

Operation Manual



Warning

To Avoid Injury, do not point the light beam of the instrument or have it reflected into the eyes of people or animals.

Do not leave the device close to water or any other liquid to avoid damage.

-If not using this instrument for extended periods of time, remove the batteries to prevent potential battery leakage from causing product damage.



The Shimpo Series ST-1000 is a Stroboscope-Tachometer with LED flash technology. This velocity analyzing and measuring device is ideal for rotational machine inspection. The stroboscope is capable of flashing the light in a synchronous frequency to the operating machinery, creating the illusion of viewing stopped or slowed images. Utilizing this phenomenon of slowing or stopping the motion with the adjusted rate of the ST-1000's flashing light, machine parts and processes may be inspected for defects. Plus, the rotational speed of the machinery and systems may be recorded for further performance analysis.

The ST-1000 is adjustable in either coarse or fine step flash-rate tuning. The backlit display shows the current flash rate, 10 user-stored pre-set flash rates, as well as a low battery warning. The backlit feature can be switched off to save battery life if desired. The ergonomic, hand held device is made of sturdy ABS plastic and comes with batteries and protective carrying case. The LED technology extends operation due to the low energy requirement of the light diodes compared with xenon stroboscopes. Typical applications for using the ST-1000 is to inspect rotors, meshing gears, vibration diagnostic equipment, textile equipment, printing production lines, power tools, speaker acoustical analysis, fan balancing and many more.

SPECIFICATIONS

- Range: 60-40,000 Flash Rate Per Minute (RPM)
- Accuracy: +/-0.05% FS
- Lux Rating: 1400 Lux @ 3000 RPM & 3.9 in (10 cm), 1180 Lux @ 3000 RPM & 7.9 (20 cm), 860 Lux @ 3000 RPM & 11.8 (30 cm)
- Display: 5 digits with backlight. 40000 maximum reading
- Resolution: <1000 RPM: 0.1 RPM; >1000 RPM: 1 RPM
- Tuning: <1000 RPM: Coarse=10 RPM increments; Fine= 0.1 RPM increments.
>1000 RPM: Coarse=100 RPM increments; Fine= 1 RPM increments
- Rate Storage: 10 stored user-defined flash rates.
- Factory Defaults: 4000, 8000, 12000, 16000, 20000, 24000, 28000, 32000, 36000, 40000.
- Power Supply: 4 AA batteries. Approx. 10 hours use with back light on; 12 hours when off
- Housing: ABS Plastic
- Dimensions: 7.7 x 2.9 x 1.5" (195 x 73 x 38 mm)
- Product Weight: Approx. 7 oz. (200 g)
- Package Weight: Approx. 1.5 lb (680.4 g)
- Certification: CE

PRODUCT DIAGRAM

- A. LED Flash Switch
- B. Flash Rate Value Increase Button
- C. Flash Rate Value Decrease Button
- D. Coarse/Fine Tuning Button
- E. Power/Stored Rate Retrieval Button
- F. Flash Rate Storage Button
- G. Battery Compartment Cover
- H. Backlight ON/OFF Switch

