ETARI MD-888

ETARI MD 888 Paint Thickness Gauge User Manual

Model: MD-888 | Brand: ETARI

1. Introduction

The ETARI MD 888 is a professional-grade paint thickness gauge designed for precise measurement of coating layers on various metallic surfaces. Equipped with a wear-resistant ruby sensor, it accurately detects non-magnetic layers such as paints, varnishes, plastic coatings, galvanization, enamel, or chrome plating on both ferromagnetic and non-ferromagnetic metal substrates. It also identifies magnetic metallic putty. This device is an indispensable tool for automotive professionals, car dealerships, workshops, and private buyers for quickly identifying repaired damages on vehicles.

2. Package Contents

Upon opening the package, please verify that all components listed below are present and in good condition:

- 1 x ETARI MD 888 Paint Thickness Gauge
- 2 x Calibration Discs (Ferrous and Non-Ferrous)
- 1 x Standard Thickness Calibration Film (101 microns)
- 2 x AAA Batteries (brand may vary)
- 1 x Storage Bag
- 1 x Wrist Strap
- 1 x Protective Rubber Case
- 1 x User Manual (German and English)

Image: All components included in the ETARI MD 888 package, laid out neatly. This includes the MD 888 device, two calibration discs (ferrous and non-ferrous), a standard thickness calibration film, two AAA batteries, a storage bag, a wrist strap, a protective rubber case, and the user manual.

3. Key Features

- **Wear-Resistant Ruby Sensor:** Ensures long-term durability and consistent measurement accuracy.
- **Galvanization and Magnetic Putty Detection:** Unique capability to identify galvanized parts and magnetic metallic putty, crucial for assessing vehicle history.
- **Wide Measurement Range:** 0 to 2000 µm (0 to 80.0 mils) for both ferrous and non-ferrous metals.
- **High Accuracy:** ± 7 µm for 0-199 µm, and ± (3% + 10 µm) for 200-1999 µm.
- **Fast Response Time:** Measurements are taken in less than 0.5 seconds.
- **Automatic Calibration:** Features a reset button for quick and precise calibration without complex procedures.
- **Automatic On/Off:** Powers on by pressing the sensor and automatically shuts off after 50 seconds of inactivity to conserve battery.

- **LED Backlight Display:** Ensures readability in dark environments.
- **Unit Switching:** Easily switch between microns (µm) and mils.
- **Robust Design:** Operates reliably in temperatures from -15 °C to 50 °C.
- **Protective Accessories:** Includes a rubber protective case to guard against dust and shocks, and a wrist strap to prevent accidental drops.

Image: Front view of the ETARI MD 888 device, showcasing its display and ergonomic design. Key features such as the wear-resistant ruby sensor, fast response time, galvanization detection, automatic backlight, measurement accuracy, and auto-calibration are highlighted.

4. Setup

4.1. Battery Installation

1. Locate the battery compartment on the back of the device.
2. Open the battery compartment cover.
3. Insert two AAA batteries, ensuring correct polarity (+/-).

4. Close the battery compartment cover securely.

4.2. Attaching the Wrist Strap and Protective Case

1. Thread the wrist strap through the designated loop on the device.
2. Carefully slide the protective rubber case onto the device, ensuring all buttons and the sensor are accessible. The case provides protection against dust and impacts.

5. Operation

5.1. Powering On/Off

- **To Power On:** Simply press the sensor against the surface to be measured. The device will automatically turn on and display the measurement.
- **To Power Off:** The device will automatically shut off after 50 seconds of inactivity to conserve battery life.

5.2. Taking a Measurement

1. Ensure the surface to be measured is clean and free of debris.
2. Place the sensor firmly and perpendicularly onto the surface. The device will automatically power on and take a measurement.
3. Hold the device steady until the measurement is displayed on the screen. A short acoustic signal will confirm the measurement.
4. Lift the device from the surface to prepare for the next measurement.

Image: A hand holding the ETARI MD 888 paint thickness gauge firmly against a car's surface, with the display showing a measurement in micrometers. This demonstrates the device in active use for paint thickness assessment.

5.3. Switching Measurement Units (µm/mils)

The device allows switching between micrometers (µm) and mils. Refer to the specific button layout on your device for the unit switch function. Typically, a dedicated button or a combination of buttons is used for this purpose.

6. Calibration

The ETARI MD 888 features automatic calibration via a reset button, allowing for precise measurement of paint thickness differences without requiring complex manual calibration for every use. However, for optimal accuracy, especially when measuring on different material types or after prolonged storage, it is recommended to perform a calibration check.

6.1. Automatic Calibration (Reset Function)

- To reset the calibration, locate the reset button (if present, typically on the side or back).
- Press and hold the reset button for a few seconds until the display confirms the reset. This will restore the factory

calibration settings.

6.2. Using Calibration Discs and Film

For precise calibration or verification, use the included ferrous and non-ferrous calibration discs and the standard 101-micron calibration film.

1. Place the calibration film on the appropriate calibration disc (ferrous for steel/iron, non-ferrous for aluminum/copper).
2. Place the sensor of the MD 888 firmly on the calibration film.
3. Verify that the displayed measurement is close to 101 µm. Minor deviations are within the device's accuracy specifications.
4. If significant deviation occurs, ensure the sensor is clean and properly placed, and re-attempt the measurement.

7. Technical Specifications

Parameter	Specification
Measurable Base Materials	Ferrous metals (iron, steel) and non-ferrous metals (copper, aluminum, zinc, bronze, brass)
Ferrous Metal Measurement Range	0 to 2000 µm, 0 to 80.0 mils
Non-Ferrous Metal Measurement Range	0 to 2000 µm
Display Resolution	0.1 mils / 1 µm
Response Time	Less than 0.5 seconds
Operating Temperature	-15 °C to 50 °C (5 °F to 122 °F)
Dimensions (H x W x D)	110 mm x 47 mm x 30 mm (4.33 x 1.85 x 1.18 inches)
Weight (with batteries)	Approximately 85 g (0.19 lbs)
Power Source	2 x AAA Alkaline Batteries (3 Volts DC)
Ferrous Metal Accuracy	± 7 µm (0-199 µm); ± (3% + 10 µm) (200-1999 µm)
Non-Ferrous Metal Accuracy	± 7 µm (0-199 µm); ± (3% + 10 µm) (200-1999 µm)

8. Maintenance

Proper maintenance ensures the longevity and accuracy of your ETARI MD 888.

- **Cleaning:** Wipe the device, especially the sensor, with a soft, dry cloth after each use. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in its protective bag and case in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display or if the device fails to power on. Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Sensor Care:** The ruby sensor is wear-resistant but should still be handled with care. Avoid dropping the device or applying excessive force to the sensor.

9. Troubleshooting

Problem	Possible Cause	Solution
Device does not turn on.	Dead or incorrectly installed batteries.	Check battery polarity. Replace with new AAA batteries.
Inaccurate or inconsistent readings.	Dirty sensor; improper placement on surface; surface not flat; device needs reset.	Clean the sensor. Ensure firm, perpendicular placement. Measure on a flat surface. Use the automatic calibration (reset) function.
Display is dim or flickering.	Low battery.	Replace batteries.
Device shuts off too quickly.	Normal auto-off function; low battery.	The device has a 50-second auto-off. If it's shorter, replace batteries.

If you encounter issues not listed here or if troubleshooting steps do not resolve the problem, please contact ETARI customer support.

10. Safety Information

- Do not attempt to disassemble or modify the device. This will void the warranty and may cause damage.
- Keep the device away from water and excessive moisture.
- Avoid exposing the device to extreme temperatures or direct sunlight for prolonged periods.
- Keep out of reach of children.
- Dispose of batteries according to local regulations.

11. Warranty and Support

ETARI GmbH stands behind the quality of its products. For any questions, complaints, or warranty claims, please contact our customer support directly. We are a small company and take your feedback very seriously.

- **Email:** Please refer to the contact information provided in your product packaging or on the official ETARI website.
- **Telephone:** (+49) 711-71940698
- **Seller Information:** ETARI GmbH

For the most up-to-date support information and FAQs, please visit the official ETARI website or your purchase platform's support section.