

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 (CCO) is available to communicate occupancy status to 3rd-party systems such as HVAC controllers.

Communication with RF input devices, such as Pico remote controls and Radio Powr Savr sensors, is accomplished using Lutron Clear Connect RF Technology.

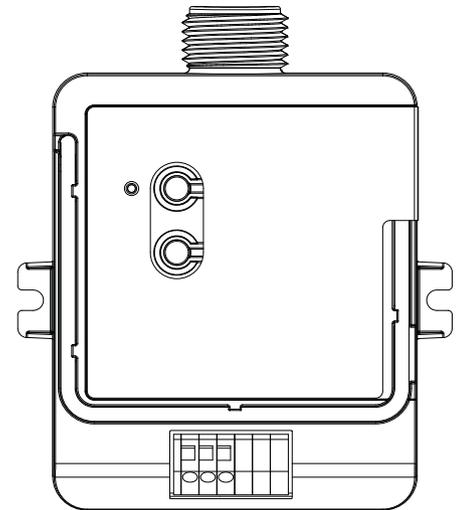
These products are also compatible with the Vive hub which enables a simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet or computer. It also enables control and monitoring of all Vive devices. The Vive hub can be added at any time. System reprogramming will be required. For a complete list of features supported with the Vive hub, see specification submittal 369902 at www.lutron.com

Note for Replacement: RMJS/URMJS - the "S" model can replace the non-"S" model.

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
- New model available for use with emergency lighting¹
- Optional low-voltage dry contact closure output provides integration to building management systems, HVAC, VAV, etc.
- 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

¹ For systems with backup emergency generators only.



RMJS-16RCCO1DV-B model shown

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
	RMJS-16R-DV-B-EM	U.S.A., Canada, Mexico	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

- UL® Listed (U.S.A.)
- UL 924 Listed (RMJS-16R-DV-B-EM only)
- 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: 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)
- Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m), through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling tile obstruction.
- 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
- All drivers and ballasts used with Vive wireless controls must comply with the limits for a Class A device pursuant to Part 15 of the FCC Rules

Load

- **-16R models:** 16 A; **-5R models:** 5 A; **RMJS-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

(continued on next page . . .)

Job Name:	Model Numbers:
Job Number:	

Specifications (continued)

Emergency Model Sequence of Operation

With a Vive hub:

- **Normal mode:** The RMJS-16R-DV-B-EM can switch loads as normal and respond to local button presses, Pico wireless controls, and occupancy/daylight sensors.
- If the emergency PowPak loses power for greater than 250 mS, it will automatically go into emergency mode (full output, relay closed), when emergency power is restored to the PowPak, for as long as the Vive hub has no power. All local buttons, Pico wireless controls and occupancy/daylight sensors will not respond. The emergency light level of the emergency PowPak can be configured using the Vive hub.
- When normal power is restored to the Vive hub and emergency PowPak, the emergency PowPak will return to the previous light level in most cases within 3 minutes, but guaranteed within 10 minutes of normal power being restored. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.

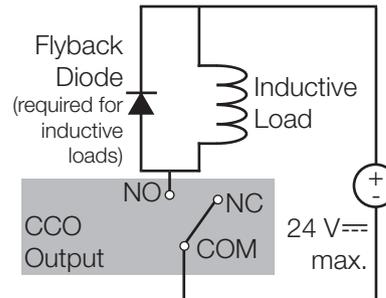
Without a Vive hub:

- **Normal mode:** The RMJS-16R-DV-B-EM can switch loads as normal and respond to local button presses, Pico wireless controls, and occupancy/daylight sensors.
- If the emergency PowPak loses power for greater than 250 mS, it will automatically go into emergency mode (full output, relay closed) for 90 minutes, when emergency power is restored to the PowPak. All local buttons, Pico wireless controls and occupancy/daylight sensors will not respond for 90 minutes.
- When normal power is restored, the emergency PowPak will remain in emergency mode for 90 minutes (full output, relay closed). It will then return to the previous light level and accept local button control, inputs from Pico wireless controls, and occupancy/daylight sensors.

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 mm² to 1.5 mm²) solid or stranded wire
- Output is latching
- Not for voltages greater than 24 V_{DC}
- 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 at www.lutron.com).

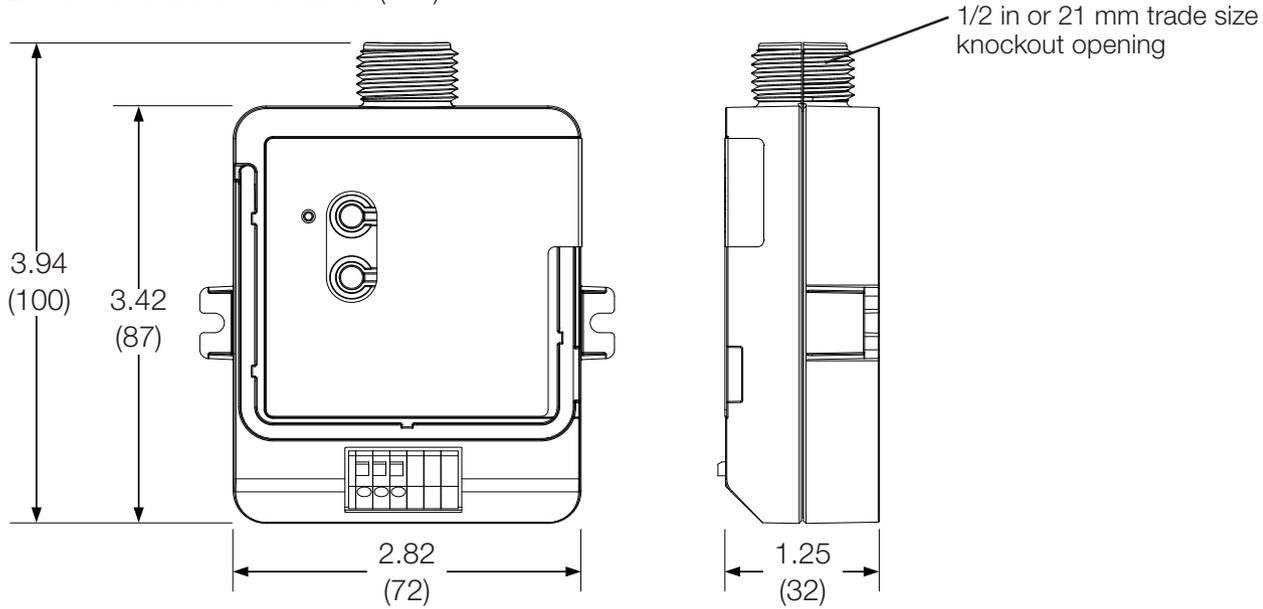
Switching Voltage	Resistive Load
0-24 V _{DC}	1.0 A
0-24 V _{AC}	0.5 A



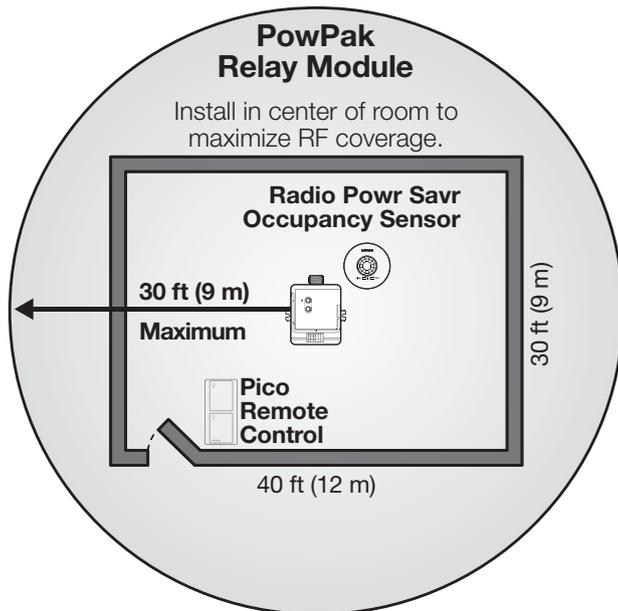
Job Name:	Model Numbers:
Job Number:	

Dimensions

Dimensions are shown as: in (mm)



Range Diagrams

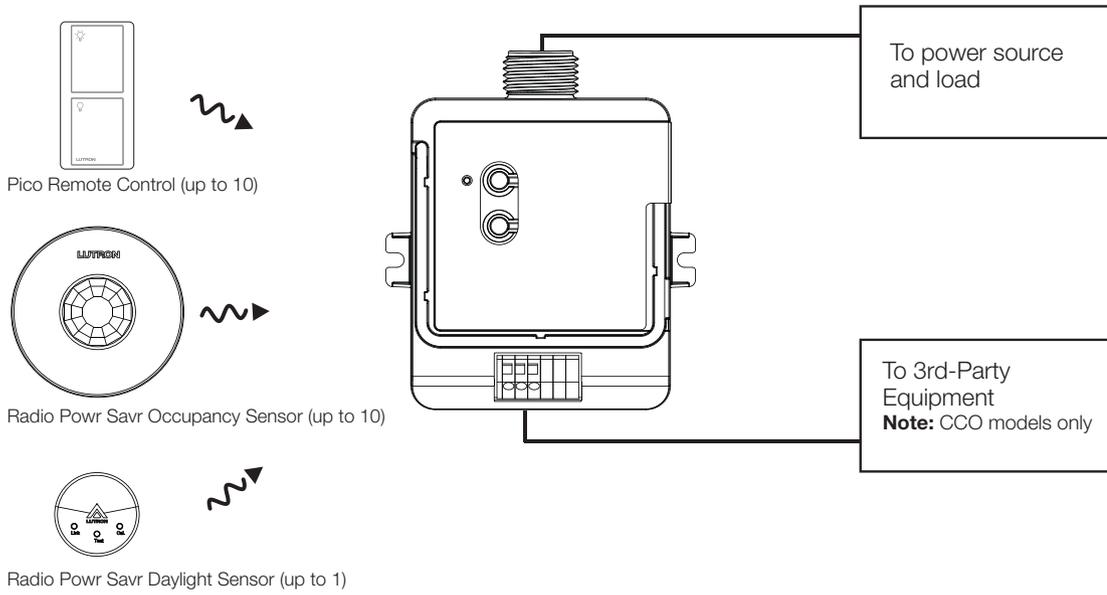


- Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

NOTE: Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m), through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling tile obstruction.

Job Name:	Model Numbers:
Job Number:	

System Diagram



Default Operation

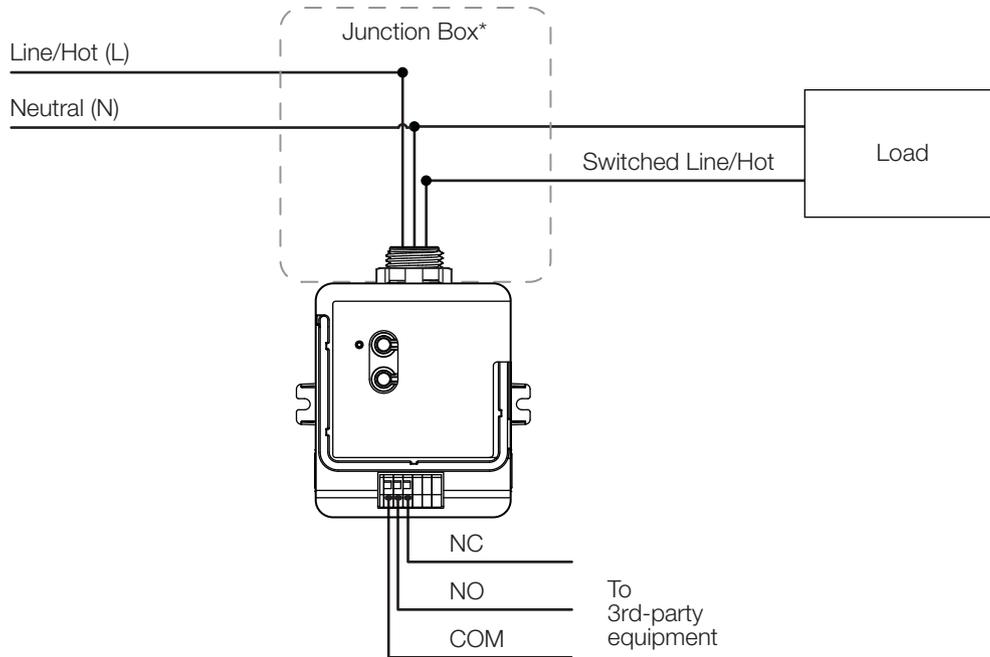
Transmitting Device	Transmitted Command	Softswitch Relay Default Action	CCO Default Action ¹
Pico Remote Control	On	Close	No Action
	Off	Open	No Action
	Raise	Close	No Action
	Lower	No Action	No Action
	Preset	Close	No Action
Radio Powr Savr Occupancy Sensor	Occupied	Close	NO = Close, NC = Open
	Unoccupied	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)

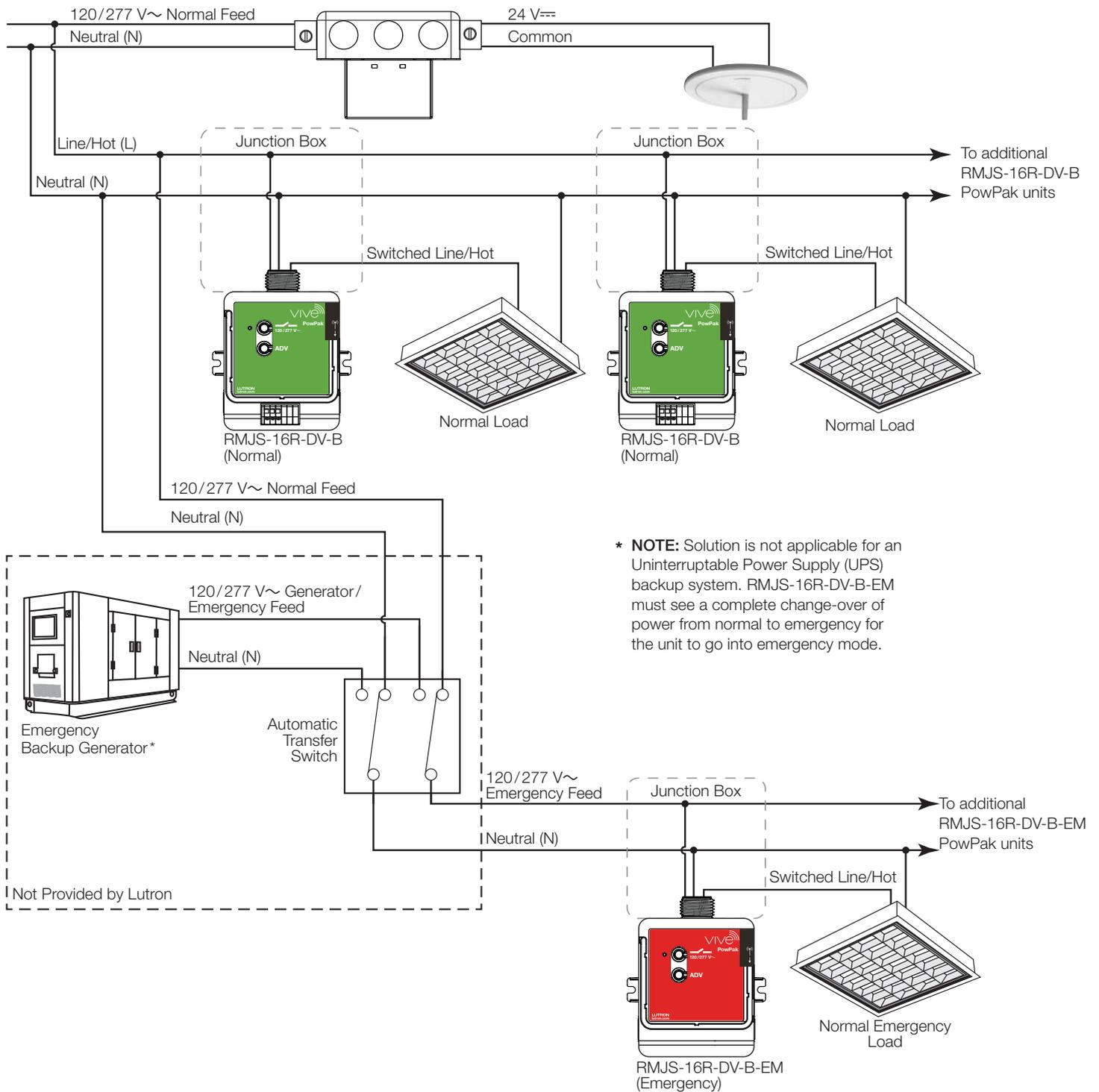


* **NOTE:** Some applications (in U.S.A.) require the PowPak module to be installed inside an additional junction box. For information about how to perform this installation, please see Application Note #423 (P/N 048423 at www.lutron.com). Please consult all local and national electric codes for proper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

Occupancy Status CCO

Job Name:	Model Numbers:
Job Number:	

System Wiring Diagram (Vive Hub with Emergency PowPak)



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LUTRON SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	