SONY
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HXR-NX70U
NXCAM® Compact Camcorder

Sony's new dust & rain proof[1] HXR-NX70U camcorder is truly a professional performer that is compact enough to go anywhere and capture the action anytime, in challenging shooting conditions.

The HXR-NX70U is compact in size, but it is loaded with the latest features that professional shooters demand for tough assignments in rugged environments.
This camcorder is ready to capture amazing footage no matter where your next adventure may take you, from humid rainforests to sandy deserts. You'll be ready to roll with the action as it happens without worrying about adding a rain cover to protect the main camera body.
The "Exmor R" CMOS sensor delivers superior performance in low-light situations where natural ambiance is desired, boasting roughly double the sensitivity of conventional CMOS sensors.
The HXR-NX70U allows you to take a hands-on approach by incorporating a switchable lens ring for manual focus control, iris and zoom functions. Still photos can also be taken simultaneously during video recording by using the Dual Rec function.
Suitable for all international formats, the latest 60p recording options provide the precision you need for shooting professional-quality HD video.
Cinematone Gamma™ technology creates stunning video with deep film-like skin tones, which give your work a realism that viewers will remember.
The new ultra-wide angle 26.3mm Sony G™ Lens lets you capture more of the action with sharp images and brilliant, accurate colors.
The HXR-NX70U is also equipped with 96 GB[2] of embedded Flash memory, so you can record and store up to 40 hours of high-definition video footage in HD-LP mode.
A high-resolution 3.5" touch-screen display lets you compose and view your shots while zebra and peaking indicators help you make precise focus and exposure adjustments.
A built-in GPS receiver gives you the ability to "tag" your shooting locations and the time zone will adjust automatically as you travel the globe on assignment. Your locations can be tracked via Google Maps™ mapping service and all GPS data can be extracted with a PC[3].

1. Meets IEC60529 IP54 requirements. Not to be immersed or come into continuous contact with water. External shotgun microphone and XLR audio adaptor not dustproof or rainproof.
2. 96 GB equals 96 billion bytes, a portion of which is used for data management functions.
3. Map service requires PC with internet. Service provided by Google and subject to change without notice.

NXCAM **AVCHD** **MPEG2 SD** **G** Sony Lens G **Exmor R** CMOS Sensor **MEMORY STICK**™ **SD XC**™ GPS

Rain & Dust Proof Performance

The main HXR-NX70U camcorder unit has achieved an IEC60529 IP54 rating after meeting dustproof and rainproof test performance requirements. Users can be confident that these types of challenging shooting environments will not affect the reliable operation of the camcorder.

The camcorder's sealed body design make sure that harmful sand and large dust particles do not get inside and cause problems with the electronic circuitry. However, it is important to note that even a dustproof performance rating of IP5x does not guarantee 100% protection against exposure to extremely fine particles.

A waterproof performance rating of IPx4 means that the main camera body is protected against rain showers and water splashes. However, it should not be submerged underwater or sprayed with pressurized water from a tap or hose. When the external shotgun microphone and XLR audio adaptor with cables are connected or other accessories are attached, the dustproof and rainproof performance of the camcorder cannot be guaranteed. In these shooting circumstances it will be necessary to use a rain cover and be careful not to allow dust or water to enter the camcorder. Make sure to use the camcorder properly as damage caused by misuse, abuse or failure to properly maintain the camcorder is not covered under warranty.

Ultra-wide Angle 26.3mm G™ lens

Experience the pinnacle of Sony lens technology with the professional G Lens. Engineered for superior optical performance, the Sony G lenses deliver brilliant, accurate color reproduction and sharp, amazingly detailed images.

In addition, the 26.3mm focal length offers a broader perspective than previous lenses for enhanced wide angle shooting.

G
Sony Lens G

40 mm   26.3 mm (HXR-NX70U)

Simulated images.

Assignable Lens Ring (Focus/Zoom/Iris)

Get the most out of your camcorder with enhanced manual controls. The assignable lens ring allows for manual adjustment of focus, iris, and zoom settings.

Infrared NightShot® (night vision) filming and photography.

The HXR-NX70U incorporates an IR illuminator that produces moderate levels of infrared light, enabling effective nighttime imaging under low light conditions. The resulting images are typically higher resolution than other night vision technologies.

Optical Steady Shot™ image stabilization with Active Mode

Optical Steady Shot image stabilization with Active Mode compensates for greater degrees of camera shake to deliver stunningly smooth video from wide angle to full telephoto shooting. In addition, the innovative 3-Way Shake-Canceling feature adds electronic roll stability for even smoother video capture.

Back-illuminated "Exmor R" CMOS sensor for superb low-light video

Experience stunning low-light sensitivity with improved image clarity and drastically reduced grain with Sony's back-illuminated Exmor R CMOS sensor. Designed for compact cameras and camcorders, the Exmor R sensor relocates the photo diodes above the support circuitry, maximizing the light gathering area per pixel so you can shoot with better results in low-light conditions. The sensitivity is roughly double that of conventional CMOS sensors of the same size and pixel size.

Conventional Model   HXR-NX70U (Exmor R)

Simulated images.

1920 x 1080 Full HD 60p Recording w/12.3 megapixel (4672 x 2628) still image capture[1]

The Sony HXR-NX70U offers 1920 x 1080 high definition resolution letting you record your scene in exceptional Full High Definition quality. Capable of 60p recording and playback via HDMI® to a compatible HDTV[2], the HXR-NX70U provides stunning clarity and incredibly detailed and smoother playback of your footage. This compact camcorder offers 60p, and 24p recording options.

96GB[3] embedded Flash Memory for up to 40 hours of HD recording

The built-in 96GB embedded Flash memory can record and store up to 40 hours of high definition video footage in HD LP mode.

1. Dual Rec is not active when recording mode is set to FX or PS.
2. Requires HDMI cable sold sep.
3. 96 GB equals 96 billion bytes, a portion of which is used for data management.

3.5" touch-screen XtraFine™ LCD display (921K)

The large 3.5" (16:9) XtraFine LCD screen (921K) displays sharp, bright, vivid images, letting you compose a shot more easily -- even outdoors, while enabling you to change settings to best represent the scene. By reducing glare, remarkably high contrast is achieved, delivering more natural, realistic colors and allowing easier viewing in bright lighting conditions.

XLR adaptor w/selectable phantom power and ECM-XM1 shotgun microphone

The detachable handle has an ergonomic design that is comfortable and compact. Two balanced XLR audio inputs are built in with phantom power and attenuation options that professional shooters require for clean sound quality. Default audio settings for XLR recording are highlighted in green for easy reference in the field in order to reduce operator error under difficult lighting conditions.
The ECM-XM1 shotgun microphone mounted on top of the handle provides audio recording performance similar to larger shoulder-mounted ENG style cameras. Keep in mind though that the XLR adaptor and ECM-XM1 microphone are not rainproof or dustproof.

Direct Copy to external HDD without PC

Store documentaries or backup important shots by copying footage directly from your camcorder to an optional external hard disk drive, all without the need for a computer. Your camcorder can also access videos stored on the external hard drive for playback on your HDTV, allowing you to utilize the camcorder's handy playback features.

Easy Archive Solutions

DVD Writer

Multi-Function DVD Recorder
• VRD-MC6

Note: Cannot burn HD PS and FX mode recorded files to DVD or AVCHD disc.

Direct Copy

External HDD

Direct Copy is compatible with USB 2.0 media that is formatted in the FAT32 file system. For storage up to 2TB, an AC powered external HDD is recommended. The camcorder must be connected to AC power, and connection via USB is not supported.

Geotagging with built-in GPS receiver

A built-in GPS receiver makes the HXR-NX70U an ideal choice for professional videographers. The receiver gives you the ability to "tag" your shooting locations as a future reference if you need to return to the same location or to create a log of areas covered when surveying remote locations. Additionally, the receiver automatically adjusts your camcorder's clock to the proper time zone when international travel is part of your assignment. Your locations can be tracked via Google Maps™ mapping service and all GPS data can be extracted with a PC[1].

GPS

ACCESSORIES

Rechargeable Battery Pack
NP-FV70 (6.8 V / 14.0 Wh / 2060 mAh)
NP-FV100 (6.8 V / 26.5 Wh / 3900 mAh)

AC Adaptor/Charger
AC-VQV10
(AC 100 V – 240 V)

Battery Charger
BC-TRV
(AC 100 V – 240 V)

Accessory Kit
ACC-VA1BP
(include NP-FV70, BC-TRV, RM-VD1 etc)

Accessory Kit
ACC-V1BP (Include NP-FV100 and AC-VQV10)

PL Filter Kit
VF-37CPKB
(When shooting through reflective surfaces)
* Must remove supplied lens hood.

ND Filter Kit
VF-37NKB
(When shooting in extremely bright sunlight)
* Must remove supplied lens hood.

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)
SF-32NX
(32 GB, 16 GB, 8 GB)

DVDirect®
Multi-Function DVD Recorder
VRD-MC6

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1. Map service requires PC with internet. Service provided by Google and subject to change without notice.
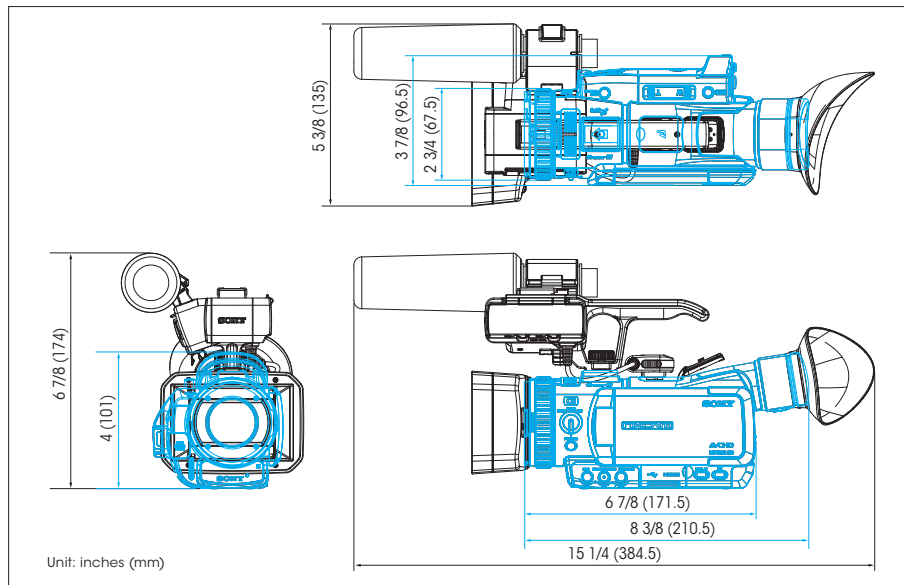
Specifications

General

Weight	(w/Hood, w/Eye Cup)		1 lb 13 oz (840 g)
	(w/Hood, w/Eye Cup, w/Battery, w/Microphone, w/XLR unit)		2 lb 13 oz (1285 g)
Dimension (W x H x D)	(w/Hood, w/Eye Cup)		4 1/2 × 4 3/4 × 11 3/4 inch (111.5 × 119.5 × 297.5 mm)
	(w/Hood, w/Eye Cup, w/Battery, w/Microphone, w/XLR unit)		5 3/8 × 6 7/8 × 15 1/4 inch (135 × 174 × 384.5 mm)
Power requirements	Power Requirements (AC adaptor/Battery)		8.4 V/6.8 V
Power consumption	viewfinder - normal brightness (HD FX)		3.5 W
	LCD - normal brightness (HD FX)		3.6 W
Operating temperature			+32 to +104 deg F (0 to +40 deg C)
Storage temperature			-4 to +140 deg F (-20 to +60 deg C)
Battery operating time	Continuous recording time		220 min (VF), 215 min (LCD)
Recording format	Video Format	HD	HD: MPEG4-AVC/H.264 AVCHD format compatible (1080/60p: original format)
		STD	MPEG-2 PS
	Audio Format	HD	Linear PCM/Dolby® Digital 2ch, 16 bit, 48 kHz
		STD	Dolby Digital 2ch, 16 bit, 48 kHz
Recording frame rate[1]			HD PS (28 Mbps) 1920 x 1080/60p/16:9
			HD FX (24 Mbps) 1920 x 1080/60i/16:9
			HD FH (17 Mbps) 1920 x 1080/60i/16:9
			HD HQ (9 Mbps) 1440 x 1080/60i/16:9
			HD LP (5 Mbps) 1440 x 1080/60i/16:9
			HD FX (24 Mbps) 1920 x 1080/24p/16:9
			HD FH (17 Mbps) 1920 x 1080/24p/16:9
			SD/STD HQ (9 Mbps) 720 x 480/60i /16:9, 4:3
Recording/Playback time			170 min (MS 32 GB, HD FX, LPCM)
			530 min (Int. memory 96 GB, HD FX, LPCM)
Zoom ratio			Sony G Lens, 10x (optical), 14x Extended Zoom, 120x Digital Zoom
Focal length			f = 3.8 mm - 38 mm (equivalent to 26.3 mm - 263 mm (16:9),
			32.2 mm - 322 mm (4:3) on 35 mm lens)[2]
Focus			Full range auto/Manual
Image stabilizer			Optical SteadyShot™ image stabilization w/ Active mode (Wide to Tele)
Filter diameter			37 mm

Camera Section

Imaging device	1/2.88 type ExmorR CMOS with ClearVid™ pixel array
	Pixel Gross: Approx.6648 K
	Video Actual: Approx.6140 K (16:9)
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
Audio input	XLR 3-pin (female) (x 2), LINE/MIC/MIC +48 V selectable
A/V Output	A/V Remote connector
Component Video Output	A/V Remote connector
Remote Conector	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 mini connector (x 1)

Monitoring

Viewfinder	1.1 cm (0.45 type, aspect ratio 16:9)
	1 226 880 dots equivalent (852 x 3 [RGB] x 480)
Built-in LCD monitor	8.8 cm (3.5 type, aspect ratio 16:9)
	921 600 dots (1920 x 480)

Microphone

	2ch Stereo microphone

Recording Media

Internal Memory	96 GB
Type	Memory Stick PRO Duo (Mark2), Memory Stick PRO-HG Duo™,
	Memory Stick PRO-HG Duo HX
	SD/SDHC/SDXC Memory Card[3]

Supplied Accessories

AC Adaptor [AC-L200C/D], Rechargeable Battery Pack [NP-FV70], Power cord, Microphone [ECM-XM1], Wind Screen, XLR Adaptor, Lens hood with lense cover, Large eyecup, Component A/V cable, A/V connecting cable, USB cable (mini-B), USB Adaptor cable (for external HDD) [VMC-UAM1], Wireless Remote Commander [RM-845], Application Software (CD-ROM) [Content Management Utility]

1: Due to variable bitrate, 28Mbps is the maximum bitrate for HD PS FX mode, and 24MBps for HD FX mode. 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: Class 4 or faster

Dimensions

5 3/8 (135)
3 7/8 (96.5)
2 3/4 (67.5)
6 7/8 (174)
4 (101)
6 7/8 (171.5)
8 3/8 (210.5)
15 1/4 (384.5)

Unit: inches (mm)

Supplied Accessories

CMU System Requirements

- Microsoft® Windows® XP Service Pack 3 (32 bit), Windows Vista® Service Pack 2 (32 bit / 64 bit), Windows® 7 (32 bit / 64 bit)
- Intel® Core™2 Duo 2.80 GHz (for AVCHD playback)
- 1 GB of RAM
- 100 MB available hard-disk space for installation
- 1024 x 768 display

Approximate Recording Time

HD MOVIE
Linear PCM 2ch (Unit:min)

	HD 28M (PS)	HD 24M (FX)	HD 17M (FH)	HD 9M (HQ)	HD 5M (LP)
1 GB Memory Card	4	4	6	10	15
2 GB Memory Card	8	10	10	20	35
4 GB Memory Card	15	20	25	45	70
8 GB Memory Card	35	40	55	90	145
16 GB Memory Card	70	80	110	185	295
32 GB Memory Card	145	170	225	375	590
Internal Memory (96 GB)	450	530	705	1170	1850

STD MOVIE
Dolby® Digital 2ch (Unit:min)

	SD/STD 9M (HQ)
1 GB Memory Card	10 (10)
2 GB Memory Card	25 (25)
4 GB Memory Card	55 (50)
8 GB Memory Card	110 (100)
16 GB Memory Card	225 (210)
32 GB Memory Card	460 (420)
Internal Memory (96 GB)	1435 (1315)

Note: The Maximum continuous recordable time of movies is about 13 hours. The number in ( ) is the minimum recordable time.