



## Power-Performance Decoder

### Test instructions for athletes

Do this test only if you're in a healthy state and get the OK from your physician.

**It is very important to read this document thoroughly BEFORE starting the test.**

**If you still have any questions, don't hesitate to contact me: [mail@mk-training.org](mailto:mail@mk-training.org) or +43 660 5219991**

#### **Before the test**

To get a reliable performance prediction you have to be well recovered. Don't do the test if you don't feel good.

#### **All four intervals need to be exactly the same:**

- ✓ SEATED position (no standing at any time, this is extremely important)
- ✓ ALL intervals under the same conditions (indoor OR outdoor)
- ✓ always with the same equipment (powermeter and bike – best if you do it with the same set-up as you train)
- ✓ ride the same position (TT or RR position)
- ✓ the same powermeter
- ✓ the same kind of test track (either flat OR incline – no mixtures)

#### **Preparation – Step one**

Have your powermeter calibrated, your electronic gear should be fully charged. Set your data recording on “every second” (not “intelligent”).

#### **Warm up – Step two**

Be warmed-up. Recommended is AT LEAST a 15min warm-up (better more) with a short bit of intensive riding (for a few seconds) but not exhausting. Afterwards AT LEAST 10min of easy rolling.

**Between the intervals:** If you have more intervals on the program in one day, be sure to recover well (20min) and get some carbs in your system (gel, etc.).



## The test protocol (there are 4 test intervals)

1. **20sec** SEATED and not on TT bars, max-out sprint (the duration has to be between **18-24sec**)
  - Minimum recovery time: 12min @50% FTP before you start into the next interval (better: 20min)
2. **3min** max-out effort (better to start pushing a bit to hard and have a slight drop, than to start to low! STAY SEATED throughout the interval) duration has to be between **2min30sec and 3min15sec**)
  - minimum recovery time (if you do more intervals that day): 15min @50% FTP before the next interval (better: 20min)
3. **6min** max-out effort (the highest effort you can push for 6min – time needs to be between **4min and 8min**)
  - minimum recovery time (if you do more intervals that day): 15min @50% FTP before the next interval (better: 20min)
4. **12min** max-out effort (the highest you can push for 12min) (duration needs to be between **8min and 20min**)

### Details:

#### **20sec SEATED max-out sprint (needed duration: 18-24sec) (indoor or outdoor)**

If I tell you or you decide to ride outdoor, look for a quiet street with minimum traffic. The road should be flat without any turns or stop/yield-signs. Best would be a slight incline or headwinds. Before the test, you need to roll easy. At least 100sec before the sprint you are not allowed to pedal (otherwise the sprint will not be accepted by the system). So it's best to hold on a car/tree/sign/partner/etc. to start already clicked into your pedals after standing still for 2min letting your aerobic system come down.

**VERY IMPORTANT:** find your gearing before the test! You are not allowed to shift gears during the test, so you need to start with a big gear and push at least 18sec and max. 24sec as hard as you can. Go all-out while staying seated and fight against dropping. Time starts as soon as you start pedaling. Try the gearing beforehand so



that you don't have the feeling you could have pushed harder with a bigger gear. If you have the feeling, you should repeat the test after recovering for 15min. The (about) 20sec really need to be all-out – don't hold back :-)

*STAY SEATED, DON'T SHIFT GEARS DURING THE TEST!*

**3min** maximum effort (push as hard as you can and start high enough – better to drop during the 3min than to raise the power. Duration needs to be in between **2min30sec and 3min15sec**)

If outdoor again no turns, no stop signs, no drops in elevation where you can't push hard enough.

**6min** maximum effort (push as hard as you can and start high enough – better to slightly drop during the 6min than to raise the power. Duration needs to be in between **5min and 8min – go as long as you can push really hard**)

If outdoor again no turns, no stop signs, no drops in elevation where you can't push hard enough.

**12min** maximum effort (push as hard as you can and start high enough – better to slightly drop during the 12min than to raise the power. Duration needs to be in between **8min and 20min – go as long as you can push really hard**)

If outdoor again no turns, no stop signs, no drops in elevation where you can't push hard enough.



## Summary

- I. **calibrate Powermeter**
  - II. **set recording to every sec (not intelligent)**
    - @ Garmin Edge *settings* → *system* → data recording → choose „1s“
  - III. every test **seated** (Sprint in RR position! Rest also except when testing requires TT position, then the 3 other intervals in TT position)
  - IV. Better to start a bit too high than too low
  - V. Recovery phases can be longer than recommended. It's crucial to start well recovered.
  - VI. If you go outside – stay focused and safe, don't risk anything. Tests can be repeated if something unexpected happens!
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1. **20sec all-out seated sprint.** Find the gearing in a training beforehand. Start the sprint after standing at least 100s (better 2min). Recover at least for 20min @50% FTP.
  2. **3min all-out.** Recover at least 20min @50%FTP if another interval is on the plan for the same day.
  3. **6min all-out.** Recover at least 20-30min @50%FTP if another interval is on the plan for the same day.
  4. **12min all-out.**
  5. Upload the data!