Can be controlled by all known Cardio Pulmonary Exercise devices











## **Highlights**

### 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.

### High standards

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

### 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.

### Q-factor equal to road-bike

The Q-factor of the ergometer is equal to the Q-factor of road bikes, creating perfect training circumstances.

### Rotatable handlebar with new lever

The new designed lever makes it even easier to adjust the handlebar. The handlebar can be rotated 360 degrees and is constructed in such a way that the test subject can be installed comfortably at every seating height.





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The Corival is one of the most popular ergometers worldwide. The low start-up load of 7 Watt is first-class. The Corival cpet 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 3,5" colour display. The Corival has an eddy current electro-magnetic braking mechanism. The biggest advantage of this system is the accuracy which is one of the most important Lode principles. With this ergometer, the stress tests performed are reliable and reproducible. The workload is adjustable in a range of 7 to 1000 watt. The ultralow step-through enables easy access to the ergometer and the latest design guarantees a perfect ergonomic position. Moreover, the noise level is reduced to a minimum.

### **Features**



### 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.



### Extreme low start up load

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



#### Low noise

Due to accurate manufacturing and the careful choice of materials the product has an extremely low noise level.



### 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.



### RS232 connectivity

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



### Readout out of saddle height

The height of the saddle is stepless adjustable and can be read-out on the saddle shaft



### Perfect ergonomic position

Improved ergonomic position according to the latest requirements.



### Ultra-low step-through

The lowest possible step-through guarantees easy access to the ergometer for all test subjects: a must for people who are not so mobile!



### Hidden connectors

The cables are connected to the ergometer under the ergometer, which means that the test subject or operator cannot bump onto the connector.



### **USB** connectivity

USB to connect to PC or ECG or ergospirometry products facilitates easy connectivity.





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Corival cpet can a.o be extended with the following options:

### Pedal shoes (pair)

Extra stability during cycling



Partnumber: 917803

# Pedal shoes pediatric (pair)

Pedal shoes for childen



Partnumber: 917833

## Pedal shoes extra large (pair)

For large feet sizes



Partnumber: 917834

### Adjustable cranks

Optimal force application



Partnumber: 928804

## USB to Serial converter

Easy connection



Partnumber: 226012

### Arm support

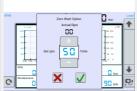
Arterial line possible



Partnumber: 906814

### 0-Watt start-up system

Lowest possible startup power



Partnumber: 960805

# Transportwheel for Corival

Easy transportation indoors



Partnumber: 960801

# Heart rate for bicycle ergometers

Heart rate in beats per minute



Partnumber: 945821

### RS232 cable

Easy connection



Partnumber: 930911

#### Control Unit with 7" touch screen for ergometer Multifunctionality



Partnumber: 945834

#### Programmable Control Unit with 7" Touchscreen for Programmable



Partnumber: 945835

# SpO2 for control unit with touch panel (bicycle)

Saturation and heart



Partnumber: 945823

#### SpO2 for control unit with touch panel ordered afterwards Ordered afterwards



Partnumber: P945823

# Electric adjustable saddle height

Easy and accurate positioning



Partnumber: 960810



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## **Specifications**

Maximum peak load 1000 W Norweglan user interface	Workload			User Interface		
Minimum load increments 1 W Czech user interface	Minimum load	7 W		English user interface	~	
Maximum continuous load 750 W Danish user interface	Maximum peak load	1000 W		Norwegian user interface	~	
Hyperbolic workload control  Linear workload control  Fixed torque workload control  Amaximum rpm independent constant load  150 rpm  Maximum rpm independent constant load  30 rpm  Minimum rpm independent constant load  4 Japanese user interface  Workload workload  Power range at maximum rpm (maximum)  1000 W  Portugese user interface  Power range at maximum rpm (maximum)  1000 W  3 W  Spanish user interface  Workload accuracy from 100 to 500 W  3 W  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Utrainian user interface  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish user interface  Workload accuracy from 500 to 1000 W  5 %  Spanish use	Minimum load increments	1 W		Czech user interface	~	
Fixed torque workload control  Fixed torque workload control  Assimum rpm independent constant load  150 rpm  German user interface  V  Maximum rpm independent constant load  150 rpm  Italian user interface  V  Japanese user interface  V  Corror range at maximum rpm (maximum)  1000 W  Power range at maximum rpm (maximum)  1000 W  Power range at maximum rpm (maximum)  1000 W  Saw  Vorkload accuracy below 100 W  Vorkload accuracy from 100 to 500 W  Vorkload accuracy from 500 to 1000 W  Corror  Comfort  Corror  Q-factor  Minimum leg length user  Meadout Power  Set Resistance  V  Connectivity  Lode 38K4 interface protocol  Lode interface protocol  Lode WIP Interface protocol  Ergoline P1 interface protocol  Ergoline P1 interface protocol  Ergoline P1 interface protocol  Frgoline P1 interface protocol  Frgoline P1 interface protocol  Frgoline P1 interface protocol  Besch EKG 506 DS interface protocol	Maximum continuous load	750 W		Danish user interface	~	
Fixed torque workload control  Maximum rpm independent constant load  150 rpm  German user interface  Japanese user interface  Japanese user interface  Korean user interface  Polish user interface  Polish user interface  Workload accuracy below 100 W  3W  Spanish user interface  Workload accuracy from 100 to 500 W  3W  Workload accuracy from 500 to 1000 W  5%  Ukrainian user interface  Ukrainian user interface  Workload accuracy from 500 to 1000 W  5%  Ukrainian user interface  Workload accuracy from 500 to 1000 W  To Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accuracy from 500 to 1000 W  Spanish user interface  Workload accura	Hyperbolic workload control	~		Dutch user interface	~	
Maximum rpm independent constant load 150 rpm Italian user interface	Linear workload control	~		Finnish user interface	~	
Minimum rpm independent constant load 30 rpm Italian user interface    Optional heart rate controlled workload    Electromagnetic "eddy current" braking system    Optional for a constant load    Optional heart rate controlled workload    Electromagnetic "eddy current" braking system    Optional for a constant load    Optional heart rate controlled workload    Electromagnetic "eddy current" braking system    Optional for a constant load    Optional heart rate controlled workload    Electromagnetic "eddy current" braking system    Optional for a constant load    Optiona	Fixed torque workload control	~		French user interface	~	
Detional heart rate controlled workload Electromagnetic "eddy current" braking system  Nower range at maximum rpm (maximum) 1000 W Portugese user interface Power range at maximum rpm (maximum) 1000 W Portugese user interface Russian user interface Workload accuracy below 100 W Workload accuracy from 100 to 500 W Workload accuracy from 500 to 1000 W Workload accuracy from 500 to 1000 W Workload accuracy from 500 to 1000 W  Q-factor Readout RPM Q-factor 180 mm Readout Time Minimum leg length user Minimum leg length user (incl. adjustable pedals) Allowed user weight 180 kg 396.8 lbs Terminal operation mode  Adjustability range seat  Adjustability range seat  300 mm 11.8 inch Egoline P10 interface protocol Ergoline P10 interface protocol Ergoline P4 interface protocol Schiller interface protocol	Maximum rpm independent constant load	150 rpm		German user interface	~	
Electromagnetic "eddy current" braking system Dynamic calibration V Polish user interface V Polish user interface V Portugese user interface V Portugese user interface V Russian user interface V Russian user interface V Workload accuracy below 100 W 3 W Spanish user interface V Workload accuracy from 100 to 500 W 3 % Turkish user interface V Workload accuracy from 500 to 1000 W 5 % Ukrainian user interface V Gurfactor V Readout RIM Minimum leg length user Minimum leg length user (incl. adjustable pedals) Allowed user weight Handlebar adjustment angle Adjustability range seat  300 mm 11.8 inch Connectivity Lode 38K4 interface protocol Ergoline P10 interface protocol Ergoline P20 interface protocol Schiller interface protocol Schiller interface protocol Schiller interface protocol Schiller interface protocol	Minimum rpm independent constant load	30 rpm		Italian user interface	~	
Dynamic calibration  Power range at maximum rpm (maximum)  1000 W  Portugese user interface  Russian user interface  Workload accuracy below 100 W  3 W  Spanish user interface  Workload accuracy from 100 to 500 W  3 %  Turkish user interface  Workload accuracy from 500 to 1000 W  5 %  Ukrainian user interface  Workload accuracy from 500 to 1000 W  5 %  Ukrainian user interface  Workload accuracy from 500 to 1000 W  5 %  Readout RPM  Readout Time  Minimum leg length user Minimum leg length user (incl. adjustable pedals)  Allowed user weight  Handlebar adjustment angle  360 °  Screen size (diagonal)  8.9 cm  3.5 inch  Adjustability range seat  300 mm  11.8 inch  Touchscreen  Connectivity  Lode 38K4 interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Schiller interface protocol  Schiller interface protocol  Schiller interface protocol	Optional heart rate controlled workload	<b>~</b>		Japanese user interface	<b>~</b>	
Power range at maximum rpm (maximum)  Accuracy  Russian user interface  Workload accuracy below 100 W  3 W  Spanish user interface  Workload accuracy from 100 to 500 W  3 %  Ukrainian user interface  Workload accuracy from 500 to 1000 W  5 %  Ukrainian user interface  Readout RPM  O-factor  Readout RPM  Minimum leg length user (incl. adjustable pedals)  Binimum leg length user (incl. adjustable pedals)  Allowed user weight  180 kg  396.8 lbs  Terminal operation mode  Adjustability range seat  300 mm  11.8 inch  Connectiviy  Lode 38K4 interface protocol  Lode wLP interface protocol  Ergoline P10 interface protocol  Ergoline P2 interface protocol  Schiller interface protocol	Electromagnetic "eddy current" braking system	<b>✓</b>		Korean user interface	<b>~</b>	
Accuracy Workload accuracy below 100 W 3 W Spanish user interface Workload accuracy from 100 to 500 W 3 % Workload accuracy from 500 to 1000 W 5 % Ukrainian user interface Workload accuracy from 500 to 1000 W 5 % Ukrainian user interface  Q-factor Readout RPM Q-factor Readout Time Minimum leg length user Minimum leg length Minimum le	Dynamic calibration	<b>✓</b>		Polish user interface	<b>~</b>	
Workload accuracy below 100 W 3 W Spanish user interface   Workload accuracy from 100 to 500 W 3 % Turkish user interface   Workload accuracy from 500 to 1000 W 5 % Ukrainian user interface   Q-factor Readout RPM   Q-factor   Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Minimum leg length user    Readout RPM    Readout Power    Readout RPM    Readout RPM    Readout Power    Readout RPM	Power range at maximum rpm (maximum)	1000 W		Portugese user interface	<b>~</b>	
Workload accuracy from 100 to 500 W  Workload accuracy from 500 to 1000 W  S  Ukrainian user interface  Workload accuracy from 500 to 1000 W  S  Readout RPM  V  Q-factor  180 mm  Readout Time  Minimum leg length user  Minimum leg length user (incl. adjustable pedials)  Allowed user weight  180 kg  396.8 lbs  Terminal operation mode  Adjustability range seat  300 mm  11.8 inch  Connectivity  Lode 38K4 interface protocol  Lode WLP interface protocol  Ergoline P10 interface protocol  Schiller interface protocol  Schiller interface protocol  Schiller interface protocol  W  Workload accuracy from 100 to 500 W  V  Lode 30 transpace  V  V  Lode 30 transpace  V  Schiller interface protocol  Schiller interface protocol  W  Schiller interface protocol	Accuracy			Russian user interface	<b>~</b>	
Workload accuracy from 500 to 1000 W  Comfort  Q-factor  180 mm  Readout RPM  Readout Time  Minimum leg length user (incl. adjustable pedals)  Allowed user weight  180 kg  396.8 lbs  Terminal operation mode  Adjustability range seat  300 mm  11.8 inch  Connectivity  Lode 38K4 interface protocol  Lode WLP interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol	Workload accuracy below 100 W	3 W		Spanish user interface	<b>~</b>	
Comfort  Q-factor  180 mm Readout Time Readout Power Minimum leg length user (incl. adjustable pedals) Allowed user weight  180 kg 396.8 lbs Terminal operation mode Handlebar adjustment angle Adjustability range seat  300 mm 11.8 inch Connectivity Lode 38K4 interface protocol Lode WLP interface protocol Ergoline P10 interface protocol Schiller interface protocol Schiller interface protocol Schiller interface protocol Bosch EKG 506 DS interface protocol	Workload accuracy from 100 to 500 W	3 %		Turkish user interface	<b>~</b>	
Pefactor 180 mm Readout Time Minimum leg length user 645 mm 25.4 inch Readout Power Minimum leg length user (incl. adjustable pedals) 602 mm 23.7 inch Set Resistance Pedals) Allowed user weight 180 kg 396.8 lbs Terminal operation mode Screen size (diagonal) 8.9 cm 3.5 inch Adjustability range seat 300 mm 11.8 inch Lode 38K4 interface protocol Lode interface protocol Lode WLP interface protocol Figoline P10 interface protocol Figoline P4 interface protocol Schiller interface protocol Soch interface protocol Soch interface protocol Soch interface protocol Schiller interface protocol Sc	Workload accuracy from 500 to 1000 W	5 %		Ukrainian user interface	~	
Minimum leg length user Minimum leg length user (incl. adjustable pedals) Allowed user weight Handlebar adjustment angle Adjustability range seat  300 mm  11.8 inch Connectivity Lode 38K4 interface protocol Lode interface protocol Ergoline P4 interface protocol Schiller interface protocol Schiller interface protocol Schiller interface protocol Schiller protocol Schiller interface protocol Schiller protocol Schiller protocol Schiller protocol Schiller protocol Schiller interface protocol	Comfort			Readout RPM	~	
Minimum leg length user (incl. adjustable pedals) Allowed user weight  180 kg 396.8 lbs Terminal operation mode  4 Handlebar adjustment angle 360° Screen size (diagonal) 8.9 cm 3.5 inch  Adjustability range seat  300 mm 11.8 inch Connectivity Lode 38K4 interface protocol Lode interface protocol Ergoline P10 interface protocol Schiller interface protocol Schiller interface protocol Bosch EKG 506 DS interface protocol	Q-factor	180 mm		Readout Time	<b>~</b>	
Allowed user weight  180 kg 396.8 lbs Terminal operation mode  4 Handlebar adjustment angle Adjustability range seat  300 mm 11.8 inch  Connectivity Lode 38K4 interface protocol Lode WLP interface protocol Ergoline P10 interface protocol Schiller interface protocol Schiller interface protocol  Schiller protocol Schiller interface protocol Bosch EKG 506 DS interface protocol	Minimum leg length user	645 mm	25.4 inch	Readout Power	<b>~</b>	
Allowed user weight 180 kg 396.8 lbs Terminal operation mode   Handlebar adjustment angle 360 ° Screen size (diagonal) 8.9 cm 3.5 inch  Adjustability range seat 300 mm 11.8 inch Connectivity  Lode 38K4 interface protocol Lode interface protocol Lode WLP interface protocol Ergoline P10 interface protocol Schiller interface protocol Bosch EKG 506 DS interface protocol	Minimum leg length user (incl. adjustable pedals)	602 mm	23.7 inch	Set Resistance	~	
Adjustability range seat  300 mm  11.8 inch  Connectivity  Lode 38K4 interface protocol  Lode interface protocol  Lode WLP interface protocol  Ergoline P10 interface protocol  Schiller interface protocol  Schiller interface protocol	•	180 kg	396.8 lbs	Terminal operation mode	~	
Connectivity  Lode 38K4 interface protocol  Lode interface protocol  V  Lode WLP interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol	Handlebar adjustment angle	360°		Screen size (diagonal)	8.9 cm	3.5 inch
Lode 38K4 interface protocol  Lode interface protocol  Lode WLP interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol	Adjustability range seat	300 mm	11.8 inch	Touchscreen	~	
Lode interface protocol  Lode WLP interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol				Connectivity		
Lode WLP interface protocol  Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol				Lode 38K4 interface protocol	~	
Ergoline P10 interface protocol  Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol				Lode interface protocol	~	
Ergoline P4 interface protocol  Schiller interface protocol  Bosch EKG 506 DS interface protocol				Lode WLP interface protocol	~	
Schiller interface protocol  Bosch EKG 506 DS interface protocol				Ergoline P10 interface protocol	~	
Bosch EKG 506 DS interface protocol				Ergoline P4 interface protocol	~	
				Schiller interface protocol	~	
USB connector				Bosch EKG 506 DS interface protocol	~	
				USB connector	~	
RS232 in connector				RS232 in connector	<b>~</b>	



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#### **Dimensions**

Screen resolution	320 x 240 pixels	
Product length (cm)	105 cm	41.3 inch
Product width (cm)	46 cm	18.1 inch
Product height	114 cm	44.9 inch
Product weight	65 kg	143.3 lbs
Power requirements		
V AC	100 - 240 V	
Phases	1	
Frequency	50/60 Hz	
Power consumption	160 W	
Power cord length	250 cm	98.4 inch
Power cord IEC 60320 C13 with CEE 7/7 plug	<b>~</b>	
Power cord NEMA	×	
Standards & Safety		
IEC 60601-1:2012	<b>~</b>	
ISO 13485:2016 compliant	<b>~</b>	
ISO 9001:2015 compliant	<b>~</b>	
Certification		
CE class Im according to MDD93/42/EEC	<b>~</b>	
CE class of product with optional SpO2	lla	
CE class of product with optional BPM	lla	
CB according to IECEE CB	~	

#### Order info

Partnumber: 960900

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