Goniometer MP (G-Meter)

Use to easily and quickly determine joint and body position angles. Multi-purpose measurement device.

Part# 50003

This is another “standard” in Bike Fit -- the cycling-specific, color coded goniometer.

Use BikeFit’s Goniometer to easily and quickly determine joint and body position angles. Constructed of clear plastic, 17.75” folded, that’s longer than most medical goniometers. Multiple cycling specific component & body measurements can be taken with this device. This is a standard component of the Bicycle Fitting System.

Measuring Seat Height:
While safely on a stationary trainer, pedal enough to get warmed up. After a few minutes of pedaling, stop with leg extended and foot at bottom of the pedal stroke.

a. The Goniometer is the perfect tool to aid you in determining optimal saddle height. The Goniometer’s color coded dial will help in finding best angle ranges.

b. After a few minutes of pedaling, stop with leg at bottom dead center (BDC) of the pedal stroke. Some help may be needed to catch and stop movement with heel in same position as during pedaling. This is a starting point for optimal saddle height determination.

c. Starting at the hip, palpate (feel) for the greater trochanter (bony prominence on outside of hip). This is the reference point for the upper arm of the Goniometer.

d. The axis (center dial) of the Goniometer should be at a bisecting point of the knee joint.

e. Keeping the Goniometer dial centered on the knee, direct the lower arm towards the lateral malleolus (bony prominence on the outside of the ankle).

f. The consensus on optimal saddle height starting position for road cyclists is 27 to 37 degrees flexion. Overall road riders may have a slightly taller seat height than off-road cyclists. Repeat this process after any saddle adjustments.
The trunk angle can be any position the cyclists finds comfortable. It is important that the cyclist bears weight on the ischial tuberosities (two sit bones on pelvis) to avoid placing excess pressure on soft tissues. Bisect torso & parallel to ground for best placement.

The angle between the trunk & shoulder (bisect trunk & upper arm) should be approximately 90 degrees.

Bisect upper & lower arm for best placement. The elbows should have a slight 15 to 25 degree bend.

For body dimension, place dial in center of chest (sternum) and to the crease between torso and each arm (armpit). For handlebars, measure width from center-to-center at the lower section of the drops. This suggested measurement should match the width of shoulders. Let comfort be your guide.

If the stem is downward angled, record as a negative number (-). If stem rises, note it as a positive number (+).

Neutral or 90°/0° stem

Rising or 110°/+20 stem

Dropping or 70°/-20 stem