



RECHARGEABLE PAINT THICKNESS GAUGE

MODEL NO: **TA092**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to
instructions

1. SAFETY

- ❑ **WARNING!** Ensure Health & Safety, local authority, and general workshop practice regulations are adhered to when using this gauge in workshop or bodyshop environments.
- ✓ Take extra care if the vehicle is jacked up or on a raised ramp/hoist.
- ✓ Maintain correct balance and footing at all times. Ensure floor/road surface is not slippery and wear non-slip shoes.
- ✓ If the vehicle is parked on a road, observe normal pedestrian precautions before working in the road, especially on the offside of the vehicle.
- ✗ **DO NOT** use when you are tired, under the influence of alcohol, drugs or intoxicating medication.

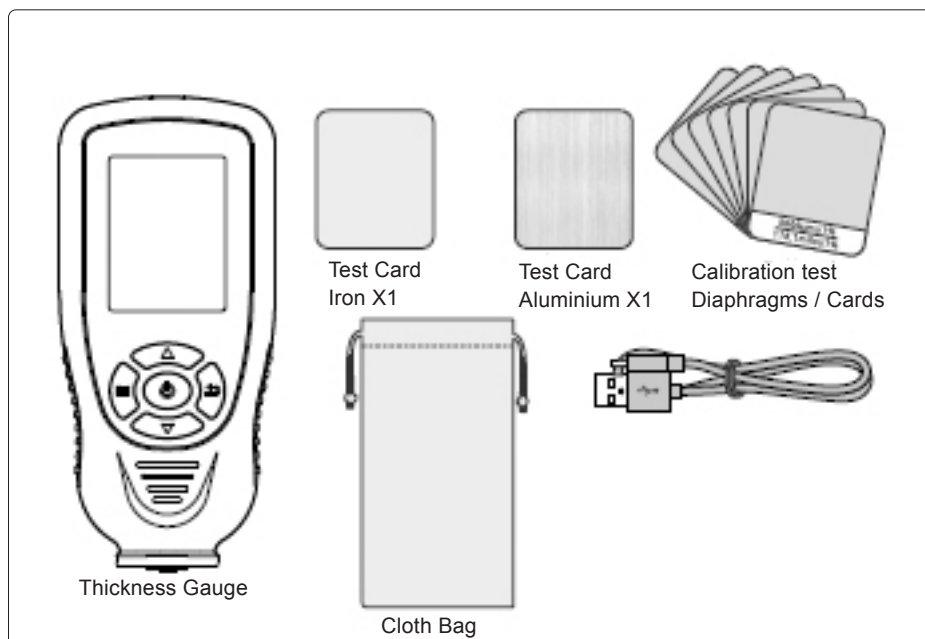
2. INTRODUCTION

For the professional bodyshop or valeting bay to accurately verify the thickness of paint and check for accident damage. Uses magnetic induction to provide accurate and consistent readings to 1µm. Gauge can tell you if metal putty has been used to repair bodywork damage. Suitable for steel and aluminium panels. Easy to calibrate with test plates and precision standards. Stores up to 10 groups of 8 recordings while providing averages and min max information. 320mAh 3.7V Lithium-ion battery provides 1 month of standby time. Supplied with 7 calibration panels, iron and aluminium calibration panel and USB to USB-C charging cable.

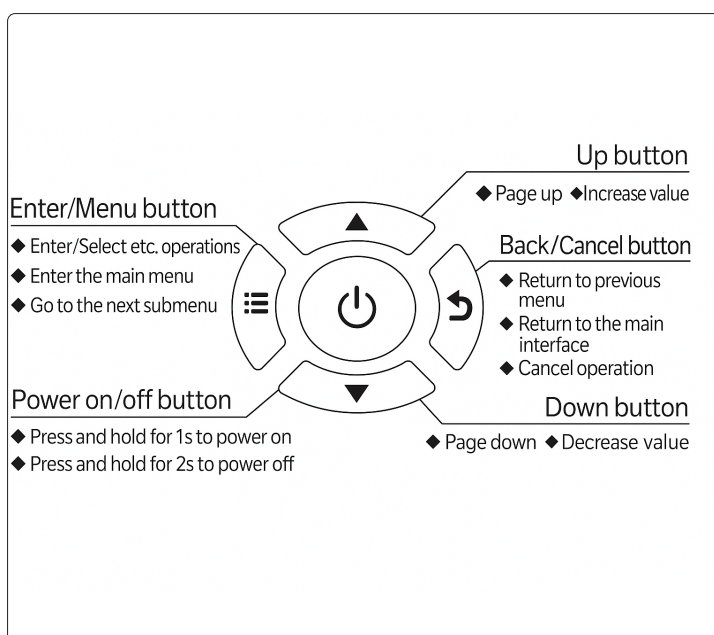
3. SPECIFICATION

Model No	TA092
Applicable Standards	EN IEC 61326-1:2021 EN 61000-4-2:2009 EN IEC 61000-4-3:2020
Graduations	Steel, Iron, Aluminium, Metal, Putty
Nett Weight	0.079kg
Range	0-3000µm

4. CONTENTS




5. FUNCTION



6. INTERFACE DISPLAY

①	Measure	⑫	Group 2
②	NFe Group 2·1	⑪	Group 2 · 2
③	2999		Metal putty
	μm	⑩	74.5 μm
④	MAX:3000	⑨	MAX:3000 AVG:28
⑤	DIF:666	⑧	DIF:666 AVG:288
⑥	HIGH:3000	⑦	HIGH:3000 LOW:500
	MIN:23		

Data	Description
1	Measure
2	NFe
3	2999
4	MAX:3000
5	DIF:666
6	HIGH:3000
7	LOW: 500
8	AVG:2888
9	MIN:2334
10	μm
11	Group 2:1
12	
13	74.5

7. TECHNICAL DATA

Usage Scenario	Non-magnetic or insulation coatings on magnetic substrates.
	Insulation coatings on non-magnetic but conductive substrates.
Measuring Range	0–3000 µm or 0–118 mil.
Resolution	0–99.9 µm: 0.1 µm.
	100–3000 µm or 0–99.9 mil: 1 µm.
	≥100 mil: 0.1 mil.
Minimum Measurement Area	Ø6 × 6 mm.
Thinnest Thickness Measurable	0.1 mm.
Minimum Surface Diameter	Concave surface: 5 mm.
	Convex surface: 5 mm.
Usage Environment	Temperature: -20 to +40°C (-4 to +104°F).
	Humidity: 20%–90% RH.
	No strong magnetic field
Measurement Accuracy	0–1000 µm: ±(3% + 1 µm) or ±(3% + 0.04 mil).
	≥1000 µm: ±(5% + 1 µm) or ±(5% + 0.04 mil).
Units	Mm, mil.
Calibration Methods	Zero calibration.
	Point calibration.
	Reset calibration.
Auto Power-Off Time	Default: 5 minutes (adjustable).
Size	120 × 55 × 23 mm (4.72 × 2.17 × 0.91 inches).
Weight	175 g (6.17 oz)

8. MEASUREMENTS & INTERFACE

MAGNETIC METHOD

Thickness measurements using the magnetic method can be affected by changes in the magnetic properties of the base metal. In practical applications, such changes in low-carbon steel are typically minimal. To minimize the influence of factors like heat treatment and cold working, the instrument should be calibrated using a standard plate with the same magnetic characteristics as the test piece. Alternatively, the test piece itself may be used for calibration.

EDDY CURRENT METHOD

The eddy current method is sensitive to the electrical conductivity of the base metal, which is influenced by its composition and heat treatment. To ensure accurate measurements, calibrate the instrument using a standard piece that matches the base metal in both material and treatment.

BASE METAL THICKNESS

Check whether the base metal thickness exceeds the minimum requirement of 0.4 mm. If it does not, the thickness can be measured after calibration.

9. DEFORMATION OF THE TEST PIECE

When measuring, the probe may deform the soft cover layer of the test piece. This can compromise the accuracy of the readings, making such test pieces unsuitable for reliable measurement.

NUMBER OF READINGS

Due to natural variation in individual readings, multiple measurements should be taken within each area. Variations in the thickness of the covering layer—especially after surface roughening—necessitate several readings to ensure accuracy.

SURFACE CLEANLINESS OF PROBE AND TEST PIECE

Before measurement, ensure that both the probe and the test piece are free from contaminants such as dust, grease, or corrosion. However, do not remove any part of the covering material during cleaning.

MAGNETIC FIELD INTERFERENCE

Magnetic fields from nearby electrical equipment can significantly interfere with magnetic thickness measurements. Avoid conducting measurements near sources such as magnets, motors with magnetic components, or high-power electrical devices in operation.

PROBE ORIENTATION

For accurate results, the probe must be positioned perpendicular to the surface of the test piece during measurement. Improper alignment can lead to incorrect readings.

ENVIRONMENTAL CONDITIONS

Avoid performing measurements in environments with fluctuating temperature or humidity, as these conditions can affect the reliability of the results.

10. BATTERY LEVEL WARNING

To prevent data errors, please ensure the battery is sufficiently charged before use. Operating with a low battery may result in serious data issues.

11. OPERATION

11.1. MEASUREMENT STEPS

Before using the instrument for the first time, please carefully read the description and recommendations regarding interference factors that may affect measurement accuracy and stability.

The instrument has been pre-configured before delivery and is ready for use immediately after unpacking.

11.1.1. Follow these steps to perform a measurement:

11.1.1.1. Placement: Position the instrument in an open area, ensuring it is at least 5 cm away from any metal objects to avoid interference.

11.1.1.2. Power On: Press and hold the power button ('⏻') for approximately 1 second to turn on the instrument.

11.1.1.3. Battery Check: Once powered on, check the battery indicator in the upper right corner of the screen.

If the battery level is low, the measurement data may be significantly inaccurate.

11.1.1.4. Charge the instrument fully before use to ensure reliable results.

11.2. MEASUREMENT PROCEDURE

11.2.1. POSITIONING THE PROBE

11.2.1.1. Gently and vertically place the probe in contact with the test piece. Apply light pressure until the buzzer sounds a "beep" and the measured value appears on the screen.

11.3. SPACING BETWEEN MEASUREMENTS

11.3.1. Before taking the next measurement, ensure the probe is moved at least 5 centimetres away from the test piece.

11.4. VISUAL GUIDANCE

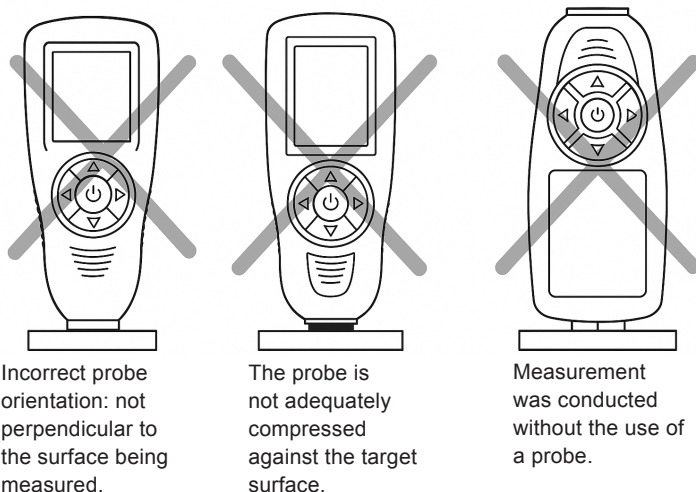
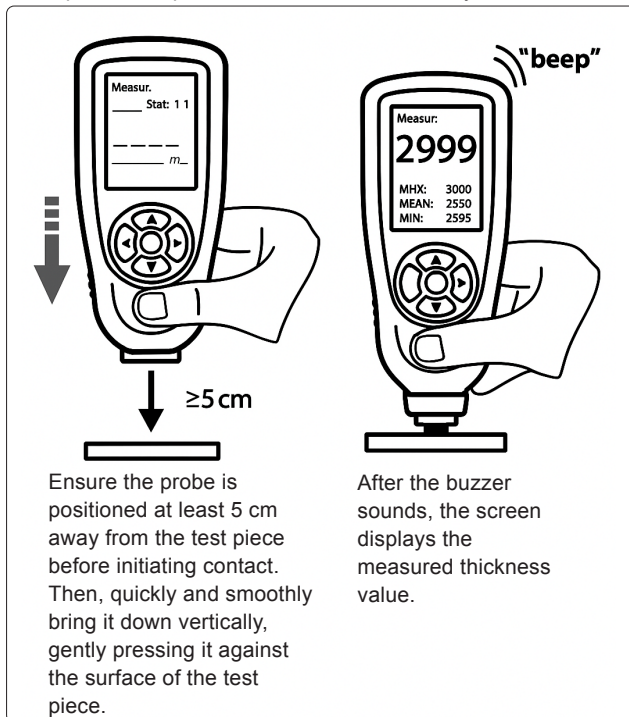
11.4.1. Refer to the figure below for the correct operating method.

11.5. POWERING OFF THE INSTRUMENT


11.5.1. After completing the measurements, press and hold the power button ('⏻') for approximately 2 seconds to turn off the instrument manually.

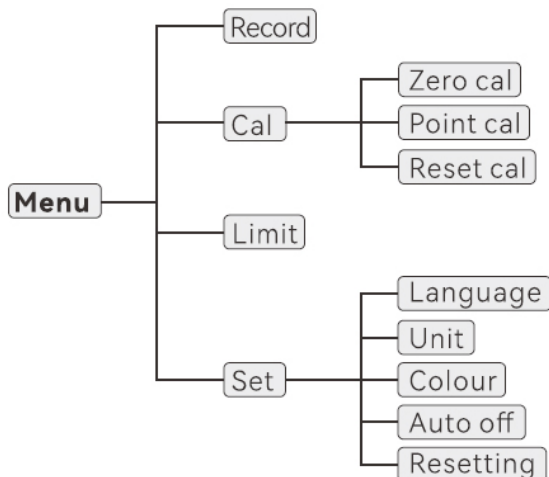
11.6. AUTOMATIC POWER-OFF FEATURE

11.6.1. If no operation is performed for 5 minutes, the system will automatically power off to conserve energy.



12. FUNCTION

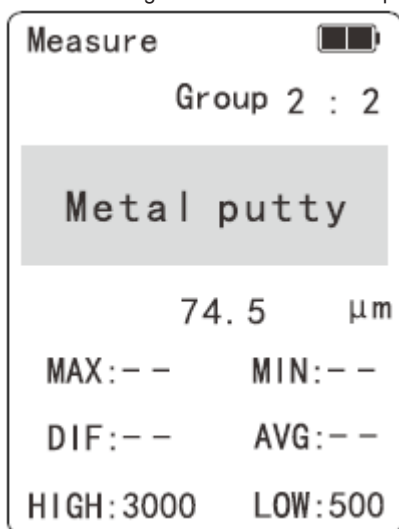
After powering on the instrument, press the "Menu"  button on the main interface to access the function menu. From there, follow the on-screen prompts to explore additional features and settings. The menu is structured as follows:



13. AUXILIARY DISPLAY

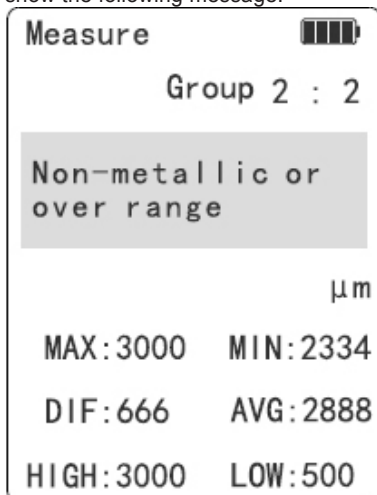
13.1. DETECTING METAL PUTTY BENEATH PAINT

- 13.1.1. Sometimes, metal putty is hidden under a painted surface to cover damage or repairs. Most standard paint thickness gauges can't detect this—they only measure the paint layer and mistakenly treat the metal putty as part of the original metal. This can lead to false readings and make it seem like the paint is factory-original.
- 13.1.2. The device includes a metal putty detection feature. When it scans a surface and finds metal putty beneath the paint, it will clearly show a warning on the screen. This helps users spot hidden repairs and make more accurate assessments.

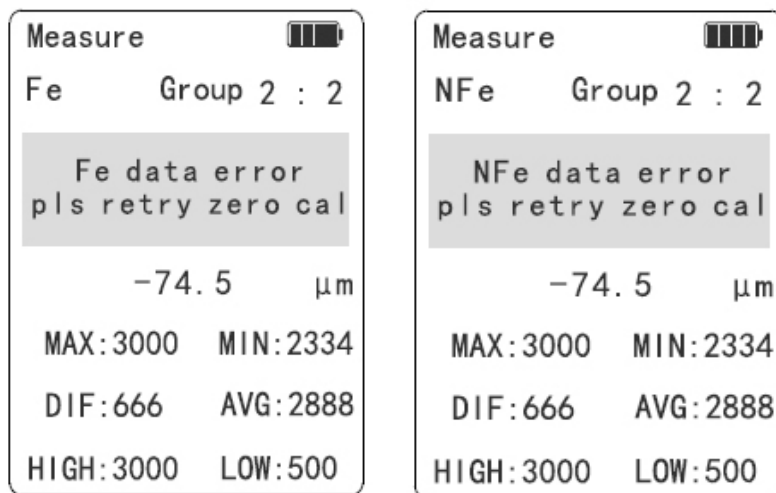


14. NON METALLIC RANGE

If the test piece is a non-metallic substrate or the coating thickness exceeds the instrument's measurement range, the display will show the following message.



15. CALIBRATION ERROR



15.1. THE MEASURED VALUE

15.1.1. If the user sets upper and lower alarm thresholds, the measured value will be displayed in red whenever it exceeds either limit.

15.2. NAVIGATING AND MANAGING RECORDS

15.2.1. To return to the main interface, press the Back button ("←") or access the History page from the menu.

15.2.2. The system stores up to 10 groups of records, each containing 8 data entries, following a First-In, First-Out (FIFO) principle.

15.2.3. Each group includes multiple calculation results displayed at the bottom.

15.2.4. On the Record page, press the Menu button ("☰") and follow the prompts to delete a record.

16. ALARM THRESHOLD SETTING

16.1. SETTING THE ALARM THRESHOLD FOR COATING THICKNESS MEASUREMENT

16.1.1. To ensure measurements fall within the acceptable range, the instrument includes an alarm threshold function. Follow these steps to configure it:

16.1.2. ACCESS THE MENU:

16.1.2.1. From the main interface, press the Menu button labelled "☰" to enter the menu screen.

16.1.3. NAVIGATE TO THE LIMIT SETTINGS:

16.1.3.1. Use the Up button ("↑") and Down button ("↓") to scroll through the menu options.

16.1.3.2. Select the "Limit" option and press to enter the sub-menu.

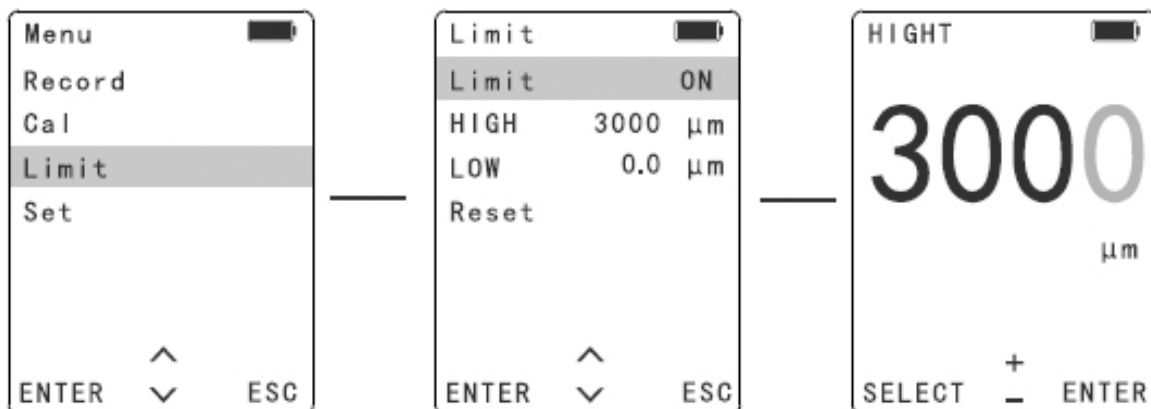
16.1.4. ENABLE AND CONFIGURE THE ALARM THRESHOLD:

16.1.4.1. On the Limit page, turn on the Alarm Threshold function.

16.1.4.2. Follow the on-screen prompts to set the desired High and Low limit values for coating thickness.

16.1.4.3. ONCE SET


16.1.4.4. The instrument will alert you when a measurement falls outside the specified range.



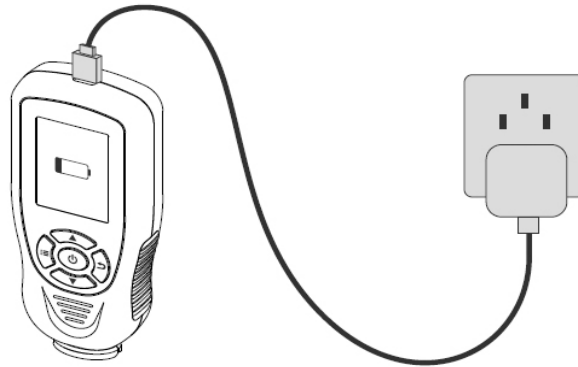
17. CHARGING

- ❑ **WARNING!** To ensure accurate measurements, please monitor the battery status regularly.

This instrument contains a built-in rechargeable lithium battery.

When the battery icon in the upper right corner of the display shows low power (indicated as ("  ")), measurement data may become unreliable.

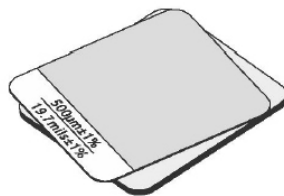
To recharge the instrument, connect a Type-C charging cable to the charging port.



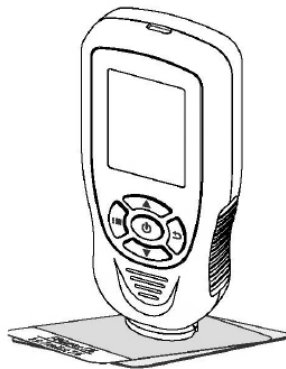
18. CALIBRATION

18.1. PURPOSE AND METHOD OF INSTRUMENT CALIBRATION

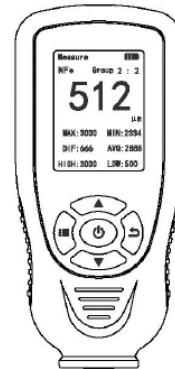
- 18.1.1. Calibration is primarily used to fine-tune the measurement accuracy of an instrument. Over time, factors such as slight probe wear, extended storage periods, suboptimal environmental conditions (e.g. temperature and humidity), or testing of special materials can lead to minor deviations in measurement results. In such cases, users are encouraged to perform basic calibration themselves.
- 18.1.2. To determine whether calibration is necessary, users can measure calibration foils (diaphragms) of known thickness's using standard iron and aluminium substrates. By comparing the measured values with the known thickness's, users can assess whether the instrument is still accurate or requires adjustment.



Place the calibration diaphragm over prepared iron or aluminium sheets.



Press the vertical probe against the diaphragm to measure thickness.

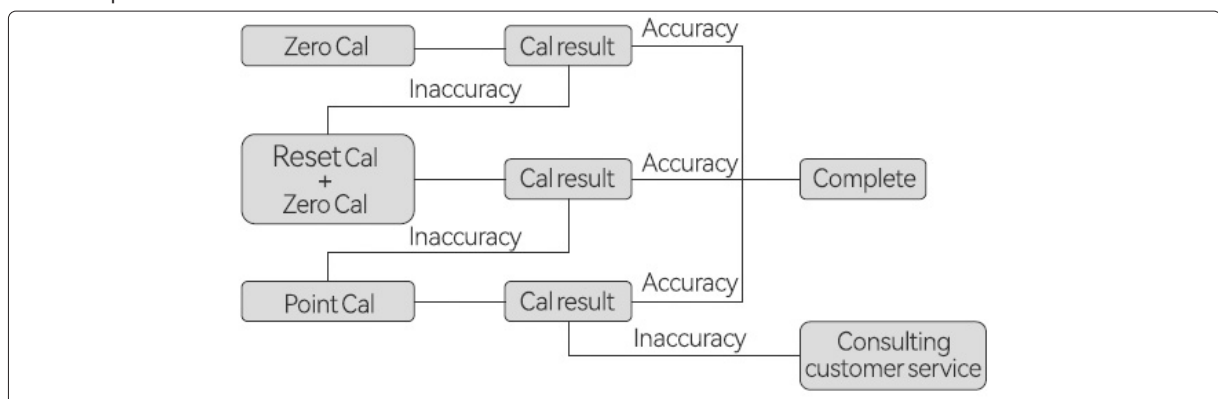


If the reading differs significantly from the diaphragm thickness, recalibrate.


NOTE: Whether the reading significantly deviates from the actual diaphragm thickness should be assessed based on the measurement accuracy specified in the instrument's technical parameters.

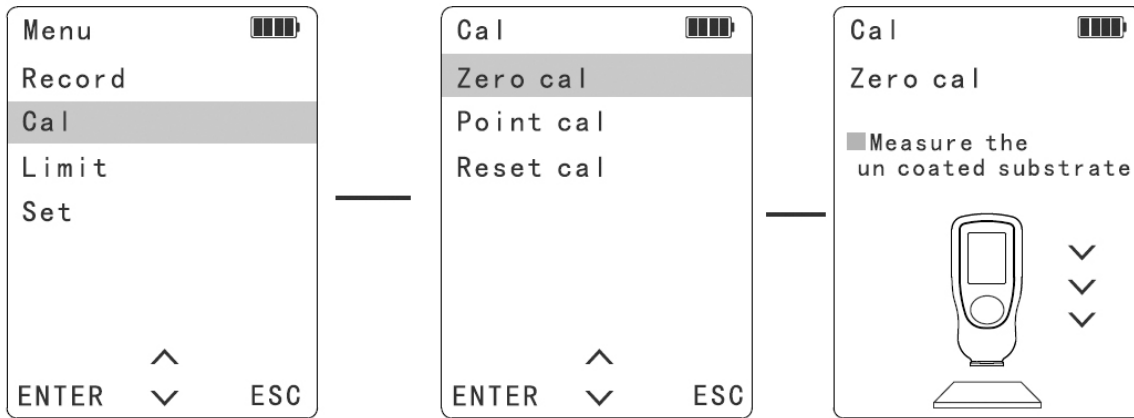
18.2. CALIBRATION METHOD

- 18.2.1. The instrument supports three calibration modes: zero calibration, point calibration, and reset calibration. The recommended calibration procedure is as follows:




18.3. ZERO CALIBRATION

18.3.1. Reset the calibration procedure to its baseline: Menu button “”----Cal ---- Zero cal----as prompted.




18.4. POINT CALIBRATION

18.4.1. Point calibration steps: Menu button “” ----Cal ----Point cal ----Once you've followed the prompts, verify that the instrument reading matches the thickness of the calibration diaphragm. If the values do not align, press the arrow button to adjust the reading until it corresponds with the calibration diaphragm thickness.

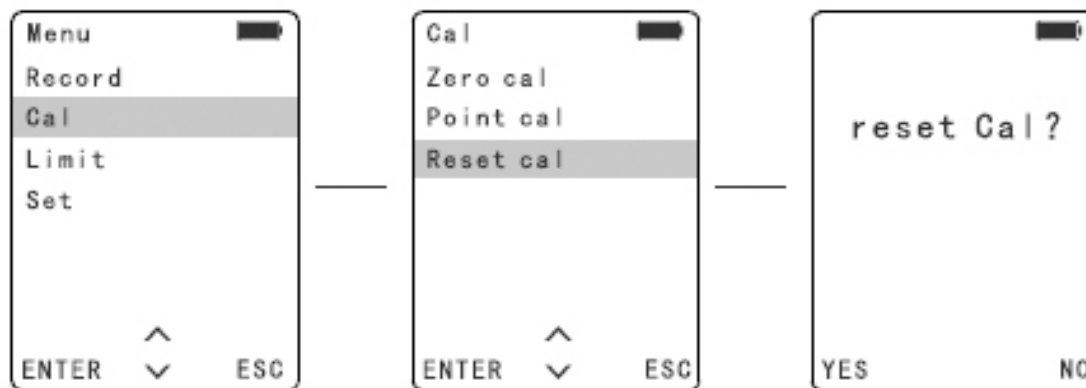
18.5. RESET CALIBRATION

18.5.1. If the instrument attempts to automatically solve calibration issues but fails—due to calibration errors or data confusion caused by incorrect operation—you may need to manually reset the calibration.

18.6. TO PERFORM A CALIBRATION RESET

18.6.1. Press the Menu button. “” ---- Cal ---- Point cal ---- according to the prompt operation. Follow the on-screen prompts to complete the calibration reset.

18.6.2. This procedure helps restore normal readings when automatic calibration is unsuccessful.



18.7. CRITICAL ASPECTS OF CALIBRATION

18.7.1. In most cases, it is not necessary to complete all calibration steps. Follow the guidance below to determine the appropriate calibration procedure:

18.7.2. VERIFICATION STEP

18.7.3. After performing zero calibration or point calibration, it is recommended to use a 100 µm diaphragm to verify the calibration accuracy. If the measurement is accurate, no further calibration is required.

18.8. FE AND NFE MODES

18.8.1. Calibration must be performed separately for Fe (ferrous) and NFe (non-ferrous) modes:

18.8.1.1. If Fe mode is inaccurate, calibrate using an iron-based sheet.

18.8.1.2. If NFe mode is inaccurate, calibrate using an aluminium-based sheet.

18.8.1.3. If both modes are inaccurate, perform calibration for each mode individually as described above.

18.9. RESET CALIBRATION

18.9.1. Performing a reset calibration will clear all existing calibration data.

18.9.2. To ensure accurate measurements in the current environment, it is strongly recommended to perform a zero calibration immediately after a reset.

19. MAINTENANCE

19.1. USAGE PRECAUTIONS

19.1.1. To ensure optimal performance and avoid damage, do not use this instrument under extreme conditions such as collisions, excessive dust, high temperatures, humidity, or strong magnetic fields.

19.1.2. If you notice significant deviations in measurement results, please check the battery level and restart the instrument. If the issue persists, try restoring factory settings. Should the problem remain unresolved, contact your dealer promptly.

NOTE: DO NOT attempt to disassemble or modify the instrument yourself, as this will void the warranty.

20. END OF LIFE

20.1.1. Dispose of packaging materials, batteries, and electronic devices responsibly. Always follow local environmental regulations when discarding these items. Contains lithium battery, ensure it is recycled correctly.



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



REGISTER YOUR
PURCHASE HERE



BATTERY REMOVAL

Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd's Batteries Producer Registration Number (BPRN) is BPRN00705.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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