

Installation Instructions

Please Read Before Installing

HomeWorks Sivoia® Keypad

HWI-SV-5BNI, HWI-SV-5BI, HWD-SV-5B
24 V~, 100 mA

Overview

The HWI-SV-5BI, HWI-SV-5BNI, and HWD-SV-5B keypads are for interfacing a *HomeWorks* system with a *Sivoia* Or *Sivoia QED™* Window Treatment System. The keypad buttons can activate or program *Sivoia* or *Sivoia QED* Window Treatment System presets as well as raise or lower window treatments. When used to interface with a *HomeWorks* system, the *HomeWorks* Utility can be used to program *HomeWorks* keypads to activate the presets or raise/lower features that are available on the keypad.

The keypad can control up to 64 *Sivoia* or *Sivoia QED* Window Treatments. All window treatments wired to the keypad must operate together as a single group.

Important Notes

Codes: Install in accordance with all local and national electrical codes.



Note: Use only Lutron wallplates with these devices. The mechanical design of the keypad is **NOT** compatible with non-Lutron wallplates. Non-Lutron wallplates will **NOT** sit flush against the wall.

Environment: Ambient operating temperature: 0-40°C, 32-104°F, 0-90% humidity, non-condensing. Indoor use only.

Cleaning: Clean with a soft damp cloth only. Do not use any chemical or abrasive cleaners.

Wallboxes: Lutron recommends using 3-1/2 in. (89 mm) deep wallboxes for easier installation.

Keypad Wiring: *HomeWorks* Keypad link wiring may be in a daisy-chain, star or t-tap configuration. Each home run on a link may be up to 1,000 ft. (305 m) and may contain up to 10 keypad devices. The total length of wire on that link (all home runs) may be up to 4,000 ft. (1220 m). Up to 32 keypad devices may be placed on each processor link configured as a keypad link in the *HomeWorks* Utility. An external power supply may be required depending on the total current draw of all keypad devices on the processor.

The total length of the wire between the *HomeWorks Sivoia* Keypad and the nearest *Sivoia* or *Sivoia QED* Electronic Drive Unit (EDU) may be up to 200 ft. (60 m).

Programming: Only *Sivoia* Window Treatments must have their settings programmed with the following parameters:

- *Sivoia* Link address must be unique for each EDU.
- Room address for each EDU must be set to "01" (default).
- Infrared address for each EDU must be set to "1F" (default).
- Control station setting for each EDU must be "00" (default).

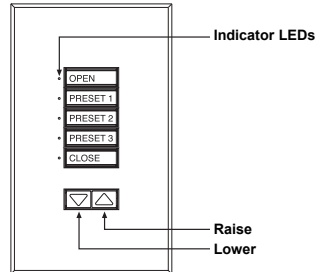
Refer to the *Sivoia* or *Sivoia QED* Window Treatment instruction sheets for more information on programming *Sivoia* or *Sivoia QED* Window Treatments.

Additional Notes:

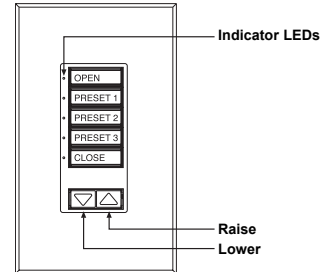
- All *Sivoia* or *Sivoia QED* Window Treatments connected to the *HomeWorks Sivoia* keypad must be set up to operate as a single group and contain no subgroups.

Architectural-style

HWI-SV-5BNI Keypad No Insert

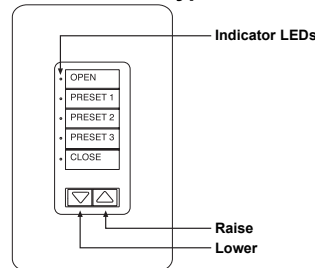


HWI-SV-5BI Keypad Insert



Designer-style

HWD-SV-5B Keypad*

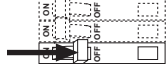


* Wallplate/adaptor purchased separately

- Some *Sivoia* or *Sivoia QED* IR transmitters will not provide proper feedback to a *HomeWorks* processor. Contact Lutron for the approved product list.
- Do not use *Sivoia* keypads designed to control individual window treatments with the *HomeWorks Sivoia* keypad.

Installation

1. Address *Sivoia* or *Sivoia QED* Electronic Drive Units. Ensure all EDUs are uniquely addressed and limits are properly set. For addressing details, refer to the *Sivoia* Window Treatment installation instructions.
2. Disconnect power to the keypads by turning off all circuit breakers or remove fuses supplying power to the *HomeWorks* processor, keypad link auxiliary power supply and all *Sivoia* or *Sivoia QED* Window Treatments.



Wiring with power ON may result in personal injury.

3. Remove the wallplate and button assembly. For HWI-SV-5BI, HWD-SV-5B, and multigang applications, the wallplate adapter must be removed before the button assembly can be removed. For HWI-SV-5BNI, the wallplate adapter need not be removed. See Wallplate and Button Assembly Removal.
4. **Address Keypad.** Assign a unique *HomeWorks* keypad address to each keypad using the DIP switch settings. See Wallplate and Button Assembly Removal for DIP switch location, and Keypad Addressing for DIP switch settings. Be sure to record the address for future programming purposes. Replace button assembly. **Note:** No *Sivoia* system address is needed on this keypad.
5. Strip insulation on all wires to 3/8 in. (10 mm).



6. Unplug keypad link terminal block and *Sivoia* terminal block from the keypad.
7. Connect wiring to terminal blocks as shown in System Wiring Diagram (page 3). Each terminal will accept one or two #18 AWG (1.0 mm²) wires.
8. Plug the terminal blocks back onto the keypad. Be sure to orient the terminal blocks correctly.
9. Push all wires back into the wallbox and loosely fasten the control to the wallbox using the screws provided. Do not pinch the wires. See Mounting Diagram.
10. Attach Lutron wallplate adapter and wallplate.
 - a. Loosely install keypad mounting screws.
 - b. Tighten wallplate adapter mounting screws snug.
 - c. Tighten keypad mounting screws until wallplate adapter is flush to wall (do not over-tighten).
 - d. Snap wallplate onto wallplate adapter, and verify that button assembly is not submerged.
 - e. If button assembly is submerged, loosen mounting screws appropriately.
11. Restore power to the *HomeWorks* processor or keypad link auxiliary power supply and *Sivoia* or *Sivoia QED* Window Treatments.

Preset Programming

Preset 1, 2 and 3 are programmable *Sivoia* presets. Preset positions are stored in the *Sivoia* or *Sivoia QED* Window Treatments. Set each preset as follows:

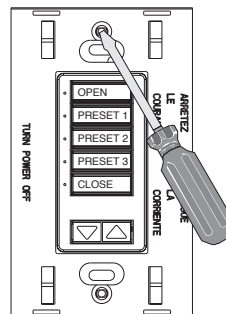
1. Adjust each window treatment to desired position.
2. Press and hold the desired preset button for a minimum of 5 seconds. The button LED will flash on the keypad indicating that the preset has been saved.

Wallplate and Button Assembly Removal

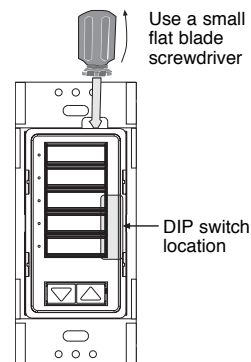
(HWI-SV-5BI model shown)



Remove wallplate.



Remove wallplate adapter (if applicable).



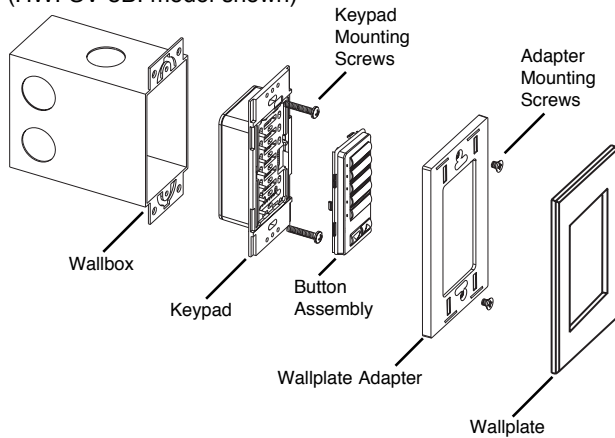
Use a small flat blade screwdriver

DIP switch location

Remove button assembly to access DIP switch

Mounting Diagram

(HWI-SV-5BI model shown)



Operation

Pressing the Open, Close, or Preset button will cause the window treatments to move to the selected position. Pressing the same Open, Close, or Preset button a second time while the window treatments are moving will stop the window treatments. While pressing the Raise/Lower button, the window treatments will raise or lower.

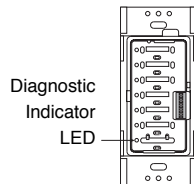
- Open** - Pressing the Open button once will cause the window treatments to move to the open position.
- Presets** - Pressing one of the preset buttons (Preset 1, Preset 2, or Preset 3) will cause the window treatments to go to their programmed preset level.
- Close** - Pressing the Close button once will cause the window treatments to move to the close position.
- Raise** - Holding the Raise button will cause the window treatments to move towards the open position. Releasing the Raise button will cause the window treatments to stop.
- Lower** - Holding the Lower button will cause the window treatments to move towards the close position. Releasing the Lower button will cause the window treatments to stop.

Note: Open, Preset, Close, Raise and Lower buttons always affect all *Sivoia* or *Sivoia QED* Window Treatments that are connected to the keypad via the *Sivoia* communication link.

An indicator LED is ON when **all** of the *Sivoia* or *Sivoia QED* Window Treatments in the group are at the corresponding Open, Close, or Preset position. Otherwise, the indicator LED is OFF.

Chart A - Diagnostic Indicator LED

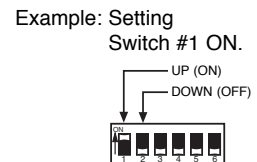
DIP Switch 6 Position	Communicating with Processor	Not Communicating with Processor
UP (ON)	OFF	FLASH
DOWN (OFF)	Disabled (OFF)	Disabled (OFF)



Keypad Addressing

Set DIP switches 1-5 to give the keypad a unique HomeWorks® system address from 1 to 32. DIP switch 6 is used for diagnostics. See Chart A, above.

Address	Switch Settings	Address	Switch Settings	Address	Switch Settings	Address	Switch Settings
1		9		17		25	
2		10		18		26	
3		11		19		27	
4		12		20		28	
5		13		21		29	
6		14		22		30	
7		15		23		31	
8		16		24		32	



System Wiring Diagram

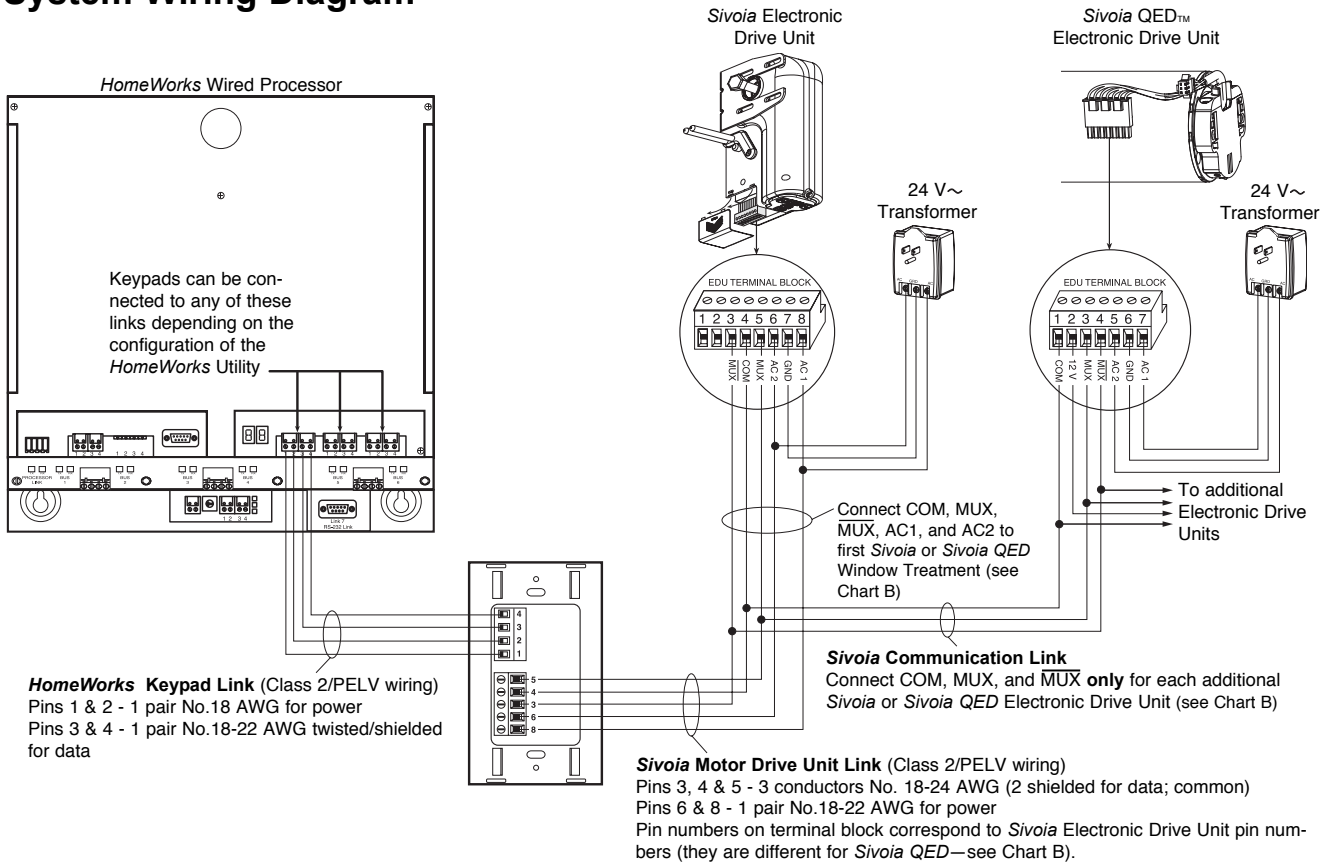


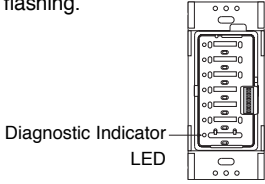
Chart B - HomeWorks Sivoia Keypad Link Connection

Pin	Keypad	Sivoia EDU	Sivoia QED EDU
MUX	3	3	4
COM	4	4	1
MUX	5	5	3
AC2	6	6*	5*
AC1	8	8*	7*

* Connect AC1 and AC2 to the first Sivoia or Sivoia QED Window Treatment only and the HomeWorks Sivoia Keypad.

Troubleshooting Guide

Keypad is working properly when Indicator LEDs light up as buttons are pressed.

Symptom	Cause and Action
Indicator LEDs don't light up when buttons are pushed.	<p>Power is not present at keypad.</p> <ul style="list-style-type: none"> • Make sure <i>Sivoia</i> or <i>Sivoia QED</i> Electronic Drive Unit is powered up. • Check for 24V between pins 6 and 8 on the <i>Sivoia</i> link terminal block on the <i>HomeWorks Sivoia</i> keypad. • Remove terminal blocks from back of keypad, check connections and replace. See System Wiring Diagram (page 4). • Check for correct orientation of terminal blocks.
Diagnostic Indicator LED behind wallplate/button assembly at bottom left is flashing. 	<p>Keypad is working properly but is not communicating with the <i>HomeWorks</i> processor.</p> <ul style="list-style-type: none"> • Verify that the <i>HomeWorks</i> processor is running. • Check that keypad wires on the <i>HomeWorks</i> keypad link are properly connected. • Check that keypad link is plugged into correct terminal block at <i>HomeWorks</i> processor. • Verify that link is configured for HWI keypads in the <i>HomeWorks</i> Utility.
Keypad works locally, but not with <i>HomeWorks</i> . Diagnostic Indicator LED behind wallplate is not flashing.	<p>Keypad is working properly but is not communicating with the <i>HomeWorks</i> processor.</p> <ul style="list-style-type: none"> • Check that the 6th DIP switch is in the ON position. See Keypad Addressing and Chart A -Diagnostic Indicator LED (page 3). • Refer to troubleshooting steps listed in the section above concerning the Diagnostic Indicator LED behind the wallplate is flashing.
Indicator LEDs light and stay lit when buttons are pressed, but the <i>Sivoia</i> system isn't responding. Raise/Lower buttons work.	<ul style="list-style-type: none"> • Check wiring connections for <i>Sivoia</i> communication link. • Check if <i>Sivoia</i> or <i>Sivoia QED</i> Electronic Drive Unit is already at that preset. • Check if presets are able to be reprogrammed.
Indicator LEDs light and stay lit when buttons are pressed, but the <i>Sivoia</i> system isn't responding. Raise/Lower buttons do not work.	<ul style="list-style-type: none"> • Check wiring connection for <i>Sivoia</i> communication link. • Check <i>Sivoia</i> or <i>Sivoia QED</i> Electronic Drive Units for proper address settings. Refer to address setting information in Keypad Addressing (page 3).
Keypads do not program presets.	<ul style="list-style-type: none"> • Check preset lockout function on <i>Sivoia</i> or <i>Sivoia QED</i> Electronic Drive Units. Refer to <i>Sivoia</i> or <i>Sivoia QED</i> Window Treatment instruction sheets.
Indicator LEDs do not update when <i>Sivoia</i> Electronic Drive Units move due to a <i>Sivoia</i> keypad or IR transmitter.	<ul style="list-style-type: none"> • Check <i>Sivoia</i> or <i>Sivoia QED</i> Electronic Drive Units for proper address settings. Refer to address setting information in Keypad Addressing (page 3).

Notes:

Notes:

Technical and Sales Assistance

If you need assistance, call the toll-free **Lutron Technical Support Center**. Please provide exact model number when calling.
(800) 523-9466 (U.S.A., Canada and the Caribbean)
Other countries call:
Tel: (610) 282-3800
Fax: (610) 282-3090
Visit our Web site at www.lutron.com

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Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within two years 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. Telephone the Lutron Technical Support Center toll free at 800-523-9466. After the two year period, a pro-rated warranty applies to this product until eight years after the purchase. For more information regarding this warranty contact your Lutron representative.

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