## **Technical Article**



## LevNet RF™ Occupancy Sensor Troubleshooting

Product: LevNet RF Wireless Solutions Article ID: 04182012-JE/TB-01

**Date:** April 18, 2012

Summary: This document describes how to identify an incorrectly adjusted occupancy sensor out of a

group of occupancy sensors transmitting to the same receiver.

Information: Problem:

Are the lights staying or turning ON when they should be OFF, or are the lights turning or staying OFF when they should be ON?

Diagnosis:

The motion sensor is not receiving packets from any receiver. The cause of this problem is:

- a. The sensitivity of the occupancy sensors is turned too low
- b. There is a radio range/interference problem between the sensors and the receiver
- c. The sensors are defective (though possible, this is a highly unlikely scenario)

## Solution:

- 1. Adjust the sensitivity of the occupancy sensor
  - 75% sensitivity is recommended for optimal performance
- 2. If sensitivity adjustment does not solve the issue, test radio range of the signal. Radio range can be detected using test tools such as:
  - WSCOM Leviton Commissioning Tool
  - WSMET Leviton Signal Strength Meter

Using a wireless switch, determine if an EnOcean radio signal can travel from the position of the farthest sensor to the receiver. If a signal is received, but the signal strength is low, then it is possible that the signal from the sensor is not making it to the receiver. If this is the case, attempt the following:

- Rotate the device so the LEVITON logo is pointed toward the receiving switch or relay
- Move the occupancy sensor closer to the receiver
- Add additional occupancy sensor(s) to the space
- Add a repeater (All 3- and 5-wire relays can be made into a repeater—consult factory for installation and details)
- 3. If adjustments to the placement of sensors and the addition of repeaters do not solve the issue, remove and replace the sensor. If the newly-installed unit functions properly, the original unit was defective. In case of defective units, please consult the factory for warranty and replacement information.