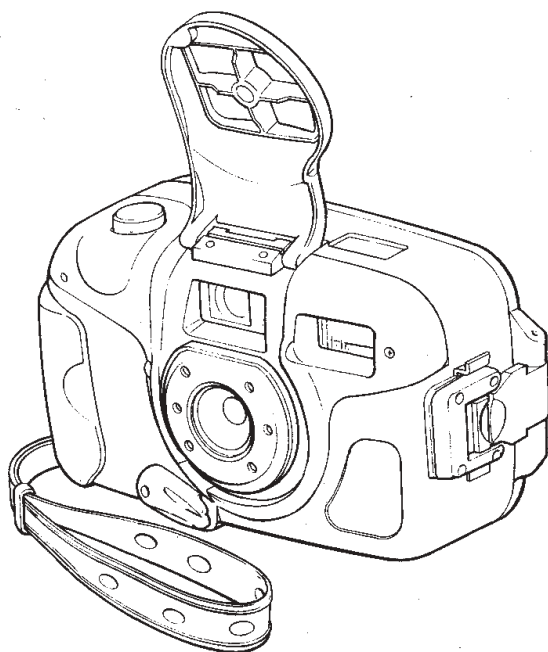


SEA&SEA

UNDERWATER CAMERA

MX-5 II

Instruction Manual



MX-5 II

Instruction Manual

Thank you and congratulations on your purchase of Sea & Sea's MX-5II underwater camera. For proficient operation of all camera functions and to maximize performance, please read this manual thoroughly before use. Retain for future reference.

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Safety Precautions

- To understand how to use this product safely, please read the following precautions before use.

The precautions listed here have been divided into "WARNING!" and "CAUTION!". These precautions, particularly those marked "WARNING!", are intended to prevent potential serious bodily injury or accidental death due to misuse. PLEASE CAREFULLY READ and OBSERVE all warnings and cautions.

"**WARNING!**" refers to operations that may cause death or serious injury.

"**CAUTION!**" refers to operations that may cause physical injury or equipment damage.

<General Precautions>

⚠ **WARNING!**

- Keep the lens and viewfinder out of direct sunlight. Focused light may cause fire.
- Do not attempt to disassemble the camera. Internal high voltage circuitry can cause personal injury.
- Do not trigger the shutter with the built-in flash facing down on a table or floor as it may cause overheating of the internal circuitry and/or fire.
- Do not put O-ring grease, batteries or O-ring in your mouth. Keep out of reach of children.

⚠ **CAUTION!**

- Do not open the camera in a wet or sandy environment. Protect the interior from moisture and debris.
- Do not swing the camera by the strap. Be careful not to drop the camera. Violent impact can severely damage the camera.
- Do not alter or modify the camera. User modifications can result in flooding or malfunction. User modifications will void the product warranty.
- If you detect smoke or an acrid odor, discontinue use immediately. Remove the batteries from the camera. Bring or send the camera to an authorized Sea & Sea dealer for repair.
- In the event of flooding, turn off the camera and discontinue use.
 - * Beware of increased pressure inside the camera. Handle with extreme care when opening.
 - * Immediately remove all batteries.
 - * Bring to an authorized Sea & Sea dealer as soon as possible.
- SEA & SEA Products Ltd. will not be responsible for unobtained pictures or costs related to the shooting of such pictures due to malfunction of the camera.
- SEA & SEA Products Ltd. will not be responsible for any damage, repairs, or replacement of the camera due to flooding caused by user mishandling.

Handling and Maintenance of the O-ring

The O-ring on the back door of your MX-5II provides an airtight waterproof seal. Improper handling and maintenance of the O-ring can cause flooding. Please observe the following instructions carefully.

- **Remove the O-ring for inspection.**

Before use, remove the O-ring from its channel and carefully check the O-ring, the O-ring channel, and the O-ring contact surface. A thorough examination of the O-ring and the O-ring channel is not possible unless the O-ring has been removed. Never remove the O-ring with a sharp or pointed tool.

- **Always inspect the O-ring for scratches, cuts, and cracks.**

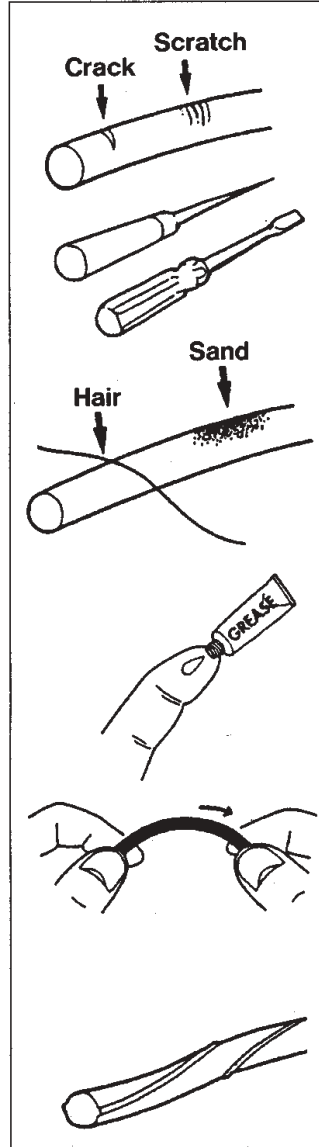
If the O-ring is damaged, it must be replaced.

- **Inspect the O-ring for debris.**

Make sure that there are no foreign particles, such as dust, sand, or hair, adhering to the O-ring, O-ring channel, or O-ring contact surface. Such contamination will breach the seal and cause flooding. If you notice any debris as mentioned above, remove the debris by gently rubbing your finger along the surface of the O-ring. Ensure that all debris, even that not visible to the naked eye, has been removed. Use a cotton swab to clean the O-ring channel and contact surface.

- **Lubricate with silicone grease frequently.**

Silicone grease protects the O-ring from drying and abrasion. Dab a small amount of grease onto your finger and draw the O-ring through your fingers until the O-ring is evenly coated. Use the silicone grease sparingly. Too much grease attracts debris.



- **Do not crimp the O-ring**

Do not bend or twist the O-ring when fitting it into the O-ring channel.

- **O-ring storage.**

Always store the O-ring in an airtight container and in a cool environment. Keep out of direct sunlight. Make certain it is stored flat and is not bent or twisted. Do not place heavy objects on it; excessive weight will flatten it and impede its sealing capability.

- **The O-ring's life is one year.**

The life of the O-ring depends on the diligence of your maintenance, frequency of use, and storage conditions, but on average, if you maintain your O-ring properly, it will retain its watertight integrity for one year.

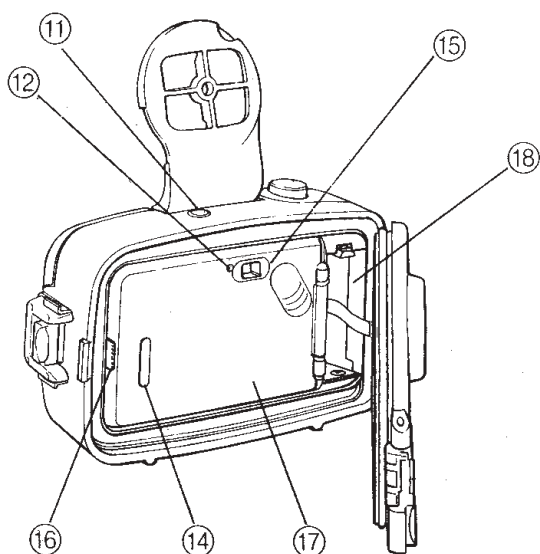
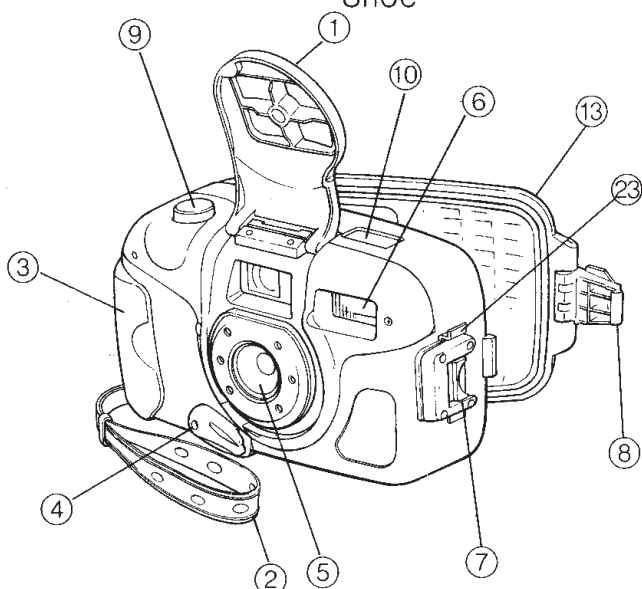
⚠ CAUTION

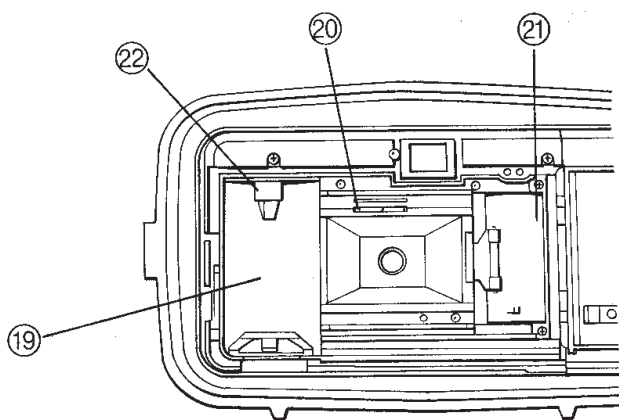
Blue-colored O-rings are used in some of our products. These blue O-rings are impregnated with silicone oil which keeps the O-ring uniformly lubricated. Additional silicone grease must be used to maintain the sealing integrity of this O-ring. Only the Sea & Sea brand O-ring grease (packaged in a yellow tube with blue lettering and a blue cap) can be used with this O-ring. Do not use any other brand of silicone grease. Do not use the Sea & Sea brand silicone grease packaged in a yellow tube with black lettering and a black or white cap. The O-ring will absorb the grease and the O-ring surface will lose its lubrication and become sticky.

Once the blue O-ring absorbs an incompatible silicone grease, it must be replaced. It will not return to its original state. The product cannot be opened and closed smoothly because the O-ring does not slide smoothly. Do not take the product underwater. The product is no longer watertight and may flood.

Identification of Parts

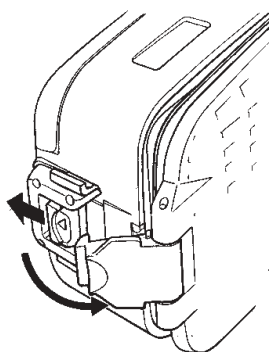
- | | |
|-------------------|----------------------------------|
| ① Sportsfinder | ⑫ Flash Ready Light |
| ② Hand Strap | ⑬ Back Door |
| ③ Hand Grip | ⑭ Film Identification Window |
| ④ Power Switch | ⑮ Viewfinder Window |
| ⑤ Lens | ⑯ Film Door Latch |
| ⑥ Flash Reflector | ⑰ Film Chamber Cover |
| ⑦ Back Door Lock | ⑱ Battery Chamber |
| ⑧ Back Door Latch | ⑲ Film Chamber |
| ⑨ Shutter Button | ⑳ Film Transport Sprocket |
| ⑩ LCD Panel | ㉑ Film Drum |
| ⑪ Rewind Button | ㉒ Film Rewind Claw |
| | ㉓ External Strobe Connector Shoe |





How to Open the Back Door

1. Before opening the back door, make sure that the camera is completely dry and free of dust, dirt, and other contaminants.
2. To release the back door lock, push the lock in the direction of the arrow, as shown. The back door latch will pop up and the back door will be unlocked (Figure 1). Grasp the base of the latch firmly between thumb and forefinger and pull the door open.



(Figure 1)

⚠ CAUTION!

Do not pull, yank or exert undue pressure on the latch.

TIP

If the camera has been used underwater, before opening, position the camera with the lens facing up and the back door down. In this position, any water that may be trapped between the O-ring and the back door will not penetrate the interior of the camera.

How to Close the Back Door

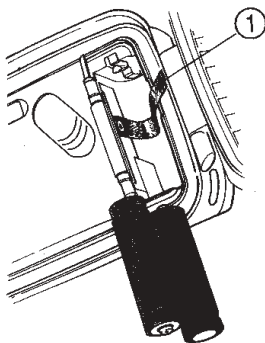
1. Before closing the back door, inspect the O-ring and the O-ring channel. Check the O-ring for damage and debris. Check that it has been properly lubricated. (See Handling the O-ring on page 3)
2. Check that the O-ring channel is free of sand, hair, etc.
3. Close the back door and press down firmly to seat it. Snap the back door latch into position. You will hear it click into place.

How to Install the Batteries

The MX-5II is powered by two AA 1.5-volt alkaline batteries. Nickel-cadmium or other types of batteries cannot be used with this camera.

1. Insert two batteries into the battery chamber according to the polarity marks (+ and -) inside the battery chamber.

Note: Be sure the battery removal ribbon (①) is underneath the batteries (Figure 2). This ribbon facilitates battery removal. To remove the batteries, simply pull up on the battery removal ribbon.

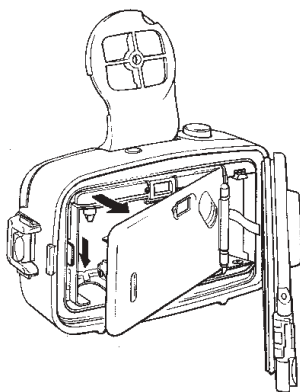


(Figure 2)

How to Load the Film

The MX-5II accepts standard 35mm film.

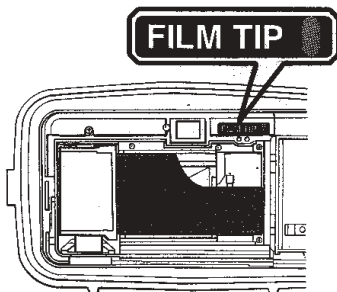
1. To open the film chamber cover, gently push down the lever on the left side of the film chamber cover.
2. Open the film chamber door (Figure 3). Insert the flat end of the film cassette so the end of the cassette engages with the film rewind claw, then lower the other end into place.



(Figure 3)

Note: If the cassette does not fit easily into position, jiggle it gently right and left while pushing upward on the end of the cassette until it mates with the rewind claw.

3. Pull out the film leader from the cassette and lay it across the film rewind drum. Align the tip of the leader with the film tip mark. Make sure that the perforations on the film are securely fitted over the film transport sprockets and the sprockets of the film rewind drum (Figure 4).



(Figure 4)

⚠ CAUTION!

*Make sure that the tip of the film leader is aligned with the film tip mark. If the length of the film leader is too long or too short to align the tip of the film leader with the mark, the film advance and rewind mechanism might not function properly.

*Always change film or batteries in a cool or shady environment. Do not leave or store this product in extremely warm environments or/and in direct sunlight. Such environments can cause condensation inside the lens.

4. To close the film chamber door, press down. You will hear it click shut. The film will advance to the first frame automatically. If the film is loaded correctly, a film symbol will be shown in the LCD panel and the film counter will indicate "1" (Figure 5).



(Figure 5)

How to Remove the Film

- When all the frames have been exposed, the camera will rewind the film automatically. You will hear the motor drive rewinding the film.
- When you want to rewind the film before all the frames have been exposed, open the back door and then press the REWIND button.
Make sure that the film chamber cover remains closed.

- When the film is completely rewound, the film symbol in the LCD display disappears and the film counter will indicate "0" (Figure 6).



(Figure 6)

- Open the film chamber door only after the film rewinding has been completed (when you no longer hear the motor drive in operation). Do not open while it is rewinding.

LCD Panel

The LCD is automatically activated when the power switch is in the ON position. When the power switch is in the OFF position, all symbols and modes will be cancelled (Figure 7).



(Figure 7)

Battery voltage indicator

A battery symbol in the LCD information window indicates that the batteries have adequate voltage remaining. A blinking symbol indicates that voltage is low and the batteries need to be replaced.

Film counter

The numeral in the LCD window shows the number of frames that have been exposed.

Flash symbol

This will be indicated when the power is ON.

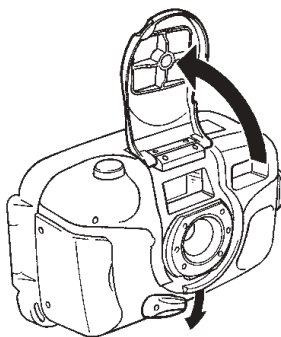
Film load confirmation symbol

This symbol will appear to confirm that the film has been loaded correctly.

Taking Pictures

How to Turn the Power Switch ON/OFF

- To turn the power on, rotate the power switch to the ON position (Figure 8).
- To turn the power off, rotate the power switch to the OFF position.

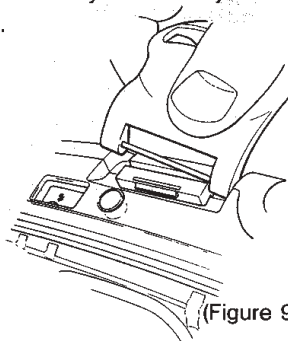


(Figure 8)

How to Use the Sportsfinder

The Sportsfinder is used to frame your subject. Whether taking pictures on land or underwater, the sportsfinder must be in the upright position (Figure 8).

- When the power switch is at the OFF position, the sportsfinder is locked in place. To release the sportsfinder, move the power switch to ON. Lift the sportsfinder to the full upright position.
- Use the sportsfinder when taking underwater pictures. Look through the peephole and make sure that the center of view is aligned with the center of the subject. The sportsfinder is pre-set to focus on the center of your subject when your subject is 1.2m/4 feet from the camera.
- When taking pictures on land, do not use the sportsfinder. Look through the camera's viewfinder to frame your subject.
- Should the sportsfinder come off, simply snap it back into place (Figure 9).



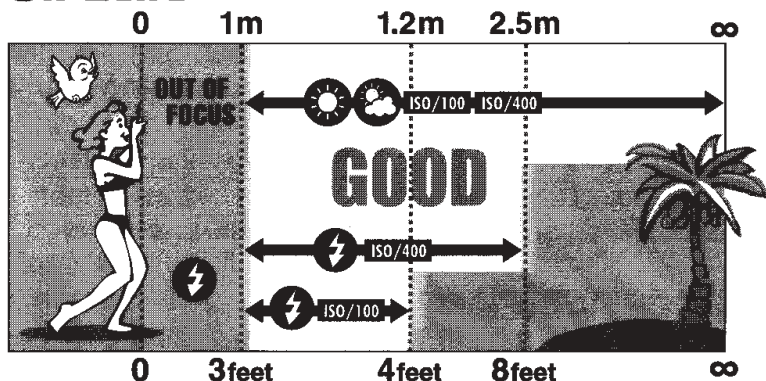
(Figure 9)

Taking Pictures on Land

The MX-5II has a fixed-focus lens. For sharp focus, you must be at least 1m/3 feet from your subject. If the camera-to-subject distance is less than 1m/3 feet, the photograph will be out of focus (Figure 10).

When taking topside pictures in extremely bright conditions, such as on the beach, use of an ND filter (optional accessory) is recommended. This filter helps prevent overexposure and/or pale, whitish images.

On Land



Best range when shooting pictures on land.

(Figure 10)

Taking Pictures Underwater

The first thing an underwater photographer needs to know is that taking pictures underwater is very different from taking pictures on land. Water is not transparent like air. Water is dense and filled with particles of sand, dust, ash, plankton, etc. Because of these particles, light behaves in unexpected ways; it does not travel in a straight path; it is scattered, absorbed, reflected, refracted. Refraction means that underwater objects appear 25% closer and one-third larger than they really are.

For example, a fish that measures 12 inches/30cm will appear to be 16 inches/41cm long. The same fish that is actually 4 feet/1.3m away appears to be 3 feet/1m away.

Both you and your camera lens see objects at apparent distance.

Underwater the MX-5II can deliver sharply focused pictures on subjects between 0.7-1.7m/2.3-5.6 feet apparent distance. If the subject is not within that range, the picture will be out of focus (Figure 11).

Battery Storage

- When not in use for a long period of time, turn the power switch to OFF and remove the batteries. Possible battery leakage will cause malfunction.
- Battery performance will be significantly deteriorated in a cold environment (below freezing point). The battery symbol on the LCD panel may start blinking in such conditions. Try to warm up the batteries or replace them with spare batteries. Battery performance sometimes recovers when brought to normal temperature.

Service and Repair

- Because an underwater camera is subjected to the corrosive effects of salt, it is recommended that your camera be sent to an authorized Sea & Sea dealer for an annual overhaul.
- Never remove the serial number.
- If the camera appears to be malfunctioning, try installing fresh batteries and testing the operation again. If it still does not function properly, send it to an authorized Sea & Sea dealer for repair. Allow a certain number of days for repair service. Ask your authorized Sea & Sea dealer for expected repair period.

Specifications

Type of camera:	35mm fixed-focus amphibious camera
Lens:	Built-in 28mm (3 elements in 3 groups) glass lens
Shutter:	Electronic shutter
Shutter speed:	Fixed 1/100 second
Film speed:	Automatically set at ISO 100 or ISO 400 with DX coded film
Film load:	Automatic
Film advance:	Automatic
Film rewind:	Automatic
Rewind button:	For manually-activated operation
Built-in flash:	Automatic
Flash guide number:	8(m)/26(ft)/ISO 100, land
Flash recycle time:	Approximately 8 seconds with fresh batteries
Power source:	Two 1.5-volt AA alkaline batteries
Depth rating:	40m/130 feet
Dimensions:	150×90×65mm 5.9×3.5×2.6 inches (W×H×D)
Weight:	520g/18 ounces (without batteries)
Accessories included:	Hand strap, O-ring, Silicone grease, Camera pouch
Option:	YS-20 Auto strobe, Close-up lens for MX-5

*Specifications and appearance subject to change without notice.



Products that display this decal have passed pressure-test in accordance with Sea & Sea's standards.