MONARCH INSTRUMENT

Nova-Pro® 100, 300 & 500
Stroboscope/Tachometer
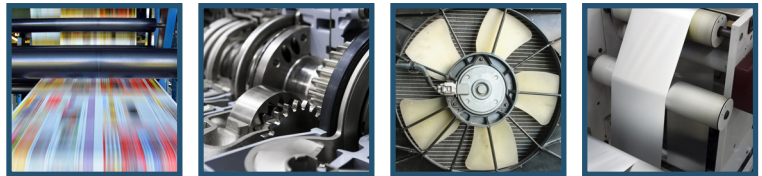
Features:

- **Integral/removable laser module with strobe synch (patented technology)**
- **Stroboscope and tachometer in one tool!**
- **Super bright LEDs**
- **Water and dust resistant IP54 enclosure**
- **Ergonomic one-handed operation**
- **Removable rechargeable Li-ion battery**
- **NIST certificate included (300, 500)**
- **1/4" x 20 tripod mount**
- **Continuous AC operation available**
- **TTL compatible input/output (300, 500)**

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 built in laser tachometer**
- **Virtual slow motion created to troubleshoot high-speed automation processes**
- **Print quality inspection**
- **Textile processing inspection**
- **Phase reference for balancing**

PATENTED TECHNOLOGY

3 Models to Choose From

The Nova-Pro is a series of powerful portable visual inspection and speed measurement tools. We have combined all the features of our handheld LED stroboscopes together with a full function laser tachometer to create a compact, ergonomic and extremely powerful two in one predictive maintenance tool. The stroboscope light source is made up of twelve LEDs which are extraordinarily bright yet extremely efficient allowing cool continuous operation. The Nova-Pros come with a long-lasting rechargeable battery for continuous operation; an AC adapter option is available.

MADE IN THE USA
with US and
Imported Components

www.monarchinstrument.com

Nova-Pro® Stroboscope/Tachometer

Unique Features

Feature	Nova-Pro Model 100	300	500
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

Laser Module
Included with the 300 & 500; optional for the 100

Battery Recharging Station
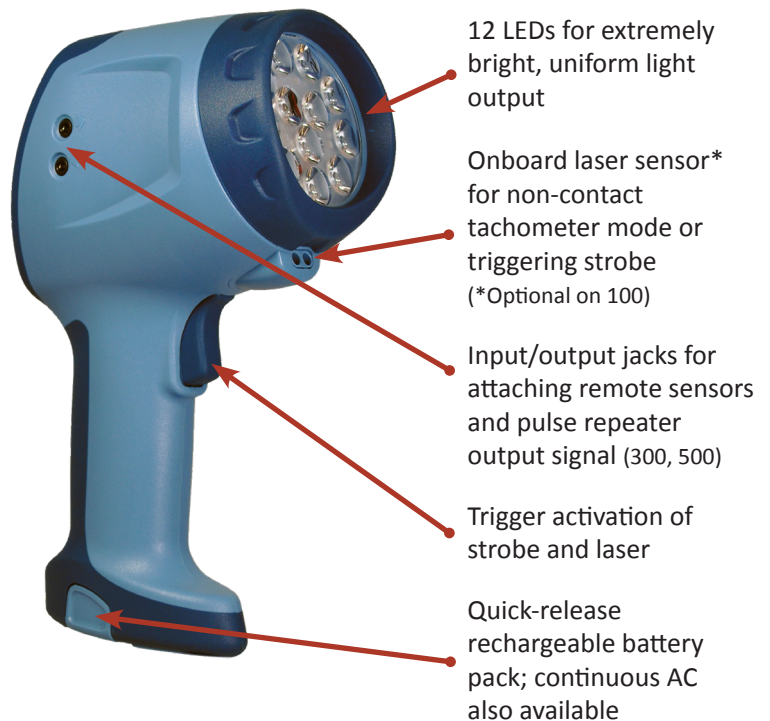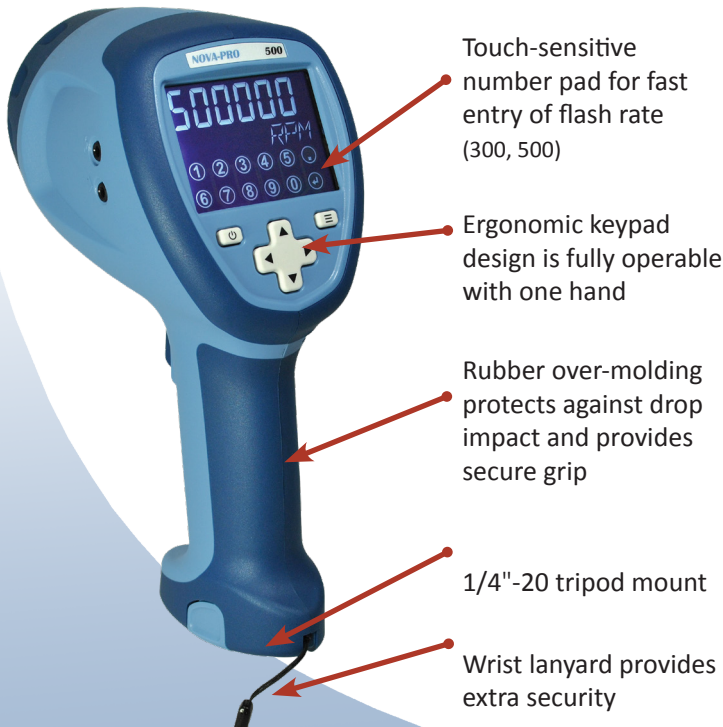Included with all models

AC Power Adapter
Included with the 100 AC, 300 AC and 500 AC models

Remote Laser Dock
Remove the Laser Module from the Nova-Pro and insert it into the Remote Laser Dock with ¼"-20 bushing for optional tripod mount. Plug the cable into the external input jack (300 & 500 models) and make measurements in hard to reach or unsafe areas.

Design Features

The Nova-Pro represents over 40 years of expertise in manufacturing rugged, reliable, portable test and measurement instruments. This revolutionary product combines the feature sets of Monarch's portable stroboscopes and tachometers into one incredibly powerful ergonomic tool. The Nova-Pro is IP54 designed for use in wet/dusty environments.

Touch-sensitive number pad for fast entry of flash rate (300, 500)

Ergonomic keypad design is fully operable with one hand

Rubber over-molding protects against drop impact and provides secure grip

1/4"-20 tripod mount

Wrist lanyard provides extra security

12 LEDs for extremely bright, uniform light output

Onboard laser sensor* for non-contact tachometer mode or triggering strobe (*Optional on 100)

Input/output jacks for attaching remote sensors and pulse repeater output signal (300, 500)

Trigger activation of strobe and laser

Quick-release rechargeable battery pack; continuous AC also available

Nova-Pro® Stroboscope/Tachometer

Specifications*	100	300	500
Flash Range (FPM/RPM)	30 to 999,999		
Display	6-digit numeric and 5-digit alphanumeric LCD reflective	6-digit numeric and 5-digit alphanumeric LCD with touch keypad; high-contrast blue background/white characters with backlight	
Accuracy/Resolution	0.001% of setting or ±1 LSD/6 digits to 0.001		
Light Source	12 LED array	12 high-output LED array	
Flash Duration	Adjustable to 14°/2.000 msec max		
Light Output	3400 lux @ 6000 FPM, 12 in. [30.48 cm], 2° duty cycle, max light output 24,000 lux	5500 lux @ 6000 FPM, 12 in. [30.48 cm], 2° duty cycle, max light output 30,000 lux	
Color Temperature	Approximately 6200 K		
External Triggers Input/Output	N/A	TTL (12 V dc max) input; provides 3.3 V dc TTL output	
Tachometer Mode	0-999,999 RPM with integral laser (optional)	0-999,999 RPM with integral laser or external input	
Programmable Memory	N/A	10 setpoints	
Internal Phase Shift	N/A		Yes
Phase Delay	N/A		-360.0 to 345.0°
Time Delay	N/A		-50.000 to 50.000 msec
Virtual RPM - Slow Motion	N/A		-60.0 to 60.0 VRPM
Operating Time	Standard battery pack: 9.5 hours typical (6000 FPM, 2° duty cycle)		
Power Supply - Battery	Removable/rechargeable standard Li-ion battery pack with 100-240 50/60 Hz recharging station		Removable/rechargeable standard Li-ion battery packs (qty. 2) with 100-240 50/60 Hz recharging station
No. of Battery Packs	1		2
Power Supply - AC	100-240 V ac 50/60 Hz AC Adapter with 6-foot [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.

Ordering Information

Nova-Pro 100 6241-010
Includes 100 strobe with Li-ion battery pack, recharging station, interchangeable wall plugs

Nova-Pro 100 Kit 6241-011
Same as above; ships with standard carry case

Nova-Pro 300 6243-010
Includes 300 strobe with laser module, Li-ion battery pack, recharging station with interchangeable wall plugs, NIST Certificate

Nova-Pro 300 Kit 6243-011
Same as above; ships with standard carry case

Nova-Pro 500 6245-010
Includes 500 strobe with laser module, 2 Li-ion battery packs, recharging station with interchangeable wall plugs, NIST Certificate

Nova-Pro 500 Kit 6245-011
Same as above; ships with deluxe watertight carry case

Nova-Pro 100 AC 6241-020
Includes 100 strobe, 115/230 V ac adapter with interchangeable wall plugs

Nova-Pro 100 AC Kit 6241-021
Same as above; ships with standard carry case

Nova-Pro 300 AC 6243-020
Includes 100 strobe, 115/230 V ac adapter with interchangeable wall plugs

Nova-Pro 300 AC Kit 6243-021
Same as above; ships with standard carry case

To order, see product's webpage.

www.monarchinstrument.com

Monarch's Stroboscopes

Monarch Instrument has been building **handheld stroboscopes** for over 35 years and is recognized as the most popular brand worldwide.

Nova-Pro is a series of powerful portable visual inspection and speed measurement tools. We have combined all the features of our handheld LED stroboscopes with a full-function laser tachometer to create a compact, ergonomic, and extremely powerful two-in-one predictive maintenance tool.

The **Nova-Pro UV 365 and UV 385** are extremely powerful, portable ultraviolet LED visual inspection instruments built on the all-new Nova-Pro stroboscope platform. Theses strobes are available with 365nm or 385nm wavelength LEDs and are optimized for inspection of UV inks on labels, security tags, anti-counterfeiting marks, UV coatings and more.

The **Nova-Pro IR 850** is a portable handheld infrared (IR) LED stroboscope used for inspection and stop motion. It is available with either 850nm or 940nm LEDs.

Stroboscope Accessories

Each installation and use case of our handheld or fixed mount stroboscopes is unique. That's why we manufacture a full set of accessories to make sure our strobes will exceed your needs. From protective cases and pouches to sensors and batteries, we have the right tool and the perfect accessory for your stroboscope needs.
See the Nova-Pro Accessories webpage for details.

Standard Li-ion Battery Pack
PN: 6281-010

AC Power Adapter
PN: 6281-015

Standard Carry Case
PN: 6281-030

Deluxe Carry Case
PN: 6281-031

Laser Module
PN: 6281-020

Laser Module Dock
PN: 6281-021

Battery Charging Station
PN: 6281-012

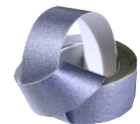Input/Output Cable
CA-4045-6, 6 ft.
PN: 6280-038

Output Cable CA-4044-6
PN: 6280-37

Tripod Mini
PN: 6280-040

Universal Recharger
PN: 6281-013

T-5 Reflective Tape
5 ft., single pack PN: 6180-070
5 ft., 2-pack PN: 6180-069
150 ft. PN: 6180-071

Nova-Pro 1221

MONARCH
INSTRUMENT

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