



Konvision A7S
Recording Monitor

USER MANUAL

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About This Manual

The instructions in this manual are for A7S Recording Monitor.
Please confirm the model number of the device before reading this manual.

Notes

For the safety use of products, please read the following instructions regarding the installation, use and maintenance carefully.

- Please read the product safety and operating instructions carefully before the product operate.
 - Please keep the safety and operating instructions for future reference.
 - Please pay strict attention to the warnings and implement the products according to the operating instructions closely.
 - All operating instructions should strictly enforced.
1. Please do not expose the device to high temperature, high humidity, strong electricity or strong magnetic environment, in order to avoid fire or electric shock.
 2. Please make sure the cables connecting to the device are visible to prevent accidents.
 3. Please make sure do not leave the device unattended when it is running.
 4. Please do not place vessels with liquid (such as cups, beverage bottles) on the device.
 5. Please keep not less than 5cm space around the vents while using the device, in order to obtain good heat dissipation effect.
 6. Please make sure the device is installed securely to prevent tipping, falling or damage.
 7. Please make sure the device is securely connected and avoid excessive bending.
 8. Please do not insert any incompatible device into the disk slot of the device.
 9. Please disconnect the DC power supply or remove the battery if do not use the device for a long time.
 10. Please do not place the device in an environment with a lot of dust or mechanical vibration.

Screen Maintenance

Please follow the below guidelines carefully to prevent discoloration, stains and scratches on the screen:

- Do not write on the screen.
- Do not paste or stick any viscous markers on the screen.
- Do not expose the screen to sunlight direct for a long time. Otherwise, the screen may be damaged or aged.

- Do not press or place heavy objects on the screen. Otherwise, the screen may be uneven or broken.
- Screen may cleaned by gently wiping with lint free cloth to remove dust. For the more difficult cleaning, use lint free cloth that has been very lightly dampened with detergent, then dry any excess moisture from the monitor or LCD panel immediately to prevent damage.

Cabinet Maintenance

Please follow the guidelines below to prevent potential damage.

- Keep the environment dry, prolonged humidity may damage the monitor.
- Do not wipe the cabinet with solvents such as alcohol, thinner or gasoline.
- Do not wipe the cabinet hard. Use a soft, lint free cloth. If the cabinet cleaning is difficult, please use lint free cloth that has very lightly dampened with detergent and then dry it to wipe.

Transportation

- This monitor is precise equipment and need professional packing materials to transport. Please do not to use packing materials provided by suppliers except KONVISION or its authorized packing material suppliers.

When the following situations occur, please turn off the power, and do not insert the plug. Contact a professional service staff to deal with timely.

- A. This product smells of smoke and off-flavor.
- B. When this product displays abnormal operating conditions, such as there is no picture or sound.
- C. When any liquid splashed into the product or product dropped.
- D. When the power cord or plug damaged.

The following does not belong to failures:

- 1. If a static image displayed too long, panel will have residual image, which should attributed to the LCD display characteristics, but not a failure. Residual image will disappear automatically after a period.
- 2. If this device used in a cold environment, the screen may appear residual image. This is not a product failure, when the monitor temperature changes, screen will return to normal conditions.

Introduction

Thank you for purchasing Konvison 7-inch Recording Monitor A7S.

We are proud to introduce the elaborately designed product A7S. The A7S combines the accumulation of our monitoring and recording technologies and is a perfect solution for live production monitoring and professional recording, you can attach the model to any kind of camera for any production events.



Product Features

1. Support multiple signals and meet the needs of different scenarios.
2. High brightness, high contrast, wide color gamut LCD screen to reproduce clear and delicate picture.
3. High performance processor and high speed transmission interface to achieve low video latency.
4. Support HDMI, SDI, Type C and etc interfaces, easy to connect with other devices.
5. Touch screen, simple operation, user-friendly design, support UI interaction.



Accessories

Storage Medium

The A7S recording monitor uses a 2.5inch SSD with SATA3.0 protocol and supports recording upto 4K UHD p60 and 4K DCI p60.



There are a wide variety of hard drives available on the market and the technology evolves rapidly. As a result, we are unable to test each one individually. We strongly recommend using enterprise-grade hard drives to record Ultra HD images and consumer-grade hard drives to record HD images. The A7S will continually update the list of the supported hard drives, so please regularly check the user manual for the latest information.

We suggest using the following SSD hard drives to record Ultra HD ProRes images at a maximum of 60 frames per second:

Description	Remark
Western Digital WD RED Series	Test passed, recommended.
Samsung 860 Pro Series	Test passed, recommended.
Samsung 870 Evo Series	Test passed, recommended.
Intel S4520	Test passed, recommended.
Intel S4610	Test passed, recommended.

We suggest using the following SSD hard drives to record HD ProRes HQ images at a maximum of 60 frames per second:

Description	Remark
Western Digital WD RED Series	Test passed, recommended.
Samsung 860 Pro Series	Test passed, recommended.
Samsung 870 Evo Series	Test passed, recommended.
Crucial MX500 Series	Test passed, recommended.
Intel S4520	Test passed, recommended.
Intel S4610	Test passed, recommended.
YMT SC001 XT Series	Test passed, recommended.
SanDisk ULTRA 3D Series	Test passed, recommended.
Lenovo SSD SL700 Series	Test passed, recommended.

■ Disk thickened gasket pad frame

The A7S is compatible with both 7mm and 9mm SSD hard disk drives. When using a 7mm SSD hard disk drive, an additional thickened gasket pad frame is required. The specific usage method is as follows:



■ Disk Maintenance

SSDs are very sensitive and susceptible to static interference. Please observe all precautions when using.

■ Backup & Archiving

When managing recorded materials, please remember to save it, as we cannot guarantee that any storage media will not fail during use. The A7S does not support file deletion, in order to avoid file deletion by mistake. It is recommended to archive the content and reformat the disk before each shot.

SDI & HDMI Cable

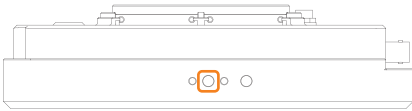
SDI/HDMI cables have durable physical and conductive properties. When using the cable, please check whether the cable is securely connected to the port to ensure that no signal loss occurs. If the SDI/HDMI cable is removed during recording, the message "No Signal" is displayed in the middle of the device screen.

Standard 1/4" Screw Holes / Mounting brackets

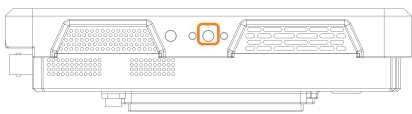
SDI/HDMI cables have durable physical and conductive properties. When using the cable, please check whether the cable is securely connected to the port to ensure that no signal loss occurs.

If the SDI/HDMI cable is removed during recording, the message "No Signal" is displayed in the middle of the device screen.

Top View



Bottom View



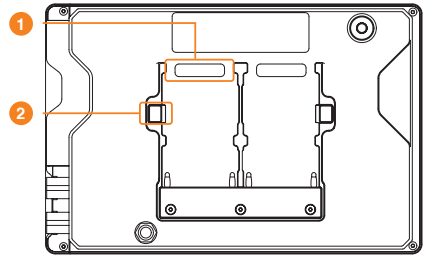
*The screw hole in the circle represents the mounting base for racks.

NOTE Please do not over-tighten the screw base to avoid damaging the screw holes. Do not insert 1/4"-20 screws longer than 5mm, or you may damage the device.

Battery

The A7S supports professional high-capacity batteries that can power the device for several hours. Please avoid short-circuiting the battery, as this can lead to high currents that may damage the battery component or even create a fire hazard. Please follow below suggestions:

1. Please use the included power adaptor.
2. Please do not keep batteries and metals together.
3. Please do not touch the power plug with wet hands to avoid electric shock
4. Please do not use the power adaptor and battery for other devices
5. Please remove the battery and power adaptor when not in use.



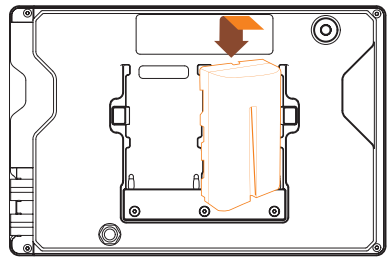
A7S Rear View

1 Battery Slots

Dual battery slots. The battery level icon in the upper right corner will turn red when the battery level is lower than 20%.

2 Battery Bolts

Press the release button and gently slide the battery down to lock into position. Press the button again to unlock and remove the battery.



A7S Rear View

Appearance & Connector

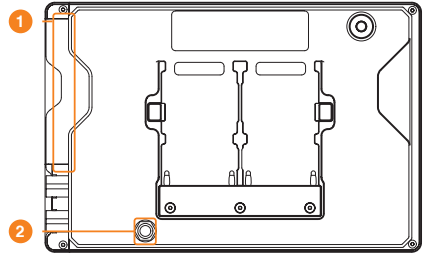
Front View



1 Front Tally Indicator

Status	Front Tally Indicator Color	Rear Tally Indicator Color
Upgrading	Flashing red.	/
Standby	<ul style="list-style-type: none"> · Red indicator when DC supply. · No indicator when battery supply. · Flashing red when battery is charging. · Red indicator when the battery is full. 	/
Recording	Flashing red.	Flashing red.
Switching Recording & Playing Status	Yellow indicator.	/
Monitoring / Playing	Blue indicator on.	/

Front View

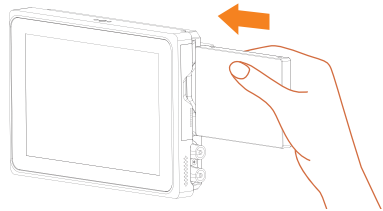


1 SSD Slot

On the rear of the device is a 2.5" slot for insert and take out the SATA 3.0 SSDs. To insert the SSD, gently push the drive until it stop at the end of the slot.

The SSD slot is without a bolt. To remove the drive just gently pull it out.

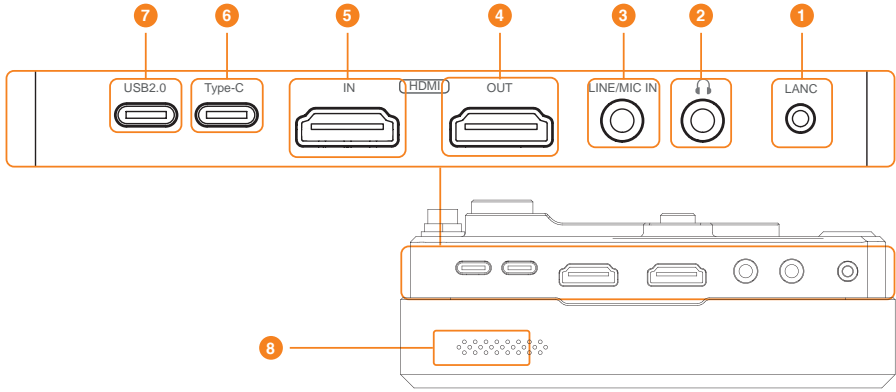
The A7S supports SSD hot-plugging, but do not remove the drive when recording, otherwise the file may damage and be unable to play.



2 DC IN

DC power port and support voltage range is 6.2V-16.8V.

Left View



1 LANC Port

To control your camera or other RS232 protocol devices with the A7S. Use the LANC controller through the 2.5mm jack on the left side (looking from the front), allowing the external LANC controller to start/stop recording in distance.

2 Headphone Output & Mic Input

A 3.5mm headphone jack is located in the left side, support analogue audio output and condenser microphone analogue audio input. User can adjust the audio channel and level at the audio setting in the menu, also control the audio level by sliding the touch bar at the right bottom of the screen.

3 LINE IN

A 3.5mm audio input jack is located in the left side support analogue stereo audio input. In monitoring mode. User can control the audio level by sliding the touch bar at the right bottom of the screen, also adjust the audio channel and level at the audio setting in the menu.

4 HDMI OUT

For a loop-out to another HDMI-input monitor or other device and a video output in the drive playback mode, up to 4Kp60.

5 HDMI IN

For HDMI video input, up to 4Kp60.

6 Type-C

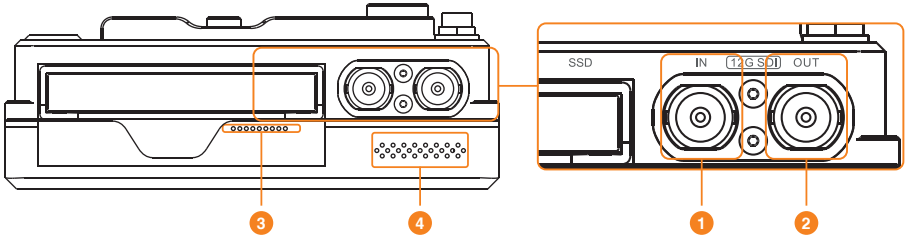
This jack is capable for USB 2.0 and Displayport 1.4 input, also support output of up to 5V/2A power supply. Updating system firmware and loading luts are available through a USB drive.

7 USB 2.0

This jack is capable for USB 2.0 also support output of up to 5V/2A power supply. System maintenance is available when this jack is using as USB 2.0.

8 Left Ventilation

Right View



1 SDI IN

In monitoring mode, it serves as the SDI signal input interface, and in playback mode, it serves as the SDI signal output interface. Supports 12G/6G/3G/HD video signal.

2 SDI OUT

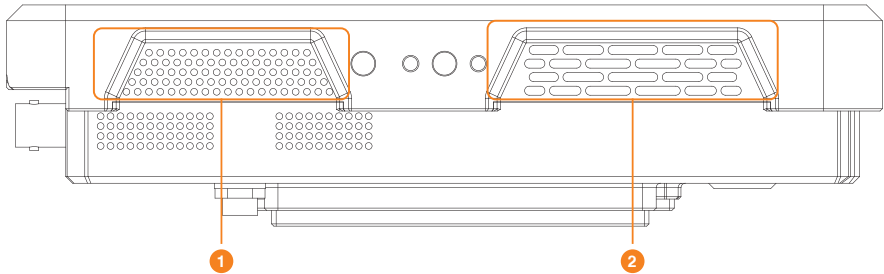
SDI output interface, supports 12G/6G/3G/HD video signal.

3 Speaker

Stereo audio output.

4 Right Ventilation

Bottom View



1 Output Ventilation

2 Input Ventilation

NOTE When placing the device on a table (or may block the bottom when it is running), we recommend you invert the device to prevent stopping up the ventilations.

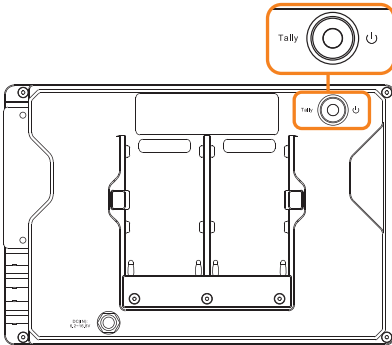
Getting Started

Before using A7S to record and play any media, please learn about the following basic settings.

- Powering on
- Powering off
- Locking the Screen
- Formatting Storage Media
- Setting Files Name

Powering ON

The power button is located in the left side of the rear (when you facing the screen). After connecting the power supply to the A7S, press the round button in the left rear for 2 seconds to turn on the device. Wait for a few seconds, the Konvision logo will display, then the A7S will enter the main screen. The power button is showing in the picture.

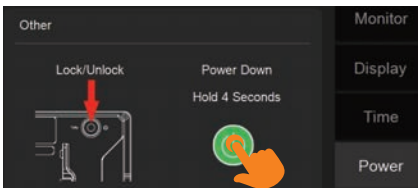


Powering OFF

Powering off the A7S with following options:

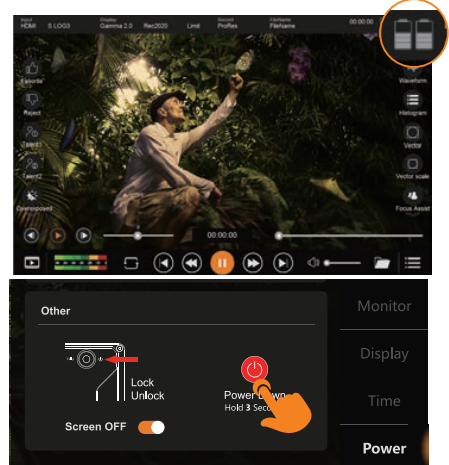
Option 1

Click the menu icon at the right bottom, choose "POWER", press the green power down icon for 4 seconds, when the icon turns red, indicating the switcher is activated, the device will be turned off after the count-down.



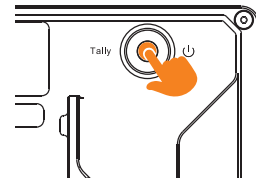
Option 2

Click the battery icon at the right top, click the green power down icon for 4 seconds in the showing menu, when the icon turns red, indicating the switcher is activated, the device will be turned off after the count-down.



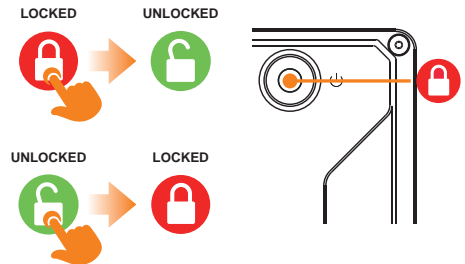
Option 3

press the power button at the rear for 2 seconds to shut down the device.



Locking the Screen

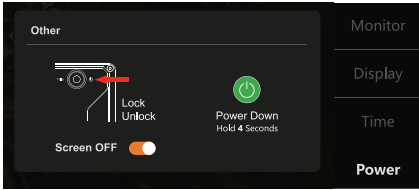
Shortly press the power button to lock the screen. Touching will be forbidden after locking the screen to prevent unexpected operation. Shortly press the button again to unlock the screen.



NOTE Long press the button to shut down then turn on the A7S again will unlock the screen.

Locked and off screen function

When the locked and off screen function is turned on, short press the power button, the screen will be locked and the backlight will be turned off. Short press the power button again to unlock it. This function helps save power when powered by battery.

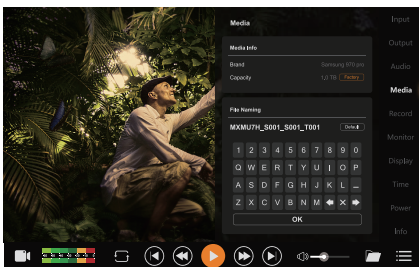


Formatting Storage Media

Please ensure you backup all the data before you insert the SSD. Click the drive icon in the right top or choose the media in the menu to show drive information.



If you need to format the drive, please click the "Format" button as follow:



A prompt box will pop up to ensure the formatting operation please choose "Yes" or "No" to execute the next operation.

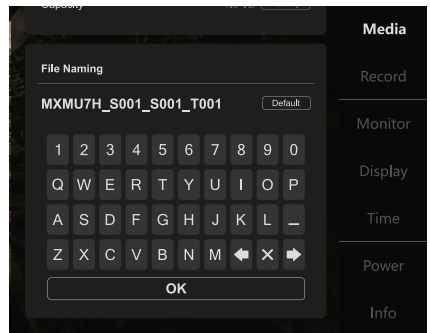
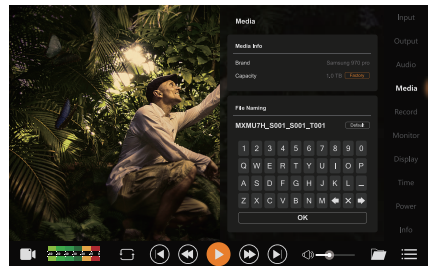
- NOTE**
- If there is no drive information, please insert the drive again or change a drive.
 - The SSD attached to the A7S should be exFAT format.
 - When a SSD first be inserted, it may be showed "invalid Disk" because the drive is not formatted. Please execute the formatting process.

Setting Files Name

File name is the current unit name as the start of the recorded clip name Drive Name_S(Scene)_S(Shot)_T(Take).(Container Format), such as WXMU7H_S001_S001_T001.MOV

Create your own unit name in Media menu, modify it at File naming unit.

- Files name only supports letters and numbers, press the letter in the arrow to change the underscore block, use the \longleftrightarrow button to switch the name blocks.
- "Scene","Shot"and"Take" can't be changed, only the unit numbers can be customized. (0 to 9).



A7S Recording Mode

The delicate interface design of A7S helps creators concentrate on content. The main screen control units and the assistant tools are directly displayed on the screen, you only need to click a blank area to check and use the corresponding toolbar and click again to hide all information. The A7S supports monitor, record and replay functions.



Monitor Mode

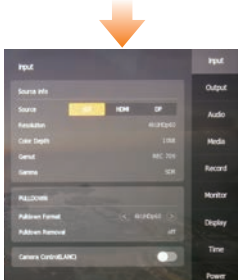
The A7S supports monitor mode, use SDI/HDMI/DP cables to transfer the media signal to the main screen. Monitor mode will not affect recording files. Click the menu button, use the “Input”, “Audio” and “Monitor” functions in the menu to set the input source, audio level and assistant tools. Click the blank area and display the top information bar.



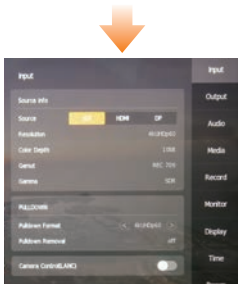
Change the Input Source

Change the input source as SDI/HDMI/DP with following methods:

A) Click the “Input” button in the left top of the screen, you can change the input source in the showing menu bar.



B) Click the menu button at the right bottom, you can change the input source in the showing menu bar.



Signal Output

SDI Output

Displays the outputs resolution and frame rate of the SDI signal.

HDMI Output

Displays the outputs resolution and frame rate of the SDI signal.

SDI & HDMI Cross Conversion

- HDMI signal input, HDMI signal output or SDI signal output.
- SDI signal input, SDI signal output or HDMI signal output.

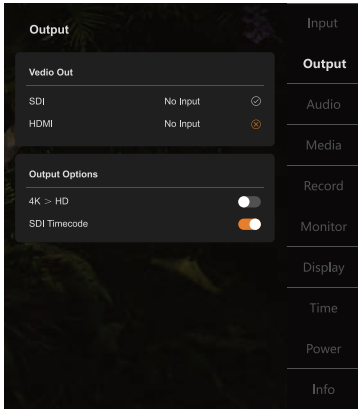
Signal Output Setting

- HDMI signal input, HDMI signal output or SDI signal output.
- SDI signal input, SDI signal output or HDMI signal output.

4K to HD Conversion

Signal down-conversion is the conversion of high-resolution or high-frame-rate 4K input video signals into low-resolution or low-frame-rate 1080 HD video output signals to match the performance of display devices or meet specific broadcast standards. The down-conversion function is not limited to the reduction of resolution, it also includes the adaptation of color space, brightness, and contrast. This is particularly critical for the color grading process in film and television production.

In addition, during live operations, the down-conversion function allows the native high-resolution images captured by the camera to be displayed in real-time on a portable, low-resolution monitor, which greatly facilitates the need of live shooting and instant playback.



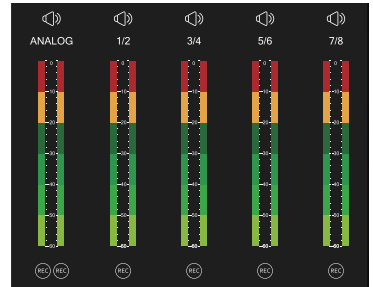
Turn on the 4K > HD switch in the output settings. Other displays or monitoring devices can receive 1080 HD signals under interconversion conditions.

SDI Time Code

In playback mode, turn on the SDI time code switch to output the time code to other monitoring devices.

Audio Level Meter

Horizontal and Vertical audio level meter. The horizontal audio level meter displays 1/2 channel audio, while the vertical sound bar displays eight channels of digital audio and two channels of analog audio.



Volume Icon

Users can select the listen audio channel by clicking the volume icon above each speaker.



Recording Icon

Click the record icon for each channel. When it is highlighted, it means the audio will also be recorded. A7S supports recording multiple audio channels at the same time. Just click the record icon to highlight it.

Audio

Audio

Select and set the input audio.

Analog Audio Source

Analog audio is the technology of representing and processing sound through continuously changing signals. The advantage is mainly reflected in the ability to provide more natural sound output. Due to its continuity, analog audio can seamlessly capture subtle changes in sound, which makes it particularly popular in music production and high-end audio appreciation.

There are two analog audio sources. When an audio player such as a mobile phone or computer is connected to the Line/MIC IN port via a serial port to a 3.5mm audio cable, select "Linear Input" as the audio source. When a headphone cable with a microphone is connected to the headphone icon port, select "Microphone" as the audio source.

The analog audio delay can be adjusted by increasing the frame level delay to achieve audio and video synchronization.

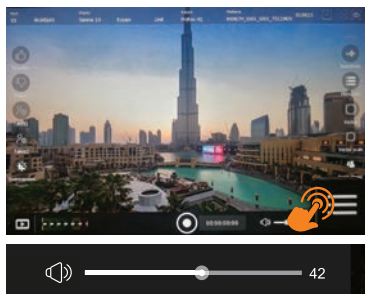
Volume Adjustment

Adjust the volume of playing media in the monitor mode with following methods.

A) Press and drag to right and left of the volume bar in the down screen to adjust the volume.



B) Click the menu button at the right bottom of the screen, choose the “Audio”, Press and drag to right and left of the volume bar to adjust the volume.



C) To mute the sound you can slide the bar to the left, or click the horn icon, when it turns to indicating that the sound is muted.

Analog Audio Embedding

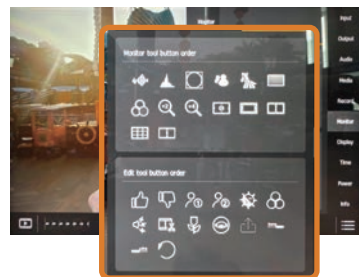
This function converts continuous analog signals into discrete digital signals and integrates or merges them with digital audio data. It supports embedding to 1/2 channels, 3/4 channels, 5/6 channels, and 7/8 channels. When outputting video signals via HDMI or SDI, the embedded audio will also be part of the digital signal. Click "<" or ">" to switch the embedded channels.



Monitor

Monitor Assistant Tools

In the monitor mode, the right side is the assistant toolbar. You can customize the order of the toolbar. Click the menu button at the right bottom, choose the “Monitor” in the showing menu, you can customize the assistant icons order with your preference the method is to click two icons and exchange their positions.



Waveform

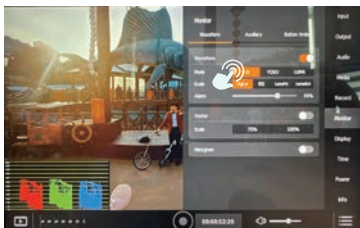
The waveform display provides a digitally encoded waveform similar to traditional luminance waveform monitors which is used to monitor the luma or brightness levels of your video signal. The A7S supports LUMA, YCbCr and RGB waveforms.

Two ways to open LUMA waveform: The first way is to click the “Waveform” icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the “Waveform” button in the Monitor option. If you choose “LUMA”, then it will switch to the luma waveform at the left bottom of the screen. The upper limit of the waveform scale is adjustable.



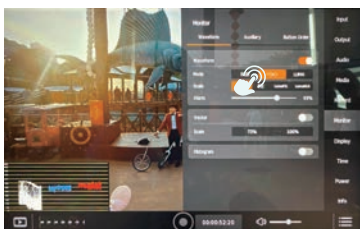
RGB Parade e shows separate waveforms displaying the luminance of each red, green and blue color channel, the three color channels are displayed parallel, though the RGB waveform you can inspect the white balance as well as the color cast, also check the contrast.

Two ways to open RGB waveform: The first way is to click the “RGB” icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the “Waveform” button in the Monitor option. If you choose “RGB”, then it will switch to the RGB waveform at the left bottom of the screen. The upper limit of the waveform scale is adjustable.



The YCbCr waveform is to indicate the wave of Y, Cb and Cr components. Y stands for the variation of luminance component, Cb and Cr stands for the variation of color components. Check the waveform to analyze the distribution of luminance and colors, also inspect the unexpected issues such as overexposure or underexposure, color cast, etc.

Click the menu button in the right bottom, then click the “Waveform” button in the Monitor option. If you choose “YCbCr”, then it will switch to the YCbCr waveform at the left bottom of the screen. The waveform scale is adjustable with a slider.



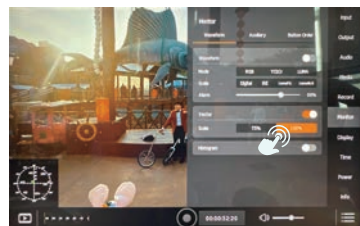
Vectorscope

The vectorscope display is to measure the range of hue and saturation and shows color information as a phase vector. Use it to help set up the white point and black spot of the camera.

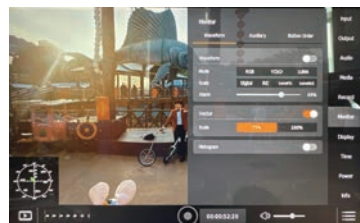
The A7S has a classic vectorscope, emulating a trace drawn graph, with 100 percent color bar saturation targets positioned at the gradicule markers surrounding the graph. Heavily saturated colors in the frame stretch those parts of the graph closer to the edge, while less saturated colors remain closer to the center of the vectorscope, which represents 0 saturation. By judging how many parts of the vectorscope graph branch out at different angles, you can see how many hues there are in the image, with the specific angle of each part of the graph showing you which hues they are.

The A7S supports 100% and 75% scales of vectorscope. Two ways to open the vectorscope: The first way is to click the “Vector” icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the “Vector” button in the Monitor->Waveform option.

100% Scale:



75% Scale:

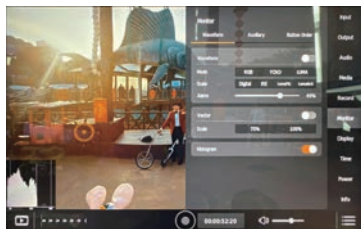


Histogram

The histogram shows the distribution of image brightness, which can help users quickly understand the image exposure. The horizontal axis represents the brightness range, from left to right corresponding to the pixel values from the darkest (pure black) to the brightest (pure white), and the vertical axis represents the number of pixels at a certain brightness level. The histogram can determine whether the image is underexposed, overexposed, or properly exposed.

1. Shadow (dark part): corresponds to the part of the histogram that is biased to the left. If the curve is concentrated on the left, it means that the overall image is dark.
2. Midtone: corresponds to the middle part of the histogram. If the curve is concentrated in the middle, it means that the light and dark transition of the image is natural and the exposure is relatively normal.
3. Highlight (bright part): corresponds to the part of the histogram that is biased to the right. If the curve is concentrated on the right, it means that the overall image is bright.

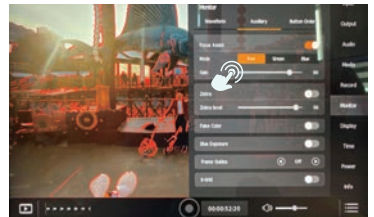
There are two ways to open the histogram: one is to directly click the "Histogram" icon in the monitoring toolbar on the right side of the main screen; the other is to click the menu icon in the lower right corner of the main screen, select the "Monitor" option in the pop-up interface, and turn on the "Histogram" control switch in the "Waveform" option.



Focus Peaking

Focus peaking settings is to help focus your images fast. Focus peaking displays edge lines on the sharpest areas of the image. You can change the color of the lines to red, green or blue the peak level is adjustable. Changing the color of the edge lines can also make them easier to see in conditions where their color may match the image.

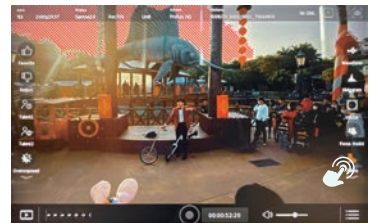
Two ways to open the Focus Peaking: The first way is to click the "Focus Assist" icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the "Focus Assist" button in the Monitor-> Auxiliary option, select the red, green or blue mode. The overexposure scale is adjustable with a slider.

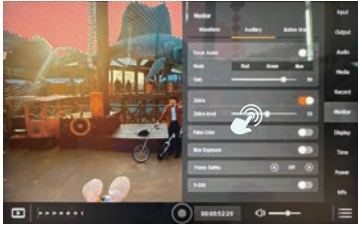


Zebra

The zebra feature helps you achieve optimum exposure by displaying diagonal lines over areas of the video that exceed your set zebra level.

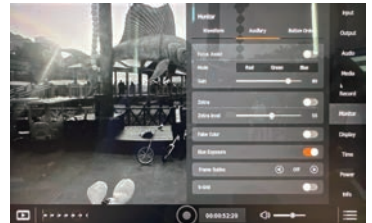
Two ways to open the Zebra: The first way is to click the "Zebra" icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the "Zebra" button in the Monitor-> Auxiliary option.





Blue Exposure

In this mode, only the black and white information of the blue channel can be displayed, this is for inspection of noise in the video signal and evaluating the exposure. Two ways to open the Black and White Mode: The first way is to click the "Blue Exposure" icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the "Blue Exposure" button in the Monitor-> Auxiliary option.

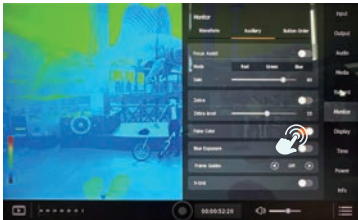
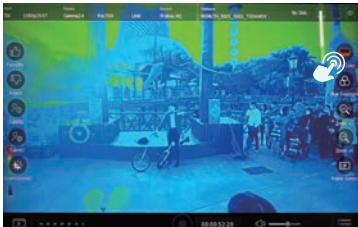


False Color



The false color feature displays color overlays on your image that represent exposure values. Different exposure values are represented by different colors, such as pink for light skin, red for overexposure, and blue for underexposure.

Two ways to open the Zebra: The first way is to click the "False Color" icon in the right side monitor assistant toolbar. The second is to click the menu button in the right bottom, then click the "False Color" button in the Monitor-> Auxiliary option.



Zoom x2

The instruction frame indicates the monitoring area that zooms 2 times, drag the screen or slide the frame to choose the zoom area.

Comparison before and after zoom x2:

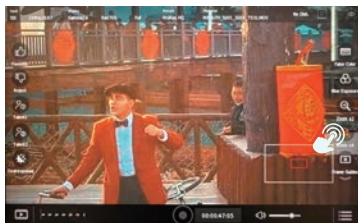




Zoom x4

The instruction frame indicates the monitoring area that zooms 4 times, drag the screen or slide the frame to choose the zoom area.

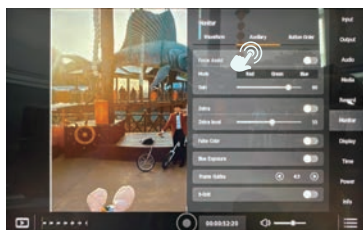
Comparison before and after zoom x4:



Frame Guide

The frame guides feature provides aspect ratio overlays for various cinema, television and online standards. You can choose a specific aspect ratio to confirm the actual display result of the live composition in other viewing devices. The A7S supports the aspect ratios of 1:1, 4:3, 16:9, 1.85:1, 1.90:1, 2.35:1, 2.40:1. To open the frame guide, click the "Frame Guide" icon in the right side monitor assistant toolbar.

There are two ways to open it: one is to directly click the "Frame Guide" icon in the monitoring toolbar on the right side of the main screen to select different ratios, and the other is to click the menu icon in the lower right corner of the main screen, select the "Monitor" option in the pop-up interface, and select different ratios by clicking the "<" or ">" icon of "Frame Guides" in the "Auxiliary" option.



The display result of 4:3 as followed:



1:1

Suitable for shooting and photogrammetry applications.



4:3

Displays the 4:3 aspect ratio compatible with SD television screens, or to help frame shots when using 2x anamorphic adapters.



16:9

The international standard format of HDTV.



1.85:1 & 1.90:1



Displays another common flat widescreen cinema aspect ratio. This ratio is slightly wider than HDTV, but not as wide as 2.39:1.



2.35:1 & 2.40:1



Displays the broad widescreen aspect ratio compatible with anamorphic or flat widescreen cinema presentation.



Safe Area

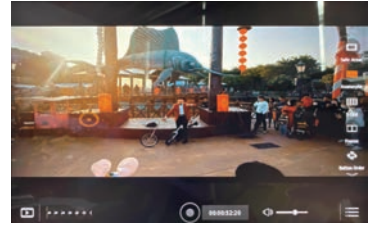
The safe area function can provide a reference for the user to design subtitles or stunt positions, to avoid the presence of over-scanning and incomplete picture. The safe area is general in the shape of “□” and consists of two inner and outer rectangles with different distances from the edge of the screen, which will not be recorded or output.

The outer rectangle is called the “Action-safe zone”, which means that the motion and transition of the picture outside the zone may not be fully displayed. The smaller rectangle in the middle is called the “Title safe zone”, which means that subtitles in this zone can be displayed on the viewer’s screen. The size of the A7S safe area does not support customization. Click the “Save Areas” icon in the monitoring toolbar on the right side of the main screen to turn on the function.



Anamorphic

Click the “Anamorphic” icon in the monitoring toolbar on the right side of the main screen to turn on the function. A7S supports anamorphic widescreen lens magnification of 1.33x/1.5x/1.66x/2x.

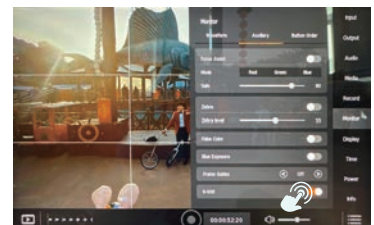


Nine Grid View

The Nine-Grid function is a tool to assist composition, used to help photographers or videographers better arrange the elements in the picture when shooting. It divides the picture into nine equal grids and uses the intersection of four lines as the “center of interest” to guide the photographer to place the subject at these points, making the picture more harmonious and dynamic.

The Nine-Grid function has the characteristics of “improving visual appeal”, “enhancing picture balance”, “assisting symmetrical composition”, “improving shooting efficiency”, “adapting to different environments”, and “supporting multiple devices”.

There are two ways to turn it on: one is to directly click the “9-Grid” icon in the monitoring toolbar on the right side of the main screen to select different ratios, and the other is to click the menu icon in the lower right corner of the main screen, select the “Monitor” option in the pop-up interface, and turn on the “9-Grid” switch in the “Auxiliary” option.





Freeze

Click the “Freeze” icon in the monitoring toolbar on the right side of the main screen to turn on the function. After turn on the function, the image is still and only audio output is available. When turn off the function, the video picture will be consistent with the input of the signal source.

The Main Screen

Tap a blank area of the A7S screen in recording model to display the top information bar, the left marker toolbar, the right auxiliary monitoring toolbar, and the bottom recording control bar.

Top Information Bar



1 Video Input

Displays the signal source of the current input video, supporting SDI/HDMI/DP input.

2 Video Format

Displays the resolution and frame rate of the current input video.

3 EOTF Value

Displays the Gamma value.

4 Color Space

Displays the color space.

5 Data Level

Displays the Data level.

6 Encoding Format

Displays the recording encoding format and compression mode of the current video, which can be customized.

7 File Name

Displays the file name of the current video, which can be customized.

8 Media

Displays the remaining recordable time, depending on the recorded video resolution, encoding format and disk capacity.

9 Battery

Displays the current battery. The icon is transparent when the battery is not inserted. The icon is green when the battery is inserted and the battery charge is higher than 20%. The icon is red when the battery charge is lower than 20%.

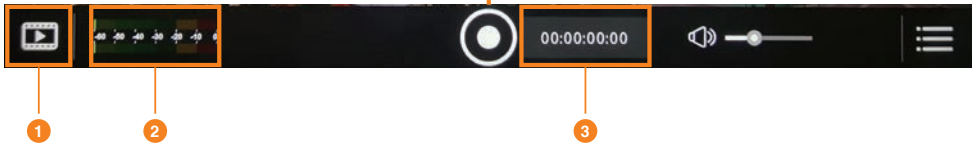
Bottom Recording Control Bar

Tap the recording icon at the bottom of the home screen to start recording. Tap again to end recording. The recording icon is white when recording is not performed. The recording icon turns red when recording is enabled, and a red box appears around the home screen.



NOTE The recording icon turns gray and disables the recording function when the input signal is invalid or the disk is not formatted or the disk is full.

NOTE The recording icon changes from No Disk to the remaining recording time, and the recording icon is also refreshed to the recording status, when the input signal is valid and a formatted disk that is not full is inserted.



1 Recording / Play Toggle Button

Press the icon to switch recording & play function.

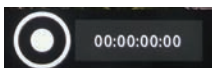
2 Audio Level Meter

User can set the audio level meter in the recording interface. There are two display ways: the first way is to directly click the icon of the audio level meter in the main screen, the second way is by clicking the menu icon, and select the "Audio" option in the pop-up interface.

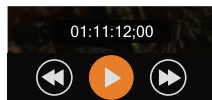
NOTE Selecting the monitor icon does not mean selecting the audio you want to record. User need to choose to record each audio channel through the record **REC** icon. When the Rec icon is gray, it means that the channel audio will not be recorded to the file.

3 Time Code

The time code changes position based on the recording, monitoring or playback mode. In recording and monitoring mode, the tie is displayed to the right of the recording icon, and in playback mode, the time code is displayed above the playback icon.



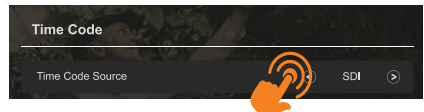
In recording mode



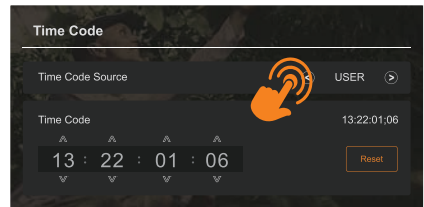
In SDI mode

In recording mode, touch the time code to enter the initial time code setting menu. The supported initial time code sources are SDI Timecode, USER, Calendar.

In SDI mode, the time code follows the time code of the SDI signal source. The initial time code is obtained from SDI.

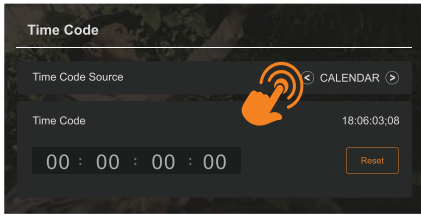


In USER mode, the initial time code can be customized. Tap the numeric **▲** and **▼** icon to automatically modify it. Click the Reset control to quickly set the initial time code to 00:00:00:00.



In Calendar mode, tap the menu icon, select "Time" in the pop-up window. The time format can be 12-hour or 24-hour. User can switch it by tapping the control button.

After you set the time and date, the time code displayed on the screen is consistent with the value set in "Time". With this setting, each new fragment created will use the current system time as the initial time code.



Data Setting

A7S supports data setting. Click the menu icon and select the “Data” option on the pop-up screen. Click the ▲ and ▼ to adjust the date, then click OK to save.

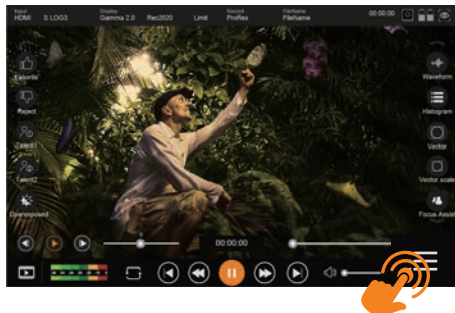


Record Setting

Tap the menu icon and select the “Record” option on the pop-up screen to set the recorded video.

Video Compression Format

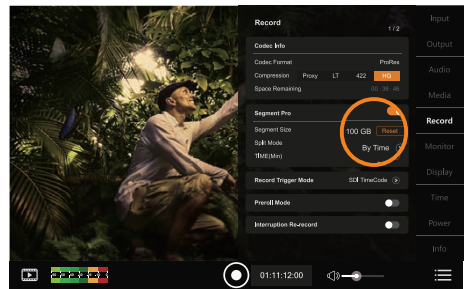
A7S supports Apple ProRes encoding format, compression format supports Proxy/LT/422/HQ, click the compress quality icon to switch. The available recording time is automatically calculated based on the video solution, the available capacity of the inserted hard drive and the compression format.



Segmented recording

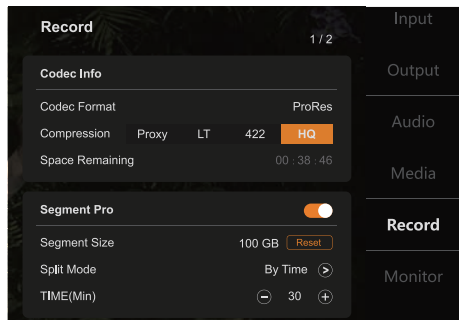
Segmented recording is the process of dividing a long video shooting task into multiple short recording sessions. It allows creators to simplify post-processing and improve shooting efficiency by controlling the size and duration of a single file without sacrificing video quality.

Segmented recording supports two segmentation modes: by time and by size. The unit interval of the time segment can be adjusted from 10 minutes to 240 minutes, and the default is 30 minutes. The unit capacity of the size segment can be adjusted from 10GB to 4100GB, and the default is 100GB.





Trigger recording

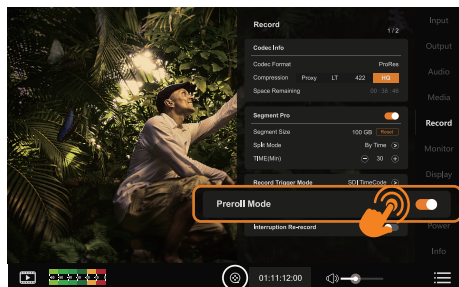
A7S supports two trigger recording modes: record icon trigger and SDI time code trigger. When the record icon trigger mode is selected, click the record button to start the recording function. When the SDI time code trigger recording is selected, the A7S will start recording immediately when the signal source time code rolls.



Pre-roll Record

A7S also supports pre-roll record, which can fully record the wonderful moments before the recording icon is pressed. After clicking the pre-roll Mode button, the pre-roll function will be enabled, the recording icon will change from  to  and when the recording icon is pressed, the recording will start.

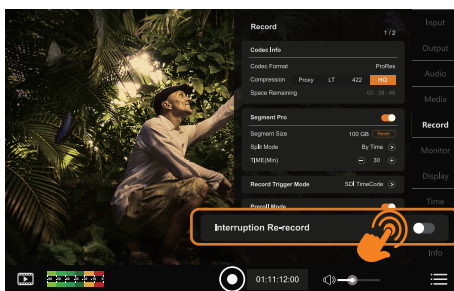
The final duration of the pre-roll recording will be determined by the video resolution and frame rate. 4K P60 format video can be pre-recorded for 2 seconds, 4K P30 format video can be pre-recorded for 5 seconds, 2K video can be pre-recorded for 10 seconds. Shooting in a lower resolution format will increase the pre-roll recording time.



NOTE when the pre-roll recording mode is enabled, the device will continuously caches the input video image on the device. Therefore, some functions will be disabled, including the selection of compression format, audio channel selection and so on.

Interruption Re-recording

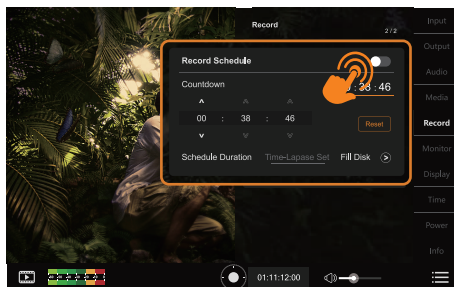
The A7S's interruption re-recording function allows creators to continue recording even if the resolution is switched within 10 seconds or the signal line is accidentally disconnected but immediately restored. Click the "Interruption Re-record" control switch under the "Record" menu.



Scheduled recording

Scheduled recording allows users to set a specific time for the device to automatically start recording video, which is especially important for remote control or when shooting without a photographer.

Click the "Record" menu, slide to the second page, set the countdown duration, and the continuous mode can be "Disk Full" and "Duration". After setting, click the "Record Schedule" control switch, the device will enter the countdown, and the recording function will be turned on immediately after the countdown ends.



NOTE The countdown setting and duration setting share the same keyboard.

Time-lapse Photography

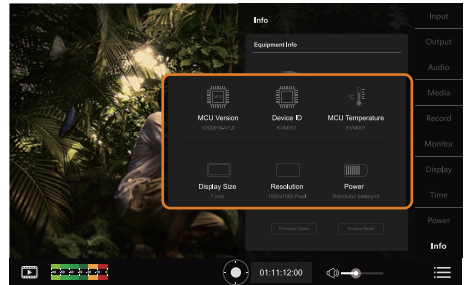
The A7S supports time-lapse photography, which can effectively record slow-moving subjects, capturing changes in natural phenomena such as flowers, sunrise and sunset, while the saving files does not take up too much storage space. Select Record item in the menu, click the delay parameter, user can customize the “one time duration”, “interval time”, “total duration” parameters, then the “material duration” value will be automatically calculated. When recording begins, the recorder will automatically records a specified number of frames at a specified interval.



NOTE This feature does not support audio recording.

Information

The firmware version and device ID (DID) of the device will be displayed in the Information menu.



A7S Playback Mode

A7S provides high-quality lossless video playback. After recording the video, click the toggle icon to play the video. The device will start playing the last recorded video. If no video has been recorded, it will start playing the first video in the file list.

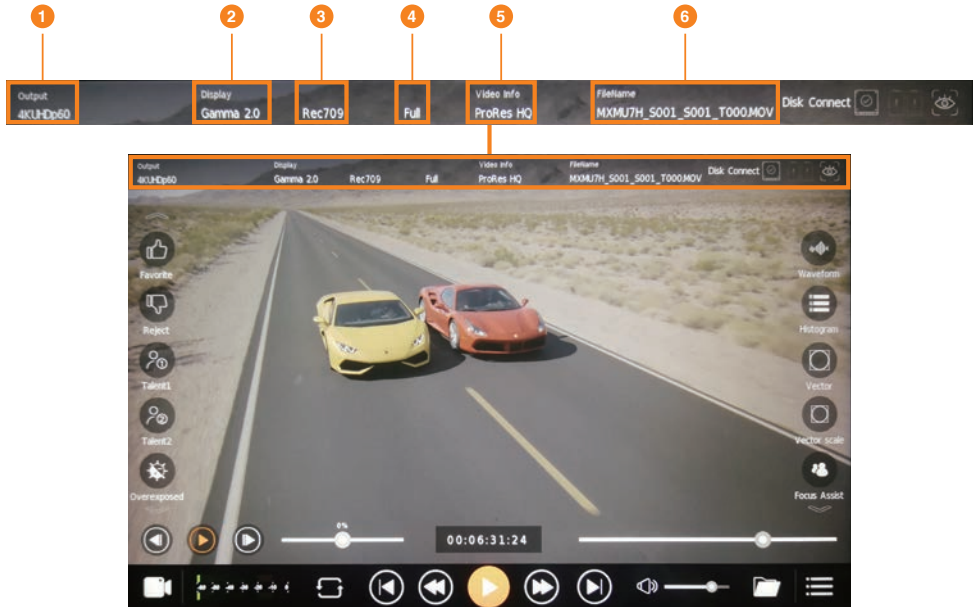
Main Interface

In playback mode, user can monitor the recorded video, and select different footage by clicking the folder icon at the bottom of the screen.

The A7S also supports sending live recorded footage to other monitors via SDI/HDMI.

Tap the blank area of the screen and the monitor auxiliary function bar and video tag bar appear. These tools can be applied to any video material on the disk.

Top Information Bar



1 Video Input

Displays the signal source of the current input video, supporting SDI/HDMI/DP input.

2 EOTF Value

Displays the Gamma value, which can be customized.

3 Color Space

Displays the color space, which can be customized.

4 Data Level

Displays the Data level, which can be customized.

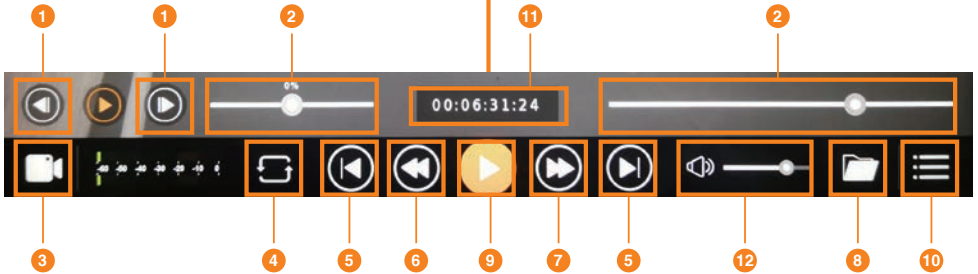
5 Encoding Format

Displays the recording encoding format and compression mode of the current video.

6 File Name

Displays the file name of the current video.

Bottom Information Bar



1 Forward/Backward

When the footage is paused, clicking the frame forward/backward icon can move the footage forward or backward by one frame, which allows the user to analyze the details of the footage in more details.

2 Play Control

Slide the playback slider to control the direction and speed of the media material playback. The percentage slider can set the playback speed. The fast forward percentage frame rate includes 25%, 50%, 75%, and 100%, and fast back percentage frame rate includes -25%, -50%, -75%, and -100%. When it reaches 0%, the material stops playing.

3 Record/Playback

Click to toggle to recording mode.

4 Loop Play

Click the icon to loop the footage. User can set the entry and exit points using the tag tool.

5 Previous/Next

Click the icon to jump to the previous or next video clip in the folder.

6 Multiple Speed Fast Retreat

Click the icon to control the media footage to rewind at 2x or 4x speed.

7 Multiple Speed Fast Forward

Click the icon to control the media footage to fast forward at 2x or 4x speed.

8 File List

Click the icon to browse the recorded media material.

9 Play/Pause

Click the icon to play or pause the current video.

10 Menu

Click the icon to access the menu option bar.

11 Time Code

Display the time code of the current video.

12 Volume

Slide the track to adjust the volume of the playback material and tap the volume icon to turn the silent mode on or off.

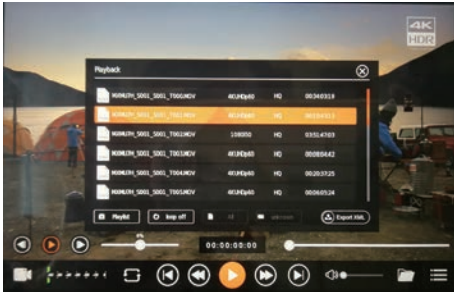
Browse Playback Files

User can browse recorded files on disk in the following ways.

A) Tap the files list icon



B) Click the file name or disk icon on the toolbar at the top of the screen.



The file list displays all the available fragments on the disk. Select any segment, the screen will display the segment, click the play icon to play the segment.

Create a Playlist

The A7S supports the creation of playlists, which increases the flexibility of playback features.

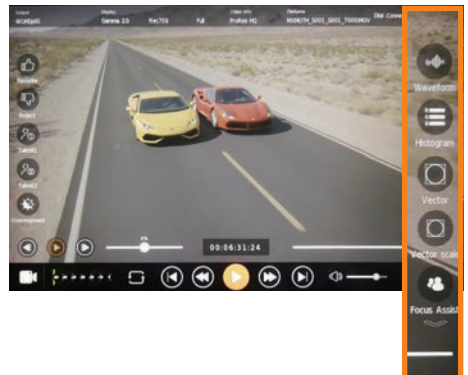


Open the files list and click the Playlist icon to create a playlist for all files with the same properties by default. By clicking the "All" icon, the playlist switches to the Favorite list, which combines all the clips labeled as Favorites with the same properties into a list. Click Favorite to switch to the Select item, on the right side of the same property material, a check box will appear, select several clips, click play icon and it will automatically play the selected clips in order.

NOTE When create a playlist, the playback time of each clip is combined and displayed on the progress bar of the playlist, seamlessly playing between clips. When Favorite is marked in the tag tool, the files I automatically marked as Favorite.

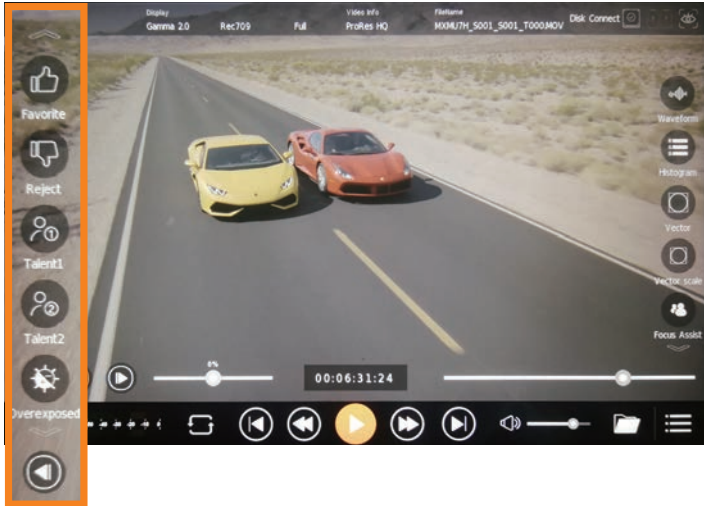
Right Toolbar

The right side of the screen is the monitoring toolbar, which has the same function as the monitoring tool in the monitoring mode.



Left Toolbar

Tap the blank area of the screen and the video tagging tool will appear on the left side of the screen. The tagging tool can be used during recording and playback. During recording and playback, users can mark the material as like, dislike or other and marked information will be displayed on the progress bar of the playback interface. The basic information and tag information of the recorded material file can be exported as an XML file through the export XML icon and the XML can be imported into the Non-Editing system. Users can quickly find the tagged material and carry out subsequent operations. In playback mode, a favorite's folder is generated after mark the favorite material. It also supports playing only material files in the favorite's folder.



Favorite

Click the icon to collect or mark your favorite clips, and user can use multiple tags during shooting.



Reject

Click the icon to mark your reject clips.



Talent 1

Click the icon to mark people or assign other meanings.



Talent 2

Click the icon to mark people or assign other meanings.



Overexposed

Click the icon to mark the overexposed clips.



Color Correction

Click the icon to mark the clip need to do color correction.



Noise

Click the icon to mark the clip with background noise.



Cut Away

Click the icon to mark the clip need to cut away.



Close-up

Mark close-up shots for post-editing and release.



Wide Shot

Click the icon to mark clip with wide shot.



Export XML

Click the icon to create and save the XML file.



Start Time

Start time of the play video, click again to remove all the start time and end time. After setting the start time, the end of the material is automatically set to the end time.



End Time

Tap to set the start time, and tap again to clear the settings of the start time and end time. When the user on sets the end time, the start time will be automatically set to the start of the material.



Reset

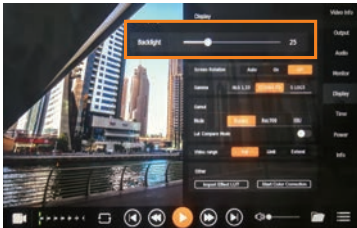
Tap the reset icon to delete all the tags in the current fragment, except the data in the XML file. If need to delete the data in the XML file, user can click the reset icon first and then click Export XML. This feature is ideal for dealing with multiple shots or segment labeling errors. A reset can also delete the current start time and end time information.

Display

Display

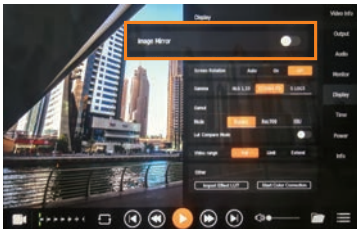
Backlight Brightness Adjustment

User can adjust the backlight of the playback materials, which is used to adjust the overall brightness of the screen. Tap the screen and select Display option in the menu, and slid the Backlight slider to adjust the brightness.

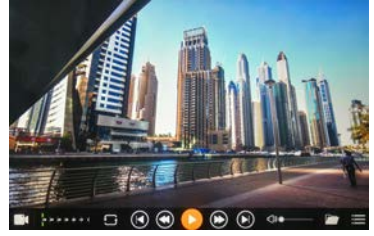


Mirror

A7S supports the Image Mirror Display function. Tap the menu icon, and select "Display" option on the pop-up interface, and tap the "image Mirror" switch.



Left side: turn off mirror function. Right side: turn on mirror function.



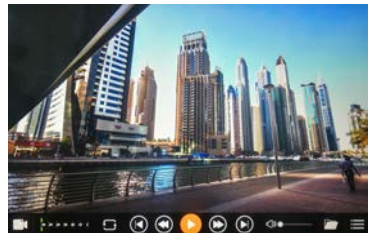
Screen Rotation

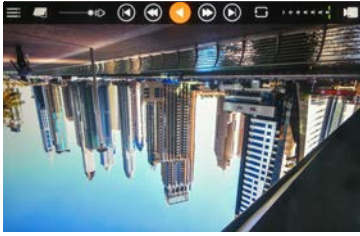
A7S supports Screen Rotation. Tap the menu icon, select "Display" option on the pop-up interface, and click the "Screen Rotation" switch.

When you select Auto, the screen will automatically adjust the rotation direction of the screen according to the placement direction of the device, ensuring that the screen is always displayed in the positive direction.



Left side: turn off the screen rotation function. Right side: turn on the screen rotation function





EOTF

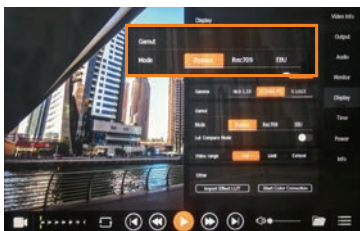
A7S supports multiple gamma curve settings, including: Gamma2.0, Gamma2.2, Gamma2.4, Gamma2.6, HLG1.03, HLG1.11, HLG1.16, HLG1.20, HLG1.27, HLG1.33, ST2084 PQ, S-LOG3.

Tap the menu icon, and select "Display" option in the pop-up interface, and select different EOTF. Swipe left and right to turn the page.



Color Space

A7S supports multiple color space settings, including Bypass, Rec 709, EBU, DCI P3 D65, DCI P3, and Rec 2020. Tap the menu icon, and select Display option in the pop-up interface, and select different EOTF. Swipe left and right to turn the page.



Data Level

The Data Level is the range of valid code values in a digital image. A7S supports multiple Data Level settings, including Full, Limit and Extend. Tap the menu icon, and select "Display" option on the pop-up interface, and select different EOTF.



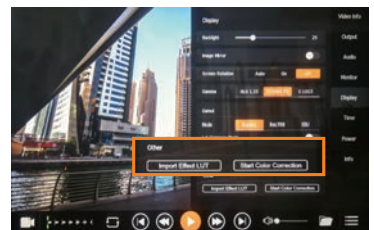
LUTs

3D LUT has a combination of three inputs that define a combination of R, G, and B values. It not only supports color adjustment, but also supports gamma and gamut adjustment.

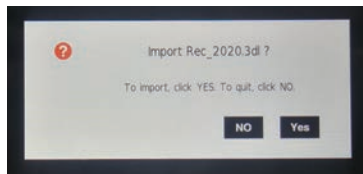
LUTs is also useful for monitoring input in specific color Spaces.

Not all LUTs are the same, and most LUTs are intended for REC.709, which is meaningless for HDR monitoring. This means that although it may be applied to color adjustments, it also affect the brightness of the image. In this case, these LUTs should only be viewed on the REC.709 or SDR screen. If you're using 3D LUT, you can use a color correction program, Davinci Resolve or specialized software like LUTCalc.

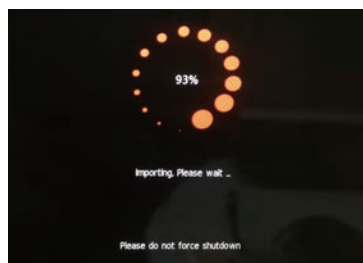
If you want to Import LUTs into A7S, you can copy the 3D LUT file to the USB flash drive, insert it into the Type-C port, then tap the menu icon, and select "Display" option in the pop-up interface, and click "Import Effect LUT" icon in Other option.



Select the 3D LUT file that you want to import and confirm in the pop-up interface.



Wait for the LUT loading progress bar to complete. You can apply the LUT to other monitors by selecting the correct LUT.



NOTE The file naming format of LUTs supports .3dl and .cube, and the data content supports 17 points and 33 points, as shown in the following figure:

- Rec_709.3dl
- EBU.3dl
- DCI_P3_D65.3dl
- DCI_P3.3dl
- Rec_2020.3dl
- USER1.3dl
- USER2.3dl

Disk Material Connection

User can connect the disk dock to the editing platform via USB 2.0 or USB3.0 for easier access and editing of recorded footage.

Remove the SSD from the A7S, plug it into the disk dock, and after a few moments, the computer can access the recorded footage folder through the standard disk file system exFAT. User can edit the material file directly or copy it to another disk.

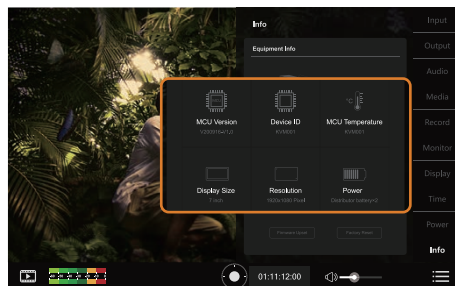
A7S is encoded in Apple ProRes[®] because it is editable and visually lossless format.

A7S will format the disk to exFAT format. This format can overcome the FAT32 format cannot transfer more than 4GB of files. This format is supported on both Windows and MAC OS systems.

Firmware Update

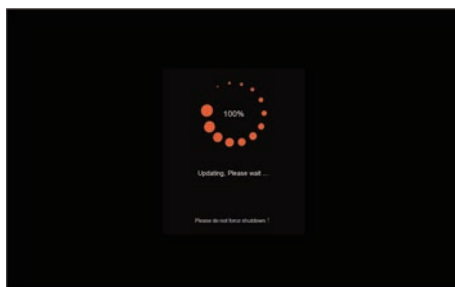
Please check the firmware version of the current device, before updating the firmware version.

Click the "Information" option to view the version information in the pop-up interface, including MCU version, device ID, current MCU temperature, screen size, screen resolution, and power supply information.



User can contact Konvison to confirm if the device is in the latest version or if a firmware update is required. After obtaining the latest firmware to upgrade, perform the following steps:

- A. Decompress the compressed file to obtain the upgrade file whose suffix is bin.
- B. Copy the bin file to the USB flash drive.
- C. Insert the USB flash drive into the Type-C port through the USB to Type-C data cable.
- D. Tap the main menu icon, and select Firmware Update from the Information option.
- E. Do not power off during the upgrade. Otherwise, the upgrade fails.
- F. After the upgrade is complete, the device automatically restarts.
- G. In this case, user can re-view MCU Version in the Information option.



NOTE Please note that errors may occur during firmware upgrades, which may be due to the upgrade file being incomplete or corrupted. If the A7S upgrade fails, please contact with us and we will initiate program recovery mode for you.

If battery power is used, ensure that the battery is fully charged before the firmware upgrade and do not interrupt the power supply during the firmware upgrade. During the upgrade, the percentage of upgrade progress is displayed in the middle of the screen. After the upgrade is complete, the A7S restarts automatically. After the restart is complete, the device can be used normally. The entire upgrade process lasts about five minutes.

Ensure that the file name is not changed when copying the upgrade file and that there are no other files with the same name on the USB flash drive. Otherwise, the firmware update cannot be performed.

Konvision

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