

**Mounting**

- Lutron recommends that the SVQ-CCI-8 be installed by a qualified electrician.
  - The environment where the SVQ-CCI-8 is placed must have an ambient temperature range of 32 °F - 104 °F (0 °C - 40 °C).
  - Mount the enclosure on a clean dry surface.
  - Mounting method must be able to support the weight and forces applied during installation.
  - Mount the SVQ-CCI-8 no further away than the maximum wire length specified by the equipment providing the input signals.
1. Remove the top cover by loosening the two screws.
  2. Mark two holes in the mounting surface using the SVQ-CCI-8 as a template.
  3. Drill the holes.
  4. Mount the SVQ-CCI-8 using 2 #8 screws (not supplied).

**Wiring Notes**

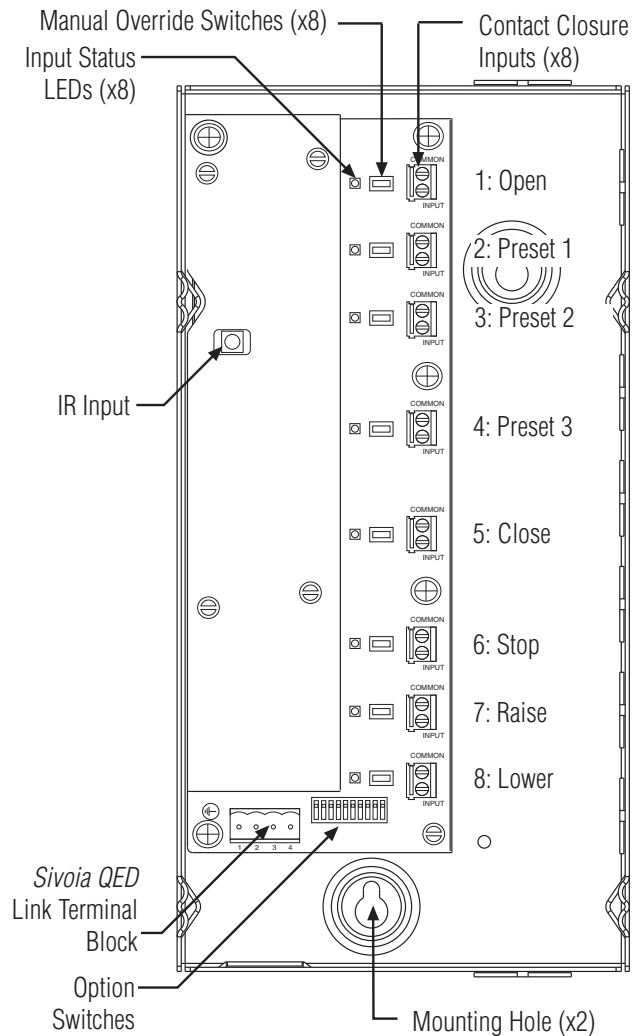


**DANGER!** Always turn Off the circuit breaker or remove the main fuse from the power line before doing any work. **Failure to do so can result in serious personal injury.**



**CAUTION!** Do not connect any separately referenced common wires to the SVQ-CCI-8. **Failure to do so can result in personal injury or damage to the control or to other equipment.**

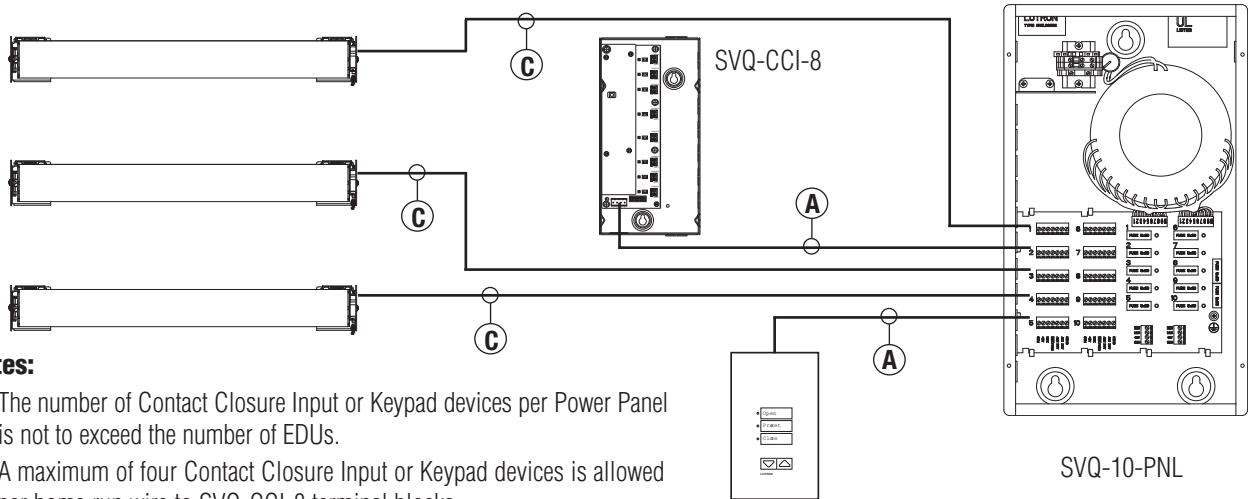
- Do not connect line/mains voltage power to low-voltage terminals. **Improper wiring can result in personal injury or damage to the control or to other equipment.**
- SVQ-CCI-8 must be connected to the *Sivoia QED* Electronic Drive Unit (EDU) by using Class 2 wiring methods per the National Electrical Code®. Check with your local electrical inspector for the local code requirements and wiring practices allowed in your area.
- *Sivoia QED* communication link wiring specification: Four conductor #18 AWG (1.0 mm<sup>2</sup>), twisted and shielded. Lutron cable GRX-CBL-346S-500 may be used for the communication link as long as the #18 AWG conductors are used for the +12V and common.
- SVQ-CCI-8 is either powered by an EDU or a Keypad Power Supply. Each EDU can provide power for one Contact Closure Input or Keypad device.
- *Sivoia QED* Link wiring layouts are shown on the next page.



**Note:** The factory-set functionality for each contact closure input is shown in the figure above.

- System Maximums:
  - *Sivoia QED* communication link can support up to 64 Electronic Drive Units (EDUs) and 32 Contact Closure Input or Keypad devices on one system.
  - However, the 64 EDU/32 CCI and Keypad device limitation may be exceeded as long as the total number of devices (EDUs, CCIs, Keypads) does not exceed 96 devices. When the number of CCI and Keypad devices exceeds the number of EDUs in the system, external keypad power supplies are required.
  - *Sivoia QED* communication link can not exceed 4000 feet total.
  - The maximum distance between any two *Sivoia QED* devices is 1000 feet unless specified otherwise.

## Sivoia QED Link Wiring Using Power Panels

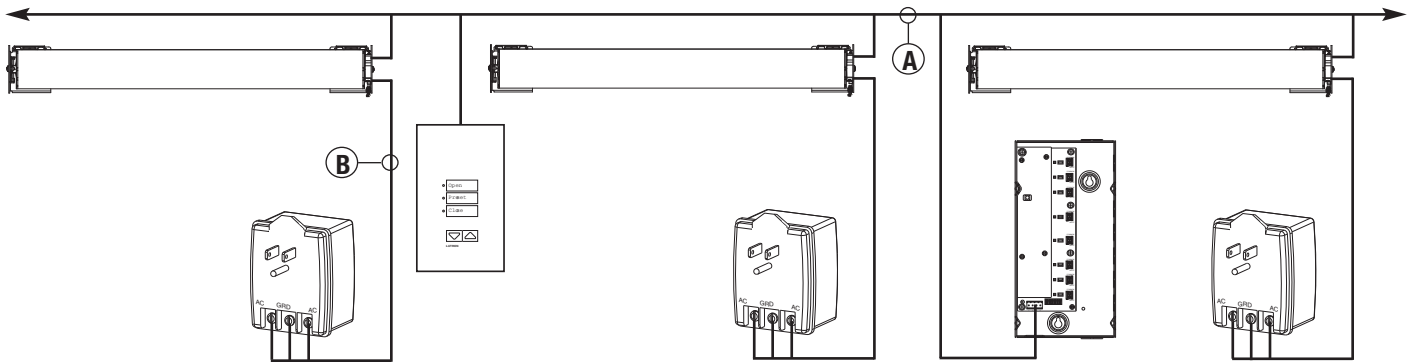


### Notes:

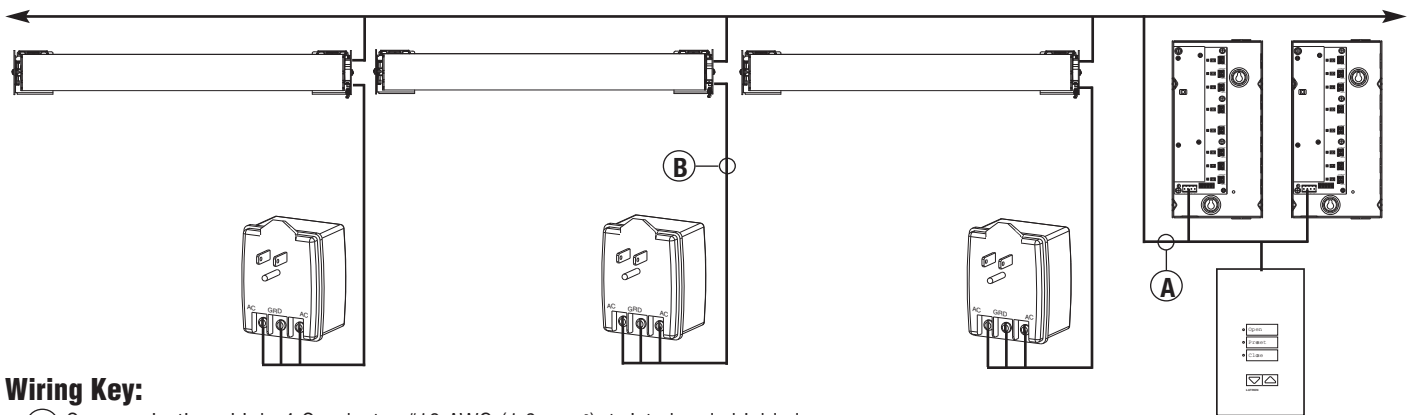
1. The number of Contact Closure Input or Keypad devices per Power Panel is not to exceed the number of EDUs.
2. A maximum of four Contact Closure Input or Keypad devices is allowed per home run wire to SVQ-CCI-8 terminal blocks.

## Sivoia QED Link Wiring Using Individual Transformers

For larger systems, distribute Contact Closure Input and Keypad devices evenly on the link (maximum one Contact Closure Input or Keypad device between EDUs), as seen below.



For systems with up to four Contact Closure Input or Keypad devices and 400 feet of wire, there is no requirement for even distribution of EDUs, Keypads, and Contact Closure Input boards.



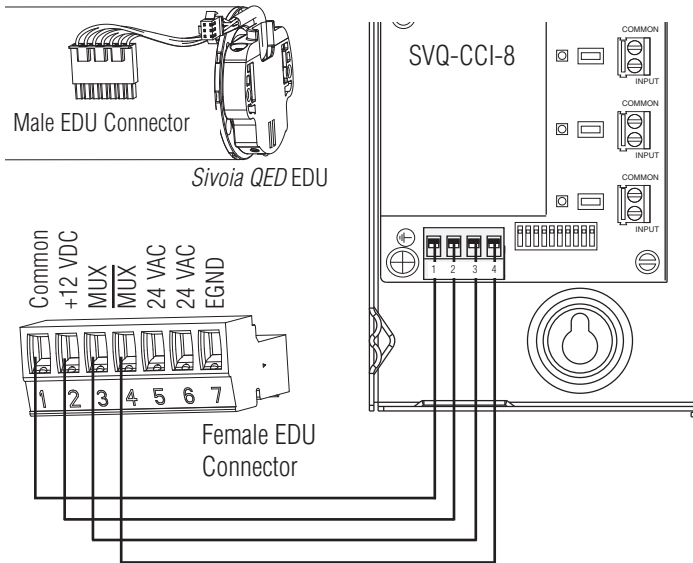
### Wiring Key:

- (A) Communications Link: 4 Conductor #18 AWG (1.0 mm<sup>2</sup>), twisted and shielded.
- (B) Power Supply: 3 Conductor #16 (1.3 mm<sup>2</sup>) AWG to #20 AWG (0.8 mm<sup>2</sup>)
- (C) SVQ-CBL-250 ( (A) & (B) combined): 7 Conductors, being:
  - 2- #16 AWG (1.3 mm<sup>2</sup>) Power Supply (red, red/white)
  - 1- #18 AWG (1.0 mm<sup>2</sup>) Earth Ground (green/yellow)
  - 4- #18 AWG (1.0 mm<sup>2</sup>) Sivoia QED Communication Link (blue, yellow, violet, gray, twisted and shielded)

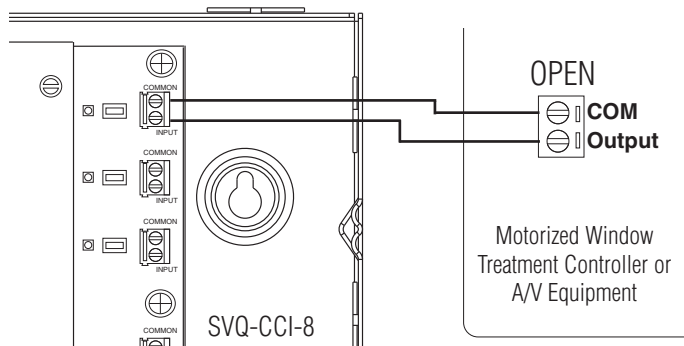
For maximum wire lengths between two devices on the communication link, please see the *Sivoia QED* Technical Reference Guide.

# Wiring Steps

1. Turn off power.
2. Strip insulation from wires so that 3/8 in. (10 mm) of bare wire is exposed for #18 AWG (1.0 mm<sup>2</sup>) wire.
3. Each terminal of the *Sivoia QED* Link terminal block will accept up to two #18 AWG (1.0 mm<sup>2</sup>) wires. Connect the two #18 AWG (1.0 mm<sup>2</sup>) wires to terminals 1 and 2 of the terminal block. Connect the two #18 AWG (1.0 mm<sup>2</sup>) shielded, twisted pair wires to terminals 3 and 4 of the terminal block.



4. Verify the compatibility of input devices. The SVQ-CCI-8 is intended for use with devices that provide input in the form of dry contact closures. The SVQ-CCI-8 can be used with ground-referenced solid-state outputs if the outputs have an on-state saturation voltage of less than 2V<sub>DC</sub> and an off-state leakage of less than 0.05mA. Dry contact or solid-state outputs must be capable of switching 15V<sub>DC</sub> at 10mA. Refer to the installation guide of the motorized window treatment controller or A/V equipment to determine whether the device is compatible with these specifications.
5. Connect the wiring for the first contact closure input (#1) to the “Open” terminal of the motorized window treatment controller or A/V equipment as shown below. The input and common connections are labeled on the printed circuit board. The terminal blocks will accept #14-#22 AWG wire.



6. Repeat step 5 for the wiring of each of the contact closure inputs as follows:

Input 1: Open	Input 5: Close
Input 2: Preset 1	Input 6: Stop
Input 3: Preset 2	Input 7: Raise
Input 4: Preset 3	Input 8: Lower

Note that this is the default configuration of the inputs of the SVQ-CCI-8, corresponding to the following settings of the Option Switches:



Make sure that the external input source and functionality of each input are correctly matched.

7. Restore power.

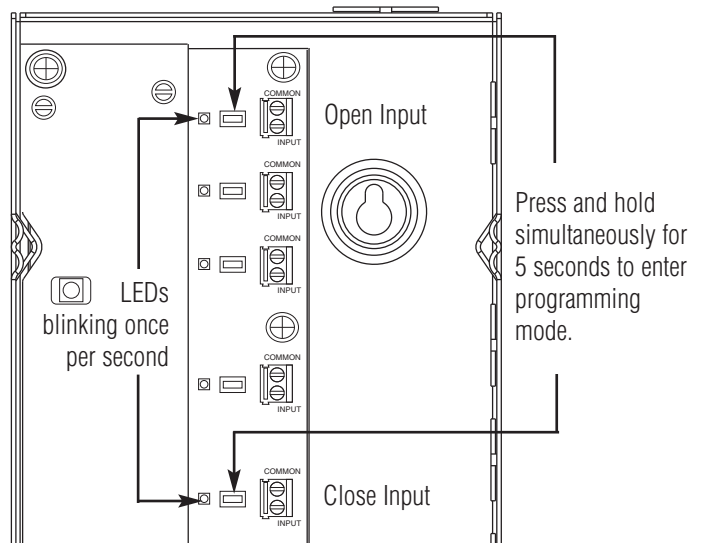
For wiring and programming information for other settings of the Option Switches, please refer to the *Sivoia QED* Wiring and Programming Guide.

## Addressing the System

1. Move Option Switch 6 to the OFF position (down) to enable programming through the SVQ-CCI-8.



2. Enter programming mode on the SVQ-CCI-8 by pressing and holding the manual override switches next to the Open and Close inputs simultaneously for 5 seconds. The LEDs next to the Open and Close inputs will flash once per second, indicating the SVQ-CCI-8 is in Programming mode.



3. Initiate system addressing by pressing the manual override switch next to the Open input. The LED next to the Open input will flash quickly (8 times a second) and the LED next to the Close button will turn off. The system devices are now being automatically addressed.

- Wait for system addressing to be completed. This will take approximately one minute. While addressing is in progress, each SVQ-CCI-8 and Keypad will flash the Open LED quickly (8 times a second). When addressing has successfully completed, the Open and Close LEDs on each SVQ-CCI-8 and Keypad in the system will flash slowly (once per second).
- When system addressing is complete, exit Programming mode by pressing and holding the manual override switches next to the Open and Close inputs simultaneously for 5 seconds. The Open and Close LEDs will stop flashing.

## EDU Assignment



**Note:** Entering Assignment mode will cause the window treatments to move between their Open and Close limits. **Be sure that the Open and Close limits have been set appropriately.**

- Move Option Switch 6 to the OFF position (down) if it is not currently in this position.
- Enter Programming mode on the SVQ-CCI-8 by pressing and holding the manual override switches next to the Open and Close inputs simultaneously for 5 seconds. The LEDs next to the Open and Close inputs will flash once per second, indicating the SVQ-CCI-8 is in Programming mode.
- Initiate Assignment mode by pressing the manual override switch next to the Close input. The LED next to the Close input will continue to flash (once per second) and the LED next to the Open input will turn off. EDUs that are assigned to the SVQ-CCI-8 in Assignment Mode will move to their Close limit. EDUs that are not assigned to the SVQ-CCI-8 will move to their Open limit.

- Press any button on an EDU to toggle between assignment or unassignment with the SVQ-CCI-8.

### OR

Use the manual override switch next to the Open input to step through each EDU in the system. Each time this switch is pressed and released, an EDU will fast cycle. Repeat pressing the manual override switch next to the Open input until the desired EDU is selected. The manual override switch next to the Close input can also be used to select EDUs in the opposite order.

- Press the manual override switch next to the Lower input to assign the currently selected EDU. Press the manual override switch next to the Raise input to unassign the selected EDU.
- Check assignment before exiting Assignment mode. EDUs that are at the Close limit are assigned. EDUs that are at the Open limit are unassigned.
- Exit Assignment mode by pressing and holding the manual override switches next to the Open and Close inputs simultaneously for 5 seconds. Each EDU will return to the level it was at when Assignment mode was entered. The LEDs next to the Open and Close inputs will stop flashing.

## Finish Installation

- Move Option Switch 6 to the ON position (up) to disable programming through the SVQ-CCI-8.
- Replace top cover using two screws.

For more information on *Sivoia QED* system programming and troubleshooting information, please refer to the *Sivoia QED* Wiring and Programming Guide.

## Technical Assistance

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## Limited Warranty

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage pre-paid.

This warranty is in lieu of all other express warranties, and the implied warranty of merchantability is limited to one year from purchase. This warranty does not cover the cost of installation, removal or reinstallation, or damage resulting from misuse, abuse, or damage from improper wiring or installation. This warranty does not cover incidental or consequential damages. LUTRON'S LIABILITY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, OR USE OF THE UNIT SHALL NEVER EXCEED THE PURCHASE PRICE OF THE UNIT.

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LIGHTING CONTROLS

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