TV. VIDEO. AUDIO. MECABLITZ

MECABLITZ 36 C-2
36 M-1

Bedienungsanleitung
Mode d'emploi
Handleiding

Operating instructions
Norme per l'uso
Instrucciones del manejo

Contents

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Manual de instrucciones

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Foreword

Welcome to the large family of Metz customers! We congratulate you on purchasing this flash unit and thank you for your confidence in our 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.

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 blindess!
- 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!

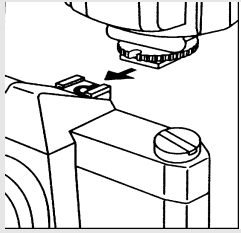
Safety instructions

Per vostra sicurezza

Instrucciones de seguridad

- 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 (such as rain)!
- 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 mecablitz may only be used in combination with a camera-integrated flash unit if the latter can completely be folded out!
- Quick changes in temperature may cause condensation. Therefore give the flashgun time to acclimatize!



2. Mounting the mecablitz

2.1 Mounting the mecablitz on the camera

☞ ***Turn off the camera and the mecablitz by the main switch!***

- Turn the knurled nut against the mecablitz until the stop point is reached.
- Slide the mecablitz foot completely into the camera's accessory shoe.
- Turn the knurled nut against the camera body as far as possible to lock the mecablitz in position.

2.2 Connection to the camera

The mecablitz is triggered via the hot shoe contact in the camera's flash shoe.

If the camera's flash shoe does not have a hot shoe contact then a synchronising cable (optional accessory) can be used to establish the link between the camera's X socket and the sync socket of the mecablitz.

☞ ***Please note: The mecablitz must be switched off before the synchronising cable is plugged in or disconnected.***

2.3 Removing the mecablitz from the camera

☞ ***Turn off the camera and the mecablitz by the main switch.***

- Turn the knurled nut against the mecablitz until the stop point is reached.
- Withdraw the mecablitz from the camera's accessory shoe.

3. Power supply

3.1 Suitable batteries

The mecablitz can be operated with any of the following batteries:

- 4 NiCad batteries, type IEC KR 15/51. They permit very fast recycling and are economical in use because they are rechargeable.
- 4 nickel metal hydride batteries. 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. Maintenance-free power source for moderate power requirements.

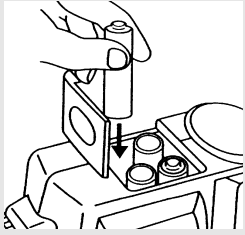
☞ ***Do not use lithium batteries! Their higher cell voltage may damage the electronic system of the flash unit.***

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

Power supply

Alimentazione

Alimentación de corriente



3.2 Replacing batteries

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

- Turn off the mecablitz 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 run-down batteries at the appropriate collecting points.***

3.3 Switching the flash unit on and off

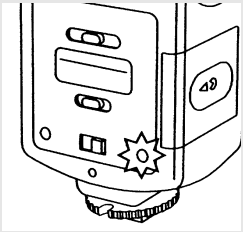
The flash unit is switched on and off by its main switch.

mecablitz 36 M-1:

The flash unit is switched on when the main switch is in the "ON" position. To switch off slide the main switch to "OFF.

mecablitz 36 C-2:

Depending on the flash mode the main switch of the mecablitz should be set at "M" (for manual mode) or "A" (for auto mode). Slide the main switch to "OFF" to switch off the flash unit.



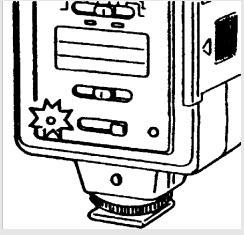
4. Displays on the mecablitz

4.1 Flash readiness indication

The flash readiness symbol (READY) lights up on the mecablitz when the flash capacitor is charged, thereby indicating that flashes can be fired for the next shot.

If a picture is shot before flash readiness is signalled then the flash unit will not be triggered.

☞ ***If flash readiness is established, a test flash can be fired with the manual firing button on the mecablitz.***



4.2 Correct exposure indication on the mecablitz 36 C-2

The "o.k." correct exposure confirmation briefly lights up on the mecablitz when the picture was correctly exposed in the auto flash mode.

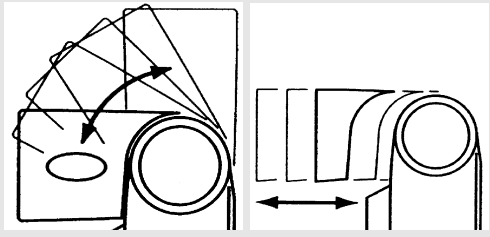
If "o.k." is not indicated after an exposure, then this means that the picture was underexposed. The shot will then have to be repeated: Set the next smaller f-number (e.g. f/4 instead of f/8) on the mecablitz and the camera, or reduce the distance to the subject or the reflecting surface (e.g. when bouncing the flash). Please observe the maximum flash range indicated on the aperture calculator of the mecablitz.

☞ ***The manual firing button on the mecablitz 36 C-2 can be used in the auto flash mode to establish prior to shooting whether or not the flash will be sufficient for the selected auto working aperture. When firing a test flash point the flash unit in the same direction as for the subsequent shot.***

Zoom reflector

Parabola zoom

El reflector zoom



5. Zoom reflector

The zoom reflector of the mecablitz has four zoom positions for optimal light coverage and adaptation of the guide number to the focal length of the lens.

28 mm Wide-angle illumination for focal lengths as of 28 mm

35 mm Wide-angle illumination for focal lengths as of 35 mm

50 mm Normal illumination for focal lengths as of 50 mm

85 mm Telelens illumination for focal lengths as of 85 mm

The zoom reflector can be swivelled upwards into four locking positions (e.g. for bounce flashes):

30°, 45°, 60° and 90°.

For normal flash operation the reflector is in the horizontal position: 0°.

6. Settings on the camera

Select on the camera the "Manual Mode M" with aperture and shutter speed priority or the automatic "Aperture Priority Mode" ("A" or "Av") (see operating instructions for the given camera).

When in "Manual Mode M" set the flash sync speed on the camera (e.g. 1/60th sec.; see operating instructions for the given camera) or a slower shutter speed.

In the "Aperture Priority Mode" ensure that the camera does not select a shutter speed faster than its flash sync speed! Should this be the case, set on the lens a higher f-number (= smaller aperture opening)!

☞ ***Please refer to the hints given for flash photography in the camera manual.***

7. Flash modes

7.1 Auto flash mode of the mecablitz 36 C-2

☞ ***When in automatic flash mode the sensor integrated in the mecablitz measures the light reflected from the subject. The flash unit automatically cuts off the flash as soon as the amount of light required for correct exposure has been reached. In this manner the aperture does not have to be recalculated and reset when the distance changes, provided that the subject remains within the auto flash range indicated on the aperture calculator.***

- Set the main switch of the mecablitz 36 C-2 at the "A" position.
- Set the ISO speed of the film loaded in the camera with the upper "ISO" slide switch.
- Set the lower slide switch at the selected zoom position of the reflector (28 mm, 35 mm, 50 mm or 85 mm).

Auto flash mode

Modo flash automatico

Funcionamiento automático del flash

- The sensor must be pointing at the subject irrespective of the reflector setting. It only measures the light during the firing of flashes by the mecablitz.

Up to three colour-coded auto working apertures (yellow - green - red) are available, depending on the given ISO film speed. The auto working aperture is selected with the aperture selector (yellow - green - red) on the mecablitz and depends on the camera-to-subject distance.

The aperture calculator of the mecablitz indicates the appropriate maximum flash range underneath the aperture value.

A minimum distance to the subject should be maintained to avoid overexposure. The minimum distance is approx. 10 % of the maximum flash range.

Auto flash mode

Modo flash automatico

Funcionamiento automático del flash

☞ ***Ideally, the subject should be located in the middle third of the zone between the minimum distance and the maximum flash range to give the electronic circuit sufficient leeway for light control.***

Example:

You are using an ISO 100 film and a 50 mm lens. The aperture calculator indicates a choice of three auto working apertures: f/8 - f/4 - f/2.

The camera-to-subject distance is approx. 5 m.

You choose the f/4 "green" auto-working aperture (maximum flash range given by the aperture calculator: approx. 7.3 m)

Set the aperture selector of the mecablitz to the desired auto working aperture , i.e. "green".

Set f/4 on the camera lens.

☞ ***Caution with zoom lenses! Depending on their design they can cause a loss of light of as much as one aper-***

ture increment. They may also have different effective aperture values for the different focal length settings. This will then have to be compensated by manual correction of the aperture setting on the flash unit!

7.2 Manual flash mode

☞ ***The mecablitz always fires uncontrolled flashes at full light output when in manual mode. Adaptation to the given photographic situation is achieved by selecting a corresponding aperture on the camera.***

- Set the main switch of the mecablitz 36 C-2 at the "M" position.
- Set the upper "ISO" slide switch at the ISO speed of the film loaded in the camera.
- Set the lower slide switch at the selected zoom position of the reflector (28 mm, 35 mm, 50 mm or 85 mm).

7.2.1 Manual flash mode with a given aperture

- The aperture calculator of the mecablitz indicates underneath the individual aperture value the necessary camera-to-subject distance in meters (m) and feet (ft). The applicable aperture is the f-number set on the camera or camera lens.

Example:

You are using an ISO 200 film and a 50 mm lens. The aperture f/8 has been selected on the camera lens.

The aperture calculator of the mecablitz indicates a camera-to-subject distance of 5.2 m.

7.2.2 Manual flash mode with a given distance

- The aperture calculator of the mecablitz indicates over the individual distances the necessary aperture that must be set on the camera or camera lens. The distance to be chosen is the camera-to-subject distance.

Example:

You are using an ISO 100 film and a 50 mm lens. The camera-to-subject distance is approx. 7 m.

The aperture calculator of the mecablitz indicates f/4 as the required aperture. This f-number must be set on the camera or camera lens.

7.2.3 Manual flash mode with guide number calculation

The aperture to be set on the camera can also be calculated by the following formula:

Aperture = guide number ÷ flash-to-subject distance

The guide numbers for the individual film speeds are listed in the Guide Number Table at the end of the "Technical Data" section.

The flash-to-subject distance is the camera-to-subject distance.

Manual flash mode

Modo flash manuale

Funcionamiento manual del flash

Example:

You are using an ISO 100 film and a 35 mm lens. The camera-to-subject distance is approx. 3 m.

Refer to the Guide Number Table and select GN 24.

Calculate: Aperture = 24 ÷ 3 = 8

Set f/8 on the camera or camera lens.

8. Flash techniques

8.1 Fill-in flash in daylight

The mecablitz can also be used for fill-in flash in daylight in order to eliminate dense shadows and produce a more balanced illumination in contre-jour shots.

Fill-in flash in auto flash mode

Use the camera or a hand-held exposure meter to establish the required aperture and shutter speed for a normal exposure.

Ensure that the camera's shutter speed equals or is slower than the camera's flash sync speed (see operating instructions for the given camera).

Example:

Established aperture = f/8;
established shutter speed = 1/60 s

Flash sync speed of the camera = 1/100th sec.
(see operating instructions for the given camera).

The two established values for aperture and shutter speed can be set on the camera because the camera's shutter speed is slower than the camera's flash sync speed.

To maintain a balanced range of highlights, for instance in order to retain the character of the shadows, the auto aperture selected on the flash unit should be one setting lower than the f-number set on the camera. In our example f/8 was selected on the camera. Consequently, we advise you to set an auto aperture of f/5.6 on the mecablitz.

Tip:

If, for reasons of the film speed used, f/5.6 cannot be set on the flash unit then proceed as follows:

Select an auto aperture of f/8 on the mecablitz and set a shutter speed of 1/30th sec. and an aperture of f/11 on the camera.

If f/4 were set as auto working aperture on the mecablitz, then this would result in a shutter speed of 1/125th sec. at a lens aperture of f/5.6. This would exceed the camera's flash sync speed of 1/100th sec. in our example.

☞ ***Ensure that the source of backlight does not shine directly into the sensor of the flash unit as this would confuse the electronic system and falsify the reading.***

8.2 Flash exposure correction

The automatic flash exposure system of the mecablitz is based on a 25 % reflectivity of the subject (average reflection factor for subjects shot with flash). A dark background that absorbs a great deal of light or, alternatively a light background that reflects a great deal of light (e.g. backlit scenes), would invariably result in over- and underexposure of the subject.

Exposure correction in auto flash mode

To compensate the above effect the exposure can be corrected by opening or stopping down the camera's aperture. With a predominantly light background the sensor of the flash unit will interrupt the flash prematurely with the result that the subject is underexposed. Alternatively, with a dark background the flash will be cut off too late. The subject will be overexposed.

Light background

Open the camera aperture by 1/2 to 1 f-stop (from f/5.6 to f/4)

Dark background

Stop down the camera aperture by 1/2 to 1 f-stop (e.g. from f/5.6 to f/8)

8.3 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 vertically up to 90°.

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 light bounced off the reflecting surface 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 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:***

$$\textit{Maximum flash range} = \frac{\textit{guide number}}{\textit{(flash-to-subject distance x 2)}}$$

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 mecablitz for approx. 10 minutes every 3 months. The batteries must supply sufficient power for flash readiness to be indicated within 1 minute after the mecablitz was switched on.

☞ ***Metz does not accept any liability for faulty functions or damage to the mecablitz caused by the use of accessories from other manufacturers!***

10. Technical data

Reflector positions: 28 mm - 35 mm - 50 mm - 85 mm

Tilting range and locking positions of flash head:
vertically 30° - 45° - 60° - 90°

Flash duration: 1/500s - 1/30,000s

Colour temperature: approx. 5500 K

Film speed: ISO 25 to ISO 800

Auto apertures (only 36 C-2): f/2 - f/4 - f/8 with ISO 100

Synchronisation: Low-voltage ignition

Number of flashes (at full light output):

approx. 160 with NiCad batteries (600 mAh)

approx. 450.with high-capacity alkaline manganese batteries

Technical data
Dati tecnici
Características técnicas

Recycling time (at full light output):
approx. 5 s with NiCad batteries
approx. 5 s with high-capacity alkaline manganese batteries
Dimensions (w x h x d): 73 x 110 x 87 mm
Weight: 205 g without batteries
Included: mecablitz, Operating Instructions

Technical data

Dati tecnici

Características técnicas

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

Numero guida (ft) = numero guida (m) x 3,3

Número guía (ft) = número guía (m) x 3,3

Guide number table for full light output, metric system

ISO / DIN	Zoom position of reflector			
	28	35	50	85
25/15°	10	12	15	18
32/16°	11,3	13,6	17	20,4
40/17°	12,6	15,2	21,5	22,8
50/18°	14,1	16,9	21,1	25,4
64/19°	16	19,2	24	28,8
80/20°	17,9	21,5	26,8	32,2
100/21°	**20**	**24**	**30**	**36**
125/22°	22,4	26,8	33,5	40,2
160/23°	25,3	30,4	37,9	45,5
200/24°	28,3	33,9	42,4	50,9
250/25°	31,6	37,9	47,4	56,9
320/26°	35,8	42,9	53,7	64,4
400/27°	40	48	60	72
500/28°	44,7	53,7	67,1	80,5
650/29°	50,6	60,7	75,9	91,1
800/30°	56,6	67,9	84,8	101,8

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Metz-Werke GmbH & Co KG
Postfach 1267 • 90506 Zirndorf
Telefon 0911/9706-0 • Telefax 0911/9706-340
Internet: http://www.metz.de
E-Mail: info@metz.de

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