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PETRI FLEX



INSTRUCTION BOOK



**SUPERLATIVE FEATURES
OF PETRI FLEX V**

TYPE : Fully-Automatic Diaphragm Penta Prism Single Lens Reflex Camera with Quick-Return Mirror.

FILM SIZE : 35mm film (20 or 36 exposures)

PICTURE SIZE : 24mm × 36mm.

STANDARD LENS : PETRI 55mm F2, Color-corrected Lens.

SHUTTER : Focal Plane Shutter.

SHUTTER SPEEDS : B, 1/2, 1/4, 1/8, 1/15, 1/30, X, 1/60, 1/125, 1/250, 1/500 sec. Single-Pivot Non-Rotation Dial.

VIEW-FINDER : Penta Prism Viewfinder with Built-in Micro-image Focusing.

FILM TRANSPORT : Single-stroke (180°) rapid transport lever which automatically transports film and cocks the shutter simultaneously.

INTERCHANGEABLE LENS : Bayonet Type Interchangeable Lenses can be attached to the camera with the adapter.

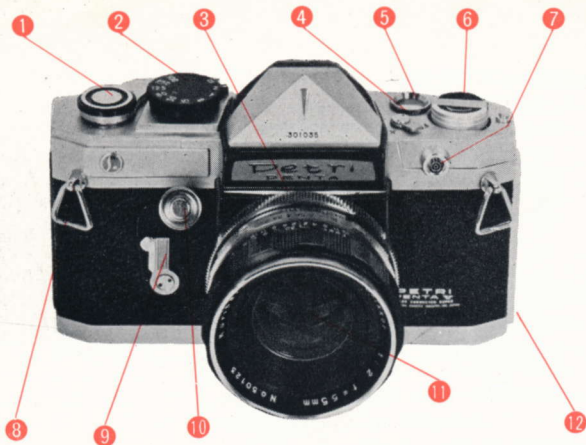
SYNCHRONIZATION : FP & X Synchronization (JIS Type-B)

OTHER FEATURES : Automatic-Resetting Film Counter, Crank-type Film Rewinding, Built-in Selftimer etc.

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1. FILM WINDING LEVER
2. SHUTTER DIAL
3. FULLY-AUTOMATIC RELEASE RING
4. SYNCHRO-SWITCH (FP & X)
5. AUTOMATIC EXPOSURE COUNTER

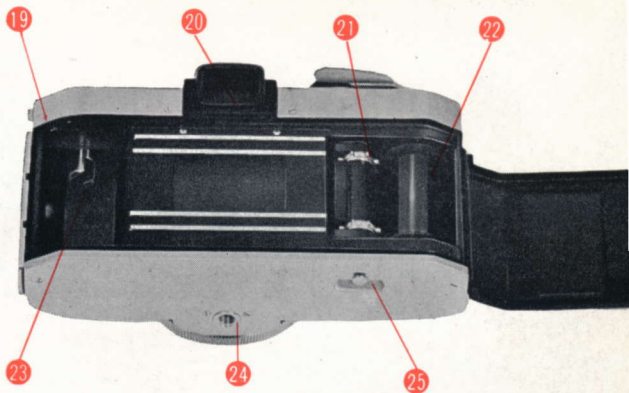
6. FILM REWIND CRANK
7. SYNCHRO TERMINAL
8. NECK STRAP LOOP
9. SELFTIMER LEVER
10. SHUTTER BUTTON

TO MAKE PETRI FLEX V YOUR OWN...


Try to remember the name of parts equipped with PETRI FLEX V. After knowing the parts by their name, start to learn about the function of each part. To know their functional work, take advantage of this Instruction Booklet.



- 11. PETRI F2 55mm LENS
- 12. COVER LEVER
- 13. FOCUS ADJUSTING LEVER
- 14. DISTANCE SCALE
- 15. DEPTH OF FIELD SCALE



- 16. DIAPHRAGM SCALE
- 17. MANUAL AND AUTOMATIC DIAPHRAGM SWITCH RING
- 18. BAYONET MOUNT
- 19. ACCESSORY SHOE SCREW HOLE
- 20. EYE-PIECE
- 21. SPROCKET
- 22. TAKE-UP SPOOL
- 23. PATRONE BOX
- 24. TRIPOD HOLE
- 25. RETURN BUTTON



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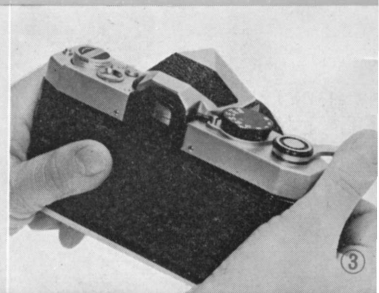
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□ BASIC HANDLING TO BE REMEMBERED

1. HANDLING OF FILM WINDING LEVER

As indicating in Picture 1, hold your camera tightly as closely as possible to your body with your both hands. Then turn the winding lever with your right thumb (See Picture 2, it is actually 15° play). And this is the start-point. Then turn the lever to the end (See Picture 3, it is 180° turning). As you release your thumb from the lever,

the lever automatically returns to the start-point. (See picture 4). And the work advances one frame of film. At this time, the shutter blind is also advanced simultaneously. You can now release the shutter button anytime you want. Unless you repeat the winding, you can not release the shutter button. And this is to prevent the double-exposure. Unless you release the button, you cannot advance the film. And this is to prevent the mis-advance of film.



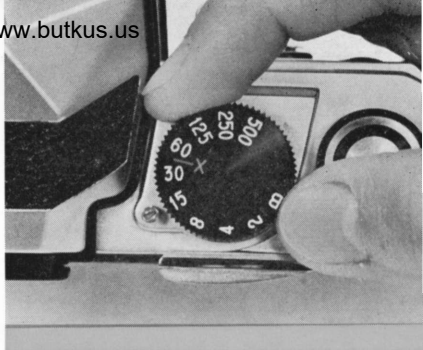
2. CARE TO HANDLE DIAPHRAGM AND SHUTTER

Set both Diaphragm and Shutter Speed Scales as shown in the picture on the right. An exposure will be obtained with the combination of both Diaphragm and Shutter Speed.

This setting of the two can be made either before or after your cocking the film advance lever.

How to set SHUTTER SPEED SCALE

Turn the shutter speed dial until the desired speed number come to the green indication mark. The red X-mark is for Synchro-Flash Photography.



How to set DIAPHRAGM SCALE

Turn Diaphragm Ring until the desired diaphragm number fit to the Indication Mark (Red Spot). The more diaphragm number gives you the smaller aperture.

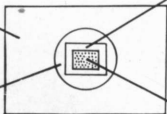


3. HOW TO LOOK THROUGH VIEWFINDER AND FOCUS

The perfect combination of Fresnel Lens and Condenser in viewing system equipped with PETRI FLEX V is the creation of PETRI's unique engineering know-how. As precision Focusing Members in viewing system is so precisely embodied, you can look through viewfinder very easily. This precision focusing system consists of a group of multi-micro-lenses as shown in the center of picture. As you look through micro lenses in the finder, you can see subject clearly ONLY

Image can be seen in correct focusing condition and to compare focusing within micro-lenses to get standard image in proper focus.

Whole area of viewing covering 92% of actual picture size



Zone to see the depth of field of lens in use (You can see accurate image range at f11 setting)

Image in micro-lenses can be seen accurately ONLY when it is correctly focused.

when it is correctly focused as you turn helicoid ring and you can notice out-of-focus image as you move helicoid ring while looking through viewfinder. In order to know whether focus is correct or not, move camera slightly right and left and yet image in micro-lenses can be seen clearly, then it is properly focused. Strong point of Single Lens Reflex camera is that you can see the depth of field of lens in use as you photograph. Compare image within micro-lenses with the one within the outer frame zone where you can see standard image to get proper focusing. The circle zone around micro-lenses is the area where you can even see the field depth of interchangeable lenses beside standard lens. Also you can focus image through this zone.

As described previously the whole area of viewfinder is made of fresnel lens and condenser. It is to concentrate any dim light coming from lens to your eye and with viewfinder you can always take bright picture in every corner even with small aperture of lens.

4. Care to Handle FULLY-AUTOMATIC & MANUAL DIAPHRAGM

- Look at the Fully-Automatic Diaphragm Ring. Turn the ring until the mark "AUTO" comes to the top of lens ring and the camera is in "Fully-Automatic Diaphragm" Operation. Usually this position should be kept. When releasing the operation, turn the ring until the mark, "MANUAL" comes to the top of lens ring.
- In "Fully-Automatic Diaphragm" Operation, the lens is fully-opened at all times and only when you release the shutter button the F value of aperture can be obtained. The steady opening of lens makes you to focus a subject very easily, but when you want to look through the subject in the desired aperture, release Fully-Automatic Diaphragm and look through the outside of double-circle in the center of viewfinder, after giving the desired aperture by manual. You can take a picture with the release of Automatic Operation.



F2 55mm

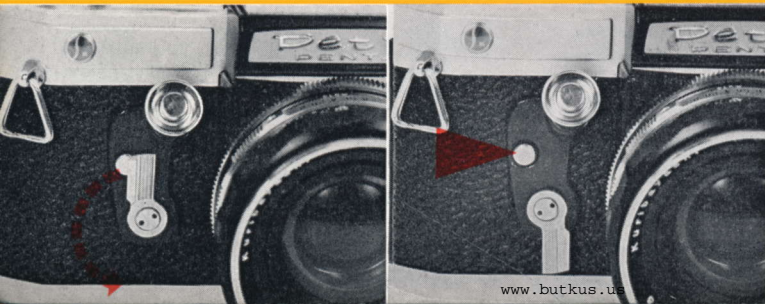
When the mark "AUTO" can be seen on the top of lens ring as shown in the picture above, it means the camera is operating with "FULLY-AUTOMATIC DIAPHRAGM". As you turn the knob (shown by the arrow-mark in the picture) to the end and when the mark "MANUAL" comes to the top, its operation becomes "MANUAL DIAPHRAGM". This device by which you can switch the diaphragm easily from Automatic Operation to Manual Operation is another PETRI FLEX V Exclusive.

5. HOW TO USE SELFTIMER

- Pull down the selftimer lever to the end (180°) as shown in the picture on the right and release the button as shown in the picture on the left, then about 11 seconds after your releasing the button the film will be exposed.
- You can set the selftimer in between to shorten

the release time, and just release the shutter button.

- The selftimer setting can be made either before or after your advancing the film winding lever.
- Selftimer can be used in all shutter speeds except B setting.
- Selftimer is useful for the group picture to which you join after releasing the button. It is also useful for Close-up and Micro-photography. In this case, the use of tripod is recommendable.



6. HOW TO USE FILM EXPOSURE COUNTER

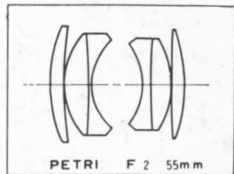


FILM EXPOSURE COUNTER is the device to show the number of films exposed. A number will be advanced automatically whenever you release the shutter release button after cocking the film advance lever. Thus it always tells you accurately how much pictures you have taken. As the counter automatically reset to Zero point, you do not have to worry about setting the counter by yourself at every picture taking.





PETRI LENS

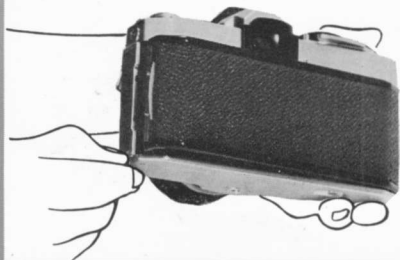


The standard lens equipped with PETRI FLEX V camera is of High-quality, Super-fast PETRI 55mm 4 group 6 element lens using flint-glass with High-Refractive Ratio. This PETRI LENS has High Resolving Power even in its full-opening condition. It is very useful for color as well as black-&-white photography, since the lens is processed with Excellent Combination-Coating Method.

ORDER OF PHOTOGRAPHY

The following preparations are needed before your picture-taking . . .

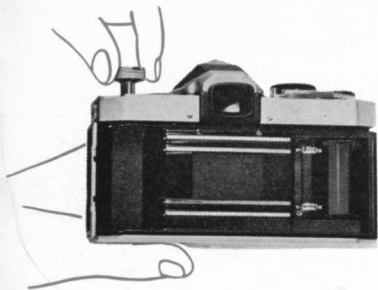
- (1) Load the film in your camera.
- (2) Advance the film and release the shutter button.
Repeat this action. (2 exposures)
- (3) Acknowledge if Fully-Automatic Diaphragm Ring fits on the mark AUTO. Now you are ready to face some subject.
- (4) Be sure if the lens cap is uncovered.
- (5) Adjust the exposure by setting both Diaphragm and Shutter Speed Scale.
- (6) Cock the film advance lever.
- (7) Decide the picture-composition by focusing it through the viewfinder.
- (8) Release the shutter button.
- (9) Repeat the same action (from 6 to 8) at every picture-taking.
- (10) Unload the film when the roll of film is all exposed.



OPENING THE BACK COVER

Pull down the lever with your thumbnail to open the back cover. At the same time, the film resetting counter automatically returns to the starting-point (0).

FILM UNLOADING



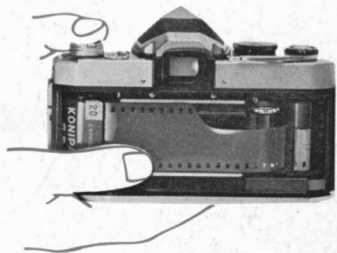
PULLING OUT THE CRANK

Pull out the film rewind knob on the top of camera. This is for the cartridge to be put into the cartridge-box.

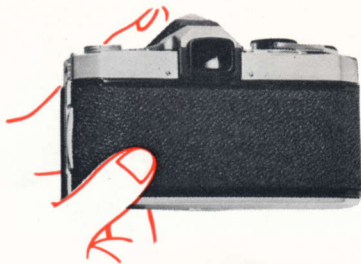
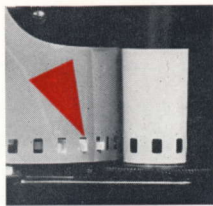
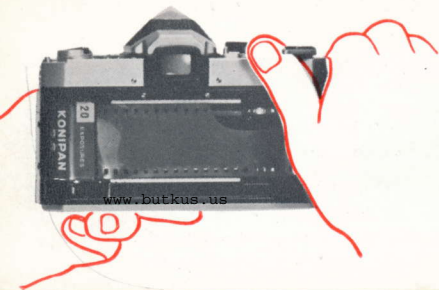


FILM LOADING

Slip the 1st perforation of film from the end into the slot on the take-up spool so that the end is fastened by fitting the perforation to the tooth of the take-up spool.



Pull the cartridge back, letting enough film unwind so that you can place the cartridge in its compartment. Put the film rewinding crank to the original position.



ADVANCE THE FILM LEVER

Advance the film advance lever a little to see if the spool catches the film.

THE CONDITION OF PERFORATION

Be sure if the film perforations completely fit with the sprocket gears.

CLOSING THE BACK COVER

Back cover will automatically be closed by pushing it.

CARE IN FILM-LOADING

- Use the cartridge 35mm film for PETRI PENTA V camera.
- Avoid the direct sun-light and select the shadow place for your film-loading.
- When slip the end of film into the slot of the take-up spool, turn the spool so that it can catch the film perforation easily.
- As you advance the film winding lever, the film rewinding crank turns to the opposite direction of the arrow-mark if the film is properly loaded. When the film in the cartridge is loosen, it does not turn.
- So turn the rewind crank to the arrow direction to tighten the film.
- The second advance of the film should be done just before your picture-taking.



RELEASE SHUTTER BUTTON TWICE

Release the shutter button and advance the film lever. Do this action twice, and you are ready for taking the 1st picture. Just release the button for your 1st picture-taking-

- A. As you open the back-cover, the counter automatically returns to "0" point.
- B. When you release the shutter for the 1st picture, the counter shows "S" mark.

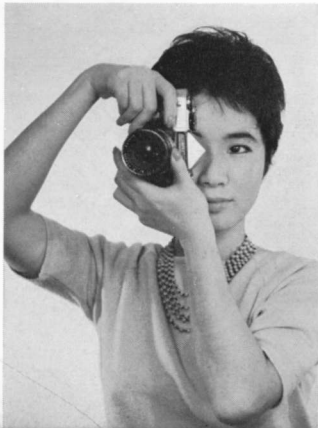


Horizontal Position

The point is for you to hold your camera steadily to avoid the blurring of your camera in your releasing the button. (Refer to the picture)

Hold your camera body with your right hand very tightly and touch the shutter release button slightly with your right index finger so that you can release the button smoothly. Support the helicoid lens ring from the bottom with your left hand so that you can make the focal adjustment smoothly.

Vertical Position (A)



Vertical Position (B)



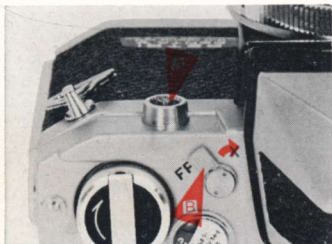
SYNCHRO-FLASH PHOTOGRAPHY www.butkus.us

The subject in the dark place can be photographed by using flashbulbs synchronizing the shutter. As the picture A shows, in order to take Synchro-Flash Photography, first of all, connect the cord of flash-gun to Synchro-terminal. The flash-gun can easily be attached to FLEX V if you use the PETRI Exclusive Accessory Shoe which is also on sale.

When you use F-class, M-class Flash-bulb or Strobe,

set Synchro-switch lever to X-mark (See picture B) and when using FP-class flashbulb, you have to switch the lever to FP mark.

Referring to the table, set the shutter speed and decide F Value of Diaphragm according to what type of flashbulb you use and the distance to the subject. Now you are ready to release the shutter button. This is the way to get Synchro-Flash Photography.



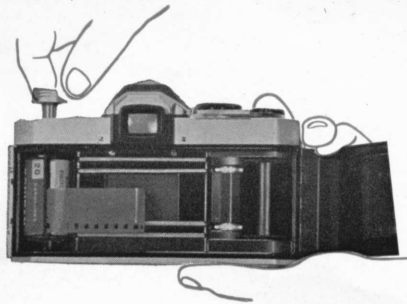
TABLE

	$1/500$	$1/250$	$1/125$	$1/60$	X	$1/30$	$1/15$	$1/8$	$1/4$	$1/2$	B
FP	FP class (Screw mount)										
	FP class (Bayonett)										
X						F class bulb					
						M class bulb					
						Speed Light					



REWINDING FILM

Pull out the rewinding crank and turn it to the arrow direction while pressing the return button located at the bottom of camera body. Be sure that the film is completely rewinded into the cartridge.



REMOVING FILM

Pull out the rewind knob to remove the cartridge.

FILM LOADING

DEPTH OF FIELD TABLE (Petri F2 55mm Lens)

(in feet)

FNO. feet	2	2.8	4	5.6	8	11	16
2	1.97 2.02	1.96 2.03	1.94 2.05	1.92 2.07	1.90 2.11	1.86 2.15	1.81 2.23
2.5	2.45 2.54	2.44 2.56	2.41 2.58	2.38 2.62	2.34 2.67	2.29 2.74	2.20 2.88
3	2.94 3.06	2.91 3.08	2.88 3.12	2.83 3.18	2.77 3.26	2.70 3.36	2.58 3.58
4	3.89 4.11	3.85 4.16	3.79 4.23	3.71 4.33	3.60 4.49	3.48 4.69	3.27 5.13
5	4.83 5.17	4.76 5.25	4.67 5.37	4.55 5.53	4.38 5.80	4.21 6.14	3.91 6.92
6	5.75 6.26	5.66 6.37	5.53 6.55	5.36 6.79	5.13 7.21	4.89 7.74	4.49 9.02
8	7.57 8.47	7.41 8.68	7.18 9.01	6.91 9.48	6.52 10.33	6.14 11.47	5.51 14.58
12	11.05 13.11	10.71 13.62	10.25 14.47	9.68 15.76	8.94 18.21	8.23 22.11	7.13 37.82
30	24.67 38.21	23.04 42.92	20.49 55.90	18.71 75.47	16.11 215.70	13.92 ∞	11.01 ∞
∞	139.31 ∞	99.54 ∞	64.69 ∞	49.76 ∞	34.83 ∞	25.99 ∞	17.41 ∞

(in meter)

FNO. meter	2	2.8	4	5.6	8	11	16
0.6	0.592 0.607	0.589 0.611	0.585 0.615	0.579 0.622	0.572 0.630	0.561 0.644	0.544 0.668
0.7	0.689 0.710	0.685 0.715	0.679 0.722	0.671 0.731	0.659 0.745	0.647 0.762	0.623 0.797
0.8	0.786 0.814	0.780 0.820	0.772 0.829	0.762 0.841	0.747 0.860	0.730 0.883	0.701 0.931
1.0	0.978 1.022	0.969 1.032	0.957 1.046	0.941 1.066	0.917 1.098	0.892 1.136	0.848 1.248
1.2	1.168 1.233	1.156 1.247	1.138 1.268	1.115 1.298	1.082 1.346	1.047 1.404	0.986 1.532
1.5	1.450 1.553	1.431 1.575	1.403 1.610	1.368 1.658	1.319 1.737	1.267 1.836	1.177 2.065
2.0	1.911 2.096	1.878 2.137	1.831 2.203	1.771 2.296	1.688 2.451	1.603 2.655	1.461 3.167
3.0	2.804 3.225	2.733 3.325	2.632 3.486	2.600 3.728	2.345 4.611	2.183 4.792	1.925 6.790
5.0	4.475 5.663	4.295 5.980	4.050 6.529	3.765 7.440	3.404 9.408	3.071 13.437	2.581 79.491
100	8.093 13.082	7.519 14.920	6.797 18.910	6.025 29.377	5.148 17.361	4.419 ∞	3.466 ∞
∞	42.444 ∞	30.321 ∞	21.222 ∞	15.160 ∞	10.611 ∞	7.918 ∞	5.305 ∞



35mm

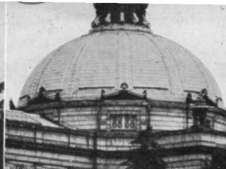


105mm



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135mm

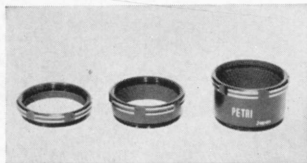


180mm



500mm

You can enjoy the variety in your picture-taking when you use PETRI Interchangeable Lenses.

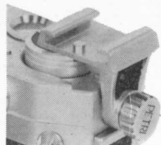


Extension Tube and Copy Stand are available for PETRI FLEX V.

The following Interchangeable Lenses are available for PETRI FLEX V camera. PETRI ORIKKOR F2.8 135mm Fully-Automatic Diaphragm Telephoto Lens, Manual Preset Diaphragm F3.5 35mm Wide Angle Lens, F3.5 105mm Telephoto Lens, F3.5 135mm Telephoto Lens, F3.5 180mm Telephoto Lens and F8 500mm Telephoto Lens are available. Manual Preset Diaphragm Interchangeable Lens can be attached to PETRI FLEX V camera with the specially-designed Adapter Ring. PETRI Exclusive Adapter Ring is also on sale.



ACCESSORY SHOE



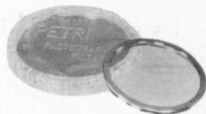
Sturdy and versatile screw-in type Accessory Shoe attachment for flash-gun, exposure meter and others is another PETRI FLEX V exclusive. It can be attached to the camera body very easily by just screwing it into Accessory Shoe Hole.

LENS HOOD



PETRI FLEX V LENS HOOD has been carefully designed to prevent stray light from entering the lens of camera. It is constructed of light alloy metal and smartly styled of round shape to enhance the beauty of your PETRI FLEX V. Complete with ever-ready carrying leather case.

FILTERS



To insure perfect picture in all kinds of light condition, use PETRI FILTERS; Y1, Y2 for outdoor human and landscape, YA3, R1 for Distant View and Sky, PO1 for human portrait UV for absorbing Ultraviolet Rays. For color-photography, W4, C4, C8, C12 are available.



PETRI

Sign of GOOD DESIGN

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