



Innovation & Quality

Photoelectric Control

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JL-103AG

**Voltage:** 120 VAC, 50/60 Hz (110-130 VAC, 50/60 Hz Operating)  
**Load Capacity:** 1800W Tungsten, 1100VA Ballast  
**Switching:** SPST (Normally Open)  
**On/Off Levels:** 10-20Lx On (Dusk), 30-60Lx Off (Dawn)  
**Electrical Life:** 6,500 cycles  
**Relative Humidity:** 96%  
**Operating Temp:** -40°C to +70°C (-40°F to +158°F)

**CAUTION: DO NOT EXCEED AMBIENT TEMPERATURE RANGE.**

**CAUTION: ELECTRICAL SHOCK HAZARD. REMOVE POWER AT SERVICE PANEL BEFORE INSTALLING.**

### Applications:

Provides automatic control of nighttime security or safety lighting for entrances, recreational areas, farms, walkways, parking lots, and other similar applications. Also works well to control protective lighting of homes, schools, and commercial buildings.

### Features:

- Thermal control with 1/2" CdS (cadmium sulfide) photocell.
- Raintight construction for outdoor use.
- Polycarbonate housing.
- Includes locknut and rubber washer.

### Installation:

**CAUTION: INSTALLATION BY A LICENSED ELECTRICIAN IS RECOMMENDED. INSTALLATION AND USE OF THIS EQUIPMENT SHOULD BE IN ACCORDANCE WITH PROVISIONS OF THE U.S. NATIONAL ELECTRICAL CODE, APPLICABLE LOCAL CODES, AND PERTINENT INDUSTRY STANDARDS.**

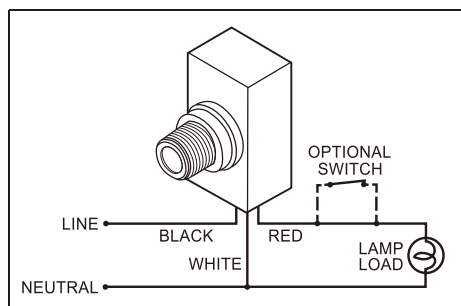
**CAUTION: CHECK TO BE SURE LINE VOLTAGE IS THE SAME AS INDICATED ON THE PHOTO CONTROL LABEL.**

**WARNING: TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR PANEL AND TEST THAT POWER IS OFF BEFORE WIRING!**

- 1) Turn power off to the circuit.
- 2) Select a location for the photo control so that it doesn't receive accidental or artificial light and turn the controlled lighting off. See location guidelines below.
  - Do not install the photo control so it directly faces the midday sun. Face the photo control north for optimum efficiency. If installing on the south side of a building, face the unit east or west or point it down toward the ground.
  - Do not face the photocontrol directly at an artificial light source such as light from windows, signs, street lights, etc that may be on after dark.
  - Do not position the photo control so that it faces the light it is controlling (or reflected light), otherwise it may cycle on and off.
- 3) Install the photo control in any approved FS device box for indoor or outdoor use or standard enclosure for indoor use with the provided locknut and rubber gasket. (See Installation Diagram) Connection to the junction box must be watertight for outdoor use.

- 4) Wire the photo control per the Wiring Diagram below.

**NOTE:** A secondary switch can be added between the red lead of the photo control and the lamp load to switch the load off at selected times after dark.



- 5) Switch the power on to the circuit. The controlled load should turn on and if it is daylight, turn off within a few minutes.

### Troubleshooting:

**- Breaker or fuse blows when power is connected.**

**Cause:**

- 1) Load exceeds breaker rating.
- 2) Photo control is incorrectly wired or there is a short in the wiring.

**Solution:**

- 1) Reduce load to within breaker rating.
- 2) Recheck wiring.

**- Lamp load blinks during the day, but is on at night.**

**Cause:**

- 1) Photo control is incorrectly wired.

**Solution:**

- 1) Recheck wiring matches wire diagram.

**- Lamp load blinks at night, but is off during the day.**

**Cause:**

- 1) Too much light is striking photo cell or light from lamp load is being reflected onto photo cell.

**Solution:**

- 1) Reorient or relocate photo control.

**- Load stays on.**

**Cause:**

- 1) Line voltage is exceptionally low.
- 2) Photo control is not rated at voltage being used.
- 3) Contacts are welded due to excessive load.
- 4) Not enough light is striking the photo cell.

**Solution:**

- 1) Have electrician check supply voltage.
- 2) Replace photo control with one of correct voltage.
- 3) Replace control and connect only rated load.
- 4) Reorient or relocate photo control.

**- Load stays off.**

**Cause:**

- 1) Lamp and/or ballast is burned out.
- 2) Line voltage is exceptionally high.
- 3) Photo control is not rated at voltage being used.
- 4) Too much light is striking the photocell at night.

**Solution:**

- 1) Replace lamp and/or ballast.
- 2) Have electrician check supply voltage.
- 3) Replace photo control with one of correct voltage.
- 4) Reorient or relocate the photo control.

### SIX YEAR LIMITED WARRANTY

If this product fails because of a manufacturing defect within six years after purchase, we will replace it at no charge. Our warranty does not cover damage caused by accident, abuse, or misuse. We assume no further liability with respect to the sale or use of this product. This warranty is in lieu of all other warranties, expressed or implied, including the warranty of merchantability. We make no warranty with respect to the fitness of any goods for the user's particular application. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.