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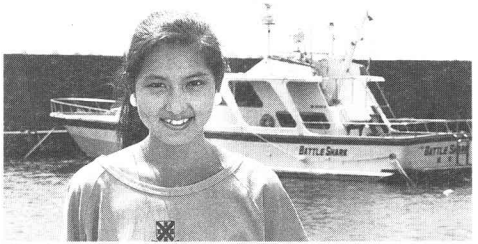
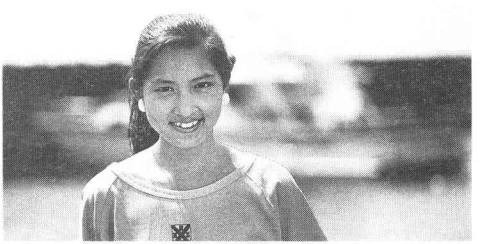
MEMORY FUNCTION (AUTO MODE)



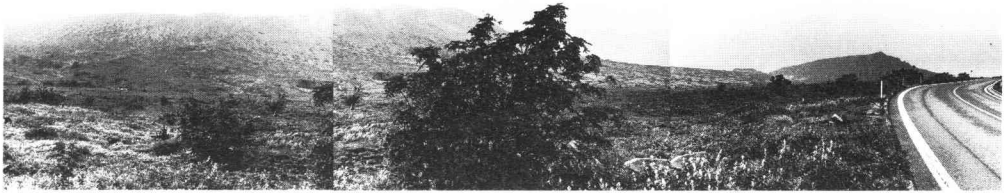


This function enables the camera to store in memory, the exposure level at which a picture was actually taken. It can be used on either center-weighted averaging light metering of Multi-Spot Metering. It is very convenient for shooting a series of picture at an exposure level determined by the photographer.

Even in photographs of a subject taken under the same illumination, the exposure level of her face may vary significantly if she is taken in different dresses because it is influenced by the brightness of the dress. However this camera can keep the exposure level of her face in memory once it has been inputted, so a number of pictures can be taken at a fixed exposure level even if there are substantial changes in dress and the background. This function can be used for panorama photography, too. The memory function also allows you to choose your desired aperture or shutter speed without changing the exposure level in memory. In portraits and macro-photographs which utilize the depth of field effect, it is also possible to change the depth of field continuously with the exposure level fixed. In addition, this function is indispensable in motor drive shooting in spot metering mode.

The memory is automatically released about 60 minutes after shooting. To release it earlier, operate the Clear lever.

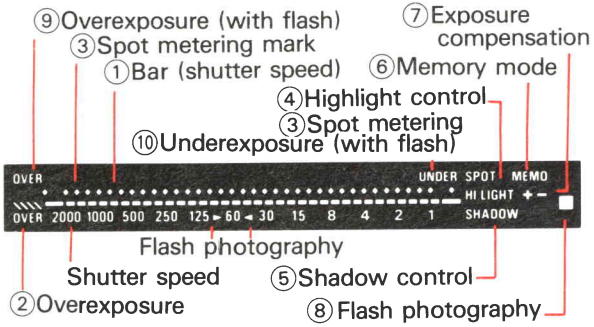
In panorama photography, the exposure level will differ as shown in the above three photographs taken without using the memory lock, because the shooting conditions vary with the camera angle.



With the memory lock, the exposure level can be kept constant as shown in these sample photos even if the shooting conditions are different.

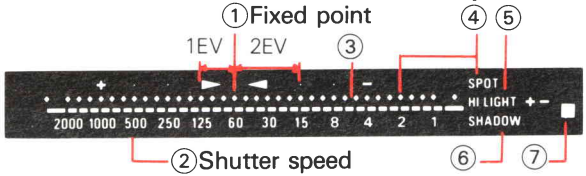
The OM-4Ti shows the shooting information clearly on a large-size liquid crystal display so that you can concentrate your attention on the subject in the viewfinder. The viewfinder information is different in the auto and manual modes as shown below.

Viewfinder Information for Auto Exposure



①Analog display of metered value by bar; ②"OVER" blinks in case of overexposure; ③"SPOT" turns on at the time of spot metering; inputted metered value and luminance value during metering is displayed by dot; ④"HI.LIGHT" turns on when highlight button is pressed; ⑤ "SHADOW" turns on when shadow button is pressed; ⑥In memory mode, "MEMO" turns on with memory standby and blinks after shutter has tripped; ⑦"+ –" turns on to indicate exposure compensation; ⑧Green LED turns on when flash is fully charged; and blinks to indicate correct exposure; ⑨"OVER" blinks in case of overexposure with flash; ⑩"UNDER" blinks in case of underexposure (with T-series and F280 (Normal OTF mode) flash).

Viewfinder Information for Manual Exposure



①Fixed point for correct exposure is displayed; ②Shutter speed which is set; ③Analog display of metered value by bar; ④"SPOT" turns on at the time of spot metering; inputted metered value and luminance value during metering is displayed by dot; ⑤"HI.LIGHT" turns on when highlight button is pressed; ⑥"SHADOW" turns on when shadow button is pressed; ⑦Green LED turns on when flash is fully charged, and disappears on full firing (with T-series and F280 (Normal OTF mode) flash).

APPLICATION OF THE FULL SYNCHRO FLASH F280

The restricting combination of focal-plane shutter and conventional flash technology that has limited flash synchronization speeds (usually to 1/60 sec. and never above 1/250 sec.) has been broken by OLYMPUS' successful attack on the very heart of the problem: the short duration of the flash emission time. By prolonging the flash duration and producing what it calls a Super FP Flash emission, OLYMPUS has produced the world's first 35 mm SLR flash system which, when attached to the OM-4Ti, is capable of synchronizing with speeds of up to 1/2000 sec. The OM-4Ti has been designed to take full advantage of this revolutionary technology, and is ready to liberate photographers from a number of technical chores including the tiresome and difficult techniques required by daylight synchro-flash photography.

Until now, even with the very best flash systems it has been difficult to balance electronic flash and natural light especially in conditions of strong backlight—all too often the result has been an over-exposed picture. Additionally, the choice of aperture has been severely limited, resulting in a narrowing of creative possibilities. The new Full-Synchro Flash F280, however, provides the solution to this problem, and more. With it, everyone can enjoy professional quality results and a creativity that would have been impossible with previous 35 mm SLR camera systems.

Super FP Flash

In a camera employing a focal-plane shutter, high shutter speeds are achieved by a system that results in adjacent areas of the film being exposed successively through a narrow slit (Fig. 1) — in effect, the light moves across the surface of the film. This poses problems for conventional flash units: as the duration of the flash emission is 1/1000 sec. or less (Fig. 2), at shutter speeds above 1/60 sec., only part of the film surface will receive the increased light from the flash unit. For this reason, conventional flash units are usually synchronized with shutter speeds of 1/60 sec. or slower. At these shutter speeds there is a point in time when the whole area of the film surface is exposed simultaneously, and it is at this time that the flash fires. However, the new OLYMPUS Full Synchro Flash F280 overcomes the high shutter speed synchro problem by extending the duration of the flash emission. This means that at high speeds the flash will begin firing before any part of the film is exposed to light, and stop only after the shutter has fully closed. This new form of electronic flash, called a Super FP Flash emission, is now available as a second "OTF" controlled alternative with the Full Synchro Flash System.*

An example of when to use of the Super FP Flash setting is in daylight synchro-flash protography. With "OTF" Direct metering, the combination of flash and natural light can be metered at the beginning of the exposure and, because of full synchronization, an appropriate speed automatically selected for a perfect exposure.

*In addition to Manual, two OTF controlled modes are available: Normal "OTF" and Super FP.

Fig. 1

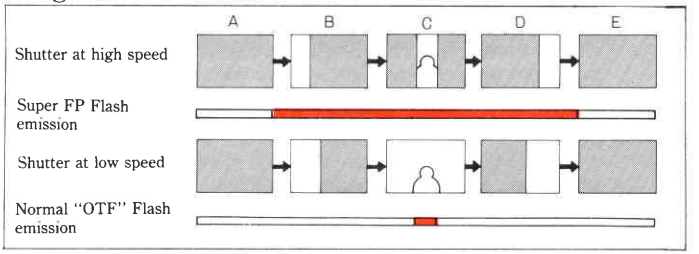
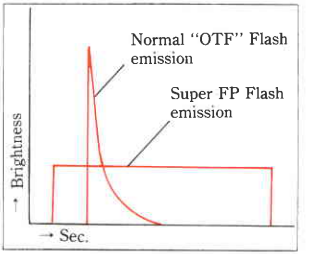


Fig. 2



○Normal "OTF" flash emission: Low speed—synchronized at C, High speed—synchronization impossible (Shutter curtain forms a slit which covers part of C)

○Super FP Flash emission: High speed—synchronized B—D

DAYLIGHT SYNCHRO-FLASH PHOTOGRAPHY

Daylight synchro-flash photography utilizing the Super FP Flash mode of the Full Synchro Flash F280 has excellent characteristics, as can be seen by comparing the photographs on the right with those on the following page. The Photo B result from the use of conventional flash emissions, while photo A and Photo C, D, E, result from the use of the Super FP Flash emission method. When using a Normal "OTF" flash emission, the aperture must be stopped down to compensate for the slow shutter speed, and as a result the depth of field is increased to include often distracting background features. However, when using the Super FP Flash mode, which allows you to select the aperture without any concern for the shutter speed, you are free to include or exclude background features. As a result of this new creative freedom, you can exclude background detail even when shooting a portrait with strong backlight, as can be seen from the example. Furthermore, you need no longer live in fear of excessive flash illumination: automatic shutter speed control ensures perfect exposure. All of which means, natural daylight synchro-flash photography is now within the reach of everyone.

Photo A

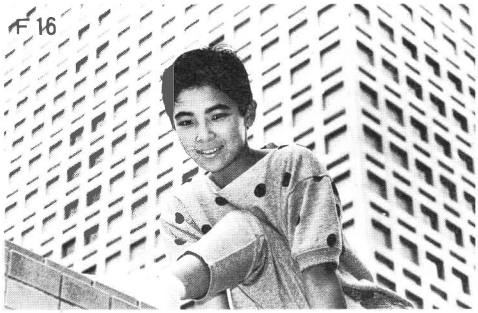


Photo B

Ⓒ

Ⓒ When using daylight synchro flash in a backlit situation.

Shoot with Super FP Flash mode to make up for the difference between the brightness of the subject and background. Use daylight synchro flash as you desire, such as freezing the movement of water by using a high shutter speed. Although very difficult with a conventional flash emission, a blurred background is easily attained with the Super FP Flash. This flash mode allows truly creative flash photography.

Ⓓ Ⓔ When using flash to express movement by blurring.

Conventional flash emissions stop movement, but the Super FP Flash mode allows you to express movement, as shown in these pictures. so it is possible to combine flash photography with a slow shutter speed to lend a sense of movement to your photos.

Ⓓ

Ⓔ

MAIN SPECIFICATIONS OF F280

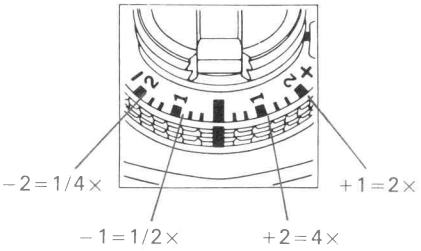
Guide number	28 (ISO 100. meters at Normal "OTF" Flash)
Coverage angle	53° vertical. 74° horizontal
Number of flashes	(with R6 (AA) alkaline batteries) Super FP Flash mode:80 ~ 260 firings Normal "OTF" Flash mode:80 ~ 600 firings MANUAL:80 firings
Emission time	Super FP Flash mode 20 ~ 40 milliseconds Normal "OTF" Flash mode 25 micro seconds ~ 1 millisecond
Dimensions	110(H) × 68(W) × 71(D)mm (4.3" × 2.7" × 2.8")
Weight	250 grams (8.8oz)

Specifications subject to change without notice.

EXPOSURE COMPENSATION

The OM-4Ti also permits exposure compensation with an Exposure Compensation Dial. If the background is brighter than the subject, turn the dial and set it to a (+) side position. The amount of exposure is double on (+1) position, and four times on (+2) position.
If the background is darker than the subject, turn the dial and set it to a (−) position.
If the compensation dial is turned, the +/− display in the viewfinder blinks. The bar graph display shifts according to the amount of compensation.

*Compensation dial operated after spot metering: Only the bar graph shifts.
Compensation dial operated in memory condition: The bar graph shifts to make compensation, based on the exposure level stored in memory.



DEPTH OF FIELD

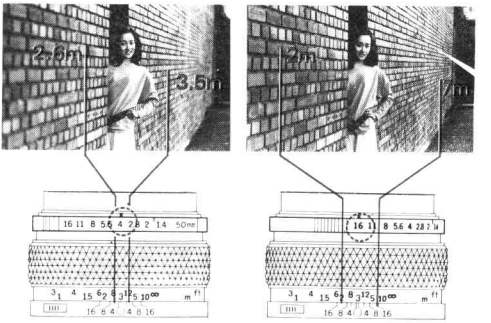
Depth of field is the area of acceptable sharpness in front of and behind the subject in focus. As you get closer to your subject or as you open your lens (e.g. from F16 to F2.8) the depth of field becomes shallower. By stopping your lens down (e.g. from F2.8 to F16) or getting farther away from your subject this depth of field can be increased.

The table below shows that when the camera-to-subject distance is 3m, the depth of field at F16 ranges from 1.93m to 6.93m.

As you press the preview button, looking through the viewfinder, you can ascertain the actual depth of field.

Depth of Field Table (F1.8 & F1.4 50mm lenses)
Circle of least confusion 1/30mm

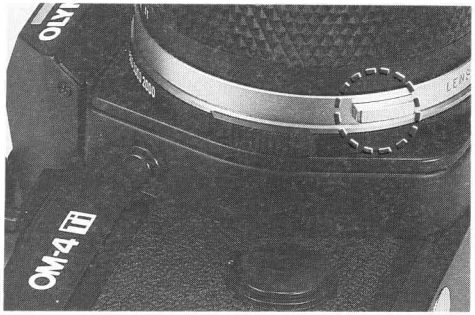
Scale / F Stop	Camera-to-Subject Distance (m)									
	0.45	0.5	0.7	1	1.5	2	3	5	10	∞
1.4	0.45 ~ 0.45	0.50 ~ 0.50	0.69 ~ 0.71	0.99 ~ 1.02	1.47 ~ 1.54	1.94 ~ 2.07	2.86 ~ 3.16	4.61 ~ 5.46	8.55 ~ 12.05	57.78 ~ ∞
1.8	0.45 ~ 0.45	0.50 ~ 0.50	0.69 ~ 0.71	0.98 ~ 1.02	1.46 ~ 1.55	1.92 ~ 2.09	2.82 ~ 3.20	4.56 ~ 5.60	8.21 ~ 12.79	45.05 ~ ∞
2	0.45 ~ 0.45	0.50 ~ 0.50	0.69 ~ 0.71	0.98 ~ 1.02	1.45 ~ 1.55	1.91 ~ 2.10	2.80 ~ 3.23	4.47 ~ 5.68	8.05 ~ 13.20	40.57 ~ ∞
2.8	0.45 ~ 0.45	0.49 ~ 0.51	0.69 ~ 0.71	0.97 ~ 1.03	1.43 ~ 1.57	1.88 ~ 2.14	2.78 ~ 3.33	4.28 ~ 6.01	7.47 ~ 15.15	29.02 ~ ∞
4	0.44 ~ 0.46	0.49 ~ 0.51	0.68 ~ 0.72	0.96 ~ 1.04	1.41 ~ 1.61	1.83 ~ 2.20	2.68 ~ 3.49	4.04 ~ 6.57	6.74 ~ 19.44	20.35 ~ ∞
5.6	0.44 ~ 0.46	0.49 ~ 0.51	0.67 ~ 0.73	0.94 ~ 1.06	1.37 ~ 1.66	1.77 ~ 2.29	2.51 ~ 3.74	3.75 ~ 7.52	5.96 ~ 31.31	14.55 ~ ∞
8	0.44 ~ 0.46	0.48 ~ 0.52	0.66 ~ 0.74	0.92 ~ 1.09	1.32 ~ 1.73	1.69 ~ 2.45	2.34 ~ 4.18	3.39 ~ 9.61	5.09 ~ 378.10	10.21 ~ ∞
11	0.43 ~ 0.47	0.48 ~ 0.53	0.65 ~ 0.76	0.90 ~ 1.13	1.27 ~ 1.84	1.60 ~ 2.68	2.14 ~ 4.90	3.02 ~ 14.74	4.30 ~ ∞	7.44 ~ ∞
16	0.43 ~ 0.48	0.47 ~ 0.54	0.63 ~ 0.79	0.86 ~ 1.20	1.19 ~ 2.05	1.47 ~ 3.11	1.93 ~ 6.93	2.57 ~ 138.43	3.42 ~ ∞	5.13 ~ ∞

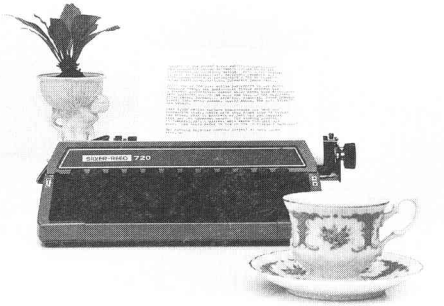


The double series of numbers engraved on the depth of field scale represent F stops: F4, F8 and F16. Once you have focused on your subject, all objects within the distance range indicated on the lens distance scale between the marks for the F/stop you have selected will have acceptable sharpness.

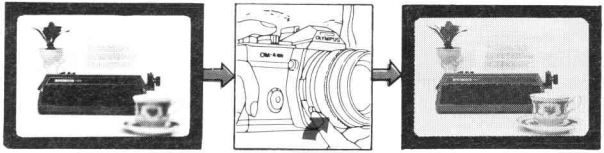
*For other lenses, see the lens instruction manual.

PREVIEW BUTTON



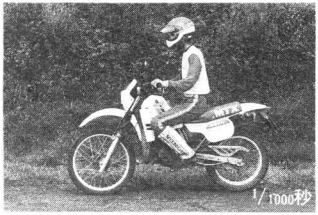


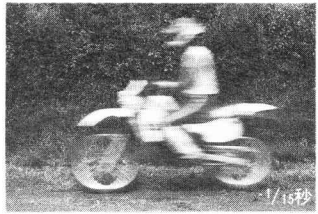
When you wish to see which objects fall within the acceptable zone of sharpness (depth of field), press the preview button on your lens. The diaphragm of the lens will stop down to the preset F stop enabling you to see the depth of field in the viewfinder.

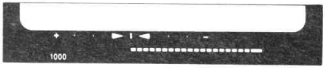


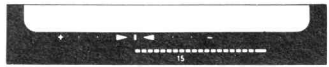
CAUTION: If you jerk th preview button while depressing the shutter release button halfway down the shutter might be released.

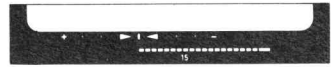
SHUTTER SPEEDS







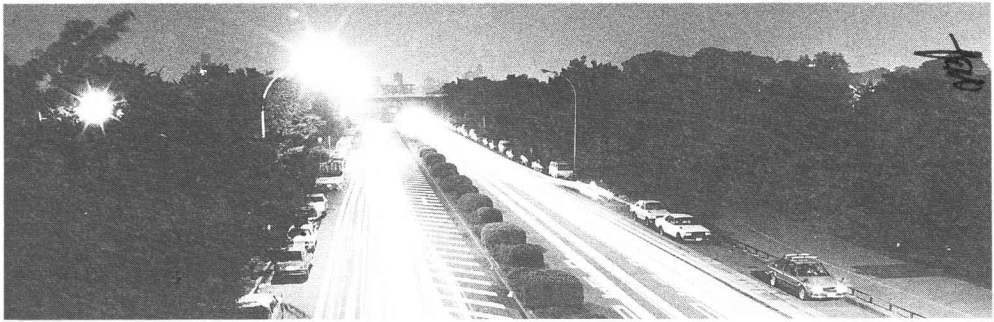




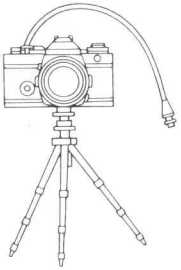
This camera offers various possibilities for visual expression by changing the shutter speed.
High shutter speeds can be used to "freeze" a moving subject to give sharp definition of the image. Shutter speeds of 1/2000 ~ 1/500 sec. can "stop" the movement of a considerably fast moving subject. A shutter speed of about 1/250 sec. will be enough to shoot a child at play, if he is not moving too quickly. There are two methods for giving dynamic expressions. The first one is to blur out the movement of the subject itself, thereby creating a moving image. The second one is to pan the camera according to the movement of the subject. While the background is blurred, the subject is sharply defined to create a moving image.

*In using slow shutter speeds, it is necessary to guard against camera shake. We will suggest a very practical method for choosing shutter speeds. Generally, shutter speeds of which denominator value is larger than the focal length value of the lens used are good for preventing camera shake. If you are using a 50mm lens, for example, shutter speeds of 1/60 sec. or higher are best; and if you are using a 200mm lens, shutter speeds of 1/250 sec. or higher are best.

BULB EXPOSURE



To take night pictures and other subjects requiring long exposure, use a tripod and cable release and shoot at B (bulb) to prevent camera shake.
Set the Manual Shutter Speed Ring to B (bulb) and press the shutter release.
*At "B", the mechanical shutter can be actuated without battery consumption.



MULTIPLE EXPOSURES

By tripping the shutter several times on the same frame, multiple images are produced on the same frame.

This is how to do:

① After the first exposure is ended, erect the rewind crank and turn it clockwise as far as it will go to take up film slack.

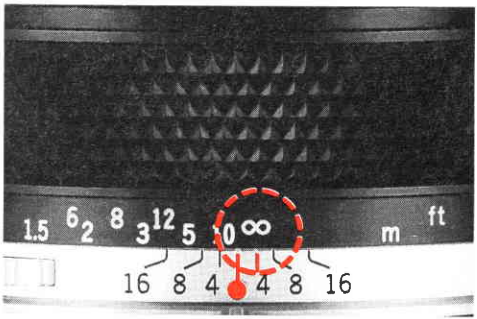
② While holding both the rewind knob and rewind button with your fingers to prevent them from moving, wind the film advance lever.
In fact, the film is not wound and the shutter is cocked by this operation.

③ Press the shutter release as you would do normally, and double exposure will occur.

④ By repeating the steps ② and ③, the frame will be exposed as many times as you want. However, the frame counter advances each time the shutter release is pressed.

⑤ After ending the multiple exposure, put the front lens cap on and make a blind shot.
Note: The frame may shift slightly.

INFRARED PHOTOGRAPHY



When shooting infrared pictures with infrared film and a red filter, the point of focus will slightly differ if you focus visually. The amount of shift varies with the lens and a red line or red dot is marked on the lens' depth of field scale to compensate for it. First, focus the lens without a red filter on as you would do normally. Next, read that distance on the distance scale and shift it opposite the infrared mark, then put on a red filter and shoot. (The above picture shows the distance at infinity.)
Note: It is impossible to shoot on Auto.

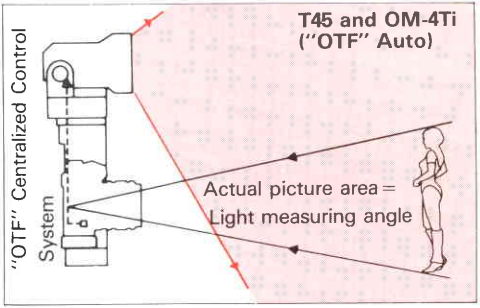
OM
SYSTEM

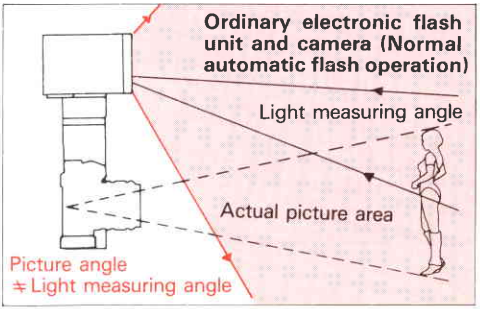
Electronic flash is very similar to daylight. As it is well balanced for daylight type color films that are most popular, the electronic flash is used for various photographic applications. Electronic flash is especially useful in unfavorable lighting situations, ensuring easy, error-free picture taking. In dim light, for example, without an electronic flash you will have to use slow shutter speed with a risk of causing camera shake and blurred pictures. Under the illumination of a flourescent lamp or incandescent lamp, the picture often does not come out with correct colors because it lacks proper color balance. Electronic flash solves all these problems.

The electronic flash can also be used in daylight as fill-in light for backlighted subjects or subjects with too strong a contrast as well as for freezing a fast moving subject.

Because the OM-4Ti provides full control of T-series flashes, there is no operation required on the flash side such as setting the film speed and aperture, mode switchover, and exposure compensation. Since the "OTF" direct light metering system can measure the light that the film, no exposure error occurs due to the difference in covering range of the flash's light receptor and picture frame. You can not only take flash pictures in the auto and manual modes, but also use sophisticated techniques such as bounce, diffuse, ultra close-ups, and multi-lamp flash with ease in a fully automatic mode.

"OTF" AUTO FLASH

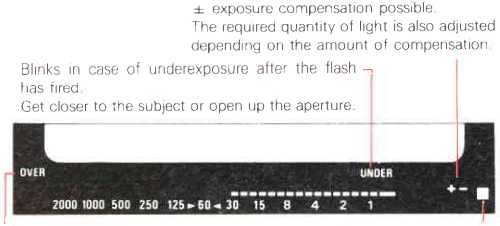




OPERATION OF T-SERIES FLASH

With a T-series flash on the camera, the flash mode will automatically switch according to the camera mode.

If you take pictures in the auto mode, set the camera's mode lever to "AUTO". When the green LED turns on in the viewfinder, the flash is ready for firing. After shooting, the green LED will blink to tell you that your picture has been correctly exposed. If the letters "UNDER" blink, however it means the light is insufficient to get correct exposure and you will have to use a larger aperture. If the letters "OVER" blink, it means an overexposure and you will have to stop down the aperture.



If the shutter speed is faster than 1/60 sec., the flash will not fire and the camera will automatically switch to the ordinary automatic exposure mode.
To take pictures in the manual mode, set the camera's mode lever to "MANUAL" and set the shutter speed at 1/60 sec. or slower. The flash will always fire with its full capacity. For details, refer to the operation manual of the flash.

MAIN SPECIFICATION OF T-SERIES FLASH

	Guide Number ISO 100 m (ISo 100 ft.)	Coverage Angle
Electronic Flash T45	45 (146)	53° vertical, 74° horizontal
Electronic Flash T20	20 (66)	40° vertical, 58° horizontal
T28 Macro Single Flash 1	28 (92)	53° vertical, 74° horizontal
T28 Macro Twin Flash 1	Single 28 (92) Twin 22 (72)	53° vertical 74° horizontal (Single)
T10 Ring Flash 1	10 (33)	80°
T8 Ring Flash 2	8 (26)	80°

Flash Duration	Number of flashes	Dimensions (less batteries) Weight
1/40,000— 1/1,000 sec.	100—500 with Ni-Cd Pack	283(H) × 87(W) × 116 (D) mm 1,120 gr.
1/40,000— 1/1,000 sec.	120—500 with AA-size alkaline batteries	68(H) × 57(W) × 77(D) mm 160 gr.
1/40,000— 1/1,000 sec.	100—500 with AA-size alkaline batteries (T Power Control 1)	73(H) × 50(W) × 32(D) mm 110 gr.
1/40,000— 1/1,000 sec.		73(H) × 50(W) × 32(D) mm 210 gr.
1/40,000— 1/330 sec.		86ϕ × 18 mm 95 gr.
1/40,000— 1/330 sec.		91ϕ × 18,5 mm 110 gr. (Reflector 1: 200ϕ × 32 mm 80 gr.) (Reflector 2: 150ϕ × 32 mm, 40 gr.)

USING ELECTRONIC FLASHES OTHER THAN THE T-SERIES FLASH UNITS

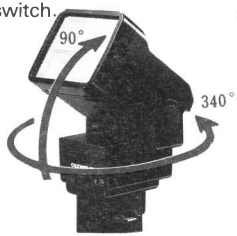
① Mount the flash on the accessory shoe.
If you are using a flash that has no direct contact, connect the flash synchro cord to the synchro terminal.
② Set the film speed on the flash.
③ Set the shutter speed ring to 1/60 sec.
④ If the flash has an AUTO/MANUAL switching device, set it to either AUTO or MANUAL.
⑤ Determine the aperture and set it on the camera.
If you are using an auto flash, set the desired F stop on the flash unit and then set the aperture ring to this F stop.
If you are using a manual flash, calculate the aperture by the following formula or using the flash's calculator panel and set it with the camera's aperture ring. (ISO 100m/ft.)

$$\text{Aperture} = \frac{\text{Flash guide number}}{\text{Flash-to-subject distance (m/ft.)}}$$

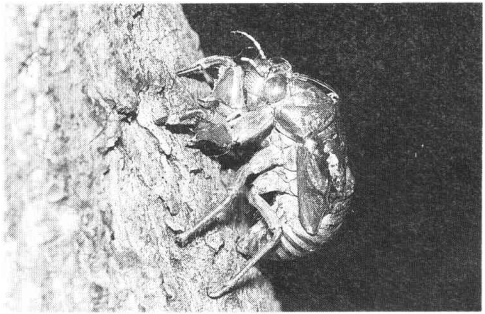
BOUNCE FLASH

The T45, T32 have an adjustable flash head that tilts as much as 90° upward. As it operates on "OTF" auto, it allows you to use bounce flash automatically by simply activating the flash switch.

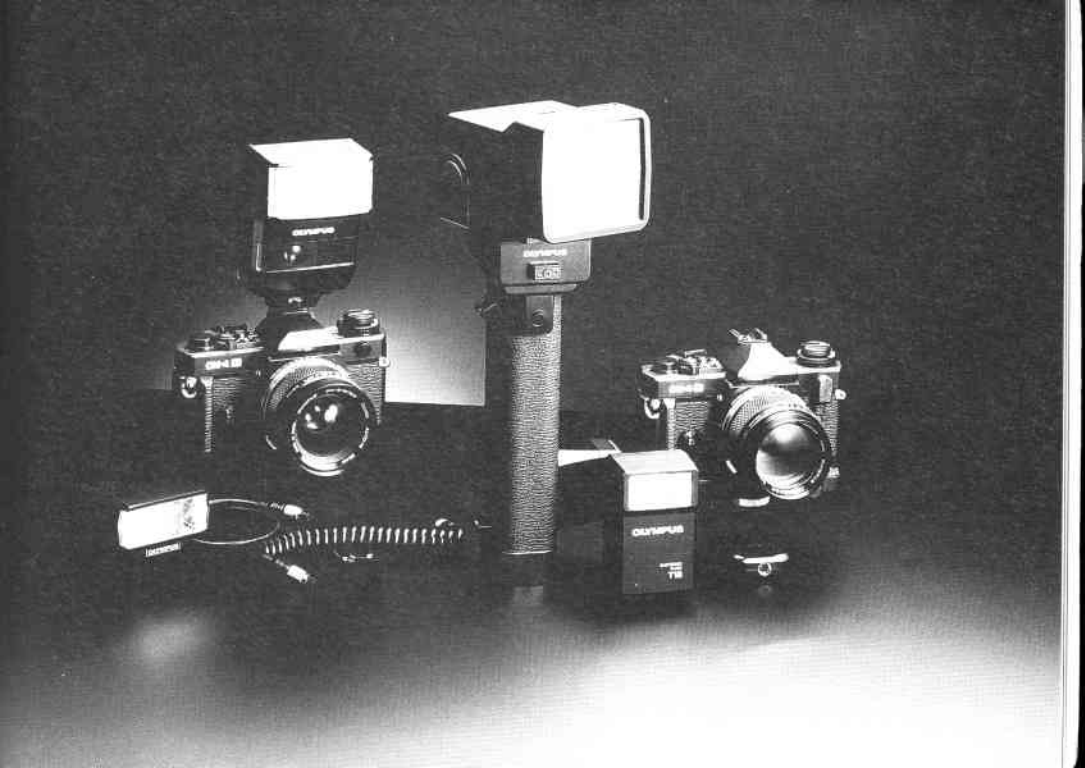
*Set the tilting angle so that the subject is illuminated by reflected light.



CLOSE-UP FLASH



As it operates with all available apertures on "OTF" auto, this feature allows you to take close-ups automatically by simply activating flash switch.


OLYMPUS
OM-4
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SHOOTING WITH A MOTOR DRIVE

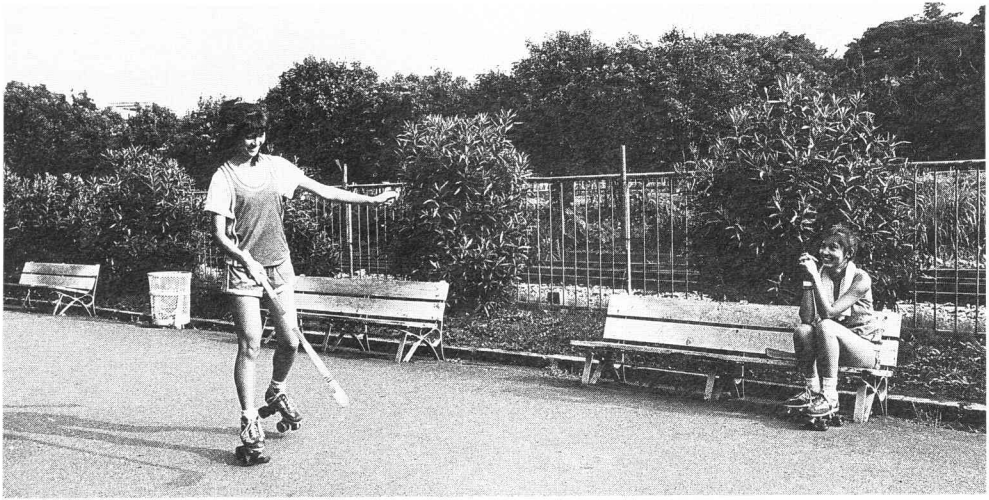
Shooting with a motor drive is very exciting because it enables you to capture your subject in a critical moment by making several shots in a second.

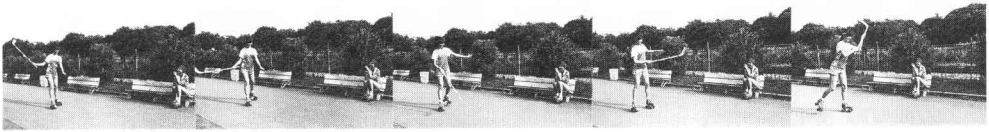
The high speed OM System motor drive has achieved an extremely compact and lightweight design to take full advantage of its ease of operation and high maneuverability. Motor Drive 2—the world's first 5-frames-per-second high speed motor drive with a built-in computer. It is equipped with an LCD display of the number of frames and the operating procedure and also permits motorized rewind when it is attached to the OM-4Ti.

In addition, the Winder 2 is also available, which offers both single-frame exposures and sequential exposures on dial switching.

The OM System's outstanding maneuverability and operability are ideal for shooting dynamic sports photos and documentary press photos. Various accessories can be connected by a direct contact.

*The Motor Drive 1 can also be used, but motorized rewind is impossible.





MOTOR DRIVE GROUP

Selection of Motor Units

- Motor Drive 2. if you want to shoot very fast moving subjects such as a dashing animal or a racing car driving at full speed, the Motor Drive 2 is the best choice because it permits continuous shooting at a high speed of up to five frames a second. This quick shooting capability will often allow you to catch a dramatic instant.
- Winder 2. The Winder 2 is very helpful for shooting impressive moments such as sports scenes and children at play. As it permits continuous shooting at a rate of up to 2.5 frames a second, you will not miss a decisive moment.

Selection of Power Sources

- For the Motor Drive 2, the following two power units are available: a small, lightweight and portable flat-type rechargeable power unit, M.15V Ni-Cd Control Pack 2, and a grip-type battery power unit, M 18V Control Grip 2, which provides added stability when used with a telephoto lens.
- The Winder 2 has a self-contained power supply, but two external power units are also available: M.6V Power Pack 1 and 6V Power Pack 2.

Film Back

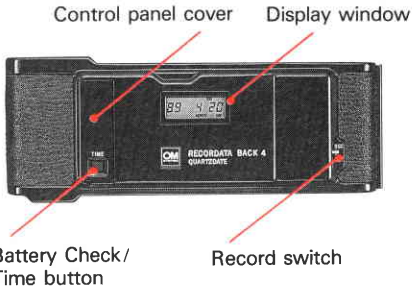
- To shoot many pictures in succession, the 250 Film Back 1 which permits up to 250 exposures is available for the OM-4Ti. It allows you to save the time for film change and take full advantage of the motor performance.

Remote Control System

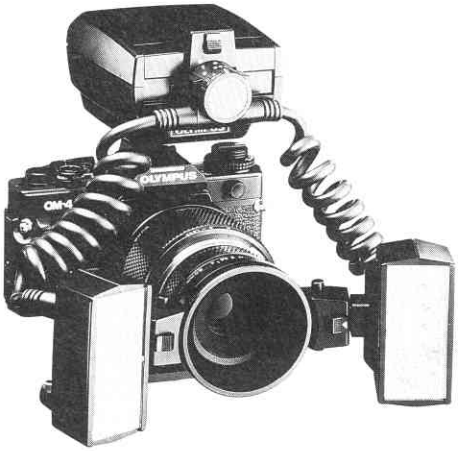
- Both the Motor Drive 2 and Winder 2 can be easily remote-controlled with a dedicated remote cord. Besides the Remote Cords 1.2m and 5m, the M. Quartz Remote Controller 1 with an electronic counter is available, which allows you to trigger the camera and check its operation with an LCD display at a remote location. It is very useful for shooting wild birds and animals and for macro-photography and photomicrography to trip the shutter without a shock.

RECORDATA BACK 4

Interchangeable camera back for data imprinting. Data imprinting is possible in the following forms: (1) Year—month—day (Japanese date description), (2) Month—day—year (American date description), (3) Day—month—year (European date description), (4) Hour—minute, (5) Counter (additive type), (6) Classification number up to 6 digits. Provided with an imprint clear switch to be used when data imprinting is unnecessary. This Recordata Back can also be used as a clock which indicates the hour, minute and second via a Time Button.



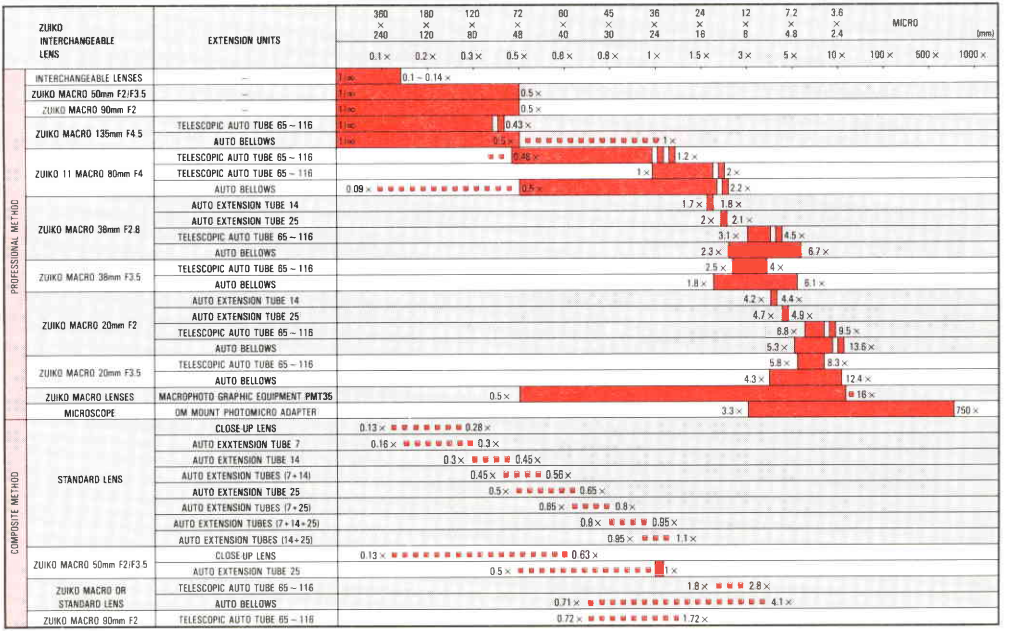
MACROPHOTOGRAPHY



The world of macrophotography is filled with marvellous discoveries. However, macrophotography has been generally considered difficult; calculations of correct exposure, in particular, have been a difficult job even for professionals.

Equipped with a "OTF" direct light metering, the OM-4Ti has solved this problem to always provide correct exposure, regardless of the magnification and aperture. All complicated exposure calculations for multi-lamp flashing are now quite unnecessary. The OM-4Ti also provides a complete macro system including a wide choice of macro lenses that offer excellent life-size and magnified pictures as well as extension units that enable you to take handheld macro pictures.

CHART OF PHOTOGRAPHIC RANGES



MACRO PHOTO UNITS

Simplified Macro System

It allows you to take close-ups up to life size with ease. With this macro system, you will come upon unexpected and wonderful discoveries in tiny things around you such as writing instruments, printed letters, flowers in a vase, etc.

- **Close-up Lenses 49mm and 55mm.** f = 40mm. Simply screw them in the front of the standard lens, and you can take up to 0.63X close-ups.
- **Auto Extension Tubes 7, 14 and 25.** These adapters are placed between the lens and camera body and available in three thicknesses: 7mm, 14mm and 25mm. They can be used in seven combinations. With the standard lens, you can take up to 1.1X close-ups.

Basic System

This is a complete macro system that permits low to high magnifications. It will produce a brilliant image of the marvelous world of tiny things such as the geometric beauty of the compound eye of a dragon fly and close-ups of flowers. An indoor type and outdoor type are available.

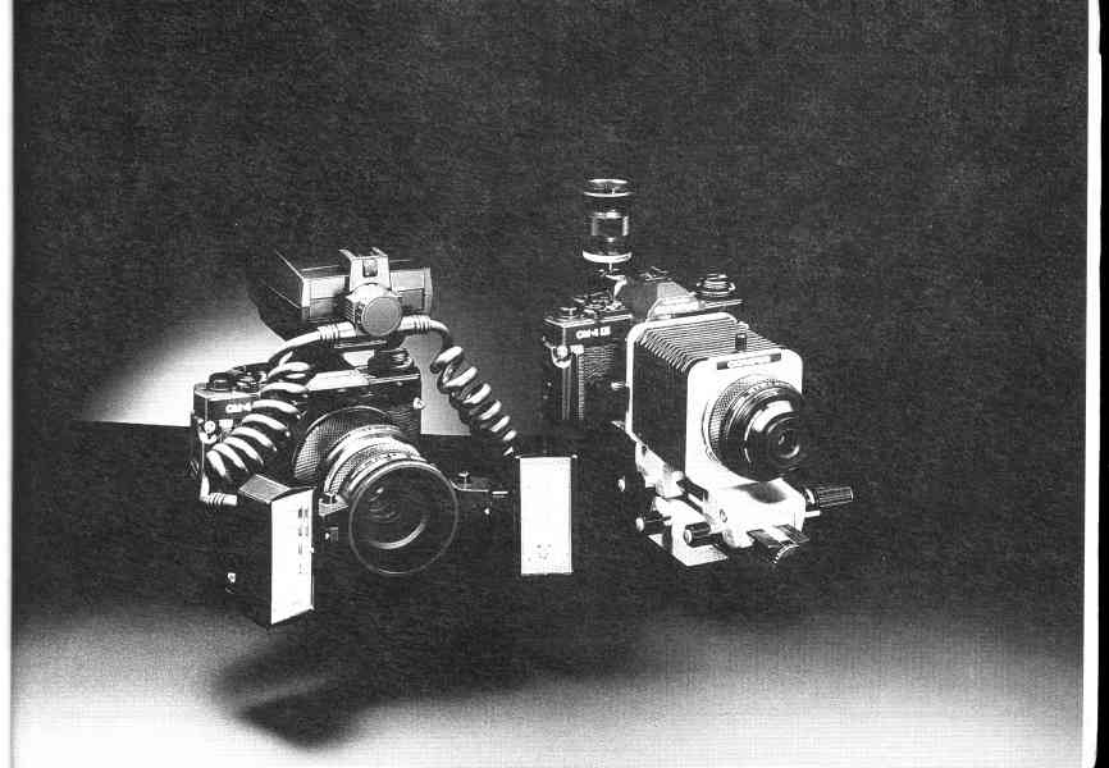
Indoor type: This system uses an auto bellows, macro photo stand, top-light illumination device, etc. in combination with various macro lenses. It is suited for taking high-magnification pictures in a room or studio.

- **Auto Bellows.** A basic unit that helps you take full advantage of the system's capabilities with a variety of lighting units and mounts. The stop-down lever that lets you use a variety of OM System lenses at preset aperture or operated in combination with the double cable release, affords an automatic diaphragm photo function.
- **Zuiko Macro 20mm F2.** Large-aperture macro lens designed exclusively for macrophotography. Combined with the Auto Bellows, it permits magnifications ranging from 4.2X to 16X. Provided with a helicoid for fine focusing.

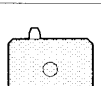
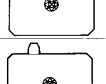
- **Zuiko Macro 38mm F2.8.** Bright, high-magnification macro lens designed exclusively for macro photography. Combined with the Auto Bellows, it permits magnifications ranging from 2.3X to 6.7X. Provided with a helicoid for fine focusing.
- **Macrophoto Stand VST-1.** A compact and sturdy multipurpose stand for solid camera support in close-up and macrophoto work. Comes with frosted stage glass for incident light and may be used in conjunction with Trans-illuminator Base X-DE for lighting of transparent subjects from beneath.
- **Epi-illuminator PM-LSD2.** A two-piece lighting set providing ideal reflected light for macrophotography. Moving the filament allows you to change the position and field of illumination.

Outdoor type: This is a handy and highly manueverable system which includes macro lenses, telescopic auto extension tube 65—116, etc.

- **Telescopic Auto Extension Tube 65—116.** With its variable tube length, this auto extension tube enables you to change the shooting distance and magnification freely.
- **Zuiko 1:1 Macro 80mm F4:** This lens is designed specifically for life-size reproductions. It functions at its best at a 1:1 ratio, but gives outstanding images from 1/2 to 2X life-size, the range of magnifications available when used with the Auto Bellows. With the Telescopic Auto Tube it goes up to life-size, and the close-up lens is used to extend the range to 2X magnifications.
- **Zuiko Macro 135mm F4.5.** Shoots from infinity to life-size with the Auto Bellows, or 0.43X magnifications with the Telescopic Auto Tube, giving long working distances and minimal perspective distortion. It has a helicoid ring for fine focusing.
- **Zuiko Macro 50mm F2:** Large-aperture macro lens which is as fast as a normal lens. Basic design magnification 0.1X. Because aberrations are minimized at close and far distances, this lens exhibits excellent resolution from infinity to as close as 0.24m.
- **Zuiko Macro 50mm F3.5.** Designed for optimum performance at 1/10 magnifications, this outstanding lens gives superb results in general purpose photography at infinity, or for macro subjects as large as 1/2 life-size.
- **Zuiko Macro 90mm F2:** This medium-range telephoto macro lens covers a wide focusing range from 1/2X close-ups to infinity. With its large aperture ratio of F2, it provides excellent image definition in macro photography and promises good performance at infinity for extended picture-taking possibilities.



FINDER GROUP UNITS

TYPE	SCREEN	FEATURES
1-1 **Microprism-matte type** (for most lenses)		Standard type, suitable for general photography. Fast and accurate focusing is done on the central microprism spot as well as on the surrounding matte area. When a lens with a maximum speed of F5.6 or slower is used, the microprism darkens and focusing must be made on the matte area.
1-2 **Microprism-matte type** (for standard & telephoto lenses)		Suitable for general photography in conjunction with a standard or telephoto lens. Focusing is done on the microprism spot as well as on the matte area. When a lens with a maximum speed of F8 or slower is used, the microprism spot darkens.
1-3 **Split image-matte type** (for most lenses)		Suitable for general photography ensuring critical focusing, and ideal for photographers who prefer the split-field and coincidence type focusing. When a lens with a maximum speed of F5.6 or slower is used, the split prism darkens.
1-4N **All matte type** (for most lenses)		Suitable for general photography and ideal for photographers who prefer a view field free from microprism or split prism and for those who are accustomed to focus using matte area. Also suitable for super telephoto photography and close-up photography in conjunction with macro lenses and Auto Bellows. (There is a circle showing the spot metering range.)
1-5 **Microprism-clear field type** (for wide angle & standard lenses)		This transparent screen provides an exceptionally bright finder image. Highly suitable for snapshots using wide angle lenses. The lack of matte surface means depth-of-field effects cannot be ascertained.
1-6 **Microprism-clear field type** (for standard & telephoto lenses)		This screen provides an extremely bright finder image. Focusing is done on the microprism spot. The lack of matte surface means depth-of-field effects cannot be ascertained.
1-7 **Microprism-clear field type** (for super telephoto lenses)		Developed primarily for use with super telephoto lenses this clear field screen provides an extremely bright finder image. The micro-prism spot remains bright even with a lens whose maximum speed is F11. The lack of matte surface means depth-of-field effects cannot be ascertained.

TYPE	SCREEN	FEATURES
1-8 **All matte type** (for telephoto lenses & astronomical telescopes)		This screen is ideal for use with super telephoto lenses of 300mm or more in focal length, or for astrophotography. The extreme fineness of the matte surface permits outstanding field definition. More accurate focusing may be achieved by the use of the Varimagni Finder.
1-9 **Clear field type** (for endoscopic photography)		Designed for use with OLYMPUS fiberoptic endoscopes. This condenser type screen without fresnel lens requires no focusing when a special adapter couples the camera with the fiberscope. Exposure is made automatically by the light supply.
1-10 **Checker-matte type** (for shift lens)		The grid lines engraved on the all-matte surface are used for vertical and horizontal picture alignment. Though originally designed for architectural photography with the shift lens, it is also suitable for general and super-telephotography, and close-up/macrophotography with macro lenses and Auto Bellows.
1-11 **Cross hairs-matte type** (for close-up & macro-photography)		Highly advantageous for close-up and macrophotography with Auto Bellows and extension tubes. For focusing in low magnification close-up photography, use the matte area and in macrophotography greater than life size, use the double cross hairs the same way as with the 1-12.
1-12 **Cross hairs-clear field type** (for photomicrography & macrophotography greater than life size)		The transparent screen offers the photographer focusing with an unusually bright finder image. To focus, first correct your diopter using a dioptric correction lens or Varimagni Finder so that each line of the double cross hairs can be seen clearly and separately. Then bring the Spacemen into focus.
1-13 **Microprism/split image-matte type** (for most lenses)		Most suitable for normal photography, this screen assures pinpoint focusing. The central split-image rangefinder is encircled by a microprism collar. Since the outer area has a matte surface, the screen can be used in the same way as the standard 1-1 and 1-3 Screens. When a lens with a maximum speed of F5.6 or slower is used, the prisms darken and the focusing must be made on the matte area.
1-14 **Microprism/split image-matte type** (for most lenses)		Most suitable for normal photography. The central split-image range finder, encircled by a microprism collar, is inclined 45 degrees to allow easy focusing on subjects with vertical or horizontal lines. When a lens with a maximum speed of F5.6 or slower is used, the prisms darken and focusing must be made on the matte area. The meter needle gives correct light readings.

SELECTION OF FILTERS

With the aperture and shutter, the camera can control the amount of light, but not the quality of light. Therefore, it is necessary to filter the light components that are not wanted for visual expressions. Filters are useful for this purpose.

■ Filters for color and B&W films

Skylight (1A): For absorbing ultraviolet rays. It yields natural colors on the part of a subject in the shade under a blue sky by filtering the light from the sky. It can be used to protect the lens, but it is not recommended to use this filter for subjects which are not affected by ultraviolet rays or a blue sky because the color balance may be impaired.

L3 (UV): In the open air on a bright day, there are a lot of ultraviolet rays to which photographic films are sensitive although they are invisible to the human eye. Affected by these rays scattering in the air, distant landscapes may turn out whitish and unclear. The skylight filter cuts off detrimental ultraviolet rays. It can always be used for lens protection.

ND2/ND4: Neutral gray filter for reducing the light quantity without affecting the color and contrast. Use this filter if you want to open the aperture for a blurred background, or produce special "blur" effects with a slow shutter speed, or to reduce the light intensity without increasing the shutter speed on a reflex telephoto lens which has no aperture control mechanism. Available in two types: ND2 for reducing the light intensity by one stop and ND4 for reducing it by two stops.

C-POL (circularly polarizing filter); For blocking the light reflected from the surface of glass, water and tile to take sharp pictures of fish in the water, subjects behind a show window, etc. It can also be used as a contrast filter for color pictures of landscapes, because it cuts off the light reflected from dust or vapor under a blue sky as well as the surface of leaves and grass. As this is a circularly polarizing filter it can be used on cameras using a half-mirror such as the OM-4Ti.

■ Filters for B&W films

Y48 (Y2): Yellow filter which absorbs ultraviolet, violet and part of blue light. It decreases the effect of blue sky and brings out the clouds. It is also useful for taking distant shots on a bright clear day. with this filter, the sensitivity of films becomes closer to that of the human eye so that ordinary shots at close distance will appear very natural with a slightly enhanced contrast.

O56 (02): Orange filter which absorbs a wider range of light (from ultraviolet rays to blue-green light) than Y48, thus producing an intensified contrast. It can also be used for infrared film.

R60 (R1): Red filter which absorbs violet, blue, green light and part of yellow light, thus blocking almost all light except for red and similar colors. As it produces a strong contrast effect, distant shots turn out sharp and crisp while the tone of blue sky weakens. This filter is indispensable for bringing out the effects of infrared film.

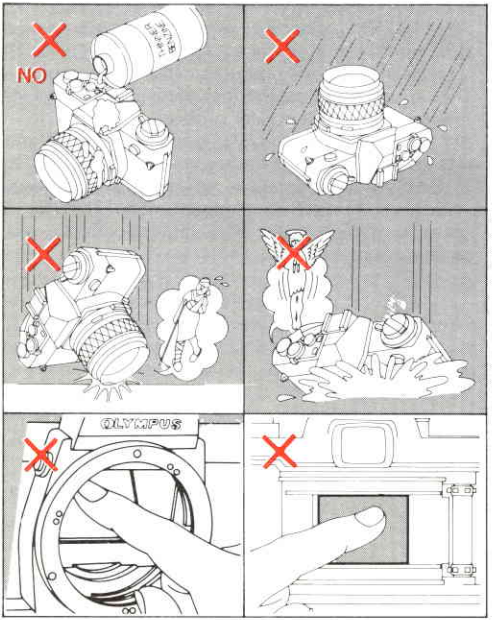
■ Filters for color films

A4 (81C): On a cloudy or rainy day, pictures taken on daylight film tend to appear blueish. This amber film suppresses blue and produces natural color reproduction. It can also be used for creating warm and mild effects intentionally under ordinary light.

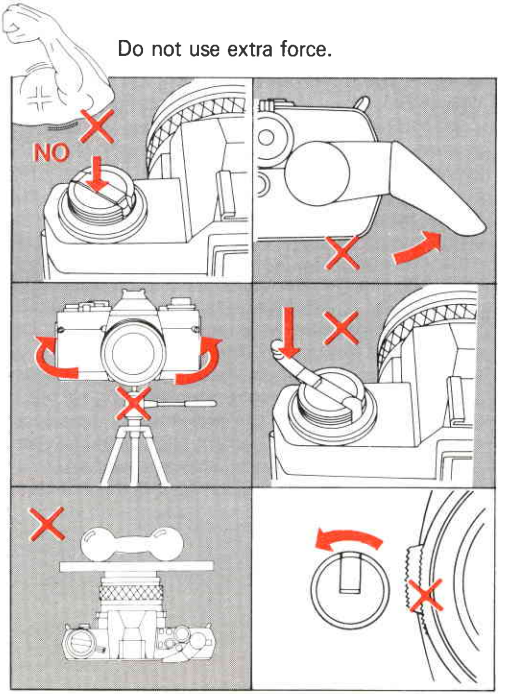
B4 (82C): Subjects under morning or evening glow will turn out reddish if they are taken on daylight film. This blue filter suppresses red and produces natural color reproduction. In contrast with A4, it can be used for bringing out cool, blueish effects under ordinary light.

Handling Care

Take care in handling the camera.

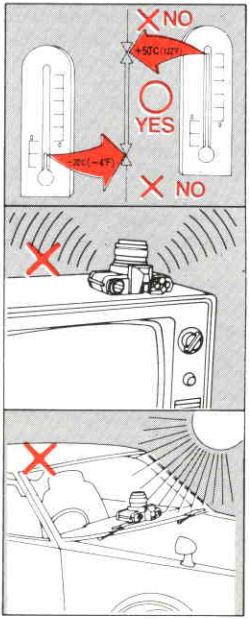


Do not use extra force.

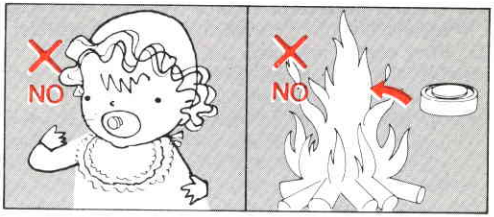


Storage Care

Guard against high temperature and magnetic fields.



Battery Precaution



QUESTIONS AND ANSWERS (1)

Q: Why won't the shutter release button move when I press it?

A: The film advance lever may not have been fully advanced or the film may have come to its end.

Q: Why can't I advance the film?

A: The shutter may be cocked and ready to fire. Try pressing the shutter release button.
Or, the film may be fully exposed. Check the exposure counter. if you feel tension on the film advance lever, DO NOT FORCE IT. Rewind the film. Or the self-timer lever is not securely in its upright position, reset and release the self-timer.

Q: The film advance lever does not operate and I see nothing in the viewfinder.

A: Are there batteries in the camera? Are they exhausted? Check with the battery checker to see if they are operating properly. if the audible and visual signals do not turn on, they are not. The mirror will spring back if you replace the batteries or set the shutter speed dial to the red 1/60 sec. (mechanical shutter) or "B".

Q: My camera is loaded with film. Why doesn't the rewind knob rotate when I advance the film?

A: The film leader may not be inserted in the film take-up spool and the film is not advancing.

Q: The rewind crank does not turn.

A: Press in the rewind button.

Q: Is it normal for the microprism in the center of the viewfinder to "shimmer" and darken?

A: Yes, when a lens with a maximum aperture smaller than F5.6 is mounted on the camera. It also happens with other lenses when the depth of field preview button is pressed.

Q: What type of batteries shall I buy?

A: Purchase two SR44 silver-oxide or LR44 alkaline batteries. Silver-oxide batteries are more economical because they last longer. Do not use different types of batteries at the same time (SR44 or LR44 battery and HR44 mercury or lithium battery, for example), even when they are of the same size. Always replace the two batteries at the same time and do not use an old and a new battery together.
(The batteries that come with your camera are supplied for test.)

Q: When should I check the batteries?

A: (1) When new batteries are inserted. (2) After the camera hasn't been used for a long time. (3) Before beginning a prolonged period of use. (4) When the temperature is very cold.

Q: Why can't I set the ISO film speed I need?

A: At the most, 3 stops can be advanced in a single stroke of the dial. If this is not enough stops, lift up and rotate the outer collar of the dial until it stops; then release the collar and rotate the collar and dial together until the white line is aligned with the black index on the pentaprism. Repeat this procedure until you reach the ISO speed you need.

Q: With ISO 3200, I made exposure compensation on the minus (−) side.

A: Exposure compensation on the minus side is impossible at ISO 3200. If you have made it, the ISO setting value will change. Set the ISO value once again correctly. The same thing applies to (+) side exposure compensation via ISO 6.

Q: I want to take pictures with the motor cover detached even when I am not shooting with the motor drive, because attaching and detaching it is quite troublesome.

A: The motor cover should always be attached if you are not shooting with the motor drive. It will prevent entry of dust and exposure by direct light.

Q: I took pictures with the aperture ring set at a halfway position between the f/stop numbers. Was the film properly exposed?

A: Yes, you can use any in-between settings on the aperture ring to obtain precise exposure.

Q: In the finished print, a peripheral portion of the picture is cut, though I framed it inside the view-finder.

A: In some color prints and color slides, a peripheral portion of the picture may be eliminated in the laboratory. It is recommended, therefore, to leave some margin in composing your picture.

Q: How do I clean the camera and lens?

A: Clean the camera using a clean, soft lintless cotton cloth. Clean the lens only with a hand powered air blower, antistatic brush or lens tissue. NEVER rub the lens surfaces with your finger, clothing or other abrasive material.
Take care not to permit water to enter the camera when taking pictures in the rain or snow, especially near seawater spray. After use near the ocean, wipe the camera surfaces clean and never leave salt residue on the camera.

Q: There are sometimes scratches on the film.

A: The cause may be a soiled film passage. The film compartment may be soiled by film debris during long use of the camera. Be sure to dust off the camera periodically.

Q: How do I store the camera?

QUESTIONS AND ANSWERS (2)

A: Remove the camera from its case and store it in a dry, well ventilated place. Protect against excess moisture by using packs of silica gel or other desiccant in the storage area. Do not store the units near moth balls or similar volatile chemical materials to avoid the possibility of damage to metal surfaces.

Q: The shutter remains open and does not close.

A: If you shoot on spot metering with the lens cap on (F stop number is setted to 22 or more), the shutter will remain open for about 4 minutes. In this case, switch the mode lever to the battery check mode. The shutter will immediately close. (To shoot, return the mode lever to AUTO or MANUAL).

Q: Why is the automatic exposure shutter speed much longer than indicated by the meter in the viewfinder?

A: If film is not loaded, the shutter speed is much longer than that indicated. If it is necessary to obtain a correct reading without actually taking a picture, insert a waste, undeveloped film or the paper you find behind the camera back at the purchase of your OM-4Ti into the film position in the camera.

Q: The display in the viewfinder has disappeared while the camera is operating.

A: As the OM-4Ti has an energy-saving design, the display will automatically disappear in 120 seconds. To turn it on again, touch the shutter release lightly.

Q: On spot inputs, the dot and bar graph tip shift.

A: This may happen because the bar graph is based on digital display. It does not mean that anything is wrong, and you can get correct exposure. It is for the same reason that the bar display shifts at the time of highlight control or shadow control.

Q: The tip of the shutter speed display bar blinks frequently during light metering.

A: This occurs mostly in the case of metering under a fluorescent lamp. Though the fluorescent lamp appears to the human eye as it were lighting continuously, it is in fact blinking repeatedly at a frequency of 50—60 cycles a second. Each particle of the shutter speed bar display represents 1/3 EV. Therefore, if the luminosity is unstable or in the case of a luminance mediated between the bar tip and the adjacent particle, the bar tip will blink.

In actual exposure determinations, however,

variations of light are averaged, causing no problem.

Q: In what cases will the AE lock be released except when the shutter is released?

A: The AE lock will be released in the following cases:
(1) Switching of the mode lever, (2) changing the lens, (3) operation of the clear lever, (4) turning on the power switch of a T-series flash and F280, (5) setting the shutter speed dial to "Bulb" or the red 1/60 sec. (mechanical shutter).

Q: After operating the highlight (or shadow) button, I have pressed the spot button by error.

A: If the new spot exceeds the highest value (or falling below the lowest value) that was already inputted comes to be inputted after the highlight (or shadow) button has been operated, exposure is changed according to that value. The bar display shows the highest (or lowest), if the new spot is below the highest value (or above the lowest value), it is not affected.

Q: When I used the highlight (shadow) button, the picture did not come out with the desired colors.

A: Colors on negative film may sometimes be corrected automatically in the printing process. You need not worry about this problem if you use reversal film.

Q: After operating the highlight button, I have pressed the shadow button by error.

A: The highlight control status switches to the shadow control status. On the contrary, if you have pressed the highlight button after operating the shadow button, the shadow control switches to the highlight control status.

Q: In what cases will the memory be cleared except when the clear lever is operated?

A: The memory will be cleared in the following cases: (1) Switching of the mode lever, (2) changing the lens, (3) more than 60 minutes have elapsed after shooting, (4) turning on the power switch of a T-series flash and F280, (5) setting the shutter speed dial to "Bulb" or the red 1/60 sec. (mechanical shutter).

Q: How about in-between settings of the shutter speed dial in the manual mode? For example, between "125" and "250".

A: In this case the film was still properly exposed but at either 1/125 sec. or 1/250 sec. It is recommended that you set the shutter speed ring at a shutter speed index engraved on the camera,

not in between.

Q: The batteries have worn out while I was shooting in cold weather. What can I do to take pictures?

A: Use a mechanical shutter speed of 1/60 sec.

Q: The flash does not fire.

A: There are two possible reasons. (1) On AUTO mode, flash firing is automatically inhibited at shutter speeds faster than 1/60 sec. (excluding in Super FP Flash mode of F280).
(2) Are the camera batteries exhausted? In this case, the flash will not fire even at a mechanical shutter speed of 1/60 sec. or "B".

Q: Is spot metering possible in the flash mode?

A: No, spot metering is not possible.

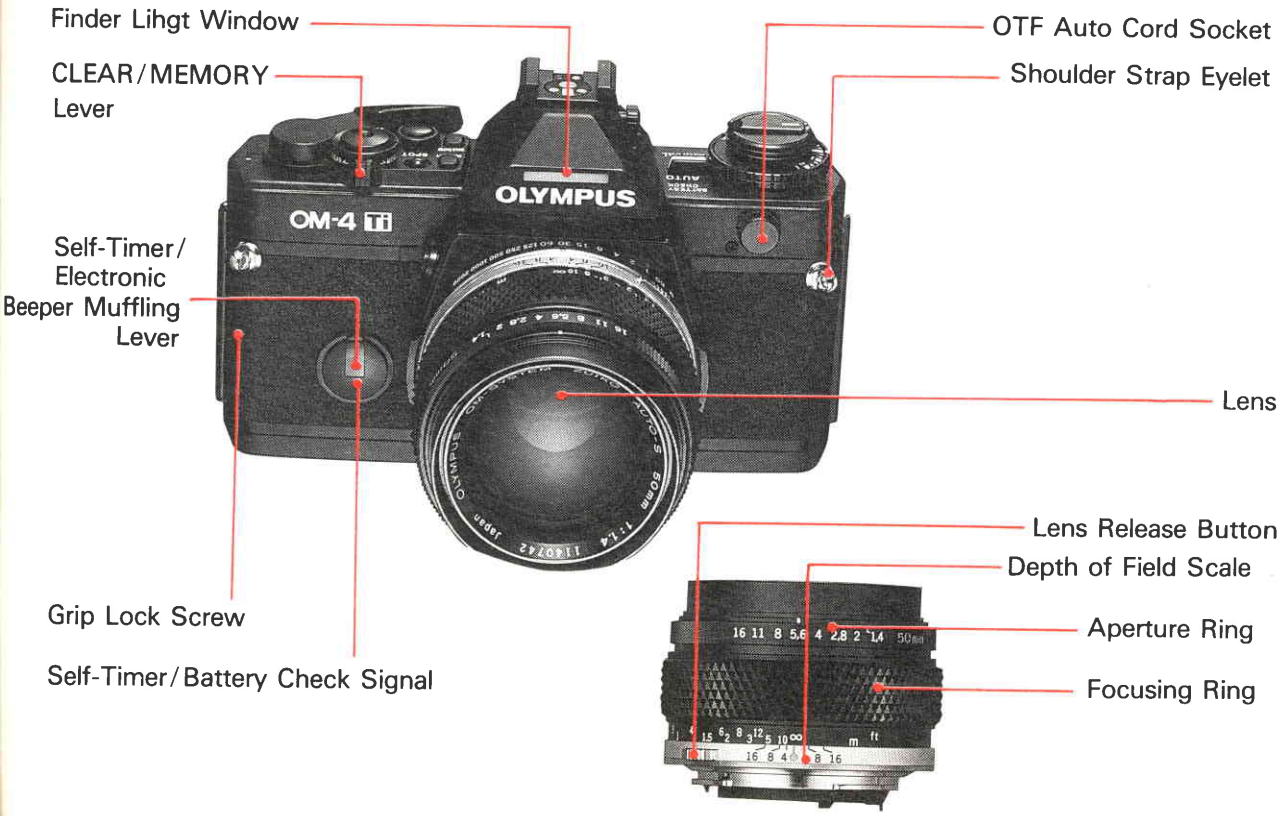
Q: I want to use a flash that is not of the T-series and F280.

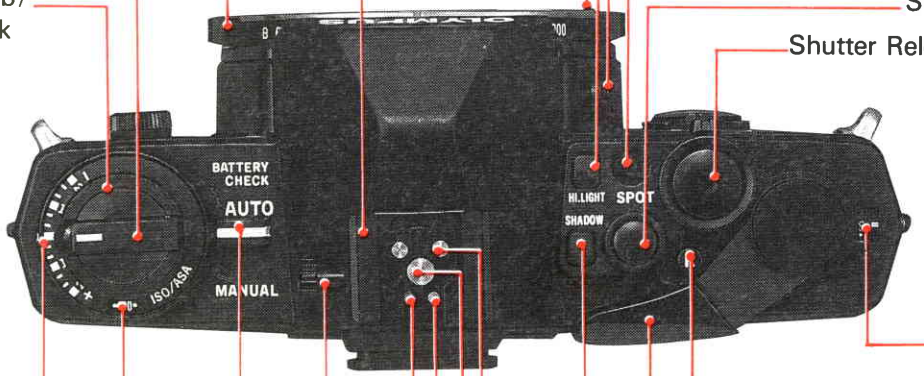
A: You can use any flash, but you should take the following points into account: The flash will not fire with Mode Selector Lever on AUTO. On auto spot metering or in the manual mode, it will fire with shutter speeds faster than 1/60 sec., but it will not cover the entire picture frame because the camera has a focal-plane shutter. The shutter speed should be set to 1/60 sec. or slower. The flash ready signal and correct exposure confirmation lamp will not turn on in the viewfinder. Flashes with opposite polarity won't fire at all.

Other cautions

- The exposure value will shift on spot metering with a linary polarizing filter. In this case, use a circularly polarizing filter.
- The Recordata Backs 1 and 2 cannot be used.
- The original 250 Film Back 1 cannot be used. It can be altered for use on the OM-4Ti. Contact Olympus Service Station.
- The Motor Drive Socket Cap on the camera side cannot be stored in the Motor Drive 1 or Winders 1 and 2.
- If you want to use a polarizing filter, always use a circularly polarizing filter. If other filters are used, exposure may vary in the case of spot metering.

Description of Controls





Automatic Clear Button

Accessory Shoe

Manual Shutter Speed Ring

Rewind Crank

Rewind Knob/ Camera Back Release

HI.LIGHT Button

Viewfinder Illumination Button

MEMORY Indicator Lamp

SPOT Button

Shutter Release Button

Exposure Counter

Rewind Release Button

Film Advance Lever

SHADOW Button

Flash Control Contact

X Contact

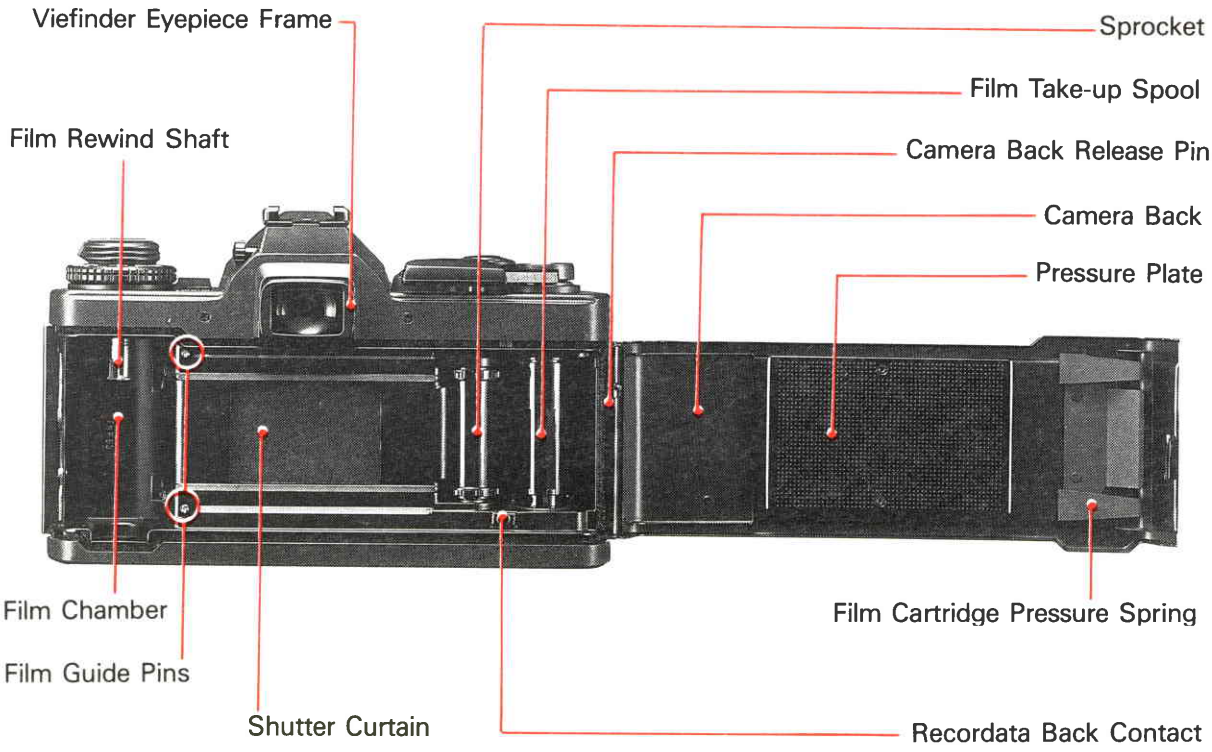
Super FP Contact

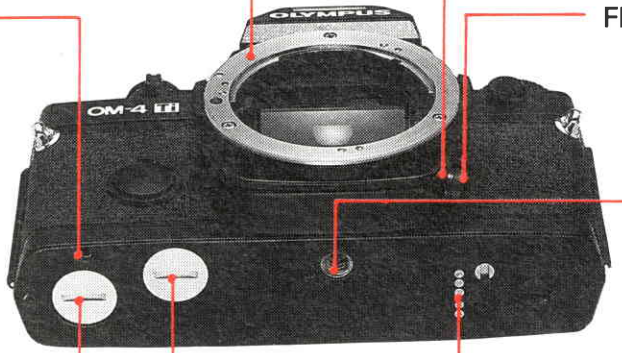
Film Speed Dial/Exposure Compensation Dial

ISO/ASA Film Speed Window

Mode Selector Lever

Dioptric Adjustment Knob


Viefinder Eyepiece Frame
Sprocket
Film Take-up Spool
Film Rewind Shaft
Camera Back Release Pin
Camera Back
Pressure Plate
Film Chamber
Film Cartridge Pressure Spring
Film Guide Pins
Shutter Curtain
Recordata Back Contact



Specification

Type: TTL auto-exposure 35mm SLR camera
Film Format: 24mm × 36mm
Lens mount: Olympus OM mount
Shutter: Electronically controlled cloth focal plane shutter; 1/2000 sec. max. shutter speed; 1/60 sec. mechanical shutter speed
Synchronization: X contact (synchronization at speeds of 1/60 sec. or slower); Super FP Flash contact; Hot shoe (with X and Super FP Flash contacts); 5-pin connector for T-series flash, synchro socket for X
Light measuring method: Center-weighted, average light measurement, switchable to spot measurement; spot measurement selective in 3 modes; multi-spot, highlight- and shadow-based methods.
Automatic exposure control by average light measurement: TTL Direct "off-the-film" Light Measuring with aperture-preferred electronic shutter; exposure control range: about 1 min. ~ 1/2000 sec. light measuring range: approx. EV5 ~ EV19 (ISO 100, 50mm F1.4, normal temperature and humidity); ±2EV exposure compensation.
Automatic exposure control by spot measurement: TTL spot metering memory system (with AE lock); exposure control range: about 4 min. ~ 1/2000 sec. light measuring range: approx. EV0 ~ EV19 (ISO 100, 50mm F1.4, normal temperature and humidity); ±2EV exposure compensation.
Automatic exposure memory control: Exposure value memory system (60 min. limiter)
Manual exposure control: B, 1 sec. ~ 1/2000 sec. mechanical exposure speed 1/60 sec.
Flash exposure control: Super FP Flash mode (when using the Full Synchro Flash F280) "OTF" AUTO: Synchronizes with shutter speeds from 1/60 sec. to 1/2000 sec.; MANUAL: Synchronizes with all shutter speeds up to 1/2000 sec.; Normal "OTF" or Manual Flash mode (when using a T-series Flash or Full Synchro Flash F280) Synchronizes with shutter speeds of 1/60 sec. and slower.
Film speed: ISO 6 ~ 3200
Film advance: Film advance lever with 130° angle for one long or several short strokes and pre-advance angle 30°; motor drive and winder usable.
Film rewind: Rewind crank (motorized rewind with Motor Drive 2 possible)
Viewfinder: Viewfinder with dioptric correction; dioptric correction range +1.0 ~ −3.0 diopters; interchangeable focusing screens; microprism/split image-matte type screen standardized; finder view field: 97% of actual picture field; magnification 0.84X at infinity with −0.5 diop. and 50mm lens.
Viewfinder information: LCD multi-mode display (2-min. limiter); built-in illuminator, (10-sec, limiter)
Self-timer: 12-sec. delay electronic self-timer.
Battery check: 3-level display with LED and alarm sound; automatic lock with batteries exhausted.
Power Source: Two 1.5V silver-oxide batteries SR44 (Eveready EPX-76; alkaline manganese batteries LR44 or equivalent)
Camera back: Removable hinge type, with memo holder; interchangeable with Recordata Backs and 250 film Back.
Dimensions: 136 × 84 × 50mm (5.35" × 3.30" × 1.97") (body alone)
Weight: 510g (18 oz.) (body alone)