

# OPERATION MANUAL

## ECONOMY DIGITAL CONTACT/NON-CONTACT/ 2 in 1 TACHOMETER



Model: ■ 8000  
          ■ 8001  
          ■ 8008

Congratulations on your purchase of the tachometer! The handy meter measures rotating speed in seconds and displays readings in auto ranges. The 2 in 1 model is especially convenient in use and costs the lowest in the market.

**Features:**

- ◆ Two ways to power on/off
- ◆ Data hold function
- ◆ Auto power off after 20 minutes inactivity
- ◆ Low battery indicator
- ◆ Selectable speed units (contact model)
- ◆ Easy to switch measuring modes (8008)

**MATERIAL SUPPLIED**

**Standard Package Contains:**

1. The meter
2. 9V battery
3. Operation manual
4. Cone & funnel contact tips  
(Contact model)
5. Reflective tape  
(Non-contact model)

**POWER SUPPLY**

The meter is powered by a 9V battery. A battery icon appears when voltage falls into critical range. (6.5 to 7.5 V). Replace with a fresh battery when battery icon shows to ensure good accuracy.

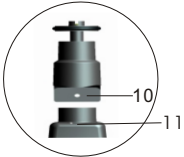
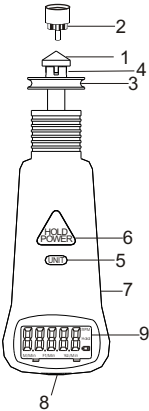


## LCD DISPLAY / INDICATOR



- : Battery Low indicator
- RPM : Rotate per minute
- M/Min : Meter per minute
- Ft/Min : Feet per minute
- Yd/Min : Yard per minute
- Hold : Data hold

## FRONT PANEL DESCRIPTION



1. Cone (Convex) contact tip
2. Funnel (Concave) contact tip
3. Wheel (w/ O-ring) for linear surface
4. Contact adaptor
5. Unit select key
6. Power & Hold key
7. Battery cover (rear)
8. Power on/off
9. Front Panel & LCD display
10. Junction screw
11. Mode switch

**NOTE:**  
 \*Part 1~5 are not available in # 8000.  
 \*Part 10 & 11 are only on #8008.

## OPERATION

### POWER ON/OFF

The meter has two power keys, one is the triangle button at the middle of top case, the other is smaller at the bottom of the meter for easy operation when measuring an object at a downview location. (See part 8 in front panel description )

Press either power button to turn on the meter. Full display appears for half a second, and it enters normal mode . Turn off the meter by pressing the same buttons for 3 seconds.

The meter turns **OFF** automatically after 20 minutes inactivity.

### DATA HOLD

Short press **HOLD/POWER** key to hold the last display reading. "Hold" icon shows with the freezed reading on the LCD (Fig. 1). Press again to get back to normal mode.

( Fig.1 )



### SELECT UNIT (contact model only)

4 speed units are selectable in contact measurement model. Short press **UNIT** button and it displays **RPM, M/Min, Ft/Min, Yd/Min** and then return to **RPM**.



Fig.2

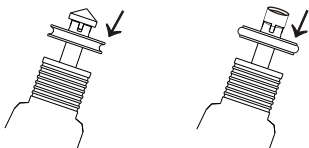
**NOTE:**

For non- contact measurement, it reads rotating speed in **RPM** unit only.

**CONTACT MEASUREMENT**

Select the desired contact tip (Convex or Concave) and mount it on the adaptor (See diagram below). Fit the tip into the rotating object and it displays readings on the LCD. For rotating wheels or belts with flat surface, just contact the surface by the O-ring on the meter.

It is good for measuring rotating speed of Conveyors, Pumps, Motors, Gears, Pulleys, Shafts, Flywheels and Elevators.



**NON-CONTACT MEASUREMENT**

The non- contact model includes a reflective tape for measurement. Attach the reflective tape to the surface of the rotating object. Hold the meter toward the rotating object with the receiving sensor perpendicular to the reflective tape. And keep the measuring distance within 5 to 30cm to get accurate readings.

## SWITCH MODES (8008 only)

Model 8008 functions both contact and non-contact measurements. Users can easily switch in 3 steps.

Step 1: Unscrew the junction.

Step 2: Remove the contact part.

Step 3: Change unit to RPM.

In step 3, it requires to hold down the switch button (see part 11 in front panel description) then can select unit.

### NOTE:

Readings in M/Min, Ft/Min, Yd/Min in non-contact mode are invalid.

STEP1: Unscrew



STEP2: Remove



STEP3: Unit change



Screw the contact part, and it performs contact measurements again.

## SLEEP MODE

The meter turns **OFF** automatically after 20 minutes inactivity. To disable the sleep mode, hold down **POWER/HOLD** and **UNIT** keys simultaneously to turn on the meter. First release **POWER/HOLD** key, and it shows " n " on the LCD (Fig. 3). Then release **UNIT** key and it enters measuring mode in non-sleep status.



Fig.3

## SPECIFICATION

MEASURING RANGE	RESOLUTION
10.000~99999 <b>RPM</b>	0.001 / 0.01 / 0.1 / 1
1.0000~9999.9 <b>M/Min</b>	0.0001/0.001/0.01/0.1
3.0000~30000 <b>Ft/Min</b>	0.0001/0.001/0.01/0.1
1.0000~10000 <b>Yd/Min</b>	0.0001/0.001/0.01/0.1
<p><b><u>Meter per Second (M/Sec.)</u></b>            = Ft/Min x 0.00508            = M/Min / 60            = Yd/Min x 0.01524</p>	
Accuracy	$\pm$ (0.1% of rdg. +2 digits)
Measuring distance	5 ~ 30cm(non-contact)
Time base	4.0Mhz Quartz Crystal
Sampling time	1 sec.(>60rpm) >1 sec.(10-60rpm)
Operating Temp.	0~50°C (32~122°F)
Operating Humidity	Max. 80% RH.
Power Supply	9V battery
Power Consumption	5uA (Idle ) 18mA (Measurement)

## CAUTION

Do not contact measure rotating speed exceeds the measuring ranges. It may cause physical injury or meter damage.

## **MAINTENANCE**

### **CASE CLEANING :**

Use damp cloth with caution to clean the exterior housing. Ensure no water or soap is allowed to drop inside the meter, or on the lens.

## **WARRANTY**

The meter is warranted to be free from defects in material and workmanship for one year from the date of purchase. This warranty covers normal operation and does not cover battery, misuse, abuse, alteration, tampering, neglect, improper maintenance, or damage resulting from leaking batteries.

Proof of purchase is required for warranty repairs. Warranty is void if the meter has been opened.

## **RETURN AUTHORIZATION**

Authorization must be obtained from the supplier before returning items for any reason.

When requiring a RA (Return Authorization), please present data regarding the defective reason and serial numbers. The meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss.



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Conductivity Meter  
T.D.S. Meter  
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