LUTRON

Application Note #406

Revision C December 2019

Using an Auxiliary Power Supply to Power Lutron Clear Connect RF Keypads

Specific types of Lutron Clear Connect (RF) line voltage/AC mains powered keypads may be powered using NEC_® Class 2 wiring and approved power supplies. This is useful in applications where there is existing NEC_® Class 2 wiring in the wallbox, but no line voltage/AC mains power available.

Requirements

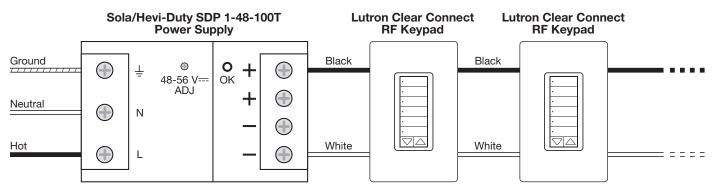
- Sola/Hevi-Duty power supply SDP 1-48-100T (see Contact Information on page 2)
- Applicable keypads:
 - HomeWorks Clear Connect (RF) line voltage/AC mains powered seeTouch style keypads
 - RadioRA 2 Clear Connect (RF) line voltage/AC mains powered seeTouch style keypads

Specifications

Lutron Clear Connect RF Keypad limitations per wire gauge and distance using one (1) SDP 1-48-100T power supply:

Wire Gauge AWG (mm ²)	Wire Run Length ft (m)	Maximum Number of Lutron Clear Connect RF Keypads
12 to 18 (2.5 to 0.75)	0 to 900 (0 to 274)	20
20 (0.50)	0 to 600 (0 to 183)	20
20 (0.50)	601 to 900 (183 to 274)	16
22 (0.50)	0 to 300 (0 to 91)	20
22 (0.50)	301 to 600 (92 to 183)	15
22 (0.50)	601 to 900 (183 to 274)	10
24 (0.25)	0 to 300 (0 to 91)	19
24 (0.25)	301 to 600 (92 to 183)	9
24 (0.25)	601 to 900 (183 to 274)	6

Wiring Diagram



Installation



WARNING – Shock Hazard – To avoid the risk of electric shock, locate and remove the fuse or lock the circuit breaker in the OFF position before proceeding. Wiring with power ON could result in serious injury or death.

- 1. Remove the fuse or lock the circuit breaker in the OFF position.
- 2. Install the SDP 1-48-100T power supply in accordance with the manufacturer's instructions.
- 3. Wire the **black** wires of the Lutron Clear Connect Keypads to the "+" terminal of the SDP 1-48-100T power supply.
- 4. Wire the white wires of the Lutron Clear Connect Keypads to the "-" terminal of the SDP 1-48-100T power supply.
- 5. Turn on the breaker to the SDP 1-48-100T power supply.
- 6. Ensure that the "OK" LED is lit on the SDP 1-48-100T power supply.
- 7. On the SDP 1-48-100T power supply, turn the 48-56 V ADJ screw clockwise to the maximum output voltage.
- 8. Check all attached keypads to ensure that they are powered.

Contact Information

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