

AJA FS-HDR Release Notes - v4.3

Firmware for FS-HDR

Introduction

FS-HDR v4.3 firmware updates BBC HLG LUTs to v1.7 and adds a Motion Adaptive Deinterlacing control and offers several other improvements. This firmware update is highly recommended for all FS-HDR users.

Be sure to consult the Installation and Operation Guide (user manual) for detailed information about features and configuration guidelines. The most current documentation can always be found on [FS-HDR's Support Page](#).

New Features v4.3

- Updates BBC HLG LUTs to v1.7 with following changes:
 - LUT 9 improves the reproduction of bright saturated colors.
 - LUT 21 has a wider color gamut SDR output.
- New Motion Adaptive Deinterlacer control called “Deinterlacer”.
 - Some interlaced video with fast motion can exhibit video artifacts.
 - Reducing the amount of motion adaptation can result in better video.
 - The Motion Adaptive Deinterlacer can now be set to Max, Min, or Off and is “Max” by default.
 - “Max” has been the default setting for the FS-HDR in all previous releases.
- New Channel to Channel HFR Sync control called “Ch to Ch HFR Sync”.
 - First introduced in v3.2, was turned On by default, and was not user configurable.
 - In certain situations, this feature caused the frame sync to not lock to the input signal.
 - The feature can now be turned On or Off and is “Off” by default.

Fixes, Changes and Improvements in v4.3

- Fixes issue with User LUTs that caused FS-HDR to output no video when power cycled.
- Fixes issue when delaying video more than 15 frames in 4K/UHD Single Channel Mode.
- Fixes issue where embedded audio ch 1-8 output timing was 1 sample different from ch 9-16.
- Fixes issue when embedded audio delay changed on SDI 1 does not match on SDI 5.

- AJA FS-HDR Control Link Software is no longer supported.

Additional Information

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

<https://www.aja.com/products/fs-hdr>.

Updating FS-HDR Firmware

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 our 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/products/support/fs-hdr>.
- 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

The firmware update files are “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 FS-HDR is a file with a name like FSHDR_ver_2.0.0.0.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.

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.

Important Note: If upgrading from v2.5 (or older firmware) to v2.6 (or newer firmware), the ten USER LUT slots can be pre-loaded with a Unity LUT. This is a simple operation that can be performed in the FS-HDR web GUI. In the “User LUT” menu, select “Overwrite All” in the “Overwrite with Unity” parameter at the bottom of the page.

Important Note: If upgrading from v2.6 (or older firmware) to v3.0 (or newer firmware), the Colorfront Engine Color temp scale will change. The scale was 2000.0 to 11000.0 with a default of 4300.0. In v3.0 the scale is -10.000 to +10.000 with a default of 0.

Technical Support

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

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