Sivoia® QS

wiring and programming guide
Sivoia® QS Drives are available for control of Draperies, Roller Shades, Venetian Blinds, Sheer Blinds, and Tensioned Shades. Sivoia QS Shades, Blinds, and Draperies can be controlled as part of a QS System, incorporating GRAFIK Eye® QS lighting controls, or as a Window treatments only System, without lighting controls.

Sivoia QS Drives and Keypads are powered from a 24 VDC power supply. All drives, power supplies, keypads and other control devices are linked together. This link provides 24 VDC to all components.

The Window treatments can also be equipped with a QS IR Eye receiver and operated via an infrared Hand-Held Remote Control. These can be used in either a GRAFIK Eye QS Integrated System or Sivoia QS Standalone System.
## Contents

### Wiring
- QS link power supply .............................................. 4
- Smart panel - one shade per output .................................. 5
- Smart panel - two shades per output .................................. 6
- Smart panel - three shades per output ................................. 7
- GRAFIK Eye® QS integration. ......................................... 8
- Wire length chart .......................................................... 9

### Setting limits
- From the drive .......................................................... 10
- From a keypad .......................................................... 13

### Verifyling communication
- From the drive .......................................................... 11
- From the smart panel .................................................. 11

### Programming
- Assigning window treatments to keypads .............................. 12
- Storing presets from a keypad ........................................ 14
- Individual level adjust ................................................. 15

### Restoring defaults
- Drive. ................................................................. 16
- Keypad. ................................................................. 17

### Troubleshooting
- Troubleshooting Chart .............................................. 18
**System Wiring Overview: QS Link Power Supply**

**Example:** Powering one shade / drapery drive unit and one keypad (max of one shade / drapery drive unit per output of a power supply)

**Example:** Powering keypads

**Example:** Connecting to a GRAFIK Eye® QS (Note: GRAFIK Eye QS powered from line voltage)

**Example:** Connecting to a GRAFIK Eye QS (Note: GRAFIK Eye QS powered from line voltage)

**Wiring Type Key**

**Type A**
- Power and communication link (4 conductor)
- Provides power and communication to QS shades or keypads

**Type B**
- Communication link (3 conductor)
- Communications used to connect power supplies to each other or to GRAFIK Eye QS

Refer to Section 6 - QS Power Supply Wiring and Power Draw Unit Guidelines for wire gauge based on distance.

**Note:** Secondary wiring must be of type CL2, CL2P, CL2R, CL2X or other cable with equivalent or better electrical, mechanical, and flammability ratings in accordance with local and national electric code.
Sivoia QS System Wiring: Smart Panel power supply, single shade per output

Wiring Type Key

**Type A**  
Power and communication link (4 conductor)  
Provides power and communication to QS shades or keypads

**Type B**  
Communication link (3 conductor)  
Communications used to connect power supplies to each other or to GRAFIK Eye QS

Refer to Section 6 - QS Power Supply Wiring and Power Draw Unit Guidelines for wire gauge based on distance.

**Note:** Secondary wiring must be of type CL2, CL2P, CL2R, CL2X or other cable with equivalent or better electrical, mechanical, and flammability ratings in accordance with local and national electric code.
Sivoia QS System Wiring:
Smart Panel power supply, two shades per output

*Number of shades per output will vary based on roller type and size of roller shade. Refer to Section 6 for wiring guidelines.

Wiring Type Key

**Type A**
- Power and communication link (4 conductor)
- Provides power and communication to QS shades or keypads

**Type B**
- Communication link (3 conductor)
- Communications used to connect power supplies to each other or to GRAFIK Eye QS

Refer to Section 6 - QS Power Supply Wiring and Power Draw Unit Guidelines for wire gauge based on distance.

**Note:** Secondary wiring must be of type CL2, CL2P, CL2R, CL2X or other cable with equivalent or better electrical, mechanical, and flammability ratings in accordance with local and national electric code.
Sivoia QS System Wiring:
Smart Panel power supply, three shades per output

*Sivoia QS roller 64™*

120 V~ 60 Hz

QSPS-P1-10-60
10 Output Smart Panel power supply

Wire Type A

Wire Type A

Wire Type A

To other QS Controls

seeTouch® QS keypads

QSPS-P1-10-60
10 Output Smart Panel power supply

*Number of shades per output will vary based on roller type and size of roll-er shade. Refer to Section 6 for wiring guidelines

Wiring Type Key

**Type A** Power and communication link (4 conductor)
Provides power and communication to QS shades or keypads

**Type B** Communication link (3 conductor)
Communications used to connect power supplies to each other or to GRAFIK Eye QS

Refer to Section 6 - QS Power Supply Wiring and Power Draw Unit Guidelines for wire gauge based on distance.

**Note:** Secondary wiring must be of type CL2, CL2P, CL2R, CL2X or other cable with equivalent or better electrical, mechanical, and flammability ratings in accordance with local and national electric code.
Sivoia QS with GRAFIK Eye® QS System Wiring:
Smart Panel power supply, single shade per output

Wiring Type Key

**Type A**  
Power and communication link (4 conductor)  
Provides power and communication to QS shades or keypads

**Type B**  
Communication link (3 conductor)  
Communications used to connect power supplies to each other or to GRAFIK Eye QS

Refer to Section 6 - QS Power Supply Wiring and Power Draw Unit Guidelines for wire gauge based on distance.

**Note:** Secondary wiring must be of type CL2, CL2P, CL2R, CL2X or other cable with equivalent or better electrical, mechanical, and flammability ratings in accordance with local and national electric code.
### QS Smart Panel Power Supply (QSPS-Px-10-60)

<table>
<thead>
<tr>
<th>Maximum devices per one output</th>
<th>Maximum distance per one output based on wire gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shades + Controls</td>
<td>12 AWG (4 mm²) QSH-CBL-L-500 QSH-CBLP-L-500</td>
</tr>
<tr>
<td>No shade or drapery</td>
<td>Up to 50 power draw units</td>
</tr>
<tr>
<td>No shade or drapery</td>
<td>Up to 25 power draw units</td>
</tr>
<tr>
<td>1 Sivoia QS shade or drapery</td>
<td></td>
</tr>
<tr>
<td>2 Sivoia QS Roller64, ≤ 30 ft² (2.75 m²) each</td>
<td>Up to 1 power draw unit</td>
</tr>
<tr>
<td>3 Sivoia QS Roller64, ≤ 20 ft² (1.8 m²) each</td>
<td></td>
</tr>
<tr>
<td>2 Sivoia QS Roller100, ≤ 50 ft² (4.6 m²) each</td>
<td></td>
</tr>
</tbody>
</table>

### QS Individual Power Supply (QSPS-Px-1-50 or QSPS-J-1-50)

<table>
<thead>
<tr>
<th>Maximum devices per one output</th>
<th>Maximum distance per one output based on wire gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shades + Controls</td>
<td>12 AWG (4 mm²)</td>
</tr>
<tr>
<td>None</td>
<td>Up to 8 power draw units</td>
</tr>
<tr>
<td>1 Sivoia QS shade or drapery</td>
<td>Up to 1 power draw unit</td>
</tr>
</tbody>
</table>

Use this chart to determine the number of shades and/or controls that can be powered from one output on the Sivoia QS Smart Panel or from the output of the QS Individual Power Supply depending on the size of the shade. Then, verify the maximum cable length for the output configuration, based on the wire gauge that will be used for the 2 power conductors.
The open and close limits define the travel range of the window treatment. Limits can be set at the Drive, or from a keypad or an IR Remote previously assigned to that Drive. It is recommended that limits be set initially at the Drive.

**Setting Open Limit**

1. Tap Open Limit button. Green LED will turn on.

2. Press and hold either arrow button to move the Window treatment to desired Open Limit.

3. Press and hold the Open Limit button until the Green LED flashes. Open Limit is stored.

**Setting Close Limit**

4. Tap the Close Limit button. The Green LED will turn on.

5. Press and hold either arrow button to move the Window treatment to desired Close Limit.

6. Press and hold the Close Limit button until the Green LED flashes. Close Limit is stored.
8 Verify Communication

From a Drive:

8.1 Press and hold Close (■) for 5 seconds,

8.2 Tap CCW (■) to enter Link Diagnostics mode
- Window treatments will wiggle and display a green LED, flashing once per second*

8.3 Press and hold Close (■) to exit Link Diagnostics Mode.

From the Sivoia QS Smart Panel:

8.4 Tap Open, hold Open 5 seconds, tap Open, hold Open 5 seconds.
- All window treatments will wiggle*
  120 V~
  60 Hz

8.5 Press and hold Open 5 sec. to exit Link Diagnostics mode

(*) If any window treatment is not wiggling, or is displaying a red LED, check the wiring
9 Assigning Window treatments to Keypads

9.1 Press and hold Open and Close simultaneously for 5 seconds
- Window treatments that are assigned will move to close (down)
- Window treatments that are unassigned will move to open (up)

9.2 Tapping Open selects the next window treatment,
Close selects the next window treatment

9.3 Tap the Lower (▼) to assign or Raise (▲) to unassign a window treatment

9.4 Press and hold Open and Close simultaneously for 5 seconds to exit
10 Setting Limits From a Keypad or IR Transmitter

10.1 Press and hold Open and Raise (▵) simultaneously for 5 seconds

10.2 Tapping Open selects the next window treatment, Close selects the next window treatment

10.3 Hold Raise (▵) or Lower (▽) to adjust window treatment position

10.4 Press and hold Open for 5 seconds to store the open limit or Close for 5 seconds to store the close limit

10.5 Press and hold Open and Raise (▵) simultaneously for 5 seconds to exit
11 Storing Presets from a Keypad or IR Transmitter

11.1 Adjust the window treatment to the desired position by holding the raise or lower buttons.

11.2 Store the current position of the window treatment by pressing and holding the desired Preset button for 5 seconds.
12 Individual Level Adjust

12.1 Press and hold Open and Lower simultaneously for 5 seconds
-Window treatments that are assigned will move to close (down)
-Window treatments that are unassigned will move to open (up)

12.2 Tap the desired Preset button to enter Preset-adjust mode

12.3 Tapping Open selects the next window treatment,
Close selects the next window treatment

12.4 Hold Raise (△) and Lower (▽) to adjust window treatment position

12.5 Repeat steps 12.2 & 12.3 to adjust additional window treatments

12.6 Press and hold Open and Lower simultaneously
for 5 seconds to exit

12.7 Store the current position of the window treatments
by pressing and holding the desired Preset button
for 5 seconds
13 Programming | Restoring Drive Default Settings

- Restoring a Drive to factory defaults will reset all keypad assignments but will not affect the open and closed limits.

Returning a Drive to its Factory Default Setting

13.1 Press and hold Close Limit button until LED flashes Green then turns on steady.

13.2 Press and hold Open Limit button until LED flashes Green then turns on steady.

13.3 Press and hold CW arrow button until LED flashes Green then turns on steady.

13.4 Press and hold CCW arrow button until LED flashes Green then turns on steady.

13.5 LED flashes a multi-color sequence, then turns off.
14 Programming | Restoring Keypad Default Settings

14.1 Triple tap and hold the top button on the keypad. DO NOT release the button after the third tap.

14.2 Keep the button pressed on the third tap until the LED next to the top button turns on solid (approximately 3 seconds).

14.3 Immediately release the button and triple tap it again. The LED next to the top button will flash quickly. When the LED stops flashing, the control has been returned to Factory Settings.
## Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drive will not move</strong></td>
<td>Drive is not powered - Check Drive power</td>
</tr>
<tr>
<td></td>
<td>Fabric is obstructed - Free obstruction</td>
</tr>
<tr>
<td></td>
<td>Drive not connected to keypad</td>
</tr>
<tr>
<td></td>
<td>Drive not assigned to keypad</td>
</tr>
<tr>
<td><strong>Drive does not fully open or fully close</strong></td>
<td>Limits have been set incorrectly - try using raise and lower buttons</td>
</tr>
<tr>
<td></td>
<td>Fabric is obstructed - Free obstruction</td>
</tr>
<tr>
<td>**Drive opens when pressing close button,</td>
<td>Open and close limits have been reversed - Refer to sections 7 and 10; “setting limits”</td>
</tr>
<tr>
<td>and closes when pressing open button**</td>
<td></td>
</tr>
<tr>
<td><strong>Drive does not move smoothly.</strong></td>
<td>Check for binding of fabric or obstructions</td>
</tr>
<tr>
<td><strong>Keypad will not operate drive</strong></td>
<td>Check that keypad is wired properly and assigned to the drive</td>
</tr>
<tr>
<td><strong>IR controls will not operate shade,</strong></td>
<td>IR transmitter does not have line of sight to IR receiver</td>
</tr>
<tr>
<td><strong>keypads work properly</strong></td>
<td>IR transmitter not assigned to shade</td>
</tr>
<tr>
<td></td>
<td>IR receiver not connected to shade link</td>
</tr>
<tr>
<td></td>
<td>Out of range - Move to within 30 ft of IR receiver</td>
</tr>
<tr>
<td><strong>Tripping fuse or breaker in power supply</strong></td>
<td>Too many devices on a single power output</td>
</tr>
<tr>
<td></td>
<td>Verify there is no obstruction in the path of the shade, drapery or carriers</td>
</tr>
<tr>
<td></td>
<td>Verify the drapery stackback is not being over compressed</td>
</tr>
<tr>
<td></td>
<td>Verify the (drapery) Master Carrier is not driving into the idler end or adjacent Master Carrier</td>
</tr>
</tbody>
</table>
Limited Warranty

SCOPE
This limited warranty ("Warranty") covers the Lutron supplied (a) Sivoia Shade Systems ("Sivoia Shade Systems"), (b) manual shade system and (c) 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 Shade System ("External Sivoia Components") and (b) eight years as to the other Systems and the electronic drive unit, shade fabric and shade hardware of the Sivoia Shade System. If any manufacturing defect exists in the External Sivoia 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 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:

<table>
<thead>
<tr>
<th>Number of Years from Date of Shipment</th>
<th>Percentage of Cost of Replacement Parts Credited by Lutron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 5</td>
<td>100%</td>
</tr>
<tr>
<td>More than 5 but not more than 8</td>
<td>50%</td>
</tr>
<tr>
<td>More than 8</td>
<td>0%</td>
</tr>
</tbody>
</table>

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 accessibility 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 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.

IN NO EVENT WILL LUTRON OR ANY OTHER PARTY BE LIABLE FOR EXEMPLARY, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO DAMAGES FOR PERSONAL INJURY, FAILURE TO MEET ANY DUTY, INCLUDING OF GOOD FAITH OR REASONABLE CARE, NEGLIGENCE, OR ANY OTHER LOSS WHATSOEVER, NOR FOR ANY REPAIR WORK UNDERTAKEN WITHOUT LUTRON’s PRIOR WRITTEN CONSENT ARISING OUT OF OR IN ANY WAY RELATED TO THE INSTALLATION, DEINSTALLATION, USE OR INABILITY TO USE THE SYSTEM OR OTHERWISE UNDER OR IN CONNECTION WITH ANY PROVISION OF THIS WARRANTY, EVEN IN THE EVENT OF THE FAULT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, BREACH OF CONTRACT OR BREACH OF WARRANTY OF LUTRON OR ANY OTHER PARTY, AND EVEN IF LUTRON OR SUCH OTHER PARTY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

NOTWITHSTANDING ANY DAMAGES THAT CUSTOMER MIGHT INURE FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DIRECT DAMAGES AND ALL DAMAGES LISTED ABOVE), THE ENTIRE LIABILITY OF LUTRON AND OF ALL OTHER PARTIES UNDER THIS WARRANTY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, USE, REPAIR, OR REPLACEMENT OF THE SYSTEM, AND CUSTOMER’S SOLE REMEDY FOR THE FOREGOING, WILL BE LIMITED TO THE AMOUNT PAID BY CUSTOMER FOR THE SYSTEM. THE FOREGOING LIMITATIONS, EXCLUSIONS AND DISCLAIMERS WILL APPLY TO THE MAXIMUM EXTENT ALLOWED BY APPLICABLE LAW, EVEN IF ANY REMEDY FAILS ITS ESSENTIAL PURPOSE.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

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.

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