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## Digital Thickness Gauge



**Code: 347000**

## Operating Instructions

# Digital Thickness Gauge

## Operation

Plug the sensor into the Portagauge III.

Turn it on by pressing the ON switch.

Place a small amount of ultrasonic gel on to the sensor face.

Press the sensor face with medium pressure onto the 5mm calibration shim provided.

If the reading is not exactly 5.00mm, calibrate as described below.

If the reading is correct, proceed to test as normal, using a small amount of ultrasonic gel if required to ensure a good signal.

The unit has a one minute power cut off to save battery power.

## Calibration

Standard meters are calibrated to read thickness in mild steel.

The meter will give readings on most other metals and on many non-metals. These readings can be converted to actual thickness by use of the appropriate conversion factor which is the ratio between the speed of sound in the material being tested and the speed of sound in mild steel. Conversion factors for various materials are available on request and a short list is included overleaf. Small adjustments to the calibration can be made as follows:

- Place the probe on the 5mm calibration shim provided and insert a small screwdriver into the small hole on the right hand side of the meter.
- Engage the slot in the preset control and (keeping Operate Button pressed) rotate until the meter reads correctly. Avoid excessive pressure on the screwdriver.

## Battery

Replacement necessary when "low bat" shows on the display.

Lever off the cover (lower rear of the instrument) to access the battery.

Always use 9V PP3 Alkaline type.

## Testing Pipework

For the best results keep the central division of the probe at 90° to the axis of the pipe.

## Service and Maintenance

- Keep the meter clean, do not allow it to become covered in oil or grease or to become wet.
- Avoid excessive rough handling.
- Should the meter malfunction, return it to York Survey Supply Centre's repair department for servicing.
- The probe is the part most likely to suffer from wear and tear. It is recommended that a spare probe be kept in reserve, particularly if essential work is being done.

## Conversion Factors for Other Materials

Stainless Steel: multiply reading by 0.96

Aluminium: multiply reading by 1.10

Copper: multiply reading by 0.80

Brass: multiply reading by 0.73

Cast Iron: factor varies from 0.70 (coarse grain)  
to 0.90 (fine grain)

Perspex: multiply reading by 0.45

Factors given are averages - a cross check on an accurately known thickness is always advisable.