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:

<table>
<thead>
<tr>
<th>Wire Gauge AWG (mm²)</th>
<th>Wire Run Length ft (m)</th>
<th>Maximum Number of Lutron Clear Connect RF Keypads</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 to 18 (2.5 to 0.75)</td>
<td>0 to 900 (0 to 274)</td>
<td>20</td>
</tr>
<tr>
<td>20 (0.50)</td>
<td>0 to 600 (0 to 183)</td>
<td>20</td>
</tr>
<tr>
<td>20 (0.50)</td>
<td>601 to 900 (183 to 274)</td>
<td>16</td>
</tr>
<tr>
<td>22 (0.50)</td>
<td>0 to 300 (0 to 91)</td>
<td>20</td>
</tr>
<tr>
<td>22 (0.50)</td>
<td>301 to 600 (92 to 183)</td>
<td>15</td>
</tr>
<tr>
<td>22 (0.50)</td>
<td>601 to 900 (183 to 274)</td>
<td>10</td>
</tr>
<tr>
<td>24 (0.25)</td>
<td>0 to 300 (0 to 91)</td>
<td>19</td>
</tr>
<tr>
<td>24 (0.25)</td>
<td>301 to 600 (92 to 183)</td>
<td>9</td>
</tr>
<tr>
<td>24 (0.25)</td>
<td>601 to 900 (183 to 274)</td>
<td>6</td>
</tr>
</tbody>
</table>

Wiring Diagram

[Diagram of Sola/Hevi-Duty SDP 1-48-100T Power Supply, Lutron Clear Connect RF Keypad, and Wire Connections]
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

**Emerson Electric Co.**
8000 West Florissant Avenue, P.O. Box 4100
St. Louis MO 63136
United States
Phone: +1.314.553.2000
Web: https://www.emerson.com/en-us/automation/solahd

Lutron, HomeWorks, RadioRa 2, seeTouch, and Clear Connect are trademarks or registered trademarks of Lutron Electronics Co., Inc. in the US and/or other countries.

All product names, logos, and brands are property of their respective owners.

Lutron Contact Numbers

**WORLD HEADQUARTERS**
USA
Lutron Electronics Co., Inc.
7200 Suter Road
Coopersburg, PA 18036-1299
TEL: +1.610.282.3800
FAX: +1.610.282.1243
support@lutron.com
www.lutron.com/support

North & South America
Customer Assistance
USA, Canada, Caribbean:
1.844.LUTRON1 (1.844.588.7661)
Mexico:
+1.888.235.2910
Central/South America:
+1.610.282.6701

**UK AND EUROPE:**
Lutron EA Limited
125 Finsbury Pavement
4th floor, London EC2A 1NQ
United Kingdom
TEL: +44.(0)20.7702.0657
FAX: +44.(0)20.7480.6899
FREEPHONE (UK): 0800.282.107
Technical Support: +44.(0)20.7680.4481
lutronlondon@lutron.com

**ASIA:**
Lutron GL Ltd.
390 Havelock Road
#07-04 King’s Centre
Singapore 169662
TEL: +65.6220.4666
FAX: +65.6220.4333
Technical Support: 800.120.4491
lutronsea@lutron.com

Asia Technical Hotlines
Northern China: 10.800.712.1536
Southern China: 10.800.120.1536
Hong Kong: 800.901.849
Indonesia: 001.803.011.3994
Japan: +81.3.5575.8411
Macau: 0800.401
Taiwan: 00.801.137.737
Thailand: 001.800.120.665853
Other Countries: +65.6220.4666