

HXR-MC2000E

Digital HD Video Camera Recorder

SONY
make.believe



**Professional appearance improves your shooting style.
Advanced technology improves your shooting quality.**

One of the defining characteristics of the HXR-MC2000 one-piece shoulder camcorder is its professional look and shooting style, which can make the difference between success and failure when capturing an important scene or memorable moment. When your wedding party moves indoors it's time to switch on your camcorder battery light to maintain good color quality and remove shadows from your subjects' faces. Mounting your camcorder on a tripod allows you to zoom in on the speaker at a business conference and avoid distracting camera movement.

Whether shooting a corporate communications promotion on a budget, a concert, music video or a wedding, the HXR-MC2000 offers a wide variety of features necessary for serious videographers. While still light and easily portable, actors, performers and clients know you mean business when you're carrying a full-size camcorder on your shoulder. Footage can be recorded directly onto a removable memory card in HD, high definition or SD, standard definition. A 64 GB hard-wired internal flash memory storage system on board the HXR-MC2000, enables longer duration continuous recording. Perfect for those occasions where you don't want to be stopping the camera, such as music concerts or business conference presentations.

This tapeless front-end solution for video acquisition is an ideal match for any type of non-linear editing system workflow. Now you've got a cost-effective production package for DVD or Blu-ray content, that's flexible enough to express your creative ideas and meet your client's requirements.

AVCHD

MPEG2 SD



Exmor R
CMOS Sensor



Wide-angle G Lens

The HXR-MC2000 comes equipped with a sophisticated G Lens that incorporates Sony's unique optical design technology and quality control, delivering exceptional performance on a par with some of the best lenses in the industry. The HXR-MC2000 has been optimized to perfectly complement the G Lens with an advanced image sensor and Sony's famous image processing technology. This improves your shooting whether zooming in on the action, or getting a perspective on the big picture with the 29.8 mm wide angle in Video mode (35mm equivalent).



40mm



29.8mm (HXR-MC2000)

Manual Lens Ring with Assignable Parameters

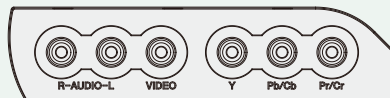
Using the assignable lens ring, users can manually adjust key parameters like Focus, White Balance, Exposure, AE Shift, Iris priority and Shutter Speed priority. Users can control the G Lens iris to create an out-of-focus effect in the foreground or background. Shutter-speed can also be controlled to create special effects, such as the flowing motion of a waterfall or bird wings in flight etc.

Ergonomically Designed Handle

The ergonomically designed handle of the camcorder contains a convenient record button and zoom control, essential for low position shooting. There are also cold shoes on the front and rear of the handle, which allow for the attachment of two different types of accessories.



Video/Audio output connectors



Long Operating Time with infoLITHIUM-L Series Battery

The HXR-MC2000 camcorder uses standard infoLITHIUM L series batteries, which are compatible with many types of Sony's professional camcorders and genuine accessories. With the largest capacity battery NP-F970, a maximum operating time of approximate 13 hours can be achieved for AVCHD recording in FH mode.



Exmor R CMOS Sensor with ClearVid Array

An image sensor is one of the three key devices that determine the final image quality and performance of a camcorder. The HXR-MC2000's Exmor R CMOS sensor is capable of producing superb image quality even in low-light conditions. Sony's unique imaging system incorporates exclusive back-illuminated technology that places metal wiring beneath the photo diode (light-receiving material), enabling the CMOS sensor to utilize incidental light more efficiently. This doubles the sensitivity of conventional CMOS sensors, and provides a dramatic boost in low-light performance that was previously impossible to achieve. The Exmor R sensor can achieve excellent results in bright daylight as well in dimly lit indoor scenes and outdoor night scenes. Furthermore, with the HXR-MC2000's newly improved autofocus in low-light conditions, the G Lens can quickly achieve sharp focus on a moving subject.



Conventional Model



HXR-MC2000 (Exmor R)

Optical SteadyShot with Active Mode

The new Optical SteadyShot with Active Mode ensures smooth movement while recording footage in various shooting situations. In addition, Sony's innovative 3-Way Shake-Canceling technology adds electronic roll stability for even smoother video capture. This latest version of image stabilization technology realizes images that are up to 10x steadier for wide angle shooting than conventional Optical SteadyShot images. As the user zooms in, an intelligent digital image stabilizer starts to blend in and work together with its optical counterpart to effectively reduce camera shake. This technology is also able to reduce shake in the rolling direction that commonly occurs when shooting while walking.



SteadyShot off



SteadyShot w/Active Mode on

* On Screen Image Simulated

Efficiency and Operability on Readily Available Memory Cards

The camcorder is designed to record directly onto consumer memory cards, which are affordable and easy to obtain at most stores. Also, a large capacity 64GB solid-state memory comes built into the camera body. This combination of removable and built-in memory is especially convenient when shooting a documentary or news report on the move. When data has been backed up to a HDD or downloaded to a PC for editing, you can simply reuse both the removable memory cards and internal memory for your next assignment.

Compatible Memory Cards

* For detailed information please refer to the specification sheet on the back of this brochure.

Internal memory: 64 GB*

* When measuring media capacity, 1 GB equals 1 billion bytes, a portion of which is used for system management and/or application files.
The capacity that a user can use is approximately 63.5 GB.



The Revolutionary AVCHD File Format

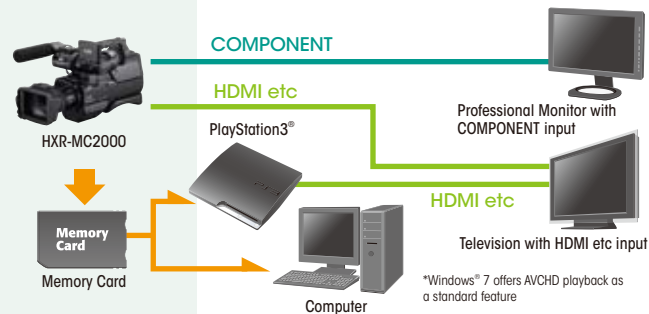
AVCHD is an efficient data compression method that greatly reduces memory requirements. The new format allows tapeless recording with high image quality and small file size. This is made possible by the revolutionary MPEG4 AVC/H.264 codec. Many consumer electronic devices already support AVCHD playback, and more are on the way. Numerous major NLE software programs feature AVCHD input and editing. The format is quickly becoming a universal standard for video.

MPEG-2 for SD (Standard Definition) Recording Format

SD recording is available in addition to HD. The SD recording format uses MPEG-2, which is the same compression codec as standard DVD video discs. If your project will end up on DVD then using this format can save you production time and maintain the original image quality.*

* Non-linear computer editing performance and quality may vary depending on the application software used.

How to Playback



DVDirect & Direct Copy

When the camcorder is connected to the optional DVDirect Express (VRD-P1) DVD writer via a USB cable, a single press of the One Touch Disk button is all it takes to burn video footage directly onto a DVD - without using a PC. This model is also equipped with a down-conversion function that enables DVD burning to SD picture quality. Users can playback a DVD they just created simply by pressing the Play button on the DVDirect Express when the camcorder is connected. With Direct Copy you also have the option of quickly and easily backing up valuable video data on an external hard disk drive, HDD - without using a PC. Simply connect the camcorder using the supplied USB Adaptor Cable (VMC-UAM1).

Easy Archive Solutions

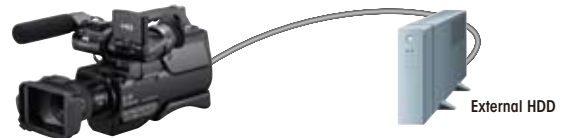
DVDirect



Compatible DVDirect devices
• VRD-P1
• VRD-MC6

* Cannot burn AVCHD FX mode recorded files to DVD of AVCHD disc.
Can burn FX mode to DVD Video downconverting HD to SD. (VRD-MC6 doesn't support downconverting.)

Direct Copy



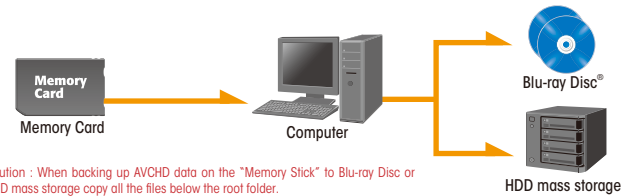
1. Direct Copy is compatible with USB media that meets the following requirements

- USB media that meets the USB2.0 requirement.
- For external HDD or USB memory under 2TB, an AC powered external HDD is recommended.
- USB media formatted in the FAT32 file system. In the case when USB media is not in FAT32 file system, reformatting is required and all data will be erased.

* There may be cases when USB media is not compatible with the Direct Copy function.

2. When using Direct Copy the camcorder needs to be connected to AC power.
3. Using VMC-UAM1 (supplied) cable when the HXR-MC2000 is connected to External HDD.
4. Connection via USB-hub is not supported.

How to Archive



Caution : When backing up AVCHD data on the "Memory Stick" to Blu-ray Disc or HDD mass storage copy all the files below the root folder.

ACCESSORIES



Rechargeable Battery Pack
2NP-F970



AC Adaptor/Charger
AC-VQL1B



Tripod with RM-1BP
Remote Controller
VCT-PG11RMB



Shotgun Microphone
ECM-CG50BP



LED Battery Video Light
HVL-LBPB



Camcorder Support
VCT-SP1BP



A LANC Remote Controller
with Variable Speed Zooming
RM-1BP



Memory Stick PRO-HG Duo
MS-HX32A (32 GB, 16 GB, 8 GB)
Memory Stick PRO Duo
MS-MT32G (32 GB, 16 GB, 8 GB, 4 GB, 2 GB)



SD / SDHC Memory Card
SF-32N4
(32 GB, 16 GB, 8 GB, 4 GB, 2 GB)



DVDirect Express
DVD Writer
VRD-P1

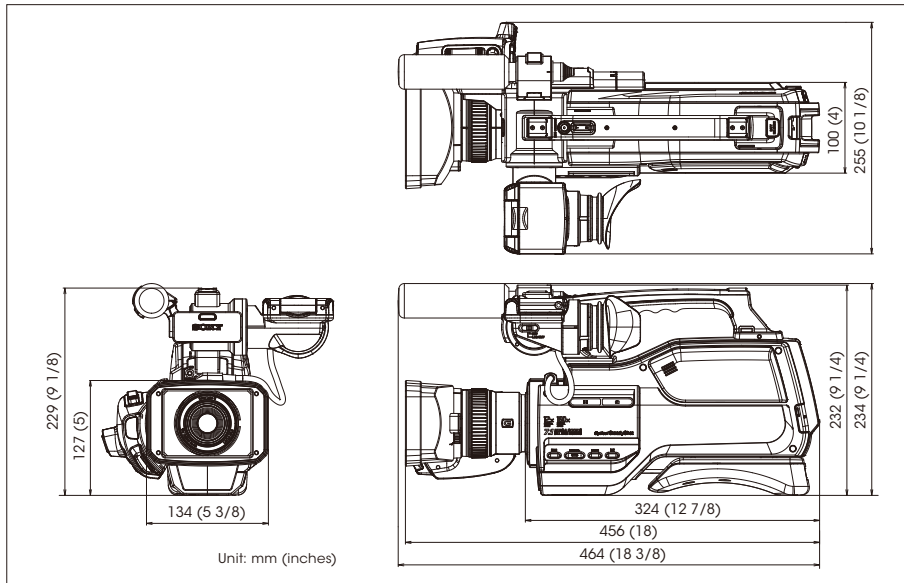


DVDirect
Multi-Function DVD Recorder
VRD-MC6

Specifications

HXR-MC2000E			
Genera			
Mass	(w/Hood, w/Eye Cup)	2.7 kg (5 lb 15 oz)	
	(w/Hood, w/Eye Cup, w/Battery, w/Microphone, w/Recording Media,)	2.9 kg (6 lb 6 oz)	
Dimension (W x H x D)	(w/Hood, w/Eye Cup)	255 x 232 x 456 mm (10 1/8 x 9 1/4 x 18 inch)	
	(w/Hood, w/Eye Cup, w/Battery, w/Microphone, w/Recording Media,)	255 x 234 x 464 mm (10 1/8 x 9 1/4 x 18 3/8 inch)	
Power requirements	Power Requirements (AC adaptor / Battery)	8.4 V / 7.2 V	
Power consumption	viewfinder - normal brightness (HD / SD)	3.4 W / 2.6 W	
	LCD - normal brightness (HD / SD)	3.4 W / 2.6 W	
Operating temperature		0 to +40 deg C (+32 to +104 deg F)	
Storage temperature		-20 to +60 deg C (-4 to +140 deg F)	
Battery operating time	Continuous recording time	approx. 280 min (FH, LCD, NP-F570: fully charged batt.)	
Recording format	Video Format	HD	MPEG-4 AVC/H.264 (AVCHD)
		SD	MPEG-2 PS
	Audio Format	HD	Dolby Digital 2ch, 16 bit, 48 kHz
		SD	Dolby Digital 2ch, 16 bit, 48 kHz
Recording frame rate*		AVCHD FX (24 Mbps) 1920 x 1080/50i / 16:9 AVCHD FH (17 Mbps) 1920 x 1080/50i / 16:9 AVCHD HQ (9 Mbps) 1440 x 1080/50i / 16:9 AVCHD LP (5 Mbps) 1440 x 1080/50i / 16:9 MPEG2 SD HQ (9 Mbps) 720 x 576/50i / 16:9, 4:3	
Recording/Playback time		175 min (2 h 55 m) with 32 GB Memory Stick PRO-HX Duo FX (24 Mbps) Dolby Digital 2ch recording	
Zoom ratio		Sony G Lens, 12x (optical), 160x Digital Zoom	
Focal length		f = 2.9 to 34.8 mm (equivalent to f = 29.8 to 357.6 mm at 16:9 video and still mode, f = 27.4 to 328.8 mm at 4:3 still mode, f = 36.5 to 438.0 mm at 4:3 video mode on 35 mm lens)**	
Focus		Full range auto / Manual	
Image stabilizer		Active / Standard / OFF selectable	
Filter diameter		37 mm	

Dimensions



Recording Time

HD movie (w / 2ch Audio)	AVCHD 24M (FX) (1920 x 1080i)	AVCHD 17M (FH) (1920 x 1080i)	AVCHD 9M (HQ) (1440 x 1080i)	AVCHD 5M (LP) (1440 x 1080i)
2 GB Memory Card	10 min	10 min	25 min	45 min
4 GB Memory Card	20 min	25 min	55 min	95 min
8 GB Memory Card	40 min	55 min	115 min	195 min
16 GB Memory Card	85 min	115 min	230 min	395 min
32 GB Memory Card	175 min	230 min	465 min	790 min
64 GB Internal Memory	360 min	460 min	935 min	1595 min

Distributed by

MK10766V1OHB10OCT

Camera Section	
Imaging device	1/4-inch type ExmorR CMOS with ClearVid pixel array Pixel Gross: Approx. 4200K Video Actual: Approx. 2650K (16:9) 3 lx (Low LUX mode, 1/25 shutter)
Minimum illumination	3 lx (Low LUX mode, 1/25 shutter)
Shutter speed	1/6 - 1/10000 (Manual Shutter Speed Control)
Iris	F1.8 - F3.4
Slow & Quick Motion function	200 fps (fixed) as Smooth Slow Rec *The picture quality is degraded. (fps : Field per Sec.)
White balance	Auto, outdoor (5800K), indoor (3200K), One-push (Touch panel)
Inputs/Outputs	
Mic input	Stereo mini jack (x 1) ø3.5 mm
AV Output	Pin Jack
Component Video Output	Pin Jack
Remote Connector	Stereo mini-minijack (ø2.5 mm)
USB	USB device, Mini-AB/Hi-Speed (x 1)
Headphone output	Stereo mini jack (x 1) ø3.5 mm
HDMI output	HDMI connector (x 1)
Monitoring	
Viewfinder	0.2 inch-type approx. 201 600 dots (300 x 224 x 3 [RGB]), 4:3 aspect ratio
Built-in LCD monitor	2.7 ClearPhoto LCD, approx. 230 400 dots (960 x 240), 16:9 aspect ratio
Microphone	2ch Stereo microphone
Recording Media	
Internal Memory	64 GB
Type	Memory Stick PRO Duo (Mark2), Memory Stick PRO-HG Duo, Memory Stick PRO-HG Duo HX ³ , SD/SDHC/SDXC Memory Card ⁴
Supplied Accessories	
	AC Adaptor [AC-L100], Rechargeable Battery Pack [NP-F570], Power cord, Microphone (Stereo) [ECM-PS1], Wind Screen, Eyecup, Lens hood, Lens cap, Composite cable [RCA x3], USB cable (mini-B), USB Adaptor cable (for external HDD) [VMC-UAM1], Application Software (CD-ROM) [PMB]

*1: Due to variable bitrate, 24 Mbps is the maximum bitrate for AVCHD FX mode and the average bitrate is being stated for FH, HQ and LP modes.
*2: The focal length is when SteadyShot mode is in Active mode Off.
*3: Compatible "Memory Stick" type: For AVCHD recording / Capacity: more than 1 GB. For Standard Definition recording / Capacity: more than 512 MB
*4: Recommended Speed Class For AVCHD recording / Class 4 or higher, For Standard Definition recording / Class 2 or higher

Supplied Accessories



PMB System Requirements

- Microsoft® Windows® XP Service Pack3 (32 bit), Windows Vista® Service Pack2 (32 bit / 64 bit), Windows® 7
- Intel® Core™2 Duo 2.26 GHz (for AVCHD playback)
- 1 GB of RAM
- 500 MB available hard-disk space for installation
- 1024 x 768 display
- DVD writable drive
- BD writable drive for Blu-ray video creation

SD movie (w / 2ch Audio)

	STD 9M (HQ)
2 GB Memory Card	25 min
4 GB Memory Card	55 min
8 GB Memory Card	115 min
16 GB Memory Card	235 min
32 GB Memory Card	475 min
64 GB Internal Memory	965 min

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