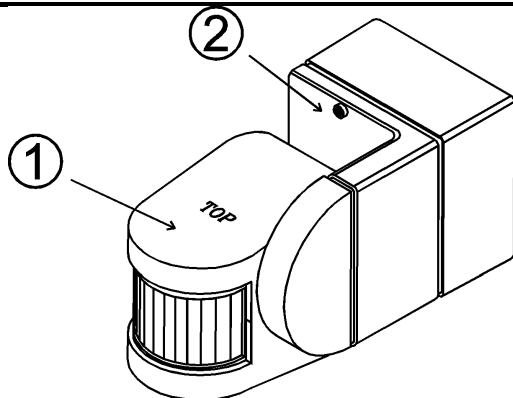


# ES46/ES46E

## SECURITY MOTION SENSOR



- ① PIR (Motion Sensor)
- ② Junction Box

### INTRODUCTION

Your EVERSPRING SECURITY MOTION SENSOR is a fully automatic outdoor security/courtesy light controller capable of controlling up to 2,200W of lighting. At night, the built-in passive infrared (PIR) motion sensor turns on the connected lighting system when it detects motion in its coverage area. During the day, the built-in photocell saves electricity by deactivating the lights. An adjustable timer lets you select how long the lights stay on after activation.

**Note :** Read this entire manual before you start to install the system.

### SAFETY PRECAUTIONS

- Do not install when it is raining.
- Be sure to switch off power source before installing.
- Make sure that the power wiring comes from circuit with a suitable fuse or circuit breaker.
- Keep minimum 2m away from the lighted objects.
- The unit can be installed only horizontally (see the FIGURE 1a), not vertically (see the FIGURE 1b) as shown in the below drawing.

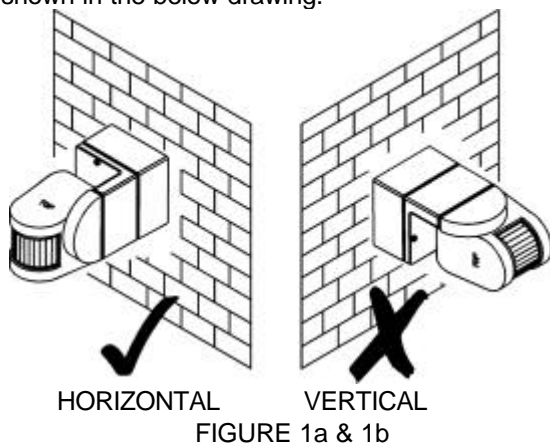


FIGURE 1a & 1b

### IMPORTANT

Some local building codes may require installation of this product by a qualified electrician.

Check your local codes as they apply to your situation. If the house wiring is of aluminum, consult with an electrician about proper wiring methods.

Maintenance or repairing work such as replacing current fuse shall be done by qualified electrician or technician.

Before proceeding with the installation, TURN OFF THE POWER TO THE LIGHTING CIRCUIT AT THE CIRCUIT BREAKER OR FUSE BOX TO AVOID ELECTRICAL SHOCK.

### CHOOSING A MOUNTING LOCATION

- For the best results, fix your sensors on a solid surface, 1.8~2M above the ground.
- For outdoor installation, a location under eaves is preferable.
- Avoid aiming the motion sensor at pools, heating vents, air conditioners or objects which may change temperature rapidly.
- Do not allow sunlight to fall directly on the front of unit.
- Try to avoid pointing the unit at trees or shrubs or where the motion of pets may be detected.
- Prior to mounting, keep in mind that the motion sensor is most sensitive to the motion, which is across the detection field and less sensitive to the motion, which moves directly towards the detector. (FIGURE 2)

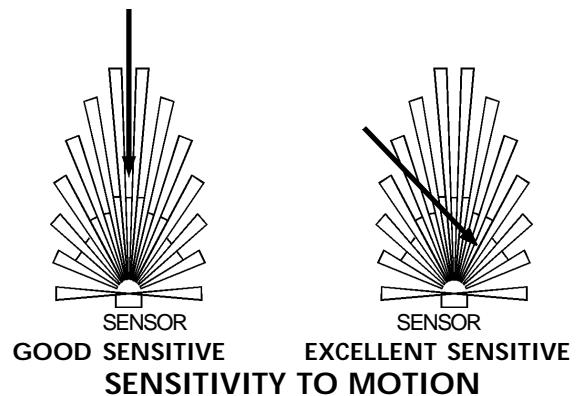
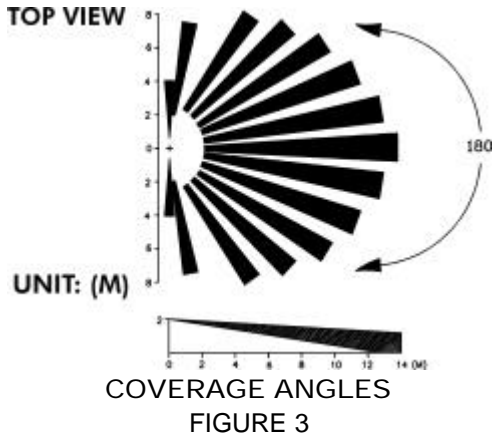


FIGURE 2

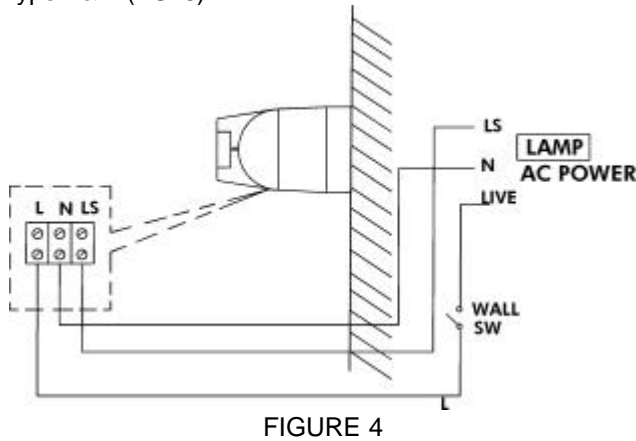
## INSTALLATION

To facilitate installation, it is essential to get a drill and a screwdriver ready. Select a location for the unit based on the coverage angles shown in FIGURE 3.

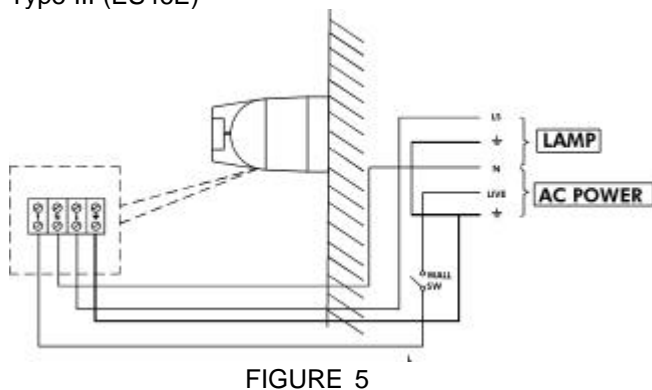


Install a wall switch adjacent to the power source. (FIGURE 4&5) This helps you operate AUTOMATIC OPERATION with ease. See page 4 for further information.

Type I & II (ES46)



Type III (ES46E)



## WIRING INSTRUCTION

- (1) Switch off the power source or wall switch.
  - (2) Route a three-wire cable from the light to the junction box if required. All three wires must be suitable for current carrying.
  - (3) Strip approx. 6-8mm insulating part of the wires.
  - (4) Run the power cord through the gasket hole.
- Note:** The power cord must meet H05RN-F, 1.0mm<sup>2</sup> requirement.
- (5) Connect the wires by tightly twisting the wires together and securing the wires with solderless wire connectors.
  - (6) **Type I & II (ES46)**  
Connect the BROWN wire (Live wire) of power cord to the terminal block " " mark.

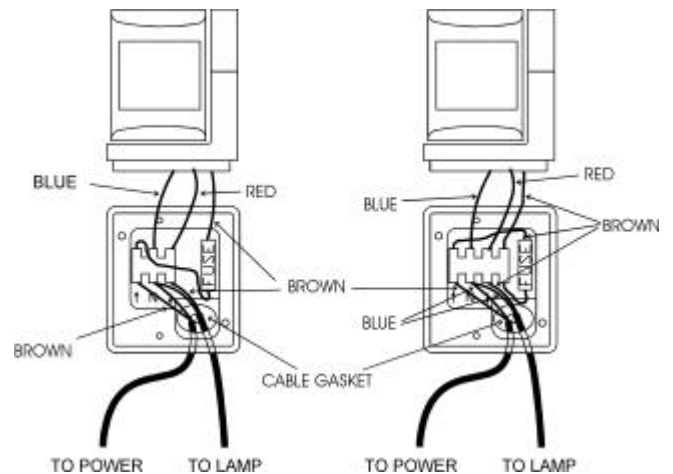
Connect the BLUE wire (Neutral wire) of power cord to the terminal block "N" mark.

Connect the BROWN wire of lamp wire to the terminal block " " mark.

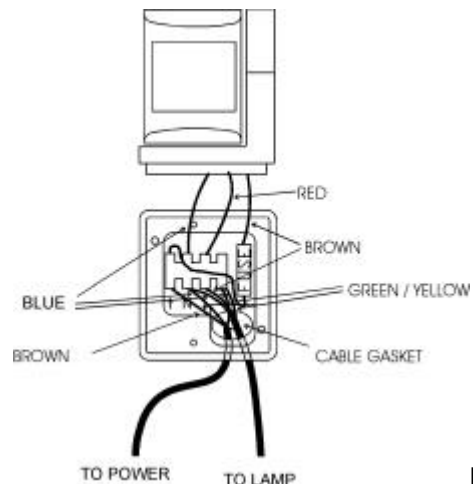
Connect the BLUE wire of lamp wire to the terminal block "N" mark. (FIGURE 6&7)

Type I (ES46)

Type II (ES46)



Type III (ES46E)



Connect the BROWN wire (Live wire) of power cord to the terminal block " " mark.

Connect the BLUE wire (Neutral wire) of power cord to the terminal block "N" mark.

Connect the BROWN wire of lamp wire to the terminal block " " mark.

Connect the BLUE wire of lamp wire to the terminal block "N" mark.

Connect the GREEN/YELLOW wire of both power cord and lamp wire to the terminal block " " mark. (FIGURE 8)

Note: 4 poles terminal block is equipped with earthing-mark hole, serving as a common point to connect the GREEN/YELLOW wire of both external Class I luminaires and exterior power source.

Class I luminaires refer to the products that require earthing protection.

**FUSE SUPPLIER:**

Theben-Werk Zeitautomatik GmbH  
Hohenbergstr. 32, D-72401 Haigerloch,  
Germany

Name of Contact Person: Mr. Peter Speidel  
Tel: 07474 692 180  
Fax: 07474 692 199

**SETTING THE LIGHTING SYSTEM**

**(1) TEST MODE**

- Turn the Lite control and the Time control anti-clockwise to the edge – the TEST position (FIGURE 9).

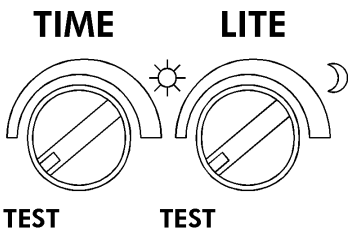


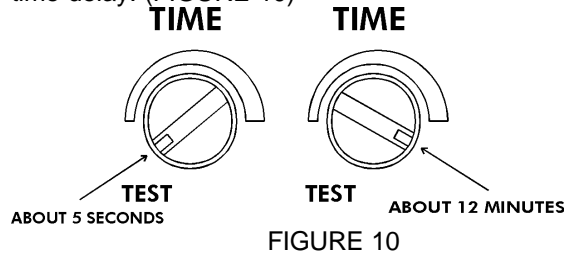
FIGURE 9

- Turn on the wall switch. The light will turn on for about 1 minute to warm up. Then it turns off.
- Walk through the detection area. The light turns on when you move and turns off when you stop. Wait for the light to turn off before moving again to test the sensor.
- Adjust the motion sensor to cover the desired detection area. For a smaller coverage area, point the sensor down; for a larger coverage area, point the sensor up.

**(2) TIME ADJUSTMENT**

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

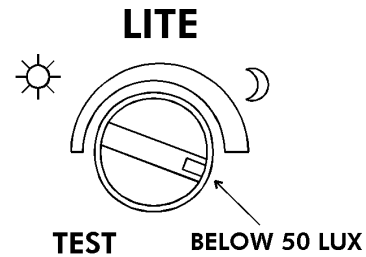
Turn the TIME control knob clockwise to increase (up to about 12 minutes) how long the light stays on or anti-clockwise to decrease (down to about 5 seconds) the time delay. (FIGURE 10)



**(3) LITE ADJUSTMENT**

The LITE adjustment determines at what light level the light control will start operating when you set the sensor to automatic operation.

Provisionally turn the LITE control knob to the edge clockwise at the moon (dusk) position (FIGURE 11). In this provisional setting mode, the Motion Sensor remains inactive during daylight. At dusk when you find it is the LUX level desired for operation, simply set the LITE control knob to the position which will become active as daylight declines.



**OPERATION**

By using wall switch to your ES46/ES46E, you can easily operate automatic operation as follows:

Turn on the wall switch. When the sensor detects motion, the light automatically turns on. The built-in photocell turns the sensor off and on according to the light level selected by the Lite adjustment.

## TROUBLESHOOTING

### Light does not turn on

- Confirm that you have made a correct “ wiring connection” .
- Make sure that the bulbs have not burned out.
- Check if the fuse has not burned out.

### Light remains on

- Make sure the wiring connection is correct.
- Check if the TIME setting is correct.

## SPECIFICATIONS

Power Requirement	AC 220 - 240V/ 50Hz
Lighting Load	Max. 2,200W
Fuse Rating	13A, Flink: F13H240V
Power Consumption	Max. 2W
Standby Current	Max. 1.4W
Power Cord Requirement	H05RN-F, 1.0mm <sup>2</sup>
<b>Sensor Power</b>	
Protection Class	Class II
Waterproof	IP44
<b>Operating</b>	
Temperature	-20° C to +40° C
Detection Range	14M at 20° C
<b>Sensor Adjustments</b>	
Swiveling Angle	Vertical 180°
Detection Angle	180°
Warm Up Time	About 1 minute
Time Adjustment	From 5± 3 seconds to 12± 3 minutes
Lux Adjustment	From 0 Lux to 1,000 Lux.
Mounting Height	1.8 to 2M (5.9 to 6.6 Feet) Wall Mount & Ceiling Mount
Switch Function	Off/Auto