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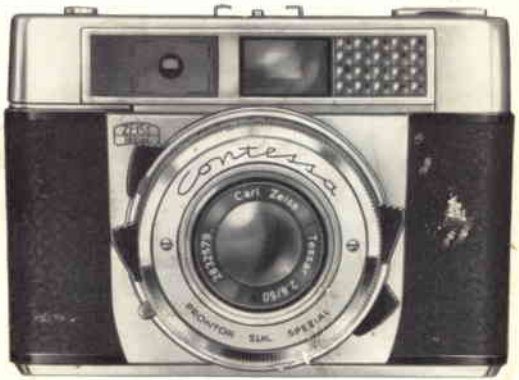
ZEISS IKON

leader in progress

englisch
GA/10.0645 Printed in Germany. Author: Prof. Dr. J. Stüper 7 1060

ZEISS IKON



INSTRUCTION BOOKLET ②

Contessa
matic E

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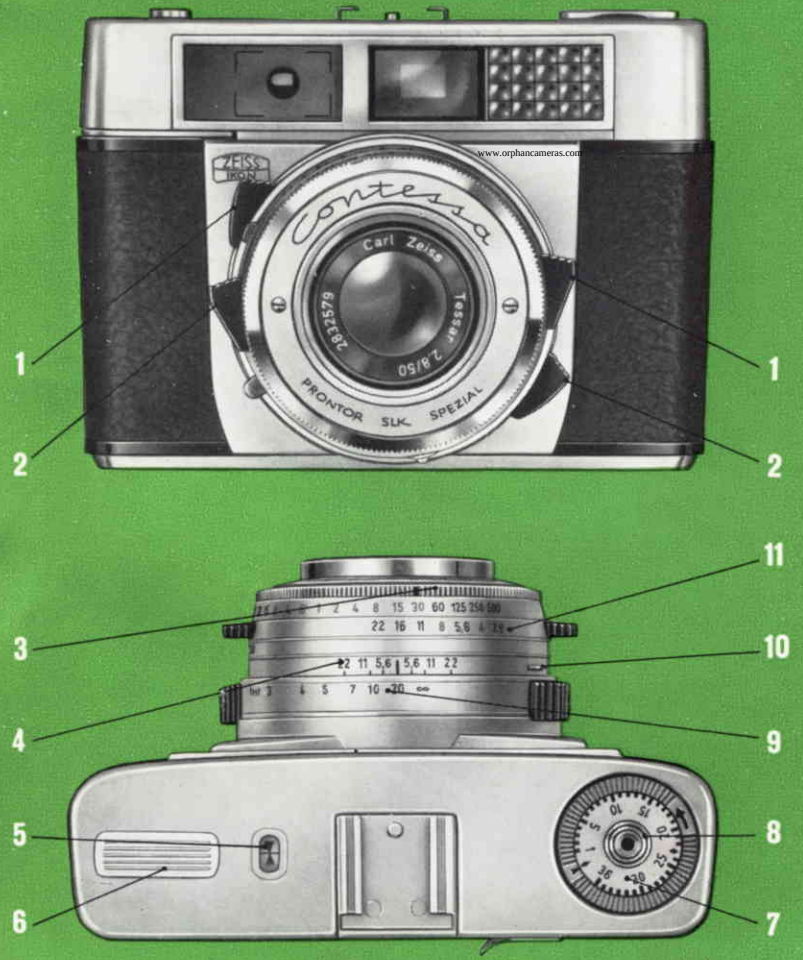

1 Distance setting
2 Setting knobs for automatic exposure control
3 Shutter speed setting ring
4 Depth of field scale
5 Exposure meter indicator
6 Safety plug for flash connection
7 Frame counter
8 Release knob
9 Distance scale
10 Delayed-action lock
11 Aperture scale
12 View/rangefinder
13 Camera back catch
14 Knob for film-speed setting
15 Flash-synchronization and delayed action setting lever
16 Tripod bush
17 Locking knob for rewind crank
18 Spindle of rewind crank
19 Rewind crank
20 Film-speed setting mark
21 Film-type reminder disc
22 Rapid-wind lever

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The

Contessa matic E

embodies every possible feature of making photography easy for you. Right from the very start, the automatic exposure control will ensure that all your pictures are faultlessly exposed, even under unfavourable lighting conditions.
The built-in rangefinder which is combined with the bright, clear luminous-frame viewfinder will enable you to take your pictures almost as soon as you put the camera up to your eye.
The most exceptional feature is the "eagle eye" of your camera, the ZEISS TESSAR f/2.8, 50 mm lens. You will be amazed at the quality of the pictures, both in black-and-white and colour, that this lens provides.
Learn your way about the camera before inserting your first film. First practise the various operations as described at leisure, and you will always enjoy using your CONTESSA matic E.

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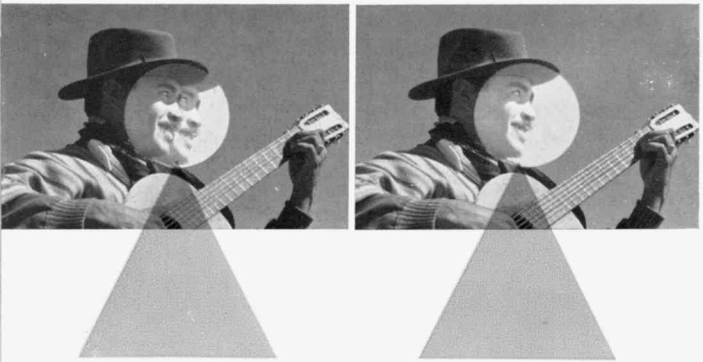
Focusing

Hold the camera up to your eye. In the centre of the viewfinder you will see a bright, circular rangefinder field, in which the object sighted will at first appear with displaced outlines. By moving the black distance setting knob (1) backwards or forwards, you will be able to make the rangefinder images coincide. Your subject will then be focused sharply (Fig. 1).

Fig. 1



Operating the automatic exposure control

The coupled exposure meter can be relied upon to select the correct shutter settings for black-and-white and colour films, both negative and reversal. The speed of the film in use must first be set on the camera: this operation is described on page 17.

The most effective procedure is to pre-select the shutter speed before measuring the exposure. To do this, turn the ring (3) until the desired speed value clicks-in at the red mark. The ring cannot be set to intermediate values between the click-stops (Fig. 2).

Fig. 2

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The correct shutter speed to choose depends on the movement of the subject. The faster the subject is moving, the shorter must be the exposure time. The figures on the scale denote fractions of seconds (60 means 1/60 second, etc.). When you use the orange-coloured figures, the camera must be placed on a tripod or other rigid support for making the exposure. At the "B" setting (green), the shutter remains open for as long as the release is depressed. The meaning of the green figures will be explained later.

To measure the exposure, hold the CONTESSA matic E to your eye and direct it at the subject. At the top of the viewfinder you will see the pointer of the exposure meter. By moving the setting knobs (2), you can set the pointer accurately to the triangular mark. This automatically sets the correct aperture required, and you can take the picture straightaway.

The indication of the exposure meter can also be read off from the camera body. The correct setting position is then in the centre of the triangular mark (5).

Under certain conditions, it is advisable to select a different shutter speed/aperture pairing (see "Depth of field". page 10). The larger the aperture (lower figure), the smaller will be the depth of field. By turning the setting ring (3), you can select the most suitable speed/aperture pairing.

If, when setting a desired aperture value, the red mark on the ring (3) should indicate the green "B", an exposure time of two seconds will be required. If you then stop down still further, you can read off the required exposure time in whole seconds (green figures) opposite the chosen aperture value; then you must turn the two knobs (2) to return the desired aperture value to "B", which remains at the red setting mark on the ring (3). The exposure time is then controlled by keeping the release (8) depressed for the appropriate length of time. The previously set exposure-measurement value ist thus cancelled. After making time exposures on the "B" setting, you must measure the light once again before using the automatic shutter speeds.

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Depth-of-field scale

With every photographic lens, you can only obtain a sharp image of objects within a certain distance in front of and behind the actual focused distance. This "depth-of-field range" becomes greater the more you stop down the lens. Its extent, for each individual aperture value, is shown on the depth-of-field scale (4). Using the distance scale (9), you read off the distances opposite the aperture-value figures to the right and left of the setting mark. In the example shown in Figure 3, the distance focused is 5 ft and the aperture is f/11; the depth of field extends from about 4 ft to 7 ft. For accurate values, see the table.

Fig. 3

Depth-of-field table for the CONTESSA matic E with ZEISS TESSAR f / 2.8 / 50 mm

Distance	Aperture f/2.8	Aperture f/4	Aperture f/5.6	Aperture f/8	Aperture f/11	Aperture f/16	Aperture f/22
∞	64'4" – ∞	45'1" – ∞	32'4" – ∞	22'9" – ∞	16'8" – ∞	11'6½" – ∞	8'6" – ∞
20'	15'4" – 28'9"	14' – 35'6"	12'6" – 51'7"	10'8¾" – 162'5"	9'2" – ∞	7'4½" – ∞	5'11¾" – ∞
10'	8'8½" – 11'9"	8'3" – 12'8"	7'8¾" – 14'3"	7'1½" – 17'5"	6'4¼" – 24'3"	5'5½" – 71'4"	4'8" – ∞
7'	6'4¼" – 7'9½"	6'1½" – 8'2¼"	5'10" – 8'9½"	5'5¼" – 9'10½"	5'1¼" – 11'8"	4'5½" – 17'	3'11¼" – 37'4"
5'	4'8" – 5'4½"	4'6½" – 5'6¾"	4'4¾" – 5'9¾"	4'2" – 6'3"	3'11¼" – 6'11"	3'7" – 8'5"	3'3" – 11'5"
4'	3'9½" – 4'2¾"	3'8½" – 4'4"	3'7¼" – 4'6"	3'5½" – 4'9"	3'3½" – 5'1¼"	3'¾" – 5'10"	2'9¾" – 7'1"
3'	2'10¾" – 3'1½"	2'10¾" – 3'2"	2'9½" – 3'3"	2'8½" – 3'4½"	2'7¼" – 3'6½"	2'5½" – 3'10½"	2'3¾" – 4'4¼"

The depth of field is measured from the film plane

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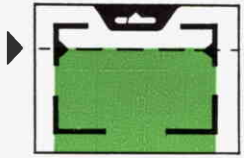
Top edge of subject at 3 ft distance.



Releasing and winding on

Hold the camera firmly in both hands. On looking through the viewfinder, whatever you see within the brightline frame will be recorded on the film when you make the exposure. When taking pictures at distances of about 1 metre (3 ft), you should only utilize the finder image up to the two pointers beneath the top edge of the frame. To release the shutter, gently depress the release knob (8). After every exposure, swing the rapid-wind lever (22) right up to its stop. This both winds on the film by the length of one frame and turns back the frame counter to the next number (Fig. 4).

Since the shutter can only be released after operating the rapid-wind lever, and the shutter can only be tensioned after pressing the release knob, double exposures and blank frames simply cannot occur. You must always take care to press the rapid-wind lever (22) right up to its stop. You can leave the shutter in a tensioned state for long periods without causing any harm.

Fig. 4

Flash and delayed-action exposures

The fully-synchronized Prontor SLK-Special shutter can be connected to every type of flash equipment. It also has a built-in delayed action mechanism. The lever (15) permits three different settings.

On the X-setting, the firing impulse is given at the moment the shutter blades are fully open. Electronic flash guns (speed-lamps) should always be fired on the X-setting.

On the M-setting, the firing impulse is given before the shutter opens, the interval corresponding to the delay-to-peak of most flashbulbs.

The most suitable setting (X or M) for flashbulbs and flash capsules can be found in the instruction provided with these light sources.

V X M

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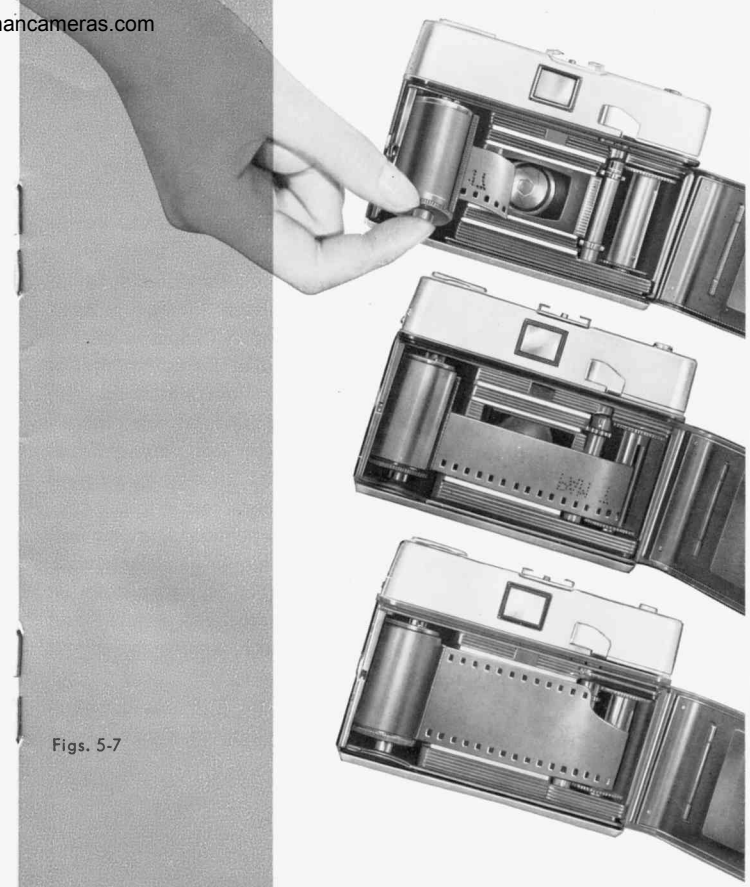
On the V-setting, the delayed-action mechanism is brought into action. When the release (8) is depressed, the delay mechanism is set in motion, and after about 8 seconds the shutter is released. Time exposures ("B" setting) cannot be made. If a flash unit is connected when the shutter is set for delayed action release, it will be fired as on the X-setting.

The lever (15) can only be set to "V" when the shutter is tensioned and also while keeping the lock (10) depressed. After the shutter is released the lever automatically returns to "X" and must, if required, be reset to "V".

For flash pictures, the IKOBLITZ 4 with connector plug can be inserted directly into the two sockets, after removing the safety plug (6). Other flashguns with mounting foot are clipped into the accessory shoe and the cable is inserted into the connection nipple (beneath the safety plug). The safety plug can be accommodated in the everready case.

Inserting the film

In your CONTESSA matic E you can use all normal film cassettes containing black-and-white or colour film, giving 36



Figs. 5-7

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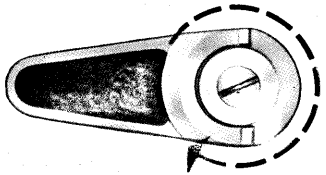
Fig. 8



or fewer pictures 24 x 36 mm in size. The film should be inserted by subdued light.

Press the catch (13) on the narrow side of the camera downwards. The back will then spring open. Insert the film cassette into the film chamber, with the beginning of the film pointing towards the take-up spool; first introduce the lower end of the cassette, so that the slit between the two pins in the film chamber engages with the bar in the base of the cassette (Fig. 5). Then press the locking knob (17) (the rewind crank will spring out) and turn the flange of the take-up spool until the slot in the spool faces upwards. Insert the beginning of the film into this slot, until the small lug hooks into the 3rd. or 4th. perforation hole (Fig. 6). Continue turning the flange of the take-up spool until the teeth of the sprocket drum engage the film perforation holes on both sides (Fig. 7). Then close the CONTESSA matic E and push the rewind crank (19) back to its normal rest position.

Turn the knurled ring of the frame counter (7) in the direction of the arrow, until the marker is set to the red figure before the actual number of exposures stated on the film cassette. Now swing the rapid-wind lever (22) and release the shutter twice. Whilst doing this make sure that the spindle (18) of the rewind crank (19) rotates: this indicates that the film is advancing correctly (Fig. 8). On the third swing of the rapid-wind lever, the marker of the frame counter disc will indicate 36 or 20, and you are then ready to take your first picture. The frame counter always shows you how many frames are still to be exposed.

After inserting the film, you must set the speed of the film you are using on the camera. To do this, move the small lever (14) to the right or left — at the same time pressing it against the camera body — until the ASA speed given on the film carton is set to the triangular mark with the sun-symbol (20). You can also set it to intermediate values. For dull-weather and against-the-light pictures (but only when using colour reversal film), the film speed value should be set to the figure 2 with the cloud-symbol. The sun-symbol should thus be used for all exposures on black-and-white or colour ne-

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gative film, and also for pictures on colour reversal film in good weather.

When you have loaded the camera, set the type and speed of the film on the film-type reminder disc (21) on the back of the camera. This device is only intended to assist your memory and has no influence on the actual exposure.

Removing the film

When the frame counter indicates the figure 1 and the shutter is released, the last frame has been exposed. The film must now be rewound into its cassette, so that you can remove it in daylight. To do this, press the locking knob (17) on the underside of the camera in as far as it will go. The rewind crank (19) will then spring out and can be unfolded. Turn the crank in the direction of the arrow (Fig. 9) until you feel a definite resistance, which means that the film has come free from the take-up spool. Then open the back by pressing on the catch (13) and take out the film. Finally, fold back the rewind crank firmly, so that you can see the locking knob spring out again.

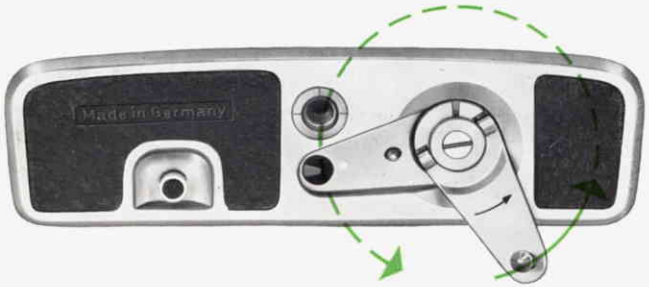

Fig. 9

Accessories

The everready case protects the CONTESSA matic E from external damage. The camera is held securely in the case by means of the tripod screw (16) and need not be removed for taking pictures.

You can observe the spindle of the rewind crank (18) through the hole in the bottom of the case. This spindle must rotate as the film is advanced.

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ZEISS IKON Precision Filters add atmosphere to your photos. They are made of finest-quality glass and are faultlessly polished, so that they do not affect the performance of your ZEISS TESSAR lens. The filters are screwed on to the lens (diam. 27 mm). The following filters are available:

For black-and-white film

Yellow filter	(x 2)	Emphasises clouds, makes blue darker, yellow, yellow-green and orange lighter.
Green filter	(x 2)	Yellow and green are rendered lighter, blue and red darker; good modelling of clouds.
Orange filter	(x 5)	Still darker blue and lighter yellow and red tones; penetrates light haze.
Red filter	(x 8)	Produces an unreal atmosphere; sky even darker. Gives moonlight effects with intentional underexposure.

For black-and-white and colour films

CONTAPOL	(x 3)	Polarizing filter, reduces distracting reflections from glass, lacquered and polished surfaces; under certain circumstances gives more saturated colour rendering on colour film.
UV filter	(x 1)	For reducing harmful ultra-violet radiation at high altitudes and on the seashore.

For colour film

IKOLOR A	(x 1.5)	For daylight exposure on artificial-light colour film.
IKOLOR B	(x 2.5)	For artificial ligth exposure on daylight colour film (can also be used as blue filter for black-and-white film).
IKOLOR C (Skylight)	(x 1)	To subdue blue shadow-rendering with daylight colour film.
IKOLOR F	(x 1.5)	For daylight exposures on flash-type colour film.

When using filters, the exposure must be increased according to the filter factor. With ZEISS IKON filters, this factor is engraved on the mount.

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So that the automatic exposure control of the CONTESSA matic E can take the filter factor into account, the filter corrector must be set before measuring the exposure. To do this, move back the lever (14) so that the film speed value of the film is set to the number of the filter factor (2) alongside the setting mark with the sun-symbol. For other filter-factor values, select the appropriate intermediate value. Then measure and set the exposure as usual.
When the filter is removed, the film speed value must be returned to the triangular mark. So that you do not forget the speed of the film in use, you should always set the film-type. reminder disc (21) accurately.

Supplementary lenses for close-up pictures (ZEISS PROXARS)

If you want to take pictures at short distances with your CONTESSA matic E, place one of the coated ZEISS PROXAR lenses on to your camera lens (diam. 28.5 mm). These lenses are available in four strengths. The camera-lens distance settings and actual taking distances can be found in the table.

Table for using ZEISS PROXAR supplementary lenses with 50 mm. f/2.8 ZEISS TESSAR lens

	Lens set to	Subject Distance	Reduction 1 :	Field size
PROXAR lens f = 1 m	∞	3′3½″	19.0	1′2¾″ x 1′10¼″
	20′	2′10″	16.2	1′5¼″ x 2′2¼″
	10′	2′5¾″	14.1	1′3¾″ x 1′7½″
	7′	2′2½″	12.7	11½″ x 1′5½″
	5′	2′	11.4	10″¼ x 1′3½″
	4′	1′9″	9.9	9″ x 13¾″
	3′	1′6″	8.4	7½″ x 11½″
PROXAR lens f = 0.5 m	∞	1′8¼″	9.8	8¾″ x 1′1½″
	20′	1′6⅝″	9.0	8¼″ x 1′½″
	10′	1′5¼″	8.2	7½″ x 11¼″
	7′	1′4¼″	7.7	7″ x 10½″
	5′	1′3″	7.3	6½″ x 10″
	4′	1′2″	6.6	6″ x 9″
	3′	1′⅝″	5.8	5¼″ x 8″
PROXAR lens f = 0.3 m	∞	1′1⅜″	6.4	5¾″ x 8¾″
	20′	1′⅝″	6.0	5½″ x 8¼″
	10′	1′⅛″	5.7	5⅛″ x 7⅞″
	7′	11½″	5.4	4⅞″ x 7½″
	5′	10⅞″	5.2	4¾″ x 7⅛″
	4′	10⅜″	4.8	4¼″ x 6⅝″
	3′	9⅝″	4.4	4″ x 6″
PROXAR lens f = 0.2 m	∞	8⅛″	3.9	3½″ x 5⅜″
	20′	7⅞″	3.8	3⅜″ x 5¼″
	10′	7⅝″	3.6	3¼″ x 5″
	7′	7½″	3.5	3⅛″ x 4⅞″
	5′	7⅛″	3.4	3″ x 4⅝″
	4′	6⅞″	3.2	2⅞″ x 4⅜″
	3′	6⅝″	3.0	2¾″ x 4⅛″

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The taking distance should always be measured from the front rim of the supplementary lens. To obtain sufficient depth of field you should always stop down to at least f/8.
When taking close-ups, especially with PROXAR lenses of shorter focal length, the resulting viewfinder parallax should be compensated for by moving either the camera or the subject to be photographed.

Cable release

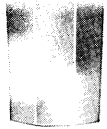
When taking pictures from a tripod, it is advisable to use a cable release. This is screwed into the thread of the release knob. The ZEISS IKON cable release has a locking device for applying continuous pressure during time exposures ("B" setting).

Lens hood

This prevents flare and veiling in against-the-light shots. It also protects the lens against rain and snow during bad weather. In addition to the metal lens hood, there is a rubber hood which can remain on the camera when the everready case is closed.

Maintenance of the CONTESSA matic E

Clean the film cassette chamber and film track from time to time with a soft brush. The lens should only be cleaned when necessary, by wiping it carefully with a clean, soft linen cloth. All dust should be removed beforehand with a brush. Also clean the window of the exposure meter and the viewfinder now and then with a linen cloth.
On the back of every CONTESSA matic E there is a serial number, and there is a lens number on every ZEISS TESSAR. You should make a note of both numbers, so as to establish your ownership in cases of loss or theft.
On all photographic matters, your photo-dealer will be pleased to give you advise and service, free of charge.



Subject to alterations in the interests of technical progress.

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The IKOBLITZ 4 capacitor flashgun

— without cable — is very simple to fit on the CONTESSA matic E (Figs. 10 and 11). Its high light output is remarkable. The reflector can be folded up, making it easy to carry about. The IKOBLITZ 4 can also be fastened to the carrying strap of your everready case.

Fig. 10

Fig. 11