

# Angio imaging - with stress support ultrasound

Modern ergometry setting for Echo Stress Cardiology



## Highlights

### Comfortable bed for the Patient

- soft bed
- easy step up
- bedcover roll included
- headrests
- handgrips

### 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.

### Multifunctional

The ergometer can be used in various ergometry settings, enabling a multifunctional deployment.

### Reliable and reproducible stress tests

The experience of professionals who calibrate many ergometers showed that the Lode ergometers are the most reliable across the complete workload and rpm range and still within specifications even after many years of intensive use.

### Exercise instead of medicine

When a test subject is able to do exercise, it is always recommended above pharmacologic stress. It allows objective measurement in either level of cardiac conditioning and/or level of cardiac work. It is safe and perfectly reproducible.



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Exercise Table for Ultrasound, with electrical adjustable slope (transversal, 45°) for an optimal position of the heart in echo research. Due to a removable part of the back support, a better view of the heart from the back side is possible. The minimum distance to the floor, the adjustable shoulder and hip support together with the adjustability of the Angio imaging ergometer provide an optimal feeling of comfort during exercise for the test subject. The research can be done in a sitting position next to the test subject. The stress support for Ultrasound can be used for other cardiologic exercise research in laying or sitting position as well. It is standard supplied with an easy transport tool to lift the device and move to the desired location.

The Angio imaging is an ergometer that can be used for both sitting and supine ergometry. Its compact design makes it universally applicable for ergometric studies in those sectors in which standard ergometry cannot be used. The Angio operates independent of pedaling speed in the range of 7 - 1000 watt. The Angio imaging is standard supplied with a communication module and can therefor be easily controlled by all known stress ECG and pulmonary devices in the world. The workload, rpm and time can be readout from the 7" colour display. The ergometer is equipped with pedal shoes.

For a 115V setting, please use part numer 967941 when ordering.

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## Features

**7  
watt**

### Extreme low start up load

The extreme low start-up load of 7 watts and the adjustability in small steps of 1 watt make this ergometer perfectly suitable for many different applications. The standard control unit shows multiple ergometry parameters and you can determine your specific default setting and start-up menu.



### Accurate over a long period of time

The Lode ergometers are supplied with an electro-magnetic braking mechanism of Lanooy (eddy current). The biggest advantage of this braking system compared to a friction braking system is the absolute accuracy and the accuracy over time. Moreover, friction braking systems have more wearing parts.

**1  
watt**

### Small adjustment steps

The workload of the Lode ergometers is adjustable in steps of only 1 watt. Depending on your wishes, the test operator or the test subject can adjust the workload. The steps of 1 watt are possible in the manual mode as well as within protocols.



### Compatible with ECG and pulmonary devices

The Lode ergometers have digital interfaces and can be controlled easily by all known stress ECG and pulmonary devices available in the world. This is one of the reasons why the Lode ergometers are very popular worldwide.

### Service friendly

### Service friendly ergometer

Lode ergometers are very service friendly. In general, total costs for spare parts are so low that they are negligible. Furthermore, most options are so easy to install and firmware is so easy to update that labor costs are minimal. Moreover, the ergometer can be cleaned easily.



### Versatile Interfacing

Various interface protocols guarantee perfect communication with all commonly known stress ECG and spirometry equipment



### No pharmacological stress needed

No pharmacological stress needed during Echo Stress Test

### Versatile controls

### Additional features with PCU

Besides the possibility to program 24 protocols easily, this control unit offers the following features:

- better monitoring because of the additional and larger display
- a perfect combination with BPM
- possibility to measure SpO2

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Angio imaging - with stress support ultrasound can a.o be extended with the following options:

<p>Pedal shoes pediatric (pair)</p> <p>Pedal shoes for children</p>  <p>Partnumber: 917833</p>	<p>Pedal shoes extra large (pair)</p> <p>For large feet sizes</p>  <p>Partnumber: 917834</p>	<p>Adjustable cranks (will be replaced by #960804 in February 2019)</p> <p>Will be replaced by #960804 in February</p>  <p>Partnumber: 928804</p>	<p>USB to Serial converter</p> <p>Easy connection</p>  <p>Partnumber: 226012</p>	<p>SpO2 for control unit with touch panel (extra long cable)</p> <p>Oxygen saturation</p>  <p>Partnumber: 945822</p>
<p>RS232 cable</p> <p>Easy connection</p>  <p>Partnumber: 930911</p>	<p>SpO2 for control unit with touch panel - ordered afterwards</p> <p>Ordered afterwards</p>  <p>Partnumber: P945822</p>	<p>Storage cart for ergometer and cushions</p> <p>Versatile and space saving</p>  <p>Partnumber: 917818</p>	<p>Add program function to 7" touch screen for ergometer</p> <p>Easily programmable</p>  <p>Partnumber: U945835</p>	<p>Blood Pressure with ECG trigger for bicycle ergometer</p> <p>with ECG trigger</p>  <p>Partnumber: 945828</p>
<p>Usability pack Ultrasound</p> <p>Programming functions</p>  <p>Partnumber: 967831</p>	<p>Adjustable cranks</p> <p>Optimal force application</p>  <p>Partnumber: 960804</p>	<p>Custom pack Powercable 100 - 127 V for ergometers</p> <p>Easy connection</p>  <p>Partnumber: 945892</p>		

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## Specifications

### Workload

Workload range fixed torque	0,1 - 70 Nm
Minimum load	7 W
Maximum peak load	1000 W
Minimum load increments	1 W
Maximum continuous load	750 W
Hyperbolic workload control	✓
Linear workload control	✓
Fixed torque workload control	✓
Maximum rpm independent constant load	150 rpm
Minimum rpm independent constant load	30 rpm
Optional heart rate controlled workload	✓
Electromagnetic "eddy current" braking system	✓
Dynamic calibration	✓

### Accuracy

Workload accuracy from 7 to 100 W	3 W
Workload accuracy from 100 to 500 W	3 %
Workload accuracy from 500 to 1000 W	5 %

### Comfort

Shoe size pedal shoe EU	32 - 41
Shoe size pedal shoe US male	1 - 8
Shoe size pedal shoe US female	1 - 9
Shoe size pedal shoe UK	12.5 (ch) - 7..5 (ad)
Allowed user weight	160 kg 352.7 lbs
Pedal shoes	✓
Adjustability backpanel	32 °
Adjustability ergometer	45 °

### Certification

CE class Im according to MDD93/42/EEC	✓
CE class of product with optional SpO2	Ila
CE class of product with optional BPM	Ila
CB according to IECEE CB	✓

### Order info

Partnumber: 967931

### User Interface

Readout Distance	✓
Readout RPM	✓
Readout Heartrate	✓
Readout target HR	✓
Readout Energy	✓
Readout Torque	✓
Readout Time	✓
Readout Power	✓
Set Display	✓
Set Resistance	✓
Set P-Slope	✓
Set Mode	✓
Manual operation mode	✓
Preset protocol operation mode	✓
Terminal operation mode	✓
External control unit	✓
Selfdesigned protocol operation mode	✓

### Connectivity

Control Unit with touch screen 7" for ergometer	✓
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### Dimensions

Product length (cm)	212 cm	83.5 inch
Product width (cm)	52 cm	20.5 inch
Product height	118 cm	46.5 inch
Product weight	140 kg	308.6 lbs

### Power requirements

V AC	230 V
Phases	1
Frequency	50/60 Hz
Power consumption	260 W
Power cord IEC 60320 C13 with CEE 7/7 plug	✓
Power cord NEMA	✗
230 V AC 50/60 Hz (138 VA)	✓

### Standards & Safety

IEC 60601-1:2012	✓
ISO 13485:2016 compliant	✓
ISO 9001:2015 compliant	✓

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

