

ST-5000 LED Stroboscope & Laser Tachometer

The Series ST-5000 Dual 2-in-1 LED Stroboscope & Laser Tachometer. The ST-5000 combination stroboscope/tachometer portable velocity analyzing and measuring device is ideal for machinery process inspection. The 2 in 1 unit eliminates the need to purchase and carry around two separate test instruments, plus streamlines time to analyze process machinery.

The LED stroboscope functionality of the ST-5000 is capable of flashing its light in a synchronous frequency to the operating machinery, creating the illusion of viewing slowed or frozen images. Utilizing this phenomenon of slowing or stopping the motion with the adjusted flash rate of the ST-5000's LED lights, machine parts and processes may be inspected for defects, aiding in preventative maintenance programs. The added adjustable flash duration feature enables a clearer stopped image and is ideal for monitoring repetitive processes such as on high-speed printing lines.

With the Laser Tachometer portion of the ST-5000, users can determine exact process speeds up to a distance of 5 feet, providing adequate safety for the operator. The tachometer mode provides the process speed as well as the maximum and minimum levels recorded. A graphing mode is selectable showing a plotted view of the process speed.

The ST-5000 has several time-saving features. One such function enables operators to quickly record the speed in tachometer mode and instantly transfer the recorded speed over to the stroboscope mode, reducing time to analyze and troubleshoot equipment that operates at various speeds. Another function automatically alters the frozen image flash speed to a rate that displays a slow motion movement of the process, allowing additional inspection capability. This slow motion view quickly makes evident to the user which direction the system is moving.



The ST-5000's LED technology extends operation due to the low energy requirement of the light diodes compared with xenon stroboscopes. Its large, backlit display and convenient 2 button plus dial wheel operation enable quick function selection. The scroll dial allows fast adjustment of flash rate and can adjust the rate multiplication factor (up to a factor of 10) to quickly scroll through the entire flash range.

Typical applications for using the ST-5000 is to determine speeds or inspect rotors, meshing gears, vibration diagnostic equipment, textile equipment, printing production lines, power tools, speaker acoustical analysis, fan balancing and many more.

Features

- *Combination Stroboscope & Tachometer eliminates need for two separate products.*
- *Quick mode selection provides instant back and forth operation between tachometer and stroboscope.*
- *Multiplication selection of flash rate with scroll dial accelerates ability to get to the process speed desired.*
- *Process speed detected by its tachometer can be taken instantly over to stroboscope flash rate, providing the exact rate to freeze the process without having to guess and dial in a speed manually.*
- *Rotation mode takes the stopped image rate and automatically calculates a slow motion of the process for additional analysis possibly not seen with the frozen view. Great for checking motor direction.*
- *Tachometer mode shows live process, maximum & minimum recorded values.*
- *Tachometer graphing mode aids in visualizing the process speed changes*
- *Large backlit display, light-weight, and easy-grip handle enables use in a multitude of test environments and applications.*
- *Adjustable flash duration aids process clarity, often necessary in printing applications.*
- *Low power draw LED's along with rechargeable batteries provides additional testing operation time.*

ST-5000 Specifications

Stroboscope	Range	15-99,999 RPM; 0.25-1666.65 Hz
	Accuracy	+/- 0.012% FS
	Lux Rating (lx)	8" (20 cm) distance: 700 lx @ 1500 fpm, 890 lx @ 6000 fpm with irradiation diameter of 6"; 20" (50 cm) distance: 215 lx @ 1500 fpm, 330 lx @ 6000 fpm with irradiation diameter of 12"
	Display	Graphic LCD 2.3 x 1.3" (60 x 32.6 mm)
	Resolution	RPM: 0.1 < 1000 , 1 >= 1000 ; Hz: 0.002 < 16.666, 0.02 >= 16.66
	Flash Duration	Adjustable
	Lamp Lifetime	20,000 hours
Tachometer	Range	15 -200,000 RPM
	Accuracy	+/- 0.013% FS
	Resolution	0.1 RPM < 1000, 1 RPM >= 1000
	Measuring Distance	7.8 to 59" (20 to 150 cm)
	Detection	Laser
	Power Supply	4 AA batteries
	Battery Life	Approx. 2.5 to 10 hours depending on flash rate and brightness levels
	Housing	ABS
	Dimensions	9 x 5 x 1.75" (228 x 127 x 44 mm)
	Product Weight	0.95 lb (430 g)
	Package Weight	approx. 2.2 lb (1000 g)
	Warranty	1 Year
	Included Accessories	4 AA Rechargeable Batteries, Reflective tape, Battery Recharger

Ordering Details

ST-5000	Combination LED Stroboscope, Laser Tachometer Portable Test Instrument with included rechargeable batteries and battery recharger.
----------------	--

Easy Operation Control

3 Menu Operation

Flash Duration Indication

Battery Indication



ON/OFF of Power and Backlight



Scroll Dial Quickly Adjusts Values



Menu/Sub-Menu Selection



Included Battery Recharger with 4 Rechargeable Batteries

NIDEC-SHIMPO CORPORATION

INSTRUMENTS DIVISION • Phone: (800) 237-7079 • Fax: (630) 924-0342 • www.shimpoint.com