

Backscatter E-PL10 Octo Housing

by The Backscatter Team

Striking a balance between value, performance, and ease of use is the ideal trinity of underwater photography equipment. The Olympus PEN E-PL10 camera and limited edition Backscatter E-PL10 Octo Housing create a system that is not only more affordable than similar rigs, but also has outstanding shooting specs and image quality while staying compact and easy enough for even the first-time underwater photographer.

The Olympus E-PL10 can be shot like a point-and-shoot camera with external wet conversion lenses, or shot like an SLR with dedicated wide angle and macro lenses and ports. Keep it simple and versatile, or go for the best image quality possible – the choice is up to you.

Straight out of the box the system has everything needed to get started and can be upgraded and expanded to pull off any shot imaginable.

At only \$699.99 for the camera with lens and \$649.00 for the housing, it's truly the best bang for the buck in underwater photography.

The Backscatter E-PL10 Octo Housing supports both the Olympus E-PL9 & Olympus E-PL10. There is effectively no difference between these cameras, as the only significant change is the inclusion of some built-in art filter modes which won't be used for underwater photography anyway. The interchangeable lens of the Olympus E-PL10 is



the biggest variable in overall system size, ranging from pocket-sized when using the Olympus 14-42mm EZ kit lens to more SLR-like with lenses like the 8mm fisheye, Olympus 60mm macro or even topside telephoto zoom lenses like the Olympus 75-300mm lens.

Even when fully equipped with pro lenses and dual arms for lighting, the Backscatter E-PL10 Octo Housing is barely any bigger than a compact (such as the beginner-favorite Olympus TG-6). Considering the well-laid-out ergonomics, interchangeable ports, included LED flash trigger, and vacuum and leak detection features, it's pretty astonishing that the overall housing size of the Backscatter E-PL10 Octo Housing is so small. It's easy to hold in the hand, or add the included extendable shutter release and operate it from a tray grip.

An Ideal Upgrade from TG cameras

If you're one of the thousands of underwater photographers who have fallen in love with their Olympus TG-series compact camera but are now ready to take their gear to the next level then look no further than the Olympus E-PL10. Any Olympus user will feel right at home with the familiar menus, controls, and operation of the camera.

The ability to swap between such a wide variety of lenses is the standout feature of this camera when compared to the Olympus TG-6 because it allows the user to get wider shots, more macro working distance, and sharper overall results. When shooting macro with the Olympus 14-42mm EZ and a diopter you'll have a much greater working distance to the subject than with

the Olympus TG-6, which will make macro shots much easier to pull off.

The Olympus E-PL10 offers full manual exposure control, which is a major advantage over the Olympus TG-6 when it comes to obtaining great underwater image results easily. This is especially helpful for wide angle background exposure control, which is where shutter speed control becomes essential. The Olympus TG-6 offers limited shutter speed control at best, and never without an Auto-ISO caveat. The Olympus E-PL10 can completely separate shutter speed from ISO just like any other fully manual camera providing the user with complete exposure control for the perfect image.

For shooters that are ready to graduate from their tried-and-true TG camera but aren't quite ready to go all-in for a full-frame SLR, then the Olympus E-PL10 is the best choice for a major step up in performance at a fraction of the price of other options.

The Olympus E-PL10 includes an interchangeable Olympus 14-42mm EZ power zoom lens. This lens on its own is about equivalent to the zoom range on most compact cameras. Just like compact cameras, the Olympus 14-42mm EZ lens must rely on wet-mounted external conversion optics to get the best results underwater. Without conversion lenses, the Olympus 14-



The Backscatter E-PL10 Octo Housing is about the same size as most point-and-shoot rigs, but features way more power and potential.

42mm EZ is not wide enough for wide angle at 14mm, and not tight enough for macro at 42mm.

Even though it can be shot as simply as a compact camera with external wet lenses, the camera body also supports the full range of Micro Four Thirds interchangeable lenses. This provides an excellent array of sharper, wider, faster focusing, and tighter macro optics for pro-level image results and is easily the most distinct advantage of the Olympus E-PL10 over compact non-interchangeable lens cameras.

The Olympus E-PL10 produces satisfyingly sharp image detail and crispy resolution. High-key highlights don't look blown out, and dark shadows aren't noisy or grainy. Color saturation is vibrant and packs plenty of pop. Whether shooting backlit sunballs or black-background macro,



Balancing perfect foreground and background exposures is made much easier thanks to the full manual control of the Olympus E-PL10.

Olympus E-PL10 | Backscatter E-PL10 Octo Housing | Olympus 8mm | 1/125 | ISO 400 | f14

the results across the board were excellent and among some of the best from current-gen Micro Four Thirds sensor cameras.

When compared to the Olympus TG-6, the larger sensor of the Olympus E-PL10 creates much sharper image detail, better dynamic range, and lower noise in low-light situations. Given the relatively minor size increase of the Olympus E-PL10

body, the user gets all the benefits of a larger sensor higher-end camera without adding significantly to the overall weight or underwater system size.

Thanks to the built-in LED flash trigger of the Backscatter E-PL10 Octo Housing, the Olympus E-PL10 can shoot rapid-fire by completely bypassing its own built-in pop-up flash. It fires more shots per second



The ability to shoot like an SLR with interchangeable lenses gives the Olympus E-PL10 a distinct image quality advantage over fixed lens compact cameras.

Olympus E-PL10 | Backscatter E-PL10 Octo Housing | Olympus 8mm | 1/200 | ISO 200 | f8

The simplicity of using wet-mounted conversion lenses can still produce stunning results. This shot was captured with the included Olympus 14-42mm EZ lens and AOI UWL-09 PRO wide angle lens.

Olympus E-PL10 | Backscatter E-PL10 Octo Housing | AOI UWL-09 PRO | 1/160 | ISO 640 | f13

than any compact or mirrorless that has to rely on a pop-up built-in flash, creating more opportunities to really nail the perfect frame in a quick-burst fast action sequence. This camera will fire as fast as the paired strobe can recycle, so at lower strobe power it can do some pretty astoundingly fast rapid shooting. This also has the benefit of keeping the housing small because there does not need to be room to accommodate the pop-up flash.

The tradeoff of this rapid-fire benefit is that there is no automatic TTL strobe exposure.

Autofocus speed is snappy and accurate in both wide angle and macro scenarios. Whether tracking moving a

subject through the frame or locking on to the eye of a close-up critter the camera does a great job of sticking the sharpest part of the frame right where desired. Using dedicated wide and macro lenses will yield even better results than the kit lens with wet-mount conversion lenses.

The controls can be configured to enable back-button autofocus operation. By separating the focus control from the shutter button we gain a huge advantage over compact cameras and take the next step towards SLR-like camera control. This custom control assignment is



easy to set up in the menu and can be simply set once and forgotten about.

The Olympus E-PL10 can sync with strobes at up to 1/250 for a wider range of shutter speed control than even some full-frame mirrorless and SLR cameras. Many comparable (and even some much higher performance) cameras exceed their sync speed with strobes at slower shutter speeds than 1/250, preventing the user from having as wide of a range of ideal exposure settings to match their underwater conditions.

The camera and housing controls are intuitive and easily ergonomically

accessible. The Olympus E-PL10 only uses one control dial which can be assigned to shutter speed or aperture, but we prefer to adjust these by using the multi-function directional control pad. Just press 'up' to toggle the aperture and shutter speed settings, then use 'left' and 'right' to adjust aperture and 'up' and 'down' to adjust shutter speed.

The Olympus E-PL10 offers a maximum recording spec of 4K at 30p or 1080HD at 60p. There is a relatively heavy 4K crop factor, so for general use, it is recommended to set the video to 1080 60p. 1080 resolution



The housing includes a 67mm threaded front port for the Olympus 14-42mm EZ lens and built-in LED trigger and vacuum system as standard. The housing is also compatible with optional UMG magnifiers.

will be easier to work with than 4K for most amateur and hobbyist editors and offers more flexibility for slow-motion effect, which is always a favorite among underwater editors.

Executing an ambient light custom white balance is easy to do, and produces great looking natural-light color down to about 45 feet. There are 4 custom white balance banks for storing multiple depth color settings, or for shooting with or without video lights.

One minor quirk of the camera

is that it must be set to photo mode in order to capture a manual white balance. It's still possible to cycle between the 4 stored banks while in video mode, but the camera must be set to photo mode in order to actually capture a new white balance.

5-axis in-body image stabilization assists handheld video to appear buttery smooth. If your rig is perfectly trimmed as outlined in our Buoyancy Solutions Article, then the extra layer of stability provided by the camera itself is enough to make



Olympus E-PL10 | Backscatter E-PL10 Octo Housing | Olympus 60mm Lens | 1/250 | ISO 200 | f22

your underwater wide shots look cinematically stable and graceful. Don't forget to slow down that 60p footage to 30p playback for even more stabilization.

Macro video shooters will still need a tripod for rock-solid results, just like every other rig out there. Fortunately, the AOI housing is small enough and light enough to work great with a simple Joby Gorillapod, eliminating the need for bulky, heavy aluminum tripod legs and a plate.

We teamed up with AOI to

produce the Backscatter Limited Edition Octo housing. As if the simple operation, compact and well-laid out ergonomics, affordable price point, and changeable ports, and built-in LED trigger and vacuum system weren't enough, we just had to go and make it the coolest looking housing around too.

The housing includes a 67mm threaded front port for the Olympus 14-42mm EZ lens. Pair this port with wet wide or macro lenses for compact-like versatile shooting. Swap

this port out for dedicated domes or extended macro ports for prime lenses and you will be ready to shoot any subject large or small. The housing is even compatible with older Olympus PEN series housing ports, so if you are upgrading from one of those classic systems then you already have some compatible accessories.

Mount a double flip holder on the 67mm threads to be able to quickly swap between macro and wide on the same dive. If you don't want all that bulk on the front of your port, use the AOI QRS (Quick Release System) of bayonet mounts for quick-disconnect of lenses which can then be stored on a control arm or in a pocket.

One of the coolest features of the housing is the Multi-Control Device. This USB-rechargeable unit is what controls not only the LED flash trigger but also the vacuum and moisture detection for peace of mind while underwater.

The housing is also compatible with UMG magnifiers. Both the AOI UMG-01 and AOI UMG-05 are compatible with the Backscatter E-PL10 Octo Housing, meaning that they can carry right over from a TG rig to this one. The Olympus E-PL10 and Backscatter E-PL10 Octo Housing are the "best bang for your buck" in underwater photography. Together they can be operated as

easily as a compact camera by utilizing wet-mount conversion lenses. Alternatively, the system can be set with dedicated lenses and ports for either wide or macro just like an SLR, but at a mere fraction of the overall SLR system price, Starting at \$1,349.99 for both the camera, lens and housing.

The image quality produced by the camera is just as good as any other current Micro Four Thirds sensor camera, with sharp detail, vibrant colors, and great dynamic range detail.

This rig is both an ideal fit for new underwater shooters seeking their first rig, or as an upgrade for someone

who desires the next step up on the performance scale from a Olympus TG-6 or similar non-interchangeable lens camera.

The custom tentacled graphics of the Backscatter Limited Edition UH-EPL10 Housing are sure to turn heads and get some cool points, as well as serve as an easy way to pick your rig out of a crowded camera table.

This is our favorite system for striking an ideal balance between affordability, high-end performance, and simple ease of operation.

The Backscatter Team
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