HDV - the Accessible HD Recording Format

HD can be Recorded on

an Inexpensive DV Cassette Tape

Video and television technology, as well as viewer preferences, are moving from standard definition

(SD) to high definition (HD) - just like black and white television moved to color in the past.

HD has almost twice the number of scanning lines available than SD. This means you can see much sharper detail and finer image quality when your work is viewed on a HD display monitor. The HVR-HD1000P adopts the HDV format for HD recording. The HDV format allows you to shoot approximate 63minutes of HD video on a miniDV cassette tape*1

There are two standards of HDV format. One is HDV720p and the other is HDV1080i, which has 1,080 scanning lines and is used by most broadcasters already using HD. Sony has adopted the HDV1080i standard for all its HDV products. *2











*1 When the PHDVM-63DM miniDV cassette tape is used. The PHDVM-63DV is recommended for the HDV recording mode. The recording data rate of HDV1080i format is almost the same as that of DV format.

*2 This brochure refers to the HDV1080i specification as the HDV format.

Full Compatibility with your Current DV System

The HVR-HD1000P offers benefits for SD productions, as well as HD It is easy to use HDV recordings for your current DV editing work. The HVR-HD1000P has a down-conversion feature that outputs converted DV signals through the i.LINKTM connector*³ to your current DV non-linear editing system, while retaining $\prod_{\text{HDV1080i}} \rightarrow \text{Mini} \mathbf{D}^{\text{tight}}$ a HD master on the tape for future use. Furthermore, the HVR-HD1000P offers a DV



SD Editing / Monitoring (4:3)

recording mode (4:3 or 16:9*4), which can provide a recording time of approximately 120 minutes in LP mode.*5

HD Recording (16:9)

HDV



*3 i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connector. Not all products with an i.LINK connector will necessarily communicate with each other. For information on compatibility, operating conditions, and proper connection, please refer to the documentation supplied with any device with an i.I.INK connector. For information on devices that include an i.LINK connection, please contact your nearest Sony office. *4 Saueezed recording

*5 When a DVM80PRL standard miniDV cassette tape is used. If you record in LP mode, pictures may appear mosaic-like or sound may be interrupted when you play back the tape on

*6 Letter box mode is not available from the i.LINK connector

HVR-DR60 Brings HDV to IT Workflows

The optional external HVR-DR60 Hard Disk Recording Unit gives you a hybrid operation, where video and audio is recorded simultaneously to hard disk drive (HDD) and tape. The HDV or DV images are recorded as movie files in the HDD for quick nonlinear editing, enabling the operator to archive the source tape as



(Hard Disk Recording Unit)

High-quality Imaging System

1/2.9-inch ClearVid CMOS Sensor™

The next generation of Sony imaging sensor, the ClearVid CMOS Sensor used in the HVR-HD1000P camcorder, is guite unique and different from current CMOS technology.

The ClearVid CMOS Sensor uses a unique pixel layout rotated 45 degrees to provide high resolution and high sensitivity. This pixel layout technology is also used in higher end professional camcorders. The ClearVid CMOS Sensor, coupled with an Enhanced Imaging ProcessorTM (EIP), generates stunning images. Moreover, thanks to the CMOS technology, bright objects do not cause vertical smear.





Vertical smear





Optical 10x zoom by

soon as the shoot is finished.

Carl Zeiss Vario-Sonner T*™ lens The HVR-HD1000P camcorder can adapt to a wide

range of shooting situations and features a

Carl Zeiss Vario-Sonner T* lens with 10x optical zoom, as featured on higher end professional HDV camcorders.

The T* lens coating suppresses unwanted reflections and faithfully reproduces colors for professional-looking results.



without T* coating

Super SteadyShot™ (Optical) Image Stabilizer

The Super SteadyShot (Optical) feature of the HVR-HD1000P is an image stabilizer using an active optical lens method that functions

without any deterioration in image quality. The lens itself shifts vertically and horizontally to compensate for the



Options

HVR-DR60

An external Hard Disk Recording Unit with a 60GB capacity and 4.5 hours of recording time for HDV_DVCAM*_and DV

VCT-PG11RMB

tripod with RM-1BP.

2NP-F970

VMC-30VC

infoLITHIUM L series

rechargeable battery

3m Component Video

A multi-purpose mid-spreader



NP-F570/770/970

rechargeable battery pack

infoLITHIUM L series

VMC-30FS



AC-VQ1050D

VMC-15HD/30HD









UWP-C1/C2/C3

Microphone Package

VF-37CPK S





VMC-IL4408A/ IL4415A/IL4435

A LANC remote contro

with variable speed

VMC-IL4615 i.LINK cable (4pin-6pin 1.5m) SONY

make.believe

HVR-HD1000P

HDV

HDV 1080i

Digital HD Video Camera Recorder

HDV

*HVR-HD1000P doesn't have DVCAM recording/playback capability.

HVR-HD1000P Specifications

Lens		Carl Zeiss Vario-Sonnar T* zoom lens, 10x (o
		cal), f = 5.4 to 54 mm, filter diameter: 37 mi
Focal length	16:9 video mode	40 to 400mm*1
	4:3 video mode	49 to 490mm*1
	16:9 photo mode	40 to 400mm*1
	4:3 photo mode	37 to 370mm*1
Focus System		Auto,manual(Ring/Panel)
Imaging system		1/2.9-inch, ClearVid CMOS Sensor system
Maximum still image recording		MAX. 6.1M (2848 x 2136) (4:3)
Gross pixels		Approx. 3200K pixels
Effective pixels	16:9 video mode	Approx. 2280K pixels
	4:3 video mode	Approx. 1710K pixels
	16:9 photo mode	Approx. 2280K pixels
	4:3 photo mode	Approx. 3040K pixels
Shutter Speed	Auto Slow ShutterON	1/25-1/215
	Auto Slow ShutterOFF	1/50-1/215
	Manual	1/3-1/10000 (Still Image: 1/3-1/425)
	Scene Selection	1/2-1/425
	Super NightShot	1/3-1/100
	Color Slow Shutter	1/2-1/215
	Smooth Slow Rec	1/200-1/800
Minimum illumination	Auto Slow ShutterON	5 lux(1/25 Shutter Speed)
	Auto Slow ShutterOFF	11 lux(1/25 Shutter Speed)
VTR section		
Recording format		HDV1080/50i, DV/DV(LP)576/50i (PAL)
Play out/Down conversion format		HDV1080/50i, DV/DV(LP)576/50i (PAL)
Playback/Recording time	HDV/DV SP	Max. 63 min with PHDVM-63DM cassette
	DV LP	Max. 94.5 min with PHDVM-63DM cassette
Connectors		
Component video output		RCA Pin x3
Composite video output		RCA Pin x1
S-Video output		mini-DIN 4-pin x1
HDMI output		HDMI connector

HDV/DV input/output	·	i.LINK interface (IEEE 1394, 4-pin connector)
Audio output		RCA Pin x2 (L,R)
Audio input		Stereo mini jack (\$0.5 mm), ECM-PS1 external
		shot-gun stereo microphone is supplied.
Headphone		Stereo mini jack (\$0.5 mm)
LANC		Stereo mini-mini jack (\$2.5 mm)
USB		TYPE B connector
DC Input		AC-L100 AC adaptor is supplied.
Others		
LCD viewfinder		0.27-inch type*2, approx. 123,200 dots, 16:9 aspect ratio
LCD monitor		2.7-inch type*2, Clear Photo LCD plus, approx. 211,200
		dots, hybrid type, 16:9 aspect ratio, touchscreen
Speaker		∮16mm
General		
Mass (w/o Tape,Battery,etc)		2.7Kg(6 lb 0 oz)
Mass(w/Battery)*3	NP-F570	3.0Kg(6 lb 10 oz)
	NP-F770	3.1Kg(6 lb 13 oz)
	NP-F970	3.2Kg(7 lb 1 oz)
Power Requirements (AC adaptor/Battery)		8.4V / (6.8V / 7.2V)
Power Consumption	HDV	4.4W / 4.8W
(VF/VF+LCD)	DV	4.2W / 4.6W
Operating temperature		0 to 40 °C (32 to 104 °F)
Storage temperature		-20 to +60 °C (-4 to 140 °F)
Supplied Accessory		AC adaptor AC-L100
		Rechargeable Battery Pack NP-F570
		AV Cable
		Lens Cap (small)
		Lens Hood
		Microphone
		Windscreen
		Large size eye cup

- *1 These values are calculated to be equivalent to the 35 mm film.
- *2 Viewable area, measured diagonally.
- *3 Inluding a battery and a tape (60min.)

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A new camcorder has been created to meet the growing demand from users who are looking for mobility and professional appearance.

The HVR-HD1000P features a shoulder-mount design and black matte body similar to that of professional camcorders; making it perfect for weddings, corporate communications, and sporting events where appearance makes a difference.

Premium design characteristics and high-definition HDV™1080i recording are the main features of this new one-piece shoulder camcorder, ideal for working videographers on a budget. A built-in down-converter creates DV material, perfect for standard DVD productions. Plus, a special still photo mode is ideal for producing DVD cases and making wedding photo albums.

HOV

Whether you are recording weddings and corporate communications or helping students make a documentary, the HVR-HD1000P is the best

choice on the market today as an entry level professional camcorder.

Professional Design

Shoulder-mount design

The HVR-HD1000P is lightweight and easy to use even for beginners, it provides a professional camcorder shoulder-mount design allows for easy balance and stable operation.

Rec indicator light

Stereo shotaun microphone

(stereo mini plug)





Wide Clear Photo LCD plus™ Monitor on

Viewfinder Unit Provides Easy Viewing

is in a low-level position or on a tripod. This also makes it easy for a director or client to see what the camera operator is shooting. The LCD uses 211,200 dots widescreen Clear Photo LCD plus device that provides proper brightness and a high level of color reproduction





A special camera control ring is located on the lens unit of the HVR-HD1000P camcorder. Any one of the following functions can be assigned to the ring for easy adjustment

- * Focus (default)
- * 700m
- * Brightness * Shutter
- * Video: 1/3~1/10000 sec. * Photo: 1/3~1/425 sec.
- * AE Shift
- * WB Shift





123,200 dots Color EVF Adjustable shoulder pad

Ergonomically Designed Handle

The ergonomically designed handle of the HVR-HD1000P camcorder contains a convenient record button and zoom control, essential for low position shooting. There are two cold shoes on the front and rear of the handle. You can attach two accessories like the HVL-LBP Battery Video Light and HVR-DR60 Hard Disk Recording Unit.







- i.LINK connector LANC connector
- Headphone jack





Other Features

Long Operating Time With info LITHIUM™ L Series Battery

The HVR-HD1000P camcorder uses standard info LITHIUM L series batteries, like the DSR-PD170P. HVR-Z1P, and HVR-V1P. With the NP-F970. a maximum operating time of approximate 10 hours can be achieved thanks to the power management system and low power consumption of the ClearVid CMOS Sensor.



Smooth Slow Rec

The Smooth Slow Rec function of the HVR-HD1000P camcorder enables slow-motion playback by capturing images at four times faster than the normal field rate (200 fields/s). In this mode.

guad-speed images are captured for three seconds, stored in the built-in buffer memory, and then recorded to tape (in either HDV or DV format) as slow-motion pictures lasting 12 seconds.*7 *7 When using this function, the resolution of the camera image is decreased. Sounds can not be recorded while shooting in this mode.

Super NightShot^T

The Super NightShot function of the HVR-HD1000P camcorder uses a built-in OFF



infrared light emitter that allows you to record an object in zero lux light levels. It also enables night-time monitoring and surveillance.

Diverse Range of Photo-creation Functions

-While the HVR-HD1000P doesn't contain all the features you'd find in a higher end professional camcorders, such as DVCAM recording/playback, XLR audio connectors, and TC preset menu, it does boast a diverse range of photo-creation functions. These photo-creation functions are available at the touch of a button. You can store high-quality still images on Memory Stick Duo™ media*8, and then use them to design DVD cases, website content, news, etc.

*8 Memory Stick Duo media is not supplied.

Photo Mode

In Photo mode of the HVR-HD1000P camcorder, you can take 6.1-megapixel, 2848 x 2136-quality, 4:3-aspect images.

Dual Rec

You can take 4.6-megapixel (16:9-aspect) photos while you are shooting HDV video simply by pressing the photo button.

Capturing from recorded video

In case you missed the perfect timing for your still photo while videotaping, you can capture and save still frames from recorded video by just pressing the photo button of the HVR-HD1000P camcorder during playback. HDV footage will give you a 1.2-megapixel, 1440 x 810 pixel still image of that magic moment.

Workflow Using HDV Shooting and Photo Data Creation

For working videographers starting out with a limited budget, the HVR-HD1000P camcorder provides flexibility and an amazing selection of features like HDV shooting and photo data creation. Even if you are still using SD for your projects, HD is the way of the future. Down-conversion allows you to shoot in HD to create a high-quality master tape and still use your existing DV nonlinear editing system and SD display monitor for playback and viewing.

