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### VSL-337 Nitrogen Laser

Laser Science, Inc., now a part of the Spectra-Physics family, introduced the first VSL-337 nitrogen laser in 1983. Its compact size, freedom of external gas or water requirements, and ease of operation have made it a standard in research and teaching environments.

#### Performance

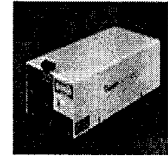
The VSL-337 nitrogen laser provides 4 nsec pulses at 337 nm in the UV with a pulse energy of up to 120  $\mu$ J. Peak power is 30 kW and the average power is 2.4 mW at 20 Hz. The pulse repetition rate can be varied from 1 to 20 Hz. The laser can be triggered either internally or externally with a TTL trigger pulse. Reliable firing allows the laser to be synchronized to other timed events. Constant pulse shape and good pulse to pulse stability were designed into the VSL-337 with our fixed electrode and discharge stabilizing pre-ionizers.

#### Turnkey Operation

The VSL-337 is air-cooled and features our user-replaceable plasma cartridge, allowing the customer to regain the performance of new laser at a fraction of the cost. No hookups for flowing gas or coolant are required. No alignment is necessary as the laser resonator optics are factory adjusted and are an integral part of the plasma cartridge. Our patented design ensures minimal downtime, as no adjustments are necessary for the resumption of full-spec performance.

#### Modular Design

The polymer encapsulated plasma cartridge module includes all the components that deteriorate over time. That is, the field replaceable unit incorporates the energy storage capacitors, the spark gap switching element, the plasma tube with prealigned resonator mirrors, the electrodes, and the preionizers. Once replaced, the user regains the performance of a new laser!



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## Long Life

Long Life The plasma cartridge is warranted to maintain at least 70% of its energy for twenty million pulses.

## Options

The VSL-337 is powered by a small external power supply. Alternatively it can be powered by a 12 volt battery, making it ideal for field applications. This versatile laser may also be equipped with one of its dye laser accessories, the DYE 120 or DYE 110, for obtaining tunable output from the IR to the UV.

<b>Specifications *</b>	
Part Number	337000-00 for 110 v; 337000-01 for 220 v
Wavelength	337.1 nm
Spectral Bandwidth	0.1 nm
Repetition Rate	1 to 20 Hz User supplied trigger
Pulse Width, FWHM	4 nsec
Pulse Energy	120 $\mu$ J
Pulse to Pulse Energy Stability	$\leq$ 4% std. dev.
Peak Power	30 kW
Average Power	2.4 mW at 20 Hz
Beam Size	3 x 7 mm
Beam Divergence, Full Angle	3 x 8 mrad
External Trigger Input	TTL, optoisolated
Trigger In to Optical Pulse Out	700 nsec nominal; $\leq$ 40 nsec std. dev.
Power Requirements	1.6 A average; 3.2 A peak at 20 Hz, 12 VDC
Power Consumption	15 W @ 20 Hz
Dimensions, l x w x h	10.6 x 4.6 x 2.7 in; 27.0 x 11.7 x 6.9 cm
Weight	5 lbs; 2.3 kg

*\* Due to our corporate policy of continuous improvement, specifications are subject to change without notice.*