

# Data Logging Laser Height and Stagger Gauge (P8000)

## Track Measurement and Analysis



The Data Logging Laser Height and Stagger Gauge (P8000) is a development of the P4640 model, which uses laser technology to take measurements and check the overhead contact wire is correctly positioned. In the Data Logging version, the user is able to log and store data directly to an Android phone, either by using the equipment as a digital recording gauge or in conjunction with a downloadable app.

The equipment can be used to measure cable height, cable stagger, gauge, cant, rail edge to face of structure (REFOS) and temperature. Readings are shown on a built-in display, as well as on the phone. A GPS system accurately records the location of works, making re-inspection easy and efficient.

## → TECHNICAL FEATURES

### **Built-in laser unit and viewfinder**

The vertical beam of the Data Logging Laser Height and Stagger Gauge has a built-in laser unit positioned at eye level. A 90° viewfinder with a red LED guide dot enables the user to set the laser location marker onto the overhead line.

### **Removable REFOS laser unit**

The product is equipped with a removable laser unit that can be attached magnetically to either foot of the gauge and can be controlled via the Android app or controls on the vertical beam.

### **Downloadable app**

The gauge can be used in conjunction with its own app, downloadable on any Android device. This can be used to view and send .csv files and reports via email or USB wired connection.

### **Measurement capability**

The gauge can be used to measure rail to head cable height, cable stagger position, super-elevation (SE) and rail edge to face of structure (REFOS). Measurements of temperature and GPS location can also be made.

### **Rechargeable battery pack**

The gauge has a rechargeable battery pack that offers eight hours of battery life when fully charged.

### **Materials and portability**

The Data Logging Laser Height and Stagger Gauge is made from hardwearing, non-conductive GRP. The horizontal beam folds down flat to the lateral beam for storage and transportation – a locking handle on the vertical beam allows the user to assemble and disassemble the gauge quickly.

→ ADVANTAGES

- Because the laser unit on the Data Logging Laser Height and Stagger Gauge is at eye level, the user is able to take measurements from a standing position, reducing the fatigue caused by having to repeatedly bend down when using similar measurement equipment.
- The equipment is extremely easy to set up and use, reducing time on track and contributing to the user's safety.
- The gauge's LED makes it suitable for use in all weather conditions, including bright sunlight.
- The high quality of the laser unit and its ease of use help to ensure that measurements taken are accurate.
- Digital data logging increases accuracy and saves time on data processing back in the office. GPS tagging enables future recordings in the same location.
- The gauge is quick and easy to assemble and disassemble, saving time and contributing to user safety.



→ COMPONENTS

1. Vertical beam locking handle
2. Built-in laser unit and viewfinder
3. Removable REFOS laser unit
4. Illuminated LCD screen

→ SPECIFICATIONS

| Physical specification |                         |
|------------------------|-------------------------|
| Weight                 | 11kg                    |
| Size (in use)          | 1616mm x 1450mm x 245mm |
| Size (folded)          | 1616mm x 262mm x 245mm  |
| Temperature            | -20°C to +50°C          |
| Battery life           | 8 hours per full charge |

| Measurement specification |                                                               |
|---------------------------|---------------------------------------------------------------|
| Cable                     | Range: +/- 520mm                                              |
| Stagger                   | Accuracy: +/- 5mm @ 5m<br>Resolution: 1mm                     |
| Gauge                     | Range: -25mm to +50mm<br>Accuracy: +/- 1mm<br>Resolution: 1mm |
| Cable height and REFOS    | Range: 2m to 100m<br>Accuracy: +/- 2mm<br>Resolution: 1mm     |
| SE                        | Range: +/-200mm<br>Accuracy: +/- 1mm<br>Resolution: 1mm       |
| GPS                       | Expected accuracy: 2.5m                                       |

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