



Yellow Scan Laser Photocoagulator **YLC-500 Vixi**
Yellow Laser Photocoagulator **YLC-500**



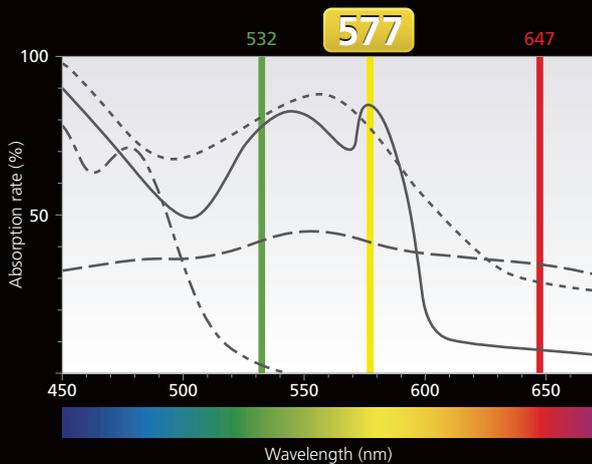
THE ART OF EYE CARE



A 577 nm Yellow Laser with Multiple Scan Patterns

The YLC-500 Vixi / YLC-500 is a yellow laser using the innovative OPSSL (optically pumped semiconductor laser) method to achieve stable and reliable laser delivery for optimal treatment outcomes.

Attributes of the 577 nm Yellow Laser

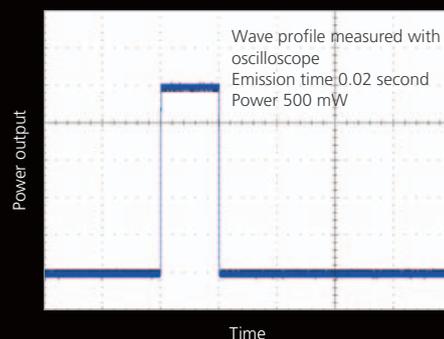


Reference: Folia Ophthalmol. Jpn. 40(5)1128-1133, 1989

- Pigment epithelium
- - - Reduced hemoglobin
- Oxygenated hemoglobin
- - - Xanthophyll
- 532 nm (MC-500, GYC-500)
- 577 nm (MC-500, YLC-500)
- 647 nm (MC-500)

The 577 nm yellow laser is minimally absorbed by xanthophyll and is well absorbed by oxygenated hemoglobin compared to 532 nm laser making it the wavelength of choice for lesions close to the macula.

A momentary increase followed by a plateau and an immediate decrease enables rapid and high-power laser emission for the scan patterns.



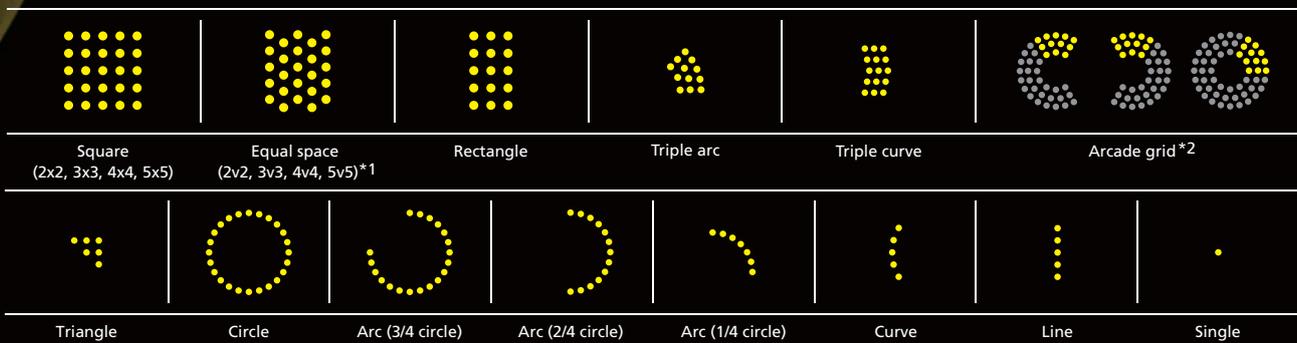


YLC-500 Vixi / YLC-500

The YLC-500 Vixi yellow scan laser photocoagulator, enables laser treatments with various scan patterns by incorporating Vixi, scan delivery units, into the YLC-500.

Multiple Scan Patterns

The YLC-500 Vixi has 22 preprogrammed scan patterns to allow treatment of varying retinal pathologies.



*1 For equal space patterns, No. v No. indicates the number of spots in horizontal and vertical directions.

*2 The arcade grid pattern is used for treatment of the periphery of macula in one-sixth units. The inner diameter is fixed and spot sizes range from 100 to 200 µm.

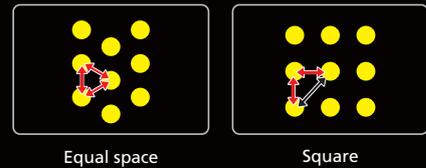
Equal Space Between Spots in All Directions

Equal space (2v2, 3v3, 4v4, 5v5)

The space between spots is equal in all directions.



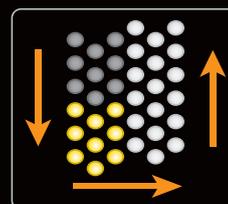
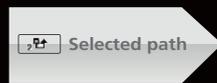
The equal space pattern maintains space between spots allowing for denser photocoagulation than the square pattern.



The spacing function allows surgeon to vary the spaces between spots.

Auto Forward

Once photocoagulation is completed in one region, the auto forward function automatically positions the scan pattern to the next region of treatment, allowing the surgeon to concentrate on adjusting focus.



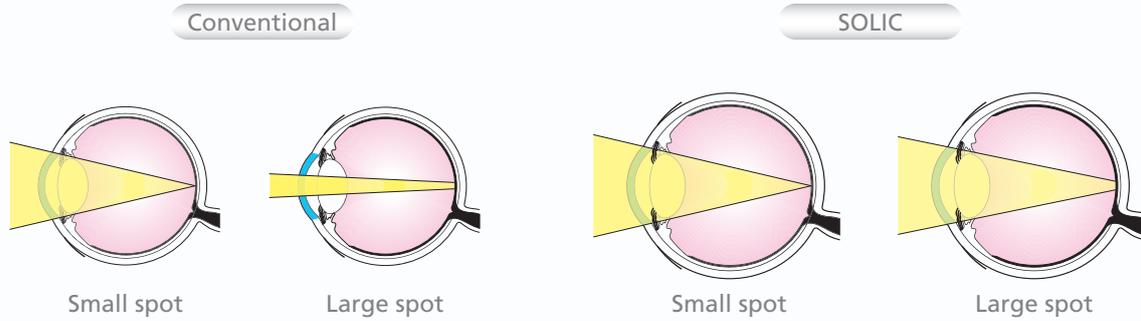
The repeat mode with the auto forward function enables consecutive regions to undergo photocoagulation on a pre-programmed path by continuously depressing the foot switch.

*The auto forward function is available for the equal space (2v2, 3v3, 4v4) and the square (2x2,3x3,4x4) patterns. The number of times auto-forwarding can occur differs based on the scan pattern, spot size, and spacing.

Superior Performance

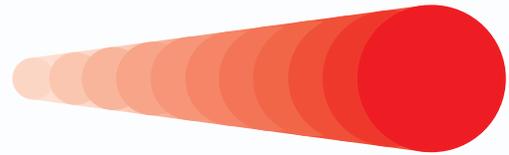
— SOLIC (Safety Optics with Low Impact on Cornea)

The SOLIC optical design is incorporated into all delivery units, ensuring low energy density on the cornea and lens, even for large spot sizes.



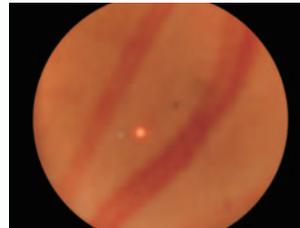
— Continuously Variable Spot Size

The spot size is continuously variable. The continuous variability allows the surgeon to easily compensate for the spot size change due to the use of a laser contact lens.

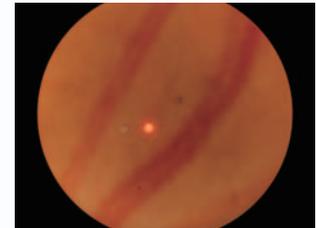


— Protective Filter

A fixed protective filter reduces the risks of backscatter laser irradiation, maximizing surgeon safety during treatment. A special coating on the filter ensures a clear view of the fundus during examination and photocoagulation.



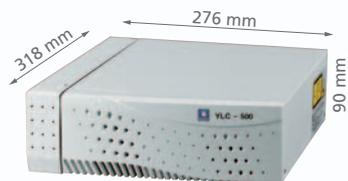
Without protective filter



With protective filter

— Lightweight and Compact Design

The space saving design allows the main body to be stored under the NIDEK slit lamp table for a laser photocoagulator. The lightweight and compact design allows easy portability to virtually any room. In the operating room, endophoto probes can be connected to the YLC-500 simplifying setup and treatments.



The optional expansion box allows connection of the scan delivery unit to main body.



Operational Efficiency

LCD Brightness Adjustment

When the status is changed from standby to ready the LCD brightness decreases to minimize interference with surgeon visibility during treatment.



*An optional control box top plate attachment unit is used in this photo.

Intuitive and Functional User Console

An intuitive graphic user interface and easy-to-read touch screen color LCD allow quick and easy setup and verification of the scan pattern and treatment parameters.



YLC-500 Vixi LCD screen

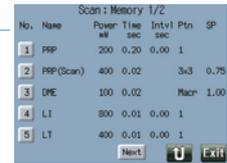
Pop-up Window

The pop-up window appears once the displayed value, such as POWER, TIME, or INT is selected. The surgeon can easily make changes to these laser values.



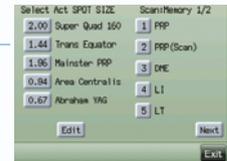
Stored Photocoagulation Data

For flexibility in treating different types of clinical cases, 10 sets of photocoagulation data (power output, emission time, interval time, scan pattern and spacing) can be stored. Each set can be quickly retrieved with one-touch operation.



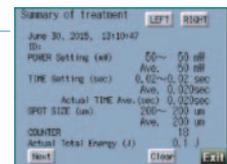
Registration of Contact Lens Magnification

Up to 5 contact lens magnifications can be registered. Confirmation of actual spot size on the retinal surface is easily performed by selecting the registered contact lens.



Treatment Summary

Photocoagulation data can be displayed in one screen for review and output in XML format for saving the treatment.



*Displayed values can be transferred from the expansion box to PC using LAN.

Keycard

The SD card is used as a key to start the unit. It enables software upgrades and saves a summary of the treatments.



3D Mouse (optional)

The 3D mouse allows intuitive operation for changing parameters. Up to 10 parameters can be preset with the 3D mouse.



Wide Range of Selectable Delivery Units

Scan Delivery Units | YLC-500 Vixi



Scan slit lamp delivery unit
(NIDEK SL-2000)



Scan slit lamp delivery unit
(NIDEK SL-1800)



Scan attachable delivery unit
(NIDEK SL-2000/SL-1800)



Scan attachable delivery unit
(ZEISS SL 130)



Scan attachable delivery unit
(HAAG BQ900)

Single Delivery Units | YLC-500



Slit lamp delivery unit
(NIDEK SL-2000)



Slit lamp delivery unit
(NIDEK SL-1800)



Attachable delivery unit
(NIDEK SL-2000/SL-1800)



Attachable delivery unit
(ZEISS SL 130)



BIO delivery unit
(HEINE OMEGA 500)



Endophotocoagulation
delivery unit (ZEISS, LEICA)



■ Dual Delivery Port*

The dual delivery unit connectors enable simultaneous connection with two delivery units, such as slit lamp delivery and BIO delivery units. They eliminate the inconvenience of connecting and disconnecting units and provide easy cable management.



*The dual delivery port is available for the dual delivery model.

■ Automated Recognition of Connected Delivery Unit

The YLC-500 Vixi / YLC-500 automatically recognizes the connected delivery unit type and changes the setting according to the delivery unit. This can be visually confirmed on the control box.

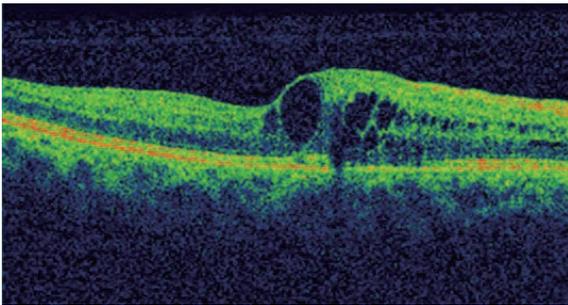


LPM (Low Power Mode)

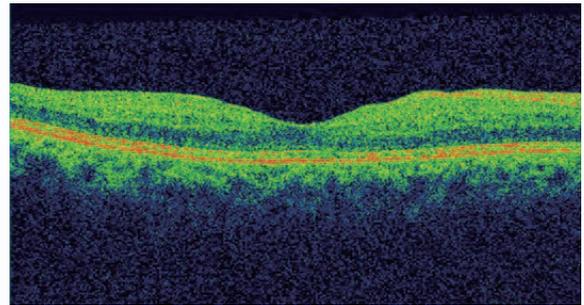
Minimally Invasive Photocoagulation

LPM (Low Power Mode) is a form of laser photocoagulation that delivers reduced power to the retina for a therapeutic effect. During treatment, the standard laser power is decreased by a specified ratio. A software upgrade is required to use the LPM option.

Laser Treatment for Macular Edema



Before treatment



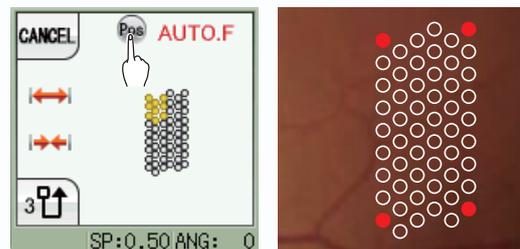
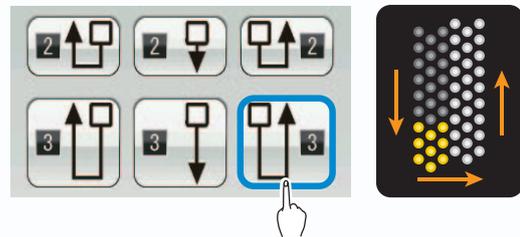
After treatment with LPM

Sample image – Outcomes may vary based on patient-specific response.

Auto Forward Function

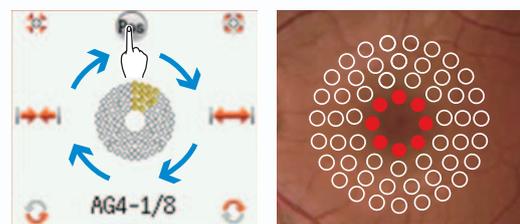
Auto forward function allows automated positioning of the scan pattern for photocoagulation. Selecting the repeat mode allows laser delivery as shown to the right without repeatedly stepping on the foot pedal.

The treatment area can be confirmed by selecting the "Pos" (Position) button which displays each corner of the emission area on the patient's eye with the aiming light.



Arcade Grid Scan Pattern

In addition to regular mode, LPM includes a scan pattern that prevents treatment in a central circular area within the grid. Selecting the "Pos" button to align the aiming beam to the foveal center activates treatment that follows the grid scan pattern. In combination with the repeat mode, once the foot pedal is depressed, the beam automatically emits one round based on the scan pattern.



Main Body Specifications

Wavelength	577 nm
Power output	50 to 1,500 mW
Output type	Continuous wave
Emission time	0.01 to 3.00 s 0.01 to 0.05 s (scan delivery mode)
Interval time	0.05 to 1.00 s
Aiming beam	Laser diode, 635 nm, max. 0.4 mW
Power supply	100 to 240 V AC, 50/60 Hz
Power consumption	250 VA
Dimensions/mass	237 (W) x 318 (D) x 90 (H) mm / 5.6 kg*1 9.3 (W) x 12.5 (D) x 3.5 (H)" / 12.3 lbs.*1
Optional accessories	Expansion box, CB top plate attachment unit, Power foot switch, Dual unit, 3D mouse, Laser goggles, USB barcode reader, Magnetic card reader, LPM license

*1 276 (W) x 318 (D) x 90 (H) mm / 6.55 kg, 10.9 (W) x 12.5 (D) x 3.5 (H)" / 14.4 lbs.
with the expansion box, which is an optional accessory to connect the scan delivery unit to the main body.

Scan / Single Delivery Unit Specifications

Model	Scan delivery unit (YLC-500 Vixi)	Single delivery unit (YLC-500)
Spot size	100 to 500 µm (scan mode, auto manipulation mode) 50 to 500 µm (single mode)	50 to 990 µm (slit lamp, attachable deliveries)
Emission pattern	Single, Square (2x2, 3x3, 4x4, 5x5), Line, Triangle, Equal Space (2v2, 3v3, 4v4, 5v5) *2, Curve, Circle, Arc (3/4 circle, 2/4 circle, 1/4 circle), Rectangle, Triple Arc, Triple Curve, Arcade Grid	Single
Type	Scan slit lamp delivery unit (NIDEK SL-2000/SL-1800) Scan attachable delivery unit (NIDEK SL-2000/SL-1800, ZEISS SL 130, HAAG BQ900)	Slit lamp delivery unit (NIDEK SL-2000/SL-1800) Attachable delivery unit (NIDEK SL-2000/SL-1800, ZEISS SL 130) BIO delivery unit (HEINE OMEGA 500) Endophotocoagulation delivery unit (ZEISS, LEICA)
Protective filter	Electrically-powered	Fixed
Dimensions/mass	760 (W) x 450 (D) x 1,300 to 1,500 (H) mm / approximately 45 kg*3 29.9 (W) x 17.7 (D) x 51.2 to 59.1 (H)" / approximately 99.2 lbs.*3 (NIDEK SL-2000 scan slit lamp delivery with table)	← ← (NIDEK SL-2000 slit lamp delivery with table)

*2 For equal space patterns, No. v No. indicates the number of spots in horizontal and vertical directions.

*3 The dimensions and mass differ depending on delivery types.



Product/model name: YELLOW LASER PHOTOCOAGULATOR YLC-500
 Brochure and listed features of the device are intended for non-US practitioners.
 Specifications may vary depending on circumstances in each country.
 Specifications and design are subject to change without notice.
 All brand and product names are trademarks or registered trademarks of their respective companies.



HEAD OFFICE (International Div.)	TOKYO OFFICE (International Div.)	NIDEK INC.	NIDEK S.A.	NIDEK TECHNOLOGIES S.R.L.	NIDEK (SHANGHAI) CO., LTD.	NIDEK SINGAPORE PTE. LTD.
34-14 Maehama, Hiroishi-cho, Gamagori, Aichi 443-0038, JAPAN TEL: +81-533-67-8895 URL: www.nidek.com	3F Sumitomo Fudosan Hongo Bldg., 3-22-5 Hongo, Bunkyo-ku, Tokyo 113-0033, JAPAN TEL: +81-3-5844-2641 URL: www.nidek.com	2040 Corporate Court, San Jose, CA 95131, U.S.A. TEL: +1-408-468-6400 +1-800-223-9044 (US Only) URL: usa.nidek.com	Europarc, 13 rue Auguste Perret, 94042 Créteil, FRANCE TEL: +33-1-49 80 97 97 URL: www.nidek.fr	Via dell'Artigianato, 6/A, 35020 Albignasego (Padova), ITALY TEL: +39 049 8629200/8626399 URL: www.nidektechnologies.it	Rm3205, Shanghai Multi Media Park, No.1027 Chang Ning Rd, Chang Ning District, Shanghai, CHINA 200050 TEL: +86 021-5212-7942 URL: www.nidek-china.cn	51 Changi Business Park Central 2, #06-14, The Signature 486066, SINGAPORE TEL: +65 6588 0389 URL: www.nidek.sg

[Manufacturer]