

AJA Desktop Software v18 Release Notes

v18 Linux Ubuntu Drivers and Software for KONA, Io, and T-TAP Pro

Introduction

AJA Desktop Software

This unified software, driver, and firmware package contains the necessities to use AJA video I/O hardware.

The following AJA applications are installed:

- AJA Control Panel v18:
 - For setup and control of your AJA Desktop and Mobile I/O products, including firmware updates.
- AJA Control Room v18:
 - For high quality capture, monitoring, playback, and output.
- AJA System Test v18:
 - For testing storage to determine if it will be possible to sustain frame and data rates for a chosen format(s).

Note: AJA NMOS is no longer available to install (It is not required for the KONA IP25).

Note: If you encounter an issue where the KONA IP25 becomes unresponsive, make sure to completely power down the computer system and then restart to make sure that the card is completely power cycled.

Note that, by design, on the KONA IP25, switching either NMOS or Ember+ on or off will result in all input and output streams being reset.

Fixes and Improvements in v18

Note: Items below are identified against the main AJA products affected.

These same issues may have also affected other AJA products that are not specifically called out.

Refer to the issue number shown below if contacting support for more information.

New Features in this release:

- Added support for 10-bit RGBA signals to AJA Corvid 44 and Corvid 88 devices.
- Added support to the AJA KONA X and KONA XM card for 4 channel operation allowing simultaneous capture of two channels of up to 1080p60 streams along with two channels of up to 1080p60 stream payout.

Fixes in this release:

- #55 – Fixed an issue where PCIe Gen2x8 cards including Corvid 44, Corvid 88 and KONA 4 were not initializing properly on machines that were running Intel Alder Lake or Raptor processors.
- #268 - Fixed an issue in AJA Control Room causing it to crash when a “Reserve Buffer Size” setting is entered.
- #695 – Fixed an issue in AJA Control Room where the previously displayed caption would remain on both canvas and output when moving the play head forward or back.
- #1223 – Fixed an issue impacting the AJA KONA IP25 in which UHD signals would fail to be received on Inputs 3 and 4.
- #1361 – Fixed an issue with the AJA KONA IP25 in which PCI Enumeration could fail intermittently on some systems.
- #1392 – Addressed an issue in which VPID bit depth on the AJA KONA 5 was not being correctly set to 10-bit for YUV-8 output signals.

Operating System Information

This driver/software version is compatible with Ubuntu 20.04 LTS and Ubuntu 22.04 LTS. Note that this release is also compatible with Ubuntu 24.04.

- Before running this installer, uninstall all previous versions of AJA software:
 - apt-get purge ajantv2-dkms ajaretail
- Two packages must be installed: DKMS driver and AJA Retail Software.
- The DKMS Driver installer requires the following package:
 - sudo apt-get install dkms
- The driver installer must run either in a root shell or with root permissions.
 - sudo apt-get install ./ajantv2-dkms_XXXXXX_all.deb
 - Note: Use the exact package name here, see file name in install package
 - sudo apt-get install ./ajaretail_XXXXXX_amd64.deb
 - Note: Use the exact package name here, see file name in install package
- For GPU accelerated desktop display, an OpenCL version 1.2 or greater capable GPU is required.
- Check the Known Issues, Limitations and Additional Details section near the end of this document.
- Note that on later versions of GNOME, the extension management has been moved to its own dedicated app called GNOME Extensions (gnome-extensions-app). Execute the following to perform the installation:
 - Ubuntu 20.04:
 - sudo apt-get install gnome-tweaks
 - open GNOME Tweaks
 - click Extensions on the left list
 - turn on Ubuntu AppIndicators
 - launch AJA Control Panel
 - Ubuntu 22.04:
 - sudo apt-get install gnome-extensions-app
 - open Extensions app
 - turn on Ubuntu AppIndicators
 - launch AJA Control Panel

Third Party Software

AJA KONA hardware is used by many software and systems manufacturers, who provide their own software for user installation. The links below provide a guide to software support that AJA is aware of, with additional software support being added frequently. Please contact the appropriate software vendor for information on whether AJA software or drivers are required when using their application. AJA recommends the latest released versions of 3rd party software for best performance (**note that the KONA IP25 card is pending third-party testing and may not work with some or all of these applications as of the date of release**):

<https://www.aja.com/compatibility/kona>

Autodesk - Flame and related products

- AJA KONA hardware also comes with out-of-the-box support for OBS Studio as follows:
 - **OBS Project** - OBS Studio 30, 29.1.3, 28.1.x, 27.2.x (note that there are known issues with 29.13 and 30 for KONA X)

In all cases, AJA recommends checking the system and OS requirements for 3rd party software packages with the software creator/vendor directly, to ensure a supportable configuration.

Relevant Products

The following products benefit from this update:

- KONA IP25
- KONA X
- KONA 5
- KONA 4
- KONA 1
- KONA HDMI
- KONA LHi
- KONA LHe Plus
- Io 4K Plus
- Io X3
- T-TAP Pro
- Corvid 44*
- Corvid 44-12G*
- Corvid 88*

* Note that Corvid products are normally used with the NTV2 SDK. The AJA Retail applications, including Control Panel and Control Room offer limited support for Corvid products.

Recommendations in v18

- AJA offers a comprehensive SDK for developers who are interested in doing more with KONA, Corvid, and Io products. We have recently moved repositories to Github at <https://github.com/aja-video>. Our Github site now offers access to both open source and pre-compiled code and tools that make developing applications that support our products much easier.
- Note that AJA Desktop Software v18.x still works with EOL products, including Io XT, Io 4K, KONA IP, Io IP, T-TAP, and DNxIP. However, releases after v16.2 were no longer qualified with these end-of-life products. Issues affecting these EOL products may arise that are not caught during the testing phase for new software releases, and these issues may not be fixed. In some cases, AJA may elect to fix issues that affect EOL products, but that cannot be guaranteed.
- Note that “End-of-Life” products will continue to receive best effort SDK support, but the supported SDK version may be frozen to the version available when the device went “End-of-Sale.”
- Note that Corvid HEVC (CORVID-HEVC-ATX6) is no longer being tested with new software releases.
- Note that some new PC motherboard and processor combinations do not offer full PCIe compatibility with add-on cards. Refer to our Hardware Compatibility Page on the AJA web site to see which systems have been tested in our lab and are known to work. <https://www.aja.com/page/system-configuration>

Additional Details

General

- “System Sleep” and “Hibernation” should not be used with KONA cards. All sleep and power efficiency modes should be disabled in the operating system settings.
- AJA Control Room captures can fall behind and may fail to retain the entirety of the recording when used with hard drives and SSDs that cannot maintain sufficient read/write speeds. Enabling deep buffers can improve the situation but may not prevent issues in all cases. Please use AJA System Test (free tool available on AJA web site and also installed with the Desktop software package) to measure disk performance to make sure your storage systems can handle the resolution and bit rates of the recordings you wish to make.
- Note that AJA Control Room cannot play clips in which “Time of Day” timecode was used, if the capture happened from one “Day” to the next “Day” across 12:00AM.
- Note that users who are using a BIN in AJA Control Room and have not saved it will continue to receive prompts to save the BIN after every change. This is “as designed” to protect file retention in the user’s BIN.
- Note that in some environments, PCIe Gen2 boards (KONA 4, KONA HDMI, KONA 1, Corvid 88, Corvid 44) do not link with 8 lanes after the OS boots. When using these boards on these systems, maximum performance or functionality may not be available. Please contact AJA support if you experience these issues. Affected motherboards and CPUs:
 - Motherboards:
 - ASRock IMB-1314 with "PCIE1" and "PCIE3" slot (x8 supported slots)
 - AAEON MAX-Q670A with "PCIEX16_1" and "PCIEX16_2" slot (x8 supported slots)
 - (Note: The BIOS setting of CPU/PCIe slot for both motherboards does not affect the occurrence ratio of the issue.)
 - CPUs when used on the motherboards above:
 - Core i7 13700

- Core i7 12700
- Core i9 12900

Known Issues

- #199 - AJA Control Room fails to insert a standard color space when writing DNxHR.
- #198 - AJA Control Panel outputs BGRA test pattern on the wire with a zero alpha channel resulting in the Alpha channel component being set to zero.
- #272 - AJA Control Room may fail to update position in viewer when the play head is moved during a frame drop.
- #691 - AJA Control Room may display captions from previous captures, and these may remain on the canvas until the application is restarted.
- #776 - The AJA KONA LHi is not detecting RP188 timecode.
- #824 - AJA Control Room does not properly output 708 captions on Linux versions of the application.

Technical Support

AJA Technical Support is free and available to help you answer questions or resolve issues with any of your AJA products.

To contact AJA Technical Support:

Email: support@aja.com

Phone: +1-530-271-3190

Fax: +1-530-274-9442

Web: <https://www.aja.com/support/contact>

Shipping: 180 Litton Dr. Grass Valley, CA 95945 USA