

One Year Limited Warranty

Please register your product within 7 days at:

www.smartsolar.com/customer-service/warranty-registration

If within 12 months from the date of purchase this product fails due to a defect in material or workmanship. Smart Solar will replace or repair it free of charge.

You will need to provide proof of purchase and you may be required to send in the solar power station to the Smart Solar repair center for warranty.

The warranty does not apply to:

Damage caused by accidents, abuse, poor handling, or normal wear and tear. Products which have been subject to unauthorized repair or modification. Batteries are a normal wear item and need to be replaced periodically.

For further information please contact your nearest service centre detailed on the last page of this instruction manual.



For further information, including parts, warranty, repair or general inquiries, please contact Smart Solar at:

Customer Service

Tel: 813.343.5775

Email: ussupport@smartsolar.com

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www.smartsolar.com

Please register your product online at our website:

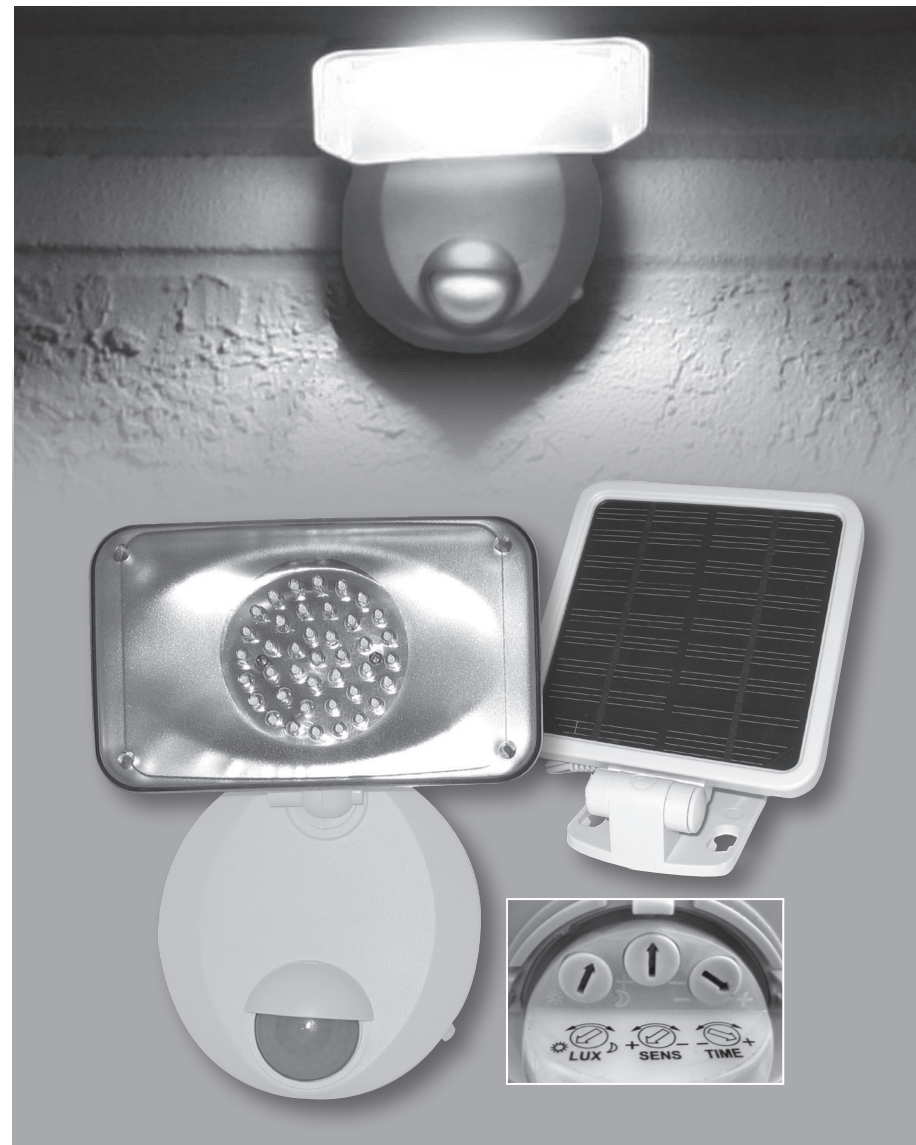
www.smartsolar.com/customer-service/warranty-registration

Model 4131WRM1



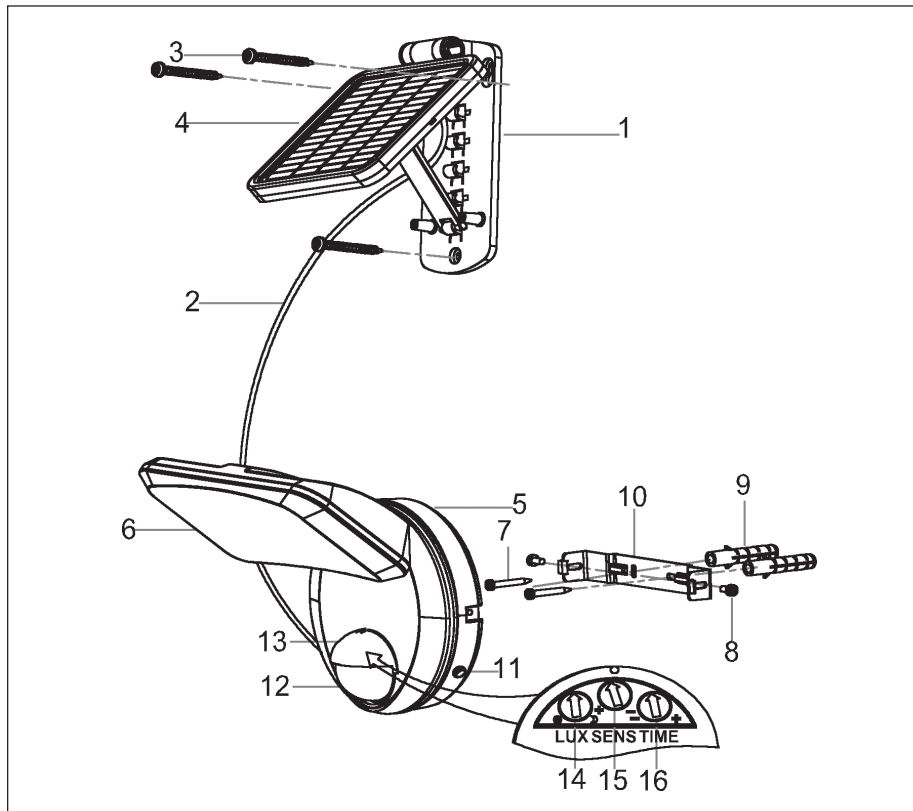
Pro Design 40-LED Motion Security Light

Powerful LED security light with PIR Motion Sensor
Fully adjustable timer/sensor/lux



Parts List

1. Solar Panel Mounting Bracket
2. Power Cord
3. Solar Panel Mounting Screws (X 3)
4. Crystalline Solar Panel
5. Main Light Unit
6. Transparent Light Cover
7. Mounting Bracket Screws (X 2)
8. Light Unit Mounting Screws(X 2)
9. Plastic Screw Anchors
10. Mounting Bracket
11. On/Off Switch
12. PIR Sensor
13. Adjusting Knob Cover
14. Lux Control Adjustment Knob
15. Sensitivity Adjusting Knob
16. Time Control Adjusting Knob



Important: To insure optimal performance, before first use charge in direct sunlight in the off position for 3 days.

How To Determine Where To Mount Your Solar Pro Security Light

Please note that DIRECT SUNLIGHT is important for the operation of SOLAR PRO SECURITY LIGHT. The more direct sunlight the solar panel receives in daytime, the longer the light will operate.

Main Unit:

The main unit contains the lighting unit (40pcs of 0.15W LED), motion sensor and batteries (3 x 1.2V NI-MH 1800mAh). When determining where to mount the unit, please consider that the range of the motion sensor is a maximum of 40 feet (in front of the light) and about 180° (horizontal) at 75°F environmental temperature.

To mount the unit vertically as a security light, attach the unit to a solid surface as shown in figure A. Use the mounting bracket (#10 on parts list) to mark the position of screw holes onto mounting surface. Drill holes in the wall to a depth of approx. 1". Insert the plastic screw anchor (#9 on parts list) into the hole and then secure mounting bracket with mounting bracket screws (#7 on parts list).

Care should be taken to avoid drilling or screwing into concealed electrical wiring. Connect the main light unit (#5 on parts list) to the mounting bracket using the light unit mounting screws (#8 on parts list).

Solar Panel:

The solar panel is the main power source for the SOLAR PRO SECURITY LIGHT. It converts the sunlight's energy into electricity that charges the batteries in main unit. Position the solar panel in DIRECT SUNLIGHT for maximum exposure during the daytime.

Use the three metal screws provided in the package (#3 on parts list) to mount the solar panel onto a solid surface. Make sure it is mounted onto a solid surface.

For maximum performance you can adjust the angle of the solar panel by moving the adjustment bracket to the appropriate hook on the mounting base.

Connect the solar panel power cord to the lighting unit power cord.

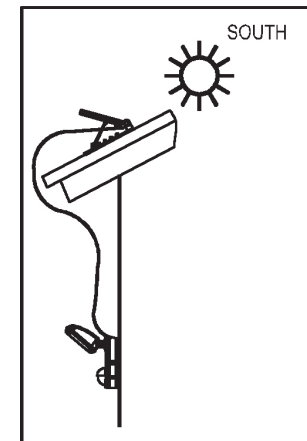
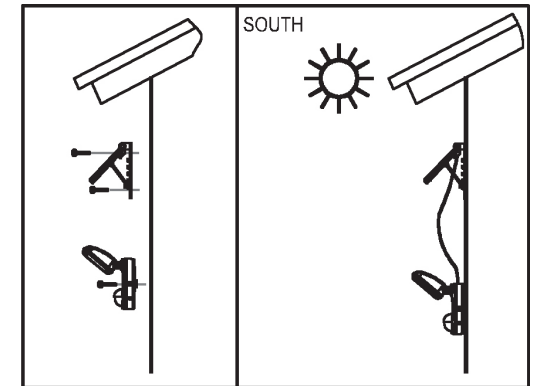


FIG.A

Final Adjustment and Start-Up

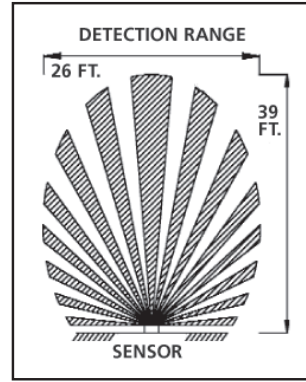
After you successfully installed your SOLAR PRO SECURITY LIGHT, it is almost ready for use:

Initial 3 day Charge: On the main unit there is a switch with 2 positions: • OFF • ON

ON - Position for normal operation

OFF (Factory Setting) - Position for shipping or long periods of inactivity. Position for initial 3 day charge before first adjustment and use.

While in the OFF position, the solar panel will charge the battery without activating the light unit. Leave the switch in the OFF position for 3 sunny days before initial use to ensure that the battery has a full charge for motion sensor adjustment and normal operation.



How To Adjust The Sensor

After the initial 3 day charge, turn the switch to ON position. On the motion sensor there are three adjustable knobs: **LUX / SENS / TIME**

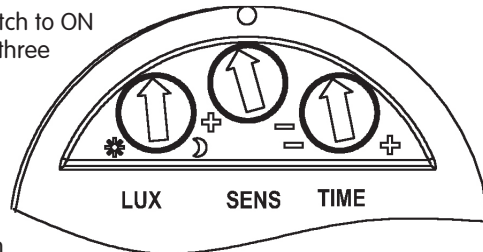
1. LUX - Lux control level: The Lux control module has a built-in sensing device (photocell) that detects daylight and darkness. The day ☀ position denotes that the light will turn day and night when the PIR senses movement, the night 🌙 position denotes that the light will turn only at night when the PIR senses movement. You can set desired level of light required for unit to activate by adjusting the LUX knob. Factory setting is 🌙.

Note: In day ☀ position, the unit will turn on when it is light outside, to make the light only come on when it is darker, turn the lux control towards the night 🌙 setting. However, if the light is not activating during nighttime because of a street light or bright house light, turn the lux control towards the day ☀ position.

2. SENS - Sensitivity adjustment: The sensitivity of the PIR motion sensor can be affected by environmental temperature. The lower the environmental temperature reaches, the more sensitive the PIR sensor gets. You can adjust the SENS knob to compensate the change of sensitivity affected by environment temperature as needed. Factory setting is midway between + and -.

3. TIME - Duration time: This determines how long the light will stay on after motion is detected; the duration time is from 5 to 30 seconds and can be adjusted as needed. Factory setting is 30 seconds.

Note: Once the light is activated by the PIR sensor, any subsequent detection will restart the timed period again from the beginning.



Walking test:

Position the motion sensor to face the area you want to detect motion in. Walk slowly in the detection area and the sensor will detect your movement via the invisible infra-red radiation emitted by the human body and activate the light (approx. 30 seconds). Test the coverage of the area by walking slowly around until you do not activate the light.

Adjustment of the Lamp Housing

Position the light unit to face the area you wish to illuminate.



90° range of motion up and down and almost 360° range of motion side to side.

Battery Replacement

Caution: When replacing the batteries, the main light unit must be in the OFF position.

When the operational performance of the batteries decreases, replace the batteries with three (3) new AA Ni-MH 1.2V 1800mAh rechargeable batteries. Follow the steps below to replace the batteries.

1. Disconnect the power cord from the light unit to the solar panel.
2. Remove the main light unit from the mounting bracket.
3. Remove the four (4) screws on the battery cover on the back of the main light unit.
4. Remove the battery cover.

Battery Replacement (continued)

5. Carefully remove the old batteries from the compartment and replace with three (3) new AA Ni-MH 1.2V 1800mAh rechargeable batteries. Ensure that the new batteries are inserted in the correct +/- polarity orientation.

WARNING: Installing batteries in the opposite direction may damage the unit.



6. Replace the battery cover and secure using the four screws on the battery box (from step 3 above).

It is important to dispose of the batteries in an environmentally conscious manner. Dispose of according to applicable governmental regulations. These batteries are recyclable.

General Electrical and Safety Warnings

1. Do not cut the solar panel or light unit power cord. Discontinue use if either cord becomes frayed or damaged.
2. Do not immerse any components in liquid.
3. Do not use any power source other than the solar panel provided with the unit. This may result in injury or damage to the light and will void the warranty.
4. Position so that the cord is securely fastened and will not result in any hazard (such as tripping).

Cleaning

It is important that the solar panel be kept free from dirt and debris. A dirty solar panel will not allow the batteries to fully charge; this will shorten the life of batteries and cause the light to perform poorly.

Storage

If you wish to store your light indoors for more than two or three days, follow these steps to prevent damage to batteries:

1. Switch the light unit off but leave the power cables from unit to solar panel connected.
2. Store the light and solar panel where they can receive some sunlight or room light each day. The batteries need light to maintain a nominal charge during storage.
3. During prolonged storage, the unit must be fully charged once every 3 months. If storing for prolonged periods it is recommended to remove the batteries.

Troubleshooting

Problem: Light won't activate under normal operation.

Correction: Verify the following:

1. The main light unit switch is the ON position.
2. The lux control is not set too far towards ☀ or ☾.
3. The motion sensor is positioned to face oncoming movement.
4. The solar panel is angled so that it maximum direct sunlight.
5. Batteries may be low. Charge for 3 sunny days with unit turned OFF.
6. If batteries are not holding a charge, replace batteries.

Problem: Light quickly flashes on and off

Correction: Verify the following:

1. Batteries may be low. Charge for 3 sunny days with unit turned OFF.
2. If batteries are not holding a charge, replace batteries.
3. Move the lux control toward ☀.

Problem: Light is not as bright as normal

Correction: Verify the following:

1. Batteries may be low. Charge for 3 sunny days with unit turned OFF.
2. If batteries are not holding a charge, replace batteries.

Problem: Light turns on during the day

Correction: Verify the following:

1. Make sure the lux control is not set too far towards ☀.

Technical Data

Solar Panel (Crystalline)	
Voltage	10.0 V
Current	160 mA
Power	1.6 W
Batteries 3 pieces total (data below per battery)	
Voltage	1.2 V
Capacity	1800 mAh
Type	Ni-Mh

Spare Parts

Battery: BT-AA-1.2-1800