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## Feature implementation - latest schedule

Feature	Date	Firmware
Playback	23 Jan	6.1
Sunhood	1st Week Feb delivery	
Avid DNxHD	End Feb	6.2
3D LUTS	End Feb	6.2
4KUHD to HD Down Convert on loop- out and playback	End Feb	6.2
FS RAW (Stage 1) - FS RAW to ProRes 4KUHD 24p, 25p 30p direct to disk. (REC 709)	End March	6.3
Power Station	End March	
Master Caddy RAID	End March	
FS RAW (Stage 2) - Recording to Cinema DNG	Q2	6.4
Cinema DNG for C500, FS series etc	Q2	6.X

## Purchasing & Setup

### How long is your standard Warranty?

1 year out of the box, 3 years if you register your email and camera set up.

#### How do I know when an update is available?

We have an infinitely upgradeable operating system and release updates monthly or as needed. The best way to be informed of these is to be a registered user (http://www.atomos.com/registration/)

## I am a student/faculty member of a university; do you offer an educational discount?

For those enrolled in media/film/photo studies at approved educational institutions we offer 25% off MSRP - one of the most generous programs on the market.

#### Why do I need to register the product

To gain a 3 year warranty and to hear directly about new updates as they become available.

### **HDMI**

### What HDMI versions does Shogun support & what formats?

HDMI 1.4b, up to 4K 30p and HD 120p. SD is not supported. Currently no cameras output HD120 (1920x1080p120)

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#### I thought HDMI 2.0 was needed for 4K?

No, HDMI 1.4b supports DCI & UHD up to 4k 30p. HDMI 2.0 is the minimum standard for 4K 50p and above.

#### Does the Shogun loop out 4K over HDMI?

Yes. Whatever the input resolution and frame rate is will be output over HDMI & SDI. You have a built in converter.

#### Does the Shogun downscale 4K to HD on the loop out and in playback?

Version 6.1 or earlier does not have HD downscale. However we are working on implementing this feature now and expect it to be available in an update Q2 2015.

Currently the input and output feed are the same. E.g. if 4K 30p is fed in, 4K 30p is also output. The Shogun does no down conversion or cross conversion. For users who need to connect to a HD monitor, a 4K to HD down converter (e.g. AJA 4K2HD) is required.

#### Do you support SDI loop out from a HDMI input?

Yes. You have a built in bi direction converter. Conversion is always on between HDMI and SDI and vice versa.

#### What is the exact delay of HDMI/HD-SDI from Shogun?

1 frame delay on output. Remember that cameras have a delay on their HDMI output, the delay of the Shogun is a maximum of 1 frame in addition to the delay from the camera.

#### What cables do you recommend?

Any HDMI certified cables. The Atomos cable range has multiple HDMI connection options and coiled cable in 2 lengths.

#### Some cameras record at 8-bit and some at 10-bit. What bit depth are recordings on the Shogun HDMI?

Shogun, like all Atomos products record in 10-bit quality. If the source is 8-bit, we will record a 10-bit color space, populating the 8-bit 256 RGB colors into the longer 10-bit space. This allows 10-bit editing & compositing. No color info is added, just registries for 10-bit processing.

## SDI

### What SDI versions does Shogun support & what formats?

1.5G/3G/6G/12G, up to 4K 30p and HD 120p. SD is not supported. 12G SDI is an emerging technology, as more products are developed, connectivity to new equipment will be added.

#### Does the Shogun loop out 4K over SDI?

Yes. Whatever the input resolution and frame rate is will be output over SDI.

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#### Does the Shogun downscale 4K to HD on the loop out?

No, the input and output feed are the same. E.g. If 4K 30p is fed in, 4K 30p is also output.

#### Do you support HDMI loop out from a SDI input?

Yes. You have a built in bi direction converter. Conversion is always on between HDMI and SDI and vice versa.

#### I thought that 12G and 6G-SDI weren't SMPTE standards yet?

To date both 12G and 6G-SDI have not been finalized by SMPTE, but there are provisional standards which cutting edge brands like Atomos can use to develop future proof products. In the case of 12G, Atomos have created a world first with Shogun, while in the case of 6G-SDI Atomos and other brands have developed products compatible with the provisional SMPTE standard. Importantly, Atomos are committed to updating our 6G and 12G-SDI products as the SMPTE standard becomes finalized.

#### My camera has multiple BNC output connectors; how do I connect to the Shogun?

You either have 2 x 1.5G (older cameras) or 2 x 3G (recent cameras) or 2 x 6G (new cameras). You need a converter that supports your 2 outputs, connecting to a faster single SDI input or converts to HDMI for connection to the Shogun. Several brands sell these converters, please contact your local reseller for options.

## 6G and 12G SDI products are quite new. Has Atomos completed compatibility testing with other 6G and 12G SDI products?

The Atomos Shogun is the world's first 12G SDI product, so while there are no cameras yet to implement 12G, having it on Shogun allows you to connect with 1.5/3/6G products today and ensures compatibility with future 12G products. For 6G-SDI we are aware of a compatibility issue with the Blackmagic range of products. After internal testing we can confirm that while Atomos are compliant with the latest SMPTE provisional standard (2081-1:201x - Version 4, 2014-06-04), Blackmagic does not adhere to section 4 and section 4.1 of the specification. This is causing a compatibility issue between both products. Atomos are committed to maintaining compliance as SMPTE updates the 6G and 12G standards, Blackmagic users should contact them to understand when their products will be brought up to the latest SMPTE standard. Note: BMD UltraScope - Rack monitor with scopes - 6G-SDI from shogun is compatible! We hope URSA is updated to this spec soon.

#### How far can I run each SDI cable?

Approx. Distances: 1.5G = 300m, 3G = 150m, 6G = 75m, 12G = 50m

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## Video Monitor

#### The screen is said to be amazing - Why?

The Shogun ticks every box needed in a world class monitor - 7.1" that can be calibrated, SRGB100%, Viewing Angle 179 degrees, pixel density 325ppi, responsive touch panel, extensive suite of monitoring setup tools

#### Resolution is 1920x1200, this is not a video standard size, why?

The monitoring section itself is a native 1920 x 1080 full HD panel, with an additional 120 pixels (1080 + 120 = 1200) along the bottom for permanent menu GUI to eliminate clutter and give button style access to functionality.

#### Shogun and all Atomos screens are IPS (SuperAtom IPS) not OLED Why?

IPS is a more advanced and expensive technology. OLED offers good bang for buck, however has inherent technical limitations due to LED's and their properties. IPS delivers cleaner images, more accurate color, a wider gamut and more control. Apple, Sony, Sharp are 100% committed to IPS as are we.

#### When I press 1:1 or 2:1 in 4K recording, what is actually on the screen?

1:1 means you are viewing a HD 1/4 of the 4K image. 2:1 means you are looking at an SD - 1/16th of the 4K image. Very important feature to zoom in and get focus perfect - all monitor assist functions are available when zooming and in playback.

#### How responsive and accurate is the touch screen?

We have used a capacitive touch screen with advanced custom touch controllers to ensure lightning-fast response and clinical accuracy. It's world leading technology.

### Some of the early Shogun reviews referred to a Blue flash in their recording. Is this an issue?

This issue was corrected with Firmware 6.02 - available free at www.atomos.com/support. The issue known as Chroma swap occurred occasionally for Sony A7s and Panasonic GH4 users shooting at 2160p30 resolution and frame rate.

### Caddies

#### What's the difference between Master Caddy and Master Caddy II?

Master Caddy II has 2 key ways for insertion into Shogun, and is backward compatible with all Atomos Products. Master Caddy is obsolete and discontinued - all Atomos products will come with the Master Caddy II.

#### What is the Master Caddy RAID?

This is a dual disk Raid 0 solution to house 2 x HDD and give the most affordable recording possible in 4K. The importance of the RAID caddy is that it allows affordable HDD media to be used to record 4K.

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## Audio I/O

#### What Audio levels are you supporting?

Pro+24dBU, Line -10dBU, Mic Level - 40dBU & Phantom Power 48V. (On/Off software controls)

#### What microphones do you recommend?

We recommend Condensor Mics that are made for Pro Video, such as Rode.

#### When I use the breakout XLR connection why am I getting noise on the second channel?

This occurs when only 1 of the 2 XLR channels are connected. In firmware 6.1 we will separate the gain controls on each channel to ensure you can record a single channel without the introduction of noise.

### Media

#### What is the Master Caddy RAID?

This is a dual disc Raid 0 solution to house 2 x HDD and give the most affordable recording possible in 4K.

#### When will it be available?

We expect it to be available from February 2015.

#### Can I record to CFast?

Yes. CFast is a SATA based media which perfectly integrates with Atomos products. By Feb 2015 there will be an optional adapter available which can be installed in the Master Caddy II to enable CFast to be used on Shogun.

#### Are all SSD drives the same?

Atomos are committed to an open media solution, allowing end users to pick the technology (SSD or HDD), size and brand of media to fit their budget and location. This means you aren't "locked in" to costly, hard to find proprietary media. To ensure storage integrity and quality, Atomos test popular brands of media to ensure they are compliant. Only those models that pass our rigorous testing make it to the approved list (http://www.atomos.com/discovery-what-drives/).

#### How do you guarantee the performance of the hard disks recommended?

We are always testing new drives and the compatibility is updated with any new information in the notes section. Please be sure to read the notes on each drive you plan to purchase BEFORE you buy the drives.

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# **Power Options**

#### What are my options for powering the Shogun?

You are provided with a 2600mAh NP-570 battery, all other NP style batteries will work, you are provided with a D-Tap adapter & there is a DC input for external power.

#### What power accessories do you recommend?

In 2015, Atomos will launch Power Station. A continuous power management system that will power 3 DC devices (e.g. Shogun, Camera, lighting) and up to 2 USB devices.

### What battery life can I expect with the Shogun?

Originally our published battery figure was 3 hours for the Shogun based on engineering simulations. Based on user experiences in the field however the battery life has been revised ranging from 45min for 4K recording through to 1.5hrs for monitoring only in HD (refer table below). In response to this we have taken the move to increase the battery size from a standard 2600mAh to a 5200mAh which means the original 3 hour life time is accurate for monitoring and even at 4K recording and monitoring 1.5 hours is possible.

Battery time (Monitor HD)	2600mAh - up to 1.5hrs 5200mAh - up to 3hrs 7800mAh - up to 4.5hrs
Battery time (Monitor & Record HD)	2600mAh - up to 1hr 5200mAh - up to 2hrs 7800mAh - up to 3hrs
Battery time (Monitor & Record 4K)	2600mAh - up to 45mins 5200mAh - up to 1.5hrs 7800mAh - up to 2.2hrs

#### How many hours will I get out of the Power Station when used with the shogun?

With the 2 x 2600mAh batteries provided with Power Station and the 5200mAh battery that comes with Shogun, 6hrs of HD monitoring or 3hrs of monitoring and recording 4K is possible.

#### If I have an original Shogun with a 2600mAh battery, can I get my battery upgraded?

By registering your product you will be asked if you want the bigger battery. We will then arrange to send it to you.

#### Can I use the onboard Shogun battery at the same time as the Power Station?

Yes - The Power Station can power the Shogun from the DC input while the battery slot on the Shogun is used at the same time.

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## **Atomos OS 6**

## Look & Feel

#### What are the main differences in operating system from existing Atomos products and the Shogun?

We have maintained the main controls and improved every aspect of the user interface to make it easy and more functional. We've condensed menus, added an Input page, improved File naming, added new features and added a new transparent waveform full screen.

### What are the new features added to AtomOS6?

Apart from 4K, the most significant new feature is zoom to aid with shot setup ie 2:1 zoom, 1:1 zoom and the zoom window to allow the user to scroll around the screen.

#### Why are some people reporting logos not perfectly straight?

A small percentage of units from our first production batch were affected by adhesion issues with our logo. During production the units were visually acceptable however moved during packing. We have since taken measures to improve both the adhesive strength & the inspection process to ensure no subsequent cases appear.

#### Why did Atomos move away from the Aluminum chassis of previous Ninja and Samurai models?

One of the most important elements of any Atomos product is the build quality. This is no exception for the Shogun which shares much of the architecture of previous models but uses an ABS Polycarbonate exterior with vented heat pipe technology in lieu of Aluminum employed for Ninja and Samurai. The main reason for this change was to ensure that Shogun wasn't too hot when handling the unit as the external Aluminum acted as a heat sink. The extra benefit of this design was that the total weight remains low at only 460g/16oz (without batteries & HDD).

## Recording

#### When will the firmware for DNxHD recording and Cinema DNG be ready?

Feb 2015; DNxHD HD recording

Q2, 2015; Cinema DNG to record RAW from select cameras e.g FS700, C500.

#### Can I record 120fps from any camera?

Shogun can record up to 120fps if the camera connected is sending 120fps footage ie we cannot capture 120fps from a lower frame rate source. At this stage there are no cameras that will output 120fps over HDMI or SDI, however the capability is there with Shogun for the future. Currently 120p from PC's and gaming consoles is supported. The FS700 & FS7 will output a buffered 120p at 60p over SDI in video.

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### Will my camera work with the Shogun?

Shogun works with almost all 4K cameras (needs clean HDMI out) e.g. Sony A7s, Panasonic GH4, Samsung NX1. For a detailed listing, please refer to the compatibility list at www.atomos.com/discovery-what-cameras.

#### Does Shogun work in 4K with Sony FS700?

Sony FS700 outputs 4K only in RAW format. FS700 does not output 4K as a video signal which is needed for recording. Shogun support for RAW recording is planned Q2 2015.

#### Does Shogun work in 4K with Sony FS7?

Sony FS7 outputs 4K in both RAW format (via SDI) as well in Video format (via HDMI). FS7 will be supported by Shogun in 4K Video over HDMI from initial launch.

#### Do you support greater than 4GB file sizes

Yes we have licensed Ex-FAT from Microsoft which allows long file names and infinite recording times ie no 4GB limit. The 4GB limit is due to the ancient FAT32 system which is used by companies who do not license this from Microsoft.

#### Does Shogun work in 4K with Canon C500?

Canon C500 outputs 4K only in RAW format. C500 does not output 4K as a video signal which is needed for recording. Shogun support for RAW recording is planned Q2 2015.

#### Can I check if a non recommended SSD will work on my unit?

Yes you can ask your local support center to test the drive for you (www.atomos.com/contact)

#### What recording times can I expect in 4K on the various SSD sizes?

When recording the highest quality ProRes HQ (880Mbps), the following times are possible; 2TB = 5hrs, 1TB = 2.5hrs, 480GB = 1hr 12min, 240GB = 36min, 120GB = 18min.

## Monitor Assist

#### When I press 1:1 or 2:1 in 4K recording, what is actually on the screen?

1:1 means you are viewing an HD 1/4 of the 4K image. 2:1 means you are looking at an SD - 1/16th of the 4K image.

#### How do I tell if my shot is within guidelines for 4:3, 16:9, 2.39:1?

Shogun has safe area gridlines which can be enabled from the Monitor Assist section to let the user know if the shot is perfectly centered and within guidelines for various screen orientations.

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## Playback

#### When will playback be available?

Firmware for playback will be available very soon via a free firmware update. Please ensure you are a registered user to get the latest firmware updates.

#### What formats can loop or play out to a 4K TV.

The loop out and playout over HDMI and SDI is the same as the input source or the recording ie up to 4K 30p.

## Editing

#### Which edit software supports Cinema DNG RAW?

Adobe, DaVinci.

#### Will Apple ProRes work with Mac and Windows software.

Apple ProRes is an Apple product that only is supported in decode on PC. All Mac versions of major software.

## What do I need to do to prepare my recorded footage for importing into NLE software like FCPX, **Adobe Premiere etc**

Remove the caddy, connect to a Mac/PC using the provided dock, move files across - that's it. Unlike other products on the market there is no need to separately purchase a docking station and also since we don't break up recordings into 4GB files there is no need to stitch together your ProRes recording on a Mac/PC after the fact.