

e13 DRS and Santa Cruz VPFree

- *Please familiarize yourself with the proper set up of the e13 DRS Chain Retention System before moving on with these set up tips.*

The unique design of the Virtual Pivot Point system lends itself to make set up of the e13 DRS a little confusing at first glance. The two most important factors in this combination are the proper chainline and the front derailleur set up.

- *Proper chainline.* The VPFree has a 150mm rear hub spacing which calls for a 55mm chainline. To achieve this you'll need a 128mm spindle length. A 73x128 bottom bracket in the ISIS standard is made by most major manufacturers. Both Race Face and Shimano have developed external bearing bottom bracket cranksets which now meet this demand.
- *Proper Front Derailleur set up.* Santa Cruz usually sends with each VPFree frame a seat tube mounting bracket which gets clamped onto the frame for use with E-Type front derailleurs. The purpose of this is to rotate the front derailleur counterclockwise (around the BB spindle) and alleviate the chain rubbing on the bottom of the derailleur cage when in specific gear combinations. All of this is to correct for the steep angle at which the seat tube joins with the bottom bracket.

We recommend using a seat tube clamp front derailleur along with our standard DRS kit. *Do not bother getting the E-Type DRS backplate.* This way you can get as much rotation as possible from the backplate. There will be a small amount of rubbing of the chain on the bottom of the front derailleur cage, but this will usually occur only in the stand (when the suspension is topped out) and in cross-gears (gears that put too much lateral load on the chain to be healthy for the drivetrain anyhow). This rubbing will most often not occur under normal riding conditions.

- *A word about rotation.* You will most likely not be able to get “ideal” rotation out of the DRS backplate. This is no cause of concern. If you wish to get a few more degrees of rotation out of the backplate feel free to file down the inner wearplate where it contacts the lower linkage of the frame. A few millimeters is all that is recommended as any more will sacrifice the performance of the retention system.



Photo: Sean Castle