

SHOCK UPPER POSITION (SHOCK TOWER)

Front Shock Tower	Outer holes	faster steering, better on bumps and jumps
	Inner holes	easier to drive, more side bite, slower initial steering
Rear Shock Tower	Outer holes	less mid corner grip, more traction into corner, squares up better on exit
	Inner holes	more steering into corner, more mid corner grip

SHOCK LOWER POSITION (ARM)

Front Arm	Outer holes	increases stability, easier to drive, bigger turn radius
	Inner holes	faster steering, better for bumps and jumps
Rear Arm	Outer holes	more stability, more lateral grip in turns
	Inner holes	better for bumps and jumps, less side bite, more exit traction

FRONT CAMBER LINK LOCATION

OUTER HOLE	more steering into the corner, car is more responsive
INNER HOLE	more steering out of the corner

FRONT ROLL CENTER

lower roll center	decreases steering into corner, car is less responsive, use in high-grip conditions
higher roll center	increases steering into corner, car is more responsive

REAR ROLL CENTER

Lower roll center	more off power and low speed corner grip, but less rotation in corners
Higher roll center	more willing to rotate - the higher it is, more it will be able to be pushed out

STEERING BLOCK

MEDIUM	more steering, more aggressive
HARD	easy to drive, less steering on-power

CASTER BLOCK

MEDIUM	absorbs bumps better, easy to drive
HARD	more steering, more aggressive

FRONT TRACK-WIDTH

WIDER	decreases front grip, increases understeer, slower steering response, use to avoid traction rolling
NARROWER	increases front grip, decreases understeer, faster steering response

REAR TRACK-WIDTH

WIDER	increases rear grip at corner entry, increases high-speed on throttle steering, use to avoid traction rolling
NARROWER	increases grip at corner exit, increases high-speed understeer

CASTER

Less Caster	decreases straight-line stability, increases off-power steering at corner entry, increases suspension efficiency
More caster	increases straight-line stability, decreases off-power steering at corner entry, makes the car more stable through bumpy track conditions

KICK-UP

More kick-up	more weight transfer to the front of the chassis off-throttle or under braking, chassis compresses or drop more off throttle or under braking, handling is improved on bumpy tracks, decreased steering response
Less kick-up	less weight transfer to the front of the chassis off-throttle or under braking, chassis compresses or drops less off-throttle or under braking, handling is improved on smooth tracks, increased steering response

FRONT TOE

INCREASING (more toe-in)	makes car easier to drive
DECREASING (less toe-in, or more toe-out)	decreases understeer, increases steering at corner entry, faster steering response, less stable under acceleration, makes car more difficult to drive

REAR TOE

INCREASING (more toe-in)	increases understeer, more stable exiting on-power at corner exit and braking, less chance of losing rear traction, decreases top speed
DECREASING (less toe-in)	less stable at on-power corner exit and braking, more chance of losing rear traction, increases top speed

ARM SHIM - WHEELBASE

ARMS IN THE FRONT = WEIGHT IN THE REAR = LOW TRACTION
 ARMS IN THE REAR = WEIGHT IN THE FRONT = HIGH TRACTION

SIDE GUARDS

MEDIUM	for low & medium traction
HARD	for medium & high traction

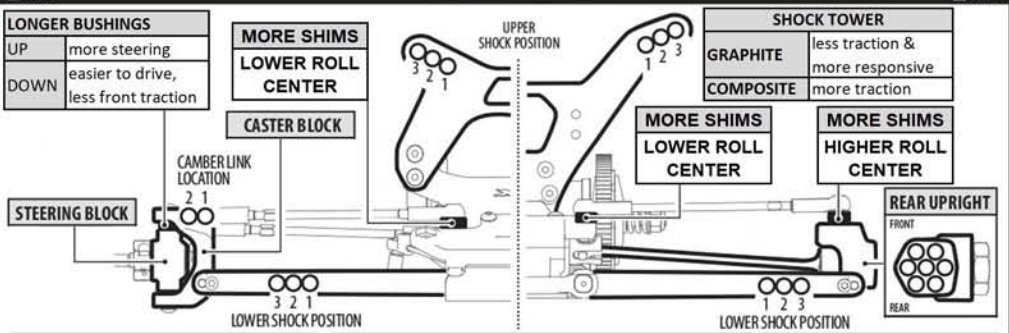
LOWER SUSPENSION ARMS

MEDIUM	for very-low & low traction
HARD	for medium & high traction
GRAPHITE	for high & very-high traction

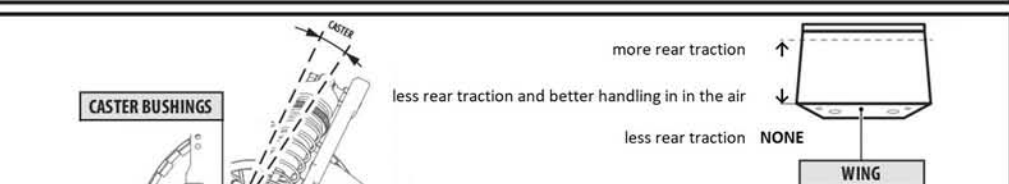
LIGHT BODYSHELL

lower center of gravity, better handling on high traction, makes the car more reactive

FRONT **REAR**

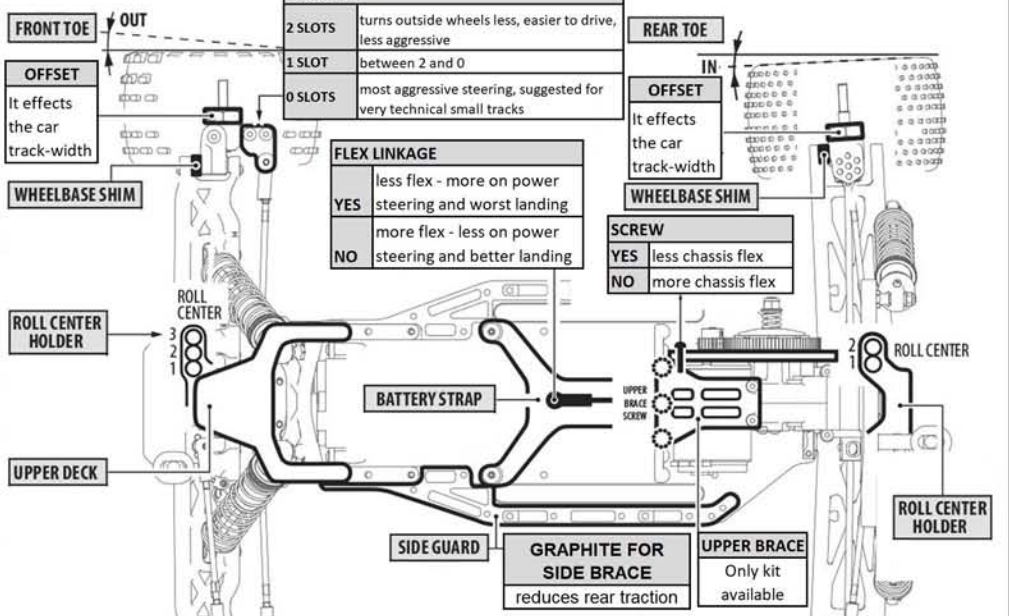


REAR UPRIGHT		REAR UPRIGHT HOLES	
MEDIUM	for very-low & low traction	HOLES IN FRONT	more rear grip
HARD	for medium & high traction	HOLES IN REAR	less rear grip
ALU	for very-high traction	INNER HOLES	increases steering and decreases stability into corner, increases on-power traction slightly
		OUTER HOLES	decreases rear camber gain, increases stability, slows down the car's responsiveness



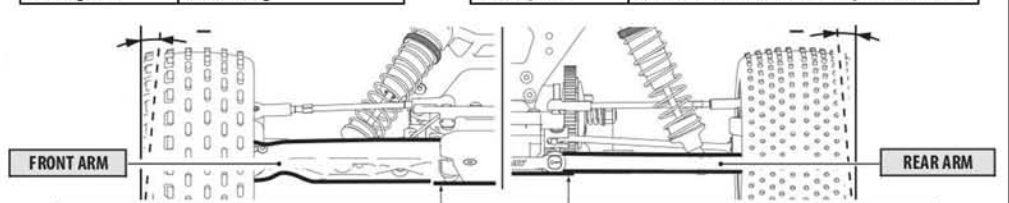
BUMP STEER SHIMS	
More shims	less steering in mid-corner, smoother steering response, better on rough bumpy tracks
Less shims	more steering in mid-corner, easier to control on smooth tracks

FRONT TOE **REAR TOE**



FRONT ROLL CENTER HOLDER		REAR ROLL CENTER HOLDER	
MEDIUM	generates more traction, absorbs bumps better	COMPOSITE	for low, medium & high traction
HARD	more precise	ALU	for very-high traction
ALU	more precise steering and increased strength		
BATTERY STRAP		UPPER DECK	
COMPOSITE	for very-low to medium traction conditions	MEDIUM	for very-low, low and medium traction tracks, generates more traction, absorbs bumps better
GRAPHITE	for high- and very-high traction conditions	HARD	for high & very-high traction tracks, makes the car more precise

FRONT CAMBER		REAR CAMBER	
More negative	more steering	More negative	decreases rear traction entering and in corners
Less negative	less steering	Less negative	increases rear traction entering and in corners



RIDE HEIGHT	
Decreasing ride height	increases overall stability, better on smooth tracks
Increasing ride height	decreases overall stability, better on bumpy tracks (prevents bottoming)
Front higher than rear	increases weight transfer to the rear on-power, increases stability, decreases steering
Front lower than rear	increases weight transfer to front on-power, increases steering, decreases rear traction

TRANSMISSION ADJUSTMENT

SLIPPER	tighter slipper makes the car accelerates faster and it's more aggressive but if it's tighten too much you risk front of the car getting up and you loose control over the car
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GEAR DIFF	recommended for medium-high traction, car is more aggressive
OILS	SOFTER oil increases rear traction HARDER oil increases on-power steering



BALL DIFF	recommended for low traction, more smooth, generates more grip
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ACKERMANN	
less shims	smoothens out steering response, car reacts smoothly, better suited to smooth flowing tracks with high speed corners
more shims	quiskens initial steering response, car reacts faster to steering input, better suited to small and tight tracks

BUMP STEER SHIMS	
More shims	less steering in mid-corner, smoother steering response, better on rough bumpy tracks
Less shims	more steering in mid-corner, easier to control on smooth tracks

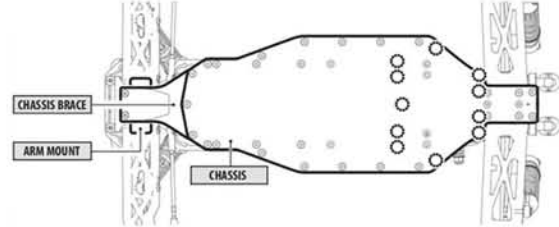


STEERING ARMS	
COMPOSITE	easy to drive and more forgiving
ALU	more aggressive, more precise steering

STEERING PLATE	
COMPOSITE	easy to drive, more forgiving, less steering
ALU	more aggressive, more steering, more precise steering

CHASSIS BRACE	
MEDIUM	for very-low, low & medium traction, generates more traction
HARD	for high- & very-high traction tracks, more stable and less traction on front suspension

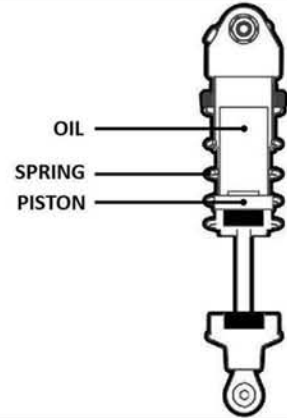
ARM MOUNT	
COMPOSITE	generates more traction in front
ALU	makes car more stable
BRASS	adds more weight in front, less weight transfer
heavier mount adds steering & eliminates front to go up under acceleration	



CHASSIS FLEX
The more screws used, stiffer the car is and less screws used, softer the car is.
(Use stiff setting for high-traction tracks where a lot of steering and car response is required)

SCHOCKS

	SHOCK OIL	PISTON HOLES	EFFECT
FRONT SHOCKS			
SOFTER DAMPING	thinner	more holes/larger holes	increases steering on low grip surface, slower steering response, decreases initial steering at corner entry, increases oversteer at corner exit/under acceleration
HARDER DAMPING	thicker	less holes/smaller holes	faster steering response, decreases steering on low grip, increases initial steering at corner entry, increases understeer at corner exit/under acceleration
REAR SHOCKS			
SOFTER DAMPING	thinner	more holes/larger holes	increases rear grip at corner exit/under acceleration
HARDER DAMPING	thicker	less holes/smaller holes	decreases rear grip at corner exit/under acceleration



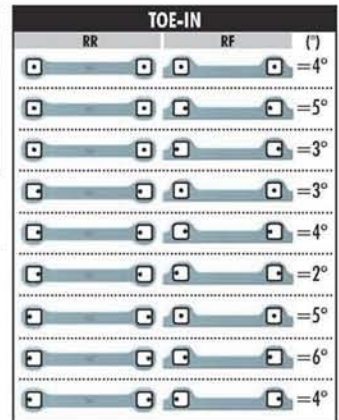
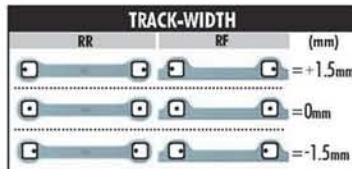
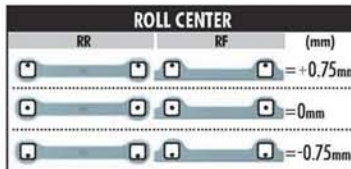
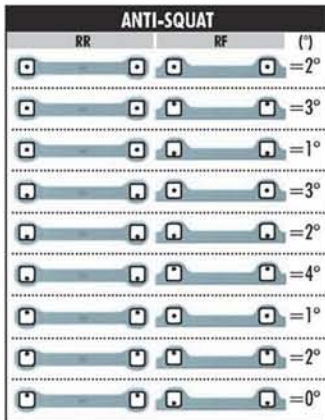
SHOCK SPRING	CHARACTERISTICS
SOFTER	more chassis roll, more traction, better on bumpy tracks, increases chance of bottoming out when landing
STIFFER	less chassis roll, less traction, more responsive, better on smooth tracks, decreases chance of bottoming out when landing

ANTI-ROLL BARS

FRONT	
THINNER	more initial steering, better handling over the bumps, generates more front traction which can result in traction roll, when too thin the car can seem sometimes a bit less predictable
THICKER	less initial steering, worse handling over the bumps, generates less front traction,

REAR	
THINNER	more traction, generates more rear traction which can result in traction roll, less on-power steering, better handling over the bumps
THICKER	less traction, generates less rear traction which can result in less traction roll, more on-power steering, worse handling over the bumps

REAR ECCENTRIC BUSHINS



The tables describe the amounts of adjustment using the center and outside positions of the eccentric bushings. The middle position eccentric bushings allow for finer adjustment increments.

The track-width is directly influenced by the size of the wheels and tires used.

ANTI-SQUAT	
Less anti-squat (flatter arm)	increases rear traction off-power, decreases rear traction on-power, better on a bumpy track
More anti-squat (leaning more backwards)	increases rear traction during acceleration, decreases rear traction off-power, better on smooth high grip tracks, handle better numps when landing

ROLL CENTER	
Lower roll center	more off power and low speed corner grip, but less rotation in corners
Higher roll center	more willing to rotate - the higher it is, more it will be able to be pushed out

TRACK-WIDTH	
Wider	increases rear grip at corner entry, increases high-speed on-throttle steering, use to avoid traction rolling
Narrower	increases grip at corner exit, increases high-speed understeer

TOE	
Increasing (more toe-in)	increases understeer, more stable exiting on-power at corner exit and breaking, less chance of losing rear traction, decreases top speed
Decreasing (less toe-in)	less stable at on-power corner exit and breaking, more chance of losing rear traction, increases top speed