RF Relay Module with Softswitch
Compatible with RA2 Select, RadioRA 2, and HomeWorks systems

The RF relay module with Softswitch is a radio frequency (RF) device that uses Lutron patented Softswitch technology to control up to 16 A of general-purpose loads based on input from RA2 Select, RadioRA 2, and HomeWorks systems.

• Lutron patented Softswitch technology prevents arcing of relay contacts, extending product lifetime.
• Various operating voltages available—refer to Models chart below for details on voltage requirements.
• Capable of switching 16 A of general-purpose loads.
• Utilizes Lutron Clear Connect RF technology—refer to Models chart below for frequency band data and Lutron system compatibility.
• Mounts to an electrical junction box through a 1/2 in (21 mm trade-size) knockout opening.
• Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3) (LMJ- model only).

Models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Region</th>
<th>Operating Voltage</th>
<th>Frequency Band</th>
<th>Compatible Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMJ-16R-DV-B</td>
<td>U.S.A., Canada, Mexico</td>
<td>120 / 277 V~</td>
<td>434 MHz</td>
<td>RA2 Select, RadioRA 2, HomeWorks</td>
</tr>
<tr>
<td>LMK-16R-DV-B</td>
<td>Europe, U.A.E.</td>
<td></td>
<td>868 MHz</td>
<td></td>
</tr>
<tr>
<td>LMM-16R-DV-B</td>
<td>China</td>
<td>220–240 V~</td>
<td>868 Limited</td>
<td></td>
</tr>
<tr>
<td>LMN-16R-DV-B</td>
<td>India</td>
<td></td>
<td>865 MHz</td>
<td></td>
</tr>
<tr>
<td>LMQ-16R-DV-B</td>
<td>Hong Kong, Israel</td>
<td></td>
<td>434 Limited</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.
RF Relay Module with Softswitch

Specification

| Power | 120/277 V~ 50/60 Hz  16 A  0.5 HP at 120 V~  1.5 HP at 277 V~ (LMJ- model)  
220–240 V~ 50/60 Hz  16 A motor: 6 A (LMK-, LMM-, LMN-, LMQ- models) |
| Typical Power Consumption | < 1.0 W  
Typical power test conditions: all loads off, top LED on |
| Regulatory Approvals | UL®, UL 2043 Plenum Rated, FCC Approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules:  
CSA, IC, NOM, ANATEL (LMJ- model)  
CE, TRA, CITC (LMK- model)  
WPC (LMN- model) |
| Environment | Ambient operating temperature: 32 °F to 131 °F (0 °C to 55 °C)  
Ambient operating humidity: 0% to 90% humidity, non-condensing, Indoor use only. |
| Communications | Operates using Clear Connect RF technology for reliable wireless communication; refer to Models chart on page 1 for band frequency details.  
RF range is 30 ft (9 m) from repeaters. Contact Lutron for applications using foil-backed or metallic ceiling tiles. |
| Load | Maximum load: 16 A general purpose. No minimum load requirements.  
Load types include, but are not limited to: Incandescent, MLV, ELV, Resistive, Inductive, Magnetic fluorescent, and Electronic fluorescent. |
| Surge Protection | Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits. |
| Mounting | Mounts to an electrical junction box through a 1/2 in (21 mm trade-size) knockout opening. |
RF Relay Module with Softswitch

**Dimensions**

Dimensions shown as: in (mm)

[Diagram showing dimensions: 3.94 (100) in height, 3.42 (87) in width, 2.82 (72) in depth, 1.25 (32) in depth]

1/2 in (21 mm trade-size) knockout opening

**Wiring Diagram**

- **Junction Box** *
  - Line/Hot (L)
  - Neutral (N)
  - Switched Line/Hot

Lightswitch/Load

* **NOTE:** Some applications (in U.S.A.) require the RF module to be installed inside an additional junction box. For information about how to perform this installation, please see Application Note #423 (P/N 048423) at www.lutron.com. Please consult all local and national electric codes for proper installation methods.
RF Relay Module with Softswitch

Communications

Wired and RF Configuration (RadioRA 2 and HomeWorks)

* In HomeWorks systems, use hybrid repeaters for range extension. In RadioRA 2, the repeater shown may be either a main repeater (1 required) or auxiliary repeater (up to 4 permitted).

RA2 Select RF Range

All devices must be located within 30 ft (9 m) of a repeater. The range can be extended with up to 4 Lutron wireless repeaters (LG-REPPRO).

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