Operating instructions

Type
POWERMOON® POCKETMOON®

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Introduction

Thank you for choosing a product from POWERMOON®. Please read through this manual carefully before using the Pocketmoon®, and store it in a safe place so that you can refer to it later if necessary.

Please read this first

- There may be changes to the content of these operating instructions and the included reference material made at no notice.
- The content of these operating instructions has been checked at all stages of the manufacturing process. However, if you should notice anything that appears questionable or incorrect, please issue an appropriate notification.
- Duplication of the content of these operating instructions (in whole or in part) is forbidden. Any use of the content of these operating instructions for purposes other than private use (unless POWERMOON® has consented to it) is protected by copyright.
- POWERMOON® accepts no responsibility for any damages or lost profits suffered by you or third parties as a result of use of this product or any defect with it.
- POWERMOON® accepts no responsibility for any damages or lost profits as a result of malfunctions, repairs or other causes.
- Please note that the examples and illustrations shown in these operating instructions may differ from the actual configurations of your POWERMOON® product.

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1.0 Identification

1.1 Product name and type designation

Product name: POWERMOON® - POCKETMOON®

1.2 Product version

Version 1.0

1.3 Name and address of the manufacturer

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2.0 Product description

2.1 General functions and scope of use

The POWERMOON® is always an ideal solution wherever a lot of good light is temporarily needed – whether it's road or railway construction, search and rescue operations, event lighting or temporary lighting of a car park. The POWERMOON light is for indoor and outdoor use.

The special thing about POWERMOON® is its virtually glare-free and reduced-shadow light (no harsh shadows). This allows for a high light output with daylight-like lighting conditions, all without distracting glare such as you get with e.g. conventional headlights. The high-performance LED lights allow for maximum luminosity at low terminal value. As such the POWERMOON® allows for optimal teamwork and it minimises the chance of road accidents, for drivers of passing automobiles will not be disturbed by blinding floodlights.

2.2 Dimensions and weight

POWERMOON® POCKETMOON®
Dimensions: Diameter 420mm, Height 85mm
Weight: 500g

Transportbag
Dimensions Bag: Length 1000mm, Width 360mm, Height 100mm

2.3 Power supply

POWERMOON® POCKETMOON®
230V, 50Hz, 4,7A

Operation with power supply:
90V - 305V Input

Operation with lithium ion akku:
12V / 10Amp

Operation 12V car battery:

Attention!
Before using the car adapter, please take the time to take our short instructions in **point 4.9.2** in the user manual.

2.4 Energy consumption, energy provisions

2.5 IP-Code

Protection type IP68 (suitable for outside use in rain and snow)

6	(1st digit) protection type against contact and foreign bodies - Dust tide
8	(2nd digit) protection type water protection - Waterproof

2.6 Environmental provisions

Environmental protection
Light from POWERMOON® devices and sound (from generators) harm the environment. Please observe regional environmental regulations during operation, as well as regulations concerning residence and animals (wild animals, insects and birds) in woods and fields.

Safety distances

It is necessary to keep a safety distance of at least 1 metre from combustible materials e.g. dry wood, plastics etc. (such as wood ceilings, building walls, plastic insulation, room dividers...).

The POWERMOON® device may not be used in the vicinity of flammable materials (e.g. petrol and gas). The POWERMOON device is not suitable for use in EX zones.

When you are transporting or passing high voltage power lines with a vehicle on which a POWERMOON device is installed, it is essential to observe the prescribed safety distances: 50 metres distance from overhead power lines, at least 2.5 metres distance from power lines over tracks.
Get informed of the respective on-site guidelines. These can differ in some regions. This also applies to guidelines in airports, harbours and oil refineries.

Steps must be taken to make sure that the POWERMOON® power supply won't be damaged or interrupted by passing traffic or drafts. Pedestrians and moving traffic cannot be hindered by cables which could lead to accidents or injuries.

Regarding lighting within tanks, closed containers, chimneys or floating objects:

The POWERMOON® must be operated with a separate transformer if you intend to use it in tanks, closed containers or chimneys or on floating metal pontoons or boats. An electrician should check whether or not safe use is possible prior to commissioning. Tanks: the tanks must be located in a non-flammable atmosphere free of flammable gases and hydrocarbons. Consistency with standards with electrical devices on ships must be verified by an electrician prior to commissioning; ditto for proper connection and grounding (consider separation and equalisation). NB: With regard to floating bodies, there applies additional, regional (offshore, inland coastal area) safety requirements for electrical devices; these should be inquired about with the responsible personnel **prior to** the commissioning of a POWERMOON®.

2.7 Security information, summary

ATTENTION! Shock and surge problems. If a POWERMOON® is operated in a common phase on a weak and unstable voltage network together with other power-consuming devices (e.g. with generators whose performance range is borderline or with poorly connected mains connections), the POWERMOON may, as the power-consuming device with the highest output, cause damage to the other devices on the same supply circuit when it is switched on and off i.e. the power surges and phase shifts that take place during the switching process. Due to the large capacitive load (similar to large pumps or electrical motors), we recommend that no sensitive electronic, digital or electric devices be operated in the same network. The POWERMOON devices themselves have built-in surge protection system, which buffers a voltage fluctuation of max. 20 %. (Example: with 230 V network voltage, short-term peaks in the power supply which are caused by connection or disconnection of high-consumption devices e.g. generator supplying power at a value of max. +50 V (and therefore 280 V) will be absorbed over a period of 30-40 seconds). If the LED lights are burdened with any higher excess voltage or for any longer period, this can result in the LEDs being damaged.

Disclaimer: failure to observe this recommendation will excuse the manufacturer from liability and recourse claims; these shall not be the responsibility of POWERMOON GmbH.
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3.0 Definitions

3.1 Safety information in these operating instructions

This manual contains security guidelines which fall under the categories DANGER, WARNING, CAUTION, *ATTENTION* and COMMENT. These should be followed to reduce risk of injury, equipment damage or improper service.

This is a security warning symbol warning against possible risk of injury. All security guidelines with this warning symbol should be complied with, to prevent any injuries (or death).

DANGER indicates a dangerous situation – non-compliance with this warning can lead to serious injury or death.

WARNING indicates a dangerous situation – non-compliance with this warning can lead to serious injury or death.

CAUTION indicates a dangerous situation – non-observation of this information can lead to low-level to intermediate injuries.

WARNING: if this information appears (without a security warning symbol), **WARNING** indicates a situation where non-compliance can result in property damage.

Comments: contains additional important information on a work process.

3.2 Operational safety

Appropriate training and familiarity with the POWERMOON device are necessary for safe operation. A POWERMOON device which is operated incorrectly or by untrained personnel can pose a risk. Read through the operating instructions in this manual and become familiar with how to use it properly. Inexperienced operators should be trained by a person who is familiar with the POWERMOON before using the POWERMOON.

3.2.1 The immediate environment of the POWERMOON® should be kept clean and tidy and free of dust.

3.2.2 ALWAYS ensure that the POWERMOON® is used on an even surface, where it won't tilt, roll, slip or fall.

3.2.3 NEVER use a POWERMOON which is in need of repair. A POWERMOON is in need of repair if:

- The electric cable is damaged
- The plug is not securely screwed or overheated
- The light casing has large cracks or holes
- Other obvious mechanical damage is recognisable

3.2.4 Ensure that the area above the light is free and open, and that there are no power lines or obstacles present. Overhead power lines should be a linear distance of at least 50 m away from the tripod. Above-ground power lines and railway lines with overhead lines should be a distance of at least 2.5 m from the balloon.

3.2.5 NEVER, raise, lower or turn the tripod while the light is operational!

3.2.6 NEVER use the luminous light if there are any insulation cracks in the power cable or it appears worn.

3.2.7 ALWAYS replace electrical components with spare parts which have the same nominal values and which are designed to have the same output as the original part.

3.2.8 ALWAYS keep a minimum distance of 1 m between the light and flammable materials e.g. wood or plastic.

3.2.9 NEVER use the POWERMOON® in areas where there could be leaks of flammable substances e.g. petrol, solvents or natural gas.

3.2.10 Regarding the lighting of traffic routes, the construction and bracing must be such that it is ensured that the POWERMOON® cannot tilt in the direction of traffic and that traffic and pedestrians will not be obstructed or endangered by the guylines.

3.2.11 If the lighting device is used in areas with many people, ALWAYS secure and block off the area around the tripod (e.g. with barrier tape), in the radius where the tripod could fall (the height of the tripod).

3.2.12 ALWAYS mark the lashings clearly, so that they pose no risk to pedestrians or traffic.

3.2.13 Ensure that the POWERMOON® doesn't conceal any signs or light signals e.g. traffic lights, stop signs, information signs or similar. In the event of regional proximity to signaling systems, it must be ensured that those driving automobiles won't confuse the light with signals / traffic lights. Local guidelines for special transport areas (e.g. the railway sector and road area) must be complied with and checked by qualified personnel prior to installation.

3.2.14 At events, escape and rescue routes may not be adjusted or blocked with the light system!

3.3 Service safety

HIGH VOLTAGE! This device uses high voltage circuits, which can cause serious injury or death. Only qualified electricians may do troubleshooting or conduct repairs with electrical problems with this device.

3.3.1 After repairs / maintenance work, ALWAYS replace the protection devices.

3.3.2 Ensure that NO water collects around the console of the POWERMOON®. If there is any water there, move the POWERMOON® away and let it dry before undertaking maintenance efforts.

3.3.3 DO NOT undertake maintenance efforts with the POWERMOON® wearing wet clothing or with wet hands.

3.3.4 ALWAYS keep the POWERMOON® clean and ensure that the labels are legible. Replace all defective labels and those which are hard to read. These labels contain important operating instructions and they serve as a warning of dangers.

3.3.5 Prior to removing the LED body, ALWAYS separate the POWERMOON® from its power source.

4.0 Operational instructions

4.1 Transportation and storage

4.1.1 The POWERMOON® should ALWAYS be stored in the transportation bag if it is not being used.

4.1.2 During transportation, the POWERMOON® should ALWAYS be well protected. If this rule is not observed, the POWERMOON® may end up damaged.

4.1.3 The POWERMOON® may be stored either horizontally or vertically.

4.1.4 If the POWERMOON® should become wet when it is being used, then it absolutely must be completely dry before it is stored; otherwise corrosion and mold can form in the transportation cylinder.

4.2 Security measures prior to use

4.2.1 Check the light and cable for damage.

4.3 Unpacking

The packaging includes the following (depending on the configuration):

- 1 x POWERMOON® POCKETMOON®
- 1 x Power supply with cable
- 1 x Transportbag
- 1 x Stainless steel tripod with magnetic connector
- 1 x Alligator clips for car battery
- 1 x Car adapter

4.4 Safe disposal of the packaging material

The client can dispose of the cardboard.
Recommended disposal:

- Old paper recycling (cardboard)

4.5 Preparatory work prior to installation

The installation location should meet the following criteria:

- Single storey with a surface area of at least 5 x 5 metres
- No tips objects on the floor
- No high-voltage line within 50 m
- It is recommended that a clean, non-slip surface be used.

4.6 Tripod set up

Risk of electric shock. An electric shock can cause serious injury or death. You must always only connect and switch on the POWERMOON® at the power supply, after it has been fully unpacked and assembled.

4.6.1 The tripod must be safely constructed prior to the installation of the POWERMOON®.

4.6.2 Loosen the screw at the tripod leg segments.

4.6.3 Open the tripod legs and tighten the screw to fix the tripod.

4.6.4 First, the magnetic connection must be unscrewed.

Place the power supply over the top of the tripod and push it to the bottom of the pole.

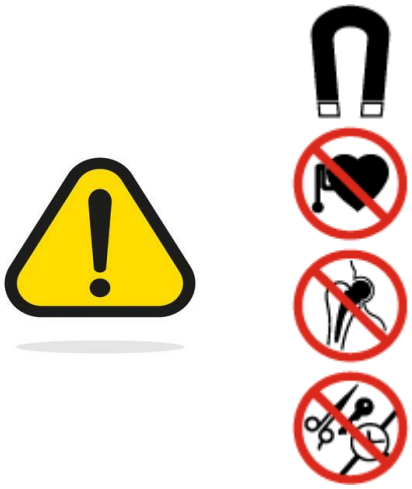
4.6.6 Screw the magnetic connection on top of the tripod and place the Pocketmoon® LED light panels on top of it.

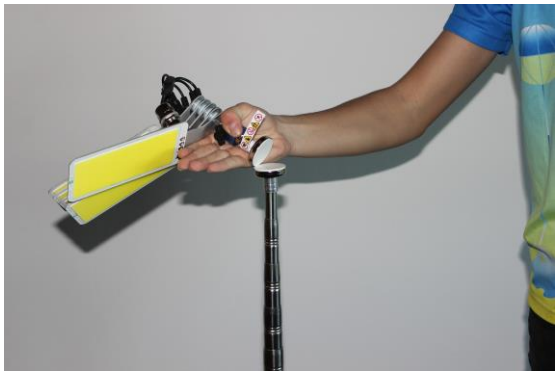
4.7 Attach light on tripod (if appropriate)

Risk of electric shock. Electric shocks can result in serious injury or death. Under all circumstances, the POWERMOON® should only be plugged in and switched on after it has been fully unpacked and assembled.

WARNING - Take this step with extreme care so that you don't leave your fingers between the magnets. Also keep all electronics(phones, watches etc.) away from the magnets. Do not handle the magnets if you are using a cardioverter-defibrillator or another medical device that might be endangered by magnets.

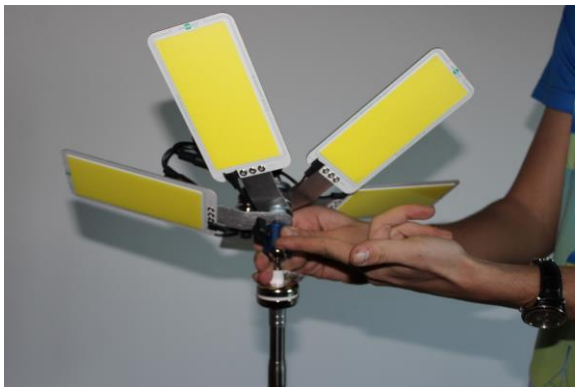
4.7.1 **Placing the LED Panel:**





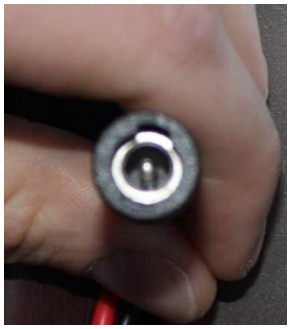
4.7.2 Turn the LED panels so that they all stay separated from each other evenly

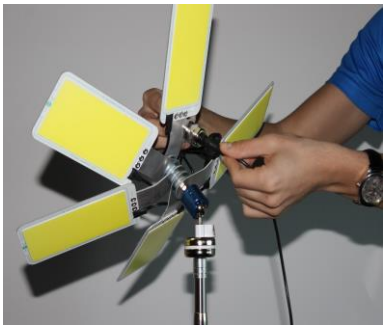
4.7.3 Loosen the screw on the ball joint swivel head and adjust the angle for the light to your needs and tighten the screw to fix it.



4.8 Connecting the lamp

4.8.1 Insert one end of the cable in the hole under the LED panels. Check, that while inserting the cable that the edges on the cable match the edges of the hole and once inserted, turn the cable counterclockwise to lock it. To remove the cable, turn the cable clockwise to unlock it and only then pull it back out.





4.8.2 Insert the other end of the extension cable to the hole on the power supply. Check, that while inserting the cable the edges on the cable match the edges of the hole. Once inserted, turn the cable counterclockwise to lock it. To remove the cable, turn the cable clockwise to unlock it and only then pull it back out.

WARNUNG

Risk of electric shock and tripping. Do not allow pedestrians or vehicles to cross the power lines. The cables may become damaged or severed, or people may trip over them.

4.9 Adjust the height of the tripod

4.9.1 Adjust the height of the tripod by your needs by turning the extension points on the tripod counterclockwise, then lifting the extension and locking it by turning clockwise. Always start with the extension on the top extension and then move on to the next one under it until you reach your desired height

Turn counterclockwise and push up.

Rotating clockwise fixes the selected height.

4.9.2 Use in a vehicle:

Check the fuse rating of the cigarette lighter socket before you start using the Pocketmoon! **If you use the complete 5 LED panels all together, the car socket must be at least 10 Amps.** (Larger trucks and vans such as an F150 or RAM 1500 or larger have that. Small passenger cars such as VW Golf or Toyota Corolla have only 5 Amps)

If you have only 5 Amp fused cigarette socket, please disconnect a two of the 5 LED Panels.

4.10 Storage and protection during interruption of normal use

4.10.1 When the POWERMOON® is not in use, it does not need to be completely dismantled. The light remains stable in the wind even when it is switched off. The following additional points regarding operational safety (3.2) must also be observed:

- Disconnect the POWERMOON® from the mains
- Lower the tripod to the lowest possible height

4.11 Using and charging of the Lithium Ion Battery

4.11.1 Inside the lithium ion battery set there is a 12 inch loading cable included

The loading cable should be used only for charging the Lithium Ion battery. Do not connect the loading cable to the light.

4.11.2 The bayonet socket is fit on one side in the AC/DC Power supply. The other side connects with the lithium ion battery pack. Loading time for the battery is about 4 hours. Using and running time is between 3 to 4 hours with all 5 LED panels. In case of a situation where a longer running time is needed, please remove some of the LED panels.(The more LED panels you remove, the longer is the running time. Example: You need some safety light in a cave for as long as possible. Use only one single LED panel and it will run for 15 hours.)

4.11.3 If you carry or ship Lithium Ion Batteries in aircrafts, please make sure that it's allowed by the airfreight regulations on shipping lithium ion batteries.(IATA) In case you are not sure about the regulations, please contact your shipping company or airline before.

Technical data: 10Amp, 12 Volt, Weight 1,2kg

5.0 Maintenance and cleaning

5.1 Maintenance and cleaning by the user

5.1.1 The POWERMOON® cases may be cleaned by wiping them with a damp cloth. Never use abrasive cleaners like benzine, thinner or other products which can make the material deteriorate.

5.2 Maintenance and cleaning by qualified staff

5.2.1 **Testing of electrical equipment as per BGV-A3**

Inspections of electrical equipment as per BGV A3 / DIN VDE 0702 may be performed only by specially trained people who undergo continuous education and training. In addition, only tested and calibrated measuring devices authorised for such inspections may be used. Inspections of portable apparatus as per BGV-A3 are in the interest of personal protection first and foremost.

Generally, portable equipment should be tested every 2 years.