

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.

#### 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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In this system, the Angio is fixed to the wall. Handgrips are standard included. 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.

### 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



#### Extreme low start-up load

more wearing parts.

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.



#### Versatile Interfacing

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





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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 Static Wall Fixation can a.o be extended with the following options:

Pedal shoes (pair)	Pedal shoes pediatric (pair)	Pedal shoes extra large (pair)	Adjustable cranks	Handgrips (pair)
Extra stability during cycling	Pedal shoes for childen	For large feet sizes	Optimal force application	Versatile ergometry
			and a second	
Partnumber: 917803	Partnumber: 917833	Partnumber: 917834	Partnumber: 928804	Partnumber: 917812
0-Watt start-up system	Colour Display 3.5" - 2nd screen	Network module connection cable	SpO2 for control unit with touch panel (bicycle)	Add program function to 7" touch screen for ergometer
Lowest possible startup power	Multifunctionality	Easy connection	Saturation and heart rate	Easily programmable
V11 Zers Wart Option Attack Rom Unit U				
Partnumber: 960805	Partnumber: 945819	Partnumber: 930930	Partnumber: 945823	Partnumber: U945835

Bluetooth Smart heart rate

Available in Q2 2019



Partnumber: 945833





### 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	$\checkmark$	
Linear workload control	$\checkmark$	
Fixed torque workload control	$\checkmark$	
Maximum rpm independent constant load	150 rpm	
Minimum rpm independent constant load	30 rpm	
Optional heart rate controlled workload	$\checkmark$	
Electromagnetic "eddy current" braking system	$\checkmark$	
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 %	
User Interface		
Readout Distance	$\checkmark$	
Readout RPM	$\checkmark$	
Readout Heartrate	$\checkmark$	
Readout target HR	$\checkmark$	
Readout Energy	$\checkmark$	
Readout Torque	$\checkmark$	
Readout Time	$\checkmark$	
Readout Power	$\checkmark$	
Set Display	$\checkmark$	
Set Resistance	$\checkmark$	
Set P-Slope	$\checkmark$	
Set Mode	$\checkmark$	
Manual operation mode	$\checkmark$	
Preset protocol operation mode	$\checkmark$	
External control unit	$\checkmark$	
Selfdesigned protocol operation mode	$\checkmark$	
Dimensions		
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	55 kg	121.3 lbs

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	×			
100 - 240 V 50/60 Hz (160 Watt)	~			
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:

967922

\*Specifications are subject to change without notice.



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