

6.4 If the instrument is not to be used for any extended period, remove batteries.

#### 7. CALIBRATION FOIL

As accessories, the instrument includes different foil set for different ranges. Please see the following table for reference.

RANGE (um)	STANDARD FOIL INCLUDED					
	CM25	CM50	CM100	CM200	CM500	CM1000
0-200	X	X	X	X		
0-500		X	X	X	X	
0-1000		X	X	X	X	X
0-2000		X	X	X	X	X
Customized						

#### 8. CONSIDERATIONS

- 8.1 Probes of coating thickness gauges can not be interchanged in any cases even if same models from the same factory. Otherwise, it will degrade the accuracy, even the gauge could not be used at all.
- 8.2 In order to weaken the influence of the measured material on the accuracy of measurement, it is recommended that the calibrations should be done on the uncoated material to be measured.
- 8.3 Probes will eventually wear. Probe life will depend on the number of measurements taken and how abrasive the coating is. Replacement separate can be fitted by qualified persons only.

## DIGITAL COATING THICKNESS GAUGE ( NF TYPE)

This Coating Thickness Meter is small in size, light in weight, easy to carry. Although complex and advanced, it is convenient to use and operate. Its ruggedness will allow many years of use if proper operating techniques are followed. Please read the following instructions carefully and always keep this manual within easy reach.

200305-8823

#### 4. MEASURING PROCEDURE

- 4.1 Press the power key 3-6 to switch on the power and 0 shows up on the Display 3-2 .  
**NOTE:** The meter will auto-calibrate itself when switching on the power supply.  
**To be sure that the probe (3-1) is far away from the substrate or other metal materials for 3 seconds right after switching on the power.**
- 4.2 Select the measurement unit by pressing the soft key 3-7, with the symbol um or mil indicating on the display.
- 4.3 Place the probe 3-1 on the coating layer to be measured. The reading on the Display is the thickness of coating layer. The reading can be corrected by pressing the plus key 3-4 or the minus key 3-5 while the probe is away from the substrate or the measured body.
- 4.4 To take the next measurement, just lift the probe 3-1 to more than 1 centimeter and then repeat the step 4.3.
- 4.5 If you suspect the accuracy of measurement, you should calibrate before taking the measurement. For The calibration procedures, please refer to the calibration part 5.
- 4.6 The gauge can be switch off by pressing the power key 3-6.

#### 1. FEATURES

- \* It meets the standard of ISO-2361. Suitable for the laboratory and for use in harsh field conditions.
- \* The NF probes measure the thickness of non-magnetic coatings on non-magnetic metals. It is used on anodizing, varnish, paint, enamel, plastic coatings, powder, etc. applied to aluminum, brass, non-magnetic stainless steel, etc.
- \* Used the exclusive Micro-computer LSI circuit and crystal time base to offer high accuracy measurement & fast measuring time.
- \* Wide measuring range and high resolution.
- \* Digital display gives exact reading with no guessing or errors.
- \* The use of durable, long-lasting components, including a strong, light weight ABS-plastic housing assures maintenance free performance for many years. The housing has been carefully shaped to fit comfortably in either hand .

#### 2. SPECIFICATIONS

Display: 4 digits, 10 mm LCD  
 Range:  0~200 um/0~8mil  
 0~500 um/0~20mil  
 0~1000 um/0~40mil  
 0~2000 um/0~80mil

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## 5. CALIBRATION

### 5.1 Zero adjustment

Place the probe (3-1) on the substrate or on an uncoated standard steadily. Press the zero key (3-3) and '0' will be on the Display before lifting the probe. **Do not press the ZERO key if the probe are not placed on the substrate or an uncoated standard.**


### 5.2 Select an appropriate calibration foil according to your measurement range.

5.3 Place the standard foil selected onto the aluminium substrate or onto the uncoated standard.

5.4 Place the sensor (3-1) mildly onto the standard foil and lift. The reading on the display is the value measured. The displayed reading value can be corrected with plus key 3-4 or minus key (3-5) while the probe is away from the substrate or the measured body.

5.5 Repeat step 5.4 until the result is correct.

## 6. BATTERY REPLACEMENT

6.1 When it is necessary to replace the battery, i.e. battery voltage less than approx. 4.5v , the battery symbol '  ' will appear on the Display .

6.2 Slide the Battery Cover ( Fig. 1 ,3-8) away from the instrument and remove the batteries.

6.3 Install the batteries (4x1.5v AA/UM-3) correctly into the case.

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□ Other 0~      um/0~      mil  
(The max. thickness may be up to  
15,000um/600mil)

Resolution: 0.1 um (0~99.9um)  
1 um (over 100um)

Accuracy:  $\pm 1\sim 3\%n$  or 2.5 um  
(Whichever is the greater)

Power supply: 4x1.5 AA(UM-3) battery

Operating condition: Temp. 0~50°C,  
Humidity <80%

Size: 161x69x32 mm (6.3x2.7x1.2 inch)

Weight: about 260g (including batteries)

Accessory:

Carrying case ..... 1 pc.  
Operation manual ..... 1 pc.  
NF probe..... 1 pc.  
Calibration foils ..... 1 set  
Substrate(Aluminium)..... 1 pc.

## 3. FRONT PANEL DESCRIPTIONS



- 3-1 Sensor
- 3-2 Display
- 3-3 Zero Key
- 3-4 Plus Key
- 3-5 Minus Key
- 3-6 Power key
- 3-7 um/mil conversion key
- 3-8 Battery Compartment/Cover