

# e FLASH 250

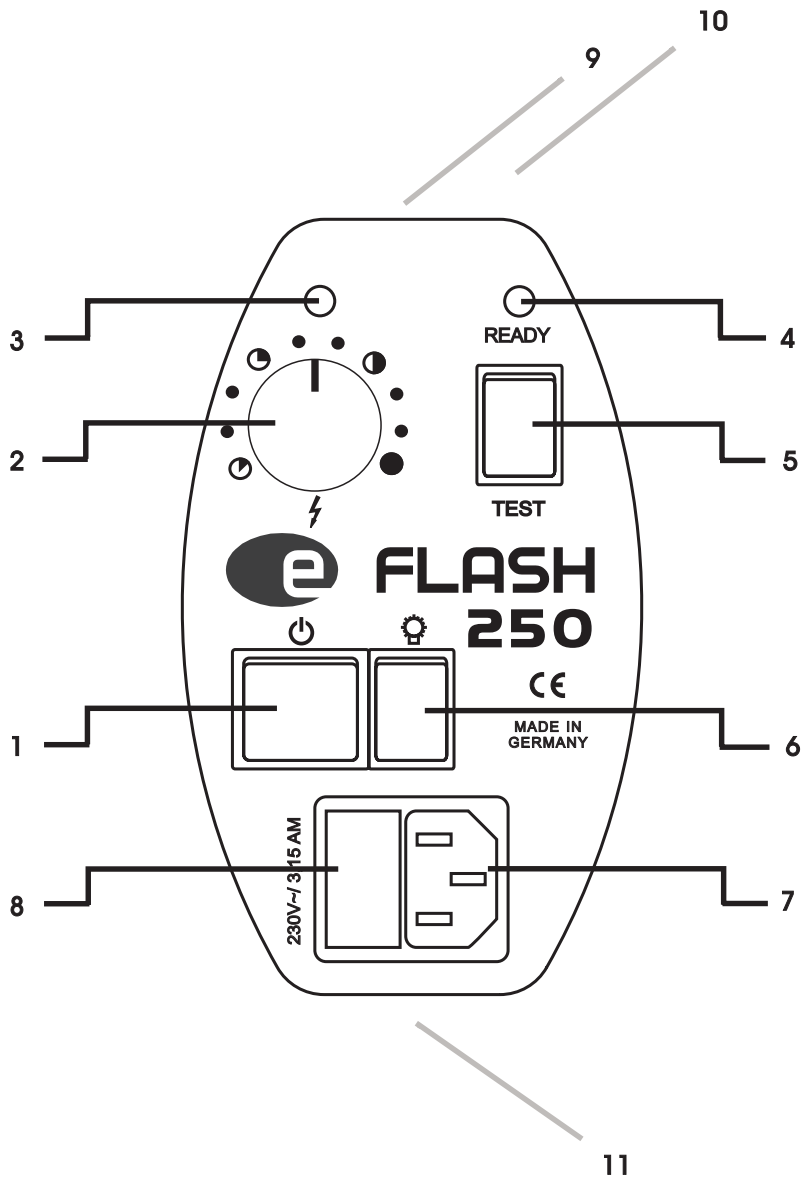
Kompaktblitzgerät  
Compact Flash Unit



Bedienungsanleitung  
User manual

eFLASH 250 Kompakt  
eFLASH 250 Compact

Bedienpanel (Geräterückseite)  
Control panel (back view)





HENSEL®  
STUDIOTECHNIK

*performing light*

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Bedienungsanleitung  
eFLASH 250  
Stand 02-2005

Seite 3

User manual  
eFLASH 250  
Date of revision: 2005-02

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# 1 Introduction

Dear Photographer,

in buying a HENSEL flash system, you have purchased powerful equipment of high quality.

So that you are able to successfully and productively work with this system for many years, we are giving you some advice on the use of this high tech product. Only by observance of the information given you secure your warranty, prevent damage and prolong the life of the equipment.

HENSEL Studiotchnik has taken great care to manufacture a secure and high quality flash system under inclusion and observance of all current regulations. Strict quality controls secure our quality requirements even in mass production. Please take your part in this and treat the equipment with due care - your reward will consist of excellent pictures.

If you should have any questions on the use, then feel free to ask us at any time.

We wish you success and „good light“.

HENSEL Studiotchnik

User Manual – Date of Revision: 2005-02

Technical data are subject to change. No guarantee for misprints. The listed values are guide values and should not be understood as binding in a legal sense. The values can differ due to tolerances in used components.

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### 3 General safety regulations

Compact flash systems store electrical energy in capacitors by applying high voltages. These form a source of danger, which must be carefully excluded. Besides general rules on handling electrical appliances, the following safety measurements must be observed. Therefore read and comply the safety hints (also see the paragraph *Starting up*) within the user manual before turning the appliance on.

#### Proper use

The present compact flash unit is meant for studio use of professional photographers. Its task is to provide electrical energy for HENSEL flash lighting.

#### Improper use

The appliance may not be used for any other purpose than that described above, especially not for other electrical appliances.



**Flashtubes generate high pressure during operation and can therefore explode. For this reason it is a must to protect the flash light in case of danger for persons or objects or if fire could be initiated.**

- Contact with the capacitor voltage is perilous, and therefore opening of the case of the eFLASH compact flash unit and repairs must only be made by authorized customer service.
- eFLASH compact flash units are equipped with a user replaceable flashtube. Exchange of flashtube and modeling lamp must only be performed with the appliance turned off, unplugged from the mains and discharged.
- Compact flashes must only used on supply lines (mains) with working protective conductor (earth line).
- Do not route cables across the studio floor if possible, so that damage is excluded. If routing across the studio floor cannot be omitted, then it must be ensured that vehicles, ladders, etc. do not damage cables. Damaged cables and cases must be immediately replaced by customer service.



- Ventilation slots of compact flashes must be kept free during operation and sufficient air supply must be ensured. Do not stick any objects into ventilation slots or synchronization sockets.  
Do not deposit any objects (tools, coffee cups, etc.) on the compact flash unit.
- Flash systems must not be used in environments with explosion hazard. Flammable materials, like furnishing fabrics, paper, etc. may not be stored in the immediate vicinity of compact flash units to prevent fire hazards.
- Compact flash units must be protected against humidity and spray water.
- Do not connect accessories from other manufacturers, even if they use the same or similar connectors.
- Compact flashes - hanging from pantographs or ceiling - must be doubly secured against falling down.
- Do not flash into eyes at short distances (smaller than 5 m), because this can lead to eye damage. Do not look directly into the flash reflector, the flash lamp could be triggered inadvertently.
- Regularly air closed rooms to prevent build-up of inadmissible ozone concentrations, which can occur due to the use of high-powered flash systems.
- During work in the studio generating much dust, the appliance should be covered with suitable dust protection (not during operation).

## 4 Standard delivery

eFLASH 250 comes with:

- Flashtube, slightly coated, user replaceable
- Tilting Head with integrated Umbrella Holder
- Power Cable and Synchronization Cord

## 5 Technical Data\*

Model / Type	eFLASH 250
Stored energy:	250 J
Aperture at 100 ASA t 1/60, distance 2 m, 7" Reflector:	11 5/10
Flash duration:	t 0,5: 1/850 sec. t 0.1: 1/300 sec.
Flash sequence, min.-max:	0.8 sec. - 2.5 sec.
Flashtube:	Omega-Tube, user replaceable, slightly coated
Flash power control:	4 continuously adjustable f-stops
Modeling lamp, max.:	230VAC: 150W/230V/G6.35 Halogen 115VAC: 150W/120V/B15d Halogen
Modeling lamp options:	ON und OFF
Fuse:	3.15 AM (230V) / 6.3 AM (115V)
Mains voltage:	230 V or 115 V depending on model type
Weight (kg):	approx. 1,4
Dimensions (LxWxH) in cm:	26 x 13,6 x 22
Code	230V: 8881 115V: 8882

\*: Technical changes reserved. Values attained at 230 V/50 Hz voltage.

## 6 Overview of controls

- 1 Main Switch ON/OFF
- 2 Flash Output Control
- 3 Slave
- 4 READY: Ready for flash triggering / Indicator
- 5 TEST: Manual Flash Release
- 6 Modeling Lamp ON/OFF
- 7 Mains Socket
- 8 Fuse for Modeling Lamp and Electronics, 3.15 AM (230V) / 6.3 AM (115V)
- 9 Synchronization Socket (on the top of the unit)
- 10 Reflector-Quick-Change Mechanism (on the top of the unit)
- 11 Tilting Head with integrated Umbrella Holder (on the underside)

## 7 Starting Up

### ***Safety hints for operation with compact flashes***

To avoid damage to the flashtube mount reflectors and light formers (softboxes etc.) before use and turning on the unit. Do not move compact flashes around, while they are operating. Turn off the appliance for each change of reflectors or to move the unit to another location.

#### Caution:

Reflectors, speedrings and other accessories heat up during longer operation. To avoid injuries, handle with isolating cloth or wait, till parts cooled down.



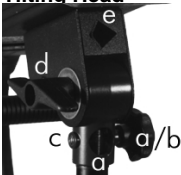
**A damaged flashtube is extremely dangerous because the electrically charged electrodes are exposed and touching must be avoided; the unit must be switched off and disconnected from the mains outlet immediately. The capacitors inside may still be charged and dangerous high voltage can still be present at the damaged flashtube electrodes (Replacement see page 28, Maintenance).**

#### Assembly

When mounting to a ceiling system or a pantograph, suspended compact flashes have to be doubly secured from falling down or dropping. This is done by tightening the safety screw (not included in the standard delivery) into the thread **c** of the HENSEL Tilting Head **11**.

Due to the existing safety regulations, it is, however, necessary to use a safety rope (Code No. 769) for further security. The safety rope has to be led through the U-bracket of the compact flash and then secured by looping through the bracket on the pantograph or the eyelet on the carriage.

**11:**  
**Tilting Head**



#### Heating

Due to the modeling and flash light, each compact flash unit emits heat. This can heat up the parts of the unit to a dangerous level. Therefore make sure, that the flash unit is located far enough from inflammable props to avoid inflaming them. Take care for sufficient air supply and make sure that ventilation slots of compact flash units are kept free.

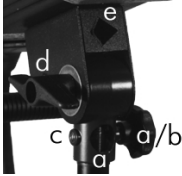
Do not operate compact flash units unattended.

Due to the danger of overheating, the modeling light should never be operated at full power for more than 20 minutes. Then adequate cooling should be provided for. The modeling light should never be used for lighting up the studio but only as an assistance when focusing or determining the light guiding and shadow details of the flash.

### Acclimatizing

When moving the compact flash unit from one climatic zone to the next, the appliance should stand in the room, in which it will be operated, for some time before starting it up. This prevents internal shortcuts caused by eventually condensing water.

### 11: Tilting Head



### Positioning

eFLASH compact flash units are equipped with a Tilting Head **11**. The unit can be attached to a stand or pantographs using one of the two holes **a**. The head can be swivelled round 360°. By tightening the knurl screw **b** the unit can be fixed. The safety screw must be screwed into thread **c**. Wing nut **d** guarantees for tilting up and down. To ensure smooth movement please oil the thread if necessary. Above the tilting head an umbrella holder **e** is integrated.

### Accessories

All HENSEL reflectors and HENSEL softboxes of series EHT (adapter Ø: 10 cm), accessories included, may be attached to the eFLASH compact flash; also umbrellas and Softstar.

#### Assembly of reflectors and softboxes

When connecting **reflectors or softboxes** holding clamps must be unlocked. For doing this, lever **10** of the reflector quick-change mechanism has to be shifted to the left side until having reached stop position. Now the accessory has to be attached plain and even. Please avoid any tilting or canting. For attaching lever **10** has to be shifted right until locking. The lock avoids any unintentional shifting. For loosening, please hold the attached unit (*Attention - the attached item could be very hot!*), push lever **10** forward and then shift it to the left for opening.

#### Assembly of umbrellas and Softstar

An umbrella holder is integrated above the tilting head **11e**. It allows for the connection of various umbrellas, Softstar or Super Focus Reflector by using the provided screw (M6x16).

### 10: Reflector-Quick- Change-Mechanism

### 11: Tilting Head



### Mains connection

#### Attention:

Before connecting the compact flash unit to the mains outlet, make sure, that the mains voltage matches the information given on the type label and the imprint next to the fuse **8**. The type label can be found close to the Tilting Head.

**Compact flash units must only be connected to mains outlets with ground connection.**

### Fuses

#### Outlets, in the building

Minimum 10 A fuse outlets.

10 A

#### Fuse for modeling lamp and electronic

If replacement of fuse **8** becomes necessary, a fuse 3.15 AM must be used for 230V units and 6.3 AM for 115V units.

Make sure that fuse and mains voltage match the imprint next to fuse **8**.

**8:**  
3.15 AM / 6.3 AM

## 8 Operation

### Synchronization (Flash triggering)

#### Synchronization by cable

The compact flash unit is connected to synchronization socket **9** to the camera using a synchronization cable with 6,3 mm phone jack.

The synchronization circuit is made up of state-of-the-art semiconductor technology and enables secure triggering of the flash even with older cameras with mechanical contacts.

Due to the many different electrical circuits in cameras for controlling synchronization, we cannot take any liability for possible damage to cameras triggering flashes.

Please contact the camera manufacturer before using an unusual camera.

**9**

#### Synchronization by slave

The compact flash unit can be triggered by the built-in slave **3**. Triggering is then effected by an „incoming“ flash, which was emitted by another flash light.

**3**

#### Synchronization by infrared triggering system

For wireless flash triggering the infrared triggering system SPEED is available as accessory:

**IR Remote Control  
SPEED**



Code No. 392 Transmitter and Receiver, Set, or  
Code No. 393 Transmitter or  
Code No. 394 Receiver.

**9**

The IR **transmitter** „Speed“ has to be attached to the camera. The IR group A or B can be selected on the transmitter by a slide switch.

The IR **receiver** „Speed“ has to be connected to the synchronization socket **9**. The same IR group A or B has to be set on the receiver by a slide switch.

Flashes can be triggered using the provided synchronization cable or the camera hot shoe. The transmitter should approximately be pointed towards the connected IR-receiver. All compact flashes within one selected group are flashing.

**2****Power control**

The desired flash power is continuously set using power control **2** over a range of 4 f-stops (1/8 to 1/1).

**4:**  
**READY****Flash readiness**

The green light of the light emitting diode **4** indicates correct loading of the flash unit to the power setting as well as readiness of flash. If the flash energy is reduced, the stored energy has to be dumped by simply triggering a TEST flash (press button **5**).

**6:**  
**Q ON / OFF****Modeling lamp**

The modeling lamp is switched ON /OFF using switch **6**.

**5:**  
**⚡****Test flash**

By pressing the button **5** test flashes can be released.

**9 Maintenance**

The eFLASH compact flash is in need of little maintenance by the user. The unit should be dry cleaned from dust from time to time. Before cleaning separate the unit from the mains outlet.

Caution:

*Under no circumstances is any part of the equipment to be opened. The equipment is not user serviceable and there is dangerous high voltage. In the event of difficulty notify your dealer.*



**8:**  
**3.15 AM / 6.3 AM**



### Replacement of fuses

In case of a broken fuse **8** replace fuse only, when the unit is switched off and separated from the mains outlet.

Attention:

*Never repair or bridge fuses. Only use fuses with the required value (see imprint next to fuse **8**): 3.15 AM for 230V units and 6.3 AM for 115V units.*

### Replacement of modeling lamp

Replace modeling lamp only during unit is switched off and unplugged from the mains outlet.

Depending on the mains voltage the following modeling lamps are allowed to be used (maximum value):

230VAC: 150W/230V/Socket G6.35 Halogen (Code 723)

115VAC: 150W/120V/Socket B15d Halogen (Code 7010)

Wait till modeling lamp has cooled down and then pull it out and replace the modeling lamp with a new one.

### Replacement of flashtube

eFLASH is equipped with a user replaceable flashtube.



**For replacement of flashtube switch off the unit, separate it from the mains outlet and wait for at least 15 minutes.**

Handle flashtube with care because of the high pressure inside.

Caution: *In case of a damaged flashtube glass the electrodes of the tube must not be touched in any case! In this case it is a must to use isolated pliers for pulling out the flashtube!*



First unwind the ignition cable from the connection pin of the ignition. Then pull out flashtube and replace it with a new one. Finally wind the ignition cable and reconnect it with the connection pin.

*You must make sure that the appropriate flashtube is used. Please order from HENSEL: Flashtube, user replaceable, for eFLASH Compact, single coated, Code No. 9450205.*

### Regular inspection

National safety regulations require regular inspection and maintenance of electrical systems and appliances. Compact flash units and accessories must be regularly checked for safe operation. Yearly inspection of the appliances serves the safety of the user and protects your investment in the system.

**Return to customer service**

To achieve a maximum protection of the unit sending it in for service, the original packaging should be kept.

**10 Disposal**

Packaging of the compact flash unit should be separately disposed off and recycled.

Worn out and broken appliances are to be disposed off by electronics recycling.

**11 Accessories**Modeling Lamp

Code No. 723: 150W/230V/Socket G6.35 Halogen

Code No. 7010: 150W/120V/Socket B15d Halogen

Flashtube, user replaceable

Code No. 9450205: Omega-Tube, single coated

IR-Triggering System SPEED

Code No. 393: Transmitter

Code No. 394: Receiver

Code No. 392: Set

Reflectors and Softboxes

with small accessory adapter diameter (10 cm)  
for series EHT/ CONTRA

Umbrellas

All common standard umbrellas can be used.

**12 Customer Service****Works customer service**

*with 24 hours express service:*

HENSEL Studioteknik GmbH & Co. KG

- service department -

Robert-Bunsen-Str. 3

**D-97076 Würzburg**

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## 13 Certificate of Conformity for Electromagnetic Compatibility and Safety

Manufacturer and  
Owner of Certification: HENSEL Studiotechnik GmbH & Co.KG  
Robert-Bunsen-Str. 3  
97076 Würzburg  
Germany

Test Report: of February 1, 2003

Product: **Compact Flash Unit  
eFLASH 250**

Description: Emission and Interference Resistance

Directives: EN 50 081-1 / EN 55 014 / EN 60 555 /  
EN 50 082-2 / EN 61 000-4-2/3/4/5

This certificate of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the Councils Directive of March 3<sup>rd</sup> 1989 referring to electromagnetic compatibility and safety for bringing the statutory instruments of the Member States into lines with each other. This certificate does not make any statement according to requirements of other provisions concerning the electromagnetic compatibility and safety.

Description: Low Voltage Directive

Directives: EN 60491:95 / EN 60598-1:93+A1:96 /  
EN 60598-2-9:89

This certificate of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the Councils Directive of February 19<sup>th</sup> 1973 referring to electrical items for usage within specified voltage limits (72/23/EWG).

This certificate of conformity is the result of testing samples of the above listed products submitted, in accordance with the provisions of the relevant specific standards.

Date: February 1, 2003

Manufacturer



J. Renschke  
- Managing Director -  
HENSEL Studiotechnik GmbH & Co.KG

Weitere Produkte von HENSEL Studiotechnik  
Other products of HENSEL Studiotechnik

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Reflexschirme  
Umbrellas



Lichtwannen, Softboxen  
Autolights, Soft Boxes



PORTY  
akkubetriebener Generator  
Battery powered generator



Frontprojektion  
Frontprojection