

LabStrobe™

Compact, Economical LED Stroboscope



P/N STB100-F with optional Tripod (P/N TP1-F)



LabStrobe is a hand-held LED stroboscope used to measure the speed of rotation or frequency of vibration of a fan, motor, speaker, other mechanical part or system. The latest in LED technology provides this pocket sized strobe with unparalleled brightness and battery life at this price point. Stroboscopes have the advantage not loading or disturbing the equipment under test. Mechanical equipment may be observed under actual operating conditions. Parasitic oscillations, flaws, and unwanted distortion at high speeds are readily detected.

SPECIFICATIONS (rev. 7)

- Size: 4.9"(124mm) x 2.8"(71mm) x 1.3"(33mm)
- Power: 3V (2 AA Batteries included)
- Brightness: 1400 LUX Typical @ 50 cm (19.7"), 6,000 FPM
- Six button membrane for easy operation
 - > Flash rate adjustment (4 buttons)
 - Coarse: Multiply by 2, divide by 2
 - Fine: Up, Down (1-15 FPM increments)
 - > Flash phase adjustment (2 buttons)
 - Up, Down 0 - 360° adjustment
- Flash rate range: 60 - 99,990 FPM (1-1,666 Hz)
- Minimum flash duration: 7µs
- Flash rate accuracy:
 - 60 - 17,300 FPM: +/- 1 LSD
 - 17,300 - 99,990 FPM: +/- .009%
- Battery life
 - Bright mode: 8 hours typical
 - Sharp mode: 17 hours typical
- Operating temperature: 14° to 122° F (-10° to 50° C)
- Weight: 6.1 oz. (173 grams), batteries included

FEATURES

- Lightweight, pocket size design
- Battery powered for portability
- Low battery indicator
- 2 brightness modes: Bright & Sharp (battery saving mode)
- Two high brightness LEDs:
 - No costly lamp to replace
 - No heat generation
 - Ultra high efficiency for longer run time
 - Immune to mechanical shock and vibration
 - Silent operation
- Storage bag included
- Tripod mountable (1/4 - 20 UNC thread)
- Optional tripod - Order P/N TP1-F
- RoHS compliant
- EN55011 CLASS B : 2004/08/EC Compliant
- Warranty: 2 years
- Made in the USA

Lab Test Equipment

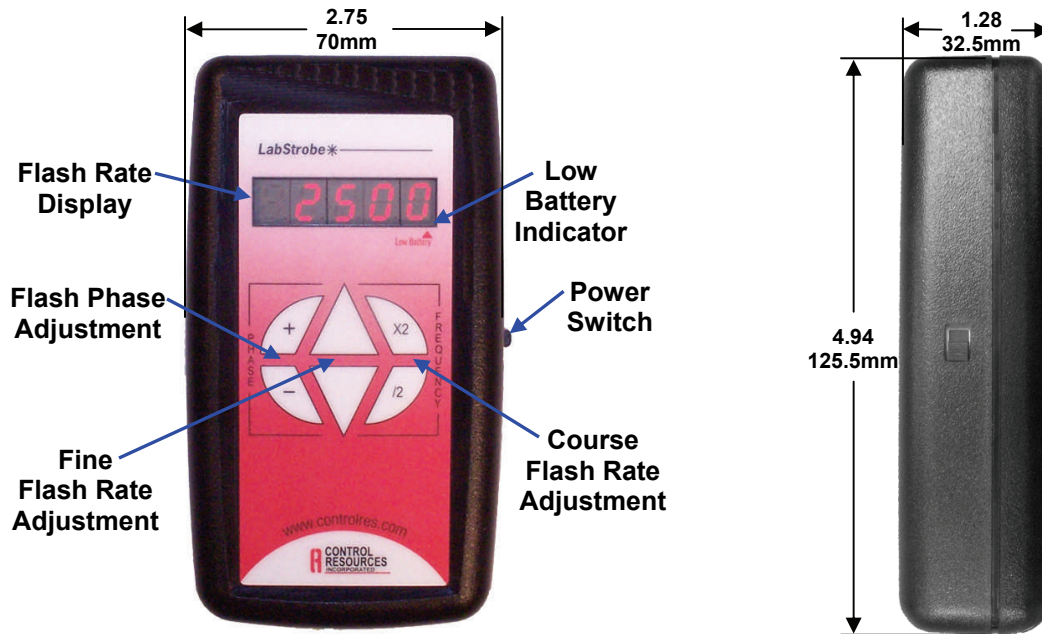


Part Number	Description
STB100-F	Standard LabStrobe
STB100-C	LabStrobe with Calibration Certificate
TP1-F	Table Top Tripod

1510 For more information, visit: www.controlresources.com

CONTROL RESOURCES
INCORPORATED

LabStrobe STB100-F LED Stroboscope



OPERATION

Reference Mark: When measuring the RPM of a rotating device, place or select a unique mark on the device to use as a visual reference.

Correcting for Reference Mark Illusions: A flash rate of $\frac{1}{2}$ or $\frac{1}{4}$ of the true RPM will yield one reference mark image. To eliminate this type of error, adjust the fine or course flash rate keys to get two clear reference mark images 180° apart. Then press the $\frac{1}{2}$ key once and use fine adjustments to hold the single reference mark still.

Flash Phase Adjustments: When measuring the speed of a rotating device that is partially blocked from view so that only an arc is visible, one can shift a reference mark into view by using the Phase Adjustment keys.

Bright mode / Sharp mode: Starting with Rev: 4.0, the LabStrobe can be set to bright mode or sharp mode by the user. In the bright mode, LabStrobe will provide unparalleled light output for its size and price (1400 LUX Typical at 50cm, 6000 fpm). In sharp mode, the light output will be diminished, but the image viewed will be very crisp and the battery life will be substantially longer.

To determine the current mode of operation, observe the display as the unit is turned on for the word **brItE** or **SHArP**. To change mode, press the + and - keys simultaneously and wait 3-4 seconds for the display to flash. The unit will always start up in the last mode used.