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Wiring a Low Voltage Switch (LVS) to a Relay Panel

Product: Leviton Low Voltage Switches (LVS), EZ-MAX Plus, Z-MAX and Z-MAX Plus

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Summary: This article explains the necessary steps in wiring a low voltage switch to a Leviton relay panel.

Information: Step 1: Locate Low Voltage Switch (LVS) wiring.



(Image 1-1) Low Voltage Switch Label and Wiring

Step 2: Strip each wire.

Step 3: Verify wiring integrity to ensure there are no shorts or opens. This can be achieved by testing each wire with a continuity meter.

Step 4: Power down relay panel.

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(Image 1-2) 8 Panel Terminal Block Location - Located to the Left of Relay Modules



(Image 1-3) 24 and 48 Panels Terminal Block Location – Located Above Control Panel





Step 6: Remove each low voltage terminal block. *Silk Screen Board Labeling is now visible.

(Image 1-4) Board Labeling

Step 7: Insert the wires from the Low Voltage Switch (LVS) into each terminal block in the appropriate locations (Table 1-1).

LVS	Board	Description
Labels	Labeling	
S1	IN	(Switch 1)
L1	OUT	(Switch 1 LED)
+24/cm	+24V	DC Power
LOC	COM	Optional Connection for Locator LED
S2	IN	(Switch 2)
L2	OUT	(Switch 2 LED)
S3	IN	(Switch 3)
L3	OUT	(Switch 3 LED)
S4	IN	(Switch 4)
L4	OUT	(Switch 4 LED)
S5	IN	(Switch 5)
L5	OUT	(Switch 5 LED)
S6	IN	(Switch 6)
L6	OUT	(Switch 6 LED)
S7	IN	(Switch 7)
L7	OUT	(Switch 7 LED)
S8	IN	(Switch 8)
L8	OUT	(Switch 8 LED)
S9	IN	(Switch 9)
L9	OUT	(Switch 9 LED)
S10	IN	(Switch 10)
L10	OUT	(Switch 10 LED)

(Table 1-1) Switch to Board Label Cross Reference

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Step 8: Tighten the terminal screws, and repeat for all wires from the Low Voltage Switch (LVS).

Step 9: Verify that wires land on the correct terminals.

Step 10: Plug each terminal block back into the relay panel with the screws facing toward you and the wires exiting toward the side or top of the cabinet.

Note: The connector can be inserted with the screws parallel to the circuit board and the wires exiting toward you.



(Image 1-5) Connector Placement

Caution SW1 is typically associated with Switch 1. Terminal blocks may be placed in any of the SWx locations and the Low Voltage Switch will operate normally. However, terminal block placement is critical for proper station programming. To eliminate confusion, the terminal block for Switch 1 should be placed at the SW1 location within the relay panel. Additional switches will continue from the next available terminal block.

Secondary Note: When multiple Low Voltage Switches (LVS) are used for 2 or 3 way applications, switch wiring may be daisy chained or paralleled.

Step 11: Low Voltage Switch (LVS) is now wired to your Z-MAX, Z-MAX Plus or EZ-MAX Plus relay panel. Proceed to station programming (refer to your Advanced Programming and System Design Guide which can be downloaded from <u>www.leviton.com/library</u>).



Contact: If you have any questions or concerns, please call LMS technical support at (800) 959-6004.