



ALEXA SXT Software Update Package 2.0

for ALEXA SXT cameras (SUP_AlexaSXT_2.0_39120)

RELEASE NOTES

October 10, 2017

A. Introduction

We are happy to announce that Software Update Package (SUP) 2.0 is now available as a download for the ARRI ALEXA SXT cameras.

This document describes new features and changes for all ALEXA SXT cameras that are part of ALEXA SXT SUP 2.0 in contrast to ALEXA SXT SUP 1.0.

New Features Overview

A more detailed description of each feature is given in the section 'New Features and Changes'.

- **Support for Wireless video** (ALEXA SXT W only)
- **Support for WiFi** (ALEXA SXT W only)
- **Faster frame grabs** (ALEXA SXT W only)
- **Improved HDR monitoring** (all ALEXA SXT cameras)
 - Default look files for PQ and HLG
 - Automatically matched status brightness for HDR
 - HDR metadata
- **False Color Mode** (all ALEXA SXT cameras)
 - Monitoring-based or Log C-based
- **Support for SxS PRO+ 128 and 256 GB cards** (all ALEXA SXT cameras)
- **Expanded ARRI Electronic Control System support** (all ALEXA SXT cameras)
 - Live camera information (warnings & errors) on WCU-4
 - Separate control of MON OUT 1, 2 and 3
 - Faster Controlled Lens Motor (CLM) response
 - Lens motor auto teeth detection for accurate WCU-4 lens data display



Update Information

Cameras should always run the latest SUP so you can benefit from the latest improvements, features and bug fixes. We do not, however, recommend installing a new SUP in the middle of a production.

ALEXA SXT SUPs should only be installed on ALEXA SXT cameras, and are not compatible with ALEXA Classic, ALEXA Classic cameras with the XR Module upgrade and ALEXA XT cameras. Detailed instructions for the update process can be found at the end of this document.

Warning: Do not install the SXT SUP onto a camera model it is not made for! Do not attempt to install these SUPs on ALEXA HD, ALEXA HD Plus, ALEXA Fiber Remote, ALEXA Fiber Remote Plus, ALEXA Classic, ALEXA Classic with the XR Module upgrade or ALEXA XT cameras! Doing so may cause the camera to malfunction and become inaccessible. If that happens, the camera can only be made accessible with the support of an ARRI Service Center. Similarly, SUPs for older ALEXA cameras should not be installed on ALEXA SXT cameras.

Downgrading

After installing SXT SUP 2.0, it is not possible to revert back to a previous release version (ALEXA SXT W cameras only work with SUP 2.0 or later, anyway).

Additional Software

When recording XR Capture Drives or SXR Capture Drives in an ALEXA SXT, one must always use the Codex Production Suite 4.1 software for downloading. The older Codex dts 3.x software should not be used anymore; while it seems to work with XR Capture Drives recorded in an ALEXA SXT, it creates a number of significant problems as it does not properly understand the SXT metadata. The ARRIRAW Converter and ARRIRAW SDK 5.3 and later are not affected and do not cause a problem.

Customers can download Codex Production Suite (<https://codex.online/software>) and request a free Full functionality trial license for 60 days, after which time the software will revert to permanent Basic VFS functionality. A 12-month Codex Connect subscription can be purchased to continue with Full functionality.

Customers who purchase a new XR or SXR Thunderbolt Capture Drive Dock will receive a Full functionality license for the Codex Production Suite. Owners of older Capture Drive Docks can receive a free Basic VFS license, or purchase a 12-month Codex Connect subscription for a Full functionality license.

Table of Contents

A. Introduction	2
New Features Overview	2
Update Information	3
Downgrading	3
Additional Software.....	3
B. New Features and Changes	6
ALEXA SXT W only features	6
Accessories	8
Electronic Viewfinder and/or MON OUT	8
General.....	9
Imaging.....	9
Image Processing.....	10
Inputs.....	10
Recording	10
Lenses	10
Media Access	10
Metadata/Time Code	10
Optical Viewfinder.....	10
Outputs	10
Recording Media	10
Remote Control/3D.....	10
User Interface	11
C. Known Issues	12
ALEXA Studio.....	12
Accessories	12
Frame grabs	12
LDS/LDA.....	12
Look Management.....	12
Metadata.....	12
Metadata/clip-reel name	13
Miscellaneous	13
Monitoring	13
Playback	13
Recording	13
Recording Media	14
SUP Update.....	14
Sync.....	14
Timecode.....	15
Usability	15
User Setup.....	16

D. Updating Instructions	17
Download and Registration Process	17
How to get a Software Update Package.....	17
Camera Update Procedure via SD Card	17
Camera Update Procedure using a Web Browser on your Computer.....	18
Updating an Electronic Viewfinder EVF-1	19

B. New Features and Changes

ALEXA SXT W only features

Support for Wireless Video

ALEXA SXT W camera bodies have a High Definition (HD) video transmitter integrated into the camera. The transmitter sends the video signal of MON OUT 3 to the ARRI Wireless Video Receiver (WVR-1) or Transvideo Starlite ARRI-WVS monitor.

The ALEXA SXT W wireless video requires no setup in the camera's menu aside from power on/off. MON OUT 3 and the signal for the wireless video transmitter are the same; whatever is set on MON OUT 3 will be output on the MON OUT 3 BNC connector and will also be transmitted.

To turn wireless video transmission on or off:

1. Press the MENU button on the camera left side.
2. Using the jogwheel, select the 'Monitoring' menu.
3. Select 'MON OUT 3 / Wireless video'.
4. Set 'Wireless video power' to On or Off.

MENU>MONITORING	
Electronic viewfinder	>
MON OUT 1	>
MON OUT 2	>
MON OUT 3 / Wireless video	>
Frame lines	>
Electronic horizon sensitivity	1x

MENU>MONITORING>MON OUT 3	
Wireless video power	On
Frame rate	24 fps
Scan format	p
Surround view	On
Frame lines + status info	>
Peaking	Off>

ALEXA SXT W is part of a complete ARRI Wireless Video System, which further includes a stand-alone transmitter, stand-alone receiver and an extensive range of mechanical and electronic accessories. For more information, go to http://www.arri.com/camera/alexa/cameras/camera_details/alexa-sxt-w.

Support for WiFi

ALEXA SXT W camera bodies have a WiFi radio integrated into the camera body. With the WiFi radio, wireless look control and wireless camera control from any WiFi device are possible. For wireless camera control, use the ALEXA Web Remote function (see ALEXA manual). For wireless look control, use one of the following programs (more are in development):

- Pomfort LiveGrade
- Codex Live
- Colorfront On-Set Live
- Filmlight Prelight
- Technicolor DP Lights

Interference-free operation

ALEXA SXT W cameras include three different radios that operate interference-free from each other:

- ARRI Wireless Video System (WVS)
- ARRI Wireless Remote System (WRS)
- ARRI WiFi



About regional software for the ARRI Wireless Video System (WVS) radio

The ARRI Wireless Video System transmitters and receivers operate in the 5 GHz frequency band. The use of devices in the 5 GHz frequency band requires regional certifications which will be provided by ARRI for many countries. A list of certifications is included in the camera's manual.

To comply with regional 5 GHz certifications, different regional software versions will be installed on the ALEXA SXT W camera and other ARRI wireless video devices by ARRI manufacturing or ARRI Service subsidiaries and selected ARRI Service Partners. Only devices with the same regional software version are compatible with each other.

If ALEXA SXT W wireless video is to be used in a country other than the country it is currently programmed for, ARRI Service subsidiaries and selected ARRI Service Partners can change the regional software.

About regional settings for ARRI Wireless Remote System (WRS) radio

The regional setting of the WRS radio can be made by the customer themselves in the ALEXA menu and should be set by the customer for the country the camera is operated in. All regional settings of the WRS radio are compliant with FCC regulations. A list of certifications is included in the camera's manual.

About regional settings for WiFi radio

Regional settings for the WiFi radio are not necessary. A list of certifications is in the camera's manual.

Antenna compatibility

The components of the ARRI Wireless Video System (WVS) are shipped with new dual-band high performance antennas that work with all three radios on the ALEXA SXT W. They can be attached to the wireless video (5 GHz, blue ring), WiFi (2.4 GHz, white ring) and ARRI WRS (2.4 GHz, white ring) antenna connectors. The old ARRI WRS antennas have no color ring and should only be used for WiFi and WRS. The old antennas should not be attached to the wireless video antenna connectors on the camera or to any connector on the stand-alone ARRI Wireless Video Transmitter (WVT-1) or ARRI Wireless Video Receiver (WVR-1).



Faster frame grabs

ALEXA SXT W cameras include the new CMC-2 board in contrast to older cameras, which use the CMC-1 board. The CMC board holds the SD card. Due to the newer generation board, frame grabs can be saved faster onto SD cards with the ALEXA SXT W.

Accessories

Faster Controlled Lens Motor (CLM) response

ALEXA SXT SUP 2.0 allows Controlled Lens Motors (CLM) to respond faster to control signals.

Lens motor auto teeth detection

ALEXA SXT cameras with SUP 2.0 can automatically detect if a lens motor is equipped with 50 teeth (standard ARRI CLM-4 gear; slower but more torque) or with 60 teeth (standard cforce plus gear; faster but less torque) in order to show proper lens data information on the WCU-4.

Electronic Viewfinder and/or MON OUT

Improved HDR monitoring

ALEXA SXT SUP 2.0 includes a number of improvements for shooting High Dynamic Range (HDR).

Default look files for PQ and HLG

ALEXA SXT SUP 2.0 includes two new default ARRI Look Files (ALF-2) for HDR monitoring: 'ARRI 2100 HLG 1K 200' and 'ARRI 2100 PQ 1K 200'. Both files are based on SMPTE standard ST 2100 and designed for a monitor with 1,000 nits. One file is designed for the PQ (Perceptual Quantizer) EOTF tone curve and the other for the HLG (Hybrid Log Gamma) EOTF tone curve. When using an HDR ALF-2 look file, there are some things you have to know:

- Any output with an HDR ALF-2 look applied will automatically be switched to Rec 2020 color space. You can check the color spaces for the three MON OUTs on the camera right display by starting from the HOME screen: COLOR button > MON OUT color spaces.
- When an HDR ALF-2 look file is loaded and activated in the camera, ALEXA Classic 709 processing is automatically selected for the viewfinder.
- When an HDR ALF-2 look file is loaded and activated in the camera, false color mode (see 'False Color Mode' below) should be set to 'Log C-based'. This is because HDR look files do not generate video signals over 75%, which means that overexposure might not be discovered in 'Monitoring-based false color' mode.
- An output with an HDR ALF-2 look applied should be connected to an HDR monitor to see a proper HDR image. If an output with an HDR ALF-2 look applied is connected to a Standard Dynamic Range (SDR) monitor, it will result in an inaccurate image rendition on the SDR monitor.
- On the HDR monitor you will have to manually set the tone curve to PQ or HLG.

A more extensive list of HDR look files for monitoring and 3D LUTs for post-production with detailed descriptions can be found on the ARRI HDR FAQ web page at www.arni.com/camera/alexa/learn/hdr_faq at the end of the second introduction paragraph.

Automatically matched status brightness for HDR

Simply scaling up the brightness and saturation of informational overlays with the HDR look file has proven to result in distractingly bright and super saturated overlays. Therefore, the brightness and saturation of informational overlays (frame lines, text, icons, LDS info, electronic level indication) will now be reduced for those image paths with an HDR look file activated. Different reductions will be used for PQ and HLG.

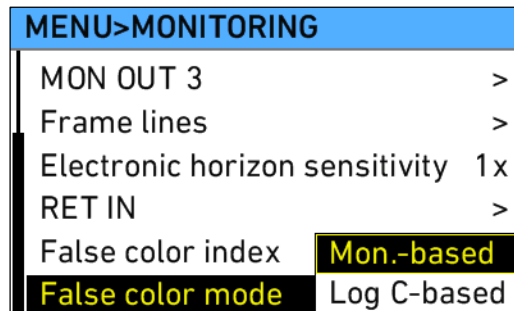
The brightness and saturation of informational overlays for Log C, ALEXA Classic 709 and SDR look file images remain the same as in SXT SUP 1.0.

HDR metadata

When using HDR look files, the camera records in metadata that an HDR PQ or HDR HLG look file is used.

False Color Mode

The result of activating false color can now be varied with a choice in the MONITORING menu to either 'Log C-based' or 'Monitoring-based'. This choice is global and will be valid for all monitor outputs.



Log C-based

When choosing 'Log C-based false color', false color is always calculated based on the Log C image. When false color is activated (with the EXP button on the viewfinder, for example), the respective monitoring output is switched to Log C, false color levels are calculated based on the Log C signal and false color is turned on. When de-activating false color, the image path is switched back to its previous setting and false color is turned off.

This setting makes most sense for projects that record Log C images (on the camera right display from the HOME screen: COLOR button > REC processing > LOG C), which is the majority of projects shot with ALEXA cameras. While your monitoring image paths can be set to show Rec 709 or a look to provide a preview for all, you will want to know the exposure levels of the signal you are actually recording (Log C) when checking false color.

'Log C-based false color' mode should also be chosen when activating an HDR ALF-2 file.

Monitoring-based

When choosing 'monitoring-based false color' and false color is activated (with the EXP button on the viewfinder, for example), false color is calculated based on the video signal of the respective monitoring output. In other words, whatever is seen on the image path is the basis for calculating false color. This is the same behavior as in ALEXA SXT software SUP 1.0.

- If you have a monitor output or the viewfinder configured to show Log C, false color levels will be calculated based on the Log C signal.
- If you have a monitor output or the viewfinder configured to show a look file, false color levels will be calculated based on the image with the look applied.

'Monitoring-based false color' makes most sense when baking a look file into the recorded image (on the camera right display from the HOME screen: COLOR button > REC processing > Look file). It allows you to monitor the exposure levels of the signal you are recording. Looking at 'Log C-based' false color makes no sense in this case, as you are not recording the Log C signal and will therefore not have the Log C image available in post.

Caution: When an HDR ALF-2 look file is loaded and activated in the camera, false color mode should be set to 'Log C-based'. This is because HDR look files do not generate video signals over 75%, which means that overexposure might not be discovered in 'Monitoring-based false color' mode.

Caution: When using look files with extreme color grading, it is possible for 'Monitoring-based' false color to show an inaccurate result.

General

No changes.

Imaging

No changes.

Image Processing

No changes.

Inputs

No changes.

Recording

No changes.

Lenses

No changes.

Media Access

No changes.

Metadata/Time Code

No changes.

Optical Viewfinder

No changes.

Outputs

No changes.

Recording Media

Support for SxS PRO+ 128 and 256 GB cards

Supported media for all ALEXA SXT cameras with SXT SUP 2.0 include now:

- SXR Capture Drives 1 TB (CDX-37019)
- SXR Capture Drives 2 TB (CDX-37021)
- XR Capture Drives 512 GB (CDX-3730)
- SxS PRO cards 64 GB (SBP-64A)
- SxS PRO+ cards 64 GB (SBP-64B, SBP-64C, SBP-64D)
- SxS PRO+ cards 128 GB (SBP-128B, SBP-128C, SBP-128D, SBP-128E)
- SxS PRO+ cards 256 GB (SBP-256D, SBP-256E)
- LEXAR Professional 3600x CFast 2.0 cards 256 GB (LC256Cxxxx3600, LC256Cxxxx3600 G2)

Remote Control/3D

Live camera information (warnings & errors) on WCU-4

Camera errors and warnings are shown on the WCU-4.

Separate control of MON OUT 1, 2 and 3

Users can select the settings (e.g. SDI peaking On/Off, SDI exposure tool On/Off and others) of multiple SDI monitor outputs in the WCU-4 submenu CAM>MONOUT>Mon CNG, depending on the number of outputs available.

User Interface

No changes.

C. Known Issues

ALEXA Studio

- **Mirror HW error**

The ALEXA SXT Studio can show a 'Mirror HW error. Please contact service' sometimes. Don't, worry, just reboot or move the mirror from [G]ate to [V]iew or vice versa.

Accessories

- **LBUS lens motors are not compatible with ALEXA**

Due to technical issues, ALEXA cameras do not support the new motors with the LBUS interface currently (cforce type lens motors).

Frame grabs

- **Lazy grab icon on EVF and MON OUT**

When you trigger a frame grab, the MON out and EVF status bars will not show a grab icon for the first few seconds. If in doubt, please check the home screen on the camera menu, which immediately shows when the camera takes a frame grab.

- **No warning if frame grab failed**

If a frame grab is triggered with one of the User buttons (assignable to button 1-3) while no SD card is inserted, the camera will not show a warning.

- **Frame grabs to a full SD card**

When the SD card is full and another frame grab is attempted, the camera will store it as a corrupted frame grab file on the SD card.

LDS/LDA

- **Alura LDS information drops out during fast adjustments.**

If the Iris, Zoom or Focus ring on an LDS Alura Zoom is turned very quickly, the corresponding LDS information is lost and the camera will show 'Turn Lens rings!' A slow or normal ring turn recalibrates the lens and brings back the LDS information. Thresholds are (rotation of lens ring end to end) FOCUS: 1.0sec, ZOOM: 0.4sec and IRIS: 0.2sec.

Look Management

- **Loading a look file with more than 32 characters**

When an ALF-2 look file is sent via Ethernet to the camera and the look file name is longer than 32 characters, the camera will load the look file but cannot display the look file's name. It will instead append the current look file's name with an asterisk. This is not a problem when loading the look file from an SD card.

- **Look files list behavior changed**

When scrolling through the list of look files, the highlighted look is not immediately applied to the live image. Also, when a corrupt ALF-2 file is enabled, the camera will show a warning and apply the last selected look instead.

Metadata

- **LDA produces 'random' Lens_SN in metadata field.**

When the LDA (Lens Data Archive) is used to identify a lens, the camera records a random lens serial number in the metadata. This does not represent the actual serial number of the lens.

Metadata/clip-reel name

- **Switching sensor modes resets reel counter to A001**

When switching sensor modes, the camera will perform a factory reset. During a factory reset the reel name gets reset to A001.

Miscellaneous

- **Interrupted sensor mode switch**

When power is interrupted during a sensor mode switch a 'reset sensor mode' might be needed. That means to set the camera back to 16:9 sensor mode.

- **Frame grabs for UDPM must be in Open Gate**

User defined Pixel Mask works as expected with recorded .ari files in all sensor modes. However, ARRIRAW frame grabs work only in Open Gate sensor mode for User Defined Pixel Mask.

Monitoring

- **EVF ZOOM little effects of peaking**

Peaking with EVF ZOOM enabled is not as effective as without ZOOM.

- **EVF-1 image tearing when Status Info = OFF**

When Status Info is turned off in the EVF-1, on some occasions there can be a tearing-type image artifact in the bottom of the frame. This does not occur when Status Info is on or surround view is off.

- **Wireless video transmission image artifact**

On rare occasions will the red and blue colors be reversed for the wireless video.

- **Wireless video artifacts when peaking is on**

On rare occasions an image artifact can occur when using wireless video with peaking on.

- **RETURN IN image is covered by Status Info**

When Status Info = ON, the RETURN IN signal is partially covered by the status info. Turn status info off to see the full RETURN IN image.

Playback

- **Loading clip for Playback fails**

Loading a clip from the cliplist for playback may fail even without error message. In this case exit the playback screen, wait for the monitor outputs to show live image and overlays and try again. If that does not work, reboot the camera.

- **ARRIRAW border artifacts on playback**

When SHOW FRAME LINES = OFF in ARRIRAW playback, some image artefacts are visible at the image borders. This is only a playback artifact that is not in the recorded image.

Recording

- **Camera takes long to start recording with SxS PRO+ Cards.**

Compared with an original SxS PRO card (SBP-64A), it takes an ALEXA one to two 2 seconds longer to start/stop recording with later cards.

- **Recording duration for ProRes clips is limited**

The maximum file size of ProRes clips is limited. With large drives like the CDX-37021 and e.g. ProRes 4444XQ in HD 1920x1080 at a speed of 23.976 you will have a total capacity of 4 hours 46 minutes but the maximum recording time per clip is limited to 1 hour 12 minutes. This will be shown in STATUS bottom

right by two 'Remaining time' indications: left is total capacity, right is maximum (real-) time for clip. On HOME in standby will display total capacity, in record maximum (real-) time for clip with a 'C' in front of it. After recording is stopped again total capacity is displayed.

The camera will stop recording when the limit is reached.

Please note that WCU-4 and Web Remote behave differently: they only show the remaining time of the total capacity of the medium and do not show the remaining time for clip.

Recording Media

- **Erroneous message - 'erasing not possible in this mode'**

When trying to erase a recording medium that is not supported by the camera, the camera shows an erroneous message 'Erasing not possible in this mode'. It should say: 'Media not supported'.

- **Reboot needed after interrupted media access**

If the camera is being interrupted while accessing a recording medium (XR Capture Drive, SXR Capture Drive, SxS PRO card, SxS PRO+ cards or Cfast 2.0 card), as can be the case when power fails or the medium is removed while recording or erasing, the camera has to be rebooted.

- **XT camera cannot fully format SXT drives**

If an XR Capture Drive that has been formatted for ProRes on an ALEXA SXT is then placed into an ALEXA XT, the ALEXA XT will only be able to see one of the two internal drives, and will therefore also only be able to format one of the two drives. Data may be left over on the other internal drive from the use in the ALEXA SXT. In order to avoid this, make sure to erase XR Capture Drives by formatting them in the ALEXA SXT or with a Mac at the end of your production.

- **Warning is not cleared**

Warning 'W:Media: Temperature high, be careful when handling drive' is not cleared when drive is ejected.

- **Damaged clip after power interrupt**

It is possible for a Quicktime clip to be damaged after a power interrupt during recording. In this case, it may be possible for ARRI Service to repair the clip.

- **LEXAR CFast 2.0 Card does not mount**

On rare occasions a LEXAR CFast 2.0 card will not mount properly. In this case, reboot the camera.

SUP Update

- **Problem during power loss while updating**

If power is lost while performing a Software Update Package update, it is possible that the camera cannot reboot anymore or be updated anymore. In this case it has to be sent to ARRI Service.

- **Camera does not seem to react to UPDATE buttons**

Sometimes, when pressing the two 'UPDATE' buttons to start an update, the camera will not show any reaction for up to 30 seconds. Don't worry, it has started the update process by copying the files to its internal memory, but is just a little slow in communicating this.

- **ACOM DOWN after upgrade**

Sometimes, when rebooting the camera for the first time after an SUP Update, the camera will show an error 'ACOM DOWN'. This can be dealt with by powering the camera down and up again.

Sync

- **MON OUT not in sync when offspeed**

When the sensor frame rate is not the same as the MON OUT frame rate, the MON OUT SDI signals of two cameras are not in sync.

- **HD-SDI output sync offset**

The synced SDI outputs of two cameras in a sensor sync setup may jitter in the range between 0 and 0,1 us (microseconds). Also the offset between the synced SDI outputs may change after settings (e.g. sensor fps) were changed or the camera(s) were rebooted.

- **Sensor sync - error if master is started first**

In a setup with sensor sync, but without settings sync, recording needs to be started first on the slave camera, and then on the master camera. When shooting ARRIRAW, recording on the master camera should be started as quickly as possible after the slave camera. If too much time passes (>2s) after recording has been started on the slave camera, the slave camera will go into an error state as soon as recording is started on the master camera.

- **selected values will be set without confirmation**

When using two cameras in Master/Slave configuration (Sensor and Settings Sync) and scrolling through values (i.e. fps or shutter), it is possible for these values to be set even without a confirmation.

- **HD-SDI may be out of sync below 7 fps**

When using Sensor Sync and Settings Sync at frame rates below 7 fps, the HD-SDI outputs may not be in sync.

- **HD-SDI may be out of sync at 29.97 psf and 30 psf**

When using Sensor Sync and Settings Sync and the MON OUT is set to 29.97 psf or 30 psf, the HD-SDI outputs may not be in sync.

- **Frame lines do not sync on setting sync**

Contrary to what the manual says, frame lines will not be synched automatically from master to slave camera.

Timecode

- **Time Code INT Free Run reset to 00:00:00.**

With asynchronous recording, i.e. 'Project frame rate' NOT EQUAL to 'Sensor fps' and time code set to INT FREE RUN, the time code will be reset to 00:00:00 after a reboot.

- **TC Break in ARRIRAW**

It is possible that a Timecode break can occur when recording ARRIRAW. This does not affect the images.

Usability

- **Some ARRIRAW frame grabs cannot be opened in ARRIRAW Converter**

ARRIRAW frame grabs in 6:5 ProRes 2K Anamorphic, 4K Anamorphic and Open Gate ProRes 4K Cine currently cannot be processed by the ARRIRAW SDK which is used by the ARRIRAW Converter and other software tools.

- **only 4 user definable frame rates**

The number of user definable frame rates via FPS > ADD is limited to 4.

- **User Button terminates**

On rare occasions, after switching sensor modes or when rebooting the camera, a message may appear that says 'UserButtons has terminated'. Power the camera off and on again.

- **iPhone can lose WiFi connection**

In some circumstances, it is possible for the webremote on an iPhone to lose connection about every 30 seconds to a minute for about 20 seconds.

- **Recording stop may take long**

In some instances, recording stop may take longer than expected.

- **Recording start may take long**

In some instances, recording start may take longer than expected.

User Setup

- **Additional configuration files**

User setups do not contain look files, LDA files or custom frame lines. If the look file and/or LDA file is present on SD card it will be loaded and used. Frame lines however need to be loaded manually after loading the user setup.

D. Updating Instructions

Download and Registration Process

You have to register your ALEXA camera by serial number to access the Software Update Package (SUP) in the ALEXA DOWNLOADS Section on the ARRI website. A SUP can be installed on the camera either by using an SD card directly on the camera (described in detail below) or from a computer via the ALEXA Ethernet Cable (K2.72021.0).

Please note that ALEXA SXT cameras, ALEXA Classic cameras and ALEXA XT/XR cameras require different SUP installation packages.

- Installation packages for ALEXA SXT models are named 'SUP_AlexaSXT_[version-number]'.
- Installation packages for ALEXA Classic models are named 'SUP_Alexa_[version-number]'.
- Installation packages for ALEXA XT/XR model are named 'SUP_AlexaX_[version-number]'.

How to get a Software Update Package

- If you have not registered yet, go to the ALEXA DOWNLOADS page at <http://www.arri.com/alexa/downloads> and scroll to the 'ALEXA Software Update Package x.x' section (where 'x.x' is the version number of the desired Software Update Package). Click 'Please -> register to get an account.' The ALEXA customer registration page will be opened.
- Fill in the relevant data and make sure to put in the serial number(s) of your camera(s) in the format of K1.0006178-xxxx, K1.0006383-xxxx, K1.0006987-xxxx, etc. Don't forget to agree to the registration terms at the end of the page.
- When you hit the 'create account' button the system will send you an acknowledgement email with a link for the activation of your account. After following the link a welcome mail is sent to you containing the login credentials. Please login at <http://www.arri.com/login/login.html> and navigate to the download section again.
- Upon access of the software package download you will be asked to agree to the terms and conditions of this download. If you agree to these terms the download link is released.

Camera Update Procedure via SD Card

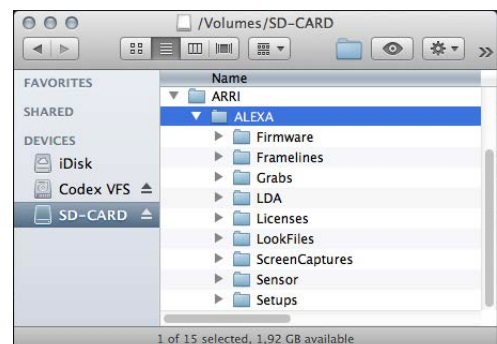
Using the SD card for updating is the easiest method. It updates the ALEXA camera as well as the Electronic Viewfinder (EVF-1) as long as the viewfinder is connected to the camera.

Precaution

Make sure the power supply of the camera is stable. The best way to achieve this is by using a mains power supply attached to the battery socket. We do not recommend updating a camera that is powered from a battery.

Preparing the SD Card

- Have a FAT16 or FAT32 formatted SD-Card ready.
- Cards larger than 4 GB are not supported. If you have a larger SD card, you need to create one partition with max. 4GB so it will be compatible with ALEXA.
- Go to MENU > SYSTEM > SD CARD and choose
 - 'Prepare SD card' to create the ALEXA folder structure on the SD card, and keep the existing data.
 - 'Format + prepare SD card' to DELETE ALL DATA on the SD card before creating the ALEXA folders.
- Copy the update package
 - SUP_AlexaSXT_x.x_zzzzz.pkg (for ALEXA SXT) or
 - SUP_AlexaX_x.x_zzzzz.pkg (for ALEXA XT/XR) or
 - SUP_Alexa_x.x_zzzzz.pkg (for ALEXA Classic)into the 'Firmware' folder on the SD card.



Performing the Update

- Turn the camera on.
- Perform a factory reset in MENU > USER SETUPS > FACTORY RESET.
- Insert the SD card into the SD card slot of the camera. The slot is located below the display on the bottom of the camera, covered by a slider. The direction how the SD card has to be inserted is shown on the camera housing.
- A card icon will show up in the notification area of the camera display. If not, the card is not recognized by the camera.
- Go to MENU > SYSTEM > FIRMWARE.
- The FIRMWARE screen shows you which package is currently installed (Current version: xxx).
- Press the jog wheel to select an update file. The list shows all SUP files that are available on the SD card.
- Choose the desired package and press the two lower outer screen buttons simultaneously to start the update.
- Caution: Do not remove the SD card while the package is being copied to the camera!
- When the 'copying files' message disappears the SD card can be safely removed.
- The update process may take 15 to 20 minutes, depending on the actual software package. Wait until the update process has finished. This is indicated by a green screen informing you that the update process is completed.
- If the update process fails, which will be indicated by a red screen, please restart the camera and repeat the update procedure.
- After the update, turn the camera off by holding down the power button for a few seconds.
- Turn the camera back on. The software is now updated and you can use the camera.

Camera Update Procedure using a Web Browser on your Computer

How to connect ALEXA to a computer

- Turn the camera on.
- Connect the Ethernet port of the computer to the camera with the ALEXA Ethernet/RJ-45 Cable KC 153-S (3.00m/9.8ft, order number K2.72021.0).
- Configure the computer's network interface to which the camera is connected with the following settings:
IP address: 169.254.1.2 (static IP)
Subnet mask: 255.255.0.0
- Open a web browser
- If you are using a Macintosh or a computer with Apple's Bonjour protocol installed enter the following URL into the address bar:
http://alexaXXXX.local/update.cgi, where XXXX is the four-digit serial number of your camera (e.g. for ALEXA 7123: http://alexa7123.local/update.cgi).
- If you are using a computer without Bonjour support please use the camera's IP address to connect, e.g.:
http://169.254.xxx.xxx/update.cgi, where xxx.xxx is the two last groups of your camera's actual IP address. You can determine ALEXA's IP address by going to INFO > SYSTEM.
- If the network settings are configured correctly you will be presented the update page of the camera.

Performing the Update

- Download the Software Update Package to your computer.
- Perform a factory reset in MENU > USER SETUPS > FACTORY RESET.
- In the 'Camera Update' section select the Software Update Package by clicking the 'browse' button and selecting the path to the downloaded SUP on your computer.
- Click the 'Update Camera' button in the 'Camera Update' section.
- The file will be uploaded to the camera which takes about a minute. The browser will switch to the 'Update Log' page showing the update log of the three main boards. This page can be updated by refreshing the page. At the same time the update screen with the progress bars appears on the camera display.

- The update process may take 15 to 20 minutes, depending on the actual software package. Wait until the update process has finished. This is indicated by a green screen informing you that the update process is completed.
- If the update process fails, which will be indicated by a red screen, please restart the camera and repeat the update procedure.
- After the update, turn the camera off and on again. The software is now updated and you can use the camera.

Updating an Electronic Viewfinder EVF-1

In case an ALEXA electronic viewfinder EVF-1 has not been updated with the camera, it is possible to update the EVF-1 separately by using a computer. Please note that the EVF-1 will be updated to match the SUP package that is installed on the camera.

- Connect the Ethernet port of the computer as described above in 'How to connect ALEXA to a computer'.
- Connect the EVF-1 to the camera.
- Open a web browser on the computer and open the update web page of the camera (see above).
- Click the 'Update EVF' button in the 'EVF Update' section.
- You can watch the progress of the update on the screen.
- When the update is done, the last line on the screen reads 'successfully updated Evf'. The update is now finished even though the web browser continues to refresh the page. This is normal. The viewfinder is up to date.
- Depending on its software version the camera will state a 'software error – reboot camera' on the camera display. This is normal. Please reboot the camera.