

Youth gear restrictions: A guide for commissaires

This guide is aimed to act as a refresher to commissaires on youth gear restrictions

Why have gear restrictions?

- It ensures all riders compete together on a fair and equal standing
- It helps to reduce the risk of overuse injuries and avoid strength imbalances in young riders; it may also help riders to develop good pedalling technique
- It encourages young riders to race using tactics as opposed to using bigger gears to go faster. This will help to support the riders in learning new techniques which they will need throughout their competitive career

What are the restrictions?

Tech Reg 3.3 (p13 British Cycling Rule book, Technical regulations general & for Road, Track & Roller Racing)

In all events other than under the provisions of 3.3.3 below, Youth category riders shall be restricted to maximum gears as shown in the following table. Ref T.R 3.3.2

Category		Road Racing	Track Racing	Roller Racing
Junior	Under 18	7.93m	n/a	n/a
Youth A	Under 16	6.93m	6.93m	7.93m
Youth B	Under 14	6.45m	6.45m	7.4m
Youth C	Under 12	6.05m	6.05m	6.94m
Youth D	Under 10	5.4 metres for all events		
Youth E	Under 8	5.1 metres for all events		

Riders with dispensation can contact British Cycling headquarters for guidance on 0161 274 2020.

[Rules can be downloaded from the British Cycling Website here.](#)

How to check gears using the roll out:

This is the technique used to check bikes are within the regulations.

Roll Out Distance: is the distance the bike travels in a straight line through one full revolution of the pedal crank in the biggest available gear on the bike.

How to check a bike is within the regulations:

It is possible you will have access to a specifically designed roll out channel to check if a bike is legal. If not, you can perform a roll out using the following:

Equipment:

- A metal tape measure
- Marker pen
- Narrow marking tape
- Bike
- Flat surface of at least 8 metres

How to perform the roll out:

- Lay a straight line of tape out to 7.93m (the highest gear restriction for juniors)
- Mark the distance for the relevant categories out and make sure they are easily distinguishable
- Ensure the bike is in its highest configuration and that the gears are engaged correctly
- Make sure the chain is engaged in the smallest possible rear sprocket and take all the slack out of the bike
- Check the tyres are inflated to racing pressure
- You must make sure the athlete is watching whilst you perform the rollout
- Position the bike at the starting point on the rollout, ensure that the crank is in bottom dead centre position and aligned with the zero point on the measure
- Roll the bike backwards, ensuring to stay in a straight line, following the marked area
- Stop the bike once the crank has completed a full revolution and the crank is back at bottom dead centre
- Assess whether the crank is within or over the gear restrictions relative to the distances marked out.

Things to consider:

Please note that the sprocket and chain ring combination cannot be used in isolation to assess gear size. The absolute measure for gear restriction is the distance travelled in one complete revolution of the cranks.

All bikes should be checked prior to the event and the first three riders plus any picked at random in addition to those using gear locking should be rechecked as soon as the event finishes.

In the event of a rider not complying with the gear restrictions before the event they will either be disqualified or at the discretion of the commissaire if time allows, given the opportunity to alter their bike. The gears can be restricted by locking gears out as shown below and then a second rollout would be performed.

How to restrict gears:

To lock the gears out riders need to adjust the limit screw on the rear derailleur. Most bikes will have high gear and low gear limit stops as seen in the picture below.



[Need more information? Check out this video of how to perform a roll out.](#)