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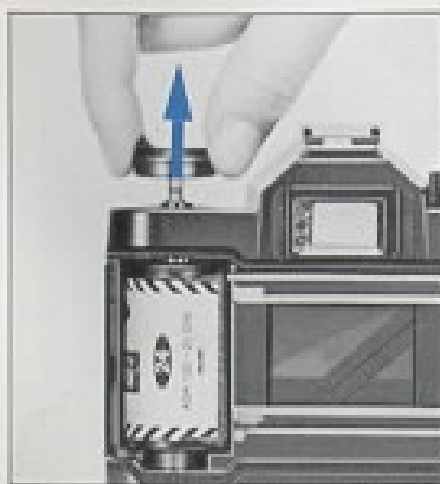
14



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www.butkus.org

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LENS
OPENINGS

SPEEDS

LIGHT
VALUES

22

16

11

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5.6

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2.8



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ASA	Shutter Speeds Verschlußzeiten										Vitesses d'obturation Velocidades de obturador													
25										2	4	8	15	30	60	125	250	500	700					
32									2	4	8	15	30	60	125	250	500	700						
40								2	4	8	15	30	60	125	250	500	700							
50							2	4	8	15	30	60	125	250	500	700								
64						2	4	8	15	30	60	125	250	500	700									
80					2	4	8	15	30	60	125	250	500	700										
100				2	4	8	15	30	60	125	250	500	700											
125			2	4	8	15	30	60	125	250	500	700												
160		2	4	8	15	30	60	125	250	500	700													
200		2	4	8	15	30	60	125	250	500	700													
400	2	4	8	15	30	60	125	250	500	700														
800	4	8	15	30	60	125	250	500	700															
1600	8	15	30	60	125	250	500	700																
3200	15	30	60	125	250	500	700																	

FUJINON INTERCHANGEABLE LENSES FOR THE FUJICA ST605N

① Classification	① Designation EBC FUJINON * Non EBC			② Composition		③ Angle of view	④ Diaphragm		⑤ Minimum focusing distance		⑥ Weight (gr.)	⑦ Hood	⑧ Filter (mm)
				④ Components	④ Elements		④ Aperture control	④ Minimum aperture	⑤ Meter	⑤ Feet			
② Fish-eye	F	1:2.8	16mm	8	12	180°	④ Automatic	22	0.25	0.8	425	⑦ Built-in	⑧ 4 built-in filters
③ Super wideangle	W	1:3.5	19mm	8	11	95°55'	Automatic	22	0.3	1	264	⑦ Screw-in	72 φ
④ Wideangle	W	1:2.8	24mm	8	9	84°	Automatic	16	0.3	1	175	⑦ Fit-on	49 φ
	W	1:3.5	28mm	7	7	74°	Automatic	16	0.4	1.3	184	Fit-on	49 φ
	W	1:1.9	35mm	6	8	62°44'	Automatic	16	0.4	1.3	230	Screw-in	49 φ
	W	1:2.8	35mm	6	7	62°36'	Automatic	16	0.4	1.4	185	Screw-in	49 φ
	W	*1:3.5	35mm	4	4	63°24'	Automatic	16	0.4	1.4	140		49 φ
⑤ Standard		1:1.4	50mm	6	7	45°22'	Automatic	16	0.45	1.5	270	Screw-in	49 φ
		*1:1.4	50mm	6	7	45°22'	Automatic	16	0.45	1.5	270	Screw-in	49 φ
		1:1.8	55mm	4	6	42°10'	Automatic	16	0.45	1.5	200	Screw-in	49 φ
		*1:1.8	55mm	4	6	42°10'	Automatic	16	0.45	1.5	200	Screw-in	49 φ
		*1:2.2	55mm	4	4	42°10'	Automatic	16	0.6	2	144	Screw-in	49 φ
⑥ Macro	M	1:3.5	55mm	4	5	42°45'	Automatic	32	0.241	0.8	205	Screw-in	49 φ
⑦ Soft focus	SF	1:4	85mm	4	4	28°34'	Automatic	16	1.0	3.5	285	Screw-in	49 φ
⑧ Telephoto	T	1:2.8	100mm	4	5	24°24'	Automatic	22	1.2	4	254	Screw-in	49 φ
	T	1:2.5	135mm	4	5	18°09'	Automatic	22	1.5	5	432	Screw-in	58 φ
	T	1:3.5	135mm	4	4	18°13'	Automatic	22	1.5	5	300	Screw-in	49 φ
	T	1:4.5	200mm	5	5	12°20'	Automatic	22	2.5	8.2	489	Built-in	49 φ
	T	1:4.5	400mm	4	5	6°11'	④ Manual	45	8	26	1925	Built-in	49 φ
⑨ Super telephoto	T	1:5.6	600mm	4	5	4°07'	Manual	45	12.5	40	3000	Built-in	49 φ
⑩ Zoom	Z	*1:3.5-1:4.5	43-75mm	7	7	53°30' - 32°6'	Automatic	22	1.2	4	300		49 φ
	Z	1:4.5	75-150mm	10	12	32°16' - 16°23'	Automatic	22	1.8	6	748	Built-in	62 φ
	Z	1:4.5	54-270mm	12	15	43°43' - 9°11'	Automatic	22	2.5	8.2	1464	Built-in	82 φ

Fig. 7

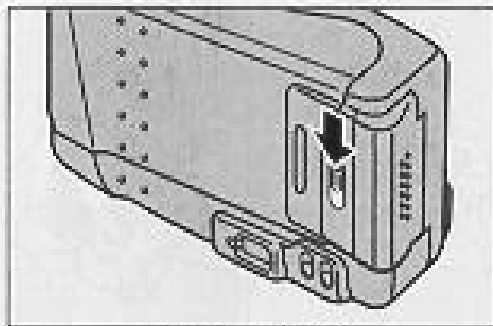


Fig. 8

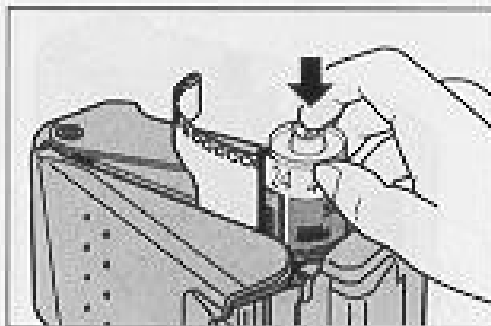


Fig. 9

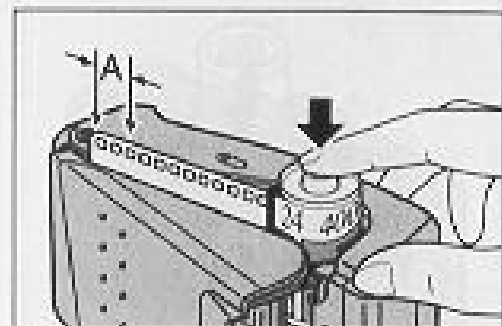


Fig. 10



Fig. 11

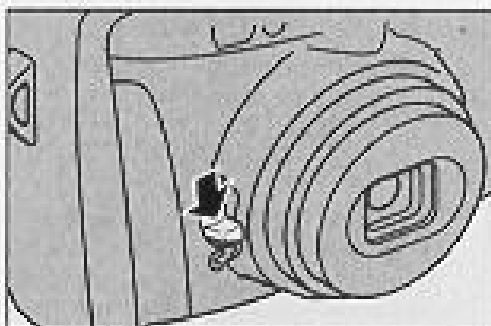


Fig. 12

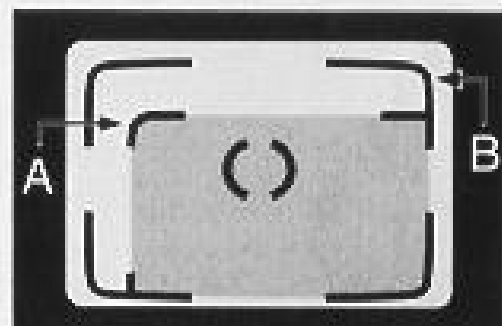


Fig. 13

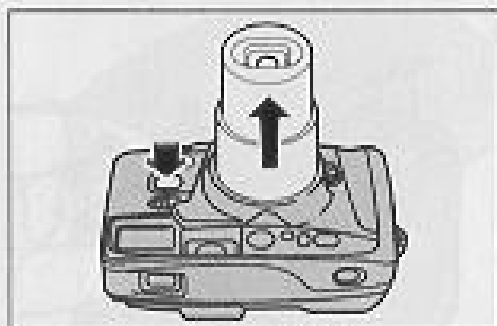


Fig. 14

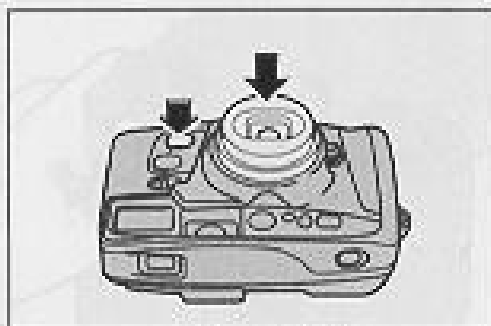


Fig. 15

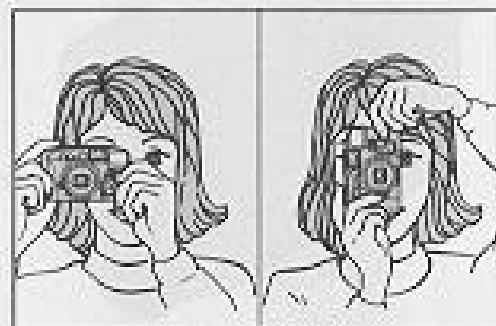


Fig. 16



Fig. 17

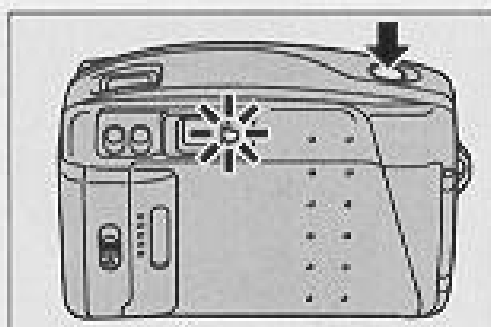


Fig. 18

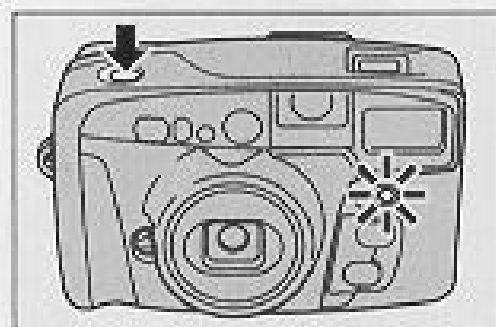


Fig. 19

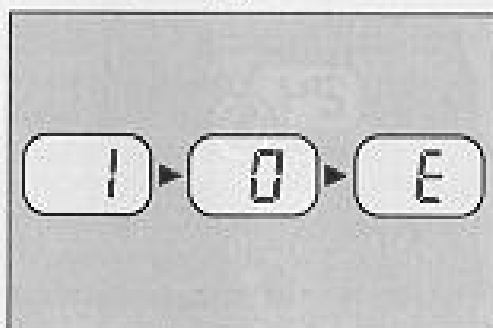


Fig. 20

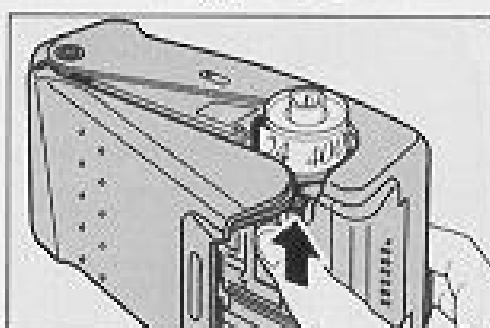


Fig. 21

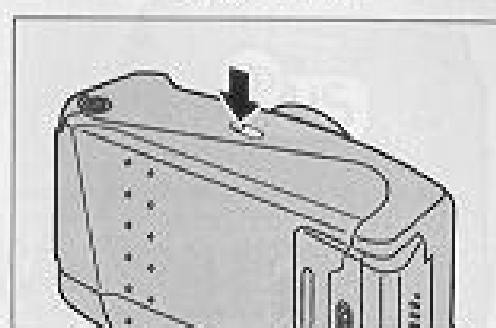


Fig. 22



Fig. 23



Fig. 24

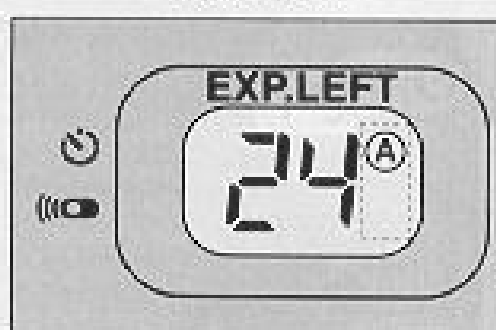


Fig. 25

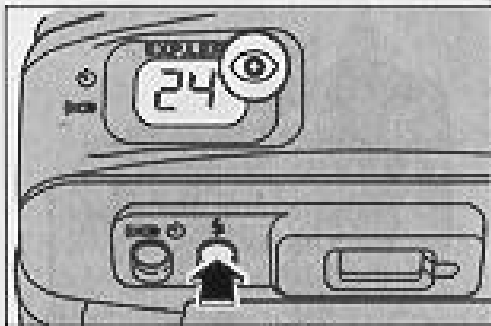


Fig. 26

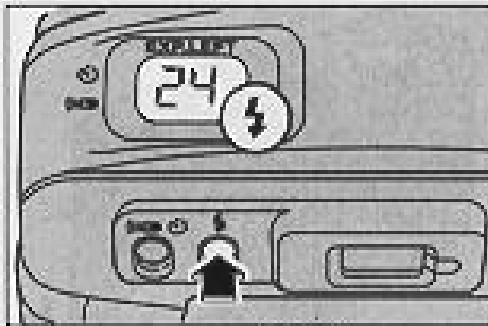


Fig. 27

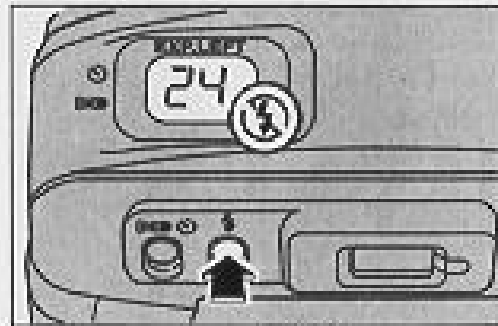


Fig. 28



Fig. 29

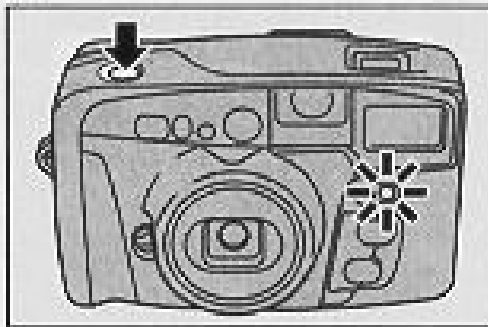


Fig. 30

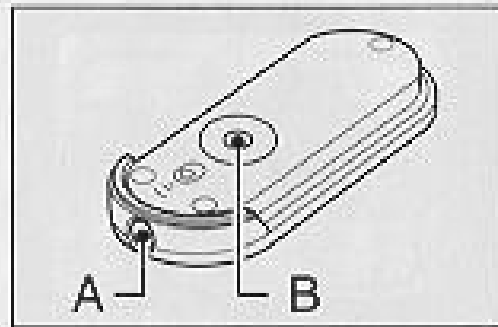


Fig. 31

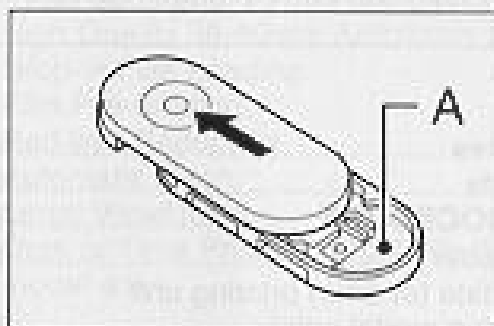


Fig. 32

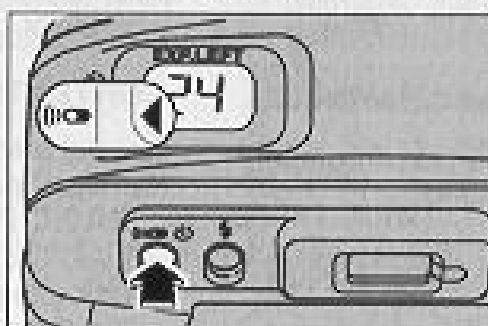


Fig. 33

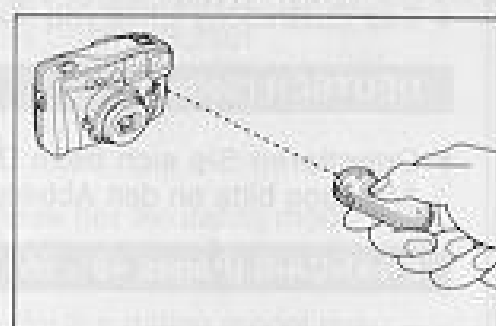


Fig. 34

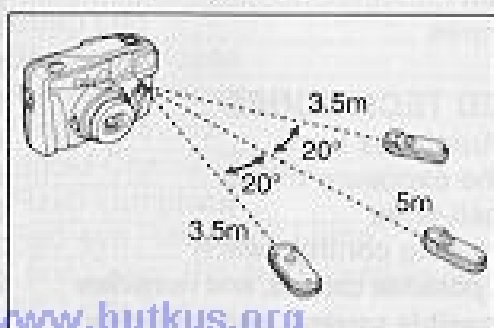
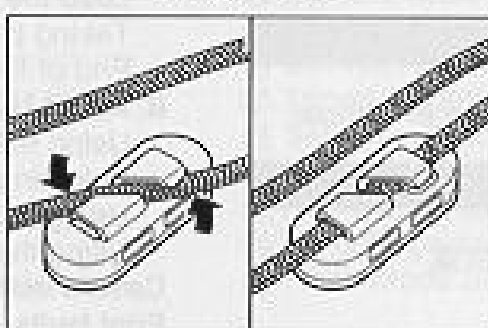


Fig. 35



Konica X-24 Automatic Electronic Flash

ISO/ASA	25	50	100	200	400	800	1600	3200
+2								
+ (+1 2/3)								
+ (+1 1/3)								
+1								
+ (+2/3)								
+ (+1/3)								
0								
+ (-1/3)								
+ (-2/3)								
-1								
+ (-1 1/3)								
+ (-1 2/3)								
-2								

Konica X-36 Automatic Electronic Flash

ISO/ASA	25	50	100	200	400	800	1600	3200
+2								
• (+1 3/4)								
• (+1 1/2)								
+1								
• (+2/3)								
• (+1/3)								
0								
• (-1/3)								
• (-2/3)								
-1								
• (-1 1/4)								
• (-1 1/2)								

Nomenclature of Parts

- 
- (1) ASA Film Speed Indicator Window
 - (2) ASA Film Speed Dial
 - (3) Shutter Speed Dial
 - (4) Shutter Release Lock Lever
 - (5) Shutter Release Button
 - (6) Shutter Speed Scale
 - (7) Self-Timer Switch/LED
 - (8) Distance/Aperture Scale Index Mark
 - (9) Battery Chamber (Power Grip)
 - (10) Focusing Ring
 - (11) Distance Scale
 - (12) Depth-of-Field Scale
 - (13) Hexanon Lens
 - (14) AE Release Button
 - (15) Shutter Speed Index Mark
 - (16) Hot Shoe Clip (X) Synk
 - (17) AE Position
 - (18) Manual Aperture Selection Scale
 - (19) Aperture Control Ring
 - (20) Film Rewind Crank
 - (21) Film Rewind Knob
 - (22) Flash Socket (X) Synk
 - (23) Accessory Terminal Connector
 - (24) Strap Eyelet
 - (25) Lens Mounting/Index Mark
 - (26) Lens Lock Release Button

Nomenclature of Parts

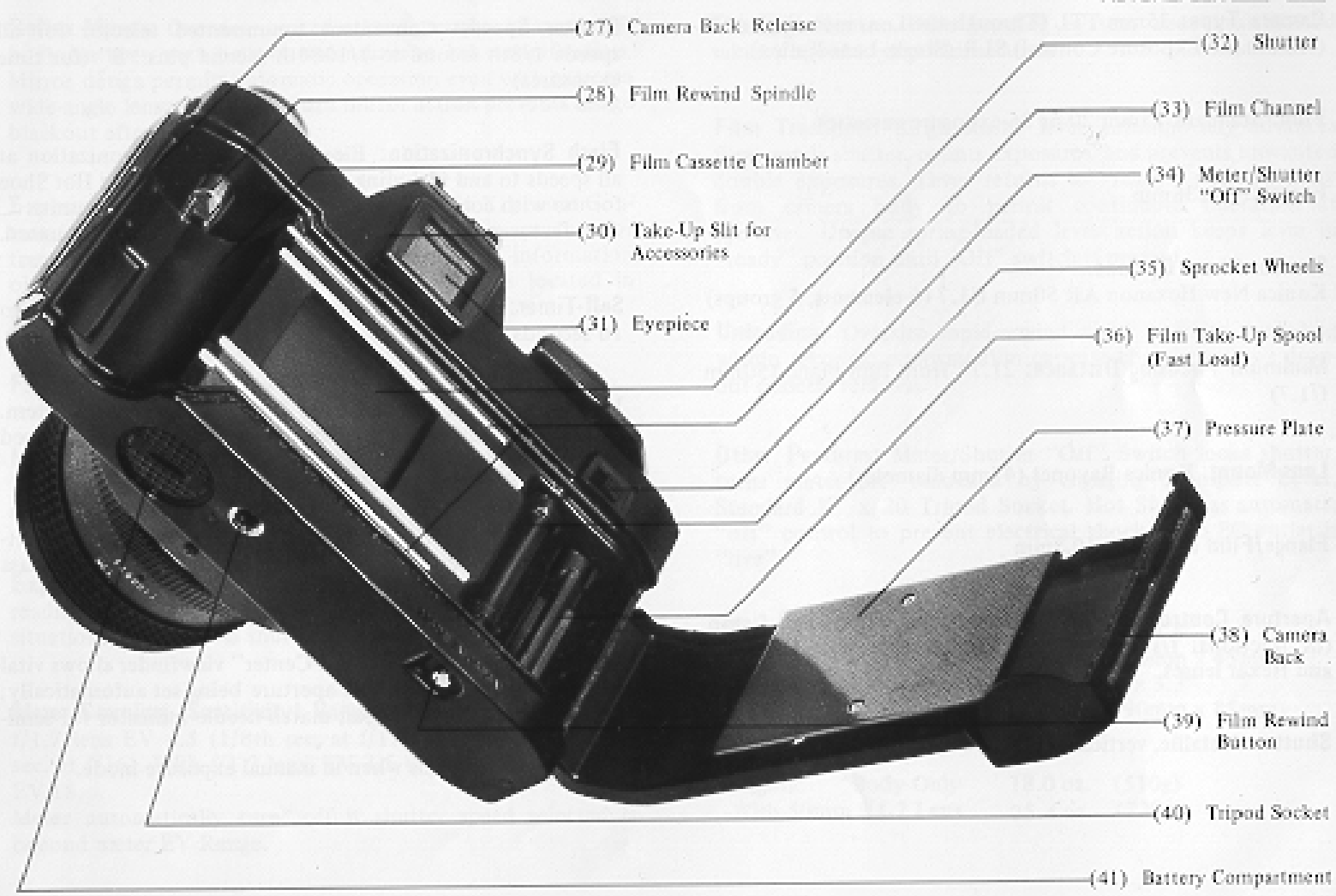




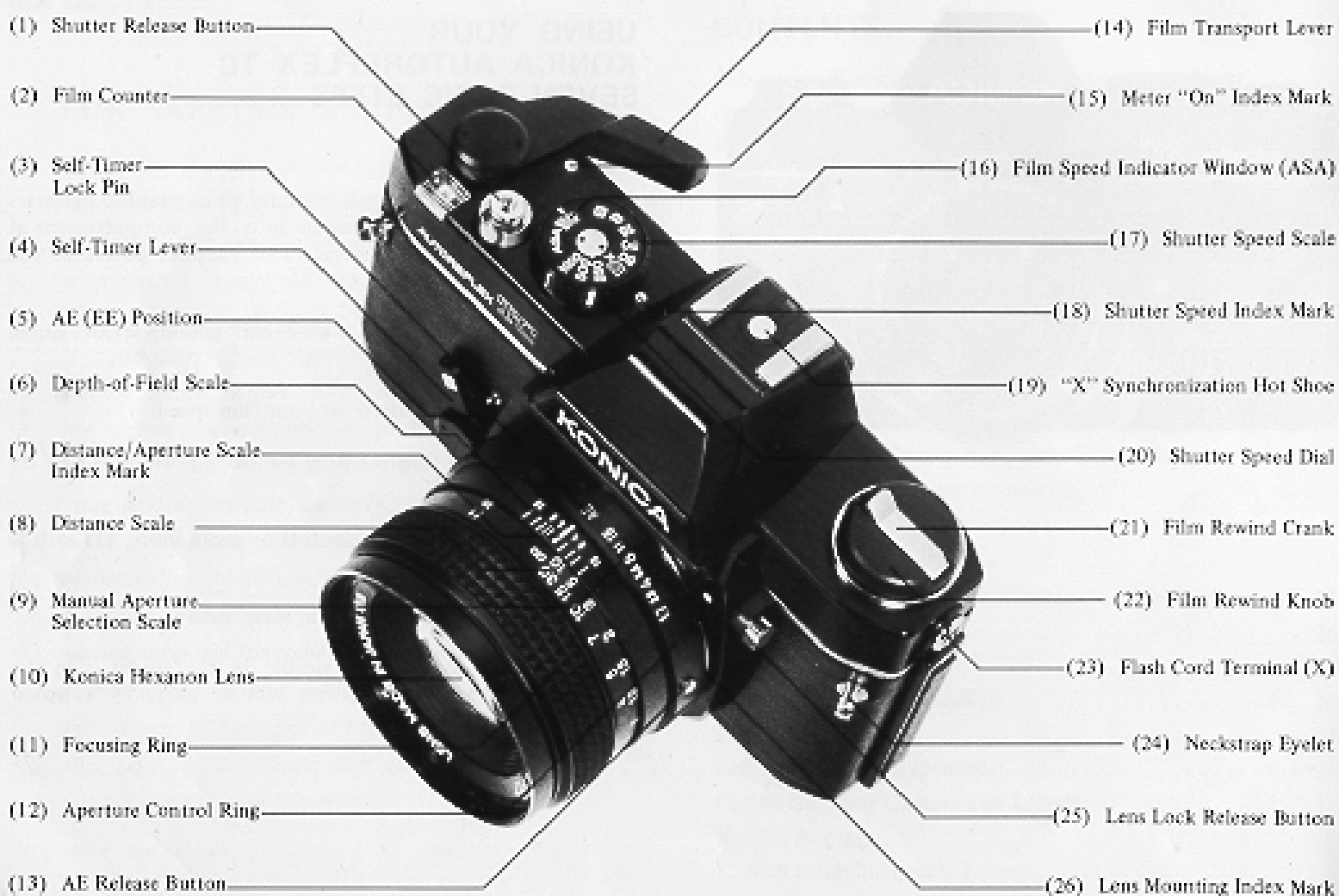
Konica Color SR 100

Film speed reading ISO/DIN comparison table

ISO/ASA	50	•	•	100	•	•	200	•	•	400	•	•	800	•	•	1600
	┐	┐		┐	┐		┐	┐		┐	┐		┐	┐		
	64	80		125	160		250	320		500	640		1000	1250		
DIN	18	•	•	21	•	•	24	•	•	27	•	•	30	•	•	33
	┐	┐		┐	┐		┐	┐		┐	┐		┐	┐		
	19	20		22	23		25	26		28	29		31	32		



OPERATING CONTROLS





Left Hand Release Switch

This unique device attaches to the accessory terminal of the Konica FP-1 allowing you to release the shutter with your left hand while focusing with your right hand.



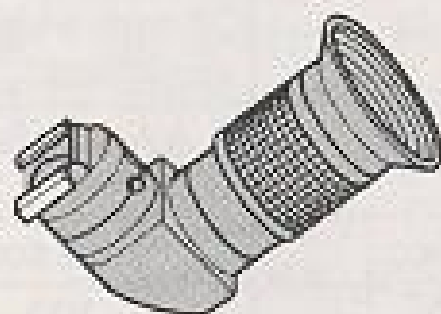
Cable Switch

When this switch is connected to the terminal of the camera, it is possible to trip the shutter by operating the hand-held switch. This switch is useful for close-ups, telephoto shots.



Close-up Lens 55φ

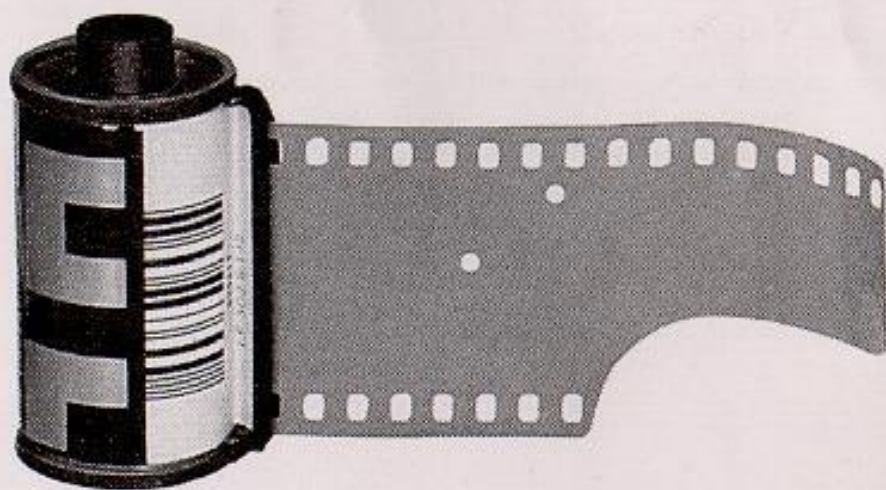
This lens permits AE close-up simply by screwing it onto the front of the lens and mounting it in place. This is a standard 40 mm lens and it allows close-ups ranging from about 45 cm (18 in.) down to 27 cm (10.8 in.).

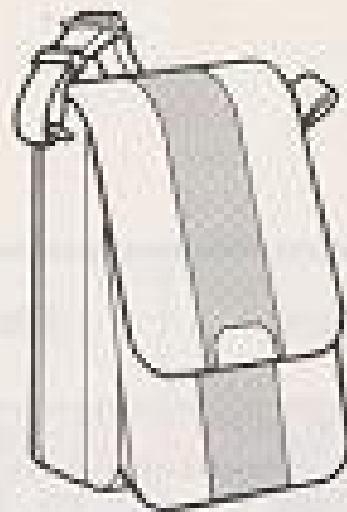


Angle-Magnifier

This accessory makes it possible to look into the viewfinder from above the

DX Symbol

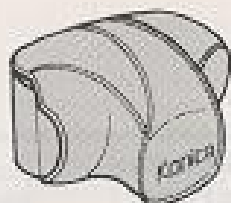




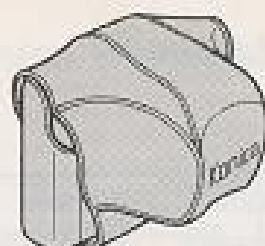
Design Case This smartly designed case in two tone brown/beige simulated suede, provides superb flexibility for use as a shoulder case or belt case.



Carrying Bag This functional bag holds the Konica FP-1 camera plus standard lens. Konica X-18 Auto flash, accessory, lenses and several roll of film.



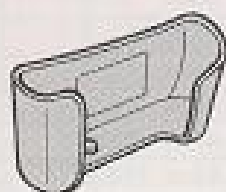
**Camera Case for
standard lens**



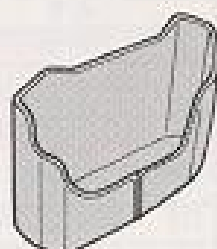
Camera Case for Auto-Winder F



**Lens
Soft Case
No. 50**



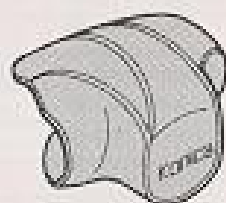
Camera Case Body



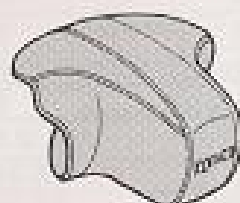
Camera Case Body for Auto-Winder F



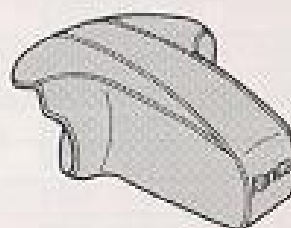
**Lens
Soft Case
No. 135**



**Front Cover Type S
for 50 mm/f1.4**



**Front Cover Type M
for 15, 24, 28, 35,
57, 85, 100 mm**

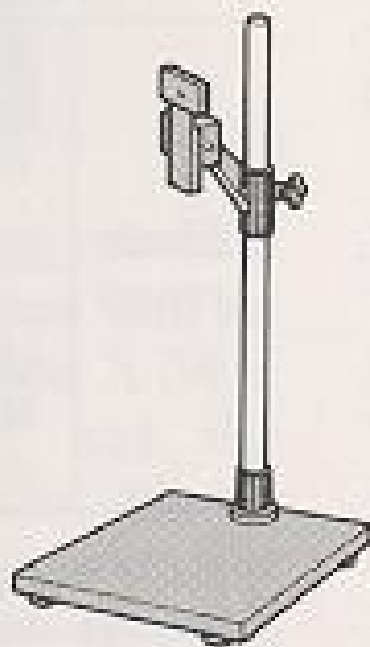


**Front Cover Type L
for 135, 200 mm
zoom 35-70, 45-100,
70-150 mm**



**Lens
Soft Case
No. 300**

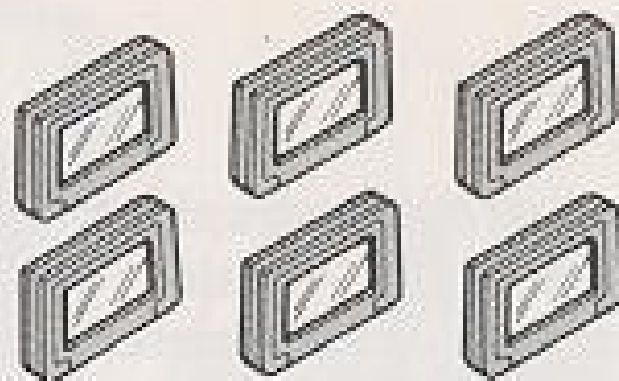
camera and it comes in handy when pictures are to be taken at a low level photography. Furthermore, when the lever is rotated, the image in the center of the viewfinder is enlarged two-fold.



Copy Stand 2

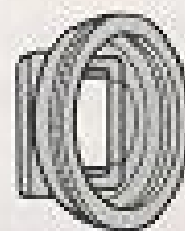
The copy stand is quite handy in copying illustrations and documents which are smaller than $10\text{-}5/8" \times 13\text{-}3/4"$ in

www.formatus.org



Eyesight Correction Lens 2

Corrects viewfinder optics to prescription requirements; vastly aids viewing/focusing comfort, accuracy. +1, +2, and +3 diopter lenses for farsighted persons; -1, -2, and -3 for nearsighted persons.



Eyecup 2

Large, soft rubber eyecup shields meter, eye from extraneous light, aids concentration. Eyecup folds down for eyeglass wearers.

Hexanon AR Exchangeable Lenses



X-18
Auto
Flash



Auto-Winder F



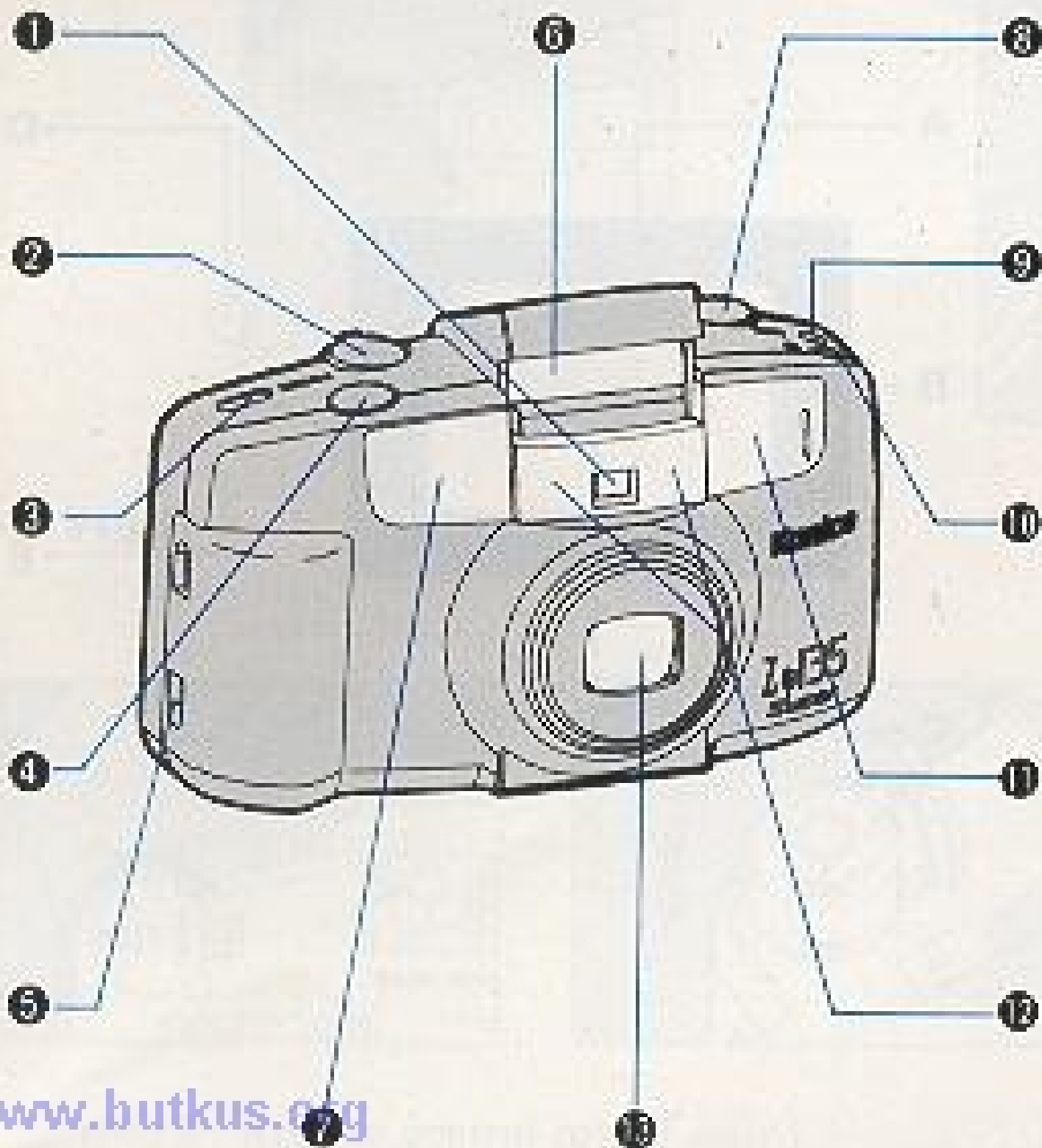
Auto-Winder F &
Radio Controller Set

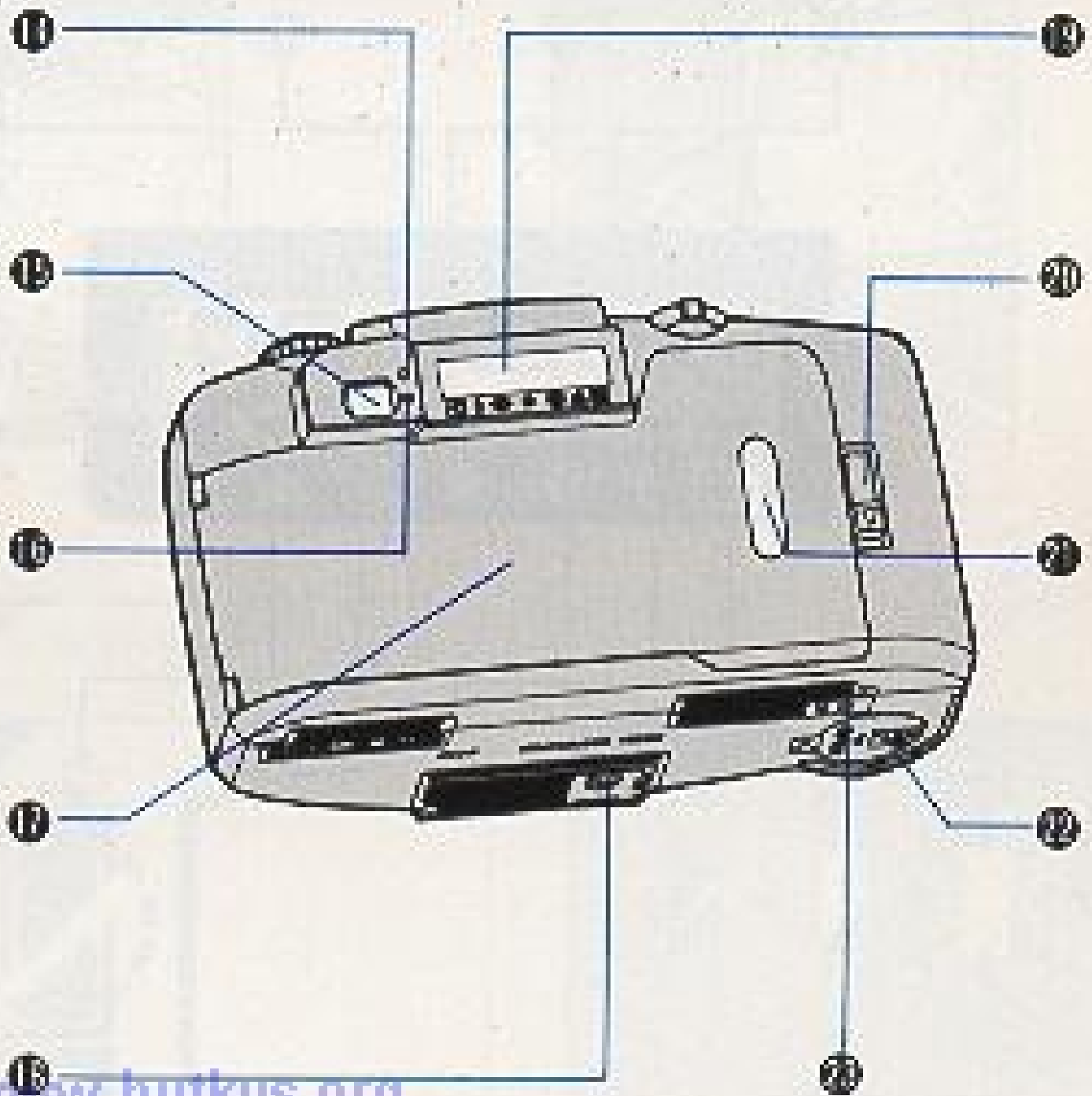


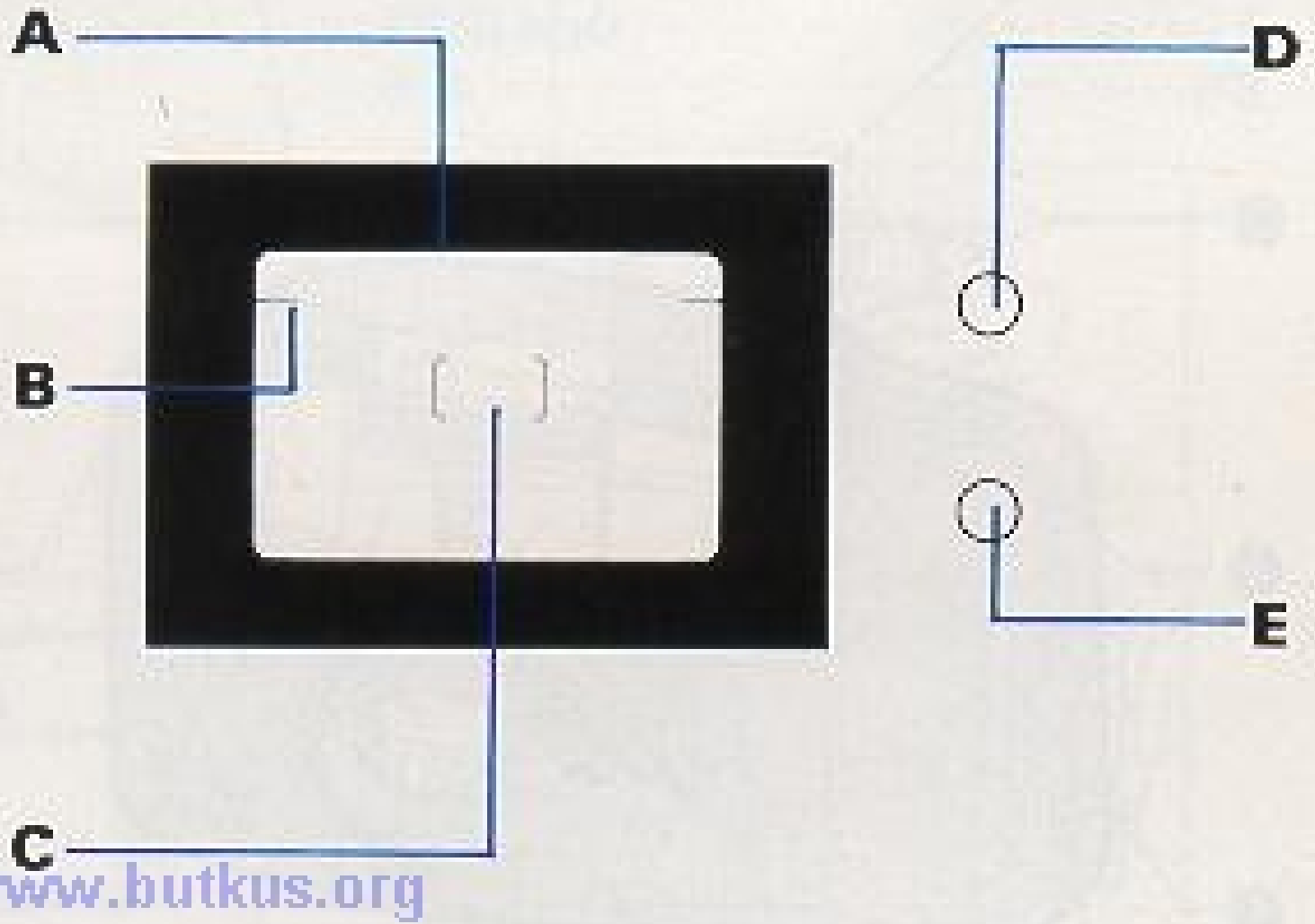
KONICA CORPORATION.

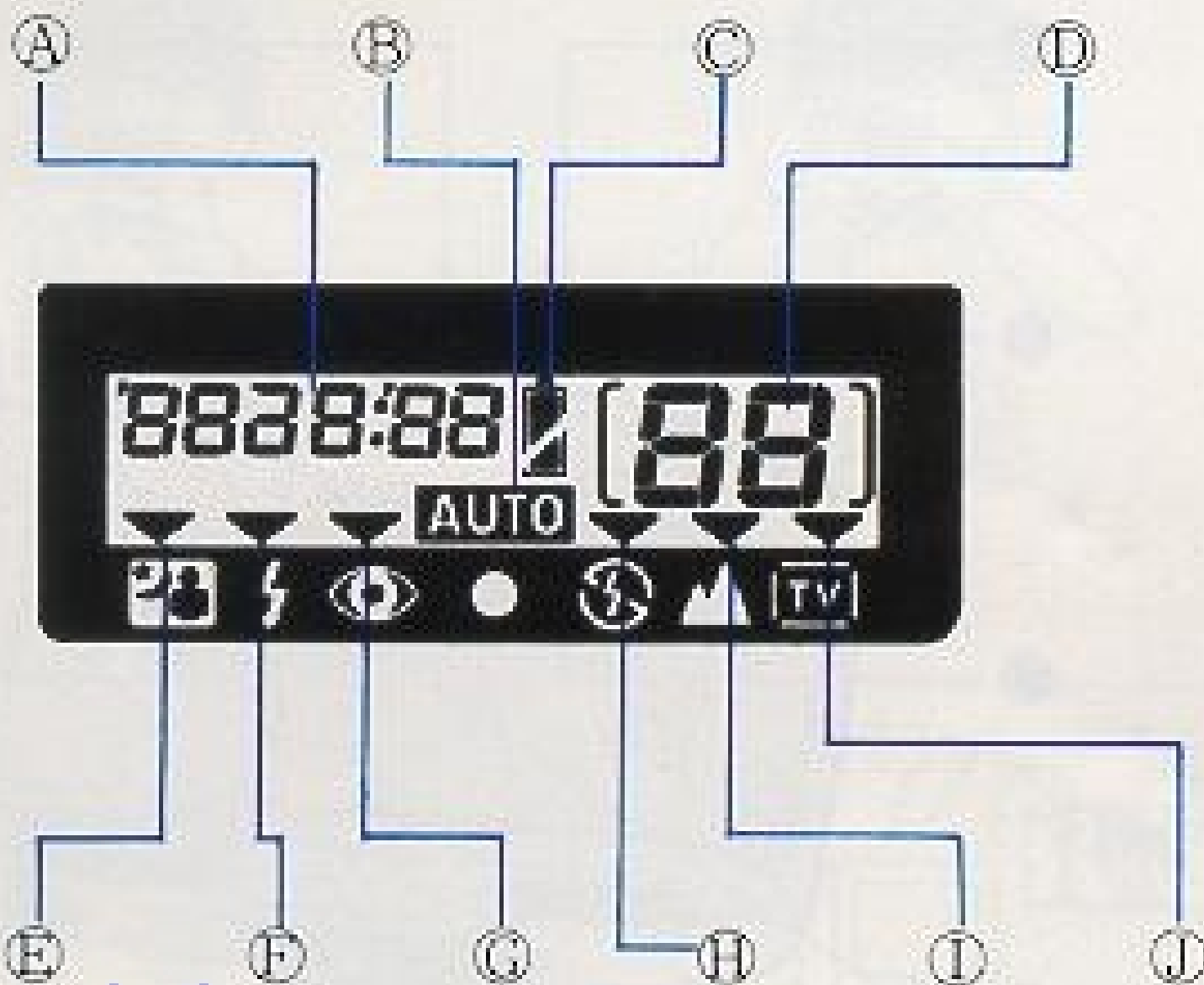
25-20 Brooklyn-Queens Expwy.
West Woodside, NY 11377
3400 E. 70th Street,
Long Beach,
CA90805

 KONISHIROKU









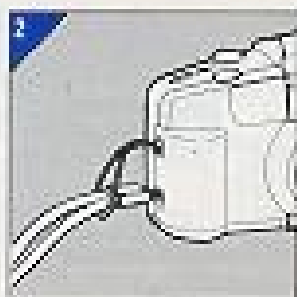
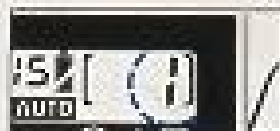
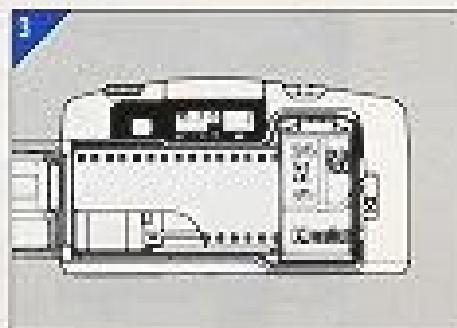
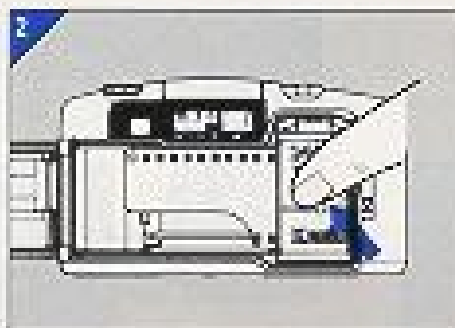
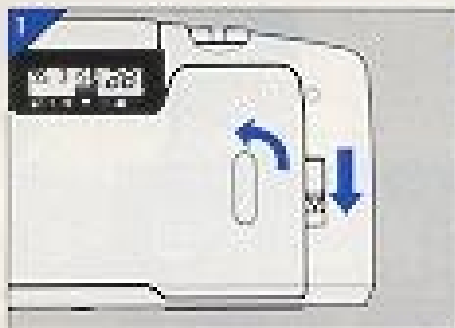


Fig.8





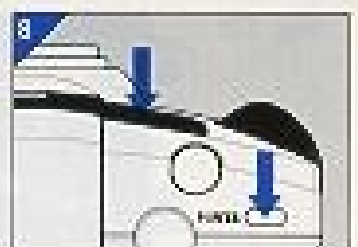
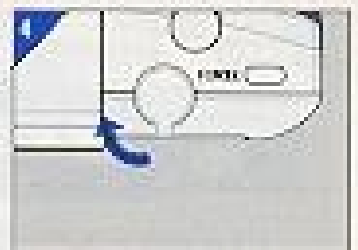
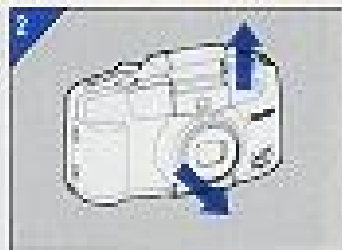
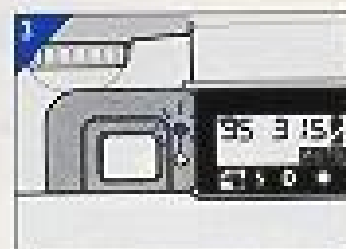
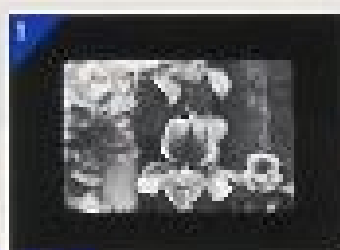




Fig.13



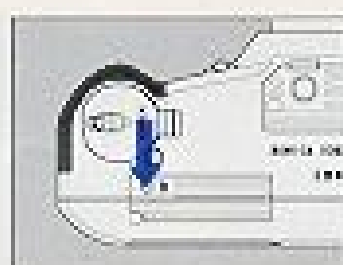


Fig. 17



AUTO



TV

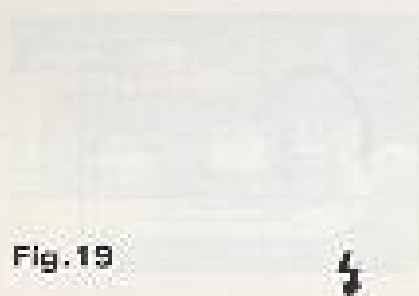


Fig.19

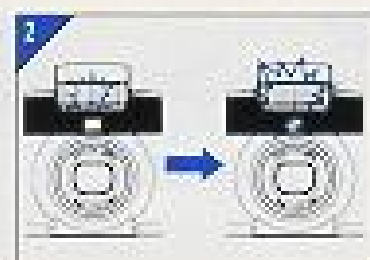




Fig.21

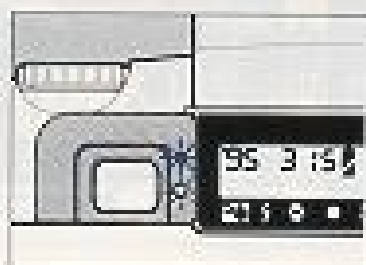




Fig.24



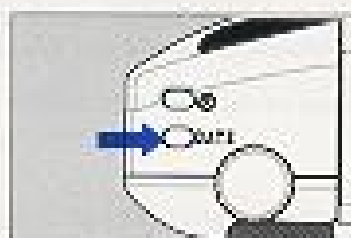
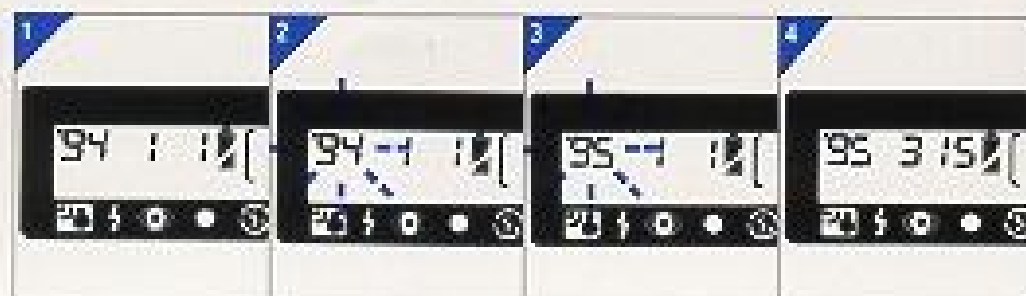


Fig.26





	Focal Length	Apertures Max. - Min.	Construction Elements/Groups	Angle of View	Min. Focus from Film Plane	Length	Max. Diameter	Weight	Filter	Lens Hood
Fish-Eye	15mm UC	f/2.8 - f/16	10/7	180°	0.15m (6.0')	60mm (2.4')	70mm (2.8')	395g (13.9 oz.)	Built-in	Built-in
Extreme Wide	21mm	f/2.8 - f/22	9/8	92°	0.2m (8.0')	39mm (1.5')	63mm (2.5')	215g (7.6 oz.)	55mm	Incl.
	New 24mm	f/2.8 - f/22	8/8	84°	0.25m (10.0')	36mm (1.4')	63mm (2.5')	205g (7.2 oz.)	55mm	Avail.
Wide	28mm UC	f/1.8 - f/16	8/8	75°	0.18m (7.0')	63mm (2.5')	66mm (2.6')	380g (13.4 oz.)	55mm	Incl.
	28mm	f/3.5 - f/22	5/5	75°	0.3m (12.0')	36mm (1.4')	63mm (2.5')	175g (6.2 oz.)	55mm	Incl.
	35mm	f/2.0 - f/16	9/7	63°	0.3m (12.0')	57mm (2.2')	65mm (2.6')	320g (11.3 oz.)	55mm	Incl.
	New 35mm	f/2.8 - f/22	6/5	63°	0.3m (12.0')	38mm (1.5')	63mm (2.5')	200g (7.1 oz.)	55mm	Avail.
Standard	40mm	f/1.8 - f/22	6/5	56°	0.45m (18.0')	27mm (1.1')	63mm (2.5')	140g (4.9 oz.)	55mm	Avail.
	50mm	f/1.4 - f/22	7/6	46°	0.45m (18.0')	45mm (1.8')	63mm (2.5')	265g (9.3 oz.)	55mm	Avail.
	50mm	f/1.7 - f/16	6/5	46°	0.55m (22.0')	33mm (1.3')	63mm (2.5')	210g (7.4 oz.)	55mm	Avail.
	50mm	f/1.8 - f/22	6/5	46°	0.55m (22.0')	33mm (1.3')	63mm (2.5')	175g (6.2 oz.)	55mm	Avail.
	57mm	f/1.2 - f/16	7/6	42°	0.45m (18.0')	50mm (2.0')	72mm (2.8')	460g (16.2 oz.)	62mm	Avail.
Telephoto	85mm	f/1.8 - f/16	6/5	28.5°	1m (40.0')	67mm (2.6')	65mm (2.6')	390g (13.8 oz.)	55mm	Incl.
	100mm	f/2.8 - f/16	5/4	24°	1m (40.0')	62mm (2.4')	63mm (2.5')	290g (10.2 oz.)	55mm	Incl.
	135mm	f/2.5 - f/16	4/4	18°	1.2m (48.0')	96mm (3.8')	69mm (2.7')	650g (22.9 oz.)	62mm	Built-in
	135mm	f/3.5 - f/22	4/4	18°	1.5m (60.0')	82mm (3.3')	63mm (2.5')	315g (11.1 oz.)	55mm	Built-in
	200mm	f/4.0 - f/22	5/5	12°	2.5m (10.0')	121mm (4.8')	65mm (2.6')	515g (18.2 oz.)	55mm	Built-in
	300mm	f/4.5 - f/16	8/5	8°	4m (13.0')	168mm (6.7')	80mm (3.2')	965g (34.0 oz.)	72mm	Built-in
	300mm	f/6.3 - f/22	9/5	8°	4.5m (15.0')	146mm (5.8')	65mm (2.6')	560g (19.8 oz.)	55mm	Built-in
Ultra Telephoto	400mm UC	f/5.6 - f/45	9/5	6°	4m (13.0')	217mm (8.6')	83mm (3.3')	1,600g (3.5 lbs.)	77mm	Built-in
	1000mm ★	f/8.0 - f/22	7/6	2.5°	25m (82.0')	465mm (18.2')	200mm (8.0')	8,500g (18.7 lbs.)	55mm	—
Zoom	35-70mm	f/3.5 - f/22	9/9	63-34°	0.35m (14.0')	96.5mm (3.9')	67mm (2.6')	470g (16.6 oz.)	62mm	Incl.
	45-100mm UC	f/3.5 - f/16	11/10	52-24°	0.35m (14.0')	85mm (3.4')	70mm (2.8')	570g (20.1 oz.)	55mm	Built-in
	70-150mm	f/4.0 - f/22	15/12	34-16°	0.8m (32.0')	102mm (4.0')	67mm (2.6')	500g (17.6 oz.)	55mm	Built-in
	80-200mm UC	f/4.0 - f/16	14/10	30-12°	0.7m (28.0')	157mm (6.2')	68mm (2.7')	830g (29.3 oz.)	62mm	Built-in
Macro	55mm	f/3.5 - f/22	4/3	43°	0.25m (10.0')	60mm (2.4')	64mm (2.5')	290g (10.2 oz.)	55mm	Avail.
	105mm	f/4.0 - f/22	5/3	23°	★ ★	47mm (1.9')	63mm (2.5')	230g (8.1 oz.)	55mm	Avail.
Other	Teleconverter AR2X	—	6/5	—	—	43.5mm (1.7')	63mm (2.5')	230g (8.1 oz.)	—	—

www.32butkus.org ★ All lenses fully automatic except as indicated. ★ ★ Depending on bellows extension length.

Distance Focused On	Subject / Field Size — inch.	Depth of Field
∞ Infinity	—	12' 8" to ∞
12'	105 x 77	6' 1 1/2" to ∞
6'	53 x 38	4' to 11' 4"
4'	35 x 25 1/2	3' 1/2" to 5' 11"
3'	26 x 19	2' 5 7/8" to 3' 9 1/2"
2' 4 7/8"	20 3/4 x 15	1' 11 7/8" to 2' 11 1/4"
2'	17 1/8 x 12 1/2	1' 8 3/4" to 2' 4 1/2"
1' 8 3/4"	14 7/8 x 10 7/8	1' 6 3/8" to 2'
1' 6"	12 3/4 x 9 3/4	1' 4 1/8" to 1' 8 1/2"
1' 2 3/8"	10 1/2 x 7 1/8	1' 1 1/8" to 1' 3 7/8"
1'	8 7/8 x 6	11 1/8" to 1' 1"
10 7/8"	7 1/2 x 5 3/8	10 1/8" to 11 3/4"
10"	6 3/4 x 4 7/8	9 1/4" to 10 3/4"
8 7/8	6 x 4 3/8	8 3/8" to 9 1/2"
8"	5 3/8 x 3 7/8	7 5/8" to 8 1/2"

AS SIMPLE AS A•B•C.....



F

Determine and set the shutter speed.

(See pages 7 & 10)



G



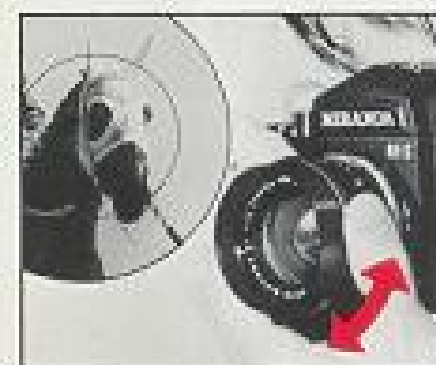
OFF

ON



Turn the exposure meter on.

(See pages 10 & 11)



H

Compose the picture and focus.

(See page 15)



I

Adjust the diaphragm for correct exposure.

(See pages 10, 11, & 16)

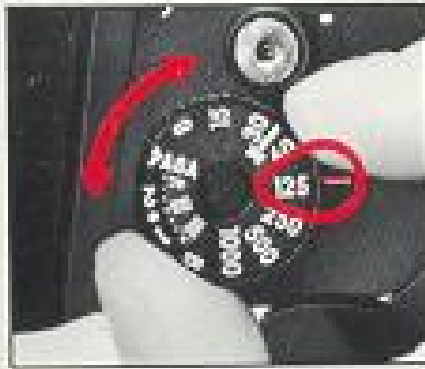


J

Release the shutter.

(See page 14)

SETTING THE SHUTTER SPEED



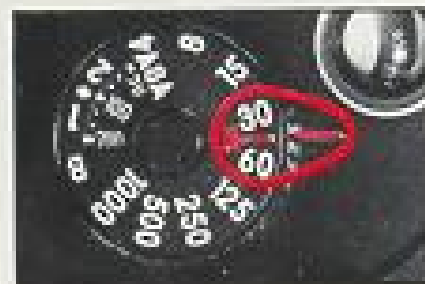
F1

Rotate the ASA FILM SPEED SETTING RING until the desired shutter speed on the SHUTTER SPEED DIAL lines up with the red line on the top cover. Note that the speeds are in fractions of a second . . . 1/2, 1/4, 1/8, etc.. The RING click stops in both directions, but goes only as far as 'B' one way, and '1000' the other way.



F2

The 'B' or bulb setting allows you to keep the shutter open as long as you keep the SHUTTER RELEASE BUTTON depressed. Your camera should be mounted on a tripod when long exposures, 1/15 sec. or longer, are used. A cable release should also be used to avoid shaking the camera.

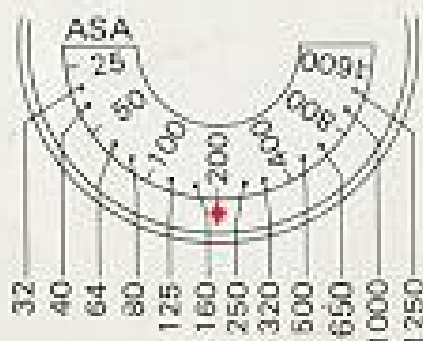


F3

At 'X' the shutter operates at approximately 1/45 second to synchronize with electronic flash units. See page 19 for further instructions.

EXPOSURE METER COUPLING RANGE

ASA FILM SPEED DIAL SETTINGS



*Black areas-ASA FILM SPEED DIAL and SHUTTER SPEED DIAL cannot be set at this combination.

	SHUTTER SPEEDS (seconds)										
ASA	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000
25											
32											
40											
50											
64											
80											
100											
125											
160											
200											
250											
320											
400											
500											
600											
800											
1000											
1250											
1600											

ASA & BSA	German DIN
25	15/10
32	16/10
40	17/10
50	18/10
64	19/10
80	20/10
100	21/10
125	22/10
160	23/10
200	24/10
250	25/10
320	26/10
400	27/10
500	28/10
650	29/10
800	30/10
1000	31/10
1250	32/10
1600	33/10

f/stop
aperture
light ratio



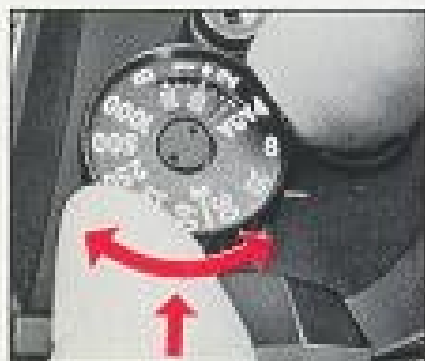
OPERATING THE MIRANDA RE-II



A

Load the battery.

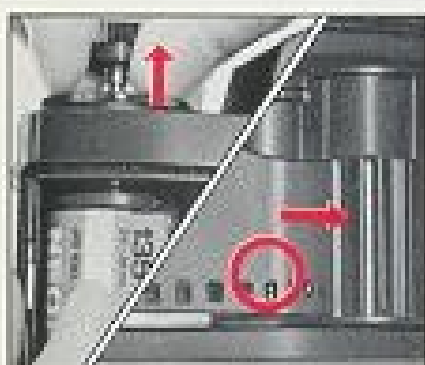
(See page 6)



B

Set the ASA speed.

(See page 6)



C

Load the film.

(See pages 8 & 9)



D

Advance the film.

(See page 9)



E

Cock the shutter.

(See page 9)

LOADING THE BATTERY



A1

To open the BATTERY COMPARTMENT CAP, insert a coin into the slot and turn it counterclockwise.



A2

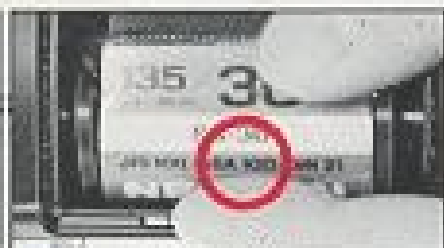
Insert only a 1.3 volt mercury battery (Mallory PX 675 or equivalent) into the chamber, flat side (+) facing up.



A3

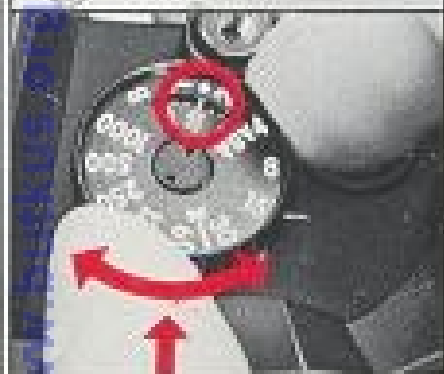
To close the BATTERY COMPARTMENT CAP, insert a coin into the slot and turn it clockwise. Do not tighten the cap excessively.

SETTING THE ASA SPEED



B1

Check the ASA number recorded on the 35mm film cassette.

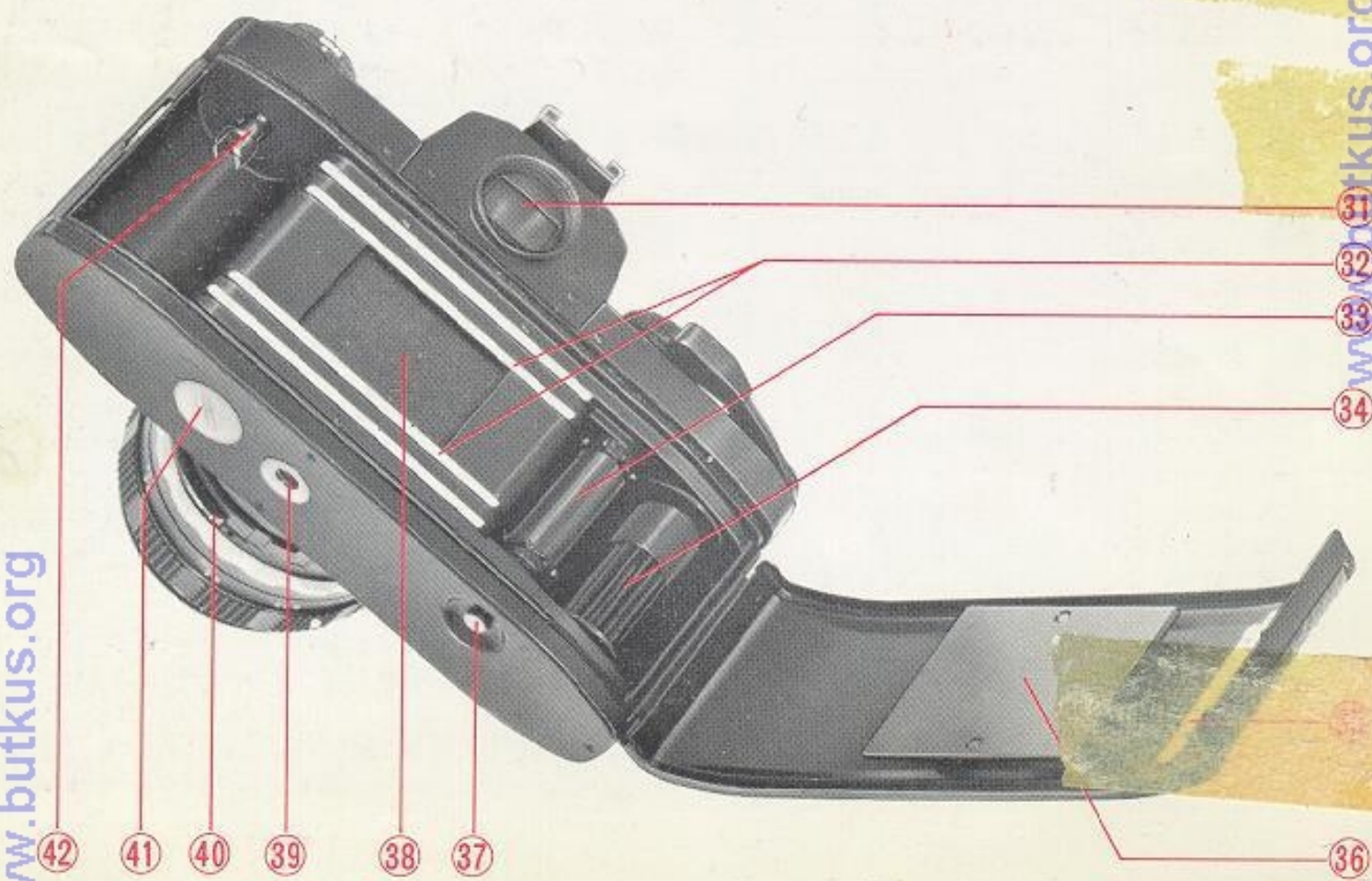


B2

Lift the ASA FILM SPEED SETTING RING up and rotate it until . . .

B3

the diamond-shaped ASA INDEX is lined up with the ASA number you read on the film cassette.





C5

Turn the **FILM REWIND CRANK** clockwise (in the direction of the engraved arrow) until all the slack in the film cassette is taken up. This occurs when there is resistance to further turning of the crank.



D1

Wind the **FILM ADVANCE LEVER**. When it is being operated, the **FILM REWIND KNOB** should turn in a direction opposite the engraved arrow indicating that the film is moving properly.



D2

Wind the **FILM ADVANCE LEVER** and release the shutter a few times until the pointer in the **FILM COUNTER** is aligned with the second dot after 'S'. Release the shutter.



E

Wind the **FILM ADVANCE LEVER** once more, and the counter should now read '1'. You are now ready for taking the first photo.

CAMERA NOMENCLATURE

1. X-CONTACT
2. FP-CONTACT
3. LENS RELEASE LEVER
4. DEPTH OF FIELD SCALE
5. APERTURE RING
6. LENS POSITIONING ARROW
7. ASA FILM SPEED SETTING RING
8. SHUTTER RELEASE BUTTON
9. FILM ADVANCE LEVER
10. FILM COUNTER
11. X-SYNCHRONIZATION MARK
12. CABLE RELEASE SOCKET
13. SHUTTER SPEED DIAL
14. ASA FILM SPEED DIAL
15. ASA INDEX
16. ACCESSORY SHOE
17. HOT SHOE X-CONTACT
18. INTERCHANGEABLE PENTAPRISM
19. FILM REWIND KNOB
20. FILM REWIND CRANK
21. FILM MEMORY DIAL
22. FINDER RELEASE DIAL
23. REWIND DIRECTION ARROW
24. NECKSTRAP EYELET
25. LENS POSITIONING MARKS
26. DISTANCE INDICATOR
27. DISTANCE SCALE
28. FOCUSING RING
29. METER CUT-OFF SWITCH
30. MIRANDA AUTO EC LENS
31. EYEPIECE
32. FILM GUIDE RAILS
33. SPROCKET WHEEL
34. RAPID LOAD SPOOL
35. CASSETTE STABILIZER
36. PRESSURE PLATE
37. REWIND BUTTON
38. SHUTTER CURTAIN
39. TRIPOD SOCKET
40. PREVIEW LEVER
41. BATTERY COMPARTMENT CAP
42. FILM REWIND SHAFT

How to . . . and Where

Operation A-B-C	p.p. 4-5
Load Batteries	p. 6
Set the ASA Speed	p. 6
Set the Shutter Speed	pp. 7
Load and Wind Film	pp. 8-9
Determine Exposure	pp. 10-11
Technical Data	p. 13
Hold the Camera	p. 14
Focus	p. 15
Set the Aperture	p. 16
Rewind the Film	p. 17
Obtain Double Exposures	p. 18
Take Flash Pictures	p. 19
Interchange Lenses	p. 20
Miranda Auto EC Lenses	p. 20
Interchange Viewfinders	p. 21
Care for the RE-II	p. 21
Accessories, 'A' to 'Z'	pp. 22-23

WELCOME to the ever widening world of Miranda photography. By purchasing the Miranda RE-II you have opened up all new vistas of recording the images before you. Your camera is one of the world's finest, optically advanced, precision tooled photographic instruments available to the discerning photographer of today.

Miranda cameras are system cameras to be built on, never outdated, always expanding in versatility, and the Miranda RE-II is a prime example. We expect that you will carefully read this manual, and fully familiarize yourself with all the myriad features of the Miranda RE-II before embarking on your photographic adventures. Through proper care and handling, your camera will provide you with many years of photographic pleasure. Should any questions or problems arise, we urge you to first consult your local Miranda dealer for quick response and service, and then, if necessary, Miranda Camera Co., Ltd. at the address on the rear of this manual.

MIRANDA RE-II



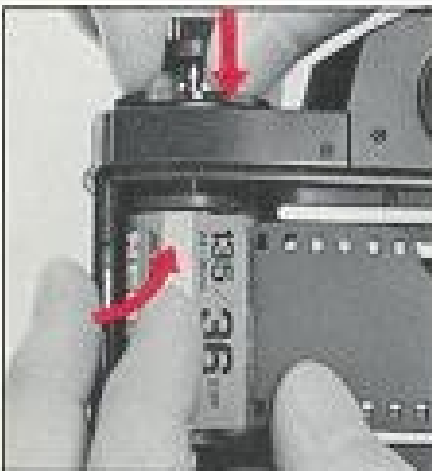
LOADING AND WINDING THE FILM



C1

ONLY load or unload film in the shade, never in the sunlight.

To open the back cover, lift the **FILM REWIND KNOB** all the way up. The back cover will automatically swing open, and the film counter will return to the starting position 'S'.



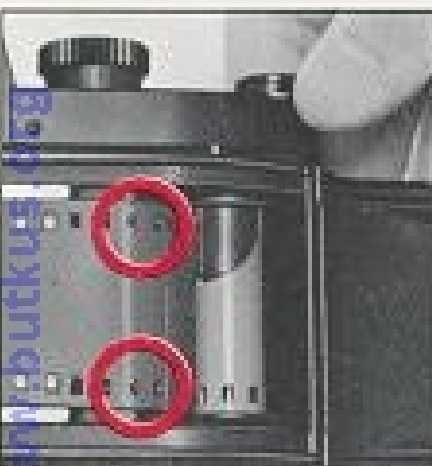
C2

Insert the film cassette into the film chamber as shown at left. Push the **FILM REWIND KNOB** all the way down to its original position. If it doesn't go down, rotate it a little left or right. The film cassette is now engaged by the **FILM REWIND SHAFT**.



C3

Insert the film leader into one of the slits in the **RAPID LOAD SPOOL**. Make sure the **SPROCKET WHEEL** engages one of the perforations in the film leader.



C4

Using the **FILM ADVANCE LEVER**, advance the film to check that both top and bottom film perforations are engaged by the **SPROCKET WHEEL**. Snap the back cover closed.



EXPERIMENT WITH YOUR MIRANDA RE-II



① High-speed Action Shots With A Telephoto ② Evening Long Exposures ③ Macrophotos ④ Silhouette By Under-exposing Backlit Subjects ⑤ Aim The Sensing Area High For Drama.





MIRANDA RE-II EXPOSURE METER SYSTEM

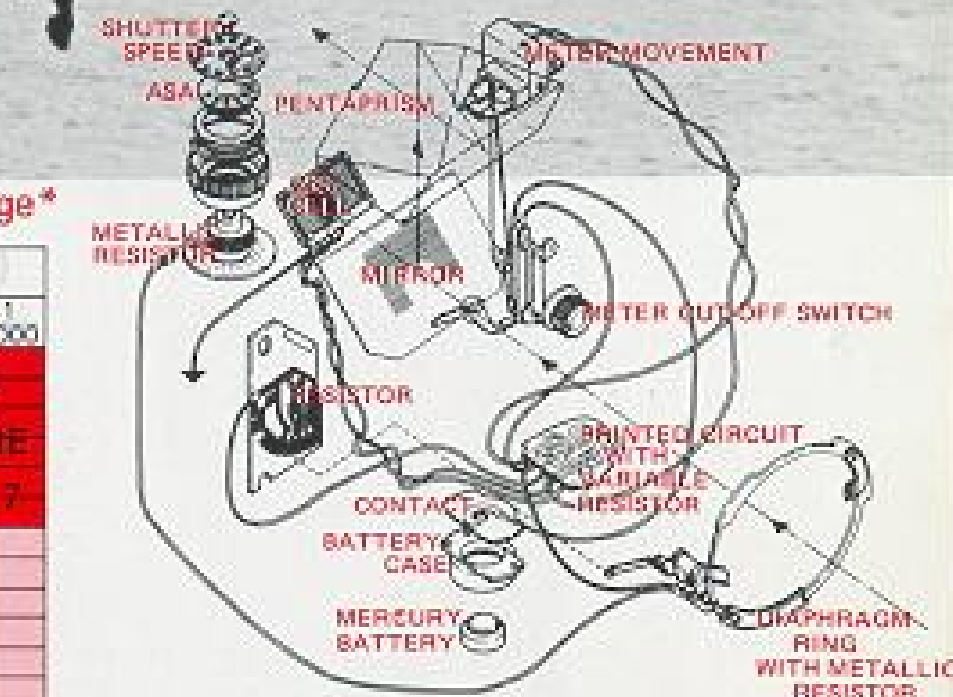
Exposure Meter Operating Range*

	SHUTTER SPEEDS (seconds)									
ASA	1	2	4	8	15	30	60	125	250	500 1000
25										SEE PAGE 7
32										
40										
50										
64										
80										
100										
125										
160										
200										
250										
320										
400										
500										
640										
800										
1000										
1250										
1600										

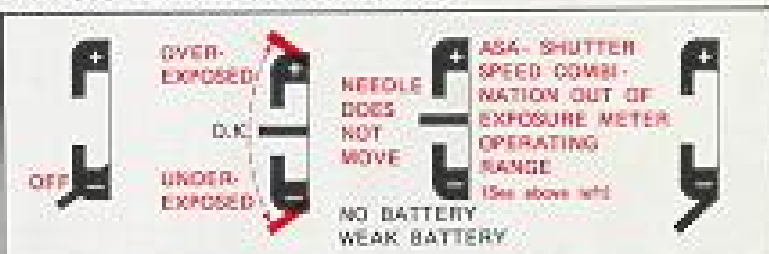
*Outside of this range, the meter needle swings to the extreme underexposure position.

CdS Cell EV Capability at ASA 100

	SHUTTER SPEEDS (seconds)									
f/stop	1	2	4	8	15	30	60	125	250	500 1000
1.4			3	4	5	6	7	8	9	10 11
2		3	4	5	6	7	8	9	10	11 12
2.8	3	4	5	6	7	8	9	10	11	12 13
4	4	5	6	7	8	9	10	11	12	13 14
5.6	5	6	7	8	9	10	11	12	13	14 15
8	6	7	8	9	10	11	12	13	14	15 16
11	7	8	9	10	11	12	13	14	15	16 17
16	8	9	10	11	12	13	14	15	16	17 18
22	9	10	11	12	13	14	15	16	17	18
32	10	11	12	13	14	15	16	17	18	



Meter Needle Positions



Use of the unique Miranda RE-II CM CONVERTER allows you to take exposure readings in the closed-down mode. Instructions are included with it.



See pages 22 and 23 for Miranda RE-II accessories.

Useful photographic data and terminology explained for the layman can be found in the latest PHOTO INFORMATION ALMANAC published by Modern Photography Magazine.

FOCUSING THE UNIQUE MIRANDA WAY

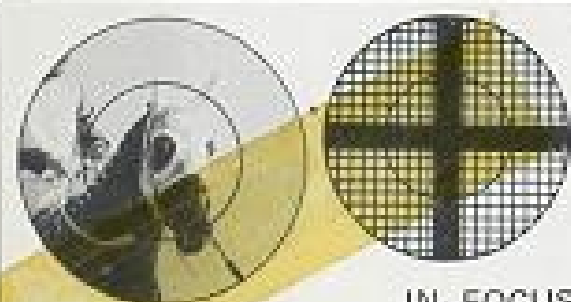


H1

The Miranda RE-II has a unique rangefinder screen. In the center is a microprism spot surrounded by an inner microprism ring and an outer matte (ground glass) ring. Surrounding the center circles is a matte field for sharp focusing combined with concentric Fresnel rings to heighten image brightness.



OUT OF FOCUS



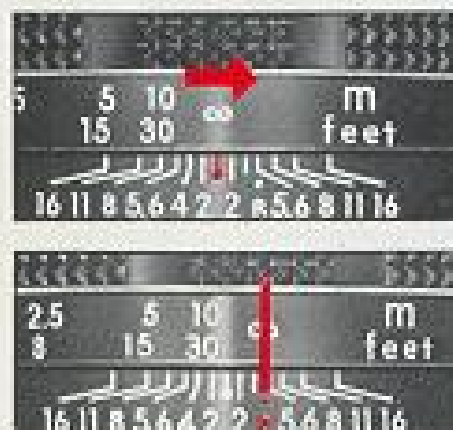
IN FOCUS

The central microprism spot and its surrounding microprism ring act as a circular multiple split-image range-finder. Its unique design makes extremely rapid and accurate focusing easy without the split-image blackening. Under the most adverse conditions the rangefinder will only darken somewhat. For focusing the circular multiple split-image microprism spot and/or the matte field can be utilized.



H2

To focus, look through the viewfinder and rotate the FOCUSING RING right or left as required.



H3

For INFRA-RED photography, first focus normally. Next, turn the indicated distance on the DISTANCE SCALE so it is aligned with the red dot and 'R' on the DEPTH OF FIELD SCALE.

DETERMINING PROPER EXPOSURE



I 1
Cock the shutter by rotating the **FILM ADVANCE LEVER** forward 180°.

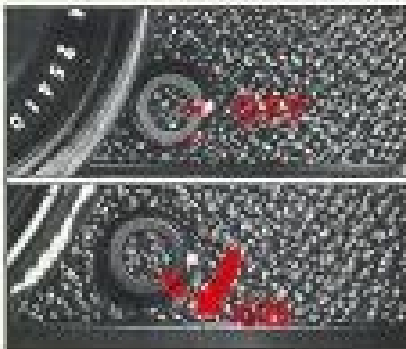


I 2a
Set the shutter speed.

OR



I 2b
Set the lens aperture.



I 3
Turn the exposure meter on by rotating the **METER CUT-OFF SWITCH** so that the two red marks are aligned.



I 4a If you performed step 2a then center the meter needle by adjusting the lens aperture.

OR



I 4b
If you performed step 2b then center the meter needle by adjusting the shutter speed.



I 5
Shut the meter off by releasing the shutter to take a picture or by turning the **METER CUT-OFF SWITCH** to the off position.

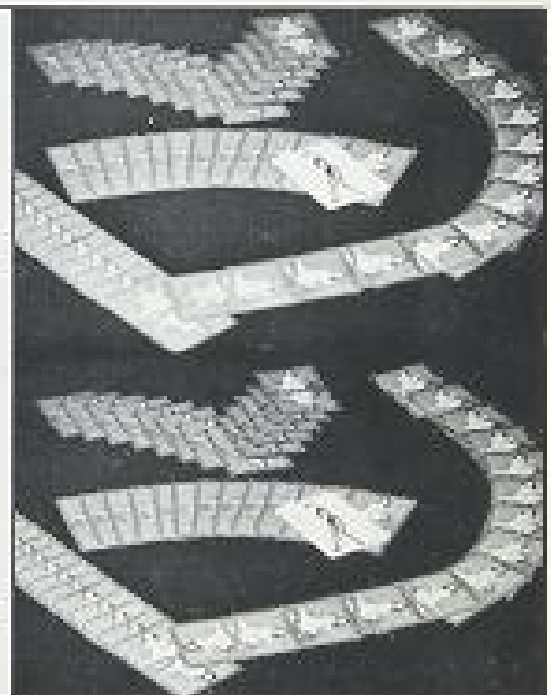
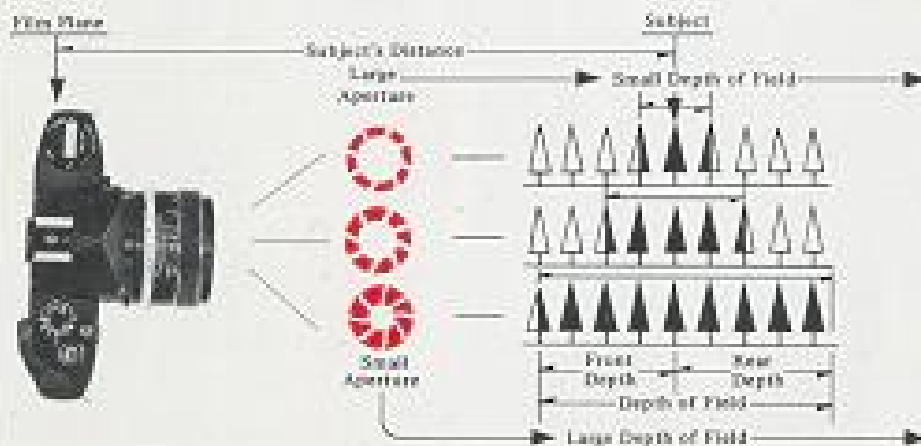
HOLDING THE CAMERA

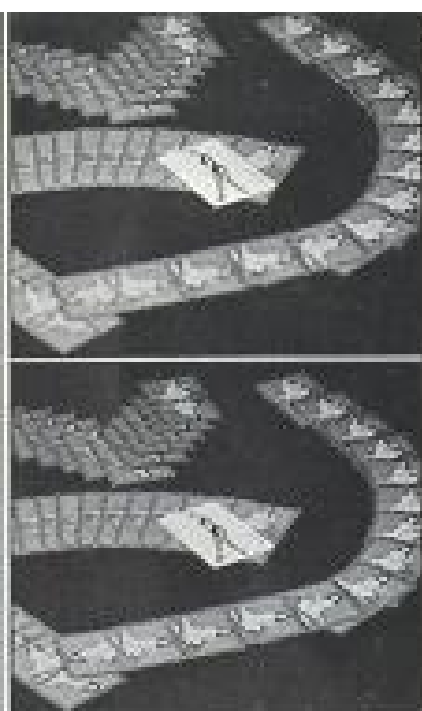


To avoid blurred photos the camera must be held firmly. The sharpest pictures can be taken only when the camera does not move while the shutter is released.

- Firmly hold the camera with both hands.
- When the camera is utilized in a horizontal position, comfortably brace your elbows against your body. Rest the camera on your extended right thumb. Take a deep breath, and release half. Then while holding in the rest, smoothly depress the **SHUTTER RELEASE BUTTON** with the tip of your right index finger. The camera is further steadied by pushing the camera in towards your nose with the last three fingers of the right hand. Your left hand should serve to focus and support the lens barrel.
- When the camera is held vertically your right hand is essentially in the same position with the elbow braced against the body. The left hand should either function as above or grasp the end of the camera gently pulling in.
- The camera should be mounted on a tripod and a cable release used when taking pictures with a telephoto lens and/or at slow speeds (1/15 second or slower). It is also recommended for microphotography.

DEPTH OF FIELD: APERTURE VISUALLY





I 9

Very frequently the composition of a picture can be enhanced by having the main subject in sharp focus while the surrounding objects in the scene are soft and out of focus. This will de-emphasize distracting background objects, and concentrate the viewer's attention on the principle subject.

Three factors determine depth of field:

DEPTH OF FIELD	← F/STOP +	SUBJECT DISTANCE +	FOCAL LENGTH OF LENS
small	small	near	long
large	large	far	short

REWINDING THE FILM



K1

Depress the **REWIND BUTTON** until it clicks.



K2

Flip open the **FILM REWIND CRANK**, and turn it clockwise, following the **REWIND DIRECTION ARROW**. Continue turning until you feel the resistance cease, then turn the crank which now moves very freely, two or three more turns.

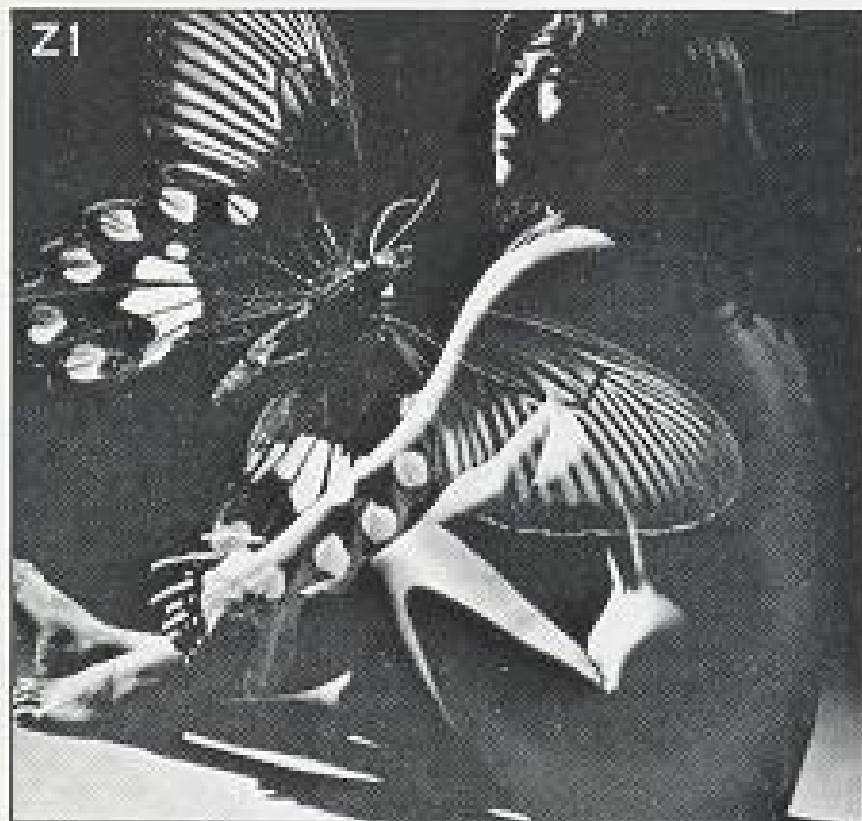


K3

Pull the **FILM REWIND KNOB** all the way up, and the back cover will swing open. Remove the film cassette. Use a blower brush to remove film chips or other particles from inside the camera.

TAKING DOUBLE EXPOSURES

Z1



Z1

To take deliberate double exposures, make the first exposure in the normal way.

Z2

Next take up the slack in the film cassette by turning the **REWIND CRANK** in the direction of the arrow until it stops. **DO NOT** force the **CRANK**.

Z2



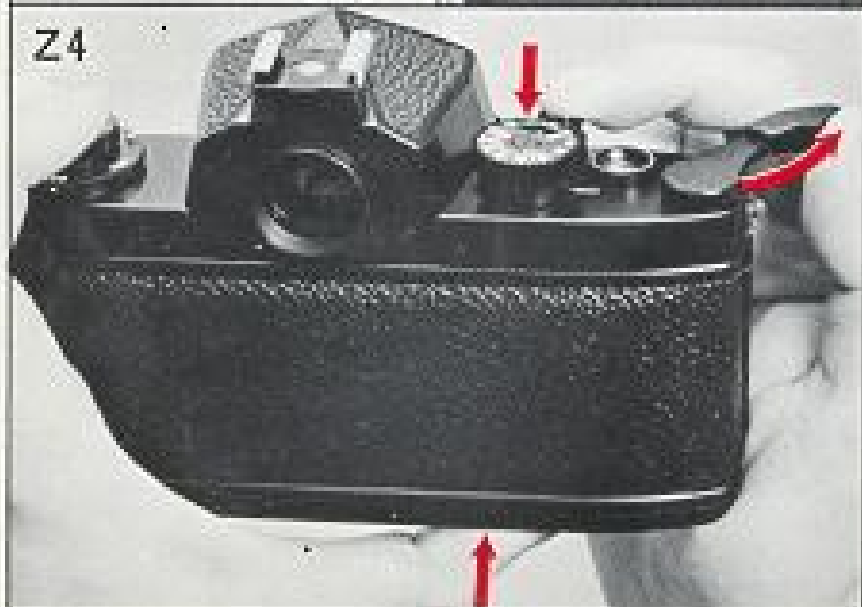
Z3



Z3

WHILE STILL HOLDING THE REWIND CRANK IN THIS POSITION, depress the **REWIND BUTTON** on the bottom of the camera.

Z4



Z4

While holding the **CRANK** and depressing the **BUTTON**, wind the **FILM ADVANCE LEVER**. This operation cocks the shutter without advancing the film. The shutter is now ready to make the second exposure.

We suggest you make one blank exposure before taking the next picture, to avoid the possibility of overlapping.

MIRANDA RE-II

TECHNICAL DATA

CAMERA TYPE

35mm single-lens reflex (SLR) camera with built-in mechanical focal plane shutter and TTL meter.

FILM FORMAT

35mm- 24 x 36mm, 43.3mm film frame diagonal.

STANDARD LENSES

Miranda Auto EC 50mm/f 1.8 or f 1.4, 46° Angle of View.

SHUTTER

Mechanical, rubberized cloth-blind focal plane shutter with speeds from B to 1/1,000 second. Top shutter release button with cable release/self-timer socket.

VIEWFINDER SYSTEM

Interchangeable pentaprism system. Standard finder with 50mm lens at ∞: 0.92x image magnification, 95% field of view, -1.2 diopter.

EXPOSURE METER SYSTEM

TTL, partial (lower center-weighted) light measuring at open aperture, closed down possible with special RE-II CM Converter, CdS cell built into mirror assembly, meter cross-coupled to shutter speed/diaphragm/film speed controls. Meter activates when shutter is wound, and deactivates with shutter release or special cut-off switch. Light measuring range: EV 3-18 (ASA 100/f 1.4) ASA: 25-1600, Apertures: f 1.4 to f 22.

FOCUSING SYSTEM

Miranda unique fresnel screen with circular multiple split image microprism rangefinder in the center. Depth of field preview lever on Auto Miranda lenses.

LENS INTERCHANGEABILITY

Accepts all Miranda lenses. Dual Miranda mount: four claw and inside 44mm ϕ screw mount.

FLASH SYNCHRONIZATION

X and FP contacts on front, and X-contact hot shoe on top. FP synchronization at all speeds, X at 1/45 sec.

FILM ADVANCE/COUNT SYSTEM

Rapid-load spool, auto-resetting advance counter, single stroke 180° film advance lever, plastic tipped.

DIMENSIONS

144 x 95 x 82mm (body only)
5-2/3 x 3-3/4 x 3-1/4 inches

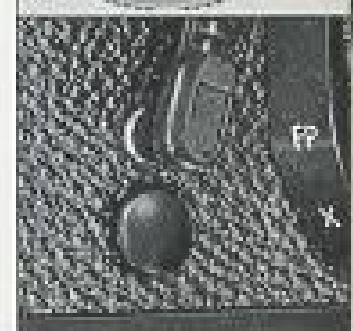
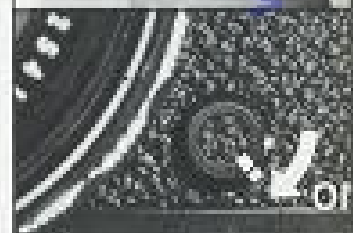
POWER SOURCE

One 1.3V mercury battery
(Mallory PX675, Eveready EPX675).

WEIGHT

661 grams (body only)
23-1/3 ounces

*Specifications in this manual are subject to change without notice due to ongoing technological advances.



INTERCHANGING LENSES



A

To attach the lens, align the **RED DOT** and **LINE** on the Miranda Auto lens with the **LENS POSITIONING ARROW** on the camera body. Turn the lens about 45° clockwise until it click locks into place.



B

To release the lens, depress the **LENS RELEASE LEVER**, and while keeping it depressed, rotate the lens 45° counterclockwise until the **RED DOT** is aligned with the **LENS POSITIONING ARROW**. Lift the lens off.

NOTE: Do not expose the lens opening to excessive sunlight when the lens is removed as this may cause fogging of the film.

MIRANDA RE-II



A

B



D1



D2



D3



C1

C2



E1

E2

E3

E4



G1

G2

G3

G4

G5

G6

G7



H



I



F1

F2

F3



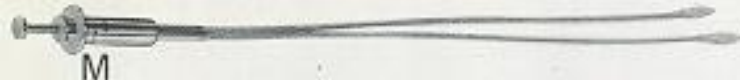
J



K



L



M



N



O



P



Q



R



S



T



U



V



W



X



Y



Z

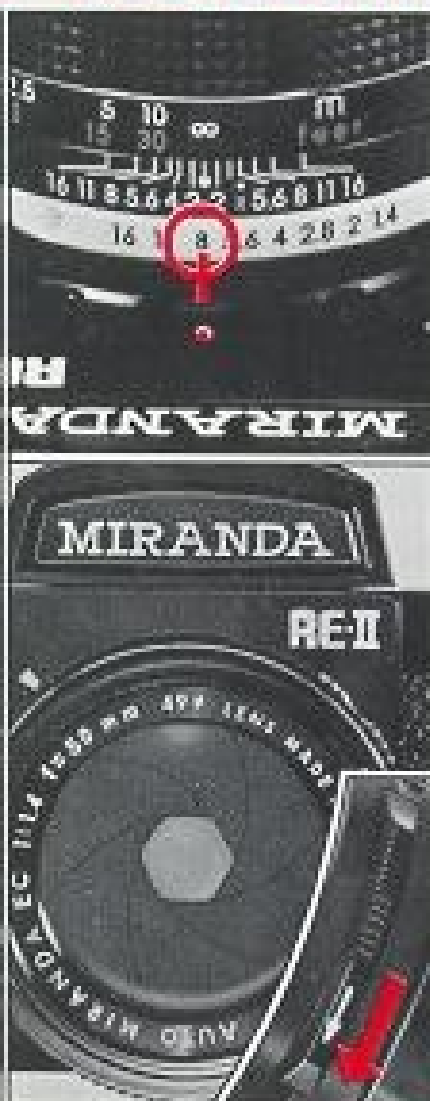
SETTING THE APERTURE



I 6

Rotate the APERTURE RING with the thumb and index finger of your left hand. Align the desired aperture number (f/stop) with the red dot and line which also serve as the LENS POSITIONING MARKS.

PREVIEWING DEPTH OF FIELD



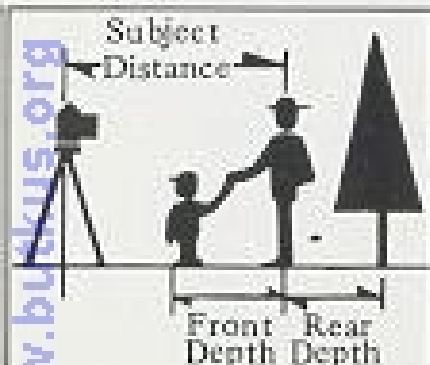
I 7

The Miranda RE-II is an open aperture camera. Provision for DEPTH OF FIELD PREVIEW is made on the lens, not on the camera body. For this reason the method for previewing the depth of field will vary with the lens mounted on the camera.

Miranda Auto EC lenses have a PREVIEW LEVER on the lower left, next to the METER CUT-OFF SWITCH when mounted on the RE-II. Each Miranda Auto EC lens also features a DEPTH OF FIELD SCALE on the top of the lens. To read the approximate depth of field, note the aperture number indicated on the APERTURE RING. The same numbers to the left and right on the DEPTH OF FIELD SCALE point to the depth indicated on the DISTANCE SCALE.

For example: On the Miranda Auto EC 50mm f/1.4 lens as shown at right, when the aperture is at f/8 and the subject is at 5 meters (16.25 ft), the depth of field extends from approximately 4 meters (13 feet) to 10 meters (32.5 feet).

To visually see the depth of field, stop the aperture down (close the diaphragm) by sliding the PREVIEW LEVER downward.



I 8

DEPTH OF FIELD is the zone of diminishing, but still acceptable, sharpness in front of and behind the image plane on which the lens is focused. Usually the front depth is smaller than the rear depth.

UTILIZING FLASH UNITS

FLASH SYNCHRONIZATION CHART

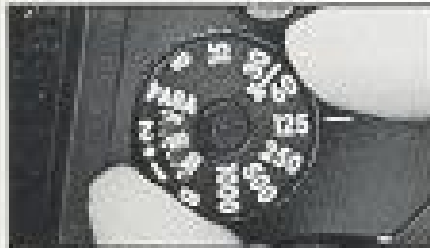
FLASH CONTACT	FLASH SOURCE	SHUTTER SPEEDS (seconds)											
		1	1/2	1/4	1/8	1/15	1/30	X	1/60	1/125	1/250	1/500	1/1000
FP	FP CLASS FLASHBULB												
X	ELECTRONIC UNIT												
	F CLASS FLASHBULB												
	M CLASS FLASHBULB												



L1

When available light is low or supplemental lighting is needed, a flashgun or an electronic flash unit should be used with your Miranda RE-II.

Slip the flashgun or electronic flash unit base into the rear of the ACCESSORY SHOE. If the flash unit has a locking device, tighten it.



L2

— SEE THE FLASH SYNCHRONIZATION CHART ABOVE —

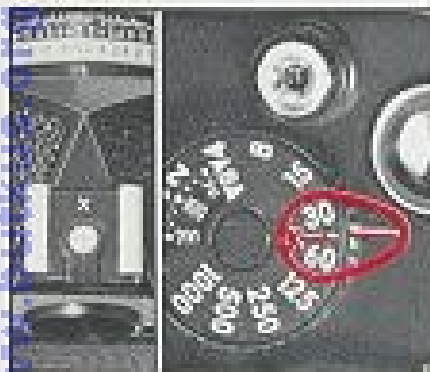
When a regular cord-equipped flash unit is used:



and you use:	connect the cord plug to:	Set the SHUTTER SPEED DIAL at:
FP Class Bulbs	FP-CONTACT	any speed (1/1000 to 1 sec)
*F Class Bulbs	X-CONTACT	1/30 sec or slower
*M Class Bulbs	X-CONTACT	1/15 sec or slower
Electronic Unit	X-CONTACT	'X' or slower

* Whenever possible use FP Class instead.

Keep the FP and X-CONTACTS capped when not in use.



L3

When a hot shoe-equipped electronic flash unit is slid into the ACCESSORY SHOE it should couple with the X-CONTACT HOT SHOE, and no synchro cord is necessary.

Set the SHUTTER SPEED DIAL at 'X'.

ACCESSORIES.... FROM 'A' TO 'Z'

To broaden your photographic horizons, Miranda provides a wide range of photo-optical accessories. Carefully look over the many accessories available to you and your Miranda RE-II, letting your imagination and the experience of your Miranda dealer be your guide. From A to Z, experimentation in the myriad worlds of photography is now yours. Instructions as required are supplied with the accessories.

- A RUBBER EYECUP** — attaches directly to the eyepiece of the standard viewfinder or the VF-3 (D2). It is equipped with an adapter for inserting (B).
- B EYESIGHT COMPENSATION LENS** — available in seven different (diopter) pieces: #1 (+1.5); #2 (0); #3 (−0.5); #4 (−1.5); #5 (−2.5); #6 (+2.5); #7 (+3.5).
- C PRESCRIPTION EYEPIECES** — attaches directly to the eyepiece of the standard viewfinder or the VF-3. Type A (C1) for near or farsightedness, B (C2) for astigmatism.
- D REFLEX VIEWFINDERS** — Miranda unique quick-change interchangeable viewfinders. VF-1 (D1) is a waistlevel finder with a magnified image. VF-3 (D2) is a critical focuser allowing either 5 or 15X magnification by a flip of the prism. VF-4 (D3) is a critical focuser designed especially for micro-photography with a built-in diopter adjustment.
- E EXTENSION TUBES** — (E1) thru (E3) are non-automatic extension tubes of 32, 16, and 8mm respectively. They can be used individually or in any combination with the AU ADAPTER (E4).
- F AUTO EXTENSION TUBES** — the same as above, but retain auto-diaphragm mechanism when such lenses are used.
- G LENS ADAPTERS** — allow you to use Miranda's thin camera body in combination with various types of lenses and accessories. CSF (G1) for standard Contax & Nikon S; CTF (G2) for wide-angle & telephoto Contax & Nikon; LF (G3) for Leica & Canon screw mount; AUTO (G4) with (K) or (L) and (M); NM (G5) for Nikon; XM (G6) for Exakta & Topcon; PM (G7) for Praktica type.
- H UNIVERSAL HELICOID** — for precision focusing and close-ups.
- I REVERSER RING**
- J SLIDE DUPLICATOR**
- K FOCABELL S II** — compact single track folding bellows unit.
- L FOCABELL A III** — deluxe double track precision bellows unit.
- M DOUBLE CABLE RELEASE** — for use with (G4).
- N CABLE RELEASE**
- O PISTOL GRIP**
- P FRONT LENS CAP**
- Q REAR LENS CAP**
- R BODY CAP**
- S MICROSCOPE ADAPTER**
- T SELF-TIMER** — attaches to the cable release socket for adjustable five to eighteen second delay.
- U RE-II CM CONVERTER** — unique Miranda invention converts the open aperture metering system in the Miranda RE-II to a close-down mode.
- V MIRANDA OPTICAL FILTERS** — supplied in plastic case.
- W MIRANDA COPY STAND** — complete with adjustable light arms.
- X MIRANDA MICROCOPY STAND** — with built-in bottom illumination.
- Y MIRANDA CAMERA CASE MH-115**
- Z MIRANDA CAMERA BAG MH-12**

INTERCHANGING THE VIEWFINDER



A

Remove the viewfinder by turning and holding the **FINDER RELEASE DIAL** forward with one hand and gently sliding the finder back and off with the other hand. Don't force it.

B

Carefully align the grooves on the body with the ridges on the viewfinder, and carefully slide the finder forward. It should automatically lock into place.

STORING AND CARING FOR YOUR MIRANDA RE-II

- DO remove the battery if the camera is to be stored.
- DO store the camera with a drying agent (silica gel), separate from the camera case.
- DO make sure the shutter is not cocked, and the meter cut-off switch is set at OFF.
- DO use a soft blower brush to remove dust on the lens, and foreign matter inside the mirror housing and film transport system.
- DO use a soft dry cloth to clean external metallic parts.
- DO use special lens tissue with pure alcohol or ether only, to clean smudges off the lens or eyepiece.
- DO NOT point the camera directly at, or leave the lens exposed to the sun.

HAVE YOU RETURNED YOUR GUARANTEE CARD?



Camera Body #
(on Finder Release Dial)

50mm/f.l. Standard Lens #

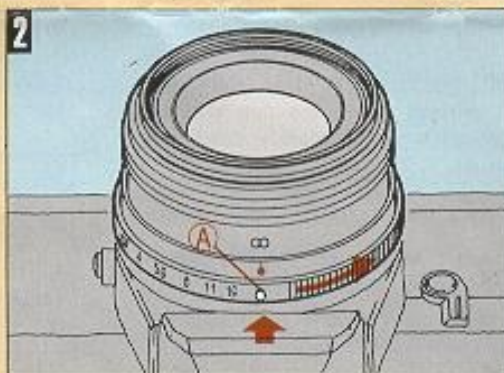
Dealer's Name

Date of Purchase

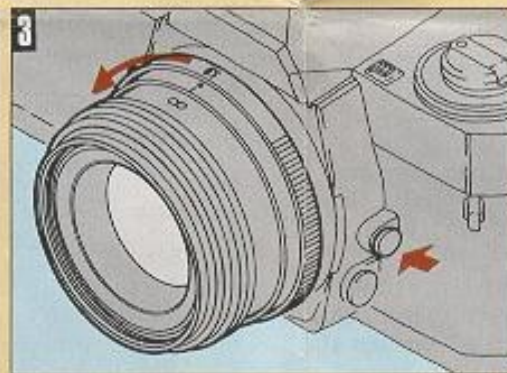
Next Mount the Lens



Match the red dots on the lens and camera body, then rotate the lens in the direction of the arrow until it clicks into position.



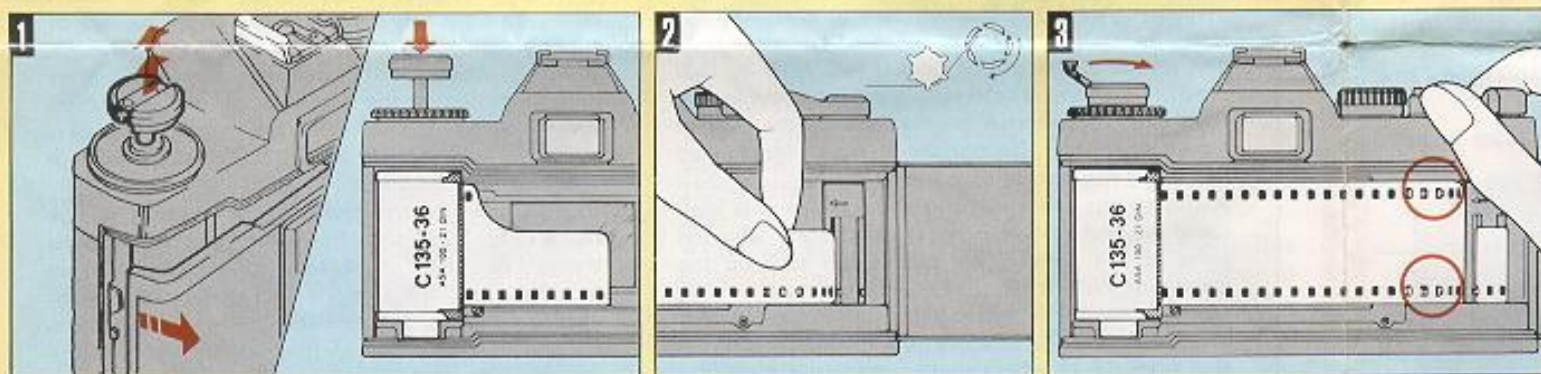
If the white button (A) is set at the central index mark, the aperture ring cannot be turned. In this case, rotate the aperture ring away from the index mark while depressing the white button.



Removing the lens

Press the lens release button and rotate the lens to the left until it stops.

Now Carefully and Surely Load a Roll of Film

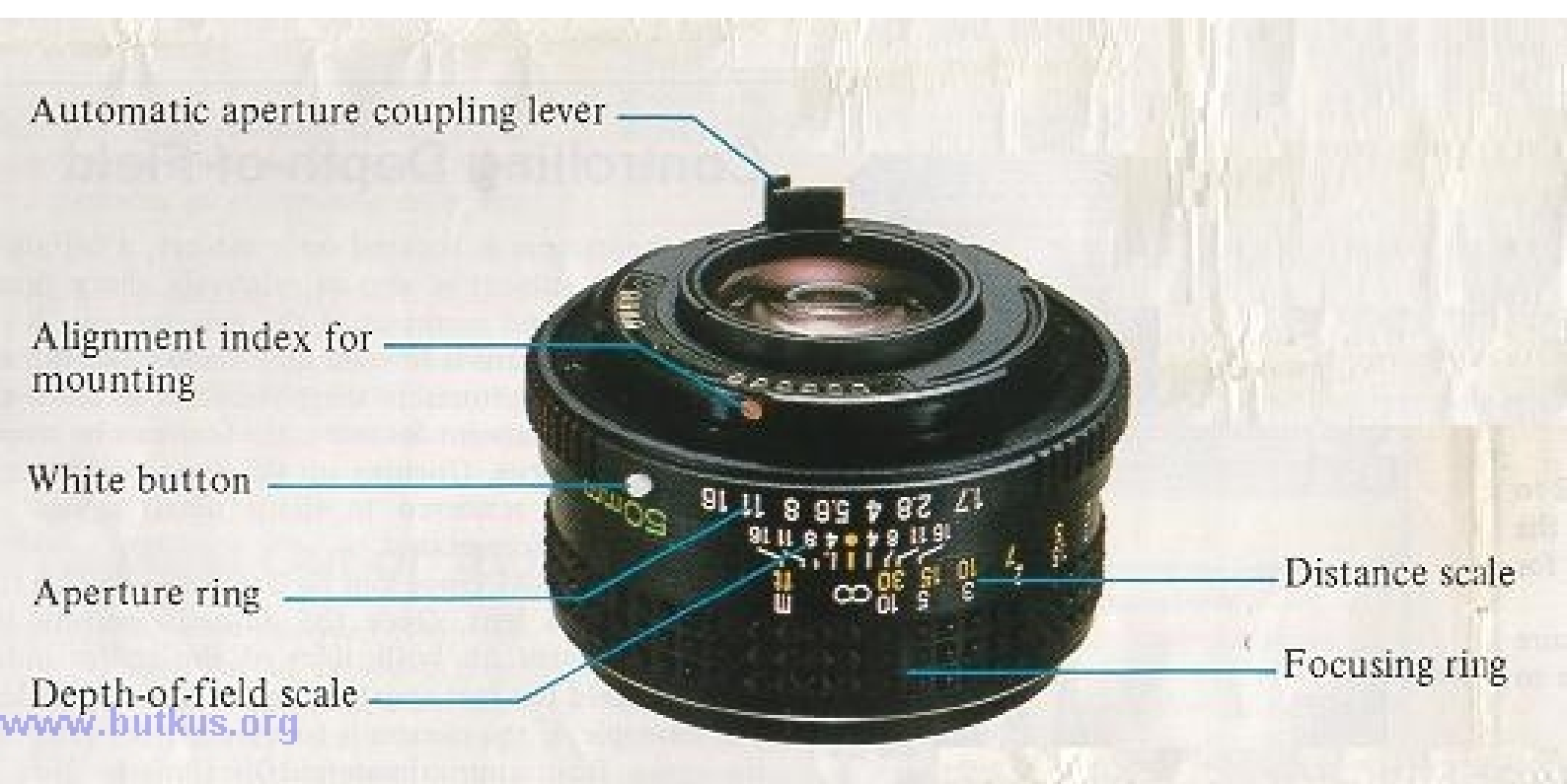


1. Open the back cover of the camera by pulling up on the rewind knob. (Avoid direct sunlight when loading or unloading film. Stand in the shade or cast a shadow with your own body.)

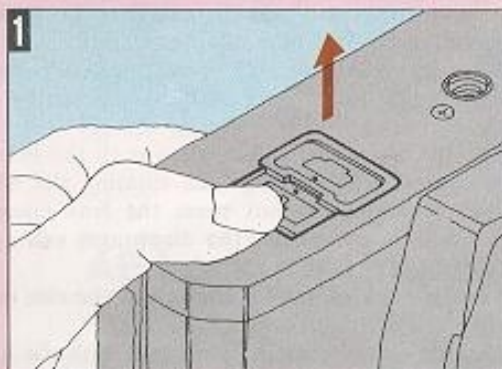
Load a film cartridge into the film chamber of the camera and return the rewind knob to its original position to hold the film in place.

2. Insert the end of the film into the slot of the film take-up spool.

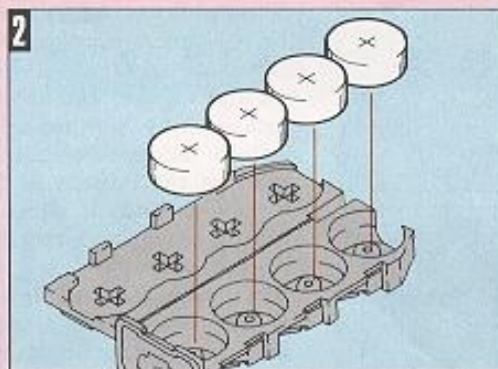
3. First advance the film by operating the film advance lever; then rotate the rewind knob in the direction of the arrow to take the slack out of the film. It is important to make sure that the both the upper and lower teeth of the sprocket are engaged in the perforations of the film.



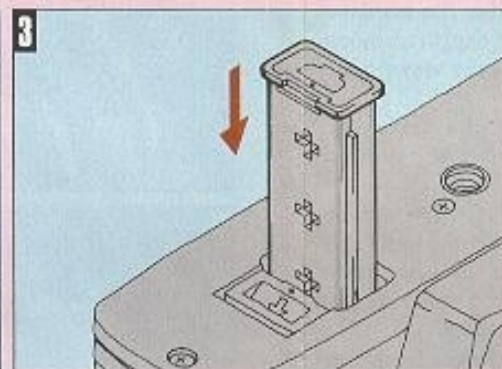
The First Step is Loading the Batteries



1. Pull the battery cartridge release in the direction of the arrow. The cartridge will pop up for easy removal.



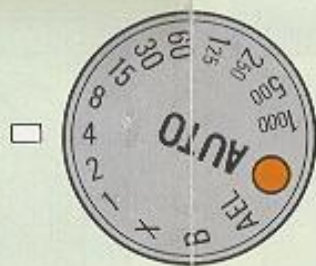
2. Load the four batteries that come with the camera, making sure that plus (+) terminals are facing up.



3. Insert the cartridge as shown in the illustration. If inverted, the cartridge will not enter. Then press down until the cartridge locks into place.

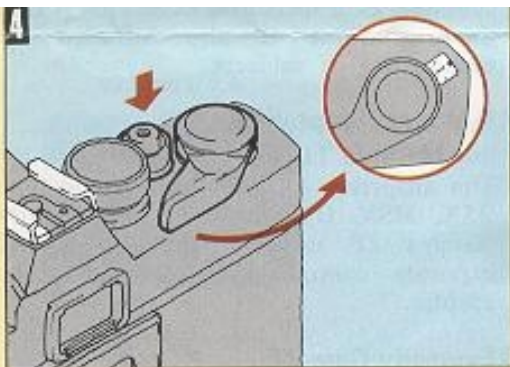
What You See in the Viewfinder





Manual Exposure

Manual shutter speeds for the ZE-2 work independently of the metering system, allowing for maximum creativity in exposure control. During manual operation, set the shutter speed and lens aperture to accord with your specific exposure requirements. In the manual exposure mode, the metering system of the camera will be switched off and the "M" LED inside the viewfinder will flash while manual shutter speeds are being employed.

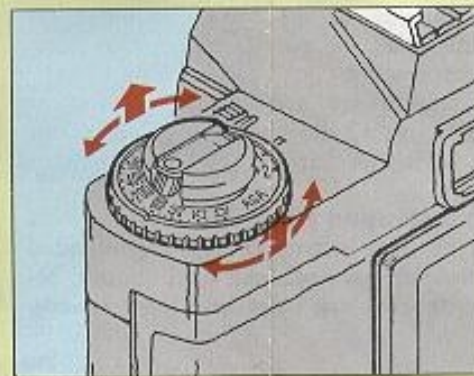


4. Close the back cover of the camera and advance the film by alternately operating the film advance lever and releasing the shutter until the numeral "1" appears in the exposure counter. While performing this operation, make sure that the film is advancing properly by checking if the rewind knob rotates when the film advance lever is operated.

Don't Forget to Set the Film Speed

Set the film speed of the film being used by lifting up the outer rim of the film speed dial and rotating until the index indicates the correct ASA value on the film speed scale. (Film speed is noted on the film cartridge or film box.) It is convenient to remove the end of the film box and insert it into the memo holder on the back of the camera.

Intermediate film speeds can be set as follows when necessary.



ASA	25	•	•	50	•	•	100	•	•	200	•	•	400	•	•	800	•	•	1600	•	•	3200
	32	40		64	80		125	160		250	320		500	640		1000	1250		2000	2500		

DIN	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
-----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Focusing is All Up to You

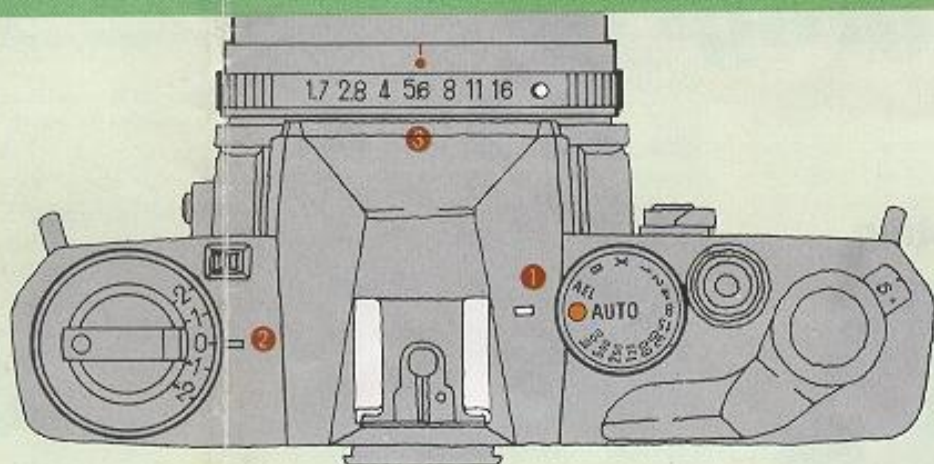


Before taking a photograph, the subject must be brought into sharp focus by rotating the focusing ring. Correct focus can be checked by any of the following conditions:

- (1) When a line in the central split-image rangefinder appears straight.
- (2) When the part of the image in the microprism ring appears sharply defined.
- (3) When the part of the image in the matte field is clear and sharp.

Leave the Exposure to the Mamiya ZE...

But, Just to Make Sure...



Recommended Apertures for Getting Started
(with ASA 100 film)



f/16-11



f/11-8

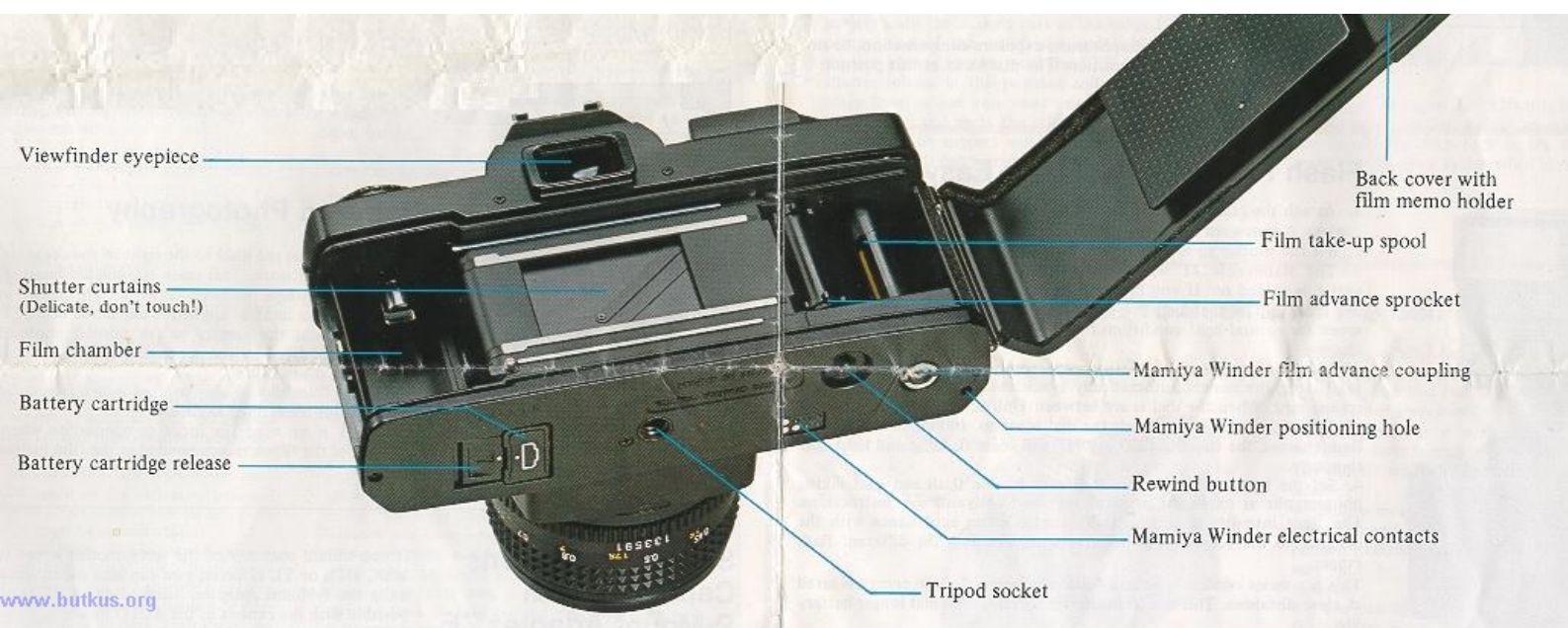


f/5.6-4

1. Set the shutter speed dial to AUTO for AE (automatic exposure) operation.
2. Set the exposure compensation dial to the "0" mark. (How to use exposure compensation is explained later.)

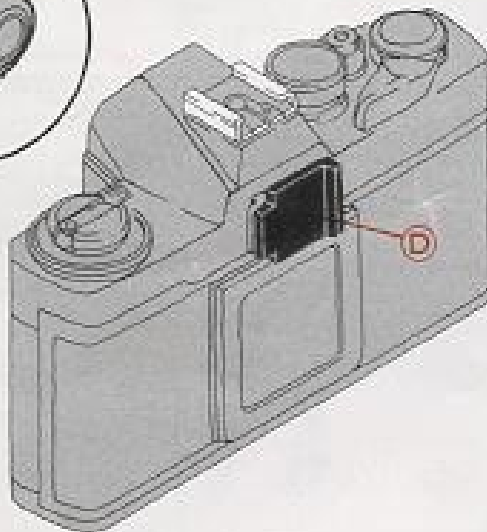
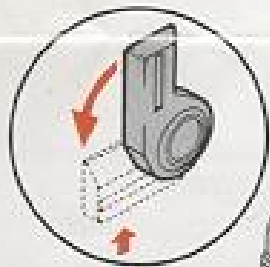
3. Set the aperture after selecting in accordance with the light conditions as shown in the above illustration.

- Do not set the white button on the aperture ring at the central index mark; otherwise, correct exposure cannot be obtained.





Include Yourself with the Self-Timer



1. Move the self-timer lever counterclockwise until it stops. The film must be advanced before making the exposure, but this can be done either before or after the self-timer lever is set.

2. The self-timer is activated by pushing back the self-timer lever slightly toward its original position. The shutter will be released approximately 10 seconds later.

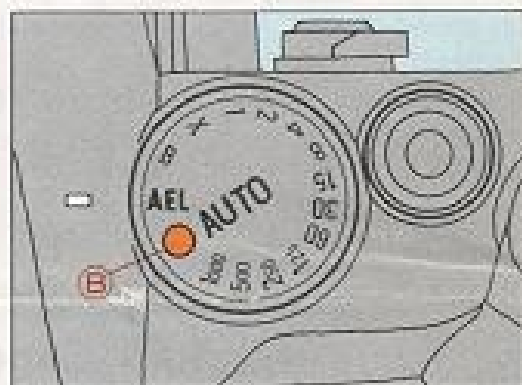
- Before making an exposure, remove the hot-shoe cover (D) and place it over the viewfinder eyepiece to prevent extraneous light entering the finder. Exposure may not be correct unless the finder eyepiece is covered.

- You can bypass the self-timer merely by pressing the shutter release button even after the self-timer lever has been set.

Exposure Compensation for High- and Low-Key Effects



AE Lock for Unusual Lighting



The Mamiya ZE is equipped with a special device for obtaining correct exposure not only with backlighting, but any other difficult lighting situation as well. And this device is called the AE Lock.

Just press the shutter speed dial lock button (B) and rotate the dial to the "AEL" (AE Lock) position.

When the shutter release button is lightly pressed the camera locks in, or memorizes, the exposure reading until the finger is removed from the release button.

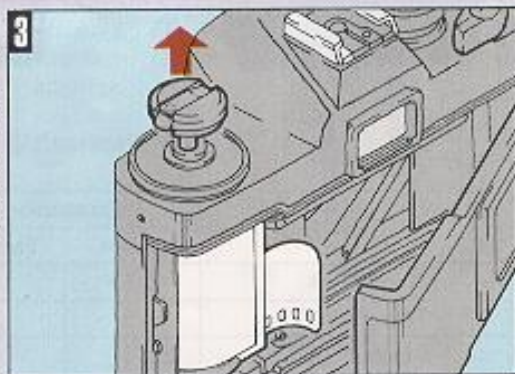
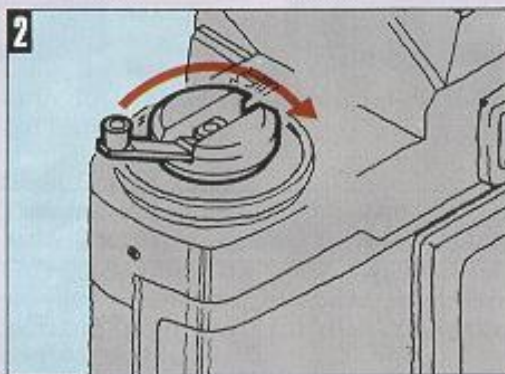
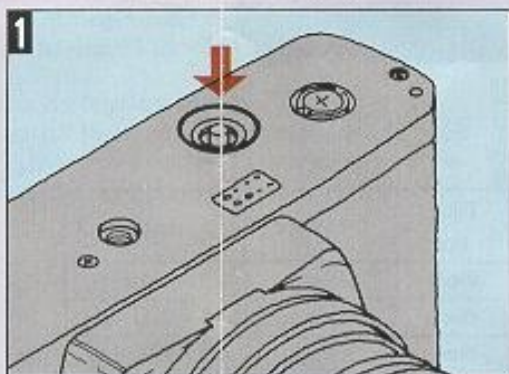
To use the AE Lock function, move close to the subject until the desired part of the subject covers the center area of the viewfinder and lightly press the shutter release button until the LED lights. Hold the shutter release in this position and move back to the place from where you want to photograph, compose the picture and press the release button to make the exposure. The subject will be correctly exposed even under difficult light conditions.

If it is not possible to move close to the subject, determine the exposure using the palm of the hand at



a distance of about 12" (30cm), or point the camera so that sky or other bright areas are not included in the viewfinder; then lock in the exposure value and make the exposure as described above.

When a Roll Finishes... Just Rewind



WHEN THE LAST EXPOSURE HAS BEEN MADE, THE FILM MUST BE REWOUND BACK INTO THE CARTRIDGE BEFORE REMOVING IT FROM THE CAMERA. NEVER OPEN THE CAMERA BACK UNTIL THIS HAS BEEN DONE.

1. Press in the rewind button.
2. Fold the crank out from the rewind knob and rotate in the direction of the arrow.

3. When the rewind knob starts to turn lightly, pull up on the rewind knob to open the camera back and remove the film.



B (bulb) for Long Exposures

Set the shutter speed dial at the "B" (bulb) for exposures longer than 1 second. At this position the shutter will remain open as long as the shutter release button is held down. The use of a cable release and tripod is recommended to prevent camera shake. The camera operates at the "B" position even if the batteries are dead.

Effortless Film Advance with Mamiya Winder ZE



Mounting the Mamiya Winder ZE on the camera eliminates the need to advance film manually. Photographic opportunities can be captured more easily because there is no need to take the eye away from the viewfinder for film advance.

Continuous sequence photography is possible at the rate of approximately 2 frames per second by merely holding down the shutter release button.

When the camera is used with the Mamiya Winder ZE while set at "AUTO", each frame will be correctly exposed even if light conditions change. AE Lock operation is also possible. In this case, however, any single sequence of photographs will all be exposed at the value determined by the camera for the first frame. Use only as required.

Single frame photography is easy by simply removing the finger from the shutter release after each shot.

A Steady Hold Means Sharper Photographs



Press the elbow firmly against the side of your body for a steadier hold, whether using the camera horizontally or vertically. It is also recommended that you press the camera against your forehead for extra steadiness.

Most blurred photographs are due to camera shake caused by not holding the camera steady. Improve the sharpness of your pictures by holding your camera steady. Depress the release button gently with a squeezing motion, without jerking.



Flash Photography Made Easy

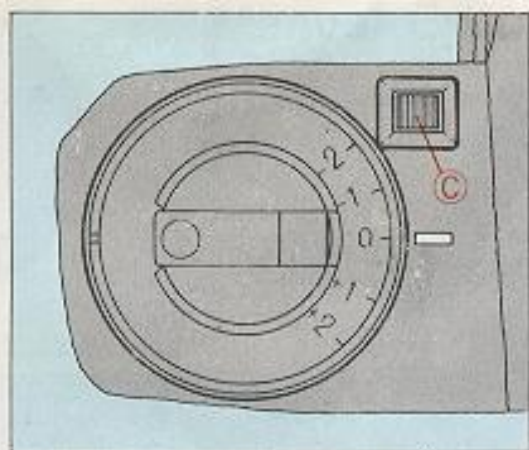
1. Attach the Mamiyalite ZE auto electronic flash to the hot-shoe of the camera. A sync-cord is not required.
2. Set the shutter speed dial to the "AUTO" or "AEL" position.
3. The Mamiyalite ZE will be fully charged a few seconds after the switch is turned on. If you lightly press the shutter release button while the flash unit is charging, the LED display will shift from the shutter speed for natural light conditions to 1/60 sec. as soon as the flash is fully charged.

When the shutter speed dial is at a manual speed between 1/1000 sec. and 1/125 sec., the camera automatically synchronizes for flash at 1/60 sec. on charging. When the dial is set between 1/60 sec. and 1 sec. flash will be obtained at the speed which the dial is set to. In addition, when the flash charges, the flashing LED at "M" will cease flashing and light continuously.

4. Set the lens to the aperture indicated by the flash and start taking photographs as explained in detail on the Mamiyalite ZE instructions. The flash intensity is automatically controlled in accordance with the distance to the subject. Two apertures are available for different flash ranges.

This is a series control type automatic electronic flash so energy is saved at close distances. This results in shorter recycle times and longer battery life.

- When using flash units other than the Mamiyalite ZE, set the shutter mode selector to the "X" position. The shutter speed will be 1/90 sec. in this case.
- When using flash units that cannot be mounted on the hot-shoe, connect the sync-cord to the sync-cord terminal of the camera.



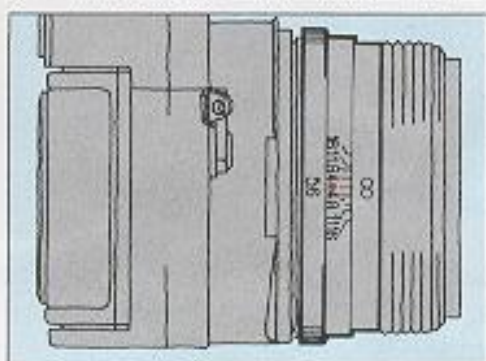
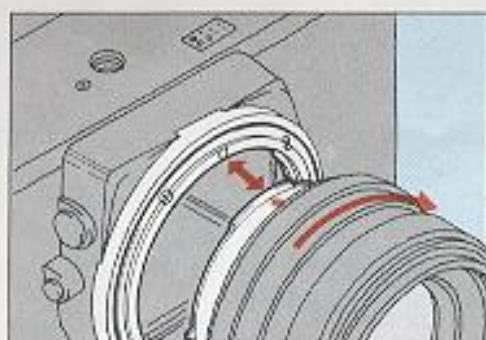
High- and low-key shots are also possible with the Mamiya ZE. High-key shots have a bright, ethereal appearance while low-key shots are dark and powerfully dramatic.

Excellent high-key effects can be obtained by overexposing one or two steps. Low-key is possible with underexposure of one step, or made more pronounced by two steps.

The exposure compensation dial lock (C) must be pressed to turn the exposure compensation dial in either direction from the "0" position. Click stops are provided for each step but intermediate settings are also possible.

For high-key effects, the background should have flat, bright lighting 2 to 4 times brighter (1 to 2 steps) than the subject. For low-key, only the highlights should be 2 to 4 times brighter than the rest of the subject for best results.

After finishing taking photographs using exposure compensation, be sure to return the dial to the "0" position. The dial locks at this position to prevent errors.



CS Lenses for the Mamiya NC

Stopped-down AE exposure control is also possible using the CS lenses by the same procedure described in the P-Mount Adapter section.

Before attaching the CS lenses on the Mamiya ZE, press the AE button on the CS lens and rotate the aperture ring so that the AE button is located away from the index mark.

Attach the lens by matching the alignment index mark with the index mark at the bottom of the camera lens mount, then rotating the lens clockwise until it clicks into position. Do not press the lens release button when mounting the CS lens; otherwise, the diaphragm will not operate properly.

When mounted, the center index mark of the CS lenses is at the side but the lens will operate properly.

- If a telephoto lens is mounted on the camera by mistake with the AE button aligned with the center index mark, the lens must be removed from the camera before moving the AE button away from the index and then remounted. **DAMAGE MAY RESULT IF YOU ATTEMPT TO MOVE THE AE BUTTON WITH THE LENS MOUNTED ON THE CAMERA.**

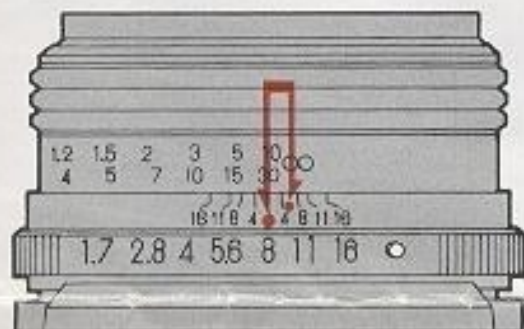
- The Fisheye 14mm f/3.5 lens is not adaptable to the ZE camera.

Screw-Mount Lens Capability with P-Mount Adapter ZE

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If you should own any of the screw-mount lenses for the Mamiya DSX, MSX, DTL or TL cameras, you can also mount them on the Mamiya ZE using the P-Mount Adapter. Stopped-down AE exposure control is then possible with the camera in the AUTO mode.

1. First focus with the lens at the maximum aperture; then set the aperture to be used for the exposure.
2. When the shutter release is lightly pressed, one of the LEDs that indicate shutter speeds inside the viewfinder will light to show that exposure is correct.



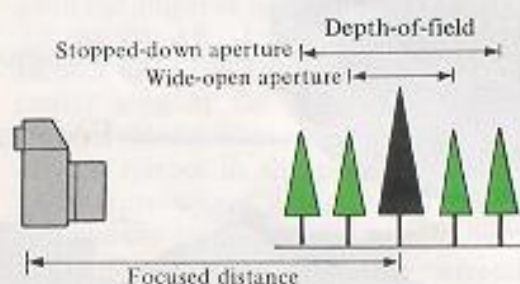
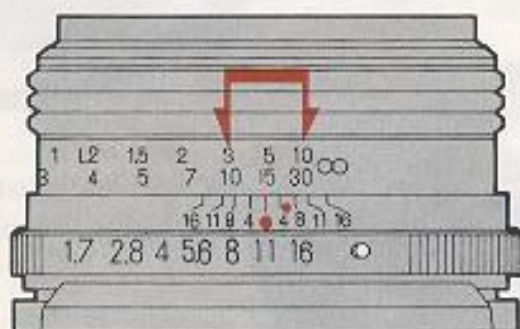
Infrared Photography

The red dot (or red line) to the right of the center index mark of the lens is the infrared mark. This mark is provided because focusing when using black and white infrared film differs than with ordinary films. Compensation must be applied as explained below.

1. First focus the camera as for normal photography; then read the distance indicated by the center index mark and move this value to the infrared mark position.

2. A red filter should also be used with infrared film so refer to the film instructions concerning exposure.

- There is no need for focus compensation when using color infrared films. Use the filters recommended in the film instructions.



Controlling Depth-of-Field

When the camera is focused on a subject, a certain distance in front and back of the subject is also in relatively sharp focus. This is called the depth-of-field and increases as the lens aperture is stopped down while it decreases as the lens is opened up to larger apertures.

To render a background in sharp focus, or to allow snap-shooting without the bother of pinpoint focusing, the lens can be stopped down to increase the depth-of-focus. Opening up the lens aperture appropriately enables a subject to be rendered in sharp detail against a purposely blurred background or foreground.

The depth-of-field range can be determined using the depth-of-field scale of the camera lens. Once the desired aperture is selected, the corresponding figures on both sides of the center index mark indicate the depth-of-field for that aperture on the distance scale.

For example, if the camera is focused at 15ft (5m) at an aperture of $f/11$, the range from approximately 10ft (3m) to 30ft (10m) will also be in sharp focus.

Don't Run Short of Battery Power

The Mamiya ZE has a built-in circuit that automatically gives a warning when battery power is running low. In this case, the LED corresponding to the correct shutter speed flashes at the rate of 4 times per second when the shutter release button is lightly pressed.

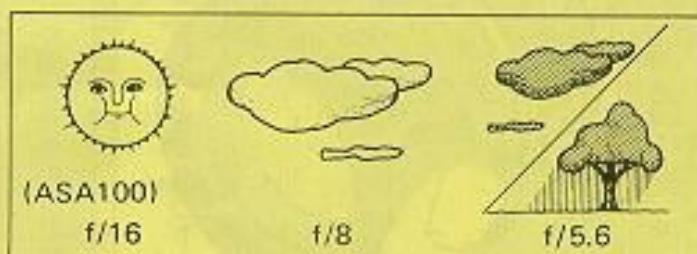
- The batteries should be replaced as quickly as possible, although several exposures can still be made. When the batteries go completely dead, the LEDs won't light at all.

How to Take Pictures Without Battery Power

Set the shutter speed dial to "X". At this setting the shutter operates at the speed of 1/90 sec. Reset the aperture according to the recommendation shown on the right.

Also, you can use a flash unit at the "X" setting with or without batteries.

Batteries normally last for one year or more, but it is advisable to replace them once a year at least. Those who take large numbers of photographs should replace the batteries more frequently. Always be on the lookout for the flashing LED warning.



Getting the Most Out of Your Batteries

- Batteries should always be removed when the camera is not to be used for an extended time. Keep them in a cool, dry place. Leaving batteries in the camera for long periods may result in leakage which could damage the internal mechanisms.
- When replacing batteries, use 1.5V silver oxide types (Eveready S-76, UCAR S-76, Ray-O-Vac RS-76, Mallory MS-76, or equivalent). Although 1.3V mercury batteries are the same shape and size, they will not operate the camera normally.
- Be sure to replace all four batteries at the same

time. Do not mix new and old batteries or batteries of different types or brands.

- When loading batteries into the battery cartridge, be sure the plus and minus terminals are located properly. Before loading the batteries, be sure to wipe the terminals of the batteries and the cartridge with a dry cloth to remove any soiling or finger marks, etc.
- Never take apart silver oxide batteries, short them, or throw them into fire.

Handling Cautions

Be sure that the shutter release button isn't pressed down when carrying the camera or when putting it away as the LED display will stay on and drain the batteries.

The depth of the tripod socket is 2-3/16 in. (5.5 mm). If a tripod is used with a mount screw longer than this, the internal mechanisms of the camera may be damaged. Do not use excessive force when mounting the camera on a tripod.

Avoid strong vibration and shock since this may cause adverse influence on the delicately adjusted parts of the camera. Be careful not to drop the camera or allow it to strike against objects.

Do not keep the camera for extended periods where temperature is above 100°F (40°C) or below 5°F (-15°C), or where there is excessive humidity or salt in the air. The camera mechanism or film can also be damaged if the camera is left for a long time in a place where there is naphthalene or formalene gas. Always store color film at the designated temperature.

Never touch the surface of the mirror or lens with

the hands. Any dust should be blown off with a blower or wiped off by lightly applying a soft cloth. Be especially sure to never rub the surface of the mirror.

Always clean the camera carefully after photographing at the beach or other place where there is salt in the air. Clean the many plastic parts by gently wiping with a soft, dry cloth. Never use solvents when cleaning.

Inspect the camera periodically when it is not being used. Be sure to inspect moving parts before trying to take important photographs. This includes the film advance and shutter operation, electronic flash synchronization, etc. Test shots should also be taken if possible to discover any irregularities that may exist. (Incidental damage which results in this camera malfunctioning will not be compensated.)

Do not try to repair or lubricate the camera if some irregularity is discovered. Leave this to your Mamiya dealer.

Mamiya-Sekor E Lenses

28mm f/2.8



28mm f/3.5



35mm f/2.8



50mm f/1.7



50mm f/2



Macro 50mm f/3.5



Auto macro spacer ZE



Zoom 28-50mm f/3.5-4.5



135mm f/2.8



135mm f/3.5



200mm f/4



Zoom 70-150mm f/3.8



Zoom 80-200mm f/3.8



Lens	Construction		Angle of view	Mini. aperture	Mini. focusing distance	Filter size	Lens hood	Weight
	Groups	Elements						
28mm f/2.8	7	8	74°	22	1ft. or 0.3m	49mm	Screw-in	5.8oz. (165g)
28mm f/3.5	5	5	74°	22	1ft. or 0.3m	49mm	Screw-in	4.9oz. (140g)
35mm f/2.8	6	6	63°	22	1.5ft. or 0.4m	49mm	Screw-in	5.1oz. (145g)
50mm f/1.7	5	6	47°	16	1.5ft. or 0.45m	49mm	Screw-in	5.3oz. (150g)
50mm f/2	4	6	47°	16	1.5ft. or 0.45m	49mm	Screw-in	5.1oz. (145g)
Macro 50mm f/3.5	4	5	47°	22	0.75ft. or 0.22m	49mm	Screw-in	7.1oz. (200g)
135mm f/2.8	4	5	18°	22	5ft. or 1.5m	52mm	Built-in	10.9oz. (310g)
135mm f/3.5	4	4	18°	22	5ft. or 1.5m	49mm	Built-in	10.1oz. (285g)
200mm f/4	5	5	12°	32	7ft. or 2m	52mm	Built-in	14.3oz. (405g)
Zoom 28-50mm f/3.5-4.5	8	9	74°-47°	22	2ft. or 0.6m	55mm	Screw-in	10.2oz. (290g)
Zoom 70-150mm f/3.8	9	12	34°-17°	32	3.5ft. or 1m	52mm	Built-in	17.5oz. (495g)
Zoom 80-200mm f/3.8	10	14	30°-12°	32	4ft. or 1.3m	58mm	Screw-in	26.5oz. (750g)

Aperture	Distances focused on (in feet)										
	∞	30	15	10	7	5	4	3	2.5	2	1.75
1.7	151' 9½"	25' 1½"	13' 8¼"	9' 5"	6' 8½"	4' 10¼"	3' 11"	2' 11½"	2' 5½"	1' 11¾"	1' 8¾"
	∞	37' 3"	16' 7"	10' 8"	7' 3¾"	5' 1¾"	4' 1"	3' ½"	2' 6½"	2' ¼"	1' 9¼"
2	129' ½"	24' 5"	13' 5¼"	9' 3¾"	6' 8"	4' 10"	3' 10¾"	2' 11¼"	2' 5½"	1' 11¾"	1' 8¾"
	∞	38' 11"	16' 10¼"	10' 9½"	7' 4½"	5' 2¼"	4' 1¼"	3' ¾"	2' 6½"	2' ¼"	1' 9¼"
2.8	92' 2¾"	22' 8¼"	12' 11½"	9' ¾"	6' 6½"	4' 9¼"	3' 10¼"	2' 11"	2' 5¼"	1' 11¾"	1' 8¾"
	∞	44' 2"	17' 9¾"	11' 1¾"	7' 6¼"	5' 3"	4' 2"	3' 1"	2' 6¾"	2' ½"	1' 9¼"
4	64' 7½"	20' 7¼"	12' 3"	8' 8¾"	6' 4¼"	4' 8"	3' 9½"	2' 10¾"	2' 5"	1' 11½"	1' 8½"
	∞	55' 5"	19' 4¼"	11' 8¾"	7' 9½"	5' 4½"	4' 2½"	3' 1½"	2' 7"	2' ½"	1' 9½"
5.6	46' 2½"	18' 3¾"	11' 5"	8' 3½"	6' 1¾"	4' 6¾"	3' 8¾"	2' 10¼"	2' 4¾"	1' 11¼"	1' 8½"
	∞	83' 11½"	21' 11"	12' 7¼"	8' 1¾"	5' 6½"	4' 4"	3' 2"	2' 7¼"	2' ¾"	1' 9½"
8	32' 4¾"	15' 8½"	10' 4½"	7' 8¾"	5' 10"	4' 4¾"	3' 7¼"	2' 9½"	2' 4¼"	1' 11"	1' 8¼"
	∞	373' 3½"	27' 4¼"	14' 2¼"	8' 9¼"	5' 9¾"	4' 5¾"	3' 3"	2' 8"	2' 1¼"	1' 9¾"
11	23' 7¼"	13' 4"	9' 3½"	7' 1¾"	5' 6"	4' 2½"	3' 5¾"	2' 8½"	2' 3¾"	1' 10½"	1' 8"
	∞	∞	39' 8¼"	16' 10½"	9' 8¼"	6' 2¼"	4' 8½"	3' 4½"	2' 8¾"	2' 1½"	1' 10¼"
16	16' 3½"	10' 8¼"	7' 11¼"	6' 4"	5'	3' 11"	3' 3½"	2' 7¼"	2' 2¾"	1' 10"	1' 7½"
	∞	∞	162' 11¾"	24' 7¾"	11' 9¼"	6' 11¼"	5' 1¼"	3' 6½"	2' 10¼"	2' 2½"	1' 10¾"

16 LENS COMPARISON CHART

Description	Construction		Angle of view	Minimum aperture	Operating modes	Closest focus distance	Filter size	Lens hood	Weight
	Groups	Elements							
Fish-eye 14mm f/3.5	7	10	180°	16	Auto	1ft or 0.3m	Built-in	None required	10.4 oz. (295g)
21mm f/4	8	9	91°	16	Auto	1.5ft or 0.45m	58mm	None required	7.8 oz. (220g)
28mm f/2.8	7	7	75°	16	Auto	1ft or 0.3m	58mm	Slip-on	7.2 oz. (205g)
35mm f/2.8	5	7	63°	16	Auto	1.5ft or 0.4m	52mm	Slip-on	6.9 oz. (195g)
50mm f/2	4	6	47°	16	Auto	1.5ft or 0.45m	52mm	Screw-in	6.2 oz. (175g)
55mm f/1.4	5	7	43°	16	Auto	1.5ft or 0.45m	52mm	Screw-in	8.6 oz. (245g)
55mm f/1.8	5	6	43°	16	Auto	1.5ft or 0.45m	52mm	Screw-in	6.5 oz. (185g)
85mm f/1.7	4	6	28°	16	Auto	3ft or 0.9m	58mm	Screw-in	17.6 oz. (500g)
85mm f/2.8	4	4	28°	16	Auto	2.75ft or 0.85m	52mm	Built-in	8.5 oz. (240g)
100mm f/2.8	4	5	24°	22	Auto	4ft or 1.2m	52mm	Screw-in	9.7 oz. (275g)
105mm f/2.8	4	4	23°	16	Auto	4ft or 1.2m	52mm	Built-in	9.7 oz. (275g)
135mm f/2.8	4	4	18°	22	Auto	5ft or 1.5m	52mm	Built-in	17.6 oz. (500g)
200mm f/3.5	4	4	12°	22	Auto	7.5ft or 2.3m	58mm	Built-in	19.9 oz. (565g)
300mm f/5.6	4	5	8°	22	Auto	15ft or 4.5m	58mm	Built-in	31.2 oz. (885g)
600mm f/8	3	3	4°	32	Preset	33ft or 10m	41.27mm Drop-in Ser. VI	Screw-in	66.0 oz. (1870g)
800mm f/8	4	4	3°	32	Preset	60ft or 18m	41.27mm Drop-in Ser. VI	Screw-in	81.8 oz. (2320g)
Zoom 90–230mm f/4.5	8	11	27°–10°	22	Auto	5ft or 1.5m	58mm	Built-in	31.9 oz. (905g)
Macro 60mm f/2.8	4	5	40°	22	Preset	9¼in. or 0.235m	58mm	None required	13.9 oz. (395g)