SolarMate®

Total Lighting Solutions

Solar Technology International

Without boundaries

User manual



Arena 2 Light

Model: SMAL002

Important: please read before first use.

Technical helpline 01684 774 000



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Main Features

1. Installation on pole or wall
2. Adjustable installation angle: 0°/15°/30°
3. Large lighting area
4. Remote control and auto PIR function
5. Lighting time, brightness and movement activation modes
6. 50, 500, 1000 and 1500 lumens

Electric Characteristics

Flat compact solar panel	6.8W, 10 years life span
Li-ion battery	3.7V, 13000mah
LED	30 LEDs, 1500 lumens max
Charging time	9-10 hours
Lighting time	More than 4 nights (dim lighting mode)
Ray sensor	<10 Lux
PIR sensor	5-8M, 120°
Waterproof	IP65
Install height	2.5-5m
Material	Aluminium + plastic
Size	450x246x86mm
Working temperature	-25°C to 65°C
Warranty	2 years

1. Contents

1 x Arena 2 Solar Floodlight
1 x Remote control
2 x AAA batteries (fitted inside the remote control – remove clear plastic tag inside battery box to activate)
2 x U bolts with 4 nuts and washers (for pole mounting)
4 x Expansion bolts, nuts and washers (for solid walls)
2 x Metal spacers
1 x User manual

2. How Arena 2 light works

Arena light has an integrated solar panel which delivers power to its internal battery whenever it is exposed to daylight. It can never overcharge its battery due to internal control circuit boards. The solar panel has a 20+ year life cycle and the battery up to 4 years. The battery can be replaced and is available from **www.solartechnology.co.uk**

The purpose of Arena light is to flood an area with light when either it detects movement or for a solid period of time.

3. Identifying the best location for the Arena light

Arena light incorporates a solar cell which needs to face upwards. Wherever possible the solar cell should not be located in shady areas and ideally, when or if tilted, it faces east, south or west. If it faces north, the cell will still deliver power but not as much or as quickly as if facing south. The optimum height to fix Arena light is from 2.5 to 5m.

Example: For a 40m x 30m arena we recommend a minimum of 6 Arena 2 lights – 3 on each of the long sides, evenly spaced. Ideally position each Arena light on a 4m pole and angle the head at the 30 degree position.

4. Adjusting the angle of Arena light

It is best to decide the angle before fixing in place. Arena light has three angles it can be adjusted to: flat – 0 degrees, 15 degrees tilted upwards and 30 degrees tilted upwards. 30 degrees provides the furthest throw of light, 0 degrees for more intense brightness. To adjust the angle, loosen both side bolts (a) toward the rear of the Arena light bracket (Fig 1).

The bolts (b) toward the front of the bracket have three notches enabling the angle to be locked in place. Remove the bolts (b) completely and once the desired notch is reached, replace the bolts (b) and tighten all of the bolts/nuts.

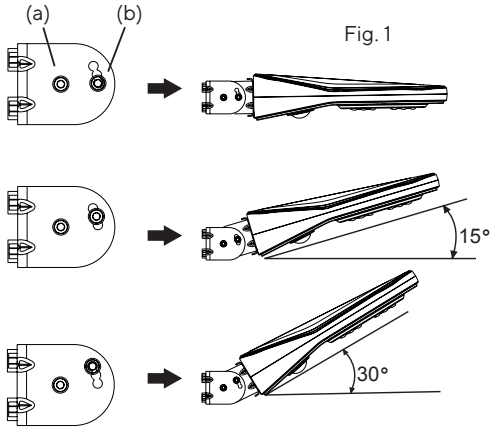


Fig. 1

5. Operation of the light

Before fitting the light in its final position push and hold the button on the underside of the light (Fig. 2) for a few seconds until the light comes on. It will stay illuminated for a short while and will then turn off but it confirms it is ready for night time operation. Should you ever need to store your Arena light press the button in (Fig. 2) and this will switch the whole system off.

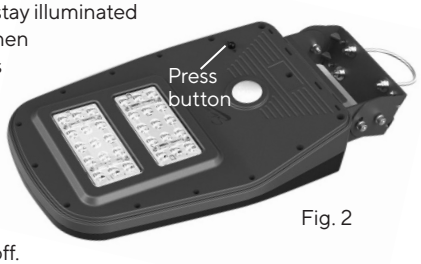


Fig. 2

Operation for the first time: When Arena2 is turned On you will notice the light is incredibly bright for 2 seconds and will then drop back to its normal 1500lm maximum brightness level. From there you can chose your preferred mode of operation. The reason this high level of brightness cannot be sustained is because the Arena2 was not designed for this level of brightness and constant use at that level would cause damage to the internal components.

Lighting modes

Movement activation – PIR mode

Arena 2 can act as an excellent security light or utility light for car parks, at festivals, construction sites, delivery yards and any location where significant lighting is needed for periods when movement is within 10m range of the Arena 2's PIR detector.

Operation



Push the remote control **On/Off** button to illuminate the light. Note this is usually done when it is dark but this can be advanced – see point c. below.

The Arena2 is now in its PIR mode and will show a low-level ambient light when there is no movement and will step up to a brighter light when movement is detected. The bright light will remain on for 30 seconds or as long as there is movement and will then step back down to the ambient light level. Each evening (at dusk) the PIR light will be active without the need to use the remote control again unless you wish to turn the light off or adjust any settings – see a, b and c below.

There are three adjustments that can be made if required by using the remote control:

a. With the light activated, you can adjust the brightness of the main light following PIR activation. Scroll the **Brightness** buttons up or down to select your preferred brightness. The light will thereafter illuminate at this level during every subsequent activation.

b. You can turn the ambient light off during dusk to dawn so there is no light at all unless the PIR sensor is activated (particularly useful in the winter months when there is a need to conserve as much energy as possible). Press the **PIR Low Light** button to off.

c. If there are occasions when you want the light to be on before it gets fully dark, press the **Day/Night Only** button on the remote control – this will allow the light to illuminate even if its not dark. This is not a permanent setting so if you want the same function the following day you will need to press the **Day/Night Only** button again.

Note – If you have Arena2 in PIR mode and its main light is set to its maximum brightness (a), or the ambient light is on (b), or the number of activations is significantly increased, particularly in the winter months, you may find the amount of power used is more than the energy provided by its solar panel. The result will either be that the light dims to a very low level (it will do this automatically to save energy) or it runs out of power and will not operate the following night. In this circumstance consider adding one or more Supercharger Expansion solar panels – see section 10.

Solid lighting mode

Most useful when you need light for a solid block of time, for example illuminating an equestrian arena, riding school, sports field, tennis courts, inside a warehouse or agricultural building etc.

Push the remote control **On/Off** button to illuminate the light. Once the light is on, you need to press either the Timer **1h** or **2h** buttons. This will ensure the light stays on for 1 or 2 hours as you chose, but this run time can be extended by pressing either **1h** or **2h** buttons to add additional hours. It is advised that when you have no further need of the light, you should turn it off, but if you leave it on it will auto turn off once the light has reached the end of its timed mode.

Once you have turned the light off (or its timer function period has elapsed), the light will not illuminate again until you turn it on using the remote control.

There are two adjustments that can then be made if required:

a. With the light turned on, you can adjust the brightness. Scroll the **Brightness** buttons up or down to select your preferred brightness.

b. If there are occasions when you want the light to be on before it gets fully dark or you are using the Arena2 light indoors with Supercharger Expansion Panel(s) located on the outside of a building, press the **Day/Night Only** button on the remote control – this will allow the light to illuminate. This is not a permanent setting so if you want the same function the following day you will need to press the **Day/Night Only** button again.

Note – any Arena2 remote control will operate any Arena2 light – in other words if you have multiple Arena2 lights you only need take one remote control to activate all. **The Arena2 remote control is not compatible with Arena1 light.**

6. Fixing Arena light – Before fixing read point 5

Wall mounting (Fig 4)**:** Before starting to mount the Arena light to the wall, separate the two halves of the bracket by removing (a) and (b) fixings – see Fig 1. Remove the two metal spacers from the loose half of the bracket. Using the supplied expansion bolts (if fixing to a cavity or solid wall), or self tapping screws (not supplied) if fixing to a timber wall, attach Arena light through the four holes in the back of the loose half of the bracket. Once fixed in place, attach Arena light to the bracket using fixings (a) and (b).

Pole mounting (Fig 5)**:** Firstly, decide how to secure the pole, which needs to be a standard scaffold pole or similar. This might be by attaching to an existing post and rail fence or it might be free standing. If free standing, the pole needs to be either cemented into the ground (500mm min) or fixed using the quick release ground mount plate that can be ordered from **www.solartechnology.co.uk**. To fix Arena light to the pole, loosely secure the U bolts (c) through the four holes in the adjustment bracket, then slide the pole through the U bolts and tighten so Arena light is firmly clamped to the pole. Now position the pole in the ground.

Fig. 4

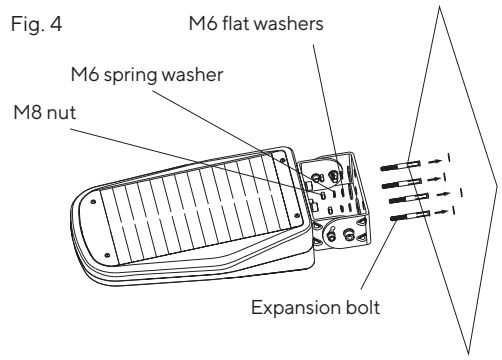
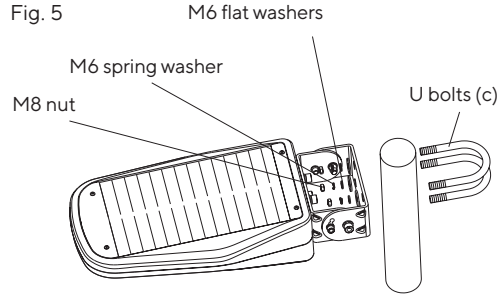


Fig. 5



7. Storage of Arena 2

Arena 2 is fully weather resistant (IP65) and will not deteriorate if permanently left outside but should you wish to store it please ensure the button is pressed on the underside of Arena 2 (Fig2). It is better to do this operation when Arena 2 is illuminated so you can be sure it has been turned off. Store Arena 2 so its solar panel is not exposed to daylight.

8. Charging times

From new, Arena light will need a full day's charge, so install early in the morning to allow it to have this initial input. Installing later in the day will cause no problems but will lead to a shorter burn time for the first evening's use.

If Arena has a completely flat battery, it will take 10 hours of sunshine to fully charge it. If the battery is only partially discharged it will take less time. Even if Arena light has not been fully charged by its solar panel (because of a cloudy day etc), there will still be power in the battery to operate the light that night, but Arena light will operate for a shorter period.

9. Operation times

Movement activation PIR mode: From a fully charged battery, Arena light will operate for 25 hours at 50 lumen brightness. This will reduce as 100% brightness is activated by movement, but it is not possible to provide an operation time because of the variable nature of how many activations and for how long.

Solid lighting mode: If the 500lumen brightness is set, a fully charged Arena 2 can operate for 12 hours, 1000 lumen for 6 hours and 1500 lumen for 3 hours.

Winter operation: This is difficult to predict because of the variable locations that Arena 2 light may be positioned in but on average, at the 500 lumen brightness, 2 hours illumination per evening should be possible. If longer burn times are needed, it should be accepted that Arena light can only be used during selected evenings and not every evening. For example, if 4 hours of light is needed, Arena light should be switched off for a 2 day period to allow its battery to gain enough power to deliver this length of burn time.

Alternatively increased run times can be achieved by adding the Arena 2 Expansion Solar Panel, which connects directly into the power socket on the side of Arena 2 (see fig 6). Up to 4 expansion panels can be added and each daisy chain's into the other so there is no complex wiring needed.

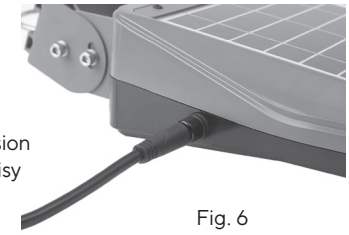


Fig. 6

10. Supercharger Expansion Panels (not included with Arena2)



The expansion panel will extend winter run times as follows:			
Add	500lm brightness	1000lm brightness	1500lm brightness
1 x Expansion panel	7.5hrs	5hrs	2.5hrs
2 x Expansion panels	12hrs	8hrs	4hrs
3 x Expansion panels	12hrs	8hrs	6hrs

11. Warranty

All items in this box are supplied with a 24 month global warranty*. Should a failure occur during this time Solar Technology International Ltd will repair or replace any faulty part, at its discretion.

Solar Technology International Ltd does not accept liability for any 3rd party damage how so ever caused or any costs associated with the return of faulty products.

***Global warranty means if a product is returned to the address below at the sender's expense and a warranty claim is found to be valid, Solar Technology International Ltd will return the repaired or replaced product to the sender at Solar Technology International Ltd's expense irrespective of where the sender is located in the world.**

Helpful tips

1 Always turn Arena2 off (if in solid light mode) after use to conserve the power in its batteries

2 We would recommend that occasionally the solar cell is cleaned, especially if located in a dusty environment. Particulates on the glass surface covering the cell will reduce charging capability. No special chemicals are needed – use warm water and dry after washing to prevent smears on the glass.

3 The batteries in the remote control will need to be changed once per year. Standard AAA alkaline batteries are required.

4 Arena light is fitted with a special Lithium battery pack. This has a life expectancy of up to 4 years and is available from **www.solartechnology.co.uk.** The battery has special connectors fitted which match the connectors within Arena light.

5. If the battery in Arena2 has run low and will not operate, turn the light off (see Fig 2) and leave it for 7 days to allow the solar panel to fully charge the battery. If the problem persists consider adding a Supercharger Expansion Panel to increase power – see section 10.

6. Arena2 will auto dim the light (in any mode) to conserve energy if the level of charge it its battery is getting low. This might be an indication that your need for lighting cannot be sustained by the fitted solar panel. In this case consider adding a Supercharger Expansion Panel to increase power – see section 10.

WARNING: Keep Arena light away from fire and oil in order to avoid any fire or explosion. Any severe shock or impact may result in damage and will invalidate the warranty. It is strictly forbidden to dismantle Arena Light except by Solar Technology personnel or agents appointed by Solar Technology. Any sign of tampering will result in the warranty being terminated.

We want your videos and photos!

Here is your chance for you and your Arena light/s to be stars. Just send in crazy videos or stills of you and your Arena light/s in action and bag a fantastic Lumi light absolutely free (worth £15). Remember, the wackier the better!

Please send to **hello@solartechnology.co.uk** including your address details and best of luck!

NOTE - we cannot guarantee to publish every entry and only those selected by our marketing department for publication will be awarded a free Lumi. By providing your images you automatically grant us the right to use these images howsoever we see fit.

If Arena 2 is used indoors (so its solar panel is not exposed to daylight) the expansion panel will give the following:			
Add	500lm brightness	1000lm brightness	1500Lm brightness
1 x Expansion panel	4.5hrs	3hrs	1.5hrs
2 x Expansion panels	9hrs	6hrs	3hrs
3 x Expansion panels	12hrs	8hrs	5hrs

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