

1:10 Scale 2WD Electric Off Road Competition Short Course Kit Manual

#70010 RC10 SC7 Team Kit





Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new vehicle. Please take a moment to read through the manual and familiarize yourself with the steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags. Check each bag for these sheets before you start to build.

Check www.AssociatedElectrics.com for the latest versions of our instruction manuals.

RC10SC7 Team Kit Features

- New 3-Gear Laydown Transmission
 - Durable new split case design for secure gear mesh
 - Large 10mm aluminum idler shaft integrates into transmission structure.
 - Added durability and stability of 54 tooth idler with 10x15mm idler bearings
 - Responsive power delivery with reduced lag and lower temps for spec racing
 - Gearbox retrofits B7 buggy
- New Truck Specific gull wing long arm suspension: improves grip and predictability in all conditions
- New updated B7 V2 caster block for added stiffness
- New 0 KPI steering blocks with 3mm and 4mm trail.
- Aluminum front bulkhead and steel hinge pin brace included in front-end design.
- BC10B7 Ball Differential included
- Fit High-Volume B7 Gear Differential: improves consistency of differential action over a longer period. Fits LTC internal gears from the RC10B74.2.
- New low CG 25mm and 31mm length 13mm big-bore shock bodies
- TiN gold 3x24mm and 3x29mm shock shafts
- Included Anti-Roll Bars Front and Rear, accessible design based on RC10B7

Additional

Your new Team Kit comes unassembled and requires the following items for completion (refer to www.AssociatedElectrics.com and www.Reedypower.com for suggestions):

- R/C two channel surface frequency radio system
- AA-size batteries for transmitter
- Electronic Speed Control ("ESC")
- Steering servo
- R/C electric motor (540 size)
- Pinion gear (48P), size determined by type/turn or kV of motor
- Battery charger (a peak detection charger, or LiPo compatible charger)

- 2 cell LiPo battery pack
- Polycarbonate body
- Polycarbonate specific spray paint
- Cyanoacrylate glue ("CA") (#1597)
- Thread locking compound (#1596)
- Tires and Inserts, Fronts and Rears
- Wheels w/12mm Hex

Other Helpful Items

- Silicone Shock Fluid (Refer to AssociatedElectrics.com for complete listings)
 Green Slime shock lube (#1105)
- FT Turnbuckle Wrench, 4mm (#1112) FT Body Reamer (#1499)
- Shock Pliers (#1681)
- Wire Cutters

- FT Hex/Nut Wrenches (#1519)
- FT Ballcup Wrench (#1579)
- Hobby Knife
- Needle Nose Pliers

- FT Universal Tire Balancer (#1498)
- Calipers or a Precision Ruler
 FT Body Scissors (#1737)
- Soldering Iron

Associated Electrics, Inc. 21062 Bake Parkway. Lake Forest, CA 92630



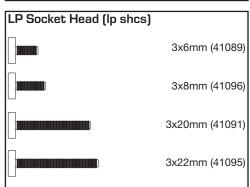
Hardware - 1:1 Scale View

Button Head (bhcs)				
	2x4mm (31510)			
	2.5x6mm (31520)			
	3x4mm (91158)			
	3x6mm (31531)			
	3x8mm (31532)			
	3x10mm (25211)			
	3x12mm (89202)			
	3x14mm (25187)			
	3x16mm (89203)			
	3x18mm (2308)			
	3x20mm (25188)			
	3x22mm (25189)			
	3x24mm (89204)			
٧	3x45mm (71037)			

Shims and Washers	
	5.5x0.5mm (31381)
	5.5x1.0mm (31382)
	5.5x2.0mm (31383)

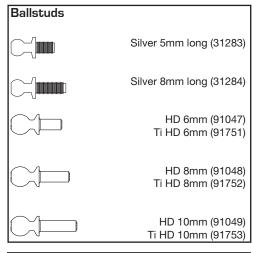
Set Screws	
	3x3mm (25225)
	3x6mm (81257)
	3x10mm (4671)
	3x12mm (81258)
	3x20mm (91737)

Flat Head (fhcs)	
	2x3mm (91749)
	2.5x8mm (31472)
	3x6mm (31541)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
	3x16mm (25204)



Nuts (lo	ck/plain)
	M3 Nut (Black) (91477) M3 Alum. Locknut (Blue) (31550) M3 Locknut (Black) (25215)
	M3 Locknut w/Flange (Black) (25612) FT 3mm Locknuts (Blue) (25392)
	M4 Locknuts: Serrated Steel LP (Black) (91150) Serrated Steel (Silver) (91826) Serrated Aluminum (Black) (91738)

Ball Bearings	
	4x7x2.5mm (31732)
	5x8x2.5mm (31400)
	5x10x4mm (91560)
	5x10x4mm flanged (92324)
	5x12x4 (91567)
	10x15x4 (91563)





Notes:

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Notes



This symbol indicates a special note or instruction in the manual.



This symbol indicates the number of the same part that is required.



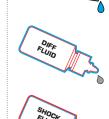
This symbol indicates the order within a step to assemble parts.



This symbol indicates there are optional FT parts available



This symbol indicates a Racers Tip.



This symbol indicates where Diff Fluid

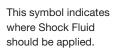
should be applied.

This symbol indicates

where Thread Lock

Adhesive should be

applied. *not included





This symbol indicates where FT Silicone Grease should be applied.
*not included



This symbol indicates where FT Diff Lube should be applied.
*not included



This symbol indicates where Black Grease should be applied.

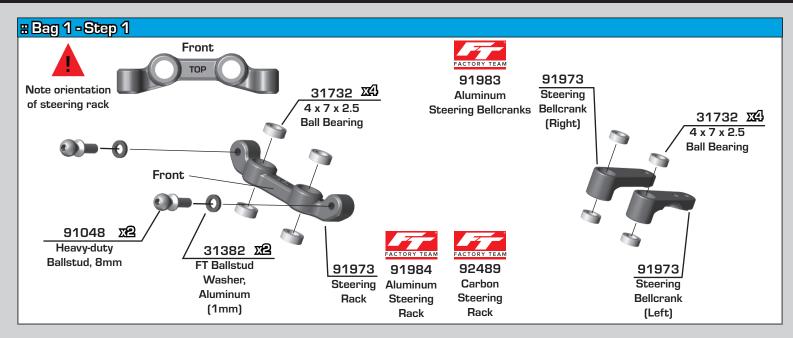


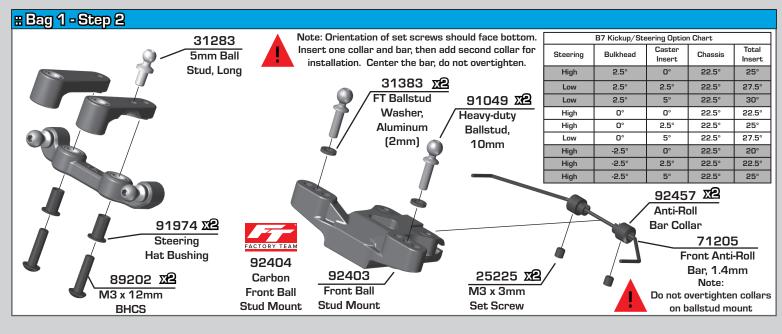
This symbol indicates where Green Slime can be applied.
*not included

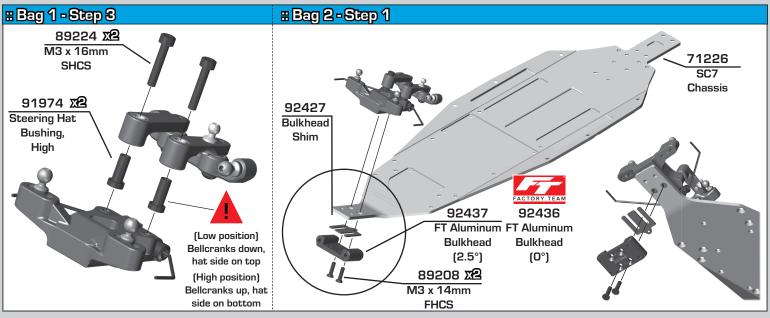


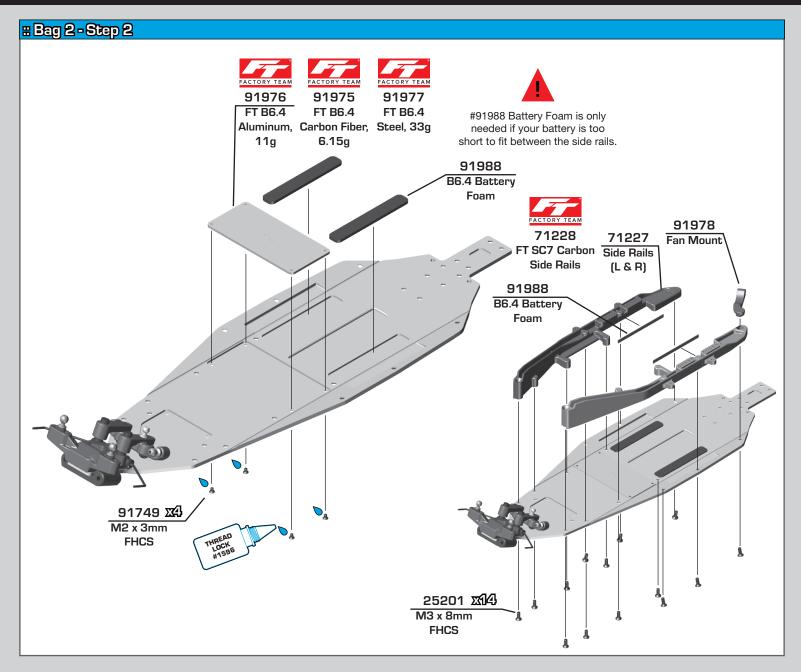
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

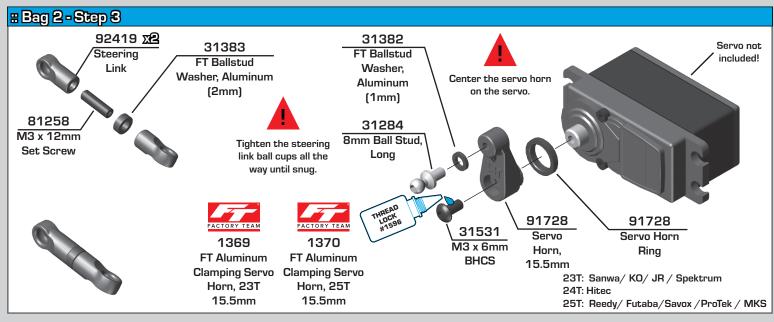
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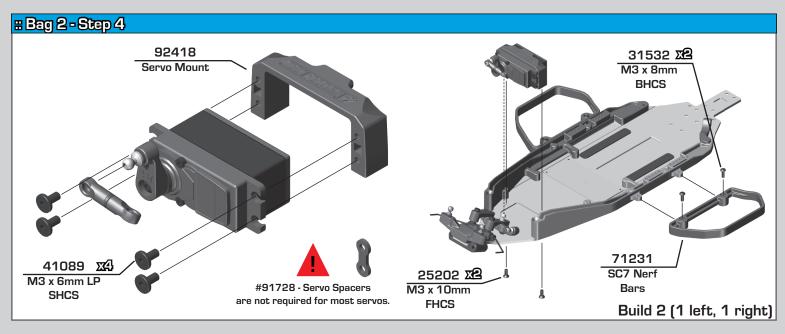


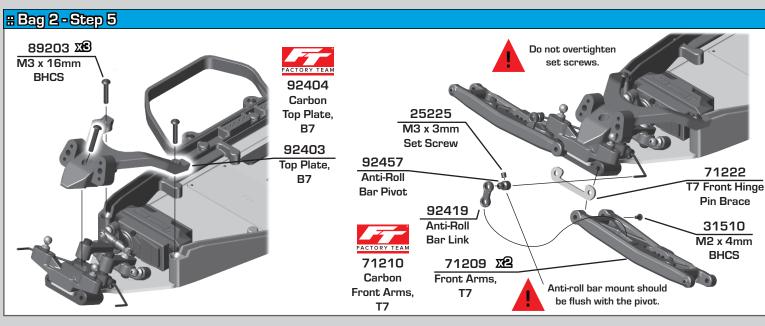


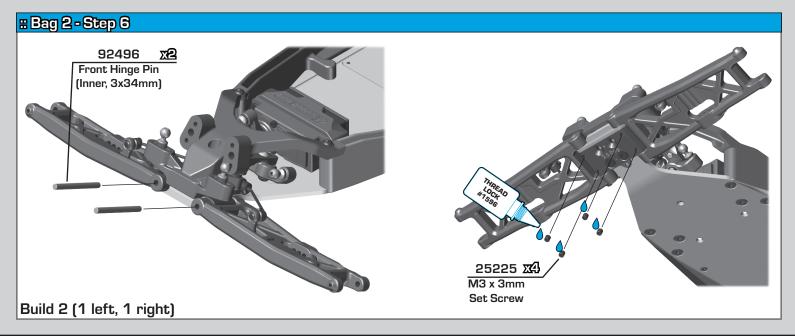


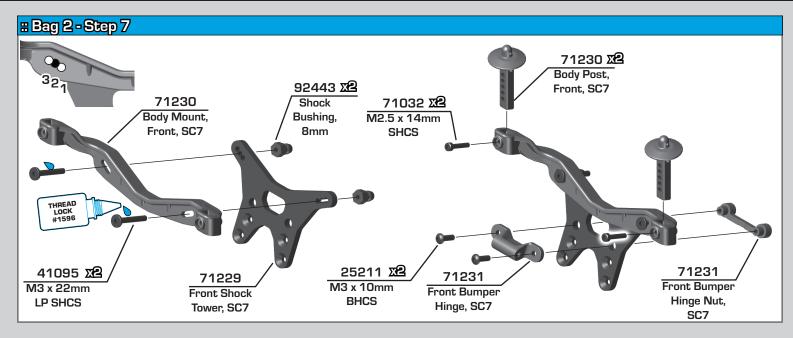


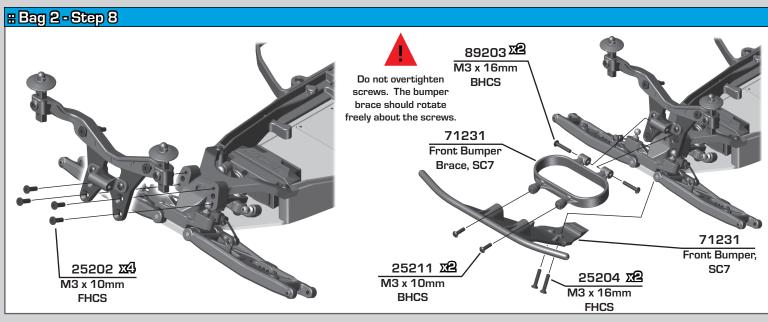


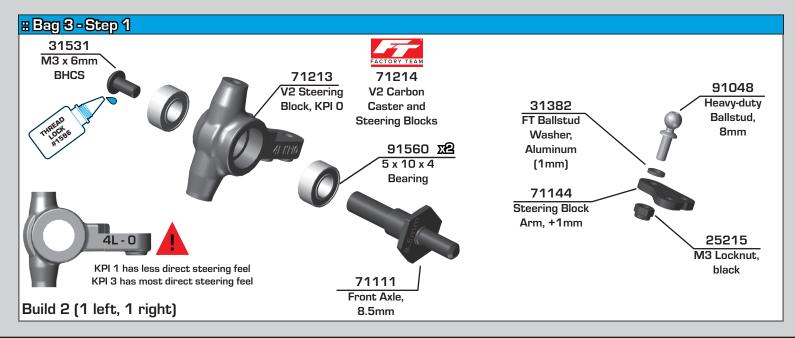


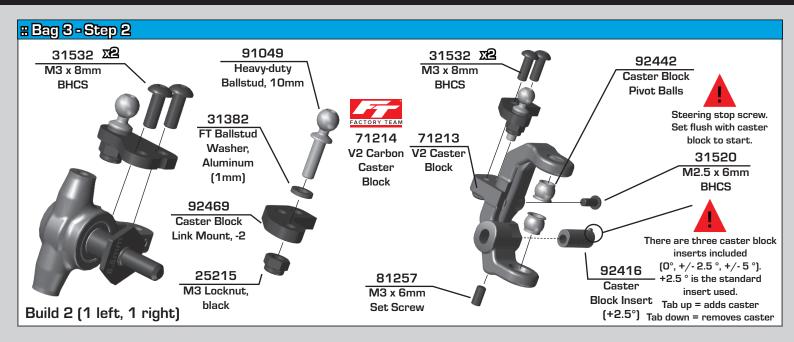


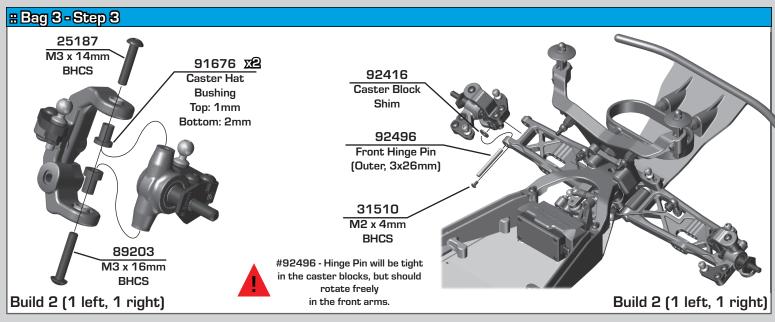


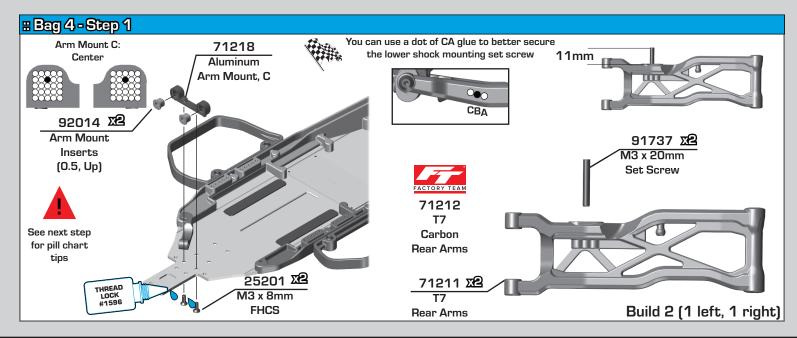


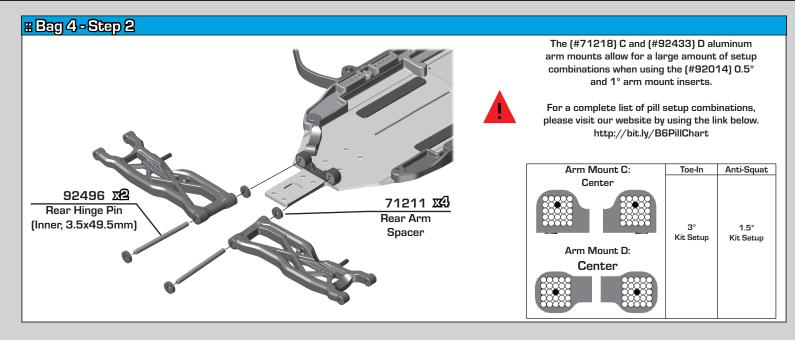


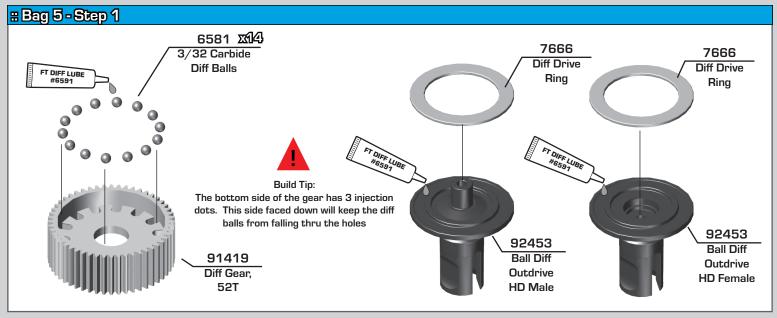


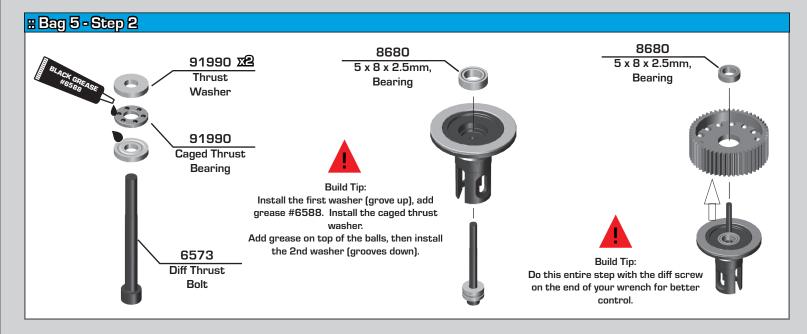












#Bag 5-Step 3

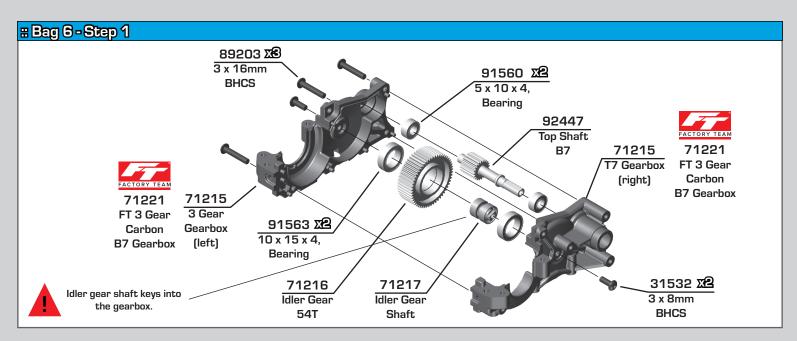


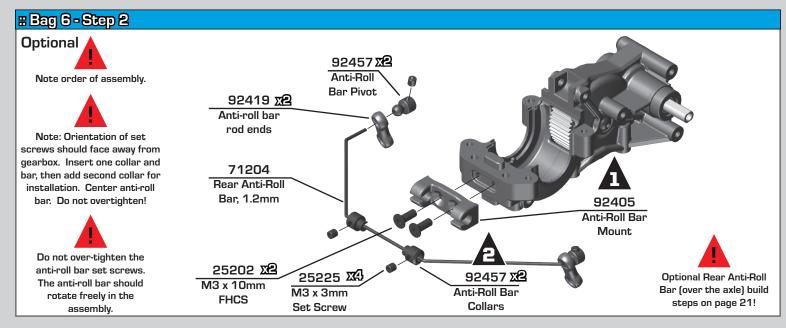
As you tighten the diff bolt, you will notice the T-nut ears moving closer to the bottom of the outdrive slot. This compresses the spring behind the T-nut. The spring should be completely

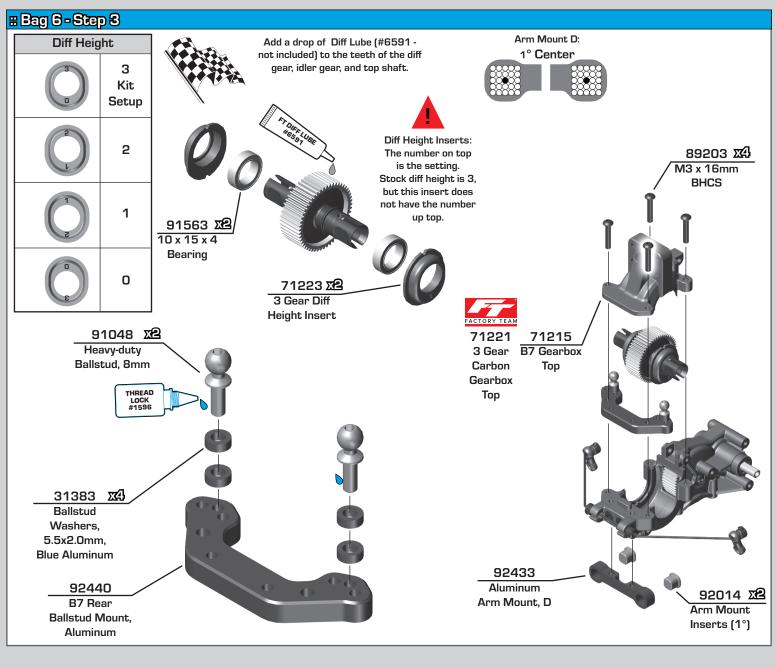
compressed at the time the T-nut reaches the end of the slot. Caution! Pay close attention to the feeling when the spring is completely compressed. Do not overtighten the bolt. When you feel the spring completely compressed, loosen the diff bolt 1/8 of a turn. Your diff should now operate smoothly but with

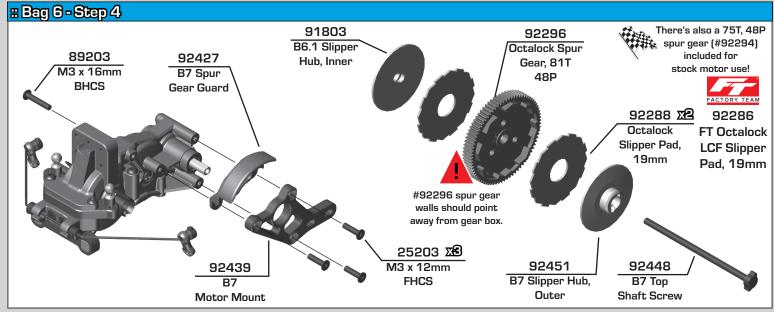
resistance as the outdrives move in opposite directions. After you have driven the car once, re-check the diff setting.

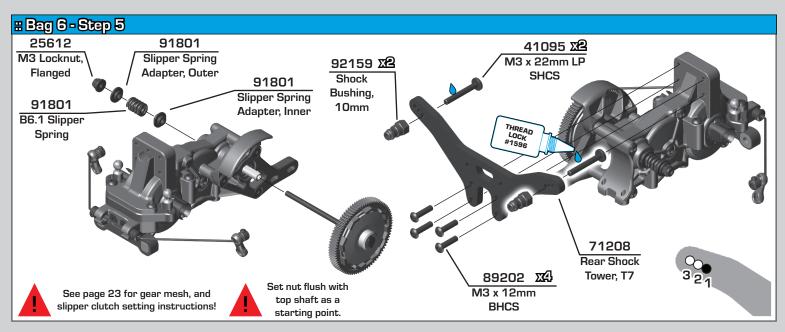


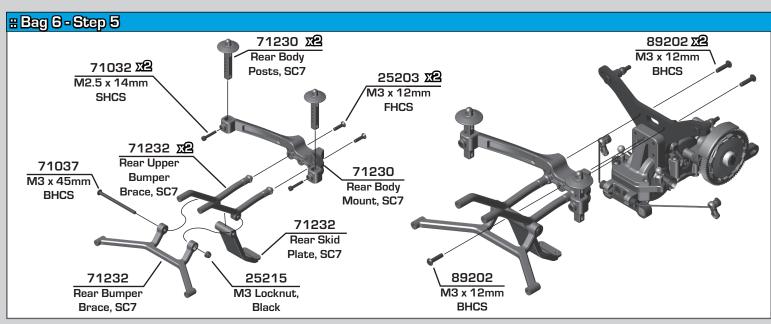


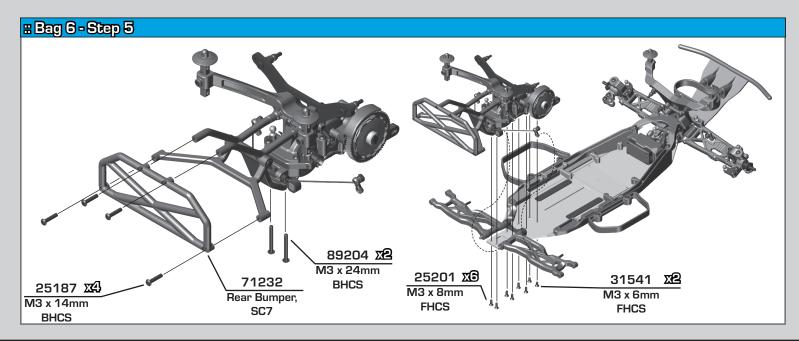


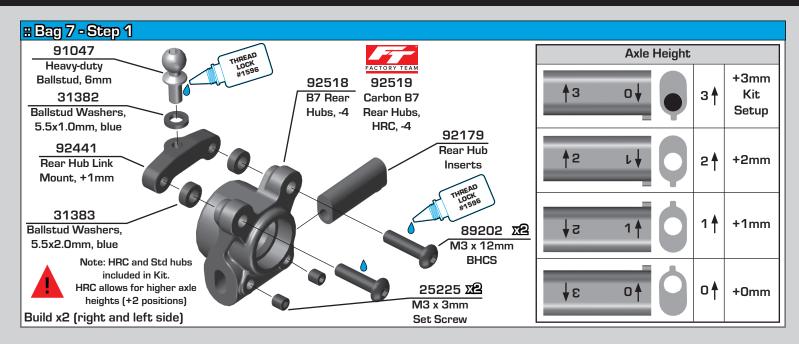


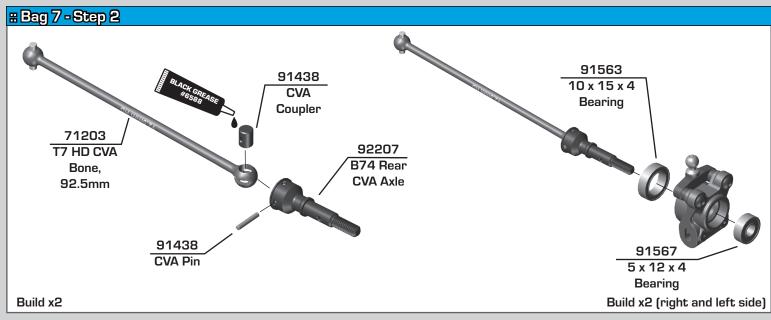


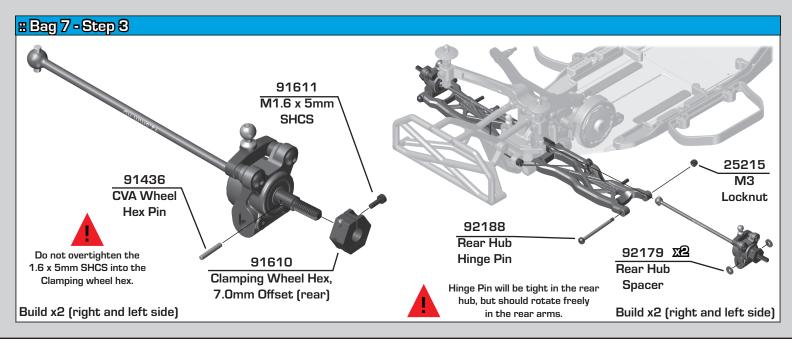


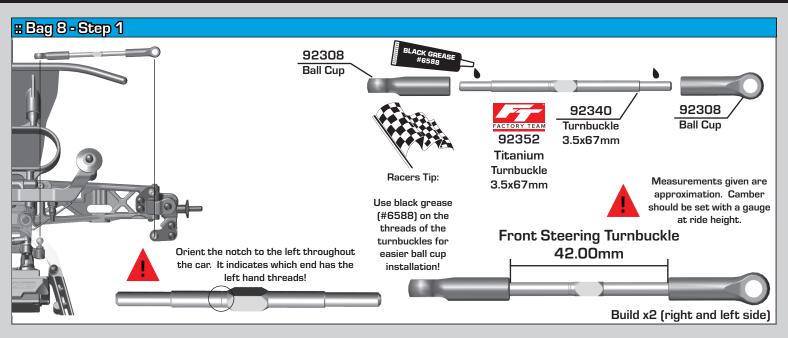


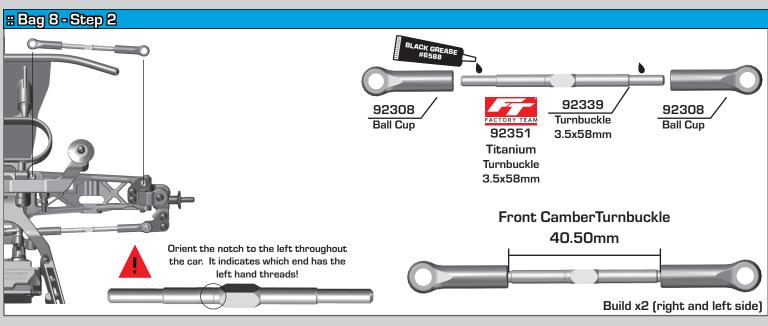


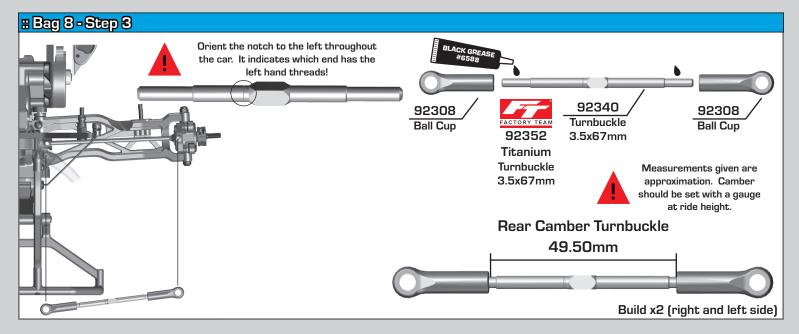


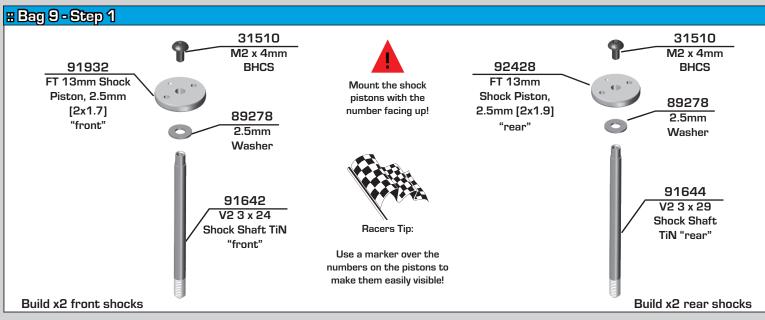


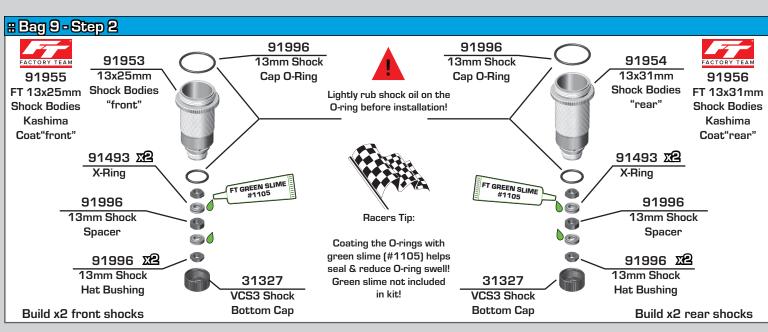


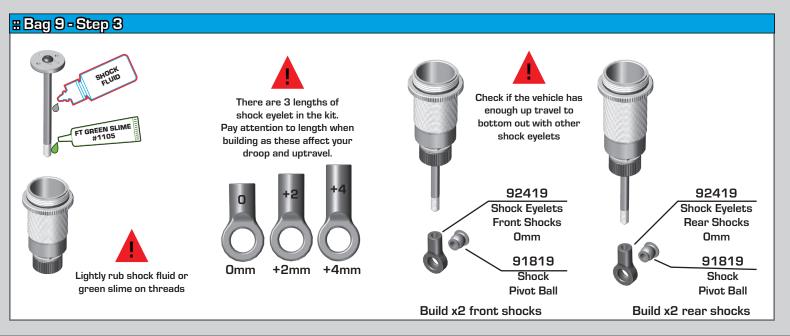


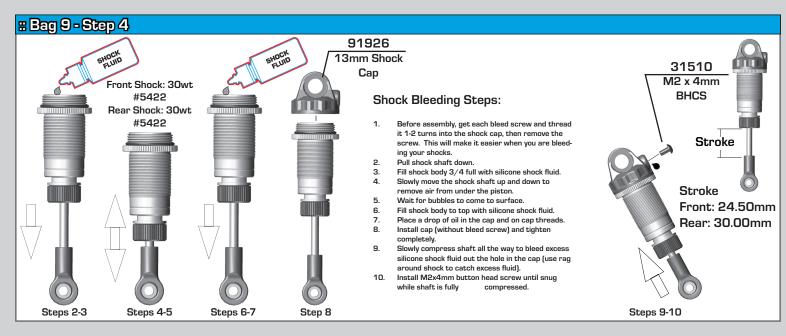


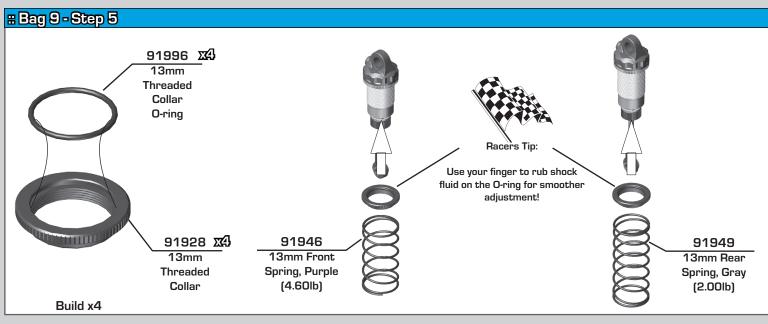


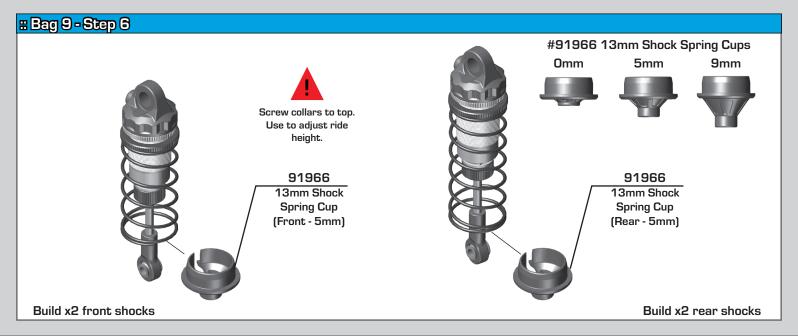


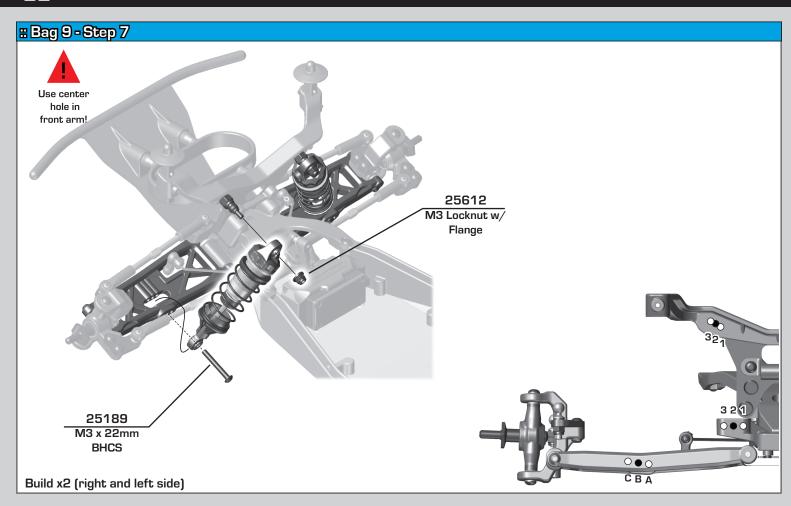


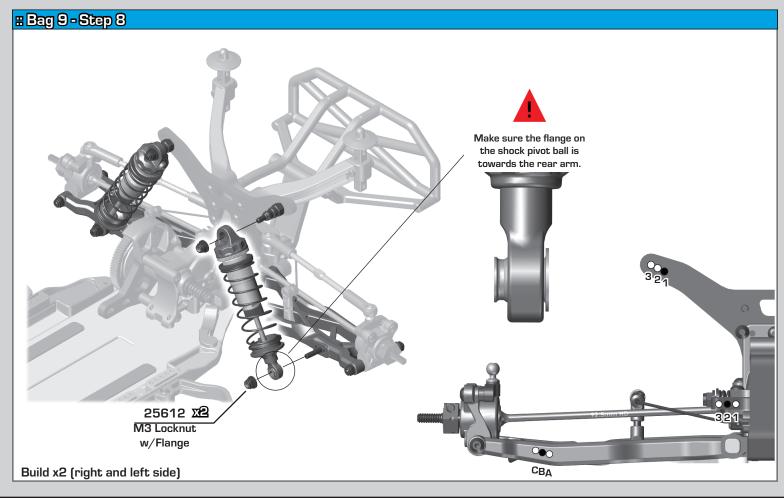


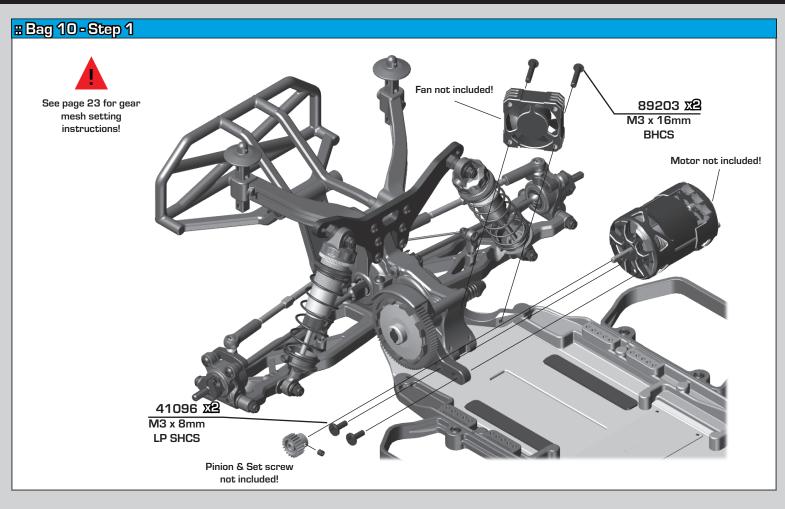


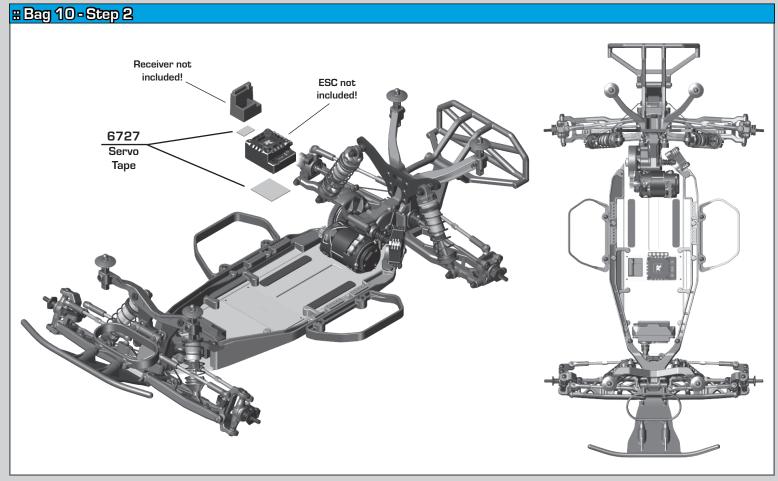


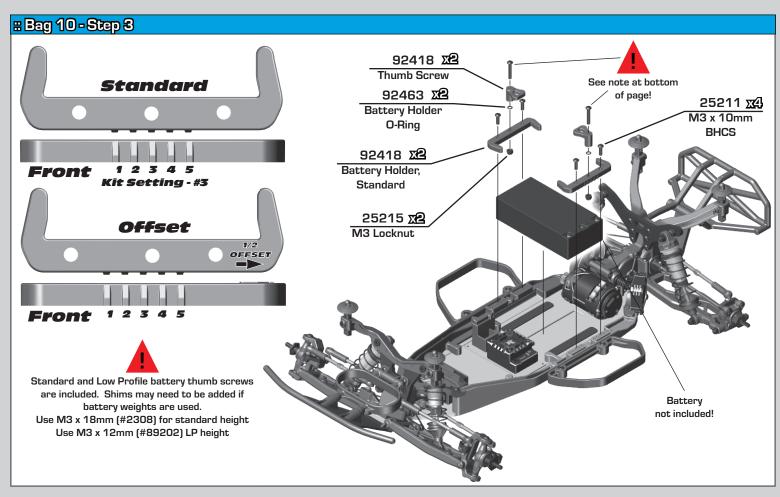


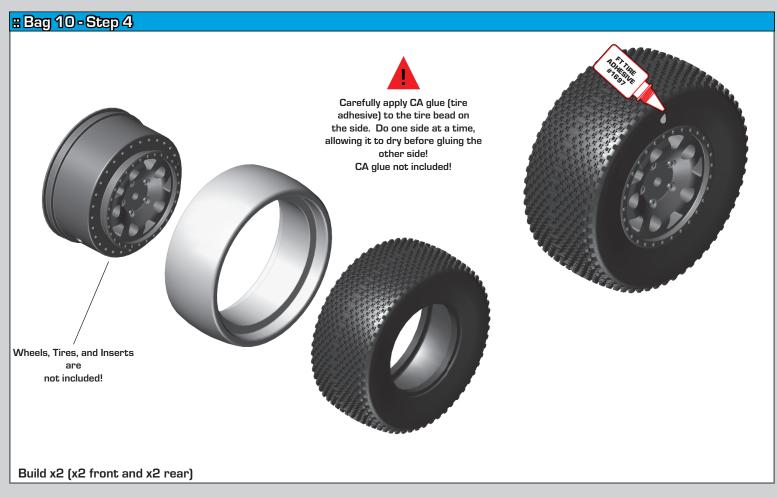


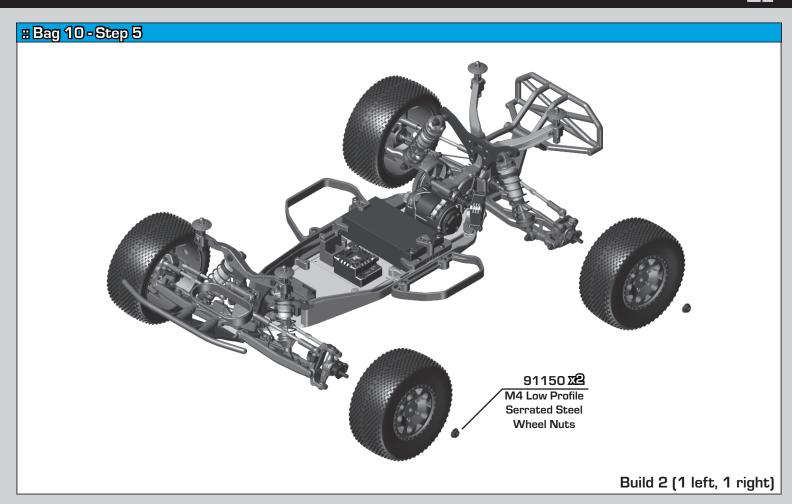


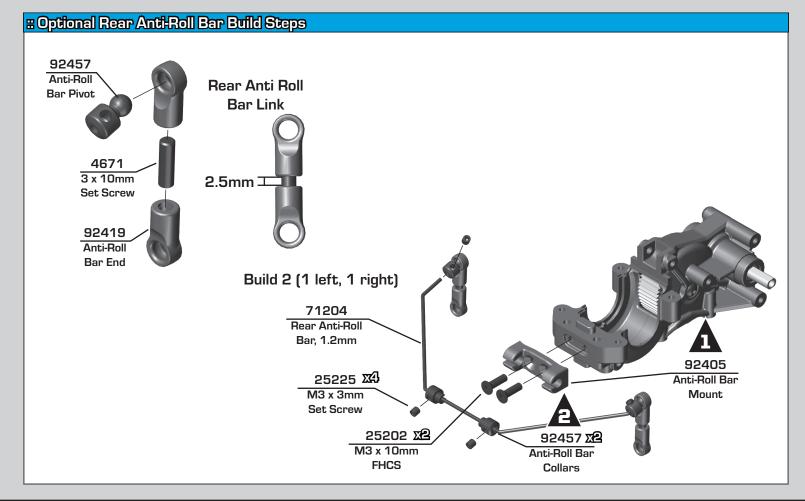












Tuning Tips - Painting, Beginners

Painting:

Your Kit requires a clear polycarbonate body. You will need to prep the body before you can paint it.

Wash the INSIDE thoroughly with warm water and liquid detergent (do not use any detergents with scents or added hand lotion ingredients!). Dry the body using a clean, soft, lint-free cloth. Use the supplied window masks to cover the windows from the INSIDE of the body (RC bodies get painted on the inside). Using high quality masking tape, apply tape to the inside of the body to create a design. Spray (use either rattle can or airbrush) the paint on the inside of the body (preferably dark colors first, lighter colors last). NOTE: ONLY use paint that is recommended for (polycarbonate) plastics. If you do not, you can destroy the body! After the paint has completely dried (usually after 24 hours), cut the body along the trim lines. Make sure to drill or use a body reamer to make the holes for the antenna if needed! Use hook and loop tape to secure the body to the side rails of the vehicle.

Tips for Beginners:

Before making any changes to the standard setup, make sure you can get around the track without crashing. Changes to your vehicle will not be beneficial if you can't stay on the track. Your goal is consistent laps. Once you can get around the track consistently, start tuning your vehicle. Make only ONE adjustment at a time, testing it before making another change. If the result of your adjustment is a faster lap, mark the change on the included setup sheet (make adddtional copies of the sheet before writing on it). If your adjustment results in a slower lap, revert back to the previous setup and try another change. When you are satisfied with your vehicle, fill in the setup sheet thoroughly and file it away. Use this as a guide for future track days or conditions. Periodically check all moving suspension parts. Suspension components must be kept clean and move freely without binding to prevent poor and/or inconsistent handling.

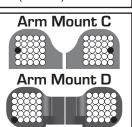
Rear Arm Mount Pill Insert Setup:

The aluminum rear arm mounts utilize eccentric pill inserts to make fine adjustments to anti-squat, toe, pin heights, and pin width. Adjustments can be made using the supplied inserts (#92014)

Standard Position

Use this position as a reference when changing pill locations.

Toe: 3° Anti-squat: 2° Roll Center: +0 Pivot Width: +0



Number indicates degree of change: 0.5°, 1.0°, 0° (center dot) Hole 0.5° or 0.35mm from center

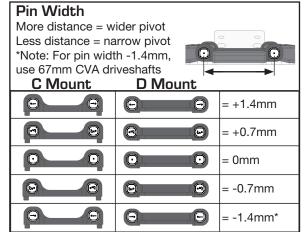
Hole 1.0° or 0.7mm from center

Anti-squat Angle

More angle = More anti-squat Less angle = Less anti-squat _

Shown in 1° changes

Snown in 1° chang	es	
C Mount	D Mount	
	0	= 1°
0 0	0	= 0°
		= -1°
	0 0	= 2°
0 0	0 0	= 1°
0	0 0	= 0°
	0	= 3°
0 0	0	= 2°
		= 1°

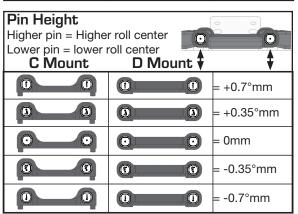




For additional setup tips, please visit our website by using the link or QR code below.

http://bit.ly/B6PillChart

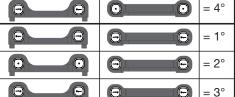




Toe Angle

More angle = More toe in Less angle = Less toe in Shown in 1° changes

C Mount	D Mount
0 0	= 3°
0 0	O = 4°
0 0	© = 5°
9	• = 2°
0 0	o = 3°
	= 4°

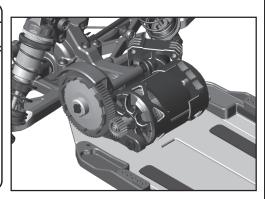


Tuning Tips (cont.)

Motor Gearing:

Proper motor gearing will result in maximum performance and run time while reducing the chance of overheating and premature motor failure. The gear ratio chart lists recommended starting gear ratios for the most widely used motor types. Gear ratios will vary depending upon motor brand, wind, and electronic speed control. Consult your motor and electronic speed control manufacturers for more information. Team Associated is not responsible for motor damage due to improper gearing.

SC7 Gear Ratio Chart (Internal Gear Ratio 2.60:1)							
Motor Pinion Spur Final Drive R							
17.5 Reedy S-Plus Brushless	26	78	7.80:1				
13.5 Reedy S-Plus Brushless	25	81	8.42:1				
10.5 Reedy 540-M4 Brushless	24	81	8.78:1				
9.5 Reedy 540-M4 Brushless	23	81	9.16:1				
8.5 Reedy 540-M4 Brushless	22	81	9.57:1				
7.5 Reedy 540-M4 Brushless	21	81	10.03:1				
6.5 Reedy 540-M4 Brushless	20	81	10.53:1				
*78T spur gear not included in kit!							



Set The Gear Mesh:

You should be able to rock the spur gear back and forth in the teeth of the pinion gear without making the pinion gear move. If the spur gear mesh is tight, then loosen the #41096 screws (p.19) and move the motor away, then try again.

A gear mesh that is too tight or too loose will reduce power and damage the gear teeth.

Diff Height Adjustment:

The diff height adjustment (p.12) is a good way to tune the car for grip level. On high grip with low ride heights, a higher diff height will be a good option. On lower grip with higher ride heights, a lower diff height will be better.

Slipper Clutch:

The assembly instructions give you a base setting for your clutch. Turn the nut on the shaft so that the end of the top shaft is even with the outside of the nut. At the track, tighten or loosen the nut in 1/8 turn increments until you hear a faint slipping sound for 1-2 feet on takeoffs. Another popular way to set the clutch is to hold both rear tires firmly in place and apply short bursts of throttle. If the clutch is properly set, the front tires should lift slightly up off the surface.

Caster:

Caster describes the angle of the caster block as it leans toward the rear of the vehicle. Positive caster means the kingpin leans rearward at the top. The kit includes three inserts to adjust caster angle at the caster block, 0°, 2.5°, and +5°. The total caster angle is the sum of the kick-up angle and the caster block angle. Standard total caster angle for the B6 is 30°, with 25° kick-up and +5° caster block angle. For less entry steering and more exit steering, try 0° caster block angle.

Front Camber:

Camber describes the angle at which the tire and wheel rides when looked at from the front. Negative camber means that the tire leans inward at the top. A good starting camber setting is -1°. Positive camber, where the top of the tire is leaning out, is not recommended. A camber gauge can be used to more accurately set camber.





Testing camber with camber gauge

Rear Camber:

Camber describes the angle at which the tire and wheel rides when looked at from the back. Negative camber means that the tire leans inward at the top. A good starting camber setting is -1°. Adding a small amount of positive camber, where the top of the tire is leaning out, will tend to improve straight-line acceleration on loose tracks. A camber gauge can be used to more accurately set camber.

RC10		Kit Setup	Event:	Qualify	∄ [∑	lalin:	
TEAM KIT	Date: _		Thacks	Finish:	B	estlep Time:	
Front Suspension:							
Ride Height: 23mm (body on)	7	Ball Stud Spacing	g: 2mm		Steering Bell	crank Position: Up 🚺 [Down 🗍
Camber: -1	₹		<u> </u>				
Toe: O Degree	╡	Ball Stud Spacing	g: Omm		Ball Stud Spa	acing: 1mm	
Anti-Roll Bar: 1.4mm	Ħ		9 3				
Arm Type: Kit	Bump Ste	eer Spacing: 1mm					
Tower Type: Kit	=	3		12		pacing: 2mm 32	1
Wheel Hex: 8.5mm	Steering	Plate: +1	5.0mr		Ball Stud Sp	pacing: 1mm	
Steering Block KPI: 4 trail, O kpi	<u> </u>						0
Caster Block Insert: 0 +2.5 +5	₹						
Bulkhead Type: Aluminum				3			3 2 1
Kick-Up Angle: -2.5 0 +2.5	i 1	P				6	000 2
Steering Stop Spacing: Omm	ĪU		Axle Height: +3	1 1 1	0	000	
Caster Block Spacing: Fwd Back			+2	- 4		CBA	
Notes:			+1		Caster Block L		
			+0	[Front Bulkhead	d Spacing: 1mm	
Rear Suspension:							
Ride Height: 23mm (body on)	C Mount:		Axle He	eight:			
Camber: -1	Aluminur	n Steel	_ • ▼ 0 3	♦ +3		321	
Anti-Roll Bar: Optional - 1.2mm		20000	○ ▼1 2	A +2		'	
Arm Type: Kit			0 ▲ 1 2	▼ +1	Camber Link	k Spacing: 2mm	0
Tower Type: Kit		5 50000			Ball Stud Sp	pacing: 1mm	Q-
Arm Spacing: Fwd Mid Back			○ ▲ 0 3	▼ +0	Ball Stud Sp	pacing: 4mm	
Wheel Hex: 7mm	D Mount:		7	9 / A	nti-Roll Bar Lin	nk Spacing: 2.5	
Hub Type: Std HRC	Aluminur	n Steel					h
Hub Spacing: Fwd Mid Back				977	92.	5mm h	●●● 321 =
Drive Shaft: CVA's Universals		*****				Щ	
Notes:					200		
					СВД		_
Electronics		Drivetrains		Shocks			_
Radio: Servo:		Differential:	Ball Diff:		Front	Rear	
EPA: Throttle: % Brake:	%	Height: 3	Gear Diff: 🔲	Piston:	2 x 1.7	2 x 1.9	
ESC:		Diff Setting:		Thickness:	2.5	2.5	
ESC Settings:				Fluid:	30	30	
	iming:	Notes:		Spring:	Purple	Gray	
Pinion: Spur:		Slipper Clutch:		Limiters: Int:	Ext:	_ Int: Ext:	Stroke
Battery Mount: Std Offset]		andard	Stroke:	24.5	30	Į žų
			2 x 19mm	Eyelet:	0	0	
Back 1 2 3 4 5	Forward	Setting:		Cup Offset: 0	+5 +9		
Battery: Weight:		Notes:		Kashima Bodies:	Chrome :	Shafts: Machined S	Spacers: 🗌
Notes:				Notes:			
ThackInfor	Tires:		Body, W.	elghte	Ve	hicle Comments:	
Size:	Front Tires:		Body:		No	tes:	
Surface:	Front Compo	ound:	<u> </u>		_		
Traction:	Front Insert:				_		
Moisture:	Rear Tires:				_		
Condition:	Rear Compo	und:	Chassis L	ength: O	_		
	Rear Insert:		Servo We				
Temperature:	Wheel (F/R)	Vheel (F/R):			num		
Notes:	Notes: Total Vehicle Weight:						
# For more setups, vis	it https:///	www.associated	electrics.com/t	eamassociated/r	manuals an	d setup sheets/	

RC10		Ever	Œ		Qualify:	Maline
	Dates _	Tirac	:ke		Finish:	Best Lep Tilmer
Front Suspension:						-
Ride Height:	7	Ball Stud Spacing:	_		Stooni	ng Bellcrank Position: Up Down
Camber:	╡	ball Stud Spacing.	W.		Steem	ng Belici ank Pusicion. Op Down
Toe:	╡	Ball Stud Spacing:		in .	Ball St	oud Spacing:
Anti-Roll Bar:	╡	ball Stud Spacing:			Dan G	and Spassing.
		0				0
Arm Type:	Bump Ste	eer Spacing:			Ball 9	Stud Spacing: 321
Tower Type:		BI .	5.0mm		Ball S	Stud Spacing:
Wheel Hex:	Steering	Plate:				
Steering Block KPI:	<u> </u>		A			0
Caster Block Insert: 0 +2.5 +5	╣ _		1		700	3 2 1
Bulkhead Type:				,		000
Kick-Up Angle: -2.5 0 +2.5	4 Ⅱ	Axl	e Height:			
Steering Stop Spacing:		+3				000
Caster Block Spacing: Fwd Back		+2	님		Caster	C B A Block Link Mount:
Notes:		+1 +0	님			ulkhead Spacing:
Rear Suspension:	_ ~	170			FI-TOILE B	unticau opacing.
Ride Height:	C Mount:		Axle He	ight:		
Camber:	Aluminur		0 ▼0 3			200
Anti-Roll Bar:						3.21
Arm Type:	╡ ‱		○ ▼ 1 2		Camb	ber Link Spacing:
Tower Type:	╡│‱		0 1 2	♥ +1		Stud Spacing:
Arm Spacing: Fwd Mid Back	i		0 40 3	♥ +0	Ball S	Stud Spacing:
Wheel Hex:	D Mount:				Anti-Roll	Bar Link Spacing:
Hub Type: Std HRC	Aluminur					a dual
Hub Spacing: Fwd Mid Back	<u> </u>		4	OK		202
Drive Shaft: CVA's Universals		20000			1	321
Notes:	7 8888				000	
	- 00000	00000			СВД	
Electronics		Drivetrain:		Shocks		
Radio: Servo:		Differential: Ba	II Diff:		Front	Rear
EPA: Throttle: % Brake:	%	Height: Ge	ar Diff: 🔲	Piston:		
ESC:		Diff Setting:		Thickness	:	
ESC Settings:				Fluid:		
Motor / Wind:	ming:	Notes:		Spring:		
Pinion: Spur:		Slipper Clutch:		Limiters:	Int: E	ixt: Int: Ext: \$
Battery Mount: Std Offset		Туре:		Stroke:		#S
11111		# of Pads:		Eyelet:		
Back 1 2 3 4 5	Forward	Setting:		Cup Offse	t: 0 +5	+9 0 +5 +9
Battery: Weight:		Notes:		Kashima E	Bodies: Cl	hrome Shafts: Machined Spacers:
Notes:				Notes:		
Tiracklinfo	Tires		Body, Wa	elghte		Vehicle Comments:
Size:	Front Tires:		Body:			Notes:
Surface:	Front Compo	ound:]			.
Traction:	Front Insert:]			.
Moisture:	Rear Tires:		<u> </u>			<u> </u>
Condition:	Rear Compo	und:	Chassis Le	ength:		<u> </u>
	Rear Insert: Servo Wei				<u> </u>	
Temperature:		Wheel (F/R):				<u> </u>
Notes:	Notes:		Total Vehic	cle Weight:		J L
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