

# AJA FS-HDR Release Notes - v1.0.0.3

## Firmware for FS-HDR

### General

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This is the initial release of the FS-HDR Video Processor.

Key features include:

- HDR/WCG Processor with Colorfront Engine™
  - Processing Based on Human Perception Model
  - Perceptually optimized color volume remapping
  - Preserves the original creative intent
- Input Dynamic Range/Color Gamut
  - SDR BT.709 100 Nits
  - PQ BT.2020 1000 Nits
  - PQ P3D65 1000 Nits
  - Hybrid Log Gamma BT.2100
  - Sony S-Gamut3/S-Log3
  - ARRI Log C Wide Gamut
  - Panasonic V-log
  - RED Log3G10 Wide Gamut
  - Canon Log 2
  - Canon Log 3
- Output Dynamic Range/Color Gamut
  - SDR BT.709 100 Nits
  - PQ BT.2020 1000 Nits
  - Hybrid Log Gamma BT.2100
  - Sony S-Gamut3/S-Log3
- HDR Conversions
  - HDR to HDR
  - HDR to SDR
  - SDR to HDR
- Colorimetry
  - Supports BT.709 and BT.2020

- Support for two modes:
  - Single-channel mode for 4K/UltraHD or 2K/HD frame sync and conversion including HDR conversions
    - 4K/UltraHD/2K/HD/SD video processing and up, down, cross-conversion
    - A full range of I/O options for 4K/UltraHD including Quad 1.5G; Dual 3G; and Quad 3G, 6G and 12G over a range of SDI and optional fiber choices
    - SMPTE 2SI I/O support for broad compatibility with 4K/UltraHD devices
  - Four-channel mode for simultaneous independent 2K/HD/SD channels including HDR conversions
    - 2K/HD/SD up, down, cross-conversion
    - SD/SD aspect ratio conversion
    - HD/HD cross-conversion (720p/1080i)
- Widely interoperable with 4K/UltraHD/2K/HD raster support, Quadrants and 2SI conversion, P, PsF and Interlace support

For additional information, please refer to the FS-HDR section of the AJA website:

<https://www.aja.com/en/products/FS-HDR>

## Updating FS-HDR Firmware

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Although the FS-HDR comes from the factory pre-installed with the latest firmware as of the time of manufacture, it may be necessary to re-flash the factory firmware or update to new firmware that has been posted on the AJA website.

The following topics in these notes describe the steps required to upgrade the firmware in your AJA FS-HDR.

## Download the Latest Firmware

Current and past releases of FS-HDR firmware are available on AJA's website.

To get the firmware, point your browser to:

<https://www.aja.com/en/products/FS-HDR#support>

Once you see the update page, FS-HDR firmware files can be selected for downloading to your Mac or PC for upgrading your local machine.

## Unpack the Firmware

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The firmware update files are “ZIP” files, which you can open with a number of standard and third party decompression applications. The firmware image that you’ll install on the FS-HDR is a file with a name like FSHDR\_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 FS-HDR

Uploading and installing the firmware update only requires a Mac or Windows computer that can “see” the FS-HDR via its Ethernet connection. Follow this procedure to install the firmware:

1. Point your browser at the FS-HDR's upgrade page by clicking on the “Firmware” menu link at the bottom of the navigation box on the left-hand side of any FS-HDR web page. The FS-HDR web pages are discussed in the FS-HDR User Manual.
2. Click the “Browse...” button to select the file you previously downloaded.
3. After you have selected a valid FS-HDR image file, click the “OK” button in the “Upload Firmware” prompt. The file you select will upload to the FS-HDR and be tested for validity. Incomplete, corrupted, or non-FS-HDR firmware files are rejected.
4. Click “Commit Uploaded Firmware” on the FS-HDR Update Firmware web page after the upload is finished.
5. Wait for the procedure to complete. When done, the FS-HDR Update Firmware web page will prompt you to restart your FS-HDR. Click the “Restart FS-HDR with New Firmware” button to begin the restart. Restart progress is shown on the front panel of the FS-HDR only. After the restart completes, the FS-HDR front panel “Status” menu is displayed, and the FS-HDR will be running the new firmware.

6. Once these steps are complete, the FS-HDR will be running the firmware you just uploaded until the next time you upgrade it. The configuration of the FS-HDR prior to the upgrade will be preserved. Ensure the new firmware is running by bringing up the FS-HDR web page again; the firmware version is displayed at the top of all FS-HDR web screens. If for some rare reason it didn't update, you can then run through the update steps again.

Important Note: If there is a power outage or glitch during the firmware download, the FS-HDR will boot the older version and the upgrade process can then be re-started by the user. This happens because the FS-HDR has been designed with a safety feature where an internal "safe" copy of the previous firmware is retained in the event of any error in the updating.

## 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