



200DLM/A Underwater Housing for Panasonic Lumix DC-GX9K, DC-GX9M, DC-GX9

Product # 69621

Product Registration

Please register your product within 15 days of purchase. Our product registration database is the quickest way for us to contact you in the event of a product update.

To register, send a photo of the above registration label to us via ikelite@ikelite.com along with your name, address, and phone number.

Introduction

Thank you for your purchase of Ikelite products.

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

We are available if you have any questions or want photo advice. 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
- Rear o-ring # 0110 (installed)
- Front o-ring # 0132.36 (installed)
- Camera mount (installed)
- .050" hex key # 0945.11
- 1/16" hex key # 0945.16
- Silicone lubricant 1cc tube

Important Notices

- » **This housing requires a compatible DLM lens port for waterproof operation. The housing is not waterproof without a DLM lens port attached.**
- » **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.**
- » **If you will be using the system in strong surf it is recommended to draw a vacuum on the housing using the optional vacuum kit (sold separately).**

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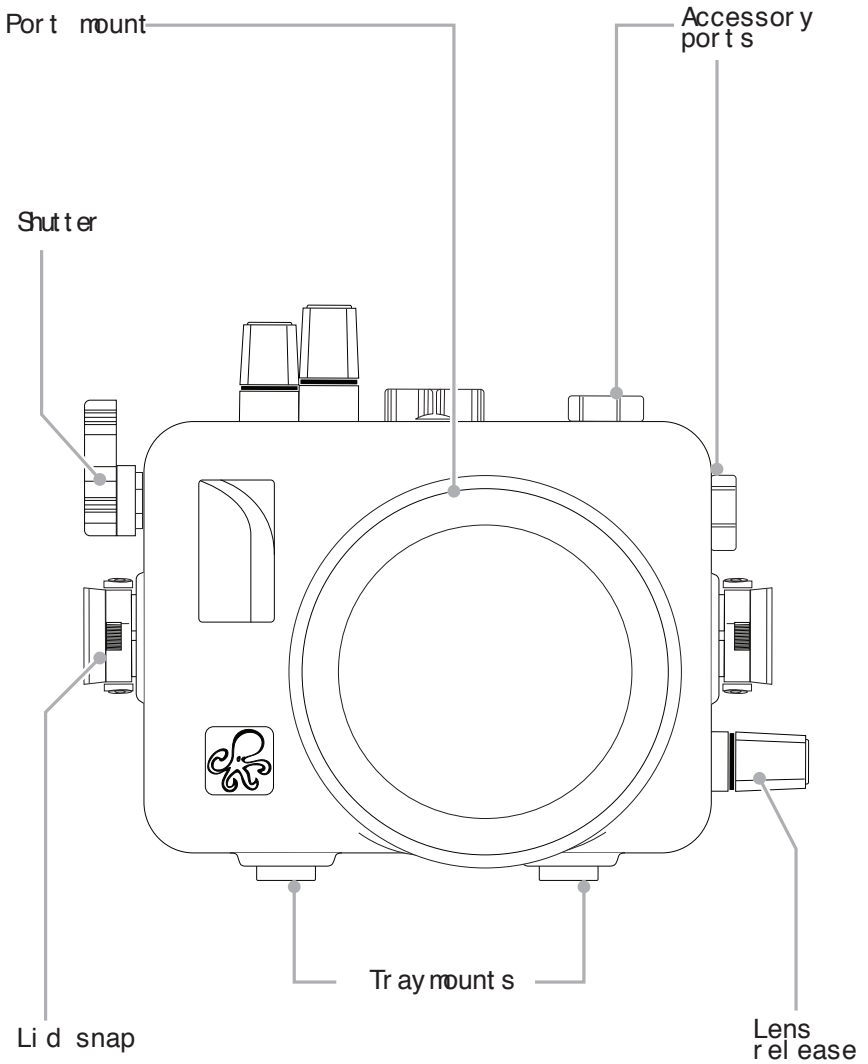
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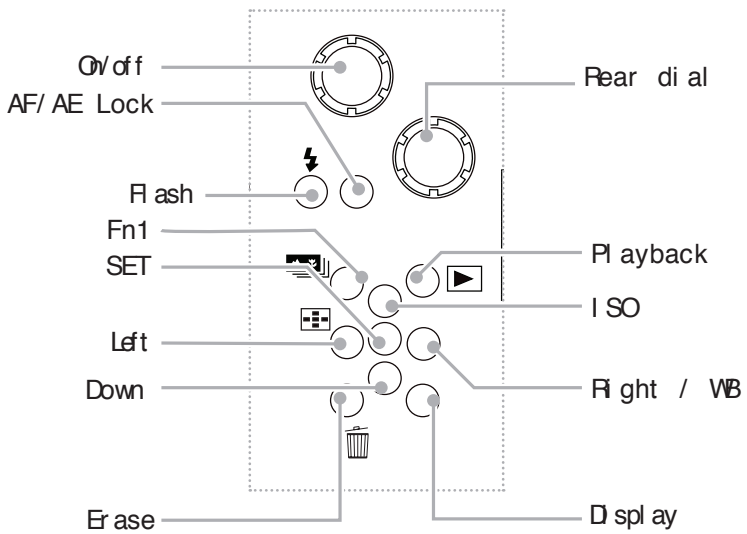
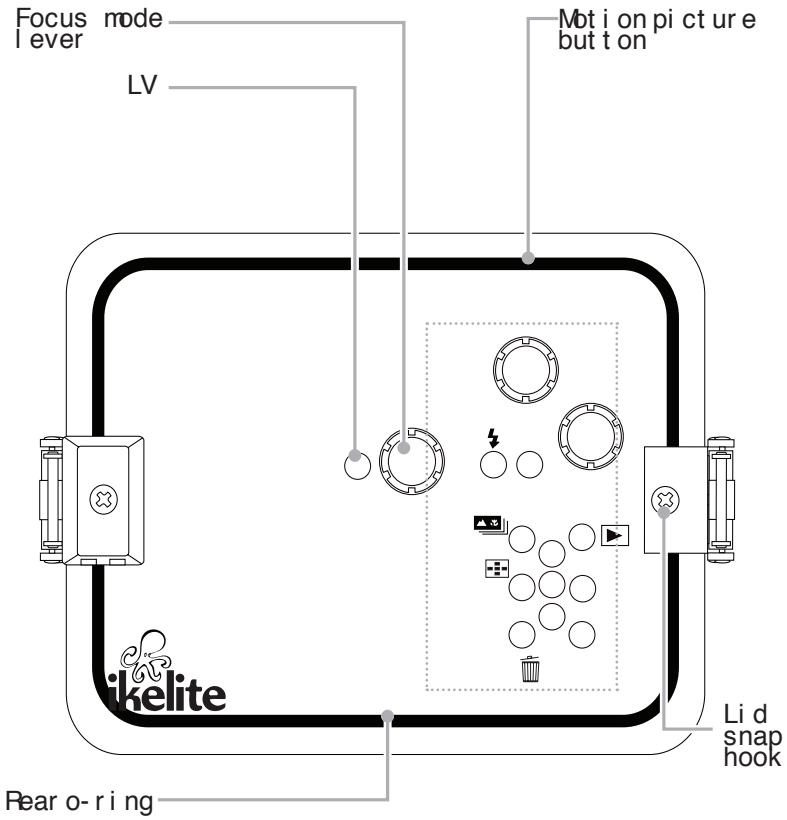
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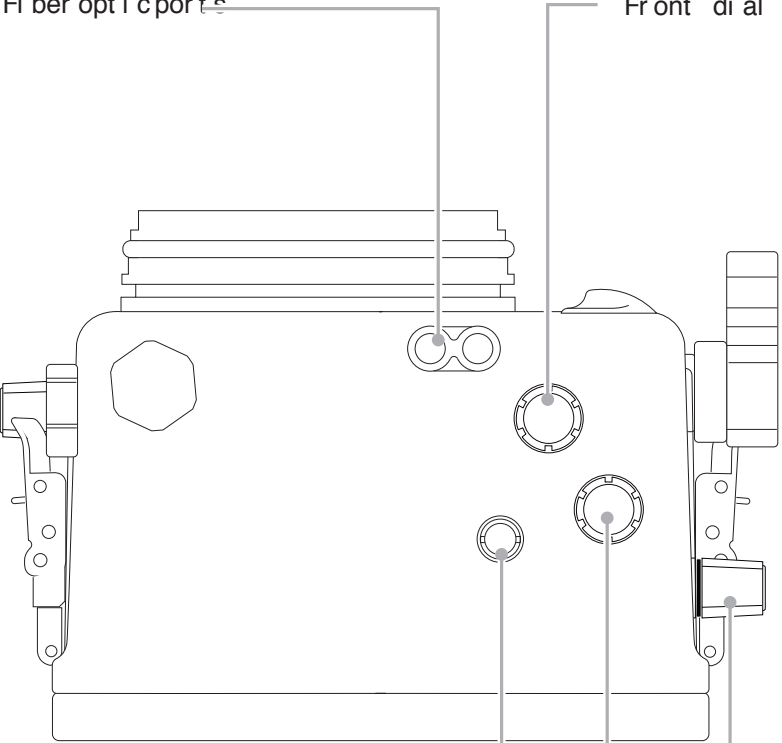
Getting to Know Your Housing





Fiber optic ports

Front dial



Mounting bracket

AEL- AFL / Fn1

Mode dial

Tray Mounts

This housing features a standard 1/4-20 threaded tray mount so that it can be mounted to the housing. The spacing between the tray mount is 3" (76.2mm). Optional tray with handles and mounting hardware are sold separately.

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

Accessory Ports

This housing features a spare 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 place of the spare accessory port. A hand pump with gauge allows you to draw vacuum on the hose to measure water pressure and check for leaks prior to entering the water.

Visit [kelite.com](#) 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 an optional tray with trigger-hand quick release handle. This requires the Trigger Extension # 4077.95.

Trigger extension and tray with quick release handle are sold separately.

Lanyard Mount

A lanyard with a hook may be attached to the housing using the lanyard mount on back of the housing.

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 **Flash mode** to “Forced flash on” when using an external strobe.
- Set **Shutter Type** to “OFF” when using an external strobe.
- Set **Touch Settings** to “MSHTR” when using an external strobe.

Exposure Settings

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

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

Power Save

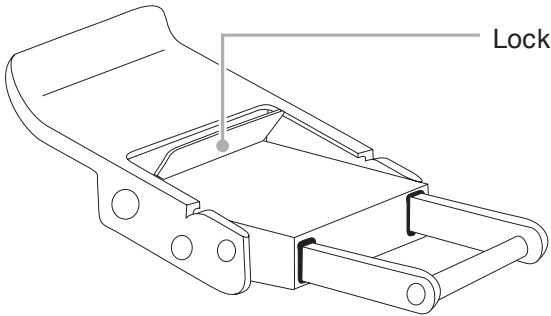
It is recommended to set the **Sleep Mode** and **Auto LVF/Monitor Off** settings to the shortest interval that makes sense for your shooting.

Instead of turning the camera off and onto conserve battery, the camera will automatically sleep after the pre-set interval. To wake the camera, simply perform an operation such as pressing the shutter button halfway down.

Setting Up Your Housing

Opening the Housing

1. Push the lid snap lock forward and lift the curved end away from the housing.

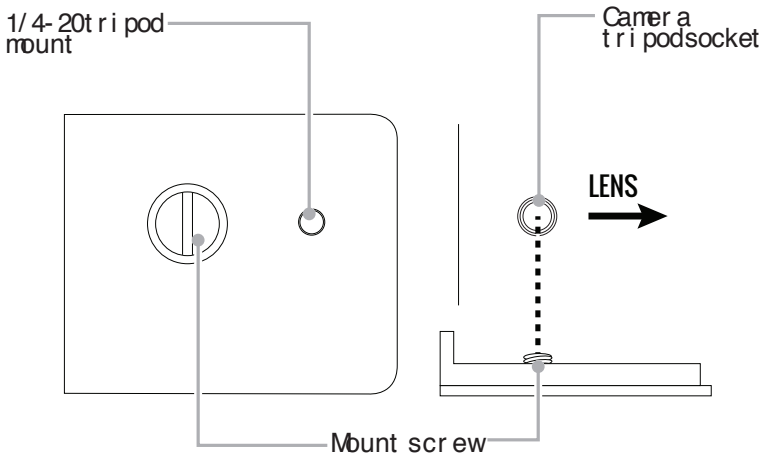


2. Lift the lid snap and press down on the lid enough to compress the O-ring or apron seal. Keep firm pressure against the lid snap while lifting it away.
3. Repeat with opposite lid snap.
4. Remove the housing back.

Installing the Camera

1. Remove any lanyard or neck strap which may be attached to the camera.

2. Loosen the mount screw with the camera's tripod socket. Use a flat screwdriver to tighten the mount plate to the camera.



3. Tilt the camera's LCD screen if desired.
 4. Pull out the housing control knob to move the control out of the way.
 5. Insert the mount plate into the slot on the inside bottom of the housing. Push the camera all the way forward until it stops.
 6. Push housing control knobs in and check orientation with the camera.
- » **The camera may be attached to a tripod using the 1/4-20 threaded mounting hole on the bottom of the mount plate.**

Closing the Housing

1. Make sure the original seal is in its proper location on the back of the housing. The rear housing ring does not require lubricant to make a seal.
2. Place the back onto the housing front.

3. Make sure you control the camera's zoom function with the zoom wheel on the back of the housing.
4. Place each lens cap in its designated location on the back of the housing.
5. Push the lens cap towards the housing until they are flat against the housing and the lock has engaged. Close both lens caps at the same time.
6. Check the weather seal. The weather seal should be clearly visible through the back of the housing.
7. Check control functions.

Attaching a Lens Port

Refer to the DLM Lens port chart to find compatible lens ports for a wide variety of popular wide angle, zoom and macro lenses.

Choose a dome port for wide angle and zoom lenses. Larger diameter domes are better for split shots (half-in, half-out of the water) and provide sharper images.

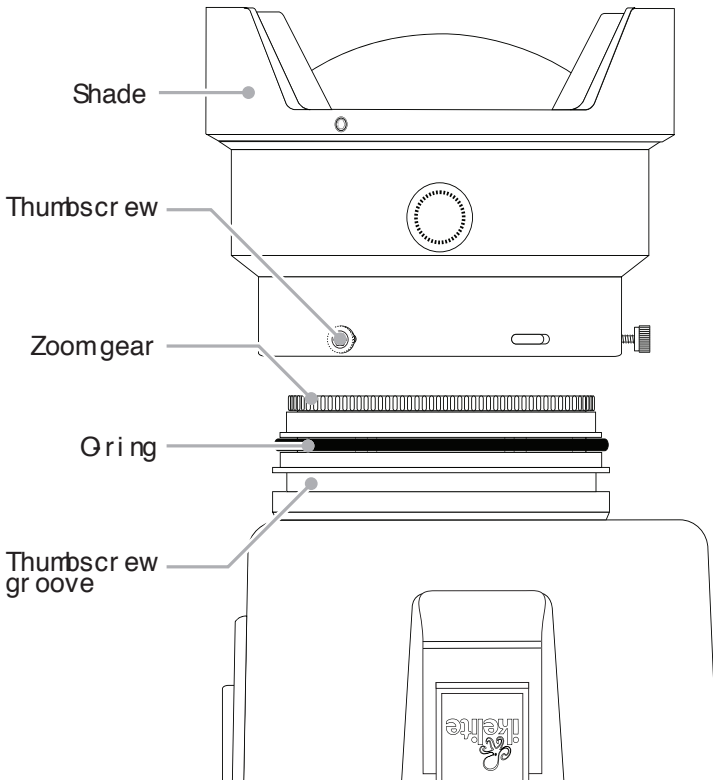
Choose a flat port for macro lenses. Flat ports magnify the subject under water. Flat ports are not recommended for wide angle or zoom lenses due to their limited field of view and risk of vignetting (dark shadows around the edges of the image).

» **This housing requires a compatible DLM lens port for waterproof operation. The housing is not waterproof without a DLM lens port attached.**

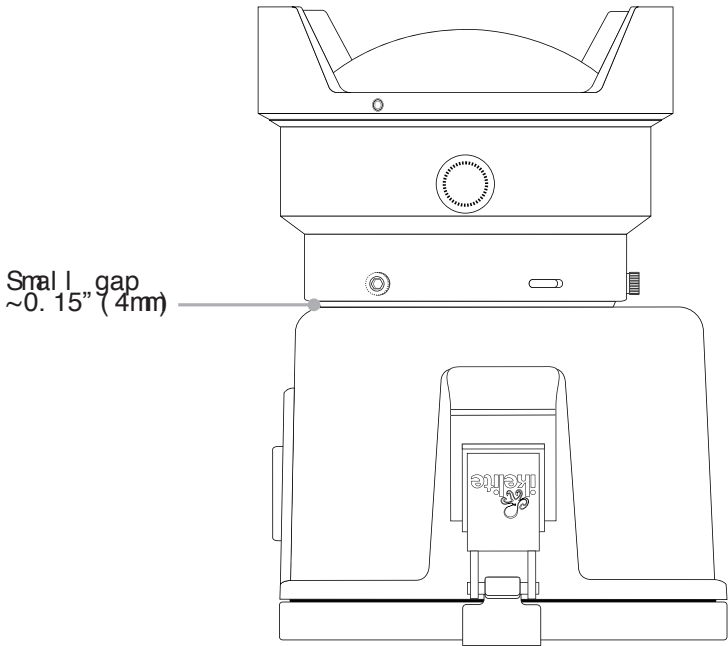
Installing the Lens and Port

1. If using a zoom lens, refer to the zoom lens instructions for proper assembly procedure. Attach the lens to the camera.
2. Check that the port seal is on the surface and oriented correctly and free of debris.

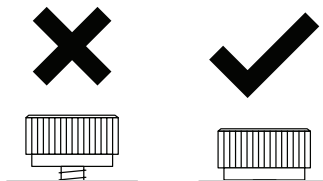
3. Apply a very thin, even layer of lubricant to the exposed portion of the front o-ring and to the lens port sealings surface. Avoid dry spots or uneven build-up of lubricant.
4. Loosen the thumb screws until they do not show on the inside of the lens port.
5. If using a port with a dome shade, align the port so that the all projections on the dome shade are in the 12 and 6 o'clock positions.



6. Press the port firmly onto the housing until the base of the port is almost flush with the housing front. If there is resistance, remove the port and check that the thumb screws are loosened and the O-ring is properly lubricated.



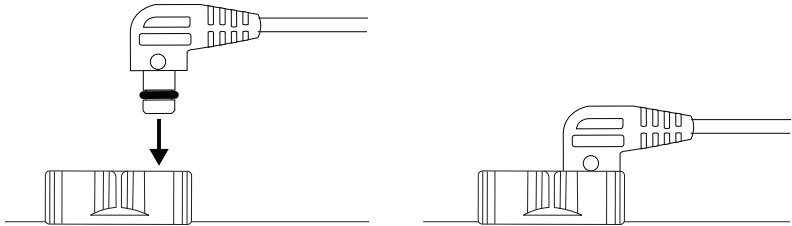
7. Tighten all the thumb screws while holding the port firmly onto the housing. The thumb screws should be evenly and completely tightened on the head of the port. If the screws are difficult to turn and/or they bottom out before the heads are flush, it is recommended that the port is not pushed far enough down on the housing.



- » **The port must be fully seated onto the housing for waterproof operation. There should only be a very thin, even gap of approximately 0.15” (4mm) between the bottom of the port and the front of the housing.**

Attaching a Fiber Optic Cord

1. Check the end of the fiber optic cord to ensure that it is clean and smooth.
2. Check that the fiber optic cord is properly inserted. This is not a waterproofing step, but it does keep the fiber optic cord in place.
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. The seal should form an even, solid line 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 storage space on your memory card.
5. Draw a vacuum on the housing to check for leaks using the optional vacuum kit, if using (sold separately).
6. Submerge the housing in a fresh water tank dedicated to underwater photography equipment. Visually confirm that the ear seals are watertight. Check for water intrusion. Signs of water intrusion include a steady stream of bubbles 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 to get a feel for using the camera in the housing.
2. We recommend entering the water without your housing to ensure you are comfortable and your life-saving equipment is working properly. Once you are stable, have someone pass your camera housing to you.
3. Submerge the housing at the surface of the water and visually confirm that the ear seals are watertight. Look for water droplets or fogging inside of the housing, or a steady 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 face of the lens port. Bubbles 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 subjects that are less than 6' (1.8m) away.
- **Be careful not to stir up sand or silt.**
- Photograph subjects straight on or at a slight upward angle.
- **If you err in exposure, it is better to have the image slightly underexposed rather than overexposed.** An overexposed image is missing color information which cannot be adjusted in a photo 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 ikeelite.com for a wide range of information on shooting underwater including:

- **Product Tutorials and Videos**
- **Cheat Sheets** with exposure settings recommendations for a wide variety of situations
- **Advanced Techniques** with in-depth hard to find 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. Rotate the housing controls and press each button several times while submerged in fresh water to flush out any salt or debris to ensure proper operation of the device.
2. NEVER leave your housing in fresh water rinsed tank, even if it is the only system in the tank. Collisions with another 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. Store the housing in a shaded place where it is protected from impact and overheat. If no shade is available, cover the housing with a light colored towel or cloth.
5. Check the memory card capacity and battery life of your camera and strobe(s). Recharge as necessary.
6. Always re-check the O-ring seal after opening the housing.
7. If using an electrical sync cord, detach the cord plug bulbhead cap and lubricate the threads, O-ring(s) and sealing surface(s) every 2-3 days during continuous use.

Lens Port

Treat the surface of the lens port like a camera lens. After use, rinse and gently dry the outside of the lens port to avoid water spotting. Use only a microfiber lens cleaning cloth to avoid scratches. To clean, use mild soap solution.

- » **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. Clean the housing and controls thoroughly prior to storage.
 2. Remove the ear o-ring. Place a small re-sealable plastic bag inside of the housing.
 3. Leave the lid snaps open to release pressure on the lid springs.
 4. Store the housing in a cool, dry place away from direct sunlight and chemicals.
 5. Before using the housing, check the tightness of the set screws in each control knob. Check each control and make sure they are snug. There is a slight chance that either could be at the loose during travel.
- » **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.**

Servicing Recommendations

It is recommended that the housing be sent to a dealer or authorized service center for annual fly or routine service and maintenance. Service may be required more or less frequently depending on care and use.

Lubricating Controls

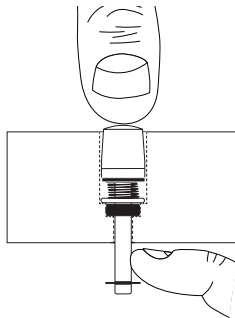
The housing's controls may need to be lubricated if they become particularly difficult to use or if the operator has tried out during periods of storage.

There will be some breaking force required to move the controls initially after the housing has been stored or long periods of time. Remove control surface lubrication only if they continue to stick after applying a small amount of lubricant to the exposed portion 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 shaft inside the housing.

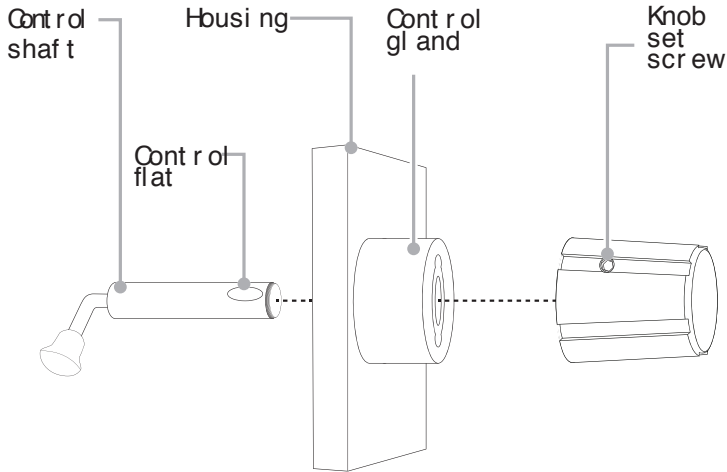


3. Press and release the push button several times to work the lubricant into the o-ring.
 4. If a push button control becomes difficult to push or if it sticks when depressed, soak the housing in warm soapy fresh water. After a few minutes, operate the push button. If this does not correct the problem return the housing to Kelite 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.**

Lubricating Control Shafts

1. Loosen the knob set screw using a hex key.
2. Remove the control shaft from the inside of the housing.
3. Clean and lightly lubricate the shaft, including the large gear end of the shaft.

- If there is a spring associated with the control, make sure it is in its proper position.



- Re-install the shaft from the inside of the housing. Put at the shaft gently or smooth it in at the end of the gland. Push the control shaft all the way through until it is flat against the inside of the housing.
 - Align the knob set screw with the control flat.
 - Tighten the set screw firmly against the flat of the control shaft using a hex key.
 - Check that the set screw is oriented properly by holding the control shaft in place on the inside of the housing while attempting to rotate the control knob outside of the housing. If there is rotation, loosen the set screw and realign with the control flat; retighten and recheck.
- » **We do not recommend removing the control gland from the housing.**
 - » **Always take the housing underwater to depth without a camera after removing and re-installing controls.**
 - » **Remove and re-install one control at a time.**

- » **DO NOT pull the shutter trigger without a camera installed. You may accidentally detach or damage the control spring.**

Troubleshooting

Water enters the housing

- Check and re install the rear o-ring.
- Replace the o-ring if there are any signs of cracks or tears.
- Take the housing under water to depth without a camera installed 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.

- Rest or set the camera at the factory default settings. There are some camera settings that 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 electrical sync cord is properly attached.
- If using, check that the hot shoe is pushed all of the way forward on the camera.

Button(s) are sticking

- Soak the housing in lukewarm fresh water. Depress each button several times while the housing is submerged. Rinse the housing with running fresh water.
- 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 of the way into the housing.
- Check that the camera mounting plate is pushed all of the way forward.

Camera is not functioning normally underwater

- Check each housing control while underwater to ensure that they are disengaged. An inadvertently engaged control may limit functioning of the camera.
- Check that no controls are being accidentally pressed.
- Check that the shutter is not half depressed. If the shutter spring has been damaged by activation without a camera attached, 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 in next to each other visibility conditions.

Spare Parts

Rear o-ring # 0110

Front o-ring # 0132.36

Trigger lever extension # 4077.95

Silicone lubricant # 5020

Push button o-ring kit # 6201.03

.050” hex key # 0945.11

Limited Warranty

This limited product warranty is given against any manufacturer's defect for a period of two (2) years from the date of purchase. Defective products should be returned to the place of purchase. In the event of a claim, at the sole discretion, repair or replacement products, and will return to customer post age paid. All other claims of any nature are not covered. Except as mentioned above, no other warranty expressed or implied applies to this limited product.

Service and Repairs

Limiting the responsibility of the manufacturer for any service or repair of the product is not intended.

No prior authorization is required. You may return directly to us or through your dealer. Please include a brief description of the problem, any relevant email correspondence, and/or description of these services requested. Always include name, shipping address, email address, and phone number inside of the package. Send postage paid to:

Ikelite Underwater Systems
Attention: Service Department
50 W33rd St
Indianapolis, IN 46208 USA
+1 (317) 923-4523
service@ikelite.com

For detailed instructions on returning your product for service including important information on international customers documentations, 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.

Ikelite Underwater Systems
50 W33rd St
Indianapolis, IN 46208 USA
+1 (317) 923-4523
ikelite@ikelite.com