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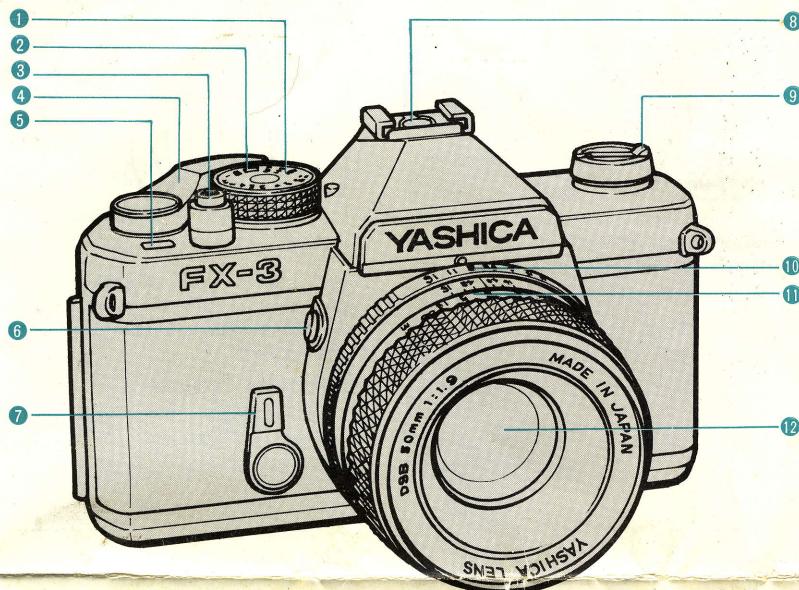
[back to my “Orphancameras” manuals /flash and light meter site](#)

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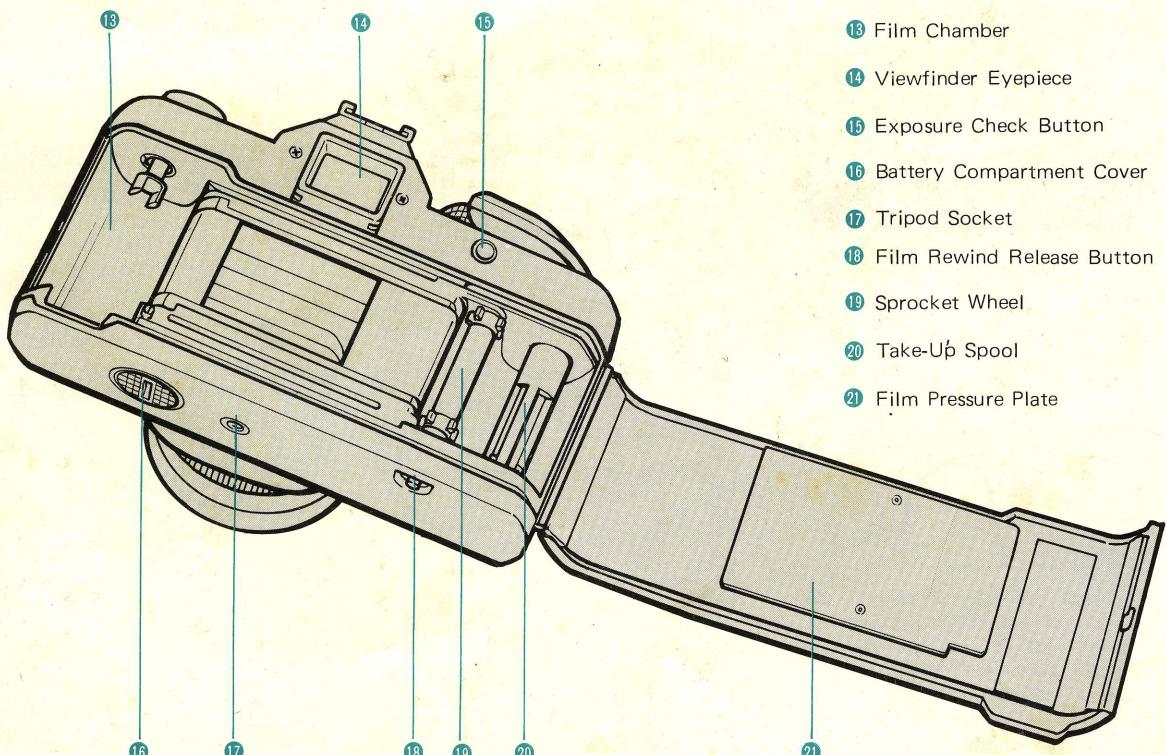
The large manuals are split only for easy download size.

FX-3

INSTRUCTIONS



- 1 Shutter Speed Control Dial
- 2 Film Speed Control Ring
- 3 Shutter Release Button
- 4 Film Advance Lever
- 5 Exposure Counter
- 6 Lens Release Button
- 7 Self-Timer Lever
- 8 Accessory Shoe
(Features direct x contact)
- 9 Film Rewind Knob
(Features foldaway crank-handle and doubles as back cover release)
- 10 Aperture Ring
- 11 Focusing Ring
- 12 Lens



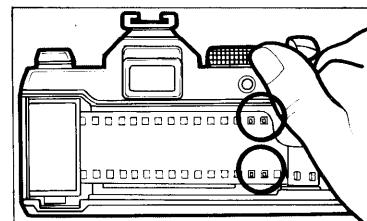
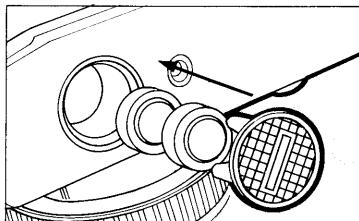
- 13 Film Chamber
- 14 Viewfinder Eyepiece
- 15 Exposure Check Button
- 16 Battery Compartment Cover
- 17 Tripod Socket
- 18 Film Rewind Release Button
- 19 Sprocket Wheel
- 20 Take-Up Spool
- 21 Film Pressure Plate

How to Mount and Remove the Lens

How to Mount the Lens

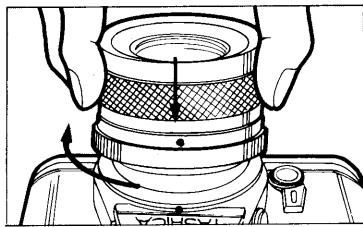
After removing the camera body cap, set the lens in the mount by matching the red dot on the lens barrel with that on the camera body. Then, while gripping the lens barrel firmly, give it a right turn until it self-locks with a click.

The method of mounting is the same with all lenses. Improper mounting will result in poor focus and/or exposure.



Battery Check

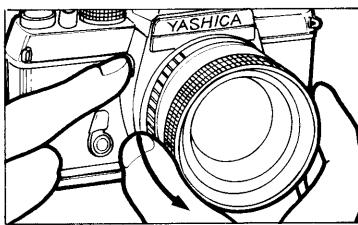
When the LEDs in the viewfinder no longer light after pressing the exposure check button, it is time to replace batteries.



How to Remove the Lens

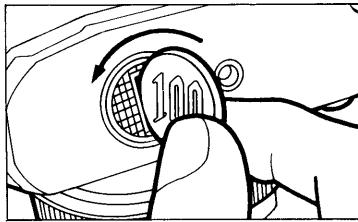
While keeping the lens release button depressed, turn the lens barrel all the way to the left and lift the lens straight out of the lens mount.

- Avoid touching the linkage systems on the camera body and the lens.
- Avoid direct sunlight when interchanging lenses.

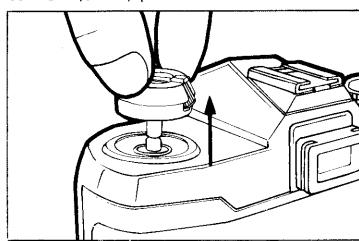


Installing Batteries

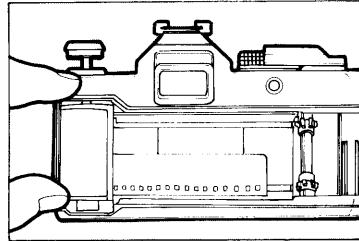
- ① Open the battery compartment cover at the base of the camera by turning it in the direction of the arrow with the edge of a coin.



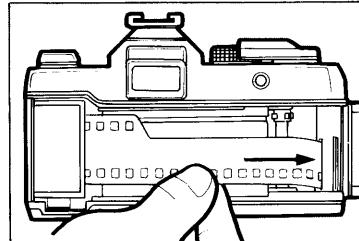
- ② Insert two 1.5V silver-oxide batteries (Eveready S76, Ucar S76, Mallory MS-76 or equivalent) or alkaline batteries (LR 44) into the battery compartment in accordance with the polarity diagrams on the side of the holder. Then, replace the holder side the compartment and retighten the battery compartment cover.



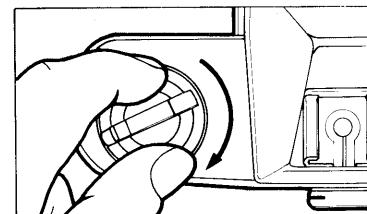
- ② Place the film cassette in the film chamber as illustrated and reset the film rewind knob to its original position.



- ③ Insert the tip of the film leader into one of the slots on the take-up spool spindle.



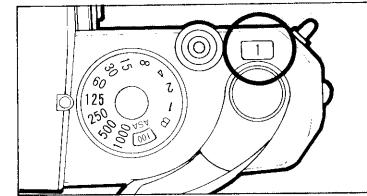
- ④ Advance the film by manipulating the film advance lever. Then, after making sure the sprocket teeth properly engage the perforations on both edges of the film, close the back cover. Press the back cover firmly against the body to lock in place.



- ⑥ Wind the film advance lever and depress the shutter release alternately until the exposure counter registers the figure "1".

Exposure Counter

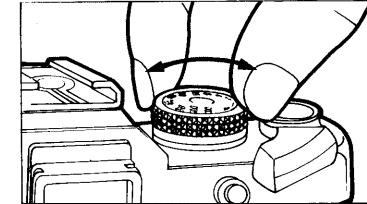
The exposure counter registers the number of exposed frames. It is calibrated from S, 1 to 36, with dots denoting odd numbers. The figures '12', '24', and '36' are given in red to indicate the last frame of the film cassette of the corresponding exposure load.



Film Speed Setting

After properly loading the film, always see to it that the camera is adjusted to the corresponding ASA film speed setting.

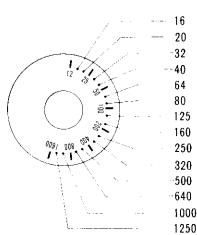
To set the film speed, lift up the milled ring around the shutter speed dial and bring the figure corresponding to the film loaded in the camera in alignment with the index.



Film Speed Rating

The ASA film speed rating indicates the degree of light sensitivity of the film emulsion. It is clearly specified in the instruction sheet or the box in which the film is supplied.

ASA Conversion Table



Focusing

Turn the focusing ring while observing the subject in the split-image center spot, microp prism collar or matte area of the viewfinder.

Split-image Center Spot

Precise focus is obtained when the images in the diagonal split-image center spot are brought into alignment.

Microp prism Collar and Matte Area

When the multiple glitters disappears in the microp prism collar, or when the image appears clear and sharp in the matte area, precise focus is obtained.

The method of focusing remains the same regardless of which lens or accessory is in use.

Eyesight Adjustment

To permit adjustment of the viewfinder to the eyesight of the individual, eight types of diopter lenses (-5 to +3 diopters) are available.



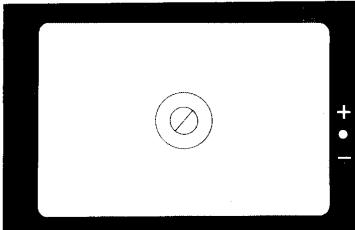
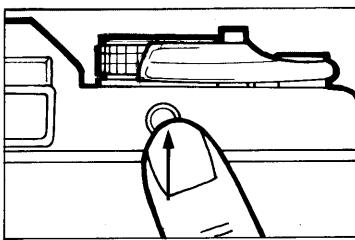
In Focus



Out of Focus

Exposure Setting

As the FX-3 features a center-weighted metering system, best results are obtained if you place your main subject in the center of the viewfinder when setting the exposure.

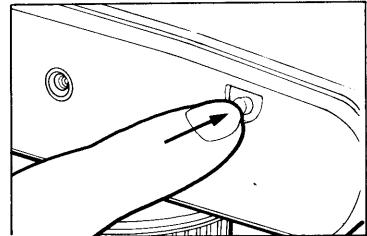


- As inbetween settings cannot be used on the shutter speed dial, when only slight exposure adjustments are required, use the inbetween settings on the aperture ring.

Film Unloading

① When the exposure counter shows the figure equivalent to the exposure load of the film loaded in your camera, avoid further winding the film advance lever.

② Press the film rewind release button. It is unnecessary to keep the button depressed while rewinding the film. It will reset automatically when the film advance lever is manipulated.



① Place the subject in the center of the viewfinder and press the exposure check button. One of the three LED indicators will light; they indicate the following:

- (+) RED LED Overexposure
- (●) GREEN LED Correct exposure
- (-) RED LED Underexposure

② If the Green LED lights: exposure is correct; go ahead and shoot.

If the Red (+) LED lights: You are overexposed. Decrease the exposure by setting the shutter speed dial at a faster shutter speed where the Green LED lights; or, set the aperture ring at a smaller aperture where the Green LED lights (f/5.6 to f/8 or f/11, etc.)

If the Red (-) LED lights: You are underexposed. Increase your exposure by setting the shutter speed dial at a slower shutter speed where the Green LED lights; or, use a wider aperture where the Green LED lights (f/5.6 to f/4 or f/2.8, etc.)

If the Green LED fails to light after adjusting for underexposure either use a flash unit or switch to "B" Exposure (See "Slow Shutter Speed/Bulb Exposure"). Moreover, if a shutter speed of 1/30 sec. or slower is required, use a tripod (Again see "Slow Shutter Speed/Bulb Exposure") or switch to flash photography to avoid picture blur.

When the Red (+) and the Green LED light simultaneously, it indicates slight overexposure; conversely, when the Red (-) and the Green LED light together it indicates slight underexposure.

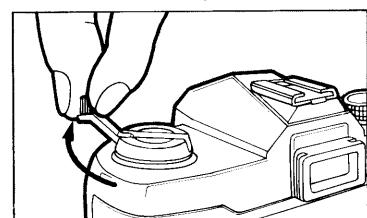
Exposure Guide

(when ASA 100 film is in use)

Light Condition	Shutter Speed	Lens Aperture
Outdoors under bright sunlight	1/1000, 1/500, 1/250	16, 11, 8
Outdoors in shade or under overcast	1/250, 1/125, 1/60	5.6, 4, 2.8
Indoors or night photography	1/30 or slower speed	2.8, 1.7, 1.

Make sure the exposed film is rewound into its cassette before opening the back cover.

If the film fails to advance before the entire length has been exposed press the film rewind release button and rewind. Avoid advancing it forcibly.



Exposure Setting in Difficult Light Situations

Backlit Subjects

When photographing subjects against light or against a bright background, give two to four times the normal exposure by one of the following methods:

- Aperture compensation

If the camera indicates an exposure setting of f/16 at 1/125 sec., maintain the shutter speed at 1/125 sec. and reset the lens aperture to f/11 (2X) or f/8 (4X).

- Shutter speed compensation

If the camera indicates an exposure setting of f/16 at 1/125 sec., readjust the shutter speed control dial to 1/60 sec. (2X) or 1/30 sec. (4X).

- ASA film speed compensation

Keep the exposure controls of the camera at the normal setting and reset the ASA film speed dial to 50 (2X) or 25 (4X) when an ASA 100 film is in use.

Make sure the film speed dial is reset to its original position after making exposure compensation with the ASA film speed dial.



Exposure compensated



Without exposure compensation

Spotlit Subjects

Your main subject will be over-exposed if spotlit subjects are exposed in the normal manner. A similar effect will be obtained if there is a conspicuous difference in the lighting of the subject and the background.

Better overall results will be obtained if compensation is made by resetting the lens aperture, shutter speed or ASA film speed to give 1/2 or 1/4 the normal exposure. In case the camera indicates an exposure of f/1.9 at 1/60 sec., for example, readjust the lens opening to f/2.8 (1/2X) or f/4 (1/4X).

Exposure compensation will be unnecessary in the event you approach your subject and determine the exposure from a close distance and then back away to the shooting position.



Exposure compensated

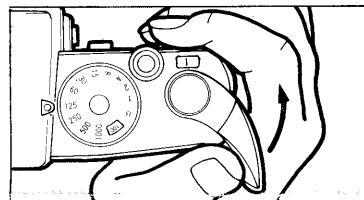


Without exposure compensation

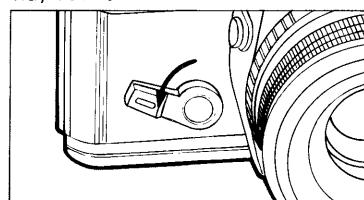
Self-Timer

When you wish to include yourself in the picture, use the self-timer to trip the shutter.

- ① Advance the film by giving the film advance lever a full wind.



- ② Push the self-timer lever all the way down.

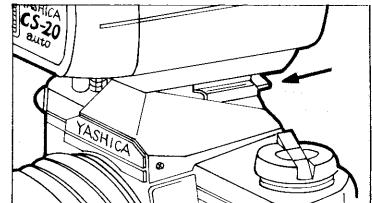


- ③ Focus and press the shutter release button. The self-timer will be activated, tripping the shutter after a delay of about 10 seconds.

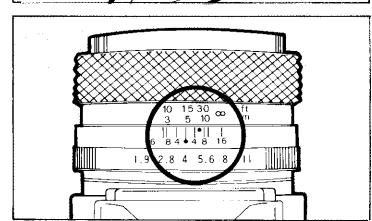
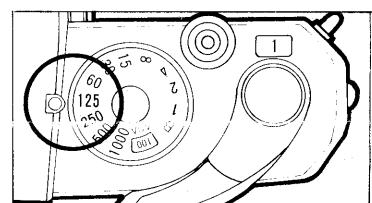
Flash Exposure

For exposures with an electronic flash unit a shutter speed of 1/125 sec. or slower must be used; with flash bulbs the shutter speed must be set to 1/30 sec. or slower as indicated in the chart. Only cordless flash units may be used with the FX-3.

- ① Mount the electronic flash unit or bulb holder by sliding it all the way into the camera's accessory shoe as indicated in the photo.



- ② With auto flash units, use the f-number indicated in the flash units instruction sheet. With manual flash units, to determine the f-number to use, focus and read off the camera-to-subject distance indicated on the lens' distance scale. Then, divide the guide number of the flash unit by the distance. The answer is your correct aperture. For example, if the flash unit has a guide number of 20 (with ASA 100 film, in meters), and the subject is 5 meters away, the correct aperture setting will be: $20 \div 5 = 4$ (f/4). Many flash units feature a chart which computes the correct aperture for you. (Refer to the your flash unit's instruction manual.)

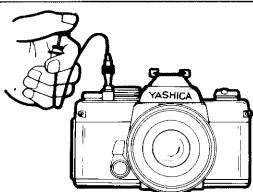


Slow Shutter Speed Bulb Exposure

Slow Shutter Speeds

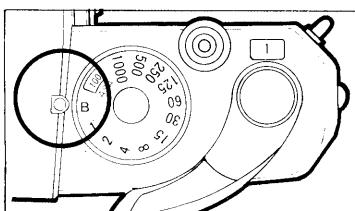
When making exposure at 1/30 sec. or slower shutter speed, even the slightest erratic movement of the camera may spoil an otherwise perfect shot. Make it a rule, therefore, to mount the camera on a tripod or to set it on a firm surface to avoid camera shake. Use of a cable release (available optionally) is also recommended.

Shutter Speeds	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1
Electronic flash	○	○	○	○	○	○	○	○
Flashbulb	FP			○	○	○	○	○
	M			○	○	○	○	○
	MF			○	○	○	○	○



"B" (Bulb) Exposure

When an exposure longer than one second is required, set the shutter speed control dial at "B" (Bulb exposure). At this setting, the shutter will remain open as long as the shutter release button is kept depressed. To prevent erratic camera movement during exposure, always mount the camera on a tripod and use a cable release (available optionally) for best results.

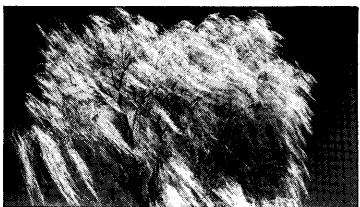
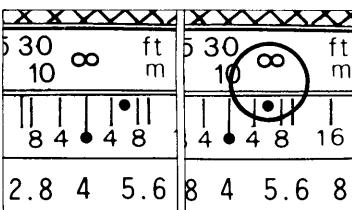


Infrared Ray Photography

When infrared ray film is used in combination with the red filter, focus in the normal manner and then compensated accordingly in order to obtain sharp images. The Yashica ML and Zeiss T* lenses feature an R index permitting ready focusing compensation.

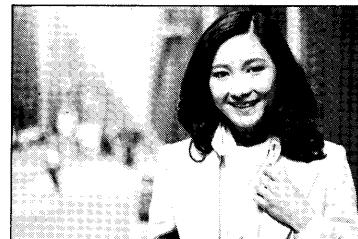
First, focus in the normal manner without using the filter. Then, read off the subject distance and align it with the R index. After making this compensation, mount the filter over the lens.

- Always use the red filter when attempting infrared ray photography.
- For correct exposure setting, refer to the instructions accompanying the infrared ray film.



Depth of Field

When a lens is focused on a given subject, objects in the foreground and background will also appear sharp in the picture. The extent over which all objects will be reproduced acceptably sharp in the picture is called the depth of field.



f/1.9



f/16

Both photos were taken by focusing on the subject. At f/1.9 (top photo), the foreground and background objects appear blurred.

The depth-of-field scale on the lens barrel will show the extent of the depth of field at different aperture settings. In case the standard 50 mm lens is stopped down to f/16 and focused at 2 meters, this scale will indicate that all objects within the range of about 1.5 and 3 meters will appear acceptably sharp in the picture.

- With a specific lens, the depth of field varies according to the following:
 - ① It increases as you stop down the lens.
 - ② It is more extensive in the background than in the foreground.
 - ③ It is more extensive as you focus on a distant subject.

Camera Care

- Do not expose your camera to excessive heat. Never leave it in direct sunlight or in the glove compartment, trunk or on the rear seat shelf of your car. Exposure to excessive heat may adversely affect the film emulsion, battery and/or camera systems and cause exposure inaccuracy. If it is accidentally exposed to heat, let the camera cool to normal temperature before attempting to use it.

- Knocks and jolts, as well as exposure to humidity and sea breeze are counted among the common causes of malfunction. To obtain maximum service, take good care of your camera and avoid rough handling.

- Do not keep the shutter cocked when your camera is to be left unused over any great length of time. If possible, remove the battery from its compartment.

- Never expose your camera to sudden changes in temperature, because the electrical contacts may corrode, thus causing malfunction due to poor electrical contact.

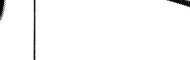
ZEISS T* Interchangeable Lenses

	Lens	Lens Composition	Angular Field	Minimum Focus	Aperture Range	Filter (Screw-in)	Lens Hood (Slip-on)	Size and Weight
Fisheye	F-Distagon T*16mmF2.8	8-7	180°	0.3m 1ft.	2.8-22	Built-in	Built-in	70x61.5mm 460grams
	Distagon T*15mmF3.5	13-12	110°	0.16m 6in. 0.3m 1ft.	3.5-22	Built-in	Built-in	83.5x94mm 815grams
Ultra Wide-Angle	Distagon T*18mmF4	10-9	100°	0.25m 10in. 0.24m 1/2in.	4-22	86mm	—	70x1.5mm 350grams
	Distagon T*25mmF2.8	8-7	80°	0.25m 10in.	2.8-22	55mm	59mm	62.5x56mm 335grams
Wide-Angle	Distagon T*28mmF2	9-8	74°	0.25m 10in. 0.24m 1/2in.	2-22	55mm	59mm	62.5x76mm 485grams
	Distagon T*28mmF2.8	7-7	74°	0.25m 10in. 0.3m 1ft.	2.8-22	55mm	59mm	62.5x50mm 330grams
Standard	Distagon T*35mmF1.4	9-8	62°30'	0.4m 1.5ft.	1.4-16	67mm	70mm	70x76mm 540grams
	Distagon T*35mmF2.8	6-6	62°	0.45m 1.6ft.	2.8-22	55mm	59mm	62.5x46mm 245grams
Long Focus	Planar T*50mmF1.4	7-6	45°	0.6m 2ft.	1.4-16	55mm	59mm	62.5x41mm 275grams
	Planar T*50mmF1.7	7-6	45°	0.6m 2ft.	1.7-16	55mm	59mm	61x36.5mm 190grams
Telephoto	Planar T*85mmF1.4	6-5	28°30'	1m 3.5ft.	1.4-16	67mm	70mm	70x64mm 555grams
	Sonnar T*85mmF2.8	5-4	27°30'	1m 3.5ft.	2.8-22	55mm	59mm	62.5x47mm 255grams
Reflex	Planar T*135mmF2	5-5	18°30'	1.5m 5ft.	2-22	72mm	75mm	75x101mm 830grams
	Sonnar T*135mmF2.8	5-4	18°30'	1.6m 5.5ft.	2.8-22	55mm	Built-in	68.5x93mm 585grams
Zoom	Sonnar T*180mmF2.8	6-5	14°	1.4m 4.5ft.	2.8-22	72mm	Built-in	82x131mm 990grams
	Tele-Tessar T*200mmF3.5	6-5	12°40'	1.8m 6ft.	3.5-22	67mm	Built-in	77.5x121.5mm 750grams
Belows	Tele-Tessar T*300mmF4	5-5	8°15'	3.5m 11.5ft.	4-32	82mm	Built-in	94x205mm 1.720grams
	Mirrotar 500mmF4.5	5-5	5°	3.5m 11.5ft.	—	Slide type	—	151x225mm 4,500grams
Shift	Mirrotar 1000mmF5.6	5-5	2°30'	12m 39.4ft.	—	Slide type	—	250x420mm 16,500grams
	Vario-Sonnar T* 40~80mmF3.5	13-9	55°~31°	1.2m 4ft.	3.5-22	55mm	59mm	67x87mm 605grams
Macro	Vario-Sonnar T* 70~210mmF3.5	15-12	33°~12°	0.3m 1ft.	3.5-22	67mm	70mm	77x186mm 1,145grams
	S-Planar T*60mmF2.8	6-4	39°	M1:1.024m 9 1/2in.	2.8-22	67mm	70mm	75.5x74mm 570grams
PC-Shift	S-Planar T*100mmF4	6-4	24°30'~33°	—	4-32	55mm	59mm	62.5x48.5mm 285grams
	PC-Distagon T*35mmF2.8	9-9	63°/83°	0.3m 1ft.	2.8-22	86mm	—	70x85.5mm 725grams

YASHICA LENS Specifications

	Lens	Lens Composition	Angular Field	Minimum Focus	Aperture Range	Filter(Screw-in)	Lens Hood(Slip-on)	Size and Weight
Fisheye	ML Fisheye 15mmF2.8	10-7	170°	0.3m 11ft.	2.8-16	Built-in	Built-in	75x70.5mm 445grams
	ML 21mmF3.5	12-8	91°	0.3m 11ft.	3.5-16	72mm	75mm	75x54mm 370grams
Ultra Wide Angle	ML 21mmF3.5	12-8	91°	0.3m 11ft.	2.8-16	62mm	Screw-in type	65x48mm 285grams
	ML24mmF2.8	9-8	84°	0.3m 11ft.	2.8-16	52mm	54mm	61.5x41.5mm 250grams
Wide Angle	ML28mmF2.8	8-7	75°	0.3m 11ft.	2.8-16	52mm	54mm	61.5x41.5mm 230grams
	ML35mmF2.8	7-6	63°	0.3m 11ft.	2.8-16	52mm	54mm	61.5x41.5mm 230grams
Standard	ML50mmF1.4	7-6	46°	0.5m 1.75ft.	1.4-16	52mm	54mm	61.5x42mm 290grams
	ML50mmF1.7	6-5	46°	0.5m 1.75ft.	1.7-16	52mm	54mm	61.5x40mm 240grams
Telephoto	ML50mmF2	6-4	46°	0.5m 1.75ft.	2-16	52mm	54mm	61x32mm 140grams
	ML55mmF1.2	7-6	43°	0.5m 1.75ft.	1.2-16	55mm	57mm	66.5x50mm 410grams
	ML135mmF2.8C	5-4	18°30'	1.5m 5ft.	2.8-22	52mm	Built-in	63x75mm 420grams
	ML200mmF4C	5-4	12°30'	2.5m 8ft.	4-22	58mm	Built-in	64x113.5mm 535grams
Reflex	ML300mmF5.6C	6-3	8°30'	4.5m 16ft.	5.6-22	58mm	Built-in	66x147.5mm 645grams
	Reflex500mmF8	6-5	5°	4m 15ft.	—	Slide type	Built-in	88x120.5mm 885grams
Zoom	Reflex1000mmF11	6-5	2°30'	8m 25ft.	—	Built-in	Built-in	118x220mm 2,330grams
	ML Zoom28~80mmF3.5	10-8	74°-48°	1m 3.5ft.	35-22	72mm	—	75x74.5mm 475grams
	ML Zoom35~70mmF3.5	8-8	62°-35°30'	1m 3.5ft.	3.5-22	62mm	65mm	69x79mm 475grams
	ML Zoom42~75mm F3.5~4.5	7-7	53°-33°	1.2m 4ft.	3.5-22	55mm	57mm	61x57mm 315grams
Macro	ML Zoom80~200mmF4	12-9	30°~12°20'	1.9m 6.3ft.	4-22	55mm	—	65x133mm 610grams
	ML Macro55mmF2.8	6-4	43°	0.25m(M1:2) 0.8ft.	2.8-22	52mm	54mm	61.5x56.5mm 305grams
Bellows	ML Macro100mmF3.5	6-4	24°	0.44m(M1:2) 1.5ft	3.5-22	55mm	57mm	67x77mm 430grams
	ML Bellows100mmF4	5-3	24°	—	4-22	52mm	54mm	60x32mm 190grams

FX-3 Technical Data

 Close-Up Lenses	 Polarizing Filter	 Filters	 Lens Shades
 Copy Stand Type II	 Microscope Adapter	 Magnetic Filter	 Microscope Adapter
 Rigbt-Angle Finder C	 Auto Extension Tube Set	 Auto Extension Tube Set	 Auto Extension Tube Set
 Electronic Flash Units	 Macro Stand	 Macro Stand	 Auto Bellows
 Slide Copier	 Auto Bellows	 Auto Bellows	 Auto Bellows