



MONARCH
INSTRUMENT

Nova-Pro[®] IR 850

Infrared Stroboscope/Tachometer

Features:

- Available infrared light at 850nm or 940nm
- High output LEDs
- Water and dust resistant IP54 enclosure
- Optional integral/removable laser module with strobe sync (patented technology)
- Ergonomic one-handed operation
- Removable rechargeable Li-ion battery
- NIST Certificate included
- 1/4" x 20 tripod mount
- Continuous AC operation available
- TTL compatible input/output

Typical Uses:

- Low light visualization with vision systems
- Textile, metal, and printing inspection:
 - Reduces glare and reflections from typical "white" light illumination
 - Reduces/increases contrasts between differently colored objects for clarity of inspections
 - Provides clearer details between white, dark, and gray items
 - NIR lighting's longer wavelengths allow greater penetration of light into materials
 - NIR can transmit through materials like cloth, plastic, semiconductors, glass, and paper making
 - NIR can react differently on metals and coatings/films improving detection of defects
 - Bar and date code clarity during inspections
 - Optical character recognition
- Nocturnal studies of mammals, insects, and light-sensitive subjects
- Research: stop/slow motion visualization of subjects in light-sensitive environments
- Surface inspection for contamination, pits, cracks, and defects
- Optical character recognition



**PATENTED
TECHNOLOGY**



the IR 850 is a handheld infrared (IR) LED stroboscope used most for stop-motion inspection and stop-motion photography/filming. This compact, ergonomic strobe also operates as a full-function laser tachometer to become a powerful two-in-one inspection tool. The stroboscope light source is comprised of twelve (12) 850nm LEDs. The IR 850 has a long battery life - up to 9.5 hours on a single charge. With the optional AC adapter, continuous operation is possible.



Nova-Pro® IR 850 Stroboscope/Tachometer



Specifications*	Nova-Pro IR 850
Flash Range (FPM/RPM)	30 to 999,999
Display	6-digit numeric and 5-digit alphanumeric LCD with touch keypad; high-contrast blue background/white character with backlight
Accuracy/Resolution	0.001% of setting or \pm LSD/6 digits to 0.0001
Light Source	IR 850nm 12 LED array (60° lens, 850nm \pm 2nm)
Light Output	Typical radiant intensity (mW/SR) 1150
Flash Duration	Adjustable from 0.1 to 14°/2.000 μ secs max
External Triggers Input/Output	TTL (12 V dc max) input; provides 3.3 V dc TTL output
Tachometer Mode	0-999,999 RPM with **integral laser or external input
Programmable Memory	10 setpoints
Operating Time	Standard battery pack: 9.5 hours typical (6000 FPM, 2° duty cycle)
Power Supply - Battery	Removable/rechargeable UN38.3 compliant Li-ion battery pack; battery - 7.4 V 2.8Ah (21 W)
Power Supply - AC	115/230 V ac 50/60 Hz AC Adapter with 6 ft. [2 m] cable and interchangeable wall plugs (optional)
Weight	1.4 lbs. (635 g) with standard battery
Size (H x W x D)	9.5 in. x 3.75 in. x 5.5 in. [241 mm x 95 mm x 140 mm]
Housing Material/Rating	ABS/IP54

*Specifications are subject to change without notice.

** Integral optical reflective sensor used as a flash trigger protected under US Patent 10,080,268.

Ordering Information

Nova-Pro IR 850 6240-010

Includes 850nm strobe with Li-ion battery pack, recharging station, interchangeable wall plugs, NIST Certificate

Nova-Pro IR 850 Kit 6240-011

Same as above with integral laser module with remote dock; ships with standard carry case

To order, see product's webpage.

Monarch offers various types of external sensors that are compatible with the Nova-Pro including optical, laser, magnetic, inductive, etc.

(Shown is the ROS-P Remote Optical LED Sensor.)



Feature	Nova-Pro Models				
	100	300	500	UV365/UV385	IR 850
Reflective LCD	✓				
White-on-blue LCD with backlight		✓	✓	✓	✓
Touchscreen control		✓	✓	✓	✓
Standard output LEDs	✓				
High output LEDs		✓	✓	✓	✓
Input/output jacks		✓	✓	✓	✓
Tachometer mode internal*	✓*	✓	✓	✓	✓
Tachometer mode external		✓	✓	✓	✓
Programmable memory		✓	✓	✓	✓
Internal phase shifting			✓	✓	
Phase delay			✓	✓	
Time delay			✓	✓	
Virtual RPM mode			✓	✓	
NIST Calibration Certificate	*	✓	✓	✓	✓

*Optional on 100 and IR units

Nova-Pro IR850 0622



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