OLYMPUS

35SP

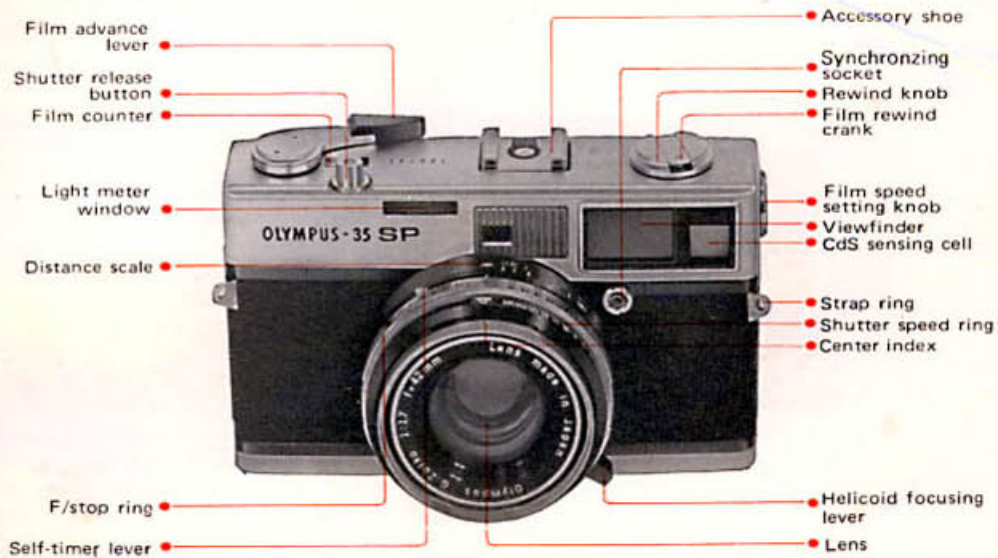
●INSTRUCTIONS●

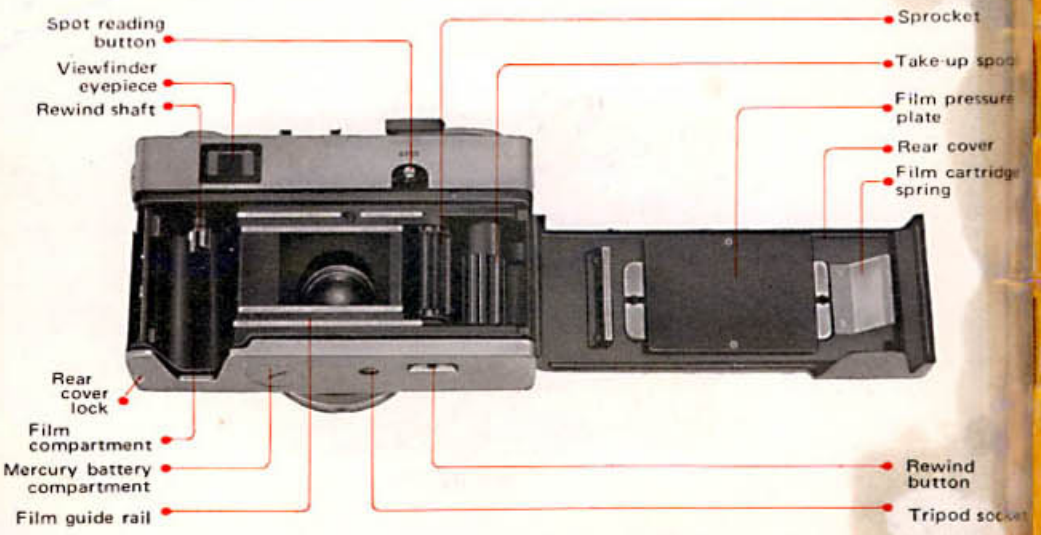
You are now the proud owner of an Olympus 35SP – the finest rangefinder 35mm camera available today. The automatic exposure system ensures trouble-free snap shotting, or by switching to manual control you can enjoy exciting professional-style photography. The spot reading system for backlight control brings you an entirely new system of dual exposure control never before found in a 35mm rangefinder camera.

The flash system is integrated and automatic. Fitting the flashgun into the accessory shoe automatically activates the system and adjusts the lens. There is manual flash control too, if you prefer it.

The high-speed needle-sharp Zuiko lens and the high performance Seiko shutter add to making the Olympus 35SP a masterpiece of camera crafting. Read this instruction book thoroughly and carefully and learn to use your 35SP well. Your efforts will be amply rewarded.

NAME OF PARTS





SPECIFICATIONS :

Format	:	24 x 36 mm (35 mm roll film).
Lens	:	G. Zuiko F/1.7 42 mm, 7 elements in 5 groups.
Shutter	:	Seiko programmed EE (electric eye) with built-in flash-manual mechanism.
Exposure control	:	(Auto) EV5.5–EV17 (ASA 100) with shutter lock-up; 1/15–1/250 sec. (F1.7–F22). (Manual) BV3–BV17; Bulb, 1–1/500, full shutter speed range. F/stop scale F1.7–16; built-in self-timer (9 sec.) X-synchro. with hot shoe.
Guide number range	:	10–80 (in meters); 32–260 (in feet), flashmatic.
Viewfinder	:	Rangefinder 0.7x with bright frame and parallax correction marks; EV value indicator.
Loading	:	EL system (easy loading procedure).
Film advance	:	Lever type single stroke advancing, preliminary lead angle 30° ; advancing stroke angle 120° ; self-cocking; double exposure preventive.
Film counter	:	Exposure counting type; self-resetting.
Film rewinding	:	Crank system, rewind button setting.
Focusing	:	Superimposed double image system; single-lens geared rangefinder; direct advancing helicoid system; distance scale 0.85 m (2.8ft) – infinity (∞).
Exposure adjustment	:	Extra-sensitive CdS on the camera body, dual meter system for average and spot readings.
Sensing cell	:	Single cell with mercury battery PX625, 1.3V or equivalent. Angle of acceptance of average reading; 20°. Angle of spot reading; 6°.
Film speed scale	:	ASA 25–800/DIN 15–30.
Rear cover operation	:	Hinge type.
Accessory shoe	:	Cordless flash contact.
Filter	:	49 mm screw-in type.
Size & weight	:	129 (width) x 76 (height) x 61 (depth) mm; 600 grams.

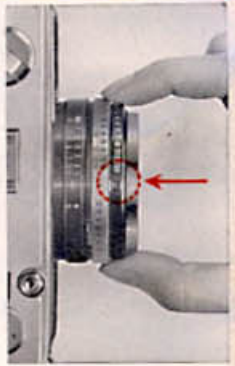
HOW TO TAKE PICTURES

Take a picture in the following order.

1 **Load the camera with a film.**
(See p.11)

Mercury battery is already installed in camera.
(See p.7)

2 **Set the film rating.**
(See p.8)



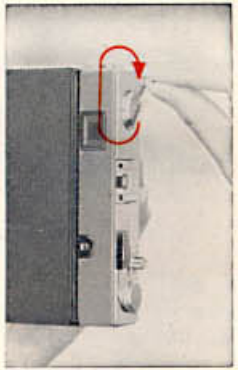
3 **Set the automatic exposure system.**

Make sure both A's of the shutter speed and F/stop rings are in line with the center index.
(See p.13)

4 Advance the film, till the film counter shows the number 1.
(See pp. 9, 12)

5 Look through the viewfinder, compose your picture, and bring it into focus.
(See p.19)

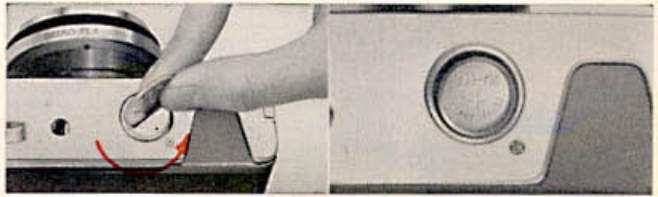
6 Hold the camera firmly and squeeze the release button gently. (See p.23)



7 After finishing the roll, rewind the film.
(See p.24)

Here are descriptions in detail about each part. Please see how to handle each part properly.

Insert the mercury battery



To actuate the light meter, insert the mercury battery into the battery compartment at the bottom of the camera.

1) Fit a coin into the slot on the cover of the battery compartment and turn the cover counter-clockwise for removal.
2) Put in the battery, as illustrated above, so that the (+) end of the battery faces outward, and screw in the cover firmly.

- The light meter will cease to function properly when the battery has been drained. Be sure to replace the battery once a year or sooner, depending on frequency of use, in order to ensure proper meter function.
- Recommendable battery replacements include PX625, Mallory RM625R, Eveready E625, G.E. No. 625, National M-1D, Toshiba TH-MC, etc.

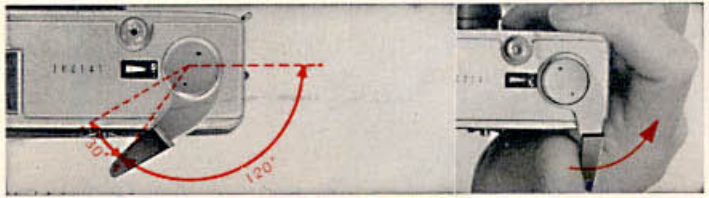
Open the rear cover.

Pull down the rear cover lock with your fingernail, and the rear cover will open by itself. At the same time, the film counter will return to the starting position (S) automatically.
To close press the cover until it clicks. Be sure that it is locked securely.

Film speed setting knob

Look at the film speed setting knob on the upper left side, which adjusts the light intensity to be received at the sensing cell. Move the small knob with the tip of your finger and set it to the rating of your film. For instance, a film at ASA100. ASA and DIN are the film ratings, and must be set properly for correct exposures.
The ASA scale of 35SP is as follows : **25** (32) (40) **50** (64) (80) **100** (125) (160) **200** (250) (320) **400** (500) (640) **800**.

Operate the film advance lever.



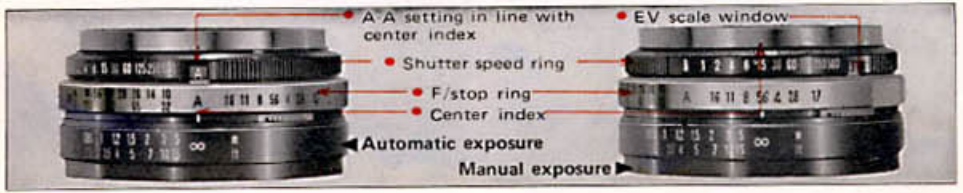
1) Move the advance lever in a single stroke (preliminary lead angle 30°). In picture-taking, bring the lever to this position, as it facilitates the next advancing motion.
2) From this position, advance the lever until it stops, then the film is advanced one frame and the shutter release can be actuated (advancing stroke angle 120°). Be sure to advance the lever until it stops; otherwise it does not return to the starting position. Don't force it to return from the middle position of a stroke.
3) Squeeze the release button gently; then the shutter is actuated and the film can be advanced for the next exposure.

Film counter

The film counter shows S (Start), 1, 2, 4, 6, and subsequent even numbers up to 36. Each time the film is advanced, the counter moves one frame and indicates at the point of the orange color arrow mark the number of exposures made.

When the rear cover is opened after exposure of the whole roll, the counter returns automatically to S.

Shutter speed ring and F/stop ring



The shutter speed ring is the black ring at the front of the lens barrel and shows shutter speeds, B, 1, 2, 4 ..... up to 500.

B means bulb exposure in which the shutter remains open all the time the shutter release button is depressed. It's used for long exposures, while 1 means 1 second, 2 equals 1/2 sec, ... 500, 1/500 sec. Be sure to use these numbers only when the ring clicks into position at the red central index mark. As to the special use of the red number 30, refer to How to use flash (2) at p.26.

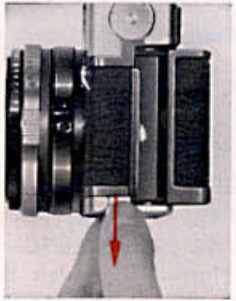
The F/stop ring bears black numbers 1.7, 2.8 ..... 16. Each of these numbers can be set at the center index. The larger the F/stop number is, the smaller the F/stop value is. The F/stop can use midway scale readings which the shutter speed cannot. (Guide numbers on the left-side of the A are explained on p.26.)

- For automatic exposure photography, turn both rings of shutter speed and F/stop, so that two A's are placed in line with the center index.
- For manual exposure photography, move the A marks away from the center, and read the EV value as the meter needle indicates in the view finder. Then transmit this value into the small window on the shutter speed ring.

● LOADING THE CAMERA

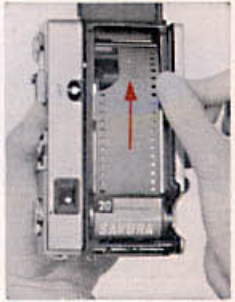
1 Set off A (F/stop ring) from the center.

If not, smooth loading is sometimes blocked by the locked release botton, which may be caused by the insufficient brightness in the environment.



2 Open the rear cover. Use an ordinary 35mm film roll of 12, 20 or 36 exposures. Be careful loading should not be done in direct sunlight.

3 Put the film into the film compartment. If the cartridge does not settle in the compartment completely, press it in while slightly turning the rewind knob clockwise or counter-clockwise; then it clicks in easily.



4 Hold and lead out the film a little with the right hand while slightly pressing the cartridge with the left hand and insert the film end into any of the six grooves on the take-up spool.

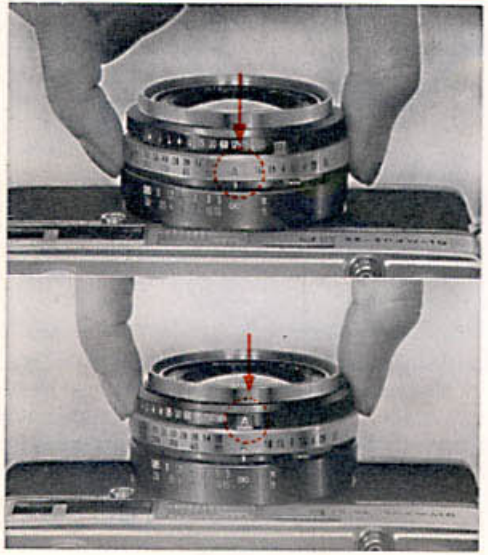
5 Advance the film so that the perforations engage the sprocket gear. When the film is inserted in, the film end may run out of the other side of the spool. Even in that case, continue to advance the film.

6 At this point, actuate the shutter and advance the film further and advance the film further so that the perforations on both sides engage with the sprocket gears.

7 Close the rear cover. At this point, for reassurance, lift up the rewind crank and turn it in the direction of the arrow lightly until the film is tightened enough.

8 Operate the advance lever and actuate the shutter. Repeat this motion until the film counter shows the number 1. From this point, start taking pictures. If the rewind knob turns during the repeated motions, this shows that the film is being advanced properly.

For automatic photography, reset the A of the F/stop ring at the center index.



1) Average light measurement

First, turn the F/stop ring to bring the mark A to the center index. Second, turn the shutter speed ring to bring the small window to the center, through which the other mark A can be seen. Once these two A's are aligned in the center, the camera is set for automatic exposure.

Under the automatic exposure system, the optimum combination of shutter speed with the F/stop will be automatically selected in accordance with the brightness of the subject. What is better, the highly sensitive CdS meter makes automatic exposures possible under very dim conditions (EV5.5 or F1.7 at 1/15 sec.).

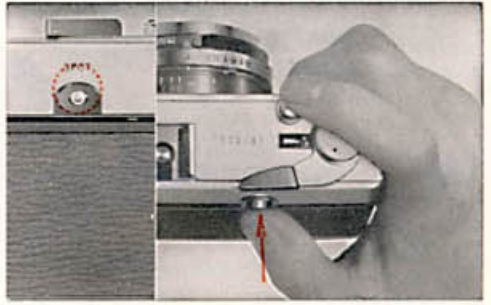
In very dark conditions, the shutter release automatically locks and you cannot release the shutter; change from automatic exposure system to manual or flash exposures, when this occurs.

2) Spot light measurement with automatic exposure

When the subject is illuminated from the opposite side of the camera (i.e. backlight), for instance the subject is against a bright window or there is a sharp contrast between the subject and the surroundings, or a theatrical stage spot-lighted against the background darkness, etc., you make spot light measurement, and automatic exposure will be available.

The Olympus 35SP is the only EE camera that can make spot light measurement.

Looking through the viewfinder, you can see an area of overlapping images in the central part. This area is the spot measurement area. Fix the subject of your spot measurement in this area, then while keeping the spot reading button pressed, release the shutter.

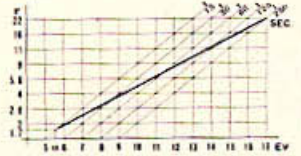


Average light measure Spot light measure

● How to read the light meter in the viewfinder

The automatic combination of the shutter speed and F/stop ranges from 1/15 sec. •F1.7 to 1/250 sec. • F22 in a serial bold line, according to the brightness of the subject.

● EE working range



Points to be remembered in automatic photography

(1) Make sure both A's of the shutter speed and F/stop rings are in line with the center index. With either A off the center, the automatic exposure is impossible.

(2) When the needle enters the yellow zone of light window in the viewfinder the shutter speed slows down to 1/15 — 1/30 sec. So, special care is necessary not to shake the camera while the shutter is released.

(3) In case the needle enters the red zone, the shutter can be released, but the image may be too bright for correct exposure.

● **Range of automatic photography**

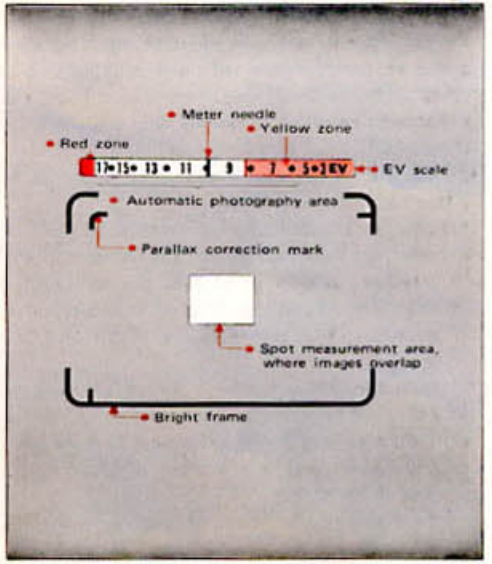
If you look into the viewfinder, you can see the light meter over the upper line of the bright frame. The range of automatic photography is limited between EV5.5 and EV17, excepting the red and yellow zones at both extremes. As long as the meter needle stays within this limit, your automatic photography is assured.

● **Slow speed zone (in yellow zone)**

In automatic photography, when the needle comes into the yellow zone (under EV8), the shutter speed slows down 1/15—1/30 sec.

So be careful not to allow the camera to shake, while releasing the shutter, also it is inadvisable to photograph moving objects under these conditions.

If the needle further runs into the extreme zone under EV5.5, where it is too dark for automatic exposure, the release button is automatically locked. Then you have to turn to manual exposure or flash exposures.



● **Over-exposure warning zone**

When the needle enters the red zone over EV17, it warns over-exposures. In that case, the ND filter is helpful.

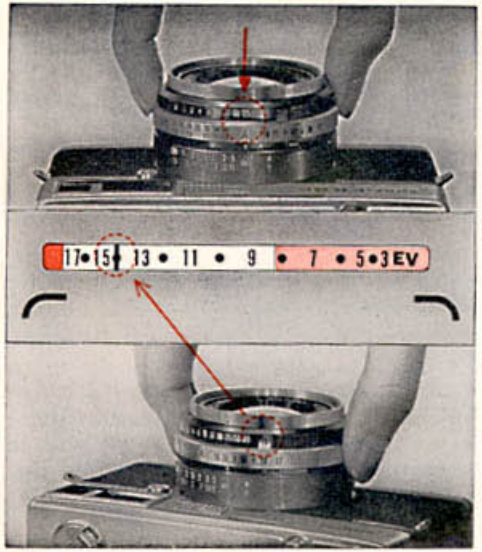
● **Spot exposure zone**

The bright rectangular area in the center of the viewfinder, where the double images are to match with each other for focusing, is the area for your spot measurement.

After you compose your spot measuring subject, release the shutter while keeping the spot reading button pressed in, and you will obtain correct exposure for the subject in the automatic photography.

In the manual photography, you must obtain an EV value. Press the spot reading button to read the correct EV value on the EV scale, which has to be transmitted to the window on the shutter ring.

Manual exposure



1) When you wish to select a combination of the shutter speed with the F/stop to determine exposure, or to use the self-timer, use the manual system, instead of the automatic. For this purpose, the light meter in the viewfinder is provided.

   In manual operation, the shutter speed is of predominant importance.

2) 1) Shutter speed must be determined first to meet various factors of the subject. For instance, indoors or in dark places, a proper shutter speed will be 1/15 or 1/30 sec., while outdoors or in bright places, 1/125 or 1/250 sec.

3) 2) With the camera facing to the subject, read the EV value on the scale through the viewfinder.

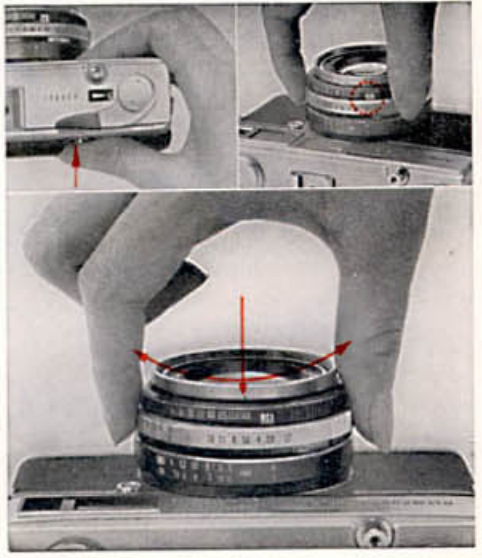
   3) Turn the F/stop ring until you find the same EV value through the small window of the shutter speed ring.

   This is all that is required for correct exposure.

4) When you need to take a picture by a spot light measurement, keep the spot reading button depressed, read the value indicated by the meter on the EV scale, and then follow the same procedure as described in the preceeding clauses.

5) In case you want to alter the combination of shutter speed and diaphragm aperture with the exposure unchanged, depending upon the conditions of the subject, it may be needed to quicken the shutter speed, or stop down the diaphragm. Hold the shutter speed and F/stop rings together, and turn them clockwise or counter-clockwise, until you can select a preferable shutter speed or F/stop, while keeping the EV number indicated in the small window.

The characteristics of the manual exposure will be fully appreciated in such cases as when intentionally unbalanced exposures, aiming at an artistic effect, or prolonged, blurred exposures for expressing speediness of moving subjects or smaller F/stop intended for deeper effect of scenery.



Composing the picture and focusing

● How to compose your picture.

When looking through the viewfinder, you see a luminous frame of light. This is called the "bright frame". Any subject coming within this frame is actually exposed on the film. Compose your picture so that the subject occupies the frame area as fully as possible.

In the close-up pictures within the 1.5m distance, bring the subject inside the parallax correction marks.

● How to bring the subject into focus.

Focusing is done by the bright rectangular section at the center of the viewfinder.

While looking through the viewfinder, move the helicoid lever up and down until the double images within the small rectangle coincide and become clearly visible. Now the subject is in focus.

The distance scale is indicated in meters (white color) and feet (orange color). Any reading aligned to the center index represents the distance to the subject.

Depth of field

If the focus is set at a certain distance, objects at that distance are most clearly photographed. At the same time, some vicinity of the distance is also in focus. This latitude is called the depth of field. The smaller the aperture stop is, the greater the depth of focus.

For taking a picture, you are supposed to set the distance at 3 meters, and the F/stop at 16, for instance. In that case, if you look at the table you can see that the depth of field is 1.48m-infinity (∞). All the objects between 1.48m and infinity will be sharp in your picture so that it is not necessary to make readjustment within this range.

For automatic photography, you can understand the necessary F/stop number by referring the EV number shown in the light meter window to the table of the EE working range. (P.15).

You can stop down to F16 for manual, and F22(1/250 sec.) for automatic.

●G Zuiko F 1.7 f = 42 mm (meter)

F/stop \ Distance	∞	5	3	2	1.5	1.2	1	0.85
1.7	23.69~∞	4.19~6.21	2.69~3.39	1.86~2.16	1.42~1.59	1.15~1.25	0.97~1.04	0.83~0.88
2.8	15.22~∞	3.82~7.25	2.54~3.67	1.79~2.27	1.38~1.64	1.12~1.29	0.95~1.06	0.81~0.89
4	10.79~∞	3.47~8.99	2.38~4.06	1.71~2.41	1.33~1.71	1.09~1.33	0.93~1.09	0.80~0.91
5.6	7.77~∞	3.09~13.23	2.20~4.74	1.62~2.63	1.28~1.82	1.06~1.39	0.90~1.13	0.78~0.94
8	5.48~∞	2.66~45.83	1.98~6.32	1.50~3.04	1.20~2.00	1.01~1.49	0.86~1.19	0.76~0.98
11	4.01~∞	2.27~∞	1.76~10.88	1.37~3.79	1.12~2.29	0.95~1.64	0.82~1.28	0.72~1.04
16	2.78~∞	1.82~∞	1.48~∞	1.20~6.45	1.01~3.04	0.87~1.98	0.76~1.47	0.68~1.16
(22)	2.04~∞	1.48~∞	1.25~∞	1.04~43.89	0.90~4.99	0.79~2.65	0.70~1.80	0.63~1.34

●G Zuiko F 1.7 f = 42 mm (Feet)

F/stop \ Distance	∞	15	10	7	5	4	3.5	2.8
1.7	81.38~∞	12.74~18.25	8.95~11.33	6.48~7.61	4.73~5.30	3.83~4.18	3.37~3.64	2.72~2.89
2.8	51.43~∞	11.70~20.94	8.43~12.29	6.21~8.03	4.59~5.49	3.74~4.30	3.30~3.73	2.68~2.94
4	36.12~∞	10.69~25.24	7.91~13.64	5.92~8.57	4.44~5.73	3.64~4.45	3.22~3.83	2.63~3.00
5.6	25.88~∞	9.60~34.77	7.30~15.98	5.58~9.43	4.25~6.09	3.51~4.65	3.13~3.98	2.56~3.09
8	18.18~∞	8.32~80.63	6.54~21.53	5.13~11.08	3.99~6.73	3.34~5.01	2.99~4.23	2.47~3.23
11	13.27~∞	7.14~∞	5.80~38.20	4.67~14.23	3.71~7.74	3.14~5.54	2.84~4.60	2.37~3.44
16	9.17~∞	5.78~∞	4.88~∞	4.07~27.12	3.33~10.36	2.87~6.73	2.61~5.38	2.22~3.84
(22)	6.71~∞	4.71~∞	4.11~∞	3.52~∞	2.96~17.56	2.60~9.10	2.39~6.77	2.06~4.47

Holding the camera properly

The camera must be held steady in order to take good pictures. Shaking leads to unsharp pictures. Practise until you become fully accustomed to the feel of the camera.

Squeeze the release button with the ball, not with the tip, of your finger.

DO NOT conceal any part of the lens or the CdS sensing cell with your fingers or the case.

You can hold the camera either vertically or horizontally as your composition requires.

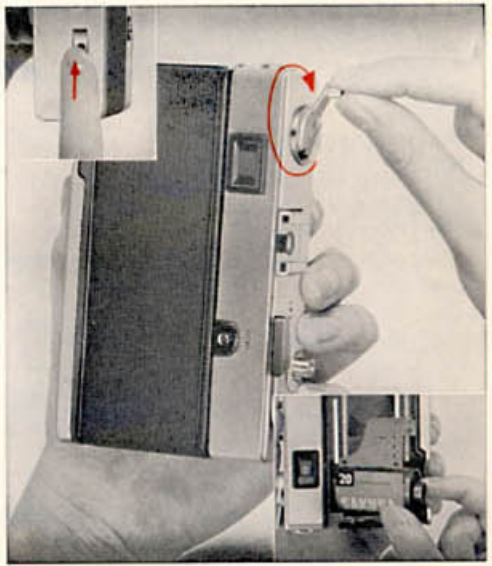
- When holding the camera horizontally, keep both elbows close to your body.
- When holding the camera vertically, keep the right elbow close to your body and support the camera firmly with the left arm, pressing the camera back on your forehead.

Rewind the film

When the whole roll has been exposed, rewind the film. To determine whether the whole roll has been exposed or not, check the film counter. It will show the number 12 (in the case of 12 exposure roll), 20 (20 exposure roll) or 36 (36 exposure roll).

To rewind the film, first, press in the rewind button at the bottom of the camera; second, lift up the rewind crank and turn the crank in the direction of the arrow. While the film is being rewound, the crank is tight, but when the film is rolled up and the film end leaves the take-up spool, the crank suddenly turns freely; third, the film thus rewound is taken out in a place free from direct sunlight. The recessed rewind button will return its former position at the next winding stroke.

Towards the end of the roll of film in use the advance lever may meet resistance and refuse to move half way through the advancing stroke. This means that all the film is used up. Do not attempt to force the lever, or you will damage the camera and tear the film. Press the rewind button and you can then complete the winding stroke.



HOW TO USE FLASH

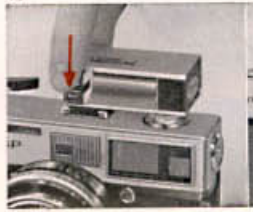
In dark conditions make flash pictures with flash bulbs or an electronic flash unit.
The compact style Pen Flash CL can be used without a cord.
The flashmatic system will eliminate any trouble of exposure measurement.

1 Attach the flash gun to the camera.

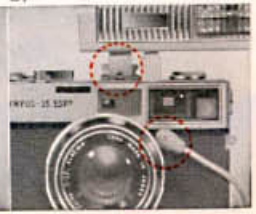
a) Simply insert the Pen Flash CL into the accessory shoe (with built-in cordless contact) at the top of the camera; where it connects automatically to the shutter diaphragm mechanism.

b) When using ordinary flash guns or electronic flash, insert the unit into the accessory shoe and attach flash connecting plug into the synchronizing socket of the camera.

a)



b)

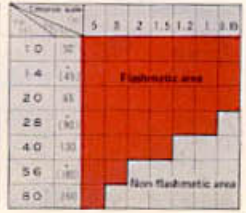


2 Setting the shutter speed

In the case of flash bulb, set the speed at 1/30 sec.(marked in red) to obtain correct synchronization.

a) F/stop with flashmatic mechanism.
First you have to determine the guide number, basing on such elements as kinds of flash bulb or flash gun and film to be used, and shutter speed. After setting the F/stop at this guide number, you have only to focus on the subject. Exposure will be automatically adjusted to the distance by the camera itself.

a)



For example, if AG-1 bulb is used with Pen Flash CL, at shutter speed 1/30 sec., the guide number will be 28(m) (ASA 100). If AG-1B in use, the guide number 20.

b) Setting the F/stop without flashmatic mechanism.
Set the subject in focus, and read the distance. Divide the guide number of the flash bulb or electronic bulb in use by the distance. (Film sensitivity and shutter speed are other factors to be considered.) Select a most similar number to the value thus obtained as the F/stop.

b)

Supposing the guide number 40 (ASA 100) of the flash bulb, and the distance 5 meters, $40 \div 5 = 8$.
Therefore, a correct exposure will be F/8.

● HOW TO USE SELF-TIMER

The built-in self-timer is useful not only for group pictures in which the photographer wishes to appear, but also for close-range and copying work.

The self-timer can be used at all shutter speeds except B and automatic exposure. Without advancing the film, you can never set the timer.

1. Cock the shutter by advancing the film wind lever. Then select the proper shutter speed and F/stop.
2. Set the self-timing lever by pushing in the direction of the arrow till it comes to a stop.
3. Press the shutter release and in 9 seconds the shutter will be released.

Give the camera the care it deserves :

1. Dust and moisture are enemies of your camera. Be sure to store the camera in a dry and well-ventilated place.
2. Don't touch the lens with your finger. If touched, wipe it with a clean unstarched cotton cloth. Fingerprints, if not wiped off immediately, will eventually not be removable.
3. After using the camera on the beach, be sure to wipe the surface of the camera with a soft cloth so that no salt or other corrosive substance will be left on it.
4. Don't leave the camera near the radio set, TV or other strong magnets for a long time.
5. When you don't use the camera for a long time, remove the mercury battery from the compartment. Next time you use the camera, put the battery in the compartment correctly, after wiping it with a dried clean cloth.
6. If the camera should need service, bring it immediately to your dealer, who is an OLYMPUS service agent.

HANDY ACCESSORIES

● **Filters**

Use 49mm screw-in filters which are freely available.

● **35SP Lens Hood**

This lens hood eliminates undesirable glare caused by the sun or other light source. The hood can be put on the lens in reverse, when the camera is put in a case.

Flash CL:

This compact microflash unit can be used with two types of bulbs, AG-1 and AG-3N.

● **OLYMPUS PS100 G**

The Olympus PS100 G Electronic Flash operates on penlight batteries and AC house current. The Olympus PS100 G can be used with such cameras as Olympus 35RC, Olympus Trip 35, 35SP, Pen EE-2, EES-2, EED, and any other cameras with hot shoe contact. Its power source is two 1.5V penlight batteries, cabon/zinc or alkaline or AC household current 100-120V or 220-240V. The number of flashes is 200 from set of fresh alkaline batteries. Guide number 14 in meter or 45 in feet (ASA 100) color temperature 6,000° keluin.

It measures 86mm x 59mm x 29mm (3 3/8" x 2 3/8" x 1 1/8") and weighs 120 grams (4 oz.)