



Shooting



23x Fujinon Lens and newly-developed Full HD 1/3-inch CMOS Sensors

The Fujinon wide angle 23x zoom lens provides superb sharpness and excellent low-light performance in tandem with three CMOS sensors with extremely high sensitivity of F12 (60Hz) /F13 (50Hz) at 2000 lux. Minimum illumination is an incredible 0.15 lux (typical.)

Image Processing



Next Generation FALCONBRID™ Image Processing Engine

The on-board FALCONBRID™ engine achieves superior image quality with 2D DNR processing, as well as compensation for chromatic aberration, shading and a wider dynamic range.

Flexibility Meets Next Generation Performance

Introducing the GY-HM620, a light, versatile and extremely easy to use ProHD camcorder with superior low-light performance for next generation acquisition.

Dual Recording



Wide Media Format Compatibility

The GY-HM620 records HD or SD footage to SDHC or SDXC media cards in a range of file formats, including MOV for Final Cut Pro™, MP4, compatible with XDCAM EX™, and AVCHD. In addition to seamless relay recording for continuous shooting, simultaneous recording to both memory cards for an instant backup or duplicate copy is also possible.

Native Workflow

Ready to edit the moment it's shot, HD or SD footage is recorded natively in the format of the world's most popular editing systems.



Shown with optional microphone.

Innovative Features without Compromise

ND Filters

Equipped with a built-in 4-position ND filter for greater flexibility through a range of lighting situations.

3.5-inch 920K pixel LCD Monitor

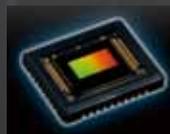
The top-mounted position of the high-resolution 3.5-inch LCD monitor is ideal for shooting at various angles in handheld camera applications.

Fujinon 23x Optical Zoom Lens

Fujinon wide angle 23x zoom lens delivers superior low-light performance and the highest magnification in the industry.

Full HD 1/3-inch CMOS Sensors

Three CMOS sensors offer an excellent sensitivity of F12 (60Hz) /F13 (50Hz) and a remarkable signal-to-noise ratio for superior precision and vivid color reproduction.



Optical Image Stabilizer

Helping to correct lateral and vertical movement of the camera, the built-in OIS ensures that pristine HD images remain sharp and stable.

Focus Assist

JVC's patented focus assist system highlights the edges of objects in the image to help the operator keep the action in focus.

0.45-inch 1.22M pixel Color Viewfinder

Stunning new high-resolution LCOS viewfinder with a crisp and detailed 16:9 aspect ratio image.



FALCONBRID™

JVC's high-speed processor for advanced video applications achieves stunning image quality with superior processing power on a single chip.



SDXC/SDHC Memory Card Recording

Dual SDHC/SDXC card slots allow footage to be recorded either to both cards simultaneously, or from one card to the other in relay.

Shown with optional microphone.

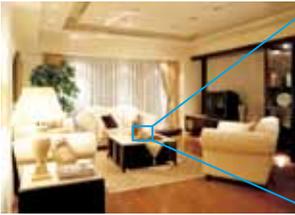
Expanding the Possibilities with Advanced Features in a High Definition Camcorder

Superior HD Imaging

23x Fujinon Auto Focus Zoom Lens with Manual Functions

The GY-HM620 is equipped with the Fujinon wide angle 23x zoom lens, giving the highest magnification in the industry. Delivering superior low-light performance and ensuring brightness at the tele end, the lens offers F1.6-3.0, a focal range of 29mm-667mm (35mm equivalent) and includes servo zoom, manual focus, and iris rings, along with a four-position (clear, 1/4, 1/16 and 1/64) ND filter. Other features include an optical image stabilizer, chromatic aberration correction.

23x
Zoom Lens



Wide end

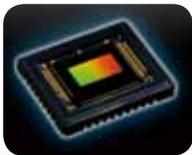


Tele end

Newly Developed High Performance Full HD 1/3-inch CMOS Sensors

At the heart of the GY-HM620 are three, newly developed 1/3-inch CMOS sensors, each capable of capturing full HD 1920 x 1080 resolution images. Offering an excellent sensitivity of F12 (60Hz) /F13 (50Hz) and a remarkable signal-to-noise ratio, the devices provide superior precision and color reproduction with minimal aberration.

F12/F13
(60Hz) (50Hz)
Sensitivity



Conventional 1/3" device



New Full HD CMOS

Advanced Processing Engine

Revolutionary FALCONBRID™ Image Processing Engine

FALCONBRID™ is JVC's high-speed processor for advanced video applications. Delivering tremendous processing power on a single chip, the on-board FALCONBRID™ engine processes large amounts of video data at exceptional speeds. Together with this technology, superior image quality has been realized with 2D DNR processing and compensation circuitry for wide dynamic range.

FALCONBRID™



MPEG-2 and AVCHD Recording

The GY-HM620 supports both the popular MPEG-2 Long GOP 35/25/19Mbps format, widely used by television broadcasters, and the highly efficient AVCHD 24/17Mbps mode, which provides compatibility with a wide range of affordable editing systems. This means that professionals have unprecedented flexibility to meet production standards through a wide range of workflows.

MPEG-2
AVCHD

		MPEG-2			AVCHD		H.264
		HQ mode (35Mbps)	SP mode (25Mbps)	SP mode (19Mbps)	HQ mode (24Mbps)	SP mode (17Mbps)	SD mode (8Mbps)
		MOV/MP4	MOV/MP4	MOV	MTS	MTS	MOV
HD	1920 x 1080	60i/50i 30p/25p/24p			60i/50i	60i/50i	
	1440 x 1080	60i/50i	60i/50i				
	1280 x 720	60p/50p 30p/25p/24p		60p/50p			
SD	720 x 576						50i (GY-HM600E)
	720 x 480						60i (GY-HM600U)

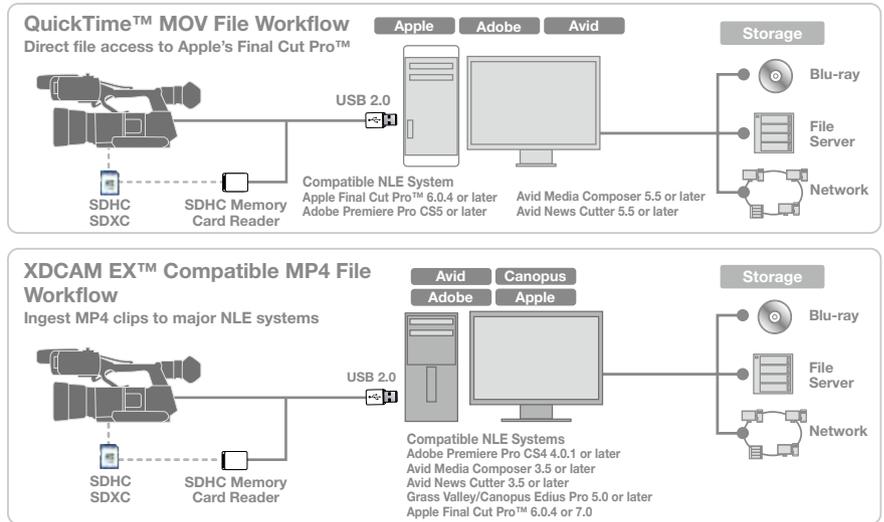


Flexible File-based Workflow

Multiple File Formats for Native Workflows

Record HD or SD footage directly in ready-to-edit QuickTime™ MOV files, the native file format of Apple's Final Cut Pro™. JVC has eliminated one of the main obstacles to achieving a smoother, more streamlined production workflow. Native file recording ensures your footage is ready to edit the moment it's shot, resulting in a more efficient workflow and no loss of image quality. Additionally, with the MPEG-2 mode for Windows editing environments, it is possible to record in MP4 format (XDCAM EX™ workflow-compatible) for direct editing in other major NLE systems, including Avid Media Composer, Adobe Premiere and Grass Valley Edius Pro.

*H.264 SD MOV file can be edited by Grass Valley Edius Pro.



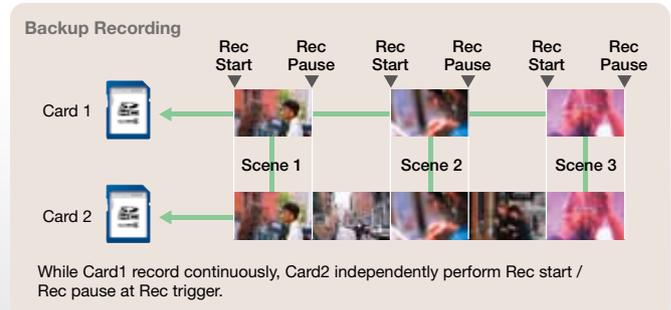
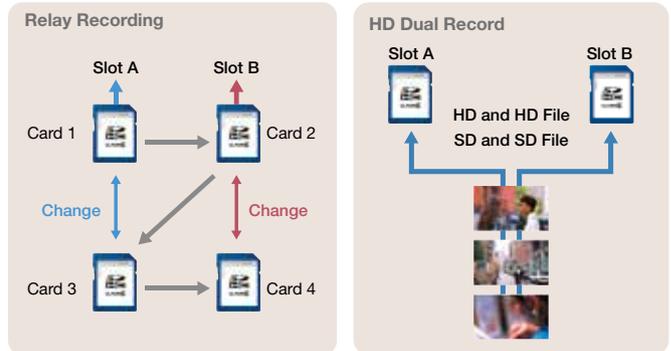
Dual SDHC/SDXC Card Slots for Maximum Versatility

Dual SDHC/SDXC card slots make the GY-HM620 a truly versatile camcorder, offering such benefits as simultaneous recording and relay recording with reliable and cost-effective media.

In relay recording mode, you can shoot continuously and seamlessly over multiple cards. When one card is full, the camcorder switches seamlessly and automatically to the other card. And because cards are hot swappable, there is in effect no limit to the continuous shooting time in any mode, even with lower capacity cards. It is possible to start editing footage from one card while still shooting to the other. With simultaneous recording, you can easily create backup or duplicate files as you shoot without the need for any external equipment—either for a client copy or simply for peace of mind. Additionally, while the Rec trigger is used to pause and unpauses recording on one card, the other card can act as a continuous backup that overrides the pause function.

SDHC/SDXC media offers the best combination of price, availability, capacity, reliability and transfer speed. With no moving parts and no pins or other extrusions, SDHC/SDXC cards are both durable and reliable, and compare favorably with tape on a cost-per-minute basis.

* During simultaneous backup recording in HD mode, the duplicate file records in the same file format and bit rate as the original.



** Backup Recording is not compatible with AVCHD mode.

A Powerhouse of Performance and Flexibility

High-Performance Features

Superb Portability and Compact Design

With a stylish body that fits boldly within the distinctive range of ProHD camcorders, the compact dimensions and superb portability of the GY-HM620 allow it to be used anywhere. Lightweight (2.4kg/5.3lbs operating condition), versatile and extremely easy to use, it is the perfect camcorder for next generation acquisition.



Shooter-Friendly Controls and Layouts

Ergonomics has played a major role in the design of the GY-HM620. The camcorder's handgrip makes it very comfortable to hold, even on long shoots. And despite its extremely compact dimensions, all the camcorder's main functions are accessible directly from controls and switches on the camera body, right where you would expect them to be.

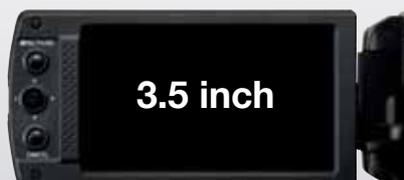
- **White balance** — Selectable between preset and two user settings
- **Gain** — (L,M,H) -6, -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 dB & LoLux, AGC can be assigned to the "L/M/H" gain switch
- **Full Auto** — (on/off)
- **ND Filter** — (Clear, 1/4, 1/16, 1/64)
- **Auto/Manual Focus, One Push Auto**
- **Shutter** — Speed selectable by cross keys
- **Focus Assist/User 1** — (on/off)
- **OIS/User 2** — (on/off)
- **LoLux/User 3** — a JVC exclusive feature that permits shooting in adverse lighting conditions
- **AE LOCK/User 4** — (on/off)

- **Zebra/User 5** — (on/off)
 - **Marker/User 6** — (on/off)
- Among the controls are seven user-definable buttons that can be assigned a range of functions for instant setting instead of the preset settings.



High-Resolution 920K pixels 3.5" LCD Monitor

The high-resolution 920K pixels 3.5" 16:9 aspect ratio LCD monitor provides a wide array of monitoring and setup indications. For maximum flexibility, the monitor is mounted at the top of the camera, ideal for shooting at various angles in handheld camera applications.



Shown with optional microphone.

1.22 Megapixel LCOS Viewfinder

The GY-HM620 features a stunning new high-resolution (852 x 480 x 3) LCOS (Liquid Crystal on Silicon) 0.45" viewfinder. The 16:9 image is crisper and more detailed than conventional LCD viewfinders, with higher vertical resolution and superior RGB color separation.



Focus Assist Function

Helping the camera operator stay focused on the action is a focus assist system that highlights the edges of objects in the image. When Focus Assist is switched on, the image in the viewfinder or LCD monitor switches to monochrome and all objects that are in focus appear with colored edges (selectable from red, green or blue). Keeping the important elements in the picture in focus while shooting is greatly simplified.



Focus Assist OFF



Focus Assist ON

GUI

The GY-HM620 takes ProHD's highly regarded GUI navigation to the next level. Not only are menu items immediately accessible, but settings can also be easily checked right from the settings window. With an improved graphical interface, it's easier than ever to customize the settings to match individual preferences or the demands of the moment.



User Friendly Functions

Pre Rec Mode

How many times have you missed a crucial moment because you didn't hit the record button in time? With Pre Rec enabled, the camcorder continuously buffers up to 15 seconds of video, so that when recording is started the cached video is included in the recorded file, giving you an up to 15 second head start.

Interval Rec

This feature allows you to record single frames at set intervals, which can be used to shoot slow-moving scenes, such as sunsets or construction, or to capture time-lapse recordings, such as the growing of plants.

Variable Frame Rate Recording (Over Crank, Under Crank)

When recording in the 720p 35Mbps mode, the camera can be set to record at a frame rate different than the playback rate. This capability makes it possible to record slow or fast motion when the recording is played back at 24p, 25p or 30p. The GY-HM620 can also under-crank in the 1080p 35Mbps mode.

Cutting-Edge Connectivity

Equipped with leading edge connections, the GY-HM620 offers versatility while meeting the needs of professional applications. For easy monitoring of footage, you can monitor from the digital SDI and HDMI outputs simultaneously, easily switching between output in HD or SD.

- **SDI** (HD/SD) out
- **HDMI** (HD/SD) out
- **TC Sync** in/out
- **AV** out
- **USB**
- **Mic/Line** x 2 with phantom power
- **Aux In** for Wireless Receiver
- **ø2.5mm Remote Control**
- **ø3.5mm Stereo Headphone** out



TC Sync

With TC Sync functionality, two GY-HM620 units can be synchronized with time code using an RCA cable. Since the terminal can be used for both in/out functions, either unit can be the master, providing for an ideal multi-camera operation setup.



Wired Remote Control

The GY-HM620 comes with a wired remote interface (Ø 2.5mm connector) for operating the camcorder remotely when using a tripod, jib, crane or boom.

Audio Recording and Monitoring Flexibility

The GY-HM620 provides a number of essential audio features. Its built-in stereo microphone is ideal for capturing natural sound on location, but the camera also includes two mic/line selectable XLR inputs with phantom power.

The side panel is equipped with screws to attach a holder for an optional wireless receiver, for which there are dedicated mic and headphone jacks. Also equipped with an audio equalizer, sound can be adjusted to your liking from the GUI.



High-Capacity Battery Systems

Capture more footage and clock more recording time with the newly developed high-capacity (4900mAh) battery. In addition, it is also possible to charge the battery when the camera is switched off and plugged in using the AC adapter.

Supporting Software

JVC ProHD Clip Manager

The ProHD Clip Manager for both Mac and Windows makes it easy to manage MP4 clips on the GY-HM620's memory cards from your computer. With a few clicks of the mouse you can copy, move or delete clips, preview clip content, as well as view and edit clip metadata. A thumbnail view of all the clips in the current folder shows the content of each clip at a glance. Use the viewer to watch the whole clip, or change the clip's index frame used for the thumbnail. You can also manage folders to keep your clips organized, and check the remaining free space on a card. The latest version of ProHD Clip Manager offers an even greater level of NLE compatibility by enabling MP4 files to be converted to m2t, widely supported by NLEs.

ProHD Log and Transfer Plug-in

The ProHD Log and Transfer Plug-in is a plug-in for Apple's Final Cut Pro™ that lets you drop MP4 files recorded on the GY-HM620 into the clip bin. With the plug-in installed, you can view thumbnails of the MP4 files on a memory card from the Log and Transfer screen of Final Cut Pro™. Simply drag and drop the thumbnails into the bin to automatically convert the clips to QuickTime™, ready for use.

High-Performance Functionality

Top View



Side View



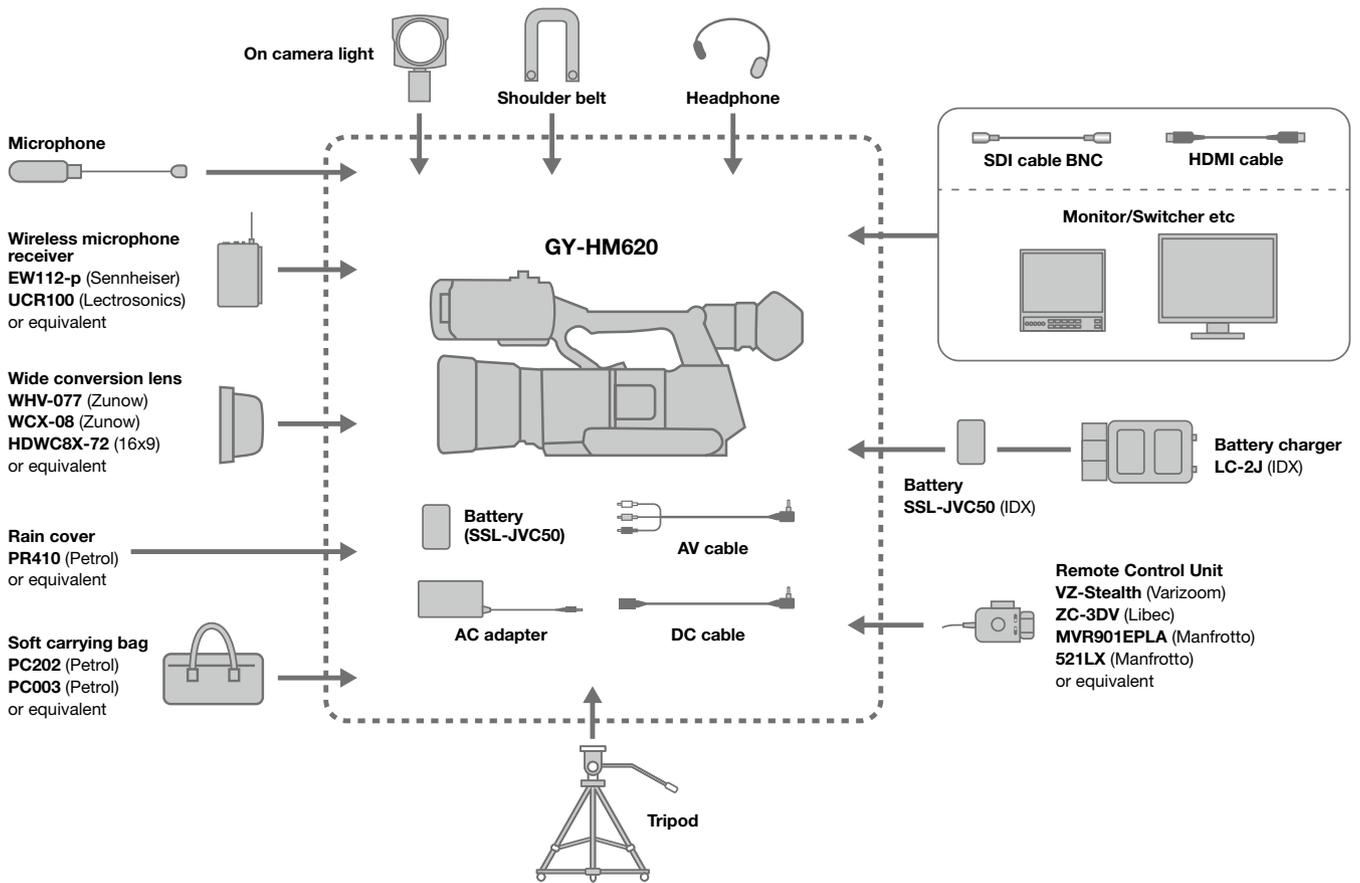
Front View



Rear View

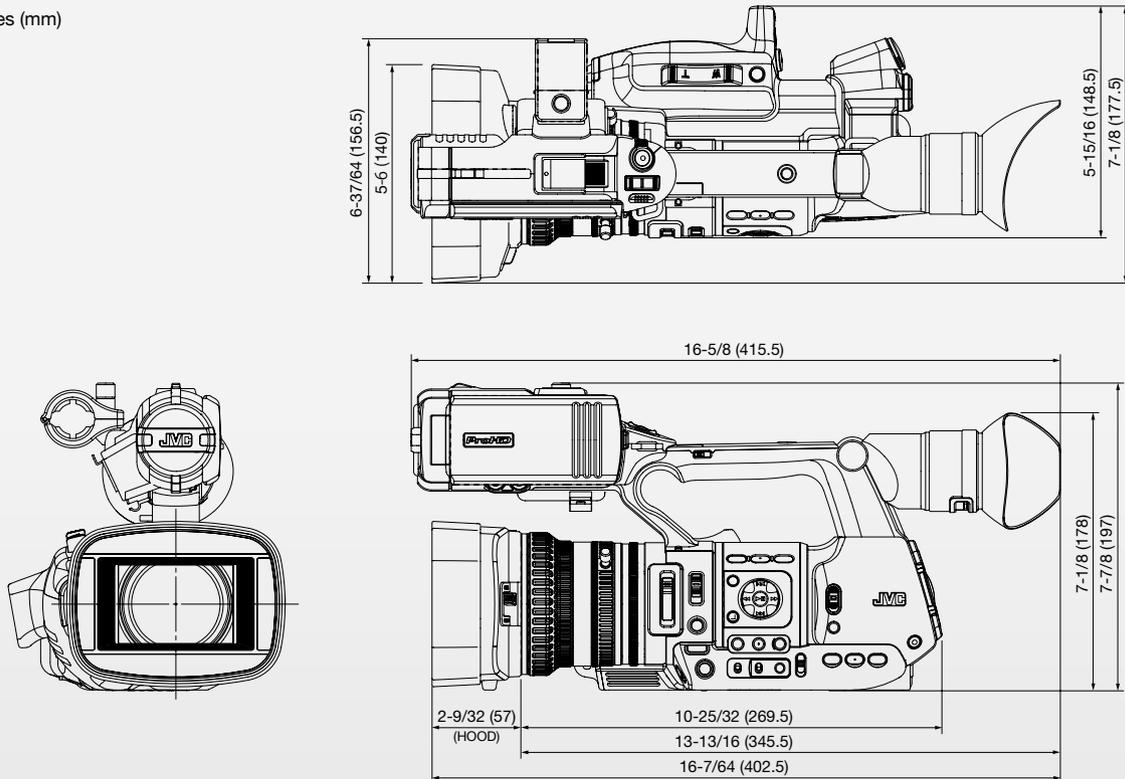
Shown with optional microphone.

System Configuration



Dimensions

Unit: inches (mm)



Specification

GY-HM620

[GENERAL]

Power: DC 12V (AC adaptor), DC 7.2V (Battery)
 Power consumption: Approx. 10W(with VF in single REC mode and default setting)
 Dimensions (W x H x D): 178 x 198 x 416 mm (7" x 7-13/16" x 16-3/8")
 Mass: Apprx.2.4kg (5.3lbs), (Including battery)
 Operating temperature: 0°C to 40°C (32°C to 104°C)
 Storage temperature: -20°C to 50°C (14°C to 122°C)
 Operating humidity: 30% to 80% RH
 Storage humidity: Under 85%

[CAMERA]

Image sensor: 1/3" 2.2M pixels progressive scan 3CMOS
 Synchronizing system: internal synchronization
 Stabilizer: Optical image stabilizer
 Lens: Fujinon F1.6-3.0, 23x, f=4.1-94.3mm (35mm conversion: 29 to 667mm)
 Sensitivity: F12 (60Hz) /F13 (50Hz), 2000lx (typical)
 Minimum illumination: 0.15lx (typical) (1920 x 1080 mode, F1.6, Lolux mode, 1/30 or 1/25 shutter)
 Filter diameter: 72mm
 Shutter speed: 1/4 to 1/10000
 Gain: -6, -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 dB, Lolux, ALC
 ND filter: Clear, 1/4, 1/16, 1/64
 LCD display: 3.5" 920K pixels, 16:9
 Viewfinder: 0.45" 1.22M pixels, 16:9

[VIDEO/AUDIO RECORDING]

Recording media: 2x SDHC/SDXC memory card Class 4/6/10 (Class4 for AVCHD and H.264 only)
 Video recording:
 Video codec: MPEG-2 Long GOP (HD), MPEG-4/AVC H.264 (HD/SD)
 File format: MOV (HD/SD: H.264), MP4 (XDCAM EX), MTS (AVCHD)
 Recording mode:
 MPEG-2 Long GOP
 NTSC setting:
 HQ mode: 1920 x 1080/59.94i, 29.97p, 23.98p, 1440 x 1080/59.94i, 1280 x 720/59.94p, 29.97p, 23.98p
 SP mode: 1440 x 1080/59.94i (25Mbps), 1280 x 720/59.94p (19Mbps)

PAL setting:

HQ mode: 1920 x 1080/50i, 25p, 1440 x 1080/50i, 1280 x 720/50p, 25p
 SP mode: 1440 x 1080/50i (25Mbps), 1280 x 720/50p (19Mbps)

AVCHD

NTSC setting:

HQ mode: 1920 x 1080/59.94i, SP mode: 1920 x 1080/59.94i

PAL setting:

HQ mode: 1920 x 1080/50i, SP mode: 1920 x 1080/50i

SD (MPEG-4/AVC H.264)

NTSC setting: 720 x 480/59.94i (GY-HM600U only)

PAL setting: 720 x 576/50i (GY-HM600E only)

Audio recording LPCM 2ch, 48 kHz/16-bit (MPEG-2 Long GOP/MPEG-4/AVC H.264), Dolby Digital 2ch, 48kHz/16-bit, 256kbps (AVCHD)

[INTERFACE]

Video output: AV output, SDI output (BNC x1), HDMI output x1
 Audio input: XLR x2 (MIC, +48V/LINE), ø3.5mm mini jack x1
 Audio output: AV output
 Headphone: ø3.5mm mini jack x 1
 Time code link input/output: RCA x 1
 Remote: ø2.5mm mini jack x 1
 USB: Mini-USB2.0, Type-B

[PROVIDED ACCESSORIES]

Battery pack (SSL-JVC50) x 1, AC adapter x 1, AV cable x 1

Optional Accessories



**SSL-JVC50
Battery (IDX)**



**LC-2J
Battery Charger (IDX)**

■ SDHC Class 4/6/10, SDXC recording time (approx.)

Class 4 only correspondence with AVCHD/H.264 mode.

	MOV/MP4		MTS		MOV	
	MPEG-2/HD		AVCHD		H.264/SD	
	SP	HQ	SP	HQ	SD	
	720p	1080i	720p/1080i	1080i	1080i	480i/576i
4GB	22 min.	17 min.	12 min.	25 min.	19 min.	47 min.
8GB	45 min.	35 min.	25 min.	50 min.	39 min.	1 hr. 35 min.
16GB	1 hr. 30 min.	1 hr. 10 min.	50 min.	1 hr. 40 min.	1 hr. 18 min.	3 hr. 10 min.
32GB	3 hr.	2 hr. 20 min.	1 hr. 40 min.	3 hr. 20 min.	2 hr. 36 min.	6 hr. 20 min.
64GB (SDXC)	6 hr.	4 hr. 40 min.	3 hr. 20 min.	6 hr. 40 min.	5 hr. 12 min.	12 hr. 40 min.
128GB (SDXC)	12 hr.	9 hr. 20 min.	6 hr. 40 min.	13 hr. 20 min.	10 hr. 24 min.	25 hr.

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