

# **ALEXA Mini LF SUP 7.0 Beta**

Software Update Package (SUP) Mini LF 7.0 Beta (mini\_lf\_fw\_7.0.0\_37.SUP)

## RELEASE NOTES

Date: 09.04.2021



# **Important Notes**

Please read the camera updating procedure carefully and follow the steps accurately!

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## A. Introduction

This document describes changes for ALEXA Mini LF cameras with the Software Update Package (SUP) Mini LF 7.0 Beta in contrast to ALEXA Mini LF SUP 6.0.22. 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/alexaminilf.

For a listing of answers to frequently asked questions please visit the ALEXA Mini LF FAQs.

#### **ALEXA Mini LF SUP 7.0 Beta Features and Changes Overview**

A more detailed listing can be found below in the section "New Features and Changes in ALEXA Mini LF SUP 7.0 Beta".

- Expanded recording format names
- New Super 35 recording formats
- New large format recording formats
- Improved MAGNIFICATION monitoring overlay
- Expanded list of default framelines
- Increased number of framelines
- User setup file forwards/backwards compatibility
- Camera Access Protocol (CAP) enhancements
- Improved communication with LBUS devices
- ECS improvements
- Improved logfile exporting
- Powerline Communication
- System stability improvements

#### **Updating Camera, Viewfinder and Lens Mount**

- This is a Beta version of SUP 7.0. It is meant to be used for testing and evaluation purposes only, not for productions.
- ALEXA Mini LF SUP 7.0 Beta can be installed on all previously shipped ALEXA Mini LF cameras, however, we recommend updating from SUP 6.0.22 to 7.0 Beta. If your camera is not running Mini LF SUP 6.0.22, please update it to 6.0.22 before updating to 7.0 Beta. Mini LF SUP 6.0.22 is still available on the ARRI website.
- When connected to the camera, the MVF-2 viewfinder and LPL lens mount will also be updated automatically.
- Please note that the viewfinder might switch off during the update process and does not give visual feedback of the update all the time. 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.
- Always use a 'private' or 'incognito' browser window when using the webremote to operate the camera and to perform a SUP update. This prevents possible erroneous behavior.

## **Updating LBUS Accessories**

- LBUS accessories (like cforce mini motors, cforce Plus motors, ARRI master Grips, ARRI Operator Control OCU-1 or ARRI LCUBE) connected to the camera during a camera SUP update will not be updated. The camera SUP does not contain any LBUS accessory software.
- To update LBUS accessories, download the LBUS device update file from the ARRI website, copy it onto a USB stick in the folder ARRI/ECS/, place the USB stick into the camera, connect the LBUS device to LBUS connector on the camera and then initiate the update from MENU > System > Update > LBUS Devices.

## **Downdating**

It is possible to downdate from this ALEXA Mini LF SUP 7.0 Beta version to previous SUP versions. For a downdate to a previous SUP version, both the license file of the installed and of the previous version (always included in the SUP zip file and named: 'mini\_lf\_fw\_update\_aes\_X.X.X.lic') need to be available on the USB memory stick under /ARRI/A-MINI-LF/LICENSES.

#### **Codex Compact Drive 1TB Update**

A firmware patch is now available to address a firmware error with Codex Compact Drives with the serial number range from 10020001 to 10022568. Drives outside this serial number range already run the latest firmware and require no update. On rare occasions, this firmware error could cause a Compact Drive to take a long time to load in the camera, Dock or Reader, not load at all or result in the camera status "INVALID". For all ALEXA Mini LF owners we recommend updating their Compact Drives to this new firmware. To have the update installed free of charge, affected drives can be sent to any <u>Codex</u> or <u>ARRI Service station</u>.

Please note that Mini LF SUP 7.0 Beta will not update Compact Drives. ALEXA Mini LF cameras running SUP 7.0 Beta are compatible with Compact Drives with and without the update. More information can be found on the ARRI Website here.

#### **Software Compatibility Notes**

To properly process files recorded with ALEXA Mini LF cameras with SUP 7.0 Beta or later installed, please update the ARRIRAW Converter (ARC) and the ARRI Meta Extract (AME) to the latest release version. The latest release version of the ARC is 4.3, the latest release version of the AME is 4.2.

Please note, that macOS X version 10.14.4 or later is required to successfully transfer data from a Codex Compact Drive with the Codex USB-C Compact Drive Reader, or the SXR Capture Drive Dock with the Compact Drive Adapter. Using older versions of macOS will result in a copy error for files larger than 9.66 GB.

Please note that macOS X version 10.15 with the Apple MXF plug-in installed (part of "Pro Video Formats 2.1") is required to play back downloaded MXF/Apple ProRes footage in Apple QuickTime Player.

A document providing an overview of postproduction tools that support files recorded with ALEXA Mini LF cameras ("ALEXA Mini LF Supporting Tools & Software Overview.pdf") can be found in the <u>download section</u> of the ALEXA Mini LF SUP 6.0.22 webpage.

Sample footage shot with the ALEXA Mini LF camera can be downloaded here.

#### 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.

## B. Legal

## **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!

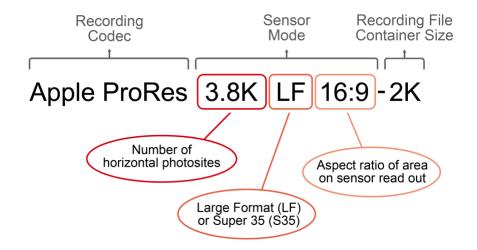
Always place the camera on proper support devices. Safely attach it as described in the instructions.

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

## C. New Features and Changes in ALEXA Mini LF SUP 7.0 Beta

## **Expanded Recording Format Names**

In order to distinguish between the different recording format without ambiguity, we have expanded the recording format names.



- The Recording Codec defines the image content encoding. The options are ARRIRAW or Apple ProRes.
- Sensor Mode defines the size of the area on the sensor that is read out. This influences the maximum possible frame rate, the maximum data rate and what lenses can be used, as some lenses may not cover a large sensor area. The Sensor Mode part of the name is further divided into three parts:
  - First is the number of horizontal photosites used on the sensor in "K".
  - Second is Large Format "LF" or Super 35 "S35", provided so a quick choice can be made without memorizing resolution numbers. "LF" in this context is any sensor mode with an area larger than the ALEXA Mini sensor in Open Gate, and "S35" is any sensor mode with an area equal to or smaller than the ALEXA Mini sensor in Open Gate.
  - Third is the aspect ratio of the area on the sensor that is being read out.
- Recording File Container Size shows the resolution of the file that is being recorded in camera. Sometimes, as in "ARRIRAW 3.4K S35 3:2 3.4K", the number of photosites read from the sensor and the number of pixels recorded are the same (here 3.4K), so no in-camera processing has been applied. In other cases, as for instance in "Apple ProRes 3.8K LF 16:9 2K" the number of photosites read out from the sensor is larger than the number of pixels recorded into the file. In this case, the in-camera processing has downsampled the 3.4K image from the sensor to a 2K image recorded to reduce the data rate. The aspect ratio of the recorded file is the same as that of the sensor mode and is therefore not noted again.

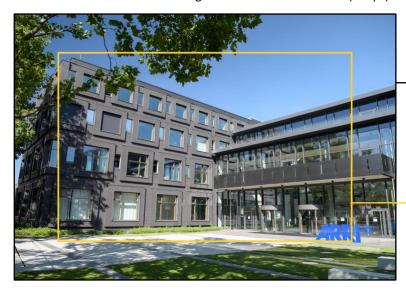
#### **Super 35 Recording Formats**

These Super 35 (S35) recording formats allow the use of an ALEXA Mini LF instead of or alongside an ALEXA Mini with identical recording formats. The same workflow can then be used for Mini LF and Mini (except that Apple ProRes has an .mxf file format on Mini LF and a .mov file format on Mini). If all you need is the S35 sensor area, these new formats also have a lower data rate than the LF formats. Please note that these S35 recording formats, like their equivalents in the ALEXA Mini, are not Netflix 4K approved.

## 1. MXF/ARRIRAW 3.4K S35 3:2 - 3.4K

Sensor photo-sites used: 3424 x 2202, recorded file resolution: 3424 x 2202

This format is great for shooting with most S35 lenses. This is the most flexible format for S35 shows and used by many feature films, drama series and commercials. The maximum frame rate of this Mini LF recording format (60 fps) is twice that of the same recording format on the ALEXA Mini (30 fps).



ALEXA Mini LF Sensor 4448 x 3096 photosites

3.4K S35 3:2 - 3.4K recording format 3424 x 2202 photosites

#### 2. MXF/Apple ProRes 3.2K S35 16:9 - 3.2K

Sensor photo-sites used: 3200 x 1800, recorded file resolution: 3200 x 1800

Very popular for drama series and commercials without a 4K sensor resolution mandate, this format is ideal or shooting with spherical S35 lenses for a 16:9 target deliverable. Using fewer photo-sites than S35 Open Gate reduces the data rate by 76%. Various post workflows are possible: for instance, if cropping to an HD image, this format provides ample extra resolution for resizing, repositioning, rotating, stabilizing, or tracking in post. Alternatively, upsampling to UHD in post is easy and delivers great results. The maximum frame rate of this Mini LF recording format (75 fps) is higher than the same recording format on the ALEXA Mini (60 fps).



ALEXA Mini LF Sensor 4448 x 3096 photosites

3.2K S35 16:9 – 3.2K recording format 3200 x 1800 photosites

#### 3. MXF/Apple ProRes 2.8K S35 4:3 - 2.8K

Sensor photo-sites used: 2880 x 2160, recorded file resolution: 2880 x 2160

This format is designed for shooting with anamorphic S35 lens for a target deliverable of 2.39:1 or for shooting with spherical S35 lenses for a target deliverable of 1.85:1 with extra room above and below the image. This is a popular format for the S35 ALEXA cameras, and was chosen to be included in Mini LF SUP 7.0 instead of the S35 6:5 as it provides a lot more flexibility for only a slightly increased data rate. The maximum frame rate of this Mini LF recording format (75 fps) is higher than the same recording format on the ALEXA Mini (50 fps). Please note that the recorded file container (border of black pixels around the image) differs in this format in size from the equivalent ALEXA Mini format.



ALEXA Mini LF Sensor 4448 x 3096 photosites

2.8K S35 4:3 – 2.8K 2880 x 2160 photosites

#### 4. MXF/Apple ProRes 2.8K S35 16:9 - HD

Sensor photo-sites used: 2880 x 1620, recorded file resolution: 1920 x 1080 (downscaled)

This was the first recording format ever released with the ALEXA Classic EV. It allows for shooting with any spherical S35 lens (they all cover the sensor area of 2880 x 1620), with a target deliverable of 16:9 HD (1920 x 1080). This is your format of choice if you want the quickest way to an HD deliverable with a super low data rate and the assurance that the sensor area is covered by any S35 lens. The maximum frame rate of this Mini LF recording format (100 fps) is lower than of the same recording format on the ALEXA Mini (200 fps).



ALEXA Mini LF Sensor 4448 x 3096 photosites

2.8K S35 16:9 – HD 2880 x 1620 photosites

#### **New Large Format Recording Formats**

The new large format (LF) recording formats are designed to combine the advantages of the large format look (by using almost the full width of the large format sensor) with a budget-friendly lower data rate (the image is down-sampled in-camera to UHD or HD).

- Note 1: An LF 2:1 4K Cine format was not included since it is so close to LF Open Gate that you may as well shoot LF Open Gate and crop. An LF 2:1 UHD format was also omitted since it is so close to LF 16:9 that you may as well shoot LF 16:9 and crop.
- Note 2: MXF/Apple ProRes 4.3K LF 16:9 UHD is officially approved by Netflix and MXF/Apple ProRes 4.3K LF 16:9 HD is not approved by Netflix since it does not fulfill the Netflix 4K mandate.
- Note 3: These formats are slightly less wide than the full sensor width because that results in a better down-sampling factor, which results in better image quality in contrast to using the full sensor width.

### 1. MXF/Apple ProRes 4.3K LF 16:9 - UHD

Sensor area: 4320 x 2430, recorded file: 3840 x 2160 (downscaled)

By using almost the entire width of the LF sensor, this format delivers the unique large format aesthetic. At the same time, in-camera down-sampling to UHD reduces the data rate and avoids cropping and resizing in postproduction when your target deliverable is 16:9 UHD.



ALEXA Mini LF Sensor 4448 x 3096 photosites

4.3K LF 16:9 - UHD 4320 x 2430 photosites

## 2. MXF/Apple ProRes 4.3K LF 16:9 - HD

Sensor photo-sites used: 4320 x 2430, recorded file resolution: 1920 x 1080 (downscaled)

By using almost the entire width of the LF sensor, this format delivers the unique large format aesthetic. At the same time, in-camera down-sampling to HD drastically reduces the data rate and avoids cropping and resizing in postproduction when your target deliverable is 16:9 HD.



ALEXA Mini LF Sensor 4448 x 3096 photosites

4.3K LF 16:9 - HD 4320 x 2430 photosites

#### Overview table of Recording Formats in ALEXA Mini LF, ALEXA Mini and ALEXA LF

Please note that for "ARRIRAW 3.4K S35 3:2 - 3.4K" the maximum frame rate is twice that of the equivalent recording format of the ALEXA Mini. "Apple ProRes 3.2K S35 16:9 - 3.2K" and "Apple ProRes 2.8K S35 4:3 - 2.8K" also have a higher maximum frame rate than the equivalent ALEXA Mini formats. "Apple ProRes 2.8K S35 16:9 - HD" has half the maximum frame rate of the equivalent ALEXA Mini recording format, but 100 fps is a very useful maximum frame rate for 4x slow motion speeds.

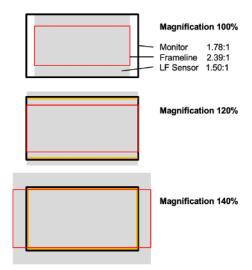
Please also see the Formats & Data Rate Calculator on our website for more information.

		ALEXA Mini LF Mini LF SUP 7.0										ALEXA Mini Mini SUP 6.1						ALEXA LF LF SUP 4.3					
Codec	Recording Format		Compact Drive 1 TB (h:m) @ 24 fps (2)			Recorded Image Pixels		Sensor Active Image Area mm			Max.	Sensor Photosites		Recorded Image Pixels		Recording	Max.	Sensor Photosites		Recorded Image Pixels			
				h	٧	h	v	h	v	Format f	fps	h	v	h	٧	Format	fps (3)	h	v	h	v		
	4.5K LF 3:2 Open Gate - 4.5K	40	0:32	4448	3096	4448	3096	36.70	25.54							LF Open Gate 4.5h	90	4448	3096	4448	3096		
ARRIRAW	3.8K LF 16:9 - UHD	60	0:54				2160		17.82							LF 16:9 UHD	90	3840			2160		
(4)	4.5K LF 2.39:1 - 4.5K	60	0:54	4448				36.70	15.31							LF 2.39:1 4.5K	150	4448	1856	4448	1856		
	3.4K S35 3:2 - 3.4K	60	0:59				2202		18.17	Open Gate 3.4K	30	3424	2202	3424	2202								
	4.5K LF 3:2 Open Gate - 4.5K	40	1:13				3096		25.54							LF Open Gate 4.5h	60	4448	3096	4448	3096		
	4.3K LF 16:9 - UHD	48	2:01	4320	2430	3840	2160	35.64	20.05														
	4.3K LF 16:9 - HD	75	7:57	4320	2430	1920	1080	35.64	20.05														
	3.8K LF 16:9 - UHD	60	2:01	3840	2160	3840	2160	31.68	17.82							LF 16:9 UHD	60	3840	2160	3840	2160		
Apple	3.8K LF 16:9 - 2K	90	7:00	3840	2160	2048	1152	31.68	17.82							LF 16:9 2K	60	3840	2160	2048	1152		
ProRes (5)	3.8K LF 16:9 - HD	90	7:57	3840	2160	1920	1080	31.68	17.82							LF 16:9 HD	60	3840	2160	1920	1080		
	4.5K LF 2.39:1 - 4.5K	60	2:01	4448	1856	4448	1856	36.70	15.31							LF 2.39:1 4.5K	100	4448	1856	4448	1856		
	3.2K S35 16:9 - 3.2K	75	2:35	3200	1800	3200	1800	26.40	14.85	16:9 3.2K	60	3200	1800	3200	1800								
	2.8K S35 4:3 - 2.8K	75	2:24	2880	2160	2880	2160	23.76	17.82	4:3 2.8K	50	2880	2160	2880	2160								
	2.8K S35 16:9 - HD	100	7:57				1080	23.76	13.37	16:9 HD	200	2880	1620	1920	1080								

- | 100 | 7.57 | 2880 1629 1100 | 7.57 | 2880 1620 | 1920 1080 | 23.76 18.37 | 16:9 HD | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1

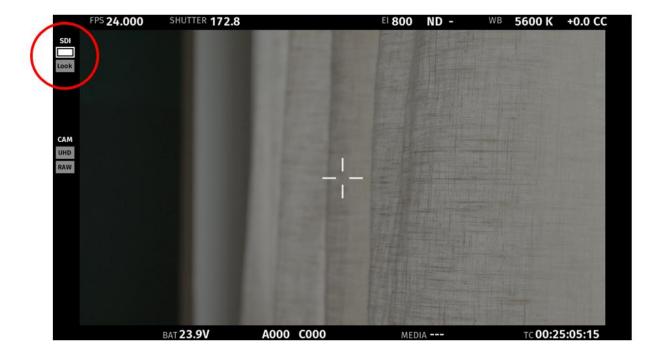
### **Improved MAGNIFICATION Monitoring Overlay**

With Software Update Packages prior to ALEXA Mini LF SUP 7.0 Beta, when the MAGNIFICATION feature was used and less than the recorded area was shown on the EVF or on the SDI image, an orange line was shown at the frame boundaries of the monitoring image, as shown in the graphic below.



This is a useful and popular feature, but the orange line could get distracting when shooting on low light levels. From ALEXA Mini LF SUP 7.0 Beta on, if less than the recorded area is shown on the EVF image, SDI image or flip-out monitor image, the orange line will not be shown any longer. Instead, new icons will be shown in the status area to the left of the image and in the status icon tab in the flip-out monitor status bar below the image. For more details about status information and status overlays, please refer to Chapter 18 in the ALEXA Mini LF User Manual.

Indicates that the recorded image content horizontally (left and right) extends beyond what is visible on the output.
Indicates that the recorded image content vertically (above and below) extends beyond what is visible on the output.
Indicates that the recorded image content horizontally and vertically extends beyond what is visible on the output.



#### **Expanded List of Default Framelines**

The ALEXA Mini LF can contain up to 100 framelines in the menu for each recording resolution. For the Open Gate recording resolutions (LF Open Gate and S35 Open Gate) the list of default framelines has been expanded so framelines for a combination of the most commonly used target aspect ratios (1.33:1, 1,78:1, 1.85:1, 2.00:1, 2.39:1) and the most commonly used lens squeeze factors (1.25x, 1.3x, 1.5x, 1.65x, 1.8x and 2x) can be quickly set. Recording resolutions that are specifically designed for spherical lenses provide default framelines for the most commonly used target aspect ratios (1.33:1, 1,78:1, 1.85:1, 2.00:1, 2.39:1). Custom framelines can, of course, always be generated with the online Frame Line and Lens Illumination Tool.

## **Increased Number of Framelines**

The ALEXA Mini LF with SUP 7.0 Beta can now contain up to 256 framelines in total (previously: 100).

#### **User Setup Files Compatibility**

The ALEXA Mini LF with SUP 7.0 Beta can now also accept user setup files created on previous ALEXA Mini LF SUP versions. Previously, it was only possible to load user setup files created with the same camera SUP.

#### **Camera Access Protocol (CAP) Enhancements**

The Camera Access Protocol is a list of commands an external device can use to communicate with the camera. For more information about CAP please contact <a href="mailto:digitalworkflow@arri.de">digitalworkflow@arri.de</a>

- CAP can read and adjust audio gains of audio channels 1+2
- CAP can control sharpness
- · CAP can add and remove framelines
- · CAP can read reel and clip number of the camera
- CAP can add and remove values from lists (Fps, Shutter Angle, Exposure Time, White Balance)
- CAP can delete look files
- CAP can upload and download setup files

#### Improved communication with LBUS devices

The camera sends a "capability" request to a newly connected LBUS device and then treats the device according to the information received.

#### **ECS** improvements

- The camera supports white radio channels 8-13 which can be used with the Wireless Compact Unit WCU-4 and the Single Axis Unit SXU-1.
- The speed with which the Wireless Compact Unit WCU-4 overrides the Operator Control Unit OCU-1 has been greatly improved.

#### Improved logfile exporting

When using the command MENU > Info > Export logfiles, the camera now combines the camera logfiles, HW Info File, User Setup File and other diagnostic files into a zip archive (example name: 'logs\_A-MINI-LF\_30120\_210114\_1119.zip') and stores the archive in the LOGFILES folder on the USB medium. The HW Info File and User Setup Files can still be exported individually to the USB medium.

#### **Powerline Communication**

With Mini LF SUP 6.0.22 we added a basic powerline communication ability to the Mini LF, and an extended version is in the Mini LF SUP 7.0. Powerline communication will allow power sources connected to the power input (BAT) of the camera in the future to communicate with the camera without additional data cables.

#### **System Stability Improvements**

A number of changes have been made to the internal communications that further improve system stability and should significantly reduce the occurrence of error messages #4, #5, #14, #93, #138 or #200. If you still encounter any of these errors with a camera running Mini LF SUP 7.0 Beta, you most likely have a hardware issue. In that case, please contact ARRI Service, as we have seen some limited cases where these errors were based on hardware. ARRI Service will be able to diagnose and repair these.

## D. Known Issues - Mechanical Accessories

#### RAB-1 Clamp 2 may experience poor clamping performance

Some early RAB-1 Clamp 2 units (K2.0023406) ran into assembly issues leading to poor clamping performance or the inability to release adequately. If a RAB-1 Clamp 2 is found to slip on the Rear Accessory Bracket RAB-1 (K2.0013937) or not to release correctly, please contact ARRI Service to get the part repaired or exchanged.

#### Compact Bridge Plate CBP-1 and CBP-2 lever malfunction

To release the Compact Bridge Plate CBP-1 or CBP-2 from a balance plate, the safety catch on the main locking lever of the CBP must be released for the main locking lever to be moved from the BALANCE to the RELEASE position. Some early CBP-1 and CBP-2 units could have the main locking lever moved directly from the LOCK position to the RELEASE position. In that case, please contact ARRI Service to get the part repaired or exchanged.

## E. Known Issues – Software

#### Known Issues Fixed in ALEXA Mini LF SUP 7.0 Beta

As this is the first public beta version of SUP 7.0, fixed known issues are not listed here.

#### **Known Issues in ALEXA Mini LF SUP 7.0 Beta**

These known issues are currently present in the ALEXA Mini LF SUP 7.0 Beta.

Not every postproduction application is compatible with files created with ALEXA Mini LF SUP 7.0 Beta yet (see Known Issues below), so please let us know what causes issues. If possible, please test the various formats with your workflow and report any issues directly to us.

#### Clips appear scrambled in Blackmagic DaVinci Resolve 17.1

Clips recorded in Apple ProRes 2.8K S35 4:3 – 2.8K, Apple ProRes 4.5K LF 2.39:1 – 4.5K and Apple ProRes 4.5K LF 3:2 Open Gate – 4.5K appear scrambled in Blackmagic DaVinci Resolve 17.1 and cannot be further processed in this program. This issue is fixed with Blackmagic DaVinci Resolve 17.1.1.

#### MXF/ARRIRAW cannot be imported into Adobe Premiere 2020

Adobe Premiere 2020 (V14.7.0 Build 23) does not allow an import of MXF/ARRIRAW. MXF/Apple ProRes works fine.

## Playback overlays on MVF-2 flip-out monitor disappear

Playback overlays on the MVF-2 flip-out monitor disappear when User Buttons 4 to 8 (any function) are triggered from the webremote.

#### Lenses not recognized

Sometimes the lens data system does not recognize an attached lens.

## Small playback image

When MAGNIFICATION and SurroundView/FrameBorder are active while recording, sometimes the playback image is a lot smaller than the screen.

## Playback actives FN button

When the camera is put in playback mode, the user buttons on the camera side are behaving as if the FN button is pressed.

#### Do not use MIRROR V+H in MXF/Apple ProRes 4.3K LF 16:9 - HD

Do not use MIRROR V+H in MXF/Apple ProRes 4.3K LF 16:9. This would result in an image artefact that is also recorded.

## Webremote reconnect takes long after switching WiFi power OFF and back ON

Sometimes the reconnect of the Webremote takes unexpectedly long after switching WiFi power OFF and back ON.

## **EXT Sync functionality not fully implemented**

Please note that the EXT Sync functionality is not fully implemented at this point in time.

#### Cooke /i lens control may not work

In rare cases, lens control through WCU-4 may not work when Cooke /i lenses are used.

#### Framegrab black in some applications

Framegrabs created over CAP may appear black in some applications.

#### No UDM overlay with some EF Mount lenses

UDM value is not shown in the SDI overlay and EVF overlay although activated (MENU > MONITORING > SDI > SDI PROCESSING > OVERLAYS > STATUS COMPONENTS > LENS DATA > UDM or MENU > MONITORING > EVF/MONITOR > EVF OVERLAYS > STATUS COMPONENTS > UDM) when EF Mount lenses are used with LDS activated. Possible workaround: use LDA instead of LDS if possible. In case you are experiencing this problem, please inform us and let us know which lens is in use.

## Image artefacts on SDI and MVF-2

When switching recording resolutions or performing a factory reset, the image on SDI and MVF-2 shows momentary image artefacts. Once the camera is in standby-ready the image is fine.

#### Magenta tint in monitor and viewfinder images

Sometimes after changing recording resolutions or a factory reset, the SDI monitor outputs and the viewfinder show the image with a magenta tint. The recorded image is affected as well. Reboot the camera or change resolution to solve the issue.

## MVF-2 Non-consistent motion portrayal at high fps

Images on the MVF-2 may show a non-consistent motion portrayal at SENSOR fps higher than 60 fps. The recorded images are not affected.

#### Image artefacts on MVF-2

When using a Multi Viewfinder MVF-2 with viewfinder software version 2.7 installed with an ALEXA Mini LF with SUP 6.0.22 installed, image artefacts may appear. It is recommended to use MVF software version 1.67 with ALEXA Mini LF SUP 6.0.22.

## Thin transparent line and brightness flicker when EVF Zoom is activated

When activating ZOOM on the viewfinder a thin transparent line on the upper corner of the eyepiece is visible. Also, some brightness flicker in the upper part can be noticed. This also happens when Surround View or Status Info are set to off/overlay. The recorded image is not affected.

## F. Update Procedure

#### Where to download the new Software Update Package (SUP)

Please visit the ALEXA Mini LF SUP 7.0 Beta download page to register for the beta test. A SUP can be installed on the camera by using a USB stick as described in detail below.

#### **Camera Update Procedure**

The ALEXA Mini LF software is updated from a USB memory stick. The SUP will update the ALEXA Mini LF camera along with the Viewfinder (MVF-2) and the lens mount – provided they are connected to the camera.

- After the download, please double click the downloaded file (\*.zip) to unpack it or unpack it manually. This will place two update files (\*.SUP and \*.lic) onto your computer.
- If not done beforehand, prepare the USB memory stick for use with ALEXA Mini LF by connecting it to the camera. Then choose *Menu > Media > Prepare USB Medium...* in the camera's menu on the MVF-2 flip-out monitor and press CONFIRM. This will create the required folder structure on the USB stick.
- Connect the USB stick to your computer and place the downloaded \*.SUP file in the folder ARRI/A-MINI-LF/SUP on the USB stick. Then place the downloaded \*.lic file in the folder ARRI/A-MINI-LF/LICENSES on the USB stick.
- SUPs contain not only updates for the camera body but also for the MVF-2 viewfinder and the LPL lens mount. Therefore, the MVF-2 viewfinder and the LPL lens mount should be attached to the camera when performing an update.
- Make sure the camera is connected to a power supply (best) or is powered with a full battery to avoid power loss during the update process.
- Perform a factory reset on the camera with the menu item Menu > Setup > Factory Reset...
- NOTICE: Remove the recording media from camera!
- Connect the USB stick to the camera and navigate to the menu item Menu > System > Update > Update
  Camera...
- Select the SUP file from the list and click the item.
- In the following message, press INSTALL to start the installation.
- Press CONFIRM to start the installation.
- The camera will present a screen presenting the update progress. Please do not shutdown the camera or unplug power until the camera reboots.
- After the update process has finished, a success message is displayed.
- For this Beta version of Mini LF SUP 7.0, please repeat the last six steps (marked in purple) and update the camera with the same beta version of Mini LF SUP 7.0 Beta for a second time. The same procedure applies for downdating the software from Mini LF SUP 7.0 Beta to Mini LF SUP 6.0.22. Please note, the first up/downdate may fail, the second up/downdate will succeed. If the first up/downdate fails, please notify us.
- It may happen the Viewfinder goes black during update and does not provide any further information. In this case do NOT cut off power but check SDI 1 for a red ERROR icon or connect via webremote. Once you get a "fail" re-run the update.
- Make sure you set the correct time zone in *Menu > System > System Time & Date*.
- If the MVF-2 viewfinder or LPL lens mount were not connected to the camera during the update process, the camera will still store the new software for those devices. The next time those devices are connected and have an older software than the one stored in the camera, the camera will offer to update those devices.