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#### **VOLTCRAFT SDM-115**

# **VOLTCRAFT SDM-115 Coating Thickness Gauge User Manual**

#### 1. INTRODUCTION

The VOLTCRAFT SDM-115 Coating Thickness Gauge is designed to quickly and accurately measure the coating thickness on metallic surfaces. This device helps determine if a painted or repaired surface requires repainting or further repair. It is suitable for use on both ferromagnetic (e.g., steel) and non-ferromagnetic (e.g., aluminum) metals, offering a measurement range of 0-1000  $\mu$ m.

#### 2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may result in injury or damage to the device.

- Keep the device away from water and moisture.
- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Use only the specified battery type. Ensure correct polarity when installing batteries.
- Avoid exposing the device to extreme temperatures or direct sunlight.
- . Keep out of reach of children.

### 3. PRODUCT OVERVIEW

The VOLTCRAFT SDM-115 is a handheld coating thickness gauge featuring an ergonomic design for comfortable use. It includes a digital display and intuitive control buttons for calibration, unit selection, and backlight control.



Figure 3.1: Front view of the VOLTCRAFT SDM-115 Coating Thickness Gauge, showing the display and control buttons.

# **Key Features:**

- Measures coating thickness on ferromagnetic and non-ferromagnetic metals.
- $\bullet$  Measurement range: 0-1000  $\mu m.$
- Two-point calibration for enhanced accuracy.
- Digital display with backlight.
- $\bullet\,$  Unit selection between mils and micrometers (µm).



Figure 3.2: Side view of the VOLTCRAFT SDM-115, highlighting its ergonomic design and trigger.

# 4. SETUP

# **4.1 Battery Installation**

The VOLTCRAFT SDM-115 requires batteries for operation (not included). To install batteries:

1. Locate the battery compartment cover, typically on the handle of the device.

- 2. Slide or unclip the cover to open the compartment.
- 3. Insert the required batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
- 4. Close the battery compartment cover securely.

# 5. OPERATING INSTRUCTIONS

# 5.1 Powering On/Off

Press and hold the trigger or power button (if available) to turn the device on. The display will illuminate. To turn off, press and hold the same button or wait for automatic shutdown.

# 5.2 Taking a Measurement

To take an accurate coating thickness measurement:

- 1. Ensure the measurement surface is clean, dry, and free of debris.
- 2. Place the sensor head of the gauge firmly and perpendicularly onto the surface to be measured.
- 3. The device will automatically display the coating thickness reading on the screen.
- 4. Lift the device from the surface to prepare for the next measurement.



Figure 5.1: The VOLTCRAFT SDM-115 being used to measure a surface.

# **5.3 Changing Measurement Units**

The device supports measurement in both mils and micrometers ( $\mu m$ ). To switch between units, press the button labeled **mils/\mu m** on the control panel.

# 6. CALIBRATION

For optimal accuracy, especially when measuring different materials or after prolonged use, two-point calibration is

recommended. The device features a CAL button for initiating the calibration process.

While the exact steps for two-point calibration may vary, generally it involves:

- 1. Placing the gauge on a known zero-thickness surface (e.g., bare metal).
- 2. Pressing the CAL button and following on-screen prompts to set the zero point.
- 3. Placing the gauge on a surface with a known standard thickness (e.g., a calibration foil).
- 4. Pressing the CAL button again and using the arrow buttons to adjust the reading to match the known standard thickness.
- 5. Confirming the calibration.

Refer to the detailed instructions provided with your specific calibration foils or the full product manual for precise calibration procedures.

#### 7. MAINTENANCE

#### 7.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the sensor head is kept clean and free of dust or residue for accurate readings.

## 7.2 Storage

Store the device in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

#### 8. TROUBLESHOOTING

- Device does not power on: Check battery installation and ensure batteries are not depleted. Replace batteries if necessary.
- Inaccurate or inconsistent readings:
  - Ensure the sensor head is clean and free of debris.
  - o Perform a two-point calibration as described in Section 6.
  - Verify the measurement surface is clean, dry, and flat.
  - Ensure the device is placed perpendicularly and firmly on the surface.
- Device beeps excessively or shows unusually high values: This often indicates a need for calibration. Follow the calibration steps in Section 6 carefully. Ensure you are using appropriate calibration standards.

#### 9. SPECIFICATIONS

Model Number	SDM-115 (Article No. 100847)
Manufacturer	VOLTCRAFT
Measurement Range	0-1000 μm
Dimensions (L x W x H)	10.5 x 4.2 x 14.8 cm
Weight	9.07 grams

Batteries Included No	

### 10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation included with your purchase or contact VOLTCRAFT customer service directly. Please have your model number (SDM-115) and article number (100847) available when contacting support.

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