

AJA HELO Plus Release Notes - v1.0

Firmware for HELO Plus

Introduction

HELO Plus v1.0 is the initial firmware release and ships pre-installed on the HELO Plus.

Be sure to consult the Installation and Operation Guide (user manual) for detailed information about features and configuration guidelines. The most current documentation, along with editable sample graphics projects (In Adobe Photoshop format) can always be found on the [HELO Plus Support Page](#).

Features in v1.0

- Independent selection of video and audio sources.
- Video input and output on 3G-SDI and HDMI.
- Optional video geometry scaling.
- Front panel LED audio meters show the level of the selected stereo input audio.
- Dual H.264/MPEG-4 encoders with data rates from 100 kbps to 20 Mbps.
- Independent packagers allow the system to stream to two separate destinations simultaneously.
- Support for RTP/UDP (Multicast and Unicast), RTSP, RTMP, RTMPS and HLS.
- SRT compatibility.
- Record to SD, SDHC, or SDXC cards, USB storage, NFS, CIFS, or SMB network volumes - while still being able to stream to two simultaneous destinations.
- Recording to 2 destinations simultaneously adds redundancy to the process.
- USB slot and SD card slot for local external storage.
- Layout mode allows users to create sophisticated program content. Both inputs can be used at the same time and each input can be independently cropped, sized and positioned within the output raster. A graphics framestore is also available in this mode, for logo/bug/title insertion. The priority of the layers is adjustable by the user. This 3 layer composite is then keyed over an adjustable internal background matte generator before encoding.
- AV Mute with user graphics upload support for pre-live feeds.
- Web-based GUI preview window.
- Group control for multiple HELO Plus and Ki Pro devices.

Known Issues and Limitations

- USB storage devices should be connected to HELO Plus directly and not through a USB hub. AJA cannot guarantee system performance if a hub is placed between the HELO Plus and the USB storage device.
- Occasionally, known good USB drives may show up as “unformatted” after a reboot. This issue can often be resolved by simply removing and re-inserting the USB drives.
- When authentication is enabled and a user is logged into HELO Plus in a browser session, they must quit the browser application in order to log out. Please note that merely closing the browser tab or window will not log the user out.
- Scrolling a drive’s clip list while recording to that drive is not recommended. Current behavior is that the system will jump back to the top of the list every time the information about the active recording is updated.
- If a USB drive is physically plugged into the unit when a factory reset is initiated, that drive must be removed and reinserted for the system to recognize the files on the drive.
- When the encoded video will be at a resolution higher than 1280x720 and at a frame rate higher than 30fps, only Encoder 1 is available.
- An invalid or unavailable record destination will prevent recording from starting. This is true even if 2 recording destinations are configured, and the second destination is valid.
- When recording using the “Long Single Segment” mode, if the recording duration reaches 12 hours (the maximum value for this mode), the recording will terminate with a “Recording Failed” alarm. This does not mean that the recording is unplayable - it simply means that, since the recording was still in process when the maximum duration was reached, the users intention to record longer than 12 hours has resulted in an internally terminated recording - so the system alarms that fact. The segment, in its entirety, is fully playable. Subject to available storage capacity, longer recordings can be made using the segmented recording feature.
- If a write-protected SD card is selected as either primary or secondary storage destination, any SMB share involved in the configuration will also be marked as unwritable, and recording will not be possible until the configuration is changed or the write-protected SD card is modified or replaced.
- Formatting of USB or SD media can be carried out directly on the HELO Plus – and indeed, that is the preferred option. However, it is also possible to format these devices on an external computer. If formatting in an external computer, it is important to ensure that the drive is formatted with a single exFAT partition which uses up the entire storage device. Having multiple partitions can cause unintended consequences and is strongly discouraged.
- HELO Plus supports recording to external SMB mounts, which can be dedicated servers, or computers running standard desktop operating systems. HELO Plus can automatically negotiate the SMB dialog to be used for communications, but users can elect to manually force SMB 1.0, 2.0, 2.1 or 3.0. Customers using Macintosh computers should only use High Sierra or newer as SMB targets. Customers should avoid using SMB 1.0 (also known as CIFS) if at all possible as it is not secure and may expose sensitive

user credentials to anyone listening on your network. Note that auto mode will only negotiate up to SMB 3.0.2. If a customer wants to use SMB 3.1.1, they must manually select that option.

- When using SMB, the HELO Plus can only write to the top level share folder (i.e. \\<server name>\top level folder) - and only if that top level share gives the HELO Plus read/write permissions. The system is unable to write to subdirectories of that top level folder, regardless of permissions set on that subdirectory.
- If a Windows 10 computer is configured as an SMB network share, and that computer is rebooted during an active recording session, the recording will fail and HELO Plus will need to be restarted for further recordings to take place. The file which was being recorded on the SMB share at the time of reboot will not be usable.
- Depending on the SMB system being used, physically disconnecting an SMB share that is currently selected as the primary record destination can cause system issues which, on occasion, may require system reboot.
- With certain SMB targets, HELO Plus may find itself unable to delete recordings once made. The work-around for this scenario is to manually delete the recording in question by some other means. HELO Plus will then update the clip list for that SMB share upon the next record operation. This refresh will also happen if the user switches from SMB to some other local storage and back again. NFS mounts do not suffer from this issue.
- Entering file names for recordings that include multiple non-text characters in a row can result in recordings that cannot be downloaded over the network. In extreme cases, the file may not be recorded at all. The workaround is to avoid file names which have large numbers of non-text characters in a row.
- Customers using VLC version 3.0.17 on Windows or macOS may occasionally see repeated or missing CC letters when viewing an RTSP stream. Prior versions of VLC on either platform do not exhibit this issue. The workaround is to use a prior version of VLC, or to use another vendor's stream viewer.
- If the chosen NTP server should fail, or somehow become unresponsive, HELO Plus will not automatically reconnect to it when it becomes available again. Customers can manually reconnect to the ntp server by highlighting its name on the System page and pressing <Enter>.
- When performing a software update, if a user presses <cancel> in the "reboot" dialog and then attempts to update the system with the same firmware, the second update will fail. To resolve this issue, simply refresh the browser before attempting the update again.
- Occasionally, after a warm reboot (or Factory reboot from the Firmware page of the WebUI), some units may experience difficulty in successfully starting a live stream to YouTube. If this occurs, a power cycle of the system will restore normal operation.

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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