

JoshP5's table of front roll stiffness bias

This table attempts to quantify front roll stiffness bias as a function of front and rear swaybar diameter. It may be helpful for predicting the handling characteristics using a particular swaybar setup.

The higher the number, the more front roll stiffness bias (a measure of propensity for understeer). The colored entries correspond to: **P5** , **Production MP3/MSP**, **Racing Beat's prototype MP3**

Rear	Front							
	20mm	21mm	22mm	23mm	24mm	25mm	26mm	27mm
16mm	2.44	2.97	3.57	4.27	5.06	5.96	6.97	8.11
17mm	1.92	2.33	2.80	3.35	3.97	4.68	5.47	6.36
18mm	1.52	1.85	2.23	2.67	3.16	3.72	4.35	5.06
19mm	1.23	1.49	1.80	2.15	2.55	3.00	3.51	4.08
20mm	1.00	1.22	1.46	1.75	2.07	2.44	2.86	3.32
21mm	0.82	1.00	1.20	1.44	1.71	2.01	2.35	2.73
22mm	0.68	0.83	1.00	1.19	1.42	1.67	1.95	2.27

This comparison assumes all swaybars are solid and have the same shape and material. Some sway bars may have a tubular construction, different distance between the axis of rotation and the endlink mounts, or different types of steel, all of which affect the bars' resistance to torsion and consequently, the front roll stiffness bias.