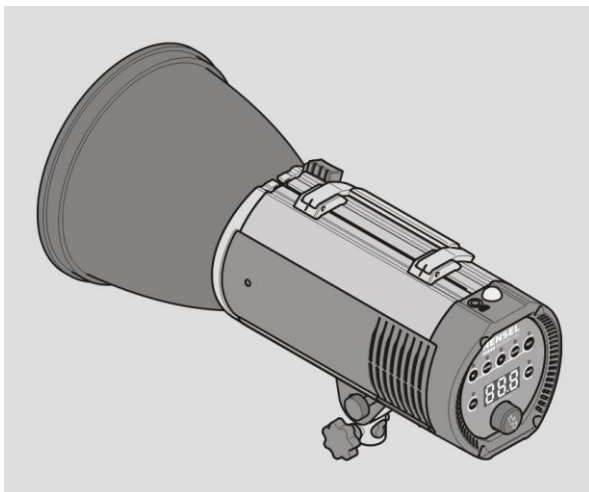# HENSEL PERFORMING LIGHT VISIT INDUSTRIAL LIGHT

Compact flash
Expert D 250 Speed
Expert D 500
Expert D 1000

User manual

Translation of the original German
user manual
Doc. no. 900.0503.01
Version: 05/2023

Contents

Information about this manual and about the manufacturer

This manual helps you to safely use the Expert D 250 Speed, Expert D 500 and Expert D 1000 devices. The Expert D 250 Speed, Expert D 500 and Expert D 1000 devices are hereafter called "device" for short.

Keeping this manual on hand

This manual is part of the device.
➢ Always keep this manual together with the device.
➢ Provide this manual when selling the device or passing it on in another manner.

Design features in the text

Various elements of this manual are provided with specific design features. This allows you to easily differentiate between the following elements:

Normal text

➢ Action
• Bullet points
CONTROLS

Cross-references (see page)

ⓘ Tips contain additional information, e.g. special information on the device.

Design features in the figures

If elements are referred to in a key or in the body text, they are provided with a number (1).
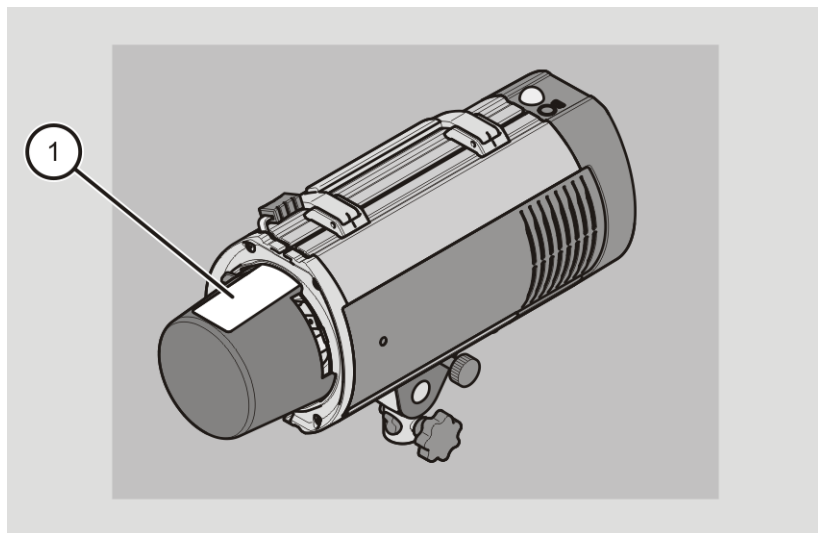
Copyright

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Manufacturer's address

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Safety

The device has been built according to state-of-the-art technology and recognized safety-related regulations. During work with and on the device, however, residual risk remains, which could present a danger to life and limb. For this reason, the following safety information is to be observed and followed.

Intended use

The device is used for illuminating photographs indoors.

Intended use also includes reading and understanding this manual, as well as observing and following all information in this manual, especially the safety information. In addition, the safety information and all other information in the instructions of the cameras used and of the radio remote trigger are to be observed. Any other use is expressly considered not to be intended use and leads to the voiding of warranty and liability claims.

Fundamental safety information

Prevention of serious injuries or death from explosions

The device is not explosion-protected. When the flash tube is triggered, sparks might arise, which could lead to an explosion. Serious injury or death can result.
➢ Do not use the device in explosive atmospheres.

Prevention of serious injuries or death from electric shock

Improper work on the device can lead to an electric shock.
➢ Only connect the device to a power mains with an intact protective contactor.
➢ Only use plugs with contacts in perfect condition.
➢ Protect the device from moisture.
➢ Never use a wet device.
➢ Do not open the housing.
➢ Where possible, avoid laying the cable on the ground. If laying on the ground cannot be avoided, make sure the cables are not damaged by vehicles or ladders.

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➢ Check the device annually for operating safety (see the maintenance schedule on page 58).
➢ Regularly clean the outside of the device with a dry cloth.
➢ Have damaged cables and the device replaced immediately by the authorized Customer Service only.

Prevention of serious injuries due to fire

When the flash tube is triggered, sparks might arise, which could lead to fire. Serious injuries can result.
➢ Do not use the device in the vicinity of flammable materials such as decorative materials, paper, etc.
➢ Do not store flammable materials such as decorative materials, paper, etc. in the vicinity of the device.

Prevention of serious skin and eye injuries

Triggering a flash in the direct vicinity of the eyes can result in skin and eye injuries.
➢ Observe the required minimum distance for the type of light shaping tool and flash intensity.
➢ Do not look into the light shaping tool in case the flash is triggered accidentally.
➢ In case of skin or eye injuries, consult a doctor immediately.

Prevention of the risk of burns

Heat is generated during the operation of the device. This heat can heat up the flash tube, model light, protection glass and light shaping tool, resulting in burns in case of contact with the skin.
➢ Always handle the device with gloves according to EN 407 during operation.
➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components.

Prevention of ozone formation

When using the device in enclosed spaces, ozone can form.
➢ To prevent an increased ozone concentration, vent enclosed spaces regularly.

Prevention of equipment damage and malfunctions

Prevention of equipment damage due to fogging

Fogging can occur due to a sudden temperature change, e.g. in a new environment.

➢ Always let the device acclimatize before use in a new environment.

Prevention of equipment damage due to rain, vapors, frost, heat, humidity and dust

Rain, vapors, frost, heat, humidity and dust can damage the device.

➢ Protect the device against dripping and spraying water (e.g. rain) or vapors.
➢ Protect the device against frost, heat and high humidity.
➢ Do not place containers of liquids on the device.
➢ Make sure that neither the device nor its components are standing or lying on wet ground.
➢ Do not store the device in locations exposed to heat or moisture.
➢ Cover the device with suitable dust protection when it is not in operation.

Prevention of equipment damage when using external products

The use of the device in combination with external products can lead to equipment damage.

➢ Use the device only with accessories and original spare parts recommended by the manufacturer.

Malfunctions due to electromagnetic radio signals

The device transmits and receives electromagnetic radiation in a frequency range from 2.3995 to 2.4745 GHz according to IEEE 802.11 n. The maximum transmission power is 100 mW. The power, range and reliability can be impaired by other radio systems or the device can cause interference in other radio systems, such as radio telephones (cell phones, cordless telephones), Wi-Fi routers, radio and TV stations or medical devices.

➢ Before using the device in sensitive environments, such as hospitals, make sure that use is permitted there.

Design features of warning notices

This user manual contains the following safety information:

⚠ DANGER	
⚠	Notices with the word DANGER warn about a dangerous situation that could lead to death or serious injuries.

⚠ WARNING	
⚠	Messages with the word WARNING warn about a dangerous situation that could lead to death or serious injuries.

⚠ CAUTION	
⚠	Notices with the word CAUTION warn about a situation that could lead to light or medium-scale injuries.

Design features of equipment or property damage information

IMPORTANT!	
	This information warns against a situation that can lead to equipment or property damage.

Warning and information sign
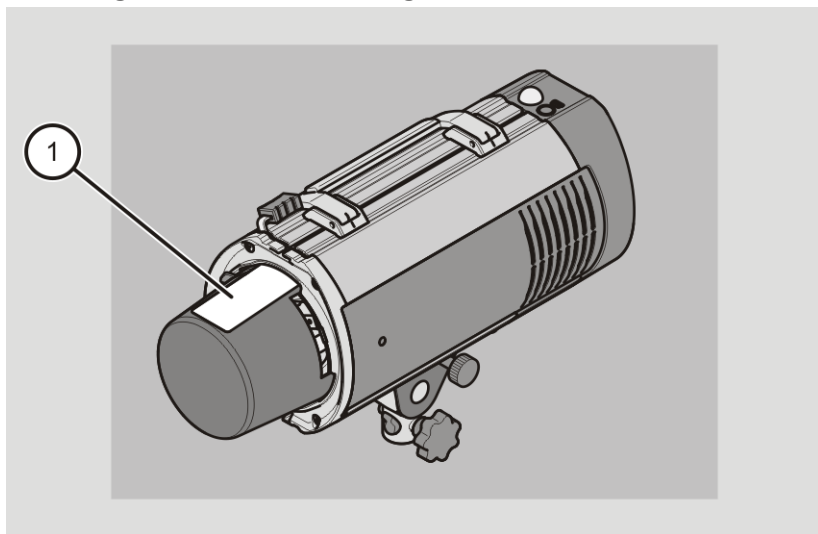
No.	Explanation
1	Remove the transport cap before commissioning

Description

Overview of scope of delivery
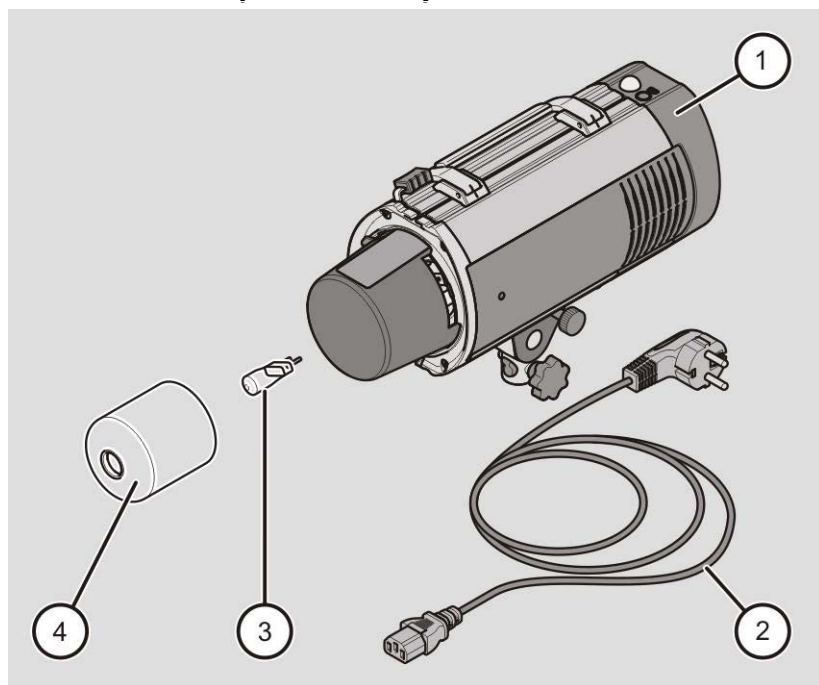
No.	Designation
1	Device
2	Mains cable (country-specific, shown as an example)
3	Illuminant for the model light (packed separately)
4	Protection glass (packed separately)

Overview of device
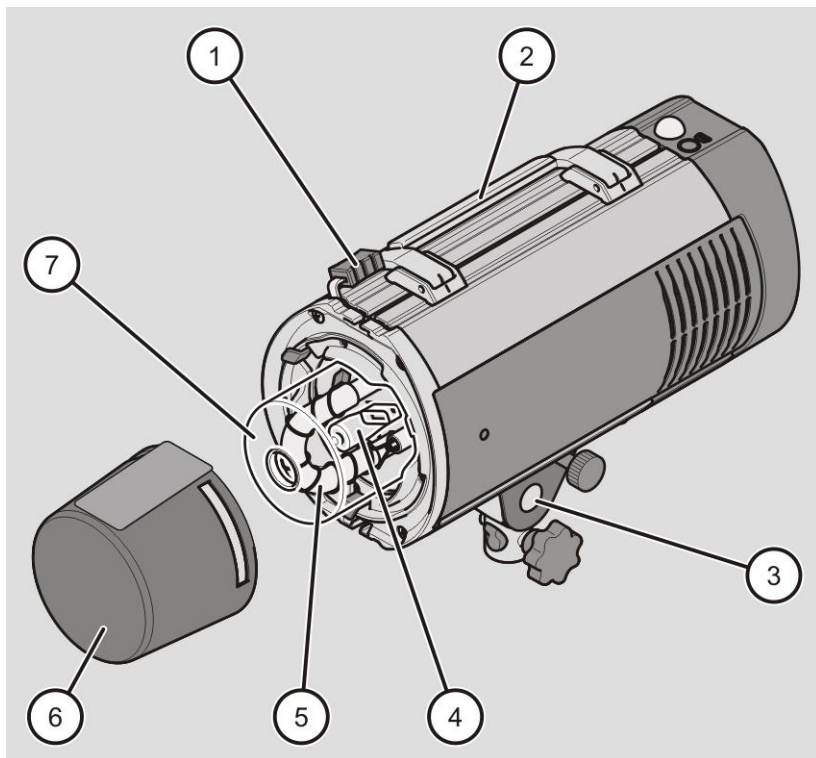
No.	Designation
1	Lock of the holder for the light shaping tool and transport cap
2	Handle (can be switched over)
3	Swivel head (can be switched over)
4	Illuminant for the model light
5	Flash tube
6	Transport cap
7	Protection glass

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Overview of interfaces to other devices
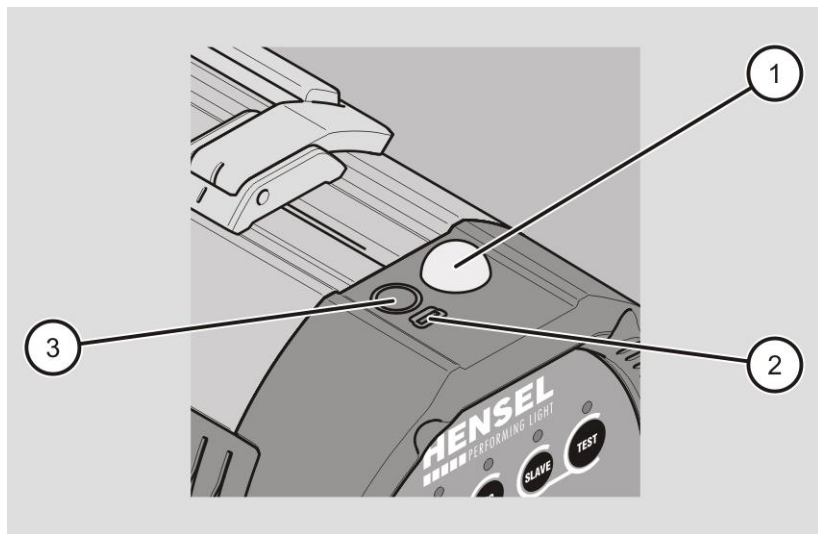
No.	Designation
1	Photo cell
2	USB port for firmware updates
3	Sync socket

Overview of the device power supply
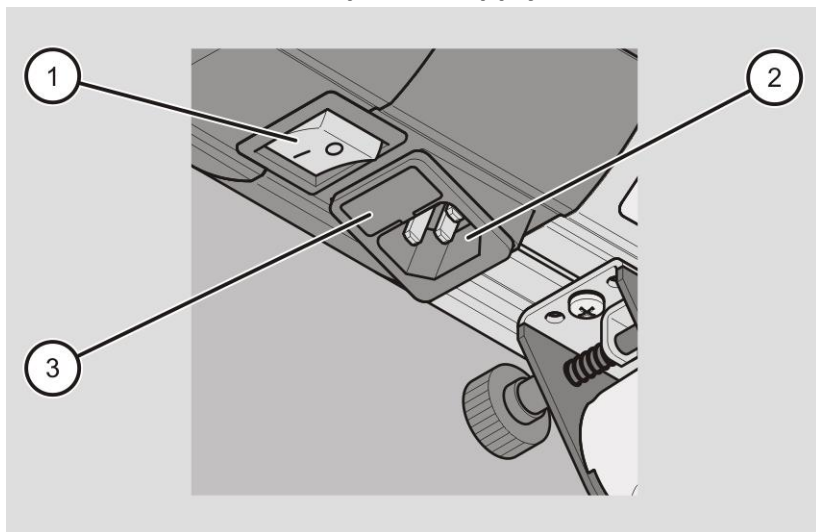
No.	Designation
1	Main switch ON/OFF
2	Mains socket
3	Fuse holder

Overview of swivel head
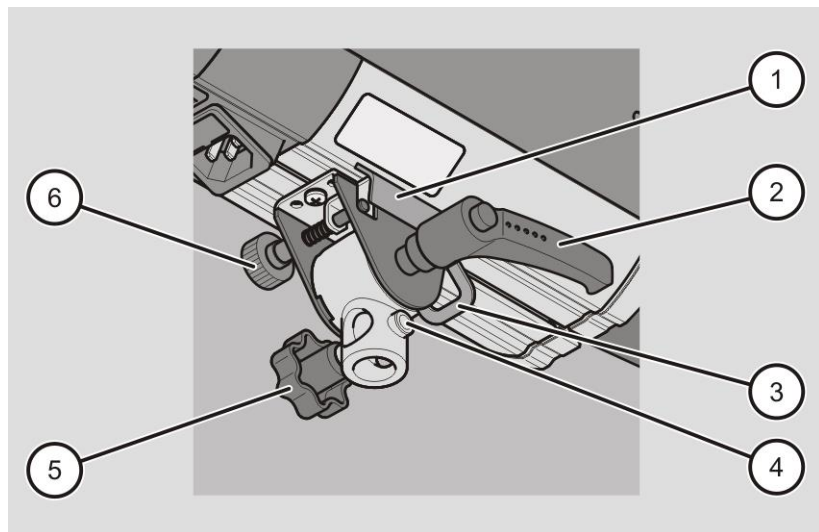
No.	Designation
1	Umbrella holder
2	Locking lever
3	Hanger clip for safety rope
4	Thread for locking screw
5	Knurled screw for stand adapter
6	Knurled screw for umbrella holder

Overview of controls
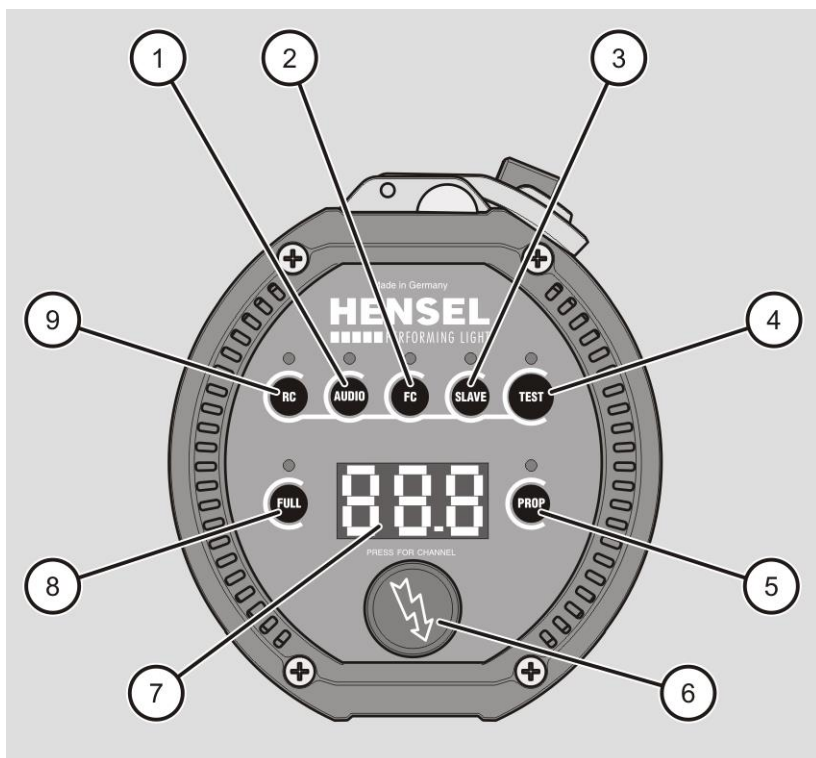
No.	Designation
1	AUDIO: Signal tone for activation and deactivation of flash readiness
2	FC: Activation and deactivation of "Flash Check"
3	SLAVE: Activating and deactivating the photo cell
4	TEST: Manual triggering of flash
5	PROP: Activation and deactivation of the model light in "Prop" mode
6	Rotary switch for the selection of flash energy, radio channels and Wi-Fi settings

No.	Designation
7	Display for the indication of flash energy, radio channels, flash counter and Wi-Fi settings
8	FULL: Activation and deactivation of the model light in "Full" mode
9	RC: Activation and deactivation of the radio receiver/channel selector

LED displays are located above the buttons on the display. They light up when the buttons are activated.

Task and function

The device is used for illuminating photographs indoors. It can be used on a stand or pantograph.

The device has a bright and proportionally adjustable model light. In addition, the device is equipped with an "Autored" automatic model light reduction. After a preset time of 35 minutes, the brightness is dimmed to half (level 9) in "Full" mode. In "Prop" mode, the brightness is reduced to half when the flash energy is set in a range from 9.1 to 10.

Synchronization with the camera takes place using a sync cord (optional), the built-in photo cell or the built-in radio receiver. Using the jack plug, the device is connected to the camera through the sync socket. The flash is triggered through the photo cell by the striking of a flash emitted by another device. With the optionally available radio remote trigger, the camera and flash can be synchronized via radio triggering.

The device has an integrated Wi-Fi module. With this module, important functions like flash energy, model light and synchronization can be remote-controlled by a smart device or desktop/laptop computer. When several devices are actuated, they can be controlled individually, in groups or globally in a team. Devices of a team can be controlled centrally by up to two apps at the same time. A team can comprise up to twelve devices. In parallel with this team, nine additional teams can be set.

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Type plate

The type plate is attached to the housing. You will find the following information on the type plate:

• Manufacturer name
• Name of the model
• Code number
• CE marking
• Symbol for environmentally sound disposal
• Country of manufacturing

Technical data

Device type	Expert D 250 Speed	Expert D 500	Expert D 1000
Article number	8390 SW	8350 SW	8360 SW
Nominal energy	250 J	500 J	1000 J
Guide number [1]	1 m = 64 2 m = 32	1 m = 90 2 m = 45	1 m = 128 2 m = 64
Minimum flash duration [2]	1/10,000 s at 64 Ws	1/5,600 s at 125 Ws	1/3,000 s at 250 Ws
Maximum flash duration [2]	1/4,000 s	1/2,000 s	1/1,500 s
Minimal recycling time	0.04 s	0.11 s	0.14 s
Maximum recycling time	0.2 s	0.5 s	1.0 s
Flash energy regulation	9 f-stop	8 f-stop	
Weight	Approx. 3.1 kg	Approx. 3.4 kg	Approx. 3.9 kg
Overall dimensions L x W x H in cm	33 x 13.1 x 19.7	35 x 13.1 x 19.7	38.5 x 13.1 x 19.7
Protection glass	9454660	9454638, transparent	
Flash tube	9450420, plug-in style, single coating		
Model light	300 W/G6.35/115 V and/or 300 W/G6.35/230 V		
Model light regulation	Off, Full, Proportional, Autored		
Sync socket/voltage	6.3 mm jack, mono /5 V DC		
Radio receiver	Strobe Wizard Plus and freemask integrated		

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Device type	Expert D 250 Speed	Expert D 500	Expert D 1000
Fuses	F 4 A H, 5 x 20 mm		
Mains connection	Multi-voltage 90–230 V		
Connection for light shaping tool	reflector quick-change mechanism for EH (10 cm)		
Additional features	Thermal monitoring of the power electronics, integrated Wi-Fi module		
Daily flash counter	Resettable		
Fan	Built-in		
Photo cell	Switchable		
Flash Check	Switchable		
Model light reduction	Autored		
Internal power drop in case of power reduction	APD (automatic power drop)		
Display	7-segment for flash energy, daily flash counter, channel display, "Autored" mode, error		
User interface	Embossed membrane keypad with buttons, fluorescent, Hensel user logic		
Subject to technical change. The specified data constitutes typical values that can be subject to fluctuations due to the tolerances of the components used.			

[1] Measured at 100 ASA, exposure time 1/60 s, 100 % flash energy and 12" reflector at a distance of 1 m and 2 m.

[2] The specification of the flash duration refers to the half-life $t_{0.5}$.

Unpacking the device and checking the scope of delivery

➢ Remove the product from the packaging.
➢ Keep the original packaging in case you need to return the product to Customer Service.
➢ Check the scope of delivery for correctness and completeness (see page 12).
➢ Make sure all parts are undamaged.
➢ In case of deviations, contact the manufacturer and/or dealer immediately.

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Commissioning the device

To commission the device, proceed as follows:
- ➢ Remove the transport cap (see page 25).
- ➢ Remove the foam (see page 27).
- ➢ Install the illuminant for the model light (see page 27).
- ➢ Position the protection glass in place (see page 30).
- ➢ Mount the light shaping tool (see page 31).
- ➢ Connect the mains cable (see page 33).
- ➢ Turn on the device at the main switch (see page 42).
- ➢ Trigger a test flash (see page 42).
- ➢ Check the function of the model light (see page 44).

Mounting and removing components of the device

IMPORTANT!	
	The device can be damaged if external products are used.
	➢ Use only original spare parts and accessories from the manufacturer.

Removing and installing the transport cap

⚠ WARNING	
⚠	Heat is generated during the operation of the device, which can lead to a fire if the transport cap is in place.
	➢ Always remove the transport cap before use.

To remove the transport cap from the device, proceed as follows:

➢ Hold the transport cap firmly.
➢ Press the lock on the device (1) against the spring force to the limit stop.
➢ Remove the transport cap (3).
➢ Guide the lock (1) into the starting position using the spring force.
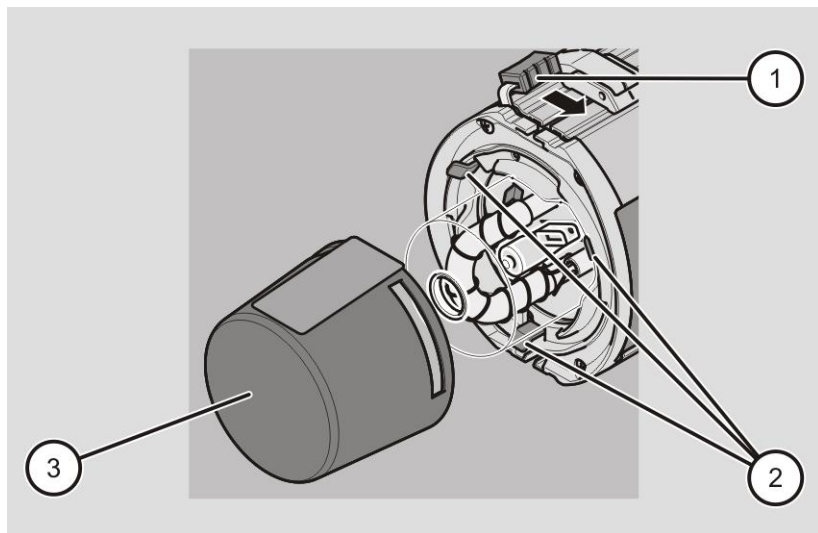
To install the transport cap, proceed as follows:

➢ Press the lock (1) against the spring force to the limit stop.
➢ Place the transport cap (3) on the device in such a manner that the three mounting claws (2) are inside the transport cap (3) and engage in the openings.
➢ Hold the transport cap (3) firmly while guiding the lock (1) into the starting position using the spring force.
➢ Make sure the transport cap (3) is seated correctly.

Removing the foam

ⓘ The foam must be removed before initial use.

To remove the foam, proceed as follows:
➢ Carefully pull off the foam (2) towards the front over the flash tube (1).

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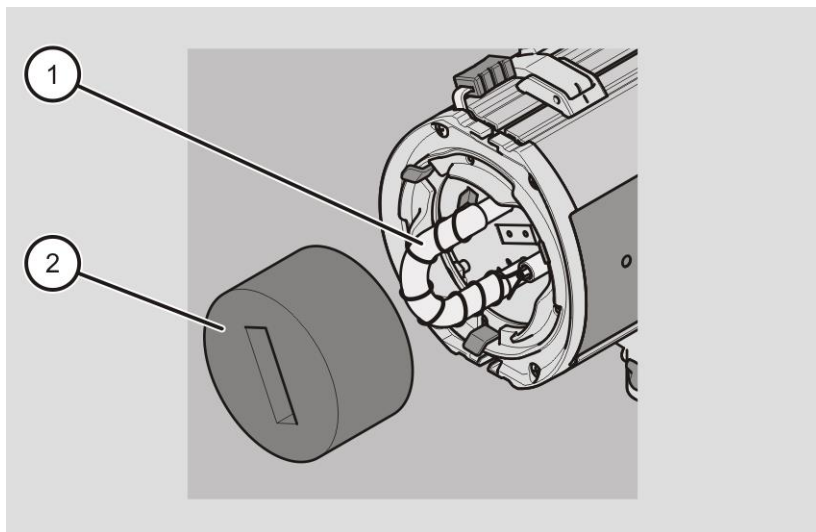
Installing and removing the illuminant of the model light

⚠ WARNING
Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns.   ➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components.

IMPORTANT!
When replacing or touching glass components with bare hands, the glass bulb may become dirty and is therefore unusable.   ➢ When touching or replacing the illuminant or flash tube, wear gloves according to EN 407.   ➢ After touching these components, always wipe them off carefully.

To install the illuminant of the model light, proceed as follows:
➢ Make sure the device is switched off and disconnected from the mains.
➢ Remove the illuminant (2) from the packaging.
➢ Make sure the illuminant (2) of the model light corresponds with the local mains voltage.

➢ Make sure the glass body of the illuminant (2) is not defective.
➢ Insert the pins (3) of the illuminant into the base of the lamp socket (1).
➢ Press both pins (3) into the lamp socket to the limit stop.

To remove the illuminant from the device, proceed as follows:
➢ Pull the illuminant (2) carefully out of the base of the lamp socket (1).

Installing and removing the protection glass

⚠ **WARNING**
⚠	Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns. ➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components.

To install the protection glass (1), proceed as follows:
➢ Wear gloves according to EN 407.
➢ Tilt the protection glass (1) slightly and insert it into one of the three springs (2).
➢ Insert the protection glass (1) into the second spring (2) using slight pressure.
➢ Press the protection glass (1) into the third spring (2) until it engages securely.

To remove the protection glass (1), proceed as follows:
➢ Tilt the protection glass (1) slightly and so that it disengages from two of the three springs (2) one after the other.
➢ Release the protection glass (1) from the third spring (2) by pulling it slightly and remove it.

Mounting the light shaping tool on/removing it from the device

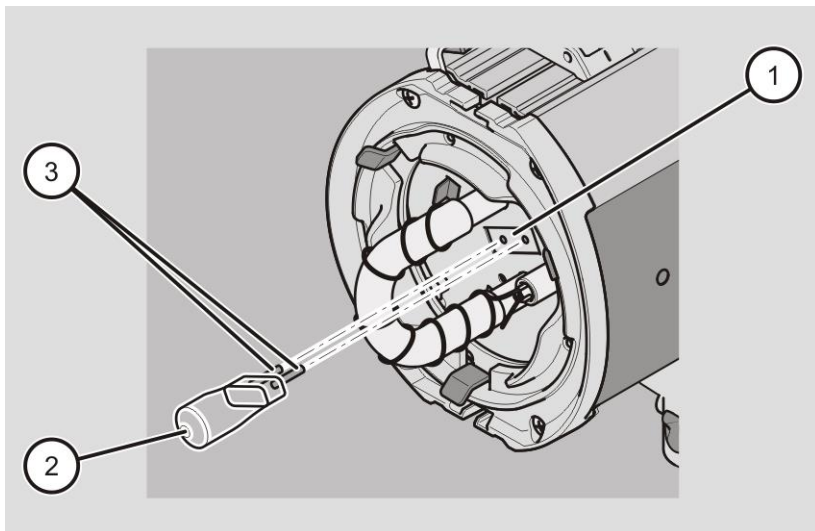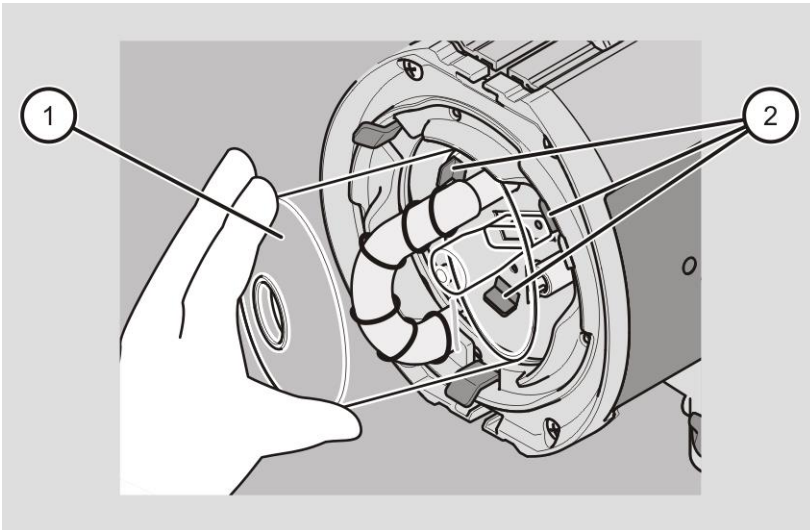| ⚠ WARNING |
|---|
| ⚠ | Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns.
 ➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components. |

IMPORTANT!
	When mounting or removing the light shaping tool on and from the device, the protection glass can be damaged. ➢ Do not touch the protection glass with the light shaping tool. ➢ Make sure the device is held firmly when mounting and removing the light former. ➢ When mounting the light shaping tool, place it evenly onto the device. ➢ When mounting and removing the light shaping tool, hold it firmly with one hand.

To mount the light shaping tool onto the device, proceed as follows:
➢ Press the lock (1) against the spring force to the limit stop.
➢ Place the light shaping tool (3) on the device in such a manner that the three mounting claws (2) are inside the light shaping tool (3).
➢ Hold the light shaping tool (3) firmly while guiding the lock (1) into the starting position using the spring force.
➢ Make sure the light shaping tool (3) is seated correctly.

HENSEL PERFORMING LIGHT   **VISIT** INDUSTRIAL LIGHT
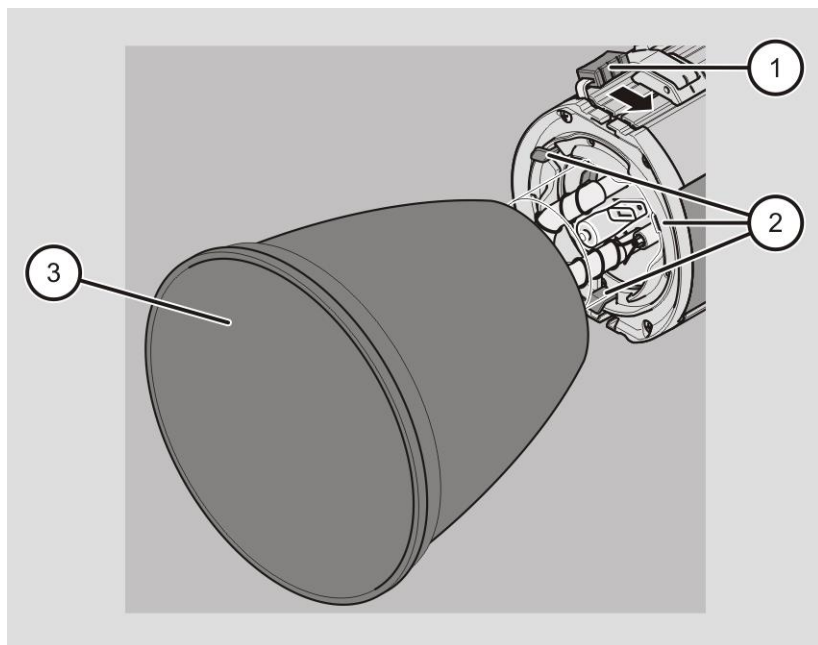
To remove the light shaping tool, proceed as follows:

➢ Hold the light shaping tool (3) firmly in one hand.
➢ With the other hand, press the lock (1) against the spring force to the limit stop.
➢ Remove the light shaping tool (3) from the device and set it aside.
➢ Guide the lock (1) into the starting position again using the spring force.

Connecting and disconnecting the mains cable

To connect the mains cable, proceed as follows:

➢ Insert the plug of the mains cable (2) into the mains socket of the device (1).

➢ Connect the mains cable to a mains socket.
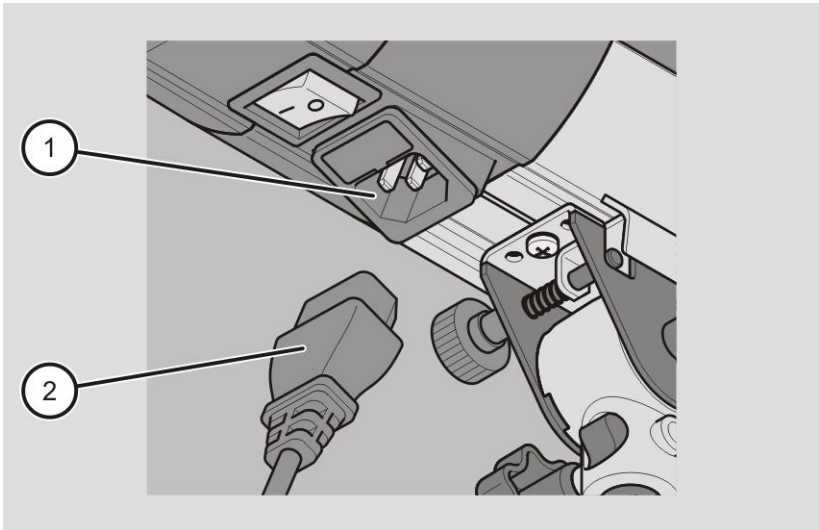
To remove the mains cable from the device, proceed as follows:

➢ Remove the mains cable from the mains socket.

➢ Remove the plug of the mains cable (2) from the mains socket of the device (1).

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Mounting the device on/removing it from a stand

To mount the device on a stand, proceed as follows:

➢ Loosen the knurled screw (1).
➢ Make sure that you do not completely unscrew the knurled screw (1).
➢ Place the device on the stand and tighten the knurled screw (1).
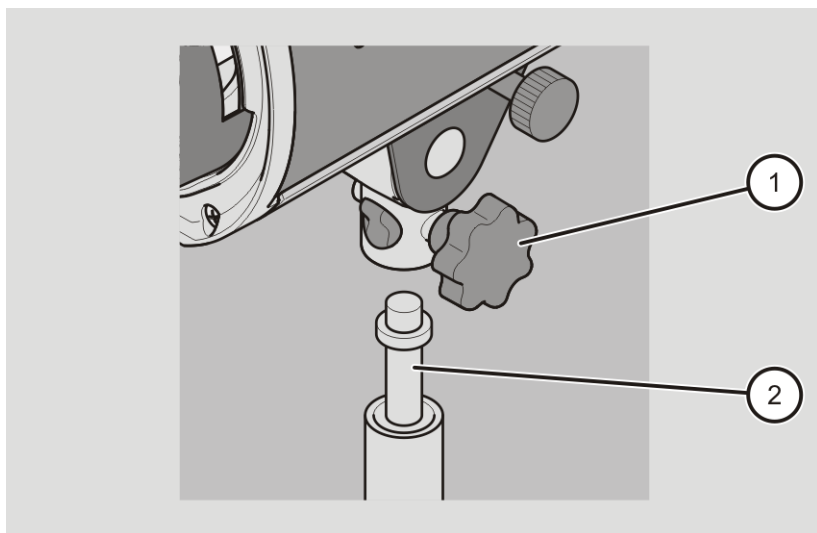
To remove the device from the stand, proceed as follows:

➢ Loosen the knurled screw (1).
➢ Remove the device from the stand (2).

Rotating and tilting the device

⚠ CAUTION

⚠	Crushing injuries can occur when loosening the locking lever. ➤ To prevent twisting and tipping over, hold the device firmly with one hand while loosening the locking lever with the other.

When mounting the device onto a stand or pantograph, the device can be rotated horizontally by 360° and tilted vertically by approx. 180°.

➤ To rotate the device horizontally, loosen the knurled screw (1).

➤ Rotate the device into the desired position and tighten the knurled screw (1).

Mounting and removing components of
the device

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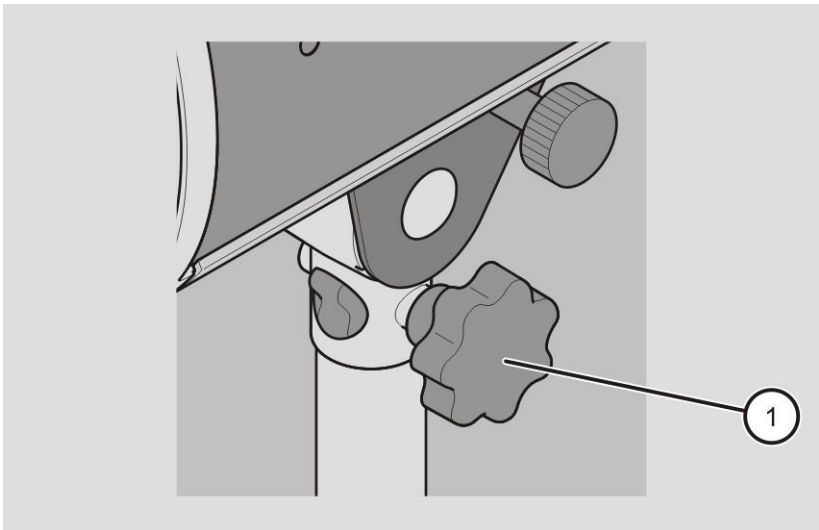
➢ To tilt the device vertically, loosen the locking lever (1).
➢ Pivot the device into the desired position and tighten the locking lever
(1).
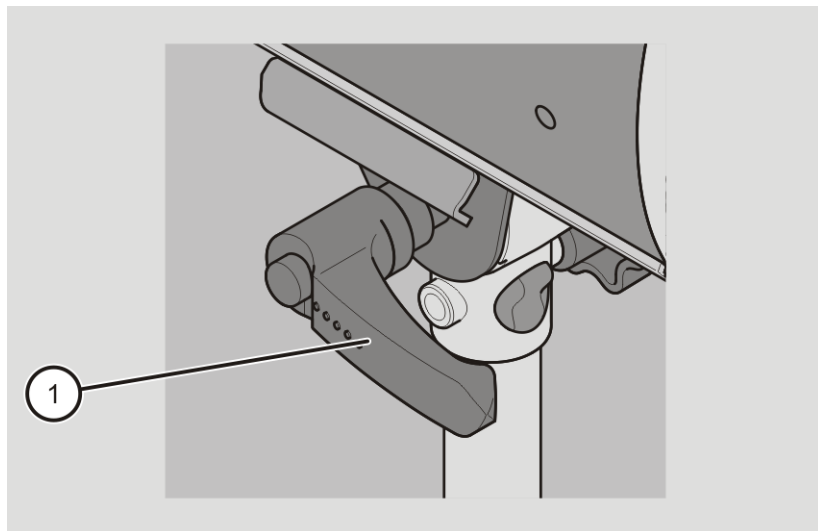
Switching over the swivel head and handle

The positions of the swivel head and the handle can be switched over. In this way, the device can be mounted on a pantograph. To remove the swivel head, proceed as follows:

➢ Loosen both screws (2) on the swivel head.

➢ Push the swivel head (1) out of the guide slot towards the front of the device.
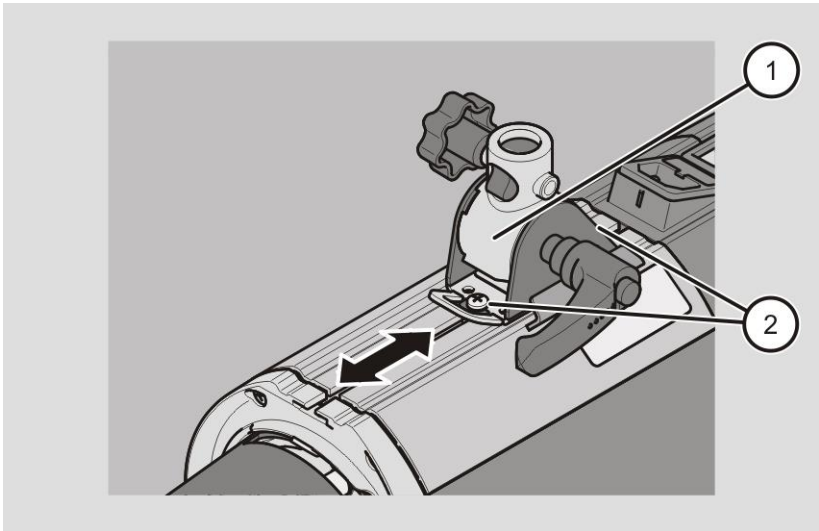
To mount the swivel head, proceed as follows:

➢ Push the swivel head (1) into the guide slot.

➢ Tighten both screws (2) of the swivel head.

To remove the handle, proceed as follows:
➢ Loosen both screws (2) on the handle (1).
➢ Push the handle out of the guide slot of the housing towards the front.
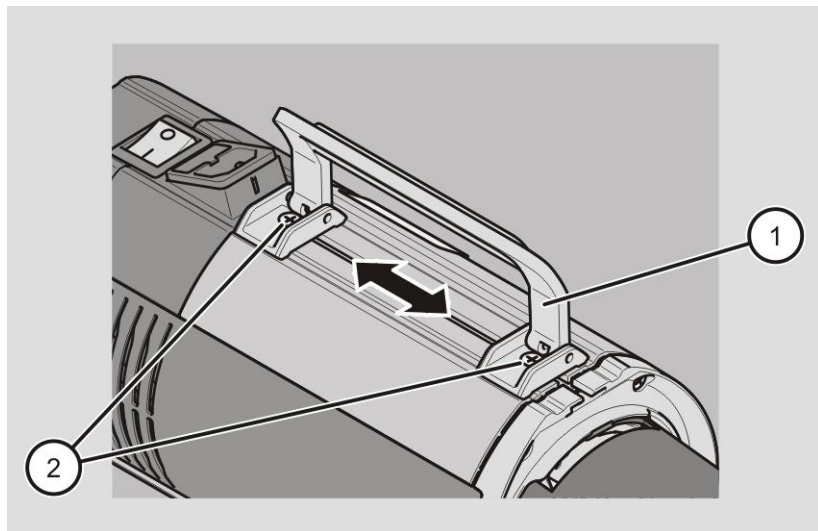
To mount the handle, proceed as follows:
➢ Push the handle (1) into the guide slot.
➢ Tighten both screws (2) of the handle.

Mounting the device on/removing it from a pantograph

⚠ **WARNING**	
⚠	In the case of a device attached to a pantograph, the anchorage can loosen and the device can fall, leading to injuries.
	➢ Secure the device with an additional locking screw (M6 x 16).
	➢ Secure the device with the safety rope (see "Additional accessories", page 70).

The device can be mounted on a pantograph, boom or telescopic boom. The mounting of the device on/removal of the device from a stay arm is described below.

To mount the device on a pantograph, proceed as follows:
➢ Loosen the knurled screw (2) without unscrewing it completely.
➢ Guide the device onto the spigot of the pantograph (3).
➢ Screw the locking screw (1) into the opening on the other side of the swivel head and tighten it so that it is hand-tight.
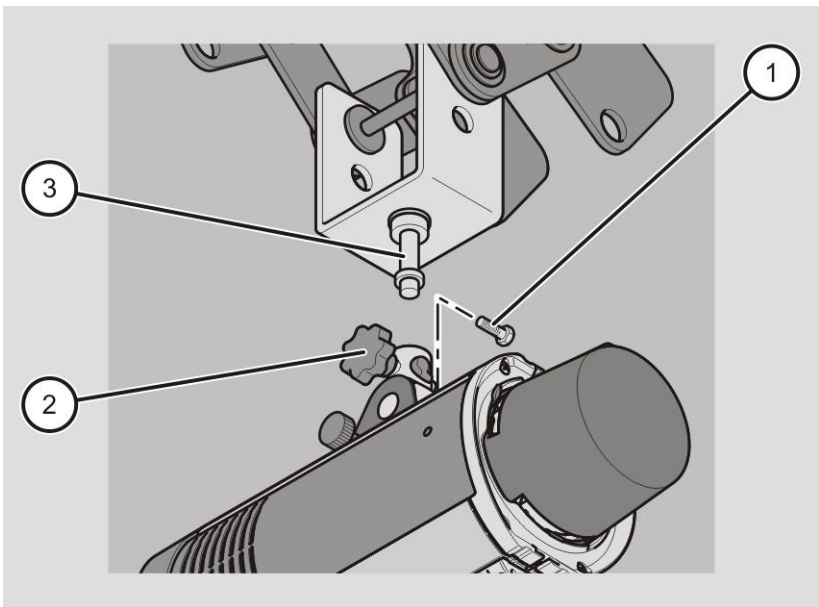
➢ Guide the safety rope (1) through a suitable and stable opening in the
  stay arm as seen in the following figure.
➢ Open the screw hook (4).
➢ Insert the rope thimble (3) into the screw hook (4).
➢ Insert the screw hook into the hanger clip (2).
➢ Close the screw hook (4) tightly again.
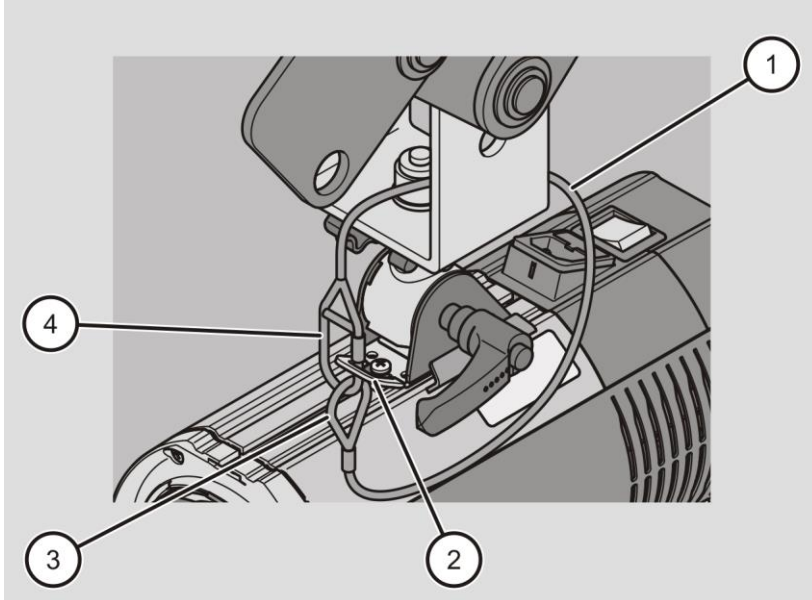
ⓘ When working with a boom or telescopic boom, you can just wrap the
  safety rope several times around the tube of the boom or telescopic
  boom and fasten it to the device as described above.

To remove the device, proceed as follows:
➢ Open the screw hook (4).
➢ Remove the screw hook (4) from the hanger clip (2).
➢ Remove the rope thimble (3) from the screw hook (4).
➢ Remove the safety rope (1) from the opening of the pantograph.
➢ Loosen the additional locking screw.
➢ Hold the device firmly with one hand.
➢ Loosen the knurled screw.
➢ Remove the device from the pantograph.

Mounting the umbrella on/removing it from the device

To mount the umbrella on the device, proceed as follows:
- ➢ Loosen the knurled screw (2).
- ➢ Make sure that you do not completely unscrew the knurled screw (2).
- ➢ Push the umbrella rod (3) into the umbrella holder (1).
- ➢ Tighten the knurled screw (2).
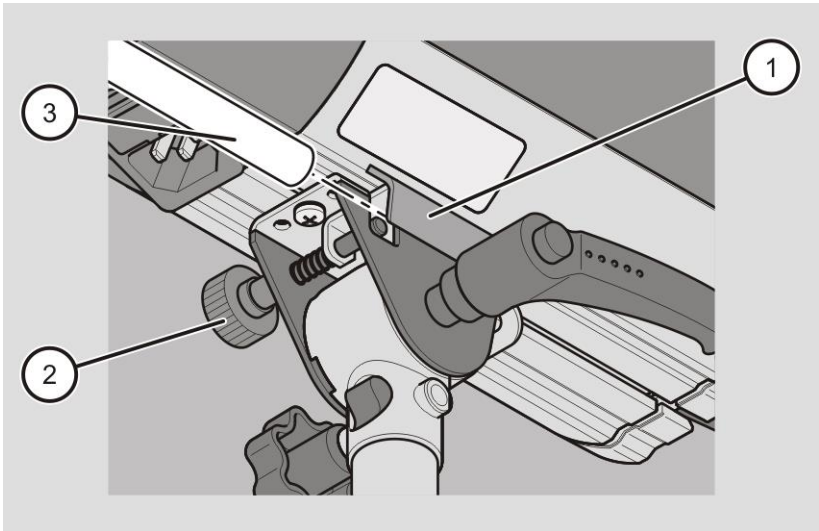
To remove the umbrella, proceed as follows:
- ➢ Hold the umbrella firmly with one hand.
- ➢ Loosen the knurled screw (2).
- ➢ Make sure that you do not completely unscrew the knurled screw (2).
- ➢ Pull the umbrella out of the umbrella holder (1).
- ➢ Tighten the knurled screw (2) again.

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Operating the device

Activating and deactivating the device

➢ Make sure the device is connected.
➢ To switch on the device, set the main switch (1) to the "I" position.
➢ To switch off the device, set the main switch (1) to the "0" position.
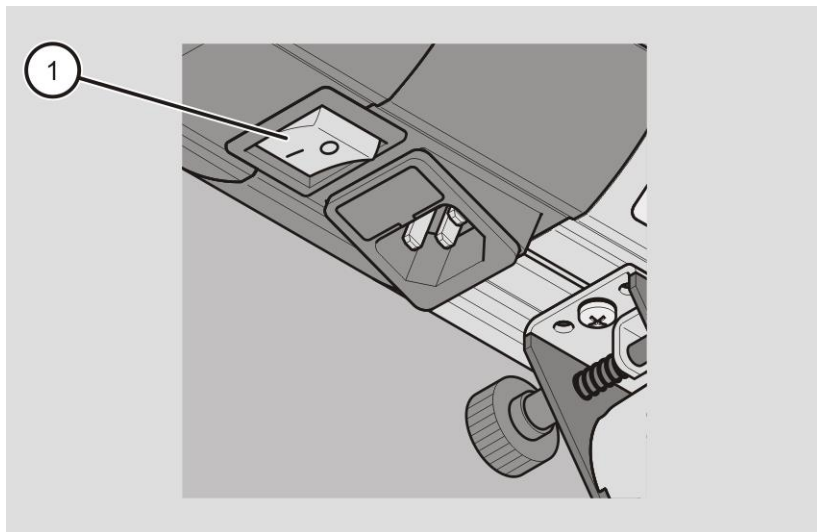
Trigging a test flash

To trigger a test flash, proceed as follows:
➢ Make sure the LED display above the TEST button lights up green .
➢ Press the TEST button.

The device releases a flash.

If you keep the TEST button pressed, the device releases a flash in a flash sequence that corresponds with the set flash energy.

Activating and deactivating the model light

"Full" mode

To activate the model light in "Full" mode, proceed as follows:
➢ Press the FULL button.

The LED display above the FULL button lights up green. The model light illuminates at maximum brightness, irrespective of the set flash energy.

To deactivate the model light in "Full" mode, proceed as follows:
➢ Press the FULL button again.

The LED display above the FULL button goes out.

"Prop" mode

To activate the model light in "Prop" mode, proceed as follows:
➢ Press the PROP button.

The LED display above the PROP button lights up green. The brightness of the model light is proportional to the set flash energy.

To deactivate the model light in "Prop" mode, proceed as follows:
➢ Press the PROP button.

The LED display above the PROP button goes out.

Activating and deactivating automatic model light reduction ("Autored")

The device is equipped with an automatic model light reduction ("Autored"). After a preset time of 35 minutes, the brightness is dimmed to half (level 9) in "Full" mode. In "Prop" mode, the brightness is reduced to half when the flash energy is set in a range from 9.1 to 10. To activate automatic model light reduction, proceed as follows:
➢ Press the rotary switch twice in succession.

The preselected time for automatic model light reduction ("Autored") is shown on the display for approx. 3 seconds.

➢ In one-minute increments, set the time up to a maximum of 90 minutes using the rotary switch.

To deactivate automatic model light reduction ("Autored"), proceed as follows:

➢ Turn the rotary switch counter-clockwise until two dashes appear on the display.

Checking the function of the model lamp

If the model light illuminates, one of the two LED displays lights up above the FULL and PROP buttons. If the two LED displays above the FULL and PROP buttons do not light up, proceed as follows:

➢ Press the FULL button.

The LED display above it lights up green.

➢ If the model light does not light up despite an illuminated LED display above the FULL or PROP buttons, check the illuminant and the fuse.

Setting the flash energy

Depending on the device, the flash energy is set in stages using a rotary switch over an adjusting range of 9 f-stops from 2 (lowest flash energy) to 10 (highest flash energy) and 8 f-stops from 3 (lowest flash energy) to 10 (highest flash energy). To set the flash energy, proceed as follows:

➢ To increase the flash energy in increments of 0.1 f-stops, turn the rotary switch clockwise.
➢ To decrease the flash energy in increments of 0.1 f-stops, turn the rotary switch counter-clockwise.

When the flash energy is changed, the LED display above the TEST button goes out until the selected flash energy is ready.

ⓘ When the flash energy is reduced, the previously accumulated energy is released internally using the integrated APD function.

Activating and deactivating the "Flash Check" function

The device flash is monitored using the "Flash Check" function. When this function is activated, the model light goes out after the flash procedure is performed and does not light up until the flash is ready to operate again. To activate the "Flash Check" function, proceed as follows:

➢ Press the FC button.

The LED display above the FC button lights up green.

To deactivate the "Flash Check" function, proceed as follows:

➢ Press the FC button again.

The LED display above the FC button goes out.

Activating and deactivating the "Audio" function

With the "Audio" function, flash readiness after charging or after a reduction of the flash energy is indicated by an acoustic tone. To activate the "Audio" function, proceed as follows:

➢ Press the AUDIO button.

The LED display above the AUDIO button lights up green.

To deactivate the "Audio" function, proceed as follows:

➢ Press the AUDIO button again.

The LED display above the AUDIO button goes out.

Synchronizing the device with the camera

The device and the camera are synchronized using the following components:

- Sync cord (optional)
- Built-in photo cell
- Built-in radio receiver

Synchronizing the device using the cable

To connect the device to the camera, proceed as follows:

➢ Insert the jack plug of the sync cord (1) into the sync socket of the device (2).

➢ Connect the other end of the sync cord to the camera. Here, follow the user manual of the camera.
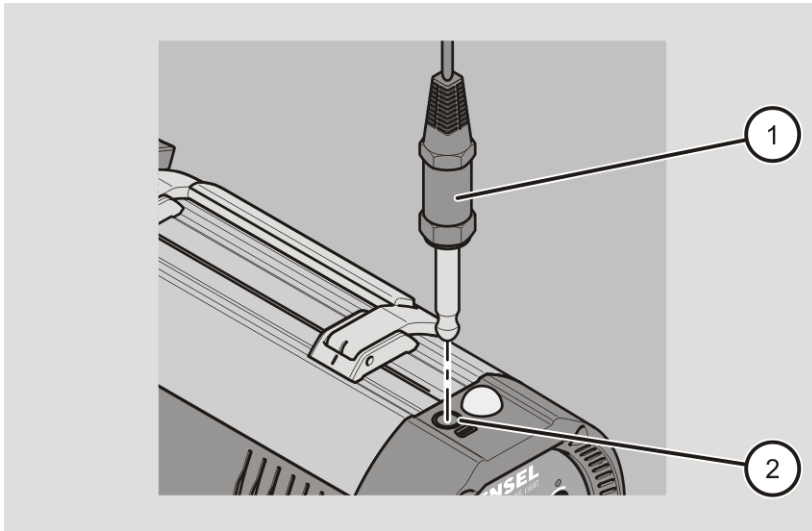
Activating and deactivating the photo cell

To activate and deactivate the photo cell, proceed as follows:
➢ Press the SLAVE button.

The LED display above the SLAVE button lights up green.

➢ Press the SLAVE button again.

The LED display above the SLAVE button goes out. The photo cell is deactivated.

ⓘ The flash is triggered through the photo cell by the striking of a flash emitted by another device. The photo cell functions as a pulse photo cell. It works only if the light output of the emitted flash is stronger than the available light. For this reason, you must ensure that excessively strong extraneous light does not affect the photo cell. In such cases, the flash must be triggered either using the sync cord or the radio remote trigger.

Radio remote trigger

The device has a built-in radio receiver "Strobe Wizard Plus" and freemask system. With the optionally available radio remote trigger, the camera and flash can be synchronized via radio signal. To set the radio channels, proceed as follows:
➢ Briefly press the RC button.

The LED display lights up green. The radio receiver is activated.

➢ To select the channel, press the RC button or rotary switch for approx. 2 seconds.

The channel that was last set appears on the display.

➢ Using the rotary switch, set the desired radio channel within 3 seconds.

Approx. 3 seconds after the last entry, the set radio channel is saved and the display no longer flashes.

➢ Please also observe the instructions of the radio remote trigger.

ⓘ After the H.C1, H.C2 and H.C3 radio channels of the HENSEL "Strobe Wizard Plus" radio remote trigger system, the H.F1, H.F2 and H.F3 radio channels for the HENSEL freemask system appear.

Daily flash counter

Reading the daily flash counter

To read the daily flash counter, proceed as follows:

➢ Press the AUDIO button for one second.

The number of triggered flashes appears on the display. The number range of the daily flash counter extends up to 999.

Resetting the daily flash counter

To reset the daily flash counter, proceed as follows:

➢ Press the AUDIO button for one second.

The number of triggered flashes appears on the display.

➢ Press the rotary switch.

The daily flash counter is reset to zero.

Activating and deactivating "PM" mode

In case of operation at Power Max L, the device also functions with particularly short flash durations and fast recycling times. This requires a comparably high current consumption. To guarantee consistently optimum functioning, the device must be switched to "PM" mode for operation at Power Max L. In "PM" mode, the model light is permanently switched to 100 W and the "Flash Check" function is activated. To activate "PM" mode, proceed as follows:

➢ Connect the device to a Power Max L mains socket.

➢ Switch on Power Max L.

➢ Switch on the device.

➢ Press the SLAVE button and keep it pressed until a beep sounds.

The display shows "bat" and the set energy output alternately. The LED display above the button lights up green. "PM" mode is activated.

To deactivate "PM" mode, proceed as follows:

➢ Press the SLAVE button and keep it pressed until a beep sounds.

The LED display goes out. "PM" mode is deactivated.

Wi-Fi settings

The "Wi-Fi" menu consists of several levels. By turning the rotary switch
you can change the selected value, and by pressing the rotary switch you
can confirm the value. If a value has been confirmed, the display jumps
from left to right to the next value. After the last position is reached, the
"Wi-Fi" switches automatically to the next level.

To open the "Wi-Fi" menu, proceed as follows:
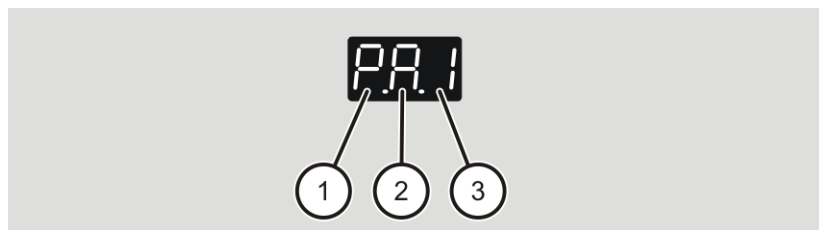➢ Press the rotary switch and hold it for 3 seconds.

The "Wi-Fi" menu appears. On Level 1, the text "Wi-Fi" runs across the
display three times.

After that, Level 2 appears (ON/OFF).
➢ To deactivate the Wi-Fi function, select "OFF".
➢ To activate the Wi-Fi function, select "ON".
➢ To confirm the selection, press the rotary switch or wait 3 seconds until the level is exited automatically.

If you have activated the Wi-Fi function, Level 3 is displayed with the following options:

| No.	Designation	Explanation
1	P	Network type "Private network" (currently cannot be changed)
2	A–J	Designation of the team The teams are designated with the letters A-J and identified through the name of the access point. Through the team, you can also set the WLAN channel of the access point: • Teams A, D, G, J correspond with Channel 1 • Teams B, E, H correspond with Channel 6 • Teams C, F, I correspond with Channel 11
3	1–3	Wi-Fi mode Additional information can be found in the following table.

ⓘ The access point is named "AP_Hensel_Team_X." "X" stands for the selected team A through J. The access point is password-protected through WPA2PSK. In all modes, the password is: **Hensel-Visit-CTL**.

The following table shows the 4 Wi-Fi modes:

Wi-Fi mode	Explanation
3	Manual mode: In this mode, you define a device as the access point yourself. You can assign numbers of clients between 2 and 12. These numbers then also appear in the app.
2	Semi-dynamic mode: In this mode, you define one device as the access point and the remaining devices as clients. The numbers are assigned automatically.
1	Dynamic mode: In this mode, all devices configure themselves and form a network.
0	Update mode

In Wi-Fi modes 0 and 1, an access point is formed automatically. In Wi-Fi modes 2 and 3, the device that constitutes the access point must always be switched on. In Wi-Fi mode 3, the devices have a fixed number and the pertinent app allows the configuration of the devices to be saved.

On Level 4, you can configure the access points and client devices in Wi-Fi modes 2 and 3.
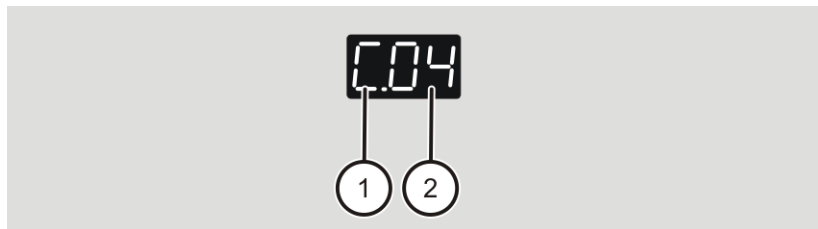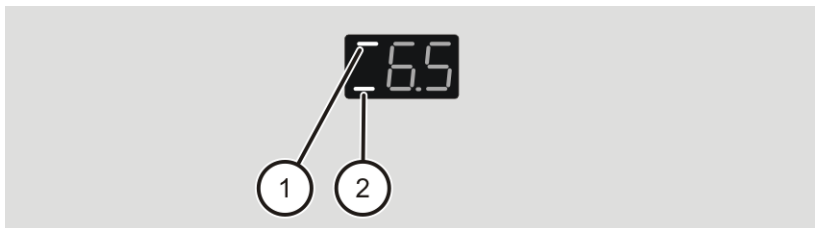

No.	Explanation
1	Here, you can choose between Access Point (AC) and Client (C).
2	If Client (C) is selected, you can set the number of clients (2–12).

On Level 5, the text "Con." flashes. With this option, the connection status display (flashing bar at the top and bottom of the first segment) is activated (ON) or deactivated (OFF).

The connection status display consists of 2 bars (1, 2) in the first segment of the display.

The following table shows the possible status displays:

Display	Explanation
Top display off Bottom display off	Wi-Fi OFF
Top display on Bottom display on	Wi-Fi active (the device is the access point): If a connection is established to at least one app, the top status display is constantly on; otherwise it flashes. If a connection is established to at least one client, the bottom display is constantly on; otherwise it flashes.
Top display on Bottom display off	Wi-Fi OFF (the device is a client): If a connection is established to the access point, the top display is constantly on; otherwise it flashes.
Top display on Bottom display off	Wi-Fi ON ("Update" mode): The device is the access point; the top display flashes continuously.

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Error messages
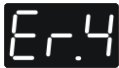
In case of an error, an error number is shown on the display. In such cases, proceed as follows:

➢ Switch off the device.

➢ Wait a few seconds.

➢ Switch on the device again.

If the error is still indicated, proceed as follows:

➢ Using the following list, check to see which error is present.

➢ In case of serious errors, switch off the device immediately and contact our Customer Service (see page 73), specifying the error number.

Problem	Possible cause(s)	Remedy
Hot temperature error – the model light turns off, the fan runs at maximum speed and the device does not release a flash. **Hot**	High ambient - temperature at full model light, unsuitable light shaping tool, covered ventilation slots or defective fan.	➢ Don't turn off the device so that the fan can cool down the device. ➢ Make sure the ventilation slots are not covered. ➢ Make sure the fan is not defective.
Charging error **Er. 1**	The maximum recycling time has been exceeded, e.g. because the flash tube has an afterglow.	➢ Switch off the device immediately. ➢ Send the device to Customer Service, specifying the error number.
Discharging error **Er.2**	The maximum period for discharging has been exceeded.	➢ Switch off the device immediately. ➢ Send the device to Customer Service, specifying the error number.
Temperature error **Er.3**	The temperature at the capacitors is too high.	➢ Switch off the device immediately. ➢ Send the device to Customer Service, specifying the error number.

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Problem	Possible cause(s)	Remedy
Trigger error – the device did not release a flash **Er.4**	This error generally resets itself automatically and work with the device can continue.	If this error occurs frequently, proceed as follows: ➢ Make sure the trigger wire is seated properly. ➢ Replace the flash tube or send the device to Customer Service.
ZD error **Er.6**		➢ Switch off the device immediately. ➢ Send the device to Customer Service, specifying the error number.

Transporting and storing the device

To transport and store the device, proceed as follows:
➢ Remove the light shaping tool (see page 31).
➢ Position the transport cap in place (see page 25).
➢ Do not store the device in locations exposed to heat, moisture, frost or cold.
➢ Cover the device.

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Servicing the device

Caring for and cleaning the device

⚠ WARNING	
⚠	Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns. ➤ Let the device cool down for 5 to 15 minutes before cleaning.

To guarantee electrical safety, the device must be cleaned regularly. To clean it, proceed as follows.
➤ Regularly clean the outside of the device with a dry cloth.

Regular inspection

National safety regulations – e.g. the Industrial Safety Act (BetrSichV) and DGUV Regulation 3 (formerly BGV A3) in Germany – demand the inspection and maintenance of electrical systems and equipment at regular intervals. The operating safety of devices and accessories must be checked regularly. An annual inspection of the devices should be carried out for the safety of the users and to retain the value of the system.

The regulations specified above (BetrSichV and DGUV Regulation 3 (formerly BGV A3)) apply to Germany; please observe the corresponding local regulations in your country.

Maintenance schedule

➤ Regularly clean the device as described in the "Caring for and cleaning the device" section above.
➤ Grease the thread of the knurled screw for the stand adapter every 1-2 years.

Maintenance	Time period
Check the operating safety of the device	Every 12 months
Check the operating safety of accessories	Every 12 months

Replacing a defective protection glass

⚠ **WARNING**
⚠ Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns. ➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components.

To replace the protection glass, proceed as follows:
➢ Switch off the device at the main switch.
➢ Remove the mains cable (see page 33).
➢ Remove the light shaping tool (see page 31).
➢ Remove the defective protection glass (see page 30).
➢ Mount the new protection glass (see page 30).
➢ Mount the light shaping tool (see page 31).
➢ Connect the mains cable (see page 33).
➢ Switch on the device at the main switch.

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Replacing a defective flash tube

⚠ DANGER	
⚠	In the case of a defective flash tube, the electrodes are exposed. Touching the flash tube may result in an electric shock. ➢ Switch off the device. ➢ Disconnect the device from the power mains. ➢ Before touching the defective flash tube, wait for 15 minutes to allow the capacitor voltage in the device to drop. ➢ If the flash tube is broken, do not touch the electrodes under any circumstance. Always use pliers with protective insulation to remove the flash tube.

To replace the flash tube, proceed as follows:
➢ Switch off the device at the main switch.
➢ Remove the mains cable (see page 33).
➢ Wait for 15 minutes.
➢ Remove the light shaping tool (see page 31).
➢ Remove the protection glass (see page 30).
➢ Unwind the trigger wire (2) from the connection pin (1).
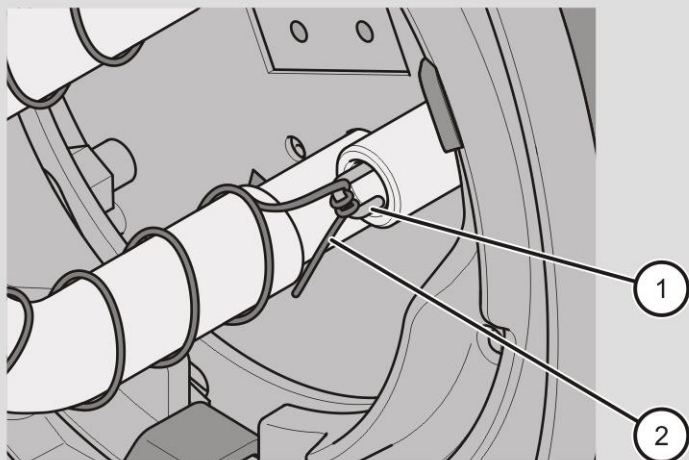
➢ Pull out the flash tube (1).
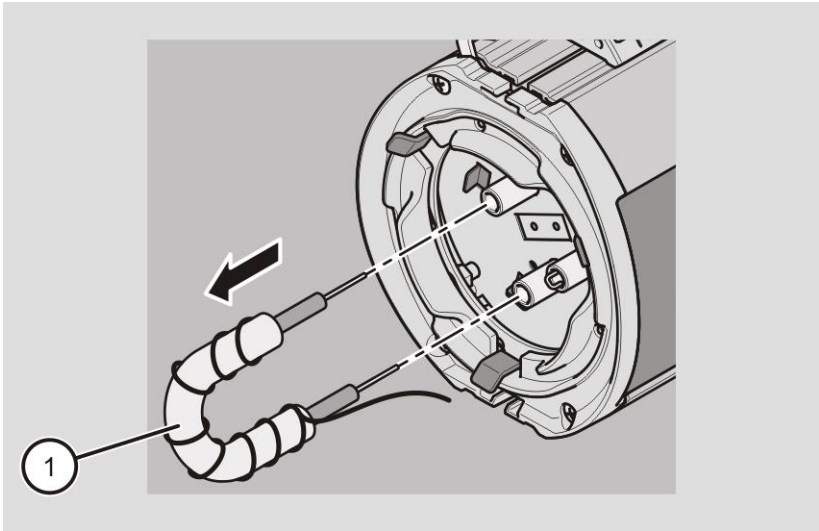
➢ If necessary, remove all glass fragments of the flash tube.
➢ Remove the new flash tube from the packaging.
➢ Make sure the glass body of the new flash tube is not defective.
➢ Place the flash tube on the base and carefully push the flash tube into the device up to the limit stop.
➢ Pull out the flash tube by approx. 0.5 mm again so that the glass body can expand when heating up.
➢ Wrap the trigger wire (2) around the connection pin (1) on the device and bend it towards the glass body of the flash tube.
➢ If the remaining trigger wire (2) is too long, shorten it with pliers.
➢ Make sure the trigger wire (2) is correctly wrapped around the connection pin (1).
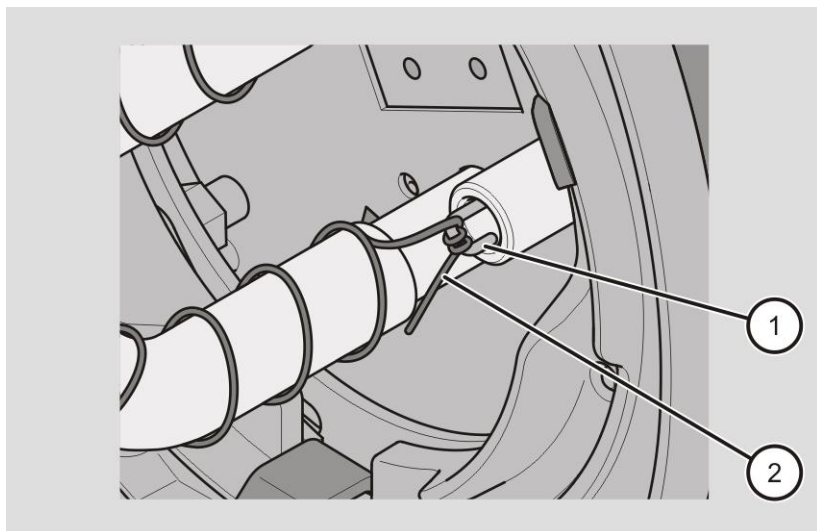
ⓘ If the trigger wire is too loosely wrapped around the connection pin or not at all, the flash function may fail. If the trigger wire is not bent towards the glass body of the flash tube, the trigger voltage flows off through the protective conductor of the device and the device does not release a flash.

➢ Mount the protection glass (see page 30).
➢ Mount the light shaping tool (see page 31).
➢ Connect the mains cable (see page 33).
➢ Switch on the device at the main switch.

Replacing a defective model lamp

⚠ WARNING
Heat is generated during the operation of the device. Touching the device at the front can lead to severe burns. ➢ Always let the device cool down for 5 to 10 minutes before mounting or removing components.

To replace a defective model lamp, proceed as follows:
➢ Switch off the device at the main switch.
➢ Remove the mains cable (see page 33).
➢ Remove the light shaping tool (see page 31).
➢ Remove the protection glass (see page 30).
➢ Replace the model light (see page 28).
➢ Mount the protection glass (see page 30).
➢ Mount the light shaping tool (see page 31).
➢ Connect the mains cable (see page 33).
➢ Switch on the device at the main switch.

## Replacing a defective fuse of the model lamp

To replace the fuse of the model light, proceed as follows:

➢ Switch off the device at the main switch.

➢ Remove the mains cable (see page 33).

➢ Open the fuse holder (2) with a small screwdriver (1) or similar tool and pull it out.

The fuse holder (1) contains two fuses: the blown fuse (2) and the spare fuse (3).

➢ Remove the blown fuse (2).
➢ Remove the spare fuse (3) and insert it into the lower holder.
➢ Carefully push the fuse holder (1) into the housing again until it engages in a flush manner.
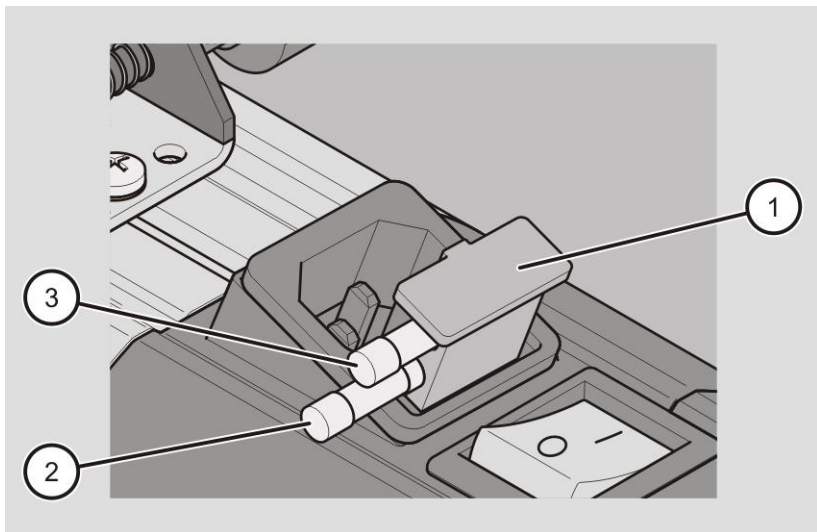
ⓘ Remember to insert a new spare fuse as soon as possible.

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Performing firmware updates

The firmware version of the device can be updated over the USB port.
➢ For more information, contact Customer Service.

Disposing of the device and packaging

In Germany

➢ Dispose of the packaging of the device, separated according to material.
Use local options for collecting paper, cardboard and lightweight
packaging.
➢ Dispose of the device and accessories separately from domestic waste.
Information regarding collection points that accept old devices free of
charge can be obtained from your municipal authority.

Outside of Germany

➢ Dispose of the device and packaging according to the regulations at the
place of use.

EU Declaration of Conformity

Hensel-Visit GmbH & Co. KG hereby declares that device type Expert D 250 Speed, Expert D 500 and Expert D 1000 corresponds with Directive 2014/53/EU. The complete text of the EU Declaration of Conformity is available under the following URL https://support.hensel.eu/index.php/eu-konformitaetserklaerungen.

Accessories

Protection glass

Designation	Article number
Transparent, uncoated, for Expert D 250 Speed	9454660
Transparent, uncoated, for Expert D 500 and D 1000	9454638
Transparent, single coating, for Expert D 500 and D 1000	9454637
Frosted, uncoated, for Expert D 500 and D 1000	9454639

Flash tubes

Designation	Article number
Plug-in style, single coating	9450420

Illuminant for model light

Designation	Article number
300 W / 230 V	128
300 W / 115 V	1280

Fuses

Designation	Article number
Safety fuse F 4 A H	9412400

Radio remote trigger

Designation	Article number
Strobe Wizard Plus transmitter	3950
Freemask transmitter	3955

Light shaping tool

Light shaping tools and softboxes with EH connection diameter (10 cm) for the Expert D device series.

Additional accessories

Designation	Article number
Safety rope	7690
Sync cord, 5 m	122

Information on additional accessories can be found on our website.

Warranty provisions

In Germany
The warranty provisions can be found in our general terms and conditions for business on our website: www.hensel.de

Outside of Germany
The warranty provisions of the dealer from which you have purchased the device apply.

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Limitation of liability

We are not liable for equipment or property damage, or personal injury arising from improper use of the device that is inconsistent with the information provided in the user manual. We are also not liable for consequential damages (such as production or income losses, etc.) that may be caused by a defect in or malfunction of our device.

Returning a product to Customer Service

As soon as you discover damage to the device, proceed as follows:

➢ Send the device in its original packaging with a precise description of the defect to the following address for repair:

HENSEL-VISIT GmbH & Co. KG
Customer Service Department
Robert-Bunsen-Str. 3
D-97076 Würzburg, Germany

Phone: +49 (0) 931-27881-0

Our Customer Service addresses within and outside of Germany can be found at:
www.hensel.de