



Underwater Housing for Canon PowerShot G7 X Mark II

Product # 6146.08

Introduction

Thank you for your purchase of Ikelite products.

Our primary focus is to provide quality, professional grade products for use in underwater. Our products are designed, manufactured, and distributed from our facilities in Indianapolis, USA where we started in 1962.

We are available if you have any questions or want photographic. Send us an email 24 hours a day to ikelite@ikelite.com. We strive to reply within 1 business day.

An electronic version of this instruction manual is available for download via the product page on our website:

<https://www.ikelite.com>

In the Box

- Housing
- Main o-ring # 0109 (installed)
- Port cover # 0200 (installed)
- .050" hex key # 0945.11
- 1/16" hex key # 0945.16
- Silicone lubricant 1cc tube

Important Notices

- » **Do not pull the shutter trigger without a camera installed. You may accidentally detach or damage the control spring.**
- » **Never leave a housing in a rinse tank, even if it is the only system in the tank. Accidental damage may occur when the user walks away from a housing while it is in the rinse tank.**
- » **Do not use alcohol, cleaning agents, spray lubricants, Rain-X, or other solvents on the housing or lens port. Use of an incompatible chemical compound can damage the plastic and o-rings, and may result in leaking.**
- » **The included lanyard is a break-away safety lanyard. Never carry the housing by the lanyard.**

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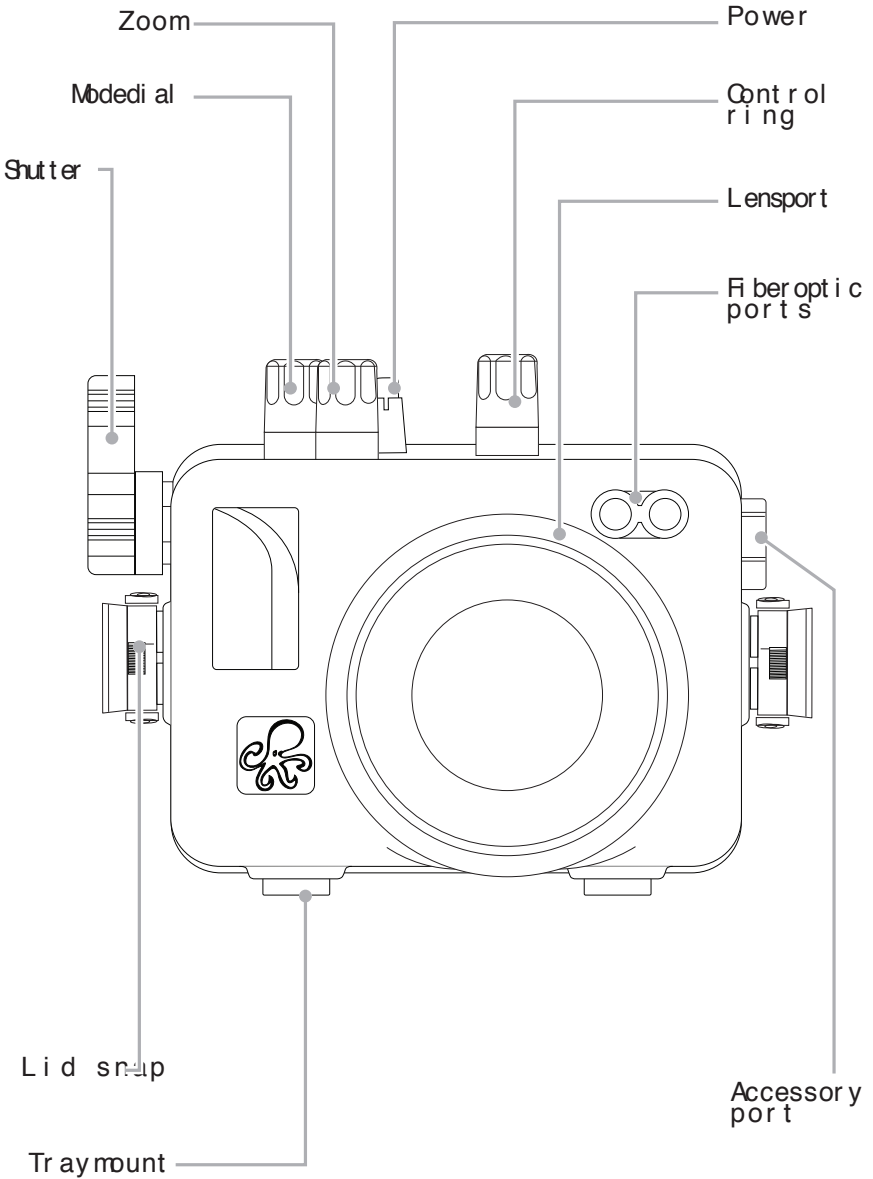
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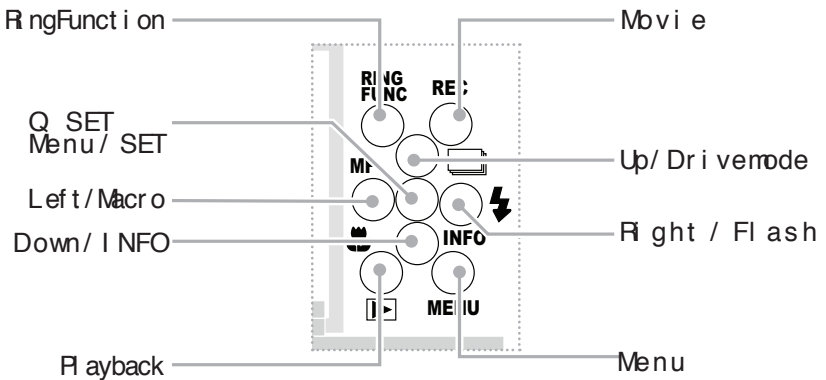
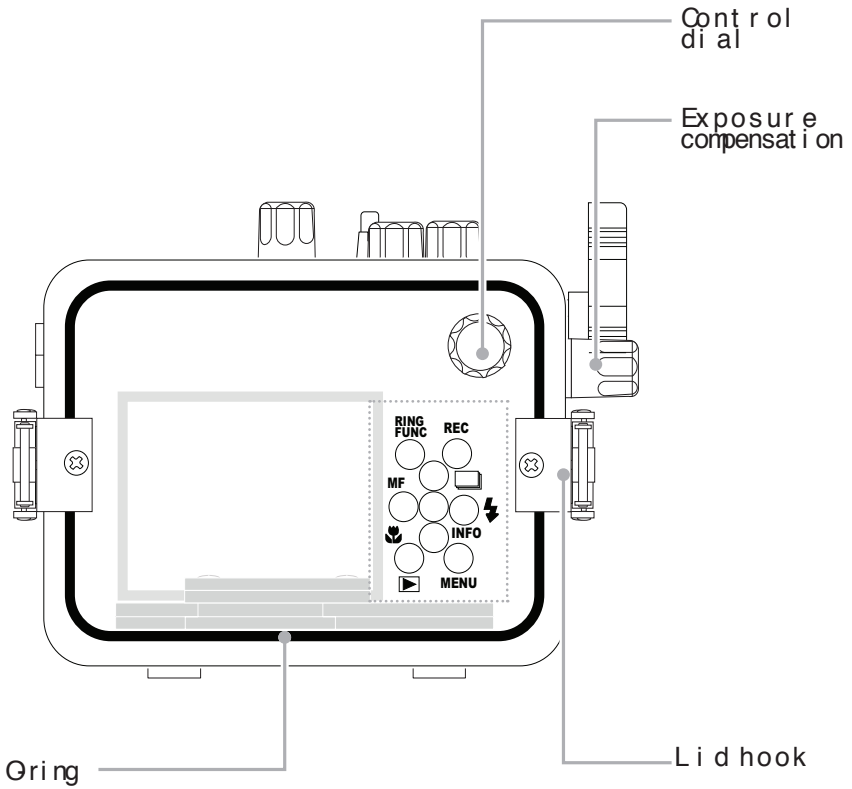
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Getting to Know Your Housing





Tray Mounts

This should be used for 1/4-20 threaded tray mounts that are mounted on the housing. The spacing between the tray mounts is 3" (76.2mm). Optimal tray width handling and mounting is required for ear seal separation.

It is recommended to detach the tray mounts, tray, and mounting hardware, with fresh water routinely during continuous use and prior to storage.

Accessory Port

This should be used for the accessory port which may be used for the attachment of optional accessories. This port accepts fittings designed for a 1/2" through or 1/2-20 threaded hole.

The optional Vacuum Kit #47012 may be installed in the isolation. A hand pump with gauge allows you to draw vacuum from the host system at water pressure and check for leaks prior to entering the water.

Visit the website for an updated list of compatible products.

» **Do not remove or loosen the accessory port plug unless you are installing a compatible accessory.**

Trigger Extension

The shutter lever may be extended to be closer to your hand when using the optional tray width trigger-hand quick release handle. This requires the Trigger Extension # 4077.95.

Trigger extension and tray width quick release handle seal separation.

Setting Up Your Camera

Pre-Installation Checklist

1. Insert a fully charged camera battery.
2. Insert a properly formatted memory card.
3. Remove any attached lanyard or neck strap.

Camera Settings

- Set **Red-Eye Lamp** to “Off.”
- Set **AF Assist Beam** to “Off.”
- Set **Flashmode** to “Flashon” when using an external strobe. Flash mode setting may not be available in all camera modes.

Exposure Settings

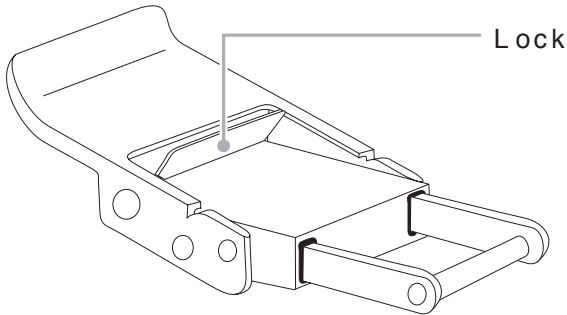
Refer to the **Cheat Sheets** in the PhotoSchool section of our website for recommendations on exposure settings for a wide variety of shooting situations:

<https://www.ikelite.com/blogs/cheat-sheets>

Setting Up Your Housing

Opening the Housing

1. Push the lid snaplock forward and lift the cover away from the housing.

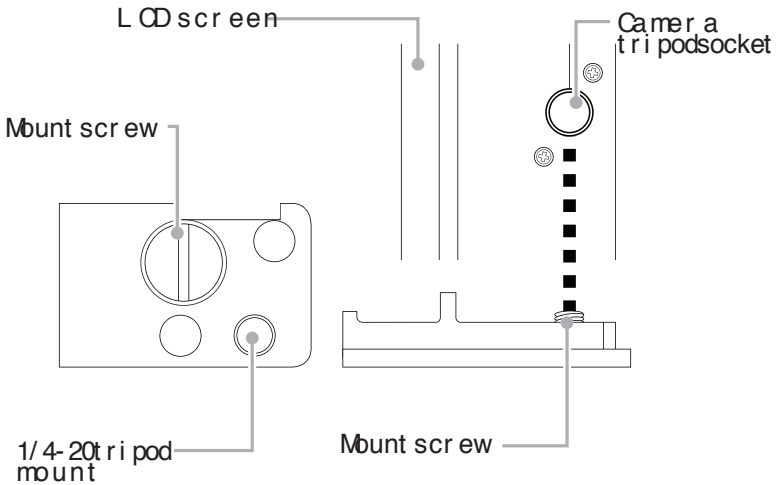


2. Lift the snap on the lid until it is loose enough to lift it away from the housing. Keep the lid open while lifting it away.
3. Repeat with opposite lid snap.
4. Remove the housing back.

Installing the Camera

1. Remove any adapter neck strap which may be attached to the camera.
2. Remove the camera mount plate from the housing.
3. Pull the bottom of the rear LCD screen away from the camera body slightly. At this point the bottom of the mount plate will rest between the camera body and the LCD screen for proper alignment.

4. Line the mounting screw with the camera's tripod socket. Use a flat screwdriver to tighten the mounting plate onto the camera.



5. If using an external strobe, press the camera's flash pop-up button to extend the camera's built-in flash.
6. Pull out the housing's medial control until it stops.
7. Insert the camera into the housing, aligning the mounting plate into the slot on the inside of the housing. Push the camera all the way forward until it stops.
8. The LCD screen may be angled slightly for better viewing prior to closing the housing.
 - » **The camera may be attached to a tripod using the 1/4-20 threaded mounting hole on the bottom of the mount plate.**
 - » **The camera's flash cannot be popped up once the housing is closed. To use the camera's built-in flash to trigger external strobes, the flash must be extended prior to installation in the housing.**

Closing the Housing

1. Make sure the housing is properly located in the back of the camera. The camera will not be able to make a seal.
2. If using an external strobe, check that the camera's built-in flash is set to external or off. The camera's external flash will not work if the camera's flash is set to on.
3. Place the back onto the housing front.
4. Make sure the housing is properly aligned with the camera's back. The camera's back will not be able to make a seal if the housing is not properly aligned.
5. Place each lid on the camera's back. The camera's back will not be able to make a seal if the lids are not properly placed.
6. Push the lid onto the camera's back. The camera's back will not be able to make a seal if the lid is not properly pushed on.
7. Check the housing seal. The housing seal should be visible through the back of the housing.
8. Check control functions.

Removing the Camera

1. Open the housing.
2. Lift the LCD screen of the camera.
3. Use the pocket built into the camera to pull the camera out with your index finger.

Setting Up An External Strobe

We recommend that you use an external strobe for professional color and clarity in your photography. For more information, see the user manual for your external strobe.

This shows the proper way to connect fiber optic cables to the strobes.

About Fiber Optic Cords

Connect the fiber optic cables to the strobes as shown in the diagram. Do not connect the fiber optic cables to the strobes in the wrong way. This will damage the strobes and the fiber optic cables.

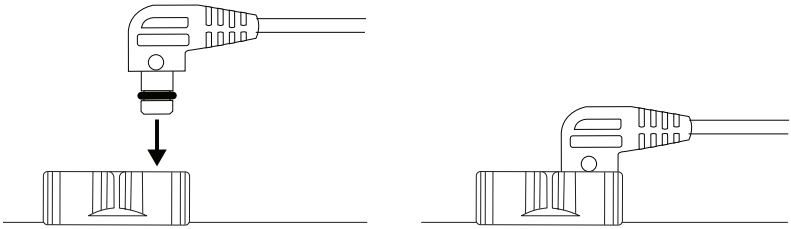
The following fiber optic cables are compatible with this strobe:

- Ikelite Fiber Optic Cord # 4501
 - ION Optical Cable “Non-wireless type” L- Connector
 - SEA&SEA Fiber Optic Cable (L-type) # 50107
 - SEA&SEA Fiber Optic Cable II # 50128
 - Olympus UW Fiber Optic Cable # PTCB-E02
 - Nauticam Optical Fiber Cable # 26211 Nauticam or ION
 - Nauticam Optical Fiber Cable # 26212 Nauticam or SEA&SEA
- » **To connect two strobes to the housing, you must use two fiber optic cords.**

Attaching a Fiber Optic Cord

1. Check the end of the fiber optic cable to ensure it is clean and smooth.
2. Check that the fiber optic cable is the correct type. This strobe does not provide a waterproofing, but it does keep the fiber optic cable dry.

3. Attach one end of the fiber optic cord to one of the fiber optic ports on the housing. The connector is a press-fit into the port.



4. Attach the other end of the fiber optic cord to a compatible strobe.
5. Set the strobe according to the manufacturer's recommendations.
6. Turn on the strobe.
7. Turn on the camera. Take a test photo to ensure that your strobe(s) are functioning properly.

Getting in the Water

Final Check

1. Re-check the ear o-ring seal. This seal should, or may even, still be visible through the back of the housing.
2. Turn on the camera and check all control functions.
3. Make sure the camera can take a photo.
4. Check camera battery level and available space on your memory card.
5. Submerge the housing in a fresh water tank dedicated to underwater photography equipment. Visually confirm that the ear e-nose of water is not in use. Check for water in the use of the seal ead y st r eam of bubbl es coming from one of the housing's seals.

Entering the Water

1. Before entering the water, turn the camera on and operate each of the housing controls together before using the camera in the housing.
 2. We recommend entering the water without your housing to ensure your comfort and your life-saving equipment is in working order. Once you are established, have someone pass your camera housing to you.
 3. Submerge the housing at the surface of the water and visually confirm that there are no signs of water intrusion. Look for water droplets or fogging inside of the housing, or asteready stream of bubbles coming from one of the housing seals.
 4. Use your hand to gently flush away any small bubbles that may be on the surface of the lens port. Bubble will produce soft focus spots in your photo or video.
- » **If water appears to be entering the housing, point the lens port downward and return the housing to the surface immediately. Please observe all necessary safety precautions. NEVER ascend faster than accepted safety limits.**

Shooting Underwater

- Get as close as possible to your subject. For the best results, only photograph subject that are less than 6' (1.8m) away.
- Be careful not to stir up sand or silt.
- Photograph subject straight on or at a slight upward angle.
- If you are in a narrow exposure, it is better to have the image slightly underexposed rather than overexposed. An overexposed image is missing color information that cannot be adjusted in post processing program. A slightly underexposed image has color information that can be adjusted.

- » **It is important to respect all living creatures underwater, including people, marine life, and coral. Get as close as you can to your subjects when taking a photograph, but never touch or disturb the marine life.**

Learning about Underwater Photography

Visit the PhotoSchool section of www.underwaterphoto.com for a wide range of information on shooting underwater including:

- **Product Tutorials and Videos**
- **Cheat Sheets** with exposure settings and recommendations for a variety of situations
- **Advanced Techniques** with in-depth technical and different shooting techniques
- **Frequently Asked Questions**
- **Photo Galleries** showing examples of real results underwater
- **Feature Articles** and more!

Maintaining Your Housing

Post-Dive

1. **Rinse the housing in fresh water.** But do not rinse the control sand pressure but tonseveral times with a submersible freshwater to flush out any salt or debris to ensure smooth operation of the dials.
2. **Never leave your housing in a freshwater rinse tank, even if it is the only system in the tank.** Oil is not washed out of the person's gear can cause scratches or damage to your equipment. Accidental damage occurs most often in the rinse tank.
3. **Rinse off any residual residue from the housing with clean, running fresh water.**

4. St owt hehousi ngi nashadedpl acewher ei t i spr ot ect edf r om i mpact andover heat i ng. I f noshadei savai l abl e, covert hehousi ng wi th a l i ght col ored towel or cl oth.
5. Checkt hemeror ycar dcapaci tyandbat t er y l i f eof your camer a and st robe(s). Recharge as necessari y.
6. Al waysre- checkt heo- ri ngseal af t er openi ngt hehousi ng.

Lens Port

Treat t hesur faceof t hel ensport l i keacamer al ens. Af t er use, ri nse andgent l ydri ytheout si del ensport t oavoi dwater spot t i ng. Useonl y a mi cr ofiber l enscl eani ngcl oth oavoi dscr at ches. Tocl ean, useami l d soap sol ut i on.

- » **Do not rinse the inside of the lens port.**
- » **Do not use alcohol, cleaning agents, spray lubricants, Rain-X, or other solvents on the housing or lens port. Use of an incompatible chemical compound can damage the plastic and o-rings, and may result in leaking.**

Storage

1. G eant hehousi ngandcont r ol st hor oughl ypr i or t ost or age.
2. Ferovet her ear o- ri ng. Pl acei nasnal l re- seal abl epl ast i cbag i nsi de of t he housi ng.
3. Leavet hel i dsnapsopent or el easepr essur eont hel i dsnapspr i ngs.
4. St or et hehousi ngi nacool , dri ypl aceawayf r om di rect sunl i ght and chemi cal s.
5. Bef oreusi ngt hehousi ng, checkt het i ght nessof t heset scr ewi n eachcont r ol knob. Checkeachcont r ol gl andt omakesur et heyar e snug. Ther ei sasl i ght chancet hat ei t her coul dvi br at el ooseduri ng t ravel .

- » **Do not leave the camera and housing in direct sunlight for prolonged periods. Heat may damage the camera.**
- » **Do not transport with the camera inside of the housing.**
- » **Do not store the housing in a humid environment. Prolonged exposure to high humidity may damage electronic components.**

Service Recommendations

It is recommended that the housing be sent to a local authorized service center for annual inspection and maintenance. Service may be required more often depending on use.

Lubricating Controls

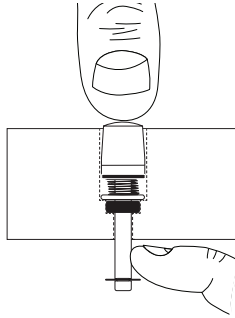
The housing's controls may need to be lubricated if they become particularly difficult to use or if they have dried out during periods of storage.

The wheel becomes easier to move if the controls are initially lubricated before storage or during periods of time. Remove control surface lubrication if the controls stick after application of a large amount of lubricant to the exposed portions of the shafts and working them many times.

- » **Use only Ikelite lubricant. Other types of lubricant may cause swelling of o-rings or cracking of plastic components.**
- » **Lubricant is not a sealant; it is used to reduce friction. Excessive lubricant can collect sand, hair or debris which may interfere with proper sealing.**
- » **Never use spray lubricants as the propellant ingredient can cause the plastic housing to crack or o-rings to swell.**

Lubricating Push Buttons

1. Press and hold the push button all the way in.
2. Place a small amount of lubricant at the base of the push button on shaft inside the housing.



3. Press and release the push button several times to rest the lubricant into the o-ring.
 4. If a push button control becomes difficult to push or it sticks when depressed, soak the housing in warm, soapy fresh water. After a few minutes, operate the push button. If this does not correct the problem, return the housing to the kit for maintenance.
- » **To prevent build-up of salt, sand, or debris, the push buttons should be flushed with fresh, clean water after every use. Depress each push button while the housing is submerged in fresh water.**
 - » **If it is necessary to remove a housing push button, NEVER re-use the e-clip. Push button o-ring kits include replacement e-clips.**
 - » **Push buttons look similar but vary in length. Remove and re-install one push button at a time.**

Troubleshooting

Water enters the housing

- Check and reinstall the rear o-ring.
- Replace the o-ring if the rear o-ring shows signs of cracks or tears.
- Take the housing under water to depth without a camera attached to ensure that the leaking has been corrected.

Photos are over-exposed (too light)

- Adjust aperture (smaller), shutter speed (faster), or ISO (lower) setting.
- Move light(s) farther away from your subject.
- Adjust exposure compensation in the camera.
- Adjust lighting power.

Photos are under-exposed (too dark)

- Adjust aperture (larger), shutter speed (slower), or ISO (higher) setting.
- Move light(s) closer to your subject and make sure they are pointed in the right direction.
- Adjust exposure compensation in the camera.
- Adjust lighting power.

Strobe(s) will not fire

- Turn on strobe.
- Check the strobe(s) battery life.
- Reset or recheck camera's default settings. The camera's reset settings will prevent an external flash from firing.

- Check camera settings recommended for use with an external strobe in the beginning of this manual.
- Check that the fiber optic cord is properly attached.

Button(s) are sticking

- Soak the housing in lukewarm freshwater. Depress each button several times while the housing is submerged. Rinse the housing with running freshwater.
- Lubricate the controls.

Button(s) or control(s) not operating

- Tighten the camera mounting plate with a screwdriver.
- Ensure that nothing is preventing the camera from going all the way into the housing.
- Check that the camera mounting plate is pushed all the way forward.

Camera is not functioning normally underwater

- Check each housing control while underwater to ensure that they are engaged. An indicator light engaged control may indicate malfunctioning of the camera.
- Check that the shutter is not half depressed. If the shutter spring has been damaged by activation without camera installed, it may not return properly. Adjust or replace the shutter spring.

Backscatter or “snow” in images

- Reposition strobe(s) or light(s) to light up the subject only and not the water in-between the camera and subject.
- Avoid using strobes next to the owl-visibility conditions.

Spare Parts

Rear o-ring # 0109

Port cover # 0200

Silicone lubricant # 5020

Push button o-ring kit # 6201.03

Limited Warranty

This limited warranty is given as a condition of sale of the product. The manufacturer warrants that the product is free from defects in material and workmanship at the time of purchase. Defects in the product shall be repaired or replaced at no charge to the customer, provided that the defect is due to a manufacturing defect. This warranty does not cover damage caused by misuse, accident, or other causes. Except as stated above, no other warranty is implied or applies to this limited product.

Service and Repairs

The manufacturer is not responsible for any damage to the product caused by misuse or accident.

For more information, please contact the manufacturer. You may contact the manufacturer by email, phone, or mail. Please provide your name, address, and phone number. Send postcard to:

Ikelite Underwater Systems
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50 W 33rd St
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+1 (317) 923-4523
service@ikelite.com

For detailed instructions on repairing your product or service including important information on international customer documentation, please refer to our website at:

<https://www.ikelite.com/pages/service-repairs>

Contact Us

If you have any questions about your product or need advice on getting the images you want, please get in touch with us and we'll do everything we can to help you capture your unique perspective.

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