Flexible control every step of the way

Introducing a simple wireless lighting control solution for new and existing commercial buildings.
Scalable solutions — start small and grow

Vive wireless solutions offer a multi-strategy approach that accommodates your budget and performance needs now, and for the future of your building.

1. Single office space
   - Start by adding control in a single space and expand as budgets and occupant schedules allow.

2. Single floor
   - Expand to new areas or an entire floor at any time without reprogramming or replacing existing equipment.

3. Multiple floors
   - Duplicate the success of one floor across other floors as your business expands or tenants change. Control can be independent on each floor, or linked via Vive wireless hubs.

4. Entire building
   - Vive offers seamless integration to other building management systems to control every light in your building.

Energy-saving control strategies

Combine lighting control strategies to maximize efficiency.

What is the savings opportunity?
Lutron solutions can save 60% or more lighting energy.

Potential savings

- **Occupancy/vacancy sensing** turns lights on when occupants are in a space and off when they vacate the space.
  - **20 – 60%** Lighting

- **Daylight harvesting** dims electric lights when daylight is available to light the space.
  - **25 – 60%** Lighting

- **Scheduling** provides pre-programmed changes in light levels based on time of day.
  - **10 – 20%** Lighting

- **Demand response** automatically reduces lighting loads during peak electricity usage times.
  - **30 – 50%** Peak Period

- **Plug load control** automatically turns off loads after occupants leave a space.
  - **15 – 50%** Controlled Load

- **High-end trim** sets the maximum light level based on customer requirements in each space.
  - **10 – 30%** Lighting

- **Personal dimming control** gives occupants the ability to adjust the light level.
  - **10 – 20%** Lighting

- **HVAC integration** controls heating, ventilation, and air conditioning systems through contact closure, or BACnet protocol.
  - **5 – 15%** HVAC

- **System Optimization Service** from Lutron identifies important lighting control adjustments to save additional energy and create a more productive work environment on an ongoing basis.

For a list of sources please visit lutron.com/references.
Transform existing buildings with wireless lighting controls

Flexible, wireless controls and sensors for simple, code-compliant design

Add wireless hubs for centralized control and integration (optional)

Simple-to-use software

Communication protocols

- Communicate via RF to control components
- Communicate via WiFi to smart devices
- Communicate via wired Ethernet to Vive hub
The right control in the right space

The Vive product family lets you personalize control to each space in your building without locking you into more or less control than you need.

### Simple switching

**Restroom**
Occupancy sensors control all lights together by switching lights on and off in response to room occupancy.

**Area dimming and sensing**

**Private office**
Dim a group of lights together while also providing manual control. Save additional energy with daylight harvesting.

**Individual fixture dimming and sensing**

**Open office**
Reduce labor cost while maximizing energy savings to give each occupant personal dimming control — increase comfort and enhance productivity.

---

Vive wireless solutions — Choose any load and control type

**Any control type**
- High-performance dimming with Lutron Hi-lume EcoSystem
- Other control types
  - 0-10V
  - Phase control
  - Switching
  - CCO

**Any load type**

- LED
- Incandescent/halogen
- Fluorescent
- Magnetic low voltage
- Electronic low voltage
- CFL
Flexible installation

Simple retrofit — installs 70%† faster than wired systems
Vive wireless solutions reduce installation time and cost regardless of where they are installed or which or solution you choose.

Wallbox mount
- Replace an existing switch in a standard wallbox to control a group of lights
- No new wiring required — works with the existing wiring
- Switching and dimming options available
- Communicates wirelessly to sensors and remotes

Ceiling mount
- PowPak modules mount on a standard junction box in the ceiling to control a group of lights
- Saves installation time by eliminating wiring down through walls
- Switching and dimming options available
- Communicates wirelessly to sensors and remotes

Vive-enabled fixtures
- Wireless control and sensing built into the fixture at the factory
- Simple to design and estimate — just count the fixtures
- No additional wiring
  - Works with existing high-voltage wiring, regardless of room layout
  - No new wiring between fixtures
- Provides personal control for each occupant to maximize comfort and energy savings
- Communicates wirelessly to sensors and remotes

For a list of sources please visit lutron.com/references.
Easy setup

Simple setup and programming options with the Vive wireless hub

**Mobile phone setup**
Using Vive Vue software on any smart device you can wirelessly connect system controls and program system settings—no ladder required. Lutron’s patent pending RF signal strength detection automatically finds nearby devices making job setup faster.

1. **Press and hold on wireless device**

2. **Automatic fixture identification**
Lutron patent pending technology automatically finds and sorts the wireless devices closest to the control.

**For systems without a Vive wireless hub**

**Push button set up**
Use simple button-press programming to select and associate wireless devices—it’s as easy as setting a station on your car radio.

**Wireless dimmer**
Press and hold for 6 seconds

**Occupancy sensor**
Press and hold for 6 seconds

It works! Sensor now talks to the wireless dimmer
Save energy and improve building performance

Energy reporting
Quickly view and display energy-usage information to drive decision making and demonstrate savings.

Load shed
Easily set lighting reduction levels that automatically respond during peak electricity usage times.

Schedules
Use a 365 day calendar to automatically adjust lights based on time of day, including single day and holiday events.

Light Control
Directly adjust the light levels.

Seamlessly integrate with your building system
The BACnet/IP protocol is the primary means of integration. BACnet is embedded or native in the Vive wireless hub, which means no external interfaces or gateways are required in order to communicate with other systems.

Building/Energy Management Systems (BMS/EMS)
Energy Dashboards and Analytics Packages
HVAC
Audio & Video
IT
A smart building is now simple

Vive Vue software

Vive Vue software now provides the ability to tie multiple Vive hubs together in one software interface. Built with the simple, scalable, wireless building blocks of the Vive Wireless system, Vive Vue software now delivers the advanced intelligence necessary for today’s smart buildings and the IoT. A smart building is now easier than ever to achieve.

Intuitive control

View status, control lights, and optimize your building quickly and efficiently with a graphical floorplan.

Optimize your space

Improve building layout based on actual occupancy and usage information. With space utilization reports, you can quickly identify over-used and under-used spaces to improve building efficiency without expanding the building footprint.

Save energy purposefully

Energy reports allow you to view and monitor your energy savings. With trending energy information over time, and easily customizable reports, Vive Vue software helps you demonstrate the energy-saving advantages of wireless lighting control.
Security by Design
When building any new system, Lutron utilizes a dedicated security team to ensure best practices are implemented. Security is built-in. It is not an afterthought or add on.

Examples of security features designed into Vive include:

1. Isolated wired and wireless architecture which strictly limits the possibility of the Vive Wi-Fi or ClearConnect being used to access the corporate network to gain confidential information
2. A distributed security architecture — each hub has its own unique keys
3. NIST-recommended best practices for securing passwords, including salting and use of SCrypt
4. AES 128-bit encryption for network communications
5. HTTPS (TLS 1.2) protocol for securing connections to the hub over the wired network
6. WPA2 technology for securing connections to the hub over the Wi-Fi network

3rd Party Validation
Security is complicated. Lutron has a dedicated team of internal experts, but we also leverage external experts to double- and triple-check our work.

1. Multiple external experts engaged during design process
2. 3rd-Party penetration testing to identify and fix potential vulnerabilities before they reach the field

Continuous Monitoring and Improvements
Security is a constantly moving target. Lutron uses a dedicated security team to continuously monitor the market for potential threats and, when needed, send out security patches to update installed systems.

Ongoing Support
Lutron has the resources you need to answer questions about security when they arise.

1. IT deployment guides
2. Guidance from our world class 24/7 technical support organization with IT expertise throughout the product lifecycle

Clear Connect wireless technology
All Lutron wireless products utilize Lutron patented Clear Connect wireless technology which operates in an uncongested radio frequency band. The result is ultra-reliable communication and smooth dimming performance with no flicker or delay. Other devices will not interfere with the Lutron lighting control system.

Clear Connect

434 MHz: Lutron Clear Connect wireless technology
Lutron devices operate in an uncongested frequency band, providing ultra-reliable operation.

“Other” frequency bands

2.4 GHz: Cordless phones | Bluetooth devices | Wireless security cameras
Other devices operate in congested frequency bands, creating a high potential for wireless interference.
XCT sensing technology
Lutron’s occupancy sensing won’t leave occupants in the dark and eliminates callbacks
- Lutron sensors provide exceptional prevention of false-ons and false-offs
- Superior sensitivity—recognizes the difference between fine human motion and background noise

Major Motion
Person walking 3 feet

Minor Motion
Movements like extending our arms

Fine Motion
Small movements like flipping pages of a book

No False-on
Lights stay off when room is unoccupied

Setup the system yourself, or choose the right mix of support services.
Lutron offers a variety of flexible, scalable support options to meet the needs of your project and your budget.

Do it yourself
Vive is designed to make installation and setup easy. Instructions are included with the product, and comprehensive, online help is available 24/7 on Lutron.com/ViveResources.
Simple-to-follow videos and product guides are just a click away.

Get a little help
If you’re looking for some extra peace of mind, Lutron Services can be purchased in flexible blocks of time to provide just the right amount of support.
The Services Team can provide training, walk you through setup for a specific project area, answer any other questions you have, or help finish setup by closing punch-list items.

Leave the setup to us
If you prefer, the Lutron Services Team can execute the full system setup.
Both remote and onsite setup services are available. Remote startup is generally a lower cost option and requires less lead time.
Remote setup — a designated member of your team works with an off-site, Lutron-certified remote technician.
Onsite setup — a Lutron-certified service technician will perform the complete system setup at your project site.

If you are not sure what kind of support you need, Lutron can help.
Contact your local Lutron sales representative to discuss your project.
Access to tools and resources is at your fingertips.

Exclusive access and quick answers keep your project moving.

**Designer+ for Vive**

Lutron Designer+ for Vive is an intuitive, easy-to-use software tool that allows you to design a Lutron Vive lighting control system with visual “drag and drop” layout and connections. It also allows you to generate comprehensive system design documentation, including bills of materials, one-line diagrams, and sequence of operations. For access please contact myLutronSupport@lutron.com.

**Vive videos**

Get access to Lutron Vive videos 24/7. Step-by-step setup, installation, and programming help whenever you need it. Lutron.com/ViveResources.

**Vive forum and FAQs**

Have a question? Go to Forums.lutron.com to search Frequently asked Questions, pose a question, or talk to other Vive users in a live forum.

**Vive training**

Visit Lutron.com/LCIOnline—Sign up for free, online training modules with practice exercises that walk you through the Vive system.

### Easily meet code

**Summary of code requirements for lighting control**


For specific commercial building code lighting requirements in your state, please visit www.lutron.com/energycodes.

**App guides to help you meet codes**

Codes can often be complicated and difficult to navigate. We have commercial application guides that include examples of different spaces and corresponding Lutron products for those spaces. Guides show you how you can use Lutron solutions to meet or exceed major energy code requirements.

Available online at www.lutron.com/appguides

**Vive wireless specification typicals**

Specifying wireless lighting control reduces design time and allows flexibility for changes during the project without the need to redesign. Vive Wireless Specification Typicals allow for quick and easy design of many applications. Simply copy and paste the typicals into drawing packages for complete design, layout, and BOM information.

Available online at www.lutron.com/viveresources

**Energy code quick reference guides**

Get the lighting and receptacle control requirements along with suggested functionality to meet the latest versions of ASHRAE 90.1, IECC, and Title 24 all on one page.

Available online at www.lutron.com/viveresources

For a list of sources please visit lutron.com/references.
**Vive Wireless hub**

**Features and benefits**

- Communicates with controls on a floor using Lutron wireless Clear Connect technology (range radius of 71 ft [22 m])
- Distributed system architecture
  - Pico remote controls and sensors communicate directly with the load devices they control and must be located within 30 ft (9 m) of the device with which they are associated
  - Supports timeclock events based on both sunrise and sunset or fixed time-of-day
  - Integrated multi-color LED provides feedback on what mode the hub is in
  - Two contact closure Inputs for integration with devices by others including devices for Title 24 Automatic Demand Response
  - Each hub provides an individual dashboard for its coverage area and allows you to link to other hub dashboards from the mobile application

**Product options**

**Vive wireless hub models**

**Starter (up to 75 devices)**

- HJS-0-FM Flush mount

**Standard**

- HJS-1-FM Flush mount
- HJS-1-SM Surface mount

**Premium (with BACnet)**

- HJS-2-FM Flush mount
- HJS-2-SM Surface mount

*Note:* A minimum distance of 10 ft (3 m) between Vive wireless hubs on the same floor is required.

*Note:* A corporate Wi-Fi network can interfere with the Wi-Fi on the Vive wireless hub. Where a corporate Wi-Fi network exists, it is recommended to do one of the following:

1. Connect to the Vive wireless hub and change the Wi-Fi channel to one that isn’t used by the corporate network or
2. Connect the Vive wireless hub to the corporate network using the Ethernet connection on the hub, and disable the hub’s Wi-Fi.

*Note:* Vive wireless hub must be mounted a minimum of 10 ft (3 m) from a Wi-Fi router or access point.

**How it works**

All wireless devices to be associated to the Vive wireless hub must be within 71 ft (22 m) of the Vive wireless hub and must be on the same floor as the Vive wireless hub.
How to design and specify

• **One relay module**
  For each controlled lighting zone in the space

• **Control**
  Select appropriate model based on the size of the connected load

  **16 A:**
  - 1920 W or 1/2 HP @ 120 V or
  - 4432 W or 1 1/2 HP @ 277 V

  **5 A:**
  - 600 W or 1/6 HP @ 120 V or
  - 1385 W or 1/3 HP @ 277 V

• **Contact closure output**
  For sending occupancy information to third-party equipment such as HVAC systems

• **Input** 120/277V

Product options

**16 A models**
- RMJS-16R-DV-B
- RMJS-16RCCO1-DV-B One contact closure output

**5 A models**
- RMJS-5R-DV-B
- RMJS-5RCCO1-DV-B One contact closure output

---

New Section:

How to design and specify

• **One dimming module with 0-10V control**
  For each controlled 0-10V lighting zone in the space

• **Control**
  8A:
  - 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures

• **Input** 120/277V

• **0-10V Link:** Communicates with up to 60 mA of fixtures

Product options

8A models with 0-10V control
- RMJS-8T-DV-B
Load Controllers: J-box mounted switches and dimmers

How to design and specify

- **One contact closure output module**
  For each additional contact closure output you require

Product options

**Standard**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-CCO1-24-B</td>
<td>Contact closure output</td>
</tr>
</tbody>
</table>

**Note:** If using a relay module with the contact closure output, you do not need to add a contact closure output module unless a second contact closure output is needed.

How it works

In response to information received from a Radio Powr Savr occupancy/vacancy sensor, the PowPak contact closure output module communicates room occupancy to the VAV terminal unit. By not heating or cooling an unoccupied room, the electricity consumed by the HVAC system can be reduced.
Load Controllers: Plug load control

How to design and specify

• **One relay module**
  For each 20 A receptacle circuit you want to control

• **Input** 120/277V

**Product options**

<table>
<thead>
<tr>
<th>20A models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-20R-DV-B</td>
<td>General purpose switch</td>
</tr>
<tr>
<td></td>
<td>120-277V receptacles</td>
</tr>
<tr>
<td>RMJS-20RCC01-DV-B</td>
<td>General purpose switch</td>
</tr>
<tr>
<td></td>
<td>20A, 120-277V receptacles</td>
</tr>
<tr>
<td></td>
<td>with one contact closure output</td>
</tr>
</tbody>
</table>

How it works

Plug loads, such as task lighting, computer monitors, and printers, account for greater than 5% of commercial electricity usage. Many energy codes now require control of receptacles for compliance.

The occupancy/vacancy sensor wirelessly communicates room occupancy to the relay module. Based on the occupancy status received, the relay module switches the power to the receptacles on or off, reducing the amount of energy consumed.

For a list of sources please visit lutron.com/references.
How it works
Plug loads, such as task lighting, computer monitors, and printers, account for greater than 5% of commercial electricity usage. Many energy codes now require control of receptacles for compliance.

The occupancy/vacancy sensor wirelessly communicates room occupancy to the wireless receptacle. Based on the occupancy status received, the wireless receptacle switches the power on or off, reducing the amount of energy consumed. The wireless receptacle will control normal receptacles downstream.

How to design and specify
- One wireless receptacle
  For each receptacle circuit you want to control
  One wireless receptacle can also control standard receptacles wired downstream
- Input: 120V

Product options

<table>
<thead>
<tr>
<th>15A models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR2S-15-STR - 15 A</td>
<td>Split (half switching; single pole/downstream)</td>
</tr>
<tr>
<td>CAR2S-15-DTR - 15 A</td>
<td>Duplex (dual switching; single pole/downstream)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>20A models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR2S-20-STR - 20 A</td>
<td>Split (half switching; single pole/downstream)</td>
</tr>
<tr>
<td>CAR2S-20-DTR - 20 A</td>
<td>Duplex (dual switching; single pole/downstream)</td>
</tr>
</tbody>
</table>

For a list of sources please visit lutron.com/references.
Load Controllers: Wireless individual fixture control

How to design and specify

- **Vive integral fixture control**
  
  For each fixture in the space

- **Digitally controls** up to three drivers/ballasts per fixture

- **Select either** Clear Connect (RF) only or Clear Connect (RF) & XCT Sensing

Product options

**Wireless individual in-fixture control**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFCSJ-OEM-RF</td>
<td>Clear Connect (RF) only</td>
<td>W: 0.827” (21 mm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H: 2.477” (62.9 mm)</td>
</tr>
<tr>
<td>DFCSJ-OEM-OCC</td>
<td>Clear Connect (RF) and Occupancy/Daylight Sensing</td>
<td>W: 0.927” (23.5 mm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H: 2.577” (65.4 mm)</td>
</tr>
</tbody>
</table>

Contact your local fixture representative and ask for a Vive-enabled fixture or visit lutron.com/findafixture

Note: Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m) through walls of each other.

How it works

Install the fixture control directly to a fixture or on a junction box nearest to the fixture. Install the sensor on the ceiling near the fixture to optimize coverage in the desired area.

Note: Avoid mounting the fixture sensor in direct sunlight or in the light which is cast from the fixture.

Product options

**0-10 V control models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCJS-010</td>
<td></td>
</tr>
<tr>
<td>FCJS-010-BULK8</td>
<td>8-pack</td>
</tr>
</tbody>
</table>

**EcoSystem control models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCJS-ECO</td>
<td></td>
</tr>
<tr>
<td>FCJS-ECO-BULK8</td>
<td>8-pack</td>
</tr>
</tbody>
</table>

**Sensor models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC-SENSOR</td>
<td>Occupancy/Daylight sensor</td>
</tr>
<tr>
<td>FC-VSENSOR</td>
<td>Vacancy/Daylight sensor</td>
</tr>
</tbody>
</table>

Fixtures sensor coverage diagrams

Applies to both products

Clear Connect (RF)

- Pico Remote Control (up to 10)
- Radio Powr Savr occupancy sensor (up to 10)
- Radio Powr Savr daylight sensor (1 maximum)

XCT Occupancy/Vacancy sensing

- Ceiling
  - 9 ft (2.7 m)
- Floor
  - 15 ft (4.6 m)

- 300 ft² (28 m²) major motion
- 150 ft² (14 m²) minor motion when mounted on a 9 ft (2.7 m) ceiling
How to design and specify

• One UL 924 PowPak module per lighting zone or fixture, depending on model

Relay module control:
• 16 A: 1920 W or 1/2 HP @ 120 V
  4432 W or 1/2 HP @ 277

0-10 V module control:
• 8 A: 0-10 V controlled fixtures and switches compatible with third-party 0-10 V fluorescent ballasts, LED drivers, and fixtures
• 0-10 V link: Communicates with up to 60 mA of fixtures

Fixture control:
• 1 A of load or up to 3 drivers and ballasts
• Input (all models) 120/277 V

Product options

<table>
<thead>
<tr>
<th>Relay</th>
<th>RMJS-16R-DV-B-EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 V</td>
<td>RMJS-8T-DV-B-EM</td>
</tr>
<tr>
<td>Fixtures</td>
<td>FCJS-010-EM</td>
</tr>
<tr>
<td></td>
<td>FJJS-ECO-EM</td>
</tr>
</tbody>
</table>

How it works

During normal power conditions, the UL 924 rated PowPak modules can dim loads and respond to local button presses, Pico wireless controls, and occupancy/daylight sensors.

If utility power fails and the emergency PowPak loses power for greater than 250 msec, the emergency generator back-up source activates and the automatic transfer switch senses loss of normal power and switches to emergency power.

The emergency PowPak regains power and automatically goes into emergency mode (full output, relay closed and 0–10 V signal goes to 10.0 V) for 90 minutes. All local buttons, Pico wireless controls and occupancy/daylight sensors will not respond.

When normal power is restored to the Vive hub and emergency PowPak, the emergency PowPak will return to the previous light level within 2 minutes of normal power being restored. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.

System Wiring Diagram (Vive Hub with Emergency PowPak)

*NOTE: Solution is not applicable for Uninterruptible Power Supply (UPS) backup system. RMJS-8T-DV-B-EM must see a complete change-over of power from normal to emergency for the unit to go into emergency mode.*
How to design and specify

- Select one switch per lighting zone
- Select appropriate model based on the size of the connected load
  - 6 A: 600 W lighting @ 120 V
  - 8 A: 960 W lighting @ 120 V or 2216 W @ 277 V
- If existing switch does not have a neutral, choose the model available for 120/277 V with no neutral required
- Select from up to 27 colors to complement the décor*
- Add an additional Pico remote for rooms with multiple switches for a single zone

Product options

**Dual Voltage No Neutral switches**

<table>
<thead>
<tr>
<th>Model</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-8S-DV-XX</td>
<td>8 A lighting, 1/10 HP fan, 120 V only, 120-277 V, no neutral</td>
</tr>
</tbody>
</table>

**120 V Neutral required switches**

<table>
<thead>
<tr>
<th>Model</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-6ANS-XX</td>
<td>6 A lighting, 1/10 HP fan, 120 V only</td>
</tr>
<tr>
<td>MRF2-8ANS-120-XX</td>
<td>8 A lighting, 1/4 HP fan, 120 V only</td>
</tr>
</tbody>
</table>

* (XX in the model number represents color/finish code; use WH for White; please visit www.lutron.com for other color choices.)
Remotes: Pico wireless remotes

How to design and specify

- Select one 2-button Pico wireless remote to add a location with ON/OFF control
- Select one 3-button Pico wireless remote to add a location with ON/OFF control and one preset
- Select one 2-button with raise/lower Pico wireless remote to add a location with ON/OFF and BRIGHTEN/DIM control
- Select one 3-button with raise/lower Pico wireless remote to add a location with ON/OFF, BRIGHTEN/DIM control and one preset
- Select whether a nightlight is needed (2-button and 3-button with raise/lower only)

Note: Spaces with a PowPak relay or dimming module will not have a local control in the room unless a Pico is added

Product options

2-button remotes
- PJ2-2BRL-GXX-L01: 2-button with raise/lower wireless remote
- PJ2-2B-GXX-L01: 2-button wireless remote
- PJN-2B-GXX-L01: Nightlight 2-button wireless remote

3-button remotes
- PJ2-3BRL-GXX-L01: 3-button with raise/lower wireless remote
- PJ2-3B-GXX-L01: 3-button wireless remote
- PJN-3BRL-GXX-L01: Nightlight 3-button with raise/lower wireless remote

How it works

- No wires—put it where it’s most accessible
- Pedestal mount for tabletop use
- Surface mount anywhere with Claro wallplate
- 10-year battery life

Dimensions

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.28” (33 mm)</td>
<td>2.60” (66 mm)</td>
<td>0.33” (8 mm)</td>
</tr>
</tbody>
</table>
How to design and specify

• The Pico wireless remote is a flexible and easy-to-use device that allows the user to control Lutron wireless load-control devices from anywhere in the space. This battery-operated control requires no external power or communication wiring.

Product options

<table>
<thead>
<tr>
<th>4-button remotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJ2-4B-GWH-L21P</td>
</tr>
<tr>
<td>PJ2-4B-GWH-L01</td>
</tr>
<tr>
<td>PJ2-4B-GWH-L31</td>
</tr>
</tbody>
</table>

• Custom-engraved models for Zone control keypads (-L01, -S01) and Scene control keypads (-L31, -S31) are available but require a different set of button marking codes when ordering.

Note: 2-Group (-L21, -S21, -LS21) and 4-Group Toggle (-L41) controls are not offered with the custom engraving option.

Button Marking Codes

<table>
<thead>
<tr>
<th>Zone Control</th>
<th>Standard Engraving</th>
<th>Custom Engraving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lights</td>
<td>-L01</td>
<td>-EL1</td>
</tr>
<tr>
<td>Shades</td>
<td>-S01</td>
<td>-ES1</td>
</tr>
<tr>
<td>Scene Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lights</td>
<td>-L31</td>
<td>-EL2</td>
</tr>
<tr>
<td>Shades</td>
<td>-S31</td>
<td>-ES2</td>
</tr>
</tbody>
</table>

How to design and specify

• Select one Pico wallbox adapter for each Pico that you would like wall mounted with a Claro-style wallplate.

• Select one Claro wallplate (up to 4-gang) for all Pico and Maestro Wireless wall-mounted control locations where Claro style is desired.

Product options

<table>
<thead>
<tr>
<th>Wall-mount accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICO-WBX-ADAPT</td>
</tr>
<tr>
<td>CW-1-WH</td>
</tr>
<tr>
<td>CW-2-WH</td>
</tr>
<tr>
<td>CW-3-WH</td>
</tr>
<tr>
<td>CW-4-WH</td>
</tr>
</tbody>
</table>

Dimensions

Pico remote

How to design and specify

• Select one Pico pedestal for each tabletop location based on the number of Pico remotes at each location.

Product options

<table>
<thead>
<tr>
<th>Tabletop accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-PED1-WH</td>
</tr>
<tr>
<td>L-PED2-WH</td>
</tr>
<tr>
<td>L-PED3-WH</td>
</tr>
<tr>
<td>L-PED4-WH</td>
</tr>
</tbody>
</table>

Dimensions

Wall-mount accessories

Pico wallplate adapter and Claro wallplate

Dimensions

W: 2.94" (75 mm)  
H: 4.69" (119 mm)  
D: 1.44" (38 mm)
Sensors: Ceiling occupancy/vacancy sensors

How to design and specify

- A single occupancy sensor can communicate to all control devices in the room.
- Use in small rooms or areas with medium to high partitions.
- For 8 ft ceilings: 484 ft²
- For 12 ft ceilings: 676 ft²

Product options

**Ceiling-mount sensors**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRF2-OCR2B-P-WH</td>
<td>Occupancy/vacancy</td>
<td>W: 3.57” (91 mm)</td>
</tr>
<tr>
<td>LRF2-VCR2B-P-WH</td>
<td>Vacancy only</td>
<td>H: 3.57” (91 mm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D: 1.13” (29 mm)</td>
</tr>
</tbody>
</table>

**Accessories**

- L-CMDPIRKIT: Ceiling-mount sensor lens masking kit
- L-CRMK-WH: Ceiling-mount sensor recess-mounting bracket
- L-WIRECAGE-C: Wire guard for ceiling-mount sensor

**Sensor coverage diagrams**

**Coverage varies by ceiling height**

**Key:**
- Minor motion
- Major motion

**Ceiling-mount sensor coverage chart (for sensor mounted in center of room)**

<table>
<thead>
<tr>
<th>Ceiling height</th>
<th>Maximum room dimensions for complete floor coverage</th>
<th>Radius of coverage at floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ft (2.4 m)</td>
<td>18 x 18 ft (5.5 x 5.5 m) 324 ft² (30.2 m²)</td>
<td>13 ft (4.0 m)</td>
</tr>
<tr>
<td>9 ft (2.7 m)</td>
<td>20 x 20 ft (6.1 x 6.1 m) 400 ft² (37.2 m²)</td>
<td>14.5 ft (4.4 m)</td>
</tr>
<tr>
<td>10 ft (3.0 m)</td>
<td>22 x 22 ft (6.7 x 6.7 m) 484 ft² (44.9 m²)</td>
<td>16 ft (4.9 m)</td>
</tr>
<tr>
<td>12 ft (3.7 m)**</td>
<td>26 x 26 ft (7.9 x 7.9 m) 676 ft² (62.4 m²)</td>
<td>19 ft (5.8 m)</td>
</tr>
</tbody>
</table>

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.8 and 2.4 m).
** 12 ft (3.7 m) is the maximum mounting height allowed.
Sensors: Wall-/Hall-/Corner-mount occupancy/vacancy sensors

How to design and specify

- A single occupancy sensor can communicate to all control devices in the room

Product options

Wall-mount sensors
- Use in large open rooms with few tall obstructions
- Coverage: 3,000 ft²
  - LRF2-OWLB-P-WH Occupancy/vacancy
  - LRF2-VWLB-P-WH Vacancy only

Corner-mount sensors
- Use in medium to large open rooms with few tall obstructions
- Coverage: 2,500 ft²
  - LRF2-OKLB-P-WH Occupancy/vacancy
  - LRF2-VKLB-P-WH Vacancy only

Hallway sensors
- For a 6 ft wide hallway: 50 ft coverage
- For a 10 ft wide hallway: 150 ft coverage
  - LRF2-OHLB-P-WH Occupancy/vacancy
  - LRF2-VHLB-P-WH Vacancy only

Accessories
- LRF-ARM-WH Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors
- L-WIRECAGE-C Wire guard for ceiling-mount sensor
- L-WIRECAGE-W Wire guard for in-wall sensor

Sensor coverage diagrams

Wall mount*, 180°
- 1,500 ft²—minor motion
- 3,000 ft²—major motion

Corner mount*, 90°
- 1,225 ft²—minor motion
- 2,500 ft²—major motion

Hallway*, long narrow field of view
- Coverage varies by hallway width and length

Hallway sensor maximum recommended length chart
(sensor centered within hallway)

<table>
<thead>
<tr>
<th>Width of hallway</th>
<th>Length of hallway</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 ft (1.6 m) or less</td>
<td>50 ft (15.2 m)</td>
</tr>
<tr>
<td>8 ft (2.4 m)</td>
<td>100 ft (30.5 m)</td>
</tr>
<tr>
<td>10 ft (3.0 m) or more</td>
<td>150 ft (45.7 m)</td>
</tr>
</tbody>
</table>

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).
** 12 ft (3.7 m) is the maximum mounting height allowed.
Sensors: Daylight sensors

How to design and specify

- A single daylight sensor is capable of controlling:
  - All Maestro switching and dimming zones
  - All PowPak switching zones
  - All PowPak dimming modules with 0-10 V control

Product options

**Daylight sensor**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRF2-D CRA-B-WH</td>
<td>Daylight sensor</td>
</tr>
</tbody>
</table>

Dimensions

- **W:** 1.6" (41 mm)
- **H:** 1.6" (41 mm)
- **D:** 0.7" (17 mm)

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).
** 12 ft (3.7 m) is the maximum mounting height allowed.

Sensor coverage diagrams

**Location for average size areas**

Arrow points towards the area viewed by the sensor (towards windows).

**H** = Effective Window Height

**Location for narrow areas (corridors, private offices)**

Arrow points towards the area viewed by the sensor (away from window).
Available setup support services

Blocks of setup support time

- Lutron Services Representative — either onsite or remotely — supports the installation team in setting up the system
- Utilize the technician’s time in the way that best suits your needs: training, punch list items, or complete programming independently
- Mix and match remote and onsite blocks of time and use them when you need them during the construction timeline
- Choose the amount of time you need

Product options

<table>
<thead>
<tr>
<th>Blocks of setup support time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-OS-PROG8-SP</td>
<td>8 hours of onsite setup support</td>
</tr>
<tr>
<td>LSC-OS-PROG4-SP</td>
<td>4 hours of onsite setup support</td>
</tr>
<tr>
<td>LSC-RMT-PROG4-SP</td>
<td>4 hours of remote setup support</td>
</tr>
</tbody>
</table>

Additional setup support services

<table>
<thead>
<tr>
<th>Available with blocks and startup</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-PREWIRE</td>
</tr>
<tr>
<td>LSC-TRAINING</td>
</tr>
<tr>
<td>LSC-AF-VISIT</td>
</tr>
<tr>
<td>LSC-WALK</td>
</tr>
</tbody>
</table>

Available startup services

Onsite full-scope startup

- Lutron Service Representative onsite to ensure proper system startup and configuration
- Train facilities staff to best utilize and maintain the lighting control assets
- Reduce risk and keep your installation team small by having us do the setup for you.
- Includes a Commercial System Limited Warranty
- Onsite startup enhancements available

Remote full-scope startup

- Dedicated Lutron Remote Technician works with your installation team to ensure proper system startup and configuration
- Introduce end user facilities staff to system components and resources available
- Less lead time to schedule than onsite startup
- Lower cost than onsite startup
- Commercial system limited warranty available

Product options

Setup service models

<table>
<thead>
<tr>
<th>Full scope startup</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-OS-SU-VIVE</td>
</tr>
<tr>
<td>LSC-RMT-SU-VIVE</td>
</tr>
</tbody>
</table>

Startup enhancements (Available with onsite full-scope startup)

| LSC-AH-SU               | Startup performed at night or weekends (weekend work available in certain locations) |
| LSC-SENS-LT            | Sensor layout & tuning |
| LSC-SPV-DOC            | System performance—verification documentation |
| LSC-SPV-DOC-T24        | Title 24 acceptance test visit |
Available Operational Services
- Support the facilities team to maximize system potential
- Reprogram the system as space needs change over time
- Support retro-commissioning requirements
- Pre-purchase with the system to capture costs in capital budget

Product options
Operational service models

LSC-TRAINING  Customer-site solution training
LSC-SYSOPT  System optimization service
LSC-OS-PROG8-EN  8 hours of onsite reconfiguration support
LSC-OS-PROG4-EN  4 hours of onsite reconfiguration support
LSC-RMT-PROG4-EN  4 hours of remote reconfiguration support

Remote and onsite services are also available for purchase after the system is in operation at hourly, half-day and full-day rates; contact Lutron at lscwarranty@lutron.com for more information.

Commercial System Limited Warranty
The commercial system limited warranty offers 5 years of parts coverage, 2 years of first-available onsite/remote response time for system issues, and 24/7 technical support. Warranty included with onsite full-scope startup & available with remote full-scope startup.

Product options
Vive Limited Warranty
LSC-B2  Commercial System 2-Year Limited

Technology Support Plans (TSPs)
All Lutron Technology Support Plans provide 100% parts and diagnostic labor coverage for up to 10 years. Optional response-time guarantees and preventive maintenance visits enable the coverage to be customized to meet the facility’s needs. TSPs are available for any Vive system; a warranty audit visit will be included with the purchase of a TSP when full-scope startup is not purchased.

Product options
Vive Technology Support Plans
LSC-SILV-IW  Silver Level Technology Support Plan
LSC-GOLD-IW  Gold Level Technology Support Plan
LSC-PLAT-IW  Platinum Level Technology Support Plan
LSC-WARR-AUD  Warranty Audit Visit

Note: For detailed warranty and technology support plan descriptions see lutron.com/services

Vive Warranty information
Vive wireless solutions are all covered by a 5-year parts warranty with registration of the product. Additional technology support options are available to meet your project needs. See the options below.

<table>
<thead>
<tr>
<th>Support Options</th>
<th>Commercial System Limited Warranty</th>
<th>Silver (TSP)</th>
<th>Gold (TSP)</th>
<th>Platinum (TSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration up to 10 years of coverage</td>
<td>* (5 yrs)</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>100% Replacement Parts</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Diagnostic Labor—First Available Response</td>
<td>* (2 yrs)</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Diagnostic Labor—72-Hour Response</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Diagnostic Labor—24-Hour Response</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Annual Preventive Maintenance Visit</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>
### Vive wireless hub

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HJS-0-FM</td>
<td>Starter Vive wireless hub, flush mount</td>
<td>1,700.00</td>
</tr>
<tr>
<td>HJS-1-FM</td>
<td>Standard Vive wireless hub, flush mount</td>
<td>1,700.00</td>
</tr>
<tr>
<td>HJS-1-SM</td>
<td>Standard Vive wireless hub, surface mount</td>
<td>1,700.00</td>
</tr>
<tr>
<td>HJS-2-FM</td>
<td>Premium Vive wireless hub, flush mount</td>
<td>1,700.00</td>
</tr>
<tr>
<td>HJS-2-SM</td>
<td>Premium Vive wireless hub, surface mount</td>
<td>1,700.00</td>
</tr>
</tbody>
</table>

### Vive Vue Dashboard Software

<table>
<thead>
<tr>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIVE-VUE</td>
<td>Contact Lutron sales for a quote</td>
</tr>
</tbody>
</table>

### PowPak relay module

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-5R-DV-B</td>
<td>5 A relay</td>
<td>109.00</td>
</tr>
<tr>
<td>RMJS-5RCCO1-DV-B</td>
<td>5 A relay with one contact closure output</td>
<td>124.00</td>
</tr>
<tr>
<td>RMJS-16R-DV-B</td>
<td>16 A relay</td>
<td>129.00</td>
</tr>
<tr>
<td>RMJS-16RCCO1-DV-B</td>
<td>16 A relay with one contact closure output</td>
<td>144.00</td>
</tr>
</tbody>
</table>

### UL 924 rated emergency wireless controls

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-16R-DV-B-EM</td>
<td>Emergency rated 16 A relay</td>
<td>179.00</td>
</tr>
<tr>
<td>RMJS-8T-DV-B-EM</td>
<td>Emergency rated 8 A, 0-10 V dimmer</td>
<td>200.00</td>
</tr>
<tr>
<td>FCJS-ECO-EM</td>
<td>Emergency rated EcoSystem control module</td>
<td>128.00</td>
</tr>
<tr>
<td>FCJS-010-EM</td>
<td>Emergency rated 0-10 V control module</td>
<td>128.00</td>
</tr>
</tbody>
</table>

### PowPak dimming module with 0-10 V control

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-8T-DV-B</td>
<td>Controls up to 8 A of 0-10 V controlled fixtures</td>
<td>150.00</td>
</tr>
</tbody>
</table>

### PowPak contact closure output module

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-CCO1-24-B</td>
<td>one contact closure output</td>
<td>109.00</td>
</tr>
</tbody>
</table>

### Wireless Receptacle

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR2S-15-STR</td>
<td>15 A Split (half switching; single pole/downstream, 120V)</td>
<td>170.00</td>
</tr>
<tr>
<td>CAR2S-15-DTR</td>
<td>15 A Duplex (dual switching; single pole/downstream, 120V)</td>
<td>170.00</td>
</tr>
<tr>
<td>CAR2S-20-STR</td>
<td>20 A Split (half switching; single pole/downstream, 120V)</td>
<td>190.00</td>
</tr>
<tr>
<td>CAR2S-20-DTR</td>
<td>20 A Duplex (dual switching; single pole/downstream, 120V)</td>
<td>190.00</td>
</tr>
</tbody>
</table>

### PowPak relay module

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMJS-20R-DV-B</td>
<td>20 A general purpose switch</td>
<td>139.00</td>
</tr>
<tr>
<td>RMJS-20CCO1DV-B</td>
<td>20 A general purpose switch with one contact closure output</td>
<td>154.00</td>
</tr>
</tbody>
</table>

### Individual fixture control

<table>
<thead>
<tr>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCJS-010</td>
<td>78.00</td>
</tr>
<tr>
<td>FCJS-ECO</td>
<td>78.00</td>
</tr>
<tr>
<td>FCJS-010-BULK8</td>
<td>600.00</td>
</tr>
<tr>
<td>FCJS-ECO-BULK8</td>
<td>600.00</td>
</tr>
<tr>
<td>FC-SENSOR</td>
<td>35.00</td>
</tr>
<tr>
<td>FC-VSENSOR</td>
<td>35.00</td>
</tr>
<tr>
<td>DFCSJ-OEM-RF*</td>
<td>60.00</td>
</tr>
<tr>
<td>DFCSJ-OEM-OCC*</td>
<td>70.00</td>
</tr>
</tbody>
</table>

* Contact your local fixture representative and ask for a Vive-enabled fixture or visit lutron.com/findafixture Fixture adders may vary.
## Ordering Information

### Model Number | Description | List Price (US)
--- | --- | ---
**Maestro Wireless switches***
MRF2S-6ANS-XX | 6A lighting, 3A fan (1/10HP motor), 120V | 108.00
MRF2S-6S-DV-XX | 8A lighting, 3A fan (1/10HP motor, 120V only), spec grade | 170.00
MRF2S-8ANS-120-XX | 8A lighting, 5.8A fan (1/4HP motor), spec grade, 120V | 140.00

**Maestro Wireless dimmers***
MRF2S-6CL-XX | 150W dimmable CFL/LED, 600W incandescent halogen, 600VA MLV, 120V, no neutral | 108.00
MRF2S-6ELV-XX | 600W ELV, 120V | 209.00
MRF2S-6ND-120-XX | 600W/VA incandescent/halogen/MLV, 120 V | 150.00

**Maestro Wireless/Maestro occupancy sensing control companion devices***
MA-AS-XX | Multi-location companion switch, 120V | 35.50
MA-AS-277-XX | Multi-location companion switch, 277V | 44.00
MA-R-XX | Multi-location companion dimmer, 120V | 28.40
MA-R-277-XX | Multi-location companion dimmer, 277V | 45.40

* (XX in the model number represents color/finish code; use WH for White; please visit [www.lutron.com](http://www.lutron.com) for other color choices.) Price indicated for gloss finish products.

### Model Number | Description | List Price (US)
--- | --- | ---
**Pico wireless remotes***
PJ2-2BRL-GXX-L01 | 2-button with raise/lower | 25.00
PJ2-2B-GXX-L01 | 2-button | 25.00
PJN-2B-GXX-L01 | Nightlight 2-button | 58.00
PJ2-3BRL-GXX-L01 | 3-button with raise/lower | 21.00
PJ2-3B-GXX-L01 | 3-button | 25.00
PJN-3BRL-GXX-L01 | Nightlight 3-button with raise/lower | 58.00
PJ2-4B-GXX-L21P | 4-button with 2 group control | 39.00
PJ2-4B-GXX-L01 | 4-button with zone control | 25.00
PJ2-4B-GXX-L31 | 4-button with scene control | 39.00

* (XX in the model number represents color/finish code; price shown is for white (WH) models only.) Price for other colors varies.

**Pico accessories***
PICO-WBX-ADAPT | Pico wireless remote wallbox adapter | 8.00
CW-1-XX | Claro 1-gang wallplate | 5.00
CW-2-XX | Claro 2-gang wallplate | 10.00
CW-3-XX | Claro 3-gang wallplate | 15.20
CW-4-XX | Claro 4-gang wallplate | 21.00
L-PED1-XX** | Pico wireless remote single pedestal | 15.00
L-PED2-XX** | Pico wireless remote double pedestal | 30.00
L-PED3-XX** | Pico wireless remote triple pedestal | 100.00

** (XX in the model number represents color/finish code; use WH for White; please visit [www.lutron.com](http://www.lutron.com) for other color choices.) Price indicated for gloss finish products.

### Gloss Colors

| S | White (WH) |
| S | Ivory (IV) |
| S | Almond (AL) |
| S | Light Almond (LA) |
| S | Gray (GR) |
| S | Brown (BR) |
| S | Black (BL) |

### Satin Colors (Prices vary from Gloss Colors)

| S | Hot (HT) |
| S | Merlot (MR) |
| S | Plum (PL) |
| S | Turquoise (TQ) |
| S | Sea Glass (SG) |
| S | Midnight (MN) |
| S | Sienna (SI) |
| S | Terracotta (TC) |
| S | Greenbriar (GB) |
| S | Bluestone (BS) |
| S | Eggshell (ES) |
| S | Biscuit (BI) |
| S | Snow (SW) |
| S | Palladium (PD) |
| S | Mocha Stone (MS) |
| S | Goldstone (GS) |
| S | Desert Stone (DS) |
| S | Stone (ST) |
| S | Limestone (LS) |

### Pico Colors

| S | White (WH) |
| S | White/Gray (WG) |
| S | Black (BL) |
| S | Light Almond (LA) |
### Ordering Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radio Powr Savr occupancy/vacancy sensors</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LRF2-OCR2B-P-WH</td>
<td>Ceiling-mount, 360° field-of-view, occupancy/vacancy sensor</td>
<td>85.00</td>
</tr>
<tr>
<td>LRF2-OWLB-P-WH</td>
<td>Wall-mount, 180° field-of-view, occupancy/vacancy sensor</td>
<td>85.00</td>
</tr>
<tr>
<td>LRF2-OKLB-P-WH</td>
<td>Corner-mount, 90° field-of-view, occupancy/vacancy sensor</td>
<td>85.00</td>
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<tr>
<td>LRF2-OHLB-P-WH</td>
<td>Hallway, occupancy/vacancy sensor</td>
<td>85.00</td>
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<tr>
<td><strong>Occupancy/vacancy sensor accessories</strong></td>
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<tr>
<td>L-CMDPIRKIT</td>
<td>Sensor lens masking kit for Radio Powr Savr ceiling sensor</td>
<td>11.80</td>
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<tr>
<td>L-CRMK-WH</td>
<td>Recess-mounting bracket for Radio Powr Savr ceiling sensor</td>
<td>17.00</td>
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<tr>
<td>LRF-ARM-WH</td>
<td>Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors</td>
<td>59.00</td>
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<tr>
<td>L-WIRECAGE-WBX</td>
<td>Wire guard for in-wall sensor, White</td>
<td>65.00</td>
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<tr>
<td>L-WIRECAGE-C</td>
<td>Wire guard for ceiling-mount sensor, White</td>
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</tr>
<tr>
<td>L-WIRECAGE-W</td>
<td>Wire guard for wall-mount and hallway sensors, White</td>
<td>65.00</td>
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<tr>
<td><strong>Radio Powr Savr daylight sensor</strong></td>
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<td></td>
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<tr>
<td>LRF2-DCRB-WH</td>
<td>Ceiling-mount daylight sensor</td>
<td>120.00</td>
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</tbody>
</table>

**Wallplates*** | | |
| CW-1-XX | Claro 1-gang wallplate | 5.00 |
| CW-2-XX | Claro 2-gang wallplate | 10.00 |
| CW-3-XX | Claro 3-gang wallplate | 15.20 |
| CW-4-XX | Claro 4-gang wallplate | 21.00 |

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* XX in the model number represents color/finish code; use WH for White; please visit [www.lutron.com](http://www.lutron.com) for other color choices. Price indicated for gloss finish products.

---

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vive Startup Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSC-OS-SU-VIVE</td>
<td>Onsite full-scope startup</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>LSC-RMT-SU-VIVE</td>
<td>Remote full-scope startup</td>
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<tr>
<td>LSC-AH-SU</td>
<td>After hours startup</td>
<td></td>
</tr>
<tr>
<td>LSC-SENS-LT</td>
<td>Sensor layout &amp; tuning</td>
<td></td>
</tr>
<tr>
<td>LSC-SPV-DOC</td>
<td>System performance-verification documentation</td>
<td></td>
</tr>
<tr>
<td>LSC-SPV-DOC-T24</td>
<td>Title 24 acceptance test visit</td>
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<tr>
<td><strong>Vive Setup Support Services</strong></td>
<td></td>
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</tr>
<tr>
<td>LSC-OS-PROG8-SP</td>
<td>Onsite programming — 8-hour block</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>LSC-OS-PROG4-SP</td>
<td>Onsite programming — 4-hour block</td>
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<tr>
<td>LSC-RMT-PROG8-SP</td>
<td>Remote programming — 8-hour block</td>
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<tr>
<td>LSC-PREWIRE</td>
<td>Prewire visit</td>
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<tr>
<td>LSC-TRAINING</td>
<td>Customer-site solution training</td>
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</tr>
<tr>
<td>LSC-AF-VISIT</td>
<td>Onsite scene and level tuning</td>
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</tr>
<tr>
<td>LSC-WALK</td>
<td>Onsite performance-verification walkthrough</td>
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<tr>
<td><strong>Vive Operational Services</strong></td>
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</tr>
<tr>
<td>LSC-TRAINING</td>
<td>Customer-site solution training</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>LSC-SYSOPT</td>
<td>System optimization service</td>
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</tr>
<tr>
<td>LSC-OS-PROG8-EN</td>
<td>8 hours of onsite reconfiguration support</td>
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</tr>
<tr>
<td>LSC-OS-PROG4-EN</td>
<td>4 hours of onsite reconfiguration support</td>
<td></td>
</tr>
<tr>
<td>LSC-RMT-PROG4-EN</td>
<td>4 hours of remote reconfiguration support</td>
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</tr>
<tr>
<td><strong>Vive Limited Warranty and Technology Support Plans</strong></td>
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<tr>
<td>LSC-B2</td>
<td>Commercial system limited warranty</td>
<td>Contact Lutron sales for a quote</td>
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<tr>
<td>LSC-SILV-IW</td>
<td>Silver level technology support plan</td>
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<tr>
<td>LSC-GOLD-IW</td>
<td>Gold level technology support plan</td>
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<tr>
<td>LSC-PLAT-IW</td>
<td>Platinum level technology support plan</td>
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<tr>
<td>LSC-WARR-AUD</td>
<td>Warranty audit visit</td>
<td></td>
</tr>
</tbody>
</table>

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* (* in the model number represents color/finish code; use WH for White; please visit [www.lutron.com](http://www.lutron.com) for other color choices. Price indicated for gloss finish products.)*
Maestro sensor
Dimensions
W: 2.94” (75 mm)
H: 4.69” (119 mm)
D: 1.44” (38 mm)

Maestro dual-circuit sensor switch
Dimensions
W: 2.94” (75 mm)
H: 4.69” (119 mm)
D: 1.44” (38 mm)

Features and benefits
• Standalone solutions are not compatible with the Vive hub
• Lutron XCT technology for superior sensitivity prevents false ons and false offs
• Automatically turns lights off when space is unoccupied
• Easy to install; directly replaces an existing control
• Lutron’s Smart Ambient Light Detection learns your preferences over time and adapts accordingly
• Lutron’s Adaptive Zero-Cross Switching extends relay lifetime
• 180° sensor field-of-view; must have unobstructed view
• Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
• Adjustable timeout—1, 5, 15, 30 minutes
• Vacancy/partial-on models available to meet CA Title 24 requirements
• Dual-circuit sensors provide bi-level control of two circuits, as required by specific energy codes
• Select from up to 27 colors to complement the décor*

Product options
Maestro Sensor switch†
MS-OPS2-XX 2 A lighting, 120 V PIR occupancy/vacancy; single pole, no neutral
MS-OPS5M-XX 5 A lighting, 120 V PIR occupancy/vacancy; 3 A fan, multi-location/3-way/single pole, no neutral
MS-OPS6M2-DV-XX 6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); single pole required
MS-OPS6M2N-DV-XX 6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); neutral required

Maestro Dual-circuit sensor switch
MS-OPS6-DDV-XX 6 A lighting per circuit, 120-277 V PIR dual-circuit occupancy/vacancy; 4.4 A fan (120 V only) per circuit; single pole

* (XX in the model number represents color/finish code; use WH for White; please visit www.lutron.com for other color choices.) See Maestro colors on page 51.
† Vacancy-only models available. Replace the “O” in the model number with a “V.”
In-wall: Occupancy/vacancy switches

Features and benefits

- Standalone solutions are not compatible with the Vive hub
- Lutron XCT technology greatly enhances the performance of dual-technology sensors, enabling them to detect very fine motion like typing
- Automatically turns lights off when space is unoccupied
- Easy to install; directly replaces an existing control
- Lutron’s Smart Ambient Light Detection learns your preferences over time and adapts accordingly
- Lutron’s Adaptive Zero-Cross Switching extends relay lifetime
- 180° sensor field-of-view; must have unobstructed view
- Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
- Adjustable timeout—1, 5, 15, 30 minutes
- Vacancy models available to meet CA Title 24 requirements
- Dual-circuit sensors provide bi-level control of two circuits, as required by specific energy codes
- Select from up to 27 colors to complement the décor*

Product options

Maestro Sensor switch

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-A102-XX</td>
<td>6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); single pole, no neutral</td>
</tr>
<tr>
<td>MS-B102-XX</td>
<td>6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); multi-location/3-way, neutral required</td>
</tr>
</tbody>
</table>

Maestro Dual-circuit sensor switch

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-A202-XX</td>
<td>6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; single pole, no neutral</td>
</tr>
<tr>
<td>MS-B202-XX</td>
<td>6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; 3-way, neutral required</td>
</tr>
</tbody>
</table>

* (XX in the model number represents color/finish code; use WH for White; please visit www.lutron.com for other color choices.) See Maestro colors on page 51.
† Vacancy only models available. Add "-V-" before the color code (XX).

Standalone Solutions

Features and benefits

- Standalone solutions are not compatible with the Vive hub
- Lutron XCT technology for superior sensitivity prevents false ons and false offs
- Automatically turns lights off when space is unoccupied
- Easy to install; directly replaces an existing control
- Lutron’s Smart Ambient Light Detection learns your preferences over time and adapts accordingly
- ‘180° sensor field-of-view; must have unobstructed view
- Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
- Adjustable timeout—1, 5, 15, 30 minutes
- Vacancy models available to meet CA Title 24 requirements
- Select from up to 27 colors to complement the décor*

Product options

0-10 V dimmer sensor

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-Z101-XX</td>
<td>8 A lighting 120-277 V; occupancy/vacancy sensor, multi-location/3-way/single pole</td>
</tr>
</tbody>
</table>

Controls electronic LED drivers and fluorescent ballasts
- Miswire and load incompatibility alert—lens will flash red if control is miswired or connected to an incompatible fixture
- Selectable dimming curve optimizes performance of 0-10 V LED drivers
- Lutron’s Adaptive Zero-Cross Switching extends relay lifetime

* (XX in the model number represents color/finish code; use WH for White; please visit www.lutron.com for other color choices.) See Maestro colors on page 51.
† Vacancy-only models available. Replace the “O” in the model number with a “V”.

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Lutron | 61
### Features and benefits
- Standalone solutions are not compatible with the Vive hub
- C・L dimmer for control of screw-based CFLs and LEDs

### Product options

#### C・L dimmer sensor†

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCL-OP153M-XX</td>
<td>C・L dimmer with PIR sensor; occupancy/vacancy; multi-location/3-way/single pole; 150 W CFL/LED, 600 W incandescent/halogen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>W: 2.94 in (75 mm)</td>
</tr>
<tr>
<td>H: 4.69 in (119 mm)</td>
</tr>
<tr>
<td>D: 1.44 in (36 mm)</td>
</tr>
</tbody>
</table>

† (XX in the model number represents color/finish code; use WH for White; please visit www.lutron.com for other color choices.) See Maestro colors on page 49.

** Features and benefits
- Standalone solutions are not compatible with the Vive hub
- C・L dimmer for control of screw-based CFLs and LEDs

### Sensor options

#### Sensor switches

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OPS2-XX</td>
<td>2 A lighting, 120 V PIR occupancy/vacancy; single pole, no neutral</td>
<td>$29.00</td>
</tr>
<tr>
<td>MS-OPSSM-XX</td>
<td>5 A lighting, 120 V PIR occupancy/vacancy; 3 A fan, multi-location/3-way/single pole, no neutral</td>
<td>$41.50</td>
</tr>
<tr>
<td>MS-OPSM2-DDV-XX</td>
<td>6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); no neutral</td>
<td>$53.00</td>
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<tr>
<td>MS-OPSM2DN-DDV-XX</td>
<td>6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); neutral required</td>
<td>$53.00</td>
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<tr>
<td>MS-OPSM2UD-DDV-XX</td>
<td>6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); configurable ground or neutral wire</td>
<td>$54.00</td>
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#### Dual-circuit sensor switches

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OPSD-XX</td>
<td>6 A lighting per circuit, 120-277 V PIR dual-circuit occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; single pole</td>
<td>$89.00</td>
</tr>
<tr>
<td>MS-PFSD-XX</td>
<td>6 A lighting per circuit, 120-277 V PIR dual-circuit partial-on occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit</td>
<td>$89.00</td>
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</table>

#### Dual-technology sensor switches

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-A102-XX</td>
<td>6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor; 4.4 A fan (120 V only) per circuit; single pole</td>
<td>$100.00</td>
</tr>
<tr>
<td>MS-B102-XX</td>
<td>6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor; 4.4 A fan (120 V only) per circuit; multi-location/3-way, neutral required</td>
<td>$100.00</td>
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</table>

#### Dual-technology dual-circuit sensor switches

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-A202-XX</td>
<td>6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor; 4.4 A fan (120 V only) per circuit; single pole, no neutral</td>
<td>$125.00</td>
</tr>
<tr>
<td>MS-B202-XX</td>
<td>6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor; 4.4 A fan (120 V only) per circuit; 3-way, neutral required</td>
<td>$125.00</td>
</tr>
</tbody>
</table>

#### Sensor dimmers

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-Z101-XX</td>
<td>8 A lighting 120-277 V; occupancy/vacancy; multi-location/3-way/single pole</td>
<td>$110.00</td>
</tr>
<tr>
<td>MSCL-OP153M-XX</td>
<td>C・L dimmer with PIR sensor; occupancy/vacancy; single pole/3-way/multi-location; 150 W CFL/LED, 600 W incandescent/halogen</td>
<td>$54.00</td>
</tr>
</tbody>
</table>

† Vacancy models available to meet California Title 24 section 119(j) requirements.
‡ For dual-tech or 0-10 V vacancy models, add “-V-” before the color code (XX).

* DIMENSION INFORMATION SUBJECT TO CHANGE. PLEASE VISIT WWW.LUTRON.COM FOR THE LATEST PRODUCT SPECIFICATIONS.

![Sensor coverage diagrams](image)

Sensor coverage diagrams

In-wall

**PIR beam diagram (for reference only)**

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).
For a list of all Vive wireless solutions product model numbers and pricing see [lutron.com/vive](http://lutron.com/vive)

Questions?
call us 24-7
1.844.588.7661

lutron.com
Lutron Electronics Co., Inc., 7200 Suter Road, Coopersburg, PA 18036-1299

Customer Assistance
Online: lutron.com/help
Email: support@lutron.com
Phone: 1.844.LUTRON1 (588.7661) — includes 24/7 technical support

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