

Marelux MX-A1 Housing and ports

by Phil Rudin

Only once in a decade or so do we see a new aluminum housing manufacture enter the rather small underwater housing market. In fact the last one I can remember was Nauticam and they have made a huge impact on the market.

One thing I have noticed in over fifty years of underwater photography is that the companies that succeed in the U/W market are run by hard core divers and the rest are lacking intel on how to assess what truly matters to photographers.

Marelux Precision Incorporated is headquartered in California, USA with products being manufactured in China and it is owned by several hard core professional underwater photographers and engineers. Marelux has assessed the market trends in the 2020's and has chosen to avoid the dying DSLR market and launch a line of all mirrorless camera housings for Canon, Nikon and Sony.

Marelux also has two high end video camera housings in the pipeline for Sony FX3 and Alexa Mini LF and Mini with housings for monitors and recorders coming. All of the Marelux housings are depth rated to 100 meters, all offer manual flash triggers and all use the same size dome ports and extension systems so that you can move between camera brands without needing to change port systems.

Macro ports will vary depending on the length of the lens. Currently Marelux has housings for the Canon R5 and R6 cameras, Nikon housings for the Z6 II and Z7 II cameras and Sony A7R III, A7R IV,

the new A7 IV and the Sony A1 which is the focus of this review.

Marelux has six signature housing colors, Standard Black, Burgundy, Mocha, Oliver Green, Silver Gray, Yale Blue and all seven of the current housings are available these six colors.

Sony Alpha A1 Camera

Sony Imaging introduced its first true Flagship camera, the 50.1 megapixel Sony A1 full frame mirrorless camera in late January 2021. During the past year this completely new level of camera has received the highest gold award rating ever given by the testing site DPReview an impressive 93%. Backscatter has ranked the Sony A1 as the best All-around full frame advanced mirrorless camera for 2022 with the Sony A7R IV as the best FF mirrorless camera for photos and the Sony A7s III as the best mirrorless video camera.

I reviewed the Sony A1 in UWP issue #120 which can be found in the back issues.

Marelux MX-A1 Housing and Ports

Currently the Marelux website lists housings for the Sony A1, A7R IV/A, A7R III/A, new A7 IV, Canon EOS R5, Canon EOS R6, and Nikon Z7 II/Z6 II all in six different colors. The MX-A1 housing is priced at \$3198.00 US for the Basic Black with a \$200.00 upgrade for other five custom colors.

My prototype MX-A1 test housing came with



the very attractive non-reflective Silver Gray finish which seems quite durable. When I opened the housing for the first time I was surprised to see a bright lime green main housing O-ring. At first I



thought this was a bold fashion statement, not the norm for U/W housings but in the field I realized that debris and hair popped making the O-ring easier to service and keep clean.

The lime O-rings are also carried over to the ball heads on the grips and the Logo as well. The grips are very solid and held in place by a single large Allen bolt which allows the grips to be removed easily for transport. The grips include standard ball head mounts for strobe and video support arms as well as other accessories.

You can also add spacers to the grips for large hands and heavy gloves. Because the housing is small and has several controls on top there is no room for extra accessory ball heads to be mounted. Marelux instead offers twin Y-ball heads and an accessory mounting handle which has room for several additional mounting balls over the top of the housing.

The new MX-A1 housing features M16 & M24 bulkheads with the M16 on the rear housing plate for the vacuum valve. The M24 bulkhead is added to the front of the housing for HDMI output connectivity.

The vacuum valve is easy to install and remove with a simple tool and uses a standard vacuum

pump that fits over the red valve once the water proof cap is removed. The M16 valve and pump are sold separately for \$166.00 US. The vacuum electronics come installed in the housing and work as both a moisture detector and as a vacuum detector with the valve.

A red button on the inside rear half of the housing is pressed to activate the vacuum system. A yellow blinking light starts flashing on the rear housing plate and the housing plate is then sealed to the front section of the housing. The vacuum is then drawn and when the flashing light turns solid green the housing is ready to go into the water once the waterproof cap is reinstalled.

To release the vacuum the waterproof cap is removed and the red valve is pulled UP and once the light turns to red the vacuum is fully released.

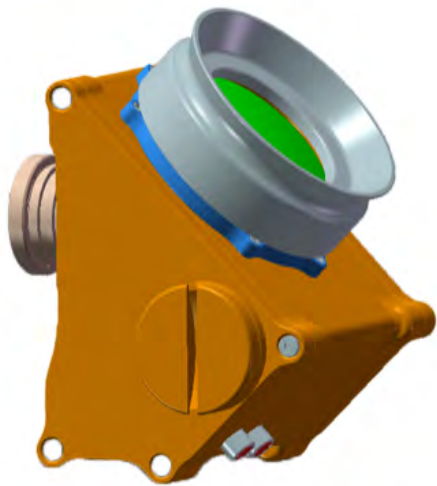
I average over 100 dives a year and I change the alarm system battery once a year in all housings as a routine. I also recommend carrying spare batteries for all of your needs when traveling just to be on the safe side.

The MX-A1 housing has a twin locking system to secure the front half of the housing to the rear. To unlock push in the two buttons on the bottom of the locking levers and turn the levers up until they stop.

To lock the housing reverse the process once the rear half of the housing is in place against the rear O-ring.

The housing has corresponding levers, push buttons and control dials for every function on the camera body. These controls are well placed and should be easy to use even with gloves. The rear half of the housing has a large LCD window and an optical glass pickup finder for the outstanding A1 EVF. Marelux is developing an angled viewfinder for the LCD screen that also includes depth and temperature readings at the bottom of the screen. I have no release date for this accessory.

The pickup finder can also be removed from the rear of the housing with a simple tool and I am sure there will be an optical viewfinder for the EVF offered soon perhaps by an after market company like Inon. A large optical viewfinder really helps those of us with aging eyes who are seeking better critical focus and composition. Marelux is also developing a 45 degree optical viewfinder for those of use with aging eyes who are seeking better critical focus and composition. Marelux intend to include a depth gauge powered by a small CR2 battery in the viewfinder which will be useful for those of us trying to maintain a frame of reference



while blackwater diving.

The port locking lever is on the front lefthand side of the housing and the lens release button is on the right viewed from the front of the housing. This allows you to remove the port or port adapter and install or remove a lens without removing the camera or even opening the housing. This is a very useful feature because larger lenses like the Sony FE 12-24mm F/2.8 GM zoom must be mounted from the front of the housing.

The ports and port extensions use the bayonet locking system and all have an additional locking device for extra security. All ports and extensions use a single lime green O-ring. Marelux also includes five inch rubber caps for the housing body, port extensions and ports which stay very secure once mounted. Marelux also offers Nauticam to Marelux

extension ring 20 and Sea & Sea to Marelux extension ring 20 so that S&S ports and Nauticam N120 ports and extensions can be moved between housings. The Nauticam extension ring also accepts the WACP wet lenses. The port rings do not support the Canon EF 11-24mm F/4 lens. Both extension rings retail for \$200.00.

The top of the housing features two threaded fiber optic ports supplied with protective caps for optical sync cords. I used the optical cords that push into the ports with the 45 degree ends. These ports work very well and at no time did I have a cord fall out of the port.

I tried the thread-on caps from Sea & Sea and Nauticam but they would not fit onto the slightly larger optical ports threads. Marelux intends to market cords of their own design so the thread-on type may be coming

soon. Compatible strobes are triggered using the Marelux manual flash trigger for Sony Alpha-series cameras with universal fiber optic cables.

The Marelux fiber optic flash trigger is compatibility with many flashes including Inon Z-330/type II, Z-240 type 4, S-2000, D-2000 type 4 and many other fiber optic flashes. The Marelux flash trigger is manual and does not have TTL function. The flash trigger is mounted over the camera hot shoe and uses two batteries that provide thousands of flashes. The two batteries are easily replaced using a single Allen tool. Just plug the hot shoe into the camera and you are ready to go.

The trigger only turns on when the camera is turned on and shuts off conserving battery power when the camera is turned off. The Marelux flash trigger has excellent recycle times allowing you to shoot between six and ten frames a second if your external strobes recycle times can keep up. The Sony/Nikon manual flash trigger lists for \$198.00 as an accessory.

Marelux also offers the Smart Optical Flash Tube for \$470.00 with \$80.00 docks for Inon Z240 and Z-330, Retra Flash Pro X plus Sea & Sea YS D2/YS D3. This is an optical snoot with a built-in aiming light which switches off when the strobe is fired. The light shape can be adjusted

by a built-in dial with diameters from 2mm to 60mm. This is a product I hope to review in a future article.

The Sony A1 with mechanical shutter will sync up to 1/400th sec. in full frame and up to 1/500th sec. in APS-C mode. In my previous Sony A1 article UWP #120 I said that you needed a proprietary TTL flash trigger to access sync speeds above 1/250th sec. Since that article Jim Decker from Backscatter has found that if you go deep into the camera menu, there is a setting under “flash” called “flash Sync Spd. Prty” that over rides the auto setting from the factory and allows the 1/400th/1/500th (APS-C) flash sync with any flash trigger manual or TTL. Thanks Jim for that useful update. The A1 will also sync up to 1/200th sec. using electronic shutter.

For video users Marelux has made the camera tray and tray mount from metal rather than plastic to help disperse heat helping to mitigate the over heating issues associated with shooting in 8K and 4K/60 for extended periods of time.

When you secure the tray the camera is centered in the dome and held very security in place. Marelux also offers a Sony A7S III camera conversion kit for the MX-A1 housing so that you can switch between cameras for \$248.00. They also have an SDI housing for the Atoms Shinobi



Diver entering the Ginnie Springs Ball Room Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/10, 1/125th sec

5 inch HDR monitor at \$2088.00.

All Marelux ports and port extensions are compatible with the current Canon, Nikon and Sony mirrorless camera housings. Dome ports use high quality coated optical glass and are sold in 140mm (not yet listed), 180mm (\$1366.00) and 230mm (\$2276.00). The ports come with a rubber body cap, a neoprene cover that has a velcro faster on the top side, a rigid zipper case for transport, a micro fiber cleaning cloth and spare O-ring.

The aluminum mount on the

inside of the 230mm dome port has beveled rings 360 degrees around the inside port opening. This helps to reduce light reflection back onto the port glass which will cause ghosting and flare in the camera lens especially in clear shallow water.

Field Testing the Marelux MX-A1 System

For this review I selected the Sony FE 90mm F/2.8 G OSS macro lens which easily handles the A1's large 50MP files and has exceptional



Diver entering the Ginnie Springs Ball Room Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/10, 1/125th sec

image quality. The 90mm macro was paired with the Marelux macro port 97 with 67 mm threads. The threads allow you to add a flip adapter and closeup lenses for macro beyond life size.

I also tested the Sony FE 12-24mm F/2.8 GM with the Marelux 230mm fisheye port II, 51103 zoom gear and extension ring 70 with lock. I also used the 230mm fisheye port II, zoom gear 60201 and extension ring 40 with lock for the Canon 8-15mm F/4L fisheye zoom with Sigma MC-11 lens adapter. The 230mm port has

two port blades each held in place by five Allen screws. These blades need to be removed to shoot at the 8mm end of the fisheye lens or you will get vignetting in the corners of the images. I also used two Inon Z-330's type II flashes for the wide lenses and two Backscatter MF-1 flashes for the macro images in this review.

I configured the 90mm macro lens with the focus limiter set from 1:1 to infinity in auto focus. With past Sony A7 cameras I set the focus limiter from 1:1 to 0.5 meters which renders everything from life size,



Diver at Devils Ear Springs Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/11, 1/320th sec

1:1 to about 1:10 in focus. I find that most of the macro/closeup subjects I want to photograph fall well within that shooting range. By using the focus limiter on older Sony A7 series cameras I found that the lens was less likely to hunt and that the lens acquired focus more quickly than when it was set



Florida Manatee, Silver Glen Springs Florida, Sony A1, 12-24 F/2.8 at 24mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/13, 1/250th sec

from 1:1 to infinity. With the A1 set to AF-C with tracking flexible spot the camera does not hunt like it did with prior versions set to infinity.

I have also moved away from using a manual focus gear even for magnification greater than life size using a closeup lens. The Sony auto focus has become so good that I just don't need the gear anymore. Marelux does offer a focus gear for the 90mm macro and other macro lenses but I did not test it for this review.

I used the Backscatter and Inon Z-330 flashes with two 50 mm X 250 mm float arms and two 200 mm double ball arms. The float arms could have been eliminated with both setups and replaced by a second set of double ball arms.

For those of you thinking about moving from a sub-full frame system to the A1 full frame system the reduced depth of field at any given F/stop over sub-full frame can present a few issues. Firstly high megapixel cameras including the A1 and especially



Mantis Shrimp, Blue Heron Bridge, Sony A1, 90mm macro, Marelux MX-A1 housing, two Backscatter MF-1 flashes. ISO-200, F/16, 1/320th sec

the A7R IV tend to highlight flaws associated with many budget and even some higher end lenses, so chose wisely when making lens purchases.

Secondly the shallower DOF associated with full frame cameras requires more critical focus so taking a machine-gun approach to shooting may result in high numbers of poorly focused images. As I have harped on before in many reviews of full frame cameras with wide lenses you need to stay around F/13 or above if you expect to have decent corner sharpness with wide lenses. Water contact optics help with the corner sharpness issues

at lower F/numbers and the Marelux to Nauticam 20 extension will allow you to mount water contact optics like the Nauticam WACP-1. Marelux has a flat port and zoom gear for the Sony FE 28-60mm with 67mm threads in development as well.

In the water the MX-A1 housing is very well balanced and easy to use. All of the frequently used controls fall easily at your finger tips and after a few dives I did not find myself having to look away from the viewfinder to change any of my camera settings. For a new housing company just entering the market I was impressed with the

MX-A1 housings robust design.

Keeping in mind that my test housing was a prototype I had the following issues with the controls. The rather complicated stacked Sony A1 double wheel for the frame rate and AF selection dial requires that a vertical button on top of the frame rate dial be pushed down to change frame rates from single to higher speeds and bulb. I could move between some of the settings but not all on my test housing. The bottom AF select dial requires you to push in a button on the side of the dial and then move between MF, DMF, AF-C and AF-S selections. The description included with my test housing indicates that the control lever be set to the AF-C position on the housing and on the camera before it is placed into the housing. With the review housing these controls did not lineup so could not be used properly.

The second issue was with the UP arrow on the four way arrow display. When reviewing images you can push the AF-ON (also used for back button focus) lever and the image will enlarge and the point of AF will be centered in the frame. You can then use the four arrows to move the enlarged image around the frame to check corner sharpness or other concerns.

Three of the arrows worked flawlessly but the up arrow would sometimes send the image back to full frame as if you had pushed the OK

button. This was completely random so sometimes it worked and other times it would go back to the full image.

These are quality control issues which need to be addressed by Marelux before the housings are ready for shipping to retailers. I was easily able to work around the first issues by making changes with other control buttons or in the menu but they still need to be fixed.

If the Sony Alpha 1 and Marelux MX-A1 housing are within your budget and you are seeking the very best in image quality, focus speed and overall performance for both stills and video this system may be for you. With a large selection of quality lenses this package should be at or near the top of your wish list.

Thanks to the Marelux and its staff for assistance with the equipment used for this review. Go to marelux.cot for further info and current pricing in your area and also be aware the website is still being rolled out so return often.

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