



DRAPER[®]

PAINT THICKNESS

GAUGE

43620



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

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3. GUARANTEE

3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.

Telephone Sales Desk: (023) 8049 4333 or:

Product Helpline (023) 8049 4344.

A proof of purchase must be provided.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee period covering parts/labour is 12 months from the date of purchase except where tools are hired out when the guarantee period is 90 days from the date of purchase. The guarantee is extended to 24 months for parts only. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

4. INTRODUCTION

4.1 SCOPE

Uses ultrasonic technology to quickly and accurately measure the thickness of paint. Useful for professional bodyshop technicians, car sales personnel and in vehicle assessments.

4.2 SPECIFICATION

Stock no.	43620
Part no.	PTG1250
Range	0-1250um/0-50mil
Resolution	0.1um (0-99.9um)
Power	2 x AAA batteries
Dimensions	126 x 65 x 27mm
Weight (excluding batteries)	0.81kg

5. TECHNICAL DESCRIPTION

5.1 IDENTIFICATION



- ① Probe.
- ② Display.
- ③ Zero key/power key.
- ④ Up arrow key.

- ⑤ Down arrow key.
- ⑥ Menu/OK key.
- ⑦ Battery compartment/cover.
- ⑧ Single/Continuous.

6. OPERATING THE PAINT THICKNESS GAUGE

6.1 FEATURES

- Meets the standards of both ISO2178 Non-magnetic coatings on magnetic substrates) and ISO2360 (Non-magnetic on non-magnetic) as well as DIN, ASTM and BS.
Suitable for laboratory and for use in harsh field conditions.
- The F probes measure the thickness of non-magnetic materials (e.g. paint, plastic, porcelain enamel, copper, zinc, aluminium, chrome etc.) on magnetic materials (e.g. iron, nickel etc.). Often used to measure the thickness of galvanizing layer, lacquer layer, porcelain enamel layer, phosphide layer, copper tile, aluminium tile, some alloy tile, paper etc.
- The N 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 aluminium, brass, non-magnetic stainless steel, etc.
- Automatic substrate recognition.
- Manual or automatic shut down.
- Two measurement mode: single and continuous.
- Wide measuring range and high resolution.
- Metric/Imperial conversion.
- Digital display gives exact reading with no guessing or errors.

6. OPERATING THE PAINT THICKNESS GAUGE

6.2 CALIBRATION

1. Zero adjustment Zero calibration for 'Fe' and 'NFe' should be carried out separately. Take the iron substrate if 'Fe' is required or take the aluminium substrate if 'NFe'. Place the probe ① on the substrate. Press the zero key ③ wait for "0" to be displayed before lifting the probe.
If pressing the ZERO key but the probe is not placed on the substrate or an uncoated standard, the zero calibration is invalid.
2. Select an appropriate calibration foil according to your measurement range.
3. Place the standard foil selected onto the substrate.
4. Place the probe ① onto the standard foil and lift. The reading on the display is the value measured. The displayed reading can be corrected by pressing the up key ④ or down key ⑤ while the probe is away from the substrate or the measured body.
5. Repeat step 4 until the result is correct.

6.3 MEASUREMENT PROCEDURE

1. Press the power key ③ to switch on the gauge and '0' will appear on the display ②.
2. Place the probe ① onto a coating layer to be measured. The reading on the display is the thickness of the coating layer. The reading can be corrected by pressing the plus key ④ or minus key ⑤ while the probe is away from the substrate or the measured body.
3. To take the next measurement, just lift the probe ① to more than 1 centimetre and then repeat step.3.
4. The gauge can be switched off by pressing the power key ③ for more than 2 seconds. The gauge will power itself off about 50 seconds after the last operation.
The symbol ((+)) represents continuous mode and 'S' represents single mode.

6.4 BATTERY REPLACEMENT

1. When it is necessary to replace the battery, the battery symbol "[+]" will appear on the display.
2. Slide the battery cover ⑦ away from the instrument and remove the batteries.
3. Install the batteries (2 x 1.5V AAA/UM-4) correctly into the case.
4. If the instrument is not to be used for any extended period, remove batteries.

6.5 CONSIDERATIONS

1. 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.
2. Probes will eventually wear. Probe life will depend on the number of measurements taken and how abrasive the coating is.
Replacement of a probe can be fitted by qualified persons only.

6.6 RESTORE FACTORY SETTINGS

1. When to restore?
It is recommended to restore factory settings in the one of the following cases.
 - The gauge does not measure any more.
 - Measurement accuracy is degraded caused by the abraded probe or by environmental conditions changed greatly.
 - Replacement of a new probe.
 2. How to restore?
Restore factory settings includes "Fe" setting and "NFe" setting. You can restore one of them or both of them respectively. Please follow procedures below to restore factory settings.
 3. Please note the symbol on the display is 'Fe' or 'NFe'. If 'Fe' is on the display, the operation below is restoring the factory setting for 'Fe' type and if 'NFe' is on the display, the operation below is restoring the factory setting for 'NFe' type.
 4. Hold the power key until 'CAL' appears on the display then release.
 5. When F:H or nF:H is on display, ensure the probe ① is away from any measuring material. Then press zero key again and the gauge will return to measurement state. The factory setting is restored. Remember, to restore factory setting should be done within 6 seconds at every stage. Or the gauge will quit itself and restoration is invalid.
- Note:** The gauge will revert to its previous settings. While holding the up arrow ④ use the down arrow key ⑤ to select the type of metal the paint coating is on, i.e., Nfe (non-magnetic) or Fe (magnetic).
- Important:** If the power key ③ is held for 11 seconds or more, 'Ln' will be displayed. This is a calibration setting and is not used unless you are a professional calibrator. Any adjustments to these settings will seriously affect the accuracy and will leave the gauge unusable.

7. MAINTENANCE

7.1 MAINTENANCE

- Store in a clean dry place.
- Before moving or transporting the unit, ensure that it is turned off.
- Do not drop the gauge, avoid rough treatment, and avoid constant vibration.

7.2 REPAIRS

- See the warranty section of this manual.
 - Do not take the gauge apart or permit any unqualified person to take the gauge.
- Unauthorised servicing may irreparably damage the gauge and invalidate the warranty.

8. EXPLANATION OF SYMBOLS

8.1 EXPLANATION



WEEE
Do not dispose of Waste Electrical & Electronic Equipment in with domestic rubbish



Warning!
Read the instruction manual

9. DISPOSAL

9.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.
In all circumstances:
 - Do not dispose of power tools with domestic waste.
 - Do not incinerate.
 - Do not abandon in the environment.
 - Do not dispose of WEEE* as unsorted municipal waste.



* Waste Electrical & Electronic Equipment.

CONTACTS

Draper Tools Limited, Hursley Road,
Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. U.K.

Helpline: (023) 8049 4344

Sales Desk: (023) 8049 4333

Internet: drapertools.com

E-mail: sales@drapertools.com

General Enquiries: (023) 8026 6355

Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the Draper Tools Helpline for details of an agent in your local area.

YOUR DRAPER STOCKIST

DBKC0418

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