

As an underwater photographer with over a decade of experience on everything from tiny day boats to extended liveaboard expeditions, I've learned that the moment you think you can rely solely on your camera screen to check gear performance underwater, you're setting yourself up to miss critical issues. After one flooding incident early in my career, I never forgot the importance of detailed gear checks and smart handling habits.

In this post, I'll walk you through how to perform a rapid yet thorough gear check using your photos — not the limited and often misleading camera LCD screen. These tips cover key areas such as **spot checking image sharpness**, **reviewing images at full resolution**, and assessing **lighting consistency**. Along the way, I'll share pro advice on maintaining your *underwater camera housing*, properly inspecting *buttons*, *dials*, *hinges*, and *electrical connections*, plus best practices for saltwater removal and safe rinse tank habits.

Why Relying on the Camera Screen Alone Isn't Enough

Camera screens, especially on compact underwater setups, are great for quick framing but are notoriously unreliable for judging critical aspects like [rinse protocol for camera housing](#) focus, exposure detail, or lighting consistency. Factors such as screen brightness, reflection, contrast in ambient light, and water droplets can easily fool you into thinking a shot is perfect when it's not.

Instead, your photos themselves are the best diagnostic tool — but only if you use them correctly. This means downloading images for proper inspection rather than making assumptions on the boat or dive platform based on the tiny LCD preview.

Step 1: Removing Saltwater Before Opening Your Housing

Saltwater residue is a corrosive enemy of underwater photo gear. Before you open your housing housing after a dive, wiping away saltwater is a must.

- **Rinse your housing thoroughly in fresh water** — but don't open it near or inside the rinse tank.
- **Use a fresh microfiber cloth to wipe the entire housing exterior**, paying special attention to buttons, dials, and hinges to remove salt deposits.
- **Keep a tiny flashlight dedicated to checking O-rings and mechanical parts** for trapped grit or salt crystals that can compromise the seal.

Never open your housing while saltwater or splashes remain on its exterior, as this can cause salt to enter the interior or corrode your gear over time.

Step 2: Safe Handling in Shared Rinse Tanks

Shared rinse tanks on boats or liveaboards can be a sink or swim situation for housings. Here's what I do to avoid gear damage and cross-contamination:

- **Never allow housings to bang against each other.** Use individual slots, foam separators, or protective sleeves to keep them apart.
- **Label chargers and cables with masking tape** to avoid confusion and tangling during rinse and charging cycles.
- **Rinse tanks should be changed or refreshed regularly** to prevent buildup of salt and grime that accelerate corrosion.

Keeping your workspace dry and organized immediately after rinsing also prevents corrosion of delicate electrical connections and moving parts like hinges.

Step 3: Conducting the Photo-Based Gear Check

1. Spot Check Sharpness

Once you've downloaded your photos to a computer or tablet, the first thing to do is **spot check sharpness**. Zoom in on key images at 100% or greater magnification to verify details like coral edges, fish scales, and bubbles. This step quickly reveals focus errors that are impossible to detect on your camera screen.

2. Review Images at Full Size

Previewing images at full size instead of thumbnails or reduced resolution previews enables you to detect subtle exposure problems or motion blur. Use reliable photo software that preserves image fidelity and doesn't compress your images during viewing.



3. Assess Lighting Consistency

Check that lighting looks even and natural across your shot series. Inconsistent lighting could indicate strobe misfires, partially obscured strobes, or lens fogging. Look for color shifts, uneven shadows, or hot spots that distract from image quality.

4. Confirm All Housing Controls Work Smoothly

While inspecting photos, also confirm that the camera settings used align with your inputs — aperture, shutter speed, ISO, and white balance — which indirectly confirms button and dial function. If exposure values are erratic or unexpected, test those controls manually on the housing to find any mechanical issues.

Step 4: Maintaining Electrical Connections and Seals

Electrical failure underwater can be disastrous. To avoid it:

- Regularly inspect all **electrical bulkhead connectors** for salt or corrosion.
- Use your flashlight to examine **housing hinges** and buttons for signs of wear or grit that hinder seal integrity.

- Apply grease only where specified — **remember, the grease preserves the O-ring seal; it's not the actual seal itself.**

Step 5: Two-Device Backups and Verification

Nothing replaces redundancy in underwater photography. Here's my approach:



1. **Always shoot in RAW + JPEG when possible**, so you get a backup format.
2. **Use two memory cards per dive**; periodically interchange and back up after each session.
3. **Never format cards on day one before verifying backups on a second device.** I get really annoyed when divers format cards prematurely — it's an avoidable risk!
4. **Upload and verify all images on at least two independent devices (laptop, tablet) quickly post-dive.**

This method ensures your images don't live at risk of accidental deletion or corruption and that you spot any gear problems early.

Bonus Dry Workspace Habit: Keep Your Setup Corrosion-Free

A minor quirk of mine is obsessively labeling every charger and cable with masking tape. This may seem excessive, but it keeps everything tidy and prevents me from mixing incompatible power supplies that can lead to gear damage.

Also, maintaining a **dedicated dry workspace away from rinse tanks** means you can safely open housings without salt mist settling on electronics. I keep a bench towel close by for immediate drying of lenses or gear parts before packing.

Summary Table: Quick Reference for Photo-Based Gear Check

Step	Action	Why It Matters	Tools/Notes
1	Wipe saltwater off housing before opening	Prevents corrosion & salt inside gear	Microfiber cloth, tiny flashlight for O-rings
2	Use safe rinse tank management	Avoid hardware damage & salt buildup	Foam separators, marked cables, regular tank changes
3	Review photos at full size & zoom for sharpness	Detect focus, exposure, and lighting issues	Photo software (RAW viewers)
4	Check housing buttons,		

dials & electricals Confirm all controls operational & maintain seals Flashlight, grease (correctly applied) 5 Backup images on two devices; verify before formatting cards Protection from data loss Memory cards, laptop, tablet

Final Thoughts

Having spent countless trips underwater with a variety of camera housings — and flooded exactly one housing thanks to a missed small detail early on — I can't stress enough the importance of a disciplined approach to gear checks. Relying on small LCD previews is like navigating by dim candlelight when you have a spotlight available in your photos.

By developing good habits around saltwater removal, rinse tank organization, photo-based image assessment, and backed-up digital workflow, you will save yourself heartache, lost images, and expensive repairs. And remember, small details like labeling cables and carrying a small flashlight for O-ring inspections pay dividends long-term.

Happy diving, and may your shots always be sharp and your gear flood-free!