RIA-1 SUP 2.0

Software Update Package SUP-RIA-2.0.0-20230313.cmf

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Table of Contents

RIA-1 SUP 2.0
Release Notes

Page 3 of 10
All data subject to change without further notice.

A. Introduction

This document is the release notes for the Software Package SUP 2.0 for the ARRI Radio Interface Adapter RIA-1. This is an important update for the RIA-1 and for the Hi-5 ecosystem and it provides several new features, bug fixes and improvements.

SUP 2.0 is released as a combined update for the Hi-5 hand unit and RIA-1 and it is important to also update the Hi-5 to SUP 2.0 when working with this firmware. The latest firmware can be downloaded from the ARRI webpage:
https://www.arri.com/en/technical-service/firmware/software-updates-ecs

We highly recommend updating the RIA-1 and the Hi-5 to firmware 2.0.

Several devices require an update to be compatible with the RIA-1. We recommend updating the following products to the latest firmware versions and at least to the firmware stated below:

Product	Minimum Firmware Version
Hi-5	2.0
SXU-1	2.1.2
WCU-4	3.3.20
Master Grip	2.1.2
OCU-1	2.1.2
cforce mini RF	2.0.2
Focusbug Cine RT	V21.5

Please take your time to go through this document before using the RIA-1. For more information, please visit:
https://www.arri.com/ria-1

B. Update Instructions

How to get a Software Update Package

You can find the Software Update Package (SUP) in the RIA-1 download section on:

https://www.arri.com/en/technical-service/firmware/software-updates-ecs/ria-1-software-update

Download the latest Software Update Package to your computer.

You can also perform the software update via the ARRI ECS Sync App for iOS:
https://apps.apple.com/au/app/arri-ecs/id1555674483?l=d

RIA-1 Update Procedure via USB-C

    (1) Download the desired firmware and copy it onto an USB-C drive. Be aware that RIA-1 can only list up to 9 update files in the update menu.

    (2) Power the RIA-1 via a LBUS, CAM or D-TAP connection. Please ensure a stable power supply. Powering the RIA-1 via USB only is not recommended.

    (3) Insert the USB-C flash drive into the USB-C slot of the RIA-1.

    (4) Enter the settings menu and go to SYSTEM > UPDATE and select the update file.

    (5) A info page about the selected firmware will be shown. Proceed by pressing the ROTARY ENCODER.

    (6) Confirm the firmware update by selecting START UPDATE. The update process takes about 90 seconds. The RIA-1 will re-boot two times during the update process.

RIA-1 SUP 2.0
Release Notes

Page 4 of 10
All data subject to change without further notice.

(7)   Double check the correct software version under SYSTEM > DEVICE INFO > FIRMWARE INFO.

Please note: Do not remove the USB drive while updating the RIA-1!

Update via Hi-5 with USB Stick

Preparing the USB Stick

Copy the RIA-1 Software Update Package onto an USB -A or USB-C memory stick in folder ARRI/ECS/

The USB-A slot is located below the display on the bottom of the Hi-5, covered by a plastic cap. Press the release pin to open the cover.

The USB-C slot is located above the display on the top side of the Hi-5, covered by a rubber cap. Lift and turn the rubber cap gently to access the USB-C slot.

Precautions

Make sure the power supply of the Hi-5 is stable, e.g. by using a fully charged battery. Please note that power over USB is not recommended.

Performing the Update
(1)   Connect the RIA-1 to the Hi-5 via LBUS.
(2)   Insert the USB stick in the corresponding USB slot of the Hi-5
(3)   Turn the Hi-5 on.
(4)   Go to MENU > System > Update > LBUS Device Update.
(5)   Select the RIA-1 as LBUS device.
(6)   Choose the desired Software Update Package and then press select to start the update.

Caution: The update process takes several seconds. Don't remove the USB Stick and do not turn off the Hi-5 during the update!

Update via Hi-5 with ECS Sync App

The ECS Sync App connects to the Hi-5 via Bluetooth.

Performing the Update

(1)   Connect the RIA-1 to the Hi-5 via LBUS.

(2)   Ensure that Bluetooth is enabled on the Hi-5 via MENU > System > Bluetooth.

(3)   Activate Bluetooth on your iOS device and add the Hi-5 to your device list (Hi-5 is shown as hi-5-xxxxx, with xxxxx being the serial number).

(4)   Open the ECS Sync App. The app is now connected to your Hi-5 hand unit.

(5)   Go to ARRI DEVICE > RIA-1 xxxxx > Update to the latest SUP

(6)   Select Download and proceed the software update

Caution: Do not leave the app during the update!

RIA-1 SUP 2.0
Release Notes

Page 5 of 10
All data subject to change without further notice.

C. Hi-5 License Support

This software supports the following Hi-5 licenses:

RED camera control license

The RED Camera Control License Key for Hi-5 is now available via the ARRI license shop: https://alshop.arri.de/
- Works with RIA-1 and cforce mini RF
- Requires K2.0015758 Cable CAM (7p) – RED CTRL/D-Tap (0.6m/2ft)
- Supports DSMC2 and DSMC3 (breakout box required) cameras
- On DSMC2 cameras, set RED Command Protocol in Menu > Settings > Setup > Communication > Serial
- Depending on the type of RED camera (DSMC2, DSMC3), a specific baud rate must be selected in the camera settings. Please see the following table for baud rate setting for specific RED cameras:

	baud rate
DSMC2: Dragon / Gemini / Helium / Monstro	115200
DSMC3: Komodo, V-Raptor	460800

More details can be found in the license section on the Hi-5 web page:
https://www.arri.com/en/camera-systems/electronic-control-system/hi-5

Sony camera control license

The Sony Camera Control License Key for Hi-5 is now available via the ARRI license shop: https://alshop.arri.de/
- Works with RIA-1 and cforce mini RF
- Supports Venice 1 and Venice 2
- Requires K2.0047268 Cable CAM (7p) - Sony Remote (8p)/D-Tap (0.8m/2.6ft)

More details can be found in the license section on the Hi-5 web page:
https://www.arri.com/en/camera-systems/electronic-control-system/hi-5

Focusbug license

The Focusbug License Key for Hi-5 is now available via the ARRI license shop: https://alshop.arri.de/
- Works with RIA-1
- Enables dedicated full Focusbug menu/control through ARRI high speed protocol
- Requires Cine RT (RA) to ARRI RIA-1/ALEXA 35 (ST) cable from Focusbug (See also https://www.focusbug.com/arrifocusbugsupport)

More details can be found in the license section on the Hi-5 web page:
https://www.arri.com/en/camera-systems/electronic-control-system/hi-5

Cinefade license

The Cinefade License Key for Hi-5 will soon be available via the ARRI license shop: https://alshop.arri.de/
- Works with RIA-1
- Control of Variable ND, RotaPola, Cinefade Effect via the Hi-5
- Enables dedicated Cinefade menu in the Hi-5 and enables use of Cinefade User Buttons

More details will be available soon.

RIA-1 SUP 2.0
Release Notes

Page 6 of 10
All data subject to change without further notice.

D. New SUP 2.0 Features

Lens Data Source Autoselect

This release features an automated selection of the lens date source setting. This ensures that the lens data is synchronized within the camera system and avoids the possibility of different lens data between camera and RIA-1. Previously, the lens data source had to be set in the Hi-5 lens menu. With SUP 2.0, this menu entry isn't available anymore in the Hi-5

Lens Menu

LENS is a new menu of the RIA-1. It shows the active lens table or the lens information in case of smart lenses. The currently active lens file can be cleared by pressing CLEAR LENS.

Calibrate all

Connected cforce motors can now be calibrated easily via the RIA-1. The RIA-1 will always calibrate all motors connected to the RIA-1 LBUS port. As this feature should provide a fast calibration process, it is not possible to calibrate individual motors via the RIA-1.
There are two possibilities to calibrate all motors via the RIA-1:
      1) Press-&-Hold the rotary knob for 3 sec.
      2) Via the RIA-1 CALIBRATE ALL menu

E. Bugfixes

RIA-1 (host) reboot when connecting an OCU-1 to a RIA-1 (client)

Fixed an issue that caused the host RIA-1 to reboot when an OCU-1 was connected to the client RIA-1.

Sony Venice custom white balance

An issue is fixed which prevented to set custom white balance values of a Sony Venice 1 and Sony Venice 2 via a Hi-5 with an active Sony Camera Control license.

Continuous RIA-1 reboots with Cooke/i and activated Lens Mount

Fixed an issue that caused the RIA-1 to reboot continuously when the lens mount got activated with a Cooke/I lens attached. The RIA-1 still has to reboot once to process the new lens information.

RIA-1 reboot issues

Various circumstances got fixed that caused RIA-1 reboots.

Metric global units when using lens files with imperial values

A bug is fixed which caused lens files with imperial units to be displayed in metric, when the cameras global unit was set to default.
Now, the unit of the lens file is used when the global unit is set to default.

Distance measurement not working when changing RIA-1 serial mode

Sometimes, the distance measurement value of an UDM stopped being transferred to the Hi-5 after the serial mode was changed.

RIA-1 SUP 2.0
Release Notes

Page 7 of 10
All data subject to change without further notice.

Wrong lens metadata in Sony Venice cameras

Fixed an issue that could cause wrong focus values to be transferred to a Sony Venice 1 or Sony Venice 2 via the Sony Lens port (12 pin Hirose) when connected to the RIA-1 CAM port. The same bug sometimes prevented ENG metadata to pe transferred at all.

REC issues with ENG lenses on Sony Venice cameras

Fixed an issue causing inconsistent Start/Stop functions with ENG lenses at Sony Venice 1 & Sony Venice 2 cameras.

Lens file synchronization with ARRI camera

Fixed an issue that caused problems with lens file synchronization when using an internal LDA table in an ARRI camera.

Release of unused lens axis

Fixed an issue that prevented the RIA-1 to release one or several lens axis when a connected hand unit was turned off, or when a lens axis got deactivated in the hand unit.

Leaving playback on an ALEXA 35 camera via Hi-5

Fixed an issue that caused the camera to jump back into playback mode, after leaving playback via Hi-5.

F. Known Issues

This is a list of known issues for this software update package.

Override issues with OCU-1 or Master Grips

Override is not always possible if an OCU-1 or Master Grip are used in combination with a RIA-1:
- Override is not supported for wireless control units. It is therefore not possible to use the override function of an OCU-1 or Master Grip if they are connected to a RIA-1 in client mode.
- It is currently not possible to use the override function when the RIA-1 is connected to an ALEXA Mini or ALEXA Mini LF camera with the optional LBUS – LBUS connection.
  Workaround: Connect the RIA-1 to the camera only via CAM to EXT or set up the system that the corresponding axis is only controlled via the OCU-1 (disable that lens axis in the Hi-5 Menu > Control Setup).

No camera control via LBUS-to-LBUS connection to cameras

The RIA-1 currently doesn't support camera control and playback features over LBUS. Always use the CAM connector when connecting to a camera.
ALEXA 35: Connect via CAM to LBUS.
ALEXA Mini / ALEXA Mini LF / AMIRA: Connect via CAM to EXT.
ALEXA Plus cameras: Connect via CAM to LCS.
For more information, please visit: www.ARRI.com/RIA-1-config-guide

RED cameras: pre-record doesn't work from Hi-5

When using the RIA-1 with a Hi-5, the pre-record function of RED cameras is not supported by the Hi-5.
Workaround: Activate pre-recording via camera or assign a user button on the RED camera to Start/Stop.

RIA-1 SUP 2.0
Release Notes

Page 8 of 10
All data subject to change without further notice.

RED HELIUM playback control issues

When using the RIA-1 with a Hi-5 on a RED HELIUM camera, the playback control might not work properly, or the camera might stay in playback.
Workaround: Leave Playback via camera.

RED Komodo playback manipulation not possible

FFW and FBW in playback mode is not supported by RED Komodo

LCUBE CUB-1: Wrong distance value

When using the Hi-5 in combination with a RIA-1, LCUBE CUB-1 and a distance measure device, in some cases a wrong distance value is shown.
Workaround: Use the integrated serial interface of the RIA-1 for distance measure devices or power cycle the RIA-1 & CUB-1.

Manual calibration with active cal request

When using the Hi-5 in combination with a RIA-1 or cforce mini RF and when using the manual motor calibration feature, it might happen that after the manual calibration the scales are greyed out with a RED cross above the scale, while having full control of the motor.
Workaround: Perform another manual calibration or reboot the RIA-1/cforce mini RF.

Manual calibration not working over LBUS

Currently the manual calibration feature can only be used over a radio connection, like EMIP, RF-2400 or RF-900 to the RIA-1 or when connected to a cforce mini RF.
It is not functional if the Hi-5 is hardwire connected via LBUS to the RIA-1 or to the LBUS motor daisy chain.

Sony Venice 1&2 no clip list, no progress bar

The camera does not transfer the whole clip list table via the remote interface and only one clip is shown at a time.
The progress bar has no function as the current time of the clip is not transferred either.

Sony Venice 1&2 Hi-5 jumps to camera screen in between clips

When browsing or changing clips in playback mode, the Sony Venice camera sends a standby signal in between clips. Due to this, the hand unit jumps back to the camera screen in between clips.

Sony Venice 1&2 user buttons not supported

The camera user buttons are not accessible via Hi-5, as the camera does not support this feature via the remote interface.

Sony VENICE 1&2: FPS setting in "fixed FPS" mode

The FPS setting is always accessible via Hi-5, as the camera does not transport information about a fixed FPS over the remote interface. Changing the frame rate on the Hi-5 in fixed FPS has no effect on the FPS setting in the camera!
Workaround: Set FPS to variable in the camera.

Update via LBUS is not possible with a connected USB-C stick

Currently RIA-1 can only be updated via LBUS if no USB stick is connected to the RIA-1.
Workaround: Remove the USB-C stick before updating or update RIA-1 per USB.

RIA-1 SUP 2.0
Release Notes

Page 9 of 10
All data subject to change without further notice.

Mini LF: Update via LBUS triggers failure warning

When updating the RIA-1 via LBUS with an Alexa Mini LF, it might happen that the update fails, and the camera shows an update failed warning.
Workaround: Update the RIA-1 via USB-C.

RIA-1 Update duration via LBUS

If using a camera or a hand unit to update the RIA-1 over LBUS, the update duration is slower compared to the USB-C update and takes 2-3 minutes.
Workaround: Update the RIA-1 via USB-C.

Sony Venice 1&2: Settings greyed out even when RCP mode is toggled

In some cases, it can occur that camera settings on a Hi-5 are greyed out and cannot be changed by the hand unit, even with active RCP mode.
Workaround: Repower the RIA-1 and the setting availability should get updated properly by the Hi-5.

ECS Sync App - RIA symbol shown as WCU-4

In the current ECS Sync App version 1.0.1(883) the RIA-1 symbol is displayed as a WCU-4. The device itself is recognized correctly as a RIA-1. This issue will be fixed with the next ECS Sync App version.

RIA-1 client mode: Cmotion steady zoom motors show RIA-1 ID

If a Cmotion steady zoom is being used to control motors remotely with a client RIA-1, the LBUS motors all show the RIA-1 ID and can't be distinguished from each other.
Workaround: Distinguish motors by assigned axis.

Blocked lens axis when using OCU-1 or Master Grips

Please ensure that the OCU-1 or Master Grips are updated at least to SUP 2.0.2.

Cinefade: Filter slightly jittering with LDS lenses

In some setups with LDS lenses, the cinefade device might jitter slightly on its own, while not being controlled.
Workaround: Use or program a LDA file.

Manual T-stop/focal length greyed out

Manual T-stop/focal length setting is only possible, if no lens data of the corresponding axis is available. LDS or Cooke/i lenses will provide lens data as long as the lens mount is active. In case of a mapped lens, the setting is active, if no motor of the corresponding axis is connected. If the motor is removed while the RIA-1 is powered, the RIA-1 must be restarted.

G. Troubleshooting

No distance value shown on the Hi-5

If a distance measure device is connected to the RIA-1, but no distance value is shown, check if the correct serial mode is set in the RIA-1.

Serial Mode > UDM: Use this setting when connected to a ARRI's Ultrasonic Distance Measure (UDM-1) or a CineTape Measure Control.
Serial Mode > Focusbug: Use this setting when connected to a Focusbug Cine RT via ARRI Hi-Speed protocol. Make sure that the ARRI Hi-Speed protocol is activated in the Cine RT handset.

RIA-1 SUP 2.0
Release Notes

Page 10 of 10
All data subject to change without further notice.