



# ABT5000 P-Way Gauge



## Instruction Manual



## **1.0 Index**

- 1.0 Index
- 2.0 Overview
- 3.0 Specification
- 4.0 Getting Started
  - 4.1 Measuring Track Gauge
  - 4.2 Measuring Super Elevation
- 5.0 Maintenance
  - 5.1 User Advice
  - 5.2 Every 3 months
  - 5.3 Annual

## **2.0 Overview**

The ABT5000 P-Way Gauge is the new entry-level track gauge from Abtus Limited. Designed for use in all areas of rail maintenance and surveying, the P-Way Gauge offers accurate and repeatable measurement performance, in a light-weight yet robust design.

Constructed from hard-wearing GRP and Nylon, the P-Way Gauge is electrically non-conductive, making it suitable for use in areas of 3rd and 4th rail electrification and will not interfere with the track signalling circuit.

Super-Elevation is measured electronically and is shown on an LCD display. The expected battery-life for normal, average usage is 6-12 months. The unit is powered by a standard 9v PP3 battery which can be easily replaced by the operator when required.

Track-Gauge is measured mechanically and is displayed on a linear scale through a clear Perspex window.

The gauge measures the following parameters:

### **Super-Elevation**

### **Track Gauge**

### 3.0 Specification

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Weight	-	2.5kg
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Size	-	1600mm x 200mm x 150mm
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Super-Elevation	-	Range: $\pm 200$ mm Accuracy: $\pm 0.5$ mm Resolution: 0.1mm
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Track Gauge	-	Range: 1410mm > 1490mm Accuracy: $\pm 0.5$ Resolution: 1mm
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## 4.0 Getting Started

To position the P-Way Gauge onto the track begin by pulling the gauging foot towards the fixed end of the gauge. Then place the fixed end of the gauge square to the running edge of the stock rail (as indicated in Figure 1).



Figure 1

Proceed to lower the gauge towards the track until the foot can rest upon the stock rail. Whilst holding the gauge release the Gauging Foot across to the running edge of the opposite stock rail (as indicated in Figure 2).

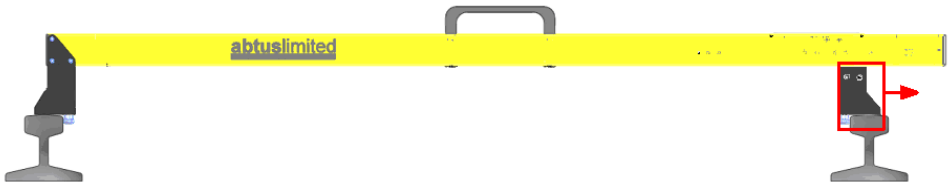


Figure 2

## 4.1 Measuring Track Gauge

Track Gauge or rail gauge is the measured distance between the inner faces of the stock rails (as shown in Figure 3).

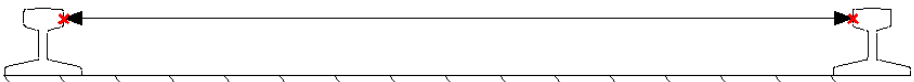


Figure 3

To measure Track Gauge ensure the Gauging Foot is square against the stock rail (as shown in figure 2).

The measured reading is displayed within the small scale window and indicated by the black line situated in the centre (as shown in Figure 5).

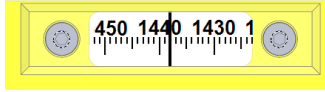


Figure 5

#### 4.2 Measuring Super Elevation

To measure super elevation press the white button located on the side of the gauge, a measurement will appear on the LCD screen (as shown in Figure 6).



Figure 6

## **5.0 Maintenance**

### **5.1 User Advice**

The ABT5000 is precision measurement equipment and whilst it has been designed for use in an engineering environment due care should be taken not to cause damage when in operation, storage or transit. Excessive trauma to the moving parts of the gauge may invalidate the calibration and lead to possible measurement inaccuracies.

### **5.2 Every 3 Months**

Visually inspect the ABT5000 for signs of damage. If necessary, contact your local distributor for help.

### **5.3 Annual**

The ABT5000 must be returned annually for re-calibration to ensure measurements are within specification.

The condition of all components will be checked at this time and replaced as required.