

# OWNER'S MANUAL

PREASSEMBLED AUTOMATIC  
SECURITY FLOODLIGHTS

MOTION SENSOR SECURITY  
LIGHTING SYSTEMS

*LiteAide*®

HE-100B  
HE-100BW  
HE-112  
HE-112W  
HE-117  
HE-117W  
HE-117-2B

**UNIVERSAL**®

# OWNER'S MANUAL

## FLOOD LAMPS (BULBS)

Your security floodlight uses two 150 watt (maximum) incandescent, quartz or halogen flood lamps. If you are replacing an old floodlight installation, save the flood lamps. If you are making a new installation, obtain two flood lamps from your local hardware store or home center.

## ELECTRICAL POWER CIRCUIT AND WALL SWITCH INSTALLATION

If you are not replacing an existing floodlight (or another outdoor light at least 8 feet [2.4 meters] high), or if you do not have a wall switch and would like to operate the security floodlight manually (as well as automatically), have a person experienced and licensed in electrical wiring install a power circuit, an indoor wall switch and a round electrical junction box (on the outside of the house or building where the security floodlight will be mounted). The installation instructions that follow assume that a 110-120 volt, 60 Hertz power line is available at a junction box on the exterior of your house or building. Read **Site Selection** before installing a new power circuit.

## INSTALLATION OF SECURITY FLOODLIGHT

Follow these procedures to easily install your security floodlight. Four major steps of installation include: site selection, preparation of the security floodlight for installation, removing an old floodlight assembly (if there is one), and installation of the security floodlight.

### Site Selection

Walk around your home or building and choose the best location for installing the security floodlight with regard to the following:

- Consider replacing an existing floodlight with the security floodlight. Use the electrical wiring to the old floodlight for the security floodlight.

Also regard the following considerations:

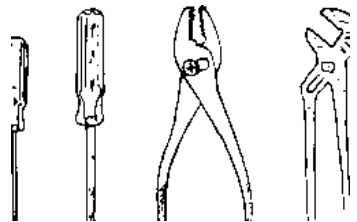
- The security floodlight operates on 110-120 volt, 60 Hertz electrical power **only**. Do **not** connect it to any other voltage source.
- Locate the security floodlight at least 8 feet (2.5 meters) above the ground.
- The security floodlight **sensor** may not point toward a reflective surface such as a window, swimming pool or similar reflective surface.
- Do not install the security floodlight **above** a heat pump, air conditioner, heater, electric light or similar device. These devices produce heat that may cause false triggering of the security floodlight.
- The sensor is most sensitive to motion **across** the beam pattern and least sensitive to movement toward or away from the sensor. Therefore, you want to point the sensor so that the normal walking path is across the beam pattern.

### Preparation of the Security Floodlight for Installation

Prepare the security floodlight for installation at your kitchen table or workbench as follows:

1. You will need a No. 1 or 2 Phillips head screwdriver, a 1/4 inch straight blade screwdriver and a pair of combination slip-joint or channel pliers.

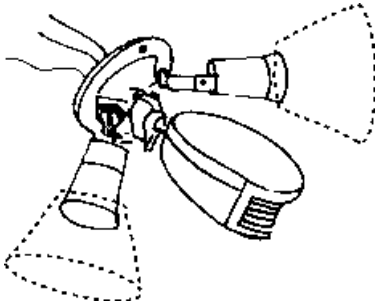
You will also need a dry wooden ladder to reach the installation (a wet ladder or a metal ladder conducts electricity).



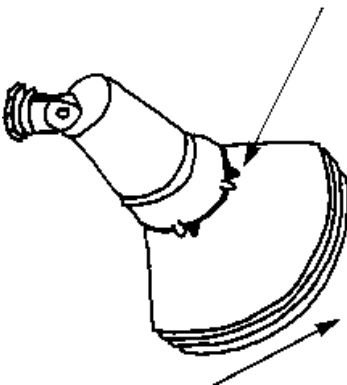
## CAUTION

Never allow sunlight to shine directly into the security floodlight sensor prior to, during or after installation. Direct sunlight could damage the sensor.

2. Remove the preassembled security floodlight from the box.

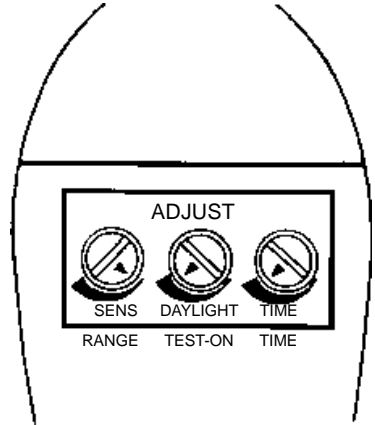


Locate shield slots and push down over four retainer pins.

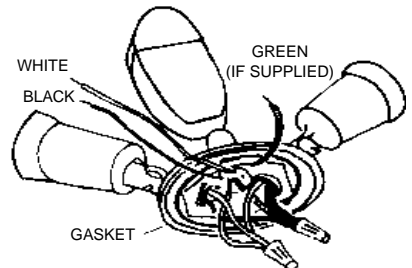


Turn to lock in place.

3. Observe three controls on the sensor. Rotate SENS/RANGE (sensitivity) control fully clockwise. Rotate DAYLIGHT/TEST-ON control fully counterclockwise. Rotate TIME (Time Delay) control fully counterclockwise.



4. Place all wires of the security floodlight through the gasket. Locate the gasket against the back side of the cover. The security floodlight is ready for outdoor installation.



## Removing an Old Floodlight Assembly (if there is one)

Remove an old floodlight assembly as follows:

### WARNING

The old floodlight should only be removed and the new security floodlight installed by persons experienced and licensed in household electrical wiring.

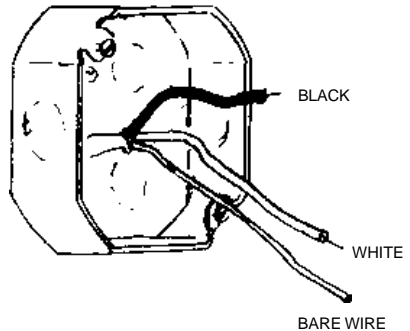
Connect the security floodlight only to 110-120 volt, 60 Hertz electrical power. There is sufficient voltage and current to harm you if you come into contact with the 110-120 volt, 60 Hertz electrical power.

1. Turn off all electrical power to the old floodlight as follows:

### WARNING

Ensure that the 110-120 volt, 60 Hertz electrical power to the old floodlight is OFF. There is sufficient voltage and current to harm you if you come into contact with the 110-120 volt, 60 Hertz electrical power.

- A. Turn the old floodlight ON. Observe the floodlight and make sure the floodlight is lit.
  - B. At your circuit breaker or fuse box, set circuit breakers to OFF or remove fuses until you observe that the old floodlight is no longer lit.
  - C. The safest procedure is to set the **MAIN** circuit breaker or power switch to OFF. When the old floodlight is off, proceed to step 2.
2. Remove flood lamps from old floodlight.
  3. While holding the old floodlight, remove two screws holding the old floodlight to an electrical box. Save the screws for now.
  4. While holding the old floodlight, observe the wires: white, black or green (if supplied).
  5. Remove wire connectors from the old wiring. Remove the floodlight.
  6. Observe the electrical box. All standard electrical boxes can be used for installation of the new security floodlight.



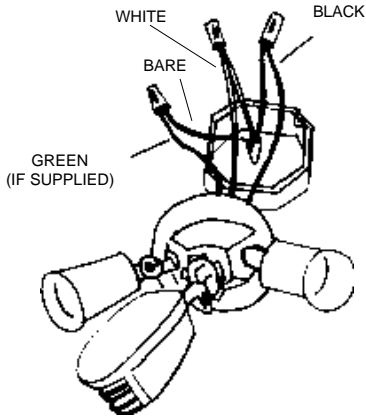
## Installation of the Security Floodlight

Install the new security floodlight as follows:

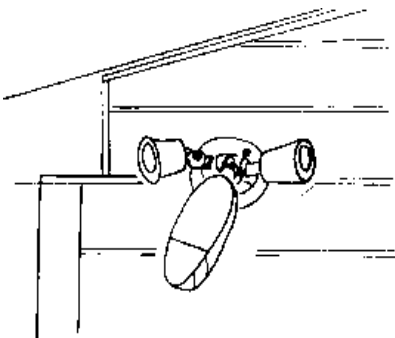
### WARNING

Ensure that the 110-120 volt, 60 Hertz electrical power is OFF. There is sufficient voltage and current to harm you if you come into contact with 110-120 volt, 60 Hertz electrical power.

1. While holding the security floodlight near the electrical box, twist (clockwise) the white wire from the electrical cable and the white wire from the security floodlight together. Then screw (clockwise) a wire connector onto the wires. Pull the wire connector to ensure tightness.
2. Twist (clockwise) the black wire from the electrical cable and the black wire from the security floodlight together. Then screw (clockwise) a wire connector onto the wires. Pull on the wire connected to ensure tightness.
3. If green wire is supplied, attach the bare wire from the electrical cable and the green wire from the security floodlight together with a wire connector. Pull on the wire connector to ensure tightness.



4. With the gasket in place against the cover, place two mounting screws through the security floodlight cover and through the gasket.
5. Tuck wires into the electrical box and start the screws into the electrical box. Inspect to ensure that all wires are inside of the box (not pinched) and the gasket is in place. Secure the security floodlight to the electrical box.



## ADJUSTMENTS AND TESTING

Four easy adjustment and testing steps put your security floodlight into operation: sensor and floodlight positioning, test, timing adjustment and sensitivity adjustment. You can make these adjustments and tests in daylight. After a few days of operation, you may want to make readjustments - refer to FINAL ADJUSTMENTS.

### Sensor and Floodlight Positioning

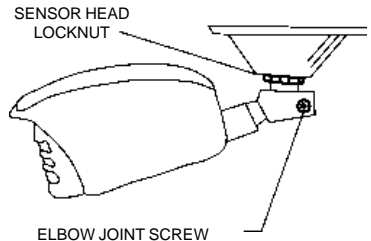
Position the sensor for correct operation and position the floodlights to light the desired areas.

#### CAUTION

**Do not point the sensor above the horizon because it may be damaged from direct sunlight.**

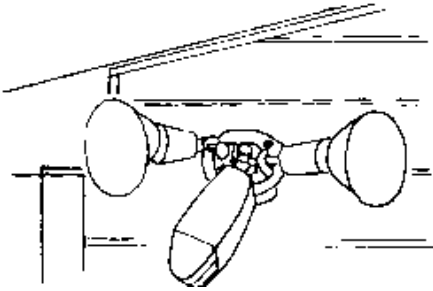
### For Wall/Eave Mounting

1. Loosen the sensor head locknut and loosen the elbow joint screw.
2. Position the sensor horizontally (controls facing downward) towards the desired target area.



3. After the correct position has been established, tighten the elbow joint screw and the sensor head locknut at the end of the elbow (near the cover).

Screw the lamps into the sockets.



## Walk Test

Testing can be performed during daylight.

Testing includes applying electrical power, walking into the sensing area to determine if the sensor head is aimed properly and readjustment of the sensor position, if necessary. Be sure all controls are set as shown on Page 3.

1. Turn the wall switch (if installed) to on.
2. Perform the following applicable procedure(s). Place the circuit breaker to ON or replace the removed fuse. Observe that the circuit breaker remains ON (or that the fuse does not "blow").
3. Walk into the sensing area. The security floodlight should come on, then go off in about 5 seconds. If the floodlight does not come on, refer to **TROUBLESHOOTING**. Otherwise, go to Step 4.
4. Walk around the outside of the sensing area and observe the reaction of the floodlights as you move into the sensing area. Determine the protected area. If the protected area is not satisfactory to you, redirect the sensor toward the desired target area.
5. When the sensing area is satisfactory, tighten the screw and the locknut on the sensor arm.

## Timing Adjustment

The floodlight on-time is variable from 5 seconds to approximately 18 minutes. Set the on-time as follows:

1. Turn the TIME control clockwise to the desired setting. The mid-setting is 9 minutes (approx.). The further it is turned clockwise, the longer the security floodlight remains on when triggered.
2. Let the security floodlight turn off. Walk into the sensor area and observe the time when the floodlight comes on. Note the time when the floodlight goes off. Readjust the TIME control, as necessary, to set the desired on-time.

## Sensitivity (SENS/RANGE) Adjustment

The sensitivity adjustment was set earlier to the most sensitive setting. This setting may be changed to prevent accidental triggering by family pets or other interference. Turn the SENS/RANGE control counterclockwise to make it less sensitive.

### NOTE

**Your security floodlight is highly responsive; therefore, it may occasionally activate due to rapid environmental changes.**

## Test Adjustment

During installation, the DAYLIGHT/TEST-ON control has been set fully counterclockwise to let you make adjustments in the daylight. Turn the DAYLIGHT/TEST-ON control fully clockwise to prevent operation in daylight. This completes adjustment.

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## OPERATION WHERE A WALL SWITCH IS INSTALLED

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If a wall switch is installed, your security floodlight operates in two modes: automatic and manual. In automatic mode, the solid-state circuits are enabled at dusk or dark. When the infrared sensor detects something in the field, the security floodlight comes on.

The floodlight remains on the set time between 5 seconds and 18 minutes (approximate).

The manual mode permits you to turn the security floodlight on for as long a time period as you desire. You end the on-time by manually turning the security floodlight off and then back on after 5 seconds (the security floodlight is now in the automatic mode). In the manual mode, the light sensor, infrared sensor and the timer are disabled.

If the wall switch is set to off continuously, the security floodlight does not operate at any time.

## Automatic Operation

To place the security floodlight in the automatic mode, turn the wall switch off, then turn it back on after 5 seconds or longer. The security floodlight will come on for the time duration set and then turn off. You may now leave the wall switch on continuously. The security floodlight will only come on in darkness when it detects something in the pattern and will go off at the end of the time period.

## Manual Operation

To place the security floodlight in the manual mode so that the security floodlight will remain on continuously (for example, if you're having an outdoor party), turn the wall switch off and then on again immediately (in less than 2 seconds). If the wall switch had been off, turn the switch on for 5 seconds or longer and then turn off and immediately on again.

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## OPERATION WHERE A WALL SWITCH IS NOT INSTALLED

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If a wall switch is **not** installed, your security floodlight operates in the automatic mode only. The system is always controlled by the solid-state circuits in the sensor. The security floodlight will only come on in darkness when it detects something in the pattern and it will shut off at the end of the time period.

### NOTE

**By using the existing circuit breaker, the security light can be operated in a "manual"**

**mode much the same as in the manual mode when a wall switch is installed.**

**Set the circuit breaker controlling power to the security floodlight to off and then immediately on (in less than 2 seconds); the floodlights will remain on. To reset the security floodlight to automatic operation again, set the circuit breaker off and set the breaker to on again after 5 seconds or longer. The floodlights will come on for the set time duration then go off and remain in the automatic mode.**

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## FINAL ADJUSTMENTS

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Once the security floodlight has operated for several days, you may want to make several final adjustments: sensitivity, duration of on-time and activation prior to complete darkness. Make these adjustments as follows:

### Sensitivity (SENS/RANGE)

If family pets or other interference cause the security floodlight to come on, make the floodlight **less** sensitive. Turn the SENS/RANGE control counterclockwise to make the floodlight **less** sensitive (or clockwise to make it more sensitive).

### Duration of On-Time

The on-time of the security floodlight is variable from 5 seconds to about 18 minutes. Turn the TIME control clockwise to increase the on-time. Turn the TIME control counterclockwise to decrease the on-time.

### Activation Prior to Complete Darkness

If you want the security floodlight to activate at dusk instead of complete darkness, turn the DAYLIGHT/TEST-ON control a small distance counterclockwise.

# LIMITED 5 YEAR WARRANTY

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