



MECABLITZ 54 AF-1 C

Bedienungsanleitung
Gebruiksaanwijzing
Manuale istruzioni

Mode d'emploi
Operating instruction
Manual de instrucciones

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Guide number table for TTL and full light output M in the imperial system 112


Foreword

We congratulate you on purchasing this flash unit and thank you for your confidence in Metz products.

It is only natural that you should want to use your flash unit straight away. However, we recommend that you study these Operating Instructions beforehand to be able to fully exploit and utilize all the capabilities offered.

The mecablitz 54 AF-1C is compatible with analog and digital Canon AF cameras with TTL flash control or E-TTL flash control.

It cannot be used for cameras made by other manufacturers.

 Please also open the back cover page with the illustrations.

1. Safety instructions


- The flash unit is exclusively intended and approved for photographic use!
- Never fire a flash in the vicinity of flammable gases or liquids (petrol, solvents, etc.)! **DANGER OF EXPLOSION!**
- Never take flash shots of car, bus or train drivers, or of motorcycle and bicycle riders, whilst they are travelling. They could be blinded by the light and cause an accident!
- Never fire a flash in the immediate vicinity of the eyes! Flash fired directly in front of the eyes of a person or animal can damage the retina and lead to severe visual disorders - even blindness!
- Only use the approved power sources listed in the Operating Instructions!
- Do not expose batteries to excessive heat, sunshine, fire and the like!
- Never throw exhausted batteries on to a fire!
- Exhausted batteries should be immediately removed from the flash unit!

Lye leaking out of spent batteries will damage the unit.

- **Never recharge dry-cell batteries!**
- **Do not expose the flash unit or battery charger to dripping or splashing water!**
- **Protect the flash unit from excessive heat and humidity! Do not store the flash unit in the glove compartment of a car!**
- **Never place material that is impervious to light in front of, or directly on, the reflector screen. The reflector screen must be perfectly clean when a flash is fired. The high energy of the flash light will burn the material or damage the reflector screen if this is not observed.**
- **Do not touch the reflector screen after a series of flash shots. Danger of burns!**
- **Never disassemble the flashgun! DANGER: HIGH VOLTAGE! There are no components inside the flashgun that can be repaired by a layman.**
- **When taking a series of flash shots at full light output and fast recycling times as provided by NiCad battery operation, make sure to observe an interval of at least 10 minutes after 15 flashes, otherwise the flash unit will be overloaded.**
- **The flash unit may only be used in combination with a camera's flash unit if the latter can completely be folded out!**
- **Quick changes in temperature may cause condensation. Therefore give the flashgun time to acclimatize!**
- **Never use defective batteries!**

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Dedicated flash functions

 **Dedicated flash functions are flash functions that have been specifically adapted to a given camera system. The supported flash functions depend on the type of the camera used. It is impossible to describe in detail all camera types and their individual dedicated flash functions within the framework of these instructions. Therefore, please refer to the flash mode description in your camera's operating instructions to find out which functions are supported and which ones have to be set manually on the camera.**

- Flash readiness indication in the camera's viewfinder or display panel
- Automatic flash sync speed control
- TTL flash control ²⁾
- E-TTL flash mode ²⁾
- Automatic fill-in flash in daylight with TTL/E-TTL
- Manual flash exposure correction with TTL/E-TTL ²⁾
- Flash exposure storage FE with E-TTL ¹⁾
- 1st or 2nd curtain synchronisation (REAR) ²⁾
- FP high-speed synchronisation (HSS flash mode) ²⁾
- Motor-zoom control
- AF measuring beam control
- Maximum flash range indication
- Program flash mode / AUTO FLASH ¹⁾
- Wake-up function

Please note:

Without asterisk: Automatic function activation.

¹⁾ = Setting has to be made on the camera

²⁾ = Setting has to be made on the flash unit

2. Preparing the flash unit for use

2.1 Mounting the flash unit

2.1.1 Mounting the flash unit on the camera

 **Turn off the camera and the flash unit by their main switch!!**

- Turn the knurled nut against the housing of the flash unit until the stop point is reached. The locking pin in the adapter shoe is now fully retracted into the case.
- Slide the foot of the flash unit completely into the camera's accessory shoe.
- Turn the knurled nut against the camera body as far as possible, thereby clamping the flash unit. If the camera does not have a locking hole the spring-loaded locking pin retracts into the adapter case so that it does not damage the surface.

2.1.2 Removing the flash unit from the camera

 **Turn off the camera and the flash unit by their main switch!**

- Turn the knurled nut against the housing of the flash unit until the stop point is reached.
- Withdraw the flash unit from the camera's accessory shoe.

2.2 Power supply

2.2.1 Suitable batteries

The flash unit can be operated with any of the following batteries:

- 4 NiCad batteries, type IEC KR 15/51 (KR6, size AA). They permit very fast recycling and are economical in use because they are rechargeable.
- 4 nickel-metal-hydride batteries, type HR6 (size AA). They have a significantly higher capacity than NiCad batteries and are less harmful to the environment (no cadmium).
- 4 alkaline-manganese dry-cell batteries, type IEC LR6 (size AA). Maintenance-free power source for moderate power requirements.
- 4 lithium batteries, type IEC FR6 L91 (size AA). Maintenance-free high-capacity power source with a low self-discharge rate.

🔧 **Remove the batteries from the flash unit if it is not going to be used for an extended period of time.**

2.2.2 Replacing batteries (Fig. 1)

The batteries are exhausted if the recycling time (elapsing from the triggering of a full-power flash, e.g. in the M mode, to the moment the flash ready indicator lights up again) exceeds 60 seconds.

- Turn off the flash unit by its main switch.
- Slide the battery compartment cover in the direction of the arrow and fold open.
- Insert the batteries lengthwise in conformity with the indicated battery symbols and close the battery compartment cover.

🔧 **When loading batteries ensure correct polarity, as indicated by the symbols in the battery compartment. Mixed up battery poles may destroy the flash unit!**

Replace all batteries at a time and make sure that the batteries are of the same brand and type and have the same capacity!

Exhausted batteries must not be thrown in the dustbin! Help protect the environment and dispose of exhausted batteries at the appropriate collecting points.

2.3 Switching the flash unit on and off

The flash unit is switched on with the main switch on top of the battery compartment cover. In the upper „ON“ position, the flash unit is on.

To turn off the flash unit push the main switch down to its bottom position.

🔧 **If your flash unit is not going to be used for an extended period of time, we recommend to switch it off with the main switch and to remove the power sources (batteries).**

2.4 Auto-OFF for the flash unit (Fig. 2)

To save battery power and prevent inadvertent battery discharge, the flash unit is factory-set to automatically switch-over to standby mode (Auto-OFF), while flash readiness and the LC display are simultaneously switched off, approx. 3 minutes after:

- Switch-on
- Firing a flash
- Actuating the shutter release
- Switching off the camera's exposure metering system.

After automatic switch-off the last-used settings are retained and instantly available when the flash unit is switched on again. The flash unit is reactivated merely by depressing the „Mode“ or „Zoom“ key or by touching the shutter release (wake-up function).

🔧 **The flash unit should always be turned off by the main switch if it is not going to be used for an extended period!**

The Auto-OFF function can be deactivated whenever required:

Turning off the Auto-OFF function

- Turn on the flash unit by its main switch.
- Continue depressing the key combination „Select“ (= „Mode“ key + „Zoom“ key) until the LC display indicates „3m“ (= 3 minutes).
- Continue depressing the „Zoom“ key until „OFF“ flashes on the LC display.
- The setting becomes immediately effective. The LC display returns to normal display after approx. 5 sec.

Turning on the Auto-OFF function

- Turn on the flash unit by its main switch.
- Continue depressing the key combination „Select“ (= „Mode“ key + „Zoom“ key) until the LC display indicates „3m“ (= 3 minutes).
- Continue depressing the „Zoom“ key until „ON“ flashes on the LC display.
- The setting becomes immediately effective. The LC display returns to its normal state after approx. 5 sec.

3. Programmed Auto Flash Mode (Full Auto Mode)

In Programmed Auto Flash Mode the camera controls the aperture and shutter speed, as well as the flash unit, automatically so that optimal results are always assured in most photographic situations, including fill-in flash.


Settings on the camera

Set the camera for Green Full Auto Mode, program „P“ or Programmed Image Control Mode (landscape, portraiture, sport, etc.). Select the „AF“ auto-focus mode on the lens. Please refer to the camera's operating instructions for the setting procedure.

 **Use a tripod for the „Night Shots Program“ to avoid the danger of camera shake in connection with slow shutter speeds!**

Settings on the flash unit

Set the „TTL“ or „E-TTL“ mode on the flash unit (see 4.1).

 **Some cameras automatically switch the flash unit to the TTL mode or E-TTL mode when the Green Full Auto Mode or Programmed Image Control Mode is set!**

Having completed the above settings, problem-free flash photography can commence as soon as the flash unit indicates flash readiness (see 5.1).

AUTO Flash

On some cameras it is possible to automatically activate the flash unit (AUTO-Flash) in certain operating modes. The flash unit will then only fire a flash if the camera's internal metering system considers this to be necessary. For further details please refer to the camera's operating instructions.

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4. Operating modes of the flash unit

4.1 TTL flash mode (Fig. 3)


The TTL flash mode is a very simple way to achieve excellent flash shots. In this mode exposure readings are taken by a sensor built into the camera, which measures the light reaching the film through the camera lens. The electronic control circuit within the camera transmits a stop signal to the flash unit as soon as the film has been exposed by the correct amount of light, thereby instantly interrupting the flash. The advantage of this flash mode is that all factors influencing correct exposure of the film (filters, change of aperture and focal length with zoom lenses, extensions for close-ups, etc.) are automatically taken into account. You need not worry about the flash, the ca-

mera's electronic system automatically determines the correct amount of flash light required. For the maximum flash range please observe the distance given in the LC display of the flash unit (see 5.4). If flash exposure was correct, the LC display of the flash unit indicates „o.k.“ for about 3 sec. (see 4.3).

The TTL flash mode is supported by analog Canon AF cameras in all camera modes (e.g. Green Full Auto Mode, Program P, Aperture Priority Mode „Av“, Shutter Priority Mode „Tv“, Programmed Image Control Modes, Manual Mode „M“, etc.). Most digital Canon cameras, however, do not support the standard TTL flash mode. On such cameras, the E-TTL flash mode must be selected (see 4.1.1).

 **To test the TTL function a film must be loaded in the camera. When selecting the film please check whether limits regarding maximum film speed or ISO value (e.g. maximum ISO 1000) are applicable to the given camera when in TTL mode (refer to the camera's operating instructions)!**

Setting procedure for TTL mode

 **With some cameras the TTL mode is automatically activated on the flash unit when in the Green Full Auto Mode or Programmed Image Control Mode!**

- Turn on the flash unit by its main switch.
- Continue depressing the „Mode“ key until „TTL“ flashes on the LC display.
- The setting becomes immediately effective. The LC display returns to its normal state after approx. 5 sec.

Pronounced differences in contrast, e.g. a dark subject in snow, may make it necessary to correct the exposure settings (see 4.2).

4.1.1 E-TTL flash mode

E-TTL flash control is an advanced variant of “normal” TTL flash mode. It is supported by the digital and various analog Canon cameras. In E-TTL mode, a measuring preflash is fired right before the instant of exposure to establish

the reflecting characteristics of the subject. As a result of the weighted multi-zone reading taken by the camera's sensor a partial light output level is transmitted and set on the flash unit. The subject is then exposed by the subsequent main flash at the selected partial light output level. The measuring preflash does not contribute to the exposure of the subject.

- 👉 **To enable activation of the E-TTL flash mode on the flash unit, a complete data exchange must have taken place between the flash unit and the camera. For this purpose, the camera's shutter release must be held lightly depressed for a few seconds after the flash unit and camera have been switched on.**
- 👉 **Most digital cameras support the E-TTL flash mode only in the full auto mode (or AUTO), program "P", "Av", "Tv" and the programmed image control modes. Other flash modes such as normal TTL or manual M or MLo are not possible in these camera modes. The manual M or MLo flash mode is supported by the digital cameras only in the camera's manual mode "M". Please also refer to the camera's operating instructions.**
- 👉 **For system-inherent reasons no reflector attachments (such as diffusers, bouncers, colour filters, a.s.o.) can be used when the flash unit is in E-TTL mode with digital cameras, as this will result in faulty exposures!**

Setting procedure for the E-TTL mode

- 👉 **With some cameras the E-TTL mode is automatically activated on the flash unit when the green full auto mode or a programmed image control mode is selected.**

- Turn on the flash unit by its main switch.
- Continue depressing the "Mode" key until "E-TTL" flashes on the LC display.
- The setting becomes immediately effective. The LC display returns to its normal state after approx. 5 sec.

Pronounced differences in contrast such as a dark subject in snow make it necessary to correct the exposure setting (see 4.2).

4.1.2 Automatic TTL / E-TTL fill-in flash in daylight (Fig. 5 and 6)

Most camera models automatically activate the fill-in flash mode (see the camera's operating instructions) when in Green Full Auto Mode, program „P“ or Programmed Image Control Mode in daylight (see the camera's operating instructions).

Fill-in flash overcomes troublesome dense shadows and produces a more balanced exposure between subject and background with contre-jour shots. The camera's computer-controlled metering system sets the most suitable combination of shutter speed, working aperture and flash output. For this purpose, the flash unit is operated in the TTL or E-TTL flash mode.

- 👉 **Ensure that the contre-jour light source does not shine directly into the lens as this will mislead the camera's TTL metering system!**

In this instance there is no setting or display on the flash unit for TTL fill-in flash.

4.2 Manual TTL / E-TTL flash exposure correction

The TTL auto flash mode of most cameras is matched to a 25% degree of light reflection by the subject (average amount of light reflected by subjects shot with flash). Consequently, a dark background that absorbs a great deal of light, or a bright background that reflects a great deal of light, can result in under or over exposure, respectively.

To offset this effect a correction value can be set on some cameras to manually match the TTL or E-TTL flash exposure with the photographic situation. The extent of correction depends on the contrast prevailing between subject and background!

A dark subject in front of a bright background: Positive correction value.
Light subject in front of a dark background: Negative correction value.
Correction value settings can change the maximum flash range indicated on the LC display and match it to the given correction value (depends upon the camera model)!

Exposure correction by changing the lens diaphragm is not possible because the camera's automatic exposure system will automatically regard the changed diaphragm as the normal working aperture.

☞ **After the exposure do not forget to reset the TTL flash exposure correction back to the normal value on the camera!**

Setting the correction value

- Mount the flash unit on the camera.
- Switch on the flash unit and the camera.
- Touch the camera's shutter release lightly so that data can be exchanged between the flash unit and the camera.
- Continue depressing the "Select" key combination (= "Mode" key + "Zoom" key) until **EV** (exposure value = stop value) is indicated on the LC display. Alongside **EV**, the set correction value will flash on the display.
- While the displayed correction value is flashing a positive correction value can be set with the "Zoom" key, or a negative value with the "Mode" key.

The setting range for the correction value covers -3 to +3 f-stops in one-third stop increments.

The setting becomes immediately effective and after approx. 5 seconds the LC display is switched back to its normal state.

EV flashes alongside the aperture symbol on the LC display of the flash unit when a correction value has been set.

☞ **Various cameras offer the facility to set a manual correction value on the camera itself. With such cameras we recommend that the correction value be set either on the camera or the flash unit.**

Deleting manual TTL exposure correction on the flash unit

- Continue depressing the "Select" key combination (= "Mode" key + "Zoom" key) until **EV** is indicated on the LC display.
- Alongside **EV** the set correction value will flash on the display.
- While the correction value is flashing the "Zoom" or "Mode" keys permit to delete the correction value by setting it to **0.0**.

The setting becomes immediately effective and after approx. 5 seconds the LC display is switched back to its normal state.

Correction value setting on the camera

☞ **With various cameras (e.g. PowerShot G1, G2, G3 and Pro 90IS) the manual correction value for flash exposure must always be set on the camera. This setting is not possible or ineffective on the flash unit. Please refer to the corresponding explanations in the camera's operating instructions.**

4.3 Correct exposure indication (Fig. 4)

„o.k.“ correct exposure confirmation only appears on the LC display of the flash unit if the shot was correctly exposed in TTL or E-TTL flash mode!

Correct exposure is not indicated in M or MLo manual mode.

If, in TTL or E-TTL mode, „o.k.“ is not displayed after the exposure, then this means that the shot was underexposed. The shot will then have to be repeated with the next smaller f-number (e.g. f/8 instead of f/11) or the flash-to-subject distance or reflecting surface must be reduced (e.g. with bounce flash). Please note the maximum flash range indicated on the LC display of the flash unit (see 5.4.1).

☞ **Correct exposure is not indicated in the camera's viewfinder!**

4.4 Manual flash mode

☞ **Some cameras automatically change the flash unit to TTL or E-TTL flash mode when in „Green Full Auto Mode“ or in one of the „programmed image control modes“. Manual flash mode is then no longer possible. There is no correct exposure confirmation on the LC display of the flash unit when in manual flash mode!**

Set „Av“ aperture priority or the „M“ or „X“ manual modes on the camera. Select the aperture and shutter speed (with „M“) on the camera according to the given photographic situation (see the camera's operating instructions).

4.4.1 Manual flash mode M with full light output


In this mode the flash unit always fires uncontrolled flashes at full light output. Adaptation to the given photographic situation is only by adjusting the aperture setting on the camera accordingly. The LC display of the flash unit will indicate the flash-to-subject distance that has to be maintained for a correct exposure (see also 5.4.2).

Setting procedure for the manual flash mode M

- Turn on the flash unit by its main switch.
- Continue depressing the „Mode“ key until „M“ flashes on the LC display.
- The setting becomes immediately effective. The LC display is returned to its normal state after approx. 5 sec.

4.4.2 MLo manual flash mode with partial light output levels


In this mode the flash unit always fires an uncontrolled flash at a manually set partial light output level (Low). Adaptation to the prevailing photographic situation is by selecting an appropriate partial output level or by setting a corresponding aperture on the camera. The LC display panel of the flash unit will indicate the distance required for correct flash exposure (also see 5.4.2).

 **With “MLo HSS” high-speed synchronisation the flash unit always operates with the partial light output level P 1/8. Other manual partial light output levels cannot be set (see 4.6.4).**

Setting procedure for the manual flash mode MLo:

- Turn on the flash unit with the main switch.
- Continue depressing the “Mode” key until “M” flashes on the LC display.
- Continue depressing the “Select” key combination (= “Mode” key + “Zoom” key) until **P** appears on the LC display.
- Alongside **P**, the set partial light output value flashes.
- The partial light output level can be diminished with the “Mode” key, or increased with the “Zoom” key, while the manual partial light output value is flashing. In this manner, you can set partial light output values of P 1/8 , P 1/4, P 1/2 and P 1/1 (maximum output).

- The setting immediately becomes effective. After approx. 5 sec. the LC display returns to its normal state. When the partial light output level has been set , **MLo** is displayed on the LC panel but the set light output value is not indicated. The indicated distance is adapted to the partial light output level. Depress the “Select” key combination (= “Mode” key + “Zoom” key) to display the partial light output value. The set partial light output level is saved when the flash unit is switched off.

 **Changing the flash mode, e.g. to TTL or E-TTL, resets the manual light output level to P 1/1 (maximum light output).**

4.5 Flash techniques

4.5.1 Bounce flash

Photos shot with full frontal flash are easily recognized by their harsh, dense shadows. This is often associated with a sharp drop in light from the foreground to the background. This phenomenon can be avoided with bounce flash because the diffused light will produce a soft and uniform rendition of both the subject and the background. For this situation the reflector is turned in such a manner that the flash is bounced off a suitable reflective surface (e.g. ceiling or wall of the room).

The reflector can be turned vertical up to 90°. Press the pushbutton to unlock and turn the reflector head downward.

When turning the reflector vertically, it is essential to ensure that it is moved by a sufficiently wide angle so that direct light can no longer fall on the subject. Consequently, always turn the reflector at least to the 60° lock-in position. The distance readings on the LC display will disappear. The flash-to-subject distance via the ceiling or wall is an unknown magnitude.

The light bounced off the reflecting surfaces produces a soft and uniform illumination of the subject. The reflecting surface must be white or have a neutral colour, and it must not be structured (e.g. wooden beams in a ceiling) as these might cause shadows. For colour effects just select the reflective surface in the desired colour.

☞ **Take into account that the maximum flash range is considerably diminished when bouncing the flash. The following rule of thumb will help you determine the maximum flash range for a room of normal height:**

$$\text{Max. flash range} = \frac{\text{guide number}}{\text{flash-to-subject distance} \times 2}$$

4.5.2 Close-ups / Macrophotography

The flash reflector can be swivelled down by an angle of -7° to compensate for parallax error. For this purpose depress the unlocking button of the reflector and swivel down the reflector.

For close-ups it is necessary to ensure that certain minimum lighting distances are maintained to avoid overexposure.

☞ **The minimum lighting distance is approx. 10 per cent of the maximum flash range indicated on the LC display. Since the maximum flash range is not indicated on the LC display when the reflector is swivelled down, then be guided by the maximum flash range indicated by the flash unit when the reflector is in its normal position!**

GB 4.6 Flash synchronisation

4.6.1 Normal synchronisation (Fig. 7)

In normal synchronisation the flash unit is triggered at the beginning of the shutter time (1st curtain synchronisation). Normal synchronisation is the standard mode on all cameras, and is suitable for most flash shots. Depending upon the given mode, the camera is changed over to the camera's sync speed, the customary ones being between 1/30th sec. and 1/125th sec. (see the camera's operating instructions). No settings have to be made on the flash unit, nor is there any display for this mode.

4.6.2 REAR - Second-curtain synchronisation (Fig. 8)

Some cameras offer the facility of second-curtain synchronisation (REAR mode) triggering the flash unit by the end of the exposure time. Second-curtain synchronisation is particularly advantageous when using slow shutter speeds (slower than 1/30 s) or when shooting moving objects that have their own source of light. Second-curtain synchronisation gives a more realistic

impression of movement because the light streaks behind the light source instead of building up in front of it, as is the case when the flash is synchronised with the 1st shutter curtain! Depending on its operating mode, the camera uses shutter speeds slower than its sync speed.

☞ **The REAR function can only be used if the flash unit is mounted on a camera that supports this function. The camera must be switched on to select and set this function. The camera's shutter release must be briefly touched so that the corresponding data can be exchanged at least once between the camera and the flash unit. On some cameras the REAR function is not possible in certain operating modes (e.g. Green Full Auto Mode or Programmed Image Control Mode) so that it cannot be selected. It will then be automatically deleted. Please also refer to the camera's instruction manual.**

☞ **The REAR function can neither be selected nor adjusted on the flash unit if FP high-speed synchronisation (HSS) is activated. To be able to select the REAR function you must deactivate the high-speed synchronisation (see 4.6.4).**

Switching on the REAR mode

- Continue depressing the „Select“ key combination (= „Mode“ key + „Zoom“ key) until „REAR“ appears on the LC display.
- Continue depressing the „Zoom“ key until „ON“ flashes on the LC display.
- The setting becomes immediately effective. The LC display is returned its normal state after approx. 5 sec.

The „REAR“ symbol for 2nd curtain synchronisation continues to be indicated on the LC display of the flash unit after it has been set.

☞ **Always use a tripod to avoid camera shake with slow shutter speeds! Do not forget to switch off this function after exposure, otherwise unintended slow shutter speeds will continue to be used for „normal“ flash shots.**

Switching off the REAR mode

- Continue depressing the „Select“ key combination (= „Mode“ key + „Zoom“ key) until „REAR“ appears on the LC display.

- Continue depressing the „Zoom“ key until „OFF“ flashes on the LC display.
- The setting becomes immediately effective. The LC display is returned to its normal state after approx. 5 sec.

The „REAR“ symbol for 2nd curtain synchronisation is no longer indicated by the display of the flash unit. The flash unit is then once again synchronised with the first curtain (normal synchronisation).

4.6.3 Slow synchronisation / SLOW

Various cameras feature slow flash synchronisation in certain modes. This setting will give added prominence to the background at lower ambient light levels. This is achieved by matching the shutter speed to the ambient light. Accordingly, shutter speeds that are slower than the flash sync speed are automatically adjusted by the camera. Some cameras automatically activate SLOW synchronisation in connection with certain camera programs (e.g. „Av“ aperture priority, night shots program, etc.). No settings are made on the flash unit nor is there any display for this mode.

 **Use a tripod to avoid camera shake with slow shutter speeds!**




4.6.4 FP high-speed synchronisation

Various cameras (see camera's operating instructions) support FP high-speed synchronisation (FP = focal-plane shutter). This flash mode permits flash shots to be taken also at shutter speeds faster than the flash sync speed which is particularly expedient for portraiture in very bright ambient light when the depth-of-field is to be limited by a wide aperture opening (e.g. f/2).

The possibility of FP high-speed synchronisation is indicated by the abbreviation HSS (HSS = high-speed synchronisation) on the LC display of the flash unit.

HSS can be additionally activated in E-TTL flash mode and the M or MLo manual flash mode of the flash unit. Due to physical reasons, however, this HSS flash mode significantly reduces the guide number and the maximum flash range of the flash unit. It is therefore essential to observe the maximum flash range indicated on the LC display and to refer to the operating instructions and technical data of the flash unit. The HSS flash mode is carried out

when a shutter speed faster than the camera's sync speed has been set manually on the camera or automatically by the camera's exposure programme. Various cameras display an additional symbol for HSS flash mode in the viewfinder (e.g. "H"). Please refer to the camera's operating instructions for further details.

-  **HSS flash control should only be used when really required. Do not forget to cancel this mode after exposure because, otherwise, you will unnecessarily diminish the guide number and thereby lose maximum flash range!**
-  **To enable activation of the E-TTL flash mode on the flash unit, a complete data exchange must have taken place between the flash unit and the camera. For this purpose, the camera's shutter release must be held lightly depressed for a few seconds after the flash unit and camera have been switched on.**
-  **For system-inherent reasons the high-speed synchronisation (HSS flash mode) does not permit any reflector attachments (such as diffusers, bouncers, colour filters, a.s.o.) to be used, as this will result in faulty exposures!**

E-TTL HSS flash control

Setting procedure

- Turn on the flash unit by its main switch.
- Continue pressing the "Mode" key until "E-TTL" and "HSS" flash on the LC display.
- The setting becomes immediately effective. The LC display automatically returns to its normal state after approx. 5 seconds.

Manual HSS flash control

Setting procedure

- Turn on the flash unit by its main switch.
- Continue pressing the "Mode" key until "M" and "HSS" or "MLo" and "HSS" flash on the LC display.
The flash unit operates with a manual partial light output level of P 1/8 when the LC display indicates "MLo HSS". Other manual partial light output levels cannot be set when in HSS flash mode.

- The setting becomes immediately effective. The LC display automatically returns to its normal state after approx. 5 seconds.

Deactivate HSS flash control

- Turn on the flash unit by its main switch.
- Continue pressing the “Mode” key until “E-TTL” or “M”/“MLo” flash without “HSS” on the LC display.
- The setting becomes immediately effective. The LC display automatically returns to its normal state after approx. 5 seconds.

4.7 FE flash exposure storage

Some Canon cameras offer the possibility of FE flash exposure storage (FE = flash exposure). This mode is supported in E-TTL flash mode.


FE flash exposure storage in E-TTL mode permits the amount of light required for the subsequent shot to be determined and stored prior to exposure. This can be expedient when flash exposure has to be adapted to specific details that may not necessarily be identical with the main subject.

Set the flash unit to E-TTL flash mode (see 4.1.1). Focus the camera’s AF sensor metering area on the zone whose flash exposure is to be predetermined. When the FE button on the camera is actuated the flash unit will fire an FE test flash (the designation FE may vary with individual camera models - please refer to the operating instructions for the given camera). The electronic measuring circuit inside the camera assesses the light reflected from the FE test flash to determine the light output required for the subsequent exposure. The main subject can thereafter be focused with the AF sensor metering area of the camera. When the shutter release is pressed the picture will be exposed with the previously determined light output.

- 🗨 **Due to system-inherent reasons any changes in the light situation after the FE test flash has been fired will not be taken into account when the picture is shot.**
Some cameras do not support FE flash exposure storage in the “green” full auto mode and programmed image control modes (see camera’s operating instructions).

5. Flash unit and camera functions

5.1 Flash readiness indication

The flash readiness symbol  lights up on the flash unit when the flash capacitor is charged, thereby indicating that flashes can be fired for the next shot. Flash readiness is also transmitted to the camera for corresponding display in the viewfinder (see 5.3).

If a picture is shot before flash readiness is signalled in the camera’s viewfinder, then the flash unit will not be triggered so that the exposure may be incorrect if the camera has changed over to flash sync speed in the meantime (see 5.2).

5.2 Automatic flash sync speed control

Depending upon the camera model and camera mode, the shutter speed is changed to camera sync speed when flash readiness is reached (see camera’s operating instructions). Shutter speeds faster than the camera sync speed cannot be adjusted or they are automatically changed to the camera’s sync speed. Various cameras have a sync speed range, e.g. 1/30th sec. to 1/125th sec. (see the camera’s operating instructions). The actual sync speed set by the camera depends upon the camera mode, the ambient light and the focal length of the lens used.

Shutter speeds slower than the flash sync speed can be set, depending upon the given camera model and the selected flash synchronisation (see also 4.6.2 and 4.6.3).

- 🗨 **Some digital cameras, e.g. PowerShot Pro 90 IS, G1 and G2, do not provide automatic flash sync speed control. These cameras permit the use of all shutter speeds. If the full light output of the flash unit is required, then do not set a shutter speed faster than 1/125 sec.**
- 🗨 **When in FP high speed synchronisation mode (HSS mode) some cameras allow shutter speeds faster than the camera’s flash sync speed (see 4.6.4).**

5.3 Displays in the camera's viewfinder

Flashing flash symbol:

Use or switch on the flash unit (on some cameras)!

Illuminated flash symbol:


The flash unit is ready for use (on some cameras).

Some cameras feature a faulty-exposure warning function in the viewfinder: Accordingly, the stop value, the shutter speed or both displays, will flash in the viewfinder to indicate over- or underexposure.

Fundamentals in connection with faulty exposures:

- With overexposure: Do not flash!
- With underexposure: Switch on the flash unit or use a tripod and set a slower shutter speed.


There can be various reasons for faulty exposures in the different exposure and automatic programs.


 **Refer to the operating instructions to establish whatever is applicable to the displays in the viewfinder for the given camera model.**

5.4 Information in the LC display

Canon EOS cameras transmit the ISO film speed, focal length (mm), f-stop and exposure correction to the flash unit so that the flash unit automatically adapts its settings accordingly. The maximum flash range is then calculated from these values and the flash unit's guide number. Flash mode, maximum flash range, aperture and the zoom reflector position are all indicated by the LC display of the flash unit.

If the flash unit operates without having received data from the camera (e.g. when the camera is switched off), then only the selected flash mode, the reflector position and „M.Zoom“ are indicated. Aperture and maximum flash range are only displayed if the camera transmits the corresponding data to the flash unit.

 **Some cameras suppress the maximum flash range indication on the LC display in the event of high ISO values (e.g. ISO 6400) or flash exposure corrections.**

 **Various cameras (e.g. PowerShot G1) do not transfer any f-stops to the flash unit. In such an event the LC display of the flash unit will not indicate f-numbers or maximum flash ranges. This, however, is irrelevant for correct operation of the TTL or E-TTL flash mode.**

5.4.1 Maximum flash range indication in TTL flash mode

The LC display of the flash unit indicates the maximum flash range. The indicated value relates to a factor of 25% of light reflection by the subject, which applies to most photographic situations. Pronounced deviations from this reflection factor, e.g. highly reflective or poorly reflecting objects, can influence the maximum flash range of the flash unit.

Always observe the maximum flash range indicated by the LC display of the flash unit. The subject should be within approx. 40% and 70% of the indicated value. This gives the electronic circuit sufficient scope for compensation. To avoid overexposure, the minimum flash-to-subject distance should not be less than 10% of the indicated value. Adaptation to the given photographic situation is possible by changing the aperture setting on the lens.

Example:

The display indicates a distance of 6.2 m.

Ideally, the subject should be located within a distance range of approx. 2.5 m and 4.3 m.

5.4.2 Maximum flash range indication in the manual flash modes M and MLo

The LC display of the flash unit indicates the distance to be maintained for correct exposure of the subject. Adaptation to the given photographic situation is achieved by changing the aperture setting on the lens and selecting either „M“ for full light output or „MLo“ for partial light output (see 4.4).

5.4.3 Exceeding the display range

The flash unit can indicate a maximum range of 199 m or 199 ft. This display range can be exceeded in the event of high ISO values (e.g. ISO 6400) and large aperture openings. An arrow or triangle after the distance value indicates that the display range has been exceeded.

5.4.4 Blanking out the maximum flash range display

The LC display of the flash unit does not indicate any distances when the reflector head is swivelled up or down out of its normal position!

5.4.5 Meter-Feet changeover (m - ft)

The maximum flash range indicated by the LC display of the flash unit can be either in meter (m) or feet (ft). To change between the two, proceed in the following manner:

- Turn off the flash unit by its main switch.
- Keep the „Select“ key combination depressed (= „Mode“ key + „Zoom“ key).
- Turn on the flash unit by its main switch.
- Release the „Select“ key combination (= „Mode“ key + „Zoom“ key).
- The flash range indication changes from m to ft or from ft to m.

5.5 LC display illumination

Keep the „Mode“ or „Zoom“ key depressed for approx. 10 sec. to activate the LC display illumination of the flash unit. The LC display illumination is switched off when a flash is triggered.

ⓘ The settings on the flash unit are not changed when the above keys are pressed for the first time!

If the shot was correctly exposed in TTL flash mode, then the LC display illumination will be activated during „o.k.“ display (see 4.3).

5.6 Motor zoom reflector

The reflector's illumination angle equals the coverage of a lens of 24 mm focal length (35 mm format).

5.6.1 „Auto-Zoom“

If the flash unit is operated with a camera that transmits the focal length data to the flash unit, then the zoom reflector position will be automatically adapted to the focal length of the lens. When the flash unit is turned on, the LC display will indicate „Auto Zoom“ and the current reflector position.

Automatic reflector adaptation commences with lenses of 24 mm focal length. If a focal length shorter than 24 mm is used, then the „24“ mm indicated on the LC display will start to flash as an indication that the flash unit cannot fully illuminate the shot right out to the image corners.

ⓘ A wide-angle diffuser (optional extra, see section 7) can be used for lenses as of 20 mm focal length and longer.

5.6.2 Manual zoom mode „M.Zoom“

The position of the zoom reflector can also be manually changed, for instance to achieve specific lighting effects (e.g. hot-spot, etc.). Repeated depression of the „Zoom“ key on the flash unit will successively select the following reflector positions: 24 mm - 28mm - 35mm - 50mm - 70mm - 85mm - 105mm.

The LC display of the flash unit indicates „M.Zoom“ for manual zoom setting and the current zoom position (mm). The setting becomes instantly effective. The display is switched back to its normal state after approx. 5 sec.

ⓘ If manual adjustment of the zoom reflector results in a setting in which the shot will not be fully illuminated right out to the image corners, then the reflector position indicated on the display of the flash unit will start to flash as a warning.

Example 1:

- You are using a lens focal length of 50 mm.
- A reflector position of 70 mm has been manually adjusted on the flash unit („M.Zoom“ is displayed).
- „70 mm“ for zoom position will start to flash on the LC display of the flash unit because the shot will not be fully illuminated right out to the image corners.

Example 2 :

- You are using a lens focal length of 50 mm.
- A reflector position of 35 mm has been manually adjusted on the flash unit („M.Zoom“ is displayed).
- „35 mm“ for zoom position will start to flash on the LC display of the flash unit because the shot will not be fully illuminated right out to the image corners.

Returning to „Auto-Zoom“

There are various ways to return to „Auto Zoom“:

- Continue pressing the „Zoom“ key on the flash unit until „Auto Zoom“ appears on the display. The setting becomes instantly effective. The LC display is switched back to its normal state after approx. 5 sec.

Or:

- Briefly turn off the flash unit by its main switch. When the flash unit is turned on again the display of the flash unit will indicate „Auto Zoom“.

5.6.3 Extended zoom mode

The extended zoom mode (Ex) reduces the focal length setting of the flash unit by one step compared with the focal length of the camera's lens! The resulting wider light coverage inside rooms provides additional stray light (reflections) to achieve softer flash illumination.

Example of extended zoom mode:

The focal length set on the camera lens is 35mm. The extended zoom mode sets a 28mm reflector position on the flash unit even though 35mm continues to be indicated on the LC display!

The extended zoom mode is only possible in the „Auto Zoom“ mode with a focal length setting of 28 mm and longer. Since the start position of the zoom reflector is 24 mm, a focal length of less than 28 mm will cause „24“ mm for to flash on the LC display, thereby warning the user that the required reflector position for extended zoom mode cannot be set.

🔍 Shots with a 24 mm focal length of the lens will be correctly illuminated right out to the image corners by the flash unit also in extended zoom mode!

Turning on the extended zoom mode

- Continue depressing the „Select“ key combination (= „Mode“ key + „Zoom“ key) until „Ex“ appears on the LC display.
- Continue depressing the „Zoom“ key until „ON“ flashes on the LC display.
- The setting becomes instantly effective. The LC display is switched back to its normal state after approx. 5 sec.

After the setting procedure, the „Ex“ symbol for extended zoom mode will continue to be indicated on the LC display of the flash unit!

🔍 Please note that the wider illumination coverage in extended zoom mode results in a diminished maximum flash range!

Turning off the extended zoom mode

- Continue depressing the „Select“ key combination (= „Mode“ key + „Zoom“ key) until „Ex“ appears on the LC display.
- Continue depressing the „Zoom“ key until „OFF“ flashes on the LC display.
- The setting becomes instantly effective. The LC display is switched back to its normal state after approx. 5 sec.

After storage in the memory, the „Ex“ symbol for extended zoom mode will no longer be indicated on the LC display of the flash unit.

5.7 AF measuring beam

The AF measuring beam is activated by the camera electronics when the ambient lighting conditions are insufficient for automatic focusing. The AF beam projects a striped pattern on to the subject, and the camera uses this pattern to focus automatically. The AF beam has a range of approx. 6 m to 9 m (with a 50 mm/f/1.7 standard lens). Parallax error between lens and AF red light emitter limits the close-up range of the AF measuring beam to approx. 0.7 m - 1 m.

🔍 The camera lens must be switched to AF so that the AF measuring beam can be activated by the camera. The AF mode „Single AF“ or „ONE-SHOT AF“ must be set on the camera (see the camera's operating instructions). Zoom lenses with a lower initial aperture can significantly reduce the range of the AF measuring beam!

The striped pattern of the AF measuring beam only supports the camera's central AF sensor. Consequently, for the cameras EOS 1N, 1V, 3, 300, 50, 50E, 500N, IX and IX7, only the camera's middle AF metering area should be activated (see the camera's operating instructions).

If a decentral AF sensor is manually selected by the photographer, or automatically by the camera, then the emitter of the AF measuring beam of the flash unit will not be activated. In such instances some cameras will use the AF illuminator integrated in the camera (see the camera's operating instructions).

On some cameras only the AF illuminator integrated in the camera is activated when the need arises. These include EOS 500, 5, 10, 10S, 5000, REBEL X, REBEL XS, A2, A2E, 888, PowerShot Pro 70, 90IS, G1, G2, G3. In such instances the AF red-light emitter in the flash unit will not be activated. Please refer to the corresponding details in the camera's operating instructions.


5.8 Modelling light

The modelling light is a sequence of stroboscopic flashes at high frequency that creates the impression of quasi permanent light for the duration of approx. 2 seconds. This modelling light enables the user to assess light distribution and the formation of shadows before taking pictures.

Activating the modelling light function

- Continue depressing the "Select" key combination (= "Mode" key + "Zoom" key) until the readiness indicator flashes rapidly on the flash unit (approx. 4 times per second).
- Press the "Mode" or "Zoom" key a number of times until "ON" flashes on the LC display.
- The setting becomes immediately effective. The LC display is reset to its normal state after approx. 5 seconds.
- Thereafter, the flash unit's readiness indicator will flash approx. once a second to confirm that the modelling light function has been activated.

The modelling light is triggered by pressing the manual firing button on the flash unit.

 **Triggering the modelling light of slave flash units in the cordless Metz Remote System is not possible.**

Deactivating the modelling light function

- Continue depressing the "Select" key combination ("Mode" key + "Zoom" key) until the readiness indicator flashes rapidly on the flash unit (approx. 4 times per second).
- Press the "Mode" or "Zoom" key a number of times until "OFF" flashes on the LC display.

- The setting becomes immediately effective. The LC display is reset to its normal state after approx. 5 seconds.
- The readiness indicator on the flash unit then lights permanently to confirm that the modelling light function is not activated.

Press the flash unit's manual firing button to fire a test flash.

5.9 Return to basic setting

The flash unit is returned to its basic setting when the „Mode“ key is kept depressed for at least three seconds.

The following settings are cancelled:

- Manual flash mode „M“ or „MLo“
- Extended zoom mode „Ex“
- Manual zoom mode „M.Zoom“
- Second curtain synchronisation „REAR“
- Deactivated switch-off „Auto-off“ (3m OFF)
- The modelling light function is switched off.

The following settings are adjusted:

- The „E-TTL“ or „TTL“ flash mode
- The „Auto-OFF“ (3m ON) function is activated
- The automatic zoom mode „Auto-Zoom“

6. Special remarks concerning the cameras

The multitude of camera models and their peculiarities make it impossible to detail all camera-specific capabilities, settings, displays, etc. For more details concerning the operation of a flash unit please refer to the corresponding chapters in the operating instructions for the given camera!

6.1 Special functions that are not supported in flash mode

6.1.1 DEP mode

The DEP mode (automatic depth of field) is not possible when the flash unit is switched on. When a flash unit is connected, exposure will be as in the programmed auto mode.

6.1.2 Soft focusing (SF)

In the soft focusing function the flash unit is only triggered for the first shot. A soft focusing effect may therefore not be achieved!


6.1.3 Program shift

A program shift (paired shutter/aperture setting) cannot be carried out in the programmed auto mode when the flash unit is switched on.

 *For details please refer to the camera's operating instructions.*

7. Optional extras

 *No guarantee is given for malfunctions and damage to the flash unit caused by the use of accessories from other manufacturers!*

 *Please refer to chapters 4.1.1 and 4.6.4 for the use of reflector attachments.*

• 24mm wide-angle diffuser

(Item No. 000044217)

For full illumination in conjunction with lenses of 24 mm and up. The range is reduced by the factor 1.4 due to the corresponding loss of light.

• Colour filter set 44-32

(Item No. 00004432A)

Consists of 4 colour filters to achieve special lighting effects, plus a clear filter to hold colour foils in any colour.

• Mecabounce 44-90

(Item No. 000044900)

A diffuser to achieve soft illumination in the simplest possible manner. The effect is very impressive because the pictures are given a very soft atmosphere. Facial colours are rendered more naturally. However, loss of light halves the maximum flash range.

• Bounce diffuser 54-23

(Item No. 000054236)

The soft directed light diminishes dense shadows.

8. Advice in the event of a fault

Should the LC display indicate meaningless information or should the flash unit not work properly in the individual modes, then switch off the flash unit for about 10 seconds by its main switch. Check the camera settings and find out if the flash unit's foot is correctly mounted in the camera's accessory shoe. The flash unit must operate properly when it is switched on again. Contact your local dealer should this not be the case.

9. Maintenance and care

Remove any grime and dust with a soft, dry or silicon-treated cloth. Never use detergents that could damage plastic parts.

Forming the flash capacitor

The flash capacitor incorporated in the flash unit undergoes a physical change when the flash unit is not switched on for prolonged periods of time. For this reason it is necessary to switch on the flash unit for approx. 10 minutes every 3 months (see 2.4!). The batteries must supply sufficient power for flash readiness to be indicated within 1 minute after the flash unit was switched on.

10. Technical data

Maximal guide number at ISO 100/21°, 105 mm zoom:

In the metric system: 54; In the imperial system: 177

Flash durations:

Approx. 1/200th to 1/20,000th sec. (in TTL mode)

In M mode approx. 1/200th sec. at full light output

At 1/2 light output approx. 1/600 second

At 1/4 light output approx. 1/1500 second

At 1/8 light output approx. 1/5000 second

Colour temperature:

approx. 5600 K

Film speed:

ISO 6 to ISO 6400

Synchronisation:

Low-voltage ignition

Number of flashes:

approx. 60 with NiCad batteries (600 mAh)

approx. 100 with NiMH batteries (1200 mAh)

approx. 180 with high-capacity alkaline manganese batteries

approx. 240 with lithium batteries

(at full light output)

Recycling time:

approx. 6s with NiCad batteries

approx. 7s with NiMH batteries

approx. 7s with high-capacity alkaline manganese batteries

approx. 7s with lithium batteries

(at full light output)

Swivelling range and locking positions of flash head

Upwards / downwards: 60°, 75°, 90° / -7°

Dimensions approx. in mm:

75 x 125 x 108 (WxHxD)

Weight:

Flash unit with power sources: approx. 430g

Included:

Flash unit, Operating Instructions

Errors excepted. Subject to changes!

Disposal of batteries

Do not dispose of spent batteries with domestic rubbish.

Please return spent batteries to collecting points should they exist in your country!

Please return only fully discharged batteries.

Normally, batteries are fully discharged if:

- The device they powered switches itself off and indicates "Spent Batteries".
- They no longer function properly after prolonged use.

To ensure short-circuit safety please cover the battery poles with adhesive tape.

ISO	Zoom						
	24	28	35	50	70	85	105
6/9°	7	7,5	8,5	10	11	11	13
8/10°	8	9	9,5	11	12	12	15
10/11°	9	9,5	10	12	13	14	17
12/12°	10	10,5	12	14	15	16	19
16/13°	11	12	13	15	17	18	21
20/14°	12	13	15	17	19	20	24
25/15°	14	15	17	20	22	23	27
32/16°	15	17	19	22	24	25	30
40/17°	17	19	21	25	27	28	33
50/18°	19	21	24	28	31	32	38
64/19°	22	24	27	31	34	36	42
80/20°	25	27	30	35	39	41	48
100/21°	28	31	34	40	44	46	54
125/22°	31	34	38	44	49	51	60
160/23°	35	39	43	50	55	57	68
200/24°	39	43	48	56	62	64	76
250/25°	44	49	54	63	69	73	85
320/26°	50	55	60	71	78	81	96
400/27°	56	62	68	80	88	92	108
500/28°	63	69	76	89	98	103	120
650/29°	70	78	86	100	110	115	136
800/30°	79	87	96	113	124	130	152
1000/31°	89	98	108	126	139	145	171
1250/32°	100	110	121	142	156	165	192
1600/33°	112	124	136	160	176	184	216
2000/34°	126	139	153	179	197	206	242
2500/35°	141	156	172	200	220	230	272
3200/36°	159	175	193	226	248	260	304
4000/37°	178	196	216	254	278	292	342
5000/38°	200	220	242	284	312	326	384
6400/39°	224	248	272	320	352	368	432

Leitzahlentabelle für TTL und volle Lichtleistung M im Meter-System

Leitzahl (ft) = Leitzahl (m) x 3,3

(gilt nicht für FP-Kurzzeitsynchronisation bzw. HSS mit mecablitz 54 AF-1C)

Tableau des nombres-guides pour TTL et pleine puissance M en mètres

nombre-guide (ft) = nombre-guide (m) x 3,3

(ne s'applique pas à la synchronisation haute vitesse ou HSS avec le 54 AF-1C)

Richtgetallentabel voor TTL en vol vermogen M in het metersysteem

Richtgetal (ft) = Richtgetal (m) x 3,3

(geldt niet voor FP-synchron. bij korte belichtingstijden, c.q. HSS met de 54 AF-1C)

Guide number table for TTL and full light output M in the imperial system

Guide number (ft) = Guide number (m) x 3.3

(does not apply to FP high-speed synchron. or HSS synchron. with 54 AF-1C)

Tabella numeri guida per TTL e potenza piena M in metri

Numeri guida (ft) = Numeri guida (m) x 3,3

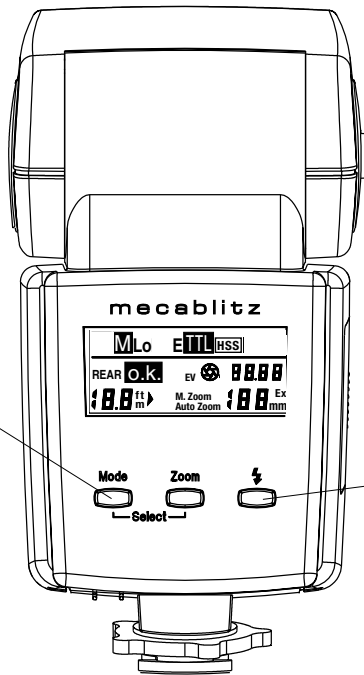
(non vale per la sincronizzazione ad alta velocità FP o HSS con 54 AF-1C)

Tabla de números guía para TTL y plena potencia de luz M en el sistema de pies

Números guía (ft) = Números guía (m) x 3,3

(no válido para sincronización de velocidad ráp. FP o HSS con mecablitz 54 AF-1C)

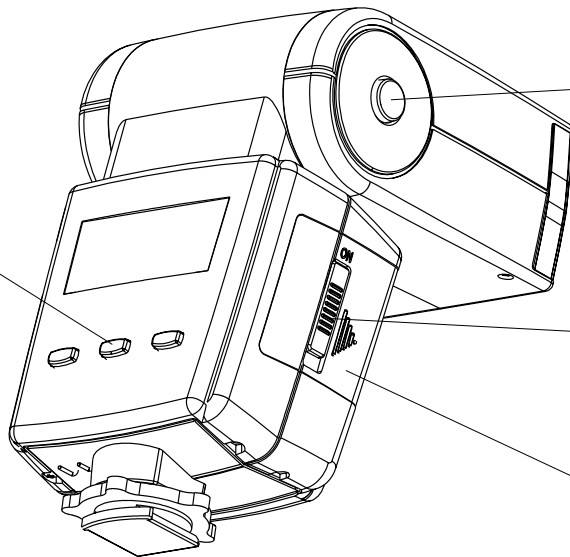
Betriebsartenwahl
Sélecteur de mode
Funcieschakelaar
Mode selector
Selettore del modo
di funzionamento
Selección de modos
de funcionamiento



Handauslösetaste und Blitzbereitschaftsanzeige
Bouton d'essai et témoin de recyclage
Ontspanknop voor handbediening en flitsapparaat-aanduiding
Manual firing button and flash-ready indicator
Pulsante test (emissione manuale del lampo) e indicazione di "pronto lampo"
Tecla de disparo manual e indicación de disposición de disparo

Zoom

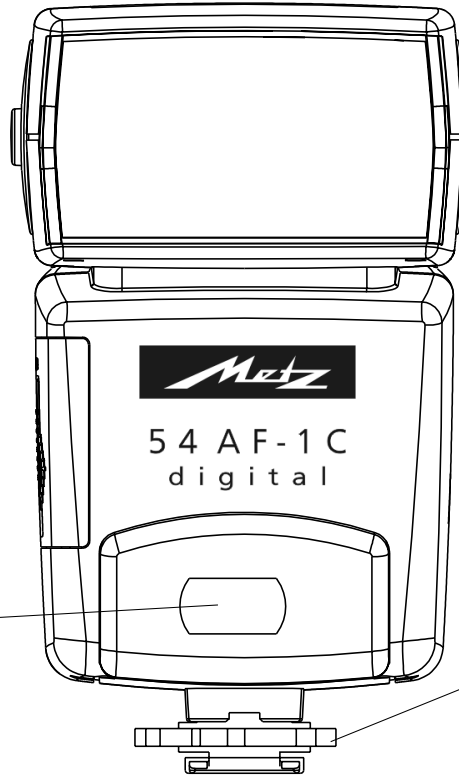
Displaybeleuchtung
Eclairage de l'écran
Diaplayverlichting
Display lighting
Tasto di illuminazione del display
Iluminación de display



Entriegelungsknopf Hauptreflektor
Bouton de déverrouillage pour réflecteur
Ontgrendelingsknop Hoofdreflector
Unlocking button for the main reflector
Pulsante di sblocco della parabola principale
Botón de desbloqueo del reflector principal

Hauptschalter
Interruteur général
Hoofdschakelaar
Main switch
Interruttore principale
Interruptor principal

Batteriefachdeckel
Couvercle du compartiment des piles
Deksel batterijvak
Battery compartment lid
Coperchio del vano batteria
Tapa del compartimento de pilas



AF-Messblitz
Illuminateur AF
AF-meeflits
AF measuring beam
Illuminatore di assistenza AF
Destello de medición AF

Rändelmutter
Écrou moleté
Kartelmoer
Knurled nut
Dato zigrinato
Tuerca moleteada

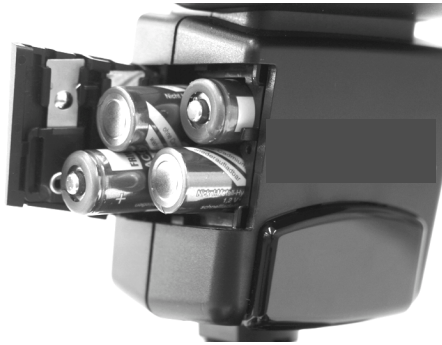


Bild 1 / Fig. 1 / Afb. 1 / Grab. 1

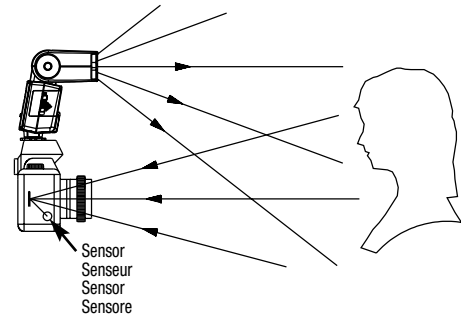


Bild 3 / Fig. 3 / Afb. 3 / Grab. 3

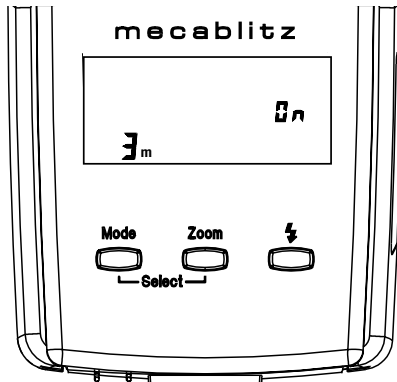


Bild 2 / Fig. 2 / Afb. 2 / Grab. 2

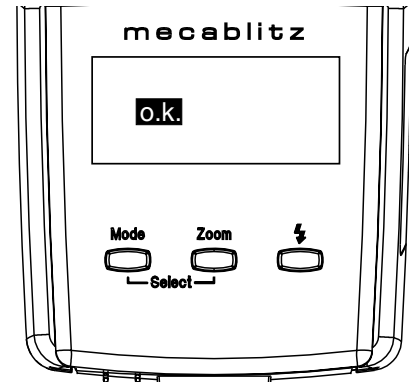


Bild 4 / Fig. 4 / Afb. 4 / Grab. 4



Bild 5 / Fig. 5 / Afb. 5 / Grab. 5



Bild 7 / Fig. 7 / Afb. 7 / Grab. 7



Bild 6 / Fig. 6 / Afb. 6 / Grab. 6



Bild 8 / Fig. 8 / Afb. 8 / Grab. 8

CE Hinweis: (D)

Im Rahmen des CE-Zeichens wurde bei der EMV-Prüfung die korrekte Belichtung ausgewertet.

⚠ Kontakte nicht berühren !

In Ausnahmefällen kann eine Berührung zur Beschädigung des Gerätes führen.

CE Opmerking: (NL)

In het kader de CE-markering werd bij de EMV-test de correcte belichting bepaald.

⚠ Contacten niet aanraken !

In uitzonderlijke gevallen kan aanraken leiden.

CE Avvertenza: (I)

Nell'ambito delle prove EMV per il segno CE è stata valutata la corretta esposizione.

⚠ Non toccate mai i contatti !

In casi eccezionali il toccare può causare danni all'apparecchio.

CE Remarque: (F)

L'exposition correcte a été évaluée lors des essais de CEM dans le cadre de la certification CE.

⚠ Ne pas toucher les contacts !

Il peut arriver que le contact avec les doigts provoque la dégradation de l'appareil.

CE Note: (GB)

Within the framework of the CE approval symbol, correct exposure was evaluated in the course of the electromagnetic compatibility test.

⚠ Do not touch the contacts !

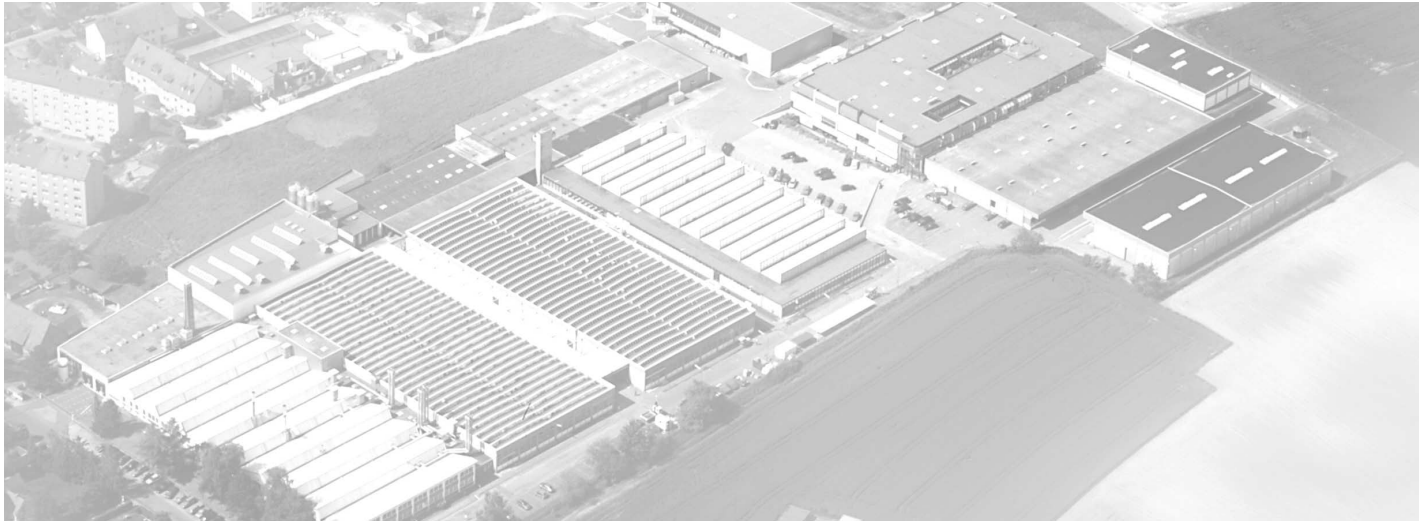
In exceptional cases the unit can be damaged if these contacts are touched.

CE Atención: (E)

El símbolo CE significa una valoración da exposición correcta con la prueba EMV (prueba de tolerancia electromagnética).

⚠ No tocar los contactos !

En algunos casos un contacto puede producir daños en el aparato.



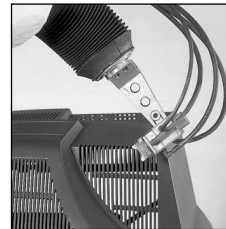
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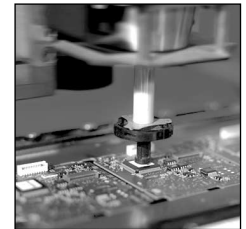
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