47442912

QEL 22 Series

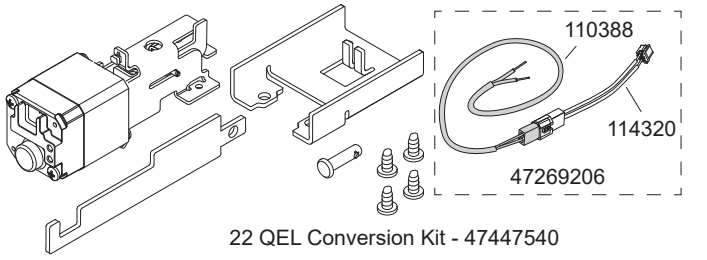
VON DUPRIN

Conversion Kit **for devices built after Dec. 2021**

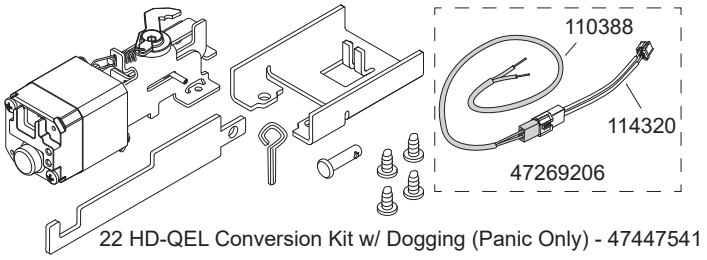
Installation Instructions

1. This kit converts all 22 Series mechanical exit devices to quiet electric latch (QEL) retraction devices.
2. This kit can also be used for motor replacement on existing QEL devices.
3. Install according to instructions or device will not function and panic or fire label will be void.
4. The QEL wiring must be attached to the fire alarm system if installed on fire exit hardware.
5. If existing device is fire rated or less dogging a QEL baseplate conversion kit is required.

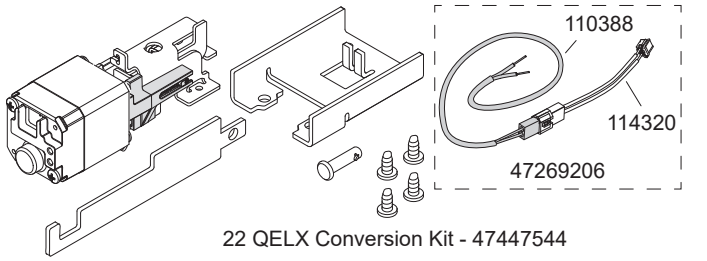
Parts



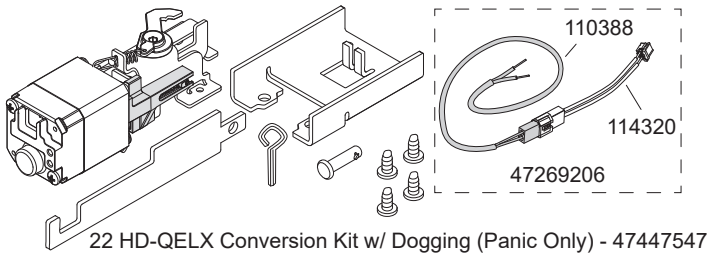
22 QEL Conversion Kit - 47447540



22 HD-QEL Conversion Kit w/ Dogging (Panic Only) - 47447541



22 QELX Conversion Kit - 47447544



22 HD-QELX Conversion Kit w/ Dogging (Panic Only) - 47447547

⚠ WARNING ⚠

If existing exit device is fire rated, do not install HD-QEL or HD-QELX (hex dogging) type motor. Doing so will void fire rating.

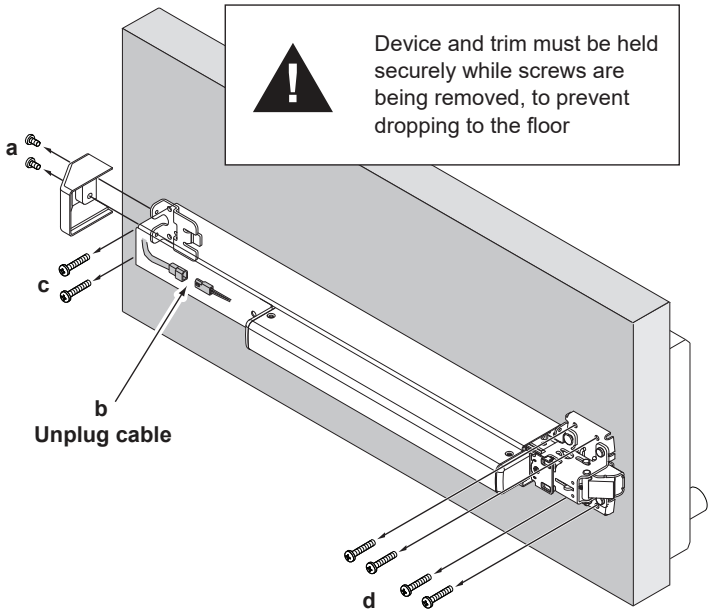
1 ⚠ Disconnect Power ⚠

To avoid risk of shock, disconnect AC power from power supply before proceeding with this conversion. If using 900-BB Battery Backup option, unplug all four wires from battery terminals.

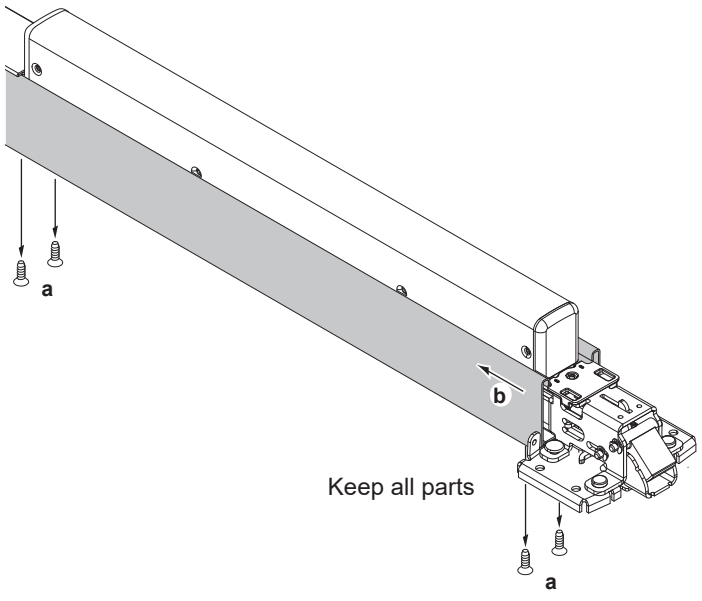
2 Detach Vertical Rods if present

Refer to device instructions as needed.

3 Remove Exit Device from Door

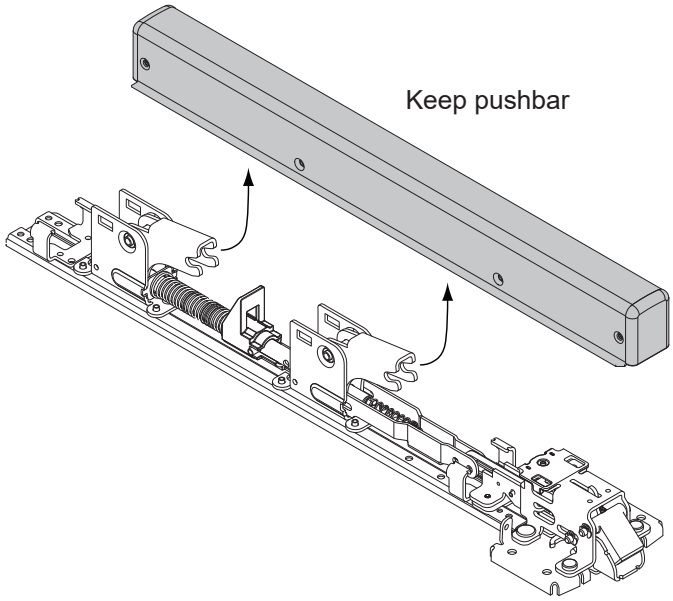


4 Remove Mechanism Case

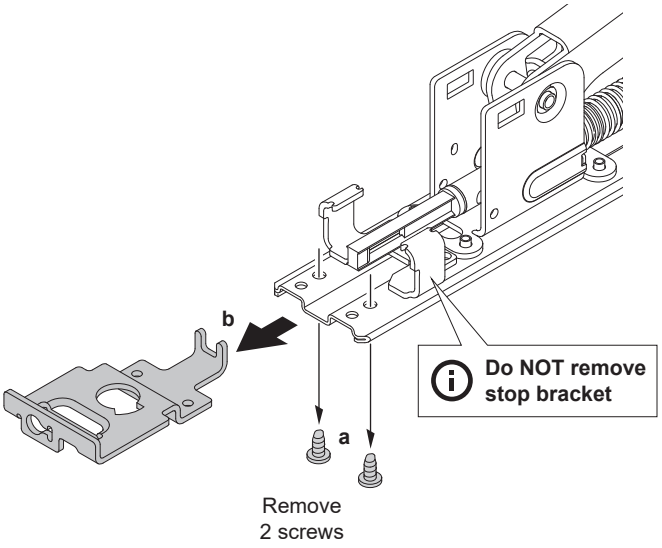


Keep all parts

5 Remove Pushbar from Baseplate

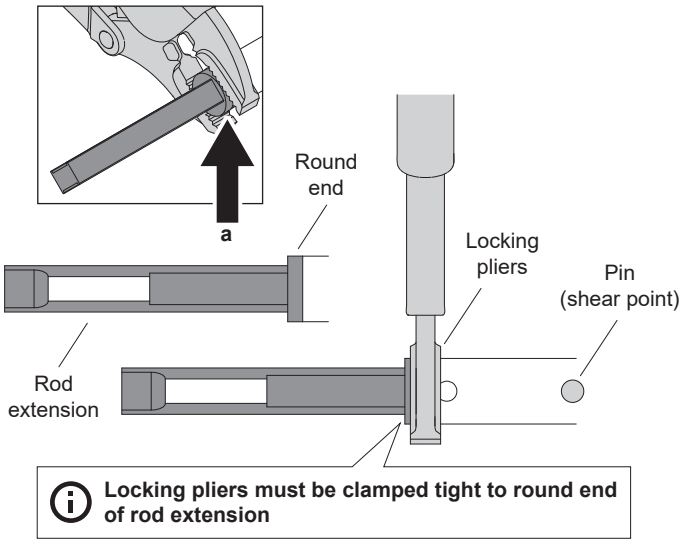


6 Remove (2) Screws Securing Dogging Assembly (if present)

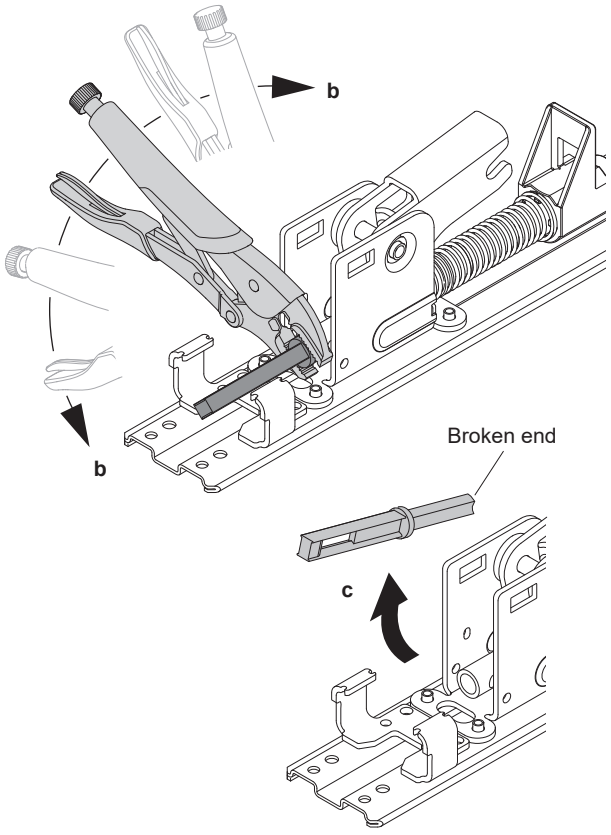


7 Remove Rod Extension with Locking Pliers

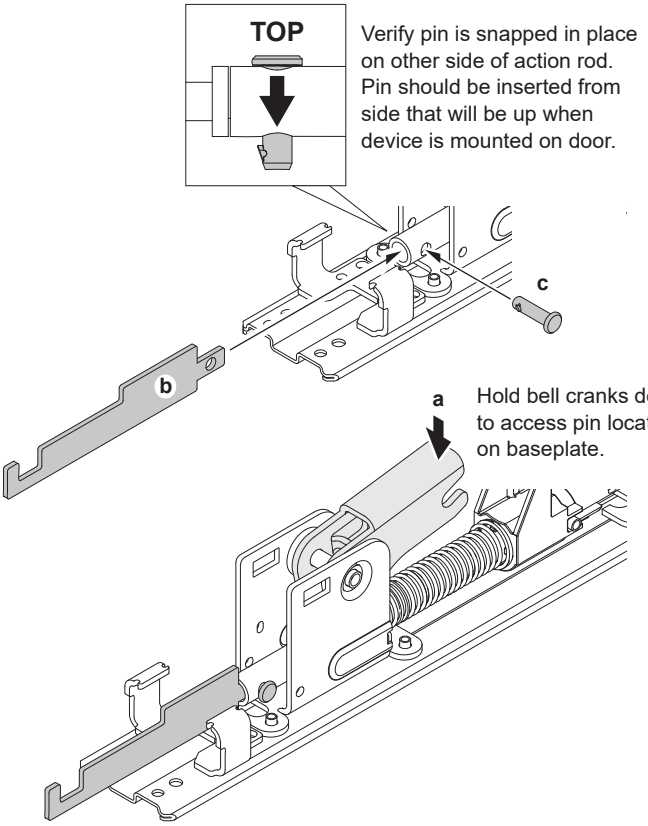
After placing device on a sturdy work surface, clamp locking pliers on round end of rod extension.



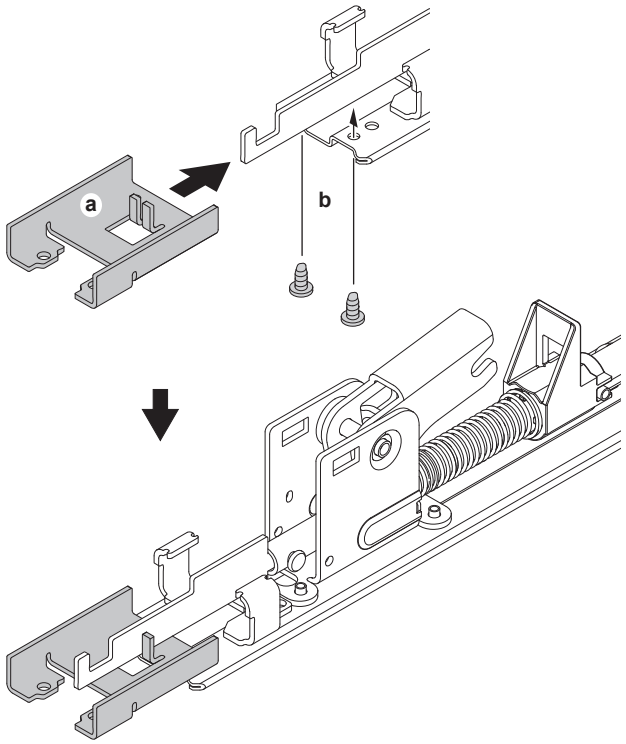
Use pliers to turn rod extension back and forth until rod extension breaks off at pin



8 Install New Extension

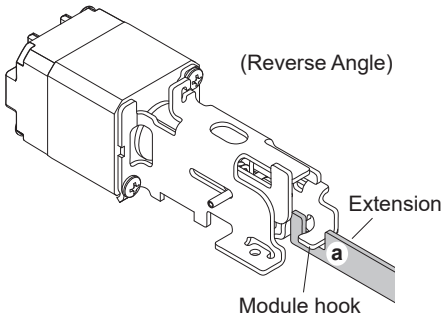


9 Install QEL Extension Bracket

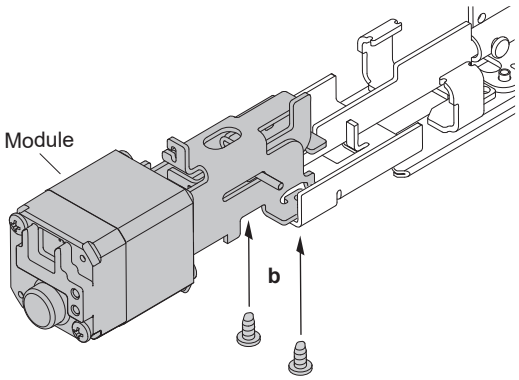


10 Connect QEL Module to Extension Bracket

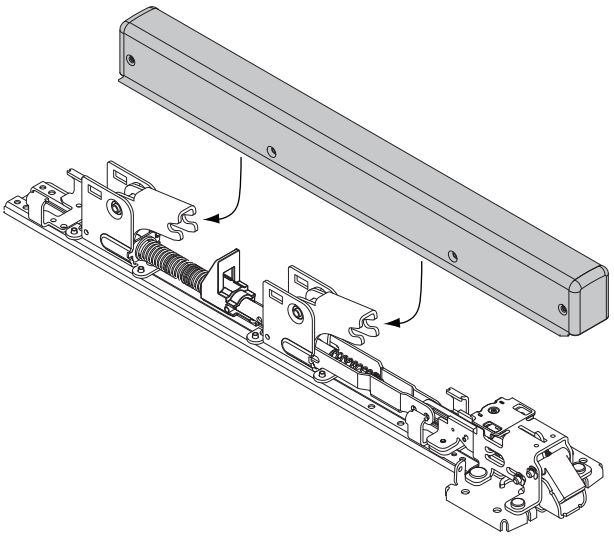
10a Engage the QEL module and extension hooks



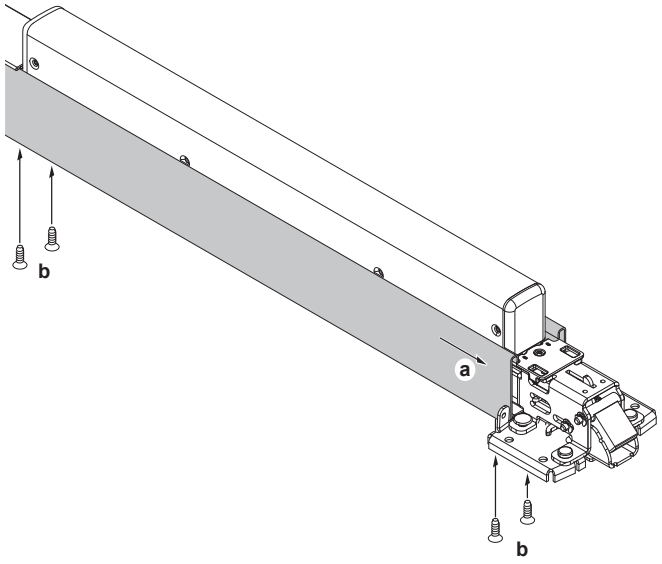
10b Align the QEL module and extension bracket mounting holes and secure with two screws



11 Reinstall Pushbar

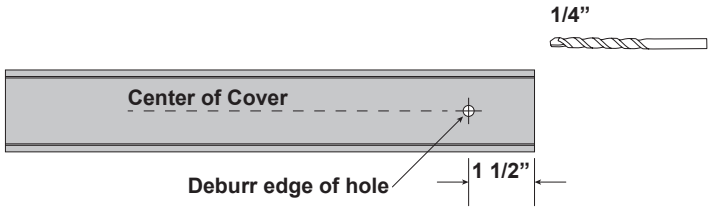


12 Reinstall Mechanism Case

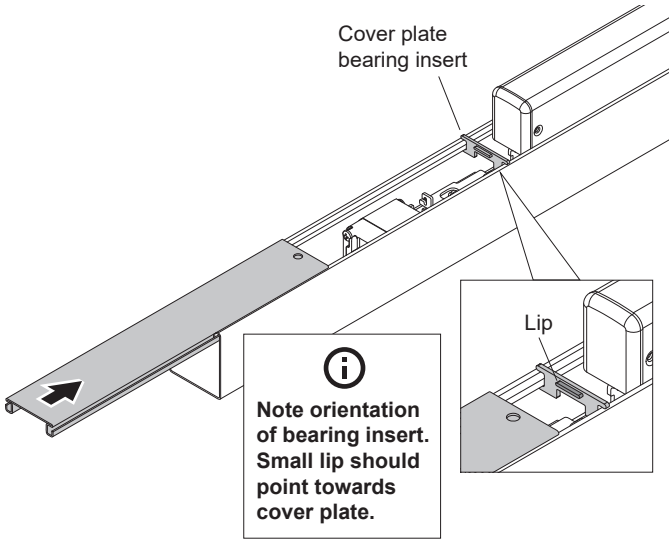


13 Prepare Dogging Cover for HD Dogging Key (if applicable and only on panic devices).

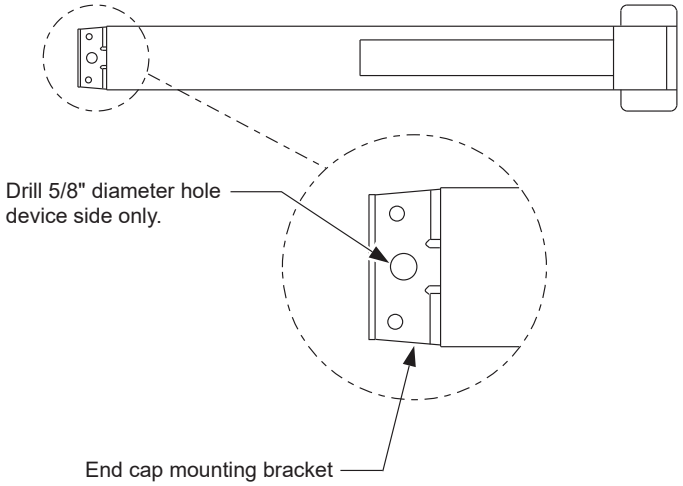
13a Locate and drill hole



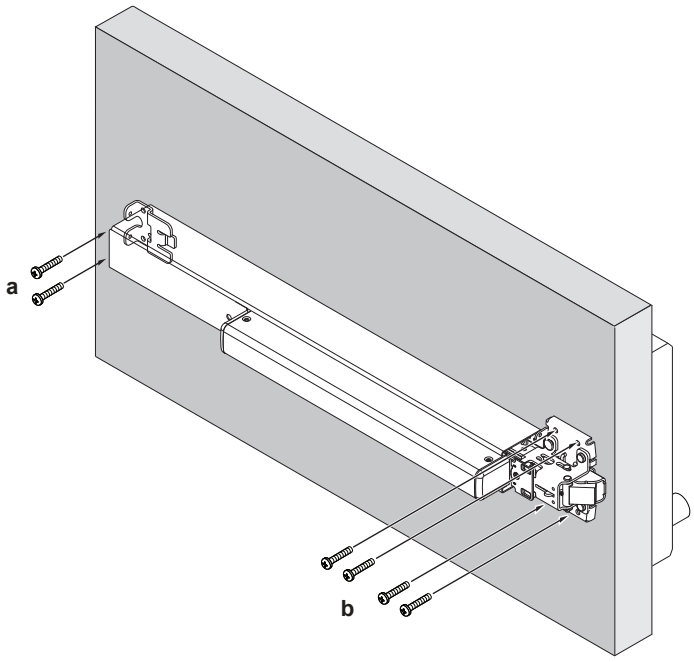
13b Install dogging cover



14 Drill Wire Access Hole (if required)



15 Attach Exit Device to Door



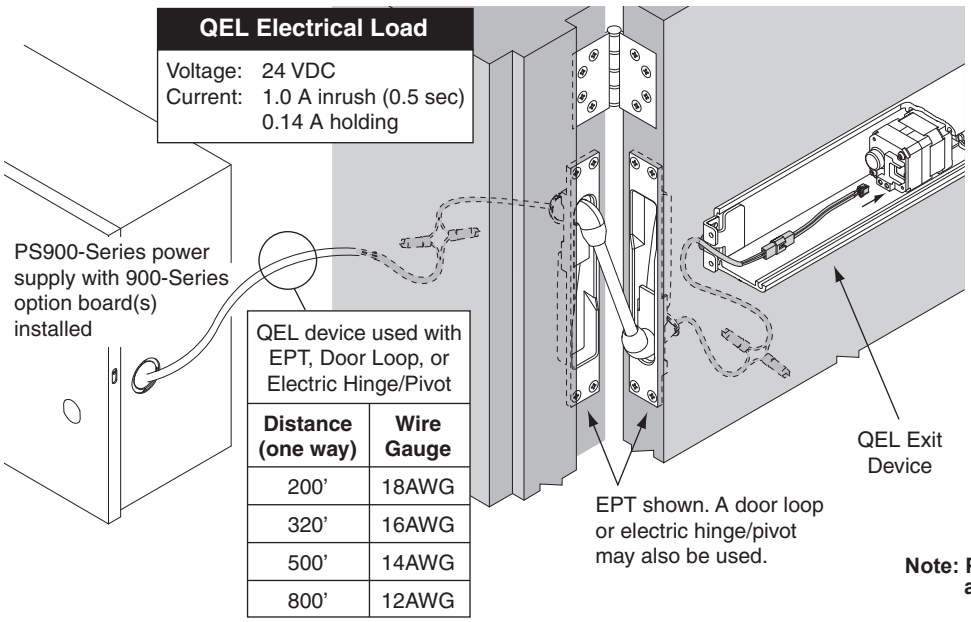
For more detailed installation instructions for specific Exit Devices, visit the Support area of the Allegion website at www.allegion.com/us

16 Confirm Equipment Compatibility

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

- PS900-SERIES Power Supplies - PS902, PS904, PS906, PS914
- 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

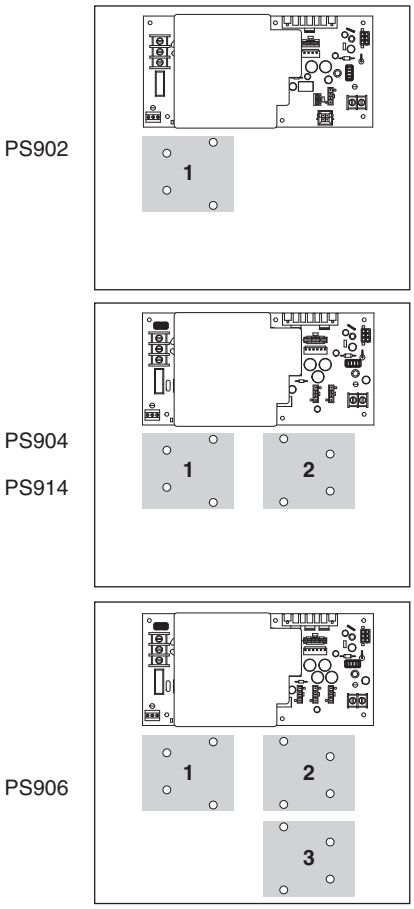
17 Route Two Wires from QEL Exit Device to Power Supply

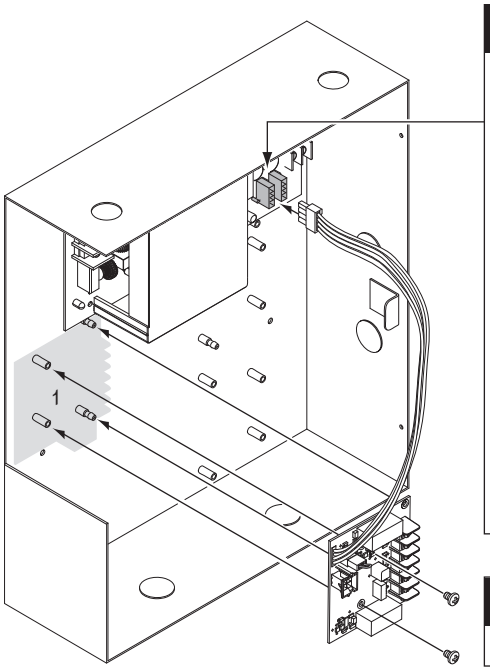


Note: Power wires to QEL are not polarized.

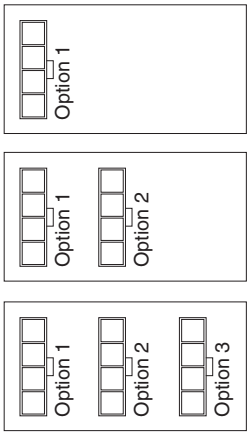
18 Install 900-2RS, 4RL, or 4R Option Board(s) into Power Supply

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





b **Plug Option Board Cable into any Available Option Connector**



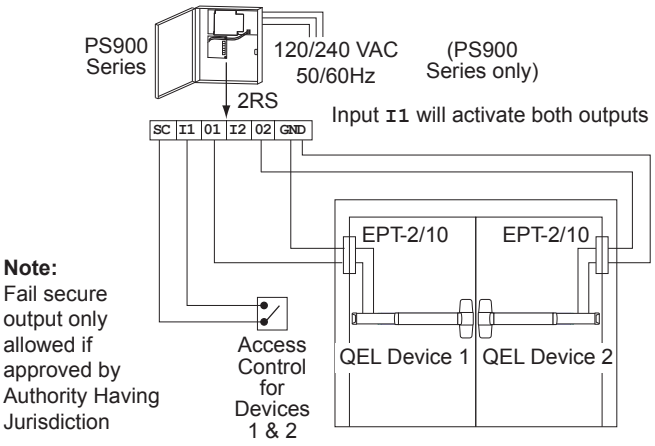
c **Secure Board(s) with Screws**

Notes: 1. 24VDC output setting required when 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. Latchbolt retraction of (2) sequenced QEL's requires more than 1 second to complete.
5. When powering multiple components, verify that the amperage requirements of all components combined does not exceed the power supply output rating.

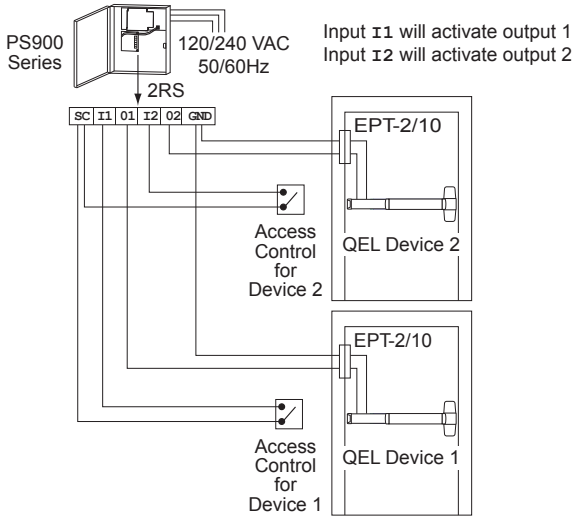
19 Connect Input and Output Wires to Option Board (2RS Shown)

Sequential Mode - Typical Wiring



Note:
Fail secure output only allowed if approved by Authority Having Jurisdiction

Individual Mode - Typical Wiring



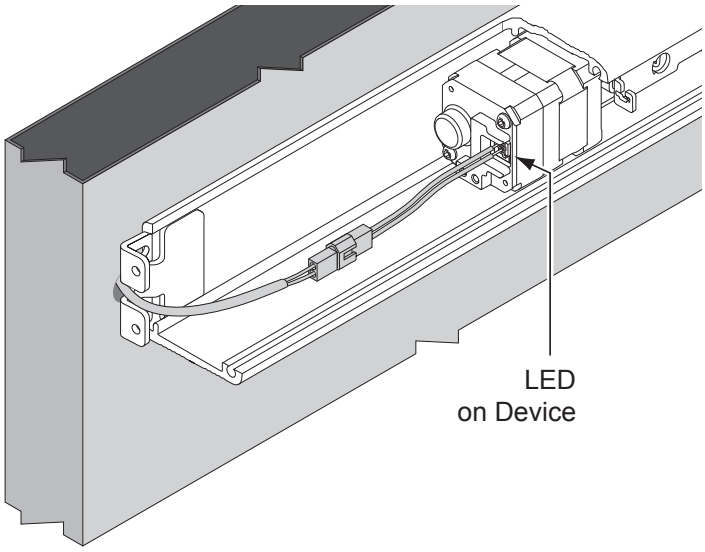
20 Check Operation

20a Activate each input and verify all QEL devices operate properly.
20b If any device does not operate properly, see Step 21 for troubleshooting.

21 If Necessary, Troubleshoot Operation (LED is only visible with the mechanism cover removed)

Power at the QEL	QEL Response	Condition/Solution
24VDC	LED - Solid green Latchbolt - retracted	Operation normal, latch retracted immediately
	LED - Solid red after latchbolt attempts to retract multiple times	Latchbolt cannot fully retract mechanically Verify mechanical adjustment (on vertical rod or mortise lock devices if used). Remove and reapply input voltage to reset this condition.* See *Check Mechanical Operation* on page 8 as needed.**
	LED - Flashing green/red Latchbolt - not retracted	Excessive tamper (while power applied, the pushbar was pulled out at least 3 time) Wait 15 seconds and latchbolt will retract again OR remove and reapply power to clear condition
24VDC low	LED - Flashing green Latchbolt - retracted	Voltage low during latchbolt retraction (latchbolt retracts at reduced force) Wire length is too long, wire gauge is too small or power supply has poor regulation
29VDC or greater	LED- Flashing red Latchbolt - will not retract	Input voltage is too high for proper operation Wrong power supply, power supply defective.
13VDC or lower		Input voltage is too low for proper operation Wrong power supply, power supply defective or not set to the proper output voltage. To set, remove AC power from power supply, change power supply setting from 12 to 24VDC, then reapply AC power and verify proper operation.
0VDC	LED - off Latchbolt - not retracted	No input voltage Problem with the power supply, control switch or wiring
0VDC	LED - off Latchbolt - retracted	No input voltage Mechanical dogging is engaged

**For information about adjusting exit devices, you can find their installation instructions in the support area at www.allegion.com/us or call Technical Services at 1-877-671-7011*



22 Check Mechanical Operation

2227

1. Make sure device is not dogged for HD-QEL.
2. Depress pushbar and make sure latchbolt retracts and extends fully (see Figure 1).
3. If latchbolt does not retract or extend fully, adjustments may be required per the device installation instructions.

2227

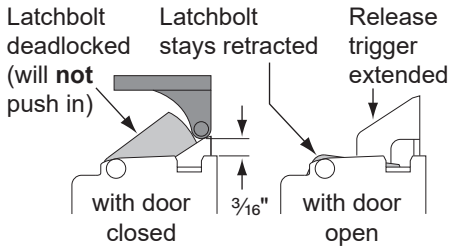
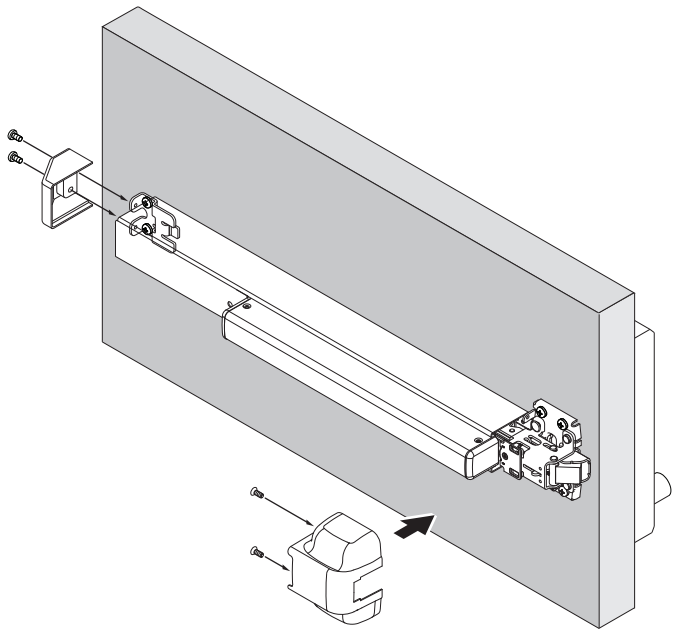


Figure 1

Any HD Device

1. Fully depress pushbar.
2. Insert hex dogging key and turn clockwise.
3. Release pushbar and verify latchbolt remains retracted.
4. Fully depress pushbar.
5. Insert hex dogging key and turn counter clockwise.
6. Release pushbar and verify latchbolt extends fully.

23 Reinstall End Cap and Cover



Customer Service
1-877-671-7011 www.allegion.com/us

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