



 **graftonoptical.com**

Available in the UK through Grafton Optical  
sales@graftonoptical.com  
01923 233980

**Keeler**



# Indirect Ophthalmoscopes

Keeler are the No.1 supplier of Indirect Ophthalmoscopes in the UK



Since the launch of the Keeler Fison Indirect Ophthalmoscope in 1957, Keeler has established its reputation for providing the most durable and reliable Indirect Ophthalmoscopes available today. The introduction of wireless technology, bright, white, LED illumination and our new ground breaking Vantage Plus Digital, designed to capture still or dynamic images on your PC, are just some of our latest innovations. Read on to find out more.

## New Vantage Plus Digital Ophthalmoscope

As the world leader in binocular indirect technology we lead the way again with the first digital binocular indirect system. Not old analog video but true digital imaging.

## New LED exclusively on Vantage Plus, Spectra Plus and now All Pupil II

The LED cooler colour provides a brighter, whiter illumination providing greater detail, allowing you to find retinal pathology that is not visible with Xenon illumination.

## Comfort and balance

Lightweight materials with soft cushioning and a non slip contoured shaped headband maximise comfort and balance, particularly important during long examinations.

## Clear, sharp images – enclosed KeeView Optics™

Our optics are specially coated and individually laser aligned to provide the sharpest, clearest images every time.







## Adjustable brilliant illumination

Why have all of the controls on the wall when the instrument is on your head? On the All Pupil II and Vantage Plus the illumination rheostat is located on the headband providing easily accessible fully controllable light. Keeler indirects have the brightest illumination that can be turned down to as low as 2% of maximum if required.

## Wide angle diffuser

The Keeler wide angle diffuser eliminates shadows on the edge of the condensing lens expanding the field of view significantly, particularly useful during difficult and peripheral examinations. There is also less discomfort for the patient because the light is softer.

## Apertures and filters

-  **Red Free** - This filter is used to examine blood vessels in fine detail. By filtering out the red light, blood vessels are silhouetted black against a green background.
-  **Cobalt Blue** - This filter is used with fluorescein dye for angiography.
-  **Large Aperture** - Ideal when examining fully dilated pupils.
-  **Intermediate** - Ideal for children and sensitive patients.
-  **Small Aperture** - Ideal for undilated pupils.
-  **Diffuser**





## Vantage Plus Digital

As the world leader in binocular indirect technology we lead the way again with the first digital binocular indirect system. Not old analog video but true digital imaging. Utilise the Vantage Plus Digital Wireless in your office, operating room, and teaching facility or anywhere you want to capture digital images.

### Keeler Software

The intuitive, easy to use, Keeler Software allows you to use your PC to provide still or dynamic images, which aid in the documentation and diagnosis of your patient.

Compatible with Windows 7 and Windows XP.

### Increase your practice profile

Educate your patients and their family with digital dynamic imaging in your office.



P D Range: 48 - 76mm



### USB interface

Plugs into your PC to record examinations in digital format.

### Vantage Plus LED Slimline Wireless

Built on the number one selling LED and wireless slimline system.

### Part number

1205-P-5010 Vantage Plus Digital Indirect Ophthalmoscope



## Vantage Plus Digital Technical Specifications

### Camera

Interface	USB 2
Supply	Taken from USB 2 interface
Resolution	To test pattern 6 of group 2 on the 1951 USAF TEST PATTERN (conforms to MIL-STD 150A standard), when used in combination with a 20D lens
Lead	To connect camera to PC, Keeler recommends a maximum of 5m long USB 2.0A to mini 5 pin (sometimes packaged as USB 2.0A to mini B lead)

### Convergence

Range	The camera image can be adjusted $\pm 7$ degrees
-------	--

### Working distance

Range	Nominal working distance of 440mm. The resolution value given above will be maintained at 350mm to 650mm distance from instrument to the eye under examination with a 20D lens
-------	--

### Operating System

Use with	Windows 7 and Windows XP
----------	--------------------------

### Vantage Plus

Controls	All controls and features of the Vantage Plus have been maintained
----------	--

### Adjustment

Vertical adjustment	The vertical adjustment is achieved by rotating the adjustment screw on the mirror holder. The image should be adjusted such that the light patch is in the centre
---------------------	--

Horizontal adjustment	Factory set
-----------------------	-------------

Depth of Field	$\pm 35$ mm @ 440mm
----------------	---------------------

### Physical

Size	The Vantage Plus Digital is approx. 50mm longer than the standard Vantage Plus
Weight	The total weight of the complete Vantage Plus Digital is 662g (Vantage Plus is 596g)



*Note: The distance and range will vary with differing refractive errors of the user. To maximise performance of this product, the user should use refractive error correction aids and adopt a working distance of around 450mm (front of instrument to eye under test) when used with a 20D lens.*



New Slimline Lithium Polymer battery (paper clip shows scale)

## Vantage Plus LED Convertible

Choice of illumination



We are delighted to present the new, exclusive Vantage Plus LED Convertible. When you purchase the Vantage Plus LED you will automatically receive a Xenon Bulb so you can decide which illumination you prefer without any extra cost!

### Natural LED cooler colour

The natural LED cooler colour provides brighter, whiter illumination, longer battery life, freedom from purchasing bulbs and a life expectancy of up to 10,000 hours.

Clinically, the superior optics combined with the natural LED illumination could provide greater detail, allowing you to find retinal pathology that was not visible with the Xenon bulb.



Vantage Plus LED

### New Slimline Lithium Polymer battery

Our new Slimline Lithium Polymer battery weighs only 53 grams and is as light and as small as the new mini iPod.



P D Range: 48 - 76mm

- Comfortable and perfectly balanced
- Wireless technology allows you to move from room to room
- Combined natural LED and Lithium Polymer battery can provide up to 6 hours of use on a single charge

### Quality and efficiency

The new high contrast optics combined with the new natural LED or Xenon light source offer brighter high definition retinal images - PLUS you get more life from whichever Keeler battery (Metal Hydride or Lithium) you use.

### 15% lighter

Advanced textured engineering materials provide a lighter, smaller and more compact instrument without compromising the renowned Keeler reputation for robustness, reliability and quality.

### Filters and Apertures

IR/UV filters are built into the optics of the Vantage Plus with optional filters and a choice of 3 apertures plus a soft light diffuser.

## Vantage Plus LED Convertible

### Unique - Intelligent Optical System (IOS) (Patented)

At last - now when you change the aperture the optics and mirrors automatically adjust for you, without the need to flip another lever! Keeler has designed this unique one step movement to make your examinations easier and faster. The (IOS) mechanism (patented) means that when you select the small, medium or large aperture the optics automatically adjust, providing 3 dimensional stereoscopic views of the retina through all pupil sizes.

#### Large Pupil

When looking through a large fully dilated pupil the optics are separated and the light source remains in the upper position, achieving maximum stereopsis.



#### Intermediate Pupil

The viewing optics and light sources are in a 'mid position' for maximum stereopsis.



#### Small Pupil

When looking through a small pupil the viewing optics and light source are converged to allow you to view the retina through the smallest pupils stereoscopically.



### Unique - The new HiMag™ lens just slides on and off with ease

This unique feature is only offered with the Vantage Plus indirect. It gives you 1.6X additional magnification than with a condensing lens alone, providing superb stereoscopic images. Scratch resistant coated optics guarantee high quality images at all times and HiMag™ can be simply flipped out of view when not required.

### Teaching mirror slides on and off with ease

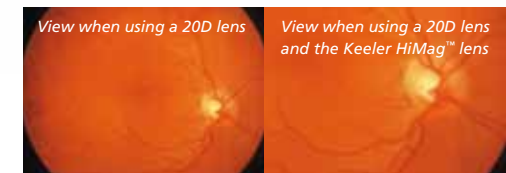
Allowing two observers to view the retina at the same time.

#### Part numbers

1205-P-1020	Wireless Vantage Plus LED Convertible
1205-P-1010	Wired Vantage Plus LED Convertible

#### Accessories

1202-P-7205	Vantage Plus Teaching Mirror
1202-P-7192	Vantage Plus Hi Mag Lens
1012-P-7006	Vantage Plus Bulbs (pack of 2)
1299-P-1028	Video Vantage including Camera in Carrying Case
3412-P-7000	Vantage Plus Carrying Case
1201-P-6075	Small Depressor
1201-P-6067	Large Depressor



For Wired Power Supplies see page 13



## All Pupil II

The All Pupil II is based on the design of the number one selling All Pupil indirect. Look out for the new features designed to make your examinations easier and more comfortable.

**Go Wireless patented technology**

Leaves you free to move around without any wire or cord constraints.

**Outstanding brightness for difficult examinations**

With 2000 lux of light, which can be turned down to 2% of total illumination when necessary, the All Pupil II offers maximum illumination with total control.

**Lightweight and comfortable**

Weighing just 520 grams with extra padded materials.

**Simple controls**

The All Pupil II has a unique single control to change aperture size and position in one movement to view through all pupil sizes.

**IR and UV barrier**

There is a built in full time IR and UV barrier which guarantees improved patient protection and safety.

**New All Pupil II LED light source**

Plugs simply into the back of the All Pupil II for brighter, whiter illumination and freedom from purchasing bulbs. The LED life expectancy is up to 10,000 hours and it has a 5 year warranty.



**Part numbers**

1204-P-3041	Wireless All Pupil II Kit A with Power / Accessories
1204-P-3043	Wireless All Pupil II with Lithium Battery and Holder
1204-P-3038	Wired All Pupil II Kit A with Power / Accessories
1204-P-3036	Wired All Pupil II without Power

**Accessories**

1205-P-5014	All Pupil II LED
1202-P-7117	All Pupil II Teaching Mirror
1012-P-7003	All Pupil II/All Pupil/Vantage Bulbs (pack of 2)
3412-P-7000	All Pupil II Carrying Case
1201-P-6075	Small Depressor
1201-P-6067	Large Depressor

For Wired Power Supplies see page 13

