Boards are used as Switches. Transmitter: 515-0172-00 (Sw. 14 & 15); Receiver: 515-0174-00 (Sw. 14 & 15); Transmitter: 500-6775-00 (Dots, Flipper) Transmitter: 500-6774-00 (Sw. 18, 19 & 20). Transmitter: 500-6774-00 (Sw. 18, 19 & 20). Sw. 56 Part Note: The SW is comprised of a Hanger Bracket (505-5019-00) and Contact Wire (500-7663-00) located in the Cabinet. Some Switch Diodes may be located under the playfield in the Cabinet or on the Coin Door. Some Switches may be located under the playfield or on Terminal Strips or Diode Boards and not on the assemblies. DOTS: 2 wire, 2 terminal, 1 tap, see Sec. 6, Chap 2, Playfield Wiring. 

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**Playfield ▲**

- = Switches above Playfield.
- = Switches below Playfield.
- = Switches not on Playfield.

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**Find-It-In-Front: Dr. Pinball**
**LAMP MATRIX GRID & LOCATIONS**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<tr>
<td>Row (COLUMN)</td>
<td>F</td>
<td>R</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>1: Q33</td>
<td>RED-BRN</td>
<td>J13-P9</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
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<td>2: Q34</td>
<td>RED-BLK</td>
<td>J12-P2</td>
<td>#555 Bulb</td>
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<tr>
<td>3: Q35</td>
<td>RED-ORG</td>
<td>J12-P3</td>
<td>#555 Bulb</td>
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<tr>
<td>4: Q36</td>
<td>RED-YEL</td>
<td>J12-P4</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
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<td>#555 Bulb</td>
<td>#555 Bulb</td>
</tr>
<tr>
<td>5: Q37</td>
<td>RED-GRN</td>
<td>J12-P5</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
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</tr>
<tr>
<td>6: Q38</td>
<td>RED-BLU</td>
<td>J12-P6</td>
<td>#555 Bulb</td>
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<tr>
<td>7: Q39</td>
<td>RED-VIO</td>
<td>J13-P8</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
</tr>
<tr>
<td>8: Q40</td>
<td>RED-GRY</td>
<td>J13-P9</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
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<tr>
<td>9: Q41</td>
<td>RED-WHT</td>
<td>J12-P10</td>
<td>#555 Bulb</td>
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<tr>
<td>10: Q42</td>
<td>RED</td>
<td>J12-P11</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
<td>#555 Bulb</td>
</tr>
</tbody>
</table>

**Playfield ▲ ▼ Backpanel**

- **Lamps above Playfield.**
- **Lamps below Playfield.**
- **Lamps not on Playfield.**

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**Find-It-In-Front:** Dr. Pinball

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**Backbox**

- Lamps not on or with the Lamp Socket.
- Lamps on Terminal Strips and not on Playfield.
- Lamps above, below, or on Playfield.

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**In LAMP MENU also select:** Test ALL LAMPS, ROW & COLUMN LAMP TESTS.

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**Lamp Part Notes:** #555 Bulb Clear = 165-5002-00. #44 Bulb Clear = 165-5001-04. See Section 4, Chapter 1, Parts Identification & Location. Pages 71/74 for more details on bulbs and corresponding sockets. Some Lamp Diods may be located under the playfield, in the Cabinet or Backbox on Terminal Strips and not on or with the Lamp Socket. DOT: #1, #2, #3, etc., see Sec. 5, Chapter 2, Playfield Wiring.
COIL & FLASH LAMP LOCATIONS

Typical Switch Wiring & Schematic

Dedicated Switch Schematic

Typical Lamp Wiring & Schematic

Typical Coil Wiring

Find-It-In-Front:
Dr. Pinball

RIPPLES
Believe It or Not!

DOTS: D ide O n T erminal $ trip See Section 5, Chapter 2, Playfield Wiring.

Diode

Coil Q24 is Optional. If either a Coin Meter, Token Dispenser or Knocker (all optional equipment) is required, call Technical Support for more information, 1-800-542-5377 or 1-708-345-7700.

Some Coil or Flash Lamp Diodes may be located under the playfield, in the Cabinet or Backbox on Terminal Strips or Diode Boards and not on the assemblies.

= Coils / Flash Lamps above Playfield.
= Coils / Flash Lamps below Playfield.
= Coils / Flash Lamps not on Playfield.
= Color of Mini-Mars of Flash Lamp Bulb.

Coil Q24 is Optional. If either a Coin Meter, Token Dispenser or Knocker (all optional equipment) is required, call Technical Support for more information, 1-800-542-5377 or 1-708-345-7700.

Find-It-In-Front:
Dr. Pinball

RIPPLES
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