

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.

#### Stability

Since athletes are getting more and more powerful and testing more extreme, the ergometer is designed for high workloads up to 2500 watt. Even the strongest and most powerful athletes will experience a stable and comfortable basis.





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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 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.

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

The Angio imaging with fixation set is standard equipped with pedal shoes.

### **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 **Watt** 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.





#### 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



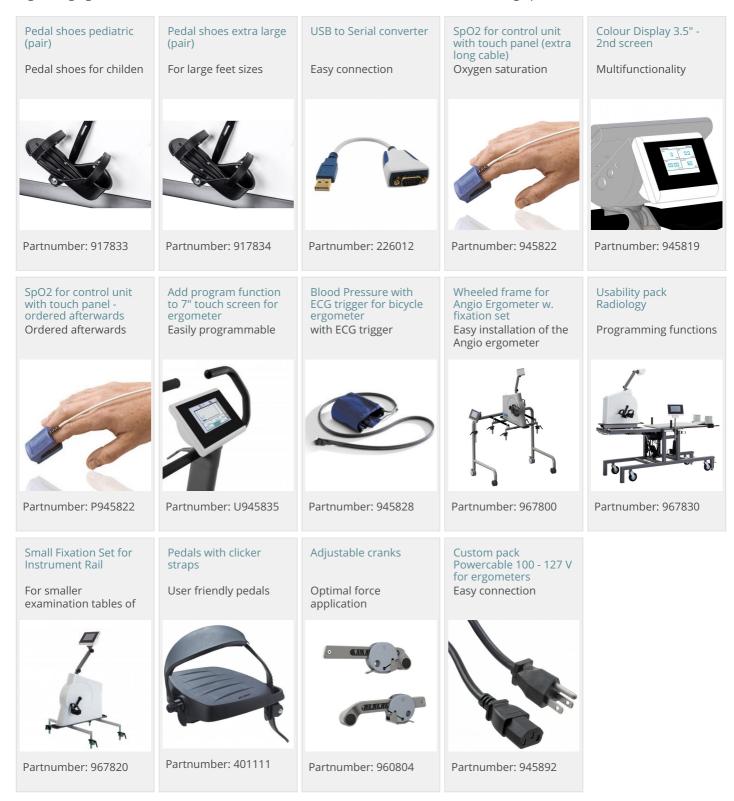
### Versatile Interfacing

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



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Angio imaging - with Fixation Set for Instrument Rail can a.o be extended with the following options:





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### Specifications

Workload		
	0.1 70 Nm	
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	$\checkmark$	
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	$\checkmark$	
Dynamic calibration	$\checkmark$	
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 %	
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)	
Adjustability range height	20 - 120 mm	
Adjustability range width	625 - 903 mm	24.6 kJ
Pedal shoes	~	

User Interface	
English user interface	
0	~
Chinese user interface	~
Croatian user interface	×.
Czech user interface	×.
Danish user interface	×.
Dutch user interface	×.
Finnish user interface	×.
French user interface	×
German user interface	~
Greek user interface	$\checkmark$
Hungarian user interface	$\checkmark$
Italian user interface	$\checkmark$
Japanese user interface	$\checkmark$
Korean user interface	$\checkmark$
Latvian user interface	$\checkmark$
Lithuanian user interface	$\checkmark$
Norwegian user interface	$\checkmark$
Polish user interface	$\checkmark$
Portugese user interface	$\checkmark$
Romanian user interface	$\checkmark$
Russian user interface	$\checkmark$
Spanish user interface	$\checkmark$
Swedish user interface	$\checkmark$
Turkish user interface	$\checkmark$
Ukrainian user interface	$\checkmark$
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	* * * * *
Preset protocol operation mode	$\checkmark$
Terminal operation mode	$\checkmark$
External control unit	~
Selfdesigned protocol operation mode	~





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Dimensions		
Maximum table width	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
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	$\checkmark$	
Power cord NEMA	×	
Standards & Safety		
IEC 60601-1:2012	$\checkmark$	
ISO 13485:2016 compliant	$\checkmark$	
ISO 9001:2015 compliant	$\checkmark$	
Certification		
CE class Im according to MDD93/42/EEC	$\checkmark$	
CE class of product with optional SpO2	lla	
CE class of product with optional BPM	lla	
CB according to IECEE CB	$\checkmark$	

#### Order info

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\*Specifications are subject to change without notice.



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