

# AJA KUMO Release Notes – Firmware for all KUMO routers & KUMO Control Panels

Release Notes – v4.5.0

## General

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This version of KUMO firmware adds support and improvements for KUMO-12G routers and one key feature for all KUMO products.

All users of KUMO products are encouraged to update to the latest firmware.

## New Features in v4.5.0

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- New support for **KUMO 3232-12G** and **KUMO 1616-12G** routers.

Key Features for KUMO 3232-12G and KUMO 1616-12G include:

- Support for 12G/6G/3G/1.5G-SDI (SMPTE-259/292/424/2081/2082).
  - 1RU form factor for KUMO 1616-12G, and 2RU form factor for KUMO 3232-12G.
  - Supports single, dual, and quad-link routing modes.
  - Eight salvos, controlled from the KUMO router web UI, KUMO CP2 panel and GV Native control protocol.
  - Automatic input equalization and output reclocking.
  - All outputs are non-inverting.
  - Supports all embedded VANC and HANC ancillary information, including embedded audio.
  - External reference via BNC, passive loop, PAL/NTSC color black or Tri-level sync.
  - Output switch timing per SMPTE RP 168 when using an external reference source.
  - 10/100/1000 Ethernet LAN.
  - Control with AJA KUMO CP and KUMO CP2 control panels, web browser or REST interface.
  - Basic support for Grass Valley Native Protocol over Ethernet or serial interface.
  - User authorization to restrict access via web browser.
  - USB port for use with eMini-Setup for network configuration via USB.
  - Optional KUMO CP hardware 32 pushbutton remote control panel via Ethernet.
  - Optional KUMO CP2 hardware 64 pushbutton remote control panel via Ethernet.
  - Power loss recovery to the last operational state, both router and control panel.
  - Redundant power supply (optional), isolated power inputs.
- Added IP configuration for all AJA KUMO routers and control panels (over USB port) using eMiniSetup v2.0.0 and later.
  - Improves the SDI performance in KUMO-1616-12G and KUMO-3232-12G. All KUMO 1616-12G and 3232-12G products should be updated to v4.5.0.

## Additional Information

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Although KUMO routers come from the factory pre-installed with firmware, it may not be as up-to-date as firmware posted on the AJA website. The following topics in these notes describe the steps required to upgrade the firmware in your AJA KUMO router.

### Download the Latest KUMO Firmware

Current and past releases of KUMO firmware are available on AJA's website. To get the firmware, point your browser to:

<https://www.aja.com/products/kumo#support>

Select your KUMO device and then navigate to the SUPPORT tab. Select the firmware file and download to your Mac or Windows system for upgrading your local KUMO device.

## Unpack the Firmware

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KUMO firmware update files are compressed "ZIP" files, which you can open with a number of standard and third party uncompressor applications. The firmware image that you'll install on the KUMO is a file with a name like kumo\_ver\_1.0.0.3.bin or similar. Depending on your Mac or Windows operating system settings, the ".bin" extension may not be visible to you in a file directory.

In the archive, there will be a README.TXT file. Please open and read the file so you will be aware of any updates or information that did not get in the manual or release notes.

### Uploading and Installing the Firmware to the KUMO

Uploading and installing the firmware update only requires a Mac or Windows computer that can "see" the KUMO via its Ethernet connection. Follow this procedure to install the firmware:

1. Point your browser at the KUMO upgrade page by clicking on the "Firmware" menu link at the bottom of the application web page.
2. Click the "Browse..." button to select the file you previously downloaded.
3. After you have selected a valid KUMO image file, click the "OK" button in the "Upload Firmware" prompt. The file you select will upload to the KUMO and be tested for validity. Incomplete, corrupted, or non-KUMO firmware files are rejected.
4. Click "Commit Uploaded Firmware" on the KUMO Update Firmware web page after the upload is finished. After the upload is finished, restart the KUMO device to run the new firmware.

*Note: The same KUMO firmware is used for KUMO 1604, 1616, 3232, 6464 routers and KUMO CP & KUMO CP2 control panels. AJA recommends updating all routers and control panels to the same firmware to ensure compatibility.*

## Relevant Products

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The following products are covered by this update:

KUMO 1604	KUMO 1616-12G
KUMO 1616	KUMO 3232-12G
KUMO 3232	KUMO CP
KUMO 6464	KUMO CP2

# Version History

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## Version 4.3.0.9 – Release Date: September 14, 2017

### Features

- Support for the new KUMO CP2 2RU Control Panel.
- A new Salvo feature has been added to all KUMO router models. Each KUMO router can have up to eight salvos. The Salvos are stored within each KUMO router and can be configured and executed using a web browser connected to the KUMO router's WEB UI.
- The KUMO CP2 Control Panel Salvo buttons (8 total) are used to select and trigger a pre-configured Salvo on the connected KUMO router.
- The Salvos can also be triggered via GV Native Protocol over their serial or Ethernet interfaces.
- The KUMO implementation of the GV Native Protocol now accepts leading zeros in Src/Dst strings, treats the Src/Dst addresses as hex values, fixes the return message for the Qi command, and supports Salvos.

## Version 4.2.0.0 – Release Date: May 5, 2017

### Features

- Support for the new KUMO CP2 2RU Control Panel.
- Added User Authentication to the KUMO routers and KUMO control panels.
- KUMO CP 1RU Control Panel will now control the KUMO 6464 (when configured for Dual-Link and Quad-Link modes).

### Improvements

- A bug was introduced with version 4.1.0.5 firmware that resets the selected source for a locked destination when the destination is unlocked. This bug has been fixed. Now the selected source for the locked destination will be preserved when the destination is unlocked.
- The Reset to Factory Default function generally required a power cycle for a clean reboot of the KUMO router or control panel. This step is no longer required.

## Version 4.1.0.5 – Release Date: January 25, 2017

### Features

- The KUMO CP can now be configured via the webserver GUI to enable/disable any Source or Destination button(s).

### Improvements

- The KUMO product Serial Number is now correctly displayed in the webserver GUI.

## Version 4.1.0.4 - Release Date: November 22, 2016

### Features

- Support for the new KUMO 6464 Router.

## Version 3.1.0.7 - Release Date: May 15, 2014

### Features

- Fixed a problem with Internet Explorer browser not correctly loading the UI page in the KUMO router and the KUMO CP.
- Fixed a problem in Firefox version 25 (on Windows 8) where it does not display the bottom of the page correctly.
- Fixed a problem in the KUMO CP where the serial number is not displayed in the Windows Internet Explorer browser.
- Fixed a problem to ensure users cannot enter an illegal IP address when configuring a static IP address using the TAB key.
- Added the ability to reset AUTO Config with the KUMO CP (Hold down Router 1 button and the Destination "Shift" button for 4 seconds and the connection will be reset and re-established).
- Fixed a problem where destinations would not tally correctly on initial WEB UI startup.

## Version 3.0.0.9 - Release Date: September 13, 2013

### Improvements

- Adds the ability to gang two and four physical connections together as a single virtual connection, allowing KUMO to route Dual Link and 4K signals as a single crosspoint.

## Version 2.1.0.1 - Release Date: July 15, 2013

### Improvements

- Fixed problem with "Identify" LED not working from the web browser.
- Fixed error display problem when sending switching commands to KUMO using GVG Native Protocol. Command now states correct status.
- Fixed problem in Native Protocol driver when adjusting source and destination names, where names would not change without a reboot.
- Added support for older REST API scripting (scripts utilizing HTTP GET/POST '/value' and '/options' syntax). Older scripts should not need changes, however scripts utilizing 'POST' requests must add additional flag (&type='altPostResp') to message in order for the message to succeed.
- Added Native Protocol command "Ql" and "Qi".
- Improved security features.

## Version 2.0.1.34 - Release Date: November 27, 2012

### Features

- Released the new KUMO 3232 Router.
- Implemented the GVG Native Protocol for control of all KUMO routers.  
*Note: Due to a wiring issue in existing KUMO routers, an adapter is required for control (Module – RS422 Crossover Adapter, part# 104521-00).*
- Existing KUMO routers have a model number ending in R0. The model number is on the bottom of the KUMO chassis, on the bar-coded label
- ("KUMO-1616-R0" or "KUMO-1604-R0"). Newer KUMO routers end in an "R1" and do not require the adapter.
- To obtain the adapter, call AJA Customer Service at +1-530-271-3190.

### Improvements

- Improved communication for more reliable crosspoint tally.
- Fixed a problem with recovery after power cycle to properly retain crosspoint selections.
- Fixed a problem where some units would not properly power on.
- Addressed an issue with properly reporting the "Intensity" on the configuration page.
- Addressed an issue where selections of destinations 5 to 16 could affect the KUMO 1604.

## Technical Support

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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](mailto:support@aja.com)

Phone: +1-530-271-3190

Fax: +1-530-274-9442

Web: [www.aja.com/support](http://www.aja.com/support)

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