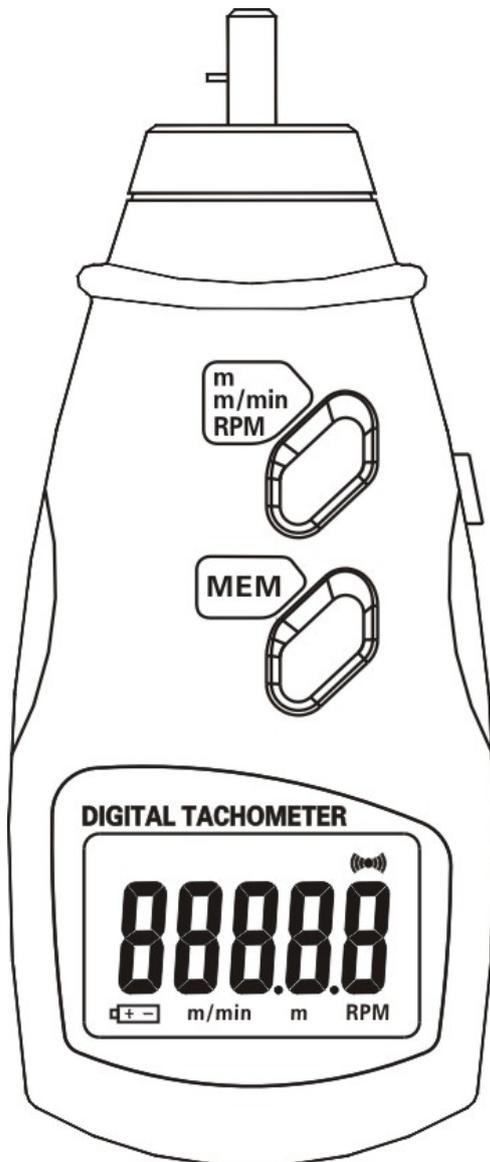


DIGITAL HIGH PRECISION TACHOMETER

OPERATION MANUAL



I. FEATURES

1. The tachometer uses microcomputer (CPU) technique; anti-jamming technique for contact measurement of rotation speed (RPM), surface speed (m/min), and contact length (m).
2. Wide measuring range and high resolution.
3. Large screen LCD display provides clear reading.
4. White back light guarantee reading in any light environment.
5. Automatically save Max, Min and last value, also save 96 set of continuous data. (The tachometer starts to store data after first reading)
6. Low battery voltage indication.
7. Surface speed wheel with groove to test surface speed or length of wire, cable, or rope conveniently.
8. Smooth housing design, comfortable to hold and use.
9. The instrument is delicate and rugged. It uses the durable, long-lasting components and a strong, light weight ABS plastic housing.

II. TECHNICAL SPECIFICATION

Display: 5digital, 18mm LCD

Range: 0.5~19999 RPM
0.05~1999.9 m/min
0.05~99999 m

Resolution:

Rotation Speed: 0.1 RPM (0.5~999.9RPM)
1 RPM (above 1000RPM)

Surface Speed: 0.01m/min (0.05~99.99m/min)
0.1m/min (above 100m/min)

Contact Length: 0.02m (0.05~99999m)

Accuracy: \pm (0.05%+1digital)

Sampling Time: 0.8second (over 60RPM)

Range Select: Auto-range

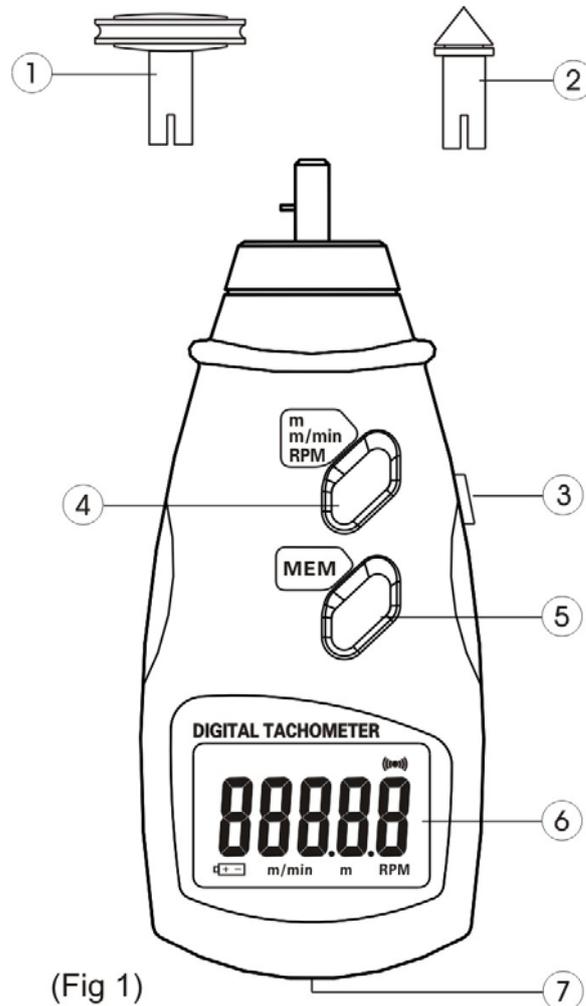
Time Base: 6MHz Quartz crystal

Dimension: 170*70*35mm

Power: 3x1.5V AAA battery

III. PANEL DISCRPTION (Fig. 1)

1. Surface speed wheel
2. Contact tacho part
3. Measurement button
4. Function select switch
5. Memory button
6. LCD display
7. Battery cover



(Fig 1)

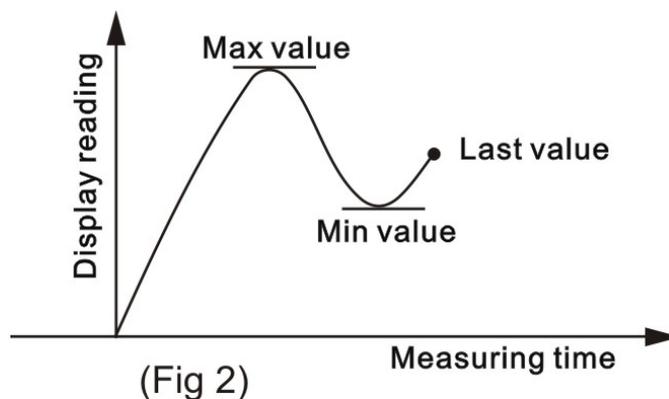
IV. MEASUREMENT OPERATION

1. Measure RPM
 - a. After install batteries, select function switch to RPM, and install contact tacho part.
 - b. Bring rubber head in contact with test body, so it turns with the body at synchro-speed and coaxial rotation.
 - c. Hold measurement button to start measure, and release measurement button after display data is stabled, test result is automotive saved.
2. Measure surface speed
 - a. Select function switch to m/min, and install surface speed wheel.
 - b. Bring surface speed wheel in contact with test body, so it turns with the body at synchro-speed.
 - c. Hold measurement button to start measure, and release measurement button after display data is stabled, test result is automotive saved.
3. Measure contact length
 - a. Select function switch to m, and install surface speed wheel.
 - b. Bring surface speed wheel in contact with test body, so it turns with the body at synchro-speed.
 - c. Hold measurement button to start measure, and release measurement button after display data is stabled, test result is automotive saved.

Remark: Since surface speed wheel's outer and groove perimeters are different, real test result is 0.9* display value when using groove for test, such as wire, cable, rope and linear materials.

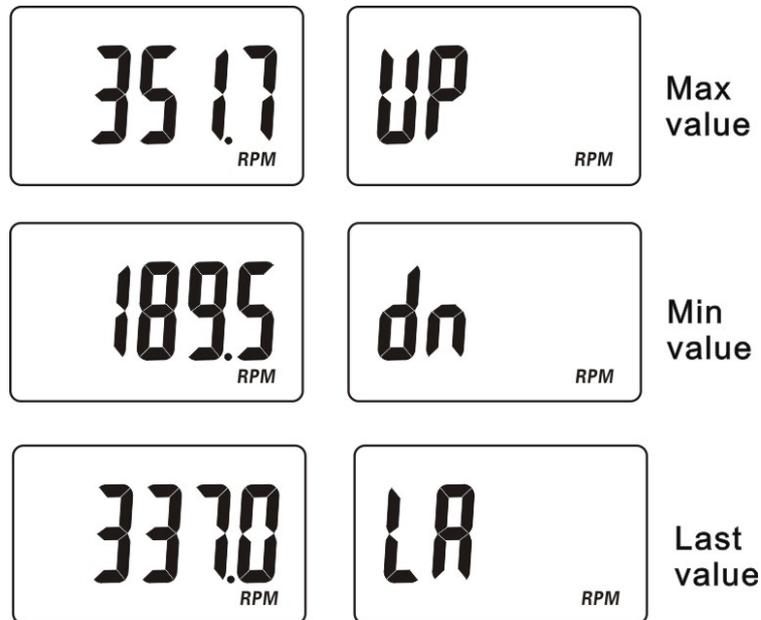
V. MEMERY FUNCTION

1. After measurement, release measurement button, data is saved but nothing is displayed on LCD. Press "MEM" to display Max, Min, and last value. (Fig. 2)



Each time "MEM" is pressed, LCD display English symbol then value in turns. "UP" is for Max, "dn" for Min, and "LA" for Last value. (Fig. 3)

2. After display last value, press and hold "MEM" button, meter is turned into a mode indicate whether to get a series of saved data, where display a count down from 20 to 1. (Fig. 4) During this countdown, the meter still display Max, Min, and Last value if "MEM" button is released before countdown to "1", otherwise will enter a mode to display series of data.



(Fig 3)



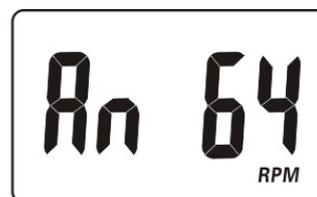
(Fig 4)

- When countdown to "1", LCD display "An *" (An is short for Anamnesis, * means the total amount of data that is saved). When "*" is zero, it mean there is not any data saved (Fig. 5).

Each time "MEM" is pressed, queue number and saved value is displayed on LCD in turns. After display all saved data (maximum 96), meter will switch back to Max, Min, and Last value display (when measured values vary too big, the maximum sets of store data decrease). For example, 64 sets of data is saved during a measurement, it will display "An 64" (Fig. 6).

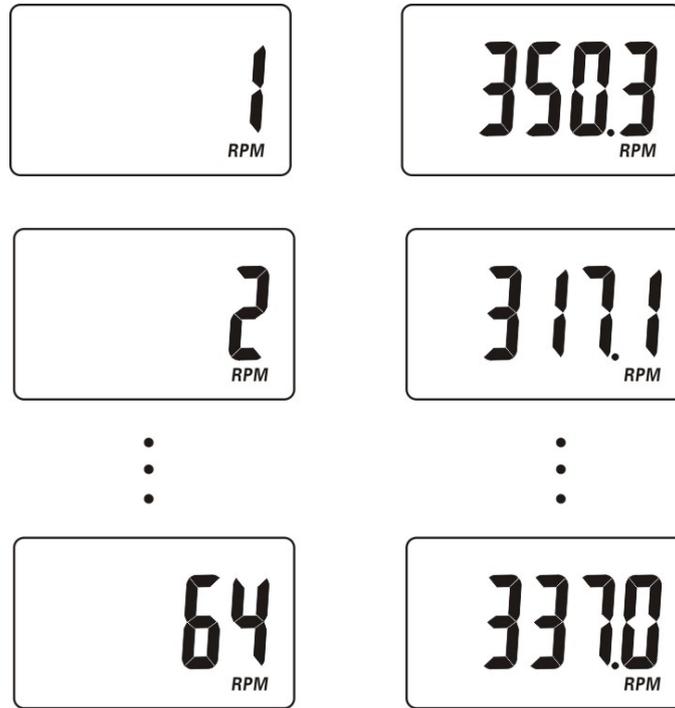


(Fig 5)



(Fig 6)

Each time "MEM" is pressed, sets of data is displayed in order, such as first value is 350.3RPM, second value is 317.1RPM.... so on, and the 64th value is 337.0RMP (Fig. 7).



(Fig 7)

Remark: Contact length mode does not have Max, Min memory and data save function, only have shows the last test value. During memory mode, press measurement button anytime will lose all saved data and start new measurement and store data.

VI. Battery Replacement

1. When battery voltage is too low, left side of LCD display ““symbol that indicate that battery replacement is needed.
2. Open battery cover and take out low voltage battery.
3. Enter new batteries as indicated.

VII. Remarks:

1. The Package comes with big cone, small cone and cylinder parts for rotation speed measurement. Big cone and cylinder rubber parts use for low RPM and small cone rubber part use for high RPM.
2. If meter is not going to use for a long time, please take out batteries to prevent leakage which damage the meter.