

## INSTALLATION INSTRUCTIONS

### DESCRIPTION

**CUI-500-2000** Dual technology ceiling mount sensor. Supplied with mounting plate and mounting screws.

### FEATURES

- 2000 sq. ft area of coverage.
- 5 programming options.
- Adjustable time delay 30 seconds to 30 minutes.
- Adjustable sensitivity.

### PRE-INSTALLATION

1. For installation by a qualified electrician in accordance with national and local codes and the following instructions.
2. For indoor use only.
3. **CAUTION: RISK OF ELECTRIC SHOCK. Disconnect power before installing. Never wire energized electrical components.**
4. **CAUTION: USE COPPER CONDUCTORS ONLY.**
5. Check to see that the device type and rating are suitable for the application.
6. When installing the sensor, observe the maximum rated capacity of the associated power pack:
  - 211-1 20A Incandescent (2400W Tungsten) at 120VAC, 60 Hz.
  - 20A Ballast (2400W Fluorescent) at 120VAC, 60 Hz.
  - 213-1 20A Ballast (5000W Fluorescent) at 277VAC, 60 Hz.
7. If moisture or condensation is evident, allow the product to dry completely before installation.
8. Do not install if any damage to the product is noticed

**Mounting** - Unit should be mounted as shown in the mounting diagram using a single gang plaster ring attached to an approved box.

### INSTALLATION

1. Check that power is turned off at circuit breaker before installing the sensor.
2. Connect and mount the sensor as outlined in the drawings at right.
3. Use approved wire nuts for all electrical connections.
4. Attach the sensor to the ceiling by mounting it to a 4" square mud ring with the supplied mounting plate.
5. Energize the sensor and allow it to warm up (approximately 3 min.).
6. Set the time delay and sensitivity (see **ADJUSTMENT INFORMATION** below) and check operation with a walk test. The lights should turn on and the LED should also blink when detecting motion.

### ADJUSTMENT INFORMATION

**Time delay adjustment** - 30 seconds to 30 minutes.

- Before starting the adjustment procedure - make sure that the HVAC systems and lighting circuits are turned on.
- Set the time delay at minimum (fully counterclockwise) and leave the room. With no movements the lights should go out in about 2-3 minutes.
- Re-enter the room. The lights should go on. Adjust the time delay to the desired interval. This will determine how long the lights stay on after no motion is detected.

### Sensitivity

- Set the DIP switches by referring to the *Program Selection Guide* on reverse side.
- After setting the DIP switches, set the sensitivity adjustment for ultrasonic by observing the green LED (the red LED indicates passive infrared detection, which does not need a sensitivity adjustment).
- Clockwise (CW): increases sensitivity
- Counterclockwise (CCW): decreases sensitivity.

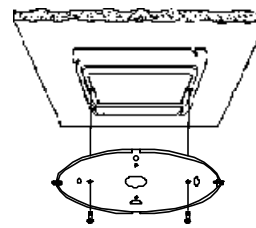
In general, the larger the room, the higher the sensitivity.

### Override

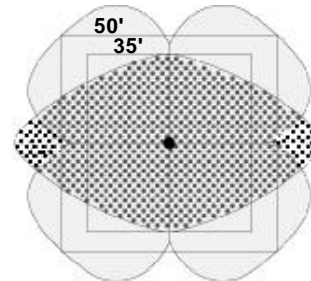
The sensor can be bypassed to keep the lighting on if required. Insert the bypass key provided into the bypass slot on the face of the sensor. This should only be done for emergency or testing purposes.

### MOUNTING

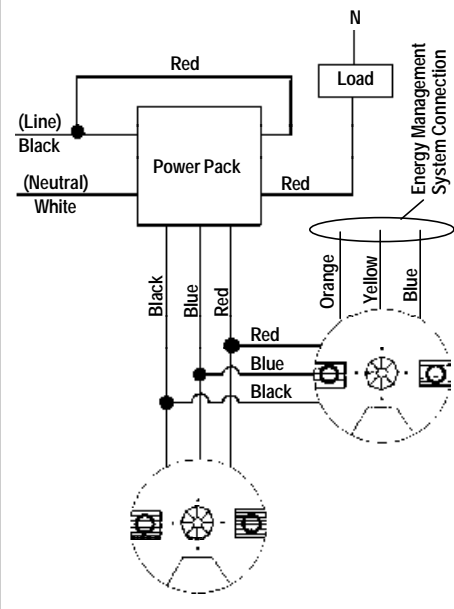
Single Gang Plaster Ring



### COVERAGE • CUI-500-2000



### WIRING DIAGRAM



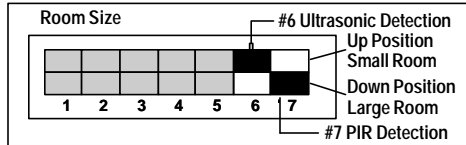
# CUI-500-2000 Program Selection Guide

## ■ \*Switch Position

\* Switches 1 - 5 control ultrasonic and passive infrared settings  
Switches 6 - 7 are for selecting proper room size.

After setting the adjustments for room size, choose the program below that best fits the description of the area being controlled.

### Room Size Selection



Program selection for #6 & #7 are selection of either large or small rooms as listed below:

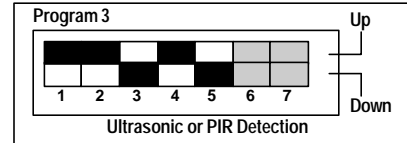
#### #6 Ultrasonic detection

UP = Small room (400sq.ft. or less)  
DOWN = Large room (up to 2000sq. ft.)

#### #7 Passive Infrared detection

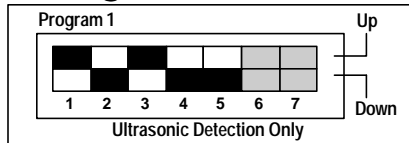
UP = Small room (400sq. ft or less)  
DOWN = Large room (up to 2000sq. ft)

### #3 Program Selection



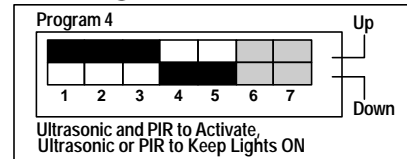
Used in areas in which high sensitivity is needed and no turbulence or adverse environmental conditions exist. This program selection permits maximum sensitivity by using both ultrasonic and passive infrared technology.

### #1 Program Selection



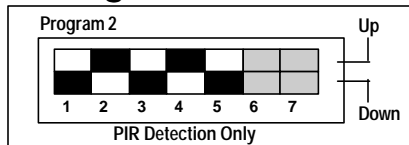
Used in common office areas. Using this program will enhance the detection that is needed in partitioned office areas. This program only uses ultrasonic detection.

### #4 Program Selection



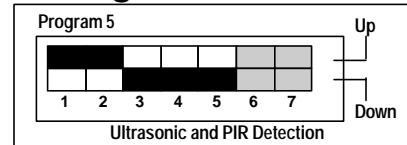
Used in rooms and areas such as in classrooms that require minor motion detection, but cannot be falsely triggered by turbulence (hanging mobiles, etc.). Sensitivity increases after lights are switched on.

### #2 Program Selection



Used in areas in which turbulence such as air draft or high air flow from ceiling registers is a problem. This program only uses passive infrared detection. If environmental conditions are too severe for this program selection, use program selection #5.

### #5 Program Selection



Used in areas where turbulent conditions exist in which no other program selection can satisfy. This selection requires both ultrasonic and passive infrared detection to simultaneously occur in order to trigger the timing circuit that will ultimately keep the lights on.