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Vive™ PowPak® Relay Module with Softswitch®

The PowPak® Relay Module with Softswitch® is a radio-frequency (RF) device that uses Lutron® patented Softswitch® technology to control general-purpose loads based on input from Pico® remote controls and Radio Powr Savr™ occupancy and daylight sensors. An optional, low-voltage dry contact closure output is available to communicate occupancy status to 3rd-party systems such as HVAC controllers (RMJS- and URMJS-).
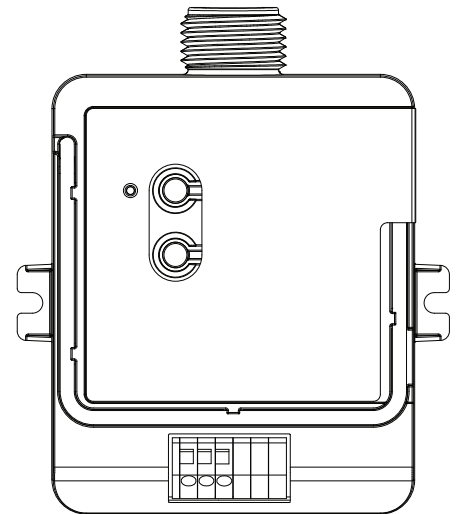
Communication with RF input devices, such as Pico® remote controls and Radio Powr Savr™ sensors, is accomplished using Lutron® Clear Connect® RF Technology.

These products are also compatible with the Vive™ hub which enables a simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet or computer. It also enables control and monitoring of all Vive™ devices. The Vive™ hub can be added at any time and preserves existing system setup by extracting local programming from each device. For a complete list of features supported with the Vive™ hub, see specification submittal 369902.

Note for Replacement: RMJS̲/URMJS̲ - the "S" model can replace the non-"S" model.

RMJS-16RCCO1DV-B model shown

Features

• Softswitch®: Lutron® patented technology prevents arcing of relay contacts, extending product lifetime

• Various operating voltages available—refer to model number chart on next page for details on voltage requirements

• Capable of switching general-purpose loads

• Optional low-voltage dry contact closure output provides integration to building management systems, HVAC, VAV, etc. (RMJS- and URMJS- models only)

• Receives wireless inputs from up to 10 Pico® remote controls, 10 Radio Powr Savr™ occupancy/vacancy sensors, and 1 Radio Powr Savr™ daylight sensor

• Utilizes Lutron® Clear Connect® RF Technology—refer to model number chart on next page for frequency band data

• Mounts to a U.S. style junction box through a standard size knockout

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Job Name:	Model Numbers:
Job Number:	

Model Numbers

Description	Model Number	Region	Operating Voltage	Frequency Band
PowPak® Relay Module with Softswitch®	RMJS-16R-DV-B	U.S.A., Canada, Mexico	120 / 277 V∼	431.0–437.0 MHz
	RMJS-5R-DV-B	U.S.A., Canada, Mexico	120 / 277 V∼	431.0–437.0 MHz
	URMJS-16R-DVB	U.S.A. (BAA Compliant)	120 / 277 V∼	431.0–437.0 MHz
PowPak® Relay Module with Softswitch® and Occupancy-Status CCO	RMJS-16RCCO1DV-B	U.S.A., Canada, Mexico	120 / 277 V∼	431.0–437.0 MHz
	RMJS-5RCCO1-DV-B	U.S.A., Canada, Mexico	120 / 277 V∼	431.0–437.0 MHz
	URMJS-16RCCO1DVB	U.S.A. (BAA Compliant)	120 / 277 V∼	431.0–437.0 MHz

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.

Job Name:	Model Numbers:
Job Number:	

Specifications

Regulatory Approvals

RMJS- / URMJS- models

- UL® Listed (U.S.A.)
- FCC approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules. (U.S.A.)
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC® 2014 300.22(C)(3)
- Listed in accordance to CAN/ULC S102.2-2010 with a Flame Spread Rating of 0 and a Smoke Developed Classification of 40, with a minimum spacing of 6 ft (1.83 m) off center
- CSA and IC (Canada) (RMJS- only)
- COFETEL (Mexico) (RMJS- only)
- NOM (Mexico) (RMJS- only)

Power

- Operating voltage:
  RMJS- and URMJS- models: 120 / 277 V∼ 50/60 Hz
- Standby Power Consumption (all models): < 1.0 W

System Communication

- Operates using Clear Connect® RF Technology for reliable wireless communication; refer to model number chart on page 2 for band frequency details
- RF range is 30 ft (9 m) for RMJS- and URMJS- models
- Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

Environment

- Ambient operating temperature: 32 °F to 131 °F (0 °C to 55 °C)
- 0% to 90% humidity, non-condensing
- For indoor use only

Load

- **-16R models:** 16 A; **-5R models:** 5 A;
  RMX-16R models: No minimum load requirements.
- Load types include (but are not limited to):
  Incandescent, MLV, ELV, Resistive, Inductive, Magnetic fluorescent, Electronic fluorescent
- Motor rating:
  RMJS-16R- and URMJS-16R- models:
  1/2 HP (120 V∼), 1½ HP (277 V∼)
  RMJS-5R- and URMJS-5R- models: 1/6 HP (120 V∼), 1/3 HP (277 V∼)

Softswitch®

- Patented Softswitch® circuit eliminates relay arcing at mechanical contacts
- Extends relay life to an average of 1 million cycles
- Output is non-latching

Key Design Features

- LED status indicator shows current load status and provides programming feedback
- Power failure memory: If power is interrupted, connected loads will return to the previous level prior to interruption
- Daylighting can be overridden by pressing the ON button on any associated Pico® remote control
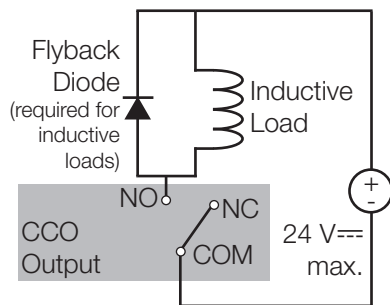 – Daylighting will be re-enabled after 2 hours or after the area becomes unoccupied

Job Name:	Model Numbers:
Job Number:	

Specifications *(continued)*

Contact Closure Output (CCO version only)

- Provides occupancy status to 3rd-party equipment such as building management systems, HVAC, and VAV controllers
- Provides both normally open (NO) and normally closed (NC) dry contacts
- Maintained output type
- CCO terminals accept 20 AWG to 16 AWG (0.5 mm^2 to 1.5 mm^2) solid or stranded wire

Switching Voltage	Resistive Load R
0-24 V$=\!=$	1.0 A
0-24 V$\sim$	0.5 A

- Output is latching
- Not for voltages greater than 24 V$=\!=$
- The CCO is not rated to control unclamped, inductive loads. Inductive loads include, but are not limited to, relays, solenoids, and motors. To control these types of equipment, a flyback diode must be used (DC voltages only). See diagram below. For more information, please see Application Note #434 (p/n 048434).
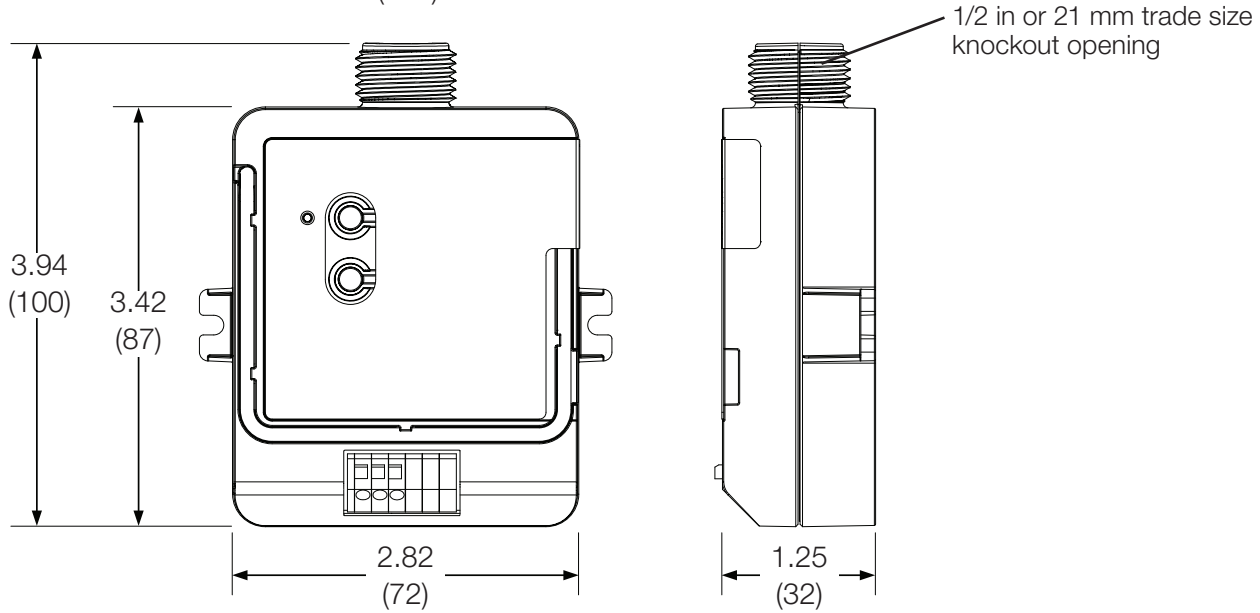

Flyback Diode (required for inductive loads) — Inductive Load — NO — NC — CCO Output — COM — 24 V$=\!=$ max.

Job Name:	Model Numbers:
Job Number:	

Dimensions

Dimensions are shown as: in (mm)

1/2 in or 21 mm trade size knockout opening

3.94 (100)

3.42 (87)

2.82 (72)

1.25 (32)

Range Diagrams

RMJS- and URMJS- models

**PowPak®
Relay Module**

Install in center of room to maximize RF coverage.

**Radio Powr Savr™
Occupancy Sensor**

30 ft (9 m)

Maximum

30 ft (9 m)

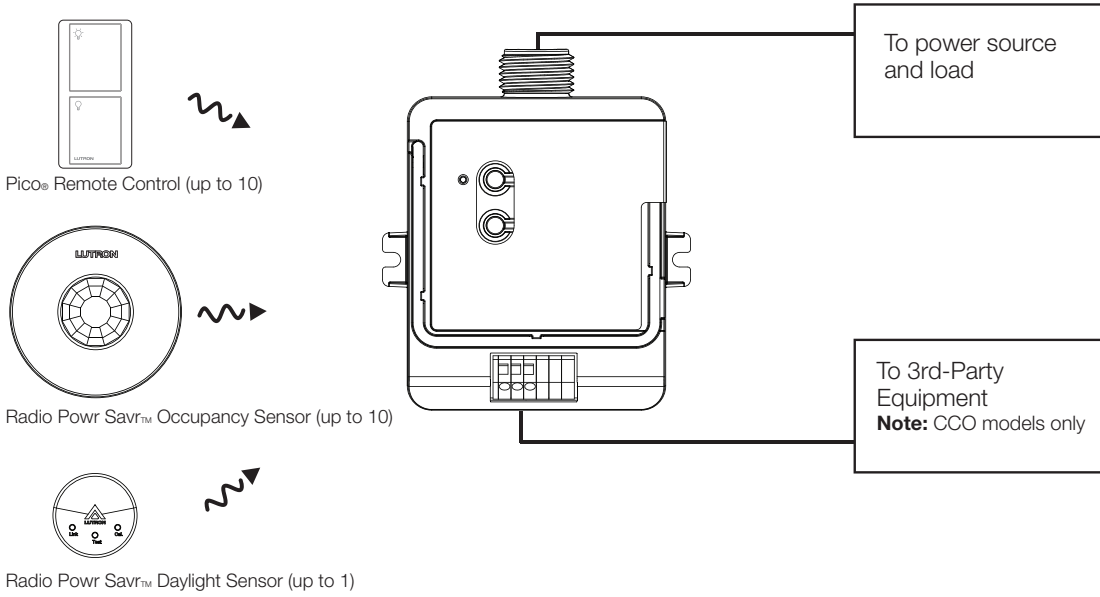**Pico®
Remote
Control**

40 ft (12 m)
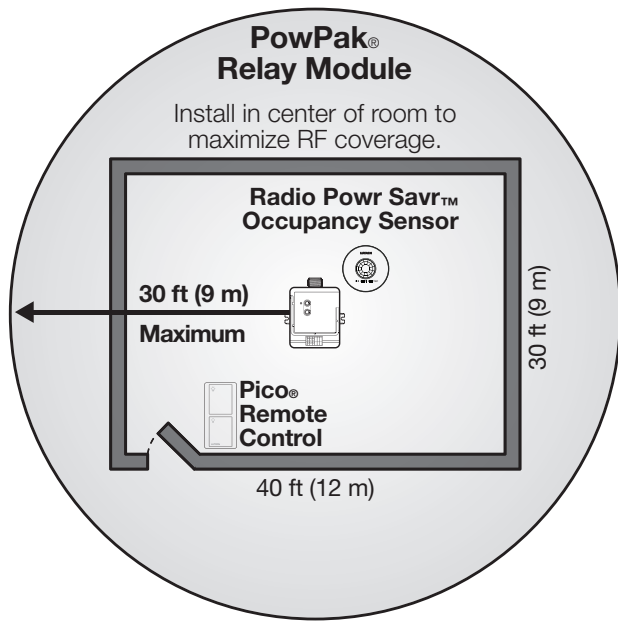
**All Wireless Transmitters must be installed within
30 ft (9 m) of the PowPak® Relay Module.**

• Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

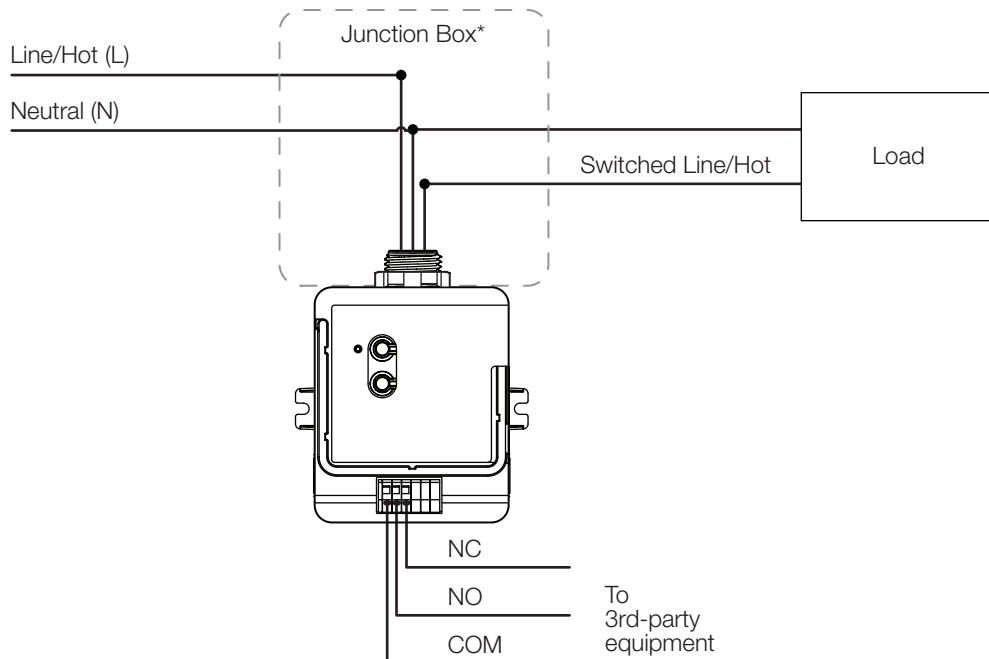| Job Name:	Model Numbers:
Job Number:	

System Diagram

Pico® Remote Control (up to 10)

Radio Powr Savr™ Occupancy Sensor (up to 10)

Radio Powr Savr™ Daylight Sensor (up to 1)

To power source and load

To 3rd-Party Equipment
Note: CCO models only

Default Operation

Transmitting Device	Transmitted Command	Softswitch® Relay Default Action	CCO Default Action[1]
Pico® Remote Control	On	Close	No Action
	Off	Open	No Action
	Raise	No Action	No Action
	Lower	No Action	No Action
	Preset	Close	No Action
Radio Powr Savr™ Occupancy Sensor	Occupied	Close	NO = Close, NC = Open
	Unoccupied	Open	NO = Open, NC = Close
Radio Powr Savr™ Vacancy Sensor	Occupied	No Action	NO = Close, NC = Open
	Unoccupied	Open	NO = Open, NC = Close
Radio Powr Savr™ Daylight Sensor	Ambient Light Below Target Level	Close	No Action
	Ambient Light Above Target Level	Open	No Action

NOTES:

[1] CCO models only.

Job Name:	Model Numbers:
Job Number:	

Wiring Diagram (RMJS- and URMJS- models)

Junction Box*

Line/Hot (L)

Neutral (N)

Switched Line/Hot

Load

NC

NO

COM

To
3rd-party
equipment

Occupancy Status CCO (RMJS- and URMJS- models only)

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

Job Name:	Model Numbers:
Job Number:	