

Panasonic
ideas for life

AG-**DVX100A**
Mini-DV Camera-Recorder (PAL)



LEICA
DICOMAR

Mini **DV** Digital
Video
Cassette



The Image Quality, Mobility and Versatility that Professionals Need

The AG-DVX100 shattered conventional notions of what a DV camera-recorder could do, delivering image quality, functions and operating ease suitable for professional applications. As the first model in its class to offer the 25p Cinema mode, the AG-DVX100 was particularly well received by filmmakers and image creators. Now, Panasonic introduces the AG-DVX100A. This advanced new model takes the DV camera a big step forward, retaining the popular features of its predecessor while adding enhancements that reflect feedback from professionals who used the AG-DVX100. The AG-DVX100A offers higher image quality and more functions than its predecessor. Even more important, it provides high-level specifications and design improvements that cater to the needs of professional camera operators. Mobile, versatile and easy to use, the Diamond Graphite AG-DVX100A has everything you need for creative content production and active image gathering.

Further Evolution in the DV Camera-Recorder

Enhanced 25p Progressive Mode Function

Focus assist, gain up (+12 dB max.), and a colour bar display have been added to enhance shooting in 25p Progressive mode.

Improved Colour Reproduction

Optimized colour separation optics and a new high-performance lens that uses low-dispersion glass combine to capture vivid, faithful colours.

New Cine-Like Gamma Curves and Enhanced Image Adjustments

New modes have been added to the gamma curve and matrix settings. New V DTL Level, Coring, and Knee adjustments have also been added.

Slow Shutter Function for Higher Sensitivity and Dramatic Effects

The slow shutter (accumulative mode) drops the shutter speed to 1/3 sec, 1/6 sec, etc., for higher sensitivity low light shooting and dramatic, frame-by-frame like effects.

Smoother Zooming and Focusing

The operating feel of the manual zoom and manual focus ring has been further enhanced. You feel virtually the same steady resistance as when using a conventional professional lens.

Focus Assist and New Recording Mode for Improved Ease and Versatility

The viewfinder features a B/W display mode and detail (PEAKING) function for easier focusing. Three user-assignable buttons (USER1, USER2, USER3) give you instant, one-touch access to three setup functions. A new 15-sec interval recording mode has also been added.

New Squeeze Mode for 16:9 Recording

The AG-DVX100A provides high-quality wide-image recording in letterbox mode, the new squeeze mode, or with the optional 16:9 conversion lens (sold separately)



anced



Shown with optional unidirectional
microphone AG-MC100G.

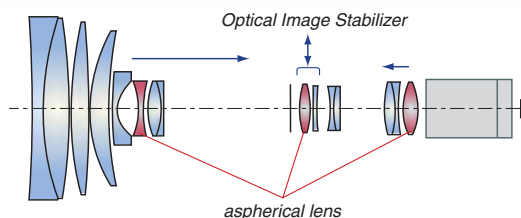
Ultimate Creativity

Image quality that far exceeds anything in its class, plus an evolved 25p progressive function



Superior Image Rendering with the Leica Dicomar™ Lens, Plus OIS

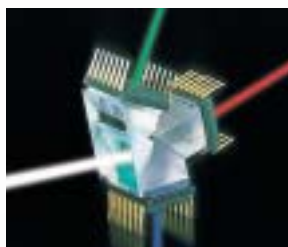
The Leica Dicomar lens featured in the AG-DVX100A incorporates Leica optical technology and know-how. Use of low-dispersion glass reduces colour aberration and increases resolution, while a multi-coating process minimizes flare and ghosts. The results are sharp, crisp, beautifully rendered images with delicate nuances and exceptional shading. The lens system features 15 lens elements in 11 groups, including three aspherical lenses. Panasonic's advanced OIS (Optical Image Stabilizer) drastically cuts the blurring caused by hand shake. Optical processing with an automatic correction function helps assure consistently clear, sharp images.



*Leica and Dicomar are registered trademarks of Leica Microsystems IR GmbH.

470,000-Pixel, 3CCD Image System Provides F11 Sensitivity for Superior Image Quality

Panasonic designed the AG-DVX100A to deliver the highest sensitivity and picture quality in its class. At its heart is a 3CCD RGB system comprising three 1/3-inch, 470,000-pixel progressive CCDs developed especially for broadcast and professional applications. The new on-chip lens design achieves high F11 sensitivity, allowing the AG-DVX100A to record in light as dim as below three lux, for example, in nighttime news gathering. Picture quality is outstanding, with a high S/N ratio that means less noise in darker parts of the image and low smear that allows shooting in sunlight or under bright spotlights.



High-Sensitivity Slow Shutter (in cumulative) Function

The slow shutter function uses image accumulation to enable shutter speeds with frame rates reduced by half or more. You get the ultra-high sensitivity needed for nighttime shooting without illumination, as well as dramatic frame-by-frame or soft focus effects.

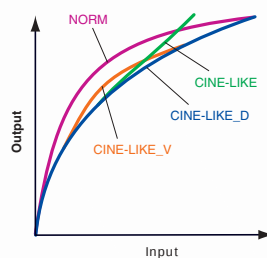
High Image Quality with 12-Bit A/D Conversion

The AG-DVX100A features an A/D converter that uses the same 12-bit processing as broadcast camera-recorders. Precisely digitizing the gradation and colours captured by the progressive CCD, this A/D converter supports gamma switching and other fine downstream image adjustments — one of the keys to achieving rich image expression.

RGB Gamma Processor Provides Rich, Cine-Like Tones

Panasonic has greatly expanded the expressive capability of the DV camera by creating unique gamma functions such as Cine-Like gamma curves, which produce images strikingly similar in tone to film images. For each of the RGB signals, the gamma curve settings are processed immediately upstream from the digital signal processing circuit. This helps achieve outstanding image quality.

The AG-DVX100A now introduces three new gamma curve settings — Cine-Like-D, Cine-Like-V, and B.Press — giving you a total of seven to work with.



Gamma Curve image

CINE-LIKE	Film-like images
CINE-LIKE-D	The Cine-Like mode shifted to prioritize dynamic range
CINE-LIKE-V	The Cine-Like mode shifted to prioritize contrast
LOW	Images with strong black contrast
B.PRESS	Images with even stronger black contrast
NORM	Standard video gamma
HIGH	Bright images with enhanced gradation in dark portions and soft contrast

High-Quality, Native Progressive 25p Mode

The AG-DVX100A provides two shooting modes: 25p (25 fps, progressive) and standard 50i (50 fps, interlace). In 25p mode, the AG-DVX100A gives images and motions a film-like effect — they look very much like the images and motions of conventional 24fps film. Thanks to its progressive CCD, the AG-DVX100A creates native progressive images with outstanding vertical resolution — unlike images produced using conventional electronic interpolation. With its high mobility and low costs, the AG-DVX100A is the ideal tool for producing indies, shorts, or streaming video.



25p image
(25 progressive frames per second)



50i image
(50 interlace fields per second)

25p Shooting — 50i Recording

The 25p images are split into two frames and recorded onto tape in the standard 50i TV format. They can be played back with an ordinary DV VTR and TV monitor and edited with a DV system. With 25p mode and cine-like gamma, the AG-DVX100A lets you produce video images that closely replicate film images, with a depth not previously possible.

Improved Colour Reproduction and Advanced Image Adjustments Built-In

- Optimized colour separation optics help provide true-to-life colours
- Matrix setting with new "Enriched" mode for richer colours
- Adjustable V detail level (edge correction in vertical direction), H/V detail balance, and detail coring (detail noise removal)
- Knee point (luminance compression) settings – Auto, Low, Mid and High

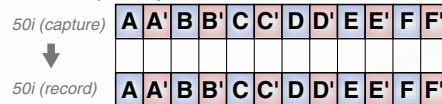
25p Shooting Functions for Professionals

Acting on requests from professional users, Panasonic gave the AG-DVX100A several functions that improve shooting ease in 25p Progressive mode.

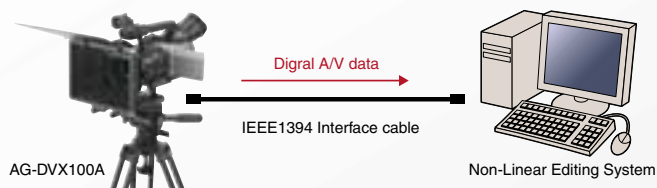
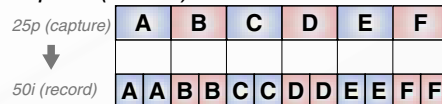
- Focus assist*
- Gain up (+12 dB max.)
- Colour bar display and output

*Auto focus in 25p mode requires slightly more focusing time than in 50i mode.

• 50i Mode (Normal)



• 25p Mode (Cine-Like)



Ideal for Active Use

Improvements in operating ease, mobility and reliability make the AG-DVX100A ideal for professionals.



Wide-Angle/Zoom Lens Answers Professional Needs

The AG-DVX100A's zoom lens extends all the way to 4.5 mm (equivalent to 32.5mm on a 35mm lens), covering the full wide-angle range needed in most broadcast and professional shooting. It gives you ample range for close-ups, recording in small rooms, and self-recorded interviews. There's no need to carry around a bulky wide-angle conversion lens. And with a minimum object distance (MOD) of approximately 0.6 meter in telephoto mode, the AG-DVX100A has the maneuverability of a handheld camera.

Fast, Smooth Cam-Driven Manual Zoom

The cam-driven (mechanical) manual zoom ring provides the same smooth, easy zooming as cameras with interchangeable lenses. Its direct operation gives you fast, precise zooming control. You'll also notice the AG-DVX100A's improved operating feel.

The AG-DVX100A is also equipped with a servo-driven zoom that allows slow zooming at a speed of approximately 50% slower than its predecessor. Slowest zoom has been reduced to a dramatic 30 seconds from 20 seconds.

Focus Assist

Enjoy quick, sharp focusing manually or automatically. In auto mode, you get the quick, sharp focusing needed in news gathering or when shooting at a high or low angle.

When set to infinity, the focal distance is immediately prepared for the next manual focus. When in manual mode, pressing the Push Auto button temporarily activates auto focus.

Macro Focus can be achieved either Manually or Automatically when the zoom lens is in the wide angle position.

Three User Buttons for Customized Operation

The AG-DVX100A provides three user buttons, each of which can be assigned any one of the 11 functions described below.

The assigned functions can then be accessed at the touch of a button. This lets you customize the AG-DVX100A for quicker, easier, more versatile operation.

Assignable Functions

COLOUR BAR	Display/hide the colour bar
SPOTLIGHT	Auto iris spotlight correction ON/OFF
BACKLIGHT	Auto iris backlight correction ON/OFF
BLACKFADE	Fade out to a black screen (linked with audio)
WHITEFADE	Fade out to a white screen (linked with audio)
MODECHECK	Display camera settings in viewfinder/monitor
ATW	Auto tracking white balance function ON/OFF
ATWLOCK	Lock/unlock white balance in ATW operation
GAIN 18dB	Switch the gain to +18 dB
INDEX	Write the index signal
SLOW SHUT	Slow shutter mode ON/OFF

Scene File Dial Provides Quick, Easy Setup

Set this dial for any particular shooting conditions, and later you can retrieve the settings instantly. Six preset files are provided (F1 to F6, described below); you can change any of the six file names and their settings as desired. The AG-DVX100A also introduces a new design in which a rib protects the scene file dial to prevent unintentional file changes.



File Description

F1:	—	Standard settings
F2:	FLUO.	Indoor shooting under fluorescent lights
F3:	SPARK	Highlighting subjects at receptions, dinners, and other gatherings
F4:	B-STR	Enhanced gradations of luminance in low light scenes
F5:	SCENE 25P	25p mode + Cine-Like-V gamma
F6:	SCENE CINE	25p mode + Cine-Like-D gamma

3-Position White Balance with Auto Tracking White Function

One press of the AWB button is all it takes to adjust the white balance and black balance. There are three white balance values to select from: one that's preset, and two (A, B) that you can set and save in memory. The auto tracking white balance (ATW) function can also be assigned to any of the three positions. The ATW mode supports fast, active shooting by adjusting the white balance in real-time as lighting conditions change.

Auto Button for Instant, Easy Shooting

Just press the Auto button to turn on Auto Iris, Auto Gain, Auto Tracking White Balance, and Auto Focus — and you are quickly ready to shoot. You can also customize the Auto button by removing functions and setting the gain to any value desired.

With this new Auto function, the AG-DVX100A gives you the best of both worlds -- the speed and ease of automatic operation, and the precision of manual control.

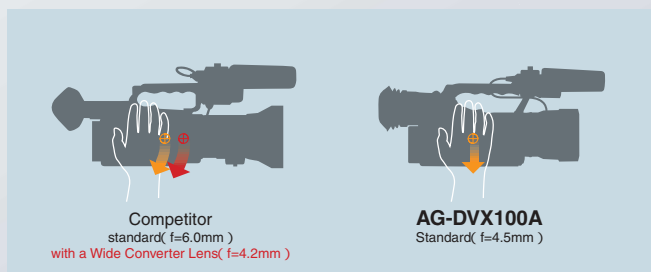


Lightweight Design with Balanced Grip

The AG-DVX100A introduces a new design that ends the contradiction between a compact, lightweight body and a stable, secure hold.

The center of balance is located precisely at the handgrip. Because there's no need for a wide-angle conversion lens, the weight balance is ideal for comfortable shooting. The AG-DVX100A's short body and light weight — it weighs just 1.9 kg in operating condition* — means free, easy maneuverability. Plus, the low-center-of-gravity design and new skeleton lens hood greatly improve forward vision.

*Camera-recorder with DV cassette tape and supplied battery.



Magnesium Alloy Chassis – The Rugged Durability Professionals Need

The AG-DVX100A features the same magnesium alloy diecast chassis as our DVCPRO broadcast models. This tough, rigid unit protects the high-precision mechanism, giving the AG-DVX100A outstanding reliability and durability. Built for professionals, the AG-DVX100A stands up to the bumps and jolts that occur in the field.



Highly Reliable DV Mechanism

Panasonic chose a DV mechanism for the AG-DVX100A because of its superior mobility, low running costs, extended recording capability, and easy tape availability. However, for the AG-DVX100A we developed a greatly enhanced, vastly more reliable mechanism than the ones used in home DV cameras and recorders. To minimize dropout and head clogging, we incorporated the same forward cleaning head and automatic head cleaning function found in DVCPRO models. The sturdy loading system allows quick tape changes.



Ideal for Active Use

Improvements in operating ease, mobility and reliability make the AG-DVX100A ideal for professionals.



XLR Audio Input with +48-V Phantom Power Supply

In addition to built-in stereo microphones, the AG-DVX100A is equipped with two XLR audio input terminals with a 48-V phantom power supply for broadcast use. The terminals are positioned low on the camera to minimize the possibility of the cables being snagged when a hand mic is in use. Both input 1 and input 2 can be switched between line and mic, and Audio is locked to the Video unlike consumer DV camcorders.

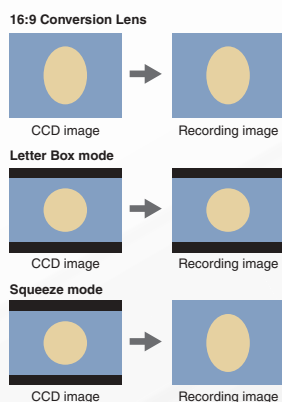
Large Audio Dials and Flexible Input Selection

The AG-DVX100A has the same kind of large level-adjustment dials as DVCPRO camera-recorders. This practical new design incorporates professional operating features that have been refined over years of use on location. A switch lets you select built-in mic, input 1, or input 2 for the audio input of both left and right channels. Auto gain level control can be turned on and off, and the input mic level (-50 dB/-60 dB) can be selected from the menu.



Three 16:9 Wide Modes, Including the New Squeeze Mode

The AG-DVX100A has three modes for shooting 16:9 wide images. Use the optional 16:9 conversion lens (AG-LA7200G, sold separately) to take full advantage of the higher image quality made possible by using all of the CCD pixels. With the standard lens*, you can record in letterbox mode or the newly added squeeze mode. This gives you extra flexibility when using the AG-DVX100A together with equipment from other manufacturers.



*Vertical resolution with the standard lens is slightly lower than with the 16:9 conversion lens. However, when recording in progressive mode rather than interlace mode, the difference is barely perceptible.

Large Electronic Viewfinder

The large viewfinder is easy to see through, even with your eye at a slight distance, and it tilts upward 100° for easy low-angle shots. The AG-DVX100A also adds a B/W display mode*, detail (PEAKING) function, and image adjustment menu.

*With the same high resolution as the colour display



3.5" Colour LCD Monitor

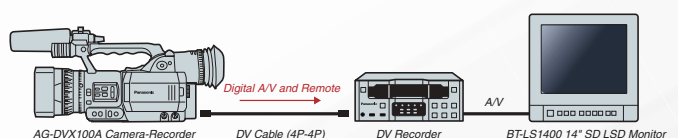
The large 3.5" colour LCD monitor rotates 270°. This improves shooting flexibility by making it easier to monitor high-angle shots or self recordings. The display is bright, too, for easy viewing when monitoring images or selecting the menu settings. The AG-DVX100A also introduces a new detail (PEAKING) function that helps assure a sharp, easy-to-see display.

Built-In Time Code Generator/Reader

The AG-DVX100A records a compliant VTC onto the sub-code area of the tape. Select from Free Run/Rec Run modes, and use preset or regen. User bits (UB) are also provided, letting you record your choice of date, time, TC value, frame rate, or user data.

External Backup with the IEEE 1394 Synchro Lock Function

The AG-DVX100A comes equipped with an IEEE 1394-compliant 4-pin DV terminal that makes it easy to upload data to a PC and dub onto a DV recorder. This terminal also features a new synchro lock function that allows the AG-DVX100A to remotely start and stop an external DV device connected to it via a DV cable. Three recording modes help protect against mistakes: record only onto the external recorder, record onto both the AG-DVX100A and the external recorder, begin external recording when the AG-DVX100A tape ends.



Interval Recording and One-Shot Recording

The AG-DVX100A's interval recording works much like a time-lapse VTR and offers exceptionally high quality. Use it to observe the growth of a plant, monitor progress at a construction site, or for a frame-by-frame recording effect. Recording times can be set from 0.5 to 2 seconds, at intervals from 15 seconds to 10 minutes. There's also a One-Shot mode — for animation film making — that records for the set number of seconds each time the Start/Stop button is pressed.

Recessed Trigger and Zoom Control on Upper Handle Grip

In addition to the lens grip, the upper part of the handle grip contains both the Rec Start/Stop button and a lens zoom control. This design assures easy shooting even at low angles or when using a tripod.

The zoom speed can be set to any of three speed levels or off.



Gain, Iris, Shutter Speed, ND Filter

- **Gain:** Increases gain up to 18 dB. The selector has three positions: L is fixed at 0 dB; M and H can be set to 0, +3, +6, +9, or +12 dB. +18dB can also be quickly accessed by the use of USER 1, 2 or 3 button.
- **Iris:** Allows smooth, gradual manual or auto iris adjustment. The iris dial allows adjustment even when in Auto mode. Either backlight compensation or spotlight compensation can be added to the auto iris adjustment.
- **Shutter:** Maximum shutter speed is 1/2,000 sec. When a computer display is being recorded, a synchro scan function matches the shutter speed to the monitor to help eliminate the moving bar.
- **ND filter:** Two ND filters (1/8 ND, 1/64 ND) are built-in and easily accessible.

Support Functions for Greater Convenience

- **End search:** Automatically searches for the last recorded portion of the tape. Convenient when preparing to start the next recording.
- **Mode check:** Displays a list of the camera settings on the viewfinder and monitor. Makes it easy to check settings before recording.
- **2-Pattern zebra:** Displays an overexposure warning on the viewfinder and monitor. Select any two levels from among 80%, 85%, 90%, 95%, 100% and 105%.
- **Rec check:** Plays back the last portion of a recorded passage for easy checking.
- **Index:** Enables marking while recording. Convenient for searching after recording.
- **Tally lamps:** Provided on the unit's front and rear menu switchable.
- **Audio dubbing:** Allows voice-over recording on a recorded tape via an external mic.
- **Line recording:** Lets you record a video signal input from an external source.
- Unlike consumer DV camcorders, the audio is locked to the video with a PLL circuit.
- Reversible eye cup for left and right eyed shooters.
- Built-in colour bars useful for setup.



Switches and connectors are arranged to allow easy use of the AG-DVX100A's many functions, and a host of bundled accessories and available options prepare it for action just about anywhere.



Top view (handle and grip)



Sub-panel (with LCD monitor opened)



Side view (with LCD monitor closed)

AG-DVX100A Bundled Standard Accessories



Optional Accessories





Front view (with lens hood removed)



Rear view (with terminal cover removed)



Side view (with terminal cover removed)



AG-B15 AC adapter kit



IEEE1394 Interface cable



AG-SC100G Soft carry case



AY-DVM63PQ
Professional Series Tape

AY-DVM63MQ
Master Series Tape

*Please do not use 80 minutes miniDV cassette tapes

AY-DVMCLC
Cleaning tape



QR-DVX AntonBauer battery adapter



AG-HT100G Hard carry case



BT-LS1400 14" SD LCD Monitor

AG-DVX100A Specifications

[GENERAL]

Supply Voltage:	DC 7.2/7.9 V
Power Consumption:	6.8 W (when viewfinder is used) 7.8 W (when LCD monitor is used) 9.2 W (max.)
Operating Temperature:	0°C to +40°C
Operating Humidity:	10% to 85% (no condensation)
Weight:	1.69 kg 1.90 kg with battery and cassette
Dimensions (WxHxD):	139 x 160 x 364 mm

[CAMERA]

Pick-up Device:	1/3-inch interline transfer type CCD x 3 (progressive modes supported)
Picture Elements:	Total: 470,000 pixels Effective: 440,000 pixels (horizontal pixel shift system)
Lens:	Leica DICOMAR lens with optical image stabilizer, motorized/manual mode switching, 10x zoom F 1.6 (f = 4.5 to 45 mm) (35 mm equivalent: 32.5 to 325 mm)
Filter Diameter:	72 mm
Optical Colour Separation:	Prism system
Optical Filter:	ND Filters, 1/8ND, 1/64ND
Shooting Mode:	50i (625i) interlaced fields Progressive mode (25P)
Gain Selection:	50i mode: 0, +3, +6, +9, +12, +18 dB 25P mode: 0, +3, +6, +9, +12 dB (0dB fixed, when slow shutter mode)
Preset Shutter Speeds:	50i mode: 1/50 (OFF), 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000 sec. 25P mode: 1/25, 1/50 (OFF), 1/60, 1/120, 1/250, 1/500, 1/1000 sec.
Synchro Scan Shutter Speeds:	50i mode: 1/50.2 to 1/248.0 sec. 25P mode: 1/25.1 to 1/248.0 sec.
Slow Shutter Speeds:	50i mode: 1/3, 1/6, 1/12, 1/25 sec. 25P mode: 1/3, 1/6, 1/12 sec.
Sensitivity:	F11.0 at 2000 lux
Minimum luminance:	3 lux (F 1.6, 18 dB gain, 50 IRE video output)

[VTR]

Tape Used:	6.35 mm wide metal tape (mini DV cassette)
Recorded Audio Signals:	PCM digital recording 16 bits: 48 kHz/2 channels, 12 bits: 32 kHz/4 channels
Recording Tracks:	Digital video, audio signals: helical track Time code: helical track (sub-code area)
Tape Speed:	SP mode: 18.831 mm/sec., LP mode: 12.568 mm/sec.
Recording Time:	SP mode: 60 minutes, LP mode: 90 minutes (when AY-DVM63 is used)
FF/Rew Time:	Approx. 85 sec. (when AY-DVM60 is used)

[VIDEO]

Sampling Frequencies:	Y: 13.5 MHz, PB/PR: 6.75 MHz
Quantizing:	8 bits
Video Compression System:	DCT + variable length code
Error Correction:	Reed-Solomon product code

[AUDIO]

Sampling Frequency:	48 kHz/32 kHz
Quantizing:	16 bits/12 bits
Frequency Characteristics:	20 Hz to 20 kHz
Wow & Flutter:	Below measurable limits

[CONNECTORS]

VIDEO IN/OUT:	RCA x 1, analogue composite input/output, 1.0 Vp-p, 75Ω (input/output automatically switched)
S-VIDEO IN/OUT:	DIN 4pin x 1, Y/C separate signal input/output, Y: 1.0 Vp-p, C: 0.3 Vp-p, 75Ω (input/output automatically switched)
AUDIO IN/OUT:	RCA x 2 (CH1, CH2) Input: 316 mV, high impedance Output: 316 mV, 600Ω (input/output automatically switched)
DV:	4-pin, digital input/output, IEEE 1394 standard
MIC/LINE INPUT:	XLR (3 pins) x 2 (CH1, CH2) LINE/MIC switching, high impedance LINE: 0 dBu, MIC: -50 dBu/-60 dBu (menu selection)
DC INPUT:	7.9 V
PHONES:	Stereo (3.5 mm diameter)
CAM REMOTE:	Mini jack (2.5 mm diameter)

[EQUIPMENTS]

LCD Monitor:	3.5-inch LCD colour monitor, 200,000 pixels
Viewfinder:	0.44-inch LCD colour viewfinder, 180,000 pixels
Internal Microphone:	Stereo microphone
Internal Speaker:	20mm round shape, volume – or +

[AC ADAPTER]

Power Source:	110/120/220/240 V AC, 50/60 Hz
Power Consumption:	18 W
Weight:	0.16 kg
Dimensions (WxHxD):	70 x 44.5 x 116 mm

*The specifications given above were measured by playing back tapes recorded by the AG-DVX100A on standard VTRs. Weight and dimensions shown are approximate. Specifications are subject to change without notice.

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