

Tire Tips for Road Racing and Auto crossing Toyo R888 and RA1

Handling Adjustment Guidelines

-Tire pressure adjustments are for fine tuning only

Suspension adjustments have a far greater affect

-Make air pressure adjustments in 2 psi increments

-Only make changes one at a time

-Only make changes to one axle at a time

Wet Conditions

-Increase pressure by 6 to 10 PSI

-Less heat buildup in wet, therefore pressures will not increase as compared to dry

Rovals and Courses with Banked Corners

-Increase pressures

-Reduce camber

-Closely monitor inside shoulder temps

Target Hot Air Pressures

-R888: 32 to 38 psi

-RA1: high 30 to low 40 psi

-Range takes into consideration weight of vehicle

-Lighter vehicles may require less, heavier vehicles more

-Always use enough pressure to support the load of the vehicle

Measuring Tire Temperatures

-Only use a probe type pyrometer

-Laser infrared pyrometers only measures surface temperatures which can rapidly cool giving unreliable measurements

-Take several hot laps to bring tires to operating temperatures

-Stop the vehicle in a safe area

-Take readings in at least 3 areas across the tread: Inside shoulder, center and outside shoulder

-Always start with the same tire position and tread location and move in the same sequence around the vehicle

Optimal Temperature Range

-160° to 220°F

-Below 140°F and above 250°F the compound may not provide sufficient grip

-Above 270°F the tire may blister or fail

-25°F temperature differential between hotter inside shoulder vs. outside shoulder due to camber

Analyzing Tire Temperatures

Measurement - Inside shoulder is hottest - more than 25°F (15°C)

Solution - Reduce negative camber

Measurement - Center section is hottest

Solution - Reduce tire pressure

Measurement - Outside shoulder is hottest

Solution - Increase negative camber

Measurement - Both shoulders hotter than center

Solution - Increase tire pressure