

FG7X II Housing

(Cat. No. 1396)

For the Canon PowerShot G7 X Mark II Camera

Instruction Manual



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DISCLAIMER

While every effort has been made in order to ensure that the information included in this instruction manual is accurate and complete, no liability will be accepted for any errors or omissions. Fantasea Line reserves the right to change product specifications and features described herein at any time without prior notice. No part of this instruction manual may be copied, translated or reproduced without the prior written permission of Fantasea Line. Fantasea Line makes no warranties aside from limited product warranty as described at the end of this manual.

INTRODUCTION

Note

Please read this manual carefully in order to properly operate the **FG7X II housing and camera**. Store this manual in a safe place for further reference once you have read it.

General Information

The **FG7X II Housing** features a stylish and ergonomic design, specifically created for the **Canon G7 X Mark II** digital camera. The **FG7X II Housing** is manufactured to the highest professional standards of function, style and durability. It is depth rated to 60m/200 feet and features ergonomically designed and labeled controls. The Fantasea **FG7X II Housing** is the ultimate waterproof home for the **Canon G7X Mark II** camera. The **FG7X II Housing** is ideal for outdoor and underwater photography. Underwater photographers can dive or snorkel and capture all the excitement of the fascinating underwater world, while outdoor photographers also have the option of capturing the action of outdoor and water sports activities, such as paddle sports, sailing, boating, surfing, fishing, hunting, backpacking and camping. The **FG7X II Housing** is shock resistant and protects the camera from water, sand, dust, frost, and impact, as well as other damaging elements and harmful occurrences. The **FG7X II Housing** was designed to be compatible with a complete accessory system, enabling photographers to enhance the quality of their images.

Features & Specifications of the housing

- Depth rated to 60m/200 feet
- Made from durable injection molded Polycarbonate
- Access to all essential camera controls and functions
- Shock resistant
- Double O-ring main seals
- Cold-shoe mount for lighting accessories or action cameras
- Removable double fiber optic cable connection plate
- Removable flash diffuser
- Removable anti-glare hood for the LCD screen
- Easy and secure installation of camera
- Labeled controls for comfortable operation
- FREE Moisture Sensor and Alarm, Lens Cap and Hand Strap
- Compatible with a wide range of underwater photo accessories
- Weight (with camera on land): 1.025 kg / 2.26 lb
- Weight (without camera on land): 0.725 kg / 1.6 lb
- Dimensions (without accessories): 16 x 11 x 12.5 cm \ 6.3 x 4.33 x 4.92 inches (W x D x H)
- Manufacturer's warranty

INCLUDED IN PACKAGE



1. FG7X II housing
2. Removable flash diffuser with tether
3. Silicone grease
4. Silica gel packs
5. Anti-glare hood for LCD
6. Lens Cap
7. Hand lanyard
8. Screwdriver
9. O-ring remover
10. Spare back door O-ring seal
11. Hand Strap

IDENTIFICATION OF HOUSING PARTS

Note

1. Please refer to the Canon G7 X Mark II camera instruction manual for detailed descriptions and instructions regarding all camera controls and functions.
2. It is strongly recommended that you familiarize yourself with all the controls on land before using these controls underwater.

Top/Front Side of Housing - Corresponding numbered descriptions are found on the following page



Numbered descriptions below refer to corresponding numbers on the top/front housing graphic on the previous page:

1. **Zoom Lever** – This control activates the camera zoom button.
 - a. **In Shooting Mode** –
 - i. Pull the zoom lever clockwise (toward you) to zoom in, so that the subject fills a larger area of the frame and for close-up and macro images to be taken.
 - ii. Push the zoom lever counterclockwise (away from you) to zoom out, increasing the area visible in the frame.
 - b. **In Playback Mode** - use the zoom lever as playback lever (index or magnify).

2. **Shutter Button**– Activates the camera’s shutter. Depressing the shutter button halfway allows the camera to focus prior to taking the picture.

3. **Mode Dial** – Rotate this dial while applying slight downward pressure to change shooting modes. **Important Notice!** It is recommended that you align the housing and camera Mode Dials prior to installing the camera inside the housing. To learn how to align the Mode Dials please refer to the section “Installing the Camera”. Since it is possible that even with alignment the actual shooting mode of the camera may be different than shown on the housing Mode Dial, it is important to check the shooting mode displayed on the camera’s LCD screen

4. **Exposure Compensation Dial** – Rotating this knob operates the camera’s Exposure Compensation Dial to the opposite direction.
 - a. In order to set a higher exposure compensation value (+.3 to +3), rotate the exposure compensation dial clockwise.
 - b. In order to a lower exposure compensation value (-.3 to -3), rotate the exposure compensation dial counterclockwise.

Always check the exposure compensation value displayed on the camera’s LCD screen and rely upon that information because the Exposure Compensation Dials on the camera and housing may become misaligned during use.

Attention: Please do not rotate the housing dial beyond its two end points (+3 and -3) as it will slip on the camera dial rather than rotate it. This can easily be avoided by tracking the progress of the rotation indicator on the Camera LCD screen while the dial is in use.

5. **On/Off Button**- Pushing this button activates the camera’s power switch and turns the camera on/off.

6. **Cold-Shoe Mount for Lighting Accessories or Action Cameras**- Enables mounting a flash, video light, torch light, focus light, or action camera on top of the housing by using a dedicated cold shoe connector. For further information regarding cold shoe connectors, please visit the Fantasea website – www.fantasea.com

7. **Fiber Optic Cable Plate and Adapters**
 - a. When installed on the housing, the Fiber Optic Cable Plate and the two inserted Adaptors allow for the easy attachment of 1 or 2 fiber optic cables to the housing. For further instructions, please refer to the section “External Flashes”.
 - b. Remove the Fiber Optic Cable Plate from the housing in order to use the internal camera flash. To remove the plate simply insert your fingers beneath the Adaptors and push the plate upward until it is removed from its slot. When photographing using only the camera built-in flash, the flash diffuser accessory should be installed to avoid unwanted shading and to help reduce backscatter.
 - c. Ensure that the fiber optic cable plate is secured to the housing by its tether in order to avoid losing it.
 - d. If using only one external flash, make sure the second Adaptor remains in its place to block any light escaping from the exposed Adaptor hole.

8. **Flash Up Switch** - Rotating this control clockwise (pulling it towards the back of the housing) will pop-up the camera’s built-in flash. After the camera’s built-in flash has been popped up it can be disabled using the *Flash / Right* control (No. 15). and selecting “flash disabled” on the flash mode menu. Rotating the Flash Up Switch counterclockwise will not have any effect on the built-in flash.

9. **Control Ring** – Rotating this “star” knob activates the function (such as ISO, f-stop, White Balance, Shutter Speed, etc.) that you have assigned to the Control Ring. Generally, you should assign the function to the Control Ring before you begin your dive. To assign a function to the Control Ring, please see the Canon Owner’s Manual as there are different procedures depending upon whether you are shooting Manual, Aperture Priority, etc.
 Important Note: Please set the Step / Continuous Selection Lever on the camera to your preferred setting prior to inserting the Camera into the housing as it is not accessible while the housing is in use.

10. **Lens Port with 67mm Thread**- The housing 67mm lens port is compatible with a wide variety of accessory filters and lenses. For a selection of lens accessories available, please visit the Fantasea website – www.fantasea.com

11. **Tripod Mounting Screw Holes** – The tripod mounting screw holes enable the mounting of the housing on a tray, thereby allowing for the addition of various image enhancement accessories (such as arms, strobes and lights) to your underwater photo system. By choosing any one of 3 adjustment positions, you can better determine how and where to position the housing on the tray.

Back Side of Housing - Corresponding numbered descriptions are found on the following page.



Numbered descriptions below refer to corresponding numbers on the top/front housing graphic on the previous page:

12. **Ring Function Selector / Delete** –

By pressing the Menu button and then scrolling through the Camera options to the **Set Ring Func** button you will be able to program the Ring Func button to functions such as Swap Control Ring Function, ISO, White Balance, etc. Once you make a selection in the Menu and save your selection you will then have access to that functionality through the Ring Func button. It is recommended that you set the function of the Ring Func button **prior** to diving. Not all Modes offer the same functions for the Ring Func button so be sure to double check the button's attributes in the various modes (Manual, Shutter Priority, etc.) that you may be using **before** you go diving. In playback mode, press this button to delete a single image.

13. **Movie Button** –

- a. Push the Movie button in any shooting mode to start recording a video. The camera beeps once as recording begins and the record symbol (REC) appears with the elapsed time.
- b. Push the Movie button again in order to stop recording.

Multi-Selector buttons (14-18)

14. **Drive Mode / Up** – Pushing this control activates the camera's Drive Mode / Up button.

15. **Flash / Right** – Pushing this control activates the camera's Flash Mode / Right button.

16. **Info** – Pushing this control activates the camera's Display / Down button.

17. **Macro / Left** – Pushing this control activates the camera's Macro / Left button.

18. **Quick Set / Control Dial** –

- a. Pushing this control gives you access to the camera's commonly used functions (that vary depending upon the Mode setting.) For further information on customizing and using the Quick Set control please see the camera's owner's manual.
- b. Rotating this control operates the camera Control Dial. The Control Dial adjusts values such as Shutter Speed, Aperture, etc. **only** in the Custom, Manual, Aperture Priority and Shutter Priority modes .

19. **Latch Dial** – When fully locked into place, this dial ensures the housing is properly closed and watertight sealed. For further instructions, please refer to the sections "Opening the Housing" and "Closing the Housing".
20. **Latch Dial Lock (red lever)** - Ensures the secure dial doesn't accidentally open during the dive. For further instructions, please refer to the sections "Opening the Housing" and "Closing the Housing".
21. **Menu** - Pushing this control activates the camera menu button.
22. **Playback** – Pushing this button allows you to enter the playback mode and to review images or videos stored on the memory card.
23. **Removable Anti-Glare Hood** – The anti-glare hood enables a better view of the LCD screen when shooting in bright conditions. It can be removed and installed during the dive. For further instructions, please refer to the section "Preparing the Housing".

THE CANON G7 X MARK II DIGITAL CAMERA

Stay inspired with the PowerShot G7 X Mark II camera, which combines exhilarating speed and performance with a smart, compact design. It can be ideal for travel, events and anywhere on the go, or as a secondary camera, and features a high-performance 1.0-inch 20.1 Megapixel CMOS sensor as well as a bright f/1.8-2.8 lens to help capture impressive images whenever your creativity sparks, even in low light conditions. The new DIGIC 7 Image Processor immediately pays dividends with improved auto focus tracking, enhanced IS and superb image clarity even when shooting with a high ISO. For increased flexibility, the PowerShot G7 X Mark II offers high-speed continuous shooting up to 8 fps in RAW, JPEG and RAW+JPE modes, and is equipped with Full HD capability, built-in Wi-Fi® and NFC and in-camera RAW conversion, giving you everything you need to capture inspiring images and video and share them with ease.



Canon G7 X Mark II Highlights

- New 20.2 MP 1-inch High-Sensitivity CMOS sensor
- Bright f/1.8 (W) – f/2.8 (T) 4.2 optical zoom lens (24-100mm)
- Minimum focus range of 2-inch
- High speed auto focus (0.14 sec.)
- Full HD 1080p/60p video recording capabilities
- Convenient control ring, exposure dial, and mode dial
- Intelligent IS (Image Stabilization) with eight different modes for virtually shake-free images
- HDR (High Dynamic Range) shooting mode for images taken in high contrast environments
- Creative Shot mode for producing images with artistic flair
- Picture Style function that offers superb command of in-camera color, contrast, and sharpness;
- In-camera RAW conversion, making it possible to preview customized image processing modifications on the camera, without the use of a computer;
- Time-Lapse Movie feature to help capture images at preset intervals and combine them to create a short movie clip;

SETTING UP THE HOUSING

Note

It is important that a first dive is always taken with the housing empty (no camera installed inside) in order to verify that the housing watertight seal has not been affected during transport and after long periods of storage

PREPARING THE CAMERA

1. Install a (preferably empty) memory card (16 GB+ capacity recommended) and a fully charged battery inside the camera. It is recommended that you use the camera's Format Media function to properly format the memory card for the camera.
2. If installed, remove the camera strap from the camera.
3. Rotate the Mode Dial so the Auto shooting mode is selected and aligned with the white mark on the left of the wheel. This will assist in allowing for the camera and housing mode dials to be aligned so the housing Mode Dial will indicate the proper mode selected by the camera's Mode Dial. To properly align both the Mode Dials on the camera and housing please see the instructions regarding **Closing the Housing**.
4. It is recommended that you program the camera to the most frequently used underwater photo mode, lighting and other key settings such as Control Ring and Ring Func. prior to installing the camera in the housing.

PREPARING THE HOUSING

1. When using the housing for the first time-
 - a. Peel the transparent plastic screen protector off the back door exterior of the housing.
 - b. If not using the housing on a tray, install the hand lanyard on the housing by inserting it through the lanyard loop on the bottom right of the housing (facing from back), then pulling it through itself and testing it in order to make sure it is secure (Image #1).
 - c. Install the housing side of the diffuser quick release tether by tying it around the lower rectangular loop at the bottom left side of the housing (Image #2). Please note that this may be pre-installed on your housing, in which case there is no need for installation.
 - d. Open the housing (see section "Opening the Housing") and remove the anti-glare hood from the housing. Secure the anti-glare hood to the housing by tying its tether around the lower rectangular loop at the bottom left side of the housing. Install the anti-glare hood over the

anti-glare hood rails at the back of the housing. First install the anti-glare hood over the top rail (Image #3) and then gently and carefully stretch it downward until it is secured on both the bottom and top rails. (Image #4).

- e. If using a Hand Strap, install it on the two loops found at the right side of the housing. Please refer to the section "Hand Strap" for further information.
- f. **It is important that a first dive with the housing is always made without the camera in the housing in order to verify that the watertight seal has not been damaged or dislocated during transport or after long periods of storage.**



OPENING THE HOUSING

1. Pull the small red tab located at the bottom of the latch dial outwards (up and away from the housing), as indicated by the arrow direction (image #5). There is no need to apply any force.
2. While holding the lock dial up, rotate the latch dial counterclockwise until the red latch tab is located at the top of the latch and cannot be rotated any further (image #6). There is no need to apply any force.
3. Carefully open the backside of the housing.



4. Note that when opening the housing for the first time or when opening it after airplane trips, increased resistance might be encountered. **Therefore, it is important not to lock the housing but to leave it slightly open when transporting by air or when experiencing significant changes in altitude.** A piece of paper can be installed between the front and back doors of the housing in order to prevent the housing from completely closing during the flight or altitude changes. Alternatively, you can open the housing door, then rotate the locking knob until it is in the locked position with the door open. Then close the door as much as possible without force and secure the door with a rubber band. This will keep the housing from accidentally opening or locking shut while being transported, will protect the camera (if it is inside the housing) and will ensure that the atmospheric pressure is identical both inside and outside of the housing during transport.

FG7X II Housing's Black O-Ring

Prior to each closure of the housing, the back door **black** O-ring should be visually inspected. If there is any debris present, including dirt, sand, dust, hair or any other matter, it must be cleaned to ensure a proper watertight seal.

1. In order to clean the **black** O-ring, first remove it from the housing:
2. Insert the O-ring remover between the black O-ring and the groove it is seated in (Image #7).
3. Slip the tip of the inserted O-ring remover below the black O-ring, while making sure the O-ring doesn't get damaged (Image #8).
4. Carefully hold the O-ring with your fingertips in order to remove it from the groove.

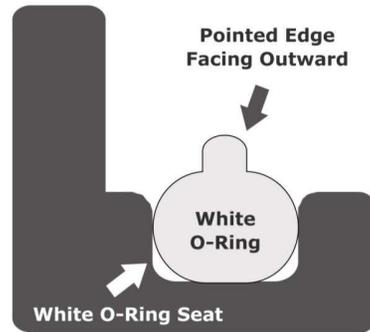


5. Cleaning the O-ring is a simple matter of wiping it with a damp, soft cloth to remove the foreign matter. **Be careful the cloth you use does not leave any of its own material or lint behind as this can also affect the effectiveness of the seal.**
6. Apply a very thin layer of silicone lubricant on the black O-ring. Please note that the amount of lubrication required on the O-ring is only enough to allow it to slip into place without friction, so it does not twist or become dislodged. More lubricant is not necessarily better, and in some cases might interfere with the watertight seal of the housing.
7. When replacing the O-ring, place it into the groove starting at one corner and gently pressing it into the groove all around the housing until it is all seated in the groove and no part of the O-ring is sticking up or out of the groove.

- The white O-ring featured on the backside of the front door should be visually inspected prior to each dive. If there is any debris present, gently wipe the area with a soft microfiber cloth in order to cleanse it.

FG7X II Housing's White O-Ring

The white compression O-ring is located on the perimeter of the black housing. Please note that the white O-ring is not symmetrical and should be inserted with its rounded edge facing inward (into its seat) and its pointed edge facing outward or it may affect housing functionality. See illustration. **Attention:** Please note that this O-ring does not need to be removed or replaced unless it is visibly damaged. For regular O-ring maintenance, just wipe its surface with a moist cloth while it is installed in place.



INSTALLING THE CAMERA

Since the **FG7X II Housing** is specifically designed for the **Canon G7 X Mark II** digital camera, installing the camera in the housing is quite simple.

- Make sure the camera is turned off.
- Make sure the housing *Flash Up Switch* is rotated all the way counterclockwise (pushed towards the front of the housing). Failing to do so will interfere with camera installation inside the housing.
- Hold the camera parallel to the housing and then gently install it inside (Image #9). Avoid inserting one side of the camera prior to the other, as this will make the installation difficult and might cause damage to the camera or housing.
- Take special care not to touch or damage the Moisture Sensor or Alarm when installing the camera. The Sensor is located on the bottom of the housing below where the camera would be positioned and the Alarm is located inside the housing on the inner (right) side of the housing (Image #10).**



- It is recommended that you insert a silica gel pack inside the housing (the left side of the camera in the slot midway between the two rubber shock absorber mounts or between the bottom of the camera and the housing are a convenient locations) in order to prevent moisture accumulation in the housing. It is important to make sure that the silica gel pack doesn't touch or interfere with the watertight seals of the housing.

CLOSING THE HOUSING

1. Rotate the housing Control Dial till the *Auto* shooting mode symbol is positioned at the left (image #11). Make sure not to accidentally rotate this knob any further before closing the housing or the symbols on the housing's Mode knob will not be aligned with the actual mode setting on the camera. This will not affect functionality of the camera and the actual mode setting for the camera can always be confirmed by looking at the setting through the display.



2. Rotate the latch dial so that the small red tab located on the latch is pointed towards the front side of the housing (Image #12).
3. Carefully close the back door of the housing, pushing it against the front door, while making sure there is nothing sticking out of the housing or impairing the smooth closure of the back door. Then firmly press the back door against the black housing body.
4. Rotate the secure dial clockwise till the lock dial clicks. The small red tab should then be pointed towards the bottom of the housing (Image #13).



5. Gently try pulling the back door away from the black housing body. If the housing is properly closed, it should be impossible to open the back door.
6. Visually inspect the black O-ring through the transparent back door for proper closure. Make sure it isn't twisted or out of the groove and that no foreign matter has been caught in the seal, such as tethers, sand, grit, hairs or any other foreign substance.
7. Turn the camera on and check that the extended camera lens does not catch or bend the black rubber seat on the inside of the lens port. It is vital that this rubber seat does not disturb the lens (Image #14).
8. Test housing control buttons to make sure that the camera was properly installed inside the housing and that nothing interferes with normal operation of the camera. It is recommended to take a few images once the camera has been installed inside the housing and prior to the dive in order to ensure proper operation.
9. If making use of the internal camera flash, install the removable flash diffuser on the housing and attach the flash diffuser quick release tether in order to avoid losing it underwater. Please refer to the section "Using the Built-in Camera Flash" for further information.
10. Prior to diving with the housing, submerge it in a shallow tub of water or rinse tank. Carefully look at the housing to make sure no bubbles are escaping from it and that no water is entering.



REMOVING THE CAMERA FROM THE HOUSING

1. After use, thoroughly rinse the housing fresh water. Prior to opening the housing, make sure both your hands and the housing are clean and dry. It is recommended to have a clean, dry and soft towel handy in order to dry your hands and the water drops on the housing.
2. When opening the housing, it is important to hold it so the lens port is facing down. This will prevent the camera from slipping out of the housing while being opened.
3. Open the housing as described in the section "Opening the Housing" and carefully remove the camera from the housing. Take sufficient care that no water drips from your hair or body into the housing or onto the camera.

USING THE CAMERA'S BUILT-IN FLASH

1. The Canon G7 X Mark II camera has a built-in flash capable of illuminating nearby (less than 3 feet / 1 meter away) underwater subjects. It is recommended that a slave flash be used if you need

stronger lighting (such as when diving deep), wish to photograph images further away or want to reduce backscatter or shadowing effects. For further information, please refer to the section “External Flashes”.

2. In order to make use of the built-in camera flash, remove the Fiber Optic Cable Plate from the housing. Insert your fingers beneath the adaptors installed inside the plate and push the plate upward until it is removed from its slot. Make sure the fiber optic cable plate is secured to the housing by the tether.
3. The removable flash diffuser (included) softens the built-in flash’s output, increasing its angle of coverage and decreasing the amount of *backscatter* in the images (the unattractive snowstorm effect of the flash reflecting off suspended particles in the water).

- a. In order to install the flash diffuser, hold and align it against the housing lens port so the concave side of the flash diffuser is facing the lens port (Image #15).
- b. Gently push the flash diffuser against the housing lens port till it clicks.
- c. Attach the flash diffuser quick release tether to the housing in order to avoid losing the flash diffuser.
- d. In order to remove the flash diffuser from the housing, gently push it outwards first from its top and then from the bottom.



4. It is best to set the camera flash mode to “Flash Always” as artificial light is required in most compositions for the purpose of color and light reproduction. This will ensure the built-in camera flash fires on every image taken regardless of ambient light available. You can enable the flash by using the *Flash / Right* control (No. 15) and selecting “On”. The flash must be in the UP position in order to use the *Flash / Right* control.
5. Rotate the *Flash Up Switch* clockwise (pulling it toward the back of the housing) in order to pop up the camera built-in flash.
6. Note that once the camera’s built-in flash has been popped up, it can be turned off using the *Flash / Right* control (No. 15) and selecting “Off” option. Rotating the Flash Up Switch counterclockwise will not have any effect on the built-in flash.

OPTIONAL ACCESSORIES

FOR THE FULL SELECTION OF FANTASEA ACCESSORIES COMPATIBLE WITH THE FG7X II HOUSING, PLEASE REFER TO THE FANTASEA WEBSITE – www.fantasea.com

EXTERNAL FLASHES

Underwater flashes and strobes were designed to improve the color, lighting and quality of your underwater images. Since light and color are absorbed by water, using an external flash is recommended at all depths, both during daylight and night dives. In addition to replenishing the color and light absorbed by water, underwater flashes also allow for creative lighting, assist in reducing the amount of backscatter and prevent the shadowing effect caused by the housing lens port when using the built-in camera flash, especially when accessory lenses are mounted on the housing.

The **FG7X II Housing** can be used with underwater slave flashes. These external flashes feature a slave sensor that triggers the external flash to fire in sync with the internal camera flash.

While most underwater slave strobes are capable of synchronizing with the internal camera flash without any cables under certain diving conditions there can be times when the slave strobe sensor might fail to recognize the output of the camera’s flash and therefore, fail to fire. Accordingly, it is highly recommended that a fiber optic cable be connected between the internal camera flash (by using the Fiber Optic Cable Plate and Adaptors, if appropriate) and the slave strobe to ensure full synchronization.

Attaching Fiber Optic Cables to the Housing

1. When installed on the housing, the Fiber Optic Cable Plate and the two Adaptors inserted into the Fiber Optic Cable Plate allow for an easy attachment of 1 or 2 fiber optic cables to the housing.
2. If the fiber optic cable you have features a different type of adaptor, remove the adaptor from the end of the cable and use the Adaptors included with the **FG7X II Housing**.
3. Remove the Fiber Optic Cable Plate from the housing. Insert your fingers beneath the Adaptors installed inside the plate and push the plate upward until it is removed from its slot.
4. Prior to installing the fiber optic cable on the Fiber Optic Cable Plate, make sure that the two black Adaptors are firmly and properly installed inside the



plate (Image #16) and that the small screw has been loosened so as to not block the path for the cable.

5. Insert the exposed end of the fiber optic cable into the small hole of the Adaptor, starting from the end that features a screw and pushing it towards the end that features an O-ring (Image #17), until the fiber optic cable reaches the end of the adaptor, which can be verified by looking from the other side of the Fiber Optic Cable Plate. The fiber optic cable should protrude no more than 1mm (Image #18).



Image #17



Image #18

6. Using the provided screwdriver tighten the screw on the adaptor (Image #19). Tighten it enough to stabilize the fiber optic cable inside the adaptor, but don't tighten it too tightly. **Overly tightening the screw might damage the fiber optic cable.**
7. Once the fiber optic cable has been installed on the Fiber Optic Cable Plate, re-install the Fiber Optic Cable Plate by inserting it inside the dedicated slot on the housing and pushing it all the way down.
8. When installed on the housing, the Fiber Optic Cable Plate blocks the internal camera flash, so only the external slave flash illuminates the subject. This diminishes the effects of backscatter, as well as eliminates any shadowing effect caused by housing lens port, especially when lens accessories are mounted on the housing.
4. Follow the instructions for your strobe on how to synchronize your camera with the external strobe and to select the proper pre-flash program for your camera. It is recommended to test the



Image #19

synchronization when photographing at a mirror. In this case, the output of both the built-in camera flash and the strobe should be visible in the test shot taken.

5. **When attaching Sea&Sea fiber optic cables to the housing**, the housing Adaptor(s) should first be removed from the Fiber Optic Cable Plate. This can be done by gently removing them out from the front side of the plate using a small needle nose pliers. It's recommended that you apply a tiny amount of silicone lubricant to the small O-rings of the Sea&Sea adaptors, so they can be easily installed and removed. Simply push the Sea&Sea adaptor located at the end of the cable into one of the dedicated slots on the front side of the plate. Gently pull on the fiber optic cable to ensure that it is properly seated in the fiber optic cable plate. You should store the removed Fantasea housing Adapter(s) in a secure place so that you have it/them in the future in case you purchase a different brand of strobe.

FLASH & VIDEO LIGHTING SETS

A variety of Fantasea flash and video lighting sets are available for the **FG7X II Housing**, enabling you to further enhance your images and videos. These sets include trays, Flex arms, slave flashes, powerful and sturdy yet stylish video lights, fiber optic cables, focus lights, and more.

LENS ACCESSORIES

The **FG7X II Housing** lens port is compatible with a wide variety of accessory filters and lenses, such as:

- **BigEye Wide Angle Lenses:** Perfect for shooting seascape, divers, ship wrecks and schools of fish, without moving further away from the subject, thereby still taking full advantage of water clarity and artificial light sources.
- **SharpEye Macro Lenses:** Perfect for shooting close-up images of fish, corals, textures and more. These macro lenses magnify the subject and enable the camera to focus on short distances for creating super sharp images.
- **RedEye & PinkEye Color Correction Filters:** Used to restore the colors absorbed by the water. In shallow depths, these filters can serve as an attractive alternative to artificial light sources. These filters can be mounted directly on the housing lens port, and can also be installed inside BigEye and SharpEye accessory lenses.
- **EyeGrabber Lens Holders:** Attach to Flex or Ball & Joint arms, enabling safe, secure and easily accessible storage for your lens accessories when not in use during the dive.

HOUSING HAND GRIP STRAP

The **FG7X II Housing** features two hand strap loops on the “latch” side of the housing, which enable the attachment of the optional (but included) Hand Grip Strap. The Hand Grip Strap is useful for improving your grip on the housing, especially during extreme sports activities or strong underwater currents.

Attaching the Fantasea Hand Strap to the Housing

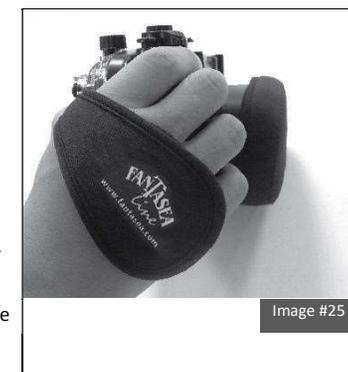
1. Pull the narrow nylon hook-and-loop (Velcro style) strip through top of lower housing ring (below the locking latch) in a downward direction to the end of the strip (Images #20 and 21).



2. Place the wide flat hook-and-loop mid-section over the locking latch and pull the thin hook-and-loop strip over the top of this mid-section and through the upper housing ring from bottom to top all the way through (Image #22).
3. Double back the thin nylon hook-and-loop strip and secure it tightly to the top of the hook-and-loop strip previously inserted (same strip) and press down. Then cover with the wide flap (should be on the right side) over the thin hook-and-loop strips (Image #23).
4. Place top flap (with logo) over bottom flap and press to close (Images #24 below and #25).



5. To use the Hand Strap, slide your right hand from the backside to front of the Hand Strap with your knuckles protruding slightly from the front (lens side) of the strap (Image #25). The Hand Strap should be snug but not too tight, in order to allow for housing control manipulation.
6. For additional security, it is recommended that you also use the Wrist Lanyard with the Hand Strap.
7. When opening or closing the housing, you may need to loosen the Hand Strap so it can be moved out of the way to allow for easier locking and unlocking of the latch.
8. When closing the housing, take special notice not to close part of the Hand Strap inside the housing, which will interfere with the watertight seal of the housing.
9. Rinse the Hand Strap in fresh water and then dry after use. Store in a dry, shaded area.



COLD-SHOE CONNECTOR FOR LIGHTING ACCESSORIES AND ACTION CAMS

The Cold-Shoe Mount featured on the housing enables mounting a flash, video light, night dive torch, focus light, or action camera on top of the housing by using a standard Cold-Shoe connector. To install or remove Cold Shoe connectors, the Fiber Optic Cable Plate should first be removed. The plate can be replaced once the connector has been mounted or removed from the Cold-Shoe mount.

MOISTURE SENSOR AND ALARM

The **FG7X II Housing** comes with a Moisture Sensor installed on the bottom of the housing, and a Moisture Alarm (installed on inner side of the housing latch dial – see Image #10). Moisture sensors are very sensitive, and whenever moisture is detected by the Moisture Sensor the Moisture Alarm is activated, the LED light flashes and a warning alarm beeps, thereby alerting the user to a possible leak. For further instructions, please refer to the *Fantasea Moisture Sensor and Alarm* section later in this Manual.

FG7X II HOUSING ACCESSORY SYSTEM



CARE & MAINTENANCE

The Fantasea **FG7X II Housing** requires a minimum amount of care for safe and reliable performance. The following tips will enable you to get the best results:

1. With the housing securely closed and locked, rinse your housing in streaming tap water and if possible, soak the housing in fresh tap water or a rinse tank for about 20 minutes after every dive in order to dissolve the salt water crystals from around the controls and openings of the housing. Manipulate each of the movable controls to assist the removal of salt particles from these tight areas.
2. Allow the housing to dry thoroughly before packing for the day or for the trip home. You may use a soft towel or cloth to dry the housing. Be sure there is no grease or other debris on the towel.
3. Visually check the condition of the black O-ring before every dive. If it is dirty, clean it with fresh water and dry it with a soft cloth as described in this manual. If it is damaged in any way, such as cut or perforated, replace it before using the housing again.
4. It is recommended that you periodically slightly lubricate the black O-ring. It's important to note that the amount of lubrication required on the O-ring is only enough to allow it to slip into place without friction, so it does not twist or become dislodged. More lubricant is not necessarily better, and in some cases might interfere with the housing watertight seal.
5. Use only the supplied silicone lubricant for lubricating the back door black O-ring. Use of any other lubricant might impair the watertight seal of the housing.
6. Avoid removing the white O-ring that is inserted into the groove on the inside of the housing body (not on the door) unless it's damaged.
7. Be careful not to get greasy fingerprints or dirt on the lens port. This will affect the image quality. Remove dirt or grease off with fresh water and a soft cloth.
8. Never handle the housing with your hands if your hands are soiled from suntan oil, lotion or cream. Avoid getting any oils, creams or petrol-related substances or liquids on the housing surface, as this can distort or damage the housing materials.
9. Do not drop the housing on hard surfaces as the housing could crack and its watertight seal might be damaged.
10. Do not disassemble or modify the housing, as this may cause leaks.
11. Do not leave the housing in direct sunlight, inside a car in hot weather, or near a heater. Heat may warp the housing and cause leaks. If you must leave the housing in the sun, it is important to cover it with a towel.
12. Travel with the housing protected in a padded case. It is best to remove the camera from inside the housing when traveling and to provide it with its own protective case or compartment.

13. Always leave the housing slightly open when transporting by air or traveling through large altitude changes. A piece of paper can be installed between the front and back doors of the housing in order to prevent the housing from completely closing during the flight or altitude changes.
14. Never dive with the Fantasea **FG7X II Housing** to a depth greater than 60 meters/200 feet.
15. It is important to test the integrity of the watertight seal prior to diving. This can be accomplished by securely closing the back of the housing **without the camera inside** and then submerging the housing into a bucket or sink filled with water. It is **highly recommended** that the best method for ensuring that the seal is functioning properly is to carry the housing, **without the camera inside**, on a dive. Carrying the empty housing on a dive will better ensure that the watertight seal is properly functioning under the additional pressures associated with diving.
16. It is likewise recommended to visually monitor the housing during every descent, especially for the first 10 meters/33 feet. If water is observed entering the housing or bubbles escaping from it, the housing should be rotated to a *port down position* and held in that manner as you make a safe ascent and exit the water.

FANTASEA PRODUCT CONSUMER LIMITED WARRANTY

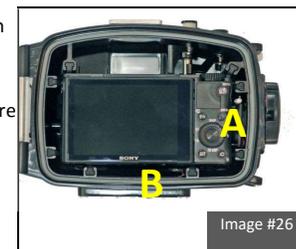
“Fantasea” warrants this Fantasea Line branded product against defects in materials and workmanship under reasonable use for a period of ONE (1) YEAR, (two years, where required by law as determined by the origin of the authorized dealer). This warranty is effective from the date of retail purchase from Fantasea or an authorized Fantasea dealer, by the original end-user purchaser (“Warranty Period”). This warranty does not cover any commercial use of the product. If a product defect arises and a valid claim is received within the Warranty Period, at its option, Fantasea, or its authorized service facilities will either (1) repair the product defect at no charge, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product. The warranty will not extend beyond the original warranty period. Your Fantasea Product should be registered within 30 days of purchase. You must keep the proof of purchase that indicates the date on which the purchase was made; as you may be required to show proof of purchase if you need warranty service. The following conditions apply: 1. This warranty extends to the original purchaser only. It is not assignable or transferable. 2. The warranty does not cover damage resulting from misuse, abuse, negligence, or accidents. Proper maintenance of the Product is the responsibility of the owner. 3. The warranty does not cover damage directly or indirectly resulting from the use of unauthorized replacement parts or service performed by unauthorized facilities. 4. This warranty does not cover any damage to any other product used in conjunction with the Fantasea product, including cameras and lenses, and resulting from any defect in the product materials or workmanship. 5. The cost of sending the product back to Fantasea or its authorized service facilities is the responsibility of the customer. 6. The warranty does not cover any incidental damages resulting from any defects in the product. This expressly includes any travel reimbursements or any other costs associated with the purchaser’s optional use of the product. The conditions of this warranty are expressly in lieu of all other expressed warranties,

including the payment of consequential or incidental damages for the breach of any warranty. Please register your product on line at this URL: <http://www.fantasea.com/registration>.

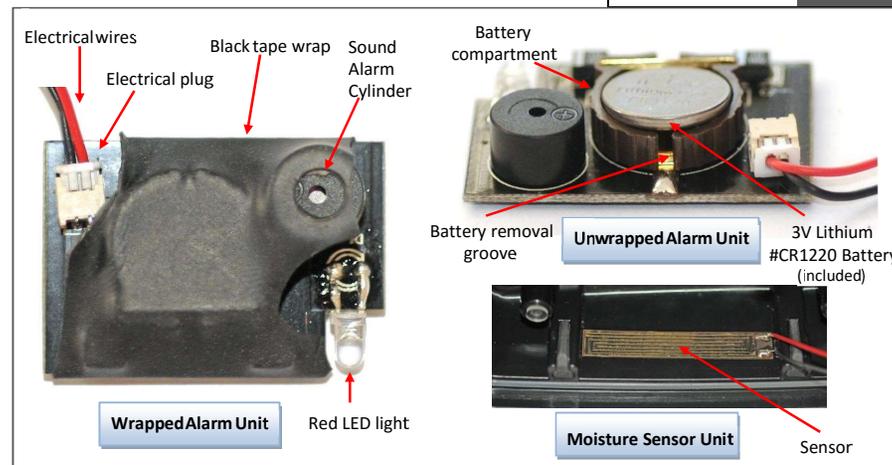
FANTASEA MOISTURE SENSOR AND ALARM

Note!	Never soak or wash the interior of the housing with any liquid. This will activate the alarm in a manner that cannot be disabled, eventually causing irreparable damage to the unit’s electronics!
	The Moisture Sensor and Alarm are a bonus add-on component and not an integral part of the housing. Accordingly, it is not part of the housing warranty coverage. The moisture detector has no warranty coverage.

The Moisture Alarm is installed inside the housing, opposite the Latch Dial (Image #26 – item A). The Moisture Sensor is on the interior bottom of the housing (Image #26 – item B). A thin wire connects these units. Moisture sensors are very sensitive, so whenever moisture is detected by the Sensor, the Moisture Alarm LED flashes and a warning alarm beeps thus alerting the user of a possible leak.

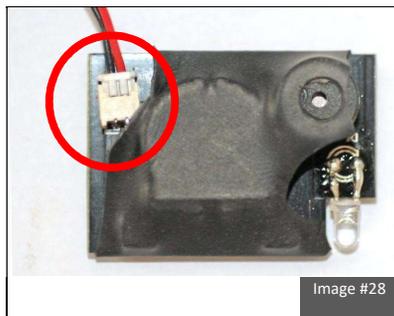
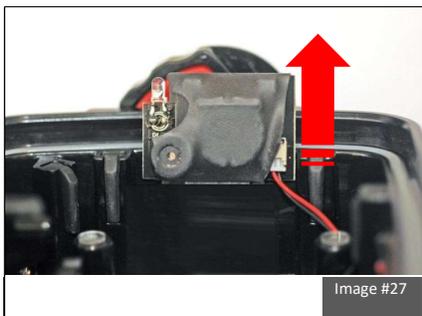


IDENTIFICATION OF PARTS OF THE SENSOR AND ALARM



SILENCING THE ALARM

1. To silence the Alarm, gently wipe the Sensor unit at the bottom of the housing with a soft dry cloth until the Sensor is dry and the Alarm is silenced.
2. If drying the Sensor fails to silence the Alarm then remove the Alarm unit from the housing by gently sliding it out of its slot (Image #27).
3. Expose the white electrical connector [change wording in the image above] under the black tape wrap (Image #28).
4. Gently pull on the white connector (do not pull by the wires) until the connector parts are separated. Wait a few minutes before re-connecting. If the Alarm still beeps then separate the connector again and leave it disconnected for a few hours to ensure that the Sensor is totally dry and the Alarm has sufficient time to properly reset. Should the Alarm continue then you probably need a new Alarm module and should contact Fantasea to obtain a replacement.

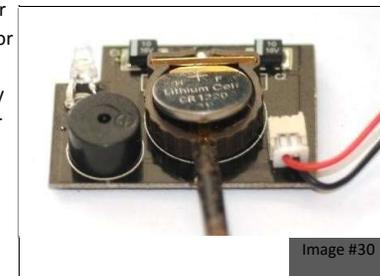


REPLACING BATTERIES

1. Remove the Alarm unit from the housing by gently sliding it out of its slot (Image #27).
2. Disconnect the electrical wires connector as previously described from the unit (Image #28).



3. Peel the black tape wrapped around the Alarm unit by gently cutting it with a sharp blade or utility knife (Image #29). Make sure that the knife doesn't come in contact with the unit under the tape and that you only cut the tape. You can also feel for the battery's location and using a small utility knife or razor blade simply cut a flap around the battery. Using this method will give you access to the battery plus will make it easier to reseat the Alarm unit after the battery has been replaced.
4. Remove the old battery by lifting it with a small screwdriver through the battery removal groove (Image #30).

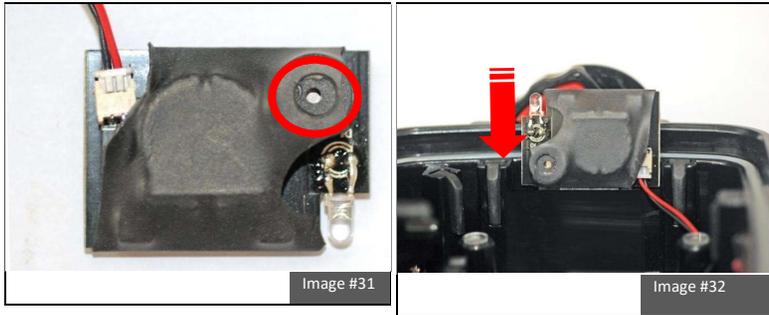


Install a new 3V Lithium #CR1220 battery,

available at retail stores, watch repair shops or online through services such as

Amazon. *WARNING:* Install only 3V Lithium #CR1220 batteries inside the Moisture Alarm unit. Using any other type of batteries will cause irreparable damage to the electrical unit.

5. **IMPORTANT! The battery should be installed with the "+" symbol facing up!**
6. Gently push the new battery it into the battery compartment and make sure it doesn't fall off easily.
8. To secure the battery and make sure it doesn't fall out of place, wrap the battery compartment area with a small piece of electrical tape. Be careful not to cover the round cylinder that produces the alarm sound. Alternatively, you can wrap the whole alarm unit with tape and then make a hole over the alarm cylinder (Image #31).
9. Insert the electrical wires plug back into the alarm unit socket.
10. Slide the alarm unit back into the dedicated slot inside the housing, opposite the buckle. Make sure to install the unit with the round alarm cylinder facing the housing interior and the LED pointing outwards, to the back of the housing (image #32).



11. You can test the Moisture Detector by placing a wet finger over the Sensor at the bottom of the housing. Once you have confirmed that the alarm is working, gently dry off the Sensor unit. This should silence the alarm.

REPLACING THE ALARM UNIT

1. Remove the alarm unit from the housing by gently sliding it out of its slot (Image #27).
2. Expose the white electrical connector under the black tape wrap (Image #30).
3. Disconnect the electrical wires connector from the Alarm unit socket.
4. Connect the electrical wires plug to the socket of a new Alarm unit.
5. Slide the Alarm unit back into the dedicated slot inside the housing, opposite the buckle. Make sure to install the Alarm unit with the round alarm cylinder facing the housing interior and the LED pointing outward, toward the back of the housing (Image #32).
6. You can test the Moisture Sensor by placing a wet finger over the moisture sensor unit at the bottom of the housing. Once you have confirmed that the alarm is working, gently dry off the moisture sensor unit. This should silence the alarm.

For further information, please visit our website www.fantasea.com
or contact us at info@fantasea.com