

ACQUIRE

**KiPRO** ProRes

Production and Post – Unified



**KiPRO**

**KiPROmini**

Because it matters.

**AJA**<sup>®</sup>  
VIDEO SYSTEMS

# Ki Pro

Post-production redefined...during production.

Everyone from broadcasters to indie filmmakers can probably agree on one thing: the possible choices for image acquisition are daunting. Different cameras, different formats, different recording media and different compression schemes. Wouldn't it be nice if there was a way to simplify acquisition so that virtually any camera, could record the same format and resolution? Solution—the AJA Ki Pro Family, consisting of the Ki Pro and Ki Pro Mini.

The AJA Ki Pro is a tapeless video recording device that records high-quality Apple ProRes 422 QuickTime files onto computer-friendly Storage Module media. Because it features SD/HD-SDI, HDMI, and analog inputs, you can interface with virtually any type of camera you might own or rent. Enjoy monitoring flexibility through Ki Pro's numerous simultaneous outputs, connecting to both professional and consumer monitors. Ki Pro is portable and rugged; designed for real production environments. With the optional exo-skeleton it can sit below your camera—out of the way of your battery adapters, wireless mics and other accessories. Offering up/down/cross-conversion and a multitude of connections, integration with your other production gear is seamless.

The AJA Ki Pro Mini is similar but offers portability as the primary role where size matters and conversion and control option diversity aren't needed.

All Ki Pros are intuitive to operate. Alongside the camera, the familiar VTR-like buttons provide immediate controls for basic operation.

## Ki Pro Family Features

- Simultaneously record to host camera and Ki Pro
- Bridge proprietary compression schemes by recording to Apple ProRes 422
- Bridge media complexity by recording to portable file-based storage
- Extend client review capabilities
- Bridge production and post-production, eliminate log and capture
- Extend productive life of existing cameras

**Ki Pro:** End format chaos and embrace future workflows via powerful hardware up/down/cross-conversion. Offers ultimate control flexibility with Wireless/Ethernet and can be used like a VTR. Flexible storage options.

**Ki Pro Mini:** Follows the camera everywhere, offering a tiny footprint, support for SDI & HDMI cameras, and simple CF card storage. Smaller than some battery packs, it mounts to virtually everything.

From a distance, use a web browser via ethernet to control operations from a laptop. The standard Ki Pro can even be controlled via Wireless 802.11g with an iPhone or computer.

### A revolution in production and post

Eliminate the cost and inconvenience of logging and capturing footage. Ki Pro produces Apple ProRes 422 QuickTime files that are ready for immediate use within Final Cut Studio [(Apple ProRes 422, Apple ProRes (LT), Apple ProRes (Proxy) and Apple ProRes 422 (HQ) supported]. Simply connect the media to a host computer and begin editing. Unify cameras and formats with one superior 10-bit full-raster codec—Apple ProRes 422. The standard Ki Pro features cross-conversion so you can have a 720p camera produce a 1080i recording to match your other camera... or vice versa. And if you've got high-quality SD cameras, it can even help you extend their use since it also up-converts SD camera signals to HD recordings.

- **No more digitizing**
- **No more worrying about which camera to use**
- **High-quality ready-to-edit video**

### Ki Pro in the field

All Ki Pros are portable and rugged; designed for production environments. Powered through an industry standard 4-pin XLR, you have flexible AC and battery options.

The Ki Pro Mini is ultra-tiny, designed to fit battery accessory plates, hot-shoe adapters and other camera add-ons. The standard Ki Pro offers an optional exo-skeleton for use with your camera and tripod—complete with sliding baseplate and slots for 15mm rods.

### Ki Pro connects

Capture the full quality of your camera by tapping the direct uncompressed camera outputs. Connect any digital camera SDI or HDMI to Ki Pro recorders. Balanced audio connectors, LTC input/output, and even LANC, are provided. On the standard Ki Pro add component analog and unbalanced audio connections. By bypassing tape or recordable media compression, Ki Pro maintains the best possible image quality your camera produces.

### Ki Pro and Final Cut Studio

From acquisition to delivery, use the codec at the core of Apple's Final Cut Studio suite of applications. All Ki Pros support an Apple file-based workflow by recording standard Apple ProRes 422 QuickTime files on industry standard media. On Ki Pro Mini, record to standard Compact Flash (CF) cards. On standard Ki Pro, record to removable 34mm ExpressCards, or a removable HDD Storage Module containing a hard disk drive (standard) or an optional SSD Storage Module with a solid state disk. When removed, the Storage Module functions as a standard bus-powered FireWire 800 drive. If bus power is not available, the Storage Module has a standard DC power connector for a user-supplied AC power adapter.

### Ki Pro Workflow





Connector Side



Rear



Operator Side

## Unify Cameras and Formats... Simplify Production & Post

### Prosumer



Connect prosumer HDV and AVCHD camcorders via HDMI to Ki Pro. Ki Pro enables cost-effective cameras to produce professional quality recordings in Apple ProRes 422 and Apple ProRes 422 (HQ).

### Professional



Connect Ki Pro to a wide variety of professional HD cameras via component or HD-SDI. The Apple ProRes 422 recordings that Ki Pro produces rival the native recordings of many HD cameras. Apple ProRes 422 recordings are full raster video at 10-bit quality whereas typical camera recordings produce a variety of compressions, horizontal resolutions, file types, and are often only at 8-bit.

### Broadcast



Use Ki Pro's hardware-based conversion capabilities to unify the different formats employed by broadcast quality cameras (1080 or 720) so that all of your cameras can record in the same format and frame rate. You can even extend the life of your professional SD cameras with Ki Pro's upconversion capability.

# KiPROmini

Ki Pro Mini is the smallest and simplest way of connecting production and post, anywhere shooting takes you. With a miniature form factor that makes for the smallest camera and recorder package available, Ki Pro Mini is powerful, supporting all four types of Apple ProRes 422 (including HQ, LT and Proxy). The newest member of the award winning Ki Pro family, Ki Pro Mini simplifies the link between production and post by unobtrusively fitting in small spaces and acquiring on the best codec for use with Apple Final Cut Studio, from any SDI or HDMI camera, regardless of format. With its high quality digital connectivity, you've got the perfect solution for portable on-set digital capture.

- Extreme Portability for any shooting environment
- 10-bit full raster recording to Apple ProRes 422 SD and HD formats
- Apple ProRes 422 (HQ)
- Apple ProRes 422 (LT)
- Apple ProRes (Proxy)
- Record Edit-Ready SD/HD files from any camera to Compact Flash (CF) cards
- Skip log and capture with instant mounting of native OSX media
- Professional connectivity through SD/HD SDI and HDMI I/O

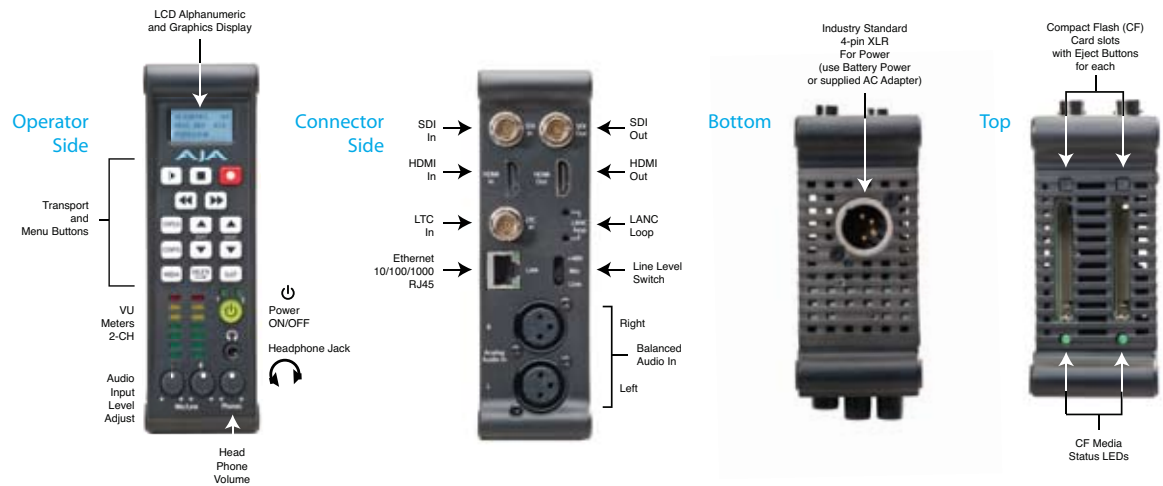
AJA's Ki Pro Mini was designed as a miniature field recorder for creating "ready-to-edit" professional digital video. Ki Pro Mini supports an Apple "file-based" workflow by recording standard Apple ProRes 422 QuickTime files on industry standard Compact Flash (CF) media. When removed, Compact Flash cards function as standard HFS drives when connected to a Mac computer via any standard off the shelf Compact Flash reader.

Ki Pro Mini's multi-purpose mechanical design and small form factor allow flexibility in mounting to the camera or tripod using industry standard mounting plates or shoe adapters. An optional Ki Pro Mini mounting plate offers a wide variety of bolt patterns for mating either side of the unit with virtually any camera accessory bracket.

Like AJA's famous Ki Pro, KONA and Io HD desktop products, Ki Pro Mini offers unparalleled I/O quality. Within its portable and rugged form factor, Ki Pro Mini offers broadcast quality SD/HD digital I/O including SDI, HD-SDI and HDMI, two channels of balanced analog audio (2 XLRs) with switch selectable line/mic levels, and LTC timecode in/out.

Control options are flexible, with front panel and web browser interfaces provided (Ethernet 10/100/1000 via an RJ45 connector).

## Lens to Post...in a Flash. The Highly Portable 10-bit 4:2:2 Flash Disk Recorder.



### Ki Pro Mini Workflow

#### Acquire



Ki Pro Mini is tiny and can be used almost anywhere on set with a camera. Use with optional mounting plate to attach to hot shoes, battery plates and more.

#### Media



After recording clips, remove the CF Card from Ki Pro Mini and you're ready to begin editing. No log and capture required.

#### Edit



Insert CF media into a 3rd-party reader and attach to an Apple MacBook Pro or Apple Mac Pro. Copy media to Mac and import footage into Final Cut Pro. Edit. *Simple.*

## Specifications Ki Pro

### Video Input

#### Digital:

SD and HD-SDI (1x8BNC), SMPTE-259/292/296  
HDMI

#### Analog:

SD/HD Component (3x8BNC):  
SMPTE/EBU N10, Betacam 525 line,  
Betacam 525J, RGB, YPbPr  
12-bit A/D, 2x oversampling

### Video Output (all simultaneously active)

#### Digital:

SD and HD-SDI, SMPTE-259/292/296 (1x8BNC)  
HDMI

#### Analog:

Composite (1x8BNC):  
NTSC, NTSCJ, PAL  
12-bit D/A, 8x oversampling  
SD/HD Component (3x8BNC):  
SD: SMPTE/EBU N10, Betacam 525 line,  
Betacam 525J, RGB  
12-bit D/A, 8x oversampling  
HD: YPbPr, RGB  
12-bit D/A, 2x oversampling

### Audio Input

#### Digital:

24-bit SDI embedded audio, 8 channel, 48kHz  
HDMI embedded, 2 channel

#### Analog:

24-bit A/D, 2 channel balanced (2 XLR), 48kHz  
Input level: Line, Mic, Mic + phantom 48Vdc  
2 channel unbalanced (2 RCA)

### Audio Output

#### Digital:

24-bit SDI embedded audio, 8 channel, 48kHz  
HDMI embedded, 8 channel

#### Analog:

24-bit D/A, 2 channel balanced XLR, 48kHz  
2 channel unbalanced (2 RCA)

### Network

10/100/1000 Ethernet (RJ45)  
802.11g Wireless  
Embedded webserver for remote control

### Panel User Interface

2 x 20 character display, with dedicated buttons

### Timecode

LTC timecode input and output via BNC

### Control

LANC Loop (2 LANC connectors)  
Lens Tap: connects to optional AJA Lens Tap Intercept  
cable placed between camera body and lens for  
start/stop control

IEEE-1394a/FireWire 400 for control and timecode data

### Machine Control

RS-422, 9-pin—for future use

### FireWire

IEEE-1394b, FireWire™ 800Mb/s connects to Mac Pro or  
MacBook Pro (mount as harddrive)

### Hardware up-conversion - 10-bit

Anamorphic: full-screen  
Pillar box 4:3: results in a 4:3 image in center  
of screen with black sidebars  
Zoom 14:9: results in a 4:3 image zoomed  
slightly to fill a 14:9 image with black side bars  
Zoom Letterbox: image zoomed to fill screen  
Zoom Wide: combination of zoom and horizontal  
stretch to fill 16:9 screen; this setting can introduce a  
small aspect ratio change

### Hardware down-conversion - 10-bit

Anamorphic: full-screen  
Letterbox: image is reduced with black top and bottom  
added to image area with the aspect ratio preserved  
Crop: image is cropped to fit new screen size

### Hardware cross-conversion - 10-bit

1080i to 720P  
720P to 1080i  
720P to 1080PsF

### SD to SD aspect ratio conversion

Letterbox: transforms SD anamorphic to a letterboxed  
image.

H Crop: produces a horizontally stretched effect on the  
image; transforms anamorphic SD to full frame.  
SD Pillarbox: produces image in screen center with  
black borders on left and right sides and an  
anamorphized image in the center.

V Crop: transforms SD letterbox material to an  
anamorphic image.

### Power

100-240 VAC (to supplied AC Adapter);  
12Vdc to power connector input on side of chassis

### Network

10/100/1000 Ethernet (RJ45)  
Embedded webserver for remote control

### Panel User Interface

3-line character display with dedicated buttons

### Timecode

LTC timecode input and output via BNC

### Control

LANC Loop (2 LANC connectors)

### Power

100-240 VAC (to supplied AC Adapter);  
12Vdc to power connector input on bottom of chassis

## Specifications Ki Pro Mini

### Video Input and Output

#### Digital:

SD and HD-SDI (1x8BNC), SMPTE-259/292/296  
HDMI

### Audio Input

#### Digital:

24-bit SDI embedded audio, 8 channel, 48kHz  
HDMI embedded, 2 channel

#### Analog:

24-bit A/D, 2 channel balanced (2 XLR), 48kHz  
Input level: Line, Mic, Mic + phantom 48Vdc

### Audio Output

#### Digital:

24-bit SDI embedded audio, 8 channel, 48kHz  
HDMI embedded, 8 channel

#### Analog:

24-bit D/A, 2 channel balanced XLR, 48kHz

### Network

10/100/1000 Ethernet (RJ45)  
Embedded webserver for remote control

### Panel User Interface

3-line character display with dedicated buttons

### Timecode

LTC timecode input and output via BNC

### Control

LANC Loop (2 LANC connectors)

### Power

100-240 VAC (to supplied AC Adapter);  
12Vdc to power connector input on bottom of chassis

### Ki Pro Product includes:

- Ki Pro Recorder
- Ki Pro HDD Storage Module
- AC Adapter 110/220 with 4-pin XLR connector

### Ki Pro Options

**Exo-skeleton** – provides a surrounding chassis for the Ki Pro that can both mount to a tripod and provide a mount for camera on top; this combination allows convenient access to controls.

**Ki Pro SSD Storage Module** – although the Ki Pro comes standard with a removable HDD Storage Module, an optional SSD Storage Module is also available. The Ki Pro Solid State Storage Module (SSD) is recommended for mobile environments where shock-proof sturdiness may be needed. The Ki Pro SSD Storage Module offers the ultimate in media reliability.

**Ki Pro Hard Drive Storage Module** – although Ki Pro comes with one removable HDD Storage Module standard, you can buy extras and simply swap them as needed.

**Ki Pro Rod Accessory Kit** – this kit adds endplates to the Exo-skeleton so you can attach two user-supplied 15mm camera accessory rods. The endplates have knobs for adjusting the height of the rod brackets relative to the camera, as well as a set of knobs for securing the rods in the brackets.

**AJA Lens Tap Cable Accessory** – this AJA proprietary cable allows Ki Pro to connect between the lens tap control connector on a lens and camera body, thereby intercepting the lens control signals for use in simple start/stop Ki Pro recording operations.

### Ki Pro Mini Product includes:

- Ki Pro Mini Recorder
- AC Adapter 110/220 with 4-pin XLR connector

### Ki Pro Mini Option

**Mounting Plate (not shown)** – This option plate allows you to mount Ki Pro Mini to 3rd-party devices. The plate can be attached to the Ki Pro mini via 4 supplied screws; plates can be attached to either or both sides of Ki Pro Mini. A large number of screw holes in the plate allows you to mate Ki Pro Mini to 3rd-Party battery plates, hot-shoe adapters and other mounting applications.



Exo-skeleton



Storage Module  
(HDD or SSD)



Rod Accessory kit



Rod Accessory kit installed on  
Exo-skeleton



AJA Video Systems Inc.

Grass Valley, California

www.aja.com • sales@aja.com • support@aja.com

### About AJA Video Systems, Inc.

Since 1993, AJA Video has been a leading manufacturer of video interface and conversion solutions, bringing high-quality, cost-effective digital video products to the professional broadcast and post-production markets. AJA offers the Io and KONA desktop video products, Ki Pro family of recorders, miniature stand-alone converters, and a complete line of rack mount interface and conversion cards and frames. With a headquarters and design center located in Grass Valley, California, AJA Video offers its products through an extensive sales channel of dealers and systems integrators around the world. For further information, please see our website at [www.aja.com](http://www.aja.com)

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