



FILTER FACTORS FOR BLACK-AND-WHITE FILM

Filter	Color	Use	Filter Factor			
			Pan. B		Pan. C	
			Day.	Tung.	Day.	Tung.
Y1	Light Yellow	Suitable for all outdoor work, landscapes, snow scenes and particularly effective for accentuating clouds on a blue sky.	1	1	1	1
Y2	Medium Yellow	Gives more brilliance to spring and autumn foliage. Renders yellow and green lighter and blue darker.	1.5	1	1.5	1
O2	Medium Orange	A special effect filter suitable for depicting heavy clouds against dark sky and bringing out details in distant views by reducing mist. Renders yellow and red lighter, and blue darker; subdues skin blemishes in outdoor portraits.	3	2	3.5	3
R2	Medium Red	Greater contrast than Y2 or O2 filters, for dramatic cloud effect against black sky. For dark wood furnitures by artificial light. Use with infra-red film for special effects.	6	5	6	5

Ref: Pan: B ... SUPER XX, PLUS X, PANATOMIC X, MICROFILM (KODAK), ULTRA-SPEED, SUPREME (ANSCO), NEOPAN S & SS (FUJI)

Pan: C.....TRI-X, PANCHROME, ORTHO X (KODAK)

FILTER FACTORS FOR DAYLIGHT COLOR FILM

Filter	Alteration in Color Temp.	Use	Filter Factor
DAYLIGHT	Absorbs ultra-violet rays and some blue light	Suitable for sunny weather as it absorbs ultra-violet rays and counteracts the tendency towards being excessively bluish, giving natural color balance. Especially effective for cutting bluish reflection from young foliage.	1
CLOUDY	7500°K→6000°K	For use on cloudy days as it lowers the color temperature and absorbs the bluish colors, giving overall color balance and saving the picture from being excessively blue.	1.2
MOR. & EVE.	5000°K→6000°K	For use in the morning and evening hours when the picture will be excessively reddish. Raises color temperature and absorbs reddish colors.	1.6
FLASH	3800°K→6000°K	Use with clear flash bulbs not suited for daylight color film. Raises color temperature and gives correct color balance of otherwise excessively reddish picture.	2.4
FLOOD	3200°K→6000°K	Used to raise the low color temperature of flood lamps and absorbs reddish colors.	3.2
F TYPE	6000°K→4000°K	For use with Type F film when exposed for daylight. It lowers the daylight temperature to flash type film temperature and absorbs bluish colors.	2.9

- Ref: 1. Daylight films are Kodachrome, Daylight ; Kodacolor, Daylight ; Ektachrome, Daylight ; Ansco Color, Daylight ; Agfa Color, Daylight ; Gevaert Color, Daylight ; Fuji Color.
2. Type F films are Ektachrome, Type F ; Kodachrome Type F ; Anscochrome Flash Type.

Shutter release button

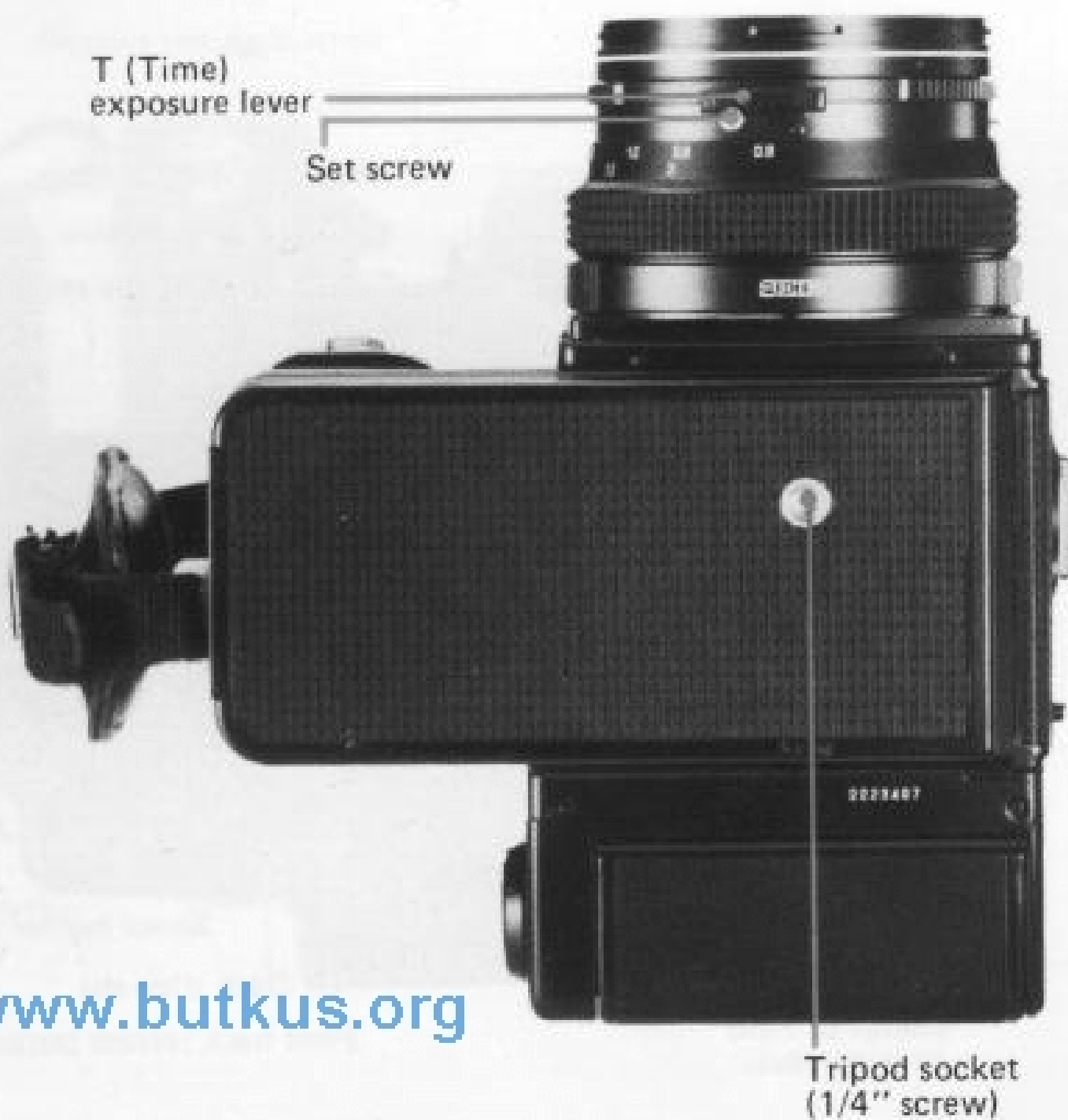
Flash synch socket

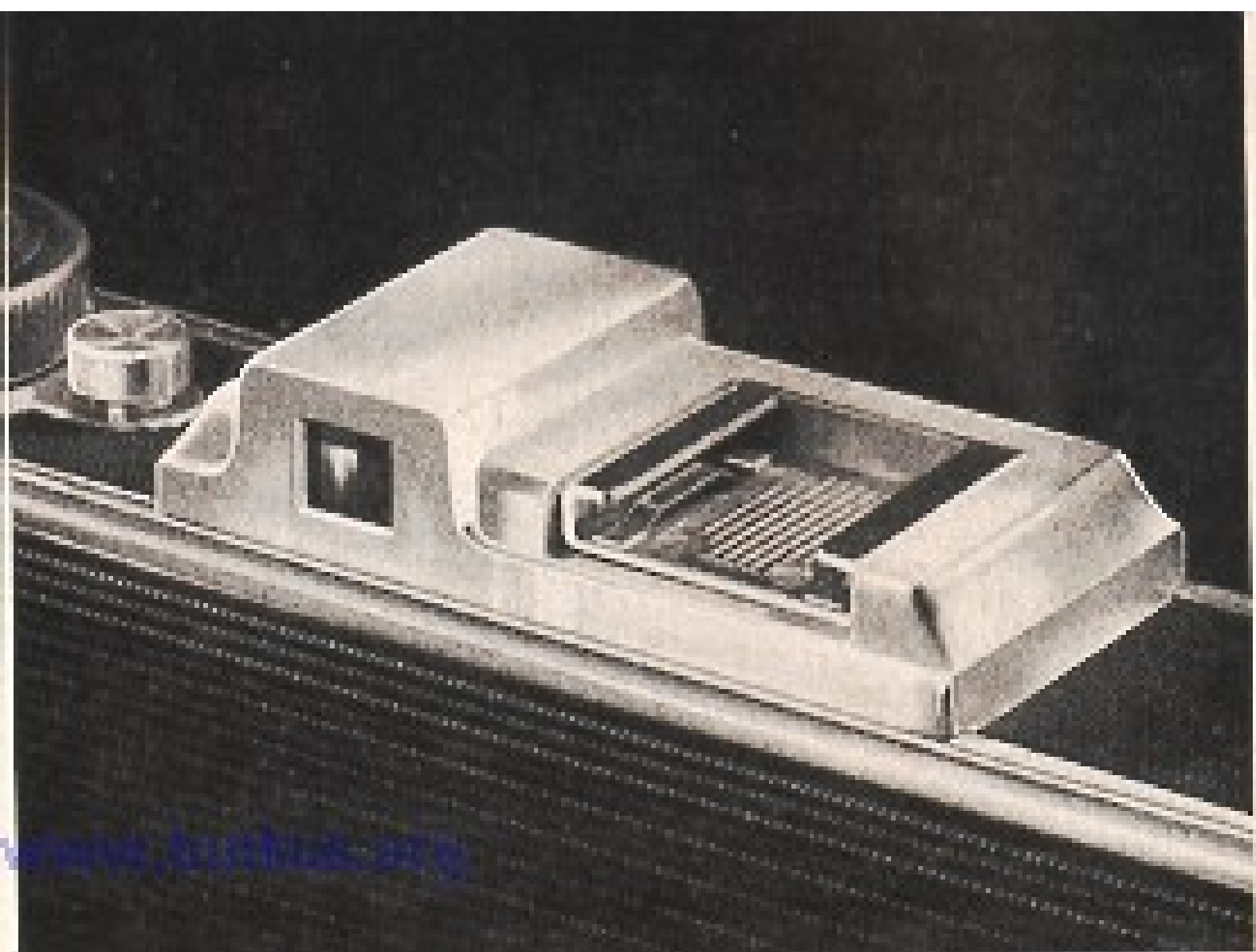












Focusing hood catch

Battery chamber button



Film type indicator frame

Battery chamber cover

RICOH CAMERAS



RICOH XRF

The Winner With Futuristic Capabilities.

Electronic Focus Aid System.



Major Specifications

Type:	35mm aperture-priority AE (automatic exposure) SLR with electronic focus aid system
Shutter:	Electronically controlled, vertically moving Copal CSM-EM metal focal plane shutter. Automatic from 1 to 1/1000 sec. Flash sync. at 1/100 sec. plus B. Shutter locks at "L" position.
Viewfinder:	Field of view covers 93% horizontally and vertically, Viewing Magnification 0.88X (with 50mm f/1.4 lens), Shutter Speed Indication from 1/1000 to 1/30 sec. by 6 LEDs, 1/30 sec. LED pulsates at slow shutter, 1/1000 sec. LED pulsates at over exposure. Flash ready LED and 1/125 sec. LED light up when fully charged.
Focusing:	3 LEDs for electronic focus aid for EV 6 ~ 18 (▶: too close, ●: in focus, ◀: too far; when the subject is hard to focus, one of the 3 LEDs pulsates.) Diagonal split-image spot surrounded by fresnel field.
Exposure Meter:	TTL full open metering by SPD (SILICON PHOTO DIODE) for center-weighted average light reading coupled automatically to F-Stop.
Exposure Coupling Range:	EV 4 ~ 18 (with ASA 100 film, 50mm f/1.4 lens)
Film Speed Range:	ASA 12 ~ 3200
Power Source:	One 4SR-44 6.2V Silver Oxide battery, or one 4LR-44 6V Alkaline battery.
Other Features:	Databack can be attached with direct contact points Electromagnetic shutter release Multi-slit easy film loading, Electronic selftimer
Dimensions:	136(W) × 86(H) × 51(D)mm (Body only)
Weight:	5 1/8" × 3 1/8" × 2" 490g (17.3 oz) (Body only)

•Specifications are subject to change without notice.



The Clear Choice in Shooting for Perfection.

Aperture-Priority AE and Quartz-Controlled Manual



Major Specifications

Type:	35mm aperture priority AE (automatic exposure) SLR with electronic focal plane shutter.
Shutter:	Electronically controlled, vertically moving metal focal plane shutter. Automatic from 16 to 1/1000 sec. Manual from 16 to 1/1000 sec. plus B
Viewfinder:	Field of view covers 93% horizontally and vertically. Viewing Magnification 0.88X (with 50mm f/1.4 lens). Display by LCD (Liquid Crystal Display): Exposure Compensation, Bulb, Manual, Overexposure, Underexposure Shutter Speed Indicator (pulsates when on AE lock). Battery Warning (when battery nearly exhausted). Flash Ready LED Light, F-Stop Number.
Focusing:	Diagonal split-image spot in microprism band surrounded by Fresnel field
Exposure Meter:	TTL full open metering by SPD for center-weighted average light reading coupled automatically to F-stop.
Exposure Coupling Range:	EV 0 - EV 18 (with ASA 100 film, 50mm f/1.4 lens)
Film Speed Range:	ASA 12 - 3200
Exposure Adjustment:	Exposure adjustment system (+2 - -2, in 1/3 steps). AE Lock System (Memory).
Self-Timer:	Operating delay 10 seconds. During operation the red LED light pulsates and an electronic sound is emitted.
Power Source:	Two SR-44 1.55V silver oxide batteries Two LR-44 1.5V alkaline batteries.
Other Features:	Multi-exposure, Preview lever
Dimensions:	136(W) x 86(H) x 51(D)mm (Body only) 5 3/8" x 3 3/8" x 2"
Weight:	470g (16.6 oz) (Body only)

•Specifications are subject to change without notice.



RICOH XIR-S

The World's First Solar-Powered SLR Camera.

Aperture-Priority AE and Quartz-Controlled Manual



Major Specifications

Type:	35mm aperture priority AE (automatic exposure) SLR with electronic focal plane shutter.
Shutter:	Electronically controlled, vertically moving metal focal plane shutter. Automatic from 16 to 1/1000 sec. Manual from 16 to 1/1000 sec. by Quartz Control (manual only) plus B. Shutter locks at "L" position.
Viewfinder:	Field of view covers 93% horizontally and vertically. Viewing Magnification 0.88X (with 50mm f/1.4 lens). Display by LCD (Liquid Crystal Display): Exposure Compensation, Bulb, Manual, Overexposure, Underexposure Shutter Speed Indicator (pulsates when on AE lock). Battery Warning (when battery nearly exhausted). Flash Ready LED Light, F-Stop Number.
Exposure Meter:	TTL full open metering by SPD (SILICON PHOTO DIODE) for center-weighted average light reading coupled automatically to F-stop.
Exposure Coupling Range:	EV 0 ~ EV 18 (with ASA 100 film, 50mm f/1.4 lens)
Film Speed Range:	ASA 12 ~ 3200
Exposure Adjustment:	Exposure adjustment system (+2 ~ -2, in 1/3 steps). AE Lock System (Memory).
Self-Timer:	Operating delay 10 seconds; during operation the red LED light pulsates and an electronic sound is emitted.
Power Source:	Solar battery recharges the storage rechargeable battery (Battery-S). Other batteries usable: two SR-44 1.55V Silver Oxide batteries, or two LR-44 1.5V Alkaline batteries.
Other Features:	Multi-exposure, Preview lever
Dimensions:	136(W) x 86(H) x 51(D)mm (Body only) 5 3/8" x 3 3/8" x 2"
Weight:	475g (16.8 oz) (Body only)

•Specifications are subject to change without notice.



Comparison of Main Features

	KR-5 SUPER	KR-10 SUPER	XR7	XR-S	XR-F
Electronic focus Aid					●
Solar battery				●	
Aperture-priority AE		●	●	●	●
Manual	●	●	●	●	
LCD viewfinder information		●	●	●	
LED viewfinder information					●
Match-needle viewfinder information	●				
CdS photocell	●				
SPD photocell		●	●	●	●
Shutter release LED	●				
1/125 Sec. flash synchro	●	●	●	●	
Electromagnetic shutter release		●	●	●	●
Exposure compensation $\pm 2\text{EV}$		●	●	●	●
AE lock system			●	●	
Multi-exposure			●	●	
Self-timer	●	●	●	●	●
Depth-of-field preview			●	●	
Accepts auto winder		●	●	●	●
Accepts data back		●	●	●	●
Dedicated electronic flash system	●	●	●	●	●
PC terminal		●	●	●	

RICOH KR-10 SUPER

The Creative Choice If You Like Things Simple.

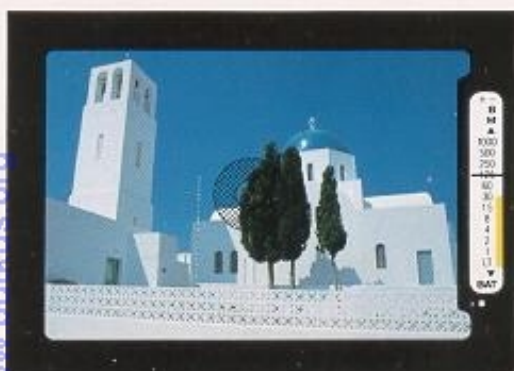
Aperture-Priority AE and Quartz-Controlled Manual



Major Specifications

Type:	35mm aperture priority AE (automatic exposure) SLR with electronic focal plane shutter.
Shutter:	Electronically controlled, vertically moving metal focal plane shutter. Automatic from 16 to 1/1000 sec. Manual from 16 to 1/1000 sec. by Quartz Control (manual only) plus B. Shutter locks at "L" position. Field of view covers 93% horizontally and vertically.
Viewfinder:	Viewing Magnification 0.88X (with 50mm f/1.4 lens). Display by LCD (Liquid Crystal Display): Exposure Adjustment, Bulb, Manual, Overexposure, Underexposure, Shutter Speed Indicator, Battery Warning (when battery nearly exhausted). Flash Ready LED Light.
Focusing:	Split-image spot in micropism band surrounded by fresnel field.
Exposure Meter:	TTL full open metering by SPD (SILICON PHOTO DIODE) for center-weighted average light reading coupled automatically to F-stop.
Exposure Coupling Range:	EV 0 - EV18 (with ASA 100 film, 50mm f/1.4 lens)
Film Speed Range:	ASA 12 - 3200
Power Source:	Two SR-44 1.55V Silver Oxide batteries, or two LR-44 1.5V Alkaline batteries.
Other Features:	Databack can be attached with direct contact points. Electromagnetic shutter release. Multi-slit easy film loading. Electronic selftimer.
Dimensions:	136(W) x 86(H) x 51(D)mm (Body only)
Weight:	5 1/8" x 3 1/8" x 2" 460g (16.3 oz) (Body only)

•Specifications are subject to change without notice.



RICOH KR-5 SUPER

The Simple Choice For Super Photographs.

Manual Exposure Control and 1/1000 Shutter Speed



Major Specifications

Type:	TTL full open metering 35mm SLR with metal focal plane shutter.
Shutter:	Vertically moving Copal CCS metal focal plane shutter, variable from 1/8 sec. to 1/1000 sec. plus B
Viewfinder:	Fixed eye-level pentaprism Exposure meter needle and shutter speed needle visible. Field of view 93%, Magnification 0.83X Flash ready LED visible on the viewfinder frame
Focusing:	Diagonal split-image stop in microprism-image band surrounded by fresnel field
Exposure Meter:	Two CdS photocells TTL full open metering for center-weighted average light reading coupled to shutter speed, F-stop and film speed
Exposure Coupling Range:	EV 4 - 18 (ASA 100 film with 50mm f/1.4 lens)
Film Speed Range:	ASA 12 - 3200
Flash Synchronization:	X synchronization for cordless electronic flash unit at 1/8 - 1/125 sec. and "B" With Ricoh Speedlite 240 and 180 Flash Ready LED on the viewfinder frame lights up when the flash is charged
Film Wind:	Single Stroke film advance lever with 135° winding angle (40° stand off angle)
Self-Timer:	Mechanical self-timer with LED display
Power Source:	Two SR-44 1.55V silver oxide batteries
Other Feature:	Hot shoe, ASA/DIN dial lock, Cable release socket, Shutter release lock (with film advance lever), Exposure meter switch (with film advance lever)
Dimensions:	140(W) x 91(H) x 48(D)mm (Body only) (5 1/2" x 3 5/8" x 1 7/8")
Weight:	540g (19 oz) (Body only)

•Specifications are subject to change without notice.



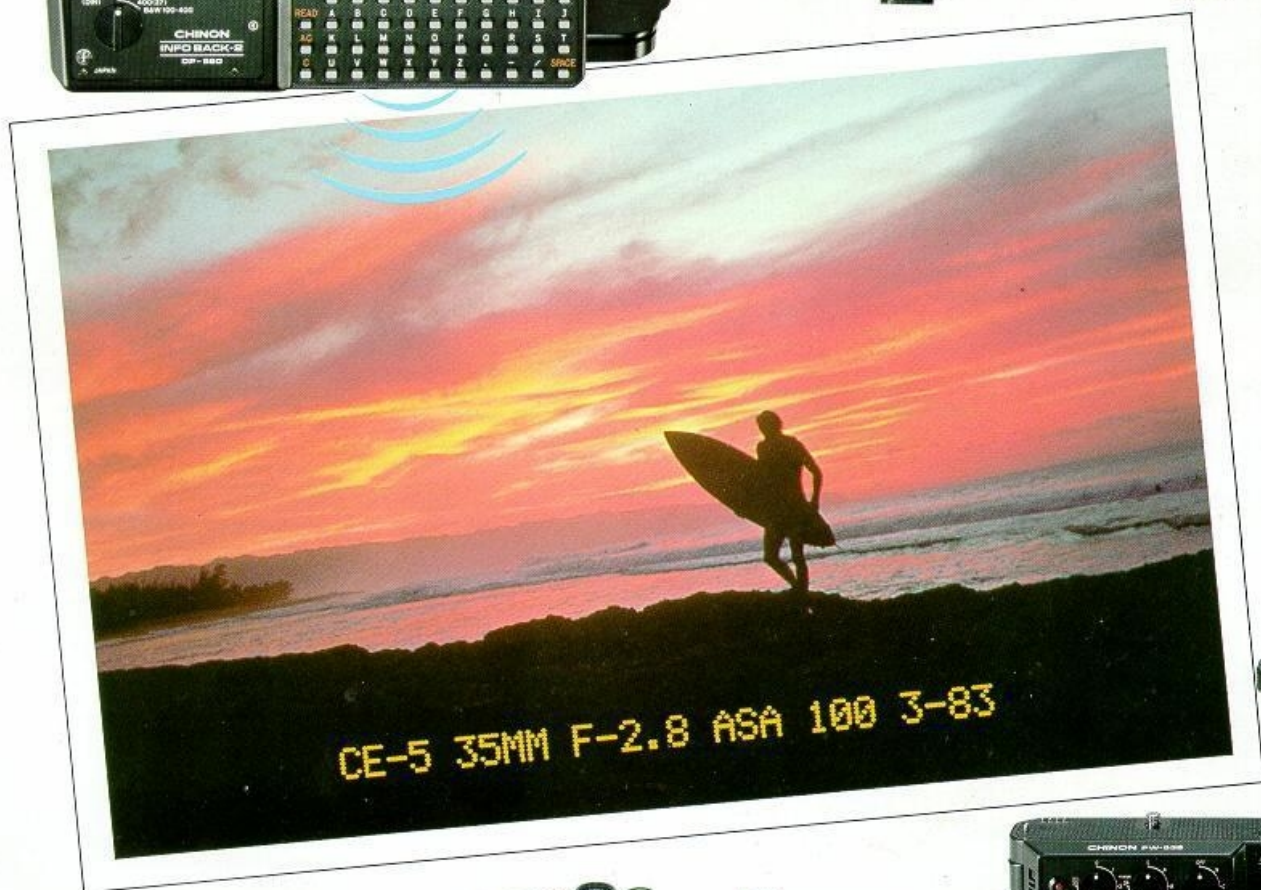
ACCESSORIES

CHINON OPTIONAL SYSTEM ACCESSORIES FOR ADDED CONVENIENCE AND VERSATILITY!

CHINON offers a multitude of system accessories that will enhance your creativity! System accessories include: CHINON 50mm Auto Focus lens that "tracks" your subject via infrared beam; CHINON 35-70mm "AF" zoom lens that is activated by the CE-5/CG-5 shutter release; two CHINON info-back accessory data backs that let you program up to 30 characters of valuable information onto your pictures; CHINON Auto Date data back that imprints day/month/year or minute/hour directly onto your negative or slide; Unique Power Winders that can count the time between each exposure, select the number of exposures and shoot at 2 fps; automatic dedicated flash units that are extremely easy to use; ultra sharp wide angle, telephoto and zoom lenses and much, much more! CHINON system accessories put the fun back into photography.

CHINON WIRELESS REMOTE CONTROL SYSTEM—MAKES UNMANNED PHOTOGRAPHY AUTOMATIC!

You can even operate your CHINON CE-5 remotely, from over 130 feet away—unattended. Just plug in CHINON's wireless remote receiver to the CHINON Power Winder, then just push a button on the wireless remote transmitter to trigger the camera. Great for nature photography! CHINON—state-of-the-art accessories make creative photography automatic!



CHINON ACCESSORY LENSES



CE-5 with F3.3 - 4.5/35 - 70 mm AF zoom lens

New CHINON CE-5/CG-5 "Series 5" SLR's—the world's first 35mm cameras designed with sophisticated electronics which allow our 35—70mm AF zoom lens to be focused from the camera's shutter release button!



28mm



50mm



135mm



300mm



F/2.8 28mm

F/2.8 135mm

F/3.5 200mm

F/5.6 300mm

• F/8 500mm Mirror

F/3.5-4.3

28-50mm

F3.5-4.3

35-100mm (Macro)

F/4.5

80-200mm (Macro)

F/3.8

70-210mm (Macro)

F/5.6

100-300mm (Macro)

	LENS					EXPOSURE					SHUTTER					FOCUSING / FINDER					OTHER FEATURES												
	Chinon Bayonet Mount	Integral Lens Speed	Focal Length (mm)	Auto Focus Lens	TTL (Manual)	TTL Auto Exp.	Exposure Range (EV) at ASA 100-500 mm F1.4	Compensation (EV)	ASA Range	Exposure Memory	Sekko Metal Shutter	Electromagnetic Shutter	Metal Focal Plane	Shutter Speed (sec.)	SLR	Split Image	Microprism	LED's Indicate Shutter Speed	LED Exposure Indication	LED Flash and AF Indication	Electronic Self-Timer	Self-Timer	Hot Shoe	Flash Synchro	Compact Size	Power Window Provision	Chinon Dedicated Flash	AF Contacts	Auto Date Contacts	Body Grip	Memo Holder	Aperture Window	Depth of Field Preview
CE-5	•	•	•	•	•	•	1-20	±1	25-3200	•	•	•	•	•	•	•	•	56 LEDs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
CG-5	•	•	•	•	•	•	1-19	±1	25-3200	•	•	•	•	•	•	•	•	13 LEDs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
CM-5	•	•	•	•	•	•	1-19	•	25-1600	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

CHINON CM-5



CHINON CM-5—MATCH LED METERING MAKES PHOTOGRAPHY A SNAP!



EASY TO USE LED LIGHT MEASURING SYSTEM

The Chinon CM-5 has a unique three step exposure indicator shown by three light emitting diodes (LED's) in the viewfinder. So unlike most other cameras that make you rely on hard work and luck, the CM-5 takes the guesswork out of setting the exposure. Just set either the shutter speed or the lens opening according to your needs. Then adjust the other setting until the green LED glows confirming precise exposure. It's that easy to set the camera for perfect exposures! The LED's will even indicate the degree of over or under exposure, putting you in total control—all the time!

LOADED WITH "STATE-OF-THE-ART" FEATURES

The Chinon CM-5 features the ultra precise Sekio metal focal plane shutter for perfect photos. Automatic power "on/off" system—just touch the shutter release, the LED's light up. Silicon blue-cell metering—instantly reacts to sudden changes in lighting conditions. Easy to use self-timer. Shutter speeds from 1—1/1000th of a second. ASA settings from 25-1600. Film memo holder. Big bright viewfinder with three ways to focus. Two stage shutter release button. Power winder electronic contacts are built in for a single frame picture advance. The Chinon CM-5 is, in a word, loaded with every state-of-the-art feature built into a solid, reliable body.

QUALITY SYSTEM ACCESSORIES

The Chinon CM-5 accepts a multitude of system accessories that will enhance your creativity! Ultra sharp wide angle, telephoto, and zoom lenses that let you look at your subject in different ways for more creative pictures. The CM-5 features the convenience of a bayonet K mount—so your lenses click on and off with the utmost of ease. Just one quarter turn to the right and your lens is securely fastened to the camera body. Quick off—quick on—and ready for the next shot. It will also accept any thread mount lens (with an adapter), so you have a whole galaxy of optics to choose from. The CM-5 is available with the lens of your choice. Other creative system accessories include: automatic electronic flash units, close-up equipment, table tripods, optional "infoback" imprinting unit, "Auto Date" databack and more!



BRIGHT VIEWFINDER WITH THREE WAYS TO FOCUS



SPACE AGE ELECTRONIC LED METERING FOR EASE OF OPERATION

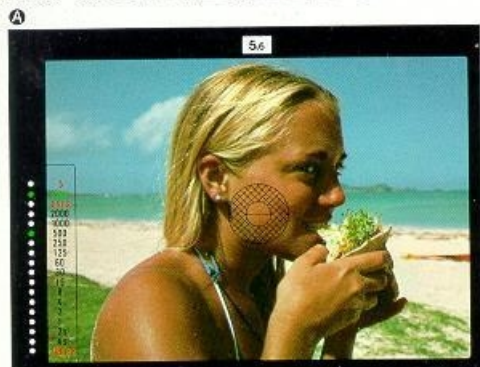
SHUTTER SPEEDS TO 1/1000TH OF A SECOND

* The hand grip is optional

CHINON CE-5



CHINON CE-5 — A NEW EXPERIENCE IN TOTAL AUTOMATION!



A BRIGHT VIEWFINDER DISPLAYS STEPLESS SHUTTER SPEEDS, APERTURE, AF OPERATION, FLASH ACTIVATION AND UNDEROVER EXPOSURE WARNINGS.

B STEPLESS SHUTTER SPEEDS FROM 4 SEC. TO 1/2000TH SEC. PLUS B.

C THE WORLD'S FIRST SLR WITH BUILT-IN AF ELECTRONIC CONTACTS. JUST DEPRESS THE SHUTTER RELEASE BUTTON TO ACTIVATE THE CHINON 35-70MM AF ZOOM LENS.

DESIGNED FOR A "FAST ACTION" WORLD!

Set the CHINON CE-5 to a "lightning" fast 1/2000th sec. on manual or select the fully automatic mode—either way! This remarkable smooth handling/ultra compact 35mm SLR will perform with flawless precision—it's the perfect image recording instrument! The solid state silicon blue cell metering system reacts instantaneously to subtle changes in lighting conditions—so you can take perfect pictures quickly, and confidently. Plus the CE-5 is designed with the renowned Seiko stepless electronic metal focal plane shutter that slices time into fractions of a second. Other precision features include; two stage (10 & 5 sec.) electronic audible/visual LED self timer, dedicated flash circuitry, unlimited multiple exposure lever, automatic power shut "on/off" system, detachable hand grip, ASA range 25-3200, exposure compensation dial, depth of field preview lever, and much, much more.

The CHINON CE-5—tomorrow's technology—today!

REMARKABLE FULL INFORMATION VIEWFINDER!

Every bit of information you'll ever need is contained within. You will never have to take the camera away from your eye! Eighteen multicolored electronic LED's indicate the infinite range of stepless shutter speeds, auto focus operation,

flash activation, under and over exposure warning; plus above the viewfinder frame is a readout of the selected aperture. The bright CE-5 viewfinder has three focusing aids—a razor sharp split-image rangefinder, a microprism collar, and a full-frame ground glass—CHINON technology makes it easy to focus on any subject... in any light!

SOPHISTICATED ELECTRONICS

CHINON does it again! The CE-5 is the world's first 35mm SLR that activates the Auto Focus system with one touch simplicity! Special electronic contacts incorporated in the CE-5 couple to matching electronic contacts in the new CHINON 35-70mm AF zoom lens. Just depress the shutter release button to activate the 35-70mm lens; instantaneously the lens barrel rotates to the precise focus! This remarkable electronic AF system even prevents against accidental shutter release before the lens has completed focusing.

An additional electronic contact in the CE-5 couples to the new CHINON Auto Date accessory databack. Each time you press the shutter release button, you can imprint the day/month/year or minute/hour directly onto your negative or slide photography automatically.



www.butkus.org



www.butkus.org



CHINON CG-5 — AMAZINGLY ADVANCED; AMAZINGLY EASY-TO-USE!

COMPACT/LIGHTWEIGHT:

The CHINON CG-5—a miracle of modern micro-miniaturization. It's actually smaller and/or lighter than most of today's SLR's. And it's beautifully crafted, with a soft padded body with a rugged black finish that will stand up to wear.

Just focus, frame, shoot! It's as simple as that with the CG-5. The solid state automatic exposure system lets you take perfect pictures quickly and confidently even if you are just beginning. It's an aperture priority system and has open aperture metering, so the viewfinder is always bright and clear. When you press the CG-5's two-stage electromagnetic shutter release, a sophisticated electronic silicon blue photo cell measures the light and computes and sets the exact shutter speed for a flawless exposure! CHINON CG-5 makes it easy to take great photographs!

CREATIVE PRECISION FEATURES:

This remarkably engineered SLR incorporates many creative, precision features designed to let your photographic imagination run wild! CG-5 features include: Seiko electronically controlled stepless shutter, full automatic or complete manual (match LED) exposure, automatic stepless shutter speeds from 4 seconds to 1/1000 sec., exposure memory lock with LED indicator, unlimited multiple exposure lever, 10 sec. electronic self timer, depth-of-field preview lever, CHINON bayonet mount, dedicated flash contact, exposure compensation dial, power winder provision, electronic AF contacts,

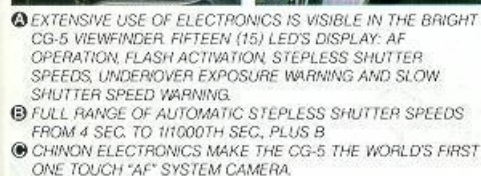
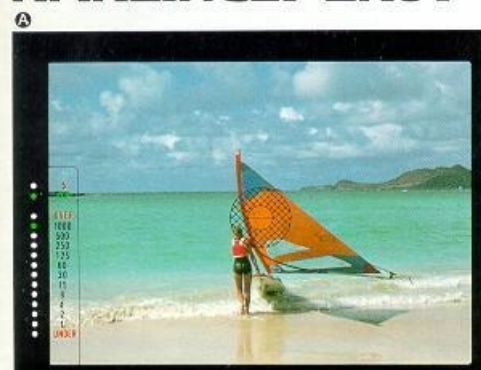
electronic data back contact, removable hand grip, memo holder and much more. The CHINON CG-5—designed to be automatically easy!

THE WORLD'S FIRST ONE-TOUCH "AF" SYSTEM:

Special CHINON designed electronics make the CG-5 the world's first truly automatic Auto Focus system. How it works: The CG-5 is designed with electronic pin contacts that match precisely to electronic contacts contained on the new CHINON 35-70mm AF zoom lens. Just depress the CG-5 shutter release button to activate the 35-70mm lens. This advanced electronic system even prevents against accidental shutter release before the lens has completed focusing.

The CG-5, like the CE-5, is designed with an additional electronic pin contact. When coupled to the new CHINON auto date accessory data back, the CG-5 automatically imprints valuable information such as day/month/year or minute/hour directly onto your negative or slide. Extensive use of electronics is further evident in the full-information CG-5 viewfinder. Contained within are 15 multi-colored LED's which display shutter speed, AF operation, flash activation, under/over exposure warning, and slow shutter speed warning. CHINON CG-5 electronics—a step ahead of the competition!

*The hand grip is optional



A EXTENSIVE USE OF ELECTRONICS IS VISIBLE IN THE BRIGHT CG-5 VIEWFINDER. FIFTEEN (15) LED'S DISPLAY: AF OPERATION, FLASH ACTIVATION, STEPLESS SHUTTER SPEEDS, UNDER/OVER EXPOSURE WARNING AND SLOW SHUTTER SPEED WARNING.

B FULL RANGE OF AUTOMATIC STEPLESS SHUTTER SPEEDS FROM 4 SEC. TO 1/1000TH SEC., PLUS B

C CHINON ELECTRONICS MAKE THE CG-5 THE WORLD'S FIRST ONE TOUCH "AF" SYSTEM CAMERA.

Ricoh's Full Range Rikenon Lens Family Beautifully Answers Every Need



XR RIKENON LENSES FOR XR/KR SERIES

APERTURE	LENS	LENS	MIN	ANGI

Eveready Cases for XR Series
and KR-10 Super



Deluxe (Type DL)



Standard (Type SL)



35 ~ 70 Zoom
(Type DZ)

Eveready Cases for KR-5 Super



Deluxe (Type DXL)



Standard (Type STL)



35 ~ 70 Zoom
(Type DXZ)

Eveready Cases for XR-S



Deluxe (Type DLS)



35 ~ 70 Zoom
(Type DZS)

Eveready Case for XR-F

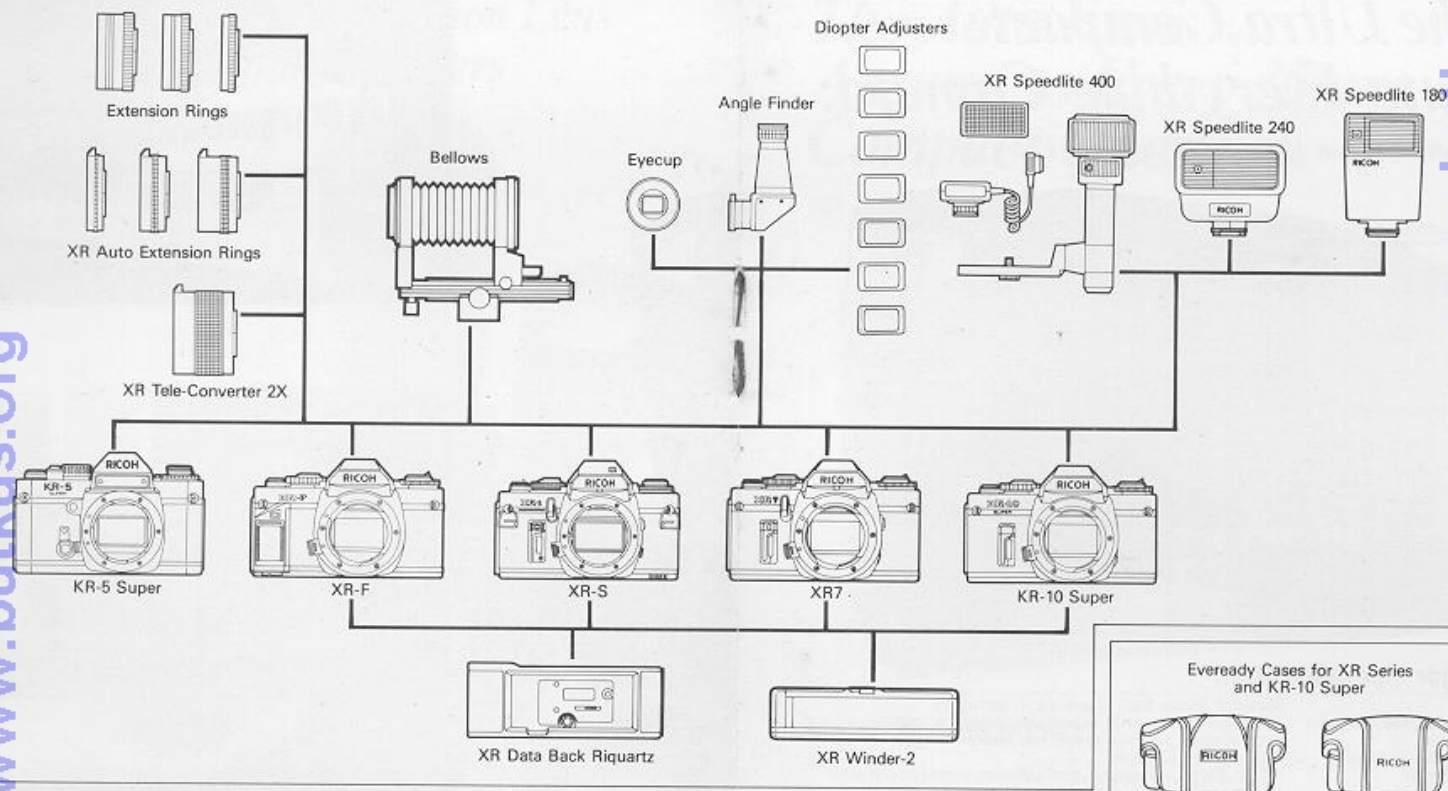


XR RIKENON LENSES FOR XR/KR SERIES

	APERTURE RANGE	LENS GROUP	LENS ELEMENTS	MIN. FOCUS (m)	ANGLE OF VIEW	FILTER SIZE (mm)	NET WEIGHT (g)	DIMENSIONS (mm) RADIUS LENGTH
16mm FISH EYE (MC)* W/CASE & HOOD (FIXED) FILTERS BUILT-IN	2.8—22	8	9	0.15	180°	22.5 (built-in)	300	66 × 50
18mm (MC)* W/CASE & HOOD (FIXED)	2.8—22	9	11	0.25	100°	67	348	76 × 71
24mm (MC)* W/CASE & HOOD	2.8—22	7	7	0.18	84°	52	320	64 × 39
28mm (MC)* W/CASE & HOOD	2.8—16	7	7	0.3	76°	52	190	63 × 42
35mm (MC)* W/CASE & HOOD	2.8—22	6	6	0.35	63°	52	190	63 × 42
135mm (MC)* W/CASE & HOOD BUILT-IN	2.8—22	4	4	1.5	18°	55	440	66 × 81
200mm (MC)* W/CASE & HOOD BUILT-IN	4.0—22	5	5	2.5	12°	55	610	66 × 122
300mm APO (MC)* W/CASE & HOOD	4.5—22	5	8	2.5	8°	67	1,050	74 × 193
600mm REFLEX (MC)* W/CASE & HOOD FILTERS BUILT-IN	8 (FIXED)	6	6	2	4°	22.5 (back-mounted)	820	92 × 121
28—100mm ZOOM WITH MACRO (MC)* W/CASE	4.0—22	11	16	1.0 (0.25)**	77°—24°	67	600	71 × 96
35—70mm ZOOM WITH MACRO (MC)* W/CASE	3.5—22	7	7	0.8 (0.3)**	63°—34°	58	345	68 × 70
70—150mm ZOOM WITH MACRO (MC)* W/CASE	4.0—22	10	13	1.5 (0.6)**	34°—16°	52	465	64 × 112
70—210mm ZOOM WITH MACRO (MC)* W/CASE	3.9—32	9	12	1.2 (0.44)**	34°—12°	58	680	72 × 148

*MULTI-COATED** MINIMUM FOCUSING DISTANCE IN MACRO RANGE

THE RICOH SLR SYSTEM





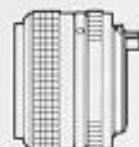
XR Rikenon Fisheye
16mm F2.8



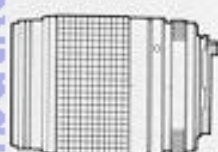
XR Rikenon
18mm F2.8



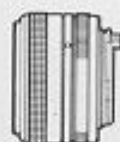
XR Rikenon 24mm F2.8



XR Rikenon 28mm F2.8



XR Rikenon 135mm F2.8



XR Rikenon 35mm F2.8



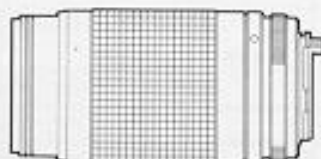
XR Rikenon 50mm F1.4



Rikenon 50mm F1.7



Rikenon 50mm F2



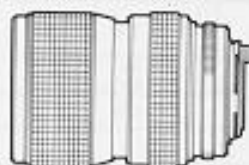
XR Rikenon 200mm F4.0



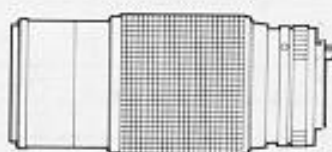
XR Rikenon Zoom
with Macro 35-70mm F3.5



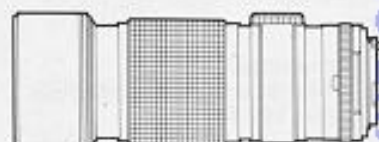
XR Rikenon Zoom
with Macro 70-150mm F4.0



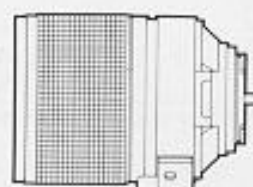
XR Rikenon Zoom
with Macro 28-100mm F4.0



XR Rikenon Zoom
with Macro 70-210mm F3.9



XR Rikenon APO 300mm F4.5



XR Rikenon Reflex 600mm F8



35-70mm Zoom Hood



Wide-Angle Lens Hood



Standard Lens Hood

RICOH FF-3 AF

www.butkus.org

The Ultra Compact Auto-Everything Camera.

Ricoh's Custom LSI Gives You Super Ease



Major Specifications

Lens:	Rikenon 35mm f/3.2, 5 groups, 5 elements
Focusing Mechanism:	Automatic focus with repeatable prefocus facility
Shutter:	Programmed AE type electronic shutter
Exposure Meter:	CdS exposure meter
Viewfinder:	Bright frame viewfinder with parallax correction marks Information visible: Field of view frame, Parallax correction marks, Auto focus frame, Zone symbols, Camera shake warning signal, Too close warning signal
Shutter Speed Range:	ASA/ISO 25—1000
Film Loading:	Ricoh Auto Loading system
Film Advance/Rewind:	By electric motor with film check window
Self-Timer:	Visible and audible electronic self-timer with cancel facility
Flash System:	Built-in. Guide number: 12 with ASA 100 film Recycle time: about 7 sec.
Other Features:	Built-in lens cover, Film load window
Dimensions:	130(W) x 70(H) x 41(D)mm (5.1" x 2.7" x 1.6")
Weight:	290g (10.2 oz.) without batteries

Specifications are subject to change without notice.



www.butkus.org

RICOH AF-5

www.butkus.org

The Auto Focus Answer to Every 35mm Compact Question.

Six Auto Features Make It All So Easy



Major Specifications

lens:	Color Rikenon 38mm f/2.8, 3 groups, 4 elements
ocusing Mechanism:	Filter Size: 46mm screw-in type
utter:	Automatic focus with repeatable prefocus facility
xposure Meter:	Programmed AE type electronic shutter
iewfinder:	CdS exposure meter
	Bright frame viewfinder with parallax correction marks
	Information visible: Field of view frame, Parallax correction marks, Auto focus frame, Zone Symbols, Camera shake warning signal, Flash ready lamp (at eyepiece frame)
lm Speed Range:	ASA/ISO 25—1000
lm Loading:	Ricoh Auto Loading system
lm Advance/Rewind:	By electric motor with film monitor
elf-Timer:	Electronic self-timer, sound and cancel facility
ash System:	Built-in pop-up flash. Guide number: 12 with ASA 100 film
	Recycle time: about 7 sec.
ther Features:	Film load window, Film monitor, Lens cap shutter lock
ensions:	129(W) × 79(H) × 55(D)mm (5.0" × 3.1" × 2.1")
eight:	330g (11.6 oz.) without batteries

Specifications are subject to change without notice.



www.butkus.org

RICOH FF-1S

The Ingeniously Designed 35mm Compact.

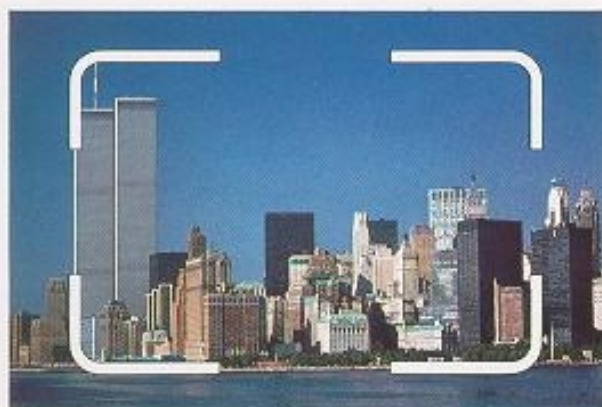
Folds Out for Picturertaking, Folds Up for Carrying



Major Specifications

Lens:	35mm Color Rikenon f/2.8 lens, multi-coated, 3 groups, 4 elements
Shutter:	Programmed system electronic shutter, 2—1/500 sec. (Auto exposure), 1/60 sec. for flash picture
Viewfinder:	Albada type bright frame viewfinder Slow shutter speed (below 1/60 sec.) warning LED visible
Focusing:	By distance scale from 0.9m (3ft.) to infinity
Exposure Meter:	CdS exposure meter, fully automatic control and manual override for flash picture Film speed range ASA 25—400 (DIN 15—27) Coupling range EV 2—17 (ASA 100) Shutter release lock (with front cover) Exposure meter on/off (with front cover)
Self-Timer:	Built-in electronic self-timer
Power source:	Two SR-44 1.55V silver oxide batteries Two LR-44 1.5V alkaline batteries.
Other Features:	Retractable lens system Electromagnetic shutter release button
Dimensions:	107(W) x 65(H) x 36(D)mm (4 1/4" x 2 5/16" x 1 7/16")
Weight:	225g (8.0 oz.)

*Specifications are subject to change without notice.



	FF-3AF	AF-5
Lens	35mm f/3.2	38mm f/2.8
Focusing	Auto Focus system 	Auto Focus system 
Shutter	Programmed Electronic 1/6—1/500 sec.	Programmed Electronic 1/8—1/500 sec.
Exposure	Fully automatic	
Viewfinder		
Visible Information	Parallax correction marks, Auto focus frame, Zone symbols, Camera shake warning signal, Too close warning signal	Parallax correction marks, Auto focus frame, Zone symbols, Camera shake warning signal, Too close warning signal, Flash ready lamp (at eyepiece frame)
Audible Warning Signal	Self-timer, Film end, Film rewind end	Self-timer, Film end
Flash	Built-in	Built-in
Film Loading	RICOH Auto Loading	
Film Advance	Automatic power winding	
Film Rewind	One-touch Automatic power rewinding	Automatic power rewinding
Self-Timer	Built-in	Built-in
Dimensions	130(W)×70(H)×41(D)mm 5.1"×2.7"×1.6"	129(W)×79(H)×55(D)mm 5.0"×3.1"×2.1"
Weight	290g 10.2 oz.	330g 11.6 oz.

RICOH 35EFL

www.butkus.org

The Compact for Great Flash Shooting.

Super Simple Focusing and Quick-Charge Electronic Flash.



Major Specifications

Lens:	40mm Color Rikenon F/3.8 lens, 3 groups 3 elements
Shutter:	Mechanical shutter, 1/125 sec.
Viewfinder:	Bright Frame viewfinder with parallax correction mark Exposure Check Lamp visible Magnification 0.5X Coverage of actual picture area over 83%
Focusing:	By distance scale from 0.9m (3ft.) to infinity
Exposure Meter:	CdS exposure meter, semi-automatic control Coupling range EV 10.8—15 (ASA 100) Film Speed Range ASA 100 (DIN 21) and ASA 400 (DIN 27)
Built-in Flash:	Number of flashes about 250 times with Alkaline batteries Recycling time about 8 sec. with Alkaline batteries Guide Number 12 (ASA 100/m) Ready Lamp beside viewfinder eyepiece
Power Source:	Two penlight (AA size) batteries 1.5V
Dimensions:	130(W) x 76(H) x 60(D)mm 5.2" x 3.0" x 2.4"
Weight:	320g (11.4 oz.)

•Specifications are subject to change without notice.



www.butkus.org

RICOH 35EFS

The Anytime, Anywhere 35mm Compact.

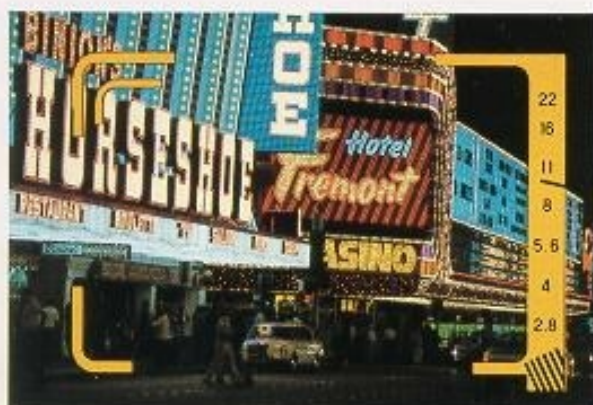
Built-in Flash and Automatic For Sure-Fire Snapshooting

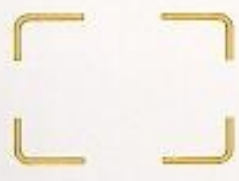


Major Specifications

Lens:	40mm Color Rikenon f/2.8 lens 3 groups, 4 elements
Shutter:	Mechanical shutter, 1/125sec.
Viewfinder:	Bright viewfinder with parallax correction mark, F-stop scale, exposure meter needle and under- exposure warning zone visible Magnification 0.5X Coverage of actual picture area over 85%
Focusing:	By distance scale from 0.9m (3ft.) to infinity with zone-focus marks
Exposure Meter:	CdS exposure meter, fully automatic control One 1.35V mercury battery (JIS H-C, Mallory PX675, Eveready EPX675 or equivalent) Coupling range EV 10—16 (ASA 100) Film speed range ASA 25—400 (DIN 15—27)
Built-in Flash:	Number of flashes: about 100 flashes (with alkaline battery) Recycling time: about 10sec. (with alkaline battery) Shooting distance: 0.9m (3ft.) to 4.2m (14ft.) (ASA 100) Ready lamp: beside viewfinder eyepiece Flash exposure: flashmatic system Power source: one penlight (AA size) 1.5V (alkaline or carbon-zinc) battery or 1.2V (nickel cadmium) battery
Self-timer:	Built-in
Dimensions:	130(W) × 75(H) × 57(D)mm (5 1/8" × 3" × 2 1/4")
Weight:	390g (13.8oz.)

*Specifications are subject to change without notice.



FF-1S	35EFS	35EFL
35mm f/2.8	40mm f/2.8	40mm f/3.8
Distance scale 0.9 1.5 5 ∞ m	Distance scale and Zone-focus 	Distance scale 0.9 1.2 1.5 2 3 7 3 4 5 7 10 30 ∞
Programmed Electronic 2—1/500 sec.	Mechanical 1/125 sec.	Mechanical 1/125 sec.
exposure control		Semi-automatic control
		
Slow shutter speed warning	F-stop scale Exposure meter needle Underexposure warning zone	Exposure check LED
Optional Speed-lite 121A	Built-in	Built-in
Multi-slit easy loading		
Film advance lever		
Crank lever		
Built-in	Built-in	Built-in
107(W) × 65(H) × 36(D)mm 4 1/4" × 2 9/16" × 1 7/16"	130(W) × 75(H) × 57(D)mm 5 1/8" × 3" × 2 1/4"	130(W) × 76(H) × 60(D)mm 5 1/8" × 3" × 2 3/8"
225g 8.0 oz.	390g 13.8 oz.	320g 11.4 oz.



② Diagram showing correct position of the 2 batteries

③ Battery Chamber

④ Ridged Slide for battery testing

⑤ Table of Footcandle (Lux) equivalents

⑥ Zero Adjustment Screw

Who is Ricoh?

www.butkus.org

Ricoh Co., Ltd. is one of Japan's largest, experienced and diverse manufacturers. With over 16,000 employees in Japan and abroad, as well as overseas branches in the USA, Europe and Asia, Ricoh has the total capability to develop, produce and sell a wide range of products. Ricoh is perhaps best known for its advanced information handling systems. A full line-up of office automation that includes minicomputer data processors, word processing equipment, copying machines, a telephone facsimile transceiver, data retrieval equipment and more. Ricoh is also one of the largest producers of LSI circuits and other sophisticated electronics.

With this kind of technological expertise, it's not surprising that Ricoh also makes some of the world's

finest photographic equipment. Ever since the introduction of the Olympic 35mm camera in 1938, Ricoh has been responsible for countless innovations and renowned for Total Quality Control. Chosen the official camera of the 1964 Tokyo Olympics, awarded the es-



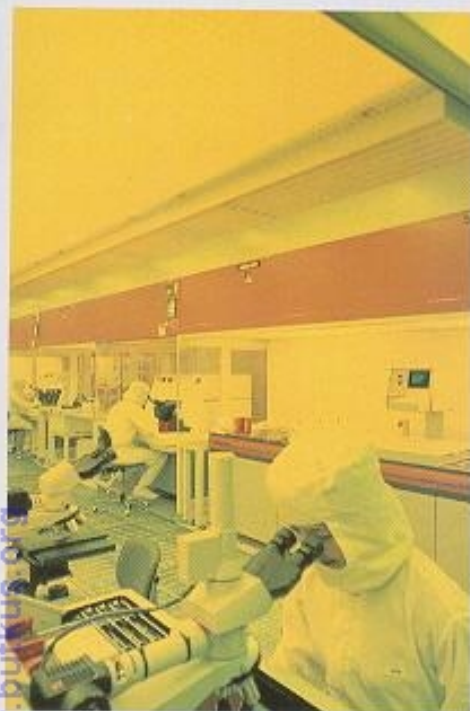
Deming
Prize Medal

teemed Deming Prize for outstanding quality of all products in 1975, and presented the prestigious Good-



Ricoh XR-S

Design Mark by Japan's Ministry of Trade and Industry for the XR Series is the kind of recognition that attests to Ricoh's standards of quality and performance. The new Ricoh XR-F, like all Ricoh products, is clearly indicative of why Ricoh Co., Ltd. has been "earning the trust of customers through quality" for more than 40 years.

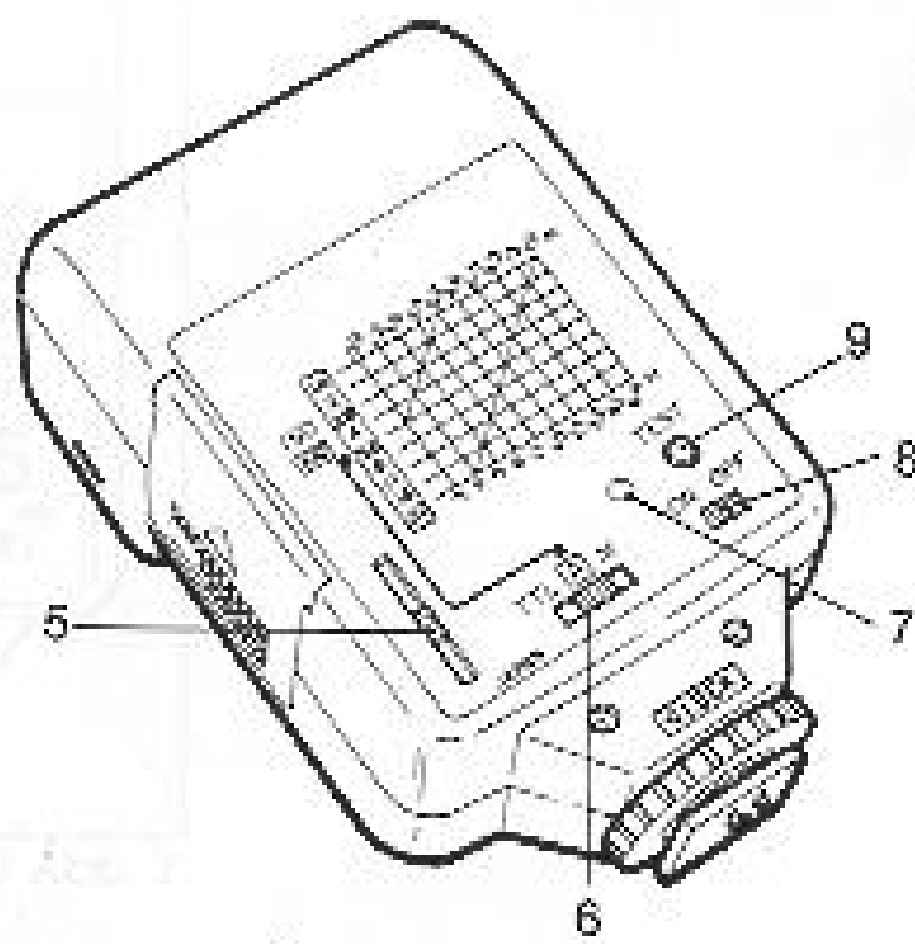
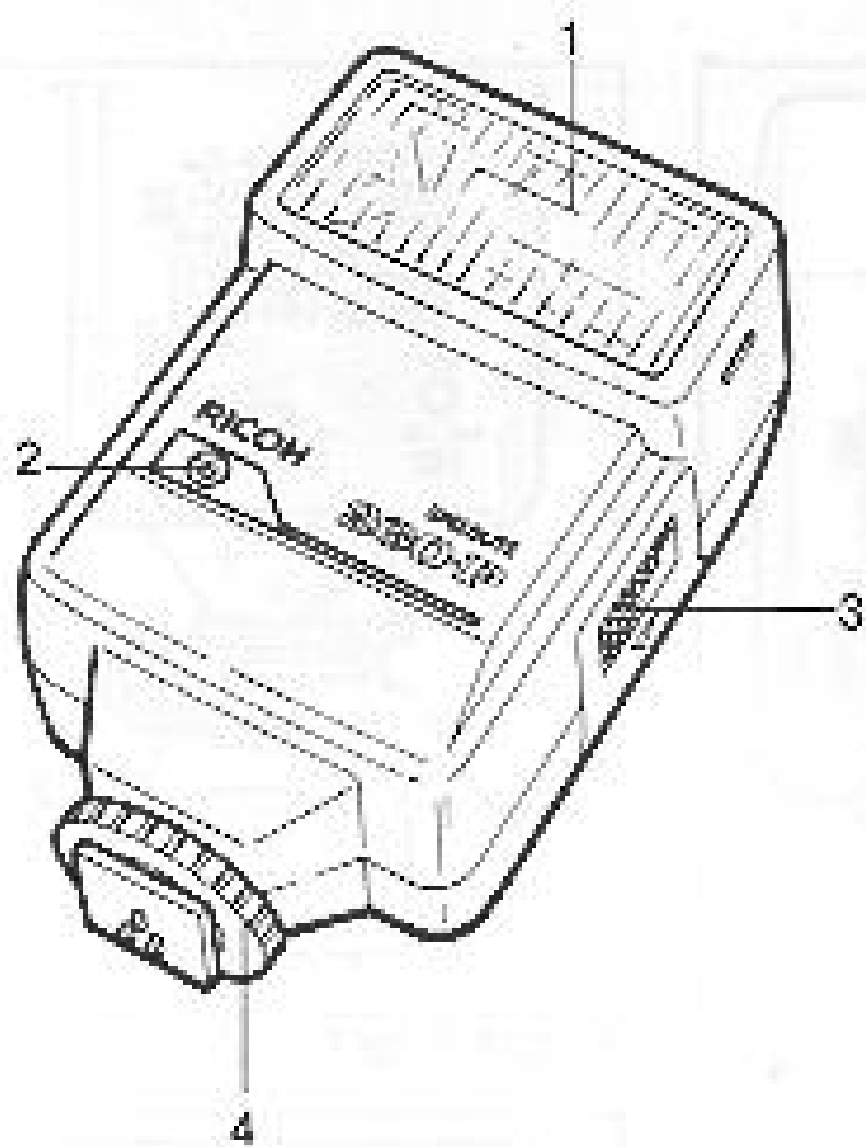


LSI assembly checks in ultra-clean environment

LUNASIX 3 Operating Parts and Scales

Keep this page folded out when reading instructions, so that you can easily identify parts and scales.





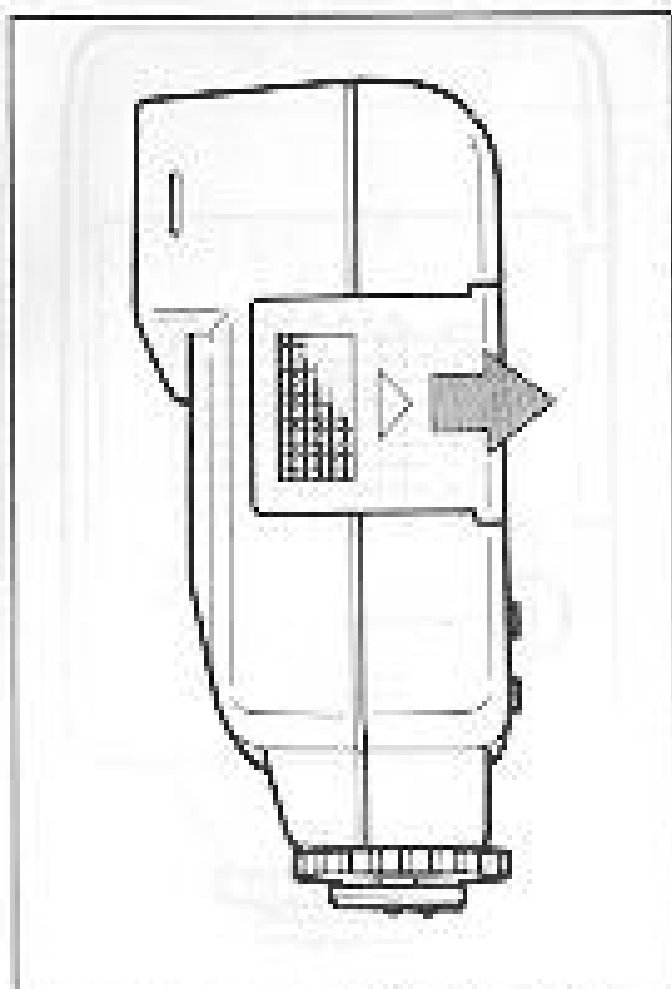


Fig. 1 Abb. 1

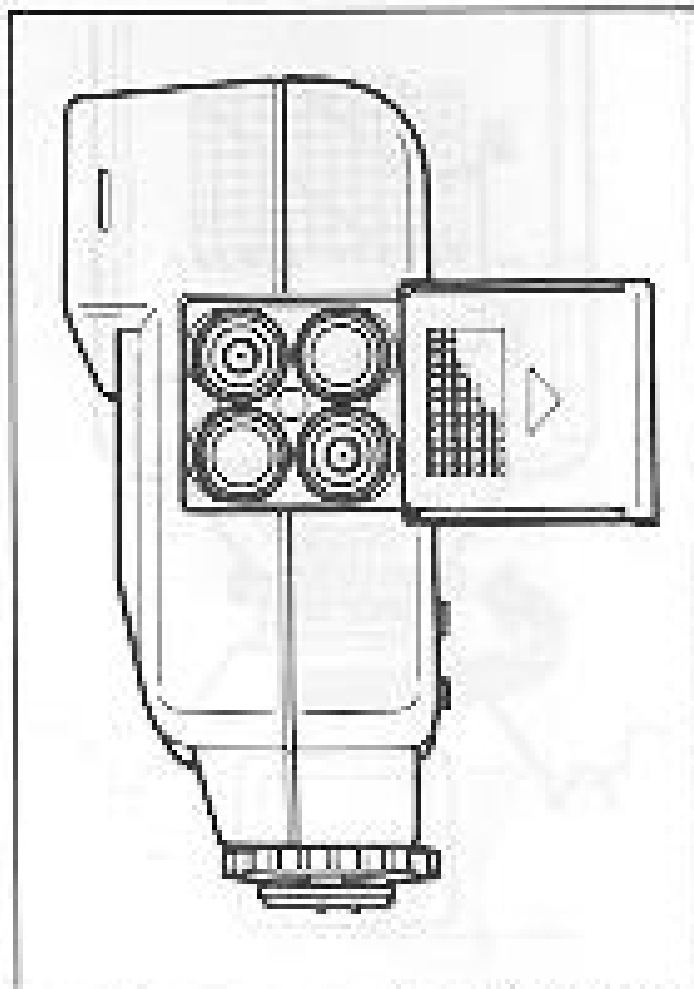


Fig. 2 Abb. 2

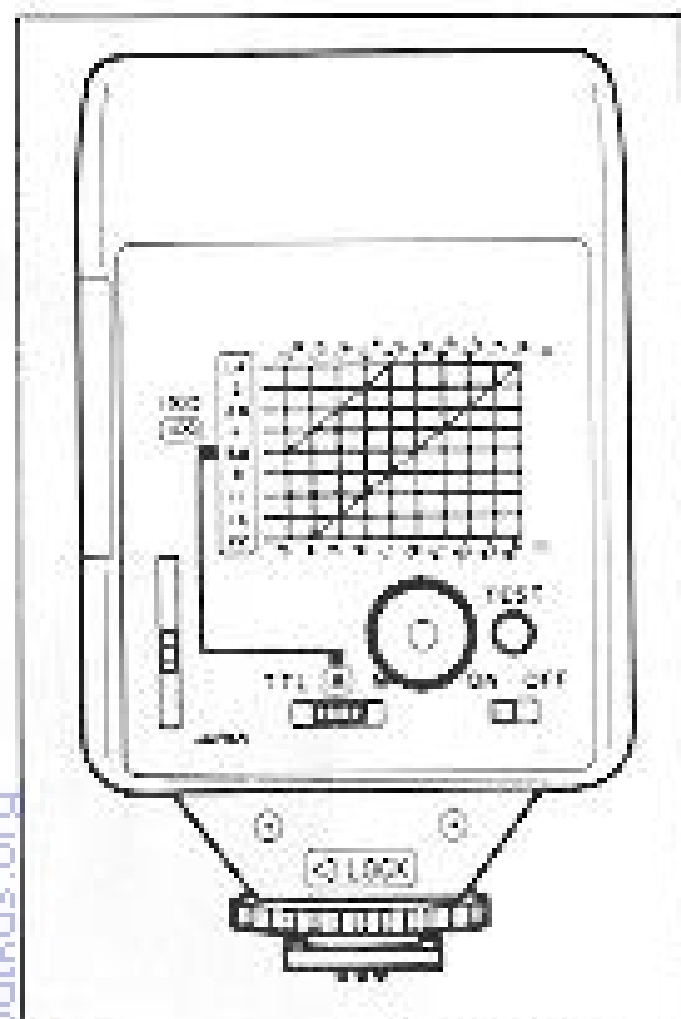


Fig. 3 Abb. 3

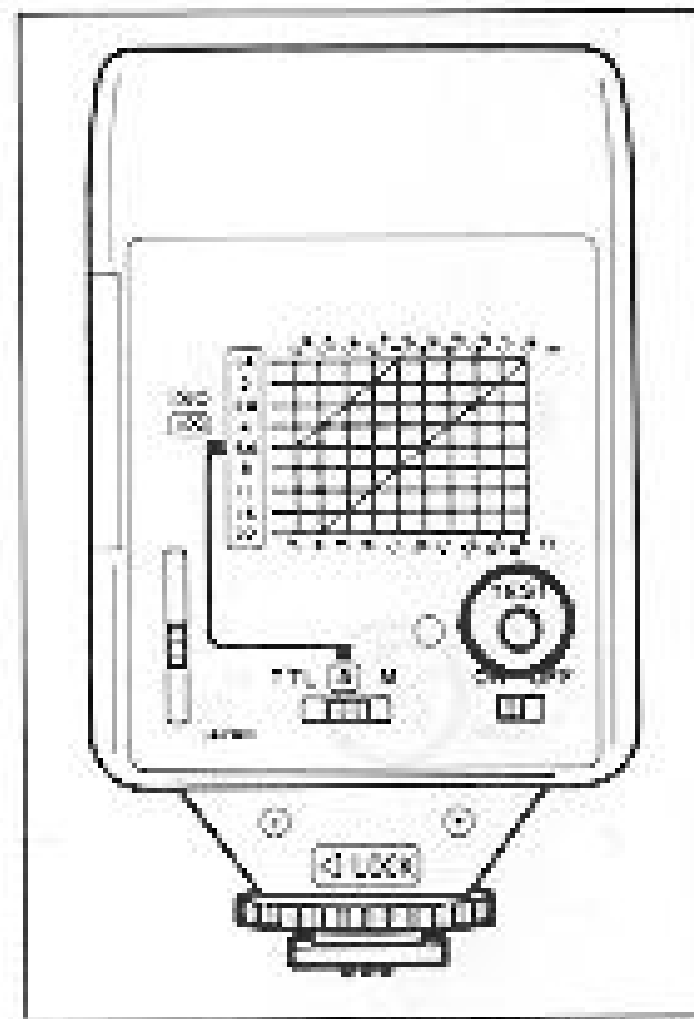


Fig. 4 Abb. 4

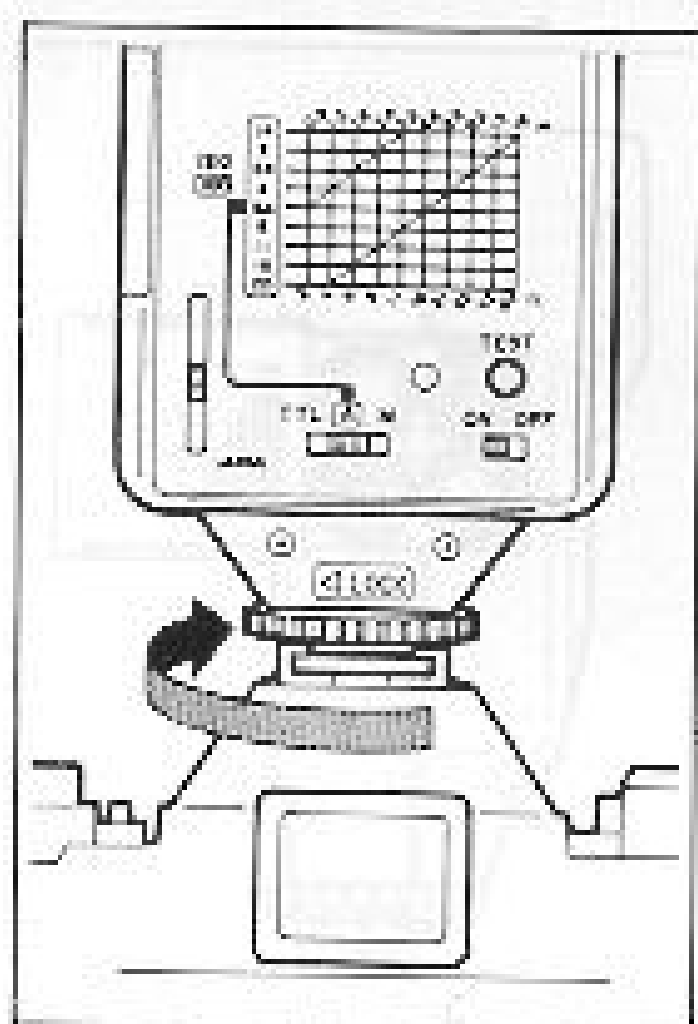


Fig. 5 Abb. 5

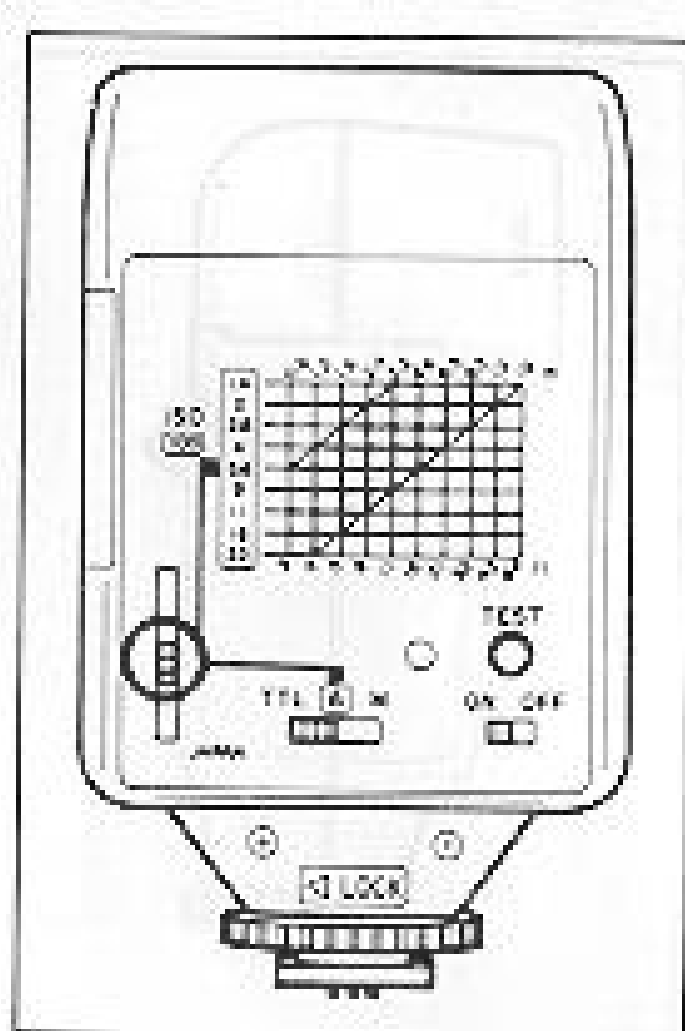


Fig. 6 Abb. 6

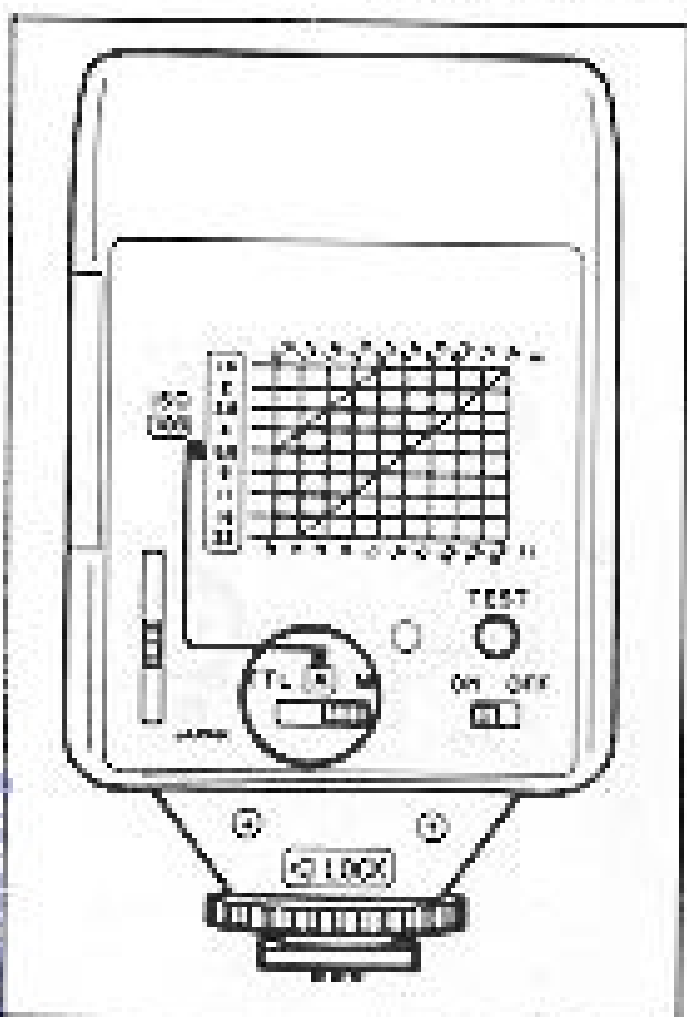
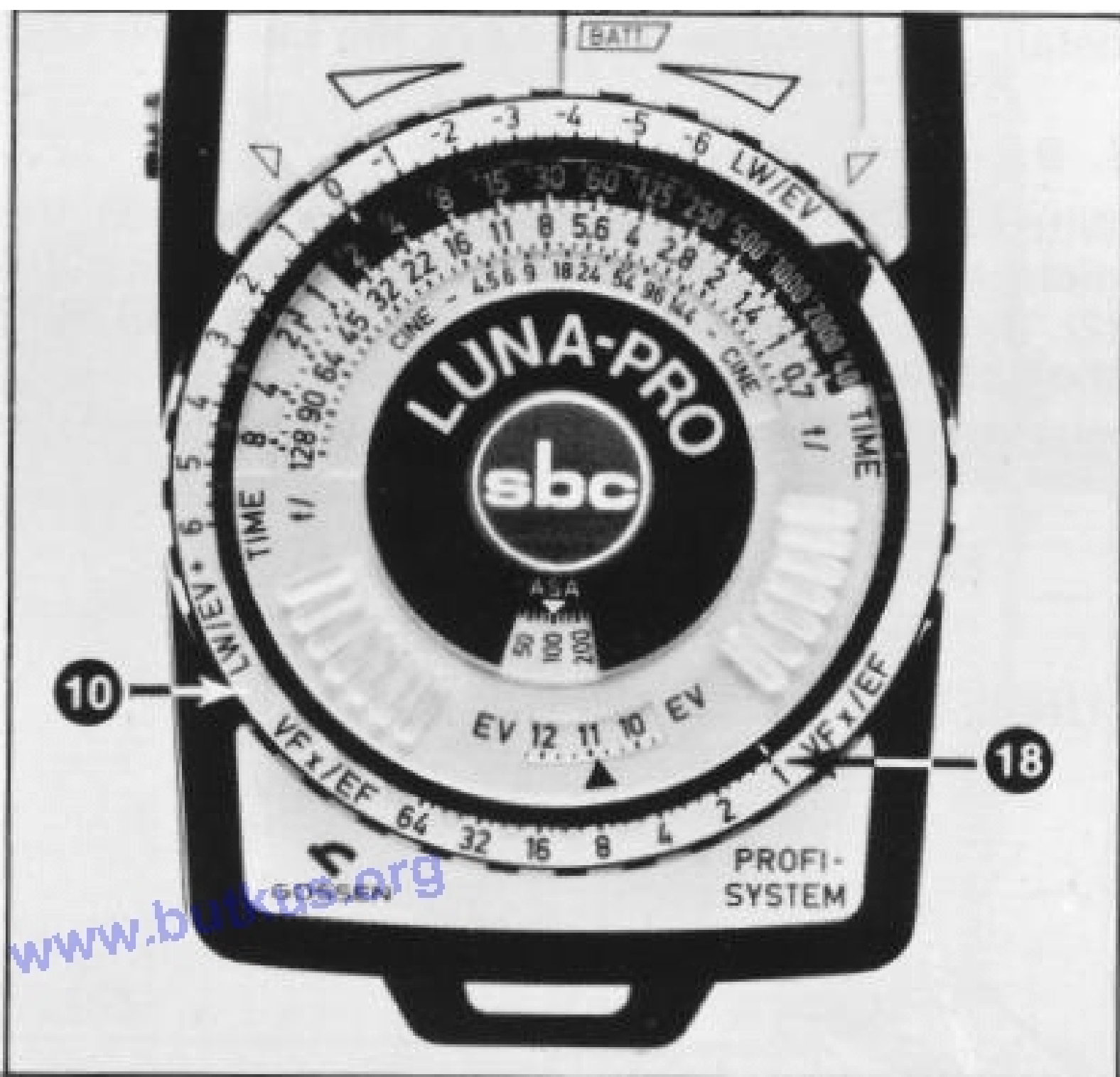


Fig. 7 Abb. 7



Exposure Value Conversion Table

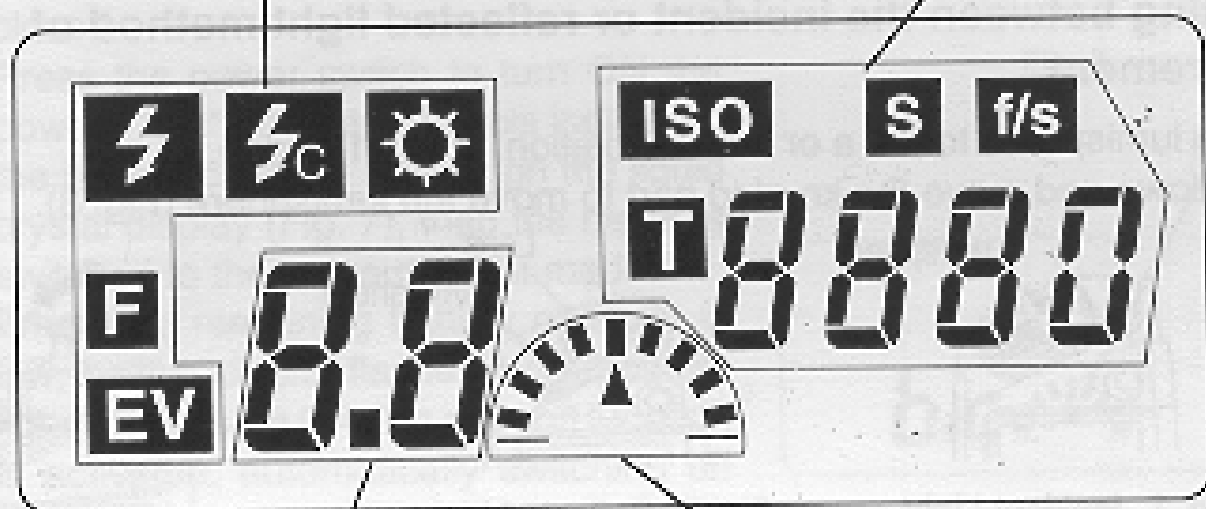
	Nits (nt)	Stilb (Sb)	Radlux (rix)	Lamberts (L)	Foot lamberts	
ASA100 K=1.3	cd/m ²	cd/cm ²	lin/m ²	lin/m ²	(ft-L)	cd/ft ²
EV: 1	0.27986	0.000027986	0.87922	0.000087922	0.08168	0.026
2	0.55973	0.000055973	1.7584	0.00017584	0.16336	0.052
3	1.1195	0.00011195	3.5169	0.00035169	0.32672	0.104
4	2.2389	0.00022389	7.0338	0.00070338	0.65345	0.208
5	4.4978	0.00044978	14.068	0.0014068	1.3069	0.416
6	8.9557	0.00089557	28.135	0.0028135	2.6138	0.832
7	17.911	0.0017911	56.27	0.005627	5.2276	1.664
8	35.823	0.0035823	112.54	0.011254	10.455	3.328
9	71.645	0.0071645	225.08	0.022508	20.91	6.656
10	143.29	0.014329	450.16	0.045016	41.821	13.312
11	286.58	0.028658	900.32	0.090032	83.642	26.624
12	573.16	0.057316	1,800.64	0.180064	167.28	53.248
13	1,146.3	0.11463	3,601.3	0.36013	334.57	106.5
14	2,292.6	0.22926	7,202.6	0.72026	669.13	212.99
15	4,585.3	0.45853	14,405	0.4405	1,338.3	425.98
16	9,170.6	0.91706	28,810	2.881	2,676.5	851.97
17	18,341	1.8341	57,620	5.762	5,353.1	1,703.9
18	36,683	3.6682	115,241	11.5241	10,706	3,407.9
19	73,365	7.3365	230,482	23.0482	21,412	6,815.7
20	146,730	14.673	460,964	46.0964	42,825	13,631





By operating the mode selection switch,
 (1)  (wireless measurement)
 (2)  (wired measurement), or
 (3)  (ambient light measurement)
 is displayed. In the ambient light
 measurement mode, **EV** or **F** is
 displayed.

(1) By operating the UP/DOWN
 button, the time is displayed.
 • When **T** mark is shown,
 shutter speed is indicated.
 • **S** represents second.
 • **1/s** represents the cine scale
 (displayed only in the ambient light
 measurement mode). **ISO**
 (2) By operating the ISO and Up/
 Down buttons the film speed
 can be set.



(1) When the power is turned ON,
 "b.c" is displayed.
 (2) The integer of the F value
 measured is displayed.
 (3) The integer of the EV value
 measured is displayed.
 (4) When the measurable or display
 range is exceeded, E.u
 (underexposure) or E.o
 (overexposure) is displayed. As
 mentioned in specification.

(1) When the power is turned ON,
 the remaining battery capacity is
 displayed.
 ( ~ )
 (2) Fractions of the F or EV value
 measured are displayed.
 ( (0.1) ~  (0.9))





Viewfinder Eyepiece
Sucherokular

Battery Checker Button
Batteriekontrolle

Release Socket
Auslöserbuchse

Back Cover Release Lug
Rückwandentriegelung

Film Rewind Stud
Rückwickelachse

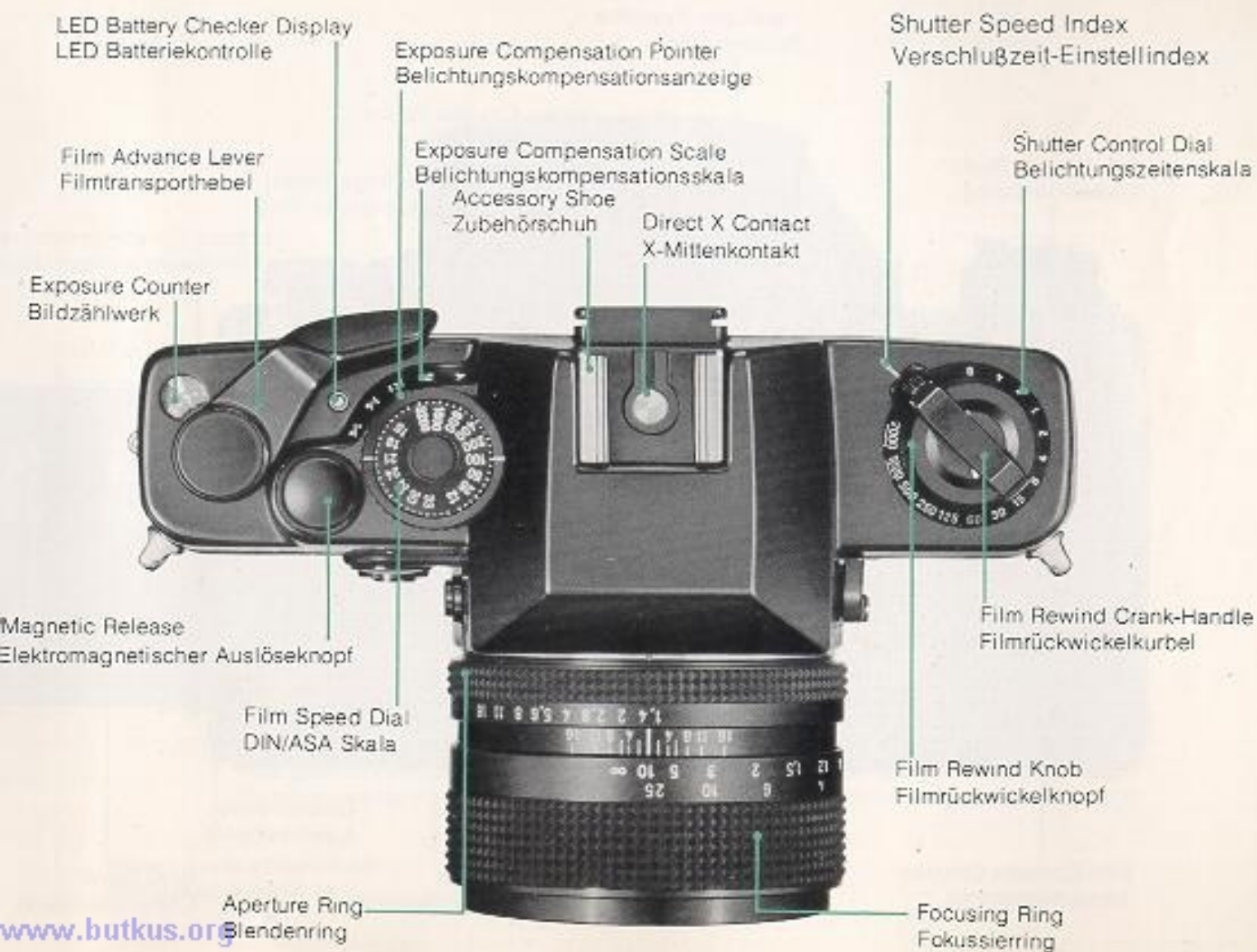
Film Cassette Chamber
Kassettenkammer

Shutter Curtain
Schlitzverschluß

Sprocket
Transporttrommel

Take-up Spool
Aufwickelspule

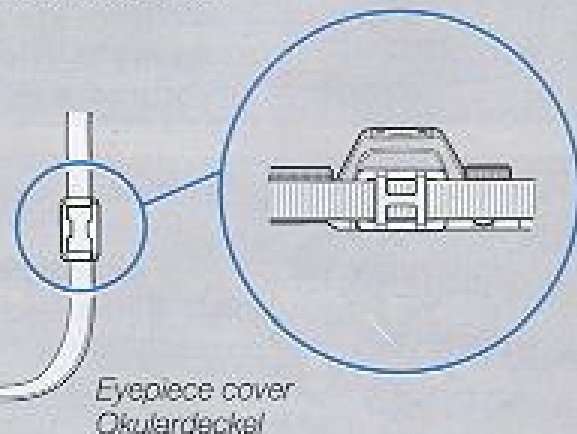
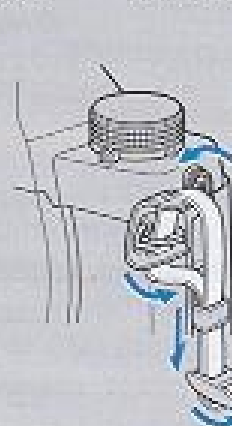
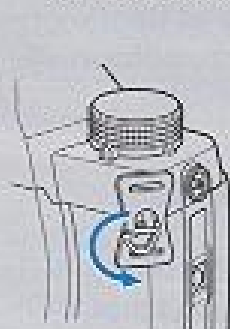
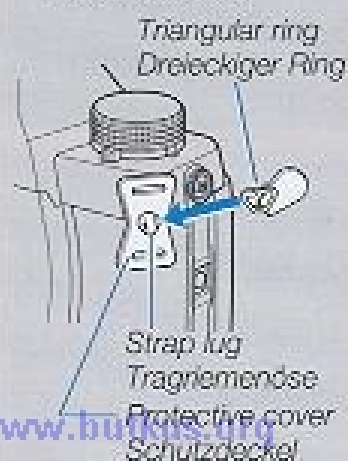
Back Cover
Camerarückwand



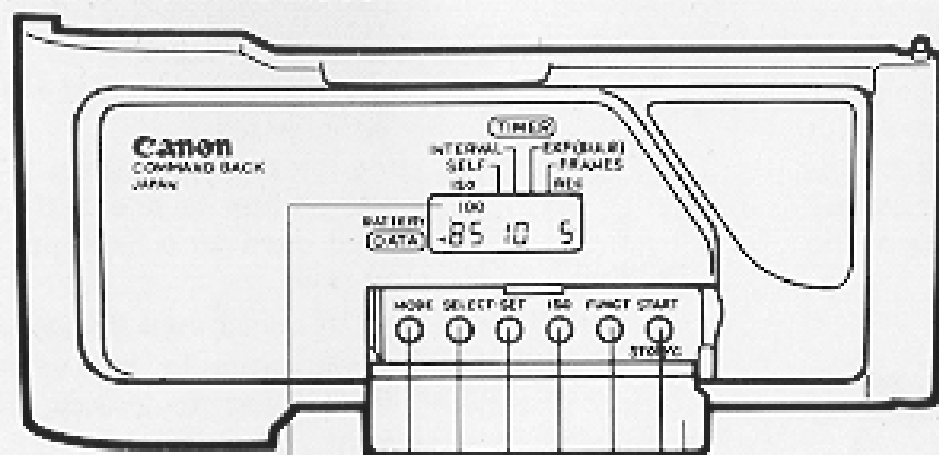
- ① Attach the protective cover to the strap lug.
① Befestigen Sie den Schutzdeckel an der Tragriemenöse.

- ② Attach the triangular ring to the strap lug.
② Befestigen Sie den dreieckigen Ring an der Tragriemenöse.

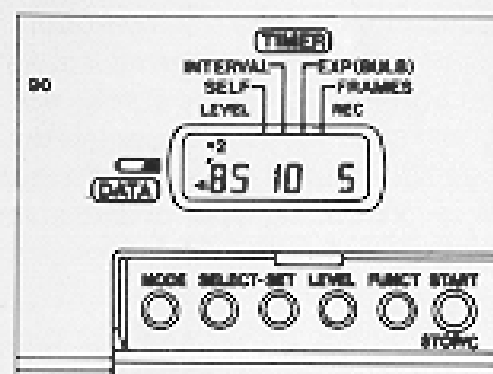
- ③ Thread the strap through the protective cover and the triangular ring and attach as shown in the illustration.
③ Führen Sie den Tragriemen durch den Schutzdeckel und den dreieckigen Ring und befestigen Sie den Tragriemen dann wie in der Abbildung gezeigt.



Command Back 70 and 80



Command Back 90



- 8 LCD Panel
- 1 Mode Selector
- 2 Position Selector
- 3 Number Set Button
- 7 Safety Cover (opened)
- 6 Start/Stop/Clear Button
- 5 Data/Timer Selector
- 4 Film Speed Selector (Command Back 70 and 80)
- 4 Exposure Level Adjust Button (Command Back 90)

UV			• Absorbs only ultra-violet rays. Especially effective at seaside, high mountains where there is much ultra-violet rays. Recommended for use in color photography.
for color and black and white			
Y1	}	for black and white	• Increases contrast of black and white film. Enhances clouds, darkening the blue sky. Brightens red and yellow.
Y3			• Darkens blue, increases yellow and red volume perceptibly. Good for contrasts in distant landscapes.
O1			• Makes strong contrasts. Renders day almost into night. May also be used with infrared film.
R1			• Prevents red from turning radically into white. Lightens sky and face appropriately, and reflects the lightness of fresh greenery.
G1			• ND 4 reduces light values by 1/4, ND 8 by 1/8. No effects on the reproduction of colors of color film.
ND 4	}	for color and black and white	• Acts to harmonize the blue sky and shade.
ND 8			• For use with daylight type film under the cloud.
Skylight	}	for color	• For use with universal type (color negative) film under the cloud or tungsten type film under the morning sun or sunset.
CCA 4			• For use with tungsten type film under sunlight.
CCA 8			• For use with daylight type film under the morning sun or sunset.
CCA (12 equiv.)			• For use with daylight type film and clear flash bulb.
CCB 4			• For use with daylight type film under tungsten light.
CCB 8			
CCB (12 equiv.)			

Viewfinder Eyepiece

Film-load Check Window

Back Cover

Switch Cover

Tripod Socket

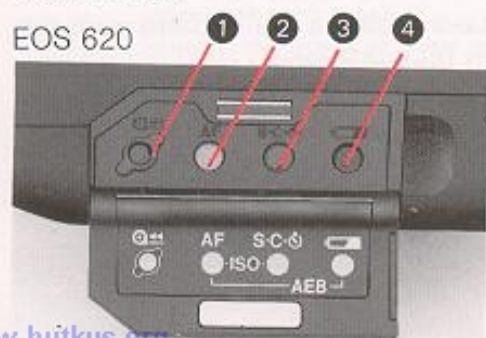
Display Panel Illumination
Button (EOS 620 Only)

Partial Metering Button

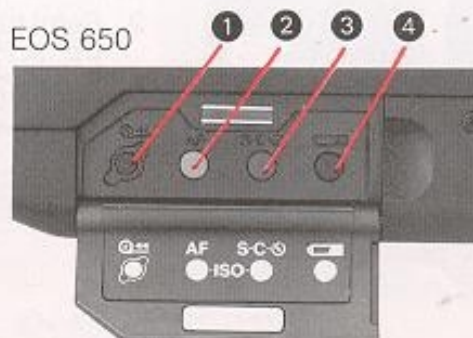
Grip
Attachment Screw

Inside the
Switch Cover

EOS 620



EOS 650

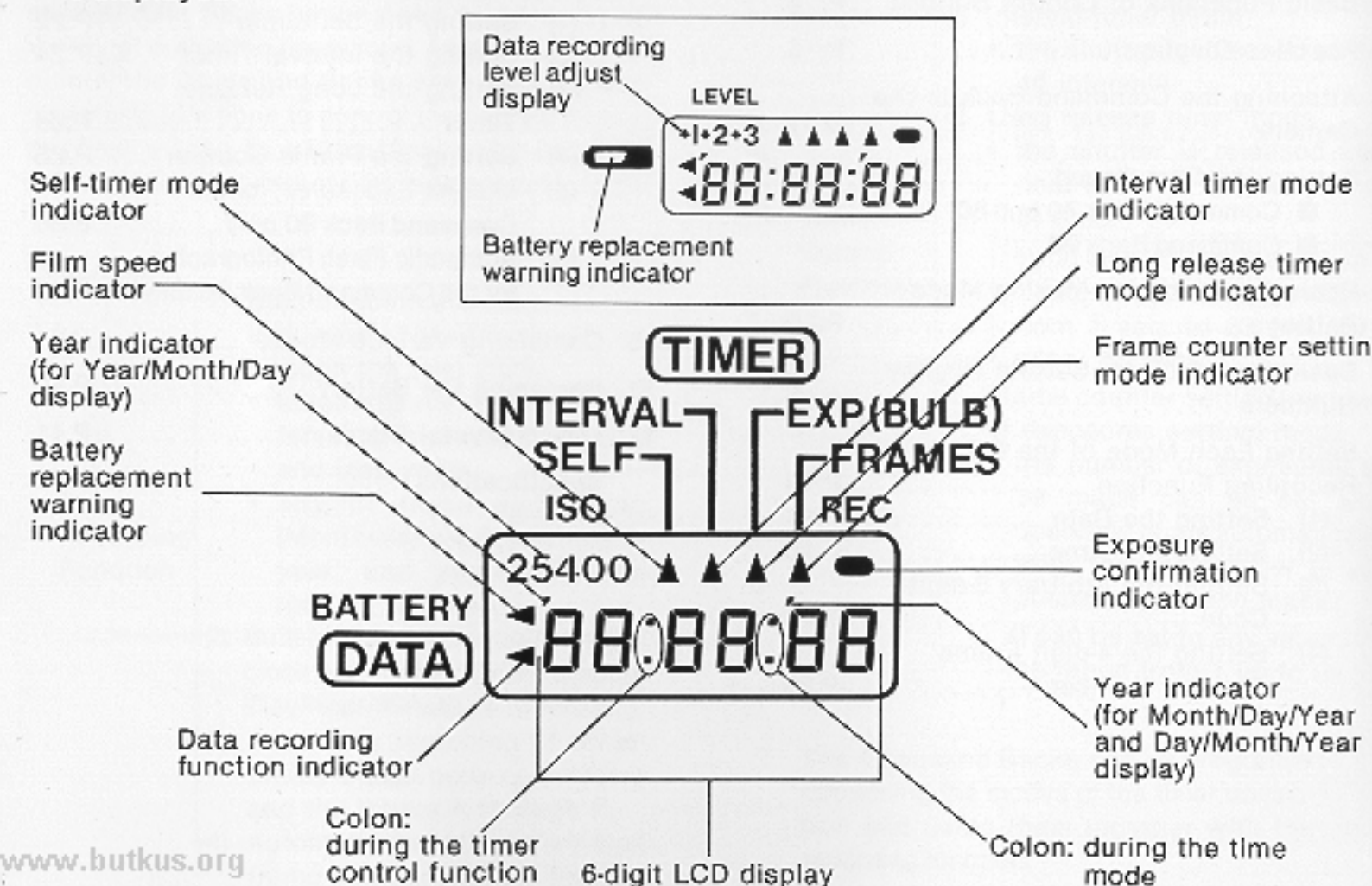


- ① Film Rewind Button
- ② AF Mode Selector
- ③ Film Winding
Mode Selector
- ④ Battery Check Button

NOMENCLATURE



- All displays are shown below but normally only the information needed at the time is displayed.

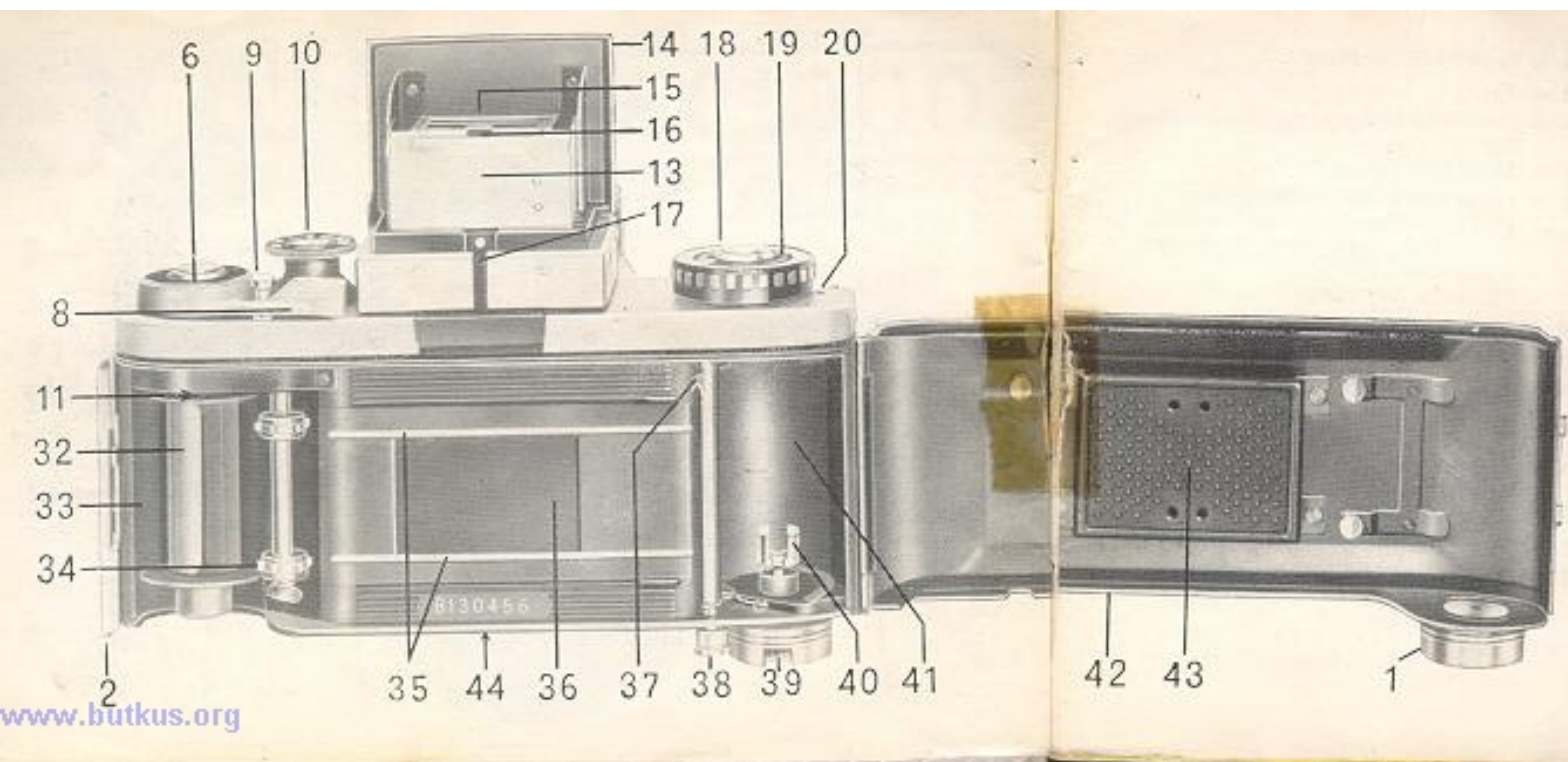


Coupling Range of Built-in Exposure Meter

The built-in exposure meter couples to the following range of F stops and shutter speeds with respective film speeds. When using the F 1.2 Lens and ASA 100 film, for example, the expo-

sure meter couples fully within the range of F 1.2 at 1 sec. (EV 0.5) and F 16 at 1/1000 sec. (EV 18).

Film Speed		Shutter Speed										
ASA DIN	25 15	...	...	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250
ASA DIN	50 18	...	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500
ASA DIN	100 21	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000
ASA DIN	200 24	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000	...
ASA DIN	400 27	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000	...	...
ASA DIN	800 30	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000	...	...	...
ASA DIN	1600 33	1/15	1/30	1/60	1/125	1/250	1/500	1/1000	...	...	...	...
ASA DIN	2000 34	1/30	1/60	1/125	1/250	1/500	1/1000	...	...	...	...	...
f/Stops		f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-22	f/1-16



Lenses for the EXAKTA RTL 1000

Designation	Type of aperture*	Angle of view	Focusing range to
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New original lenses with automatic pressure diaphragm and internal release

Standard lens:

Oreston 1,8/50	ADB	47°	0.33 m
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Wide-angle lens:

Orestegon 2,8/29	ADB	73°	0.25 m
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Telephoto lens:

Orestor 2,8/100	ADB	24°	1.10 m
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Other supplementary lenses:

Flektogon 4/20	ASB	93°	0.16 m
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Lydith 3,5/30	VB	71°	0.33 m
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Flektogon 2,8/35	ASB	62°	0.18 m
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from Jena B 1,5/75	VB	32°	0.8 m
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Orestor 2,8/100	RB	24°	1.10 m
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Orestor 2,8/135	VB	18°	1.50 m
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from Jena S 4/135	ASB	18.5°	1.0 m
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from Jena S 2,8/180	ASB	14°	1.70 m
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Orestegor 4/200	VB	12°	2.5 m
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Orestegor 4/300	VB	8°	3.60 m
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from Jena S 4/300	ASB	8°	3.0 m
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Orestegor 5,6/500	VB	5°	6.0 m
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from Jena	no		
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catoptric lens 4/500	diaphr.	5°	8,0 m
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from Jena	no		
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catoptric lens 5,6/1000	diaphr.	2.5°	16.0 m
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*ADB = Automatic pressure diaphragm with internal release ASB = Automatic spring diaphragm with external release RB = Click-Stop-Diaphragm

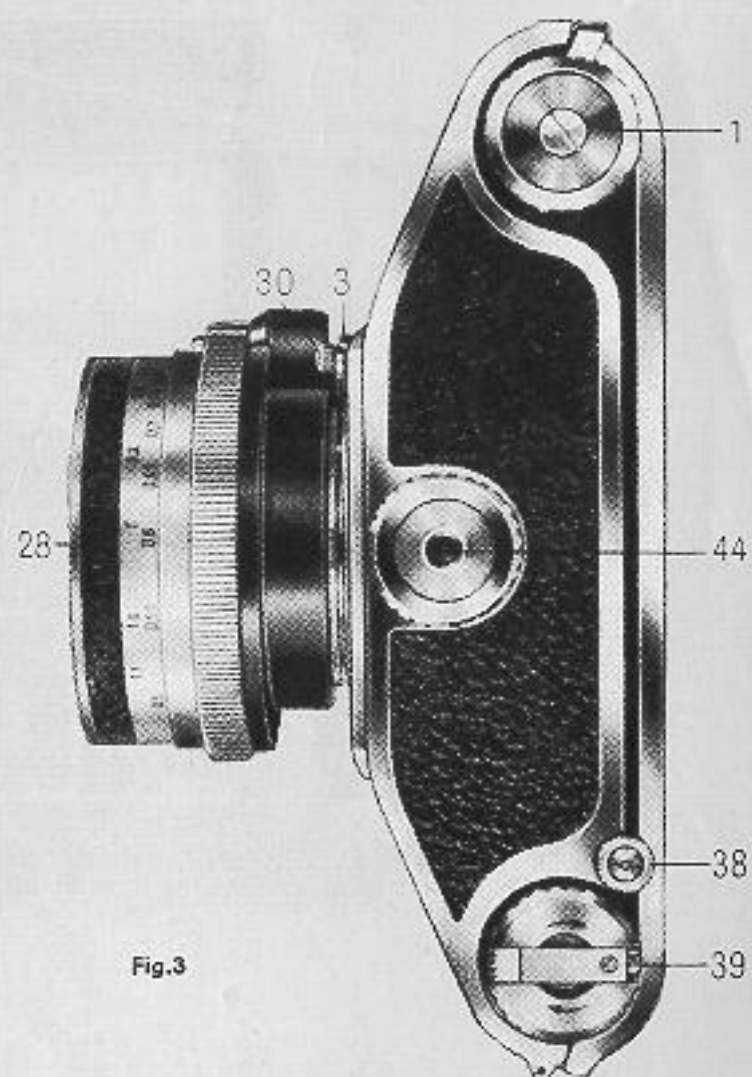
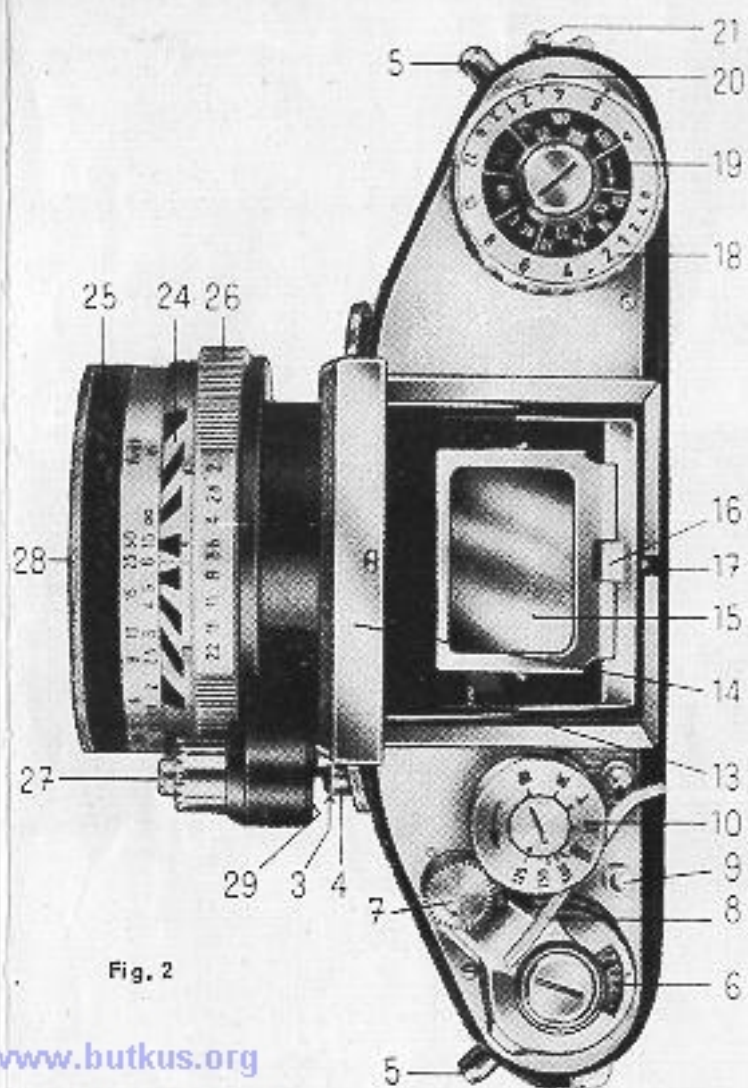
VB = Pre-set diaphragm



EF Lens Lineup

Lens	Angle of View	Construction	Minimum Aperture	Closest Focusing Distance		Filter Size (mm)	Length		Weight	
				(m)	(ft)		(mm)	(in.)	(gr.)	(ozs.)
Fish-eye EF 15mm f / 2.8	180°	7-8	22	0.2	0.7	Filter Holder	62.2	2- 7 / 16	360	12-11 / 16
EF 28mm f / 2.8	75°	5-5	22	0.3	1	52	42.5	1- 5 / 8	185	6- 1 / 2
★ EF 50mm f / 1.0 L (Ultrasonic)	46°	9-11	16	0.6	2	72	80.0	3- 1 / 8	960	33- 7 / 8
EF 50mm f / 1.8	46°	5-6	22	0.45	1.5	52	42.5	1- 5 / 8	190	6-11 / 16
★ Softfocus EF 135mm f / 2.8	18°	6-7	32	1.3	4.5	52	98.7	3- 7 / 8	410	14- 7 / 16
★ EF 300mm f / 2.8 L (Ultrasonic)	8°15'	7-9	32	3	10	48	243.0	9- 9 / 16	2,850	100- 9 / 16
★ EF 28-70mm f / 3.5-4.5	75°-34°	9-10	22-29	0.5	1.75	52	74.8	2-15 / 16	300	10- 9 / 16
★ EF 28-80mm f / 2.8-4L (Ultrasonic)	75°-30°	12-16	22-32	0.75	2.5	72	122.0	4-13 / 16	940	33- 3 / 16
EF 35-70mm f / 3.5-4.5	63°-34°	8-9	22-29	0.5	1.75	52	63.0	2- 1 / 2	245	8- 5 / 8
EF 35-105mm f / 3.5-4.5	63°-23°30'	11-14	22-29	1.2	4	58	81.9	3- 1 / 4	400	14- 1 / 8
EF 70-210mm f / 4	34°-11°45'	8-11	32	1.5	5	58	137.6	5- 7 / 16	650	23
★ EF 100-300mm f / 5.6	24°- 8°15'	9-15	32	2	7	58	166.8	6- 9 / 16	720	25- 3 / 8
★ EF 100-300mm f / 5.6 L	24°- 8°15'	10-15	32	2	7	58	166.6	6- 9 / 16	720	25- 3 / 8
★ Extender EF 2X	-	5-7	-	-	-	-	50.5	2	290	10- 1 / 4

1. The Extender EF 2X is for exclusive use with EF 300mm f / 2.8L.
2. All EF zoom lenses have a built-in macro mechanism.
3. ★ indicates these lenses will be available soon.



Extent of depth of field (for 50 mm lenses)

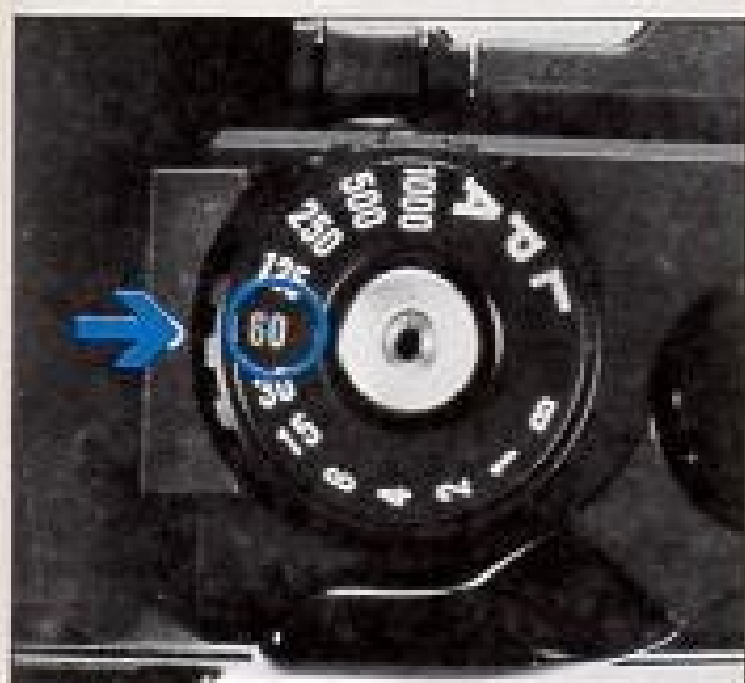
(All distances between object to be photographed and image plane are indicated in m)									
Aperture	Lens focusing ring set at								
	∞	10	5	3.3	2.5	2.0	1.7	1.4	1.2
f/2.9	20.93 ∞	6.85 19.05	4.06 6.50	2.87 3.88	2.25 2.81	1.84 2.19	1.59 1.84	1.32 1.48	1.14 1.26
f/4	14.65 ∞	6.02 31.36	3.76 7.47	2.72 4.20	2.16 2.97	1.78 2.28	1.54 1.90	1.29 1.53	1.12 1.29
f/5.6	10.50 ∞	5.20 ∞	3.42 9.32	2.55 4.72	2.05 3.22	1.71 2.43	1.49 1.99	1.25 1.58	1.09 1.33
f/8	7.37 ∞	4.30 ∞	3.02 15.08	2.32 5.81	1.90 3.68	1.60 2.67	1.41 2.15	1.20 1.68	1.06 1.40
f/11	5.38 ∞	3.55 ∞	2.64 66.00	2.09 8.20	1.75 4.50	1.50 3.07	1.33 2.40	1.14 1.82	1.01 1.49
f/16	3.72 ∞	2.76 ∞	2.18 ∞	1.80 26.70	1.54 7.17	1.35 4.08	1.21 2.96	1.06 2.13	0.94 1.67
f/22	2.74 ∞	2.19 ∞	1.82 ∞	1.55 ∞	1.36 26.15	1.20 6.86	1.10 4.17	0.97 2.66	0.88 1.98

Permissible confusion (diameter of circle of confusion) = 0.05 mm

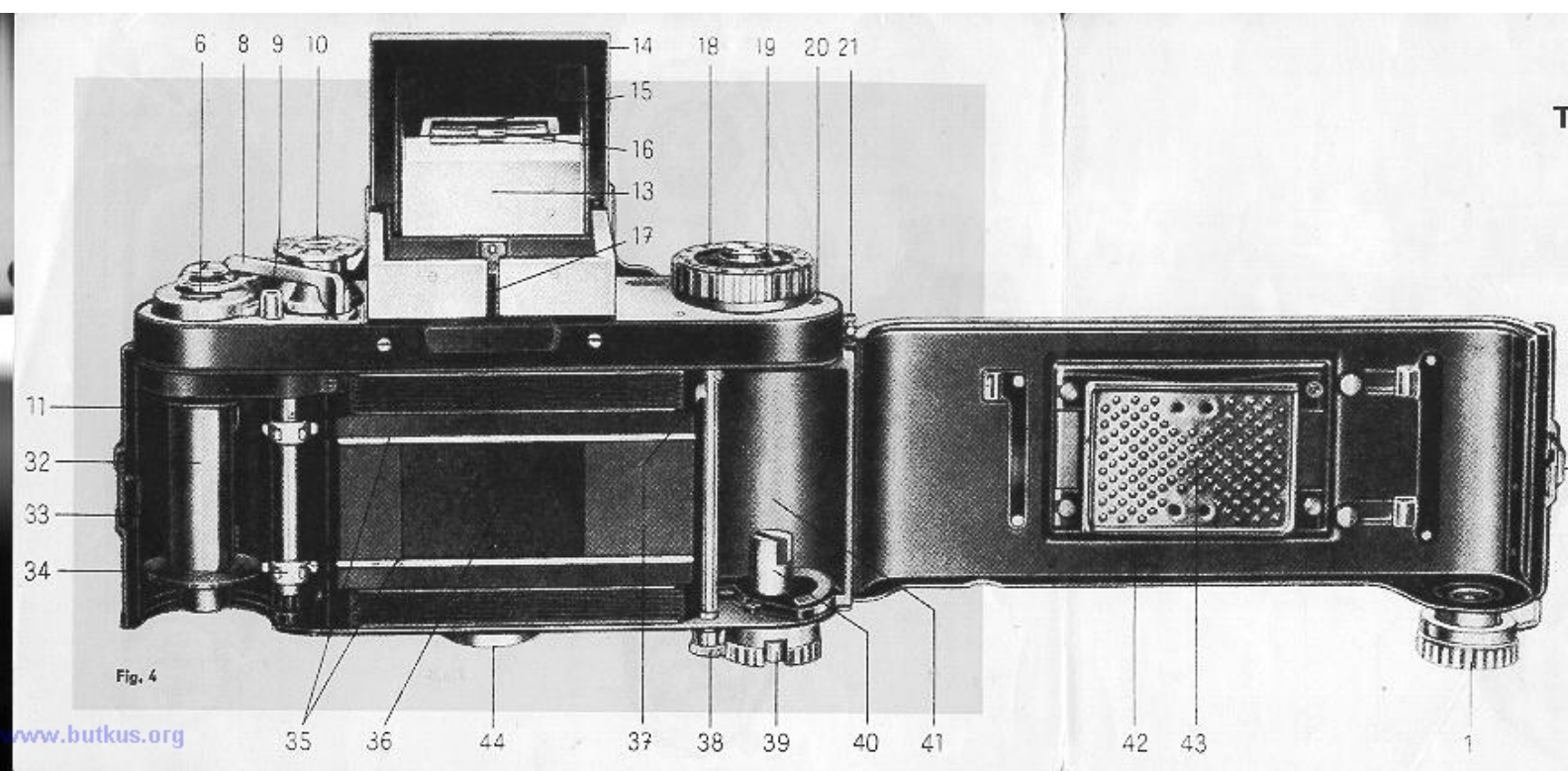
Notice: The distances given in the above chart have been obtained by calculation; for the purposes of practical work they can be rounded off within reasonable limits.



45



46



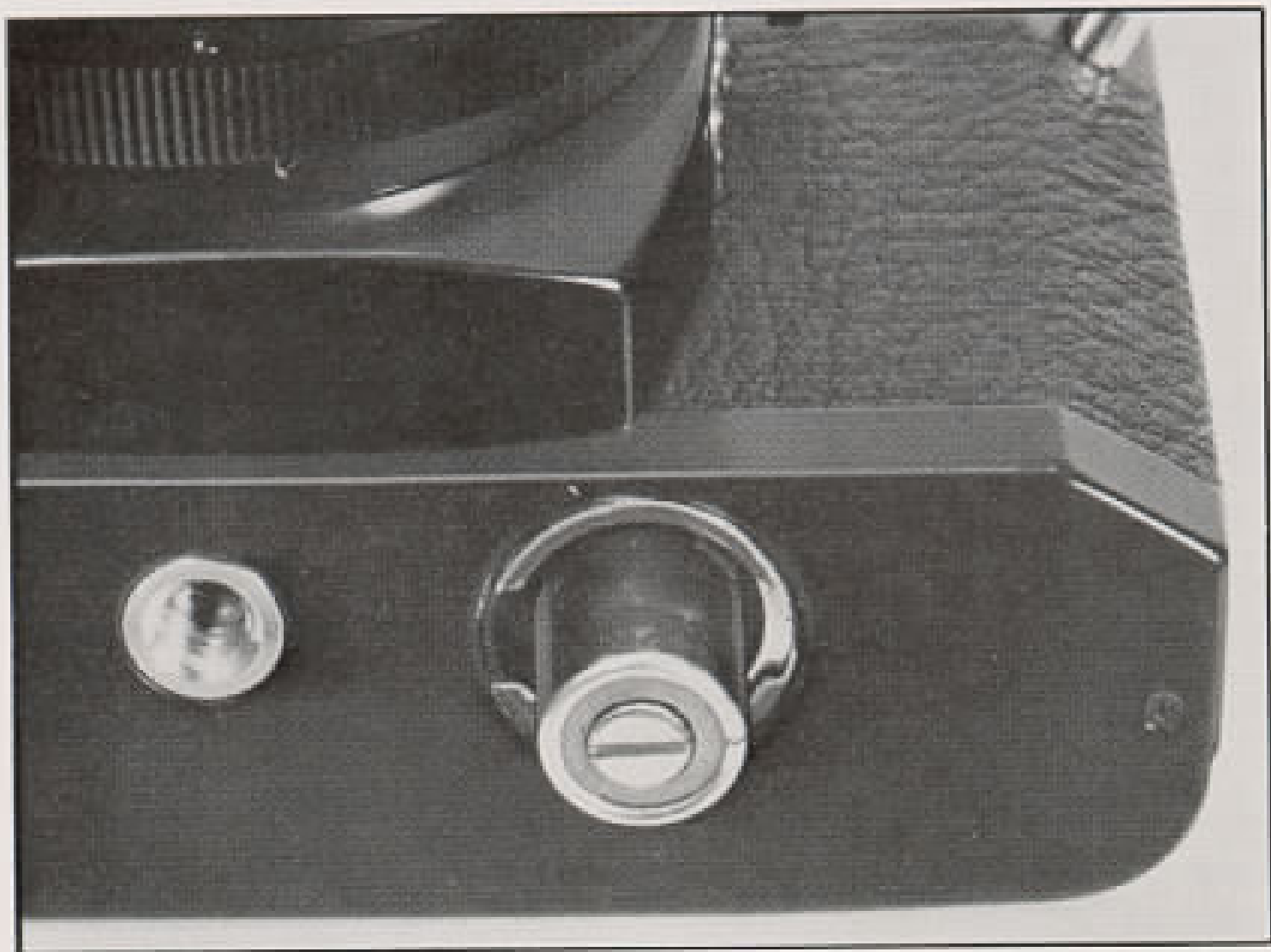
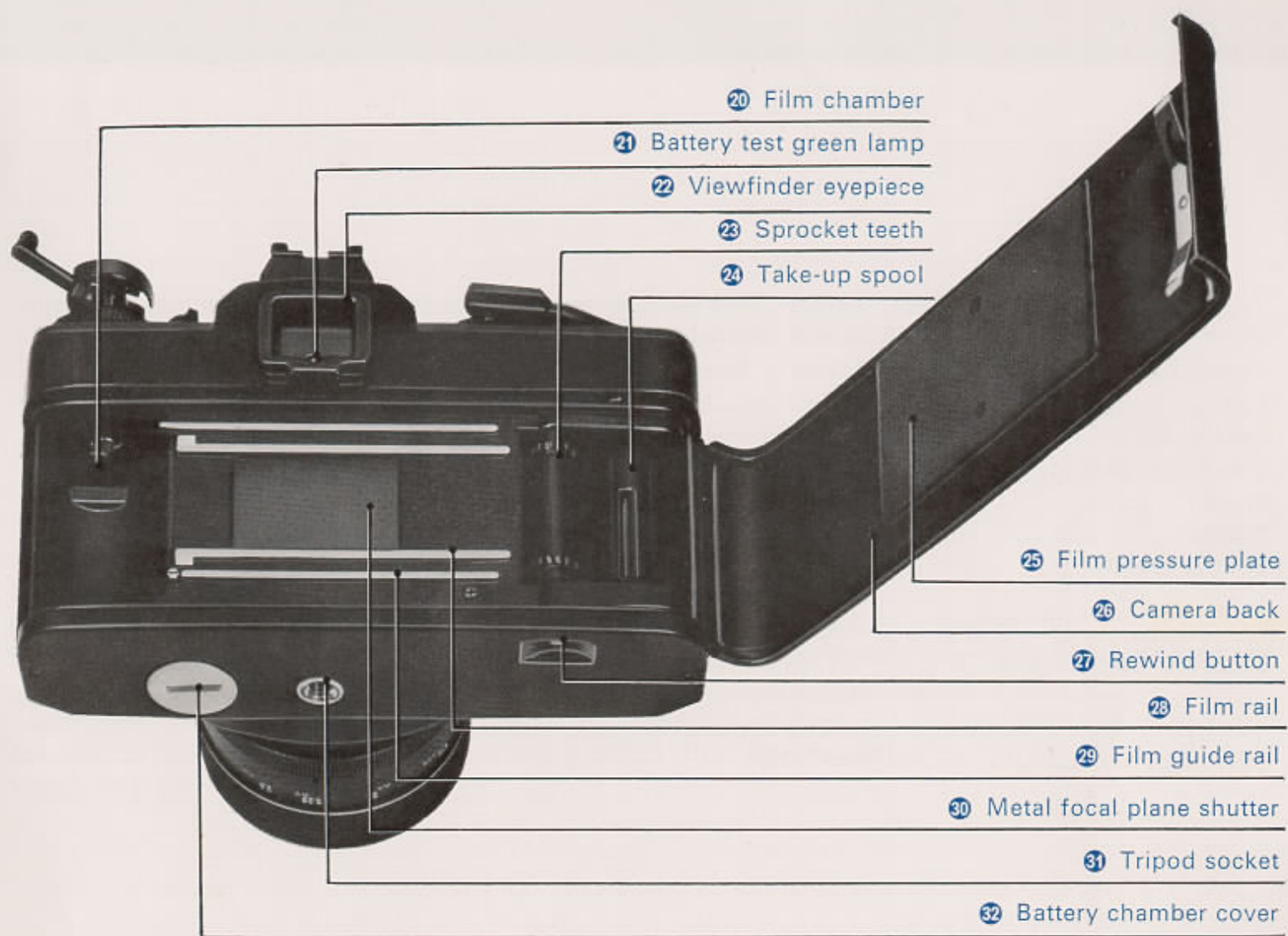
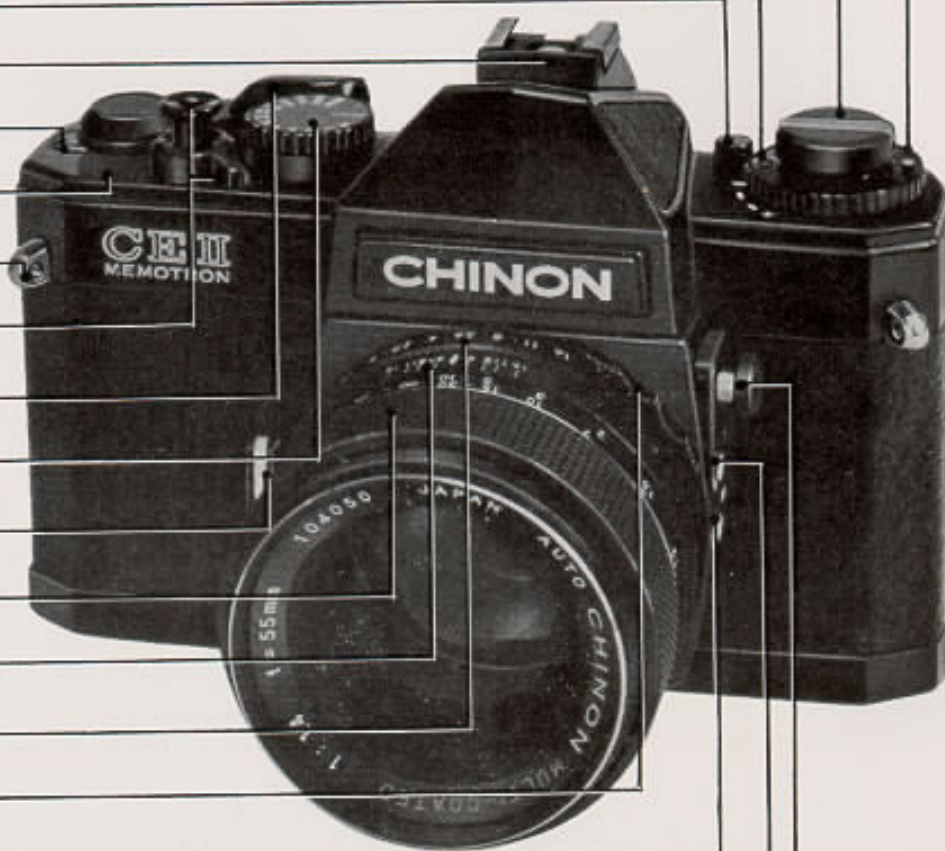


Fig. 1



NOMENCLATURE

- ❶ ASA/DIN selection pin
- ❷ Film rewind knob and back opening knob
- ❸ Film speed dial (ASA/DIN)/Exposure compensation dial
- ❹ Viewfinder blind lever
- ❺ Accessory shoe (Hot shoe)
- ❻ Frame counter
- ❼ Multiple exposure lever
- ❽ Shoulder strap eyelet
- ❾ Shutter release button and lock lever
- ❿ Film advance lever
- ⓫ Shutter speed dial
- ⓬ Self-timer lever
- ⓭ Focusing ring
- ⓮ Depth of field scale
- ⓯ Aperture ring
- ⓰ AM lever
- ⓱ FP sync socket
- ⓲ X sync socket
- ⓳ Exposure memory button



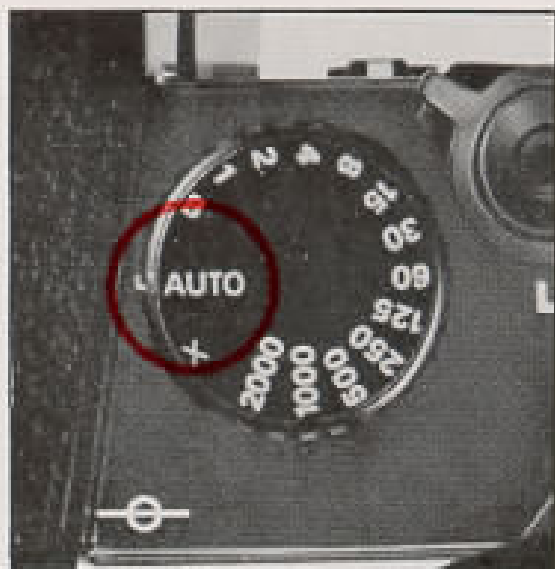


Fig. 3

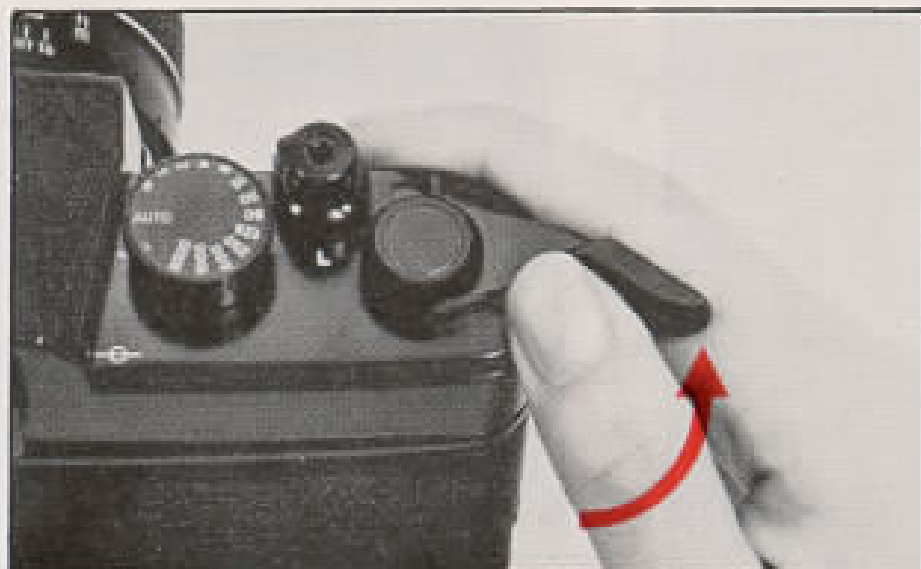


Fig. 4

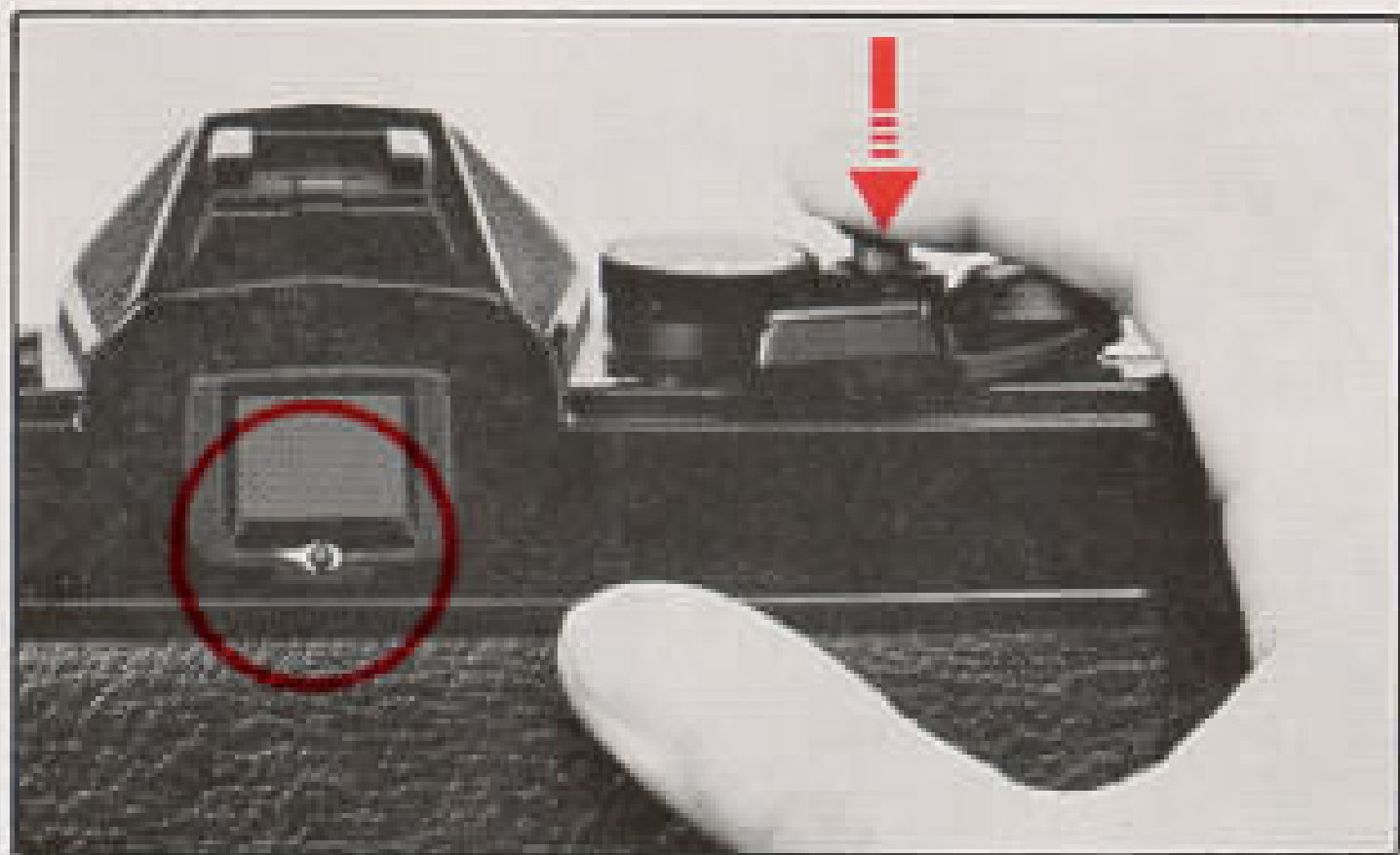


Fig. 5

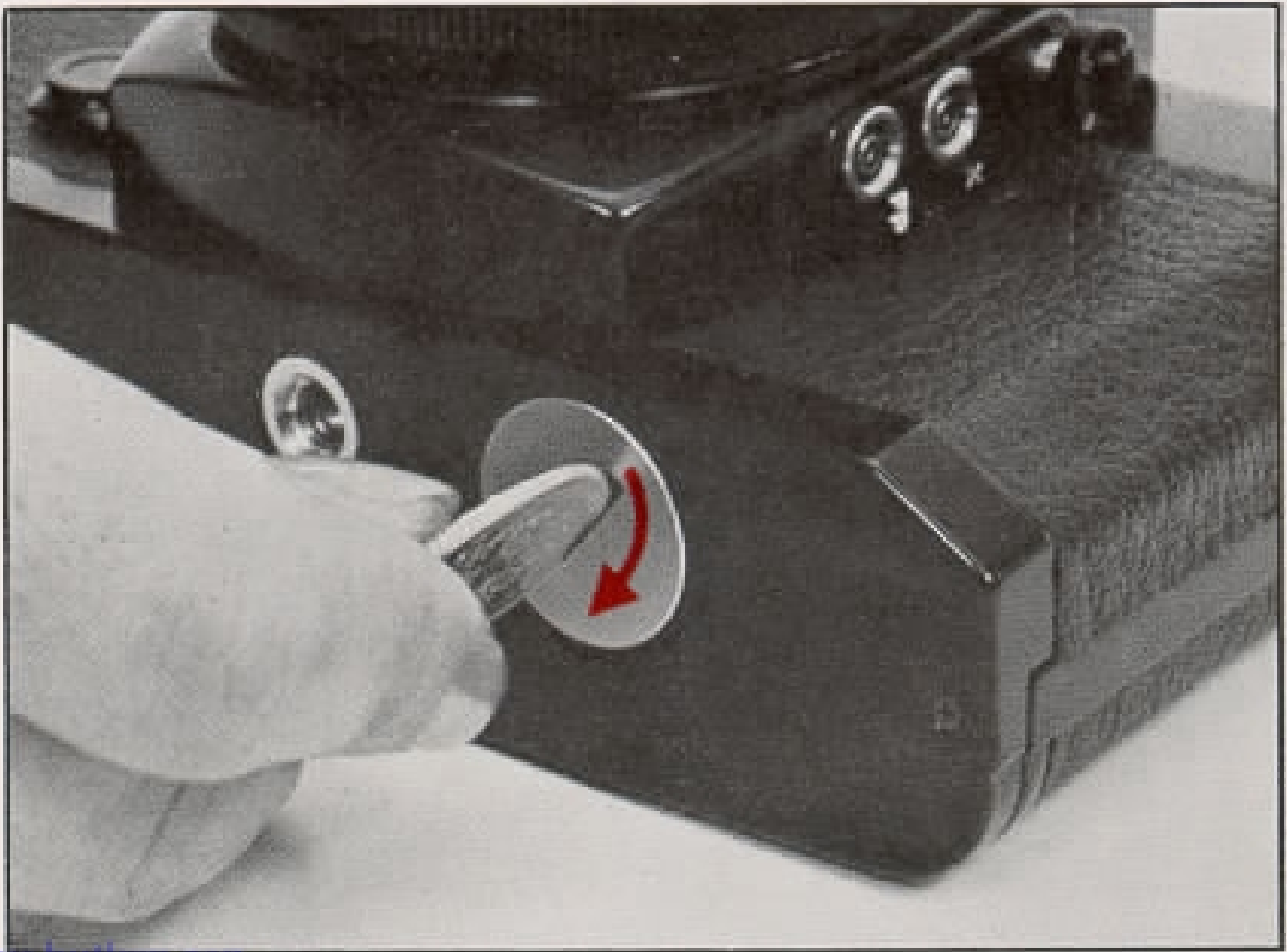




Fig. 6



Fig. 7

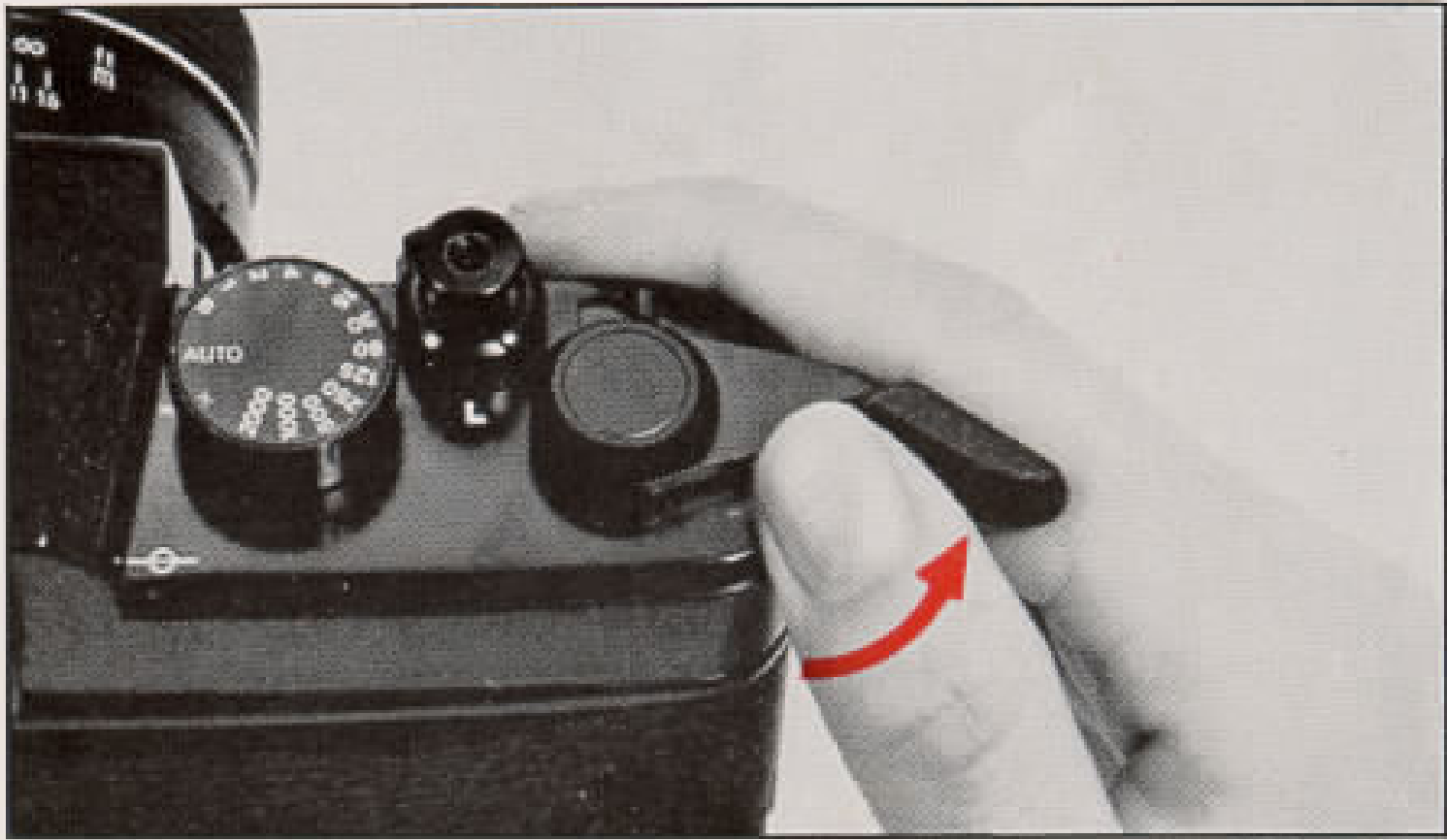


Fig. 9

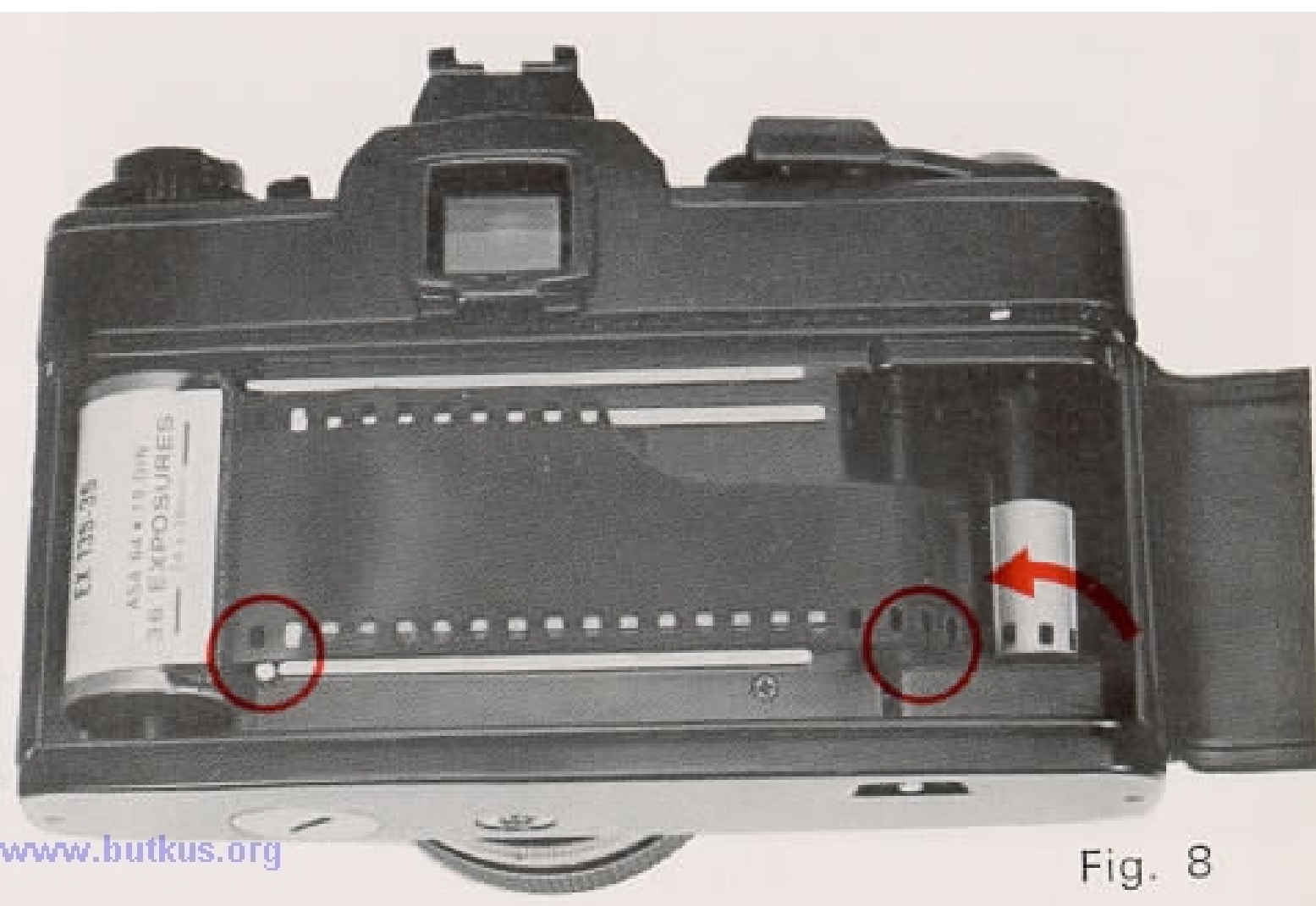




Fig. 10



Fig. 11



Fig. 16



Fig. 17



Fig. 14



Fig. 15



Fig. 18

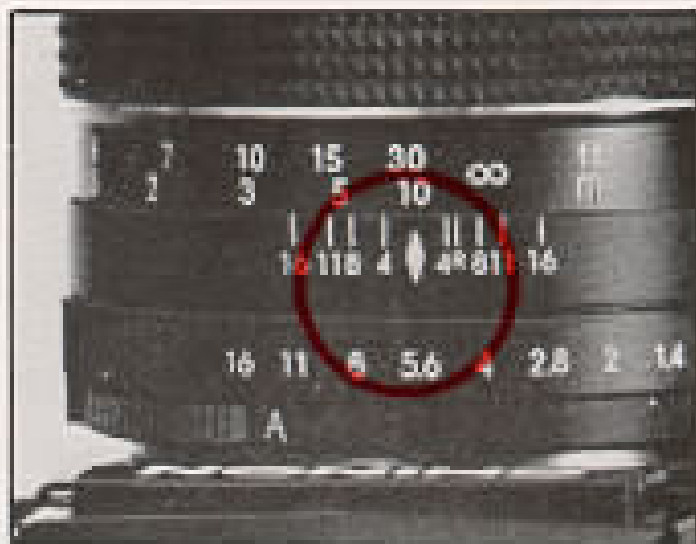


Fig. 19

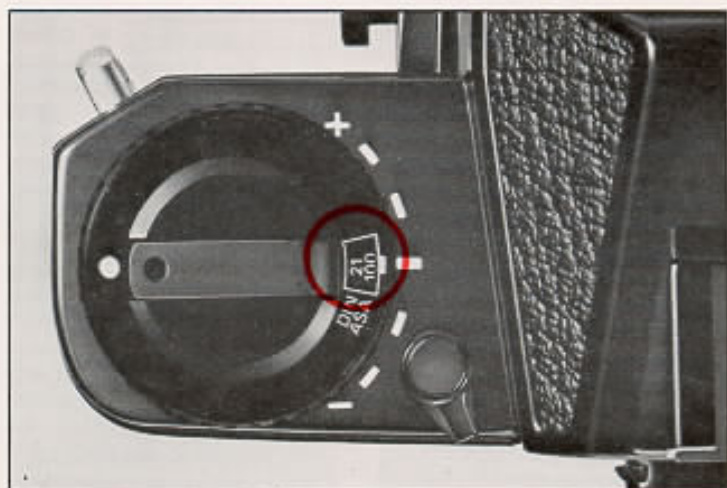


Fig. 12



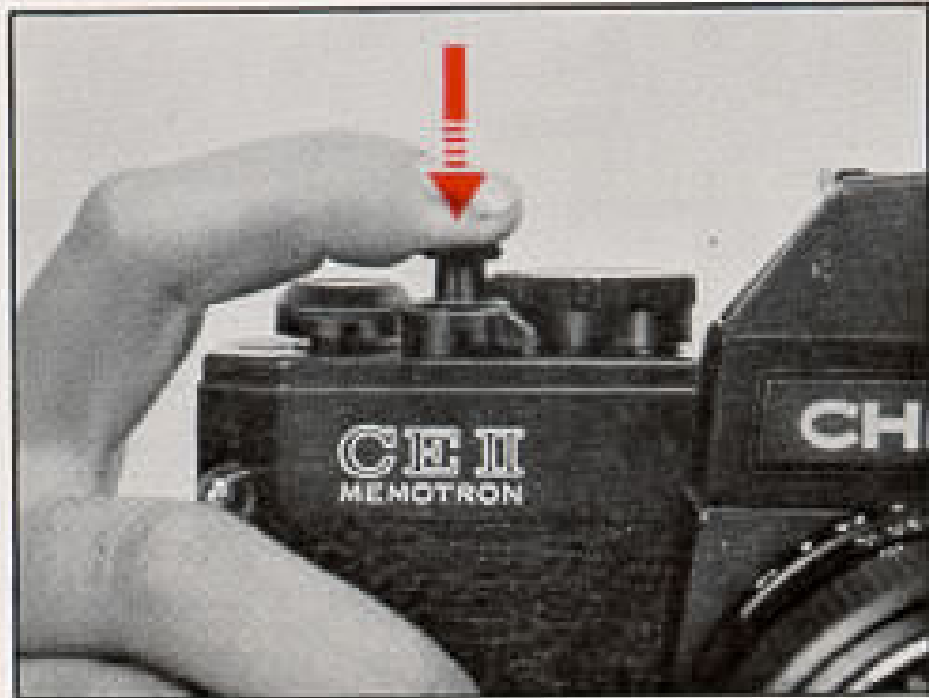
Fig. 13

VIEW FROM LEFT.



Fig. 20

Fig. 21



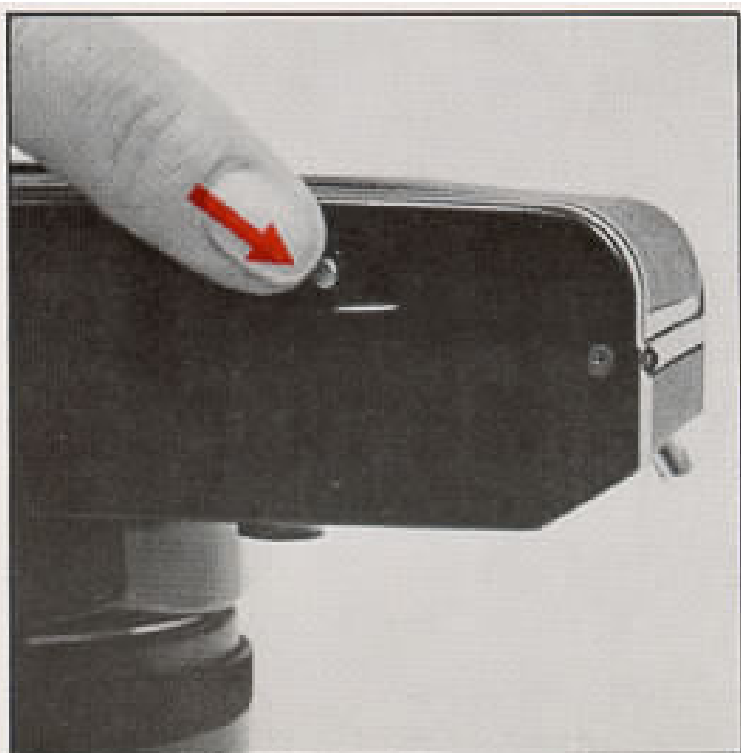


Fig. 25

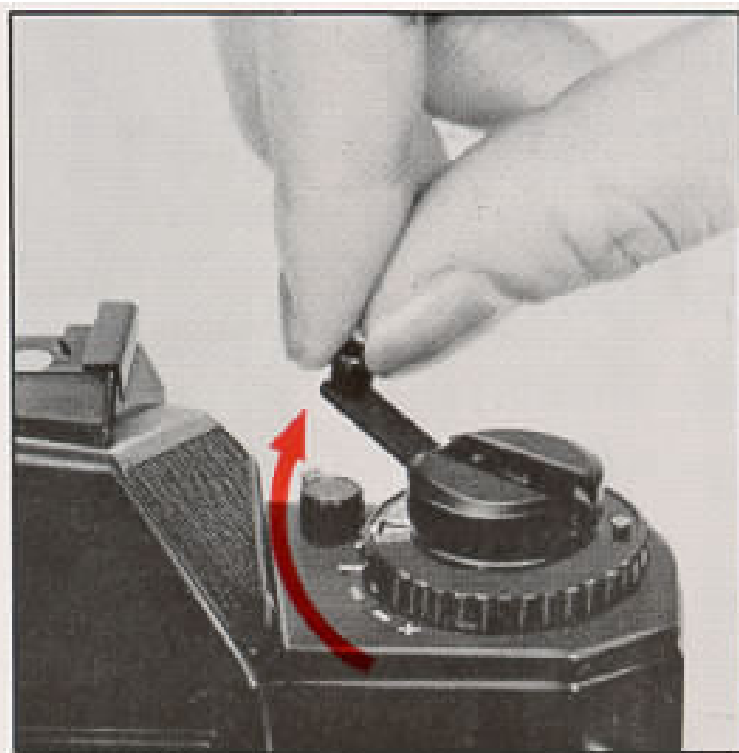


Fig. 26

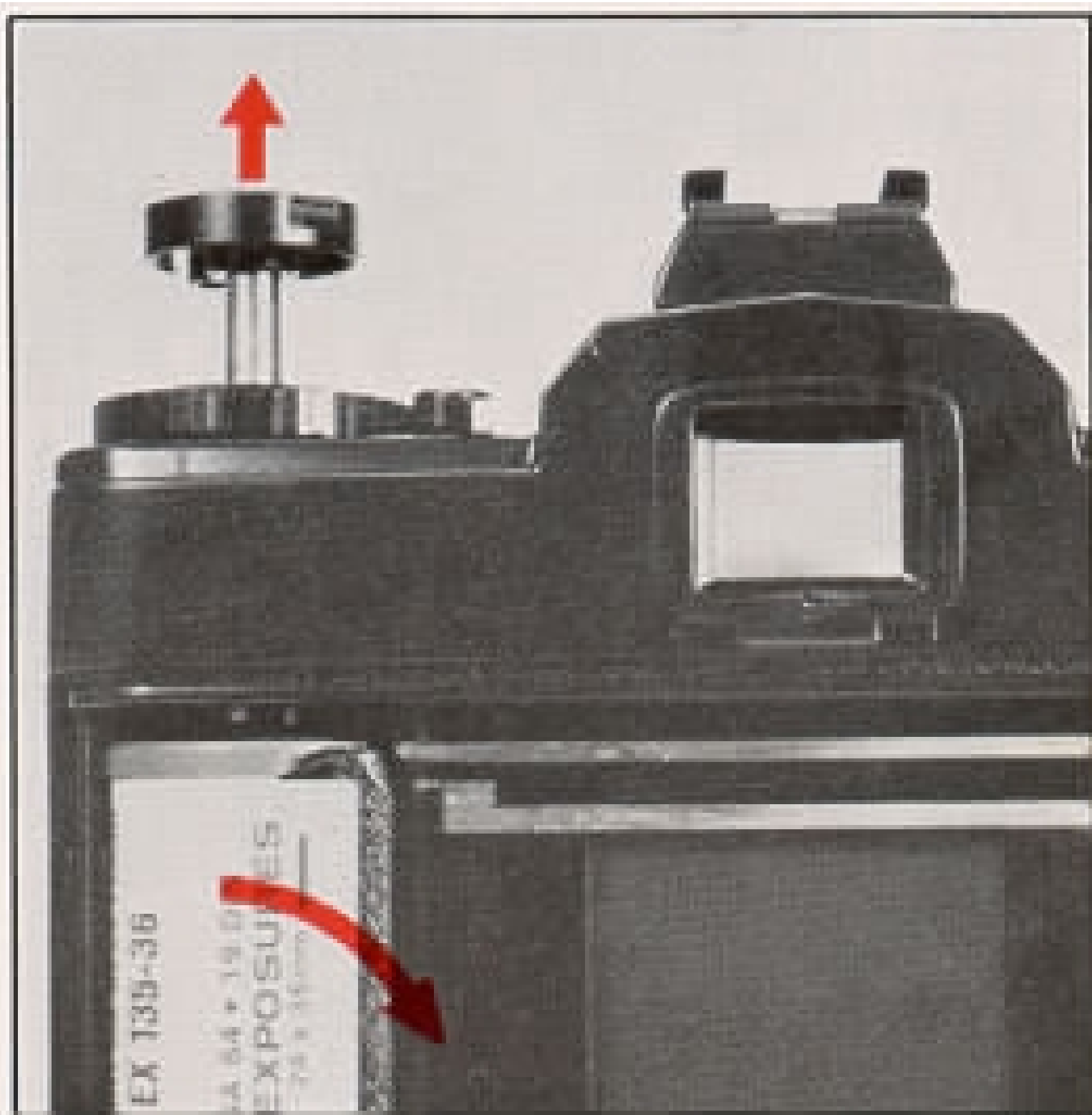




Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 33



Fig. 34



Fig. 32



Fig. 35

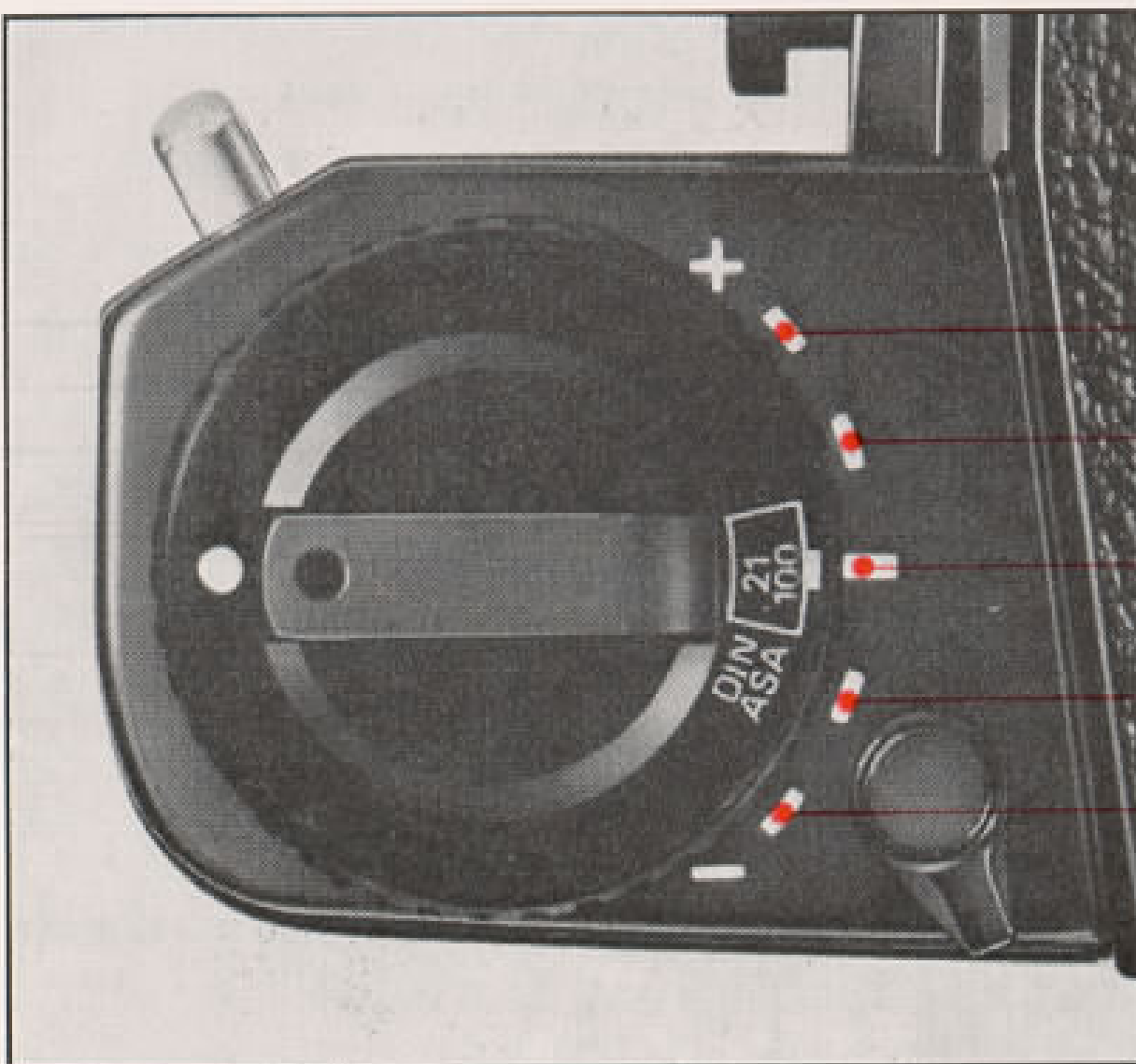


Fig. 38

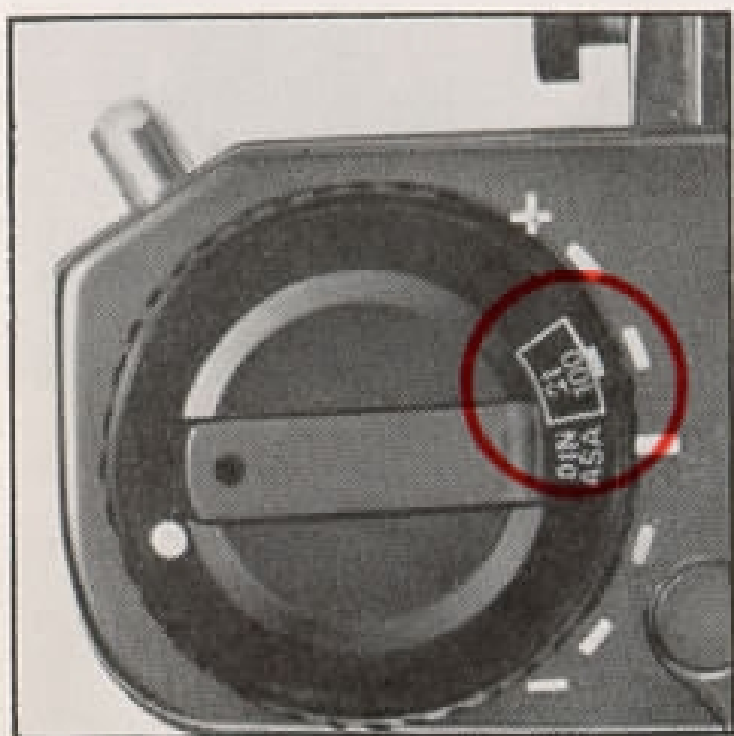


Fig. 36

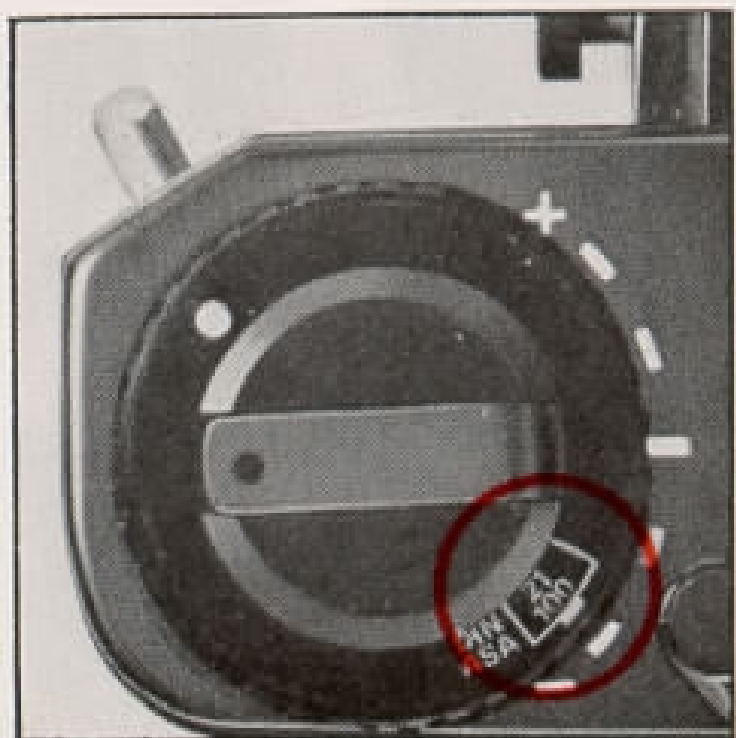


Fig. 37

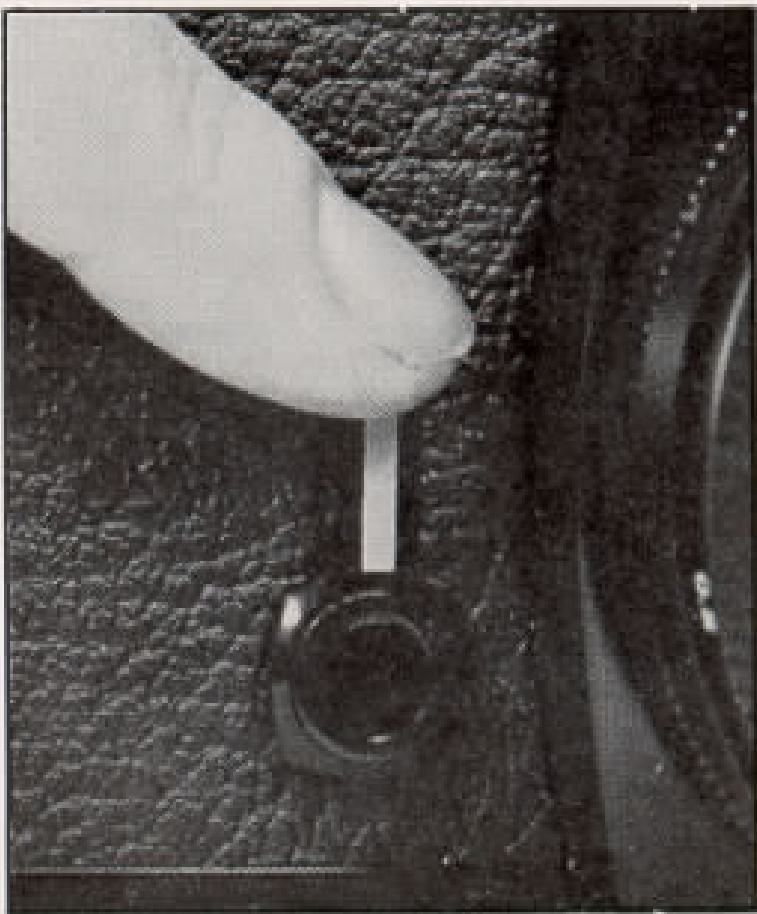


Fig. 45

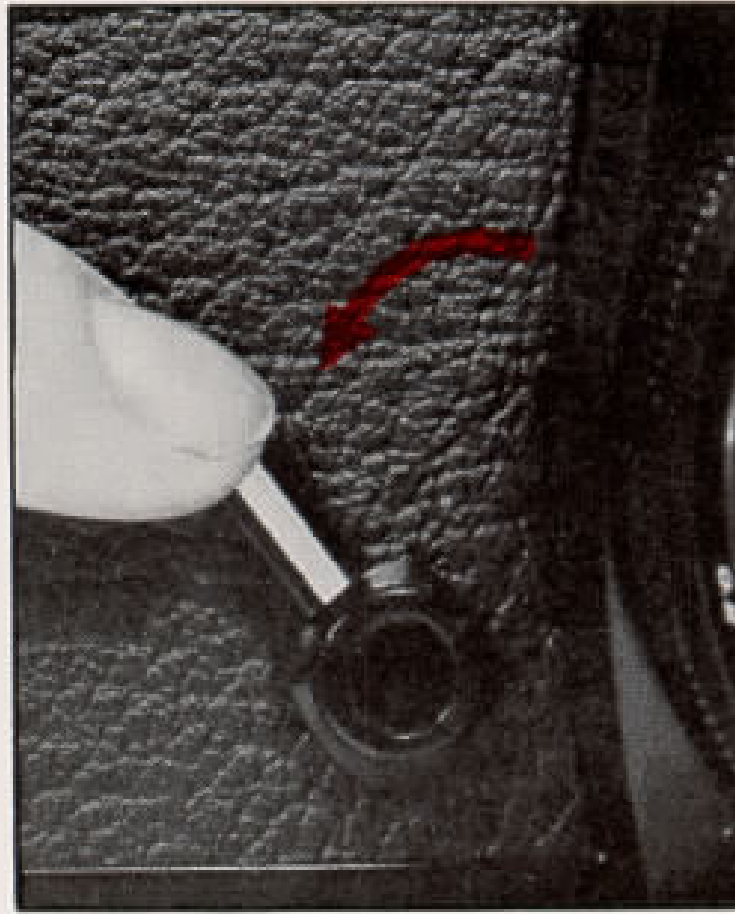


Fig. 46





Fig. 42



Fig. 43

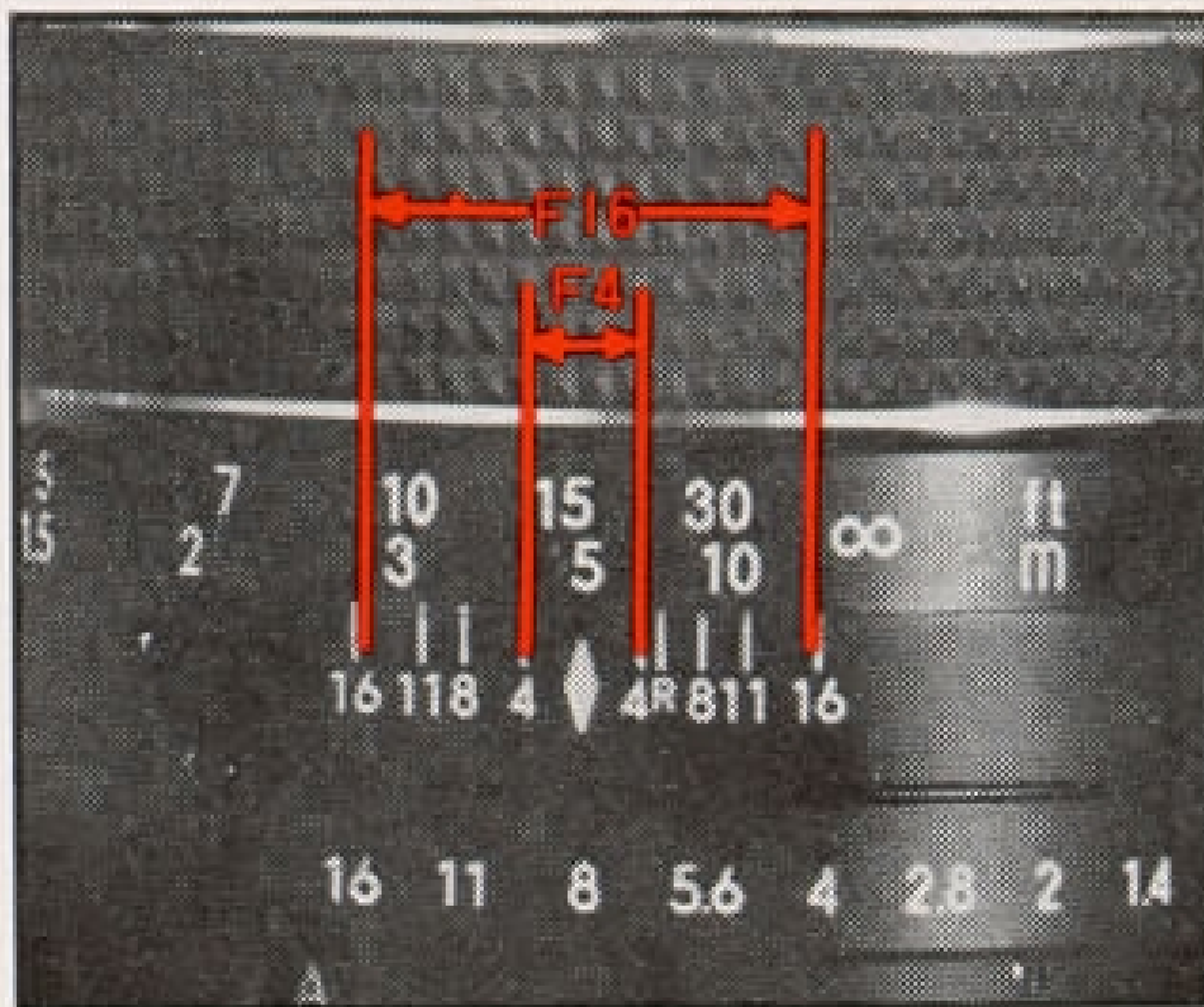
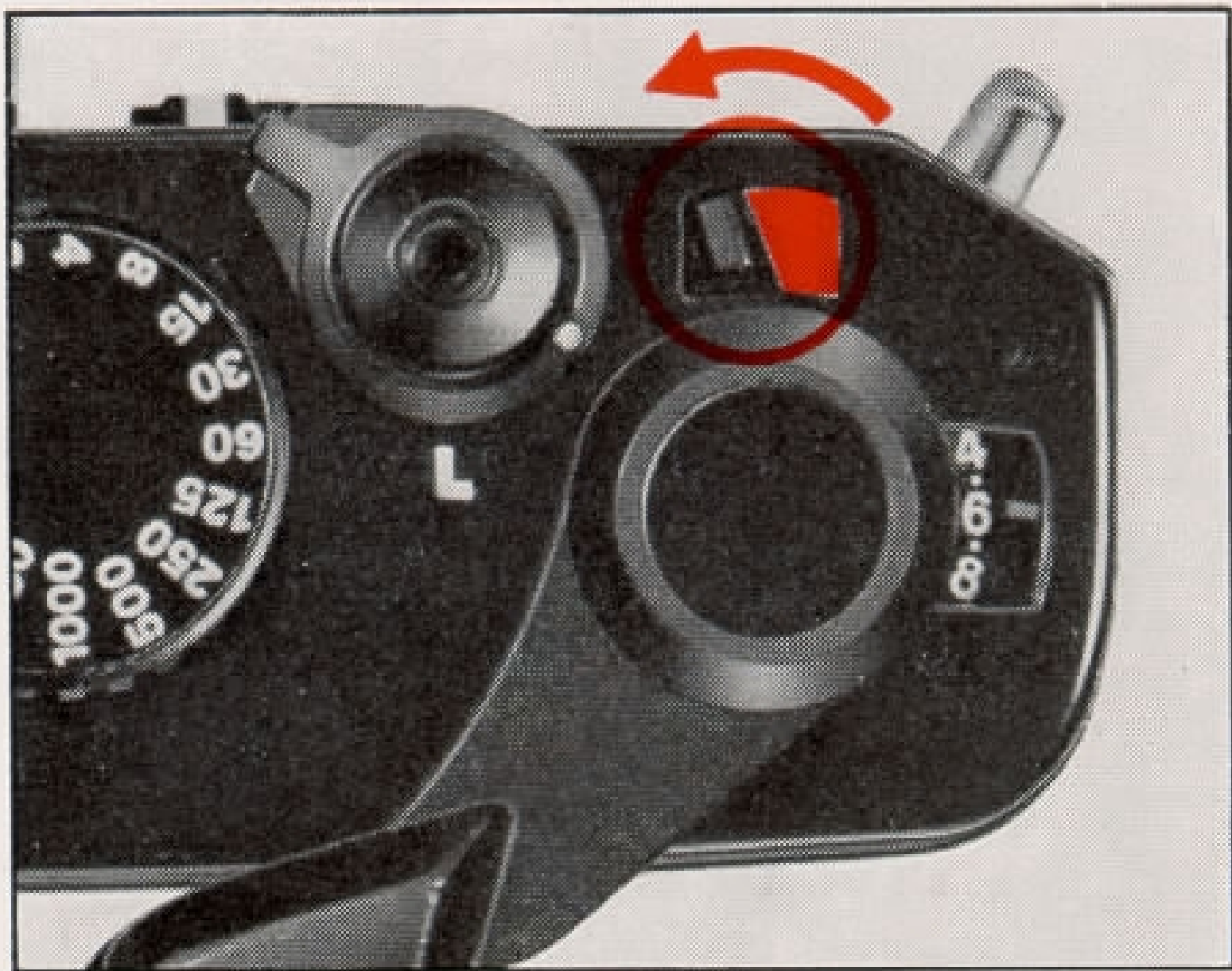


Fig. 44



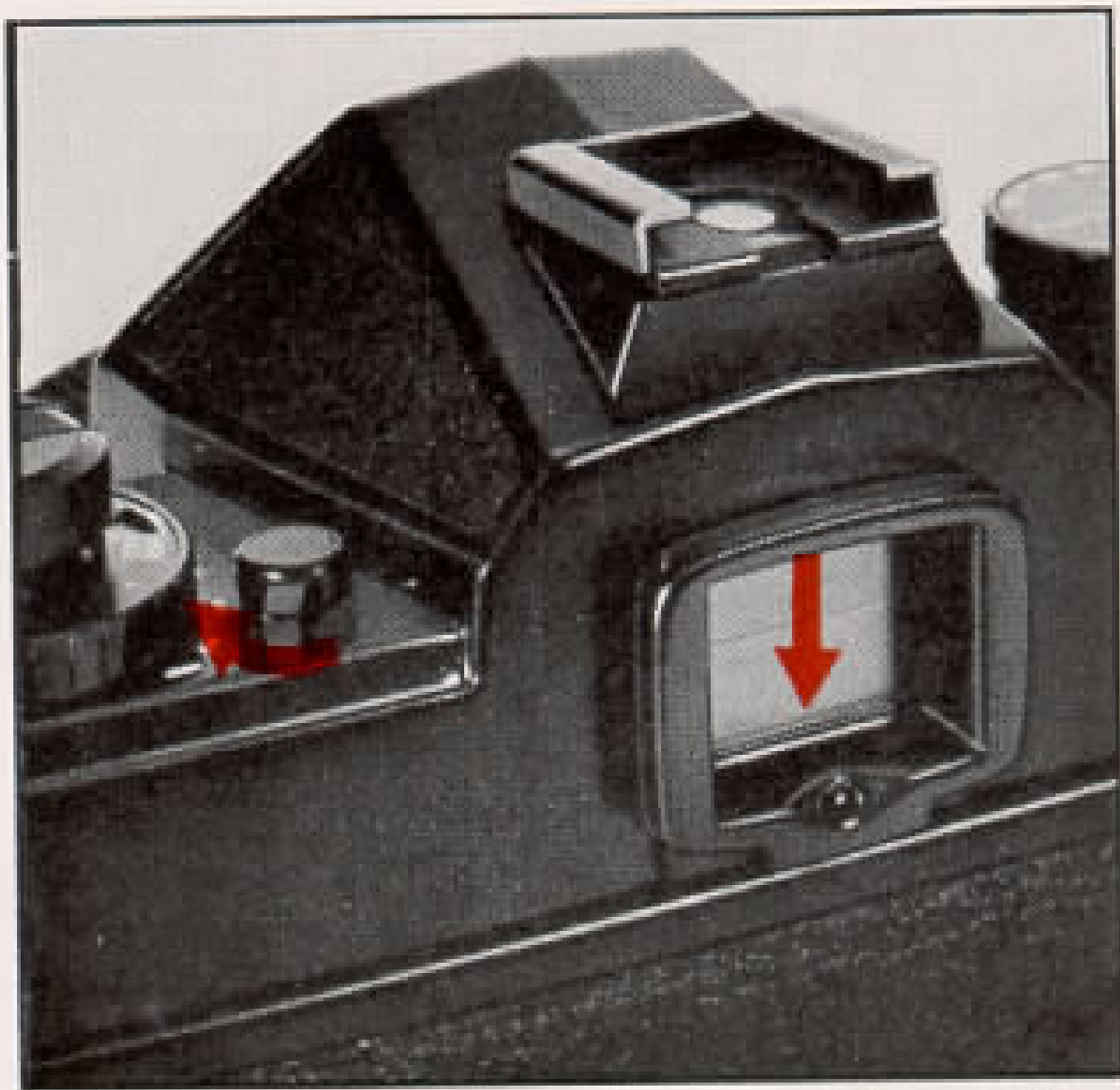


Fig. 47



Fig. 50



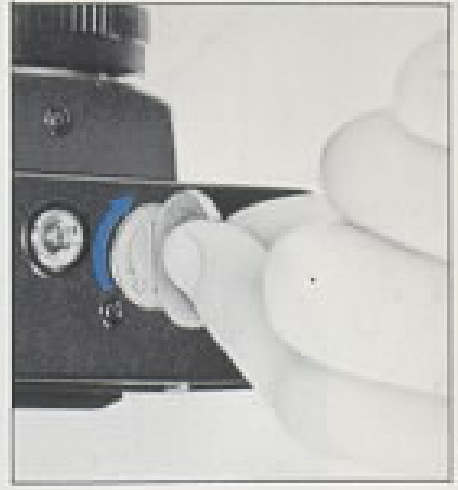
Fig. 51



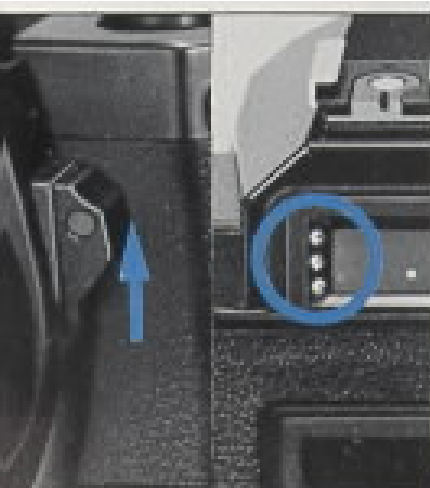
1



2



3



4



5



6



Fig. 48



Fig. 49

