

OLYMPUS®

E F

G40

Electronic Flash / Flash électronique

■ INSTRUCTIONS

■ MODE D'EMPLOI

Description of controls

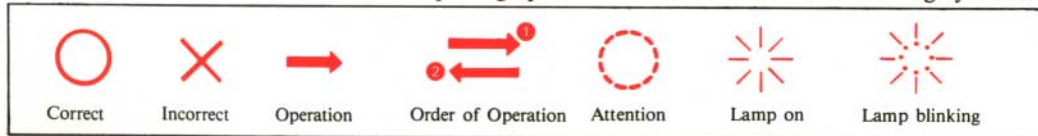


Thank you for purchasing the Olympus Electronic Flash G40. The G40 is exclusive use for the Olympus IS-1/IS-1000 SLR camera. Please read this instruction manual carefully before using.

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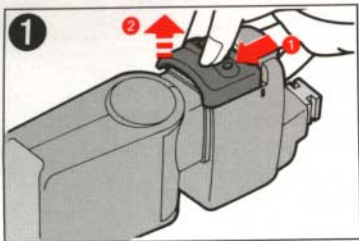
This instruction manual, with the aid of photographs and illustrations uses the following symbols:



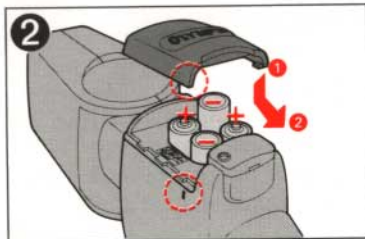
Before you begin

Loading the batteries

Use four AA-size 1.5V alkaline batteries (LR6 type) or Ni-Cd batteries (KR-AA type). Do not mix different types of batteries or new and old batteries at the same time. Remove batteries if you do not plan to use the flash for an extended period of time.



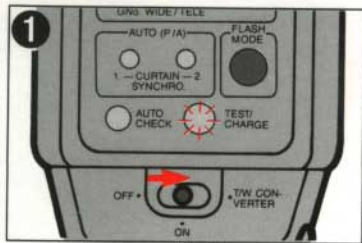
*Remove the battery cover.



*Insert four batteries in the correct positions and replace the battery cover as indicated.

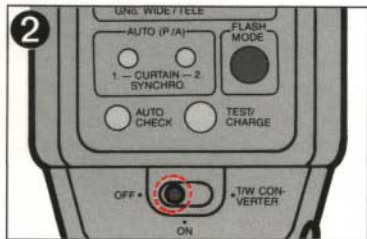
NOTE: Manganese batteries may decrease the flash light emitting frequency.

Checking the batteries



*Turn the power switch ON.

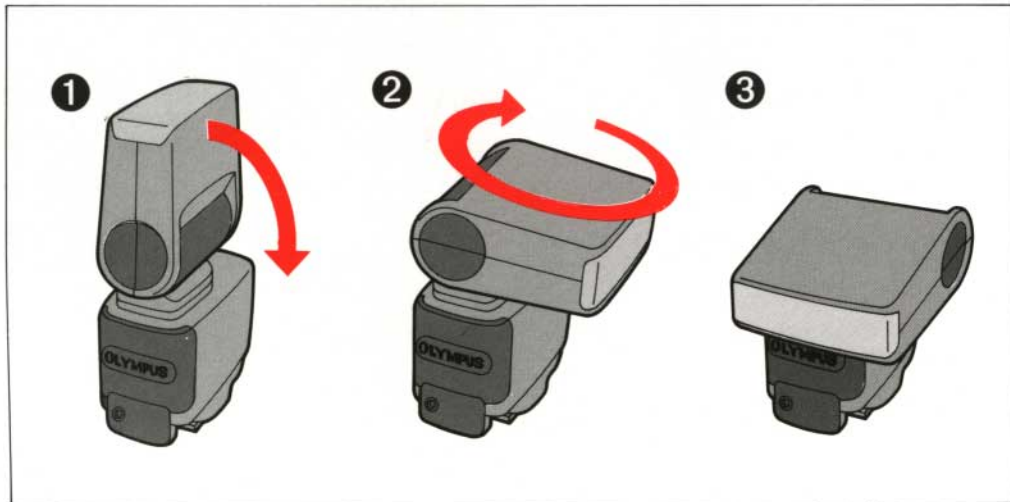
— When charging is completed, the CHARGE lamp will light.



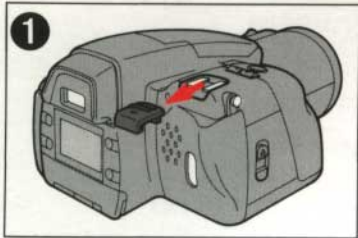
*Turn OFF the power switch if the flash is not to be used.

NOTE: Replace the batteries if the charge lamp does not light up within 30 sec.

Mounting the flash on the camera

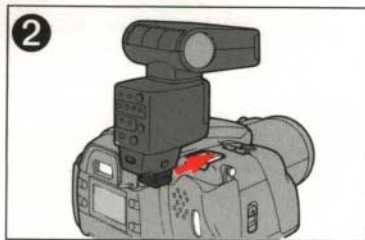


*Set the position of the flash body.



***Detach the hot shoe cover from the camera.**

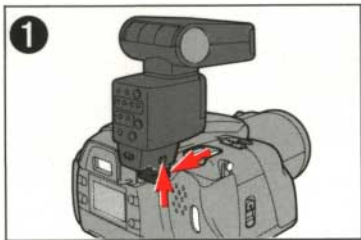
NOTE: Keep the hot shoe cover inside the flash case.



***Slide the flash into the shoe.**

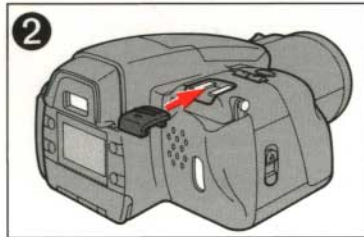
— Be sure the flash is locked completely.

Detaching the flash from the camera



1 *Pressing the detach button, detach the flash from the hot shoe.

NOTE: When detaching the flash, the power switch should be OFF.

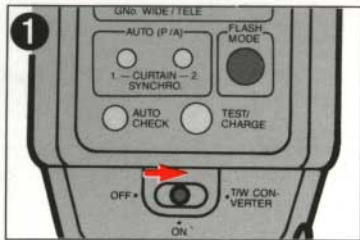


2 *Replace the hot shoe cover

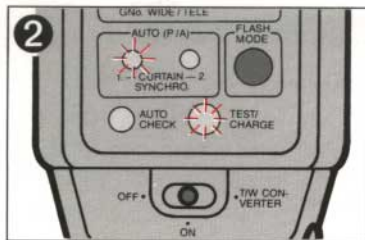
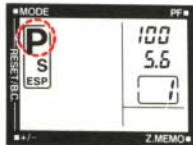
Simple point & shoot photography


Flash photography in the camera mode P (Program Exposure)

When using the built-in flash simultaneously, refer to p. 13 and p. 15.



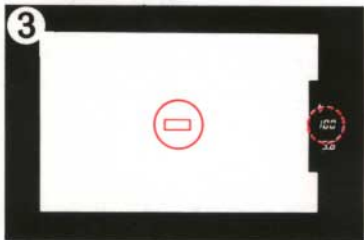
- *Turn the flash power switch ON.
- *Set the camera on standard P (Program exposure) mode.



- *Check the CHARGE lamp.
 - The CHARGE lamp on the flash will light up and  will appear in the viewfinder of the camera.

NOTE: If the flash is not used within 30 seconds, the power save function will automatically turn the light off. The light will reappear when the shutter release button is pressed lightly.





3
*Make sure the shutter speed indicates 1/100 sec.

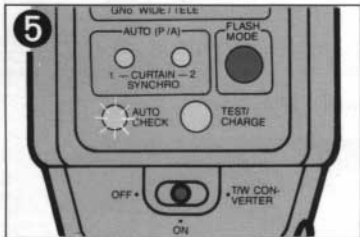
NOTE: If the shutter speed is faster than 1/100 sec., the flash will not fire even after charging.



4
*Press the zoom button to compose the picture.
*Press the shutter release button fully.

- When using the zoom, the flash coverage angle of the flash automatically changes to either WIDE or TELE.
- In dark places, an infrared beam is automatically emitted from the AF illuminator. (Effective distance up to 7 m/23 ft.)

NOTE: Depending on the subject, for example—dark or black, light or white—the beam emitting distance of the AF illuminator will differ, making correct focus difficult. In such cases, move closer to the subject.



*The flash fires on release of the shutter.

- Proper flash emission is confirmed when the AUTO CHECK lamp blinks for about 3 seconds after the shutter is released.

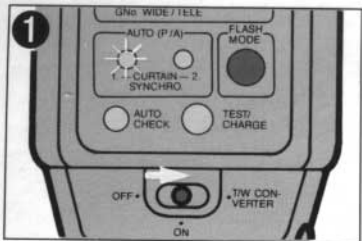
Suitable shooting distance for the flash

Film speed	distance
ISO 100	1.2 — 7.1 m / 3.9 — 23.3 ft.
ISO 200	1.2 — 10.0 m / 3.9 — 32.8 ft.
ISO 400	1.2 — 14.2 m / 3.9 — 46.6 ft.

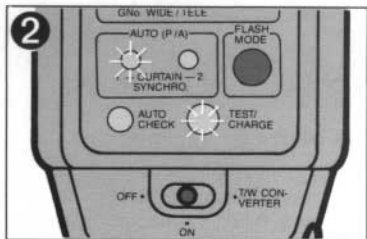
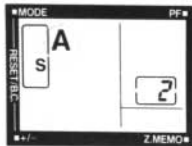
The AUTO CHECK lamp indicates the proper flash emission. For negative color film the maximum distance is usually 1.4 times longer.

Flash photography in the camera mode A (Aperture-preferred exposure)

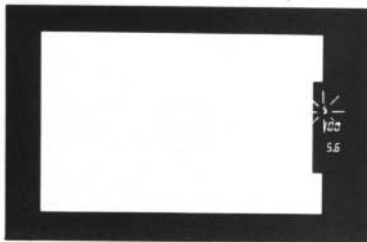
When using the built-in flash simultaneously, refer to p. 13 and p. 15.




- *Turn the flash power switch ON.
- *Set the camera on A (Aperture-preferred exposure) mode.



- *Check the CHARGE lamp.



- The CHARGE lamp on the flash will light up and  will appear in the viewfinder of the camera.



NOTE: Flash will not fire if a shutter speed is faster than 1 / 100 sec.

- Proper flash emission is confirmed when the AUTO CHECK lamp blinks for about 3 seconds after the shutter is released.
- If the AUTO CHECK lamp does not blink, open the aperture, compose the shot again, and press the shutter release button.

*Select the aperture that corresponds to a shutter speed of 1 / 100 sec.

*Press the shutter release button.

Aperture and proper shooting distance (ISO 100)

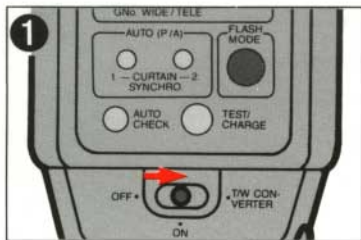
aperture setting	4.5	5.6	8	11	16	22
WIDE: GN 32 (GN 105)	1.2—7.1 m (3.9—23.3 ft.)	1.2—5.7 m (3.9—18.7 ft.)	1.2—4.0 m (3.9—13.1 ft.)	1.2—2.9 m (3.9—9.5 ft.)	1.2—2.0 m (3.9—6.6 ft.)	1.2—1.45 m (3.9—4.8 ft.)
TELE: GN 40 (GN 131)	—	1.2—7.1 m (3.9—23.3 ft.)	1.2—5.0 m (3.9—16.4 ft.)	1.2—3.6 m (3.9—11.8 ft.)	1.2—2.5 m (3.9—8.2 ft.)	1.2—1.8 m (3.9—5.9 ft.)

NOTE: Shooting distance listed in meters. Parentheses indicate (ft.).

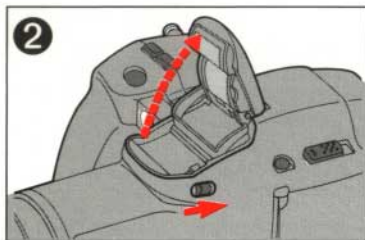
NOTE: The AUTO CHECK lamp indicates the proper flash emission. For negative color film the maximum distance is usually 1.4 times longer.

Reducing red-eye phenomenon in flash photography (Camera exposure mode P or A)

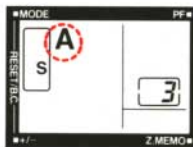
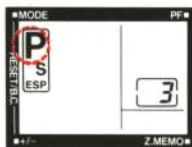
By using the built-in flash simultaneously, red-eye phenomenon (when a subject's eyes appear red) will be reduced.

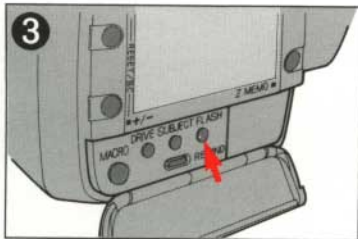


- *Turn the flash power switch ON.
- *Set the camera on either P (Program exposure) or A (Aperture-preferred exposure) mode.

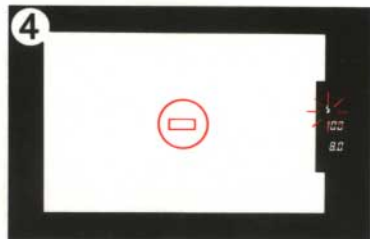
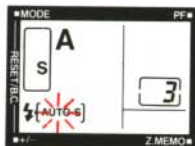
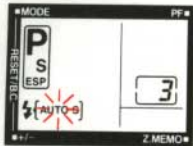


- *Activate the built-in flash (pop up flash).



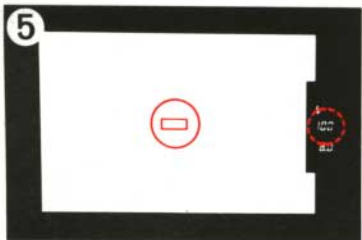


*Set the flash mode of the camera to AUTO-S.



*Make sure the built-in flash and external flash are charged.

— When the built-in flash and external flash are charged ⚡ will appear in the viewfinder.



*Make sure the shutter speed indicates 1 / 100 sec.

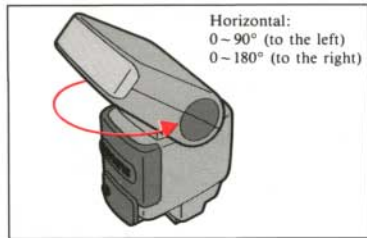
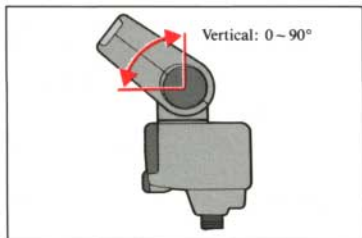
*Press the shutter release button.

— Proper flash emission is confirmed when the AUTO CHECK lamp blinks for about 3 seconds after the shutter is released.

Flash photography applications

Bounce photography

With an ordinary flash, subjects are often outlined by shadows. By using bounce flash, however, light is directed at and reflected off a wall or ceiling rather than the subject. With bounce flash photography you can obtain a properly exposed picture softly touched by light that covers the entire subject. By using the built-in flash simultaneously, you can further enhance the lighting of the subject. (catchlight effect.)



- *Adjust the flash by aiming at the area from where you want to reflect light.
- We generally recommend that you set the flash at about a 60° angle.
- *Set the camera on either P (Program exposure) or A (Aperture-preferred exposure) mode.
- *Compose your shot and press the shutter release button.

— The flash mode will automatically change from IVP to normal auto in bounce flash photography.

NOTE: When you use a film over ISO 800 or under ISO 50, select the desired aperture setting (FN) in A (Aperture-preferred exposure) mode according to Chart 2 on p. 28.



Straight flash photography



Bounce flash photography



Simultaneous use of the built-in flash with the bounce flash (catchlight effect).

NOTE: When bounce shooting, press the TEST button and check the proper flash emission before the shutter is released.

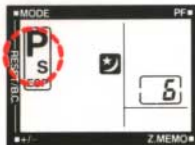
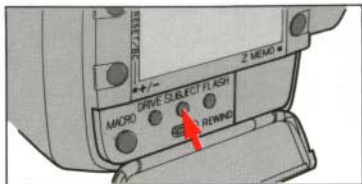
NOTE: If there is no proper flash emission display, move closer to the subject or open the aperture in A (Aperture-preferred exposure) mode.

NOTE: In bounce flash photography, the possible shooting distance becomes shorter than in straight flash photography.

NOTE: If there is color on the reflecting wall or ceiling that color will be shed on your subject. Try using a white or light colored reflector.

Slow synchro flash photography

Use slow synchro mode to have the best lighting condition for both main subject and the background (at night for example).



— When the Night scene mode is set, the camera will automatically change to P (Program exposure) mode.

*Set the camera on Night scene mode.

NOTE: Slow synchro photography in the manual mode is possible (refer p. 21).

NOTE: The shutter speed may be very slow to attain proper exposure. To prevent blurring, the camera should be set firmly in position (with a tripod for example).



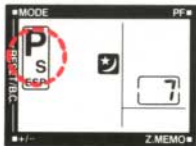
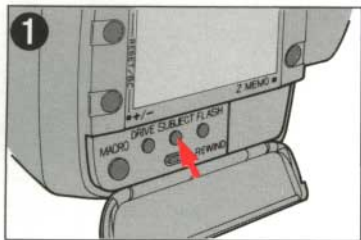
Normal synchro photography



Slow synchro photography

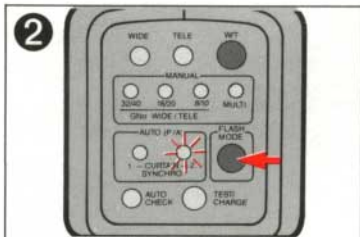
Follow synchro photography

When using the G40 electronic flash a special effect called follow synchro photography can be performed. During an extended exposure, the flash will fire just before the shutter closes. This allows to capture a sense of movement in the subjects. The tail-lights on a moving vehicle for example can be traced.



*Set the camera on Night scene mode.

— When Night scene mode is set, the camera will automatically change to P (Program exposure) mode.



NOTE: The shutter speed may be very slow to attain proper exposure. To prevent blurring, the camera should be set firmly in position (with a tripod for example).

NOTE: Follow synchro mode is only effective when the camera is in night scene mode.

*Press the **FLASH MODE** button on the flash to set **SYNCHRO** to **CURTAIN-2** mode (for follow synchro shots).

CURTAIN-1 SYNCHRO
(Normal synchro)

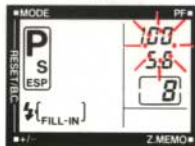
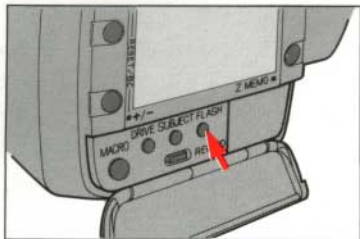


CURTAIN-2 SYNCHRO
(Follow synchro)



Fill-in flash photography (Camera exposure mode P)

In this mode, the flash always fires regardless of available light. Use this mode for daylight shooting with backlit conditions to compensate for backlighting.



— When shooting in extremely bright light or when using high-speed film, over exposure may occur. In this case, aperture setting and shutter speed will blink to warn the over exposure.

NOTE: Night scene mode and Portrait zoom mode are not possible when using fill-in flash.

*Set the exposure mode of the camera to P (Program). Pop-up the built-in flash and set the flash mode to FILL-IN.

No flash

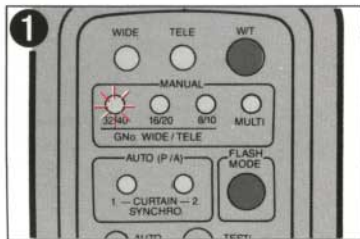


With fill-in flash



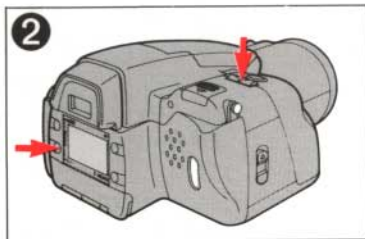
Manual flash photography (Camera exposure mode M)

In M (Manual exposure) mode the shutter speed and aperture can be selected individually while using the flash. — 3 steps in WIDE mode (GN32, 16, 8 ISO 100·m / GN105, 53, 26 ISO 100·ft.) and 3 steps in TELE mode (GN40, 20, 10 ISO 100·m / GN131, 66, 33 ISO 100·ft.).

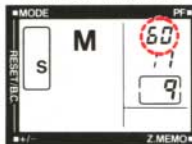


*Set the camera on M (Manual exposure) mode.

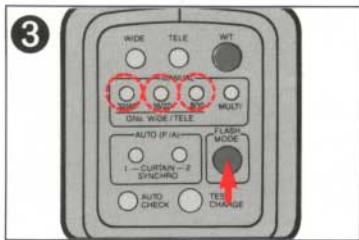
- The flash will be automatically set for manual mode.
- The GN will be automatically set on 32 (ISO 100·m) / 105 (ISO 100·ft.) in WIDE and 40 (ISO 100·m) / 131 (ISO 100·ft.) in TELE.



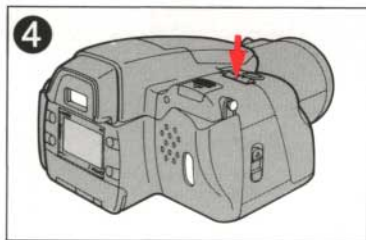
*Set the shutter speed at 1 / 100 sec. or slower than 1 / 100 sec.



NOTE: Select a slow shutter speed to perform slow synchro flash photography.



3 *Press the FLASH MODE button on the flash to select the GN.

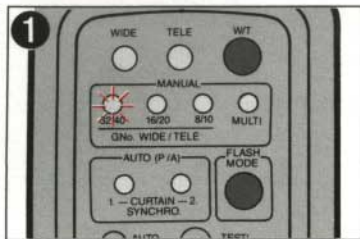


4 *Set the aperture which corresponds to the shooting distance.

NOTE: Select the desired aperture setting according to Chart 1 on p. 27.

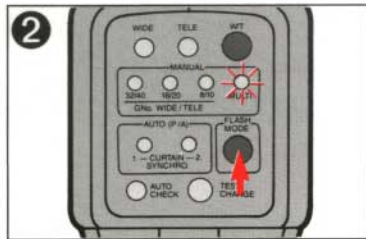
Multi flash photography (Camera exposure mode M)

Use this mode to capture the continuous movements of the subject. Effects are stronger if the background is dark.



*Set the camera on M (Manual exposure) mode.

— The flash will be automatically set for manual mode.



*Press the FLASH MODE button on the flash to set MULTI mode.

Shutter speed, flash intervals and numbers

Shutter speed (sec.)	Flash intervals (sec.)	Maximum number of flash
15	0.8	20
10~8	0.4	20
6~4	0.2	20
3~2	0.1	20
1.5~1	0.05	20
0.7~1/2	0.025	20
1/3~1/4	0.025	10
1/6~1/8	0.025	5
1/10~1/15	0.045	2
1/20~1/100	—	1

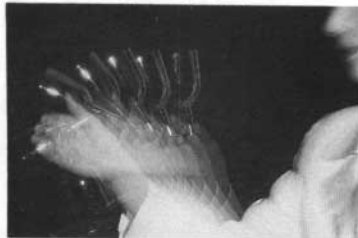
*Select the shutter speed.

— Light emission frequency will decrease as battery power weakens or as the shooting environment changes.

*Select the aperture setting.

— The first flash emission in multi flash mode is about GN7 (ISO 100·m)/GN23 (ISO 100·ft). The strength of the flash gradually decreases after the first individual emission in multi flash mode.

Multi flash photography

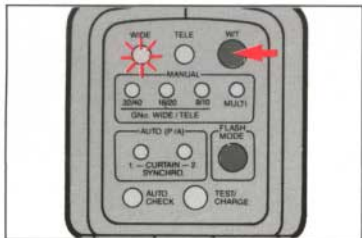


NOTE: Use new batteries for multi flash photography.

NOTE: In daylight conditions, the multi flash will not be as effective.

Special Effects

Manual adjustment of flash coverage angle



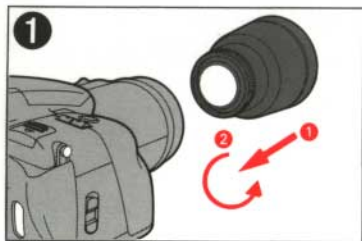
*Press W/T button on the flash.

— Manual adjustment mode will be canceled when varying zoom range.

NOTE: When the lens is WIDE, and the coverage angle of the flash is on TELE, the areas outside the center of the photo will come out darker.

Auto flash photography with a wide converter or teleconverter (Camera exposure mode P or A)

When the converter mode is selected, the flash automatically changes from IVP (Intelligent Variable Power) flash to normal auto flash (refer to p. 29).

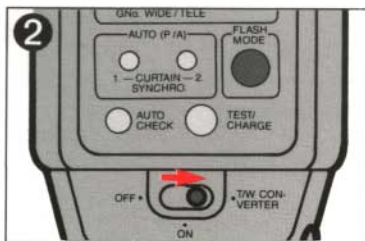


1
*Attach the wide converter or teleconverter to the camera.

NOTE: It is not possible to use the built-in flash when using a wide converter or teleconverter.

Wide converter: IS/L LENS A-28 H.Q.
CONVERTER 0.8 ×

Teleconverter: IS/L LENS A-200 H.Q.
CONVERTER 1.5 ×



2
*Set the power switch of the flash to T/W CONVERTER mode.

NOTE: Refer to Chart 1 on page 27 for manual flash shooting.

When the converter is attached, the aperture setting does not change.

(Chart 1) Aperture setting and shooting distance for manual flash photography

Film speed (ISO)	W/T	Aperture setting						
		GN	4.5	5.6	8	11	16	22
100	WIDE	32 (105)	7.1 (23.3)	5.7 (18.7)	4 (13.1)	2.8 (9.2)	2 (6.6)	1.4 (4.6)
		16 (53)	3.6 (11.8)	2.8 (9.2)	2 (6.6)	1.4 (4.6)	1 (3.3)	—
		8 (26)	1.8 (5.9)	1.4 (4.6)	1 (3.3)	—	—	—
	TELE	40 (131)	—	7.1 (23.3)	5 (16.4)	3.5 (11.5)	—	—
		20 (66)	—	3.6 (11.8)	—	—	—	—
		10 (33)	—	—	—	—	—	—
200	WIDE	45 (148)	10 (32.8)	8 (26.2)	5.6 (18.4)	4 (13.1)	2.8 (9.2)	2 (6.6)
		22 (72)	4.9 (16.1)	3.9 (12.8)	2.8 (9.2)	2 (6.6)	1.4 (4.6)	1 (3.3)
		11 (36)	2.4 (7.9)	2 (6.6)	1.4 (4.6)	1 (3.3)	—	—
	TELE	56 (184)	—	10 (32.8)	7 (23.0)	5 (16.4)	3.5 (11.5)	—
		28 (92)	—	5 (16.4)	3.5 (11.5)	—	—	—
		14 (46)	—	—	—	—	—	—

Aperture setting = GN (at ISO 100) + shooting distance

NOTE: Shooting distance listed in meters. Parentheses indicate (ft.).

(Chart 2) Aperture setting for bounce photography or using a converter

		Film speed (ISO)							
		3200	1600	800	400	200	100	50	25
Usable aperture setting	4.5	×	×	×	○	○	○	○	○
	5.6	×	×	○	○	○	○	○	○
	8	×	○	○	○	○	○	○	○
	11	○	○	○	○	○	○	○	○
	16	○	○	○	○	○	○	○	×
	22	○	○	○	○	○	○	×	×

Usable aperture setting
 ○: Proper exposure
 ×: Improper exposure

**(Chart 3) Maximum effective distance using a converter.
(for reversal film)**

		Film speed (ISO)							
		3200	1600	800	400	200	100	50	25
Shooting distance	TELE	20.0 (65.6)	20.0 (65.6)	20.0 (65.6)	14.2 (46.6)	10.0 (32.8)	7.1 (23.3)	5.0 (16.4)	3.6 (11.8)
	WIDE	20.0 (65.6)	20.0 (65.6)	20.0 (65.6)	14.2 (46.6)	10.0 (32.8)	7.1 (23.3)	5.0 (16.4)	3.6 (11.8)

NOTE: Shooting distance listed in meters. Parentheses indicate (ft.).

NOTE: Maximum effective distance for bounce photography is approx. 1/3 times of shooting distance indicated in the upper chart (it may be changed with bounce conditions.)

Troubleshooting

Is it possible to perform multi-flash photography with a flash other than the G40?

No, with the IS-1/IS-1000 only the G40 will work.

While the flash is in T/W CONVERTER mode, if the camera is set to M (manual exposure) mode, does the flash mode switch to auto flash?

No, it changes to manual flash

When will the AUTO CHECK by TEST light emission be effective?

When bounce shooting or using a converter you can confirm the proper flash light emission with the AUTO CHECK lamp by pressing the TEST button before using the flash.

When does ζ light up when using both the external and built-in flash?

ζ lights up in the viewfinder when both flashes are charged.

When either the external or built-in flash is charged, shutter speed will be set at 1/100 sec. At this time if you press the shutter release button, the flash will be emitted properly in the effective shooting range.

The CHARGE lamp does not light up.

Older batteries take time to charge. In some cases, it may take longer than 30 seconds, which means that the power save function will serve to shut the light off before it ever has a chance to turn ON.

This should be taken as an indication that the batteries need to be replaced. When replacing the batteries, the power switch should be OFF.

What happens to the exposure when both the built-in flash and the G40 are used simultaneously?

While in P (Program) or A (Aperture-preferred) mode, both the built-in flash and the G40 will fire simultaneously. The correct exposure will be set automatically. Use of the built-in flash will enhance the lighting of your subject. For example, you may choose to light your subject directly with the built-in flash, and indirectly using a bounce flash from the G40.

With continuous use, the flash and batteries become hot.

With repeated use, the flash and batteries inside the flash unit may become hot. In this case you should wait a few minutes for the unit to cool.

Can the flash be used when the close-up converter lens is attached to the camera?

No, it cannot. A well lit picture that covers the entire subject cannot be obtained. Only the built-in flash can be used with the close-up lens and defuser.

What is the difference between IVP (Intelligent Variable Power) flash and normal auto flash?

IVP flash is a system that controls the appropriate emission of light according to the distance information between camera and the subject. This system is not influenced by the reflection ratio of the subject. Contrary to this, normal auto flash measures the light reflected from the subject, and controls emission strength.

Care and storage

- *The usable operating temperature is from -10°C to $+40^{\circ}\text{C}$ (14°F to 104°F).
- *Avoid sudden changes in temperature and humidity.
- *Do not expose the flash to rain and water.
- *Do not expose the flash to extreme heat or strong magnetic fields.
- *Do not apply excessive force to the flash or its controls.
- *Do not use organic solvents, thinner or benzene when cleaning the flash.
- *Avoid high impact from bumping or dropping the flash.
- *Do not disassemble the flash; it contains a high-voltage circuitry.

In case of malfunction, consult your nearest Olympus service center.

Precautions for the use of the batteries

- *Do not handle the batteries incorrectly. This may cause them to leak or explode. It may also decrease the life of the battery.
 - Insert the batteries into your flash correctly: positive pole to positive pole, negative pole to negative pole.
 - When replacing the batteries, be sure to replace all four of them at once. Avoid mixing new batteries with old.
 - Avoid mixing different types of batteries.
 - If you plan on storing your flash for an extended period, remove and store the batteries away from the flash.
 - Only Ni-Cd batteries can be re-charged.
- *Do not disassemble the batteries or short circuit them. Keep them away from heat or open flame.
- *Return used or dead batteries to a retail shop. Do not throw them into a public or home garbage container.

Main specifications

Type: Clip-on type auto flash designed exclusively for IS-1/IS-1000.

GN: WIDE: 32, TELE: 40 (ISO 100·m)
WIDE: 105, TELE: 131 (ISO 100·ft)

Flash coverage angle: automatically switching
WIDE: 53° vertical, 70° horizontal (covers the angle of view of 28 mm lens)
TELE: 22° vertical, 30° horizontal (covers the angle of view of 90 mm lens)

Flash frequency: 120~500 times (when using alkaline batteries) (LR6 type) it may vary with the shooting conditions

Color Temperature: 5800°K

Flash recycling time: 0.2~10 sec. (Alkaline batteries) 0.2~6 sec. (Ni-Cd batteries) (it may vary with the shooting conditions.)

Flash modes: IVP (Intelligent Variable Power) flash, Manual flash, Normal auto (automatically switches to normal auto in T/W converter mode and with bounce photography), Multi flash.

Bounce angle: Vertical: 0~90°
Horizontal: 0~90° (to the left)
0~180° (to the right)

Auto power off: The power will shut off after 30 seconds.

AF illuminator: Approx. 1.2~7 m, automatic actuation in low light

Power source: Four 1.5V AA-size alkaline batteries (LR6 type) (possible to use Ni-Cd batteries)

Dimensions: 132.5 (H) × 77 (W) × 116.5 (D) mm
5-3/16 (H) × 3 (W) × 4-9/16 (D) ft.
(excluding protrusions)

Weight: 340 g (12 oz.) (without batteries)

MEMO

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