User Manual

TRIPLETT

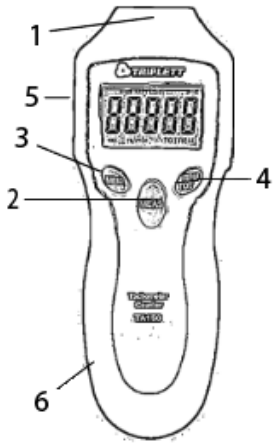
TA150
Laser Photo Tachometer/Counter

Introduction

Congratulations on your purchase of the TA150 Laser Photo Tachometer and Counter. This Tachometer provides non-contact RPM and count measurements. The laser pointer beam provides accurate long distance measurements for photo tachometer measurements.

Meter Description

1. Photo Tachometer sensor and laser source
2. MEASURE button
3. MEMORY button
4. RPM/TOT button
5. AC Power Adaptor
6. Battery compartment (rear)



CAUTION: Rotating objects can be dangerous. Use extreme care.

WARNING: Do not directly view or direct the laser pointer at an eye. Low power visible lasers do not normally present a hazard, but may present some potential for hazard if viewed directly for extended periods of time.

Laser complies with: FDA 21 CFR 1040.10 and 1040.11

RPM Measurement Mode

1. To set the units to RPM, Press and release the MEAS button and press the MODE button until RPM appears on the display.

2. Apply an appropriately (0.5”/12mm) sized square piece of reflective tape to the surface of the object under test.

3. Point the meter toward the device under test at a distance of 2" to 20" (50 to 500mm).

4. Press the Measure button (MEAS) and align the laser light beam straight on with the reflective tape.

5. Verify that the ((( ))) Monitor Indicator appears on the LCD when the reflective tape passes through the light beam.

6. When the Measure button is released the last reading will remain in the display for 5 to 10 seconds before the Auto Power Off feature turns the meter off.

7. With the meter OFF, press the MEM (memory) button to recall the MAX, MIN and LAST rpm values.

COUNT Mode

1. To set the units to measure Counts, Press and release the MEAS button and press the MODE button until REV appears on the display.
2. Point the meter toward the device under test at a distance of 2" to 20" (50 to 500mm).
3. Press the Measure button (MEAS) and align the laser light beam to the objects being counted.
4. Verify that the ((ı)) Monitor Indicator appears on the LCD when the object passes through the light beam.

5. When the Measure button is released the last reading will remain in the display for 5 to 10 seconds before the Auto Power Off feature turns the meter off.
6. With the meter OFF, press the MEM (memory) button to recall the last count (REV) from the last measurement period.

Measurement Notes

1. Bright ambient light may interfere with the reflected light beam. Holding the tachometer closer to the target or shading the target area may be necessary in some cases.
2. The non-reflective area must always be larger than the reflective area.
3. If the shaft or rotating object is normally reflective, it must be covered with black tape or paint before the reflective tape is applied.
4. To improve repeatability of low rpm measurements, apply additional squares of reflective tape. Divide the reading shown on the display by the number of pieces of reflective tape squares to calculate the actual rpm.

Battery Replacement

The low battery indication appears as [ ] "□" on the display. To replace the batteries, loosen the two Philips head screws securing the rear battery cover and lift the cover off. Replace the 9V battery and replace cover.

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.

Specifications

Time base	Quartz crystal
Display	5 digit LCD display
Laser light source	Class 2 laser < 1mW power; Wavelength is 630 to 670nm
Detecting Distance	2 to 20" (50 to 500 mm)
Sampling Time	0.5sec (over 120 rpm)
Tachometer accuracy	± (0.05% reading + 1digit)
Memory	Last reading and MIN/MAX readings
Operating Conditions	32 °F to 122 °F (0 °C to 50 °C); RH 80% Max
Power Supply	Internal 9V battery or external AC Adaptor (6 to 9VDC)
Power Consumption	45mA DC approx.
Weight	5.3oz. (151g)
Size	6.3x2.3x1.6" (160x58x39 mm)

Range Specifications

	Range	Resolution	Accuracy (%reading)
Photo Tachometer	2 to 99,999 rpm	0.1 rpm (<1000rpm) 1 rpm (>1000 rpm)	± (0.05% + 1d)
Counter	1 to 99,999 REV	1 count	± 1 count

Warranty Information

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty