

**Built-in LCD**  
**Digital Microscope**  
**VCR-800**

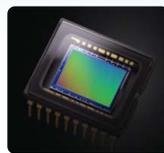
**HIROX**  
<http://www.hirox.com>

**A new concept that combines style with advanced functionality.**  
**VCR-800 Is Born**



This finescope is equipped with a compact 2.11 megapixel CCD camera capable to truly recreating objects.

This 2.11-million-pixel CCD camera of our original design realizes UXGA-level moving images and superhigh-quality video images. Functions that are required for high-class observations are concentrated in a compact body.



The newly designed lens with LED illumination realizes the depth of observation at one of the industry's best levels.

We have devoted a multitude of advanced functions and an abundance of knowhow for the newly designed lens. It has been developed from the best balance of contrast, depth of field, and resolution. We have removed ghosts, whereby the light that's reflected on the lens surface erodes the proper image, as well as flare phenomenon. We solved all problems beyond the predictable, including slanting of the lens tube and axis.

**Optical 20~160 magnification zoom**

Low-Range Zoom Lens  
 (LEC illumination attached)

**Optical 50~400 magnification zoom**

Mid-Range Zoom Lens  
 (LED illumination attached)



4-Division LED illumination that allows selection of various illumination patterns.

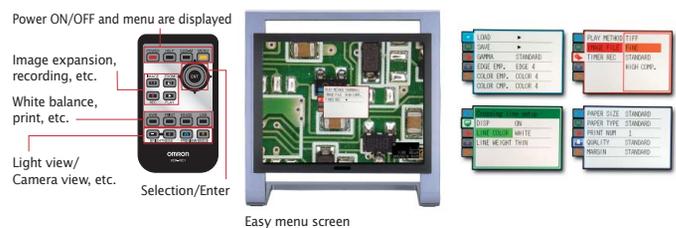
We have adopted the use of white LEDs that are close to sunlight in terms of illumination. One can pick the most optimal illumination environment from among 12 lighting pattern types. Because LEDs are used, it requires no maintenance. The equipment is environmentally friendly and has a long life.

Optimal illumination is realized through 12-pattern illuminations.



It is easily operated by selecting functions from the menu screen with the remote control.

Users are required only to pick the items they want from the easy-to-understand menu screen where icons and separate functions are displayed. We have realized user-friendly operability to allow everyone to make expanded observations easily. Every function is operated by the remote control.



## Ultra-slim, ultra-light, & all-in-one design.

Only screens need to be large. The VCR-800 pursues the slimmest possible design. At the same time, surprisingly lightweight is realized. The main body is only two-thirds of the B4 size. The thickness is only 7 centimeters when folded. Portable with just one hand, because the weight less than 4kg. It can be carried to a different location within one office just like a notebook PC.



## System structure



## Observation screens can be printed immediately and be saved according to selections.

### PictBridge is adopted.

When a print out of the observed images is needed immediately, a USB connection can be made to any commercial printer with a PictBridge USB connector. Separate computer is no longer needed. Recording can be done to either a compact flash or a removable disc (microdrive) according to the data volume.



## Function specifications

Camera	Image sensor	1/1.8type CCD
	Scanning methods	Progressive scan method
	Total pixels	About 2.11 million pixels 1688 (H) X 1248 (V)
	Effective pixels	About 2.01 million pixels 1628 (H) X 1236 (V)
	Frame rate	15 frames/second
	Electronic shutter	AUTO (1/15~1/2500) sec 1/15, 1/30, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2500 sec
	Slow shutter	1/7.5, 1/4, 1/2, 1.0, 2.0, 4.0, 8.0, 16.0 sec
	Gain	MANUAL, OFF
	Resolution	Horizontal: about 1000 units Vertical: about 1000 units
	White balance	AUTO (One Push), MANUAL (R,B)
LCD panel	Screen size	15-type TFT color LCD
	Pixel pitch	0.1905 (H) X 0.1905 (V)
	Screen display dot count	1600 (H) X 1200 (V)
	Luminance	200cd/m2 (typ.)
	Contrast comparisons	400:1 (typ.)
Input, output	USB	USB2.0 (4Pin TYPE B) Mass storage/TWAIN transfers Printer (PictBridge-compatible printers only)
	Remote control input	Special remote control VCR-RC1 (attached to the main body)
	Exterior remote terminals	Round-shape 6pin Through/Freeze switching, recording, printing
Recording	Recording media	Compact flash, microdrive
	Card slot	TYPE I X 1
	Image formats	Compressed: JPEG (Exif compliant)/ Uncompressed: TIFF (Exif compliant) (DCF specification compliant)
	Image quality mode	JPEG: High-finesness mode, standard mode, high compression mode
Tool	Recordable pixel counts	1600 X 1200 pixels
	Image quality improvement	Edge emphasis (H/V Dual effectiveness), gamma, color emphasis, color correction
Tool	Observation tools	Fine preview mode, focus monitor functions, real time local Zoom (X2, X4), screen divisions (top-bottom, left-right, four-way) Cross line displays, illumination pattern changes, etc.

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## General specifications

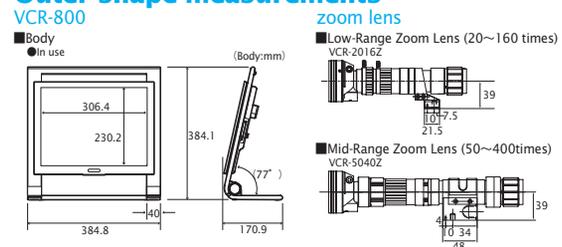
Format	VCR-800 (Built-in)	
Rate supply voltage	DC14.0~17.0V Attached AC Adapter AC100V~240V	
Power consumption	Maximum 36 VA	
Surrounding temperature range	In use: 0~+40°C In storage: -15~+50°C (but freezing, dew formation are not allowed)	
Surrounding humidity range	25~85%RH (but no dew formation is allowed)	
Surrounding atmosphere	No corrosive gas should be around	
Mass	Controller	About 4 kg (monitor protection cover included)
	Camera	About 1 kg (cable included)
	Remote control	About 35 g (battery included)

## Lens

Format	VCR-2016Z	VCR-5040Z
Reference magnification*1	20~160	50~400
Shooting range (mm)	H	15.4~2.0
	V	11.6~1.5
	couner	19.3~2.5
Depth of field view (mm)	100.8~1.56	13.0~0.2
Observation distance (mm)	30mm	27mm
Light source	White-color LED	
Illumination format	12 pattern variable illumination	
Mass	about 600g	about 700g

\*Reference magnifications for the 1:15-inch monitors.

## Outer shape measurements



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