

Minoltacord



INSTRUCTIONS
FOR USING

Minoltacord

An important feature of focal adjustment by means of **HELICOID LEVER** is completed meeting with requirement of favourite camera users beside to those features that are common exclusive to general twin-lens cameras and it can really be recognized as an epoch making advent in this line of cameradom.

The camera is marketed by the Chiyoda Kogaku Seiko K.K., the oldest makers of twin-lens camera in this country and recommended by them with firm conviction of its unique features constructed with utmost care based on their up to date technical ability with years experiences in production of such precision cameras.

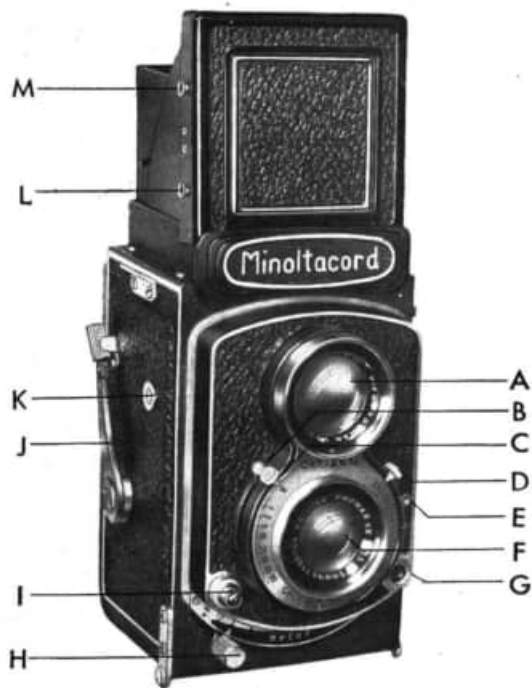
The lens fitted is of noted Promar S-III Coated F/3.5-75mm., the acute definition of which is already well recognized by the general public. The view lens is of View Promar F/3.2-75mm., which is brighter than its taking lens and is convenient for its focal adjustment.

Coupled with this superior lens, a new Citizen Shutter is fitted. The shutter is of product of noted Citizen Watch Co., Ltd. successfully completed under close technical elaboration with us.

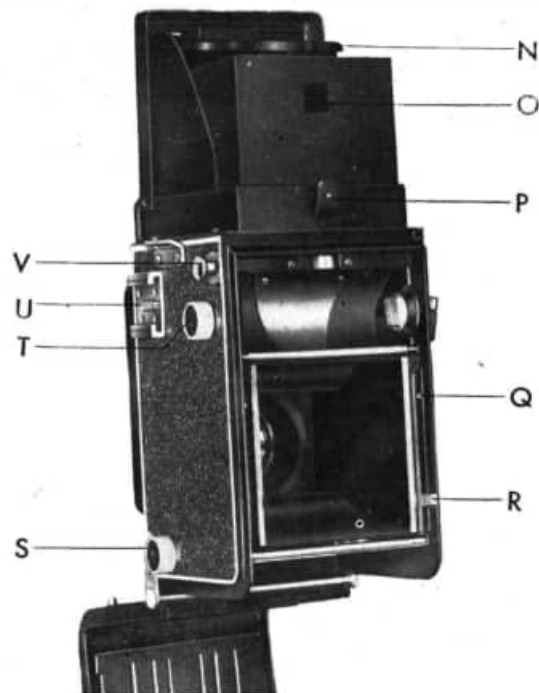


*"See what you take
— take what
you
see!"*





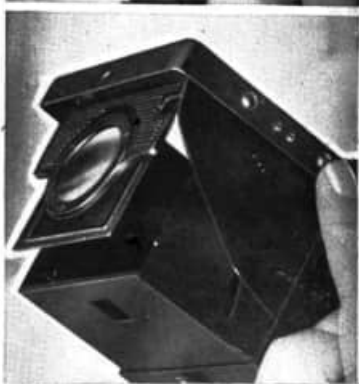
- A. View Promar F/3.2-75mm. Coated.
- B. Shutter Charge Lever.
- C. Shutter Speed Lever.
- D. Iris Diaphragm Lever. 調整 光量
- E. Self-Timer.
- F. Promar F/3.5-75mm. Coated.
- G. Flash Synchronizer.
- H. Focus Adjusting Lever.
- I. Shutter Release Button.
- J. Film Winding Handle.
- K. Exposure Counter.



- L. Direct View Finder Button.
- M. Magnifier Release Button.
- N. Magnifier.
- O. Direct Viewer.
- P. Hood Release Button.
- Q. Film Start Mark.
- R. Counter Release Button.
- S. Film Spool Knob.
- T. Take-up Spool Knob.
- U. Accessories Mounting.
- V. Back Cover Opening Button.

How to Use

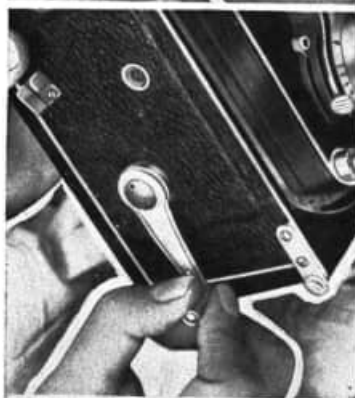
1. When you pull Hood Release Button (P) with your finger tip the finder hood will spring up open automatically. Please open it lightly supporting with your hand as it may spring up strongly.
2. Push Magnifier Release Button (M) with your finger tip, then it will spring up open. After fully adjusting focus on a desired subject, release the shutter.
3. After the magnifier lens was erected, if Direct View Finder Button (L) is pushed, the front portion of the lid will open and it will become as an eye level finder. The inner view that can be peeped through the Direct Viewer (O) is an exact view that to be taken on the negative.
4. To close the Finder Hood, firstly the front lid and the magnifier lens have to be pushed together until both will stop closely clinked. In case if only the magnifier be closed firmly while the front lid may not be closed sufficiently firm, the both will stretch out simultaneously when Magnifier Button (M) is pushed. So please close both of them sufficiently firm and then lay down the Finder Hood.



5. Handle Shutter Speed Lever (C) and fix it under desired speed dial. Then push Shutter Charge Lever (B) to a point as far as it goes down. It can be released after that the shutter at desired speed. The mark B means a bulb exposure setting and as long as keeping the shutter released under the bulb setting its shutter blades will be kept open. The dial such as 1, 2, 5-300 means shutter speeds of 1, 1/2, 1/5-1/300 second respectively.
6. When Self-Timer (E) be lowered to the point that it naturally stops and then push the shutter release button, an action of Self-Timer will commence and then the shutter will be released after 6-7 seconds of time.

Note: Self-Timer will not function unless shutter is charged properly.

7. Push Iris Diaphragm Lever to the point under the desired dial. As to relativity iris diaphragm versus shutter speeds, please refer to page No. 9.
8. The front portion of the camera will move forward and backward by handling Focus Adjusting Lever (H) to right and left. So please adjust properly of the focus of the subject intended looking on the finder glass.
9. Please wind up Film Winding Handle (J) to a point it stops ultimately. Be cautious lest to wind it backward on the half way of your winding because in doing so the film may not shift evenly in its right position.



Loading Film

1. The back cover will open by pulling Back Cover Opening Button (V).
2. Put an empty film spool in upper film chamber and fix it to Take-up Spool Knob (T). The spool will be fixed to it pulled and by turning it a little.
3. Please put film in lower film chamber. The film will be fixed to Film Spool Knob (S) in same way as in the case of Take-up Spool Knob (T).
4. Take out the end of lead paper of the film and fix it in longer groove of the empty spool and then turn the Film Winding Handle. As the handle will stop at one half rotation, please wind it little by little.
5. By winding it as above stated the mark ∇ will appear at both ends of the lead paper. Please put these two ∇ mark at both ends of the lead paper to the right position so as to make them coincide with the Film Start Mark (Q) that are to be seen at center of the film rail at both sides of the camera body and then close the back cover. The cover will close clicked.

Note: Please use No. 120 film.
No. 620 film is not suit for use.

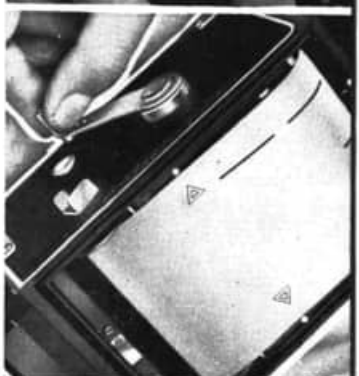


6. After closing the back cover, a mark ∇ will appear in Exposure Counter (K). Since then please turn the handle for four times, turning it each time as far as it will stop naturally. Then number (1) will appear and first number of the film is now in the position ready for its first shot.

Note: Number (1) will appear in the Exposure Counter when you may start your fourth turning. But in such time please do not stop your turning hand and continue it until to the point that it will stop ultimately. Unless otherwise, please note, the film will not shift to its exactly right position even though the handle may return to its initial position.

After your each shot, please turn the handle sufficiently enough to prevent possible faulty double exposures. Warn you again not to turn back the handle in its half way because the change of film number simultaneously cause uneven shifting of the film.

7. After finishing your shot of last film number (12) please turn the handle repeatedly until all the remaining portion of the film would be wound up.



Relative Iris vs Shutter Speeds

Those dials such as 3.5, 4, 5.6, 8, 11, 16, 22 indicate brightness of the lens. These figures denote volume of light that reach on surface of the film passing through openings of iris diaphragm under the following ration.

F. No.	3.5	4	5.6	8	11	16	22
							
volumes of light	1.3	1	1/2	1/4	1/8	1/16	1/32

The volumes of light that reach on the film surface passing through the opening of iris diaphragm of F4 at a shutter speed of 1/200 second will be equal to that passing through F5.6 at 1/100 second or of F16 at 1/10 second.

The effectiveness of an iris diaphragm is not only of adjustment of volume of light that pass through the lens but also of deeping of range of focus of the lens.

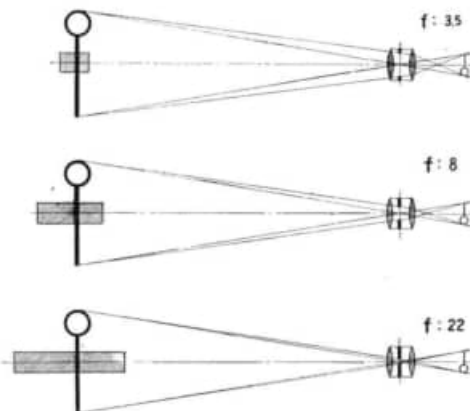
Re: Depth of Focus Field

When a certain subject is focused, those other than the fixed objectives around will also be accurately focused simultaneously. This range of focus means the depth of focus.

As shown in the above diagram, the smaller the diameter of the iris diaphragm the deeper the relative depth of focus as shown in the other list (Page 18).

According to this list, when you focus a certain subject locating at a distance of say 10 feet and fix the lens under iris diaphragm F4, all those objectives in location between 9.12-11.07 feet will be accurately focused.

The smaller the diameter of the iris diaphragm of the lens the corresponding depth of focus will be deeper in distance. In latter case, however, the time of exposure has of course to be made longer.



Accessories of Minoltacord

The following exclusive accessories are recommended in order to obtain the very best results with Minoltacord.

1. Minolta Lens Shade.
2. Minolta Filters.
3. Minolta Flash Units:
 - A. Penlite E.
 - B. Pocket B. C.
4. Minolta-Near-Up Lens.
5. Minolta Paradjuster.

Minolta Lens Shade

This is a square shaped lens shade. Please obtain a very good result by use of this shade that prevent influx of unnecessary light through the lens. Especially it will be essential for your synchro flash takings. The round shaped shade will sometimes cause unevenness of light on outer edge of the negatives that are taken with it.



Minolta Filters

A set of three pieces in a case consisting of yellow (Y), orange (O) and light green (G).

Filters will ensure you to take more elaborate pictures, the use of which are classified roughly as follows.



Yellow (Y) Filters :

It is suited for taking pictures of a landscape with sky, especially the clouds in the sky is of its main subject, such as a scenery of beach, a landscape of snow etc. that reflection of light is particularly strong.

Orange (O) Filters :

This is fitted for taking picture of mountains, sea, scenery of far distance etc. that a deep contrast of light or color is preferred usually. On this reason the filter is sometimes called as a contrast filter.

Red (R) Filters :

This is used for taking far distance views, say landscapes, mountain photo etc. It is also called as a infrared photo filter and when this is used for taking pictures with infrared film, the color of the sky is taken black and that of green trees white and general depiction will be just like those taken under moon light. The details of far distance will become very clear and particularly different effects of the film will be obtained that are not usually possible to secure with ordinary films.

Green (G) Filters :

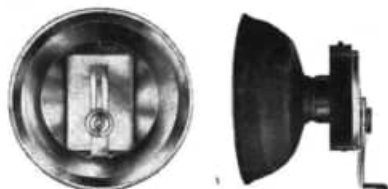
Use of this color filter gives an effect that color of clouds is taken particularly clear in the case of general sceneries, the color of green will be very clear and can obtain fine effect of color of the trees in early summer. This is also good for portraits.

Blue (B) Filters :

It is fitted for taking photographs of snow, skeeing, sceneries of summer beaches or high mountains where ultraviolet ray is stronger than ordinary places.

Penlite E Flash Unit

As a smallest flash unit in size and designed specially with least electric resistance with luxuriously complicated wire cordage, it is capable for a continuous usage for ten times equipped with only two penlite batteries. It has an efficient and satisfactory feature as well as is economical as an amateur use.



Minolta Pocket B. C. Flash Unit

With a 22.5 V dry battery (B) and a condenser (C), it is devised that each time a shock of a dash current will be given to a flash bulb. When it is flash synchronized at a shutter speed of 1/50 second with an ordinary dry battery, by use of a B. C. Flash Unit, the same can be flash synchronized at 1/100 second of speed. Moreover it will capable of a continuous usage of over 300 times.



Near-Up Lens



When an objective at an extreme near position in distance is taken, the two images, one on the finder glass and the other that on the relevant surface of the film may not fully coincide each other. This difference of two images is due to a parallax, the degree of its differences of which is proportional to the ratio of relevant distances between the objectives and the lens of the camera. The nearer the distance, the greater the degree of its parallax.

To adjust this parallax, an adjusting near up lens is prepared and in order to attain maximum efficiency for the working of the Promar Taking Lens fitted, the similar quality of the glass is used, i.e. a high qualified optical material glass is used for its production.

Two kinds of Near-Up Lenses are prepared, i.e., No. 1 and No. 2 which were made in a set. By turning the distance dial from its shortest distance 3 feet to dial ∞ , No. 1 lens will be capable for a closed up taking of an objective at a distance between 16 in. to 26 in., while No. 2 will be possible for that of between 14 in. to 18 in.



Minolta Paradjuster



In order to eliminate a possible effect of parallax, there are the near-up lenses as aforementioned. But a Paradjuster is recommended for your shooting of an objective in short distance. An exactly similar image that appears on the finder glass will be taken same as that taken with a mono-lens camera.

Those disappointing results such as without any appearance in negatives taken of an expected highlight seen on the finder glass etc. will be thoroughly eliminated by use of this Paradjuster.

Taking an objective locating in beyond limit of the nearest distance will be possible by use of Near-Up Lens only.

Merits or Features of "Paradjuster"

- ① Depictions on prints exactly coincide with what appear on the finder glass.
- ② Relative positions of objectives that were taken appear exactly as seen on the finder.
- ③ Free from any traces of reflection light on an unexpected portion of the picture taken.
- ④ No disappearance of high-light that were aimed to take in the composition of the picture.
- ⑤ Depiction of upward composition of the objectives will appear exactly same as seen on the finder.
- ⑥ Free from any such distortions that often occur when the pictures are adjusted on the prism.
- ⑦ No focusing slip-off caused by prism adjustments.
- ⑧ Pictures can be taken through two or more proxar lenses fixed together.

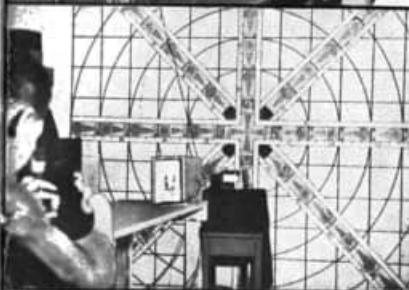


How Various Minolta Cameras Come Out

Since the firm have first been established in 1927, virtually more than ten different models of camera have been made their debut in the market successively in meeting with the requirements of the general public and there are now fairly a big number of favourite users of our Minolta Camera.

Historically perhaps the following different former camera names might be branded in memory of those favourite users such as, Nifcurette, Nifcaklapp, Nifcadox, Nifcasport, Happy, Minolta Baby, Minolta Vest, Minolta Six, Minolta Semi, Minolta Press, Auto Press Minolta, Auto Semi Minolta, Minoltaflex, Automat etc.

Since 1945, an improved model Minolta Semi Type 'P' has been made its debut while contrary to that the production of Minolta Memo has been suspended. An improved model Minolta-35 Type II which is now being marketed is the latest design of its kind while Minoltaflex IIB that had previously succeeded to its preceding model Type II has again been superseded by its latest model Minoltaflex III and simultaneously the production of its sister model 'Minoltacord' has also been commenced. Besides a model of 16mm. type camera 'Konan-16 Automat' is likewise under our production at present.



A distinctive feature of the Minolta Camera is due to a possible capacity to carry out an integrate work in production from the melting process of the material optical glass, grinding and polishing of the camera lenses, production of shutters as well as the last finishings of the camera all throughout in our own respective factories. At the same time, however, in view of rationalization of production system of our cameras as well as for reasonable expansion of general camera industry in Japan we have also adopted a means to utilize noted 'Seikosha Rapid Shutter' to our new model Minoltaflex III and that of 'Citizen Shutter' to our fresh model 'Minoltacord'.

Osaka Head Office:

3-chome, Kitakyuhoji-machi, Higashi-ku, OSAKA.

Tokyo Branch Office:

3-chome, Ginza, Chuo-ku, TOKYO.

Head Office Factory:

Minoltaflex, Minolta-Semi and Konan-16 are made in this factory.

Itami Factory:

Optical glass is produced here.

Sakai Factory:

Polishing and finishing of the lenses that to be fitted to various Minolta Cameras are produced here and distributed to other factories from this place. Besides lenses and prisms ordered from various overseas customers are being made in this factory and also Minolta-35 Camera are made in this place.

Toyokawa Factory:

Minoltacord are produced in this factory.

Nishinomiya Research:

Various optical research is made in this place.

CONVENIENT EXPOSURES LIST

Season: Spring or Autumn. Weather: Fine
Iris Dial: F8 Film Used: Panthro Film.

SUBJECT	TIME	6-6	7-5	8-4	9-3	10-2	11-1
Sea Shores, High Mountain	1/75	1/100	1/200	1/500	1/1000	1/2000	1/1000
Distant Landscape	1/35	1/50	1/100	1/200	1/200	1/200	1/200
Ordinary Landscape	1/25	1/35	1/50	1/100	1/200	1/200	1/200
Bright Street Scene	1/4	1/8	1/25	1/50	1/100	1/100	1/100
Near Landscape	1/2	1/4	1/8	1/25	1/50	1/50	1/50
Portrait Under Direct Sunlight	1/2	1/4	1/8	1/25	1/50	1/50	1/50
Light Dark Landscape, -	1	1/2	1/4	1/8	1/8	1/8	1/8
Portrait Chamber, -	3	2	1	1/2	1/4	1/4	1/4
Inner Bright Chamber, -							
Portrait by Window							

REMARKS: Left side figures in the column of time denote A. M. while these at right side mean P. M.

Time of exposures other than mentioned in the above should be briefly as follows:-

About 2 times of the above under bright cloudy weather.

" " in winter season.

" " in summer season.

or can be adjusted by regulating iris dial at the following ratio:-

F 3.5 4 5.6 (8) 11 16
Ratio 1/5 1/4 1/2 1 2 4 times

EMULSION SPEED VALUES

ASA	Weston	Din	Rate
5	4	9	10
6	5	10	8
8	6	11	6 1/2
10	8	12	5
12	10	13	4
16	12	14	3 1/2
20	16	15	2 3/4
25	20	16	2
32	24	17	1 3/4
40	32	18	1 1/2
50	40	19	1
64	50	20	4/5
80	64	21	3/5
100	80	22	3/4
125	100	23	2/5
160	125	24	1/3
200	160	25	1/4
250	200	26	1/5

DEPTH OF FIELD TABLE

Feet	3	4	5	7	10	15	30	∞
f _s No.								
3.5	2.93 3.08	3.87 4.14	4.79 5.23	6.60 7.47	9.18 10.98	13.2 17.3	23.6 41.2	109 ∞
4	2.92 3.08	3.86 4.15	4.77 5.25	6.57 7.51	9.12 11.07	13.1 17.6	23.2 42.5	101 ∞
5.6	2.89 3.12	3.80 4.22	4.69 5.35	6.41 7.74	8.81 11.58	12.5 18.9	21.2 51.4	71.8 ∞
8	2.85 3.18	3.72 4.32	4.57 5.53	6.18 8.11	8.38 12.42	11.6 21.3	18.9 73.7	50.4 ∞
11	2.79 3.25	3.63 4.46	4.43 5.76	5.92 8.62	7.90 13.68	10.7 25.3	16.6 165	36.8 ∞
16	2.71 3.37	3.48 4.71	4.21 6.18	5.54 9.63	7.22 16.45	9.48 36.9	13.8 ∞	25.3 ∞
22	2.61 3.54	3.33 5.05	3.98 6.79	5.14 11.22	6.55 21.8	8.34 82.8	11.5 ∞	18.5 ∞

CHIYODA KOGAKU SEIKO K.K.