

AMIRA SUP 6.1.2

Software Update Package SUP 6.1.2:83

RELEASE NOTES

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A. Introduction

This document describes changes for AMIRA cameras with the new Software Update Package (SUP) 6.1.2. SUP 6.1.2 has the same features as SUP 6.1.1, and includes important bug fixes and support for modified hardware parameters.

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 arri.com/amira or arri.com/en/camera-systems/cameras/arri-multicam-system

For a listing of answers to frequently asked questions please visit arri.com/en/learn-help/learn-help-camera-system/frequently-asked-questions/amira-faq.

AMIRA SUP 6.1.2 Features and Changes Overview

- **Bug fixes**
- **Support for modified hardware parameters**

Updating

For all AMIRA owners we recommend updating to SUP 6.1.2

- AMIRA SUP 6.1.2 can be installed on all previously shipped AMIRA cameras. However, we recommend updating from SUP 6.1.1 to SUP 6.1.2 (note: this can take up to 20 Minutes). If your camera is not running SUP 6.1.1, please update it to 6.1.1 before updating to SUP 6.1.2. AMIRA SUP 6.1.1 is still available on the ARRI website.
- We do not recommend installing a new SUP in the middle of a production. The only exception is if any of the errors described in "New Features and Changes in AMIRA SUP 6.1.2" below prevent you from continuing to use a camera. In that case, installing SUP 6.1.2 is recommended.
- Please note that the viewfinder might switch off during the update process and doesn't give a 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.

Downgrading

While it is possible to downgrade AMIRA cameras to previous SUP versions from this version, we recommend against this, since this SUP includes important bug fixes.

It is not possible to downgrade AMIRA cameras to previous SUP versions from this version, if the image sensor of the camera is calibrated at a temperature of 35°C. This may be the case for cameras built by ARRI manufacturing or for cameras that were calibrated in ARRI Service after the release of this software. The calibrated sensor temperature can be found in INFO > SYSTEM INFO > Sensor temperature.

For a downgrade to a previous SUP version, the license file of the installed and of the previous version (amira_fw_update_aes_x.x.x.lic) need to be available on the USB memory stick under /ARRI/AMIRA/LICENSES/.

Software Compatibility Notes

Please update the ARRIRAW Converter (ARC) to at least version 4.1.1.0 and ARRI Meta Extract (AME) to version 4.1.0.0.

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.

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 <https://alshop.arri.de/register>.

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.

ARRI is continuously improving the camera hardware status over the lifetime of the product. This Software Update Package was tested thoroughly on the latest hardware version and in addition exploratively on previous hardware versions. If you experience issues other than listed in the Known Issues section of these Release Notes, please contact ARRI Service.

C. New Features and Changes in SUP 6.1.2

General improvements and bug fixes

- Several bug fixes have been included.
- Support for modified sensor temperature calibration has been included. ARRI manufacturing and ARRI Service can calibrate sensor at a temperature of 35°C instead of 40°C using SUP 6.1.2. Installing SUP 6.1.2 does not change any calibration parameters of your camera.

D. Known Issues

Known Issues in SUP 6.1.2

This is a list of known issues for the SUP 6.1.2 software package.

Accessories

- **Record Start/Stop on Canon HJ18 B4 lens**

In case the start/stop function on the Canon HJ18 B4 lens is not working with the ARRI B4 Mount and connected Hirose cable, please execute a "Reset all" on the lens.

- **Re-connecting Bluetooth devices after boot up**

Some Bluetooth devices for audio monitoring are not always automatically reconnected when camera is booted. Please make sure to manually reconnect your Bluetooth device in this case.

Audio

- **Battery change with connected AES3 source**

After changing the battery with a connected AES3 source, like a sound mixer, the audio function of AMIRA may not be initialized properly. An error message may appear like "Switch in undefined position". Please reboot the camera in this case. To avoid this issue, just power down the sound mixer before changing the camera battery. Using an audio attenuator does address this as well, please contact ARRI service for more information.

- **Potential audio glitches when booting down**

Please be cautious for potentially loud audio glitches when wearing headphones while powering down the camera.

- **Headphone output connected to an audio mixer**

When the headphone output is connected to an audio mixer for monitoring the audio recording, the audio board may be damaged if the camera contains the initial IAOU 1 audio board. This would only affect the volume of the headphone out. If you recognize reduced maximal volume of the headphone output, this may indicate this damage. Please contact an ARRI service center in this case. This behavior is not showing with the later IAOU 2 audio board.

Frame Grab

- **Frame grabs are not supported at paused playback of interlaced S16 or HD clips**

In order to perform a frame grab, grab the frame during playback at the desired position.

- **Frame grab with CAP over WiFi fails**

When activating a frame grab with CAP over a WiFi connection, the frame grab may fail. A CAP frame grab over a Ethernet connection works fine.

- **Frame grabs from ARRIRAW playback**

Frame grabs taken from ARRIRAW playback may exhibit differences in pixel brightness on the edges of the frame.

Inputs/Outputs

- **First activation of Return Input may show distorted image**

After booting or setup of the camera, at the first switch from the live camera image to the return input, the SDI output may show a distorted frame. With any following return activation, the switch will be clean.

- **Wrong False Color mode at SDI 2**

When setting the SDI 1 output to "Clean" and SDI 2 to "Processed", the False Color function will always show the "Monitor Based" mode on the SDI output, also when it is set to "Log C-Based" mode. When SDI 1 is set to "Processed" and SDI set to "Clean", the False Color function works as expected.

- **SDI interlaced field order reversed with V/H flip**

When activating a V or V+H flip, the field order of the interlaced format at the SDI outputs will be reversed.

- **Potentially distorted lines when SDI frame rate is larger than sensor frame rate**

When setting the SDI output frame rate to 59,94 or 60 fps, while the recording frame rate is 50 fps (or smaller), there might be line artefacts in the SDI image.

- **Entering/exiting playback mode cause momentary signal loss**

When entering or exiting the playback mode, the SDI outputs will show a momentary loss of the SDI signal if the recording frame rate is double of the project frame rate, or if the recording format is interlaced.

- **SDI status overlay may show wrong processing icon**

Even when the processing mode is set to A709, on the particular SDI output a Log C icon may be shown.

- **1.3x anamorphic desqueeze is not available for EVF zoom**

1.3x anamorphic desqueeze is not applied to the EVF zoom image.

- **1.3x anamorphic desqueeze is not available for UHD SDI output**

1.3x anamorphic desqueeze is not applied to UHD SDI output 422 6G, DL 422 6G and 422 3G DL.

- **Activating return in with SDI outputs in clone mode**

A momentary signal loss may occur when activating return in with the SDI outputs set to clone mode.

- **Monitoring in 3.2K with 1.3x anamorphic desqueeze**

EVF/Monitor and SDI outputs may show scaling artifacts in 3.2K recording mode with 1.3x anamorphic desqueeze enabled. The artifacts are limited to the monitoring outputs, they do not affect the recordings.

- **HD-SDI output performance with DL 6G**

For best DL 422 6G SDI output performance we recommend upgrading to the new SDI board IOAX Rev.H. For any inquiries please contact your local ARRI service center.

- **No Return-In in MPEG-2 mode with psf or interlaced signals**

The Return-In input is not supported when the camera is in MPEG-2 mode and the return signals are psf or interlaced.

- **Momentary image loss on SDI outputs when connecting a sync source**

The SDI outputs re-synchronize when connecting a genlock or timecode source. While re-synchronizing a short image loss may occur.

- **Temporary image loss on SDI outputs when configuring 6G**

When changing the SDI output to 6G, or when changing the SDI output from 6G to another format, both SDI outputs may exhibit a short image loss.

- **SDI outputs when using timecode sync**

When using a timecode signal as sync source, the SDI outputs may not be precisely in sync to the sync source. For precise SDI out sync to sync source please use a tri-level genlock signal.

Media

- **Protection against cross platform CFast 2.0 formatting issues**

Only CFast 2.0 cards that have been erased on ALEXA Mini or AMIRA running SUP 4.0 (or higher) can be used for recording. This is for protection against issues caused by different CFast 2.0 formatting schemes used by other cameras manufacturers.

Network

- **Do not use multicast addresses (range 224.0.0.0 through 239.255.255.255)**

Do not assign a multicast IP address to the camera. The multicast addresses are in the range 224.0.0.0 through 239.255.255.255. Doing so will cause the camera to cease to function.

Playback

- **Playback mode "play next clip" skipping 50i/59.94i clips**

Playback of multiple clips with project rate 50i/59.94i (with play end mode set to play next clip) might not play all clips in succession but skip clips.

- **Activating Playback does not disable peaking**

Please disable peaking manually in case you do not want peaking during playback.

- **In Pause mode, interlaced clips only show half vertical resolution**

This behavior can only be observed when playback is monitored on the SDI outputs.

- **Interlaced clips jitter vertically when played back with SDI output not set to interlaced.**

This only affects the playback in SDI, the recording is correct. Make sure to always match SDI the output configuration to the project configuration (e.g.: 60i clips to be played back with 60i SDI output).

- **Clips with HDR looks burned-in will not be correctly displayed on MVF and EVF**

When playing back a clip that has a HDR look burned-in, it will not be correctly displayed on MVF and EVF, since both are not HDR capable and no tone-mapping is applied. This is a monitoring problem only and does not affect the recorded footage. However, we generally do not recommend burning in looks when shooting HDR content.

Recording

- **Power loss during record with CFast 2.0 cards**

A CFast 2.0 card may need to be reformatted when it is removed during recording or in the event of a sudden power loss occurs while the camera is writing to the card. The camera will indicate the error with a warning message. Please follow the instructions in the warning to avoid damage to the card or further recordings. No action is required if no warning is displayed. Please contact ARRI service for more information or if you encounter any further issues.

- **Indicated available recording time with MPEG 2**

In MPEG 2 recording mode, the available recording time displayed by the camera may be shorter than the actual available recording time. I.e. there might be more recording time available on the card than indicated.

- **SanDisk 120GB and 60GB cards**

In very rare cases, recording can be interrupted with an error message: "Write failure on recording card (Slot A)" with SanDisk 60GB or 120GB cards.

- **Vertical image mirroring is applied as clip metadata**

Mirroring information is stored as metadata in QuickTime files. MPEG-2 HD MXF files do not support mirroring via metadata, so the clips play back without mirroring applied.

- **Error message for maximum clip size.**

On very rare occasions, the camera may stop recording and report "Recording stopped - maximum clip size reached". This can only occur with image content that has very little detail and using a codec with low data rate like ProRes LT.

- **Limited amount of reels on CFast 2.0 cards**

Recording on CFast 2.0 cards is limited to 15 reels per card in ProRes and ARRIRAW MXF. With MPEG-2 HD 422 the limit is 2 reels. If the maximum number of reels is reached, recording is still possible if no further reel needs to be created.

- **Start recording from playback in MPEG or ARRIRAW mode**

Starting a MPEG or ARRIRAW recording directly from playback can fail with error message: "Recording stopped due to FPGA failure. Please reboot camera." Please exit playback before starting to record.

- **Noise Reduction in "Strong" mode**

The "Strong" mode in Noise Reduction (available in S16 HD, 3.2K, 4:3 2.8K and 4K UHD) may result in image artifacts with fast moving objects. We recommend testing this accordingly before using "Strong" mode.

- **Limited scaling quality in HD-SDI outputs when recording in 2K**

The resulting image quality is considered as sufficient for monitoring but may be limited for recording the signal as the master record. This is due to the downscaling of the 2K resolution to HD. Please set the recording format to HD when recording HD on the HD-SDI output as master record.

- **Recording high data rates with SanDisk 120GB or 128GB cards in slot B at high temperatures**

Using SanDisk 120GB or 128GB cards at extremely high environmental temperatures well above 40°C or 104° Fahrenheit, and recording ProRes 4444 at highest frame rates close to 200fps, the card slot B might be limited in the maximal duration of recording. Please use CFast slot A for longer recordings if the above conditions are met.

- **Changing Exposure Index or White Balance during record**

When changing Exposure Index or White Balance during record it is possible that a single frame contains two different image characteristics.

- **Camera sometimes does not prompt to format a non ARRI_UDF CFast card**

While the MVF Display is set to live view mode, the camera will not prompt to format a CFast card, even the file system on the card is not the ARRI_UDF file system, but FAT32, ExFAT or other.

Timecode

- **Syncing the sensor via LTC timecode requires a precision timecode generator**

A precision generator with low jitter is required when using an LTC timecode signal to genlock the camera. Devices that work without a problem as standard LTC timecode source may not work as LTC genlock source.

- **Syncing multiple cameras using timecode**

When syncing multiple cameras using timecode sync and timecode mode regen, some recorded clips may exhibit a timecode offset of one frame with project rates above 30fps.

Update

- **LBUS devices cannot be updated using an AMIRA**

LBUS devices (Master Grips, CForce motors, LCUBE) cannot be updated on the AMIRA using cable EXT - LBUS. Please use an ALEXA Mini, an UMC-4 or a WCU-4 with cable LCS - LBUS, or contact your local ARRI Service.

Usability

- **User buttons trigger two functions**

While in playback, the camera user buttons UB1, UB2, UB3, UB5, UB6 and UB7 erroneously trigger two functions when used, the designated function and additionally a playback functionality. If using the functions while playback is required, the functions can be assigned to the cameras user buttons UB4 or UB8 or to the viewfinders user buttons VF1 and VF2 which behave as expected while in playback.

- **Web remote function not working properly after SUP update**

After updating the camera, the web remote function may not work properly unless the browser cache of your web browser has been cleared.

- **QR code scan may fail with activated SDI frame lines or peaking**

When a QR code is used for the WiFi setup of the camera, the scan may fail if frame lines or peaking in the SDI outputs are activated. Just de-activate temporarily to scan a QR code.

- **Mode switch not smooth when MVF-1 and CCP-1 is connected**

With a daisy-chained MVF-1 and CCP-1 and the MVF-1 being in active mode: when switching from ProRes to ARRIRAW or vice versa, the display will show a black bar and fade to black. The mode switch itself will be executed correctly.

- **Waveform display is not refreshed after mode change**

When the waveform display is activated on the viewfinder and the recording resolution is changed, the waveform display will not be updated. To refresh the waveform display, just toggle WFM OFF/ON.

- **Frame lines with names longer than 32 characters are not supported**

Frame lines with names longer than 32 characters are not supported.

- **Zebra function is limited to 99%**

The Zebra function has its highest limit setting at 99%.

- **CAP server frame grab while camera is in playback**

A frame grab triggered through CAP server during internal camera playback grabs a live image from the sensor instead of a playback image.

- **Starlite-HD5ARRI can change settings or trigger a recording even if UI is not displayed on screen.**

If the Starlite-HD5ARRI is connected to a SDI output showing "CLEAN" output, settings may be changed without notice when touching the respective areas on the screen. Please make sure the Starlite-HD5ARRI is connected to an SDI output that is set to "PROCESSED" to see the touch interface.

- **MPEG-2 playback in camera**

In some rare cases, playback of an MPEG-2 clip may be interrupted. You can still check the clip in camera by fast forwarding with various speeds. In doubt, please play back the clip on a computer.

- **Updated EF mounts not compatible with SUP 4 release**

Reverting the camera software to SUP 4 does not downgrade the EF mount software. An EF mount that has been updated with SUP 5.x will not work in that case.

- **User setups created with earlier SUPs are not compatible with SUP 6.1**

User setups created with SUP 5 or earlier SUPs cannot be loaded with SUP 6.1

- **Mirror image vertical flip is not applied to frame grab**

When using the mirror image setting, only the horizontal flip is applied to the frame grab.

- **Simultaneous use of timecode mode jam sync and genlock sync is not supported**

When using timecode mode jam sync or when using genlock sync, the camera adjusts an internal oscillator to match the source clock. Hence using a combination of timecode mode jam sync and genlock is not supported.

- **During erase, Record is not possible on other card**

During card erase it is not possible to record to the second card. It is also not possible to change any camera settings while cards are erased.

Viewfinder

- **ZOOM or SURROUND VIEW at very low framerates**

The MVF-1/MONITOR's image momentarily fades when either zoom or surround view get activated or de-activated at very low frame rates (below 5 fps).

- **For MVF-1 up to serial number 2150 which are not upgraded to the new eyepiece**

The viewfinder sometimes may not switch on as it uses a proximity sensor to activate the OLED display only while the eyepiece is in use. Approaching the MVF at an unfavorable angle may cause it not to trigger properly.

- **Calibration applied ten seconds after initial connection**

When connecting a MVF-1 with the new OLED viewfinder panel built in for the first time, it might take up to ten seconds before the new viewfinder calibration is loaded and applied.

Multicam

- **Master black pedestal CAP control only in Multicam mode**

CAP commands for the Master Black Pedestal and the other video parameters, are only executed if the Multicam mode on the camera is activated.

- **AMIRA with IAOX-M: Genlock Sync option ref in/analog**

For AMIRA cameras equipped with the modified SDI board "IAOX-M" (like the AMIRA CL), the Genlock Sync menu does not show the ref in/analog option at the first boot up after installation of SUP 6.1. With any further boot, the option will be displayed.

- **RCP iris control with CAP**

When using the CAP protocol to control the lens iris, either the "Multicam" mode needs to be activated, or the option "Lens switch Triggers auto iris"(HOME/EXPOSURE-INDEX/IRIS/OPTIONS) needs to be deactivated.

- **Genlock sync function requires a stable return input signal**

For a stable genlock sync, the return input signal must be a clean signal without distortions.

- **RCP values may not be consistent**

The parameter values on the RCP are not mirrored in the positive and the negative range, eg. max values: -87/+89.

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 by using a USB stick as described in detail below.

Camera Update Procedure

The AMIRA software is updated from a USB memory stick. The SUP will update the AMIRA camera along with the Viewfinder (MVF-1), CCP-1 and the lens mount – provided they are connected to the camera.

The update can be started through the menu of the MVF-1 viewfinder or through the Web Remote. The Web Remote requires a connection to the camera via WiFi or Ethernet (with ALEXA Ethernet/RJ-45 Cable KC-153-S, K2.72021.0).

Open a web browser and enter the URL: <http://amira-xxxxx.local> (replace xxxxx with your camera's 5-digit serial number). For further information on the Web Remote, please refer to the User Manual.

- 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) and the SUP release notes onto your computer.
- If not done beforehand, prepare the USB memory stick for use with AMIRA by connecting it to the camera. Then choose Menu > Media > Prepare USB Medium... in the camera's menu on the MVF-1 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/AMIRA/SUP on the USB stick. Then place the downloaded *.lic file in the folder ARRI/AMIRA/LICENSES on the USB stick.
- SUPs contain not only updates for the camera body. Therefore, the MVF-1 viewfinder, CCP-1 and the 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...
- Remove the recording media from camera.
- Connect the USB stick to the camera and navigate to the menu item Menu > System > 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. Please repeat the last steps and update the camera for a second time.
- Make sure you set the correct time zone in Menu > System > System Time & Date.
- If the MVF-1 viewfinder, CCP-1 or 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.