



DIGITAL PHOTO/CONTACT TACHOMETER

RS 163-5348

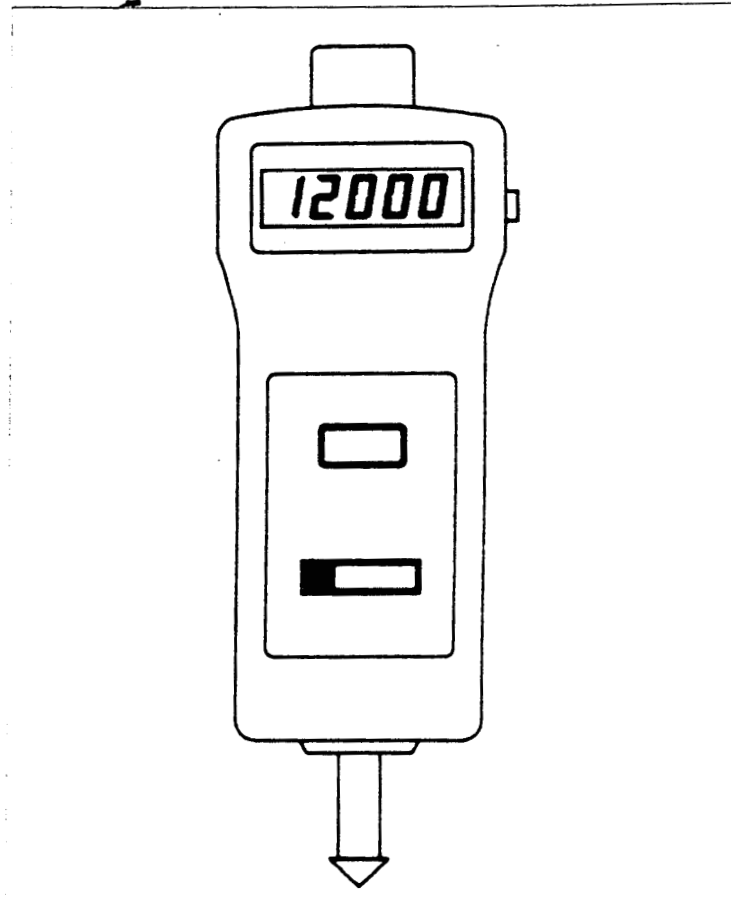


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1. FEATURES

- * Multi-function, single instrument with combined PHOTO TACHO (RPM) & CONTACT TACHO (RPM, m/min., ft/min.)
- * Wide measuring range from 0.5 to 100,000 RPM.
- * The last value/max. value/min. value will be automatically stored in memory and can be recalled by pressing MEMORY CALL BUTTON.
- * High visible, with zero suppression LCD display gives exact RPM with no guessing or error and saves battery energy.
- * The tachometer uses an exclusive one chip MICRO-PROCESSOR LSI-circuit and crystal time base to offer high accuracy measurement & fast measuring time.
- * The instrument uses durable, long-lasting components, enclosed in a strong, light weight ABS-plastic housing which assures maintenance free performance for many years. The housing has been carefully shaped to fit comfortably in both hands.

2. SPECIFICATIONS

| | | |
|-------------|--|------------------------|
| Display | 5 digits, 10mm (0.4") LCD (Liquid Crystal display) with function annunciation. | |
| Measurement | Photo Tacho | 5 to 99,999 RPM. |
| | Contact Tacho | 0.5 to 19,999 RPM |
| | Surface Speed (m/min.) | 0.05 to 1,999.9 m/min. |
| | Surface Speed (ft/min.) | 0.2 to 6,560 ft/min. |

| | | |
|---------------------------------------|--|--|
| Resolution | Photo Tacho | 0,1 RPM (5 to 999.9 RPM). 1 RPM (over 1,000 RPM). |
| | Contact Tacho | 0,1 RPM (0.5 to 999.9 RPM). 1 RPM (over 1,000 RPM). |
| | Surface Speed (m/min.) | 0.01 m/min.(0.05 – 99.99 m/min.) 0.1 m/min. (over 100 m/min.) |
| | Surface Speed (ft/min.) | 0.1 ft/min. (0.1 to 999.9 ft/min.) 1 ft/min. (over 1,000 ft/min.) |
| Accuracy | \pm (0.05% + 1 digit). | |
| Sampling Time | Photo Tacho – 1 sec. /over 60 RPM. Contact Tacho – 1 sec. /over 6 RPM. | |
| Photo Tacho Detecting Distance | 50 to 150 mm/2 to 6 inch. (typical max. 300mm/12 inch, depending upon ambient light). | |
| Range select | Automation. | |
| Time base | Quartz crystal. | |
| Circuit | Exclusive one–chip design microprocessor LSI circuit. | |
| Battery | 4 x 1.5V AA battery. | |
| Operation Temperature | 0 – 50 °C (32 – 122 °F). | |
| Size | 215 x 65 x 38 mm. (8.5 x 2.6 x 1.5 inch). | |
| Weight | 300g(0.66 LB)/including battery. | |
| Accessories | Carrying case1 PC. Reflecting tape marks (600mm).....1 PC RPM adapter (CONE).....1 PC. RPM adapter (FUNEL).....1 PC. Surface speed test wheel.....1 PC. Operation manual1 PC. | |

3. FRONT PANEL DESCRIPTION

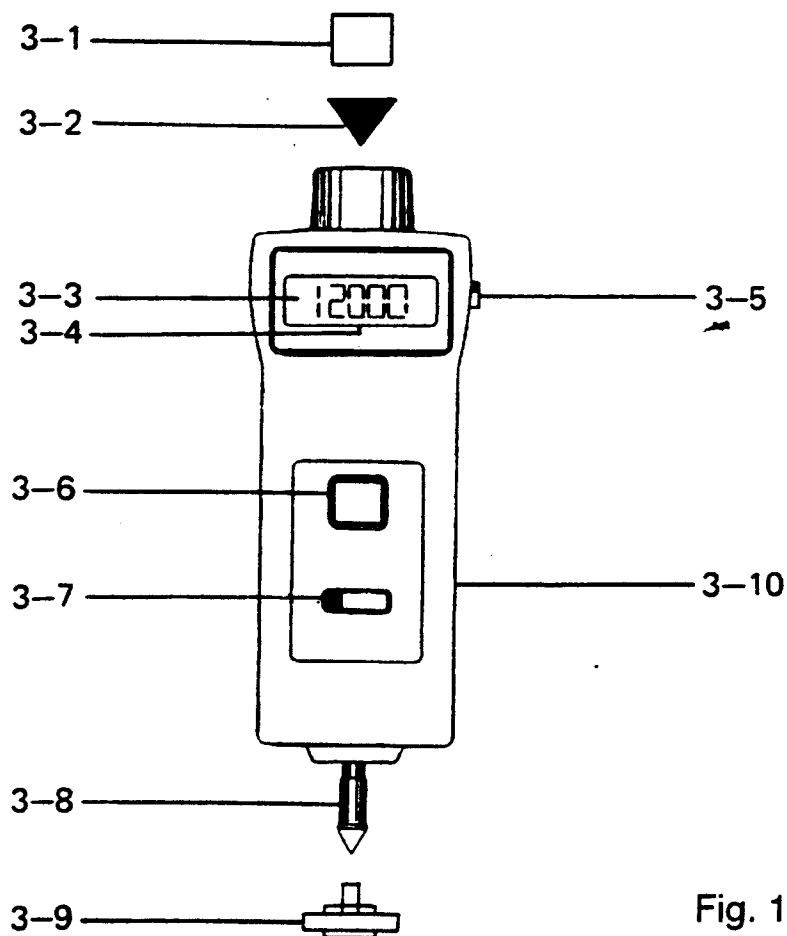


Fig. 1

- 3-1 Reflective mark
- 3-2 Signal light beam
- 3-3 Monitor indicator
- 3-4 Display
- 3-5 Measure button
- 3-6 Memory call button.
- 3-7 Function select switch
- 3-8 Rotating ring
- 3-9 Circumferential speed ring
- 3-10 Battery Compartment

4. PHOTO TACHOMETER MEASURING PROCEDURE

- A. Slide the FUNCTION SWITCH (3-7, Fig.1) to "RPM (PHOTO)" position.
- B. Affix a reflective mark (tape) to the object being measured. Press the MEASURE BUTTON (3-5 Fig. 1) and align the visible light beam with the reflective mark (3-1, Fig. 1) Ensure that the MONITOR INDICATOR(3-3, Fig. 1) lights when the target passes through the light beam. Release the MEASURE BUTTON (3-5 Fig.1) when the reading stabilizes(about 2 seconds),
In order to obtain greater accuracy for measurement of less than 50 RPM, use 2 or 3 pieces of reflective tape and then divide the reading with the number of pieces used to calculate the final figure.

5. CONTACT TACHOMETER MEASURING PROCEDURE

5-1 RPM Measurement

- A. Slide the FUNCTION SWITCH (3-7, Fig.1) to "RPM (CONTACT)" position.
- B. Press the MEASURE BUTTON (3-5, Fig. 1) and lightly pressing the rotating devise (3-8, Fig. 1). Release The MEASURE BUTTON (3-5 Fig.1) When the reading stabilizes (approx. 2 seconds).

5-2 Surface Speed Measurement

- A. Slide the FUNCTION SWITCH (3-7, fig.1) to "m/min.(SURFACE SPEED) or "ft/min. (SURFACE SPEED)".
- B. Press the MEASURE BUTTON (3-5 fig. 1) and simply attaching surface speed test wheel to the detector.
Release The MEASURE BUTTON (3-5 Fig.1) When the reading stabilizes.

6. MEMORY CALL BUTTON OPERATION

- 6-1 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).

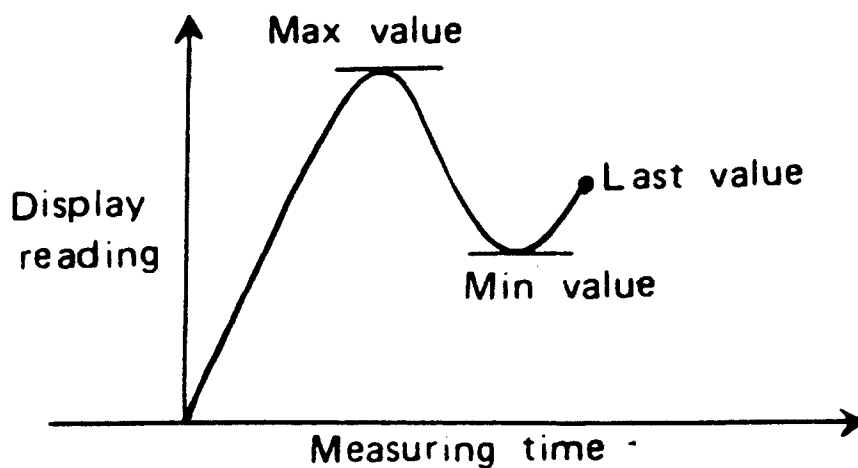


Fig. 2

6-2 To recall the stored value, follow these procedures.

- A. Press the "MEMORY CALL BUTTON"(3-6 Fig. 1) once to display the last reading. The symbol " LA " will appear on the display.
- B. Press the "MEMORY CALL BUTTON"(3-6 Fig. 1) once again to display the maximum value. The symbol " UP " will appear on the display.
- C. Press the "MEMORY CALL BUTTON"(3-6 Fig. 1) once more to display the maximum value. The symbol " dn " will appear on the display.

7. BATTERY REPLACEMENT

- (1) When the battery voltage drops below 4.5V dc, the symbol "LO" will appear on the display. The battery should be replaced.
- (2) Remove the screw retaining the battery compartment lid, and slide the cover away from the instrument.
Remove the battery.
- (3) Install a new 9V (PP3 type) battery and replace the cover.

8. PATENT & PATENT PENDING

This exclusive TACHOMETER already holds patent in

USA - 4,823,080,
GERMANY - G9015492.4 G8708922.0,
TAIWAN - 45478,

and is currently patent pending in JAPAN & other countries.