

Occupancy Sensor Automation Controlling Lighting for Maxiumum Energy Efficiency

DEFINITIONS

- **Passive Infrared (PIR):** A line of sight beam that reacts to heated motion across a field of view. It is a type of sensor technology.
- Ultrasonic (U/S): A reflective wave form that reacts to disturbances in return wave form. It is a type of sensor technology.
- Manual-ON: A room where a person is required to turn the lights ON upon entry.
- Auto-ON: A room which automatically turns the lights ON upon entry.
- Auto-OFF: Occupancy sensors automatically turn the lights OFF when the timer expires from the last detected motion.
- **Time Delay:** The timer setting on the sensor from the last detected motion until the lights are turned OFF.
- False-OFF: When the lights turn OFF while the room is still occupied.
- Vacancy Confirmation: If a false-OFF occurs, sensor enters high sensitivity (45 sec) to turn lights ON with slight motion.
- False-ON: When the lights turn ON without anyone in the room.



PASSIVE INFRARED (PIR) TECHNOLOGY



ULTRASONIC (U/S) TECHNOLOGY

FAQS

Will the lights always work automatically?

• For a manual-ON and auto-OFF room set-up: No, the lights need to be turned ON manually and will only turn OFF automatically.

- For an auto-ON and auto-OFF room set-up: Yes, the lights will turn ON and OFF automatically. How can I tell which settings my system is on?
- If the lights do NOT automatically turn ON when you walk two steps into a room, the occupancy sensor is set up for manual-ON/auto-Off lighting control and you will need to manually turn the lights ON.
- If the lights automatically turn ON when you walk into a room, the occupancy sensor is set up for auto-ON/ auto-OFF lighting control.

Will the lights ever turn off on me?

• Occupancy sensors are not always exact and there are many variables to take into account that may cause the lights to turn OFF inadvertently. This should be an infrequent occurence. We have designed features into the product in order to reduce this occurence.

Will the lights be on when there is no one in the room?

• Yes, occupancy sensors are equipped with a time delay feature which will start after the last motion is detected. There will be a time delay period of 10, 20 or 30 minutes where the lights will remain ON after the last person was in the room.

Leviton Mfg. Co., Inc. Lighting & Energy Solutions

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USER TECHNOLOGY INTRODUCTION

PRIORITY OCCUPANCY SENSOR CONDITIONS

PRIORITY ONE -

Multiple People in a Room - Most Frequent Condition

- Since this is the most frequent use of a room, we want to ensure this priority is met before "single person in a room" and "first entry into a vacant room" settings.
- The installation teams have fine-tuned the occupancy sensor for optimal operation.
- The lights can be manually turned ON or OFF by the user of the space like a traditional light switch.
 - Presentation Mode: Lights will stay OFF until the user turns ON the lights or room is vacant for the entire time delay.
- The lights will remain ON when there are occupants using the space.
- The lights will auto-OFF after the time delay expires from the last motion detected.

PRIORITY TWO -

Single Person in a Room - Frequent Condition

- Since this is a frequent use of the room, we want to ensure this priority is met before "first entry into a vacant room" settings.
- The installation teams have fine-tuned the sensor to the most optimal location where a single occupant will be.
- The lights can be turned ON or OFF manually by the user of the space.
- The lights will remain ON for a single occupant but can vary depending on where the occupant is in the space.
- The lights will auto-OFF after the time delay expires from the last motion detected.
 - For a single occupant where motion is not detected, this may occur every once in a while; this is normal operation.
 - The lights can easily be turned back ON using motion within 45 seconds.

PRIORITY THREE -

First Entry into a Vacant Room - Less Frequent Condition

- Since this is a less frequent use of the room, EITHER "multiple people in a room" or "single person in a room" settings will be considered more important in uniquely shaped rooms.
- The lights can be expected to turn ON within two steps of entering a room. Uniquely shaped rooms may take five steps. Uniquely shaped rooms include L-shaped, V-shaped rooms or rooms with alcoves.
- There are variables in the room and/or environment that can affect the entry range or sensitivity of an occupancy sensor:
 - Shape of room
 - Furniture in room
 - Multiple entry points
 - Moving objects
 - Heating and air conditioning
 - Energy conservation requirements

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