

1/3" 3-CCD DV Camcorders

GY-DV301E (DV Input/Output) GY-DV300E (DV Output Only)

Network Pack

KA-DV300U

Mini DY PAL



Streamcorder







Realtime MPEG4 streaming capability ideal for live webcasts

Just attach the KA-DV300U network pack to the base of the GY-DV301E/GY-DV300E, install the PCMCIA card, and the camcorder is ready for connection to the Internet via a personal computer. LAN connection can be via LAN cable or wireless RF LAN card. As the GY-DV301E/GY-DV300E captures images, it automatically generates MPEG4 files that are sent to the Internet in real time. Viewers can see those streams in real time simply by accessing the specified IP address on their PC. Ideal for any type

of live event — weddings, concerts, conferences, and even news reports -, the GY-DV301E/ GY-DV300E sends your images around the world instantly. Economical and easy to set up, the GY-DV301E/GY-DV300E makes it easy for students to attend lectures via the Internet. Streaming software ("Streamproducer") is provided with the KA-DV300U, allowing up to four GY-DV301E/GY-DV300Es to be connected to a single PC and switched them as required before streaming.

Basic streaming system

With the KA-DV300U network pack installed on the GY-DV301E/GY-DV300E and a PCMCIA card fitted inside the pack, the camcorder can connect to a PC via a wired/wireless LAN. Installing the "Streamproducer" software in the PC allows up to four GY-DV301E/GY-DV300Es to be connected and switched via the PC.

Create a publishing point for distribution.

Images and sound captured with the GY-DV301E/GY-DV300Es can be streamed as MPEG4 files via the PCMCIA card to the PC. The MPEG4 files are then processed by Streamproducer and made available for viewing on the Internet. When viewers access the publishing point IP address, they can play back the MPEG4 files with the Media Player on their PC. Streams of up to 15 fps (352 x 288) are assured.



Powerful 3-CCD imaging, 12-bit ADC, 12-bit DSP and 14x zoom lens combine to give superior performance

3-CCD prism camera for high quality picture

To ensure the best possible image quality, the GY-DV301E/ GY-DV300E incorporates three 1/3" CCDs each of 470,000 pixels (440,000 effective). Each CCD attaches to highly advanced circuitry which virtually eliminates vertical smear when shooting

bright lights in a dark room. Lag and image burn are also reduced to indiscernible levels, while high sensitivity (F11 at 2000 lux) assures creative flexibility and simplifies lighting requirements.

Newly developed 12-bit ADC* and 12-bit DSP**



The 12-bit ADC directly inputs to the DSP, thus eliminating any signal degradation otherwise arising from the analogue pre-gain and pre-knee circuits. In addition, JVC's new DSP with advanced 12-bit video

processing brings out all the natural details, eliminates noise, and gives good gamma response and so reproduces clear detail from dark areas. gital Converter **DSP: Digital Signal Pro

400% dynamic range

An ultra-smooth gamma curve, calculated with a true log scale algorithm, produces a dynamic range of 400%, thus giving totally accurate reproduction of fine details and subtle colours right across the picture, including any shadowed or highlighted areas.

14x zoom lens

Both auto and manual control of focus and iris are available. The handle zoom speed can be adjusted and the large diameter focus ring ensures smooth, accurate focusing. An optical image stabiliser (inner focus) helps stabilise images, especially zoomed-in close-ups

LOLUX 2.65 lux (100% video out)



When activated, the LOLUX mode increases sensitivity with almost zero increase in noise. LOLUX increases the gain by 16x (+24 dB) so you can capture high

quality video footage with excellent colour balance in low-light conditions.

NORMAL

Optical image stabiliser

To minimise jittery images when shooting with the handheld GY-DV301E/GY-DV300E, an optical image stabiliser can be swiched in.

AE (automatic exposure) function

Brightness is managed automatically by a combination of the gain, shutter speed and iris control.

Full auto shooting

With the GY-DV301E/GY-DV300E set to Auto, the iris, shutter speed, gain, white balance, audio record level and optional image stabiliser all automatically self-adjust according to the shooting conditions. Picture quality can be adjusted manually, with individual settings available for master black, detail, DTL frequency, V resolution, auto knee, black and colour matrix.

Widescreen (letterbox) and 4:3 aspect ratios

The screen can be switched between 4:3 and widescreen, allowing signals to be recorded in the desired aspect ratio.

Wide-angle and telephoto lens converters

For telephoto and wide-angle shooting, without sacrificing lens performance, telephoto and wide-angle lens converter accessories are available.

One-push auto focus and one-push auto iris

When the focus or iris switch is set to MANUAL, the Auto Focus mode or Auto Iris mode can be engaged by pressing and holding the PUSH AUTO FOCUS or PUSH AUTO IRIS button.

Cinema Gamma

An S-shaped gamma curve mode can be selected which gradually changes gradations in the areas of dark and high-brightness. This will provide filmlike colour gradations in the recorded images.

Realtime MPEG4 streaming (GY-DV301E/GY



The KA-DV300U features built-in MPEG4/ASF encoding and can accept three types of PCMCIA cards.

Wireless LAN card for streaming Wired LAN card for streaming CF card for ASF file recording Recording time on CF cards

128MB 30 minutes (ASF file)
256MB 60 minutes (ASF file)

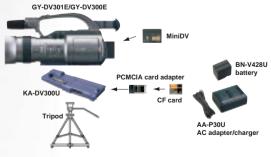
512MB (pending) 120 minutes (ASF file)
* Picture quality rate
Pivel size: 352 x 288 dols
Video transmission rate: 32 kbps
Audio transmission rate: 32 kbps
Max. Trans rate: 12 frames/s

Applications

System 1

Single ENG system

You can record images simultaneously on a tape and a CF card. With a 256 MB CF card, MPEG4/ASF files can be recorded for up to 1 hour at the highest CIF quality. MPEG4/ASF data recording can be triggered simultaneously, or independently from the DV tape.



Product name	Model name	Quantity	Remarks
DV camcorder	GY-DV301E/GY-DV300E	1	
Network pack	KA-DV300U	1	
CF card		2	1 replacement
Battery	BN-V428U	4	3 replacements
AC adapter/charger	AA-P30	1	
MiniDV tape	M-DV63PRO	5	
Tripod		1	

System 2

Self-operated studio system

Even if you're working on your own, you can still present your images in person. While footage is being recorded on a MiniDV tape, it is simultaneously converted to ASF files that can be distributed over the network. Pre-recorded MiniDV tapes can also be converted to ASF files for netcasting or recorded on the CF card for delayed playback. MPEG4/ASF files can be viewed and recorded on a remote PC.



Product	Model	Quantity	Comments
DV camcorder	GY-DV301E/GY-DV300E	1	
Network pack	KA-DV300U	1	
Wireless LAN card		2	1 for camcorder and 1 for PC
PC		1	Pentium III, 1 GHz, memory: 256 MB or more, HDD: 2 GB or more, OS: Windows 2000 Professional
Software	Streamproducer	1	Provided with KA-DV300U
Microphone	MV-P618U	1	
Microphone holder	KA-A33U	1	
Battery	BN-V428U	4	3 replacements
AC adapter/charger	AA-P30	1	
MiniDV tape	M-DV63PRO	5	
Tripod		1	

-DV300E + KA-DV300U with PCMCIA card)



* Streaming quality depends on network conditions.

Remote Adjustment and Control

Camera setting, VTR control and live image capture are all possible from a remote location using only a web browser.

No custom software is necessary.





System 3

Internet live broadcasting system

You can record live events such as sports, concerts, weddings and lectures on a MiniDV tape, while streaming the same material via the Internet in real time.

Streaming distribution system and server not cluded.



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DV camcorder	GY-DV301E/GY-DV300E	1	
Network pack	KA-DV300U	1	
Wireless LAN card		2	1 for camcorder and 1 for PC
LAN cable		1	LAN cross cable
PC		1	Pentium III, 1 GH, memory: 256 MB or more, HDD: 2 GB or more, OS: Windows 2000 Professional
Software	Streamproducer	1	Provided with KA-DV300U
VTR	BR-DV600EA	1	VTR for backup
DV cable		1	For connection between the GY-DV301E/GY-DV300E and BR-DV600EA
Monitor		1	
BNC cable & RCA cable	Э	1	For connection between the BR-DV600EA and monitor
Microphone	MV-P618U	1	
Microphone holder	KA-A33U	1	
Battery	BN-V428U	4	3 replacements
AC adapter/charger	AA-P30	1	
MiniDV tape	M-DV63PRO	5	
Tripod		1	

Glossary

ASF (Advanced Streaming Format):

An extensible file format that can store synchronised multimedia data (including motion pictures, sound, and text) and deliver it over a wide variety of networks and protocols while still proving suitable for local playback.

CIF (Common Intermediate Format):

Standardised video signal format for low bit rate communication. Supports moving pictures with the resolution of H352 x V288 pixels and frame rates up to 30 fps.

kbps (kilobits per second):

Unit for data transmission speed. 1 kbps =1000 bits per second.

MPEG4:

Compression system developed for distribution of low-quality, high-compression video over low-bandwidth lines such as telephone lines and cellular phone. Moving pictures and sound can be reproduced with transmission speed of about 64 kbps.

QCIF (Quarter Common Intermediate Format):

Standardised video signal format for communication with at even lower bit rates than CIF. OCIF uses 1/4 the number of pixels used by CIF and provides 1/2 the resolution (H176 x V144 pixels). Supports moving pictures at up to 30fps.

Streaming: A method for transferring multimedia data such as video and audio over a network (Internet, etc.) that allows the receiving device to start playing back the data before the entire file is received.

Wireless LAN: LAN system in which data is transmitted/received with wireless communication. Each terminal must have a wireless LAN card. Windows Media Player: Utility software for playing back moving pictures and sound

^{*} Product and company names mentioned here are trademarks or registered trademarks of their respective owners.



Reliable recording system for high quality MiniDV pictures and **PCM** audio

MiniDV recording system with SP and LP mode



The GY-DV301E/GY-DV300E combines the convenience and affordability of MiniDV with the highquality camera performance needed for professional use. Up to 80 minutes* of high-quality 8-bit, 13.5 MHz, 4:2:0 DV component digital images can be recorded on a single

MiniDV tape, assuring high quality, non-degradable images needed for top results in post-production editing. Impressive horizontal resolution of 500 lines is achieved when signals are played back via DV output. The high-quality SP mode and up to 90-minute ** recording LP mode are also available, depending on your requirements.

* With an M-DV80 tape.

** The LP mode can be used only with a tape of 63 minutes duration or less.

Tape pattern lead scanning direction 12 tracks for 1-frame signal recordi

Blank Search

An unrecorded section of the tape, such as at the end point of a recording, is detected. The GY-DV301E/GY-DV300E enters the Stop mode at that point.

High-quality PCM audio



To complement the superior pictures, the GY-DV301E/ GY-DV300E offers outstanding digital PCM sound. You can choose from two 16-bit 48-kHz channels or two 12-bit, 32-kHz channels with a dynamic range of more than 71 dB.

Audio recording level adjust

Audio recording level can be adjusted to minimise extraneous noise picked up by the microphone. Audio recording levels for channels 1 and 2 can be set either manually or automatically.

EBU time code generator

An EBU-standard time code generator provides accuracy in editing. The time code system is locked to the REC RUN mode or re-generation mode. EBU time code can be preset at the beginning of the tape.

Edit search

Edit points can be quickly accessed in the Standby mode for review or to set the start point for recording.

Versatile, user-friendly design with professional functions

Lightweight ergonomic design

This handheld camcorder weighs only 1.4 kg giving the flexibility and mobility needed for any type of application. The ergonomic design makes operation easier, allowing rapid reaction shooting in any

situation. All the main controls are clustered on the outside of the camera within easy reach. Controls are shaped differently, allowing easy identification by touch alone. An optional shoulder adapter is available, allowing the camcorder to be supported firmly on the shoulder to stabilise shooting.

2.5-inch LCD display

The 200,000-pixel 2.5" colour TFT LCD monitor provides a high-resolution 440 TVL image during shooting or instant replay. It has adjustable peaking and zebras. Time, status, mode, and other information is also displayed. The monitor tilts up 180° for highangled overhead shooting and tilts down 90° for low-angle

0.44-inch LCD colour viewfinder

The high-resolution viewfinder shows the subject in full colour, making it easy to locate and compose the subject with the LCD panel still closed. Because the angle of the viewfinder can be adjusted, it is easy to

follow a moving subject. For low-angle shooting, the viewfinder can be raised up by 70°.



This allows transfer of a high-quality compressed digital motion-picture signal to a computer, D-9 decks, a non-linear editing system or to another DV recorder. (Input/Output for GY-DV301E, Output

only for GY-DV300E)

Easy set-up and control via clear and logical menu screens

The convenient menu system allows rapid, easy set-up via the camcorder's own LCD display or viewfinder, or via an external monitor.

System menu (1)

ONG PAUSE TIME

System 1/2 menu

selects the built-in microphone or the MIC1 input connector as the audio source. Eliminates wind noise picked up by the built-in microphone or the MIC1/2 input connector. Supplies 48 V phantom power to the microphone connected to MIC1 or MIC2 inputs. Selects 32 kHz or 49 kHz = 1 microphone Selects the built-in microphone or the MIC1 MIC1 INPUT SEL: WIND CUT MIC: +48 V MIC1/2 :

Selects 32 kHz or 48 kHz audio sampling AUDIO MODE:

requency.

REC MODE: Sets the recording speed to SP or LP.

LONG PAUSE TIME: Sets the maximum Pause/Still duration to 3 minutes or 30 minutes. After the set time

FADER

TALLY: HANDLE ZOOM SPEED: DATE REC: has elapsed, the tape mechanism goes to the Standby mode. Enables fade from black when recording

starts. Lights the tally lamp during recording. Sets the zoom speed for the camera handle control only. Three speeds are available. Sets Time & Date recording modes. Sets the aspect ratio to 4:3, 16:9 (letterbox),

System menu (2)

NET REMOTE

Camera menu

Operation menu

CH1 AUDIO LEVEL CH2 AUDIO LEVEL

CAMERA[A] ER BLACK ETAIL TL.VH BALANCE RESOLUTION JTO KNEE LOR MATRIX ON CINEMA

CAMERA menu

MASTER BLACK: Sets the pedestal level. Sets the thickness of the detail contour lines. DETAIL: DTL. VH BALANCE: Emphasises vertical or horizontal contour. V. RESOLUTION: Adjusts the vertical resolution AUTO KNEE: Activates auto knee to obtain balanced

BLACK COLOR MATRIX:

Adjusts the amount of detail in the blacks. Sets the colour matrix to improve colour reproduction.

Selects an S-shaped gamma curve to

produce film-like colour gradations

GAMMA

OPERATION menu

AF. Activates the auto exposure function (Gain: ALC, shutter: EEI, iris: auto iris).
Sets the iris mode to the Auto or Manual IRIS: mode. SHUTTER: Sets the shutter speed to fixed steps values or to variable scan mode.

Sets the white balance to the Auto or Manual

WHITE BALANCE: mode.

OIS: Activates the optical image stabilizer.
CH1/2 AUDIO LEVEL: Selects the Auto or Manual mode for audio recording level adjustment.

Continuous recording mode



When the GY-DV301E/GY-DV300E is connected to a BR-DV600EA recorder via the DV connector, the BR-DV600FA will start recording 5 minutes before the tape in the camcorder comes to its end. This allows continuous shooting

for extended periods, without any interruption

Long-time battery recording

The low power consumption design and the BN-V428U high capacity battery mean that the camcorder can be operated for up to 84 minutes (with VF ON). Furthermore, since these batteries are commonly used in consumer camcorders, they are readily available to purchase.

Battery pack

	BN-V428U
Continuous operation time for GY-DV301E/GY-DV300E	120 min.*
Continuous operation time for GY-DV301E/GY-DV300E+KA-DV300U	84 min.*

* May differ according to how it is operated.

Time/date recording

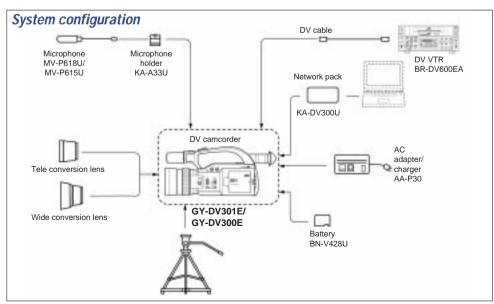
Time and date can be recorded on the tape. Time and date can even be recorded over the built-in colour bar output (4:3 mode only).

Other features

- Zebra pattern (4-step)
- Built-in colour bar
- Variable scan shutter
- XLR microphone connector x 2
- 1/32 ND filter
- Fade to black function

Controls, indicators, connectors





- § Battery remaining time indication
- Optical image stabiliser indicator
- (7) Manual focus
- (8) Manual shutter mode indicator (9) Manual gain mode indication
- (ii) Manual white balance mode indication Shooting mode indication
- © Filter indicator ③ Iris F number
- (4) Iris correction value indication
- (5) VTR mode indication
- [®] Fade indication
- ① Audio sampling frequency indication
- (8) Audio level meter indicator
- Date/time indication
- 30 Built-in speaker

Specifications

Power requirement: DC 7.2 V to 12 V

Power consumption: Approx. 10 W (in the Record mode) Dimensions: 357 (W) x 159 (H) x 130 (D) mm (14-1/16" x

6-5/16" x 5-1/8") Weight: 1.4 kg (3.09 lbs.) (without battery)

Temperature

Operating: 0°C to 40°C (32°F to 104°F) Storage: -20°C to 60°C (-4°F to 140°F)

Operating: 30% to 80% RH Storage: 85% RH or less

Camera section

Image pickup device: 1/3" interline-transfer CCD x 3 Colour separation optical system: F1.6, 3-colour separation prism

Total number of pixels: 470,000 (795 (H) x 596 (V)) Number of effective pixels: 440,000 (752 (H) x 582 (V)) Colour system: PAL (wide-band R-Y, B-Y encoder)

Colour bars: EBU type

Sync system: Internal sync (built-in SSG) Lens magnification: 14x (optical)

Optical filter: 1/32ND Sensitivity: F11, 2000 lux

Minimum illumination: 2.65 lux, LOLUX (100% video out)

Horizontal resolution: 700 TV lines

Gain: -3 -18 dB (1 dB-step), variable gain (0.2 dB-step) in ALC and LOLUX (24 dB)

Electronic shutter: 1/120, 1/250, 1/500, 1/1000, 1/2000, variable (ALC)

Variable scan: 50.1 to 2067.8 Hz

Contour correction: Horizontal and vertical dual-edged

Lens section

Focus length: f = 5.6 mm to 78.4 mm Maximum diameter ratio: 1: 1.6 (wide) to 1: 2.8 (tele) Shortest shooting distance: Max. 1.0 m

Swaying correction range: ±0.3° Filter diameter: 52 mm

VTR section

Format: DV format, SD specifications

Signal format: PAI DV in/out resolution: 540 TV lines

Usable tape: MiniDV tape

Tape speed: 18.831 mm/sec. (SP mode), 12.568 mm/s

(LP mode)

Record/play time: 60 minutes (with an M-DV60ME tape in SP mode), 90 minutes (with an M-DV60ME tape in LP mode)

FF/rewind time: Approx. 2 min. (with an M-DV60ME tape)

Time code: Drop, rec run, regeneration, preset (the beginning of the tape only)

[Video]

Video signal recording format: 8-bit, 13.5 MHz, 4:2:0 component recording

[Audio]

Audio signal recording format: 16-bit, 48 kHz PCM for 2 channels or 12-bit, 32 kHz PCM for 4 channels

(recording only for 2 channels) **Dynamic range**: 71 dB or more

[Connectors]

Video output: 1.0 V(p-p), 75 ohms, unbalanced (BNC) (composite video signal)

Y/C output: Y; 1 V (p-p), 75 ohms, unbalanced

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

Microphone input: -60 dBs, 3 kohms, balanced, +48 V output

for phantom power supply

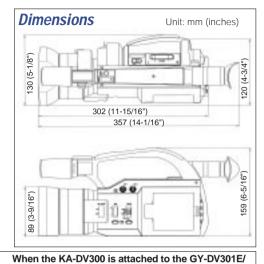
Audio outputs: -8 dBs, low impedance, unbalanced (RCA) Earphone jack: -60 dBs to -28 dBs, 8-ohm impedance

(monaural sound mini-jack)

DV (IEEÈ 1394): 4-pin

GY-DV301E: DV input/output GY-DV300E: DV output only

Built-in microphone: uni-directional, sensitivity of -40 dBs



KA-DV300U (Optionally available)

Network Pack

Dimensions

Mass: Power supply: Power consumption: Allowable operating temperature: Allowable storage temperature: Allowable operating humidity: Provided accessory:

File system: Video compression system: Sound compression system:

Image size: Video rate: Audio rate: Maximum frame rate: PC card slot:

Streaming:
Capturing:
Setup via network:
Viewer/capture via network:

VTR control via network: Maximum delay time:

191.5 (W) x 27.6 (H) x 74 (D) mm (7-9/16" x 1-1/8" x 2-15/16") 150 g (0.33 lbs.)(main unit only) 150 g (0 33 lbs.) (main unit only) Supplied from the GY-D/301E/GY-D/300E DC 7.2 V -- , 0.61 A (main unit only) O'C to 40°C (32°F to 104°F) -20°C lb 60°C (44°F to 140°F) 30% to 80% RH CD-ROM ASF streaming/ASF file MPEG4 realitime G. 726 realitime G. 726 realitime G. 726 realitime G. 726 (176x144) 32k, 64k, 128k, 384k

16k, 24k, 32k, 40k

16k, 24k, 32k, 40k
30F (only with 176 x 144), 15F (12F with 384K), 7F, 4F
Compatible with wired/wireless LAN card and CF card
ASF streaming with wired/wireless LAN card
ASF file with CF card
Network setup, port setup, encoding parameters, camera control
Streamcapture (system requirement: Internet Explorer 5.0 or later,
Windows Media Player 7.1 or later)
REC/PLAY/PAUSE/STOP/FF/REW
17 sec.



Streamproducer

(streaming software provided with the KA-DV300U) Computer system requirements

(for Streamproducer operation)
CPU: 700 MHz Pentium III processor or greater

CPU. 700 Win2 Pertituin in processor or greater RAM: at least 256 MB OS: Windows 2000 Professional HDD: Depends on amount of continuous operation time

required
LAN: Two ports (TCP/IP LAN interface)
Modem/router: must obtain global IP address

GY-DV300E, the following functions are available.

- 1. Camera pictures can be recorded simultaneously on a DV tape and CF memory card.
- 2. Camera pictures can be recorded on a CF memory card only. 3. Playback signals from the DV tape can be recorded on a CF
- memory card.
- 4. DV input pictures can be recorded simultaneously on a DV tape and CF memory card (GY-DV301E only).

 5. DV input pictures can be recorded on a CF memory card only
- (GY-DV301E only).

(Recording and transmission to LAN)

- 1. Camera pictures can be simultaneously recorded on a DV tape and transmitted to the LAN.
- 2. Camera pictures can be transmitted to the LAN without recording.
- 3. Playback signals from the DV tape can be transmitted to the LAN. 4. DV input pictures can be simultaneously recorded on a DV tape
- and transmitted to the LAN (GY-DV301E only).
- 5. DV input pictures can be transmitted to the LAN without recording. *CF and LAN cards are not provided.

Options







MV-P615U MV-P618U Exterior Aluminum Plastic mold Phantom (48 V) Phantom (48 V) Power supply System XLR-3P 60 dB S/N 50 dB or more 40 dB or more

KA-A33U

BR-DV600EA













Design and specifications subject to change without notice.



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