

JVC®

NTSC

The Perfect Experience / —

ProHD

Professional, Affordable, Versatile — JVC ProHD



BR-HD50 ProHD VTR

GY-HD100 ProHD Compact Shoulder Camcorder

HDV™
HDV 720p

Defining the future of professional video — Introducing JVC ProHD

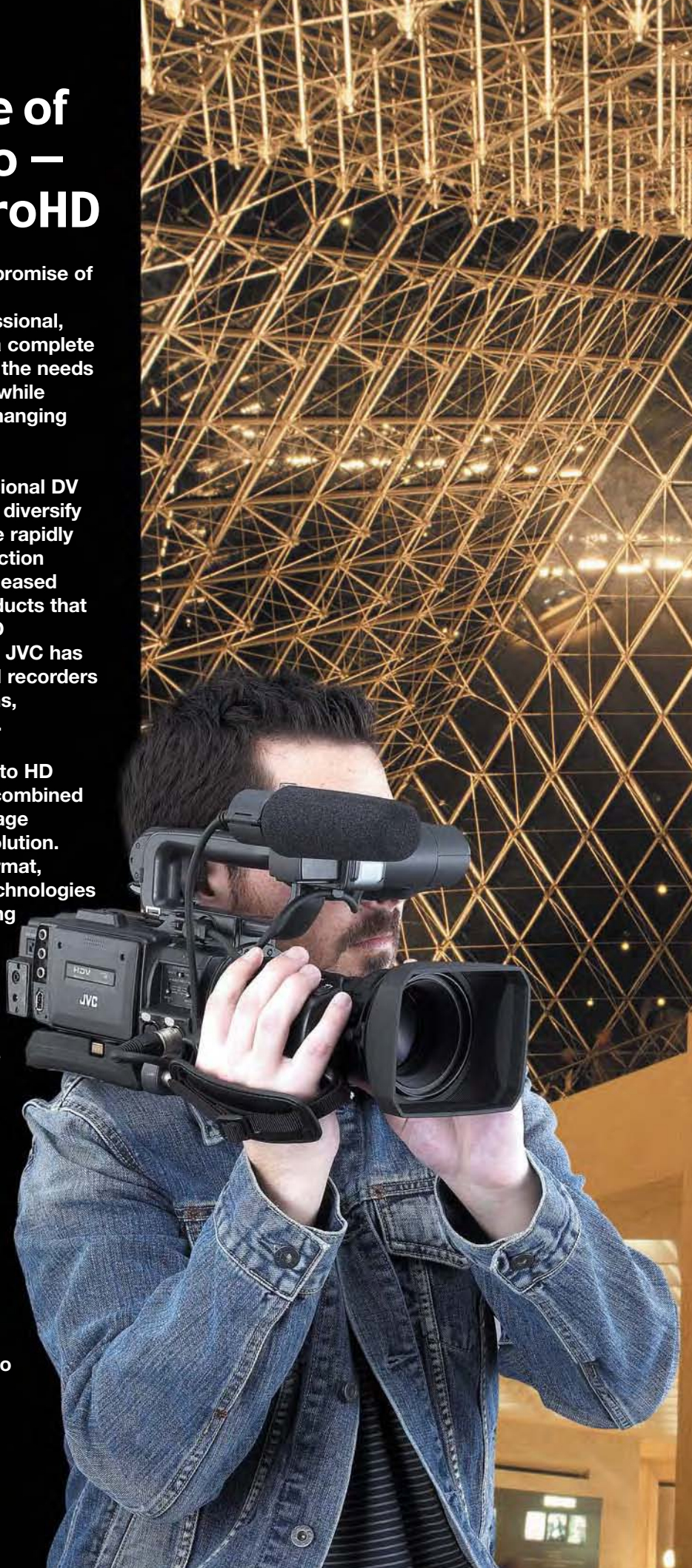
With the introduction of JVC's ProHD, the promise of digital technology has finally been fulfilled. Surprisingly affordable, impressively professional, and remarkably compact, ProHD delivers a complete high-definition solution that's built to meet the needs of today's most demanding professionals, while retaining the ability to adapt to meet the changing requirements of the future.

Since the launch of D9 in 1996 and Professional DV in 1999, JVC has continued to develop and diversify its digital video offerings in response to the rapidly changing visual communication and production environment. In 2004, for instance, JVC released affordable HD encoding and decoding products that have made possible efficient delivery of HD programs to millions of television viewers. JVC has continued to evolve its digital cameras and recorders with advanced features and storage options, including full-size DV tape and HDD media.

Now with the television landscape moving to HD content production and delivery, JVC has combined its expertise in camera, encoding and storage technologies to create an affordable HD solution. JVC's ProHD system, adopting the HDV format, utilizes widely available non-proprietary technologies such as MPEG-2 compression, DV recording media and conventional hard disk drives. Based on input from leading end users, JVC has developed a system with the most sought after professional features and performance. Noteworthy ProHD features include full HD progressive scanning, real 24p, and a hybrid tape/disk recording system. And in the future, new capabilities will be added including 4-channel audio, 1080i hard disk recording and optical and solid state media.

Designed and built for professionals, ProHD is the true fulfillment of the digital promise, offering true high-definition performance in a compact, affordable system.

Now, JVC is proud to introduce our first two ProHD products: the GY-HD100 compact shoulder camcorder and the BR-HD50 spooler.



ProHD — Concept of JVC's Affordable HD Solution

1. HDV Full Progressive Scanning (720p)

Industry leading professionals told us that they wanted a progressive scanning system that would capture and record the highest quality continuous moving images. ProHD uses the 720 progressive HDV format and produces crisp, native HD images that perfectly match today's digital displays but which can be easily converted to interlaced without degradation.

2. Real 24p

With ProHD concept, the dream of creating HD video with the essence of film has at last been realized. By capturing and recording at the film frame rate of 24fps, and offering extensive user customization of settings like exposure, gamma and detail, ProHD becomes an important tool for creative expression. For the ultimate expression on the big screen, 24 frame progressive recordings can be easily transferred to 16mm or 35mm film.

3. Time Code

As a professional system, ProHD products naturally include time code reading and writing capability. Convenient menu operation makes it easy to preset time code at the beginning of a tape and lock it into drop-frame mode, REC RUN mode or re-generation mode. User bits are also available.

4. Highly efficient video compression

To provide the highest quality HD recording, JVC uses the broadcast industry standard MPEG-2 Main Profile at HL-14. Offering far greater efficiency than frame bound systems, ProHD records at data rates at or above commercial broadcast rates. Recent advancements in non-linear editing have made it possible to edit ProHD on virtually all popular Non-Linear systems. Direct digital transfers through IEEE 1394 ensure the quality is maintained throughout the process.

5. Hybrid recording system

Designed to work with both DV tape and hard disk drives, ProHD concept offers the ultimate in media versatility, maximizing productivity with efficient, economical editing and low-cost archiving. Now you can shelve your original tape safely in your archives and plug the hard disk straight into your editing suite. You can start editing right away — no need to make dubs or transfer data.

6. Future 4 channel audio capable

An essential part of the ProHD concept is to support its High definition pictures with the finest audio quality. Besides recording 2 channels of MPEG-1 Layer 2 audio on HDV 720p format at near CD quality, dedicated track sectors have been reserved for future recording of an additional 2 channels of uncompressed 16 bit PCM audio at 48 kHz.



BR-HD50

GY-HD100

Advantages of ProHD

1. HDV format

HDV™

HDV 720p

HDV is a video format designed to enable the recording of high-definition MPEG-2 video on standard DV media (DV or MiniDV cassette tape). The HDV format was

defined by four companies: Canon Inc., Sharp Corporation, Sony Corporation, and Victor Company of Japan, Limited (JVC). HDV includes both 720p (progressive) and 1080i (interlaced) specifications, and uses the same track pitch and tape speed as the DV format, offering the same recording time as the DV format.

2. HD Progressive (720p) format for both high-quality moving pictures and stills

■ Progressive scanning

ProHD's progressive scanning system is the same as that used in all high-end digital cinema cameras. Progressive scanning systems capture and store full frames of information and the progressive signal can be easily converted to interlaced if desired. When progressive recordings are frozen or played in slow motion, each individual frame contains the full detail of the original image — excellent for viewing and analyzing motion. Prints made from HD progressive frame grabs look far better than typical frame grabs. What's more, all of today's flat panel television displays and fixed matrix projectors, such as D-ILA, DLP and LCD, are native progressive scanning systems so there's no need for conversion when displaying progressive recordings.

■ Multi-format output (BR-HD50)

Progressive scan pictures can easily be converted to interlaced format by extracting the odd lines from progressive frame 1 and the even lines from progressive frame 2 to create the two fields required for each interlaced frame. Besides outputting at 720p (ProHD), the built-in scan converter to allow the signal to be converted to 1080i or down-converted to SD. Converting from interlaced to progressive, on the other hand, presents a much greater challenge, requiring both hardware and motion analysis software to achieve satisfactory results.



■ Blu-ray, HD-DVD compatible

The IEEE 1394 connector provides a digital output for editing or recording, or for transfer to the new generation of DVD formats (Blu-ray or HD-DVD). ProHD camcorders and recorders support direct recording of MPEG-2 TS ensuring that there will be no quality loss or extra encoding.

■ HDV/DV compatibility

The HDV format uses the same recording track pitch (10 μ m) as DV, meaning that HDV also offers track pitch compatibility with the DV format and the same recording time. This remarkable HD recording capability was achieved by developing a new high-power MPEG codec system capable of maintaining high-definition picture quality, while compressing the data to 19.7 Mbps bit rate. With its superior resolution and advanced processing, ProHD, adopting the HDV format, delivers top performance in either its native 16:9 HD mode or in the SD mode. The ability of dual definition recordings that are superior to competing SD-only products makes ProHD an ideal choice for professionals not quite ready to make the full transition to HD.

■ Progressive HDV-compatible support

To achieve maximum picture quality performance from input to output, JVC employs the HDV 720 Progressive system. HDV's resolution of 1280 x 720 is the same as the native resolution of most HD display devices in use today (LCD, plasma, DLP, D-ILA). These devices are also equipped to accept a wide range of inputs and different formats and many feature SD and HD capabilities, making them ideal for use in HDV systems.

3. Real 24p

24p Progressive Full HD images are ideal for film applications. From shooting to editing and distribution, a Full HD system can be established for movie quality production. Unlike ordinary SD 24p images, real 24p HD video down converted to SD produces film-quality DVDs.

4. 4-channel audio capability

The ProHD concept includes 4-channel audio recording and playback with independent sectors for MPEG-1 Layer 2 audio and PCM Audio. MPEG-1 Layer 2 audio tracks are encoded at 384 kbps, which is approximately CD audio quality, while PCM tracks are sampled at 16-bit 48 kHz (more than CD quality) and recorded without compression in exclusive PCM audio sector on a separate part of the track.

5. JVC's hybrid recording system

Already used in many Professional DV products, JVC's hybrid recording system has proven itself both popular and efficient. As the latest iteration of Professional DV, it was only natural that this concept be applied to ProHD. Efficient hard-disk-based editing and cost-efficient archiving with low-cost tapes are possible in both SD and HD modes. Thanks to the newly developed MPEG-2 encoding IC, high-quality pictures can be recorded on readily available compact DV cassettes, so running costs are minimal. As no special equipment or exclusive media are required, total system operating costs can be kept low.



Standard/
Mini Cassettes



DR-HD100
Hard Disk Drive



ProHD Advances Towards The Future.

ProHD

ProHD XE

Since introducing the Professional DV format in 1999, JVC has been evolving its product offerings and developing new technologies to meet the fast-changing and diversifying needs of video professionals. And, while adapting to current demands, we have continued to focus development on the future as exemplified by the totally professional ProHD system. Far from being set in stone, the ProHD system is specifically designed to adapt to the changing needs and technologies of the future.

"ProHD XE" is JVC's next step, adding multi-format and multi-bit rate capability. And JVC will incorporate new removable media such as Blu-ray, HD-DVD and solid state memory when they become available and economical.

In a world where data compatibility and storage are key components in every system, ProHD makes sense, not just for today, but for your evolving needs in the future.



Putting ProHD To Work



A. Cinema Industries

Build a real 24p Progressive HD system and achieve film-like quality from shooting and production to editing and distribution. ProHD products enable cinematographers to create the "look of film". As part of our affordable HD vision, 24p is supported by features required for creative performance — extensive cinema gamma settings, skin tone gamma detection, manual aperture and focus control, etc.



converted to any format including SD format with film-like quality, allowing multi-format distribution. And when HD becomes mainstream in the future, you'll be ready with your HD archives. Thus, an affordable full HD system from acquisition to archiving to distribution can be easily established and its benefits enjoyed.

C. Wedding Videographer

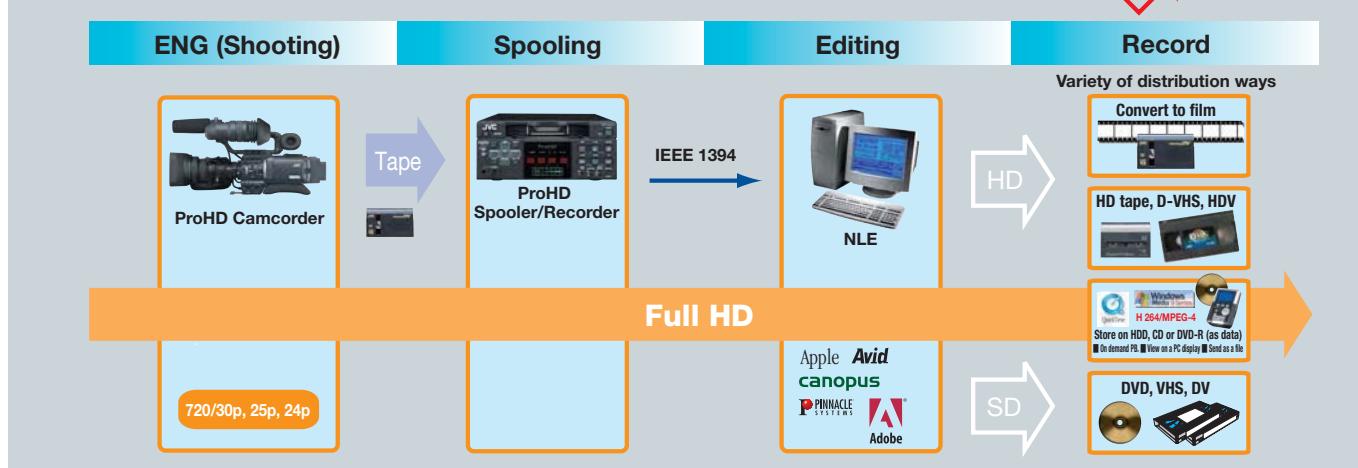
With ProHD, wedding photographers can capture once-in-a-lifetime moments with HD Progressive image quality. After editing, the final production can be recorded to DVD with film-like quality for distribution. Since ProHD's progressive scan system produces the highest quality HD freeze frames, photo albums can be created by grabbing and printing frames recorded during the ceremony and reception.



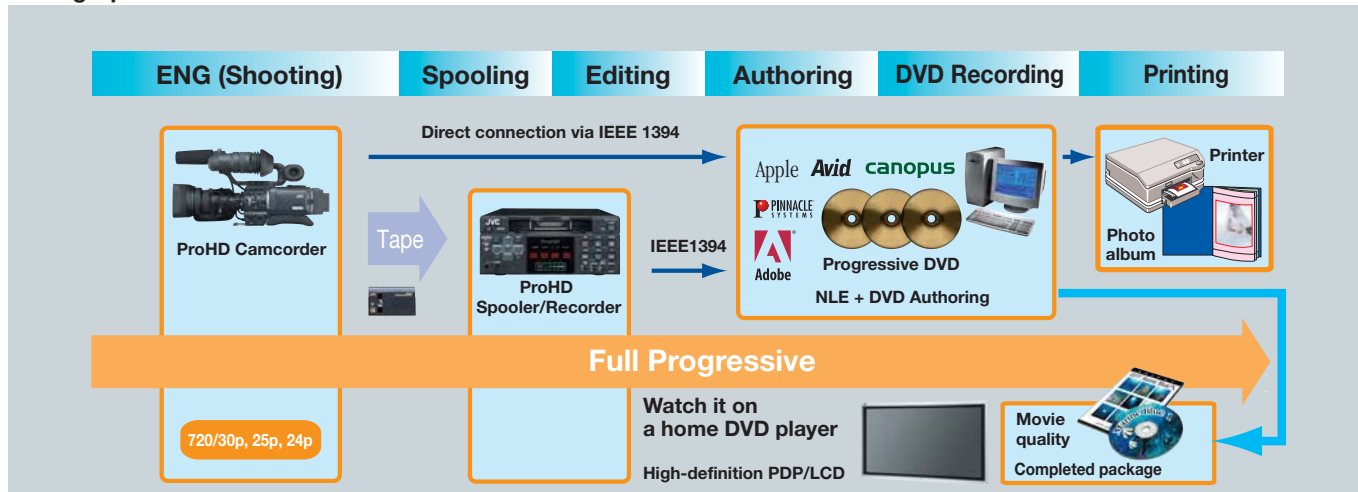
HD Satellite
uplink



Production studio



Videographer



Totally professional compact shoulder camcorder with Full Progressive HD and Real 24p specs

Real 24p camcorder

Interchangeable HD lenses

Smooth motion function (JVC-patented)

Compact shoulder mount

Universal design (ergonomic design)

ProHD lens

- Detachable HD zoom lens (Bayonet mount)
- Zoom/Focus/Iris mechanical control



Actual Size

Optional lens accessories

- Various optional accessories
- Matte Box (option)
- Filter kit
- Wide angle converter
- 1/2-inch bayonet mount converter

GY-HD100U

ProHD Compact Shoulder Camcorder

Professional viewfinder

- Detachable professional-style viewfinder
- Patented "FOCUS ASSIST" function enables fast, easy, and accurate focusing in the viewfinder/LCD display, especially useful for HD shooting



As the first HD camcorder to feature a 1/3" bayonet mount, this 3-CCD HDV/DV camcorder is compatible with a wide selection of interchangeable HD lenses. With its compact shoulder design, comprehensive professional features, and excellent portability, the GY-HD100 is today's most affordable HD image gathering solution.



SD memory card

- Camera setups can be stored on an SD card, allowing more flexibility and faster setup in the field

External HDD Capability

- HDD recording of HD pictures possible
- With DTE™ (Direct to Edit™) technology, video, audio, time code and control information can be transferred from the camcorder to a hard disk.

Professional specifications

HDV/DV compatible

As the HDV format uses the same recording track pitch as Professional DV, the GY-HD100 can record signals in either standard or high definition depending on the user's needs.

Real 24p camcorder

The GY-HD100 is a professional high-definition camcorder featuring real HD 24p capture and recording capability — previously only available on the most expensive HD cameras. With HD progressive 24 recording, you can shoot images with film-like quality and smooth motion performance that are ideal for DVD production.

Interchangeable HD lenses

The GY-HD100 features a standard professional 1/3" bayonet lens mount that allows you to use other professional HD lenses. By using the optional adapter, popular 1/2" lenses can be used.

1/3" 3-CCD camera system with 720p HD CCDs

The GY-HD100 uses three newly developed 1/3" HD-CCD image sensors, each one featuring an array of 1280 x 720 pixels, with micro lenses. Since the camera's native resolution matches that of most HDTV displays, the need for image scaling is eliminated, further enhancing the quality of the recorded images. Other advantages of these CCDs include sophisticated circuitry that virtually eliminates lag and image burn.

Uncompressed 720/60p signal output

In addition to providing superior quality HD recording in the 24p format, the GY-HD100 can output an analog component 720p HD signal at 60 frames per second that's ideal for live broadcasting. With a third-party HDSDI converter, you can stream the uncompressed full-resolution signal to an array of systems.

Two XLR audio inputs

Two XLR connectors allow you to record high-quality digital audio. Independent controls are provided for each channel.

Professional functions

Compact shoulder mount

The first fully professional HD camcorder to feature a shoulder-type mount with a compact body, the GR-HD100 offers excellent mobility and enhanced usability. The exclusive shoulder-type mount assures ease of handling for anyone, regardless of physical strength.

Smooth motion function (JVC-patented)

JVC's exclusive smooth motion function captures images at double the normal rate when shooting in 30p or 25p (that is, at 60p or 50p). When the two images are merged, they are passed through a newly developed filter that smoothes out the subject's motion by retaining a small percentage of residual image. This eliminates the motion judder that typically appear in images shot at 30p or 25p. The smooth motion function can be enabled in the 24p mode if desired.

Professional functions and switch layout

In addition to the Full Auto Shooting to handle difficult or variable lighting environments, the GY-HD100 is equipped with an array of pro-level functions that provide professionals with the creative flexibility they need, including zebra, gain, white balance, shutter, etc. The GY-HD100's switches have also been arranged in the way that most professionals are accustomed to, making operation more intuitive, precise, easy, and error-free. Since you won't have to "re-learn" how to use this camcorder all over again, the GY-HD100 is the ideal camera for any assignment.

GY-HD100U

ProHD Compact Shoulder Camcorder

HDV™

HDV 720p

Professional Quality

- Rugged die-cast body
- Sliding shoulder pad
- Stabilizing cheek pad



Professional functions (cont'd)

Full Auto Shooting

In an emergency, or when it's not possible to pause to adjust white balance or change the gain, the Full Auto Shooting mode provides point-and-shoot ease of operation, leaving you simply to zoom, focus, and press the record button. Activating Full Auto Shooting puts the camera into the Auto Iris mode, even if the lens is set to manual. Automatic Video Level Control (ALC) is also activated, along with Extended Electronic Iris (EEI) which provides both variable gain and variable shutter and Full Auto White to follow color temperature changes. This means you can shoot continuously from dark to bright, from indoors to outdoors, without changing gain, iris, white balance or ND filter.

Color matrix

A sophisticated six-axis color matrix circuit effectively compensates optics-related color reproduction to ensure more natural, true-to-life tones. Several color matrix presets are provided to give you more creative control over the look and feel of your images.

Detachable 230,000-pixel LCD viewfinder

The viewfinder can be moved forwards or backwards and can be adjusted for left or right eye shooting, so it is comfortable for any operator. Peaking is optimized to make focusing easy at all times.



Tri-mode 3.5-inch LCD display

The 250,000-pixel 3.5" color TFT LCD monitor provides a high-resolution image during shooting or playback. Its peaking adjust function allows quick, effortless focusing. A push button selects three display modes.

1. Video only
2. Video images with text information overlay including time, status, mode, and other data are shown on the screen.
3. Data information only including time, status, mode, and other data are shown on the screen.



Various audio-related functions

When color bars are output, an audio reference level (test tone) can also be output if desired. You can specify this via the menu, as well as set the audio reference level to -12 dB or -20 dB as required. To minimize extraneous noise picked up by the microphone, a "wind cut" function is provided.

Versatility and flexibility

Real-time playback capability

With real-time playback capability in all major DTV formats, the GY-HD100 makes it easy to convert recorded data to other formats without compromising the level of quality.

Easy transfer to 16 mm or 35 mm film

Especially designed to facilitate transfer to 16 mm or 35 mm film, the GY-HD100 enables recordings to be transferred with full HD fidelity, without frame rate conversion.

Camera settings recorded on SD card

Customized settings can be stored on a standard SD memory card and loaded into another GY-HD100 or changed on site as required.

IEEE 1394 interface

A convenient IEEE 1394 bus interface lets you easily connect the camcorder to NLE systems or a PC for easy downloading, editing or archiving.



User-friendly design

Universal ergonomic design

Adapts to fit anybody comfortably with shoulder pad that can be moved back and forth, left-eye viewfinder, and up/down adjustable headphones.



Patented "FOCUS ASSIST" function

This function colorizes detail edges in the viewfinder to facilitate focusing in high definition. This makes it much easier to perform the fine focusing adjustment required for accurate HD focusing.



Out-of-focus image



In-focus image

The edge of the in-focus picture is shown in color, so the operator can tell that the subject is in focus. The operator can check which point in the image is in focus in real time.

Variety of optional lenses

In addition to a standard detachable 16x servo Fujinon lens, a wide range of options are available, including a 13x (3.5 mm) wide zoom lens, a wide angle converter for the standard 16x lens, and an adapter that allows standard 1/2" lenses to be used on the camera. Third party adapters are available that allow prime lenses to be used in place of the supplied lens.

DC input

A DC input is located on the side of the battery holder, so battery can be replaced with new one without turning the camera off by using a DC adapter.

Connect to an external HDD

You can connect this camcorder to the optional DR-HD100 hard disk drive via the IEEE 1394 connector, allowing you to edit footage immediately without having to wait for data to be transferred.

Built-in color bars generator

SMPTE type HD (Rec 709) and SD (CCIR 601) color bars are available.

Other features

- Black stretch/black compress
- Full Auto White (FAW)
- Iris level adjust
- Detail correction
- Detail V/H balance
- Skin detail detection
- White clip select
- Knee point select
- 7.5 IRE setup ON/OFF
- Locked audio (16-bit, 48 kHz only)
- Automatic level control (ALC)
- System file selection
- Variable, slow shutter
- Gamma control
- Auto black level
- Zebra pattern (4-step)
- Auto knee
- Highlight chroma processing
- Tripod base adapter (option)

DR-HD100 Hard Disk Drive incorporating the latest DTE™ (Direct to Edit™) technology

Connects to GY-HD100 camcorder

The DR-HD100 has been designed specifically to dock with your GY-HD100 series camcorder. By interlocking with the camera trigger, HD or SD images can be recorded together with audio and time code. Powered by a built-in rechargeable battery, the DR-HD100 can be easily detached and attached to the hot shoe on the camcorder's handle or hung off your belt.

Compatible with popular HDV/DV NLE applications

DTE™ technology means that DR-HD100 files are recorded in your HDV/DV NLE's native file format. This means no file transfer, no capturing, no rendering. Use DR-HD100 recorded files instantly with the most popular applications from Adobe, Apple, Avid, Canopus, Pinnacle and many more! As new application support is released, you can simply update your DR-HD100 in the field with new system software, by an automatic process using the disk drive itself.

Integrated with camcorder and disk drive operation

When used with the GY-HD100, the DR-HD100's record and record-pause functions can be controlled from the camcorder. Time code generated by the camcorder can be recorded to files on the DR-HD100, and DR-HD100 status and other information appears in the viewfinder.

Long record times

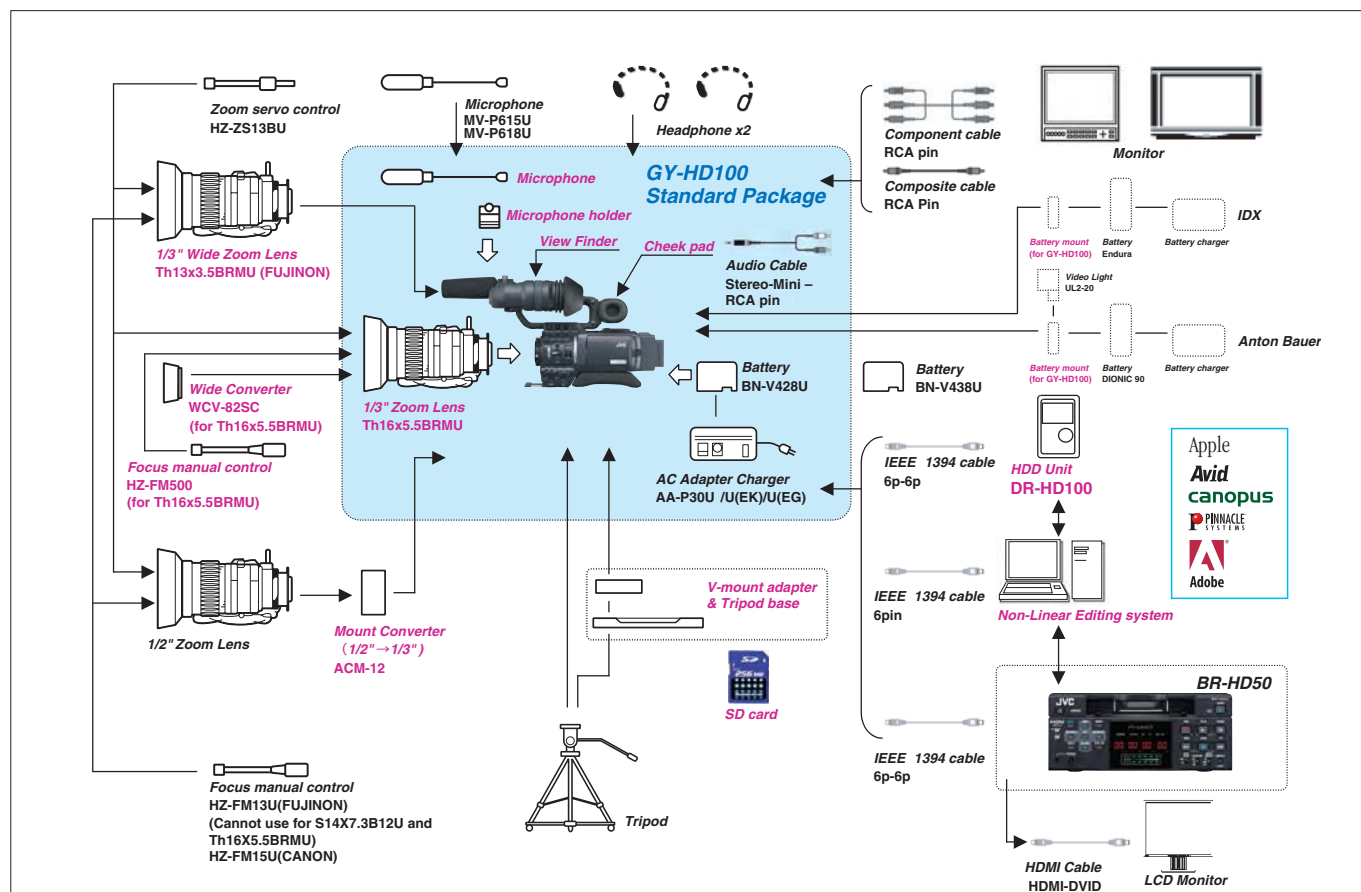
Extend your GY-HD100 uninterrupted record time by hours. For example, an 80GB FireWire drive can store over 6 hours of DV video, or over 7.5 hours of HDV video, while a 40GB drive can handle more than 3 hours! It is also possible to daisy chain up to four external FireWire drives of varying sizes to the DR-HD100, enabling uninterrupted recording for incredibly long durations. This function is useful for extended shooting with the camera on a tripod.

LCD display and playback modes

The DR-HD100 features a detailed LCD that displays system mode, time code, and disk space remaining. When used with the GY-HD100 camcorder, you can preview clips in the GY-HD100's viewfinder or LCD panel or on an external monitor by using DR-HD100's playback mode. Functions include record, play, pause, stop, forward index, back index and multi speed fast forward and rewind.



System configuration





Advanced HD performance in a compact, uncomplicated

The companion model to the GY-HD100, this HDV/DV spooler is designed to transfer video and audio data to a non-linear editing system. Optimized for use with a wide variety of existing systems and formats, this unit features switchable HDV and DV modes and analog outputs. You can also connect it to a plasma or LCD panels equipped with an HDMI connector and use it as a low-cost viewer. With its low cost and high flexibility, the BR-HD50 is ideal for any facility looking for a smooth upgrade path from standard definition to HD.

Professional design

HDV recording

As the HDV format uses the same recording track pitch as Professional DV, the BR-HD50 can record signals in either standard or high definition depending on the user's needs.

Multi-format output/Cross-converter function

A sophisticated cross-converter function enables output not only of 720p signals, but also 1080i, 480/576p and 480/576i signals. Plus, thanks to switchable HDV and DV recording mode functionality along with DVCAM playback, you'll have no problems adding this recorder/player to your existing editing system.

HDV international compatibility

Switch between HDV 60 Hz or 50 Hz base as required, allowing recording and playback of 720/25p and 576/50p in addition to 720/24p/30p and 480/60p. This makes it easy to work with internationally sourced material and transfer it to a non-linear system for editing and then archiving to tape. You can also record to Standard DV or Mini DV tape in either HDV 60 Hz or 50 Hz base format.

*Cannot be used as an HDV 60 Hz/50 Hz converter. The BR-HD50U can record and play back signals in both HDV 60 Hz and 50 Hz formats.



Recording system

The BR-HD50U can record HDV format 720/30p/25p/24p, 480/60p or 576/50p video and DV format 480/60i and 480/24p video.

Standard DV/Mini DV compatible mechanism

Proven on ProfessionalDV VCRs, this mechanism provides not only improved running stability, but also accommodates both Standard DV and Mini DV format cassettes without any adapter.

DVCAM playback capability (SD)

DVCAM recordings can be played back directly on the BR-HD50. This makes it easy to use DVCAM recordings as source material for editing.

Stable high picture quality

Auto error correction system

JVC has developed an auto error correction system that operates on a frame-by-frame basis to ensure accurate error compensation during playback. After optimally calibrating the playback RF waveform with a pre-filter circuit, the VCO (voltage control oscillator) control voltage is changed so that the data reading



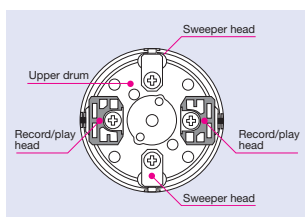


recorder/player with multi-format video output

clock phase is shifted to the position where the error rate is lowest. The result is accurate, consistent suppression of block noise and reliable, professional-standard performance at all times.

Sweeper heads

During recording and playback, to reduce the block noise which is caused by dust adhering to the heads, our HDV/DV camcorder and recorders incorporate an advanced drum assembly with specially designed "sweeper" heads. These dummy heads sweep off any magnetic material dropped by the tape or any dust that may have entered from outside the unit.



Various interfaces

HDMI OUT

The BR-HD50 is equipped with an all-in-one HDMI output for direct digital connection to the latest high-definition projector and LCD displays.

RS-422A interface

For compatibility with the widest range of editing systems, the BR-HD50 is equipped with an industry-standard RS-422A interface, allowing easy integration with high-grade NLE systems.

IEEE 1394 interface

For lossless dubbing and recording of both HD and SD programs, compressed HD (MPEG-2) or SD (DV) digital signals can be input or output to or from external devices such as a non-linear editing system. A front panel switch allows you to switch easily between SD and HD.

Versatile analog connections

In addition to IEEE 1394 input/output, the BR-HD50 is equipped with analog component (BNC) output connectors for HD and SD. Y/C

input/output connectors (SD mode) and composite input/output (BNC) connectors (SD mode) are also available.

User-friendly design

Large full counter

A big 8-digit LED display on the front panel displays time code, user bits and VTR status.

Audio indicator

This indicator lights whenever audio signals are input. Also, it provides a convenient way to check for the presence of audio signals during tape playback.

High-speed time code search/blank search

The built-in time code generator provides preset, rec run and regen time codes. The DV 20x search function (100x max. in the FF or REW mode) and the HD 8.5x forward search function (6.5x in reverse), provides super-fast access to any desired point on the tape.

Continuous recording

When a camcorder is connected to the BR-HD50 via the IEEE 1394 connector, the BR-HD50 will start recording 5 minutes before the tape in the camcorder ends. This enables continuous shooting for extended periods with no breaks in the recording.

On-screen menu

Systematic, easy-to-understand menu screens simplify setting and operation procedures. Menu setting can be done using either the buttons on the front panel.

Other features

- Lock audio (16-bit, 48 kHz only)
- Time code reader/generator
- Headphone connector
- Contact closure recording
- Repeat playback
- Wired remote control

Options and related equipment

CAMCORDER OPTIONS

1/3" Wide zoom lens



■ Th13x3.5BRMU

1/3" Zoom lens



■ Th16x5.5BRMU

1/2" Bayonet mount converter



■ ACM-12

Wide converter



■ WCV-82SC

AC adapter/Battery charger



■ AA-P30

Lithium-ion battery



■ BN-V428
■ BN-V438

Microphone



■ MV-P615
■ MV-P618

Manual zoom control



■ HZ-ZS13BU

Manual focus control



■ HZ-FM13* (Fujinon)
■ HZ-FM15 (Canon)
■ HZ-FM500 for Th16x5.5BRMU

*The HZ-FM13 cannot be used for S14 and Th16 lenses.

V mount adapter & Tripod Base

HARD DISK DRIVES

■ DR-HD100-40
■ DR-HD100-80



ProHD TAPES

■ M-DV63HD
ProHD tapes (miniDV size)



DV TAPES

■ LA-DV276PRO
■ LA-DV186PRO
■ LA-DV124PRO
Standard DV tapes
■ M-DV12CL
MiniDV cleaning tape



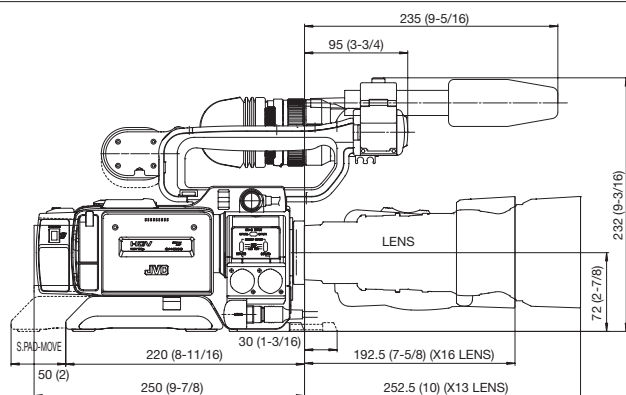
RELATED EQUIPMENT

■ CU-VH1
HD portable digital player/
recorder

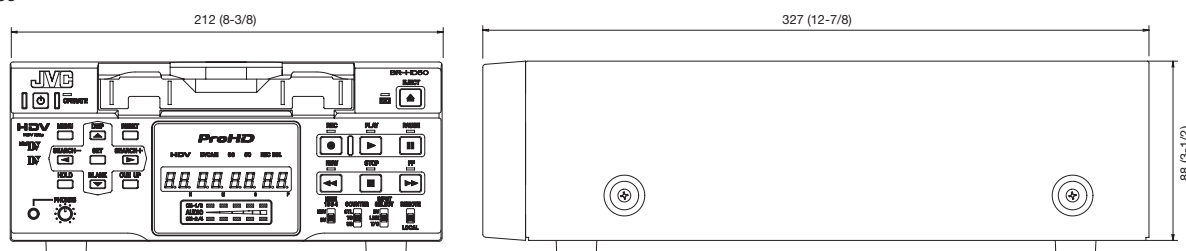


DIMENSIONS

■ GY-HD100



■ BR-HD50



Specifications

GY-HD100

[General]

Power requirements: DC 7.2 V
Power consumption: Approx. 17 W (in the Record mode)
Dimensions: 9-1/4" (W) x 9-1/8" (H) x 12-3/8" (D)/235 (W) x 232 (H) x 315 (D) mm
Weight: 6.9 lbs./3.1 kg (including lens (Th16x5.5BRMU), viewfinder, battery, microphone and tape)
Temperature
Operating: 32°F to 104°F/0°C to 40°C
Storage: -4°F to 140°F/-20°C to 60°C
Humidity
Operating: 30% to 80% RH
Storage: 85% RH or less

[Camera section]

Image pickup device: 1/3" Interline-transfer CCDs
Color separation optical system: F1.4, 3-color separation prism
Number of total pixels: Approx. 1,110,000 pixels
Color bars: SMPTE type
Sync system: Internal sync (built-in SSG)
Lens mount: 1/3" bayonet system
ND filter: 1/4ND, +1/16ND
Gain: 0, 3, 6, 9, 12, 15, 18 dB, ALC
Electronic shutter:
Standard value: 59.94 Hz
Fixed values: 7.5 - 10,000 Hz, 11 steps (HDV HD30p/HDV SD60p/DV 60i mode)
6 - 10,000 Hz, 12 steps (HDV HD24p/ DV 24p mode)
Variable scan: 60.2 to 1,998.0 Hz (HDV HD30p/HDV SD60p/DV 60i mode),
48.12 to 1,998.0 Hz (HDV 24p/DV 24p mode)

[VTR section]

Video
Recording format: 720/24p, 720/25p, 720/30p, 576/50p, 480/60p
480/24p, 480/60i
Video Format:

[HDV]

Video signal recording format: HDV720p format, 8-bit, 19.7 Mbps
Compression: MPEG-2 video (profile & level: MP@H-14)

[DV]

Video signal recording format: DV format, 8-bit, 25 Mbps
Compression: DV compression, 4:1:1

Audio

[HDV]

Audio signal recording format: MPEG1 Audio Layer II

[DV]

Audio signal recording format: 16-bit (locked audio), 48 kHz PCM for 2 channels or 12-bit, 32 kHz PCM for 4 channels
Usable tape: Mini DV tape
Tape speed: 18.8 mm/sec.
Record/play time: 63 minutes (with an M-DV63PROHD tape)

[Connectors]

Analog composite output: 1.0 V (p-p), 75 ohms, unbalanced (RCA)

Analog component output:

Y: 1.0 V (p-p), 75 ohms, unbalanced (RCA)

PB/PR: 0.7 V (p-p), 75 ohms, unbalanced (RCA)

Audio inputs

Mic: -60 dBs, 3 kohms, balanced (XLR), +48 V output for phantom power supply

Line: +4 dBs, 10 kohms, balanced (XLR)

Audio outputs: -6 dBs, low impedance, unbalanced (stereo mini-jack)

Earphone jack: -17 dBs to -60 dBs, 8-ohm impedance (stereo mini-jack x2)

IEEE1394 connector: 6-pin

[Accessories provided]

Battery (BN-V426) x 1, AC adapter/battery charger (AA-P30) x 1, AC cable x 1, DC cable x 1, Audio cable x 1,
Lens (Th16x5.5BRM) x 1, Microphone x 1,

BR-HD50

[General]

Power requirements: DC 12 V (from provided 12 V, 3.5 A AC adapter)
Power consumption: Approx. 20 W
Dimensions: 8-3/8" (W) x 3-1/2" (H) x 12-7/8" (D)/212 (W) x 88 (H) x 327 (D) mm
Weight: Approx. 8.6 lbs./3.9 kg
Temperature
Operating: 41°F to 104°F/5°C to 40°C
Storage: -4°F to 140°F/-20°C to 60°C
Humidity
Operating: 30% to 80% RH
Storage: 85% RH or less

[Video]

Recording format: 720/24p, 720/25p, 720/30p, 576/50p, 480/60p
480/24p, 480/60i

Video Format:

[HDV]

Video signal recording format: HDV720p format, 8-bit, 19.7 Mbps
Compression: MPEG-2 video (profile & level: MP@H-14)

[DV]

Video signal recording format: DV format, 8-bit, 25 Mbps
Compression: DV format, 4:1:1

[Audio]

[HDV]

Audio signal recording format: MPEG1 Audio Layer II

[DV]

Audio signal recording format: 16-bit (locked audio), 48 kHz PCM for 2 channels or 12-bit, 32 kHz PCM for 4 channels
Usable tape: Standard/Mini DV tape
Tape speed: 18.8 mm/sec.
Record/play time: 276 minutes (with LA-DV276PRO tape),
63 minutes (with an M-DV63PROHD tape)

[Connectors]

Video

[HDV]

Video outputs

Analog component: Y: 1.0 V (p-p), 75 ohms (BNC)

PB/PR: 0.7 V (p-p), 75 ohms (BNC)

[DV]

Video inputs

Analog composite: 1.0 V (p-p), 75 ohms (BNC)

Analog Y/C: Y: 1.0 V (p-p), 75 ohms

C: 0.286 V (p-p), 75 ohms (4-pin)

Video outputs

Analog composite: 1.0 V (p-p), 75 ohms (BNC)

Analog Y/C: Y: 1.0 V (p-p), 75 ohms

C: 0.286 V (p-p), 75 ohms (4-pin)

Analog component: Y: 1.0 V (p-p), 75 ohms (BNC)

PB/PR: 0.7 V (p-p), 75 ohms (BNC)

Audio

Audio inputs

Line: -8 dBs, 10 kohms, unbalanced (RCA)

Audio output

Line: -8 dBs, 1 k-ohm, unbalanced (RCA)

Headphones: -∞ to -15 dBs (8 ohms) (Stereo mini jack)

HDMI output: 19-pin

IEEE 1394 interface: 6-pin

RS-422 interface: D-sub 9-pin

Serial remote interface: Mini jack

[Accessories provided]

AC adapter (AA-G30) x 1, AC cable x 1

GY-HD100

Recording/playback format

	Shooting	Tape	IEEE1394	Component out (EE)	Video out	E/ECK	U
HDV	720p 30	←	←	720p 60	480i 60	o	o
	720p 25	←	←	720p 50	576i 50	o	o
	720p 23.98	←	←	720p 60	480i 60	o	o
	480p 60	←	←	480p 60	480i 60	o	o
	576p 50	←	←	576p 50	576i 50	o	o
DV	480i 60	←	←	←	480i 60	o	o
	576i 50	←	←	←	576i 50	o	o
	480i 60 (23.98)	←	←	←	480i 60	o	o
	576i 50 (25)	←	←	←	576i 50	o	o

	Playback	IEEE1394	Component out		720p	Video out	E/ECK	U
HDV	720p 60	←	480 or 576i	480 or 576p	1080i	720p 60	480i 60	o
	720p 30	←			1080i 60	720p 60	480i 60	o
	720p 25	←			1080i 50	720p 50	576i 50	o
	720p 23.98	←			1080i 60	720p 60	480i 60	o
	480p 60	←		480p 60	1080i 60	720p 60	480i 60	o
DV	576p 50	←	480i 60	576p 50	1080i 50	720p 50	576i 50	o
	480i 60	←	480i 60				480i 60	o
	480i 23.98	←	480i 60				480i 60	o
	576p 25	←	576i 50				576i 50	o

	Recording (IEEE1394 input)	Tape	Component out/HDMI out		720p	Video out	E	U
HDV	720p 30	←	480 or 576i	1080i	1080i 60	720p 60	480i 60	o
	720p 25	←		1080i 50	1080i 50	720p 50	576i 50	o
	720p 23.98	←		1080i 60	1080i 60	720p 60	480i 60	o
	480p 60	←		480p 60	1080i 60	720p 60	480i 60	o
	576p 50	←		576p 50	1080i 50	720p 50	576i 50	o
DV	480i 60	←	480i 60				480i 60	o
	576i 50	←	576i 50				576i 50	o
	480i 60 (23.98)	←	480i 60				480i 60	o
	576p 50 (25)	←	576i 50				576i 50	o

BR-HD50

Recording/playback format

	Recording (Analog output)	Tape	Component out/ HDMI out	Video out	E	U
DV	480i 60	←	A	480i 60	o	o
	576i 50	←	B	576i 50	o	o

	Playback	IEEE 1394	Component out/ HDMI out	Video out	E	U
HDV	720p 60	←	A (Upgrade resulted)	480i 60 (Upgrade resulted)	o	o
	720p 30	←	A	480i 60	o	o
	720p 25	←	B (Upgrade resulted)	576i 50 (Upgrade resulted)	o	o
	720p 23.98	←	B	576i 50	o	o
	480p 60	←	A	480i 60	o	o
DV	576p 50	←	A	480i 60	o	o
	480i 60	←	B	576i 50	o	o
	480i 60 (23.98)	←	A	480i 60	o	o
	576i 50 (25)	←	B	576i 50	o	o

	Recording (IEEE1394 output)	Tape	Component out/ HDMI out	Video out	E	U
HDV	720p 30	←	A	480i 60	o	o
	720p 25	←	B	576i 50	o	o
	720p 23.98	←	A	480i 60	o	o
	480p 60	←	A	480i 60	o	o
	576p 50	←	B	576i 50	o	o
DV	480i 60	←	A	480i 60	o	o
	576i 50	←	B	576i 50	o	o
	480i 60 (23.98)	←	A	480i 60	o	o
	576i 50 (25)	←	B	576i 50	o	o

A: 720p 60, 480p 60, 1080i 60, 480i 60 B: 720p 50, 576p 50, 1080i 50, 576i 50 Note: 30 = 29.97 Hz 60 = 59.94 Hz
* Tapes recorded in HDV1080i format cannot be played back by GY-HD100 and BR-HD50.

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