



# Medical Devices Catalog

## Vol.4





## High Performance Digital Imaging System

**Kowa VK-2**

### Image Capture and Patient Observation

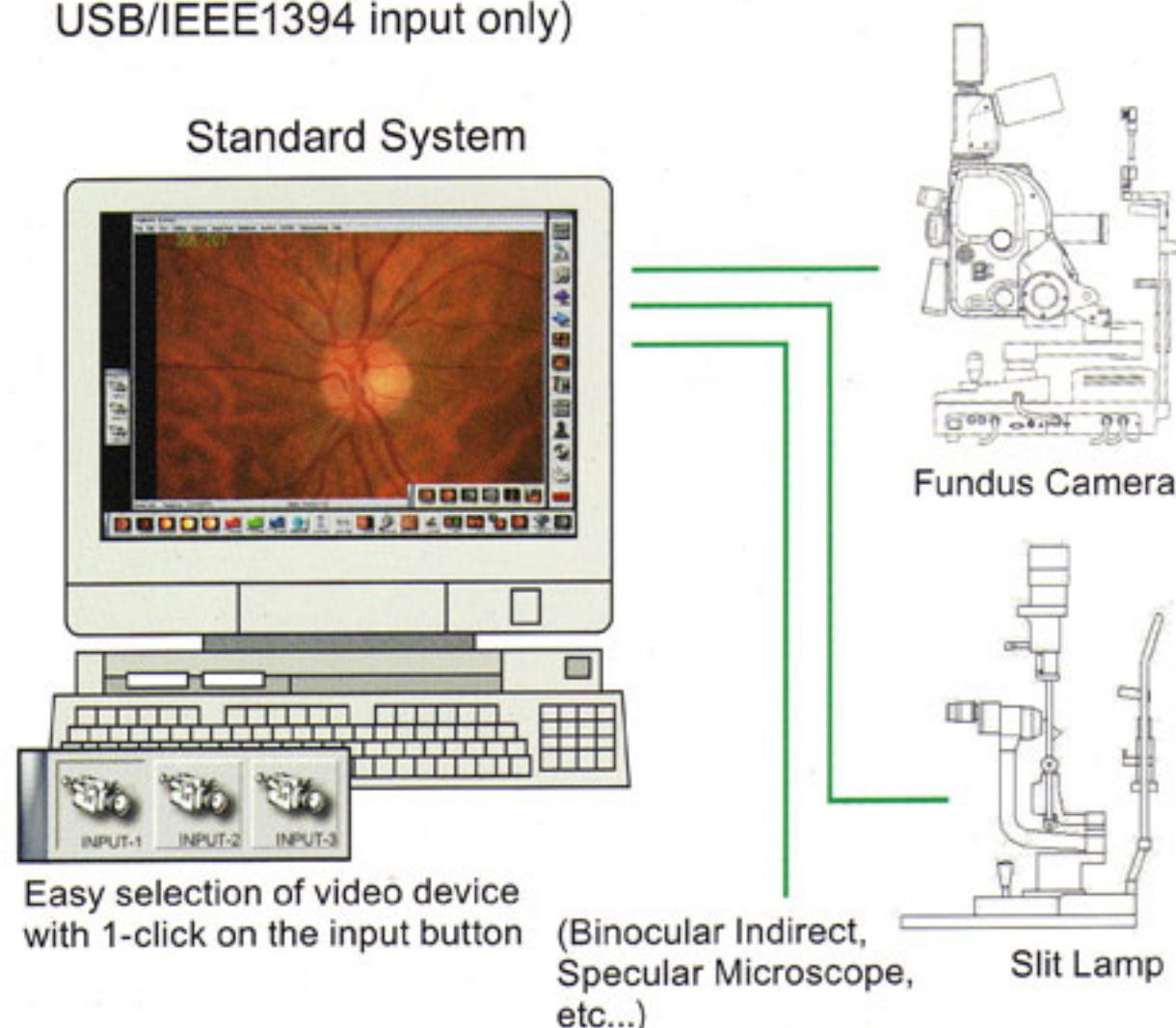
#### 3 Instrument Inputs in 1 Imaging System

##### ■ Choice of variable inputs:

Y/C, VBS/RGB, composite or USB, IEEE1394

##### ■ Up to 3 different digital/video observation devices

1-click switch. ("Portable VK-2" supports USB/IEEE1394 input only)



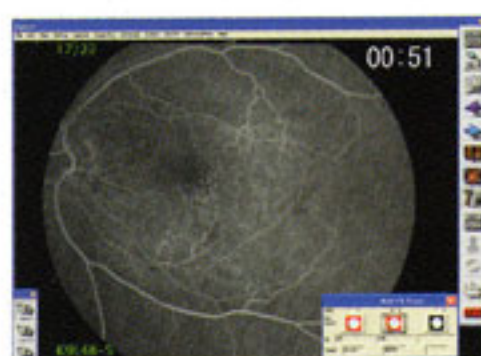
### Sophisticated Image Capturing

##### ■ Automatic switching of FA and Color:

in ICG, FA mode, high speed capturing (1 frame/sec, depends on CCD camera), and timer is displayed on the monitor (linked to Kowa Fundus Cameras).

##### ■ Multiple timers (in FA mode)

selectable for management of several patients' timer counts.

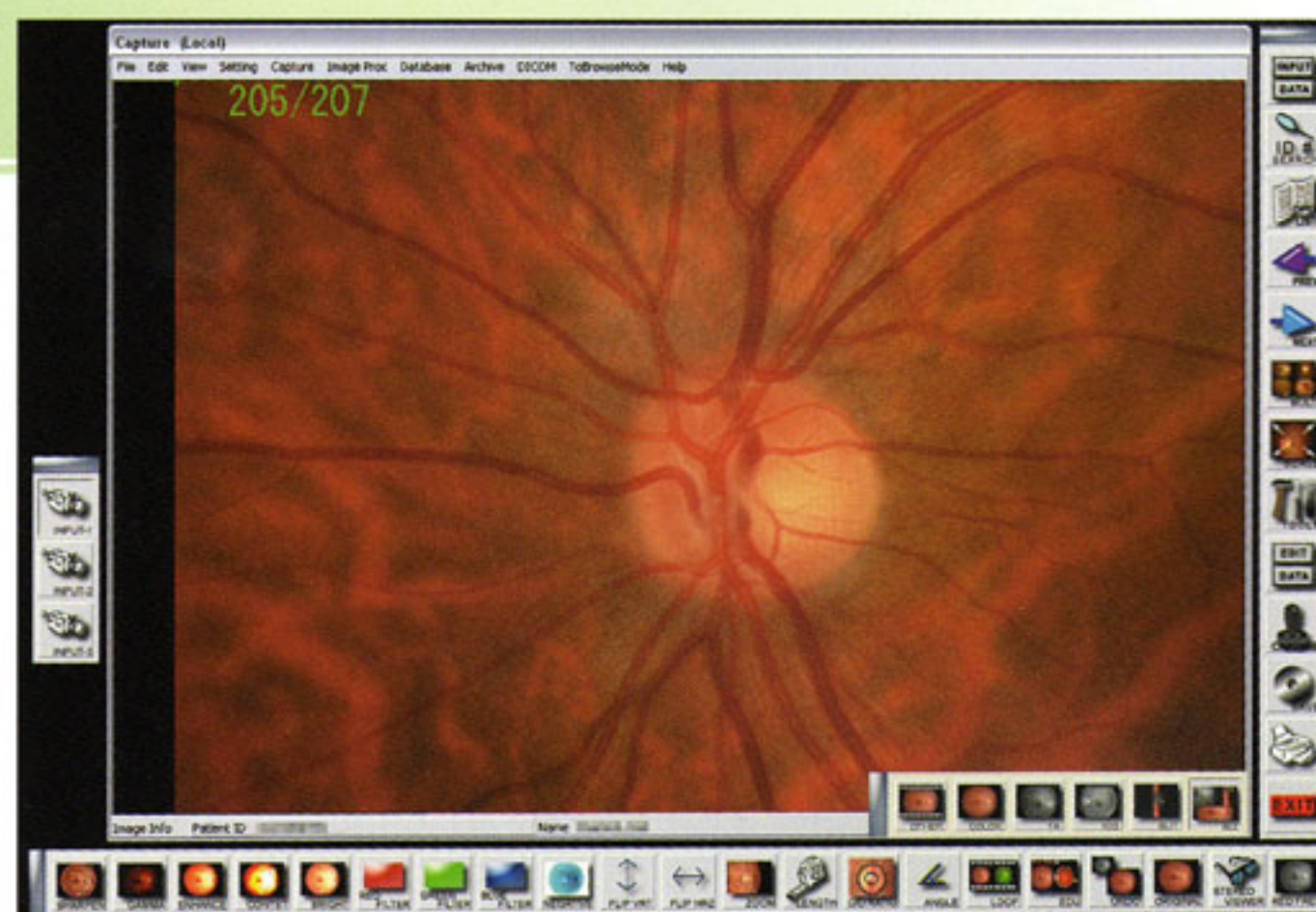


### The VK-2 supports the latest high resolution cameras for best detailed images possible

- 2.1 megapixel digital color CCD camera, Kowa "KD-211C"
- 2.1 megapixel×3 (total 6.3 megapixel) CCD digital color camera, Kowa "KD-630C"
- 1.4 megapixel B/W digital CCD camera, Kowa "KD-144iF"
- 3 CCD RGB color camera, "Sony\*1 DXC series"
- Specific Nikon\*2 digital SLR camera

### Patient Education

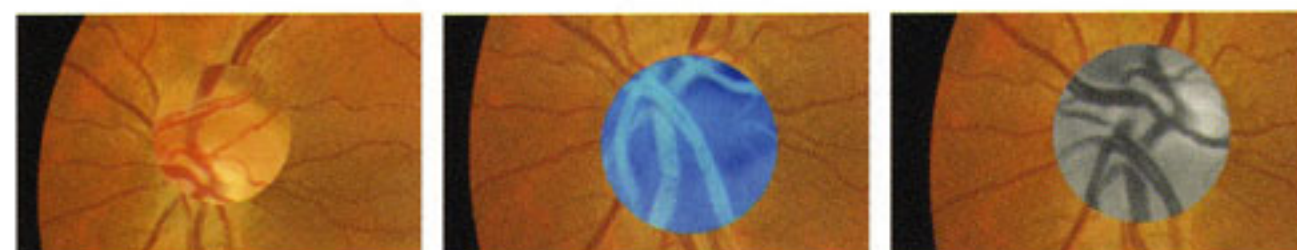
- Image comparisons
- Reference(Template) Image
- Fully equipped for informed consent



### Extended Functions

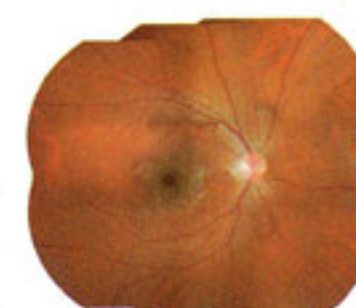
##### ■ Magnifying glass:

the mouse cursor changes into a customizable magnifying lens (when left mouse button is pressed).

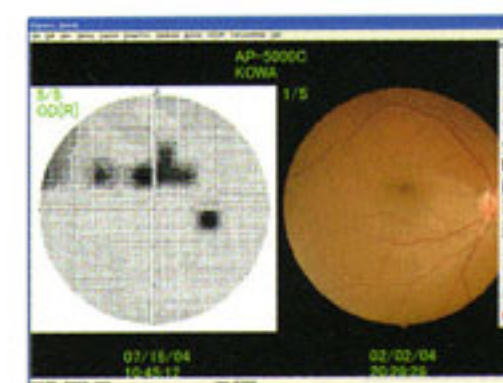


##### ■ Montage function:

this function is enhanced with an advanced algorithm to obtain panorama images that are easy to observe. Automatic positioning with fine rotation adjustment and smoothing function is also available.



##### ■ Link to perimeter: this unique function from Kowa allows total management of fundus images and perimetry results.



##### ■ High capacity storage and archive

- CD-R, DVD-R, DVD-RW optical media for easy archive
- Support for Twain32 image scanner

##### ■ E-mail function:

quick and easy sending by e-mail (Outlook Express required) of selected images. Furthermore, together with the selected images an "inf.txt" file is automatically attached with the corresponding patient information.

\*1 Sony is a Trademark of Sony Corporation.

\*2 Nikon is a Trademark of Nikon Corporation.



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

**Kowa** VX-10α

**Kowa** VX-10i

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

### ■ Three photographic modes

- 3 modes with one-touch switch ( nonmydriatic / mydriatic / fluorescein ).
- Mydriatic color and fluorescein photography can now be aligned through the LCD observation monitor.
- Multiple step flash for proper exposure in various photographic modes.
- Built-in internal fixation target for optic nerve head photography.
- Built-in small pupil mode (during mydriatic color and fluorescein photography) for patients with insufficient pupillary dilation.



### ■ Easy functionality

- Easy alignment and focusing adjustment with the LCD observation monitor.
- Operationally focused, darkroom adapted navigation panel.
- Clear viewfinder with a Long Eye Relief design.
- Simple focusing with the point matching method.
- Electric insertion of the fluorescein filter.

### ■ Adapted to the newly developed CCD camera

- High resolution images when combined with the 2.1 megapixel digital CCD camera (KD-211C)(1600X1200 pixels image size) or the specific Nikon\* digital SLR camera.
- VX-10α combined with the Kowa VK-2 digital imaging system is part of an ideal digital imaging environment with multiple digital/video image inputs and networking.

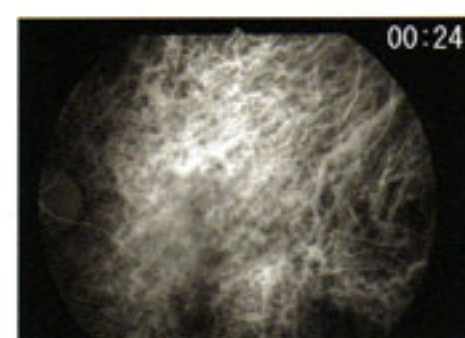


### VX-10i

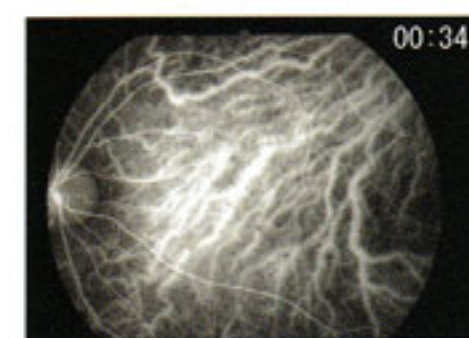
#### ■ Enhanced with new capabilities

The VX-10i features almost all VX-10α functions; using the optional ICG filters enables ICG angiography. In ICG mode, LCD monitor observation of the retina is possible. In addition, the use of the optional 1.4 megapixel black and white CCD camera allows high resolution ICG still image photography.

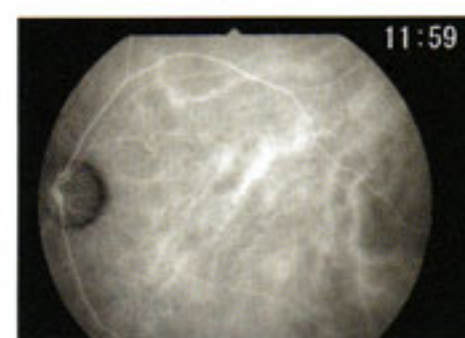
The mydriatic mode enables 50° and 30° photography. The 30° angle is particularly effective for retinal disease diagnosis (50° angle only for ICG).



ICG (early phase)



ICG (middle phase)



ICG (late phase)



Color



FA

Photo: Y. Hasegawa M.D.

\* Nikon is a Trademark of Nikon Corporation.

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





## Non-Mydriatic Fundus Camera



# nonmyd $\alpha$ -DIII



The nonmyd $\alpha$ -DIII is a compact digital camera that continues Kowa's tradition of electronic imaging excellence. Kowa offers speed, reliability, and high resolution photographs in a striking design.

### ERGONOMIC DESIGN

- The all-in-one compact, lightweight digital fundus camera incorporates advanced technology in an efficient design. This cost effective design uses intuitive ergonomic operations that makes photographic results easy to capture.

### EASY-TO-USE

- Easy to use controls are located at your fingertips. The conveniently located controls makes rapid screening easy; all operations can be carried out with the simple touch of a button.

### 9 POINTS INTERNAL FIXATION

- The nonmyd $\alpha$ -DIII has two fixation modes that provide up to 9 fixation positions, "Normal" and "Mosaic".

The "Mosaic mode" provides 9 fixation points for a panorama image covering a retinal area of approximately 85 degrees when using the "montage" application integrated in the digital imaging system. when using the "Normal mode" three positions are selectable Central, Disc and Macula.



### HIGH RESOLUTION



- The nonmyd $\alpha$ -DIII utilizes an internal 8 megapixel digital camera. The high resolution digital camera provides detailed, diagnostic quality images with Kowa's exclusive "Aspherical" optical system.

### PLUG-AND-PLAY



- The nonmyd $\alpha$ -DIII connects to the computer through a USB interface that makes set-up and operations plug and play.

The camera can be used with either a desktop or notebook computer with the Kowa Portable VK-2 digital imaging system. Regardless of the volume of photographs taken, the nonmyd $\alpha$ -DIII & Kowa Portable VK-2 lets you store, restore and compare data with ease. Shoot and forget allows easy image storage and automatic image saving.



Distribution name : KOWA nonmyd  $\alpha$ -DIII





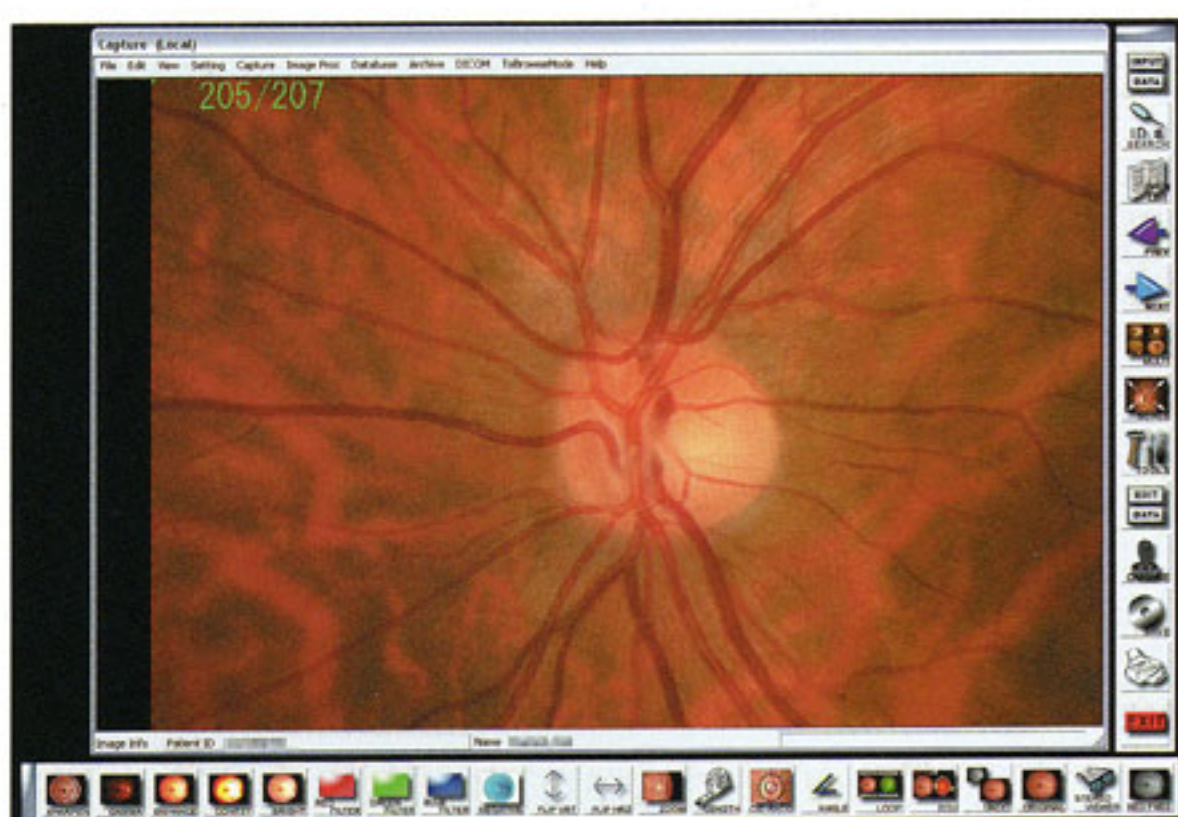
## Non-Mydriatic Fundus Camera

**Kowa** *nonmyd* 7™



The nonmyd 7, an easy-to-use fundus camera with the capability of 12 megapixel high resolution photography. Sharper, clearer images will guarantee outstanding performance in clinic scenes.

- **The lightweight digital fundus camera incorporates advanced technology in an efficient design.**  
This cost effective design uses intuitive ergonomic operations making photography easy.

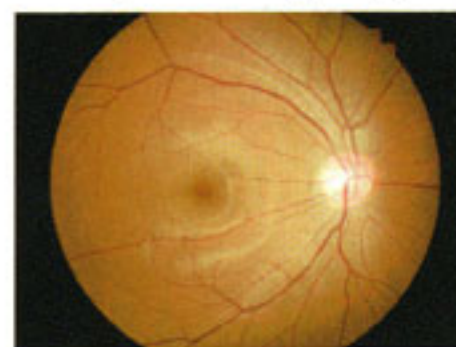


- **The nonmyd 7 utilizes a 12 megapixel digital camera.**  
The high resolution digital camera offers high quality images and allows easy image storage.

- **The easy to attach USB computer interface makes set-up and operations plug and play.**

The camera can be used with either a desktop or notebook computer with the Kowa Portable VK-2 digital imaging system. Regardless of the volume of photographs taken, the nonmyd7 & Kowa Portable VK-2 lets you store, restore and compare data with ease. Shoot and forget allows easy image storage and automatic image saving.

- **Easy to use control panels located at hand reach**  
2 optical angles (through "Aspherical" optical system)

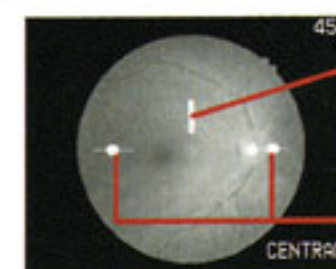


45°



20°

Easy alignments in 2 steps



split luminous bars (focusing)

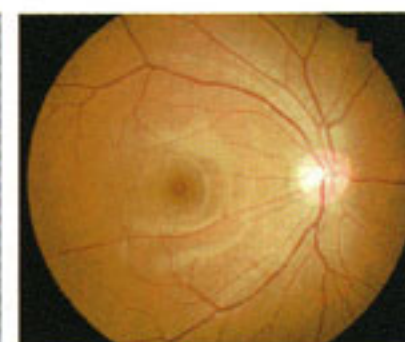
working dots (working distance alignment)

Once the alignment of the anterior segment is made, simply press the button in front of the joystick to shift to the fundus alignment.

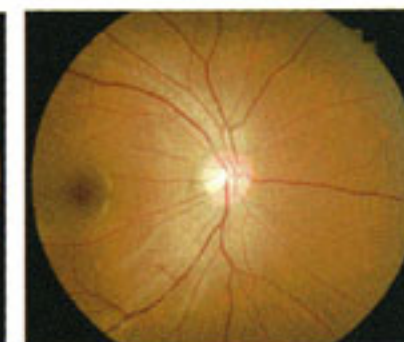
3 internal fixation targets



Temporal



Central



Nasal

Distribution name : KOWA nonmyd 7





## Hand-Held Retinal Camera

**Kowa** GENESIS-D<sup>TM</sup>  
**Kowa** GENESIS-D<sup>TM</sup>f

**A series of handheld retinal cameras made from Kowa technology. The best choice to start retinal photography!**

- ID input
- Integrated with a 2 megapixel digital camera
- One-handed focusing and shooting operations
- Power supply unit which is used also as a camera holder



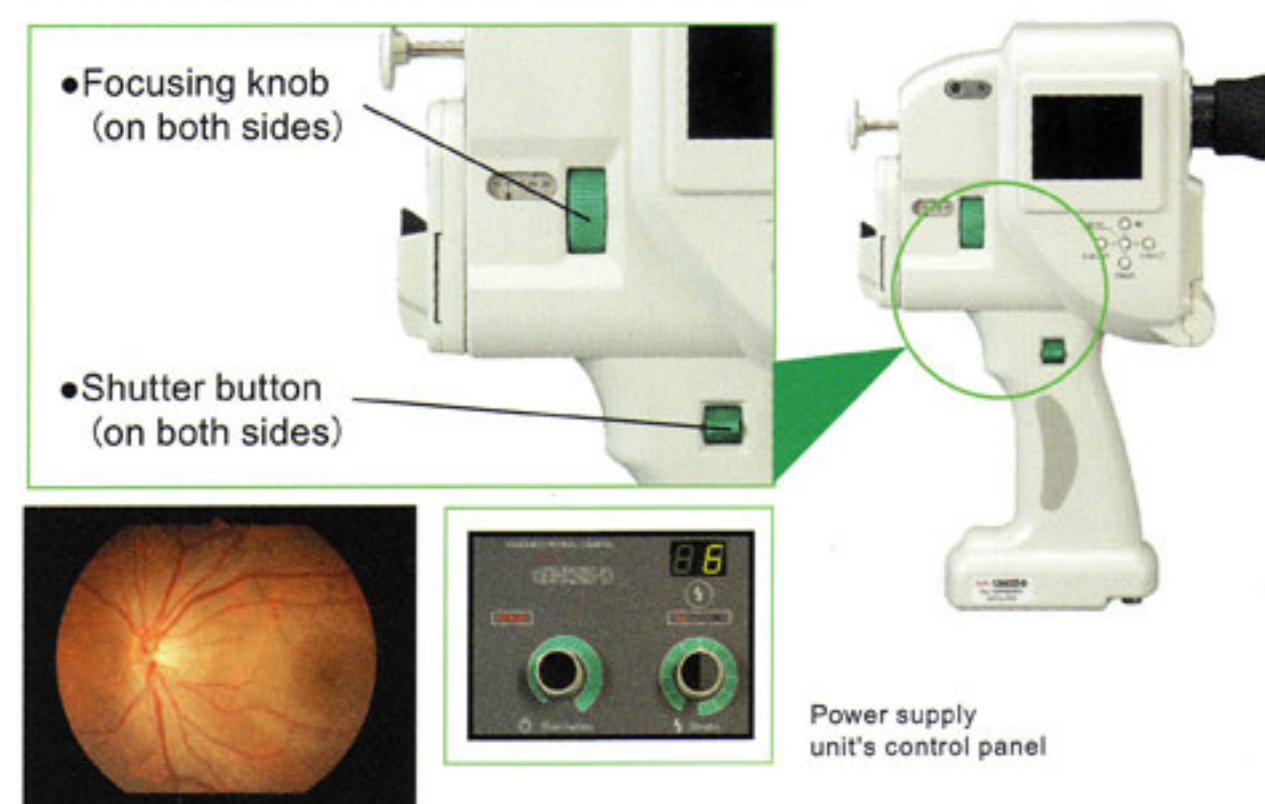
GENESIS-D

GENESIS-Df

## GENESIS-D Series

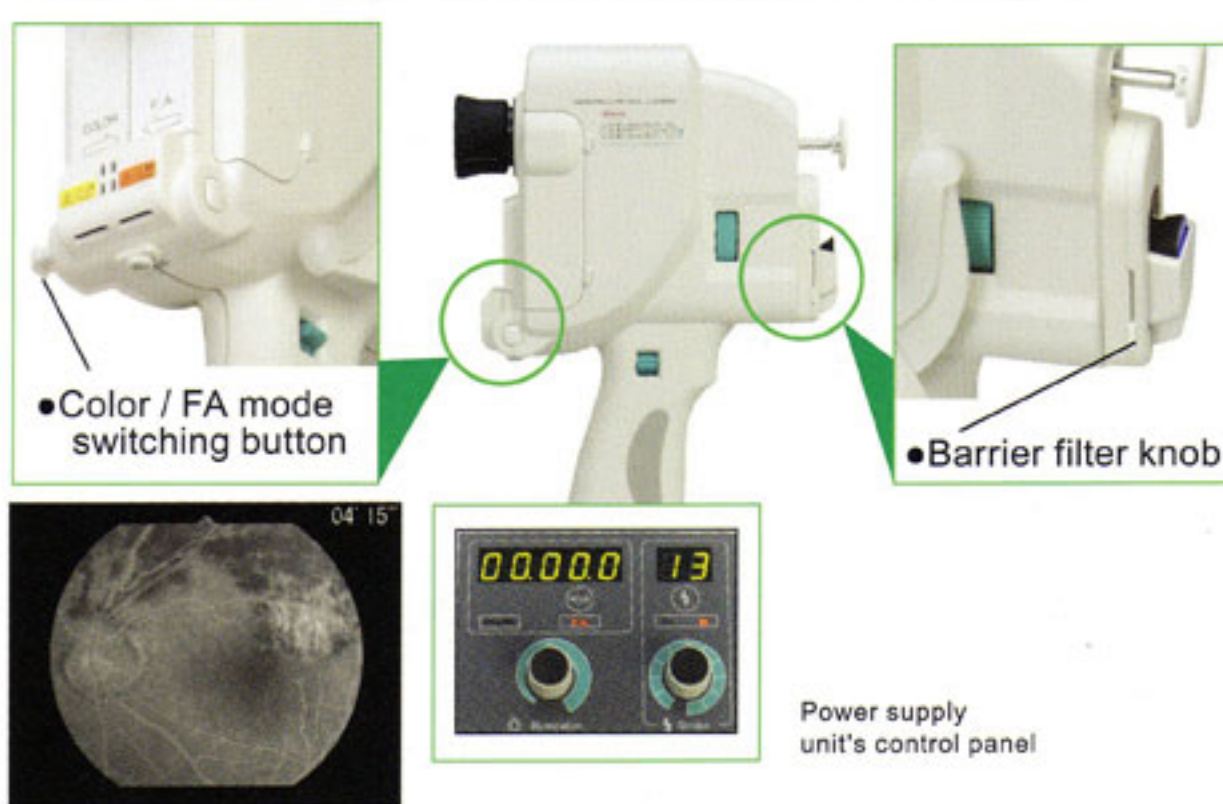
■ **GENESIS-D** For color retinal photography

### One-handed easy shooting



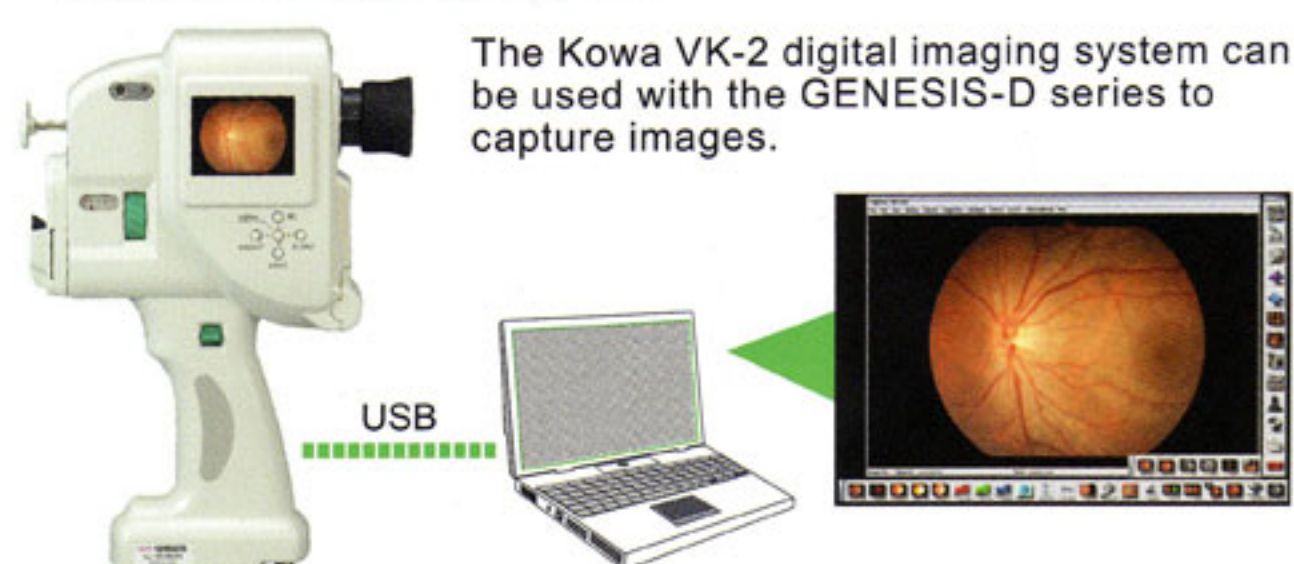
■ **GENESIS-Df** For color and FA retinal photography

### Timer display when saving FA images



## Options for more extended use

### Digital Imaging System



### Indirect lens holder

Indirect lens holder (for +28D aspherical lens)



Indirect lens holder (for +60D, +90D aspherical lenses)



\*Aspherical lenses are not included.

Distribution name: KOWA GENESIS-D  
 Distribution name: KOWA GENESIS-Df







## Laser Flare Meter FM-600

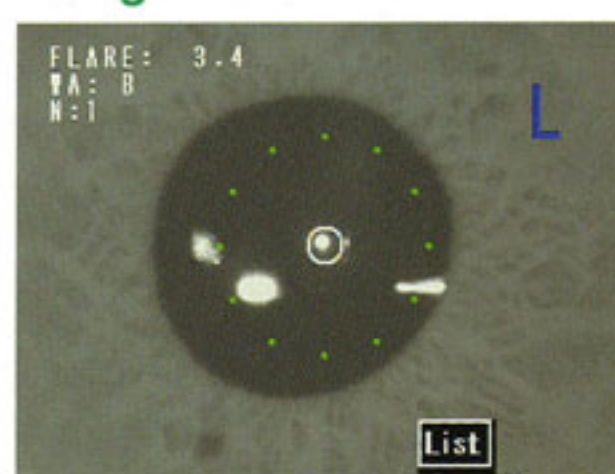


### Quantitative measurement equipment for flare in the anterior chamber

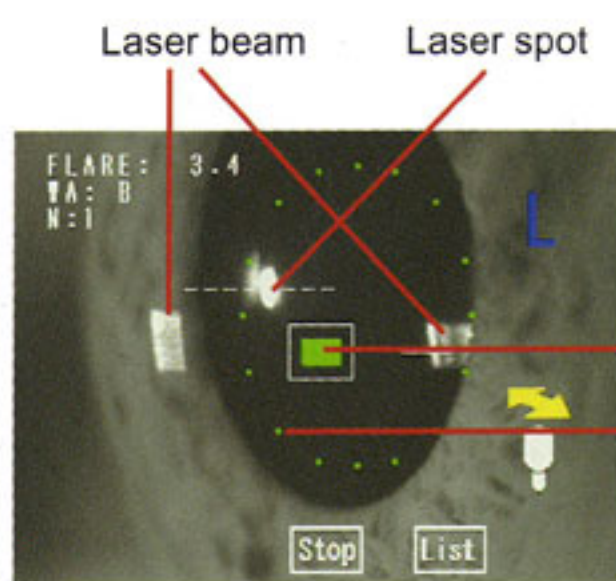
Non-contact, non-invasive, non-pain, in-vivo, all is possible with the compact FM-600 especially designed for quantitative measurement of aqueous flare. This measurement is known to be useful in follow up observation for patients with uveitis, after IOL implantation, etc.

Designed to operate faster and to conduct easier and better tests, the FM-600 reflects the ultimate in efficiency and accuracy in a compact body.

#### Alignments



Working distance adjustment



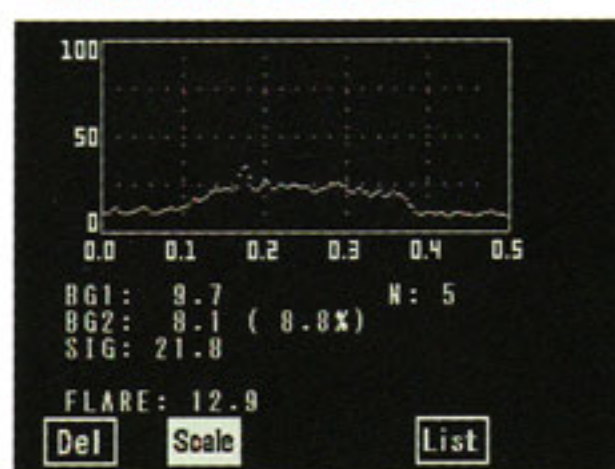
Measuring point adjustment

Measuring window

Minimum pupil limit

Position the luminous alignment dot in the center circle while bringing the dot into focus. Then shift to the oblique alignment by pressing on the joystick button. Measurement is possible when the measuring window at the center is green.

#### Measurement results



Graph results

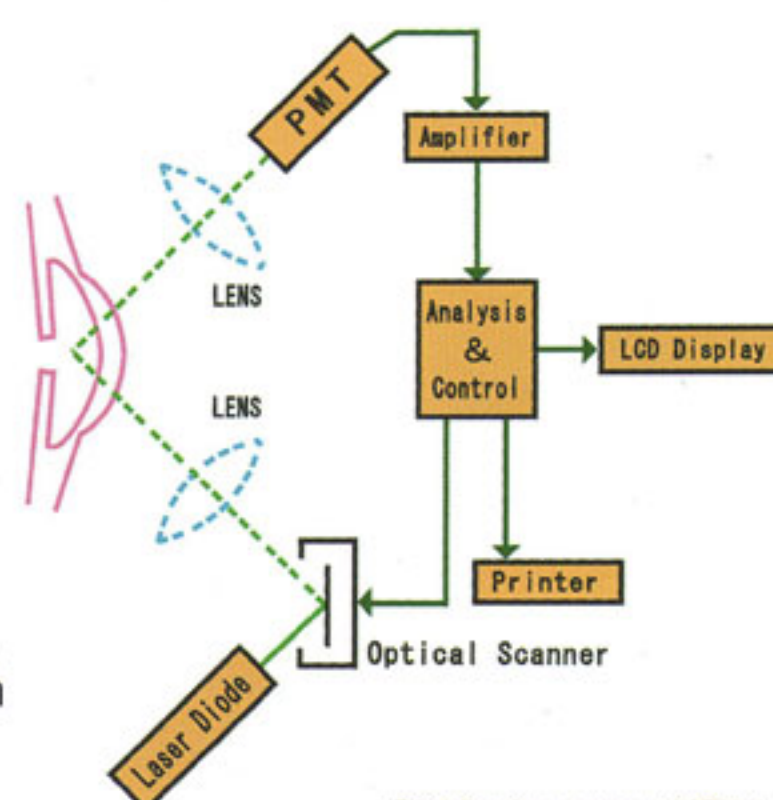
N	BG	(%)	FLARE	V/A
1	3.8	9.5	13.5	
2	6.4	1.4	11.8	
3	7.0	5.9	13.8	C
4	6.0	4.6	13.9	
5	5.4	24.1	12.5	B
6	6.7	11.0	10.8	
AV.:		12.7		
S.D.:		1.2		

Report results

The scattered light is converted into electronic signals and the intensities are displayed as flare values on the LCD monitor.

#### Measurement Principle

The FM-600 is based on the measurement principle of laser light scattering detection. The instrument uses a diode laser beam to scan a measuring window that is projected inside the anterior chamber of the eye. As an aqueous protein (component of inflammation) passes through the focal point of the laser, light scattering occurs. The intensity of the scattered light (directly proportional to the amount of protein particles-flare) is detected by a photo-multiplier tube (PMT), which generates an electrical signal. These signals are immediately digitized to eliminate outside noise interference and are processed by a computer which displays the results for user analysis. The unit of measurement employed by the FM-600 is in photons per millisecond.



Distribution name : KOWA FM-600  
\* US 510(k) pending.

CE 0197



Non-Contact Tonometer

**Kowa** *KT-800*

Simple operation with  
3D auto alignment



■ **3D auto alignment function**

Up, down, right, left, and forward and backward positioning can be automatically performed just by placing a luminescent spot inside a circle.

■ **Soft airflow**

Improved "softness" of the airflow. Measurement can be performed with a "soft air feeling" even during the first measurement.

■ **No measurement range switching necessary**

Smooth and easy measurement is possible without the range switching operation (30/60mmHg) as before.

■ **Insufficient eye opening sensor function**

Measurement can now be processed even if the eye is not opened sufficiently.

■ **Easy paper replacement**

Speedy printing.

■ **Electrically operated chin rest**

Height of the chin rest can be adjusted with the buttons at hand.

Distribution name : KOWA KT-800

CE 0197

Applanation Tonometer

**Kowa** *HA-2*

Convenient Item For Daily Clinical Practice



■ **Features**

- Compact, lightweight and well-balanced; easy to handle with one hand.
- Unique one-spring mechanism assures correct reading regardless of patient posture.
- Built-in illumination permits you to use the instrument regardless of the lighting conditions of the consultation room.
- Direct reading type precision dial requires no conversion table to change the readings.
- Accessories such as adjustable head rest and interchangeable eyepiece provide most suitable conditions for measurement.



3 x Long eye relief eye piece (option)

Distribution name : KOWA APPLANATION TONOMETER HA-2

CE 0197



## Automatic Perimeter

# Kowa AP-5000C

### Two-in-One Perimeter for Static & Kinetic Perimetry

Easy operation with mouse.  
An abundant test program.  
Combinations with fundus images are possible.  
Test result display functions are visually easy to understand. Analysis functions are versatile.  
The data is automatically stored in a PC and coordination with other software is easy.



#### ■ Threshold program

Examination to diagnose and plot retinal sensitivity at specific test points.

##### Center 1

Central 30° / 76 points

##### Center 2

Central 30° / 54 points

##### Macula 1

Central 5° / 21 points

##### Macula 2

Central 10° / 68 points

##### Periphery

from 30° to 60° / 68 points



Center 1 Program

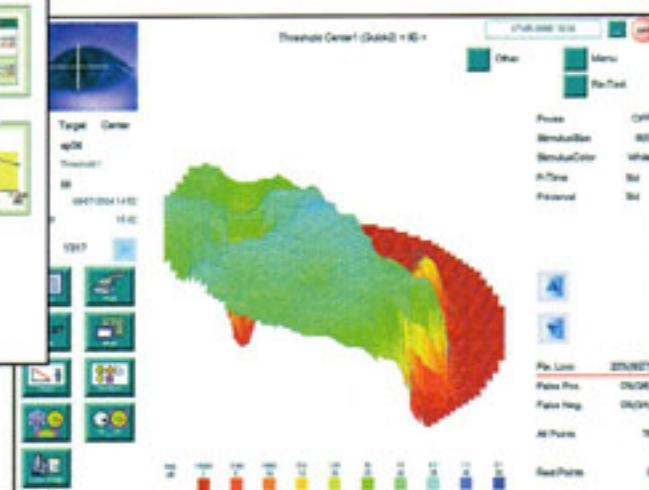
The above 5 test programs are available with "Quick" modes capable of obtaining accurate test results in minimal time (can reduce the average examination time by 40%).

##### Meridian

Any of 10 meridians / 14 points



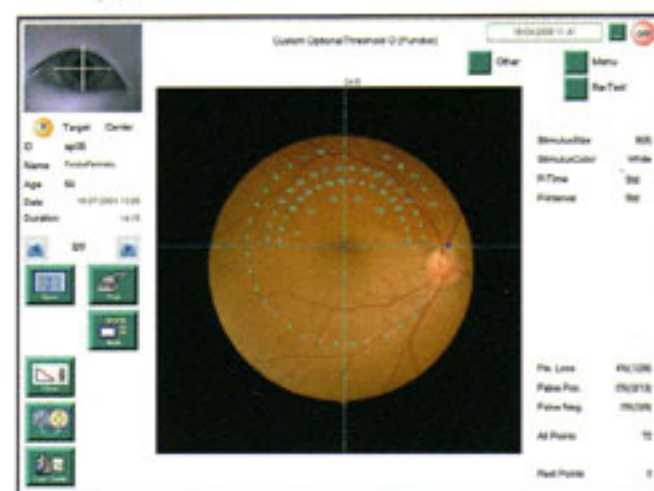
Chronological Change (Graph)



3D display

#### ■ Perimetry on fundus image

While observing the ocular fundus image displayed on the screen, you can define test points according to the area you wish to measure more in details and obtain the visual sensitivity on specific areas.



#### ■ Screening program

Screening program to quickly evaluate the retina for relative or absolute scotomas. Starting values based on a 4 point threshold, the test results use a 4 zone evaluation that goes beyond a simple screening. Threshold examination of a single point is also available if the point is deemed to be a scotoma.

##### Standard

General / 83 points

##### Precision

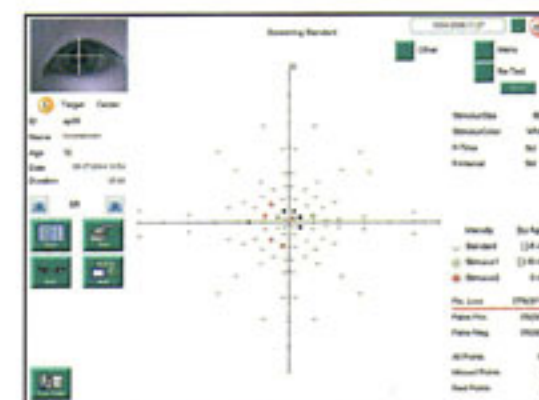
General / 140 points

##### Center

Central 30° / 82 points

##### Periphery

From 30° to periphery / 58 points



Standard Program

##### Glaucoma

Bjerrum area / 117 points including nasal step

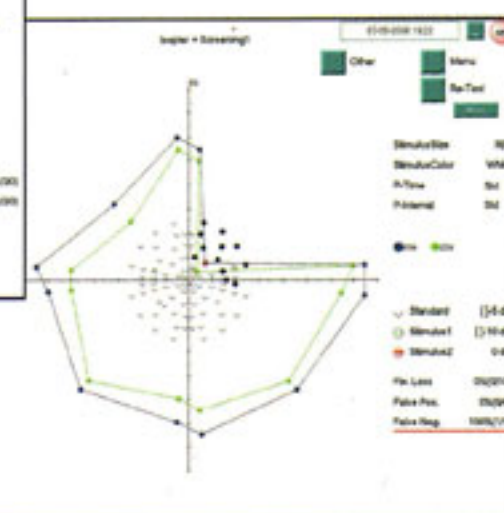
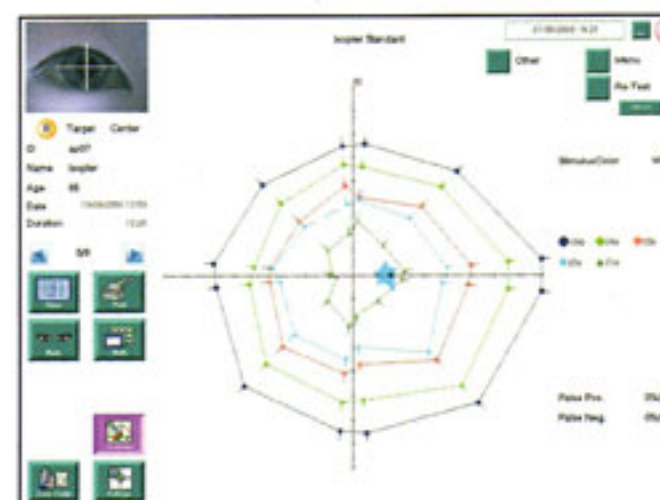
##### V. Meridian

Vertical direction / 53 points

"Quick" mode is also selectable for the above 6 programs, the tests points are reduced which shortens the examination time.

#### ■ Isopter program

Kinetic perimetry is included as a standard test program with multiple isopters available.



Distribution name : KOWA AP-5000C







## Portable Slit Lamp



# SL-15

### Compact, versatile slit lamp with desktop operability

Enhanced portability during examination, the SL-15 features a sculpted grip for easy handling, lightweight design, longterm illumination, and an optional digital / video adapter. The SL-15 is a highly portable slit lamp perfect in any situation.

#### ■ Features

- Cordless and rechargeable for unrestricted examination anywhere.
- The lighting switch in the grip can be turned on with just a light press.
- Easy selection between three slit widths and spot illumination.
- Quick, one-touch selection of either 10x or 16x magnification.
- Built-in cobalt blue filter.
- The stand doubles as a battery charger.
- A lithium ion battery is utilized to make the unit compact and light. (Body: 790g/1.73lbs)
- Extra-bright halogen lamp light source.
- A large-capacity battery permits long-term continuous lighting. (Approx. 40 minutes)
- Simultaneous charging of the main unit and extra battery.
- Supports digital/video with the optional video adapter. (c-mount)

#### ■ Optional accessories



Main unit with video adapter



Spare Lithium ion battery



Head rest



Carrying trunk case

Distribution name : KOWA SL-15



# AUTO REFRACTO/REFKERATOMETERS

## Auto Refractometer

**Kowa KA-1000**

## Auto Refkeratometer

**Kowa KW-2000**

#### ■ KA-1000

- This automatic refractometer gives you everything that is required for glass and contact lens fitting.
- Applicable to a small pupil (2.3mm in diameter) and an eye with IOL
- Easy measurement with auto start function
- Subject-friendly color icon display

\* Not available for sale in the United States market.

#### ■ KW-2000

- Gives you the same features as KA-1000 with keratometry function in addition.

\* Not available for sale in the United States market.



Distribution name : AUTO REFRACTOMETER KA-1000  
Distribution name : AUTO REFKERATOMETER KW-2000



RyuSyo Industrial Co.,Ltd. Kagawa Factory



## Japanese network of Kowa Co., Ltd.

Nagoya Head Office  
Tokyo Branch Office  
Osaka Branch Office  
Others



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### North America

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Los Angeles  
North Carolina  
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Shanghai  
Dalian  
Taipei  
Hong Kong  
Singapore  
Jakarta  
Bangkok  
Dubai  
Mumbai

### South America

Santiago





Technology for Life Science

Specifications and appearances are subject to change without notice.

## EUROTECH OPTICAL

URL: <http://www.kowa.com> For the best  
Hamamatsu Prices and Quality  
3-1, Shiohara, Hamamatsu City, Shizuoka Pref., 431-2103 Jpn.  
on Optical Equipment,  
Kowa Optomed, Inc.  
400 Vermont Ave., N.W., Washington, D.C. 20005 U.S.A.  
PO Box 13893 Laudium 0037  
Pretoria South Africa  
Tel: (012) 370 4175  
URL: <http://www.medical.kowa.com>