

Mountain Bike Setup and Fit Checklist

Preparation	✓
1. Gather the tools and equipment required to undertake the bike set up.	
2. Ensure nose of saddle is in line with top tube and handlebars form a "T" with front wheel.	
3. Check floor/area you are using is level (use spirit level if necessary).	
4. Check saddle plane is level (use spirit level or approximately level fence or line of bricks on a building or wall, for example). If saddle top is curved, rest a hard cover book along full length of saddle top to check saddle plane. Adjust so level if necessary.	
5. Secure bike squarely in wind trainer and check it is level. If necessary, place a front wheel holder or book/s under front wheel to level out bike. Many modern MTBs rear axle setup won't allow them to fit in a trainer in which case fit can be done leaning against a wall.	
Exceptions and variations	
- Downhill bikes will generally run a seat tilted back 10-20 degrees or more. This effectively places the saddle flat when the bike is pointed down a steep decline.	
Foot and cleat position	
6. Mark location of ball of foot (on shoes) with chalk or a pen.	
7. Place crank horizontal to floor and ensure sole of rider's foot (not shoe) is also horizontal to floor.	
8. Ensure ball of foot is directly over, or just in front of, pedal axle by feeling for bone (midpoint) of big toe joint.	
9. If using clipless pedals: Move cleat forwards/backwards to line up ball of foot directly over, or just in front of the pedal axle. Adjust cleats so that a line through centre of sole of shoe is parallel to bike whilst pedalling.	
Exceptions and variations	
- Downhillers will often use flat pedals and adopt a position with the ball of the foot well in front of the pedal axle. Downhillers using clipless pedals will often replicate this setup with their cleats.	
Saddle height	
10. Allow rider a short warm up.	
11. Check rider is seated in their usual position on saddle with hips square.	
12. Have rider assume normal riding/foot position; line crank at bottom in line with seat tube, relax leg, let heel drop – if saddle height is correct, heel should be in line with ball of foot; if heel drops, saddle is too low.	
13. Adjust saddle height, if necessary, so leg is almost straight (but not locked out). Check both legs, compensate for any apparent leg length difference by adjusting saddle height to allow sole of rider's foot (not shoe) to be as parallel as possible for both legs.	
14. Watch rider pedalling from behind. If saddle is correct height, rider should be able to pedal through bottom of pedal stroke without fully straightening knees, and without rocking hips.	
Exceptions and variations	
- Downhill bikes generally have the seat much lower than XC bikes to allow much easier movement behind the saddle.	
- Dropper seatposts are generally setup the same as an XC bike when fully extended.	
Saddle fore/aft position	
15. Have rider sit on bike in normal position, pedals in 3 o'clock and 9 o'clock positions (horizontal).	
16. Get permission to touch rider's knee. Drop plumb bob line down from tibial tuberosity on forward knee (small bump just below kneecap) to floor in between cranks/frame. (Plumb bob line should fall directly through/slightly behind pedal axle centre). Position foot at angle used in normal pedalling.	
17. Adjust saddle forwards or backwards if plumb bob is not correctly positioned. Check both legs.	

Handlebar height/reach and brake lever	✓
18. Adjust handlebar height to as low as rider can comfortably go whilst maintaining control and not putting too much weight on front of bike.	
19. Check there is no overlap between knee and elbow when pedalling.	
20. Check handlebars are about shoulder width, so that rider's hands/arms are roughly parallel when reaching to end of handlebars.	
21. Rotate/angle handlebars and brake levers so rider can comfortably reach handlebars and brakes. Check brake levers are in line with rider's hands, wrists and forearms.	
Exceptions and variations	
- Downhill and Gravity Enduro bikes will generally have the bars much higher and wider to allow control on steep declines.	
Suspension setup	
23. Front suspension should sag between 15% (XC bike) and 30% plus (DH bikes) when rider is in the attack position. Use O-ring on the fork stanchion to check travel.	
24. Rear suspension should sag between 15% (XC bike) and 35% (DH bike) when rider is seated with weight centred between the wheels.	
Tyre setup	
25. Adjust tyre pressure to suit rider, riding type, terrain, tyre type, tubeless or tube.	
Exceptions and variations	
- Bigger riders require more pressure. - Aggressive riding may require more pressure to avoid burping tyres. - Rocky terrain requires more pressure to avoid pinch flats. - Lightweight XC tyres require more pressure than heavy duty DH tyres. - Tubeless tyres can be run at lower pressure due to reduced risk of pinch flatting.	