

# LabStrobe II™

## Rechargeable LED Stroboscope



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

**LabStrobe II** combines the advantages of LED efficiency, small size, and durability with the power density of the latest Lithium battery chemistries to deliver performance at an unmatched price point. Used to measure the speed of rotation or frequency of vibration of a fan, motor, speaker, or other oscillating part of a system, stroboscopes have the advantage of not loading or disturbing the equipment under test, allowing observation in live operating conditions.

### Specifications:

Size: 4.9" (124mm) x 2.8" (71mm) x 1.3" (33mm)  
Brightness: 1400 LUX Typical @ 50cm (19.7"), 6,000 FPM  
Seven button membrane for easy operation:

- Flash rate adjustment (up, down, X2, ÷2)
- Flash phase adjustment (0 - 360°)

Flash range: 60 – 99,990 FPM (1-1,666Hz)  
Minimum flash duration: 7us  
Flash Accuracy:


- ±1 LSD (60 – 17,300 FPM)
- ±0.009% (17,300 – 99,990 FPM)

Run Time: +20Hrs per charge in Bright mode typical  
Charge Time: 6 Hrs full charge typical  
Charging Supply: 5V 1A min USB (not included)  
Cell Life: 500 charges (up to 10,000 hrs)  
Charging temperature: 32° - 104°F (0° - 40° C)  
Operating temperature: 14° - 122°F (-10° - 50° C)  
Weight: 5.6oz (159 grams)

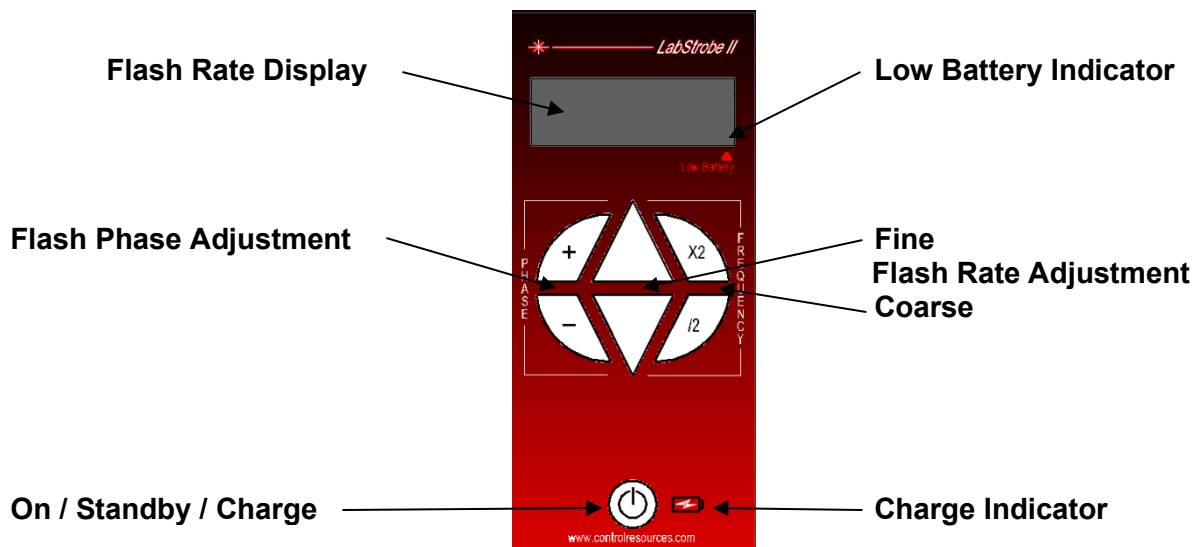
### Features:

Lightweight, pocket size design  
Rechargeable  
Low Battery indicator  
Dual mode: bright or sharp  
Dual high-powered LEDs

- No costly lamp replacement
- Virtually no heat
- Ultra-efficient for long run time
- Immune to vibration
- Silent operation

Storage bag & microUSB charge cable included  
Tripod mountable (1/4 - 20 UNC thread)  
Optional Tripod (P/N TP1-F)  
RoHS &  compliant  
Warranty: 2 years  
Made in the USA

Part Number	Description
STB200-F	Standard LabStrobe II
STB200-C	LabStrobe II with Calibration Certificate
TP1-F	Table-top Tripod



## 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  $\frac{1}{2}$ ,  $\frac{1}{4}$ , etc. of the true RPM will also produce a single reference mark image. To prevent this type of error, adjust with the up arrow until two reference marks are  $180^\circ$  apart then use the  $/2$  key to verify the single image.


**Phase Adjustments:** The phase adjustment keys can be used to move the position of the reference mark into view if it is blocked, without affecting the flash rate.

**Bright & Sharp mode:** In bright mode the strobe outputs 1400 LUX @ 50 cm typical for a high contrast image. In sharp mode the flash time is reduced to produce a sharper image, but at a lower perceived brightness. Sharp mode can also be used to extend run time.

When the unit is first turned on the display will display the mode (**britE / SHArP**). To change mode, press the Phase + and – keys together until the display shows the new mode. The unit will power up in the last mode selected.

**Low Battery Indicator:** The Low Battery indicator will come on with approx. 2hrs of operation left in the battery when set on Bright mode (6 hrs on Sharp mode).

**Charging:** The LabStrobe II will be partially charge when received. It is recommended that you fully charge the unit before use. With the LabStrobe II turned off, plug the microUSB cord supplied into a 5V USB port (not supplied) rated at 1A or more. The charge indicator will light when actively charging (this may take a few minutes). The unit will not charge a full cell or if the temperature of the cell is out of safe charging range ( $0^\circ\text{C} - 40^\circ\text{C}$ ). When the temperature returns to safe range charging will resume automatically. The unit limits power draw from the USB connection to < 5 watts to allow charging on compliant USB ports. The charge rate is approximately four times the usage rate, ie. charging for one hour will allow approximately four hours of bright mode operation.

 **WARNING:** Contact factory for battery replacement. Non-approved replacement cells may result in a fire hazard. Product contains a lithium battery, please dispose of properly.