ZOLUNA

SOLAR CHARGED. MOON READY

DUTCH DESIGN · SOLAR LIGHTING



USER MANUAL

BRAM

Solar spike light with motion sensor

MODEL SL-0002

BLACK · RUSTY BROWN · SAND

EN · 2027



WELCOME

Strong lines, warm light.

Thank you for choosing BRAM. This powder coated aluminium spike light charges by day, switches on at dusk and turns up to full brightness when someone approaches.

Please read this manual before use and keep it for future reference. You can always find the latest version via the QR code in your box or at **www.zoluna.nl**.

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READ THIS FIRST

Before you start

BRAM is a battery powered light. It is safe, low voltage and easy to use, as long as you keep the points below in mind.

SAFETY

- Do not use the light if the housing, diffuser or solar panel is damaged.
- Do not open the LED module or the solar panel. Only the battery compartment may be opened by the user.
- Use only an 18650 Li-ion cell, 3.7 V, of the same type as supplied. Never use non rechargeable batteries.
- Do not short circuit, puncture, heat or burn the battery, and keep it away from fire.
- Charge via USB indoors only, with a 5 V ⎓ 1 A adapter. Never charge in the rain or with a damaged cable.
- Keep the battery and small parts away from children and pets.
- Do not modify the product. Any modification voids the warranty.

GOOD TO KNOW

- For outdoor use. Splash proof to IP44: protected against rain and splashing water. Do not spray with a garden hose or pressure washer, and do not place it where water collects.
- Works between −20 °C and +50 °C.
- The LED cannot be replaced. The battery can.
- Charges by sunlight and, if you wish, via USB (cable not included).

> **Charge before first use.** Charge BRAM fully once via USB (about 4 hours), or let it charge in direct sunlight for 1 to 2 sunny days, before judging its runtime.

YOU WILL NEED

In soft ground no tools are needed. For a fixed base: drill with 4.5 mm bit, Phillips screwdriver, pencil.

TIME

About 5 minutes. 1 to 2 sunny days for the first full charge.

QUESTIONS?

info@zoluna.nl
www.zoluna.nl

UNBOXING

What's in the box

1 ×
Head with solar panel, sensor and battery

1 ×
Pole with base

2 ×
Ground spikes

4 + 4
Screws and wall plugs (fixed base)

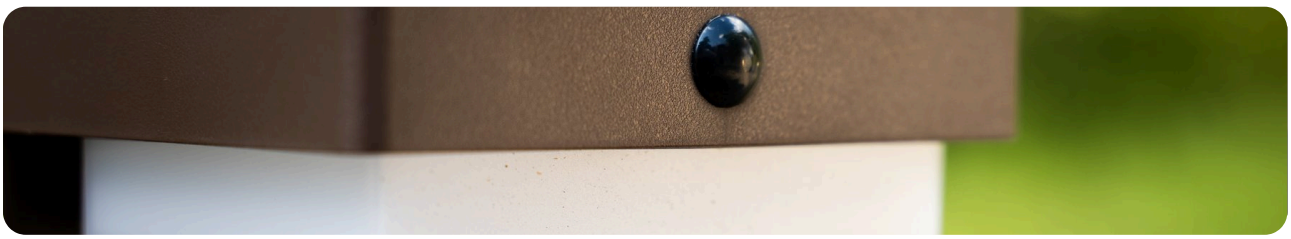
Not included: USB cable and Ø 4.5 mm drill bit.

Product overview



1 Solar panel	On top of the head, 1.9 W.
2 LED	Under the head, warm white 2700 K, up to 400 lm.
3 Motion sensor (PIR)	Front of the head: 2 to 6 m, 100°.
4 Switches & USB port	ON/OFF switch, MODE switch and USB port on the underside of the head.
5 Pole & base	Powder coated aluminium, with spikes or fixed base.

Integrated light sensor: BRAM switches on automatically when it gets dark (below about 50 lux) and off at dawn.



BEFORE YOU START

Choosing the right spot

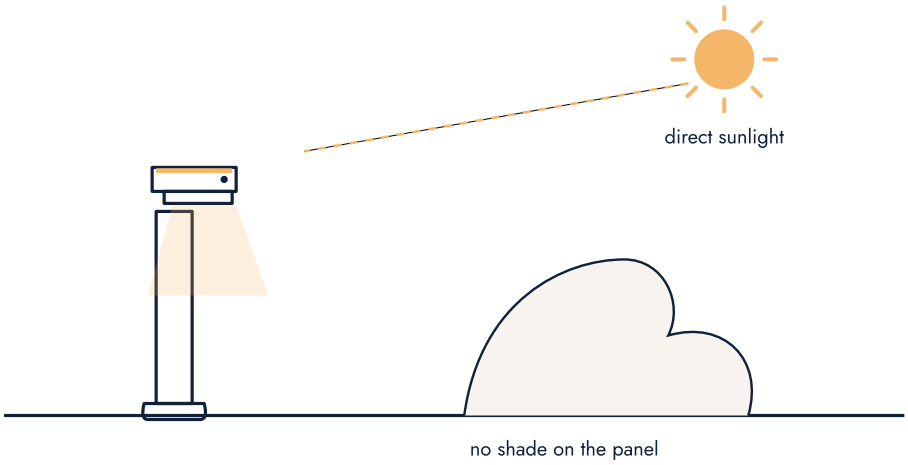
Where you place BRAM decides how well it performs. The solar panel needs daylight; the motion sensor needs a clear view.

FOR THE BEST CHARGE

- Choose a spot with at least 6 hours of direct sunlight a day.
- Avoid shade from trees, shrubs, roof overhangs and fences.
- Keep the panel clean and unobstructed.

FOR RELIABLE DETECTION

- The sensor detects movement at 2 to 6 m in a 100° angle. Aim it at the path where people approach.
- Keep away from street lights and other lamps.
- Avoid pointing at roads or swaying plants to prevent false triggers.





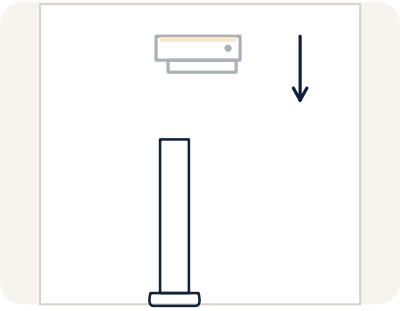


STEP BY STEP

Installation

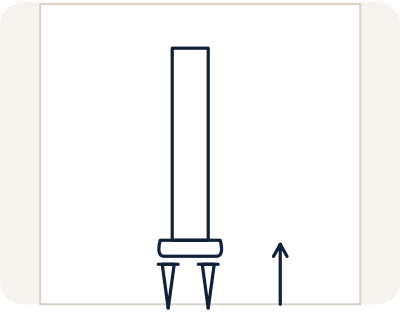
A In the ground

lawn, border, soft soil



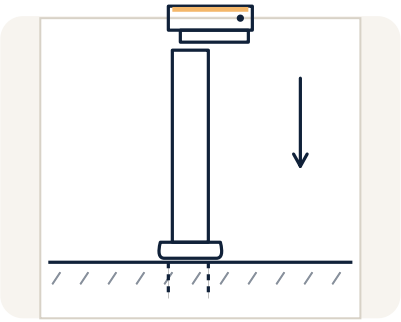
1 Fit the head

Place the head onto the top of the pole and press it down until it sits firmly.



2 Insert the spikes

Push both ground spikes into the holes in the underside of the base.

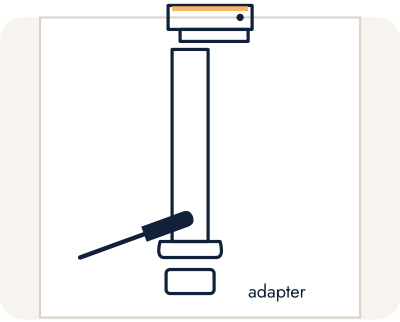


3 Place in the ground

Push the light straight into soft soil by pressing on the base, never on the head.

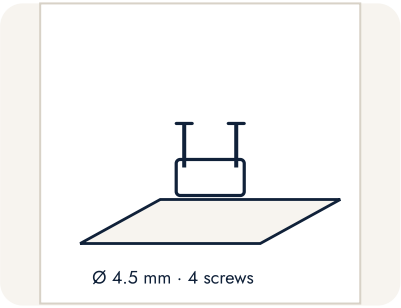
B On a hard surface

decking, paving · optional



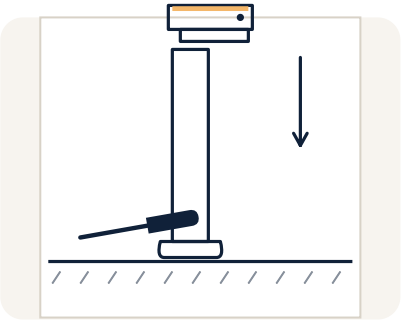
1 Remove the adapter

Loosen the screw on the side of the base and take the mounting adapter out from underneath.



2 Fix the adapter

On decking or paving: mark and drill 4.5 mm holes, insert the plugs and fix the adapter with the 4 screws.



3 Fit the light

Slide the pole down over the adapter and tighten the side screw again.

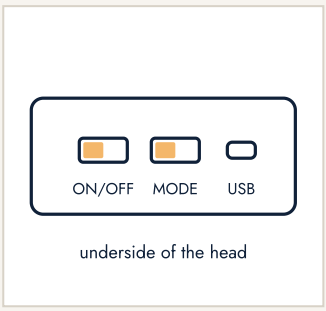
> Then switch the light on and choose a mode (page 07). The switches are on the underside of the head: lift the head off the pole to reach them.

OPERATION

Switching on & the 2 light modes

BRAM has an **ON/OFF switch**, a **MODE switch** and a USB port on the underside of the head. Lift the head off the pole to reach them.

Set the ON/OFF switch to ON, choose a mode, then put the head back on the pole.



MODE 1

Constant soft light

Stays on at 50 lm from dusk to dawn: a calm glow along your path. Up to about 24 h on a full battery.*

MODE 2

Soft light + motion boost



50 lm all night; switches to 400 lm when motion is detected, for about 25 seconds, then back to 50 lm.

* Typical value with a fully charged battery. Actual runtime depends on sunlight, season, temperature and battery age.

DUSK TO DAWN

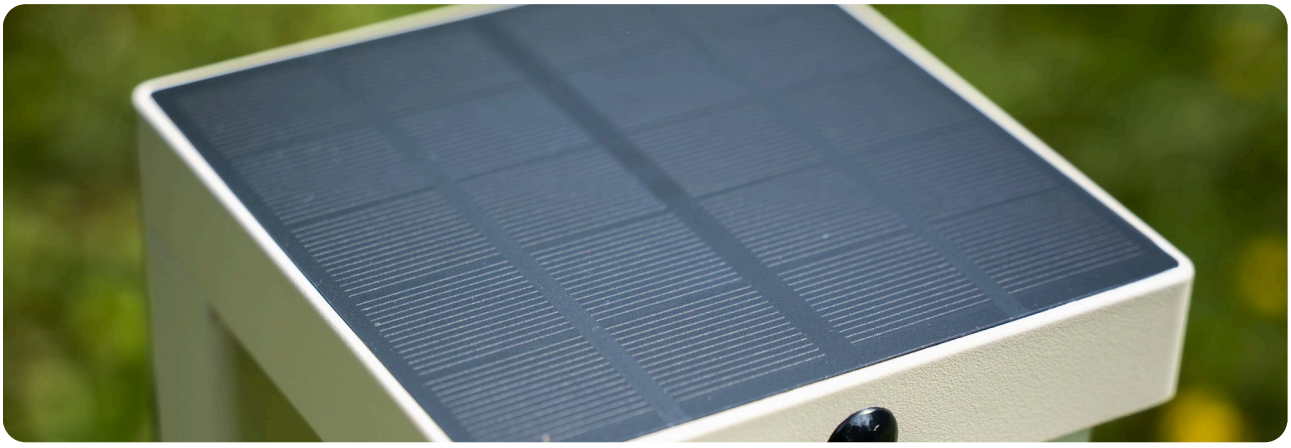
BRAM only lights up when it is dark (below about 50 lux). To test it in daylight, cover the solar panel.

WHICH MODE SUITS ME?

Garden path or border: **Mode 1**. Front door, driveway or side entrance: **Mode 2**.

ENERGY

Charging: solar & USB



SOLAR CHARGING

The 1.9 W monocrystalline solar panel charges the battery whenever there is daylight, also when the light is switched off. A full charge takes about 7 hours of direct sun.

On cloudy days the panel still charges, but more slowly. After several grey days in a row the runtime will be shorter.

SEASONS

In winter there is less sun and the nights are long. Use Mode 2 from November to February, or top up the battery via USB now and then.

USB CHARGING

- Lift the head off the pole and take it indoors.
- Connect a USB cable (not included) to the USB port on the underside of the head and to a 5 V ⎓ 1 A adapter.
- A full charge takes about 4 hours. Put the head back on the pole afterwards.

GETTING THE MOST FROM YOUR BATTERY

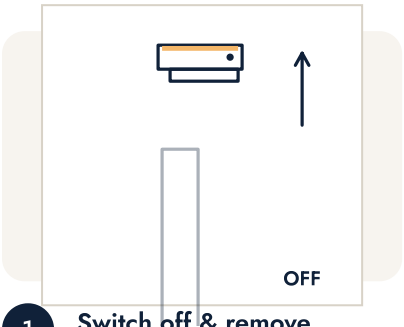
- Keep the solar panel clean and free of dust, snow and leaves.
- Storing BRAM for a long time? Switch it off and store it charged, in a dry place between 10 and 25 °C. Recharge every 3 months.
- Battery capacity naturally decreases over time; typically after 2 to 3 years the runtime becomes noticeably shorter.

1.9 W	7 h	4 h	400 lm
mono solar panel	full charge by sun	full charge via USB	max. light output

MAINTENANCE

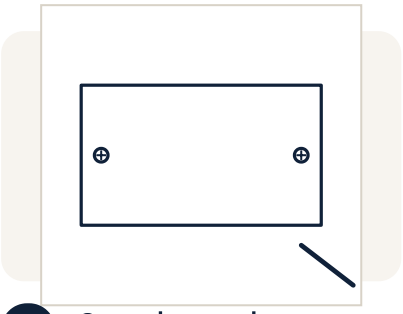
The battery

BRAM's battery is replaceable by yourself, so a tired battery never means a new light.



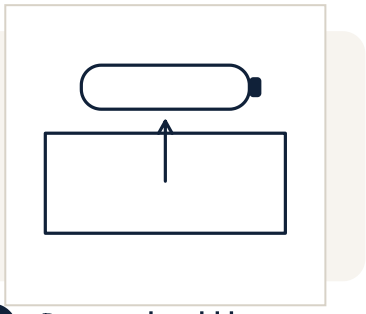
1 Switch off & remove

Set the switch to OFF and lift the head off the pole.



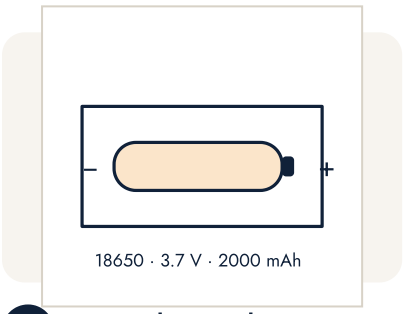
2 Open the panel

Lay the head on a soft cloth. Remove the screws of the panel on the underside with a small Phillips screwdriver.



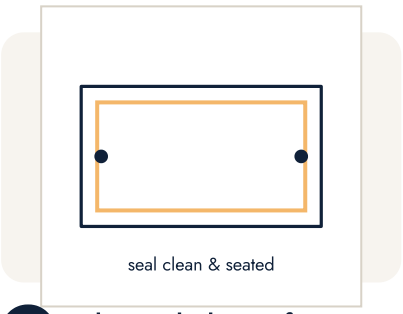
3 Remove the old battery

Carefully take the old 18650 cell out of its holder.



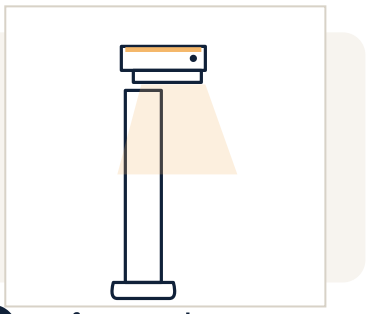
4 Insert the new battery

Insert a new 18650 Li-ion cell (3.7 V, at least 2000 mAh). Match + and – with the markings.



5 Close splash proof

Check that the seal is clean and seated, then refit the panel and screws evenly.



6 Refit & switch on

Put the head back, set the switch to ON and let it charge before use.

REPLACEMENT BATTERY

Type	18650 rechargeable Li-ion cell
Voltage	3.7 V
Capacity	2000 mAh (7.4 Wh) or higher
Where to buy	ZOLUNA customer service or electronics retailers

IMPORTANT

- Never use non rechargeable batteries or a different battery type.
- Replace the battery in a dry place, never in the rain.
- Hand in the old battery at a battery collection point, never with household waste.

LOOKING AFTER BRAM

Care & maintenance

- Clean the housing, diffuser and solar panel a few times a year with a soft, damp cloth. Do not use abrasives, solvents, a garden hose or a pressure washer.
- Coastal air, fertiliser and lawn treatments can affect the finish: wipe it down regularly.
- Brush off snow, dust and leaves so the panel keeps charging.
- Check once a year that the light is still firmly fixed.



SOMETHING NOT RIGHT?

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Light does not switch on at night	Switch set to OFF	Set the ON/OFF switch to ON.
	Battery empty	Charge via USB or 1 to 2 sunny days.
	Other light source nearby	Move BRAM away from street lights or other lamps.
Short runtime	Too little sun / winter	Choose a sunnier spot, Mode 2, or charge via USB.
	Battery aged	Replace the battery (page 09).
Motion boost does not work	Mode 1 selected or too far away	Select Mode 2; approach within 2 to 6 m.
Light switches on randomly	Moving plants or cars	Turn or move the light.
Light leans	Soft or loose soil	Press the soil firmly, or use the fixed base.

Still not working? Contact us at **info@zoluna.nl** with your order number and a photo or short video. We're happy to help.

IN DETAIL

Technical specifications

Model / SKU	SL-0002-VR Black · -VRBR Rusty brown · -VRSD Sand
Dimensions	114 × 114 × 513 mm
Weight	650 g
Material	Powder coated aluminium, ABS, PC
Protection	IP44: splash proof
Operating temperature	–20 °C to +50 °C
Light source	SMD LED, 50 / 400 lm, 2700 K warm white, CRI 80, 120°
LED lifetime	25,000 hours · LED not replaceable
Solar panel	Monocrystalline, 5 V / 1.9 W, 110 × 110 mm, 20 % efficiency
Battery	18650 Li-ion, 3.7 V, 2000 mAh, 7.4 Wh · replaceable
Charging	Solar ≈ 7 h · USB 5 V ⎓ 1 A ≈ 4 h (cable not included)
Runtime	Up to ≈ 24 h in Mode 1
Sensors	Dusk to dawn (≤ 50 lux) · PIR motion sensor 2 to 6 m, 100°
Control	ON/OFF switch · mode switch (2 modes)
Mounting	Ground spikes or fixed base (4 screws)
Warranty	2 years (battery excluded, see page 12)





BLACK

RUSTY BROWN

SAND

GOOD TO KNOW

Disposal, warranty & contact

DISPOSAL & RECYCLING

This symbol means the light and its battery must not be thrown away with household waste. Take the light to a collection point for electrical and electronic equipment (WEEE), for example your municipal recycling centre or a retailer that takes back old appliances.

Remove the battery first (page 09) and hand it in separately at a battery collection point. Batteries contain materials that can harm health and the environment and that can be recovered. Tape the battery terminals before disposal to prevent short circuits.

SYMBOLS & CONFORMITY

All symbols, safety markings and certifications of BRAM are explained on page 13.

WARRANTY

ZOLUNA gives a 2 year warranty on BRAM against manufacturing and material defects, from the date of purchase. Keep your proof of purchase.

The rechargeable battery is a wear part and is not covered by this warranty, nor is damage caused by incorrect installation, improper use, modifications, accidents or normal wear. This warranty does not affect your statutory rights as a consumer.

To make a claim, contact the store where you bought BRAM or email info@zoluna.nl with your order number and a description or photo of the problem.

MANUFACTURER / IMPORTER

ZOLUNA · Nooteboom Ventures B.V.
Jan Frederik Vlekkeweg 12
5056 RJ Tilburg, the Netherlands
info@zoluna.nl · www.zoluna.nl

BRAM · SL-0002 · Made in China







Symbols, safety & compliance

CE marking
Complies with the applicable EU health, safety and environmental legislation.

Battery collection
Hand in batteries separately at a battery collection point.

IP44
Splash proof: protected against rain and splashing water. Do not spray with a hose and do not immerse.

Read the manual
Read all instructions before installation and use, and keep them for later.

Temperature range
Use between –20 °C and +50 °C. Store the battery between 10 °C and 25 °C.

Replaceable battery
The 18650 Li-ion battery can be replaced (see page 09).

USB input 5 V ⎓ 1 A
Charge indoors only, with a 5 V ⎓ 1 A USB adapter (adapter not included).

WEEE
Do not dispose of with household waste. Hand in at a collection point for electrical equipment.

Triman (France)
This product and its packaging are subject to sorting rules for recycling.

Protection class III
Safety extra low voltage: powered by a 3.7 V battery. No mains connection.

Do not stare into the light
Tested to EN 62471: risk group 0, exempt. Still, avoid looking directly into the LED at close range.

No fire
Do not heat, burn or short circuit the battery, and do not throw it into a fire.

LED not replaceable
The LED light source is integrated and cannot be replaced by the user or a professional.

Solar powered
Charges by daylight through the integrated monocrystalline solar panel.

DECLARATION OF CONFORMITY

ZOLUNA declares that BRAM (SL-0002) complies with the EU legislation listed below. The full EU declaration of conformity is available on request via info@zoluna.nl. Light source: LED, integrated, not replaceable. Battery: 18650 Li-ion, 3.7 V, 2000 mAh, replaceable.

EMC Directive 2014/30/EU	RoHS Directive 2011/65/EU + (EU) 2015/863	Battery Regulation (EU) 2023/1542
REACH (EC) 1907/2006	General Product Safety (EU) 2023/988	WEEE Directive 2012/19/EU
Photobiological safety EN 62471 · RG0	Ingress protection IEC 60529 · IP44	Lithium battery transport UN 38.3



ZOLUNA

SOLAR CHARGED, MOON READY

Dutch design. High quality solar lighting.
Made to last, season after season.