

# **ALEXA 35 Xtreme**

## **Software Update Package SUP 5.0.0**

RELEASE NOTES

**August 13, 2025**

# Overview

We are pleased to introduce Software Update Package SUP 5.0.0 for the ALEXA 35 Xtreme. This release marks the official debut of the ALEXA 35 Xtreme, a camera model that builds on the acclaimed image quality and workflow of the ALEXA 35—now powered by a faster processor and expanded internal memory to enable advanced performance and exclusive new features.

SUP 5.0.0 comes pre-installed on all ALEXA 35 Xtreme units and is required to access its full capabilities, including high-speed recording up to 660 fps, the new ARRICORE codec, longer pre-recording times, improved WiFi performance and streamlined recording formats.

SUP 5.0.0 is not compatible with ALEXA 35 or ALEXA 35 Live cameras.

We strongly recommend reviewing these release notes in full, including the Known Issues section, and consulting the updated ALEXA 35 User Manual for SUP 5.0.0 to ensure optimal operation.

## Feature Overview SUP 5.0.0

- High speed recording up to 660 fps
- Sensor Overdrive
- ARRICORE codec (Beta)
- 5x longer pre-recording
- Improved WiFi: 5 GHz client mode, known networks, mesh roaming, worldwide discovery service
- Streamlined recording formats
- New user button: VF De-squeeze
- New user button: LPM-1 Return In
- Multicam submenu
- Extended shutter angle range
- Integrated LDA lens tables for Ensō primes

## Peripheral Updates

The following peripheral software and firmware versions are included with SUP 5.0.0. Versions that have changed compared to the previous release are shown in **bold**:

- |                          |               |
|--------------------------|---------------|
| • ARRICORE               | 0.1.8         |
| • Multi Viewfinder MVF-2 | <b>3.62</b>   |
| • LPL Mount (LBUS)       | <b>1.61</b>   |
| • PL Mount (LBUS)        | <b>1.100</b>  |
| • PL Mount (Hirose)      | <b>1.100</b>  |
| • EF Mount (LBUS)        | 1.14          |
| • Camera Access Protocol | <b>1.14.0</b> |
| • MXF Library            | <b>4.4.5</b>  |

## Software Compatibility

To ensure full compatibility with SUP 5.0.0, the following software versions must be used:

- |                                 |                                               |
|---------------------------------|-----------------------------------------------|
| • ARRI Reference Tool:          | <b>1.8.0</b>                                  |
| • Camera Control Monitor CCM-1: | 5.5.2                                         |
| • Audio Extension Module AEM-1: | V1.1G                                         |
| • LPS-1 Fiber Camera Adapter:   | <b>1.1.1</b>                                  |
| • LPS-1 Fiber Base Station:     | <b>1.1.1</b>                                  |
| • Skaarhoj RCP Pro:             | <b>core-arri-camera 1.0.4 / Reactor 2.2.0</b> |
| • DaVinci Resolve Studio        | <b>20.0.1 Build 6</b>                         |

A comprehensive list of third-party software and their compatibility with the ALEXA 35 cameras is available on the [ALEXA 35 Workflow](#) webpage. Always ensure you are using the latest version of any third-party software.

## Registration

If you haven't registered your camera yet, please ensure you do so through our online customer registration. Registering your camera guarantees you'll receive notifications about future software updates as soon as they're released. Additionally, if you register your new camera within one month of purchase, you'll receive a complimentary one-year extended warranty. To register, visit the [Product Registration](#) webpage.

## Sample Footage

Sample footage shot with the ALEXA 35 camera can be downloaded from the [ALEXA 35 Sample Footage](#) webpage.

# New Features - ALEXA 35 Xtreme

## High speed recording up to 660 fps

Delivering frame rates of up to 660 fps, the ALEXA 35 Xtreme removes the need for a secondary high-speed camera on most shoots. This streamlines production workflows, saves both time and money, and ensures that high-speed footage matches seamlessly with standard-speed shots in postproduction. These benefits are enabled by a powerful new main processor, equipped with more and faster on-board memory. Frame rates up to 330 fps retain the camera's full 17 stops of dynamic range, while a new Sensor Overdrive mode allows frame rates up to 660 fps at a dynamic range of 11 stops.

## Sensor Overdrive

Sensor Overdrive is a special operating mode that enables significantly increased frame rates up to 660 fps by reducing the sensor's internal readout and integration times. This allows for high-speed capture while reducing the dynamic range to approximately 11 stops. In Sensor Overdrive, the shutter angle is limited to 340°, Enhanced Sensitivity (ES) is unavailable, and the supported Exposure Index range is EI 800 to EI 6400. This mode requires the Premium or High Speed License and records exclusively using the ARRICORE codec.

## ARRICORE Codec (Beta)

Accompanying the ALEXA 35 Xtreme is ARRICORE, a next-generation RGB codec developed by ARRI to make the camera's superb image quality more affordable through reduced data rates. At the same time, flexibility in post is assured, since sensitivity, white balance, and tint are not baked in. Switching to ARRICORE is easy because on-set and post workflows remain consistent with existing ALEXA 35 codecs and drives. The ARRI Look File ALF4, ARRI Textures, metadata, the MXF wrapper, and audio will behave in a familiar way. Now in the final stages of optimization, ARRICORE is being released initially as a beta version, with early user feedback helping to finesse its performance. Most third-party tools that already support the current ALEXA 35 codecs will also support ARRICORE.

## 5x Longer Pre-recording

Thanks to its larger internal buffer, ALEXA 35 Xtreme supports significantly extended prerecording durations, giving users more flexibility in capturing unscripted or fast-moving events. Pre-recording times vary depending on sensor mode, resolution, and recording format. For example, the camera can store up to 22 seconds in 4K 16:9 ARRIRAW, 92 seconds in 2K 16:9 S16 ARRIRAW, and up to 300 seconds in HD 16:9 S16 Apple ProRes 422HQ.

## Improved WiFi: 5 GHz Client Mode

ALEXA 35 Xtreme supports wireless connections to 5 GHz WiFi networks in client mode (IEEE 802.11a/n/ac), offering higher bandwidth, lower latency, and greater reliability in congested RF environments. Please note that the 5 GHz client mode requires the new, longer antenna with the white and blue bands which will also improve transmission for 2.4 GHz.

## **Improved WiFi: Known Networks**

ALEXA 35 Xtreme now stores successfully connected networks in a Known WiFi Networks list. This list contains SSIDs and passwords and will remain stored in the camera unless a software update is performed. It will remain persistent during a change from host to client or during a factory reset. Networks can be marked for Auto Join, allowing automatic reconnection. The camera will attempt to reconnect first to the last used network, or otherwise to the strongest available Auto Join network.

## **Improved WiFi: Mesh Roaming**

The camera supports seamless roaming in wireless mesh networks using the standards 802.11k, 802.11r, and 802.11v. When connected to multiple access points within a mesh, the camera automatically transitions to the best available signal as needed.

## **Improved WiFi: Worldwide Discovery Service**

ALEXA 35 Xtreme will automatically determine where in the world it is located based on the location information of the nearest WiFi router. It will then use the highest legally permitted WiFi signal strength for this region. For countries like the USA, for instance, this is a stronger signal than it used to be, where we had to use the globally lowest common denominator for signal strength.

## **Streamlined Recording Formats**

ALEXA 35 Xtreme introduces a consolidated and streamlined set of sensor modes and recording resolutions, designed to simplify production workflows. The sensor modes 3.8K 2.39:1 and HD 16:9 S16 have been newly added. Sensor modes 4K 2:1, 3K 1:1, and 2.7K 8:9 as well as all in-camera down sampled or de-squeezed recording resolutions have been removed (anamorphic de-squeeze for the monitoring paths remains in the camera, of course). Recording resolutions now always match the respective sensor mode.

## **New User Button: VF De-squeeze**

On ALEXA 35 Xtreme, this user button toggles anamorphic de-squeeze on the viewfinder outputs (VF1 and VF2). It affects monitoring only and is useful for quickly switching between squeezed and de-squeezed image views during anamorphic shoots. It does not influence the Lens Squeeze Factor or any SDI output.

## **New User Button: LPM-1 Return In**

On ALEXA 35 Xtreme, this user button is intended for use with the ARRI Live Production System (LPS-1) and Live Production Monitor LPM-1. It allows switching between the live image and an external return signal directly on the monitor— This is particularly useful when SDI 2 is set as an output and thus cannot serve as an input for return video.

## **Multicam Submenu**

On ALEXA 35 Xtreme, a new Multicam submenu combines all multicam-related settings into a single menu section, including Live Painting, Tally configuration, and local menu access restrictions. The submenu is available only when a Multicam license is installed on the camera.

## **Extended Shutter Angle Range**

On ALEXA 35 Xtreme, the minimum adjustable shutter angle reduced from 5° to 1°, allowing finer control. This does not affect the camera's exposure time capabilities.

## **Integrated LDA Lens Tables for Ensō Primes**

On ALEXA 35 Xtreme, the full Ensō Prime lens series is now supported via integrated lens data tables, improving compatibility and metadata consistency across systems.

# Update Procedure

The camera is updated via a USB-C memory stick and the process can be initiated either through the MVF-2 viewfinder menu or the camera Web Remote. When the MVF-2 viewfinder and the lens mount are connected to the camera, they will automatically update during the camera update. If they were not connected at that time, they can be updated individually through the camera later. If you are using the camera Web Remote to perform the update, it is recommended to use a 'private' or 'incognito' browser window to avoid potential issues or unexpected behavior.

1. After downloading the update file from the [Software Update Packages for Cameras](#) webpage, double-click the downloaded .zip file to unpack it, or unpack it manually. This will extract two update files to your computer (\*.SWU and \*.lic).
2. If not done beforehand, prepare the USB-C memory stick for use with the ALEXA 35 by connecting it to the camera. Then, go to *MENU > Media > Prepare USB Medium...* on the MVF-2 viewfinder menu or the Web Remote and press *CONFIRM*. This will create the required folder structure on the USB-C stick.
3. Connect the USB-C stick to your computer.  
Place the downloaded \*.SWU file in the *ARRI/ALEXA35/SUP* folder.  
Place the downloaded \*.lic file in the *ARRI/ALEXA35/LICENSES* folder.
4. The camera Software Update Package includes updates not only for the camera body but also for the MVF-2 viewfinder and the lens mount. Therefore, ensure that the MVF-2 viewfinder and the lens mount are connected to the camera during the update process.
5. Ensure the camera is connected to a power supply or powered by a fully charged battery to prevent power loss during the update.
6. Perform a factory reset on the camera with the menu item *MENU > Setup > Factory Reset...*
7. Connect the USB-C stick to the camera and navigate to the menu item *MENU > System > Update > Update Camera...*
8. Select the SUP file from the list and start the installation.  
  
The MVF-2 as well as the camera side display will show a screen displaying the update progress. Please note that the update can take up to 20 minutes.  
  
The MVF-2 viewfinder may turn off during the update process and will not provide continuous visual feedback, refer to the camera side display for the update status in this case.  
  
Do not power off or unplug the camera until it has rebooted.  
  
After the update process has finished, a success message is displayed.
9. Ensure that the correct time zone is set in *MENU > System > System Time & Date*.
10. If the MVF-2 viewfinder or lens mount were not connected during the update, the camera will still store the updated software for these devices. The next time they are connected and have an older software version than the one stored in the camera, the camera will prompt you to update them.

In the rare event of an interrupted or failed update the camera may enter a state where the MVF-2 is unresponsive. In this situation, use the side display to enable Wi-Fi, connect to the camera, and reinstall the update using the Web Remote.

## Update of Accessories

The camera update does not update the following devices, which must be updated separately. Update files for these devices must be downloaded individually from the ARRI [Software Packages](#) webpage.

Camera Control Monitor (CCM-1):

Download the update file, copy it to a USB-C stick (root folder), and connect the stick to the CCM-1. Disconnect the CCM-1 from the camera, then navigate to *Menu>Firmware>Update* on the CCM-1 and select the file to start the update.

Audio Extension Module (AEM-1):

Download the update, copy it to a USB-C stick (root folder), and connect the stick to the AEM-1. On the AEM-1, initiate the update via *MENU>SETUP>UPDATE* and confirm with YES.

LBUS Devices (e.g., Lens Motors):

Download the corresponding update file and copy it to the ARRI/ECS/ folder on a USB-C stick. Insert the stick into the camera, connect the LBUS device via the LBUS connector, and initiate the update through *MENU>System>Update>Update LBUS Devices*.

### **Downdating the Camera**

It is possible to install a previous software version on ALEXA 35 and ALEXA 35 Live cameras if needed. However, ALEXA 35 Live is not compatible with any software version earlier than SUP 2.0.0. ALEXA 35 Xtreme cannot be downgraded, as SUP 5.0.0 is its initial release and the minimum supported version.

## ARRICORE Beta – Known Issues

ARRICORE is in the final stages of optimization and therefore it is being released initially as a beta version. This means that it has not been fully tested, and some issues are known to exist and listed in this document. The underlying causes for the majority of these issues are known, and corresponding fixes are scheduled for an upcoming Software Update Package. Use of the ARRICORE beta is at the customer's own risk.

We would love to hear your feedback on your own ARRICORE tests.

Please send your feedback to our Workflow Team via [digitalworkflow@arri.de](mailto:digitalworkflow@arri.de).

### Horizontal Noise in ARRICORE at High EI

In comparison to ARRIRAW, ARRICORE recordings currently have slightly increased noise with a horizontal pattern when shooting at EI 6400 or when shooting at lower EIs and then increasing the image brightness in post. See sample images on next page.

Shoot at or below EI 2560.



### Bottom Line Artifact in ARRICORE 4.6K 3:2 Open Gate

ARRICORE recordings in the 4.6K 3:2 Open Gate sensor mode currently exhibit a line at the very bottom of the frame that does not show proper image content. All other sensor modes do not show this issue.

Place framelines so they don't use the bottom edge of the Open Gate frame. Crop in post.

### Playback Fails After Drive Is Filled with Long Take

Trying to initiate in-camera playback after having filled a drive with one very long take, Error 151 (playback failure) pops up and no playback is possible.

Don't fill the drive with one long take.

### ARRICORE Clip Playback Frame Rate Limited to 30 fps in Certain Sensor Modes

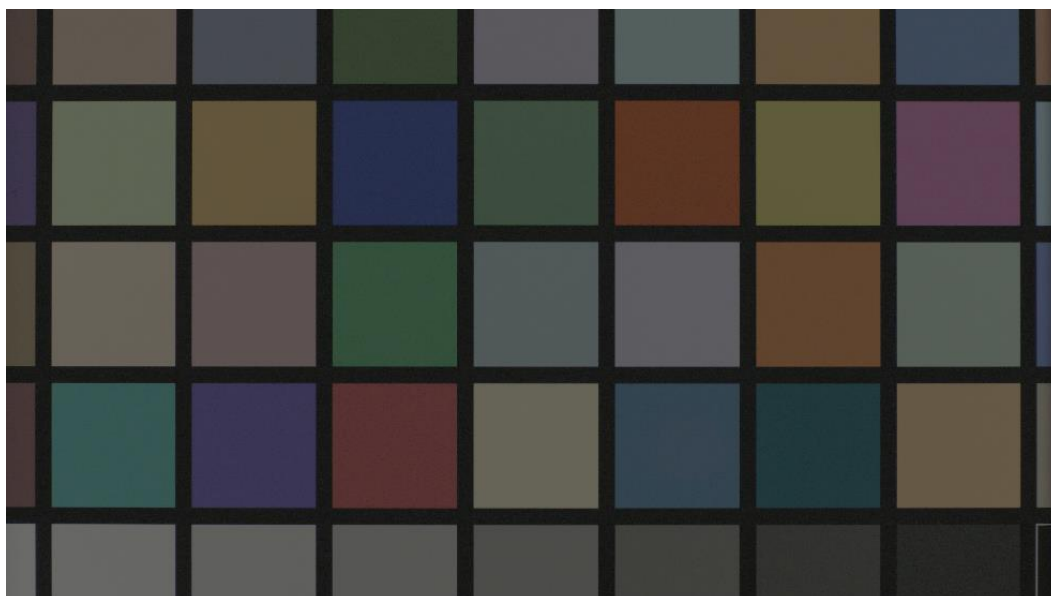
When using the sensor modes 4.6K 3:2 Open Gate and 4.6K 16:9, playback of clips recorded with the ARRICORE codec is limited to a maximum playback speed of 30 fps. Clips recorded at higher project frame rates can still be played back, but frames will be skipped during playback. This does not affect the recorded material.

Don't judge playback smoothness when shooting higher than 30 fps based on in-camera playback. If in doubt, use the ARRI Reference Tool to decode sample ARRICORE clips to check on the image playback.



## Edge Shadow Artifacts During ARRICORE Playback

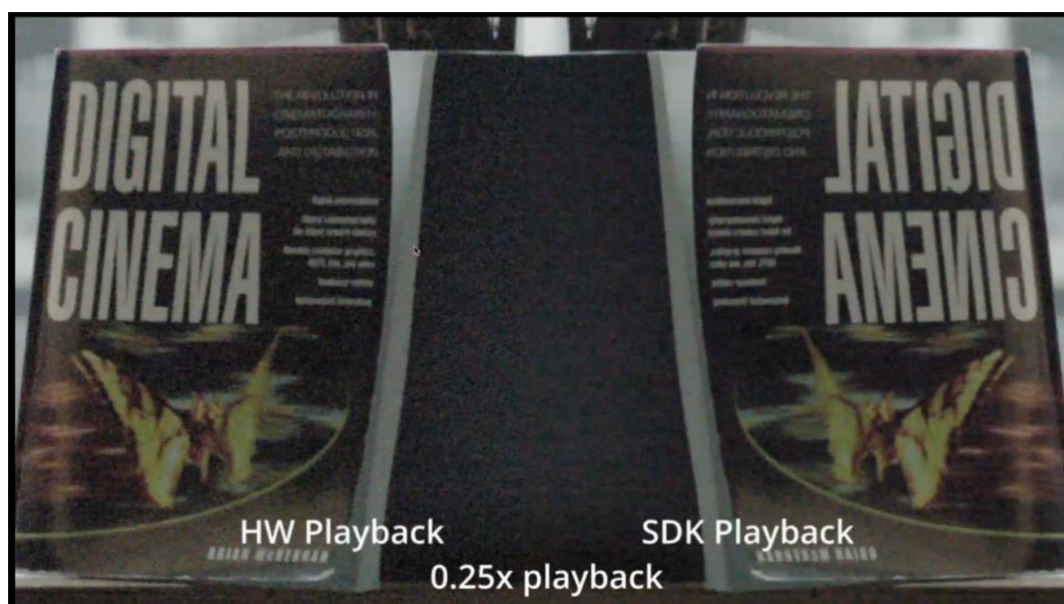
When ARRICORE recordings are played back by the camera, they show a shadow or reflection of the image on the image borders, most often visible on the right and left image edges (see right edge of the sample image below). This shadow is not visible in the recording or in the live monitoring/viewfinder image.



## Increased Noise During In-Camera ARRICORE Playback

When ARRICORE recordings are played back by the camera, they show more noise than is actually in the recording and also more noise than is visible in the live monitoring/viewfinder image. In the image below the playback is on the left (HW Playback), and the ARRICORE file as decoded by the ARRI Reference Tool is on the right (SDK Playback).

Don't judge ARRICORE noise based on in-camera playback. If in doubt, use the ARRI Reference Tool to decode sample ARRICORE clips to check on noise levels.





# Known Issues in ALEXA 35 SUP 5.0.0

## **Temporary SDI Signal Loss During Certain Setting Changes**

When certain settings are changed — such as switching sensor modes or entering and exiting playback — the SDI outputs may briefly re-synchronize, leading to a momentary loss of signal. This can affect connected devices such as wireless video transmitters. The behavior is currently under review.

## **Colored Edges Near Clipping Point in Highlights**

Just before reaching the clipping point, some image areas may show colored fringes or a colored "corona" instead of a neutral white highlight roll-off. This can affect individual color channels and is most noticeable in extreme highlight regions.

## **Sensor Overdrive and High Frame Rate Settings Unavailable on CCM-1 Monitor**

When using the CCM-1 monitor, it is currently not possible to enable Sensor Overdrive, nor to set frame rates above 120 fps (ALEXA 35 Xtreme).

## **Delayed Ready-to-Record State After Reboot with Many User Setups on Connected**

Storage When user storage is connected and contains a large number of user setups, the camera may take longer to become ready to record after a reboot. This behavior is currently under investigation.

## **Hand Unit Nudge only functional via built-in radio**

The Hand Unit Nudge function does not work if the hand unit is connected to the camera in any way other than through the camera's built-in white radio.

## **Incorrect EOTF Signaling in SMPTE 352 VPID Metadata When Outputting 12G-SDI**

When 12G-SDI is used for video output, the EOTF (Electro-Optical Transfer Function) is not correctly signaled in the SMPTE 352 VPID metadata stream.

## **Incorrect Scaling of Frame Lines with Lens Squeeze Factor applied**

When using frame line files containing three frame lines, incorrect scaling of individual frame lines may occur if the Lens Squeeze Factor is set to a value other than 1.0x.

## **RCP Iris Control may not function correctly with custom LDA Lens Tables**

When using custom LDA Lens Tables to provide lens data, it may occur that the iris cannot be properly controlled or adjusted via a Skaarhoj RCP.

## **CCM-1 Timecode Options**

The timecode menu of the camera has been updated; however, these updates have not yet been implemented in the CCM-1. As a result, it is not possible to set the LPS-1 System as the timecode source via the CCM-1.

## **Prerecording Requires a User Button**

Prerecording can only be toggled on or off using a User Button. If the device with the assigned User Button is unavailable and prerecording remains active, start a regular recording and then remove the drive from the camera. This will cause the recording to fail, deactivating prerecording in the process.

## **Temporary Unresponsiveness After Playback or 'Check Last Clip'**

After exiting playback, whether initiated via the PLAY button, 'Check Last Clip,' or the 'Playback' User Button, the camera may momentarily become unresponsive to inputs. This issue typically resolves within a maximum of four seconds, and the camera will return to its normal state.

## **Limited Clip Availability via Camera Access Protocol (CAP)**

When playback is controlled via CAP, only the first 270 clips on the card can be selected. To access additional clips, use the MVF-2, the camera's side display, or the Web Remote.

### **Radio Interface Adapter RIA-1 Update via CAM Connector Fails**

When updating the RIA-1 by connecting its CAM port to the ALEXA 35 and running the update from the camera, the process may occasionally fail. In such cases, the update can instead be performed via an LBUS connection.

### **MVF-2 OLED May Show Magenta Tint**

In rare circumstances the MVF-2 OLED can show a magenta tint that is not observable on SDI. The recorded images are not affected.

### **External LUTs Desaturate Camera Overlays**

A LUT applied to an external monitoring device may desaturate the camera overlays in a way that makes STBY and REC indications hard to distinguish. Reducing the SDI overlay brightness mitigates this issue.

The setting is found in: *MENU>Monitoring>SDI>SDI 1 Processing>Overlays>Overlay Brightness*.

### **Cut-off Playback Image when using Magnification**

When using magnification with surround view enabled, the playback image may display a cropped version of the original capture. This means that the playback view may show less than what was recorded and visible on the outputs during recording or standby.

### **Exposure Index with ES cannot be set via Hi-5**

Selecting an Exposure Index with Enhanced Sensitivity (ES) on the Hi-5 is not possible. To adjust these settings, please use a user button, the MVF-2 menu, or the Webremote.

### **Frame Lines Displayed in Surround View with Master Magnification**

When using master magnification in conjunction with surround view, frame lines may appear in the surround area at certain magnifications, even though they should not be visible.

### **Missing or Incorrect Lens Scales with Certain /i Lenses**

Some lenses using the Cooke /i protocol may fail to transmit lens data or lens data is displayed inaccurately. To resolve this issue, deactivate the lens mount and use lens tables instead.

### **Lower Headphone Output in Playback**

When playing back a clip with audio, the headphone output on the MVF-2 is 3dB lower than during live recording.

### **ENG Zoom Lens Control via ARRI Master Grips may not work with some lenses**

The camera can control the three axes of an ENG zoom lens connected via the Hirose mount using ARRI Master Grips. However, in some instances, control may not function with certain lenses. To resolve this, please check the software or firmware version of the lens and, if necessary, update it to the latest version.