

A revolution. From production to post.











# A revolution. From production to post.

The Ki Pro Family establishes entirely new workflows for production and post production. Select from Apple ProRes or Avid DNxHD at your choice of quality level and record 'ready-to-edit' footage on removable storage media. No need to log, capture or convert in post 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. Add to that the growth of 4K filmmaking and developing an efficient workflow can become incredibly complex. Wouldn't it be nice if there was a way to simplify digital and analog projects to a single file-based workflow? Enter the Ki Pro family.

AJA Ki Pro models are tapeless video devices that record high-quality files onto computer-friendly media. With SD/HD-SDI, HDMI, and analog inputs, you can interface with virtually any type of camera you might own or rent, or connect seamlessly with your post production hardware. All Ki Pro models are easy to operate, with familiar VTR-like buttons and intuitive interfaces.

Ki Pro models are available in four formats to suit your workflow requirements, from onset capture and playback, full 4K recording and monitoring through to replacing traditional tape units within a broadcast environment.

Built to the exacting standards of all AJA hardware, Ki Pro is backed by our world-class support network, 3-year international warranty and advance exchange service.









Ki Pro

Ki Pro Rack

Ki Pro Mini

Ki Pro Quad



# Family features

### Record 'ready-to-edit ' footage

Eliminating the cost and inconvenience of logging and capturing footage, Ki Pro models produce files that are ready to use right away in most popular NLEs.

Designed to integrate with your system, whatever the workflow, Ki Pro models feature powerful connectivity and capture full quality footage to reliable storage media.

When it's time to edit, just remove the media, connect to your computer, transfer the files, and the footage is ready to use straight away in your editing software, without the need for additional import or transcoding steps.



### Quality that fits your production

Big on quality - but not on file size. Ki Pro units record high quality 10-bit, full raster images that easily stand up to post production processing requirements - and client scrutiny.

Compared to 8-bit recording devices, 10-bit 4:2:2 recording provides greater dynamic range, giving a superior representation of the original scene and allowing for more flexibility in post production when adjusting color and balance. With support for ProRes (all models) and DNxHD (Ki Pro Mini and Ki Pro Rack only) at your choice of quality level, Ki Pro hardware allows you to achieve the perfect balance of image quality and storage capacity for your production.



### Unify formats - speed workflows

Because productions often have to use different formats this can lead to inefficiencies in the editing process when converting files to a working format. Connected to a camera or housed in a machine room, Ki Pro units unify source material to a single file format that can be used by most major editing systems without additional transcoding, streamlining the edit process and facilitating savings in time and resources.

Ki Pro and Ki Pro Rack also feature AJA industry-leading conversion, allowing source inputs be converted to a common and frame size further simplifying post production.





# Family features

### Simple controls and setup

With simple controls and an intuitive operating system, all Ki Pro models are easy to incorporate in your existing setup without having to worry about the learning curve.

Just like a traditional tape deck, each Ki Pro features straightforward dedicated Record, Play, Rewind and FastForward buttons - making the transition easy with minimal training time. The current status of the system and all configuration information is clearly displayed on the built-in screen. The embedded OS uses a fast, flat menu structure that allows full configuration to be done directly on the device with no need to connect to a laptop to access operational parameters.



### Remote configuration and operation

On set or in a machine room, Ki Pro models are equipped for advanced remote control and configuration.

On the set, Ki Pro requires minimal direct user interaction. Record start/stop operation can be triggered automatically by detecting information in the SDI signal or by using a separate LANC control on properly equipped cameras.

In a networked environment, Ethernet connectivity of Ki Pro hardware allows control and configuration to be performed via standard web browser. Multiple Ki Pro units can all be controlled from a single interface for group operation.



### Capture to reliable storage media

Ki Pro and Ki Pro Rack use AJA Ki Stor Modules that connect directly to your editing system via a built-in FireWire 800, USB3 connection or the new Ki Stor Dock.

Ki Pro Mini captures footage direct to highly reliable CompactFlash media, which is easily read by any CF card reader to transfer footage to your editing system.

Ki Pro Quad uses AJA Pak storage modules which encase an SSD drive in a durable outer shell with a reinforced connection that stands up to the demands of on set use. Slide the AJA Pak into the AJA Pak Dock external docking station for lightning-fast file transfers to or from AJA Pak storage and a host computer via Thunderbolt™ or USB3.





# Highly portable tape replacement.

Ki Pro combines the power of a file-based recorder with the familiar controls of a tape deck that easily goes anywhere.



The Ki Pro established a new paradigm in tapeless recording. Revolutionizing how footage tracks from production to editorial, Ki Pro captures Apple ProRes 422 files at your choice of quality level direct from the source, which can then be used in most editing systems without the need for additional import or transcoding steps. Just remove the Storage Module from the Ki Pro, connect direct to the editing computer and once the files are transferred they are immediately ready for use in the NLE software.

Ki Pro's comprehensive array of analog and digital connections let's you effortlessly bridge formats and sources within your workflow, ingesting footage to a common format and outputting to numerous simultaneous monitor outputs. Offering AJA's high-quality up/down/cross conversion and a multitude of connections, integration with your other production gear is seamless.

Ki Pro's RS-422 control allows it to be connected to editing systems, external controllers and even other tape decks, allowing it to fulfil the functions of a traditional VTR. Editing systems can perform assemble edits direct to the Ki Pro's Storage Module, often faster than rendering to ProRes files within an editing system. Ki Pro's RS422 connection can also be used to directly capture tape-based media into Ki Pro as ProRes footage ready for editing or archiving.

For control and configuration, Ki Pro can connect to your data network by Ethernet cable or wireless 802.11 and accessed via web browser on any networked computer, or even with an iPhone. Multiple Ki Pro units can be linked together and controlled from a single interface for gang recording, status monitoring and playback.



# Ki Pro

# Front panel





# Ki Pro

# Rear panel





### Lens to Post...in a Flash.

# Compact, lightweight and designed to fast track your footage from camera to editorial.

Ki Pro Mini speeds your footage from camera to editorial, connecting to virtually any SD or HD camera and capturing files in Apple ProRes 422 and Avid DNxHD formats at your choice of quality level, direct to removable CompactFlash media.

Lightweight and rugged, Ki Pro Mini is designed for a life in the field. The Mini Mounting Plate attaches to the sides of the Ki Pro Mini and provides almost endless mounting possibilities when used in combination with battery plates, hot shoe mounts, articulated arms and more.

Ki Pro Mini works equally well whether your gear uses SDI or HDMI or a combination of both. The SDI and HDMI outputs are always both active, making the Ki Pro Mini not just a recorder but a useful converter as well. Two XLR analog audio inputs allows on set analog audio to be recorded directly into the ProRes or DNxHD files, meaning less work in the edit to synchronize audio and video from separate sources.

Ki Pro Mini vastly extends on set capabilities for smaller productions and fast-moving shoots. For rapid playback, recorded shots can now be viewed immediately without the need for separate video assist equipment. If you're using a mobile editing system, footage from Ki Pro Mini can be edited while you're still on the set, letting you make sure you have the right shots before moving on.

Once connected to a camera, Ki Pro Mini requires minimal direct user interaction. Record start/stop operation can be triggered automatically by detecting information in the SDI signal or by using a separate LANC control on properly equipped cameras. Ethernet connectivity of Ki Pro Mini allows control and configuration to be performed via web browser at distances up to 100 feet. Networking multiple Ki Pro Mini units together, means they can all be controlled from a single interface and locked together for gang recording, status monitoring and playback.



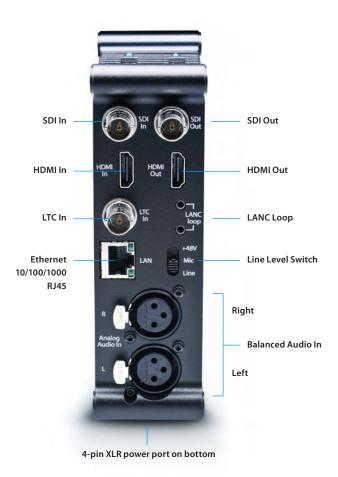


# Ki Pro Mini

# Front panel



# Rear panel







# Ki Pro & Ki Pro Mini case study

### "Die Huberbuam" Takes Filmmaking to New Heights with AJA Ki Pro and Ki Pro Mini

On October 3, 2011 "Die Huberbuam" made broadcast history as the first stereoscopic 3D documentary to air in Germany. The 42-minute production follows brothers Alexander and Thomas Huber, the world's foremost extreme speed mountain climbers, as they ascend the "Karma route" of Loferer Alm in Germany. The documentary is also earning kudos on the international festival circuit as a 3D digital cinema production.

To capture the spectacular imagery of the brothers in motion, 3D film production company Virtual Experience created a unique stereo rig comprising a sinaCAM 3D camera from Anadicon and Solectrix and AJA Ki Pro digital recorders, along with additional stereo gear from P+S Technik. Virtual Experience also equipped a remote-controlled helicopter with the sinaCAM and two Ki Pro Mini digital recorders to capture close-up stereo footage of the climbers at extreme heights.

"It delivers 10-bit media - better quality than some equipment that is much more expensive, and it's flexible so that we were able to control it remotely with software that we built very quickly. The way Ki Pro works enables users to get the most out of the equipment."

"For this movie we were shooting outside in the sun, so we had bright light on one side and shadows on the other. With such a large amplitude of exposure, it was absolutely required that we record in 10-bit," said Alaric Hamacher, Virtual Experience's stereographic guru. "We had to record two streams at the same time and synch playback for 3D. We wanted to use a high-quality codec, and Apple Pro Res 422 HQ met our needs perfectly. Finally, because of the economics of broadcast production, we had to keep costs down. AJA Ki Pro was the best solution. It gave us the capability, quality and cost that we needed."

For 75% of the production, footage was captured with the sinaCAM onto two AJA Ki Pro recorders. Hamacher built a recording system that he operated remotely via laptop and programmed a simple software application to start both Ki Pros in synch and synch playback. "I love the functions that let you control Ki Pro over a network. Remote control via the free AJA Ki Pro Automation software is a very important feature because it allows you to customize how you use Ki Pro. It's also well documented on

the AJA Ki Pro support page. Within a day or so we were able to program the software we needed for 3D just with that resource," he said.

The recording solution comprised a low-cost PC running Hamacher's software, two Ki Pros (for right-eye and left-eye cameras), a large battery to power three to four hours of on-set shooting and a cooling fan.

Virtual Experience also worked with Anadicon, one of the developers of the sinaCAM, to mount the camera and two AJA Ki Pro Mini recorders on a small remote-controlled helicopter. "Ki Pro Minis were ideal for this rig because of their size and weight – the whole thing weighed less than 2 kilograms," said Hamacher. He constructed a special set of batteries and system power to meet the helicopter's weight requirements and mounted the Ki Pro Minis on the far sides of the helicopter with the battery in the middle. The mini helicopter made a series of 7-minute flights in one day of shooting, recording approximately 40 minutes of footage (20 minutes each left-eye/right-eye).

Hamacher and Virtual Experience have been doing 3D productions for ten years, and have built expertise in adapting existing 2D production solutions to the needs of stereographics. "Specialized 3D gear tends to be expensive, closed technology. We find that we have a better experience and realize better economics if we use solid 2D tools and make good use of them," he said. "That was definitely the case with AJA Ki Pro. It delivers 10-bit media -- better quality than some equipment that is much more expensive, and it's flexible so that we were able to control it remotely with software that we built very quickly. The way Ki Pro works enables users to get the most out of the equipment."







# The ultimate tape alternative.

The power of Ki Pro in a 1RU format, the perfect fit for broadcasters transitioning away from tape.



For video facilities transitioning from tape to file-based workflows for recording and playback, Ki Pro Rack offers high-quality, 'ready-to-edit' file capture, designed to get material from source to editorial as quickly as possible.

With a wealth of professional connections, Ki Pro Rack will fit right into your existing cabling and routing system (without the requirement for special converters) and record 10-bit Apple ProRes and Avid DNxHD files at your choice of quality level direct to removable hard disk or SSD Storage Modules, eliminating the need for time-consuming logging and capturing. The files can be used in most editing systems without the need for additional transcoding or importing processes.

Like Ki Pro, Ki Pro Rack features AJA's industry leading conversion technology, enabling you to perform broadcast-quality up/down/cross conversion during recording or playback without the need for additional conversion hardware.

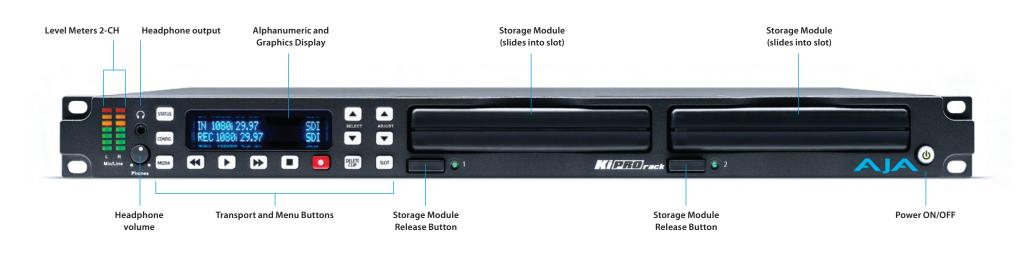
Anyone familiar with the operation of a tape deck will feel immediately at home with Ki Pro Rack's tactile controls, while the flat onscreen menu structure ensures quick setup and a rapid learning curve.

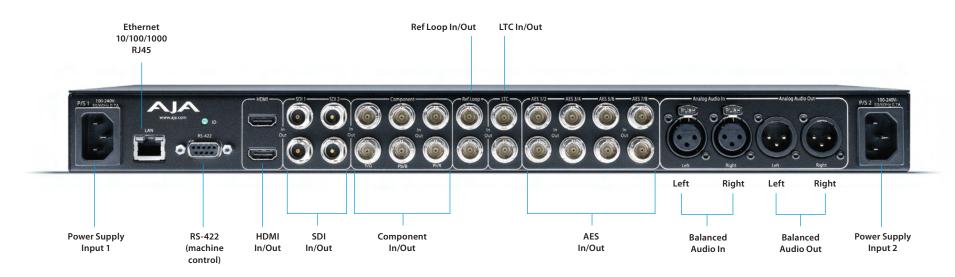
The twin media drive bays on the Ki Pro Rack allow extremely fast media changes - you can switch drives and start recording straight away, without having to swap out the drive modules.

Because of its network connectivity, media can be copied to and from Ki Pro Rack over an Ethernet connection, allowing fast file transfers without the need to physically remove the storage media. In larger facilities this cuts down dramatically on the number of people that have to enter the machine room and minimizes the risk of unintentional interference with equipment. Like all other Ki Pro's, multiple Ki Pro Racks can be networked together for control via a single interface.



# Front and rear panels







### 4K/Quad HD/2K/HD Solid State Recorder.

### Streamlined 4K workflows.



### **Preliminary features**

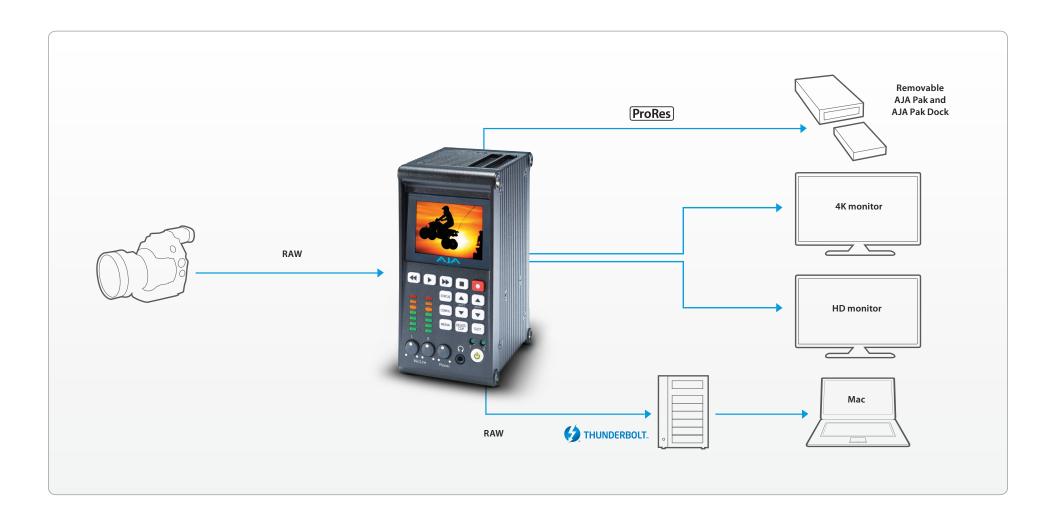
- 4K/Ouad HD/2K/HD Solid State Video Recorder
- Supports 10-bit 4:4:4 and 10-bit 4:2:2
- RAW support
  - Debayer and ProRes encode to on-board SSD
  - Realtime pass-through of RAW data via Thunderbolt™
- Uncompressed and debayered 4K monitoring output
- Dedicated HD monitoring via SDI and HDMI
- Record to edit-friendly 4K, 2K, or HD ProRes files on removable AJA Pak media
- Offload ProRes files to your non-linear edit system via AJA Pak Dock

#### 4K workflow

- Camera outputs 4K RAW over SDI
- Ki Pro Quad accepts 4K RAW over SDI
- Ki Pro Quad performs debayer processing of RAW
- Debayered image is used for on-board compressed recordings to SSD media
- Debayered image is used for 4K monitoring output
- Debayered image is used for scaled/cropped HD monitoring via SDI and HDMI
- RAW signal is passed from camera to Ki Pro Quad and out via Thunderbolt™ to computer/storage
- Further manipulation of RAW is made possible via software tools
- HD, 2K, and 4K compressed recordings made to SSD media may be used directly in popular non-linear editors



# Ingest, Edit, Monitor, Master - in 4K





# Ki Pro Quad

### Front panel Rear panel **AJA Pak Slots SDI** Monitor Out **Monitor Display HDMI** Monitor SDI In/Out LTC In Thunderbolt™ Transport and Menu Buttons Right Ref In **Level Meters** 2-CH **Balanced Audio In** (w/ phantom power) Ethernet 10/100/1000 Left **Audio Input** RJ45 Power ON/OFF Level Adjust Headphone volume Headphone output 4-pin XLR power port on bottom



### Accessories.

#### Ki Pro includes:

- Ki Pro
- KiStor 250 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.

**KiStor SSD Storage Module** – Optional KiStor SSD storage modules are available. The KiStor Solid State Storage Module (SSD) is recommended for mobile environments where shock-proof sturdiness may be needed. KiStor SSD Storage Modules offer the ultimate in media reliability.

**KiStor Hard Drive Storage Module** – Additional KiStor HDD modules are available. The HDD spinning disk provides maximum capacity at a great price.

**KiStor USB 3.0 Hard Drive Storage Module** – Compatible with all Ki Pro products that use KiStor drives, KiStor USB3.0 storage modules are available in 750GB and 500GB capacities with a USB 3.0 connection for fast file transfers.

**KiStor Dock** – this external docking station provides both Thunderbolt<sup>™</sup> and USB 3.0 connections for ultra-fast file transfers between either PC or Mac host computer and Ki Stor modules. Works with all Ki Stor modules.

**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.







### Accessories.

#### Ki Pro Mini includes:

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

### **Ki Pro Mini Options**

**Mini Mounting Plate** – 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.

Mini Mounting Plate



**Mini Stand and Adapter Cable** – This stand securely holds the Ki Pro Mini upright on a desk, shelf, or any flat surface. A right angle power cable is provided for easy connection between the power supply and the Ki Pro Mini.

Ki Pro Mini mounted in optional Mini Stand with power adapter cable



**Ki Pro Mini Rod Accessory Plate** – this option provides an accessory plate that can attach to a Ki Pro Mini Mounting Plate (sold separately) so you can attach Ki Pro Mini to user-supplied 15mm camera accessory rods. The accessory plate has knobs for adjusting the height of the rods relative to the Ki Pro Mini Mounting Plate.

Rod Accessory Plate installed on Mini Mount (sold separately)





### Accessories.

#### Ki Pro Ouad includes:

- Ki Pro
- KiStor 250 HDD Storage Module
- AC Adapter 110/220 with 4-pin XLR connector

### **Mounting accessories**

Mini Mounting Plate – Ki Pro Quad has the exact same side dimensions as Ki Pro Mini, allowing both models to share accessories such as the Mini Mounting Plate. This option plate allows you to mount Ki Pro Quad to 3rd-party devices. The plate is attached via 4 supplied screws; plates can be attached to either or both sides of Ki Pro Quad. A large number of screw holes in the plate allows you to mate Ki Pro Quad to 3rd-Party battery plates, hot-shoe adapters and other mounting applications.

**Mini Stand** – This stand securely holds the Ki Pro Quad upright on a desk, shelf, or any flat surface. A right angle power cable is provided for easy connection between the power supply and the Ki Pro Quad.

**Rod Accessory Plate** – This option, which is interchangeable with Ki Pro Mini, provides an accessory plate that can attach to a Mini Mounting Plate (sold separately) so you can attach Ki Pro Quad to user-supplied 15mm camera accessory rods. The accessory plate has knobs for adjusting the height of the rods relative to the Mini Mounting Plate.

Mini Mounting Plate



Ki Pro Quad mounted in optional Mini Stand



Rod Accessory Plate





### Accessories continued.

#### AJA Pak and Pak Dock

Ki Pro Quad lets you record edit-friendly 4K, 2K, or HD ProRes files directly to removable AJA Pak Media. Once removed from the Ki Pro Quad, the Pak can be inserted in the AJA Pak Dock which connects directly to your computer via Thunderbolt  $^{\text{TM}}$  or USB3, allowing you to rapidly transfer ProRes files that are ready for use immediately in your non-linear editing system.

**AJA Pak Dock** – External Pak Dock with Thunderbolt<sup>™</sup> and USB3 connections for fast transfer of media to a host computer.

**AJA Pak256 and Pak512** – High-capacity Solid State Drive encased in a protective housing with rugged connection engineered to handle the rigors of repeated use in the field.





#### Incredible 3-year warranty

AJA Video warrants that Ki Pro products, except for Storage Modules, will be free from defects in materials and workmanship for a period of three years from the date of purchase. Storage Modules are warranted for one year.

#### 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 lo and KONA desktop video products, Ki Pro family of recorders, miniature standalone 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

AJA Video Systems Inc. Grass Valley, California www.aja.com • sales@aja.com • support@aja.com

