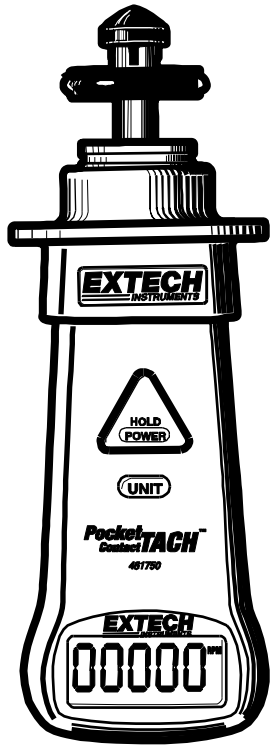
EXTECH® User Manual

Mini Contact Tachometer
Model 461750



Introduction

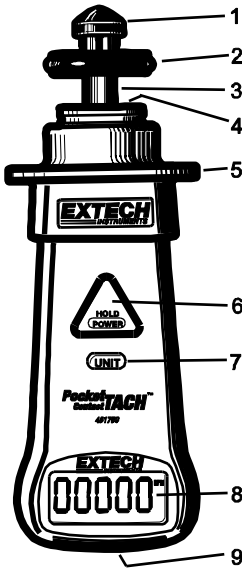
Congratulations on your purchase of the Extech Tachometer.

The **Model 461750 Contact Tachometer** uses convex (cone) and concave (round) attachments to measure RPM. It also has a built-in wheel to measure the linear surface speed of moving devices such as conveyors and treadmills. Careful use of this tachometer will provide years of reliable service.

Meter Description

1. RPM adaptor (cone)
2. Wheel for linear surface measurements
3. Adaptor shaft
4. Adapter socket
5. Hand Guard
6. Power ON/OFF and HOLD button
7. Unit of measure selection button
8. LCD Display
9. Alternate Power ON/OFF button

   Note that the battery compartment is located on the rear of the instrument

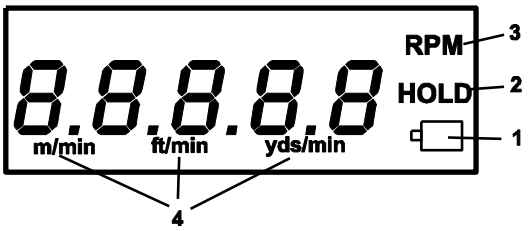


Display Description

1. Low Battery
2. Data Hold
3. Rotations per minute
4. Meters per minute

   Feet per minute

   Yards per minute



Safety Precautions

The 461750 incorporates a finger guard for protection. However, care should be taken when measuring surface speed to avoid injury.

1. Hold the meter firmly when touching the wheel or attachment to a moving object
2. Keep fingers behind the finger guard while taking measurements
3. Always keep your eyes and attention on the measurement activity
4. Do not attempt to record measurements while holding the meter to the moving object (use the Data Hold feature to freeze the reading on the LCD; refer to the Data Hold section of this manual).

Meter Power

Power ON / OFF

1. Press the triangular POWER HOLD button to turn the device ON. Alternatively, press the button at the bottom of the meter (just under the LCD) which doubles as a power on/off button. Two buttons are provided for easy reach at any holding angle.
2. Press and hold the triangular POWER HOLD button (or the alternate button) for approx. 5 seconds to turn the device OFF.

Auto Power OFF

1. The meter turns off AUTOMATICALLY after 20 minutes.
2. To disable this feature, turn the meter off. Then press and hold the POWER and UNITS buttons until the meter turns on. Release the POWER button first and the 'n' display icon will appear. This indicates that the feature is disabled.

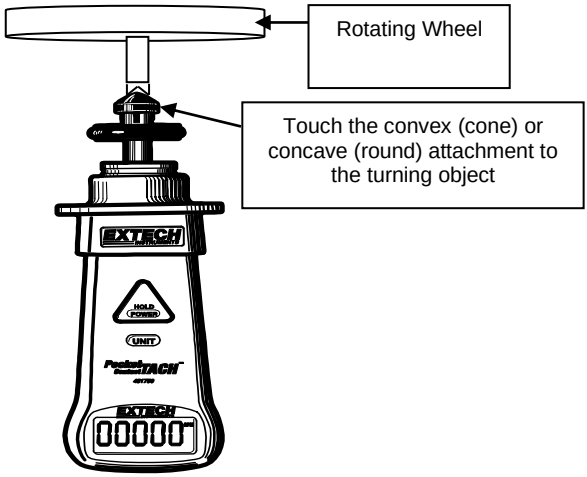
Never dispose of used batteries or rechargeable batteries in household waste. As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.

Disposal: Do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment.

RPM Measurements

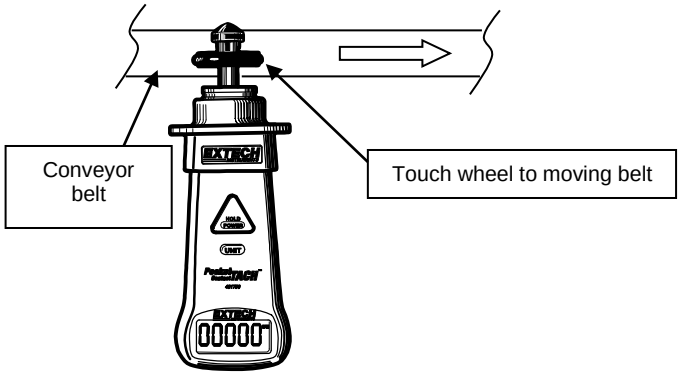
Contact Tachometer

1. Affix the convex (cone) or concave (round) attachment that best fits the application to the meter shaft as shown below.
2. Turn the meter ON.
3. Use the UNITS button to select RPM (the display will reflect the selection).
4. Touch the attachment to the moving object and read the displayed measurement.



Surface Speed Measurements

1. Turn the meter on as described previously.
2. Touch the wheel to the moving object and read the measurement on the display. Refer to diagram below.
3. Use the UNITS button to select the unit of measure: ft/min (feet per minute); m/min (meters per minute); yds/min (yards per minute).



Data Hold Feature

After the meter is turned on, the POWER-HOLD button can be pressed and released to activate Data Hold. Data Hold automatically freezes the displayed reading. While the reading is held, the HOLD display icon switches on. Press the POWER-HOLD button again to exit this mode.

Maintenance

Battery Replacement

When the 9V battery weakens, the low battery indicator appears on the LCD. To replace the battery, open the rear compartment and exchange the battery. Be sure to replace the compartment cover securely prior to meter use.

Meter Cleaning

Wipe the meter housing with a damp cloth only. Do not use any abrasives or solvents.

Specifications

General Specifications

Display	5-digit LCD Display
Range selection	Automatic range selection
Time Base	4MHz Quartz Crystal
Sampling Time	1 second (>60 rpm); >1 second (10 to 60 rpm)
Operating Temperature	32 to 122ºF (0 to 50ºC)
Operating Humidity	80% RH Max.
Power supply	9V Battery
Battery Life	40 hours (approx.)
Applicable standards	EN 50081-1/1992 (EN 55022)
	EN 50082-1/1997 (EN 55024)
Dimensions	5.9 x 2.0 x 1.3” (150 x 51 x 33mm)
Weight	5.0 oz. (142g)

Range Specifications

Measurement	Range	Accuracy
Rotation	10.000 to 9999 rpm	± (0.1% reading + 2 digits)
Surface Speed	3.0000 to 6560.0 ft/min	± (1.5% reading + 2digits)
Surface Speed	1.0000 to 1999.9 m/min	± (1.5% reading + 2digits)
	1.0000 to 5000.0 yds/min	

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Two-year Warranty

Teledyne FLIR LLC warrants this Extech brand instrument *to be free of defects in parts and workmanship for* ***two years*** *from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: http://www.extech.com/support/warranties.*

Calibration and Repair Services

Teledyne FLIR LLC offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

Contact Customer Support

Customer Support Telephone List: https://support.flir.com/contact

Calibration, Repair, and Returns: repair@extech.com

Technical Support: https://support.flir.com

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