Vive Installation

Vive Phase Selectable Dimming Module
Vive Emergency Phase Selectable Dimming Module

Part of the Vive Family

041769
Rev. A
11/2020

RMJS-PNE-DV
RMJS-PNE-DV-EM

120 / 277 V∼ 50 / 60 Hz

450 W Incandescent/Halogen
450 VA LED (reverse-phase)
3 A Lutron Hi-lume A-series LTE (13 drivers max)
200 W LED NEMA SSL 7A-2015
450 W ELV
400 W MLV
400 VA Fluorescent

Important Notes: *Please read before installing.*
For installation by a qualified electrician in accordance with all local and national electrical codes.
- **Note:** Use copper conductors only.
- Check to see that the device type and rating is suitable for the application.
- **DO NOT** install if product has any visible damage.
- If moisture or condensation is evident, allow the product to dry completely before installation.
- Operate between 0 °C and 40 °C (32 °F and 104 °F) ambient.
- 0% to 90% humidity, non-condensing.
- For indoor use only.
- For spec submittal, see http://www.lutron.com/TechnicalDocumentLibrary/3691150.pdf
- Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature failure. Lutron strongly recommends the following:
  a. Do not operate low-voltage circuits without operative lamps in place.
  b. Replace burned-out lamps as quickly as possible.
  c. Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.

IMPORTANT SAFEGUARDS
When using electrical equipment, basic safety precautions should always be followed including the following:
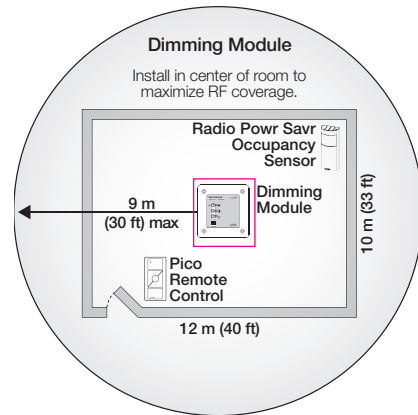
READ AND FOLLOW ALL SAFETY INSTRUCTIONS
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than its intended use.
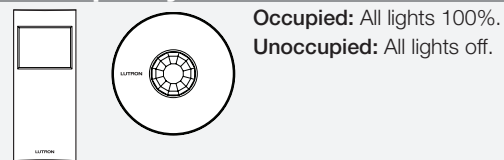
SAVE THESE INSTRUCTIONS

English

Dimming Module
Install in center of room to maximize RF coverage.

Radio Powr Savr Occupancy Sensor

Dimming Module

9 m (30 ft) max

10 m (33 ft)

12 m (40 ft)

Pico Remote Control

All Wireless Transmitters must be installed within 9 m (30 ft) of the Dimming Module.

Required Components
For each system, ensure that you have:

One Dimming Module

Indicator LED

- Raise
- Toggle
- Lower

RMJS-PNE-DV
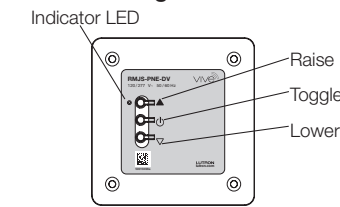
Dimming Module (1 maximum)

+

At least one Wireless Transmitter
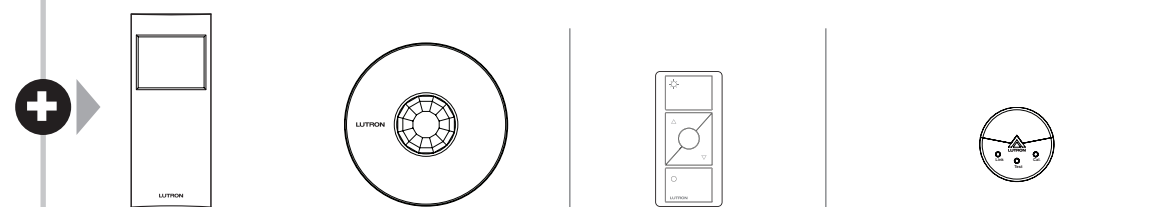
Radio Powr Savr Occupancy/Vacancy Sensor (10 maximum)

Pico Remote Control (10 maximum)

Radio Powr Savr Daylight Sensor (1 maximum)

+

At least one phase dimmable lighting load (incandescent, halogen, LED, fluorescent, ELV, or MLV)
Consult third-party fixtures installation guide for fixture-specific wiring.
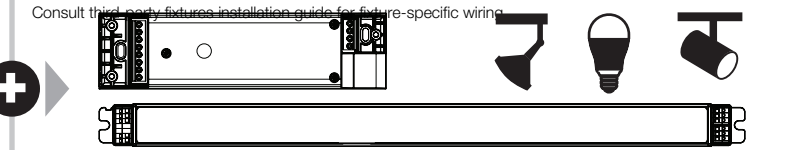
Note: All drivers and ballasts used with Vive wireless controls must comply with the limits pursuant to CAN ICES-005 and the FCC rules.

Start Here

1 Mount, Wire, and Install Phase Dimmable Devices and Lighting Fixtures
Consult third-party device installation guide

⚠ **WARNING! Shock Hazard.** May result in serious injury or death. Turn off power at circuit breaker before installing the unit.

A Connect mains wiring (switched hot, neutral, dimmed hot) to each fixture.

Green/Yellow — Fixture Earth
Neutral
Dimmed Line/Hot

NEU
MAINS
HOT

Sample ballast shown
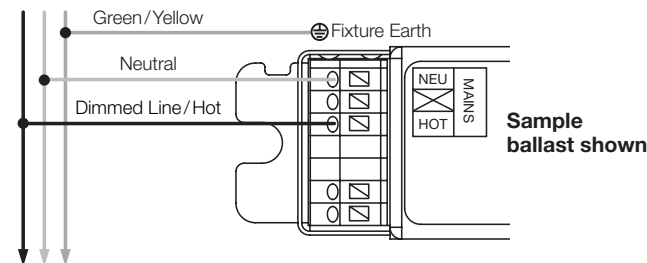
To additional fixtures

NOTE: Output must NOT be used to control receptacles. Output must be directly connected to the load. Output breakers or switches must not be used.

Wire Connector Information

Red	13 mm (1/2 in): 4.0, 2.5, & 1.5 mm² (10, 12, & 14 AWG)	(1-3) 4.0 mm² (10 AWG) (1-3) 2.5 mm² (12 AWG) (1-3) 1.5 mm² (14 AWG)
	16 mm (5/8 in): 1.0 & 0.75 mm² (16 & 18 AWG)	(1-2) 4.0 mm² & (1) 2.5 mm² (10 & 12 AWG) (1-2) 4.0 mm² & (1) 1.5 mm² (10 & 14 AWG) (1-2) 2.5 mm² & (1) 1.5 mm² (12 & 14 AWG) (1-2) 4.0 mm² & (1) 1.0 mm² (10 & 16 AWG) (1-2) 2.5 mm² & (1) 1.0 mm² (12 & 16 AWG) (1-2) 1.5 mm² & (1) 1.0 mm² (14 & 16 AWG) (1-2) 4.0 mm² & (1) 0.75 mm² (10 & 18 AWG) (1-2) 2.5 mm² & (1) 0.75 mm² (12 & 18 AWG) (1-2) 1.5 mm² & (1) 0.75 mm² (14 & 18 AWG)

3 Phase Selection
Proper phase selection depends upon load type. See Side 2 of this sheet for selecting the phase. Default phase is reverse-phase.
MLV: Change to forward-phase.
Fluorescent ballasts: Change to forward-phase (consult specific manufacturer's literature)
LED: Consult manufacturer's literature. Some LED drivers require forward-phase, some require reverse-phase.
Lutron LTE drivers: Change to forward-phase. Load will fade to full ON.
PHPM-PA-120, PHPM-PA-DV, and PHPM-PA-277/-DV: change to forward-phase.

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2 Install Dimming Module
Suggested Installation Location: Center of room to ensure proper RF coverage of area.
For optimal RF performance: Module must not be fully enclosed in metal. No metal should exist anywhere within 200 mm (8 in) in front of the front plate of the module. Mount a minimum of 0.6 m (2 ft) away from the controlled fixture. Ensure the junction box is well grounded (preferably via a metal conduit between the controlled fixture and the module junction box).

A Dimming Module must be installed in a metal 101.6 mm x 101.6 mm (4 in x 4 in) junction box (minimum depth 54 mm (2.125 in) with mounting screws (provided). Please consult local and national electric codes for proper installation. Lutron can provide a barrier, if required, to provide separation in the junction box between Class 1 and Class 2 wires. **Note:** if module cannot be fully seated into the junction box, try rotating the module 90, 180, or 270 degrees. Or move conduit hardware to a different knockout hole. If neither option works, an extension ring may be required.

B Connect bare copper wire from junction box to green ground screw.

C Once installed, energize the Dimming Module.

D Use the **Toggle** button "⏻" to toggle between high-end and OFF to verify ballasts or LED drivers wiring.

E Use the **Raise** "▲" and **Lower** "▽" buttons to verify control wiring.

200 mm (8 in)
Keep metal at least 200 mm (8 in) away

Junction Box

Line/Hot (Black)
Neutral
Dimmed Line/Hot (Red)
Neutral (White) — To Fixtures

RMJS-PNE-DV

Note: RMJS-PNE-DV-EM requires the use of an automatic transfer switch to change from normal to emergency power. Refer to 048628 for wiring diagrams on www.lutron.com
If installing an emergency Dimming Module and the wiring needs to be verified, follow "Reset Factory Defaults" procedure to exit emergency mode.
Please note that any programming will be lost and will have to be reprogrammed. Only perform this step during initial installation and wiring verification.
Note: For periodic testing and maintanance of emergency systems, use the toggle button to ensure proper operation. Make sure buttons remain accessible.
Note: Momentary power outages can envoke emergency mode on the dimming module. SeeTroubleshooting section for details.

4 Programming with a Vive Hub
The Vive hub can be set-up easily with any Wi-Fi enabled iOS® or Android® compatible device.

A Download the Lutron Vive app.

Download on the App Store
GET IT ON Google Play

B Open the app and follow the instructions.
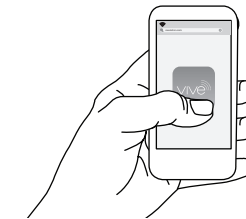
Note: For further information on set up, programming, and troubleshooting with a Vive system, please refer to the installation instructions included with the Vive hub or visit www.lutron.com/vive

Note: For programming the Dimming Module without a Vive hub see reverse side.

Default Functionality

Occupancy Sensors
Occupied: All lights 100%.
Unoccupied: All lights off.

Daylight Sensor
All lights dim in response to daylight.

Wireless Controls

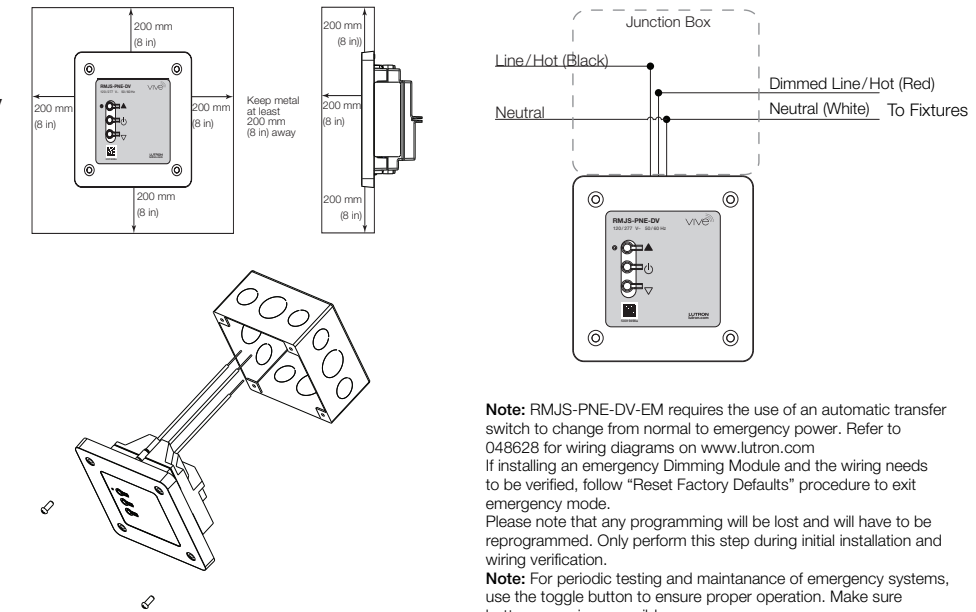| On	All lights 100%
Favorite	All lights 50%
Off	All lights off

Troubleshooting

Fixtures cannot be controlled locally from Dimming Module.	• Ensure that the breaker(s) to the Dimming Module are energized. • Ensure that the Dimming Module dimmed hot lead is wired to the lighting fixture(s). • Dimming Module may be in emergency mode.
	Reset to factory defaults.
Lights do not dim as expected.	• Ensure that dimmed hot line is wired properly. • Dimming Module may be in emergency mode.
Lights do not respond to Wireless Transmitter(s) (Pico remotes and RPS sensors).	• Ensure that the breaker(s) to the Dimming Module and any connected ballasts or LED drivers are energized. • Ensure that Wireless Transmitters are associated to the Dimming Module.
	Reset to factory defaults.
Lights are unstable at low-end (or high-end) or flash/flicker at turn-on or turn-off.	• Adjust low-end (or high-end) trim.
Wireless Transmitter(s) cannot be associated to Dimming Module.	• The maximum number of Wireless Transmitters have been associated to the Dimming Module. To remove a previously set up Wireless Transmitter, tap a Wireless Transmitter button three times; on the third tap hold for three seconds and then tap three more times.

Installation
Programming without a Vive Hub
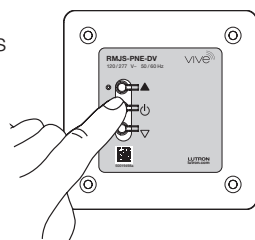Dimming Module

Part of the Vive Family

Start Here

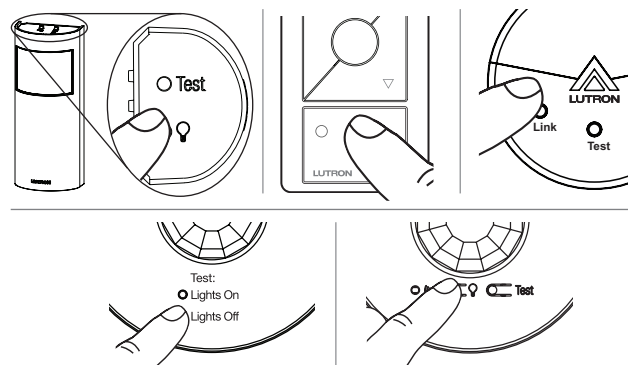## 1 Associate Wireless Transmitters to Dimming Module

Before beginning this step, make sure that there are no other Dimming Modules being set up within the same building. It is possible that wireless transmitters from other systems can be incorrectly associated to this module.

A On Dimming Module, hold **Toggle** button "⏻" for 6 seconds until lights flash.

The indicator LED will begin flashing twice per second.

B Hold the indicated button on each transmitter for 6 seconds. Lights will flash to show that wireless transmitters have been associated.

C On Dimming Module, hold **Toggle** button "⏻" for 6 seconds to save association. Lights will flash and LED will quickly blink for 2 seconds.

D Permanently install wireless transmitters (consult individual component installation guides for information).

Reset Factory Defaults

Note: In some instances, it may be necessary to reset the Dimming Module and connected devices back to factory default settings. Before beginning, make sure that all devices are connected and powered.

A Triple-tap the **Toggle** button "⏻" on the Dimming Module and hold until the LED begins to flash slowly; release button.

B Within 3 seconds of the start of flashing, triple-tap the same button again and the LEDs will flash rapidly indicating that the unit has been reset to factory defaults.

Note: Any associations or programming previously set up with the Dimming Module will be erased and will need to be re-programmed.

2 Calibrate the Radio Powr Savr Daylight Sensor

Daylight Sensor will control all wired fixtures equally.

A Press and release the "Cal." button on the Daylight Sensor.
B Set lights in room to desired light level.
C Press and hold the "Cal." button for 6 seconds.
D Exit room for 5 minutes to complete calibration.
Note: When calibration has completed, all lights will flash and begin to respond to daylight.

Multiple Daylight Rows *(Optional)*

For every row of daylighting, a separate Dimming Module must be used. For detailed setup refer to the tuning section of the Radio Powr Savr Daylight Sensor installation guide.
• Select the Dimming Module that you want to adjust by pressing the toggle button.
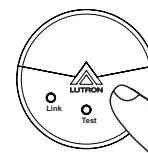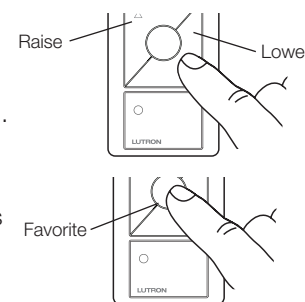
3 Set a Favorite Light Level (Optional)

For Pico remote controls with a **Favorite** Button.

A Adjust lights to desired level:
Use the **Raise** button "△" or **Lower** button "▽" on the Pico remote control.

B Save favorite level:
Press and hold the **Favorite** button for 6 seconds. The load will flash 3 times to confirm that the Favorite level is saved.

Raise   Lower

Favorite

4 Phase Selection

To change to forward-phase:
A Press and hold **Raise** "△" & **Lower** "▽" buttons for 12 seconds. Indicator LED will flash and load will fade to OFF.
B **Raise** button "△" press sets the current phase to forward-phase, **Lower** button "▽" press sets the current phase to reverse-phase. Indicator LED Feedback:
(Reverse-phase): Flash 1 time with 1 second period and then turn OFF for 2 seconds
(Forward-phase): Flash 2 times with 1 second period and then turn OFF for 1 second
C Press and hold **Toggle** button for 6 seconds. Indicator LED will flash for 5 seconds. Load will fade to full ON.

5 Set Low-End Trim and High-End Trim (Optional)

For best results, minimize the amount of sunlight entering the room before performing the following procedures.
Notes:
Depending on the fixture manufacturer or load, low-end trim and high-end trim may need to be adjusted.
• Trim low-end to ensure a stable light level because some loads will flicker or drop out if trimmed too low.
• Be sure that you can turn on the lights to the low-end trim level without any abnormal operation.
• The factory default high-end trim is suitable for most applications but can be adjusted as desired.

Low-End Trim
A Enter low-end trim adjustment mode:
Press and hold the **Lower** button "▽" on the fixture control for 12 seconds. The lights will flash and the indicator LED will begin flashing.
B Adjust the low-end trim:
Use the **Raise** button "▲" and **Lower** button "▽" on the fixture control to adjust and set the lights to the desired low-end (1 to 45%).
C Save the low-end trim:
Press and hold the **Toggle** button "⏻" for 6 seconds to save setting. The indicator LED will begin flashing and then turn solid to indicate new level has been saved.

High-End Trim
A Enter high-end trim adjustment mode:
Press and hold the **Raise** button "▲" on the fixture control for 12 seconds. The lights will flash and the indicator LED will flash.
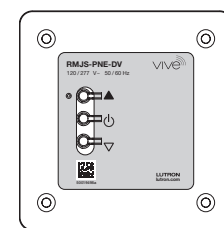**B** Adjust the high-end trim:
Use the **Raise** button "▲" and **Lower** button "▽" on the fixture control to adjust and set the lights to the desired high-end (55 to 100%).
C Save the high-end trim:
Press and hold the **Toggle** button "⏻" for 6 seconds to save setting. The indicator LED will begin flashing and then turn solid to indicate new level has been saved.

6 Set Minimum Light Level (Optional)

Certain applications (e.g., hallways), may require that the lights never turn off. For these areas, activate Minimum Light Level mode.

A Enter minimum light level adjustment mode:
Press and hold **Toggle** button "⏻" and **Lower** button "▽" for 12 seconds. Lights will flash high-low-high and LED will begin flashing.
If lights stop flashing and go to high-end, the minimum light level is set to OFF (default).
If lights stop flashing and go to low-end, the minimum light level is ON and set to low-end.
B Change the minimum light level:
Press **Raise** button "▲" to set minimum light level to low-end.
Press **Lower** button "▽" to set minimum light level to OFF.
C Save the minimum light level:
Press and hold **Toggle** button "⏻" for 6 seconds. LED will quickly flash to indicate that new level has been saved.

7 Set Occupancy Light Levels (Optional)

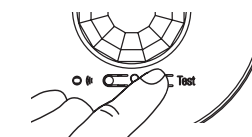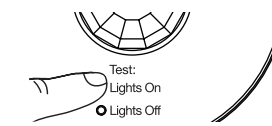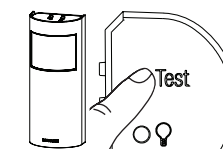**Note:** Unoccupied light level is always the minimum light level and cannot be adjusted.
A Set desired occupancy light levels:
Use **Raise**/**Lower** buttons "▲/▽" on the Dimming Module or **Raise**/**Lower** buttons "△/▽" on all associated Pico Remote Controls.
B Save occupancy light levels:
Press and hold **Test** button for 6 seconds on any associated Radio Powr Savr Occupancy Sensor without a **Lights On** button. Release when Sensor lens starts to flash.
Or, press and hold **Lights On** button for 6 seconds on any associated Radio Powr Savr Occupancy Sensor. Release when Sensor lens starts to flash.

Test: Lights On   Lights Off

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