

# JVC



## GY-HM200 | GY-HM170

4K Compact Everyday Handheld Camcorders for the Professional On-the-Go



*Image of GY-HM200 shown with optional microphone*

## 4K Ultra HD Camcorders for the Pro On-the-Go

Meet the GY-HM200 and GY-HM170 – affordable, full-featured 4K Ultra HD camcorders small and light enough to take with you everywhere. Working with 4K has never been easier! Insert an SDHC/SDXC (UHS-I Speed class 3) memory card into one or both memory card slots and record hours of 4K Ultra HD (3840 x 2160) material. Recordings are made using the Quicktime (.MOV) file format and are compatible with many popular editing systems. An integrated 12x optical zoom lens and 4K CMOS sensor deliver stunning 4K Ultra HD. These cameras also record 4:2:2 HD signals up to 60p at 50Mbps making them ideal for general HD production work. The GY-HM200 adds the ability to stream live HD footage over the internet to content delivery networks such as USTREAM and YouTube while recording full HD to an SDHC/SDXC memory card.

# Recording Capabilities

## Integrated 12x Ultra HD Lens, 1/2.3-inch CMOS Sensor

The GY-HM200 and GY-HM170 were built to deliver stunning, life-like 4K Ultra HD (3840 x 2160) video. The ultra high quality imagery begins with a precision 12x F1.2-3.5 optical zoom lens (35mm equivalent: 29.6-355mm). JVC's 4K CMOS sensor with 12.4M pixels delivers high sensitivity and excellent performance over a wide range of lighting conditions.

Details are crisp and accurate throughout the entire image plane. When shooting in the HD mode, Dynamic Zoom combines optical zoom and pixel mapping to create seamless and lossless 24x zoom. This allows the camera to have a long zoom range while retaining its small form factor. Shooters will also appreciate the convenient ND filter wheel: 0, 1/4th and 1/16th positions.

### HD Mode for 24X Dynamic Zoom

Original Image No Zoom



12X Optical Zoom



24X Dynamic Zoom in HD Mode



*Dynamic Zoom combines Optical Zoom plus Pixel Mapping—focusing on a smaller image are for lossless 24X Zoom*

## Full HD 4:2:2 Recording at 50Mbps

The ability to record H.264 4:2:2 24-60p at 50 Mbps makes these cameras ideal for broadcasting and production houses alike. The 4:2:2 colour sampling enables them to deliver exceptional colour resolution even when images are in sharp contrast to the background which is particularly useful when strong colours are in contrast to bright backgrounds or in green screen uses.

**4:2:2 50/60p 50Mbps**

**H.264**

## Virtually Lossless H.264 50Mbps Recording

These cameras are also equipped with the H.264 Extreme-High Quality (XHQ) 50Mbps (MOV) recording mode used in HD SLRs. MPEG-4 AVC/H.264 offers approximately twice the compression efficiency of conventional codecs, and offers superior motion prediction, so even at the same bit rate it provides a smooth and detailed picture with virtually no block noise even when recording rapid action sequences. Added to this, the 50Mbps bit rate is high enough to support full HD 1920 x 1080 encoding in 24-60p or 50i/60i, resulting in stunningly detailed HD images.

# Recording Capabilities

## Web-friendly (Proxy) File Formats

Lower resolution H.264 files (480x270p, 960x540p, 720/480i, 720/576i, 1440/1080i) may be recorded simultaneously with full HD files. These files are significantly smaller than HD files and are very suitable for immediate posting to the web. A file recorded in the 960 x 540 mode is approximately 1/10th the size of a full HD file recorded at 35 Mbps and takes a fraction of the time to FTP from the camera and to post. The smaller files may be quickly imported to an iPad for easy editing using iMovie or Pinnacle Studio. Transporting video to the web or back to the studio has never been faster. You can even create SD and HD files simultaneously.

## Dual SDHC/SDXC Card Slots

The GY-HM200 and GY-HM170 are designed to create hours of pristine recordings on affordable non-proprietary SDHC/SDXC media in a variety of image formats including 4K Ultra HD, Full HD with 4:2:2 sampling, and SD and web friendly proxy formats. Dual SDHC/SDXC card slots make them truly versatile, offering such benefits as simultaneous recording and relay recording. In relay recording mode, you can shoot continuously over multiple cards – when one card is full, the camcorder switches automatically and seamlessly to the other card so there's virtually no end to the amount of time you can record. For example, you can record 4K video for *100 minutes* or AVCHD for *540 minutes* on one 128GB SDHC/SDXC card. Double that when using two cards.



## Streaming and Cloud Services

The GY-HM200's built-in HD streaming engine with Wi-Fi and 3G/4G connectivity allows live HD transmission directly from the camera to your viewers while recording HD to one of the SDHC/SDXC card slots. Streaming has never been easier now that you can deliver live HD to content delivery networks such as USTREAM and YouTube.



## Advanced IP Network Communication and Streaming

The GY-HM200 features JVC's latest IP communications engine giving you remote control and monitoring of vital camera functions from a tablet, smartphone, or computer anywhere in the world. Live streaming is possible at 12Mbps contribution quality HD or lower resolutions and bitrates depending on available bandwidth. JVC's Advanced Streaming Technology (AST) includes Zixi powered Forward Error Correction with ARQ, delivering high quality streams even under challenging conditions.



YouTube™  
USTREAM



## Live Streaming

*When your audience can't make the event, stream it!*

The GY-HM200 makes sharing with your audience – be it the fans of the team, followers of your organisation, or members of the congregation – easier than ever. Connect your GY-HM200 to an optional Wi-Fi or 3G/4G modem and share your program with an audience anywhere in the world via content delivery networks such as USTREAM and YouTube. That's right, with the press of a button, you're streaming HD to the world!

# GY-HM200

Live stream capable 4K compact handheld camcorder with integrated 12X zoom lens



- Single 1/2.3-inch CMOS image sensor w/12.4M pixels
- High quality integrated 12x F1.2-3.5 zoom lens (35mm equivalent: 29.6-355mm)
- Dynamic Zoom in HD mode combines optical zoom and pixel mapping to create seamless and lossless 24x zoom
- 4K Ultra HD recording (150 Mbps) to SDHC/SDXC (UHS-I Speed class 3) cards
- 4:2:2 Full HD (24-60p) recording at 50Mbps
- Live 4K UHD output via HDMI connector
- HD-SDI (3G)
- Advanced JVC streaming engine compatible with USTREAM, Zixi and Wowza Streaming Engine
- 2-channel XLR audio inputs with phantom power
- IP Network Remote Control, Remote Viewing, Metadata editing, FTP clips
- 2 position ND filter (1/4, 1/16)
- Built-in stereo microphone
- Dual SDHC/SDXC slots enable dual backup & continuous recording
- 3.5-inch colour LCD display (920K pixel) w/smart focus assist
- Wired remote control supported
- HDMI output (4K output via HDMI only)
- 0.24-inch colour viewfinder (1.56M pixel) with smart focus assist function
- 9 user button assignable functions
- Includes handle unit, SSL-JVC50 7.4V battery and AC adapter  
(External microphone not included)

# GY-HM170

4K compact handheld camcorder with integrated 12X zoom lens



- Single 1/2.3-inch CMOS image sensor w/12.4M pixels
- High quality integrated 12x F1.2-3.5 zoom lens (35mm equivalent: 29.6-355mm)
- Dynamic Zoom in HD mode combines optical zoom and pixel mapping to create seamless and lossless 24x zoom
- 4K Ultra HD recording (150 Mbps) to SDHC/SDXC (UHS-I Speed class 3) cards
- 4:2:2 Full HD (24-60p) recording at 50Mbps
- Live 4K UHD output via HDMI connector
- 2 position ND filter (1/4, 1/16)
- Built-in stereo microphone
- Dual SDHC/SDXC slots enable dual backup & continuous recording
- 3.5-inch colour LCD display (920K pixel) w/smart focus assist
- Wired remote control supported
- HDMI output (4K output via HDMI only)
- 0.24-inch colour viewfinder (1.56M pixel) with smart focus assist function
- 9 user button assignable functions
- Includes BN-VF823 7.2V battery and AC adapter

# Full Specifications

GENERAL SPECIFICATIONS		GY-HM200	GY-HM170
Power		DC 12V (AC adaptor), DC 7.4V (Battery)	DC 12V (AC adaptor), DC 7.2V (Battery)
Power Consumption		Approx. 7.9W (with VF in 4K REC mode, default setting)	Approx. 7.6W (with VF in 4K REC mode, default setting)
Weight		Approx. 1.6kg (including battery)	Approx. 1.2kg (including battery)
Dimensions		149(W) x 191(H) x 307(D)mm	149(W) x 112(H) x 307(D)mm
Operation temperature / Storage temperature		32°F to 104°F (0°C to 40°C) / 14°F to 122°F (-20°C to 50°C)	
Operating humidity		30% to 80%	
Storage humidity		under 85%	
CAMERA			
Image Sensor		1/2.3-inch Back Side Illuminated CMOS   Total 12.4M pixels	
Synchronizing		Internal synchronization	
Stabilizer		Optical image stabilizer	
Shutter speed		1/6 ~ 1/10000	
Lens		35mm equivalent: 29.6mm to 355mm	
Filter diameter		62mm	
Gain		0, 3, 6, 9, 12, 15, 18, 21, 24 dB, Lolux (30,36 dB), AGC	
ND filter		none, 1/4, 1/16	
LCD display		3.5-inch 920 k pixels, 16:9	
Viewfinder		0.24-inch 1.56 M pixel, 16:9	
VIDEO/AUDIO RECORDING			
Recording media		2x SDHC/SDXC memory card (4K:UHS-1 U3, HD:50Mbps Class10, HD:35Mbps Class6, AVCHD/SD Class4)	
Video recording		Video codec: MPEG-4 AVC/H.264 (4K/HD/SD/Proxy), AVCHD (HD/SD)   File format : MOV (H.264), MTS (AVCHD)	
	4K(H.264)	NTSC setting: 3840 x 2160/29.97p, 23.98p(150Mbps) PAL setting: 3840 x 2160/25p(150Mbps)	
	HD(H.264)	NTSC setting: YUV422 mode: 1920 x 1080/59.94p,59.94i,29.97p,23.98p(50Mbps) XHQ mode: 1920 x 1080/59.94p,59.94i,29.97p,23.98p(50Mbps), 1920 x 1080/59.94i,29.97p,23.98p(35Mbps), 1280 x 720/59.94p(35Mbps) PAL setting: YUV422 mode: 1920 x 1080/50p,50i,25p(50Mbps) XHQ mode: 1920 x 1080/50p,50i,25p(50Mbps), 1920 x 1080/50i,25p(35Mbps), 1280 x 720/50p(35Mbps)	
	AVCHD	NTSC setting: Progressive mode(Max 28Mbps): 1920 x 1080/59.94p HQ mode(24Mbps): 1920 x 1080/59.94i, SP mode(17Mbps): 1920 x 1080/59.94i LP mode(9Mbps): 1440 x 1080/59.94i(Web mode), EP mode(5Mbps): 1440 x 1080/59.94i(Web mode) PAL setting: Progressive mode(Max 28Mbps): 1920 x 1080/50p HQ mode(24Mbps): 1920 x 1080/50i, SP mode(17Mbps): 1920 x 1080/50i LP mode(9Mbps): 1440 x 1080/50i(Web mode), EP mode(5Mbps): 1440 x 1080/50i(Web mode)	
	SD(MOV/AVCHD)	NTSC setting: 720 x 480/59.94i(8Mbps) PAL setting: 720 x 576/50i(8Mbps)	
	Proxy(H.264)	NTSC setting: HQ mode(3Mbps):960 x 540/29.97p, 23.98p, LP mode(1.2Mbps):480 x 270/29.97p, 23.98p PAL setting: HQ mode(3Mbps):960 x 540/25p, LP mode(1.2Mbps):480 x 270/25p	
	Audio recording		LPCM 2ch, 48kHz/16-bit(4k/HD/SD MOV), AC3 2ch(AVCHD), µlaw 2ch(Proxy)
LIVE VIDEO STREAMING			
Protocol		RTMP, MPEG2-TS/UDP, MPEG2-TS/TCP, RTSP/RTP, ZIXI	---
Bitrate		0.2 - 12 Mbps	---
Resolution		1920 x 1080, 1280 x 720, 720 x 480, 480 x 270	---
INTERFACE			
Video output		AV output (φ3.5mm mini jack x1)   SDI output (BNC x1)   HDMI output x1	AV output (φ3.5mm mini jack x1)   HDMI output x1
Audio input		XLR x2 (MIC,+48V/LINE), φ3.5mm mini jack x1	φ3.5mm mini jack x1
Audio output		AV output (φ3.5mm mini jack x1)	
Headphone		φ3.5mm mini jack x1	
Remote		φ2.5mm mini jack x1	
USB		HOST x1 (Network Connection), DEVICEx1 (Mass storage) Supported devices: Verizon, AT&T 4G LTE modems, Wi-Fi and LAN adapters	DEVICEx1 (Mass storage)
INCLUDED ACCESSORIES		Handle unit, Battery (SSL-JVC50) x1, AC Adapter x1	Battery (BN-VF823) x1, AC Adapter x1

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# 4K CAM



Feature / Model	GY-LS300	GY-HM200	GY-HM170
Image sensor	Super 35	1/2.3-inch	1/2.3-inch
Lens included		✓	✓
4K Ultra HD Recording (24/25/30p)	✓	✓	✓
4:2:2 50Mbps HD (24p-60p)	✓	✓	✓
SDHC/SDXC	✓	✓	✓
Dual codec recording	✓	✓	✓
Proxy recording	✓	✓	✓
Digital output	HD-SDI, HDMI	HD-SDI, HDMI	HDMI
XLR Audio input	✓	✓	
ND Filters	3	2	2
IP connectivity	✓	✓	
Live streaming	✓	✓	
Handle unit included	✓	✓	
Shotgun microphone	✓	Optional	
Battery	SSL-JVC50	SSL-JVC50	BN-VF823

# JVC

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