Canon
SEE IMPOSSIBLE

CR-2 AF

DIGITAL NON-MYDRIATIC RETINAL CAMERA

Superior Image
Resolution and
Auto Functionality

SUPERIOR RESOLUTION FOR EARLIER, MORE ACCURATE DETECTION

"GOOD ENOUGH" IS NOT GOOD ENOUGH

If you were having your vision checked for early signs of Diabetic Retinopathy, Glaucoma, AMD, or another vision-threatening disease, you'd want a photograph taken with the highest image resolution possible. Cameras with lesser image resolution will blur details and miss subtle structures absolutely critical in the early detection and diagnosis of disease. Simply stated, you cannot treat what you cannot see.

THE WORLD'S HIGHEST RESOLUTION FUNDUS IMAGE

The Canon CR-2 AF Digital Retinal Camera is designed to help you consistently capture and analyze truly superb images—quickly, efficiently, and automatically. Designed around the legendary Canon EOS optics and advanced CMOS image capture technology, the CR-2 AF provides a remarkable set of features specifically designed to capture, enhance, and analyze even the most subtle fundus abnormalities.

DEDICATED DIGITAL CAMERA

The CR-2 AF incorporates Canon EOS technology to provide optimal images under just about any condition.

With Auto Exposure, Image Error Detection, Quick Preview, and Low-Flash Intensity, the CR-2 AF delivers the highest resolution available in any digital retinal camera today. Each stunning, high-resolution, 20.2-megapixel image has extraordinary detail, contrast, and color fidelity.

EASY-TO-MANAGE CONTROLS RIGHT AT YOUR FINGERTIPS

AUTO FUNCTIONALITY

NEW!

NEW! CONTRAST ENHANCEMENT

Affords increased image clarity by emphasizing the differences in "redness" and "brightness" of blood vessel structures relative to their surroundings.

NEW!

AUTO-FOCUS WITH MANUAL ALIGNMENT OVERRIDE

User can automatically focus the eye by partially depressing the Joystick, or easily switch to manual focus with a twist of the focus ring.

NEW!

AUTO-FUNDUS

Automatically switches from the external eye to retinal observation mode when the eye is properly aligned.

AUTO-EXPOSURE

Automatically measures the volume of infrared light at the retina and adjusts the flash intensity.

NEW!

AUTO-CAPTURE

Automatically captures the image once the eye is properly focused.

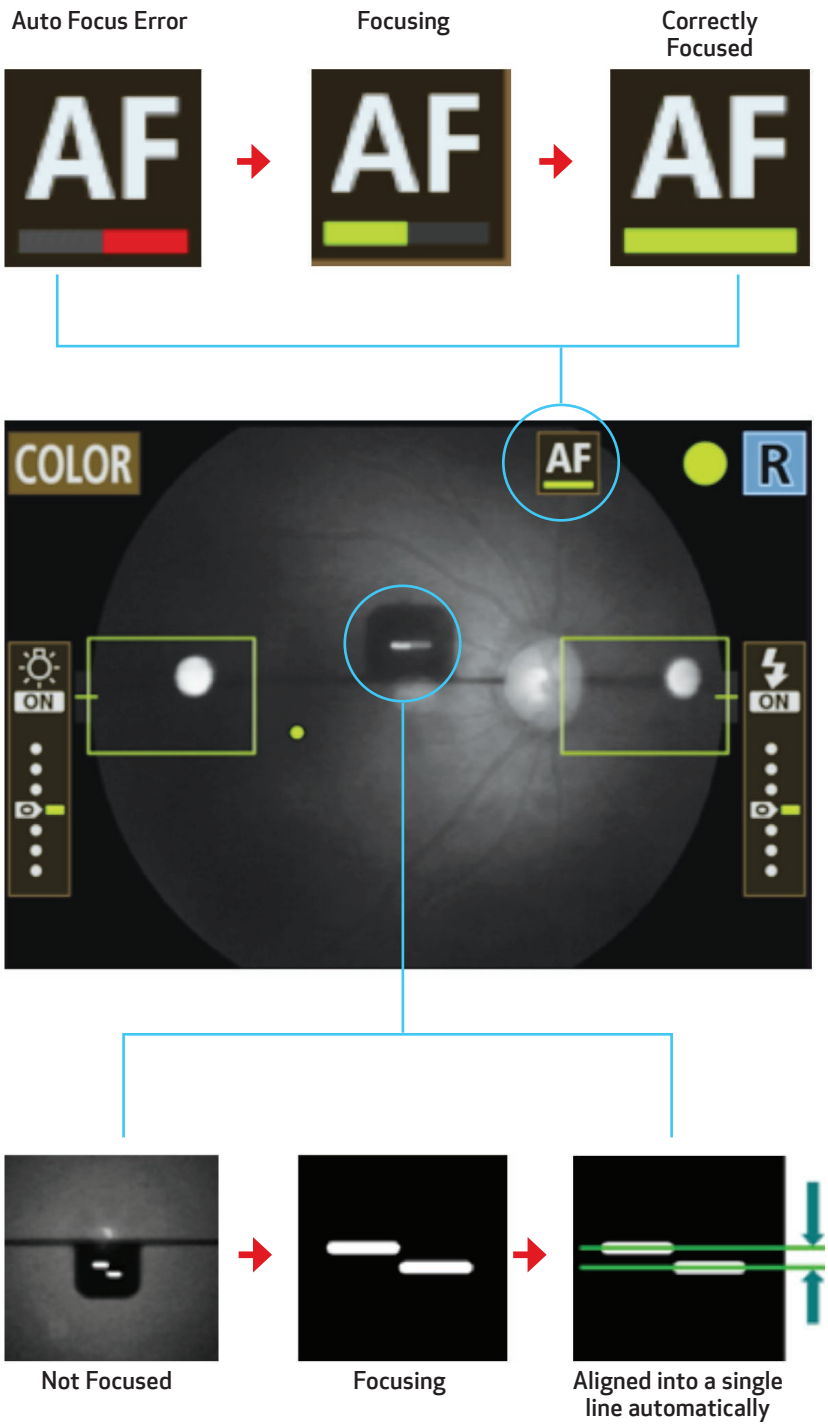
IMAGE ERROR DETECTION

Advanced software automatically confirms both correct alignment and focus.

NEW!

LOW-FLASH INTENSITY

Low flash increases patient comfort and reduces miosis for a shorter exam time. The CR-2 AF supports a wide range of low ISO speeds, including ISO 200/400/800/1600/3200/6400.



ADVANCED DIGITAL IMAGE FILTER PROCESSING

The CR-2 AF Digital Retinal Camera produces ultra-high-resolution, 20.2-megapixel, wide-angle views with excellent color, detail, and contrast. To further enhance your retinal exam capabilities, the CR-2 AF has a full set of blue, green, red, red-free, and cobalt digital processing modes to extract more in-depth information from each image.

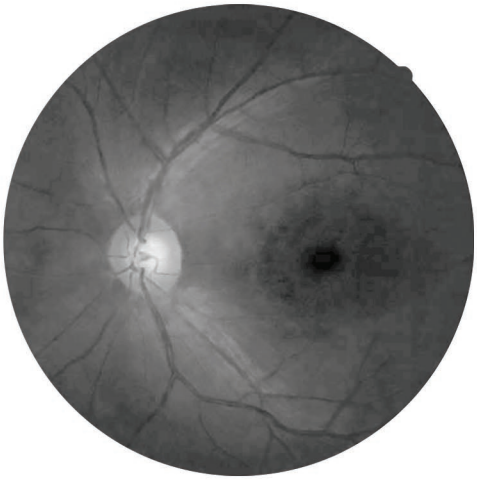
CHANNEL MODES

COLOR

The color image provides brilliant, full-spectrum images with superior detail and color accuracy.

BLUE

The blue channel mode provides a critical view of the retinal nerve fiber layer, the internal limiting membrane, retina folds, cysts, and epiretinal membranes.



CHANNEL MODES

GREEN

The green channel mode provides excellent overall contrast and enhances the retinal vasculature. It's also useful when highlighting hemorrhages, drusen, and exudates.

RED

The red channel mode provides specific information deep into the choroidal areas and is useful in identifying pigmentary disturbances, choroidal melanomas, ruptures, and nevi.

EMBOSS*

The Emboss tool enhances depth perception with a 3D-like representation of elevations and depressions. The entire retina can be embossed, as well as the optic disc or macula area. The Emboss tool is also especially valuable in assessing subtle areas not easily visualized with color alone. The tool also assists in the evaluation of macular degeneration, glaucoma, and diabetic retinopathy.

*Available when purchased with imageSPECTRUM Software.

IT'S ALL ABOUT THE DATA

GOING BEYOND THE CAPTURED IMAGE

Until recently, capturing, storing, and interpreting diagnostic images were about all that most clinicians asked of their diagnostic instruments. However, with today's increased workflow and practice efficiency expectations, rapidly escalating PHI data security concerns, and data sharing/access needs at an all-time high, things have changed. High-resolution, diagnostic-quality images—not reduced resolution thumbnails—now must be instantly accessible, whether in your exam lane or half-way across the country. That same image data must also be presented in a coordinated fashion—along with the patient's entire test and image history—to meet your workflow and efficiency requirements. Moreover, it must be done with security and compliance with CMS and HIPAA regulations in mind.

ADVANCED IMAGE MANAGEMENT

imageSPECTRUM Image Management Software* is a dedicated system designed to provide immediate access to images from different eye care modalities. The system's core is built around today's security and compliance requirements and is based on the universal DICOM open systems standard. It's crisp and very adept at handling literally hundreds of thousands of images from multiple instruments and modalities, whether from Canon or other manufacturers.** Furthermore, imageSPECTRUM Image Management Software is highly scalable and can help practices of any size and complexity to cleanly and efficiently manage all their diagnostic information. It's also the ideal complement to your new Canon CR-2 AF Digital Non-Mydriatic Retinal Camera.

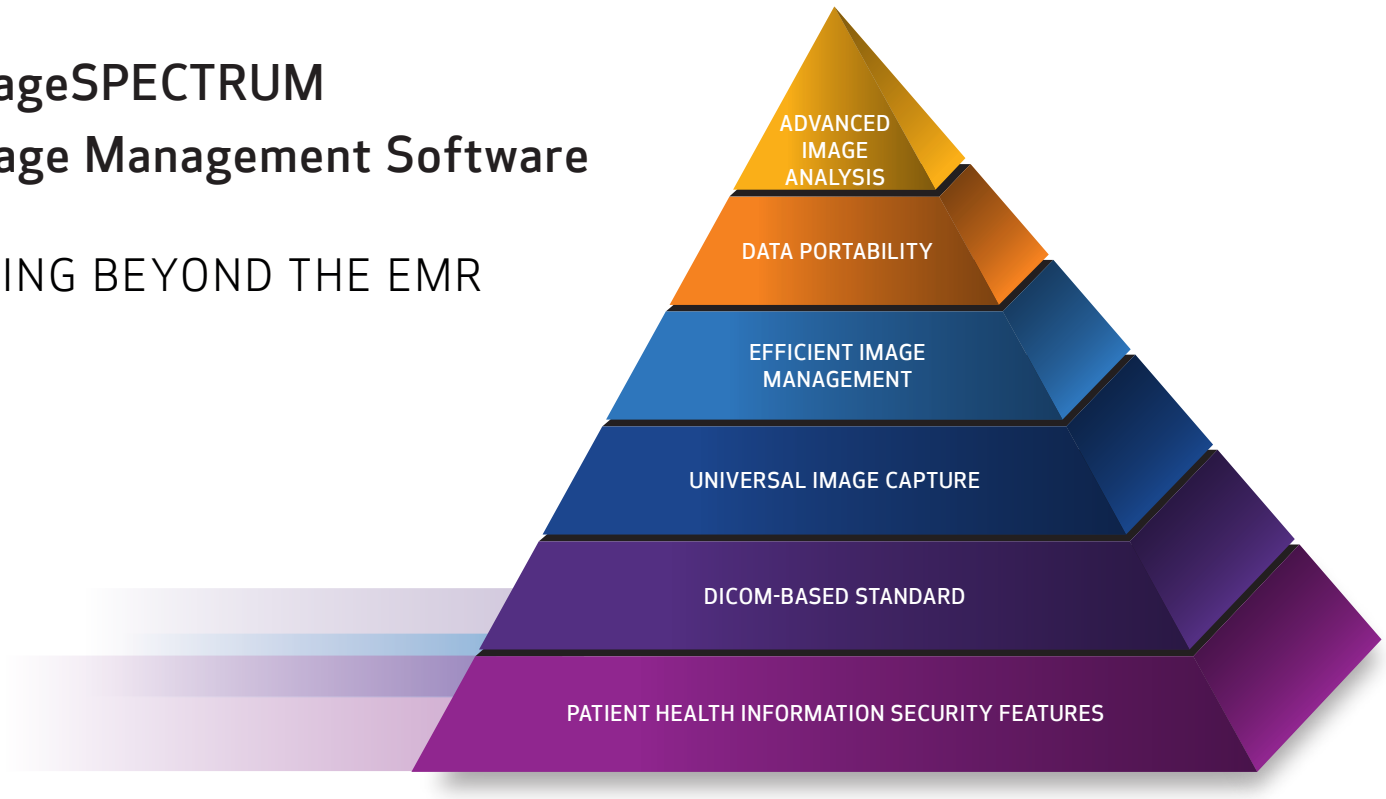
LEVEL	BASIC FUNCTIONALITY	RECOMMENDED USE
CapturePLUS	Create and View Studies.	For those who wish to create and forward DICOM-compliant studies to an existing EMR or a DICOM storage system.
StandAlone	Adds full-featured database functionality for capture station user.	For those who wish to capture, view, and store studies from a single imaging device.
Office	Adds full-featured database with full networking capability.	For those who wish to capture, view, and archive studies from multiple devices (i.e., review stations, instruments, etc.).

*Requires Windows®7 Operating System.

**Instruments must have print-to-file capability and either an RS-232 or USB port.

imageSPECTRUM
Image Management Software

GOING BEYOND THE EMR



HOW TO BUILD SECURE PEACE OF MIND

ADVANCED IMAGE ANALYSIS
Use Advanced Tools to help quantify progression; overlay and merge images to clearly see and assess changes; add notes to help document and annotate.

DATA PORTABILITY
Provides for the secure transmission of patient data to referring physicians and other coordinated care partners.

EFFICIENT IMAGE MANAGEMENT
This is not an EMR. It's software specifically designed to enhance practice workflow and productivity through the efficient viewing, query, analysis, storage, and sharing of completed images and studies, whether in the next room or across the country.▲

UNIVERSAL IMAGE CAPTURE
Bluetooth wireless encryption allows images and reports from third-party legacy instruments to be easily integrated for secure, single-patient record access.▲

DICOM-BASED STANDARD
Universal standard easily integrates with your diagnostic imaging and measurement devices from Canon and most other eye equipment manufacturers.▲

PATIENT HEALTH INFORMATION SECURITY FEATURES
Uniquely equipped with advanced security features, such as Aging Password, Role-based Access, 256K Encryption, Audit Log Recordkeeping, Patient Reconciliation, Auto Log-off, Automatic Archival Solution, and more.

▲ Instruments must have print-to-file capability and either an RS-232 or USB port.

CR-2 AF

DIGITAL NON-MYDRIATIC RETINAL CAMERA

General

Type: Digital Retinal Camera, Non-Mydriatic

Type of Photography
Anterior, Stereo, Color, Digital Red-free, Digital Cobalt

Angle of View: 45º (35º SP Mode)

Magnification: 2x Digital

Minimal Pupil Size: 4.0 mm (3.3 mm SP mode)

Focus Adjustment Type: Split-Line Adjustment

Patient Diopter Compensation Range
Without Compensation Lens: -10 to +15D
With "-" Compensation Lens: -31 to -7D
With "+" Compensation Lens: +11 to +33D

Light Source
Observation: LED
Photography: White LED

Canthus Mark: 420 mm From Base

Internal Eye Fixation: LED Dot Matrix; four programmable patterns

External Eye Fixation: White LED (Sold Separately)

Working Distance: 35 mm

Working Distance Adjustment
Anterior Observation: Double Image Match Method
Fundus Observation: Working Distance Dots

Sensor Resolution: 20.2 megapixels

Camera
Dedicated EOS Camera for CR-2 AF (Bundled)

Monitor
3.0-inch Color LCD Monitor
HDMI port for External Monitor (Optional)

Auto Function: Automatic Exposure

Mount Movement
Front and Back: 70 mm
Side to Side: 100 mm
Up and Down: 30 mm

Chin Rest Movement: 60 mm

Electrical and Environmental

PC Interface: USB 1.1, USB 2.0

Power Supply: AC 100-240V, 50/60Hz

Operating Environment
Temperature: 50º to 86º Fahrenheit (10º to 35º Celsius)
Humidity: 30% to 90% RH (No Condensation)
Atmospheric Pressure: 700 to 1060 hPa

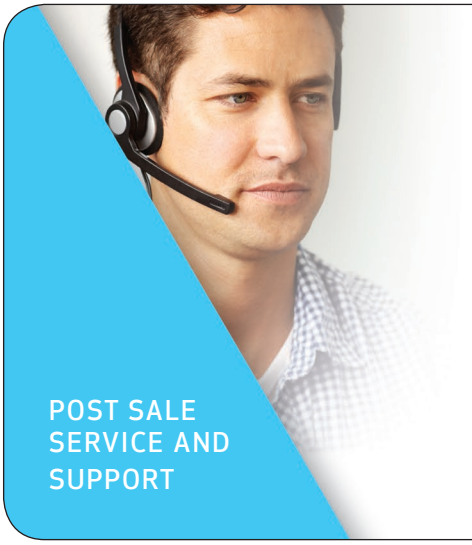
Physical Characteristics

Dimensions (H x W x D)
18.6" x 12" x 19.7" (473 mm x 305 mm x 500 mm)

Weight: 33 lb. (15 kg)

Options and Accessories

AutoMosaic Function (Option)
External Fixation Target
Motorized Table
Auxiliary Monitor



MAINTAINING YOUR INVESTMENT IN EXCELLENCE.

The CR-2 AF Digital Non-Mydriatic Retinal Camera is backed by Canon, a global microprocessor-based company with 75 years of optical experience. Its superb customer service and support organization is ready to answer your needs 24/7/365.

This common sense approach to service allows you to purchase a service plan that suits your specific needs—and your budget. The Canon service program may help you avoid costly instrument downtime while also helping you with the accessibility of your vital patient images and information.

To schedule a demo or for additional information, call 1-800-970-7227 or visit our Web site.

WWW.USA.CANON.COM/EYE-CARE

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EB-035, Rev. B
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