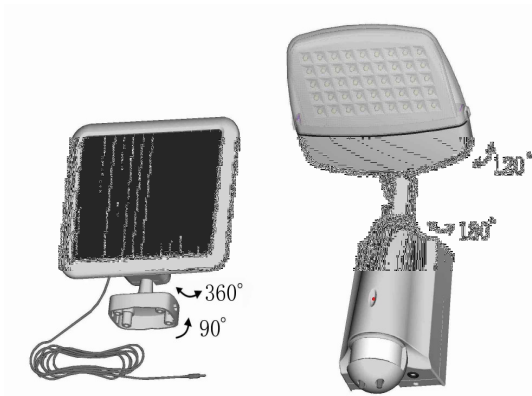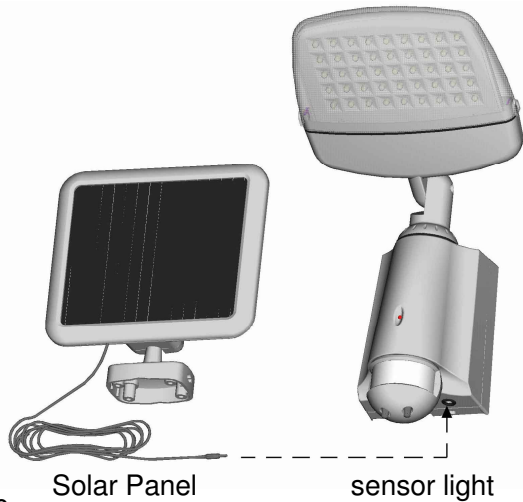# SOLAR MATE SECURE PROFFESIONAL INSTRUCTIONS

## GENERAL:

This product works by converting solar energy into electrical energy. It includes a solar panel, PIR sensor and high luminance LED light. Mains power not required, so it's very easy to install and environmentally friendly.

## FEATURE:

- It uses solar energy to power itself.
- It can be installed anywhere as long as the solar panel can see the sky.
- The light uses 45 individual white high luminance LEDs.
- For convenience, the solar panel and lamp head can be adjusted. The solar panel can be adjusted horizontally through 360 degrees and tilted backwards through 90 degrees. The lamp head can be adjusted horizontally through 180 degrees and tilted forwards or backwards through 120 degrees.(see the figure below)
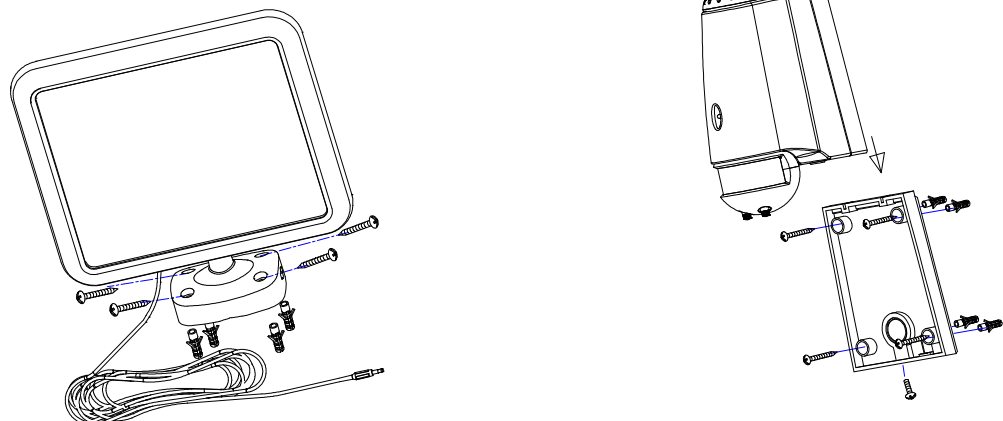
Solar Panel                sensor light

- Low voltage indication: the red indicator light will flicker when accumulator voltage is below approx.7V, which indicates the battery voltage is deficient. When the accumulator voltage is below 6.1V, the unit turned off automatically.
- Lithium battery controller possesses short-circuit /over-discharge / overcharge protection function.
- There are three modes: ON，OFF，AUTO
① ON: ON Mode
② OFF: OFF Mode
③ AUTO: AUTO Mode:
In AUTO Mode, lighting time can be adjusted from 4 seconds to 1 minute. Light sensitivity can be adjusted from 10 LUX to 2000LUX

## SPECIFICATION:

1. 10V/2.5W single crystal silicon solar panel. Life expectancy: exceeds 20 years
2. 7.4V 3000mAh (lithium / polymer battery)
3. Total illumination time：5hrs
4. Installation height：1 ~ 3m
5. Light adjustment time：6sec ~ 1min ($\pm$10sec)
6. Detection distance ：8m max (<24 Deg C)
7. Detection range：180
8. Power adapter:DC9V 1000mA (optional)
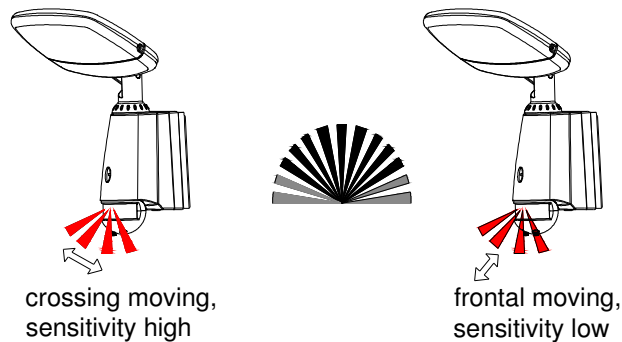
## INSTALLATION DIAGRAM:

## INSTALLATION GUIDELINES:

**For solar panel:**
1. You should install the solar panel where sunshine is not blocked during the majority of the day, for example away from tall buildings and trees.
2. Before first use: Once connected to the light, leave the light in the OFF mode for 3 to 4 days to allow the solar panel to fully charge the battery.

**For light:**
1. Ensure light is mounted on to a solid object, for example the side of a shed, the wall of a building.
2. Ensure PIR is clear of moving or flapping objects as these may cause false triggering.
3. Avoid installing it near areas of significant temperature change, for example: Air conditioning, central heating etc;
4. The PIR is more sensitive to movement across as opposed to movement towards or away from it. So when installing it, you should select a position so that the expected movement will be going across the sensor, as the following diagram shows:

crossing moving,
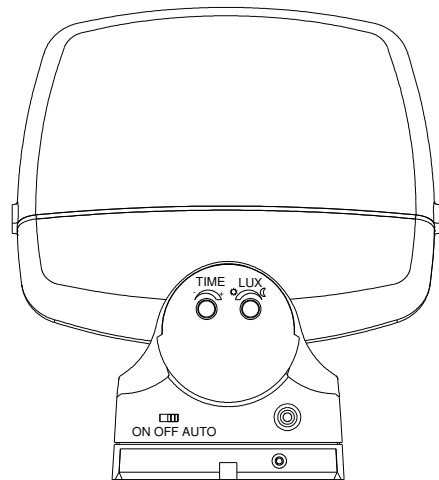sensitivity high

frontal moving,
sensitivity low

## WORKING PRINCIPLE:

After connecting, whilst the solar panel is exposed to sunlight, the internal batteries are charged by the panel. Then during the night the stored power will work the light. If the weather has been poor (dull and cloudy), you can use the optional power adaptor to top up the batteries.

## SWITCH FUCTION:

- Slide to ON position, the light will always stay ON.
- Slide to OFF position, the light will always be OFF (but charging will continue if the panel is connected)
- Slide to AUTO position, AUTO Mode :
- In auto mode the unit will activate according to the settings selected on the LUX&TIME adjusters.
- The LUX dial determines the level of light required to activate the light. Turning the dial to the moon means the light will only work at night. Turning the dial to the sun allows the light to work during the day and night.
- The TIME dial can adjust the time the light stays on after activating from 4 seconds to 1 minute.

## WALK TEST:

Slide switch to AUTO mode. Move the TIME knob to the minimum and LUX knob to the sun. Move across the front of the PIR sensor. The signal will be detected and the light will come on.
Once the light comes on remain still. The light should go off after 4~6seconds.