



Installation and Operation Instructions DLC-7 Continuous Dimming Control

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 rating to confirm that this product will satisfy your requirements and application.



Introduction

The DLC-7 sensor is designed to work directly with an electronic dimming ballast such as the Advance (TM) Mark VII. 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. Refer to figure 1 for mounting location and recommendation.

Installation

Mount the sensor in a 3/8" hole in the false ceiling tile using 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 task area. In all cases the sensor must be mounted so that it looks at reflected light only and not at any direct light. Fig. 1

Connection

To prevent electrical shock, disconnect power to the electronic dimming ballasts 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 a 20 or 22 AWG wire and observe the following wire color polarities:

- | | |
|--------------|---|
| Grey: | To grey wire from electronic dimming ballast |
| Violet: | To violet wire from electronic dimming ballast |
| Blue: | To blue wire on optional wall mounted Remote Calibration Dial |
| Black: | To black wire on optional Remote Calibration Dial. |
| 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 DLC-7 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 DLC-7 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 DLC-7 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.

DLC-7 Sensor Mounting Location

