

# **DIGITAL TACHOMETER OPERATION MANUAL**

## **I FEATURES**

- Measuring RPM is safe & accurate without attachment to object.
- Wide measuring range & high resolution.
- Digital display gives exact RPM with no guessing or errors.
- Used the exclusive MICRO-COMPUTER LSI-circuit and crystal time base to offer the high accuracy measurement & fast measuring time.
- The last value/max. value/min. value will be automatically stored in memory and can be displayed by turn anytime.
- The use of durable, long-lasting components, including a strong, light weight ABS-plastic housing assures maintenance free performance for many years. The housing has been carefully shaped to fit comfortably in either hand.

## **II MEASURING CONSIDERATION**

### 2-1 Reflective mark

Cut and peel adhesive tape provided into approx. 12mm (0.5") squares and apply one square to each rotation shaft.

- a. The non-reflective area must always be greater than the reflective area.
- b. If the shaft is normally reflective, it must be covered with black tape or black paint before attaching reflective tape.
- c. Shaft surface must be clean and smooth before applying reflective tape.

### 2-2 Very low RPM measurement

As it is easy to get high resolution and fast sampling time, If measuring the very low RPM value, suggest user to attach more “REFLECTIVE MARKS” averagely. Then divide the reading shown by the number of “REFLECTIVE MARKS” averagely. Then divide the reading shown by the number of “REFLECTIVE MERKS” to get the real RPM.

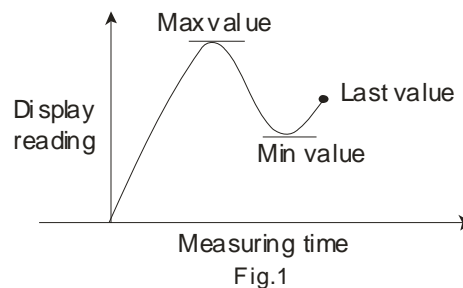
### 2-3 Battery removal

If the instrument is not be used for any extended period, remove batteries.


## III MEMORY

3-1 A readout (the last value, max. value, min. value) obtained immediately before turning off the MEASURE BUTTON is automatically memorized. For example, please ref. following fig.1.

3-2 That memorized value can be displayed on the indicator by turn once depressing the memory button, the symbol “UP” represents the Max. Value and “dn”, the Min value, “LA”, the last Value.



## IV BATTERY REPLACEMENT

1. When it is necessary to replace the battery (battery voltage less than approx. 4V), “ ” will appear on the display.
2. Slide the battery cover (3-6) away from the instrument and remove the battery.

**3.** Install the batteries 1.5V AAA (UM-4) correctly into the case.

## **V PHOTO TACHOMETER**

### **1. SPECIFICATIONS**

Display:	5 digits, 18mm (0.7") LCD (Liquid Crystal Display), with function annunciation.
Test Range:	2.5 to 99,999 RPM (r/min).
Resolution:	0.1RPM (2.5 to 999.9 RPM). 1RPM (over 1,000RPM).
Accuracy:	$\pm (0.05\%+1 \text{ digital})$ .
Sampling Time:	0.8 sec. (over 60RPM)
Test Range Select:	automatic.
Memory:	Max. value, min. value, Last value.
Detecting Distance:	50 to 250mm /2 to 10 inch (LED) 50 to 500mm /2 to 20 inch (Laser)
Time Base:	Quartz crystal.
Circuit:	Exclusive one-chip of microcomputer LSI circuit.
Battery:	3 $\times$ 1.5V AAA(UM-4)
Power Consumption:	Appro $\times$ 45mA(operation).(LED) Appro $\times$ 35mA(operation).(Laser)
Operation Temp.:	0 to 50°C (32 to 122°F).
Size:	184 $\times$ 76 $\times$ 30mm
Weight:	180g (including battery).

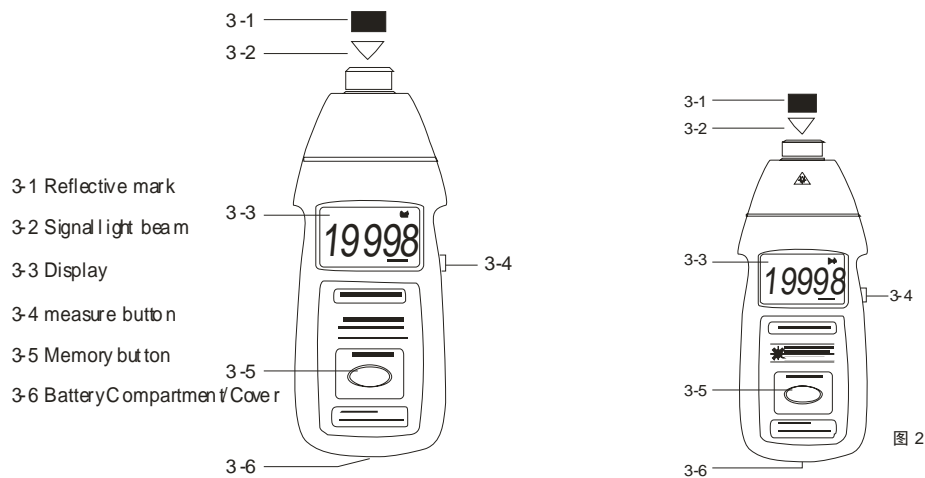
### **2. ACCESSORIES:**

Carrying case.....1pc.

Reflecting tape mark (600mm).....2pc.

Operation manual.....1pc.

### 3. FRONT PANEL DESCRIPTIONS



3-1 Reflective mark

3-2 Signal light beam

3-3 Display

3-4 Measure button

3-5 Memory button

3-6 Battery compartment/cover

### 4. MEASURING PROCEDURE

Apply a reflective mark to the object being measured. Depress the MEASURE BUTTON (3-4) and align the visible light beam (3-2) with the applied target. Verify that the MONITOR INDICATOR lights when the target aligns with the beam (about 1 to 2 seconds).