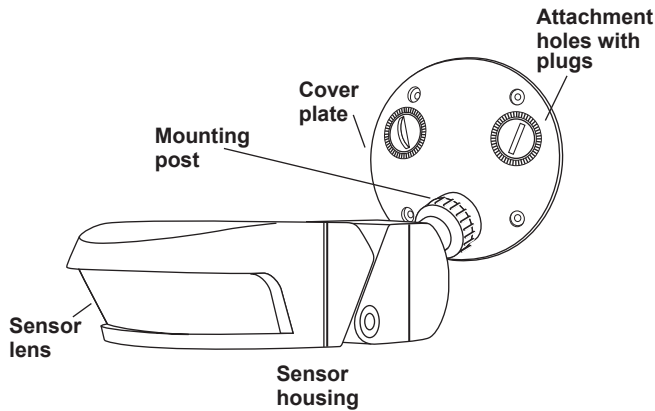


Catalog Number • Numéro de Catalogue • Número de Catálogo: EW-205-24

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China

SPECIFICATIONS

Voltage:	
EW-205-24	+24VDC
Current Consumption	7mA
Power Supply	Wattstopper Power Pack or DM-105 module
B Series power packs supply power for up to 11 sensors.	
BZ Series power packs supply power for up to 15 sensors.	
DM-105 HID Bi-Level control module supplies power for up to two sensors.	
DM-115-WP Outdoor HID Bi-Level control module supplies power for up to two sensors.	
Coverage	270°
Time Delay Adjustment	12sec.–16min.
Light Level Adjustment	0.5FC–200FC
Operating Temperature	-40° to 130°F (-40° to 55°C)
Mountable Locations	Pole, wall, ceiling or under eaves
IEC-IP-55 Raintight Rated	
U.S. Patents: 4,787,722; 5,640,113	



Box Contents

- One (1) EW-205-24
- Accessory bag:
 - Cover plate for 4" round outdoor junction box, with two cover plate attachment hole plugs, cover plate gasket, cover plate screws & screw covers (4 ea), lens mask, wire nuts (3)
- Installation instructions

Please read all of the installation instructions before installing this product.

UNIT DESCRIPTION

The EW-205 sensor is an outdoor passive infrared (PIR) motion sensor rated for wet conditions. It installs onto a standard round outdoor junction box using the supplied junction box cover plate.

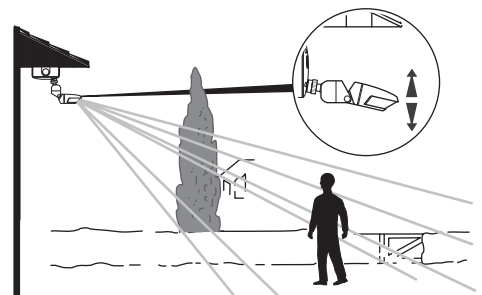
The EW-205 sensor uses advanced PIR technology and a superior lens design to detect motion. PIR sensing is passive, and detects the difference between infrared energy in motion and the background space.

The EW-205 sensor provides a +24VDC control output upon motion detection. This output can be connected to a WattStopper power pack for on/off lighting control, or to a WattStopper DM-105 or DM-115-WP Outdoor HID Bi-Level control module for high/low control.

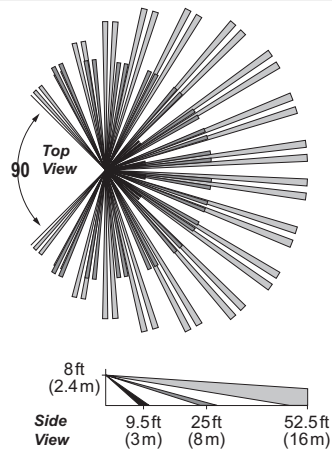
COVERAGE PATTERN

Coverage is shown as tested in a controlled setting with the unit mounted at 8ft at a 10° tilt from the horizontal surface. The actual outside coverage pattern may vary substantially at the specific installation site and is dependent on several factors including weather conditions, external light sources, mounting height and sensor tilt.

Coverage adjustment:
The front of the sensor housing can be moved up and down for easy coverage adjustment.



COVERAGE PATTERN (CONT'D)



MOTION SENSOR PLACEMENT

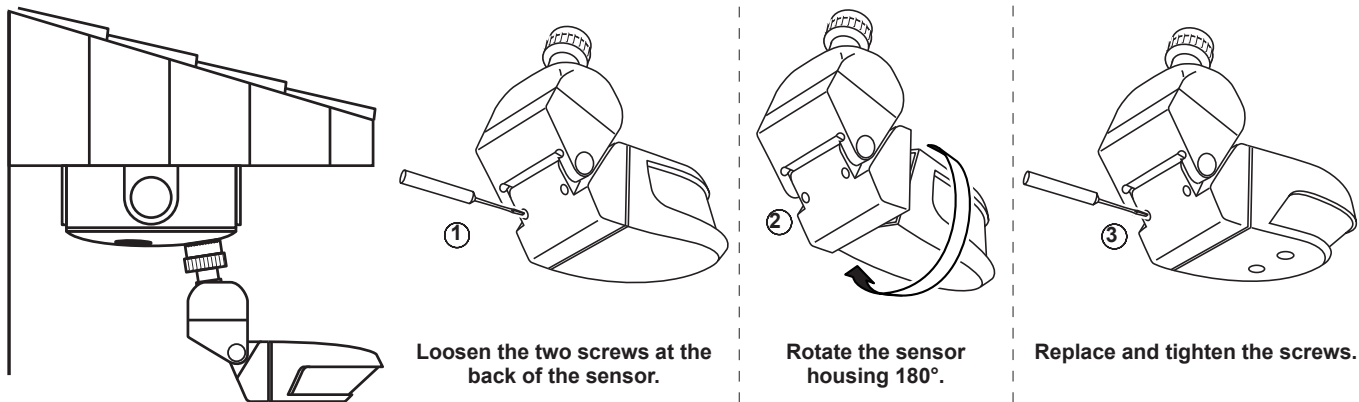
Mounting Options

- Install onto a standard 4" round outdoor junction box.
- Mount to a flat, stable, vibration-free surface.
- Mount vertically or horizontally, usually to a wall, ceiling or under an eave.

Careful consideration must be given to sensor placement. PIR sensors detect the difference between infrared energy in motion and the background space. To be detected, a person or vehicle must be within the sensor's coverage pattern and have an unobstructed view of the sensor.

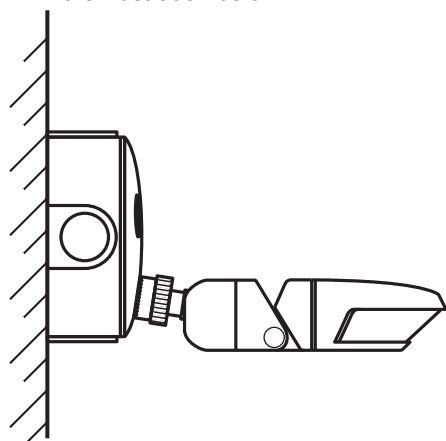
Horizontally Mounted:

For horizontal mounting, such as under eaves, rotate the sensor housing as shown in the diagrams below. Make sure that the gasket is seated properly.



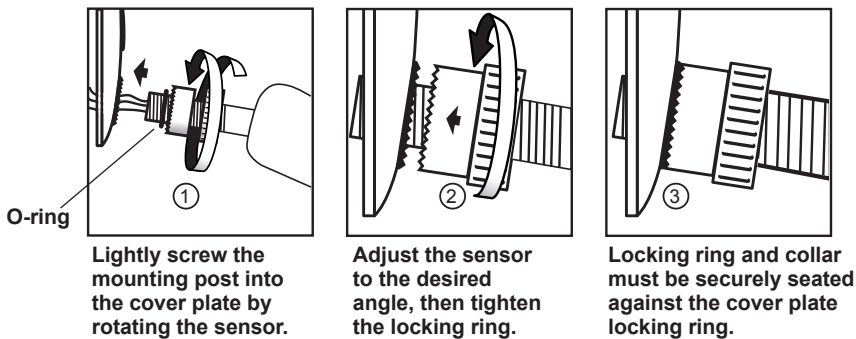
Vertically Mounted:

The sensor comes assembled and ready for vertical cover plate mounting, as shown in the illustration below.



Attach mounting post to the cover plate:

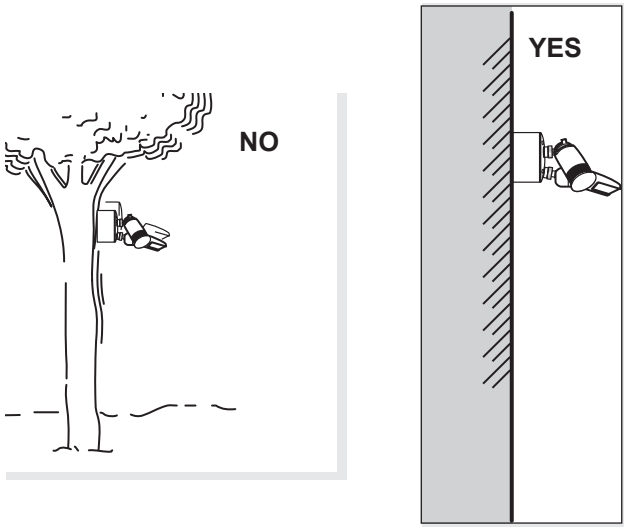
Make sure that the O-ring is on the threaded end of the mounting post before installing.



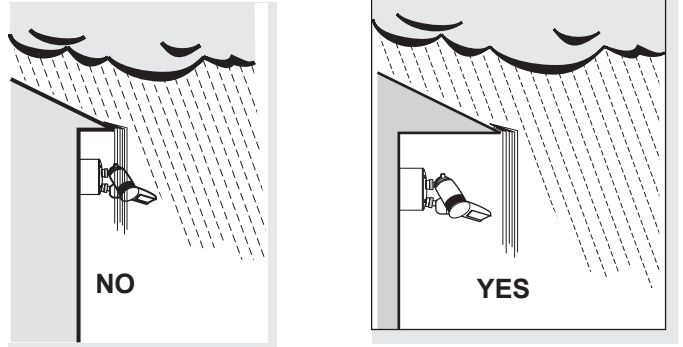
MOUNTING AND SENSOR POSITIONING GUIDELINES

WARNING: LAMP BULB MUST BE 1/2 INCH OR MORE FROM SENSOR HOUSING

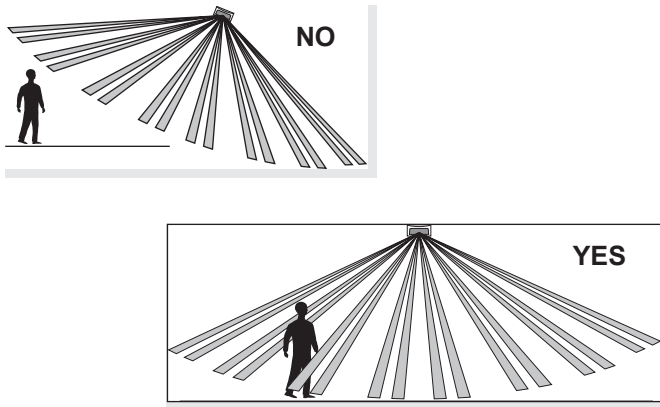
Mount to flat, stable, vibration-free surface



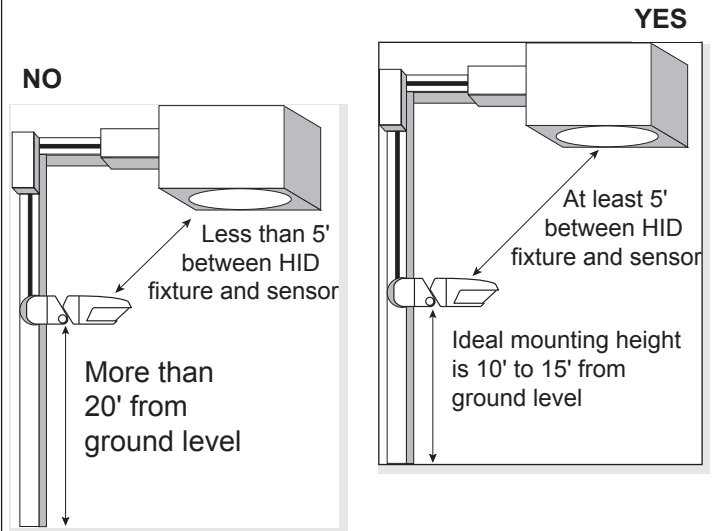
Avoid runoff; sheltered locations preferred



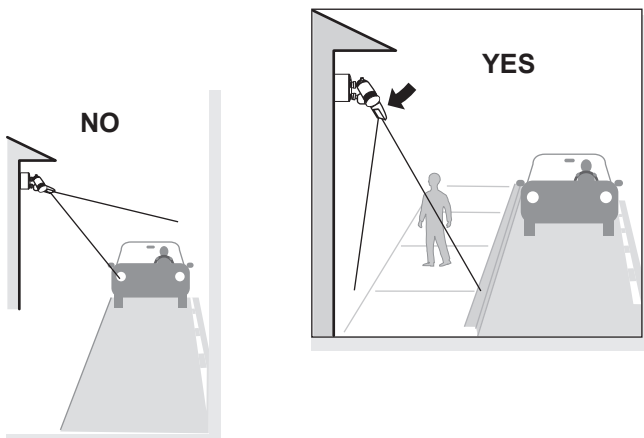
Mount motion sensor level



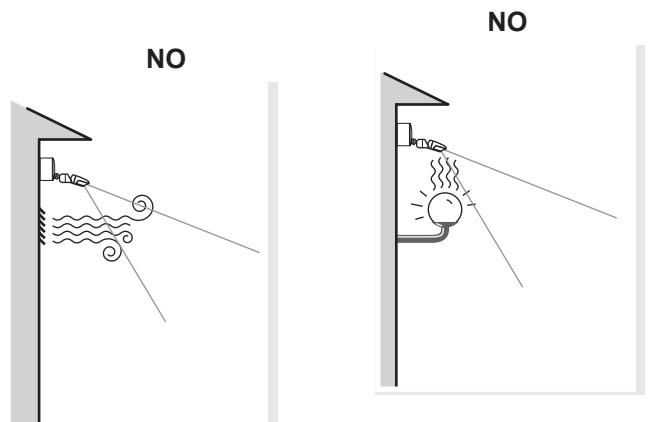
Install sensor no higher than 20' from ground



Aim motion sensor downward to limit sensing



Do not mount by vents or above lamps



WIRING AND INSTALLATION

The EW-205-24 can be powered from either a Wattstopper Power Pack, or a Wattstopper HID Dimming Module.

- Each Wattstopper B series power pack can supply power for up to 11 sensors.
- Each Wattstopper BZ series power pack can supply power for up to 15 sensors.
- Each DM-105 or DM-115-WP module can supply power for up to 2 sensors.

When power is initially applied to the sensor, or following restoration from a power failure, the lights will turn on. If no motion is detected by the sensor, the lights will remain on/high for for approximately one minute and then turn off/low. (See **Security Override**).

Sensor Wire Functions

The EW-205-24 has 3 connections to the power pack or DM-105 or DM-115-WP module. See the descriptions and wiring diagrams that follow for connections to each specific power source.

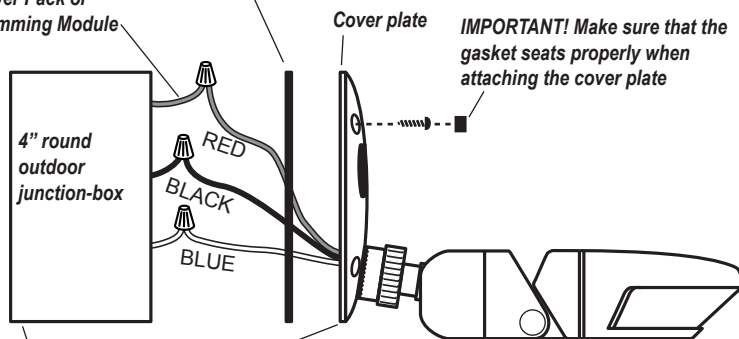
- RED: +24VDC input to sensor
- BLACK: Common
- BLUE: +24VDC control output from sensor

⚡ WARNING: TURN POWER OFF AT THE CIRCUIT BREAKER BEFORE INSTALLING SENSOR. SENSOR MUST BE INSTALLED BY QUALIFIED PERSONNEL ONLY. ⚡

IMPORTANT! Thread wires through gasket before connecting

Attach cover plate assembly and gasket to the junction box with 4 screws and screw covers (supplied)

To Power Pack or HID Dimming Module

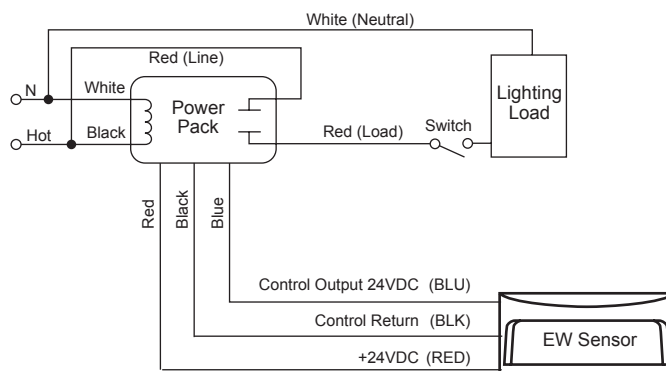


NOTE: Weather proof caulking may be required around junction box and cover plate to provide a weatherproof seal in some installations.

Connecting to a Power Pack

Wire the sensor to a WattStopper power pack as shown:

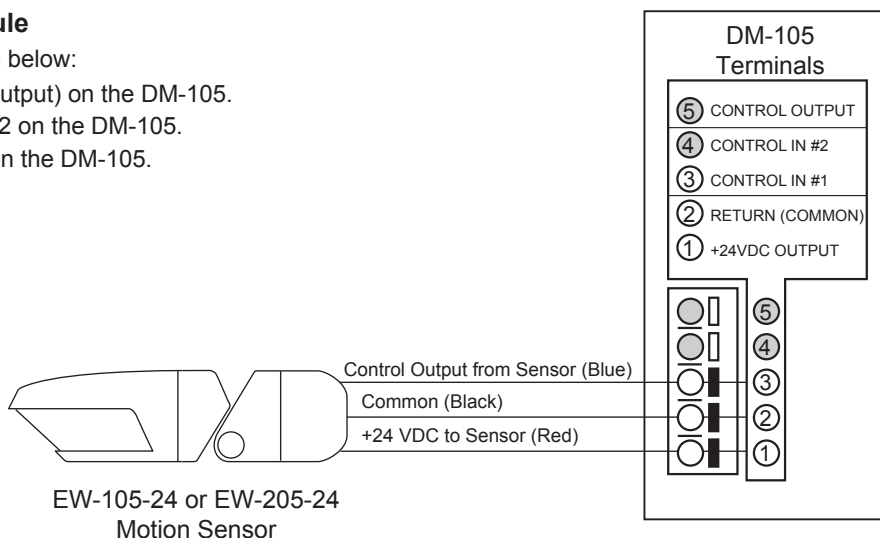
- RED wire from sensor to RED wire on power pack.
- BLACK (common) wire from sensor to BLACK wire on power pack.
- BLUE wire from sensor to BLUE wire on power pack.



Connecting to a DM-105 HID Dimming Module

Wire the sensor to a WattStopper DM-105 as shown below:

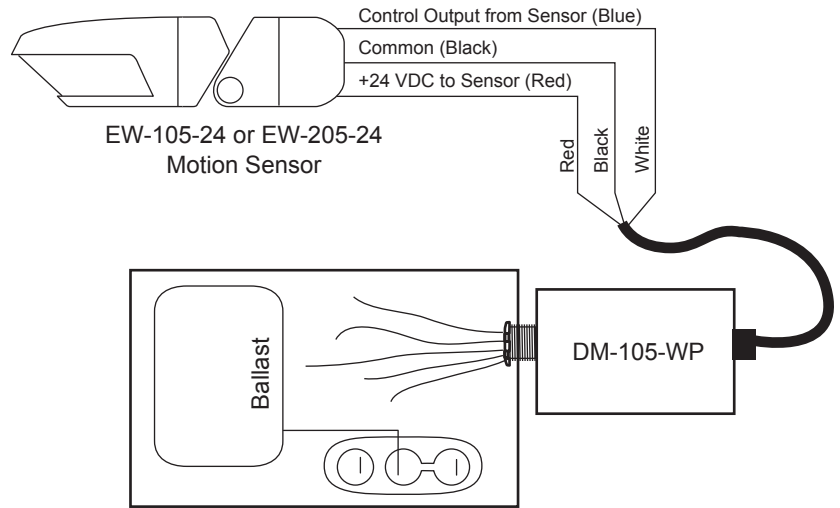
- RED wire from sensor to terminal 1 (+24VDC Output) on the DM-105.
- BLACK wire (common) from sensor to terminal 2 on the DM-105.
- BLUE wire from sensor terminal 3 (Control In) on the DM-105.



Connecting to a DM-115-WP HID Dimming Module

Wire the sensor to a WattStopper DM-115-WP as shown below:

- RED wire from sensor to RED wire from the DM-115-WP cable.
- BLACK (common) wire from sensor to BLACK wire from the DM-115-WP cable.
- BLUE wire from sensor to WHITE wire from the DM-115-WP cable.



TESTING AFTER INSTALLATION

To facilitate coverage testing, the factory setting for Time Delay is 12 seconds, and the Light Level is at Maximum.

If you want to test a sensor for intended detection or operation:

1. Make sure that the time delay is set to 12 seconds and the light level is set to maximum (clockwise to the sun icon. The dials are located on the bottom of the sensor.)
2. Adjust sensor and lamp holders to the desired position.
3. Ensure that power has been restored to the sensor.
4. Move into the location to be tested; lights should turn on (or switch to high if connected to a DM-105 or DM-115-WP HID Bi-Level control module). Stand still. In about 12 seconds the lights should turn off (or switch to low if connected to a DM-105 or DM-115-WP HID Bi-Level control module). Move or walk and the lights should turn on/high. Repeat this process to test other locations. Make sensor coverage adjustments as needed (see Coverage adjustment and Masking, page 2).

NOTE: When power is restored to the sensor, the lights will turn on for approximately one minute. (See **Security Override**.)

NOTE: If the lights do not turn on with movement in the area after they have turned off in step 4, the level of daylight may be too high and the sensor's light level adjustment is keeping the sensor inactive. Wait until daylight levels have reduced before testing again.

5. See **Dial Adjustments**, for guidelines to adjust the time delay and light level to the desired settings for operation.

DIAL ADJUSTMENTS

Time Delay and Light Level control dials are located on the bottom of the sensor.

1. Adjust Time Delay:

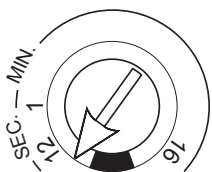
The time delay is the amount of time that elapses before lights turn off since the sensor last detected motion. This can be set from 12 seconds to 16 minutes. For normal operation, the time delay should be set to 1 minute or more.

- In areas where there is mostly walk through movement, the time delay amount can be low.
- In areas where people may stop and remain for periods of time, the time delay should be set to a higher amount, preferably 16 minutes.

2. Adjust Light Level:

Turning the light level adjustment dial raises or lowers a **daylight level** in the sensor. When the light of the day rises above this set level, the sensor becomes inactive; this keeps the lights off when there is enough daylight present.

We suggest initially setting the light level adjustment to **half way** between minimum and maximum. If a different setting is desired after installation, then follow the **Making Changes** procedures.



TIME DELAY DIAL

Minimum: 12 seconds
Maximum: 16 minutes



LIGHT LEVEL DIAL

Minimum = ☾
Maximum = ☀

MAKING CHANGES

If you want the lights to turn on/high sooner—turn the light level dial toward the sun ☀ icon, as desired; this raises the light level setting. (Remember, the sensor must detect motion for lights to turn on.)

- The lights **turn on sooner** in the **evening**.
- The lights **stay on longer** in the **morning**.

If you want the lights to turn on later—turn the light level dial toward the moon ☾ icon, as desired; this lowers the light level setting. (Remember, the sensor must detect motion for lights to turn on.)

- The lights **turn on later** in the **evening**.
- The lights **turn off sooner** in the **morning**.

Notes:

- When testing adjustments, make sure not to block any of the light that is reaching the sensor or reflect any light into the sensor's lens.
- The sensor requires about 5 seconds for light level adjustments to take effect. This feature prevents the lights from turning on/high and off/low with quick light reflections, from car windows for example.
- The sensor will not turn lights off/low until no motion is detected and the time delay elapses.

SECURITY OVERRIDE

The EW sensors have an override-on feature which allows lights to be turned on for the set time delay period.

- If there is an installed switch—turning the switch off then on, turns the lights on. If no motion is detected by the sensor, the lights will remain on for approximately one minute and then turn off.

This will also happen when power is restored after a power outage.

NOTE: If the lights do not turn on, the sensor may be inactive due to the daylight level. Turn the switch off for 5 seconds, then turn it on. The lights should turn on as described above.

TROUBLESHOOTING

Lights do not turn off/low:

1. The sensor may be detecting movement outside the desired coverage area. The sensor's lens may need to be masked to block unwanted coverage (see Masking). If this does not solve the problem, see step 2.
2. Test to see that the sensor is operating properly. Set the time delay to minimum (12 seconds). Remain still, or move out of range of the sensor. If there is no movement in the coverage area, the sensor should turn lights off/low in 12 seconds. Reset the time delay to the desired value.
3. If the lights do not turn off/low, have a person qualified to check high voltage connections verify that the sensor and lighting are wired correctly (see **Wiring and Installation**).
CAUTION: Make sure power is turned off at the circuit breaker before checking wiring.
4. If the sensor is wired correctly, call our Technical Support number.

Lights turn on/high when there is sufficient daylight:

Decrease the light level setting, as desired (counterclockwise toward the moon ☾ icon, see **Dial Adjustments**).

Lights do not turn on/high:

1. If there is a controlling switch installed, make sure that it is turned on.
2. If the lights do not turn on/high when lights are needed—increase the light level setting, as desired (clockwise toward the sun ☀ icon, see **Dial Adjustments**).
3. Have a person qualified to check high voltage connections verify that the sensor and lighting are wired correctly (see **Wiring and Installation**).
CAUTION: Make sure power is turned off at the circuit breaker before checking wiring.
4. If the sensor is wired correctly, call our Technical Support number.

ORDERING INFORMATION

Catalog #	Description
EW-205-24	+24VDC, 270° Outdoor PIR Motion Sensor, includes cover plate
B230E-P	Power Pack: 230VAC, 50/60Hz, 150mA 20A ballast/13A incandescent
B347D-P	Power Pack: 347VAC, 60Hz, 150mA. 15A ballast
BZ-50	Power Pack: 120/277VAC, 50/60Hz, 20A ballast or incandescent
BZ-150	Power Pack: 120/277VAC, 50/60Hz, 20A ballast or incandescent, with Hold-On and Hold-Off capability
BZ-200	Power Pack: 120/277VAC, 50/60 Hz, 20A Ballast/ELV/MLV/Incandescent/LED, 16A, E-Ballast/CFL/Plug Load
BZ-250	Power Pack: 120/277VAC, 50/60 Hz, 20A, Ballast/ELV/MLV/Incandescent/LED, 16A E-Ballast/CFL/Plug Load, with Hold-On/Hold-Off capability
BZ-250-347	Power Pack: 120/347VAC, 50/60 Hz, 16A Ballast/ELV/MLV/Incandescent/LED/ E-Ballast/CFL, 15A Plug Load, with Hold-On/Hold-Off capability
DM-105	HID Bi-Level Control Module
DM-115-WP	Outdoor HID Bi-Level Control Module

When ordering, add (-W) for Arctic White or (-G) for Architectural Gray to catalog numbers.

THIRD-PARTY ORDERING INFORMATION

Additional color-matched lamp holder accessories are available through your local distributor, or for further assistance call CANLET at 1-888-461-5307

Outdoor incandescent lamp holders
Shrouds for PAR 20 & PAR 38 lamps
Round outdoor junction boxes & cover plates

WARRANTY INFORMATION

Wattstopper warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Wattstopper for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

INFORMATIONS RELATIVES À LA GARANTIE

Wattstopper garantit que ses produits sont exempts de défauts de matériaux et de fabrication pour une période de cinq (5) ans. Wattstopper ne peut être tenu responsable de tout dommage consécutif causé par ou lié à l'utilisation ou à la performance de ce produit ou tout autre dommage indirect lié à la perte de propriété, de revenus, ou de profits, ou aux coûts d'enlèvement, d'installation ou de réinstallation.

INFORMACIÓN DE LA GARANTÍA

Wattstopper garantiza que sus productos están libres de defectos en materiales y mano de obra por un período de cinco (5) años. No existen obligaciones ni responsabilidades por parte de Wattstopper por daños consecuentes que se deriven o estén relacionados con el uso o el rendimiento de este producto u otros daños indirectos con respecto a la pérdida de propiedad, renta o ganancias, o al costo de extracción, instalación o reinstalación.
