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

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

Reliability

The warranty on the following equipment is 3 years.

- Direct Ophthalmoscopes
- Retinoscopes
- Indirect Ophthalmoscopes (LED Option 5 Years)
  with the exception of batteries, bulbs and power supplies.

All other products carry a one year parts and labor warranty.

Warranty covers repair or replacement of equipment that malfunctions due to faulty materials or workmanship.

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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www.keelerusa.com
Since 1957, when we introduced the Fison, our first binocular Indirect ophthalmoscope, Keeler has developed a reputation as the innovator in the development and manufacture of indirect ophthalmoscopes. 2003 was no exception and saw the introduction of the first Keeler “Wireless” Indirect ophthalmoscopes available on our All Pupil or Vantage Plus models.

Go Wireless gives you the freedom to move from room to room without any constraints - No more wires, cords, tangles, just a lightweight, well balanced, comfortable indirect ophthalmoscope.

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

Go wireless with Vantage Plus and All Pupil II - the market leading indirect ophthalmoscopes!
Wired or Wireless - Keeler Leads The Way

Since 1957, when we introduced the Fison, our first binocular indirect ophthalmoscope, Keeler has developed a reputation as the innovator in the development and manufacture of indirect ophthalmoscopes. 2003 was no exception and saw the introduction of the first Keeler “Wireless” indirect ophthalmoscopes available on our All Pupil or Vantage models. Go Wireless gives you the freedom to move from room to room without any constraints - no more wires, cords, tangles, just a lightweight, well balanced, comfortable indirect ophthalmoscope.

When you choose a Keeler indirect ophthalmoscope you are guaranteed the following benefits in all of our instruments as standard.

Clear, Sharp Images – Enclosed KeeView Optics™
All Keeler indirect optics are specially coated and individually laser aligned to provide the sharpest clearest images every time you use your indirect, time after time, after time.

Comfort and Balance
Lightweight materials are used throughout the design of each unit; combined with soft cushioning and a non slip contoured shaped headband to maximise comfort and balance. These features will be particularly appreciated during long examinations.

Easy-Fit “Push In/Pull Out” LED Modules & Bulbs
Keeler indirects have been designed to ensure optimal performance. LED Modules & bulbs are easily accessible and quick to change.

Adjustable Brilliant Illumination
Why have all of the controls on the wall when the instrument is on your head. On All Pupil and Vantage 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 required.

Wide Angle Diffuser
The Keeler wide angle diffuser eliminates shadows on the edge of the condensing lens expanding the field of view significantly, which is 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

www.keelerusa.com
VANTAGE PLUS digital

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.

Vantage Plus LED Slimline Wireless: Built on the number one selling LED and wireless slimline 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.

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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 centre

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
Choice of Illumination

The Vantage Plus LED Indirect Ophthalmoscope now comes with a Xenon bulb so you can choose the Illumination you prefer at no extra cost.

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

As the illumination increases from minimum to maximum, virtually no color shift occurs with Keeler’s exclusive Neutral LED Technology.

Illumination simulated.
NEW Vantage Plus Convertible

Bright white illumination for a superior retinal view

We are delighted to announce that the Vantage Plus Convertible comes standard with our new Neutral LED module as well as a traditional bulb.

The Neutral LED color temperature provides brighter illumination, longer battery life, and freedom from purchasing bulbs. The LED life expectancy is up to 10,000 hours.

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

Our new Vantage Plus Neutral LED Module comes standard with all Vantage Plus systems. You can also upgrade your previous Vantage Plus bulb system with our LED module.

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

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

(Patent pending)

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 (patent pending) 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.

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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)."

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

www.keelerusa.com
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 (Patented)

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

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.

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

www.keelerusa.com
All Pupil II LED Slimline
Same Great AllPupil II Optics!

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.

Spectra Plus
The Compact and Portable Choice
Portable and convenient
The new Keeler Spectra Plus has some big features. It has been designed as a portable, lightweight convenient indirect that can be tucked away in its neat carrying case.

LED long lasting illumination
...and - unbelievable - no more bulbs
That’s right. No more bulbs! Just a long lasting, white homogenous light patch.
P D Range: 48 - 76mm

Keeler Stylish Frame
Spectra Plus comes on the new stylish Keeler frame that is not only attractive but provides maximum comfort and balance. Colors: Sky Blue, Blue, Red, and Black.
Wireless Power Supply Options

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.

“Never run out of power
Keeler wireless system comes standard with two lithium batteries; and they last so long, it may take months before you need to charge them again.
You now can choose which battery suits your needs.

New Slimline Lithium Polymer Battery
Now exclusive with Vantage Plus and available for the All Pupil II LED, 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.

“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

Never run out of power
Keeler wireless system comes standard with two lithium batteries; and they last so long, it may take months before you need to charge them again.
You now can choose which battery suits your needs.

Standard Lithium Battery
Our original lithium battery is only available for All Pupil II wireless systems. It lasts up to 11 hours of use and fits neatly into the charging unit.
New Slimline Wireless Charger
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 LED)

Which system is right for you?

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<th>Power Source</th>
<th>LED</th>
<th>Bulb</th>
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<tr>
<td>Slimline Battery</td>
<td>6 hours*</td>
<td>1.5 hours*</td>
</tr>
<tr>
<td>Standard Battery</td>
<td>11 hours*</td>
<td>2.5 hours*</td>
</tr>
<tr>
<td>SmartPack</td>
<td>17 hours*</td>
<td>4.25 hours*</td>
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* This measurement is based upon the illumination being used at normal examination power. Slimline option not available for All Pupil II traditional bulb system. Standard battery option is not available for the Vantage Plus system.
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)
• 2 hours of continuous use with Vantage Plus
• 4 hours of continuous use with Spectra Plus
• 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, the battery is supplied with a small fast charge system.
### Keeler Indirects & Power Supplies

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<th>Item Description</th>
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<td>LED Wired Headset Only</td>
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<tr>
<td>1205-P-1020</td>
<td>LED Slimline Wireless (2) with Charger &amp; Two (2) Batteries</td>
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<tr>
<td>1205-P-1014</td>
<td>LED Slimline Wireless (2) Headset Only (No Battery/Charger)</td>
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#### Vantage Plus Convertible Indirect Ophthalmoscope
Vantage Plus wired & wireless indirs come standard with an LED module, standard traditional bulb, HiMag lens and dimmer control.

- **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-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**: Bulb Wired Headset Only
- **1204-P-4000**: Bulb Standard Wireless with Charger & Two (2) Batteries
- **1202-P-6237**: Bulb Standard Wireless Headset Only (No Battery/Charger)

##### LED Illumination
- **1205-P-2002**: LED Wired Headset Only
- **1205-P-2001**: LED Standard Wireless with Charger & Two (2) Batteries
- **1205-P-2004**: LED Standard Wireless (1) Headset Only (no Battery/Charger)
- **1205-P-2000**: LED Slimline Wireless with Charger & Two (2) Batteries
- **1205-P-2003**: LED Slimline Wireless (2) Headset Only (No Battery/Charger)

#### Spectra Plus Binocular Indirect Ophthalmoscope
Spectra Plus comes standard with the optics, frame, lithium power pack, and charger.

##### Spectra with standard temples (135mm)
- **1205-P-1000**: Blue
- **1205-P-1001**: Red
- **1205-P-1002**: Black
- **1205-P-1003**: Sky Blue

##### Spectra with long temples (150mm)
- **1205-P-1004**: Blue
- **1205-P-1005**: Red
- **1205-P-1006**: Black
- **1205-P-1007**: Sky Blue

#### Wired Indirect Power Supplies
- **1945-P-1001**: SmartPack
- **1945-P-1000**: WallPack
- **1941-P-5385**: Spectra Plus Lithium Charger and Power Supply
- **1919-P-5215**: Spectra Plus Lithium Battery with Rheostat
Keeler PSL Classic
Portable Slit Lamp

Excellence in optics, versatility and portability are key benefits of the Keeler PSL Classic

**Precision machined aluminum chassis**
Keeler designed and manufactured with the strength to withstand the daily traumas of the demanding ophthalmic environment. Lightweight, durable and robust.

**Advanced optics, x10 & x16 magnifications**
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 with over 2,000 hours of bulb life; illumination levels are controlled by a rheostat giving you control of your examination parameters. From zero to maximum, you choose.

**Constant Power Technology**
Keeler’s PSL has the unique ability to work off the integrated lithium-ion battery OR simultaneously charge your battery and use the power from your AC outlet. No more dead batteries or charger down-time.

**Advanced Array of Apertures & Filters**
The PSL offers you the widest range of choice between apertures & filters of ANY portable slit lamp on the market, including the 1mm square light patch for assessing a/c flare.

---

**PSL iPhone 4 Adapter**
Offers instant imaging capability for your Keeler PSL. Easily attaches in seconds. Full iPhone imaging capabilities. Affordable, efficient and powerful clinical recordings.

iPhone not included.

---

**Slit wheel**
- 1x1
- 0.15
- 0.5
- 0.8
- 1.6
- 12

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

www.keelerusa.com
**Slit and filter system**

**Slit type**  
Rotating Slit wheel selection

**Slit length**  
12mm

**Slit widths**  
0.15mm, 0.5mm, 0.8mm and 1.6mm slits, 12mm circle and 1mm square

**Filters**  
Red free, Blue, Neutral density 0.8 and Clear

**IR protection**  
Inbuilt IR cut filter

**Slit angle**  
+/- 60°

**Illumination control**  
Continuously variable from low to full brightness

**Fixation targets**  
LED system, double click of trigger

**Power supply**  
Switch mode, (110V – 240V) +/- 10% multi-plug

**Power supply output**  
30VA (12V DC 2.5A)

**Biomicroscope**

**Type**  
Binocular Hand held

**Optics**  
Converging binoculars at 13°

**Magnification**  
10x and 16x, lever change

**Objective lens working distance @ 10x**  
16mm

---

**PSL System**  
3010-P-2000  Keeler PSL Classic Slit Lamp - Illumination body and magnification optics, base charger, power supply (switch mode: all voltages & frequencies), user manual, and a spare 6V-15W lamp in a carton.

**Accessories**

3010-P-7000  PSL Carrying Case  
3010-P-7010  PSL iPhone 4 Imaging Adapter  
3010-P-7002  PSL Replacement Bulb 6V-15W Lamp  
3010-P-7004  Replacement Eyecaps (2)  
EP59-47130  Replacement Lithium-I on Battery  
EP39-70737  Test Bar

---

“*The Slit Lamps are brilliant*”

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

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Actual images captured using the iPhone 4 adapter

---

**VIEW VIDEO**

On Your Smart Phone

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PSL in its charging base and can sit safely by itself on a flat surface

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www.keelerusa.com
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 visualisation; 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

- **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

**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
- 2414-L-7008 Printer paper roll
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.

The T type and R type KATs will be supplied with a reusable doubling prism, the calibration check bar and either the R type post or the T type aluminium guide plate for Slit Lamp use.
Our all metal parts, manufactured to a high precision engineering design will withstand the test of time and deliver reliable and repeatable results year after year.

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.

**KAT - Keeler Applanation Tonometer**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement force</td>
<td>By leverage weight</td>
</tr>
<tr>
<td>Installation: Keeler T type: for tower illumination Slit Lamps</td>
<td>Fitted to the guide plate on the optical axis for the microscope and illumination unit arm</td>
</tr>
<tr>
<td>Keeler R type: for tower illumination Slit Lamps</td>
<td>Mountable on a post fitted to the microscope optical body</td>
</tr>
<tr>
<td>Measurement range</td>
<td>0 - 80 mmHg (0 - 10.64 kPa)</td>
</tr>
<tr>
<td>Approximation of the impact force on the measurement head for a 0 to 58.84 mN measurement range</td>
<td>Standard divergence: 0.49 mN ≤ 3s ≤ 1.5 % of nominal value</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>from 10°C to 35°C</td>
</tr>
<tr>
<td>Measurement accuracy</td>
<td>≤ 0.49 mN</td>
</tr>
<tr>
<td>Net weights: Keeler T type</td>
<td>0.41 kg (without accessories)</td>
</tr>
<tr>
<td>Keeler R type</td>
<td>0.69 kg (without accessories)</td>
</tr>
</tbody>
</table>

**Part Numbers**

- **2414-P-2030**  KAT – Keeler Applanation Tonometer T type
- **2414-P-2040**  KAT – Keeler Applanation Tonometer R type
- **3414-P-7000**  KAT Aluminium carrying and storage case
- **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

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**KAP**
Keeler Applanation Prism
Goldmann style doubling prism for most Applanation Tonometers

**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.
Direct Ophthalmoscopes

A combination of optical perfection, superb ergonomics and versatile features make Keeler direct ophthalmoscopes the ideal choice. Whatever your requirements from basic examination to detailed diagnosis, there is a Keeler ophthalmoscope 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.

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**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.

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

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1125-P-1180</td>
<td>3.6v Professional Ophthalmoscope on Lithium Handle (no stand adaptor)</td>
</tr>
<tr>
<td>1125-P-1124</td>
<td>3.6v Professional Ophthalmoscope on Lithium Handle with stand adaptor</td>
</tr>
<tr>
<td>1128-P-1004</td>
<td>3.6v Professional Ophthalmoscope head only</td>
</tr>
</tbody>
</table>

Pupillometer

The pupillometer comparison disc allows quick assessment of pupil size.

Part Numbers

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1132-P-1025</td>
<td>3.6v Specialist Ophthalmoscope on Lithium Handle (no stand adaptor)</td>
</tr>
<tr>
<td>1132-P-1025</td>
<td>3.6v Specialist Ophthalmoscope on Lithium Handle with stand adaptor</td>
</tr>
<tr>
<td>1132-P-1050</td>
<td>3.6v Specialist Ophthalmoscope head only</td>
</tr>
<tr>
<td>1132-P-5000</td>
<td>2.8v Specialist Ophthalmoscope head only</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1322-P-1060</td>
<td>3.6v Professional Combi Streak Retinoscope on Lithium Handle (no stand adaptor)</td>
</tr>
<tr>
<td>1302-P-1007</td>
<td>3.6v Professional Combi Streak Retinoscope head only</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1102-P-1041</td>
<td>2.8v Pocket Ophthalmoscope on AA battery handle</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2903-P-1126</td>
<td>3.5v Transilluminator (Head only)</td>
</tr>
<tr>
<td>2903-P-1118</td>
<td>2.8v Transilluminator (Head only)</td>
</tr>
</tbody>
</table>
Wide Angle Twin Mag Ophthalmoscope
Ophthalmoscopy Just Got Easier.

Besides the two exceptional views achieved with the Wide Angle Twin Mag, the main advantage is the illumination is Non-Polarized.

So what does this do for you? Non-polarization means that you do not compromise your diagnostic information. This means that it minimizes your chance of missing a tumour, any vascular changes and early macular degeneration.

Aperture, Graticules and Filters

<table>
<thead>
<tr>
<th>Aperture</th>
<th>Graticules</th>
<th>Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part Number
1103-P-5004  Wide Angle Twin Mag Ophthalmoscope (Head only)

Direct Ophthalmoscope
Power Supplies and Handles

Handles and Lithium Adapter
Keeler’s traditional NiCad and Lithium handles will charge in most standard charging wells. The small and sleek lithium handle adaptor converts your Keeler Lithium handle to charge in most standard refraction stands.

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1911-P-1201</td>
<td>3.6v Slimline Handle with Lithium-ion Battery</td>
</tr>
<tr>
<td></td>
<td>(no stand adaptor)</td>
</tr>
<tr>
<td>1911-P-1244</td>
<td>3.6v Slimline Handle with Lithium-ion Battery</td>
</tr>
<tr>
<td></td>
<td>and stand adaptor</td>
</tr>
<tr>
<td>3301-P-7410</td>
<td>Lithium Handle Stand Adaptor</td>
</tr>
</tbody>
</table>

www.keelerusa.com
Lithium-ion Double Charger
The compact charger takes two handles and will fit neatly into your immediate testing environment, allowing easy access to your hand held instruments. The charger can be table top or wall mounted.

Fast charge in 2 hours
A 2 hour fast charge means your instrument is always ready for use.

Provides over 2 hours of continuous use
2 hour continuous use is ideal for long examinations especially while first learning with your instrument.

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

Part Number
1941-P-1368  Lithium-ion Double Charger

Lithium-ion Mini Charger
The 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.

Fast charge in 2 hours
A 2 hour fast charge means your instrument is always ready for use.

Verstatile
Instruments can still be used while the battery is charging.

Provides over 2 hours of continuous use
2 hour continuous use is ideal for long examinations especially while first learning with your instrument.

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

Part Number
1941-P-1341  Lithium-ion Mini Charger
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-1014  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
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

Hairberg Trial Lens Clips

Hairberg 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

Hairberg 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 Hairberg 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*

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Working Distance</th>
<th>Field of View</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5x</td>
<td>13” (34cm)</td>
<td>2.1” (5.5cm)</td>
</tr>
<tr>
<td>4.5x</td>
<td>16” (42cm)</td>
<td>2.7” (7.1cm)</td>
</tr>
<tr>
<td>5.5x</td>
<td>18” (46cm)</td>
<td>3.1” (7.9cm)</td>
</tr>
<tr>
<td></td>
<td>20” (50cm)</td>
<td>3.4” (8.7cm)</td>
</tr>
</tbody>
</table>

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.

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.

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.

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 Galilean 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.

K-L.E.D. gives long lasting white light

The K-LED rechargeable headlamp system clips quickly and easily onto the Loupes bar to give up to a massive 18,000 Lux of homogenous white LED powered illumination. The lithium (Li) battery pack will give up to 4 hours of continuous use before it needs replacing into its charging well on the base station.

Choose between the standard fitting or the co-axial fitting to suit your surgical preference.
### 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)

**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)

**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)

**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)

**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)

**LED System for Sport Frame**
- **Standard**
  - 2004-P-1007, LED, Clip, (2) Lithium Batteries, Universal Power Supply & Charging Tray
  - 2004-P-1012, LED, Clip, (1) Lithium Battery, Universal Power Supply & Single Charger

- **Coaxial**
  - 2004-P-1017, LED, Clip, (2) Lithium Batteries, Universal Power Supply & Charging Tray
  - 2004-P-1019, LED, Clip, (1) Lithium Battery, Universal Power Supply & Single Charger

**LED System with Universal Clip**
- 2004-P-1003, LED, Clip, (2) Lithium Batteries, Universal Power Supply & Charging Tray

**Sport Frame 130mm Temples (Small)**
- 2199-P-1982, Black
- 2199-P-1983, Blue
- 2199-P-1984, Red
- 2199-P-1985, Light Blue

**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

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

---

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

Adaptable to all prescriptions.
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.

The Cryomatic console also 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 0.89 mm Intra Vitreal Probe
- 2509-P-8004 1.5 mm Curved Cataract Probe
- 2509-P-8005 3.0 mm Glaucoma Probe
- 2509-P-8006 4x10 mm Collins Trichiasis Pencil
- 3304-K-1085 Cryomatic Stand (Trolley)

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.

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).

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

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

Spectra bulb
Part Number 1299-P-7075

Fison bulb
Supplied Singulary
Part Number 1012-P-7000

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

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

Vantage Plus bulb
Part Number 1012-P-5241

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 VantagePlus or AllPupil II.

Part Numbers
Spectra Plus Soft Case
3412-P-7002

Vantage Plus or All Pupil Case - With Wheels
3412-P-7000

Vantage Plus or All Pupil Case - Without Wheels
EP29-43759

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 Number
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

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