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**ZENZA BRONICA**  
**ETR Si**

**6x4.5 MAIN CAMERA BODY**

**INSTRUCTIONS**

Congratulations on your choice of the Zenza Bronica ETRSi single lens reflex camera. Based on the technology and experience gained with the ETRS, the ETRSi offers you high quality performance, handling convenience and the versatility required for professional photography.

The Zenza Bronica ETRSi has been developed as a "system" camera, with a very high degree of modularity, with interchangeability in lenses, finders, focusing screens and film backs. We have also refined our professional features including flash synchronization at all shutter speeds up to the fastest 1/500 second. Also, full auto-flash control, based on TTL-direct light measurements at the film plane, with an exclusively-developed SCA386 System Adapter. Furthermore, the Zenza Bronica ETRSi is supported by a complete range of accessories for use in day-to-day assignments, as well as for special camera work.

Although the following instructions are based for convenience on a standard combination consisting of the ETRSi main camera body with the standard Zenzanon-E II 75mm lens, Film Back Ei 120 and Waist-Level Finder E, the choice of lens, film back and finder is left to your discretion and to suit your picture-taking needs. To insure the best results from your Zenza Bronica ETRSi, may we suggest that you read this instruction manual carefully, before you even assemble the camera and accessories.

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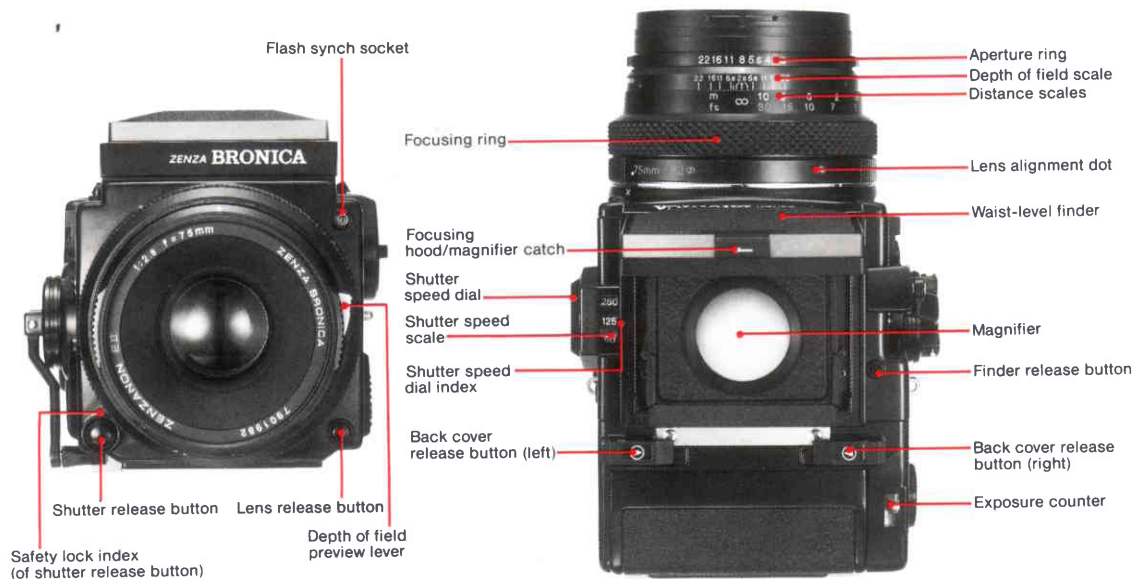
## Specifications of the ZENZA BRONICA ETRSi

<b>Type</b>	4.5 × 6cm format lens shutter single lens reflex camera, with interchangeable lens, film back, finder and focusing screen systems.
<b>Frame size</b>	42.5 × 55.1mm (side/length ratio of 1:1.29 closely matches standard paper and reproduction sizes)
<b>Film</b>	120 roll film (15 exposures); 220 roll film (30 exposures); 135 cartridge-loaded film; and Polaroid Land pack film. (Exclusive film backs for each film type.)
<b>Standard lens</b>	Zenzanon-EII 75mm F2.8 lens, interchangeable type; 6 elements in 4 groups; multi-layer anti-reflection coated; 49° angle of view; F22 minimum aperture; 60cm minimum focusing distance; and helical focusing.
<b>Filter size</b>	62mm diameter for 40–250mm lenses and 95mm for 500mm lens.
<b>Lens mount</b>	Exclusive four claw Bronica ETR bayonet mount.
<b>Lens diaphragm</b>	Fully automatic instant reopening diaphragm action; equal-distance aperture scale graduations; depth of field previewing.
<b>Shutter</b>	Electronic control SEIKO #0 between-lens leaf shutter; shutter speeds 8 to 1/500 sec. plus B(bulb) and T(time); intermediate settings not possible; mechanical control setting of 1/500 sec.
<b>Film winding</b>	Film winding crank; one complete forward revolution or ratcheted winding action.
<b>Mirror lock-up</b>	Possible with mirror lock-up lever.
<b>Multiple exposure</b>	Possible with multiple exposure lever; red warning sign in finder.
<b>Film back</b>	Daylight loading interchangeable type; exclusive film backs for 120, 220 and 135 roll films and Polaroid Land pack film.

<b>Finder system</b>	Interchangeable finder system; 94% of actual field of view (remains unchanged with different finders); choice of four optional finders, or Waist-Level Finder E, AE-II Finder E, Rotary Viewfinder E and Prism Finder E.
<b>Focusing screen</b>	Interchangeable type; standard screen has matte spot.
<b>Flash synchronization</b>	X-setting (up to 1/500 sec.); auto-flash control based on direct light measurements at the film plane is possible with optional SCA System Adapter.
<b>Battery checking</b>	Red-colored LED lights up within screen area when battery check button is depressed, if there is sufficient power; also doubles as shutter closing signal.
<b>Battery</b>	Single 6-volt silver oxide or alkaline-manganese battery; also powers AE-II Finder E, when attached.
<b>Dimensions</b>	92(wide) × 87(high) × 69(long) mm (ETRSi main body only) 92(wide) × 107(high) × 165(long) mm (with standard lens, Film Back Ei 120 and Waist-Level Finder E)
<b>Weight</b>	470 grams (ETRSi main body only; without battery) 1,285 grams (with standard lens, Film Back Ei 120 and Waist-Level Finder E; without battery)

Subject to changes in specifications with or without prior notice.

## Parts of the ZENZA BRONICA ETRSi







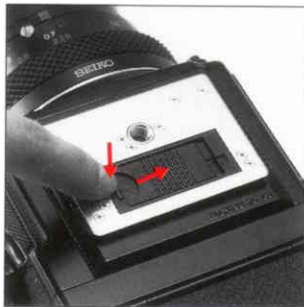


## 1 Loading the Battery

The electronically-controlled speeds of the shutter will not work without loading the battery. One alkaline-manganese or one silver oxide battery of 6 volts should be used.

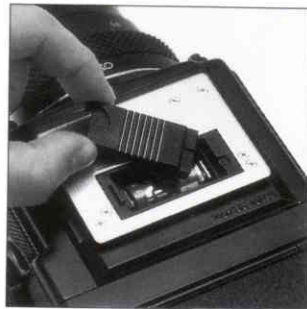
The shutter will be mechanically controlled when the battery is not loaded, exhausted or when it is loaded with its polarity marks reversed. It will then be released at 1/500 sec., regardless of the setting on the shutter speed dial. Time exposure is an additional mechanical speed, accessible by a lever (A/T) on the lens.

\* The batteries noted may be obtained at any photographic equipment or electrical appliance shop.



A. Depress the battery chamber button with your finger and, at the same time, move the battery chamber cover in the arrow-indicated direction. The cover will come off easily.

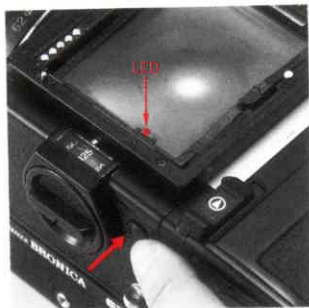
\* When loading the battery, be sure to leave the battery removal ribbon extending out, for convenience in removing the battery the next time.



B. Coincide the plus (+) and minus (-) marks on the battery with similar polarity indications in the battery chamber. Then, push in the negative end of the battery first and follow with the positive end.

Insert the BATTERY end of the battery chamber cover which also has a mark coinciding to that on the body. Then move the cover in the other direction (opposite to the arrow indication) until it locks in place.

## 2 Battery Checking



If a red-colored battery check LED lights up in the left-rear corner (of the screen area) when the battery check button is pressed, the battery is loaded properly and there is sufficient power for electronic operations.

\* If the LED does not light up, (1) the battery is not loaded properly or (2) it is completely drained.

## 3 Attachment and Removal of Film Backs

The film back is a film chamber that can be attached or detached freely, this permitting free exchange of film types even during shooting sessions.

The camera main body and film back are fully coupled, upon connection. Therefore, always turn the film winding crank completely one time, upon attaching the film back. If winding is not possible, all preparations for taking the picture have been completed. But, if winding is possible, rotating the film winding crank until it stops will automatically take care of the incompleting action, whether uncocked shutter or film not advanced. Thus, it's always possible to choose the film type most suited for the shot, even midway in the roll.

\* Make full use of the interchangeable film back.

1. Color and black-and-white, in different film speeds, can be shot, as required.
2. Continuous shooting is pos-

sible if sufficient preloaded film backs are available.

3. Don't waste unsuitable film used in a previous session but simply load up a new film back with the required film type.

4. Using a Polaroid Land Pack Film Back will provide an instant color or black-and-white picture, used typically for checking the lighting and/or composition before taking the actual photograph.

\* Choose film backs to match your photographic requirements, as various types and formats are available optionally.

5. The film back is a film chamber that can be attached or detached freely, thus permitting changes in film types even in mid roll.

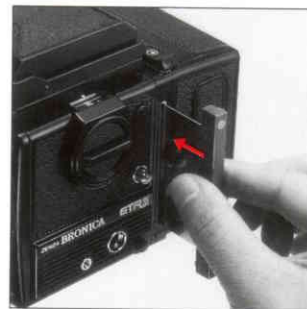
The camera body and film back are fully coupled upon connection. This means that the back and body communicate their state of readiness to each other, and prevent accidental double exposures, or blank frames.


After attaching the film back, wind the crank. If winding is not possible, all preparations for taking the picture have been completed. But, if winding is possible, the wind will automatically take care of any incompleting action, whether uncocked shutter or not advanced film. Thus, any back can simply be attached to the body without need for checking the body, or back for their state of readiness.



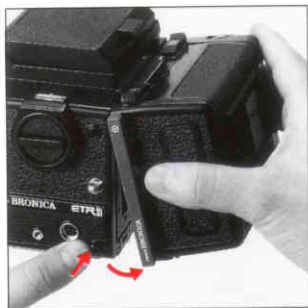
A. To attach the film back to the main body, simply insert the latches at the upper end of the film back into the attachment openings at the upper end of the main body. Then, press the lower end of the film back against the main body until it locks securely.

\* The dark slide must be withdrawn from its slit, upon attachment of the film back to the main body, as otherwise the shutter cannot be released.



B. To remove the film back from the main body, insert the dark slide into the dark slide slit, as illustrated, with the  mark on the dark slide at the top end. Push it all the way in.

\* There is danger of the film back accidentally becoming detached from the main body, should the dark slide be left in its slit while the camera is being carried. Therefore, make it a rule to withdraw the dark slide promptly upon attaching the film back to the main body.



C. Depress the film back release button and the lower end of the film back can be removed, as illustrated. Simply shift the film back up slightly and pull it away.  
 \* The dark slide cannot be withdrawn while the film back is removed from the main body.

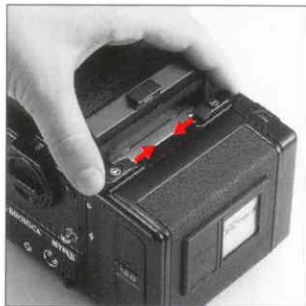


A. The film back consists of a film holder and a film back frame, with exclusive film holders supplied for 120 and 220 roll films. The film holder has an insert or frame for loading film, as well as a built-in film winding mechanism.



B. The film back frame, on the other hand, consists of a base with a dark slide slit and a back cover with a film type indicator frame. The film back frame completely encloses the film holder and shields it from outside light, as well as connecting it to the camera main body.

## 5 Film Loading

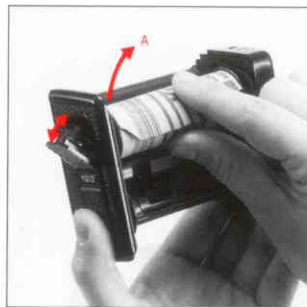


A. To open the back cover, squeeze the left and right back cover release buttons, in the arrow-indicated directions, at the same time and the back cover will open.

\* Various film back types and formats are available optionally. Therefore, choose those suitable for your needs. See instructions supplied with the Polaroid Land Pack Film Back and Film Back ETRS 135 for their proper use.

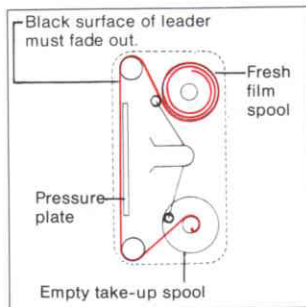


B. Then, the film holder can be detached.



C. There are two spool holders on the film holder, with the top for the fresh film spool and the bottom for the take-up spool.

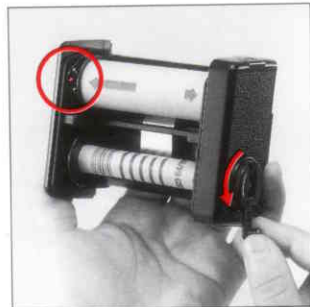
The left-side shafts of both can be opened outwards, by sliding the spool as illustrated. Insert the right end of the spool on to the right-side fixed shaft and, next, close the left-side holder (shaft) which will engage the spool.



\* The spool holders on the left side will be locked securely, when the back cover is closed.

D. After loading the fresh film spool properly, draw out the leading end of the film and turn it across the film pressure plate (as illustrated). Run it down and turn it over to the take-up spool. Insert the leading end into the slit of the take-up spool and wind slightly until securely engaged.

\* The inside black surface of the leader must face out when running across the pressure plate, in this case.



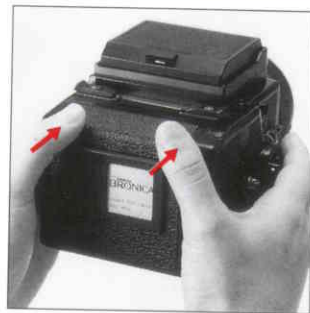
E. Rotate the film back winding crank on the right side of the film holder in the direction indicated by the arrow, while checking the advancing film.

When the starting point, or arrow mark, is aligned with the triangular ▼ start-mark on the top left side of the film holder, stop rotation.



F. The starting point, or arrow mark, can also be aligned with the start-mark, with the film holder loaded in the film back. Simply rotate the film winding crank on the camera main body, in this case. This method is preferred since there will be coupling with the camera main body mechanism, from the beginning.

\* If the film is not advanced when the film winding crank is rotated, the film holder is not inserted properly and/or the camera main body may be set for multiple exposures. In the latter case, return the multiple exposure lever to an upright or vertical position. (See "21, Multiple Exposures" on Page 30.)



G. Close the back cover, by pressing it firmly against the base of the film back, as illustrated. The back cover will automatically close and lock, with the safety lock also locking the back cover release button. The same operation will close the back cover when the film back is detached from the main body.

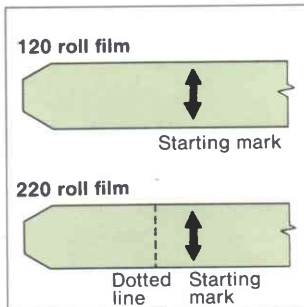




H. Upon loading the film, rotate the film winding crank until it stops to place the first frame into place for taking the picture. The exposure counter will also change from "S" to "1", while the shutter will also be cocked.



I. The film back winding crank is used for advancing the film, when the film back is detached from the main body for film loading. The film back winding crank can continue to rotate, even when the film is set for the first exposure. It should be rotated 2 or 3 times more, in order to take up any slack in the loaded film.



When loading 220 roll film in its exclusive film back, do not mistake the dotted line for the starting point, as it is located before the arrow marks.

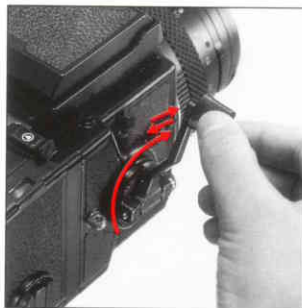
## 6

Film Type  
Indicator Frame

Upon loading the film, tear off the end flap from the empty film package and insert it in the film type indicator frame. This will help you keep track of the film loaded in the film back and should prove useful when two or more film backs are used, with different types of films.

## 7

## Film Advance and Shutter Cocking



Rotating the film winding crank once, in the forward direction, will advance the film one frame and, at the same time, cock the shutter, with the winding action stopping automatically. Or, short, rapid strokes, up to an accumulated full rotation, will also do the job.

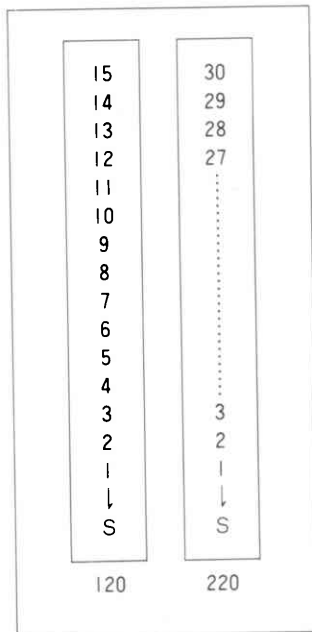
\* The mirror lock-up lever must always be oriented horizontally except when it is being used to lock up the reflex mirror.

In one 360° clockwise rotation, the winding crank will advance the film one frame, and at the same time, cock shutter. The winding mechanism ratchets freely in the reverse direction, allowing short strokes to accumulate a full wind. In either case, winding action stops automatically when complete.

## 8



The exposure counter is an additive type and shows the number of frames exposed. Starting from "S", the exposure counter for 120 roll film shows numbers from 1 to 15 while the counter for 220 roll film shows numbers from 1 to 30.





A. After the 15th exposure of the 120 roll film (30th exposure of the 220 roll film), the film winding crank will turn freely with further rotations. Therefore, continue rotating the film winding crank until the remaining film and all the leader paper is wound up on the take-up spool.

Open the back cover when winding action becomes very light.

B. Remove the film holder and, while preventing the loose film from unwinding, take out the take-up spool. Seal the exposed film and return it to its original box until development.

\* Always load 120 roll film in Film Holder Ei 120 and 220 roll film in Film Holder Ei 220.

\* Load and unload film away from direct sunlight and/or strong illumination.

## 10 Setting the Shutter Speed Dial

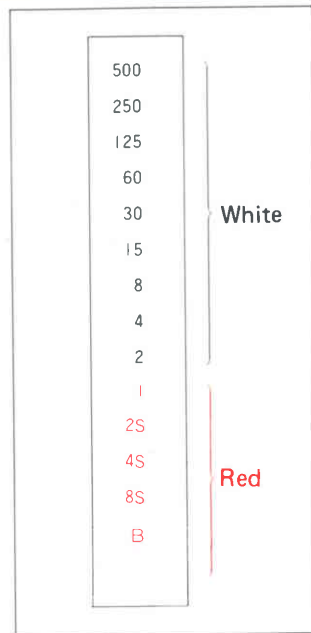


A. The numbers on the shutter speed scale show the shutter speed which is set. For example, "8S" is 8 sec., "2" is 1/2 sec. and "500" is 1/500 sec. The shutter stays open as long as the shutter button or cable release is pressed on "B(bulb)". However, since battery power is drained during "bulb", time exposures should be made when the exposure time is longer than one minute.

\* See "12. Time (T) Exposure" on page 21.

B. The numbers on the shutter speed scale are divided into red and white colors. Red-colored numbers are full number settings of 1 second and longer while white-colored numbers are from 1/2 to 1/500 second.

\* The shutter speed setting can be changed before or after the film is advanced.



## 11 Shutter Release Button



A. Depress the shutter release button with the ball of the finger. Press all the way in with a smooth and gentle action.




\* A red-colored LED will flash briefly in the left-rear corner of the focusing screen area, when the shutter is released. This will indicate that the lens shutter has closed and the exposure is complete, and should be noted when using a slow shutter speed.



B. Safety Lock

The safety lock index on the shutter release button can be rotated to three positions for obtaining different shutter functions. The settings are directly left, 45° up from the side position and directly above, which have different safety lock functions.

**\* The safety lock index should be set 45° diagonally when using Motor Winder Ei.**

<div>Release with</div> <div>Safety lock position</div>	 <div>Shutter release button</div>	 <div>Motor Winder Ei, Motor Drive E &amp; Speed Grip E release socket</div>	 <div>Cable release button</div>
Left side	Releases	Releases	Releases
45° diagonal	Locked	Releases	Releases
Top side	Locked	Locked	Locked

Remarks: Use Motor Drive E with red dot positioned at 45° left.

The shutter cannot be released, in the following cases:-

1. Shutter release button is locked.
2. Dark slide is inserted.
3. Film winding crank has not been rotated fully. (Same when the exposure counter is still between "S" and "1".)
4. Shutter is not cocked.
5. Lens is not properly attached. (Same with extension tubes and bellows.)
6. Lens release button is being depressed.

7. All frames (15 on 120 roll film and 30 on 220 roll film) have been exposed already.

\* If the film winding crank is rotated before completion of the preset shutter speed, such as when a slow shutter speed is being used, the frame will be underexposed and image streaking in the frame may occur as well.

Also, although the shutter will not be released on the next frame, there may be leakage of light onto that frame.

## 12 Time (T) Exposure

The exposures are made with the time exposure lever on the lens, regardless of the setting on the shutter speed scale. However, the lever is locked to prevent accidental movement and must be unlocked for use.



A. Unscrew the set screw on the time exposure lever until further revolution is not possible, which will permit the lever to be moved freely.

\* Except for time exposures, always shift the time exposure lever so that "A" is visible on the lens barrel and keep it locked with the setscrew to prevent accidental movement.



B. Next, cock the shutter with the film winding crank and then shift the time exposure lever to the left (looking from the body towards the lens) which will expose a red-colored "T" on the barrel. The shutter will stay open when the shutter release button is depressed in this condition. The shutter is closed by shifting the time exposure lever in the opposite direction and exposing the letter "A" once more.



## 13 Exchanging Lenses

The lens cannot be attached or detached unless the shutter is cocked and the reflex mirror charged.

Therefore, first, rotate the film winding crank to cock the lens shutter and charge the reflex mirror action before attempting to remove the lens.



A. To attach the lens to the main body, align the red dots on the lens and main body and then insert the lens fully into its mount. Rotate in the counter-clockwise direction until it stops, with an audible click, which will indicate that it is securely locked.

\* Should the lens release button appear, or feel preactivated at this time, this will indicate that the lens attachment is not proper.

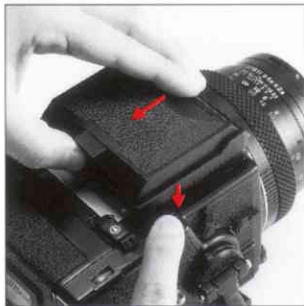


B. To detach the lens, rotate the lens in the clockwise direction while depressing the lens release button until the lens makes a full stop, at which point it can be detached.

## 14 Interchanging Finders

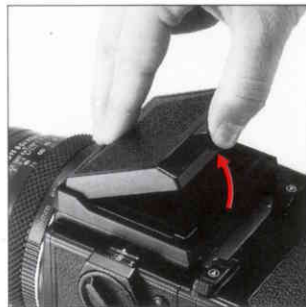


A. The finder can be interchanged, with other optional finders, to match shooting conditions to photographic conditions. To attach the finder, align the front end of the finder with the front end of the finder frame on top of the camera main body, as shown. Then, gently lower the finder and, when well-seated, slide forward until it locks.



B. To detach, simply depress the finder release button, while, at the same time, sliding the finder backwards where it can be taken up.

## 15 Waist-Level Finder and Interchanging Magnifiers

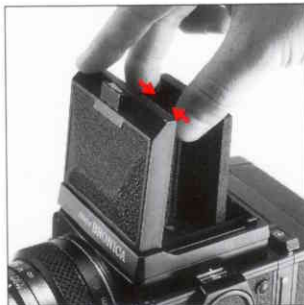


A. The focusing hood of the waist-level finder is opened by pushing or pulling up on the focusing hood/magnifier catch at the rear end of the folded waist-level finder.

## Waist-Level Finder and Interchanging Magnifiers



B. The magnifier can be flipped up into viewing position, by simply sliding the focusing hood/magnifier catch in the arrow-indicated direction (to the left). To return the magnifier to its storage position, simply push it down until it catches.



C. To close the focusing hood, first, push down the magnifier (if it is flipped up). Next, press in both side frames, as illustrated, and, at the same time, press the front frame back towards the rear end. The focusing hood will automatically be folded down.



D. The standard magnifier supplied with the waist-level finder has a power of  $-1.5$  diopters, which can be exchanged for others with powers of  $-4.5$ ,  $-3.5$ ,  $-2.5$ ,  $-0.5$ ,  $+0.5$  and  $+1.5$  diopters. These optional accessories should be purchased to suit the user's eyesight, if necessary. Simply rotate the magnifier frame in the counter-clockwise direction to unscrew. Attach in the reverse manner.

## 16 Setting the Aperture



A. The aperture ring is rotated, in either direction, to set the required f/number opposite the white index dot. The aperture ring click-stops at the numbered settings. Intermediate settings are also possible.

\* Intermediate settings cannot be used when the AE-II Finder E is used.



B. All Bronica interchangeable lenses for the ETRSi have fully automatic lens diaphragms which means that the focusing screen is always viewed at the full aperture, with the brightest possible image. However, depressing the depth of field preview lever will stop the lens diaphragm down to the pre-selected lens opening (aperture), permitting the photographer to check the depth of field effect on the focusing screen.

\* The aperture ring must not be adjusted while the depth of field preview lever is being depressed.

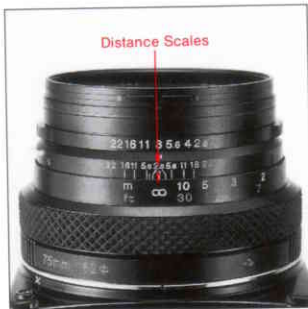
\* Furthermore, the depth of field preview lever must not be used for taking an exposure reading, with the AE-II Finder E, in both automatic and manual exposure operations, as the indicated shutter speed setting will not be correct. This is because the Bronica ETRSi has been designed for full aperture metering and over-exposure will result, in this case.



The lens is focused on the subject, by rotating the focusing ring in either direction, while checking the effect on the matte surface in the center of the focusing screen (standard type).

\* Various interchangeable Focusing Screen Ei types are available optionally for the camera. Therefore, a type suitable for the photographic work planned should be chosen.

(See "23. Interchangeable Focusing Screens" on page 33.)

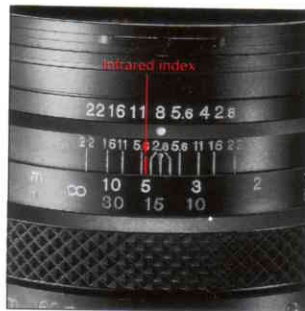


A. Distance scales on the Bronica lenses for the ETRSi can be used for setting the focus on the required distance or finding the distance actually focused. Simply rotate the focusing ring and set the required distance opposite the green-colored index, which will adjust the lens for the required distance.



B. There is an apparent zone of sharpness, both in front and back of the focused subject, which is known as the depth of field. The depth of field scale shows the zone of apparent sharpness at any lens opening or distance and can be utilized for quickly and simply ascertaining the depth of field. The depth of field scale is next to the distance scales and is made up of identical pairs of apertures on both sides of the green-colored distance index. These identical pairs of apertures

## 19 Infrared Photography



indicate the distance that will be in focus at these lens openings. For example, if the 75mm lens is focused at a distance of 3m, it can be seen from the depth of field scale that the zone will extend from about 1.85 to 8.30 meters (6 ft. to 26 ft.), when a lens opening of F22 is used.

Please refer to the Depth of Field Tables, on page 40, too.

In infrared photography, some adjustment must be made in the focus in order to retain sharpness on the film, because the invisible infrared rays are longer in wave length than the visible rays used for focusing. For infrared photography.

1. Use a R filter or equivalent with an infrared (black-and-white) film.
2. The red-colored line, next to the green-colored distance index, is the infrared index.
3. After focusing in the normal

manner, re-set the distance indicated by the green-colored distance index to the infrared index, by shifting the distance ring.

For example, if 5 meters is coincided to the green-colored distance index, when the subject is focused on the focusing screen, then, shift "5" to the red-colored infrared index which will mean that the infrared film is focused at 5 meters.

4. Always follow instructions enclosed with the infrared film and filter regarding exposure conditions. To be on the safe side, make several bracketing shots. In general, a slight over exposure rather than under seems to be a good rule of thumb.



A. Always use flash cords with a standard PC type plug (i.e., JIS B7102).

\* When detaching the flash cord, grip the plug firmly and pull it out straight; never use a twisting action.

B. The lens shutter of the Zenza Bronica ETRSi has a X-setting for flash synchronization, which means that electronic flash units will synchronize at all shutter speed settings, up to the fastest 1/500 second. Thus, it is very convenient for taking shots in daylight which require flash fill-in, too.



C. When a special SCA adapter is used in combination with the Zenza Bronica ETRSi, automatic flash adjustments are based on direct exposure readings made at the film plane.

When the electronic flash unit is fully charged, a flash ready indicator  $\text{⚡}$  will light up on the focusing screen.

\* See instructions supplied with the exclusive Bronica SCA System Adapter.

To perform TTL automatic flash adjustments on the Zenza Bronica ETRSi, use the SCA30Q System Grip Type flash unit and the SCA386 Adaptor by connecting. To attach the SCA adaptor to the Zenza Bronica ETRSi, follow the instruction show below.

**Flash units which can be used:**

SCA300 System Grip Type flash units.



**● Use the Mounting Bracket in combination**

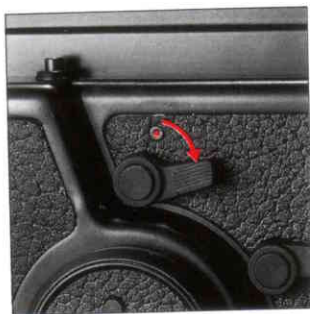
Attach to the adaptor mounting area of the Mounting Bracket.



**● Use the Motor Winder Ei or Speed Grip E in combination**

Attach to the respective shoe.

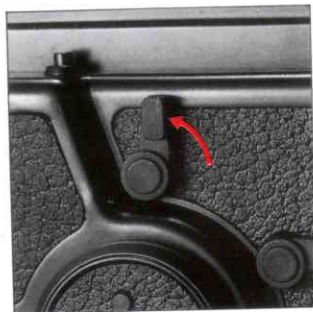




A. To make multiple exposures, first, rotate the film winding crank to advance film, cock shutter and charge mirror action. Then, turn the multiple exposure lever in a clockwise or arrow-indicated direction. The shutter can be released and cocked any number of times, in this condition, without advancing the film.



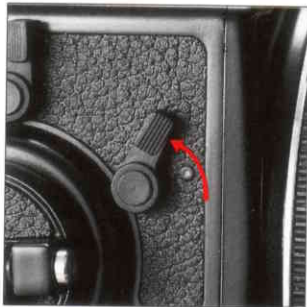
B. When set for multiple exposures, a red warning indicator ◀ will appear on the right-central area of the focusing screen.



C. Upon completing the multiple-exposed picture, be sure to return the multiple exposure lever counter-clockwise back to its vertical position. Otherwise, there will be additional multiple exposures on the same frame.

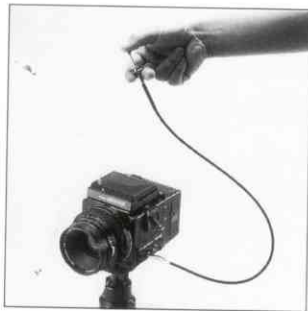
\* The red warning mark will continue to appear on the focusing screen unless the multiple exposure lever is returned.

## 22 Mirror Lock-Up



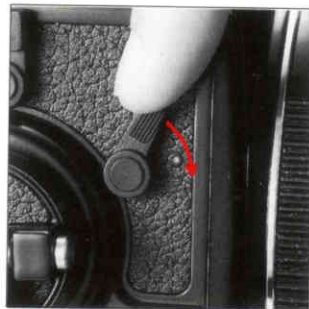
A. For photography with the mirror locked up, first, cock the shutter with the film winding crank and, then, turn the mirror lock-up lever in the arrow-indicated direction. The lens shutter will be closed down and the reflex mirror and film safety plate will swing up.

\* See page 32 for mirror lock-up with the AE-II Finder E.



B. The shutter can be released with the shutter release button or the cable release.

\* To suspend photography when the mirror is locked up, first, reverse the mirror lock-up lever and then rotate the film winding crank.



\* Rotating the film winding crank, after the 15th (120) or 30th (220) exposure when the mirror is locked up, will not advance the film as in the normal case, but will result in releasing the shutter once per 360° wind. Therefore, always return the mirror lock-up lever to the normal position after completing 15 or 30 exposures, before advancing the film to the take up spool.

When it is decided to suspend photography, after mirror lock-up, it should be noted that reversing the mirror lock-up lever will release the shutter. Therefore, in such cases, photography should be continued, in the following manner:-

Photography with the mirror locked up, when using the AE-II Finder E, is undertaken in the following manner:-  
(Follow the procedures noted while referring to the instructions for the AE-II Finder E.)

Detach the film back from the main body, utilizing exchangeable function of the film back. After returning the mirror lock-up lever, set the multiple exposure lever, located on the main body, to "Multiple exposure" position and set the shutter. Attach the film back and expose the frame with the lever in the multiple exposure position. Then return the multiple exposure lever and wind up the film. Continue normal shooting. (Refer to "Attachment and Removal of Film Backs" on p.8)

#### A. Manual Exposure Operations

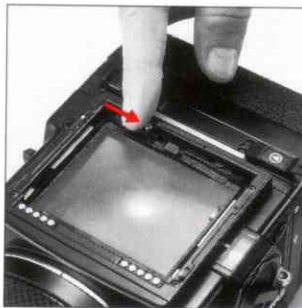
1. Align "M" (AE dial) to index mark.
2. Use AE-II Finder E to find the shutter speed for the chosen aperture.
3. Stroke shutter release button on main body halfway and shutter speed will flicker in the finder.
4. Transfer the displayed shutter speed to the shutter speed dial of the main body.
5. Lock mirror up and press the shutter release button fully.

#### B. Automatic Exposure Operations

1. Align "A" (AE dial) to index mark.
2. Stroke shutter release button on main body halfway and shutter speed will be displayed in the finder.
3. Lock the mirror up and press the shutter release button fully.

## 23 Interchanging Focusing Screens

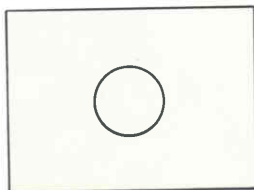
\* Shutter release should take place as soon as possible after lock-up of the mirror.



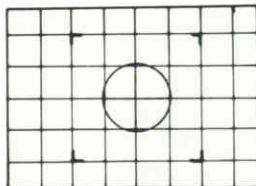
A. The focusing screen can be exchanged, depending on the type of photographic work being undertaken. First, remove the finder attached to the camera main body. Then, move the screen removal lever in the arrow-indicated direction, as illustrated. Finally, lift it up by the lever.



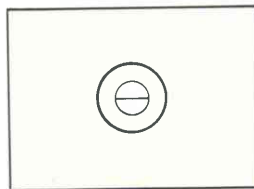
B. To install the focusing screen, insert the protrusions at the forward end of the focusing screen frame into corresponding openings in the focusing screen frame of the main body. Then, drop the rear end of focusing screen and slide the screen removal lever to the right.



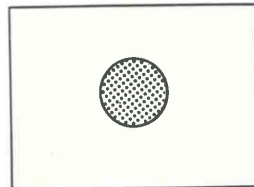
All Matte  
(Standard)



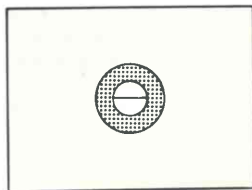
Grid lines



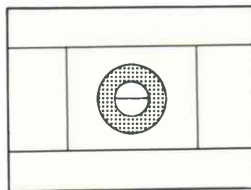
Split-image



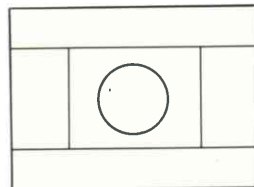
Microprism



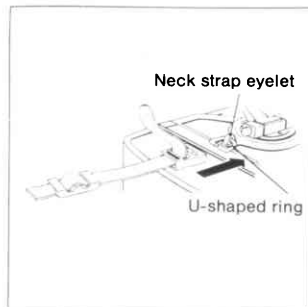
Microprism/Split-image



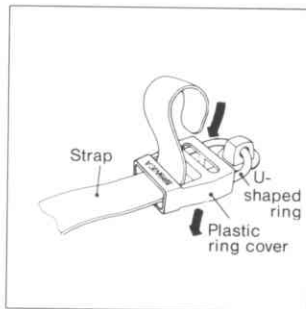
Microprism/Split-image  
(For Film Back ETRS 135)



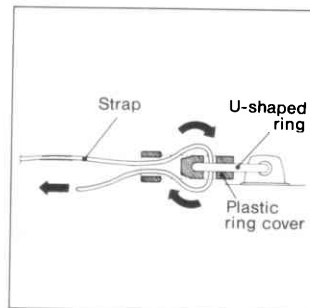
All Matte  
(For Film Back ETRS 135)



A. First, insert the U-shaped ring into the neck strap eyelet, as illustrated.

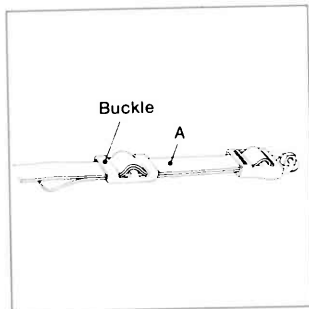


B. Next, insert the U-shaped ring into the slot of plastic ring cover.



C. Next, thread the neck strap through the plastic ring cover and the U-shaped ring and pull it out, as illustrated.

## 25 Facts about the Battery



D. After adjusting the length of the neck strap, pass the leading end of the strap through the buckle, as illustrated, which will fix it securely.

\* There should be no slack in the strap between the buckle and the plastic ring cover, or in "A" section, which means that both straps must be of the same length at this point.

The battery supplies power for the various electronic control mechanisms incorporated in the Zenza Bronica ETRSi. When used incorrectly, there is possibility of the wrong exposure being set to the camera and/or the camera not operating.

Be sure to use and store the battery correctly for obtaining optimum performance from it at all times.

- Take the battery out of the battery chamber when storing the camera.
- Leaving the battery in the camera for a long time, without using it, can lead to leakage problems and result in poor contact. Discard a battery with leakage or corrosion and thoroughly clean out the battery chamber, before inserting a new battery.
- Clean the contacts of the battery chamber and battery with a

soft cloth. Don't use sandpaper or emery cloth.

• The batteries which can be used in the Zenza Bronica ETRSi are the alkaline battery or the silver oxide battery.

Both batteries have very good cold weather resistance. However, there is a tendency for performance to drop when the temperature falls below 0°C (32°F).

Therefore, make it a rule to use a new battery and/or keep replacement batteries on hand for shooting outdoors in such freezing weather. Furthermore, keep the battery (and camera) under cover, next to the body, and load just before beginning the session.

• Do not throw the battery into a fire or hit it strongly, as there is danger of it exploding.

- The shutter cannot be cocked when film is not loaded in the film back. The use of the multiple exposure lever will, however, permit you to cock the shutter, in such instances. This feature is, of course, very convenient for familiarizing yourself with the camera and for testing the shutter in flash photography. (See "21 Multiple Exposures".)

- Battery power is not consumed when time exposures are made or when the ETRSi is used with the mechanically-controlled 1/500 sec. setting.

- The voltage will drop when the camera is used for long shooting sessions in freezing weather. Always insert a new battery or keep a spare on hand, for such occasions. Furthermore, keep such batteries in an inside pocket. Or, use the optional Remote Camera Battery Pack E, which has been developed for obtaining optimum battery performance in freezing weather.

- The focusing screen is detachable, for exchanging with other types. Do not place trimming masks or tapes on the bottom surface of the screen, as this will lead to inaccurate focusing.

- A red LED will flash in the lower left corner of the focusing screen area and signal closing of the shutter, when taking pictures. Wait for this signal, especially at slow shutter speeds, before turning the film winding crank. The LED will light up in the lower right area when the AE-II Finder E, Prism Finder E and Rotary Viewfinder E are used.

- Use cable release and self-timer accessories with the cable release socket of the main body.

- Due to the mask used in auto-printing, the finished print will be slightly smaller than the negative frame (in the case of service-size prints). Therefore, take this into account when framing the picture.



• Restrict cleaning of the reflex mirror to blowing or brushing with the blower brush or a soft camel hair brush. Don't touch the surface with your fingers or a cloth.

• Clean the plastic focusing screen in the same manner. Don't touch the surface as you may leave fingerprints.

• Use the silicon-coated cloth, or a soft cloth, to clean the exterior and never use solvents, such as lens cleaning liquid, alcohol or thinner, for this purpose.

• Use lens cleaning tissue and very little lens cleaning liquid to clean the lens. Do not use a silicon-coated cloth which can scratch the lens coating.

• Protect your camera from temperature changes which can result in moisture condensation, frost, etc., inside the body, leading to rusting of metallic parts and troubles.

• Do not leave the camera for a long time in extremely hot locations, such as summer beach or car parked in the sun, as the camera may be affected.

• Protect your camera from impact and vibrations, too.

• Always withdraw the dark slide from its slit upon attaching film back to main body.

• Always protect the lens with its cover, when carrying the camera.

• Clean the camera and lens very carefully after using it outdoors in wet weather or at the seashore.

• Wipe the camera carefully with a well-wrung damp cloth, using fresh water, if the exterior is effected by salty air. Then, wipe it dry with a soft, dry cloth. If necessary, send it out for a quick inspection at an authorized repair station.

• If the equipment is not being used for a long period, store everything in tin-lined containers, with plenty of desiccant, such as silica gel. Finally, store the equipment in a cool, dry and well-ventilated (but not windy) place.

• Do not store with chemicals, other than silica gel.

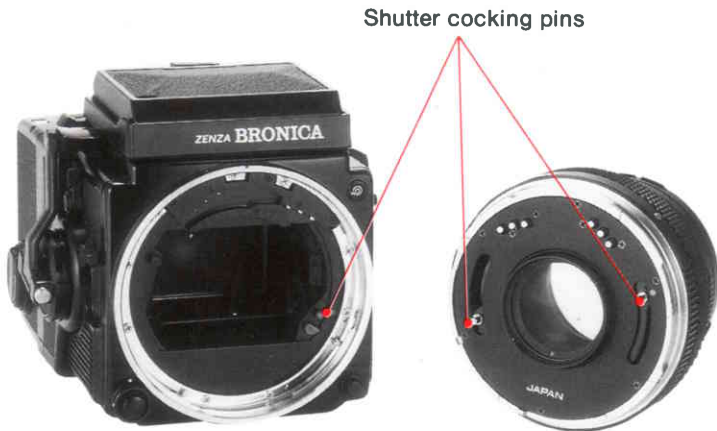
• Do not thread too strongly, when using a longer-than-standard tripod screw, as you may damage the body.

• Both camera main body and lens must be in the "cocked" condition to attach or remove the lens. In other words, cocking the lens shutter sets the cocking pins of both lens and main body to a green-colored dot.

The cocking pin of the detached lens can be set to the dot by moving it manually. On the other hand, simply revolve the film winding crank to set the cocking pin of the main body mount.

• When shooting with the optional AE-II Finder E, remember to readjust the film speed dial of the finder when a film back with a different film speed is attached to the main body.

Also remember that the aperture ring cannot be set to intermediate settings with the AE-II Finder E.



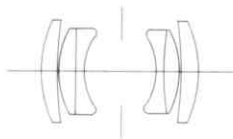
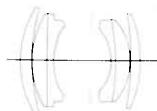
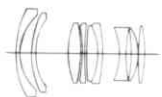
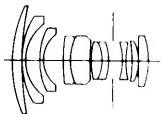
# 28 Depth of Field Tables

## ZENZANON-EII 75mm F2.8

F/num- bers	Distance (meter)											
	∞	10	5	3	2	1.5	1.2	1.0	0.9	0.8	0.7	0.6
2.8	∞	14.0	5.81	3.26	2.11	1.56	1.24	1.02	0.92	0.81	0.71	0.61
	34.5	7.79	4.39	2.78	1.90	1.45	1.17	0.98	0.88	0.79	0.69	0.59
4	∞	16.5	6.19	3.38	2.15	1.58	1.25	1.03	0.93	0.82	0.71	0.61
	25.1	7.19	4.20	2.70	1.87	1.43	1.15	0.97	0.88	0.78	0.69	0.59
5.6	∞	22.5	6.86	3.56	2.22	1.62	1.27	1.05	0.94	0.83	0.72	0.61
	17.8	6.45	3.94	2.59	1.82	1.40	1.14	0.96	0.87	0.77	0.68	0.59
8	∞	46.8	8.12	3.86	2.33	1.67	1.30	1.07	0.95	0.84	0.73	0.62
	12.6	5.63	3.62	2.46	1.75	1.36	1.11	0.94	0.85	0.76	0.67	0.58
11	∞	∞	11.0	4.39	2.51	1.76	1.35	1.10	0.98	0.86	0.74	0.63
	8.93	4.77	3.25	2.29	1.67	1.31	1.08	0.92	0.84	0.75	0.66	0.58
16	∞	∞	22.0	5.45	2.81	1.89	1.43	1.14	1.01	0.88	0.76	0.64
	6.34	3.93	2.85	2.08	1.56	1.25	1.04	0.89	0.81	0.73	0.65	0.57
22	∞	∞	∞	8.30	3.36	2.12	1.55	1.22	1.07	0.92	0.79	0.66
	4.51	3.15	2.42	1.85	1.43	1.17	0.99	0.85	0.78	0.71	0.63	0.55

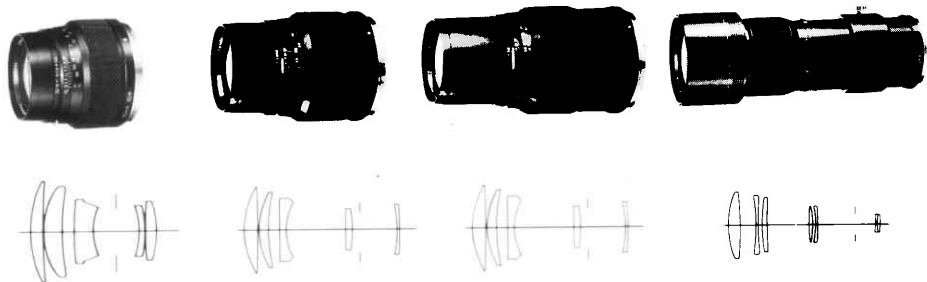
F num- bers	Distance (feet)											
	∞	30	15	10	7	5	4	3.5	3	2.5	2.25	2
2.8	∞	40.5	17.2	10.9	7.41	5.20	4.12	3.59	3.06	2.54	2.28	2.02
	113	23.8	13.3	9.24	6.63	4.82	3.89	3.42	2.94	2.46	2.22	1.98
4	∞	46.7	18.2	11.3	7.58	5.28	4.17	3.62	3.09	2.56	2.29	2.03
	82.3	22.1	12.8	8.99	6.50	4.75	3.85	3.39	2.92	2.45	2.21	1.97
5.6	∞	60.8	19.9	11.9	7.85	5.40	4.24	3.68	3.12	2.58	2.31	2.04
	58.3	20.0	12.0	8.63	6.32	4.66	3.79	3.34	2.89	2.43	2.19	1.96
8	∞	106	23.1	12.9	8.27	5.59	4.35	3.76	3.18	2.61	2.34	2.06
	41.3	17.5	11.1	8.16	6.08	4.53	3.71	3.28	2.84	2.40	2.17	1.94
11	∞	∞	29.8	14.8	8.85	5.87	4.51	3.87	3.26	2.66	2.38	2.09
	29.3	15.0	10.1	7.59	5.76	4.36	3.60	3.20	2.78	2.36	2.14	1.92
16	∞	∞	50.7	18.4	10.1	6.33	4.77	4.05	3.38	2.74	2.43	2.13
	20.8	12.4	8.89	6.91	5.37	4.15	3.45	3.09	2.70	2.30	2.10	1.89
22	∞	∞	∞	28.6	12.5	7.14	5.19	4.34	3.57	2.85	2.52	2.19
	14.8	10.0	7.62	6.14	4.91	3.88	3.27	2.95	2.60	2.23	2.04	1.84

## 29 Interchangeable Lenses



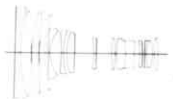
<b>Zenzanon-E</b>	<b>40mm F4</b>	<b>50mm F2.8</b>	<b>EII 75mm F2.8</b>	<b>Macro 100mm F4</b>
Lens construction	8 – 10	8 – 9	4 – 6	4 – 6
Angle of view	82°30'	70°	49°	38.4°
F/numbers	4 ~ 22	2.8 ~ 22	2.8 ~ 22	4 ~ 32
Minimum focus (m)	0.4 (1.3 ft)	0.5 (1.6 ft)	0.6 (2 ft)	0.61 (2 ft)
Filter size (mm)	62	62	62	62
Length (mm) – Weight (gram/lbs.)	53–515(1.14 lbs)	51–480(1.06 lbs)	51–450(1.00 lbs)	87–650(1.44 lbs)
Equivalent 35mm focal length (mm)	24	30	45	60

\* Electronic leaf shutter for all lenses: SEIKO #0, 8 sec. to 1/500 sec. plus B(bulb) and T (time exposure)



<b>Zenzanon-E</b>	<b>150mm F3.5</b>	<b>200mm F4.5</b>	<b>250mm F5.6</b>	<b>EII 500mm F8</b>
Lens construction	5 - 5	5 - 5	5 - 5	6 - 7
Angle of view	26°30'	20°	16°	8°
F/numbers	3.5 ~ 22	4.5 ~ 32	5.6 ~ 32	8 ~ 45
Minimum focus (m)	1.5 (4.9 ft)	2 (6.6 ft)	3 (9.8 ft)	8.5 (28 ft)
Filter size (mm)	62	62	62	95
Length (mm) - Weight (g/lbs.)	73-625(1.38 lbs)	103-700(1.54 lbs)	141-840(1.85 lbs)	267-1,890(4.17 lbs)
Equivalent 35mm focal length (mm)	90	120	150	300

\* Tele-Converter E 2X available.



#### **Tele-Converter E 2X**

This converter is to be exclusively used for the Zenzanon E series. It doubles the focal length of the lenses to be used without changing the minimum focus. Thus close-up capability can be increased.

Magnification: X2

Lens construction: 5 groups  
6 elements

Diaphragm: Fully automatic

Exposure: X4 (2 stops)

Shooting magnification: X2

Depth of field: 1/2 of the master  
lens

Usable lens: 75 ~ 500 mm.

Weight 425 g.

#### **Zenzanon-PE Variogon**

**70 ~ 140mm F4.5**

Lens construction: 13 groups  
15 elements

Angles of view: 51°18' ~ 28°48'

Apertures: F4.5 ~ F32 (with half-stops)

Diaphragm: Fully automatic

Minimum focus: 1.8m  
(0.25m in macro-mode)

Filter size: Series 9a (93mm $\varnothing$ )

Size: 100mm $\varnothing$   $\times$  153mm

Weight: 1,850 grams (4.08 lbs)

Accessories: Filter retainer, lens hood,  
lens case, front lens cap & rear lens  
cap.

**● Motor Winder Ei**

Provides auto-winding action, when finger is lifted from the shutter release button after taking the picture. Has built-in shutter release button and hot shoe for use with cordless electronic flash units. Permits fast operation comparable to 35mm SLR systems.

**● Speed Grip E**

Allows for rapid manual film advance via speed-lever for winding actions. The speed grip also has a built-in shutter release button which is automatically connected to the main body release system. Also, a built-in hot shoe which permits use of cordless electronic flash units is included, thus making possible fast operations comparable to 35mm SLR systems.

## Finder Interchangeability



Various finders can be used interchangeably on the ETRS and will provide the user with different viewpoints.

Therefore, the user should choose the type most suited for his work.

### ● Prism Viewfinder E

The accessory shows an eye-level laterally-correct and up-right image which is ideal for following fast actions, especially as it shows a very bright image of high magnification and can be used easily in both horizontal and vertical formats.

### ● Rotary Viewfinder E

The accessory makes reflex view-focusing very easy, as the eyepiece rotates 90° to the left or right for view-focusing a very bright and distinct erect image which moves with the lens. For reflex viewing in horizontal/vertical formats, as well as eye-level view-focusing from the side.

### ● Waist-Level Finder E

The accessory also folds flat but shows a laterally-reversed up-right image when erected. Has flip-up magnifier for critical focusing which makes it suited to careful composition work.

Opens/closes with single action.

### ● AE-II Finder E

Attaching the accessory converts ETRSi to an aperture priority auto-exposure system, with metering through the lens and with eye-level laterally-correct upright image for easy view-focusing. Meter-coupled manual exposure control also possible.



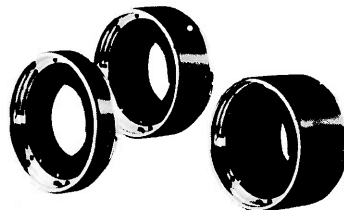
## Automatic Close-Up Photography



**Automatic Bellows Attachment E**



**Close-Up Lenses E**  
No. 1, No. 2



**Automatic Extension Tubes E**  
E-14, E-28, E-42

**Close-Up Equipment Table**

Zenzanon-E		40mm F4	50mm F2.8	EII 75mm F2.8	Macro 100mm F4	150mm F3.5	200mm F4.5	250mm F5.6
Magnification	Close-Up Lens E							
	No. 1	0.08 ~ 0.23	0.10 ~ 0.24	0.15 ~ 0.34	0.21 ~ 0.46	0.29 ~ 0.45	0.39 ~ 0.57	0.48 ~ 0.65
	No. 2	0.17 ~ 0.31	0.20 ~ 0.34	0.31 ~ 0.50	0.42 ~ 0.68	0.59 ~ 0.78	0.78 ~ 1.03	0.98 ~ 1.21
	No. 1 + 2	0.25 ~ 0.38	0.30 ~ 0.44	0.46 ~ 0.65	0.62 ~ 0.88	0.87 ~ 1.09	1.15 ~ 1.47	1.44 ~ 1.74
	Automatic Extension Tube E							
	E-14	0.34 ~ 0.51	0.28 ~ 0.42	0.18 ~ 0.36	0.14 ~ 0.40	0.10 ~ 0.23	0.07 ~ 0.21	0.06 ~ 0.16
	E-28	0.67 ~ 0.85	0.55 ~ 0.70	0.36 ~ 0.54	0.28 ~ 0.54	0.19 ~ 0.32	0.14 ~ 0.28	0.11 ~ 0.22
	E-42	1.01 ~ 1.19	0.83 ~ 0.97	0.54 ~ 0.73	0.42 ~ 0.68	0.29 ~ 0.42	0.22 ~ 0.35	0.17 ~ 0.28
	Automatic Bellows Attachment E	1.32 ~ 3.90	1.08 ~ 3.20	0.71 ~ 2.18	0.57 ~ 1.83	0.37 ~ 1.19	0.28 ~ 0.92	0.23 ~ 0.74

## Film Back Interchangeability



One of the greatest attraction of the ETRSi is complete film back interchangeability which makes it possible to detach or attach the film back any time, in daylight and/or in mid-roll, and use different film types interchangeably. Thus, an extra film back or two will let a single ETRSi do the work of several, such as, for example:

1. Take color and black-and-white shots of the same sub-

- ject.
2. Reload without losing a shot, even when shooting fast action, by using preloaded film backs.
3. Use different film speeds in the same session, by changing film backs.
4. Use a single ETRSi in common, but with personal film backs, in the studio or at home.

5. Use of 35mm films broadens the choice of film widely. In addition to the standard 35mm format, a new panoramic 24×54mm wide format is also available.
6. Use Polaroid® pack film back E for instant pictures for pre-viewing lighting and/or exposures.



**Zenza Bronica ETRSi dedicated adaptor and SCA386 Adaptor**

TTL automatic flash adjustment adaptor exclusively used for ETRSi. This adaptor adjusts the flash unit automatically in the range of ISO 25 through 1250. The connector is of 6-pin type and used for the flash unit controlling signal, charge complete signal and power supply, etc. This adaptor interlocks when the SCA300 System Grip Type flash unit is used.

There are 5 types of film backs:-

- Film Back Ei 120 (15 exposures)
- Film Back Ei 220 (30 exposures)
- Film Back ETRS 135N  
Frame size: 24×36mm
- Film Back ETRS 135W  
Frame size: 24×54mm
- Polaroid ® Pack Film Back E (8 exposures)

**Polaroid Land Pack Film**

Film	ASA#	For	Print Size (cm)	Exposures
665	75	B&W/Neg	8.3×10.8	8
667	3000	B&W	8.3×10.8	8
668	75	Color	8.3×10.8	8
669	80	Color	8.3×10.8	8
107	3000	B&W	8.3×10.8	8
108 P2	75	Color	8.3×10.8	8

# ZENZA BRONICA ETRSi SYSTEM DIAGRAM

