

## Sensor Sensitivity

There are many things to consider with occupancy control. For detector range, the ranges are reliable ranges with no false positives due to outside influences. The sensitivity is fully adjustable and can be increased or decreased based on the room conditions present. Here are some things to consider with IR sensors:

Our motion detectors are really sensitive with full sensitivity adjustment. It ensures the ability to fine tune the sensor to the covered area. However we do understand that, for first time users, it can be easy to trigger false positives. To help avoid this, an understanding must exist with how the motion detector works. It uses passive infrared technology, which means it is not only triggered with movement, but also with light and temperature shifts. Below are key examples of sensor sensitivity to consider.

### 1. Pet immunity

All of our motion detectors come with pet immunity; however, depending on the size of the pet, one can increase or decrease the sensor's sensitivity. Placement of the sensor is key. It needs to be mounted where pets cannot come within 6 feet of it by climbing on furniture, boxes, or other objects.

### 2. Bugs and insects

Our sensor has built-in protection that keeps bugs from getting into the sensor area and causing false triggers. This does not, however, prevent insects from crawling across the lens of the sensor, which will cause a trigger.

### 3. Reflected light

Infrared energy can be reflected off of any glossy surface. Items such as mirrors, windows, floors, countertops with a glossy finish, and slick finished concrete can cause a sensor to trigger.

### 4. Windows

Windows not only reflect infrared energy, but they can also allow sunlight or lights from cars to pass through to the sensor. For example, the sensor can detect a quick change in infrared energy if sunlight comes through a window (which may not be detected by the sensor) and shines on a hardwood floor (which can be detected by the sensor). If the change in infrared energy is quick enough on the floor, the sensor can trigger. Lights from a passing car can also pass through the window at night and directly into the lens of the detector.

### 5. HVAC

Heating and A/C ducts are also important aspects to consider. If air is blown onto an object within the fields of view, the temperature of that object could change quickly enough for the detector to see a change in infrared energy. Detectors cannot see air current but rather only the change in temperature of a physical object.

### 6. Moving objects

Anything that can sway or move because of an air current can cause a change in infrared energy within the fields of view. Heating and A/C ducts and drafts from doors or windows can cause this to happen. Other objects to be aware of are curtains, blinds, balloons, loose paper, plants, hanging banners or baskets, etc.

### 7. Vibration

Make sure a sensor is mounted on a solid surface and does not vibrate. Vibration will not only cause the sensor to move a little, but it can also cause the fields of view in the room to move. A little vibration can cause the sensor to see a change in energy and trigger a false positive.