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YASHICA

INSTRUCTION BOOKLET

Yashica SLR System Accessories

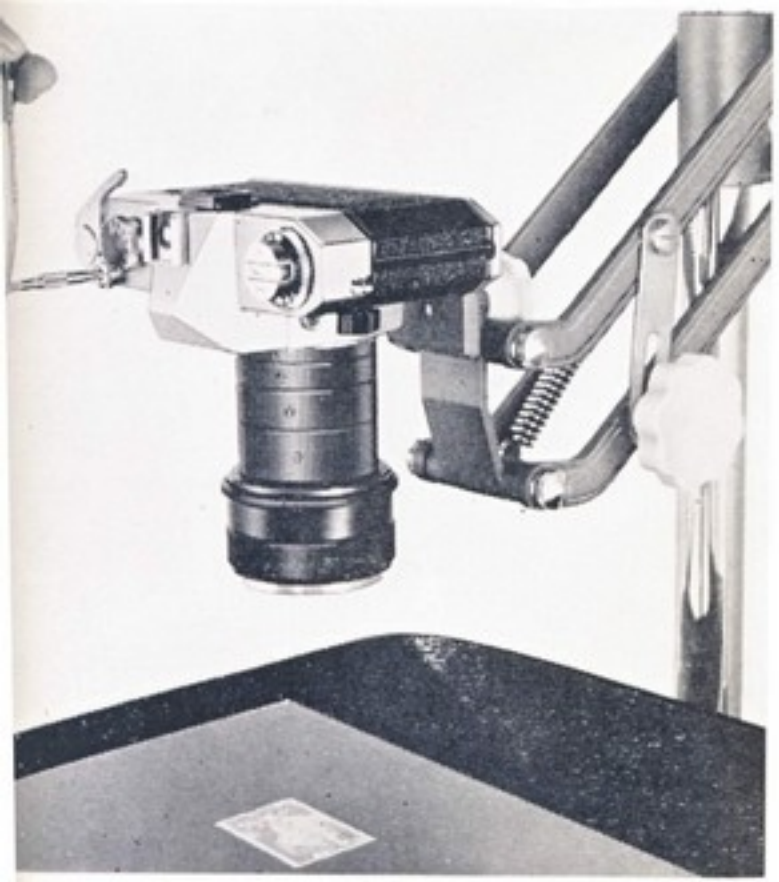
Yashica SLR System Accessories

Yashica accessories are available to extend the scope of photography with the Single-Lens Reflex cameras.

For Macrophotography	Extension tubes (Nos. 1-4), Bellows, Close-up Lens
For Microphotography.....	Microscope Adapter
For Flash Photography.....	Yashica-Lite AG-D
For Unusual Angle Shots.....	Right-Angle Viewfinder

Extension Tubes:

Useful for photographing small objects, insects, flowers or other objects at very close range.



How to Use the Extension Tubes

An extension tubes set consists of Nos. 1 to 4 tubes which can be used singly or in various combinations. Refer to page 6 for magnification ratio and selection of the tubes which suit the purpose. Attach the extension tubes between the camera body and the lens.

Focusing: This is done in the normal manner by turning the Focusing Ring on the lens barrel.

Exposure: Depending on the magnification desired and the number of tubes used, the exposure varies; therefore, exposure compensation is necessary.

For example, if normal exposure is f/8 at 1/125 sec., and extension tubes Nos. 2, 3 are used the exposure required would be twice the normal exposure i.e. f/5.6 at 1/125 sec., or f/8 at 1/60 sec.

With the Yashica TL series SLR cameras exposure compensation is unnecessary.

Magnification Ratio:

The image size reproduced on the film in relation to the actual size of the object.

Magnification Ratio Scale with Extension Tubes

with 55 mm lens

Ext. Tube	Length	Lens Subject Dist.	Mag. Ratio	Area Coverage	Exp. Increase
No.1	5mm	551 mm	0.097	248×371 mm	×1.2
No.2	9.5	299	0.18	130×196	×1.4
No.3	14	209	0.27	89×133	×1.6
No.4	18.5	163	0.36	67×100	×1.9
No.2 + No.3	23.5	132	0.46	53×79	×2.1
No.2 + No.4	28	114	0.54	44×66	×2.4
No.3 + No.4	32.5	101	0.63	38×57	×2.7
No.1 + No.3 + No.4	37.5	90	0.73	33×50	×3.0
No.2 + No.3 + No.4	42	82	0.81	30×44	×3.3
No.1 + No.2 + No.3 + No.4	47	76	0.91	26×40	×3.7

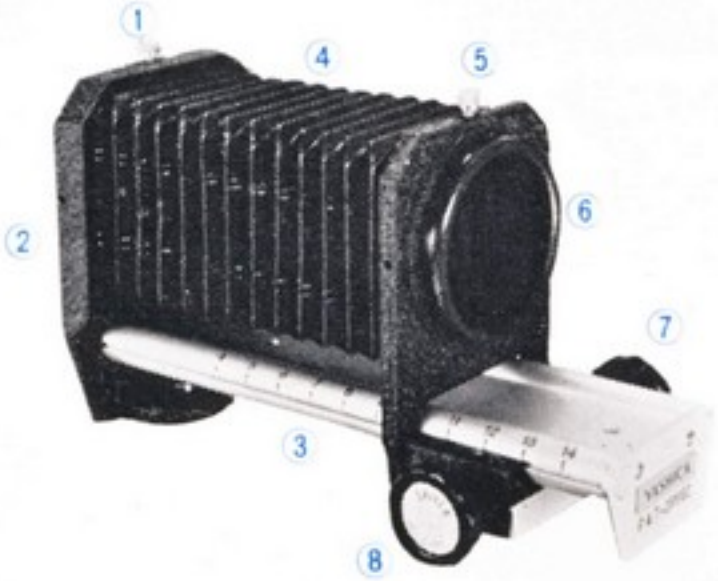
with 55 mm lens

Ext. Tube	Length	Lens Subject Dist.	Mag. Ratio	Area Coverage	Exp. Increase
No. 1	5 mm	634 mm	0.09	266×400 mm	×1.2
No. 2	9.5	343	0.17	141×211	×1.4
No. 3	14	240	0.25	96×144	×1.6
No. 4	18.5	186	0.33	72×109	×1.8
No. 2 + No. 3	23.5	151	0.42	57×85	×2.0
No. 2 + No. 4	28	130	0.51	47×70	×2.3
No. 3 + No. 4	32.5	115	0.59	40×61	×2.5
No. 1 + No. 3 + No. 4	37.5	102	0.68	35×52	×2.8
No. 2 + No. 3 + No. 4	42	93	0.76	31×47	×3.1
No1 + No2 + No3 + No4	47	86	0.85	28×42	×3.4

Bellows:

For extreme close range photography and magnification up to 2.4 times the actual size of the object.

It could be used in combination with the extension tubes for additional extension and magnification.



(1) Camera Positioning Knob
(2) To Camera Body
(3) Scale
(4) Bellows
(5) Lens Positioning Knob
(6) Lens Mount
(7) Locking Knob
(8) Focusing Knob

How to Attach the Bellows

1. Unscrew lens barrel from camera body.
2. Screw in bellows to camera body. Loosen Knob (1) and adjust bellows to correct position, and tighten knob (1).
3. Screw in lens to lens mount (6). Adjust position of lens barrel with knob (5).

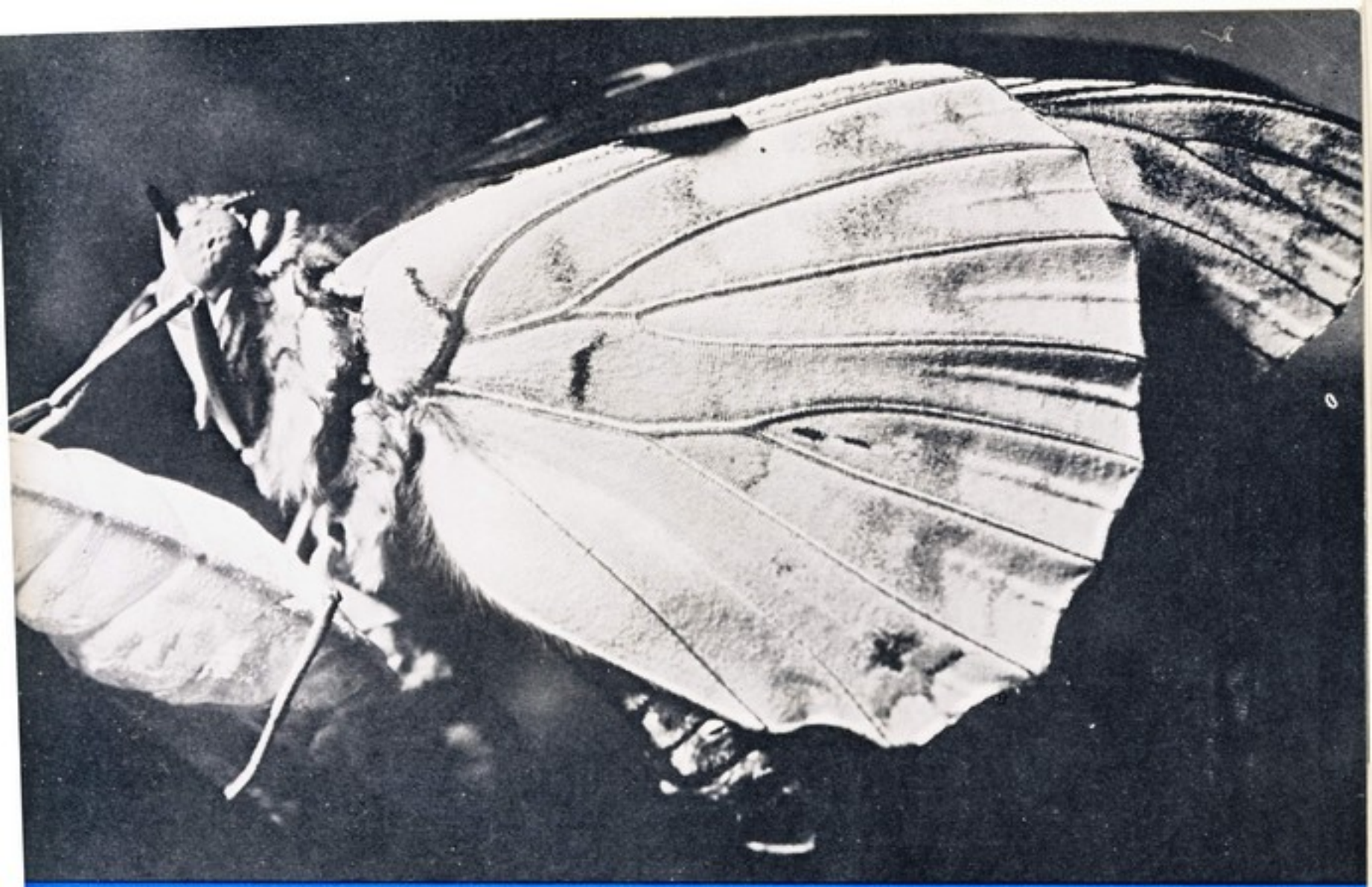
Photographing with Bellows

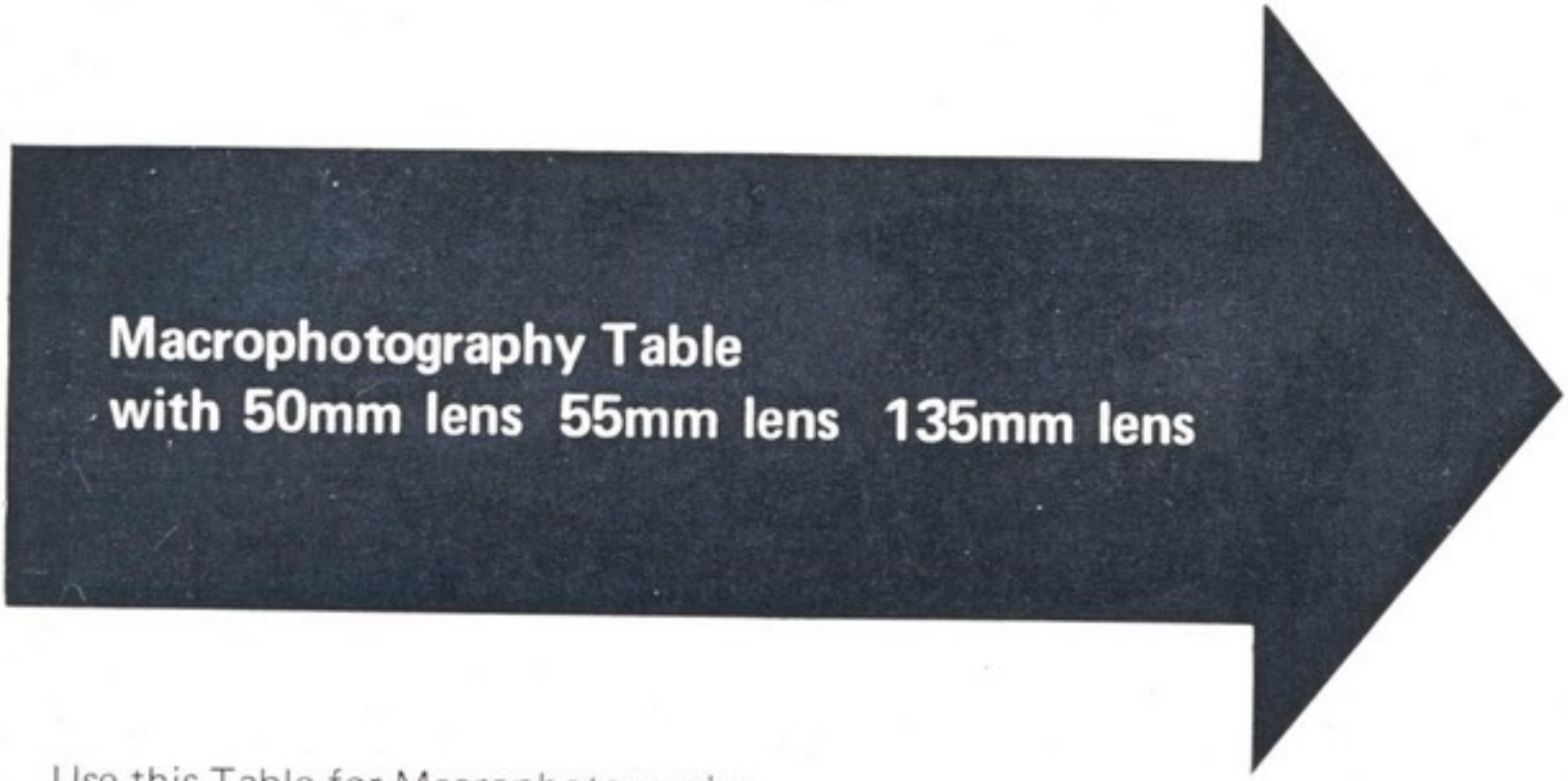
Determine magnification or area coverage desired by referring to table on page 13; exposure compensation should be made by multiplying normal exposure by the Exposure Increase Ratio. Regardless of focal length the magnification ratio determines the Exposure Increase Ratio. For example, if magnification is 0.4 the exposure increase should be twice the normal exposure time; at 0.8 magnification – 3 times and at 1.0 (actual size) it should be 4 times.

Focusing is done by turning the Focusing Knob, and finally with the Focusing Ring on the lens barrel.

Use the smallest aperture as the Depth of Field is limited with this attachment. Special care should be taken to steady the camera.

Note: When using a tripod, screw it into the tripod socket of the bellows.





Use this Table for Macrophotography

Bellows	Rack Ext.	Lens to Object Distance			Mag. Ratio			Area Coverage			Exp. Increase Ratio		
		50mm lens	55mm lens	135mm lens	50mm lens	55mm lens	135mm lens	50mm lens	55mm lens	135mm lens	50mm lens	55mm lens	135mm lens
	40mm	200.0mm	219.1mm	758.6mm	0.77	0.73	0.30	31.0×46.5mm	33.0×49.5mm	80.4×120.5mm	× 3.1	× 3.0	× 1.7
	50	196.7	214.0	678.9	0.97	0.91	0.37	24.8×37.2	26.4×39.6	64.3×96.4	× 3.9	× 3.6	× 1.9
	60	197.8	213.9	629.1	1.2	1.1	0.45	20.7×31.0	22.0×33.0	53.6×80.4	× 4.7	× 4.4	× 2.1
	70	201.4	216.7	596.4	1.4	1.3	0.52	17.7×26.6	18.9×28.3	45.9×68.9	× 5.5	× 5.2	× 2.3
	80	206.7	221.3	574.4	1.5	1.5	0.60	15.5×23.2	16.5×24.7	40.2×60.3	× 6.5	× 6.0	× 2.6
	90	213.0	227.1	559.5	1.7	1.6	0.67	13.8×20.7	14.7×22.0	35.7×53.6	× 7.5	× 7.0	× 2.8
	100	220.0	233.7	549.5	1.9	1.8	0.75	12.4×18.6	13.2×19.8	32.1×48.2	× 8.6	× 7.9	× 3.1
	110	227.6	241.0	543.2	2.1	2.0	0.82	11.3×16.9	12.0×18.0	29.2×43.8	× 9.8	× 9.0	× 3.3
	120	235.6	248.7	539.6	2.3	2.2	0.90	10.3×15.5	11.0×16.5	26.8×40.2	×11.0	×10.1	× 3.6

Ext. Tube	Rack Ext.	Lens to Object Distance			Mag. Ratio.			Area Coverage			Exp. Increase Ratio		
		50mm lens	55mm lens	135mm lens	50mm lens	55mm lens	135mm l lens	50mm lens	55mm lens	135 mm lens	50mm lens	55mm lens	135mm lens
+No1	125.0mm	239.7mm	252.7mm	538.7mm	2.4	2.3	0.93	9.9×14.9mm	10.6×15.8mm	25.7×38.6mm	×11.7	×10.7	× 3.7
+No2	129.5	243.4	256.3	538.2	2.5	2.4	0.97	9.6×14.4	10.2×15.3	24.8×37.2	×12.3	×11.3	× 3.9
+No3	134.0	247.2	260.1	538.0	2.6	2.4	1.0	9.2×13.9	9.8×14.8	24.0×36.0	×12.9	×11.8	× 4.0
+No4	138.5	251.1	263.8	538.2	2.7	2.5	1.0	8.9×13.4	9.5×14.3	23.2×34.8	×13.6	×12.4	× 4.1
+No2 +No3	143.5	255.4	268.1	538.7	2.8	2.6	1.1	8.6×13.0	9.2×13.8	22.4×33.6	×14.3	×13.0	× 4.3
+No2 +No4	148.0	259.4	271.9	539.4	2.9	2.7	1.1	8.4×12.6	8.9×13.4	21.7×32.6	×14.9	×13.6	× 4.4
+No3 +No4	152.5	263.3	275.8	540.3	3.0	2.8	1.1	8.1×12.2	8.7×13.0	21.1×31.6	×15.6	×14.2	× 4.6
+No1 +No3 +No4	157.5	267.8	280.2	541.6	3.0	2.9	1.2	7.9×11.8	8.4×12.6	20.4×30.6	×16.4	×14.9	× 4.7
+No2 +No3 +No4	162.0	271.8	284.2	542.9	3.1	2.9	1.2	7.7×11.5	8.1×12.2	19.8×29.8	×17.1	×15.6	× 4.9
+No1 +No2 +No3 +No4	167.0	276.3	288.6	544.6	3.2	3.0	1.2	7.4×11.1	7.9×11.9	19.2×28.9	×17.9	×16.3	× 5.0

Close-up Lens

Close-up lens 52mm screw-in Nos. 1 and 2 and 55mm screw-in Nos. 1 and 2 are available, for attaching to the camera lens.

Photographing with Close-up Lens

Attach Close-up Lens, either No.1 or No.2, or both together, whichever serves your purpose, by screwing on to the front of the camera lens. Focusing is done in the regular manner by turning the Focusing Ring on the lens barrel.
Parallax correction is not required.
Exposure compensation is unnecessary.

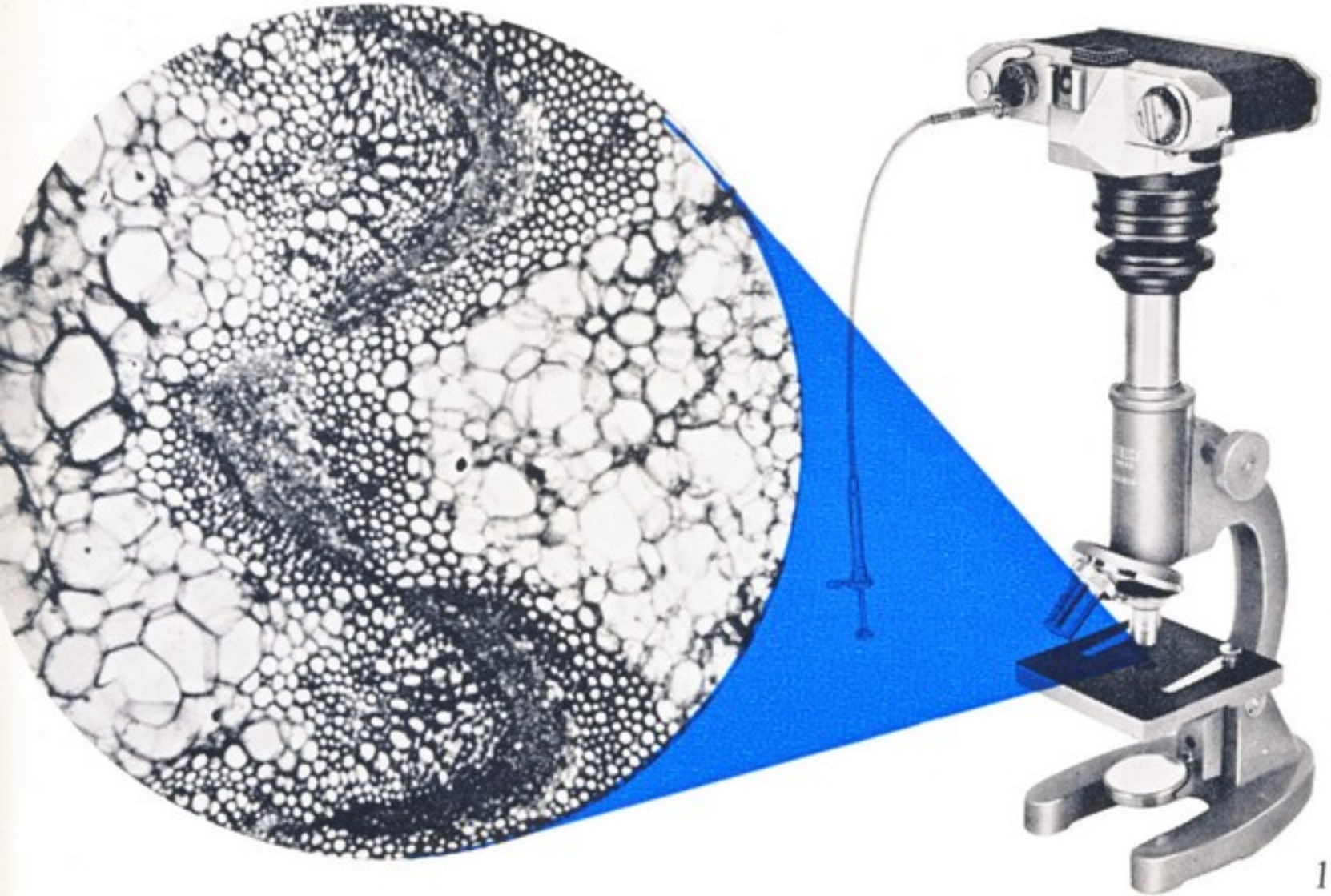
Screw-in Type		Film Plane Distance	Lens Elements	Mounts	External Dimensions	Weight
55 mm For 50 mm f/1.4	No. 1	61 ~ 36 cm	2 ele 1 group	Screw-in	58 mm	70 g
	No. 2	37 ~ 28 cm	〃	〃	〃	〃
52 mm For 50 mm f/1.7	No. 1	50 ~ 30 cm	〃	〃	54 mm	〃
	No. 2	30 ~ 24 cm	〃	〃	〃	〃

Adapter for Microphotography

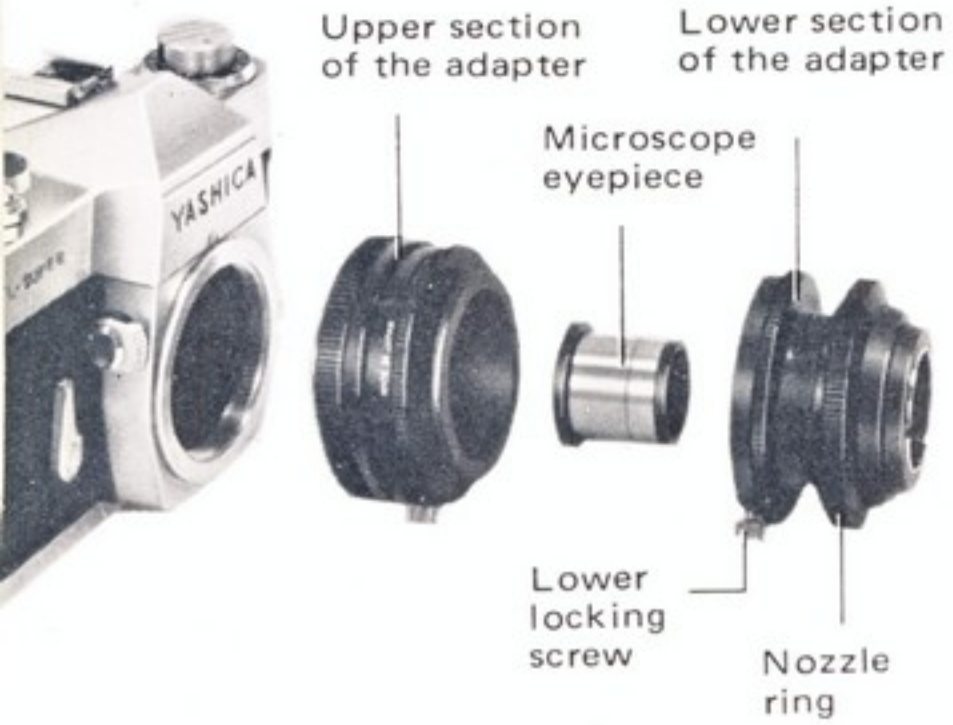
The Microscope Adapter is attached to the camera body (without lens) and the microscope.

The Adapter can be separated into two parts. The upper section is screwed in to the camera body after the camera lens has been removed from it, and the lower section is slipped on to the top of the microscope.

For magnification of under 20 times use only with the objective lens on microscope (without ocular lens), and for magnification of 30 times and over use with the ocular and objective lens on the microscope.

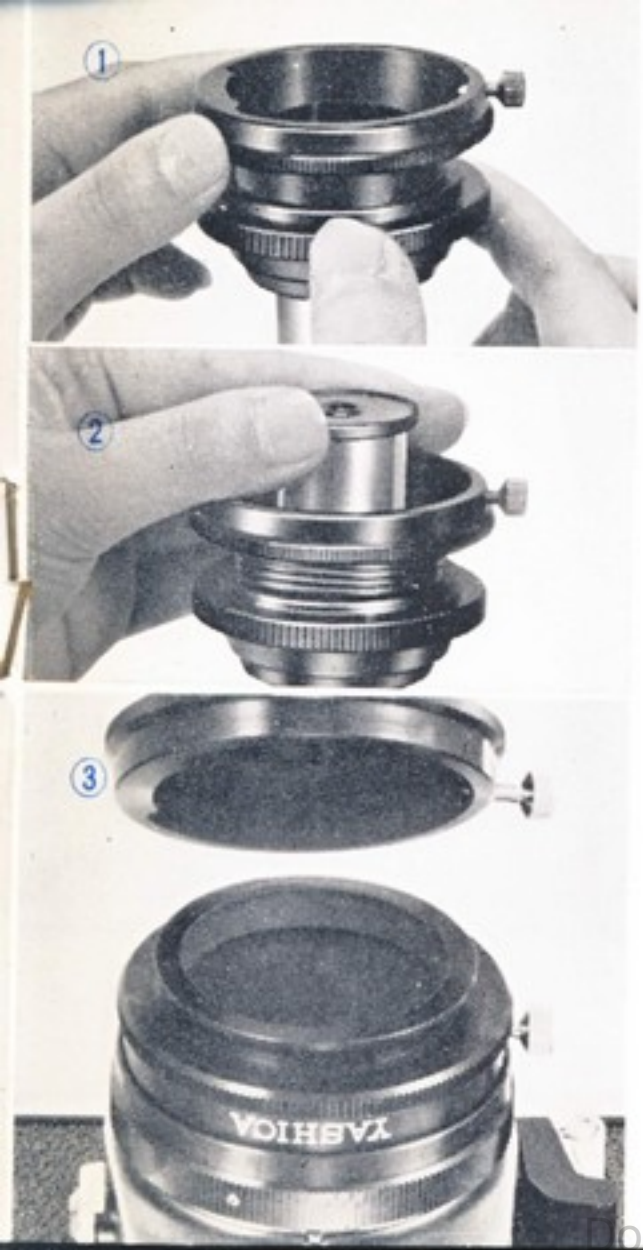


For microphotography the adapter should be attached as shown in the picture.



How to Attach the Adapter

1. Loosen the lower Locking Screw and the Adapter will be separated into two parts.
2. Remove lens from the camera and screw in the upper section of the Adapter to the camera body.
3. Loosen Nozzle Ring on lower part of Adapter. Remove Eyepiece lens from microscope. Slip the lower section of Adapter over the top of the microscope (as shown in picture No.1) and tighten Nozzle Ring.
4. Replace Eyepiece Lens on to the microscope. (Picture No.2)
5. Camera with upper part of Adapter should now be connected to lower part of Adapter and the lower Locking Screw be tightened. (Picture No.3)



Microphotography

For magnification of under 20 times, remove ocular lens and photograph with objective lens only.

The photograph will show 1.5 times the magnification of the objective lens.

For magnification of over 30 times, use both ocular and objective lens on the microscope.

The photographic magnification will be 1/3 of the microscope magnification.

Focusing is done by the Focusing Knob on the microscope.

Exposure may be determined with the meter built in the camera provided lighting is bright enough to register a meter reading.

For microphotography the Koehler lighting system is recommended. However, other equipment can be used with satisfactory results.

Yashica-Lite AG-D Flash Unit

The compact Yashica Lite AG-D is a dual use flash unit for AG type bulbs. Use it as a cordless flash unit by slipping it into the direct contact shoe of the camera or as a conventional flash unit by connecting the synchro cord (which is housed behind the reflector section) to the camera synchro terminal.

Using the AG-D Flash Unit

With the Yashica TL series cameras the AG-D flash unit can be used as a cordless flash unit by slipping it into the direct contact accessory shoe of the camera. Check battery condition, capacitor and circuit by inserting a flash bulb into the socket of the flash unit, and depressing the test button. If the test lamp momentarily lights when the test button is depressed, it is an indication the flash unit is in working condition.

Right-Angle Viewfinder

For unusual angle shots, also suitable for macrophotography, and microphotography.

Using the Right-Angle Viewfinder

Slip Right-Angle Viewfinder into camera viewfinder eye-piece. Viewing from the top and side is possible. It is a convenient adapter for ground level, high and unusual angle shots. Eyesight correction is provided in the adapter. Turn Eyesight Correction Ring and adjust to suit your eyesight. Focusing is done in the usual manner by turning the Focusing Ring on the lens barrel.

Lens Hood

The lens hood wards off extraneous light and improves picture quality especially when photographing snow or beach scenes, in bright sunlight and strong reflected light.

54	mm	Slip-on	Square	type	for	50	mm	f/1.7
57	mm	Slip-on	Square	type	for	50	mm	f/1.4

Filters

Filters are invaluable for special photographic effects. Effective results can be obtained when photographing snow or beach scenes and under strong light. Exposure compensation is unnecessary when using filters on the TL series SLR cameras.

Filters Screw-in Type

For color and B/W film 52mm and 55mm

Without Filter

With Filter

For B/W film

Y1 Y2 – Yellow
O2 – Orange
R1 – Red
G1 – Green
B – Blue

For Color Film

1A
80B
81B
82A
85C

For Color + B/W Film

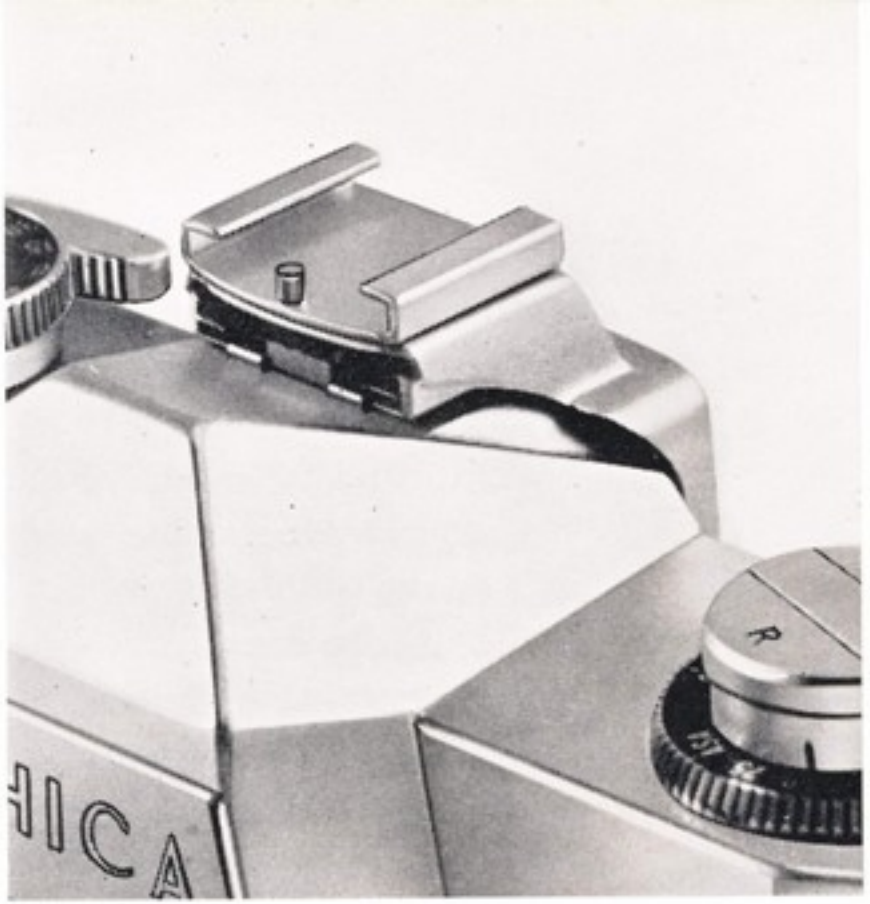
UV – Ultra Violet
ND2, ND4 – Neutral Density

Y1 Y2	:	Darkens the sky and accectuates white clouds.
O2	:	Reduces haze when photographing distant scenes.
R1	:	For aerial photography and with infra red film.
B	:	For special effects.
G1	:	For portraits, giving warmer tones to the skin.
1A	:	Cuts off excess blue which is prevalent during the summer months.
80B	:	For use with daylight type color film in artificial light.
81B	:	For photography in rain and overcast conditions.
82A	:	For morning and evening photography.
85C	:	For use with tungsten type color film in daylight.
UV	:	Absorbs ultra violet rays for clear pictures.

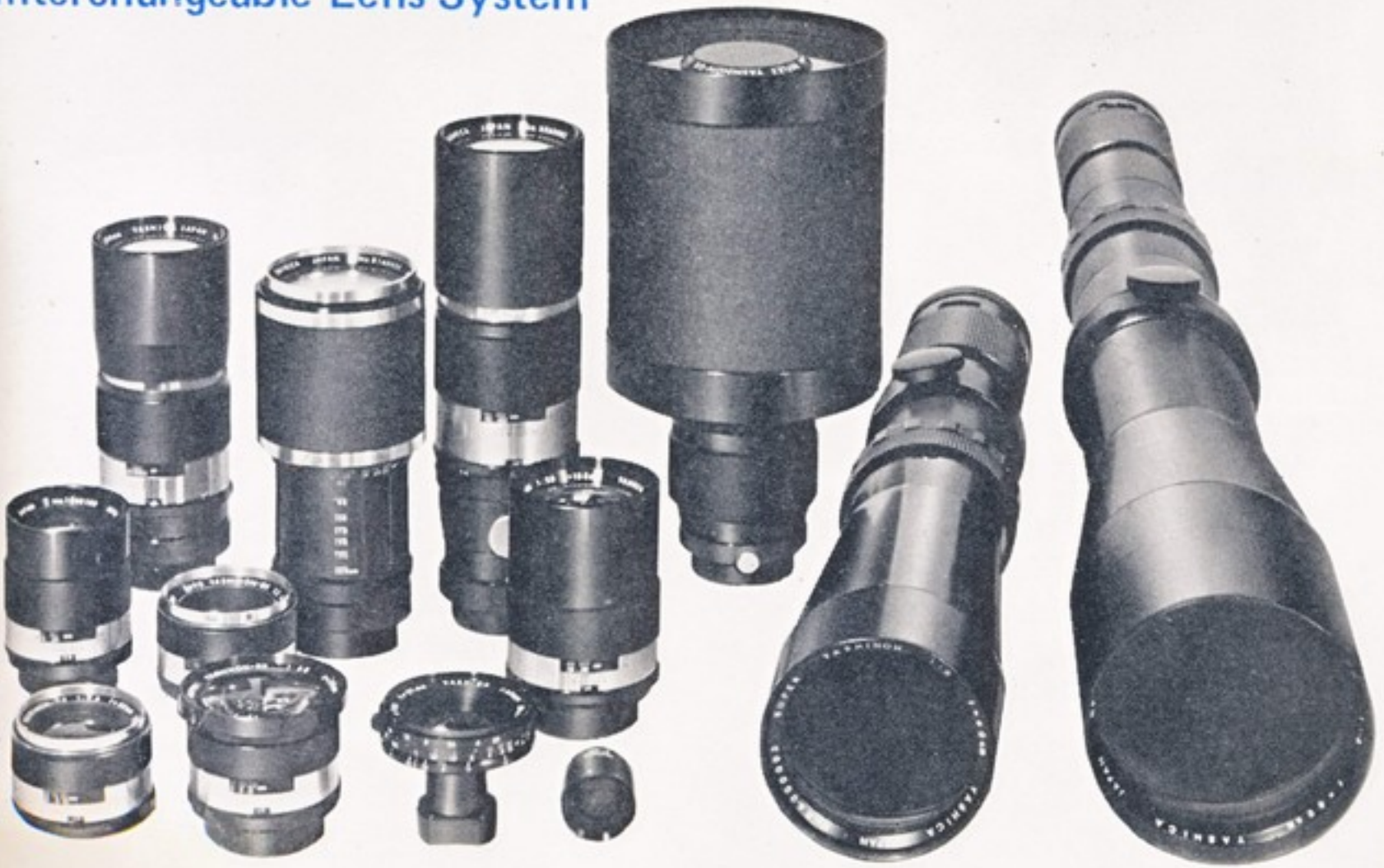
Accessory Shoe Adapter

The Accessory Shoe Adapter slips onto the viewfinder eyepiece, except the J series SLR cameras.

It is useful for attaching a flash unit or other accessories.



Interchangeable Lens System



The Yashinon series of lenses – Auto Yashinon-DX fully automatic and Super Yashinon preset – cover the most used range of focal lengths, from extreme wide-angle to super telephoto. The lenses are the result of continuous research by a team of Yashica engineers with the most advanced and expert optical knowledge.

The lenses are designed to give outstanding sharpness and corrected to fit the most exacting color requirements. Zoom lenses have been added to complete the SLR lens system.

Wide-Angle Lens

The wide-angle lens is indispensable for indoor photography, where the confining walls of a room make it difficult to get adequate coverage of room settings or groups of people. The extreme depth-of-field of the lens is such that you can set the focusing scale to the approximate distance of your subject, and be certain of overall sharpness.

The perspective of wide-angle lens close to the subject causes distinct and interesting distortions. An arm held out to the camera will look twice as long as it actually is.

Telephoto Lens

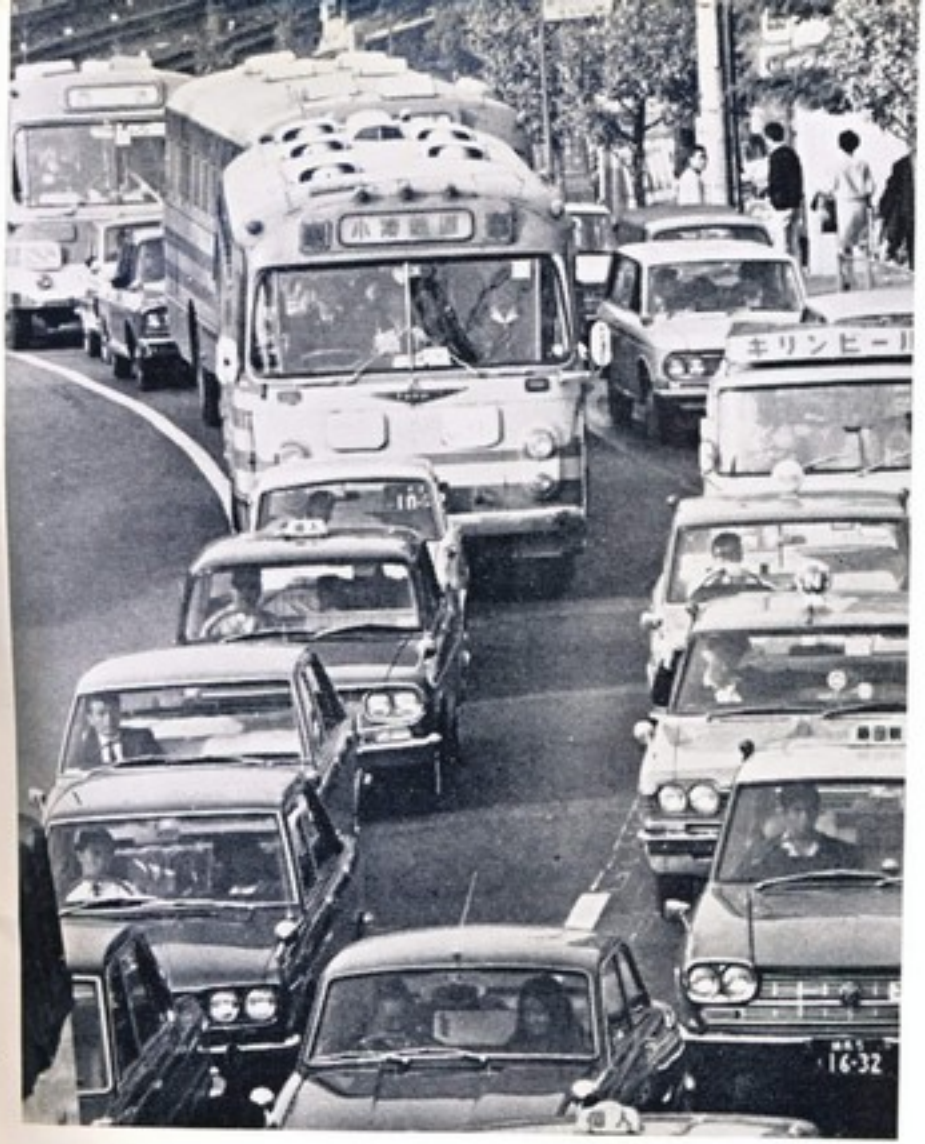
The telephoto lens gives increased image size with confined field of view, and constricted depth-of-field. Distant objects tend to be compressed and foreshortened. This collapsed field effect is especially noticeable in very long telephoto pictures. With medium telephoto lens, you can move back to fill the frame for an excellent portrait, and thus make the subject, especially children, less conscious of the camera.

Zoom Lens

Zoom Lens provides a wide range of different focal lengths in a single lens. All you do is focus and adjust the lens to the image size or area coverage you require. For unusual effects try zooming the lens steadily during a long exposure.

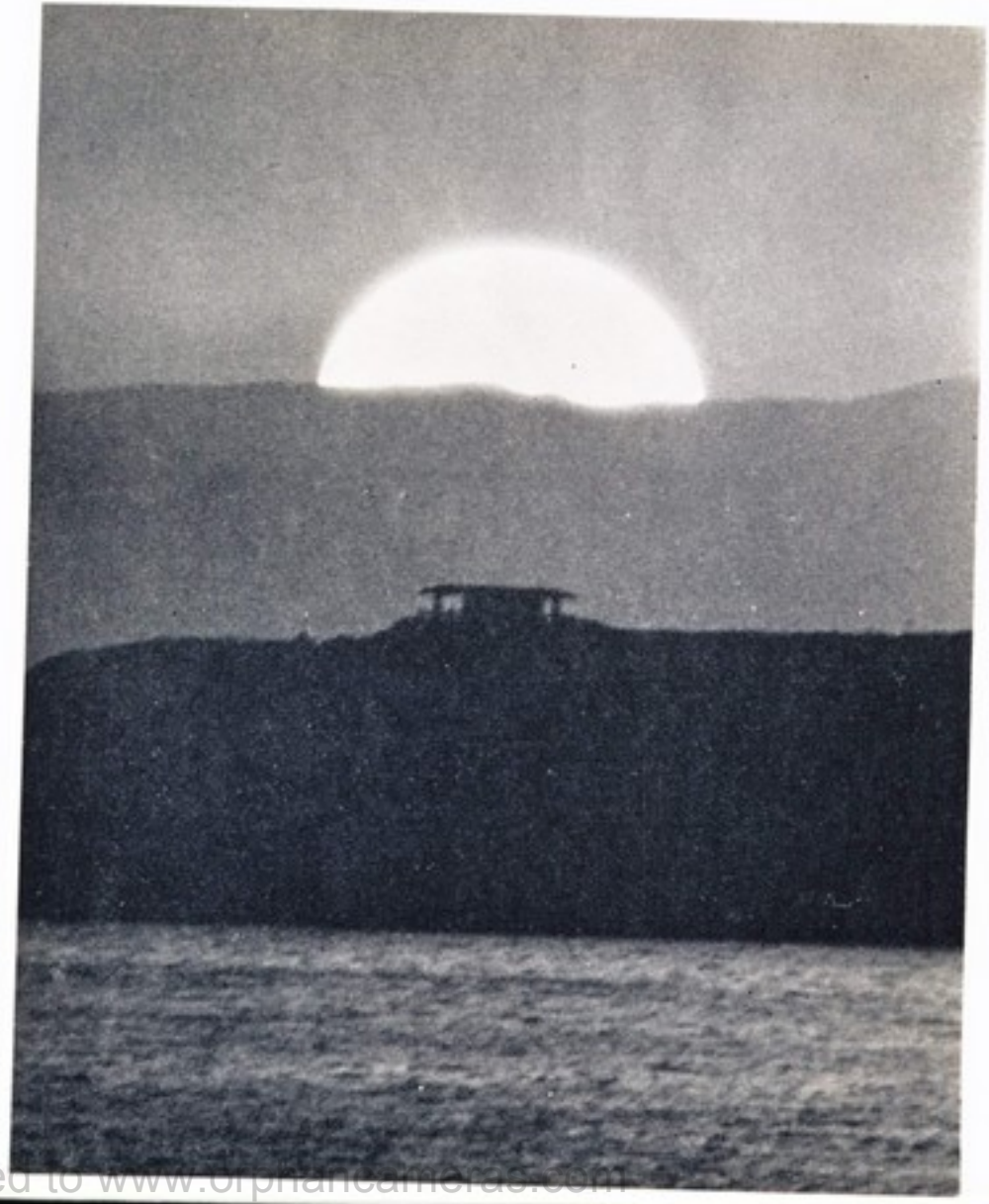
ultra-wide-angle 21mm lens

wide-angle 35mm lens

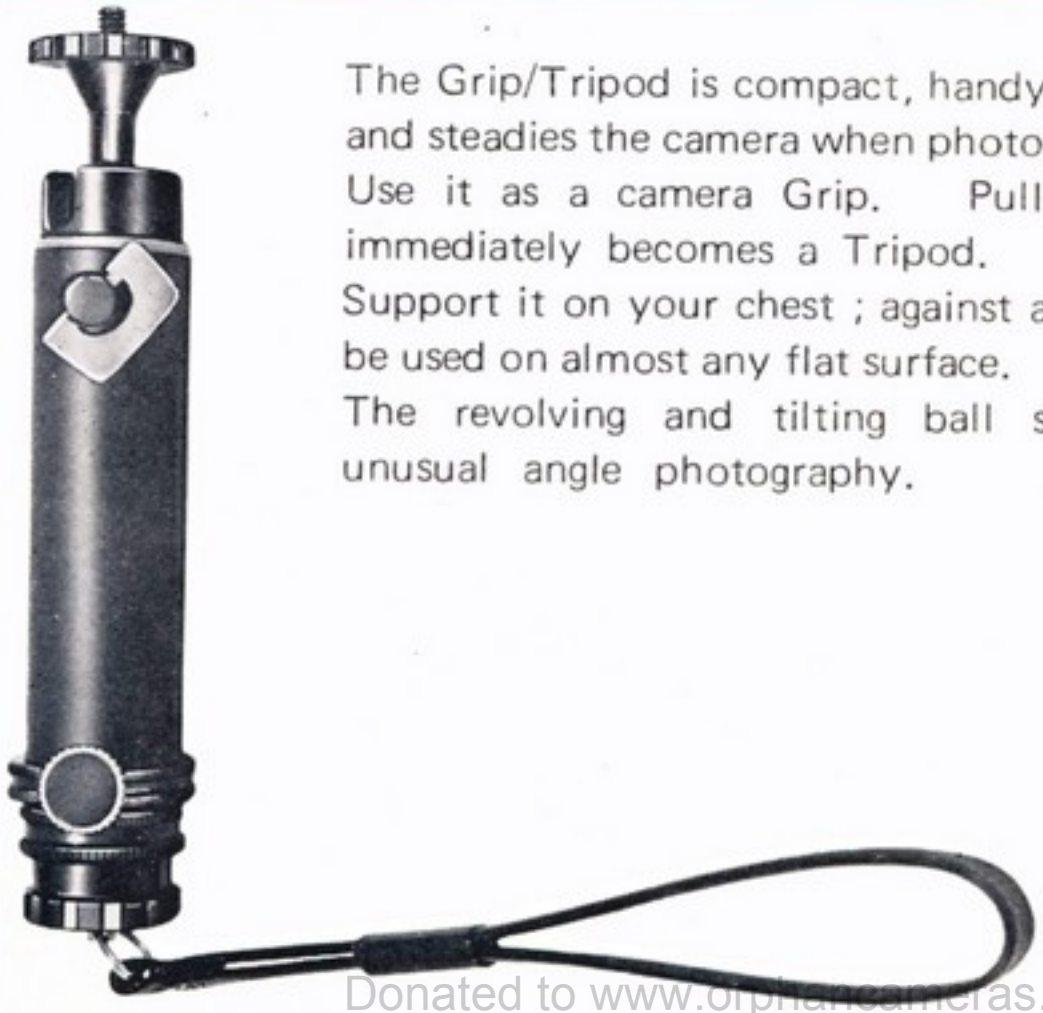


telephoto 200mm lens

Lens		Confi-guration	Field of View	Mount	Smallest Aperture	Aperture System
Ultra-Wide Angle	Yashinon DX 21mm F3.3	8 ele 5 group	92°	Screw-in	16	Manual
Wide-Angle	Auto Yashinon DX 28mm F2.8	8 ele 7 group	75°	"	16	Automatic
"	Auto Yashinon DX 35mm F2.8	6 ele 5 group	63°	"	16	Automatic
"	Super Yashinon DX 35mm F2.8	6 ele 5 group	63°	"	16	Pre-Set
Telephoto	Auto Yashinon DX 100mm F2.8	5 ele 4 group	24°	"	22	Automatic
"	Auto Yashinon DX 135mm F2.8	5 ele 4 group	18°	"	22	Automatic
"	Super Yashinon DX 135mm F2.8	5 ele 4 group	18°	"	22	Pre-Set
"	Auto Yashinon DX 200mm F 4	5 ele 4 group	12°	"	22	Automatic
"	Super Yashinon 200mm F4.5	4 ele 4 group	12°	"	22	Pre-Set
Ultra-Telephoto	Auto Yashinon DX 300mm F5.6	5 ele 4 group	8°10'	"	22	Automatic
"	Super Yashinon 300mm F5.5	4 ele 2 group	8°	"	32	Pre-Set
"	Reflex Yashinon DX 500mm F 5	6 ele 5 group	5°	"	Nil	No Diaphragm
"	Super Yashinon 600mm F 8	2 ele 1 group	4°	"	32	Pre-Set
Zoom	Auto Yashinon DX80–160mmF4	14 ele 10 group	31°7'–31°7' 15°10'		22	Automatic



Grip/Tripod ST-7

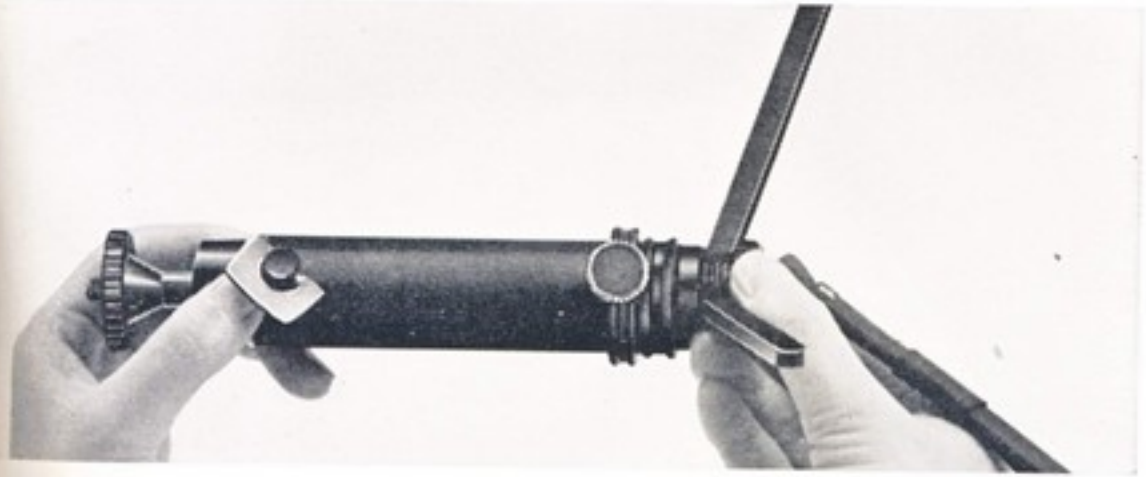


The Grip/Tripod is compact, handy, convenient to carry, and steadies the camera when photographing.

Use it as a camera Grip. Pull out the legs and it immediately becomes a Tripod.

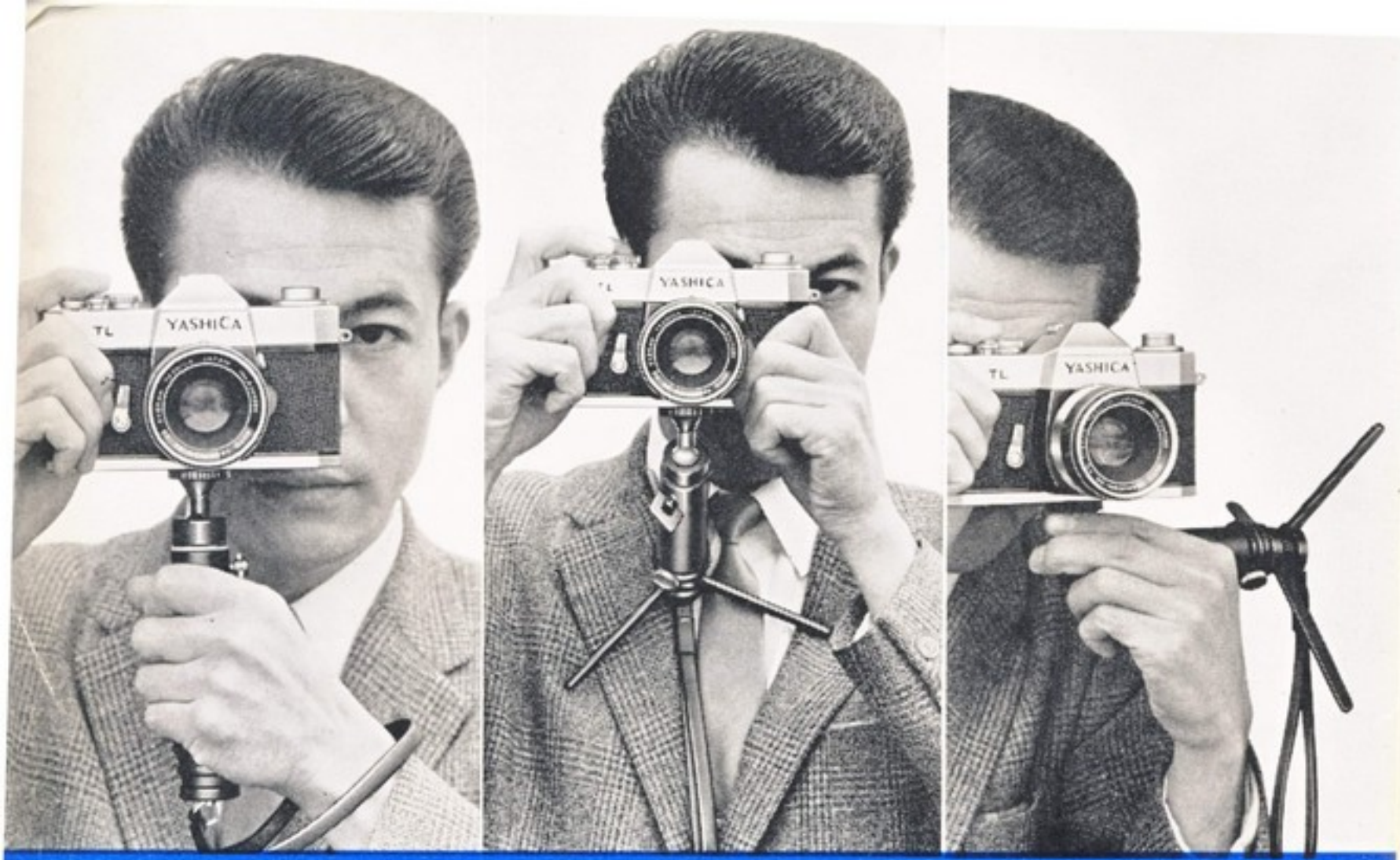
Support it on your chest ; against a wall or door ; it can be used on almost any flat surface.

The revolving and tilting ball socket head permits unusual angle photography.



Camera Grip converts into a Tripod.

1. Unscrew base knob and take out tripod legs.
2. Fold out tripod legs, and screw base knob back into grip base.



40 As a camera grip Support it on the chest Against a wall

MEMO

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