



USER MANUAL



SP62032

**DIGITAL
TACHOMETER
NON-CONTACT**

**RETAIN THESE INSTRUCTIONS
AND ATTACH RECEIPT TO
MANUAL FOR FUTURE
REFERENCE**

NOTE: Proof of purchase must be retained by the customer as it will be required in the event of a claim under warranty.



AFTER SALES SUPPORT:

WWW.SPTOOLS.COM

AUSTRALIA: Visit the website's **contact page** to get in touch with your local service department.

INTERNATIONAL: Use the **county selector** to get in touch with your service department in your country or region.



IMPORTANT

ALL PERSONS WHO ARE TO USE THIS EQUIPMENT MUST THOROUGHLY READ AND UNDERSTAND THIS INSTRUCTION MANUAL PRIOR TO OPERATION.

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INTRODUCTION

Please read through this user manual before you begin to operate the meter to ensure that you are fully familiarized with how best to operate the meter as accurately and safely as possible.

The meter is a rotational speed measuring instrument. It is normally used to measure rotational speed, e.g. of impellers, drums and spindles.



Warning! Keep to a safe distance from the detected objects! Danger of injury from rotating parts!



Warning! Do not point laser directly at the eyes or a reflective surface that shines the laser into the eyes.

Scope of Delivery:

• Digital Tachometer • Wrist strap • Reflective tape • Batteries (3 x AAA) • Storage case • User Manual

Precautions Safety Measures

To get the best service from this meter, please read this user's manual carefully and observe the detailed safety precautions strictly.

During use

1. For reliable measurements it is necessary to use reflective markers. To apply the reflective markers, wait until the object to be measured has come to a standstill.
2. The ideal distance to the measured object is between 10 and 40 cm. During the measurement, always aim at the reflective marker from an angle of approx. 30°. This avoids multiple reflections from the surface.
3. If no reflective marker can be attached, it must be checked whether the reflective properties of a reflective point on the measured object are sufficient for rpm measurement. In this case, aim at the measured object from the vertical, and check whether a value is displayed. If the measured object displays several reflections per revolution, the number of ventilator vanes must be set (e.g. reflective ventilator with 5 vanes) in order to obtain correct rpm measurement.
4. If the OL symbol is shown on the LCD, it means the reading is outside the measuring range. Please keep to the permitted measuring range.
5. Never store the product together with solvents, acids or other aggressive substances.
6. When the battery voltage is low, the  symbol will show on the LCD indicating that the battery needs to be replaced with a new one.

Maintaining the product

- Do not measure in a high temperature or high humid environment.
- When not using the instrument for a long time, please remove the battery and avoid storing in a high temperature high humidity environment.

Technical Specifications

Display: 6 digits LCD Display

Parameters: rpm, rps

Resolution: 0.1 rpm (100~999.9 rpm) / 0.1 rps (1.7~100 rps)
1 rpm (1000~30000 rpm) / 1 rps (100~500 rps)

Range: 100~30000 rpm / 1.7~500 rps

Accuracy: $\pm 0.1\%$ reading (100.0~9,999rpm)
 $\pm 0.02\%$ reading (10,000~30,000rpm)

Sample rate: 1 time /sec

Auto power off: approx. 2 minutes

Operating environment: -10 ~ +50°C, +14 ~ +122°F

Storage environment: -20 ~ +60°C, -4 ~ +140°F

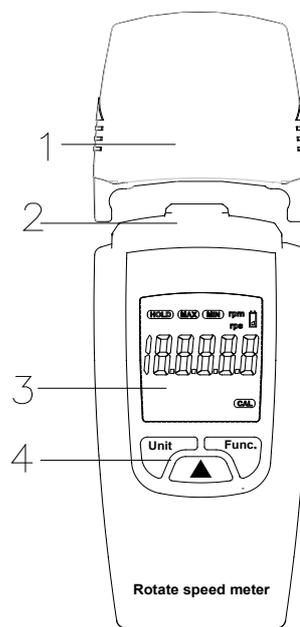
Dimension and Weight: 121(L)x60(W)x30(H)mm, Weight: 180g

Laser power: <1mW

⚠ Warning: Do not point laser directly at the eyes or reflective surfaces that shines the laser into the eyes.

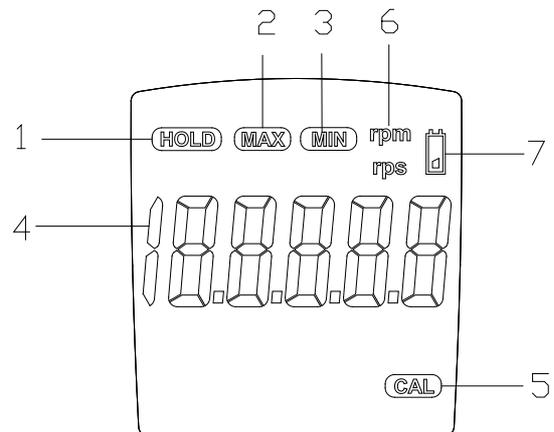
Instrument Familiarization

1. Sensor cover
2. Photo transistor
3. LCD display
4. Function button



LCD Display

	Symbol	Functions
1		Now in the data-display hold state
2		Display value being the maximum value (MAX)
3		Display value being the minimum value (MIN)
4		The display for measurement value,
5		Calibration mode
6	<i>rpm, rps</i>	Rotational speed
7		Indicates low voltage of the batteries.



Operation instruction

- Make sure to stop the rotating object first and then attach the reflective Tape). Cut about 25mm of the reflective tape and attach it to the shaft pulley etc. length ways in the direction of the axis under test.
- Start rotating the object that is to be measured.
- Hold Digital tachometer and press the ▲ button, the LCD will display 0.0 after power is turned on.
- Keep pressing the ▲ button, the meter will enter the measurement state and activate a red laser beam. Point the laser at the position where the rotating object is affixed with the reflective tape and hold steady. Adjust the distance between the instrument and rotating body between 10cm~60cm, in order to realize a stable value. At this point you can read the speed of the rotating body.
- After completing the measurement, release the ▲ button and the LCD will maintain the value last measured.

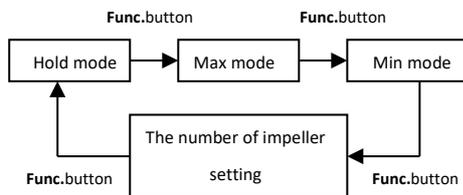
Keys Instruction

1. ▲Button Function: Power on--- Press ▲ button to turn the power on when the meter is off.
Measuring--- Hold the ▲ button to start measuring when the meter is on.

***NOTE:** There is no power off button. The unit will shut down automatically in approximately two minutes.

1. **Func. Button** Press the function button, then select the state:

- MAX
- MIN
- Impeller number setting



Under the number of impeller setting mode:

Press the ▲ button to increase the number of impeller and press the **Func.** button again to exit the state of setting.

3. **Unit** button: Press the unit button to change unit parameter: rpm, rps.

Back light control: Hold the Unit button >2sec, the back light will be turned on. Press the Unit button >2sec, the light will be turned off.

Note: The backlight will be turned off automatically after 60 seconds

■. Maintenance

CLEANING INSTRUCTIONS

The meter may be wiped down with a wet sponge or cloth using mild water based detergent or anti-bacterial soap and rinsed under a gentle stream of cold water.

Note: The unit is not water proof, Do Not submerge.

BATTERY REPLACEMENT

When the battery voltage drops below proper operation range the  symbol will appear on the LCD display and the battery needs to be replaced.

- 1) Press and slide the battery cover towards arrowhead to open.
- 2) Replace the batteries with three new 1.5V batteries (AAA).
- 3) Replace the battery cover.

LIMITED WARRANTY

This Limited Warranty applies only to new products* distributed by SP Tools Pty Ltd ("SP Tools"). It is a condition of this Limited Warranty Policy that the purchaser read the owner's manual for the product and only use the product to the extent or for the purposes stated therein. The purchaser must also ensure that all servicing requirements are completed as listed in the owner's manual (said servicing is at the owner's expense). We recommend that all servicing is completed by an authorised service agent and that records of said servicing are retained by the purchaser as proof in the event of a warranty claim.

Whilst the owner's manual, packaging, and/or other documentation supplied with SP Tools' products may provide details in respect of a Limited Warranty, the terms set out herein supersede these matters, and this Limited Warranty applies in their place. This warranty is no less advantageous than otherwise described in such other documentation.

SP Tools agrees, subject to the terms and conditions specified below, to repair or replace at SP Tools' cost, the product purchased by you when the product does not perform in accordance with its specifications during the limited warranty period, due to any fault in manufacturing, materials and/or workmanship. SP Tools is not liable to repair or replace products that the purchaser uses in a manner that is inconsistent with the owner's manual or in the circumstances set out in paragraphs 1.1 – 1.7 below.

The benefits to the purchaser under this warranty are in addition to other rights and remedies under the *Competition and Consumer Act 2010* (Cth). The limited warranty period, within which a defect in the product must appear, commences from the date of purchase and ceases on expiration of the specified term below.

THE LIMITED WARRANTY PERIOD

- SP Speciality Tools – 12 Months



THE PURCHASERS ATTENTION IS DRAWN TO THE FOLLOWING

To the extent permitted by law and subject to this Limited Warranty, and as part of the terms of the sale of the equipment or part thereof: SP Tools shall not be liable for any form of loss, damage, cost, injury or harm of any kind (whether direct, indirect, special or consequential) howsoever arising from the use or supply of the equipment to the purchaser.

EXCLUSIONS TO LIMITED WARRANTY POLICY

This Limited Warranty will not apply where the equipment or any part thereof:

- 1.1 Fails due to an accident (including liquid spillage), abuse, misuse, neglect or normal wear and tear;
- 1.2 Has been used in a manner other than for which it was originally designed;
- 1.3 Has been tampered with or is otherwise than as supplied by SP Tools;
- 1.4 Where any damage, malfunction or other failure of the equipment or any part thereof resulted directly or indirectly from unauthorized persons, adjusting or failing to adjust any part requiring normal maintenance and service (examples include adjustment of tappets, air filter maintenance, lubrication and tightening of screws nuts and bolts);
- 1.5 Malfunctions due to the use of defective or incompatible accessories;
- 1.6 Is damaged by lightning or thunderstorm activity; or
- 1.7 Has been transported to a country where no authorised Service Agents exist.

CLAIMING WARRANTY

This Limited Warranty may be claimed on in the following manner:

- 2.1 In order to make a claim under this Limited Warranty, the purchaser must deliver the equipment or any part thereof to an SP Tools authorised repair agent and pay all costs of transportation and all costs incidental to making a claim under this Limited Warranty. The purchaser must first contact SP Tools (contact details described above) and request the delivery address of an SP Tools authorised repair agent.
- 2.2 The purchaser must deliver to the repair agent written reasons why the purchaser considers that the purchaser has a claim under this Limited Warranty and must provide all necessary details, including:
 - The place, date and from whom the unit or part was purchased.
 - The unit or part involved, Model and Serial Number.
 - The defect, malfunction or failure in respect of which the claim is being made.
 - Proof of service of the unit or part (if applicable)
 - Proof of purchase in respect of the unit or part.
- 2.3 If the Limited Warranty claim is valid, the repair agent will carry out repairs and return the product at no charge to the purchaser. These repairs are limited to the Limited Warranty fault identified and as such will not include any other faults due to misuse, abuse, failure to maintain, fair wear and tear or the replacement of serviceable items such as oil, spark plugs, air filters, fuel etc.

Our goods come with guarantees that cannot be excluded under Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Note: Units which are failing to perform in accordance with specifications due to non-warrantable causes will be subject to freight, repair and or quote charge