

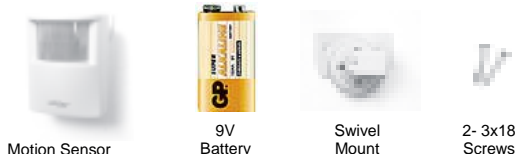
Indoor/Outdoor INSTEON™ Motion Sensor

Model #2842-2

1. INTRODUCTION

The INSTEON Motion Sensor is an indoor/outdoor motion sensor that will turn INSTEON controlled lights on and off in response to movement around your home. The sensor also contains a photocell, allowing you to configure the unit to operate your lights only at night. Pair the Motion Sensor with INSTEON software for almost limitless device automation possibilities.

In this package you will find the Motion Sensor, a 9V battery, a swivel mount and two screws.



Motion Sensor

9V Battery

Swivel Mount

2- 3x18 Screws

2. OPERATION

WHEN MOTION IS SENSED

1. When motion is sensed the Motion Sensor will send an ON command to up to 30 linked INSTEON responders and flash its LED (unless it is daytime and unit is in night-only mode).
2. Sensor will begin its automatic countdown.
3. Whenever motion is sensed during countdown, the countdown will be reset to easily allow you to create "occupied" versus "unoccupied" modes for your home.
4. When countdown expires the Sensor will send an OFF command to all linked responders (unless it is in ON-only mode).

APPLICATIONS

1. Turn on driveway or front step lights when visitors approach.
2. Have your fountain always on when you are around (and off when you are away).
3. Save money by having HVAC and lighting automatically go into energy savings mode when no one is around.

3. SETUP

INSERT BATTERY

Use a small Phillips head screwdriver to remove screw and cover from battery compartment on back of unit. Attach the included 9-volt battery. Do not replace compartment cover until instructed to do so later in this guide. Wait 5 minutes for the circuit to stabilize. To confirm unit is functioning, tap the Set button a couple of times while watching the front of the unit. Each time you tap the Set button, a red LED behind the sensor lens will flash. Don't worry if the LED flashes when you are not tapping the Set button; it is simply indicating that motion is being detected.

Set button



(Close-up of battery compartment)

ACCESS POINTS

Motion Sensor requires at least one INSTEON Access Point (#2443) or other dual-band product installed in your home. To confirm the Motion Sensor is within RF range of your Access Point, have a friend watch the LED on the side of your Access Point while you tap the Set button on the Sensor (while holding it where you plan to install it). Access Point's LED will flash a couple times every time you tap the Set button if it is within range.

4. SETUP INSTEON DEVICE CONTROL

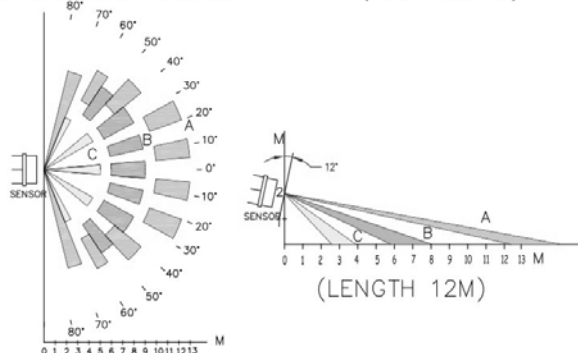
LINKING TO INSTEON RESPONDERS

1. Press and hold the Set button on Motion Sensor for 5 seconds (until red LED behind sensor lens begins blinking steadily.) You now have 4 minutes to complete step 2)
2. Press and hold the Set button¹ for 5 seconds on the INSTEON responder you would like the Motion Sensor to control (its LED may blink).
3. The Motion Sensor LED will stop blinking (if not, try step 2 again).
4. Test by tapping the Set button on Motion Sensor. Each tap should toggle the device you linked on and off. (The Motion Sensor LED will flash each time the Set button is tapped.)
5. Repeat this procedure for up to 32 responders.

¹ For multi-button responders (e.g., KeypadLinc™), tap the button you wish to control before pressing and holding its Set button.

5. DETECTING AREA

DETECTING AREA: (Unit=Meter)



6. LOCATION TIPS

BEST LOCATIONS

Select a detector location that will provide the required coverage. Keep the following potential problems in mind:

1. **Reflective surfaces** - Do not aim the detector at reflective surfaces such as mirrors or windows. This may distort the coverage pattern or reflect sunlight directly onto the detector.
2. **Air flow** - Avoid locations that are subject to direct high air flow, such as near an air duct outlet.
3. **Moisture** - Do not place the detector near sources of steam or oil.
4. **Sunlight** - Do not aim the detector where it will receive direct or reflected (mirror) sunlight.
5. **Obstruction** - Do not place the detector near large objects (such as plants or filing cabinets) that will limit or block sensor coverage.
6. **Pet rejection** - Do not aim the detector at a stairway to which a pet has access. Do not place furniture or objects higher than what a pet can climb onto (about 3 ft/0.9 m) or closer than 6 ft/1.8 m away from the detector.
7. **Fireplace** - Do not place the detector near a fireplace as the light and heat may interfere with Motion Sensor's detection ability.
8. **Snow/ice** - Snow or ice on the Fresnel lens may interfere with Motion Sensor's detection ability.
9. **Dirt** - Dirt on the Fresnel lens may interfere with Motion Sensor's detection ability.

7. MOUNT SENSOR

MOUNTING (See Location Tips for help)

1. Use the two small screws (included) to secure the swivel mounting bracket at your desired location.



2. Slide Motion Sensor onto the swivel mounting bracket (sliding to the right) until you hear a click.



3. Aim Motion Sensor towards the area in which you wish to detect motion (detection area).
4. Test by walking through the area. Linked responders should turn ON when motion is sensed and OFF one minute after last motion sensed.

8. ADJUST DETECTION AREA

AIMING AND SENSITIVITY

1. Tap the Set button on Motion Sensor until the linked responder(s) turn OFF.
2. Within 10 seconds, walk far out of detection area.
3. Wait 20 seconds.
4. Walk into and near your detection area. Your linked responders will turn ON (LED will flash upon initial motion, then once every 8 seconds during motion).
 - a. If LED does not flash while you are moving within the desired detection area, readjust Sensor (usually means pointing the Sensor upward)
 - b. If LED flashes while you're moving outside detection area
 - i. Readjust Sensor to decrease range (usually means aiming the Sensor downward)
 - ii. If aiming sensor does not generate desired results place jumper 1 on both pins (see SETUP MODES section).



9. SETUP MODES (OPTIONAL)

SET JUMPERS

Jumpers are small plastic "boxes" that act as a switch. When installed on two pins, the switch is "on." When installed on one pin (or missing), the switch is "off".

Jumper 1 – Sensitivity

To reduce Sensor's detection range (by approximately 33%), carefully remove jumper 1 (the left-most jumper) from the single pin on which it is installed using a pair of needle-nose pliers. Reinstall it on both pins. Tap the Set button once, wait 10 seconds and activate motion to establish the new setting.

Jumper 2 – Disable LED

If you wish to disable the LED (it will still operate during setup), install jumper 2 on both pins. Tap the Set button once, wait 10 seconds and activate motion to establish the new setting.

Jumper 3 – Night-Only Mode

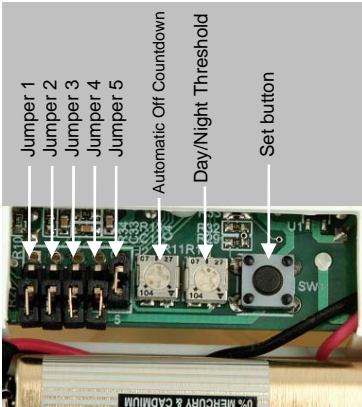
If you wish to have the Sensor operate only when dark, install jumper 3 on both pins. Tap the Set button once, wait 10 seconds and activate motion to establish the new setting. Note: it takes 3.5 minutes (or seven Set button taps) to detect the difference between day and night. (See Day/Night Threshold in ADJUST MODES below for details.)

Jumper 4 – On-Only Mode

If you wish to disable the automatic "Off" countdown, install jumper 4 on both pins and the Motion Sensor will only send "On." Tap the Set button once, wait 10 seconds and activate motion to establish the new setting.

Jumper 5 – Remote (Software) Management

If you wish to manage all of Motion Sensor's settings via INSTEON software (such as HouseLinc 2), install jumper 5 on both pins. Then, press and hold the Set button on Motion Sensor to put the unit in linking mode and allow the INSTEON software to access its settings.



11. TROUBLESHOOTING

Symptom	Resolution
Sensor won't link to responders	Move a dual-band INSTEON device (e.g., Access Point) closer to the Motion Sensor.
Sensor won't control linked responders	<ol style="list-style-type: none"> Make sure LED flashes to confirm it has power and is sensing motion. Sensor is in night-only mode (and it is "day"). Move a dual-band INSTEON device (e.g., Access Point) closer to the Motion Sensor. Sensor is in its one-minute "off" countdown.
LED flashing rapidly after motion is detected	Sensor did not receive an acknowledgement from one or more linked devices. If this occurs repeatedly you may need to move a dual-band INSTEON device closer to the Sensor or you may need to unlink a device which is no longer in use in your home. If the INSTEON responders are no longer available, you may either use a software application or perform a factory reset to remove the unwanted links.
LED not flashing upon motion	<ol style="list-style-type: none"> You may need to wait up to 8 seconds to see the flash. Battery may need to be replaced.
Not sensing motion	<ol style="list-style-type: none"> Light detected and unit is in night-only mode. Motion Sensor aimed too low. Temperature too high or low (sensor needs to be able to distinguish between what is being sensed and its surroundings). See LOCATION TIPS section.
LED is double-flashing upon motion	Low battery warning: replace with fresh battery.

12. REMOVE CONTROL OF INSTEON

UNLINKING FROM INSTEON RESPONDERS

- Press and hold the Set button on Motion Sensor for 5 seconds (until red LED behind sensor lens begins blinking) and release.
- Press and hold the Set button on Motion Sensor for another 5 seconds (until the LED changes its blink pattern to a slow blink where it is on longer than off).
- Press and hold the Set button on the INSTEON Responder you would like to unlink (until its LED blinks).
- The Motion Sensor LED will stop blinking (if not, repeat step 3).
- Test by tapping the Set button on Motion Sensor. Taps should no longer control the unlinked device.

13. FACTORY RESET

RETURN UNIT TO FACTORY SETTINGS

- If possible, unlink from all Responders before proceeding.
- Remove battery.
- Wait 15 seconds.
- While pressing and holding the Set button, reinstall the battery. Do not let go of the Set button.
- Motion Sensor will emit a long beep. Continue pressing and holding the Set button until beep stops, then release.

14. FCC and IC

This device complies with FCC Rules Part 15 and Industry Canada RSS-210 (Rev. 8). Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The digital circuitry of this device 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 residential installations. 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 and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna of the device experiencing the interference
- Increase the distance between this device and the receiver
- Connect the device to an AC outlet on a circuit different from the one that supplies power to the receiver
- Consult the dealer or an experienced radio/TV technician

WARNING: Changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

10. ADJUST MODES

ADJUST DIALS

Left Dial – Adjust Automatic "Off" Countdown

Using a small Phillips screwdriver, adjust the time duration that Motion Sensor will wait to send an OFF command after the last motion sensed. Turning the dial all the way counterclockwise sets the countdown to 30 seconds; turning it all the way clockwise sets it to 2 hours. Anywhere in between results in a proportional difference between 30 seconds and 2 hours.

Right Dial – Day/Night Threshold

Using a small Phillips screwdriver, adjust the day/night threshold to desired light level: turning the dial clockwise increases the light level, and counterclockwise decreases the light level. For example, turning the dial all the way to the right clockwise will make Motion Sensor read "night" no matter how bright it is. Likewise, turning the dial all the way to the left counterclockwise will make Motion Sensor read "day" no matter how dark it is. Turning the dial anywhere in between will adjust the specific light level Motion Sensor uses to determine "night" and "day." To test, set Motion Sensor to Night-Only mode (see jumper 3 above) and tap the Set button seven times. If it reads the current light level as "Night," it will turn on its linked responders on first sensed motion. If it reads "Day," the LED will flash on first motion, but it will not turn on its linked responders.

15. CUSTOMER SERVICE

TECHNICAL SUPPORT

Skylink has contracted with INSTEON for Motion Sensor support. Customers should contact INSTEON for technical support.

- www.smarthome.com (product page, help desk, wiki, live chat).
- Email at support@smarthome.com.
- Call the INSTEON Gold Line at 1-800-SMARTHOME (800-762-7846).

Search for dual-band INSTEON products:
<http://www.smarthome.com/dualband>