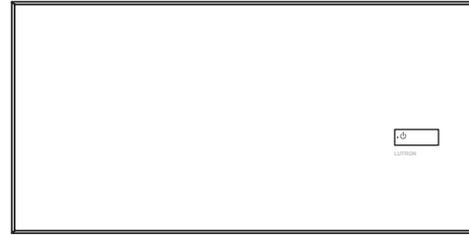


# Wallbox Power Module

The Wallbox Power Module controls up to six zones of light and will operate the following sources with a continuous Square Law dimming curve or on a full conduction non-dim basis:

- Incandescent
- LED<sup>1, 2</sup>
- Tungsten Halogen
- Electronic Low-Voltage (ELV)<sup>3</sup>
- Magnetic Low-Voltage (MLV) Transformer
- Metal Halide/High Pressure Sodium Switched
- Neon/Cold Cathode
- Lutron Tu-Wire Electronic Fluorescent Dimming Ballasts
- Approved LED and CFL lamps/fixtures
- Up to 64 DALI<sup>®</sup> compliant fluorescent ballasts or LED drivers (see DALI<sup>®</sup> compatibility requirement on last page of this document) can be addressed and grouped into zones (LQRK-WPM-6D and LQR-WPM-6D only).

The Power Module can be configured for wired QS link (HomeWorks only), or wireless RF link (HomeWorks and RadioRA 2), communication.



Wallbox Power Module

## Models

Model Number	Zones	Voltage	Frequency	Region
HQRJ-WPM-6D-120	6	120 V~, 220–240 V~	434 MHz	U.S.A.
LQRJ-WPM-6P	6	120 V~, 220–240 V~	434 MHz	U.S.A.
LQRK-WPM-6PCE	6	230 V~ CE	868 MHz	Europe/U.A.E.
LQRK-WPM-6D	6	230 V~ CE	868 MHz	Europe/U.A.E.
LQRK-WPM-8D	8	230 V~ CE	868 MHz	Europe/U.A.E.
LQRK-WPM-16D	16	230 V~ CE	868 MHz	Europe/U.A.E.
LQRQ-WPM-6PCE	6	230 V~	434 MHz (Limited Channel)	Hong Kong
LQR-WPM-6PCE	6	230 V~	----	Europe/U.A.E.
LQR-WPM-6P	6	120 V~, 220–240 V~	----	----
LQR-WPM-6D	6	120 V~, 220–240 V~	----	----
LQR-WPM-8D	8	120 V~, 220–240 V~	----	----
LQR-WPM-16D	16	120 V~, 220–240 V~	----	----

### NOTES

- Available only in White (WH).
- See page 7 for model number breakdown.

<sup>1</sup> Dimming curve will be dependent on specific LED models.

<sup>2</sup> For more information on controlling LEDs, please see Application Note #487 on [www.lutron.com](http://www.lutron.com)

<sup>3</sup> ELV can be controlled with a smooth, continuous Square Law dimming curve or on a full conduction non-dim basis through a separate Lutron power module, ELV, or Phase Adaptive power module.

# Wallbox Power Module

## Specification

<b>Model Numbers</b>	HQRJ-WPM-6D-120, LQRJ-WPM-6P, LQRK-WPM-6PCE, LQRK-WPM-6D, LQRK-WPM-8, LQRK-WPM-16D, LQRQ-WPM-6PCE, LQR-WPM-6PCE, LQR-WPM-6P, LQR-WPM-6D, LQR-WPM-8D, LQR-WPM-16D
<b>Power</b>	120 V~ 50/60 Hz, 220-240 V~ (non CE) (HQRJ-, LQRJ- and LQR- models only) 50/60 Hz, 230 V~ (CE) (LQRK- and LQRQ- models only) 50/60 Hz
<b>Typical Power Consumption</b>	7 W; 0 Power Draw Units (PDUs). <b>The Wallbox Power Module is not powered from the link, Pin 2 should not be connected.</b> Typical Power Consumption test conditions: all loads off, button LED on.
<b>Regulatory Approvals</b>	cULus, FCC, IC, SCT (HQRJ-, LQRJ-, and LQR- models only), CE (all other models), TRA (LQRK- models)
<b>Environment</b>	Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C). Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
<b>Communications</b>	<b>Wired (HomeWorks only)</b> - Low-voltage type IEC PELV/NEC Class 2 wiring connects Wallbox Power Modules to processor. Each HomeWorks processor has two configurable links. Wallbox Power Modules communicate with the processor via the QS link or RF link. <b>RF (RadioRA 2 and HomeWorks):</b> Lutron wireless Clear Connect Technology
<b>ESD Protection</b>	Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 801-2.
<b>Surge Protection</b>	Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.
<b>Power Failure</b>	Provides 10-year power failure memory: Automatically restores lighting to levels prior to power interruption.
<b>Mounting</b>	Installs in a standard 4-gang U.S. wallbox, 3½ in (89 mm) deep is strongly recommended. Always allow at least 4½ in (114 mm) clearance above and below the module to provide adequate space for cooling. Wallplate snaps on with no visible means of attachment.
<b>Line Voltage Wiring</b>	Each line voltage terminal can accept one 12 AWG (4.0 mm <sup>2</sup> ) wire.
<b>IEC PELV/NEC Class 2 QS System Low-Voltage Wiring (HomeWorks only)</b>	System communication uses low-voltage wiring. Wiring can be daisy-chained or T-tapped. Wiring must be run separately from line/mains voltage. IEC PELV/NEC Class 2 wiring link requires: Two 18 AWG (0.75 mm <sup>2</sup> ) conductors for control power. One twisted, shielded pair of 22 AWG (0.34 mm <sup>2</sup> ) for data link. Available from Lutron, P/N GRX-CBL-346S; check compatibility in your area. Total length of control link must not exceed 2000 ft (610 m).
<b>Warranty</b>	<a href="http://www.lutron.com/TechnicalDocumentLibrary/Warranty.pdf">www.lutron.com/TechnicalDocumentLibrary/Warranty.pdf</a> <a href="http://www.lutron.com/TechnicalDocumentLibrary/Intl_Warranty.pdf">www.lutron.com/TechnicalDocumentLibrary/Intl_Warranty.pdf</a>

# Wallbox Power Module

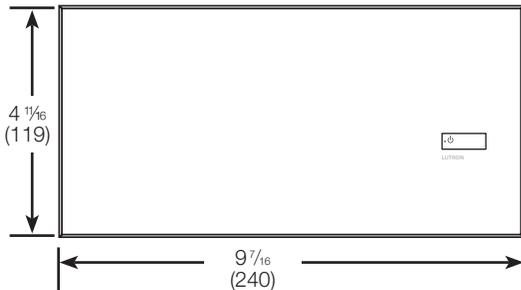
## Design Features

- Contains RTISS Equipped technology to compensate in real time for incoming line voltage variations: No visible flicker with +/-2% change in RMS voltage/cycle and +/-2% Hz change in frequency/second.
- Wallplate snaps on with no visible means of attachment.
- One button for activating default scene.
- Can be configured for wired, QS link (HomeWorks only), or wireless, RF link (HomeWorks and RadioRA 2), communication.

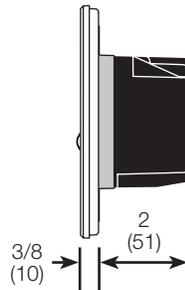
## Dimensions

Dimensions shown as: in (mm)

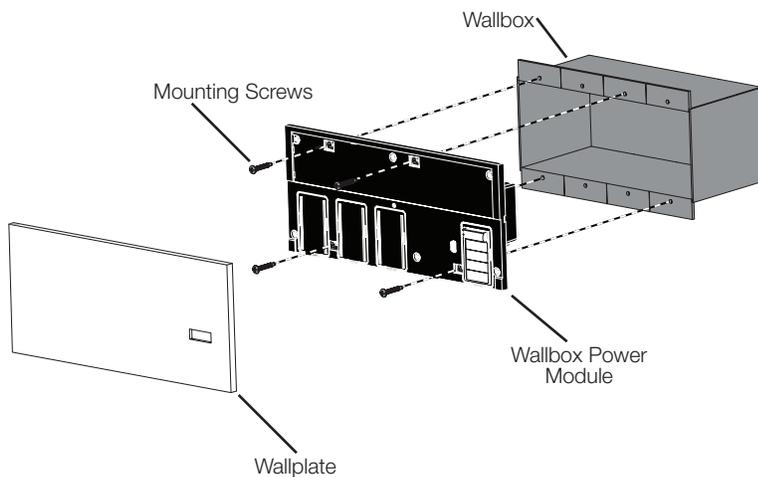
Front View



Side View



## Mounting



# Wallbox Power Module

## Load Capacity

	HQRJ-WPM-6D-120, LQRJ-WPM-6P, LQR-WPM-6P		LQRK-, LQRM-, LQRN-, LQRQ, LQR-WPM-6PCE
	120 V~ 50/60 Hz	220-240 V~ 50/60 Hz	230 V~ (CE) 50/60 Hz
<b>Unit Capacity (watts)</b>	2000 W	3000 W	2300 W
<b>Magnetic Low-Voltage</b>	1600 W / 2000 VA	2400 W / 3000 VA	1840 W / 2300 VA
<b>Zone Capacity (watts)</b>	25-800 W	40-1200 W	40-500 W
<b>Magnetic Low-Voltage</b>	25-600 W / 25-800 VA	40-960 W / 40-1200 VA	40-400 W / 40-500 VA
<b>LED</b>	See Application Note #487		

## Load Type Notes

### (HQRJ-, LQRJ-, and LQR- models only)

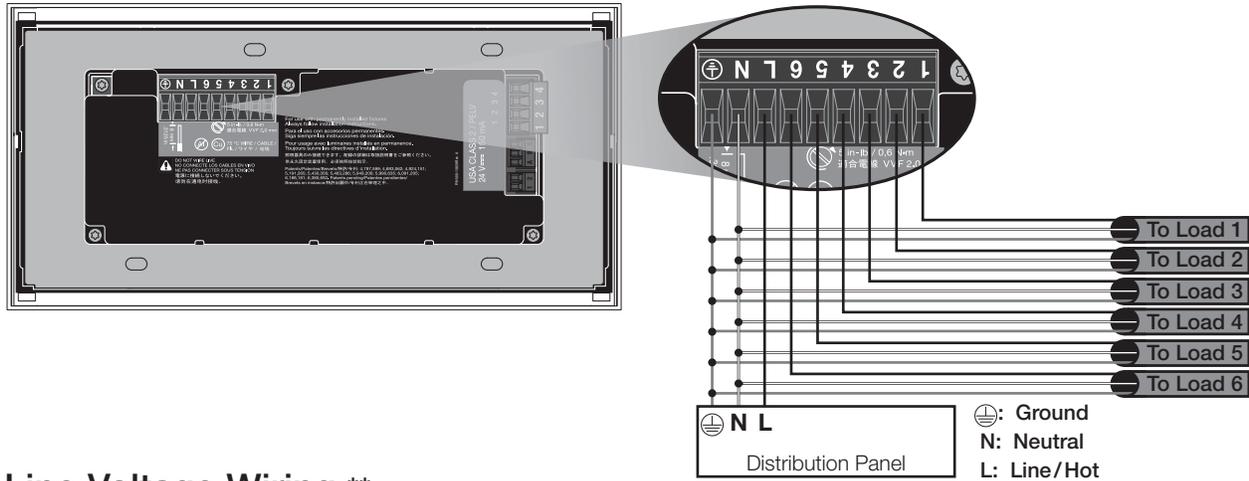
- When dimming Electronic Low-Voltage (ELV) lighting, an ELV interface (such as PHPM-PA-DV-WH) must be used with the control unit. Before installing an ELV light source, verify with the manufacturer that their transformer can be dimmed.
- When controlling 0-10 V loads, a Ten Volt Interface (GRX-TVI) must be used with the control unit.
- Not all zones must be connected; however, **connected zones must have a minimum load as specified above.**
- Maximum total lighting load for a Magnetic Low-Voltage (MLV) varies by input voltage **(specified above)**:
  - 120 V~ : 800 VA/600 W
  - 220-240 V~ : 1200 VA/960 W
- No zone may be loaded with more than the capacity specified above. For higher wattage applications, or for 277 V~ applications, use Lutron power module PHPM-PA, PHPM-WBX, PHPM-PA-DV, PHPM-SW, or PHPM-WBX-DV.

### (LQR-WPM-6PCE, LQRK-, and LQRQ- models only)

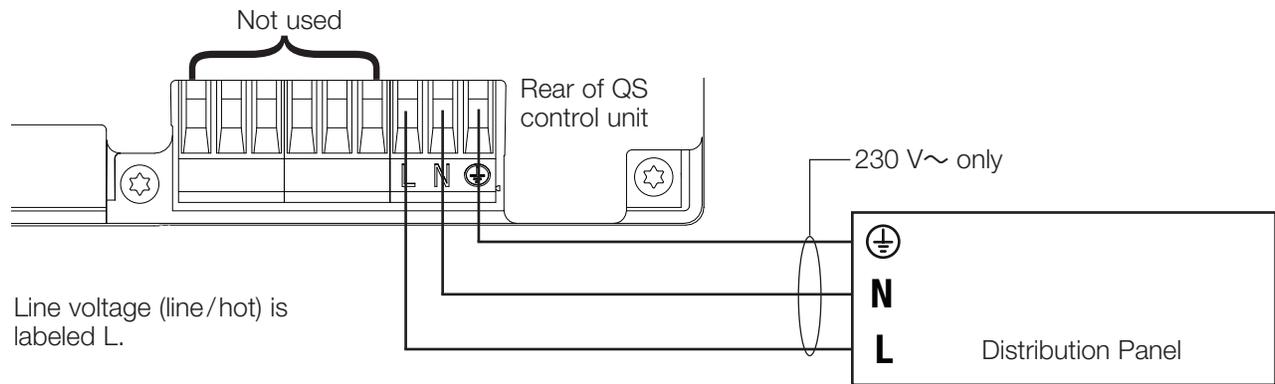
- For applications with ELV loads or load wattages exceeding the specified capacities, please refer to specifications for Lutron power modules (NGRX-PB-CE; NGRX-ELVI-CE).
- Not all loads must be connected; however, connected zones must have a minimum load of 40 W.
- Maximum totals lighting load for a magnetic low-voltage zone is 500 VA/400 W.
- No zone may be loaded with more than 500 W.

# Wallbox Power Module

## Power and Load Wiring \*

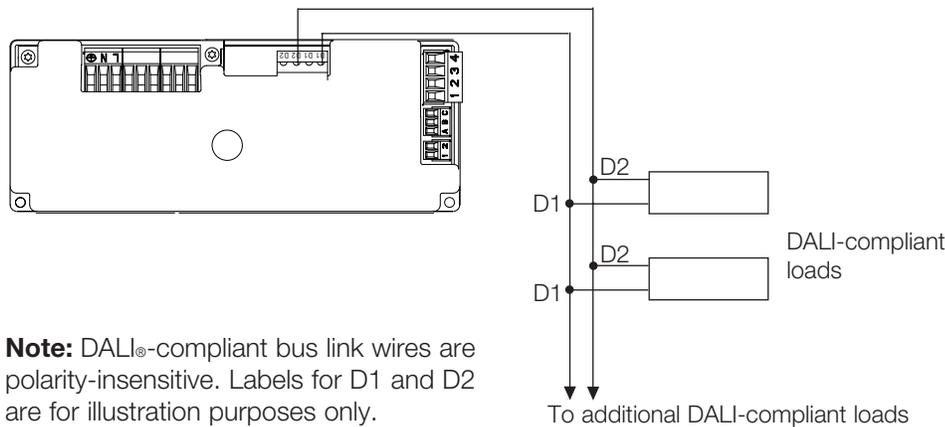


## Line Voltage Wiring \*\*



- Pull power wiring from distribution panel and to light fixtures.
- Each line voltage terminal can accept one 12 AWG (4.0 mm<sup>2</sup>) wire.
- Consult Lutron for non-dim relay wiring and/or load side emergency transfer wiring.

## DALI®-Compliant Bus Wiring \*\*



**Note:** DALI®-compliant bus link wires are polarity-insensitive. Labels for D1 and D2 are for illustration purposes only.

\* HQRJ-WPM-6D-120, LQRJ-WPM-6P, LQR-WPM-6P, LQRK-WPM-6PCE, LQRQ-WPM-6PCE, LQR-WPM-6PCE models only

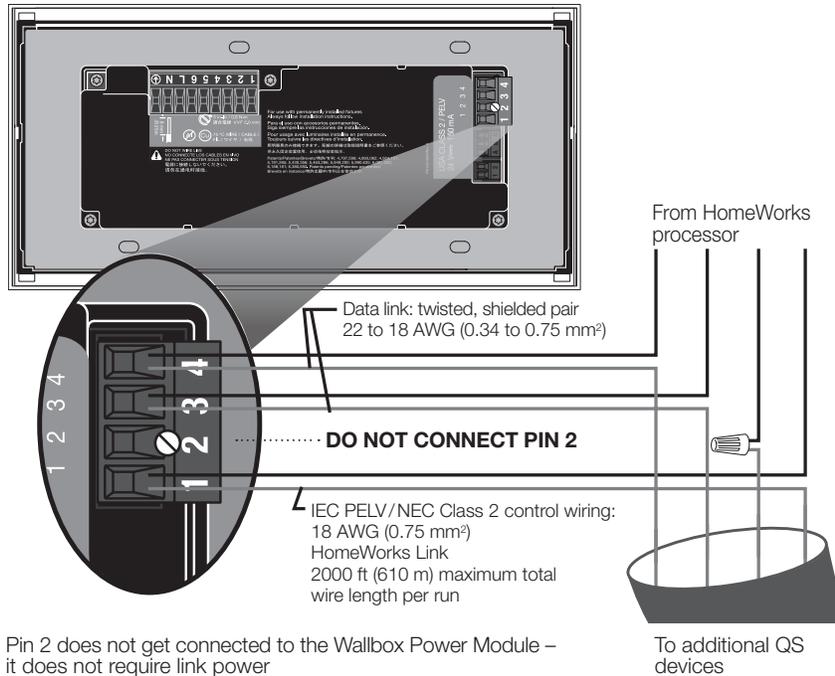
\*\* LQR-WPM-6D, LQR-WPM-8D, LQR-WPM-16D, LQRK-WPM-6D, LQRK-WPM-8D, LQRK-WPM-16D models only

# Wallbox Power Module

## Communications

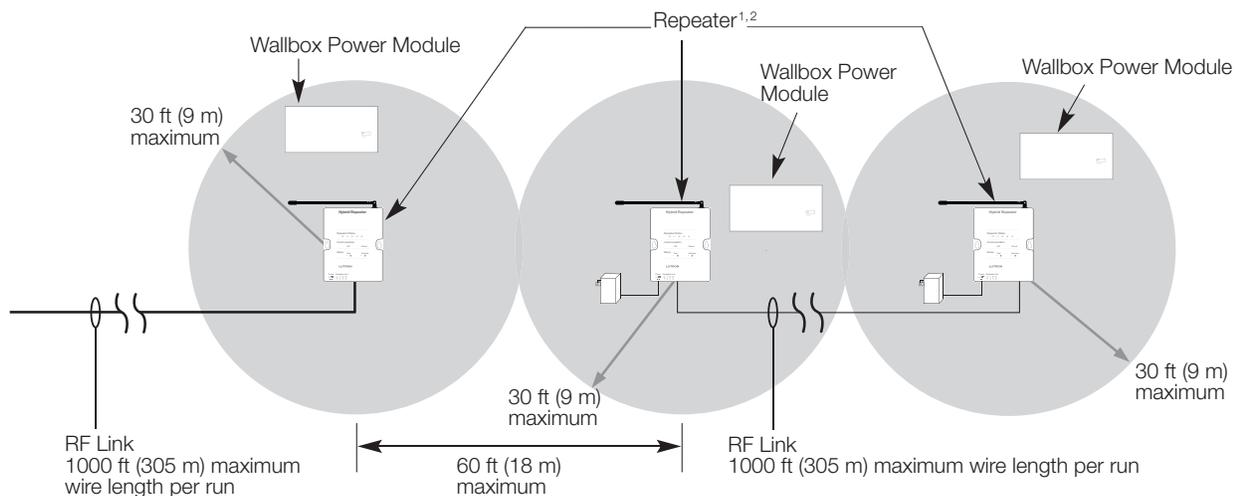
HomeWorks supports selection of wired or RF communications. A Wallbox Power Module that communicates back to a HomeWorks processor through the RF link should not have any QS wired link connections. In RadioRA 2 only RF communication is available.

### QS Link Wiring (HomeWorks only)



Pin 2 does not get connected to the Wallbox Power Module – it does not require link power

### RF Link (RadioRA 2 and HomeWorks)



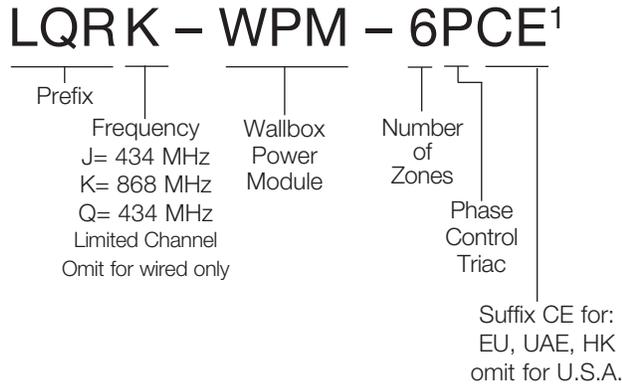
<sup>1</sup> In HomeWorks systems, use Hybrid Repeaters for range extension. In RadioRA 2, the repeater shown may be either a main repeater (1 required) or auxiliary repeater (up to 4 permitted).

<sup>2</sup> For reliable RF performance, the Wallbox Power Module should be located at least 6 ft (2 m) away from the main or auxiliary repeater.

# Wallbox Power Module

## Model Number Breakdown

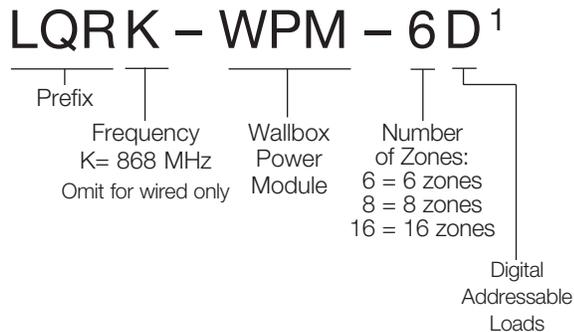
### Phase Control Triac Models:



### Examples:

- **LQRJ-WPM-6P**  
6-zone wallbox power module, phase control triac 434 MHz
- **LQRK-WPM-6PCE**  
6-zone wallbox power module, phase control triac 868 MHz

### DALI Models:



### Examples:

- **LQR-WPM-6D**  
6-zone wallbox power module, digital addressable loads, wired only
- **LQRK-WPM-16D**  
16-zone Wallbox power module, digital addressable loads, 868 MHz

<sup>1</sup> See page 1 for available standard model numbers.

### DALI® Compatibility

In order to ensure compatibility with Lutron DALI® controllers, the connected DALI® LED drivers and fluorescent ballasts must be DALI-2® certified and marked. In addition to compatibility, it is important to select high-quality and high-performance LED drivers and fluorescent ballasts. DALI-2® certified devices are readily available from many manufacturers and are tested for compatibility with the standard. For a complete list of available DALI-2® certified devices, see the DiiA® website at <https://www.digitalilluminationinterface.org/products>. DALI® devices that are not listed on the DiiA® website and are not marked DALI-2® cannot be considered DALI-2® certified.

The DALI® version-1 standard does not ensure compatibility. To apply the original DALI® version-1 mark on LED drivers and fluorescent ballasts, no verification of the test results was required, and manufacturers could self-declare compliance and apply the DALI® mark. If you would like to use an LED driver or fluorescent ballast that is not DALI-2® certified but carries a DALI® version-1 logo, Lutron recommends that these devices be tested to ensure compatibility. Lutron is able to perform this testing on request. Samples of the drivers and light engines must be submitted to Lutron and the expected turnaround time is 6 to 8 weeks after the drivers are received. Fees for testing may apply. Lutron recommends that this testing be performed before the fixtures and lighting controls are purchased and installed. Contact your Lutron sales representative for more information.