

EDS SENSORS INSTALLATION AND  
MAINTENANCE MANUAL (IMM)

p/n 51525T rev 1/21/09

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# EDS SENSORS INSTALLATION AND MAINTENANCE MANUAL (IMM)

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## GENERAL

1. Please read these instructions carefully to prevent any possible injury or equipment damage.
2. Installer must be a qualified and experienced service technician.
3. Verify the product ratings to confirm that this product will satisfy your requirements and application.

## INTRODUCTION

The EDS sensor is designed to work directly with electronic dimming ballasts Class 2 Low Voltage Power Supply, such as the Advance™ Mark VII and others using a 0-10v dimming control signal. It is ideal for daylight control or task tuning and to compensate for lumen depreciation. The sensor is available in an indoor version only and is intended to be ceiling mounted. For mounting location and recommendation (See Figure 1).

## INSTALLATION

Mount the Indoor sensor in a 3/8" hole in the false ceiling tile using the adhesive backing. For most general applications the sensor should be mounted between 6-8 feet of the window area, central to the area illuminated by the electrical lighting that will be controlled. For controlling lighting in a task area, mount the sensor directly over the task area. In all cases the sensor must be mounted so that it looks at reflected light only and not at any direct light (See Figure 1).

## CONNECTIONS

To prevent electrical shock, disconnect power to the electronic dimming ballast (s) before connecting the sensor. Do not run the wires with or near power wiring. For long wire runs or where there is excessive electrical noise, shielded cable or conduit is required. In any case, maximum wire length is 100 feet. Use 20 or 22 AWG wire and observe the following wire color polarities:

**GRAY:** To gray wire from electronic dimming ballast      **BLUE:** Not Used  
**VIOLET:** To violet wire from electronic dimming ballast      **BLACK:** Not Used  
**WHITE/GREEN:** This wire loop controls the sensor response delay - leave intact for an 8 second delay, cut for a 3 second delay.

Butt splices are recommended, but wire nuts are acceptable. Each EDS sensor can control a maximum of 80 ballasts.

## **CALIBRATION**

For daylight control the calibration should be performed at night or with the blinds shut. For task tuning or lumen depreciation maintenance the calibration can be done at any time.

The EDS sensor comes equipped with a built in amplifier and a 20 turn potentiometer to adjust the limits of the sensor. Plug the adjustment tool (tube screwdriver) through the hole in the sensor with slight inward pressure and twist to engage the potentiometer screw head.

**NOTE: BE CAREFUL NOT TO SHIELD WHAT LIGHT THE SENSOR IS SEEING WHEN ADJUSTING THE SENSOR.**

### **1. Calibration for Daylight Control**

At night or with the blinds closed, rotate the adjustment tool counterclockwise (looking at the adjustment hole) until the lights begin to dim. Slowly rotate the tube back clockwise just until the lighting comes back up to full output. The lights are now set to being dimming as the light level from the outside increases.

### **2. Calibration for Task Tuning or Lumen Depreciation**

Slowly rotate the adjustment counterclockwise (to dim) or clockwise (to brighten) until the desired light level is present.

When calibration is complete remove the calibration tool and insert the plastic screw to seal the hole.

## **OPERATION**

The EDS sensor is functioning when the electronic dimming ballast are switched ON. Once calibrated the sensor needs no further attention. Except for the calibration hole, there are no switches or other user controls on the sensor.

## **MAINTENANCE**

Every 2 months wipe the lens clean with a non-scratching clean cloth and ensure that no foreign debris remains. Check the housing for damage such as cracks, burns or other deformations. Check that no moisture has penetrated the sensor, as this will likely render it inoperable.

**FIGURE 1: EDS SENSOR CONNECTIONS & MOUNTING LOCATION**

