

## Vive 347 V~ Dimming Module with 0–10 V<sub>DC</sub> Control

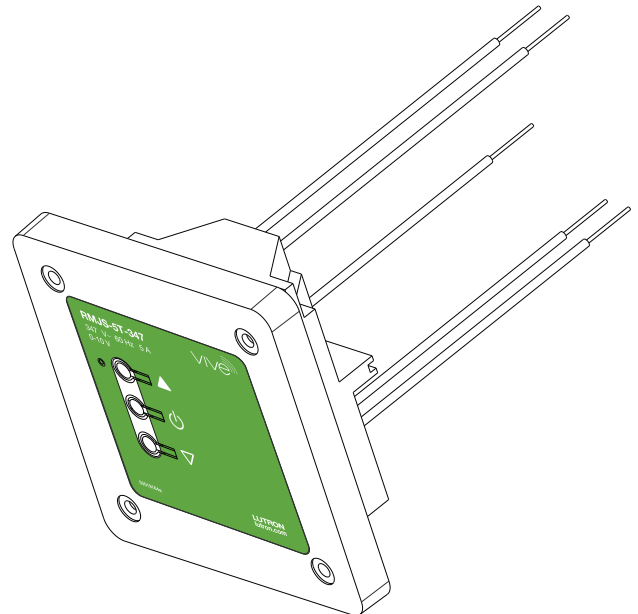
The Vive 347 V~ Dimming Module with 0–10 V<sub>DC</sub> control is a radio frequency (RF) control that operates 0–10 V<sub>DC</sub> controlled fluorescent ballasts or LED drivers based on input from Pico remote controls and Radio Powr Savr sensors. The dimming module with 0–10 V<sub>DC</sub> control is ideal for small areas (e.g., classrooms, conference rooms, private offices).

Communication with RF input devices (e.g., Pico remote controls, Radio Powr Savr sensors) is accomplished by using Lutron Clear Connect RF Technology.

These products are also compatible with the Vive hub which enables an app-based or simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet or computer. It also enables control and monitoring of all Vive devices. The Vive hub can be added at any time. System reprogramming will be required. For a complete list of features supported with the Vive hub, see specification submittal 369902 at [www.lutron.com](http://www.lutron.com)

### Features

- Controls up to 60 mA of 0–10 V<sub>DC</sub> controlled fixtures together
- Model available for use with emergency lighting. See App Note 048628 at [www.lutron.com](http://www.lutron.com)
- Switches up to 5 A total of LED drivers or fluorescent ballasts
- Works with all ballasts and drivers that provide a current source that is compliant to IEC 60629 Annex E.2, and whose inrush current does not exceed NEMA410 standards for electronic ballast/driver
- 0–10 V<sub>DC</sub> control link (current sink only)
- Configurable high- and low-end trim
- Receives wireless inputs from up to 10 Pico remote controls, 10 Radio Powr Savr occupancy/vacancy sensors, and 1 Radio Powr Savr daylight sensor
- For connecting to non-dim loads, call Lutron or see App Note P/N 048753 on [www.lutron.com](http://www.lutron.com)



RMJS-5T-347 (shown)

- Utilizes Lutron Clear Connect RF Technology
- Mounts in a standard 101.6 mm x 101.6 mm (4 in x 4 in) junction box.  
**(NOTE: must use metal junction box, minimum depth 53.975 mm (2.125 in))**
- For mounting a Pico to a 347 V~ wallbox, use Lutron model number PICO-347WBX-ADAP. Refer to <https://www.lutron.com/TechnicalDocumentLibrary/347VWallBoxAdapterInstallationInstructions.pdf>. Note: A 347 V~ designer-opening wallplate is required (not supplied by Lutron; for example, Hubbell® HPS1347W).
- For more information on this and related products, refer to <http://www.lutron.com/TechnicalDocumentLibrary/048753.pdf>

<p>Job Name:</p>  <p>Job Number:</p>	<p>Model Numbers:</p>
--	-----------------------

## Models

Model Number	Region	Operating Voltage	Frequency Band
RMJS-5T-347	Canada	347 V~	431.0–437.0 MHz
RMJS-5T-347-EM	Canada	347 V~	431.0–437.0 MHz

Job Name:	Model Numbers:
Job Number:	

## Specifications

### Regulatory Approvals

- cULus 508 Listed
- CSA C22.2 No. 141-15 Listed (RMJS-5T-347-EM only)
- Complies with the limits for a Class B device, pursuant to IC and FCC rules
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC® 2014 300.22 (C) (3)
- Listed in accordance to CAN/ULC-S142 standard method of fire test for heat and visible smoke release for discrete products

### Power

- Operating voltage  
347 V~ 60 Hz

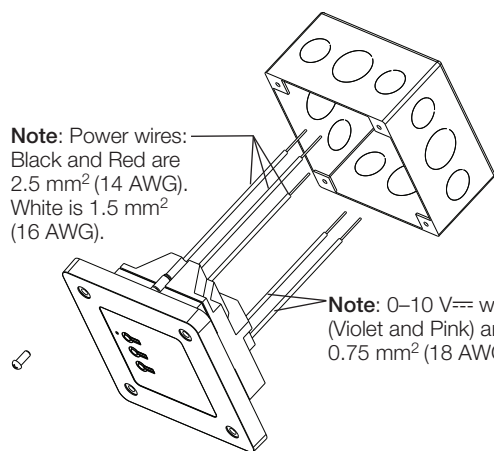
### Output Ratings

- Switch rating of 5 A. Rated for 0–10 V== electronic driver and ballast loads as defined by IEC/EN 60669-2-1
- 0–10 V== control link for 60 mA maximum output, sink only
- Output must not be used to control receptacles
- Output must be directly connected to the load
- Output breakers or switches must not be used

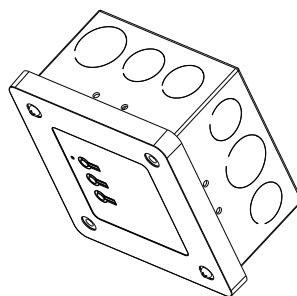
### Other Power Specifications

- Standby power:  
– 347 V~ 610 mW
- BTU/hour when fully loaded: 9
- Works with all ballasts and drivers that provide a current source that is compliant to IEC 60629 Annex E.2, and whose inrush current does not exceed NEMA410 standards for electronic ballast/driver

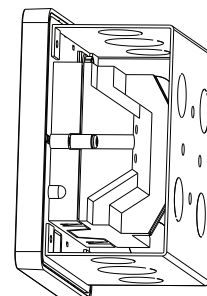
## Installation



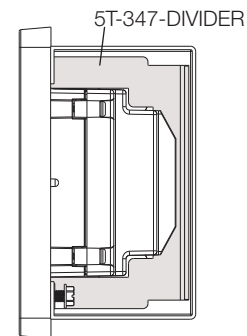
**Note:** 0–10 V== wires (Violet and Pink) are 0.75 mm<sup>2</sup> (18 AWG)



**Note:** 101.6 mm x 101.6 mm (4 in x 4 in) junction box not provided by Lutron



Cutaway of fully seated product in junction box



Cutaway of product in junction box, with 5T-347-DIVIDER

### Mounting

- This device must be installed into a metal junction box using two screws. The device must be mounted such that the backcover is inside the 101.6 mm x 101.6 mm (4 in x 4 in) junction box and the front faceplate is outside the 101.6 mm x 101.6 mm (4 in x 4 in) junction box (see diagrams below). Improper installation can result in degraded wireless communications and intermittent or sustained communications failures and will not be covered under warranty. For all other installations, refer to the installation instructions and consult local and national electric codes for proper installation. The front of the dimming module needs to be accessible for some programming steps. Record where it is mounted so that it can be easily located later.

### System Communication

- Operates using Clear Connect RF Technology for reliable wireless communication; refer to model number chart on page 2 for frequency band details
- Wireless sensors and controls must be located within 18 m (60 ft) line of sight, or 9 m (30 ft), through walls, of the associated control module. The 18 m (60 ft) range is not reduced by a ceiling tile obstruction.

### Environment

- Ambient operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
- 0% to 90% humidity, non-condensing
- For indoor use only
- All drivers and ballasts used with Vive wireless controls must comply with the limits device pursuant to CAN ICES-005 and the FCC Rules

**Note:** If local wiring code requires separation of Class 1 and Class 2 wires, use Lutron model number 5T-347-DIVIDER (sold separately). In this case it is recommended, to facilitate installation, that the dimming module with divider be mounted in a separate junction box. See 048753 on [www.lutron.com](http://www.lutron.com) for other options or refer to <https://www.lutron.com/TechnicalDocumentLibrary/5T347DividerInstallationInstructions.pdf> for more information.

Job Name:	Model Numbers:
Job Number:	

## Specifications *(continued)*

### 0–10 V<sub>DC</sub> Control Link

- Communicates with up to 60 mA of fixtures
- Control link is IEC SELV/NEC® Class 2
- 0–10 V<sub>DC</sub> control can be installed using CEC/NEC® Class 1 or Class 2 wiring methods. Alternately, it can be wired to basic or double-insulated devices
- Always consult local wiring codes
- Compatible with ANSI E1.3 2001 (R2006), IEC 60929 Annex E

### Emergency Model Sequence of Operation

#### With a Vive hub:

- **Normal mode:** The RMJS-5T-347-EM can dim loads as normal and respond to local button presses, Pico remote controls, and occupancy/daylight sensors.
- If the emergency dimming module loses power for greater than about 1 second, it will automatically go into emergency mode (full output, relay closed), when emergency power is restored to the dimming module, for as long as the Vive hub has no power. All local buttons, Pico remote controls and occupancy/daylight sensors will not respond. The emergency light level of the emergency dimming module can be configured using the Vive hub.
- When normal power is restored to the Vive hub and emergency dimming module, the emergency dimming module will return to the previous light level in most cases within 3 minutes, but guaranteed within 10 minutes of normal power being restored. It will again accept local button control, input from Pico remote controls, and occupancy/daylight sensors.

#### Without a Vive hub:

- **Normal mode:** The RMJS-5T-347-EM can dim loads as normal and respond to local button presses, Pico remote controls, and occupancy/daylight sensors.
- If the emergency dimming module loses power for greater than about 1 second, it will automatically go into emergency mode (full output, relay closed) for 120 minutes, when emergency power is restored to the dimming module. All local buttons, Pico remote controls and occupancy/daylight sensors will not respond for 120 minutes.
- When normal power is restored, the emergency dimming module will remain in emergency mode for 120 minutes (full output, relay closed). It will then return to the previous light level and accept local button control, inputs from Pico remote controls, and occupancy/daylight sensors.

### Default Operation

- Associated wireless input devices control all connected fixtures together
- Occupancy Sensors:
  - Occupied: 100%; Unoccupied: 0% (OFF)
- Pico Remote Controls:
  - On: 100%; Favorite Level: 50%; Off: 0% (OFF)
- Daylight Sensor: Decreases electric light in response to additional available daylight

### Key Design Features

- LED status indicator shows load status and provides programming feedback
- Configurable high-end and low-end trim
- Power failure memory: If power is interrupted, connected loads will return to the level prior to interruption
- The Off level (minimum light level) can be set in standalone (non-hub) mode.
- Zero fade time feature available

### Warranty

- 1 year limited warranty. The customer can register the product to increase the warranty period from 1 year to 5 years. Please visit [www.lutron.com/TechnicalDocumentLibrary/369-119\\_Wallbox\\_Warranty.pdf](http://www.lutron.com/TechnicalDocumentLibrary/369-119_Wallbox_Warranty.pdf) for warranty details.

### Programming

Note that some programming will be lost if done before adding to a Vive system. See more details on [http://www.lutron.com/TechnicalDocumentLibrary/369902\\_ENG.pdf](http://www.lutron.com/TechnicalDocumentLibrary/369902_ENG.pdf)

Job Name:	Model Numbers:
Job Number:	

### Advanced Configurations (can all be configured locally)

#### Pico Remote Controls

- Supports up to 10 Pico remote controls
- Separate favorite levels can be set for each Pico remote control

#### Radio Powr Savr Daylight Sensor

- Supports up to one Radio Powr Savr daylight sensor
- The Radio Powr Savr daylight sensor will affect all connected ballast and LED drivers equally
- For multiple rows of daylighting, a separate dimming module with 0–10 V<sub>DC</sub> must be used for each daylighting row
- **Note:** A Radio Powr Savr daylight sensor will only be able to trigger non-dim (switched) loads to turn on and off

#### Minimum Light Level Setting (optional) (can also be configured with the Vive hub)

- Certain applications, such as hallways, may require that the lights never turn off. For these areas, adjust the minimum light level option and the load will lower to programmed low-end level. Default operation lowers to OFF.

#### High- and Low-End Trim (can also be configured with the Vive hub)

- High-end and low-end trim affect all connected fixtures equally, and can be configured from the dimming module.
- Adjustable low-end trim (0%–45%). Trimmable low-end can ensure a stable light level. Some fixtures will flicker or drop out if trimmed too low.
- The maximum light output of connected fixtures can be decreased down to 55% for energy savings in over-lit spaces.


**Note:** The perceived light output of low-end trim may vary between fixture manufacturers and model numbers. For best results, do not mix different ballasts or drivers on the same 0–10 V<sub>DC</sub> circuit.

### Radio Powr Savr Occupancy Sensors

- Supports up to 10 Radio Powr Savr occupancy or vacancy sensors.
- Radio Powr Savr occupancy and vacancy sensors control all connected ballasts or drivers.
- Pico remote controls can be used to adjust the occupied levels of fixtures that they control from 1% to 100% (of output signal) or can make them unaffected by occupancy events.
- Vacancy events (area becomes unoccupied) turn all ballasts and driver models off or to minimum light level.

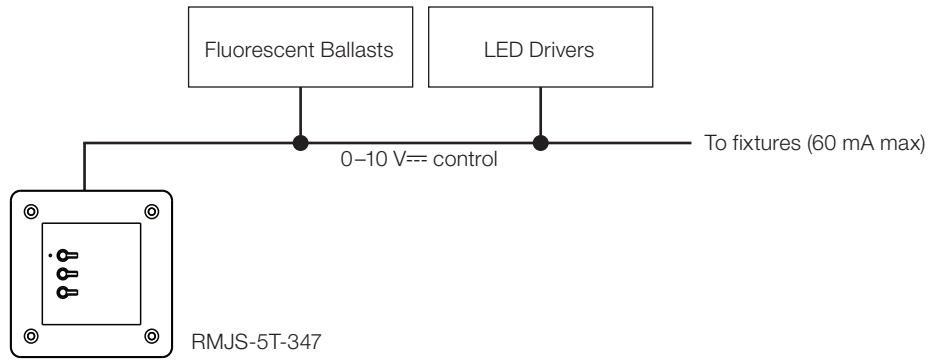
<p><b>Job Name:</b></p> <p><b>Job Number:</b></p>	<p><b>Model Numbers:</b></p>
--	------------------------------

# System Diagram

 Pico Remote Control (up to 10)

 Radio Powr Savr Occupancy Sensor (up to 10)

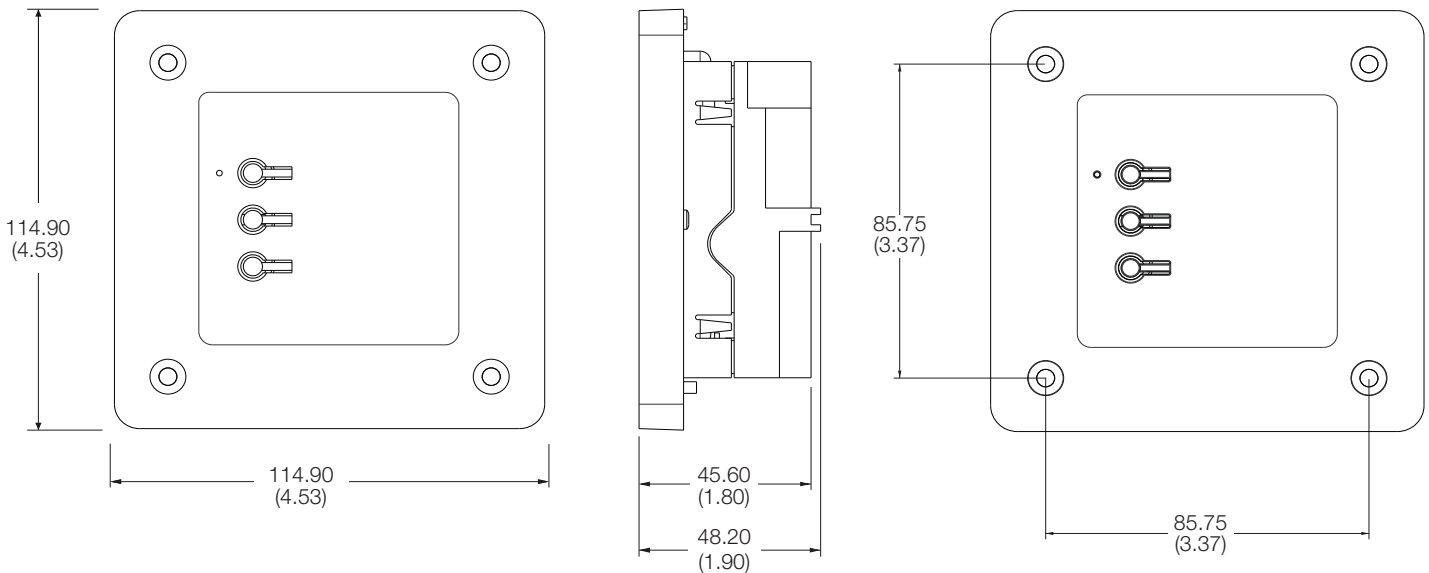
 Radio Powr Savr Daylight Sensor (up to 1)



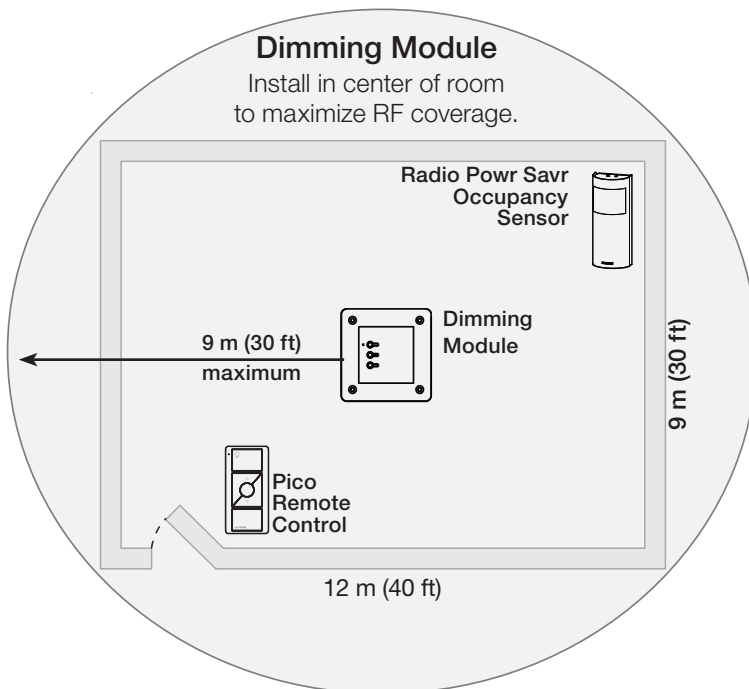
Job Name:  Job Number:	Model Numbers:
------------------------------	----------------

## Dimensions

Dimensions are shown as: mm (in)



## Range Diagram



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

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

Lutron, Lutron, Clear Connect, Pico, Radio Powr Savr, and Vive are trademarks or registered trademarks of Lutron Electronics Co., Inc. in the US and/or other countries.

All other product names, logos, and brands are property of their respective owners.

Job Name:	Model Numbers:
Job Number:	