

Cyclic Top Measurement Device (P7000)

Track Control Solutions



The Cyclic Top Measurement Device (P7000) enables track engineers to identify, measure and repair cyclic top faults and trigger points with a single track recording, ensuring line speed is quickly re-established without the need for a TRV (track recording vehicle) recording.

The device is supplied with a Windows tablet and software that enables the user to switch between cyclic top measurement and track geometry modes (to record gauge, cant, distance and twist). Track recordings can be viewed on site and live maintenance guidance is provided in the form of lift recommendations and high/low point identification. The device is optimised for maintenance operations as it allows the user to know and localise top alignment anomalies for damping operations.

→ TECHNICAL FEATURES

Tablet and software

The device is supplied with a tablet that operates on Windows 10. Software enables the user to take measurements in cyclic top and track geometry modes.

Cyclic top mode

In cyclic top mode, the device measures left and right rails simultaneously. Cyclic top identification is at 4.5m, 6m, 9m, 13m and 18m wavelengths.

Track geometry mode

In track geometry mode, the user can take accurate measurements of gauge, cant, distance and twist. Data can be viewed and analysed live, as well as being exportable.

Maintenance guidance and inspection

The interface provides live maintenance guidance on lift recommendations and high/low point identification. It also allows pre- and post-maintenance comparison.

Non-conductivity

The device is insulated, with plastic wheels and a non-conductive insulation block between the wheel arm and contact bearings. As a result, no electrical contact is created between the running rails.

Safety lights

The device is fitted with red LED lights on the front and back, to alert other track users and train drivers to the operator's presence on the track.

GPS receiver

A precision GPS receiver ensures future recordings can be conducted at the same location.

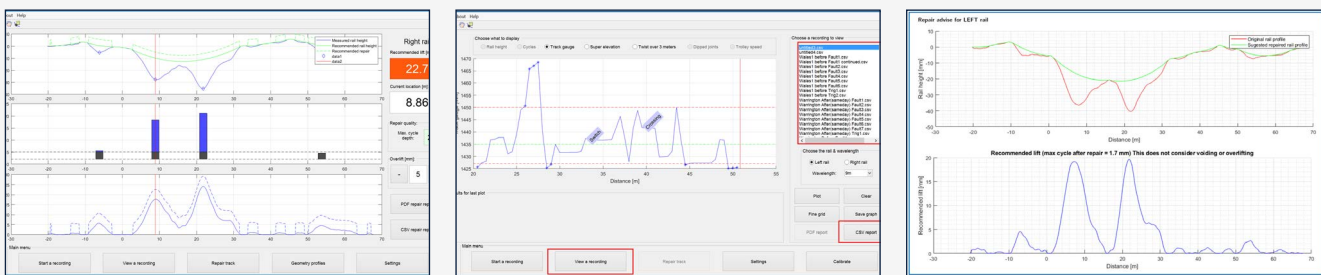
Portable

The device breaks down into three parts so that it can be transported by most vehicles. It is fitted with plastic lifting handles to make it easier to lift on and off the track.

→ ADVANTAGES

- The Cyclic Top Measurement Device's user interface provides live data and guidance on site, saving time for the user and enabling the rapid identification of problem areas.
- By identifying, measuring and repairing cyclic top faults and trigger points with a single track recording, line speed can be quickly re-established.
- A precision GPS receiver ensures future recordings can be conducted at the same location, enabling accurate pre- and post-maintenance analysis and preventative maintenance of known problem sites.
- The device is user-friendly and operators only need limited training compared to when using traditional methods.
- The device's LED lights and electrical non-conductivity make it a safer option for operators.
- The Cyclic Top Measurement Device breaks down into parts and is fitted with handles so that it is easy to move and transport.

→ SOFTWARE



→ SPECIFICATIONS

Physical specification	
Weight	23.5kg
Size	1700mm x 1012mm x 716mm
Battery life	Approximately 12 hours
Operating temperature	-20°C to +50°C
File types	PDF, CSV
Connectivity	USB or wireless transfer

Measurement specification	
Distance	Range: 0km to 200km Accuracy: +/- 1% Resolution: 10mm
Gauge	Range: -25mm to +50mm Accuracy: +/- 0.5mm Resolution: 0.1mm
Cant	Range: +/- 250mm Accuracy: +/- 0.5mm Resolution: 0.1mm
Twist	Cord length: user selectable Accuracy: +/- 0.5mm Resolution: 0.1mm
Cyclic top	Distance range: 2m to 200m Wavelengths: 4.5m, 6m, 9m, 13m, 18m Cycle depth accuracy: +/- 2mm Resolution: 0.1mm

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