DV CAMCORDER
GY-DV500U
Mini DV NTSC

JVC PROFESSIONAL

PROFESSIONAL DV
The Professional Solution To Your Professional Demands
HIGHLIGHTS

1. High Quality
2. Compact and Lightweight
3. Professional Design
4. User-Friendly Operation
5. Low Running Cost
The ideal digital acquisition solution for professional ENG, the GY-DV500U DV camcorder weighs in at less than 11.0 lbs. (5 kg) fully loaded yet offers a full set of professional specs along with high-quality component digital recording on widely available MiniDV cassettes. With three high-performance 1/2" CCDs for superior, high-resolution images, a bayonet lens mount, menu dial, and exclusive features like Super Scene Finder (SSF™) all incorporated in a tough, compact diecast magnesium body, the GY-DV500U is ready to tackle the most demanding professional applications. And, thanks to built-in IEEE 1394 (input and output) and RS-232C interfaces, this versatile camcorder can easily be integrated into a variety of NLE and post-production systems. Whether it be cable and broadcast productions, corporate, educational, or wedding videography, the JVC GY-DV500U offers the professional solution to your professional demands.
Digital Recording

DV recording on a MiniDV tape

The GY-DV500U 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 540 lines is achieved when signals are played back via IEEE 1394.

*with an MDV-80 tape

PCM audio recording

To complement its superior DV pictures, the GY-DV500U offers outstanding digital PCM sound. You can choose between two 16-bit 48-kHz channels or two 12-bit 32-kHz channels with a dynamic range of more than 85 dB.

Professional Specifications

1/2" 3-CCD image pickup

To ensure the best possible image quality, the GY-DV500U incorporates three state-of-the-art 1/2" 380,000 pixel CCDs. Each CCD is equipped with 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.

14-bit digital signal processor (DSP)

The GY-DV500U applies JVC's new DSP with advanced 14-bit video processing, which brings out natural details, eliminates spot noise, and accurately reproduces dark areas.

LOLUX 0.75 lux

When activated, the LOLUX mode increases sensitivity with almost no increase in noise. LOLUX lets you shoot in low light conditions, so you can capture high-quality video footage with excellent color balance at just 0.75 lux illumination.
2. Compact and Lightweight

Compact mechanism

Thanks to the use of compact MiniDV tapes, we were able to develop a small, lightweight, rugged, professional mechanism.

Diecast magnesium body

The diecast magnesium body also contributes to this unit’s reduced weight and offers improved rigidity and durability. It’s built to perform in the not-so-gentle world of professional image acquisition.

Low power consumption

The main unit consumes only 20 watts or less, making a cumbersome large-capacity battery pack unnecessary. You can record for over two hours with a 50 WH battery.

Weighs only 11 lbs. (5 kg) or less when fully loaded

Because it uses MiniDV tapes, the GY-DV500U is able to pack a lot of performance into a very compact body that weighs only 11 lbs. (5 kg) including lens, viewfinder, battery pack and tape. Use of a DC-DC power supply trims the unit’s dimensions still further.

Functions and switch layout for “Real” professionals

In addition to the Full Auto Shooting mode — ideal for beginners and emergency situations, the GY-DV500U is equipped with an array of pro-level functions that provide professionals with the creative flexibility they need. These include Continuous Auto Black (CAB), Automatic Level Control (ALC), Black Stretch/Compress, etc.

The GY-DV500U’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-DV500U is the ideal camera for any assignment.

3. Professional Design

1/2” bayonet lens mount

The GY-DV500U uses a standard professional 1/2” bayonet lens mount, making it compatible with the widest selection of broadcast and professional lenses. No adapters, no hidden costs. Just a smart way to tap the rich infrastructure of interchangeable professional lenses.

Balanced, reliable design

The weight is carefully balanced for ease of use in an ENG environment and the mechanism has been specially designed to assure the reliable and stable shooting performance that professionals need.
Maximum system flexibility

The GY-DV500U is equipped with an IEEE 1394 (DV) input/output. This allows lossless digital video and audio transfers to or from any DV equipped device such as non-linear editing systems or DV recorders. Basic control of the GY-DV500U is also available via the DV connector or an RS-232C port, making the GY-DV500U ideal not only for shooting, but also as a spooler/recorder/player in a non-linear or linear editing system.

Viewfinder status display

The viewfinder status display uses characters and menus to display selected information in the viewfinder, including various events, camera setting status, recorder operation, and selected setup parameters.

Convenient menu dial

A built-in menu dial lets you quickly and easily navigate through the viewfinder menu, as well as set the shutter speed.

Easy tape availability

MiniDV tapes are readily available and inexpensive because the tape is the same MiniDV tape as that used for consumer products. You’ll be able to get fresh tapes whenever you need them, wherever you are.

Space saving

With dimensions of 66 x 48 x 12.2 mm, MiniDV cassettes are only a tiny fraction of the size of other video cassettes, so they take up less space in your tape library and in your travel pack.

5. Low Running Cost
Other Valuable Features

Super Scene Finder (SSF™)

Super Scene Finder

A JVC exclusive, Super Scene Finder lets you log scenes automatically or manually in the field, and mark which scenes are good. This dramatically speeds up the transfer process and saves disk space, because now you can digitize only those scenes which you need for editing. The scene data is written directly onto the MiniDV cassette tape itself, eliminating the need for special higher priced cassettes with memory chips. Up to 119 scenes can be marked per cassette. In addition, scene data from the last 6 cassettes is held in the camcorder's memory, allowing the data to be downloaded via the RS-232C to a PC to create a log file or EDL file at a later time. And since this system is fully internalized, it doesn't require any additional investment in order to use it.

Functions for Professionals

- Full auto shooting for one-touch automatic operation
- Full manual operation for "Real" professional
- Back tally lamp for letting talent behind the camcorder know you are shooting
- Precision "accu-focus" mode for easy, precise lens focus
- Continuous auto black (CAB)
- Automatic level control (ALC) for continuous automatic control of gain
- Back-Ill LCD display for VTR menu and status indications
- Tape/battery remaining indicator
- Variable scan view for shooting computer screens
- Sync lock mode for multi-camera shooting
- Black stretch/compress for enhancing or suppressing shadow areas
- Adjustable gamma for adjusting the "feel" of the picture according to taste
- Adjustable detail frequency for setting picture sharpness for a bolder or finer look
- Time code reader/generator
- Built-in phantom microphone power

System Configuration
Specifications

General
Power requirement: DC 10.5 V to 17 V
Power consumption: Approx. 20 W
Dimensions: 275 (W) x 245 (H) x 130 (D) mm
(10-7/8" x 9-11/16" x 5-1/8")
Weight: 5 kg (11 lbs.) including viewfinder, battery, microphone
and tape
Temperature
Operating: 0°C to 40°C (32°F to 104°F)
Storage: -20°C to 60°C (-4°F to 140°F)
Humidity
Operating: 30% to 80% RH
Storage: 85% RH or less

Camera section
Image pickup device: 1/2" interline-transfer CCDs
Color separation optical system: F1.4, 3-color separation prism
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, external sync (VBS)
Lens mount: 1/2" bayonet system
Optical filter: 3200K, 5600K, 5600K + 1/64ND
Sensitivity: F11, 2000 lux
Resolution: 800 lines in-camera (no output),
540 lines via digital output
Gain: -3, 0, 6, 9, 12, 18 dB, variable gain in ALC and LOLUX
Minimum illumination: 0.75 lux with F1.4, LOLUX
Registration: 0.05% or less (excluding lens distortion)
Detail correction: Horizontal and vertical dual-edged
Electronic shutter variable range:
Standard value: 59.94 (60) Hz
Fixed values: 100, 250, 500, 1000, 2000 Hz
Variable scan: 60.1 to 2084.6 Hz

VTR section
Format: DV 4:1:1 format
Signal format: NTSC
Usable tape: MiniDV tape
Tape speed: 18,812 mm/sec. (SP mode)
Record/play time: 80 minutes or more (with an MDV-80 tape)
FF/rewind time: Within 120 sec. (with an MDV-60 tape)

[Video]
Video signal recording format: 8-bit, 13.5 MHz, 4:1:1 component recording

[Audio]
Audio signal recording format: 16-bit, 48 kHz or 12-bit, 32 kHz
Frequency response: 20 Hz to 20 kHz (16-bit), 20 Hz to 14.5 kHz (12-bit)
Dynamic range: 85 dB or more

[Connectors]
Video output: 1.0 Vp-p, 75 ohms (BNC) (composite video signal)
Y/C output: Y/C signal, 4 pin, 75 ohms, unbalanced
Audio inputs (AUDIO 1, AUDIO 2):
MIC: -60 dBs, low impedance (XLR), balanced
LINE: +4 dBs, 10 kohms, balanced
Line outputs (LINE 1, LINE 2): 6.1-dB, low impedance (RCA), unbalanced
Sync in: BNC
Test out: BNC (composite video, 75 ohms, unbalanced)
IEEE 1394 interface: 4-pin
RS-232C interface: Mini DIN 6 pin
Earphone: Mini jack
DC output (for wireless mic power): 4-pin (DC 17 V, 300 mA)

Accessories
Instruction manual
Tripod mounting plate

Dimensions

Options——A wide range of options are available to expand the flexibility of this camcorder.

VF-P115U
1.5" viewfinder

VF-P116U
1.5" viewfinder

VF-P400U
4" studio viewfinder

S14 x 7.3B12U
14:1 power zoom lens

S19 x 6.5B12U
19:1 power zoom lens

YH14 x 7.3K12U
14:1 power zoom lens

YH18 x 6.7K12U
18:1 power zoom lens

MV-P615U
Monaural microphone with XLR connector

HZ-FM13U
Manual focus control for Fujinon lens
(excluding S14 lens)

HZ-FM15U
Manual focus control for Canon lens

AA-P250U
AC power adapter/charger

AA-G10U
AC adapter/battery charger

NP-1 type batteries

CB-P27U
Carrying case

TP-P300U
Tripod

KA-A50U
Microphone holder

NB-G1
Ni-Cd battery (2.2 Ah)

BH-P27U
Battery holder

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