

Ikelite housing For Canon EOS Rebel SL3

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Ikelite's housing for the Canon EOS 100D SL1 made its debut at DEMA in November 2013 and was one of the smallest DSLR housing package I have ever seen.

I reviewed the system in UWP issue #79 and now I am pleased to have the opportunity to review the current successor the EOS Rebel SL3 also known as EOS 250D and EOS KissX10 depending on your location in the world.

The new Ikelite SL3 housing has the same small profile as the original SL1 housing which make for a system smaller than many of the mirrorless camera systems I have reviewed. This system ticks all the boxes for cost v performance, lens selection, ease of use, image quality and more.

The system is small, light weight and easy to pack in just about any airline carry-on bag.

I had a chance to test drive this new system in my home state of Florida, USA and I believe this is an excellent little housing system for travel, those entering underwater

photography looking for a moderately priced system, those moving from cell phones or GoPro's, rental, instruction, and for those die hard Canon DSLR fans looking for a backup system.

The camera

The Ikelite housing is designed around the very tiny Canon EOS Rebel SL3 which is the entry level camera in the Rebel line with the Canon EOS Rebel T7i/800D currently sitting at the high end of the Rebel line. These are DSLR cameras with an optical viewfinder not mirrorless cameras.

The SL3 has an 24 megapixel APS-C sensor for still photography and 4K video over an impressive ISO range from 100 to 25600 (expandable to 51200) with quite usable image quality above 6400 ISO.

The camera ships as a "kit" with the Canon EF-S 18 to 55mm f/3.5-5.6 STM lens for \$749.00 or at \$599.00 body only. The new STM lenses are designed to provide noticeably



Ginnie Springs Ballroom Entrance, High Springs, Florida, Canon SL3, Tokina 10-17 fisheye at 11mm, ISO-200, F/8, 1/200th sec, two Ikelite DS-160 flashes

improved live view and full HD video shooting over past Canon "kit" lenses.

For this review I tested the camera with the Tokina 10-17mm fisheye zoom for Canon and the

Canon EF 100mm F/2.8L IS USM pro quality macro lens.

The auto focus is fast with the Tokina 10-17mm fisheye zoom but not as fast with the Canon 100mm

macro when you go beyond 1:3 magnification. Like all long macro lenses, this is a 160mm equivalent macro in 35mm using the APS-C 1.6X crop factor.

I suspect the Canon EFS 60mm macro would be the better choice for macro speed. The Canon 18 to 55mm STM zoom covers a wide range of underwater subjects and will make an excellent all purpose lens for the entry level shooter.

While the SL3 is quite small the same can't be said for several of the lens options, this is a simple matter of physics. The APS-C sensor requires larger lenses compared to lenses for smaller sensor cameras like M43 and compacts. Ikelite has negated this shortcoming with a custom dome port for the 18-55 kit and the wider 10-18 EF-S F/4.5-5.6 IS STM lenses which has the zoom control dial built into the port. This is ideal for reducing the overall size of the system.

Unlike port offerings for many kit lenses this is a dome not a flat port. The dome port allows a wider angle of view at the 18mm/10mm ends of the lenses and increases AOV at the 18/55mm end of the lenses as well.

The camera on/off switch has three settings off, on and a video icon. When the camera is turned, on a display of your shooting information appears on the LCD display. The LCD display includes the mode you are shooting in like manual and information related to that shooting mode. In manual mode shutter speed, F/stop, ISO, exposure compensation, white balance, battery power, AF points, one shot or multi shot RAW capture, number of exposures and more all appear.

To make a change like moving the ISO setting all you need to do is press the OK button, scroll to ISO using the four way arrows press OK then scroll to a higher ISO and press OK.

You can use the main command dial to change functions like shutter speed and F/stop settings. Move the switch to the video icon and you hear the mirror lock-up and the video framer appears on the LCD for video shooting. Press the OK button and now your video shooting information screen appears on the LCD. Press the four way arrows and you can make changes to things like movie recording from 4K to Full HD, white balance, AF modes and more.

In still mode push the control button to the right of the viewfinder and you will hear the mirror lock-up, you are now in live view mode and the image will appear on the LCD rather than in the viewfinder. In live view the AF speed is greatly improved over the SL1 I reviewed in 2014 and approaches the AF speed when using the optical viewfinder with wide lenses.

Low light shooting is not as much of an issue as it was with the SL1 either.

In video mode you push the same live view button to the right of the viewfinder to start and stop recording. When recording begins a red record icon appears at the top right of the LCD to indicate that you are recording. With wide lenses like the Tokina the auto focus works well as you move the camera from subject to subject while shooting video.

Once you have finished recording you can push the blue review arrow and the left/right arrows to find the clip you wish to review, then push the up arrow and OK to play.

In playback you can hear distracting noises from the auto focus using some lenses. This issue can be worked around after you have spent some time with the system.

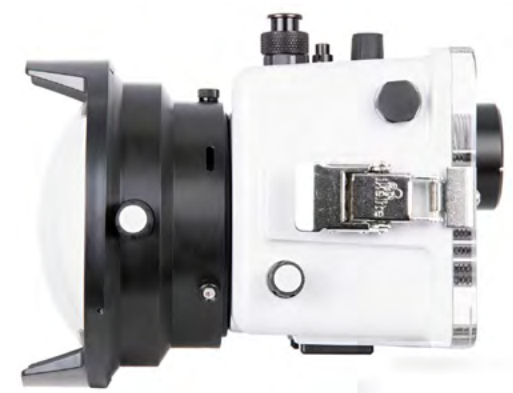
One of the things I like most about the video record controls is that it is not easy to accidentally start recording while you are shooting stills. You



Devils Ear Spring entrance, High Springs, Florida, Canon SL3, Tokina 10-17 fisheye at 11mm, ISO-400, F/10, 1/200th sec, two Ikelite DS-160 flashes

can't just bump a single record button and start video recording without knowing it.

When the camera is turned off the sensor cleaning icon appears on the LCD to let you know the sensor is being cleaned each time you shut the



camera down. It would make more sense for the sensor to be cleaned when the camera is turned on but that would prevent the almost instant start-up.

The housing and port

Ikelite is a US company which has been making underwater photography equipment for over fifty years. The company has an outstanding reputation for customer service both with new equipment and aging equipment, offering upgrades and fast service turnarounds to their many loyal customers.

The Ikelite Canon SL3 housing design features the opaque light gray ABS-PC polycarbonate material for the front section of the housing with a transparent polycarbonate housing back. These polycarbonate housings provide an excellent view of the camera controls and O-rings after the

housing is sealed.

The Canon SL3 housing has four main components, the front “box” where the camera sits, a flat rear door, the removable front port and the camera tray which attaches to a tripod mounting point on the bottom of the camera.

The front part of the housing where the camera sits has a track at the bottom that the camera tray slides into. Once the camera is aligned in the housing the hotshoe for flash connection is mounted to the camera hotshoe and the housing is ready close.

The rear door of the housing is then secured by facing the housing down and making sure that the rear door O-ring has properly seated in the front half of the housing. The two heavy duty lid snaps are then secured by pushing down, you should hear the lid snaps click into the locked position and you should not be able to lift the snaps without pushing in the snap

locking device. I like to use equal pressure on both lid snaps so that they lock simultaneously.

Once the camera is secured inside the housing you can see the housing controls and align them with the controls on the camera. The right hand side of the housing has the shutter release while the left side of the housing has the lens release control and vacuum valve. The lens release allows you to mount lenses by removing the port and not the camera from the housing. The bottom of the housing has two mounting screws for mounting a tray to the housing.

The top of the housing has the sync port for the flash cord to the left with controls for on/off/video, camera mode control, ISO settings and main control wheel to the right.

The rear door for the housing has controls for menu, info, live view/video start/stop, AF point/magnify button, AV aperture/+/-exposure compensation, up/down/left/right



setting control arrows, set/OK button, playback button and erase button.

The rear door includes an optical glass pickup finder which helps your view into the rather small optical viewfinder on this camera. Ikelite also offers 45 degree and 180 degree accessory viewfinders that greatly magnify the view into the viewfinder. The most common negative feedback among my students using the SL1 housing in 2014 was that the viewfinder was a bit small. This is a common issue with many of the smaller sensor DSLR cameras.

After the specs and product descriptions above all you really need to know is that the Canon SL3 and Ikelite housing are about as straight forward and simple as you can get.

The most useful settings all appear in large print on the three inch LCD and are accessed by using the OK and up/down arrows. This is a quick and easy way to change settings on the fly.

The Ikelite TTL is excellent and will help new photographers have immediate exposure success without the flash needing to be in manual mode. As long as you fill the frame with the main subject exposures will not be an issue in TTL. Lastly the Tokina 10-17, 18-55mm kit lens and 60mm macro are all relatively inexpensive and will cover a wide range of subjects.

My SL3 housing shipped with one of the acrylic dome ports for the Tokina 10-17mm ATX F/3.5-4.5 DX Fisheye with sun shade and left hand zoom control. I also requested a macro port to support my Canon EF 100mm F/2.8L Macro IS USM lens. The macro port includes the 67mm threads for mounting accessory closeup lenses, filters and more.

The housing sells as a “kit” for \$1895.00 and includes the Canon Rebel SL3 camera with Canon EF-S 18-55mm lens, dome port and focus gear, battery charger, USB interface and camera strap.

I would also recommend the vacuum system kit and a single or dual flash tray at a minimum. The Kit also ships with a neoprene cover to protect the dome port, waterproof bulkhead cap when not using the flash port, a main door spare O-ring, extra port screws and a one year manufacturer warranty (US).

Other SL3 kits are available with one or two Ikelite DS160 flashes, support arms, the tray, sync cords for firing the flashes, the vacuum kit and



Orange Cup Coral, Blue Heron Bridge, Florida, Canon SL3, Canon 100mm macro, ISO-100, F/22, 1/200th sec, two Ikelite DS-160 flashes

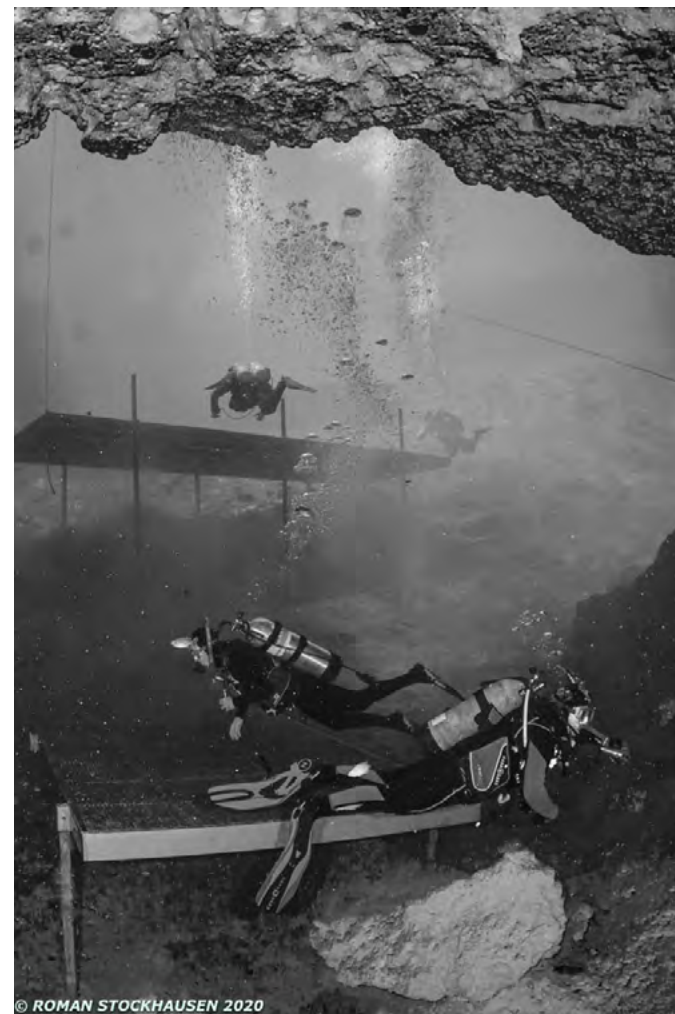
more. Please consult the ikelite.com web site for the latest kits and sale pricing.

The DS-160 Flash

For this review Ikelite included two of the optional DS160 flashes with Ikelite flash arms, sync cords and dual tray. This housing is compatible with a verity of optional Ikelite flashes including the DS50 (above serial# 70,000), DS51, DS125 (above serial#5000), DS160, DS161, and DS200.

The flash sync cord connects through the bulkhead on the housing and provides rich well balanced TTL exposures. The DS-160 flash includes a difuser, a rechargeable proprietary battery pack, a smart charger, a one inch ball mount, bulkhead cap, two year limited warranty (one year on the battery pack and charger) and silicone lube.

The DS-160 and DS-161 strobes flashes are very well respected in the underwater photography



Blue Grotto, Williston, Florida, Canon SL3, Tokina 10-17 fisheye at 11mm, ISO-200, F/8, 1/100th sec, two Ikelite DS-160 flashes

community and well worth a review on their own. I have used these flashes for a number of reviews with both Ikelite and non-Ikelite control arms and they do not disappoint. I have also used the flashes in both TTL and manual modes with outstanding results.

Ikelite flashes have one of the best TTL systems in the business and I hope to someday see them develop a new fiber optic flash built from the ground up. The 360 degree flash tube used for the DS-160/161 provides a pleasant light with a very even light pattern.

Field Testing

When I first discussed reviewing this system with Ikelite I was assured this was about as simple a DSLR system as you will find. I viewed this statement as a challenge and told Ikelite I would be turning the SL3 system over to my fourteen year old nephew (Roman) who has no prior U/W photo experience to test drive. I gave Roman a fifteen minute session on how to turn the camera and flashes on and off, zoom the Tokina lens, release the shutter, position the flashes and playback images. Some of Romans' images are included in this review.

With the SL3 system I did most of my ISO, F/stop, shutter speed, +/-EV changes and more on the LCD even though many of these functions are supported through other controls on the camera housing.

I also shoot exclusively in RAW and process in Lightroom. For this review I relied exclusively on the excellent Ikelite TTL with a bit of EV bracketing for upward angles and subjects that were small in the frame. With the Ikelite TTL system it is easy to dial-in a shutter speed, ISO setting and F/stop then let the TTL do the exposure work.

The APS-C sensors have great depth of field so the old adage "F/8 and be there" works well with a starting ISO around 200 and a 1/60th to 1/125th shutter speed.

Once in the water I found the SL3 system to be light and easy to hold for long periods with one hand. The small dome port made the system easy to move through the water and quite nice for small spaces. The long Canon macro lens was above Romans' skill level and again I would recommend the Canon 60mm for APS-C cameras over the much more expensive 100mm macro for full frame.

The small dome port for the Tokina 10-17 is the only port that allows the lens to zoom through the entire range and between 10-12 mm it will vignette and go a bit soft at the corners. I would expect similar issues with the rectilinear Canon 10-22 F/3.5-4.6 which uses the same port.

The 18-55mm kit lens which also uses the same port should not have issues. These lenses can also be used with the large eight inch port, best for split images but without the ability to zoom. For the purpose of shooting splits I would recommend setting the lens at its widest AOV and a high F/number in the F/16-22 range. As a footnote Ikelite offers inexpensive (around \$10.00) anti-reflective rings for a verity of lenses including the 18-55 and 10-22. These anti-reflective rings are flat black tape cut to fit each lens and to cover the white lettering engraved around the front lens element. At or near the surface they reduce the reflection from the lettering back onto the image sensor associated with dome ports, particularly acrylic ports. I have the anti-reflective rings on my Zeiss Batis 18mm F/2.8 and Sony FE 16-35mm F/4 lenses which I use with a verity of ports and they defiantly help to reduce reflections.

My SL3 housing was fitted with the optional 45 degree optical viewfinder which I used during this review. Roman found it a bit difficult to master so he used the live-view feature which works much



Roman holding the Ikelite SL3 system, Blue Grotto, Williston, Florida.

better than the original SL1 camera.

I found the autofocus worked very well in the low light conditions inside some of the North Florida caverns. The Ikelite TTL also worked very well in very low light separating subjects from background without overexposing the foreground subject.

*Cushion Sea Star,
Blue Heron Bridge,
Florida, Canon
SL3, Canon 100mm
macro, ISO-100,
F/22, 1/200th sec,
two Ikelite DS-160
flashes*



I remain a diehard manual everything shooter but I would highly recommend the Ikelite TTL system for novice and intermediate photographers looking to reduce the learning curve.

On a personal note I see post after post on social media about the downturn in camera markets and the aging diver population. The prevailing wisdom is that only well-heeled over 40 divers can afford U/W photography equipment and travel. The inference is that underwater photography will fade because youngsters just can't afford to get involved. I call bullshit, as underwater photographers it is our responsibility to pass the torch to new generations by mentoring and educating.

Get involved, take a young person to your photo club or dive shop event. If you lend your knowledge

and your equipment we will have new generations creating art beyond our wildest imagination or we will see the oceans become vast wastelands because no-one was left to document and defend them.

Thanks again to the outstanding Ikelite.com team for their assistance and support with the underwater equipment used for this review.

Phil Rudin
[www.instagram.com](https://www.instagram.com/philrudinphotography)



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