

ultraQ[®] reflex[®] neo

PREMIUM
YAG LASER



LUMIBIRD[®]
MEDICAL

Setting the Standard of Care

ultraQ reflex^{neo}

reflex
TECHNOLOGY



■ Reflex Technology with True Coaxial Illumination (TCI)

At the heart of **UltraQ® Reflex Neo** lies (TCI). Technology providing a clear and titratable red reflex across the entire width of the pupil. You will see the highest degree of contrast, edge definition and detailed shadowing of the posterior capsule and other important ocular structures.

■ Established Reflex Performance

The Reflex illumination mirror operates in perfect synchronicity with each depression of the laser fire control switch, facilitating accurate targeting and precise laser delivery.

**ELLEX - SETTING
THE STANDARD IN
PATIENT CARE**

Experience precision like never before with Ellex's premium laser system. Featuring our exclusive True Coaxial Illumination (TCI™) technology, this advanced slit lamp and illumination tower design seamlessly aligns your line of sight, target illumination, and treatment beam into a single optical pathway. The result: unmatched clarity, accuracy, and confidence with every procedure.

COMPLETE FOCUS, **TOTAL CONTROL**
ELLEX, A BRAND OF LUMIBIRD MEDICAL

■ Imprint

A real-time view of
MODE and ENERGY
settings.



Ellex's discrete Imprint - dynamic Head-Up Display, combined with full functional control of energy settings and laser delivery from a dual function joystick, absolutely streamlines laser procedures. No distractions, complete focus, **TOTAL CONTROL**.

■ Active Cooling Cavity Technology

The active cooling cavity design of the **UltraQ® Reflex Neo** ensures laser stability and repeatability over even the lengthiest treatment, delivering consistent laser pulses at up to 4 Hz, **FOUR TIMES PER SECOND**, ensuring precise dosage with every laser pulse.

■ Patient Management Remote Diagnostics

Intuitive, full capacitive touch-screen control with patient record management and real-time remote diagnostics.



PROcap

Premium Refractive Outcome Capsulotomy

**Fewer residual capsule fragments,
IOL intact and precise capsulotomy
diameters**

**RE-ESTABLISHING
YOUR PATIENT'S BASELINE,
BEST QUALITY OF VISION**

■ Extended Posterior offset

Maintain full visual focus with up to 2mm extended posterior offset.

Focus depths greater than those conventionally in use for capsulotomy produce a powerful anterior moving hydraulic jet effect, translating into neater tissue separation and superior IOL protection against ionized plasma strikes^{1,2,3}.

■ Green aiming beam & patient fixation

Improved accuracy in targeting enhances the safety profile of YAG laser treatments. A green aiming beam provides the highest degree of visual contrast for YAG laser procedures, resulting in easier target visualization and more proficient treatment delivery.

■ Precision incision

Ellex's proprietary YAG laser cavity with **UltraQ® Reflex Neo**, delivers a four nanosecond Ultra-Gaussian pulse at high peak power, typically achieving the industry's lowest optical breakdown of 1.4 mJ in air⁴. The hyper-efficient laser profile designed by Ellex generates far superior and precise photodisruption of sensitive ocular tissues and better patient outcomes.



Image courtesy of Karl Brasse, MD

GLAUCOMA TREATMENT

■ Laser Peripheral Iridotomy

For the YAG treatment of angle closure glaucoma, **UltraQ® Reflex Neo** with burst mode provides double or triple laser impact for more efficient creation of a laser peripheral iridotomy within an iris crypt.



Laser peripheral iridotomy (LPI) is indicated to prevent or overcome a suspected relative pupillary block by creating an alternative pathway for aqueous flow. Mainly used for patients in the primary angle closure spectrum, it can also be useful in secondary angle closure glaucoma and in the management of other types of glaucoma with associated pupillary block. The iridocorneal angle should be, in all cases, carefully examined after LPI to rule out other mechanisms of a closed angle requiring treatment⁵.

Summary of indications for laser peripheral iridotomy (LPI)

Acute Primary Angle Closure (APAC)

Contralateral eye in APAC

Primary Angle Closure suspect (PACS), «narrow» or «occludable» angle

Primary Angle Closure (PAC) and Primary Angle Closure Glaucoma (PACG)

Secondary Angle Closure with Pupillary Block

Plateau Iris Configuration and Plateau Iris Syndrome

Aqueous Misdirection, Cilio-lenticular block, Ciliary Block or Malignant Glaucoma



More information about treatment guidelines:
www.glaucoma-laser-assisted-solutions.com

TECHNICAL SPECIFICATIONS

PRODUCT SPECIFICATIONS

Laser Source	Q-Switched Nd:YAG
Wavelength	1064 nm
Energy	0.3 to 10 mJ per pulse, continuously variable
Pulse Width	4 ns
Air breakdown	Typical 1.4 mJ ⁴
Burst Mode	1, 2 and 3 pulses per burst, selectable
Spot Size	8 µm

Cone angle	16°
Offset (Anterior & Posterior)	0, -500 to +2000 µm
Aiming Beam	Dual green 515 nm, adjustable intensity
Repetition Rate	Up to 4 Hertz
Magnification	10X, 17X & 29X
	Optimized for enhanced anterior segment visualization
Illumination	LED True Coaxial Illumination (Reflex Technology)
Cooling	Fan cooled
Imprint Head-Up Display	Energy and mode display within right binocular (Upon availability)
Smart Joystick	Dual function, energy adjust and fire
User Interface	10.1" Capacitive touch screen tablet
Medical Records	Compatible with DICOM patient management system
Remote Service Access	Remote system diagnosis/ fault reporting
Electrical Requirements	100-240 VAC, 50/60 Hz, < 800 VA
Weight	26.8 kg, 59.1 lbs (laser only)
Dimensions (HxWxD)	57 X 75 X 44 cm, 23 X 30 X 18 inches (laser only)
Standard Accessories	Total Solution table, safety glasses, laser safety sign, dust cover
Optional Accessories	Capsulotomy and iridotomy laser lenses, footswitch, five-position magnification changer, beam splitter, "C" mount camera adapter, video camera adapter, co-observation tube

Specifications are subject to change without notice.
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BIBLIOGRAPHY

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- (2) Uroš Orthaber, Development And Evaluation Of A Laser For Posterior Capsulotomy - Doctoral Thesis, University Of Ljubljana Faculty Of Mathematics And Physics Department Of Physics
- (3) J. C. Isselin, A. P. Alloncle, D. Dufresne & M. Autric (1997) Behavior of a cavitation bubble near a solid wall. Contribution to the study of the erosion mechanism, La Houille Blanche, 83:6, 29-33, DOI: 10.1051/lhb/1997047
- (4) Average performance only. Based on system performance testing (Data on file).
- (5) https://eyewiki.aao.org/Laser_Peripheral_Iridotomy - Ana IM Miguel, Sara HM Marques, Mário Cruz, Ahmad A. Aref, MD, MBA, André Borges Silva, Jonathan C. Tsui, MD, December 25, 2022.



LASER CLASS 3B Nd:YAG: 1064nm, 55mJ Max, 4ns pulse
LASER CLASS 2 Diode Laser: 515nm, <1mW Max CW

WARNING - VISIBLE AND INVISIBLE LASER RADIATION - AVOID EXPOSURE TO BEAM

CLASS 3B LASER PRODUCT per IEC 60825-1:2014

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0086

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