

## Ultrasonic Ceiling Mount Sensor



The LOS-CUS Series ceiling-mount ultrasonic sensors can integrate into Lutron systems or function as stand-alone controls using a Lutron power pack. Any movement within the sensor's range causes a shift in the original emitted frequency. The sensor's receiver identifies any change in frequency as motion and either turns the lights on or maintains lights on.

### Features

- Intelligent, continually adapting ultrasonic sensor
- Snap-locks to ceiling-mounted cover plate
- Excellent minor motion sensitivity
- Non-Volatile Memory: settings saved in protected memory are not lost during power outages
- 500 to 2,000 sq.ft. coverage mounted on 8 ft. ceiling
- Affords choice of turning lights off or dimming to a preset level in the unoccupied state when integrated with a Lutron system.

### Models Available

Cat. No.	Color	Coverage (sq.ft.)	Field of View
LOS-CUS-500-WH	White	500	180°
LOS-CUS-1000-WH	White	1,000	180°
LOS-CUS-2000-WH	White	2,000	360°

### Self-Adaptive Feature

Designed to meet the challenges found in a wide variety of spaces, the LOS-CUS Series provides reliable detection with high minor motion detection. The intelligent, continually adapting sensor technology eliminates manual sensitivity and timer adjustments during installation and over the life of the product. The internal microprocessor analyzes the information from the ultrasonic technology and determines the optimum setting to use in order to properly cover the space. Should the room be reconfigured (e.g., new furniture), the software will adapt to continue to provide correct time out for the lights.

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## Specifications

### Timer Adjustment

- Automatic mode: Continually adapting sensor automatically adjusts settings to the space
- Manual mode: 8 to 32 minutes
- Test mode: 8 seconds

### LED Lamp

- Green: ultrasonic motion detected

### Housing

- Rugged, high-impact, injection-molded plastic
- Color-coded leads 6" (16.24cm)

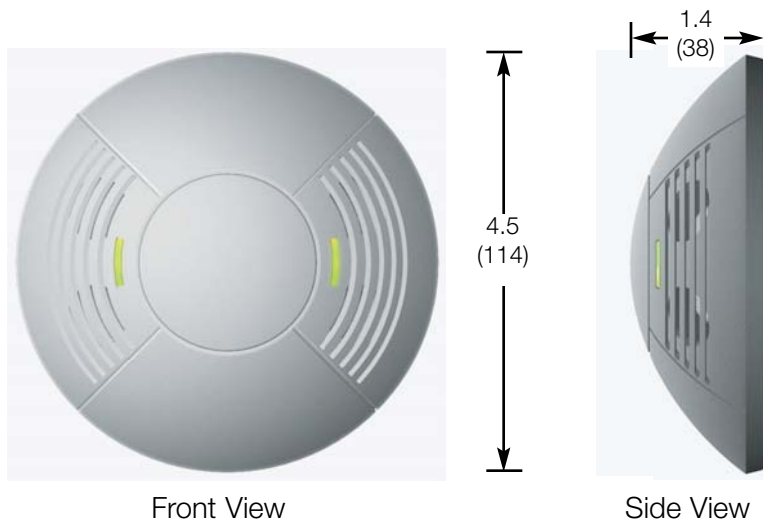
### Power

- Operating voltage: 20-24 V $\overline{\text{---}}$ , Class 2 (PELV) low-voltage
- Operating current: 33 mA nominal
- Control output: 20-24 V $\overline{\text{---}}$  active high logic control signal with short-circuit protection, open collector when unoccupied
- UL and CUL listed

### Operating Environment

- Temperature: 32°F to 104°F (0°C to 40°C)
- Relative humidity: less than 95%, non-condensing
- For indoor use only

## Dimensions



Measurements are in inches (mm)

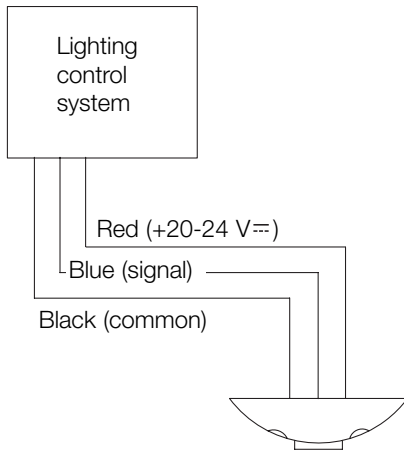
Job Name:

Model Numbers:

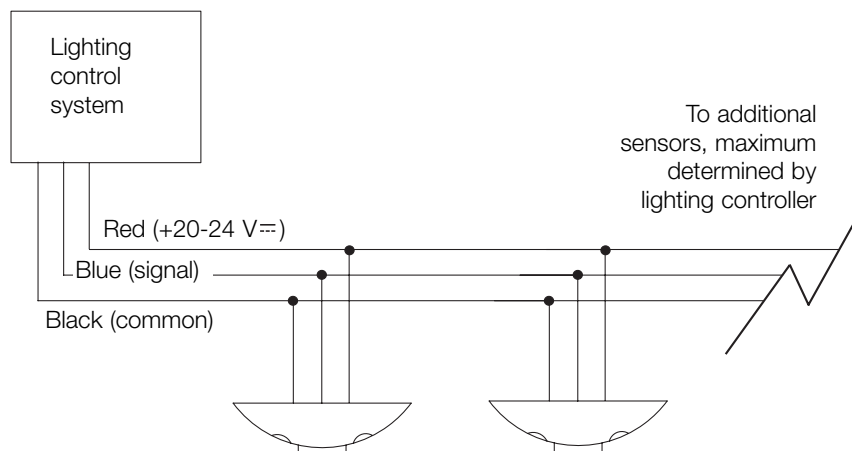
Job Number:

# Wiring

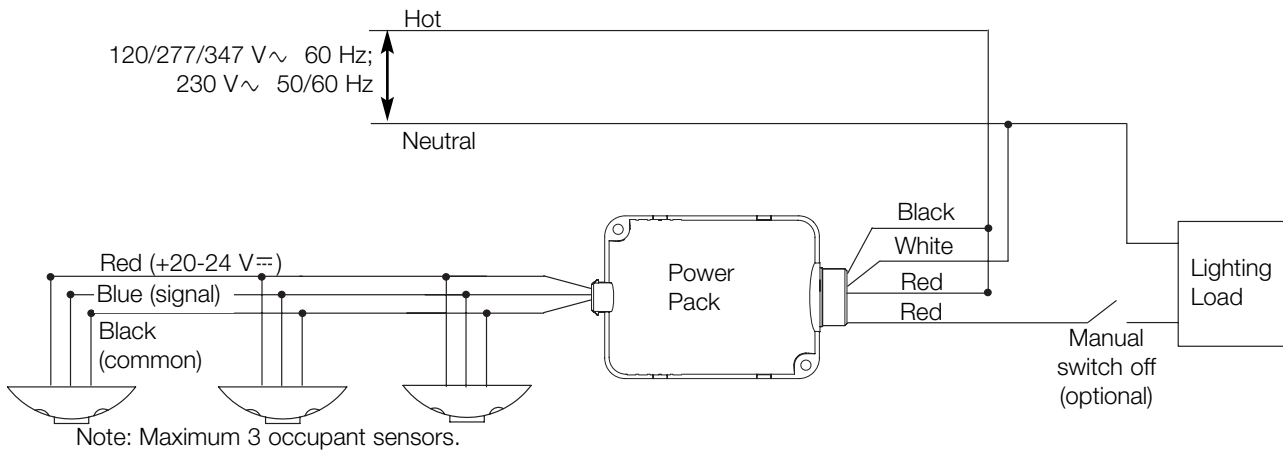
## Single Sensor to System



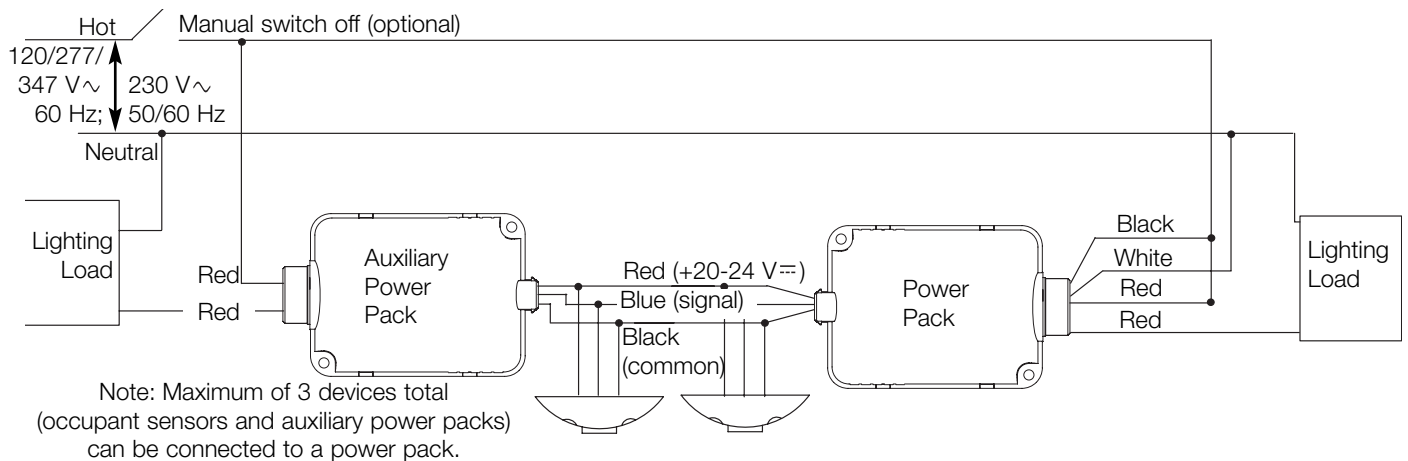
## 2 or More Sensors to System



## 1 to 3 Sensors with Power Pack



## Switching Multiple Loads with Auxiliary Power Packs



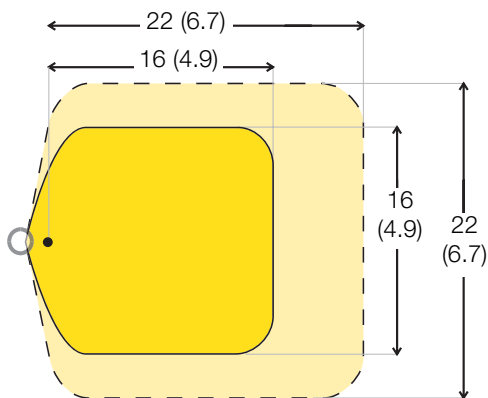
<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## Installation

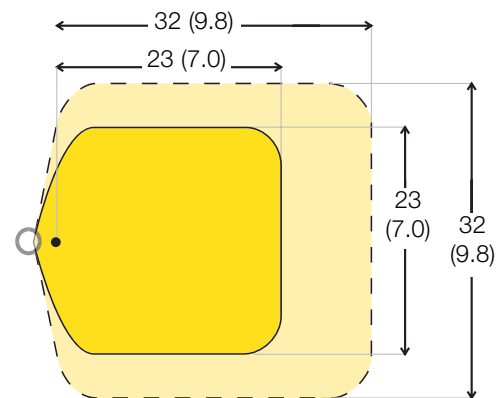
### Sensor Placement

- Mount the sensor so the grilles face the open portion of the room and are not facing a nearby wall, window, or other obstructing object.
- Keep the occupant sensor away from air flow from ventilation outlets, windows, fans, etc.
- If installing a 180° occupant sensor (500 and 1000 models), place the sensor on the same wall as the doorway so that traffic in a hallway will not affect the sensor; otherwise, place in center of room.
- Closely follow the diagrams shown concerning major and minor motion coverage. The sensor can detect major motion (such as a person taking a half-step) at a greater distance than it can detect minor motion (such as writing or typing at a desk).
- Decrease total coverage area by 15% for “soft” rooms (for example, heavy draperies or heavy carpeting).

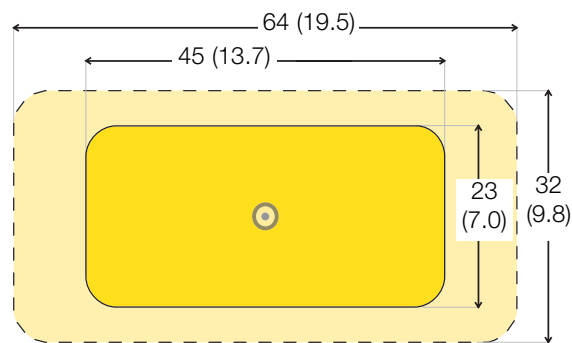
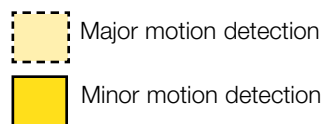
### Range Diagrams



LOS-CUS-500



LOS-CUS-1000



LOS-CUS-2000

Dimensions are in feet (m).

Job Name:

Model Numbers:

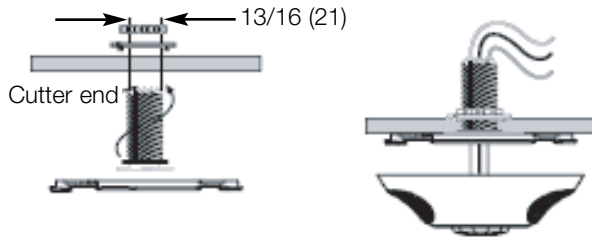
Job Number:

# Installation

## Mounting

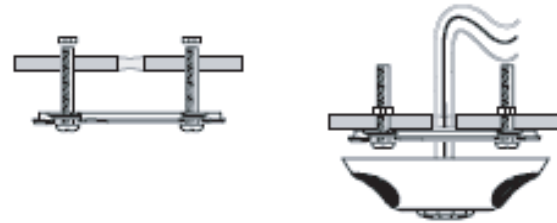
### Normal Mounting

Twist and lock threaded mounting post onto cover plate. Drill through ceiling tile with assembly, using cutter end of the threaded mounting post. Secure with washer and nut.



### Mounting to Non-Standard Ceiling or Fixture

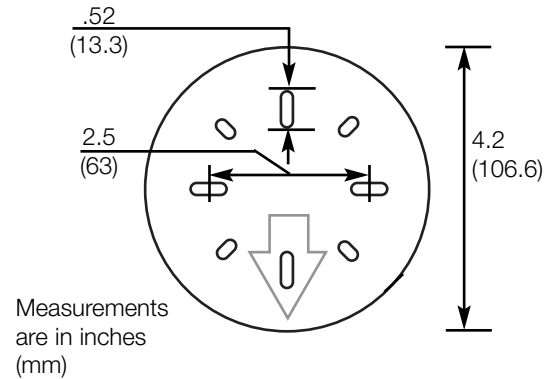
Mount twist-lock cover plate using mounting screws, nuts, and washers (included). Drill/punch wire routing hole through ceiling tile at center of cover plate.



### Wire Lengths (feet)

# Sensors	1	2	3	1	2	1
# Aux. PPs	0	0	0	1	1	2
22 AWG	750	375	250	375	250	250
20 AWG	1200	600	400	600	400	400
18 AWG	2400	1200	800	1200	800	800

### Mounting Plate Dimensions



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## Sensor Adjustments

### Override Settings

	A	Off (Default)	On
Auto/Manual	<input type="checkbox"/>	1 Automatic (Normal)	Manual on/off (Override)
Threshold	<input type="checkbox"/>	2 Auto Threshold Adjustment	High Sensitivity (Low turn-on threshold)
LED Motion Indicator	<input type="checkbox"/>	3 Lights indicate motion	Disable LED Indicator
Reset Learned Settings	<input type="checkbox"/>	4 Retain Settings (Normal)	Erase all learned settings, Restart Learning (Toggle On)



	B	Off	On
Strong Airflow Compensation	<input type="checkbox"/>	1 Disable Compensation (Normal)	Enable Compensation
Over Doorway Installation	<input type="checkbox"/>	2 No (Normal)	Yes (Use increased turn-on threshold)
Timer Adjust	<input type="checkbox"/>	3 Adjust Timer Automatically	Use Manual Setting (No adjustment)
Auto Sensitivity	<input type="checkbox"/>	4 Adjust Sensitivity Automatically	Adjust Sensitivity Manually



### Timer Test Mode

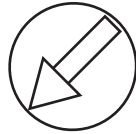
1. Remove the retainer cover.
2. Rotate the black timer adjustment knob to about midway (12 o'clock).
3. Return setting to minimum setting (full CCW).



Factory Settings



12 o'clock

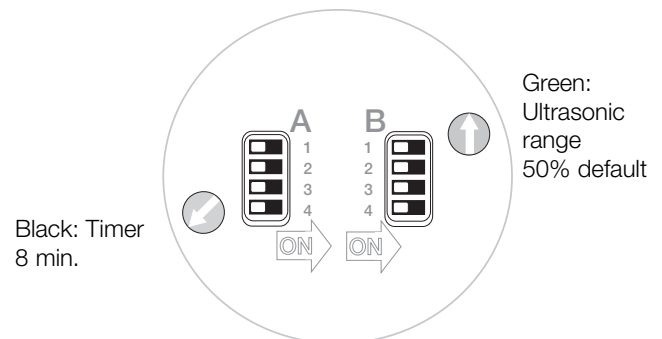


Full CCW

Note: The timer will remain in the 8-second test mode for 1 hour, then automatically reset to 8 minutes.

4. To manually take the timer out of the 8-second test mode, turn the timer adjustment approximately 1/16" clockwise to make the setting slightly above minimum (just above the 8-minute setting).

### Factory Settings



Job Name:

Model Numbers:

Job Number: