



941016-00

# VON DUPRIN®

## QEL Wiring and Configuration Instructions



To avoid risk of shock, disconnect AC power from PS873 before installing or wiring logic boards.

If using 873-BB Battery Backup option, unplug all four wires from battery terminals before installing or wiring logic boards.

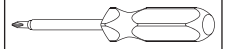


1. QEL must be powered by a PS873 with 871-2Q board.
2. The 871-2Q board has "871-2Q" stamped on the right side.
3. QEL requires 18AWG minimum wire. Maximum wire run is 200' between power supply and QEL device.
4. Up to 4 QEL devices can be powered from a PS873. (Two 871-2Q boards required when powering 3 or 4 QEL devices from a PS873.)
5. QEL will NOT operate with a Von Duprin "4TD" power supply board.
6. If Using 873-BB Battery Backup, set board to 24 V.

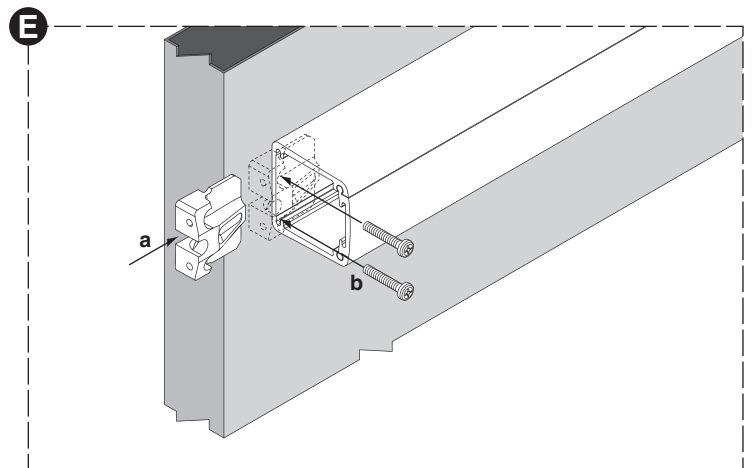
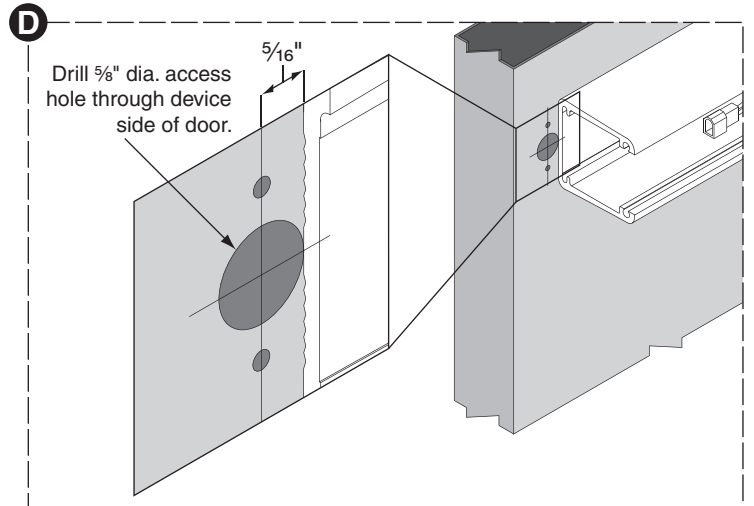
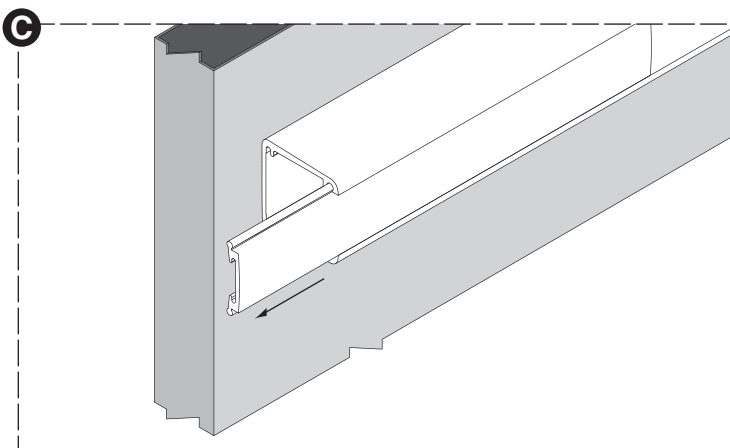
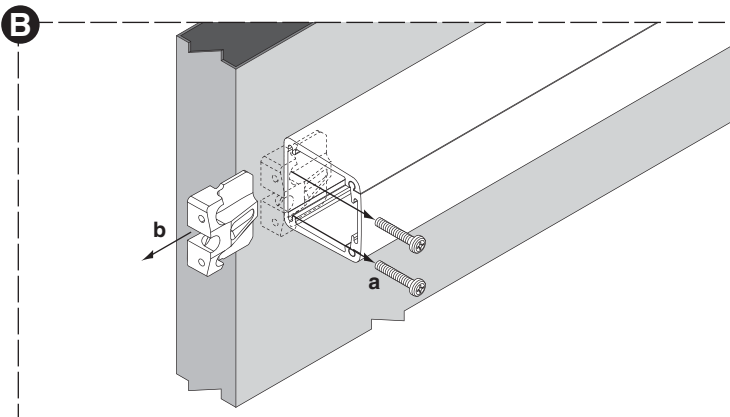
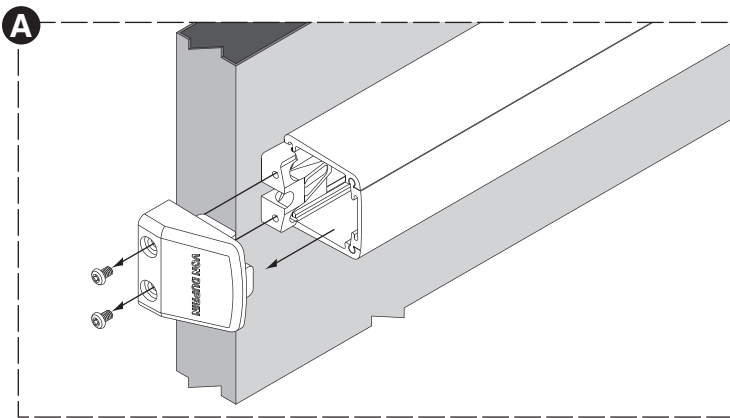
### Tools for Install



5/8" Drill Bit



### 1 Drill Wire Access Hole



## 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'

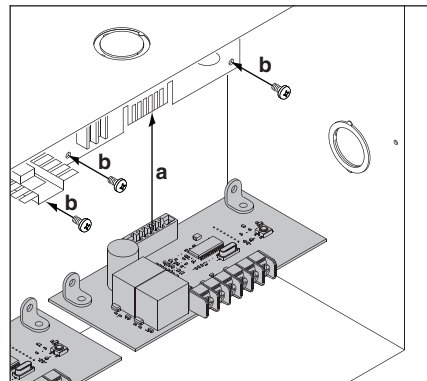
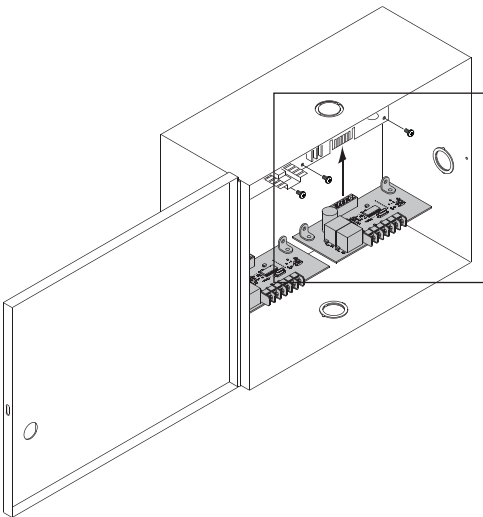
PS873 Power Supply  
with 871-2Q Option Board

Electric Power  
Transfer

QEL Exit  
Device

## 3 Install 871-2Q Option Boards into PS873 Power Supply

Note: Up to two 871-2Q boards may be installed per power supply

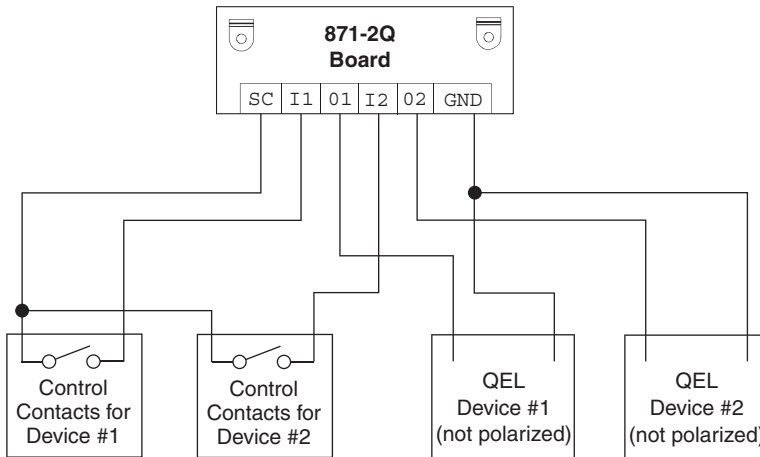


## 4 Connect Input and Output Wires to 871-2Q Option Board

- QEL requires 18AWG minimum wire.
- Maximum wire run is 200' between power supply and QEL device.
- Maximum of 2 QEL devices per 871-2Q board.

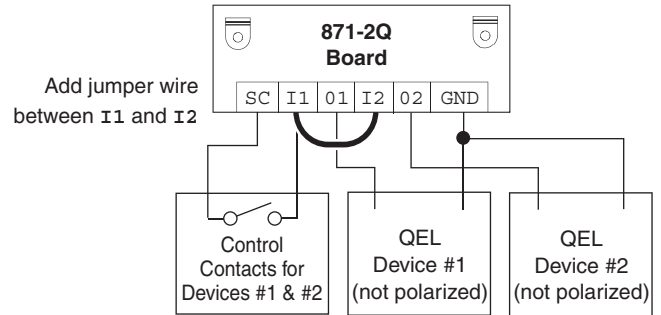
### Individual Mode - Typical Wiring

Input 1 will activate output 1  
Input 2 will activate output 2



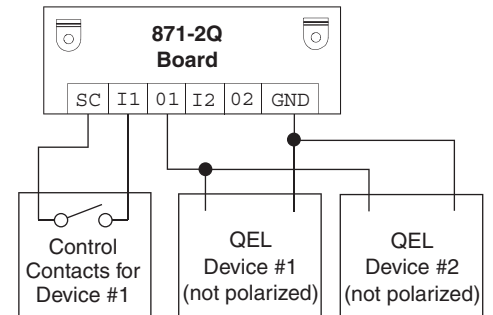
### Sequential Mode - Typical Wiring

Input 1 will activate both outputs



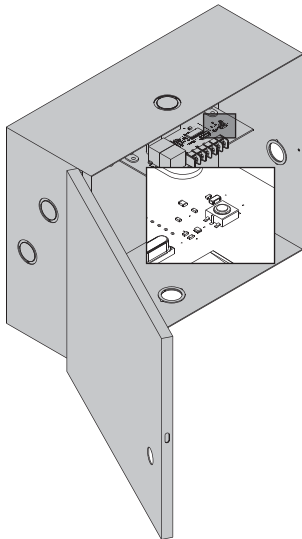
### Simultaneous Mode - Typical Wiring

For auto operator with unlock delay of 1 second or less

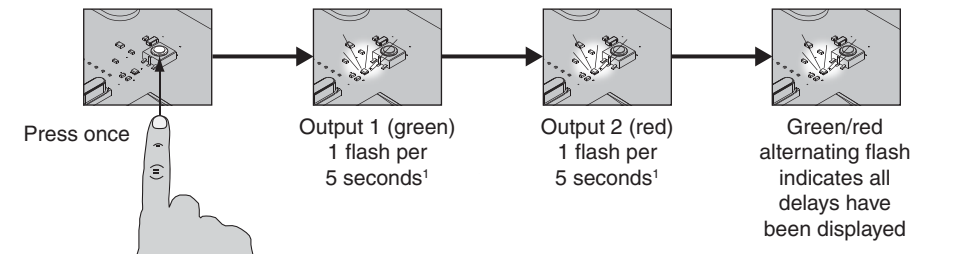


## 5 Apply power to power supply. If 873-BB is used, then reconnect batteries.

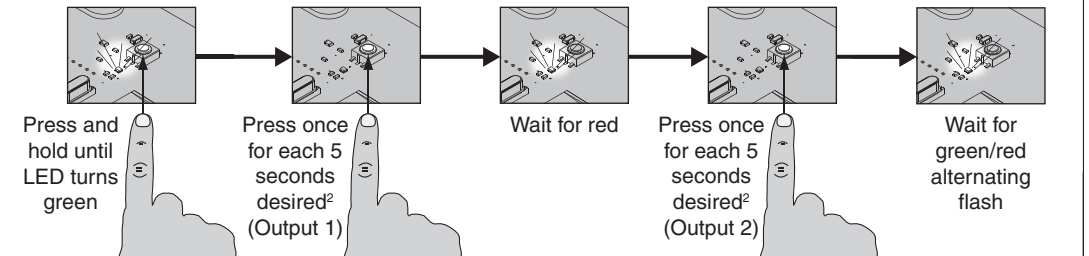
## 6 Set Time Delays on 871-2Q Board



### View Current Time Delays



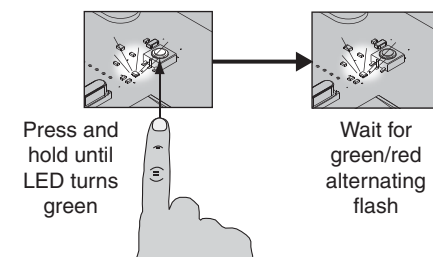
### Set Delay(s)



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.

### Set All Delay(s) to Zero (0) Seconds.



## 7 Check Operation

- 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.
- Check LED on the 871-2Q board for the following indications:

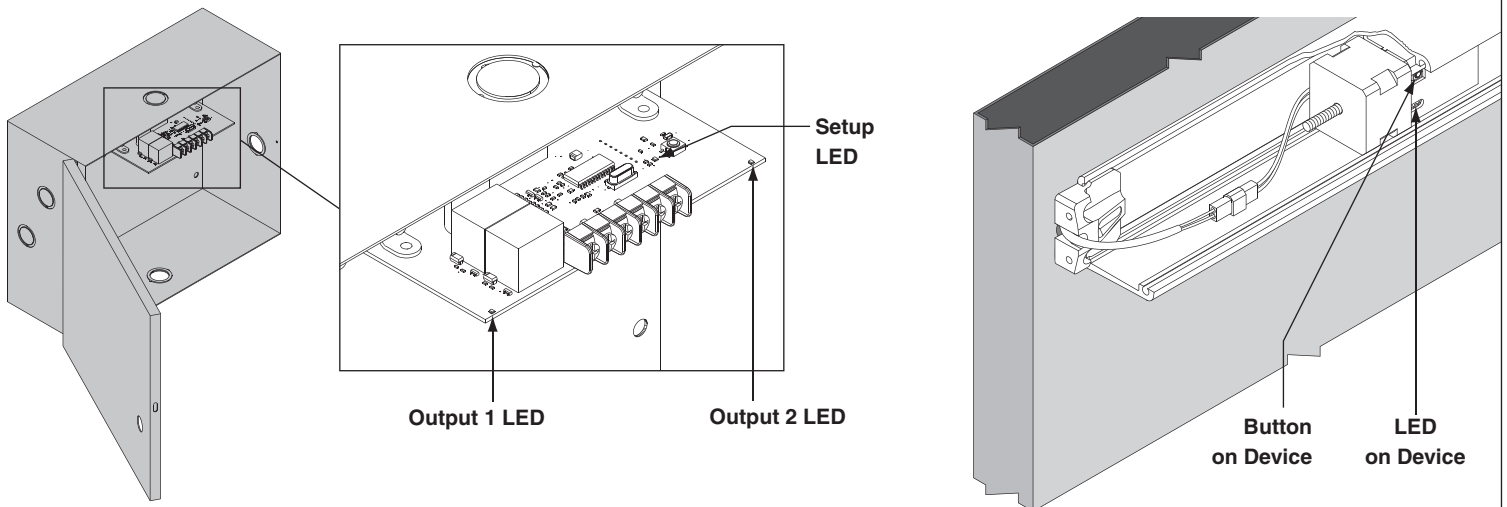
| Output LEDs on Q871-2Q Board | Indication   |
|------------------------------|--|
| Solid                        | Input active                                       |
| Flashing                     | Input has been released, and time delay is running |

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

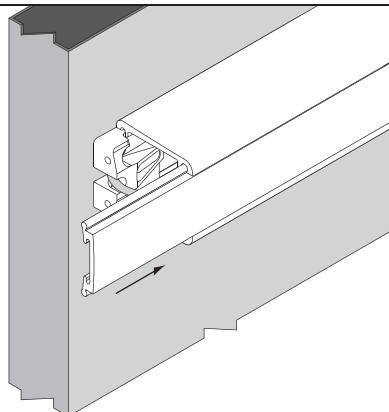
## 8 If Necessary, Troubleshoot Operation

- Maintain input and then check for the following indications:  
NOTE: The setup LED flashes slowly to indicate 871-2Q board is powered.

| If Output LED on Q871-2Q Board is: | and LED on Device is: | Indication   |
|------------------------------------|-----------------------|--|
| Off                                | Off                   | Problem with input wiring or input device  |
| Solid                              | Off                   | Problem with wiring between power supply and exit device   |
| Solid                              | Solid green           | No detectable failures   |
| Solid                              | Flashing green        | Adjustment in progress   |
| Solid                              | Solid red             | <b>Pushpad may vibrate when powered.</b> 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 1-888-371-7331 |
| Solid                              | Flashing red          | Contact Technical Services at 1-888-371-7331   |
| Solid                              | Flashing green/red    | Excessive tamper (automatically clears after 2 minutes)  |



## 9 Reinstall Cover



## 10 Reinstall End Cap

