

BODY MEASUREMENT
AND
BICYCLE FITTING GUIDE

## REBILA MTB

## WHY FIT MATTERS

The bicycle and the rider together create a unique dynamic system where no two experiences are the same; rider body dimensions, rider movement/manipulation, and bike setup all give each bike a unique ride. A well-defined picture of past riding experiences is invaluable as we work to create your new favorite bike.

We'll collect information about your body, one of your existing bikes, and some info about how you ride. Once we have all this info, we can start designing your bike and we'll have a call with you to dig a little deeper.
For this exercise, please select a bike that you feel has the best fit and that has offered you a rewarding experience.

Have Fun!

## STUFF YOU'LL NEED

- Metric Tape Measure
- Metric Ruler
- $\quad$ Square (Quick/Speed Square, Carpenters Square, Hard Cover book)
- Tape (Painters, Masking) We like that blue stuff because it marks easily and comes off without leaving a mark.
- Zip Ties/ Toe Clip Straps
- A Sharpie
- An assistant is helpful too!


## BODY MEASUREMENTS

TAPE PLACEMENT
All measurements should be recorded in millimeters, with the best possible attempt made to record accurately in increments of 1 millimeter. The accuracy of a tape measure and a ruler are sufficient for our purposes. Multiple measurements of each dimension should be taken to eliminate errors and ensure precision.

Layout 1 piece of painters/masking tape on a wall from the floor all the way up to just above your head. Stand bare foot fully upright next to the wall with feet hip width apart for applicable measurements. A plastic Speed/Quick square and a 2 foot level makes these measurements easy (If you don't have one, check with a handy neighbor, or carefully substitute a hardcover book). The arm length and shoulder width measurements will require assistance.



## BODY MEASUREMENTS

Height: Standing straight, toes against the wall, feet hip width apart, place the square flush against the wall and lower to the top of your head. Keeping the square stationary against the wall mark the bottom edge on the previously placed tape.

Shoulder Width: Find your friend for this one. Stand up straight, making sure you're not hunched over. Measure across your back, Acromion to Acromion. See Measurement Tracking Sheet for Acromion detail.

Sternal Notch to Floor: Standing facing the wall, feet hip width apart, place the square flush against the wall and lower the tip (Carefully!) to the base of your Sternal/ Jugular notch (Bone notch below the Adam's apple) and mark the tape.


Arm Length: Follow the clavicle out toward the shoulder joint, to the upper outermost bone, which is the Acromion. While holding a round item that mimics the diameter of a handlebar in your hand with your arm out to the side at around 45 degrees, measure from the edge of the Acromion to the center of the "Handlebar".


Pelvic Bone to Floor: Standing facing the wall, place one end of the 2 ft level against the wall and raise (Carefully!) until it firmly contacts the pelvic bone with pressure similar to sitting on a saddle. Manipulate the end of the level that is against the wall until the bubble indicates level, mark the top of the level on the wall.

Thigh Length: Kneeling facing the wall, place one end of the 2 ft level against the wall and raise (Carefully!) till it firmly contacts the pelvic bone with pressure similar to sitting on a saddle. Manipulate the end of the level that is against the wall until the bubble indicates level, mark the top of the level on the wall.


## BICYCLE MEASUREMENT AND SETUP TECHNIQUE

The bike should be placed on hard level ground. The ideal location is in a corner where the rear wheel can be placed against one wall and the handlebar rested against the other with the bike completely vertical. A zip tie or toe clip strap placed around the front wheel will hold it straight and prevent flopping. A strap holding the front brake engaged will prevent rolling. A chair back placed against the other end of the handlebar will keep everything stable.


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## SADDLE TAPE PLACEMENT

Find and mark the center of the usable saddle rails by measuring the straight section of rail (sometimes marked with a usable range limit) and marking the center. With a piece of masking tape running along the saddle, mark the point on the surface bisected by a line perpendicular to the rail mid-point. This is best accomplished holding one edge of a square parallel to the rails with the other edge in line with the rail center, a mark can then be placed on the tape by carefully sighting along the edge of the square (This is only a good approxima-
 tion, so do it twice and call it good). We will use this as a reference point in the measurements below.

## BICYCLE MEASUREMENTS

1. Saddle Brand and Model:

If you can snap and send a photo, that's helpful so we can see how it's worn.
2. Saddle Length: $\qquad$
Measure from the tip of the saddle to the tail of the saddle.
3. Saddle Tip to Rail Center: $\qquad$
Measure from the front tip of the saddle to the saddle reference point marked in Step 1.
4. Saddle Top to Bottom Bracket Center: $\qquad$
Measure from the bottom bracket/crank spindle center to the reference point marked in Step 1.
5. Saddle Tip to Handlebar Center: $\qquad$
Measure from the front saddle tip to the center of the handlebar, passing the tape measure over the top of the handle bars and recording the measurement at the center of the bar.
6. Bottom Bracket Center to Handlebar Center: $\qquad$
Measure from the bottom bracket center to the center of the handlebar, passing the tape measure behind the handlebar and recording the measurement at the center of the bar.
7. Stem Length: $\qquad$
Measure from the center of the steerer clamp to the center of the handlebar clamp along the top of the stem.
8. Stem Angle: $\qquad$
Often etched onto the stem.
9. Stem Spacers: $\qquad$
Measure how much space is taken up with spacers between the stem and headset.
10. Crank length: $\qquad$
Length is placed by the manufacturer on the backside of the arm.
11. Handlebar Brand and Model: $\qquad$

- Width = $\qquad$
- Rise (MTB) or Drop (drop bars) = $\qquad$
- Sweep (MTB) or Reach (drops) = $\qquad$

12. Pedal Spindle Center to Shoe Tip: $\qquad$
Attach the shoe to the pedal. With the crank arm vertical and downward position the pedal so that it's body is vertical and in line with the crank arm. Measure from the ground to the center of the pedal spindle, then measure from the ground to the tip of the shoe. Record the difference in the two measurements.

## BICYCLE MEASUREMENTS



## BICYCLE MEASUREMENTS

1. Saddle Tip:

Measure horizontally from the wall to the front tip of the saddle.
2. Seat Clamp Center:

Measure horizontally from the wall to the seat post rail clamp center.
3. Bottom bracket Center: $\qquad$
Measure horizontally from the wall to the center of the bottom bracket/crank spindle.


## BICYCLE MEASUREMENTS

1. Saddle Top: $\qquad$
Measure vertically from the ground to the mark previously placed on the saddle.
2. Handlebar Center: $\qquad$
Measure vertically from the ground to the center of the handlebar, adjacent to the stem.
3. Bottom Bracket Height: $\qquad$
Measure vertically from the ground to the bottom bracket/crank spindle center.
4. Wheel Radius: $\qquad$
Measure vertically from the ground to the wheel axle center.
5. Stated Tire Size: $\qquad$
Manufacturer printed tire size.


## BICYCLE MEASUREMENTS TRACKING SHEET 4

Please reference the manufacturers geometry sheets for the following information.

1. Bicycle Brand, Model, Size, and Year: $\qquad$
2. Head Tube Angle: $\qquad$
3. Seat Tube Angle: $\qquad$
4. Horizontal Top Tube Length: $\qquad$
5. Reach: $\qquad$
6. Stack: $\qquad$
7. Wheelbase: $\qquad$
8. Fork Length (Axle to Crown): $\qquad$
9. Fork Offset (Rake): $\qquad$

## RIDING EXPERIENCE AND PHYSICAL ASSESSMENT

1. Please describe what this bicycle has been used for, the type of riding and terrain it sees during typical use, what you love about the bike, and also what you see as short comings.
2. Please describe any physical limitations and how they affect your riding experience and how you accommodate for them with bike setup and riding style.
3. Please explore your vision for your new bike, where it will go and how it will build on past experiences.
