

## Rania® Wireless RF Switch

The Rania® Wireless RF Switch is a two-wire switch offering a retrofit solution with no neutral required. For the customer desiring energy savings, the Rania® Wireless RF Switch can be controlled by Lutron® Radio Powr Savr™ wireless occupancy/vacancy sensor and Lutron® Radio Powr Savr™ wireless ceiling-mount daylight sensor.

### Features

- Two-wire switch - no new wiring required.
- Clear Connect® RF Technology allows for communication with other Lutron® Radio Frequency (RF) devices. See "**Compatible RF Devices**" on the **Availability/Compatibility** page for more information.
- Multi-way functionality through Rania® Accessory Switches.
- Power failure memory: Should power be interrupted, the control will return to its previous state.
- When used with a daylight sensor, daylight compensation is accomplished through Lutron's reliable open loop control.



Front View: Frameless Faceplate  
 RS-SA05-B-FAW-M  
 RS-SB05-B-FAW-M  
 RS-SN05-B-FAW-M

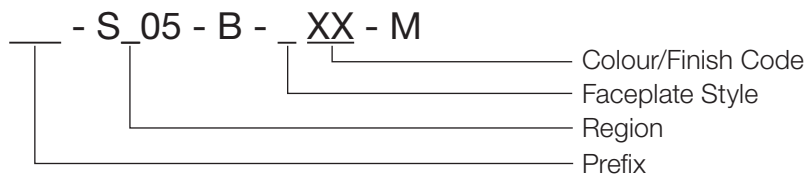


Front View: Frame/Insert Faceplate  
 RS-SA05-B-IAW-M  
 RS-SB05-B-IAW-M

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| <p>Job Name:</p><br><br><p>Job Number:</p> | <p>Model Numbers:</p> |
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## Models Available

### Rania® Wireless RF Switch and Kit Models



#### Prefix:

RS – Rania® Switch

RRF – Kit Models (1 Rania® Wireless RF Switch and 1 Radio Powr Savr™ Occupancy/Vacancy Sensor) (Not Available in India)

#### Region:

A – Europe

B – China

N – India

#### Faceplate Style:

F – Frameless Faceplate

I – Frame/Insert Faceplate (Not available in India)

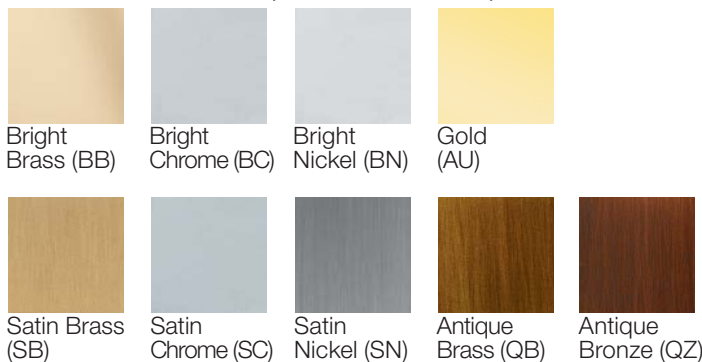
B – Black Frame/Metal Insert Faceplate (Not available in India)

#### Colours and Finishes:\*

##### Available Colours



##### Available Metal Finishes (not available in India)



\* Due to printing limitations, colours and finishes shown cannot be guaranteed to perfectly match actual product colors and finishes.

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## Specifications

### Standards

#### RS-SA05 & RRF-SA05 models

- Certified for IEC/EN compliance
- CE
- Certified for use in Europe, UAE and India

#### RS-SB05 & RRF-SB05 models

- Certified for IEC/EN compliance
- CE
- Certified for SRRC compliance
- Certified for iDA compliance
- Certified for use in China and Singapore

#### RS-SN05 model

- Lutron® Quality Systems registered to ISO 9001:2008
- WPC Type Approved (India)

### Requirements

- For multi-way switching, use only one Rania® Wireless RF Switch with up to 9 Rania® Accessory Switches.

### Power / Performance

- 220 to 240 V~ 50/60 Hz
- Minimum Load: 25 W
- Maximum Load: 5 AX  
Maximum transformer size of 100 VA. Multiple transformers can be used for up to 5 A of total load, 4 A for motor loads

### Radio Frequency

- RS-SA05 & RRF-SA05 models: 868 MHz
- RS-SB05 & RRF-SB05 models: 868 MHz (Limited)
- RS-SN05 model: 865 to 867 MHz

### Load Types

- Fluorescent
- Compact Fluorescent Lamps (CFLs)
- Incandescent
- Halogen
- Electronic Low-Voltage
- Magnetic Low-Voltage
- Motor Loads

### Environment

- Ambient operating temperature: 0 to 40 °C.
- 0 to 90% humidity, non-condensing.
- Indoor use only.

### Wiring

- Maximum wire length between the Rania® Wireless RF Switch and the furthest Rania® Accessory Switch is 50 m.

### Mounting

- Mountable in round or square back boxes with a minimum depth of 35 mm.
- Trim ring is available for 25 mm back boxes.

### System Communications and Capacity

- Rania® Wireless RF Switch controls communicate with the Radio Powr Savr™ sensors through RF.
- Controls must be located within 10 m of a Radio Powr Savr™ sensor.

### Shunt Capacitor

- In certain applications, a shunt capacitor (LUT-MLC) will need to be added at the load for proper operation. This is most common for non-dimmable CFLs.
- The product is packaged with a 0,47 µF X1 capacitor with flying leads rated for 310 V~.

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## Availability/Compatibility

### Compatible RF Devices:

| Models Available  | Lutron® Radio Powr Savr™          |                                |                                |                                  |                  | Pico® Wireless Controller            |
|---|-----------------------------------|--------------------------------|--------------------------------|----------------------------------|------------------|--------------------------------------|
|   | Occupancy/Vacancy Ceiling Sensors | Occupancy/Vacancy Wall Sensors | Occupancy/Vacancy Hall Sensors | Occupancy/Vacancy Corner Sensors | Daylight Sensors |                                      |
| RS-SA05-B-FXX-M<br>RS-SA05-B-IXX-M<br>RS-SA05-B-BXX-M<br>RRF-SA05-B-FXX-M<br>RRF-SA05-B-IXX-M<br>RRF-SA05-B-BXX-M | LRF3-OCRB-P                       | LRF3-OWLB-P                    | LRF3-OHLB-P                    | LRF3-OKLB-P                      | LRF3-DCRB-P      | PK-2B<br>PK-3BRL<br>PK-2BRL          |
| RS-SB05-B-FXX-M<br>RS-SB05-B-IXX-M<br>RS-SB05-B-BXX-M<br>RRF-SB05-B-FXX-M<br>RRF-SB05-B-IXX-M<br>RRF-SB05-B-BXX-M | LRF4-OCRB-P                       | LRF4-OWLB-P                    | LRF4-OHLB-P                    | LRF4-OKLB-P                      | LRF4-DCRB-P      | PM-2B<br>PM-3BRL<br>PM-2BRL          |
| RS-SN05-B-FXX-M   | LRF5-OCR2B-P                      | LRF5-OWLB-P                    | LRF5-OHLB-P                    | LRF5-OKLB-P                      | LRF5-DCRB-P      | PN-2B<br>PN-2BRL<br>PN-3B<br>PM-3BRL |

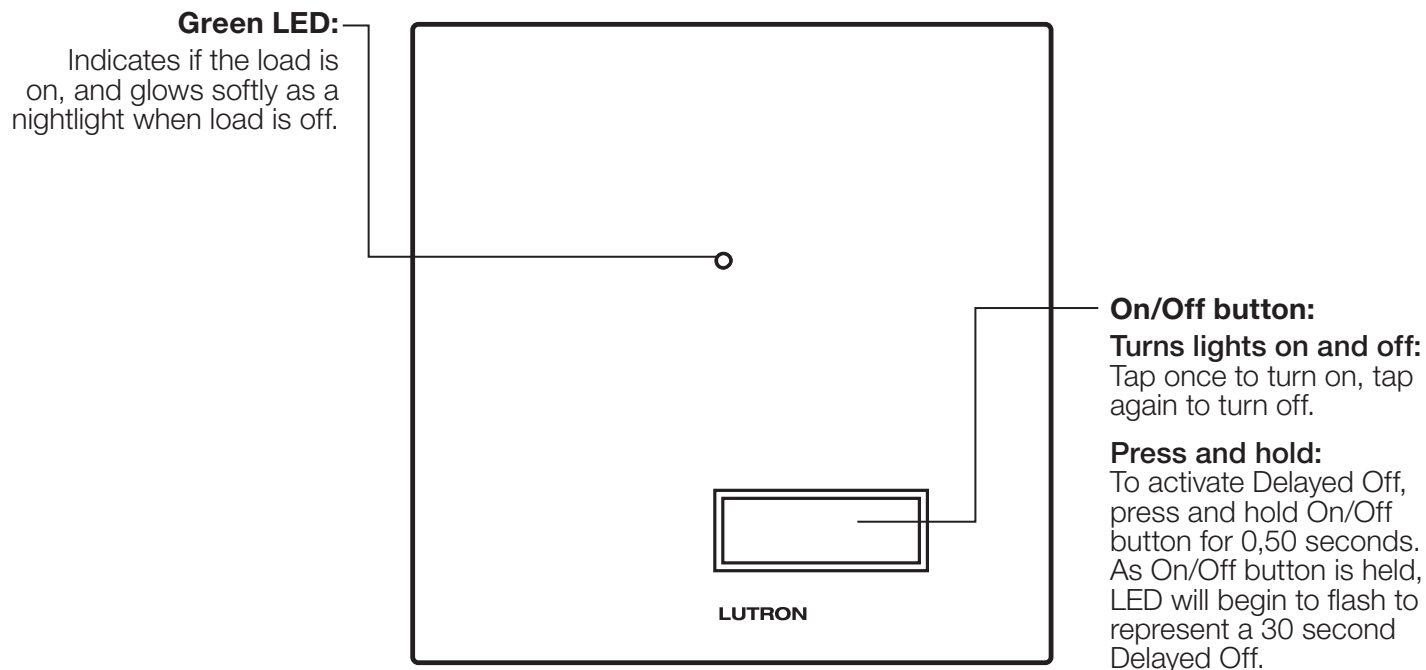
### Compatible Multi-Way Controls:

- RS-SNAS-B-FXX\*-Y Rania® Accessory Switch, Frameless Faceplate
- RS-SNAS-B-IXX\*-Y Rania® Accessory Switch, Frame/Insert Faceplate (Not Available In India)
- RS-SNAS-B-BXX\*-Y Rania® Accessory Switch, Black Frame/Metal Insert Faceplate (Not Available In India)

\* "XX" in the model number represents the colour/finish code. See "Colours and Finishes" on Models Available page.

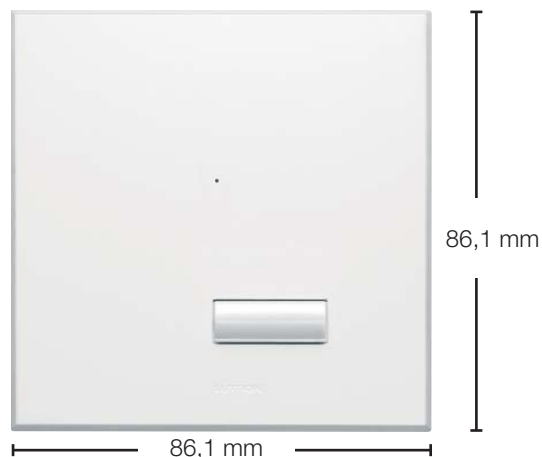
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# Operation

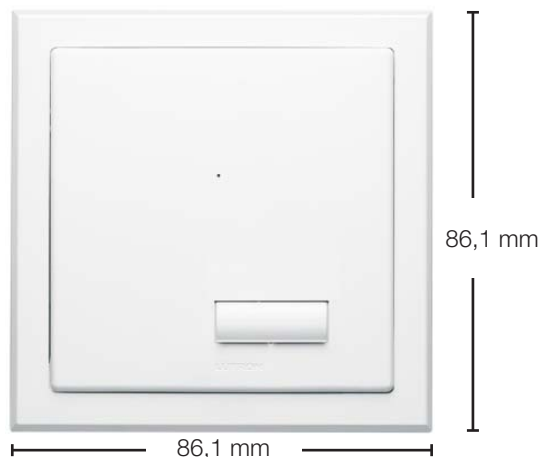


# Dimensions

Front View: Frameless Faceplate



Front View: Frame/Insert Faceplate



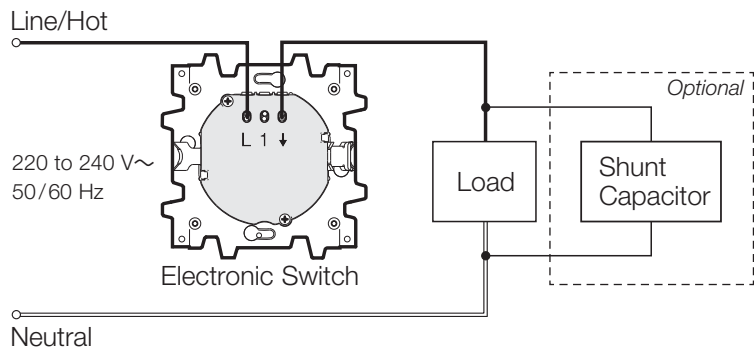
Side View: Frameless Faceplate



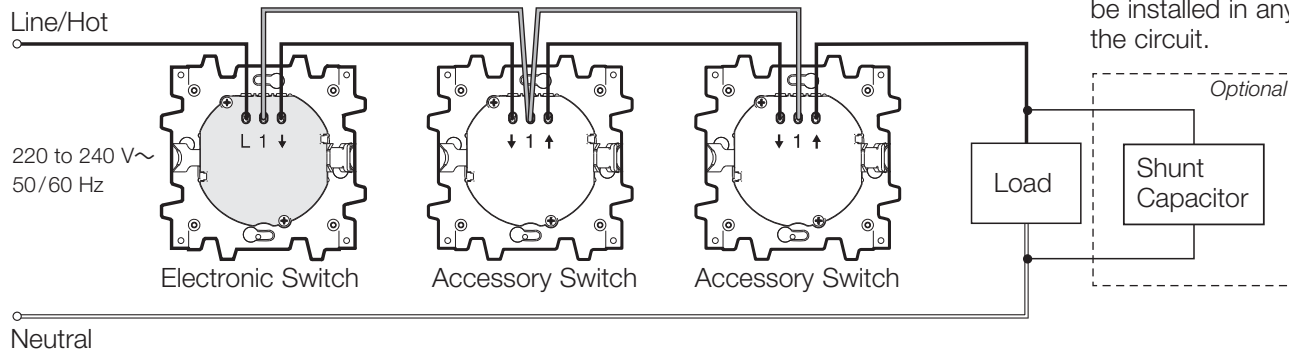
|             |                |
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| Job Name:   | Model Numbers: |
| Job Number: |                |

# Wiring Diagrams

## Single Location



## Multi-Location



**Note:** Electronic Switch can be installed in any location in the circuit.

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