FeelTech MC998 (EC-Mileseey-MC998-Li)

FeelTech Coating Thickness Gauge User Manual

Model: MC998 (EC-Mileseey-MC998-Li)

High-Precision Digital Car Paintwork Detector

1. Product Overview

The FeelTech MC998 is a high-precision digital coating thickness gauge designed for accurate measurement of paintwork and other coatings on various substrates. It utilizes electromagnetic induction and eddy current effects to provide reliable readings, making it an essential tool for quality control, material inspection, and evaluating used vehicle paint conditions.

Figure 1.1: Front view of the FeelTech MC998 Coating Thickness Gauge.

Figure 1.2: The gauge in use, illustrating its measuring range (0-1500 µm) and compatibility with Fe/NFe base materials.

Key Features:

- High-precision digital measurement for various coatings.
- Automatic identification of ferrous (Fe) and non-ferrous (NFe) substrates.
- Wide measuring range: 0-1500 µm.
- Highly sensitive probe for accurate readings.
- Assists in evaluating paint conditions on used vehicles.
- Measurement principle: Electromagnetic induction and Eddy current effect.
- Accuracy: (3% + 2µm).

2. Product Components

Familiarize yourself with the different parts of your coating thickness gauge:

Figure 2.1: Labeled diagram of the MC998 Coating Thickness Gauge.

Table 2.1: Component Identification

No.	Component
①	LCD Display
②	Power Button / Unit Conversion Button
③	MAX/MIN Lock Button
④	Mode Conversion Button
⑤	Calibration Buttons (CAL)
⑥	Zero Button (ZERO)
⑦	Measuring Probe
⑧	V-Groove

No.	Component
⑨	Battery Compartment
⑩	Lanyard Hole
	Charging Interface

3. Package Contents

Verify that all items are present in your package:

Figure 3.1: Contents included with the rechargeable version of the MC998.

- FeelTech MC998 Coating Thickness Gauge
- USB Charging Cable
- Calibration Films/Plates (for calibration)
- Mini Screwdriver (for battery compartment, if applicable)
- Lanyard
- Storage Pouch
- User Manual (this document)

4. Setup

4.1 Initial Charging

Before first use, ensure the device is fully charged. Connect the provided USB cable to the charging interface ( ) on the gauge and to a standard USB power source. The charging indicator on the display will show the charging status.

4.2 Powering On/Off

1. To power on the device, press and hold the Power Button (②) for a few seconds. The device will perform a 5-second countdown and an instrument initialization self-check.
2. To power off, press and hold the Power Button (②) again until the display turns off.

5. Operating Instructions

5.1 Measurement Modes

The MC998 offers two primary measurement modes: SINGLE and CONTINUOUS. Short press the MODE button (④) to switch between these modes.

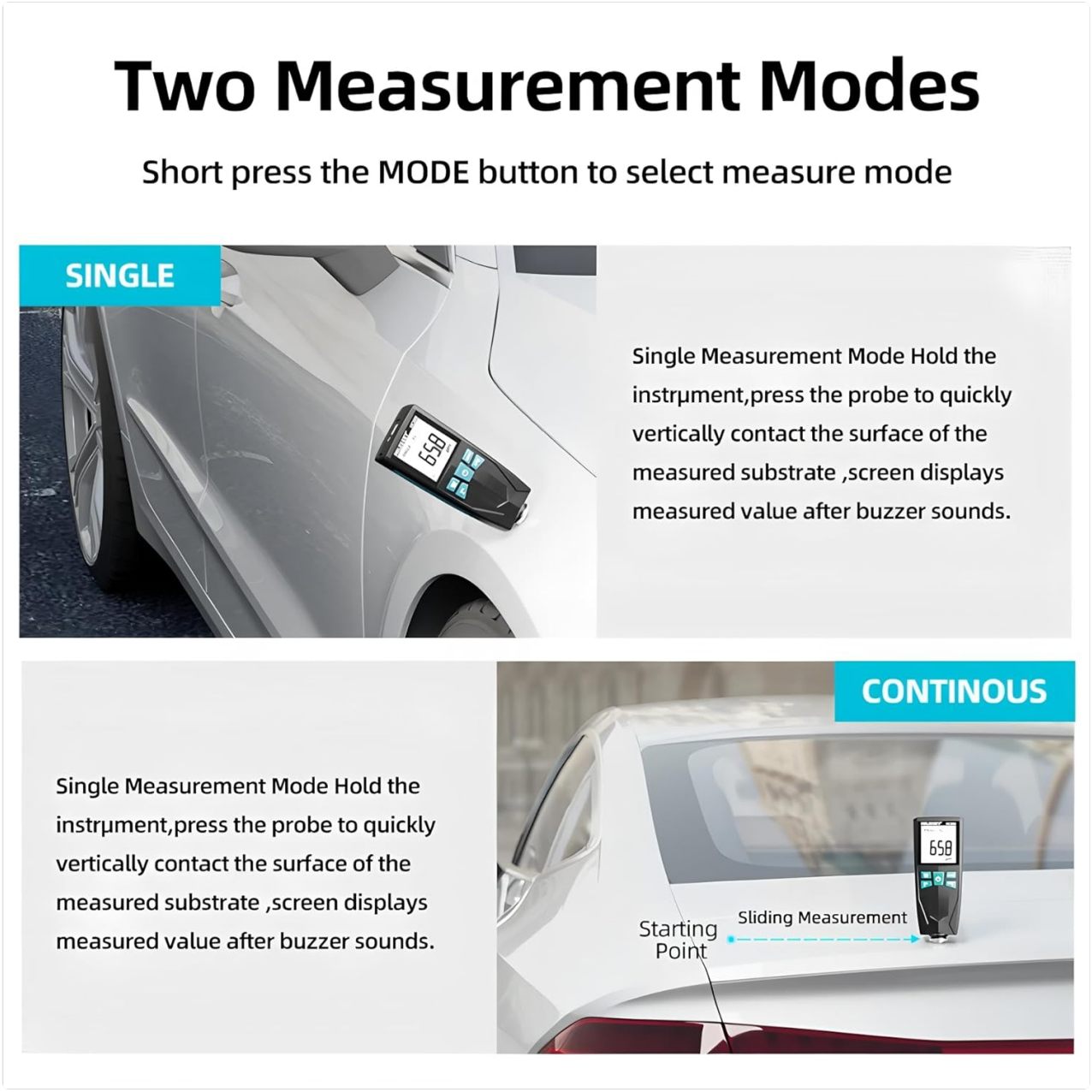

Figure 5.1: Illustration of the two measurement modes.

- **SINGLE Measurement Mode:** Hold the instrument and quickly vertically contact the surface of the measured substrate. The screen displays the measured value after a buzzer sound. This mode is suitable for individual, precise measurements.
- **CONTINUOUS Measurement Mode:** Hold the instrument and slide the probe across the surface of the measured substrate. The screen continuously updates the measured value as the probe moves. This mode is useful for scanning larger areas or uneven surfaces.

5.2 MAX/MIN Value Lock

When measuring, the screen displays the current value. Short press the MAX/MIN key (③) to lock the upper or lower limit value. The device will lock the upper or lower limit value measured on the surface of the substrate after multiple measurements, allowing for easy identification of extreme readings.

Figure 5.2: MAX/MIN Value Lock feature.

5.3 Data Clearing Function (Zero Calibration)

In the SINGLE point measurement mode, place the instrument probe flat on an iron base or aluminum base surface. If the displayed value is not zero, keep the probe in steady contact with the substrate. Press the ZERO key (⑥) briefly, and the screen will display '0.0', indicating the instrument is reset to zero for that specific base material.

Figure 5.3: Data Clearing Function using the ZERO button.

5.4 Unit Conversion

The device supports measurement in micrometers (µm) and mils (mil). To switch between units, short press the Power Button / Unit Conversion Button (②) while the device is on.

5.5 Calibration

For optimal accuracy, periodic calibration is recommended. Use the provided calibration films/plates and the Calibration Buttons (⑤) according to the on-screen prompts. Refer to the detailed calibration procedure in the separate quick start guide or on the manufacturer's website for precise steps.

6. Applications

The FeelTech MC998 Coating Thickness Gauge is versatile and can be used in various professional and personal applications:

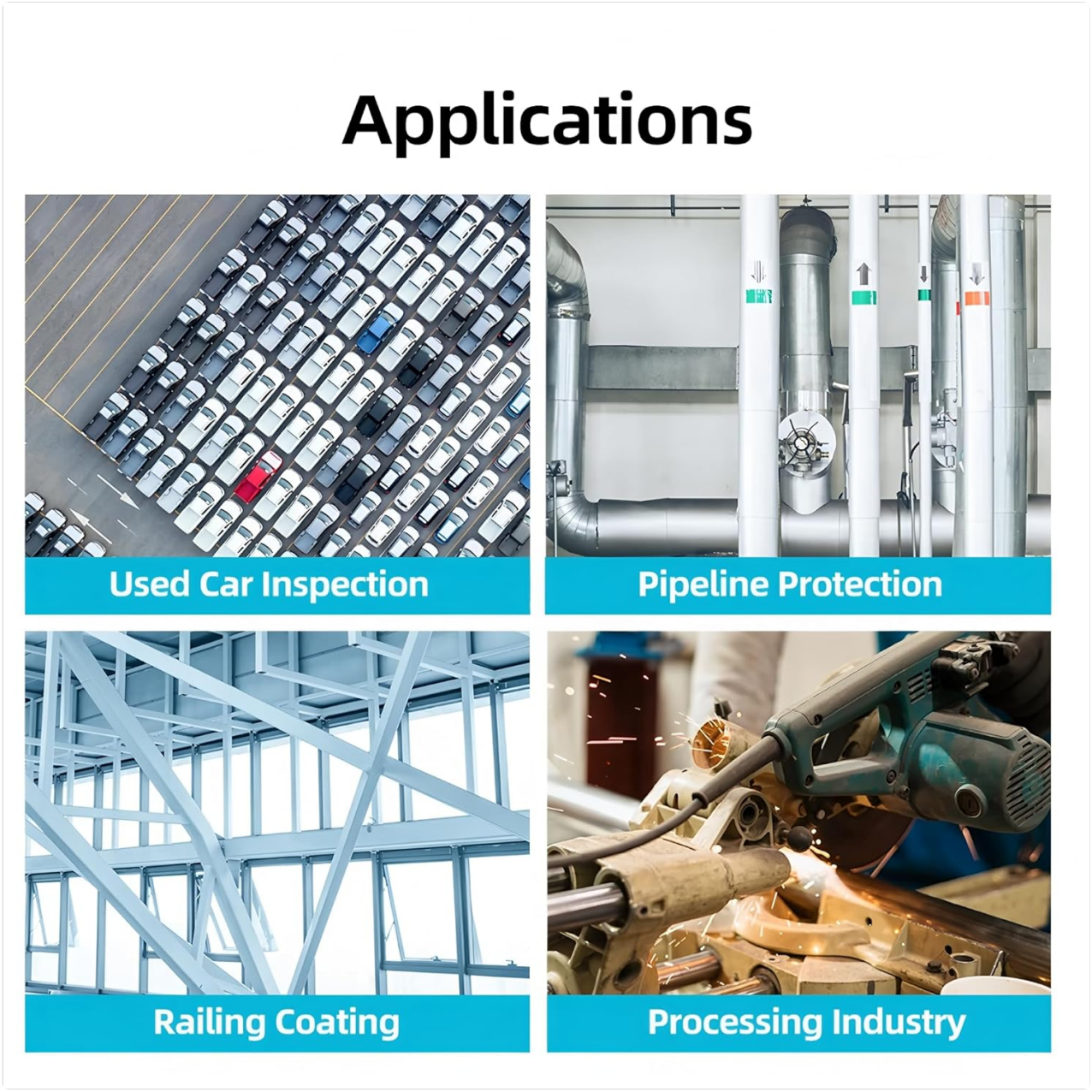

Figure 6.1: Common applications of the coating thickness gauge.

- **Used Car Inspection:** Assess the original paintwork and identify areas that may have been repainted or repaired, indicating potential accident history.
- **Pipeline Protection:** Measure the thickness of protective coatings on pipelines to ensure corrosion resistance and longevity.
- **Railing Coating:** Verify the uniform application and adequate thickness of paint or protective layers on railings and other metal structures.
- **Processing Industry:** Quality control in manufacturing processes where coating thickness is critical for product performance and durability.

7. Maintenance

7.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents, as they may damage the casing or display. Ensure the probe is clean and free of debris before each use to maintain measurement accuracy.

7.2 Storage

Store the gauge in its protective pouch in a cool, dry place, away from direct sunlight, extreme temperatures, and high humidity. Remove the battery if the device will not be used for an extended period (though this model is rechargeable, prolonged storage without use may still benefit from occasional charging to maintain battery health).

8. Troubleshooting

Common Issues and Solutions:

- **Device does not power on:** Ensure the device is fully charged. If the battery is low, connect it to a power source using the USB cable.
- **Inaccurate readings:**
  - Perform a zero calibration (Section 5.3) on a known bare substrate.
  - Ensure the probe is clean and free of dust or debris.
  - Verify that the measurement surface is clean and flat.
  - Recalibrate the device using the provided calibration films (Section 5.5).
- **Display shows 'Err' or 'OL':** This may indicate an out-of-range measurement or a sensor error. Try recalibrating or restarting the device. If the issue persists, contact customer support.

9. Specifications

Table 9.1: Technical Specifications

Attribute	Value
Model Number	EC-Mileseey-MC998-Li
Measuring Range	0-1500 µm
Base Material Identification	Automatic Fe/NFe
Measurement Principle	Electromagnetic induction, Eddy current effect
Accuracy	(3% + 2µm)
Measurement Units	µm / mil
Package Dimensions	11.81 x 9.84 x 7.87 inches

Attribute	Value
Item Weight	1 Kilogram (2.2 Pounds)
Manufacturer	Shenzhen Mileseey TECHNOLOGY CO., LTD
Certifications	CE, RoHS
EU Spare Part Availability	1 Year

10. Warranty and Support

10.1 Warranty Information

This product is covered by a manufacturer's warranty. Please refer to the warranty card included in your package or contact the manufacturer directly for specific terms and conditions regarding warranty coverage and duration.

10.2 Customer Support

For technical assistance, troubleshooting not covered in this manual, or warranty claims, please contact FeelTech customer support. Contact information can typically be found on the product packaging, the manufacturer's official website, or through your point of purchase.

Related Documents - MC998 (EC-Mileseey-MC998-Li)

	FeelTech FY6600 Series Dual Channel Function/Arbitrary Waveform Generator User's Manual User's manual for the FeelTech FY6600 Series Dual Channel Function/Arbitrary Waveform Generator, covering features, operation, technical specifications, and troubleshooting for models like FY6600-15M, FY6600-30M, FY6600-50M, and FY6600-60M.
	Инструкция по эксплуатации усилителя мощности FeelTech FYA20A0S Полное руководство по эксплуатации, мерам предосторожности и техническим характеристикам усилителя мощности FeelTech FYA2000S серии.

	FeelTech FY3200S Series Dual Channel Function/Arbitrary Waveform Generator User's Manual User's manual for the FeelTech FY3200S Series Fully Numerical Control Dual Channel Function/Arbitrary Waveform Generator, detailing its features, specifications, operation, and safety information.
	FeelTech FY3200S Series Dual Channel Function/Arbitrary Waveform Generator User's Manual Comprehensive user's manual for the FeelTech FY3200S Series Dual Channel Function/Arbitrary Waveform Generator, detailing its features, specifications, and operation.
	FeelTech FYA20A0S Power Amplifier Series User Manual This user manual provides detailed information on the FeelTech FYA20A0S power amplifier series, including its applications, compatible power supplies, external view, and essential safety precautions. Learn how to safely and effectively use the FYA20A0S for electronics development, testing, and more.
	FeelTech FY6600 Series Dual Channel Function/Arbitrary Waveform Generator User Manual Comprehensive user manual for the FeelTech FY6600 Series Dual Channel Function and Arbitrary Waveform Generator. Covers features, operation, system configuration, troubleshooting, and technical specifications.