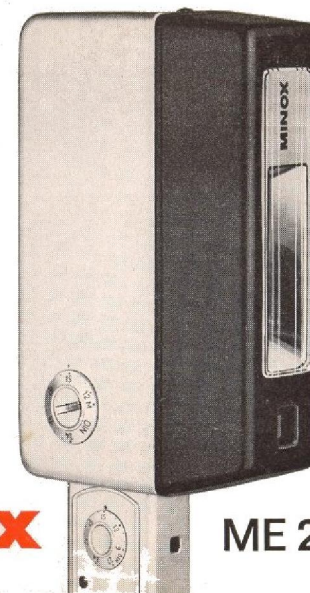


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MINOX

ME 2 Owner's Manual

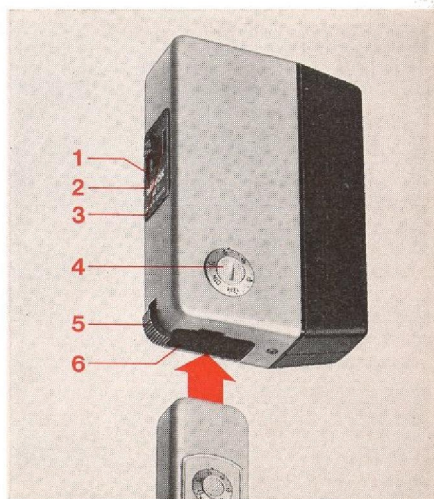
Minox ME 2 Computerized Electronic Flash Unit

takes all guess-work out of flash photography to give you greater "around-the-clock" picture-taking enjoyment with your Minox. It is easy to use: You merely set the unit for the speed of your film — and leave the rest to the programmed automation of the ME 2. Just point the camera and — flash. It is as easy as that!

The built-in nickel cadmium battery can be recharged again and again for thousands of flashes — at lowest possible cost-per-flash.

The Minox ME 2 flash unit does not fit the Minos III's and earlier models.

The camera adapter (9) lets you use the ME 2 on other cameras equipped with an accessory shoe, regardless whether the camera has a "hot shoe" with internal flash connection or a shutter with flash contact for use with a flash connecting cable. For use with other cameras, read special instructions on page 10.



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Flashing from AC current

If you must use your ME 2 before you have had an opportunity to recharge the battery, you may flash with power direct from an AC outlet. (Use an extension cord if necessary.) Connect the AC charger/power cord, as for charging. The ME 2 is ready when the signal light glows. Recycling time with AC power is slower than with battery power and flashing direct from AC should be used only as an emergency measure. — After AS flashing, recharge the battery fully as soon as possible.

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Specifications

Dimensions:	3 × 1¼ × 4¼ in.
Weight:	9 ounces
Power sources:	Rechargeable nickel-cadmium battery 110–240 V AC
Number of flashes:	with fully charged battery: approximately 50
Flash interval:	with AC power: approximately 15 seconds
Flash duration:	1/1000—1/50000 second
Color temperature:	approximates sunlight
Reflector coverage:	approximately 65°
Guide Number:	DIN 18 = 16 (metric) ASA 50 = 52 (feet)



For charging, connect the small 3-contact plug of the charge cord to the 3-prong receptacle in the rear of the ME 2, and plug the charger head into the AC outlet. Charging time is 16 to 18 hours.

To connect the charge cord to the ME 2, the sliding switch must be in the OFF position so that the flat 3-contact plug can be pushed into the 3-prong receptacle.

Plug the charger head into the AC outlet. After about one minute of charging, the glowing ready signal of the ME 2 would indicate that the unit is connected properly for charging.

Charging time is 16 to 18 hours. You may recharge the battery safely for the full time even if you are not sure to what extent it was discharged.

Regular charging is necessary even if you use your ME 2 unit only occasionally. To keep the battery in good condition, recharge it at least every 3 months. Damage to the battery or capacitor due to extended storage without recharging is not covered by the warranty.

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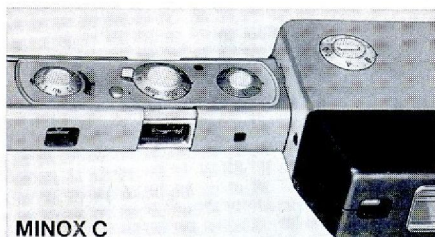
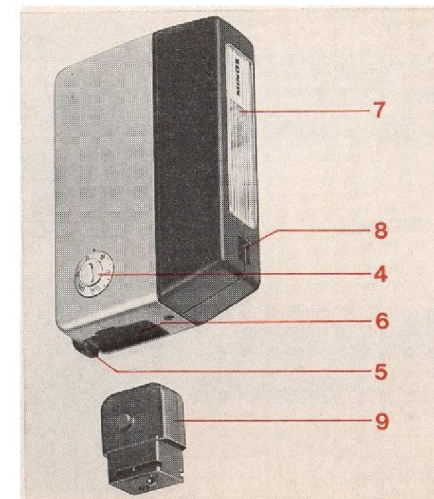
- 1 Socket for connecting AC charger/power cord
- 2 On/off switch
- 3 Ready signal
- 4 Film speed dial (ASA or DIN)
- 5 Camera lock
- 6 Receptacle for Minox camera or adapter
- 7 Flash tube
- 8 Sensor
- 9 Adapter for other cameras

Important: Before using your Minox ME 2 for the first time, give it a full 16–18 hour battery charge (see page 13). Also, the ME 2 must be recharged for 16–18 hours:

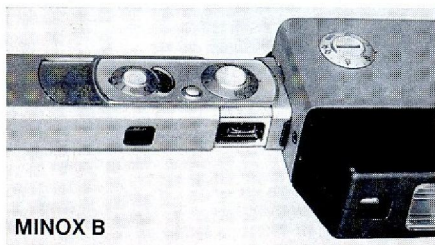
- after every busy shooting session
- if the ready signal takes more than 30 seconds to glow after each flash
- before or after extended storage
- whenever the unit has been idle for 3 months

Disregard of these important instructions may cause permanent damage to the battery and other components, and voids the guarantee.

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MINOX C



MINOX B

Minox Photography with your ME 2

Connect to camera

Push the ribbed camera lock (5) in the direction of the switch plate (1 – 2 – 3) and slide the camera – flash contact first and lens facing in the same direction as the flash tube – into the deep receptacle (6) as far as it will go. Releasing the lock (5) will fix the camera in place.

Remember: The ASA dials of the camera and of the flash unit must be on the same side!

Caution: The flash contacts may be damaged if the camera is inserted with the lens facing backward.

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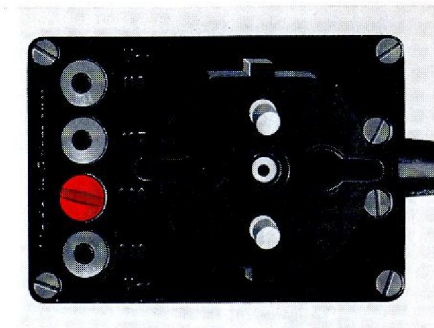
Charging

When fully charged, the nickel cadmium battery of your Minox ME 2 has a capacity of approximately 50 flashes. As the charge is being used up, the intervals between flashes (recycling time) become longer. When intervals increase to 30 seconds, the battery is near exhaustion and must be recharged for 16–18 hours.

Charging is a simple matter:

You can recharge your ME 2 from any AC outlet. (*Never connect to DC current!*) Make sure that the red voltage adapter of the AC charger/power plug (see illustration) is set correctly for your line voltage. To change the setting, remove the adapter screw with a coin and screw it into the appropriate voltage position.

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This charger/power plug is set for 220 Volt AC. Make sure that the red voltage adapter screw is set correctly for your line voltage. Never connect to DC current!

ALWAYS set the film speed dial of the ME 2 at ASA 50 / 17 DIN — regardless of the film which you actually use!

Set the f-stop of your lens, depending on the film which you actually use, as follows:

Film speed	ASA 12	ASA 25	ASA 50	ASA 100	ASA 200	ASA 400
12 DIN	15 DIN	18 DIN	21 DIN	24 DIN	27 DIN	
Use f/	2	2.8	4	5.6	8	11

Flash exposures without computer

To disconnect the automation of the computer and thus to use the full light output of the ME 2 for every flash, turn the film speed dial of the ME 2 to M (manual).

You now determine the f-stop of your lens in the following manner:

Divide the guide number of the ME 2 (see below) by the flash-to-subject distance. (Example: Film: ASA 125; Distance: 10 feet. Divide guide number 82 by 10 = 8.2; use f/8)

Guide numbers vary with the ASA/DIN film speeds:

Film speed	ASA	16	20	25	32	40	50
DIN	13	14	15	16	17	18	

Guide number	(feet)	30	33	36	39	46	52
(metric)		9	10	11	12	14	16

Film speed	ASA	64	80	100	125	160	200
DIN	19	20	21	22	23	24	

Guide number	(feet)	59	66	72	82	92	105
(metric)		18	20	22	25	28	32

Flash illumination coverage

The flash of the ME 2 covers the areas of normal and long focal length lenses (24 × 36 mm. cameras with lenses from 45 mm. up).

Distance setting

Set the distance scale of your Minox as usual. The following settings are useful for quick readiness:

- 6 feet (covers from 4 to 11½ feet);
- midway between 3 and 6 feet (covers from 3 to 6 feet).

Filter

Do not use a filter in front of the lens for flash exposures with the ME 2.

Switch on

To switch the ME 2 on, push the sliding on/off switch (2) all the way towards the Minox name on the black plate so that two red fields become visible. A faint high-pitch sound indicates that the unit is operating.

F-l-a-s-h

You can shoot as soon as the ready signal (3) glows. Sight the subject through the viewfinder and squeeze the camera shutter release button. Wait for the ready signal to glow again before you take the next flash picture. With a fully charged battery, the interval will be approximately 8 seconds. When the intervals get appreciably longer (20 seconds or more), the battery must be recharged (see page 13).

Ready intervals of 30 seconds or longer indicate complete discharge of the battery. Further flashing will cause battery damage which is not covered under the warranty. Recharge the battery immediately (see page 13)!

The exposure meter button of the Minox B fits into the notch of the receptacle. The exposure meter of the Minox B or the automatic (A) exposure setting of the Minox C are not used for flash shots.

To disconnect, push back camera lock (5 — see above) and slide the camera out of the receptacle.

Set the film speed

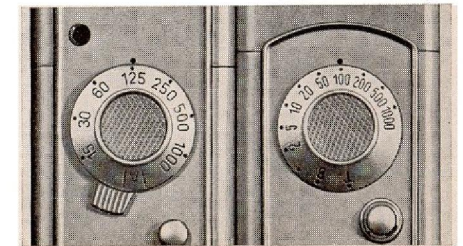
Turn the dial of the ME 2 to the ASA number of the film which you have in the camera. (A coin will be helpful.)

Accidental setting of a higher ASA resp. DIN number would give you underexposures; a lower number, overexposures.

Set camera shutter

For electronic flash pictures, set your Minox shutter to 1/125 or 1/100 sec.

Minox C: Minox B:



Computer automation

You have basically two choices in using the ME 2 computer automation for cameras with variable lens openings:

1. Constant f-stop
2. Constant flash distance range

1. Constant f-stop

This method corresponds to using the ME 2 with the Minox camera. It is easy to remember but (unlike the Minox) the larger camera has relatively little depth of field at f/3.5 or f/4.

Simply set the film speed dial of the ME 2 for the film you have in the camera, and set the camera lens at f/3.5.

If your lens cannot be set to f/3.5, use f/4. To compensate for the slight difference between f/3.5 and f/4, you may set the ASA/DIN dial of the ME 2 one index line lower but this would be necessary only for films with extremely

small exposure latitude (slow color slide film, for example).

The maximum camera-to-subject distances with this method would be the same as for ME 2 photography with the Minox:

Film speed	ASA 12	ASA 25	ASA 50	ASA 100	ASA 200
13 DIN	15 DIN	18 DIN	21 DIN	24 DIN	
Maximum distance	9 ft	11 ft	15 ft	23 ft	33 ft

2. Constant flash distance range

This method compares with the operation of most other automatic flash units which have no adjustments of any kind and for which the film speed is considered in the f-stop setting on the camera.

Advantage: The flash distance range is always **from 16 inches to 13 feet** regardless of the film used.

Using the M2 with other cameras

You can use the ME 2 not only with the Minox camera but also with any other camera if it has an accessory shoe with a built-in flash contact or a lens fitted with a standard flash contact.

Instead of the Minox camera, push the adapter (9) into the camera receptacle (6) of the ME 2 – while releasing the locking knob (5) – so that the round “nipple” of the adapter slides into the corresponding cut-out of the receptacle. This assures correct seating of the adapter.

Flash connection

Cameras with “hot” accessory shoe. Sliding the adapter onto the accessory shoe of the

camera automatically connects the flash unit. You do not use the flash cable.

Cameras with flash contact on lens or body. After sliding the adapter onto the accessory shoe, connect one end of the flash cable to the adapter, the other end to the camera flash contact.

Shutter setting

Follow the instructions given in your camera manual for the appropriate shutter setting with electronic flash. If in doubt, use 1/100 or 1/125 second with between the lens shutters, 1/25 or 1/30 second with focal plane shutters.

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Camera-to-subject distances

The maximum effective flashing distance of the ME 2 varies with the sensitivity of the film used. Under average conditions in average size rooms with medium colored walls and furnishings, properly exposed results can be expected up to the following maximum distances:

Film speed

ASA 12	ASA 25	ASA 50	ASA 100	ASA 200
13 DIN	15 DIN	18 DIN	21 DIN	24 DIN

Maximum distance

9 ft	11 ft	15 ft	23 ft	33 ft
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However, the exposure latitude of black-and-white films and of modern color negative film (Minicolor) is such that flash shots even at slightly greater distances will still yield usable negatives.

Switch off

Push the sliding switch (2) so that the red areas disappear. **Make it a habit to switch your ME 2 off whenever there is a pause in picture-taking or before you store the unit away!** This practice will assure you the maximum number of flashes from each battery charge. Otherwise you waste the power for one flash during every four minutes you leave the unit needlessly switched on.

To disconnect the computer automation –

turn the ASA/DIN film speed dial to M (manual). This gives you the full flash output of the ME 2 regardless of the camera-to-subject distance.

Indirect (bounce) flash.

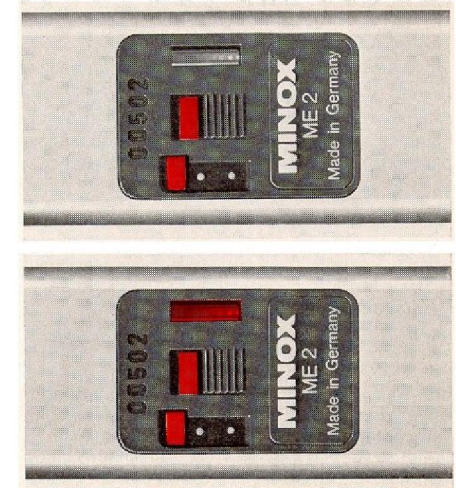
Turn the computer automation off (see above) so that the light reflected from the ceiling does

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Above: Flash unit switched on, but not yet ready for flash.

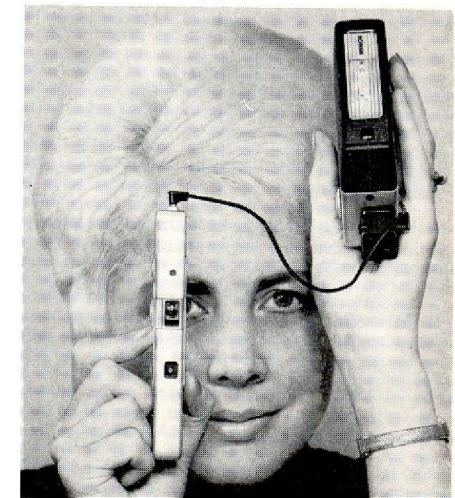
Below: Flash unit switched on and ready for flash – ready signal is glowing.



not cause the automation to reduce the flash intensity unnecessarily.

For bounce flashing, the ME 2 is used apart from the camera. To connect the ME 2 with the Minox, insert the adapter (9) in the camera receptacle of the ME 2 and attach one connector of the flash cable to the adapter, the other connector to the flash contact of the Minox. This enables you to direct the camera towards the subject with one hand, but the ME 2 flash towards the ceiling with the other hand.

If you intend to use the ME 2 automatic electronic flash unit exclusively with your Minox, but not with other cameras, please turn to page 13.



Indirect (bounce) flash.

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