

RadioRA 2 Wall-mount Designer Keypads

RadioRA 2 wall-mount designer keypads provide homeowners with a simple and elegant way to operate lights, shades/draperies, motorized screens, and many other devices.

RadioRA 2 keypads feature large, easy-to-use buttons, plus a unique backlit engraving option that makes the keypads readable any time of the day or night. The keypad buttons are rounded, allowing engraving to be displayed at an upward angle, increasing readability.

Replacement Kits are available in a variety of colors and with custom engraving to clearly identify each button's function. The flexible design of the keypads allow the color, number of buttons, and the configuration of the buttons to be changed after the keypad is installed.

Use only Lutron Designer (Claro or Satin Colors) wallplates. The mechanical design of the keypad is ONLY compatible with Lutron wallplates and is NOT compatible with any other manufacturer's wallplate. Wallplates are sold separately. Lutron Claro and Satin Colors wallplates snap on with no visible means of attachment.



Model Numbers

RRD-W1RLD-XX*	Dual group with 1 Raise/Lower
RKD-W1RLD-XX*-E	Engraved Replacement Kit
RRD-W2RLD-XX*	Dual group with 2 Raise/Lower
RKD-W2RLD-XX*-E	Engraved Replacement Kit
RRD-W3BD-XX*	3 Button dual group
RKD-W3BD-XX*-E	Engraved Replacement Kit
RRD-W3BRL-XX*	3 Button with Raise/Lower
RKD-W3BRL-XX*-E	Engraved Replacement Kit
RRD-W3BSRL-XX*	3 Button with Raise/Lower Keypad
RKD-W3BSRL-XX*-E	Engraved Replacement Kit
RRD-W3S-XX*	3 Scene with Raise/Lower Keypad
RKD-W3S-XX*-E	Engraved Replacement Kit
RRD-W4S-XX*	4 Scene with Raise/Lower Keypad
RKD-W4S-XX*-E	Engraved Replacement Kit

RRD-W5BRL-XX*	5 Button with Raise/Lower Keypad
RKD-W5BRL-XX*-E	Engraved Replacement Kit
RRD-W5BRLIR-XX*	5 Button with Raise/Lower and Infrared (IR) lens
RKD-W5BRLIR-XX*-E	Engraved Replacement Kit
RRD-W6BRL-XX	6 Button with Raise/Lower
RKD-W6BRL-XX*-E	Engraved Replacement Kit
RRD-W7B-XX*	7 Button Keypad
RKD-W7B-XX*-E	Engraved Replacement Kit

* "XX" in the model number represents color/finish code. See **Colors and Finishes** at end of document.

RadioRA 2 Wall-mount Designer Keypads

Specifications

Model Numbers	<p>Keypads: RRD-W1RLD-XX, RRD-W2RLD-XX, RRD-W3BD-XX, RRD-W3BRL-XX, RRD-W3BSRL-XX, RRD-W3S-XX, RRD-W4S-XX, RRD-W5BRL-XX, RRD-W5BRLIR-XX, RRD-W6BRL-XX, RRD-W7B-XX</p> <p>Replacement Kits: RKD-W1RLD-XX-E, RKD-W2RLD-XX-E, RKD-W3BD-XX-E, RKD-W3BRL-XX-E, RKD-W3BSRL-XX-E, RKD-W4S-XX-E, RKD-W3S-XX-E, RKD-W5BRL-XX-E, RKD-W5BRLIR-XX-E, RKD-W6BRL-XX-E, RKD-W7B-XX-E</p>
Power	120 V~ 50/60 Hz 0.5 A
Typical Power Consumption	0.6 W Test conditions: all backlights on medium intensity, two LEDs on (two presets active), keypad powered at 120 V~
Regulatory Approvals	UL, CSA, NOM, FCC, IC, COFETEL, ANATEL
Environment	Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing. Indoor use only.
Communications	Wall-mount designer keypads communicate with the system through Radio Frequency (RF) and must be located within 30 ft (9 m) of a repeater. System devices operate on frequencies between 431.0 MHz and 437.0 MHz.
ESD Protection	Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2.
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.
Power Failure	Power failure memory: should power be interrupted, the keypad will return to its previous state when power is restored.
Mounting	Requires a U.S. wallbox. 3 ½ in (89 mm) deep recommended, 2 ¼ in (57 mm) deep minimum.
Wiring	Wall-mount designer keypads require a neutral wire connection.
Warranty	www.lutron.com/TechnicalDocumentLibrary/warranty.pdf

Design Features

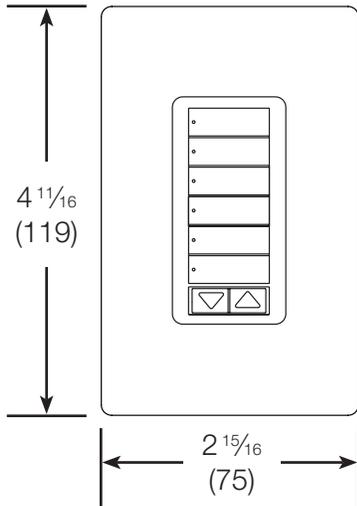
- At the press of a single button, lights fade ON or OFF to desired levels and shades/draperies open or close to desired positions.
- Light levels and shade/drapery positions can be fine-tuned by pressing and holding the raise/lower buttons.
- Programmable to select scene or room preset levels or positions.
- Adjustable backlight intensity.
- -W5BRLIR only: IR receivers at the front and back of the keypad allow for the use of an IR remote for line-of-sight operation (front) or IR repeater kit integration (back).
- Use an IR remote to select the same programmed rooms, scenes, and raise/lower buttons as the keypad (-W5BRLIR only).
- Configurable Raise/Lower selection using programming software.
 - Last button pressed (default) - devices controlled by the last button pressed will raise/lower.
 - Double-tap - devices controlled by a double-tapped button will raise/lower.
 - Programmed devices - only the devices programmed to the button will raise/lower.
- Prepaid engraving included. Redeemable for one engraved Replacement Kit.

RadioRA 2 Wall-mount Designer Keypads

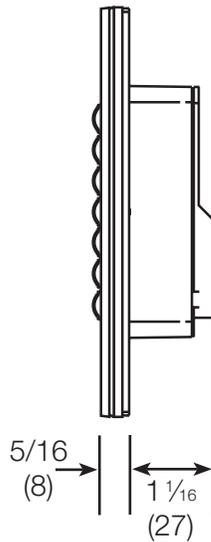
Dimensions

All dimensions are shown as in (mm)

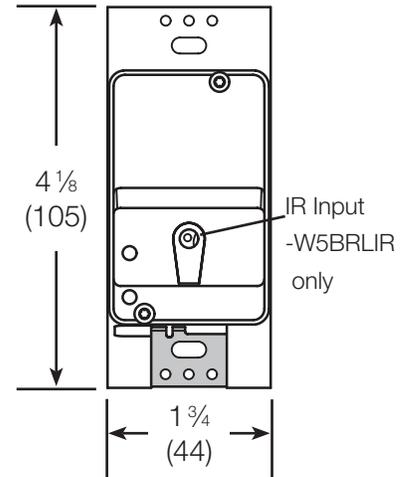
Front View



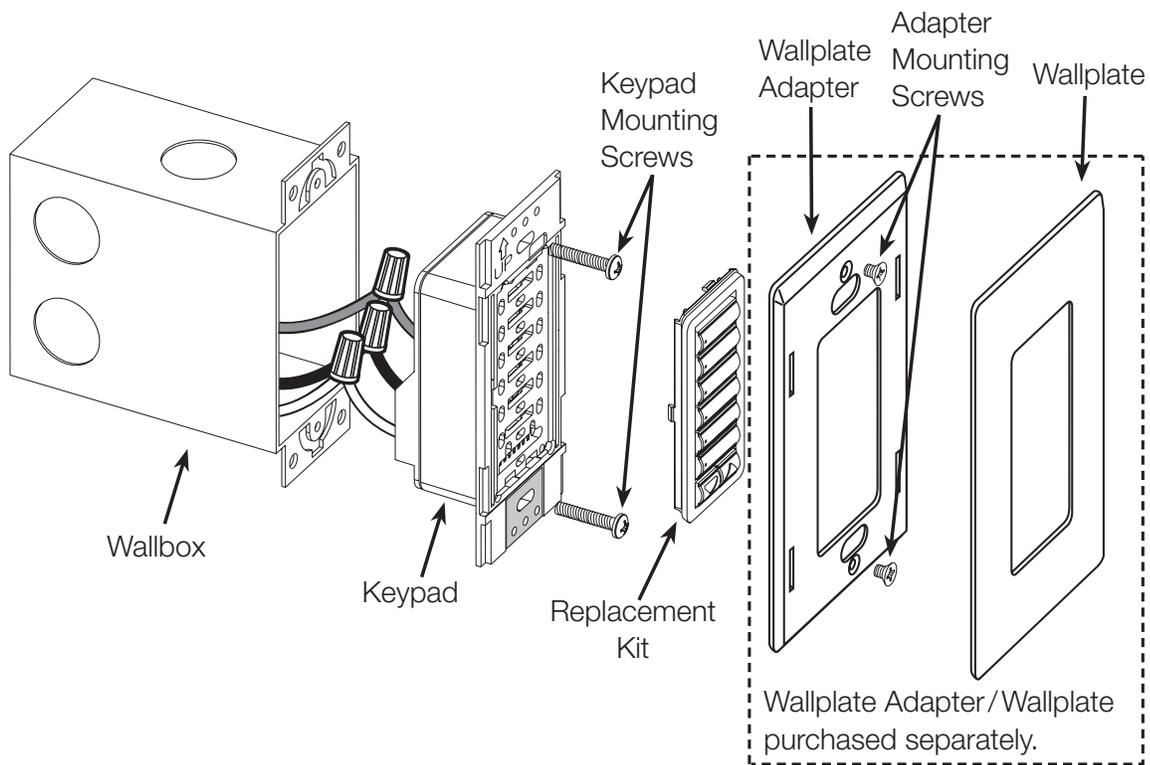
Side View



Rear View

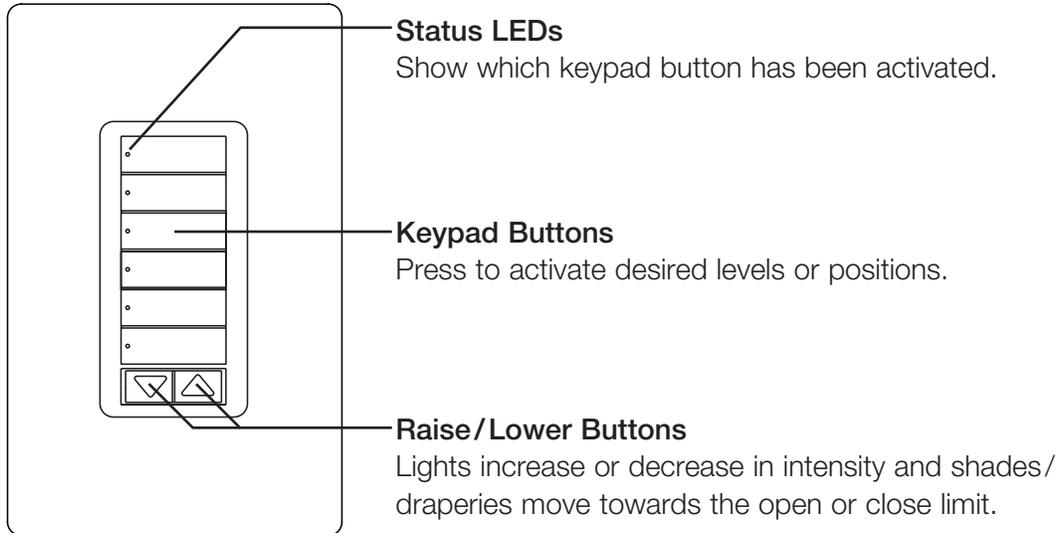


Mounting and Parts Identification

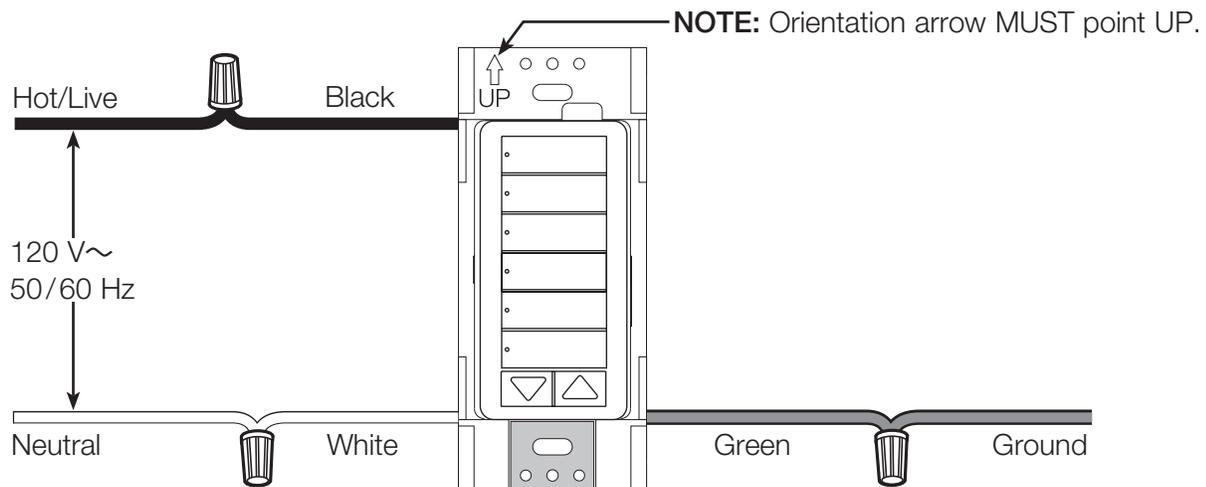


RadioRA 2 Wall-mount Designer Keypads

Operation



Wiring Diagram



RadioRA 2 Wall-mount Designer Keypads

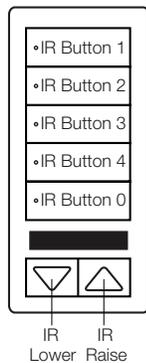
Keypad IR Receiver (-W5BRLIR only)

An integral feature of the RadioRA 2 lighting control system is to utilize keypads to receive IR signals and communicate to the rest of the RadioRA 2 system through RF signals. RadioRA 2 keypads can receive IR signals from Lutron wireless remotes (models GRX-IT & GRX-8IT) and third-party learnable IR remotes.

IR Mapping (-W5BRLIR only)

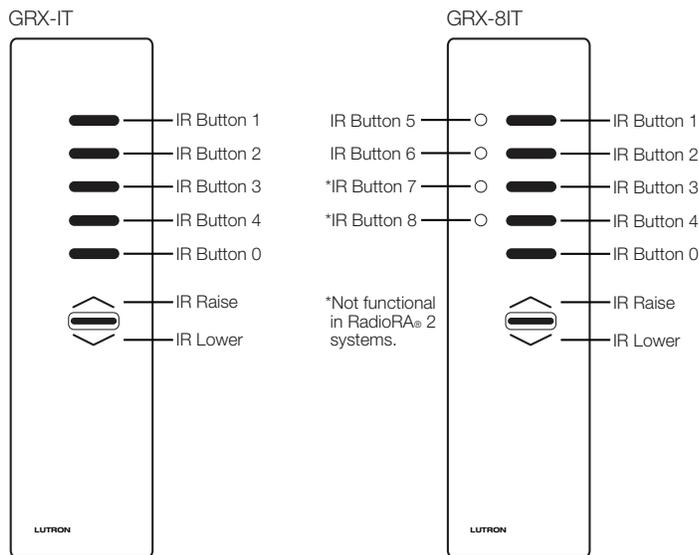
When a keypad receives one of the supported Lutron IR codes, it will simulate the corresponding button press as shown below. The IR receiver on the back of the keypad allows IR transmitters to mimic the functions of the buttons on the front of the keypad.

RRD-W5BRLIR



Supported IR Remotes (-W5BRLIR only)

RadioRA 2 keypads can be controlled by Lutron IR remotes (models GRX-IT & GRX-8IT) and third-party learnable IR remotes.



RadioRA 2 Wall-mount Designer Keypads

Learnable IR Remote Codes (-W5BRLIR only)

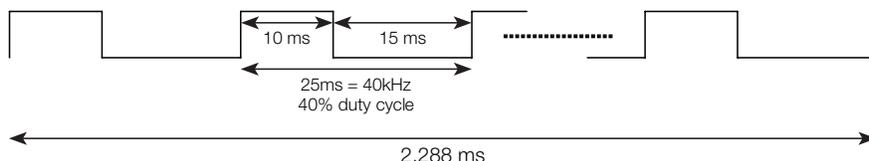
IR Technical Specifications*

Category	Specification
IR Carrier Frequency	40.0 kHz
Duty Cycle	40%
Single Bit Time	2.288 ms
Baud Rate	437 bps
Command Length	36 bits
Command Duration	82.368 ms
Logic One	Presence of IR modulated at 40.0 kHz
Logic Zero	Absence of IR

IR Codes

Remote Button	IR Code (Hexadecimal)
IR Button 1	FF88BD1D0h
IR Button 2	FF88BD240h
IR Button 3	FF88BD2B0h
IR Button 4	FF88BD710h
IR Button 5	FF88BD7E0h
IR Button 6	FF88BD470h
IR Button 0	FF88BD120h
IR Raise	FF8882220h
IR Lower	FF8882140h

Single Bit Time



- * IR codes are transmitted from an IR remote to the IR receiver on a keypad while a button on the remote is being held down. Timeouts may occur when seven seconds of continuous IR code transmission has taken place. Therefore, it is important to transmit the most significant bit of the IR code first.

NEC® Requirements

A RadioRA 2 keypad (-W5BRLIR only) can accept IR into the front or back of the unit, leading to the potential to have both electric light and power conductors and Class 2 circuit conductors in the same wallbox.

Solution...

The 2008 National Electrical Code® (NEC®) Article 725.136 (D) provides the specific rules governing Class 2 conductors and electric light and power conductors within the same wallbox. It states that electric light and power conductors may be allowed in the same enclosure as Class 2 circuit conductors, provided they are both introduced for connection to the same equipment, and if one of the following requirements is also met:

1. The electric light and power conductors are routed to maintain a minimum of 1/4 in (6 mm) of separation from the Class 2 circuit conductors, or:
2. The circuit conductors operate at 150 V \sim or less, and meet the following requirement:
Class 2 circuits are installed using types CL3, CL3R, CL3P or permitted substitute cables and the cable conductors extending beyond the jacket are separated by a minimum of 1/4 in (6 mm), or by a nonconductive sleeve/barrier, from all other conductors.

Understand though...

The NEC® is a document subject to interpretation. Your local city, county, municipality or state authorities have the final authority to approve or disapprove any installation. They must always be consulted for verification of the code, and the manner in which it will be applied in your area, prior to installation.

RadioRA 2 Wall-mount Designer Keypads

Colors and Finishes

Gloss Finishes



White
WH



Ivory
IV



Almond
AL



Light
Almond
LA



Gray
GR



Brown
BR



Black
BL

Satin Finishes



Snow
SW



Midnight
MN



Eggshell
ES



Palladium
PD



Plum
PL



Sienna
SI



Greenbriar
GB



Goldstone
GS



Taupe
TP



Hot
HT



Terracotta
TC



Mocha
Stone
MS



Biscuit
BI



Merlot
MR



Bluestone
BG



Stone
ST



Desert Stone
DS



Limestone
LS

For the latest color offerings see our website:
<http://www.lutron.com/satincolors>

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

- Color chip keychains are available for more precise color matching:

Gloss Finishes- DG-CK-1

Satin Finishes - SC-CK-1

Metal Finish (wallplate only)



Stainless
Steel SS

When using Stainless Steel wallplates, it is recommended to order the keypad in Black (BL) or Midnight (MN).

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