SONY

CINE ALTA™

HDCAM®

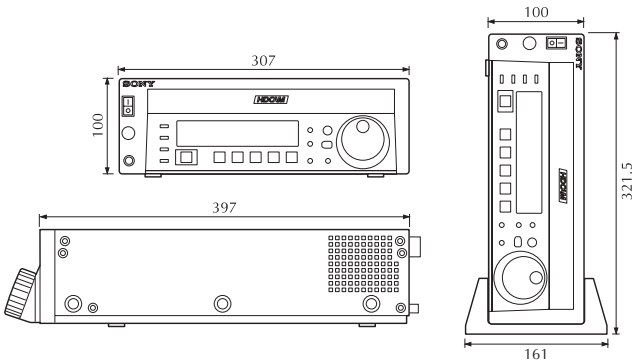
Sony HD Digital Video Cassette Player

Compact Player J-H3

Compact Body Design

Sharing the chassis of the existing J Series (multi-format compact players for standard-definition formats), the J-H3 has a compact, and lightweight design equivalent in size to a standard desktop PC.

The J-H3 player is just 307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches) in size and weighs only 7.5 kg (16 lb 9 oz). It can be used horizontally or placed upright with the supplied vertical stand, allowing operators to locate these players as desired, even in space-constrained areas.



Replay of Both Small and Large Cassettes

Despite this very compact design, J-H Series players can playback both large- and small-size cassettes.

HDCAM Playback Capability

As the J-H3 can playback 1080/23.98/24/25/29.97P formats, it is ideal for the movie-making industry, high-end television and commercial production for on set playback or screening of material. It also supports 1080/59.94 and 50i formats.

3-2 Pull-Down Operation

The J-H3 is equipped with an internal 3-2 pull-down engine. When the J-H3 is in pull-down mode, the video and audio playback signals of 1080/23.98P recordings are converted to and output in 1080/59.94i and 525/59.94i. Both the original 23.98P time code and the derived 59.94i time code can be superimposed on all outputs, allowing for accurate script notes for later editing. The time code displayed on the VTR front panel and the LTC and VITC time code communicated through the RS-422 port are also provided in 59.94i.

Flexible Audio Outputs

The J-H3 provides two channels of analog audio output, available either from the XLR connectors or RCA pin jacks located on the rear panel. A headphone jack is also provided on the front panel. The audio channels to be output to the analog outputs and headphone jack can be selected from Ch 1/2, Ch 3/4, and Cue Track. Audio is automatically muted for off-speed playback or during non-audio data playback.

Other Features — Extending Applications in Post Production

In addition to its playback capability of 1080 progressive formats, HD-SDI and SD-SDI outputs, the J-H3 offers the following additional features allowing the J-H3 to be used with a wide selection of SDTV recorders and nonlinear editing systems.

- Reference input (HD/SD switchable)
- RS-422A
- Time code output

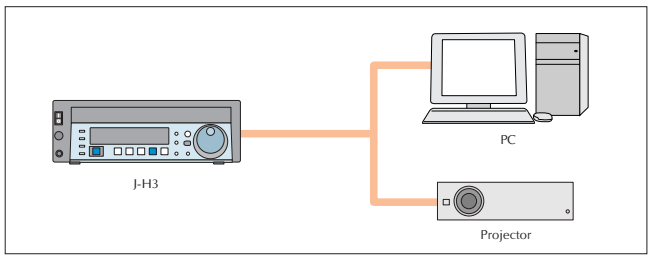
Versatile Output Capability
— For Cost-Effective and Flexible Monitoring

Down-Conversion Capability
— Connectivity with SDTV Monitors

The J-H3 has a built-in down-conversion capability offering NTSC or PAL composite video output from its BNC and RCA-pin output connectors. With this capability, HDCAM-originated content can be viewed on set in HD or in SD on a professional or consumer SDTV monitor through the HD-SDI output.

RGB Computer-Display Interface
— For Connection to Computer Displays

Equipped with an RGB computer display interface, the J-H3 can output HDCAM-originated content to a computer display, at XGA resolution. (As the pixel count of an XGA display is 1024 x 768, the HDCAM image will be "letter-boxed" to 1024 x 577 pixels in the center.) Alternatively, if large-screen viewing is desired, the player can be connected to an XGA capable data projector.



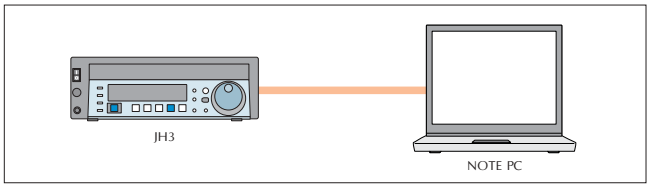
HD and SDI Outputs
— For Connection to High-Grade Monitors

The J-H3 comes equipped with HD-SDI and SD-SDI outputs, giving a choice of high-quality monitoring and work-tape copying. (AES/EBU audio and non-audio data are embedded in these digital outputs.) Y/Pb/Pr analog HD output is also available

i.LINK Interface
— 'Single-Cable' Transmission of Video, Audio and Time Code

When equipped with the optional HKJ-101 i.LINK interface board, the J-H3 can down-convert the HDCAM signal to a DV signal, allowing video, audio and time code to be transferred via a single i.LINK interface cable. Since 3-2 pull-down is built in, the DV output at 59.94hz is available when playing back 23.98P recordings. This DV-output capability allows the J-H3 to be used for offline editing with PCs running DV-based nonlinear software. It also allows straight dubbing of HDCAM material to DVCAM tape by connecting a DVCAM deck*.

*Assemble or Insert Editing functions are not available.



Tape Logging System with JZ-1 Software

Combined use of the J-H3 with the JZ-1 Videocassette Logging Software creates an easy-to-use tape logging system. This is achieved by connecting the J-H3 to a PC* running JZ-1 software via an RS-232C cable. The JZ-1 software provides an easy-to-use GUI to create log data of edit in/out points and to add simple comments to each logged scene. In addition, a storyboard function is available to assemble a sequence of logged scenes into a basic EDL for edit data export.

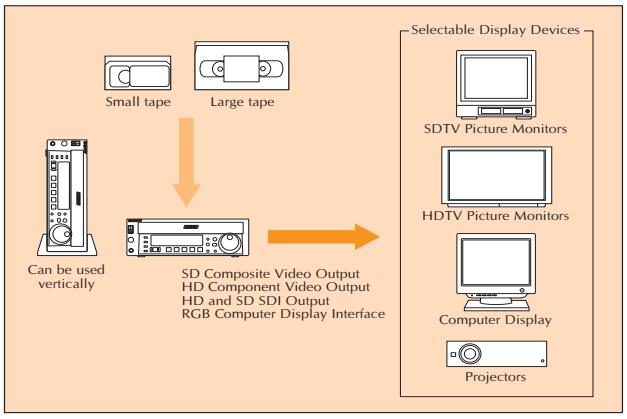
*An appropriate video capture card must be installed in the PC.

Tele-File™ System

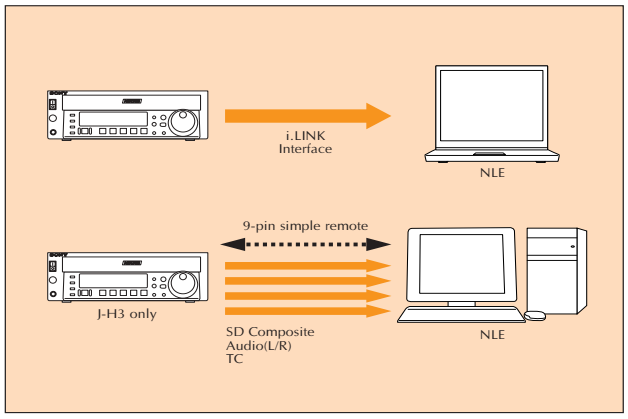
Another important option to increase editing efficiency is the Sony Tele-File system, a non-contact read/write system for storing production-related data on an I/C memory embedded in a 1/2-inch cassette label. Connecting a PC running JZ-1 Videocassette logging Software to the J-H3 allows information to be read and written to a Tele-File label (option: MLB-1M-100) via GUI-based operations.

System Configurations

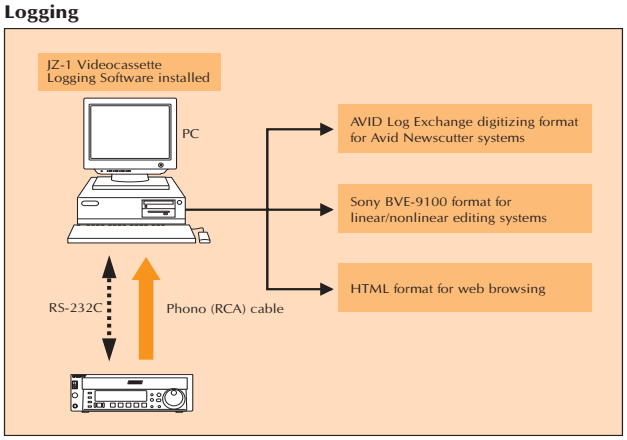
Viewing with the Versatile Output Capability



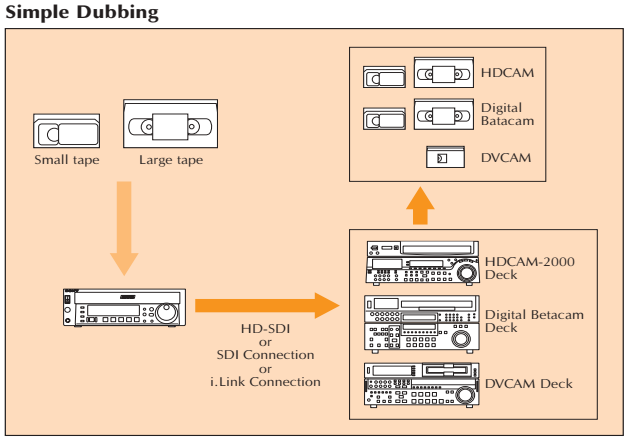
Source Feeding to NLE



Logging



Simple Dubbing



Enhancing Versatility in Movie and Television Production

A dramatic breakthrough for the HDCAM® format was the introduction of a multi-frame-rate camcorder, the HDW-F900, and its companion VTR, the HDW-F500. These units are the foundation of the CineAlta™ system, created to uniquely extend and enhance the production capabilities in movie making and high-end television production.

CineAlta products are Sony's response and commitment to the ITU 709 global standard specifically intended for international HD program origination. The pivotal inclusion of the new 24-frame progressive format in this standard constituted a central design imperative for the HDW-F900/F500 system and introduced the world to the very first 24-frame HD digital motion picture capture system.

To broaden the capabilities of the CineAlta production system, Sony is expanding its portfolio of related core products.

One such product is the new J-H3, a cost-effective compact player which plays back HDCAM tapes (large and small) recorded in 23.98/24/25/29.97P and 50/59.94i formats. With built-in down-conversion and frame rate conversion capabilities, these signals can be effortlessly displayed on conventional professional HD/SD monitors, consumer TV displays and even computer displays. An optional i.LINK®* interface board allows the J-H3 to be used for straight dubbing of HDCAM material to DVCAM® tape or PCs running DV based nonlinear software.

In addition to such fundamental capabilities, the J-H3 offers HD-SDI and SD-SDI outputs, HD/SD switchable reference input, LTC output and RS-422 remote control capabilities.

The J-H3, with its spectrum of invaluable features, is sure to become an essential tool in CineAlta productions.

*i.LINK is a trademark of Sony used only to designate that a product contains an IEEE1394 connection. The i.LINK connection may vary depending on the software applications, operating system and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connection for information on compatibility, operating conditions and proper connection. For information on any Sony device having an i.LINK connection, contact Sony at 1-800-686-7669.

J-H3 Specifications

General		
Power requirements		AC 100 V to 240 V 50/60 Hz
Power consumption		60 W
Operating temperature		+5 ˚C to +40 ˚C (+41 ˚F to +104 ˚F)
Storage temperature		-20 ˚C to +60 ˚C (-4 ˚F to +140 ˚F)
Humidity		25 % to 80 % (relative humidity)
Weight		16 lb 9 oz (16 lb 9 oz)
Dimensions (W x H x D)		307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches)
Tape speed	HDCAM	96.7 mm/s (29.97 Hz), 80.7 mm/s (25 Hz), 77.4 mm/s (24 Hz)
Playback time		124 min (29.97 Hz, with BCT-124HDL)
		149 min (25 Hz, with BCT-124HDL)
		155 min (24 Hz, with BCT-124HDL)
Fast forward / Rewind time		Approx. 6 min with BCT-124HD
Search speed	Shuttle mode	Still to ±21 times normal speed playback
	Jog mode	Still to ±1 time normal speed playback
Servo lock time		1 sec or less (from standby on)
Load/unload time		7 sec or less
Input/Output		
Digital HD video		BNC x 1, SMPTE-292M
Digital SD Video		BNC x 1, SMPTE-259M
Analog HD video		BNC (x 3) Y: 0.7 vp-p, Pb/Pr: +/-0.7 vp-p 75 Ω
		EIAJ RC-5237 connector, EIAJ CP-4120 standard
Analog SD video		BNC (x 1), Pin jack (x 1), 1.0 Vp-p, 75 Ω
Computer display		D-sub 15 pin, XGA (1024 x 768 dots), RGB, 0.7 V
i.LINK (Optional)		IEEE1394
Timecode		BNC x 1, SMPTE 12M
Audio monitoring		Pin jack (x 2): -10 dBu at 47 kΩ load, unbalanced
		XLR (male x 2) +4 dBm, 600 Ω load, low impedance, balanced
Headphone		JM-60 stereo phone jack, -∞ to -12 dBu at 8 Ω, unbalanced
RS-232C		D-sub 9 pin male (x 1)
RS-422		D-sub 9 pin female (x 1), Sony 9-pin remote interface
Wireless		SIRCS
EXT SYNC		BNC x 2

HD analog response (BNC, D connector output)	
Output level	Y: 700 mV (±5 %) , Pb/Pr: 700 mV (±5 %) , Sync signal: 300 mV (±5 %)
Bandwidth	Y: 0 to 20 MHz + 1.0 dB / -3.0 dB , Pb/Pr: 0 to 7 MHz +1.0 dB / -3.0
S/N ratio	56 dB or more
Output impedance	Y, Pb, Pr: 75 Ω (±5 %)
Y/C Delay	Y, Pb, Pr: ±15 nsec or less
XGA analog response	
Output level	R: 700 mV (±5 %), G: 700 mV (±5 %), B: 700 mV (±5 %)
Resolution	XGA
Refresh/rate	60 Hz
H-Frequency	48.4 kHz
SD composite response	
Output level	Y: 59.94i: 714 mV (±5 %), 50i: 700 mV (±5 %)
	Sync: 59.94i: 286 mV (±5 %), 50i: 300 mV (±5 %)
	Burst: 59.94i: 286 mV (±5 %), 50i: 300 mV (±5 %)
Bandwidth	0.5 to 5.75 MHz + 0.5 dB/-3.0 dB
S/N ratio	56 dB or more
Y/C delay	20 nsec or less
K Factor (2T Pulse)	1.0 % or less
Analog audio response	
Output level	XLR: +4±0.5 dBm, -20 dBFS, 600 Ω terminated
	PIN: +10±0.5 dBu, -20 dBFS, 47 kΩ terminated
Frequency response	20 Hz to 20 kHz + 1.0 dB/-1.5 dB
Dynamic range	More than 85 dB (at 1 kHz, emphasis ON)
Distortion	Less than 0.1 % (at 1 kHz/-20 dBFS, emphasis ON)
Wow & flutter	Below measurable level
Cue audio response	
Sampling frequency	100 Hz to 10 kHz ±3.0 dB
S/N ratio	More than 43.5 dB (3 % distortion level)
Distortion	Less than 2 % (T.H.D. at 1kHz, reference level)
Wow & flutter	Less than 0.18 %
Supplied accessories	
Operation manual (CD-ROM), Quick operation guide, Vertical stand (x 2), Infra-red remote controller	

Rear Panel

HKJ-101
i.LINK interface board (option)

SONY

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