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PowPak® CCO Module

The PowPak® CCO Module is a low-voltage radio frequency (RF) control that provides a single dry contact closure output based on input from Pico® controls and Radio Powr Savr™ occupancy and daylight sensors. It can be powered by to 24 V∼ or 24 V⎓ for easy connection and integration into building management, HVAC, VAV, and other 3rd-party systems.

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

Features

- Single contact closure output including both normally open (NO) and normally closed (NC) dry contacts
- Maintained output type
- Operates at 24 V∼ or 24 V⎓
- Receives wireless inputs from up to nine Pico® controls, six Radio Powr Savr™ occupancy/vacancy sensors, and one Radio Powr Savr™ daylight sensor
- Utilizes Lutron® Clear Connect® RF Technology – refer to model number chart below for frequency band data
- Screw tabs provided for surface mounting (recommended); or mounts to a U.S style junction box through a standard size knockout
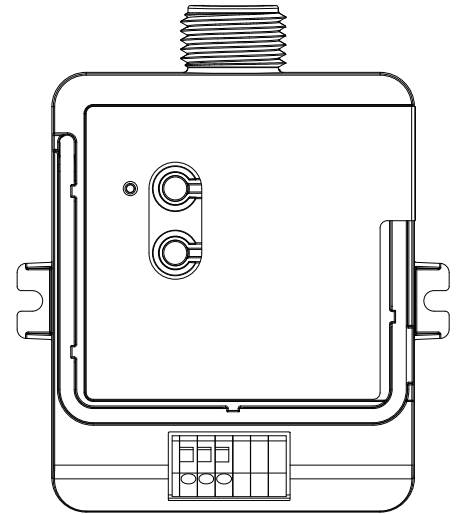
RMJ-CCO1-24-B model shown

Models Available

Model Number	Region	Operating Voltage	Frequency Band
RMJ-CCO1-24-B	U.S.A., Canada, Mexico	24 V∼ or 24 V⎓	431.0–437.0 MHz
URMJ-CCO1-24B	U.S.A. (BAA Compliant)	24 V∼ or 24 V⎓	431.0–437.0 MHz
RMQ-CCO1-24-B	Hong Kong, Macau	24 V∼ or 24 V⎓	433.05–434.79 MHz
RMM-CCO1-24-B	China, Singapore	24 V∼ or 24 V⎓	868.125–868.475 MHz
RMK-CCO1-24-B	Europe, U.A.E.	24 V∼ or 24 V⎓	868.125–868.850 MHz
RMN-CCO1-24-B	India	24 V∼ or 24 V⎓	865.5–866.5 MHz
RMP-CCO1-JA-B	Japan	24 V∼ or 24 V⎓	313.3–314.8 MHz

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

Specifications

Regulatory Approvals

RMJ- & URMJ- models

- UL® Listed (USA)
- FCC approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules. (USA)
- 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) (RMJ- only)
- COFETEL (Mexico) (RMJ- only)
- NOM (Mexico) (RMJ- only)

RMN- Model

- WPC Type Approved (India)

RMK- Model

- CE (European Union)
- TRA Type Approved (United Arab Emirates)

Power

- IEC PELV/NEC® Class 2
- Operating voltage: 24 V∼ / 24 V⎓
- Operating current, nominal: 45 mA (24 V∼)
  35 mA (24 V⎓)
- 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 1 for frequency band details
- RF range is 30 ft (9 m) for RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models
- RF range is 23 ft (7 m) for RMP- 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

Contact Closure Output

- Accepts input voltages of 0–24 V∼ / 0–24 V⎓; see chart below for load switching capacities

Switching Voltage	Resistive Load $\mathbf{\textstyle \diagdown_R}$
0-24 V⎓	1.0 A
0-24 V∼	0.5 A

- 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
- 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).
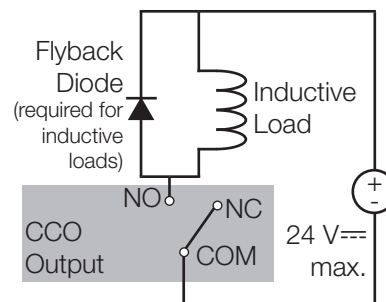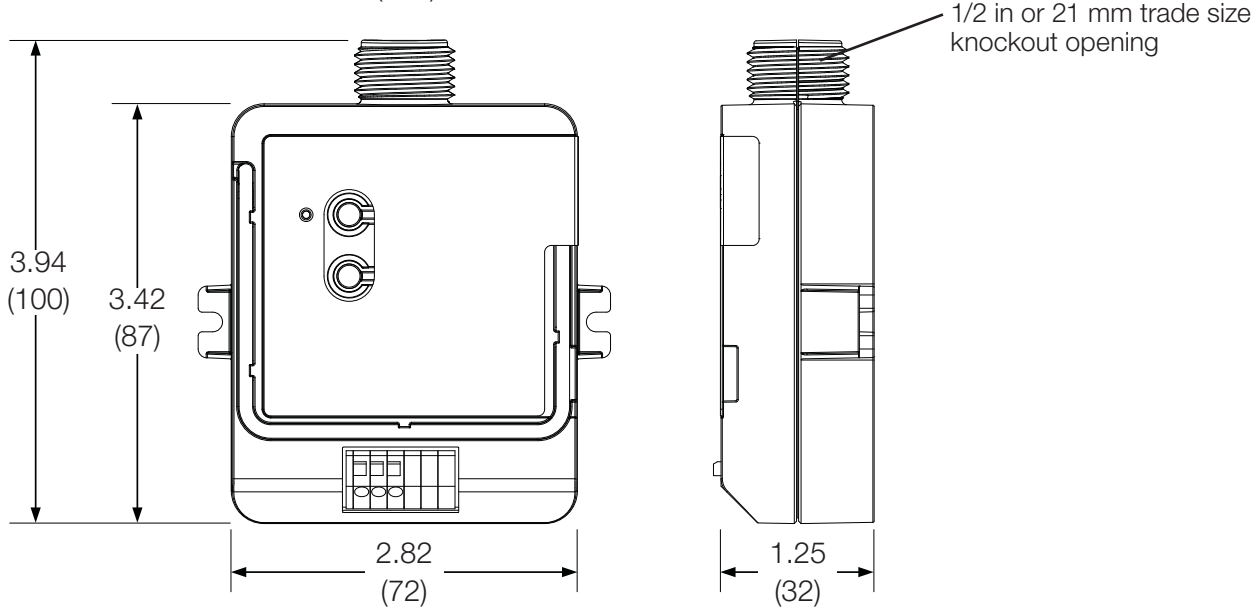
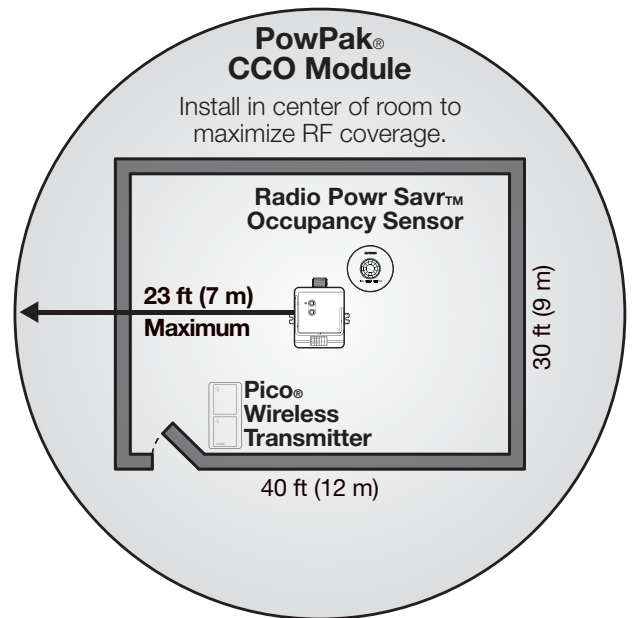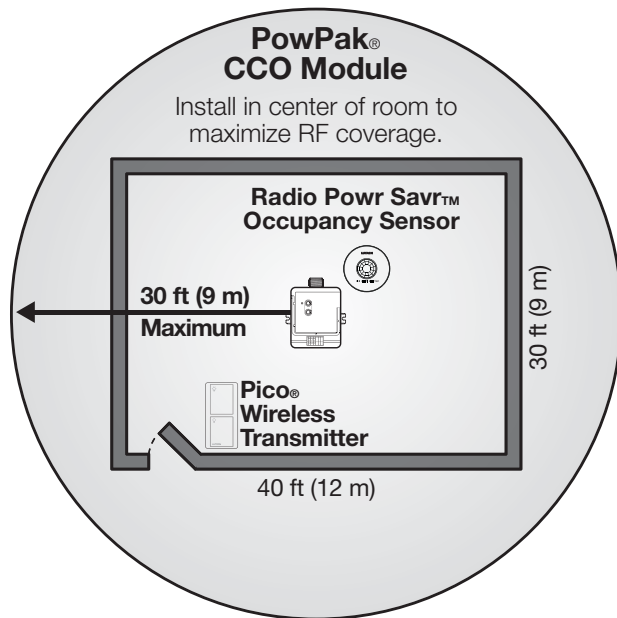| Job Name:	Model Numbers:
Job Number:	

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

RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models

RMP- models

**PowPak®
CCO 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®
Wireless
Transmitter**

40 ft (12 m)

**PowPak®
CCO Module**

Install in center of room to maximize RF coverage.

**Radio Powr Savr™
Occupancy Sensor**

23 ft (7 m)
Maximum

30 ft (9 m)

**Pico®
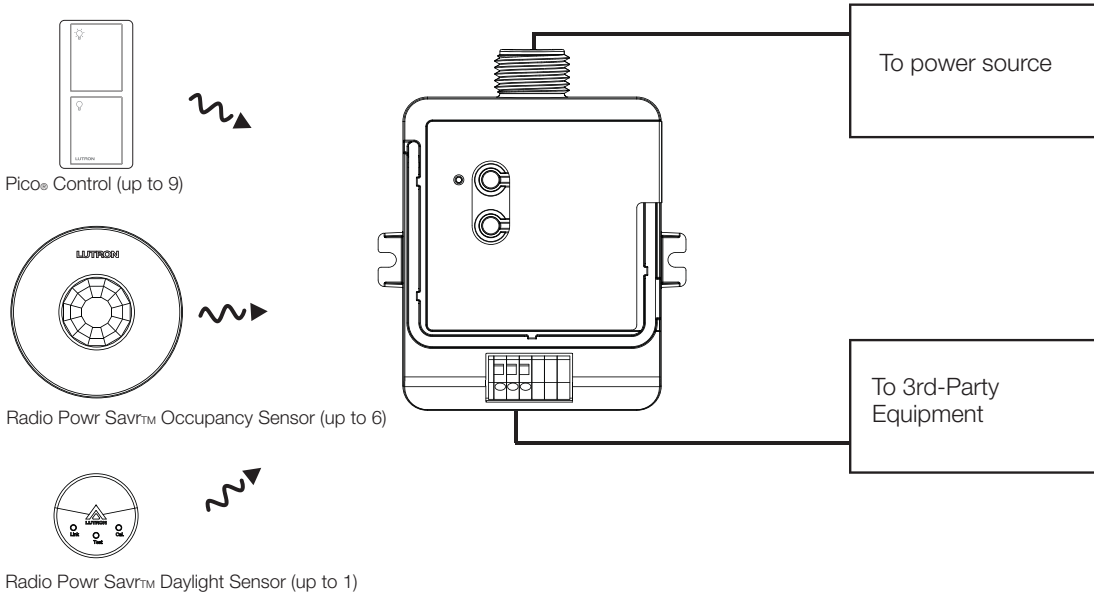Wireless
Transmitter**

40 ft (12 m)

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

All Wireless Transmitters must be installed within 23 ft (7 m) of the PowPak® Module.

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

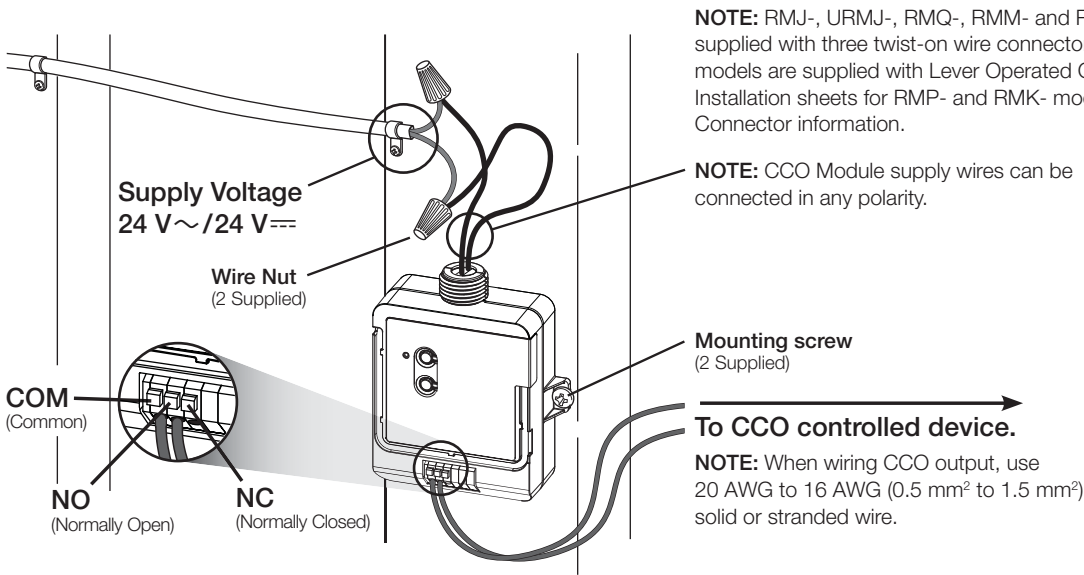| Job Name:	Model Numbers:
Job Number:	

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System Diagram

Pico® Control (up to 9)

Radio Powr Savr™ Occupancy Sensor (up to 6)

Radio Powr Savr™ Daylight Sensor (up to 1)

To power source

To 3rd-Party Equipment

Default Operation

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

Job Name:	Model Numbers:
Job Number:	

Wiring Diagram (Recommended)

Supply Voltage
24 V∼/24 V⎓

Wire Nut
(2 Supplied)

COM
(Common)

NO
(Normally Open)

NC
(Normally Closed)

NOTE: RMJ-, URMJ-, RMQ-, RMM- and RMN- models are supplied with three twist-on wire connectors. RMK- and RMP- models are supplied with Lever Operated Connectors. See Installation sheets for RMP- and RMK- models for Lever Operated Connector information.

NOTE: CCO Module supply wires can be connected in any polarity.

Mounting screw
(2 Supplied)

To CCO controlled device.

NOTE: When wiring CCO output, use 20 AWG to 16 AWG (0.5 mm^2 to 1.5 mm^2) solid or stranded wire.
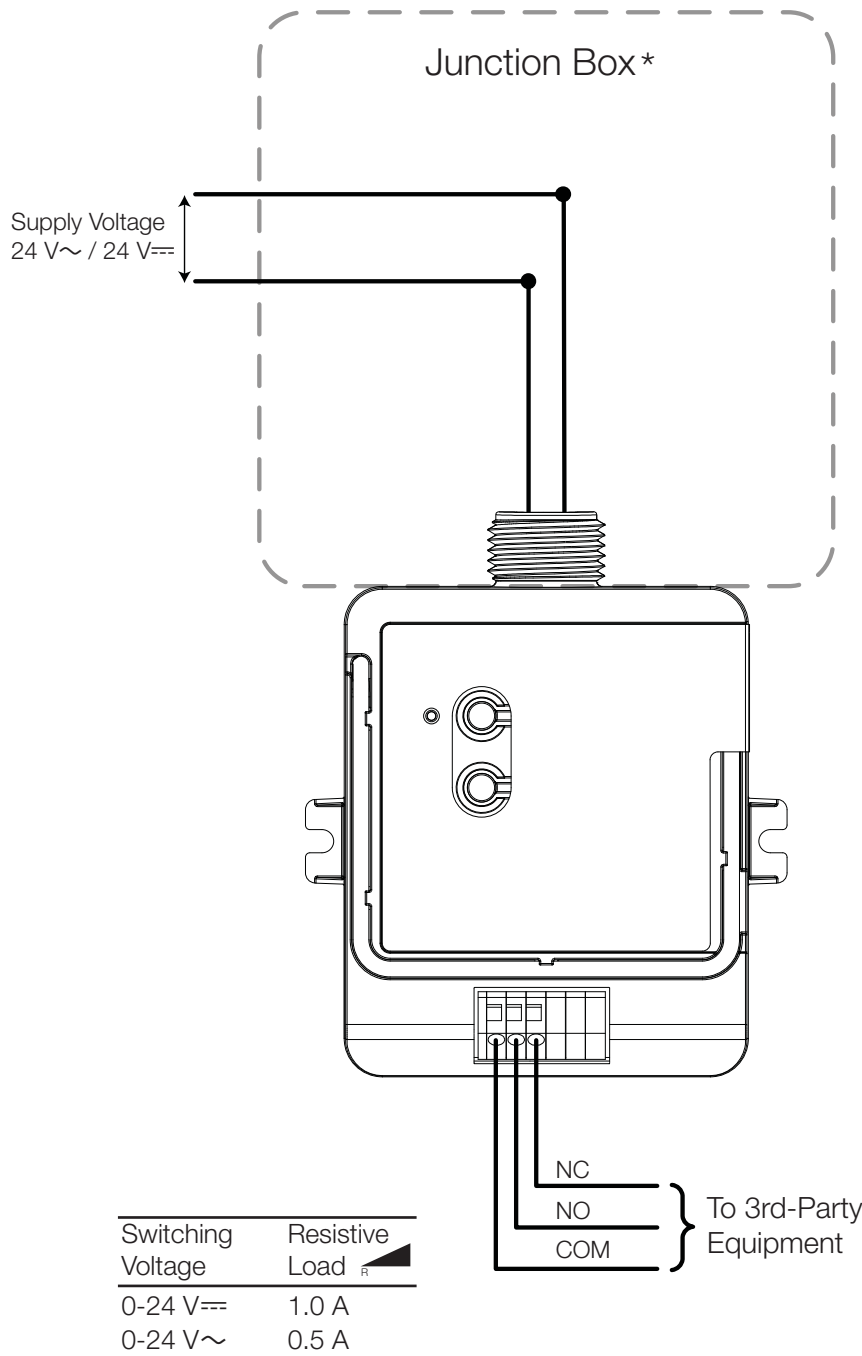
NOTE: The CCO output may be wired using either the NO or NC terminal. Refer to the Default Operation chart on page 6 for more information regarding the behavior of the CCO output terminals.

Job Name:	Model Numbers:
Job Number:	

Wiring Diagram (Junction Box Optional)

Junction Box *

Supply Voltage
24 V∿ / 24 V⎓

* **NOTE:** Some applications (in USA) 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.

NC
NO   } To 3rd-Party
COM   Equipment

Switching Voltage	Resistive Load ◢R
0-24 V⎓	1.0 A
0-24 V∿	0.5 A

Job Name:	Model Numbers:
Job Number:	