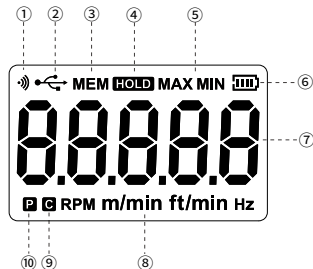


Intelligent Digital Tachometer User Manual v1.3.4

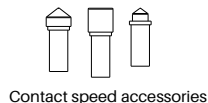
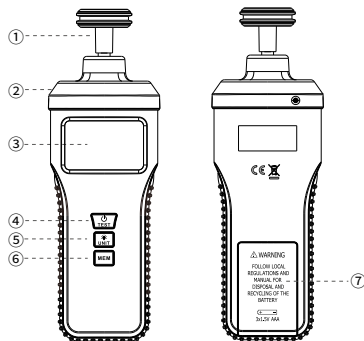


LCD Display



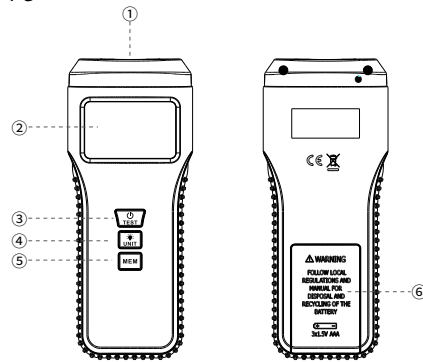
- ① Measurement reminder symbol
- ② USB connection prompt
- ③ Memory mark
- ④ Value lock
- ⑤ Maximum and minimum
- ⑥ Battery power reminder
- ⑦ Numerical display area
- ⑧ Unit display area
- ⑨ CONTACT symbol
- ⑩ PHOTO symbol

1. Product Schematic Diagram P1/P2



- ① Contact line speed accessories (replaceable)
- ② Accessory connector (P1 can be removed)
- ③ LCD display area
- ④ ϕ /TEST key
- ⑤ $\star$ /UNIT key
- ⑥ MEM key
- ⑦ Battery compartment

P3



- ① Measurement window
- ② LCD display area
- ③ ϕ /TEST key
- ④ $\star$ /UNIT key
- ⑤ MEM key
- ⑥ Battery compartment

2. Battery Installation Instructions

- (1) Insert the battery according to the positive and negative instructions inside the battery compartment.
- (2) After inserting the battery, please close the battery cover.
- (3) When the instrument is not used for a long time, be sure to remove the battery and place it properly.

3. Description of Key Functions

3.1 ϕ /TEST Key

- (1) Press the button to turn on the instrument.
- Note:* The instrument will automatically shut down if there is no key operation for about 15 seconds by default.
- (2) Press and hold, the instrument starts to measure.
 - (3) After the measurement is released, the instrument will lock the measured value, and the value will not change after being locked.

3.2 $\star$ /UNIT Key

- (1) Short press to switch the unit RPM(revolution/minute), Hz(Hertz),

- m/min(meter/minute) and ft/min(feet per minute).
- (2) Long press to turn on or off the screen backlight.

3.3 MEM Key

- (1) View the currently measured lock value (HOLD), maximum value (MAX) and minimum value (MIN).
- (2) View the locked value (MEM HOLD), maximum value (MEM MAX) and minimum value (MEM MIN) of the last measurement before the instrument is turned off.

4. Measurement Procedure

4.1 Photoelectric Speed Measurement (Only applicable to some models)

- (1) Paste a reflective mark on the object to be measured.
- (2) After turned on, short press " $\star$ /UNIT" key to choose "P-RPM" (If the contact accessories have been installed, please remove the accessories and accessory connectors).
- (3) Press and hold the " ϕ /TEST" key, at the same time, make the red laser and the reflection mark in a straight line; after the data is stable, release the

- “Φ/TEST” key, the instrument locks the current data.
- (4) Press the “MEM” key to view the lock data, maximum data and minimum data.
- Note:* a. When the rotation speed is low, a few more reflective marks can be evenly affixed on the rotating surface. Note that the non-reflective area is larger than the reflective area (The final rotation speed value is equal to the value displayed by the instrument divided by the number of reflective marks).
- b. If the rotating surface is obviously reflective, please apply black paint or black tape before attaching the reflective marker.
- 4.2 Light Source Flicker Frequency** (Only applicable to some models)
- (1) After turning on the machine, short press the “☼/UNIT” key to select “P-Hz” (If contact accessories have been installed, please remove the accessories and their connectors).
- (2) Align the measuring window of the instrument with the light source to be measured.
- (3) Press and hold the “Φ/TEST” key, and release the key after the value is

6

- stable, the instrument locks the current data.
- (4) Press the “MEM” key to view the locked data, maximum data and minimum data.
- 4.3 Contact Speed Measurement** (Only applicable to some models)
- (1) Install suitable contact speed accessories.
- (2) After starting up, short press the “☼/UNIT” key to select “C-RPM”.
- (3) Close the accessory to the object to be measured and make it rotate synchronously with the object to be measured.
- (4) Press and hold the “Φ /TEST” key, and release the key after the value is stable, the instrument will lock the current data.
- (5) Press the “MEM” key to view the locked data, maximum data and minimum data.
- 4.4 Contact Line Speed Measurement** (Only applicable to some models)
- (1) Install the contact line speed accessories.
- (2) After starting up, short press the “☼/UNIT” key to select “C-m/min” or “C-ft/min”.

7

- (3) Close the accessory to the object to be measured and make it rotate synchronously with the object to be measured.
- (4) Press and hold the “Φ/TEST” key, and release the key after the value is stable, the instrument will lock the current value.
- (5) Press the “MEM” key to view the locked value, maximum value and minimum value.
- Note:* The default diameter of contact speed accessories is 29.5mm (inner ring). If necessary to be set to other values, it can be changed according to the following steps:
- a. Under shutdown state, first long press the "MEM" key and then combine long press “Φ/TEST” key to enter the version number display interface;
- b. In the version number display state, long press "MEM" key to enter the diameter setting interface, short press “☼/UNIT" key "to increase the value, short press" MEM "key to reduce the value;
- c. Long press" MEM " key to save the set diameter and enter the normal measurement.

8

5. Technical Parameters

Model	P1				P2		P3	
Measurement parameters	Contact line speed	Contact speed	Photoelectric speed	Light source flicker frequency	Contact line speed	Contact speed	Photoelectric speed	Light source flicker frequency
Measuring range	0.10~1999.9m/min 0.4~6560ft/min	1.0~19999RPM	9.0~99999RPM	0.1~6000.0Hz	0.10~1999.9m/min 0.4~6560ft/min	1.0~19999RPM	9.0~99999RPM	0.1~6000.0Hz
Accuracy	±(0.05% of reading+1)			±(0.02% of reading)	±(0.05% of reading+1)			±(0.02% of reading)
Resolution	0.01m/min (0.10~99.99m/min) 0.1m/min (above 100m/min) 0.1ft/min (0.4~999.9ft/min) 1ft/min (above 1000ft/min)	0.1RPM (1.0~999.9RPM) 1RPM (above 1000RPM)	0.1RPM (9.0~999.9RPM) 1RPM (above 1000RPM)	0.1Hz	0.01m/min (0.10~99.99m/min) 0.1m/min (above 100m/min) 0.1ft/min (0.4~999.9ft/min) 1ft/min (above 1000ft/min)	0.1RPM (1.0~999.9RPM) 1RPM (above 1000RPM)	0.1RPM (9.0~999.9RPM) 1RPM (above 1000RPM)	0.1Hz
Unit	RPM, Hz, m/min, ft/min				RPM, m/min, ft/min		RPM, Hz	
Effective distance	No		50~500mm		No		50~500mm	
Range selection	Auto range							
Display	Segment LCD screen with backlight							
Protection level	IP43							
Power supply	3 pcs of 1.5V AAA dry cell batteries/3 pcs of 1.2V AAA rechargeable batteries							
Host size	190*68*33mm				190*68*33mm		157*65*30mm	
Shell material	ABS							
Host weight	About 149g (without batteries)				About 149g (without batteries)		About 126g (without batteries)	