

start here

RadioRA[®] 2

manual setup guide

a step-by-step guide for manually setting up a complete Lutron[®] RadioRA[®] 2 wireless control system

please leave this setup guide with owner

Lutron Technical Support Hotline
800.523.9466 U.S.A./Canada/Caribbean
24 hours, 7 days a week



table of contents

read through all instructions before starting

overview	3
planning and design	6
installing	8
creating the system	10
choosing room/scene buttons	12
about programming	14
programming buttons	15
programming keypad columns	22
programming Pico® wireless controls	24
programming shortcuts	27
programming Visor Control Receiver	29
optional: configuring VCRX inputs	31
optional: testing RF signal quality	32
optional: setting shade/drapery limits	34
resetting devices to factory settings	35
repeater troubleshooting	37
device troubleshooting	38

If you have any questions, visit us on the web at www.lutron.com/radiora2.
For immediate assistance, call the Lutron® Technical Support Hotline at
800.523.9466 (U.S.A./Canada/Caribbean) 24 hours, 7 days a week.

overview

RadioRA® 2 is a wireless multi-room control system for lights and Shades/Draperies. Create the right ambiance for various activities, easily monitor and control your lights, reduce energy usage, and increase safety in and around your home.

Manually programmed systems can have up to 100 devices (1 Main Repeater, 0 to 4 Auxiliary Repeaters, and 1 to 95 other devices). Additional qualification is needed for PC programming and for systems over 100 devices. Qualified Level 2 (L2) dealers/installers can upgrade their software to provide support for a 200 device system. Contact your Lutron® representative to learn more about PC programming or the qualification program.

Feature	Programming Method			
	Simple Setup	Manual	Essentials PC	Inclusive PC
	(No Repeater)	(Main Repeater)	(Requires qualification)	
IR Keypad Control	✓	✓	✓	✓
Single-Room Scenes	✓	✓	✓	✓
Multi-Room Scenes		✓	✓	✓
Single-Action Buttons	✓		✓	✓
Toggle Buttons		✓	✓	✓
Individual Zone Control		✓	✓	✓
Room Monitoring		✓	✓	✓
Time Clock and Away Mode			✓	✓
Security Mode (Full/Flash)			✓	✓
Integration (RS-232/Ethernet)			✓	✓
Mobile Device Apps			✓	✓
Occupancy/Vacancy Sensors	✓		✓	✓
Wallbox Power Module				✓
RF Softswitch® Module				✓
HVAC Monitor and Control			✓	✓
+100 Devices (2 Main Repeaters)				✓

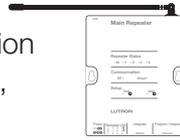
 Note: Once a system has been programmed using the RadioRA® 2 Design and Setup PC Tool, the system cannot be manually programmed. All subsequent programming must be performed using the RadioRA® 2 Design and Setup PC Tool.

overview

manual programming system components*

Main Repeater

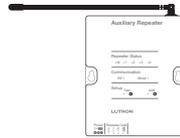
Supports system setup, allows integration and PC connectivity (ethernet, RS-232), and ensures error-free communication between system components.



Main Repeater

Auxiliary Repeater

Extends RF coverage to ensure error-free communication between system components.



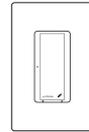
Auxiliary Repeater

Dimmer/Switch

Replaces a standard light switch. Dimmers allows smooth transitions of light and create unique lighting environments.



Dimmer



Switch



Plug-In Module

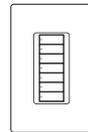


Lamp Dimmer

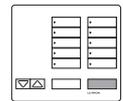
seeTouch® Keypad

Wall-Mount—controls lights and Shades/Draperies throughout the home.

Tabletop—convenient, portable control of lights and Shades/Draperies throughout the home.



seeTouch® Wall-Mount Keypad



seeTouch® Tabletop Keypad

Pico® Wireless Control

Battery-powered, retrofit, portable Keypad for convenient control of lights and Shades/Draperies throughout the home.



Pico® Wireless Control

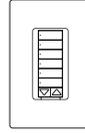
* some systems do not require every component listed

overview

manual programming system components* (continued)

Hybrid Keypad

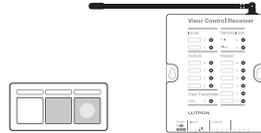
Replaces a standard light switch for dimming control. Buttons control lights and Shades/Draperies locally and throughout the home.



Hybrid Keypad

Visor Control Transmitter

Controls lights throughout the home from the comfort of your car.



Visor

Visor

Control

Control

Transmitter

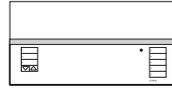
Receiver

Visor Control Receiver

Receives signal from Visor Control Transmitter and transmits to the entire RadioRA® 2 system.

GRAFIK Eye® QS Wireless Unit

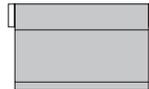
Powers and controls up to six zones of lights and up to 3 zones of Shades/Draperies in a room.



*GRAFIK Eye® QS
Wireless Unit*

Wireless Shade/Drapery

Allows quiet, precise control of daylight.



*Sivoia® QS
Wireless
Shade/
Drapery*



*Sivoia® QS
Triathalon®
Shade*

* some systems do not require every component listed

planning and design

system planning

A properly planned RadioRA® 2 system is easy to use and provides the maximum benefits. Planning a system involves creating areas. An area is a group of lights and Shades/Draperies that are controlled together. Consider the following questions when designing your system:

- What areas do I want to control?
- What load types do I want to control?
- How many devices do I need in each area?
- How will the Keypad buttons control the areas?

Use the following five steps to answer the above questions when designing your system.

system design

1. Identify the areas of the home to be controlled.

Example areas:

- Master suite
- Outdoor/Entry
- Kitchen/Family room
- Basement

2. Identify the load types to be controlled.

Example loads:

- Incandescent/Halogen
- Shade/Drapery
- CFL/LED
- Fluorescent
- Magnetic Low Voltage (MLV)
- Garage door
- Electronic Low Voltage (ELV)
- Other switched loads

3. Install devices to control as much of the lighting within the areas as possible (i.e. Dimmers, Switches, Shades/Draperies, etc.).

4. Place at least one Keypad or Wireless Control in each area.

planning and design

5. Choose how the Keypads will control the areas.

📖 Note: This step does not apply to Pico® Wireless Controls and Visor Control Transmitters.

Ways to control the area	Benefit
1 Individual device control - Control of a single Dimmer, Switch, or Shade/Drapery.	Provides ability to turn an individual light on/off and allows changing level of an individual control.
2 Local scene - Preset scene for all lighting and shading within a room.	Sets all room lighting and Shades/Draperies to the optimal level for a specific activity, at the touch of one button. Example Scenes: • Read • Watch TV • Relax
3 Whole home scene - Illuminates part of or most of the home for a specific activity or mood.	Set light and Shade/Drapery levels in multiple areas within the home to ensure that the entire home is in its best light, at the touch of one button. Example Scenes: • Entertain • Sleep
4 Room monitoring - Allows a user to see if lights within a specific room (or entire house) are on or off.	Know when lights are left on anywhere in the home—and easily turn them off—all from the convenience of a single location.
5 Path of light - Illuminates a convenient path of light to take the user from one location to the next.	Simplifies daily activities. Example: Nighttime path to the bathroom or kitchen.

installing

After planning and designing the layout of the system, install system components according to the installation instructions that came with each component.

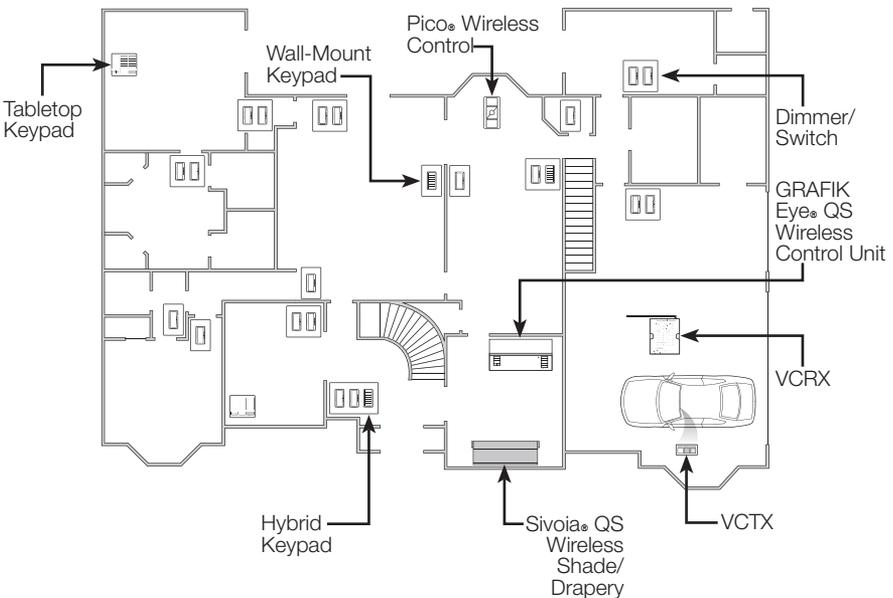
installing devices

- Dimmers, Switches, and Hybrid Keypads

Note: A Dimmer, Switch, or Hybrid Keypad in a 3-way or 4-way application must use RadioRA® 2 Remote Dimmers or Remote Switches.

- seeTouch® Wall-Mount and Tabletop Keypads
- Pico® Wireless Controls
- Sivoia® QS Wireless Shades/Draperies
- GRAFIK Eye® QS Wireless Controls
- Visor Control Transmitter (VCTX) and Visor Control Receiver (VCRX)

Note: The VCTX is typically clipped to a car visor. A common installation location for the VCRX is in the garage above the garage door opener.



installing

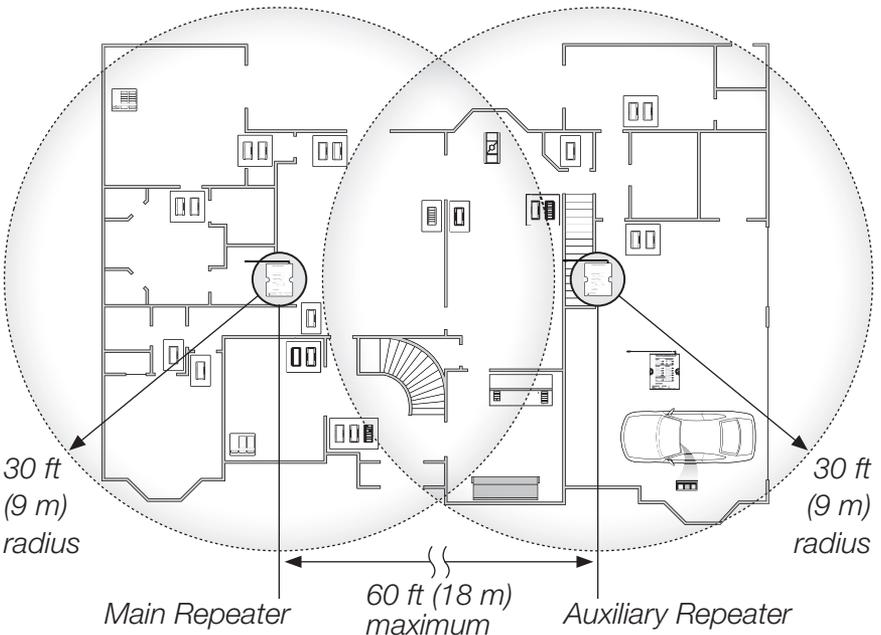
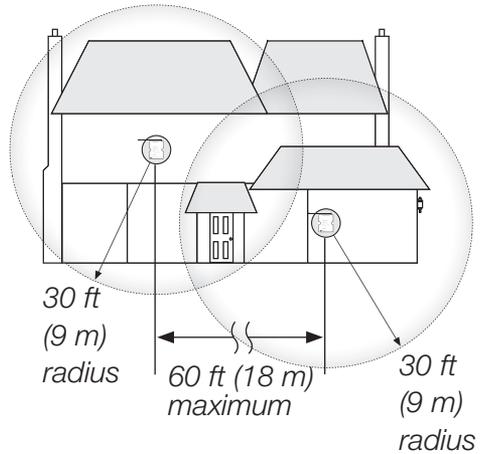
installing repeaters

We recommend installing Repeaters in a location that is out of sight and will not be disturbed (i.e. cabinet, closet, etc.). Repeaters do not need to be placed in the open.

- Main Repeater
- Auxiliary Repeater

All devices must be located within 30 ft (9 m) of a Repeater. Multiple Repeaters may be necessary to provide adequate coverage.

When using two or more Repeaters, position each Repeater within 60 ft (18 m) of another Repeater (spheres overlap) for optimum performance.



creating the system

system setup

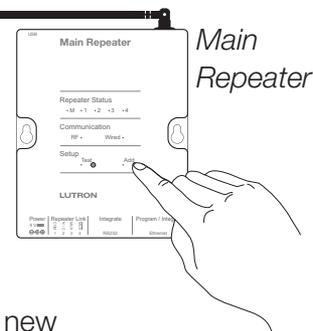
To set up a RadioRA® 2 system, components must be added to the Main Repeater. First, add Auxiliary Repeater(s)*; then add all other system devices.

adding Auxiliary Repeaters and devices

1. Enter Add Mode

Press and hold the *Add* button on the Main Repeater for 3 seconds until the green *Add* LED begins to rapid-flash (ten times per second) and the Repeater beeps. Wait 10 seconds.

After the green *Add* LED begins to normal-flash (once per second) the system is in Add Mode and is ready to add new components.



Note: The first time Add Mode is entered on a Main Repeater, it will create a new system with a unique system address.

2. Add Auxiliary Repeater(s)*

Press and hold the *Add* button on an Auxiliary Repeater for 3 seconds until the green *Add* LED begins to rapid-flash.

Note: If the system does NOT require Auxiliary Repeater(s), skip ahead to step 3.

When an Auxiliary Repeater has been added successfully, the Main Repeater will beep once and the *Add* LED on the Auxiliary Repeater will normal-flash. The *Repeater Status* LEDs corresponding to the Auxiliary Repeater that was added will also turn on.

To add another Auxiliary Repeater (4 Auxiliary Repeaters maximum), repeat step 2.

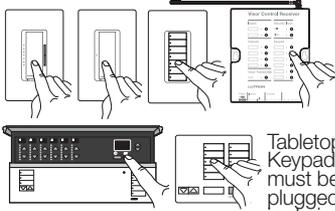
ⓘ If a device does not respond as described, consult the **troubleshooting** section.

* Auxiliary Repeater(s) are required when devices extend beyond the range of the Main Repeater

creating the system

3. Add devices

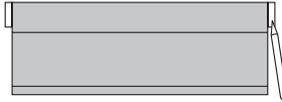
When a device has been successfully added, the Repeater will beep.



Tabletop Keypads must be plugged in during set up and programming.

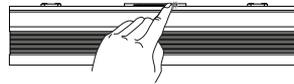
Press and hold any button except raise/lower or *Learn* (press and release the OK button on a GRAFIK Eye® QS Wireless unit) for 3 seconds until all LEDs normal-flash. Devices with outputs (i.e. Dimmer) will turn the load on/off 3 times to indicate the device has been successfully added.

Sivoia® QS Wireless Shades/Draperies



Press and hold any button for 3 seconds, until the green LED rapid-flashes for 2 seconds, then normal-flashes.

Triathalon® Shades



Wait up to 60 seconds until the Shade LED slow flashes before adding.

Press and hold the Shade button for 5 seconds until the green LED rapid-flashes for 2 seconds, then normal-flashes.

Check LED feedback on devices:

- Slow-flash (3 seconds on, 1 second off)—device not added to system.
- Normal-flash (once per second)—device is added to system.
- No flash—device not communicating properly with Repeater. Consult the **troubleshooting** section.



Pico® Wireless Control

Press and hold the **bottom button** for 6 to 8 seconds.

4. Exit Add Mode

Press and hold the **Add** button on any Repeater for 3 seconds until the *Add* LED begins to rapid-flash. After the LED turns off (can take up to 60 seconds), system has exited Add Mode.

Note: To remove an individual device from the system, consult the **resetting devices to factory settings** section.

choosing room/scene buttons

Keypad button LEDs can be configured to show the status of the lights or Shades/Draperies programmed to the Keypad button. They can be configured to provide Room Status (default) or Scene Status.

Room Status *	Scene Status
Button LED is on when at least one of the devices assigned to the button is on at any level.	Button LED is only on when all of the devices assigned to the button are at exactly their programmed level.
ways to control the area	ways to control the area
<p>Individual device control - Control of a single Dimmer, Switch, or Shade/Drapery.</p> <p>Room monitoring - Allows a user to see if lights within a specific room are on or off.</p>	<p>Local scene - Preset scene for all lighting and shading within a room.</p> <p>Whole home scene - Illuminates part of or most of the home for a specific activity or mood.</p> <p>Path of light - Illuminates a convenient path of light to take the user from one location to the next.</p>
common applications	common applications
Bedside Keypad: Press the “Basement” button to verify the basement lights are off and the “Hall” button to make sure the hall light is left on at night.	<p>Wall-Mount Keypad: Press the “Entertain” button to set the light levels in common areas of the home for entertaining guests.</p> <p>Bedside Keypad: Press the “Pathway” button to illuminate a soft path of light from the bedroom to the bathroom at night.</p>

* Shades/Draperies do not have an “off” state. Adding them to a Room Status button will result in unpredictable behavior. Use Scene Status buttons to control Shades/Draperies.

 **Best Practice:** The top button on a Keypad should create the brightest lighting scene – with each button below creating progressively lower light levels. The bottom button should be very low or off.

 **Best Practice:** Use a consistent programming method on all of the Keypads.

choosing room/scene buttons

button configuration

1. Enter Button Configuration

RRD-W2RLD Keypads



Press and hold the top 2 buttons for 6 seconds, until all LEDs turn on (solid or flashing).

All other Keypads* (including Hybrid Keypads)

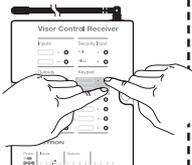
Tabletop Keypads must be plugged in during set up and programming.



Press and hold the top 3 buttons in rightmost column for 3 seconds, until all LEDs turn on (solid or flashing).

VCRX

Only the "Keypad" column can be configured on the Receiver.



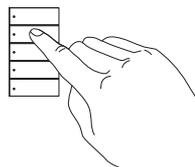
Press and hold the top 2 buttons in the *Keypad* column for 3 seconds, until all LEDs turn on (solid or flashing).

*Does not apply to Pico® Wireless Controls.

2. Configure each button as Scene or Room Status

Press and release desired button to toggle configuration between Scene and Room Status.

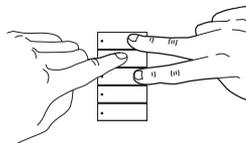
By default, all buttons are set to Room Status, indicated by the LEDs normal-flashing.



LED	Status
Normal-flash	Room (default)
On solid	Scene

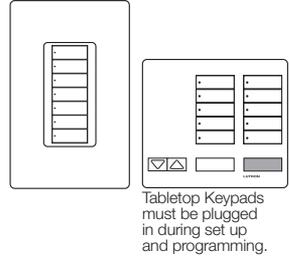
3. Exit Button Configuration

Press and hold the top 3 buttons of rightmost column (top 2 buttons on RRD-W2RLD Keypad and VCRX Keypad column) until all LEDs turn off (3 to 6 seconds).



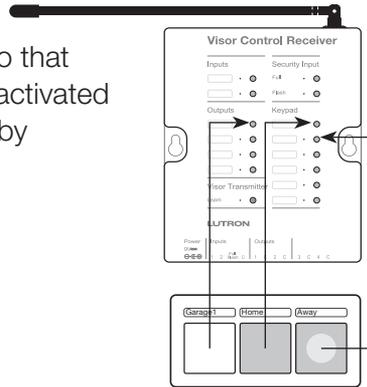
about programming

After all components have been added to the RadioRA® 2 system and all Keypad buttons have been configured as Scene or Room Status, program the Keypads so that each button controls a device (i.e. Dimmer, Switch, Shade/Draper, etc.) or a group of devices. Programming a button consists of assigning devices to buttons and setting levels of those devices.

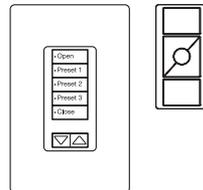


Tabletop Keypads must be plugged in during set up and programming.

The VCRX can be programmed so that lights, garage doors, etc. can be activated by the VCTX buttons remotely or by contact closure inputs.



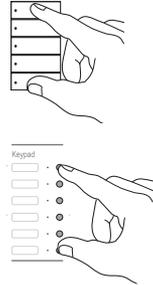
Pico® Wireless Controls and "Shade" Keypad columns are programmed as a column of buttons. Consult the **programming Pico® wireless controls** and **programming keypad columns** sections.



programming buttons

1. Enter Program Mode

Press and hold the top and bottom buttons of the rightmost column (top 2 buttons on RRD-W2RLD Keypad and VCRX Keypad column) for 3 seconds until the top button LED begins to normal-flash.



2. Select the button to program

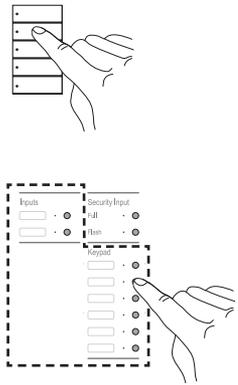
Press and release the button to be programmed.

 Note: The top button in the column will be selected by default, indicated by the top button LED normal-flashing. To program a different button, press and release the desired button.

 Note: Raise/lower buttons cannot be programmed.

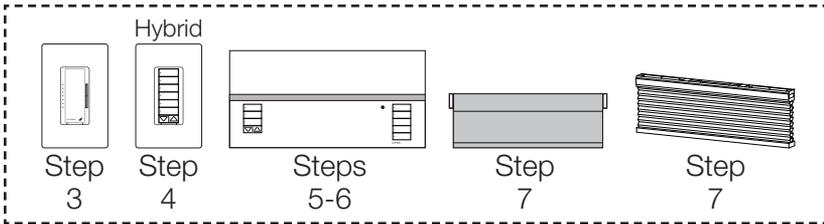
 Note: If the All On button on a Tabletop Keypad is selected, all the LEDs on the Tabletop Keypad will scroll up. If the All Off button is selected, all the LEDs will scroll down.

 Note: The VCRX Keypad and Inputs buttons can be programmed but the VCRX Security Input buttons can not be programmed in manually programmed systems.



programming buttons

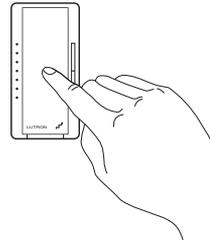
Steps 3 to 7 cover assigning devices to the selected button and setting the levels for those devices. To assign the devices, follow the step appropriate to that device:



3. Assign Dimmer/Switch and set level

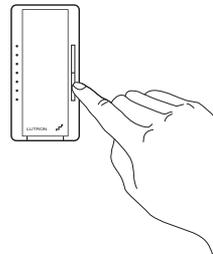
- i. **Press and hold the main button on the Dimmer/Switch to be assigned** for 3 seconds.

When the Dimmer/Switch has been successfully assigned, the load connected to the Dimmer/Switch will turn on/off 3 times and the LED(s) will normal-flash.



Note: To unassign a Dimmer/Switch, press and hold the main button on the Dimmer/Switch for 3 seconds until the load turns on/off 3 times and the LED(s) turn off.

- ii. **Adjust the level of the assigned Dimmer/Switch** to the desired setting using the raise/lower buttons on the Dimmer, or using the main button on the Dimmer/Switch to turn the device off.



Note: A Dimmer/Switch assigned to a Room Status Keypad button cannot be set to Off.

Note: To assign additional Dimmers/Switches to the currently selected Keypad button, repeat step 3.

Note: To program another Keypad button, restart at step 2.

programming buttons

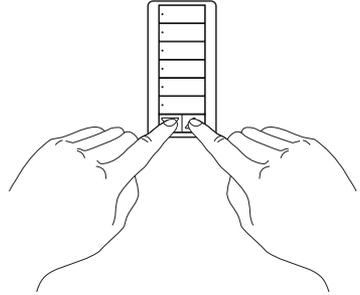
4. Assign Hybrid Keypad and set level

- i. **Press and hold the raise and lower buttons on the Hybrid Keypad to be assigned** for 3 seconds.

When the Hybrid Keypad has been successfully assigned, the load connected to the Hybrid Keypad will turn on/off 3 times and the LEDs will normal-flash.

 Note: When a button on a Hybrid Keypad is assigned to the local load of that Hybrid Keypad, the LED of the button being programmed will flash 2 times followed by a single flash of all the LEDs.

 Note: To unassign a Hybrid Keypad, press and hold the raise and lower buttons on the Hybrid Keypad for 3 seconds until the load turns on/off 3 times and the LEDs turn off.

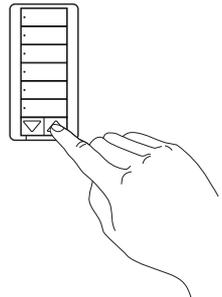


- ii. **Adjust the level of the assigned Hybrid Keypad** to the desired setting using the raise/lower buttons on the Hybrid Keypad. To toggle the Hybrid Keypad on/off, press and release the raise and lower buttons at the same time.

 Note: A Hybrid Keypad assigned to a Room Status Keypad button cannot be set to Off.

 Note: To assign additional Hybrid Keypads to the currently selected Keypad button, repeat step 4.

 Note: To program another Keypad button, restart at step 2.



programming buttons

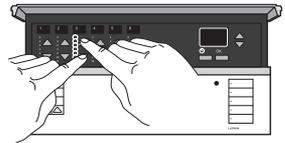
Individual zones and single scenes can be assigned to buttons on GRAFIK Eye® QS Wireless units, but not both to the same unit. Step 5 covers assigning zones to a button, and step 6 covers assigning a scene to a button. If assigning single scenes to buttons, skip ahead to step 6.

5. Assign individual zones to a GRAFIK Eye® QS Wireless unit and set levels

i. Simultaneously press the raise and lower buttons of the zone to be assigned.

When the zone has been successfully assigned, the zone LEDs will normal-flash.

 Note: To unassign a zone, simultaneously press the raise and lower buttons until only the 3 middle LEDs are lit.



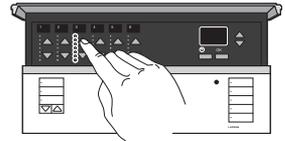
ii. Adjust the level of the assigned zone

to the desired setting using the raise/lower buttons of the zone. While adjusting levels, the zone LEDs display the level and do not flash. Tapping another zone resumes flashing on the previous zone. After 3 seconds of inactivity, the assigned zone LEDs resume flashing.

 Note: To assign additional zones to the currently selected Keypad button repeat step 5.

 Note: To program another Keypad button, restart at step 2.

 Note: If individual zones were assigned to a GRAFIK Eye® QS Wireless unit, skip step 6 for this GRAFIK Eye® QS Wireless unit. Individual zones and single scenes can not be assigned to the same GRAFIK Eye® QS Wireless unit.

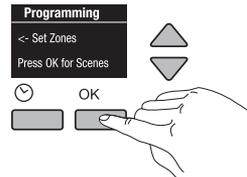


programming buttons

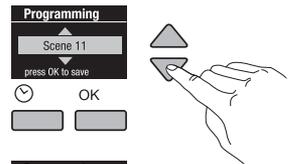
6. Assign single scenes to a GRAFIK Eye® QS Wireless unit and set levels

Note: Both individual zones and single scenes can not be assigned to the same GRAFIK Eye® QS Wireless unit.

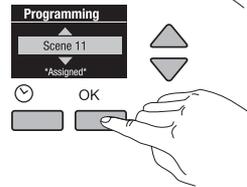
i. **Press the OK button** to enter the Scene menu.



ii. **Use the Master raise/lower buttons** to select the desired scene, then press the OK button to confirm the selection.



When the scene has been successfully assigned, all zone LEDs will flash at their scene preset levels and loads will go to the assigned scene.



Note: To assign additional scenes to the GRAFIK Eye® QS Wireless unit, repeat step 6.

Note: When a zone has a preset level of OFF, the zone LEDs will not flash.

Note: To change the GRAFIK Eye® QS Wireless unit back to individual zones, use the Master raise/lower buttons to select “Zones”, then press the OK button.

Note: Scenes can only be programmed locally at the GRAFIK Eye® QS Wireless unit.

Note: To unassign a scene, press the OK button then use the Master raise/lower buttons to select “Unassign”, then press the OK button to complete the unassignment.

Note: To program another Keypad button, restart at step 2.

programming buttons

7. Assign Sivoia® QS Wireless Shade/Drapery and set level

A. Roller Shade/Drapery

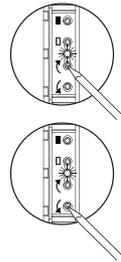
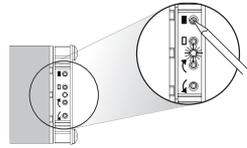
- i. **Press and hold the open button (□) or close button (■) on the Electronic Drive Unit (EDU) to be assigned for 3 seconds.**

When the Roller Shade/Drapery has been successfully assigned, the green LED on the EDU will rapid-flash.

 **Note:** To unassign a Roller Shade/Drapery, press and hold the open or close button for 3 seconds. The LED on the EDU will flash twice in 2 seconds, then turn off for 8 seconds.

- ii. **Adjust the level of the assigned Roller Shade/Drapery to the desired setting using the raise/lower buttons (⤴ and ⤵).**

To raise the Roller Shade/Drapery to the fully open position, double-tap the open button (□). To lower the Roller Shade/Drapery to the fully closed position, double-tap the close button (■).



programming buttons

B. Triathalon® Shade

i. Press and release the Triathalon® Shade button.

When the Triathalon® Shade has been successfully assigned, the Shade LED will rapid-flash.

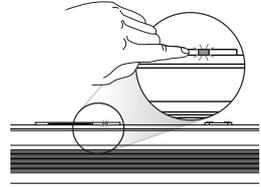
 Note: To unassign a Triathalon® Shade, press and release the Shade button. The LED on the Shade will flash twice in 2 seconds, then turn off for 8 seconds.

ii. Adjust the level of the Triathalon® Shade.

Levels of Triathalon® Shades cannot be set locally. To adjust the level of a Shade, skip ahead to step 8 (exit program mode) and refer to **programming shortcuts**.

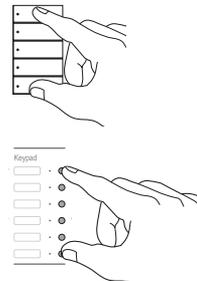
 Note: To assign additional Shades/ Draperies to the currently selected Keypad button repeat step 7.

 Note: To program another Keypad button, restart at step 2.



8. Exit Program Mode

Press and hold the top and bottom buttons of the rightmost column (top 2 buttons on RRD-W2RLD Keypad and VCRX Keypad column) for 3 seconds until all LEDs rapid-flash.



programming keypad columns

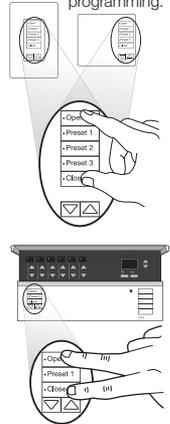
"Shade" Keypad columns are shipped pre-configured from Lutron, and typically have engraving for Shades/Draperies (i.e. open, preset, close). GRAFIK Eye® QS Wireless unit "Shade" columns are pre-configured as RadioRA® 2 "Shade" Keypad columns. Only Shades/Draperies can be programmed to "Shade" Keypad columns.

1. Enter Program Mode

Press and hold the top and bottom buttons of a "Shade" Keypad column for 3 seconds until the Repeater beeps.

 **Note:** A Shade/Drapery already assigned to this Keypad column will close and the green LED on the EDU will rapid-flash. An unassigned Shade/Drapery will open and the green LED on the EDU will flash twice in 2 seconds, then turn off for 8 seconds.

Tabletop Keypads must be plugged in during set up and programming.

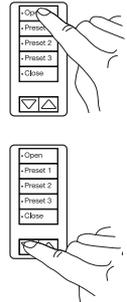


2. Assign a Shade/Drapery

A Shade/Drapery can be assigned either at a Keypad column or locally at the Shade/Drapery.

A. At the Keypad column:

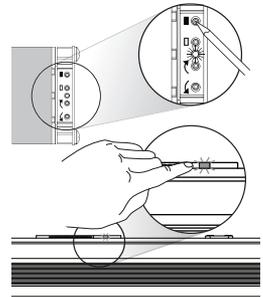
- i. **Tap the Open button** to wiggle the next Shade/Drapery or tap the Close button to wiggle the previous Shade/Drapery. The wiggling Shade/Drapery is the selected Shade/Drapery.
- ii. **Tap the Lower button** to assign the selected Shade/Drapery. The Shade/Drapery will close and the green LED on the EDU will rapid-flash.



B. At the Shade/Drapery:

Tap any button on the Shade/Drapery.

The Shade/Drapery will close and the LED will rapid-flash.



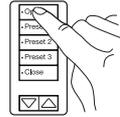
programming keypad columns

3. Set presets for Shades/Draperies

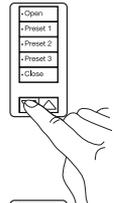
Tap the preset button you wish to program. Assigned devices will go to their preset level and the selected preset button LED will turn on solid.



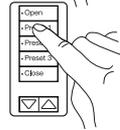
- ii. **Tap the Open button** to wiggle the next Shade/Drapery or tap the Close button to wiggle the previous Shade/Drapery. The wiggling Shade/Drapery is the selected Shade/Drapery.



- iii. **Press the raise or lower button** to adjust the level of the Shade/Drapery.



- iv. **Press and hold the preset button** for 3 seconds until the LED rapid-flashes to save the level of the Shade/Drapery.



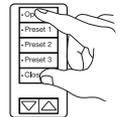
Note: To program another preset button, repeat step 3.

Note: If any other preset button is pressed while a preset button is selected, the currently selected preset will not be saved.

Note: To cancel preset save, tap the selected preset button.

4. Exit Program Mode

Press and hold the top and bottom buttons of the selected Keypad column for 3 seconds until the Repeater beeps.



programming Pico® wireless controls

Pico® Wireless Controls are available in “Light” and “Shade” versions. The “Light” version can control lighting and the “Shade” version can control Shades/Draperies. “Shade” versions are shipped pre-configured from Lutron, and typically have engraving for Shades/Draperies.

1. Enter Program Mode

Press and hold the top and bottom buttons

of a Pico® Wireless Control for 3 seconds until the Repeater beeps.

 Note: A Shade/Drapery already assigned to this Pico® Wireless Control will close and the green LED on the EDU will rapid-flash. An unassigned Shade/Drapery will open and the green LED on the EDU will flash twice in 2 seconds, then turn off for 8 seconds.

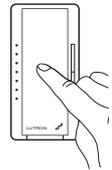


2. Assign Devices

A. Dimmer/Switch ("Light" version only)

Press and hold the main button on the Dimmer/Switch to be assigned for 3 seconds.

When the Dimmer/Switch has been successfully assigned, the load connected to the Dimmer/Switch will turn on/off 3 times and the LED(s) will normal-flash.



 Note: To unassign a Dimmer/Switch, press and hold the main button on the Dimmer/Switch for 3 seconds until the load turns on/off 3 times and the LED(s) turn off.

 Note: Once all the desired Dimmers/Switches are assigned to the Pico® Wireless Control, skip ahead to step 4.

programming Pico® wireless controls

B. **Shade/Drapery** ("Shade" version only)

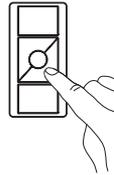
A Shade/Drapery can be assigned either at a Pico® Wireless Control or locally at the Shade/Drapery.

a. **At the Pico® Wireless Control:**

i. **Tap the Open button** to wiggle the next Shade/Drapery or tap the Close button to wiggle the previous Shade/Drapery. The wiggling Shade/Drapery is the selected Shade/Drapery.



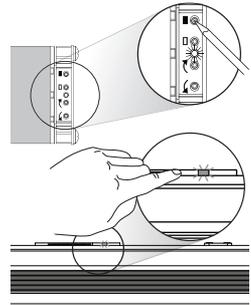
ii. **Tap the Lower button** to assign the selected Shade/Drapery. The Shade/Drapery will close and the green LED on the EDU will rapid-flash.



b. **At the Shade/Drapery:**

Tap any button on the Shade/Drapery.

The Shade/Drapery will close and the green LED will rapid-flash.



programming Pico® wireless controls

3. Set presets for Shades/Draperies

- i. **Tap the preset button** you wish to program.
Assigned devices will go to their preset level.
- ii. **Tap the Open button** to wiggle the next Shade/ Drapery or tap the Close button to wiggle the previous Shade/ Drapery. The wiggling Shade/ Drapery is the selected Shade/ Drapery.
- iii. **Press the raise or lower button** to adjust the level of the Shade/ Drapery.
- iv. **Press and hold the preset button** for 3 seconds to save the level of the Shade/ Drapery.

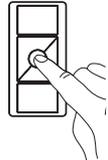
 Note: If any other preset button is pressed while a preset button is selected, the currently selected preset will not be saved.

 Note: To cancel preset save, tap the selected preset button.

4. Exit Program Mode

Press and hold the top and bottom buttons of the selected Pico® Wireless Control for 3 seconds until the Repeater beeps.

 Note: To program another Pico® Wireless Control, repeat steps 1 to 4.

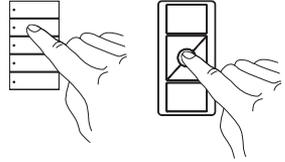


programming shortcuts

saving new levels on previously programmed Keypad buttons

1. Select Keypad button

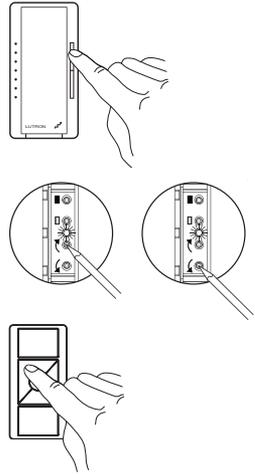
Press and release the Keypad button to be programmed. Assigned devices will go to their preset level.



2. Adjust levels

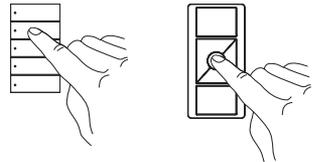
Use raise, lower, or tapswitch to adjust the level of assigned devices.

Note: To raise/lower a Wireless Shade, use a "Shade" Keypad that has been assigned to that Shade.



3. Save levels

Press and hold the previously selected Keypad button for 6 to 8 seconds.



programming shortcuts

copy button programming

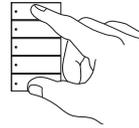
Any previously programmed Keypad button in a Keypad column can be copied to another Keypad button. A Keypad button can be copied to a Keypad button on the same Keypad or to a Keypad button on a different Keypad. Buttons in a "Shade" Keypad column can not be copied.

 Note: Prior to copying Keypad buttons, make sure to enter and exit Program Mode at least once on each Keypad that you will be copying to. See steps 1 and 7 of **programming buttons**.

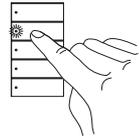
1. Enter Program Mode on a previously programmed Keypad

Press and hold the top and bottom buttons

of the rightmost column (top 2 buttons on RRD-W2RLD Keypad and VCRX Keypad column) for 3 seconds until the top button LED begins to normal-flash.



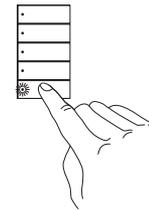
2. Press and release the previously programmed Keypad button to be copied



3. Paste programming to a new Keypad button

Press and hold the new Keypad button for 6 seconds until the new Keypad button LED rapid-flashes for 2 seconds.

After 2 seconds, the "pasted to" Keypad button LED will normal-flash. The "pasted to" Keypad is now in Program Mode and the "copied from" Keypad has exited Program Mode.



 Note: To copy additional programming, repeat steps 2 to 3.

4. Exit Program Mode

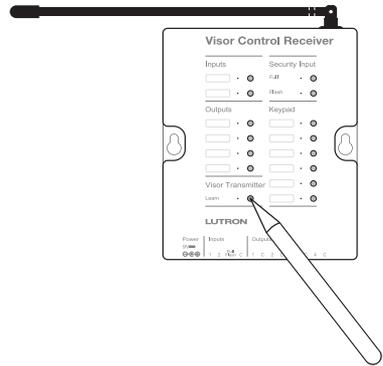
Press and hold the top and bottom buttons of last Keypad "pasted to" for 3 seconds until all LEDs rapid-flash.



programming Visor Control Receiver

1. Enter Learn Mode

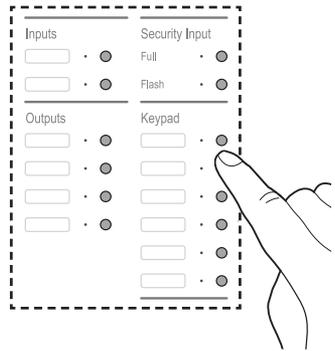
Press and hold the **Learn** button on a **VCRX** for 3 seconds until *Learn* LED turns on solid.



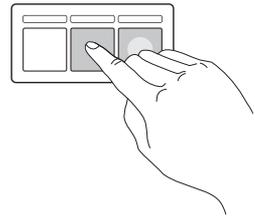
2. Learn a VCTX button to a VCRX

- i. **Press and release any button on the VCRX** that is to Learn a VCTX button. The selected VCRX button LED will turn on solid.

 Note: Security Mode (Full/Flash) not available in manual programming.



- ii. **Press and hold a VCTX button** for 3 seconds until the LED next to selected VCRX button begins to rapid-flash, then release the VCTX button. The *Learn* LED will also rapid-flash while the VCTX button is pressed.



 Note: To learn additional VCTX buttons, repeat step 2.

programming Visor Control Receiver

3. Exit Learn Mode

Press and release the **Learn** button on the **VCRX** until the *Learn* LED turns off.

 Note: When the VCRX button has learned the VCTX button, the LED next to selected VCRX button will turn off when the VCTX button is released.

 Note: To verify that the VCRX button has learned the VCTX button, press and release the VCTX button again. The LED next to the VCRX button will rapid-flash if the VCTX button was learned.

remove all VCTXs from the VCRX

To remove **ALL** VCTXs that have been learned to the VCRX, follow these steps:

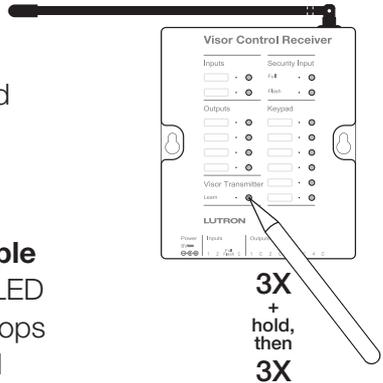
i. **Triple tap and hold the *Learn* button.**

DO NOT release the button after the third tap.

ii. **Keep the button pressed** on the third tap until the *Learn* LED starts to rapid-flash (approximately 3 seconds).

iii. **Release the *Learn* button.**

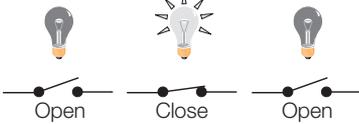
Immediately (within 1/2 second) triple tap it again and release. The *Learn* LED will rapid-flash again. When the LED stops flashing, all VCTXs have been removed from the VCRX.



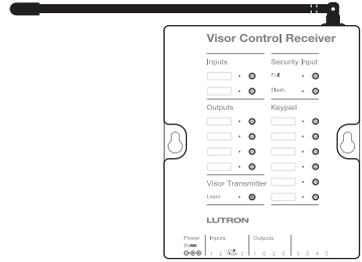
optional: configuring VCRX inputs

The VCRX input contact closures can be configured to accept maintained or momentary contact closures.

Maintained (toggle action)



Momentary (single action)

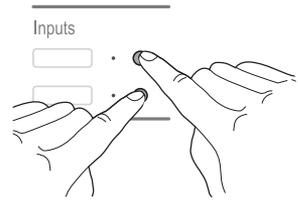


VCRX

configure VCRX inputs

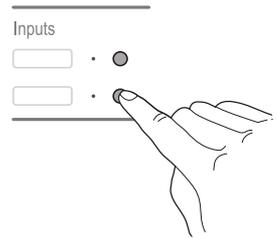
1. Enter Advanced Program Mode

Press and hold both buttons of the **Inputs** column for 10 seconds until the **Inputs** LEDs begin to rapid-flash.



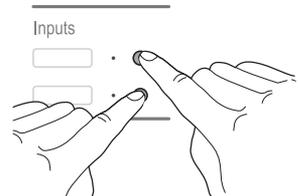
2. Change the input closure type

Press and release an input button to change its type.



3. Exit Advanced Program Mode

Press and hold both buttons of the **Inputs** column for 3 seconds until the **Inputs** LEDs begin to rapid-flash.



LED status	Input Closure Type
Normal-flash	Momentary (default)
On solid	Maintained

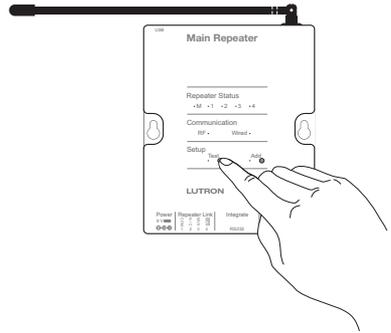
optional: testing RF signal quality

Test Mode provides a method for identifying if system components are communicating properly. Use Test Mode to verify that all Repeaters (in systems with multiple Repeaters) and all devices are communicating effectively. An acceptable signal ensures error-free communication.



1. Enter Test Mode

Press and hold the *Test* button on any Repeater for 3 seconds until the Repeater beeps.

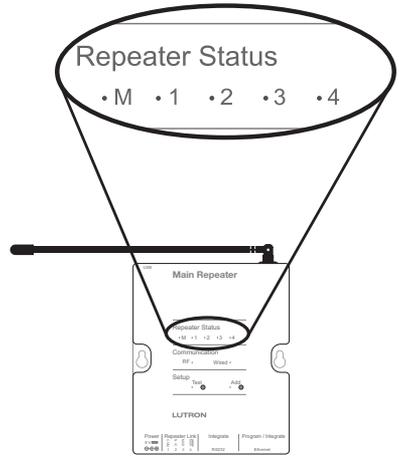


optional: testing RF signal quality

2. Verify Repeater location.

Confirm that all Repeaters on the RF link are within 60 ft (18 m) of another Repeater. Consult the **installing repeaters** section on page 7.

Check the *Repeater Status* LEDs to verify signal quality. Every Repeater will show the status of the Main Repeater and 4 Auxiliary Repeaters.



Repeater Status LED	Feedback	Action
Green or flashing* green	Repeater is within acceptable signal quality.	No action required.
Red or flashing* red	Repeater is unable to hear the other Repeaters or has unacceptable signal quality.	Ensure all Repeaters are powered. Locate the Repeater with the red flashing <i>Repeater Status</i> LED and reposition until the LED flashes green. Do NOT unplug Repeaters. Additional Repeaters may be needed to extend the RF coverage.
Off	Repeater is not addressed to the system.	See adding Auxiliary Repeaters and devices on page 10.

* Only one *Repeater Status* LED flashes per Repeater. The flashing LED indicates which Repeater you are looking at (M, 1, 2, 3, 4).

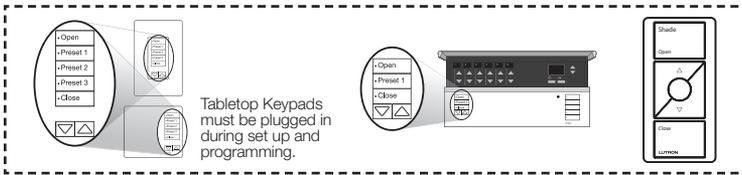
3. Exit Test Mode

Press and hold the Test button on any Repeater for 3 seconds until the green *Test* LED stops flashing, and the *Repeater Status* LEDs turn off.

🔧 If a device does not respond as described, consult the **troubleshooting** section.

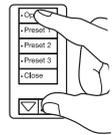
optional: setting shade/drapery limits

The upper and lower limits of a Shade/Drapery can be adjusted from any "Shade" Keypad or Wireless Control that has been assigned to it.



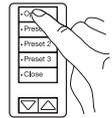
1. Enter Limit Set Mode

Press and hold the Open and Raise buttons on a "Shade" Keypad or Wireless Control for 3 seconds until the Shade/Drapery LED begins to rapid-flash, then stays on. The first Shade/Drapery assigned to the "Shade" Keypad or Wireless Control will begin to wiggle.



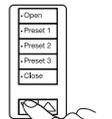
2. Select Shade/Drapery

Tap the Open button to wiggle the next Shade/Drapery or tap the Close button to wiggle the previous Shade/Drapery. The wiggling Shade/Drapery is the selected Shade/Drapery.



3. Adjust the limit

Press the Raise or Lower button to adjust the selected Shade/Drapery to the desired upper or lower limit.



4. Save the limit

Press and hold the Open or Close button for 5 seconds to save the current level of the Shade/Drapery as the upper (Open button) or lower (Close button) limit.



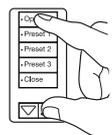
Note: To save another limit repeat steps 2 to 4.

Note: Pico® Wireless Controls automatically exit Limit Set Mode after a limit is saved. To save another limit, repeat steps 1 to 4.

5. Exit Limit Set Mode

Press and hold the Open and Raise buttons for 3 seconds until the Shade/Drapery LED turns off.

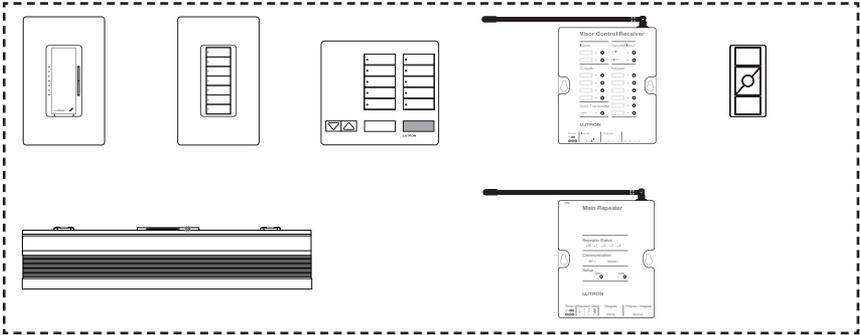
Note: Step 5 does not apply to Pico® Wireless Controls.



resetting devices to factory settings

Resetting a device to factory settings will remove it from the system and will clear its programming. After being reset to factory settings, the device will need to be reprogrammed as part of a RadioRA® 2 system. To reset a device to factory settings, perform the steps below.

Dimmer, Switch, Keypad, Visor Control Receiver, Pico® Wireless Control, Triathlon® Shade, or Repeater

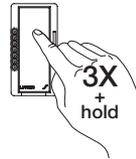


1. Triple tap and hold any button* on the device.

DO NOT release the button after the third tap.

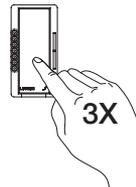
2. Keep the button pressed on the third tap until...

- A. **Dimmer:** the Dimmer LEDs ramp up and down rapidly and the load flashes at the same rate.
- B. **Pico® Wireless Control:** 6 to 8 seconds.
- C. **All other devices:** the LED(s) start to rapid-flash (approximately 3 seconds).



3. Release the button and immediately (within

1/2 second) triple tap it again. Dimmers and Switches will normal-flash their loads. All other devices will rapid-flash their LED(s) again. When the load(s)/LED(s) stop flashing, the device has been reset to factory settings.

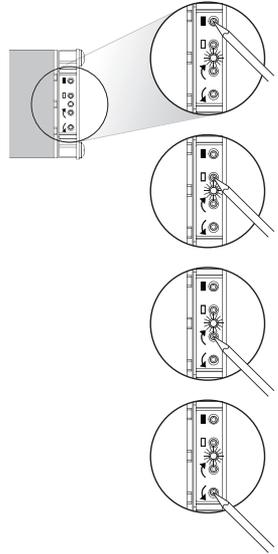


* Except raise, lower, or learn.

resetting devices to factory settings

Sivoia® QS wireless EDU

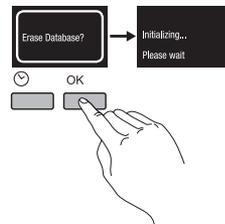
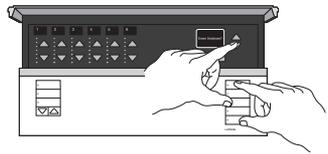
1. Press and hold the close limit button (■) on the EDU for 5 seconds. The green LED on the EDU will flash quickly for 2 seconds and then stay on.
2. Press and hold the open limit button (□) for 5 seconds. The green LED on the EDU will flash and then stay on.
3. Press and hold the clockwise button (↻) for 5 seconds. The green LED on the EDU will flash and then stay on.
4. Press and hold the counter-clockwise button (↺) for 5 seconds. The LED will flash blue briefly and the EDU will now reset to factory settings.



 Note: If the time between steps exceeds 1 minute the EDU will return to normal operation. Begin at step 1 to reset the EDU to factory settings.

GRAFIK Eye® QS Wireless control unit

1. Press and hold the master lower and scenes 1, 3, and 5 buttons on the GRAFIK Eye® QS Wireless control unit for 5 seconds until the display reads “Erase Database?”.
2. Press the OK button to confirm. The GRAFIK Eye® QS Wireless control unit will now reset to factory settings.



repeater troubleshooting

Symptom	Possible Cause	Remedy
After entering Add Mode, the <i>Add</i> LED on a Main or Auxiliary Repeater is:		
Rapid-flashing green (10 times per second)	Entering Add Mode. Repeater is listening for neighboring systems within RF range.	This is normal. Wait 10 seconds for the LED to begin normal-flashing.
Normal-flashing green (1 time per second)	Repeater is addressed with acceptable signal quality.	Move on to the next device or exit Add Mode if finished.
Rapid-flashing red for 5 seconds, then turns off	Repeater has been addressed, but with unacceptable signal quality.	Optimize system communications by following the steps in testing RF signal quality .
	System has encountered a neighboring system within RF communication range that is in Add mode.	Discontinue activating RadioRA® 2 system until activation of the neighboring system is complete.
	System has been programmed using the RadioRA® 2 Design and Setup PC tool, and cannot enter Add Mode manually.	System must be programmed using the RadioRA® 2 Design and Setup PC tool.
	Main Repeater is out of RF range or is not powered.	Move the Main Repeater within RF range. Additional Repeaters may be needed to provide adequate coverage.
Main Repeater only: Solid red for 5 seconds, then turns off	System has been programmed using the RadioRA® 2 Design and Setup PC tool, and cannot enter Add Mode manually.	System must be programmed using the RadioRA® 2 Design and Setup PC tool.
Main Repeater only: Repeater Status LEDs (M, 1, 2, 3, 4) solid red (not flashing)	Main Repeater is in Safe Mode.	Cycle power to the Main Repeater.

Creating the System

device troubleshooting

	Symptom	Possible Cause	Remedy
Creating the System	After attempting to add a device, the Repeaters beep 3 times.	The system is out of device addresses.	If the system has less than the maximum number of devices, use the RadioRA® 2 Design and Setup PC Tool to recover missing device addresses.
	While attempting to add a Keypad, the Keypad LEDs rapid-flash for approximately 5 seconds then go out.	Keypad is out of RF range of the closest Repeater.	Move a Repeater closer to the device in question. Additional Repeaters may be needed to provide adequate coverage.
		System not in Add Mode.	Place system in Add Mode.
	While attempting to add a device, the LEDs do not slow flash.	Device is out of RF range of the closest Repeater.	Move a Repeater closer to the device in question. Additional Repeaters may be needed to provide adequate coverage.
		Device may be part of another system.	If the device should be in this system, reset the device to factory settings. Follow the steps in resetting devices to factory settings .
		Triathlon® Shades only: It may take up to 60 seconds before a Triathlon® Shade LED begins to flash.	Wait up to 60 seconds until the Shade LED slow flashes before adding.

device troubleshooting

	Symptom	Possible Cause	Remedy
Programming Buttons	After entering Program Mode, LEDs on a Keypad, Dimmer/Switch, or other device are not normal-flashing.	Device has not been assigned to a button.	Assign the device to a button following the instructions starting at step 2 in programming buttons .
	When attempting to assign a Dimmer/Switch to a Keypad button, the load connected to the Dimmer/Switch does not turn on/off 3 times and the LED(s) do not normal-flash.	Dimmer/Switch has not been added to the system.	Add the Dimmer/Switch to the system following the steps in adding auxiliary repeaters and devices .
Programming VCRX	After entering Program Mode, LEDs on a VCRX, Dimmer/Switch, or other device are not normal-flashing.	Device has not been assigned to a VCRX button.	Assign the device to a VCRX button following the instructions starting at step 2 in programming buttons .

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Worldwide Technical and Sales Assistance

If you have questions concerning the installation or operation of this product, visit us on the web at www.lutron.com/radiora2 or call the Lutron Technical Support Center.

Please provide the exact model number when calling.
Model number can be found on the product packaging.
Example: RRD-6CL

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