

# Restricting: Di2

Firstly we would put Di2, for young athletes, in the bracket of a marginal gain and would prefer young athletes not to be looking to maximise marginal gains. In the current market there is plenty of option for good, reliable groupsets without needing Di2. A groupset being all the mechanical (and/or electrical) parts on a bike.

Secondly our advice from Shimano is NOT to restrict Di2. While the front and rear mech or derailleur do have high and low limit screws they are not designed to restrict gears. Both the front and rear mech are powered by a servo (electrical motor). While it is possible using the high limit screw to restrict an 11 speed Di2 for example to use 9 or



Picture from Park Tools

10 of it's 11 gears the problem comes when the rider clicks down into those restricted gears, which is very easy to do mid race. The limit screw will obviously block the rear mech from accessing the restricted gears, however, the servo will keep trying to access that gear and will continue to work against the limit screw. This will damage the servo and in so doing risks breaking the rear mech entirely.

It is still possible, however, to use Di2 within gear limits. This has to be done without actually restricting any gears and means purchasing the exact front chainring and exact cassette so as the bikes high gear is on the restriction limit. For Youth riders this is a

46x14, T3's a 49x16 and for T2's a 46x16\*. For Youths a 14 up cassette would be required and for T3's/T2's a 16 up. See cassettes explained for more information on this. Please also consult chainrings explained for best advice on purchasing a new front chainring. We would also advise getting the bike built up like this if buying new.

\*Whilst these combinations work on the gear table it is the athletes responsibility to ensure that their bike fits within prescribed limits