

A close-up, high-angle photograph of a slit lamp microscope. The image is dominated by the lens assembly, which is black and features a prominent green lens. The background is dark and out of focus, showing the metallic frame of the instrument. The lighting highlights the textures of the metal and the clarity of the lens.

*Slitlamp*  
40H by Keeler  
*Symphony*

Beautifully  
Crafted  
Slit Lamps

**Keeler**  
[www.keeler-symphony.com](http://www.keeler-symphony.com)

Slitlamp  
40H by Keeler



## Painstakingly crafted Slit Lamps

Introducing the new Slit Lamp from Keeler – quality design and leading technology with a contemporary design. It's very simple. We set ourselves the task of designing a slit lamp to exceed performance expectations. Our exemplary attention to detail has helped us to achieve just this. The result is the Keeler Slit Lamp, combining intricate performance with practical elegance.

“Design is not just what it looks like and feels like. Design is how it works.”

Steve Jobs

## Elegant design

Keeler is known for exceptional design ability. We have combined classic beauty with modern technology, resulting in the perfect blend of style and substance.

The Keeler Slit Lamp provides the functionality and performance you want, need and expect.

The controls are perfectly placed for ease of use, without compromising the clean and elegant lines of the product. Our design flair gives the product a sleek, beautiful profile.





“To create something exceptional, your mindset must be relentlessly focused on the smallest detail.”

Giorgio Armani

## Exceptional optics

Keeler is renowned for market-leading optics and has been dedicated to optical design and manufacture for nearly 100 years. Our customers have absolute confidence in the quality, accuracy and reliability our optical design delivers.

Our advanced design and manufacturing techniques give the Keeler Slit Lamp the advantage of quite simply stunning optical performance.



**Keeler**  
OPTICS



Keeler

## Safety as standard

Keeler Slit Lamps have been rigorously designed and tested to comply with the most stringent medical device safety standards, set by global regulatory authorities.

## Outstanding reliability

We understand how important the Slit Lamp is to your practice. You rely on it to provide accurate diagnostic and examination results day in, day out. Failure is simply not an option.

With the Keeler Slit Lamp, you can rest assured that our exceptional attention to detail, on every single component, will ensure optimum performance and reliability time after time. You also benefit from the added confidence of knowing your Slit Lamp is backed by our 3 year guarantee.

 Peace of mind with our 3 year warranty

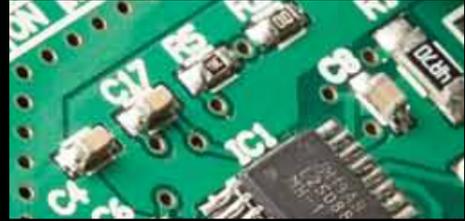
Your new Keeler Slit Lamp comes with the piece of mind of a 3 year warranty. You will have access to our comprehensive online help pages and our global telephone and email technical assistance team.



## Embrace and enjoy the change

When you use the Keeler Slit Lamp, you'll quickly appreciate the difference and realise what's missing from your current device. Technology has advanced, optics have greatly improved – making the Keeler Slit Lamp simply a pleasure to use. Make the change to Keeler and enjoy the difference.

# With Keeler, it's all about the optics



## Refraction and Combi-unit ready

Attaching the Slit Lamp to your unit couldn't be easier. We've kept the technician front of mind when developing the fitting mechanics to ensure you can be up and running in no time.

Our unique Slit Lamp power management system allows input from both DC (direct current) and AC (alternating current) sources to give a 6V DC, 12V DC or a constant current (CC) output.

INPUT	OUTPUT
12v DC	6V DC, or CC
24V DC	6V DC, 12V DC or CC
12V > 16V AC	6V DC, 12V DC or CC



## Integrated Yellow Filter

Ease of use is key to Keeler's product development. This is why our designers have integrated the all-important yellow filter into the optical body. You simply need to 'drop it in' when you are looking to detect subtle corneal staining - no more fumbling around with hand held wratten filters.



## Built in diffuser

The Keeler Slit Lamp has been built with an integrated diffuser in the filter wheel. Another nice design touch - instant access to a diffuse light which gives an improved general overview of the eye under examination.



## On board illumination control

The illumination control panel has been placed close to the joystick, giving you convenient and constant access to this vital control.

"A good designer must rely on experience, on precise, logic thinking; and on pedantic exactness. No magic will do."

Niklaus Wirth





## Let there be LEDs

50 years ago, the LED was leading edge technology. Today it comes as an optional, simple to replace light source for the Keeler Slit Lamp. It comes with a Halogen Lamp as standard, but offers the powerful LED module if that's your preferred light source.

Our LED has been carefully selected for its performance, with a colour temperature of 3,800k, and a truly homogeneous light patch. The imperceptible increase in blue light levels will increase efficiency when fluorescence is required and give increased detail to small structures, such as the endothelium.

Most halogen lamps have a life of around 100 hours. Typically, a Keeler LED will provide 10,000 or more hours, giving you 100 times the life of your halogen lamp. A small additional initial investment will reap significant lifetime cost benefits.



## Keeler – Unrivalled experience in design and manufacturing

Keeler's sites in Windsor and Barnsley are at the heart of our design and manufacturing. With over 3000 square metres of factory at our disposal, we can easily meet the manufacturing requirement of our sales projections for many years to come.

With close to 100 years experience, Keeler manufactures and provides quality optical devices for medical professionals worldwide, through our extensive distributor sales and support network. Wherever you are in the world, Keeler will have a presence.

# Handy additions

Choose from a range of diagnostic accessories that will perfectly complement your Keeler Slit Lamp.



## Volk Digital lenses

The Digital Series of lenses is Volk's 3rd generation of patented double aspheric optic lenses. These are an evolution of the Classic Slit Lamp (eg. 90D) and Super Series lenses, with features to deliver the highest resolution retinal imaging of any non-contact lenses. The shape of the lenses, and a coating optimized for visible light, reduce the incidence of glare and reflections and maximise traditional examination and digital slit lamp photography results.

LENS	OUTPUT	IMAGE MAG.	LASER SPOT SIZE	PRIMARY APPLICATION
Digital High Mag Lens	57° / 70°	1.30x	0.77x	Highest resolution, high magnification imaging of the central retina
Digital Wide Field Lens	103° / 124°	0.72x	1.39x	Highest resolution pan retinal examination
Digital 1.0x Imaging Lens	60° / 72°	1.0x	1.0x	Highest resolution, diagnosis of the posterior pole and reduced glare and reflections

## Motorised Instrument Table

The Keeler table comes with castors as standard and a virtually silent motor. Two IEC female power outlets and a switch mode power input make the Keeler table the perfect partner for your new Keeler Slit Lamp.



## Tonometers

Choose from the T type or R type KAT (Keeler Applanation Tonometer).

The T type is removable and conveniently fits into a shaped guide plate that, in turn, fits in the test bar locating hole.

The R type is fitted to a mounting post, located on the optics block, and can be swung in and out for use, as required.



# Keeler Lenses and Optics

As you'd expect from Keeler, brilliant stereoscopic imagery, high chromatic correction and crisp clarity come as standard with the Slit Lamp. We use high anomalous dispersion glass within the 15 element optical system to achieve this.

Combining top quality materials with our superior optical design enables us to achieve remarkably low field curvature and low optical distortion levels.

And to further enhance the optical performance, all glass to air surfaces are multi-layer coated to improve light transmission.



## Slit Lamp Specification

### OPTICAL SYSTEM

<b>Type</b>	Galilean converging binoculars @ 8°
<b>Magnification</b>	Rotating drum change x6, x10, x16, x25 & x40
<b>Eyepiece</b>	x12.5
<b>Field of view</b>	34, 22, 14, 8.5 and 5.5 mm
<b>Interpupillary distance</b>	49.0 to 77mm
<b>Objective lens focal distance</b>	107mm
<b>Objective lens convergence angle</b>	13°

### SLIT PROJECTION SYSTEM & BASE

<b>Slit Width</b>	0-12mm continuously variable
<b>Slit Length</b>	12mm (1mm – 12mm continuously variable)
<b>Aperture diameters</b>	0.2, 1mm square, 2, 3, 5, 9 and 12mm
<b>Filters</b>	Clear; red free; neutral density; diffuser; blue; IR heat absorbing filter permanently installed
<b>Slit angle</b>	+/- 90° continuous
<b>Slit rotation</b>	+/- 180° with reference scale
<b>Slit vertical Tilt</b>	0°, 5°, 10°, 15° & 20°
<b>Base travel</b>	25mm Z-axis, 107mm X-axis, 110mm Y-axis
<b>Horizontal fine adjustment</b>	12mm
<b>Table top dimensions</b>	405 x 500mm
<b>Fixation lamp</b>	LED
<b>Light source</b>	LED / 6V 20W Halogen lamp

### WEIGHT, PACKED (APPROX.)

<b>Slit Lamp with chinrest</b>	20.0Kg, 75 x 54 x 45cm W x D x H
<b>Table top with PSU &amp; Acc drawer</b>	5.2Kg, 51 x 42 x 15cm W x D x H

### SYSTEM COMPONENTS

	Part number
<b>Slit Lamp 40H, Standard Set complete with Table Top</b>	3020-P-2000
<b>Slit Lamp</b>	3020-P-5032
<b>PSU</b>	3020-P-5040
<b>Slit Lamp 40H, Refraction Unit Set</b>	3020-P-2003
<b>Slit Lamp</b>	3020-P-5032
<b>Power Supply and Socket Kit</b>	3020-P-7017
<b>Slit Lamp 40H LED, Standard Set complete with Table Top</b>	3020-P-2007
<b>LED Slit Lamp</b>	3020-P-5056
<b>PSU</b>	3020-P-5040
<b>Slit Lamp 40H LED, Refraction Unit set</b>	3020-P-2006
<b>LED Slit Lamp</b>	3020-P-5056
<b>Power Supply and Socket Kit</b>	3020-P-7017

The power supply forms part of the ME Equipment

### PROTECTION AGAINST INGRESS IPx0

### CLASS II ME EQUIPMENT

Insulation between mains parts and the functional earth provide at least two means of protection.

### POWER SUPPLY

		Part number
<b>Power supply unit</b>	Switch mode, (110V – 240V input) +/- 10% multi plug compliant to EN60601-1 EN 61000-6-2, EN 61000-6-3	3020-P-5040/ 3020-P-7017
<b>Power supply output</b>	12V DC: 2.5 amps must be IEC/EN 60601 compliant	
<b>Complies with</b>	Electrical Safety (Medical) BS EN 60601-1  Electromagnetic compatibility EN 60601-1-2  Ophthalmic instruments - Fundamental requirements and test methods ISO 15004-1  Ophthalmic instruments - Optical radiation hazard ISO 15004-2	

### ENVIRONMENTAL

	Temperature	Humidity	Pressure
<b>Use</b>	+10°C to +35°C	30% to 90%	800 hpa to 1060 hpa
<b>Storage</b>	-10°C to +55°C	10% to 95%	700 hpa to 1060 hpa
<b>Transport</b>	-40°C to +70°C	10% to 95%	500 hpa to 1060 hpa

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## More Keeler Instruments

For over ninety years we have manufactured top quality precision ophthalmic instruments.

View our full range at  
[www.keeler.co.uk](http://www.keeler.co.uk) | [www.keelerusa.com](http://www.keelerusa.com)

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