RadioRA3

Dimmer

044424 Rev A
03/2025

English

Please read before installing.

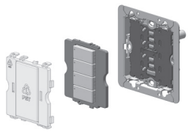
RRE-HDS-1
RR-HD
220 - 240 V~ 50/60 Hz

1 A 150 W
LED

250 W
Inc./Hal./ELV

Included Components

Bulk Hybrid Keypad
Mounting Plate[1]
Button Kit[2]
Construction Cover
Mounting Screws



[1]When Included
[2]For RR-HD only

Help

RA3 Support Center
For additional support with installing, programming, and troubleshooting

lutron.com/RA3support

Europe: **+44.(0)20.7702.0657**
Indonesia: **001.803.011.3994**
KSA: **140.025.05512**
Singapore: **800.120.4491**
Thailand: **001.800.120.665853**
UAE: **+800.031.10102**
India: **000800.050.1992**
U.S.A./Canada: **1.844.LUTRON1**
Mexico: **+1.888.235.2910**
Other Countries (toll): **+971600521581**

www.lutron.com/support

Limited Warranty:

https://assets.lutron.com/a/documents/intl_warranty.pdf

CE

Hereby, Lutron Electronics Co., Inc. declares that the radio equipment type RRE-HDS-1 and RR-HD are in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity is available at the following internet address: lutron.com/cedoc

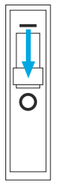
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LUTRON

1 Turn OFF power at circuit breaker or remove fuse



WARNING: SHOCK HAZARD.
May result in serious injury or death. Always isolate the mains power supply or remove fuse before servicing or installing.

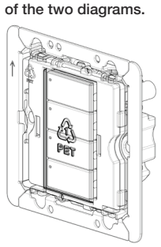
2 Load types and ratings

Load Type	Minimum Load		Maximum Load	Neutral Connection	
	With Neutral	Without Neutral		Dimming	Switching
LED[1]	0 W	10 W	1 A 150 W	Preferred	Required
ELV with LEDs	10 W	-	250 W	Required	
ELV with Inc./Hal.	10 W	-	250 W	Required	
Inc./Hal.	0 W	10 W	250 W	Preferred	
PHPM-PA-CE	1 interface	-	3 interfaces	Required	
GRX-TVI	1 interface	-	3 interfaces	Required	

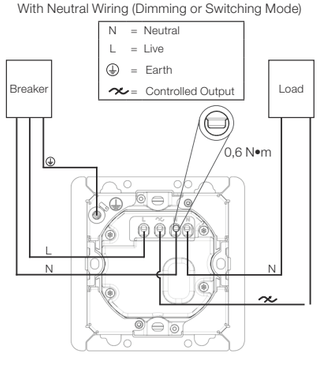
[1] LED rating is 1 A. If no current rating is specified on the LED lamp, a power rating of 150 W can be used.
NOTE: Do not install hybrid keypads to control sockets or motor-operated appliances.

3 Wiring

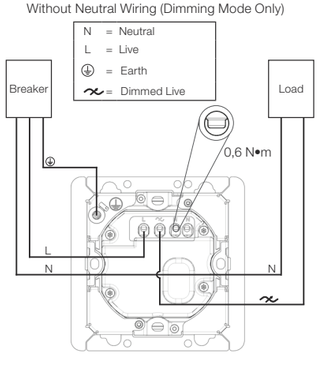
Connect the wires using one of the two diagrams.



With Neutral Wiring (Dimming or Switching Mode)



Without Neutral Wiring (Dimming Mode Only)

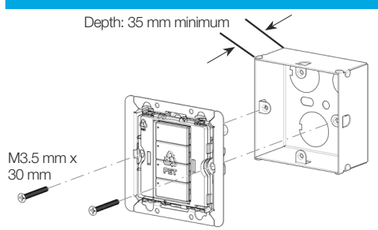




Products must be installed in accordance with the latest building and wiring regulations.

Note: Terminals are designed for one wire per terminal only.

4 Mounting

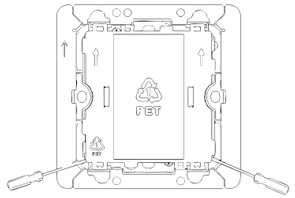


Mount the hybrid keypad to the backbox using the horizontally located screw holes only as shown.



Wallplate installation instructions are included with the wallplate. Replace construction cover with wallplate after construction has been completed.

5 Removing the Construction Cover

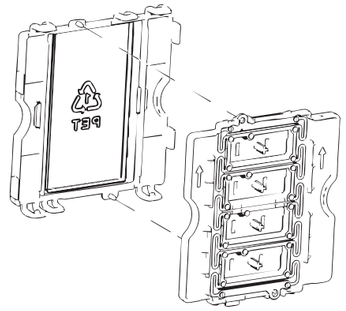


If the keypad already has a button kit installed (RR-HD), skip to step 8.

If the keypad does not have a button kit installed (RRE-HDS-1), follow the instructions below to install the button kit (button kit is sold separately).

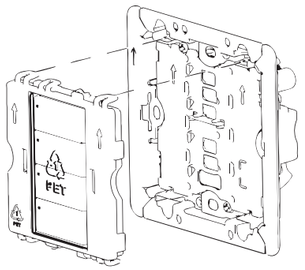
Use a screwdriver or other tool to pry free the corners of the construction cover and remove the construction cover from the keypad.

6 Adding the Button Kit



Snap the construction cover onto the button kit.

7 Adding the Construction Cover to the Keypad



Snap the construction cover onto the keypad, engaging the top two snaps first and then the bottom two.

Replace the construction cover with the wallplate after construction has been completed.

Note: Wallplate installation instructions are included with the wallplate.

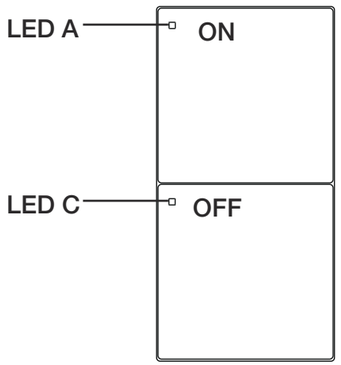
8 Turn ON power at circuit breaker or install fuse



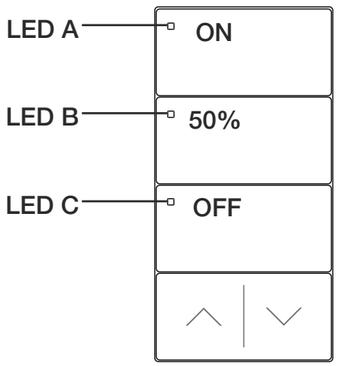
9 System setup

For control of other dimmers, switches, and shades this hybrid keypad must be used in a RadioRA 3 system with a processor.
Use the RadioRA 3 programming software to setup the system (training is required to access the software).
Do not attempt to program a keypad if the keypad does not have a button kit installed.

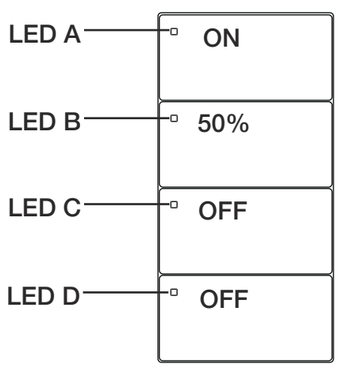
Default button operation shown. They will be over-written by the system software during system programming.



2-Button



3-Button with Raise/Lower



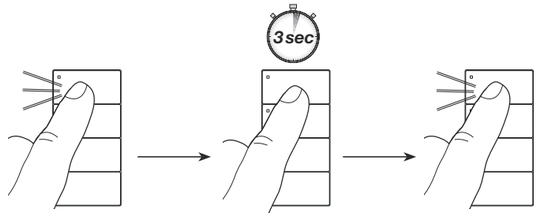
4-Button

IMPORTANT

1. CAUTION: Use only with permanently installed lighting fixtures. To avoid overheating and possible damage to other equipment, do not use to control sockets.
2. Install in accordance with all national and local electrical codes.
3. For indoor use only between 0 °C and 40 °C (32 °F and 104 °F); 0%–90% humidity, non-condensing.

Return to Factory Settings

Note: Returning a hybrid keypad to its factory settings will remove the hybrid keypad from the system and erase all programming.
Step 1: Triple tap the top button on the hybrid keypad. DO NOT release after third tap.
Step 2: Keep the button pressed on the third tap until all the status LEDs start to flash slowly (approximately 3 seconds).
Step 3: Immediately release the button and triple tap the button again. The status LEDs on the hybrid keypad will flash quickly.
The hybrid keypad has now been returned to its factory settings.



Troubleshooting

Symptoms	Probable cause	Action
LED A blinks 1 second ON, 1 second OFF	Live and dimmed live/controlled output wires are reversed	Check wiring against Step 3 of the instructions.
LEDs A and C alternate blinking 1 second ON, 1 second OFF	Over-voltage detected	1. Ensure the input voltage to the device is less than 260 V~. 2. Verify the device is not controlling a magnetic low-voltage transformer.
LED A is constantly ON. LED C blinks 1 second ON, 1 second OFF	Over-current detected	1. Check the wiring against Step 3 of the instructions. Verify that the neutral and dimmed live wires are not swapped. 2. Check for short circuits to neutral or ground in all wiring locations, including at the load. 3. Replace the load(s) to check if it failed as a short.
LEDs A and C blink together 1 second ON, 1 second OFF	Over-temperature detected	1. Ensure load is within ratings noted in the instructions. 2. Ensure ambient temperature is less than 40 °C.
LED lamps do not operate well or they flicker / buzz	The low-end is not adjusted[1]	Low-end trim may need to be adjusted for best LED lamp performance. If the device is activated into the system, trim can be adjusted in the Lutron app. If not, trim must be adjusted locally by following the instructions contained in Application Note #851 (P/N 048851).
	The lamp is not compatible with your Lutron dimmer	Verify LED lamps are marked dimmable. Replace the lamp(s).
	The lamp is not compatible without use of neutral wiring	Add neutral to the hybrid keypad. See Step 3 of the instructions.
LED lamps do not dim low enough	The low-end is not adjusted[1]	Low-end trim may need to be adjusted for best LED lamp performance. If the device is activated into the system, trim can be adjusted in the Lutron app. If not, trim must be adjusted locally by following the instructions contained in Application Note #851 (P/N 048851).
LED lamps flicker repeatedly at high-end	The high-end needs adjustment[1]	High-end trim may need to be adjusted for best LED lamp performance. If the device is activated into the system, trim can be adjusted in the Lutron app. If not, trim must be adjusted locally by following the instructions contained in Application Note #851 (P/N 048851).
	The lamp is not compatible with your Lutron dimmer	Verify LED lamps are marked dimmable. Replace the lamp(s).
	The lamp is not compatible without use of neutral wiring	Add neutral to the hybrid keypad. See Step 3 of the instructions.
A specific dimmer, switch or shade/drapery is not controlled when a button is pressed on the hybrid keypad	The dimmer, switch or shade/drapery is not assigned to the hybrid keypad	Refer to the programming software and ensure the device is assigned to the hybrid keypad. Perform a transfer and make sure it is successful.
	Failure has occurred on the lamp(s) controlled by the dimmer/switch	Replace the lamp(s).
	There is no power to the dimmer, switch, shade/drapery	1. Circuit breaker OFF or fuse is faulty. Turn ON breaker or replace fuse. 2. Verify that the wire connections did not come loose.
	Devices are out of range or is positioned too close to a non-Lutron 2.4 GHz device or other potential interference source	Ensure this device is placed within 6 m of two additional compatible wireless devices and greater than 2 m away from wireless interference sources like microwaves, Wireless Access Points (WAPs), etc.
Dimmer, switch or shade/drapery does not go to the desired level or position when a button on the hybrid keypad is pressed	The button was not programmed correctly	Refer to the programming software and ensure the device is assigned to the hybrid keypad. Perform a transfer and make sure it is successful.
	Devices are out of range or is positioned too close to a non-Lutron 2.4 GHz device or other potential interference source	Ensure this device is placed within 6 m of two additional compatible wireless devices and greater than 2 m away from wireless interference sources like microwaves, Wireless Access Points (WAPs), etc.
All status LEDs on the hybrid keypad flash when any button is pressed	The hybrid keypad is in the Factory Settings mode and has not been configured to work in a system	Refer to the programming software and ensure the device is assigned to that hybrid keypad. Perform a transfer and make sure it is successful.
Lights do not respond to a hybrid keypad button press or do not go to desired levels	Power not present at hybrid keypad	1. Circuit breaker OFF or fuse is faulty. Turn ON breaker or replace fuse. 2. Verify that the wire connections did not come loose.
	Lamps burned out or not installed	Replace or install lamps.
	Non-dimmable lamps	If non-dimmable lamps are being used, replace with dimmable lamps.
	Improper programming	Program according to the system Setup Guide.
Attached lights turn ON when top hybrid keypad button is pressed, then turn OFF	Load is less than minimum load requirement	Make sure the connected load meets the appropriate minimum load requirement for the control. See Step 2, Load types and derating.
	Improper programming	Program according to the system Setup Guide.
Wallplate is warm	Solid-state control dissipation	Solid-state hybrid keypads internally dissipate about 2% of the total connected load. It is normal for hybrid keypads to feel warm to the touch during operation.

[1] The local high-end and low-end trim menus are only accessible if the device is in dimming mode.