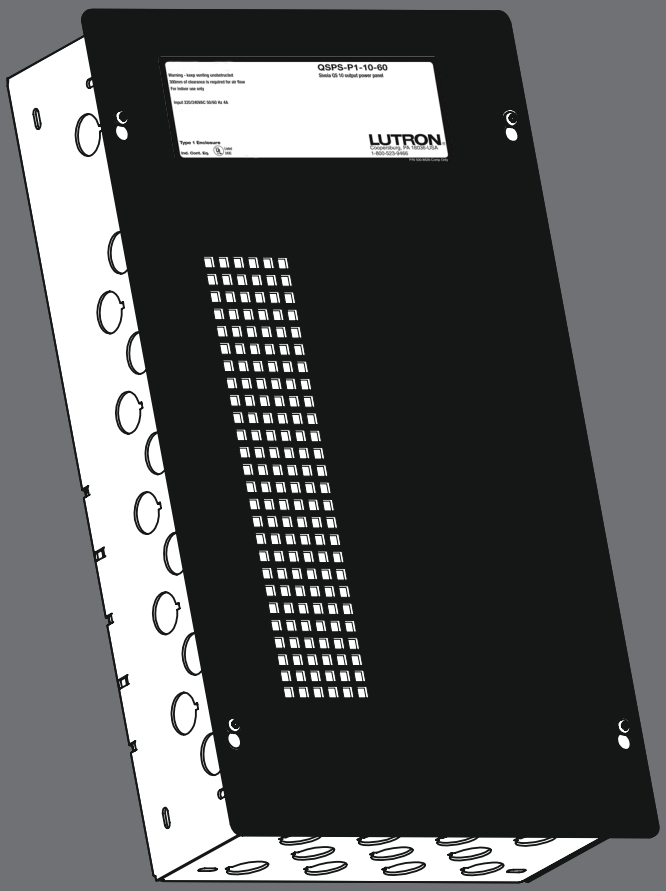


QS Smart Power Supply Panel (CE)

Installation Instructions

QSPS-P2-10-60

LUTRON®

QSPS-P2-10-60

230 V~ 50/60 Hz 4 A

Installation Instructions (Please leave for occupant)

Please read before installing.

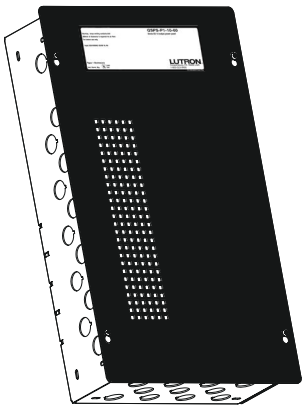
Tools Required:

Wire Cutter/Stripper	Power Drill
Small Flat-Head Screwdriver	#2 Phillips® Screwdriver

NOTE: Mounting hardware is not included due to the wide variety of wall materials. Customer should determine the appropriate mounting hardware for their specific needs.

Box Contents:

QSPS-P2-10-60



1 Important Notes

1.1

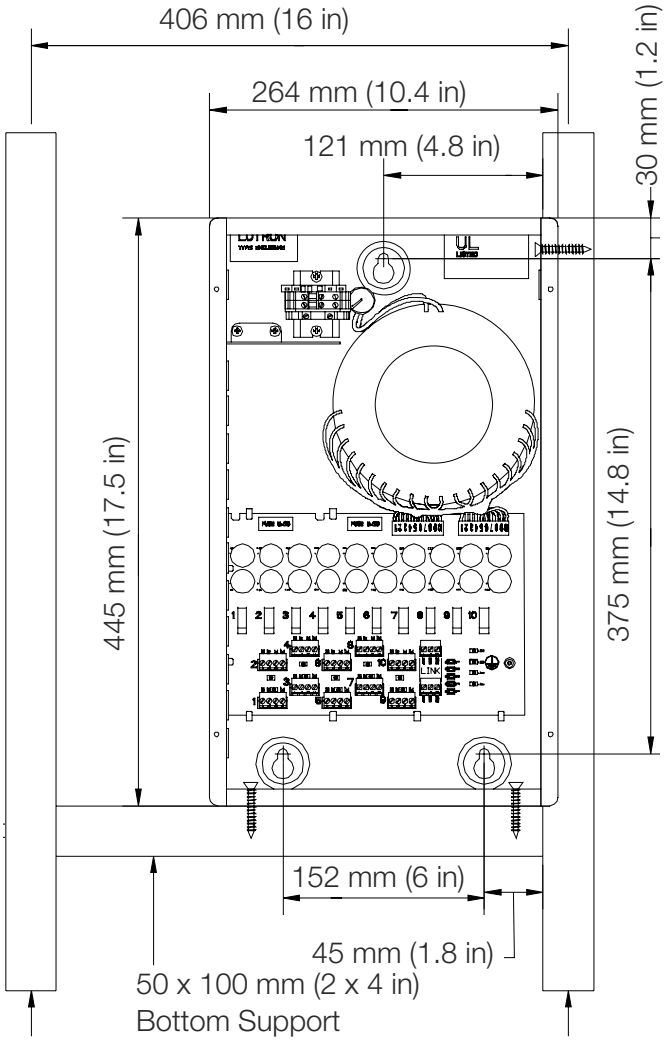
1. All wiring must be in accordance with national and local electrical codes.
2. QSPS-P2-10-60 must be installed by a qualified electrician.
3. Ambient operating temperature: 0 to 40 °C (32 to 104 °F), 0 to 90% humidity, non-condensing.
4. This product is intended for **indoor use only**.
5. On power-up under unfavorable mains conditions, this device may cause interfering voltage fluctuations (flicker). To prevent such interference, the system impedance Zmax shall be 0.21 Ohms or less at the interface point (power service box). If necessary, the user can ask the public power supply company for the system impedance at the interface point.

2 Installation

2.1

1. **Mount QSPS-P2-10-60** using one of the following methods (mounting hardware is not provided). Do not mount in any other orientation.
   a. **Surface Mount** - Use the keyholes located on the back of the enclosure to fasten the QSPS-P2-10-60 to the wall. Use fasteners rated for a 23 kg (50 lb) load. See illustration of QSPS-P2-10-60 .
   b. **Recess Mount** - Install a 50 mm x 100 mm (2 in x 4 in) board between the studs as a bottom support. Fasten the QSPS-P2-10-60 to the right stud and bottom support inserting fasteners through the mounting holes provided.

NOTICE: The equipment is air-cooled. Mount in a location where the vented cover will not be blocked. A minimum of 300 mm (1 ft) is necessary.



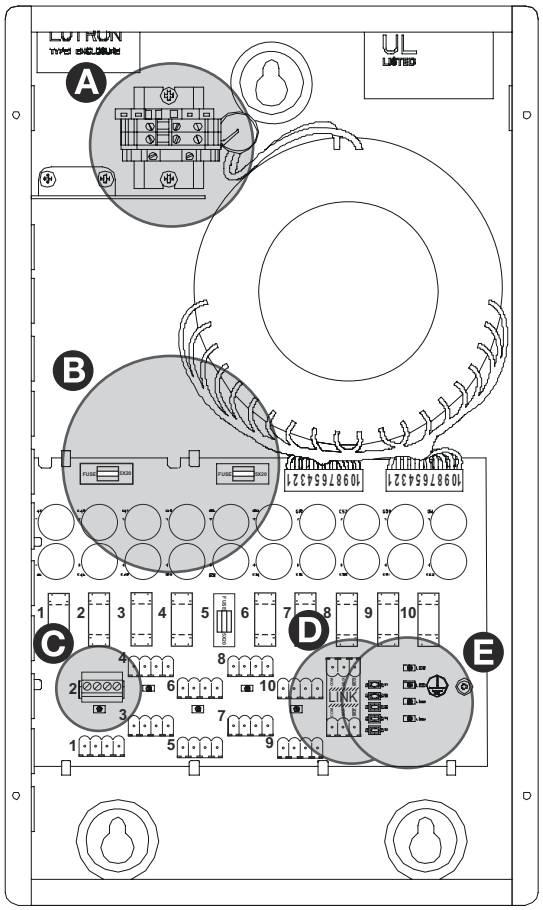
WARNING: Risk of death or serious injury. Lock the supply breaker in the OFF position before wiring to the terminal blocks.

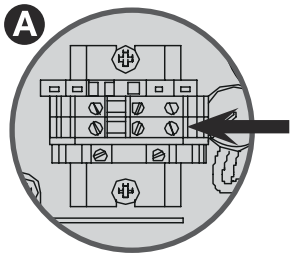
2. **Connect 230 V~ power wiring into the QSPS-P2-10-60.**
   Remove one of the knockout tabs on the top left side of the enclosure near the input terminal blocks. Insert a strain relief into the knockout hole. Run the power wire through the strain relief to the input terminal blocks at the top left side of the enclosure. Tighten terminal blocks to 0.4 to 0.6 N•m (3.5 to 5 in-lbs).

Note: Maximum of (1) QSPS-P2-10-60 per 15 A Breaker. Maximum feed breaker size of 15 Amps. Use only High-Magnetic breakers.

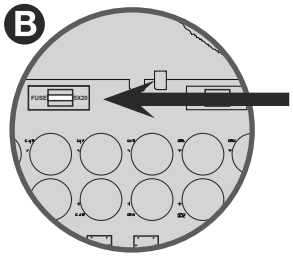
2 Installation (continued)

2.2 QSPS-P2-10-60 Parts identification

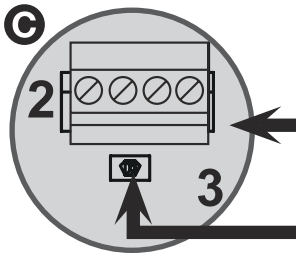




230 V~ input terminal blocks

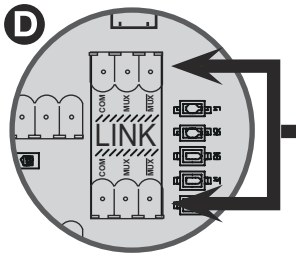


Spare fuses 5x20 mm
2.5 A



4-pin connector
power and communication
to Lutron lighting and
shading devices

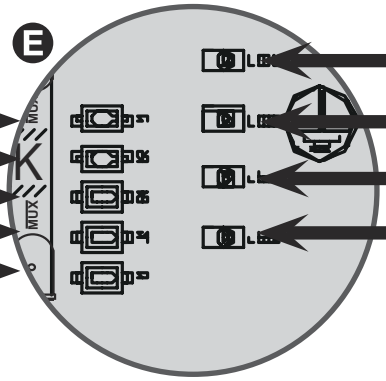
LED – Output status
(1 per output,
10 outputs)



3-pin connector
communication to
additional power supplies

Diagnostic Buttons

All Lights On
All Lights Off
All Shades Open
All Shades Close
Power Supply Clear



Reserved for future use

Reserved for future use

Diagnostic LED – Communication Link Traffic

Status LED

3 QS Link Wiring

3.1 Link Rules

The following Link rules must be observed for proper operation.

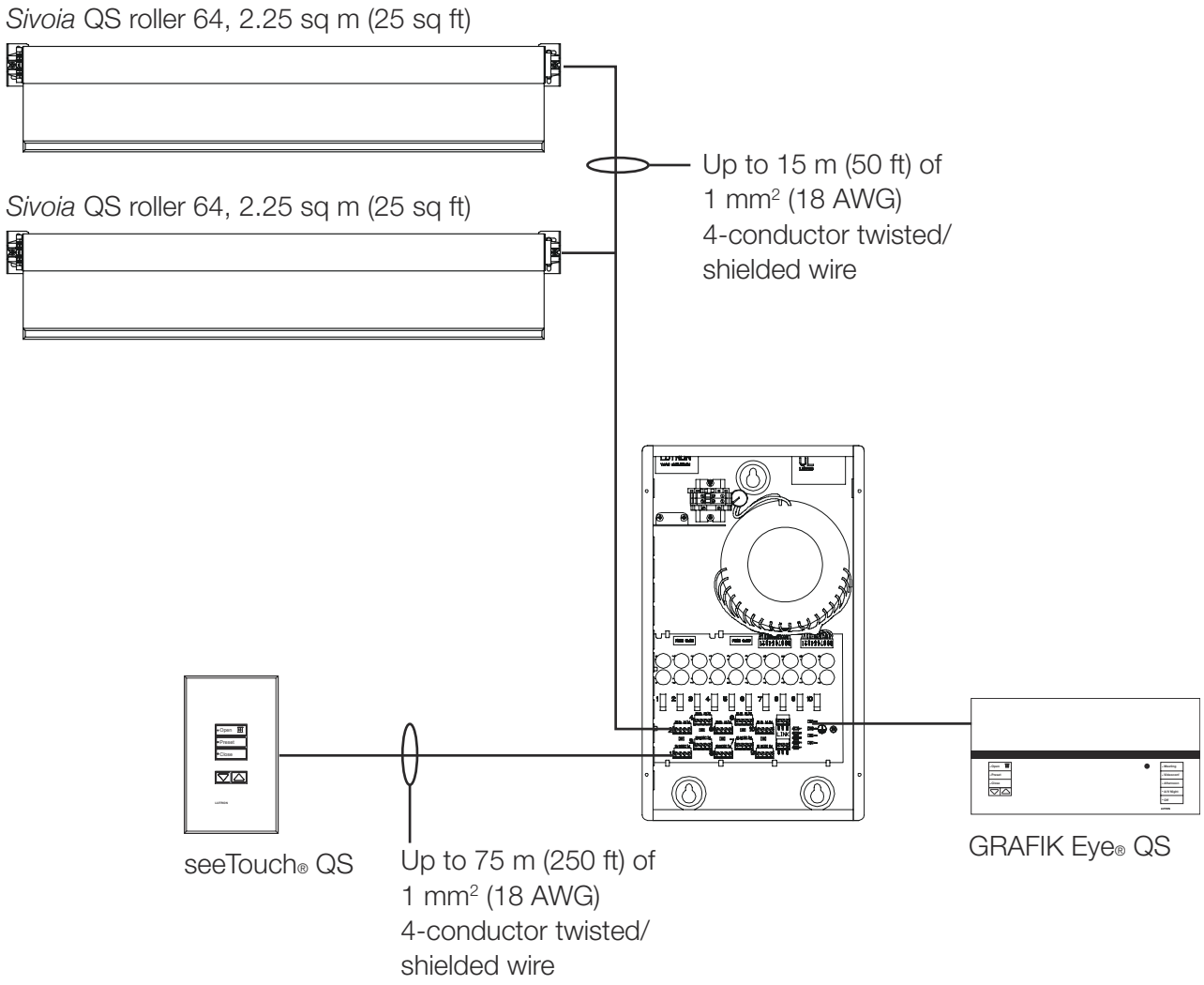
- Maximum of 100 devices (such as a *GRAFIK Eye*® QS Unit, QS keypad, QSPS-P2-10-60, or Sivoia® QS shade)
- Maximum of 100 zones (such as a *Sivoia* QS shade, or a lighting zone on a *GRAFIK Eye* QS Unit)
- Maximum 600 m (2000 ft.) of cable connecting all QSPS-P2-10-60 panels
- Maximum 600 m (2000 ft.) of cable to devices wired to each QSPS-P2-10-60
- Use only cable with at least one twisted/shielded pair for communications (MUX and $\overline{\text{MUX}}$)

3.2 Wire Length Chart

Maximum devices per one output		Maximum distance per one output based on wire guage		
Shades + Controls		12 AWG (4 mm^2)	16 AWG (1.5 mm^2)	18 AWG (1 mm^2) GRX-CBL-346S-500
None	Up to 8 seeTouch QS keypads	1200 ft (350 m)	500 ft (150 m)	300 ft (75 m)
1 *Sivoia* QS roller 64™, roller 100, roller 200CW, or roller 225™	Up to 1 seeTouch QS keypad	500 ft (150 m)	200 ft (60 m)	125 ft (35 m)
2 *Sivoia* QS roller 64, ≤ 30 sq ft (2.75 sq m) each	None	200 ft (60 m)	75 ft (20 m)	50 ft (15 m)
3 *Sivoia* QS roller 64, ≤ 20 sq ft (1.8 sq m) each	None			
2 *Sivoia* QS roller 100, ≤ 50 sq ft (4.6 sq m) each	None			

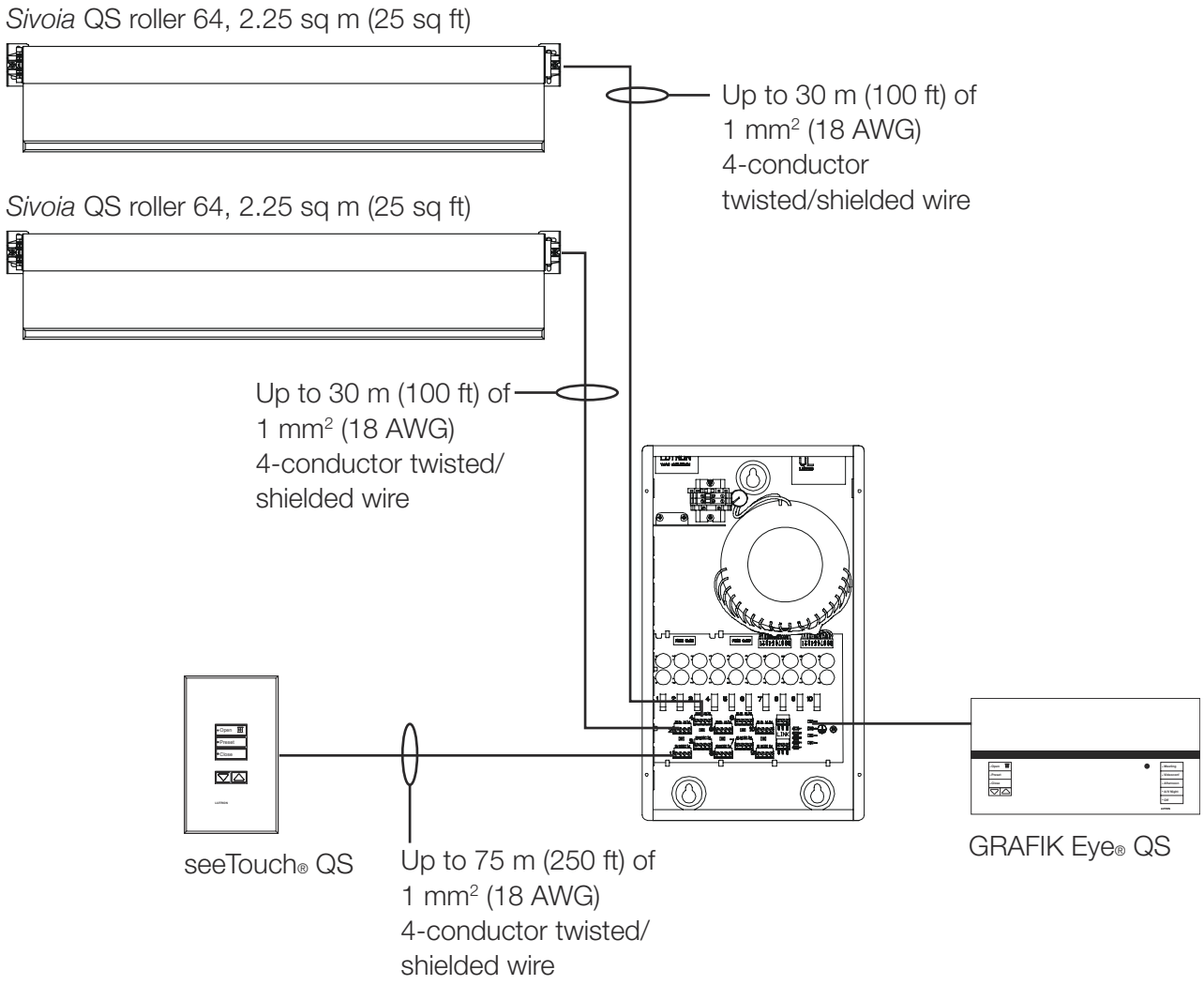
3 QS Link Wiring (continued)

3.3 Example: Multiple shades per output



3 QS Link Wiring (continued)

3.4 Example: One shade per output



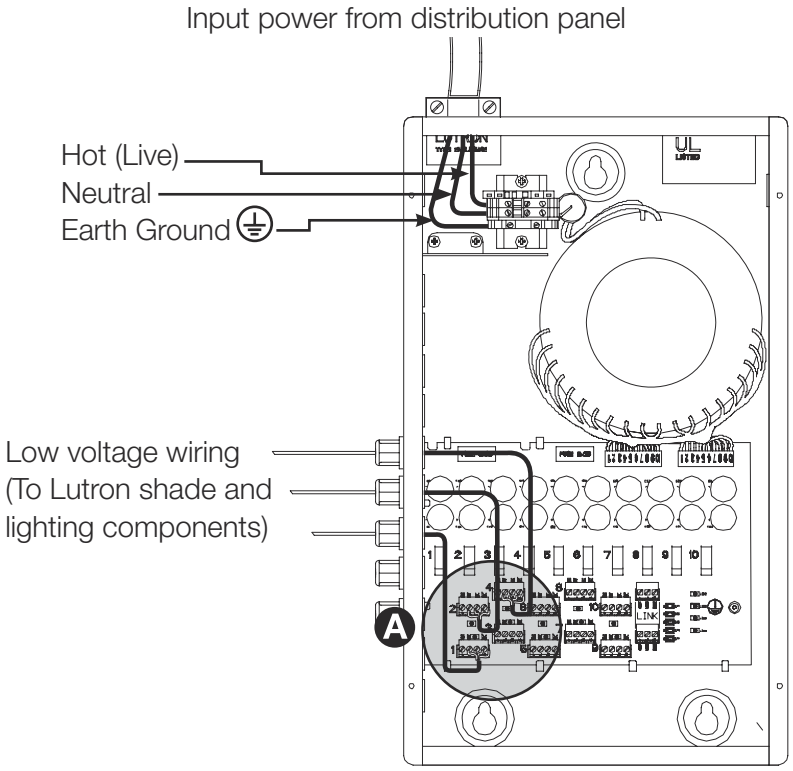
1 Wiring the QSPS-P2-10-60

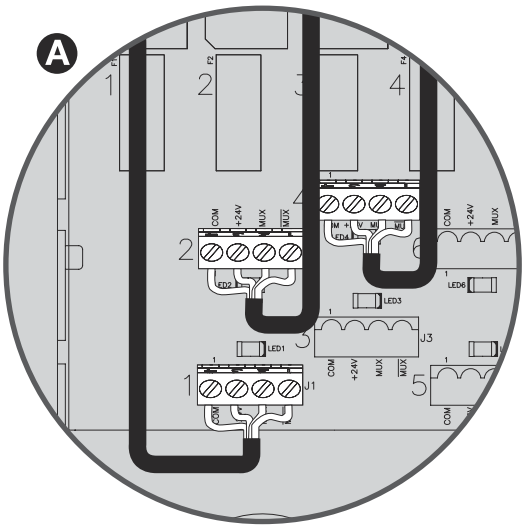
1.1 Run low voltage wire into the QSPS-P2-10-60

Remove as many knockout tabs as necessary from the left side of the enclosure and insert strain reliefs.

Run the low-voltage communication wiring from the Lutron QS shade and lighting devices through the strain reliefs to the terminal blocks.

Strip insulation wire so that 7 mm (.25 in) of bare wire is exposed. Make sure to tighten the screws tightly and that no insulation is inside of the terminal block.

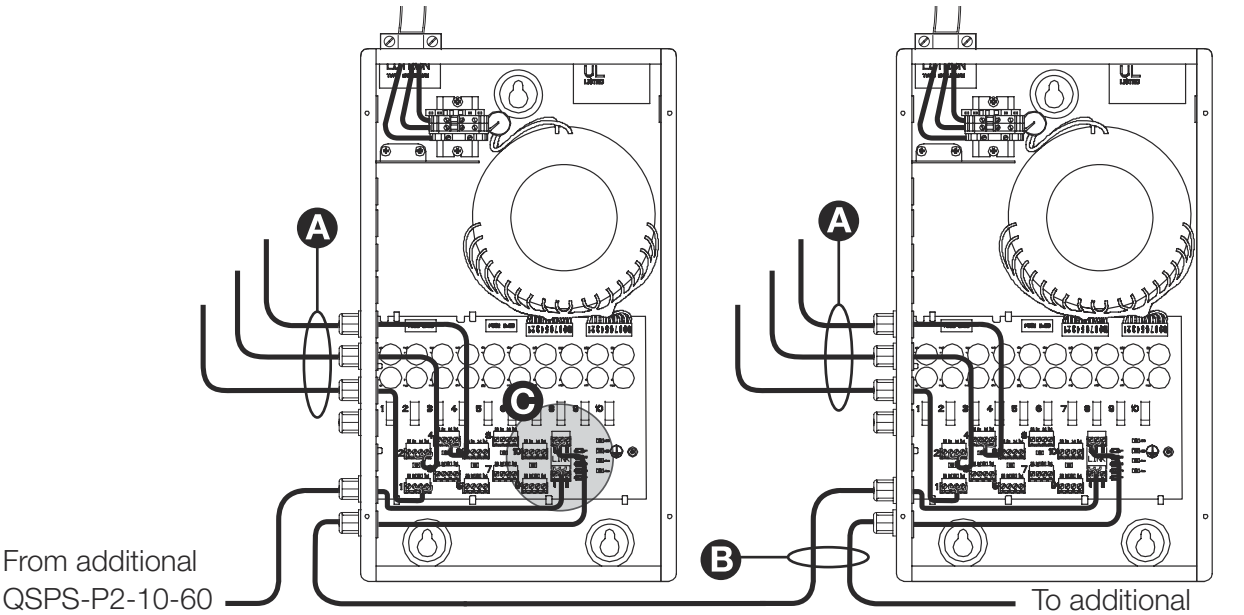




1 Wiring the QSPS-P2-10-60 (continued)

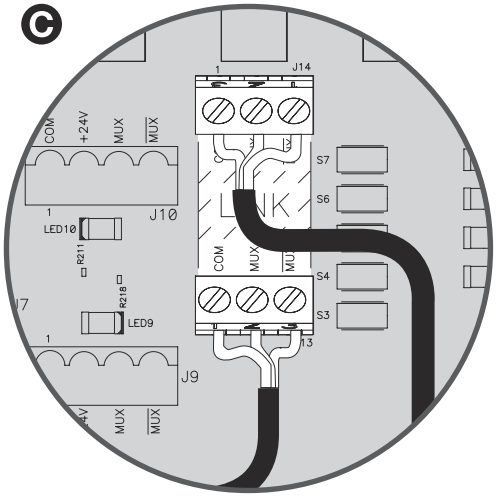
1.1 Connecting Multiple QSPS-P2-10-60 Panels

Use the two 3-pin terminal blocks when connecting multiple QSPS-P2-10-60 panels.



A Device Link
4 - conductor power and communications to devices. Max 600 m (2000 ft) per QSPS-P2-10-60

B Panel Link
3 - conductor communications Max 600 m (2000 ft) connecting all QSPS-P2-10-60 panels.



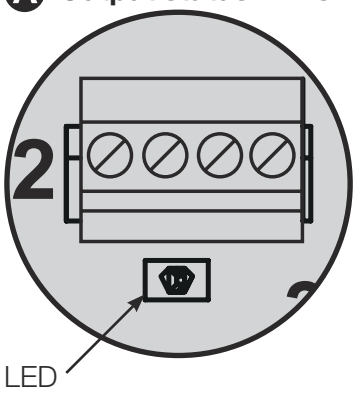
5 Diagnostics

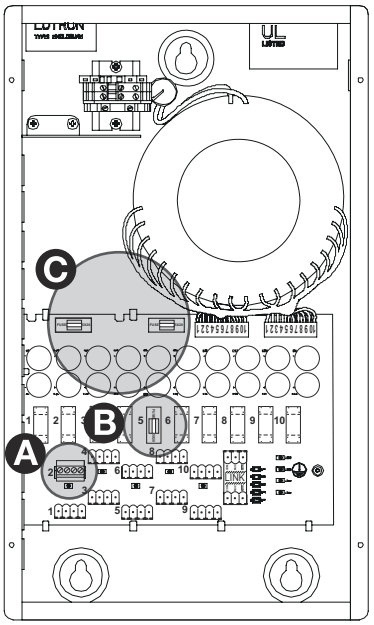
The QSPS-P2-10-60 provides built-in diagnostics to help troubleshoot and verify your installation.

5.1 Output status LEDs

Each output has a status LED to indicate if the output is properly powered. If an output becomes overloaded, its status LED will blink to indicate the fault condition. Press the “Power Supply Clear” button after the fault condition has been cleared and the LED will stop blinking.

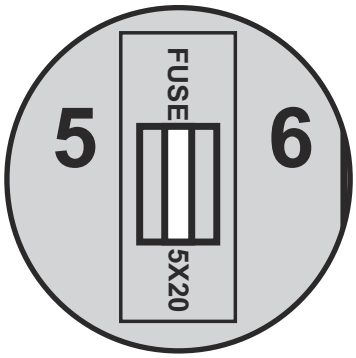
A Output status LEDs



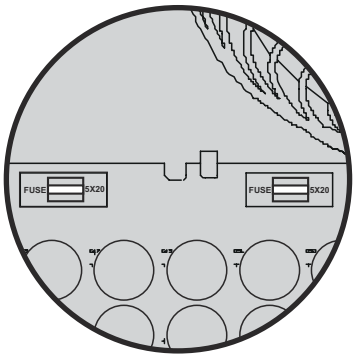


If an output status LED has turned off, the fuse will need to be replaced. The QSPS-P2-10-60 comes with two spare 5x20 mm 2.5 A fuses.

B Fuses



C Spare fuses

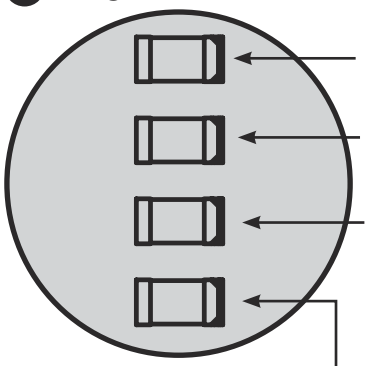


5 Diagnostics (continued)

5.2 Communications Link LEDs

The QSPS-P2-10-60 has four diagnostic LEDs for the communications link.

A Diagnostic LEDs

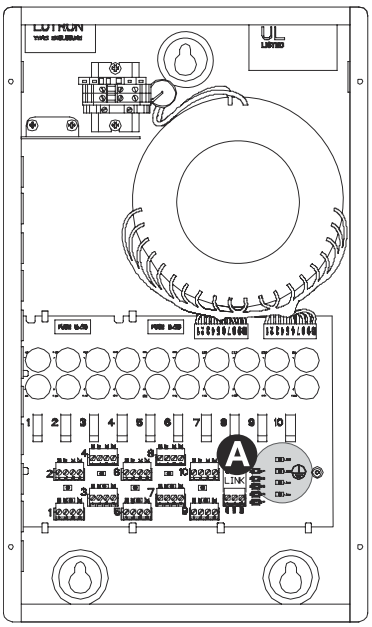


Reserved for future use

Reserved for future use

Link Traffic
This LED will blink green to indicate that devices are communicating.

Status LED
This LED indicates that the panel is operating properly. If this LED is off, check your wiring.



5.3 Verify Communications

To verify the communications of your system, tap, hold (5 seconds), tap, hold (5 seconds) the All Shades Open button. The QSPS-P2-10-60 is now trying to communicate with all other devices. All EDUs communicating on the link will wiggle and flash their green LED quickly. If you discover any EDUs that are not wiggling, verify that the EDU is powered and wired properly. Link Diagnostics Mode will automatically time out after 10 minutes.

To exit Link Diagnostics Mode, press and hold the All Shades Open button for 5 seconds.

Notes:

Notes:

Notes:

Limited Warranty

SCOPE
This limited warranty ("Warranty") covers the Lutron supplied (a) Sivoia® QS Shade System ("Sivoia® QS Shade System"), (b) Sivoia QED® Shade System ("Sivoia QED® Shade System"), (c) manual shade system and (d) alternating current or a/c shade system (each of the foregoing being a "System"). Customer acknowledges and agrees that use of the System constitutes acceptance of all terms and conditions of this Warranty.

LIMITED WARRANTY
Subject to the exclusions and restrictions described below, Lutron warrants that each System will be free from manufacturing defects from the date of shipment by Lutron for a period of (a) one year as to the wall controls, interfaces and system accessories of the Sivoia® QS Shade System ("External Sivoia® QS Components") and (b) eight years as to the other Systems and the electronic drive unit, shade fabric and shade hardware of the Sivoia® QS Shade System. If any manufacturing defect exists in the External Sivoia® QS Components, so long as Customer promptly notifies Lutron of the defect within the one year warranty period and, if requested by Lutron, returns the defective part(s), Lutron will, at its option, either repair the defective part(s) or provide comparable replacement part(s). If any manufacturing defect exists in any of the components of a System other than the External Sivoia® QS Components, so long as Customer promptly notifies Lutron of the defect within the eight year warranty period and, if requested by Lutron, returns the defective part(s), Lutron will, at its option, either repair the defective part(s) or issue a credit to the Customer against the purchase price of comparable replacement part(s) purchased from Lutron as provided below:

Number of years from date of shipment	Percentage of cost of replacement parts credited by Lutron
Up to 2	100%
More than 2 but not more than 5	50%
More than 5 but not more than 8	25%
More than 8	0%

Replacement parts for the System provided by Lutron or, at its sole discretion, an approved vendor may be new, used, repaired, reconditioned, and/or made by a different manufacturer.

EXCLUSIONS AND RESTRICTIONS
This Warranty will be void, and Lutron and its suppliers will have no responsibility under this Warranty, if Lutron or its representatives cannot access any components of the System to inspect, diagnose problems with or repair the System or any of its components as a result of concealment or inaccessibility of such components within a building structure.

This Warranty does not cover, and Lutron and its suppliers are not responsible for:

1. Damage, malfunction or inoperability diagnosed by Lutron or a Lutron approved third party as caused by normal wear and tear, abuse, misuse, incorrect installation, neglect, accident, interference or environmental factors, such as (a) use of incorrect line voltages fuses or circuit breakers; (b) failure to install, maintain and operate the System pursuant to the operating instructions provided by Lutron and the applicable provisions of the National Electrical Code and of the Safety Standards of Underwriter's Laboratories; (c) use of incompatible devices or accessories; (d) improper or insufficient ventilation; (e) unauthorized repairs or adjustments or alterations; (f) vandalism; (g) an act of God, such as fire, lightning, flooding, tornado, earthquake, hurricane or other problems beyond Lutron's control; or (h) direct exposure to corrosive materials.
2. On-site labor costs to diagnose issues with, and remove, repair, replace, adjust, reinstall and/or reprogram the System or any of its components.
3. Components and equipment external to the System, such as, non-Lutron lighting and automation systems; building wiring audio-visual equipment; and non-Lutron time clocks, photosensors and motion detectors.
4. The cost of repairing or replacing other property that is damaged when any System does not work properly, even if the damage was caused by the System.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO EIGHT YEARS FROM THE DATE OF SHIPMENT, EXCEPT THAT SUCH IMPLIED WARRANTIES ARE LIMITED TO ONE YEAR FROM THE DATE OF SHIPMENT AS TO THE EXTERNAL Sivoia QS COMPONENTS.

NO LUTRON AGENT, EMPLOYEE OR REPRESENTATIVE HAS ANY AUTHORITY TO BIND LUTRON TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY CONCERNING THE SYSTEMS. UNLESS AN AFFIRMATION, REPRESENTATION OR WARRANTY MADE BY AN AGENT, EMPLOYEE OR REPRESENTATIVE IS SPECIFICALLY INCLUDED HEREIN, OR IN STANDARD PRINTED MATERIALS PROVIDED BY LUTRON, IT DOES NOT FORM A PART OF THE BASIS OF ANY BARGAIN BETWEEN LUTRON AND CUSTOMER AND WILL NOT IN ANY WAY BE ENFORCEABLE BY CUSTOMER.

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WARRANTY CLAIMS, TECHNICAL ASSISTANCE AND WARRANTY INFORMATION.

Contact the Lutron Technical Support Center at the numbers provided below or your local Lutron sales representative with questions concerning the installation or operation of the System or this Warranty, or to make a warranty claim. Please provide the exact model number when calling.

U.S. and foreign patents pending.

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P/N 045-131-12 REV. A

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