



MONARK LC7 TT



The ultimate tool for performance and research

The LC7 TT is a high-end ergometer developed for advanced testing and research in sports science. Equipped with Monark's electric pendulum system (EPS) and supports full external control. This allows time trials and open-end protocols to be performed with exceptional accuracy and repeatability.

KEY FEATURES

- **EPS** - Electric pendulum system
- **External device compatibility** - Connect to ECG systems, metabolic carts, or software.
- **Time trial and open-end protocols** - Ideal for pacing analysis and performance profiling.
- **Connectivity** - Wireless BLE, ANT+ or Wired connection RS232, USB-B
- **Perfect fit** - Vastly increases adjustability to fit every user
- **Workload range** - 4-1400 W (200 rpm) (8-2800 W option)
- **Training mode novo display** - Watt, KPM/min, VO2, kP and N
- **Speed independent and dependent power control**

Max user weight 180 kg

Monark Test Software

Medical Device class IIa

Wired/wireless connection

External systems



Specifications

MONARK LC7 TT

Certifications	EU directive 93/42/EU class IIa
FRAME	
Type	Sports, perfect fit
Handlebar	Racing handlebar
Stem	Adjustable, horizontal 200 mm, vertical 500-910 mm
Seatpost	Adjustable, horizontal 200 mm, vertical 530-940 mm
Saddle	Racing
BB	68/107 mm
Crank	Steel, 172.5 mm
Pedals	9/16", combi SPD
RESISTANCE	
System	Electric pendulum system
Flywheel	20 kg (44,09 lbs)
DISPLAY	
RPM	Yes
HR	ANT+, bluetooth smart
Time	Yes
Speed	Yes
Distance	Yes
Watt	Yes
CONNECTIVITY	
RS232	Yes
Usb	Yes
WEIGHT & MEASUREMENTS	
Max user weight	180 kg (397 lbs)
Length (mm)	1405-1630 mm (55,31-64,17 inches)
Width (mm)	640 mm (25,20 inches)
Height (mm)	1500 mm at display (59,06 inches) 1240 mm at saddle (48,85 inches)
Weight (kg)	77 kg (169 lbs)
POWER REQUIREMENTS	
	220V (12V, 5,0A)



ECG

ECG

Can be controlled from different ECG brands either analogue or digital.



RS232

USB

CONNECTION

Direct connection to PC through a serial cable.



SOFTWARE

SOFTWARE COMPABILITY

For fitness testing and in some cases, even training can be used with this model.

**HEART RATE MONITORING**

Displays heartrate when connected via chestbelt (ANT+) or BLE (SMART)



TEST

TEST FUNCTIONALITY

For aerobic testing



POWER

CONSTANT POWER MODE

Maintains a fixed power output regardless of cadence (RPM)



FORCE

CONSTANT FORCE

Keeps the resistance (kp) constant regardless of pedaling speed

MEDICAL CE

Monark Exercise AB is since 1992 ISO 9001 certified.
All models are:

- Approved under CE Certificate No. 15 36 01 (MDD IIa)
- Anti-corrosion treated and powder coated Made in
- Sweden



Description

MONARK LC7 TT

APPLICATIONS

The LC7 TT is developed for advanced performance testing and time trial simulations, where precise workload control and test repeatability are essential. Equipped with a perfect fit frame, Shimano Di2 gear shifters, and full external control support, it enables accurate and high-intensity testing in a realistic cycling position.

LC7 TT is an ideal tool for:

- **Sports Science and Research** – Suited for physiological studies, pacing analysis, and high-resolution performance testing.
- **Elite Athlete Testing** – Enables time trials, open-end protocols, and structured workload assessments.
- **Metabolic and ECG Integration** – Compatible with external systems for synchronized testing in clinical and diagnostic environments.

CONNECTION

- **Di2 gear control** – Resistance can be adjusted directly by the cyclist using Shimano Di2 shifters, simulating real-world gear changes.
- **PC control** – The ergometer can be operated via Monark Test Software or compatible systems through RS232 or USB.
- **External system integration** – Supports ECG systems, metabolic carts, and software platforms for automated test control.
- **Wireless connectivity** – BLE and ANT+ enable heart rate monitoring and real-time data transmission.
- **Manual mode** – Resistance and workload can be controlled from the Novo touch display without external devices.



Description

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MEASUREMENT ACCURACY

The Monark pendulum system is built for long-term accuracy and reliability. When calibrated regularly, the system consistently delivers power measurements with an error margin typically below 2%.

Thanks to its mechanical construction, calibration can be performed quickly and easily without the need for external tools or advanced software. This allows users to verify and ensure accuracy as often as needed – even daily – which is critical in research, rehabilitation, and performance testing.

Unlike many electronic systems that rely solely on internal sensors and estimated values, the Monark pendulum offers a direct, physical indication of the applied resistance. This makes it uniquely dependable in environments where trust in the workload is essential.

PRODUCTION AND SUSTAINABILITY

Monark has been manufacturing ergometers since 1954 with a philosophy of delivering precise, reliable, and durable products for research, rehabilitation, and performance development. LC7 TT is assembled in Sweden, with the majority of its components sourced from Swedish manufacturers.

Our products are used daily by professionals in research, physiotherapy, and sports worldwide. Through continuous product development and close collaboration with experts, we have built a strong reputation for measurement accuracy and ergonomics.

Monark LC7 TT – A high-performance ergometer for advanced testing and time trial simulations.

