



For further information on the ROMDAS road measurement system please visit [www.romdas.com](http://www.romdas.com)

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ROMDAS  
Manufactured by  
Data Collection Ltd.  
New Zealand

*providers of innovative technology for  
measuring and managing roads*

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## ROMDAS-LRMS Laser Rut Measurement System

### Features

The ROMDAS Laser Rut Measurement System (TPL-LRMS) gives immediate and precise transverse profiles used for the detection and characterization of pavement rutting conditions. The ROMDAS LRMS uses scanning Laser technology from INO (a world leading technology developer and provider of 3D laser systems and sensors).

The TPL-LRMS can acquire full 4 m width profiles of a highway lane at normal traffic speeds. The system uses two laser profilers that digitize transverse sections of the pavement. Custom optics and high-power pulsed laser line projectors allow the system to operate in full daylight or in night-time conditions. LRMS also offers 2 sampling rate options; 30 or 250 Hz.

This system overcomes many of the drawbacks of other rut measurement systems that use less data points and transverse range.



### **The ROMDAS TPL-LRMS allows for:**

- ⇒ Real-time data processing with display showing rut depth, rut width and rut cross sectional area.
- ⇒ Measures full 4 m width profiles of highway lane without protrusion of system beyond 2 m width. Much safer and more manageable than Transverse measuring systems that extend significantly beyond vehicle width.
- ⇒ Operation in day or night-time conditions
- ⇒ Survey speeds up to 100 km/h
- ⇒ High update rate of either 30 or 250Hz (transverse profiles per second)
- ⇒ Immediate feedback on correct operation of system to operators.



*ROMDAS System with LRMS, Sub Meter GPS, High Resolution DMI and 2 Laser Profilometers.*





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### Operation

A real-time output of TPL-LRMS system are displayed in the ROMDAS data acquisitions software during the survey.

The ROMDAS software does not require any operator interaction during TPL-LRMS data collection.

Raw outputs are also saved by the ROMDAS system allowing for further analysis and calculations based on raw data.

### Components

The ROMDAS LRMS is comprised of the following components:

- ◆ 2 x Laser Profilers
- ◆ Rack Mount TPL-LRMS Controller
- ◆ All necessary cabling
- ◆ Laser mounting frame



### Technical Specifications

<b>Outputs</b>	<ul style="list-style-type: none"><li>◆ Rut depth</li><li>◆ Rut width</li><li>◆ Rut cross-sectional area for each wheelpath</li><li>◆ Lane Markings</li></ul>
<b>Vehicle Survey Speed</b>	0—100 Km/H
<b>Sampling Rate</b>	30 or 250 Hz (profiles per second)
<b>Depth Accuracy</b>	± 1 mm
<b>Transverse Range</b>	4 m nominal (1,280 Points/Profile)
<b>Output File Format</b>	Microsoft Access Files.
<b>Environmental Protection</b>	IP-65 (NEMA 4)
<b>Power Consumption</b>	120 Watts (240 VAC)