



Symphony
by Keeler
optics
Symphony

Beautifully
Crafted
Slit Lamps
Q series Digital

Keeler
www.keeler-symphony.com

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



It's very simple. We set ourselves the task of designing a Slit Lamp to exceed performance expectations. The result is the Keeler Symphony, combining intricate performance with practical elegance.

Digital capture and patient management

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

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

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

Take control

Manage the camera exposure and Slit Lamp illumination from the Slit Lamp dashboard, and then capture the perfect image using the joystick camera trigger to freeze frame before scrolling through the last few frames to select and save your image.

External illumination can be controlled independently of the main illumination to ensure image contrast levels are optimised.

Feature rich software

Patient images are fed quickly, via USB, to Keeler's feature rich Kapture Image and Patient Management software application.

Kapture allows the capture of patient images and notation of these images while a database stores demographics and more detailed information.

All data and images are entered via easy to use screens with a simple but thorough structure.



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Software options

Kapture Lite

Kapture Lite is a stand-alone system including still capture with live preview, patient data base, image processing, import and export. Kapture Lite is included with the Digital Camera upgrade package and the complete Digital Slit Lamp system.

Kapture Digital

All the features of Lite plus video capture, measurements, network connectivity and multiup multiple image printing and saving

Upgrade options

Video capture – upgrade to include the ability to capture and replay video clips

Digital – upgrade from Lite to Digital to have network connectivity (essential if you require review stations) measuring and multiup multiple image printing and saving

Kapture View

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

Kapture View Plus

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

Image capture and processing

Powerful image processing features include the following:

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



OPTICAL SYSTEM

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

SLIT PROJECTION SYSTEM & BASE

Slit Width	0-12mm continuously variable
Slit Length	12mm (1.8 – 12mm continuously variable)
Aperture diameters	0.2, 1mm square, 2, 3, 5, 9 and 12mm
Filters	Clear; red free; neutral density; diffuser; blue; IR heat absorbing filter permanently installed
Slit angle	+/- 90° continuous
Slit rotation	+/- 180° with reference scale
Slit vertical Tilt	0°, 5°, 10°, 15° & 20°
Base travel	25mm Z-axis, 107mm X-axis, 110mm Y axis
Horizontal fine adjustment	12mm
Table top dimensions	405 x 500mm
Fixation lamp	LED
Light source	LED / 6V 20W Halogen lamp

WEIGHT, PACKED (APPROX.)

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

POWER SUPPLY

Power supply unit	Switch mode, (110V – 240V input) +/- 10% multi plug compliant to EN60601-1 EN 61000-6-2, EN 61000-6-3
Power supply output	12V DC: 2.5 amps must be IEC/EN 60601 compliant
Complies with	Electrical Safety (Medical) BS EN 60601-1 Electromagnetic compatibility EN 60601-1-2 Ophthalmic instruments - Fundamental requirements and test methods ISO 15004-1:2006 Ophthalmic instruments - Optical radiation hazard ISO 15004-2:2007

ENVIRONMENTAL

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

CAMERA SYSTEM

Resolution	2 Megapixel: 1600 x 1200
Connectivity	USB2
Sensor type	CCD
Sensor manufacturer	Sony
Chip size	1 / 1.8"
Frame rate	17.5 fps

PROTECTION AGAINST INGRESS

IPx0

CLASS II ME EQUIPMENT

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

SLIT LAMP ADDITIONAL FEATURES

Base unit	Integral USB hub Joystick trigger system Auto left / right detection +/- Camera exposure controls Freeze frame image review control
Illumination system	External background illumination system LED / 12V 30W Lamp Auxiliary diffuser & blue filter for background illumination system
Power supply	12V DC (Bulb system / 24V DC (LED system) (110 – 240V input +/- 10%)

KEELER KAPTURE SOFTWARE FEATURES

Patient record, episode record	Add / edit / delete
Image capture	Still images Freeze frame / burst mode Video (not available in Kapture lite) Automatic left / right eye detection
Image processing	4 up or 1 up viewing Green filter / channel Colour plane selection Auto RGB split Crop Zoom Invert colours Sharpen Contrast / brightness Display image at true size Flip, rotate, mirror image Fit to window Dicom (upgrade option) Gamma control Histogram Delete Import / export Annotate, draw Measure (upgrade / option) Zoom Compare with other session images

RECOMMENDED PC SPECIFICATION

Operating system	Windows XP 32 bit (minimum SP3) or Windows 7/8 64-bit
Windows features	Full install of .NET 2.0 and .NET 3.5 framework All .NET updates and OS updates
Processor	Intel Core i5 or i7 recommended
Memory	Minimum 4 GByte RAM
HDD	Minimum 500 MB Hard Disc (larger recommended) at 7200 rpm
Ports	2 Free Full speed USB2 ports that will support video
Backup Device	External HD, LAN, DVD-Writer or other
Monitor	Minimum 1024 x 768 resolution recommend 1600 x 900
Keyboard and Mouse	Wheel mouse preferred

More Keeler Instruments

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