



# Nova-Strobe BBL, DBL and PBL LED Stroboscopes

## Features:

- 30-500,000 FPM
- Energy-efficient with long-life battery
- Digital backlit LCD display
- Tripod mounting bushing (1/4-20) in handle
- CE marked and RoHS compliant
- NIST Traceable Certificate included with DBL and PBL
- Lightweight industrial design
- 12 button keypad makes entering flash rates extremely quick (DBL, PBL models)
- DBL and PBL Tachometer Mode: 0-500,000 RPM (use with optional remote sensor)
- Continuous, 24/7 operation (PBL)

## Typical Uses:

- Visually “stop-motion” of running inspections of fan blades, motors, shafts, gears, rollers, webs, belts, sheaves, chains, sprockets, and much more without having to shut down your process
- Diagnose alignment issues
- Determine speed of rotating equipment using strobe or external plug-in sensors
- Virtual slow motion created to troubleshoot high-speed automation processes
- Print quality inspection
- Textile processing inspection
- Phase reference for balancing



## 3 Models to Choose From

The Monarch Nova-Strobe LED family of rugged industrial stroboscopes provide an extremely bright, uniform light output for performing stop motion diagnostic inspection and RPM measurements. The twelve LED light source is extremely efficient which means long battery life and continuous cool operation. A wide operating range of 30-500,000 flashes per minute covers all applications. The **Basic BBL** is designed for simple stop motion inspection and RPM measurement applications. The **Deluxe DBL** adds internal phase shifting, memory for up to 5 preset flash rates, NIST calibration certificate and tachometer mode for speed measurements up to 500,000 rpm using optional remote sensors or TTL pulse input/output. The top of the line **Phaser PBL** has all the features of the DBL and adds external phase delay, time delay and virtual RPM mode. The PBL will also run continuously, 24/7 with the power supply/recharger. Each unit is available stand alone or as a kit.



# Nova-Strobe LED Stroboscopes



Specifications*	Basic BBL	Deluxe DBL	Phaser PBL
<b>Internal Mode:</b>			
Flash Range	30-500,000 FPM)		
Flash Rate Accuracy	0.01%...	0.004% of setting or ±1 last digit	
Flash Rate Resolution	0.01 to 1 FPM (menu selectable), 0.1 FPM resolution above 9,999.99 FPM, 1 FPM resolution above 99,999.9		
Display Update Rate	Instantaneous		
<b>External Mode:</b>			
Flash Range	N/A	0 - 500,000 FPM 0.5 to 8333.33Hz	
Tachometer Mode	N/A	5 to 500,000 RPM (use with optional remote sensor)	
Display Update Rate	0.5 second typical		
Trigger to Flash Display	< 5 µsec		
External Input	N/A	TTL (24 V dc max) input; provides 5.0 V dc TTL output	
Output Pulse	5 V pulse – positive or negative (menu selectable) one pulse per flash		
Time Base	Ultra-stable crystal oscillator		
Knob Adjustment	Digital rotary switch with 36 detents per revolution; velocity sensitive		
Memory	N/A	Last setting before power down is remembered and restored on next power up	
Input Power	Battery-powered: Internal rechargeable batteries 6 V dc, external AC power supply PBL only (100 V ac to 240 V ac, 50/60 Hz)		
Light Output	4200 lux @ 6000 FPM, 12 in. [30.48 cm], 2° duty cycle; Max light output: 27,000 lux		
Flash Duration	Adjustable to 14°/3000 µsecs max <b>Note:</b> Flash duration is limited to 10° when running PBL continuously from the external power supply/charger (PSC-pbxU) powered by the AC mains (115-230 V ac).		
Run Time	12 hours typical at 6000 FPM, and 2.8° pulse width with fully charged batteries		
Charge Time	4-5 hours typical with supplied recharger		
Power Supply	Internal NiMH rechargeable batteries with 115/230 50/60 Hz recharger	Internal NiMH rechargeable batteries with 115/230 50/60 Hz recharger or continuous using 115/230 50/60 Hz V ac power supply/recharger	
Operating Time	8-10 hours typical @ 1800 FPM	8-10 hours typical @ 1800 FPM w/ batteries or continuous w/ power supply	
Weight	1.9 lbs. (860 g)		
Dimensions (LxWxH)	Body: 9 in. x 3.66 in. x 3.56 in. [229 mm x 93 mm x 90 mm]; Reflector Housing: 4.8 in. [122 mm] dia.; Handle: 4.254 in. [108 mm long]		

\*Specifications are subject to change without notice.

Ordering Information	
<b>Nova-Strobe BBL</b>	6230-010
Basic BBL strobe, universal 115/230 recharger with interchangeable wall plugs	
<b>Nova-Strobe BBL Kit</b>	6230-011
Same as above; ships with standard carry case	
<b>Nova-Strobe DBL</b>	6231-010
Deluxe DBL strobe, universal 115/230 recharger with interchangeable wall plugs, and NIST Certificate	
<b>Nova-Strobe DBL Kit</b>	6231-011
Same as above; ships with standard carry case	
<b>Nova-Strobe PBL</b>	6232-010
Phaser PBL strobe, universal 115/230 recharger with interchangeable wall plugs, and NIST Certificate	
<b>Nova-Strobe PBL Kit</b>	6232-011
Same as above; ships with deluxe watertight carry case	

To order, see product's webpage.

Nova-Strobe LED 0523



15 Columbia Drive, Amherst NH 03031  
800-999-3390 // 603-883-3390 // Fax 603-886-3300  
[sales@monarchinstrument.com](mailto:sales@monarchinstrument.com)

[www.monarchinstrument.com](http://www.monarchinstrument.com)