

High Bay Microwave Sensor

Cat. Nos. OSMHB-VDW, ZLS0R-RC1



WARNINGS

- **TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER** at circuit breaker or fuse, and test that power is off before wiring!
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.
- For indoor applications only.
- **SAVE THESE INSTRUCTIONS.**

DI-000-OSMHB-05A AR2561

INSTALLATION INSTRUCTIONS

ENGLISH

DESCRIPTION

Leviton® Cat. No. OSMHB-VDW is a 5.8 GHz high-frequency motion sensor designed to mount directly to a 0-10V fixture and provide energy savings, with occupancy detection and multi-level control with adjustable time-outs. A built-in daylight sensor reads brightness values so that the sensor will not switch the luminaire ON if there is sufficient ambient light present. Control parameters are manually selected using DIP Switches on the device or with the ZLS0R-RC1 IR remote (optional) to obtain desired configuration parameters, which include adjustable Sensitivity, Hold Time, Lux level, Stand-By light level, and Stand-By Hold Time. The ZLS0R-RC1 IR remote can also be used to store and transmit sensor profiles to other OSMHB-VDW devices if configuration requirements are the same.

OSMHB-VDW is suited for high bay fixtures. It has a maximum mounting height of up to 50 ft. and an adjustable coverage radius of up to 30 ft.

NOTES:

- Mounts directly to fixture or electrical box.
- Metal can be used to shield or limit field-of-view, if desired.
- Can be used with Leviton offset adapters to improve field-of-view (sold separately).

INSTALLATION PRE-REQUISITES

FOR OPTIMAL PERFORMANCE:

The OSMHB-VDW occupancy sensor detects motion using microwave-sensing technology (5.8 GHz). Microwave sensors are extremely sensitive, omni-directional, and will penetrate through most building construction materials. Microwaves, however, will not pass through metal or brick (if thicker than 7.75 in. [20 cm.]), which can be used to control the direction of the microwave detection or to shield certain areas from detection, if desired. Microwaves will pass through thinner walls; however, there will be some reduction of the microwave strength. Please keep this in mind when determining sensor placement and desired field-of-view coverage. In order to trigger the sensor, an individual must disrupt the microwave beam from one zone of detection to another.

CLASS 2 WIRING:

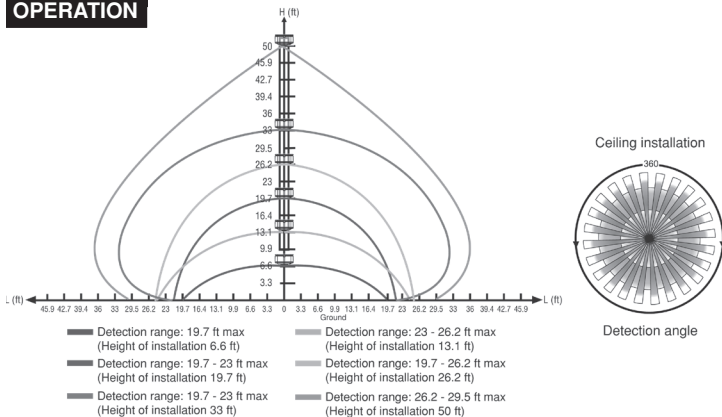
For 0-10V Control Wiring: Connect the Violet wire to the + 0-10V line and the Pink wire to the 0-10V common, using Class 1 or Class 2 wiring methods, as indicated in these instructions, ballast/fixture/driver instructions, or ballast/fixture/driver label markings. Observe all requirements of any authority having jurisdiction with respect to wire type, sleeving, isolation methods, and the like.

INSTALLATION

WARNING: TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER at circuit breaker or fuse, and test that power is off before wiring!

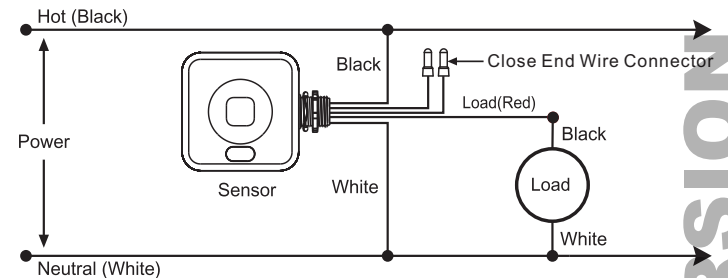
1. Position sensor correctly, based on targeted field-of-view.
2. Remove 3/4 in. of insulation from each of the wires and connect per wiring diagram.
3. After all connections have been made, ensure that all wire connectors are firmly attached and that there is no exposed copper.
4. Adjust sensor operations by using DIP switches on the sensor or optional ZLS0R-RC1 remote. Factory settings default to:
 - a. Sensitivity: 100%
 - b. Hold Time: 10 seconds
 - c. Daylight Sensor: 30 lux
 - d. Stand-By Level: 30%
 - e. Stand-By Time: 60 minutes
5. Use the provided plastic nuts and washer to gently mount sensor to its respective fixture type.
6. Restore power to the circuit and verify that locator LED light is ON.
7. Proceed to device enrollment per the included sheet, and configuration per your system requirements.

OPERATION

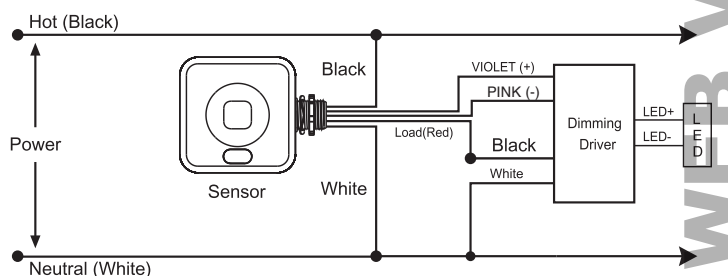


Wiring Diagrams

Non-Dimming Driver:



Dimming Driver:



Specifications	
Catalog Numbers	OSMHB-VDW
Input Voltage / Frequency	120/277VAC, 50-/60Hz
Load Ratings:	
• LED, CFL, Electronic Ballast @ 120V	600W
• LED, CFL, Electronic Ballast @ 277V	1385W
• Magnetic Ballast @ 120V	660W
• Magnetic Ballast @ 277V	1200W
• Resistive, Tungsten @ 120V	800W
• Resistive, Tungsten @ 277V	1200W
IP Rating	IP20
Network Connections	N/A
Operating Temperature	-40°F to 158°F (-40°C to 75°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Impulse Voltage	4000V
Pollution Degree	2
Action Control Type	Type 1

Symbol	Meaning
~	VAC, Volts Alternating Current
--...	VDC, Volts Direct Current
A	A = Load in Amps
mA	mA = Load in mA

WEB VERSION

CONFIGURATION

Use the DIP Switches on the sensor or use the ZLS0R-RC1 IR remote (optional) to custom-configure the sensor.

Note: For configuration using the remote, please refer to the ZSL0R-RC1 Remote Manual.

Configuration of the sensor using DIP switches on the device:

- DIP Switches 1 and 2 for Sensitivity / Range
- DIP Switches 3 and 4 for Hold Time / Timeout
- DIP Switches 5 and 6 for Daylight Sensor Lux level
- DIP Switches 7 and 8 for Stand-By level
- DIP Switches 9 and 10 for Stand-By level Hold Time

1. **Sensitivity / Range:** Set the desired occupancy detection sensitivity.

2. **Hold Time / Timeout:** Set the desired length of time that the light will remain ON, after occupancy is no longer detected.

3. **Daylight Sensor Lux Level:** Set or disable the desired lux threshold, at which the sensor will prevent the light from turning ON when sufficient ambient light is present.

4. **Stand-By Level:** Set the desired level to which the light will dim after the Hold Time expires.

5. **Stand-By Time:** Set the desired length of time that the light will remain at Stand-By level. If +∞ is selected, the light will remain at that level indefinitely, or until occupancy is detected.

TROUBLESHOOTING

Lights will not turn ON:

- Sensor is wired incorrectly. Confirm that the sensor's wiring is done correctly and inspect it visually for problems.
- If Daylight Hold-Off is enabled, check settings and make adjustments to Lux levels.

Lights will not turn OFF:

- Sensor is wired incorrectly. Confirm that the sensor's wiring is done correctly and inspect it visually for problems.
- Make sure the luminaire is installed with at least 1 ft. (30 cm.) of space between the luminaire and surrounding reflective surfaces (e.g., metal, glass, or concrete walls).
- Sensitivity / Range is set improperly. Adjust DIP Switches 1 and 2.

Lights turn OFF and ON too quickly:

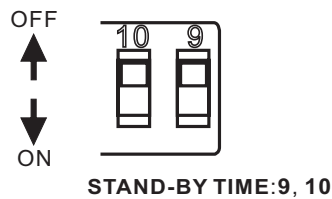
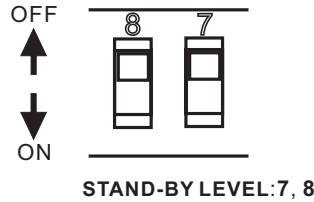
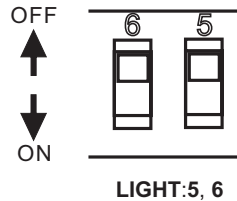
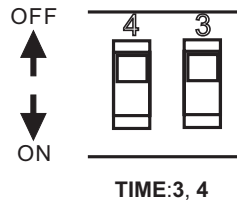
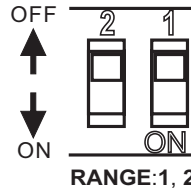
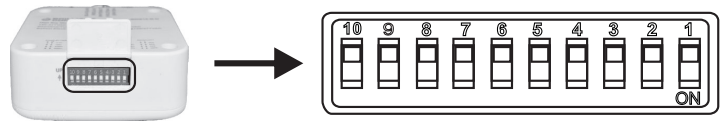
- Sensitivity / Range is set improperly. Adjust DIP Switches 1 and 2.
- Hold Time / Timeout is set improperly. Adjust DIP Switches 3 and 4.

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RF EXPOSURE AND CO-LOCATION: To comply with FCC OET Bulletin 65 and ISED RF exposure limits for general population / uncontrolled exposure this device should be installed and operated with a minimum distance of 7.9 inches (20 cm) between the radiator and your body. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada ULC to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1-800-405-5320.



SENSITIVITY

1	2	
↑	↑	20%
↑	↓	50%
↓	↑	75%
↓	↓	100%

TIME

3	4	
↑	↑	10S
↑	↓	1Min
↓	↑	5Min
↓	↓	15Min

LIGHT

5	6	
↑	↑	☀ (light sensor disable)
↑	↓	10Lux
↓	↑	30Lux
↓	↓	50Lux

STAND-BY LEVEL

7	8	
↑	↑	0%
↑	↓	10%
↓	↑	30%
↓	↓	50%

STAND-BY TIME

9	10	
↑	↑	+∞
↑	↓	1Min
↓	↑	30Min
↓	↓	60Min

FCC STATEMENT:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC SUPPLIERS DECLARATION OF CONFORMITY (SDOC):

Models OSMHB-VDW, ZLS0R-RA1 are manufactured by Leviton Manufacturing Co., Inc., 201 North Service Road, Melville, NY 11747, <http://www.leviton.com>. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IC STATEMENT:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

LIMITED 2 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for two years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. For details visit www.leviton.com or call 1-800-824-3005. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to two years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.