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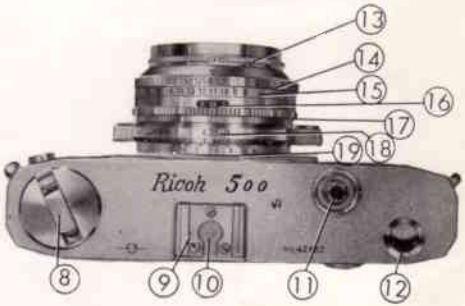
RICOH 500

IMPORTANT

The triggermatic-action is a single stroke rapid film advance system. When the lever is pulled to the left, the film is advanced to the next frame and the shutter is automatically set.

Take care not to pull the lever until the shutter action is completed, especially when using 1 to 1/15 sec. shutter speed or Bulb setting.



⑬ Combined synchro setting and self-timer ring

⑭ Shutter speed setting ring

⑮ Light value figures

⑯ Diaphragm setting ring window

① Eyelet

② Range-finder window

③ Lens

④ Triggermatic-Action lever

⑤ View-finder window

⑥ DUO-LEVER focusing controls

⑦ Flash terminal (European standard)

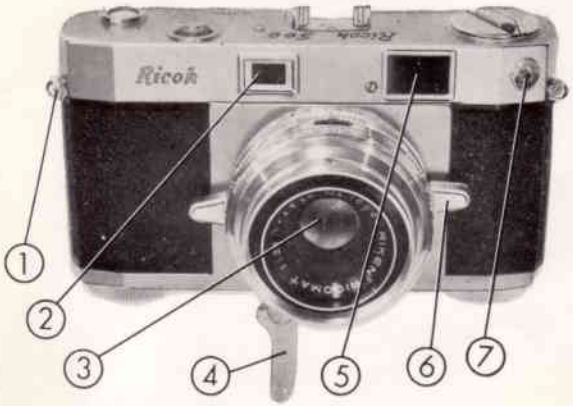
⑧ Rapid rewinding crank

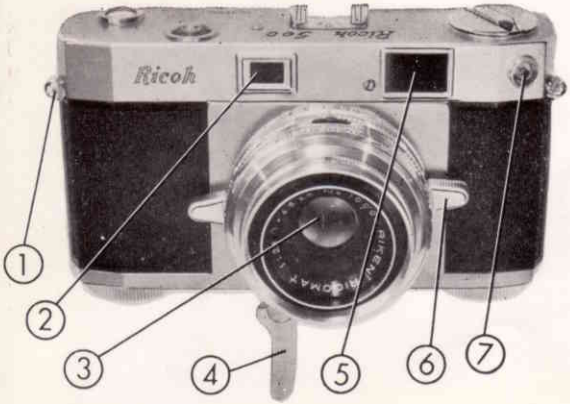
⑨ Accessory shoe

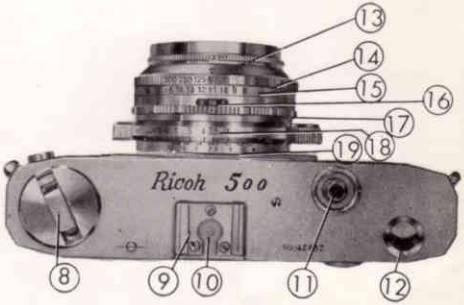
⑩ Cordless flash contact

⑪ Shutter release button

⑫ Film counter







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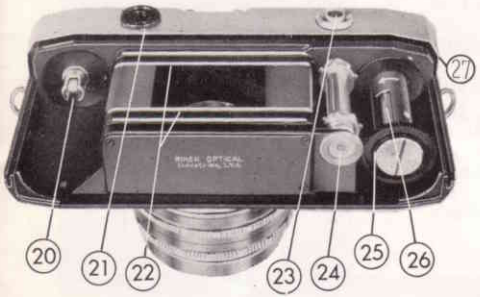
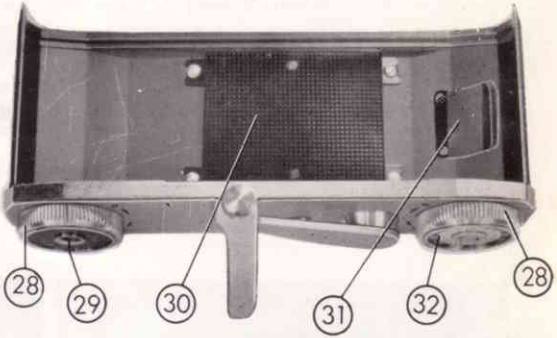




⑰ Light value adjusting ring

⑱ Distance scale

⑲ Depth-of-field scale

⑳ Rewinding spindle

㉑ View-rangefinder eyepiece

㉒ Film rail

㉓ Rewinding release button

㉔ Sprocket

㉕ Take-up spool knob

㉖ Take-up spool slot

㉗ Device for setting back film counter automatically to starting point

㉘ Back cover locking disc

㉙ Tripod bushing (American standard)

㉚ Film pressure plate

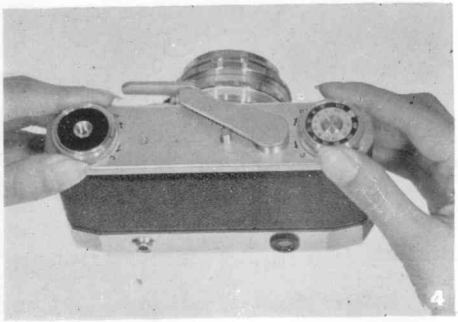
㉛ Cartridge positioning spring

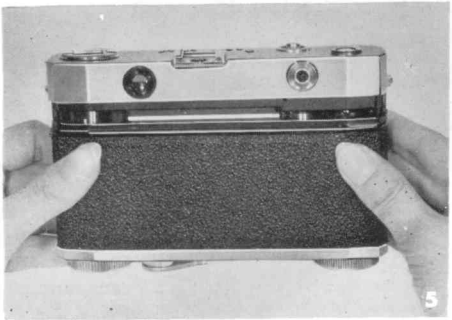
㉜ Film-type indicator

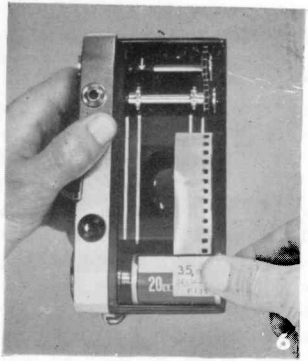
OPENING AND LOADING THE CAMERA

Avoid direct sunlight.

Use 35 mm film in cartridge (not in magazine), 20 or 36 frames.







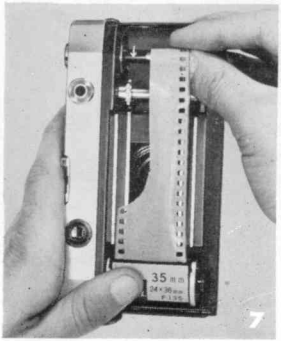
(1) Turn back cover locking discs so that the black marks come in line with the red O. (See Figure 4.)

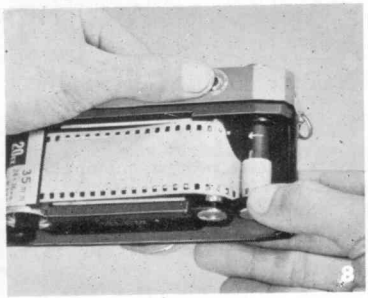
(2) Place fingers against both sides of the back cover and pull down gently, holding the camera firmly. When putting on the cover again, follow a reverse process, making sure it is fully engaged. Be sure the edges are in position and the film pressure plate does not catch and get scratched.

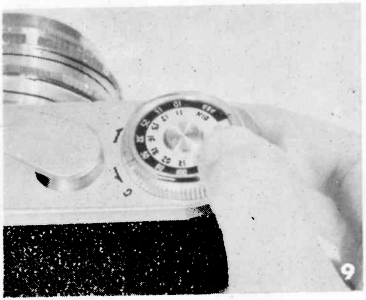
Turn back cover locking discs so that the black marks come in line with the black C. (See Figure 5.)

(3) Place your new film cartridge in the chamber below the rewinding spindle. (See Figure 6.)

(4) Engage the end of your unexposed film firmly in the inner take-up spool slot. (See Figure 7.)





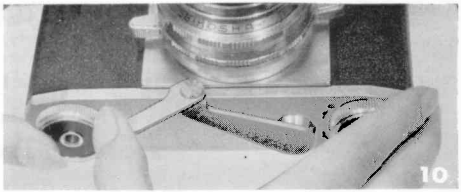


(5) Make sure the perforations on the film are properly engaged on the teeth of the sprocket, and that the film is properly centered. While pressing the rewinding release button, turn the take-up spool knob in the direction indicated by the white arrow to make sure the film is to be wound properly. (See Figure 8)

(6) Then wipe off any particles of dust or finger marks on the film pressure plate with a soft brush of piece of gauze. When you have done this, put on the cover gently and firmly, taking good care that the film pressure plate does not get caught on the edge of the film, and turn the back cover locking discs, in the direction indicated by black arrow, so that the black marks come in line with C.

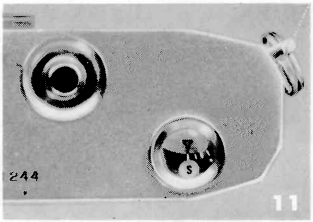
(7) At the bottom of the camera, and on one of the back cover locking discs, you will find your film-type indicator with ASA and DIN numbers. These numbers stand for degrees of sensitiveness of films to light, so that when the figure is high, less exposure of faster shutter speeds are required, while in case of a film with a low sensitivity the figure is also low, so that greater exposure or slower shutter speeds become necessary. This exposure index is indicated on the packet in which your film is sold

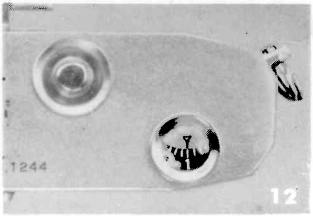
and probably in the Directions printed and enclosed in the packet. Bring either ASA or DIN number of your film in line with the black mark by turning the dial with the tip of your nail on the tiny metal catch. This is done so that you might remember what the film speed is, a matter of utmost importance when taking pictures. When the camera is empty, bring the catch (where there is no number) in line with the black mark. (See Figure 9.)



(8) Bring out the triggermatic-action lever. (See Figure 10.)

(9) You will note that the film counter shows "S" (Start). (See Figure 11.) Release the shutter, or at least press the button to ensure that it is released, and turn the triggermatic-action lever with your left index or middle finger as far as it will go to the left. This advances the film by one frame and cocks the shutter at the same time. If the lever will not advance, **never force it;** because it means the shutter has not been released. Release the shutter again and advance the film once more, and you will find that the arrow in the film counter is opposite a point closer to "1" than to "S". When the film is advanced for the 3rd time, the arrow points at "1". Then set the LIGHT VALUE required and **take your first picture.** Anything taken on a frame before the arrow points at "1" is likely to be on an exposed part of the film, and therefore to be useless.





EXPOSURE AND LIGHT VALUE

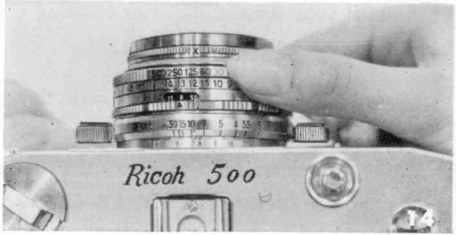
In taking a picture a certain amount of light must pass through the lens and reach the film. This is what is called an exposure. If the amount of exposure is too great or too little, the picture will be no good. In the conventional type of camera one has to set the shutter speed and the required f stop separately. The LIGHT VALUE device eliminates all this trouble, since any change in the shutter speed due to any change in the f stop or any change in the f stop due to any change in the shutter speed is done AUTOMATICALLY It must of course be understood that the amount of light is about the same.

This is the first Japanese camera which makes AUTOMATIC the giving and ensuring of the correct exposure by simply setting the LIGHT VALUE indicator. This is a mechanical brain that computes the correct exposure for you, provided you know what the LIGHT VALUE is.

LIGHT VALUE TABLE

ASA / (DIN) Index	Snow, mountain, and sea scenery	Light subject, Distant scene	Subject in shade, folks in open	Dark subjects folks in shade, building	Among trees or in light room
50 (18)	14	13	12	11	10
100 (21)	15	14	13	12	11
200 (24)	16	15	14	13	12

a. For mornings and evenings substract 2 from figures indicated.
b. When slightly cloudy substract 1, cloudy 2 and rainy 3.
c: For color film you are strongly advised to use an electric exposure meter.

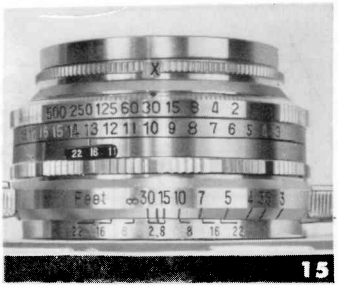


1. Set your light value by referring to the light-value table or by taking a reading from an electric exposure meter.

2. Turn the light value adjusting ring and bring it into the required position. (See Figure 13, which shows that the light value is "13"). Disregard all shutter speeds and the relative openings in setting the light value. Just shoot.

3. If either shutter speed or opening (which affects depth of field of focus shown on a chart on another page) is not what you want, turn the shutter speed setting ring until your desired speed or opening is indicated. (See Figure 14.)

   When you want to have everything in sharp focus, turn the shutter speed setting ring to the left. If on the other hand you wish to have things on the far and near side of your subject out of focus, turn the ring to the right.



The extent to which things are in sharp focus may be found by reading the depth of field scale. (See Figure 15 and 16.)

The f stop must be interpreted on the scale in such reading of depth of field as being a rough guide.

When the required shutter speed is a fast one, turn the shutter speed setting ring to the right until the required speed is brought in line with the red mark arrow ▽.

When the required shutter speed is a slow one, turn the ring to the left until the required speed is brought in line with the same red arrow ▽.

Make sure that the shutter speeds are brought exactly in line with the click stops, since no intermediate speeds are obtainable.

So long as there is no change in the light value, the required exposure is constantly and automatically ensured, whatever the shutter speed or f stop you set. However, at f/2.8 the f stop window stops moving any farther, so that if you move the shutter speed setting ring beyond this point, the light value figure will get out of line, and the result will be underexposure.

Similarly, when a slower shutter speed is required, moving the shutter speed ring beyond the f/22 point will result in the light value figure getting out of line, and this will result in overexposure.

17

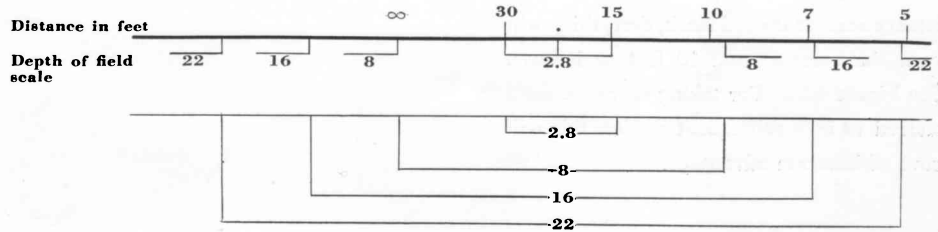
Medial points just between the light values may be used, such as 3.5, 4.5. . . 16.5.

When the shutter speed is set to "B" the shutter will remain open so long as the shutter release button is pressed. The figures stand for fractions of a second, so that 1 means 1 second, 2 means 1/2 second, 4 means 1/4 second, and 500 means 1/500 second. The aperture or opening is bigger in proportion to the smallness of the f stop number and is smaller in proportion to the largeness of the f stop number; and the opening itself is a 5-sided hole as illustrated in Figure 17.

MAKING THE BEST USE OF DEPTH OF FIELD

As illustrated in the following chart (Figure 18), the depth of field of focus increases in proportion to the smallness of the opening or f stop, and decreases in proportion to its largeness. It is this range that is commonly referred to as the depth of field.

Consequently, apart from the fact that you will have to make sure your subject is in sharp focus, give full consideration to this important factor. For instance, in taking a picture of a person, the blurring of the background by using a wide opening will make the person stand out. On the other hand, when taking a group picture where people are standing in rows a small opening becomes necessary to ensure that the focus is sharp on every subject.



Thus, if you set the opening at f/8 and the distance scale at the red mark, everything will be in sharp focus from 10 feet to infinity. (See Figure 18.) For taking sequence shots referred to in a subsequent section this will prove of immense advantage.

FOCUSING THE CAMERA

1. As illustrated in Figure 19, place your right index finger lightly on the shutter release button and with both hands turn the Duo-lever focusing control.
2. Usually the image as seen through the view-and-rangefinder will appear "double" in the center tinted square, which means that the subject is not in focus. When this is the case, move the lever so that the two images merge, or in other words, become superimposed. The subject is now in sharp focus.

Out of focus (too far)

in focus

Out of focus (too near)

TAKING YOUR PICTURE

To muddle means the possibility of missing a shot, so let us do things systematically so as not to miss our chance.

1. Get your light value set.
2. Decide on your depth of field and shutter speed.
3. Wind your film, which cocks the shutter, too.
4. Focus your subject.
5. Release the button and take your picture.

Steady your camera when you shoot by resting the camera against a part of your face and hold your breath for a moment as you shoot. (See Figures 23 and 24.)

The camera is built in such a way as to prevent the taking of double exposures and the skipping of a frame. In other words, there is no danger of DOUBLE EXPOSURES or BLANKS.

Do not advance the film until the shutter has been fully released. This is particularly important when using the bulb or slow shutter speeds.

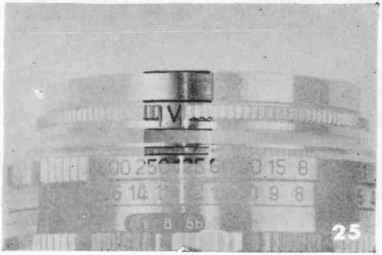
After you have advanced your film, which cocks your shutter automatically, it is highly advisable not to change shutter speeds between 1/250 and 1/500.

The **only absolute guarantee** against taking shots that are spoilt owing to any jolting of the camera is the use of the tripod. For any speed slower than 1/30 we recommend its use. **It always pays to make sure that your important group and other pictures are not spoilt.**

When using a cable release, screw it on to the shutter release button groove.

USING THE SELF-TIMER

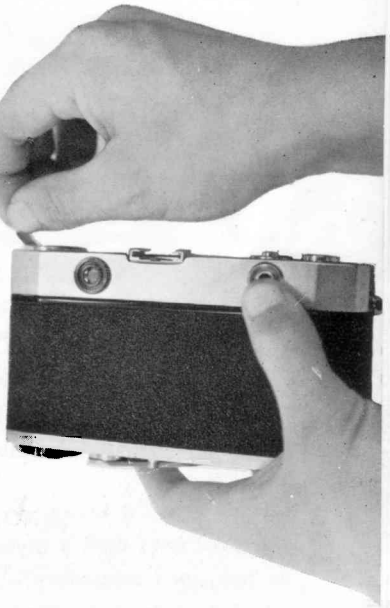
To use the self-timer, put the camera on a tripod and focus on your group. Set the light-value and pull the trigger lever. Turn the combined synchro setting and self-timer ring to the left and set its window at "V" position. Pressing down on the shutter release button will start the self-timer and the exposure will be made automatically after about an 8 second delay. Since it enables you to also get into the picture, prints of your family and friends will be more delightful to look at when mounted in your album. (See Figure 25)



TAKING SEQUENCE SHOTS WITH THE TRIGGERMATIC-ACTION LEVER

The Triggermatic-action lever is an outstanding feature of this miniature camera, adding further to the maneuverability of an already maneuverable camera. Only a full pull on the triggermatic-action lever, which takes but a fraction of a second, and the film is advanced by a frame and the shutter set.

The LEVER-PULLING AND SHUTTER-RELEASING ACTION is so rapid and smooth as to be a feature unequalled in other cameras. If you being the red mark on the distance scale to the center and set the lens opening f/8, its versatility is greatly increased, ENABLING THE TAKING OF PICTURES AT THE RATE OF 10 IN 10 SECONDS.



AFTER EXPOSING ALL OF THE FILM

After the film has all been exposed, raise the rapid rewinding crank and rewind while pressing the rewinding release button. When the film has been completely rewound the rewinding crank will suddenly become lighter to turn. Then open the back cover and take out the cartridge carefully. ALWAYS AVOID DIRECT SUNLIGHT WHEN OPENING THE COVER. Do not open the cover until the film has been completely rewound.

YOUR RICOH FLASH UNIT

The flash unit is your answer to taking pictures at night, especially of subjects that are in motion, to taking a portrait against the light, and to softening the too-sharp contrast in strong sunlight.

We have flash bulbs of various kinds, such as F, M, or electronic flash. On an ordinary camera there is no course but to choose the kind of bulb for which the synchro mechanism is made. The RICOH 500, however, is provided with M and X settings, **making it possible to use all kinds of flash bulbs.** Set the synchro setting ring to M or X, according to the kind of flash bulb as indicated on the wrapper or box, and you will be ensured of your flash light and shutter opening fully synchronizing from 1 to 1/500, according to the conditions indicated in the following table, which illustrates the relation between the kind of bulb and synchro setting.

NOTE

Synchro mechanism operates as X setting when using the self-timer

SETTING / BULB	 X	 M
F	B, 1—1/60	Unsuitable
M	B, 1—1/30	All speeds
Electronic Flash	All speeds	Will not synch

There are many kinds of flash unit; but the RICOH 500 is provided with a CORDLESS FLASH CONTACT on the ACCESSORY SHOE, so that if you slip on your RICOH FLASH UNIT BC-605, it will save you the trouble of attaching a flash cord on to the flash terminal. **No dangling cord, and no failure in charging the bulb through faulty**

connection is your gift that comes to you in your RICOH FLASH UNIT BC-605.

In taking pictures with flash, it is vital that the exposure is correct. Otherwise, underexposure or overexposure will result, the danger being even greater in most cases than in day light conditions where the light is even. **Any variation in the distance from the source of flash light to the subject results in a proportionate and great difference in the amount of light. Thus, it is extremely important to set the correct f stop according to the distance from the subject.**

To put it simply, granting that different types of bulb differ in their luminosity, the closer the subject the smaller must the opening be and vice versa.

With any packet of flash bulbs you buy you will find a table of what are technically referred to as GUIDE NUMBERS. If you divide the number which fits your case by the **distance-in-feet,** the figure you get shows the f stop opening which is required for your shot. For example, if your film has ASA 100 Exposure Index, you look for your GUIDE NUMBER that is given for this Index.

If you wish to find out the distance-in-feet for a given f stop, divide the GUIDE NUMBER by the number that stands for the f stop.

ACCESSORIES

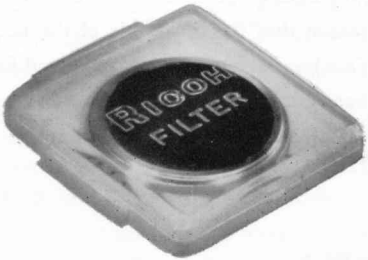
A number of accessories for this camera have already been mentioned in the foregoing pages, besides which we are happy to offer you the following, manufactured specially by our firm.

RICOH LENS HOOD (43 mm)

Our lens hood does the important job of cutting off unnecessary light or glare that may damage a picture. It is for this reason that the inner side of the hood is coated with black. Our hood is handsomely made and fits snugly into an equally handsome leather case.

RICOH FILTER (34 mm)

Your Ricoh filters ensure the taking of pictures with the right tone and texture, and are a NECESSARY PART of your picture-taking equipment. The most greatly used of the various filters are the UV and Y_1 and Y_2 filters. The yellow filters help to bring out red and yellow tints and to tone down the blues, so that clouds are made to stand out against a filter-darkened sky. The degree to which a sky may be darkened will depend on the darkness of the filter and amount of exposure. When no filter is used, the sky is more than likely to come out flat.



THE CARE OF THE CAMERA

The camera is a precision-built instrument that requires the greatest care and attention.

1. The lens is the life of the camera, so that it requires the most delicate handling. Consequently, do not touch it unless it is dusty or smudged. In removing dust or grit do not wipe it, but first use a soft lens brush and, if necessary, wipe gently with a silicone cloth. When a camera is brought into a warm place from a cold place suddenly, it will get clouded. So wait until the camera and lens temperature reaches the room temperature, and the lens will clear up.
2. When you have taken pictures by the seaside or on wet weather, see that it is clean before putting your camera away, and wipe it, if necessary, with a piece of soft cloth.
3. Do not leave the camera with the shutter cocked over a period of days, as this will weaken the shutter spring.
4. Place the synchro setting at X except when using M class flash bulb. This is important in preserving the life of the camera.
5. When putting the camera in the case, set the distance at infinity.

6. In order to keep the camera from getting damaged through exposure to moist atmosphere, put it in a box and in a dry, cool place. A chemical substance that will keep the air dry may be obtained.