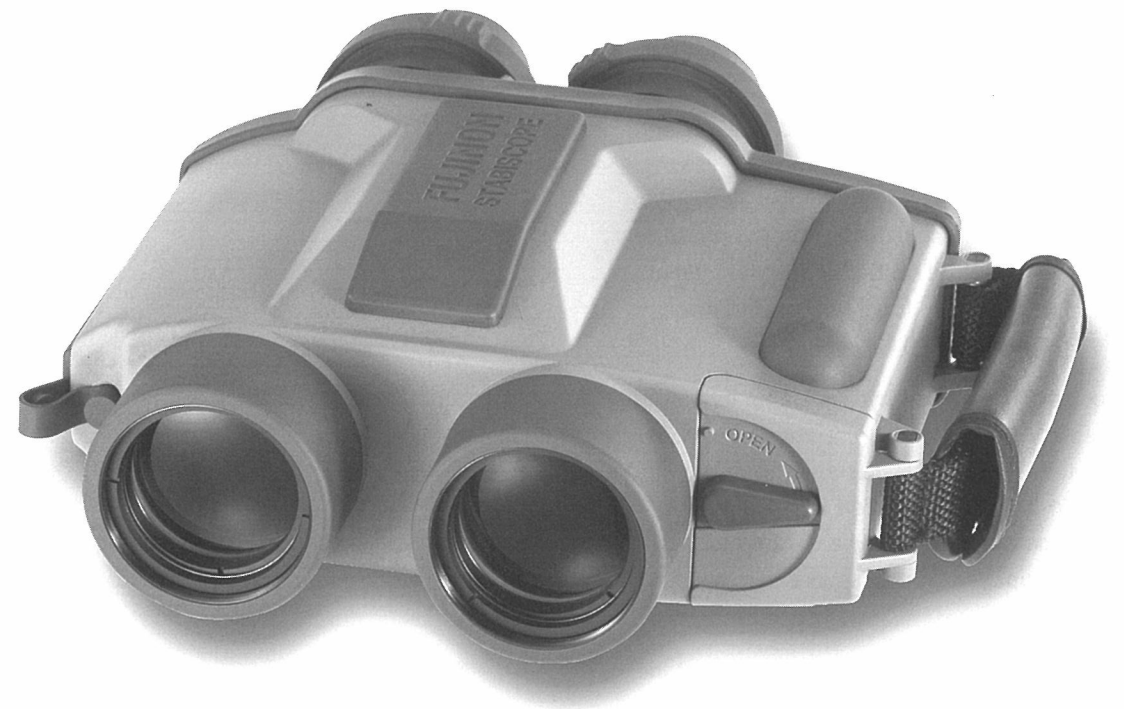


FUJIFILM

FUJINON DAY & NIGHT STABISCOPE OPERATION MANUAL



FUJIFILM

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202B 8136422
Printed in Japan MO

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●Day & Night Stabiscopes Advantages

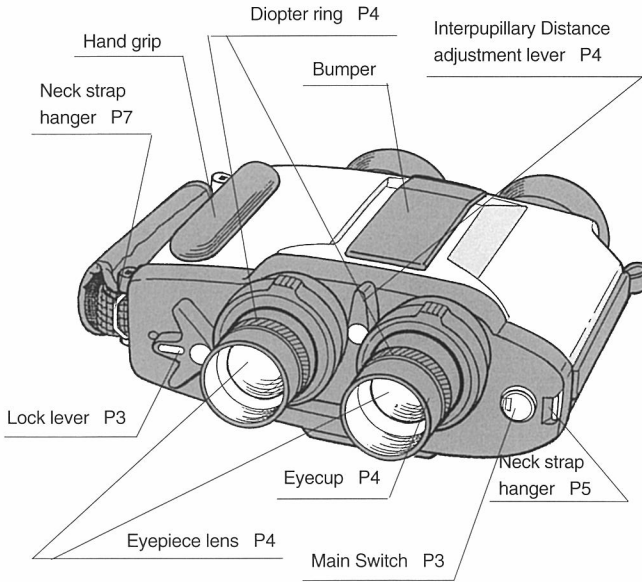
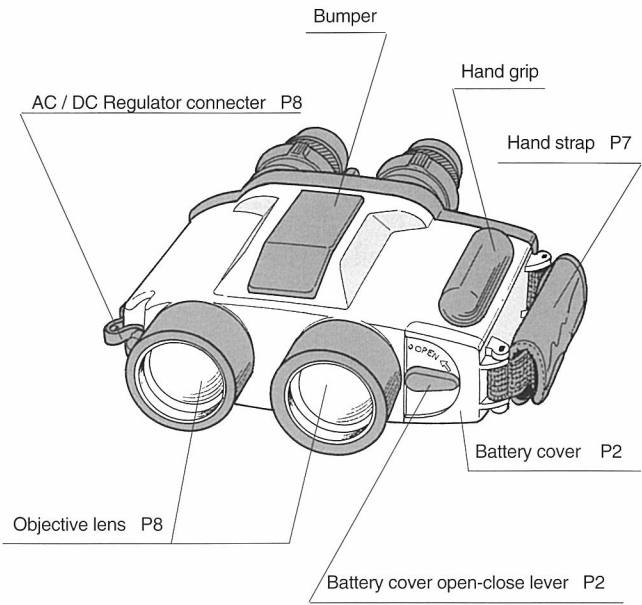
The Fujinon Day & Night Stabiscopes, the world's first high powered, internally gyro-stabilized binocular has been proven on land sea, air and even in space...on NASA shuttle missions. Combining fully-coated, computer-designed optics with a patented high speed internal gyro-stabilized system, the D & N STABISCOPE is the ultimate optical instrument for long range observation, identification, tracking and surveillance.

With replacing a day use eyepiece lens to a night use eyepiece lens in which the image intensifier tube (I/I tube) are installed, stabilized and bright image can be provided even in the deep dark nothing to look with naked eyes. (The I/I tube can amplify the captured light to several ten thousand times strength.)

By stabilized only the high powered optics (not the entire device), weight is held to a minimum while the image remains steady and clear—free from the effects of normal body tremor as well the motion aboard boats, aircraft and land vehicles. The result is increased operator accuracy with less fatigue.

The new waterproof D & N Stabiscopes S1240 is lighter, more efficient and more flexible and easier to use. They operate on their own AA batteries or

STABISCOPE FEATURES



from an external 12-32 VDC source. In addition, the Stabiscopes can now be operated comfortably right-handed or left-handed. That is because it works right side up and upside down. All that's needed is simply reversing the location of the hand strap. Incidentally, when the power switch is turned off, the STABISCOPE may also be used as a conventional binocular.

●Specifications

■Optical specification

	Day use	Night use
1. Magnification	12x	12x
2. Objective lens diameter	40mm	40mm
3. Field of view	4.7°	4.2°
at 1000m	82m	73m
4. Exit pupil Dia.	3.33mm	-
5. Relative Brightness	11.10	-
6. Eye Relief	17mm	11.5mm

■Size

approx. 220x200x90mm (LxWxH)	approx. 240x200x90mm (2.5 Gen.)
	approx. 230x200x90mm (3rd Gen.)

■Weight

	approx. 1.8 kg (except batteries)	approx. 2.1kg (2.5 Gen.)
		approx. 2.0kg (3rd Gen.)
AA batteries	23g × 4 = 92g	23g × 4 = 92g
Lithium battery	40g × 1 = 40g	40g × 1 = 40g

■Power source

Battery : AA (4 pcs) or lithium 2CR5 (1 pce)
DC Regulator : DC12~32 volt (use with DC regulator)

■Standard accessories

eye piece (day use)	1 pair
eye piece (night use)	1 pair
neck strap	1 pce
hand strap	1
case	1
DC regulator	1
electric cable (in)	1
electric cable (out)	1
cleaning cloth	1
operation manual	1

■Optional accessories

AA battery	4 pcs
lithium battery	1
polarizing filter	1 pair
orange filter	1 pair
AC adaptor	1 pce

How to adjust focusing of night use eyepiece.

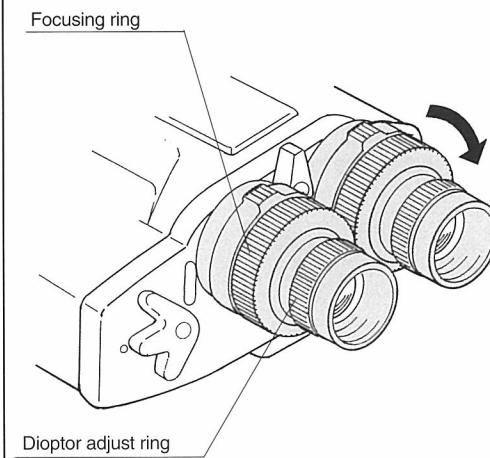
1. The main switch on in the dark.

Caution :

If the main switch was on in bright area,
the image intensifier placed
in the night use eyepiece might be damaged.

2. Rotate a diopter adjust ring slowly to find the finest image of face plate. (Fig.12)
3. Rotate a focusing ring slowly to adjust the best focus of an object. (Fig.12)
Both of right and left eyepieces might be adjusted individually.
4. Rotate the focusing rings only to adjust the focus for objects on the different distances. (Fig.12)

Fig.12



How to exchange eyepiece lenses.

1. Place the stabiscope on a table or an equivalent flat plane at eyepiece lenses up position. (Refer fig. 13)
2. Rotate a mount ring counterclockwise to the full end. ①
Then, pick the eyepiece lens right up slowly to take out from the eyepiece lens mount of stabiscope. ② (Refer fig. 14)
3. Insert another eyepiece lens into the same mount of stabiscope with matching the positions of the both indicators on the mount ring and the eyepiece lens. ③ (Refer fig. 15)
4. Fit the positioning pin on the mount of stabiscope in engaged with the slot of the eyepiece lens, rotate the mount ring clockwise to secure the eyepiece lens firmly. ④ (Refer fig. 16)

Fig.13

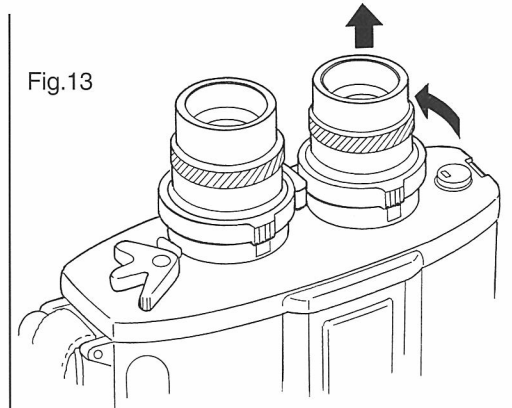


Fig.14

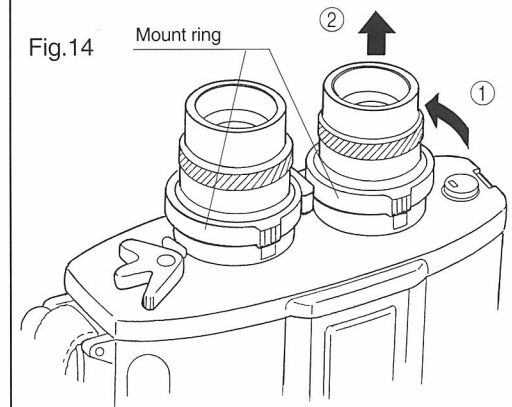


Fig.15

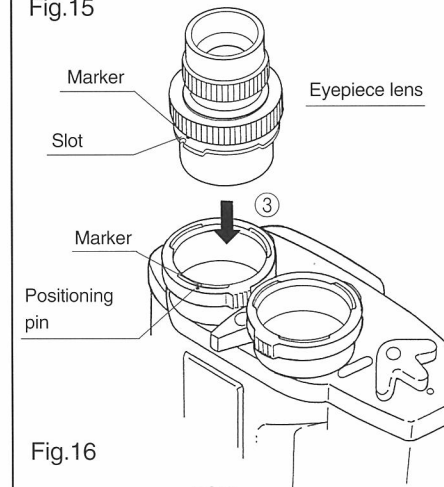
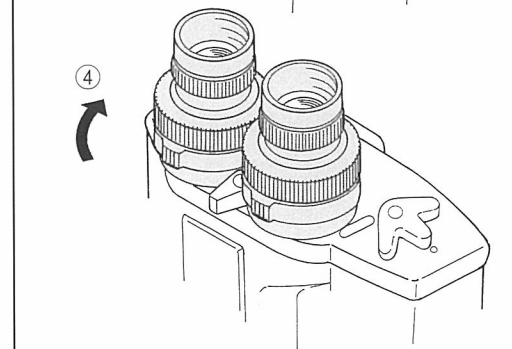


Fig.16

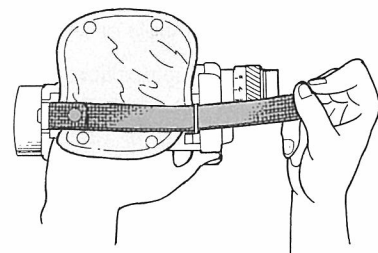


●Hand Strap Adjust

* Adjust the length of the hand strap so that it is aligned with the grip while you hold it.

1. Unhook it. (Fig. 17)

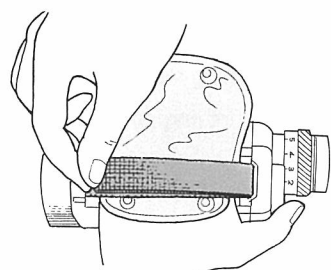
Fig.17



2. With your hand placed through the hand strap, pull the tip of the strap and fasten it with the Velcro so that it fits snugly around your hand. It may be necessary to repeat the process until you get the right feel.

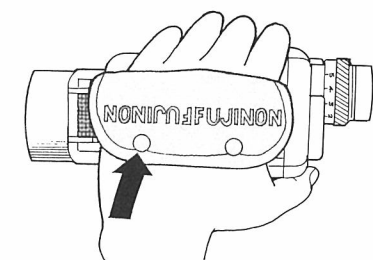
(Fig. 18)

Fig.18



3. Hook it. (Fig. 19)

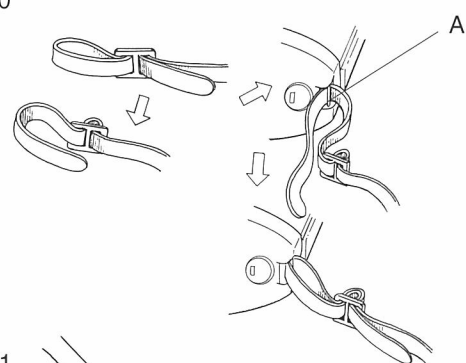
Fig.19



●How to install the neck strap

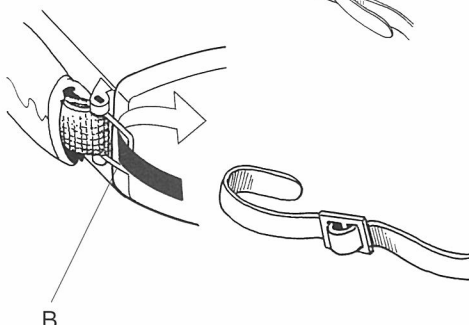
1. Remove one of the two straps passed through the clasp. Pass it through point A indicated in figure, and then pass it through the clasp again, as it was before. (Fig. 20)

Fig.20



2. Pass the strap through point B in the figure in the same manner. (Fig. 21)

Fig.21



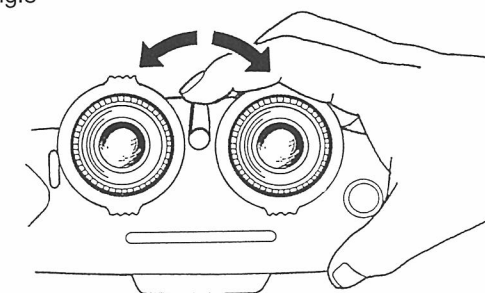
●Interpupillary Distance Adjustment

* Since the distance between the left and right eyes varies from person to person, in order to see comfortably while using the Stabiscope, the distance in between the two eyepieces should be adjusted.

This can be done quickly and simply allowing anyone to use the Stabiscope.

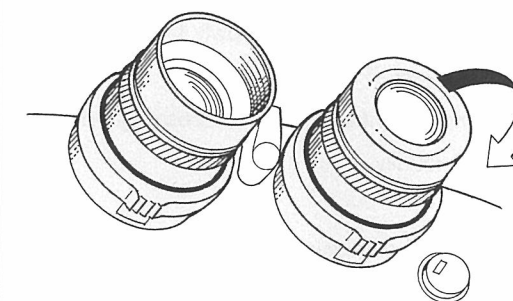
1. While looking through the Stabiscope with both eyes, move the lever until you see a single, perfectly circular field of view. (Fig.8)

Fig.8



2. If you wear glasses, simply follow step 1 after folding the rubber eyecups back, as shown in Fig.9.

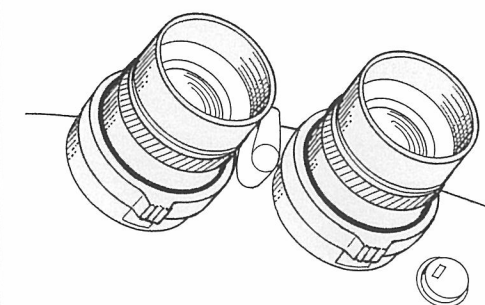
Fig.9



●Focusing for Day use

If you have good vision and free of astigmatism, each eyepiece can be set at 0 on its eyesight ring scale (Fig.10). If you wear corrective glasses, you should also be able to set both eyepieces at 0.

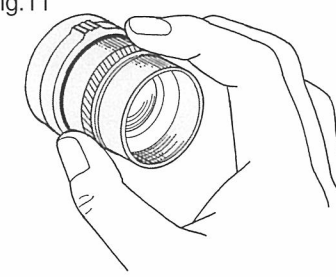
Fig.10



In general, focusing need be done only once for viewing distant subject. In some cases, where the subject is very close, it may be necessary to re-focus.

When focusing is required, adjust one eyepiece until the image is sharp; then adjust the other until both eyes see the image with equal clarity. (Fig.11)

Fig.11



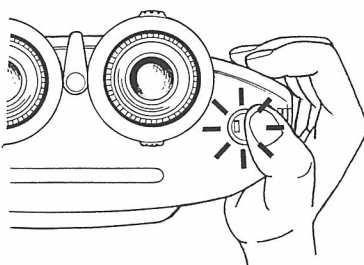
Manual focus as described above is also necessary when the target is at a short-distance.

●Main Switch

1. Gently press the main switch.
A green LED will light and the gyro motor will start to rotate. (Fig.6)
2. Wait for about a minute until the gyromotor reaches operating speed.

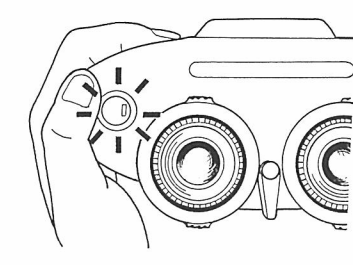
When hold a grip by left hand

Fig.6



When hold a grip by right hand

Fig.6



●Lock Lever

1. When operating the Stabiscopes with your left hand, raise the lock lever in the direction of the arrow mark, as illustrated; when operating with your right hand, lower it in the direction of the arrow mark. When the lock lever is released, the target can be observed without vibration or shakiness of the image. (Fig.7)
2. As described in the condition of 1 above, when the lock lever is released, a red LED positioned by the lock lever will light.
3. The red will blink on and off if the lock lever is released while the main switch is in the off position. Be careful not to let this condition continue for a long period.

Fig.7

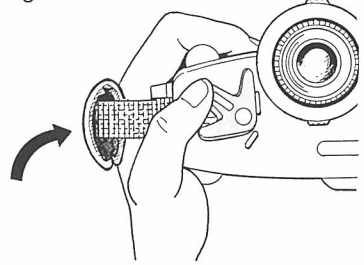
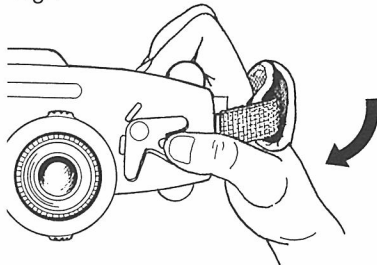


Fig.7



* CAUTION ! *

When observation is not being performed or when the gyro motor is not rotating (when the main switch is OFF), keep the lock lever in the "LOCK" position. Please be careful not to carry the Stabiscopes when the lock lever is released : such action may result in problems.

●Filters and How To Use Them

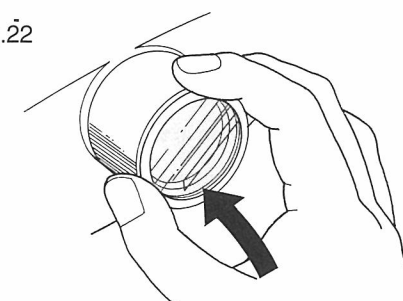
The two most common types of filters used with the Stabiscopes are:

Polarizing ... effective for removing unwanted and distracting reflections from surface of water or glass. Also helpful for controlling contrast between sky and clouds.

Orange ... filters out bluish light (haze and mist) to improve contrast.

To install, simply place one filter over each objective lens. With polarizing filters, you can rotate each filter after placing it over the objective lens to control the exact degree of polarizing effect (contrast or removal of reflection) you want to achieve. (Fig.22)

Fig.22



●How to use the DC Regulator Pack, AC adaptor

* No dry battery is required if an accessory DC regulator is used in areas where a direct current power source is available; i. e., aircraft, vehicles, etc. (Even when dry batteries are provided in this unit, if electricity is supplied through a DC regulator, the supply source of electricity will automatically be changed over to the DC Regulator.)

DC Regulator Pack

1. The connecting method is as illustrated in the figure. (Fig. 23)
2. The DC Regulator can be used within the range of 12-32V DC.
3. It is also possible to bend the cable as illustrated in the figure using connector cap. (Fig. 24)

Fig.23

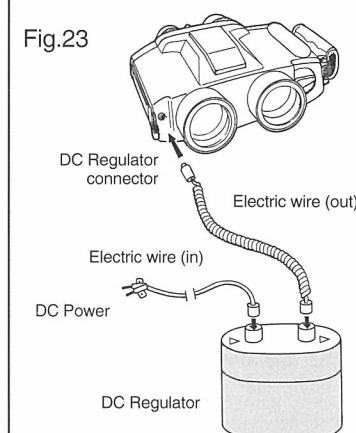
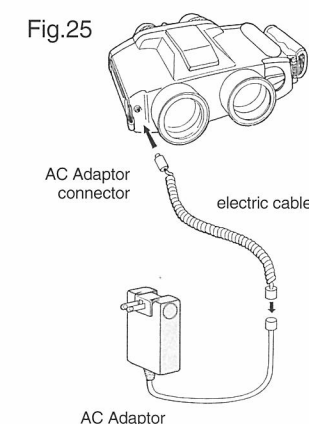


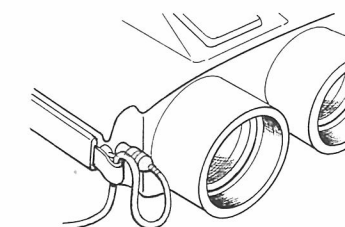
Fig.25



AC Adaptor

1. Refer Fig 25 .
2. Applicable AC voltage 85~132volt.

Fig.24



* CAUTION ! *

The cable of the external energizer has a +/- polarity. The white lead wire is positive and the black lead wire is negative. Please take care to make the proper connection.

●Care and Cleaning

The Stabiscopescope is built to withstand heavy duty use, but it should still be treated with care. When not in use, it should be stored in a cool, dry environment in its own case. If it will be stored for prolonged periods, the batteries should be removed. Although the Stabiscopescope is waterproof, it should be protected from unnecessary exposure to water and humidity. In hot weather, the Stabiscopescope should not be kept inside a closed vehicle where heat could reach damaging levels.

Protect your eyes/never use the Stabiscopescope to look directly at the sun. It is extremely dangerous and can cause eye damage.

Keep your Stabiscopescope clean.

Lenses should be kept free of dust, salt and the oils that remain from fingerprint smudges. These oils can actually damage the Electron Beam Coating (EBC) applied to the lens surfaces.

To clean the lenses...

1. Use a soft, lint-free cloth and a good lens cleaner or alcohol.
2. Clean by rubbing the lens gently, in a circular motion, starting in the center and working your way to outer edges. If there is dust on the surface, blow it off prior to applying the cleaning cloth.

To clean the body and case...

Clean with a soft cloth, moistened if necessary. Be sure the Stabiscopescope is completely dry before placing into its case. The case can be cleaned the same way.

●Symptoms and Solutions

The most frequent problems are usually the easiest to solve.

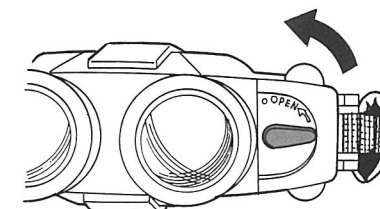
Symptom	Cause	Solution
Targeted image is unstable	Weak batteries	Replace batteries or switch to external power source
Gyro motor does not rotate	Batteries are in wrong position	Check battery polarity and replace in correct position
LED fails to light	Weak batteries	Replace batteries or switch to external power source
Blurred image	Out of focus	Adjust eyepieces
	Stain on lens surface	Clean
	Haze, mist or strong glare	Use filters

If you experience any problems with your Stabiscopescope not covered above, never attempt to repair it yourself, instead, return the Stabiscopescope to your dealer or to Fujinon directly. You will find Fujinon locations listed on the back page.

●Battery Installation

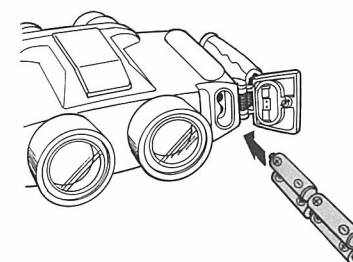
1. Turn the open-close lever in the direction of the arrow mark and open the battery case cover. (Fig.2)

Fig.2



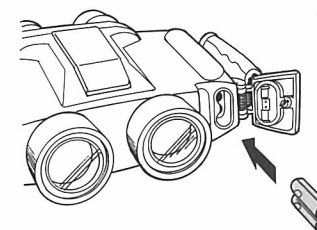
2. When inserting 4 AA batteries (SUM-3), be sure they are installed as shown, (Fig.3) with the positive + terminals facing the proper direction.

Fig.3



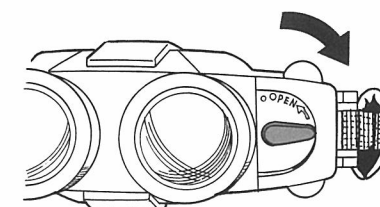
3. When using lithium dry battery (2CR5 type), insert them in the direction of the slot, as shown. Be sure to keep the contact side of the batteries facing towards the back. (Fig.4)

Fig.4



4. While pressing the battery cover, turn the open-close lever toward the "LOCK" position until you hear a clicking sound. (Fig.5)

Fig.5



* Battery Life and Uses *

1. Alkaline manganese size "AA" dry batteries will permit about 2-hours of continued use; lithium dry battery will allow approximately 5-hours of continued use. Please note that lithium dry battery cost more, but they are lighter and offer greater resistance against low temperatures.
2. Do not use a different type of battery and mixture of new and used batteries.