

# OLYMPUS®

# ELECTRONIC FLASH S20

## E INSTRUCTIONS

Please read these instructions carefully before using your flash.

## F MODE D'EMPLOI

Nous vous recommandons de lire attentivement ce mode d'emploi avant d'utiliser votre flash.

## J 使用説明書

使用説明書をお読みください。

## G GEBRAUCHSANLEITUNG

Lesen Sie bitte vor Gebrauch des Blitzgeräts diese Anleitung sorgfältig durch.

## I ISTRUZIONI

Leggere attentamente queste istruzioni prima di usare il flash.

## Safety Precautions



In order to obtain optimum performance and a longer service life from your new flash unit, please read these instructions carefully. Always keep this leaflet in a readily accessible place for later reference. To prevent potential hazards that could cause injury or damage to property, always pay close attention to the important remarks indicated with the symbols and terms below.



### Warning

Ignoring this warning and using the unit incorrectly could result in death or serious injury.



### Caution

Ignoring this warning and using the unit incorrectly could result in serious injury.



Pay attention.



Prohibited.



Do not touch.



Do not disassemble.

## Précautions de sécurité



Avant d'utiliser votre flash, veuillez lire attentivement ce mode d'emploi pour assurer une sécurité maximale et une durée de service plus longue. Après lecture, conservez ce livret dans un endroit toujours accessible pour une référence ultérieure. Des remarques importantes sont indiquées avec les symboles et termes ci-dessous. Veuillez les respecter pour ne pas endommager le matériel et éviter tout danger corporal.



### Avertissement

Ignorer cet avertissement et utiliser le flash de façon incorrecte pourrait entraîner la mort ou causer de sérieuses blessures.



### Précaution

Ignorer cet avertissement et utiliser le flash de façon incorrecte pourrait causer de sérieuses blessures.



Faire attention.



Interdit








Ne pas toucher.



Ne pas démonter.

## **Battery Warnings**








### **BATTERIES MAY LEAK, GENERATE HEAT, IGNITE, OR EXPLODE.**

-  Do not use batteries not specified for this product.
-  Do not try to recharge non-rechargeable alkaline batteries.
-  Do not throw batteries into fire, expose them to excessive heat, or short-circuit them.
-  Do not mix new and old batteries or different brands of batteries.
-  Do not place the batteries with the  $\oplus$  or  $\ominus$  terminals facing the wrong direction.



### **CHILDREN MAY SWALLOW BATTERIES.**

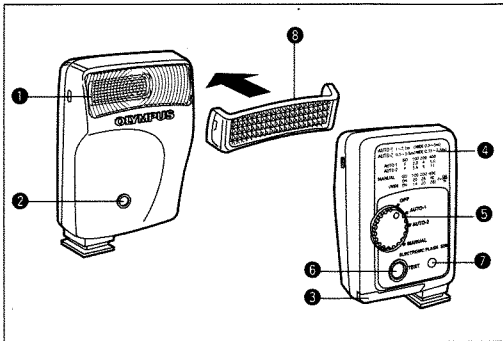
-  Keep batteries out of the reach of children. If a child swallows a battery, contact a doctor immediately.

## Flash Warnings

-  If an internal component is exposed because the unit was dropped or otherwise damaged:
  -  ① Never touch the exposed component.
  - ② Immediately remove the batteries, being careful not to expose yourself to electric shock, burn yourself, or otherwise injure yourself.
  - ③ Send the unit to your camera store or Olympus service center. The unit contains a high-voltage circuit that could cause electric shock, burn you, or otherwise injure you.
-  Do not try to disassemble, repair, or modify the unit. The unit contains a high-voltage circuit that may cause electric shock, burn you, or otherwise injure you.
-  Do not activate the flash when your skin or other object is in contact with the flash reflector. Do not touch the flash reflector after the flash has fired repeatedly. You may burn yourself.
-  Do not use the unit near flammable gas or substances (such as gasoline, benzine, or thinner). This can cause explosion or fire.
-  If the unit is dropped in water, or if water, metal particulate, a flammable foreign object gets into the unit:
  - ① Remove the batteries immediately.
  - ② Send the unit to your camera store or Olympus service center. Using the unit in this condition may cause fire or electric shock.
-  Do not wet the unit or touch the unit with wet hands. This could cause electric shock.

## General Warnings

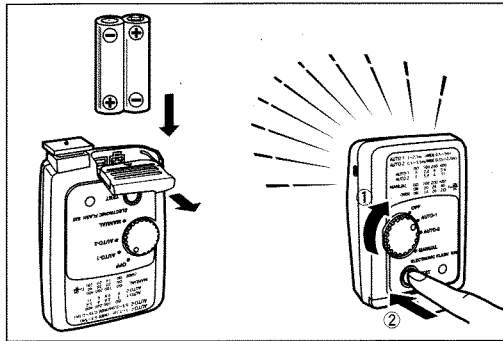
-  Do not point the camera at a driver or rider of a vehicle (bicycle, automobile, train, etc.) and fire the flash. This may cause a traffic accident. Turn off the flash or make sure the flash does not fire before shooting this kind of subject.
-  Do not fire the flash close to the eyes of a human or animal. Eyesight may be temporarily impaired.



### Names of Parts/Mounting the Wide-Angle Converter

- (Front) ① Flash reflector      ② Light sensor
- (Back) ③ Battery compartment cover      ④ Exposure chart
- ⑤ Power switch/mode selector
- ⑥ Test button      ⑦ Pilot lamp
- ⑧ Wide-angle converter

The wide-angle converter disperses flash emission to suit wide angles up to 24 mm when a 35-mm camera is used.

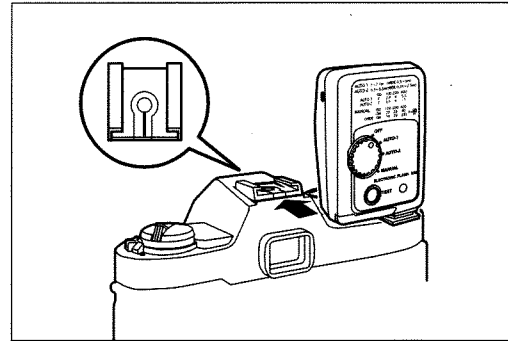


### Loading the Batteries/Firing Test Flash

Load two AA alkaline batteries or Ni-Cd batteries as shown in the illustration.

⊘ AA lithium batteries cannot be used.

- ① Set the mode selector to AUTO1 or AUTO2.
- ② Wait until the pilot lamp lights. Then press the test button to make sure the flash fires.



### Mounting the Flash on the Camera/Selecting the Shutter Speed

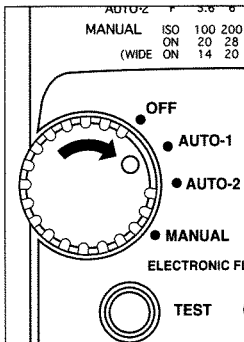
Slide the flash into the hot shoe.

**Note:** This unit cannot be used with a camera that does not have a hot shoe.

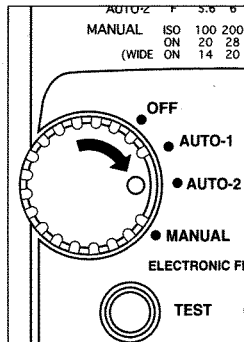
**When the focal plane shutter is used:**

Set the shutter speed to the flash synchronization speed of the camera.

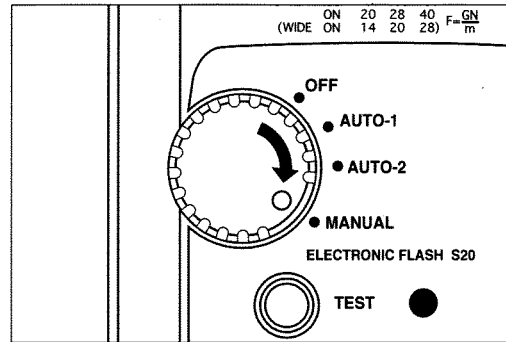
**Note:** The flash synchronization speed differs depending on the camera. Read your camera's instruction manual.



※	☆
ISO 25	F 1.4
ISO 50	F 2
ISO 100	F 2.8
ISO 200	F 4
ISO 400	F 5.6
ISO 800	F 8



※	☆
ISO 25	F 2.8
ISO 50	F 4
ISO 100	F 5.6
ISO 200	F 8
ISO 400	F 11
ISO 800	F 16



## Selecting the Aperture (AUTO)

Set the mode selector to AUTO1 or AUTO2. Then set the camera's F stop according to the ISO film speed of the film you use.

Once selected, the F stop does not have to be changed because the unit automatically controls the flash strength according to the camera-to-subject distance as long as the camera is used within the AUTO working distance.

- AUTO aperture setting and AUTO working distance according to film speed

AUTO1 (※ : Film speed, ☆ : Aperture setting)

Working distance: 1 m ~ 7.1 m (0.5 m ~ 5 m when the wide-angle converter is used)

AUTO2 (※ : Film speed, ☆ : Aperture setting)

Working distance: 0.5 m ~ 3.5 m (0.35 m ~ 2.5 m when the wide-angle converter is used)

- Notes on AUTO shooting

○When the background is far from or darker than the subject, stop down the aperture approximately one stop. If the field of view is bright — when shooting a whitish wall, for instance — open the aperture approximately one stop.

○Set the mode selector to MANUAL when performing special photographic effects like daylight synchro shooting.

★Even when film with a different speed is used, only the F stop changes. The AUTO working distances does not change.

## Selecting the Aperture (MANUAL)

Set the camera's F stop at the figure where the film speed (ISO) and the working distance meet in the chart below.

When using film that is not in the chart, obtain the F stop based on the GN (guide number) chart below.

### Exposure chart

ISO \ Distance (m)	1.2	1.8	2.5	3.5	5	7.1	10
ISO 100	16	11	8	5.6	4	2.8	2
ISO 200	22	16	11	8	5.6	4	2.8
ISO 400	—	22	16	11	8	5.6	4

### GN (guide number) chart

ISO	25	50	100	200	400	800	1000
GN (when wide-angle converter is used)	10(7)	14(10)	20(14)	28(20)	40(28)	56(40)	63(45)

### F stop formula

F stop = GN/distance (m)

# Specifications

**Camera mount:**

Hot shoe.

**Guide number:**

Standard — GN 20 (ISO 100 m).

With wide-angle converter — GN 14 (ISO 100 m).

**Coverage angle:**

Standard — Equivalent to 35-mm lens angle of view.

With wide-angle converter — Equivalent to 24-mm lens angle of view.

**Color temperature:**

Standard — 5,900°K.

With wide-angle converter — 5,800°K.

**Flash duration:**

Auto — Approx. 1/30,000 ~ 1/1,200 sec.

Manual — Approx. 1/1,200 sec.

**Number of flashes:**

Two LR6 alkaline batteries — 280 times (nominal).

**Recycling time:**

Two LR6 alkaline batteries — Approx. 0.5 ~ 5.0 sec. (nominal).

**Flash modes:**

① OFF.

② AUTO1 (ISO 100, F 2.8).

③ AUTO2 (ISO 100, F 5.6).

④ MANUAL

**Power source:**

Two AA LR6 alkaline batteries or KR15/51 Ni-Cd batteries.

**Dimensions:**

56 (W) x 28 (D) x 82 (H) mm/2.2 x 1.1 x 3.2 in.

**Weight:**

Approx. 70 g / 2.5 oz (without batteries).

These specifications are based on operation at normal temperatures (20°C/68°F) when using new batteries in normal temperature. Actual performance may fluctuate depending on the conditions of the batteries and ambient temperature.

Specifications are subject to change without any notice or obligation on the part of the manufacturer.

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This flash complies with EU directive 89/336/EEC for CE marking.



Ce flash est conforme à la directive 89/336/CEE par le marquage CE.



Dieses Blitzgerät entspricht der EV-Richtlinie 89/336/EEC für CE-Markierung.



Quesro flash è conforme alla direttiva UE 89/336/EEC per il marchio CE.

# OLYMPUS®

**E** Note on Selecting the Aperture (AUTO)

**F** Remarque sur la sélection de l'ouverture (AUTO)

**J** 絞りの決め方 (AUTOの場合)

**G** Hinweis zur Blendenwahl (AUTO)

**I** Nota sulla selezione del diaframma (AUTO)

**S** Nota acerca de la selección de la apertura (AUTO)

**P** Nota sobre a seleção da abertura do diafragma (AUTO)

**C** 光圈選擇(自動)上的注意點

**E** When using the S Zuiko Auto-Zoom (35~70 mm F3.5~4.8 or 70~210 mm F4.5~5.6), set the mode selector to AUTO2. Then set the camera's F stop to 5.6 when using ISO 100 film, or 8 with ISO 200 film. You can also set the aperture manually according to the working distance. Refer to the S20 instructions for details.