SATCO®

# OUTDOOR SECURITY MOTION SENSOR

## USER'S MANUAL

***I M P O R T A N T***

***PLEASE READ CAREFULLY AND SAVE***

This manual contains important information about the installation and operation of this security light. Purchasers who install this fixture for use by others must leave this manual with the user.

## INSTALLING YOUR MOTION SENSOR

***DANGER: ELECTRICAL SHOCK HAZARD. DO NOT BEGIN INSTALLATION UNTIL ALL POWER IS TURNED OFF AT THE MAIN SERVICE PANEL.***

This device should only be installed by persons experienced in 120V household wiring. Wiring must conform to local electrical codes.

Be certain that lamp wattage does not exceed the maximum wattage listed on the fixture.

**WARNING: Do not connect fixtures with motion sensors to circuits controlled by a dimmer. Doing so could result in permanent damage.**

***IMPORTANT: IF YOUR HOME DOES NOT HAVE A JUNCTION BOX WHERE YOU INTEND TO MOUNT YOUR FIXTURE, ONE MUST BE INSTALLED BEFORE YOU PROCEED.***

1. Thread all of the installation wires through the threaded hole in your fixture.
2. Connect the white wire(s) from your fixture and one white wire from the motion sensor and secure with a wire nut. These white wires do not connect to the power supply wire from your house.
3. Connect the hot wire(s) (usually black) from your fixture to the red wire from the motion sensor and secure with a wire nut. These wires do not connect to the power supply wire from your house.
4. Connect the white wire from the motion sensor to the white wire from the junction and secure with a wire nut.
5. Connect the black wire from the motion sensor to the black (hot) wire from the junction box and secure with a wire nut.

***WARNING: Double check all connections . Errors may cause damage or create a fire.***

6. Now, mount the fixture to the junction box as described in the manual provided with your fixture.

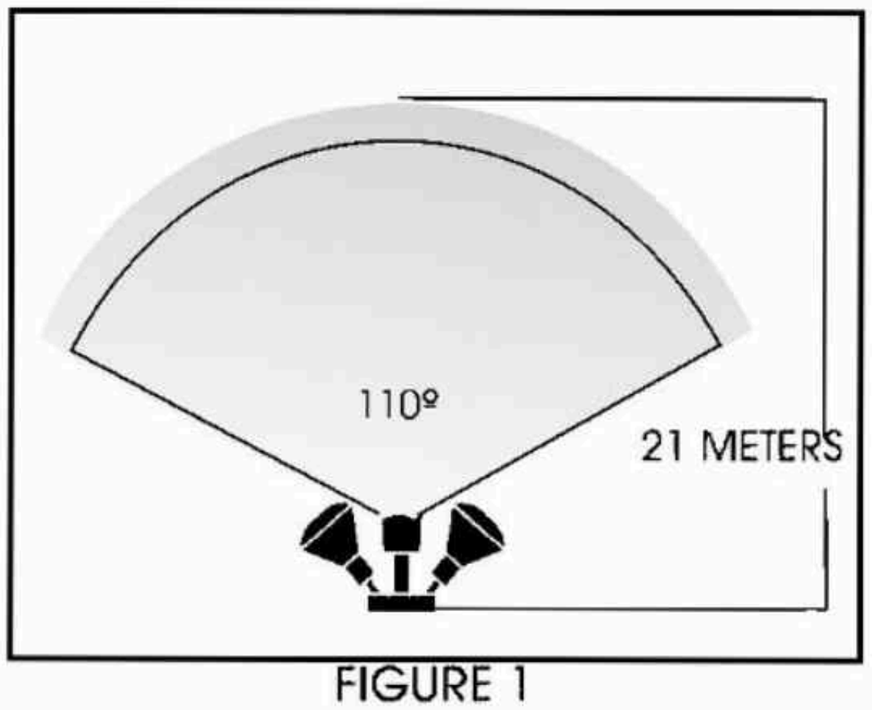

FIGURE 1

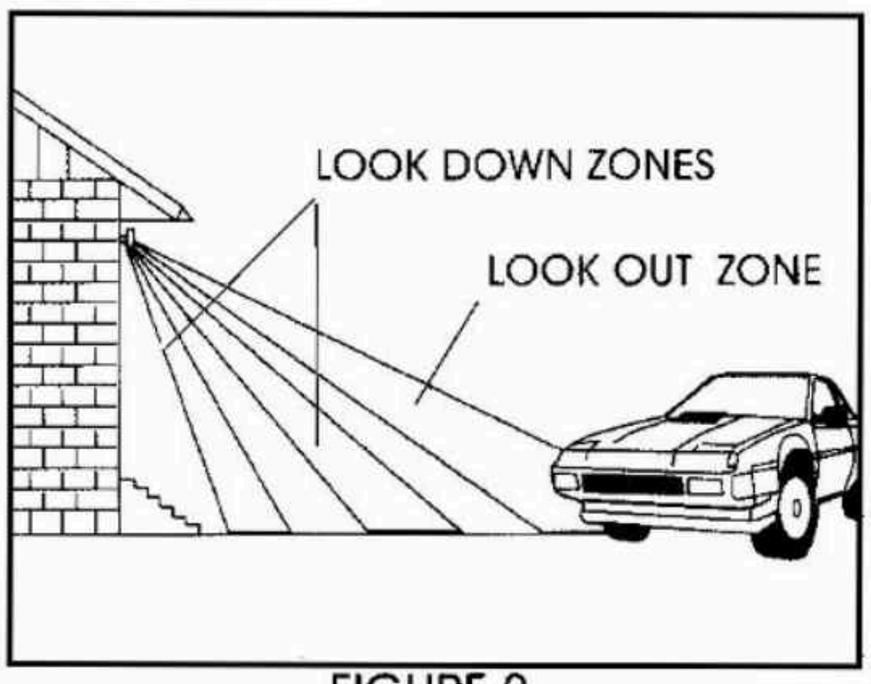

FIGURE 2

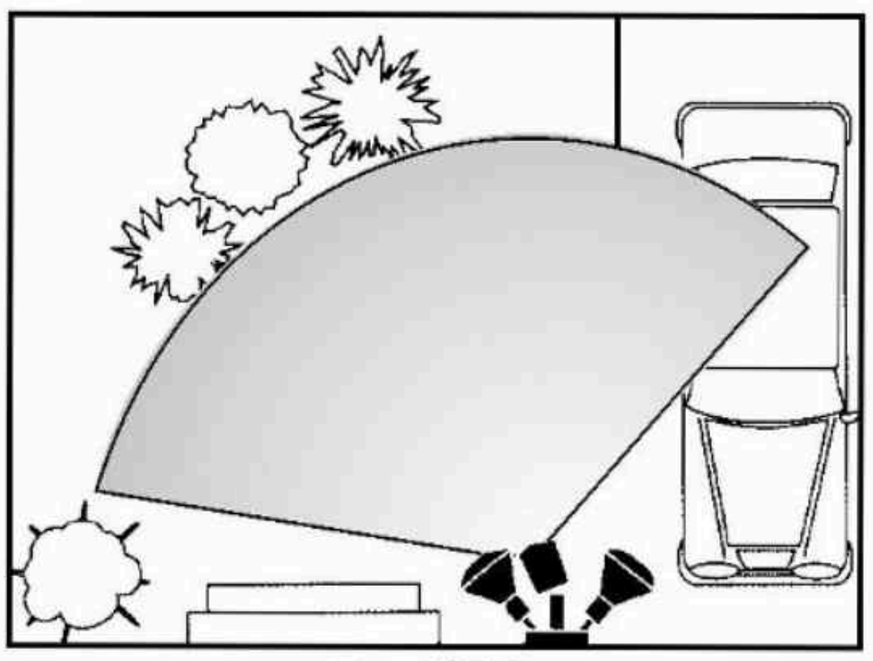
FIGURE 3

Viewed from the top of the motion sensors pattern covers a fan shaped area up to 110 degrees and a sensing distance of up to 21 meters. *See figure 1.*

Viewed from the side, the motion sensor has three look zones - one look out zone and two look down zones. The two look down zones ensure that the sensor will continue to hold the approaching person or object in its view. *See figure 2.*

Once mounted , the sensor should be tilted downward approximately 15 degrees so that the detection pattern meets the ground at approximately the place where you want the detection area to end. For example, if the sensor is aimed toward the street , passing cars may activate the unit. Aiming it toward the curb will limit the coverage distance and enable the sensor to detect cars parking at your curbside while ignoring passing cars. Be sure no object obstructs the sensors view. *See figure 3.*

***CAUTION: DO NOT DIRECT THE SENSOR HORIZONTALLY OR AT A UPWARD ANGLE. ALLOWING SUNLIGHT TO SHINE DIRECTLY INTO THE LENS COULD CAUSE MALFUNCTIONING OR DAMAGE THE UNIT.***

1. Carefully adjust the sensors direction by moving it from side to side. Aim it at the approximate center of the area you want to be covered.

**NOTE: Do not force the sensor into position.**

2. Loosen the screws on the pivot arm of sensor. Adjust the sensor down. Tighten the screws.

3. Loosen the screws on the pivot arm of light.Adjust light to shine directly over the area you wish to light. Tighten the screws.

4. To test the motion sensor, adjust the time dial to set the light for a minimum on time of 5 seconds.

5. Determine the perimeters of the sensing by slowly stepping in and out of the area in a zig zag fashion. You may wish to mark spots where you trigger the light.

## *ADJUSTING TIME, DAYLIGHT, SENSING RANGE (SENS)*

There are two or three dials (depending on your particular model. The SENS dial adjusts the sensing range from a minimum of a few inches to a maximum of up to 21meters and 110 degrees. The TIME dial adjusts how long the lights will stay on once all movement stops. The DAYLIGHT dial adjusts the level of light in which the motion detector will activate the light.

***TIME adjust*** - For a minimum on time of five seconds, turn the TIME dial counterclockwise until it stops. for a maximum on time of eighteen minutes, turn the dial clockwise all the way until it stops. For an on time between five seconds and eighteen minutes go to either the minimum or maximum point, then adjust the dial in the opposite direction until the light stays on to your desired time.

***SENS adjust*** - For a minimum sensing range of a few inches, turn the SENS dial all the way counterclockwise until it stops. For a maximum sensing range turn the dial all the way clockwise until it stops. You will probably want to set the sensing range somewhere between these two points. To do so set the SENS dial at about midway point and adjust until the sensor movement is at your desired distance.

***DAYLIGHT adjust*** - (Only available on certain models) For operation in full daylight turn the dial all the way counterclockwise. For operation only at night time turn the dial all the way clockwise. For operation between these two levels turn the dial in either direction until you reach your desired level.

## **OPERATION**

Your motion sensor is controlled entirely by the existing wall switch. The lights can be put into AUTO, (turned on so that they will stay on continuously day or night), or turned off with the wall switch.

***NOTE: Allow two minutes for motion sensor to adjust to the surroundings before testing.***

***To Override Auto*** - To turn the lights on so it stays on day or night, flip the wall switch quickly (in less than two seconds) ON -OFF-ON

***To Return to Auto Override*** - To return to the Auto mode, turn the wall switch OFF .After about 5 seconds, turn the wall switch ON. Wait two minutes for the sensors to adjust to its surroundings and it will once again function automatically.

***To Turn the Light Off*** - If you want the lights to turn off and stay off, even if the sensor detects motion in the sensing field , simply turn the light switch off. If the light switch is turned on from the off position, the motion sensor will be in the Auto mode.

## *ADJUSTING FOR DESIRED COVERAGE*

The key to getting the best performance from your motion sensor is in testing. You will want to allow plenty of time to experiment with and test several adjustments until you are fully satisfied with your sensors coverage capabilities.

NOTE: The motion sensor detects relative differences of heat of objects in the outdoor environment. If you are testing the unit in very warm weather, it may sense little difference between the heat generated by your body and the air itself. You may wish to wait to test the unit until the air temperature is cooler.

Although your motion sensors sensing pattern is invisible, it is easy to visualize the sensing pattern is three dimensional.

# TROUBLESHOOTING

Find the symptom in the chart. – Make the corresponding remedy.

| Symptom | Remedy |
|---|---|
| ***Does not function at all*** | Make sure wall switch (if installed) is on. Check that circuit breaker,fuse and main circuit breaker or main power switch is on.<br><br>Be sure sensor head is pointed downward towards the target area.<br><br>Turn electrical power off at circuit panel or fuse panel. Remove security floodlight from electrical box use a volt meter to check that110-120 volt power is supplied to the electrical box. If no power, check wiring to find fault. If power is there return unit for replacement. |
| ***Floodlight cycle on and off*** | Redirect security floodlight away from heat source such as a street, active sidewalk, barbecue grill neighbors yard, etc.<br><br>Direct floodlight(s) in a slightly different direction than sensor.<br><br>Turn SENS (Sensitivity) dial more counterclockwise.<br><br>Occasionally, frigid temperatures can affect performance of the outdoor security light when warmer air currents pass by the sensor unit. If this should happen, the light may cycle on and off when affected by this sudden temperature change. This is not a signal that there is a problem. This infrequent occurrence will not affect normal operation of the unit. |
| ***A "power outage" occurred and after power was restored, the floodlight remained on after the set time period.*** | Turn wall switch to off, and then turn switch to on again after 5 seconds. If there is no wall switch, set the circuit breaker to off and then turn the circuit breaker back on again after 5 seconds. In either case the floodlight will return to normal operation. |
| ***Floodlights remain on too long*** | Turn time dial counterclockwise. |
| ***Floodlights go off too quickly*** | Turn time dial clockwise |
| ***Floodlights come on at dusk and you do not want them on until dark*** | Turn daylight dial counterclockwise (if equipped). |
| ***Floodlights activated by pets or other interferences*** | Turn SENS controls a little more counterclockwise. |

*Limited Warranty*

Satco Products, Inc. warrants to the original purchaser that it will repair or replace this product free of charge, if proven to have been defective in original materials or workmanship within one year from date of purchase.

Satco Products, Inc. Limits any implied warranties to one year from the date of purchase and in no case shall Satco Products, Inc. be liable for any consequential damages for any reason.