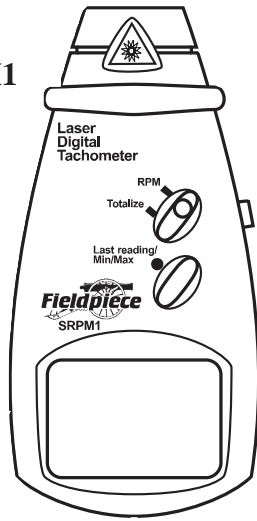


# Fieldpiece

Laser Digital  
Tachometer  
Model: SRPM1



OPERATOR'S MANUAL

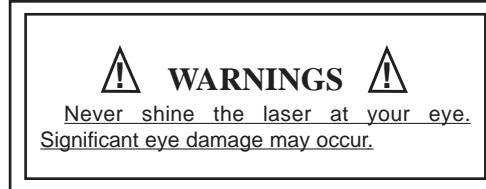
## Description

The SRPM1 is a portable standalone digital, laser tachometer. Point the laser at a fan blade or motor shaft and the RPM shows up immediately on the LCD.

## Operation

The SRPM1 works by reading reflected light from the laser. Each time the reflection is interrupted, a count is taken. Place a small piece of the supplied reflective strips on the target to make sure the laser is being reflected directly back to the instrument.

Select RPM if you want to measure revolutions per minute. Switch to Totalize for a running total count. To start testing, press and hold down the button on the right side of meter. Steadily aim meter so that laser is pointing, and showing up, on reflective strip. Press front button after taking readings to cycle through that set of readings' Max(UP), Min(DN), and Last(LA). A new set is recorded each time you press the button on the right.



## Specifications

**Autorange:** 2.5 to 999.9rpm, 1000 to 99,999rpm

**Resolution:** (at 75°F ambient)

0.1rpm, 2.5 to 999.9rpm

1.0rpm, 1000-99,999rpm

**Accuracy:**  $\pm(0.05\%+1\text{digit})$

**Laser power:** 2mW

**Battery:** 1.5V(AA) x 4 (not included)

**Battery life:** 1 year (off), 50 hours (operating)

**Operating temp:** 32°F to 122°F

**Base time:** 6MHz

**Display:** 16mm 5digits LCD

**Suggested distance from target:** less than 4ft  
when using 0.5" x 0.5" strip

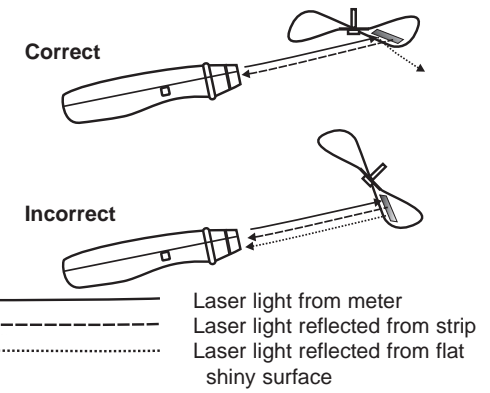
**Accessories:** 2 reflective strips, operator's manual.

## Reflective strips

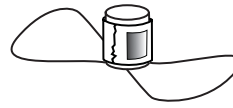
The SRPM1 requires a reflection of its laser to work. Proper use of reflective strips is critical to get accurate readings. To sense the reflected light, the reflective strip must be big enough, you must aim the laser accurately enough, and you must be close enough. Typically a reflective square 0.5" on a side read at under 4 feet works well. Care must be taken so that light doesn't reflect from either the surface of the target (other than the reflective strip) or from the background or foreground. For example, the fan blades of a fan running in front of a reflective background could cause multiple counts per revolution, multiplying the actual RPM.

The reflector strip is designed to reflect the laser light back to the instrument, irrespective of the incident angle of the light. Therefore, to minimize reflections from the target, aim the laser at a sharp angle to the surface. (See upper right diagram.)

A screen in front of the target can cause problems by reflecting the laser light directly back to the laser, thus interfering with the laser light reflected from the reflector.



Only apply one strip. Don't place one on each blade of the fan. If you do, and there are three blades, you're readings will be three times the correct reading. When working with a very reflective surface, try to find a place that isn't reflective (e.g. the shaft) and place the strip there. You may need to wrap unglossy tape around the shaft to eliminate unwanted reflections and place the reflective strip on the tape.



## Warranty

The product is warranted to the original purchaser against defects in material or workmanship for a period of one (1) year from the date of purchase. During the warranty period, Fieldpiece Instruments will, at its option, replace or repair the defective unit.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranty arising out of the sale of Fieldpiece's products including but not limited to implied warranties of merchantability, and fitness for purpose, are limited to the above. Fieldpiece shall not be liable for incidental or consequential damages.

## Service

Any defective SRPM1 should be returned to Fieldpiece Instruments for warranty service along with proof of purchase. Call Fieldpiece for a return material authorization (RMA). For out of warranty service, send the SRPM1 along with a check or money order for \$40.00 to Fieldpiece. Your SRPM1 will be repaired or replaced at Fieldpiece's option.



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