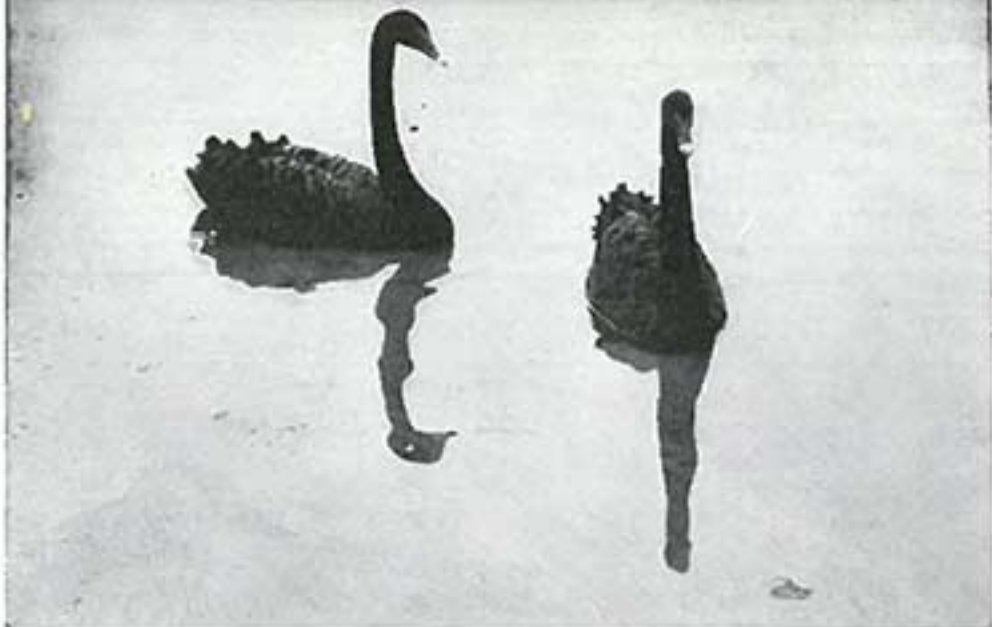




Focal length: 55 mm



Focal length: 100 mm



Focal length: 200 mm



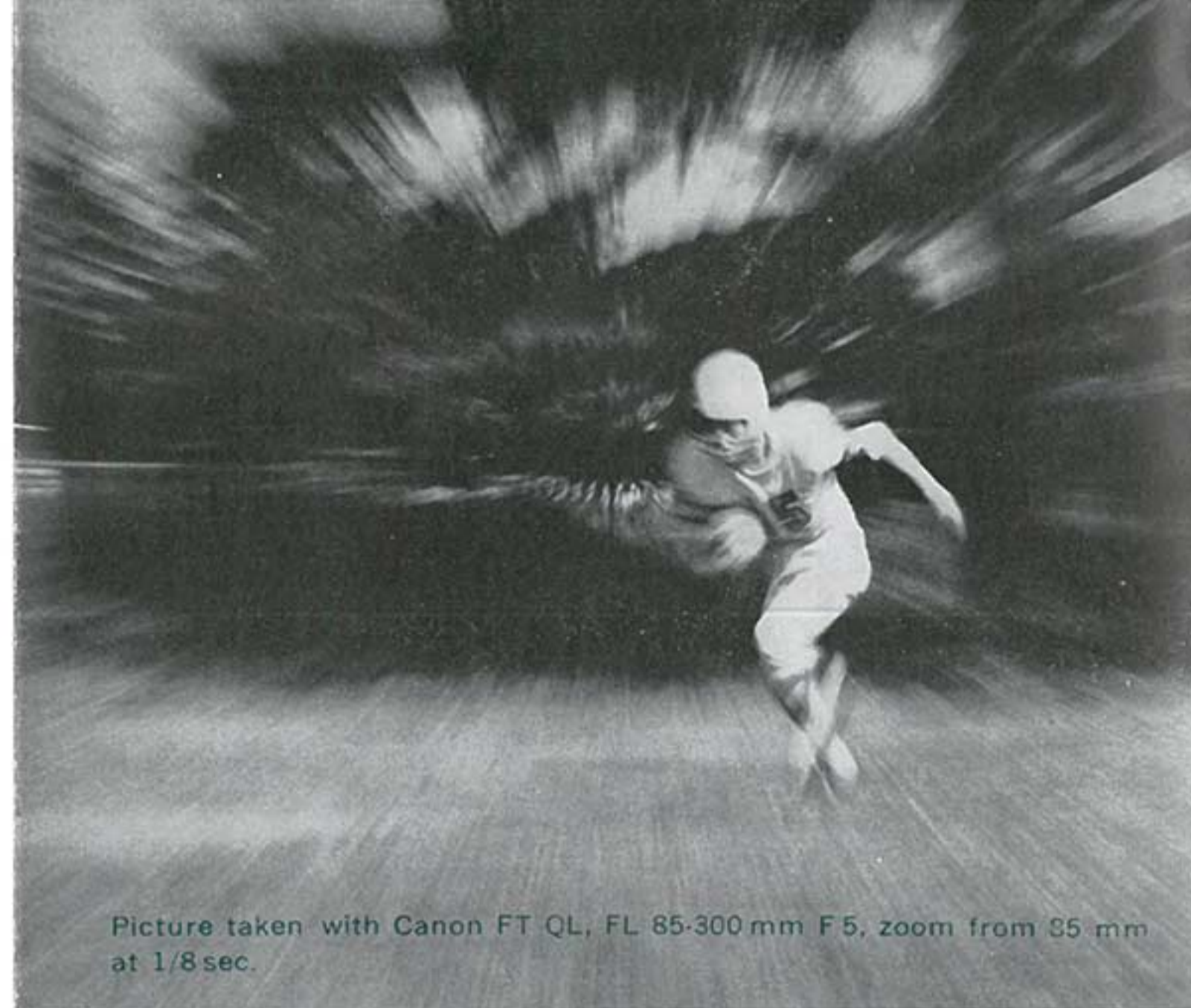
Focal length: 300 mm

#### High zooming effect...

Without moving the camera itself, the magnification of the image can be changed by just shifting the focal distance of the lens. This is very advantageous in determining the composition of your picture.

#### No interchangeable lenses needed...

By simply zooming the lens, you can obtain as many effects as several conventional interchangeable lenses offer you. Therefore, it is so economical for picture taking and very convenient for carrying too. You will be always assured of the same satisfactory results in tone and color balance which come out of these zoom lenses.



Picture taken with Canon FT QL, FL 85-300 mm F 5, zoom from 85 mm at 1/8 sec.

## SPECIFICATIONS

	FL 55-135 mm F 3.5				FL 100-200 mm F 5.6				FL 85-300 mm F 5				
Lens Composition	13 elements, 10 components (includes 3 new type glasses)				8 elements, 5 components				15 elements, 9 components (includes 2 new type glasses)				
Zooming Range	55-135 mm				100-200 mm				85-300 mm				
Zoom Ratio	2.5				2				3.5				
Lens Speed	F 3.5				F 5.6				F 5				
Form of Zoom Lens	Mechanical Compensation				Optical Compensation				Mechanical Compensation				
Picture Size	36×24 mm				36×24 mm				36×24 mm				
Angle-of-View	55 mm 43°	85 mm 29°	100 mm 24°	135 mm 18°	160 mm 15°	200 mm 12°	250 mm 10°	300 mm 8°					
Aperture Scale	3.5 (4) 5.6 8 11 16 22				5.6 8 11 16 22				5 (5.6) 8 11 16 22				
Distance Scale	m ∞ 30 15 10 7 5 4 3 2.5 2 ft ∞ 100 50 30 20 15 12 10 8 7				m ∞ 30 15 10 7 5 4 3 2.5 ft ∞ 100 50 30 20 15 12 10 8				m ∞ 50 30 20 15 10 7 5 4 ft ∞ 200 100 50 30 20 15 15				
Zooming Scale	55 85 100 135 (mm)				100 120 140 160 180 200 mm				85 100 135 160 200 250 300 (mm)				
Focusing	Front lens revolving type				Front lens revolving type				Front lens revolving type				
Coating	Amber and magenta spectra coating				Magenta coating				Amber and magenta spectra coating				
Filter Size	58 mm, screw-in type				55 mm, screw-in type				72 mm, screw-in type				
Close-Up-Lens	58 mm 1,800 usable												
Hood	S-60				Built-in type				Built-in type				
Size, Weight	Overall length : 140 mm · 780 grams Max. diameter : 69 mm				Overall length : 173 mm · 650 grams Max. diameter : 65 mm				Overall length : 279 mm · 1,850 grams Max. diameter : 93 mm				
Cap Size	60 mm				57 mm				75 mm				

- \* Lens hood S-60 is necessary for lens FL 55-135 mm F 3.5.
- \* Close-up lens (58 mm 1800) is usable only on lens FL 55-135 mm F 3.5.
- \* Regular use of the UV filter is recommended for the protection of the lenses.
- \* The use of Y3 or filters for effective contrasts are recommended for telephoto shots of distant mountains and the sky. Much clearer images are available with the use of filters.

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# Canon ZOOM LENS FL

55-135mm F3.5

85-300mm F5

100-200mm F5.6

INSTRUCTIONS



English Edition

Canon





## ZOOM LENSES WITH FULLY AUTOMATIC APERTURES

Canon zoom lenses FL 55-135 mm F3.5, FL 85-300 mm F5 and FL 100-200 mm F5.6 are high performance zoom lenses with fully automatic aperture systems for use on Canon FT QL, Pellix QL, Pellix, FX and FP cameras.

The zoom lens design techniques developed by Canon throughout the years have been incorporated into these three zoom lenses. These lenses give rich and sharp delineations and have superb manipulation characteristics.

These three zoom lenses also have wide zooming ranges from standard to super-telephoto and each lens has its own special characteristic. For example, the FL 55-135 mm F3.5 can be used under dark conditions with its fast lens speed and mechanical compensation of form of zoom lens, the FL 85-300 mm F5 is an all-purpose extravagant lens with its large zoom ratio, and mechanical compensation of form of zoom lens, and the FL 100-200 mm F5.6, which possesses the most frequently used focusing range, and optical compensation of form of zoom lens is an easy-to-handle compact zoom lens that can be used without a tripod.

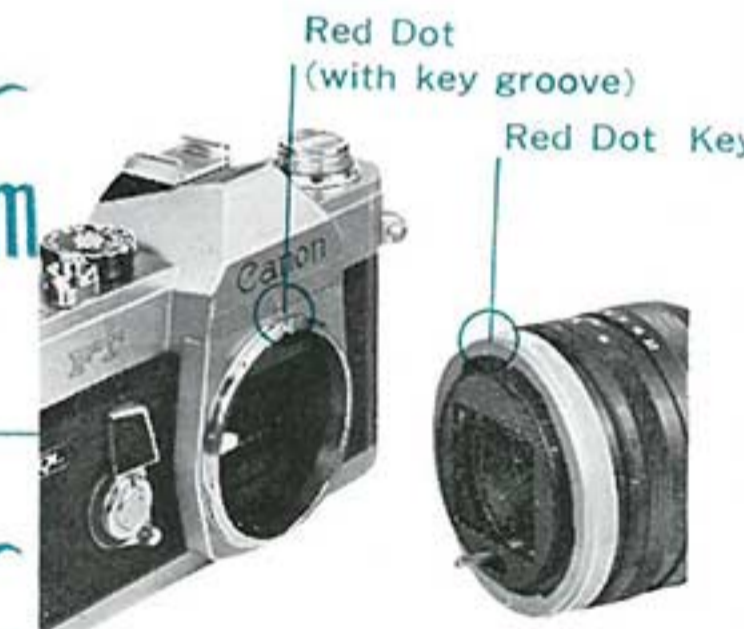
Canon zoom lenses are widely used for shooting portraits, scenery, sports and news events.

### Attaching the Lenses Onto a Camera

#### Steps of photography

Rotate the bayonet ring so that the red dot on it comes to the key position, align it with the red dot (key groove) on the camera side, insert the bayonet mount of the lens and tighten the bayonet ring securely. Pull out the hood on those lenses with built-in hoods.

### FL 55~135mm F3.5



### FL 85~300mm F5

### FL 100~200mm F5.6

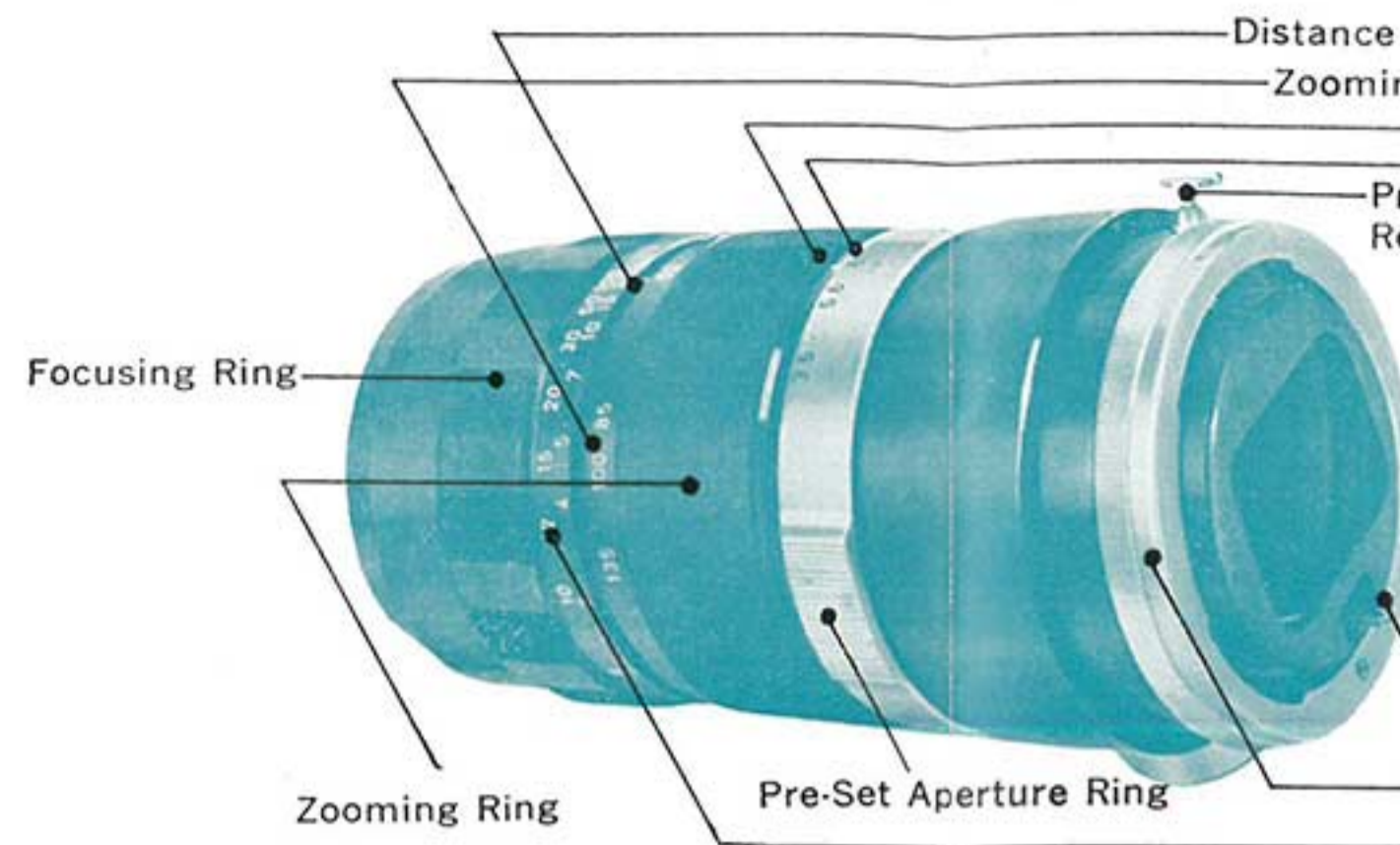


### Holding the Lenses

Due to their unique functions the overall lengths of zoom lenses are quite long. Therefore, precautions should be taken in holding the lenses in order to prevent blurring due to hand movements. The recommended methods for holding and manipulating the various lenses are shown in the photos. It is best to use fast shutter speeds as much as possible. When shooting at shutter speeds slower than 1/60th of a second, the use of a tripod and cable release is recommended.

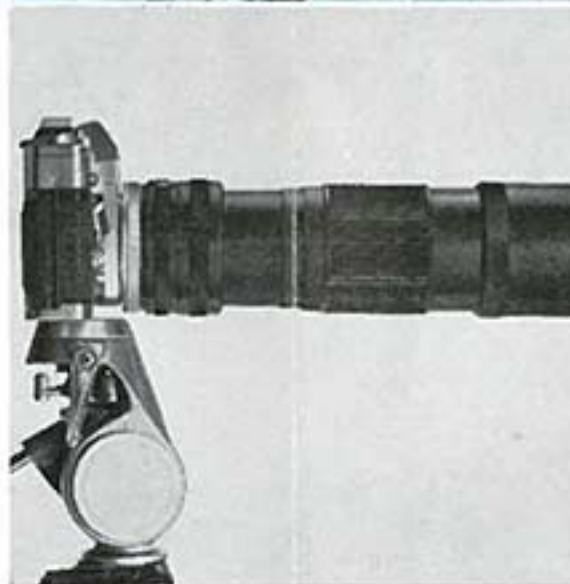


### FL 55~135mm F3.5

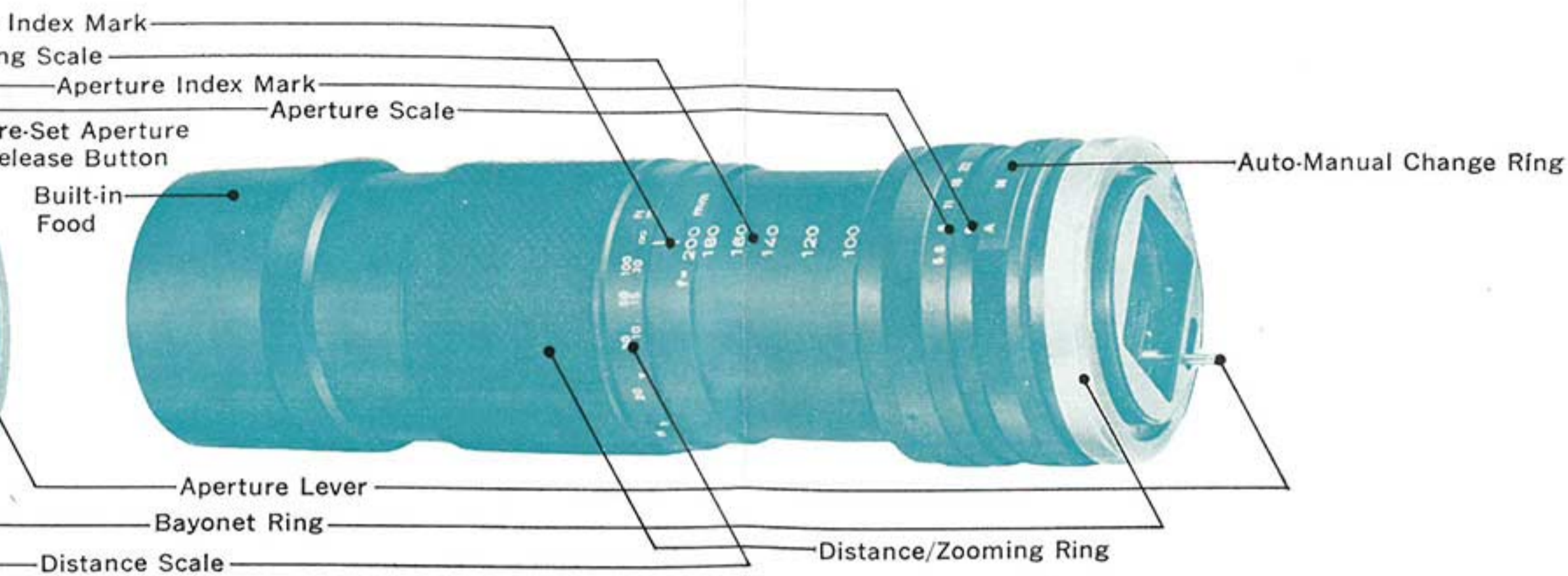


### Attaching the Lenses Onto a Tripod

In the case of lenses FL 55-135 mm F3.5 and FL 85-300 mm F5 the lenses themselves can be attached onto a tripod. By loosening the tightening screw of the tripod socket ring on the lenses can be freely changed to a vertical or horizontal position.

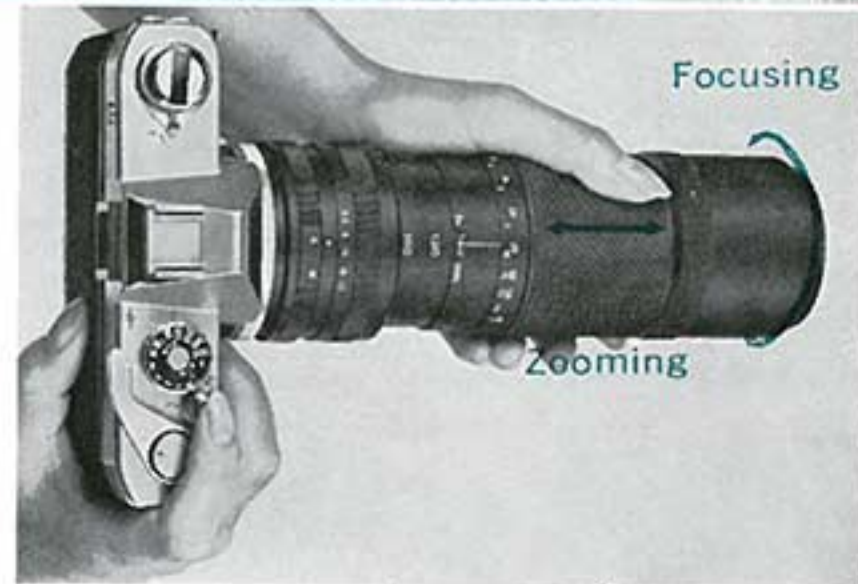
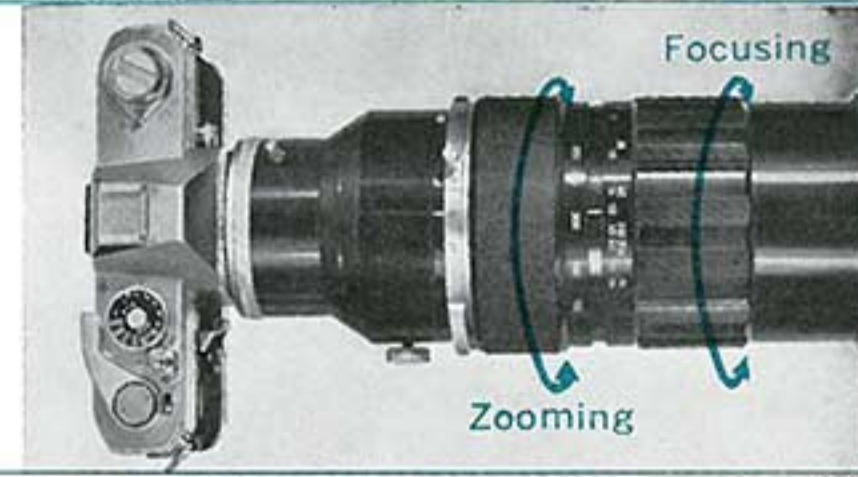
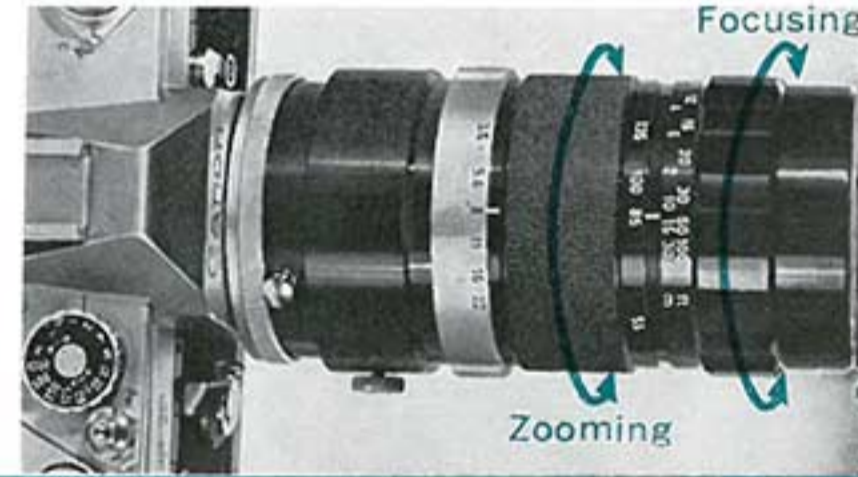


### FL 100~200mm F5.6



### Focusing and Zooming

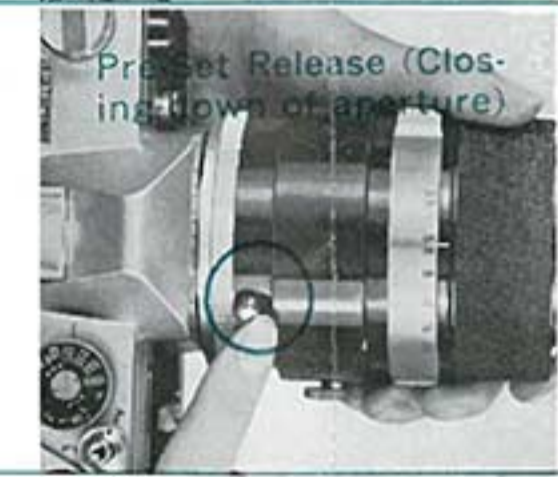
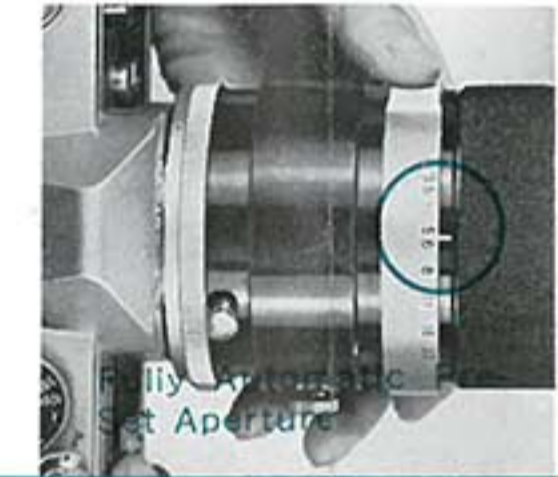
Focusing is performed by rotating the focusing ring. In the case of lenses FL 55-135 mm F3.5 and FL 85-300 mm F5 zooming is performed by rotating the zooming ring in a circumferential direction, while in the case of lens FL 100-200 mm F5.6 zooming is performed by sliding the zooming ring in a cylindrical direction.



### Operating the Aperture

#### Fully Automatic Pre-Set Aperture

The three lenses can be operated like other FL lenses, under the fully automatic aperture system when used on cameras with FL mounts. In other words, it is the system under which focusing can be performed at maximum aperture opening and the aperture closes down to the pre-set aperture stop only during the instant the shutter is released. **Pre-Set Release (Aperture Closing Down Device)** All three lenses are attached with an aperture closing down device for checking the focusing range (depth-of-field) and the blurring condition of the background.



1. When the pre-set release button is pressed the aperture blades are closed down to the pre-set aperture stop. In this way the actual aperture condition when shooting can be checked. For example, when the pre-set release button is pressed after the aperture stop has been set at F5.6, the aperture closes down to F5.6 and the condition of the picture at that time can be checked.

The depth-of-field changes according to the aperture stop, focal length and shooting distance.

2. Simultaneously with the release of the finger from the pre-set release button the aperture blades return to maximum opening.

1. Pre-set the aperture to the desired aperture stop and turn the A-M ring to the M (Manual) side and the aperture will close down to the pre-set aperture stop. Furthermore, when the pre-set aperture ring is manipulated after the A-M ring has been set at M position, the pre-set aperture ring can be used as a manually-operated aperture ring.
2. When the A-M ring is reset at A the aperture will return to maximum opening.

### Exposure

#### TTL light measured at closed down aperture

In the case of TTL cameras such as FT QL, Pellix and Pellix QL, light is measured at closed down apertures. This has nothing to do with the aperture closing down device. The aperture is closed down by turning the light measuring lever, situated on the camera side, towards the lens side.

Light measured at closed down aperture

