# The first automatic $2\frac{1}{4}$ system slr

## EC/TL by Bronica



Bronica, long the innovator in medium format technology, once again leads the field with the first automatic 2-1/4 x 2-1/4 SLR. Now photographers everywhere can enjoy the superior image quality of 2-1/4, combined with the handling speed and ease of the most modern automatic 35!

When you press the EC/TL shutter release, the built-in meter system automatically sets the electronically controlled shutter to the correct speed. An instant later, exposure completed, the subject image immediately reappears on the bright, full-size finder screen. Press the depth-of-field previewer, and you see an LED shutter speed readout that continuously reflects changing light conditions. Of course, manual speed selection is also available.

When it comes to versatility, the EC/TL is in a class by itself. Its automatic exposure control works with any shutterless lens, any closeup accessory—even with specially adapted lenses or other front attachments. In addition, the EC/TL accepts interchangeable film backs, finders, screens and numerous other accessories in the Bronica system.

Designed for professional use, the EC/TL is an exceptionally reliable camera. No other 2-1/4 can match it for constant, repeatable shutter speed accuracy that does not vary from lens to lens. Equally unsurpassed is the picture quality produced by its renowned Nikkor and Zenzanon optics. Yet the EC/TL actually costs less than other, non-automatic 2-1/4 slr's—a cost economy that is reflected throughout the entire Bronica system.

#### **Automatic Exposure Control**

Aperture-preferred system—With shutter speed selector at "A" and lens preset for desired aperture, the EC/TL meter reads subject brightness through the lens and sets the proper shutter speed automatically as you press the shutter release. (Speeds are continuously variable in automatic mode.) Through ingenious design, the reading is made after the diaphragm has stopped down to shooting aperture. This enables the system to work automatically with any shutterless Bronica lens, with bellows or extension tubes, in photomicrography—with virtually any optical device that can be attached to the EC/TL. Shutter-preferred operation is also easily accomplished.

**Silicon blue cells**—Respond most quickly to light changes, yet are immune against light shock and do not suffer from "bright light memory."

Center-weighted design—Meter cells are located on back of mirror, behind a pellicle spot whose small size leaves finder brightness unaffected. Meter sensitivity is concentrated on the center of the scene and diminishes towards the edges, so that incidental bright or dark areas do not upset exposure accuracy for the main subject. Stray light entering through the finder is automatically subtracted and does not affect reading. Measurement range extends from EV 3 to EV 19, with films from ASA 25 to ASA 3200. Meter system is disengaged when shutter is set for any speed (away from "A").

#### **LED Exposure Check**

Pressing the depth-of-field button activates a shutter speed display by light-emitting diodes (LED) across the top of the finder screen. Speeds light up immediately and are color-coded to indicate hand-holdability; changes in scene brightness are reflected instantly as long as the button is depressed Each speed is magnified for easy readability. Red arrows at each end of the scale indicate light levels too high and low for accurate readings. The LED display, which also serves as battery check, is part of all EC/TL screens. It does not appear when EC screens are used with the EC/TL camera.



#### **Electronically Controlled Shutter**

Super-accurate speeds—Use of solid-state circuitry instead of mechanical timing assures constant speed accuracy and precise repeatability of any speed, even under temperature extremes. (Accuracy is further enhanced by extra-



fast curtain travel, traversing picture area in less than 15 milliseconds.) Result is reliable exposure uniformity, especially vital for critical color photography.

Shutter may be preset for any speed from 4 seconds to 1/1000th or "B" or to "A" for automatic, stepless speed determined by EC/TL meter system.

Silver Oxide battery—A single, long-life battery with superior low-temperature performance powers both shutter and meter system. In case of battery failure, shutter will operate at manual 1/40th second setting.

Flash synch—Electronic flash to 1/60th; FP bulbs to 1/1000th. Standard PC terminal.

#### Unique Instant-Return Mirror

When shutter is released, lower part of mirror slides down while upper part flips up and momentarily covers the finder screen.

Mirror automatically returns to precise viewing/focusing position the instant the exposure is completed. Unique, split design greatly reduces mirror shock and noise. Also eliminates need for separate curtain or baffle to keep light from reaching film through finder, resulting in simpler, sturdier construction. Because mirror is extra large, there is no finder image cutoff even with long telephoto lenses.

**Independent mirror lock**—EC/TL mirror may be locked in "UP" position prior to exposure for absolutely vibration-free photography.

#### Instant-Reopen Diaphragm

Permits viewing and focusing with lens wide open. During exposure, lens stops down to preselected aperture and then, automatically, reopens fully. This feature, in conjunction with instant-return mirror, maintains constantly bright finder image, before and after exposure.

#### Interchangeable Finder

Standard, self-erecting hood has flip-up 4X magnifier (which interchanges with accessory dioptercorrecting magnifiers). Using unique construction, sides of hood fold down in sequence, automatically, at a single touch. Standard Hood interchanges with accessory Magnifying Hood and Eyelevel Prism Finders.



#### Interchangeable Finders Screens



Standard screen is Fresnel-type with micro-prism spot. Frame holding screen flips up to permit instant interchange with any of several accessory types: Split-image focusing spot, matte spot, all-over matte surface, and matte with grid lines. All EC/TL screens embody LED shutter speed readout.

#### Interchangeable Film Back

Makes it possible to change films at any time, without loss of a single frame. FILMINDER feature permits attaching back without paying attention whether film has been advanced or shutter cocked. Operating the film/shutter transport automatically performs only the required function. Control dial may be set either for automatic doubleexposure prevention or for multi-exposures on same frame in perfect registration. Back remains on cam-



era body while cocking shutter for multi-exposures.

Protective dark-slide must be fully inserted before back can be detached and cannot be removed unless back is attached to camera. Shutter will not fire unless dark-slide is completely removed. EC/TL backs have handy receptacle for storing dark-slide while taking pictures.

The insert which holds film within the back is also interchangeable. Carrying extra, pre-loaded inserts permits rapid reloading after film is completed, without detaching back. EC/TL rollfilm backs (except the E back) and inserts handle both 120 and 220 film. Built-in auto-reset counter may be programmed for 12 or 24 exposures by means of selector dial. Counter window is visible from above for convenient reference. Handy frame holds film box tab identifying film loaded in back. Polaroid back also available.

#### Interchangeable Lenses

Bronica EC/TL accepts all lenses in the Bronica system. This array of world-famous Nikkor and Zenzanon optics is unsurpassed in all of  $2\text{-}1/4 \times 2\text{-}1/4$  for sharpness and color quality. They not only offer uniformly excellent performance, throughout the available range from 40mm to 1200mm focal length, but also are priced well below corresponding lenses for other quality  $2\text{-}1/4 \times 1\text{-}1/4 \times 1\text{-}$ 

#### Rapid Film/Shutter Winding

Advances film and cocks shutter with just two turns of rapid fold-away crank or ratchet-wind knob. Action is remarkably smooth, positive and quiet.



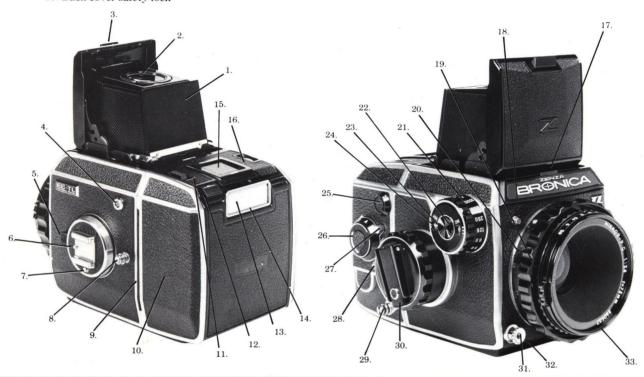
### **Bronica**

#### Bronica EC/TL Features

- 1. Waist-level finder
- 2. Magnifier
- 3. Catch for focusing hood and magnifier
- 4. Synchro terminal socket
- 5. Mirror locking lever
- 6. Accessory shoe
- 7. Mirror locking lever release button
- 8. Neck strap stud
- 9. Dark slide slot
- 10. Film back
- 11. Back cover safety lock

- 12. Back cover opening button
- 13. Dark slide
- 14. Dark slide pocket
- 15. Film type indicator frame
- 16. Exposure counter
- 17. Finder release button
- 18. Focusing ring release button
- 19. Focusing ring
- 20. Distance scale
- 21. Shutter speed selector ring
- 22. Film speed dial

- 23. Film speed scale
- 24. Film speed index
- 25. Selector dial for 12/24 exposures
- 26. Manual film winder
- 27. Multiple exposure lever
- 28. Multiple exposure lever lock
- 29. Neck strap swivel stud
- 30. Film winding crank
- 31. Cable release socket
- 32. Shutter release button
- 33. Depth of field preview button



#### **SPECIFICATIONS**

Frame size Film

55.2 x 55.2mm

120 roll film (12 exp.) and 220 (24 exp.) Also Polaroid 31/4 x 41/4 with accessory backs.

All Bronica lenses, except 105mm Nikkor f3.5.

Lens mounts

large bayonet For 300mm and longer lenses. small bayonet For lenses up to 200mm.

screw mount

For screw-mount extension tubes etc.:

57mm diameter x .1mm pitch.

Focusing Lens diaphragm action

Helical, with 14mm stroke; detachable focusing ring.

Automatic instant-reopen (except 800mm and

1200mm lenses); intermediate settings possible. Equi-spaced graduation. Depth-of-field previewer

provided.

Shutter

Electronically-controlled, vertical action focal plane shutter. Stepless speeds from 2 sec. to 1/1000 on AUTO; settings from 4 sec. to 1/1000 plus Bulb and intermediate settings on MANUAL. Mechanically controlled 1/40 sec. speed; time exposures by locking shutter release button.

Reflex mirror

Instant-return 2-section mirror with up-and-down split actions; may be locked out of the way.

Film/shutter winding

Two full rotations of knob or crank, or equivalent in short ratchet rotations, advance film and cock shutter. Provision for cocking shutter only, for multiple

Film back

Interchangeable, fully coupling as integral part of camera with safeguards against accidental opening when off-camera, with dark-slide pocket. Selector dial for 12 or 24 exposures on rollfilm backs.

Exposure counter

Finder system

Finder exposure display

Exposure measurements

Exposure meter range Film speed range

Flash synchronization

X (electronic flash) FP class bulbs M class bulbs F class bulbs

Battery

Miscellaneous Dimensions

Weight

Automatically resetting; shows number of frames exposed.

Interchangeable, waist-level folding hood with single-touch open/close action; built-in flip-up magnifier (interchangeable). Choice of 5 interchangeable finder

Thirteen shutter speed settings plus over/underexposure arrows along top edge of finder screen; also serves as battery check

Thru-the-lens center-weighted instant stop-down system, with fast-response silicon blue cell behind

EV 4 to EV 19 (f2.8 to f22 with ASA 100 film). ASA 25 to ASA 3200.

Automatic switchover (with manual shutter speed settings).

B, 4 to 1/60 sec., and mechanical 1/40 sec. B, 4 to 1/15 sec., and 1/125 to 1/1000 sec.

B, 4 to 1/15 sec.

B, 4 to 1/30 sec

Single 6-volt silver oxide battery (Eveready 544, UCAR 544, or Mallory PX-28) for both shutter and exposure meter system.

Accessory shoe, shutter release button safety lock, standard 1/4'' diameter tripod socket.

139mm wide x 170mm long x 117mm high (5½ x 6¾ x 45/8").

Camera body 1840 g (4 lbs. 3/4 oz.); with Auto Zenzanon 75mm f2.8 lens 2050 g (4 lbs. 81/4 oz.).

Specifications subject to change without notice.