Pocket Tach 99
(Pocket Tachometer)

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SAFEGUARDS AND PRECAUTIONS

WARNING - This product emits a visible beam of red LED light. Avoid exposure. The use of optical viewing aids (binoculars, for example) may increase the ocular hazard. (This is not a laser product.)

CAUTION - The red LED beam should not be intentionally aimed at people or animals.

Read and follow all instructions in this manual carefully, and retain this manual for future reference.

Do not use this instrument in any manner inconsistent with these operating instructions or under any conditions that exceed the environmental specifications stated.

This instrument is not user serviceable. For technical assistance, contact the sales organization from which you purchased the product.

In order to comply with EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE): This product may contain material which could be hazardous to human health and the environment. DO NOT DISPOSE of this product as unsorted municipal waste. This product needs to be RECYCLED in accordance with local regulations, contact your local authorities for more information. This product may be returnable to your distributor for recycling - contact the distributor for details.

Monarch Instrument’s Limited Warranty applies. See www.monarchinstrument.com for details.

Warranty Registration and Extended Warranty coverage available online at www.monarchinstrument.com.
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1.0 OVERVIEW

The Pocket Tach 99 is a hand-held precision optical tachometer designed to make non-contact measurements of rotational speeds from 5 to 99,999 RPM at a distance of up to 36 inches (91.44 cm) from a reflective target and at an angle of up to 30° off perpendicular. The unit has the ability to recall maximum and minimum values. The unit can be tripod mounted and locked on for continuous measurements.

2.0 FEATURE LOCATIONS

- Min / Scroll Down arrow
- Start / Reset button
- LCD display
- Tripod mounting bushing (underside)
- Menu / Select and Lock-on button
- Max / Scroll Up arrow
- Belt clip
- Battery compartment

⚠️ CAUTION - Red LED light emitted from this aperture. (This is not a laser product.)
3.0 LCD DISPLAY SYMBOLS

On Target indicator. Blinks on whenever there is an input signal. Will appear to be solid on at higher frequencies.

Low Battery icon. Indicates that the batteries are low and need to be replaced.

Times Ten icon. Indicates that the value shown is ten times that which is displayed.

LED Indicator. Red LED is on when this indicator is illuminated.

Lock icon. Indicates that the unit is “Locked” on and making continuous measurements (Lock-on mode).
4.0 NON-CONTACT MEASUREMENTS

4.1 Preparation for Measurement

1. Clean Shaft

2. Apply 1/2 inch (12.7 mm) square T-5 Reflective tape

For Small Shafts:

As small as 1/8 inch (3.2 mm) wide on side or radius edge
4.2 Setup

1. Turn Power ON

1a. To toggle Lock On/Off
Press and Hold
Locked On

2. Enter Setup (decimal place selection)

3. Select decimal places

4. Save and exit – Ready to measure
RPM displayed with selected number of decimal places

Unit will remember these settings (including lock on/off) even if turned off and back on.
4.3 Operation

Measure  

OR

Press and hold

Lock on

Aim

LED

Recall Max

Max Speed

Recall Min

Min Speed

If unit Locked on:

Resets Max/Min

Power OFF

OR

Automatic after 90 seconds if unit not Locked on
5.0 BATTERIES

When displayed, replace batteries.

Remove battery cover

Install two 1.5V “AA” alkaline batteries

NOTE: Both batteries face the same direction.

6.0 CLEANING

To clean the instrument, wipe with a damp cloth using mild soapy solution.
7.0 PT99 SPECIFICATIONS

Speed Range: 5 to 99,999 RPM

Accuracy: ±0.01% of reading or ±1 digit

Resolution: 0.001 RPM to 1 RPM

Operating Range: 36” (91.44 cm) up to 30 degrees off perpendicular

Display: 5 Digits, 5 Alpha-numeric LCD

Light Source: Red LED

Batteries: 2 “AA” 1.5 V (DC) alkaline included
(Note: Batteries are NOT rechargeable)

Battery Life: 60 hours continuous typical with provided batteries

Dimensions: 6.92” (17.58 cm) H x 2.4” (6.10 cm) W x 1.6” (4.06 cm) D

Weight: approx. 7 oz. (210 g)

This product is designed to be safe for indoor use under the following conditions (per IEC61010-1).

Installation Category II per IEC 664

Pollution Degree Level II per IEC 664

Temperature: 40 °F to 105 °F (5 °C to 40 °C)

Humidity: Maximum relative humidity of 80% for temperatures up to 88 °F (31 °C) decreasing linearly to 50% relative humidity at 100 °F (40 °C). Humidity non-condensing.

Specifications subject to change without notice.
## 8.0 OPTIONS / ACCESSORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T-5</strong></td>
<td>Reflective Tape, 5 foot [1.5 m] roll, ½ inch [13 mm] wide. Additional lengths available</td>
</tr>
<tr>
<td>6180-070</td>
<td>T-5 Tape P/N: 6180-070</td>
</tr>
<tr>
<td><strong>CC-10</strong></td>
<td>Padded Carrying Case for Pocket Tach with belt loop</td>
</tr>
<tr>
<td>6180-047</td>
<td>CC-10 P/N: 6180-047</td>
</tr>
<tr>
<td><strong>CC-11</strong></td>
<td>Latching Carrying Case for Pocket Tach and accessories</td>
</tr>
<tr>
<td>6180-048</td>
<td>CC-11 P/N: 6180-048</td>
</tr>
<tr>
<td><strong>Mini Tripod</strong></td>
<td>Miniature tripod for use with Monarch tachometers and stroboscopes</td>
</tr>
<tr>
<td>6180-040</td>
<td>Mini Tripod P/N: 6180-049</td>
</tr>
<tr>
<td><strong>CAL-N.I.S.T.</strong></td>
<td>N.I.S.T. Traceable Certificate of Calibration</td>
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<tr>
<td></td>
<td>CAL-N.I.S.T. P/N: 6180-049</td>
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</table>
Check out some of our other product lines…

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- Portable Stroboscopes
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