

1/3" 3-CCD DV Camcorder

# GY-DV300U

Network Pack

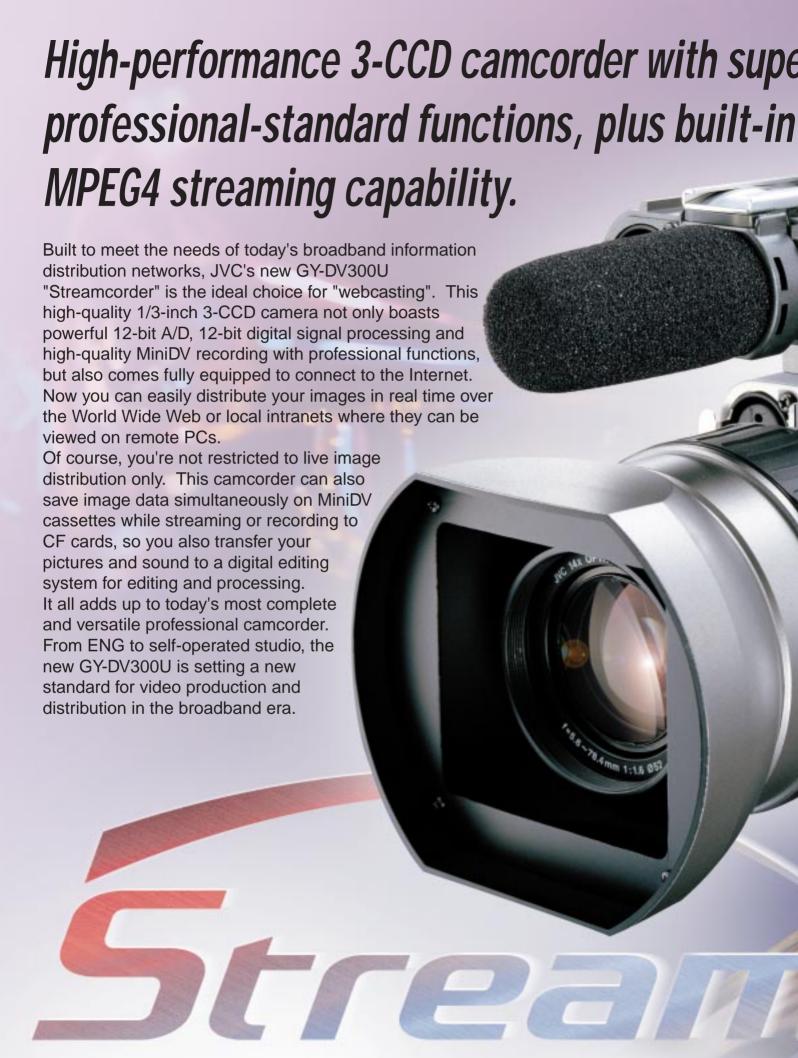
KA-DV300U

Mini



Streamcorder







## Realtime MPEG4 streaming capability ideal for live webcasts

Just attach the KA-DV300U network pack to the GY-DV300U, install the PCMCIA card, and you're ready to connect the GY-DV300U to an Internet-connected personal computer (wired or wireless LAN). As the GY-DV300U captures images, it automatically generates MPEG4 files that can be 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, and even news reports —, the GY-DV300U sends your images around the world instantly. Economical and easy to set up, the GY-DV300U makes it easy for students to attend lectures via the Internet.

Streaming software ("Streamproducer") is

Streaming software ("Streamproducer") is provided with the KA-DV300U, allowing you to connect up to four GY-DV300Us to a single PC and switch them as required before streaming.

## **Basic streaming system**

With the KA-DV300U network pack connected to the GY-DV300U and a PCMCIA card in the pack, the GY-DV300U can connect to a PC via a wired/wireless LAN. Installing the "Streamproducer" streaming software on the PC allows up to four GY-DV300Us to be connected and switched on the PC.

Create a publishing point for distribution.

Images and sound captured with the GY-DV300Us 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 people access the publishing point IP address, they can play back the MPEG4 files with the Media Player on their PC. Streams up to 15 fps (352 x 288) are assured.



# Powerful 3-CCD imaging, 12-bit A/D, 12-bit DSP and 14x zoom lens for superior performance

## 3-CCD camera for high-quality picture

To ensure the best possible image quality, the GY-DV300U incorporates three 1/3" 410,000 CCDs (effective 380,000 pixels). Each CCD is equipped with highly advanced circuitry that 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 of F11 at 2000 lux assures creative flexibility and simplifies lighting requirements.

## Newly-developed 12-bit A/D and 12-bit DSP



The 12-bit A/D allows direct digital input to the DSP without passing through analog pre-gain and pre-knee circuits, eliminating signal degradation. In addition, JVC's new DSP with advanced 12-bit video processing brings out natural

details, eliminates spot noise, and accurately reproduces dark areas.

## 400% dynamic range

By creating an ultra-smooth gamma curve calculated with a true log scale algorithm, a dynamic range of 400% is obtained, making it possible to accurately reproduce fine details and subtle colors throughout the picture, including shadowed and highlighted areas.

### 14x zoom lens

Both auto and manual focus and iris control are available. 14x zoom speed can be varied as required and the large diameter focus ring ensures smooth, accurate focusing, allowing you to shoot the intended images. An optical image stabilizer (inner focus) helps stabilize zoom images.

## LOLUX 2.65 lux (100% video out)



When activated, the LOLUX mode increases sensitivity with almost no increase in noise. LOLUX increases the gain by 16x (+24 dB) so you can capture high-quality video footage with excellent color balance in low-light conditions.

## Optical image stabilizer

To minimize jittery images when shooting with the handheld GY-DV300U, an optical image stabilizer is provided.

## AE (automatic exposure) function

Brightness is automatically adjusted by combining the gain, shutter speed and iris.

## **Full auto shooting**

When the GY-DV300U is in the Auto mode, iris, shutter speed, gain, white balance, audio rec level and optional image stabilizer are all adjusted automatically 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 color matrix.

## 16:9 (letterbox) and 4:3 aspect ratios

The screen can be switched between 4:3 and 16:9, allowing you to record signals with the aspect ratio appropriate to the application.

## **Optional wide conversion lens**

For telephoto and wide-angle shooting without sacrificing lens performance, optional telephoto and wide-angle conversion lenses are available.

## One-push auto focus/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

You can select an S-shape gamma curve mode that gradually changes gradations in the dark and high-brightness areas. This will provide film-like color gradations in the images you shoot.

# Realtime MPEG4 streaming (GY-DV300



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

Wireless LAN card for streaming Wired LAN card for streaming CF card for ASF file recording 128M 30 minutes (ASF file) 256M 60 minutes (ASF file) 512M (to be released soon) 120 minutes (ASF file)

\* Picture quality rate Pixel size: 352 x 288 dots Video transmission rate: 384 kbps Audio transmission rate: 32 kbps Max. frame 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-DV300U	1	
Network pack	KA-DV300U	1	
CF card		2	1 replacement
Battery	BN-V428U	4	3 replacements
AC adapter/charger	AA-P30U	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.



Model	Quantity	Comments
GY-DV300U	1	
KA-DV300U	1	
	2	1 for camcorder and 1 for PC
	1	Pentium III, 1 GHz, memory: 256 MB or more, HDD: 2
		GB or more, OS: Windows 2000 Professional
Streamproducer	1	Provided with KA-DV300U
MV-P618U	1	
KA-A33U	1	
BN-V428U	4	3 replacements
AA-P30U	1	
M-DV63PRO	5	
	1	
	GY-DV300U KA-DV300U Streamproducer MV-P618U KA-A33U BN-V428U AA-P30U	GY-DV300U 1 KA-DV300U 1 2 1 Streamproducer 1 MV-P618U 1 KA-A33U 1 BN-V428U 4 AA-P30U 1

# OU + KA-DV300U with PCMCIA card)



VTR control

\* Streaming quality depends on network conditions.

# Remote Setting

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 included.



			1 BK-DV600UA	
Product name	Model name	Quantity	Remarks	
DV camcorder	GY-DV300U	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-DV600UA	1	VTR for backup	
DV cable		1	For connection between the GY-DV300U and BR-DV600UA	
Monitor		1		
BNC cable & RCA cable		1	For connection between the BR-DV600UA and monitor	
Microphone	MV-P618U	1		
Microphone holder	KA-A33U	1		
Battery	BN-V428U	4	3 replacements	
AC adapter/charger	AA-P30U	1		
MiniDV tape	M-DV63PRO	5		
Tripod		1		

## Glossary

#### ASF (Advanced Streaming Format):

An extensible file format that can store synchronized 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):

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

#### kbps (kilobits per second):

Unit for data transmission speed. 1 kbps =1000 bits per second. MPEG4:

Compression system developed for distribution of low-quality, highcompression 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):

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

**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



# Reliable recording system for high-quality MiniDV pictures and PCM audio

## MiniDV recording system with SP/LP mode

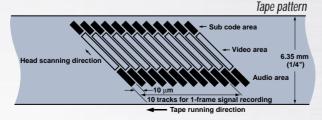


The GY-DV300U combines the convenience and affordability of MiniDV with the high-quality camera performance you need for professional use. Up to 80 minutes\* of high-quality 8-bit, 13.5 MHz, 4:1:1 DV component digital images can be recorded on a single MiniDV tape,

assuring you the high-quality, non-degradable images you need 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 available to choose from depending on your requirements.

\* With an M-DV80 tane

\*\* The LP mode can be used only with a tape for 60 minutes or less.



#### **Blank Search**

A non-recorded section of the tape, such as the end point of a recording, is detected. The GY-DV300U enters the Stop mode at that point.

## **High-quality PCM audio**



To complement the superior pictures, the GY-DV300U 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 minimize extraneous noise picked up by the microphone. Audio recording levels for channels 1 and 2 can be set either manually or automatically.

## **SMPTE** time code generator

SMPTE-standard time code can be recorded and read for accurate editing. The time code system is locked to the drop-frame mode, REC RUN mode or re-generation mode. SMPTE 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

## Light weight ergonomic design

This handheld camcorder weighs only 1.4 kg (3.09 lbs.), giving you the flexibility and mobility you need for any type of application. The ergonomic design makes operation easier, allowing you to capture

the action in any situation. All important 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 you to support the camcorder on the shoulder to stabilize shooting

## 2.5-inch LCD display

provides a high-resolution image during shooting or

0.44-inch LCD color viewfinder

The high-resolution viewfinder shows your subject in full color, making it easy to locate and frame your subject with the monitor closed. As the view angle can be adjusted, you can follow the target easily. For low-

angle shooting, the viewfinder can be raised about 70 dearees



Continuous recording mode

Long-time battery recording

When the GY-DV300U is connected to

a BR-DV600UA recorder via the DV

connector, the BR-DV600UA will start

recording 5 minutes before the tape

ends in the GY-DV300U. This allows

interruption for extended periods.

continuous shooting without

directional 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.

## The 200,000-pixel 2.5" color TFT LCD monitor

instant replay with 440 TV lines, and adjustable peaking and zebras. Time, status, mode, and other information is also displayed You can tilt the monitor (180° up and 90° down) for highangled overhead shooting and low-angle shots.

Systematic menu screens for easy control

The convenient menu system lets you quickly set and switch most basic functions while referring to the LCD display, viewfinder or on monitor.

## System menu (1)

REC MODE LONG PAUSE TIME

System 1/2 menu

WIND CUT MIC: +48 V MIC1/2 :

microphone connected to MIC1 or MIC2

AUDIO MODE:

System menu (2)

REMOTE

TALLY: HANDLE ZOOM SPEED: DATE REC:

FADER:

ASPECT: SET UP:

MIC1 INPUT SEL:

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 pov

Selects 32 kHz or 48 kHz audio sampling

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

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), Adds 7.5 IRE setup to analog video output signals.

And since these are consumer-use batteries, replacements are easy to obtain

Battery pack					
	BN-V428U				
Continuous operation time for GY-DV300U	120 min.				
Continuous operation time for GY-DV300U+KA-DV300U	84 min.				

With low-power consumption design and the BN-V428U high capacity

battery, this camcorder can be operated for up to 84 minutes (with VF ON).

\* Differs depending on operating conditions.

#### Camera menu

IAIL ..VH BALANCE ESOLUTION FO KNEE IID IORMAL IN IORMAL .ACK DLOR MATRIX MMA ON CINEMA

## CAMERA menu

MASTER BLACK: DETAIL: V. RESOLUTION: AUTO KNEE:

COLOR MATRIX:

GAMMA:

Sets the pedestal level. Sets the thickness of the detail contour lines. DTL. VH BALANCE: Emphasizes vertical or horizontal contour. Adjusts the vertical resolution Activates auto knee to obtain balanced intensity.

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

Selects an S-shaped gamma curve to produce film-like color gradations

#### Operation menu

CH1 AUDIO LEVEL CH2 AUDIO LEVEL

#### **OPERATION** menu

Activates the auto exposure function (Gain: ALC, shutter: EEI, iris: auto iris).
Sets the iris mode to the Auto or Manual AF. 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:

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

mode.

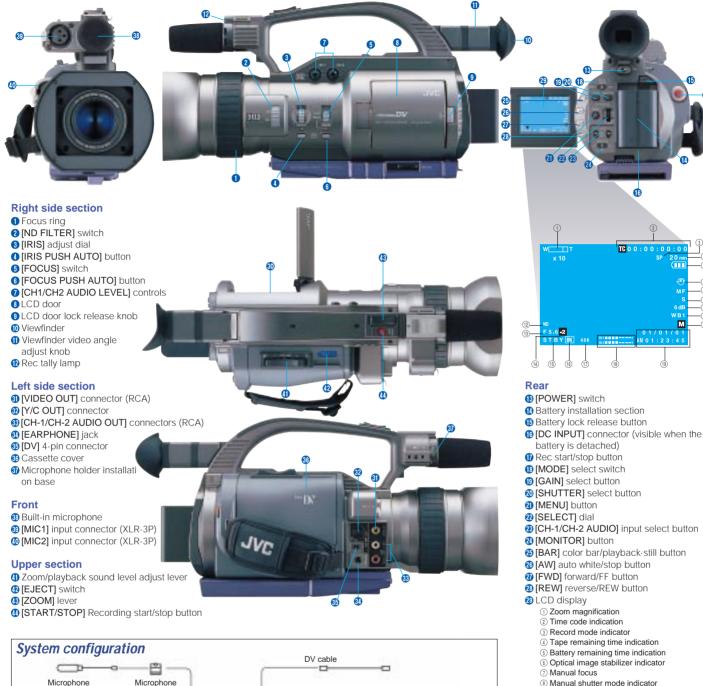
## Time/date recording

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

## Other features

- Zebra pattern (4-step)
- Built-in color bar (conforming to SMPTE RS-170A)
- Variable scan shutter
- XLR microphone connector x 2
- 1/32 ND filter
- Fade black function

## Controls, indicators, connectors



(9) Manual gain mode indication

(4) Iris correction value indication

(8) Audio level meter indicator

(f) Audio sampling frequency indication

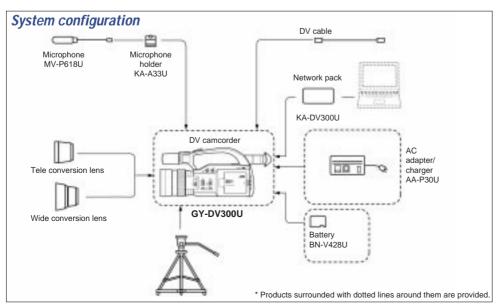
① Shooting mode indication② Filter indicator③ Iris F number

(§) VTR mode indication (§) Fade indication

Date/time indication

30 Built-in speaker

(1) Manual white balance mode indication



## **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 Color separation optical system: F1.6, 3-color separation prism

Total number of pixels: 410,000 (811 (H) x 508 (V)) Number of effective pixels: 380.000 (768 (H) x 494 (V)) Color system: NTSC (wide-band R-Y, B-Y encoder)

Color bars: SMPTE 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: 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, variable (ALC)

Variable scan: 60.1 to 2084.6 Hz

Contour correction: Horizontal and vertical dual-edged

#### **Lens section**

Focus length: f = 5.7 mm to 79.8 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: NTSC

DV in/out resolution: 540 TV lines Usable tape: MiniDV tape

Tape speed: 18.812 mm/sec. (SP mode), 12.555 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, 4:1:1

#### 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)

Streamproducer

RAM: at least 256 MB

(streaming software provided with the KA-DV300U)

Computer system requirements (for Streamproducer operation)
CPU: 700 MHz Pentium III processor or

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 IF

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 connector: 4-pin

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

#### Included accessories

BN-V428U battery x 1 AA-P30U AC adapter/charger x 1

## **Dimensions** Unit: mm (inches) 130 (5-1/8") 302 (11-15/16") 357 (14-1/16") (6-5/16")(3-9/16")159 38 89

## KA-DV300U





File system

Viewer/capture via network

VTR control via network: Maximum delay time:

Internet Explorer 5.0 or later

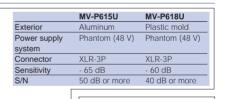
Streamcapture (system requirement: Windows Media Player 7.1 or later) REC/PLAY/PAUSE/STOP/FF/REW

## **Options**









KA-A33U

Microphone holder

## **BR-DV600UA**











Design and specifications subject to change without notice.



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JVC PROFESSIONAL PRODUCTS COMPANY

DIVISION OF JVC AMERICAS CORP. 1700 Valley Road, Wayne, NJ 07470 TEL: 973-317-5000, 1-800-526-5308 FAX: 973-317-5030 JVC CANADA INC.

21 Finchdene Square, Scarborough Ontario M1X 1A7 TEL: 416-293-1311 FAX: 416-293-8208 http://www.jvcpro.com

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