



Nova-Strobe™ pbx Phase Shifting Stroboscope with NIST

Features:

- External Phase Shifting capability; delays adjustable as phase angle or time with resolution to 0.1° and 0.0001 seconds; auto step mode provides slow motion appearance for high-speed repetitive events
- Flash rates from 30 to 50,000 flashes per minute, adjustable in 0.01 step increments, the coarse/fine adjustment knob makes it quick and easy to set the exact flash rate you want; the ALT knob function multiplies the initial flash rate by 2, 3, 4, 5, etc.
- Six keypad buttons provide easy control over the strobe's powerful features
- Individual input and output TTL jacks (1/8" phone) provide power to remote sensors and allow daisy-chaining multiple strobes
- Times 2 (x2) and Divide by 2 (÷2) push buttons allow easy checking for actual RPM, harmonics, and allow stop motion far beyond the 50,000 FPM limit
- Backlit alphanumeric LCD shows flash rate in flashes per minute (FPM) or flashes per second (Hz) and delays in degrees or milliseconds
- Tachometer mode allows accurate speed measurement up to 250,000 RPM using external sensors
- Store and recall up to 9-user selectable values; last measurement memory, even with the power off
- Runs on internal, rechargeable batteries or continuously with PSC-pbxU power supply/recharger provided
- ¼ x 20 tripod mount in handle
- NIST Traceable Certificate included



The Nova-Strobe™ pbx (Phaser Strobe) Phase-Shifting Xenon Stroboscope with NIST is part of the Nova-Strobe™ family of xenon stroboscopes that incorporates all the unique design features of the Deluxe Nova-Strobe™ dbx with an increased operating range of 30 to 50,000 flashes per minute and external phase-shifting (phase or time delay and virtual slow motion). The pbx also has the ability to run for up to 2 hours with the internal rechargeable batteries or continuously with the AC power supply/charger (PSC-pbxU) provided.

Purchase individually or in kit form which ships in a deluxe carry case with foam inserts and a spare flashtube (lamp). NIST Traceable Certificate included.



Nova-Strobe™ pbx Phase-Shifting Xenon Stroboscope

Specifications*	Nova-Strobe™ pbx Phaser Stroboscope
Internal Modes:	
Flash Range	30 - 50,000 FPM (Flashes Per Minute)
Flash Rate Accuracy	±0.004% of setting or ± least significant digit
Flash Rate Resolution	0.01 to 1 FPM (menu selectable), 0.1 FPM max resolution above 9,999.99 FPM
Display Update Rate	0.5 second typical above 120 RPM
Flash Range and Display	Same as Internal Mode - external flash rates to 0 are acceptable
Tachometer Mode	5 to 250,000 RPM from external trigger Accuracy: ±0.001% of reading or ± last digit
External Modes:	
Display Update Rate	0.5 second typical
Trigger-to-Flash Delay	< 5 µsec
Phase Delay	Phase: 0.1 to 359.9° Time: 0.01 to 1000 milliseconds Auto: 0 to 200 VRPM
External Input (1/8" phone plug)	TTL compatible (24 V pk max), 0.5 µsec min. pulse width, positive or negative edge-triggered (menu selectable)
General:	
Time Base	Ultra-stable crystal oscillator
Display	LCD with 6 numeric 0.506 in. [12.85 mm] high digits and 5 alphanumeric 0.282 in. [7.17 mm] high digits
Indicators	Battery level, On-Target, TIME, AUTO, ALT., TACH LOCK, and EXT icons
Knob Adjustment	Digital Rotary switch with 36 detents per revolution; velocity sensitive
Memory	Last setting before power down is remembered and restored on the next power-up; 9 user-settable flash rates
Trigger Output/Remote Sync (1/8" phone plug)	40 µsec positive/negative pulse (menu selectable), 3.3 Vdc typical
Power	Internal rechargeable NiMH batteries or AC power supply/recharger
Light Output	Average: 13 Watts typical > 4000 RPM Instantaneous (per flash): 230 mJoule typical to 4000 RPM
Flash Duration	10-25 microseconds (auto adjust with flash rate)
Flash Tube (Lamp) Life	100 million flashes
Run Time	Two (2) hours typical at 1800 FPM and over 1 hour at 6000 FPM with fully charged batteries or continuous with AC power supply/recharger
Charge Time	Four to five (4-5) hours typical with PSC-pbxU
Weight	1.9 lbs. [0.86 kg] including batteries
Energy Efficiency	Phaser-Strobe pbx units with Firmware Revision 1.43 and higher are compliant with U.S. Department of Energy's energy conservation standards specified in the Code of Federal Regulations 10 CFR 430.32(z) and are registered in the DoE CCMS database.
<i>This product is designed to be safe for indoor use under the following conditions (per IEC61010-1):</i>	
Operating Temperature	32-104 °F (0-40 °C)
Note: Safety thermal feature will set unit into TACH Mode (stops flashing) in the event of internal overheating. Unit must then be power cycled.	
Humidity	Maximum relative humidity 80% for temperature up to 88 °F (31 °C) decreasing linearly to 50% relative humidity at 104 °F (40 °C)

*Specifications are subject to change without notice.



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