

Canon

CR-1

Digital Retinal Camera

**The State-of-the-Art in
Non-Mydriatic Retinal Imaging,
Ergonomically Designed**

The Non-Myd CR-1 features high-performance specs in an ergonomic, easy-to-use design to provide enhanced quality, efficiency and comfort during retinal exams.



Designed and engineered for outstanding image quality and ease-of-use, plus greater patient comfort



Ever since developing the world's first non-mydratic retinal camera in 1976, Canon has been a pioneer in the field of retinal imaging. Canon's latest advancement, the non-mydratic digital CR-1, combines state-of-the-art optics and retinal imaging technology with the renowned EOS digital SLR system to provide industry-leading image quality and efficiency. All this, in an all-new ergonomic design that's more comfortable for the patient and easier to use than ever before.

High-quality, high-resolution images

The CR-1 features a redesigned optical system that achieves extremely detailed, high-resolution diagnostic images of the retina for accurate detection and monitoring of ocular conditions including diabetic retinopathy, glaucoma, and macular degeneration. The high pixel count of the attached EOS digital SLR camera delivers detailed image quality even when magnified. Once captured, images are transferred to a connected PC for review.

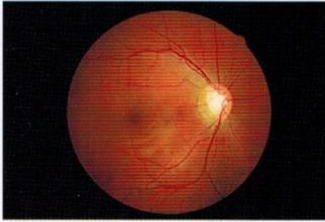
Comfortable, ergonomic design

The all-new design of the CR-1 integrates advanced specifications into an ergonomic unit that facilitates operation by motorizing procedures usually performed by hand. The intuitive controls, viewing monitor, and the streamlined form have all been designed for improved ease of use and comfort. It's also patient-friendly. Because retinal images are easy to obtain, exams can be completed in less time.



Key features

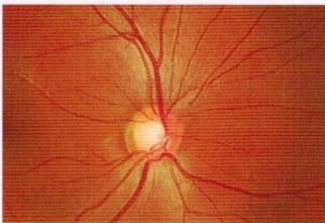
■ True 45-degree image



The CR-1 features a redesigned optical system that achieves high-resolution diagnostic images at a 45° angle of view.

■ 2x digital magnification

"2x" mode provides a closer, more magnified view of the retina. It works by automatically cropping out the peripheral edges of the image so that the region of interest is larger in the frame. Closeups are extremely clear and detailed thanks to the high pixel count of the attached digital camera.



■ Motorized chin rest



The motorized chin rest can be moved up and down to accommodate the patient's height using a pair of buttons located on the operation panel.

■ Front patient protection cover

The smooth front cover panel protects the patient from the instrument's moving parts.

■ Small Pupil Mode

Photograph through undilated pupils as small as 3.7 mm.



■ Shorter working distance

A shorter working distance allows closer interaction with the patient, plus easy access to the patient's eyes.

■ Bright, easy-view 5.7-inch swivel LCD monitor

■ Diopter compensation

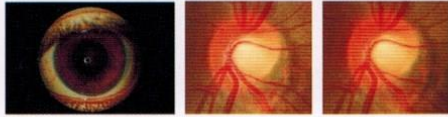
Accommodates a wide patient diopter correction range.



■ Flash intensity adjustment, plus Low Flash Mode



Nine steps of flash adjustment are available, in addition to a low flash mode. Low flash intensity makes it easy to retake photos or take images of both eyes, when necessary.



Anterior eye and stereo photography are available



■ **High-resolution Canon EOS digital SLR camera**

■ **Internal fixation target adjustment**

The finely calibrated internal eye fixation target of the CR-1 provides the patient with a fixed, consistent point of focus throughout the image capture procedure, making it quick and easy to achieve a clear and stable image. The fixation target LED can be freely adjusted via the operation panel to position the eye exactly as desired. One push of a button returns the target to its default position.



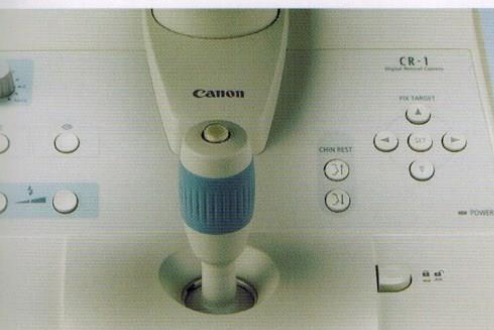
A swivel type external eye fixation target is available as an option and sold separately.

■ **One-hand joystick operation**

■ **Illuminated operation panel**

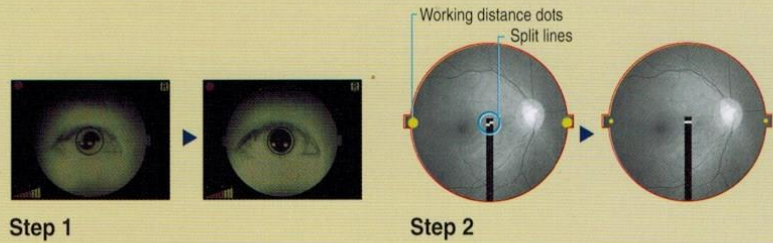


The illuminated operation panel enables easy one-handed operation in darkened rooms.



Easy alignment and focusing

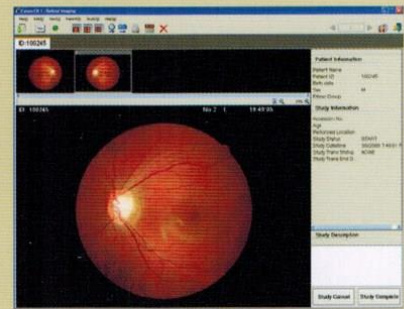
Image capture is fast and easy thanks to a simple two-step procedure. First, you align the two halves of a split pupil image. Then you switch to the retinal display, and adjust the split lines and working distance dots to achieve the correct focus and distance to the retina for clear, sharp images every time.



Streamlined system and workflow

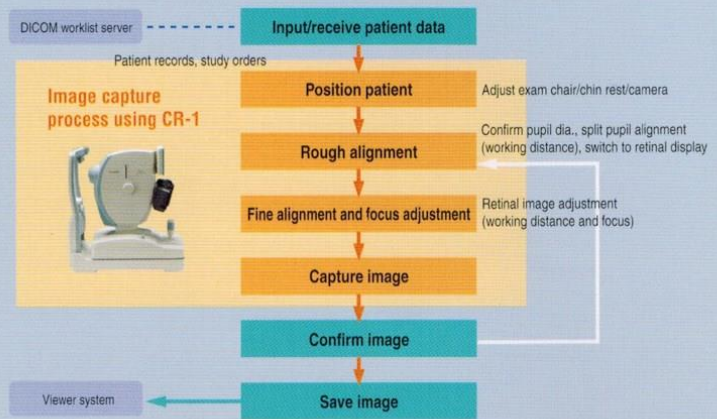
The efficiency of the CR-1 goes beyond image capture. The network capability and control software of the CR-1 work to streamline the entire diagnostic workflow, allowing you to conveniently review, analyze, print, store and transmit images to remote viewing locations. The DICOM-compliant network interface enables easy integration with existing image management systems and allows connection to a variety of network configurations such as LAN, WAN and PACS.

The bundled Retinal Imaging Control Software for the CR-1 puts tools for comprehensive study management and image capture control at your fingertips, in an intuitive graphical interface that's simple and straightforward to use. The PC-based software provides quick, easy input and access to all information and images required to assist in your diagnosis.



Bundled Retinal Imaging Control Software

Workflow of a typical exam





Anterior eye and stereo photography are available



High-resolution Canon EOS digital SLR camera

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One-hand joystick operation

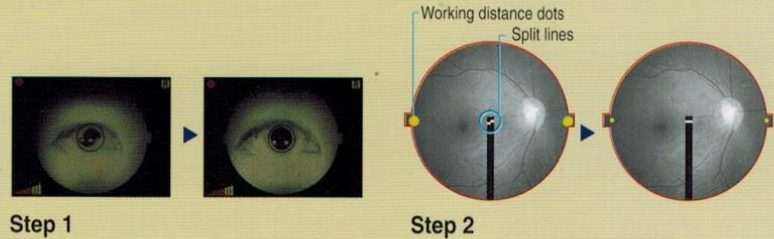
Illuminated operation panel

The illuminated operation panel enables easy one-handed operation in darkened rooms.



Easy alignment and focusing

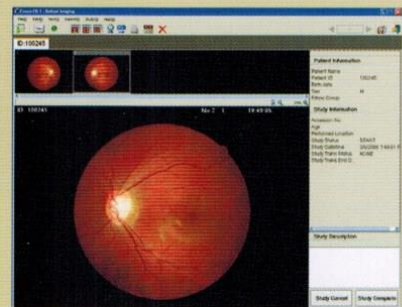
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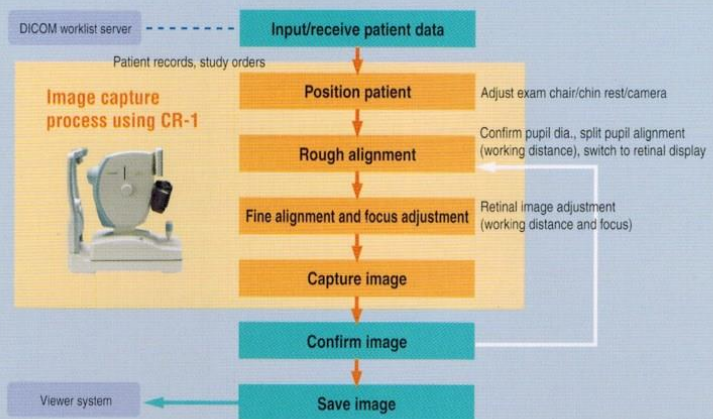
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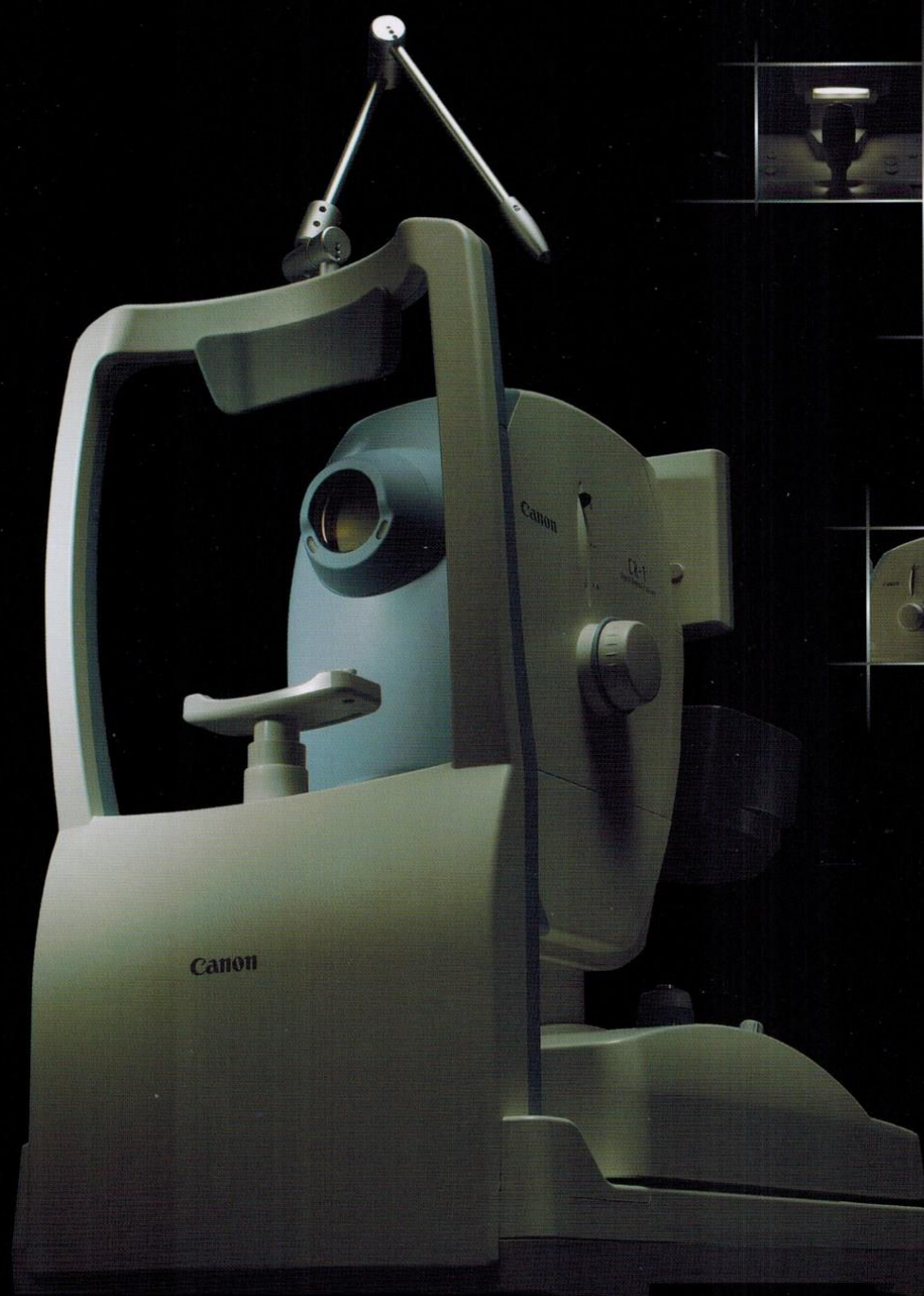
Bundled Retinal Imaging Control Software

Workflow of a typical exam



CR-1

Digital Retinal Camera



- Delivers ultra-high resolution diagnostic images
- New ergonomic design with intuitive controls
- Easy to operate and achieve desired views
- Quicker, more comfortable exams for the patient



CR-1 Specifications

Type	Digital retinal camera, Non mydriatic
Angle of view	45 degrees
Magnification view	X2 (Digital)
Operation distance	35 mm from the front of objective lens
Minimum pupil size	ø 4 mm (Approx. ø 3.7 mm in SP mode)
Image size	ø 14 mm on the sensor
Attachable digital camera	Canon EOS digital SLR camera (For information on available camera models, please consult your local authorized Canon sales representative.)
Sensor resolution	10.1 megapixels or higher (Resolution depends on model of attached camera.)
Patient's diopter compensation range	Without compensation lens: -10D to +15D With "-" compensation lens: -7D to -31D With "+" compensation lens: +11D to +33D
Working distance adjustment	Anterior eye display: split lines adjustment Retinal display: working distance dots
Internal fixation target	LED dot matrix, green
Light source	IRED for observation, Xenon tube for photography
Built-in monitor	5.7-inch color LCD monitor
Power supply	AC100-240 50/60Hz 1-0.4A
Operating environment	Temperature: 10°C to 35°C Humidity: 30% RH to 80% RH (with no condensation)
Dimensions (W x D x H)	320 mm x 530 mm x 550 mm (12.7 in. x 20.7 in. x 21.9 in.)
Weight	Approx. 21.5 kg (47.4 lb.)

COMPONENTS

Main unit
Objective lens cap
Camera mount cap
Chin rest paper (100 sheets)
Power cable
Dust cover
CD-ROM (Retinal imaging control software NM)

OPTIONAL ACCESSORIES

External eye fixation lamp EL-1
Chin rest paper (500 sheets)

Simulated images and specifications are subject to change without notice.

Canon

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