

Short Manual

SRM - Ergometer



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1 General preparation

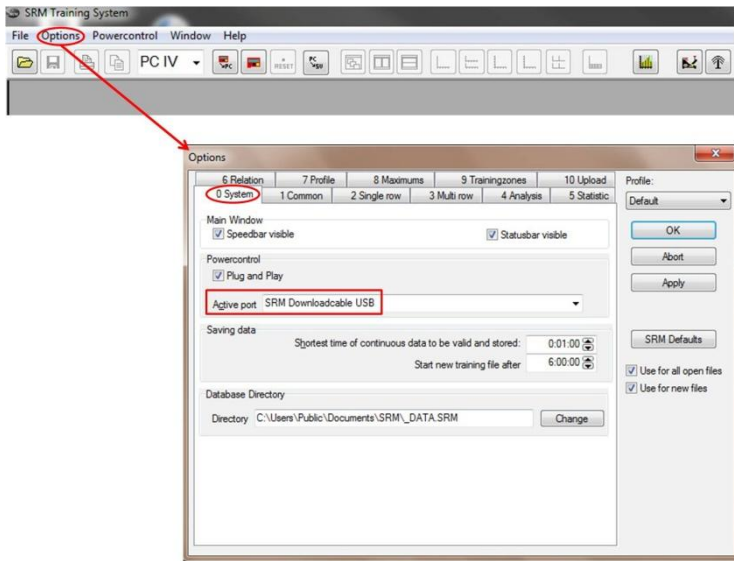
- Power-on spiroergometry (30min before beginning of test)
- Power-on ergometer's power supply
- Preparation diagnostic devices (Lactate analysis, etc.) 30min beginning of test
- Room temperature (18 – 24°C) should be measured
- Relative air humidity should be measured (30 – 60%) in room
- Check position of ventilator

2 Settings USB/Serial Converter

- The installation of the USB/Serial Converter is mandatory for the data recording
- Check the activation of the USB/Serial Converter at the Active port ("SRM Downloadable USB")

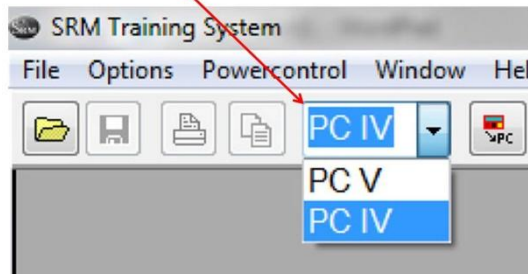
We recommend the use of the following USB/Serial Converter:

- ATEN USB-to-Serial-(RS 232) Converter, (Model: UC-232A), (Windows 7)
- Plugable USB to RS-232 D89 Serial Adapter, (Windows 8)

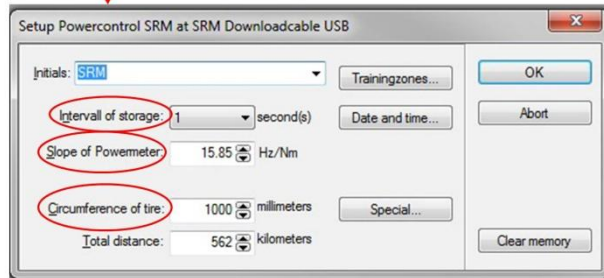


3 Settings Powercontrol IV

- SRMWin-Software: On menu bar choose *PC IV* (Drop-down)



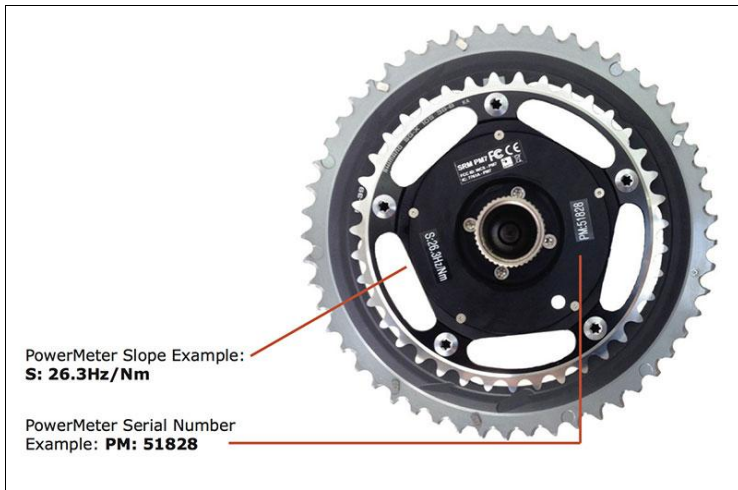
- SRMWin-Software: Powercontrol – Setup



- Interval of storage: 1 second
- Slope of Powermeter: see „Verify Slope“ (page 7)
- Circumference of tire: 1000 mm

- Verify slope (Slope of PowerMeter)



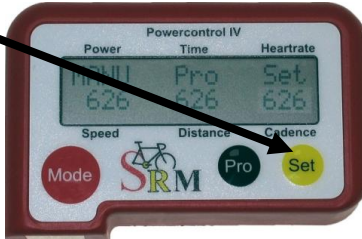
Verify the slope before every test-day.
The slope in the PowerControl and in the SRMWin-Software should correspond to the slope of the PowerMeter.



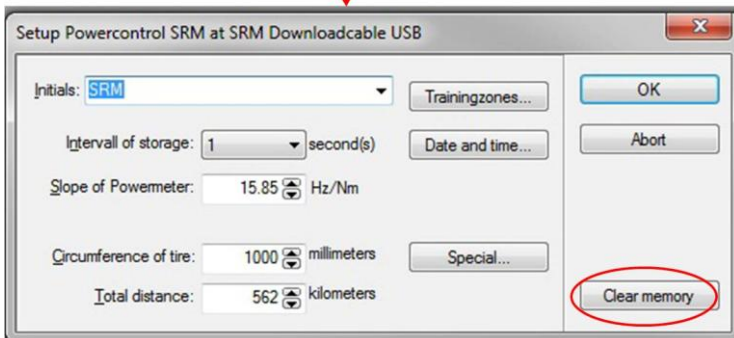
You can find the correct PowerMeter slope located-at:

1. little sticker at the rear of the PowerMeter
2. on the handlebar or on the front of the ergometer

- Verify Zero Offset

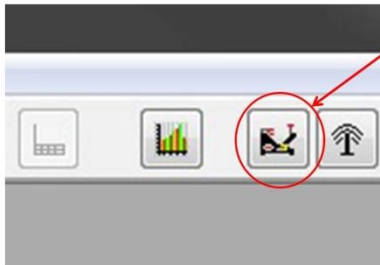
	<p>Push, simultaneously, MODE and SET to switch the PowerMeter's display to calibration mode</p>
	<p>For a manual comparison turn the unloaded crank in a clockwise direction to switch the PowerMeter on. Wait a few seconds until the value stabilizes on the right side of the display.</p>
	<p>Press SET to apply the Zero Offset. (MANU) Value of Pro will be taken automatically and is important for the measurement.</p>

- Verify memory capacity and charge of battery of the PowerControl
PowerControl: Push simultaneously **MODE** and **PRO**
- If the memory capacity is full clear memory by:
→ SRMWin-Software – Powercontrol – Setup – Clear memory

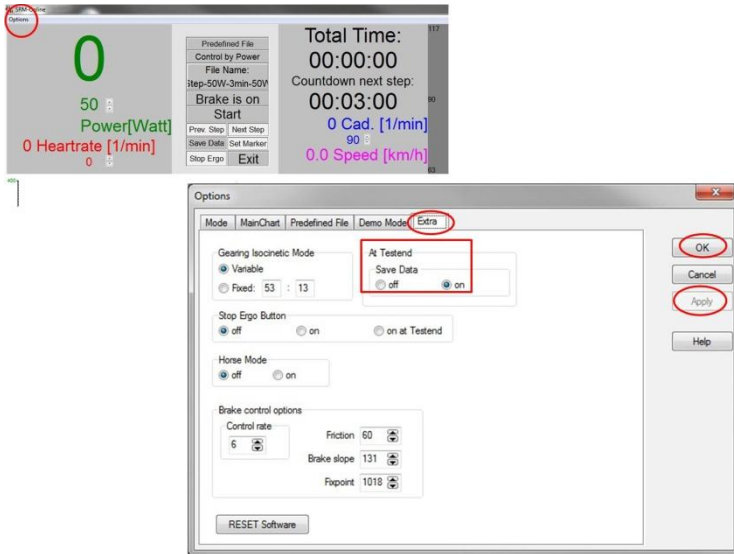


4 SRM Online-Mode

- Change to the online mode by clicking on the icon ergometer



- Data storing of the SRM to automatically save test data at the end of the test
- SRM – ergometer - software: Options – Extra – At Testend – Save Data – on
- Click on Apply to save your settings

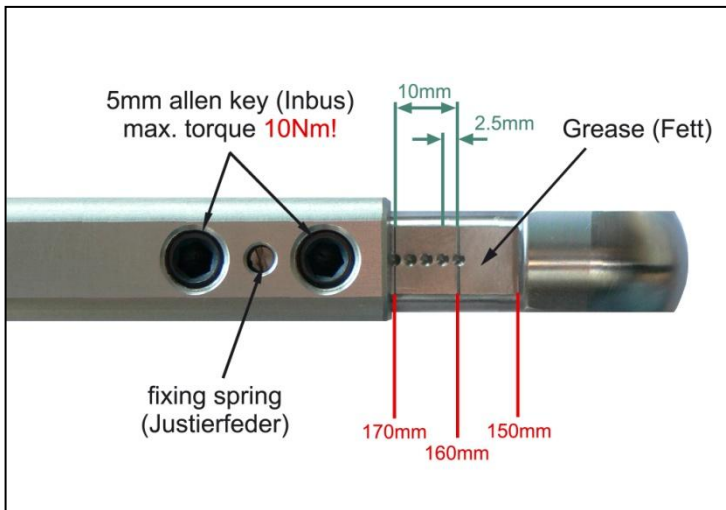


5 Client / Test person

- Welcoming
- Clients prepare for test - put on the heartrate strap
- Documentation of personal data of client (height, weight, etc.)
- Completion questionnaire / exclusion of liability
- Discussion of the data and test procedure

6 Settings SRM - Ergometer

- Verify gear (gear 9 red point corresponding)
- Mount client's pedals
- Crank length set-up:
Recommendation: if possible use same crank length as on client's bicycle
- Please consider maximum torque of the crank 10Nm



- Bike fitting: transfer settings of client's own bike to the sitting position



Saddle height

The heel with the extended leg should reach the lowest position in the pedaling cycle.



Saddle setback

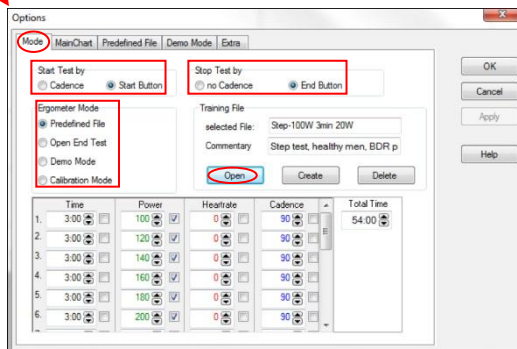
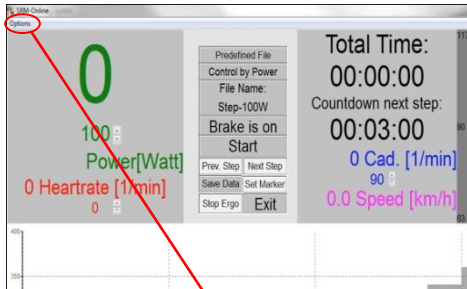
In the horizontal position of the crank the knee (patella) should be perpendicular to the pedals axle.

7 Warm-up

- Recommendation of at least 3 - 4 min with a low workload (e.g. 75-100W)
→ predefined warm-up
- Check the correct settings for:
 - Heartrate
 - Cadence
 - Power
 - Speed

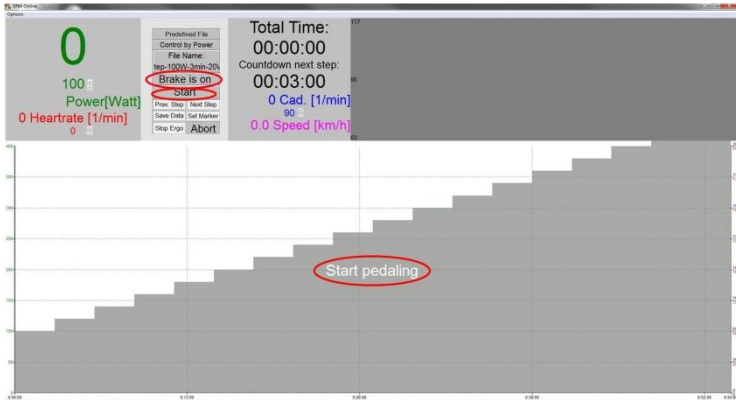
8 Setup of test protocol

- Determine the test protocol
 SRM – ergometer - software: Options - Mode
 Start Test by: Start Button or cadence
 Ergometer Mode: Predefined File
 Stop Test by: End Button or no cadence
 Training File: Open – select the correct test – OK



9 Start performance diagnostics

- Start by beginning to pedal or pushing the Start Button
- Check the values displayed on the computer screen



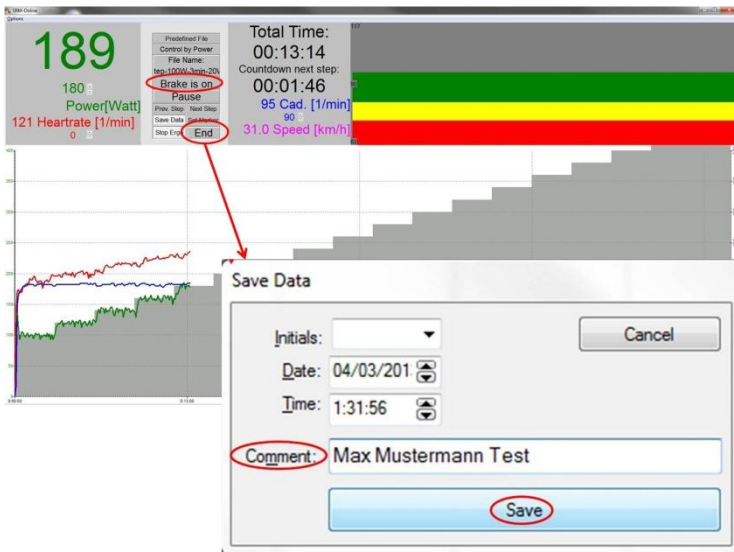
10 End of the test

- Stop the test

SRM - ergometer - software: hit "Brake is on" button (continuous recording of the heartrate - client can continue pedaling without resistance and cool down)

or

SRM – ergometer - software: End Button
Comment: entry file name then press Save



- Recommended cool – down - protocol with lower workload
- **Clean the ergometer (!)**

11 Service

Recommendation:

- crank: send in for service every two years
 - ergometer: send in for service every four years
-

12 FAQ

1. Could not found PowerControl at Computer
 - check that the USB Driver is correctly installed and working
 - make sure the correct USB cable is selected (see page 3)
 - check PowerControl IV settings (see page 5)
2. No resistance from ergometer
 - check speed
 - check 'Brake is on'
 - check PowerControl → Cadence, Power
 - check slope, zero offset, circumference (see page 6)
 - check power supply (green light)

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