

Canon

Digital Video Camera

XM2

*High performance 3CCD DV camera with
20x zoom for advanced movie making*





High performance 3CCD DV camera with 20x zoom for advanced movie making

By combining advanced technologies in lens design and signal processing, along with manual and automatic features and controls, the XM2 achieves the perfect balance of outstanding picture quality and high performance

SUPERB QUALITY

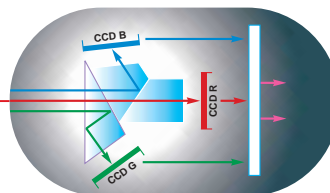
The Canon XM2 Digital Video Camera combines the best of all worlds. Its advanced technology delivers unrivalled image quality in its class, while it is still easy to operate. That makes it an ideal choice for both serious video enthusiasts, professional videographers and filmmakers. Whether you're regularly providing broadcast or web content, making educational videos or record events, the XM2's high performance will make your work more enjoyable and the result more satisfying.

INSPIRATIONAL VERSATILITY

No two video shoots are alike. What's happening, where it's happening, movement, colour - it all demands a certain amount of fine-tuning to capture the special moments you want. The XM2 features adjustments and enhancements for sound and picture for your personal creativity. Plus a LCD screen for easy viewing.

NEW GENERATION 3CCD

The Canon 3CCD system separates light entering the DV camera into red, blue and green, making colour reproduction cleaner and sharper. New high-sensitivity 3CCD with 470,000 pixels provides 540 lines horizontal resolution.



**3CCD unit
Guarantees
outstanding detail
and high performance.**



**Fluorite lens
For sharp images
and perfect colour
reproduction.**

Positioning the green CCD out of line (pixel shift) sharpens image reproduction even if your subject moves. A new Super Pixel Shift (horizontal + vertical) technology achieves wider dynamic range for movies, reducing vertical smear and gives 1.7 mega-pixel high resolution photos.

PROFESSIONAL FLUORITE LENS
Canon has always led the way in optical development. The first to equip a DV camera with a fluorite lens – a lens that provides the quality of 35mm and broadcast TV. The XM2 has a Professional L-Series fluorite lens. Combined with 20x optical zoom and 100x digital zoom, plus an Optical Image Stabilizer, you can be sure of superior images.



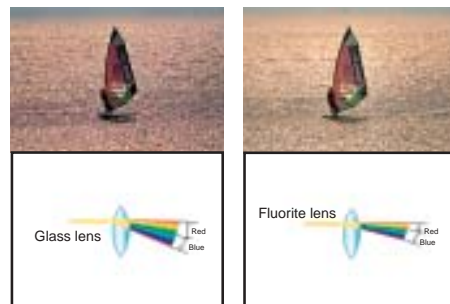


QUALITY
YOU CAN SEE

TRUE-TO-LIFE COLOUR

Fluorite is a synthetic crystalline substance with the ability to collect light at a single point. It bypasses the limitations posed by normal glass. The resulting image is extremely sharp.

A zoom lens is an essential feature on a



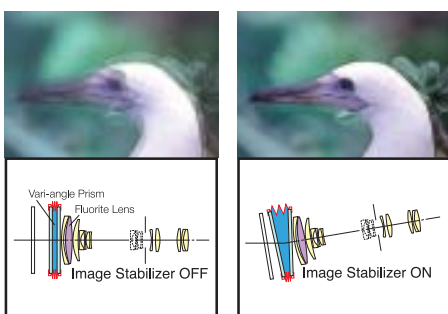
DV camera. But the downside of a normal zoom lens can be colour aberrations.

The fluorite technology used in the XM2 L-Series lens eliminates almost all colour deviation. This and the new 3CCD system give viewers the pleasure of colours that are much truer to life.



OPTICAL IMAGE STABILIZER

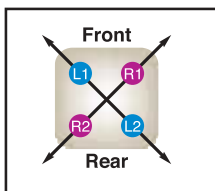
We know how difficult it can be to keep a camera still. So the XM2 is fitted with an Optical Image Stabilizer (rather than Electronic Stabilization which can reduce image quality). Its vari-angle prism reacts



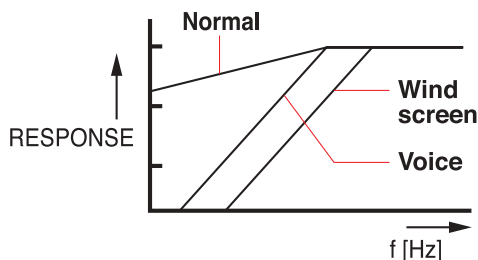
to a sensor and bends the light rays, so the image reaching the CCDs remains steady.

SOUNDS GOOD

Some DV camera recordings have great pictures but the sound lets them down. For a fuller, richer, stereo sound, the XM2 has a 'direction accurate' microphone. This contains two pairs of pick-up elements, each for left and right, giving accurate stereo ambience and less mechanical background noise. Also, you



can change the microphone frequency characteristics to match the recording condition (normal,



voice and windscreen). For high-quality PCM digital sound recording, an MA-300 microphone adapter is available allowing the use of external microphones fitted with XLR terminals.

AUDIO LEVEL CONTROL

Another sound-improving feature on the XM2 is the 2-channel manual audio level control. A special dial allows you to set the L/R level to exactly the balance you want for 2 channels. An easy-to-find audio level meter on the DV camera body, on the LCD and EVF screen shows the left and right 24 segment peaks.

QUALITY
YOU CAN HEAR



Optional MA-300 adapter with 2-channel XLR terminals.





1. Audio REC level switch (auto or manual)
2. Program selector
3. Audio rec. left level dial
4. Audio rec. right level dial
5. MENU button
6. SELECT dial



7. Focus A/M button
8. Digital effects bars ON/OFF button
9. ND filter ON/OFF button
10. Digital effects/bars select button



11. White balance select button
12. White balance set button
13. Custom key button
14. Custom preset



GETTING IT JUST RIGHT

Although the XM2 is fully automatic, you can also take complete control and do it your own way. The DV camera has many of the manual adjustments you will find on professional models. Some examples (you can memorise following adjustments as Custom preset):

- Colour Hue, to adjust between red and green, and Colour Gain, to choose depth of colour or shoot in black and white.
- Camera Sharpness, to soften the subject and clarify the detail.
- Zebra Pattern, to indicate overexposure in a portion of the picture
- Interval Timer, to record at selected times for filming natural phenomena like sunsets.



If you need to record a CRT monitor, the Clear Scan feature allows you to do so without rolling black bars. But your favourite button will probably be the Custom Key. Assign functions you use frequently to this key, and you can customise your camera to your shooting preferences.

MAKING LIFE EASIER

The more features a DV camera has, the more versatile it is. The XM2 has a whole range: time and data codes, shutter speed, power save, index recording as examples.

DIFFERENT SHOOTING MODES

The XM2 has 3 modes to suit your recording needs.

- Normal Movie Mode for video playback on TV or a video editing computer.
- Digital Photo Mode for high resolution still images.
- Frame Movie Mode for perfect quality prints and video for websites.



DRAMATIC CLOSE-UPS

She's way off in the distance, but you've spotted her. The 20x optical zoom lens can bring her right up close.

20x optical zoom is the 35mm focal length equivalent of 39.5mm to 790mm. The XM2's maximum digital zoom is 100x. Magnification that can make all the difference.



CONNECTIVITY



The XM2 can control HDD equipment with IEEE 1394 interface and AV/C protocol for simultaneous recording.



A single cable connection to transfer images between the DV camera, PC and printer.



The SD Memory Card can capture high quality digital still images as JPEG files to transfer into a PC. Also an easy way to add a title to your recording with the Title Mix Facility.



YOU CAN SCREEN
THE RESULT

KIT COMPONENTS



DM-XM2 Body - Large Eye Cup - WL-D77 A Wireless Controller - STV-250N Stereo Video Cable - S-150 S-VIDEO Cable - IFC-300PCU Interface Cable - SS-650 Shoulder Strap - CA-920 Compact Power Adapter - AC Cable - DC-920 DC Coupler - BP-915 Battery Pack - SDC-8M SD Memory Card - Digital Video Solution Disk Ver.3.0

OPTIONAL ACCESSORIES



Battery Pack
BP-915, 930, 945



System Case
HC-4100



Video Light
VL-10Li, VL-3



Speedlite
220, 420, 550 EX



MiniDV Head Cleaning Cassette
DVM-CL



Mini Digital Video Cassette
60 and 80 minutes



Dual battery charger/holder
CH-910



Wide Converter
WD-58H



Car Battery Adapter
CB-920



Microphone Adapter
MA-300



Zoom Remote
ZR-1000



Directional Stereo Microphone
DM-50



Canon Digital Video Camera XM2 Specifications



Camera

SHOOTING FUNCTIONS	
MOTION VIDEO	Mini DV tape
STILL IMAGE	Mini DV tape (Photo), memory card (Progressive Photo)
IMAGE SENSING DEVICE	
IMAGE SIZE	1/4 inch 3CCD
TOTAL NUMBER OF PIXELS (PER CCD)	Total pixels: 470,000 Effective pixels: 440,000
SYSTEM	3-plate Pixel shift (horizontal, vertical)
FILTER	RGB independent primary color filter (dichroic prism)
LENS	
OPTICAL ZOOM	20x (12 elements in 10 groups with one fluorite lens and two aspheric lenses)
MAGNIFICATION	
DIGITAL ZOOM	40x, 100x (Card mode: None)
MAGNIFICATION	
FOCAL LENGTH (OPTICAL ZOOM)	4.2-84 mm
(35 MM EQUIVALENT)	39.5-790 mm
F-NUMBER	With tape: F1.6-2.8 With memory card: F2.0-2.8
APERTURE LEAVES	Iris diaphragm (5 leaves)
ND FILTER	Yes (Transmittance: Approx. 10% with 3 aperture)
ZOOM SPEED:	HandleZoom: 3-level adjustable (H/M/L) Grip zoom: Variable H/M/L
FILTER DIAMETER	58mm P0.75
MINIMUM ILLUMINATION	3 Lux (Slow shutter 6 second)
IMAGE STABILIZATION	Optical system (double-driving VAP)

Shooting functions

PROGRAM AE	Easy Recording, Auto mode, Spotlight mode, Surf & Snow mode, Tv mode, Av mode, Manual mode
PHOTOMETRY	
PHOTOMETRIC SYSTEM	Center-bottom-weighted
EVALUATIVE PHOTOMETRY	80 segments
EXPOSURE ADJUSTMENT	
AE LOCK	Yes
EXPOSURE CORRECTION	Yes (after AE lock)
AE SHIFT	Yes (±2 levels)
GAIN SETTING	Yes (During manual mode)
SHUTTER SPEED	
HIGH-SPEED SHUTTER: TAPE	9 levels (1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000)
HIGH-SPEED SHUTTER: CARD	During manual mode: 27 steps Tv mode: 1/50 to 1/500
SLOW SHUTTER	Manual mode: 1/50 to 1/700 3 levels (1/25, 1/12, 1/6)
APERTURE VALUE	F1.6, F2, F2.8, F4, F5.6, F8, CLOSE
Manual mode: 19 steps (Step 13 level is telephoto end)	
Card mode: F2, F2.8, F4, F5.6, F8, CLOSE	
IMAGE QUALITY ADJUSTMENT	
COLOR GAIN ADJUSTMENT	Yes (Custom preset)
HUE ADJUSTMENT	Yes (Custom preset)
SHARPNESS ADJUSTMENT	Yes (Custom preset)
SETUP ADJUSTMENT	Yes (Custom preset)

WHITE BALANCE	
AUTO	Yes
SET	Yes (1)
PRESET SYSTEMS	Outdoor, indoor TTL, 80 segments
FOCUS	
MODE	AF/MF
MANUAL FOCUS	Focus ring operation
16:9 RECORDING SYSTEM	Vertical stretching
AREA MARKER DISPLAY	Area marker displayed for 16:9 in EVF 4:3 screen
SHOOTING EFFECTS	
DIGITAL EFFECTS	Black and White, Sepia, Art, Strobe, Mirror, Mosaic, Tracer (tape)
DIGITAL FADE	Black auto fade, wipe, overlap (tape)
ZEBRA PATTERN	Variable level: 80% 85% 90% 95% 100%
MOTION VIDEO SHOOTING	
TAPE	Normal/Frame (simulated frame process using pixel shift)
CLEAR SCAN	Tv mode, Manual mode: 50.3-200 Hz
STILL IMAGE SHOOTING	
MODE: TAPE	Normal (field image)
MODE: CARD	Progressive (iris shutter)
SINGLE PICTURES: TAPE	6.5 seconds
PHOTO BUTTONS: FORM	Dedicated still image button (tape, card)
PHOTO BUTTONS: PRESSED HALFWAY DOWN	Yes (only during recording standby)
STILL IMAGE CONFIRM	Yes (Card only)
FLASH COMPATIBILITY	Yes 220EX, 420EX, 550EX
RECORDED VIDEO	Frame image (video output is field image)
FRAME PROCESSING	Simulated frame (horizontal and vertical pixel shift)
WIDE SHOOTING (VERTICAL EXTENSION)	
TAPE	Yes
INTERVAL TIMER	Yes, (Interval time: 4 modes, Recording time: 4 modes)
SELF-TIMER	10 seconds/ Remote controller: 2 seconds
REC SEARCH	Yes
REC REVIEW	Yes
STANDBY SWITCH	Yes
POWER SAVE (AFTER FIVE MINUTES IN RECORDING PAUSE)	Power shutoff/VCR (drum) stop
DISPLAYED TEXT RECORDING	Yes

Audio

AUDIO	16-bit 2-channel (48 kHz) 12-bit 4-channel (32 kHz)
WIND SCREEN	Yes (Microphone F characteristics: Normal/ Voice/ Wind Screen)
RECORDING LEVEL ADJUSTMENT	Yes: Auto, manual (L/R controls with level adjustment dials)
LEVEL METER	Yes: EVF, inside LCD monitor, LCD information display

LCD

MONITOR LCD	
SIZE	2.5-inch
PIXELS	200,000
BRIGHTNESS ADJUSTMENT	Yes
MOVABLE	Yes
EVF	
SIZE	0.44-inch (TFT color)
PIXELS	180,000
BRIGHTNESS ADJUSTMENT	Yes (Menu adjustment)
MOVABLE	Downward 68° up to horizontal

VCR

SEARCH	
PHOTO SEARCH	Yes
DATE SEARCH	Yes
INDEX SEARCH	Yes
DATA CODE DISPLAY	Time and date display, camera information
AUDIO DUBBING	Yes
AV INSERT	Yes

System

INTERFACE (TERMINAL)	
MICROPHONE INPUT	Yes
HEADPHONE OUTPUT	Yes
DV TERMINAL	Yes (In/Out)
S TERMINAL	Yes (In/Out)
AV TERMINAL	∅3.5 mm (In/Out)
EDITING TERMINALS	LANC terminal
USB PORT	mini-B/ Complies with mass storage class 1.0
MEMORY CARD	
CARD	SD memory card and MultiMedia card
STILL IMAGE RECORDING: IMAGE SIZE & QUALITY	1488 x 1128 pixels; Fine 860 KB, Standard 580 KB 640 x 480 pixels; Fine 125 KB, Standard 65 KB Yes (Record review button operation)
CARD REVIEW	
STILL IMAGE PLAYBACK: SLIDESHOW	Yes
CARD JUMP	Yes
TITLE IMAGE: CREATION	Camera shooting
TITLE SIZE	640 x 480 pixels
TITLE MIX	Yes (Color selection (full color, +8 color), mixed level variation)
COLOR BAR	Yes, EBU color bar
ANALOGUE-DIGITAL CONVERTER	Yes
WORLD CLOCK	Yes
SPEAKER	Yes
ACCESSORY SHOE	Yes (compatible with advanced shoe and EX flashes)
RECORDING MODES	
LP	Yes
CUSTOM KEYS	Yes (1 key)
DV CONTROL	Yes (Allowed only during Camera mode)
BACKUP POWER	Lithium button battery (CR2025)
BATTERY PACK POWER	900 series lithium secondary battery
GENERAL	
OPERATING TEMPERATURE	0 to 40°C
DIMENSIONS (W x H x D)	118 x 136 x 306mm
CONTINUOUS RECORDING TIME	120 minutes (using LP mode)
WEIGHT	Approx 1.12kg (camera only) /1.27kg (fully equipped)



Canon Camera Museum
www.canon.com/camera/museum

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