ALEXA SXT Software Update Package 2.1

for ALEXA SXT & SXT W cameras (SUP_AlexaSXT_2.1_43968.pkg)

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A. Introduction

This document describes changes for all ALEXA SXT and SXT W cameras with SXT SUP 2.1 in contrast to SXT SUP 2.0. We recommend that you take your time to go through these release notes, the known issues section of this document and the user manual before you start using the camera.

For more information on the camera, please visit www.arri.com/en/camera-systems/cameras/alexa-sxt-w.

For a listing of answers to frequently asked questions please visit the ALEXA SXT FAQs or the ARRI Wireless Video System FAQs.

ALEXA SXT SUP 2.1 Features and Changes Overview

- **No feature changes between SXT SUP 2.0 and SXT SUP 2.1**

- **A hardware component on one of the boards has been discontinued and this SUP supports the replacement component**

Registration

If you have not done so already, please make sure you register your camera using our online customer registration. Your registration ensures that you receive information about future software updates as soon as they are available. If you register your new camera within 1 month of purchase, you will get a 6-month extended warranty for free. You can find the registration here.

Updating

There is no need to update existing ALEXA SXT and SXT W cameras to SXT SUP 2.1. The only time the update is needed is when service has to install a new board in your camera, and then they will perform the update.

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. Make sure not to power off the camera during a SUP update. 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, ALEXA XT, ALEXA LF, AMIRA, ALEXA Mini or ALEXA Mini LF 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.

Downdating

Please note that, once SXT SUP 2.1 is installed, it is not possible to revert back to any previous release version prior to SXT SUP 2.1.

Important Notes on Audience and Intended Use

The product is solely and exclusively available for commercial customers and shall be used by skilled personnel only. Every user should be trained according to ARRI guidelines. Use the product only for the purpose described in this document. Always follow the valid instructions and system requirements for all equipment involved.

Important Notes on Vital Precautions

High voltage! Risk of electric shock and fire!

Short-circuits may entail lethal damage!

Before use, read and follow all valid instructions.

Use solely and exclusively as described in the instructions.

Never open. Never insert objects.

For operation, always use a power source as indicated in the instructions.

Always unplug the power cable by gripping the power plug, not the cable.

Never try to repair. All repair work should be done by a qualified ARRI Service Center.

Never remove or deactivate any safety equipment (incl. warning stickers or paint-marked screws).

Always protect from moisture, cold, heat, dirt, vibration, shock, or aggressive substances.

Never cover any fan openings.

Heavy weight! Risk of injury and damage!

If placed on an unstable surface, the camera can fall and cause serious harm!

Always place the camera on proper support devices. Safely attach it as described in the instructions.

For further important safety information, please refer to the user manual.

B. New Features and Changes in ALEXA SXT SUP 2.1

Note: there are no feature changes between SXT SUP 2.0 and SXT SUP 2.1.

Support for new Hardware Component

A hardware component on an electronic board has been discontinued by its manufacturer and this SUP supports the original component as well as the replacement component.

C. Known Issues - Mechanical Accessories

None

D. Known Issues – Software

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.

E. Update Procedure

Where to download the new Software Update Package (SUP)

You can find the Software Update Package in the [Software Update Packages download section](#). 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 Classic cameras, ALEXA XT/XR cameras and ALEXA SXT cameras require different SUP installation packages.

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

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_Alexa_x.x_zzzzz.pkg (for ALEXA Classic) or
  SUP_AlexaX_x.x_zzzzz.pkg (for ALEXA XT/XR) or
  SUP_AlexaSXT_x.x_zzzzz.pkg (for ALEXA SXT)
  into the 'Firmware' folder on the SD card.
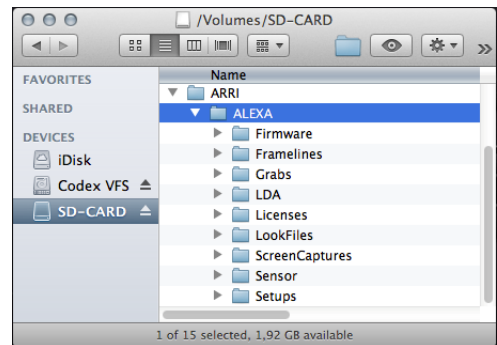
Performing the Update

- 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.