SAVANT

Ascend Style Low Voltage Keypads - Quick Reference Guide

Box Contents

(1)   Keypad (The SKU determines the button format)

(1)   5-position plug-in terminal block with wires (028-0948)

(1)   1-Gang Wall Plate Retainer (093-3146)

(2)   6-32 x ¾ inch pan head screw (039-0345)

(1)   Product Regulatory Statement (009-1950)

Products

– Five Button Keypad (WFB-xxLV05)

– Four Button Keypad (WFB-xxLV04)
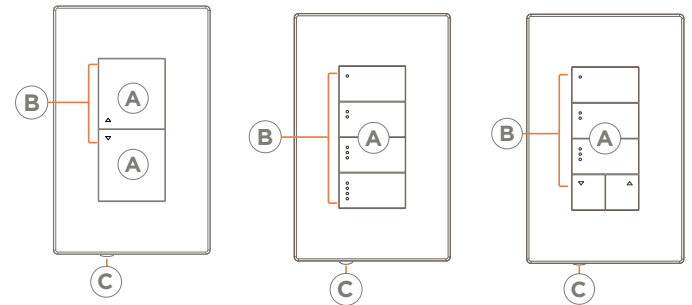
– Two Button Keypad (WFB-xxLV02)

Optional Accessories

– Button Replacement Kit (WFB-xxLVC)
  (includes two, four, and five button replacement assemblies)

– Button Engraving Kit (WFB-xxENGV)

– One to Four Gang Wall Plates (FFx-0S0xxM)
  (all finishes available)

– Custom Built Multi-Ganged Keypad Assemblies (WFB-XGxxLV)
  (built as designed using the Lighting and Keypad Designer Tool)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non-condensing)
Location	Indoor Use Only

Finishes					
–	Brushed Aluminum	–	Brushed Black	–	Light Almond
–	Brushed Brass	–	Black	–	Space Gray
–	Brushed Bronze	–	Snow White	–	Nickel

Dimensions and Weights				
	Length	Width	Depth	Weight
WFB-xxLV05 WFB-xxLV04 WFB-xxLV02	4.69 inch (11.92 cm)	1.72 inch (7.52 cm)	.97 inch (2.46 cm)	.30 lb. (0.13 kg)
Shipping	6.3 inch (16 cm)	4.2 inch (10.67 cm)	2.3 inch (5.84 cm)	1.0 lb. (0.45 kg)

Installation Recommendations

Savant recommends as a minimum:

– An open-backed low voltage bracket installed on the interior walls and a closed-back electrical box on exterior walls.

– An installation depth of at least 1 ⅛ inches (2.9 cm).

Power	
Input	24V DC
Average Power Consumption	0.5 watts
Maximum Power Consumption	1.4 watts

Regulatory			
Safety and Emissions	FCC Part 15 FC	CE CE	UKCA UKCA
RoHS	Compliant		

Minimum Supported Release
da Vinci 9.4.2

Front Panel

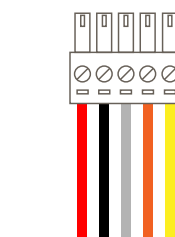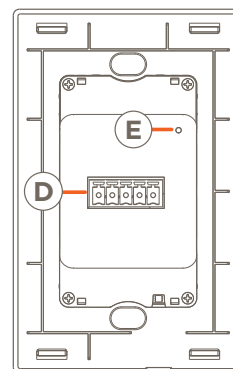WFB-xxLV02   WFB-xxLV04   WFB-xxLV05

(A) Buttons - Programmable buttons. See the **Low Voltage Deployment Guide** for instructions on how to program. This guide and other lighting information are available on the **Keypad Lighting Documentation Portal** on the Savant Customer Community.

(B) Button Back-lights - When configured and bound to a Savant system, the state of the back-lights is defined by the selection made in the **LED Behavior** and **LED Color** fields in Blueprint's Lighting and Shade Manager.

During the initial discovery and configuration process, the back-lights indicate the state of the keypad. See the Button Backlight Sequencing section below.

(C) Ambient Light Sensor - Detects the ambient light level in the room and adjusts the brightness of the button back-lights. The ambient light sensor is enabled and disabled using Blueprint's Lighting and Shade Manager.

Rear Panel

(D) The rear panel hosts a 5-pin keypad bus connector that accepts the supplied 5-inch keypad pigtail cable. The connector is keyed and can't be plugged backwards.

Use wire-nuts or an approved alternative when connecting to other keypads.

(E) Reset Button

Press and release - Reboots the keypad.

Press and hold - Press and hold for 5 seconds, then release to perform a factory reset. A factory reset erases the keypad's stored address.

|	
Red	24V DC Input
Black	24V DC Gnd
White	A+ (data)
Orange	B- (data)
Yellow	Contact Closure

Wires are 5 inch, #22 AWG stranded.

Removal and Installation

Whether installing a new keypad or replacing an existing one, refer to the instructions below.

⚠️ **IMPORTANT NOTES:**

- When working with electricity, even low voltage electricity, follow all standard electrical and safety precautions to avoid leaving exposed or bare wires that can short and cause damage to the equipment or yourself.
- Savant recommends a licensed electrician be used to make the electrical connections.

1. At the main breaker panel, switch off the breaker that supplies power to the keypad that is being replaced. On existing Savant low voltage systems, remove power from the breaker that supplies power to the SKL-3040 or SKL-1010 keypad controller.

2. When replacing an existing keypad, refer to the keypad's owner's manual for proper removal techniques.

3. Disconnect and label each wire as they are detached from the in-wall wires. Labeling ensures the wires get installed onto the new keypad correctly.

4. Screw the Ascend style keypad wall plate adapter to the electrical box using the two #6-32 x ¾ inch screws supplied with the new keypad. Tighten the screws so the adapter sits flush on the wall. DO NOT use a powered screwdriver. A powered screwdriver can over-tighten and possibly warp the adapter.

5. Connect the in-wall wires to the supplied 5-inch keypad pigtail using an approved wire nut or a similar alternative. Refer to the Rear Panel section above when making the connections.

6. Plug the pigtail wire into the rear of the keypad. The connector is keyed and can only be plugged one way.

7. Slide the keypad over the wall plate adapter and ensure the keypad snaps into the four slots located at each corner of the adapter. Press on all four corners to ensure the keypad is secure and sitting flush on the wall.

8. Switch on the breaker that supplies voltage to the new keypad. The keypad will go through a boot sequence, and the button backlights will cycle red, green, blue, then white.

9. When the boot sequence completes, the backlights then blink red to indicate the keypad is in the discovery process and the keypad controller is looking for any keypads wired to each keypad bus. Refer to the Button Backlight Sequencing section below for information on the various states.

Mounting Screws

Electrical Box

Wall Plate

Keypad

10. Once discovered, the keypads enter the next state and are ready to be programmed using Blueprint's lighting and shade manager. Programming information is available in the **Low Voltage Deployment and Programming Guide**. This guide and more can be located in the **Lighting Documentation Portal** available on the Savant Community.
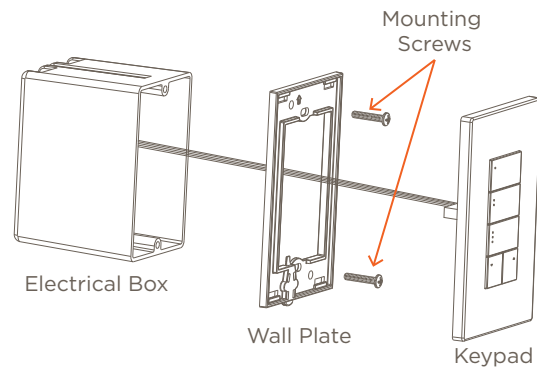
Button Backlight Sequencing

HELPFUL INFORMATION! During the setup process, or if the keypad is not functioning in a Savant system, the button backlights are programmed to blink specific sequences to indicate the keypad's state. To find the keypad's state, press any button on the keypad, and the backlights will blink one of the sequences shown below. The sequences in the first three images below will blink for about 30 seconds and then stop. Pressing any button after the blinking stops will restart the process. Once the keypad is connected to the SKL-3040 OR SKL-1010 keypad controller and communicating with the Host (functioning normally in a Savant system), the backlights then follow how they are configured using Blueprint's lighting and shade manager.


All button backlights blink red.
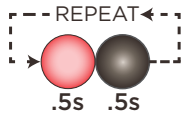
Blinking red indicates the keypad is not communicating with the keypad controller. This sequence can occur during the keypad discovery process when the keypad controller is searching for the keypads. If the backlights blink red once the discovery process completes, this indicates the keypad can't communicate with the keypad controller. Try each of the following below to get the keypad to connect:

- Verify the wiring at the connectors on the keypad and keypad controller is correct.
- Verify there are no shorts or opens in the wiring between the keypad and the keypad controller.
- Press and release the reset button on the SKL-3040/1010 to restart the discovery process.


All button backlights blink blue .
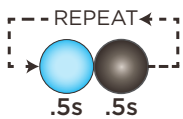
The blinking blue state is used to locate the keypads during the Blueprint configuration/binding process. From within the lighting and shade manager, when a user highlights one of the keypads that is listed in the Discovered column, this causes the button backlights to blink blue. The blinking keypad lets the user know which keypad in a room or home is highlighted in the lighting and shades manager.

To get to this state, the lighting and shade manager must be open on the SDE/MacBook, and the keypad must be discovered and listed in the Discovered column.

More information on this sequence is described in the **Low Voltage Keypad Deployment Guide**. This and other lighting guides can be located in the Lighting Documentation Portal on the Savant Community.
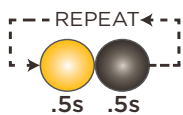

All button backlights blink magenta
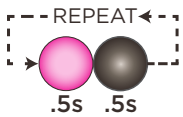
Blinking Magenta indicates the keypad is wired, communicating with the keypad controller, but the controller is not up-linked. Possible reasons for this state are:

- The keypad controller, and SDE (MacBook) aren't plugged into the same network.
- The keypad controller is listed in the Discovered column in the lighting and shades manager but is currently not communicating with the lighting and shade manager. Press the Discover button in the lighting and shade manager so the manager can locate the keypad controller.

up-link - The lighting and shade manager in Blueprint is communicating with the SKL keypad controller.

All button backlights blink yellow

Blinking yellow indicates the Savant Host is communicating with the keypad controller but there is no configuration on the keypad. Possible reasons for this state are:

- A new keypad is wired to the keypad controller and the keypad controller was reset to begin the discovery process. During this time the button backlights will blink yellow. Once a configuration is downloaded to the keypad, the blinking yellow will stop.

Top left button backlight remains solid green.

The keypad has entered the boot-loader mode. The keypad goes into boot-loader mode during a firmware update.

Wiring Diagrams

Wiring diagrams are available in the Low Voltage Deployment Guide. This guide and others can be located in the Lighting Documentation Portal on the Savant Community.

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