AJA and Adobe Applications



Quick Start Guide



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Contacting AJA Technical Support or Sales

Please have all pertinent information at hand prior to contacting AJA support or sales.

Support Telephone:	+1.530.271.3190
Support Website:	https://www.aja.com/support/contact
Support Email:	support@aja.com
Sales Email:	<u>sales@aja.com</u>
Shipping Address:	AJA Video Systems 180 Litton Drive Grass Valley, CA 95945, USA

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Chapter 1 – AJA and Adobe Overview

Adobe Applications Supported

The AJA Desktop Software package is tightly integrated with the following Adobe applications:

- Premiere Pro
- PhotoShop
- After Effects
- Character Animator
- Audition

This Quick Start Guide provides information for using an AJA device configured for video and audio input and output on a computer running Premiere Pro. Similar configuration procedures may also apply for configuring an AJA device for use with other Adobe products.

This Quick Start Guide does not provide operational information for Adobe applications except as related to AJA hardware operations. Please read the Adobe user documentation for Adobe application configuration and operation.

NOTE: AJA recommends using the latest AJA software in combination with the current version of Adobe applications. For demanding workflows, AJA also recommends using the latest OS with up to date high performance host system hardware. See the recommended specs per your AJA hardware product Release Notes.

Please be aware that in some cases AJA software may be compatible with macOS or Windows versions that are older than those Adobe recommends. In this case, when working with Adobe applications, you should follow the recommendation of Adobe over the recommendation of AJA.

NOTE: Beginning with version 16.1, on macOS, the AJA and Adobe Applications supports Apple silicon, as well as earlier Intel processors.

Hardware Products Supported

AJA in association with Adobe provides a range of hardware that supports Adobe applications courtesy of installing the AJA desktop software package:

- Io X3, Io 4K Plus, Io IP
- KONA X, KONA 5, KONA 4, KONA IP, KONA 1, KONA HDMI, KONA LHi, KONA LHe Plus
- T-TAP Pro
- NOTE: Note that the lists above (and in other sections of this guide) may contain products that are no longer sold, but which may still work with Adobe applications.

Other products may support Adobe Plug-ins in the future. In this manual all supported hardware devices are referred to as "AJA hardware".

All features described in this manual may not be available with all AJA hardware. For example, Audio Mixer functionality using AJA Control Panel is not available on some AJA devices. NOTE: If you wish to execute a Voice Over to Timeline using an analog Mic, but the AJA device you are using only has inputs for audio via SDI embedded, HMDI embedded or AES, then you will likely require an analog audio embedder and / or a digital mixing board, with either having an A to D converter.

Supported AJA Hardware Products and Features

	lo 4K Plus	lo X3	T-TAP Pro		
Tbolt Ports	Tbolt 3	Tbolt 3	Tbolt 3		
macOS	Intel or Apple silicon	Intel or Apple silicon	Intel or Apple silicon		
Windows		\checkmark	\checkmark		
Linux					
Max Input Resolution	4K	2K			
Max Output Resolution	4K	2K	4K		
SDI In	12G/6G/3G	3G			
SDI Out	12G/6G/3G	3G	12G/6G/3G		
HDMI In	2.0	1.4b			
HDMI Out	2.0	1.4b	2.0		
HDR over HDMI	\checkmark	\checkmark	\checkmark		
HDR over SDI		\checkmark	\checkmark		
Closed Captions		\checkmark	\checkmark		
Analog Audio In	\checkmark	\checkmark			
Analog Audio Out	\checkmark	\checkmark	\checkmark		
Control Panel Audio Mixer	\checkmark	\checkmark	\checkmark		
	= Supported	(blank) = Un	supported		

Table 1. AJA Hardware Feature Summary, Thunderbolt Devices

	KONA X	KONA 5	KONA 4	KONA 1	KONA HDMI	KONA LHi	KONA LHe Plus
PCIe	3.0 4-lane	3.0 8-lane	2.0 8-lane	2.0 2-lane	2.0 8-lane	1.0 4-lane	1.0 4-lane
macOS	Intel or Apple silicon						
Windows	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Linux	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Max Input Resolution	4K	4K	4K	2К	4K	2K	HD
Max Output Resolution	4K	4K	4K	2К		2K	HD
SDI In	12G/6G/3G	12G/6G/3G	3G	3G		3G	1.5G
SDI Out	12G/6G/3G	12G/6G/3G	3G	3G		3G	1.5G
HDMI In	2.0				2.0/1.4b	1.3	
HDMI Out	2.0	2.0	1.4b			1.3	
HDR over HDMI	\checkmark		\checkmark				
HDR over SDI	\checkmark		\checkmark	\checkmark			
Closed Captions	\checkmark		\checkmark	\checkmark		√	\checkmark
Analog Video In						\checkmark	\checkmark
Analog Video Out			\checkmark			\checkmark	\checkmark
Analog Audio In	with KONA Xpand					\checkmark	\checkmark
Analog Audio Out	with KONA Xpand		with K3G box			\checkmark	\checkmark
Control Panel Audio Mixer		4K Mode	4K Mode		\checkmark		
	= Supported	d (blank) =	Unsupported				

Table 2. AJA Hardware Feature Summary, PCIe Devices

		KONA X / KONA 5 / KONA 4 / KONA 1 / lo 4K Plus / lo X3		KONA LHi / Kona LHe Plus				T-TAP Pro		KONA HDMI			
		Vid	eo	Au	ıdio	Vi	deo	Audio		Video	Audio	Video	Audio
		In	Out	In	Out	In	Out	In	Out	Out	Out	In	In
	Premiere (up to 2023)	\checkmark	\checkmark		\checkmark	\checkmark	√	V	\checkmark	\checkmark	\checkmark	\checkmark	√
	Premiere * (after 2023)		\checkmark	\checkmark	\checkmark		\checkmark	V	\checkmark	\checkmark	\checkmark		V
Apple	After Effects		√		\checkmark		\checkmark		\checkmark	√			
	Character Animator		\checkmark		\checkmark		V	V	\checkmark	V	\checkmark		\checkmark
	Audition				\checkmark			\checkmark					\checkmark
	Photoshop	\checkmark	\checkmark				√			√		√	
	Premiere (up to 2023)	√	\checkmark	\checkmark	√	\checkmark	√		\checkmark	√	\checkmark	\checkmark	\checkmark
	Premiere * (after 2023)		\checkmark		\checkmark		\checkmark		\checkmark	\checkmark	\checkmark		\checkmark
Windows	After Effects		√		\checkmark		\checkmark			√	\checkmark		
	Character Animator		\checkmark		\checkmark		√	V		\checkmark	\checkmark		\checkmark
	Audition				\checkmark			\checkmark			\checkmark		\checkmark
	Photoshop	\checkmark	\checkmark				√			√		\checkmark	
* Premiere	2023 is the last	version	o allow	Video	Capture								

Table 3. Adobe Application Feature Summary

Chapter 2 – AJA and Adobe Installation

Software Installation

AJA Desktop Software package default installation includes plug-ins for both Mac and Windows versions of the Adobe application.

NOTE: There is no longer any requirement to separately install the AJA Adobe Plug-ins. Performing a Standard Install of AJA Desktop Software, by default, also installs the AJA Adobe Plug-ins.

Go to the AJA website and download the latest AJA Desktop Software package containing the AJA Control Panel application.

https://www.aja.com/en/support/downloads/

System software updates may occasionally become available to AJA product owners on our website (www.aja.com). We recommend checking occasionally for both software updates and additional product information, or subscribe to the AJA RSS feed.

IMPORTANT: Please read the brief Release Notes PDF file that accompanies your AJA software. The Release Notes describe important features and fixes.

Always uninstall previous versions of AJA software before updating your computer with new software. Go to your AJA Utilities (on the Mac) or Windows Control Panel to uninstall existing AJA software. This helps prevent hardware/ software conflicts.

If your computer has previously had another video capture or multimedia device installed, ensure you uninstall any related software before installing the AJA Desktop Software package. This will prevent any hardware or software conflicts.

You cannot use AJA hardware with Adobe applications until the AJA Desktop software has been installed on your computer. Make sure the Adobe software is installed and launched at least once on your computer before installing AJA Desktop software.

IMPORTANT: If you install or update a supported Adobe application at a later date, you must run the AJA installer program again.

AJA Hardware Firmware Update

After the AJA Software Package has been installed on a computer with your AJA hardware installed, the firmware on that AJA device can be updated if a newer version of firmware is included with that software package.

- 1. Open the AJA Control Panel application.
- 2. If more than one AJA device is connected, choose the device you want to update by selecting its name from the drop-down menu at the top of the screen.

Figure 1. Control Panel Screen Showing Multiple AJA Devices

AJA ControlPanel

Control	Kona1 - 0	1020:20 07
Format	✓ KonaHDMI - 1	1080129.97
Input Select	1080i29.97 HDMI In 1	YUV-10
HDMI	YCbCr 10Bit 🗾	Follow III

- 3. Go to the Control Panel Firmware Screen.
- 4. Select the firmware version (if multiple versions exist) in the **Desired** dropdown.

Figure 2. Control Panel Screen Showing Multiple Firmware Versions

Firmware Inform	nation	
Installed:	KonaIP s2022 - 2018/06/26	
Desired:	✓ KonaIP s2022 - 2018/06/26 KonaIP J2K 1I 10 - 2018/06/26	Install
Clicking t 2018/06/	KonaIP s2110 - 2018/06/26 /26.	aIP s2022 firmware dated

- 5. Click on **Install**. Messages appear and when finished, firmware update completed messages are shown.
- 6. Click Shutdown to power down the computer.
- 7. Restart the computer.
- 8. Open AJA Control Panel. The AJA hardware with the updated firmware should be recognized by the Control Panel application.

OS Configuration

In most cases, using AJA hardware with Adobe applications is set and forget. Simply set your Adobe application to point at AJA hardware for all input and output operations. No need to switch drivers, switch to desktop audio, etc.

NOTE: On first use, you will need to tell your operating system to use AJA hardware as the default Audio Input and Output device. Consult the manual for your specific AJA I/O card, or your OS documentation for more information.

Chapter 3 – Using Adobe Premiere Pro

Video and Audio Support with Premiere Pro

Using Adobe Premiere Pro and AJA hardware together provides comprehensive Video and Audio I/O. AJA devices support Monitoring/Output to professional monitoring or downstream devices (e.g. recorders/routers/3rd party applications). This includes signaling for HDR over SDI and HDMI simultaneously.

Capture of material can be achieved using AJA Control Room:

- AJA Control Room can capture HDR metadata along with video and audio, then place that within a .mov file recorded to disk.
- AJA Control Room cannot perform batch capture for Premiere Pro sequences.
- AJA Control Room is not able to perform Voice over to Timeline for Premiere Pro sequences. The Adobe Voice Over to Timeline tool can utilize the audio from an AJA device such as analog inputs of the Kona Xpand card or the audio from SDI.

Playback Resolution

For best output resolution, use Full as your Playback Resolution setting. Use the fly-down menu in the Premiere Pro Source or Program Sequence to set Playback Resolution.

8K and 4K Output in Premiere Pro

If you are using AJA Hardware that supports UltraHD2 and/or UltraHD/4K, then depending on the Premiere setting chosen, 8K or 4K will be output via SDI. If the AJA hardware device you are using does not support UltraHD2 and/or UltraHD/4K, then the AJA hardware in Premiere Pro Match Sequence mode will automatically output the best resolution available.

Export to Tape, Machine Control No Longer Supported

As of Creative Cloud 2024, Adobe has removed Edit-to-Tape and Machine Control from Premiere Pro. Limited functionality is available using the AJA Control Room application. See the *AJA Control Room Manual* available on the AJA website for more information.

Options Set in Premiere Pro Preferences

In Adobe Premiere Pro Preferences (under Premiere Pro > Settings for Mac, and under Edit > Preferences for Windows) you can set up global (default) settings.

Windows Setup

In Audio Hardware, Adobe Desktop Audio menu for Windows, select the MME Device Class and the AJA Hardware device.

On a Mac, in Audio Hardware select Core Audio and the AJA hardware device for input and output.

NOTE: If you hear static on the AJA hardware output, adjust the audio buffer size in the Audio Hardware Preferences. The optimal size may vary for different systems or different setups based on CPU, RAM, and running applications.

Audio Preferences



Preferences										
Caparal										
General	Automatch Time: 1.000 seconds									
Appearance	5.1 Mixdown Type: Front + Rear									
Audio Hardware	Large Volume Adjustment: 6 dB									
	🗹 Sum multichannel outputs to mono in Source Monitor									
Collaboration	Play audio while scrubbing									
	Maintain pitch while shuttling									
Control Surface	✓ Mute input during timeline recording									
Labole	Generate waveforms automatically during import									
Media	Render audio when rendering video									
Media Cacho	Street end of the second									
Memory										
Playback										
Sync Settings	Automation Keyframe Optimization									
Timeline										
Trim										
Transcription	Minimum time: 20 milliseconds									
nonscription										
	Render Edit in Audition files to:									
	O Scratch disk location for Captured Audio									
	Next to original media files									
	(Manage Audio Plug-Ins)									
Help Reset	Cancel OK									

Mute input during timeline recording

If you will be performing voice-overs:

- Check this box to prevent audio echo and feedback during voice-over recording using AJA hardware and the AJA Control Panel Audio Mixer.
- Uncheck this box so you can hear the audio being recorded if you are using a USB or a built-in microphone for voice-over recording.

Audio Hardware Preferences

The following setups guarantee accurate AV output sync using the AJA hardware for input and output.

Preferences		×
General Appearance	Device Class: MME ~	
Audio	Default Input: System Default - No Input ~	
Audio Hardware	Default Output: Digital Audio Interface (AJA System Audio) ~	
Collaboration Color	Clock: Out: Digital Audio Interface (AJA System Audio) 🗸 🗸	
Control Surface Graphics	Latency: 200 V ms	
Labels Media Media Cache Memory Playback		
Sync Settings Timeline Trim Transcription	Output Mapping Map Output for: AJA KONA S	
	AJA KONA 5 Device 1	1 2 3 4 4 5 5 7
Help Reset_	ОК	lancel

Figure 4. Premiere Pro Audio Hardware Preferences, Windows OS

Playback Preferences

Figure 5. Premiere Pro Playback Preferences

		Preferen	ces				
General Appearance Audio Audio Hardware Auto Save Collaboration Color	Step forward/bac ✓ Pause Media I ✓ Enable Mercu	Preroll: 3 Postroll: 2 k many: 5 Encoder queue d ry Transmit	seco seco fram uring playback	nds nds es			
Control Surface Graphics Labels Media Media Cache Memory Blueback	Primary Audio De Transmit Device I Device Name AJA Io4KPLUS Adobe SRT	evice: AJA lo4k Playback: Video Stream	Video Offset 0 ms 0 ms	 Offset: 0 Audio Stream Primary 	Settings		
Playback Sync Settings Timeline Trim Transcription							
	✓ Disable video	output when in	the background				
(Help) (Reset)					Cancel) (ок	

Enable Mercury Transmit

Mercury Transmit must be enabled (checked) in order for Premiere Pro to utilize the AJA hardware.

NOTE: Turning Enable Mercury Transmit off is a good way to tell if the external device is involved in an issue; if you still have an issue when it is unchecked then the problem is not related to the AJA hardware.

See "Premiere Pro Audio Configurations" on page 14 for more information about configuring audio.

Primary Audio Device

For Audio Device, select the AJA device you will be using.

Transmit Device Setup

For Video Device, click on the Settings gear icon of the AJA device you want to use for video.

Figure 6. Premiere Pro Preferences Transmit Device Playback Settings

	AJA Playback Settings								
Video Format:	Match Sequence		Widescreen						
Buffer Mode:	Minimum								
HDR Color Space:	none	•							
			ОК	Cancel					

Video Format

The default setting (expected to be what most users will want and use) is Match Sequence. When Match Sequence is selected, the transmit plug-in will try to put the card in a mode that matches the resolution and frame rate of the timeline you're working with. Alternatively, you can use Match Control Panel and then select a video format from the AJA Control Panel Format menu. Please refer to the Format Screen section of your AJA hardware's Installation and Operation Guide for additional information.

NOTE: Even with Match Sequence selected, it is possible to make other parameter adjustments (such as color space or up/down/cross conversions) using the AJA Control Panel.

Buffer Mode

Use the Buffer Mode menu to choose Standard, Minimum, or Maximum frame buffering. This mode determines how many frames of buffering are to be used in the AJA hardware:

- Standard is 4 frames late, which may be close enough for voice-over.
- Maximum will store either the maximum number of frames allowed by the hardware or 14, whichever is smallest. Not recommended for voice-over.
- Minimum is 1 frame early. Required for accurate voice-over recording.

Minimum vs. Standard Mode

The Minimum setting will provide the best scrubbing and JKL keyboard control performance on the timeline. The Standard setting insures that frame drops are less likely by providing more frame buffering. It also allows optimum audio sync for voice-over recording.

For editing, use Minimum mode most of the time. Then, when mastering a tape or playing out live (to air or theater) where no scrubbing will occur, you can switch to the Standard mode to avoid frame drops.

For T-TAP Pro users, Standard mode is preferred in both cases.

NOTE: Use Standard mode for any projects in which the sequence framerate does NOT match the framebuffer framerate. The most common example is using 23.98 source material but playing out at 29.97. In this situation a larger than minimum buffer size is required for the added 3:2 frame rate pull up.

HDR Color Space

This setting allows you to define which colorspace Premiere Pro uses for output. See *Table 1 on page 5* to identify which AJA hardware devices support HDR.

Other HDR Settings

High Dynamic Range video requires use of supported HDR media files, such as OpenEXR, ProRes Mov and MP4.

Control Panel settings required for HDR operation include:

- Format: RGB-10, RGB-12, and YUV-10
- SDI Output: RGB Full (greatest color range) or RGB SMPTE
- Premiere Pro Sequence Settings recommended for HDR operation are:
- Maximum Bit Depth
- Maximum Render Quality

Widescreen Checkbox

Check the Widescreen box if the project is widescreen standard definition NTSC or PAL format.

Premiere Pro Audio Configurations

A Premiere Pro session can be configured for audio in different ways. Which method you use depends on the audio task at hand, the AJA hardware's audio capabilities, and the audio sources to be used. Some example configurations are:

- **Example 1** If your AJA hardware supports the AJA Control Panel Audio Mixer, you can use the AJA hardware for video and audio input and output with optimum A/V sync, including zero latency voice-over recording and monitoring. Leaving your system configured this way maintains A/V sync in your entire video editing session.
- NOTE: In the three examples below, after completing the voice-over you will need to reconfigure your system away from using Adobe Desktop Audio to restore proper A/V sync for the remainder of your video editing session.
 - **Example 2** If your AJA hardware does not support the Control Panel Audio Mixer (for example, LHe Plus and LHi), you can still use the AJA hardware for video and audio input and output, including audio monitoring using Adobe Desktop Audio. However, zero latency voice-over recording and audio monitoring is not available.
 - **Example 3** You can also completely bypass the AJA hardware for audio input and monitoring, using your host computer's audio system and Adobe Desktop Audio. The AJA hardware is only used for video, and zero latency voice-over recording and audio monitoring is not available.

If your AJA hardware supports the Audio Mixer feature you can use one of the AJA hardware audio inputs (selected in AJA Control Panel) to add an ultra-low latency voice-over track to your project timeline. For example, when using the AJA lo 4K Plus, Voice Over to Timeline can make use of Analog Audio In (DB25 Line Level), embedded HDMI Audio In, or embedded SDI Audio In.

Recommended settings for Adobe Premiere Pro when using AJA hardware for voice-over using the AJA Control Panel Audio Mixer are:

- 1. Mac or Win OS: Set the Audio / Sound to default to using AJA device for both input and output (see "OS Configuration" on page 9).
- 2. Premiere Pro Audio Hardware Preferences (Windows OS only): Set Device Class to MME.
- 3. Premiere Pro Audio Hardware Preferences: Set AJA Device for Default Input, Default Output and Master Clock.
- 4. Premiere Pro Audio Preferences: Check Mute input during timeline recording. This prevents monitoring echoes of the voice-over being recorded.
- 5. Premiere Pro Playback Preferences: Select the AJA Device for both the Audio Device and Video Device.
- 6. Premiere Pro Playback Preferences/Video Device Setup: Set Buffer Mode to Minimum.
- 7. Premiere Pro Timeline: Right click on the microphone Voice-over record icon on the desired track on the timeline and choose Voice Over Record Settings. Select the AJA Device as the source (see *Figure 7*). You can see the voice-over input levels on the meter, and you can adjust them up or down externally from Premiere Pro and AJA Control Panel, using an external mixer.

Figure 7. Premiere Pro Voice-Over Record Settings

₽_										
ę	Rename	Voice-Over	Record S	Settings: Audio	01					
Ğ	Add Track Add Audio Submix Track	Name:	MicVC) AJAhardware						
Q	Delete Track	Source:	AJA D	evice			🔽 Co	untdow	n Sound	d Cues
ļ	Add Tracks	Input:	AJA D	evice: In 1 / A	IA Device:	~	Pre Pre	eroll 3 s	econds	
	Delete Tracks						Po 🔽	stroll 2	seconds	
	Track Output Channel Assignments									
	Voice-Over Record Settings	dB -54	-48	-42 -36	-30	-24	-18		-6	0
	Customize								Close	

8. AJA Control Panel: Audio Mixer Screen/Playback Monitor: Check AJA Input, choose from Item Select the AJA device's input to be used, if desired check the Main App to hear the already recorded session audio, and adjust monitoring levels (see *Figure 8*). This Control Room screen is active even when controlled by an external application.



Figure 8. AJA Control Panel Audio Mixer Screen

9. In the Premiere Pro timeline, place the cursor on the timeline where you wish to begin the voice-over recording, then click on the microphone Voice-over record icon for the track and record your audio.

These settings simultaneously provide Premiere Pro Voice Over to Timeline with full-duplex zero latency monitoring and capture to the timeline.

Example 2: Voice-over without Control Panel Audio Mixer

Some KONA and lo devices do not support the Control Panel Audio Mixer. You can use one of the these device's audio inputs (selected on the AJA Control Panel) to add a voice-over track to your project timeline. For example, if your device supports analog audio input your source could be a microphone connected to an audio mixer, with the line-level mixer output connected to a KONA/lo breakout audio input.

NOTE: This method should not be used when precise A/V sync is required on the output. A slight, measurable delay may be induced.

The settings below are intended for use with an audio input connected to an AJA hardware device to perform a voice-over recording without using the AJA Control Panel Audio Mixer.

- 1. Mac or Win OS: Set the Audio / Sound to default to use the AJA device for both input and output (see "OS Configuration" on page 9).
- 2. Premiere Pro Audio Hardware Preferences (Windows OS only): Set Device Class to MME.
- 3. Premiere Pro Audio Hardware Preferences: Set AJA Device for Default Input, Default Output and Master Clock.
- 4. Premiere Pro Audio Preferences: Uncheck Mute input during record. This allows you to listen to the voice-over recording as it happens, but there may be a delay.
- 5. Premiere Pro Playback Preferences: Select Adobe Desktop Audio as the Audio Device. This lets you use the current selection in the Audio Hardware preferences for monitoring.

- 6. Premiere Pro Timeline: Right click on the microphone Voice-over record icon on the desired track on the timeline and choose Voice Over Record Settings. Select the AJA Device as the source (see *Figure 7 on page 15*). You can see the voice-over input levels on the meter, and you can adjust them up or down externally from Premiere Pro and AJA Control Panel, using an external mixer.
- 7. Premiere Pro Timeline: Place the cursor on the timeline where you wish to begin the voice-over recording, then click on the microphone Voice-over record icon for that track and record your audio.

These settings provide voice-over record and audio monitoring on the timeline, but exact A/V sync is not guaranteed.

IMPORTANT: When finished with the voice-over recording, return the Premiere Pro Preferences (see Step 5 on page 15 above) to use AJA hardware as the playback device, to ensure the remainder of your work in the session has the proper A/V sync.

Example 3: Voice-over with USB Device and Computer Monitoring

If you wish to use a USB mic or computer audio source and monitor through the computer, you can use Adobe Desktop Audio for voice-over and monitoring, using use the AJA hardware only for video.

NOTE: This method should not be used when precise A/V sync is required on the output. A slight, measurable delay may be induced.

The settings below are intended for use with a USB headset Mic and headphones (Logitech headset, for example) to perform a voice-over recording.

- 1. Mac or Win OS: Set the Audio / Sound to default to use the AJA device for both input and output.
- 2. Premiere Pro Audio Hardware Preferences (Windows OS only): Set Device Class to MME.
- 3. Premiere Pro Audio Preferences: Uncheck Mute input during record.
- 4. Premiere Pro Audio Hardware Preferences: Set Logitech Headset for Default Input, Default Output, and Master Clock.
- 5. Premiere Pro Playback Preferences: Select Adobe Desktop Audio for the Audio Device and AJA Device for the Video Device.
- 6. Premiere Pro Timeline: Right click on the microphone Voice-over record icon on the desired track on the timeline and choose Voice Over Record Settings. Select Logitech Headset as the source. You can see the voice-over input levels on the meter, and you will adjust them up or down externally from Premiere Pro and AJA Control Panel (possibly on the USB mic itself).
- 7. Premiere Pro Timeline: Place the cursor on the timeline where you wish to begin the voice-over recording, then click on the microphone Voice-over record icon for that track and record your audio.

These settings provide voice-over record and audio monitoring on the timeline, but exact A/V sync is not guaranteed.

IMPORTANT: When finished with the voice-over recording, return the Audio Hardware and Playback Preferences to use AJA hardware, to ensure the remainder of your work in the session has the proper A/V sync.

Chapter 4 – Using Adobe Photoshop

Video Support with Adobe Photoshop

Using Adobe Photoshop and AJA hardware together provides:

- The ability to capture still video frames from professional cameras, software and other devices.
- The ability to export stills as video frames for Monitoring/Output to professional monitoring or downstream devices (e.g. recorders/routers/3rd party applications).
- Signaling for HDR over SDI and HDMI simultaneously.

Adobe Photoshop accepts Adobe plug-ins and drivers to closely integrate the AJA hardware Export function into the application.

NOTE: Setup of Input and Output formats for AJA hardware are now performed using the AJA Control Panel rather than menus within the Adobe Plug-ins.

AJA Capture

NOTE: PhotoShop captures frames of the video being input to the AJA device. An AJA device's internally generated Test Pattern cannot be captured by PhotoShop.

With Photoshop open, go to the File pull-down menu and select Import>AJA Capture. Selecting AJA Capture performs an immediate capture of the current frame in the AJA hardware frame buffer.



Figure 9. AJA Image Capture in Photoshop, File>Import Menu

If you use the capture function regularly, we recommend that you set up a Keyboard Shortcut to trigger the capture (see Photoshop documentation).

AJA Export

To use the AJA Preview function, go to Export and choose AJA Export.

Figure 10. AJA Image Export in Photoshop, File>Export Menu



The specific options available to you are determined by the AJA hardware device that is installed in your workstation that you are currently controlling.

Use the AJA Control Panel to set Video Format and Pixel Format for your desired output.

Source Frame Setting

To setup Preview options, go to the Window menu and select AJA Preview. Select a Source Frame mode to define the video interlace for your image. Progressive is the default.

NOTE: If your source video is interlaced, you may select the appropriate (lower or upper) initial field to maximize AJA hardware output performance. This setting tells the AJA hardware which type of frame format it is receiving.

00	AJA Export Sett	tings
Source Frame:	✓ Progressive Lower Upper Fit To Screen	Export Done

Figure 11. AJA Photoshop Export Setting Menu

In Fit To Screen mode, the AJA hardware automatically scales the image geometry until one of its borders fills the monitor screen. No cropping or distortion occurs.

When your Export Settings are selected, click on the Export button to output your image through the AJA hardware.

NOTE: When you output in Video + Key mode (set in AJA Control Panel), Video is output via SDI 1 and the Key channel is output on SDI 2. (This does not apply to KONA 4K Mode operation, see the KONA manual.)

Chapter 5 – Using Adobe After Effects

Video Support with Adobe After Effects

Using Adobe After Effects and AJA hardware together provides the ability to Monitor/Output to professional monitors or downstream devices. This includes signaling for HDR over SDI and HDMI simultaneously.

- NOTE: While Video and Audio playback is supported via AJA devices, audio / video sync when using Adobe After Effects can't always be guaranteed by the application. Best practice where possible is to render to RAM for playback with audio.
- NOTE: Beginning with AJA's v12.4 Retail Software package, support for Adobe After Effects has changed. Previously two different plug-ins were being installed. The 'Blithook' plug-in is the legacy plug-in and is no longer installed by default. It must be deliberately chosen as an option in both the Mac and Windows installer. The Transmit plug-in is installed with the default installation options.

The After Effects Video Preview Preferences are similar to the Premiere Pro Playback Preferences. See "*Playback Preferences*" on page 12 for more information.

After Effects Realtime Performance

RAM Preview should be realtime for HD in After Effects. 4K RAM preview may even be possible with a high performance workstation. Please ensure you have the following settings for proper RT RAM preview.

- 1. Make sure that the frame buffer format of the AJA Control Panel matches the resolution and frame rate of your After Effects Composition. This can be set by launching AJA Control Panel, clicking on 'Format' in the left hand column, and selecting the correct resolution and framerate in the 'format' drop down menu.
- 2. Next, please ensure that the "Resolution" setting for "Time Controls" is set to "Full" in After Effects. If not set to "Full", the image that the AJA Preview Panel receives and sends to the AJA hardware during RAM Preview will not be sent at "Full Resolution" and thus will either be software resized to Full Resolution before sending to the AJA hardware for display, or will be center cropped before sending.
- 3. If RAM Preview is still not realtime, you can try some of the following setting your Zoom to "100%" in your AE Composition, making sure the "Frame Rate" of the "AE Time Controls" matches the frame rate of the "Primary Format" in the AJA Preview Panel, and muting audio in the AE Time Controls.
- NOTE: In some cases the available bandwidth of the motherboard limits the card's ability to output realtime video. AJA tech support can show you how to use AJA System Test to test the bandwidth you are getting between the card and motherboard.

Chapter 6 – Audition, Character Animator

Adobe Audition Audio Support

The Audition Audio Channel Mapping Preferences and Audio Hardware Preferences are similar to the Premiere Pro Audio Hardware Preferences. See "Audio Hardware Preferences" on page 11 for more information.

Adobe Character Animator Setup

Setting up your AJA device with Adobe Character Animator is very similar to setting it up with the instructions provided for After Effects.

- 1. In the Header, select Character and then Preferences...
- 2. After selecting the AJA device for your Audio Hardware's Default Output, select Live Output.
- 3. Next, simply check the box next to "Enable Mercury Transmit and Syphon" and then select the box for the AJA Video Device you would like to use and then click "OK".

	Pr	eferences	
Audio Hardware	Mercury Transmit		
Lip Sync	✓ Enable Mercury Transmit and Syphon		
Live Output	Video Device:		
	AJA Kona HDMI	Setup	
	AJA 2 T-TAP Pro	Setup	
	🔲 AJA 3 KONA LHI	Setup	
	🔲 AJA 4 KONA 5	Setup	
	AJA 5 Kona 1	Setup	
		Setup	
	Disable Mercury Transmit output	t when application is in the background	
	Learn more about live streaming		

Figure 12. Adobe Character Animator Preferences