

DC500 Tips and technical updates

Revised on August 18, 2006

If the SeaLife Flash accessory fires sometimes, but frequently misfires, do this:

SeaLife has made some important updates and product improvements to ensure the external flash accessory (item # SL960 or SL960D) fires all the time.

The SeaLife Service center provides a free warranty upgrade service to update the following:

- 1) Install new Sensor locator device underneath the rubber sleeve of the flash head. This thin plastic locator device locks into the groove under the rubber armor and perfectly aligns the Flash Link Optical Cable accessory to the flash head sensor.
- 2) Reattach Flash Link Optical cable to DC500 camera adapter so the optical cable is pointing directly at the inner camera's flash. This new method of connecting the cable to the camera adapter ensures the maximum amount of light is delivered to the flash head light sensor.
- 3) Inspect and adjust flash head electronic module to ensure light sensors are calibrated and functioning correctly.
- 4) Comprehensive inspection of DC500 inner camera, underwater housing, and all accessories to ensure peak performance and operation.

If you experience a camera lock-up, do this:

If your camera locks-up, and the only way to turn off the camera is by removing the battery, do the following:

- 1) The most common cause of a lock-up is by not completely pushing the SD card all the way into the camera's memory card slot. Make sure memory card is completely seated and "clicks" into position when inserted into camera. The camera will lock up if the card is not fully seated into position. You may also see a "CARD ERROR" warning appear on the LCD monitor.
- 2) Make sure the "Lock" switch on the side of the card is in the unlocked position. If the "lock" switch is loose (i.e. can be moved into the lock position by bumping the camera), the card must be replaced.
- 3) Inspect and clean the contacts on the memory card with a soft bristle brush (like a toothbrush).
- 4) Do not allow the camera to overheat. Avoid letting the camera sit in direct sunlight for prolonged periods of time, or continuous picture taking without any periods of rest. Excessive heat can cause performance problems with the lithium battery, memory card and internal camera components.
- 5) Check that the camera is using the latest firmware available for free download on the SeaLife website – www.sealife-cameras.com.
- 6) Format the internal memory and memory card every time the card has been used in another electronic device. Careful – this will delete all images in memory. You will find the format function in the set-up menu.
- 7) Locks-ups could be related to a problem with the SD Card. We highly recommend using the following brand of SD memory card – Sandisk, Panasonic or Toshiba with memory size not exceeding 512mb. We have performed a lot of research and testing with these cards and found them to be the most reliable. Larger memory size and other brands may work fine, but we can not guarantee their compatibility with the DC500 camera.
- 8) Report the camera lock-up issue to the SeaLife Service center. Email: service@sealife-cameras.com.

Battery performance upgraded and tips to maximize battery life:

SeaLife has recently upgraded the performance of the DC500 lithium rechargeable battery from 650 mAh to 750mAh. A freshly charged battery should yield about 1 hour of use or approximately 100 pictures depending on how you use the camera and conserve battery power. It is helpful to have a spare battery as back-up. A DC500 Spare Battery (item # SL1514) is available at your local SeaLife Dealer. Here are some tips to maximize battery life:

1. Make sure the battery initially charges overnight (minimum 8 hours). Then, the battery must be fully discharged through normal use prior to the next complete charge. This only needs to be done the first time the battery is charged.
2. Set the power save setting (sleep mode) from 2 minutes to 30seconds. This setting is located under the set-up mode menu. The camera will go to sleep in 30 seconds and preserve battery power. Push any button to wake up the camera. The camera will turn off in 3 minutes if no buttons are pushed. Press the power button to turn on the camera.
3. Keep the camera power off as much as possible.

Using 1GB (or larger) SD memory card:

SeaLife recommends a maximum memory size of 512mb made by Sandisk, Toshiba or Panasonic. A 512mb card will take about 315 5-megapixel images or ½ hour of video. Larger memory size and other brands may work fine, but we can not guarantee their compatibility with the DC500 camera. In some cases, we know that a 1GB or 2GB memory card can cause the camera to react slowly during powering on the camera and increase the recycle time between taking pictures, especially while the camera is set to TIFF image format.

Playing video clips on a MAC computer:

The Windows Media Player for MAC appears to have some bugs that Microsoft is trying to fix. We found another media player that plays .asf file on MAC computers. It is available for free download at: <http://www.versiontracker.com/dyn/moreinfo/macosx/14738>

Tips for avoiding rust stains on stainless steel parts:

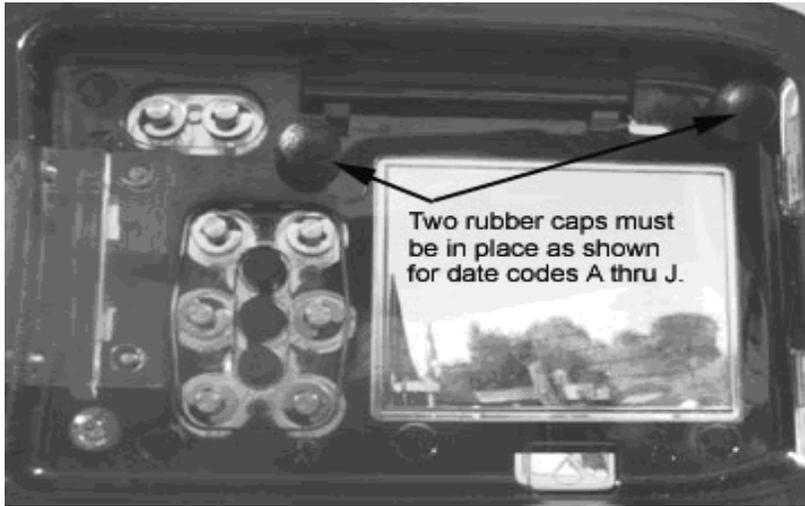
The DC500 uses 316 stainless steel hardware, which is the best grade of stainless steel available for use in saltwater and marine environment. If not cared for properly, rust stains may appear on surfaces. Make sure to rinse off the camera with fresh water after each use. Dry before storage. Make sure to completely remove the clear protective film that covers the metal face plate. Keep all metal surface clean. Avoid contacting metal camera parts with other metals This may contaminate the 316 stainless steel. Rust stains should wipe off with soft plastic bristle brush or clean moist cloth. A great source for more information on stainless steel is <http://www.ssina.com/knowledgebase/>.

If shutter button is difficult to push or does not contact inner camera, do this:

Open the housing and check the housing production lot code.



IF the date code is A through J, check to see that the two black rubber caps are in place. Without these in place the camera is not sitting properly and out of reach of the shutter button. If any of the rubber caps are missing, contact your local authorized dealer or SeaLife service center for a set of new rubber caps (Item# SL11052). The black rubber caps easily push on over the clear rubber stand-offs.



IF the date code is equal to K or greater, the black rubber caps are not necessary. You should only see clear rubber stand-offs.

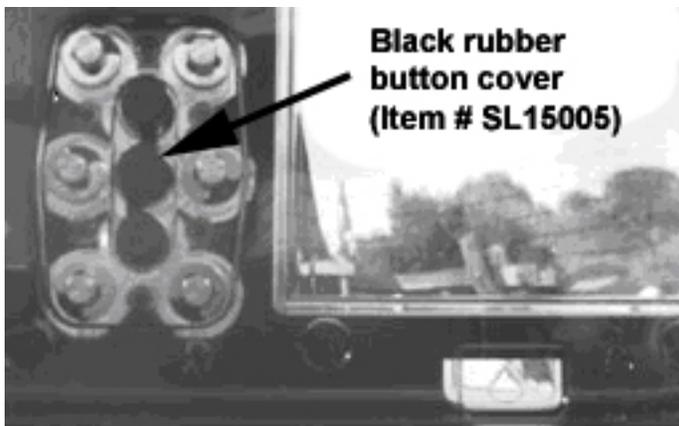
Other possible answer(s):

The shutter button on the housing should only require about 3 pounds of force to activate. Gently press and hold the shutter button, and never push with excessive force. The camera will not take a picture no matter how hard you push the shutter IF the flash is not fully charged. Practice pushing the shutter button gently and get a feel for the amount of pressure required to activate the shutter.

If you are still experiencing any issues with the shutter button, please contact the SeaLife service center.

Some of the buttons on the back of the housing do not reach the inner camera:

Three of the navigational buttons on the back of the housing require a black rubber button cover (item # SL15005), as shown in the picture below. If this button cover is missing, please contact your local authorized SeaLife dealer or contact SeaLife Customer Service.



Tips for keeping Flash Link Adapter firmly attached to camera:

The Flash Link adapter grabs around the lens port but can be pulled off under excessive force. To keep the cable adapter securely attached the camera, do this:

Feed the Flash Link cable(s) into the adapter, so that the cable is relaxed and not pulling on the adapter. If the cable is twisted or has too much or too little slack, it can pull the adapter away from the camera. It will also help to secure the cable to the bottom and top of the flash arm with small Velcro ties.

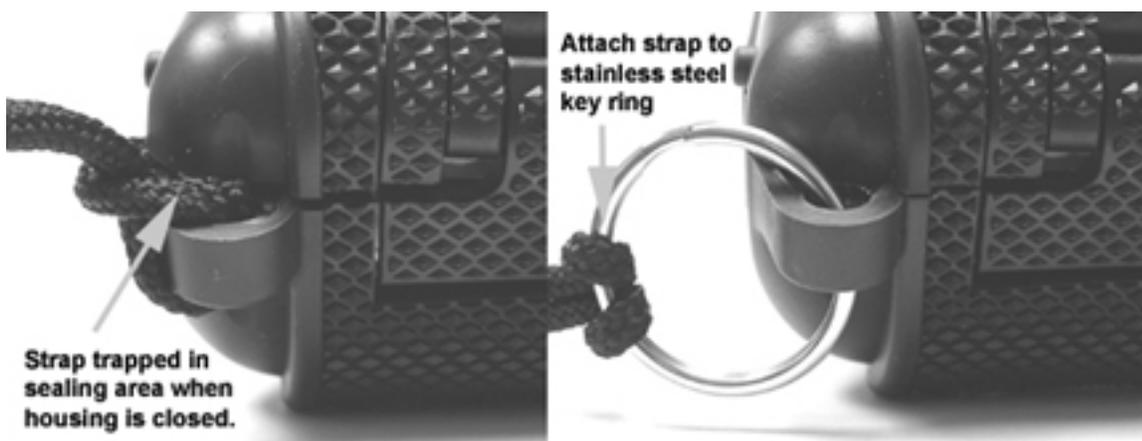


If camera has no power, check that battery ins inserted correctly:

Make sure the battery is inserted correctly into the camera. There is a small sticker inside the battery compartment to show the correct way to insert the battery. Also make sure that the battery has been completely charged. If there is still no power to the camera, contact your local SeaLife dealer or the SeaLife Service Center.

Tips to avoid trapping lanyard in the sealing area:

The DC500 uses the most reliable O-ring sealing design in the industry, but a leak will likely occur if something gets trapped at the main O-ring. It is important to carefully inspect and clean the main O-ring and o-ring contact surfaces before every dive. After closing the housing, look around the sealing area for any uneven gaps that suggests that something is trapped in the O-ring. Here is one creative solution we heard from a SeaLife customer:



Replacement Allen wrench tool for DC500 Flash Link adapter:

We do not stock this part but the tool is available at most hardware stores. Ask for either a 1/16" or 1.5mm Allen wrench.

Tips for avoid out-of-focus pictures:

There are many factors that may affect picture sharpness and focus. The camera's auto focus system has an effective range is 2.4" (6cm) to infinity. Here are some tips to ensure a sharp focus:

1. For macro shots within 2.4"(6cm) to 14" (35cm) the camera must be set to:
 - a. For land pictures, set the camera Scene mode (SCN button) to Macro.
 - b. For underwater pictures, set the camera Scene mode (SCN button) to Sea or External Flash.
2. The camera will set the focus on the subject located in the center of the picture. Align the square located in the center of the LCD over the subject. Subjects outside this square may not be in focus if they are closer or farther away. The depth of field for close-up pictures is only a few inches.
3. The camera's auto focus system needs light to "see" the subject. In darkness, the camera uses the red focusing light located next to the camera's flash to illuminate the subject. You can also use another light source, like an underwater flash light, to illuminate the subject.
4. When you push the shutter button ½ way, the camera will set the focus and exposure on the subject. The focusing square in the center of the LCD will be blue if the camera has accurately determined the correct shooting distance. If this square is yellow, the camera may not be certain of the exact shooting distance and will use a best estimate.
5. The Shark mode has been enabled but the shooting distance has changed. To correctly use the Shark mode, aim the camera at the subject and push the OK button. The camera will lock the focus on the subject. A Shark icon will appear on the LCD indicating the Shark mode is enabled. If you change your shooting distance, you must reset the Shark mode. Push the OK button again to disable the Shark mode.
6. Check SeaLife website for free firmware updates – www.sealife-cameras.com/service/firmware. SeaLife will provide free firmware updates as we discover ways to improve camera performance.

If the DC500 camera does not easily attach to the SeaLife Flash accessory, do this:

Make sure to remove the original flash deflector from the flash base (See picture below). The DC500 uses the Flash Link adapter and optical cable to fire the External Flash. The deflector attached to the flash base is used for other SeaLife camera models.



If the SeaLife Flash accessory does not fire AT ALL when connected to my DC500, do this:

There are a few important steps that will ensure the External Flash fires:

1. Set DC500 camera to Ext Flash mode.



2. Set Digital Flash Pre-Flash switch to "0". Make sure Camera and External Flash batteries are fully charged. Turn Flash to ON and wait for green ready-light to turn on.



3. Here's an easy test to make sure the External Flash is firing and synchronized with the camera. Take a picture of the External Flash, pointing the camera at the flash sensor. Do this with the camera removed from the flash base and without the Flash Link optical cable connected. The picture should show the flash firing. If you do not see the flash firing in the picture make sure you followed the set-up step #1 defined above.



A "card error" message appears on the LCD after powering on the camera

Most likely is that the SD memory card is not completely inserted into the memory card slot. Make sure memory card is completely seated and "clicks" into position when inserted into camera. The other possibility is that the memory card is damaged or dirty. Check to make sure contacts on the card are

clean. Also check that there is no debris lodged in the memory card slot. Blow or shake-out any dirt or debris in the memory card slot. Do not stick any object into the memory card slot – this can damage the camera. If you are still experiencing a card error message, replace the memory card.

Only getting 5 pictures with SD memory card inserted in the camera:

Most likely is that the SD memory card is not completely inserted into the memory card slot. Make sure memory card is completely seated and “clicks” into position when inserted into camera. The camera may also lock up if the card is not fully seated into position.

The black rubber tube ring (flashguard) in the lens port area is removable:

The black rubber ring inside the housing lens port area is designed to be removed for easy cleaning of the lens. This is an important part that and serves as a flashguard to prevent the inner camera’s flash from reaching the lens and causing glare. This should be placed back into the lens port area so it’s completely seated. If this part is missing or needs to be replaced, contact your local SeaLife dealer or the SeaLife Service Center (Item# SL15014)



Flashguard out of position



Flashguard completely seated

It is not recommended to use the SeaLife 3X, 8X or 16X lens with the DC500 camera:

The SeaLife close-up lenses may fit the DC500, but does not offer any real benefit. The close-up lenses are design for our fixed focus film and digital cameras. The DC500 uses an auto focus system to focus from 2.5” to infinity, so the lenses are not required to get the picture in focus. Some DC500 customers that use the close-up lens say it helps the camera to focus quicker. On the downside, we have seen the lens cause a glare “ring” that shows up in the picture. SeaLife does not recommend using any of the close-up lenses with the DC500.



Dark area in picture when using wide angle lens:

An external flash accessory is highly recommended when using the wide angle lens accessory with the DC500 camera. The wide angle lens will block the inner camera's flash and cause a large shadow area in the picture. It is possible to use the WA lens without the external flash accessory in bright light conditions (i.e. shallow water, sunny conditions), but make sure the camera is set to SEA mode and the inner camera flash is turned OFF (press flash button).

DC500 Read / Write speed specification

The DC500 camera can transfer data to the SD memory card at 10MB/s (mega bytes per second). Panasonic, Sandisk and Toshiba make SD cards with faster read / write speed, however there is no benefit in purchasing SD cards with read/write speeds faster than the camera.

<u>SD Card spec</u>	<u>Read / Write speed</u>
60x	9MB/s
70x	11MB/s
110x	17MB/s
130x	20MB/s