

UV-TORCHLIGHT 16F

EN

INSTRUCTIONS
UV TORCH



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Information on the use of these instructions

Symbols

 **Warning of electrical voltage**
This symbol indicates dangers to the life and health of persons due to electrical voltage.

 **Warning of explosive substances**
This symbol indicates dangers to the life and health of persons due to potentially explosive substances.

 **Warning**
Information marked with this symbol indicates that the device generates UV radiation. Information about how you have to protect yourself from UV radiation will be provided to you.

 **Warning**
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

 **Caution**
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Notice
This signal word indicates important information (e.g. material damage), but does not indicate hazards.

 **Info**
Information marked with this symbol helps you to carry out your tasks quickly and safely.

 **Follow the manual**
Information marked with this symbol indicates that the instructions must be observed.



Wear safety glasses

Information marked with this symbol indicates that you should wear eye protection.

You can download the current version of the instructions and the EU declaration of conformity via the following link:



UV-Torchlight 16F



<https://hub.trotec.com/?id=47535>

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.



Warning

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in an aggressive atmosphere.
- This appliance is not a toy. Keep away from children and animals.
- Protect the device from permanent direct sunlight.
- Do not open the device.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Use batteries of type AAA.
- Observe the safety instructions for batteries, even when using rechargeable batteries.
- Never charge batteries that cannot be recharged.
- Different types of batteries and new and used batteries must not be used together.
- Insert the batteries into the battery compartment according to the correct polarity.
- Remove the batteries from the device if you will not be using the device for a longer period of time.
- Never short-circuit the supply terminal in the battery compartment!
- Do not swallow batteries! If a battery is swallowed, it can cause severe internal burns within 2 hours! These burns can lead to death!

- If you think batteries might have been swallowed or otherwise entered the body, seek medical attention immediately!
- Keep new and used batteries and an open battery compartment away from children.
- Only use batteries specifically designed for this device. Use of any other battery packs may create a risk of injury and fire. Observe the specifications in the technical data.
- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Observe the storage and operating conditions (see Technical data).

Intended use

Only use the device to irradiate objects, e.g. to find cracks or leaks, or to identify certain UV markers when checking banknotes or hygiene.

Any use other than the intended use is regarded as misuse.

Reasonably foreseeable misuse

The device must not be pointed at people or animals. Do not use the device in potentially explosive areas. Do not use the device underwater.

Any unauthorised changes, modifications or alterations to the device are forbidden.

Personnel qualification

People who use this device must:

- use the UV lamp in accordance with safe working procedures.
- be aware of the dangers that occur when working with UV lamps.
- wear UV protection glasses.
- wear covering clothing.
- have read and understood the instructions, especially the Safety chapter.

Safety signs and labels on the device

Notice

Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.

The following safety signs and labels are attached to the device:

Warning sign	
Meaning	<p>The warning sign is located on the lamp and indicates that this is a device with UV radiation of risk group 3.</p> <p>The device generates UV-A radiation in the non-visible range. There is a danger of eye damage.</p> <p>Do not look directly into the opening from which the light beam emerges!</p>
Warning sign	
Meaning	<p>The warning sign is located on the transport case and indicates that this device emits UV radiation of risk group 3.</p> <p>The device generates UV-A radiation in the non-visible range. There is a danger of eye damage.</p> <p>Do not look directly into the opening from which the light beam emerges!</p>

Residual risks**Warning of electrical voltage**

There is a risk of a short-circuit due to liquids penetrating the housing!
Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.

**Warning of electrical voltage**

Work on the electrical components must only be carried out by an authorised specialist company!

**Warning of explosive substances**

Do not expose the batteries to temperatures above 60 °C! Do not let the batteries come into contact with water or fire! Avoid direct sunlight and moisture. There is a risk of explosion!

**Warning**

Danger from UV radiation!

The device generates UV-A radiation in the non-visible range of < 400 nm. The eyelid closure reflex does not work in this UV range. Do not look at the UV LED or into its beams during operation. Be careful not to shine the light directly on people or animals.

Do not use optics within the light cone to bundle the light beams.

When used in direct proximity to the object, the reflected UV radiation is stronger and thus more intense than at a distance of several metres. Always use suitable UV filters or safety glasses according to CE-EN166 to avoid eye damage. Also avoid prolonged exposure of skin or other living tissue.

**Warning**

Risk of suffocation!

Do not leave the packaging lying around. Children may use it as a dangerous toy.

**Warning**

The device is not a toy and does not belong in the hands of children.

**Warning**

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!

**Caution**

Keep a sufficient distance from heat sources.

Notice

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

Notice

Do not use abrasive cleaners or solvents to clean the device.

Information about the device

Device description

The UV-Torchlight 16F generates UV-A light in the 365 nm range.

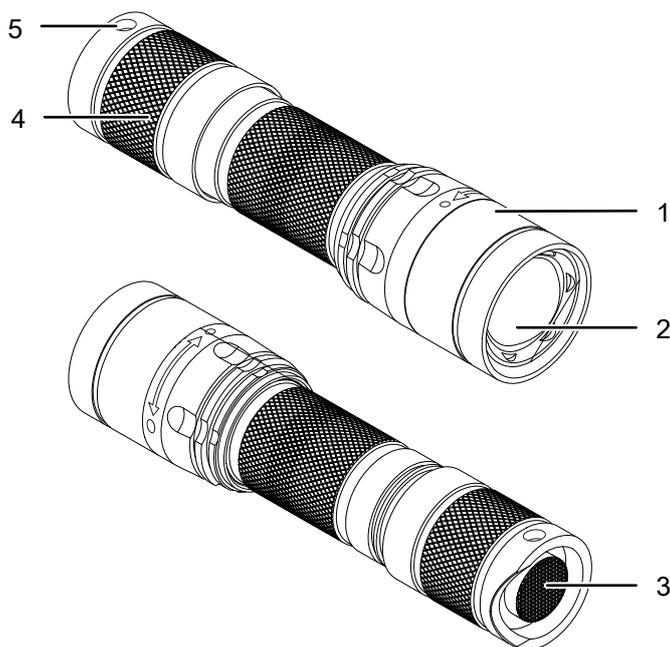
Possible applications of the device are:

- checking for cracks or fissures using fluorescent testing agents
- leak detection with fluorescent liquids
- localization of UV active substances (blood, sweat, urine etc.)
- geocaching
- security check of documents or banknotes

The device is supplied with a practical holster bag and can be attached to a belt, for example. The protection goggles protect against eye damage caused by UV light. The set can be stored in the accompanying transport case.

The device can be used with either three batteries (LR03, AAA, 1.5 V) or three rechargeable batteries (HR03, AAA, 1.2 V).

Device depiction



No.	Operating element
1	Focus ring
2	UV light source
3	Power button
4	Battery compartment closure
5	Opening for wrist strap

Technical data

Parameter	Value
Model	UV-Torchlight 16F
Weight incl. battery	142 g
Dimensions (diameter x length)	34 mm x 130 mm
Radiation intensity* Radiation cone \varnothing 250 mm	2,800 $\mu\text{W}/\text{cm}^2$
Radiation intensity* Radiation cone \varnothing 150 mm	8,300 $\mu\text{W}/\text{cm}^2$
Radiation intensity* Radiation cone \varnothing 100 mm	18,000 $\mu\text{W}/\text{cm}^2$
Radiation intensity* Radiation cone \varnothing 60 mm	39,000 $\mu\text{W}/\text{cm}^2$
Power supply	3 x AAA battery 1.5 V or 3 x AAA Ni-MH rechargeable battery 1.2 V
Light source	1 x 365 nm LED
Wavelength UV-A light	365 \pm 5 nm
Operating time	> 2 hours
Type of protection	IP54

*at a distance of 38 cm

Scope of delivery

- 1 x UV-Torchlight 16F
- 1 x Wrist strap
- 1 x Holster
- 1 x Protection goggles
- 1 x Transport case

Transport and storage

Notice

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

For transporting the device, use the transport case included in the scope of delivery in order to protect the device from external influences.

Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- stored inside the transport case supplied in order to protect the device from external influences
- at the temperature specified in the technical data
- Battery/Batteries removed during prolonged storage
- Batteries are removed from the device

Operation

Insert batteries or rechargeable batteries

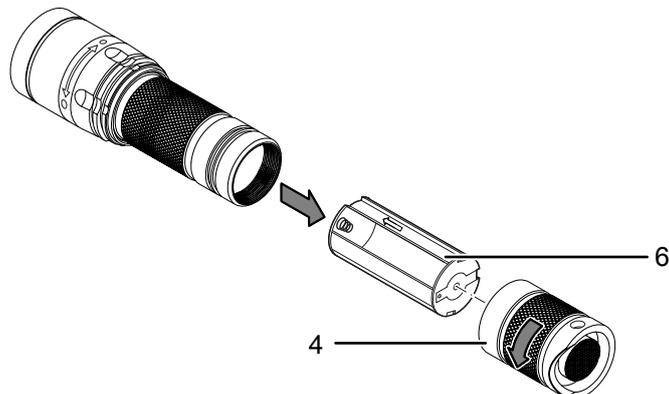
Notice

Make sure that the surface of the device is dry and the device is switched off.

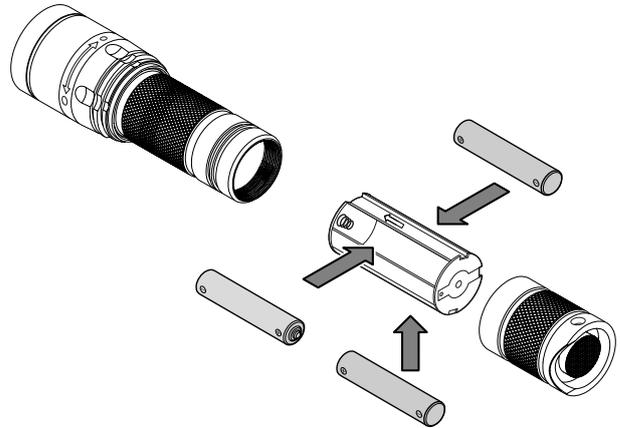
Notice

Batteries and rechargeable batteries must not be used together. Use either batteries or rechargeable batteries only. Only use batteries or rechargeable batteries that comply with the specifications in the technical data.

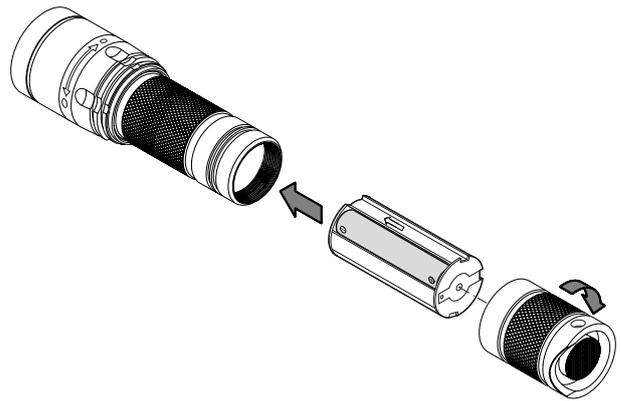
1. Open the battery compartment by turning the battery compartment closure (4) counter-clockwise.
2. Remove the battery housing (6).



3. If applicable, remove the old batteries or rechargeable batteries. Insert the batteries or rechargeable batteries into the battery housing with correct polarity.



4. Insert the battery housing into the device in the direction of the arrow.
5. Screw the battery compartment closure back onto the battery compartment.



Attaching the wrist strap

1. Attach the wrist strap to the opening provided using the connecting ring (5).

Switching on/off



Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!
Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



Warning

Danger from UV radiation!
The device generates UV-A radiation in the non-visible range of < 400 nm. The eyelid closure reflex does not work in this UV range. Do not look at the UV LED or into its beams during operation. Be careful not to shine the light directly on people or animals.
Do not use optics within the light cone to bundle the light beams.
When used in direct proximity to the object, the reflected UV radiation is stronger and thus more intense than at a distance of several metres. Always use suitable UV filters or safety glasses according to CE-EN166 to avoid eye damage. Also avoid prolonged exposure of skin or other living tissue.



Info

For best results, use the device in a darkened environment.

Notice

Wet urine traces cannot be made visible using the device. Only dry urine traces become visible in the UV light.

Notice

On a dark background, the colour of the reflected spot may be similar to the colour of the background and thus difficult to see.

1. Press the *Power* button (3) until you hear a click.
⇒ The UV torch turns on.
2. Illuminate the desired area with the UV torch.
3. Press the *Power* button (3) again.
⇒ The UV torch turns off.

Temporary switch-off

The light cone can be temporarily switched off while the UV torch is switched on.

- ✓ The UV torch is switched on.
1. Press and hold the *Power* button (3) lightly without pressing it down completely.
⇒ The UV torch is not illuminated as long as you hold the button.
 2. Release the *Power* button (3).
⇒ The UV torch will be illuminated again.

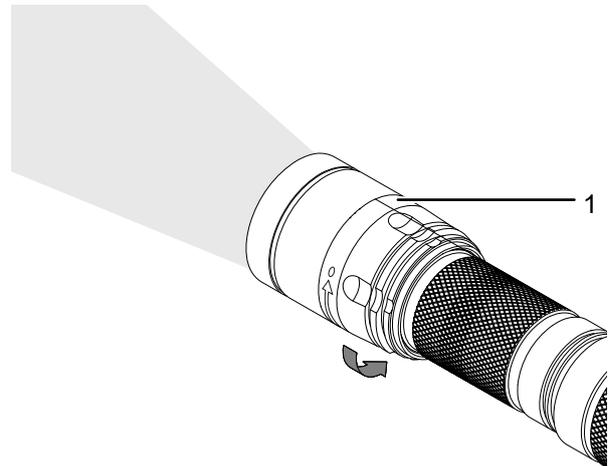
Setting the focus



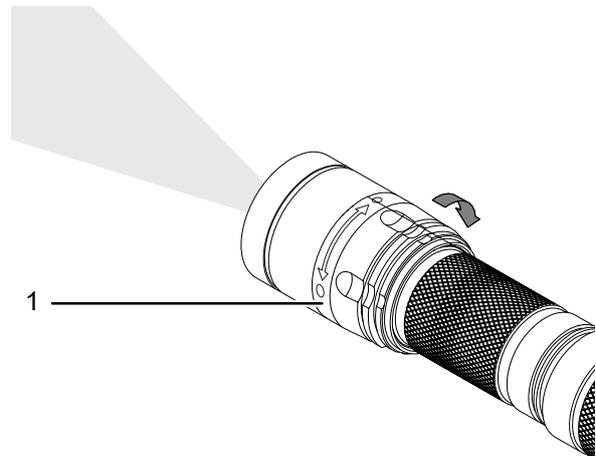
Info

Do not use the focus function underwater, otherwise water may enter the torch!

1. Turn the focus ring (1) to the left to enlarge the light cone.
⇒ The illuminated area increases while the range of UV rays is reduced.



2. Turn the focus ring (1) to the right to focus the UV rays.
⇒ The illuminated area is reduced while the range of UV rays is increased.



Maintenance and repair

Cleaning

Clean the device with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out wheeled bin indicates that this device and any associated components (e.g. remote controls, batteries and accumulators) must not be disposed of with household waste at the end of their life. If the device contains batteries or accumulators that contain mercury, cadmium or lead, the respective chemical symbol (Hg, Cd or Pb) is shown below the icon of the crossed-out wheeled bin. You are legally obliged to dispose of old batteries and accumulators properly. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

To prevent environmental pollution, do not carelessly leave batteries or electrical and electronic equipment containing batteries in public areas.

In the European Union, batteries and accumulators must not be treated as domestic waste, but must be returned to a designated collection point in accordance with REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 July 2023 concerning batteries and waste batteries. Remove batteries/accumulators and dispose of them separately according to the relevant legal requirements.

Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

Trotec GmbH

Grebener Str. 7
D-52525 Heinsberg

☎ +49 2452 962-400

☎ +49 2452 962-200

✉ info@trotec.com

www.trotec.com