
Hand-Held Mechanical Tachometer Model HTM



Operating Manual

TABLE OF CONTENTS

1.0 Introduction	2
1.1 Unpacking	
1.2 Applications	
2.0 Safety Precautions	3
3.0 Complete Kit	4
3.1 Included Accessories	
4.0 Taking A Measurement	5
5.0 Specifications	6
6.0 Spare Parts	7
7.0 Warranty	8

1.0 INTRODUCTION

The new HTM mechanical hand-tachometer accurately measures RPM and surface speed on a wide range of applications. Favored in several industries, including elevator maintenance, mining and others, HTM mechanical tachometers use a pointer and dial to display RPM or surface speed—without the need for batteries.

Four models are available (two English and two metric):

HTM-100F 10-10,000 rpm/5-5,000 ft/min

HTM-100M 10-10,000 rpm/1-1,000 m/min

HTM-500F 30-50,000 rpm/15-25,000 ft/min

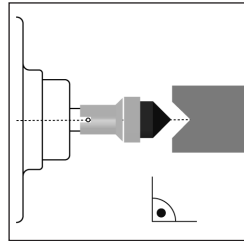
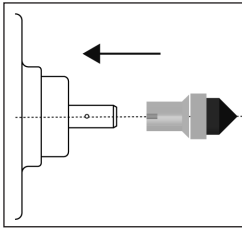
HTM-500M 30-50,000 rpm/3-5,000 m/min

1.1 Unpacking

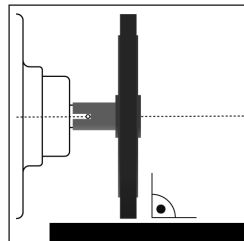
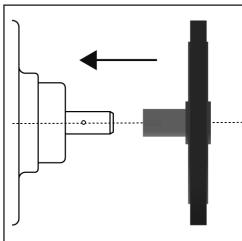
Unpack the gauge and inspect it for any shipping damage. Notices of defect must be filed immediately, in writing, at the latest within 10 days on receipt of the goods.

1.2 Applications

RPM: Used to measure the speed of rotating motors, shafts, pulleys, gears, etc.



Linear Speed: Used to measure the linear speed of moving surfaces, such as conveyor belts, printed materials, webs of fabric or paper, etc.



2.0 SAFETY PRECAUTIONS

All operators should wear safety goggles when using this or any other tachometer. Failure to do so could result in serious injury!

1. Check condition of the mounting hubs of the cone tip, funnel tip, shaft extension and surface speed wheel. Replace those that are worn, loose-fitting or cracked.
2. When using the Surface Speed Wheel, make sure it fits the tachometer shaft snugly. In operation, keep the wheel perpendicular and parallel to the moving surface to prevent it from running off the tachometer shaft.
3. Store the instrument in its carrying case when it is not in use.

3.0 COMPLETE KIT

All models are supplied as a complete kit that includes the gauge, cone tip and funnel tip adapters, shaft extension and instruction manual, packaged in a foam-fitted carrying case.

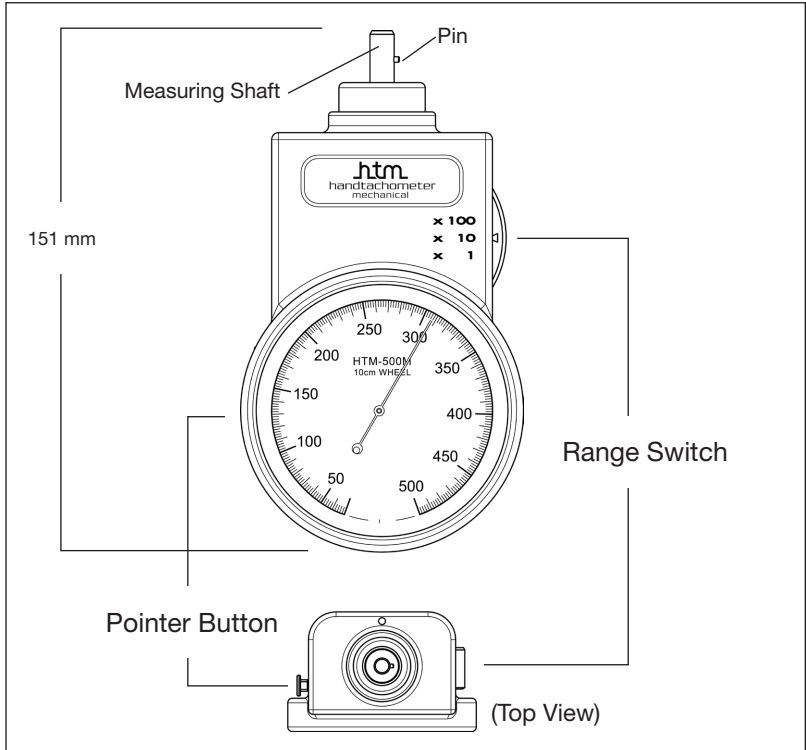
NOTE: *Calibration Certificates are optional.*



2.1 Included Accessories

	HTM-100F	HTM-500F	HTM-100M	HTM-500M
6 " Wheel	•	•		
0.1 M Wheel			•	•
Cone Tip	•	•	•	•
Funnel Tip	•	•	•	•
Shaft Extension	•	•	•	•

4.0 TAKING A MEASUREMENT



1. Slide the **Red Range Switch** to select a multiplier for your application. If the range is unknown, start at “x100” and adjust to lower range as needed. When properly set, the needle will register a value between Min. and Max. on the dial.
2. Manually rotate the measuring shaft to engage the gear for the selected range.
3. Slide the measuring wheel contact adapter over the shaft of the instrument. Be sure to **align the pin** on the side of the shaft with the **slot in the adapter**. Push on securely.
4. To begin measuring, bring the tip adapter into contact with the moving surface of the material being measured. The gauge will take and display a reading, either RPM, ft/min, min/min).
5. To lock in the reading, press and hold the **Red Pointer Button** to activate the pointer. When the pointer button is released, the pointer will remain in the last position.
6. To reset the pointer, press and release red button again.

5.0 SPECIFICATIONS

Accuracy	±0.5% Full Scale			
RPM Ranges	HTM-100 models 10-10,000 rpm		HTM-500 models 30-50,000 rpm	
<i>Multipliers (rpm)</i>	x 1 x 10 x 100	1 – 100 100 – 1,000 1,000 – 10,000	x 1 x 10 x 100	30 – 500 300 – 5,000 3,000 – 50,000
Surface Speed Ranges 100 Series Models	HTM-100F 5-5,000 ft/min		HTM-100M 1-1,000 m/min	
<i>Multipliers (fpm / mpm)</i>	x 1 x 10 x 100	5 – 50 50 – 500 500 – 5,000	x 1 x 10 x 100	1 – 10 10 – 100 100 – 1,000
Surface Speed Range 500 Series Models	HTM-500F 15-25,000 ft/min		HTM-500M 3-5,000 m/min	
<i>Multipliers (fpm / mpm)</i>	x 1 x 10 x 100	15 – 250 150 – 2,500 1,500 – 25,000	x 1 x 10 x 100	3 – 50 30 – 500 300 – 5,000
Surface Speed Range Metric Models	Must divide value on dial by 10			
Weight	10.6 oz (300 g)			
Housing Material	Plastic, with outer rubber shell			
Dimensions (Tach)	6.1" x 3.4" x 2.2" (155 x 85 x 55mm)			
Dimensions (Case)	9.9" x 8.2" x 2.4" (252 x 207 x 60mm)			
Certifications	CE			
Warranty	18 months			
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)			
Storage Temperature	14 °F to 104 °F (-10 °C to 40 °C)			

6.0 SPARE PARTS

NISTCAL	NIST-Traceable Calibration Certificate & Test Report .
DTCA	RPM Cone Tip Adapter.
DT6	6” circumference surface wheel for “F” models.
CDT-WHEEL	0.1m circumference surface wheel for “M” models.

7.0 WARRANTY

ELECTROMATIC Equipment Co., Inc. (ELECTROMATIC) warrants to the original purchaser that this product is of merchantable quality and confirms in kind and quality with the descriptions and specifications thereof. Product failure or malfunction arising out of any defect in workmanship or material in the product existing at the time of delivery thereof which manifests itself within eighteen months from the sale of such product, shall be remedied by repair or replacement of such product, at ELECTROMATIC's option, except where unauthorized repair, disassembly, tampering, abuse or misapplication has taken place, as determined by ELECTROMATIC. All returns for warranty or non-warranty repairs and/or replacement must be authorized by ELECTROMATIC, in advance, with all repacking and shipping expenses to the address below to be borne by the purchaser.

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