

BACKSCATTER

OCTO 3500 WIDE VIDEO

Instruction Manual

Watch our instructional video: www.backscatter.com/WVL-3500

THE ULTIMATE VIDEO LIGHT FOR WIDE ANGLE

Thank you for your purchase of the Backscatter 3500 Wide Video Light. Whether you are a seasoned underwater pro or a new shooter, we hope you enjoy your video light for years to come.

The Backscatter 3500 Wide Video Light was designed by underwater videographers with underwater videographers in mind. If at any time you have any questions about your new light, how to shoot it, or the best shooting techniques, don't hesitate to call or email us.

DON'T LIKE INSTRUCTIONS? WATCH OUR VIDEO!

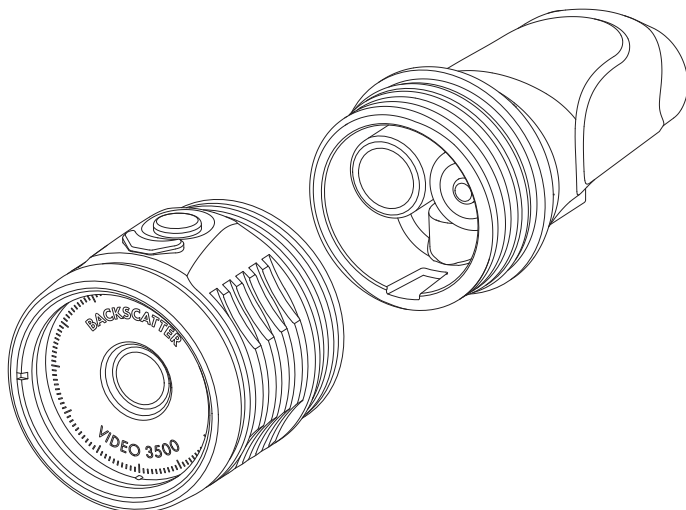
We understand that some people never read the instructions. However, it's critical that you fully understand the safety requirements for operating the Backscatter 3500 Wide Video Light. Go to backscatter.com/WVL-3500 and download our latest instructional and technique videos prior to use. But for now... **READ THESE INSTRUCTIONS!**

SAFETY, INSTALLATION, & MAINTENANCE

The Backscatter 3500 Wide Video Light is designed to use only high-quality lithium-ion 18650 batteries. NEVER USE AN UNAPPROVED 18650 BATTERY! See our Battery FAQ section for full details.

TO INSTALL A BATTERY:

- Unscrew the light head from the body, remove the double O-rings, and clean both the O-rings and the grooves on the battery compartment.
- Lightly grease the O-rings with the provided O-ring grease, then reinstall them.
- Insert the approved 18650 batteries with correct polarity as indicated in the battery compartment.
- Inspect and clean the light head O-ring sealing surface, then align the notches in the light head with the body, and twist into place.
- Verify you have fully twisted until it stops.



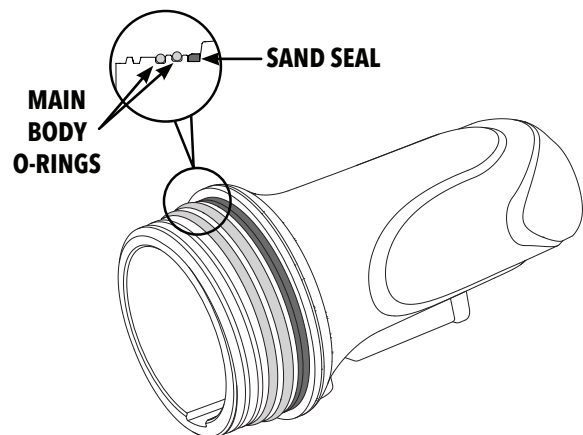
Note: Make sure the battery terminals on the battery are clean before installation. When changing or charging batteries, make sure you and anything around you are completely dry to prevent water from dripping on the batteries or charger. Remove any wet clothing or diving gear (such as a wetsuit) from the arms and wrists to prevent water droplets from damaging the batteries, charger, or the interior of the battery compartment. Excess moisture, especially with prolonged exposure in warm, humid, and salty air environments, can cause a coating to build up on the battery terminals over time, which can lead to enough electrical resistance to prevent the light from powering on. If this happens, use a pencil eraser or a fiberglass scratch brush to gently clean the terminals. **Never use a battery that has either been partially or fully submerged in water for any amount of time.**

3 Layers of protection for your safety and convenience

The Backscatter 3500 Wide Video Light has 3 layers of protection for the battery compartment seal: 2 main body O-rings and a sand seal gasket.

Main body O-rings: The 2 main body O-rings are identical, so there is no worry about mixing the O-rings up or installing them in the wrong order.

Sand Seal: The sand seal is a gasket that helps prevent sand and other ocean debris from reaching the O-rings. This helps keep the O-rings clean and reduces the amount of O-ring maintenance that needs to be done. The sand seal is not a water-tight seal, and is not designed to keep water out of the light. Never add any O-ring grease to the sand seal, as this will attract sand and debris to the sand seal. To clean, simply wipe it with your finger or a lint-free paper towel.



IF YOU SEE WATER INTRUSION OR CORROSION IN THE BATTERY COMPARTMENT OR THE LIGHT BODY, STOP USE IMMEDIATELY AND CONTACT BACKSCATTER OR YOUR LOCAL BACKSCATTER DEALER

NEVER TRAVEL WITH BATTERIES INSTALLED.

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O-RING MAINTENANCE

O-ring maintenance is the responsibility of the user. Carefully follow these instructions on how to perform proper O-ring maintenance.

To install a battery, twist off the battery cap and remove the grey double O-rings. Clean the O-rings, the O-ring grooves on the battery compartment, and the sealing surfaces of the battery compartment and battery cap with a lint free paper towel (like a shop towel) or cloth. Follow these important steps for proper O-ring maintenance.

- Make sure to inspect the O-rings every time the battery cap is removed to make sure it is free from any dirt, sand, hair, or any other foreign materials and to inspect the O-rings for any damage, like cuts, nicks, tears, indentations, or deformations.
- Replace any damaged O-rings immediately. A spare set is provided for your convenience.
- After cleaned and inspected, lightly grease the O-rings with the provided O-ring grease and re-install the O-rings on the battery compartment. The O-ring should have just enough grease to slide easily through your fingers and be evenly distributed without having globs of excess grease on the O-ring.

Note: Only use the provided grease for the O-rings. Using other types of grease could cause massive swelling, material deterioration and deformation, stress cracking and failure of the O-rings which can lead to battery compartment leakage and is not covered by the warranty.

NEVER USE PETROLEUM BASED LUBRICANTS (like WD-40) ON ANY UNDERWATER IMAGING EQUIPMENT!

Note: The O-ring needs to be lubricated so it can slide when the battery cap is being rotated into position. Without any grease or an inadequate amount of grease (commonly referred to as a "dry" O-ring) the O-ring will grip instead of slide, which will cause the O-ring to deform and extrude from its groove and cause water intrusion into the battery compartment.

Note: Make sure to inspect the battery compartment each time when changing batteries to ensure no water has entered the battery compartment. If any residual water is found in the battery compartment, immediately dry the compartment completely. If there is corrosion on the battery terminals or battery cap, contact Backscatter. It is the responsibility of the user to maintain the user serviceable battery cap O-rings and prevent water intrusion into the battery compartment as water intrusion into the battery compartment is not covered under the warranty.

Pro Tip: Make sure to dry the light before opening the battery compartment. When opening the battery compartment, open it with the battery cap facing downward. This minimizes any residual water that can drip into the battery compartment and cause damage to the light that would not be covered under warranty.

If you have any questions about how to perform the required user maintenance for the O-rings or are unsure of these instructions, contact Backscatter or your authorized dealer for assistance.

OTHER CARE AND MAINTENANCE

- Rinse the light in fresh water after each dive.
- Press the button during rinsing to flush out any trapped salt water.
- Dry before storage.
- Never store or travel with batteries in the light.
- Do not look directly into the beam.
- Do not operate the light out of water for extended periods – overheating may result.

POWER/MODE BUTTON

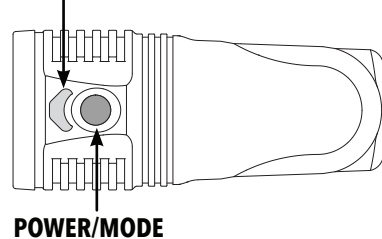
To power on the Backscatter 3500 Wide Video Light, quickly press the POWER/MODE button 5 times within 3 seconds.

Once powered on, short-press the POWER/MODE button to cycle through:

High → Medium → Low → Standby → High

To shut down the light completely, press and hold the POWER/MODE button for 2 seconds, then release after the light is powered off.

BATTERY STATUS LIGHT



To enter emergency beacon mode when the light is powered on, press and hold for 5 seconds, after the light has turned off, to activate beacon mode. The light will blink once every 2 seconds. To turn off, press and hold the POWER/MODE button for 2 seconds, then release after the light is powered off.

BATTERY STATUS LED

- Green: ~100–50%
- Yellow: ~50–10%
- Red: ~10–1%
- Auto shutoff below ~1%

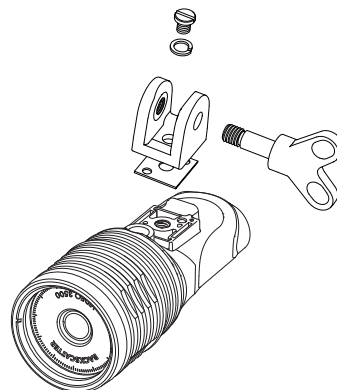
The Backscatter 3500 Wide Video Light has a run time on high of approximately 70 minutes, including a 20 minute lower power mode. As with any light being used for underwater imaging, always carry a separate dive light when diving at night.

IN THE BOX

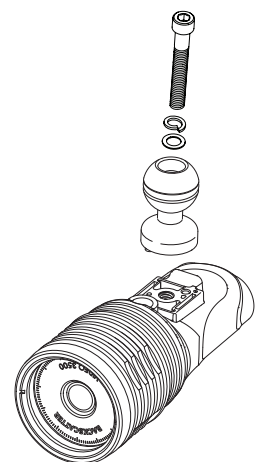
- Backscatter 3500 Wide Video Light
- YS-style Arm Mount
- Standard Ball Mount
- 2 × 18650 Li-Ion Batteries
- 18650 Battery Storage Box
- Battery Charger
- 2 × Main Seal O-rings
- 3/16 in Allen Key
- Silicone O-ring Grease

OPTIONAL ACCESSORIES

- Color Filter System
- Fluoro Filter
- Diffusers



YS MOUNT INSTALLATION



BALL MOUNT INSTALLATION

OCTO 3500 WIDE VIDEO LIGHT BATTERY FAQ

A catastrophic battery accident can result in fire, explosion, injury, and death, even when all precautions have been taken. Please read the following FAQ about battery usage and safety precautions to minimize that risk.

WHAT BATTERY SHOULD I USE FOR THE BACKSCATTER 3500 WIDE VIDEO LIGHT?

These are the current approved batteries for the 3500 Wide Video Light.

- Xtar 18650 10A 4000mAh
- Xtar 18650 10A 3500mAh
- Nitecore NL1836HP 8A 3600mAh
- Nitecore NL1835HP 8A 3500mAh

All specifications are tested with the Xtar 18650 10A 4000mAh battery, which are the included batteries.

WHERE CAN I PURCHASE AN APPROVED LI-ION BATTERY?

Since it is a standard battery type, these above listed batteries are available at Backscatter, Backscatter Authorized Dealers, and many other retailers worldwide. As time goes on some batteries may become discontinued. Contact Backscatter or your local Backscatter dealer for the latest approved battery recommendations.

I SEE OTHER 18650 BATTERIES ALL OVER THE INTERNET SELLING FOR SUPER CHEAP THAT ARE LIKE \$5, WHY CAN'T I USE THOSE? ARE YOU GUYS TRYING TO RIP ME OFF?

Those cheap batteries are unprotected and not designed for end use by consumers and do not have important safety protections built in. They can sometimes be identified by having no branding on the label, or by a plain single-color battery jacket with dot matrix printing. Some will even say they are only for use in battery packs or are for prototyping purposes only. Unprotected batteries made without safety protections are much cheaper to produce than batteries with protection circuitry.

WHAT IS THE DIFFERENCE BETWEEN A "PROTECTED" BATTERY AND AN "UNPROTECTED" BATTERY, AND WHY SHOULD I ALWAYS USE A PROTECTED BATTERY?

Protected Lithium-Ion batteries have an electronic circuit built into the battery cell packaging. This circuit protects the battery against overcharge, over-discharge, short circuit, over-current, and extreme temperature fluctuations. Protected batteries are safer to use than unprotected batteries that do not have these safety features built in. Unprotected batteries have no built-in safety protections which can result in fire, explosion, injury, or death in the case of failure due to overcharge, over-discharge, short circuit, over-current, or temperature, even when every precaution has been taken. Unprotected 18650 batteries are not designed for consumer use, so do not use it. Only use protected batteries designed for consumer use.

WHY ARE UNPROTECTED BATTERIES SOLD IF THERE ARE GREATER SAFETY RISKS VERSUS A PROTECTED BATTERY?

18650 batteries are a very common and popular Li-Ion battery not only made for end-use consumers but also used by manufacturers to combine multiple units into a larger battery pack for anything from flashlights to electric cars. Did you know Tesla electric cars are running on battery packs made up of thousands of 18650 batteries? It is up to those manufacturers to build in their own safety precautions for their custom-designed battery packs.

WHY SHOULD I ALWAYS CHARGE THE BATTERY IN A COMMON AREA WHEN PEOPLE ARE AROUND?

Although battery failures are rare, it can be catastrophic. The charging process is a critical operation. Most Li-Ion battery failures that occur happen during charging. Never charge in sleeping quarters, below boat decks, or in other unmonitored or unoccupied areas. In case of emergency, you want someone around to be able to take action. While it is rare for a battery to fail when all proper safety precautions have been taken, the consequences are too great to ignore.

HOW DO I STORE BATTERIES WHEN NOT IN USE?

Batteries should be stored in a battery storage box designed specifically for 18650 batteries. A proper box will provide impact protection and keep batteries isolated so the battery contacts cannot be bridged and cause a short.

WHAT DO I DO IF THE BATTERY HAS PHYSICAL DAMAGE OR WATER DAMAGE?

Immediately stop using the battery, as it is now a safety hazard. Immediate action needs to be taken to safely dispose of the battery. If at home, take it immediately to an authorized battery recycling center or hazardous materials disposal site. If at a resort or a live aboard boat, notify resort management or boat captain immediately so that they may safely dispose of the battery. If on land and unable to take it to an authorized battery recycling center, place it in a fireproof box and store it outside in an open area away from any sources of fuel or ignition until a time when the damaged battery can be taken to an authorized battery recycling center. Never dispose of batteries in the garbage or trash.

I SUSPECT WATER HAS INTRUDED THE BATTERY COMPARTMENT AND/OR STROBE. WHAT SHOULD I DO?

Immediately discontinue use of the Backscatter 3500 Wide Video Light and remove the battery as soon as practically possible. Even though the 3500 Wide Video Light has an over-pressure relief valve in case of overpressure, take extra precaution when opening the battery compartment, as it may be over-pressurized. Use a damp towel to cover the 3500 Wide Video Light before opening to protect yourself and others.

IF I HAVE WATER INTRUSION INTO THE BATTERY COMPARTMENT, CAN I DRY IT OUT AND USE A NEW BATTERY?

Maybe. The battery compartment is sealed from the rest of the flash for safety. After water intrusion, rinse the battery cap and battery compartment of the Backscatter 3500 Wide Video Light with fresh water. When the battery cap and contacts are completely dried and cleaned free of corrosion then a new battery may be installed and the 3500 Wide Video Light tested for operation. However, if there is any unusual operation of the 3500 Wide Video Light with the new battery, immediately discontinue use, remove the battery, and contact the Backscatter service department or your local Backscatter dealer.

CAN I LEAVE THE BATTERY INSTALLED IN THE BACKSCATTER 3500 WIDE VIDEO LIGHT FOR TRAVEL?

NEVER travel with the battery installed in the Backscatter 3500 Wide Video Light.

CAN I TRAVEL WITH THE BATTERIES IN MY CHECKED LUGGAGE?

Absolutely not. It is illegal to travel with Li-Ion batteries in the cargo hold on passenger aircraft. All Li-Ion batteries must be carried on aircraft in cabin luggage in an appropriate battery box that does not allow the battery contacts to be bridged.

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NEVER FLY WITH DAMAGED BATTERIES.

Damaged batteries are banned from ALL aircraft by law for good reason. **Do not take chances. Your life and the lives of others are not worth a cheap battery!! Dispose of damaged batteries immediately!!**

ALL THIS BATTERY SAFETY TALK HAS ME CONCERNED.

You should be. Following these procedures and precautions can help minimize risk greatly, but there is no way to completely eliminate it. While battery failures that cause catastrophic damage, injury, and death are very rare, it is your responsibility to use the best care possible to minimize that risk to yourself and others.

SAFETY PRECAUTIONS NEED TO BE TAKEN WITH LI-ION BATTERIES.

NEVER DO THE FOLLOWING:

- Never charge batteries in unattended areas.
- Never charge while sleeping.
- Never charge below decks of a boat.
- Never store batteries below decks of a boat.
- Never store batteries in the video light below decks of a boat.
- Never use batteries without protection circuitry.
- Never dispose of batteries in the garbage or trash.
- Never put batteries in checked baggage when traveling.
- Never walk around with bare batteries in your pocket, especially with other metal objects that can easily bridge battery contacts.

ALWAYS DO THE FOLLOWING:

- Only charge batteries in common areas where and when others are around.
- Always remove the battery from the Backscatter 3500 Wide Video Light when not in use.
- Only use batteries designed for end use by consumers with safety protection circuitry.
- Only store batteries in a battery box designed for 18650 batteries.
- Always travel with batteries in cabin baggage.

ALWAYS OBEY ALL INSTRUCTIONS FROM THE BATTERY MANUFACTURER

WARRANTY

Backscatter warrants this product to be free from defects in materials and workmanship under normal use for a period of one (1) year from the original date of retail purchase. During the warranty period, Backscatter will, at its sole discretion, repair or replace any defective unit without charge for parts or labor. The determination of whether a product is defective shall be made solely by Backscatter.

WARRANTY COVERAGE

This warranty covers:

- Manufacturing defects in materials or assembly.
- Electrical or mechanical failures that occur under normal, recommended operating conditions.

WARRANTY EXCLUSIONS

This warranty does not cover:

- Damage caused by improper use, accident, misuse, abuse, or neglect.
- Damage caused by improper maintenance, service, or modifications not authorized by Backscatter.
- Water damage resulting from the users failure to properly seal or maintain user serviceable O-rings.
- Water damage from any water entry into the battery cap or battery compartment that is not a direct result of a manufacturing defect.
- Normal wear and tear, including but not limited to scratches, cosmetic blemishes, and consumables (e.g., O-rings, batteries).
- Damage due to use with non-recommended accessories or attachments.

WARRANTY SERVICE

To obtain warranty service:

- Retain your original proof of purchase.
- Contact Backscatter or your authorized dealer for instructions.

LIMITATIONS

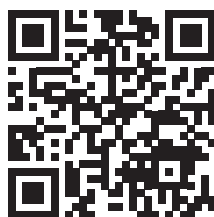
- This warranty is valid only for the original purchaser and is non-transferable.
- The liability of Backscatter is limited solely to the repair or replacement of the defective product.
- Backscatter is not responsible for incidental or consequential damages of any kind, including loss of data, images, or other equipment, except where such limitation is prohibited by law.
- Some jurisdictions do not allow limitations on implied warranties, or the exclusion or limitation of incidental or consequential damages. In such cases, these limitations may not apply.

YOUR LEGAL RIGHTS

This warranty gives you specific legal rights. You may also have other rights which vary by state, province, or country.

For customers in the European Union, United Kingdom, Australia, and other regions with statutory consumer protection laws: this warranty is provided in addition to, and does not affect, your statutory rights under applicable national laws relating to the sale of consumer goods.

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