



## Manual – FlashLED Li-Ion

### Imprint:

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## Contents

<b>1.</b>	<b>Basic information</b>	<b>3</b>
1.1	Documentation	3
1.1.1	Product identification	3
1.1.2	Labelling concept for integrated text and references	3
1.2	Areas of application	3
1.3	Features and advantages	4
1.4	Standardprogramm	4
1.5	Scope of delivery	5
1.5.1	FlashLED work and inspection lamp with emergency light function	5
1.5.2	FlashLED charging station 85-264 VAC	5
1.5.3	FlashLED vehicle connection cable with cigarette lighter plug for 12-24 VDC charging station	5
1.6	Technical data	6
1.6.1	FlashLED specifications	6
1.6.2	Charging station specifications	6
1.6.3	Dimensions FlashLED Lamp and charging station	7
1.6.4	Radiation pattern	8
1.7	Responsibilities of the operator	9
1.8	Start-up	9
1.9	Storage/transport	9
1.10	Cleaning	10
1.11	Disposal of the device	10
<b>2.</b>	<b>Setting up the lamp</b>	<b>11</b>
2.1	Notes on spare parts	11
<b>3.</b>	<b>Overview of functions</b>	<b>12</b>
3.1	Explanations of the symbols	12
3.2	Indicator functions	12
3.3	Stylus functions:	12
3.4	Operating modes	13
3.4.1	Basic functions	13
3.4.2	Remaining light mode	13
3.4.3	Emergency light	13
3.4.4	Blinking function	13
3.4.5	Morse function	13
3.5	Monitoring functions	14
3.5.1	Lamp head temperature control	14
3.5.2	Battery temperature control	14
3.5.3	Deep discharge protection	14
3.6	Charging station	14
3.7	Emergency light function	15
3.7.1	Emergency light ON	15
3.7.2	Emergency light OFF	15
<b>4.</b>	<b>Maintenance and troubleshooting</b>	<b>16</b>
4.1	Lithium-ion battery	16
4.2	Inspection plan	16
4.3	Description of maintenance work	16
4.4	Troubleshooting	16
<b>5.</b>	<b>Declaration of conformity</b>	<b>17</b>

**1. Basic information**

**1.1 Documentation**

1.1.1 Product identification

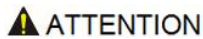


The CE label attests that your device meets the safety requirements of EU directives 2006/95/EC and 2004/108/EC.

1.1.2 Labelling concept for integrated text and references



**DANGER** Dangerous situation that may result in injury or death, if not avoided



**ATTENTION** Dangerous situations that may result in minor to moderate injuries if not avoided.



**INDICATION** Designates information that may cause property damage, for example, but not personal injuries.

**1.2 Areas of application**

The FlashLED is a modern work and inspection lamp with an emergency light function, which can be used for a variety of applications. For example:

- industrial, trade fair and exhibition halls
- hangars, depots, operations rooms
- schools, sports facilities and parks
- civil defence/military facilities, fire departments and municipal facilities
- police, security and maintenance personnel
- shopping centres, public buildings
- road and rail vehicles

It is especially suitable for use as a work light, such as during repairs, for deployments at night, particularly for situations in which the lamp needs to be dimmed, i.e. with varying intensity of the light output.

The powerful and energy-efficient FlashLED lights, with the latest LED technology, offer a wide range of application possibilities as work and inspection lamps with an emergency light function.



**DANGER** The FlashLED lamp must not be used in environments where there is a risk of explosion. Flammable gases or smoke constitute a serious safety risk.



**INDICATION** The FlashLED charging station can be mounted on normal flammable materials.

### 1.3 Features and advantages

Basic features and advantages of the FlashLED:

- Latest lithium-ion technology for high energy density and maximum durability (up to 1000 cycles possible, no memory effect)
- GIFAS Battery Management System for monitoring and verifying all important battery operating parameters (charge level, temperature, charging/discharging, etc.)
- Delivered in energy-saving mode, allowing a very high storage time (>1 year)
- Short charging time
- Up to 9 hours of light in four selectable lighting modes
- Memory function – the last setting is retained
- Flash function
- Low light mode
- High protection type for lamp and charging station
- Robust housing made of polyamide
- Compact design
- Corrosion-resistant charging contacts (nickel- and gold-plated)
- Vertically swivelling lamp head

#### ATTENTION

The FlashLED lamp head can become very hot during operation. Therefore, we recommend that you always take appropriate care when touching the lamp housing.

The concentrated light can damage eyesight in certain circumstances.



Do not look at the LED from a short distance without special protection. Goggles with tinted glasses are recommended as protection.

### 1.4 Standard program

We maintain a wide range of products covering all customer needs. You can find the most recent documents on [www.gifas.ch](http://www.gifas.ch), or contact us by phone.

We would be happy to advise you!

**1.5 Scope of delivery**

- 1.5.1 FlashLED work and inspection lamp with emergency light function



- 1.5.2 FlashLED charging station 85-264 VAC



- 1.5.3 FlashLED vehicle connection cable with cigarette lighter plug for 12-24 VDC charging station



**1.6 Technical data**

1.6.1 FlashLED specifications

- Operating voltage from charging station: 11 - 30VDC
- Electric power supply: Li-Ion-Accu 7,2VDC, 4400mAh
- Power consumption: 12W@24VDC
- Charging time for full charge: 5h
- Illuminant: 5 Power-LED à 3W
- Luminous period:
 

	<u>Original setting</u>	<u>Max</u>
SPOT (3 LED):	9h	3h
WIDE (2 LED):	7h	3,5h
Full beam (5 LED):	4h	2h
Emergency light (5 LED):	3h	-
- Lighting current:
 

	<u>Original setting</u>	<u>Max</u>
SPOT:	200lm	650lm
WIDE:	200lm	350lm
Full beam:	400lm	1000lm
Emergency light:	500lm	nicht verstellbar
- Light colour: cool white 6100-7000K
- IP rating: IP65
- Protection class: III
- Temperature range:
 

Operating:	-20°C to +45°C
Charging:	0°C to +45°C
- Dimensions:
 

Lamp:	260 x 125 x 92,5mm (H x B x T)
Lamp incl. charging station:	332 x 149 x 106mm
- Weight: 1,12kg

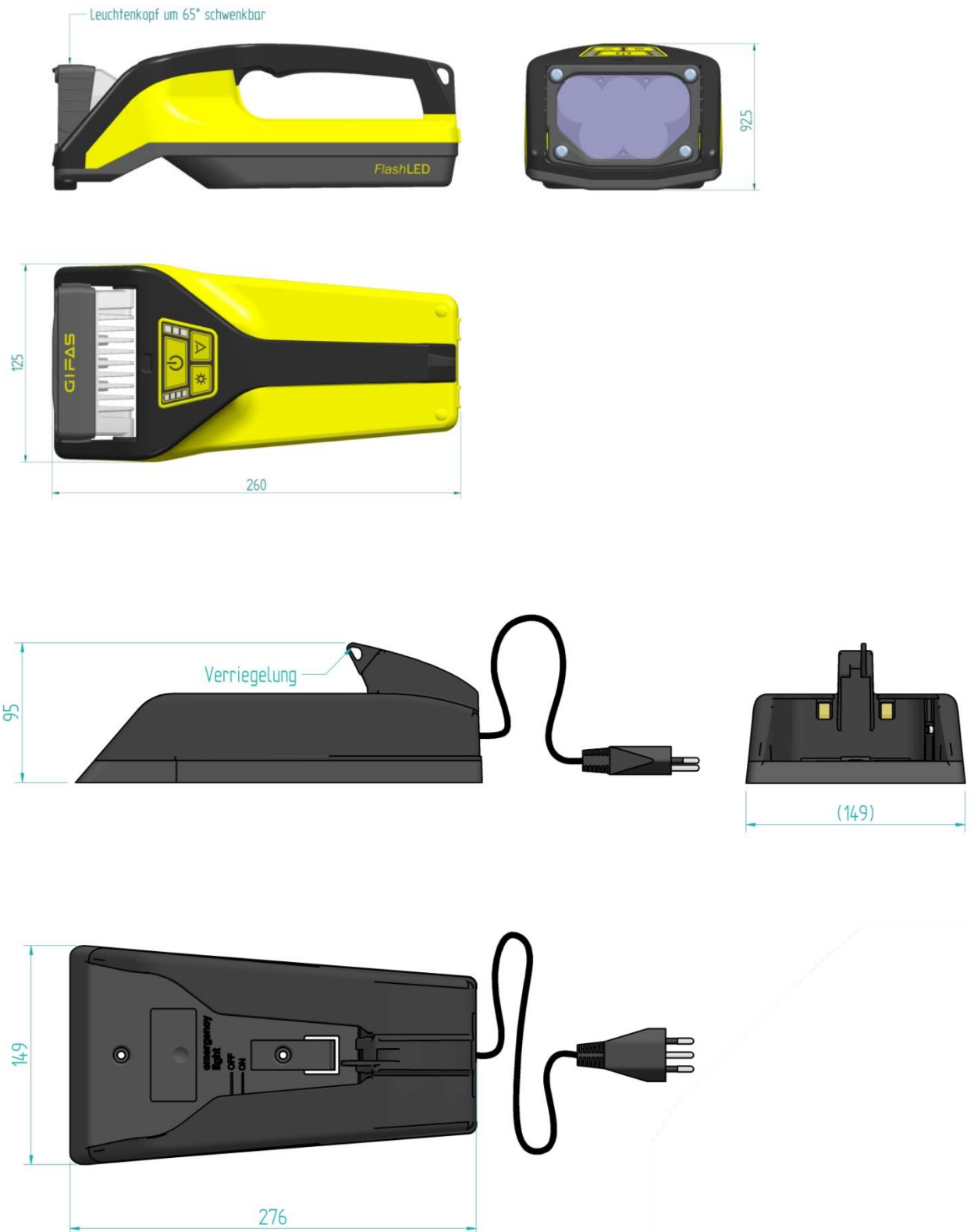
1.6.2 Charging station specifications

- Operating voltage
 

230V:	85 - 264VAC 50/60Hz, 120 - 370VDC
Low voltage 12-24VDC:	11 - 30VDC
- IP rating: IP20
- Protection class:
 

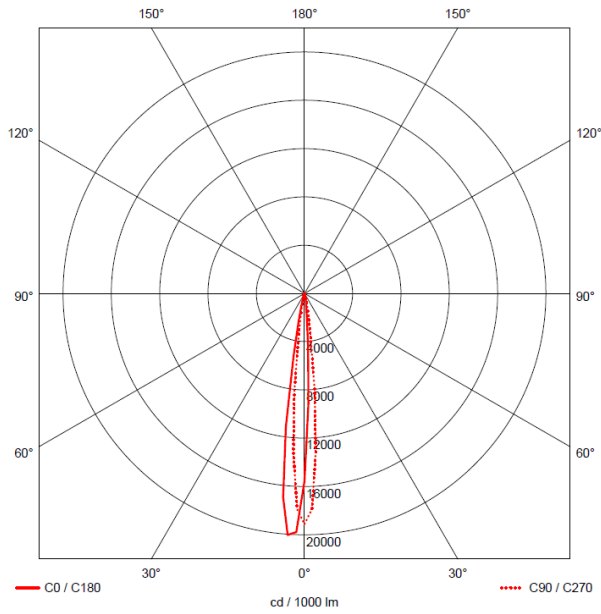
230V:	II
Low voltage 12-24VDC:	III
- Dimensions: 276 x 149 x 95mm (H x B x T)
- Weight: 0,43kg
- Emergency light function: selectable using magnetic switch

1.6.3 Dimensions FlashLED Lamp and charging station

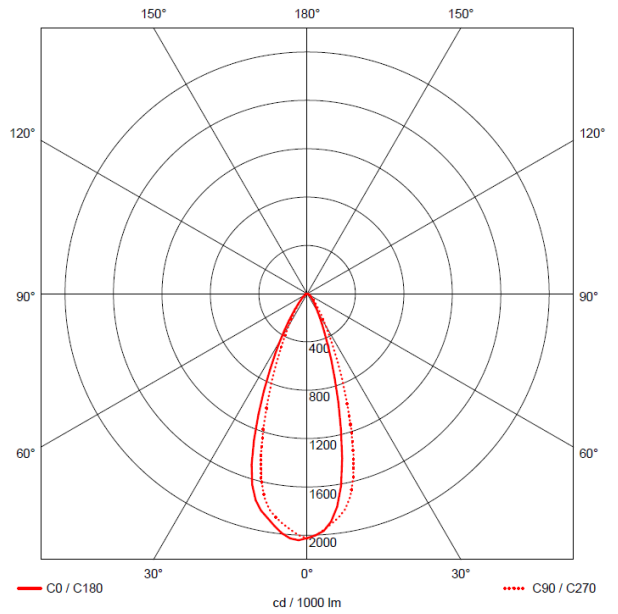


1.6.4 Radiation pattern

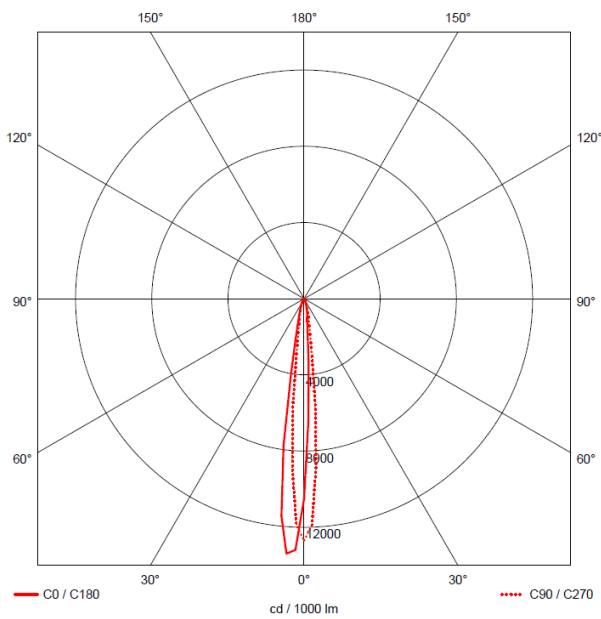
Spotlight SPOT (3 x 10°)



Broad beam WIDE (2 x 38°)



Full Beam (3 x 10° and 2 x 38°)





### 1.7 Responsibilities of the operator

1. Ensure that this document is always stored together with the device.
2. Carefully read this manual before putting the device into operation for the first time.
3. This product has been designed and produced exclusively for the use specified in the documents. Any other use that is not expressly stated could affect the integrity of the product and/or represent a source of danger.
4. The manufacturer assumes no liability for damage caused by improper use or usage not according to the intended use of the product.
5. The product must not be used in environments where there is a risk of explosion. Flammable gases or smoke constitute a serious safety risk.
6. In addition to Swiss regulations, the standards and regulations applicable in the country of use must be observed.
7. Installation must be performed in accordance with the valid regulations.
8. The manufacturer accepts no liability in the event of improper installation or in the case of deformation that may occur during use.
9. Before carrying out any work on the device, the power supply must be switched off.
10. During servicing, only original manufacturer's parts may be used. Servicing work on the FlashLED light may only be performed by qualified personnel.
11. Any procedure not expressly mentioned by the manufacturer in the instructions is not permitted.
12. Installation of the charging station must be performed in accordance with the valid regulations.
13. The packaging materials (plastic, polystyrene, etc.) should not be stored within reach of children.

**INDICATION**

Although the FlashLED lamp has been designed for harsh environments, it must be ensured that it is used according to the IP65 protection standard to prevent damage and malfunctions.

It should also be ensured that the loading station of the FlashLED lamp is operated in a dry place according to its protection standard (IP20).

### 1.8 Start-up



The FlashLED is set to energy-saving mode upon delivery. The main operating electronics are switched off, only the monitoring feature for the li-ion battery is activated.

To start-up please insert the lamp into the charging station and charge the battery completely.

### 1.9 Storage/transport

**INDICATION**

The light can be stored for no more than one year with the factory charge (delivery state). After more than one year, the battery must be re-charged.

- Store batteries at room temperatures between 10° and 20° C.
- Always protect the battery from temperatures below 0° C and above 45° C (e.g. continuous sun exposure), fire, water and moisture.
- The original packaging protects the lamp from damage.
- To avoid short circuits, cover the charging contacts when the product is not in use.
- Do not place highly flammable material in the vicinity of the lamp or the charger.
- The lamp should only be transported using the handles provided.

**1.10 Cleaning**

If it is dirty, clean the lamp with a cleaning cloth. Do not use abrasives or solvents!

**1.11 Disposal of the device**

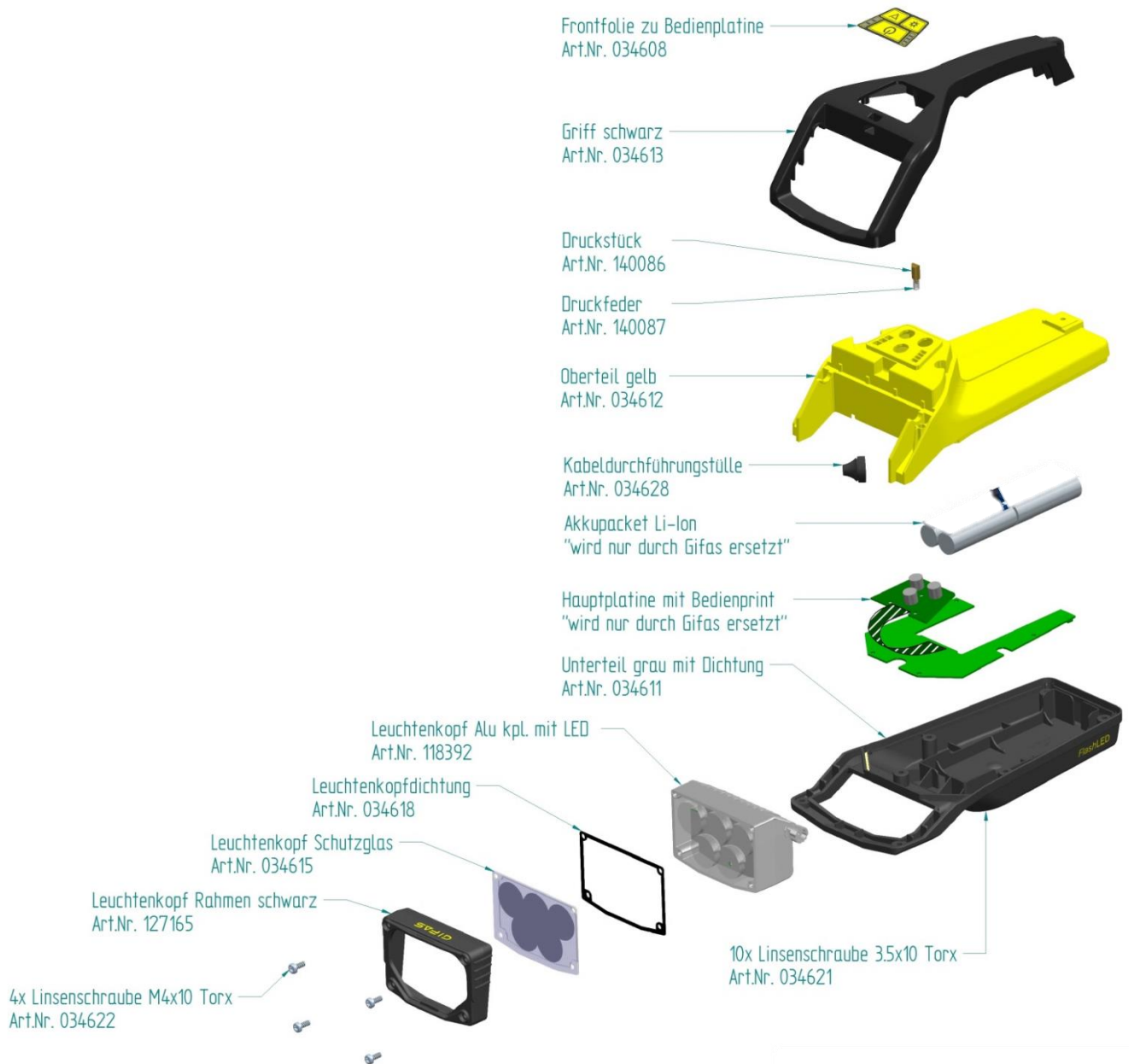
Battery-powered lights, batteries, accessories and packaging should be disposed of in an environmentally friendly manner.



Do not dispose of battery-powered lights and batteries in the household rubbish!

According to European Directive 2012/19/EU on waste electrical and electronic products, battery lights that can no longer be used must be collected separately and sorted for environmentally friendly recycling; the same applies to defective or used batteries, subject to Directive 2006/66/EC.

## 2. Setting up the lamp



### 2.1 Notes on spare parts

**INDICATION**

The Li-ion battery and the motherboard can only be replaced together by GIFAS-ELECTRIC. In such a case, send in the device for repair.

If the front protective glass is to be replaced, a new seal must always be used.

No spare parts are available for the charging station. The entire charging station must therefore be replaced.

3. Overview of functions

3.1 Explanations of the symbols



3.2 Indicator functions

Icon	Function	Description
	Spotlight SPOT 3 x 10°	Display for LED SPOT setting Flashing: brightness default setting has been changed Strobe flashing: Emergency light mode display at the charging station
	Broad beam WIDE 2 x 38°	Display for LED WIDE setting Flashing: Brightness default setting has been changed
	Full beam 3 x 10° und 2 x 38°	Display for LED full light setting Flashing: Brightness default setting has been changed
	Battery charge indicator	Segments show the available battery capacity in 25% increments. Red LED flashing: light is in remaining light mode.

3.3 Stylus functions:

Icon	Function	Description
	Main On/Off switch	Switching light on and off: each time the light is switched on, the memory function is activated (most recently selected setting). By holding the button down, the flashing frequency is changed (faster/slower).
	Light mode	By pressing the button, the light switches to spot-wide-full light mode with the corresponding symbol shown in the display. Pressing button briefly: returns to default settings.
	Brightness	By pressing the button, the dim function is activated, always from minimum to maximum or the reverse.

**3.4 Operating modes**

**3.4.1 Basic functions**

- Switching on/off: Press briefly to switch the light on (with the last used settings) or off.
- Lamp mode: Press briefly to switch the lamp mode between SPOT, WIDE and full light; the appropriate icon is shown on the display.
- Brightness: Press and hold to adjust the factory settings for the lamp brightness. This is shown by the flashing icon.  
Reset to the factory setting by briefly pressing ; the icon on the display is illuminated continuously.

**3.4.2 Remaining light mode**

The remaining charge before the safety switch-off is activated ensures that the light will continue shining at least 15 minutes at the lowest level. This timespan guarantees that the user is not left in the dark unexpectedly and can recharge the light in time. Indicated by a flashing red LED.

**3.4.3 Emergency light**

Selecting the normal/emergency light operating mode with the magnet switch determines the function of the light in the event of a power outage at the charging station.

Once the supply voltage is detected, the light checks the magnet's position. If "emergency light ON" has been activated, emergency lighting is provided after 5 seconds during a power failure. When power has been restored, the lamp turns off and is charged if required.

If the lamp is removed normally from the charger, it does not switch on.

Operating mode	Charge status display	Light mode display
Emergency light ON	Based on the charge status, the LED flashes while the battery is charging	Top blue LED strobe-flashes
	The green LED strobe-flashes when the battery is fully charged	Top blue LED strobe-flashes
Emergency light OFF	Based on the charge status, the LED flashes while the battery is charging	No display
	The green LED strobe-flashes when the battery is fully charged	No display

**3.4.4 Blinking function**

Simultaneously pressing and activates the light's flashing feature. The lighting mode and brightness (dimming) can be adjusted in the usual manner. The flash frequency default setting of 1Hz can be increased or decreased by pressing the button down and holding. Briefly pressing the switches the light off.

**3.4.5 Morse function**

Light impulses (Morse code) can be created when the light is switched off . The light must be in spot mode.

### 3.5 Monitoring functions

The intelligent Gifas Battery Management System protects the Li-ion battery from high temperatures, overcharging and deep discharges, thereby giving it an especially long service life.

#### 3.5.1 Lamp head temperature control

As the head can become very hot when operating at maximum performance in areas with a high ambient temperature, it is equipped with a temperature monitor.

If the maximum permissible lamp head temperature of 65° C is exceeded, the light intensity is reduced until the light head cools down. Following this the brightness will be restored to the last set value.

#### 3.5.2 Battery temperature control

The device switches the battery off before it overheats: The light does not function below -20° C and above +45° C. The light cannot be charged below 0° C and above +45° C.

#### 3.5.3 Deep discharge protection

The Li-ion battery comes with electronic deep discharge protection, which ensures the battery is never fully discharged. This protects it from irreparable damage.

**INDICATION**

Recharge the discharged battery after use whenever possible.

If the battery has undergone deep discharge due to a very long storage time without recharging, the charging indicator does not function briefly, even though the battery is charging in the station. The indicator appears after a few minutes, however.

### 3.6 Charging station

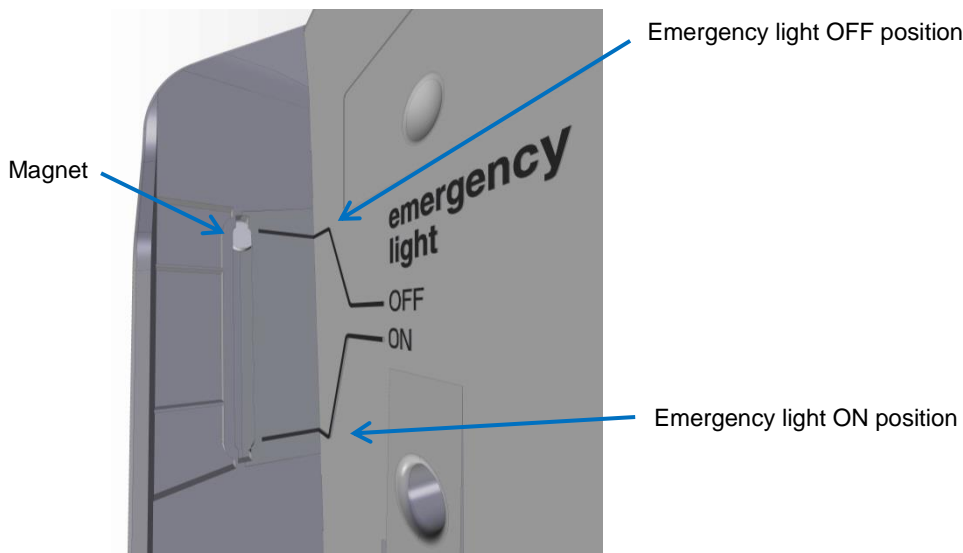
The emergency light function can be activated by positioning the magnet.

Emergency light ON: Factory setting  
If the supply voltage of the charger fails, the lamp switches to emergency lighting.

Emergency light OFF: If the supply voltage of the charger fails, the light remains switched off. Recommended for charging from a car battery.

**INDICATION**

In the 12-24V version for use in vehicles, the light draws its power from the electrical system, which causes the car battery to discharge more when the vehicle engine is switched off.



### 3.7 Emergency light function

- When it is in the charging station, the lamp can be switched on and used as a continuous light by pressing the main switch. Press the main switch again to turn the lamp off.
- When the charging station is active, neither the lighting mode nor dimming can be adjusted in continuous light mode; the lamp can only be switched on or off.
- If the switched-on lamp is placed in the active charging station, it switches off.
- If the switched-on lamp is placed in the inactive charging station, the light stays on (the lamp functions the way it does when disconnected from the charging station).

#### 3.7.1 Emergency light ON

- In the event of a power failure, the light switches to emergency lighting within 5 seconds until the power supply returns (no matter whether it was set to OFF or continuous light beforehand).

#### 3.7.2 Emergency light OFF

- When in continuous lighting mode, the lamp turns off when the power fails. When the power supply returns, the light stays off.

**4. Maintenance and troubleshooting**

**4.1 Lithium-ion battery**

The following information and rules apply for Li-ion batteries to ensure proper and safe operation:

- Self-discharge: At room temperature, self-discharge is generally 5% per month. It does not occur linearly and depends on various parameters, such as temperature, charge level, battery status, etc. The battery therefore needs to be recharged every 12 months.
- Service life: If the battery is maintained well, up to 1000 charge cycles are possible. To achieve a long service life, recharge the battery after each use. Do not use damaged batteries – send in the light for repair.
- Charging conditions: If at all possible, charge the battery at room temperature and only use GIFAS chargers. The Li-ion battery does not have a memory effect: it can be charged at any time, regardless of the charging level, without damaging the cells.
- Storage: Protect the battery from temperatures above 45° C (e.g. continuous sun exposure), fire, water and moisture. Always store batteries at room temperature and in a dry place.
- Warranty: Batteries are parts that are subject to wear. If handled improperly, they can be damaged, thus significantly impairing their service life. For this reason, the battery is not provided with a warranty.

**4.2 Inspection plan**

Work to be carried out	Period/interval
Test the emergency light function	According to country-specific regulations / when needed

**4.3 Description of maintenance work**

The battery-powered lamp is maintenance-free and does not contain any parts that need to be serviced.

**4.4 Troubleshooting**

Fault/error message	Possible cause	Remedy
New lamp does not function	The lamp is delivered in power-saving mode	To start the lamp, place it in the active charging station for 5 seconds and charge the battery completely
No LED flashing in the charging status	Deep battery discharge due to long disuse	Charge for at least four hours, during which time the charging LED should light up again
Lamp can no longer be charged	In an older charger (only 230V input voltage), the miniature fuse is defective	Contact the manufacturer (GIFAS), send in the charging station and (if needed) the lamp
Lamp can no longer be charged, but charging station is OK	Charging electronics or battery defective	Contact the manufacturer (GIFAS), send in the lamp if needed
An LED diode no longer lights up	LED defective	Send the lamp to GIFAS
Emergency light ON/OFF setting does not work properly	Faulty initialisation by magnetic switch on the charging station	Send the lamp to GIFAS
The operating time of the luminaire is only 10 minutes	Battery is no longer functional	Battery replacement by GIFAS



5. Declaration of conformity

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**KONFORMITÄTSERKLÄRUNG / DECLARATION OF CONFORMITY /  
 DECLARATION DE CONFORMITE**

Wir / We / Nous: GIFAS-ELECTRIC GmbH, CH-9424 Rheineck

erklären in alleiniger Verantwortung, dass das nachfolgend aufgeführte Produkt aufgrund seiner Bestückung und Bauart in der von uns in Verkehr gebrachten Ausführung den einschlägigen Sicherheits- und Gesundheitsanforderungen der EU-Richtlinie entspricht. Bei einer nicht mit uns abgestimmten Änderung des Produkts verliert diese Erklärung ihre Gültigkeit.

declare under our sole responsibility that the product about the equipment and construction as we put the execution into circulation of the appropriate security and health requested, correspond with the European guideline. Any change on the product without our agreement has the consequence, that the declaration will lose its validity.

déclarons sous notre seule responsabilité que le produit sousmentionné correspond aux exigences de sécurité et de santé des lignes d'application CE, en raison de son équipement et son genre de construction. Cette déclaration perd sa validité lors de modification du produit sans notre accord.

<b>Produkt/Typ:</b>	Akku Handleuchte mit Notlichtfunktion
<b>Product/Type:</b>	Battery hand lamp with emergency light function
<b>Produit/Type:</b>	Lampe de poche accu avec fonction de secours
<b>Typ/Type/Type:</b>	FlashLED Li-Ion
<b>EU-Richtlinien:</b>	Niederspannungsrichtlinie 2006/95/EG EMV Richtlinie 2004/108/EG
<b>EC-Guidelines:</b>	Low-Voltage Directive (LVD) 2006/95/EC EMC Guideline 2004/108/EC
<b>Directives de la CE:</b>	Directive Basse Tension 2006/95/EC Directive CEM 2004/108/EC
<b>Angewandte Normen/ Applied standard/ Normes:</b>	EN 60598-1:2007 EN 60598-2-8:2008 EN 55015:2006 +A1:2007 +A2:2009 IEC 60529:2001 i.A. EN 60068-2-27:2008 i.A. EN 60068-2-64:2008 EN 61000-3-2:2006 +A1 +A2 EN 61000-3-3:2008 EN 61547:2009 EN 62471:2008 BZS SE 10-301

CH-9424 Rheineck, den 10. Dezember 2013

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