

SHOGUN STUDIO

QUICK START GUIDE



Thank you for purchasing the Atomos Shogun Studio, the world's most advanced 3RU rack recorder, monitor & playback deck designed to save you time and money for 4K and HD video production. With so many Recorder, Monitor, Playback & Edit features included, please take the time to read through this Quick Start Guide and register your product (www.atomos.com/registration) for free updates and extended warranty.



DOWNLOAD THE FULL SHOGUN STUDIO USER MANUAL
www.atomos.com/support



ACTIVATE AVID DNxHD® IF REQUIRED
www.atomos.com/activation



EXTENDED 3 YR WARRANTY
Register now to extend your warranty to **3 years** from date of purchase.
www.atomos.com/registration

Checklist

- ☐ 1 x Shogun Studio Unit
- ☐ 2 x Rack ears with screws
- ☐ 5 x Master II Caddies
- ☐ 4 x Rubber feet
- ☐ 2 x large Rubber feet (for elevating the front of the unit)
- ☐ 2 x IEC power cable (or external PSU for Japan)
- ☐ 2 x HDMI cables
- ☐ 1 x Screen cleaning cloth
- ☐ 1 x Quick Start Guide

You will also need:

SDI / HDMI Cable/s

The Shogun Studio's BNC Connectors support SMPTE standards of 259M, 292M and 296M. For 4K 6G SDI Belden 1694A or equivalent specification is recommended to maintain signal quality.

HDMI cables need to support the HDMI 1.4 High Speed standard. Any make of HD/SD-SDI & HDMI cable that supports these standards can be used. These cables are used for input, output and loop connections between both record channels.

RS422 Cable/s

9pin D Sub connectors with a pin out for RS422 Machine control.

Synchronization connections

The GenLock and LTC I/O are connected via BNC and can use 75 Ohm cable.

SSD or HDD

2.5" Solid State Drive [SSD] from the qualified list of drives. For recommendations refer to: www.atomos.com/drives

Connect and power-up

Connecting Power-up and about PSUs

The rear bottom left hand side of the unit are located AC1 and AC2 inputs with IEC C14 sockets. Connect the provided power cables to the sockets and then connect to main power. The dual power supplies internally balance the power draw across both units and additionally allows for backup power if one of the power supplies fail. If a PSU does fail a warning screen will be displayed. To continue using the unit, activate single power supply mode by clicking OK.

Once connected press the power button on the front of the unit and both recorder channels will power up.

Connection lay out

Looking at Shogun Studio from the front, recorder channel 1 is on the left and recorder channel 2 is on the right. The rear panel has been laid out symmetrically to match what you see on the front. The major sections, recorder channel 1/control & updates/recorder channel 2, contain all of the in/ out connections relevant to that section.

The Connections of the Shogun Studio

Video – Each recorder Channel has 1 x 12G SDI input and 1 x 12G SDI output. These are also backwards compatible to 6G, 3G and 1.5G SDI for use with your existing equipment. Each recorder Channel also has a HDMI connection for input and output. These are both 1.4b specification to handle 4K video up to 30fps and 1080p HD up to 60fps with deep color compatibility allowing 10-bit video in and out.

Audio – Each recorder channel has 2 x XLR inputs and 2 x XLR outputs. These can be used at Line, Mic and Pro level, which can be defined by the Audio menu. The inputs can also provide 48V Phantom power to compatible microphones.

Synchronization – Each Recorder channel has GenLock input and output via BNC as well as LTC time code input and output. Operation of LTC can be found in the Timecode menu & operation of GenLock found in the output section of Playback.

RS422 9pin D-Sub – Each recorder has it's own dedicated 9pin D-Sub with RS422 machine control. Simply connect your RS422 cable from your device or controller and Shogun Studio will receive and action the commands. Please check the latest release notes for the supported commands at www.atomos.com/support

USB - The USB connection on the rear is for SERVICE ONLY and should only be used if instructed to do so as part of firmware updates.

Ethernet – The RJ45 Ethernet connection is for the remote control of the unit via AMP commands from devices that support this.

Headphone Monitoring Jack – On the front of the unit, each recorder channel has it's own individual 3.5mm jack for monitoring. The channels to be monitored can be selected via the audio menu on the Shogun Studio touchscreen.

Calibration Socket – Between the monitors of the recorder channels is a 2.5mm mini jack. This is for use with the optional Spyder Calibrator and Atomos Calibration software. The single socket is able to calibrate both screens. Connect the Spyder unit, open the calibration unit and select

device 1 in the software to calibrate Recorder Channel 1 or select device 2 to calibrate Recorder Channel 2.

Control

Each of the Shogun Studio channels can be operated via the independent touch screens to adjust record, monitor, playback and edit functions. In modes where the 2 channels work together (e.g continuous record), Record Channel 1 is the master controller and Record Channel 2 is the slave. Please refer to the manual for further details.

Touch Screen interface – Pictured are the main controls seen when the Shogun Studio is powered on with a video input connection present and recording media in the drive bay.

Pay special attention to any items on screen that are marked by a small blue arrow ➡

Touch these items to access or cycle through the available options.

For example, touching the Video Input Format will bring up the Input / Output menu.

External Control – The Shogun Studio can also be controlled via RS422 Machine control or via AMP over Ethernet. For more information of these functions, please go to www.atomos.com/support

Power Button – A single power button is used to turn both devices on and off. A simple tap of the power button will also lock or unlock the touch interface of both recorder channels. A long press will turn both units off.

Record

Main Interface



Record: Press to start/stop recording



Play: Enter playback mode



Menu: Device settings/ options

OR **04:08:01:23** ➡

Record Trigger: set by supported camera/or rolling timecode trigger



Waveform monitoring



Monitor assist



Cut and tag



Display / LUT options



Audio monitoring level



Audio Metering

Waveform & Monitor Assist Functions

Waveform Monitoring Menu



Touch the Waveform Monitoring icon to reveal WFM functions

TIP: Press the center of the screen to hide overlays



Luma Parade



RGB Parade



Vectorscope



Vectorscope Zoom



Display sizes

Touch to change the position of the WFM overlays



Transparency

Drag the slider to adjust the Opacity controls of the WFM overlays



Brightness

Change the Dynamic Range of the WFM overlays by dragging the slider

Monitor Assist Menu



Touch the Monitor Assist icon to reveal the Monitor Assist functions

Safe Areas: Touch once for action area, and twice to add title area

Cinema Guides

Toggle to display 16:9, 2.40, 2.35, 1.9, 1.85, 4:3

Anamorphic Guides

Toggle to display 4:3 2x, 2x, 1.5, 1.33 aspect ratios.

Note: 4:3 2x will only display with a 4K input from the Panasonic GH4



Focus Assist



Zebra Pattern



False Colour



Blue Only Exposure



Focus Zoom

Toggle 1:1 to display 1:1 pixel mapping, the indicator box shows the location of the screen you are viewing



Toggle 2:1 to magnify the display, the indicator box shows your viewing location, move the zoomed location by dragging across the screen or selecting a portion of the indicator box.



Focus Peaking modes

Switch between Color / Mono / Outline Focus Assist modes. Drag the slider to adjust Focus Assist Color for Color / Mono / Outline.



Zebra threshold

Adjust the Zebra (%) by dragging the slider.

Getting started:

Power

We recommend that you connect Shogun Studio directly to a reliable connection or via a power distribution unit / strip to an interruptible power supply in your rack. The Shogun Studio has 2 x AC inputs and we advise using both where possible.

Rack Ears

The detachable rack ears are included with Shogun Studio are designed to allow for installation into your rack setup. Remove them from their packaging, line up the screw holes on each side and attach with the provided screws.

Rubber feet

For desktop use Rubber feet are provided and these are attached via the screws provided. There are also 2 larger feet that can be attached to the front to elevate the unit if required.

Assemble the Master Caddy II

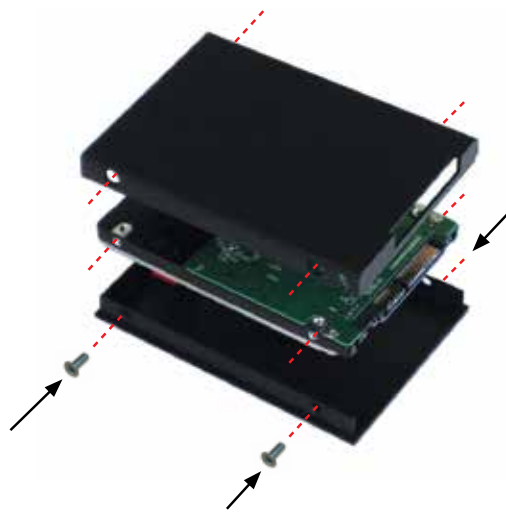
Fix the Solid State Drive into the Master Caddy II as shown (right). Align screw holes on all three pieces and assemble completely. Insert screws last.

Handle the SSD with care

Touch screw holes or metal shell first. Avoid contact with circuit board and connectors. Refer to manual if unfamiliar with handling ESD sensitive devices.

Format SSD

Once your drive is inserted into the caddy, format it in your Shogun Studio recorder by selecting the BLUE arrow ➡ next to Recording Time Remaining. Press **Format HDD/SSD** and follow the on-screen instructions. **For more information refer to the User Manual.**



① **Important:** DO NOT over-tighten the screws or else the alignment of the Master Caddy II cannot be guaranteed.



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Record modes

Time lapse – Can be accessed from the Input Menu. This allows you to create up to 10 different sequences, add a smooth transition between sequences, add in motion blur across up to 64 frames and also schedule the time to start based on the internal clock.

Pre Roll – This function allows each recorder channel to cache or pre record up to 8 seconds of HD or 2-3 seconds of 4K. Pre Roll is an option that can be turned on via the input menu. Once activated a red Pre-Roll icon will flash in the top left hand corner of each recorder channel screen.

ⓘ *Please note that when Pre-Roll is activated you will not be able to change your audio channel setup as these are already being recorded into the cache memory of each record channel.*

Continuous Record Mode – This option allows a single input to record continuously, starting with the media Recorder Channel 1 and changing to the media Recorder Channel 2 when it is full. Please note that the loop out of Recorder Channel 1 and input of recorder Channel 2 needs to be connected with an SDI cable. Press the Recorder Channel 1 icon and select Continuous Record Mode to enables this option. Once activated, Channel 1 becomes the Master and Channel 2 becomes the Slave. Recording will start on Channel 1 which will show a red recording border around the screen. Channel 2 will show a green border as it is safe to remove the disk. Once the disk on Recorder Channel 1 is full, it will automatically start recording on Channel 2 and this will now display a red border. Once the green border is showing on Channel 1, the disk is safe to remove.

ⓘ *Please note there is a 2 sec recording overlap during continuous record.*

Dual Record Mode – Dual record mode allows an input from Recorder Channel 1 to be simultaneously recorded on both channels. Press the Recorder Channel 1 icon and select Dual Record Mode to enable this option. Once activated, Channel 1 becomes the Master and Channel 2 becomes the Slave. When record is pressed on Recorder Channel 1 then Recorder Channel 2 will also start to record. The dual record mode feature allows for both multi codec and multi resolution recording by changing the recording settings on Channel 2.

Multi Codec Recording – This provides the benefit of recording two time code accurate versions of the same input in different codecs or qualities. This allows for a full resolution and lower resolution option of the same recording or both ProRes and DNxHD or DNxHR to be recorded simultaneously, e.g;

- 4K AVID to 4K ProRes
- 2K/HD AVID to 2K/HD ProRes
- 4K ProRes to 2K/ProRes
- 4K ProRes to 2K/HD AVID
- 4K AVID to 2K ProRes
- 4K and HD down scale

These simultaneous record features are achieved via either the use of an external routing matrix e.g. SDI router or via connection from the Loop out of Channel 1 to Channel 2 or vice versa. The Trigger on the SDI or the HDMI will be passed through the loop which means that when record is pressed on the camera, both units will start to record. This can also be used in conjunction with Dual Record mode to allow control via the touch screen. When using the Loop out feature in Simultaneous record you have the added benefit to convert HDMI to SDI and apply a LUT burnt in to the Slave Recorder Channel to create instant dailies that can be reviewed, using the drive in a stand alone Shogun or Ninja Assassin unit.

Multi Resolution Recording - The loop out function also allow for dual resolution 4K & HD versions of the same content to be recorded. This can be achieved by turning on the 4K to HD down scale via the input menu of the GUI. This allows for the following conversions:

- 4K ProRes & 2K/HD ProRes
- 4K DNxHR & 2K/HD DNxHD
- 2 x 4K/2K/HD ProRes, DNxHR/HD & RAW

As previously covered, a LUT can also be permanently burnt in to the output to create instant versions for delivery with a desired look.

Playback

Apart from being a dual recorder, the Shogun Studio is also a Dual 4K/HD play out engine. The unit can be controlled via AMP, RS422 or via the user interface. Please see the manual for more details on AMP control.

Playlist Functionality – Via the touch screen of each recorder channel you can activate the Play mode by pressing the Play button icon. Once with in this mode you will be presented with the file listing of recordings on the current disk.

You can also access this by clicking on the file name in the top of the user interface. Within this menu you will be able to create a play list of clips in the same codec, resolution and frames per second. You then have the option to select clips and play these back, select your favorites (and respect the in and out points you have put in to create favorite sub clips), both selected and favorites or all clips (of the same codec and resolution). There is an option to play these back in a run down or reverse order.

Whilst in play back mode you can also select to apply a 4K to HD down scale as well as applying a chosen LUT to the output.

Setting up IP address and AMP – Out of the box Shogun Studio is set to use DHCP and the assigned IP can be viewed by pressing the blue menu button then pressing Network Configuration.

AVID DNx Activation – A single DNx activation is all that is required. Via the blue menu button you can access the Shogun Studio Device ID. Once you have completed your activation online, your DNx Codec is activated. To do this on Recorder Channel 1 simply click on the codec option and change from ProRes to DNx. At this stage you will be prompted to enter the 4-digit code from your registration. This will activate DNx Codec on both Recorder Channel 1 and 2.

Firmware update for Shogun Studio – The Shogun Studio uses it's own version of AtomOS and you will need to apply this to both Recorder channels individually by placing the new ATOMSHS.FW file in the root of your drive, placing this in drive bay before turning the device on. You can update both units at the same time but this will require a disk to be in the drive bay of each unit. Occasionally the Shogun Studio's controller will also need to be updated. This is achieved via the USB port on the rear of the unit and placing the relevant file in the Root of a FAT32 formatted USB flash drive. Please see the release notes for specifics on how to conduct this update.

Connect & Edit

Master Caddy II Docking Station

To access and edit your recorded material:
Connect the Master Caddy Docking Station to a Mac® or Windows® editing workstation via USB 2.0 and/or USB 3.0 compatible port/s.

ⓘ **When using USB 2.0**, you may need to connect the second USB power cable on the dock to a second USB 2.0 port. This will ensure enough power is provided when using USB 2.0.

When using the Master Caddy II from the Shogun Studio, insert it into the Docking Station. After a short wait, your recorded video will become accessible as a standard external disk (Native ExFAT / FAT32 formatted drive/s also supported).

For more detailed instructions and important up-to-date information regarding Shogun Studio, please download the complete Shogun Studio User Manual
www.atomos.com/support

Warranty & Conditions

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- The TFT/LCD, batteries, case and master caddies will be free from defects in materials and workmanship for a period of 1 year from the date of purchase regardless of registration. This warranty is exclusively for the benefit of the original purchaser and is not assignable or transferable.

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- Unauthorized repairs or attempted repairs;
- Tampering with or modification of the goods;
- Connection to incompatible equipment or power sources;
- Exposure to water or weather;
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