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# DIGITAL TACHOMETER

## MODEL: PST43

# OPERATION MANUAL

Your purchase of this DIGITAL TACHOMETER marks a step forward for you in the field of precision measurement. Although, this LASER TACHOMETER is a complex and delicate instrument, its ruggedness will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.

**WARNING!**  
TO AVOID INHURIES TO ANIMAL OR HUMAN EYES, PLEASE DO NOT POINT THE LASER BEAM IN EYES OR LOOK DIRECTLY INTO BEAM.

### 1. FEATURES

- \* Wide measuring range from 5 to 100,000 RPM
- \* 0.1 RPM resolution for the measured value from 5 to 999 RPM.
- \* The last value/max and value/min value will be stored into the memory automatically and can be obtained by pressing memory call button.
- \* LCD display gives exact RPM reading with no guessing or errors. Low battery consumption.
- \* This tachometer uses the exclusive chip, Micro-computer LST circuit & crystal time base, which offers highly accurate measurements and fast sampling time.
- \* The use of durable, long-lasting components including a strong, light weight ABS-plastic housing that assures maintenance free performance for many years.
- \*The housing cabinet has been carefully shaped to fit comfortably in either hand.

### 2. SPECIFICATIONS

DISPLAY	5 digits, 10mm (0.4") LCD
Measurement & Range	5 to 99,999RPM
Accuracy (73.4 ± 41°F)	0.1RPM (<1000RPM) 1RPM (≥1000RPM)
Time base	quartz crystal: 4194MHZ
Circuit	exclusive chip: micro-computer LSI circuit
Operating temp.	0-50°C (32-122°F)
Operating humidity	less than 80%R.H
Memory	last, maximum, minimum value
Battery	4*1.5V AA (UM-3) battery
Power consumption	approx. 153mA DC
Size	190*72*37mm (7.5*2.8*1.5inch)
Weight	235g (0.52lbs) / including batteries
Accessories included	carrying case .....1 piece reflecting tape marks(600m) .....1 piece Operation manual .....1piece

### 3. FRONT PANEL DESCRIPTION

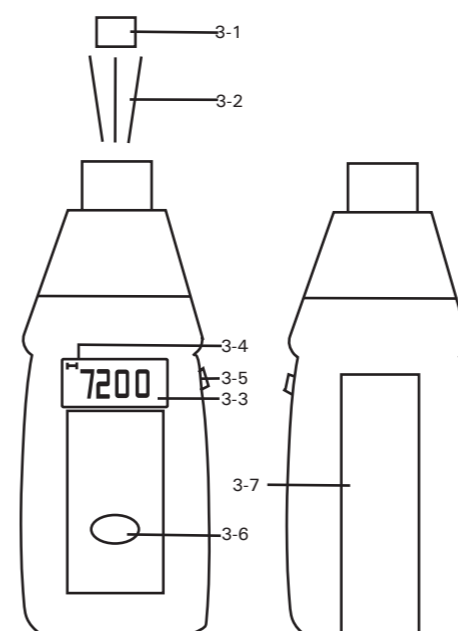


Fig 1

- 3-1 Reflective mark
- 3-2 Photo Signal light beam
- 3-3 Target indicator
- 3-4 Display
- 3-5 Operation Button
- 3-6 Memory call button
- 3-7 Battery Compartment/Cover

### 4. MEASURING PROCEDURE

Apply a reflecting mark to the object being measured. Depress the "Operation button" (3-5 Fig 1) and align the visible "photo signal Light beam" (3-2 fig1) with the applied target. Verify that the "Target indicator" (3-3 fig 1) lights when the target passes through the light beam. Release the "operation button" when the reading stabilizes (about 2 seconds).

Consideration:

If measuring very low RPM values, attach more "REFLECTIVE MARKS" evenly spaced apart from each other. Then divide the reading shown by the number of "REFLECTIVE MARKS" to get the real RPM.

### 5. MEMORY CALL BUTTON OPERATION

1) The minimum, maximum and the last (final) readings are automatically stored during measurement. These values can be recalled anytime by pressing the "Memory call button" (3-6 fig 1).

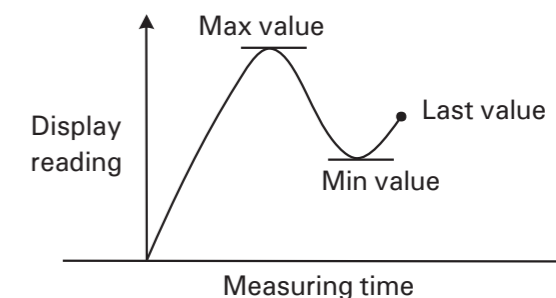


Fig. 2

- 2) To recall the stored value, follow these procedures:  
Release the "operation button" (3-5 fig 1) first.
- Press the "memory call button" (3-6 fig1) once to display the last reading. The symbol "LA" will appear on the display.
  - Press the "memory call button"(3-6 fig1) once again to display the maximum value. The symbol "UP" will appear on the display.
  - Press the "memory call button"(3-6 fig1) once more to display the maximum value. The symbol "DN" will appear on the display.

### 6. BATTERY REPLACEMENT

- 1) When "LO" appears on the LCD display, it indicates a battery output of approximately less than 4.5v. It is recommended to replace the battery; however in-spec measurement may still be made for several hours after low battery indicator appears before the instrument becomes inaccurate.
- 2) Open the "battery cover" (3-7 Fig. 1). Inside the battery compartment, replace with new batteries and reinstate the cover.