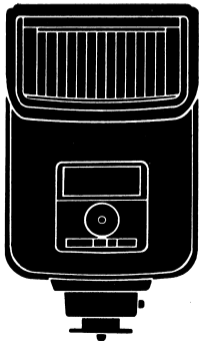


# MINOLTA AUTO ELECTROFLASH 25



OWNER'S MANUAL



# IMPORTANT SAFEGUARDS

When using your flash unit, the specific cautionary notices in the owner's manual should always be observed and complied with, as well as basic precautions, including the following:

1. Read and understand all instructions.
2. Do not operate this flash unit if it has

been dropped or damaged — until it has been examined by an authorized Minolta service facility.

3. To protect against electrical shock hazards, do not immerse flash unit in water or other liquids.
4. To avoid electric shock hazards, do not disassemble this unit, but take it to an authorized Minolta service facility when some service or repair work is required.

2

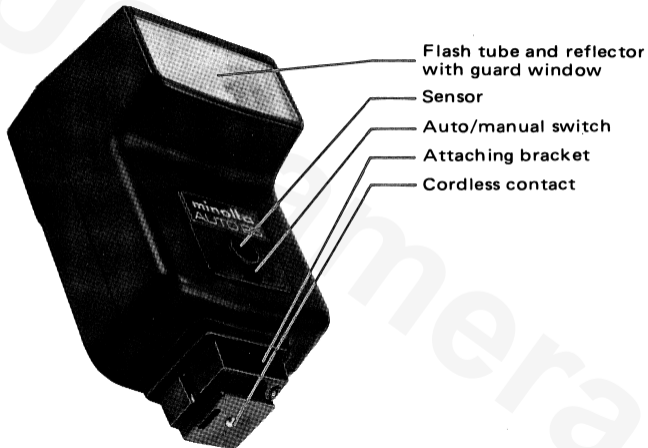
Incorrect reassembly can cause electric shock hazard when the unit is used subsequently.

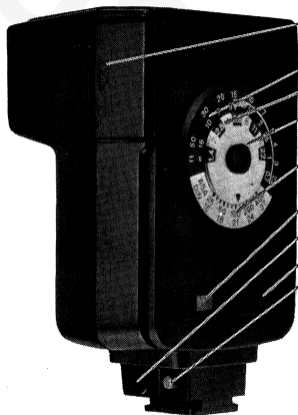
**SAVE THESE  
INSTRUCTIONS**

This compact, easy-to-use unit makes perfect automatic flash exposures over a considerable range and is also usable as a conventional non-auto flashgun. It can be attached cordlessly on cameras having a direct-contact "hot shoe" or by means of an attachable cord with conventional brackets and terminals.

## NAMES OF PARTS

4





Battery-chamber cover

Distance scale

Aperture scale

Computer dial

Film-speed scale

Monitor lamp

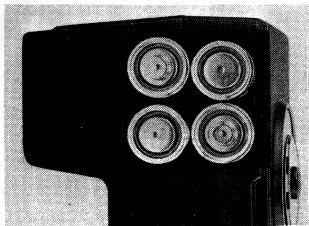
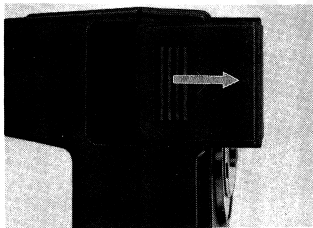
Sync. cord socket

Power switch

Open-flash/test button

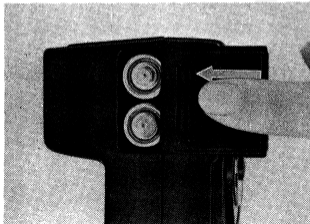
## BATTERIES

- 6
1. To install, open the battery chamber cover by sliding it off in the direction of the arrow toward the back of the unit.
  2. Insert four batteries (see specs p. 15), making sure that plus (+) and minus (-) ends of batteries are positioned as indicated inside the battery chamber.





3. Close the cover by aligning it carefully and sliding it on toward the front of the unit until it is securely in place. When the monitor lamp fails to light within a reasonable time, say 30 seconds, with the power switch on, replace all four batteries with fresh ones at the same time.



**CAUTION:**

- The Auto Electroflash 25 is designed to use only non-rechargeable alkaline-manganese or sealed carbon-zinc batteries as specified; the former are recommended. Do not use nickel-cadmium or other rechargeable batteries, as this may seriously damage the unit.
- Battery contacts should not be touched with the fingers and should be cleaned with a dry rough cloth before insertion.

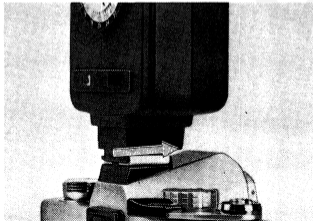
## ATTACHING TO CAMERA

8

With cameras wired for cordless flash, simply slide the attaching bracket of the flashgun all the way into the camera hot shoe.

For other cameras, slide the bracket into the accessory or flashgun shoe, insert the single-prong plug end of attachable sync. cord into the sync. cord socket until it catches, and plug

the PC connection on the other end into the "X"-synchronization terminal on the camera.

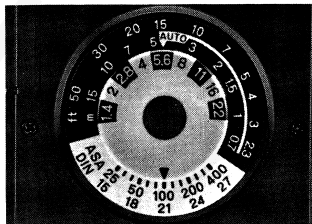


## SETTING SYNC. DELAY AND SHUTTER SPEED

1. Make sure that the camera is set for X sync. and/or that the flashgun is properly connected with the X sync. terminal of the camera.
2. Also make sure that the camera is not set for a shutter speed faster than the manufacturer's recommendation for electronic flash (usually 1/60 or slower for full-frame 35mm cameras having horizontal-run focal-plane shutters).

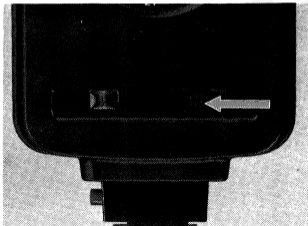
## SETTING FILM SPEED

Turn the computer dial to align the triangular black index with the exposure-rating number of the film you are using. (Dots between numbers on the film-speed scale represent ASA ratings of 32, 40, 64, 80, 125, 160, 250, and 320 or DIN indexes of 16, 17, 19, 20, 22, 23, and 25, respectively from left to right.)



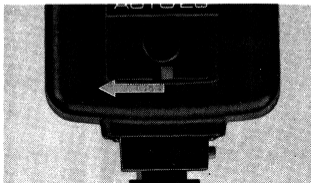
## POWER SWITCH

- 10 To turn the unit on and charge the capacitor, move the power switch to "ON." When you are not taking pictures, the switch should be kept in its "OFF."



## AUTOMATIC OPERATION

1. Make sure that the auto/manual switch is all way to the left at "AUTO" so that the yellow area is fully visible.
2. For proper exposure under usual conditions, set the lens aperture on the camera to the f-number that appears opposite the yellow "AUTO" pointer on the distance scale of the flashgun's computer dial (e.g., f/5.6 with film-speed setting of ASA 100 or DIN 21).



3. With the flash-ready lamp glowing, release the camera shutter. The flashgun will vary the flash duration between 1/2,000 and 1/40,000 sec. for proper exposure at flash-to-subject distances from 70 centimeters (2 ft. 4 in.) to 4.5 meters (approx. 15 ft.). Normal subjects closer than this will be overexposed and those farther away underexposed with the aperture set as in 2 above. However, satisfactory exposure for subjects somewhat beyond 4.5m can be obtained by opening the camera aperture to the f-number that results by dividing the maximum guide number (25 for meters, 82 for feet) by the flash-to-subject distance with unit on either auto or manual mode.

## MANUAL OPERATION

- 12
1. Make sure that the auto/manual switch is all the way to the right at "M."
  2. For proper exposure under usual conditions, set the lens aperture on the camera to the f-number that appears opposite the flash-to-subject distance on the computer dial of the flashgun (e.g., between f/2 and f/2.8 for 10m or 33 ft., about f/8 for 3m or 10 ft., f/16 for 1.5m or 5 ft., etc., at ASA 100 or DIN 21).
  3. With the flash-ready lamp glowing, release the camera shutter. Flash duration remains fixed at 1/2,000 sec.



## RECYCLING

With fresh batteries, the monitor lamp should come on to indicate recycling within about 6 sec. with alkaline-manganese batteries or 7 sec. with sealed carbon-zinc batteries. Do not attempt to take flash pictures when the monitor lamp is not glowing.

If the flash is to be fired immediately after the monitor lamp comes on with fresh batteries and when recycling time is long with older batteries, the maximum flash-to-subject distance for normal auto operation should be considered to be 3m (10 ft.). In manual operation in this case, the lens should be opened one half to one stop more than the aperture indicated (e.g., set at  $f/4$  or between  $f/4$  and  $f/5.6$  rather than  $f/5.6$ ).

When the monitor lamp fails to

light within a reasonable period of time, say 30 seconds, with the power switch on, replace all four batteries with fresh ones at the same time.

13

## OPEN FLASH

Non-synchronized "open-flash" pictures can be made by disconnecting the camera and flashgun and using them separately. In this case the flash is triggered by pushing the open-flash/test button. Since flash duration is still controlled by the sensor in automatic operation and remains fixed at maximum power on manual, exposure produced will be as indicated in those respective sections.

**NOTE:**

For dark subjects or in poor reflecting conditions (such as outdoors at night or in dark surroundings indoors), it is generally recommended that the lens be closed down a half stop to one stop more than indicated by the computer dial in auto operation or opened a half stop to one stop more than indicated by the dial on manual mode, though individual conditions will determine the exact setting in either mode.

**FILL-IN OR SYNCHRO-  
DAYLIGHT FLASH**

Though primarily intended for use as the sole or main light source in flash pictures, the Auto Electroflash 25 can be used to balance or fill in shadows with other bright light sources such as daylight under appropriate conditions. Suitable ones to start with on either auto or manual mode are those in which ambient and flash indications call for the same exposure settings. Then the indicated shutter speed is used, but the lens is closed down one half to one stop from that indicated (e.g., for 1/60 sec. at between f/4 and f/5.6, shutter is left at 1/60 but the lens is set at f/5.6 or between f/5.6 and f/8.) From this starting point, settings can be further adjusted toward obtaining effects desired under various conditions.



## SPECIFICATIONS

- Type: Clip-on automatic/manual electronic flash unit for cordless/corded use
- Guide number: Up to 25 for calculations in meters at ASA 100, 41 in feet at ASA 25, or 18 for meters at DIN 18
- Auto working range: 0.7 to 4.5m (2'4" to 14'9") (aperture f/5.6 at film speed ASA 100)
- Flash duration: 1/40,000 to 1/2,000 sec. in auto operation, 1/2,000 in manual (non-automatic) operation
- Sensor angle of acceptance: Approx. 20
- Power source: DC only from four 1.5v AA (penlight)-size alkaline-manganese or sealed carbon-zinc cells
- Number of flashes per set of batteries: Approx. 210 with alkaline cells, 70 with sealed carbon-zinc cells
- Recycling time: Approx. 6 sec. with fresh alkaline-manganese cells, Approx. 7 sec. with fresh sealed carbon-zinc cells
- Color temperature: Balanced for daylight-type color film
- Coverage: 60° horizontally and 45° vertically (sufficient for wideangle lenses down to 35mm focal length on full-frame 35mm cameras)
- Sync. contacts: Direct contacts for hot shoe, jack for attaching separate sync. cord that is included with unit
- Size and weight: 55 x 105 x 61mm (2-3/16 x 4-1/8 x 2-3/8 in.) not including attaching bracket; 155g (5-7/16 oz.) without batteries

## CARE AND STORAGE

16

- Remove batteries whenever the flashgun is not to be used for more than a week.
- Store the unit in a cool, dry place away from dust, chemicals, or corrosive vapors.

- Minolta Camera Co., Ltd., 30, 2-Chome, Azuchi-Machi, Higashi-Ku,  
Osaka 541, Japan**
- Minolta Corporation, 101 Williams Drive, Ramsey, New Jersey 07446,  
U.S.A.**
- Minolta Camera Handelsgesellschaft m.b.H., Kurt-Fischer-Strasse 50,  
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- Minolta France S.A., Tour Albert 1er 65, Avenue de Colmar, 92508  
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- Minolta Hong Kong Limited, 49 Chatham Road, Kowloon, Hong Kong**
- Minolta Singapore (Pte) Ltd., Tong Fong Bldg., 52-E, Chin Swee Road,  
Singapore 3**

**Minolta**

MINOLTA MASTERS PHOTOGRAPHY

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