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 9001:2015, and ISO 13485:2016 certified. All medical products comply to MDD 93/42/EEC, incl. IEC 60601-1.

#### 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.

#### Various test modes

Besides the hyperbolic (rpm-independent) mode that is used most of the time, the standard control unit offers several other test modes, like the fixed torque mode and the linear mode. These modes can be used in both manual and terminal mode.

#### Multifunctional

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

#### Easy to clean

The design of the ergometer and the housing material make it very easy to clean.







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In this system, the Angio is supplied with a multifunctional fixation set. With this set, the Angio ergometer is equipped with pedal shoes and can be mounted easily on all Imaging / Physiotherapy / Examination tables that have a standard instrument side rail of 25x10 mm. The adjustability range is 625 - 903 mm (width) and 20-120 mm (height). \*

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.

Note: always check the width of the examination table on wich the ergometer is going to be installed. There is a fixation set available for tables that are smaller (#967820)





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#### **Features**



#### Extreme low start up load

The extreme low start-up load of 7 watts and the adjustability in small steps of 1 watt **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.



#### Small adjustment steps

The workload of the Lode ergometers is adjustable in steps of only 1 watt. Depending Vatt 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 is present



#### LCRM compatible

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



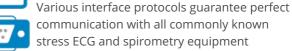
#### Additional features with PCU

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



#### Versatile Interfacing







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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). This cable is standard included with Lode Rehab Software.
- 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 Fixation Set for Instrument Rail can a.o be extended with the following options:

Pedal shoes (pair)

Extra stability during cycling



Partnumber: 917803

Pedal shoes pediatric

Pedal shoes for childen



Partnumber: 917833

SpO2 for control unit with touch panel (extra

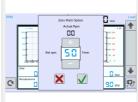
Oxygen saturation



Partnumber: 945822

0-Watt start-up system

Lowest possible startup power



Partnumber: 960805

Multifunctionality



Partnumber: 945819

Network module

Easy connection



Partnumber: 930930

with touch panel ordered afterwards

Ordered afterwards



Partnumber: P945822

Add program function to 7" touch screen for ergometer

Easily programmable



Partnumber: U945835

**Blood Pressure with** ECG trigger for bicycle ergometer

with ECG trigger



Partnumber: 945828

Wheeled frame for Angio Ergometer w.

Easy installation of the Angio ergometer



Partnumber: 967800

Small Fixation Set for

For smaller examination tables of



Partnumber: 967820

Bluetooth Smart heart

Heartrate available within an extreme wide



Partnumber: 945833

Adjustable cranks

Optimal force application



Partnumber: 960804

Custom pack Powercable 100 - 127 V for ergometers

Easy connection



Partnumber: 945892





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#### **Specifications**

Workload			User Interface	
Workload range fixed torque	0,1 - 70 Nm		English user interface	<b>~</b>
Minimum load	7 W		Chinese user interface	<b>~</b>
Maximum peak load	1000 W		Croatian user interface	<b>~</b>
Minimum load increments	1 W		Czech user interface	<b>~</b>
Maximum continuous load	750 W		Danish user interface	<b>~</b>
Hyperbolic workload control	~		Dutch user interface	<b>~</b>
Linear workload control	~		Finnish user interface	<b>~</b>
Fixed torque workload control	~		French user interface	<b>~</b>
Maximum rpm independent constant load	150 rpm		German user interface	<b>~</b>
Minimum rpm independent constant load	30 rpm		Greek user interface	<b>~</b>
Optional heart rate controlled workload	~		Hungarian user interface	<b>~</b>
Electromagnetic "eddy current" braking system	~		Italian user interface	<b>~</b>
Dynamic calibration	~		Japanese user interface	<b>~</b>
Accuracy			Korean user interface	<b>~</b>
Workload accuracy from 7 to 100 W	3 W		Latvian user interface	<b>~</b>
Workload accuracy from 100 to 500 W	3 %		Lithuanian user interface	<b>~</b>
Workload accuracy from 500 to 1000 W	5 %		Norwegian user interface	<b>~</b>
Comfort			Polish user interface	<b>~</b>
Adjustability range height	20 - 120 mm		Portugese user interface	<b>~</b>
Adjustability range width	625 - 903 mm	24.6 kJ	Romanian user interface	<b>~</b>
Pedal shoes	~		Russian user interface	<b>~</b>
			Spanish user interface	<b>~</b>
			Swedish user interface	<b>~</b>
			Turkish user interface	<b>~</b>
			Ukrainian user interface	<b>~</b>
			Readout Distance	<b>~</b>
			Readout RPM	<b>~</b>
			Readout Heartrate	<b>~</b>
			Readout target HR	<b>~</b>
			Readout Energy	<b>~</b>
			Readout Torque	<b>~</b>
			Readout Time	<b>~</b>
			Readout Power	<b>~</b>
			Set Display	<b>~</b>
			Set Resistance	<b>~</b>
			Set P-Slope	<b>~</b>
			Set Mode	<b>~</b>
			Manual operation mode	~
			Preset protocol operation mode	<b>~</b>
			Analog operation mode	<b>~</b>
			Terminal operation mode	<b>~</b>
			External control unit	~
			Calfdesigned protectal apparation made	

Selfdesigned protocol operation mode





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#### Dimensions

Maximum table width	920 mm	36.2 inch
Minimum table width	625 mm	24.6 inch
Product length (cm)	54 cm	21.3 inch
Product width (cm)	68 cm	26.8 inch
Product height	73 cm	28.7 inch
Product weight	40 kg	88.2 lbs

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Power requirements		
V AC	100 - 240 V	
Phases	1	
Frequency	50/60 Hz	
Power consumption	160 W	
Power cord IEC 60320 C13 with CEE 7/7 plug	~	
Power cord NEMA	×	
Standards & Safety		
IEC 60601-1:2012	~	
ISO 13485:2016 compliant	~	
ISO 9001:2015 compliant	~	
Certification		
CE class Im according to MDD93/42/EEC	~	
CE class of product with optional SpO2	lla	
CE class of product with optional BPM	lla	
CB according to IECEE CB	~	

#### Order info

Partnumber: 967925



<sup>\*</sup>Specifications are subject to change without notice.