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## TESMEN TCG-2001

# TESMEN TCG-2001 Digital Paint Thickness Gauge User Manual

Model: TCG-2001

## 1. INTRODUCTION

The TESMEN TCG-2001 Digital Paint Thickness Gauge is a precision instrument designed for accurate measurement of coating thickness on various metal substrates. Utilizing advanced dual-tech sensing, it automatically identifies both ferrous and non-ferrous metals, providing reliable data for automotive inspections, industrial quality control, and home improvement projects. Its user-friendly design, multi-mode testing, and data logging capabilities make it an essential tool for professionals and enthusiasts alike.

### Designed for Metal Applications



Used Car Evaluation



Home DIY Painting Check



Workshop Coating Test

\*Use on metal surfaces only; NOT compatible with fiberglass, plastic, or wood.

Figure 1: TESMEN TCG-2001 Paint Thickness Gauge highlighting its features.

## 2. SETUP

### 2.1 Battery Installation

The TCG-2001 requires 1 Lithium Polymer battery (included). To install or replace batteries:

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover open.
3. Insert the Lithium Polymer battery, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

## 2.2 Power On/Off

Press and hold the power button to turn the device on or off. The device features an auto power-off function to conserve battery life.

## 2.3 Attaching the Wrist Strap

Attach the included wrist strap to the designated loop on the device to prevent accidental drops during use.

# 3. OPERATING INSTRUCTIONS

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## 3.1 Display Features

The device features a 2.0" TFT color screen with bright backlight and 4-way auto-rotation for clear readings from any direction.



Figure 2: User-friendly display features for optimal readability.

## 3.2 Probe and Sensing Technology

The 2-in-1 probe uses electromagnetic induction and eddy current sensing to automatically distinguish between ferrous (Fe) and non-ferrous (NFe) metals, providing precise coating thickness results on steel, zinc, and aluminum panels.





Figure 5: Overview of the four available measurement modes.

### 3.5 Limit Alarm

The device features an over-limit alert icon for instant on-screen guidance, indicating when measurements fall outside predefined acceptable ranges.

## 4. DATA MANAGEMENT

The TCG-2001 allows users to log and analyze measurement data directly on the device.

- **Data Logging:** Easily log up to 256 readings in 8 groups for organized tracking.
- **Statistical Analysis:** The device automatically calculates group statistics including average, minimum, maximum, and standard deviation.
- **Visual Bar Graphs:** Results are displayed with intuitive bar graphs for quick review and analysis.



Figure 6: Data logging and statistical display features.

## 5. APPLICATIONS

The TESMEN TCG-2001 is versatile and suitable for various applications:

- **Used Car Evaluation:** Quickly check paint thickness to identify repainted areas or accident damage.
- **Automotive Manufacturing:** Ensure consistent coating quality during production.

- **Metal Processing:** Verify coating thickness on metal components.
- **Home Paint Touch-Up:** Achieve professional results in DIY painting projects.
- **Quality Inspection:** Provide reliable, precise measurements across various coating applications.

**Note: This device is designed for use on metal surfaces only and is NOT compatible with non-metal substrates such as plastic, glass, fiberglass, or wood.**



Figure 7: Diverse applications of the paint thickness gauge.

## 6. MAINTENANCE

### 6.1 Cleaning

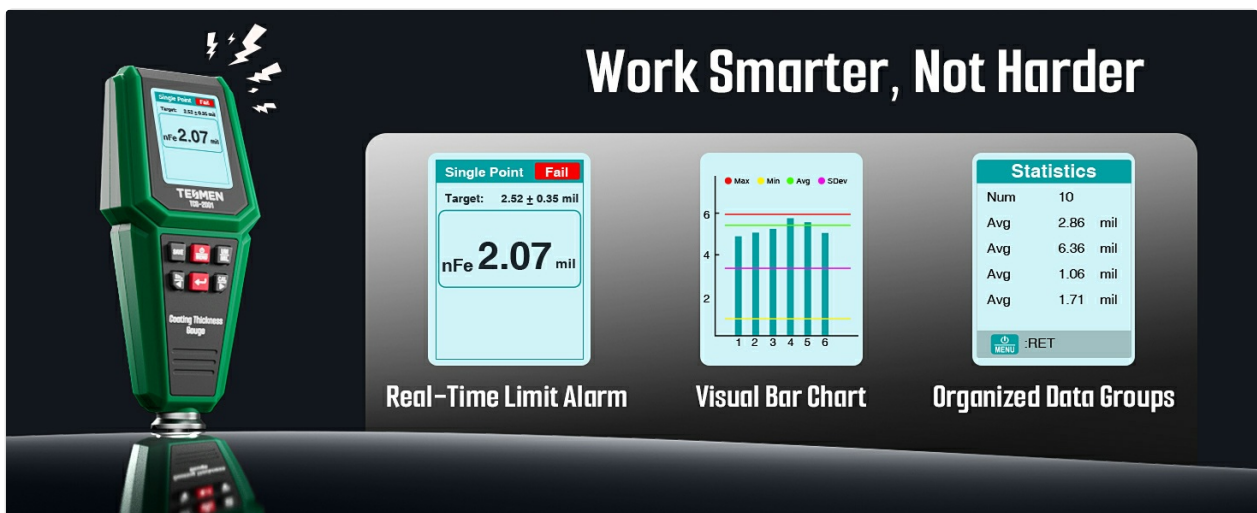
Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the probe tip is clean and free of debris for accurate measurements.

### 6.2 Storage

Store the device in its protective case in a cool, dry place when not in use. Remove batteries if storing for extended periods to prevent leakage.

### 6.3 Charging

The device is rechargeable via USB-C. A full charge takes approximately 40 minutes.



## 7. TROUBLESHOOTING

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- **Inaccurate Readings:** Ensure the probe tip is clean. Perform zero-point and multi-point calibration. Check if the substrate is metal and not a non-compatible material.
- **Device Not Powering On:** Check battery charge level. Ensure batteries are correctly installed.
- **Screen Issues:** If the screen is dim, check backlight settings or battery level.

For further assistance, please contact TESMEN customer support.

## 8. SPECIFICATIONS

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Feature	Detail
Model Number	TCG-2001
Brand	TESMEN
Item Weight	331 g
Parcel Dimensions	17.91 x 8.99 x 6.91 cm
Battery Type	1 Lithium Polymer (included)
Color	Green
Display	2.0" TFT Color Screen with Backlight, 4-Way Auto-Rotation
Sensing Technology	Electromagnetic Induction & Eddy Current
Data Storage	Up to 256 readings in 8 groups
Charging Port	USB-C
Country of Origin	China

## 9. WARRANTY AND SUPPORT

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TESMEN products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please refer to the official TESMEN website or contact customer support at [support@tesmen.com](mailto:support@tesmen.com).