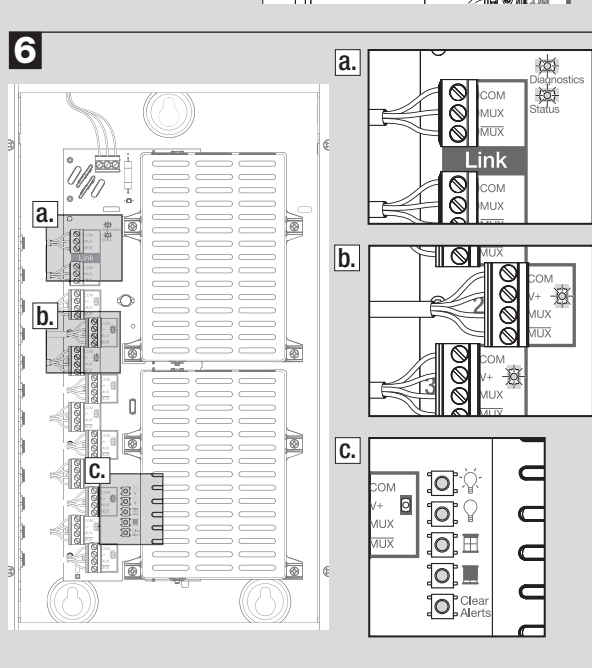
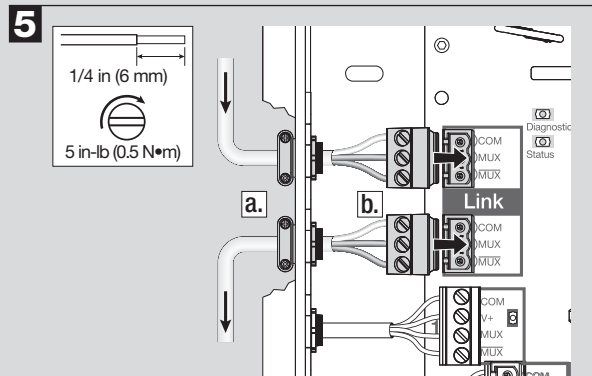
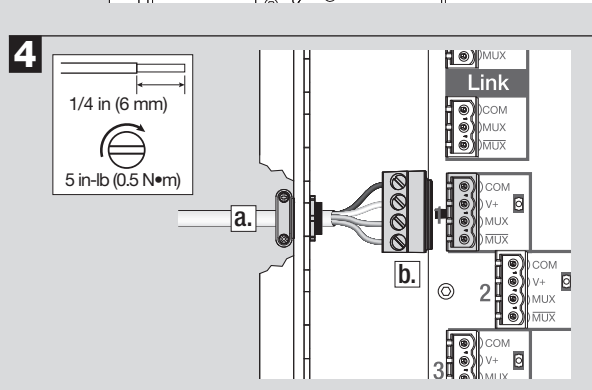
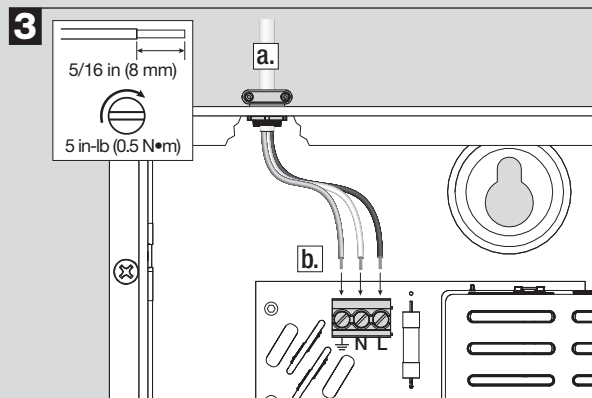
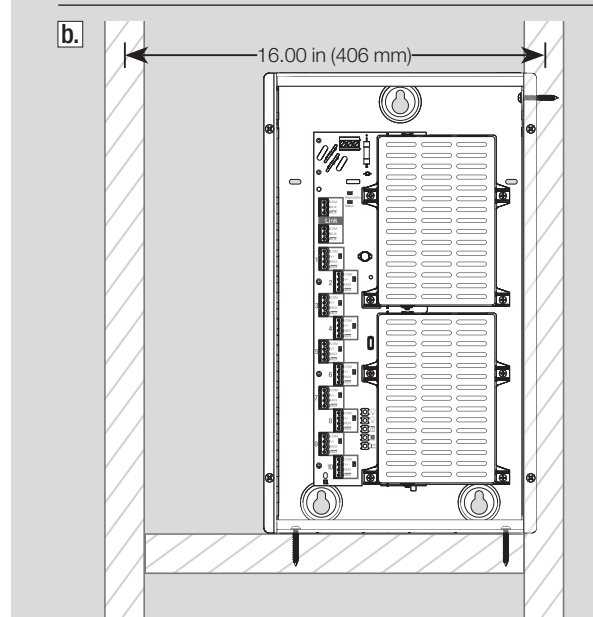
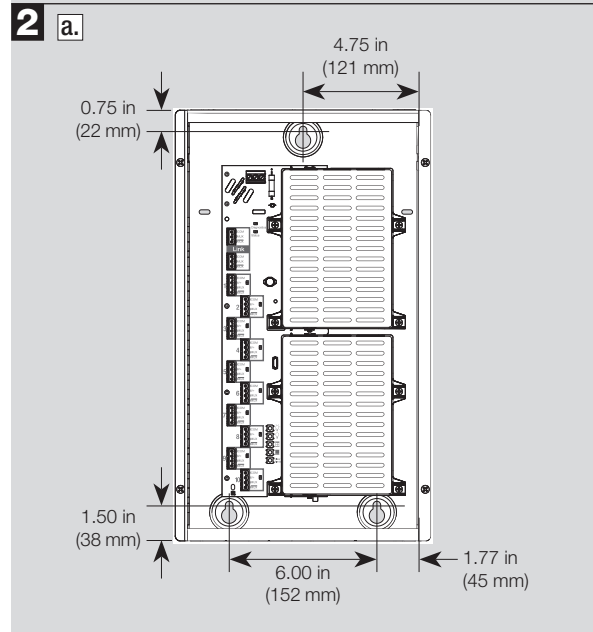
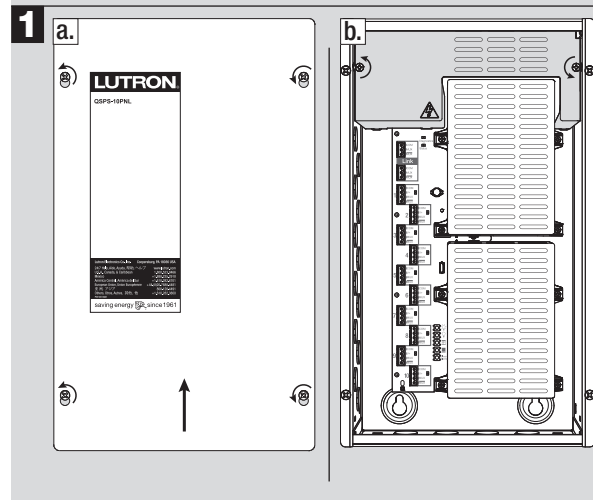


Sivoia QS Smart Panel

QSPS-10PNL	Input: 120–240 V~ 50/60 Hz 10 A
QSPS-10PNL-NPM	Per Output: 35 V= 143 mA 5 W



Installation Guide - Please read before installing

Important Notes

- For Power Module installation or replacement instructions, please refer to the WIN-PS-5CC-R Installation Guide, PN 045550.
- All wiring and circuit protection must comply with national and local electrical codes. Some installations may require a readily accessible disconnect device be incorporated external to the equipment.
- Minimum feed circuit breaker size: 15 A (limiting factor is inrush current) (In some countries, a 16 A circuit breaker may be appropriate.)
- Maximum feed circuit breaker size: 20 A
- This product must be installed by a qualified electrician.
- Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0 to 90% humidity, non-condensing.
- This product is intended for indoor use only.
- This device is not intended for phase-to-phase installations.

1 Prepare the Smart Panel

a. **Remove the front cover:** Loosen the 4 front cover screws, then slide the cover upward, and lift it off.

b. **Remove the line voltage shield:** Remove the 2 line voltage shield screws and lift the line voltage shield out of the enclosure.

2 Mount the Smart Panel

Mount the Smart Panel in a location that will remain accessible using one of the following methods (mounting hardware is not provided).

a. **Surface-mount:** Use the 3 keyholes in the back of the enclosure to fasten the Smart Panel to the wall. Use fasteners that are appropriate for the mounting surface and rated for a 50 lb (23 kg) load.

b. **Recess-mount:** Install a horizontal board between the wall studs as a bottom support. Fasten the Smart Panel to the right stud and bottom support, inserting fasteners through the mounting holes provided.

3 Connect Line Voltage

⚠ WARNING: RISK OF ELECTRIC SHOCK. Lock the supply circuit breaker in the OFF position before wiring the terminal block. Failure to do so could result in death or serious injury.

a. **Cable entry:**

- Remove one of the knockout tabs near the input terminal blocks.
- Install a strain relief device (not included) in the knockout hole.
- Run the 10–14 AWG (4.0–2.5 mm²) power wire through the strain relief to the input terminal blocks at the top left side of the enclosure.

b. **Connection:**

- Strip 3/8 in (8 mm) of insulation from each conductor.
- Insert the Line, Neutral, and Ground wires into the terminal block, arranged as shown.
- Tighten each terminal screw securely to 5 in-lb (0.5 N•m), and ensure there is no insulation inside the terminal block.
- Tighten the strain relief to secure the cable where it enters the enclosure.

c. **Reinstall the line voltage shield:**

- Reattach the line voltage shield removed in step 1b., using the original screws.

⚠ WARNING: RISK OF ELECTRIC SHOCK. Do not energize or operate the device without the line voltage shield in place. Ensure all line voltage wiring and connections are enclosed behind the shield. Failure to follow these instructions could result in death or serious injury.

4 Connect Lutron Sivoia QS window treatments or lighting devices

NOTE: It is recommended that the final connection between a device and the panel be made at the device after panel installation is complete. Shade limits and free operation should be validated immediately after power up to ensure safe operation during commissioning.

a. **Cable entry:**

- Remove knockout tabs from the left side of the enclosure as needed.
- Install a strain relief device (not included) in each knockout hole to be used.
- Run the power cable from a Sivoia QS device through each strain relief.

b. **Connection:**

⚠ WARNING: RISK OF ELECTRIC SHOCK AND FIRE. Do not interconnect power output terminals. Failure to follow these instructions could result in death or serious injury.

- Strip 1/4 in (6 mm) of insulation from each conductor.
- Insert the COM and V+ wires into the corresponding terminals (refer to the terminal labels at the power output receptacle on the circuit board), of a 4-pin terminal block (10 are provided, packaged separately) as shown.

- If the device will use wired communication, insert the MUX and MUX wires into the corresponding terminals (refer to the terminal labels at the power output receptacle on the circuit board), of the 4-pin terminal block as shown.
- Tighten each terminal screw securely to 5 in-lb (0.5 N•m), and ensure there is no insulation inside the terminal block.
- Plug the 4-pin terminal block into a power output receptacle.
- Tighten the strain relief to secure the cable where it enters the enclosure.

Rules for QS Link Wiring

- QS wiring is NEC Class 2/PELV. Follow all applicable local and national codes for proper circuit separation and protection.
- Power (V+ and COM): 12–18 AWG (4.0–1.0 mm²)
- Communication (MUX and MUX): 22 AWG (0.5 mm²) twisted/shielded pair
- V+ terminals must NEVER be connected between outputs
- Total length of QS link wiring on Smart Panels outputs (all outputs combined), must not exceed 2000 ft (610 m)
- Total length of QS link wiring on 3-pin communication link (between multiple Smart Panels and system devices) must not exceed 2000 ft (610 m)
- Maximum of 100 devices per QS link (panel outputs and communication link combined)

NOTE: The 3-pin communication link must be used when interconnecting multiple Smart Panels. Smart Panels cannot be interconnected using the 4-pin outputs.

Maximum devices powered per output		Maximum total length of link wiring based on wire gauge		
Shades	+	Devices	12 AWG (4.0 mm ²)	16 AWG (1.5 mm ²)
None	+	Up to 8 PDUs*	2000 ft (610 m)	1000 ft (305 m)
1 shade or drapery drive	+	Up to 1 PDU*	500 ft (152 m)	200 ft (61 m)
2 Roller 64 ≤ 30 sq ft (2.75 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)
3 Roller 64 ≤ 20 sq ft (1.80 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)
2 Roller 100 ≤ 50 sq ft (4.60 sq m) each	+	Up to 1 PDU*	200 ft (61 m)	75 ft (23 m)

* PDU = Power Draw Unit. For more information, refer to the QS Link Power Draw Unit Specification Submittal (P/N 369405).

5 Connect Multiple Smart Panels and other QS Devicesa. **Cable entry:**

- Remove the required number of knockout tabs adjacent to the communication pass-through receptacles (labeled **Link** on the circuit board).
- Install a strain relief (not included) in each knockout hole to be used.
- Run 3-conductor cable from the other Smart Panel or Sivoia QS device through the strain relief.

b. **Connection:**

- Strip 1/4 in (6 mm) of insulation from each conductor.
- Insert the COM, MUX, and MUX wires into the corresponding terminals (refer to the terminal labels at the **Link** receptacles on the circuit board), of each 3-pin terminal block (2 are provided, packaged separately) as shown.
- Tighten each terminal screw securely to 5 in-lb (0.5 N•m), and ensure there is no insulation inside the terminal blocks.
- Plug the 3-pin terminal blocks into the **Link** receptacles.
- Tighten each strain relief to secure the cables where they enter the enclosure.

6 Monitor, Verify, Diagnose Operation (with Power Modules installed)

a. **Link LEDs:** The QS Link pass-through channel is equipped with status and diagnostic LEDs

- Diagnostic LED on/flashing:** Connected devices are communicating normally.
- Diagnostic LED off:** Connected devices are not communicating.
- Status LED on:** Indicates Smart Panel is operating properly.

b. **Output status LED:** Each power output is equipped with a status LED

- LED on:** Power output and connected devices are operating normally.
- LED off:** Indicates a short circuit. If no short exists on the output, the power supply module has failed and must be replaced.

- Flashing LED:** Indicates an overload condition has occurred. This may result from wiring errors or interference with a shade's motion. After the fault condition is cleared, press the **Clear Alerts** button (see section 6c) to resume operation.

c. **Diagnostic buttons:**

- All Lights On:** Tap once to turn ON all connected lighting devices
- All Lights Off:** Tap once to turn OFF all connected lighting devices
- All Shades Open:** Tap once to OPEN all connected window treatments
- All Shades Closed:** Tap once to CLOSE all connected window treatments
- Clear Alerts:** Tap once to clear all LED alerts and resume normal operation

d. **Verify communication:** Use the **All Shades Open** button to activate **Link Diagnostic Mode**, and verify active communication to all devices on the QS Link.

- Tap, then press and hold the **All Shades Open** button for 5 seconds; release and again, tap, then press and hold the **All Shades Open** button for 5 seconds.
 - The Smart Panel will signal all devices on the QS Link.
 - All devices receiving the signal will react:
 - LED-equipped devices will flash their LED
 - Motorized window treatments will "wiggle"
 - Check power and communication wiring of any devices not reacting.
- The test signal will automatically time out after 10 minutes.
- To exit **Link Diagnostic Mode**, press and hold the **All Shades Open** button for 5 seconds.

Customer Assistance

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For product warranty information, please see:
www.lutron.com/TechnicalDocumentLibrary/Window Systems Warranty.pdf

FCC/IC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation.

Modifications not expressly approved by Lutron Electronics Co., Inc. could void the user's authority to operate this equipment.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

This Class B digital apparatus complies with Canadian ICES-003.