



Heath Zenith SL-5410-A Motion Sensor Light Control



User Guide




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Safety Information

Follow these instructions to carefully to avoid fire, shock, personal injury, and product damage:

- Before proceeding with installation, turn off the power to the lighting circuit you will be using to avoid electrical shock, as follows:
 - switch the power off to the lighting circuit at the fuse box within your home (typically in the basement).
 - To prevent the power from being turned on when working, securely fasten a warning tag to the fuse box until you are finished installing the light control.
- The sensor must be mounted with the controls facing downward to avoid the risk of electric shock.
- Follow the instructions in this manual for the proper method of installing and wiring the light control.
- All wiring and installation procedures must follow National Electrical Codes (ANSI/NFPA 1970-1999) and local codes.
- The light control must be grounded as a precaution against possible electric shock.
- Electrical installation should be made or approved by a licensed electrician.

	Danger	This symbol and word indicate an imminent threat of serious injury or death.
	Warning	This symbol and word indicate a threat of serious injury.
	Caution	This symbol and word indicate a threat of injury or equipment damage.
	Note	This word indicates helpful information.

Instructions for the Heath Zenith SL-5410-A Motion Sensor Light Control

Introduction

The Heath Zenith SL-5410-A Motion Sensor Light Control controls outdoor lighting to provide convenience, security, and safety. The SL-5410-A Light Control senses the heat from moving objects to switch on up to 500 watts of lighting. After an adjustable period, the lighting is switched off automatically. A built-in photocell deactivates the motion sensor during daylight hours.

The SL-5410-A Light Control includes the following parts:

- Photocell
- light fixture
- junction box cover
- hardware (not shown)

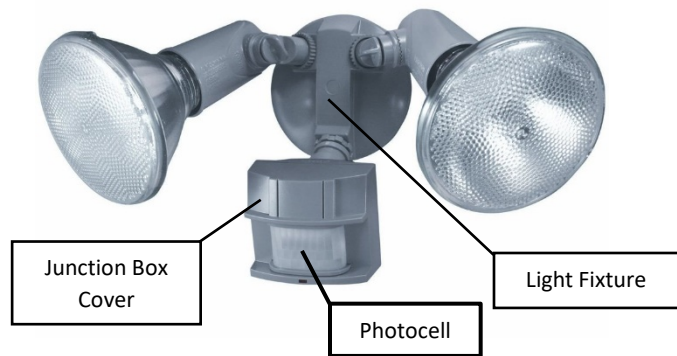


Figure 1 - SL-5410-A Light Control

Parts

The SL-5410-A Light Control package includes:

- Lighting Control
- Three solderless wire connectors
- Two lamp holders
- Junction box cover
 - Gasket
 - Cover screws
- Instruction manual

Additional Parts

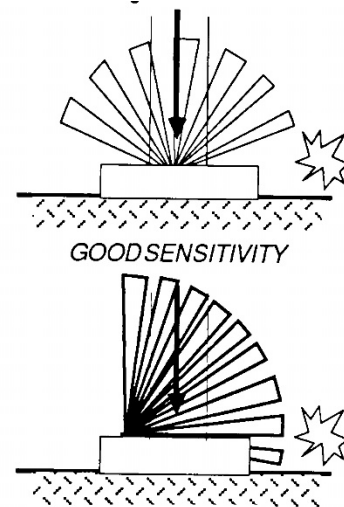
- Depending on your installation, additional wiring, wire connectors, junction boxes, or conduit may be required.
- A Phillips screwdriver is needed.

Installation Location

Select a location for the Lighting Control based on the coverage angles shown in **Figure 1** above.

Additionally, when selecting a location, consider the following:

- Do not install the Light Control over heating vents or air conditioners.
- Protect the control from weather by mounting it under roofs or eaves.
- Do not allow sunlight to fall directly on the front of the Light Control.
- The detector is most sensitive to motion across its detection field and least sensitive to motion directly towards the detector, as shown in **Figure 2**.
- To avoid nuisance triggering, do not point the Light Control at trees or shrubs or where the motion of pets may be detected.
- Avoid pointing the lamps or the Light Control at nearby light-colored objects. The reflection may trigger the day-light shut off feature.
- Avoid aiming the Light Control at pools of water or objects which may change temperature rapidly.
- Do not allow halogen lamps to shine directly at the Lighting Control case.



Mounting and Wiring Installation

This section will guide users in wiring the device to the circuitry and mounting it to the junction box.



Danger. Possible electrical shock. Death or serious injury can occur.

- Turn off the power to the lighting circuit to avoid electrical shock.
- Mount the sensor as shown in **Figure 3** with controls facing downward to avoid the risk of electrical shock.

Figure 3 shows two typical installations. The lamps are to be on either side of the SL-5410-A Control case.

For new installation, refer to Figure 4:

1. Route the power wiring from a fused or breaker source through a switch and then to the location of your Lighting Control.
2. Install a suitable junction box at the location you selected for the installation of your Lighting Control.
3. Route a three-wire cable from the light to the new junction box, if required. All three wires must be suitable for current carrying.
4. If a metal box is used, the cable must have a grounding wire.
5. Strip approximately 5/8-inch insulation off the wires.
6. Run the power wires through the gasket hole as show in **Figure 5**.

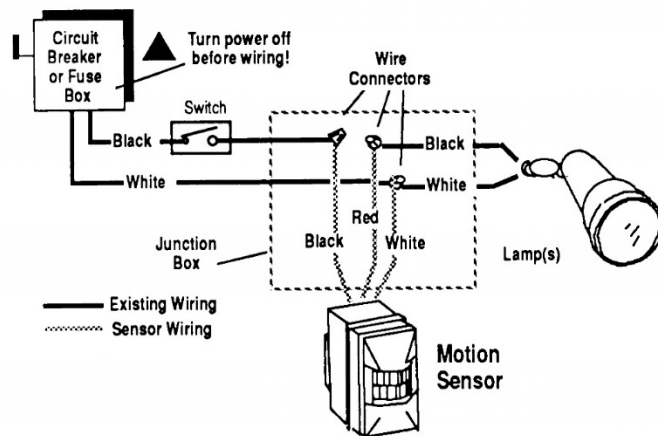


Figure 4

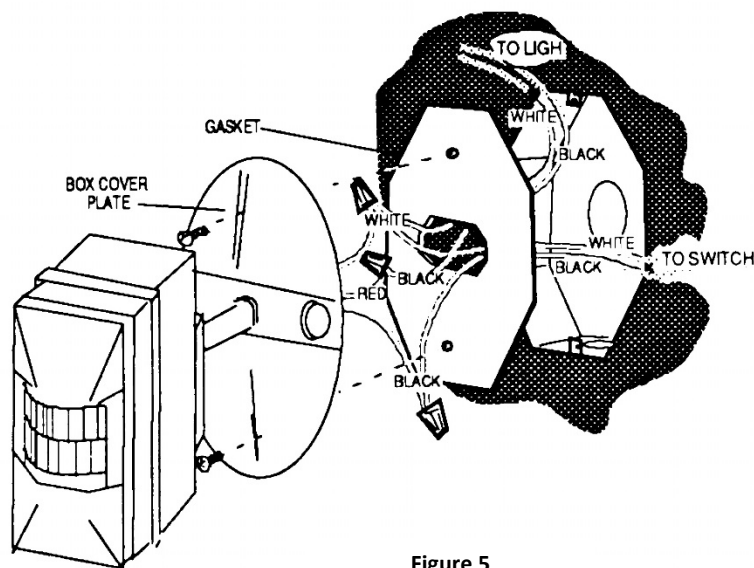


Figure 5

For new and existing installations:

Connect the wires by:

- Tightly twisting the wires together.
- Securing the wires with solderless wire connectors, as shown in **Figure 6**:

To connect all wires:

1. Connect the BLACK wire from the power source and the BLACK wire from the Lighting Control together.
2. Connect the WHITE wire from the power source, the WHITE wire from the Lighting Control, and the WHITE wire from each lamp holder together.
3. Connect the RED wire from the Lighting Control and the BLACK wire from each lamp holder together.
4. If used, connect the bare ground (or earth ground) wire from the power source to the bare ground wire from the controlled circuit.
5. Connect the ground wire to the junction (or outlet) box grounding screw.

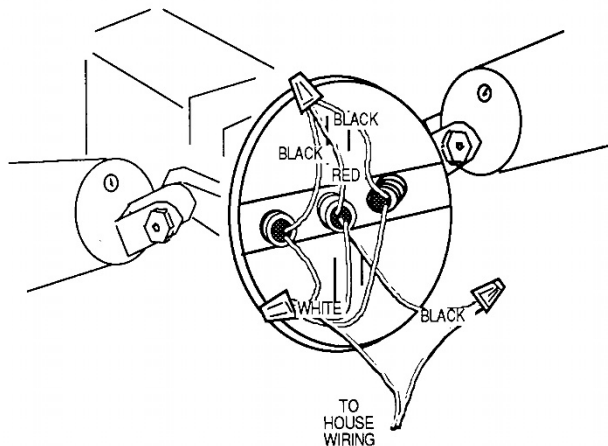


Figure 6

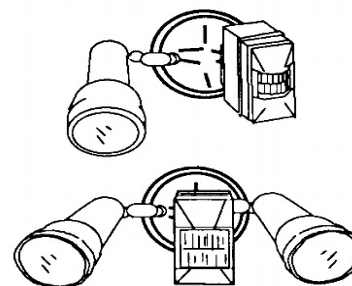


Figure 3



Caution. Operation affected. Damage or unstable operation may result. Do not let the Lighting Control touch the lamp holder or lamp.

Before mounting the box cover, make sure that the cover gasket is evenly and smoothly placed on all four sides of the cover.

Note The cover gasket is not shown. Run the power wires through the gasket hole before connecting.

Mounting Box Cover

1. Connect the control to the junction box. See **Figure 3**.

Test Mode

This procedure is needed to test if the device was correctly wired.

1. Turn the Light control and the Time control completely counter-clockwise to the Test position. See **Figure 7** for the location of the controls.
2. Turn the wall switch on.
3. The lighting will turn on for approximately one minute then turn off. This confirms that the wiring was done properly and that the lamps are working.
4. Walk through the coverage area.
5. The light will turn on when motion is detected and turn off shortly after motion stops.
6. Wait 10 seconds or more between test motions.
7. Adjust the ball joint to obtain the desired coverage area.

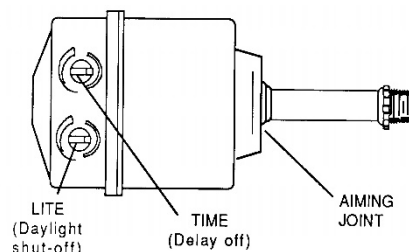


Figure 7

Time Adjustment

The TIME adjustment controls how long the light stays on after motion has been detected.



Caution. Burn hazard. Fixture may be hot after the light has been on and may cause burns. Always wait 10 minutes after the light has been turned off before touching the fixture.

1. Turn the Time control (**Figure 7**) to mid-position.
2. Note how long it takes for the light to turn off after motion stops.
3. Adjust the control as follows:
 - clockwise to increase the turn-off time (7 minutes maximum)
 - counter-clock wise to decrease the turn-off time (10 seconds minimum)

Light Adjustment

The Light adjustment determines at what light level the Light Control will shut off when in AUTO MODE.

1. The Light Level control was set counter-clockwise (the TEST position) so that it would operate even in daylight (**Figure 7**).
2. Turn the Light Level completely clockwise.
3. At dusk, turn the Light Level control slowly counter-clockwise until the light comes on.
4. The light control will now only be active from dusk to dawn

Operation

By using the wall switch to your Lighting Control, you can select one of two modes of operation:

- AUTO MODE
- MANUAL OVERRIDE

Auto Mode

In AUTO MODE the control detects motion and turns the light on for the adjustable period.

1. Turn the power off for 5 seconds and then turn it on to activate AUTO mode.
2. The built-in photocell turns the lighting off during the day.
3. When first powered up, or after being off for an extended time, the lighting will turn on for 1 to 10 minutes (depending on the time setting), then turn off.

Manual Override

- In MANUAL OVERRIDE, the lighting will remain on regardless of motion or light level.
- Flip the switch off and on within 1 second in the AUTO MODE. This action puts the control into MANUAL OVERRIDE.

Troubleshooting

Problem	Possible Cause	Corrective Action
Light turns on constantly.	Light is pointed at shrubs or trees where animals are moving.	Correct the position of the light fixture to point away from shrubs and trees.
Light shuts off too quickly.	<ul style="list-style-type: none"> Possible reflection from sources around the light control. Control is set to minimum allowed time. 	<ul style="list-style-type: none"> Avoid pointing the lamps or the Light Control at nearby light-colored objects. Set control for a longer timeframe.
Light will not turn on.	<ul style="list-style-type: none"> Light bulb is not inserted correctly, or light bulb is damaged. 	<ul style="list-style-type: none"> Make sure the bulb is inserted into the socket evenly and screwed in all the way. Make sure the bulb is new and not damaged.
	<ul style="list-style-type: none"> Power not turned on. 	<ul style="list-style-type: none"> Make sure power is turned on at circuit breaker and the Light Control.
	<ul style="list-style-type: none"> Wires not connected correctly. 	<ul style="list-style-type: none"> Double check that all wires are connected, as indicated.
Light stays on too long.	<ul style="list-style-type: none"> Control is set to maximum allowed time. 	<ul style="list-style-type: none"> Adjust time control to a shorter timeframe.
Light never shuts off.	<ul style="list-style-type: none"> Light is on Manual Mode. 	<ul style="list-style-type: none"> Change to Auto Mode.

Specifications

- Range: Up to 50 ft. Maximum Lighting Load: 500 Watts; Incandescent Power Requirements: 120 V, 60 Hz, 1 Watt (Lighting Control Only)
- Heath Zenith SL-5410-A
- Size (overall): 6 ¼" X 2 ½" X 4 ½"; Net Weight: 14 oz.
- Caution: This device is to be used with U.L. approved rain-tight or wet location suitable outlet cover.
- For technical assistance on this product, call 616-982-3496 (8:00 a.m. to 4:30 p.m. Eastern Standard Time, Weekdays).
- The Heath Company reserves the right to discontinue products and to change specifications at any time without incurring any obligation to incorporate new features in products previously sold.
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Heath Corporation
New York, NY
www.heath.com

Pub. No. 123-45678
Reve 3.28.2016 (B)