

## **NEW** Monarch Palm Strobe Compact Industrial Stroboscope

**World's first removable re-chargeable battery pack stroboscope**

- Provides Unlimited Continuous Use
- Unique Joystick Tuning Button Adjusts Flash Rate, Multiply by 2 and Divide by 2
- Rapid and Precise Frequency Selection
- Instant Stop-Motion Inspection
- Flash Range 30.0 - 14,000.0 FPM
- Tachometer Measurements 10 to 250,000 RPM
- Typical Accuracy ±0.01% of Reading
- Run Time 1 Hour Typical at 1800 FPM
- Removable 6V Rechargeable Battery Pack with Integral Charger
- 6 digit Alphanumeric Backlit LCD display

**Palm Strobe 115** ▶



▲ **Battery Pack**

**Each unit includes:** Strobe, battery, recharger

**Pak:** adds second battery pack and holster.

**Kit includes:** Strobe, 2 battery packs, recharger, (2) spare lamps and latching hard case.

**Deluxe Kit includes:** Strobe, 2 battery packs, recharger, (2) spare lamps, holster and latching hard case.

### Ordering Information

Order #	Mfg #	Description	Price
MP6205-010	Palm Strobe 115	Industrial Stroboscope 115VAC	
MP6205-011	Palm Strobe Pak 115	Industrial Stroboscope Pak	
MP6205-012	Palm Strobe Kit 115	Industrial Stroboscope Kit	
MP6205-013	Palm Strobe Deluxe Kit 115	Industrial Stroboscope Deluxe Kit	
MP6280-017	PR Universal	Universal Charger 120-240 50/60 Hz (USA/UK/AUZ/Euro adapter plugs)	
MP6280-029	L-1904	Replacement Lamps (2)	

▶ **Palm Strobe Deluxe Kit**



## Extech Combination Contact/Photo Tachometer

**Laser Photo Tachometer Now Available**

- Unique Display where Characters Reverse Direction Depending on Measurement Mode You are in
- Large 0.4" (5 digit) LCD Display
- Tachometer Memory Stores Last, Max and Min Readings
- Provides Wide RPM (photo and contact) and Linear Surface Speed (contact) Measurements
- Accurate to 0.05% with Max Resolution of 0.1 RPM

**Each Unit Includes:** Complete with tips and wheel for RPM or linear surface speed, four 1.5V AA batteries, reflective tape and carrying case.

### Additional Features (22510FST)

- Narrow Beam Laser Photo Tachometer for Accurate Non-Contact RPM Measurements
- Measurements from up to 6.5 ft from the Target for Improved Safety and Accessibility

### Specifications

	Photo	Contact
Range—RPM:	5–99,999	0.5–20,000 (Contact)
Accuracy:	0.05% FS +1 digit	
Sampling Time:	1 Sec >60 RPM	1 Sec >6 RPM
Surface Speed:		0.2 to 6560 ft/min 0.05 to 1999.9 m/min
Resolution:	0.1 RPM (0.5 to 999.9 RPM) 1 RPM >1000 RPM	
Power:	4 AA batteries	
Dimensions/Weight:	8.5 x 2.6 x 1.5" / 10.6 oz (300g)	



### Ordering Information

Order #	Mfg #	Description	Price
MP22507FST	461895	Combination Contact/Photo Tachometer	
MP22510FST	461995	Laser Photo/Contact Tachometer	
MP22508FST-1	461936	Spare Reflective Tape (23" each roll)	
MP22508FST-2	461899	Set of Spare Wheels	

## Shimpo Laser Tachometers

**Laser beam allows safe, accurate measurements from up to 14 feet**

- Extended Range to 99,999 RPM Covers Wider Range of Applications
- Expanded Memory Stores up to 10 Readings plus Last, MAX, MIN; Retains Readings for 5 Minutes
- Included Adapters Allow RPM, YPM, mPM, FPM, IPM Speed Measurements Plus YRD, m, FT, IN Length Measurements
- Rugged Aluminum Housing Provides Exceptional Durability

These two contact/non-contact tachometers employ sophisticated technology for greater measuring-distance capability, increased measuring range, expanded memory, and battery life seven times longer than that of previous models. Offered in two models, one with LCD display, one with LED.

**Each Unit Includes:** Reflective tape, cone adapter, contact adapter, 6"-circumference master wheel, NIST certificate, carrying case, and instructions.



DT-205L

### Specifications

	24519FST	24521FST
Display Range:	6 to 99,999 RPM	
Measuring Distance:	14' (4.2m) maximum	
Accuracy:	±1 RPM at 6 to 8,300 RPM; ±2 RPM to 25,000 RPM; ±0.006% of rdg. ± 1 digit or (±7 RPM max) to 99,999 RPM	
Display:	5-digit, 0.47" (12 mm) LCD	5-digit, 0.4" (10 mm) LED
Power/Approx. Life:	Two 1.5V AA batteries/40 hrs	Two 1.5V AA batteries/25 hrs
Size/Weight:	6.6 x 2.4 x 1.8" HWD (167 x 61 x 45.7 mm)/0.8 lb. (365g)	

### Ordering Information

Order #	Mfg #	Description	Price
MP24519FST	DT-205L	Laser Tachometer with LCD Display	
MP24521FST	DT-207L	Laser Tachometer with LED Display	
MP24519FST-12	DT-205L-S12	LCD Model w/ 12" Linear Wheel	
MP24521FST-12	DT-207L-S12	LED Model w/ 12" Linear Wheel	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

## Shimpo Tachometer, Contact

- Measurements Per Minute and Hour
- Linear and Rotational Measurements
- Length and Total Revolutions

Speed is displayed on the 5-digit LCD display. Revolutions, yards, meters, feet, and inches. 7236FST-1 shares the same basic features while offering an LED display.

**Each Unit Includes:** Two conical adapters (4814FST), funnel adapter (concave tip) (4815FST), 3/8" extension shaft (4817FST), reflective tape, wheel (6" FPM) (4816FST), two 1.5V alkaline AA batteries, carrying case, instruction manual, and manufacturer's NIST certificate.



DT-105A

### Specifications

	7236FST	7236FST-1
Display:	5-digit, 0.47" (12 mm) high LCD	5-digit, 0.4" (10 mm) high LED
Display Range:	0.1 to 25,000 RPM with floating decimal	
Accuracy:	±0.06 RPM: 0.1 to 999.99; ±0.6 RPM: 1000 to 9999.9; ±0.006% rdg ±1 digit: 10,000 to 25,000 RPM	
Measuring Units:	Revolutions: RPH, RPM; Feet: FPH, FPM; Miles: MPH; Yards: YPH, YPM; Inches: IPM, Meters: mPH, mPM	
Length:	m, cm in, ft, yds: Total revolutions: REV	
Memory System:	Thirteen readings are stored in memory and retained for 5 minutes (min) (last, max, min, and 10 extra measurements)	
Detection:	Optical coupler, 60 pulses/rev.	
Operating Temp:	32° to 113°F (0 to 45°C)	
Power Supply:	Two 1.5V AA alkaline batteries	
Size/Weight:	8.3 x 2.4 x 2" LWH/1 lb	

### Ordering Information

Order #	Mfg #	Description	Price
MP7236FST	DT-105A	Contact Tachometer, LCD	
MP7236FST-1	DT-107A	Contact Tachometer, LED	
MP7236FST-12	DT-105A-S12	LCD Model Kit with 12" Linear Wheel	
MP7236FST-1-12	DT-107A-S12	LED Model Kit with 12" Linear Wheel	
MP4814FST	CONE	Replacement Conical Adapter	
MP4815FST	FUNNEL ADAPTER	Replacement Funnel Adapter (Concave Tip)	
MP4816FST	6" FPM WHEEL	Replacement Master Linear Wheel (6" Circumference)	
MP4817FST	3" EXT. SHAFT	Replacement 3" Extension Shaft	
MP4818FST	12" FPM WHEEL	Linear Speed Wheel (12" Circumference)	

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Test Instruments — Miscellaneous

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## Monarch Tachometer—Contact/Non-Contact

- Totalizer/Counter/Timer
- 30 Functions—RPM, English and Metric Linear Speed Rates
- Non-Contact Operation to 30 Inches and 30° from Target
- On Target Indicator

The 5941FST tachometer kit can be used for both contact and non-contact measurements and has an ergonomic design that allows simultaneous viewing of the rotating target and the easy-to-read display. This three-button, 30 menu function instrument also acts as a totalizer/counter with automatic incrementing, and as a timer/stopwatch with automatic and manual incrementing. The optional remote sensor increases versatility of operation for RPM, totalizer, and timer applications.

**Each Unit Includes:** Contact tip assembly (CTA-2P) with CT-tips and CT-1M linear contact wheel, 5 ft roll of reflective tape (7246FST), 9V alkaline battery, instructions, and latching carrying case. With NIST certificate.



CE  
6120-010

### Specifications

Accuracy:	Non-contact: ±0.01% of rdg; Contact: ±0.5% of rdg
Non-Contact Speed Range:	5 to 100,000 RPM
Contact Speed Range:	2.50–20,000 RPM; Linear: .825–3900 ft/min, .25–1200 meters/min. (other ranges: inches, yds, miles, and cms per second or per hour)
Totalizer/Counter	Counts: 0 to 999,999 Totals: Inches, feet, yards, centimeters, and meters
Timer (stopwatch):	60 minutes in 0.01 sec and 100 hours in seconds
Size/Weight (tachometer):	2.40 x 5.86 x 1.23" HWD/6 oz\

### Ordering Information

Order #	Mfg #	Description	Price
MP5941FST	6120-010	Tachometer/Totalizer/Counter/Timer Kit	
MP5941FST-2	6180-090	Remote Optical Sensor with 5 ft Cable ROS-9P (optional)	
MP7246FST	6180-070	Replacement Tape, 5 ft Roll, 1/2" Wide	
Transcat Accredited Calibration with Data			CALL
Transcat Accredited Calibration without Data			CALL

## Monarch Photo Tachometer

- Totalizer/Timer Function
- 5 to 500,000 RPM
- NIST Certificate Included

### Non-Contact Rotational Speed

#### Measurement Up to Half Million RPM

Readings are displayed directly in RPM on the 6-digit LCD. Autoranging is standard and provides maximum resolution and accuracy for the speed being measured.

During a measurement sequence, the minimum and maximum speed is held in memory, and may be displayed by pressing "recall". The last reading is also held in memory for one minute.

The 3177FST has the same features and accessories as the 7232FST plus a provision to operate with the optional remote optical sensor below.

### Specifications

Overall Range:	5–500,000 RPM
Accuracy	±0.0015% Reading
Frequency Range	0.083–8333.3 Hz
Resolution	Up to 0.0001 RPM
Totalizer	1 to 999,999 Counts
Timer (stopwatch)	0.01 sec to 100 hours
Operating Range	0-3 ft from target tape
Size/Weight:	6 1/2 x 3 1/2 x 1 1/4" HWD/1 lb

6100-010

### The 7232FST and 3177FST

**Include:** 12" Reflective tape (7246FST), padded carrying case, four 1.5V alkaline batteries, instructions, and manufacturer's NIST traceable certificate.

### The 7234FST Includes:

Recharger with four NiCd batteries (7233FST) recharger, reflective tape (7246FST), carrying case, and manufacturer's NIST traceable certificate.



### Ordering Information

Order #	Mfg #	Description	Price
MP7232FST	6100-010	Digital Photo Tachometer	
MP3177FST	TACH-4AR	Digital Photo Tachometer with Remote Optical Sensor Provision (requires 5283FST-1 sensor)	
MP7234FST	6100-011	Digital Photo Tachometer Kit	
MP5283FST	6180-050	Remote Optical Sensor for 3177FST	
MP7246FST	6180-070	Reflective Tape (5' roll)	
Transcat Accredited Calibration with Data			CALL
Transcat Accredited Calibration without Data			CALL

## Monarch Laser Tachometer

- 100,000 RPM Range:  $\pm 1$  RPM Accuracy; 1 RPM Resolution
- 6-Digit LCD with On-Target Indication

These rugged, battery-powered laser tachometers can operate up to ten feet away from a target—even through mesh safety guards and transparent windows. The wide 5–100,000 RPM range makes them ideal for use with webs, conveyors, motors, and gears as well as other industrial machinery. All these instruments measure  $6\frac{1}{2} \times 3\frac{1}{4} \times 6\frac{1}{8}$ " HWD and weigh 1 $\frac{1}{4}$  pounds.

### Ordering Information

Order #	Mfg #	Description	Price
MP7241FST	PHASAR LCD	Digital Laser Tachometer	
MP3174FST	6130-020	Digital Laser Tachometer with Remote Optical Sensor Provision	
MP3173FST	6130-011	Digital Laser Tachometer Kit	
MP3175FST	PHASAR LCD-R KIT	Digital Laser Tachometer with Remote Optical Sensor Kit	
MP5283FST	6180-050	Remote Optical Sensor for 3174FST	
MP7233FST	6180-061	Charger and NiCd Batteries	
MP7233FST-230		230V Charger and NiCd Batteries	
MP7242FST	6180-041	Padded Carrying Case	
MP7243FST	6180-042	Latching Carrying Case	
MP7246FST	6180-070	Reflective Tape (5' Roll)	

NOTE: For 230V version, add -230 to the catalog number.

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Transcat Accredited Calibration without Data	CALL



**7241FST and 3174FST Include:** Reflective tape 12", four 1.5V AA alkaline batteries, and instructions.

**3173FST Includes:** Recharger (7233FST), four NiCd batteries, 5' roll reflective tape, latching carrying case, and instructions.

**3175FST Also Includes:** Same as 3173FST plus remote optical sensor and bracket (5083FST)

Test Instruments — Miscellaneous

## Ametek Tachometer, Contact/Photo

- Contact and Non-Contact Measurement
- Up to 99,999 RPMs (Optical); 20,000 RPMs (Contact)
- 18 Measuring Modes Including Linear Values
- Battery Operated
- Min/Max/Avg and Last Reading Memory
- Accuracy: Angular Velocity  $\pm 0.025\%$  Rdg + 1 LSD
- Linear Measurement:  $\pm 0.2\%$  Rdg + 1 LSD

### Specifications

Units of Measure	
Optical and Contact:	Revolutions per second, minute and hour
Linear:	Yards, feet, inches, cm, meters and miles per second, minutes and hours
Pick Up:	Integral non-contact photoelectric or contact adapter utilizing interchangeable tips; conical, concave, and 10 cm linear speed wheel
Photoelectric	1–25 inches away from target; greater distances can be attained Pickup Range: using a larger target
Display:	8-character, dot-matrix LCD, $\frac{3}{8}$ " high with low-battery indicator
Size/Weight:	7 $\frac{1}{2} \times 3\frac{3}{4} \times 2$ " HWD/2 lbs

### Ordering Information

Order #	Mfg #	Description	Price
MP7261FST	1726	Contact/Photo Tachometer	
MP7262FST	1007	Concave Tip	
MP4712FST	999	Convex Tip	
MP4713FST	1002	10 cm Surface Speed Wheel	

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Transcat Accredited Calibration without Data	CALL



**Each Unit Includes:** Contact adapter, surface-speed wheel (4713FST), convex tip (4712FST), concave tip (7262FST), strips and discs of reflective tape, 9V alkaline battery, carrying case, and instructions.

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## Megger Tachometers, Photo or Contact

- Rugged, Heavy-Duty Construction
- High Accuracy
- 7-Segment LCD
- Specialized Infrared-Type Sensing System in Photoelectric Models
- Memory Function
- Over/Under Indications

### Specifications and Ordering Information

Mfg #	359985	359986	359987
Type:	Contact	Photo	Photo/Contact
Range, RPM:	10.00–99.99 100–999.9 1,000–19,999	10.00–99.99 Photo / 5 to 99.99 Contact 100.0–999.9 Photo / 100 to 999.9 Contact 1,000–99,999 Photo / 1000 to 10,000 Contact	
Resolution:		0.01 RPM 0.1 RPM 1 RPM	
Display:		Digital	
Accuracy:	0.2% of measured value ±1 digit		
Order #	MP3159FST-1	MP3160FST-1	MP3161FST-1
Price			



**Each 3159FST-1 Includes:** Small and large conical rubber tips (S-8 and S-4), 6" circumference rubber disk wheel (S-11), three 1.5V alkaline AA batteries, carrying case, and instruction manual.

**Each 3160FST-1 Includes:** Forty 1/2" reflective squares (356528), one roll reflective tape (356529), three 1.5V alkaline AA batteries, carrying case, and instruction manual.

**Each 3161FST-1 Includes:** Contact adapter head, three AA batteries, roll of reflective tape, tape squares (40), instructions, hard carrying case, rubber disk wheel (6" circumference), and small and large conical tips.

## NEW Monarch Multi Sensor System

- Multi Sensor System
- Interchangeable Sensor Modules
- Display Unit Recognizes any Sensor Module and Configures the Display
- Build a Custom Metering System with the Sensor Modules You Need
- Add Sensor Modules at Any Time to Expand Your Capabilities

### Models Available

- Laser Tachometer
- LED Strobe
- Contact Temperature (Dual)
- Humidity and Temperature

**Complete Kit Includes:** A multiple sensor display unit, sensor module and carrying case.



### Display Unit Specifications

Display	Bright Backlit LCD 5 digit and 5 Alpha Characters,
Memory	10 measurements. Minimum and Maximum reading recall
Power	2 x "AA" Batteries
Dimensions	6.75 x 2.25 in (72 x 58 mm)
Weight	4 oz. (140 gm)
Options	RS-232 or TTL output, N.I.S.T. Certificate of Calibration depending upon Sensor Module

### Module Specifications

Module	Laser Tach	Contact Tach	LED Strobe	Dual Contact Temp	Humidity & Temp
Range	5-200,000RPM	0.5-15,000 RPM	60-50,000 FPM	K-type: -198 to 2500 °F 0.5 °	10-95% RH
Resolution	1-4 Decimal or Auto	1-4 Decimal or Auto	1.0 FPM		0.1% RH
Accuracy	±0.01% Rdg	±0.01% Reading	±0.01% Reading	0.1% + 0.5C @25 °C	+ 3% RH
Other Specs	Distance: 15 feet 45° offset	RPM, RPS, MPH; inch/feet/yards/cm/m per sec, min, hour and MPH	Ultrabright White LEDs: x2 and /2 10 memory presets	J-type: -198 to 1800 °F °F of °C	Temp 32 to 175 °F (0 to 80 °C) Response is 10 sec.

### Ordering Information

Order #	Description	Price
MP6500-010	Display Unit	
MP6500-011	Contact Tachometer Sensor Module	
MP6500-012	Laser Tachometer Sensor Module	
MP6500-013	Dual Contact Thermometer Module	
MP6500-015	Humidity and Temperature Sensor Module	
MP6500-016	LED Stroboscope Module	
<b>Complete Kits</b>		
MP6500-111	Contact Tachometer (0.5 to 10,000 RPM)	
MP6500-112	Laser Tachometer (5 to 500,000 RPM (15"))	
MP6500-113	Dual Contact Thermometer	
MP6500-115	Humidity & Temperature Meter (10 to 95% RH/ 0 to 80°C)	
MP6500-116	LED Stroboscope (60 to 50,000 FPM)	
MP6580-014	Soft Field Case for Display Unit	
MP6580-015	Soft Field Case for Sensor Modules	