CHECKLINE
MADE TO MEASURE

MADE IN USA
Precision Instruments for Quality Control

TACHOMETER & STROBOSCOPE CALIBRATOR / VERIFIER

Know your tachs and strobes read true. Verify them in-house, in minutes.

Checkline TSV-1000

Tachometers and stroboscopes drift, get dropped and wear out, and a reading you can't trust can mean a machine set to the wrong speed. The TSV-1000 lets you check them in-house, quickly and repeatably, between outside calibrations. It generates precisely timed light pulses to test non-contact tachometers, and counts a strobe's flashes to show its true flash rate, all at ±0.0025% ±1 digit.



±0.0025% ±1 digit
Accuracy

Up to 99,500 RPM
Tachometer mode · 10 presets · cycle mode

30 – 99,500 FPM
Stroboscope mode · 0.5 to 1,658 Hz

Two tools in one
Verify tachometers ***and*** stroboscopes

Why quality and maintenance teams choose the TSV-1000

1 **4:1 checks, when verified**
Supports 4:1 test accuracy ratio for instruments specified ±0.01% or wider, subject to digit/resolution allowance and verification at chosen test points. Each unit ships individually calibrated against a NIST-traceable reference; annual verification is recommended. The ±1 digit term counts in the ratio.

2 **Fast, repeatable checks**
Ten programmable presets (factory 10 to 99,500 RPM) let you step through the points you check most, the same way every time. Cycle mode: double-tap T to step through all 10 presets automatically; double-tap T again to stop.

3 **Individually calibrated timebase**
Firmware v9 stores each unit's 64 MHz timebase correction for both tach output and strobe readings. The display shows rate (F=) and resolution (Res); decimals indicate resolution, not accuracy.

4 **Tachometers and strobes**
Checks non-contact tachometers, and combination tachometers in non-contact mode. It also measures stroboscope flash rate, averaging about 200 flashes for a steady reading.

5 **Flexible USB pulse sensor**
Stores in the rear panel slot when not in use, and can be used away from the unit with a USB extension cable.

6 **Audit-ready from day one**
Ships with a factory calibration certificate. ISO 17025 accredited calibration is available as an option for your ISO 9001 / IATF 16949 records.

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Specifications

Accuracy	±0.0025% ±1 digit
Operating modes	Tachometer and stroboscope
TACHOMETER MODE	
Range	Up to 99,500 RPM
Presets	10 programmable (factory 10 to 99,500 RPM); cycle mode auto-steps through them
Display units	RPM or Hz
Test distance	0.5–2 in (12–50 mm)
Compatible with	Non-contact tachometers; combination tachometers in non-contact mode. *Contact tachometers are not supported.*
STROBOSCOPE MODE	
Range	30 to 99,500 FPM (0.5 to 1,658 Hz)
Display units	FPM or Hz
Test distance	3–24 in (75–600 mm)
Measurement	Averages about 200 flashes for a steady reading
GENERAL	
Display	2-line × 16-character OLED; shows generated rate (F=) to 3 decimals and output resolution (Res)
Pulse sensor	USB; stores in rear panel slot; usable remotely with a USB extension cable
Power	100–240 V AC adapter, 5 V DC output
Calibration	Factory certificate included; ISO 17025 accredited optional
Warranty	1 year
Origin	Made in USA

v9 timebase calibrated per unit against a counter with a Trescal calibration traceable to NIST. Annual verification recommended; drift and interval not validated.

How it works

TACH Tachometer mode

1. Select one of the 10 presets, or fine-tune the rate.
2. Hold the non-contact tachometer 0.5–2 in (12–50 mm) from the pulse sensor.
3. Compare its reading with the TSV-1000's F= value, within the tachometer's own stated tolerance. Step through presets to cover its range.

Cycle mode: double-tap T to step through all 10 presets automatically; double-tap T again to stop.

STROBE Stroboscope mode

1. Switch to stroboscope mode and set your strobe to a known rate.
2. Aim it at the pulse sensor from 3–24 in (75–600 mm).
3. The TSV-1000 averages about 200 flashes and shows the actual flash rate in FPM or Hz. Compare it with the strobe's setting.

Applications

- **In-house checks** between outside calibrations
- **ISO 9001 / IATF 16949** audit records showing instruments were checked
- **Calibration labs** needing a quick, repeatable check
- **Maintenance departments** with many handheld tachometers
- **Strobe checks** on printing, packaging and textile lines

In the box & calibration

In the box

- ✓ TSV-1000 calibrator
- ✓ USB pulse sensor
- ✓ Universal AC adapter
- ✓ Factory calibration certificate
- ✓ Instruction manual

Calibration

Included: factory calibration certificate.

OPTION **ISO 17025 accredited** calibration for quality systems that require it.

Put your tachs and strobes to the test.
Contact Checkline for a quote or to add ISO 17025 calibration.

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www.checkline.com/product/TSV-1000