

MINOLTA 16 QT



OWNER'S MANUAL



MAIN FEATURES

This latest Minolta 16 Quarter-Frame system camera combines versatility with simple operation by means of a 2-speed shutter coupled to IC viewfinder lamps for over- and under-exposure and a unique blinking exposure- "OK" signal. 1

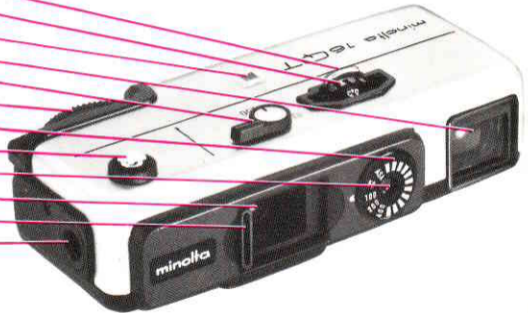
Besides over-, under-, and correct-exposure lamps, you can see parallax-correction marks, focus setting, and slow-shutter warning when applicable in the Minolta 16 QT's bright-frame "control-center" viewfinder.

The 16 QT's attractive body design is available in all-black finish or with a soft-luster silver top plate and other parts in black.

NAMES OF PARTS

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- EE Circuit Switch
- Aperture Setting Dial
- Frame Counter Window
- Viewfinder
- Shutter Speed Selector
- Film Advance Wheel
- Film Speed Selector
- Shutter Release Button
- CdS Cell Window
- Rokkor 23mm F3.5 Lens
- Lens Cap Slide
- Tripod/Carry-Cord Socket



- Zone Focusing Slide
- Film Chamber Cover Lock
- Flash Attaching Socket
- PC Sync. Terminal
- Viewfinder Eyepiece



SPECIFICATIONS

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Type: Subminiature electronic-light-measuring shutter-preset camera yielding a 12x17mm frame size ("Quarter Frame") with Minolta 16mm film cartridges

Lens: Rokkor 23mm F3.5, 3 elements in 3 groups with a 48° angle of view.

Shutter: Speeds of 1/30 and 1/250 sec. with slow shutter speed warning signal; X sync. contact (M class bulb synchronizes at 1/30 sec., electronic flash at 1/30 or 1/250 sec.)

Aperture adjustment: Semi-automatic diaphragm control by CdS meter coupled to shutter, measuring range EV 8.5 to EV 17 at ASA 100, click-stop film speed settings from ASA 50 to 400, powered by one 3v alkaline battery: Mallory PX-30 or equivalent

Focusing: Slide with 4 zone symbols adjusts focus from 1.2m to infinity; click-stop for fixed-focus operation at 3.5m

- Viewfinder:** Bright-frame type with parallax-correction marks; IC over- and under-exposure lamps, blinking correct-exposure "OK" signal, focus setting, and slow-shutter warning all visible while viewing
- Film advance:** Grooved-wheel type, rotates less than 1/3 turn for each frame
- Frame counter:** Automatic resetting type showing number of remaining frames
- Optional Accessories:** Flashgun; Cube-Gun; 1A, Y48, 80B filters; 80cm, 40cm close-up lenses; 80cm, 40cm distance chains; strobe adaptor; Spy Finder; (common to the Minolta 16 MG-S) Dayload 16 developing tank; Enla Unit; Minolta 16 Enlarger
- Size:** 28mm (1 1/8 in.) thick x 109mm (4 1/4 in.) long x 45mm (1 3/4 in.) from front to back
- Weight:** 150 g (5.25 oz.)
- Others:** Meter circuit is off and shutter is locked unless lens cap slide is fully open

BEFORE TAKING PICTURES

6 Inserting alkaline battery

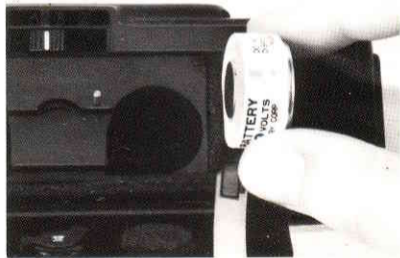
The CdS exposure meter system in the Minolta 16 QT is powered by a long-life alkaline battery. This battery must be properly seated in the battery chamber before the EE system will operate.

To insert battery:

1. Open film chamber door by turning film chamber lock to OPEN.



2. Place battery on vinyl belt as indicated with the minus (-) terminal of the battery facing the film chamber.



IMPORTANT:

- Meter circuit is automatically switched off unless lens cap slide is fully open. This slide should be kept closed when you are not taking pictures in order to conserve battery power as well as to lock the shutter and protect the lens. Also be sure to close it whenever the camera is put in its case to avoid battery drain from unintentional depressing of EE circuit switch.

CAUTION:

- Be sure that plus (+) and minus (-) sides of battery are not reversed.
- Do not touch battery terminals with fingers.
- Before inserting battery, clean both terminals with a clean, rough cloth.
- If camera is not to be used for over a month, remove battery and store it in a cool, dry place.
- Your Minolta 16 QT uses only 3v alkaline batteries: One Mallory PX-30 or two PX-825 or equivalent.
- Pull vinyl belt gently and only to remove batteries.

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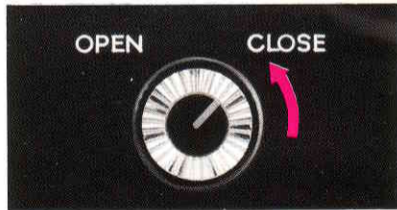


Loading film

Your Minolta 16 QT loads in seconds with its unique Minolta 16 drop-in film cartridge system.

To load:

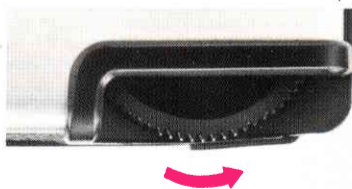
1. Open film chamber door.



2. Drop cartridge into film chamber. If cartridge does not seat level all the way into the chamber, turn the film advance wheel slowly while pushing gently on the larger end of the cartridge until it does.
3. When cartridge is properly seated, close and lock film chamber door.



4. Turn film advance wheel until it stops; then release shutter. Repeat this until the number "18" appears in frame counter window. The film is now in position to make your first exposure.



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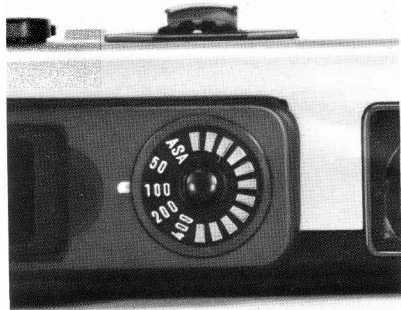
Setting film speed

Turn film speed selector so that white index is set at film speed indication or click stop of the film you are using.

DIN conversion values for the scale are as follows:

ASA	50	100	200	400
DIN	18	21	24	27

Dots between numbers above denote unmarked click stops representing ASA 64, 80, 125, 160, 250, and 320, or DIN 19, 20, 22, 23, 25 and 26, respectively, from left to right.

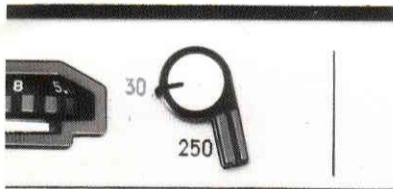


HOW TO TAKE PICTURES

I. EE photography

1. Setting shutter speed

Turn selector index to "250" (i.e., 1/250 sec., for such relatively bright conditions as sunny days) or "30" (i.e., 1/30 sec., for such relatively dark conditions as overcast days or indoors).



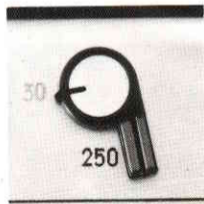
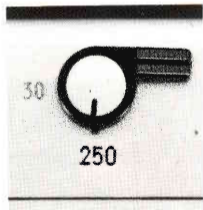
2. Setting aperture (lens opening)

While looking through viewfinder, push circuit switch down until one of the arrows marked "O" or "K" in the upper part of the viewfinder lights up. Then, keeping circuit switch depressed, turn the aperture setting dial in the direction indicated by the arrow until the arrows start blinking alternately back and forth to form an "OK" signal. This blinking indicates that the proper lens opening is set.



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When shutter is set at 1/250 sec. and only the right-hand "K" arrow remains lighted when the dial is turned all the way to the left (as seen from the back of the camera), i.e., is set as F3.5, change the shutter speed to 1/30 sec. and continue to adjust aperture.

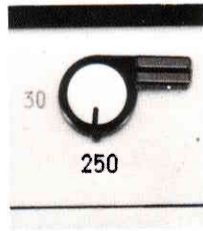
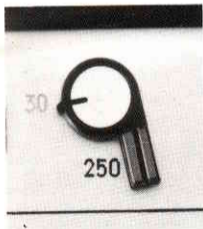


If only right arrow still remains lighted (indicating underexposure) with the shutter set at 1/30 sec. and the dial turned as far as it will go to the left, you should use flash (see page 19) if appropriate for your subject.

When shutter is set at 1/30 sec. and only the left-hand "0" arrow remains lighted when the dial is turned all the way to the right (i.e., is set at F22), change the shutter speed to 1/250 sec. and continue to adjust aperture. If only left arrow still remains lighted

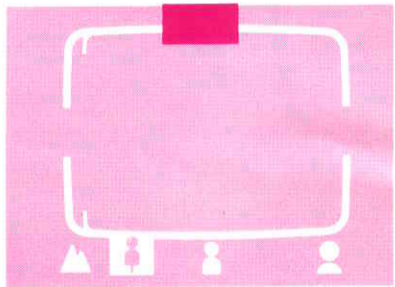
(indicating overexposure) with the shutter set at 1/250 sec. and the dial turned as far as it will go to the right, the subject lighting conditions are too bright for the film and exposure combination in use.

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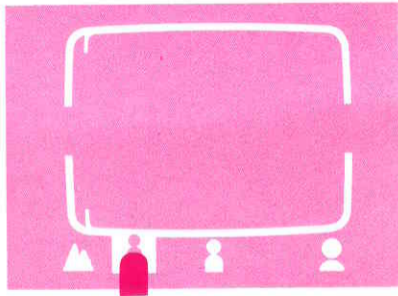
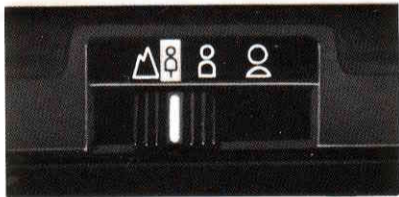
14 CAUTION:

- When shutter is set at 1/30 sec., a red warning will appear in the upper part of viewfinder. This signal is to remind you that the shutter is set at the slower speed and you should be especially careful to avoid camera movement when making exposures.
- Do not set shutter speed selector index between speeds.



3. Focusing

To focus, simply move the zone-focus slide on the bottom of the camera to align the index with the desired symbol. Corresponding symbols appear in the viewfinder outside the bright frame.



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Symbol: Distant setting
This is for taking pictures of general scenes and for far-away views.



Symbol: Medium distance
Use this setting when you can sight a full standing figure with only small clear areas at top and bottom of viewfinder frame, i.e., at about 3.5m (11.5 ft.) from your subject.



Symbol: Portrait
Your subject should be at a distance of 2m (6.5 ft.) and should fill the viewfinder from about the waist up.



Symbol: Close-up
Use this symbol for closer views with your subject about 1.2m (4 ft.) away. This will generally yield a head-and-shoulders view of an adult subject.

Setting the slide at the medium-distance-symbol click-stop enables using the 16 QT as a fixed-focus camera for pictures at usual snapshot distances.

4. Composing and taking pictures

Viewing your subject through the camera's viewfinder, you can see a "bright frame" in the visual field. Frame your subject horizontally or vertically with the full rectangular frame for distant and medium settings. The area within this frame is what will appear on the film.

To correct for the slight difference in viewing angle between the viewfinder and the camera's taking lens, frame pictures at the portrait and close-up settings within the two parallax-correction guide marks near two corners of the bright frame.



- 18 To make exposures, hold camera steady against your face with both hands and push the shutter release button with a slow, gentle squeeze. This is particularly important when the red warning appears in the viewfinder when the shutter is set at 1/30 sec.



CAUTION:

Because of the particularly compact size of the camera, be very careful not to cover the lens or CdS cell window with your fingers.



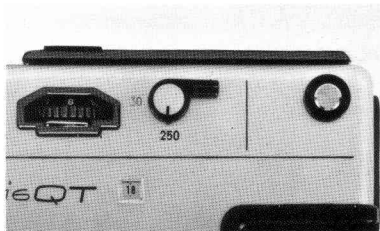
II. Flash Photography

Attach flashgun to camera. Set shutter speed to 1/30 sec. for ordinary M-class bulbs or to either 1/30 or 1/250 sec. for electronic flash (strobe).

To calculate exposure for flash pictures, divide the applicable guide number (for meters or feet) for film and flash in use by the distance in appropriate units from camera to subject and turn the aperture setting dial so that a setting equal to the number that results from this calculation appears centered upper most in the dial slot. For example, dividing a guide number of 28 (for calculations in meters) by a camera-to-subject distance of 3.5 meters, the lens opening indicated would be F8, and you would turn the aperture setting





dial so that the point " 8 " is at the center of the EE circuit switch. Lighting of the under-exposure signal (right-hand arrow) in the viewfinder can be disregarded with flash. Focus, compose, and release shutter as for EE photography above.

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Depth-of-Field Chart

in feet

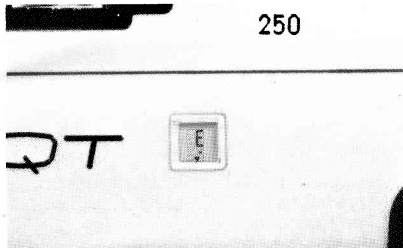
F No. ft.	3.5	5.6	8	11	16	22
	∞	∞	∞	∞	∞	∞
(33)	15' 4 ⁵ / ₈	11' 8 ¹ / ₆	9' 1 ⁵ / ₆	7' 2 ⁵ / ₈	5' 4 ¹ / ₆	4' 1 ¹ / ₈
	18' 11 ¹ / ₂	31' 2 ³ / ₈	∞	∞	∞	∞
(11 ¹ / ₂)	8' 2 ⁵ / ₆	7' ⁵ / ₈	6' ⁵ / ₆	5' 1 ⁵ / ₆	4' 1 ⁵ / ₈	3' 4 ¹ / ₆
	8' 5 ¹ / ₆	10' 2 ³ / ₈	13' 4 ⁵ / ₈	22' ¹ / ₂	∞	∞
(6 ¹ / ₂)	5' 4 ⁵ / ₈	4' 10 ¹ / ₄	4' 4 ³ / ₈	3' 10 ¹ / ₂	3' 3 ³ / ₈	2' 9 ¹ / ₄
	4' 6 ³ / ₈	4' 11 ⁵ / ₆	5' 7 ³ / ₈	6' 8 ³ / ₈	9' 10 ¹ / ₂	23' 4 ³ / ₈
(4)	3' 5 ³ / ₄	3' 3 ³ / ₈	3' ¹ / ₂	2' 9 ⁵ / ₈	2' 5 ³ / ₄	2' 2 ¹ / ₆

in meters

F No. m	3.5	5.6	8	11	16	22
	∞	∞	∞	∞	∞	∞
(10)	4.69	3.56	2.79	2.20	1.63	1.25
	5.78	9.51	∞	∞	∞	∞
(3.5)	2.51	2.15	1.85	1.57	1.26	1.02
	2.57	3.11	4.08	6.72	∞	∞
(2)	1.64	1.48	1.33	1.18	1	0.84
	1.38	1.52	1.71	2.04	3.01	7.12
(1.2)	1.06	0.99	0.93	0.85	0.76	0.67

UNLOADING FILM

After taking 18 pictures, advance film until "E" (for "Empty") appears in the frame counter window. Then remove cartridge from camera and keep it in the its plastic case for protection.



OPTIONAL ACCESSORIES

Your Minolta 16 QT is part of the Minolta 16 photographic system and can use the wide range of optional accessories created for the Minolta 16 MG-S. The QT thus becomes your key to more exciting and challenging Quarter-Frame photography through use of the accessories described on this and the following pages.

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Minolta 16 Flashgun

This tiny direct-contact flashgun for AG-1 flashbulbs attaches simply and quickly to the camera body, features a built-in circuit checker, and gives miniaturized flash versatility.

Minolta 16 Cube-Gun

This attachment accepts versatile, popular four-shot flashcubes for even greater flash convenience and versatility with the Minolta 16 QT or MG-S. It also features a built-in circuit checker.

Minolta 16 Close-Up Lenses

These two slide-on close-up lenses are convenient for precise close-up photography. They enable close-ups at 40cm (1.3 ft.) and 80cm (2.6 ft.) and feature built-in finder parallax correction.

Minolta Dayload 16

Film development without a darkroom is possible with this strong, lightweight plastic tank specially designed for developing Minolta 16 film.

Minolta 16 Filters

These three specially-developed slide-on filters extend the versatility of the QT or MG-S by enabling corrections or special effects, and they provide their own automatic exposure compensation. Used with color films, the 1A filter improves bluish rendition of subjects in shade illuminated by blue sky, on overcast or rainy days, or obscured by atmospheric haze. The 80B filter is used for exposing daylight-type color film indoors with artificial light of 3400°K color temperature. The yellow filter (Y48), for black-and-white film, renders red and yellow subjects lighter than the eye sees them and is often used to darken blue skies and emphasize white clouds.

Minolta 16 Scale Chains

These handy accessories are recommended for taking close-up photos of plants and animals. They are available in 40cm and 80cm lengths corresponding to the Minolta 16 Close-Up Lenses and screw neatly into the camera tripod socket.

Minolta Enla Unit 16

This specially engineered unit compactly combines a fine E Rokkor Lens in helical mount, a condenser, and negative carriers for 16mm regular and Quarter-Frame. It screws into virtually any Leica-mount enlarger for optimum results in enlarging Minolta 16 originals.

Minolta 16 Spy Finder

This interesting accessory attaches to the QT and MG-S to allow viewing and taking pictures at a 90° angle from the direction in which you seem to be looking. It also doubles as useful waist-level finder.

Minolta 16 Strobe Adaptor

With this diminutive accessory, the 16 QT and MG-S are adapted for convenient use with Minolta and other electronic (strobe) and other flashguns either corded or cordless.

CARE AND STORAGE

24 Your Minolta 16 QT is made for long, carefree service. But there are a few things that you should do.

Never touch the camera lens. Should it become soiled, whisk away loose matter with a bellows lens brush and gently wipe the lens with a soft clean lint-free cloth.

If you do not use your camera for more than two weeks, it is best to remove the battery.

Never put your camera in glove compartment or other place in motor vehicles or elsewhere in which it may be subjected to relatively high temperatures.

Store your camera in its case in a cool, dry place away from dust or chemicals. An airtight container that has a drying agent like silica gel in it would be ideal.

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