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Instruction Manual for Occupancy Sensor for Under Cabinet Lights

Part Number: OS1

Congratulations on your purchase of premium LED under cabinet lighting products or infrared bar products from EnvironmentalLights.com. The OS1 is a sleek and compact in-line occupancy sensor that can control a very large installation of our under cabinet bars or infrared bars subject to a simple rule: you must not have more than 40 watts of power running through the occupancy sensor. Our High Brightness under cabinet light series uses 5 watts per foot, so you cannot have more than 8 feet of lights on the end of the occupancy sensor that is opposite the driver.

This means you can place the occupancy sensor on one branch and have it control all the other branches on the "tree". But if you put the sensor on the "trunk" of the tree, the tree can't have more than 8 feet of branches (or 12 feet of infrared bars, which use only 3.2 watts per bar.)

For our under cabinet lighting, use a high quality LED regular (non-dimming) driver that provides 24 volts DC (+/- 5%), such as those we sell. For our infrared bars used in multitouch screens, use 12 VDC, not 24 VDC. **Not compatible with touch dimmer TD1.** Certain constant voltage dimming drivers (not PWM dimmers) sold by us are compatible, specifically:

24 VDC Under Cabinet Bars	12 VDC Infrared Bars
48W24VDim-120AC	36W12VDim-120AC
96W24VDim-120AC	60W12VDim-120AC
3x96W24VDimX-120AC	4x60W12VDimX-120AC

The OS1 ships as a kit, including all the parts shown in the picture at right, above. The gray switched power cord (PCOS1) is available for purchase as a separate item, should you lose or damage yours. The occupancy sensor will not work with our normal power cords. Also, the lights will not work using the gray cord without the occupancy sensor. You must use both the special cord and the occupancy sensor in your installation. That does NOT mean they must be connected directly to each other, as you will see in the diagrams later in this note.

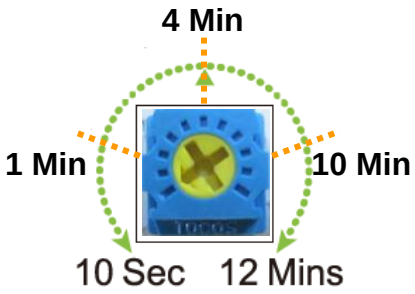
Caution

1. Follow safety precautions. If you are not qualified to do electrical work, get help.
2. Do not modify the device.
3. Disconnect the power (adaptor) before installing/removing the device.
4. Do not use this device near water, for example, a bathtub, a pool, sinks, or laundry tub.
5. Keep the device dry.
6. Do not scratch the sensing area.

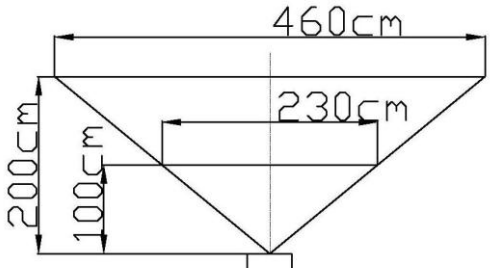
I. Operation Description

1. **Switch On/Off:** The motion sensor resets itself when the power cable is connected and switched on by the user from the off state. During the reset period, the light bar will be lit up for around 25 seconds. The motion sensor become active after the reset period ends.

2. **On period setting:** The on period is when the light is switched on by the motion sensor when detecting a warm moving object (human) and the duration of the on period can be controlled by making adjustment to the timer as shown in the picture below. The accuracy of the timer is around ±20%.



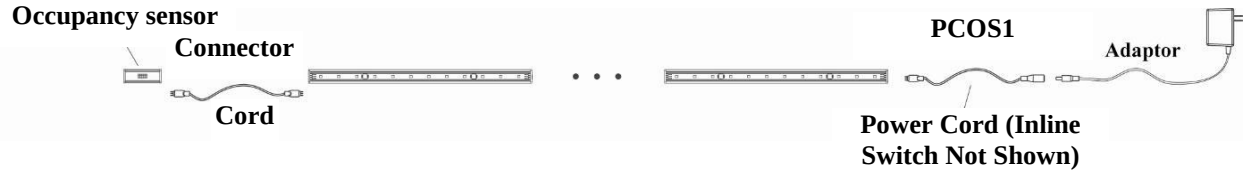
3. **Sensing range:** The sensing range shown in the diagram below:



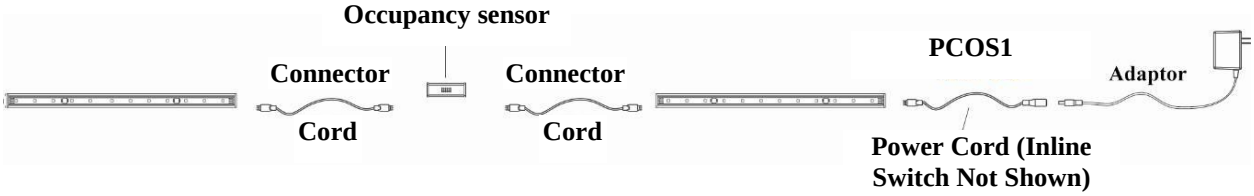
II. System Configuration

The occupancy sensor can be installed at any place in a light bar chain or network. Several scenarios are illustrated below.

Scenario 1: Occupancy sensor at the "end" of a chain:



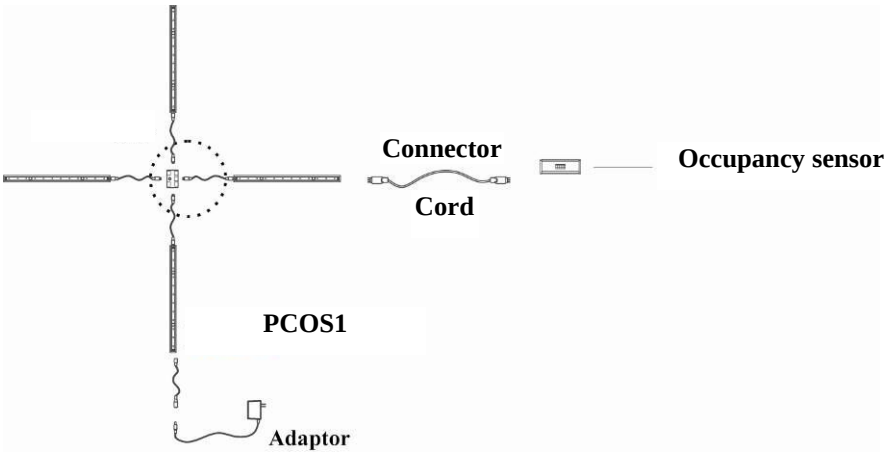
Scenario 2: Occupancy sensor in the "middle" of a chain:



Scenario 3: Occupancy sensor at the "beginning" of a chain:

Scenario 4: Occupancy sensor on a branching "network":

In this case, the network could be very large because the occupancy sensor is at the end of a branch, so it does not have to carry the current of any bars. This installation shows how you can use the occupancy sensor to control many bars at once.



There is an extensive operating guide for the under cabinet lighting system available online at EnvironmentalLights.com. Our engineers are available to answer your questions, and we welcome your call.

You may use more than one occupancy sensor on a network, but use only one of the special cords.