

MOTION CAPTURE

Canon professional camcorders and EOS digital SLR cameras are changing the motion capture landscape, affecting every facet of video recording and production from broadcast journalism to filmmaking. As technology has developed so has the broad, remarkable array of equipment Canon produces for the video professional. Reflecting decades of leadership and know-how in the design and manufacture of camcorders and lenses for professional video capture, Canon HD video camcorders deliver the technologies, performance and features that help ensure reliable output of outstanding image quality. Professional videographers can also benefit from the Full HD video capture capability of Canon EOS digital SLRs, taking advantage of the full array of EF lenses and the unique characteristics of large-sensor capture for dramatic results. Whatever the job, professionals can count on Canon to capture motion with efficiency, excellence and expression.

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PROFESSIONAL VIDEO CAMERAS



High Definition Evolved



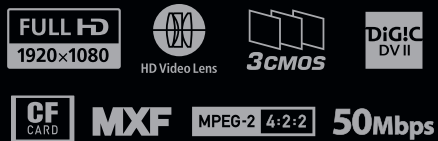
XF305 | XF300

High Definition Camcorder | High Definition Camcorder

- File-based recording: MPEG-2 4:2:2 50Mbps codec (Canon XF Codec) to Compact Flash (CF) cards (dual slots)
- Genuine Canon 18x HD L-series Lens
- 3 Canon native 1920 x 1080 CMOS Image Sensors
- Canon DIGIC DV III Image Processor
- SuperRange Optical Image Stabilization system with Dynamic and Powered modes
- Multiple recording bit rates, resolutions and variable frame rates
- Industry standard HD-SDI output, genlock and SMPTE time code terminals (XF305 only)
- Large 4.0-inch 1.23-megapixel LCD and High Resolution 1.55-megapixel EVF
- Fully Customizable image, operation and display adjustments
- Onboard waveform monitor and vectorscope; 2 XLR terminals with independent audio level control



Genuine Canon Lenses



XF 305/XF 300 Kit Contents



- XF 305/XF 300 Body
- Lens Hood
- Eyecup
- Battery Pack BP-955
- Compact Power Adapter CA-920
- DC Cable DC-930
- Wireless Controller WL-D6000
- Shoulder Strap SS-1200
- Component Cable DTC-1500
- Canon XF Utilities Disc



External Sensor for Instant AF

With a host of features previously reserved for only the most advanced professional camcorders, the Canon XF305 and XF300 deliver Full HD 1920 x 1080 video simply, economically and without compromise. Featuring MPEG-2 4:2:2 50Mbps recording directly to low-cost Compact Flash cards, the XF305 and XF300 are designed to operate seamlessly within established industry workflows, quickly delivering outstanding image quality for any application. Whether shooting news, documentaries, weddings or events, on location or in the studio, the XF305 and XF300 raise the bar, offering outstanding reliability and intuitive operation that one can only expect from Canon.

High Definition Excellence



XF105 | XF100

High Definition Camcorder | High Definition Camcorder

- Compact, lightweight design for extreme portability and usability
- File-based recording: MPEG-2 4:2:2 50Mbps codec (Canon XF Codec) to Compact Flash (CF) cards (dual slots)
- Genuine Canon 10x HD Video lens
- Canon native 1920 x 1080 CMOS Image Sensor
- Canon DIGIC DV III Image Processor
- SuperRange Optical Image Stabilization system with Dynamic and Powered modes
- Supports 3D and Infrared shooting
- Multiple recording bit rates, resolutions and variable frame rates
- Industry standard HD-SDI output and genlock/SMPTE time code terminals (XF105 only)
- Large 3.5-inch 920,000 dot LCD monitor and EVF
- Fully customizable image, operation and display adjustments
- Onboard waveform monitor ensures accurate exposure during capture
- 2 built-in XLR terminals with independent audio level control



DIGIC DV III



XF 105/XF 100 Kit Contents



- XF 105/ XF 100 Camcorder with Lens Cap
- Lens Hood
- Battery Pack BP-925
- Compact Power Adapter CA-930
- DC Cable DC-930
- Wireless Controller WL-D6000
- Shoulder Strap SS-1200
- Microphone Holder Unit
- Component Cable CTC-100/S
- Canon XF Utilities Disc



HD-SDI output and genlock/SMPTE time code terminals (XF105 only)

Featuring MPEG-2 4:2:2 50Mbps capture, a newly developed Canon CMOS sensor and direct recording to CompactFlash (CF) cards, the Canon XF105 and XF100 offer outstanding versatility and value for a variety of professional applications. With infrared recording and support for stereoscopic 3-D production, these camcorders are ideal for the exploration of new creative outlets and emerging markets. The possibilities are limitless with the XF105 and XF100 – compact, lightweight, reliable “go to” camcorders that deliver exceptional performance and integrate seamlessly with established industry workflows.

* Also available as an optional accessory.

Ultra-Portable Pro HD Performance

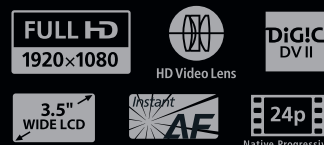


XA10

High Definition Camcorder

- AVCHD format – up to 24Mbps recording
- Ultra-compact and lightweight
- Records Full HD video to a 64GB internal flash drive or directly to 2 SDXC-compatible memory card slots
- Genuine Canon 10x HD Video Lens
- Canon 1/3" native 1920 x 1080 CMOS Image Sensor
- 24Mbps Recording – the highest bit rate in AVCHD
- Canon DIGIC DV III Image Processor
- Variable frame rates: 60i, pf30, pf24 and Native 24p
- SuperRange Optical Image Stabilization system with Dynamic and Powered modes
- Supports infrared shooting
- 2 built-in XLR terminals with independent audio level control
- Full manual control
- 3.5" 922,000 Touch Panel LCD monitor and EVF
- Detachable handle

The XA10 camcorder is the smallest and lightest full-featured professional camcorder ever produced by Canon. It stays true to the new 'X' concept of Canon camcorder engineering, first introduced with the XF Series models, providing professionals with uncompromising quality and functionality in an efficient, ergonomic design. The XA10 has been built from the ground up with professional applications in mind, incorporating the features that professionals demand while maximizing mobility. Its ultra-compact size and expansive feature set make it ideal for run-and-gun shooters, nature and wildlife videographers, journalists, bloggers and any video professional seeking to cover more and carry less.



2 SDXC-compatible memory card slots

XA10 Kit Contents



- XA10 Body
- Lens Hood
- Stylus Pen
- Battery Pack BP-808
- Microphone Holder Unit/Handle Unit
- Wireless Controller WL-D89
- Compact Power Adapter CA-570
- USB Cable IFC-300PCU
- Stereo Video Cable STV-250N
- Component Cable CTC-100/S
- Bundled CD ROMs:
 - Pixela Transfer Utility Disc
 - Music Disc

Genuine Canon 10x HD Video Lens

Image capture starts with optics, and the XA10 camcorder is equipped with a Genuine Canon 10x HD Video Lens zoom lens engineered to assure the highest-quality HD video



Genuine Canon 10x HD Video Lens

acquisition. Canon HD video lenses use aspherical elements to achieve low chromatic aberration with high resolution. The XA10 zoom lens provides a versatile range of 30.4 – 304mm (35mm equivalent) and its close-focusing capability is maintained at all focal lengths. An f/1.8 maximum aperture (at full wide) aids low-light capture, while an 8-blade iris ensures more aesthetically pleasing backgrounds ("bokeh") when shooting with shallow depth-of-field. The additional blades also reduce diffraction of light passing through the iris, enabling the use of smaller apertures while maintaining image quality. The lens provides a manual focus ring that can be used at any time, even during AF operation.

Canon Native 1920 x 1080 HD CMOS Image Sensor

Engineered and manufactured entirely by Canon for exclusive use in Canon professional camcorders, the newly developed CMOS image sensor employed in the XA10 features native 1920 x 1080 resolution to ensure superb Full HD video capture quality. The sensor has larger individual pixel sites, which significantly improves its light sensitivity and enables the XA10 to capture clear, low-noise video even in low light. Dynamic range is also improved, providing more detail in highlight and shadow areas with finer rendition of tonal gradations. The 1/3-inch sensor size enables a compact lens and body design for greater mobility and shooting versatility.

DIGIC DV III Image Processor

At the heart of Canon imaging excellence, DIGIC DV Image Processors have progressively elevated camcorder performance, advancing image quality, camera responsiveness and power efficiency. The XA10 incorporates the latest Canon HD image processor, DIGIC DV III, which takes high definition video to an unprecedented level of quality. Innovative new algorithms and enhanced computational power deliver exceptionally accurate color reproduction with improved noise reduction for outstanding low-light performance. DIGIC DV III is also the high-speed engine that powers a variety of sophisticated features, including Genuine Canon Face Detection.

High Bit Rate AVCHD Recording

The XA10 records using the AVCHD codec, which is popular among video professionals and supported in professional workflows, including most modern NLE (non-linear editing) systems. Capturing Full HD 1920 x 1080 resolution with a maximum bit-rate of 24Mbps and 4:2:0 color depth, the XA10 ensures sharp, vivid, professional-quality image capture. Since AVCHD uses MPEG-4 AVC/H.264 video coding, the XA10 is ideal for capturing content to be delivered via Blu-Ray disks or the Web. The XA10 also takes full advantage of the AVCHD



standard's AC-3 audio coding, capturing high-quality stereo and, with the optional SM-V1 microphone, even 5.1-channel (Dolby Digital) surround sound.

Flash Memory Recording

A 64GB internal flash drive and dual SDXC-compatible memory card slots provide versatile, high-capacity recording options. Extended length continuous capture is possible with the Relay Recording function, which automatically begins writing to the next available memory card (internal to slot A to slot B) when the current medium is filled. No frames are lost at changeovers. The two slots can also be used for simultaneous recording, which provides on-the-fly backups.

SuperRange Optical Image Stabilizer System

The Canon XA10 features a sophisticated SuperRange Optical Image Stabilizer (OIS) system featuring Dynamic and Powered modes for optimal performance in the greatest variety of situations. Powered mode suppresses the types of vibrations most prevalent when shooting telephoto, while Dynamic mode is designed to provide extra compensation at wide angle focal lengths to eliminate vibration common when walking and shooting. Powered IS can be activated on demand via a dedicated button.

Infrared Recording

The XA10 includes an infrared shooting mode, which makes it possible to capture images in little to no visible light. When this mode is selected, the IR cutoff filter is removed from the optical path, allowing infrared light to pass through to the sensor. A built-in infrared emitter enables image capture even in complete darkness.

Professional Shooting Features

Numerous shooting assist functions enable professionals to acquire the best possible video footage. An enhanced zebra pattern provides precise exposure control. Focus assist functions, including 2x image enlargement during manual focusing, color peaking and edge monitor, help insure critical image sharpness. SMPTE-compliant color bars, with or without test tone, can be generated and recorded. For more natural-looking dark scenes, the user can set an automatic gain control (AGC) limit. The XA10 even includes a waveform monitor function that can be used to analyze video signals on the camera's LCD. Full manual control capability gives professional videographers total command over camera functions in any shooting situation.

XLR Audio Inputs

Professional balanced audio inputs can be switched for MIC or LINE sensitivity. 48V phantom power is available and can be activated as needed depending on the microphones.

Recording levels can be adjusted manually and independently for the two channels. A 20dB attenuator is also available for signals input to the XLR connectors.





Making a Video with an EOS



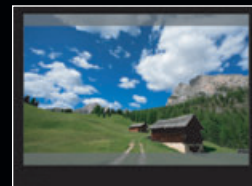
FULL HD 1080 Full HD Video Capture



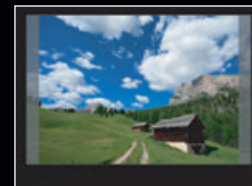
The EOS-1D Mark IV captures video with all the benefits of shooting with an EOS SLR. It allows for full use of Canon EF lenses, including wide angle, macro, tilt-shift lenses and more. By shooting video with a large sensor camera, it's simple to take advantage of the image quality and characteristics intrinsic to SLR photography. The photographer has access to the EOS-1D Mark IV's extended ISO sensitivities, and can control exposure and depth-of-field with ease. **126**

HDMI Resolution and Frame Rates

Full HD video captured at 1920 x 1080 resolution can be shot at 24, 25 or 30 frames per second, for up to 4GB per clip. Videos are saved as MOV files and can be viewed in Full HD with the EOS-1D Mark IV's HDMI output. Other recording sizes include HD at 1280 x 780 (50/60 fps) or SD/VGA at 640 x 480 (50/60 fps). **127**

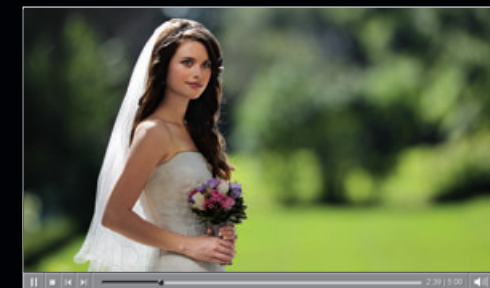


Video shooting area of Full HD quality (1920x1080)/HD quality (1280x720)



Video shooting area of SD quality (640x480)

SLR Effects in Motion



In the EOS-1D Mark IV's manual Video mode, users can control depth-of-field and sense of motion, creating gorgeous background blur. Exposure can be determined and set even in complex lighting situations, maintaining the same look and feel through an entire scene, not just the initial shot, and minimizing camera noise that can occur when the aperture changes due to exposure adjustment mid-clip. The EOS-1D Mark IV has a built-in microphone for simple mono recording and stereo sound can be recorded through an external microphone. Playback and simple editing can even be done in-camera, and video can be played on televisions by using an analog AV or HDMI cable. **127**



- Terminals:
1. PC terminal
 2. Remote control terminal
 3. External microphone IN terminal
 4. HDMI mini OUT terminal
 5. Audio/video OUT/Digital terminal

"The images shot in the EOS-1D Mark IV's movie mode really have to be seen to be believed. The pictures produced in extremely low light due to the stunningly sensitive CMOS sensor offer the cinematographer completely new ways of visualizing nighttime exterior scenes while shooting at high ISO settings. I especially appreciate that Canon has responded to filmmakers' requests for 24/25 frame rate as well as fully manual aperture adjustments. I personally see the Canon EOS-1D Mark IV as an invaluable tool in the professional filmmaker's arsenal."

Russel Carpenter
Explorer of Light