

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 ROLL CENTER	
Upper holes (lower roll center)	decreases steering into corner, car is less responsive, use in high-grip conditions
Lower holes (higher roll center)	increases steering into corner, car is more responsive

REAR UPPER ROLL CENTER	
Upper holes	lower rear roll center
Lower holes	higher rear roll center

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

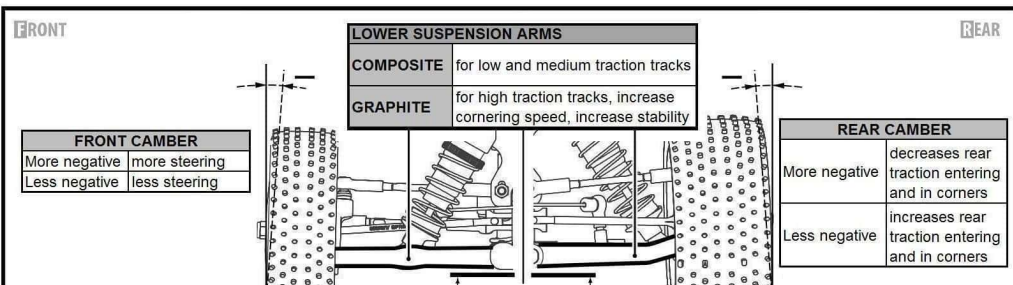
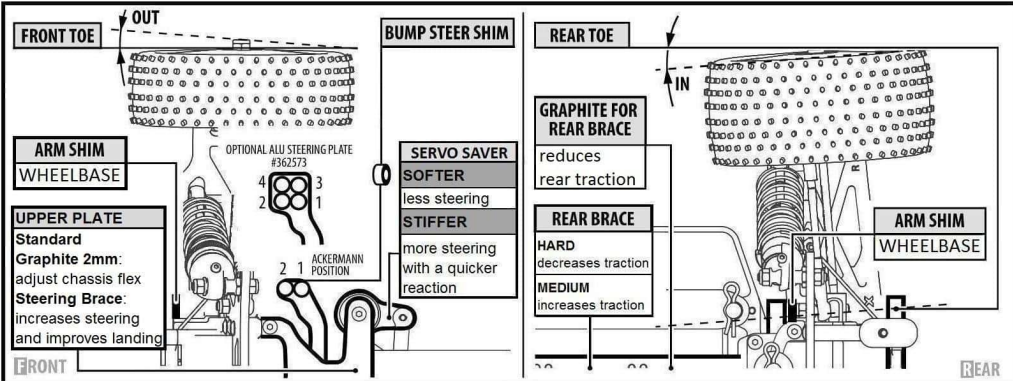
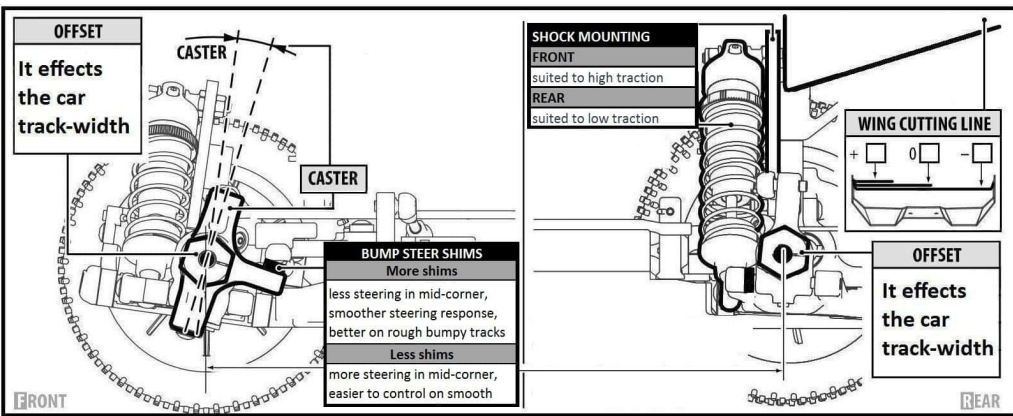
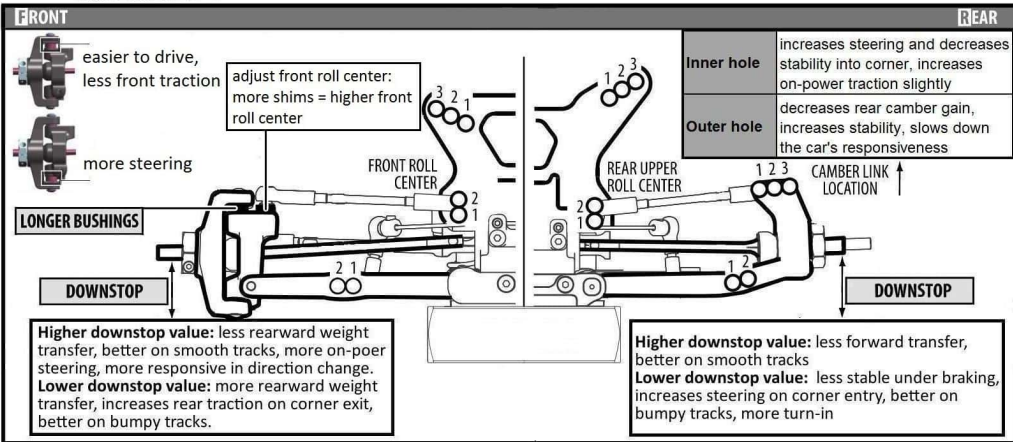
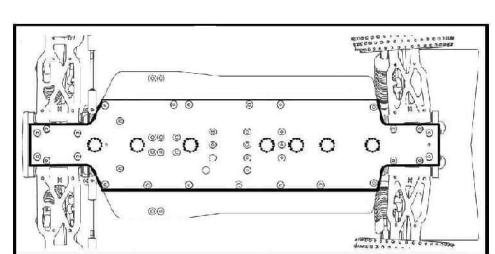
FRONT TOE	
INCREASING (more toe-in)	makes car easier to drive
DECREASING (less toe-in, or more toe-out)	decreases understeer, increases steering at corner entry, faster steering response, less stable under acceleration, makes car more difficult to drive

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

ARM SHIM - WHEELBASE	
ARMS IN THE FRONT = WEIGHT IN THE REAR = LOW TRACTION	
ARMS IN THE REAR = WEIGHT IN THE FRONT = HIGH TRACTION	

ACKERMANN	
Forward holes (2)	smoothens out steering response, car reacts smoothly, better suited to smooth flowing tracks with high speed corners
Rearward holes (1)	quikens initial steering response, car reacts faster to steering input, better suited to small and tight tracks

CHASSIS	
ALU CHASSIS 2mm	STANDARD
ALU CHASSIS 3mm	extra-stiff, increases stability, increases cornering speed, super strong



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

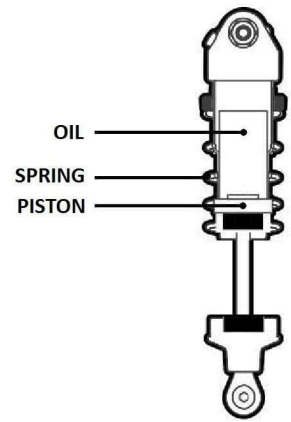
DIFERENTIAL			
FRONT	CENTRAL		REAR
GEAR DIFF (standard)	Softer oil: increases steering into corners Harder oil: increases steering out of corners	SLIPPER (standard)	better acceleration, more on-power steering
BALL DIFF	increases traction, for low-traction tracks	GEAR DIFF	increases on-power steering and increases traction
		GEAR DIFF (standard)	Softer oil: increases rear traction and more rotation in low speed corners Harder oil: increases on-power steering, decreases rear traction while cornering
		BALL DIFF	increases traction, for low-traction tracks

ANTI-ROLL BAR	
FRONT	
Softer (thinner wire)	increases front chassis roll, increases front traction, decreases rear traction, increases off-power steering
Stiffer (thicker wire)	decreases front chassis roll, decreases front traction, decreases off-power steering at corner entry, quicker steering response
REAR	
Softer (thinner wire)	increases rear chassis roll, increases rear traction, decreases front traction, decreases on-power steering
Stiffer (thicker wire)	decreases rear chassis roll, decreases rear traction, increases front traction, increases on-power steering, quicker steering response in high speed chicanes

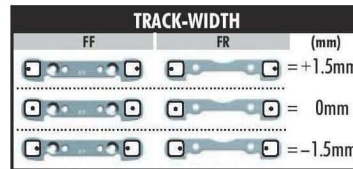
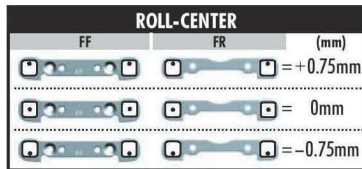
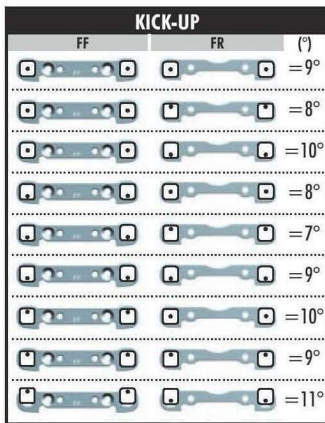
SCHOCKS

	SHOCK OIL	PISTON HOLES	EFFECT
<b>FRONT SHOCKS</b>			
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
<b>REAR SHOCKS</b>			
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



FRONT ECCENTRIC BUSHINGS



TOTAL CASTER=C-HUB CASTER+ KICK UP

C-HUB CASTER	KICK-UP				
	7°	8°	9°	10°	11°
6°	13°	14°	15°	16°	17°
9°	16°	17°	18°	19°	20°
12°	19°	20°	21°	22°	23°

The tables describe the amounts of adjustment using the center and outside positions of the eccentric bushings.

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

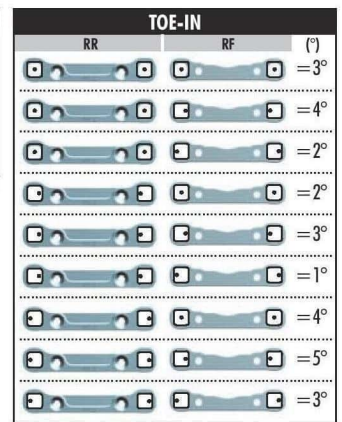
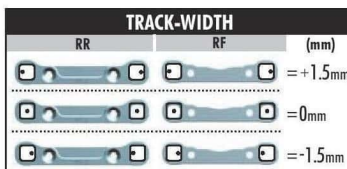
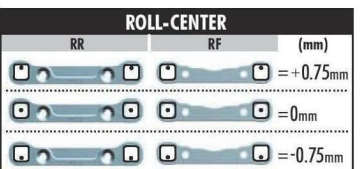
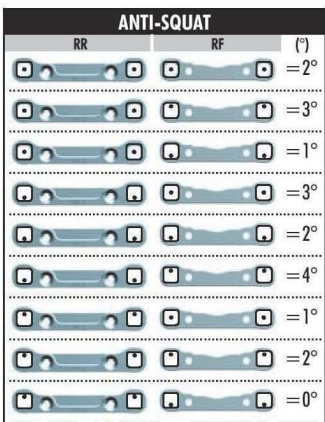
Caster is the angle between the steering pivot axis and the vertical plane. Caster is affected not only by the C-Hub caster, but also by the front kick-up angle relative to the flat chassis bottom. The table indicates how kick up angle effects total caster.

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

TRACK WIDTH	
Wider	less steering and less traction roll
Narrower	increases front grip, decreases understeer, faster steering response

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

REAR ECCENTRIC BUSHINGS



The tables describe the amounts of adjustment using the center and outside positions of the eccentric bushings.

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-squad (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