

Roger Kraus Tires Inc.

2896 Grove Way. Castro Valley CA. 94546

510-582-5031 FAX 510 886-5605

Mon. - Fri. 8:30 to 5:30

Understeer Corrections

Push, plowing, front tires slide out first.

Usually slight understeer is safer.

- Raise front tire pressure.
- Lower rear tire pressure.
- Soften front shocks.
- Stiffen rear shocks.
- Lower front end.
- Raise rear end.
- Widen front track.
- Install shorter front tires.
- Install taller rear tires.
- Install wider front tires.
- Install narrower rear tires.
- Soften front sway bar.
- Stiffen rear sway bar.
- More front toe out.
- Reduce rear toe in slightly.
- Increase front negative camber.
- Increase positive caster.
- Soften front springs.
- Stiffen rear springs.
- May need more front suspension travel.
- Install wider front wheels.
- Use softer front compound if possible.
- Use harder rear compound if possible.
- Remove weight from front of vehicle.
- Add weight to rear of vehicle.
- Drive a different line.
- Use weight transfer to your advantage.
- High Speed. Increase front wing downforce.
- Too much front brake.

Vehicle is TWITCHY at limit and hard to keep ahead of in the steering department.

- Lower front and rear tire pressures slightly.
- Suspension may be too stiff.
- Shocks may be set too firm.
- Tires may be old or hard.
- Vehicle may not have enough suspension travel.
- Vehicle may have a toe problem front or rear.
- Increase negative camber front and rear if possible.

Oversteer Corrections.

Loose, rear tires slide out first.

Oversteer can be dangerous, especially at high speeds.

- Lower front tire pressure.
- Raise rear tire pressure.
- Stiffen front shocks.
- Soften rear shocks.
- Raise front end.
- Lower rear end.
- Reduce rear track.
- Install taller front tires.
- Install shorter rear tires.
- Install narrower front tires.
- Install wider rear tires.
- Stiffen front sway bar.
- Soften rear sway bar.
- More front toe in.
- Increase rear toe in.
- Reduce front negative camber.
- Reduce positive caster.
- Stiffen front springs.
- Soften rear springs.
- May need more rear suspension travel.
- Install wider rear wheels.
- Use harder front compound if possible.
- Use softer rear compound if possible.
- Add weight to front of vehicle.
- Remove weight from rear of vehicle.
- Driver may be going in too deep.
- Driver may be getting on the throttle too early.
- High Speed. Increase rear wing downforce.
- Too much rear brake.

Vehicle slides and is easy to drive at limit but does not corner to full potential.

- Raise front and rear tire pressures slightly.
- Suspension may be too soft.
- Shocks may be too soft.
- Roll centers may be too high.
- Lower vehicle.
- Tires may be too hard.
- Widen track front & rear.

A properly set up vehicle will usually push slightly on corner entry, be fairly neutral at the apex (STEADY STATE) and exhibit slight power oversteer on corner exit. Tight courses may require more oversteer, fast tracks understeer.

Items needed: Accurate tire pyrometer, tire gauge, notebook and tape measure. Suspension information books.

Note: This is a sample of the methods used to correct various handling problems. Books have been written on this subject. **Not every correction will always work as expected.** Stiffer front sway bars will, in many cases, decrease understeer because of reduced body roll and better camber control. The best rule is to change only one thing at a time and keep notes. Shock adjustments have greatest effect on corner entry and exit.

Follow these suggestions at your own risk, we listed them to make your racing safer.