

# Angio rehab - with electrical adjustable wall fixation

Modern ergometer with multifunctional applications



## Highlights

### High standards

Lode is a socially and environmentally responsible company. All Lode products are RoHS/WEE compliant and Lode is ISO 9001:2003, ISO 13485:2008 and FDA 510K certified. All medical products comply to MDD 93/42/EEC, incl. IEC 60601-1.

### Easy to operate

For Lode products this means:

- easy to connect
- easy to move around
- easy user interface

### Reliable and reproducible stress tests

The experience of professionals who calibrate many ergometers shows 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.

### 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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The wall fastening consists of a vertical rail with hang-up mechanism which makes it possible to move the Angio up and down electrically over a range of 70 cm. Handgrips are standard included in this combination. The Angio is an ergometric unit that can be used for both arm 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 rehab is standard supplied with a 7" control unit with touch screen. Thanks to the built-in network module, the ergometer can be connected to the Lode Cardiac Rehab Manager Software, Lode Rehab Manager or the Lode Ergometry Manager.

A USB A-B cable for service purposes only will be standard delivered with the product. To connect LEM or LCRM you need a special interface cable that can be ordered under part number 930930.

## Features



### 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.

**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.

**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.

### RS232 connectivity



RS232 ports enable connectivity to most ECG and ergospirometry devices as well as PC's.



### LEM compatible

This product can be used with Lode Ergometry Manager (LEM) software to manage data and to apply specific protocols when a Communication card or Network card is present



### LCRM compatible

This product can be used with Lode Cardiac Rehabilitation Manager software (LCRM)

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## Interconnectivity between Lode products

Connecting Lode products has never been easier! Lode rehab and sports products have a standard Network card:

- To be able to connect the first product to the PC with L(C)RM a Lode proprietary network to PC cable is needed (#930930).
- From the second product onward products can be connected to the previous one, creating a bus network configuration;
- The last product always needs a termination plug to avoid interference and loss of data. Therefore all products with such a network card come with a termination plug.

### Benefits













- Lossless data connection
- High bandwidth
- No interference of COM ports
- Daisy chain connection
- Full access of all data in the product to LCRM

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Angio rehab - with electrical adjustable wall fixation can a.o be extended with the following options:

<p>Add program function to 7" touch screen for ergometer Easily programmable</p>  <p>Partnumber: U945835</p>	<p>Colour Display 3.5" - 2nd screen Multifunctionality</p>  <p>Partnumber: 945819</p>	<p>Heart rate large distance Heart rate in beats per minute</p>  <p>Partnumber: 945830</p>	<p>SpO2 for control unit with touch panel (bicycle) Saturation and heart rate</p>  <p>Partnumber: 945823</p>	<p>Adjustable cranks Optimal force application</p>  <p>Partnumber: 928804</p>
<p>Pedal shoes (pair) Extra stability during cycling</p>  <p>Partnumber: 917803</p>	<p>Pedal shoes pediatric (pair) Pedal shoes for children</p>  <p>Partnumber: 917833</p>	<p>Pedal shoes extra large (pair) For large feet sizes</p>  <p>Partnumber: 917834</p>	<p>Handgrips (pair) Versatile ergometry</p>  <p>Partnumber: 917812</p>	<p>Handgrip fixation set Handgrip fixation set</p>  <p>Partnumber: 917822</p>
<p>Handgrip fixation set pediatric Versatile ergometry</p>  <p>Partnumber: 917823</p>	<p>Network module connection cable Easy connection</p>  <p>Partnumber: 930930</p>			

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## Specifications

### Workload

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

Adjustability range height	700 mm
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### 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	✓
Analog operation mode	✓
Terminal operation mode	✓
External control unit	✓
Selfdesigned protocol operation mode	✓

### Order info

Partnumber: 967923

\*Specifications are subject to change without notice.

### Dimensions

Product length (cm)	68 cm	26.8 inch
Product width (cm)	42 cm	16.5 inch
Product height	104 cm	40.9 inch
Product weight	55 kg	121.3 lbs

### Power requirements

V AC	100 - 240 V
Phases	1
Frequency	50/60 Hz
Power consumption	250 W
Power cord IEC 60320 C13 with CEE 7/7 plug	✓
Power cord NEMA	✗
100 - 240 V 50/60 Hz (160 Watt)	✓

### Standards & Safety

IEC 60601-1:2012	✓
ISO 13485:2003 compliant	✓
ISO 9001:2008 compliant	✓

### Certification

CTüVus according to NRTL - pending	✓
CB according to IECEE CB - pending	✓
CE class Im according to MDD93/42/EEC - pending	✓



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ISO 9001:2008 and ISO 13485:2003 certified

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