

*Your solution source for pro-active maintenance
and monitoring instruments since 1977*



- Tachometers
- Totalizers
- Timers
- Stroboscopes
- Vibration Meters
- Speed Sensors
- Fiberscopes
- Ultrasonic Leak Detectors
- Recording Tachometers





Example Applications:

- Centrifuges
- Saw blades
- Grinders
- Elevators/escalators
- Engines
- Motors
- Conveyor belts
- Fans
- Propellers
- Vibration Studies

Pocket Laser Tach 200



"Safety First"

Safe and Accurate Non-Contact Measurements-View Target & Display Simultaneously, a Monarch Exclusive.

Two Tachs in One ... the only portable laser tachometer available with both Remote Contact and Remote Sensors.

Optional plug-in Remote Sensors with 8 foot cable. (25 foot cables available). See page 9 for details.



Remote Optical Sensor (ROS-P) Gap 36 inches



Remote Magnetic Sensor (MT-190-P) Gap 0.25 inches



Remote Infrared Sensor (IRS-P) Gap 0.50 inches

Remote Contact Assembly (RCA) with 6 foot (1.82m) cable, Contact Tips and 10 cm Linear Contact Wheel (Shows optional 12 inch circumference Linear Contact Wheel)



Optional RCA



TTL pulse Input/output cable with BNC connector



Protective Carry Pouch with belt loop (optional)



PLT200 shown with optical sensor and TTL output cable



PLT200 and PT99 have a 1/4 20 threaded bushing for tripod mounting

The rugged and versatile Pocket Laser Tach is ideally suited for non-contact, contact and linear speed measurements.

Pocket Laser Tach 200 (PLT200) is a digital, battery-powered portable optical tachometer, which operates up to 25 feet (8 meters) from a reflective target using a class 2 laser light source. The ergonomic design allows safe, direct line-of-sight viewing of both the target and the display at the same time, while providing a non-slip rubber surface for single hand operation.

Multi-Function For Pro-Active Maintenance

PLT200 is a 32 function Tachometer/Ratemeter, Totalizer/Counter and Timer (stopwatch), which is programmable in both Imperial and Metric rates. Two phono plug connectors for our optional Remote Contact Assembly (RCA) or remote sensors. The PLT200 also has a TTL compatible pulse output to trigger devices like vibration data collectors or stroboscopes. The KIT is supplied complete with a Remote Contact Assembly including concave and convex tips and a 10 cm linear speed wheel all in a latching carrying case.

Pocket Laser Tach 200 Kit includes: Tachometer, RCA, Contact Tips, 10cm Linear Contact Wheel, 5 feet of Reflective Tape and a Latching Carrying Case.



PLT200 Kit

Specifications PLT200

- Display: 5 Digits, 5 Alphanumeric LCD
- Range(s): *Optical: 5 to 200,000 RPM
**Contact: 0.5 to 20,000 RPM

Rates	10cm Contact Wheel	12 inch circumference Contact Wheel
Inch/min	1.969 to 78,740 IPM	6,000 to 144,000 IPM
Feet/min	0.164 to 6,561.7 FT/M	0.500 to 12,000 FT/M
Yard/min	0.055 to 2,187.2 YPM	0.167 to 4,000.0 YPM
Cm/min	5.000 to 200,000 cm/M	15,240 to 365,760 cm/M
M/min	0.050 to 2,000.0 M/M	0.153 to 3,657.6 M/M

- Totalizer: 1-999,990 (events or length)
- Timer: 99:59.9 Min, sec, tenths
- Accuracy: Optical: $\pm 0.01\%$ of reading
Contact: $\pm 0.05\%$ of reading (rpm)
- Resolution: 0.001 to 10 RPM (range dependent)
- Operating Distance: 2" to 25' (5cm to 7.62m), $\pm 70^\circ$ from perpendicular
- Memory: Maximum, Minimum and Last
- Power: (2) "AA" 1.5 VDC batteries (30 hours)
- Environmental: 5° to 40°C (40° to 105°F)
80% RH up to 31°C (88°F)
- Dimensions: 6.92 "H x 2.4" W x 1.6" D
(17.58 x 6.10 x 4.06cm)
- Weight: 7 oz. (210 g)

* performance subject to intensity of ambient light irradiation.
** also reads units per second and per hour.



Ordering Information

Pocket Laser Tach 200 Tachometer, N.I.S.T. traceable certificate of calibration, 12 inches of Reflective Tape.
Pocket Laser Tach 200 Kit Tachometer with Latching Carrying Case, RCA, Tips and Linear Speed Wheel, Battery, 5 foot roll Reflective Tape, N.I.S.T. traceable certificate of calibration.
ROS-P Remote Optical Sensor with Mounting Bracket and 8 foot cable for Pocket Laser Tach 200 only.
ROS-P-25 Same as above with 25 foot cable.
T-5 Reflective Tape, 5 foot roll, 1/2" wide.
TTL pulse output cable
Latching Carrying Case

Pocket-Tach PT99



Pocket Tach 99 (PT99) is a digital, battery-powered portable non-contact optical tachometer, which operates up to 36 inches from a reflective target using a bright red LED light source. The ergonomic design allows safe, direct line-of-sight viewing of both the rotating target and the display at the same time, while providing a non-slip rubber surface for single hand operation. Pocket Tach 99 is the value-leader of the world-class Pocket Tach Series from Monarch.



Protective Carry Pouch with belt loop (optional)



T-5 Reflective Tape 5' x 1/2" wide roll



PLT200 and PT99 have a 1/4 20 threaded bushing for tripod mounting



Pocket Tach 99

- Example Applications:**
- Grinders
 - Abrasives
 - Motors
 - Engines
 - Pumps

Specifications PT99

• Display:	5 Digits, 5 Alphanumeric LCD
• Range:	5 to 99,999 RPM
• Accuracy:	±0.01% or ±1 Digit
• Resolution	0.001 to 1.0 RPM
• Autoranging:	1 Digit RPM
• Fixed:	1 Digit RPM
• Operating Range:	2 inches to 36 inches, ±45°
• Memory:	Maximum, Minimum and Last
• Power:	(2) "AA" 1.5 VDC batteries (60 hours)
• Environmental:	5° to 40°C (40° to 105°F) 80% RH up to 31°C (88°F)
• Dimensions:	6.92 "H x 2.4"W x 1.6"D (17.58 x 6.10 x .06cm)
• Weight:	7 oz. (210 g)

Ordering Information
 Pocket-Tach 99 Tachometer, Battery & 6 inches Reflective Tape.
 Carry Pouch
 T-5 Reflective Tape, 5 foot roll, 1/2" wide.

PORTABLE TACHOMETERS (Non-Contact with Pistol Grip)

Phasar-Laser Tach Series



Phasar-Laser combines the accuracy and safety of a non-contact optical tachometer with the convenience and ease of operation of a pistol grip instrument, housed in a rugged steel enclosure. The tachometer provides a convenient visible red laser for easy targeting along with a latching trigger for hand held operation and a mounting bushing for tripod mounted use.

Phasar-Laser-R provides for an optional remote sensor for difficult to reach locations in addition to the standard internal measurement optics.

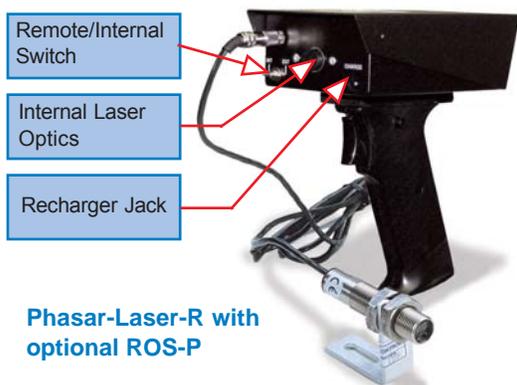
Features

- Convenient pistol grip design
- Rugged steel enclosure
- Safe non-contact operation to 10 feet (3 m) and 45 degrees from reflective tape
- On-target and low battery indicators
- Last measurement memory



Phasar-Laser

- Example Applications:**
- Engines
 - Dynamometers
 - Pumps
 - Fan blades
 - Centrifuges
 - Motors



Phasar-Laser-R with optional ROS-P

Specifications	Phasar-Laser and Laser-R
Range	5-100,000 RPM
Accuracy	±1 RPM or 0.01% of reading
Resolution	1 RPM
Display	6 digit, 0.5" high Liquid Crystal Display
Power On	Pistol grip trigger with latching "on" Switch
Operating Range	10 feet (3m) and 45° from reflective tape
Power	(4) "AA" (LR6) Alkaline batteries or *optional NiCad batteries and AC recharger

Ordering Information
 Phasar-Laser Tachometer, 12" of Tape, and Alkaline Batteries
 Phasar-Laser Kit Tachometer, Recharger, 5 foot roll of Tape, NiCad Batteries in Latching Case
 Phasar-Laser-R Kit Tachometer, Recharger, Remote Optical Sensor, 5 foot roll of Tape, NiCad Batteries in Latching Carrying Case



Nova-Strobe dbx

Common Applications:

- Non-contact RPM
- Diagnostic Inspection
- Bent blades/shafts
- Slipping/worn belts
- Printing Press
- Stop-action Inspection
- Textiles

Nova-Strobe x - The standard for high intensity multi-function portable stroboscopes. Models are available with digital displays, battery or AC power, and a useful range of features which provide unmatched performance and value. Four models range from the Nova-Strobe **dbx** Deluxe the most versatile battery powered digital stroboscope with internal phase shifting, down to the Nova-Strobe **bax** Basic, the most cost effective AC powered digital stroboscope.

Both the battery powered Nova-Strobe **dbx** and AC powered Nova-Strobe **dax** provide a range of 30 to 20,000 flashes per minute and an accuracy of ± 0.002 of setting. Flash rates are easily adjusted to fractional RPM by a coarse/fine control knob. Individual TTL compatible input and output jacks are provided for 'daisy chaining' of multiple strobes, triggering from an external source, or providing a trigger signal to external equipment.

Both dbx and dax provide internal phase shifting to keep the target precisely in view. Both provide x2 and $\div 2$ capability for distinguishing actual RPM from harmonic frequencies. In addition, 9 user presettable memory flash rates for repetitive measurements and storage of the last flash rate measured are included.

Features All Nova-Strobes, Deluxe and Basic:

- Internal rechargeable batteries or AC powered models
- Weighs less than 2.0 Lbs. for easy handling
- More than 20% brighter Xenon light than competitors
- Electronic switching provides continuous cool operation
- Tripod mounting bushing in handle

In addition, Nova-Strobe **dbx** and **dax** Plus models have:

- N.I.S.T. Traceable Certificate of Calibration included
- Internal phase shifting for easy reference target viewing
- Tachometer mode, speed measurement up to 250,000 RPM
- Power for optional sensors
- Low battery indicator

Nova-Strobe dbx
Deluxe

Select optional sensors for
tachometer mode (see page 9)

TTL compatible input/output
1/8" (3.5mm) phone plugs

Nova-Strobe bbx/bax Basic
Digital LCD Display



Nova-Strobe dbx Kit

Ordering Information

Nova-Strobe bax 115 Stroboscope, AC powered
 Nova-Strobe bax 230 Stroboscope, AC powered
 Nova-Strobe dax 115 Stroboscope, AC powered
 Nova-Strobe dax 230 Stroboscope, AC powered
 Nova-Strobe bbx 115/230 Stroboscope, battery
 Powered, universal PSC-2U (115/230 VAC)
 recharger (USA, UK, AUS, EURO plug)
 Nova-Strobe dbx 115/230 Stroboscope, battery
 powered, universal PSC-2U (115/230 VAC) recharger
 (USA, UK, AUS, EURO plugs)
 Also available in Kit form including: Stroboscope
 Recharger, spare lamp and carrying case.

Specifications	Nova-Strobe dbx, Deluxe Battery Powered	Nova-Strobe dax, Deluxe AC Powered	Nova-Strobe bbx, Basic Battery Powered	Nova-Strobe bax, Basic AC Powered
Range Flashes/Minute	30-20,000 FPM (Flashes Per Minute)		30-10,000 FPM (Flashes Per Minute)	
Display	6 Digit Numeric and 5 digit Alphanumeric LCD			
Accuracy/Resolution	0.002% of setting or +/- 1 lsd /0.01 FPM			
Flash Energy/Duration	230 mJoule up to 3450 FPM / 8-20 μ sec			
Average Power-Watts	>13W above 3450 FPM			
Flash Tube & Life	High Power Xenon - 100 million flashes typical			
External Triggers - in/out 1/8" (3.5mm) Phone Jacks	TTL (24Vdc Max) Input. Provides 3.3 Vdc TTL output		N/A	
Tachometer Mode	5-250,000 RPM - Use with Optional Remote Sensor		N/A	
Programmable Memory	Yes	Yes	N/A	
Internal Phase Shift	Yes	Yes	N/A	
Operating Time	2 hours typical @ 1800 FPM	Continuous	2 hours typical @ 1800 FPM	Continuous
Power Supply	Internal NiMH rechargeable batteries	115 Vac, 50-400 Hz or 230 Vac, 50-400 Hz	Internal NiMH rechargeable batteries	115 Vac, 50-400 Hz or 230 Vac, 50-400 Hz
Weight	1.9 Lbs. (.86 kg)	1.5 Lbs. (.68 kg)	1.9 Lbs. (.86 kg)	1.5 Lbs. (.68 kg)
Size (L x W x H)	Body: 9" x 3.66" x 3.56" (229 x 93 x 90 mm); Reflector Housing: 4.8" (122 mm) diameter; Handle: 4.25" (108 mm) long			