

# Live Production System LPS-1

## Software Update Package SUP 1.4.1

### RELEASE NOTE

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# LPS-1 Live Production System, Software Update Package 1.4.1

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Original version.

## Overview

The LPS-1 Live Production System is the fiber transmission system forming the backbone of the ALEXA 35 Live - Multicam System and consists of the Fiber Base Station FBS-1 and Fiber Camera Adapter FCA-1.

We are pleased to announce the release of LPS-1 Software Update Package SUP 1.4.1 as a public release. This update is compatible with all LPS-1 systems and can be downloaded from the [ARRI Software Update Packages](#) webpage.

Please review these release notes carefully, including the known issues section. Consult the Live Production System LPS-1 User Manual to ensure optimal operation.

It is available for free download from the [ARRI Document Portal](#).

## General

### LPS-1 Software Update Package SUP 1.4.1 New Features

#### High Frame Rate Over SDI for Stunning Live Slow-Motion Images

The co-ordinated release of ALEXA 35 SUP 6.1.0 and LPS-1 SUP 1.4.1 introduces the capability for the ALEXA 35 Live - Multicam System to output HFR (high frame rate) video over SDI for stunning slow-motion images of live events through an HFR-enabled playback server.

Dramatic and emotional moments during live events such as sports, concerts, and stage productions can now be captured with High frame rates outputs of up to 8x in HD or 2x in UHD for input to a slow-motion server. The LPS-1 automatically detects the frame rate for ease of configuration and reports the status through the web UI. Whatever frame rate is chosen for the slow-motion feed, the system simultaneously provides a live feed for broadcast, allowing operators to switch between the program frame rate and HFR feed in real time. This live feed is created from one or more of the phases used for the high frame rate output. An adjustment through the LPS-1 web UI allows users to select whichever combination of phases most effectively reduces motion blur and shutter effects to match other cameras or suit different environments.

The ALEXA 35 Live High Frame Rate SDI License is compatible with ARRI's ALEXA 35 Live Xtreme and ALEXA 35 Live (Xtreme-ready, 2026 onwards) cameras. It requires both the High Frame Rate SDI License and the High Speed License (also included in the Cine Plus and Premium Licenses) to be installed. The ARRI service department can upgrade ALEXA 35 Live (pre-2026) cameras to make them Xtreme-ready. Licenses can be purchased directly from the ARRI License Shop <https://shop.arri.de/catalog>

## Tally Control Through TSL 3.1 and 5.0 Protocol

The LPS-1 now supports TSL 3.1 and 5.0 for Tally control from a video switcher or Tally controller over a network connection using UDP protocol for improved integration. Preview (Green), On Air (Red) and Aux (yellow) tally indicators are available to be triggered through the protocol for status indication individually or at the same time. Additionally, you can assign the tally indicators through the LPS-1 web UI to react to different tally sources or control rooms in situations where there may be multiple directors for different video feeds.

## Test Pattern Output and Informative Overlay

When no video is received from the ARRI ALEXA 35 Live the system will now show a test pattern on the output that also provides an informative text overlay. The test pattern then provides the user with a persistent video output from the camera channel along with the information of which output is connected, the camera channel number, FBS ID number and the LPS-1 configuration preset in use. You can select the type of test pattern through the LPS-1 web UI. The shown text can be toggled ON/OFF.

## Monitor Output Overlay Display

Since the release of SUP 6.0.0 for the ARRI ALEXA 35 it has been possible to show the Exposure Index as a value in dB and to also be able to select an Auto White Balance operation to be performed on a full frame of video. The overlays of the Monitor Output from the Fiber Base Station will now reflect the dB value shown for exposure index when it is selected in camera and report on the result of the operation providing technicians with useful feedback.

## Enhanced Genlock Stability

The LPS-1 employs countermeasures for sub-optimal genlock signals caused by, for example, a poor quality or damaged cable or interference of the connected signal. Enhancements have been made to the way the system compensates for jitter or poor signal quality to ensure stability and reliability throughout the system.

## Bug Fixes and Enhancements

### Known Issues Fixed Since Last Release

- Following a software update, sometimes the camera web UI was not accessible.
- Setting date and time to be too far in the future or past could result in the Fiber Camera Adaptor being stuck with the message *waiting for connection* shown. Additionally, if this problem occurred previously, despite being corrected it could result in the loss of network connection to the Fiber Camera Adaptor and ARRI ALEXA 35.

## Software Compatibility

To ensure the latest enhancements are available with LPS-1 SUP 1.4.1, it is recommended to use the following software versions:

ARRI ALEXA 35 Live  
Skaarhoj RCP Pro

ARRI ALEXA 35 SUP 6.1.0

<https://devices.skaarhoj.com/otherpackages>

- reactor.2.2.6.arm64.ipks
- system-manager.1.0.18.arm.ipks
- hardware-manager.1.0.7.arm64.ipks
- devicecore-connector.1.0.2.arm64.ipks (optional)
- core-arri-camera.1.0.7.arm64.ipks

## Further Information and Applications

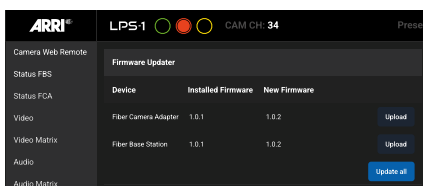
You can find further information and applications of the ARRI ALEXA 35 Live Multicam System on the [ARRI ALEXA 35 Live](#) web page.

## Update Procedure

### LPS-1 Update Procedure

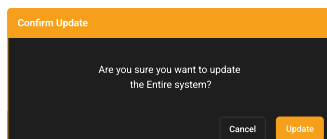
You can update the LPS-1 system with a PC connected through an ethernet cable to one of the RJ45 management ports of the LPS-1 system.

- 1 Download the SUP 1.4.1 update file (LPS-1\_1.4.1.zip) from the [ARRI Software Update Packages](#) webpage. Double-click the downloaded .zip file to unpack it, or unpack it manually. This will extract two update files.  
**LPS-1\_fw\_1.4.1.raucb** - Combined update file for LPS-1 FBS and FCA.  
**LPS-1\_fw\_FCA\_1.4.1.raucb** – Individual update file for FCA only.
- 2 Ensure that
  - the LPS-1 system is energized,
  - the Fiber Camera Adapter FCA-1 has an active fiber connection to the Fiber Base Station FBS-1 Fiber Base Station, and
  - the system is fully booted.
- 3 Enter the IP address of the Fiber Base Station FBS-1 into the address bar of a web browser to open the LPS-1 Web User Interface. Navigate to the *Settings* page.

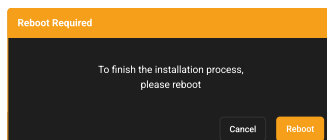


➤ To update FBS-1 and FCA-1 together select *Settings > Firmware Updater*. Push the **UPLOAD ALL** button. Browse to the location of the **LPS-1\_fw\_1.4.1.raucb** update file and select it.

➤ To update only the FCA-1 select *Settings > Firmware Updater > FCA*. Push the **UPLOAD** button. Browse to the location of the **LPS-1\_fw\_FCA\_1.4.1.raucb** update file and select it.



Once the file is uploaded, a message is reported in a popup dialog box to prompt the user to start the upload process, and the progress of the update will be reported in a popup dialog window. Please allow approximately 5 minutes for the update.



➤ To complete the update the system will prompt you to perform a reboot.

OPTIONAL: If it is not desirable to perform a reboot at this time, it can be avoided by installing the Software Update Package a second time to ensure all internal devices are reconfigured.

- 4 After the reboot, check the versions in the settings page to confirm the update was successful (it may be necessary to refresh the page.)
- 5 Access the Web User Interface network page and check the camera connection status.

### ARRI ALEXA 35 Live Update Procedure

The camera is updated through a USB-C medium. You can initiate the process 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 medium for use with the ARRI ALEXA camera 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 push **CONFIRM**. This will create the required folder structure on the USB-C medium.
- 3 Connect the USB-C medium 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.

## ARRI ALEXA 35 Live Downtime Procedure

It is possible to downtime an ALEXA 35 to a previous software release.

Please note that ALEXA 35 Live is not compatible with any software version earlier than SUP 2.0.0.

## Skaarhoj RCP Update Procedure

To update the Blue Pill Enabled Skaarhoj RCP Pro ARRI V2B, please see the instructions on the Skaarhoj Update Software page here:

<https://wiki.skaarhoj.com/books/blue-pill-reactor/page/update-software>

## Known Issues in SUP 1.4.1

- ALEXA 35 Live SDI Metadata is not available on MON, HD, QL3G Outputs or 3G outputs 1-4 of banks 1 & 2.
- FBS SDI Monitor Output video and LPS-1 status overlays are predominantly green in colour when the ALEXA 35 Live camera is set to output 12G 4:4:4 or 3G 4:4:4 formats.
- Embedded audio is only available on output 1 of the four SDI outputs from 3G bank 1 & 2.
- Improvements to the intercom audio mixer include providing headroom to avoid clipping. A corresponding adjustment to the input audio level is advised.
- If the ALEXA 35 and Fiber Camera Adaptor are powered from an external power supply and the system is simultaneously connected over SMPTE311, then swapping the SMPTE 311 connection to another Fiber Base Station and back again results in disruption to communication between FBS and FCA.
- If a system is left un-powered for longer than 30 days, it is possible that the backup battery for time and date can become depleted. In this case, the system time and date can become corrupted potentially leading to the system failing to boot up. It is recommended that, if systems are expected to be unused for 30 days or more, they be fully powered up for approximately one hour to charge the backup battery within that period to avoid this issue. This will be addressed in a future LPS-1 SUP.

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