

# Portable Calibrator Ultra

Easy and efficient calibration of ergometers



## Highlights

### High standards

Lode is a socially and environmentally responsible company. All Lode products are RoHS/WEE compliant and Lode is ISO 9001:2015, and ISO 13485:2016 certified. All medical products comply to MDD 93/42/EEC, incl. IEC 60601-1.

The Calibrator Ultra is an easy to set up and very accurate portable calibration station. The calibration station is controlled by a PC or laptop. With this station it is possible to control or calibrate all existing ergometers accurately. The Lode Calibrator is mounted on the axis of the ergometer. This system is approved by an independent institute, and is used by calibration institutes all over the world since 1993. Calibrations can be done up to 1500 watt. Due to the possibilities you create when using a normal PC to calibrate the calibrator you can print a calibration report for your customer and/or create your own database of calibration data.

The Calibrator Ultra is a professional Calibration station, made by Lode, which helps you to professionalize your calibrations and make your service more efficient.

Please note, specifications at 110 V are different than at 230 V.



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## Features



### Extremely Accurate Calibration of Ergometers

Highly accurate calibration of ergometers is possible with this product



### USB connectivity

USB to connect to PC or ECG or ergospirometry products facilitates easy connectivity.

Professional  
tool

### Professional Service Tool

Lode provides tools for service engineers of distributors that are completely dedicated to its products and purpose. Some can even be used for non-Lode calibration activities

Universal

### Universal Calibration

This tool can be used for Calibration of Lode products as well as products of other manufacturers

Multiple  
connectors

### Multiple ergometer axis connectors available

Various accessories are available to connect the calibrator to most available ergometers

## Self control

With the included balance arm and weight basket it is possible to control the unit itself. The Calibrator 2000 is standard supplied with a toolbox with adaptors for calibrating all current Lode ergometers (excl. MRI ergometers).




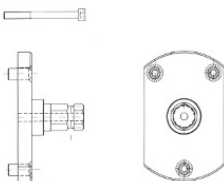





The Calibrator is supplied with the latest edition of Windows-based software.

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Portable Calibrator Ultra can a.o be extended with the following options:

<p><b>Universal adapter for pinless crank</b></p> <p>Calibrating various ergometers</p>  <p>Partnumber: 919028</p>	<p><b>Universal adapter for 1/2" thread crank</b></p> <p>Calibrating various ergometers</p>  <p>Partnumber: 919805</p>	<p><b>Adapter for crank with pin</b></p> <p>Calibrating various ergometers</p>  <p>Partnumber: 919051</p>	<p><b>Adapter for Dynavit crank</b></p> <p>Calibrating various ergometers</p>  <p>Partnumber: 919803</p>	<p><b>USB to Serial converter</b></p> <p>Easy connection</p>  <p>Partnumber: 226012</p>
<p><b>Breaking pins, set of 15</b></p> <p>Additional spare breaking pins</p>  <p>Partnumber: 919121</p>	<p><b>Isis adapter m8x1</b></p> <p>Calibrating various ergometers</p>  <p>Partnumber: 919095</p>	<p><b>RS232 cable</b></p> <p>Easy connection</p>  <p>Partnumber: 930911</p>	<p><b>Transportcase Calibrator Ultra / Versa</b></p> <p>Safe transport</p>  <p>Partnumber: 919810</p>	

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## Specifications

### Workload

Maximum rotational speed at 110 V	120 rpm
Minimum rotational speed	25 rpm
Maximum rotational speed	180 rpm
Rotation direction clockwise	✓
Rotation direction anti-clockwise	✓
Maximum motor torque	100 Nm
Maximum sensor torque	100 Nm
Warming up time	5 min
Approved power range (maximum)	1000 W
Approved power range (minimum)	0 W
Power range at maximum rpm (maximum)	1500 W
Power range at maximum rpm (minimum)	0 W
Crank adapter included	✓

### Accuracy

Speed accuracy	0.25 %
Power accuracy error > 100 W	1 %
Power accuracy error up to 100W	1 W
Torque resolution	0.05 Nm
Time resolving	10 ms
Accuracy rpm adjustment	0.1 rpm
Rpm resolution	0.05 rpm

### User Interface

Software available in English	✓
Software available in German	✓
Software available in Dutch	✓
Software available in Japanese	✓

### Connectivity

USB connector	✓
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### Dimensions

Cable length	3000 mm	118.1 inch
Product length (cm)	52 cm	20.5 inch
Product width (cm)	32 cm	12.6 inch
Product height	52 cm	20.5 inch
Product weight	29 kg	63.9 lbs

### Power requirements

230 VAC	14 A
110 VAC	15 A
Phases	1
Frequency	50/60 Hz

### Order info

Partnumber: 919950

*\*Specifications are subject to change without notice.*

### Standards & Safety

Integrated emergency stop ✓

### Minimum System Requirements

Internal RAM 4000 MB

Minimum Free Hard Disk space 25 GB

Number of free USB ports 2

### Compatibility

Suitable for all brands ✓

Suitable for high power ergometers ✓

Microsoft Windows 10 ✓

### Included parts

PC software included ✓