

OVERVIEW

The XL H1 Wonder

Okay, we know this camcorder won't be for everybody. But if you're making the move up to Pro, you'll need gear that can keep up with you. The Canon XL H1 is a truly new product, not just an HD/HDV version of the popular XL2. Unique features and enhancements abound on Canon's first HDV camcorder. And while the XL H1 is the most expensive HDV camera we've tested, the overall value is right on par with its professional price tag. In response to your growing interest in high-end camcorders, we present the Canon XL H1.

Run and Gun-able

What's the first thing you'd do with a top-of-the-line HDV camcorder? Shoot a documentary? Hey that's what we were thinking! We combined the usual camcorder tests and added a few new ones while the XL H1 lived here at Videomaker. What a dream. Imagine having total control over your video. We used the newly designed stereo/mono shotgun mic with great results, and took advantage of the multiple frame rates and gamma settings to dial in our look.

Although we used a tripod for most of the shots, we went handheld for a portion to test how well the camera felt as we moved around. Not surprising, the image stabilization offered by the 20x HD lens was top notch. Canon has placed all the important buttons in accessible places, and added ridges around them to prevent accidental button-pushing. The menu is colorful and adds some great new features, such as the ability to create custom presets.

You can now create six custom presets in the camera for 23 different recording specifications (plus 20 presets to the memory card), which is more than in the XL2. This allows you to have your pre-adjust settings locked and easily accessible as you trot from one location to another. We think this is a smart addition, especially since the XL H1's real competition; JVC's GY-HD100U and Panasonic's AG-HVX200, offer similar amenities. We made good use of two other well-placed buttons: the peaking and magnifying functions. Located right under the Electronic Viewfinder (EVF), these two work to check the all-critical HD focus. Using these instead of the popular videographer trick--zooming in, checking focus, and zooming back out to reframe--is really handy.

After working with the XL H1, we can say that you get what you pay for. In this case, you get Canon's interchangeable HD lens and the ability to record uncompressed HD to a video deck. These two features alone put the XL H1 in the highest class of HDV camcorders. The quality of the glass is an important part of any camcorder, but especially when shooting hi-def. A poor lens can rob your HD video of accurate color and crisp focus. Canon knows glass, and its 20x HD zoom lens provides the quality needed to squeeze out every ounce of resolution. In the XL H1's case, resolution higher than the current crop of fixed-lens HDV cams is achieved. We found the XL H1 to produce accurate color using the manual white balance controls. In auto white balance,

our midday shots looked a bit warm, although some videographers consider this warming a pleasing effect, as it enhances skin tones.

A unique feature of the XL H1 is its ability to record better than HDV quality video to a hard drive for editing. HDV video goes through quite a compression feat to fit onto Mini DV tape, but Canon allows more options when tape is taken out of the equation. Canon's professional jack pack includes SD/HD-SDI outputs. By way of this interface, the XL H1 transfers true 1440x1080 HD with more color information and one-twenty second the compression of HDV, roughly. This is really important (and exciting!) if you shoot green screen work for keying effects. Having extra color information smooths out the interaction between your subject and the green screen, which greatly aids to the believability of your special effects. However, there is a downside. To take advantage of uncompressed HD, you'll certainly need to upgrade your video editing system. This process starts with a big bump in RAM, and ends with a capable video card. Enjoying this kind of video can slurp up hard disk space faster than you can grin, so be prepared to upgrade your storage too. All told, Canon's advancement equates to stunning HD video.

TECHNICAL DATA

Format: DV/HDV on tape, uncompressed HD to hard drive

Number of CCDs: 3

Size of CCDs: 1/3 inch, 16:9 widescreen

Pixels on CCD: 1.67 megapixels per CCD

Video Effective Pixels: 1.56M HD, 1.17M SD (4:3), 1.56M SD (16:9)

Focus: AF, MF, One-push AF, Preset Focus

Shutter Speed: Auto/manual

Maximum Shutter Speed: 1/15,000

Minimum Shutter Speed: 1/4

Lens F-Stop: f1.6-3.5

Program Exposure Modes: Auto, Shutter-Priority, Aperture-Priority, Manual, Spotlight, Night

Image Quality Adjustments: Gamma, Knee, Black, Master Pedestal, Setup Level, Sharpness, H detail, Coring, Color Matrix, Hue, independent RGB

Optical Zoom: 20x

Focal Length: 5.4mm-108mm

Image Stabilization: Yes, optical

Filter Diameter: 72mm

Manual White Balance: Yes, 2 custom presets

Viewfinder: Combined with LCD monitor

LCD Monitor: 215,000 pixel, 2.4" widescreen

Progressive Scan: No

Framerates: 30F, 24F, 60i

HD Modes: HDV 1080i, HD-SDI 1080i

Video In: S-Video, DV/ HDV, Component (RCA)

Video Out: S-Video, DV/ HDV, BNC, Component, HD/SD-SDI

Mono/Stereo Recording: 2 or 4 channel in DV and HDV

Microphone In: Front 5V DC Jack, rear XLR (2x), 48V phantom power

VU Meters: Body and LCD display

Manual Audio Level Controls: Yes, 4 hard pots

Headphone Jack: Yes, 1/8"

Speaker: No

Still Shot Media: Yes

Memory Card Included: Yes; Secure Digital 16MB

Flash: No support

Wireless Remote: Yes, full size

Tape Loading Configuration: Top-loading

Onboard Video Light: No

Accessory Shoe: Yes