

“Lance W.” Street Alignment

(from the Supra MKIV, which shares most suspension components with the SC300/400)

This alignment is the result of experimentation with the factory numbers to improve road feel and reduce inside edge wear on the rear tires that is common with the factory settings. These settings will add grip at the front and improve steering wheel feedback. The car will still under-steer slightly.

	<u>Lance W. specs</u>	<u>vs. Stock Supra specs</u>
Front:		
Camber	-1.0°	-0.5° +/- 0.75°
Caster	+5.0°	+3.5° +/- 0.75°
Toe	0.0mm	0.00” +/- 0.080” (2 mm)
Rear:		
Camber	-1.5°	-1.5° +/- 0.75°
Toe-in (total)	1.0mm (0.120”)	(3mm) +/- 0.080” (2mm)

On 245/45-17 rear tires this rear toe equates to 0.088°, or 0.0439° per side.

(Moving the 225/50-17's to the rear would be 0.087°, or 0.0435° per side.)

Front and Rear Toe are critical; even small deviations may cause unusual or excessive wear patterns.

http://mkiv.com/techarticles/lance_alignment/

additional notes:

- You do not have to go exactly “Lance”, it is just a starting point to get rid of tail happy characteristics on some cars (due to suspension compression setting, ride height and sway bar stiffness), meaning your camber isn't way negative, and the toe isn't out (kills the inner treads in no time). I think the caster was supposed to increase the wheelbase a tiny bit to give more stability.
- They may not be able to get it that far in the front but the idea is to dial in at least -1° of camber. The Supra has different length rear arms than SCs so the numbers are a little different, but the factory alignment is already negative so you just want to ensure it's the same side to side.
- To keep the toe-in closer to zero without ever going into toe-out would be even better. Those big tires tend to drag, slow you down, also will help with wear. For highway driving, the camber could be less also; these cars have great suspensions.