



**Keeler**  
[www.keelerusa.com](http://www.keelerusa.com)

# Keeler - almost a Century of innovation

When you buy a Keeler instrument – What are you buying? Almost a century of experience in optics! Keeler has been manufacturing ophthalmic instruments since 1917. We continue to lead the market with our innovative instruments. This has been achieved through our continuous program of customer involvement in the design process to ensure our instruments meet the rigorous demands of daily practice.

## UK manufacturer

We still manufacture and assemble our instruments in the UK. Combining optical precision, high quality illumination, ergonomic design and lightweight, durable materials to provide you with the best possible choice of equipment.

## Reliability

To confirm our commitment to quality, Keeler manufactured devices carry up to three years warranty; please see our website or individual user instructions for full details.

## Service

Keeler Technical Services and our authorized distributor network will carry out repairs and routine maintenance to your equipment.

We offer a Service Exchange scheme covering most direct and indirect ophthalmoscopes. This is a quick and economic way of keeping your instruments in top working order.

Quotations can be supplied upon request.



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# Keeler Slit Lamps

## K Series Slit Lamp

The K series from Keeler - quality build and leading technology Slit Lamps with a contemporary design.

Our LED has been carefully selected for its performance, with a colour temperature of 3,800k, and a truly homogeneous light patch. Typically, a Keeler LED will provide 10,000 or more hours, giving you 100 times the life of your halogen lamp.

### Exceptional optics

Keeler is renowned for market-leading optics and has been dedicated to optical design and manufacture for nearly 100 years. Our advanced design and manufacturing techniques give the Keeler K series the advantage of quite simply stunning optical performance.



## Q Series Digital Slit Lamp

### Digital capture and patient management

The Q series Digital and Digital Ready\* Slit Lamp comes with many additional features over and above the K series Slit Lamp.

As well as benefiting from the combined integrated camera and beam splitter (optional for the Digital Ready version), additional Slit Lamp features include a background illuminator, auxiliary diffuser, blue filter and camera and review control buttons mounted on the dashboard area.



*\* Digital Ready Slit Lamps can easily be upgraded to full Digital systems by purchasing the Keeler camera module together with Kapture software*



## Z Series Slit Lamp

While building on the success of our Tower (H) series we have been busy developing our own unique Lower illumination system Slit Lamp.

With many of the praiseworthy optical features borrowed from our H system together with a brand new illumination system and some innovative design work we have created a truly beautiful Lower Illumination style Slit Lamp.





### Kapture - feature rich software

Patient images are fed via USB to Keeler's Kapture Image and Patient Management software application. Kapture allows the capture of patient images and notation of these images while a database stores demographics and more detailed information.

All data and images are entered via easy to use screens and several software options are available to suit your needs.

### Image capture and processing

Powerful image processing features include:

- Freeze and freeze frame review
- Still capture and optional upgrade to video
- Image import and export, compare
- Colour balance, crop, zoom, split RGB
- Annotate, flip, draw, Invert colour
- Sharpen, Contrast / Brightness, Gamma control

## Compare our Slit Lamps

	Q Series digital	K Series	Z Series
Illumination type	H-type tower illumination		Z-type lower illumination
Binoculars type	Galilean converging binoculars 8° or Galilean 0° parallel		
Eyepiece	12.5x		
Magnification selection	3 or 5 steps by drum rotation		
Magnification ratio   Field of view	6x   34mm (5 steps only) 10x   22mm 16x   14mm 25x   8.5mm 40x   5.5mm (5 steps only)		
Interpupillary distance (PD range)	49-77mm		8° converging eye piece: 49-77mm 0° parallel eye piece: 38-85mm
Slit width	0-12mm continuously variable		0-14mm continuously variable
Slit length	0.2, 2, 3, 5, 9 & 12mm circle (1-12mm continuously variable), 1mm square		0.2, 2, 3, 5, 9 & 14mm circle, 1mm square and reserved
Filters	blue, red-free, yellow, clear, neutral density, diffuser IR heat absorbing permanently installed		blue, red-free, yellow, clear, neutral density, diffuser
Slit angle	0-180° continuous		360° continuous
Base travel	107mm X-axis, 110mm Y-axis, 25mm Z-axis		
Fixation lamp	red LED		
Illumination lamp	LED or 6V, 20W halogen lamp	LED or 12V, 30W halogen lamp	LED
Applanation tonometer	2414-P-2030 KAT T-type 2414-P-2040 KAT R-type 2414-P-2032 DKAT T-type, digital 2414-P-2042 DKAT R-type, digital		2414-P-2010 DKAT, Z-type, digital 2414-P-2032 DKAT, T-type, digital

# PSL Portable Slit Lamps

Versatility and portability are key benefits of the Keeler PSL one and PSL Classic Slit Lamps. Keeler designed and manufactured with the strength to withstand the daily traumas of the demanding ophthalmic environment, the PSL is lightweight, durable and robust.

**Advanced optics: 10x magnification, PSL one**  
**10x and 16x magnifications, PSL Classic**

Top quality multi-layered glass is crafted into our Keeler multi-element and multi-layer coated optical system to give maximum performance. Clarity is guaranteed.

### Controllable illumination

Advanced LED illumination system. Illumination levels are controlled by a rheostat giving you control of your examination parameters. From zero to maximum, you choose.

### Big Slit Lamp features, portable usability

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



## PSL Specifications

### Carrying Case

Protect your investment with a rugged aluminum carrying case - perfect when your Slit Lamp is not in use or when you are travelling.



- Magnification
- Charging base
- Direct charging
- Color
- iPhone adapter
- Aluminium Case

	PSL classic	PSL one
Magnification	10x and 16x	10x
Charging base	Yes	No
Direct charging	Yes	Yes
Color	Blue and White	Blue and Black
iPhone adapter	Yes	Option
Aluminium Case	Yes	Option

# Slit Lamp Part Numbers

## K Series Slit Lamps

### LED ILLUMINATION

3020-P-2007	Keeler 40H, Table Module with power supply and Table Top.
3020-P-2013	Keeler 40H, Unit Module (Power supply, table top, mounting post)

## Q Series Digital Slit Lamps & Software

### DIGITAL READY LED ILLUMINATION

40H Digital Ready with LED Illumination, background illuminator, auxillary diffuser, blue filter, joystick camera trigger, and external illumination controls for camera and independent of main illumination. **NO CAMERA OR SOFTWARE PROVIDED.**

3020-P-2020	Q Series 40H Digital Ready with power supply and Table Top
3020-P-2021	Q Series 40H Digital Ready, Unit Module (Power Supply, table top, mounting post)

### IMAGING MODULE UPGRADE

3020-P-2022	Q Series Digital Camera & Kapture Lite Software
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## 40H Digital System with LED Illumination

40H Digital Ready with LED Illumination, Camera, Kapture Lite Software, background illuminator, auxillary diffuser, blue filter, joystick camera trigger, and external illumination controls for camera and independent of main illumination. 3 Year warranty & 12 month software support (include upgrades, online and telephone support). **NO COMPUTER**

3020-P-2015	Q Series 40H Digital System with power supply and Table Top
3020-P-2010	Q Series 40H Digital Ready, Unit Module (Power Supply, table top, mounting post)

## Z Series Slit Lamps

### LED ILLUMINATION - 25 Z Parallel 3 Step Standard

3020-P-2024	25 Z
3020-P-2012	Keeler 40H, Unit Module (Power supply, table top, mounting post)

## Kapture Software

Kapture comes with a one year free support, to include upgrades, online and telephone support. Ongoing support can be purchased from Keeler.

3020-P-7036 Kapture Lite is a fully functioning stand-alone system including still capture with live preview, patient data base, image processing, import and export. Capture Lite is included with the imaging module upgrade assembly and the complete Digital Slit Lamp system.

3020-P-7038 Kapture Digital is all the features of Lite plus video capture, measurements, network connectivity and multiup multiple image printing and saving.

### Kapture Upgrade, support, and review station options.

3020-P-7042 Upgrade Kapture Lite to Digital for network connectivity (essential if you require review stations) measuring and multiup multiple image printing and saving.

### Review Station Options

3020-P-7045 Kapture View allows patient data and images to be viewed over the network – this requires the Kapture station to be networked.

3020-P-7046 Kapture View Plus includes file import, measure and multiup – the Kapture station must be networked.

## PSL Slit Lamps

3010-P-2000	PSL Classic
3010-P-2001	PSL One

## PSL Accessories

3010-P-7000	PSL Carry Case
1030-P-7195	PSL LED Replacement Module (bulb)
1030-P-7187	PSL Spare Lamp
EP39-70737	PSL Test Bar
3010-P-7004	PSL Eye Caps (2)
EP59-47130	Replacement Lithium Battery

# Binocular Indirect Ophthalmoscopes





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 All Pupil II, Vantage Plus, and Spectra Iris

The LED cooler color 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 maximize 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 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

# NEW Vantage Plus LED Digital Ophthalmoscope

Digital Imaging in your office, operating room, or anywhere you want it.

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.

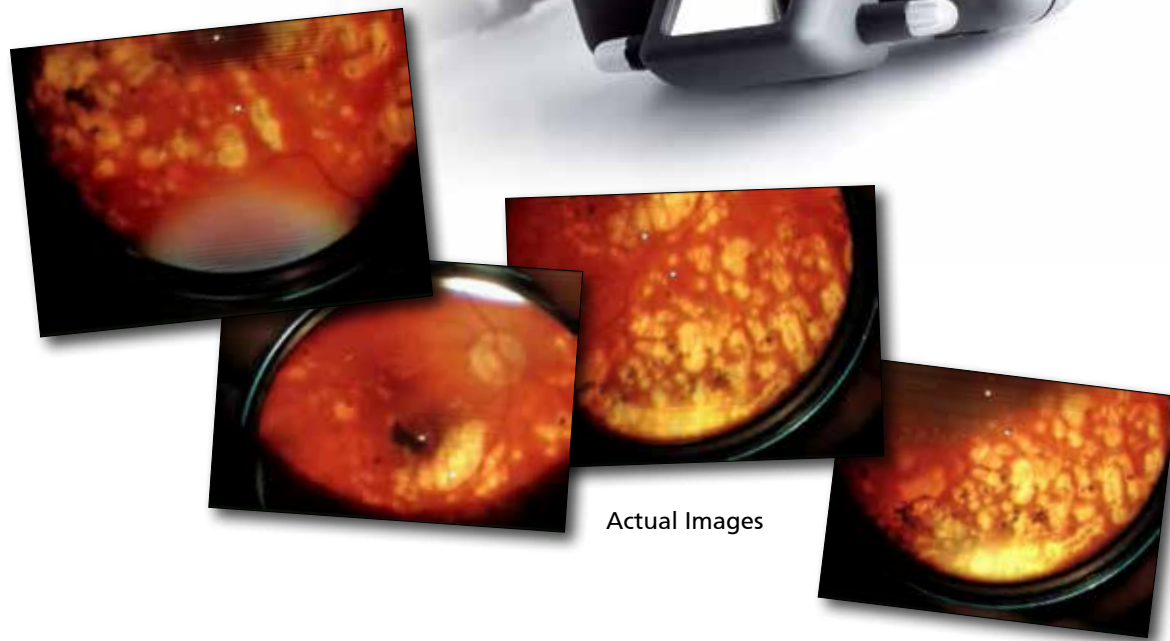
Utilize Vantage Plus LED Digital Wireless in your office, operating room, and teaching facility or anywhere you want to capture digital images.

The intuitive and powerful Keeler Software allows you to use your laptop or any usb interface to optimize the examination, provide still or dynamic images, which aid in the documentation and diagnosis of your patient.

Increase your practice profile by educating your patients and their family with digital dynamic imaging in your office.



**VIEW VIDEO**  
On Your Smart Phone



Actual Images



<b>USB interface</b>	Plugs into any laptop or computer system and examinations are recorded in digital format.	
<b>Keeler Software</b>	For easy Still or Dynamic Imaging, Storage, and Documentation.	
<b>Operating System</b>	Windows 7 and Windows XP	
<b>Vantage Plus LED</b>	Built on the number one selling LED and wireless slimline system.	
<b>Part Numbers</b>	1205-P-5010	Vantage Plus LED Digital Wireless Ophthalmoscope System.
<b>Includes</b>	Vantage Plus LED Digital Wireless Ophthalmoscope Docking Station and power supply, additional Slimline Polymer battery, Keeler Software, Digital Wireless Remote Control, and Carrying Case.	
<b>Accessory</b>	1205-P-7001	Optional Vantage Plus LED Digital Footswitch.

## Technical Specifications

### Camera

Interface	USB 2. mini B
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
Driver	When installed will work with any video package capable of receiving video input from a USB source
Lead	To connect camera to a PC, Keeler recommends a 5m long USB 2.0A to a mini 5 pin (sometimes packaged as a USB 2.0A to a mini B lead)

### Convergence

Range	The camera can be adjusted $\pm 7$ degrees
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### Variable working distance

Range	11-24 inches
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### Vantage Plus

Controls	All controls and features of the Vantage Plus have been maintained
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### 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 center
Horizontal	Factory set adjustment
Focus	See working distance

### 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)



## Vantage Plus Convertible

US Patent Number 8,132,915

We are delighted to present the new, exclusive Vantage Plus Convertible.

### Natural LED cooler color

The natural LED cooler color 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.



New Slimline Lithium Polymer battery (paper clip shows scale)



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.



**Choice of illumination**

Vantage Plus convertible technology offers you the choice between a neutral 4,000K LED for longer life, better contrast, and a white light or a traditional 3,800K xenon bulb.



Longest life, brightest, better detail



25% brighter than standard bulbs



New Slimline Lithium Polymer battery weighs less than 2 ounces



Combined LED and Lithium Polymer battery can provide up to 6 hours of use on a single charge

“The cooler color temperature of the LED light source resulted in a level of image clarity that I’ve not found in another BIO”

“I have been able to find retinal pathology that was not visible with the Xenon bulb BIOs in our clinic.”

Todd J. Purkiss, M.D., Ph.D.,  
Chief Resident, Ophthalmology & Visual Sciences,  
University of Louisville

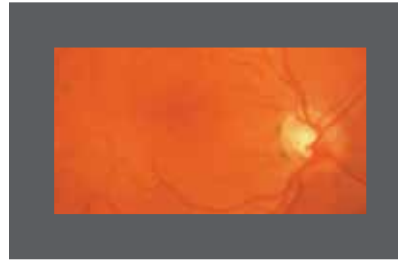
## Unique - Intelligent Optical System (IOS)

US Patent Number 8,132,915

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 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.

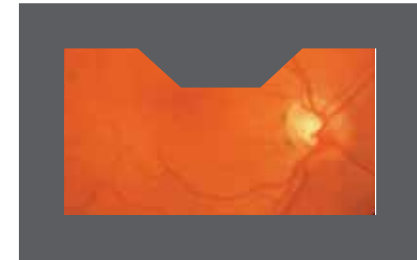
## Exclusive - IOS Optics allows Small Pupil Imaging without any obstructions



**Vantage Plus IOS Optics**

View through Vantage Plus with IOS Optics.

When small pupil is selected there is no obstruction of the retina.



**Non IOS Optic System**

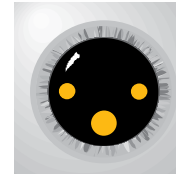
View through NON IOS Optical Systems.

When small pupil is selected there is an obstruction, reducing your clinical information.



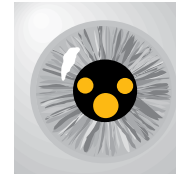
### Large Pupil

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



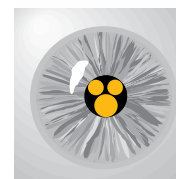
### Intermediate Pupil

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.



## The new teaching mirror just slides on and off with ease

The new teaching mirror just slides on and off with ease allowing two observers to view the retina at the same time.

## Quality and efficiency

The redesigned optics combined with the new 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

The Vantage Plus uses advanced textured engineering materials, providing a lighter, smaller and more compact instrument without compromising the renowned Keeler reputation for robustness, reliability and quality

## Comfortable and perfectly balanced

A new soft cushioned headband has been designed to maximise comfort, it adjusts and balances perfectly to suit all head shapes and sizes.

## New high contrast optics

The new compact and high contrast viewing optics use LED or Xenon illumination that gives you brilliantly crisp, glare free, superior views of the retina every time

## 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.

P D Range: 52 - 76mm



**“Because of the brightness and improved contrast, I prefer the Vantage Plus LED Indirect (and you get a Hi Mag lens too).”**

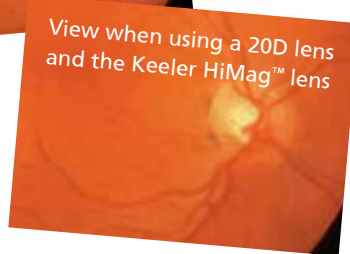


Brighter

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

This unique feature is only offered with the Vantage Plus indirect. It gives you a 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.



Vincent A Dermo, MD  
 North Shore-LIJ Health System  
 Great Neck, NY  
 "ROAD TEST", Heine & Keeler Wireless Indirect  
 Ophthalmoscopes, Retina Times, Summer 2009

# All Pupil II

## Now Available with LED Technology

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

That's right, no more wires and cords! The freedom to move from room to room without any constraints. Keeler is delighted to introduce this great "wow" feature to the number one selling indirect ophthalmoscope.

## Outstanding Brightness for Difficult Examinations

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



P D Range: 47 - 75mm

## All Pupil II LED Module

The All Pupil II LED plugs simply into the back of your All Pupil II to give you all the benefits of LED illumination.

- LED provides better detail, brighter, whiter illumination
- Freedom from purchasing bulbs
- The LED life expectancy is up to 10,000 hours
- 5 year warranty



## Lightweight and Comfortable

The new design weighs just 520 grams and extra padded materials have been incorporated into the headband to make this indirect extremely comfortable for all examinations.

## 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.



Longest life, brightest, better detail



25% brighter than standard bulbs



New Slimline Lithium Polymer battery weighs less than 2 ounces



Combined LED and Lithium Polymer battery can provide up to 6 hours of use on a single charge



# All Pupil II Convertible

## New Slimline Lithium Polymer Battery

The New Slimline Lithium Polymer battery can give you up to 6 hours of use, weighs less than 2 ounces, and is nearly 70% lighter than the standard battery. It is also much smaller and can fit nicely into the palm of your hand.



New Slimline Lithium Polymer battery (paper clip shows scale)



Lighter



Long lasting

### Natural LED cooler color

The natural LED cooler color 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.

### New Slimline Lithium Polymer battery

Our new Slimline Lithium Polymer battery weighs only 53 grams.

- 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



Our new Slimline Lithium Polymer Battery is small and lightweight.

### 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.



# Spectra Iris






## The little indirect now has even bigger benefits!

Spectra Iris has been specifically designed as a compact, lightweight and portable indirect with big benefits for professionals on the move. It can be tucked away in its neat carrying case or hung around your neck when not in use.

Plus now, just like the iris in your eye, you can adjust the size of the aperture at the touch of a slider.

## LED long lasting illumination

No more bulbs, just a long lasting white homogenous light patch that can be used for up to 4 hours continuous on time.

-  Adjustable aperture for all pupil sizes
-  Portable and convenient
-  LED long lasting white illumination
-  Lightweight and comfortable
-  Stylish, comfortable, attractive frame

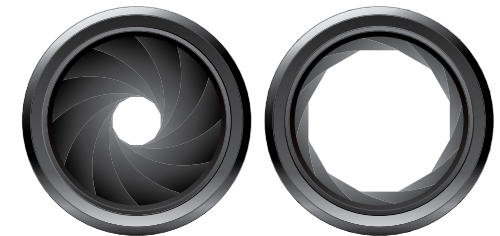
**NEW**

## Adjustable Aperture Slider for all pupil sizes



Now you can adjust the aperture simply by moving the slider.

Slide to the right to increase aperture size and to the left to decrease. The aperture range is from 20mm to 60mm.



*New adjustable aperture for all pupil sizes from 20mm to 60mm (not to scale)*



### Keeler Sport Frame

Spectra Iris comes on the new Keeler Sport Frame. This wrap around frame is not only attractive but provides maximum comfort and balance.

### Flip up optics

The whole optical box and light pod can be flipped up allowing direct eye contact when talking to patients or for writing notes.



- 1 Aperture slider
- 2 Filter selection control
- 3 Mirror angle control
- 4 Keeler Sport Frame
- 5 Flip up optics

### Filters and apertures

PD Range: 48 - 76mm



Old hinge



New hinge

### New single movement hinge

The new hinge allows the Spectra Iris to sit closer to your eyes for a better view and a more comfortable fit.

# Wireless Power Supply

Keeler wireless technology allows you to move from room to room without any constraints. The chargers are either desktop or wall mountable, and store an extra lithium battery as a back up, should you need it.

"I used the Plus almost daily for four months before I had to recharge the battery"

Todd J. Purkiss, M.D., Ph.D., Chief Resident,  
Ophthalmology & Visual Sciences,  
University of Louisville

## New Slimline Lithium Polymer Battery

Now exclusive with Vantage Plus and available for the All Pupil II, the Slimline Lithium Polymer battery can give you up to 6 hours of use, weighs less than 2 ounces, and is nearly 70% lighter than the standard battery. It is also much smaller and can fit nicely into the palm of your hand.



Lighter Long lasting



New Slimline Lithium Polymer Battery - exclusive for Vantage Plus and available for All Pupil II (paper clip shows scale)

## New Slimline Wireless Chargers

The new desktop or wall mountable charger remains as durable as the Standard Wireless with the facility to store your extra battery in the top compartment. The charger has an easy release button to remove your extra battery.



New Slimline Wireless Charger  
(Exclusive with Vantage Plus and available for All Pupil II)

# Wired Indirect Power Supply



## Smart Pack

Smart Pack is a stylish power supply system that combines 3 options in one product. No longer will you need to purchase a portable system for domiciliary use, another system for mounting on your wall and another for tabletop use. All you need now is SmartPack for your Vantage Plus or All Pupil II.

Fast Charge and Long Life – Nickel Metal Hydride

- Lightweight
- 120 minutes of continuous use
- Complete Fast charge in 2 hours.
- Indirect can be used while charging
- Usable charge in 5 minutes
- Intelligent Chargers that show the state of your battery



Long lasting

## Fast Charge and Long Life Lithium-ion Power

- Lightweight 6 ounces (171 grams)
- For use with Spectra Plus & Spectra Iris
- Fast Charge 2 hours
- Usable charge in 5 minutes



Long lasting



## WallPack

With other manufactured indirect systems you need to purchase a separate stationary unit when you graduate. With your Smart Pack you can easily convert to Wall Pack which fits neatly on the wall and has a built in microswitch control.

## Lithium-ion Power Pack

The Lithium Power Pack was designed to optimize your power requirements in a light weight system. Made exclusively for use with Spectra Plus & Spectra Iris, the battery is supplied with a small fast charge system.





# Keeler Indirects & Power Supplies

## Part Numbers

### Vantage Plus Convertible Indirect Ophthalmoscope

Vantage Plus wired & wireless indirects come standard with an LED module, HiMag lens and dimmer control

- 1205-P-1010 LED Wired Headset Only
- 1205-P-1020 LED Slimline Wireless (2) with Charger & Two (2) Batteries
- 1205-P-1014 LED Slimline Wireless (2) Headset Only (No Battery/Charger)

### Vantage Plus LED Digital Indirect Ophthalmoscope

- 1205-P-5010 Vantage Plus LED Digital Wireless Ophthalmoscope, Slimline Docking Station, and power supply, additional Slimline Polymer battery, Keeler Software, Digital Wireless Remote Control, and Carrying Case
- 1205-P-7005 Optional Dell E5420 Notebook
- 1205-P-7001 Optional Vantage Plus LED Digital Footswitch

### All Pupil II Binocular Indirect Ophthalmoscope

All Pupil II Wired & Wireless Indirects come Standard with a Dimmer Control

### Bulb Illumination

- 1204-P-3100 10W Bulb Wired Headset Only

### Convertible Illumination and Neutral LED Module

- 1205-P-2000 LED Slimline Wireless with Charger & Two (2) Batteries
- 1205-P-2003 LED Slimline Wireless (2) Headset Only (No Battery/Charger)

### Spectra Iris Binocular Indirect Ophthalmoscope

Spectra Iris comes standard with the optics, frame, lithium power pack, and charger.

- 1205-P-2012 Small Frame
- 1205-P-2010 Regular Frame
- 1205-P-2011 Large Frame

### Wired Indirect Power Supplies

- 1945-P-1001 SmartPack
- 1945-P-1000 WallPack
- 1941-P-5385 Spectra Iris Lithium Charger and Power Supply
- 1919-P-5215 Spectra Iris Lithium Battery with Rheostat

# Tonometry

## Let's fight glaucoma.

For over 90 years Keeler has continued to innovate, design and manufacture world class ophthalmic instruments in our Windsor factory.

In 1986 the Pulsair Tonometer revolutionised non contact tonometry with its unique hand held and portable system bringing a new dimension to patient care and the management of space and time.

Pulsair and tonometry are synonymous – the 5th generation IntelliPuff hand held model combines contemporary style together with new technologies and the new Pulsair Desktop brings the Pulsair name to those requiring a chinrest desktop device.

Applanation Tonometry is a widely practiced and respected technique; the Keeler Applanation Tonometer (KAT) will match that level of respect with our exceptional build quality and manufacturing consistency.



## Pulsair IntelliPuff

Bringing versatility to tonometry; wall mounted or desk mounted the lightweight hand held optical mainframe allows the clinician to measure all patients with equal comfort and respect. The flexibility of use and space saving makes this instrument virtually unbeatable for performance and value.

### Hand held and wall mounted

Being hand held, Pulsair IntelliPuff avoids the need to position the patient in a chinrest removing an entire process from the patient journey – fast and easy to use while the patient is already seated in an examination chair, space and time under control.

## Pulsair Tonometers - stylish and practical

Both Pulsair Desktop and Pulsair IntelliPuff have exceptional patient visualization; the slim profiles of the Pulsair optical mainframe allow the clinician to maintain visual contact with the patient at all times during the measurement process.

## Pulsair Desktop

A small and space saving footprint combined with the elegant, slim optical mainframe allows it to blend seamlessly into the clinical environment. The openness of the design increases the confidence of both patient and clinician.

### Comfort and speed

Less is more. Pulsair Desktop is uncomplicated and therefore quick to use for the novice and professional alike. Taking control of tonometry has never been easier or faster. Clear user controls and a colour video alignment screen combine to set a new standard in usability.



## Engineering and design excellence

Pump, solenoid control valves, plenum chamber and optical mainframe are all designed to function optimally leading to efficient and fast measurement.

LED illumination provides a constant and reliable light source for the alignment camera and the positional detection systems.

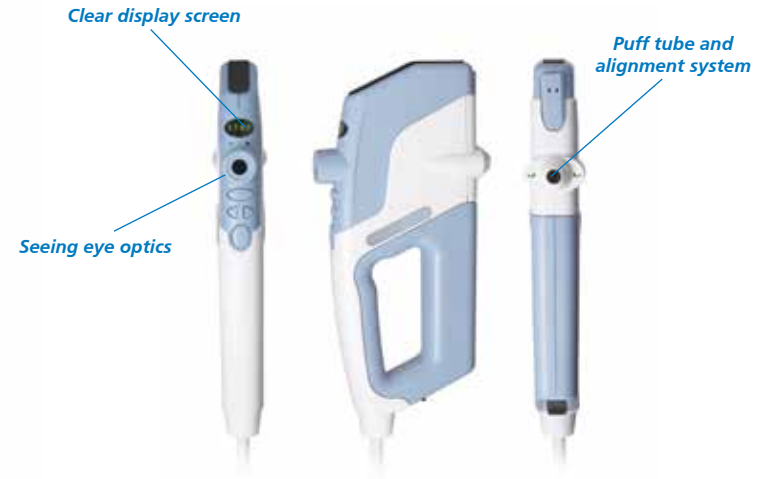
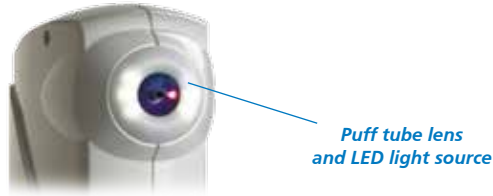
Quietly cost effective, the Pulsair tonometers require no sterile consumables, printing is under your control so ongoing costs are managed.



## Sophisticated technology

Keeler Pulsair tonometers use advanced optical and sensor technology for positional detection and puff control.

Pulsair Desktop and Pulsair IntelliPuff have software controls to manage the measurement data; if two consecutive readings are within +/- 1mmHg of each other the Pulsair will inform the user that sufficient readings may have been taken for that eye, saving precious time and increasing patient comfort.



### Pulsair Desktop

Calibrated range	5mmHg to 50mmHg
Displayed accuracy	Display accuracy to 1 decimal place e.g. 12.3
Displayed scale	Single line 16 character alphanumeric display
Illumination system	LED infra red
Working distance	20mm
Dimensions	475 x 410 x 245mm (H x D x W)
Weight	16kg
Complies with	Electrical Safety (Medical) BS EN 60601-1:2006. Electromagnetic compatibility EN 60601-1-2:2007. Ophthalmic instruments - fundamental requirements and test methods ISO 15004-1:2006. Optical radiation hazard ISO 15004-2:2007
Power Supply Unit	Switch mode, (110 – 240V)+/- 10% multi plug type compliant to EN 60601-1 EN 61000-6-2, EN 61000-6-3
Power supply output	30 VA (12V DC 2.5A)
Frequency	50/60 Hz
Printer	Thermal line printer

Part Numbers:	2417-P-2000 Pulsair Desktop Tonometer
	3104-L-8201 Chinrest Papers
	2208-L-7008 Printer Paper

### Pulsair IntelliPuff

Calibration range	5mmHg to 50mmHg
Measurement scale	mmHg (millimetres of mercury)
Displayed accuracy	0.1mmHg
Display	4 character dot matrix scrolling
Firing system	Automatic and objective
Illumination system	LED infra red
Working distance	20mm
Mounting system	Table/desktop/wall
Base unit dimensions	260 x 215 x 220mm (H x D x W)
Base unit weight	2.465Kg
Handpiece dimensions	315 x 150 x 46mm (H x D x W)
Handpiece weight	0.890Kg
Umbilical cord length	2.0m
Printer	Thermal line printer

Part Numbers:	2414-P-2001 IntelliPuff unit
	2208-L-7008 Printer paper roll

# Keeler Applanation Tonometers

The Goldmann principle is considered to be the most prevalent method of tonometry as it is the most widely accepted method of determining the approximate intraocular pressure.

The Keeler manufactured applanation tonometers are designed and built to our exacting standards to give you the accuracy and quality you expect from a Keeler device.

All KAT tonometers are supplied with one reusable doubling prism, the calibration check bar and either the Z (Zeiss) type, R type post or the T type aluminium guide plate for Slit Lamp use.



## D-KAT Digital Applanation Tonometer

- LED display for ease of use in darkened environments
- Z type, T type and R type available
- Display reading to 1 decimal point





## KAT - Keeler Applanation Tonometer

- Reliable and repeatable applanation tonometry
- Goldmann applanation principle
- T type, R type or BQ type available
- Designed to withstand the test of time and deliver reliable results year after year



## KAP Keeler Applanation Prism

Goldmann style doubling prism for most Applanation Tonometers



<b>Measurement force</b>	By leverage weight
<b>Installation</b>	
Keeler T type for tower illumination Slit Lamps	Fitted to the guide plate on the optical axis for the microscope and illumination unit arm
Keeler R type for tower illumination Slit Lamps	Mountable on a post fitted to the microscope optical body
<b>Measurement range</b>	0-80 mmHg (0-10.64 kPa)
<b>Approximation of the impact force on the measurement head for a 0 to 58,84 mN measurement range</b>	Standard divergence: $0.49\text{mN} \leq 3s \leq 1.5\%$ of nominal value
<b>Operating temperature range</b>	from 10°C to 35°C
<b>Measurement Accuracy</b>	$\leq 0.49 \text{ mN}$
<b>Net weights</b>	
Keeler T type	0.41 kg (without accessories)
Keeler R type	0.69 kg (without accessories)

<b>Part Numbers</b>	2414-P-2032	D-KAT – Keeler Applanation Tonometer T type
	2414-P-2042	D-KAT – Keeler Applanation Tonometer R type
	2414-P-2010	D-KAT – Keeler Applanation Tonometer Z type
	2414-P-2020	KAT – Keeler Applanation Tonometer BQ Type
	2414-P-2030	KAT – Keeler Applanation Tonometer T type
<b>Accessories</b>	2414-P-2040	KAT – Keeler Applanation Tonometer R type
	2414-P-5001	KAT doubling prism
	2414-P-5032	KAT T type guide plate
	2414-P-5042	KAT R type mounting post
	2414-P-5005	Calibration arm assembly



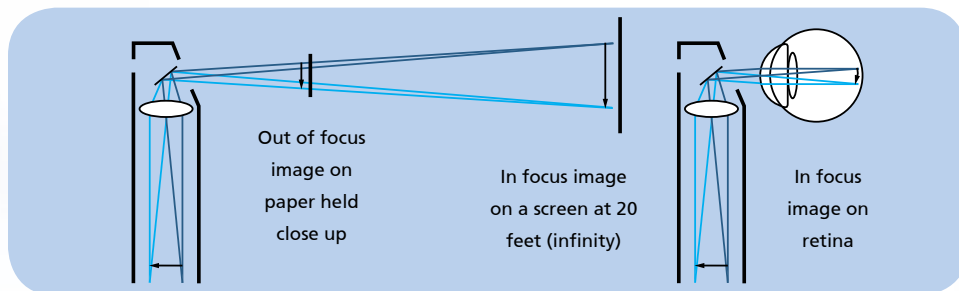
# Hand Held Instruments

A combination of optical perfection, superb ergonomics and versatile features make all Keeler hand instruments the ideal choice. Whatever your requirements from basic examination to detailed diagnosis, there is a Keeler hand instrument for you.

The next couple of pages will guide your choice but first read on to discover the benefits shared by all Keeler ophthalmoscopes as standard.

## Keeler optical system - the more you see the better the diagnosis

Keeler Ophthalmoscopes are adjusted for perfect focus where it's needed - in the eye, not on paper. Along with Keeler's wide angle light beam and individual mirror alignment, this ensures that whatever the patient's pupil size, you will see the clearest view of the retina.



### Comfort and Fit

With curved surfaces and subtle patient side marking, each ophthalmoscope has been designed to fit snugly into the orbital bone. Unlike other straight sided brands, the contoured, curved ophthalmoscope head guarantees an optimal viewing angle and the smooth line surfaces ensure a patient friendly non-threatening instrument.

### Lithium and NiCad handles

Keeler hand holds are supplied on a lithium slimline, lightweight robust handle or the traditional NiCad handle.

### Light, tough and built to last

Keeler ophthalmoscopes are built from resilient, lightweight materials to give you many years of trouble free service. High impact resistant covers combined with a strong metal chassis protect the carefully aligned optics and allow Keeler ophthalmoscopes to withstand the rigors of everyday use for years to come.

### Controllable light for bright, clear images










The bright white Halogen and Xenon illumination is fully adjustable from zero. This ensures the comfort of your patients and the best possible diagnosis for you.

### Reflex free images

Individually controlled optics reduce the effect of corneal reflex while minimizing shadows and providing clearer retinal visualization.



## Apertures, Graticules and Filters

-  **Wide Angle** - Illuminates the largest area of fundus for the best possible general diagnosis through a dilated pupil.
-  **Intermediate** - Permits easier access through an undilated pupil and in peripheral examination. Particularly useful in paediatric examination.
-  **Macular** - Designed specifically for examination of the macular region of the fundus where a larger beam would create excessive pupillary reaction or patient discomfort.
-  **Slit** - Used primarily to determine retinal elevations and depressions but may also be used to assess anterior chamber depth.
-  **Glaucoma** - Projects a graticule onto the retina to assess the optic cup/disc ratio as an aid to glaucoma diagnosis.
-  **Fixation Cross** - Projects a graticule onto the retina for assessment of the degree and direction of eccentric fixation.
-  **Semi Circle** - Provides a combination of depth perception and field of view
-  **Red Free** - The red free filter is used to examine blood vessels in fine detail. By filtering out the red light, blood vessels are silhouetted black against a dark green background.
-  **Cobalt Blue** - This filter is used with fluorescein dye for angiography.

# Professional Ophthalmoscope

## Total Control at Your Fingertips

The Keeler Professional Ophthalmoscope has been designed to ensure ultimate control. Lenses, graticules and filters can all be introduced at the touch of a fingertip. No need to pull away from the patient, the Professional Ophthalmoscope makes routine examination far easier.

### Xenon Illumination

We recognise that illumination is of fundamental importance to good diagnosis. That's why we have selected Xenon illumination for our ophthalmoscopes. This brighter and whiter longer lasting light will meet any diagnostic challenge! With Xenon you have the power to diagnose even through cloudy media. And because it is longer lasting, that means fewer bulb changes giving greater peace of mind.

### Positive Action Maywheel

The positive action easy access maywheel not only allows you to dial up the required lenses quickly, it also allows you to know where you are without the need to pull away from the patient.

### Comprehensive Lens Range

The extensive range of +29D to -30D in single dioptre steps ensures easy examination of all ocular structures and covers a wide range of patient/user prescriptions. A quick step swing in +/- 20D helps speed up diagnosis.

### Swing Over Filter

The red free filter for enhanced vessel examination can be used in conjunction with any of the 6 diagnostic beams.

### Brow Rest

The integral soft brow rest allows for easy positioning and protects your lenses if you are a spectacle wearer.



#### Part Numbers

1125-P-1180

1911-P-1244

1128-P-1004

3.6v Professional Ophthalmoscope on Lithium Handle (no stand adaptor)

3.6v Professional Ophthalmoscope on Lithium Handle with stand adaptor

3.6v Professional Ophthalmoscope head only



# Specialist Ophthalmoscope

## The Choice of the Ophthalmic Profession

The Keeler Specialist offers precision optics, versatile features and practical ergonomics making it the number one choice for ophthalmic practitioners.

### Unequaled Quality

The Specialist ophthalmoscope is perfectly balanced for precise ocular examination. The comprehensive lens range (+44D to -45D in 1D steps) ensures clear and accurate diagnosis even in the most difficult eyes. The Specialist lens range is made up of tiny individual ground glass lenses. The fine gearing of the Morton Track lens system allows you to dial up any lens quickly and easily.

### Versatility

The graticule range offers a total of six diagnostic beams for comprehensive ocular examinations. In addition to a choice of three viewing beam sizes the Specialist includes a red free filter for vessel examination, a fixation cross for

assessment of eccentric fixation and a slit to determine changes in retinal elevation. A snug orbital fit optimises the field of view and guarantees increased comfort for both practitioner and patient.

### Pupillometer

The pupillometer comparison disc allows quick assessment of pupil size.



#### Part Numbers

1132-P-1050

1132-P-5000

3.6v Specialist Ophthalmoscope head only

2.8v Specialist Ophthalmoscope head only





## Professional LED Retinoscope

We Appreciate Vintage Technology...but not in OUR devices.

### BCS Technology

Easiest and most accurate refraction from the BRIGHTEST illumination, increased CONTRAST, and SHARPNESS in your hands.

### Longest Battery Life

Practice makes perfect and our LED technology will increase your on time up to 300% as compared to non-LED technology.

### Double Neutralization Check

The Professional Combi is the only Retinoscope which combines the ability to switch from Spot to Streak with the facility to double check neutralisation in both modes.

### Easy Access Control

The Professional Combi uses rare earth magnet technology to provide optical precision refraction. A single control is used for rotation, convergence, and divergence.

A choice of apertures to optimise brightness or resolution of the retinal reflex in 4mm or 1.7mm. The Professional Combi comes with easily interchangeable soft brow rest for spectacle wearers.

### Light Output

With up to 600 lux of brilliant illumination, the Professional Combi Retinoscope guarantees you more than enough light to refract even the most difficult eyes.

### Near Point Cards

Fixation cards for Dynamic Retinoscopy simply clip on and off for easy use.

#### Part Numbers

1302-P-1012	3.6v Professional LED Combi Streak Retinoscope head only
1322-P-1060	3.6v Professional Combi Streak Retinoscope on Lithium Handle (no stand adaptor)
1302-P-1007	3.6v Professional Combi Streak Retinoscope head only

## Finoff Transilluminator

For use when the presence of intraocular tumors in patients with cloudy media is suspected. The Finoff transilluminator illuminates the fundus via the sclera and any tumors present in the light path will dim the normally bright red fundal reflex as seen through the pupil.

#### Part Number

2903-P-1126	3.5v Transilluminator (Head only)
2903-P-1118	2.8v Transilluminator (Head only)



## Pocket Ophthalmoscope

### Portable and compact

Full diagnostic capability in a compact instrument make the Pocket Ophthalmoscope ideal for the practitioner on the move.

### Portable

An ideal choice for domiciliary and ward use or as a back up instrument.

### Comprehensive lens range

Lens range from +20D (+1,2,3,4,6,10,15,20) to -20D (-1,2,3,5,10,15,20) for clear and effortless examination of ocular structures.

### Pocket clip

It has a strong metal clip that can be attached to a pocket and is powered by standard AA batteries.



#### Part Number

1102-P-1041	2.8v Pocket Ophthalmoscope on AA battery handle
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## Accessories

### Color Coded Grips

Add a bit of color to your diagnostic area with color coded grips. Available in four colors these new grips are not only fun but functional too!

Available individually or as an assorted pack of four, choose from pink, green, blue or black.

### Near Point Cards for Retinoscopy



### Keeler Slimline Handles

Spare handles for your instruments available in 3.6V Lithium rechargeable (red base) or 2.8V Battery (blue base) options.

### Lithium Handle Stand Adaptor

The small and sleek adaptor converts your Keeler Lithium Handle to charge in any standard refraction stand



### Part Numbers

#### Color Coded Grips

1901-P-7028 Pink

1901-P-7036 Green

1901-P-7044 Blue

EP29-05365 Black

#### Near Point Cards for Retinoscopy

1321-P-7005 Near Point Cards for Retinoscopy

#### Keeler Slimline Handle & Battery

1911-P-1244 3.6V Slimline Handle with Stand Adapter

3301-P-7410 Stand Adapter Only



## Chargers

A two hour fast charge and over 2 hours continuous use means your instrument is always ready for use. Choose between the Lithium-ion Double or Mini Chargers.

### Over 2 hours of continuous use

Ideal for long examinations especially while first learning with your instrument.

### LED displays

LEDs indicate when battery life is low, charging or fully charged.

### Lithium-ion Double Charger

The compact charger takes two handles and fits neatly into your immediate testing environment, allowing easy access to your hand held instruments. It can be desk or wall mounted.

### Lithium-ion Mini charger

Can be connected quickly and simply to the base of your Keeler handle, making it the perfect choice for domiciliary visits or practitioners on the move. Your instruments can still be used whilst the battery is charging.



### Part Numbers

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1941-P-1368	Lithium-ion Double Charger
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1941-P-1341	Lithium-ion Mini Charger
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# Sight and Color Vision Testing



## Sheridan Gardiner Test

Well established test designed for children but suitable for disabled people, those with learning difficulties or patients who do not share a common language with the examiner.

### Part Numbers

2204-P-1004 Sheridan Gardiner Test without Orthoptic booklets  
2204-P-1063 Sheridan Gardiner Test with Orthoptic booklets

## 3rd Edition City University Color Vision Test

This test displays normal protan, deutan and tritan colors, differentiation is stronger in the red/green. Significant tritan defects may be detected if used in conjunction with the Ishihara. The test includes a screening option.

### Part Number

2206-L-1057 3rd Edition City University Color Vision Test



## 38 & 24 Plate Ishihara Color Vision Test

Ideal for commercial/industrial color screening. Tests for protan and deutan defects. Patients must identify numbers or patterns formed in a matrix of small colored dots varying in color and intensity.

Two editions available: 38 plate for detailed investigation – 24 plate for quick screening.

### Part Numbers

2206-P-1008 38 Plate Ishihara Color Test  
2206-P-1016 24 Plate Ishihara Color Test



## Maddox Wing Test

Convenient hand held quick and efficient near test for heterophoria which is measured on the red vertical scale. Esophoria and exophoria are measured by the white horizontal scale. Cyclophoria may be assessed by moving the red arrow pointer parallel to the horizontal scale.

**Part Number**  
2301-P-1022 Maddox Wing Test



## Halberg Trial Lens Clips

Halberg Trial Clips have become a required addition to every refraction stand. These useful and inexpensive clips may be fitted over your patient's spectacle frame. Each cell has space for three lenses and the rubber coating on the clip protects the spectacle lenses.

**Part Number**  
2207-P-1026 Halberg Trial Clips with Case

## Amsler Manual

Assists in early recognition of changes in the macula and foveal areas. Only 6 patient responses required for diagnosis of functional disturbances, from small scotoma to distortions. Full instructions include the interpretation of results.

**Part Numbers**  
2215-P-1034 Amsler Manual  
2215-P-7050 Amsler Recording Charts



## Keeler Retinoscopy Rack

An excellent tool for fast objective refraction, particularly with uncooperative patients and children. Comes complete in its own carrying case. There are 24 lenses, 13mm diameter  $-6D$  to  $+6D$  in  $0.5D$  steps. Mounted in tough, yet light alloy frame.

**Part Number**  
2202-P-1019 Keeler Retinoscopy Rack



# Surgical Loupes

Superior loupes and lights for life

Laser aligned optics for magnification of superb optical quality; a lightweight aluminum assembly and precise pupil alignment system make Keeler Loupes the perfect choice for thousands of surgical professionals.

## SuperVu SL Mini Galilean System

Lightweight with great optics

Mini Loupes are designed to be ultra light and comfortable with minimal compromise in field of view. Absolute comfort is our achievement; excellent peripheral vision is the added benefit of our slim design.

## SuperVu SL Galilean System

### Delivery 2.5x magnification

The true benefit of this system is ease of use. Movement while maintaining focal clarity is made possible due to a superior depth of field. The lightweight aluminum bar and individual pupillary adjustment provides stability for the mounted loupes and optimal focal alignment, eliminating headache and eyestrain.

Ideal for ocular plastic and retinal procedures.



### Order frame separately.

Keeler SuperVu SL magnification systems are supplied in a soft carrying case and include protective caps, autoclavable flip lever and cleaning cloth.



# SuperVu SL Hi-Res Galilean System

## Delivery 3.0x magnification

SuperVu Hi-Resolution loupe provides greater definition than a standard Gallilean with 15% increased field of view. The Hi-Res five element system provides a true 3x magnification in a lightweight system.



## Keeler Sport Frames

All Keeler loupes are available on the new Keeler Sport Frame.

Stylish, comfortable and attractive, the new Keeler Sport frame is available in a choice of bright colors as shown. The Keeler Sport frame can be worn over your own glasses, or your prescription can be incorporated into the supplied holder.



Sky Blue



Blue



Red



Black

# SuperVu XL Prismatic System

Delivery 3.5x, 4.5x and 5.5x magnification.

Higher magnification for advanced surgical procedures. Prismatic quality guarantees a true image. Edge to edge clarity and precise color rendition is ideal for intricate surgical applications. The XL's precision lenses are treated with an anti-reflective coating to produce a superior image.

Ideal for surgeons who require higher magnification.

**Order frame seperately.**

Keeler SuperVu XL magnification systems are supplied in a soft carrying case and include protective caps, autoclavable flip lever and cleaning cloth.



## LED Illumination

The Keeler LED Loupe Light system clips quickly and easily onto the Loupes bar. The NEW K-LED provides 34,000 Lux of homogenous coaxial white LED powered illumination. The light weight (17gm) LED offers 50,000 hours of life. The lithium (Li) battery pack will give up to 4 hours of continuous use before it needs recharging.



2004-P-1012 Single Charger System



2004-P-1007 Double Charger System

# Keeler Loupes & Lights

## 2.5x Mini

2112-P-2247	13" Working Distance (34 cm)
2112-P-2248	16" Working Distance (42 cm)
2112-P-2249	18" Working Distance (46 cm)
2112-P-2250	20" Working Distance (50 cm)

## 2.5x Standard

2112-P-1006	13" Working Distance (34 cm)
2112-P-1007	16" Working Distance (42 cm)
2112-P-1008	18" Working Distance (46 cm)
2112-P-1009	20" Working Distance (50 cm)

## 3.0x Mag - Hi-Resolution

2112-P-1050	13" Working Distance (34 cm)
2112-P-1051	16" Working Distance (42 cm)
2112-P-1052	18" Working Distance (46 cm)
2112-P-1053	20" Working Distance (50 cm)

## 3.5x Mag

2113-P-6004	13" Working Distance (34 cm)
2113-P-6021	16" Working Distance (42 cm)
2113-P-6022	18" Working Distance (46 cm)
2113-P-6007	20" Working Distance (50 cm)

## Sport Frame 130mm Temples (Small)

2199-P-1982	Black
2199-P-1983	Blue
2199-P-1984	Red
2199-P-1985	Light Blue

## 4.5x Mag

2113-P-6008	13" Working Distance (34 cm)
2113-P-6025	16" Working Distance (42 cm)
2113-P-6010	18" Working Distance (46 cm)
2113-P-6011	20" Working Distance (50 cm)

## 5.5x Mag

2113-P-6012	13" Working Distance (34 cm)
2113-P-6029	16" Working Distance (42 cm)
2113-P-6014	18" Working Distance (46 cm)
2113-P-6015	20" Working Distance (50 cm)

## New K-LED System

2004-P-1007	NEW K-LED, 2 batteries and twin charger tray Keeler fit
2004-P-1012	NEW K-LED, 1 battery and single charger tray Keeler fit

## Sport Frame 135mm Temples (Medium)

2199-P-1500	Black
2199-P-1519	Blue
2199-P-1527	Red
2199-P-1535	Light Blue

## Sport Frame 150mm Temples (Large)

2199-P-1543	Black
2199-P-1551	Blue
2199-P-1578	Red
2199-P-1586	Light Blue



## Designed for comfort

Choose from the new Keeler frame or a headband mounted system to mount your loupes.

Adaptable to all prescriptions.

Keeler Loupe systems are supplied in a soft carrying case and include protective caps, sterilizable flip lever, and cleaning cloth.

**Order frame separately.**

# Cryo Surgical Systems

Keeler, the first name in Cryo Ophthalmic Surgery has been supplying the Ophthalmic Surgeon with high performance, reliable Cryo Systems since 1966.

Changes in technology and the surgeons' requirements have allowed us to improve and expand our range of Cryo Ophthalmic Instruments.

## Keeler Cryomatic MK II

The Cryomatic console employs smart technology

### What does this mean?

In this case it means that there is electronic communication between the console and any probe that is connected to it. The console therefore knows the optimum operating parameters for any given probe and self-adjusts accordingly. Put another way, the console auto-configures to probe characteristics.

### What are the benefits?

The major advantages are that there is no longer any need to manually set up the system at the start of or during any procedure and that every probe will automatically always perform optimally.

### Does this mean that the gas pressure is set automatically?

Yes it does. No manual adjustment is necessary.

## Another unique feature of the Cryomatic console is that it has back-flush facility

### What does this mean?

During purging and about 20 seconds after the footswitch is released, the gas in the system reverses its flow, but at a lower pressure.

### What are the benefits?

This changed direction of gas after a freeze moves any debris or moisture that may be accumulating, thereby virtually eliminating the risk of problems during surgery.

### Part Number 2509-P-1010

Cryomatic MK II Console with Footswitch, High Pressure Hose, Exhaust Hose, (Specify CO<sub>2</sub>, or N<sub>2</sub>O Gas use when ordering) and User Manual complete.







## Perfection evolved

Building on the exceptional reliability of its' predecessor, the Cryomatic MK II delivers quality and versatility when using either disposable or reusable probes.

The Cryomatic MK II's new coupling system allows you to connect either a single use disposable or reusable probe without the need for an adaptor. The new integral software automatically detects the type of probe in use and adjusts the unit accordingly, meaning the unit is ready for use in a matter of minutes.

# Disposable Cryo Probes

## No more sterilization concerns

The single use sterile retinal cryo probe is the perfect answer when a sterile probe is demanded at short notice. Lightweight and comfortable to use, the single use probe is a must to manage your infection control processes and cut sterilisation time and costs.

## Just throw them away.

### Part Number

2508-P-7022

Single Use Sterile 2.5mm Retinal Probe (Box of 10)



*The single use retinal detachment Cryo probe*

# Cryomatic MK II Probes

No Purge cycle for disposables!

When using single use probes, the Cryomatic MK II will instantly allow the user to couple the probe to the console and it's ready to go - no more waiting for a purge cycle!

The Cryomatic MK II has all new reusable probes; designed for ease of connection and, with a classic tip form, are perfect for your needs. The integral software will automatically detect and optimise its' parameters for perfect performance, whichever type of probe you are using, and ensure a short purge cycle time after time.



## Part Numbers

- ❶ 2509-P-8020 – Standard retinal Probe
- ❷ 2509-P-8021 – Extended Retinal Probe
- ❸ 2509-P-8022 – Mid-Reach Retinal Probe
- ❹ 2509-P-8025 – Glaucoma Probe

- ❺ 2509-P-8024 – Curved Cataract Probe
- ❻ 2509-P-8023 – Intra-Vitreous Probe
- ❼ 2509-P-8026 – Collins Trichiasis Probe



Part Numbers  
3304-K-1085

Cryomatic Stand

# Keeler Surgical Room Supplies



## Keeler Chan Wristrest

The Chan Wristrest has become an important standard in busy operating rooms. The unique height adjustable horseshoe bar encircles the patient's head and supports arms and wrists during ophthalmic surgery. The horseshoe bar facilitates easy draping especially when fluids are collected. The bar also flips up and out of the way for easy patient transfer on and off the table. The metal plate fits under the mattress of the O.R. table. Adapts to all O.R. tables and stretchers.

**Part Number**  
1899-K-1163

Chain Wristrest with Pillow



## Surgical Foam Headrest

The Surgical Foam Headrest automatically secures the patient's head while making the patient as comfortable as possible. Several center inserts can be removed to adjust for any head size from pediatric to adult. The pillow can be autoclaved when necessary. From surgical suite to the recovery room this unique pillow will ensure correct patient positioning.

**Part Number**  
1899-K-1219

Surgical Foam Headrest



## Disposable Drape Support

The Nevyas Drape Support is the simple and inexpensive way to establish a zone of comfort for your patients during ophthalmic surgery which requires draping over the nose and mouth. Packaged in sets of 24, minimum order 4 packages.

**Part Number**  
1899-K-1243

Nevyas Drape Supports  
(Pkg of 24 – Minimum order of 4 Pkgs)

## Machemer Stool

This stool is unquestionably the finest operating stool available today. This stool was designed especially for the ophthalmic surgeon who must remain absolutely steady for long periods of time. A poor stool can unexpectedly shift resulting in unanticipated hand motion. The Machemer Stool has a solid base of five sturdy castors. A 'foot bar' allows the surgeon to adjust the height from 22" to 33" and lock out the seat swivel. The seat is constructed of one continuous piece of heavy sculptured foam and covered in conductive fabric without seams. This unique design reduces pressure on the sciatic nerve and remains comfortable through even the longest procedures.

**Part Number**  
1899-K-1112

Machemer Stool



# Bulbs and Accessories

Accurate diagnosis depends upon a number of factors. Of these, top quality illumination ranks as one of the most important. Only excellent visualization allows you to use your diagnostic skills to the full.

All Keeler instruments use genuine Halogen, Xenon and LED technology, yielding a brighter, whiter illumination and a longer life.

Look at the bottom of your bulb to identify if your instrument is 2.8V (Dry cell battery) or 3.6V (Rechargeable battery).



**Combi Retinoscope LED Module**  
Part Number 1305-P-7000



**Pocket Ophthalmoscope bulb**  
Part Number 1011-P-7050



**Professional Ophthalmoscope bulb**  
Part Number 1011-P-7114



**Specialist/Vista Ophthalmoscope bulb**  
Part Number 1011-P-7034

Vantage Plus LED Module



All Pupil II LED Module

## Vantage Plus & All Pupil II LED Modules

- LED provides better detail, brighter, whiter illumination
- Freedom from purchasing bulbs
- The LED life expectancy is up to 10,000 hours
- 5 year warranty



## Professional/Vista Streak Retinoscope bulb, 35mm length

**Part Number** 1013-P-7008 2.8V Professional  
1013-P-7009 3.6V Professional

Previous Model Retinoscopes/20mm length  
1013-P-7002 2.8V or 1013-P-7003 3.6V



## Professional/Vista Spot Retinoscope bulb, 35mm length

**Part Number** 1013-P-7006 2.8V Professional  
1013-P-7007 3.6V Professional

Previous Model Retinoscopes/20mm length  
1013-P-7000 2.8V or 1013-P-7001 3.6V



**All Pupil and Vantage bulb**  
Part Number 1012-P-7003



**Wide Angle Twin Mag  
Ophthalmoscope bulb**  
Part Number 1012-P-7004



**Spectra bulb**  
Part Number 1299-P-7075



**Pulsair bulb for Mark 1,  
2000, 3000 and EasyEye**  
Part Number 1024-P-7156



**Fison bulb**  
Supplied Singularly  
Part Number 1012-P-7000



**Vantage Plus bulb**  
Part Number 1012-P-5241

## Case Options

**Spectra Iris  
Case**



Part Numbers 3412-P-7002  
3412-P-7000

Spectra Iris Soft Case  
Vantage Plus or All Pupil 3-in-1 case

### New slim professional 3-in-1 case!

Stylish case protects your Vantage Plus or All Pupil II. Easily convert from roller case to handheld to backpack!



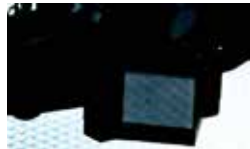
# Indirect Ophthalmoscope Accessories



**Vantage Plus Teaching Mirror**  
Part Number 1202-P-7205



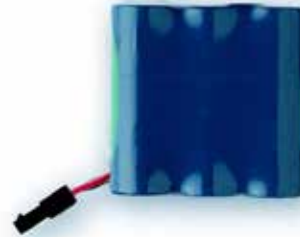
**All Pupil II Teaching Mirror**  
Part Number 1202-P-7117



**Spectra Plus Teaching Mirror**  
Part Number 1205-P-7000



**Pencil Type, Small and Large Depressors**  
Part Numbers 1201-P-6076 Pencil Type  
1201-P-6075 Small  
1201-P-6067 Large



**SmartPack Battery**  
Part Number EP39-22079



# Hand Held Accessories

## Rubber Handle Sleeves

Part Number 1901-P-7028 Pink  
1901-P-7036 Green  
1901-P-7044 Blue  
EP29-05365 Black



**Lithium Battery**  
Part Number EP39-18918

## Near Point Cards for Retinoscopy

Part Number 1321-P-7005



# Notes



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**Keeler**