# Selecta

Comprehensive SLT Product Solutions















Passion for ophthalmic lasers that dates back more than 40 years!

At Lumenis, pioneering ophthalmic laser technologies is something we excel at; that is after all only one of the privileges reserved for the company that pioneered the first argon laser photocoagulator for ophthalmology, the first multicolor laser and the revolutionary SLT technology, to name only a few.

It is also precisely the reason why the decisive majority of general ophthalmologists and glaucoma specialists around the globe have actively chosen to purchase Lumenis SLT products - making Lumenis the global market leader and the company with the largest installed-base of SLT lasers worldwide.

As the company that pioneered, developed and brought SLT technology to market, Lumenis is the only company that offers you an extensive and robust product portfolio of SLT stand-alone and combination lasers.





# Lumenis Selecta Duet™

# Breakthrough Lumenis SLT Technology and a YAG Photodisruptor in ONE Platform

The Lumenis Selecta Duet™ represents the industry's most advanced anterior-segment laser, combining the advantages of YAG photodisruption capabilities along with the innovative Selective Laser Trabeculoplasty (SLT) technology, which was developed and brought to market by Lumenis.

The system's fully integrated design, enhanced optics and advanced laser cavity make the Duet one of the best performing laser products in its segment.

The Duet is also the only upgradeable SLT and YAG combination Laser currently available in the market - allowing you to further extend the unit's capabilities by adding photocoagulation technology at any point in time.



# Superior Design and Features

## **Proprietary Advanced Laser Design**

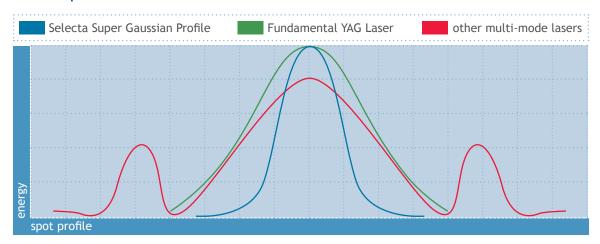
Lumenis draws its strength & leadership from over 40 years of ophthalmic laser design and innovation. As the company's flagship multi-modality product, the Selecta represents the next generation of ophthalmic lasers by capitalizing on numerous proprietary features:

- The Selecta automatically runs internal tests to ensure that every laser pulse meets your exact power requirements
- An advanced secondary control unit guarantees the power accuracy of each laser shot
- A unique temperature-controlled KTP crystal ensures the continuous accuracy and stability of the 532 nm (green) laser beam
- Advanced component selection, laser delivery technology and enhanced slit lamp optics provide you with consistently optimal performance from this robust laser platform

## Super Gaussian Beam Profile in YAG Mode

The Selecta features a highly accurate Super Gaussian beam profile in order to achieve optical breakdown - or photo disruption - with the lowest possible energy levels. This feature enhances the Selecta's safety profile and allows you to perform capsulotomies on all types of intraocular lenses (IOL) with significantly lower risk of lens pitting or potential adversary effects. With the Selecta, you can achieve more efficient tissue cutting at lower power and with fewer shots.

#### Selecta Super-Gaussian Beam Mode



# **Ergonomic Table**

The innovation of the Selecta does not stop with the most advanced laser and optics. The new Selecta table offers true wheelchair accessibility, optimal space utilization and overall stability - by relying on two side columns instead of one. This highly ergonomic table design excels at maximizing both user and patient space, while conveniently maintaining a compact footprint in your office.

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# **Lumenis SLT**



Selective Laser Trabeculoplasty (SLT) technology was developed and brought to market by Lumenis, based on the work of Dr. Mark Latina, MD, et.al.

Today, Lumenis prides itself as the company with the most robust clinical data on SLT, the largest global installed-base of SLT products, the widest range of added-value products & services to maximize SLT potential in your practice - including robust patient education collateral & multimedia - and much more!

When you buy an SLT product from Lumenis, you gain immediate access to the largest network of SLT users worldwide, receive product upgrades & updates, advance-notice invitations to SLT symposia & workshops all around the world and a long list of other benefits which are exclusive to Lumenis SLT customers.

Furthermore, all Lumenis SLT products were designed to meet the clinically recommended SLT treatment protocol that we have helped to shape. Buying a Lumenis SLT product guarantees your ability to customize treatment on a case-by-case basis and meet SLT treatment protocol requirements.

## The Clinical Advantages of Lumenis SLT

Selective Laser Trabeculoplasty (SLT) is a clinically proven laser treatment to reduce IOP without coagulating the Trabecular Meshwork. SLT represents an evolution over previous laser therapies as it can be safely repeated if needed.

#### Mechanism of Action:

Lumenis SLT technology uses a Q-switched, frequency-doubled Nd:YAG; 532 nm wavelength green laser. When applied to the target tissue, the laser is selectively absorbed by melanin-containing pigmented cells in the Trabecular Meshwork, without causing thermal or coagulative collateral damage to adjacent tissue. The increase in expression of biological cytokines and cellular mediator activities following laser irradiation recruit macrophages to the Trabecular Meshwork. In turn, macrophages remove obstructive proteins and remodel the Trabecular Meshwork, improving aqueous humor outflow and, thereby, reducing intraocular pressure (IOP).





# **Additional Features**

# **Storage Space**

The Selecta table is equipped with built-in compact storage space for lenses or other accessories.

# **Ergonomic Joystick with EZGrip™ Coating**

The ergonomically designed joystick includes a convenient integrated laser fire-switch.

# **Advanced Adjustable Offset**

The Selecta features 3 posterior defocus positions with an adjustable focal point of up to 350  $\mu m$  posterior to the aiming beam.

# **Magnification Changer**

The Selecta full Slit Lamp function includes a 6-step magnification changer.

# **Electronic Height Adjustment**

The Selecta table height can be easily adjusted using its electronic up/down switch.









# Lumenis Selecta Trio™

## Retinal, Cataract and Glaucoma Therapy in ONE product

The Lumenis Selecta Trio represents the next generation of multi-modality products, offering retinal, cataract and advanced glaucoma therapies in a single platform. The unit's integrated design, enhanced optics system and advanced laser cavity make the Trio one of the highest performing laser products in the market - offering maximum flexibility with minimum footprint.

The Selecta Trio has all of the advantages of the Selecta Duet in SLT and YAG modes - along with proprietary advantages in photocoagulation mode

# Advantages in Photocoagulation Mode

## Homogeneous Laser Beam

Our advanced optics and laser delivery technology features uniform energy distribution across the entire laser spot area for more precise and safer treatment. The result is a homogenous laser spot with evenly distributed power across the full area of the spot, eliminating the potential risk for the formation of "hot spots".

#### **Dual Fiber Port**

#### Instantly switch between delivery devices

Changing delivery devices is fast and easy. The Novus Spectra automatically senses the delivery devices connected to it. Laser parameters are adjusted internally to compensate for the chosen delivery device to maintain selected power density on the target tissue.

#### ClearView™ Filters

#### Optimized view of treatment site

The Lumenis ClearView<sup>™</sup> filters' photopic balanced coating eliminates color distortion of the treatment site while optimizing white light transmission or "brightness" of the physician's view. A proprietary coating protects the filter from environmental changes and scratches.

## AcuGuide™ Micromanipulator

Accurate and safe laser beam guidance for fine-tuned laser application on target tissue.

# Integrated LaserLink Cradle

Safely and conveniently stow the LaserLink in its dedicated cradle when not using the laser in photocoagulation mode.

## **SureSpot™ Optics**

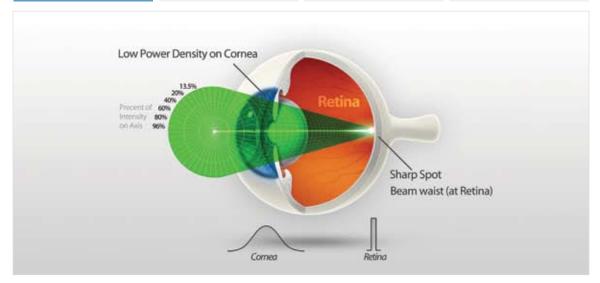
# Sharply defined and evenly distributed power on the retina; Safe & low-power density at the cornea and the lens

The unique and patented SureSpot optics technology from Lumenis ensures that the focal point of the laser beam is maintained on the retina while power density on the cornea and lens is minimized for increased safety.

SureSpot optics also creates a true 50-micron laser spot; that capability distinguishes the Lumenis technology from other lasers that may have a 100-micron minimum spot size and/or project a fuzzy laser spot on the retina.

In essence, SureSpot optics improves treatment efficacy and precision while reducing the potential for damage to anterior-segment tissues. The latter occurrence is especially a concern when using wide-angle lenses that enhance light uptake by the cornea and lens.

	Defocus Optics	Lumenis Patented SureSpot™ Optics	Parfocal Optics
Titration	YES	YES√	NO
Low Power density on the cornea	YES	YES√	NO
Sharp spot on retina	NO	YES√	YES











# Lumenis Selecta II

### Portable, Clip-on, SLT Laser

The Lumenis Selecta II SLT laser offers you all the advantages of a premium SLT product together with true portability and maximum space utilization.

The Selecta II is a clip-on product; conveniently fitting onto most commercially-available converging-optics style slit lamps. The unique design of the unit's laser-head makes it especially easy to attach and disconnect the system - allowing you to use your slit lamp as either a diagnostic tool, advanced laser delivery device or both.

# **Additional Features**

## **True Portability**

Weighing only 25 lbs. (11.5 Kg), the Selecta II can be easily transported from one location to another, maximizing your investment.

# **Space Saving**

The Selecta II is a clip on laser, compatible with most commercially available converging-optics style slit lamps. Easily connect it to your existing diagnostic slit lamp to perform SLT and stow away at the end the procedure or scheduled laser sessions.

# **Meeting Your Preference**

The Selecta II is compatible with your preferred Slit Lamp, allowing you to diagnose and treat with your unit of choice.

# **Optimal Visualization**

The Selecta II is compatible with most commercially available converging-optics style slit lamps, capitalizing on their enhanced visualization capabilities of the anterior segment.



#### **Lumenis Vision - Your Preferred Partner**

Lumenis Vision is the world leader in laser technologies for ophthalmic applications. Our company offers the widest range of products, an unparalleled product support system, the largest global installed-base of ophthalmic laser products and the largest investment in research and development in our industry.

Since introducing the first laser photocoagulator to ophthalmology in 1970, Lumenis Vision has focused on providing ophthalmologists with innovative laser therapies to preserve and improve the sight of patients worldwide.

Lumenis Vision is renowned for technological breakthroughs and a long list of industry gold standards. Our company pioneered the first argon laser photocoagulator for ophthalmology; the first approved marketer of Nd:YAG photodisruptor lasers; developed and introduced the breakthrough technology of multicolor photocoagulation along with the world's first Laser Indirect Ophthalmoscope (LIO); developed and brought to market the revolutionary SLT technology for managing POAG, and more.

Today, Lumenis Vision offers you the confidence of doing business with a company truly committed to ophthalmology and to meeting your needs.





# **Selecta Specifications**

	YAG Photodisruptor Mode	SLT Mode	Photocoagulator Mode
Laser Source	Q-Switched Nd:YAG	Q-Switched Frequency Doubled Nd:YAG	Diode-Pumped Solid State (DPSS)
Wavelength	1064nm	532nm	532nm
Energy (power)	0.3mJ - 10mJ per pulse	0.3 - 2.0mJ per pulse, continuously variable in 0.1 increments	50 - 2500mW
Pulse Duration	3ns (nanoseconds)	3ns (nanoseconds)	0.01 - 3 seconds
Burst Mode	1, 2 or 3 pulses per burst (selectable)	Single Pulse	Not Applicable
Spot Size	8 microns	400 microns	50 - 1000 on Z-Link; 5-500 on Convrg-Link
Cone Angle	16 degrees	< 3 degrees	Not Applicable
Posterior Offset	0 - 350 microns (continuously variable)	Not Applicable	Not Applicable
Repetition rate	3Hz (in single burst)	3Hz	Not Applicable
Pulse Rate	Not Applicable	Not Applicable	0.05 - 1 second & Single Pulse
Aiming Beam	Red Diode, continuously variable adjustable intensity	Red Diode, continuously variable adjustable intensity	Red Diode, continuously variable adjustable intensity
Cooling	Air Cooled	Air Cooled	Air Cooled, enhanced with TEC
Electrical Requirements	100 -240 VAC, 50/60 Hz, 3.15 Amps	100 -240 VAC, 50/60 Hz, 3.15 Amps	100 -240 VAC, 50/60 Hz, 3.15 Amps
CDRH Classification	FDA IIIb	FDA IIIb	FDA IIIb

#### Lumenis® Certified Service | Certified Engineers & Parts > Reliable Performance > Superior Value > Satisfied Customers

Optimize your investment in Lumenis' world-leading innovation - choose the industry's largest Service team with the deepest medical laser, light- and RF-based system expertise. Our Customer Engineers are fully certified, trained and updated on Lumenis technology to ensure compliance with government safety and performance standards. As the original manufacturer, we are best equipped to provide service and certified parts to maximize the availability of your critical assets in active clinical settings, throughout your system's lifecycle. We provide thorough and complete system servicing on each maintenance visit, backed by unsurpassed technological expertise and support at the local, regional and company level. Our mission is to deliver a timely and effective response to your system maintenance needs - your satisfaction is our ultimate goal!

USA Toll-free 1-877-LUMENIS (1-877-586-3647)

For outside the USA, visit www.lumenis.com, click 'Service & Support', contact your local Lumenis representative

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/ISIBLE AND INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT Nd:YAG 532 nm, 2 mJ Max / 3 ns pulse Nd:YAG 1064 nm, 10 mJ Max / 3 ns pulse VISIBLE LASER RADIATION DO NOT STARE INTO BEAM

CLASS 2 LASER PRODUCT Diode Laser: 635 nm, <1 mW Max, CW

CLASS 3B LASER PRODUCT per IEC 60825-1/2001 CLASS IIb LASER PRODUCT per 21 CFR 1040.10 & 1040.11, excep or deviations persuant to Laser Notice 50, Dated June 24, 2007



ISO 13485 CERTIFIED

