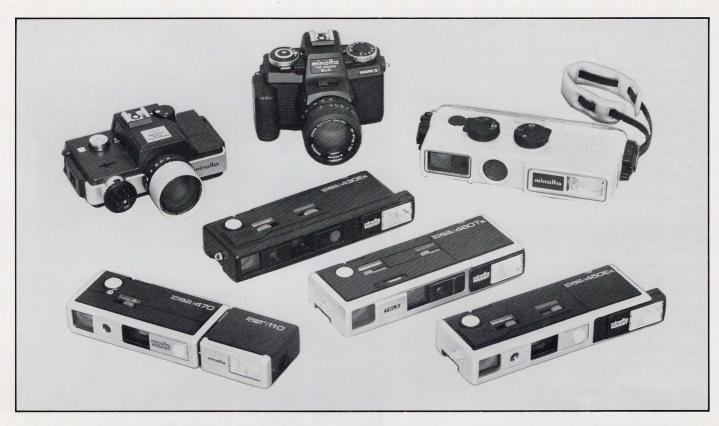
Minolta 110 Zoom SLRs and Pocket Autopak 110 Cameras



Minolta 110 cartridge-loading cameras reflect the high level of photographic technology, human engineering and manufacturing precision that has been traditionally associated with Minolta's 35mm single lens reflex cameras. Because of this, Minolta's 110-format cameras go beyond convenience and foolproof loading-they are practical photographic instruments that offer many innovative features with easy handling for simple, technically excellent photographs, of a wide range of subjects.

Minolta built the world's first 110 SLR camera and offers two models which incorporate single lens reflex viewing with the versatility of a macro-zoom lens. Both feature aperture-priority automatic exposure control and electronically governed shutters which provide the exact stepless shutter speed required over a wide range up to an action-stopping 1/1000 second. Despite their size, Minolta's 110 Zoom SLR's incorporate such "large-camera"

features as: LED finder signals, an model, they offer such useful features instant-return mirror, ± 2 EV auto-exposure override and a hot shoe for electronic flash. Additionally, the 110 Zoom SLR MARK II offers an electronic selftimer, convenient action hand grip and an adjustable diopter eyepiece for easy viewing even for eyeglass wearers. With this amazing versatility, the Minolta 110 Zooms are hand-sized photographic systems.

The world's first watertight 110format camera, made by Minolta, is designed to literally go anywhere. Rain, snow, dirt and other natural elements will not harm the Weathermatic-A. It can even be used up to 15 feet under water.

Minolta's Pocket Autopak cameras are precision-made, easy-to-use, pocket-size 110-format cameras that make photography virtually effortless. All provide simple operation, foolproof, drop-in cartridge loading and the takeanywhere convenience of small size and light weight. Depending on the

as built-in, pop-out electronic flash for freezing action sharply, built-in closeup or telephoto lens, full-information viewfinder for monitoring major camera functions at eye level, sliding lens cover that also locks the shutter release button, soft-touch shutter release that minimizes camera movement and convenient attachment lug for neck or wrist strap.

The Pocket Autopak 460TX, 450EX and 430EX also have audible and visible low-light exposure warnings and illuminated distance scales.

The Pocket Autopak 470 offers the added precision of electronically controlled automatic exposure and a detachable electronic flash.

Whether the photographer's needs are maximum versatility in the 110 format or utter simplicity of operation combined with Minolta quality, there is a Minolta 110-format camera to fit the requirements.

Minolta 110 Zoom SLR MARK II

A single-lens-reflex camera for 110 cartridge film, with macro-range 2.7X zoom lens, through-the-lens metering with aperture-priority automatic exposure control and "dedicated" electronic flash system.

Self-Timer Switch

Turn switch to use self-timer. Activated by pressing shutter release button.

LED Self-Timer Signal

Front mounted flashing LED pulsates with increasing frequency during the self-timer operation.

Rokkor Lens-

Sharp 25-67 mm f/3.5 Zoom Rokkor-Macro with separate zoom and focusing controls; apertures from f/3.5 to f/16 with click-stop settings. 12 elements in 10 groups, plus built-in close-up element.

Action Handgrip-

Detachable handgrip (supplied with the camera) for sure handling in action-shooting situations.

Distance Setting Scale-

Continuous focusing from 3.6 ft. to infinity; to 7.7 inches in macro range.

Zoom Setting Ring-

Fingertip focal length setting from 25mm to 67 mm telephoto.

Exposure Override Control

Adjusts automatic exposure control up to $\pm\,2$ EV for unusual lighting conditions.

Lens Aperture Setting Dial/ Auto-Exposure System ——

Permits setting lens aperture for automatic, flash or manual operation. In auto mode, once the lens aperture is set (from f/3.5 to f/16), the electronically governed shutter adjusts itself to the correct speed required for precise exposure. Inserting the film cartridge automatically keys the system to the proper ASA speed. Working range EV 4.6 (1/4 sec. at f/3.5) to EV 18 (1/1000 sec. at f/16) at ASA 100.

Flash Hot Shoe-

Accepts standard shoe-mount electronic flash units for cordless synchronization. Camera control contact automatically switches shutter to X-synch (1/125 sec.) and starts viewfinder flashready LED blinking when accessory Minolta Auto Electroflash 118X (or other Minolta "X-series" units) is fully charged.

Macro Focusing Switch -

Switch engages built-in macro-focusing lens element for close-up at all focal lengths. Macro focusing range from 7.7 to 34.6 inches.

Function-Selector Dial

Selects mode of operation; locks in at "A" for automatic exposure control; "X" for flash synch or photography at 1/125 sec.; "B" for time exposures; "L" locks shutter release.

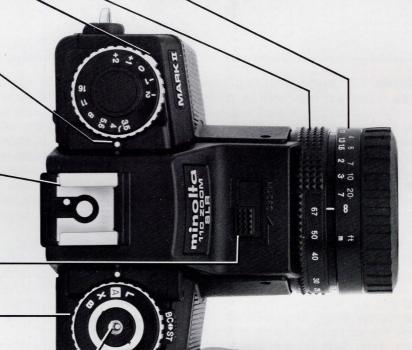
Function-Selector Dial Release

Unlocks dial to change function setting.

Electromagnetic Shutter Release

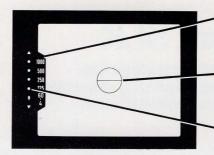
Partial depression activates metering system and LED readouts. "Soft-touch" electromagnetic release provides gentle, vibration-free exposure. Threaded to accept mechanical cable release or electrical remote cords. Release locks at low voltage.





Through-the-Lens Viewing and Focusing

Exclusive reflex system provides precise composition and focus control unobtainable with most 110 cartridge cameras. Eye-level through-the-lens viewing and focusing are at full aperture for maximum brightness. Instant-return mirror eliminates finder blackout. Finder image size varies with zoom lens setting, ranging from 0.68X life-size at 25mm to 1.75X life-size at 67mm. (Not shown.)



Shutter Speed Scale

LED indicator showing speed being set automatically in AUTO mode. LED over/under-exposure warning indicators.

Central Split-Image

For fast, accurate focusing, even in dim light. Finder screen has horizontal split-image range-finder surrounded by matte focusing field.

Flash-Ready Signal

LED flash-ready signal blinks when dedicated Minolta Auto Electroflash units (designated "X") are fully recycled.

Eyepiece Adjustment Switch

Moving switch adjusts viewfinder eyepiece to suit the users eyesight. Continuously adjustable from -1.0 to +0.7 diopters.

-Eyepiece Shutter Control

Turning control closes internal eyepiece blind to prevent stray light from entering and affecting auto-exposure when the photographer is not viewing through the finder.

Strap Lugs

Accepts detachable strap for easy carrying.

Action Grip Attachment Socket

Camera grip (not shown) attaches to 110 Zoom SLR MARK II via this threaded socket. Grip has textured surface for secure and comfortable handling.

Film Identification Window

Transparent window reveals type of film in use, number of exposures in cartridge and number of pictures taken.

Film Chamber Lock

Slides up to allow hinged film chamber door to open.



Electronically Governed Shutter

Behind-the-lens metal shutter sets stepless speeds from 1/4 sec. to an action-stopping 1/1000 sec. depending on lens opening, light conditions and film in use. (Not shown.)

Tripod Socket

Standard mount screw socket for tripodsupported long exposures.

Battery Compartment

Contains two 1.5V silver oxide (S-76 or equivalent) batteries.

Film Advance

Large thumb-operated lever permits advancing film in a single stroke.

 $\begin{array}{l} \textbf{Dimensions} \\ 4\frac{1}{4} \times 4 \times 2^{15}/_{16} \, \text{in.} \\ (105 \times 102 \times 75 \text{mm}) \end{array}$

Weight 163/8 oz. (465g)

Minolta 110 Zoom SLR

The first single lens reflex camera for 110 cartridge film, with macro-range 2X zoom lens, aperture-priority automatic exposure control and electronically controlled shutter.

Function-Selector Dial Release

Frees dial for changing setting.

Flash Hot Shoe

Accepts standard shoe-mount electronic flash units for cordless synchronization.

Function-Selector Dial

Selects mode of operation; locks in at three positions: "A" for automatic exposure control; "X" for flash synch or photography independent of battery condition at 1/150 sec; "B" for time exposures and operation without battery power.

On/Off Switch

Locks shutter release in off position; shuts off battery circuit.

Shutter Release

Light touch trips shutter; cable release socket threaded for standard cable release.

Battery-Check Button

Illuminates signal in viewfinder to indicate sufficient battery power.

Exposure Override Control

Adjusts automatic exposure control up to two stops under or over for unusual lighting conditions.

Lens Aperture Setting Dial/-Auto-Exposure System

Permits setting lens aperture for automatic, flash or manual operation. In auto mode, once the lens aperture is set (from f/4.5 to f/16), the electronic shutter adjusts itself steplessly to the exact speed required for precise exposure. Inserting the film cartridge automatically keys the meter system to the proper ASA speed. Working range EV 1 (10 sec. at f/4.5) to EV 18 (1/1000 sec. at f/16). Power for the exposure metering system is supplied by two 1.5-volt silver oxide batteries (S-76 or equivalent).

Zoom Setting Ring

Fingertip focal length setting from wideangle 25mm to telephoto 50mm; moves inward to lock lens in macro focusing mode.

Distance Setting Scale

Continuous focusing from 3 ft. to infinity; to $11\frac{1}{6}$ inches in macro range.

Electronically Governed Shutter

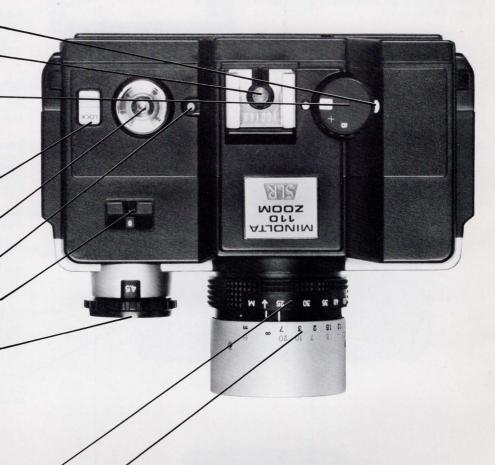
Behind-the-lens slit type with metal construction. Sets itself steplessly from 10 full seconds to an action-stopping 1/1000 sec. depending on lens opening and light conditions (not shown).

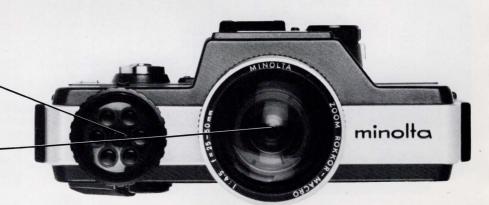
CdS Meter Windows

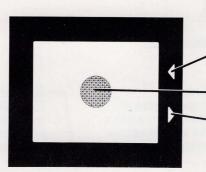
Change amount of light reaching CdS cell as lens aperture is changed; read light from scene for aperture-priority auto-exposure setting.

Rokkor Lens

Sharp 25-50mm f/4.5 Zoom Macro with separate zoom/macro and focusing controls; apertures from f/4.5 to f/16 with click-stop settings. 10 elements in 10 groups, plus swing-in close-up element.







-Battery Check/ Overexposure/B, X Signal

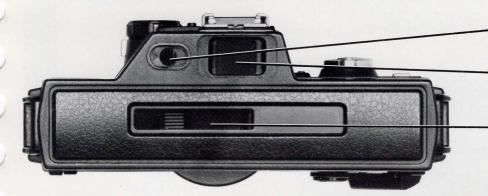
LED signal glows red when battery check button is pressed to indicate adequate battery power; when light is too bright for proper exposure; and when B or X setting is in use

Central Microprism Spot

For fast, accurate focusing. Surrounded by matte focusing field.

Slow Shutter Speed Signal

LED signal glows yellow to indicate shutter speed under 1/50 sec.



Film Chamber Lock

Slides sideways to allow hinged film chamber door to open.

Viewfinder Eyepiece

Accepts accessory eyepiece correction lenses. Blocked by internal blind when battery voltage is too low for proper exposure.

Film Identification Window

Transparent window reveals type of film in use, number of exposures in cartridge and number of pictures taken.

Through-the-Lens Viewing and Focusing

Exclusive reflex system provides precise composition and focus control previously unobtainable with #110 cartridge cameras. Eye-level through-the-lens viewing and focusing are at full aperture for maximum brightness. Instant-return mirror eliminates finder blackout. Finder image size varies with zoom lens setting, ranging from 0.56X life-size at 25mm to 1.1X life-size at 50mm (not shown).



Battery Compartment

Hinged cover slides open for quick change of two S-76 (or equivalent) batteries.

Film Advance

Large thumb-operated lever permits advancing film in a single stroke.

Tripod Socket

Standard mount screw socket for tripodsupported long exposures (not shown).

Strap Lugs

Recessed attachment points accept detachable strap for easy carrying.

Dimensions

 $5\%_6$ inches wide, $4\%_6$ inches deep, $2\%_8$ inches high.

Weight

151/8 ounces.

Accessories for the Minolta 110 Zoom SLR

Soft Case

Soft case with detachable neck strap protects camera from dust and scratches (not shown).

Lens Hood

Supplied with camera. Collapsible soft rubber hood shades lens from extraneous light (not shown).

Close-Up Lens Kit

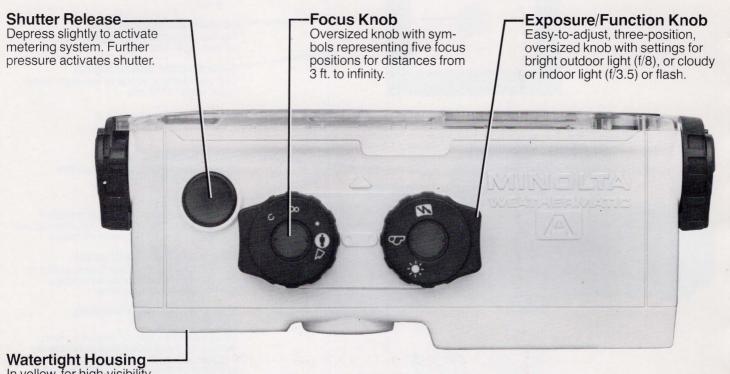
This kit consists of an adapter ring and a close-up lens and is designed to increase the available close-up magnification of the 110 Zoom SLR without exposure adjustments to a maximum of 0.254X. Desired image magnifications to a minimum of 0.133X may be set by adjustment of the focusing and zoom rings.

Eyepiece Correction Lenses

Fit into viewfinder eyepiece. Provide an aid to easier focusing with far- or near-sighted vision. Available in 9 different diopter strengths. For additional information, see page D11.

Minolta Weathermatic-A

"Go-anywhere" 110-format, cartridge loading camera with built-in electronic flash for use in or out of water.



Watertight Housing— In yellow, for high-visibility, this buoyant, impact-resistant ABS plastic housing will weather the natural elements.

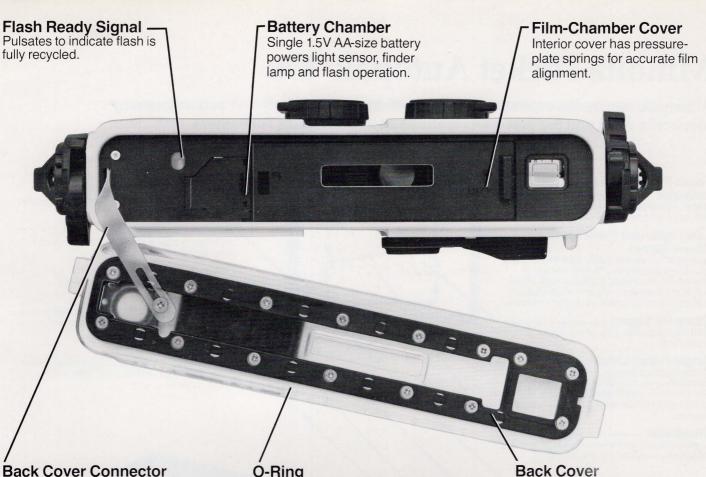


Focus-Symbol/Flash-Range Table Convenient reference table on bottom of camera gives distances in feet and meters for five focus symbols. Shows working flash distances for popular film types (not shown).

Film Advance
Thumb-activated single stroke lever with 52° winding angle.

-Minolta Lens
High-quality, all-glass
26mm f/3.5 Minolta lens
for sharp pictures in
bright or dim light.
Focuses down to 3 ft.

Built-In Electronic Flash



Back Cover Connector
Plastic strap keeps back cover
attached to camera body.

O-Ring
Gasket must be clean and dry to keep camera water-tight.

Has transparent windows for film identification and flash-ready signal.



Back Cover Release Knob
Lift locking tabs and turn knobs on both
sides to open water-tight back cover to
load film or change battery.

Strap Eyelets
Buoyant wriststrap or
accessory neckstrap attaches
here for carrying camera.

Focus Setting Symbols

Rapid, eye-level focus setting has five positions for easy, accurate operation.

Low Light/Use Flash/ Flash Ready Signal

When shutter release is partially depressed, lamp lights to indicate low light/use flash; pulsates when flash unit is fully charged.

Viewfinder

Shows clear, bright view of subject; bright frame lines with parallax correction marks.

Shutter

Metal-blade, mechanical shutter provides exposures at a fast 1/200 second (not shown).

Size:

1½ x 2 ¹³/₁₆ x 7½ in. (38 x 72 x 190mm)

Weight:

 $12\frac{1}{2}$ oz. (355g) without battery

Weathermatic-A Accessories

Sportsfinder-A

This accessory attaches easily to the camera as an aid in fast framing without the need to look through the viewfinder. Permits accurate composition even when wearing a diving mask or ski goggles.

Wrist Strap

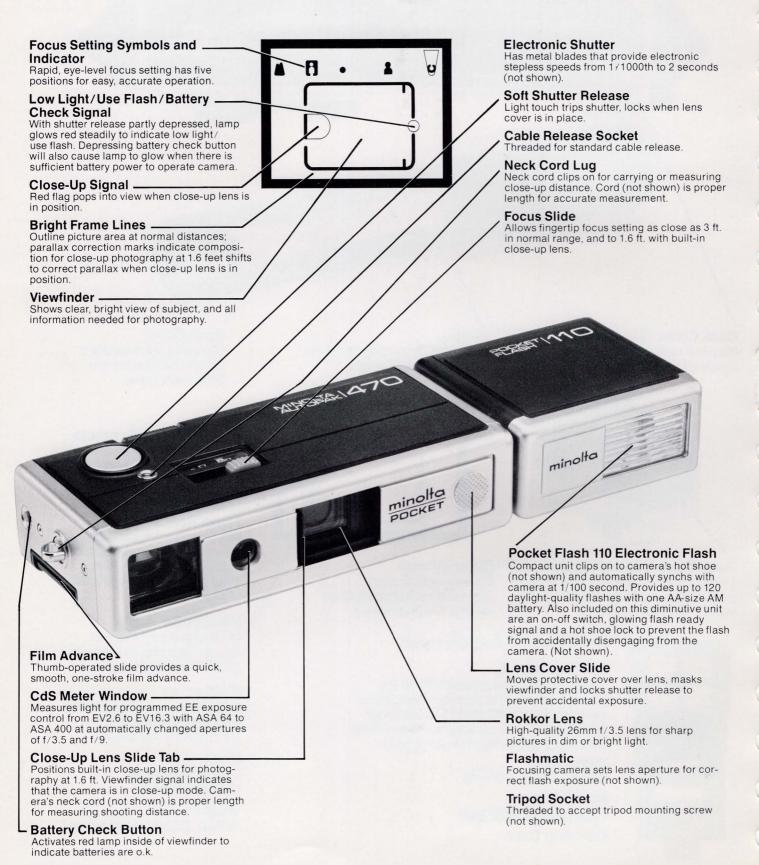
(Supplied with camera)

Neck Strap Sportscase With Belt Carrying Case



Minolta Pocket Autopak® 470

Automatic electronic exposure control, built-in close-up lens and action-freezing electronic flash unit are just a few features of this compact 110 camera.



Minolta Pocket Autopak 460TX

TELE

A 110-format cartridge-loading camera with built-in telephoto lens, electronic flash and audible/visible low-light exposure warning.

Shutter

Metal blade, mechanical shutter provides exposures at a fast 1/200 second (not shown).

Low Light/Use Flash/ - Flash Ready Signal

When shutter release is partially depressed, lamp glows red steadily to indicate low light/use flash warning. Simultaneously, an audible tone can be heard as an additional warning signal. When flash is used, lamp pulsates to indicate the unit is ready to fire.

Bright Frame Lines -

Outline picture area at normal and telephoto viewing; bright frame with parallax-correction marks.

Viewfinder

Oversize type, shows clear, bright view of subject. Magnification changes when telephoto lens is in place.

Soft Shutter Release

Light touch trips shutter; locks when built-in lens cover slide is in place and when lens is not properly positioned or film properly advanced.

Illuminated Distance Scale

Distance scale lights when electronic flash is in use.

Focus Slide

12/2248HUX

Permits fingertip focus setting from 3.3 ft. to infinity by continuous slide control with distance scale in feet and meters for use with both normal and telephoto lenses.

Lens Aperture Control

Three-position click-stop slide for bright, outdoor light (normal lens: f/8; tele-photo lens: f/13.2) or cloudy or indoor light (normal lens: f/3.5; telephoto lens f/4.7), or flash.

Audio Exposure Warning

Electronic tone signals as a low-light warning in conjunction with the visible red signal lamp in the camera's viewfinder.

Built-In Electronic Flash

Built-in unit provides up to 120 daylightquality flashes with one AA-size AM battery. Action-stopping 1/5000 second flash duration; ready light in viewfinder. Unit pops out and turns on automatically when lens aperture control is set at flash-symbol.

Flash Ready Signal

External monitor lamp pulsates when flash is fully recycled (approximate 10 second recycling time).

Lens Cover Slide

Built-in slide moves protective cover over lens and locks shutter release to prevent accidental exposure.

CdS Meter Window

Measures light from scene to determine whether camera setting is adequate for proper exposure or if flash is needed.

Rokkor Lens

High-quality all optical glass 26mm f/3.5 lens at normal setting; 43mm f/4.7 lens at telephoto setting for sharp pictures.



Neck strap attaches for easy carrying.

Film Advance

Thumb-activated slide that advances film quickly with a single short stroke. Positive stop for accurate film advance.

Telephoto Lens Selector Tab

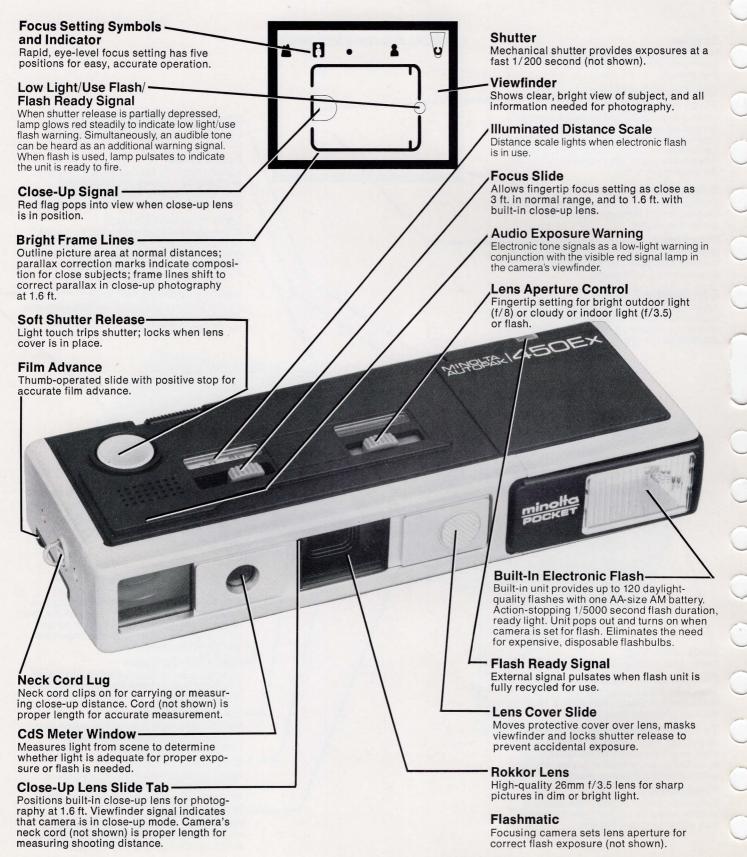
Sliding tab from "normal" to "telephoto" positions high-quality 43mm tele Rokkor lens; finder magnification is also changed automatically for proper viewing.

Flashmatic

Focusing camera adjusts lens aperture automatically for proper flash exposures with either lens (not shown).

Minolta Pocket Autopak 450EX

Cartridge-loading pocket camera with built-in electronic flash, close-up lens and audible/visible low-light exposure warning.



Minolta Pocket Autopak 430EX

Built-in electronic flash for stop-action indoor pictures. Adjustable focus. Audible/visible low-light exposure warning signal.

Viewfinder

Shows clear, bright view of subject, plus useful warning signals.

Low Light/Use Flash/ Flash Ready Signal -

When shutter release is partially depressed, lamp glows red steadily to indicate low light/use flash warning. Simultaneously, an audible tone can be heard as an additional warning signal. When flash is used, lamp pulsates to indicate the unit is ready to fire.

Illuminated Distance Scale

Distance scale lights when electronic flash is in use.

Focus Slide

Fingertip, three-zone focus setting for nearby, mid-range and distant subjects.

Lens Aperture Control

Fingertip setting for outdoor or flash photography.

Flash Ready Signal

JOEAL/AZIBRUM

External signal pulsates when flash unit is fully recycled for use.

Soft Shutter Release

Light touch trips shutter; locks when lens cover is in place.

Audio Exposure Warning

Electronic tone signals as a low-light warning in conjunction with the visible red signal lamp in the camera's viewfinder.

Wrist Strap Lug
Wrist strap clips on for easy carrying.

Film Advance.

Thumb-operated slide with positive stop for accurate film advance.

CdS Meter Window

Measures light from scene to determine whether light is adequate for proper exposure or flash is needed.

Rokkor Lens -

Sharp 26mm f/5.6 lens for brilliant prints or slides.

Built-In Electronic Flash

Provides up to 120 daylight-quality flashes with one AA-size AM battery. Action-stopping 1/5000 second flash duration, ready light. Unit pops out and turns on when camera is set for flash. Eliminates the need for expensive, disposable flashbulbs.

Lens Cover Slide

Moves protective cover over lens, masks viewfinder and locks shutter release to prevent accidental exposure.

Shutter

Mechanical shutter provides exposures at a fast 1/200 second (not shown).