

OPERATING INSTRUCTIONS

ExMP81R Explosion-proof Mobile Lighting Equipment (Area Lights)



SHENZHEN GOALTEK ELECTRIC CO., LTD.	
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©Basic technical data:

- Ex mark: Ex II 2 G D Ex eb ib mb IIC T4 Gb Ex tb IIIC T130°C Db
- Intended use: Explosive atmospheres Class II Zone 1, 2, Class III Zone 21, 22
- Certificate: IECEx DNV 25.0001X, DNV 25 ATEX 47920X
- Degree of protection: IP66, IP67(1m,30min)
- Ambient temperature : -20°C to +55°C
- Battery pack: Li-ion , Rated voltage 43.2V d.c. , Rated capacity: 5000mAh
- Um (for charging) :24V d.c.
- Battery pack life: ≥500 cycles
- Battery pack manufacturer: SHENZHEN GOALTEK ELECTRIC CO., LTD
- Charging method: Charging with dedicated adapter
- Charging time: <7h
- Adapter input:: AC: 100-240V a.c. 50/60Hz; output: 24V d.c.
- Luminous flux:
 - Floodlight (Working light) : 2500lm±300 lm (Constant)
 - Spotlight (Working light) : 2500lm±300 lm (Constant)
 - Simultaneous flood and spot (high light): 5500±500lm
 - Simultaneous flood and spot (low light): 1500±200lm (Constant)
- Duration time: Floodlight (Working light) ≥10 h;
 - Spotlight (Working light) ≥10 h;
 - Floodlight and Spotlight ((high light) ≥6 h;
 - Floodlight and Spotlight (Low light) ≥18 h
- Weight < 9.8kg

©Structure features:

- Using high-power LED light source, high light efficiency, long life, average service life of up to 100,000 hours, long-term maintenance-free.
- High-Energy, Large-Capacity Lithium-Ion Battery: Boasting excellent charge-discharge performance, low self-discharge rates, and environmental friendliness.
- Battery Protection Features: Equipped with over-charge, over-discharge, and short-circuit protection functions, ensuring safety and reliability.
- Versatile Illumination Modes: Offers four lighting modes - (1) floodlight (working light), (2) spotlight (working light), (3) simultaneous flood and spot (high light), (4) simultaneous flood and spot (low light) - with one-touch switching.
- Adjustable Head and Rotation: The lamp head can be elevated and rotated horizontally and vertically, enabling adjustment of light angles and coverage.
- Smart Battery Display and Low Voltage Warning: Features intelligent battery level indication and low voltage alert for real-time battery monitoring. Flashing indicator signals low battery levels.
- Overvoltage Charging Protection: Incorporates protection against overvoltage charging, ensuring faster and safer charging of the fixture.
- Durable Construction: The house adopts permanent antistatic, aging-resistant and corrosion-resistant high-strength alloy nylon and optimized structural design, which has the advantages of impact resistance, waterproof and dustproof, insulation and excellent corrosion resistance.
- Versatile Usage Options: Can be placed on the ground, carried by hand, or worn with a shoulder strap, offering flexibility in usage.
- Quality Nylon Material Controls: Large buttons made of high performance nylon for easy operation, wear resistance, scratch resistance, and long-lasting durability.

PURPOSE OF THESE INSTRUCTIONS

- Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.
- Staff working on assembly and maintenance therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.
- These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff must study.



SAFETY INSTRUCTIONS

- Use this series explosion-proof mobile lighting equipment (area lights) only for its intended purpose.
- Explosion-Proof Mobile Lighting Equipment(Area Lights) is not suitable for hazardous areas in Zone 0 or Zone 20 !
- Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.
- No changes to the device impairing its explosion-proof performance are permitted.
- Use the Explosion-Proof Mobile Lighting Equipment(Area Lights) only if they are clean and undamaged.
- Any damage can invalidate the Ex-performance.
- Observe the following during installation and operation:
 - National safety regulations;
 - National accident prevention regulations;
 - Generally recognized technical regulations;
 - Safety guidelines in these operating instructions;
 - Characteristic values given on this Explosion-Proof Mobile Lighting Equipment(Area Lights).

CONFORMITY TO STANDARDS

This Explosion-Proof Mobile Lighting Equipment(Area Lights) is designed, manufactured and tested in accordance with ISO 9001.

The Explosion-Proof Mobile Lighting Equipment(Area Lights) complies with the following regulations of ATEX DIRECTIVE 2014/34/EU and following standards:

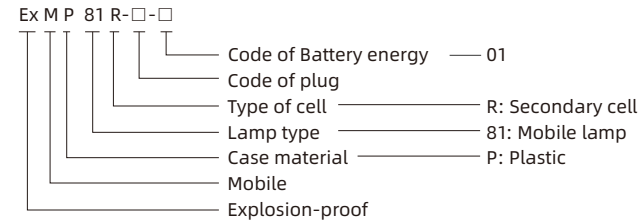
IEC 60079-0: 2017	EN IEC 60079-0 : 2018
IEC 60079-7: 2017	EN 60079-7:2015+A1:2018
IEC60079-11 : 2023	EN 60079-11 : 2012
IEC 60079-18: 2017	EN 60079-18: 2015+A1:2017
IEC 60079-31:2022	EN 60079-31 : 2014

APPLICABLE SCOPE

The Explosion-Proof Mobile Lighting Equipment(Area Lights) be widely used in oil mining, petrochemical, power grid, metallurgy, railway, subway, military industry, police, fire protection, water conservancy, manufacturing and other flammable and explosive indoor and outdoor dangerous places designed to use in all industrial areas and to provide specific mobile lighting for patrol works, inspection works, rescue operations, construction works, etc.

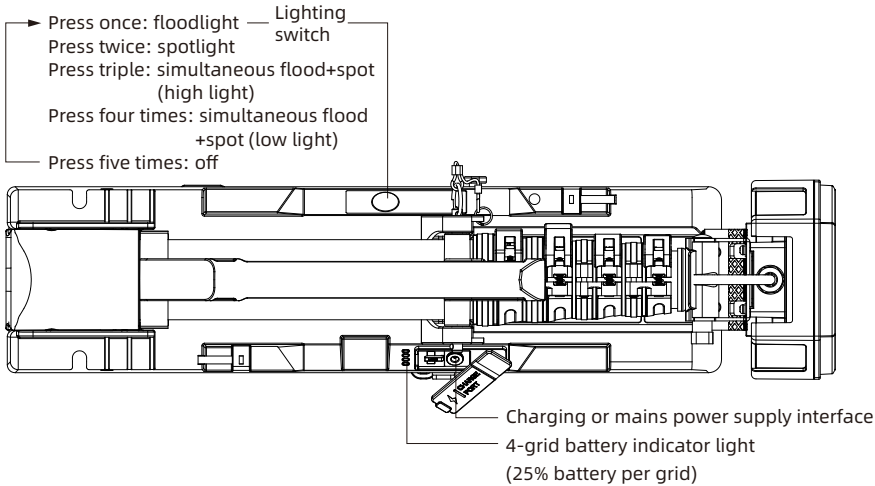
TECHNICAL DATA

©Model and implication

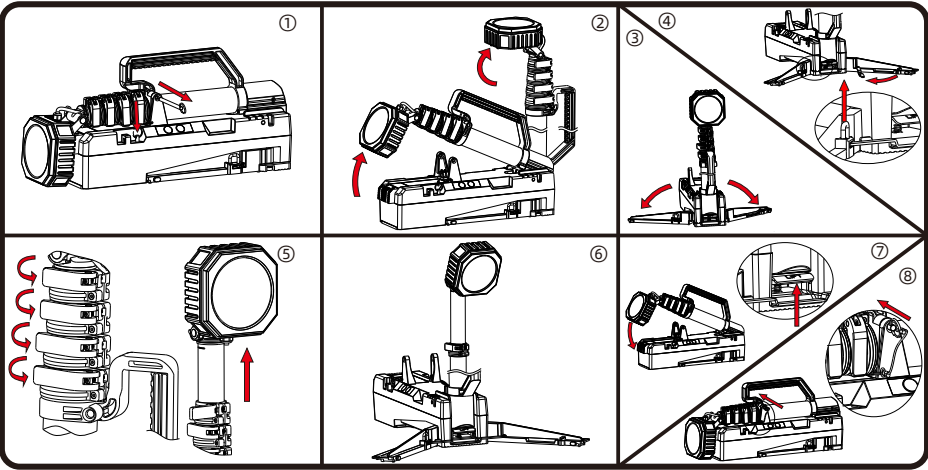


INSTRUCTIONS

© Description on Button and Interface



© Lamp Pole Operating Instructions



- Place the explosion-proof mobile lighting equipment (area lights) horizontally on the ground, pull out the retaining pin (connected with an anti-loss cable), and insert it into the lamp pin parking slot.
- Hold the top of the lamp pole and pull it up (It is strictly forbidden to pull the lamp pole by grabbing the cable) until the lamp pole is vertical to the ground. Shake the lamp pole slightly to make sure it is securely locked.
- Open the two support legs as indicated in the diagram.
- After the two support legs are in the position shown in the diagram, pull the support rod apart and rotate it to the other support leg latch position, then lift the latch, push the support rod into the slot, lower the latch, and clamp the support rod.

- ⑤. Loosen the top buckle of the lamp pole component, raise up the lamp pole, and then lock the buckle. Repeat this process from top to bottom until each section of the lamp pole is unfolded. The lamp head can be raised up to 2.15 meters through the lifting rod, and the height can also be adjusted as needed. Rotate the lamp head within 300° in the horizontal direction and 115° in the vertical direction to meet illumination needs. Adjust the lighting angle and coverage by rotating the lamp head upwards, downwards, leftwards and rightwards.
- ⑥. After using the lamp, retract the lamp pole from bottom to top, hold the upper pole on the lamp pole that needs to be retracted with one hand (it is strictly forbidden to hold the lamp pole that is being retracted to prevent pinching fingers). Release the buckle on the lamp pole with the other hand, retract the lamp pole component to the lowest height (be careful not to pinch hands). Then tighten the buckle, retract the lamp pole from bottom to top until each section of the lamp pole component is retracted to the lowest height.
- ⑦. Put away the two supporting legs, adjust the angle of the lamp head to be parallel to the main body, hold the lamp head component, lift the bottom buckle switch up, and put the lamp pole and lamp head component into the lamp body installation position.
- ⑧. Adjust the position of the lamp pole and lamp head component, ensure that the holes on the two support frames are concentric with the holes on the handle, and insert back the retaining pin into the concentric hole to secure.
- ◎ Working Mode Description

Adapter	Function	
	Charge	Illumination
Not inserted	×	√
Adapter insert	√	×

Note: “√” means with function, “×

◎ Charging Operation Guide

●Power Indicator:

Each grid representing 25% of the power. When all 4 grids are blue, indicating the battery power is between 75% and 100%. When the lamp power indicator flashes, the battery power is about to run out, please charge the lamp promptly.

●Adapter and Charging Procedure:

Use the dedicated ExMP81R adapter for charging, with a charging input of 100-240V AC. During charging, open the charge plug, insert the adapter plug, and observe the adapter's indicator light - green indicates a connected and charging state. The lamp power Indicator will flash during charging. When all 4 grids are blue and without flashing indicating the battery power is 100%.

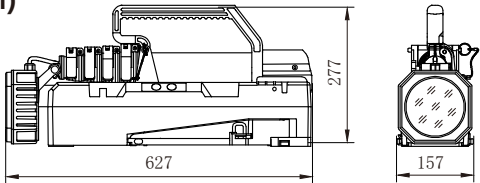
●No Illumination During Charging:

The light cannot be activated during the charging process.

●Prompt Charging After Use:

It is recommended to promptly charge the light after each use to maintain the battery consistently at full capacity.

Dimension (unit: mm)

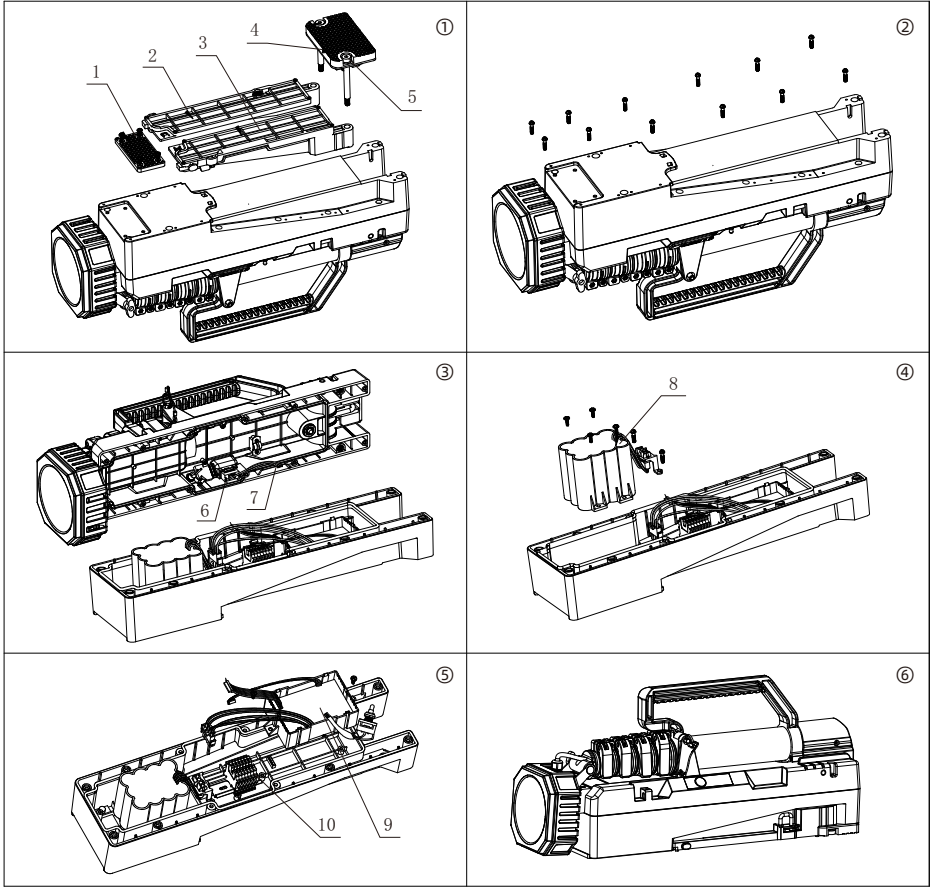


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MAINTENANCE

- ◎ The design, selection and installation of this product must strictly follow: IEC/EN 60079-14: 2014 standard;
- ◎ The inspection and maintenance of this product must strictly follow: IEC/EN 60079-17: 2014 standard;
- ◎ Strictly adheres to the control, inspection, and standard regulations of your country. Components that have a significant impact on explosion-proof performance must be carefully inspected. When disassembling or replacing components, first disconnect the battery pack wiring terminals from the drive board. All maintenance and repairs must use original components manufactured by Goaltek. and be carried out by professional, suitable, or qualified personnel.
- ◎ Any modifications or changes to the original design of this product are not allowed.
- ◎ If explosion-proof components are damaged, only replace them with the Goaltek's spare parts. If there are any questions about the malfunction, please consult the company or return the product for repair.
- ◎ When cleaning the lamp, please note that only a damp cloth should be used for wiping.
- ◎ Repairs / maintenance are strictly prohibited in potentially explosive environments.
- ◎ Battery and drive component replacement must only be performed in a safe location.

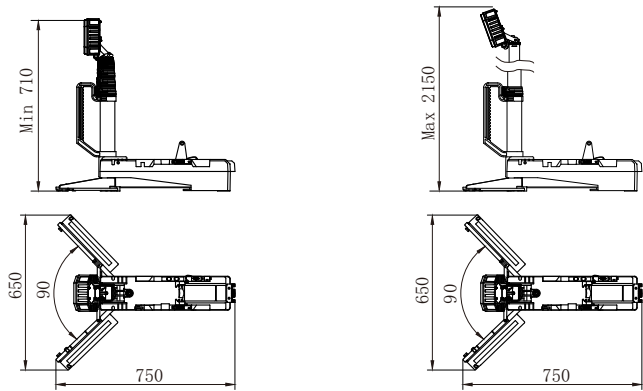
REPLACEMENT OF BATTERY PACK AND DRIVE COMPONENTS



1. Bottom cushion ;2. Left support leg component;3. Right support leg component;4. Bottom clasp component;5. Plug rivet;6. Toggle switch;7. Top cover component;8. Battery box component;

9. Drive component;10. Terminal

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CAUTION

●Protective Plugs for Interfaces:

The charging and USB ports are equipped with protective plugs. After use, promptly reinstall these plugs to prevent the entry of solid particles or rainwater, ensuring optimal functionality for subsequent use. When removing the plugs, avoid excessive force to prevent damage or complete extraction. In case of damaged plugs, promptly contact our company or the local authorized distributor.

●Product Inspection Upon Receipt:

Upon receiving, please carefully inspect for any product damage that may have occurred during transportation, such as scratches on the casing, cracks, broken glass and light sources.

●Accessory Verification After Unboxing:

After unpacking the product, please check to see if all the accessories in the packaging box are complete.

●Heat and Impact Prevention:

Keep away from heat sources and fire, and do not drop the battery.

●Professional Handling for Disassembly and Maintenance:

When disassembling and maintaining the lamp, it must be operated by a professional in a safe place, and non- professionals are strictly prohibited from repairing the lamp.

●Switch Protection During Transportation:

When carrying and transporting the packaging, please ensure that the switch/button is not affected by external forces and prevent the switch/button from mis-operating.

●Temperature Considerations During Continuous Operation:

When the lamp is working continuously, a slight temperature rise on the surface is normal.

●Chemical Exposure Caution:

Do not put it in strong acid or alkaline solution.

●Charging Protocol:

The lamp should be off when charging.

●Battery Maintenance After Extended Non-use:

If the product has not been used for more than three months, battery maintenance is required. The battery should be fully discharged first, and then charged to complete a charge and discharge cycle.



SPECIFIC CONDITIONS OF USE

- Do not charge the product in hazardous location.
- Do not disassemble the product or replace the battery pack in hazardous location.
- Use original battery provided by Goaltek company: 1000/05-R81-01(21700-12S1P-01).
- Use only the matching adapter provided by the Goaltek Company; using other adapters is strictly prohibited. Otherwise, it may cause battery damage, or even cause the battery combustion or explosion.

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- ① Loosen the two screws using a 6mm hex wrench to remove the bottom buckle component, left and right support legs components. Use a Phillips screwdriver to loosen the four screws securing the bottom cushion, then remove the bottom cushion.
- ② Loosen the twelve screws securing the top cover with a Phillips screwdriver.
- ③ Open the top cover component.
- ④ Disconnect the terminal linked to the battery box component. Loosen the four screws securing the battery box component and the two screws securing the fixed bracket with a Phillips screwdriver. Remove the old unit, replace it with a new battery box component, secure it with the original screws, and connect the terminal.
- ⑤ Disconnect the terminals linked to the battery, power indicator, and buttons. Loosen the screw on the terminal seat with a Flat screwdriver, detach the five light source wires and two charging wires. Remove the toggle switch. Loosen the two screws securing the drive component, remove the entire drive component, replace it with a new one, connect the wires as before, insert the terminals, and tighten the toggle switch.
- ⑥ Verify all wire connections, ensure proper terminal insertion, set the push-button switch to the battery position, and press the illumination light buttons. The illumination lights should illuminate, and the power indicator should function. Tighten the screws on the top cover.

Note: During assembly, ensure secure terminal connections, tightened screws, and undamaged seals on the top cover and toggle switch.

TROUBLESHOOTING

- The explosion-proof mobile lighting equipment (area lights) fails to light:
Cause: Low battery capacity or the area lights is damaged.
Solution: Press the button, check power indicator of battery capacity shines or not. If it does not shine, the battery capacity is low, please charge the battery immediately.
- The area lights can not charged.
Cause: Adapter mismatch between the adapter and the explosion-proof mobile lighting equipment (area lights).
Resolution: Check if you are using the adapter provided with the area light. If the area lights has other malfunctions, contact our company's sales representative.

ACCESSORIES/SPARE PARTS

◎ Only original spare parts as well as original accessories made by Shenzhen Goaltek Electric Co., Ltd. can be used.

DISPOSAL/RECYCLING

The respective valid national regulations for disposal of waste shall be observed when disposing of apparatus!

We are pleased to answer any special questions you may have. Please contact your Goaltek sales representative.

CHEMICAL COMPATIBILITY

This product involves the following non-metallic materials. Please consider the relevant chemical compatibility.

Plastic house of lamp, support leg, buttons, cover -PA

Sealing washer-Silicon rubber

O seal ring-Silicon rubber/fluororubber

DISCLAIMER

All information is collected under Goaltek laboratory conditions and the user must treat the given values as approximate. The above specifications are subject to change without notice, details of which are available upon request.

If you have any other product related questions, please feel free to contact us.

ExMP81R-SP AA

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