

**Elcometer 212**

**Digital Pocket Thermometer**

**Operating Instructions**



**CE** This product meets the Electromagnetic Compatibility Directive. The product is Class B, Group 1 ISM equipment according to CISPR 11.

Group 1 ISM product: A product in which there is intentionally generated and/or used conductively coupled radio-frequency energy which is necessary for the internal functioning of the equipment itself.

Class B product is/are suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

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A copy of this Instruction Manual is available for download on our Website via [www.elcometer.com](http://www.elcometer.com)

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Thank you for your purchase of this Elcometer 212 Digital Pocket Thermometer. Welcome to Elcometer. Elcometer are world leaders in the design, manufacture and supply of inspection equipment for coatings and concrete. Our products cover all aspects of coating inspection, from development through application to post application inspection.

Your Elcometer 212 Digital Pocket Thermometer is a world beating product. With the purchase of this product you now have access to the worldwide service and support network of Elcometer. For more information visit our website at [www.elcometer.com](http://www.elcometer.com)

## **1 ABOUT YOUR THERMOMETER**

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The Elcometer 212 Digital Pocket Thermometer is a simple, easy-to-use, pocket-sized, battery powered digital thermometer with either surface or needle integrated probes.

### **1.1 WHAT THE BOX CONTAINS**

- Elcometer 212 Digital Pocket Thermometer with batteries fitted
- Operating instructions

The gauge is packed in a cardboard and foam package. Please ensure that this packaging is disposed of in an environmentally sensitive manner. Consult your local Environmental Authority for further guidance.

**To maximise the benefits of your new Elcometer 212 please take some time to read these Operating Instructions. Do not hesitate to contact Elcometer or your Elcometer supplier if you have any questions.**

## 2 INSTRUMENT SET-UP

This instrument has four user selectable functions (switch bank). This block is composed of four slide switches and a single push button which is located under the battery compartment.

### 2.1 UNITS : SWITCH 1

Changes the instrument's units between Celsius ( $^{\circ}\text{C}$ ) and Fahrenheit ( $^{\circ}\text{F}$ ). Towards the battery sets  $^{\circ}\text{C}$  and away from the battery sets  $^{\circ}\text{F}$ .

### 2.2 RESOLUTION : SWITCH 2

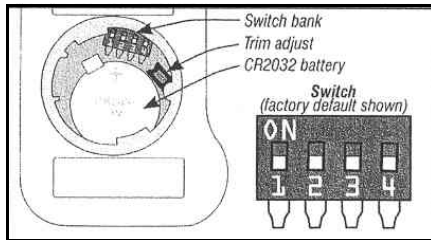
Changes the instrument's displayed resolution. Towards the battery sets  $0.1^{\circ}\text{C}/^{\circ}\text{F}$  and away from the battery sets  $1^{\circ}\text{C}/^{\circ}\text{F}$ .

### 2.3 AUTO-OFF : SWITCH 3

With the switch towards the battery the instrument will auto-off after 10 minutes. With the switch away from the battery the auto-off function is disabled.

### 2.4 READING TRIM : SWITCH 4

The value set during 'Reading Trim Mode' will be added to all measured temperatures before they are displayed.



With the switch away from the battery the instrument enters into 'Reading Trim Mode' and the current offset value is displayed. Use the push button to adjust the offset value around a scroll loop ( $\pm 2.0^{\circ}\text{C}$  or  $\pm 3.6^{\circ}\text{F}$ ). To exit 'Reading Trim Mode' set switch 4 back towards the battery.

### 3 REPLACING THE BATTERIES

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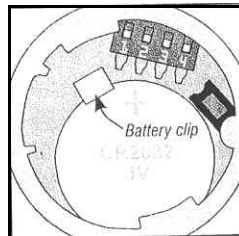
The thermometer is supplied with batteries fitted. Replace the batteries when the battery symbol illuminates. The instrument continues to measure accurately whilst in this condition but we recommend that the batteries be changed at the earliest convenience.

After some further usage the instrument will detect that there is insufficient battery voltage left to measure accurately. At this point the instrument will display 'Flat', then 'Bat' and then shut down. The batteries will need to be replaced at this time to continue using the instrument.

To change the batteries, remove the instrument's battery compartment cover using a coin. Once opened, the batteries can be removed by pulling the battery-retaining clip back with the tip of your finger whilst holding the unit upside down. Replace both batteries, positive side up, and ensure they are correctly under the cover.

**Note:** Batteries must be disposed of carefully to avoid environmental contamination. Please consult your local Environmental Authority for information on disposal in your region.

**Do not dispose of any batteries in fire.**



## 4 TAKING A READING

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The thermometer is switched on by unfolding the probe until the display illuminates. The probe must not be rotated more than 180 degrees as damage may occur.

Apply the probe tip to the surface or material to be measured. The sensor is located at the top of the probe, therefore the minimum depth insert should be 3mm (0.12"). The reading will take a few seconds to stabilise depending on the nature of the material.

If auto-off is enabled (see "Instrument Set-up" on page 3) the thermometer automatically switches itself off after 10 minutes to conserve battery power. To switch it back on simply fold back the probe and unfold it again.



The tip of the needle probe is very sharp, therefore, care should be taken when using the thermometer.

## 5 ERROR MESSAGE

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'Lo' will be displayed if you are measuring below the instrument's range.

'Hi' will be displayed if you are measuring above the instrument's range.

'Err' will be displayed if the probe develops a fault. If the error message remains, contact our Service Department for further assistance.

## 6 STORAGE

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This gauge incorporates a Liquid Crystal Display. If the display is heated above 50°C (120°F) it may be damaged. This can happen if the gauge is left in a car parked in strong sunlight.

## 7 MAINTENANCE

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The Elcometer 212 Digital Pocket Thermometer is designed to give many years reliable service under normal operating and storage conditions.

The thermometer does not contain any user-replaceable components. In the unlikely event of a fault, your thermometer should be returned to your local Elcometer supplier or directly to Elcometer. The warranty will be invalidated if the instrument has been opened. Contact details can be found on the outside cover of these instructions, or on the Elcometer website, [www.elcometer.com](http://www.elcometer.com)

Regular calibration checks over the life of the gauge and the certified calibration standard are a requirement of quality management procedures, e.g. ISO 9000, and other similar standards. For checks and certification contact Elcometer or your local Elcometer supplier.



## 8 TECHNICAL SPECIFICATION

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Measurement Range:	-49.9°C to +299.9°C (or -58°F to +572°F - user selectable)
Resolution:	0.1°C/°F (or 1°C/1°F - user selectable)
Accuracy:	±0.4°C (-49.9 to ±199.9°C) ±1°C (+200 to 299.9°C)
Probe:	K-type Thermocouple
Battery:	2 x 3 volt CR2032 lithium coin cell
Battery Life:	1500 hours
Display	14mm LCD
Case Dimensions:	19 mm x 47 mm x 153 mm (0.7" x 1.9" x 0.7")
Weight:	97 g (3.4 oz)
Operating Temperature:	-20 to 50°C (-4 to 58°F)

## 9 RELATED EQUIPMENT

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In addition to the Elcometer 212 Digital Pocket Thermometer, Elcometer produces a wide range of environmental measuring equipment and other equipment for measuring the characteristics of surface coatings. Users of the Elcometer 212 Digital Pocket Thermometer may also benefit from the following Elcometer products:

- Elcometer 214 Infrared Digital Thermometer
- Elcometer 214L Infrared Digital Thermometer with Laser alignment
- Elcometer 213 Digital Thermometer with replaceable K-type probe
- Elcometer 113 Magnetic Thermometer
- Elcometer Moisture Meters
- Elcometer Dewpoint Meter

For further information contact Elcometer, your local Elcometer supplier, or visit [www.elcometer.com](http://www.elcometer.com)