1/12TH TIPS

FRONT WIDTH

NARROW - more agressive steering

WIDER - less agressive

FRONT SPRINGS

No preload for .020 springs. E-clip preload for .018 springs.

SOFTER – more steering but may dig or square up too hard. Softer springs have higher chance of collapsing.

STIFFER – less steering. Do not allow the front to dive as easily. Smoothes car out on corner entry

CAMBER

MORE NEGATIVE – decrease low speed and increase high speed steering. Outside tire will tend to flatten out at higher cornering speeds and have better contact patch. 1 ½ to 2 ½ deg.

CASTER

LESS – easier the car will turn. But, lose straight line stability and lose exit speed (car will not cut into a turn as well).

REACTIVE –reduces caster at turn in and increases it at exit. However, can cause more tire scrub in a turn and slow you down if not set up properly.

TOE

OUT – decrease straight line stability and can make car wander but it enhances turn-in, especially on initial "cut"

IN –increase straight line stability but make it more difficult to turn

SIDE SPRINGS

If car feels edgy, a ¼ turn of preload can settle car down.

If car does not center up quick enough thru twisties, use stiffer spring.

SOFTER – more side bite for rear end but will be lazier transitioning back to center

STIFFER – less side bite. Faster transition, but can feel edgy.

SIDE TUBES / DAMPER DISK LUBE

Typically 10,000 ofna lube or Losi med hydra fluid

THICKER – increases front traction – adds steering. Slows transition and softens steering in fast sweepers. If car is double steering on power use thicker oil to slow reaction time but if go to far you can see inside rear tire lift in tight corners.

THINNER – decreases front traction – decreases steering.

CENTER SHOCK

Spring/Oil combo have greater effect on net rear traction – the softer the spring/oil combo the more rear grip.

POSITION

FLATTER – more on-power steering (to a point)

HIGHER – less on-power steering

SPRING

LIGHTER – more rear traction and better control on bumpy tracks. much off power steering, little on power steering (less spinouts coming out of the corner

STIFFER – less rear traction. much on-power mid-out steering, little off power steering

OIL

Controls the front to rear grip bias.

LIGHER - balance to rear (more rear traction)

HEAVIER - balance to front (more front traction/steering).

Best use a very weak oil with a softer front tire compound, for example a magenta instead of a purple for more overall traction instead of heavy oil and a hard front tire.

REAR POD DROOP

MORE – makes car turn in harder. More hi-speed steering. Handles bumpy tracks better.

LESS or NONE – car smoother into corners

SIDE LINKS (ROLL-CENTER)

RAISE – raises roll center. Will increase steering.

LOWER – lowers roll center. Locks rear end more.

BATTERY POSITION

FORWARD – easier to drive, less steering. Less wt xfer into corners.

BACK – more steering due to increase in wt xfer. Car can feel darty off-power. This coupled with longer shock (rear pod droop) makes car rotate harder into corners by unloading rear tires.

FRONT STEERING KNUCKLES

OFFSET – standard on any pancar (but oval)

INLINE – huge increase in steering response. Car becomes really twitchy. Sometimes used on 10th scale roadcourse pan car.

T-BAR SHIM

UNDER FRONT BALL – adds anti-squat – more initial steering on entry and plants rear mid corner and exit (push)

FRONT TIRES

LESS ROUNDED EDGE – makes car edgy and car want to tip over at high speed cornering situations. Can be advantageous on loose conditions where car has no high-speed bite, tho.

REAR WIDTH

WIDER – More stable, but car will push more

NARROWER – More steering

Typical tuning: front tires, center spring, and front tire-dope

In general: anything that stiffens rear end adds steering

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