

Serpent Spyder Rear Eccentrics Chart



Rear Antisquat

Rear antisquat can be adjusted by using exchanging the eccentric pills in the front rear (FR) and rear rear (RR) pivot blocks. Using the chart below match your eccentric position to the determine the rear antiquat. Down means the hinge pin hole in the eccentric is in the downward position, Up means the eccentric was flipped and the hinge pin hole in the upper position within the pivot mount. Each step on the eccentric changes the antisquat by .5 degrees.

The negative amounts highlighted in red indicate pro-squat. This is a condition in which the leading edge of the hinge pin is pointing down toward the ground. Pro-squat is typically not used in off-road and should be avoided.

Typically 2 degrees of anti-squat is a good all around setting. Less anti-squat will allow more roll in the corners which usually results in more lateral grip. This will make the car more stable entering the corners and will track through bumpy sections better. More anti-squat typically adds a little forward bite to a point but could make the car wash out more in the turns. More anti-squat also gives a higher arch on jumps.

Rear Antisquat		FR Block							
RR Block		4 up	0 up	1 up	2 up	2 down	1 down	0 down	4 down
4 Up	Highest RC	1.00	0.50	0.00	-0.50	-1.00	-1.50	-2.00	-2.50
0 up		1.50	1.00	0.50	0.00	-0.50	-1.00	-1.50	-2.00
1 up		2.00	1.50	1.00	0.50	0.00	-0.50	-1.00	-1.50
2 up		2.50	2.00	1.50	1.00	0.50	0.00	-0.50	-1.00
2 down		3.00	2.50	2.00	1.50	1.00	0.50	0.00	-0.50
1 down		3.50	3.00	2.50	2.00	1.50	1.00	0.50	0.00
0 down		4.00	3.50	3.00	2.50	2.00	1.50	1.00	0.50
4 down	Lowest RC	4.50	4.00	3.50	3.00	2.50	2.00	1.50	1.00

*Recommended starting position

Additionally by moving the FR and RR eccentrics in the same direction the roll center of the rear can be adjusted while maintaining the same degree of anti-squat. A higher roll center gives you more roll resistance and a lower gives less roll resistance.

Rear Toe-In

As with the antisquat, rear inboard toe-in can also be adjusted by exchanging the eccentric pills. The default position is to use a 0, 1, or 2 eccentric in the center position in both the RF and RR pivot blocks which gives you 3 degrees of toe-in. Exchange the FR or RR eccentric for an off-set eccentric (one with an arrow) to adjust inboard toe.

3 degrees of rear toe-in is good starting point. Increasing the toe-in in the rear takes away on-power steering and give slightly more steering entering a turn due to the added brake effect of the increased tire scrub and shorter wheelbase. Less toe-in results in more on-power steering and more stability entering a turn. Less toe-in is also effective in increasing straightaway speed which could be useful in stock racing provided there is enough overall grip in the track.

Rear Inboard Toe-In		FR Block		
RR Block		L (Arrow In)	Center	R (Arrow Out)
L (Arrow In)	Narrow Pivot	3.00	2.50	2.00
Center		3.50	3.00	2.50
R (Arrow Out)	Wide Pivot	4.00	3.00	3.00

*Recommended starting position

Along with adjusting the rear toe-in the arrowed eccentrics allow you to change rear pivot width. Typically a narrow pivot (arrows pointing in) can give the car more low to mid speed cornering traction as the car will roll more on the rear of the car. A wider pivot (arrows pointing out) allows less roll with the same spring than the narrower pivot. A wider rear pivot will allow the car to center (square-up) faster coming through the last third of the turn as the driver is getting on power as well.