

As an underwater photographer with over a decade of experience diving with everything from small day boats to extended liveaboard trips, I've learned firsthand just how critical every piece of equipment is—especially the humble sync cable connecting your strobes to your underwater camera housing. One flooded housing from a failed connector years ago taught me the hard way to never leave things to chance underwater.

In this deep dive, we'll cover how you can **test before morning**, identify signs of an **inconsistent strobe firing**, and effectively **check connectors** to avoid a catastrophic failure on your dive trip. We'll also tackle the proper handling of housings, buttons, dials, and hinges during saltwater removal and discuss dry workspace habits that help keep corrosion at bay. Finally, we'll highlight the importance of having two-device backups with verification to double your safety net.



Understanding Your Sync Cable and its Environment

The sync cable is an often overlooked but vital link in your underwater photo setup. Usually running from the underwater camera housing to your strobes, it transmits the electrical pulse needed for perfect lighting synchronization. Given the harsh saltwater environment and repetitive mechanical stress during dives, a cable's electrical connections can degrade over time. This leads to intermittent failures that can ruin a shot or worse, pose a risk to your gear integrity.



Key Components to Monitor

- **Underwater camera housing:** The primary sealed environment protecting your camera and electronic controls.
- **Buttons and dials:** These mechanical controls interface with the camera and cables, often transmitting pressure and saltwater exposure.
- **Hinges and seals:** Critical for excluding water but vulnerable to salt residues that can conduct electricity.
- **Electrical connections:** The sync cable plugs and contacts, most susceptible to corrosion and wear.

Step 1: Saltwater Removal Before Opening Housings

One of the golden rules I follow like clockwork is never to open a housing without thoroughly rinsing and removing saltwater. Salt crystals and corrosion agents lurking on cable connectors and housing contacts can cause premature failure.

- **Immerse in fresh water:** Do this immediately after surfacing, using a shared rinse tank if you're on a boat.
- **Careful handling:** Avoid letting housings bang together—a quick tip: always position them separately or in padded compartments.
- **Wipe dry the cable ends:** Before opening the housing or plugging/unplugging the sync cable, wipe the connectors thoroughly with a lint-free dry cloth.

Prematurely opening a housing in a salty or wet environment dramatically increases the risk of corrosion in electrical connections or dust/dirt infiltration, which can lead to cable failure.

Step 2: Using a Dry Workspace for Inspection and Maintenance

Even a tiny amount of moisture on your connectors invites corrosion. For this reason, I keep a dedicated dry workspace with these habits:

1. **Use microfiber towels and clean surfaces:** Avoid any clutter or dampness.

2. **Label chargers and cables:** As quirky as it may sound, labeling cables with masking tape helps prevent accidental interchange and confusion.
3. **Use a tiny flashlight for O-ring and connector inspections:** This helps spot salt crystals or corrosion not visible to the naked eye.
4. **Keep your hands clean and dry:** Avoid touches that transfer oils or moisture.

Spending even five minutes with a tiny flashlight inspecting the sync cable connectors and housing contacts can catch early corrosion spots that lead to electronic failures.

Step 3: Identifying Inconsistent Strobe Firing and Sync Issues

The first real clue your sync cable might be failing is inconsistent strobe firing during your dives. Symptoms to watch for include:

- Strobes triggering only intermittently.
- Delays in strobe firing or multiple flashes on a single trigger.
- Complete failure to fire while the rest of the camera functions as expected.

If you observe any of these, it's time to perform a thorough check immediately—don't wait until the next dive day or worse, mid-dive. Consistent testing **before morning** on dive days is a best practice I swear by—it saves hours of frustration underwater.

Testing Sync Cables Before Morning

Equipment failures have a way of appearing just when you least expect them. Make it a ritual to check sync cables [divephotoguide](#) as part of your dive prep. Here's how:

1. Connect your sync cable to both the housing and strobes on dry land.
2. Perform multiple test shots in succession—preferably at least 10 triggers.
3. Note any missed, delayed, or aberrant strobe flashes.
4. Inspect connectors for salt residue or any physical damage.

Documenting your tests helps create a baseline to know when cables start showing signs of wear or instability.

Step 4: Checking Connectors for Wear and Corrosion

Cable connectors often bear the brunt of wear and tear due to mechanical stress and saltwater exposure. Here's your checklist for thorough inspection:

Inspection Area	What to Look For	Action if Found
Connector Pins and Contacts	Green or white corrosion deposits; bent or broken pins	Clean gently with isopropyl alcohol, replace cable if damage persists
Connector Housing	Cracks, discoloration, or loose fit	Tighten or replace; avoid forcing connectors
Cable Sheathing	Fraying, cracks, stiffness	Replace cable to avoid breakage underwater

Remember, never call the grease or lubricant the thing that "makes the seal." The seal's integrity depends on dry, undamaged O-rings and proper placement, not on messy grease application. Misunderstanding this leads to needless floods.

Step 5: The Importance of Two-Device Backups and Verification

Never rely on a single cable or a single strobe configuration. In my years of diving, I always travel with two sync cables and verify both well before each trip:

- Test both cables independently with your housing and strobes.
- Rotate their use between dives—don't let one cable sit unused for days.
- Keep a backup strobe or flash device ready in case one fails.
- Make physical backups of important data before reformatting any memory card or backup device; don't rush formatting on day one without verification.

By employing this double-check system, you significantly reduce the risk of losing critical shots or, heaven forbid, flooding your housing due to electrical shorts.

Bonus Tips: Avoid These Common Pitfalls

- Do not leave sync cables or housings banging together in shared rinse tanks. The incidental impacts can bend pins or crack housings.
- Avoid editing photos for hours before making your second backup. Instead, prioritize backing up your work over immediate post-dive editing to safeguard against data loss.

Summary

Maintaining and verifying your sync cable health is a vital aspect of reliable underwater photography. Here are the core takeaways:

- **Test before morning:** Make testing an early-day ritual to catch sloppy cable behavior before the dive.
- **Inspect connectors:** Use a dry workspace and small flashlight to spot corrosion and wear early.
- **Handle housings carefully:** Rinse properly and avoid impact stresses in shared rinse tanks.
- **Use backups and verify:** Always have two cables, test them, and back up your work before any formatting step.

Follow these steps, and your sync cable will be your trusty companion rather than a source of lost opportunities or expensive disasters. Happy diving and shooting!