QEL Wiring and Configuration
Instructions with 900-2Q

⚠️ DANGER: ⚠️
To avoid risk of electric shock, turn off AC power to power supply before installing or wiring option board

Note:
1. QEL must be powered by a PS900-Series Power Supply with 900-2Q board
2. QEL requires 18AWG minimum wire. Maximum wire run is 200’ between power supply and QEL device.
3. QEL will NOT operate with a Von Duprin “4RL” or “2RS” power supply board.

900-2Q Specifications:

<table>
<thead>
<tr>
<th>Input/Output</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs I₁, I₂</strong></td>
<td>Dry Contacts required (Closed = Active) Connect control contacts between SC (Signal Common) and any input</td>
</tr>
<tr>
<td><strong>Outputs O₁, O₂</strong></td>
<td>24VDC, 3A (wet) when AC powered 19.2-26.4VDC when battery powered May be used with PS914 to power EL device at 24VDC, 16A, 300ms Maximum load cannot exceed power supply ratings or 3A for outputs combined</td>
</tr>
<tr>
<td><strong>Board Input Power</strong></td>
<td>Board requires 0.08A max. of power supply output current to operate</td>
</tr>
<tr>
<td><strong>Temperature Range</strong></td>
<td>32°-120° F (0°- 49° C)</td>
</tr>
<tr>
<td><strong>Compliance</strong></td>
<td>UL 294, ULC-S318, RoHS, &amp; FCC Part 15</td>
</tr>
<tr>
<td><strong>Fire Alarm Input</strong></td>
<td>Accepts 900-FA Fire Alarm Board (Optional)</td>
</tr>
</tbody>
</table>

Refer to installation instructions for compatible supply models - PS902, PS904, PS906, and PS914.

1 DRILL WIRE ACCESS HOLE

1a

1b

1c

Drill ⁵⁄₁₆” dia. access hole through device side of door.

1d

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2 ROUTE TWO WIRES FROM QEL EXIT DEVICE TO POWER SUPPLY

QEL Electrical Load

| Voltage: 24 VDC | Current: 2 A inrush (0.5 sec.) | 0.35 A holding |

18 AWG required
Maximum distance = 200’

3 INSTALL 900-2Q OPTION BOARD(S) INTO POWER SUPPLY

3a Review Available 900-2Q Mounting Locations (Gray)

3b Plug 2Q Cable into any Available Option Connector

PS902
1 900-2Q Board (2 QELs) max

PS904, 914
2 900-2Q Boards (4 QELs) max

PS906
3 900-2Q Boards (6 QELs) max

3c Secure Board(s) with Screws

Note:
Power supply model needs to be set to 24VDC to operate this device
4 CONNECT INPUT AND OUTPUT WIRES TO 900-2Q OPTION BOARD

- QEL requires 18AWG minimum wire.
- Maximum wire run is 200' between power supply and QEL device.
- Maximum of 2 QEL devices per 900-2Q board.
- For auto operator with unlock delay of 1 second or less, connect both QEL to output 1.

Sequential Mode - Typical Wiring

![Wiring Diagram]

Individual Mode - Typical Wiring

![Wiring Diagram]

5 APPLY POWER TO POWER SUPPLY. IF 900-BB IS USED, THEN RECONNECT BATTERIES

6 SET TIME DELAYS ON 900-2Q BOARD

![Time Delay Diagram]

1. For example, 2 flashes = 10 seconds. If no delay has been set, no flashes will be displayed.

2. For example, 2 presses = 10 seconds. (Minimum time delay 5 seconds) (Maximum time delay 60 seconds) (Adjustable in 5 second increments)
7 CHECK OPERATION

a. Activate input(s) and verify all QEL devices operate properly.
   NOTE: During the first activation, each device will perform a self calibration. This is normal.
b. Check LED on the 900-2Q board for the following indications:

<table>
<thead>
<tr>
<th>Output LEDs on 900-2Q Board</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Input active</td>
</tr>
<tr>
<td>Flashing</td>
<td>Input has been released, and time delay is running</td>
</tr>
</tbody>
</table>

c. If any device does not operate properly, see step 8 for troubleshooting.

8 IF NECESSARY, TROUBLESHOOT OPERATION

Maintain input and then check for the following indications:
NOTE: The setup LED flashes slowly to indicate 900-2Q board is powered.

<table>
<thead>
<tr>
<th>If Output LED on 900-2Q Board is:</th>
<th>and LED on Device is:</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Off</td>
<td>Problem with input wiring or input device</td>
</tr>
<tr>
<td>Solid</td>
<td>Off</td>
<td>Problem with wiring between power supply and exit device</td>
</tr>
<tr>
<td>Solid</td>
<td>Solid green</td>
<td>No detectable failures</td>
</tr>
<tr>
<td>Solid</td>
<td>Flashing green</td>
<td>Adjustment in progress</td>
</tr>
<tr>
<td>Solid</td>
<td>Solid red</td>
<td>Pushpad may vibrate when powered. This indicates that rods or mortise lock are misadjusted. See rod or mortise lock adjustment in installation instructions. If necessary, go to <a href="http://www.vonduprin.com/installation_instruction_library.asp">www.vonduprin.com/installation_instruction_library.asp</a> or contact Technical Services at 1-877-671-7011</td>
</tr>
<tr>
<td>Solid</td>
<td>Flashing red</td>
<td>Contact Technical Services at 1-877-671-7011</td>
</tr>
<tr>
<td>Solid</td>
<td>Flashing green/red</td>
<td>Excessive tamper (automatically clears after 2 minutes)</td>
</tr>
</tbody>
</table>

9 REINSTALL COVER AND END CAP

NOTE: WHEN INSTALLATION IS COMPLETE, SECURE ENCLOSURE DOOR WITH SCREWS OR KEYLOCK