

GREEN LASER PHOTOCOAGULATOR

GYC-1000

Eye & Health Care





NIDEK GYC-1000 Flexibility & Versatility

Universal Design

The NIDEK GYC-1000 utilizes a diode pumped solid-state laser to achieve maximum laser life and the greatest efficiency at low heat emission.

The GYC-1000 laser can be plugged into any standard power outlet and requires no external hookup for operation, yet achieves high power output (max. 1700mW on the cornea).

The GYC-1000's specially designed silent air cooling system minimizes the typical maintenance problems common to conventional plasma tube technology.

The World's Smallest Green Laser on the Market

The compact (W215 x D280 x H90 mm) and lightweight (6.7kg / 14.8lbs) console offers maximum operational flexibility and treatment versatility - from the office to the O.R.



Ergonomically easy to handle.

Lowest Power Requirement

The new technology - ITC (Intelligent Thermo Control) function - reduces the power requirement, offering optimum and economical control of the temperature under CPU management.

High Reliability

A digitally controlled instant duty cycle permits the laser to be used at very fast speeds and high powers for extended periods of time without failure.

The GYC-1000 provides many years of superior, reliable performance.

Quietest Photocoagulator in the Market

The new technologies - DWC and IFC functions - reduce noise during coagulation:

DWC (Digital Wave Control) function:

The DWC function reduces the mechanical noise, as the OPEN/CLOSE movement of the internal shutter is no longer necessary. The GYC-1000 controls the laser wave by digital signal from the CPU.

IFC (Intelligent Fan Control) function:

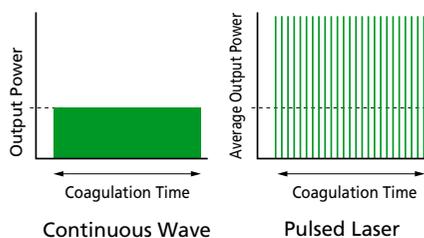
The CPU periodically monitors the internal temperature, and reduces noise by controlling the ON/OFF of the cooling fan. In addition, the GYC-1000 incorporates a less noisy fan so the system is quiet even when the fan is working.

Noise Difference:

	(Increase from room noise)
Former GYC	16.7db
GYC-1000	1.6db

True Continuous Wave (CW)

The GYC-1000's solid state laser is a true continuous wave (CW), not a pulsed laser. CW laser delivery assures predictable treatment results by eliminating the potential risks associated with pulsed laser systems.



Detachable Control Panel

The GYC-1000's compact control panel is connected by a cord, and can be detached from the main body of the unit.

The luminescent digital display with optimal back light provides easier operation in a dark room. With a slit lamp delivery unit, the spot size indication on the control panel enables laser setting and confirmation all at once.

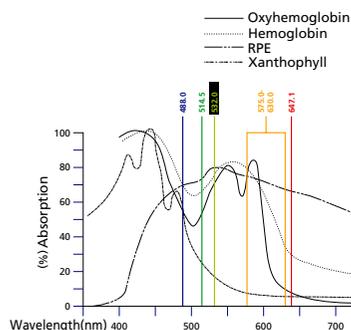


GYC-1000 Superior Performance

532nm Green Laser

Efficient, safe photocoagulation is a hallmark of the GYC-1000. The 532nm laser beam passes through the ocular media with low attenuation to minimize power loss.

- Higher absorption by the pigment epitheliopathy, hemoglobin, and oxidized hemoglobin
- Lower absorption by the xanthophyll pigment



Treatment With Precision

Exposure time of conventional lasers can be adjusted in 0.10 second increments, from 0.10 to 1.00 seconds.

The GYC-1000's exposure time can be adjusted in 0.05 second increments from 0.10 to 0.50 seconds, which is the most widely used range for photocoagulation. The finer adjustments provide more precise treatment for patients.

Exposure time

- 0.01-0.10s (0.01s increment)
- 0.10-0.50s (0.05s increment)
- 0.50-1.00s (0.10s increment)
- 1.00-3.00s (1.00s increment)

Safety Features

The GYC-1000 has a variety of safety features: it is equipped with a filter that reduces the power of the reflected green laser to 1/10⁴ or less; the error indicator function displays the nature of the error encountered on the time display of the control panel; the system conducts a self-diagnosis to monitor the system condition; and more.

1. Slit lamp delivery unit



NIDEK slit lamp delivery unit (NIDEK SL-1800 type)
Spot size: 50-500 μm continuously variable
Protective filter unit (motorized / manual)



ZEISS SL130 delivery
Spot size: 50-500 μm continuously variable
Protective filter unit (motorized)

2. Attachable slit lamp delivery unit

Attachable to your existing slit lamp



ZEISS attachable slit lamp (attachable to ZEISS 30SL/M, 125/16)
Spot size: 50~500 μm continuously variable
Protective filter unit 30SL/M (motorized/manual) 125/16 (manual)



HAAG attachable slit lamp (attachable to HAAG STREIT 900BM type)
Spot size: 50-500 μm continuously variable

* HAAG STREIT 900BQ, 900CN and NIDEK SL-450, 250 are also attachable

3. Endophotocoagulation delivery unit

Spot size: 400 μm (tip of probe)

Endophoto probe (5pcs)



Protective filter unit (Usable with ZEISS or WILD surgical microscope)

4. Combination delivery unit

Attachable to NIDEK OPHTHALMIC YAG LASER YC-1300/1400/1600/1800



A dual-application combination photocoagulator / Yag laser system.

GYC-1000 Optional Delivery Units

5. Binocular indirect ophthalmoscope delivery unit

Adjustable working distance allows effective photocoagulation at the most favorable distance.

Keeler All Pupil II

Spot size: 185 (WD300)-556 (WD700) μm

(variable according to the working distance)



Lightweight with bright, clear illumination.

HEINE OMEGA 180 type

Spot size: 180 (WD300)-520 (WD700) μm

(variable according to the working distance)



6. Monocular indirect ophthalmoscope delivery unit

NEITZ BS-II type

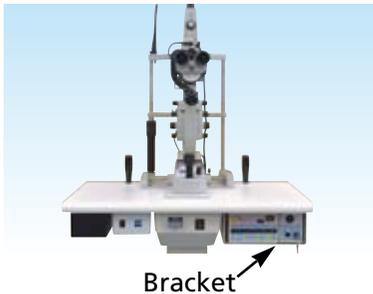
Spot size: 262 (WD300)-752 (WD700) μm

(variable according to the working distance)



Bracket / Extension Table for Integration with a Slit Lamp

The extension table or bracket can be used to integrate the GYC-1000 with a slit lamp for space saving and better operability.



Coaxial illumination probe (Endophoto probe with the coaxial illumination)

The coaxial illumination probe enables one-hand operation by performing photocoagulation and providing lighting at the same time.



Fiber diameter: 200 μ m
Compatible devices: Nidek VT series and CV-24000

Dual protective filter



For the endophotocoagulation delivery unit, the optional dual protective filter allows an assistant to safely observe the operation.

Carriage Handle



Portable for remote use.

GYC-1000 Optional Accessories

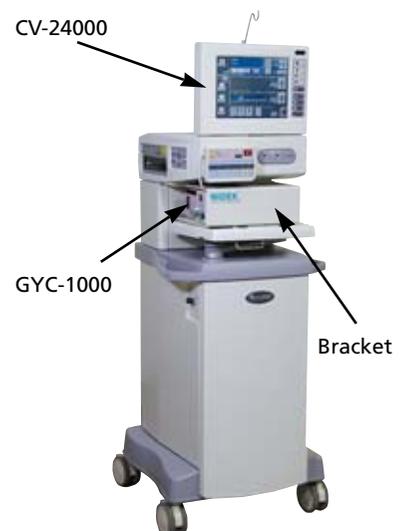
Safety Goggles



For assistants, safety goggles reduce the reflected beam's power to $1/10^4$ or less for their eye protection. (Note: Do not look directly at the emitted beam).

Integration with the NIDEK Phacoemulsification System CV-24000 (Optional)

The GYC-1000 can be integrated into the NIDEK CV-24000 using the special bracket (optional). This integration can eliminate problems such as the lack of hygiene and difficulties at the time of installation / connection. The endophoto probes can connect to the GYC-1000, contributing to space saving, easy setup and simple system operation.



GYC-1000 Specifications

Treatment Laser	Frequency-Doubled Diode Pumped Solid State Laser
Wavelength	Green: 532nm
Output power	Green: 50-1700mW
Output type	Continuous Wave
Exposure times	0.01-3.00 seconds
Automation repeat	0.1-1.0 seconds intervals
Aiming laser	Red Diode
Power supply	90-264Vac, 50/60Hz, 200VA
Dimension/ Weight	215 (W) x 280 (D) x 90 (H)mm / 6.7kg 8.46(W) x 11.0(D) x 3.5(H)" / 14.8lbs
Optional Delivery	Slit Lamp Delivery (Nidek, Zeiss, Haag Streit, etc.) BIO Delivery, MIO Delivery Endophotocoagulation Delivery



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VISIONARY PERFORMANCE

*Specifications and design are subject to change without notice for improvement.



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Portable & User-Friendly

YC-1800

OPHTHALMIC YAG LASER SYSTEM



OPHTHALMIC YAG LASER SYSTEM YC-1800

Portable & User-Friendly Design

■ Improved Operability

The **"Smart Switch"** (patent pending) located on the joystick provides high operability, allowing doctors to change parameters (Energy up, Energy down and Ready/Standby *) while holding the joystick.

Permits faster and easier operation, and eliminates need to look away from oculars to make parameter adjustments.

* Factory setting.

The user has three choices from among energy up, energy down, ready/standby, aiming up, aiming down, burst and reset.



Unique Joystick **"Smart Switch"**

■ One-Touch Lock

The YC-1800 can smoothly slide back and forth and around, and the unit can be easily fixed and released at anywhere you like with the one-touch lock, offering high operability with improved safety.



■ Compact & Slim Design

The NIDEK YC-1800 is the smallest and lightest ophthalmic photodisruptor available and can be easily transported. Compact and slim design also allows greater flexibility in locating your arm rest.

■ Versatile Combo Lasers

The YC-1800 can be easily connected to NIDEK's Green Laser Photocoagulator (GYC-1000), allowing treatment of a wider range of patients and indications.

Space requirements are minimized, and the combination adapter (optional) includes the split mirror illumination tower.



The YC-GYC
changeover lever



Reliability and Safety

■ Reliable Laser Output

The YC-1800 employs the new technology to control the pulse number under the CPU **"D-Pulse"** (patent pending), providing higher stability against environmental conditions and change over time.

■ Fast Operation

The 3Hz firing rate is the fastest available, which can be very practical when encountering a moving eye or other patient difficulties. The YC-1800 can treat a wide variety of diseases, and its speed and efficiency allows comfortable operation.

■ Great Number of Energy Settings

The YC-1800 offers 0.3-10mJ, continuously adjustable in increments of 0.1mJ, allowing the most precise tissue effect.

■ Super Adjustable Nd:YAG Offset

The YC-1800 has the exclusive ability to adjust the offset ± 500 microns (25 micron steps) to best meet your varied clinical needs. A different offset can be used for PMMA, silicone or acrylic lenses, and the offset can even be adjusted on the same IOL to compensate for a parallax effect in the periphery. This eliminates the need to manually defocus, permits a clear field of view, and minimizes lens pitting.

■ Safer Rotating Aiming Beam

The dual 635nm aiming beam offers superior visual sensitivity, which in turn enhances the speed and ease of operation. The 635nm beam is also safer to human eyes since it achieves the same crisp and sharp intensity of 650nm or 670nm beam with half the power output. The YC-1800 has the ability to rotate the dual aiming beams 360° permitting work anywhere in the periphery without clipping the iris.



360 degree-manual rotation of the aiming beam for precise operation.



YC-1800 Specifications

Treatment Laser	
Type	Nd:YAG
Wavelength	1064nm
Mode Structure	Fundamental
Pulse Duration	4 nsec
Mode of Operation	Q-switched
Pulse Repetition Rate	3Hz (single) / 1.5Hz (burst)
Output Energy	0.3-10.0mJ/pulse (Continuously variable)
Burst Mode	2 or 3 pulse/trigger
Spot Size	8 μ m
Cone Angle	16°
Focal Shift	0-500 μ m (Continuously variable, toward both anterior chamber and posterior chamber)
Aiming Laser	
Type	Diode laser
Wavelength	635nm
Output Power	OFF, 0.5-25 μ W
Cone Angle	16°
Aiming Method	Dual beam method
Rotation of Beam	360°
Slit Lamp	
Objective Lens	f=130mm
Eye Piece	12.5x
Magnification (field of view)	32x(6.2mm), 20x(10mm), 12.5x(16mm), 8x(25mm), 5x(40mm)
Power Supply	Single-phase, 100-240Vac, 50/60Hz, 100VA
Dimension / Weight	324 (W) x 407(D) x 528.5(H) mm / 16kg 12.8(W) x 16 (D) x 20.8 (H) " / 35.3lbs.
Standard Accessories	Head belt, Arm rest, Key switch, Slit lamp bulb, Chin rest pads
Optional Accessories	Motorized optical table, Foot switch, Safety goggles

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Caution: U.S. Federal Law restricts this device to sale, distribution and use by or on the order of a physician or other licensed eye care practitioner.



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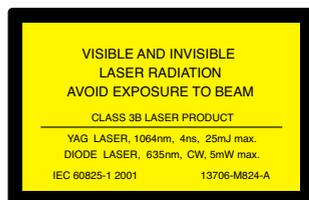
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