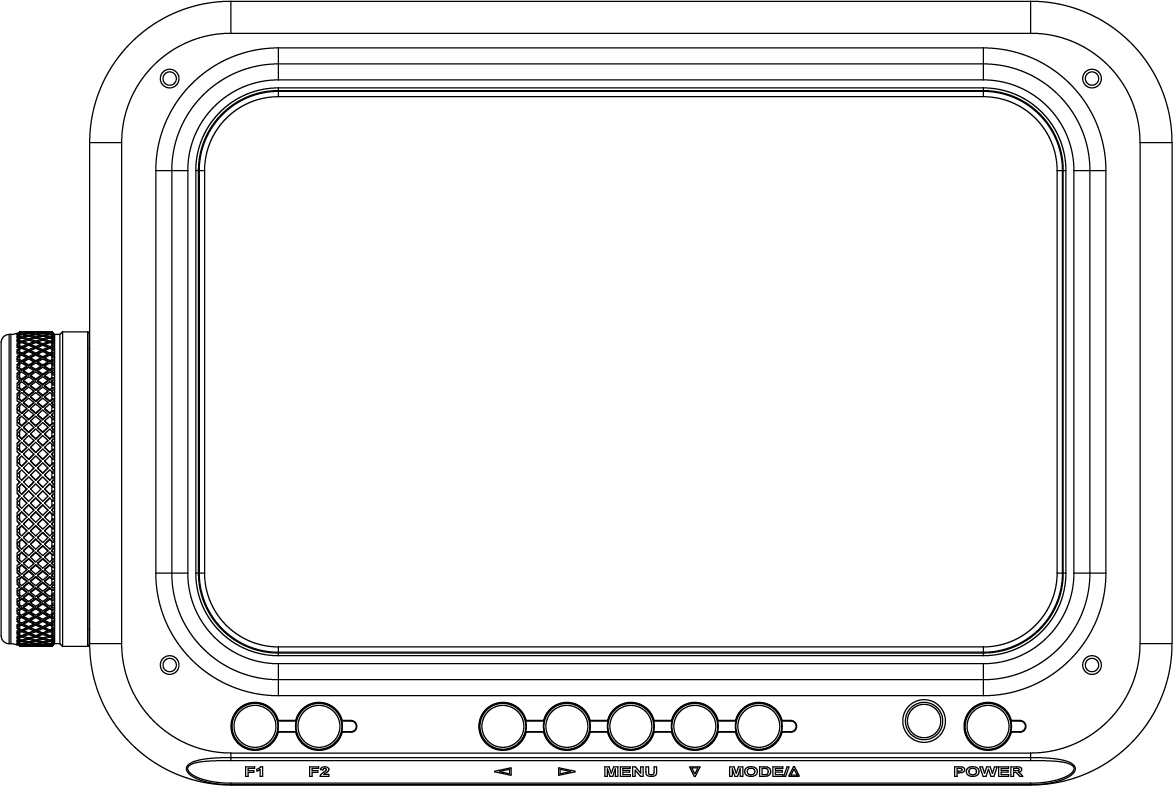


KRM 7-2200



Kraken Ultra Bright 7" 4K Underwater Monitor



**User** **Manual**

**Product** **Overview**

Thank you for purchasing the *Kraken Ultra Bright 7" 4K Underwater Monitor*. This monitor is a professional grade IPS LED panel, boasting extremely high brightness, low power consumption, and stable performance. Equipped with HDMI input and output and optional SDI, the monitor is ideal as a portable, lightweight viewfinder and video monitor, but suitable for a variety of different applications.

Advanced features include:

* Histogram
* False colours
* Zebra exposure
* Focus assist
* Nine grid
* Embedded audio
* Center marker
* Safe frames
* Colour temperature
* Picture settings
* Colour settings

**CAUTION**

**To** **ensure** **proper function** **of** **the** **monitor,** **please** **read** **the** **user’s** **manual** **carefully.**

* Discontinue use immediately should you notice any water leaking from the monitor.
* Discontinue use immediately should you notice any cracks on the LCD screen.
* Do not open the battery cap or the bulkhead cap in a wet or sandy environment.
* Avoid dropping the monitor.
* The LCD screen of this product is made of glass. Protect the screen from falls, or coming into contact with hard objects.
* Keep the monitor away from heat sources, such as radiator, water heaters, stoves, etc.
* Avoid prolonged exposures to the sun, as the LCD screen could be damaged.
* The charger included is a USB C PD, standard USB C chargers will not charge the battery. It is recommended to use only the battery and charger included.
* Always turn off the monitor before removing the battery.
* To avoid damaging the product, please do not take apart or repair the unit by yourself.
* For optimal maintenance, and to avoid scratching the screen, gently wipe the screen using a clean, soft fibred cloth. Do not use chemical solutions to clean the screen.

**General Features**

* Waterproof 80m/266ft
* 2200nit Brightness
* IPS 4K LCD panel (SDI 1080p only)
* 4K HDMI signal input/output
* 3840×2160p (30/29.97/25/24/23.98 Hz) / 4096×2160p (24Hz)
* ~3 hours runtime at max brightness
* Analog stereo L/R, embedded audio display
* Histogram
* Focus assist - focus edge can be red, green, or blue
* Zebra exposure and false colour function
* Check field - red, green, blue, mono
* Anamorphic mode

**Image Features**

* Flip (H, V, H/V)
* Image Freeze
* Nine grid - zoom one of the images to full screen
* Image Zoom-in function
* Pixel to pixel
* Marker types, safe frames and center marker
* Display and adjust the image colour temperature
* Brightness, contrast, tint, saturation and colour temperature adjustment

**Package Contents**

1. Monitor (Including HDMI-IN and HDMI-OUT bulkheads)

2. Battery

3. USB-C PD charger (AC adapter)

4. USB-C PD cable (for charging the battery)

***Note: always must use a USB C PD cable, standard USB C will not charge the device***

5. HDMI cable (60cm)

6. HDMI bulkhead with M16 thread with soft cable

7. M16-M24 thread adapter for HDMI bulkhead

8. Micro HDMI plug

9. Mini HDMI plug

10. Standard HDMI plug

11. Ball mount

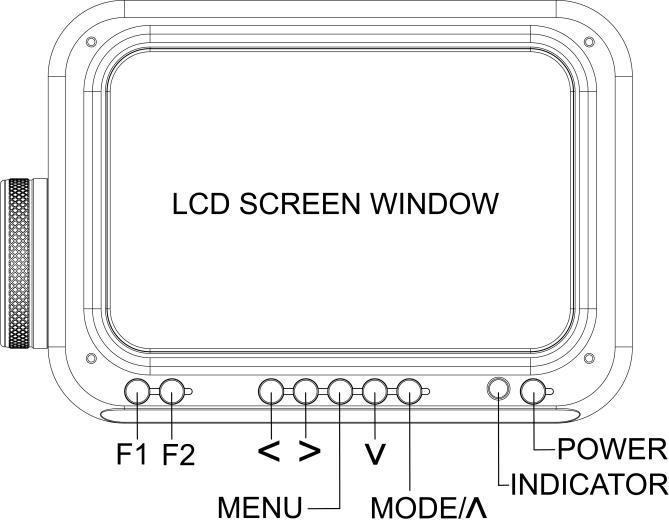
12. Spare O-ring for battery cap (O ring ID49 x CS2.0)

13. Spare O-ring for bulkhead (O ring ID26 x CS1.5)

14. Spare O-ring for M16-M24 thread adapter (O ring ID20 x CS2.0)

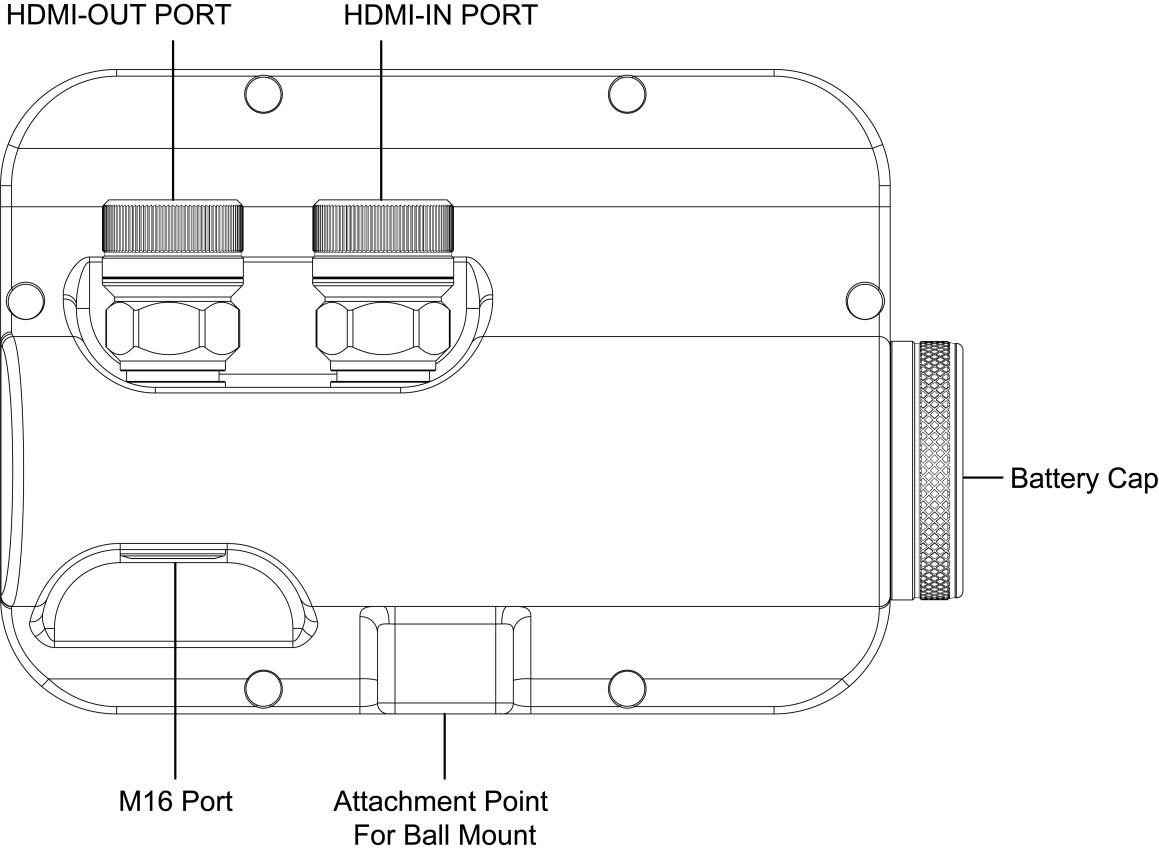
**Product** **Description**

1. **Front** **Panel/** **Button** **Instruction**



|  |  |  |
| --- | --- | --- |
| **Button** | **Function** **when** **OSD** **is** **not displayed** | **Function** **when** **OSD** **is**  **displayed** |
| **F1** | Custom button F1 | N/A |
| **F2** | Custom button F2 | N/A |
| ＜ | press < button for volume shortcut, then press < and > button to adjust the volume | Decrease or adjust value of selected parameter |
| ＞ | press > button for backlight shortcut, then press < and > button to adjust backlight brightness | Increase or adjust value of selected parameter |
| **MENU** | Display OSD main menu | Return to previous OSD m |
| ∨ | N/A | Select next menu item |
| **MODE/**∧ **(SDI** **Version)** | Signal input selection | Select previous menu item |
| ∧  **(W/O** **SDI** **Version)** | N/A | Select previous menu item |
| **POWER** | Power on/off button | |

1. **Rear** **Panel** **Instruction**

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1. **Battery / Charger**

1. Only use Li-ion battery provided by the manufacturer.

2. Do not open the battery cap when the monitor is in the water.

3. If the monitor will not be used for a long period of time, the battery should be removed.

4. To charge the battery, use the USB-C PD charger included with your monitor.

5. When the battery begins to charge, the indicator light on the battery will be RED.

6. When the battery is fully charged, the indicator light on the battery will change to BLUE.

**Operating Your Monitor**

* After correctly installing the battery, press and hold the "POWER" button for one second. The indicator ring will be blue or red and the monitor will turn on.
* When the menu is not displayed, pressing the **<** button will allow adjustment of the volume, or pressing the **>** button will allow adjustment of the backlight.
* Press the **MENU** button to access the main menu. Use the **<** or **>** buttons to scroll through the menu categories across the top. Once you have selected the desired menu category, use the **∨** or **MODE/∧** buttons to scroll through the list of items within that category. Press the **MENU** button again to return to the menu categories across the top, or a second time to exit the menu.

**Menu** **Categories and Options**



|  |  |
| --- | --- |
| **Shooting Assistant** | |
| ***Menu Items*** | ***Options*** |
| **Histogram** | Off, On |
| **Focus Assist** | Off, On |
| **Peaking Colour** | Red, Green, Blue |
| **Embedded Audio** | Off, On |
| **Over Exposure** | Off, On |
| **Exposure Level** | IRE10~IRE100 |
| **Check Field** | Off, Mono, Red, Green, Blue |
| **False Colours** | Off, On |



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| **Sight Marker** | |
| ***Menu Items*** | ***Options*** |
| **Nine Grid** | Off, On |
| **Safe Frames** | Off, 80%, 85%, 90%, 93%, 96%, 2.35:1 |
| **Center Marker** | Off, On |
| **Ratio Marker** | Off, 4:3, 13:9, 14:9, 15:9, 16:9, 1.85:1, 2.35:1 |
| **Mark Colour** | Red, Green, Blue, Black, White |
| **Mark Width** | 1~7 |
| **Modified Mark** | 0~5 |

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| **Zooming** | |
| ***Menu Items*** | ***Options*** |
| **Scan Mode** | Under Scan, Over Scan |
| **Aspect Ratio** | Auto., 4:3, 16:9, Ful Screen, Panorama, P2P |
| **Anamorphic** | Off, 1.3X, 2.0X, 2.0X MAG, User |
| **Anamorphic nX** | 1.20X~2.00X |
| **Image Flip** | Off, H Flip, V Flip, H\_V Flip |
| **OSD Flip** | Off, On |
| **Zoom Mode** | Off, Mode1, Mode2  *The Zoom All, L/R Zoom, U/D Zoom can be customized* |
| **Zoom All** | 0~500 |
| **L/R Zoom** | 0~500 |
| **U/D Zoom** | 0~500 |
| **Nine Grid Zoom** | Off, On  Open the Nine Grid function in the \*\*\* menu category to divide the image into the nine grid. Use the **<** or **>** buttons to scroll to the desired part of the screen, press the ∨ button to zoom to full screen. Pressing the ∨ button again will zoom out to the previous screen. |
| **Zoom** | Off, 4X, 9X, 16X |
| **Image Freeze** | Off, On |







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| **Image Colour** | |
| ***Menu Items*** | ***Options*** |
| **Lut Switch** | Off, On  *When turned on, you can use the Lut (SLOG2, SLOG3, LOGC, VLOG).* |
| **Lut Table** | Shows the 4 built-in Lut and the custom load Lut |
| **Lut Import (USB)** | After copying the 3D Lut file to a USB flash drive, and connecting USB UPGRADE port via USB adapter cable, press the < or > button in the Lut Import(USB) to import the 3D Lut file. |
| **Colour Temperature** | 5600, 6500, 9300, User  *Under “User”, the red, green and blue of the image can be adjusted.* |
| **Red** | 0~255 |
| **Green** | 0~255 |
| **Blue** | 0~255 |
| **Backlight** | 0~100 |
| **Pic. Mode** | Standard, Mild, User, Dynamic  *Under “User”, you can adjust the image brightness, contrast, saturation and sharpness.* |
| **Brightness** | 0~100 |
| **Contrast** | 10~100 |
| **Saturation** | 0~100 |
| **Sharpness** | 0~100 |
| **Tint** | 0~100 |

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| **Setting** | |
| **Menu Items** | **Options** |
| **Left Right Key Set** | Volume, Backlight  *You can set the “Left Right Key Set” as shortcut keys for backlight adjustment. After setting, when the menu is not displayed, you can directly press the* ***<*** *or* ***>*** *key for quick adjustment.(This device does not have the speaker.)* |
| **Languages** | English, 简体中文, Español, Português, Français, Nederlands, Deutsch, 日本語, 繁體中文, 한국以로, руссKий языK |
| **OSD Trans.** | Off, Low, Middle, High |
| **OSD Time** | Off, 10 seconds, 20 seconds, 30 seconds |
| **No Signal** | Blue Screen, Red Screen, Green Screen,  Gray Screen, Black Screen, White Screen |
| **Volume** | 0~100 |
| **USB Upgrade** | Copy the file to the USB flash drive, then connecting USB UPGRADE port via USB adapter cable, press the ">" button to confirm the upgrade. After the upgrade is complete, the monitor will automatically restart. |
| **Reset** | Pressing the **＞** button will reset the monitor back to factory settings. |

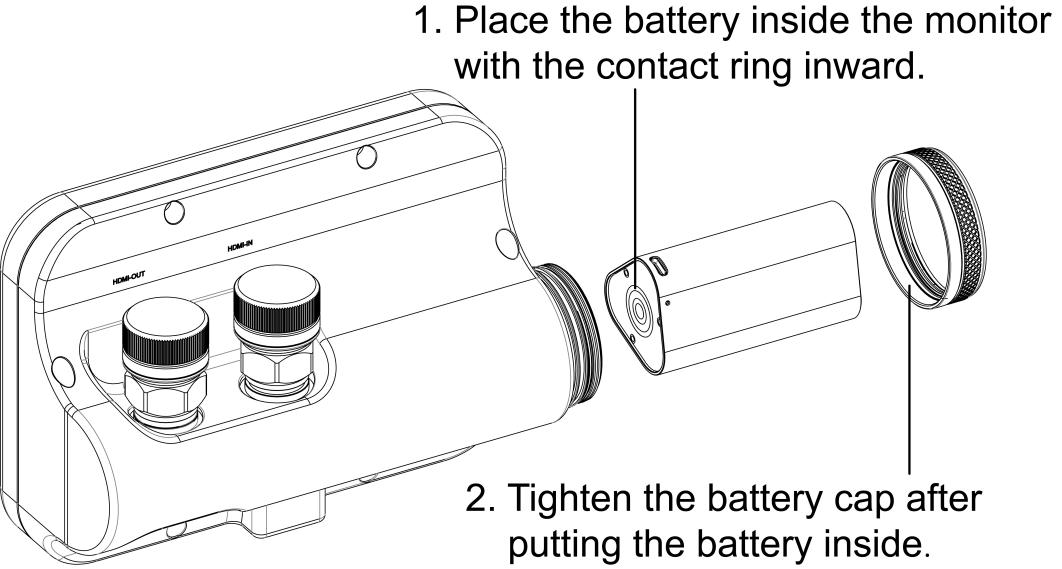


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| The two shortcut buttons F1 and F2 can be programmed with a feature of your preference. To set each button, select the  menu category, then press the ∨ button to select F1 or F2. Use the **<** and **>** buttons to scroll through the feature options, and press the **MENU** button to confirm your selection and program the shortcut button.  ***Options****: safe frames, check field, focus assist, aspect ratio, image flip, image freeze, histogram, false colours, over exposure, embedded audio, nine grid, zoom, anamorphic, center marker* |

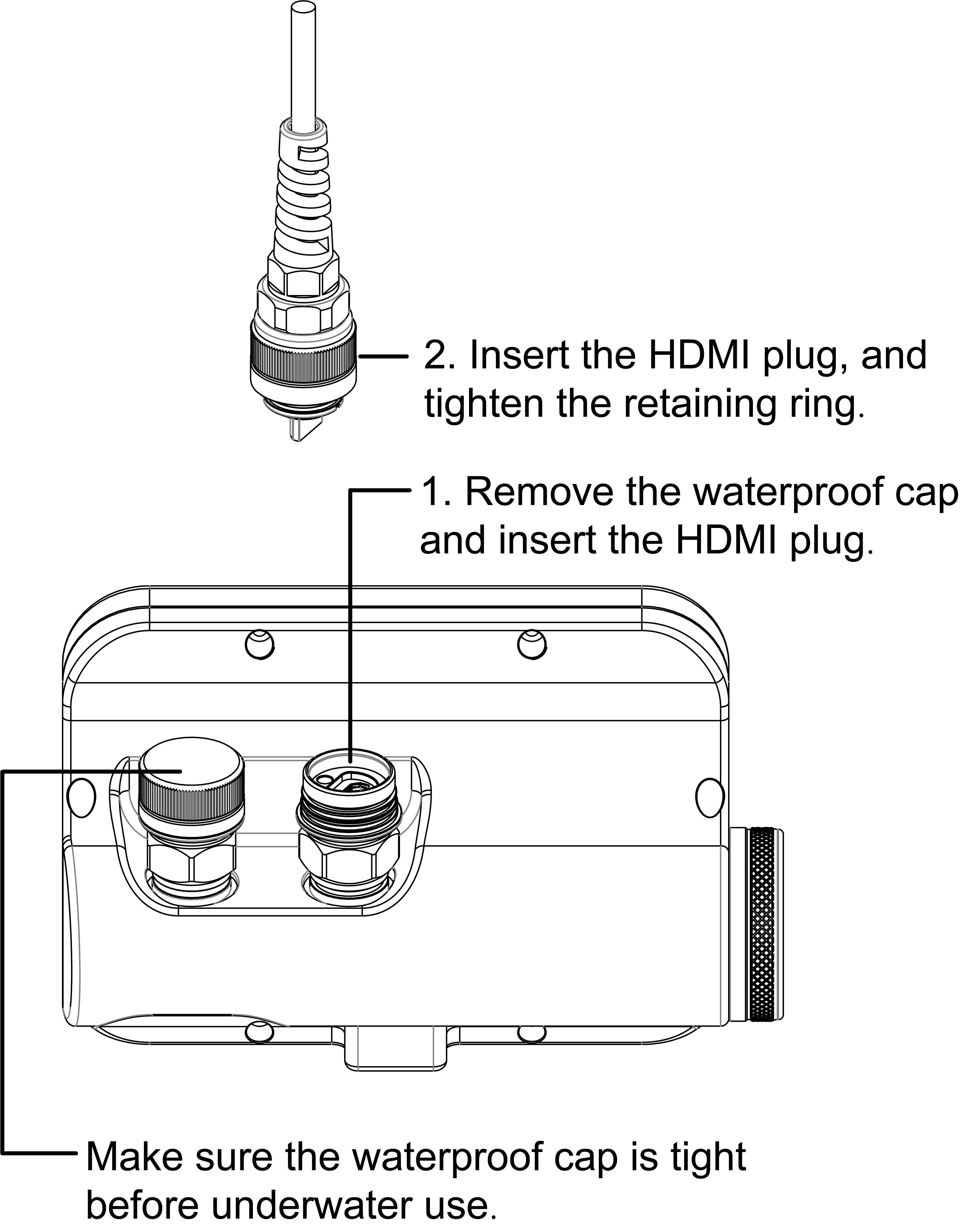
**Technical** **Parameters**

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| **Panel Size** | 7" IPS |
| **Resolution** | 1920x1200 pixels |
| **Dot Pitch** | 0.07875(W) x 0.07875 (H)mm |
| **Aspect Ratio** | 16:10 |
| **Brightness** | 2200cd/m2 |
| **Contrast** | 1200: 1 |
| **Viewing Angle** | 80°/80°(L/R) 80°/80°(U/D) |
| **Backlight** | LED |
| **Input** | SDI (Optional), HDMI |
| **Output** | SDI (Optional), HDMI |
| **SDI Support Format** | 480i/576i  720p (60/59.94/50/30/29/25/24/23.98)  1080i (60/59.94/50)  1080p(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF) |
| **HDMI Input / Output Support Format** | 480i/576i/480p/576p  720p(60/59.94/50/30/29/25/24/23.98)  1080i(60/59.94/50)  1080p(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)  4K UHD 3840×2160p (30/29.97/25/24/23.98 Hz) 4096×2160p (24Hz) |
| **Power Consumption** | ≦18W |
| **Unit Size** | 220Lx147Hx90D (mm) |
| **Unit Weight** | 2214g on land/560g underwater (With battery) |
| **Mount Points** | 1/4"-20 Thread Point (For mounting ball ) |
| **Working Temperature** | -20℃~55℃ |
| **Storage Temperature** | -30℃~65℃ |
| **Depth Rating** | 80 meters/266ft |

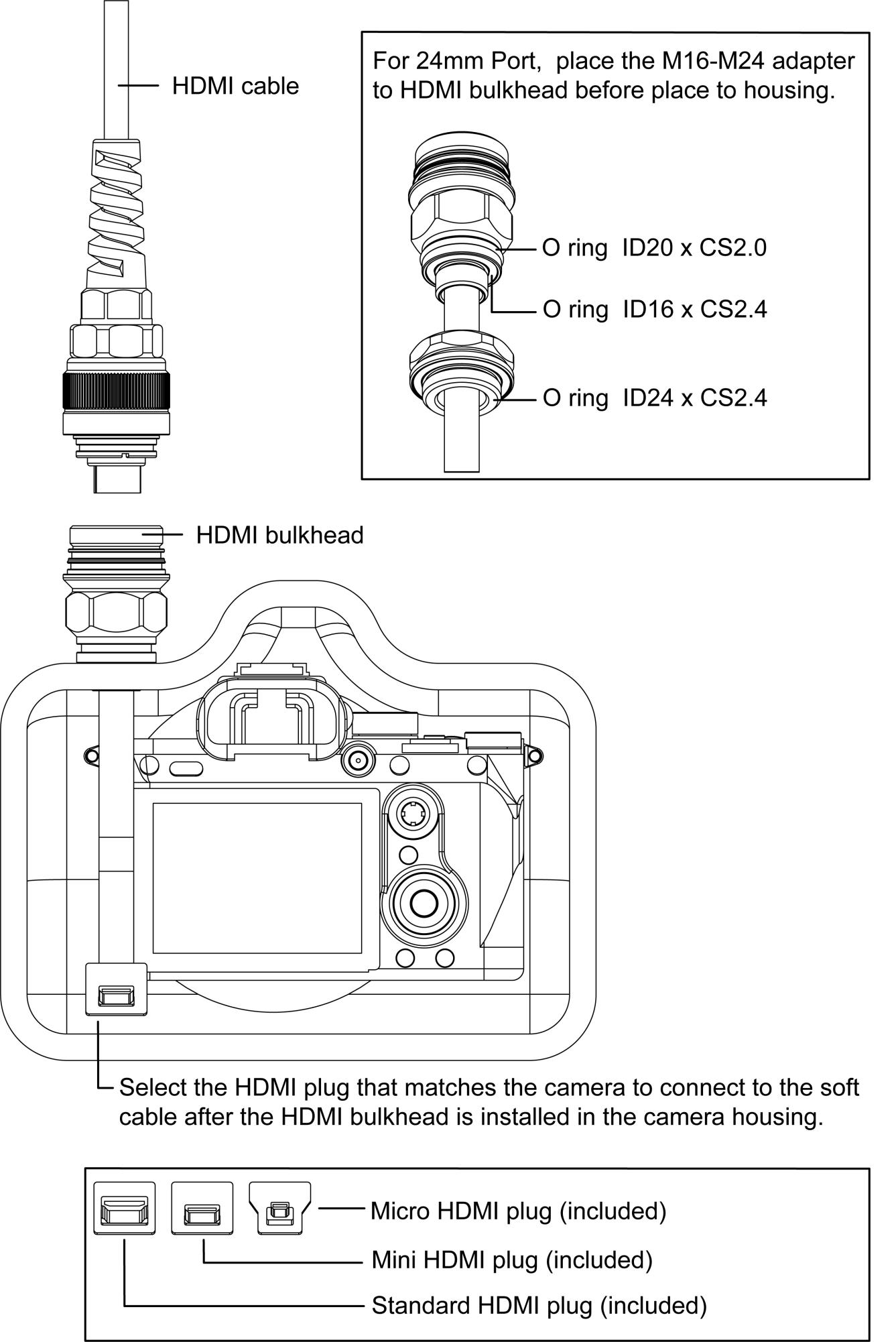
**Installing the battery**



**Connecting the HDMI cable to the monitor**

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**Connect to camera housing**

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**Troubleshooting**

Monitor showing only black and white, or monochrome picture.

* Check saturation, brightness & contrast adjustment.
* Check if **Check Field** in the menu is in black, white or monochrome image or other condition.

There is no image after powering the monitor on.

* Check HDMI\SDI cable, cable connections, and if monitor is synchronized with the input signal.
* Check signal cable connection, and make sure to use the standard adapter to connect the monitor. If power is supplied by battery, please check if the battery is fully charged.

*As we are constantly striving to improve performance, these specifications are subject to change.*