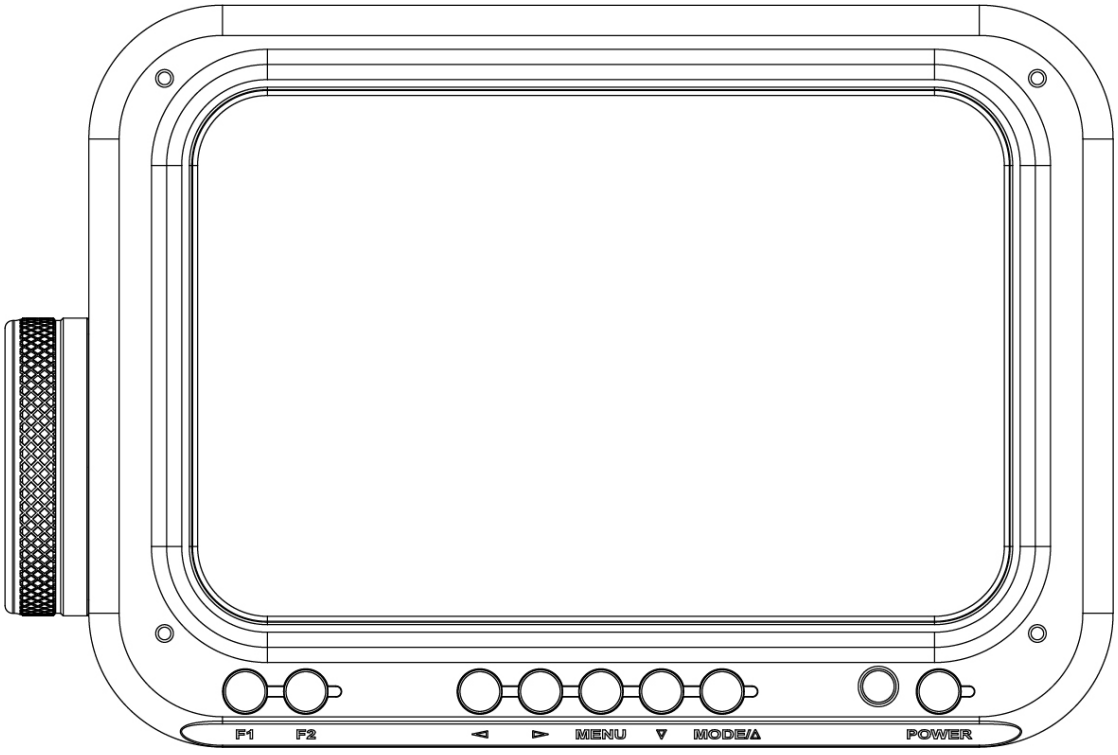
KRM 7-2200

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

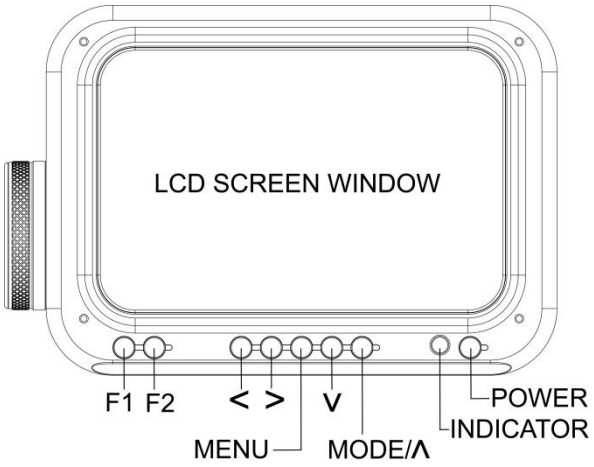
1. Monitor (Including HDMI-IN and HDMI-OUT bulkheads)
2. Battery
3. USB-C PD charger (AC adapter)
4. USB-C PD cable (for charging the battery)

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)

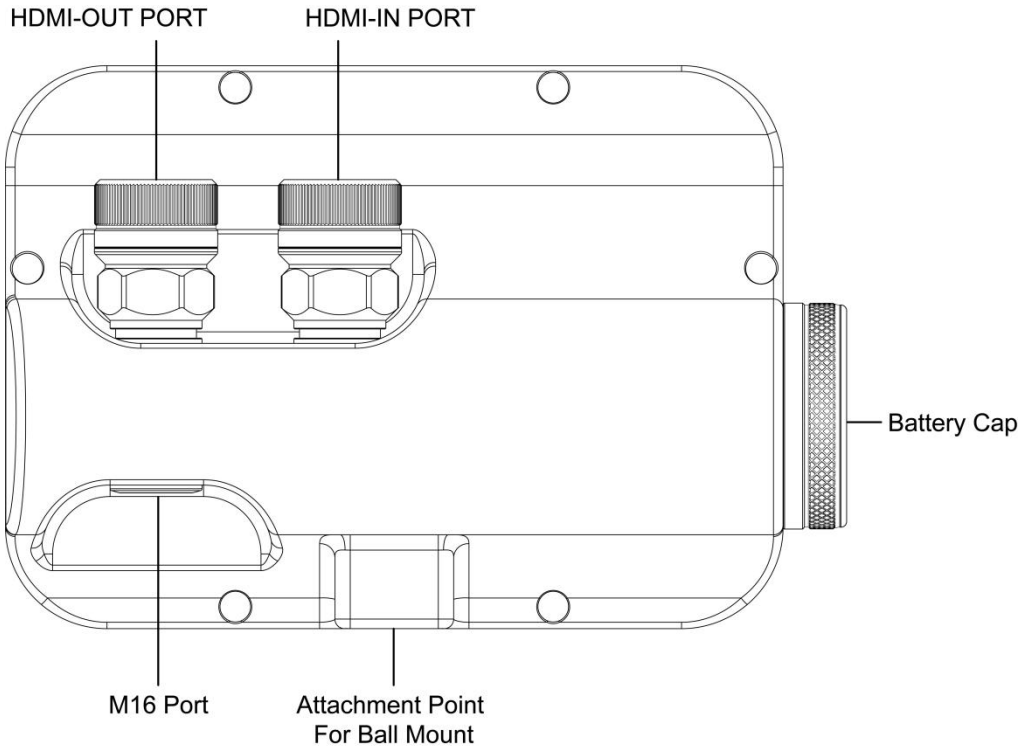
Product Description

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	

2. Rear Panel Instruction



3. 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

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

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 **v** button to zoom to full screen. Pressing the **v** button again will zoom out to the previous screen.
Zoom	Off, 4X, 9X, 16X
Image Freeze	Off, On

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

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, руссКий язьіК
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.

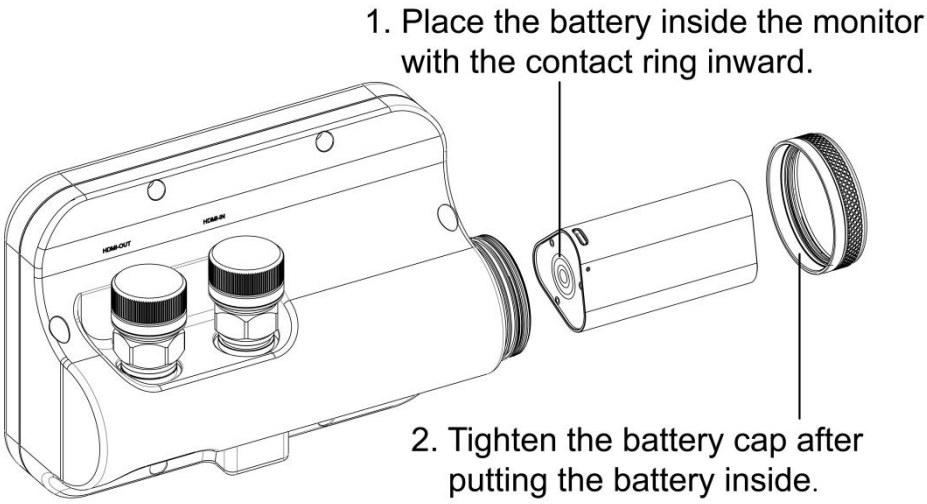
The two shortcut buttons F1 and F2 can be programmed with a feature of your preference. To set each button, select the F menu category, then press the ∨ button to select F1 or F2. Use the **<** and **>** buttons to scroll through the feature options, and press the **MENU** button to confirm your selection 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*

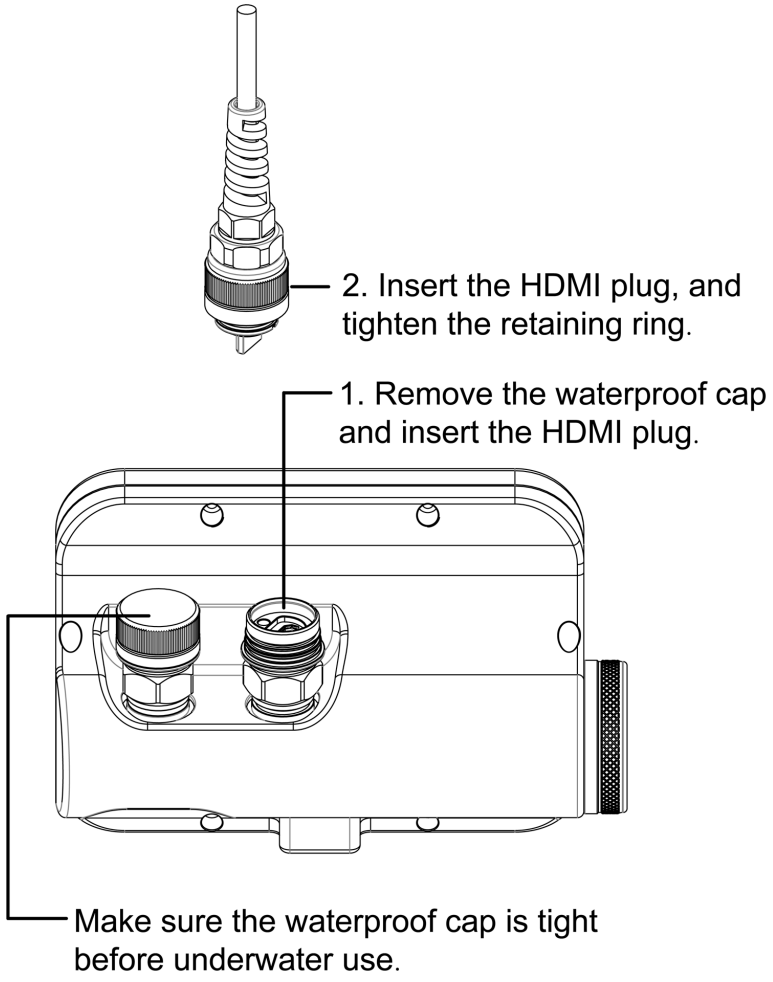
Technical Parameters

Panel Size	7" IPS
Resolution	1920x1200 pixels
Dot Pitch	0.07875(W) x 0.07875 (H)mm
Aspect Ratio	16:10
Brightness	2200cd/m^2
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

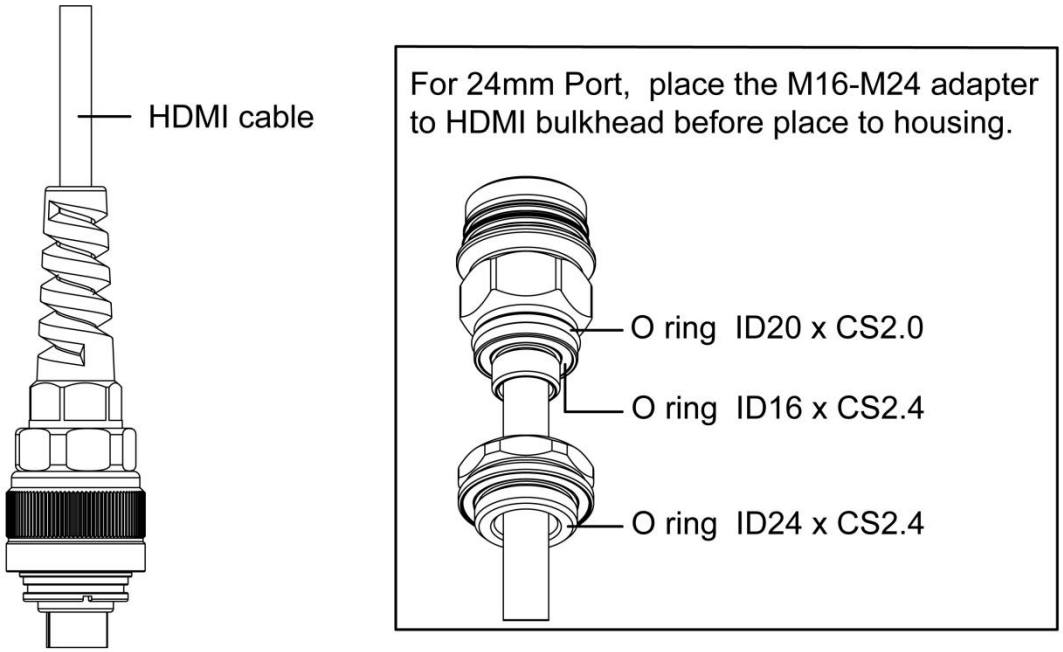
Installing the battery

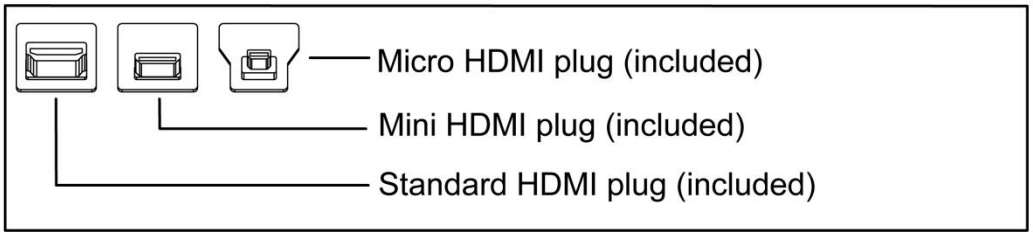


Connecting the HDMI cable to the monitor



Connect to camera housing





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.