SUPERIOR MOVIES AND STILLS

◉ DIGIC DV II Imaging Processor

POWERED BY DiGiC DV II

Video footage and digital photos each have different processing requirements. Recognising this, Canon's high-performance DIGIC DV II Imaging Processor is designed to process videos and stills using two separate paths. By catering to the unique needs of each format, this ensures video quality display on TV and still image quality for print or computer display is maximised and enhanced.

DIGIC DV II offers exceptionally fast processing power for producing true-to-life video footages and still images. With DIGIC DV II, you are assured of high-resolution videos and stills with greater depth of detail, colour gradation and a wider dynamic range for truly exceptional image quality.

OPTIMISATION OF MOVIES & STILL IMAGES

DIGIC DV II uses separate optimisation processes so that both movies and still images are sharp!
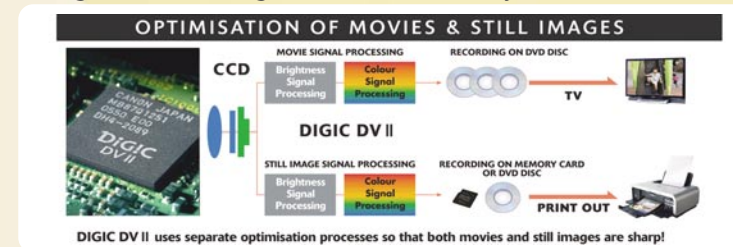
◉ Excellent CCD Performance

The DC230 features a 1.07-megapixel CCD while the DC220 and DC210 spot an 800,000-pixel CCD (PAL) / 680,000-pixel CCD (NTSC), both which are capable of capturing brilliant high-resolution picture quality.

With true-to-life colour reproduction, the CCD sensor can accurately capture the richness of life with an amazing depth of detail.

◉ Colour Correction Filter

The DC230/220/210 uses a CMYG (cyan, magenta, yellow, green) colour correction filter that gives videos their rich colour quality.

◉ True High-Resolution 16:9 Widescreen Recording

HIGH RESOLUTION 16:9 WIDESCREEN

The DC230/220/210 allows you to create a full cinematic experience in your living room with True High-Resolution 16:9 Widescreen Video Recording. Picture perfect widescreen videos in the 16:9 aspect ratio are made possible by Canon technology which records up to the full possible width of the CCD sensor.*

This means movies are made for widescreen viewing, instead of just being electronically adapted. Image stabilization function can also be activated for steady widescreen video recording.

4:3   Normal 16:9   Canon high res 16:9
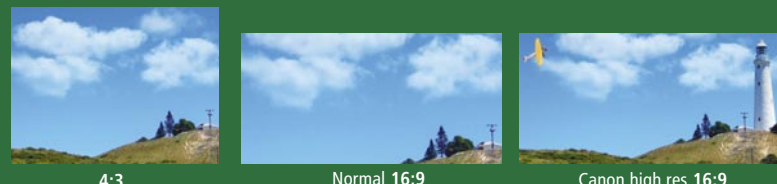
*When EIS is not activated

◉ Large 2.7" Widescreen LCD

With the 2.7" backlight-equipped widescreen LCD (approx. 123,000 pixels), what you see is exactly what you get. An anti-glare and anti-reflection coating increases subject visibility on the LCD even when viewing under bright sunlight. This takes the guesswork out of composing widescreen video, enabling you to achieve your desired image composition.

◉ Wide Colour Viewfinder (CVF) Display

The CVF on the DC230/220/210 displays footage in the 16:9 letterbox format. This allows you to preview your footage to see how it will appear on a widescreen TV.

LCD   CVF
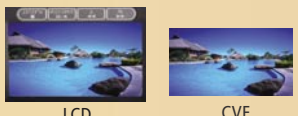
◉ 16:9 Level/Grid Marker

Aligning your 16:9 widescreen videos with the horizontal level marker helps to correct slants and makes viewing more comfortable. A 3x3 grid marker also aids you in obtaining good picture composition.

Level Marker 'ON'   Grid Marker 'ON'
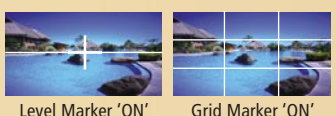
◉ 16:9 Letterbox Output on 4:3 Television

Widescreen videos recorded with the DC230/220/210 can be accurately displayed on normal 4:3 TVs in letterbox format.

4:3 TV   Widescreen TV

CONVENIENT DVD RECORDING

The Canon DC230/220/210 features a new DVD chipset with improved picture quality and more efficient power consumption. The chipset's new slimmer footprint also cuts down on the camcorder's bulk, giving it an increased level of portability.

◉ DVD Advantages

◉ Easy Access
- Start shooting from where you left off – the DC230/220/210 automatically records footage to blank spaces on the DVD, thus eliminating the possibility of overwriting previously recorded video clips.
- A Visual Index display recorded footage automatically when in Movie Play mode.

◉ Quick Editing

In Video Recording (VR) mode, you can quickly and easily select and play your favourite movies or view your best still images.
- Create a playlist of videos or stills you wish to review
- Change the order of your playlist
- Edit your videos by dividing or deleting footage

SPECIFICATIONS

SYSTEM	DC230	DC220	DC210
Type	DVD Video Camera		
DVD Recording Specifications	Movie: Either DVD-Video Recording (VR mode) or DVD-VIDEO (VIDEO mode). DVD-R discs (DL-supported) support DVD-VIDEO mode only		
	Movie compression method: MPEG2 type, Audio compression method: Dolby Digital 2ch (AC-3 2ch) /sampling frequency 48 kHz		
	Still Image: Complies with Exif Ver 2.2 specifications, compression method: JPEG Type		
Scanning System	625 lines, 50 fields/25 frames, PAL color signal / 525 lines, 60 fields/30 frames, NTSC color signal		
Audio	Dolby Digital (2 channels)		
Recordable Discs	8cm DVD-R discs (doubled-sided type: 2.8 GB /single-sided type: 1.4 GB/single-sided DL type: 2.6 GB)		
	8cm DVD-RW discs (doubled-sided type: 2.8 GB /single-sided type: 1.4 GB)		
	· After shooting is completed for one side of the double-sided DVD, it is turned over and used.		
	- DL stands for Dual Layer and is currently available for DVD-R discs only		
DISC Recording Time	(Single sided) XP: 20 min/Approx.9 Mbps (VBR), SP: 30 min/Approx.6 Mbps (VBR), LP: 60 min/ Approx.3 Mbps (VBR)		
	(DL) XP: 36 min/ Approx.9 Mbps (VBR), SP: 54 min Approx.6 Mbps (VBR), LP: 108 min / Approx.3 Mbps (VBR) *VBR – Variable Bit Rate		
Image Sensor	1/ 6-inch interlaced CCD (color correction filter), Approx. 1.07 megapixels (PAL & NTSC)	1/ 6-inch interlaced CCD (color correction filter), Approx. 800,000 pixels (PAL) / 680,000 pixels (NTSC)	1/ 6-inch interlaced CCD (color correction filter), Approx. 800,000 pixels (PAL) / 680,000 pixels (NTSC)
LCD Monitor	2.7-inch widescreen TFT color, approx. 123,000 pixels (high-brightness supported)		
Viewfinder	0.27-inch TFT color. approx. 123,000 pixels		
Lens	Movie: Optical 35x Zoom Still: Optical 35x Zoom		
Image Stabilization	Electronic system		
AF System	9-point AiAF (still image only)		
White Balance	Auto white balance, Daylight, Tungsten, Set		
Inbuilt Flash	Not Available		
White LED Light	Not Available		
Maximum Shutter Speed (Tv Mode)	1/2000 (1/500 in CARD CAMERA mode)		
RECORDING SPECIFICATIONS			
Recording Media (Card-DC230/220 /Disc)	miniSD™ card / 8 cm DVD-R (DL supported)/-RW disc		
File Format	Design Rule for Camera File System (DCF), Exif 2.2 compliant, Digital Print Order Format (DPOF) compliant		
Image Recording Format	Still image: JPEG Type compression: Superfine/Fine /Normal		
DISC Recording Format	DVD-R (DL supported) /-RW		
I/O terminals (level/impedance)			
AV min-terminal	Ø 3.5mm 4-pole mini-jack, output only		
DV terminal	None		
Microphone Terminal	None		
Headphone terminal	None		
Power etc.			
Power supply (rated)	7.4 V DC (Battery Pack)		
Operating Temperature	0-40°C		
USB Terminal	USB 2.0 High Speed	USB 2.0 High Speed	Not Supported
USB (Direct Print)	PictBridge supported only	PictBridge supported only	Not Supported
Dimensions (WxHxD)	Approx. 54 x 90 x 128 mm		
Weight (body only)	Approx. 405 g	Approx. 405 g	Approx. 400g

SYSTEM OPERATING ENVIRONMENT

WINDOWS

OS	Windows 98 Second Edition, Windows Me, Windows 2000 Service Pack 4, Windows XP (including Service Pack 1 & Service Pack 2)
Computer	Computers with one of these operating systems preinstalled that include a standard USB port
CPU	Pentium 500 MHz or faster
RAM	128 MB or more (Windows 98 SE/Me)
	256 MB or more (Windows 2000/XP)
Interface	USB
Available Hard Disk Space	ZoomBrowser EX: 200 MB or more; TWAIN Driver: 25 MB or more WIA Driver: 25 MB or more
Display	1024 x 768 pixels, High Color (16 bit) or higher
Miscellaneous	Apple QuickTime 6.5 is required for movie playback and saving and playback in QTVR format.

MACINTOSH

OS	From Mac OS 10.2 to 10.4 *UFS (Unix File System) is not supported
Computer	Computers with one of these operating systems preinstalled that include a standard USB port
CPU	PowerPC G3, G4, G5 or Intel processor
RAM	256 MB or more
Interface	USB
Available Hard Disk Space	ImageBrowser: 200 MB or more
Display	1024 x 768 pixels, 32,000 colors or higher

SUPPLIED ACCESSORIES

- Camcorder body
- Battery Pack (BP-208)
- Wireless Controller (WL-D86) (DC230 Only)
- Lithium Battery (for controller) (CR2025) (DC230 only)
- Compact Power Adapter (CA-570E)
- AC Cable
- USB Cable (IFC-300) (DC230 and DC220 only)
- Stereo Video Cable (STV-250N)
- DV Solution Disk (DC230 and DC220 only)

OPTIONAL ACCESSORIES
- Soft Carrying Case (SC-2000)
- Battery Charger (CG-300E)

DVD R/RW is a trademark of DVD Format /Logo Licensing Corporation.

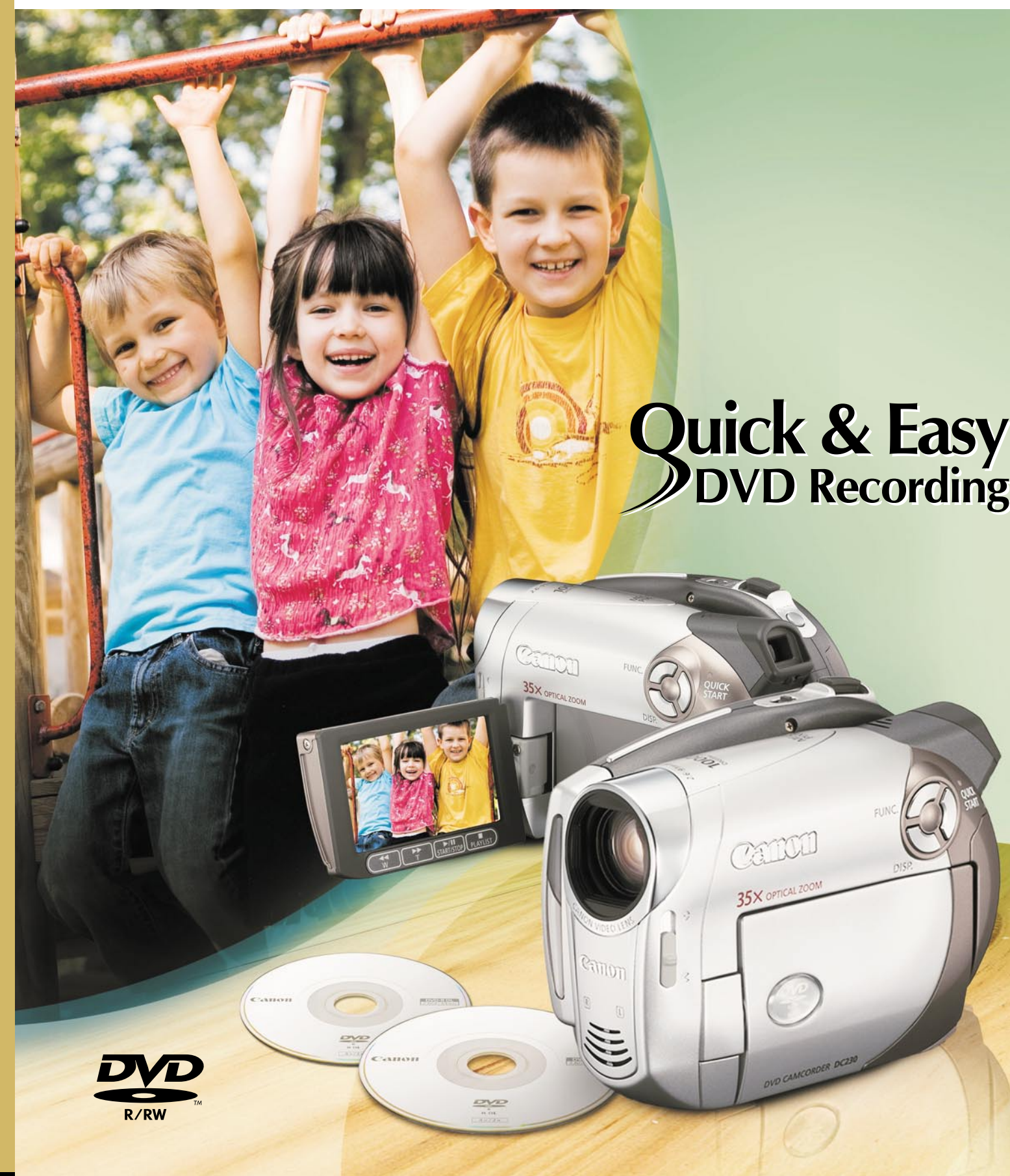"Dolby" and the double D symbol are trademarks of Dolby Laboratories.

This mark identifies genuine Canon video accessories. When you use Canon video equipment, we recommend Canon-brand accessories or products bearing the same mark.

Canon
Delighting You Always

PhotoDV — FORM & FUNCTION PERFECTED

Quick & Easy DVD Recording

DVD R/RW

DC230 DC220 DC210

QUICK & EASY DVD RECORDING

DC210 (Blue Metallic)

DC220 (Metallic Silver)

DC230 (Bronze Grey Metallic)

Incorporating an array of advanced technologies and features, the Canon DC230/220/210 DVD camcorder is perfect for anyone wanting to shoot their own videos.

Powered by the DIGIC DV II Imaging Processor, the DC230/220/210 is capable of shooting brilliant image quality. It features a powerful 35x optical zoom lens that brings you closer to the action. The camcorder's Dual Layer DVD recording capability with an improved DVD chipset and battery provides you with longer recording times for extended shoots with an ease of mind.

Designed to be user-friendly, the DC230/220/210 is made with everyone in mind. Intuitive features such as Electronic Image Stabilizer, Quick Start mode and a joystick for quick access to commonly used functions make this series of camcorders simply to joy to use.

SUPERB OPTICAL PERFORMANCE

◎ Powerful 35x Optical Zoom Lens

With Canon's wealth of experience in making high quality professional lenses, you can be assured every shot taken with the DC230/220/210 is of the highest optical quality. The outstanding 35x optical zoom lens with 1000x digital zoom capability (at both 4:3 and 16:9 modes)* lets you get closer to your subjects while maintaining excellent imaging performance.

35x OPTICAL ZOOM

1000x DIGITAL ZOOM

1x Optical Zoom   35x Optical Zoom

*Digital zoom applicable for movies only

◎ Genuine Canon Optics

As the leading manufacturer of professional and consumer photographic equipment and lenses, Canon's lenses are trusted by professionals and consumers everywhere for their superior quality.

Continuing this fine tradition, the DC230/220/210 features a genuine Canon video lens with super spectra coating technology to reduce flare and ghosting. This ensures images

captured maintain an exceptional level of sharpness and clarity.

In addition, a Gradation Neutral Density (ND) Filter prevents any reduction in image resolution due to light diffraction, assuring you of vivid colour reproduction every time.

◎ Electronic Image Stabilizer

The built-in Electronic Image Stabilizer (EIS) can distinguish between camera movement and movement of the subject, allowing it to accurately compensate for camera shake. Using a piezo-electric vibration sensor, the DC230/220/210 can also stabilize images even when the camcorder is zooming or panning.

With EIS   Without EIS

◎ Variable Zoom Speed Control
(Variable / Speed 1 / Speed 2 / Speed 3)

Give your videos a professional zoom feel with three preset constant zoom speed levels plus an additional variable speed. With a choice of zoom speeds at your disposal, you can select an appropriate one to complement the content of your video.

EXTENSIVE SHOOTING FUNCTIONS

◎ 9-Point AiAF

The 9-point AiAF system* ensures camcorder focus stays on the subject regardless of where it is situated in the frame. This innovative function assures you get sharp and accurately focused images every time.
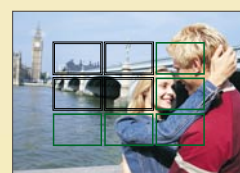
*For DC230 & DC220 in still image mode only

◎ Program Auto Exposure

Program AE

The 2-position slide switch on the DC230/220/210 allows you to switch easily between two shooting modes:

– **Auto mode** lets the camcorder automatically adjust settings for optimal video exposure.

– **P mode** lets you choose between P, Tv & Special Scene Modes, which allows for more creative shooting possibilities.

P	P mode	Allows for adjustments to exposure, focus and other options such as White Balance and Digital Effect.
Tv	Tv mode	Lets you select the desirable shutter speed while the camcorder automatically adjusts aperture size for optimum shots.
	Beach	Obtains the right exposure for faces of subjects, ensuring they are not underexposed in sunny, beach conditions.
	Fireworks	Allows you to shoot brilliant images of fireworks in all their full glory.
	Night	Subjects appear lighter in colour even at night or under dark shooting conditions.
	Portrait	Uses a larger aperture for reduced depth-of-field, bringing the subject into focus while blurring the background.
	Snow	Ensures subjects are properly exposed, as there is a tendency for faces to be underexposed in snow scenes.
	Sports	For shooting fast-moving action (e.g. soccer or tennis matches, racing cars).
	Spotlight	Avoids washed out overexposed shots even in bright spot-lit conditions.
	Sunset	Allows you to obtain impressive sunset shots.

◎ Auto Exposure Bracketing

Just like in digital still cameras, auto exposure bracketing* enables you to shoot 3 frames of the same scene with 3 different exposure levels, allowing you to select the image with the best exposure from among the three.

Underexposed   Normal   Overexposed
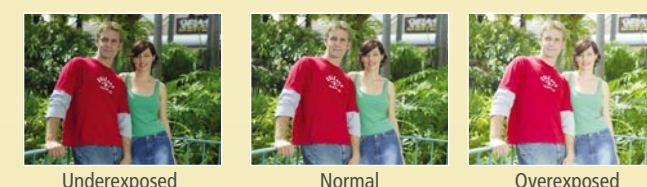
*For DC230 in card mode only

◎ High Speed Continuous Shooting

The DC230 is able to carry out high-speed continuous shooting* of up to 4.2 fps (PAL) or 5 fps (NTSC) for a maximum of approximately 60 shots, allowing you to capture VGA quality stills of high-speed action easily.

*For still images only

◎ Simultaneous Photo Recording*

See a great photo opportunity while in the midst of video recording? Now you can use your camcorder to concurrently capture 4:3 aspect ratio still images even when in video recording mode. The images are saved in the camcorder's memory card so you can easily transfer them to your personal computer.

*For DC230 & DC220 only

◎ Image Effects & White Balance

Enhance your videos with a range of image effects options like Vivid, Neutral and Soft Skin Detail.

You can also adjust the white balance setting to obtain rich and vibrant colours in every shot. Available options include Auto, Daylight, Tungsten and Set.

DUAL LAYER DVD RECORDING

DVD R DL

The DC230/220/210's Dual Layer (DL) DVD recording capability allows you to shoot up to 108 minutes (LP mode) worth of video in a single DL DVD (approx. 2.6 GB). This is almost double the space on conventional 8cm DVDs.
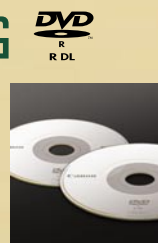
As DL DVD-R format is compliant with DVD9 standards, you can view your videos on any compatible DVD player or computer DVD-ROM drive. Now you can enjoy watching your videos in the comfort of your living room.

A new compact and lightweight DVD driving unit was also developed for the DC230/220/210 that improves picture quality and has enhanced disc recognition and writing performance, while still maintaining low power consumption levels.

INNOVATIVE PLAYBACK OPTIONS

◎ Histogram Display

The histogram display function allows you to check the brightness information of your still images on the spot. This gives you full control over image exposure, so that any picture not to your liking can be reshot immediately.

◎ Index Display

View up to 6 images on the LCD monitor at one time. You can specify a page to jump to view your desired shot quickly.

◎ Jump Search

Jump forward 10 or even 100 images at a time, allowing you to quickly locate a particular shot from a large pool of images.

USER-FRIENDLY OPERATION

◎ Quick Start

Quick Start

Great shooting opportunities can happen anytime and anywhere. And when they do, your camcorder should always be ready for it. With the innovative Quick Start function, you'll never have to miss another precious shooting opportunity.
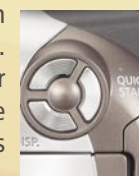
It only takes less than 1 sec (in Standby mode) for the camcorder to be ready for shooting. Power consumption when Quick Start mode is in use is approximately half of that used in recording mode, and the camcorder automatically shuts down after 30 minutes if not in use.

◎ Joystick Operation

Joystick

The inclusion of a joystick on the DC230/220/210 increases ease of operation, allowing you to access commonly used functions without having to navigate through different screens.

SPECIAL VIDEO EFFECTS

◎ Digital Effect

Digital Effect

A variety of digital effects can be inserted into your movie to give it a professional feel. This includes Auto Fade, Wipe, Art, Black & White, Sepia and Mosaic.

LOW LIGHT SHOOTING

◎ Night Mode

Night Mode function automatically selects the optimum shutter speed and light sensitivity to brighten up the scene without compromising on colour vibrancy.

SHARING VIDEOS & PHOTOS

The fun part about shooting videos and photos is being able to share them with your loved ones. The DC230/220/210 gives you many ways to do this.

◎ Video Sharing

– Connect the DC230/220/210 to a television to view unfinalised DVD video footage.

– Finalise your DVD for viewing on any compatible DVD player or DVD-ROM drive.

◎ Photo Sharing (DC230/DC220 only)

– You can transfer images from the memory card to your computer using a USB 2.0 High Speed compatible cable.

– The DC230 and DC220 stores your digital photos on the memory card or DVD, and gives you the option to transfer them from one media to the other.

– The DC230 and DC220 have a Direct Print function that lets you print your photos from any PictBridge compatible printer without the need for a personal computer.

USB   PictBridge   DIRECT PRINT   BUBBLE JET DIRECT