

IKELITE VIDEO HOUSING

Molded Housing with Flat Optical Grade Lens General Instruction Manual



Thank you for purchasing an Ikelite video housing. Ikelite brings over 40 years of underwater photographic and lighting experience to the video market. These housings are designed and built in the USA by Ikelite to suit both the professional and amateur videographer.

The clear design of the Ikelite video housing permits instant visual inspection of the camcorder and all sealing surfaces and complete monitoring of all functions. All controls are easy to operate and are kept water tight with an Ikelite designed gland and quad-ring seal.

Ikelite video housings are slightly negatively buoyant in salt water for the sake of stability.

STARTING OUT

Before using the Ikelite video housing, please read both these general instructions and the owner's manual specific to your housing model. Retain both of these for future reference. Ikelite recommends that you become familiar with the features and functions of this Ikelite video housing before taking the housed camera in the water. If you have not yet done so, Ikelite suggests reading your camera owner's manual as well.

ABOVE WATER VISUAL INSPECTION

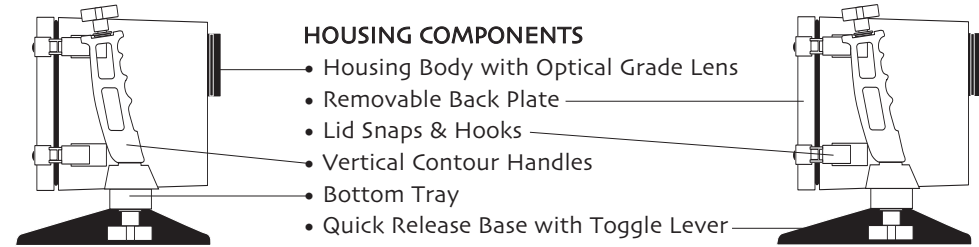
Regular visual inspections of your video housing are important. Take time to examine the o-ring seals and housing controls above water. Install the camera in the housing and operate each control to see how it works with the camera. Remove the camera afterwards.

UNDERWATER TEST RUN

Caution: Test your video housing without the camera installed the first time you take it underwater.

All video housings are water pressure tested at the factory. But as a precaution, Ikelite suggests sealing your housing and submerging it without the camera installed the first time you take it underwater. This test will assure you that the housing is watertight without risking damage to the camera.

HOUSING COMPONENTS



OPENING & CLOSING THE HOUSING

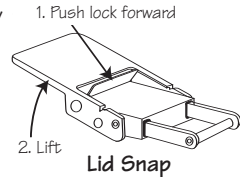
OPENING THE HOUSING

Caution: Do not allow lid snaps to open quickly. This could damage their locking mechanism.

Lid snaps fasten the back plate to the housing's clear, main body by locking.

To open the housing's lid snaps, first push a lock forward and then gently lift up on the lid snap as shown in the drawing. Lid snaps should be opened one at a time. Keep pressure on each lid snap so they do not open quickly.

Some lid snaps have a lot of spring tension once they pass their center point; therefore you should have a firm grasp on each lid snap as you release its lock. Afterwards unfasten the snaps from the hooks on the back plate and gently remove the back plate.



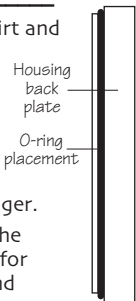
O-RING INSPECTION

Caution: Do not over-lubricate the back plate o-ring. Too much lubricant attracts dirt and debris that could disrupt the housing seal, possibly damaging your camera. Lubricant does not work as a sealant. Do not stretch the back plate o-ring during cleaning.

Note the positioning of the o-ring on the back plate before removing it. Should the o-ring stick to the housing when removing the plate or should it have particle buildup (grains of sand, dirt, etc.), run the o-ring under fresh water and then dry it. Dispense a very small amount of Ikelite lubricant onto your thumb and index finger. Take the back plate o-ring and run its entire length between your thumb and index finger.

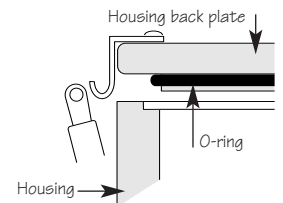
Your goal is to apply a very light layer of lube to the o-ring - just enough to make the o-ring shiny with no noticeable lumps or blobs of lube. Examine the o-ring once more for particle buildup and return it to the lip of the back plate. Keep the back plate o-ring and all sealing surfaces clean. See "Lubricant" on page 4 for more details.

Note: The back plate o-ring should be removed before storing the housing for prolonged periods. Apply a very light layer of lubricant and keep the o-ring in a clean plastic bag inside the housing. When you're ready to use the housing again, reexamine the o-ring upon removal from bag and prepare per the above instructions before reattaching it to the housing's back plate.



CLOSING THE HOUSING

1. Place the housing face down in your lap or on a flat surface.
2. Check the back plate to confirm that it has its o-ring and that it is clean and in its proper position.
3. Guide the back plate into the housing. The o-ring should touch the housing all the way around. There should be an even gap between the housing and the housing back plate the entire way around the housing.



OPENING & CLOSING THE HOUSING *cont.*

4. Lift the lid snaps so they extend and place the bars at the end of the lid snaps into the hooks of the back plate.

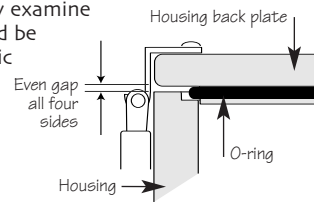
5. **Caution:** Lid snaps on opposite sides of the housing should be closed and locked at the same time to help maintain the o-ring seal.

To close the housing, push down on the lid snaps until they snap into place over the hooks. Be sure the snaps are down far enough to engage the locks.

CHECKING THE SEAL

Once the housing is closed, double check the o-ring seal. Closely examine the gap between the housing back and the housing; the gap should be even all the way around the housing. Look through the clear plastic back plate at the o-ring. You should see a darkened area where the o-ring is compressed against the housing back plate.

If you do not see an even black compression seal all the way around the back, open the lid snaps, reset the housing back plate and close the lid snaps. Visually check the seal again.



LENS PORT

Treat the housing lens port the same as a camera lens. The port sleeve helps protect the optical grade lens from scratches.

Caution: Do not remove the lens from the port assembly; the optical grade flat lens is factory sealed to the lens port. Doing this will damage your equipment.

SHOOTING UNDERWATER

Note: The Ikelite video housing is designed to use the camera's auto focus feature underwater.

Upon entering the water, gently wipe the front of the lens port with your fingers to remove any small air bubbles. For best results, shoot through as little water as possible; picture quality and color rendition improve dramatically the closer you get to your subject. The wide-angle setting of the zoom control has excellent depth of field and allows you to move in considerably. See "Focusing Underwater" on page 4 for more details.

CLEANING THE LENS

Caution: When cleaning, **do not** use alcohol or window cleaner on the lens port as either may cause cracking.

Immediately after use, rinse the lens port with fresh water and gently dry with a non-abrasive cloth to avoid water spotting. This should be done after every dive with the housing.

Before putting the housing away for long term storage, clean the lens port with a mild soap solution or lens cleaner and a very soft, non-abrasive cloth.

Note: Minor exterior scratches will usually fill with water and not affect the picture quality.

OPTIONAL LENS

Please refer to the supplemental instruction manual for possible availability of optional wide-angle lenses or dome lens ports compatible with your specific housing model.

FOCUSING UNDERWATER

Note: The camera's auto focus feature should be used when shooting with this video housing underwater.

AUTO FOCUS

Initially, set the zoom control to the wide-angle setting. The camera will automatically focus on the subject. The wide-angle setting is the preferred setting underwater because it provides excellent depth of field and allows you to move in closer to your subject.

For best results, move in on your subject to shoot through as little water as possible. Picture quality and color rendition improve dramatically as you move in closer to your subject.

If you change the focal length by adjusting the zoom control, the camera may need to automatically refocus. **Note: Do not** zoom from wide angle to telephoto in one motion; the camera will have difficulty refocusing.

You should zoom in stages; stop and allow the camera to auto focus before zooming in further. Ikelite recommends that you stop recording while adjusting the zoom.

It is easiest to let the camera auto focus near the telephoto range and then zoom back to wide angle. Once a subject is in focus, you can zoom in and out and the subject should remain in focus. The camera will need to refocus only if the subject's distance changes. Remember that the wide-angle setting has the best depth of field. The camera will even focus down to macro while in wide-angle.

If your housing model features a focus lock control, you can use the focus lock for special situations where you want to cancel the auto focus and lock the focus.

VIGNETTING

Due to the physical limitations of the housing, you may notice slight vignetting (corner shading) when shooting in full wide-angle. Therefore, the camera might record one or more corners of the lens port on the recorded image in full wide-angle. Slight vignetting would be noticed when viewing through the electronic viewfinder.

To eliminate vignetting, zoom out of full wide angle slightly. This reduces the overall coverage angle only a bit.

EXTERNAL COLOR FILTER

An external UR/Pro underwater color-correcting filter is included with the Ikelite housing. The primary purpose of the filter is to improve color rendition underwater. The external color filter secures to the outside of the port.

Use the patented color filter to enhance the warm reds and oranges that are easily diminished underwater. **Note:** The color filter is recommended only for sunlit situations underwater to a depth of 24m (80'). It can also be used with the optional Pro Video-Lite 3 for subjects beyond 1m (3') during the day. The filter should **not** be used above water or at night.

INSTALLATION

Note the two small rectangular openings in the rubber shroud. With these openings pointed towards the top and bottom of the housing, position the filter shroud over the port and press down to attach.

USAGE

You may find it best to enter the water with the filter secured to the port. However, once underwater you will need to remove the filter, wipe air bubbles from the port and filter, and then reinstall the filter over the port. It is extremely important that no air bubbles become trapped between the port and filter, as this will negatively affect your picture quality.

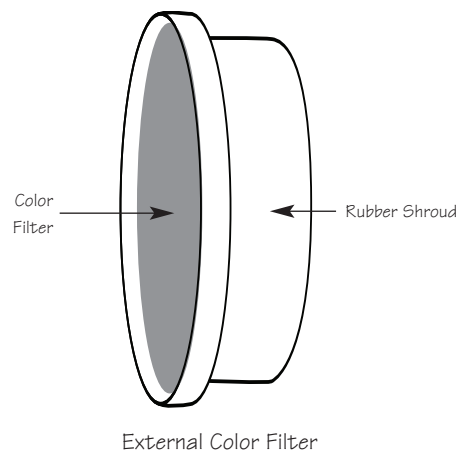
LIGHT REFRACTION

Do not shoot into the sun while using the external color filter because it will create a noticeable refraction effect.

CLEANING

The external filter is protected with a scratch resistant coating. However, special care should always be taken when handling. Immediately after use, rinse the filter with fresh water and gently dry it to avoid water spotting. Before putting the filter away for long term storage, use a mild soap solution or lens cleaner and a very soft, non-abrasive cloth to clean the filter.

Note: Minor scratches will usually fill with water and not affect picture quality.



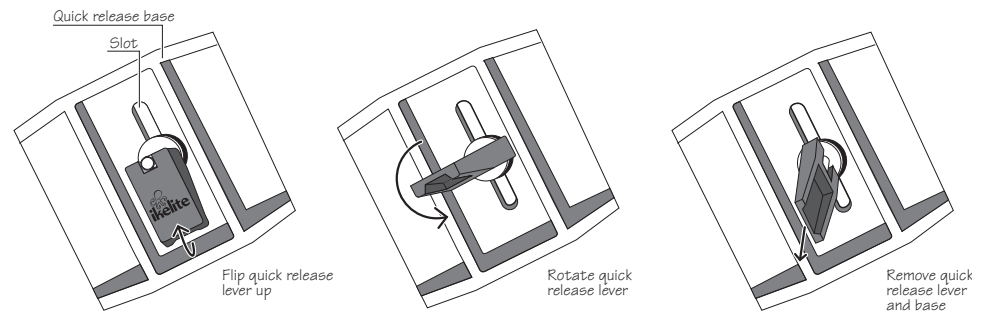
HANDLE TRAY & BASE

Note: The handle and tray components and housing base may be removed for travel.

QUICK RELEASE BASE

The quick release toggle lever located underneath the base allows the base to be easily removed from the housing's tray and handle assembly.

Firmly grasp the base with one hand and use your other hand to flip up the toggle lever. Then rotate the lever 90° to remove the base.



HOUSING TRAY

Caution: Do not remove the bolt assemblies protruding from the bottom of the housing.

The housing tray can be unbolted from the bottom of the housing for easier packaging and transportation.

RECOMMENDATIONS

Before diving, install the camera and seal the housing in a cool, dry, shaded environment (e.g., an air conditioned room) to avoid heating the inside of the housing and trapping moist air inside. Condensation or fogging can occur when warm, moist air inside the housing is rapidly cooled underwater.

Regular visual inspections are important to the maintenance of this system; a forgotten o-ring can cause a lot of damage, for example. Take the time to closely examine the o-ring seals and controls above water. Immediately upon entering the water, check the housing to assure that everything is sealed properly and that nothing is leaking.

MAINTENANCE

This Ikelite video housing should be given the same care and attention as your other photographic equipment. In addition to normal procedures, it is strongly recommended that this housing be returned to Ikelite periodically to be inspected and water pressure tested. This should be done approximately every 5 years or every 50 dives whichever comes first.

- **Do not** leave the camera and housing in direct sunlight. Too much heat can damage your camera.
- **Do not** travel with the camera inside the housing.
- After traveling, always check the tightness of the set screw in each control knob and every control gland penetrating the housing. There's a slight chance that either could vibrate loose during travel.

MAINTENANCE *cont.*

- Control shafts must be kept clean and lightly lubricated. See "Lubricant" below.
- Keep the back plate o-ring lightly lubricated and clean of debris. Keep the sealing surfaces clean. **Do not** stretch the back plate o-ring while cleaning. **Do not** over-lubricate the back plate o-ring. See "Lubricant" below.
- The back plate o-ring should be removed, cleaned, lightly lubricated, and kept in a plastic bag inside the housing during prolonged storage. Properly maintained o-rings last several years.
- Thoroughly rinse the video housing in fresh water after every dive to remove dirt, debris, and/or salt deposits. Clean the housing by sealing it and then soaking it in mildly warm, soapy water; use liquid soap. Wash, rinse, and dry the housing before storage.
- **Do not** use alcohol or window cleaner on the housing lens port as either may cause cracking. Use a mild soap solution or lens cleaner. The lens port is factory sealed to the housing body; **do not** remove.

LUBRICANT

Caution: Lubrication only reduces friction; it is not a sealant. Never use spray lubricant as it may crack the plastic. Use only Ikelite brand lubricant.

Silicone lubricant is provided. Use only enough lubricant to lightly cover the control shaft or o-ring; wipe off any excess with a clean cloth. A shiny film is desired, not blobs of lubricant. Packages of Ikelite lubricant (product #5020) are available for purchase, although one package should last a long time.

ACCESSORIES

O-RINGS

Note: O-rings last several years if properly maintained.

Control seal o-rings should not need to be replaced as long as the control shafts are kept clean and lightly lubricated.

Select the appropriate main o-ring by measuring the size of the removable clear back plate.

- O-ring #0109: Back plate measures approximately 12cm x 15cm (5" x 6")
- O-ring #0132.59: Back plate measures approximately 14cm x 17.5cm (6" x 7")

OPTIONAL PRO VIDEO-LITE 3

The Ikelite Pro Video-Lite 3 is an accessory light that offers great buoyancy control and weight distribution. The Pro Video-Lite 3 consists of a 13V 4.5 aH NiMH battery pack housed in a pouch that is attached underneath the video housing in place of the quick release base. The light head's arm and switch assembly mounts to the handle(s) of the housing. The Pro Video-Lite 3 features a compact light head that delivers 100° of coverage using either a 100W or a 50W bulb in its primary light (there's also a built-in 20W modeling light). Per charge, the primary light runs for 25 minutes with the 100W version and 55 minutes with the 50W version (both times are the tested average).

- #6341.05 Pro Video-Lite 3 (100W version)
- #6341.55 Pro Video-Lite 3 (50W version)

Additional battery packs are also available for purchase. These can be used as emergency backups or stacked to double a light's run time per charge.

- #1400.8 NiMH Battery Pack
- #1401.2 Double Battery Pack Pouch

SERVICE

IKELITE LIMITED WARRANTY

All Ikelite products are warranted against any manufacturing defects for a period of one year from the date of purchase. Defective products should be returned prepaid to Ikelite. Ikelite will, at its discretion, repair or replace such products, and will return to customer prepaid. All other claims, of any nature, including, but not limited to, bulb failure are not covered. Except as mentioned above, no other warranty, expressed or implied, applies to this Ikelite product.

Note: Ikelite recommends adding an **all risk floater** to your homeowner's or renter's insurance policy to cover your Ikelite equipment against loss, damage, or flooding. Ikelite's warranty does not cover customer neglect.

RETURNING PRODUCTS FOR SERVICE

Ikelite is most interested in performing any service to assure that all products perform as intended. For repair service, return the Ikelite product to the address below with your name, address, phone number, and a brief description of the problem. Evidence of purchase date must be provided to obtain warranty service. Thank you.

IKELITE UNDERWATER SYSTEMS

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