



Kinder products for your
most precious patients

Keeler



Keeler kinder products

Keeler is a global leader in the supply and design of ophthalmic diagnostic products.

Our products are used throughout the world to examine and diagnose eye diseases.

Keeler now offer a wide range of specialised products specifically designed to help diagnose and treat premature babies, young infants and children.

Contents

Vantage Digital Indirect Ophthalmoscopep3-5

PSL Classic Portable Slit Lampp6

Volk Pictorp7

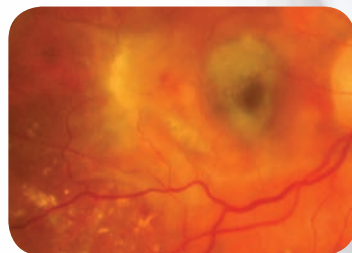
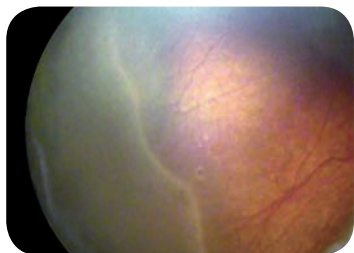
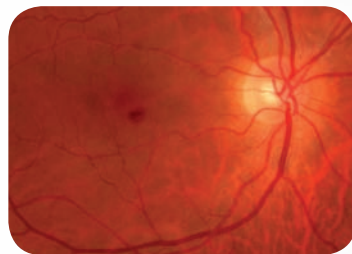
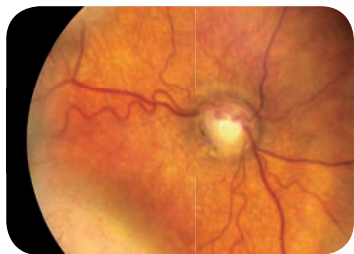
Loupesp8

Vantage Digital Ophthalmoscope

How can Vantage Digital Indirect Ophthalmoscope help?

The Vantage Digital indirect enables a high quality digital video to be captured during indirect ophthalmoscopy.

The digital image is uploaded via a thin cable from the ophthalmoscope to the USB port of a computer using video capture software. The video file can be edited and transferred electronically, enabling you to get a second opinion about an infant's retina without the need for inter-hospital transfer. The system is additionally a very useful tool for teaching indirect ophthalmoscopy skills to trainees.



Examination of ROP

When a young infant is born prematurely, the ophthalmologist will examine the infant to monitor ROP. If not monitored this can lead to blindness in it's most severe form but in most cases this can be prevented by timely treatment.

Less cost

Vantage Digital is a cost effective solution for providing ROP telemedicine. Electronic transfer of the video image enables a second opinion from an ROP specialist without the cost of inter-hospital transfer or access to more expensive forms of digital imaging.



Less stressful for the infant and parents

Indirect ophthalmoscopy and video capture with the Vantage Digital can be undertaken as part of your routine ROP screening assessment and does not require additional examination time or stress to the baby. Telemedicine using the Vantage Digital may prevent unnecessary expensive and stressful transfers for ROP management.

No need for general anaesthetic

The procedure for examining children is the same as using your indirect ophthalmoscope – except you now have a camera attached. No general anaesthetic is required when using the Vantage Digital, avoiding the risk of anaesthesia required with other digital imaging devices*.



* "More than one children, 4 years of age and under, undergo surgical procedures requiring anaesthesia annually. While most children appear to recover well, findings from these animal studies call for further research to ensure the safety of every child undergoing anaesthesia"

Dr Mike Roizen

Early Childhood Exposure to Anesthesia and Risk of Developmental and Behavioral Disorders in a Sibling Birth Cohort

Visit: <http://www.anesthesia-analgesia.org/content/113/5/1143.short>
Charles DiMaggio, PhD, Lena S. Sun, MD, and Guohua Li, MD, DrPH



“ The Keeler Digital BIO is a useful and affordable method for recording indirect ophthalmoscopy in babies with ROP and non-accidental injury when more expensive imaging equipment is not available. It improves my ability to teach indirect ophthalmoscopy skills and the electronic transfer of images from other hospitals in the region enables telemedical diagnosis without the need to transfer the baby between units.”

Louise Allen, Consultant Ophthalmologist, Addenbrookes Hospital

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 ± 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	± 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.

PSL Classic Portable Slit Lamp

Perfect for paediatrics

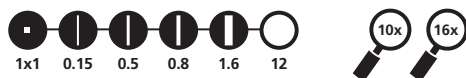
Our new PSL Classic Portable Slit Lamp is perfect for examining infants and children – it provides you with total flexibility to get close to the patient.



"The Slit Lamps are brilliant"

Mr. Manoj Parelukar, Consultant Paediatric Ophthalmologist Birmingham Children's Hospital

Slit wheel



Filter wheel



For the digital age

Simply connect an iPhone 4 and the PSL becomes a Portable, Digital Slit Lamp. What could be simpler or more cost efficient?

Versatility and portability are key benefits of the PSL Classic

Keeler designed and manufactured with the strength to withstand the daily traumas of the demanding ophthalmic environment, the PSL is lightweight, durable and robust.

Unique features such as the fixation targets, and the 1mm square light patch for assessing a/c flare set the new standard for Portable Slit Lamps.

"This is a very useful instrument that I would recommend for both domiciliary and paediatric use, and for busy clinic use"

Bill Harvey, Optician July 2010



PSL with iPhone adapter



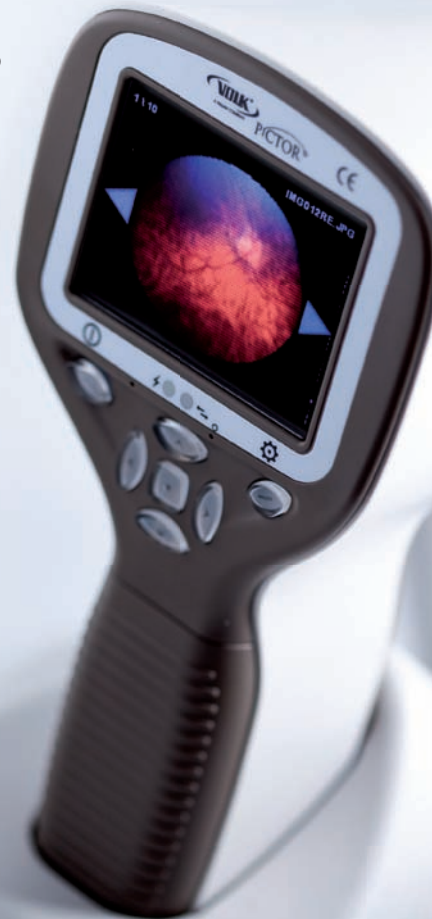
Volk Pictor

Imaging Unlimited

Volk Pictor is a truly portable imaging device that enables non-mydratic eye fundus examination with 45° field of view.

With digital still and video images, the appearance of optic disc, macula and retinal vasculature can be screened and documented for ocular lesions and anomalies.

- Reflection free imaging with ten illumination levels
- Image targeting and capture using infrared or white light
- Not necessary to dilate pupils (minimum pupil size 3.5mm)
- Silicone rubber eye cup for support and comfort
- Automatic focusing
- Image resolution 1920 x 1440 pixels
- Diopter compensation -20D to + 20D



Technical Specifications

Handset Technical Specifications

- Dimensions 82 x 166 x 66 mm
- Weight 400 g
- Rechargeable Ni-MH battery

Handset Features

- 2.4" TFT-LCD, anti-reflective screen
- 2 GB SD memory card
- Bayonet connector for optics modules
- Average usage time - 90 minutes

Imaging

- CMOS 5.0 megapixel sensor
- JPEG image format
- MPEG-4 and MPEG-1 video format
- Auto focusing

Connectivity

- PC with USB port
- Windows XP, Vista or 7 supported
- Patient data management software supplied

"The Pictor represents a breakthrough in hand-held imaging in that it is as light and easy to use as one would ever need."

Bill Harvey, Optician November 2011

Keeler Loupes

Ideal for paediatric squint surgery our 2.5x and 3x are available in variable working distances.

Hi-Res Loupes

Bright images, larger field of view and excellent edge clarity. The four lens high index coated optical system of the Hi-Res Loupes gives you three times magnification, a bright image and a larger field of view than the Keeler Standard 3.0x Loupe. Hi-Res Loupes also have excellent definition, stunning performance and great looks.

Working distance and field of view

Part Number	Magnification	Working distance	Field of view
2112-P-1050	3.0x	34cm	6.8cm
2112-P-1051		42cm	8.2cm
2112-P-1052		46cm	8.8cm
2112-P-1053		50cm	9.5cm



Keeler Ltd.

Clewer Hill Road, Windsor
Berkshire, SL4 4AA

Tel: +44 (0) 1753 857177

Fax: +44 (0) 1753 827145

Email: info@keeler.co.uk

Website: www.keeler.co.uk

Keeler Instruments Inc.

456 Parkway, Broomall
PA 19008 USA

Tel: 1 610 353 4350

Fax: 1 610 353 7814

Email: keeler@keelerusa.com

Website: www.keelerusa.com

Keeler