

# SONY®

Digital HD Video Camera Recorder

# HVR-HD1000E



# HDV™

HDV 1080i



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

The HVR-HD1000E 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.

Whether you are recording weddings and corporate communications or helping students make a documentary, the HVR-HD1000E is the best choice on the market today as an entry level professional camcorder.



# 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-HD1000E 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.

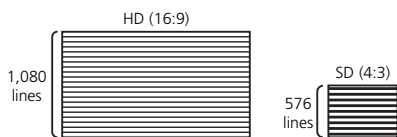
There are two standards of HDV format. One is HDV720p and the other is HDV1080i, which has 1,080 scanning lines and is used by most broadcasters already using HD. Sony has adopted the HDV1080i standard for all its HDV products. \*2



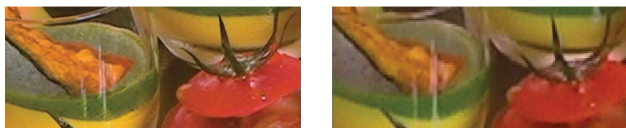
DV non-linear editing system, while retaining a HD master on the tape for future use. Furthermore, the HVR-HD1000E offers a DV recording mode (4:3 or 16:9\*), which can provide a recording time of approximately 120 minutes in LP mode.\*5



## HDV HDV 1080i



### Picture Quality



HDV Recording

DV Recording

\*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.

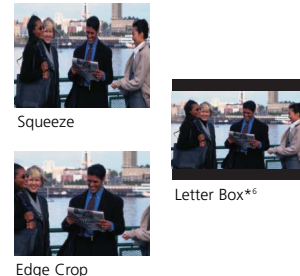
## Full Compatibility with your Current DV System

The HVR-HD1000E offers benefits for SD productions, as well as HD. It is easy to use HDV recordings for your current DV editing work. The HVR-HD1000E has a down-conversion feature that outputs converted DV signals through the i.LINK connector\*3 to your current

### HD Recording (16:9)



### SD Editing / Monitoring (4:3)



\*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.LINK connector. For information on devices that include an i.LINK connection, please contact your nearest Sony office.

\*4 Squeezed recording.

\*5 When a DVMB0PRL 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 other camcorders or VCRs.

\*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 soon as the shoot is finished.

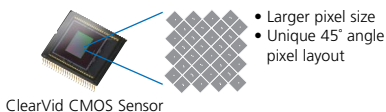


HVR-DR60 (Hard Disk Recording Unit)

# 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-HD1000E camcorder, is quite 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 Processor™ (EIP), generates stunning images. Moreover, thanks to the CMOS technology, bright objects do not cause vertical smear.



- Larger pixel size
- Unique 45° angle pixel layout

### Vertical smear



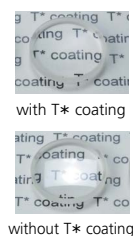
ClearVid CMOS Sensor



CCD

## Optical 10x zoom by Carl Zeiss Vario-Sonner T\*™ lens

The HVR-HD1000E 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.



## Super SteadyShot™ (Optical) Image Stabilizer

The Super SteadyShot (Optical) feature of the HVR-HD1000E 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 polarized light axis in real time.





# Professional Design

## Shoulder-mount design

The HVR-HD1000E is lightweight and easy to use even for beginners, it provides a professional camcorder shoulder-mount design allows for easy balance and stable operation.



## Wide Clear Photo LCD plus™ Monitor on Viewfinder Unit Provides Easy Viewing

A large, freely rotating 2.7-inch type LCD screen is located on the top of the viewfinder unit to provide easy viewing when the HVR-HD1000E camcorder 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



Conventional LCD device    Clear Photo LCD plus



## Camera Control Ring

A special camera control ring is located on the lens unit of the HVR-HD1000E camcorder. Any one of the following functions can be assigned to the ring for easy adjustment:

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

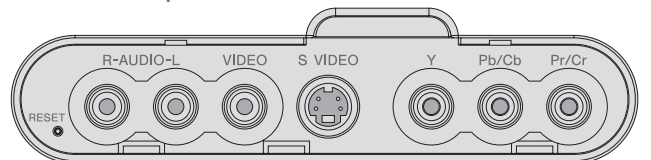


## Ergonomically Designed Handle

The ergonomically designed handle of the HVR-HD1000E 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 infoLITHIUM™ L Series Battery

The HVR-HD1000E camcorder uses standard infoLITHIUM L series batteries, like the DSR-PD170P, HVR-Z1E, and HVR-V1E. 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.



NP-F970 (optional)

### Smooth Slow Rec

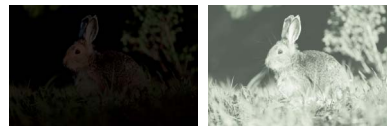
The Smooth Slow Rec function of the HVR-HD1000E camcorder enables slow-motion playback by capturing images at four times faster than the normal field rate (200 fields/s). In this mode,

quad-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™

The Super NightShot function of the HVR-HD1000E



camcorder uses a built-in OFF ON 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-HD1000E 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-HD1000E camcorder, you can take 6.1-megapixel, 2848 x 2136-quality, 4:3-aspect images.

### Dual Rec

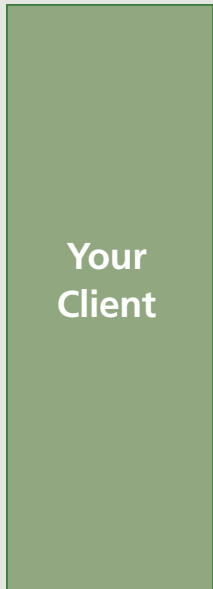
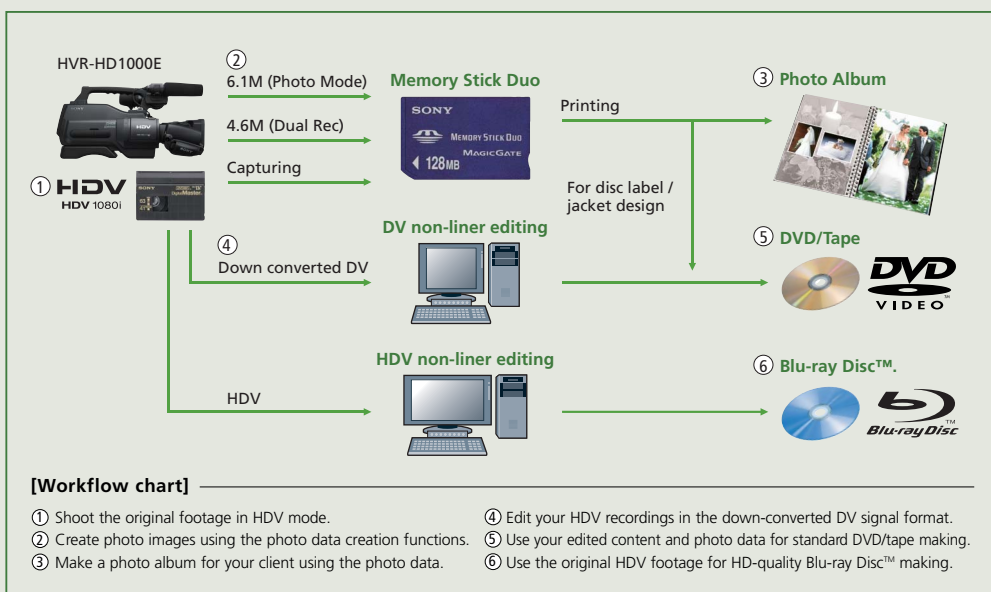
You can take 4.6-megapixel (16:9-aspect) photos while you are shooting HDV video simply by pressing the photo button.

### 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-HD1000E 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-HD1000E 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.



## 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.



### HVL-LBP

LED video light using infoLITHIUM L series battery.



### RM-1BP

A LANC remote controller with variable speed zooming.



### VCT-PG11RMB

A multi-purpose mid-spreader tripod with RM-1BP.



### VCL-HG0737C

0.7x wide conversion lens



### VCL-HG1737C

1.7x tele conversion lens



### PHDVM-63DM

A professional durability tape for HDV, DVCAM\* and DV.



### 2NP-F970

infoLITHIUM L series rechargeable battery pack (two packs)

### NP-F570/770/970

infoLITHIUM L series rechargeable battery pack

### AC-VQ1050B

AC adaptor/charger

### UWP-C1/C2/C3

UHF Synthesized Wireless Microphone Package

### VMC-IL4408A/ IL4415A/IL4435

i.LINK cable (4pin-4pin)

### VMC-IL4615/4635

i.LINK cable (4pin-6pin 1.5m/3.5m)

### VMC-30VC

3m Component Video Cable

### VMC-30FS

3m Multi AV Cable

### VMC-15HD/30HD

HDMI cable (1.5m/3m)

### VF-37CPK S

Filter Kit

\*HVR-HD1000E doesn't have DVCAM recording/playback capability.

## HVR-HD1000E Specifications

Camera section		
Lens	Carl Zeiss Vario-Sonnar T* zoom lens, 10x (optical), f = 5.4 to 54 mm, filter diameter: 37 mm	
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	
	Auto Slow ShutterON	5 lux(1/25 Shutter Speed)
Minimum illumination	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 (φ3.5 mm), ECM-PS1 external shot-gun stereo microphone is supplied.	
Headphone	Stereo mini jack (φ3.5 mm)	
LANC	Stereo mini-mini jack (φ2.5 mm)	
USB	TYPE B connector	
DC Input	AC-L100 AC adaptor is supplied.	
Others		
LCD viewfinder	0.27-inch type*, approx. 123,200 dots, 16:9 aspect ratio	
LCD monitor	2.7-inch type*, Clear Photo LCD plus, approx. 211,200 dots, hybrid type, 16:9 aspect ratio, touchscreen	
Speaker	φ16mm	
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
	(V/F/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 Including a battery and a tape (60min.)

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