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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[Image of surgical equipment]
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.
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
**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 ±7 degrees

**Variable working distance**
- **Range**: 11-24 inches

**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 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)

---

**USB interface** Plugs into any laptop or computer system and examinations are recorded in digital format.

**Keeler Software** For easy Still or Dynamic Imaging, Storage, and Documentation.

**Operating System** Windows 7 and Windows XP

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

**Part Numbers**
- 1205-P-5010 Vantage Plus LED Digital Wireless Ophthalmoscope System.

**Includes**
- Vantage Plus LED Digital Wireless Ophthalmoscope
- Docking Station and power supply, additional Slimline Polymer battery, Keeler Software, Digital Wireless Remote Control, and Carrying Case.

**Accessory**
- 1205-P-7001 Optional Vantage Plus LED Digital Footswitch.
Vantage Plus Convertible
US Patent Number 8,132,915

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

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

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.

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

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

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

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 in the same product.

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.”
**Unique - Intelligent Optical System (IOS)**

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.

**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.

**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.
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

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.

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

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.

Lightweight and Comfortable
The new design weighs just 520 grams and extra padded materials have been incorporated into the headband to make this indirect ophthalmoscope 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.

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

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)

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

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.

www.keelerusa.com
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

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.
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.

Filters and apertures
PD Range: 48 - 76mm

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.

www.keelerusa.com
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 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 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.

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

Lighter  Long lasting

“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 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

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

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

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.
Part Numbers

**Vantage Plus Convertible Indirect Ophthalmoscope**
Vantage Plus wired & wireless indirects come standard with an LED module, standard traditional bulb, 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**

- J1205-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
- J1205-P-7005 Optional Dell E5420 Notebook
- J1205-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

- J1204-P-3100 10W Bulb Wired Headset Only

**Convertible Illumination w/ 6W Bulb & Neutral LED Module**

- J1205-P-2000 LED Slimline Wireless with Charger & Two (2) Batteries
- J1205-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.

- J1205-P-2012 Small Frame
- J1205-P-2010 Regular Frame
- J1205-P-2011 Large Frame

**Wired Indirect Power Supplies**

- J1945-P-1001 SmartPack
- J1945-P-1000 WallPack
- J1941-P-5385 Spectra Iris Lithium Charger and Power Supply
- J1919-P-5215 Spectra Iris Lithium Battery with Rheostat
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
Proven halogen 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.

Filter wheel: Red free, Blue, Neutral density (0.8) and Clear

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.
PSL iPhone 4 imaging adapter

Apple iPhone 4 PSL imaging adapter for the PSL Portable Slit Lamp.

- Instant imaging capability for your Keeler PSL
- Easily attached or removed, takes seconds
- Full iPhone imaging capabilities
- Affordable, efficient and a powerful clinical recording tool

Actual images captured using the iPhone 4 adapter

PSL Specifications

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<th>Accessories Part numbers</th>
<th>Description</th>
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<td>Keeler Portable Slit Lamp iPhone 4 imaging adapter</td>
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<td>3010-P-7000</td>
<td>Carry case</td>
</tr>
<tr>
<td>1030-P-7187</td>
<td>Spare lamp</td>
</tr>
<tr>
<td>EP39-70737</td>
<td>Test bar</td>
</tr>
<tr>
<td>3010-P-7004</td>
<td>Eye caps (2)</td>
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"The Slit Lamps are brilliant"

Mr. Manoj Parelukar
Cons. Paed. Ophth.
Birmingham Children’s Hospital

Part number
- 3010-P-7000
- 3010-P-7001

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

iPhone not included
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 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.

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.

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

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

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

---

### Pulsair intelliPuff

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

**Part Numbers:**
- 2414-P-2001 intelliPuff unit
- 2414-L-7008 Printer paper roll
KAT - 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 R type post or the T type aluminium guide plate for Slit Lamp use.

KAT T type (Take-Away)

KAT R type (Fixed)

www.keelerusa.com
## KAP
Keeler Applanation Prism
Goldmann style doubling prism for most Applanation Tonometers

![Keeler Applanation Prism](image)

### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Reusable, sterilisable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitting</td>
<td>Fits most common applanation tonometer mounts</td>
</tr>
<tr>
<td>Overall length</td>
<td>30mm</td>
</tr>
<tr>
<td>Cone and prism length</td>
<td>20mm</td>
</tr>
<tr>
<td>Visible prism assembly</td>
<td>3.5mm</td>
</tr>
<tr>
<td>Weight approx.</td>
<td>1.68g</td>
</tr>
<tr>
<td>Packaging</td>
<td>Single, in protective clamshell</td>
</tr>
<tr>
<td>Markings</td>
<td>Laser etched</td>
</tr>
<tr>
<td>Body colour</td>
<td>Black</td>
</tr>
<tr>
<td>Tip assembly</td>
<td>Transparent 3.5mm visible protrusion</td>
</tr>
<tr>
<td>Standard</td>
<td>BS EN ISO 8612</td>
</tr>
<tr>
<td>Part number</td>
<td>2414-P-5001</td>
</tr>
</tbody>
</table>

### Aluminum Case
To protect your investment when travelling or for when the instrument is not in use, purchase our high quality aluminium carrying case to ensure your tonometer will always be stored and protected.

![Aluminum Case](image)

### Measurement Force

<table>
<thead>
<tr>
<th>Measurement force</th>
<th>By leverage weight</th>
</tr>
</thead>
</table>

### Installation

| 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 |

### Measurement Range

<table>
<thead>
<tr>
<th>Approximation of the impact force on the measurement head for a 0 to 58.84 mN measurement range</th>
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</thead>
</table>

### Operating Temperature Range

<table>
<thead>
<tr>
<th>Operating temperature range</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Measurement Accuracy</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Net weights</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Keeler T type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.41 kg (without accessories)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Keeler R type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.69 kg (without accessories)</td>
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</table>

### Part Numbers

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2414-P-2020</td>
<td>KAT - Keeler Applanation Tonometer BQ Type</td>
</tr>
<tr>
<td>2414-P-2030</td>
<td>KAT - Keeler Applanation Tonometer T type</td>
</tr>
<tr>
<td>2414-P-2040</td>
<td>KAT - Keeler Applanation Tonometer R type</td>
</tr>
<tr>
<td>3414-P-7000</td>
<td>KAT Aluminium carrying and storage case</td>
</tr>
<tr>
<td>2414-P-5001</td>
<td>KAT doubling prism</td>
</tr>
<tr>
<td>2414-P-5032</td>
<td>KAT T type guide plate</td>
</tr>
<tr>
<td>2414-P-5042</td>
<td>KAT R type mounting post</td>
</tr>
<tr>
<td>2414-P-5005</td>
<td>Calibration arm assembly</td>
</tr>
</tbody>
</table>
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 helds 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.

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.

Unequalled 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.

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  3.6v Professional Ophthalmoscope on Lithium Handle (no stand adaptor)
- 1125-P-1124  3.6v Professional Ophthalmoscope on Lithium Handle with stand adaptor
- 1128-P-1004  3.6v Professional Ophthalmoscope head only

- 1132-P-1025  3.6v Specialist Ophthalmoscope on Lithium Handle (no stand adaptor)
- 1132-P-1025  3.6v Specialist Ophthalmoscope on Lithium Handle with stand adaptor
- 1132-P-1050  3.6v Specialist Ophthalmoscope head only
- 1132-P-5000  2.8v Specialist Ophthalmoscope head only

www.keelerusa.com
Professional Combi Retinoscope

Streak or Spot – just a Bulb Change!
There are those that love Streak and those that love Spot. The Keeler Professional Combi offers the best of both worlds. The unique optical design provides the first truly bimodal Retinoscope with just a quick bulb change.

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
- 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

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

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)
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-7021 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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941-P-1368</td>
<td>Lithium-ion Double Charger</td>
</tr>
<tr>
<td>1941-P-1341</td>
<td>Lithium-ion Mini Charger</td>
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</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2204-P-1004</td>
<td>Sheridan Gardiner Test without Orthoptic booklets</td>
</tr>
<tr>
<td>2204-P-1063</td>
<td>Sheridan Gardiner Test with Orthoptic booklets</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2206-L-1014</td>
<td>City University Color Vision Test</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2206-P-1008</td>
<td>38 Plate Ishihara Color Test</td>
</tr>
<tr>
<td>2206-P-1016</td>
<td>24 Plate Ishihara Color Test</td>
</tr>
</tbody>
</table>
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

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

Peeler 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 Peeler Retinoscopy Rack
SuperVu XL Prismatic System
Delivering 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.

Part Numbers* 3.5x SuperVu XL Magnification Systems
- 2113-P-2004 13" (34cm) working distance, 2.1" (5.5cm) field of view
- 2113-P-2005 16" (42cm) working distance, 2.7" (7.1cm) field of view
- 2113-P-2006 18" (46cm) working distance, 3.1" (7.9cm) field of view
- 2113-P-2007 20" (50cm) working distance, 3.4" (8.7cm) field of view

4.5x SuperVu XL Magnification Systems
- 2113-P-2008 13" (34cm) working distance, 1.8" (4.6cm) field of view
- 2113-P-2009 16" (42cm) working distance, 2.4" (6.1cm) field of view
- 2113-P-2010 18" (46cm) working distance, 2.7" (6.9cm) field of view
- 2113-P-2011 20" (50cm) working distance, 3.0" (7.7cm) field of view

5.5x SuperVu XL Magnification Systems
- 2113-P-2012 13" (34cm) working distance, 1.3" (3.5cm) field of view
- 2113-P-2013 16" (42cm) working distance, 1.8" (4.7cm) field of view
- 2113-P-2014 18" (46cm) working distance, 2.1" (5.3cm) field of view
- 2113-P-2015 20" (50cm) working distance, 2.3" (6.0cm) field of view

For shadow free lighting and headband please see overleaf. Order frame separately.

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

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

www.keelerusa.com
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.
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 separately.

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.
Keeler Loupes & Lights

2.5x Mini

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td>2112-P-2247</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2112-P-2248</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2112-P-2249</td>
<td>18” Working Distance (46 cm)</td>
</tr>
<tr>
<td>2112-P-2250</td>
<td>20” Working Distance (50 cm)</td>
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</table>

2.5x Standard

<table>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2112-P-1006</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2112-P-1007</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2112-P-1008</td>
<td>18” Working Distance (46 cm)</td>
</tr>
<tr>
<td>2112-P-1009</td>
<td>20” Working Distance (50 cm)</td>
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3.0x Mag - Hi-Resolution

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2112-P-1050</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2112-P-1051</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2112-P-1052</td>
<td>18” Working Distance (46 cm)</td>
</tr>
<tr>
<td>2112-P-1053</td>
<td>20” Working Distance (50 cm)</td>
</tr>
</tbody>
</table>

3.5x Mag

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2113-P-6004</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2113-P-6021</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2113-P-6022</td>
<td>18” Working Distance (46 cm)</td>
</tr>
<tr>
<td>2113-P-6007</td>
<td>20” Working Distance (50 cm)</td>
</tr>
</tbody>
</table>

4.5x Mag

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2113-P-6008</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2113-P-6025</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2113-P-6010</td>
<td>18” Working Distance (46 cm)</td>
</tr>
<tr>
<td>2113-P-6011</td>
<td>20” Working Distance (50 cm)</td>
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5.5x Mag

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2113-P-6012</td>
<td>13” Working Distance (34 cm)</td>
</tr>
<tr>
<td>2113-P-6029</td>
<td>16” Working Distance (42 cm)</td>
</tr>
<tr>
<td>2113-P-6014</td>
<td>18” Working Distance (46 cm)</td>
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<tr>
<td>2113-P-6015</td>
<td>20” Working Distance (50 cm)</td>
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</table>

New K-LED System

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-P-1007</td>
<td>NEW K-LED, 2 batteries and twin charger tray Keeler fit</td>
</tr>
<tr>
<td>2004-P-1012</td>
<td>NEW K-LED, 1 battery and single charger tray Keeler fit</td>
</tr>
</tbody>
</table>

Sport Frame 130mm Temples (Small)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2199-P-1982</td>
<td>Black</td>
</tr>
<tr>
<td>2199-P-1983</td>
<td>Blue</td>
</tr>
<tr>
<td>2199-P-1984</td>
<td>Red</td>
</tr>
<tr>
<td>2199-P-1985</td>
<td>Light Blue</td>
</tr>
</tbody>
</table>

Sport Frame 135mm Temples (Medium)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2199-P-1500</td>
<td>Black</td>
</tr>
<tr>
<td>2199-P-1519</td>
<td>Blue</td>
</tr>
<tr>
<td>2199-P-1527</td>
<td>Red</td>
</tr>
<tr>
<td>2199-P-1535</td>
<td>Light Blue</td>
</tr>
</tbody>
</table>

Sport Frame 150mm Temples (Large)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2199-P-1543</td>
<td>Black</td>
</tr>
<tr>
<td>2199-P-1551</td>
<td>Blue</td>
</tr>
<tr>
<td>2199-P-1578</td>
<td>Red</td>
</tr>
<tr>
<td>2199-P-1586</td>
<td>Light Blue</td>
</tr>
</tbody>
</table>

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
The new standard in ophthalmic cryo-surgery

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-1000 Cryomatic Console with Footswitch, High Pressure Hose, Exhaust Hose, (Specify CO2, or N20 Gas use when ordering) and User Manual complete.
High performance probes and adaptors

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-7008   Single Use Sterile 2.5mm Retinal Probe (Box of 10)

“With the increasing number of ophthalmic procedures there is growing concern over the sterilisation of instruments.”
High performance probes and adaptors

Keeler Cryomatic System Probes

The Keeler Cryomatic System including the probes, results from a complete re-engineering process aimed at producing greater reliability and a better freeze, as well as simplicity of set-up and operation, all of which combine to make it uniquely superior. While retaining classical tip configurations, the probes and their manufacturing processes have been fundamentally redesigned to minimise blocking due to impurities in the cryogen gas or from moisture resultant from sterilizing.

Part Numbers

- 2509-P-8000 2.5 mm Standard Retinal Probe
- 2509-P-8001 2.5 mm Extended Retinal Probe
- 2509-P-8002 2.5 mm Mid-Reach Retinal Probe
- 2509-P-8003 3.0 mm Glaucoma Probe
- 2509-P-8004 1.5 mm Curved Cataract Probe
- 2509-P-8005 0.89 mm Intra Vitreal Probe
- 2509-P-8006 4x10 mm Collins Trichiasis Pencil

Part Numbers

- 3304-K-1085 Cryomatic Stand (Trolly)

Actual product may vary slightly from what is shown in this image.
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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899-K-1163</td>
<td>Chain Wristrest with Pillow</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899-K-1219</td>
<td>Surgical Foam Headrest</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899-K-1243</td>
<td>Nevyas Drape Supports (Pkg of 24 – Minimum order of 4 Pkgs)</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899-K-1112</td>
<td>Machemer Stool</td>
</tr>
</tbody>
</table>
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).

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

Pocket Ophthalmoscope bulb
Part Number 2204-P-1004

Professional Ophthalmoscope bulb
Part Number 2204-P-1004

Specialist/Vista Ophthalmoscope bulb
Part Number 2204-P-1004

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
Case Options

Spectra Iris Case

- Part Numbers: 3412-P-7002, 3412-P-7000, EP29-43759
- Spectra Iris Soft Case
- Vantage Plus or All Pupil Case - With Wheels
- Vantage Plus or All Pupil Case - Without Wheels

New slim professional carrying case!
Transport your instrument in style and choose if you want to use wheels or carry it on your shoulder. For Vantage Plus or AllPupil II.

Shoulder Case

Roller Case
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

Direct Ophthalmoscope Accessories

- **Rubber Handle Sleeves**
  - Part Numbers:
    - 1901-P-7028 Pink
    - 1901-P-7036 Green
    - 1901-P-7044 Blue
    - EP29-05365 Black

- **Near Point Cards for Retinoscopy**
  - Part Number: 1321-P-7005

- **Lithium Battery**
  - Part Number: EP39-18918

www.keelerusa.com