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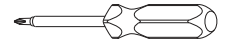
VON DUPRIN®

QEL Wiring and Configuration Instructions

Tools for Installation



5/8" Drill Bit



⚠ DANGER:

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

Note:

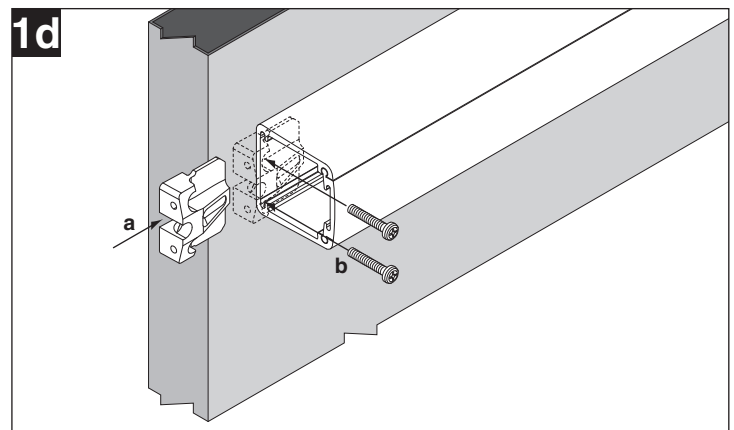
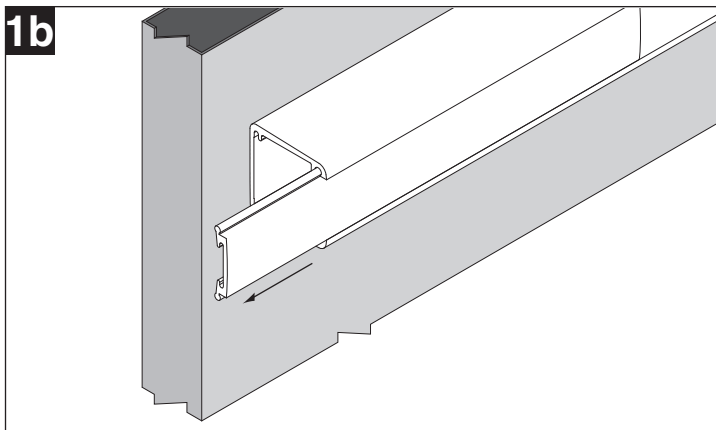
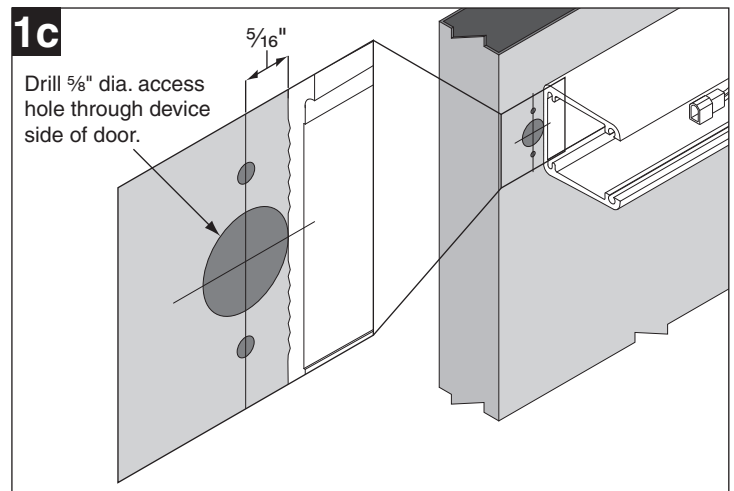
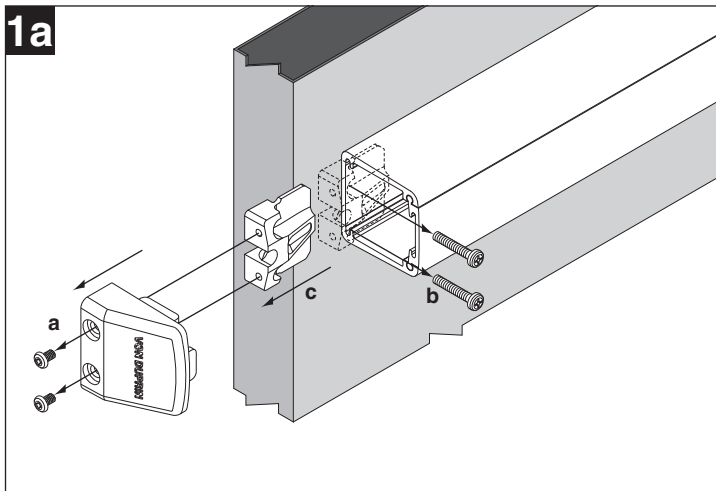
The QEL is compatible with the following equipment (refer to individual instructions as needed):

PS900-Series power supplies - PS902, PS904, PS906, PS914 (see section 3 for application notes)

900-Series option boards - 900-2RS, 900-4R, 900-4RL, 900-2Q

PS873 power supply plus 871-2, 871-2Q, 873-4TD/AO option boards

1 DRILL WIRE ACCESS HOLE



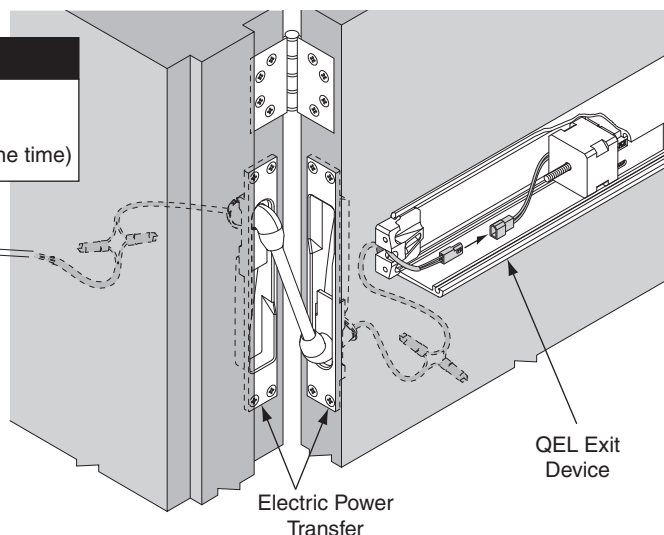
2 ROUTE TWO WIRES FROM QEL EXIT DEVICE TO POWER SUPPLY

PS900 series power supply
with 900 series option
board(s) installed

QEL Electrical Load

Voltage: 1.4 A inrush (0.5 sec)
Current: 0.14 A holding
2.0 A calibrate (3 sec, one time)

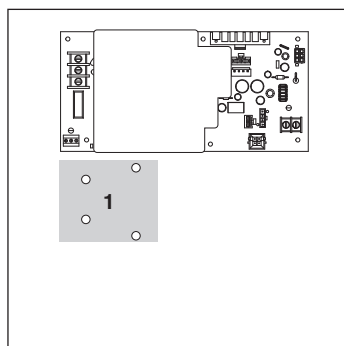
Distance (one way)	Wire Gauge
200'	18AWG
320'	16AWG
500'	14AWG
800'	12AWG



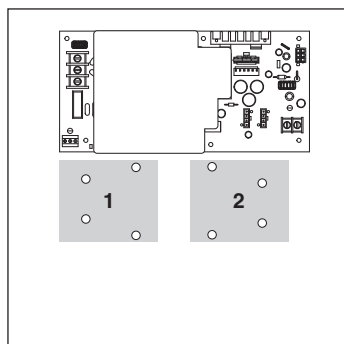
3 INSTALL 900-2RS, 4RL, OR 4R OPTION BOARD(S) INTO POWER SUPPLY

3a Review Available 900 series Option Board Mounting Locations (Gray)

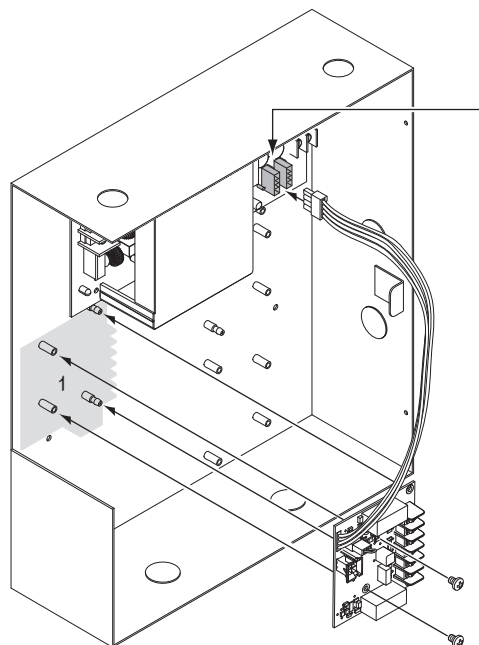
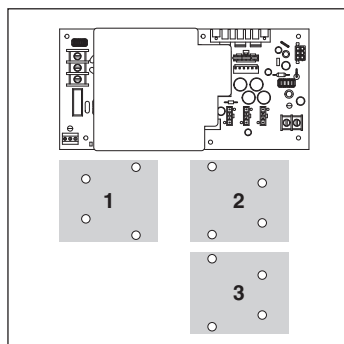
PS902



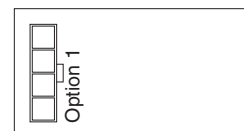
PS904
PS914



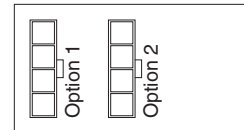
PS906



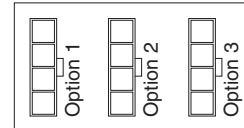
3b Plug Option Board Cable into any Available Option Connector



PS902
1 Board



PS904, 914
2 Boards



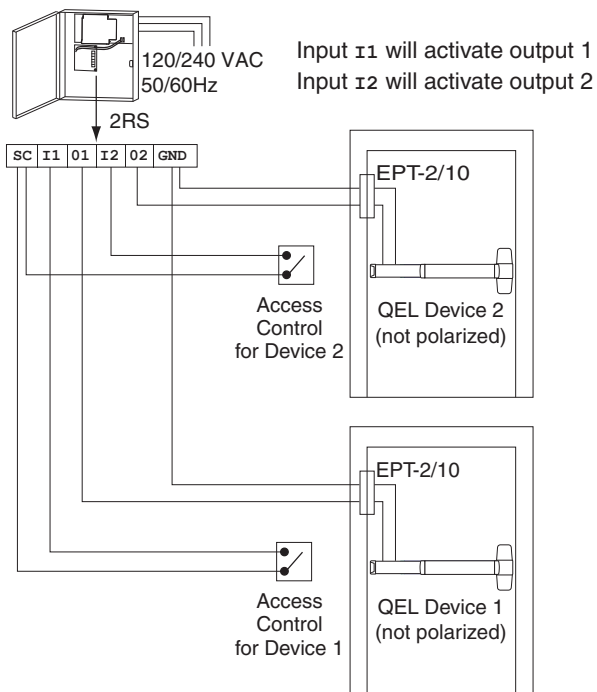
PS906
3 Boards

3c Secure Board(s) with Screws

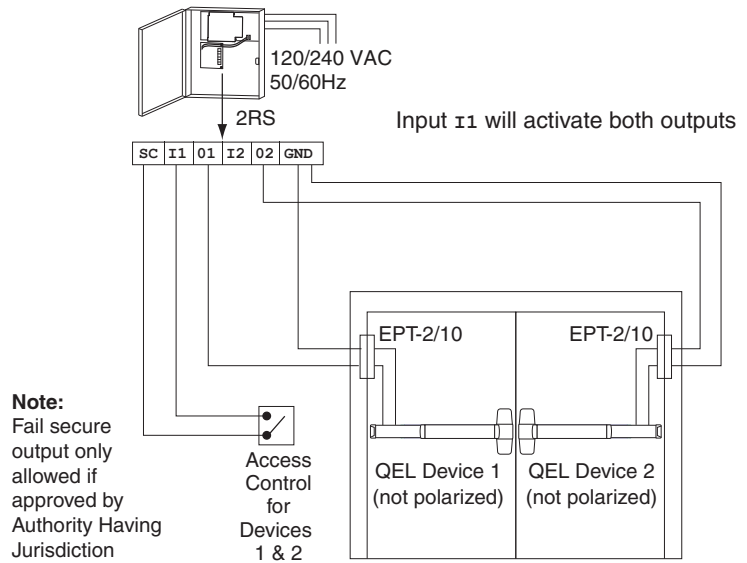
- Notes:**
1. 24VDC output setting required when EL or QEL device connected
 2. If installing board in location 2 or 3, rotate board 180°
 3. The QEL is compatible with an existing 900-2Q board if currently installed.
 4. When powering (2) QEL's with a PS902, both cannot be activated at the same time, they must be sequenced.
 5. Latchbolt retraction of (2) sequenced QEL's requires more than 1 second to complete.
 6. For double door QEL applications with auto operators, it is recommended to use a PS904, 906, or 914 power supply.

4 CONNECT INPUT AND OUTPUT WIRES TO OPTION BOARD (2RS SHOWN)

Individual Mode - Typical Wiring



Sequential Mode - Typical Wiring



For other option board wiring diagrams, see the appropriate instruction sheet.

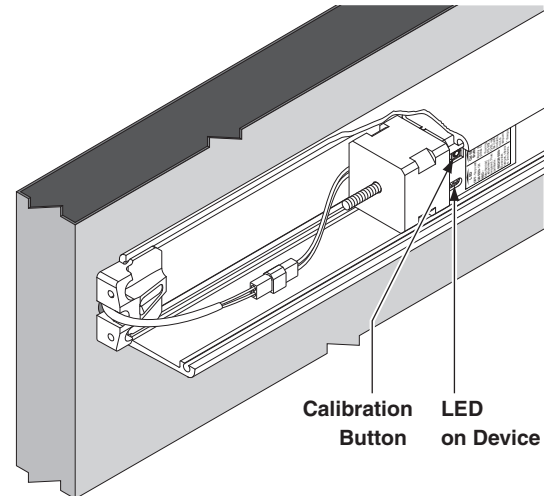
5 APPLY POWER TO POWER SUPPLY. IF 900-BB IS USED, THEN RECONNECT BATTERIES

6 CHECK OPERATION

- Activate each input and verify all QEL devices operate properly.
NOTE: During the first activation, each device will perform a one time self calibration, which is normal. For best results, power each device separately so that the calibration cycles do not overlap.
- If any device does not operate properly, see step 7 for troubleshooting.

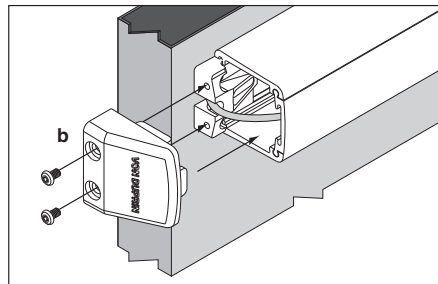
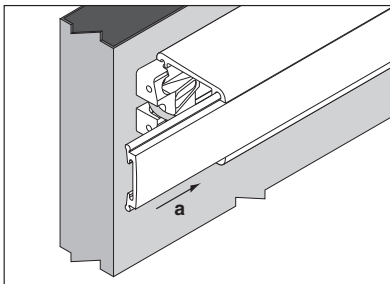
7 IF NECESSARY, TROUBLESHOOT OPERATION

Power at the QEL	QEL Response	Condition / Solution
0VDC	LED - Off Latchbolt extended	QEL is not receiving power to operate 1. Problem with power supply or wiring
24VDC	LED - Solid green Latchbolt retracted	Operation normal
	LED - Solid red after latchbolt attempts to retract multiple times	<p>Improper mechanical adjustment or QEL calibration</p> <p>First check mechanical adjustment (on vertical rods or mortise lock devices, if used) and correct adjustments*</p> <p>Calibrate the QEL</p> <ol style="list-style-type: none"> 1. Apply power and wait until the LED is solid red 2. Momentarily press the calibrate pushbutton (LED will flash green) 3. QEL will go through a retraction sequence to complete calibration, LED will be solid green and latchbolt retracted 4. Remove and reapply power to verify correct operation <p>If the power to the QEL is being controlled by an access control system with momentary unlock, calibrate as follows:</p> <ol style="list-style-type: none"> 1. Open door completely if using auto operator 2. Press and hold the QEL pushbutton 3. Activate the access control input to unlock the QEL 4. Immediately after the QEL LED turns on green, release the QEL pushbutton 5. The QEL will calibrate (this will look like a fast then a slow pull) 6. Reapply power to verify correct operation
	LED - Flashing green/red Latchbolt is not retracted	<p>Excessive tamper (while power was applied, the pushpad was pulled out at least 3 times)</p> <ol style="list-style-type: none"> 1. Wait 2 minutes, latchbolt will retract again; OR 2. Remove and reapply power to clear the condition
12 VDC	LED - Solid red after latchbolt attempts to retract multiple times	<p>Power supply is not set for proper voltage output</p> <ol style="list-style-type: none"> 1. Remove AC from power supply, change it from 12 to 24VDC 2. Apply AC power to power supply and verify proper operation



**For information about adjusting exit devices, go to www.vonduprin.com/installation_instruction_library.asp or call Technical Services at 1-877-671-7011*

8 REINSTALL COVER AND END CAP



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