Flexible control every step of the way

A simple wireless lighting control solution for new and existing commercial buildings.
How can you make every office, school, or university campus an efficient, comfortable, and productive place to work or learn?

Vive wireless is the answer.

Vive by Lutron is a simple, scalable, wireless solution that can be installed in a single space or throughout an entire campus. It is designed to meet today’s energy codes, be used in new construction or retrofit situations, and meet your budgetary needs.

With a wide family of products – including sensors, remotes, load controllers, and an available software management suite – Vive provides the flexibility to select the products you want and handle any on-site challenges with ease.
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 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.

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<tr>
<th>Strategy</th>
<th>Potential savings</th>
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<tbody>
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<td>5–15% HVAC</td>
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</table>

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

- Wireless manual controls
- Occupancy and daylight sensors
- Wireless load controllers
- Plug load controllers
- Integrated fixture control and sensing

Add wireless hubs for centralized control and integration (optional)

- Vive wireless hub
- Wired/Ethernet
- BACnet integration
- API integration

Simple-to-use software

Vive software

Communication protocols

- Communicate via RF to control components
- Communicate via WiFi to smart devices
- Communicate via wired Ethernet to Vive hub
Selecting and installing wireless controls is easy

**Area Control**

**Step 1**

**Control your loads**
- Select the controller appropriate for the loads on your job
- Options available for:
  - switching, 0-10 V, phase dimming, Ecosystem, contact closure
- Simply wire one load controller for each group of lights you want to control together

**Step 2**

**Control your lights where you need to**
- Wireless devices can be mounted to any surface with no wiring needed
- Pico controls communicate wirelessly to the controls in the ceiling
- 10-year battery life

**Step 3**

**Add sensors to your job**
- Occupancy/vacancy sensors turn lights ON and/or OFF for convenience and energy savings
- Wireless devices can be mounted to any surface with no wiring needed
- Sensor controls communicate wirelessly to the controls in the ceiling
- 10-year battery life
Selecting and installing wireless controls is easy

**Area Control**

**Step 4**

Add daylight harvesting to meet code and save energy
- Save energy by dimming the lights when natural light is available
- Wireless devices can be mounted to any surface with no wiring needed
- 10-year battery life

**Step 5** (optional)

System software and control
- Timeclock
- Demand response
- BACnet and API integration
- Energy and occupancy information
- Proactive maintenance alerts

See easy programming setup
pages 16 – 17
Selecting and installing wireless controls is easy

Individual Fixture Control

Step 1

Simply count the fixtures—the technology is built in

- Visit lutron.com/hpfl for a list of fixtures that come with Vive wireless technology built in
- Fixtures are shipped with occupancy, vacancy and daylight sensing already installed

![Image showing Occupancy/vacancy sensors]

Step 2

Control your lights where you need to

- Wireless devices can be mounted to any surface with no wiring needed
- Pico controls communicate wirelessly to the controls in the ceiling
- 10-year battery life

![Image showing Pico wireless remotes]

Step 3 (optional)

System software and control

- Timeclock
- Demand response
- BACnet and API integration
- Energy and occupancy information
- Proactive maintenance alerts

![Image showing Vive software]

See easy system programming on pages 16 and 17
Simple to design

Access to tools and resources is at your fingertips.
Get access and quick answers to keep your project moving.

Easy-to-use design software
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.

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

Online 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
Vive wireless solutions ensure you can meet new construction and retrofit (lighting alterations) code requirements for three major energy codes: ASHRAE, IECC, and Title 24.
For specific commercial building code lighting requirements in your state, please visit 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 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 make revisions. 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 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 lutron.com/viveresources
Easy system programming

Simple setup and programming options with the Vive wireless hub

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

1. **Press and hold on wireless device**
2. **Automatic fixture identification**
   Lutron 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**
- **Occupancy sensor**

**Press and hold for 6 seconds**
It works! Sensor now talks to the wireless dimmer
Save energy and improve building performance

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

Load shed OpenADR compatible
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.

Scene control
Create and configure scenes to control individual devices, areas, or groups of areas on demand.

Light control
Directly adjust the light levels remotely from any smart device. Easily respond to occupant requests without needing to be in the physical space.

Alerts
View proactive alerts that show issues such as low batteries or inactive devices to help improve building maintenance efficiency.

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.

API integration, native on the Vive hub, enables integration with third-party devices, systems, and software. RESTful APIs are available over the ethernet.
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 Internet of Things (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.
Manage data and operations for multiple Lutron lighting and shade control solutions

- A single data and management platform for your connected buildings
- The system interface delivers a simple, consistent user experience from any PC or tablet
- Open, easy integration with BACnet and web APIs leverages the IoT to enhance smart-building performance
We build security into the product and the process from conception to installation, and through the lifetime of the system.

Everything we do is backed by the first, and guiding, Lutron principle — Take Care of the Customer with Superior Goods and Services. Every product, every system, and every solution is designed, manufactured, and tested to work as expected.

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 Clear Connect 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

Third-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. Third-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.

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.
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
  - Two contact closure inputs to enable load shed from other devices for Title 24 compliance and utility integration
  - OpenADR 2.0b compatible for integration with utilities for demand response/loadshed and code compliance
  - Each hub provides an individual dashboard for its coverage area and allows you to link to other hub dashboards from the mobile application
  - API integration, native on the Vive hub, to enable integration with third-party devices, systems, and software. RESTful APIs are available over the ethernet.
  - Proactive alerts, i.e. low battery or possible device malfunction, help to ensure system operates as expected
  - Override and lockout support for emergency devices to send the emergency lights to defined levels and lock out controls in the case of a fire alarm, power loss, or security incident. This may be activated manually or with an integration.

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
H-MOUNT-SM  Surface-mount installation adapter

Premium (with BACnet and API)

HJS-2-FM  Flush mount
HJS-2-SM  Surface mount
HJS-UPDATE  Software upgrade license to add BACnet and API
HJS-DEVICES  Software upgrade license expands device limit to 700 devices

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.

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 the following: Connect the Vive wireless hub to the corporate network using the Ethernet connection on the hub, and disable the hub’s Wi-Fi.
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
    - 4432 W or 1 1/2 HP @ 277 V
  - **5 A:**
    - 600 W or 1/6 HP @ 120 V
    - 1385 W or 1/3 HP @ 277 V
- **Contact closure output**
  For sending occupancy information to third-party equipment such as HVAC systems
  - **Input:** 120/277 V

**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

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How to design and specify

- **One single-zone controller**
  For each EcoSystem/DALI lighting zone in the space
- **Control**
  EcoSystem/DALI: up to 32 drivers per controller
  - Multiple drivers/ballasts connected to control module will always work together as single zone
  - **Input:** 120/277 V

**Product options**

**EcoSystem single zone**
- RMJS-ECO32-SZ
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
- RMJS-8TN-DV-B

**Wiring Schematic**

**How it works**

Two versions of the PowPak 0-10V are available; they optimize for different wiring practices. The -8T model has a connector on the back of the box which is optimized for Class 2 wiring outside of the standard conduit. The -8TN model has the 0-10V wires coming out of the threaded end, optimized for wiring inside a junction box and used when the 0-10V wires are run in the cable or conduit with the Class 1 wiring. Both versions can have the 0-10V control wires be installed using NEC Class 1 or Class 2 wiring methods.

*NOTE:* The control module mounts to the exterior of a U.S.-style junction box.
Load controllers: 4x4 box-mounted switches and dimmers

How to design and specify

- **One dimming module for phase control**
  For each controlled phase dimmable lighting zone in the space.

- **Control**
  LED drivers (reverse-phase) 450 VA  
  Lutron Hi-lume 1% 2-wire LED driver 3 A (13 drivers max)  
  LED bulbs, self-ballasted lamps (reverse-phase) 450 VA  
  LED NEMA SSL 7A-2015 (forward-phase) B, H 200 W  
  Incandescent/halogen 450 W  
  ELV (reverse-phase) 450 W  
  Fluorescent (forward-phase) 400 VAF  
  Neon/cold cathode, MLV C, D 400 VAF (320 W)

- **Input:** 120V/277V

Product options

**450W/VA PowPak Phase Select dimming module**

- **Dimensions**
  W: 4.53" (114.90 mm)  
  H: 4.53" (114.90 mm)  
  D: 1.80" (45.60 mm)

- **Mounting:** Mounts in a standard 4 in x 4 in (101.6 mm x 101.6 mm) junction box. NOTE: Must use metal junction box, minimum depth 2.125 in (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See installation guide 041808 for additional information.

- **Range Diagram**
  PowPak module

- **Dimensions**
  Dimensions are shown as: in (mm)

Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

NOTE: Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m), through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling tile obstruction.
Load controllers: 4x4 box-mounted switches and dimmers

How to design and specify

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

- **Control**
  - **5A**: 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures
  - **Input**: 347V

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

**Product options**

**5A model with 0-10V control**

RMJS-5T-347

0-10V- dimming and 5A switching

**Divider for Class 1 & Class 2 separation**

ST-347-DIVIDER

---

How to design and specify

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

- **Control**
  - Switches up to 5A total of LED drivers or fluorescent ballasts

- **Input**: 347V

**Product options**

**5A relay module**

RMJS-5R-347

5A switching only

---

Range Diagram

**PowPak module**

Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

NOTE: Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 50 ft (15.2 m) through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling tile obstruction.

Dimensions

Dimensions are shown as: in (mm)
How to design and specify

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

**Product options**

**Standard**

| RMJS-CCO1-24-B | Contact closure output |

**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: J-box mounted switches and dimmers
How to design and specify

- **One relay module**
  For each 20 A receptacle circuit you want to control
- **Input:** 120/277 V

**Product options**

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

**Dimensions**

- **W:** 2.89” (48 mm)
- **H:** 3.44” (87 mm)
- **D:** 1.25” (32 mm)

---

**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.
Load controllers: Plug load control

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

#### 15A models

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

#### 20A models

<table>
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<tr>
<th>Model</th>
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<tr>
<td>CAR2S-20-STR - 20A</td>
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</tr>
<tr>
<td>CAR2S-20-DTR - 20A</td>
<td>Duplex (dual switching; single pole/downstream)</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 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.

For a list of sources please visit lutron.com/references.
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) and XCT sensing

Product options

Wireless individual in-fixture control

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>DFCSJ-OEM-RF</td>
<td>Clear Connect (RF) only</td>
</tr>
<tr>
<td>DFCSJ-OEM-OCC</td>
<td>Clear Connect (RF) and occupancy/daylight sensing</td>
</tr>
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</table>

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

Load controllers:

Clear Connect (RF)

Clear Connect (RF) + Sensing

Clear Connect (RF) Only

Fixture sensor coverage diagrams

Applies to both products

Clear Connect (RF)

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.

XCT Occupancy/Vacancy sensing

Range Diagrams

Ceiling

9 ft (2.7 m) 3 ft (0.9 m)

Floor

15 ft (4.6 m) 9 ft (2.7 m) 3 ft (0.9 m)

12.0 ft (3.65 m)
How to design and specify

- One emergency-rated module per lighting zone or fixture, depending on model
  
  **Relay module control:**
  - 16A: 1920W or 1/2 HP @ 120V
    4432W or 1/2 HP @ 277
  
  **0-10V module control:**
  - 8A: 0-10V controlled fluorescent fixtures, LED drivers, and fixtures
  - 0-10V link: Communicates with up to 60mA of fixtures
  
  **Fixture control:**
  - 1 A of load or up to 3 drivers and ballasts
  - Input (all models): 120/277V

**Product options**

<table>
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<tr>
<th>Load controllers: Emergency-rated wireless controllers</th>
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</thead>
<tbody>
<tr>
<td><strong>Relay</strong></td>
</tr>
<tr>
<td><strong>0-10V</strong></td>
</tr>
<tr>
<td><strong>Fixtures</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Dimensions**

| W: 2.89” (48 mm) |
| H: 3.44” (87 mm) |
| D: 1.25” (32 mm) |

**How it works**

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

If utility power fails, the LUT-ELI-3PH senses the loss of normal power and will open the contact closure input (CCI2) on the Vive hub. The Vive hub will send the emergency-rated PowPak modules to their emergency lighting level until the LUT-ELI-3PH senses normal power and re-makes the contact with CCI2 on the Vive hub. The Vive hub will then release the Vive integral fixture controllers designated as emergency and emergency PowPak modules to their normal operation. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.
Load controllers: Emergency-rated wireless controllers

How to design and specify

- One CSA C22.2 No. 141-15 Listed dimming module with 0-10V control per lighting zone
- **0-10V module control:**
  - 5A: 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures
- **0-10V Link:** Communicates with up to 60 mA of fixtures
- **Input:** 347V

Product options:

**5 A model with 0-10V control**
RMJS-ST-347-EM

**5 A model**
RMJS-SR-347-EM

How it works*

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

If utility power fails, the LUT-ELI-3PH senses the loss of normal power and will open the contact closure input (CCI2) on the Vivo hub. The Vivo hub will then release the Vivo integral fixture controllers designated as emergency and emergency PowPak modules to their emergency lighting level until the LUT-ELI-3PH senses normal power and re-makes the contact with CCI2 on the Vivo hub. The Vivo hub will then release the Vivo integral fixture controllers designated as emergency and emergency PowPak modules to their normal operation. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.

System Wiring Diagram (Vivo hub with 347V emergency dimming module)

(product options include)

- **Product options**
  - 5A model with 0-10V control
  - RMJS-ST-347-EM
  - RMJS-SR-347-EM

- **How to design and specify**
  - One dimming module for phase control
    - For each controlled phase dimmable lighting zone in the space.
  - **Control**
    - LED drivers (reverse-phase) 450 VA
    - Lutron Hi-lume 1% 2-wire LED driver A 3 A (13 drivers max)
    - LED bulbs, self-ballasted lamps (reverse-phase) 450 VA
    - LED NEMA SSL 7A-2015 (forward-phase) B, H 200 W
    - Incandescent/halogen 450 W
    - Neon/cold cathode, MLV C, D 400 VAF (320 W)
  - **Input:** 120V/277V

- **450W/VA Emergency PowPak**
  - Phase Select dimming module
  - **Dimensions**
    - W: 4.53" (114.90 mm)
    - H: 4.53" (114.90 mm)
    - D: 1.80" (45.60 mm)

- **Mounting:** Mounts in a standard 4 in x 4 in (101.6 mm x 101.6 mm) junction box. NOTE: Must use metal junction box, minimum depth 2.125 in (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See installation guide 048781 for additional information.
How to design and specify

• Select one switch per lighting zone
• Select appropriate model based on the size of the connected load
  - 6A: 600 W lighting @ 120 V
  - 8A: 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 13 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-6S-DV-XX</td>
<td>6 A lighting, 1/10 HP fan, 120 V only, 120-277 V, no neutral</td>
</tr>
</tbody>
</table>

120V Neutral required switches

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

Maestro wireless switches

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

Maestro wireless dimmers

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

How to design and specify

• Select one wireless dimmer per lighting zone
• Select appropriate model based on the size and type of existing load
• Most models do not require a neutral
• Select from up to 13 colors to complement the décor*
• Add an accessory dimmer or a Pico wireless remote for rooms with multiple switches for a single zone
• Gray models (-GR) are plenum rated for mounting in ceiling applications

Product options

Maestro Wireless dimmers

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-6CL-XX</td>
<td>150 W dimmable CFL/LED, 600 W incandescent/halogen</td>
</tr>
<tr>
<td>MRF2S-6ELV120-XX</td>
<td>600 W ELV, 120 V</td>
</tr>
<tr>
<td>MRF2S-6ND-120-XX</td>
<td>600 W/VA incandescent/halogen/MLV, 120 V</td>
</tr>
<tr>
<td>MA-R-XX</td>
<td>Accessory dimmer for multi-location lighting controls, 120 V</td>
</tr>
</tbody>
</table>

* (XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.)
In-wall controls: switches and dimmers

Features and benefits

- Easy to install; directly replaces an existing control in a wallbox
- Combines occupancy sensing, manual control, and system connectivity in one piece of hardware
- Easily add additional wall controls and sensors without running any new wires
- Connect to a Vive wireless hub for system features such as timeclock, energy reporting, and demand response/load shed
- Lutron XCT technology for superior sensitivity prevents false ONs and false OFFs

How to design and specify

- Select one dimmer or switch per lighting zone
- Select appropriate model based on type of load:
  - 120 – 277V~ 8 A Electronic fluorescent ballast or LED drivers
  - Controls up to 50mA of 0-10 V fixtures, sink only (0-10 V dimmer version)
  - Neutral required
- Add additional Pico remotes for rooms with multiple switches for a single zone
- Add additional wireless occupancy and/or daylight sensors for additional coverage area and functionality

Product options

<table>
<thead>
<tr>
<th>Standard</th>
<th>MRF2S-8SD010-XX</th>
<th>0-10 V wallbox occupancy/vacancy sensor dimmer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MRF2S-8SS-XX</td>
<td>Wallbox occupancy/vacancy sensor switch</td>
</tr>
<tr>
<td></td>
<td>MRF2S-8SDV010-XX</td>
<td>0-10 V wallbox vacancy sensor dimmer</td>
</tr>
<tr>
<td></td>
<td>MRF2S-8SSV-XX</td>
<td>Wallbox vacancy sensor switch</td>
</tr>
</tbody>
</table>

(XX in the model number represents color/finish code)
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-XXX-L01** 2-button with raise/lower wireless remote
- **PJ2-2B-XXX-L01** 2-button wireless remote
- **PJN-2B-GXX-L01** Nightlight 2-button wireless remote

### 3-button remotes

- **PJ2-3BRL-XXX-L01** 3-button with raise/lower wireless remote
- **PJ2-3B-XXX-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**

- **W:** 1.28” (33 mm)
- **H:** 2.60” (66 mm)
- **D:** 0.33” (8 mm)
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

4-button remotes
PJ2-4B-GWH-L21P  2-group control
PJ2-4B-GWH-L01  Zone control
PJ2-4B-GWH-L31  Scene control

• 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) 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>

Dimensions

W: 1.28” (33 mm)  
H: 2.60” (66 mm)  
D: 0.33” (8 mm)

How to design and specify

• The Pico line-powered wireless control is a flexible and easy-to-use device that allows the user to control Lutron wireless load-control devices from anywhere line voltage power is present in the space. This control requires connection to line voltage for power, and no wires for communication.

Product options

Tabletop accessories
PJL-2B-GXX-L01  2-button
PJL-2BRL-GXX-L01  2-button with raise/lower
PJL-3BRL-GXX-L01  3-button with raise/lower

NEW!
Wireless remotes: Pico accessories

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>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-PED1-WH</td>
<td>Pedestal for one Pico remote</td>
</tr>
<tr>
<td>L-PED2-WH</td>
<td>Pedestal for two Pico remotes</td>
</tr>
<tr>
<td>L-PED3-WH</td>
<td>Pedestal for three Pico remotes</td>
</tr>
</tbody>
</table>

Tabletop accessories

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>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICO-WBX-ADAPT</td>
<td>Pico wallbox adapter</td>
</tr>
<tr>
<td>CW-1-WH</td>
<td>Claro 1-gang wallplate</td>
</tr>
<tr>
<td>CW-2-WH</td>
<td>Claro 2-gang wallplate</td>
</tr>
<tr>
<td>CW-3-WH</td>
<td>Claro 3-gang wallplate</td>
</tr>
<tr>
<td>CW-4-WH</td>
<td>Claro 4-gang wallplate</td>
</tr>
</tbody>
</table>

Wall-mount accessories

Pico wallplate adapter and Claro wallplate

Dimensions

W: 2.94” (75mm)
H: 4.69” (119mm)
D: 1.44” (38mm)
Wireless 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>Sensor Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRF2-OCR2B-P-WH</td>
<td>Occupancy/vacancy</td>
</tr>
<tr>
<td>LRF2-VCR2B-P-WH</td>
<td>Vacancy only</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-CMDPIRKIT</td>
<td>Ceiling-mount sensor lens masking kit</td>
</tr>
<tr>
<td>L-CRMK-WH</td>
<td>Ceiling-mount sensor recess-mounting bracket</td>
</tr>
<tr>
<td>L-WIRECAGE-C</td>
<td>Wire guard for ceiling-mount sensor</td>
</tr>
</tbody>
</table>

Sensor coverage diagrams

Coverage varies by ceiling height

Key:
- Minor motion
- Major motion

Wireless sensors: Ceiling occupancy/vacancy sensors

Wire cage guard

Dimensions

<table>
<thead>
<tr>
<th>Width (W)</th>
<th>Height (H)</th>
<th>Depth (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0&quot;</td>
<td>3.25&quot;</td>
<td>178 mm</td>
</tr>
</tbody>
</table>

Wireless occupancy/vacancy sensors

Dimensions

<table>
<thead>
<tr>
<th>Width (W)</th>
<th>Height (H)</th>
<th>Depth (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.57&quot;</td>
<td>3.57&quot;</td>
<td>91 mm</td>
</tr>
<tr>
<td>1.13&quot;</td>
<td></td>
<td>29 mm</td>
</tr>
</tbody>
</table>

Wireless occupancy/vacancy sensors

Dimensions

<table>
<thead>
<tr>
<th>Width (W)</th>
<th>Height (H)</th>
<th>Depth (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.57&quot;</td>
<td>3.57&quot;</td>
<td>91 mm</td>
</tr>
<tr>
<td>1.13&quot;</td>
<td></td>
<td>29 mm</td>
</tr>
</tbody>
</table>
Wireless 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

Top view

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

Top view

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

Top view

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.
Wireless 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 0-10V control

Product options

<table>
<thead>
<tr>
<th>Daylight sensor</th>
<th>LRF2-DCRB-WH</th>
</tr>
</thead>
</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.

Sensor coverage diagrams

Location for average size areas

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

Location for narrow areas (corridors, private offices)

Arrow points towards the area viewed by the sensor (away from window).

H = Effective window height

Bottom of sensor
Setup support services

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-PRG8-SP</td>
<td>8 hours of onsite setup support</td>
</tr>
<tr>
<td>LSC-OS-PRG4-SP</td>
<td>4 hours of onsite setup support</td>
</tr>
<tr>
<td>LSC-RMT-PRG4-SP</td>
<td>4 hours of remote setup support</td>
</tr>
</tbody>
</table>

**Additional setup support services**

- LSC-ECPREP: EC preparation package consisting of:
  - (1) onsite prewire and
  - (1) post wire termination visit
- LSC-PREWIRE-ONST: Onsite prewire
- LSC-PREWIRE-RMTE: Remote prewire
- LSC-CSO-VST: Customer system orientation visit
- LSC-TRAINING: Customer-site solution training
- LSC-AF-VISIT: Onsite scene and level tuning
- LSC-WALK: Onsite performance—verification walk-through
- LSC-TRAIN-RMTE: Remote supplemental training
- LSC-PRG-AST-RMTE: Remote programming assistance
- LSC-AH-VST: After hours service visit outside of system startup

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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-OS-SU-VIVE</td>
<td>Onsite full-scope startup</td>
</tr>
<tr>
<td>LSC-RMT-SU-VIVE</td>
<td>Remote full-scope startup</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

<table>
<thead>
<tr>
<th>Operational services</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-TRAINING</td>
<td>Customer-site solution training</td>
</tr>
<tr>
<td>LSC-SYSOPT</td>
<td>System optimization service</td>
</tr>
<tr>
<td>LSC-OS-PROG8-EN</td>
<td>8 hours of onsite reconfiguration support</td>
</tr>
<tr>
<td>LSC-OS-PROG4-EN</td>
<td>4 hours of onsite reconfiguration support</td>
</tr>
<tr>
<td>LSC-RMT-PROG4-EN</td>
<td>4 hours of remote reconfiguration support</td>
</tr>
</tbody>
</table>

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 2 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 and available with remote full-scope startup.

Product options

Vive limited warranty

<table>
<thead>
<tr>
<th>Product options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-B2</td>
<td>Commercial System 2-Year Limited</td>
</tr>
</tbody>
</table>

Technology Support Plans (TSPs)

All Lutron TSPs 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

<table>
<thead>
<tr>
<th>Product options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-SILV-IW</td>
<td>Silver Level Technology Support Plan</td>
</tr>
<tr>
<td>LSC-GOLD-IW</td>
<td>Gold Level Technology Support Plan</td>
</tr>
<tr>
<td>LSC-PLAT-IW</td>
<td>Platinum Level Technology Support Plan</td>
</tr>
<tr>
<td>LSC-WNTY-AUD</td>
<td>Warranty Audit Visit</td>
</tr>
</tbody>
</table>

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

Vive warranty information

Vive wireless solutions have a 1-year limited warranty. The customer can register the product to increase the warranty period from 1 year to 5 years 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></td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>100% Replacement Parts</td>
<td></td>
<td>* (2 yrs)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Diagnostic Labor – First Available Response</td>
<td></td>
<td>* (2 yrs)</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 – 48-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>Priority Support Line</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>
## Ordering information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vive wireless hub</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-MOUNT-SM</td>
<td>Surface-mount installation adapter</td>
<td>94.00</td>
</tr>
<tr>
<td>HJS-0-FM</td>
<td>Starter Vive wireless hub, flush mount</td>
<td>1,790.00</td>
</tr>
<tr>
<td>HJS-1-FM</td>
<td>Standard Vive wireless hub, flush mount</td>
<td></td>
</tr>
<tr>
<td>HJS-1-SM</td>
<td>Standard Vive wireless hub, surface mount</td>
<td></td>
</tr>
<tr>
<td>HJS-2-FM</td>
<td>Premium Vive wireless hub, flush mount</td>
<td></td>
</tr>
<tr>
<td>HJS-2-SM</td>
<td>Premium Vive wireless hub, surface mount</td>
<td></td>
</tr>
<tr>
<td><strong>Vive Vue dashboard software</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIVE-VUE</td>
<td>Vive Vue software dashboard license</td>
<td></td>
</tr>
<tr>
<td>HJS-UPDATE</td>
<td>Software upgrade license to add BACnet and API</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>HJS-DEVICE</td>
<td>Software upgrade license expands device limit to 700 devices</td>
<td></td>
</tr>
<tr>
<td><strong>PowPak relay module</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMJS-5R-DV-B</td>
<td>5 A relay</td>
<td>135.00</td>
</tr>
<tr>
<td>RMJS-5RCCO1-DV-B</td>
<td>5 A relay with one contact closure output</td>
<td>150.00</td>
</tr>
<tr>
<td>RMJS-16R-DV-B</td>
<td>16 A relay</td>
<td>155.00</td>
</tr>
<tr>
<td>RMJS-16RCCO1-DV-B</td>
<td>16 A relay with one contact closure output</td>
<td>175.00</td>
</tr>
<tr>
<td><strong>PowPak dimming module</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMJS-8T-DV-B</td>
<td>8 A 0-10V controller-connector</td>
<td>180.00</td>
</tr>
<tr>
<td>RMJS-8TN-DV-B</td>
<td>8 A 0-10V controller-flying leads</td>
<td>180.00</td>
</tr>
<tr>
<td>RMJS-ECCO2-SZ</td>
<td>Single zone EcoSystem/DALI controller</td>
<td>180.00</td>
</tr>
<tr>
<td>RMJS-PNE-DV</td>
<td>Phase Select dimming module</td>
<td>275.00</td>
</tr>
<tr>
<td>RMJS-5T-347</td>
<td>5A 0-10V dimmer for 347V</td>
<td></td>
</tr>
<tr>
<td>5T-347-DIVIDER</td>
<td>Divider for class 1 and class 2 separation</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>RMJS-5R-347</td>
<td>5 A switching only</td>
<td></td>
</tr>
<tr>
<td><strong>PowPak contact closure output module</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMJS-CCO1-24-B</td>
<td>one contact closure output</td>
<td>135.00</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>205.00</td>
</tr>
<tr>
<td>CAR2S-15-DTR</td>
<td>15 A duplex (dual switching; single pole/downstream, 120V</td>
<td>205.00</td>
</tr>
<tr>
<td>CAR2S-20-STR</td>
<td>20 A split (half switching; single pole/downstream, 120V</td>
<td>230.00</td>
</tr>
<tr>
<td>CAR2S-20-DTR</td>
<td>20 A duplex (dual switching; single pole/downstream, 120V</td>
<td>230.00</td>
</tr>
</tbody>
</table>

### Individual fixture control

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCJS-010</td>
<td>0-10V control module</td>
<td>91.00</td>
</tr>
<tr>
<td>FCJS-ECO</td>
<td>EcoSystem control module</td>
<td>91.00</td>
</tr>
<tr>
<td>FCJS-010-BULK8</td>
<td>0-10V control module 8-pack</td>
<td>700.00</td>
</tr>
<tr>
<td>FCJS-ECCO-BULK8</td>
<td>EcoSystem control module 8-pack</td>
<td>700.00</td>
</tr>
<tr>
<td>FC-SENSOR</td>
<td>Occupancy/daylight sensor</td>
<td>40.50</td>
</tr>
<tr>
<td>FC-VSENSOR</td>
<td>Vacancy/daylight sensor</td>
<td>40.50</td>
</tr>
<tr>
<td>DFCSJ-OEM-RF*</td>
<td>Vive integral fixture control (RF only)</td>
<td>67.00</td>
</tr>
<tr>
<td>DFCSJ-OEM-CC*</td>
<td>Vive integral fixture control (with sensing)</td>
<td>78.00</td>
</tr>
</tbody>
</table>

### Emergency wireless load controllers

<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 16A relay</td>
<td>215.00</td>
</tr>
<tr>
<td>RMJS-8T-DV-B-EM</td>
<td>Emergency rated 8 A, 0-10V dimmer</td>
<td>240.00</td>
</tr>
<tr>
<td>FCJS-ECCO-EM</td>
<td>Emergency rated EcoSystem control module</td>
<td>150.00</td>
</tr>
<tr>
<td>FCJS-010-EM</td>
<td>Emergency rated 0-10V control module</td>
<td>150.00</td>
</tr>
<tr>
<td>RMJS-PNE-DV-EM</td>
<td>Emergency rated Phase Select dimming module</td>
<td>325.00</td>
</tr>
<tr>
<td>RMJS-5T-347-EM</td>
<td>Emergency rated 5A, 0-10V controller for 347V</td>
<td></td>
</tr>
<tr>
<td>RMJS-5R-347-EM</td>
<td>Emergency model, 5 A switching only</td>
<td>Contact Lutron sales for a quote</td>
</tr>
</tbody>
</table>

---

*Note:* Pricing accurate as of 09/28/2023. For up to date pricing, contact your Lutron sales representative.

*Note:* Pricing accurate as of 09/28/2023. For up to date pricing, contact your Lutron sales representative.
### Maestro Wireless switches*

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-6ANS-XX</td>
<td>6A lighting, 3A fan (1/10 HP motor), 120V</td>
<td>130.00</td>
</tr>
<tr>
<td>MRF2S-8S-DV-XX</td>
<td>8A lighting, 3A fan (1/10 HP motor, 120V only), spec grade</td>
<td>205.00</td>
</tr>
<tr>
<td>MRF2S-8ANS120-XX</td>
<td>8A lighting, 5.8A fan (1/4 HP motor), spec grade, 120V</td>
<td>170.00</td>
</tr>
</tbody>
</table>

### Maestro Wireless dimmers*

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF2S-6CL-XX</td>
<td>150W dimmable CFL/LED, 600W incandescent, halogen</td>
<td>130.00</td>
</tr>
<tr>
<td>MRF2S-6ELV120-XX</td>
<td>600W ELV, 120V</td>
<td>250.00</td>
</tr>
<tr>
<td>MRF2S-6ND-120-XX</td>
<td>600W/VA incandescent/halogen/MLV, 120V</td>
<td>180.00</td>
</tr>
<tr>
<td>MRF2S-8SD010-XX</td>
<td>0-10V Wallbox dimmer sensor</td>
<td>215.00</td>
</tr>
<tr>
<td>MRF2S-8SS-XX</td>
<td>Wallbox sensor switch</td>
<td>190.00</td>
</tr>
</tbody>
</table>

### Maestro Wireless/Maestro occupancy sensing control companion devices*

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA-AS-XX</td>
<td>Multi-location companion switch, 120V</td>
<td>41.80</td>
</tr>
<tr>
<td>MA-R-XX</td>
<td>Multi-location companion dimmer, 120V</td>
<td>33.00</td>
</tr>
</tbody>
</table>

### Maestro Colors

**Gloss Colors**
- White (WH)
- Ivory (IV)
- Almond (AL)
- Light Almond (LA)
- Gray (GR)
- Brown (BR)
- Black (BL)

**Satin Colors (Prices vary from Gloss Colors)**
- Snow White (SW)
- Midnight (MN)
- Taupe (TP)
- Biscuit (BL)
- Palladium (PD)
- Hot (HT)

### Pico wireless remotes*

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJ2-2BRL-XXX-L01</td>
<td>2-button with raise/lower</td>
<td>27.00</td>
</tr>
<tr>
<td>PJ2-2B-XXX-L01</td>
<td>2-button</td>
<td>27.00</td>
</tr>
<tr>
<td>PJN-2B-GXX-L01</td>
<td>Nightlight 2-button</td>
<td>65.00</td>
</tr>
<tr>
<td>PJ2-3BRL-XXX-L01</td>
<td>3-button with raise/lower</td>
<td>27.00</td>
</tr>
<tr>
<td>PJ2-3B-XXX-L01</td>
<td>3-button</td>
<td>27.00</td>
</tr>
<tr>
<td>PJN-3BRL-GXX-L01</td>
<td>Nightlight 3-button with raise/lower</td>
<td>65.00</td>
</tr>
<tr>
<td>PJ2-4B-XXX-L21</td>
<td>4-button with 2 group control</td>
<td>45.00</td>
</tr>
<tr>
<td>PJ2-4B-XXX-L01</td>
<td>4-button with zone control</td>
<td>27.00</td>
</tr>
<tr>
<td>PJ2-4B-XXX-L31</td>
<td>4-button with scene control</td>
<td>45.00</td>
</tr>
</tbody>
</table>

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

**Pico line-powered wireless controls**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUL-2B-GXX-L01</td>
<td>2-button</td>
<td>100.00</td>
</tr>
<tr>
<td>PUL-2BR-LXX-L01</td>
<td>2-button with raise/lower</td>
<td>100.00</td>
</tr>
<tr>
<td>PUL-3BRL-GXX-L01</td>
<td>3-button with raise/lower</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Pico accessories**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICO-WBX-ADAPT</td>
<td>Pico wireless remote wallbox adapter</td>
<td>9.50</td>
</tr>
<tr>
<td>PICO-347VBX-ADAPT</td>
<td>Pico wireless remote wallbox adapter for 347V</td>
<td>5.00</td>
</tr>
<tr>
<td>CW-1-XX</td>
<td>Claro 1-gang wallplate</td>
<td>5.00</td>
</tr>
<tr>
<td>CW-2-XX</td>
<td>Claro 2-gang wallplate</td>
<td>10.00</td>
</tr>
<tr>
<td>CW-3-XX</td>
<td>Claro 3-gang wallplate</td>
<td>15.20</td>
</tr>
<tr>
<td>CW-4-XX</td>
<td>Claro 4-gang wallplate</td>
<td>21.00</td>
</tr>
<tr>
<td>L-PED1-XX**</td>
<td>Pico wireless remote single pedestal</td>
<td>16.20</td>
</tr>
<tr>
<td>L-PED2-XX**</td>
<td>Pico wireless remote double pedestal</td>
<td>30.00</td>
</tr>
<tr>
<td>L-PED3-XX**</td>
<td>Pico wireless remote triple pedestal</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Pico Colors**

**Gloss Colors**
- White (WH)
- Light Almond (LA)
- Black (BL)
- Snow (SW)
- Ivory (IV)
- White/Gray (WG)
- Biscuit (BL)

**Satin Colors**
- Midnight (MN)

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

Note: Pricing accurate as of 09/28/2023. For up to date pricing, contact your Lutron sales representative.
### 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>105.00</td>
</tr>
<tr>
<td>LRF2-OWLBP-WH</td>
<td>Wall-mount, 180° field-of-view, occupancy/vacancy sensor</td>
<td>105.00</td>
</tr>
<tr>
<td>LRF2-OXLB-P-WH</td>
<td>Corner-mount, 90° field-of-view, occupancy/vacancy sensor</td>
<td>105.00</td>
</tr>
<tr>
<td>LRF2-OXLB-P-WH</td>
<td>Hallway, occupancy/vacancy sensor</td>
<td>105.00</td>
</tr>
<tr>
<td><strong>Occupancy/vacancy sensor accessories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-CMDPRKIT</td>
<td>Sensor lens masking kit for Radio Powr Savr ceiling sensor</td>
<td>15.00</td>
</tr>
<tr>
<td>L-CRMK-WH</td>
<td>Recess-mounting bracket for Radio Powr Savr ceiling sensor</td>
<td>21.50</td>
</tr>
<tr>
<td>L-RFARM-WH</td>
<td>Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors</td>
<td>74.00</td>
</tr>
<tr>
<td>L-WIRECAGE-WBX</td>
<td>Wire guard for in-wall sensor, white</td>
<td>80.00</td>
</tr>
<tr>
<td>L-WIRECAGE-C</td>
<td>Wire guard for ceiling-mount sensor, white</td>
<td>80.00</td>
</tr>
<tr>
<td>L-WIRECAGE-W</td>
<td>Wire guard for wall-mount and hallway sensors, white</td>
<td>80.00</td>
</tr>
<tr>
<td><strong>Radio Powr Savr daylight sensor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LRF2-DCRB-WH</td>
<td>Ceiling-mount daylight sensor</td>
<td>150.00</td>
</tr>
<tr>
<td><strong>Wallplates</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CW-1-XX</td>
<td>Claro 1-gang wallplate</td>
<td>5.00</td>
</tr>
<tr>
<td>CW-2-XX</td>
<td>Claro 2-gang wallplate</td>
<td>10.00</td>
</tr>
<tr>
<td>CW-3-XX</td>
<td>Claro 3-gang wallplate</td>
<td>15.20</td>
</tr>
<tr>
<td>CW-4-XX</td>
<td>Claro 4-gang wallplate</td>
<td>21.00</td>
</tr>
</tbody>
</table>

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

**Note:** Pricing accurate as of 09/28/2023. For up-to-date pricing, contact your Lutron sales representative.

---

### Vive startup services

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</tr>
<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>
<td></td>
</tr>
</tbody>
</table>

### Vive setup support services

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</tr>
<tr>
<td>LSC-RMT-PROG8-SP</td>
<td>Remote programming — 8-hour block</td>
<td></td>
</tr>
<tr>
<td>LSC-PREWIRE</td>
<td>Prewire visit</td>
<td></td>
</tr>
<tr>
<td>LSC-TRAINING</td>
<td>Customer-site solution training</td>
<td></td>
</tr>
<tr>
<td>LSC-AF-VISIT</td>
<td>Onsite scene and level tuning</td>
<td></td>
</tr>
<tr>
<td>LSC-WALK</td>
<td>Onsite performance-verification walkthrough</td>
<td></td>
</tr>
</tbody>
</table>

### Vive operational services

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</tr>
<tr>
<td>LSC-OS-PROG8-EN</td>
<td>8 hours of onsite reconfiguration support</td>
<td></td>
</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>
<td></td>
</tr>
</tbody>
</table>

### Vive limited warranty and technology support plans

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSC-B2</td>
<td>Commercial system limited warranty</td>
<td>Contact Lutron sales for a quote</td>
</tr>
<tr>
<td>LSC-SILV-IW</td>
<td>Silver level technology support plan</td>
<td></td>
</tr>
<tr>
<td>LSC-GOLD-IW</td>
<td>Gold level technology support plan</td>
<td></td>
</tr>
<tr>
<td>LSC-PLAT-IW</td>
<td>Platinum level technology support plan</td>
<td></td>
</tr>
<tr>
<td>LSC-WARR-AUD</td>
<td>Warranty audit visit</td>
<td></td>
</tr>
</tbody>
</table>
In-wall: Occupancy/vacancy switches

Other energy-saving devices by Lutron

These devices do not integrate with the Vive system

---

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 Smart Ambient Light Detection learns your preferences over time and adapts accordingly
- Lutron 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

Product options

Maestro sensor switch

- **Maestro sensor switch**

Dimensions

- W: 2.94" (75mm)
- H: 4.69" (119mm)
- D: 1.44" (38mm)

Maestro dual-circuit sensor switch

- **Maestro dual-circuit sensor switch**

Dimensions

- W: 2.94" (75mm)
- H: 4.69" (119mm)
- D: 1.44" (38mm)

---

Standalone Solutions

**Product options**

**Maestro sensor switch**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OPS2-XX**</td>
<td>2A lighting, 120V PIR occupancy/vacancy; single pole, neutral optional</td>
</tr>
<tr>
<td>MS-OPS5M-XX**</td>
<td>5A lighting, 120V PIR occupancy/vacancy; 3A fan, multi-location/3-way/single pole, no neutral</td>
</tr>
<tr>
<td>MS-OPS6M2-DV-XX**</td>
<td>6A lighting, 120-277V PIR occupancy/vacancy, 3A fan multi-location/3-way/single pole (120V only); neutral optional</td>
</tr>
</tbody>
</table>

**Maestro dual-circuit sensor switch**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OPS6-DDV-XX**</td>
<td>6A lighting per circuit, 120-277V PIR dual-circuit occupancy/vacancy; 4.4A fan (120V only) per circuit; single pole, neutral optional</td>
</tr>
</tbody>
</table>

---

* Vacancy-only models available. Replace the "O" in the model number with a "V".

** (XX in the model number represents color/finish code; use WH for White.) See Maestro colors on page 70.
**In-wall: Occupancy/vacancy switches**

**Maestro dual-technology sensor switch**

**Dimensions**
- W: 2.94” (75 mm)
- H: 4.69” (119 mm)
- D: 1.44” (38 mm)

**Maestro dual-technology, 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 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 Smart Ambient Light Detection learns your preferences over time and adapts accordingly
- Lutron 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-minute
- 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

**Product options**

**Maestro sensor switch**

- **MS-A102-XX**
  - 6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); single pole, neutral optional
- **MS-B102-XX**
  - 6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); multi-location/3-way, neutral required

**Maestro dual-circuit sensor switch**

- **MS-A202-XX**
  - 6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; single pole, neutral optional
- **MS-B202-XX**
  - 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

* For dual-tech or 0-10 V vacancy models, add “-V-” before the color code (XX).
** (XX in the model number represents color/finish code; use WH for Whites.) See Maestro colors on page 70.

**Maestro dual-technology, dual-circuit sensor switch**

**Dimensions**
- W: 2.94” (75 mm)
- H: 4.69” (119 mm)
- D: 1.44” (38 mm)

**0-10 V dimmer sensor**

**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 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-minute
- Vacancy models available to meet CA Title 24 requirements
- 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 Adaptive Zero-Cross Switching extends relay lifetime

**Product options**

**0-10 V dimmer sensor**

- **MS-Z101-XX**
  - 8 A lighting 120-277 V; occupancy/vacancy; multi-location/3-way/single pole

* For dual-tech or 0-10 V vacancy models, add “-V-” before the color code (XX).
** (XX in the model number represents color/finish code; use WH for White.) See Maestro colors on page 70.
**In-wall: Occupancy/vacancy switches**

### Features and benefits
- Standalone solutions are not compatible with the Vive hub
- LED+ dimmer for control of LED lighting

### Product options
**LED+ dimmer sensor**
- MSCL-OP153M-XX: LED+ dimmer with PIR sensor; occupancy/vacancy; multi-location/3-way/single pole; 150 W CFL/LED, 600 W incandescent/halogen

### 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 (1.8 and 2.4 m).

---

### Model number

<table>
<thead>
<tr>
<th>Model number</th>
<th>Description</th>
<th>List Price (US)</th>
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<tbody>
<tr>
<td><strong>Sensor switches</strong></td>
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<tr>
<td>MS-OPS2-XX</td>
<td>2 A lighting, 120 V PIR occupancy/vacancy; single pole, neutral optional</td>
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<td>MS-OPS5M-XX</td>
<td>5 A lighting, 120 V PIR occupancy/vacancy; 3 A fan, multi-location/3-way/single pole, neutral optional</td>
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<td>MS-OPS6M2-DV-XX</td>
<td>6 A lighting, 120-277 V PIR occupancy/vacancy; 3 A fan (120 V only); neutral optional</td>
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<td><strong>Dual-circuit sensor switches</strong></td>
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<td></td>
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<tr>
<td>MS-OPS6-DDV-XX</td>
<td>6 A lighting per circuit, 120-277 V PIR dual-circuit occupancy/vacancy; 4.4 A fan (120 V only) per circuit; single pole</td>
<td>96.60</td>
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<tr>
<td>MS-PPS6-DDV-XX</td>
<td>6 A lighting per circuit, 120-277 V PIR dual-circuit partial-on occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole</td>
<td>96.60</td>
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<td><strong>Dual-technology sensor switches</strong></td>
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<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, neutral optional</td>
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<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>
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<tr>
<td><strong>Dual-technology dual-circuit sensor switches</strong></td>
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</tr>
<tr>
<td>MS-A202-XX</td>
<td>6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole, neutral optional</td>
<td>135.50</td>
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<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>135.50</td>
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<td><strong>Sensor dimmers</strong></td>
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<tr>
<td>MS-Z101-XX</td>
<td>8 A lighting 120-277 V; occupancy/vacancy; multi-location/3-way/single pole</td>
<td>120.00</td>
</tr>
<tr>
<td>MSCL-OP153M-XX</td>
<td>LED+ dimmer with PIR sensor; occupancy/vacancy; single pole/3-way/multi-location; 150 W CFL/LED, 600 W incandescent/halogen</td>
<td>57.20</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].

Note: Pricing accurate as of 09/28/2023. For up-to-date pricing, contact your Lutron sales representative.
For a list of all Vive wireless solutions product model numbers and pricing see lutron.com/vive