

VX-10 / VX-10i, Two-In-One Non-Mydriatic and Mydriatic Fundus Cameras.

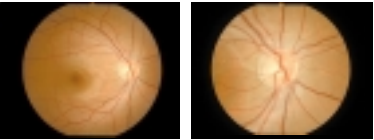
Highly effective and ergonomically designed, the ideal tool for eye-care photography!

Various Photographic Modes

Non-Mydriatic Photography

2 Optical Angles

In this mode, angles 45°and 22°*A can directly be selected, making enlargement fast and easy.



Fixation Lamp Switching

3 fixation lamps: 2 internal lamps (posterior and central optic nerve head) and 1 external lamp (peripheral) are also selected in one touch switch, for easy guidance to the targeted area.



Mydriatic Photography

Mydriatic fluorescein angiography and mydriatic color photography are possible in this mode. In the mydriatic fluorescein mode, the fluorescein filter is inserted and removed electrically; in the mydriatic color mode, the use of optional filter enables red-free photography.

2 Optical Angles

In this mode, angles 50°and 25°*B are possible, directly selectable.



Small Pupil Photography

For patient's eye with insufficient pupillary dilatation, the built-in small pupil mode enables photography if the pupil diameter is more than ø4.0mm. (angle 45°only)

*A VX-10i : 27°
*B VX-10i : 30°

The new VX-10i, camera of extended possibilities

With the optional ICG filter, VX-10i becomes the perfected fundus camera performing all non-mydriatic color, mydriatic color, FA and ICG!!

Enhanced with new capabilities

Featuring almost all VX-10 functions, the use of the optional ICG filter enables ICG angiography, in which mode LCD monitor observation is also possible. Besides, the use of the optional 1.4 mega pixel black and white CCD camera allows high-resolution ICG still image photography.

The mydriatic mode enables 50°and 30° photography. The angle 30°is particularly effective for retinal disease diagnosis(angle 50°only for ICG).

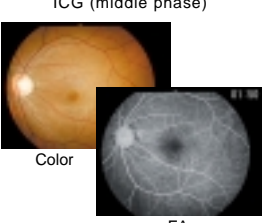
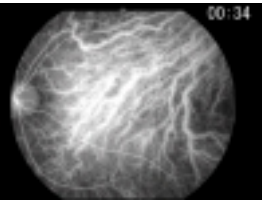
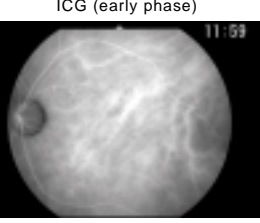
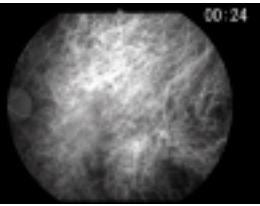


Photo: Y.Hasegawa M.D., Iwate Pref. Hanamaki-kosei Hosp.

Adapted to the Newly Developed CCD camera

Adapted to High-Pixel Digital CCD cameras

Combined with the 2.1 mega pixel × 3 (total 6.3 mege pixel) CCD camera (KD-630C) or the 2.1 mega pixel color CCD camera (KD-211C), images are taken in increased quality (also adapted to the existing Analog 3CCD Sony DXC-990). Furthermore, the 1.4 mega pixel black and white CCD camera (KD-144i) has been newly developed exclusively for high-resolution ICG images..

Examples of combinations with the VX-10 exclusive video adapter



Example of combinations with the VX-10i exclusive video adapter



Linked to VK-2, Adapted to Internal Networking

Linked to the Digital Imaging System VK-2, all images can be saved and shared through a LAN (Local Area Network),enabling establishment of an internal network system of your own.

One Click Image Processing



A simple click on the icon for easy controls

Comparison Image Display



pre-registered reference model eye image

EDIT DATA



Annotations inputs on images

Enlargements

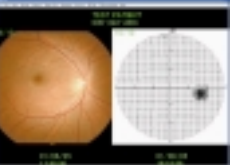


Multiple Image Display



2,4,6,9,16,36 images can be displayed at the same time

Stereo Multi Perimeter Display



Combined with automatic perimeter

Digital Color



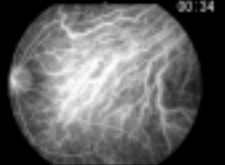
KD-211C

Digital Fluorescein (FA) (B/W with timer on display)



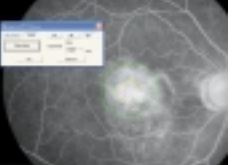
KD-211C

Digital Fluorescein (ICG)



KD-144i

PDT Mode



Digital Imaging System (Color • FA)

With both the VX-10 and the VX-10i, various digital imaging systems can be organized and the VK-2 system especially allows the composition of an ideal and original clinical environment, where all images can be shared anywhere as you wish through a LAN.

VK-2 High Performance Digital Imaging System

2.1 mega pixel × 3 (total 6.3 mega pixel) CCD camera KD-630C

2.1 mega pixel color CCD camera KD-211C

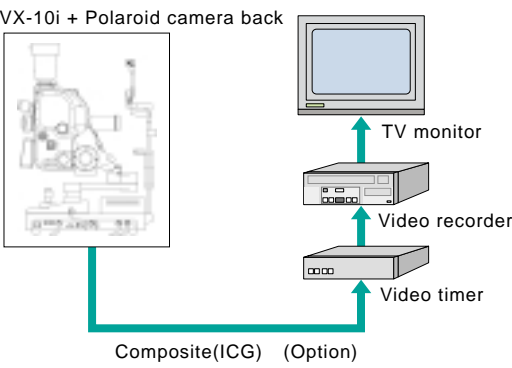
Sony 3CCD camera DXC-990



ICG (option) System

Color photography with 35mm camera, Polaroid. fluorescein angiography with 35mm camera.

Moving Image Record only

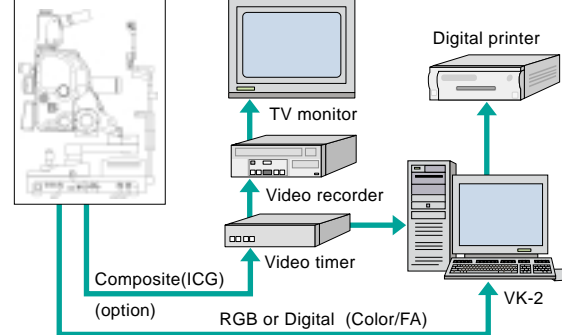


Color • FA • ICG (option) System

Digital image recording of all photography modes

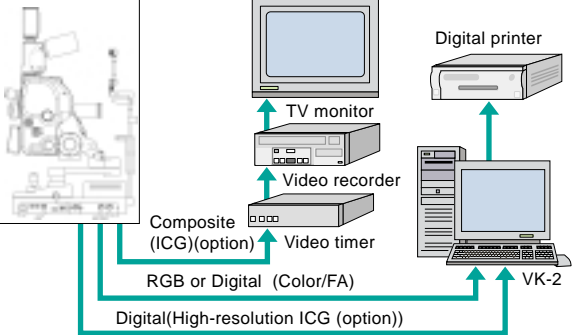
Moving Image Record + Still Image Record (Color • FA • ICG (option))

VX-10i + color CCD camera (KD-630C, KD-211C, DXC-990)



Moving Image Record + Still Image Record (Color • FA • high resolution ICG(option))

VX-10i + KD-144i + color CCD camera (KD-630C, KD-211C, DXC-990)



Even more easier, even more user-friendly

VX-10 exclusive options

Video Adapters (For KD-630C, DXC-990)



With KD-630C



With DXC-990

Video Adapters (For KD-211C)



With KD-211C

VX-10i exclusive options

Video Adapters (For KD-144i, KD-630C, DXC-990)



With KD-144i + KD-630C



With DXC-990

Video Adapters (For KD-144i, KD-211C)



With KD-144i + KD-211C



With KD-211C



Internal Fixation Devices



ICG Filter

VX-10 / VX-10i Common Options



Grip

This grip allows the patient to be perfectly stabilized and allows a smooth and safe photography.



Green Filter

Manual setting of this filter in the mydriatic color mode allows red-free photography to obtain high contrast fundus blood vessels and retina.



Polaroid Camera Back



35mm Camera Back



Digital Imaging System Kowa VK-2

Non-mydriatic color / mydriatic color / fluorescein angiography in just one camera!

The new VX-10i, featuring an optional ICG function, is adding enhanced capabilities to an already powerful fundus camera.

The easy to use navigation panel located at hand allows the selection of 3 modes (non-mydriatic / mydriatic / fluorescein) with just one touch switch for fast operations.

TV Observation Monitor

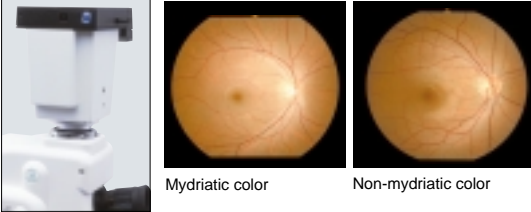
In the mydriatic color mode, alignment and focusing adjustment are possible with the LCD monitor. The infrared observation light reduces light aversion and makes photography smoother. In this mode, when the pupil diameter of the patient's eye is superior than ø5.5mm, alignment and focusing adjustment with the LCD monitor, and 50°non-mydriatic photography are possible.

Chart, Data Card Photography

Chart, data card can easily be photographed with 35mm film.

Polaroid Film Photography

The large Polaroid printing area provides easy-to-read pictures.



Simple operations

Multiple Step Flash, Matching Point Method, Long Eye Relief Design, all were meticulously elaborated to make the VX-10 series the simplest thus most effective and accurate tools ever.

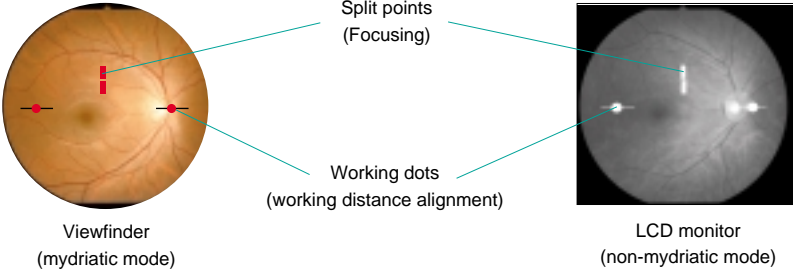
Multiple Step Flash for Proper Exposure in the Various Photographic Modes

A wide range of light exposures assures proper exposure in every mode. Moreover, strobe light being extremely low when taking digital images, light aversion is significantly reduced.



Working Distance Guidance and Focus Detection Functions for Clear and Sharp Images

Alignment is made by simply adjusting the 2 right-and-left luminous spots with the joystick at hand; focusing adjustment is also easy with the point matching method.



Operationally Focused, Darkroom Adapted Navigation Panel

This navigation panel at hand has its buttons illuminated to allow quick and acute operations even in darkroom. Only usable switch buttons are illuminated according to each mode.



Clear Viewfinder with the Long Eye Relief Design

With a long eye distance, the clear viewfinder allows comfortable photography.



Two-In-One Non-Mydriatic and Mydriatic Fundus Cameras.

Kowa VX-10 Kowa VX-10i (With ICG function)

	VX-10		VX-10i	
Photographic Angles	Mydriatic	50° 25°	Mydriatic	50° 30°
	Non-Mydriatic	45° 22°	(50° for ICG (option))	
			Non-Mydriatic	45° 27°
Photographic Magnification ※1	50° ⇒ 2.0·	25° ⇒ 3.6·	50° ⇒ 2.0·	30° ⇒ 3.0·
Picture Size	35mm Film	φ 26mm· 22mm Oval		
	Polaroid Film Myd.	φ 84.5mm (vertical 71.5mm, horizontal 79mm Max.)		
	Non-Myd.	φ 76.1mm (vertical 71.5mm, horizontal φ 76.1mm)		
Working Distance	39mm (between objective lens and cornea)			
Minimum Pupil Diameter	Non-Mydriatic mode	φ 4mm		
	Mydriatic mode	φ 5.5mm (small pupil mode φ 4mm)		
Focusing Luminescence	Point Matching Method (ON/OFF switch)			
Diopter Compensation Range (Patient 's Eye)	- 12D ~ + 13D			
	+ 10D ~ + 35D (with + compensation lens)			
	- 10D ~ - 32D (with - compensation lens)			
Diopter Adjustment Range	-8D ~ +5D			
Working Distance Adjustment	2 luminescent points display (ON / OFF switch)			
Viewing Illumination	12V 50W Halogen lamp	12V 100W Halogen lamp		
Flash for Photography	300WS Xenon flash lamp			
Flash Compensation	± 2 steps		± 3 steps	
Internal Fixation Lamp	4 fixed dots right or left eye switching (Non-Mydriatic mode)			
External Fixation Lamp	red / green, blinking			
Internal Fixation Device	Fixable (option)			
Amount of Exposure	300WS ~ 0.6WS 19 steps			
	Proper exposure automatically set, based on angle of field and film sensitivity			
Filter	Barrier & exciter filter, electronic powered insertion			
Fluorescein Photography	Photographic interval: 1 frame / sec. or at will			
ICG Function	-		Option	
Monitor	5.6 inch, LCD monitor			
Video Input	Composite		-	
Video Output	-		Composite (ICG images (option))	
Data Imprinting	Timer and handwritten data			
Audible Warning	End of film, timer counter (ON / OFF selectable), tonal volume adjustment function			
Film Speed	35mm color film:	ISO100	Fluorescein: ISO400 (3 times development)	
	Polaroid Film:	ISO600		
Movement Range	Forward / backward	(gross) 90mm	(micromotion) approx. 22mm	
	Left / right	(gross) 140mm	(micromotion) approx.22mm	
	Up / down	30mm		
	Tilt	(angle) 15°	(+angle)8.5°	
	Horizontal swing	(left/right) 30°		
Input ※3	AC100/117/220/240V 50/60Hz		AC100/120/230V 50/60Hz	
Power Consumption	1800VA (max)	180VA (standard)	1500VA (max)	280VA (standard)
Dimensions	400(W)· 520(D)· 752(H)mm ※2			
Weight	approx. 40kg ※2		approx. 37kg ※2	

※1 When using 35mm film, 0D

※2 With Polaroid camera back

※3 220V, 230V, 240V for Europe

※ Polaroid is a registered trademark of Polaroid Corporation, USA

※ All other companies and product names stated here are trademark or registered trademark of each company.

※ All specification and external design are subject to change without prior notice.



Distribution name: KOWA VX-10
Distribution name: KOWA VX-10i

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Technology for Life Science

Two-In-One Non-Mydriatic and Mydriatic Fundus Cameras.

Kowa VX-10
Kowa VX-10i (With ICG function)

