

CENTER SHOCK	
	POSITION (shims under the shock)
FLATTER (more shims)	more on-power steering (to a point)
HIGHER (less shims)	less on-power steering
CENTER SPRINGS	
SOFTER	more rear traction and better control on bumpy tracks, much off-power steering, little on-power steering
STIFFER	less rear traction, much on-power mid-out steering, little off-power steering
CENTER SHOCK OIL	
LIGHTER	balance to rear (more rear traction)
HEAVIER	balance to front (more front traction/steering)
SHOCK POSITION	
FORWARD	improves driveability over bumps, improves on-power traction
REARWARD	improves steering response, quicker direction changes

FRONT DROP	
MORE shims = less drop	the car will have a quicker direction change, and it will have more on power steering, however, at the expense of some overall front grip
LESS shims = more drop	less reactive, provides more front grip, but will be more inconsistent to drive

REAR POD DROP	
MORE	makes the car turn in harder, more hi-speed steering, handles bumpy tracks better
LESS or NONE	car drives smoother into corners

FRONT SPRINGS	
SOFTER	more steering but may dig or square too hard. Softer springs have higher chance of collapsing
STIFFER	gives the car more turn-in (initial steering) and also increases the chance of traction rolling

SIDE SPRINGS	
SOFTER	less steering, the car will roll more, but will be less likely to traction roll
STIFFER	the car will be more responsive, have a quicker direction change, but will more difficult to drive

SIDE SHOCK TUBES OIL ADJUSTMENT	
Add oil only in the slots, not on the whole tube	
For HIGH grip use SOFTER oils	
For LOW grip or ASPHALT use HARDER oils	

POD LINK	
INNER	more mid corner steering, more aggressive feel
OUTER	more neutral handling, more linear cornering feel

ACKERMANN	
	MORE SHIMS = MORE ACKERMANN
MORE ACKERMANN	more steering into the corner, less corner speed, less traction in the chicanes
LESS ACKERMANN	less steering into the corner, more corner speed, more stable in the chicanes

TOE	
TOE -OUT	increases straight stability and decreases the chance for the car to wander in a straight line
TOE-IN	gives more mid-exit steering, but makes the car more difficult to drive, especially in a straight line

UPPER ARM	
MORE shims	less camber gain, reduced initial steering, reduced steering sensitivity (less twitchy).
LESS shims	more camber gain, increased initial steering, increased steering sensitivity.

LINKAGE POSITION	
	(2) more mid-corner steering, better steering response
	(1) less steering in mid-corner, smoother steering response

The thickness of shims changes the steering linkage angle. Thicker shims gives decreased in-corner steering, but car becomes easier to drive.

RIDE HEIGHT
INCREASING ride height (raising the car) increases chassis roll and is better on bumpy tracks
DECREASING ride height (lowering the car) increases overall grip and steering response, and is better on smooth tracks.

CASTER
REACTIVE CASTER
RIDE HEIGHT WASHER

SIDE SPRING
RIDE HEIGHT SHIMS

FRONT DROP
 The number of the shims effects the front ride height

LUBE
LOW traction and bumpy tracks: 10K cst
HIGH traction and flat tracks: 30K cst

FRONT SPRINGS

TRACK WIDTH
 This bushings effects the front track width

LEFT	+	RIGHT	= TRACK-WIDTH
			169mm
			168mm
			167mm
			166mm
			165mm

FRONT TRACK WIDTH	
WIDER	decreases front grip, gives slower steering response, and increases understeer
NARROWER	increases front grip, gives faster steering response, and decreases understeer

The position of the servo depends on the weight of the electronics (weight balance)

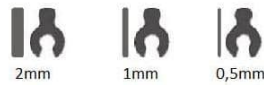
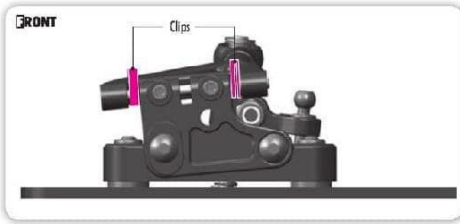
This shims are used to balance the weight transfer

ACKERMANN
UPPER ARM POSITION ADJUSTMENT SHIMS
FRONT WIDTH SHIM
LINKAGE POSITION
POD LINK
BATTERY POSITION
REAR WIDTH

REAR TRACK WIDTH	
WIDER	increases the stability of the car, increases rear grip at corner entry and middle corner, and decreases corner speed.
NARROWER	decreases rear grip at corner exit, increases corner speed, and increases car responsiveness, more on-power steering

LIPO BATTERY POSITION	
INLINE	Inline battery alignment improves cornering speed and reduces the chance that the rear of the car will "diff out." Recommended for high-traction conditions.
CROSS	Cross-chassis alignment provides more neutral handling, making the car less sensitive to set-up changes and gives reduced steering responsive. Recommended for low- and medium-traction conditions.

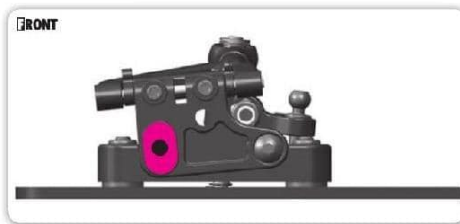
CASTER	
LOWER caster angle	better on slippery, inconsistent, and rough surfaces, decreases problem of traction rolling
HIGHER caster angle	more steering overall, but the car will be more difficult to drive, and will be more likely to traction roll



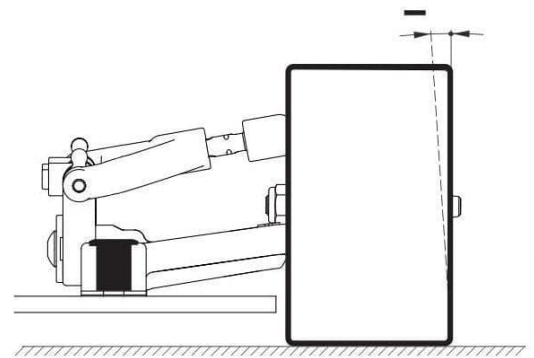
INITIAL SETTING ---->

REACTIVE CASTER POSITION	STATIC CASTER		FINAL CASTER
	CLIPS IN FRONT	CLIPS IN REAR	
0	1+0.5	2	1°
0	1	2+0.5	3°
0	0.5	2+1	4.5°
0	0	2+1+0.5	7°
0	2+1	0.5	2°
0	2+0.5	1	3.5°
0	2	1+0.5	5.5°
0	1+0.5	2	7°
0	1	2+0.5	9°
0	0.5	2+1	10.5°
0	0	2+1+0.5	12.5°
0	2+1+0.5	0	5.5°
0	2+1	0.5	7.5°
0	2+0.5	1	9°
0	2	1+0.5	11°
0	1+0.5	2	12.5°
0	1	2+0.5	14.5°

REACTIVE CASTER
 Reactive caster is used to adjust the amount of caster change when the front end of the car is compressing (diving) or decompressing (rising).
 The initial 5° reactive caster angle is a good starting point for car set up.
 INCREASING the angle to 7.5° will make the car react quicker and offer more steering.
 DECREASING the angle to 2.5° will make the car easier to drive smoothly into corners.



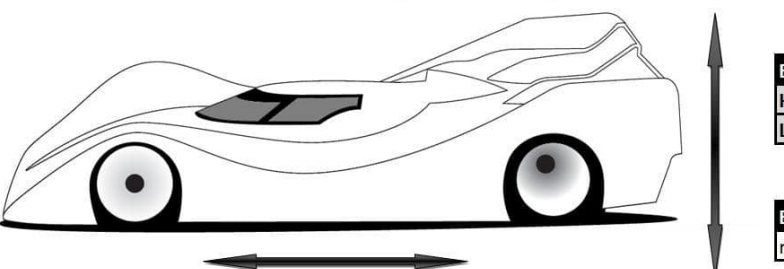
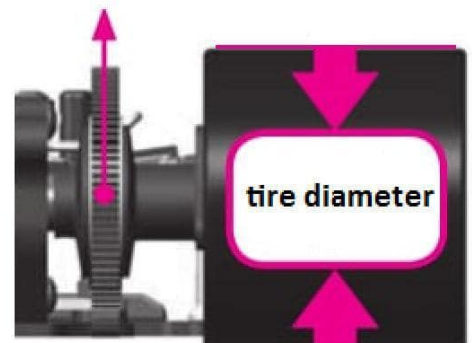
CAMBER
 The more camber angle, the more steering there is. However, it makes the car more sensitive and more difficult to drive
TIP
 Check camber frequently. If the front tire is "coning," increase or decrease the camber until the tires wear flat. We recommend setting -1° camber as an initial setting.



ROLLOUT
 Rollout is a more precise way to set your car's gearing because it takes into account tire diameter, gear ratio, and transmission ratio. Rollout is defined as the distance a vehicle moves forward per revolution of the motor. The car's rollout changes as foam tire diameter changes with tire wear, tire swap, and foam tire changes, even if you do not change your gear ratio.

GEAR RATIO FORMULA: spur gear ÷ pinion gear
ROLL OUT FORMULA: (tire diameter x 3.14) ÷ (spur gear / pinion gear)
BASIC ROLLOUT FOR MODIFIED: 30MM
BASIC ROLLOUT FOR STOCK 13.5T: 80MM

gear ratio



BODY POSITION	
HIGHER REAR	more initial steering, more downforce
LOWER REAR	less reactive, less rear grip in corners

BODY MORE IN FRONT
 more initial steering